Village of Winnetka

Plan Commission Regular Meeting

May 28, 2025 at 7:00 PM
Winnetka Village Hall Council Chambers
510 Green Bay Road

AGENDA

1. **Call to Order & Roll Call**
2. **Public Comments**
3. **Community Development Report**
4. **Continued Applications**
   a. **Case No. 24-08-SU: 225 Sheridan Road - Centennial Park & Beach:** An application seeking approval of (i) a Special Use Permit to allow construction of improvements to the existing park and beach; and (ii) steep slope exceptions to allow walkways, retaining walls, steps, and seating areas within the steep slope zone. The Village Council has final jurisdiction on this request. *This item was continued from the January 22, 2025, Plan Commission meeting.*
5. **New Business**
   a. June 25, 2025, Regular Meeting - Quorum Check
6. **Adjournment**

NOTICE

Public comment is permitted on all agenda items at the meeting. If you wish to provide testimony or comments prior to the meeting, you may provide them one of two ways: (1) by sending an email to planning@winnetka.org; or by sending a letter to Community Development, Village of Winnetka, 510 Green Bay Road, Winnetka, IL 60093. All agenda materials are available at www.villageofwinnetka.org/agendacenter.

The Village of Winnetka, in compliance with the Americans with Disabilities Act, requests that persons with disabilities, who require certain accommodations to allow them to observe and/or participate in this meeting or have questions about the accessibility of the meeting or facilities contact the Village ADA Coordinator at 510 Green Bay Road, Winnetka, Illinois 60093, (Telephone (847) 716-3543; T.D.D. (847) 501-6041).

MEMORANDUM
VILLAGE OF WINNETKA

COMMUNITY DEVELOPMENT DEPARTMENT

TO: PLAN COMMISSION

FROM: SCOTT MANGUM, DIRECTOR
ANN KLAASSEN, ASSISTANT DIRECTOR

DATE: MAY 21, 2025

SUBJECT: CENTENNIAL PARK & BEACH – 225 SHERIDAN ROAD - SPECIAL USE PERMIT & EXCEPTIONS (CASE NO. 24-08-SU)

INTRODUCTION

On May 28, 2025, the Plan Commission is scheduled to continue a public hearing on an application submitted by the Winnetka Park District (the "Applicant"), as the owner of the property located at 225 Sheridan Road (the "Subject Property"). The Applicant is proposing improvements to the existing park and beach located on the Subject Property and requests approval of the following relief:

1. Approval of a **Special Use Permit** to allow construction of improvements to the existing park and beach on the Subject Property, which is located in the R-2 Single-Family Residential Zoning District and the Lakefront Preservation Overlay District; and
2. Approval of the following **steep slope exceptions** [Section 17.82.040 Development in the Steep Slope Zone]:
    a. Concrete access ramp 10 feet in width and associated retaining walls to support the ramp;
    b. Outcropping stone steps that exceed 5 feet in width; and
    c. Reconfigured mid-bluff paver walkway and seating area that extends beyond the footprint of the existing walkway and seating area and exceeds 5 feet in width.

The Applicant has also applied for approval of the following **zoning variations:**

- **Fence and Wall Heights** of 8, 9, and 10.5 feet for various improvements, whereas a maximum of 6.5 feet above natural grade is permitted, for variations of 1.5, 3, and 4 feet (61.54%) [Section 17.30.130 Obstructions in Required Yards or Courts].

The Zoning Board of Appeals (ZBA) considered the special use permit, steep slope exceptions, and the zoning variations at its October 14, 2024, November 11, 2024, and December 9, 2024, meetings. At the December meeting, by a vote of 4-3, the ZBA recommended approval of the variations and exceptions, subject to the approval by the Village Council of the special use for the project. However, by a vote of 7-0, the ZBA recommended denial of the special use for the proposed improvements. Details regarding the ZBA's consideration are included in the January 22 Plan Commission staff report (**Attachment C1**).

A mail notice was sent to property owners within 250 feet of the Subject Property for commencement of the public hearing on January 22, 2025, in compliance with the Zoning Ordinance. The hearing was also

properly noticed in the *Winnetka Talk* on December 26, 2024, and a public notice sign was posted on the Subject Property indicating the time and date of the January 22 Plan Commission public hearing. As of the date of this memo, staff have received several written comments from the public regarding this application. Written comments that were not included in the January 22 Plan Commission agenda packet but distributed to the Commission in time for that meeting, as well as written comments received since the January 22 meeting are included in **Attachment D1**. The public correspondence included in the January 22 agenda packet was divided into two attachments and are available on the Village website:

1. Public Correspondence Previously Included in ZBA Agenda Packets: https://winnetkail.portal.civicclerk.com/event/1040/files/attachment/3759
2. Public Correspondence Received Since Posting of December 9, 2024, ZBA Agenda Packet: https://winnetkail.portal.civicclerk.com/event/1040/files/attachment/3760

Immediately prior to the January 22 meeting, the Applicant provided additional supplemental materials it requested be shared with the Commission prior to the meeting. Those materials are also available on the Village website:

1. Applicant Presentation and Supplemental Materials Provided January 17, 2025: https://winnetkail.portal.civicclerk.com/event/1040/files/attachment/3771
2. Additional Supplemental Materials Provided by Applicant January 21, 2025: https://winnetkail.portal.civicclerk.com/event/1040/files/attachment/3772

The Village Council has final jurisdiction on this application. The Council has sole authority to (i) grant a Special Use Permit and (ii) grant variations or steep slope exceptions related to the special use.

JANUARY 22, 2025, PLAN COMMISSION MEETING

On January 22, 2025, the Plan Commission commenced a public hearing on the Applicant's zoning relief application for proposed improvements to the existing park and beach located on the Subject Property. The staff report for the January 22 meeting can be found in **Attachment C1**.

After a presentation by staff and an extended presentation by the Applicant, the Commission heard from 15 members of the public. All the speakers spoke in opposition to the proposed plan. After hearing from the public and given the late hour, nearly 11:00 p.m., those Commissioners with a few general questions shared them with the Applicant, and those with several questions requested the desire to share their questions in writing. Staff requested that questions be provided to staff by the end of the day on Friday, January 24 so that staff can share the questions with the Park District. The Commission then continued the public hearing to its next regular meeting on February 26, 2025. The compilation of Commission members' questions is included in **Attachment A1**. A copy of the January 22 meeting minutes is included **Attachment C1**.

Prior to the February 26 Commission meeting, the Applicant requested its application be continued until after the Park District March 20 Board meeting. The Plan Commission's regular March 26 meeting was cancelled due to the local schools' spring break that week and a number of Commissioners not being available. Therefore, at the February 26 Commission meeting, the Commission continued the Centennial Park and Beach public hearing to the April 23 meeting. Then, staff learned that the Commission would not have a quorum on April 23, therefore the application was scheduled for the next regular meeting of the Commission on May 28, 2025.

WINNETKA PARK DISTRICT'S RESPONSE TO JANUARY 22 QUESTIONS

In response to the comments and questions the Applicant heard from the Commission at the January Plan Commission meeting, as well as the compilation of questions from the Commission, the Applicant has provided the attached written responses included in **Attachment B1**.

Village Stormwater Outfall Pipe At Elder Lane Park & Beach

There is one topic included with the Park District's response where Village staff would like to provide clarity and that is the timing of their submittal of the Elder Lane Park & Beach special use application in relation to the submittal of the Centennial Park & Beach special use application. As noted in the Park District's current submittal materials, the District has tied its desire to relocate the Village's stormwater outfall pipe on Elder Lane Park/Beach property, which has been there in some form since 1914, with their timing of submitting two separate special use permit applications. In a couple of responses, they seem to indicate that it was because of Village actions that the two applications were not submitted for consideration at the same time. The decision to submit the applications separately and on the timing of those submittals was entirely that of the Park District.

Over the last few years, the Park District has expressed an interest in relocating the stormwater outfall pipe as part of its proposed improvements at Elder Lane Park and Beach. The Village determined in June 2023, as part of a televised inspection and report, that the conveyance system is in good condition and once the pipe is relined in its current location it can last for decades. This report was provided to the Park District in response to their board discussions and before applications were submitted by the District for either Elder or Centennial improvements.

At the March 12, 2024, Village Council study session, it was reported that the Park District had been presented with two zoning process options for seeking approval of their plans for Centennial Park and Elder Lane Park. One option was the standard special use process, which requires review by the Plan Commission, Zoning Board of Appeals, and Design Review Board and approval by the Village Council. The second option is per Chapter 17.76, titled "Zoning and Other Relief Related to Stormwater Improvements," of the Zoning Ordinance. This Chapter provides for a separate designated procedure for zoning and other relief for requests that involve the Village Council entering into an intergovernmental agreement ("IGA") with another public entity for stormwater improvements on that other public entity's property. The process would have allowed the Park District and the Village to enter an IGA for Village stormwater improvements on Elder Lane Park (e.g. relocating/replacing the existing stormwater outfall pipe) and that IGA would have been in conjunction with the Village granting the special use and other zoning relief for Elder Lane Park and potentially Centennial Park improvements. Under Chapter 17.76, this process would have allowed the Village Council to hold the public hearing and consider granting the necessary zoning relief without the public hearings by the other advisory bodies. The Park District decided not to pursue this latter approach but rather chose to separately submit the two applications under the standard special use process.

Also in March 2024, the Village began work on an East Winnetka stormwater study to determine necessary stormwater improvements in East Winnetka. On September 10, 2024, the Village's stormwater consultant reported at a Village Council study session that the size of the existing pipe in its existing location can meet the Village's future stormwater needs. The pipe does not need to be resized or relocated. However, the Village's consultant also concluded that the Park District's initial proposal to install a new 60-inch diameter pipe in a relocated location could also meet the Village's future stormwater needs. This information was shared with the Park District at that time. These and updated findings were shared once again with the Village Council at the January 2025 Village Council study session stating that the existing stormwater from the Elder Lane area watershed could be substantially diverted to an upsized

Willow Road outfall, and this information was also made available to the Park District. Under any scenario, relocating or modifying the stormwater pipe at Elder will require an intergovernmental agreement between the Village and the Park District.

The timing of the Village's work on the East Winnetka stormwater study and its initial findings did not coincide with the timing for when the Park District elected to submit its initial Elder Lane Park special use application, which was on September 16, 2024. However, the Park District could choose to delay consideration of both special use applications by the Village until an IGA is entered into for a stormwater pipe solution at Elder Lane Park or pursue an interim design for Elder Lane Park that does not relocate the stormwater pipe.

The Park District has also recently approached the Village regarding the possibility of safely reopening Elder Lane Park and Centennial Park and Beach in the interim while it continues to work on the special use permits for the two parks. Village staff has had ongoing discussions with the Park District about the necessary permits required to reopen Elder and Centennial Parks/Beaches. On April 30, 2025, the Park District submitted a lakefront construction permit, and on May 16, 2025, Village staff approved this permit. The Park District is currently in the process of issuing bids for this work to be performed. On May 15, 2025, the Park District submitted a fence permit application to install fencing for the dog beach at Centennial Park and Beach. This application is currently being reviewed by Village staff. The Applicant intends for the proposed fencing to be temporary in order to comply with Cook County dog park requirements providing an enclosure for the dog beach until the special use permit application that is currently being considered by the Plan Commission is approved by the Village Council.

Related to this recent development, the Park District has prepared a memo, dated March 30, 2025, that they have shared with their Board Members and Village staff. This memo provided their field findings related to the current condition of the Village's existing outfall pipe under the existing pier and some structural items noted about the pier itself. They indicated that approximately 70 linear feet of the existing steel corrugated outfall pipe had become damaged and was no longer connected to the remainder of the outfall pipe or the pier. The Village has confirmed that these findings are correct, and staff, working with its Engineering Consultant, developed and released a contract for bid to have this section of the outfall pipe replaced. Bids are expected to be received on Tuesday, May 27, assuming a reasonable bid response is received the Engineering Department plans to present a recommendation to the Village Council as soon as June 3. The Engineering Department has had conversations with the Park District staff to better understand their anticipated reopening schedule to determine how best to coordinate the Village repair work with their proposed improvements, minimizing disruptions to the public beach users.

PROPOSED PLAN EXCERPTS FOR REFERENCE

For reference, on the following pages are images representing the Subject Property and the proposed improvements. These images were also included in the January 22 staff report. The complete set of plans is included in **Attachment C1**.

Figure 1 – GIS Aerial Map

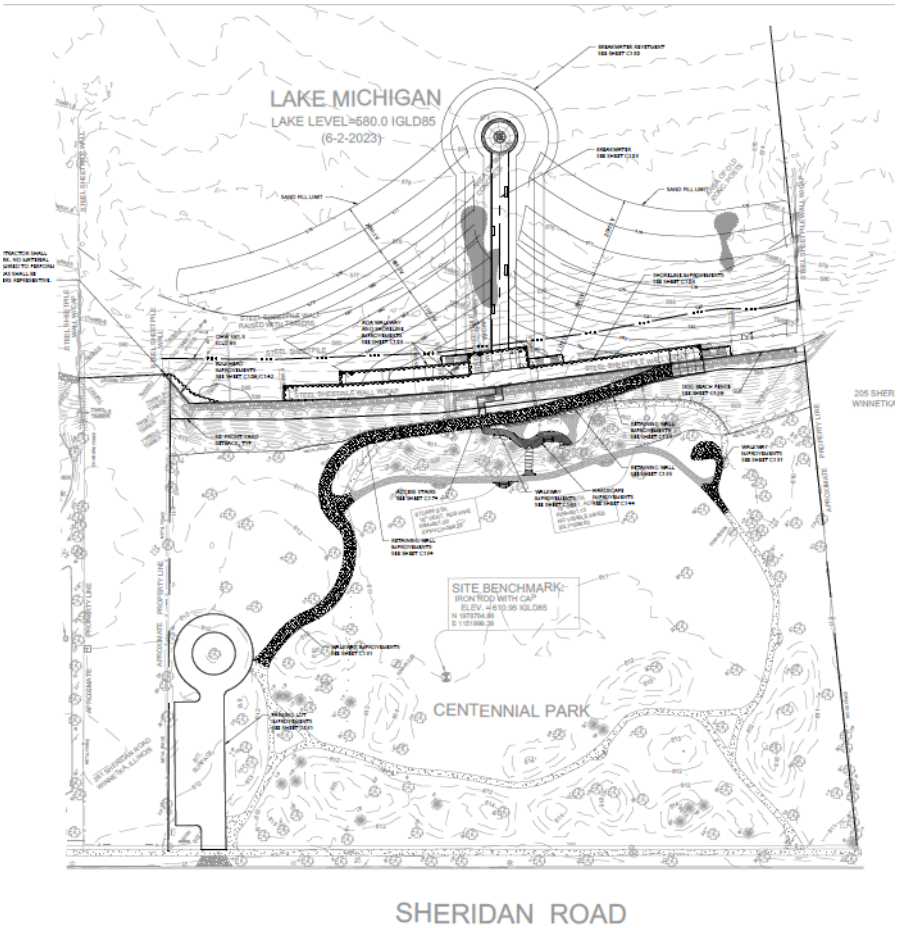

Figure 2 – General Site Development Plan (Sheet C101)

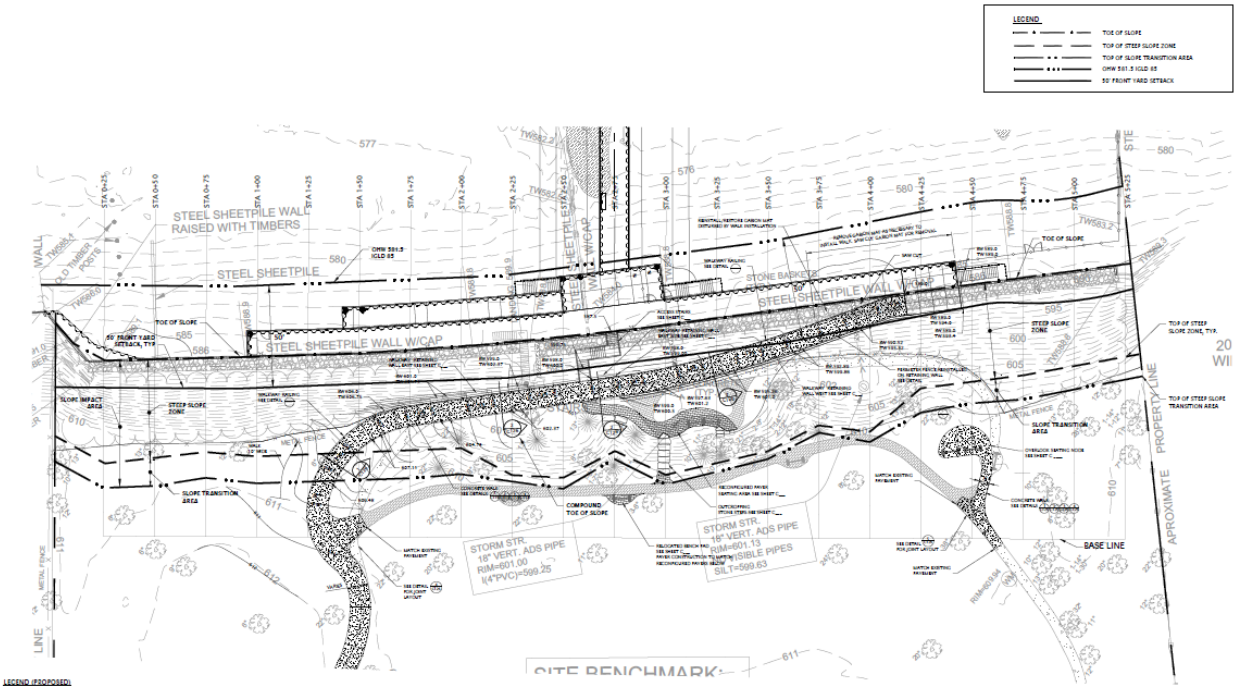

Figure 3 - Layout Plan (Sheet CS-6)

With the proposed design of the improvements along the lakefront, the Applicant is proposing that the public would be allowed access along the lakefront as illustrated in the following images.

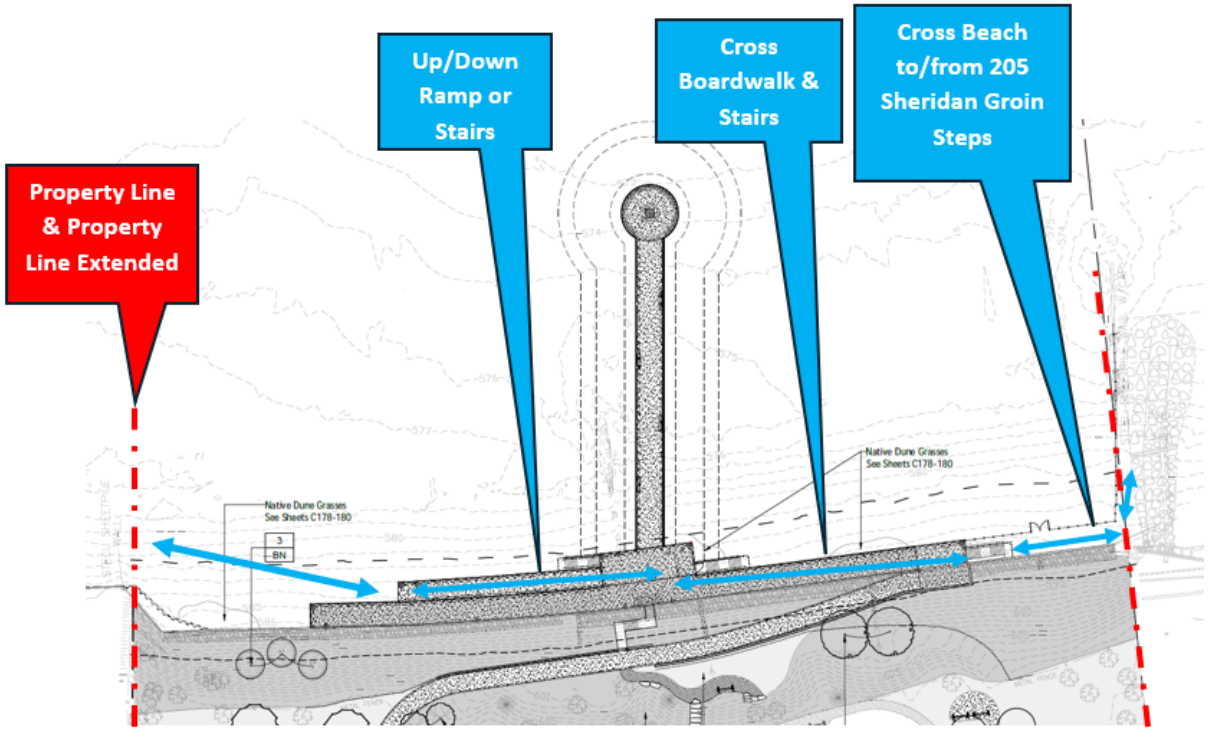

Figure 4 - Proposed Public Access Across Centennial Beach

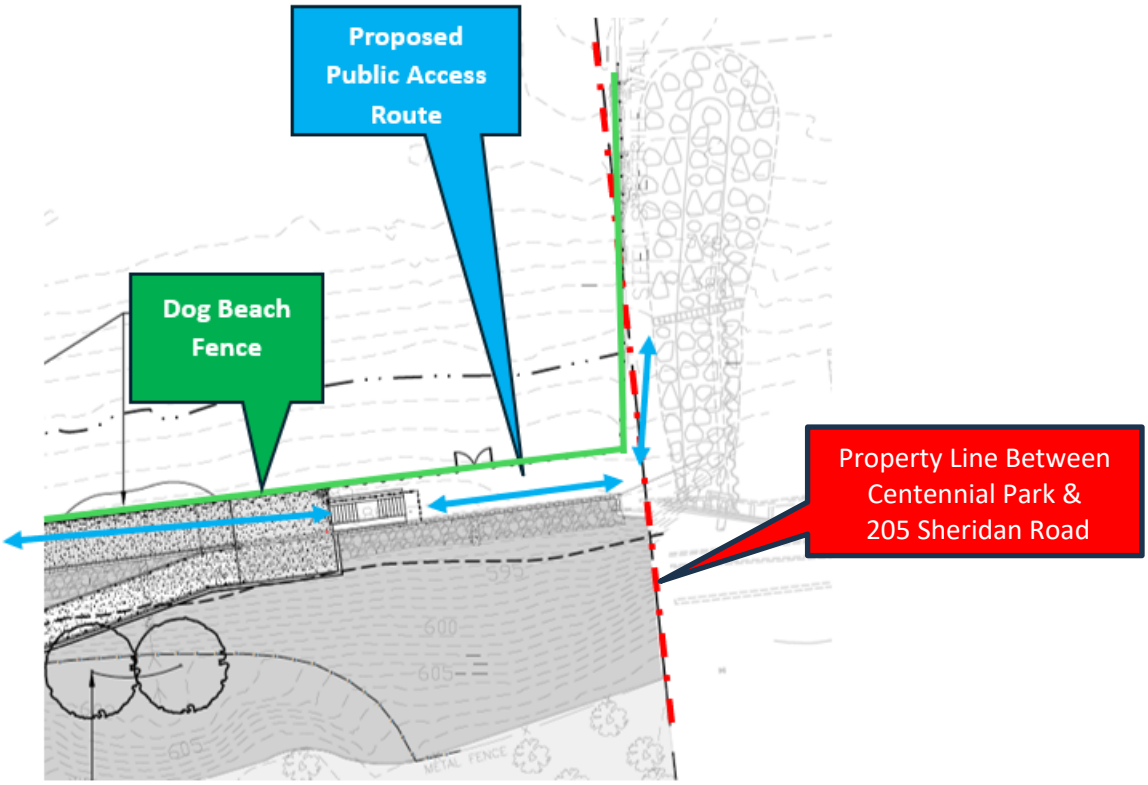

Figure 5 - Closeup of Proposed Public Access Across Centennial Beach Near South Property Line

The following images, which were also included in the January 22 staff report, show the location of the requested exceptions and variations. As a reminder, *the Commission is to consider the zoning exceptions, not the zoning variations. The zoning variations were considered by the ZBA.* Specifics of each exception are included in the ***Findings & Recommendation*** section that follows.

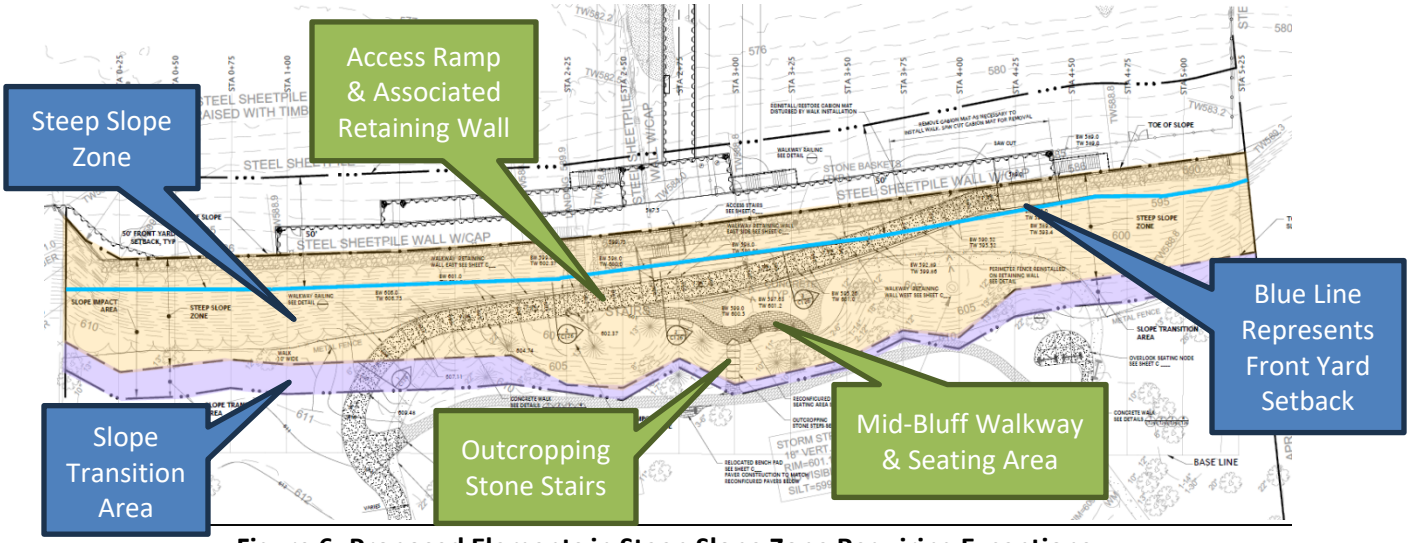

Figure 6- Proposed Elements in Steep Slope Zone Requiring Exceptions

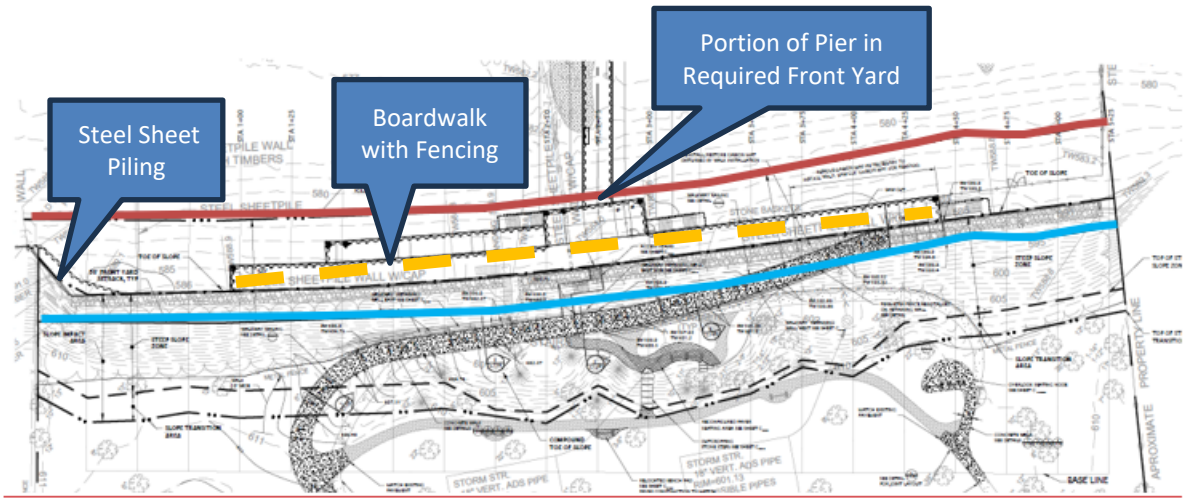

Figure 7 – Proposed Elements in Required Front Yard Requiring Variations

FINDINGS & RECOMMENDATION

The Plan Commission is charged with evaluating Special Uses and associated steep slope exceptions for consistency with the six standards for granting special use permits. In the attached application materials submitted by the Applicant, the Applicant has provided a statement of justification regarding how the requested Special Use Permit meets the standards for granting the requested Special Use Permit.

After hearing from the Applicant and the public, the Commission will have the following options:

1) Continue the public hearing to a specific date to provide the Applicant and/or staff with additional time to address questions and comments from the Commission or the public.

2) Consider a motion recommending approval or denial of the Special Use and Exceptions. If the Plan Commission is prepared to make a recommendation to the Village Council regarding the requested relief, a Commissioner may wish to make a motion recommending approval or recommending denial based upon the following and direct staff and the Village Attorney to prepare written findings and determinations for the Plan Commission's consideration and final vote at a subsequent meeting:

   Move to recommend **approval [denial]** of

   A. A **Special Use Permit** to allow construction of improvements to the existing park and beach on the Subject Property, which is located in the R-2 Single-Family Residential Zoning District and Lakefront Preservation Overlay District; and
   B. The following **steep slope zoning exceptions** [Section 17.82.040 Development in the Steep Slope Zone]:
      a. Concrete access ramp 10 feet in width and associated retaining walls to support the ramp;
      b. Outcropping stone steps that exceed 5 feet in width; and
      c. Reconfigured mid-bluff paver walkway and seating area that extends beyond the footprint of the existing walkway and seating area and exceeds 5 feet in width.

   based on evidence in the record, or a public document, and upon the following findings of fact:

1. The proposed improvements **are [are not]** consistent with the Comprehensive Plan's Land Use Map designation of the Subject Property as appropriate for "Open Space" land uses and **are [are not]** consistent with the following goals of Pillar 1: Quality Livable Neighborhoods and Pillar 6: Healthy and Engaging Lifestyles of the Winnetka Futures 2040 Comprehensive Plan:

    a. Goal 1.7: The Village will continue to ensure that open space uses, such as Park District parks, beaches, and facilities, are compatible with the residential neighborhoods in which they are located.

    b. Goal 6.1: The Village will continue to promote and encourage partnerships with other units of government and agencies to conserve, restore, and enhance natural features and ecosystems, to ensure accessibility to natural areas, parks, and other open or public spaces, and to support recreational facilities and programs that support the health of residents of all ages and abilities.

    c. Goal 6.4: The Village will support health and wellness through innovative and diversified recreational, learning, and cultural opportunities in its public parks, plazas, trails, and open spaces.

    d. Goal 6.5: The Village will support policies that preserve and protect the unique natural resources of and the recreational opportunities provided by the Lake Michigan shoreline and bluffs.

2. The proposed improvements **are consistent [are not consistent]** with the Standards for the granting of Special Use Permits and associated exceptions, as follows:

    a. That the establishment, maintenance and operation of the special use and associated exceptions will not be detrimental to or endanger the public health, safety, comfort, morals or general welfare;

    b. That the special use and the associated exceptions will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity which are permitted by right in the district or districts of concern, nor substantially diminish or impair property values in the immediate vicinity;

    c. That the establishment of the special use and associated exceptions will not impede the normal and orderly development or improvement of other property in the immediate vicinity for uses permitted by right in the district or districts of concern;

    d. That adequate measures have been or will be taken to provide ingress and egress in a manner which minimizes pedestrian and vehicular traffic congestion in the public ways;

    e. That adequate parking, utilities, access roads, drainage and other facilities necessary to the operation of the special use exist or are to be provided; and

    f. That the special use and associated exceptions in all other respects conforms to the applicable regulations of this and other Village ordinances and codes.

[The special use and the requested exceptions should only be approved subject to the following two conditions and any other conditions that the Plan Commission may approve.

1. **The Applicant shall incorporate security cameras into areas of the park and beach in a manner approved by the Police Chief.**
2. **The Applicant shall install a more robust permanent method to notify the public for when the pier is closed due to high wave action in a manner approved by the Director of Engineering.**
3. **Other conditions.]**

As noted above, any motion on a decision by the Plan Commission should direct the Village Attorney to prepare written findings and determinations for the Plan Commission to consider and vote on at a subsequent meeting.

ATTACHMENTS

Attachment A1: PC Questions Following January 22 Meeting
Attachment B1: Applicant's Reponses to PC Questions Following January 22 Meeting
Attachment C1: January 22, 2025, PC Staff Report and Meeting Minutes Excerpt
Attachment D1: Public Correspondence Received Since Posting of January 22, 2025, PC Agenda Packet

PLAN COMMISSION MEMBERS' QUESTIONS AT MEETING

1. Why is the Park District waiting to present the Elder Lane Park & Beach plan?
2. Why not present both Centennial & Elder improvements together? It's difficult to access the Centennial Plan without knowing what is proposed at Elder.
3. Explain dog beach placement. Why is it proposed where it is?
4. Would like to hear more about why the separately presenting Centennial and Elder?
5. Would like to hear more about the decision process regarding the placement of the dog beach? How and when?
6. Why were this breakwater design chosen to move forward versus previous designs presented in the presentation? When and why was the headland system abandoned for the break wall system that has been presented? Why was not an island system considered versus what was proposed?
7. How will Sheridan Road neighbors on the lakefront be impacted by the breakwater? May it be creating harm to property owners to the south.
8. What is the cost to dredge or remove sand?
9. Were any private residents involved in the proposed plan design? What opportunity was provided to them to provide input?
10. The Red Barn Design & Engineering letter submitted to the ZBA at its December 9 meeting appears to contradict the response by the same firm at the November 16, 2023, Park District Board meeting with respect to the need or justification for the pier. Explain this discrepancy.
11. What is minimally necessary for the pier? The Illinois State Beach Park design is not only safer, but the site lines are less impaired; did WPD consider that sort of design?
12. Is the proposed location of the dog beach the only possible location for a dog beach?
13. The Park District provided the Plan Commission with additional information on Tuesday of this week; provide a summary of that material and the relevant points as they relate to the standards that the Commission is to examine in consideration of this item.

PLAN COMMISSION MEMBERS' QUESTIONS SUBMITTED AFTER MEETING TO STAFF FOR APPLICANT

General

1. Why is it not possible to get a commitment from Mr. Ishbia for an easement or license to allow the public to cross over his property to get to the stairs in order to continue to go south along the Lake? This issue was raised at the very beginning of the ZBA process and it is still not resolved.
2. Concerned about the agreement with 205 and the 50-year restrictive covenant. The Park District states in its presentation package that "times change/environment changes" so with a restricted covenant how do you give away Park Districts rights over unforeseen environmental changes to the beach and park (and ability to fix them) to one landowner?
3. What influence did neighbors have (any and all along the lakefront) over the plan presented on January 22, 2025?

4. Recognizing that the Park District has the right to separate Centennial and Elder and present each individually, with such vast changes to the open land and shoreline with an enormous Pier at Centennial, why is the Park District proceeding with Centennial separate from Elder?
5. How would the proposed plans change if the Park District was able to acquire or otherwise utilize the 261 property and thus combine Elder and Centennial?
6. The Centennial Plan is difficult to understand and evaluate without understanding the planned uses/intentions for Elder and 261 Sheridan.
    a. Has the WPD devised any plans for these other two properties? If so, why were they not submitted with Centennial?
    b. How would WPD ownership of 261 change these plans?
    c. Is there a plan to subdivide any of the property any place within the three sections?
7. The Kimley-Horn document and comments from District representatives suggest that there will not be an increase in users of Centennial Beach as a result of the project. If that is the case, what is the need for the project, particularly its size and scale?
8. When did Mr. Ishbia and/or his representatives have the very first conversation with the WPD and/or their representatives about a possible donation? When did he/they make an official offer of funding to the WPD?
9. Did Mr. Ishbia or any of his representatives provide any input to the Park District with regard to any elements of the proposed Centennial Park and Beach plans?
10. What exact steps/permissions need to be performed/acquired to open Elder Beach and Centennial Beach for the 2025 season?
11. Please provide all technical data compiled, including hydrologic studies and modeling, specifically conducted for the WPD, to support the Centennial coastal plan.
12. Has the Park District conducted an analysis of the recent IL Beach State Park project spearheaded by the State of Illinois in conjunction with several major universities, the IDNR, NOAA and the ACOE to compare cost effectiveness, viability and environmental impact vs the WPD Centennial plan? If so, please provide the report.
13. It appears that the 3 largest and most restrictive/potentially dangerous parts of the WPD Centennial plan, the large pier, the 10+ foot ramp and dog beach walls/fences, are also a central part of the WPD's 50-year restrictive covenant agreement with 205 Sheridan Road. If those elements are not included in the Centennial plan, will the funding go away? Will the restricted covenant be null and void if these elements are not approved?
14. Please provide the technical data that supports the testimony of the WPD that the Centennial Plan design was created in a holistic manner directly in relation to the rest of the Winnetka shoreline.
15. Please provide a copy of the bluff landscape plan/design that was mentioned in your presentation that you were putting in native species and taking out invasive plants. Where has it been implemented on other bluffs in Winnetka?
16. While the landscape sectional views were appealing, a review of the civil drawings suggest a significant exposure of sheet piling and 2ft deep concrete downturn edge beams? What are the mitigation measures in mind to escape the brutal aesthetic of this?

17. How will Winnetka residents and park visitors be able to fully utilize the intention of the Public Trust Doctrine? Will they have to go through the dog park and then walk along a genuinely risky water's edge to be able to truly cross 205 Sheridan in the NS direction? Based on the plan sketch shown this would be almost impossible. Further with wave action and sand movement along that edge, no one would venture to go out. Would this assumption be erroneous? Can actual transverse sections be provided by the engineers?

Dog Beach

1. The 2030 master plan provides "there is no clear consensus on whether or not Centennial should be converted from a dog beach to a swimming beach at this time, but there is general support for monitoring community needs and considering a change of use at beaches based on the changing needs to the community." How did the Park District determine that Centennial was the best beach to use as the dog beach instead of any of the other beaches in the Village?
2. Please provide any reports, surveys, plans, cost estimates or other related information that was conducted by the Park District in the evaluation ending in the determination that Centennial Beach was the only location for a dog beach.
3. How was the size of the proposed dog beach decided?
4. Did Mr. Ishbia or any of his representatives ever request or discuss the location of the dog beach with the Park District or its representatives?
5. According to the presentation presented on January 22, 2025, the Park District amended the plan to include a dog beach on October 19, 2023. When was it decided the dog beach should be at Centennial?
6. I understand that there may be multiple reasons the Park District is choosing to place the dog beach where it is proposed. But are any of those reasons related at all to Mr. Ishbia, his property, or the proposed land swap or donation agreement?
7. Is it physically possible to locate the dog beach at any other Park District beach in the Village?
8. If the Park District located the dog beach at another beach in the Village, how would the proposed plans for Centennial change?
9. Has the District conducted an analysis of placing the dog beach at Elder Beach, any other beach, or at another location within Centennial Park? If so, has the Park District shared that analysis with the Village?
10. How was the location of the fence around the dog beach determined?
11. Do you have to traverse over private property to get to the dog beach?
12. Is it possible to create a separate pathway or entrance to the dog beach?
13. Please provide the opinion from Cook County that says the Park District must fence in the dog beach and evidence that a dog beach fence would be allowed by the IDNR and ACOE if it were approved by the Village.

Pier

1. You mention in your narrative for your application, on pg 56 of 1151, that the main purpose of the pier is to "substantially delineate the two distinctive swimming beach and dog beach uses." Beyond that, you mention that it will also provide some additional shore protection (diffusing wave energy and holding sand). If you moved the dog beach from Centennial, would you still need some sort of structure in this location for shore protection?
2. Can the park district further address the questions of safety for the swimming area and the close rock pier- it seems like a danger to the public (swimmers) and the lifeguards who are to protect them?
3. Does the pier provide enough of an environmental impact to justify its existence if the dog beach isn't there?
4. How was the size of the pier decided beyond what's mentioned in the Red Barn statement of Dec 6th that it provides some kind of "consistency" with other area shoreline improvements? Have you done any engineering modeling around the environmental impacts?
5. Is it physically possible for the pier to be smaller? If so, what would the impact be if the pier was five percent smaller? How about 10 percent?
6. Other than to separate the dog beach from the swimming beach, what are the reasons, if any, for the location of the pier?
7. What is the reason for the height of the pier? Is there any reason why the pier cannot be shorter (improve sightlines)?
8. You've indicated the pier is necessary for erosion control. If the pier was slightly smaller, what would the impact on erosion be?
9. You have also indicated that under and around the pier will be armor stone to prevent erosion. Could you have a smaller pier structure above the water, but have the larger armor rock below the water?
10. Is there a standard size for improvements used by IDNR or Army Corps, and other regulatory agencies related to bluff erosion and shoreline protection similar to the pier?
11. Are there other alternative improvements or infrastructure that could be used for bluff erosion other than the pier?
12. Will the location of the pier have any impact on potential accretion? Has the Park District's engineers and consultants studied this issue? If so, have you provided the Village any reports or analysis from your consultants?
13. Is it possible that neighbors along the lake would lose beachfront property due to the project's design and improvements impacted by the littoral sand being captured? Would this change if the pier did not include rocks? What if the size of the pier decreased?
14. Why was there such a significant design migration/digression from the original breakwaters' visuals to the 3-revetment approach? Each iteration seems to have gotten larger and more pronounced?
15. In the drawings presented, why was the middle revetment almost appearing half round/half complete? It almost preempts a form completion once the property in the middle is amalgamated? Is that WPD's intention?

16. There was one slide of Lloyd beach showing the before image? When was that image taken? It almost seemed from a different era given the color format of the photo? Similarly, for the slide of Kenilworth- the timeline shown, did it not match the ebb and flow of the Lake Michigan HWM graph provided?
17. How does the WPD respond to the notion that the pier would truly block visual vistas to the south side and truly divide the beach unless one was up on the NS boardwalk?

<u>"ADA" Ramp</u>

1. You've indicated one stated objective for the project is ADA accessibility. Can you explain the other ADA accessibility options you considered and why they were not chosen?
2. Specifically, did the Park District consider other alternatives that would not require such a significant impervious surface walkway along the table land?
3. Is the primary justification for the width and location of the walkway the desire for access for heavy equipment?
4. Does the ADA require the proposed 10-foot width?
5. What were the reasons for not including ADA restrooms?
6. Does the project provide ADA access to water level?
7. Please explain in detail how the slope of the proposed accessible pathway complies with accessibility requirements (e.g., slope, length, etc.)? My understanding is the maximum slope for an accessible pathway cannot be greater than 5%.
8. Would a lift be ADA compliant?
9. What provision in the ADA, its regulations, or the Illinois Accessibility Code provide that ramps like the proposed one be 10 feet in width? What provisions in those laws discuss the size, length, and width of ramps?
10. The Park District has indicated the ramp needs to be 10 feet in width due to the volume of people using the Park, and the ability for those with disabilities, those who are able bodied, and first responders all able to easily get to the beach. Isn't it possible for that also to occur if the Park District made the ramp smaller, but added stairs to allow some of the able bodied to also use them?
11. Has the WPD received an ADA review/report from a professional organization specializing in ADA to substantiate elements in the plan labeled/associated with ADA access or compliance?
12. What is the Park District's estimate of how many people with disabilities will utilize Centennial and the 10-foot walkway? Does the Park District have any historical data on this?

<u>Parking and Traffic</u>

1. How long has the Park District been considering and formulating the proposed plan?
2. We saw the parking study in the packet, but the Village Engineer said that the study is incomplete and he's unable to make a determination about the impact on parking and traffic flow. Why didn't the Park District have the study done in the summer? Why not in the spring or fall?
3. To obtain a steep slope exception under our Code, congestion on public streets should not increase. How do we know that traffic will not increase as a result? Did the Park District ever conduct a traffic study?

4. Independent of this proposal, has the Park District ever conducted a parking study in the summer for Centennial Park and beach?
5. NT East is mentioned as a possible alternative parking location for beach goers. Given that NT runs a variety of summer programs (summer school, community swimming classes, various arts and sports camps) has there been any discussion directly with them that indicates they have open parking available in the summer? What are the dates that NT makes parking available to their students in the Elder parking lot?
6. Does the District believe that there is a sufficient number of accessible parking spaces? Are there any studies or data that would support this based on the peak demand in the summer and the specific type of features the Park District plans to add to the Park?
7. Please explain why the traffic circle drop off is so constricted? It looks like it could become a big bottle neck.

Restroom Facilities

1. You've indicated that you anticipate that the restroom facilities at Elder Beach will be sufficient to accommodate Centennial Beach goers, but we don't have a proposal for Elder in front of us. Where is the nearest restroom? How many feet?
2. What is the terrain that must be traversed to get to those restrooms?
3. Where is the nearest accessible restroom? Has the Park District conducted any ADA analysis of the accessibility of restrooms for those who use Centennial Beach?
4. Is it possible for the Park District to place a restroom facility at the beach, other than a porta potty?
5. With the addition of the ADA ramp, dog beach, and other proposed improvements to Centennial Beach, isn't it possible that Centennial may attract far more people who may be differently abled? Why wouldn't the Park District provide bathroom facilities for them at Centennial Park?

Exceptions

1. We understand that the residential zoning of the area can make it more challenging to design something like this without exceptions, and that's why we have this process. But by the nature of the process, the proposed design is dependent on the Village granting the Park District exceptions. Isn't it possible to create a design that does not require exceptions or small exceptions?
2. Why are the stone steps larger than 5ft?

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April 7, 2025

Village of Winnetka
Community Development Department
510 Green Bay Road
Winnetka Illinois 60093

Mr. Scott Mangrum, Director of Community Development

Dear Scott,

Please accept this narrative response and responses to the questions asked by the Village of Winnetka Plan Commission on January 22, 2025 in response to the Winnetka Park Districts presentation for Special Use Permit for Case No. 24-08-50: 225 Sheridan Road – Centennial Park and Beach. The content included in the submission is the same content that was submitted to the Village of Winnetka for the February 26, Plan Commission Meeting. We look forward to our upcoming meeting on Wednesday, April 23, 2025. Please let us know if you have any questions or comments regarding our submittal.

Kind Regards,

Shannon Nazzal
Executive Director
Winnetka Park District

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Village of Winnetka Plan Commission Members,

At a recent meeting, members of the Plan Commission raised several questions regarding the proposed plans for Elder Lane Park and Centennial Park. These inquiries addressed key elements of the park improvements, the decision-making processes, and the potential impacts of the proposed designs. Below is a comprehensive summary of the questions raised and the responses provided. But first, there are some general observations the Park District wishes to address.

Public Uses in Residential Districts

The Park District wants to address the inherent tension which exists by reason of Village zoning regulations characterizing all public uses as special uses within otherwise residential districts. It is inherent that there will be some degree of conflict between the homes and a public park which is meant as a community gathering place used for active and passive recreation.

The Park District recognizes this and to respect its neighbors the Park District has designed Centennial Park and Beach to minimize the conflicts with the surrounding community. As an example, the public feedback collected by the Park District expressed a priority for preserving the ability to view Lake Michigan and the shoreline to the north and south. In response, the Park District has presented a plan with a lower rubble mound breakwater and improvements much lower than the previous design plans. While the reduced height directly diminishes its effectiveness, the plan balances utility with the aesthetics desired by the community in a way that achieves the standard described in the Lakefront Protection Ordinance to include only what is minimally necessary.

Another area where the conflict between residential and public uses arises is the Steep Slope Ordinance and the exceptions the Park District has requested. The uses and building scale incorporated into the Steep Slope Ordinance are designed primarily for residential properties. Where a path is used for a single-family dwelling five feet may be large enough. However, in a public park where there is greater two-way foot traffic, a need for access for first responders and the need for more regular maintenance, five feet is simply insufficient. Nonetheless, the Park District has once again attempted to minimize the impacts on the steep slope zone. Moreover, the Park District will apply construction methods that strictly comply with or exceed the standards in the Steep Slope Ordinance to ensure the bluff is protected and preserved for generations to come.

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Evidence vs. Public Comment

The Park District has assembled a team with extensive qualifications to work on the proposed park improvements, including years of experience in park planning, the park and recreation industry, and working along the Lake Michigan coastline. The development of this plan is grounded in scientific analysis and years of experience, not in speculation or conjecture. While public comments have raised questions, particularly regarding the qualifications of the professionals involved, it is important to clarify that the Park District has engaged through a public and competitive bid process, licensed engineers with specialized expertise in coastal systems. The Park District's application is supported by these experts, including Dr. Charles Shabica and Mr. Matthew Wright, whose credentials and experience far surpass the unqualified opinions presented by some members of the public. The following details aim to provide a clear distinction between evidence-based planning and public comment, emphasizing the expertise and regulatory compliance behind the Park District's proposal.

There have been questions about whether the Park District hired "coastal engineers" to help design the project. **To clarify—this is a distraction.** Opponents of the plan continue to raise this issue but disregard the facts. In Illinois, there isn't a specific license for "coastal engineer." Instead, coastal engineers would typically be licensed as professional engineers (PE). The Illinois Department of Financial and Professional Regulation (IDFPR) oversees the licensure of professional engineers in the state.

To become a licensed professional engineer in Illinois, one must:

1. Obtain a degree from an ABET-accredited engineering program.
2. Pass the Fundamentals of Engineering (FE) exam.
3. Gain at least four years of supervised practical experience.
4. Pass the Principles and Practice of Engineering (PE) exam.

Once licensed as a professional engineer, individuals may specialize in coastal engineering through their work experience and additional training. All of the engineers engaged by the Park District meet or exceed these qualifications. To emphasize this, we have presented the following summaries:

Charles Shabica, Shabica & Associates:
Over 40 years of experience as a coastal scientist and authority on the impacts of structures on coastal systems. Graduated from Brown University with a B.A. in Geology and from the University of Chicago with a Ph.D. Since 1971, was a professor in the Department of Earth Science at Northeastern Illinois University, where he specialized in coastal geology and coastal engineering. Throughout his career, he has been active in coastal research and has published more than 50 articles and reports. In 1984, he founded Shabica & Associates, which serves as a

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consultant firm for coastal geology and coastal engineering. Charles Shabica was recognized by the United States Court of Federal Claims as an expert in the matter of Banks v. United States, regarding the improvements constructed by the U.S. Army Corps of Engineers at the St. Joseph Inlet, St. Joseph, MI and the resulting interruption of natural littoral drift of sand to down drift properties resulting in accelerated erosion.

Matthew Wright, PE RED BARN Design & Engineering:
Education BS-Civil Engineering University of Wisconsin-Madison, 1981
Registrations Prof. Engineer WI, IL, MI, PA, IA, MN, IN, GA, KY
Mr. Wright, for over 43 years, the last 22 as founder/owner of RED BARN Design & Engineering, has served as project manager and Senior Civil Design Engineer on numerous civil and environmental engineering, coastal engineering and waterfront development projects. Mr. Wright's project involvement typically includes design and preparation of plans and specifications for bidding and construction, bid phase involvement, construction documentation, construction administration, permitting and client liaison. Mr. Wright is experienced in the areas of civil engineering design, marina, harbor infrastructure, breakwater and shore protection design and construction, as well as site infrastructure design, feasibility studies, data acquisition and analysis, and construction materials investigations.

With this collective amount of relevant and local experience, the Plan Commission should have no doubt the Park District's plan has been prepared and vetted by qualified "coastal engineers."

In contrast, the engineering-related public comments from opponents of the plan appear to be based on unverified internet research and layperson assumptions rather than qualified expertise. While the Plan Commission is not bound by traditional rules of evidence in this proceeding, it is both reasonable and appropriate to place significantly greater weight on the analysis and findings of credentialed experts.

The same arguments apply to the public's assertions related to the Americans with Disabilities Act (ADA). The Park District, as with all public places, commercial buildings, employers, and government entities, has been subject to the ADA since its inception in 1990. Our staff and consultants collectively have decades of experience designing facilities which comply with ADA standards, not to mention day to day experiences and interactions with persons that have disabilities within our community. While some members of the public have challenged whether the path from the parking lot to the beach is accessible, they have not presented any specifics to describe where it allegedly falls short. There is also a contingent that seem to opine that a "lift" is better for access than a pathway. While a legal option to consider, a wheelchair lift is a less effective option for beach access due to its limitations in capacity, reliability, and overall user experience. Lifts require ongoing maintenance, are prone to mechanical failures, and can be rendered inoperable by sand, weather conditions, or vandalism. They also accommodate only

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one user at a time, creating potential delays and restricting access for families, caregivers, or groups. In contrast, an accessible pathway provides a smooth, continuous route that allows multiple users to travel safely and comfortably, including those using wheelchairs, strollers, or mobility aids. It promotes independence, ease of use, and a more inclusive experience while minimizing the need for ongoing technical maintenance.

Next, the Park District wants to share our experience with the most frequent and vocal critics of the plan. We have been engaged in the planning process for over 10 years. Throughout the planning process the District has held many open houses and accepted good faith comments designed to **improve** the plan. However, it is clear to us that the most frequent and vocal critics are not aiming to improve the plan, but instead hope to delay and defeat the plan. The Park District has made changes in response to their suggestions, only for them to complain about the solutions offered to the original complaints. There is no plan that will satisfy these critics because they want there to be no plan at all. Time and again, concerns—such as handrail heights or lake views—have been addressed, only for opponents to abandon those arguments and shift to new objections, whether claiming a lift is better than a path or that all structures are inherently dangerous. Many of these concerns even contradict each other, creating a Catch-22 where no solution would ever be acceptable. An example of this is, arguing that improvements will attract too many people while also demanding more parking, or opposing an accessible pathway because it reduces open space while also pushing for more parking, which would do the same. It remains unclear what, if anything, would ever meet the demands of this vocal minority. Our focus remains on serving the broader community, whose input has consistently shown that beach improvements are both important and a priority. Below we summarize why the Park District has decided that doing nothing at Centennial is not an acceptable option.

- The Park District's beaches are not intended to be private or assigned solely to one neighborhood. There is not a "northern beach" and "southern beach." All Park District beaches belong to the community as a whole and are designed as a collective lakeside recreation system. Beach passes are not assigned to a particular beach but apply universally.
- The Waterfront 2030 Plan establishes the Park District's goal to improve all five public beaches in the community and still represents the official policy of the Park District.
- The evidence we have presented makes clear that doing nothing at the beach will allow more harm to occur:
    - Failure to reinvest in bluff protection may allow a repeat of the bluff collapse which occurred in the 1980s that resulted in the need to reconstruct the bluff;
    - Failure to replace the existing steel groins with a rubble mound breakwater will permit more rip currents and make it more dangerous to swim;

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  - Failure to replace the existing steel groins with a rubble mound breakwater will allow sand to be lost and the permanent diminution of the beach area.
- The Park District has an ethical and legal duty to make our facilities accessible to users of all generations and abilities. Doing so in a way that also facilitates enhanced public safety and lowers the cost of maintenance is cost-effective and the most efficient use of public resources.

The bottom line is lakeshore property owners like the Park District need to reinvest in their property to protect and preserve the land. Otherwise, the lake will continue to erode the beach and cause permanent loss of land. Allowing the Park District to reinvest in and improve the beach is in the long-term best interest of the whole community.

Donation Agreement

The fact that our neighbor has chosen to pledge financial support for the proposed plan does not mean the plan was any less independently prepared and approved. Following the timeline of events, the Park Board approved schematic design plans in May 2023. The initial discussion of the donation agreement was not raised until August 2023. The donation agreement is not a tool intended to steer the direction of the plan, but to express support for the design choices made by the Park District. Once again, this plan is the Park District's plan despite the rumors and speculation. In addition, there is nothing in the Donation Agreement which prohibits the Park District from making changes to the plan. If the plan changes to such a degree that the donor no longer supports the plan the donation can be cancelled. The donor does not have authority to compel the Park District to choose one plan or another.

The Park District does find it ironic that our neighbor's support for the plan, as represented by the donation agreement, is possibly perceived negatively. For nearly every zoning application presented to the Village, the advisory bodies hear testimony from neighboring property owners regarding their support for or opposition to the project. Why should our neighbor's support for the plan be weighed any differently?

There has been some public comment about the Park District ceding control of the beach by accepting a donation with a restrictive covenant. This is untrue. First and foremost, there are no restrictions on the Park District's ability to invite the public to use the beach and park for the intended uses. The donor does not control the park hours, how many dogs can use the dog beach, how many patrons can use the swimming beach or how the Park District programs the park. Second, the facts are that the infrastructure improvements proposed by the Park District have a normal useful life of 50-75 years. Even if the donation did not exist, the Park District's plan represents a generational investment in the lakefront that is designed to remain in place for the

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foreseeable future with only routine maintenance. Promising to maintain the improvements for their normal useful life does not represent a loss of control.

Last, objectors have asserted the plan represents the donor's preference rather than what is in the community's best interest. There is just no logic to this proposition. Critics have expressed the dog beach is located closer to 205 Sheridan based on the donor's preference. But the donation does not support only the dog beach. Instead it is intended to support (a) the path across the steep slope, (b) the rubble mound breakwater and boardwalk, and (c) the dog beach. Collectively, these improvements will enhance the beach and shift how the property is used. The Park District does not claim to know—or need to know—the donor's motivations. However, if the intent were solely to preserve privacy, it is unclear why the donation would support changes that make the space more functional and welcoming to the public. If privacy were the goal, the donor would likely align with those opposing any improvements at Centennial.

Critics of the donation agreement appear to be redirecting their frustrations with the donor and the project at 205 Sheridan onto the Park District, despite the fact that 205 Sheridan and the aforementioned donation agreement is unrelated to this application. It is beyond the purview of the Plan Commission to entertain complaints about a private property and a donation agreement that has no bearing on the Park District's proposal. Yet, opponents continue to rely on images of 205 Sheridan as a distraction from the actual merits of the project under review.

Zoning Review or Design Consultant

The Park District's application represents the culmination of years of community input, study and engineering design. The Park District's popularly elected leaders have had time to carefully balance competing interests and prepare a plan with interrelated and interconnected components that serve multiple purposes. Our plan is not perfect. But perfection cannot become the enemy of the good. It is important to make progress and allow for the reinvestment in our community's public assets. When the Park District and Village work together, we can accomplish great things – the storm water project at Winnetka Golf Course is an excellent example.

The Park District is happy to receive constructive feedback designed to improve the plan. However, we respectfully remind the Plan Commission your role is not be a design consultant to the Park District. Simply imposing personal preference ignores the legislative judgment of the Park District's elected officials, is inappropriate and beyond the scope of a Plan Commissioner's role. Rather, the Park District understands the task is to evaluate our plan by reference to the criteria for issuing a special use permit. If you find it necessary, we invite conditions of approval designed to help the plan meet the zoning standards.

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In response to the questions and comments raised by the Plan Commission during the January 22, 2025 meeting, we have compiled a comprehensive breakdown of the issues addressed. Included in the attached appendix are detailed answers to your questions, along with the accompanying presentation. We hope that our thorough efforts will provide clarity and resolve any concerns you may have. We trust that our responses will enable you to evaluate the project on its merits and ultimately provide a positive recommendation to the Village Council.

PLAN COMMISSION MEMBERS' QUESTIONS AT MEETING

1. Why is the Park District waiting to present the Elder Lane Park & Beach plan?
    a. The Elder and Centennial Plans were prepared at the same time. Plans for Centennial were submitted in April 2024, while plans for Elder were submitted in September 2024. The Village advised the Winnetka Park District (WPD) to delay submittal of the Elder plans until such time as the Village determined whether the size and location of the storm sewer relocation was acceptable.

2. Why not present both Centennial & Elder improvements together? It's difficult to access the Centennial Plan without knowing what is proposed at Elder.
    a. The WPD prepared multiple alternative plans including various plans depicting the combined Elder and Centennial. See **"Exhibit 1 – Plan Evolution"** depicting plan evolution and alternatives between Jan 2023 and Jan 2025.

3. Explain dog beach placement. Why is it proposed where it is?
    a. The WPD voted unanimously to keep the dog beach in its present location on October 27, 2022. The WPD previously considered moving the dog beach to Tower Road Beach but determined that it best to keep it in its current location after a reporting of a Dog Beach Committee comprised of fellow residents. See **"Exhibit 2 - Dog Beach History"** for more information.

4. Would like to hear more about why the separately presenting Centennial and Elder?
    a. Elder and Centennial are separate parks, and based on the information received through the initial review process, it was suggested to submit the plans as they were ready. The WPD has plans for combining the beaches. See "**Exhibit 1 - Plan Evolution"** for more details.

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5. Would like to hear more about the decision process regarding the placement of the dog beach? How and when?
    a. The Park District voted unanimously on October 27, 2022 to keep the dog beach in its current location at Centennial Park. See "**Exhibit 2 – Dog Beach History"** for more information.

6. Why were this breakwater design chosen to move forward versus previous designs presented in the presentation? When and why was the headland system abandoned for the break wall system that has been presented? Why was not an island system considered versus what was proposed?
    a. The Village of Winnetka adopted a series of ordinances addressing lakefront improvements in March 2023, July 2023 and February 2024. The newly adopted ordinances prioritize unencumbered views of the lake over beach preservation, thus the Park District revised its plan to comply. See attached "**Exhibit 1 – Plan Evolution"** for a more complete explanation.

7. How will Sheridan Road neighbors on the lakefront be impacted by the breakwater? May it be creating harm to property owners to the south.
    a. The design of the breakwater will have minimal if any impact on the properties to the south. The existing steel groins at Elder extend more than 200 feet offshore. The proposed pier at Centennial is a similar length. Moreover, the IDNR requires 120% of the anticipated sand profile to be placed in the system so that the downstream neighbors will not be negatively impacted as excess sand will be introduced into the littoral system. The District will also monitor the sand in the beach system for five years to ensure that the proposed design is working as designed.

8. What is the cost to dredge or remove sand?
    a. Dredging and/or sand removal in the current design is not anticipated. Generically, the cost of dredging depends upon a variety of factors, including the method (marine based or land based) the quantity to be dredged and where and how the dredged material is disposed.

9. Were any private residents involved in the proposed plan design? What opportunity was provided to them to provide input?
    a. The WPD developed the various designs and alternatives utilizing its consultants and taking input during many public input sessions including but not limited to open houses held in January 2023, February 2023 and April 2023. A complete history of the preparation and public input process is detailed in "**Exhibit 3 – Resolution 05-25-23**." The

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plans were subsequently revised between July and October of 2023 to comport with the recently enacted Village ordinances. Refer to Village Lakefront Ordinances.

10. The Red Barn Design & Engineering letter submitted to the ZBA at its December 9 meeting appears to contradict the response by the same firm at the November 16, 2023, Park District Board meeting with respect to the need or justification for the pier. Explain this discrepancy.

    a. Matt Wright, P.E., of Red Barn Design & Engineering, responds as follows:

    Elder: The main project design goal was to stabilize the shoreline through the implementation of an "engineered" structural solution to provide the primary shore protection for the design conditions. Accordingly, using input from the community, the project team developed a plan for stabilization of the shoreline. providing public and ADA access to the beach, and shore protection for the width of the property. A geotechnical soils sampling and analysis was performed for determination of design parameters for use in design of the shore protection elements. Using the input from the Geotech analysis, review of the elevations and details of the existing Centennial Park shoreline improvements implemented in 1987, and past project experience and designs of similar shore protection elements for projects along the west Lake Michigan shoreline, the sheet pile bulkhead (boardwalk) was designed. The crest elevation of the boardwalk and backing wave wall are consistent with the existing Centennial Park shoreline, and that of numerous projects designed and implemented by the design team throughout the region.

    The design was sealed by both an Illinois Licensed Structural engineer as well as the project engineer of record.

    The north and south breakwaters, and sand fill beach, were designed using USACE Shore Protection Manual methods and procedures, and sand fill and overfill layout was prepared in accordance with USACE standards. No "coastal engineering" analysis was performed to design the structures as the structures are intended to provide the framework of a sand beach only. The presence of the breakwaters will provide a measure of shore protection for the project reach, but any benefit gained by their presence is secondary to the primary shore protection provided by the steel sheet pile bulkhead and wave wall. Additionally, the WPD acknowledges that the sand fill placed may need renourishment on an annual or other frequency. The sand fill will be monitored and supplemented in accordance with the monitoring plan prepared as a part of the USACE permit.

    Centennial: A key feature of the proposed design is the new pier structure, which features a steel sheet pile core bordered by a rubble mound revetment structure. This structure serves as an improvement over the existing steel groin as it relates to reduction of any existing rip currents currently experienced along the steel groin, while performing additional sand retention and seasonal accretion at the beach areas. These improvements provide enhanced

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public space at the park beachfront. The pier's length and width were carefully selected to ensure it provides the right scale for the site while achieving vital environmental goals.

The crest elevations of both the pier core and rubble mound revetment were selected to follow the Village's Lakefront Ordinance, while adhering to the principle of minimal intervention necessary to fulfill these objectives. The chosen length of the pier aligns with the dimensions of other piers along the Winnetka shoreline, ensuring consistency with the area's existing shoreline improvements. This thoughtful consideration allows the design to blend harmoniously with the surrounding environment while enhancing the functionality of the beach.

No "coastal engineering" was performed in preparation of the design of the project elements as the primary shore protection will continue to be provided by the existing steel sheet pile bulkhead and gabion blanket. And again, similar to the Elder Lane Beach site, all structures were designed using parameters gained thru a geotechnical engineering investigation.

The design was sealed by both an Illinois Licensed Structural engineer as well as the project engineer of record.

b. It is important to distinguish the difference between bluff protection and beach preservation. At Centennial, bluff protection is provided by the existing steel sheet pile bulkhead (the majority of which was installed in 1987). Beach preservation is accomplished by virtue of the proposed pier. While the pier will retain a sand beach, it is a public amenity, affording access to people of all abilities to enjoy panoramic views of the lake while also properly separating the dog beach from the swimming beach. Additional information on headland beach systems, piers and jetties is provided in "**Exhibit 4 – Definition of Terms"**

11. What is minimally necessary for the pier? The Illinois State Beach Park design is not only safer, but the sight lines are less impaired; did WPD consider that sort of design?
    a. Without an improvement perpendicular to the shoreline such as a pier, a headland beach system or an extensive offshore rubble mound breakwater system, there will be little if any usable beach. The solution implemented at Illinois State Beach is vastly different scale (3000-4000 feet of shoreline versus 1000 feet of shoreline at Elder-Centennial). The solution implemented at Illinois Beach State Park has not been proven to be safer than alternatives, as evidenced by two drownings at IL Beach State Park in July of 2024, including one where the deceased unsuccessfully attempted to swim to an offshore breakwater. See attached **"Exhibit 5 – Illinois Beach State Park."**
12. Is the proposed location of the dog beach the only possible location for a dog beach?

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a. The only other viable dog beach location considered by the WPD was the south end of Tower Road Beach. The usable public beach frontage at Tower Road is approximately 520 feet, of which the southernmost 320 feet is owned by the Village of Winnetka. The Village of Winnetka previously offered to relocate the dog beach to Tower Road. The WPD decided to keep the dog beach at the south end of Centennial beach on October 27, 2022. The primary reasons cited for keeping the dog beach at Centennial are as follows:
    i. Due to the exposure to the northeast wind and waves, a robust separation between the swimming beach and dog beach such as a steel jetty, stone breakwater or pier would be necessary to separate the two uses.
    ii. The riptides at the south end of Tower against the existing pier present a hazard to people and dogs.
    iii. Tower Road Beach is comprised of Village owned shoreline (320 feet) and Park District owned shoreline (200 feet). Allocating more than 220 feet of beach to a dog beach would result in less than 300 feet of useable shoreline for swimmers. See **"Exhibit 2 – Dog Beach History"** for additional information

13. The Park District provided the Plan Commission with additional information on Tuesday of this week; provide a summary of that material and the relevant points as they relate to the standards that the Commission is to examine in consideration of this item.
    a. The five recently enacted Village of Winnetka Ordinances addressing construction in and near Lake Michigan compelled the WPD to amend its plans as approved in May of 2023.
    b. The October 13, 2021 (abridged) presentation of existing conditions and lakefront images was intended to inform the Plan Commissioners and public of the nature the existing conditions along the lakefront, including:
        i. unsafe conditions: fall risk, physical hazards, dangerous pathways
        ii. existing public improvements with fences blocking public passage along the lake Michigan Shoreline (including a chain link fence at the north end of the Centennial dog beach that was destroyed by rising water levels and wave action.)
        iii. deteriorated condition of the Elder Pier
        iv. deteriorated condition of northernmost section of Centennial steel bulkhead.

PLAN COMMISSION MEMBERS' QUESTIONS SUBMITTED AFTER MEETING TO STAFF FOR APPLICANT

General

1. Why is it not possible to get a commitment from Mr. Ishbia for an easement or license to allow the public to cross over his property to get to the stairs in order to continue to go south along the Lake? This issue was raised at the very beginning of the ZBA process and it is still not resolved.
    a. The property owner's representatives have not yet responded to the request.

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2. Concerned about the agreement with 205 and the 50-year restrictive covenant. The Park District states in its presentation package that "times change/environment changes" so with a restricted covenant how do you give away Park Districts rights over unforeseen environmental changes to the beach and park (and ability to fix them) to one landowner?
    a. The Park District is not giving away rights of the park.

3. What influence did neighbors have (any and all along the lakefront) over the plan presented on January 22, 2025?
    a. The WPD developed the various designs and alternatives utilizing its consultants and taking input during many public input sessions including but not limited to open houses held in January 2023, February 2023 and April 2023. A complete history of the preparation and public input process is detailed in **"Exhibit 3 – Resolution 05-25-23."** The plans were subsequently revised between July and October of 2023 to comport with the recently enacted Village ordinances. Refer to Village Lakefront Ordinances.

4. Recognizing that the Park District has the right to separate Centennial and Elder and present each individually, with such vast changes to the open land and shoreline with an enormous Pier at Centennial, why is the Park District proceeding with Centennial separate from Elder?
    a. Responding to this question will likely be subjective as the question itself is subjective. The WPD does not see the proposed changes to open land and the shoreline as "vast." The WPD does not see the proposed pier as "enormous." The WPD developed the minimum necessary access route to Centennial to provide maintenance, emergency and ADA access to its beachfront at Centennial. The proposed pier (200+/= feet) is modest when compared to similar structures in Winnetka (Tower Pier 450 feet, Lloyd Pier 350 feet, Maple Pier, 235 feet). See the table below for a depiction of the relative sizes of beachfront improvement along the North Shore.

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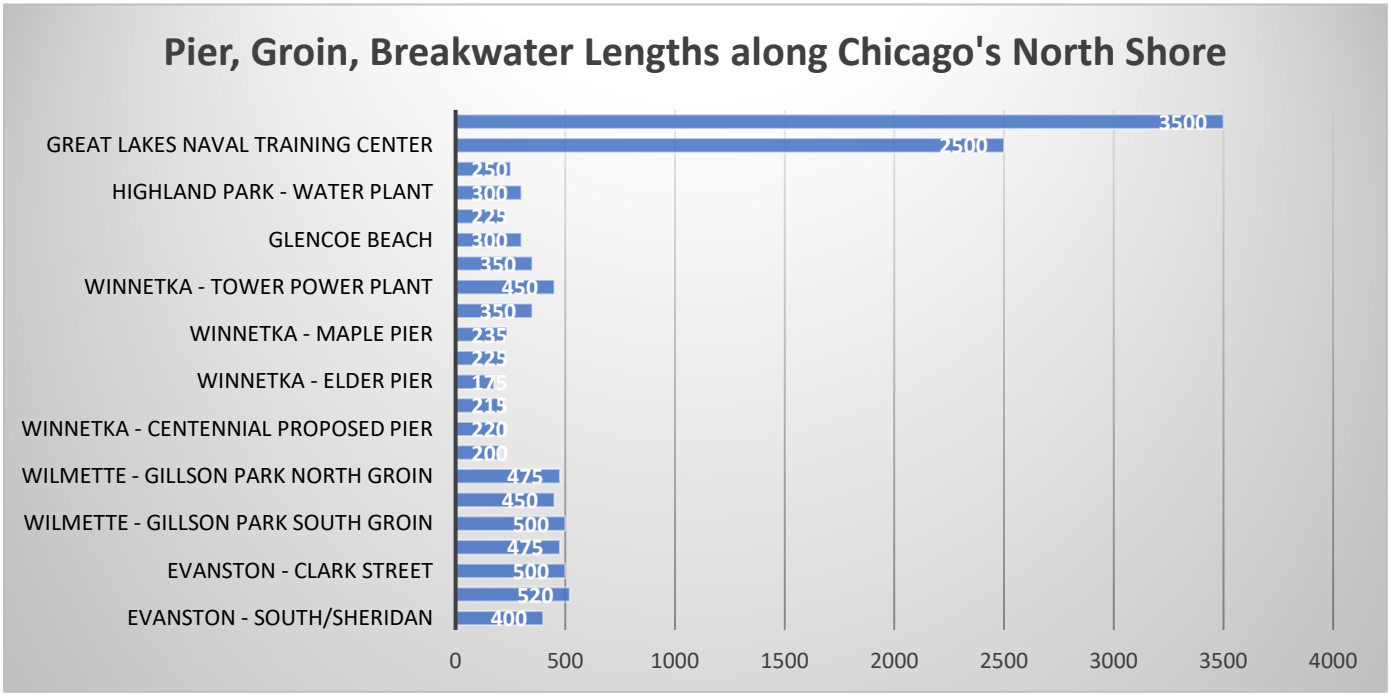

The WPD was prepared to submit both Elder and Centennial at the same time. The Village of Winnetka did not provide the necessary storm sewer information in time to keep the two permits on the same track.

5. How would the proposed plans change if the Park District was able to acquire or otherwise utilize the 261 property and thus combine Elder and Centennial?
    a. The unification plan will most likely incorporate a low-crested off-shore breakwater, see "**Exhibit 1 – Plan Evolution"**.
6. The Centennial Plan is difficult to understand and evaluate without understanding the planned uses/intentions for Elder and 261 Sheridan.
    a. Has the WPD devised any plans for these other two properties? If so, why were they not submitted with Centennial?
    b. How would WPD ownership of 261 change these plans?
    c. Is there a plan to subdivide any of the property any place within the three sections?
    Answers:

        a. Many plans have been developed for the unification of the parks: see **"Exhibit 1 – Plan Evolution"**
        b. See **"Exhibit 1 – Plan Evolution"**
        c. There are no plans to further subdivide any of the property at Elder, Centennial and 261 Sheridan.

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7. The Kimley-Horn document and comments from District representatives suggest that there will not be an increase in users of Centennial Beach as a result of the project. If that is the case, what is the need for the project, particularly its size and scale?
    a. This question presents a false premise. Kimley-Horn's testimony suggests that the parking provided at Elder and Centennial exceeds that of similar beaches along the North Shore. WPD is not proposing to increase parking at this time because the expert testimony concludes it is not necessary. Moreover, Centennial has an abundance of open space that could be used for additional parking if and when the demonstrated need arises. The WPD observed that New Trier Students park at Elder during the school year and walk to school. Similarly, the available public parking at New Trier can serve beach goers if needed during the peak summer days. The lakefront master plan includes concepts for unifying the park and revising the parking areas, however, any such changes would be required to go through a separate permitting process.

8. When did Mr. Ishbia and/or his representatives have the very first conversation with the WPD and/or their representatives about a possible donation? When did he/they make an official offer of funding to the WPD?
    a. This question is irrelevant to the scope of the Plan Commission. The neighboring property owner offered to pay for a share of the southerly breakwater from the beginning of negotiations of the Exchange Agreement. They consistently reiterated his offer to help pay for the beachfront improvements throughout the ongoing negotiations. The WPD specifically asked for a donation of $3 million in August of 2023 to help defray the cost of the proposed improvements and they agreed to make the donation. Negotiations regarding the donation agreement ensued resulting in the Donation Agreement approved by the WPD.

9. Did Mr. Ishbia or any of his representatives provide any input to the Park District with regard to any elements of the proposed Centennial Park and Beach plans?
    a. No. The property owner or representatives did not provide input on the plans submitted for Centennial Park and Beach. However all residents had the opportunity to provide input to the Park District through the public input process as previously iterated.

10. What exact steps/permissions need to be performed/acquired to open Elder Beach and Centennial Beach for the 2025 season?
    a. Centennial beach is not closed; it is restricted to on leash dogs in keeping with Village and Cook County ordinances. Elder Lane Beach is not included in this Special Use Permit application. The WPD is awaiting word from the Village on steps to remove the hazards and reopen Elder Lane to swimming as soon as possible.

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11. Please provide all technical data compiled, including hydrologic studies and modeling, specifically conducted for the WPD, to support the Centennial coastal plan.
    a. Technical data as required for the permit submittal to the U.S. Army Corps of Engineers and Illinois Department of Natural Resources is contained within the Permit Plans submitted to the Village of Winnetka. With respect to "hydrologic studies and modeling" the IDNR Permit requirements read as follows*: "The submittal should include an analysis of the proposed structure on the wave climate and impact to the movement of sand (littoral drift). The analysis should include a review of the proposed structure individually and cumulatively with adjacent structures. Professionals with experience in this area should be utilize for this work."* Charles Shabica, Shabica Associates, and Matt Wright, Red Barn Design and Engineering are recognized experts, and has provided the necessary analysis **"Exhibit 13 – Professional Qualifications".** Hydrologic studies and modeling are not justified for a project of this small scale.

12. Has the Park District conducted an analysis of the recent IL Beach State Park project spearheaded by the State of Illinois in conjunction with several major universities, the IDNR, NOAA and the ACOE to compare cost effectiveness, viability and environmental impact vs the WPD Centennial plan? If so, please provide the report.
    a. The Park District is aware of and has reviewed the scope, scale and experimental nature of the improvements recently completed at Illinois Beach State Park. The nature and extent of the Illinois Beach State Park improvements is vastly larger scale than Centennial Beach and they lie within a substantially different region of the Lake Michigan Shoreline. Notably, Illinois Beach State Park is north of Waukegan Harbor and receives far more naturally occurring littoral deposition of sand (estimated by the ACOE at 225,000 cubic yard per year), whereas the shoreline south of Waukegan Harbor and Great Lakes Training Center receives only 14,000 cubic yards of sand on an annual basis

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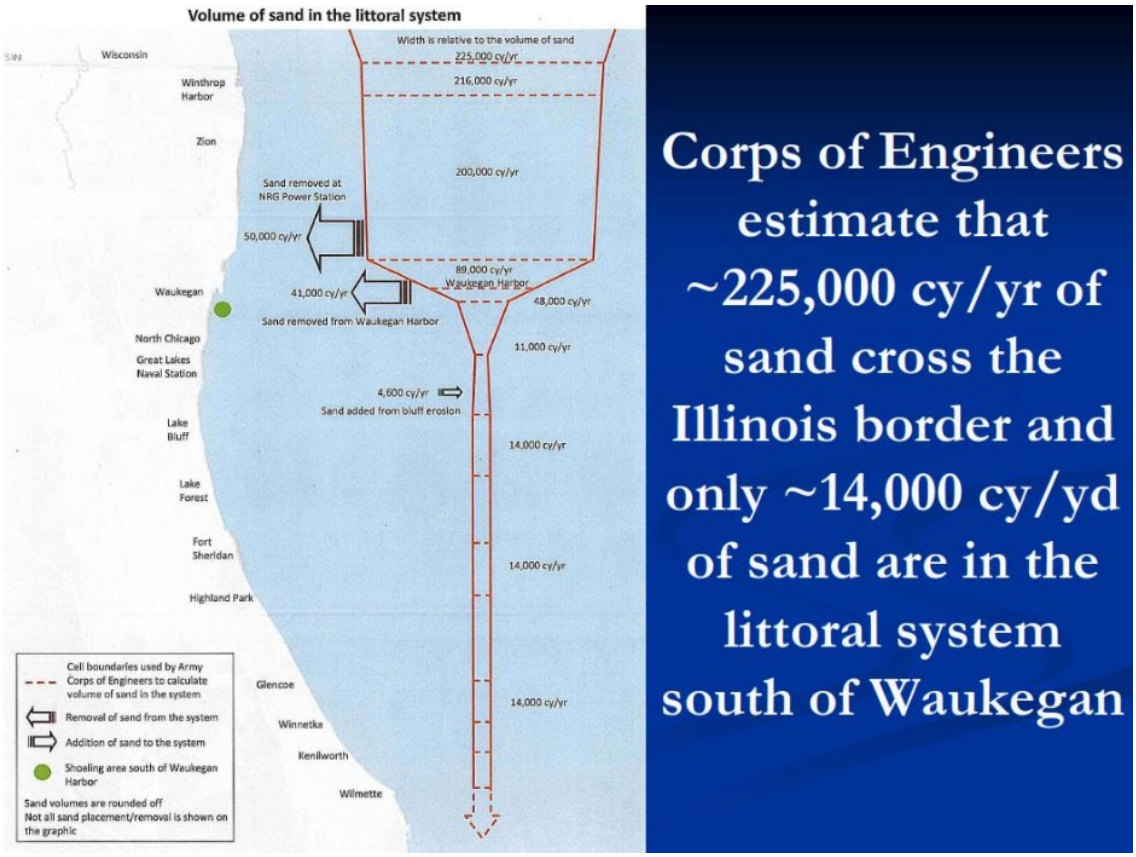

Excerpt from Shabica Presentation to Winnetka Park District – March 24, 2022

13. It appears that the 3 largest and most restrictive/potentially dangerous parts of the WPD Centennial plan, the large pier, the 10+ foot ramp and dog beach walls/fences, are also a central part of the WPD's 50-year restrictive covenant agreement with 205 Sheridan Road. If those elements are not included in the Centennial plan, will the funding go away? Will the restricted covenant be null and void if these elements are not approved?
    a. The question contains false and unsupported conclusions of fact. There are thousands of piers along the great lakes. The proposed pier at Centennial is modest in scale and employs best in class design, surrounding the pier element with stone to dissipate wave energy, arrest potential riptides and create an open and obvious prohibition of jumping or diving. With respect to the access ramp, it is only as wide as necessary to accommodate small scale maintenance vehicles (skid steer/small tractor) and the slope is consistent with ADA standards. Contrasted to the existing driveways at Tower, Lloyd, Maple and Elder, the proposed access path at Centennial is far more modest. The fences proposed at the dog beach are required by code. The retaining walls along the access path are only as necessary to transit the grade and are far more modest than the existing walls at Tower,

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Lloyd and Maple. Whether or not the funding will be withdrawn if these elements are not approved cannot be answered at this time and is not within the scope of the Plan Commissioner purview.

14. Please provide the technical data that supports the testimony of the WPD that the Centennial Plan design was created in a holistic manner directly in relation to the rest of the Winnetka shoreline.
    a. Resolution-As-Amended-May-25-2023 approved by the WPD **"Exhibit 3 – Resolution 05-25-23"** provides the most comprehensive findings of fact approved by the WPD on May 25, 2023, including comprehensive plans for Elder and Centennial Parks. The objectives of the plan were outlined as follows:
        i. Provide access control to continue fee-based use of the Centennial and Elder Lane recreational beaches and the Centennial Dog Beach;
        ii. Provide critical public safety and welfare improvements;
        iii. Eliminate numerous dangers to patrons arising from interaction with damaged or dilapidated improvements, Elder Lane Pier segments, failing gabion mattresses and baskets with exposed rusted metal in the water, corrugated metal Village-owned pipe, and deteriorating concrete, submerged dog beach fence posts, wooden pilings from a pier dating to prior owner before 1969, other pier remnants, and other detritus;
        iv. Return to public use a more appropriate allocation of beach frontage for use as an off-leash dog beach;
        v. Meet the Cook County and Village requirements associated with operation of an off-leash dog beach;
        vi. Provide long-term protection against beach loss and beach and bluff destruction and severe erosion;
        vii. Provide improved emergency and maintenance vehicle access route to the beach.
        viii. Enhance overall aesthetics of Elder Lane and Centennial Beaches;
        ix. Provide accessibility for disabled users in accordance with the Americans with Disabilities Act ("ADA"), including access to Centennial Beach boardwalk and viewing platform;
        x. Eliminate the current gated, locked access that presently precludes the general public access to Centennial Beach; and
        xi. Update, improve and relocate the Village's existing storm sewer outfall pipe and related storm sewer system improvements.

The program elements included in the Resolution approved on May 25, 2023, include:

        i. Include rubble-mound breakwaters to create additional recreation area;

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ii. Protect the shoreline and bluff from long term effects of erosion due to variable water levels while providing a foundation for future phases of upland improvements;
iii. Provide an accessible pathway conforming to ADA standards from the existing Centennial parking lot the Centennial Boardwalk and viewing platform, and provide for future ADA accessible route to the beach;
iv. Provide public access to, from and across Park District beach property allowing the public to traverse the lakefront including steps up and over any improvement perpendicular to the shoreline;
v. Relocate the existing gated and locked entrance to the existing dog beach to the new boardwalk level to allow public pedestrian access to the remainder of Centennial Beach from Centennial Park and adjacent beaches;
vi. Provide vehicular access path from Elder Lane parking lot to Elder Lane Beach for construction, maintenance and emergency purposes, and improved pedestrian access for beach patrons; and
vii. Re-locate, replace, and improve the Village's Elder Lane storm sewer discharge within the outer edge of the rubble mound breakwater at the north end of Elder Lane Beach.

Note: The plans for Centennial and Elder were subsequently revised to comply with multiple Village Ordinances passed in 2023 and 2024.

15. Please provide a copy of the bluff landscape plan/design that was mentioned in your presentation that you were putting in native species and taking out invasive plants. Where has it been implemented on other bluffs in Winnetka?
    a. Bluff landscape improvements and removal of invasive species have been completed at Tower Bluff, Lloyd Bluff and Maple Bluff. This was included in the original plan submittal Plan Documents.

16. While the landscape sectional views were appealing, a review of the civil drawings suggest a significant exposure of sheet piling and 2ft deep concrete downturn edge beams? What are the mitigation measures in mind to escape the brutal aesthetic of this?
    a. This is a subjective determination that falls within the scope of the Design & Review Board and is more appropriately addressed in that forum.

17. How will Winnetka residents and park visitors be able to fully utilize the intention of the Public Trust Doctrine? Will they have to go through the dog park and then walk along a genuinely risky water's edge to be able to truly cross 205 Sheridan in the NS direction? Based on the plan sketch

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shown this would be almost impossible. Further with wave action and sand movement along that edge, no one would venture to go out. Would this assumption be erroneous? Can actual transverse sections be provided by the engineers?

a. This question appears to misinterpret the Public Trust Doctrine and pertains more accurately to riparian rights in Illinois. The definitive memorandum (for Winnetka) was prepared by Village Counsel, Peter Friedman, a copy of which is attached as "**Exhibit 6 – Friedman Legal Opinion"**. Per the question, beach goers will be able to traverse Winnetka Park District Property in a manner that is inline with the riparian rights in Illinois. We can only manage this on our property. Property south of our beach is managed by that home owner. The permits that have been issued and the improvements that have been built are inline with the permitting requirements for local, state and federal governing bodies. Our sketch shows an access path for beach walkers through the entire Centennial Beach site, with safe passage both north and south of our property lines. As a result, people who wish to traverse north to south along the lake have a safe path along the boardwalk and around the dog beach to continue their journey to the south. This satisfies the public's right under the Public Trust Doctrine.

<u>Dog Beach</u>

1. The 2030 master plan provides "there is no clear consensus on whether or not Centennial should be converted from a dog beach to a swimming beach at this time, but there is general support for monitoring community needs and considering a change of use at beaches based on the changing needs to the community." How did the Park District determine that Centennial was the best beach to use as the dog beach instead of any of the other beaches in the Village?
    a. The only other viable dog beach location considered by the WPD was the south end of Tower Road Beach. The usable public beach frontage at Tower Road is approximately 520 feet, of which the southernmost 320 feet is owned by the Village of Winnetka. The Village of Winnetka previously offered to relocate the dog beach to Tower Road. The WPD decided to keep the dog beach at the south end of Centennial beach on October 27, 2022. The primary reasons cited for keeping the dog beach at Centennial are as follows:
        i. Due to the exposure to the northeast wind and waves, a robust separation between the swimming beach and dog beach such as a steel jetty, stone breakwater or pier would be necessary to separate the two uses.
        ii. The riptides at the south end of Tower against the existing pier present a hazard to people and dogs.
        iii. Tower Road Beach is comprised of Village owned shoreline (320 feet) and Park District owned shoreline (200 feet). Allocating more than 220 feet of beach

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to a dog beach would result in less than 300 feet of useable shoreline for swimmers.

2. Please provide any reports, surveys, plans, cost estimates or other related information that was conducted by the Park District in the evaluation ending in the determination that Centennial Beach was the only location for a dog beach.
    a. See "**Exhibit 2 - Dog Beach History**"
3. How was the size of the proposed dog beach decided?
    a. Based on an equitable allocation of shoreline for this specific user group and after comparing to similarly situated dog beaches (i.e. Wilmette Dog Beach, 225 feet). The WPD decided to keep the dog beach at the south end of Centennial beach on October 27, 2022.
4. Did Mr. Ishbia or any of his representatives ever request or discuss the location of the dog beach with the Park District or its representatives?
    a. The neighboring property owner and representatives have remained neutral with respect to the dog beach. The only request has been to ensure that off-leash dogs cannot stray onto his property.
5. According to the presentation presented on January 22, 2025, the Park District amended the plan to include a dog beach on October 19, 2023. When was it decided the dog beach should be at Centennial?
    a. The dog beach was established at Centennial Park in 1995. The Lakefront Master Plan, approved in 2016, envisioned unification of Elder and Centennial and relocation or removal of the dog beach from Centennial. The plans for the unified parks and beach were withdrawn by a vote of 3-2 on June 9, 2022. The Park District unanimously approved a motion on October 27, 2022, to maintain a dog beach at the south end of Centennial Park (its current location) of not more than 170 feet and not less than 270 feet.

6. I understand that there may be multiple reasons the Park District is choosing to place the dog beach where it is proposed. But are any of those reasons related at all to Mr. Ishbia, his property, or the proposed land swap or donation agreement?
    a. No.
7. Is it physically possible to locate the dog beach at any other Park District beach in the Village?
    a. The only other suitable location that was considered was the south end of Tower Road Beach. The Park District determined for several reasons outlined in **"Exhibit 2 – Dog Beach History"** that Tower Beach was not the optimal location. This was completed as part of a dog beach committee that was formed with the purpose of investigating the possibilities for other dog beach locations.

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8. If the Park District located the dog beach at another beach in the Village, how would the proposed plans for Centennial change?
    a. See original plans submitted for permit in April, 2022.
9. Has the District conducted an analysis of placing the dog beach at Elder Beach, any other beach, or at another location within Centennial Park? If so, has the Park District shared that analysis with the Village?
    a. Yes. The WPD concluded the most appropriate location for the dog beach is its current location at Centennial Park. See **"Exhibit 2 – Dog Beach History"**
10. How was the location of the fence around the dog beach determined?
    a. To comply with IDNR guidelines, which read as follows: "Where possible, notably in areas where existing access along the lakeshore is available, the project should provide some type of reasonable access over or around it on the landward side." The proposed plan allows beachgoers to by-pass the dog beach along the landward side.
    b. And to comply with Cook County Guidelines for off leash dog parks which require fenced enclosures.
11. Do you have to traverse over private property to get to the dog beach?
    a. No.
12. Is it possible to create a separate pathway or entrance to the dog beach?
    a. Yes, however, it would result in additional expense and further impact on the bluff that has been adamantly advocated against.
13. Please provide the opinion from Cook County that says the Park District must fence in the dog beach and evidence that a dog beach fence would be allowed by the IDNR and ACOE if it were approved by the Village.
    a. See "**Exhibit 7 - Cook County Animal Control Ordinance"**, which reads in part, "No person including a municipal corporation, forest preserve district or park district shall designate within the County an outdoor area, even if fenced, as an area where dogs may run off leash unless such person, municipal corporation, forest preserve district or park district complies with such regulation as may be issued by the Administrator for the operation of outdoor off leash areas. (Ord. No. 04-O-44 par. 6, 11-3-2004.)
    b. Fences exist up and down the beaches of the North Shore. See **"Exhibit 8 - *Elder and Centennial Park and Beach*"**, which includes images of many fences on beaches up and down the North Shore, including nearby Glencoe, Kenilworth and Wilmette beaches.

<u>Pier</u>

1. You mention in your narrative for your application, on pg 56 of 1151, that the main purpose of the pier is to "substantially delineate the two distinctive swimming beach and dog beach uses." Beyond that, you mention that it will also provide some additional shore protection (diffusing

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wave energy and holding sand). If you moved the dog beach from Centennial, would you still need some sort of structure in this location for shore protection?

a. Without a headland beach system, breakwater, jetty or pier, there will be little if any usable beach at Centennial. See "**Exhibit 9 - Lake Michigan Shoreline – Kenilworth Beach to Centennial Beach 2002-2024".** The pier and/or breakwater perpendicular to the shore will provide a modicum of "shore protection" but it will hold sand in most conditions. See **"Exhibit 4 – Definition of Terms"** - Definitions, for further explanation and differentiation between beach preservation and bluff protection.

2. Can the park district further address the questions of safety for the swimming area and the close rock pier- it seems like a danger to the public (swimmers) and the lifeguards who are to protect them?
    a. No beach is perfectly safe, all beaches involve certain risks. The pier with rip-rap (armor stone, rock) is best practice to dissipate wave energy, reduce the likelihood of rip-tide and create an open and obvious prohibition of jumping or diving from the pier. Piers with vertical edges result in wave reflection and overtopping. Waves that overtop piers have the potential to wash unsecured people or objects off of the structure. Piers without rip-rap or armor stone are subject to additional damage due to wave and ice impact (i.e. Elder Lane Pier, Tower Road Pier)
    b. As mentioned in presentation, there are many things that WPD does to mitigate risk as best as possible. This includes public education of water safety, and highly trained and qualified lifeguards.

3. Does the pier provide enough of an environmental impact to justify its existence if the dog beach isn't there?
    a. The proposed pier is an amenity for public use and enjoyment of the lakefront. The existence of the pier will result in a larger useable beach area than what would result without a pier. Refer to "**Exhibit 10 -North Shore Beaches"**, compare and contrast the useable beaches at Kenilworth and Glencoe. The Kenilworth steel jetty is 200 feet while the Glencoe Pier is 300 feet in overall length.

4. How was the size of the pier decided beyond what's mentioned in the Red Barn statement of Dec 6th that it provides some kind of "consistency" with other area shoreline improvements? Have you done any engineering modeling around the environmental impacts?

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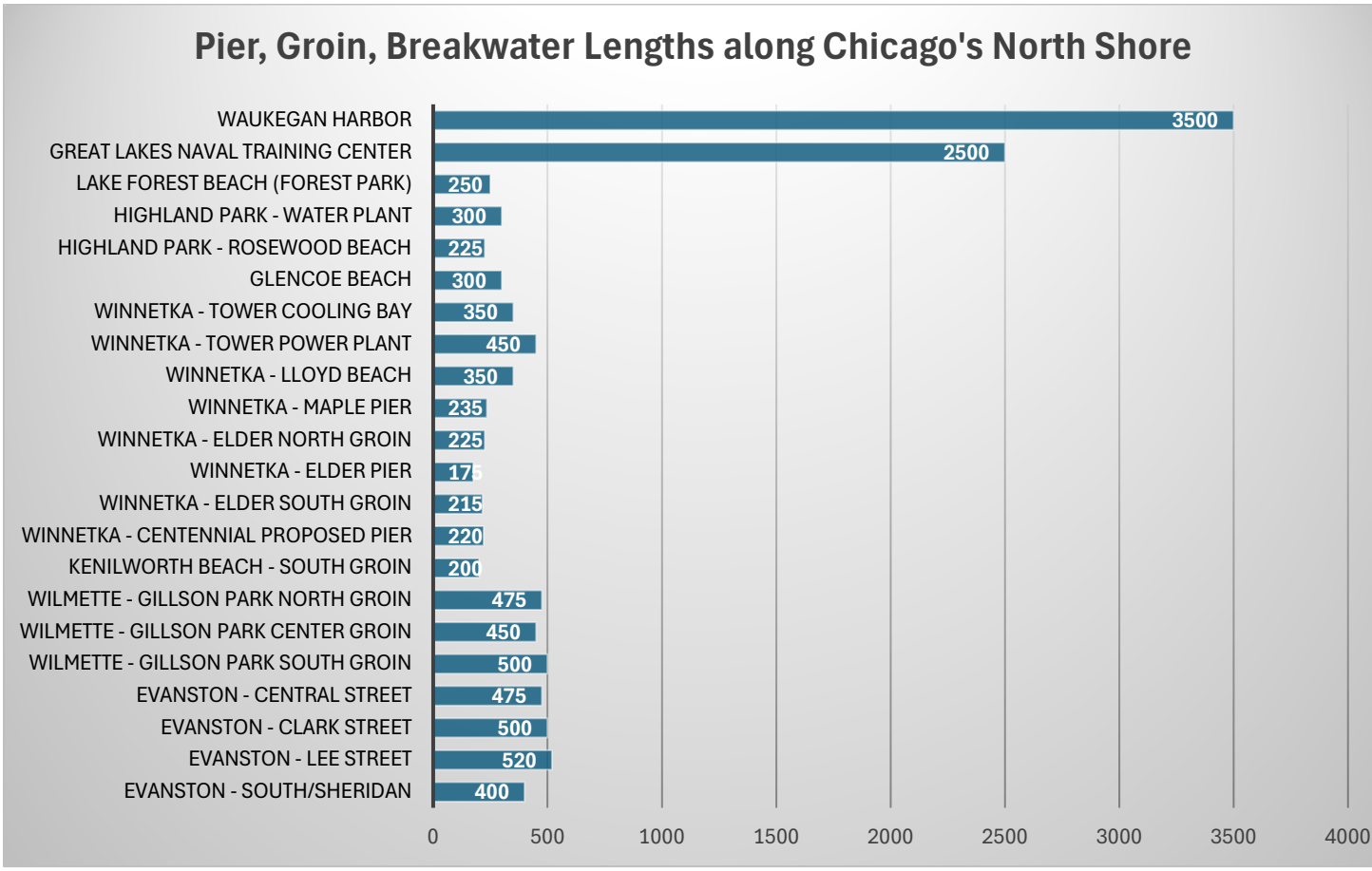
a. The length of the pier is no further than the existing steel jetties at Elder and is modest by comparison to similarly situated improvements. See table below. With respect to modeling, the small scale of the pier does not justify hydrodynamic modeling.



5. Is it physically possible for the pier to be smaller? If so, what would the impact be if the pier was five percent smaller? How about 10 percent?
   a. Yes, it is possible; the result will be less usable beach.

6. Other than to separate the dog beach from the swimming beach, what are the reasons, if any, for the location of the pier?
   a. Separation of uses, delineating size of the separate uses, beach preservation, amenity to enjoy panoramic views of the lake.

7. What is the reason for the height of the pier? Is there any reason why the pier cannot be shorter (improve sightlines)?

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   a. At elevation 585 MSL at the end, the pier height is approximately the same height as the existing Elder pier. By contrast, Lloyd is lower and Tower is higher. Lloyd pier is frequently overtopped by waves during high wind and water conditions. See "**Exhibit 11 - Winnetka Beach Videos"**

8. You've indicated the pier is necessary for erosion control. If the pier was slightly smaller, what would the impact on erosion be?
   a. One of the purposes of the pier is to retain a useable beach. If the pier were smaller, the amount of useable beach would be commensurately smaller.
9. You have also indicated that under and around the pier will be armor stone to prevent erosion. Could you have a smaller pier structure above the water, but have the larger armor rock below the water?
   a. The slope of the armor stone (1.5:1) is best practice to ensure armor stone is not dislodged by wave action. Lake Michigan water levels vary by more than 6 feet, thus the exposure of the stone will depend upon the water level. While it is possible to reduce the height of the armor stone adjacent to the pier, the wave dissipation and protection will be reduced.

10. Is there a standard size for improvements used by IDNR or Army Corps, and other regulatory agencies related to bluff erosion and shoreline protection similar to the pier?
    a. Armor stone size is predicated on maximum wave height. The mass of the armor stone must be sufficient to prevent it from being dislodged by waves or ice. The height of protection against severe wind and wave conditions is generally recognized at 592 MSL (IGLD85) along Lake Michigan. Elevation 592 is seven feet *above* the proposed height of the Centennial Pier. IDNR and Army Corps are also regulatory agencies in project construction. WPD would not be able to construct anything without their approval and would be subject to their comments and required adjustments..

11. Are there other alternative improvements or infrastructure that could be used for bluff erosion other than the pier?
    a. Bluff protection from erosion is not the primary purpose of pier. Bluff preservation is provided by the steel sheet pile bulkhead at the base of the bluff. The pier provides f beach preservation and some additional bluff protection near the base of the pier.

12. Will the location of the pier have any impact on potential accretion? Has the Park District's engineers and consultants studied this issue? If so, have you provided the Village any reports or analysis from your consultants?
    a. The proposed pier will provide for accretion of sand, especially along the north side of the pier, creating usable beach. The permit drawings include an accredited professional opinion of the anticipated beach conditions after construction. IDNR permit guidelines

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require “pre-filling” the beach with 120% of the anticipated sand. The excess sand during the initial construction is expected to be washed away due to littoral drift, thereby mitigating any impact on down drift neighboring properties.

13. Is it possible that neighbors along the lake would lose beachfront property due to the project’s design and improvements impacted by the littoral sand being captured? Would this change if the pier did not include rocks? What if the size of the pier decreased?
    a. It is possible that downstream neighbors would be impacted, however as noted above, the IDNR permit guidelines require pre-filling the beach with 120% of the anticipated final beach elevation and long-term monitoring with additional filling as needed to ensure no negative impacts to downstream neighbors.

14. Why was there such a significant design migration/digression from the original breakwaters’ visuals to the 3-revetment approach? Each iteration seems to have gotten larger and more pronounced?
    a. The Plans as approved on May 25, 2023, included a headland beach system, this was the WPD’s preferred approach as established in the Lakefront Master Plan and Resolution 23-5-25. The WPD was compelled to modify the proposed plans by the recently enacted Village ordinances that prioritize views over beach preservation. As noted earlier, bluff protection is accomplished by virtue of the existing steel sheet pile bulkhead, thus the headland beach system is not technically necessary to afford bluff protection. Beach preservation can be accomplished by both a headland beach system and (less effectively) by the proposed pier. Village Ordinance MC-05-2023, Section 15.78.080 G. reads as follows: *Existing Sight Lines: The Covered Construction and any related structures will alter existing sight line along the Lake Michigan shoreline no more than is minimally necessary to achieve the intended and proper purpose of the project and to be consistent with the purposes set for in Section 15.78.010 of this Chapter.*
15. In the drawings presented, why was the middle revetment almost appearing half round/half complete? It almost preempts a form completion once the property in the middle is amalgamated? Is that WPD's intention?
    a. This structure is not related to the current application for Centennial Park & Beach. However, it was designed as an interim measure to avoid encroaching into the riparian zone of 261 Sheridan while providing additional beach preservation and protection against rip-tides. The armor stone place along the north side of the existing steel jetty can be repurposed in a low-crested off-shore breakwater if and when the beaches at Elder Lane and Centennial are combined.

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16. There was one slide of Lloyd beach showing the before image? When was that image taken? It almost seemed from a different era given the color format of the photo? Similarly, for the slide of Kenilworth- the timeline shown, did it not match the ebb and flow of the Lake Michigan HWM graph provided?
    a. The images were taken from Google Earth and the times noted are based on the image date as identified on Google Earth; they are as accurate as the dates on the Google Earth imagery.

17. How does the WPD respond to the notion that the pier would truly block visual vistas to the south side and truly divide the beach unless one was up on the NS boardwalk?
    a. The pier will have a visual impact similar to the existing pier at Elder Lane Beach.

"ADA" Ramp

1. You've indicated one stated objective for the project is ADA accessibility. Can you explain the other ADA accessibility options you considered and why they were not chosen?
    a. See **"Exhibit 12 – ADA Access"**; the WPD embraces the principle of Universal design, constructing improvements that serve as many people as possible without differentiation.
2. Specifically, did the Park District consider other alternatives that would not require such a significant impervious surface walkway along the table land?
    a. The path as proposed embraces the principle of universal access and serves three purposes: Maintenance, Emergency and accessibility.
3. Is the primary justification for the width and location of the walkway the desire for access for heavy equipment?
    a. The question as phrased is misleading. The path as proposed does not accommodate heavy equipment; it accommodates a lighter weight skid steer and/or small tractor. The Tower, Lloyd, Maple and Elder all have roadways providing vehicular access to the beach. However, the justifications for the width and location are accessibility, traffic flow, emergency access, and maintenance.
4. Does the ADA require the proposed 10-foot width?
    a. No. Maintenance, emergency services, and traffic flow led to the 10-foot width.
5. What were the reasons for not including ADA restrooms?
    a. Both the Village and WPD long range plans anticipate unifying Elder and Centennial. The WPD plans include a boardwalk linking Elder and Centennial, providing accessibility to the existing bathroom at the Elder Beach house which already includes accessible restroom facilities. Interim temporary facilities have been proposed for Centennial.
6. Does the project provide ADA access to water level?
    a. Yes, a beach mat similar to what exists at current WPD beaches would be deployed from the end of the concrete ramp towards the water.

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7. Please explain in detail how the slope of the proposed accessible pathway complies with accessibility requirements (e.g., slope, length, etc.)? My understanding is the maximum slope for an accessible pathway cannot be greater than 5%.
    a. ADA guidelines specify a maximum continuous slope not greater than 5%, with a maximum allowable slope of 8.33%, provided that rest areas are provided at least every 50 feet. **See "Exhibit 12 – ADA Access"**
8. Would a lift be ADA compliant?
   While compliant to ADA law, a wheelchair lift is not fully accessible. A wheelchair lift is a less effective option for beach access compared to an accessible pathway due to its limitations in capacity, reliability, and overall user experience. Lifts require ongoing maintenance, are prone to mechanical failures, and can be rendered inoperable by sand, weather conditions, or vandalism. They also accommodate only one user at a time, creating potential delays and restricting access for families, caregivers, or groups. In contrast, an accessible pathway provides a smooth, continuous route that allows multiple users to travel safely and comfortably, including those using wheelchairs, strollers, or mobility aids. It promotes independence, ease of use, and a more inclusive experience while minimizing the need for ongoing technical maintenance.
9. What provision in the ADA, its regulations, or the Illinois Accessibility Code provide that ramps like the proposed one be 10 feet in width? What provisions in those laws discuss the size, length, and width of ramps?
    a. The WPD has never claimed "the ADA, its regulations, or the Illinois Accessibility Code provide that ramps like the proposed one be 10 feet in width".
10. The Park District has indicated the ramp needs to be 10 feet in width due to the volume of people using the Park, and the ability for those with disabilities, those who are able bodied, and first responders all able to easily get to the beach. Isn't it possible for that also to occur if the Park District made the ramp smaller, but added stairs to allow some of the able bodied to also use them?
    a. The question as posed presents a false narrative. The width of the path is designed is for multiple purposes including maintenance access. The plan already has a set of stairs for those who prefer to use stairs. A pathway of a smaller width would not allow for maintenance access and could cause for congestion in emergency situations causing for delayed response times.
11. Has the WPD received an ADA review/report from a professional organization specializing in ADA to substantiate elements in the plan labeled/associated with ADA access or compliance?
    a. The WPD has worked with an accessibility consultant, the Northern Suburban Special Recreation Association and professional engineers to ensure the improvements as designed comply with the ADA and further address accessibility needs for all users.
12. What is the Park District's estimate of how many people with disabilities will utilize Centennial and the 10-foot walkway? Does the Park District have any historical data on this?

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a. The question implies the 10 foot width is for ADA compliance; that is an incorrect assumption. As for the number of persons with disabilities that will utilize the walkway, that number is impossible to predict. As a reminder, Centennial Park Beach has been exclusively used as a dog beach for the past 30 years. The average number of resident dog beach passes issued over a ten year period was 305, with an additional 75 non-resident pass holders. The Park District would also argue that the number of individuals with a disability served by the Park District is irrelevant to whether or not structures should be built to be accessible or not.

Parking and Traffic

1. How long has the Park District been considering and formulating the proposed plan?
    a. The Lakefront Master Planning Committee first convened in the Fall of 2014, more than 10 years ago.
2. We saw the parking study in the packet, but the Village Engineer said that the study is incomplete and he's unable to make a determination about the impact on parking and traffic flow. Why didn't the Park District have the study done in the summer? Why not in the spring or fall?
    a. WPD has not received any official report from the Village Engineer on this topic. The only comments were made live at the January 22, 2025 Plan Commission meeting. The Village Engineer's statement seems based on the false premise that traffic counts on the existing conditions would provide actionable information. As frequently noted, Centennial Beach has been fenced, gated and locked, for the exclusive use of dog beach pass holders, thus conducting traffic counts at Centennial will not produce relevant information based on the existing versus proposed uses. The traffic engineer explained that he would typically refer to the manual that includes approved trip generation estimates for various uses. Lacking that type of data for a swimming beach, the expert testimony provided parking availability at various north shore beaches, concluding that Elder and Centennial has sufficient parking. Moreover, Elder and Centennial parking lots have more total parking spaces than Tower and Maple combined. Tower and Maple are the two primary swimming beaches in Winnetka and there's no evidence to suggest a parking deficiency.

    Plan was developed in a way that maintained the current parking lots, but acknowledged that additional parking could be constructed if needed. However, additional parking would displace current park space and result in the loss of some trees.

    Parking and access concerns were first raised in November 2024. In response to the concerns raised at that time, the Park District retained Kimley-Horn. However, collecting traffic and parking counts at the Village's lakefront parks and swimming beaches in November would not be relevant. The traffic and parking evaluation does review the plan

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from an access and parking perspective, looks at beach pass data from the past 3 years, and looks at provisions for other similar beaches along the coast. The review indicates that traffic and parking data could be collected in Summer 2025 to validate conclusions based on beach use and related access and parking characteristics at the existing beaches during the busy season.

3. To obtain a steep slope exception under our Code, congestion on public streets should not increase. How do we know that traffic will not increase as a result? Did the Park District ever conduct a traffic study?
    a. While park and beach improvements are expected to draw visitors, they are not expected to draw more than what is experienced at Tower or Maple Street, the Park District's two existing swimming beaches. Those parks and beaches have not exhibited congestion in the area. Tower and Maple Street Parks have generally not been parking constrained and the plan for Centennial and Elder Parks includes more parking spaces than what is collectively provided at Tower and Maple Street Parks. If Centennial/Elder generate similar levels of additive traffic as Tower and Maple Street Parks, it is reasonable to expect that congestion will not become an issue at Centennial and Elder Lane Parks.
    b. Elder Lane Park has uses a traffic signal at Sheridan Road and access has not historically been an issue. Similarly, access to/from Centennial Park and its 11 parking spaces has not experienced congestion issues.
    c. Traffic volumes along Sheridan Road are 6,800 per day and the lane configurations along Sheridan Road and at the traffic signal with Elder Lane are more than adequate to accommodate this level of traffic. Use of two parking lots at Centennial and Elder Lane Parks, with a collective 78 spaces, would not be problematic from a traffic congestion perspective.
    d. Further, Centennial and Elder Lane Parks are community-oriented and accessible to residents, particularly those in nearby neighborhoods who can easily also walk or bike to the lakefront. The traffic signal at Sheridan/Elder provides a controlled crossing location for pedestrians and cyclists. And from an operational standpoint, consistent with current conditions at the Village's other swimming beaches, parking access on weekends is limited to season pass holders. This policy limits attendance on the busiest days and has avoided congestion issues while generally keeping associated parking lots from experiencing overflow.

    e. The WPD prepared and presented expert testimony and a report prepared by Kimley-Horn to address traffic and parking; the conclusion of the expert is that the existing conditions do not warrant additional parking at this time. The signalized intersection at Elder Lane and Sheridan Road provides safe ingress and egress and the combined total parking between Elder and Centennial is sufficient. This question as phrased suggests that the

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Steep Slope Ordinance (specifically prepared for R-2 residential zoning) should be applied to public property. The WPD maintains that the Steep Slope Ordinance is inappropriate for publicly owned property. The fact that the Village of Winnetka recently enacted a special overlay district (7-6-23), differentiating publicly owned versus privately owned lakefront property without exempting the publicly owned property from the steep slope ordinance is further evidence of a process difficult for the different Boards and Committees to adequately assess. Tower, Lloyd, Maple and Elder beaches along with the Village power plant and water treatment facility all have vehicular access paths and structures that are far outside of compliance with the steep slope ordinance.

4. Independent of this proposal, has the Park District ever conducted a parking study in the summer for Centennial Park and beach?
    a. As previously noted, a parking study conducted with the existing conditions would not produce relevant information as the existing and proposed conditions differ.

5. NT East is mentioned as a possible alternative parking location for beach goers. Given that NT runs a variety of summer programs (summer school, community swimming classes, various arts and sports camps) has there been any discussion directly with them that indicates they have open parking available in the summer? What are the dates that NT makes parking available to their students in the Elder parking lot?
    a. Until such time as the existing parking at Elder and Centennial (70+ spaces) is deemed insufficient the further discussion not warranted. Parking at Elder is available to pass holders during the school year.
    b. New Trier High School provides more than 280 off-street parking spaces. In general, summer school and other programs at New Trier occur on weekdays and not on weekends and holidays, when beach attendance is highest. If overflow parking would ever be needed, the demand for additional spaces would be minimal based on the level of parking experienced at the Village's other beaches, and there is more than enough capacity at New Trier to accommodate such demand, if it materializes at all.
    c. Within the Elder Lane Park parking lot, 61 spaces are available for New Trier permit parking (seniors) on weekdays from 7 AM to 4 PM during the school year.

6. Does the District believe that there is a sufficient number of accessible parking spaces? Are there any studies or data that would support this based on the peak demand in the summer and the specific type of features the Park District plans to add to the Park?
    a. The WPD has already produced a plan that depicts additional potential parking spaces on the south side of the existing parking lot. The WPD can designate additional accessible spaces or construct additional parking if and when actual conditions warrant.

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b. Yes. Centennial Park provides one accessible space and Elder Lane Park provides three accessible spaces (one additional accessible space is available at the beach house when it is open). The number of accessible parking spaces adheres to ADA requirements and their adequacy is consistent with the Park District's experience at Tower and Maple Street Parks.

7. Please explain why the traffic circle drop-off is so constricted? It looks like it could become a big bottle neck.
    a. The turnaround (66-foot diameter with 15-foot travel lane) at the east end of the Centennial Park parking lot provide ample room for a vehicle to maneuver around the central island and proceed west to Sheridan Road. As a comparison, this turnaround is larger than a similar turnaround at Maple Street Park (58-foot diameter and 12-14-foot travel lane), which has not experienced constriction issues. As such, the Centennial Park turnaround is expected to function well.

<u>Restroom Facilities</u>

1. You've indicated that you anticipate that the restroom facilities at Elder Beach will be sufficient to accommodate Centennial Beach goers, but we don't have a proposal for Elder in front of us. Where is the nearest restroom? How many feet?
    a. The Elder bathroom facility is within the existing Elder Beach House. The Plans for Elder were submitted to the Village in September of 2024. The distance between the bottom of the existing stairs at Centennial and the Elder Beach house is 425 feet.
2. What is the terrain that must be traversed to get to those restrooms?
    a. Under the existing conditions, traversing the beach from Centennial is the shortest route. As envisioned in the future, a beach patron would be able walk along the boardwalk to the beach house.
3. Where is the nearest accessible restroom? Has the Park District conducted any ADA analysis of the accessibility of restrooms for those who use Centennial Beach?
    a. The nearest accessible bathroom is within the Elder Beach house. There are no bathrooms at Centennial. The underground improvements are in place for bathroom adjacent to the circular drive at Centennial, and in fact a bathroom facility was planned and ready for construction back in the early 2000's. However, when the neighborhood opposed the plans for the bathroom, the WPD Board at the time to reversed course and cancelled the plans for the bathroom. Until such time as the unification plans are finally determined, the WPD Board suggested that a temporary restroom be utilized to meet the seasonal demand.
4. Is it possible for the Park District to place a restroom facility at the beach, other than a porta potty?
    a. The Park District has a bathroom facility within the Elder Beach house, it is within walking distance of Centennial. The temporary issue is an ADA accessible bathroom facility. The

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fact remains that Centennial has been without a bathroom facility since its inception in 1969. The WPD suggested use of a temporary accessible restroom until such time as the unification plans are determined.

5. With the addition of the ADA ramp, dog beach, and other proposed improvements to Centennial Beach, isn't it possible that Centennial may attract far more people who may be differently abled? Why wouldn't the Park District provide bathroom facilities for them at Centennial Park?
    a. The WPD suggests resolving the unification plans before committing to a permanent structure at Centennial. A boardwalk connection between Elder and Centennial provides bathroom access to all.

Exceptions

1. We understand that the residential zoning of the area can make it more challenging to design something like this without exceptions, and that's why we have this process. But by the nature of the process, the proposed design is dependent on the Village granting the Park District exceptions. Isn't it possible to create a design that does not require exceptions or small exceptions?
    a. No. The application of residential design standards to public property is incompatible. Publicly accessible property are also subject to commercial building codes and laws that are not necessarily required by residential structures and property.
2. Why are the stone steps larger than 5ft?
    a. This is public property, not residential, and the design standards for a public park differ from that of a single-family home.

List of Exhibits

1. Plan Evolution
2. Dog Beach History
3. Resolution 05-25-23
4. Definition of Terms
5. Illinois Beach State Park
6. Friedman Legal Opinion
7. Cook County Animal Control Ordinance
8. WPD – Elder and Centennial Park and Beach
9. Lake Michigan Shoreline
10. North Shore Beaches 2013-2023
11. Collection of Videos of Winnetka Beaches
12. Centennial Beach – ADA Access
13. Professional Qualifications
14. Shabica Presentation to WPD – March 24, 2022

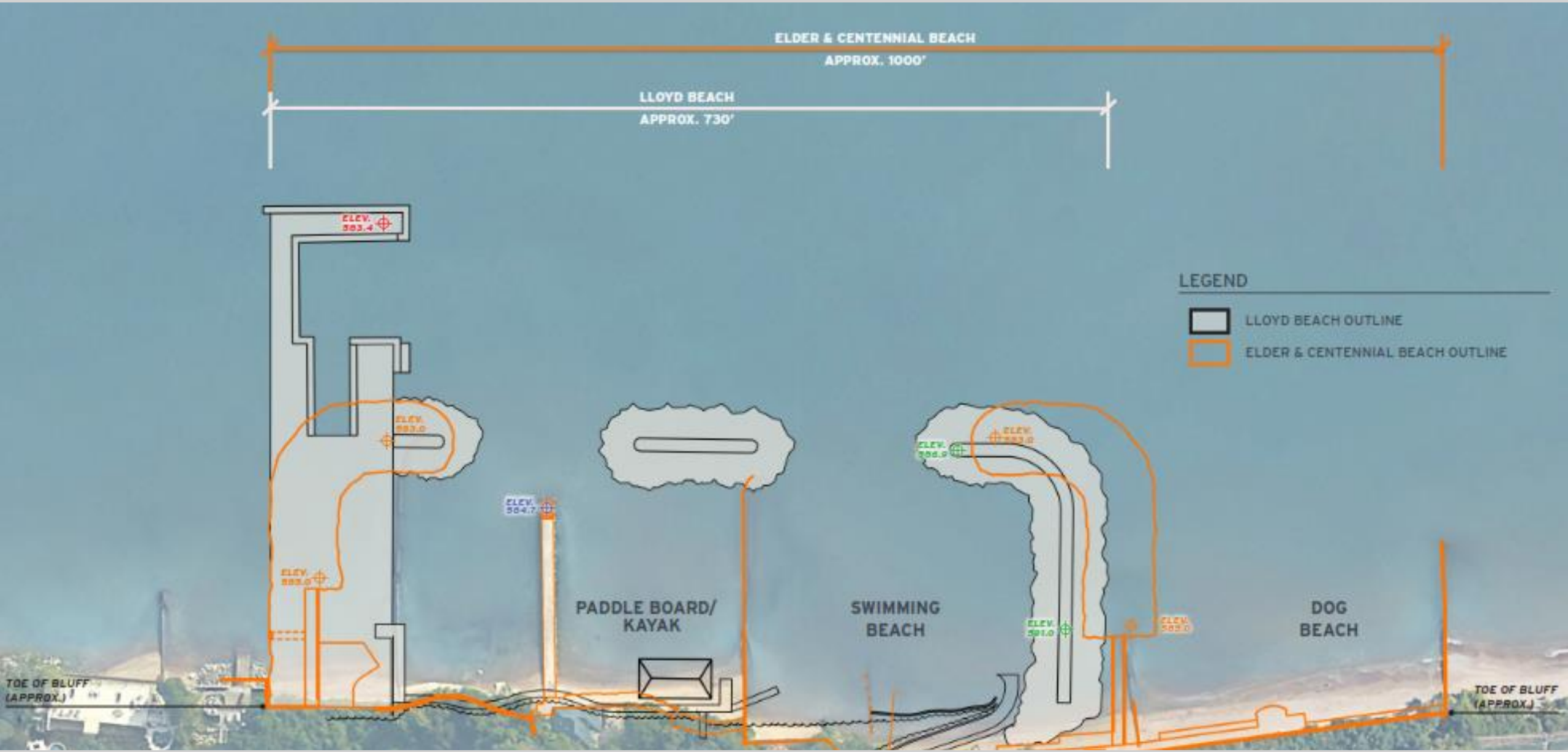
Exhibit 1

ELDER AND CENTENNIAL PARKS AND BEACHES PLAN EVOLUTION - JANUARY 2023 to JANUARY 2025

An aerial picture of Lloyd Beach is superimposed on the Elder/Centennial Lakefront to illustrate the scale of Elder/Centennial at 1000 feet versus Lloyd at 730 feet.

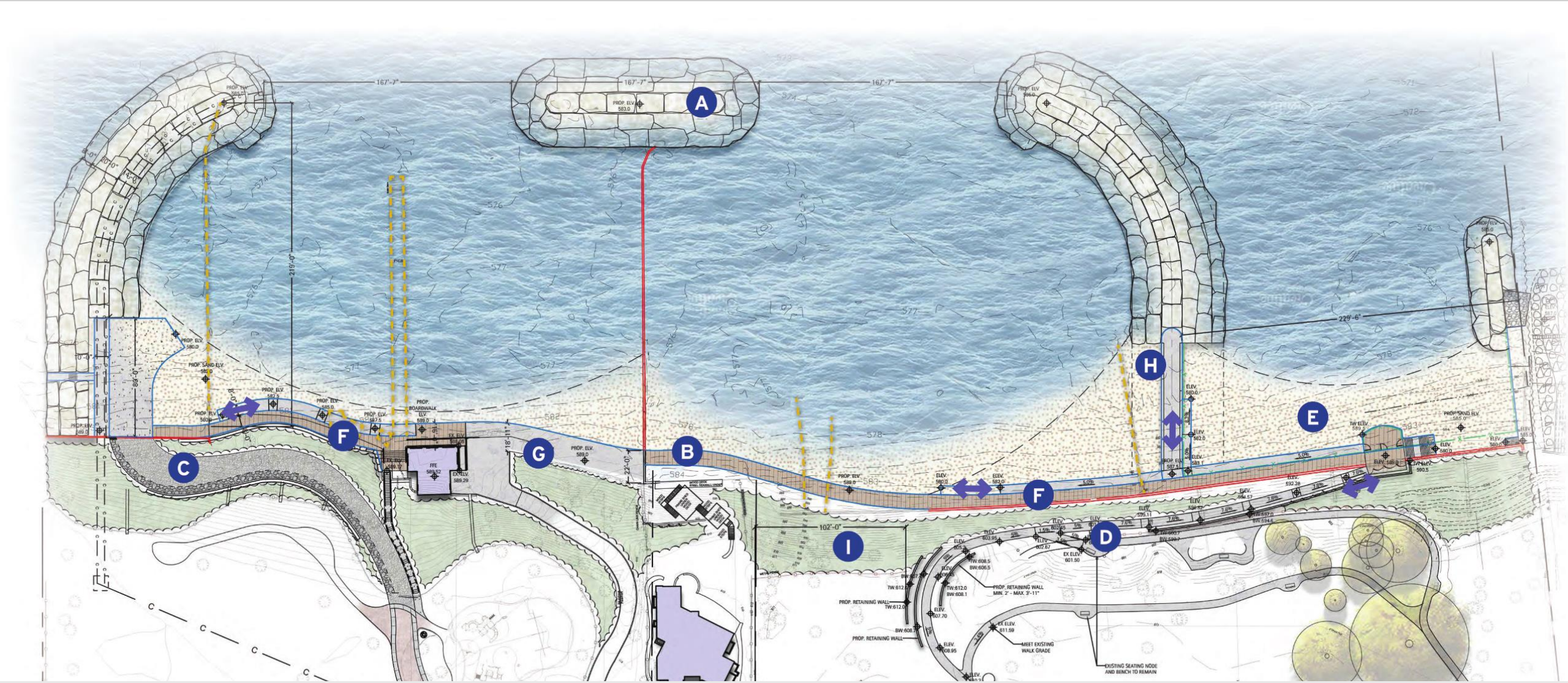
This image was prepared for the January 2023 open house to demonstrate the ability to incorporate a headland beach system with more shoreline that Lloyd with room at the south end for the dog beach.

Plan View of Elder – Centennial overlayed Lloyd Beach as completed



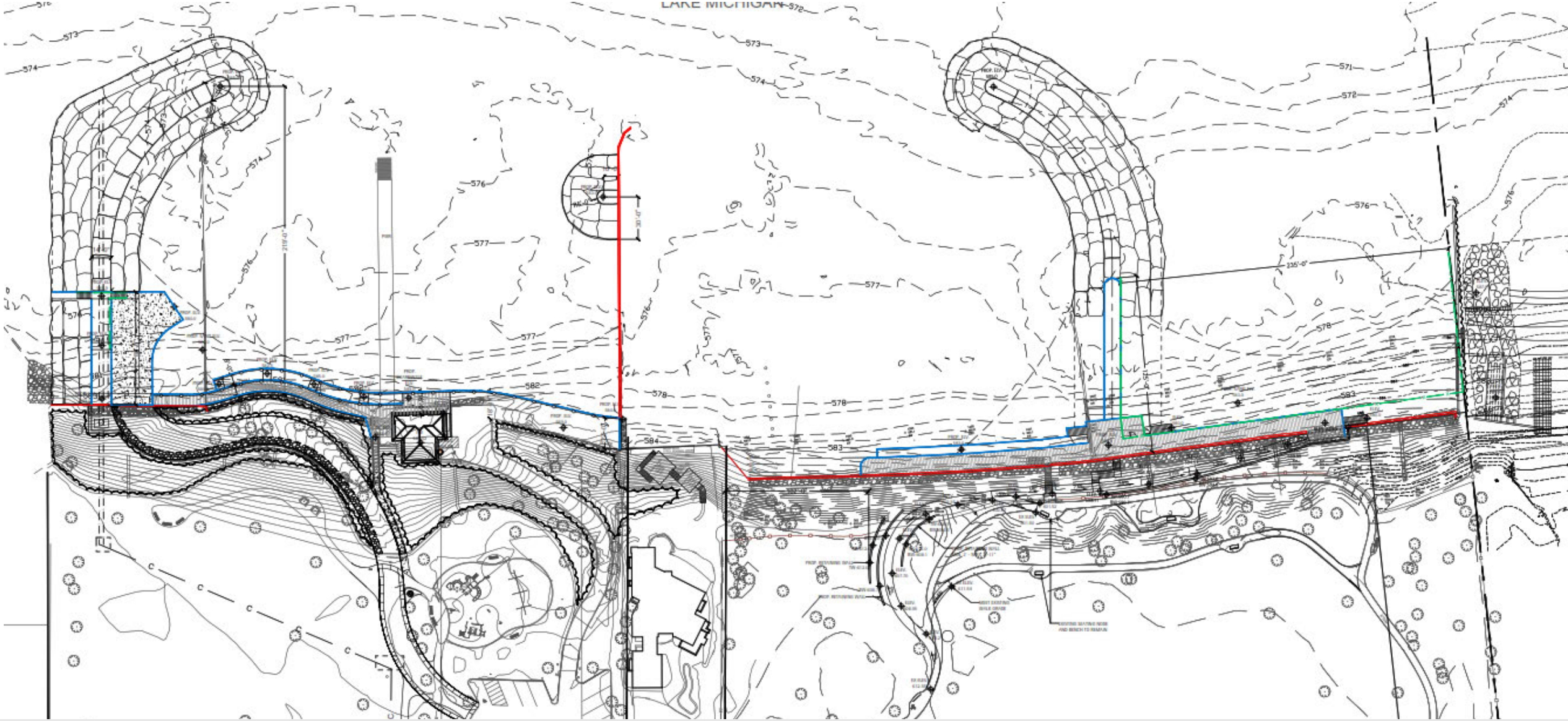
Lloyd is depicted in gray while Elder-Centennial as proposed is outlined in orange; both plans are at the same scale. Note that the Elder-Centennial breakwaters are the same distance off-shore at Lloyd, not including the boat ramp.

ELDER - CENTENNIAL COMPREHENSIVE DESIGN AS OF MARCH 18, 2023



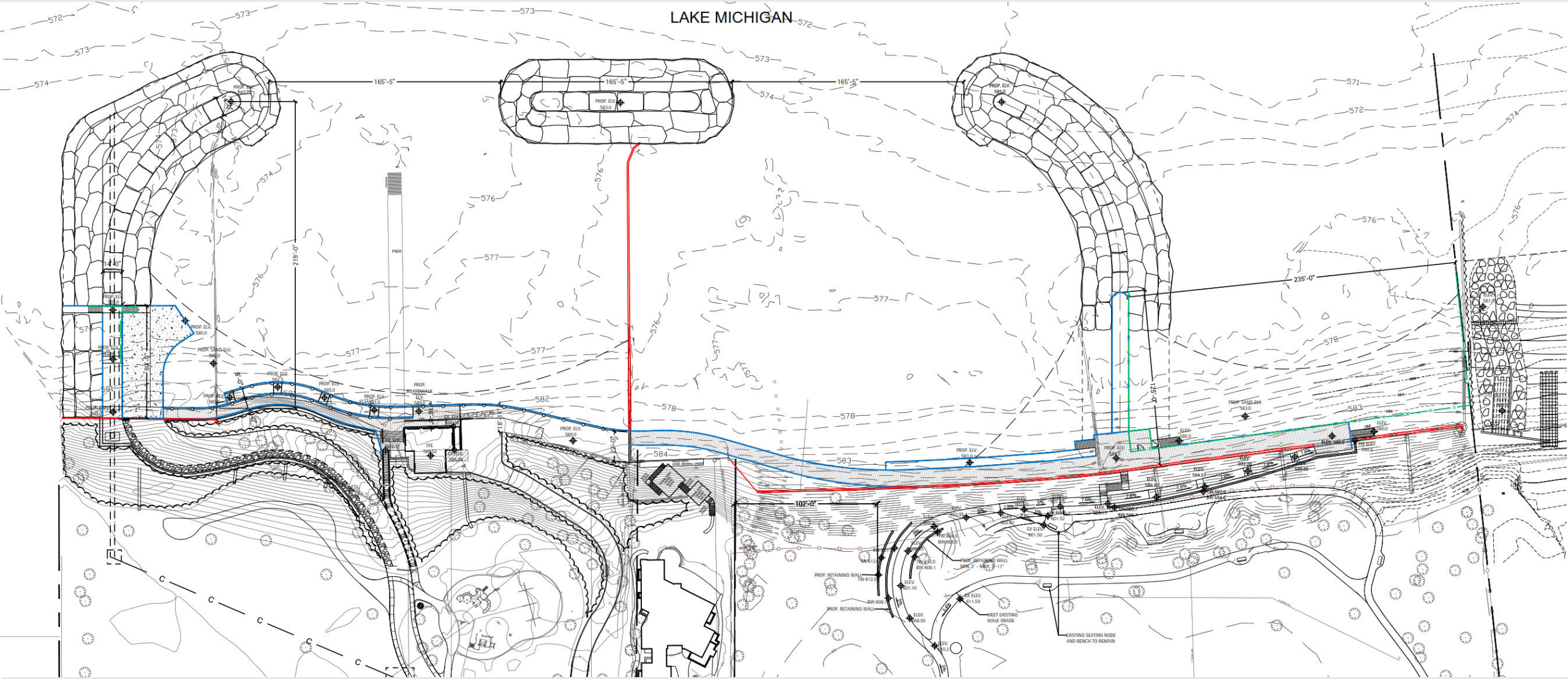
This alternative was prepared for the third open house held in 2023. This version includes a headland beach system with off-shore low crested breakwater between the north and south breakwaters on Elder and Centennial. A dog beach is included at the south end of Centennial in keeping with the 10/27/22, unanimously approved motion to maintain a dog beach at the south end of Centennial Park.

ELDER – CENTENNIAL - SCHEMATIC DESIGN – WITHOUT 261 SHERIDAN - MARCH 2023



This schematic design plan shows an interim solution, assuming that the home and lot at 261 Sheridan is not included in the comprehensive solution for Elder and Centennial. This schematic plan includes the north and south breakwaters, the proposed dog beach and it depicts the breakwater at 205 Sheridan, just south of Centennial Beach.

ELDER – CENTENNIAL - SCHEMATIC DESIGN – INCLUDING 261 SHERIDAN - MARCH 2023



This plan alternative was prepared for the third open house held in spring of 2023. This version includes a headland beach system with off-shore low-crested breakwater between the north and south breakwaters on Elder and Centennial respectively. A dog beach is included at the south end of Centennial in keeping with the 10/27/22, unanimously approved motion to amend the lakefront master plan to include a dog beach at the south end of Centennial Park.

VILLAGE OF WINNETKA – ORDINANCE MC-05-2023 – ADOPTED MARCH 21, 2023

Section 15.78.010 Purpose.

The purpose of this Chapter is to create permitting requirements for construction along, adjacent to and within Lake Michigan. Lake Michigan, its coastline and beaches provide a unique natural resource to the Village and to its residents that must be preserved and protected. Some development and construction activity in and around Lake Michigan may be hazardous to people and property and may ~~accelerate~~impact the erosion process and alter natural drainage patterns. This Chapter is intended to attempt to preserve those portions of Lake Michigan, its coastline and vegetation within the Village's boundaries, while protecting the value of properties along the Lake through the establishment of narrow, reasonable permitting regulations. The regulations in this Chapter are further intended to provide that construction in and adjacent to Lake Michigan and its shoreline will not cause environmental or ecological damage to the Lake or surrounding areas of the Village or otherwise adversely impact the health, safety, and welfare of the Village or its residents.

On March 21, 2023, the Village of Winnetka adopted Ordinance MC-05-2023, creating new regulations governing lakefront construction in Winnetka. The Park District was in the final stages of preparing its plans for a headland beach system and dog beach in keeping with the several motions passed on October 27, 2022, and further refinements based on public input over the course of 10 months.

VILLAGE OF WINNETKA – ORDINANCE MC-05-2023 – ADOPTED MARCH 21, 2023

Section 15.78.080 Criteria for Permit Approval.

The Village Engineer (and, if applicable on appeal, the Village Council) will issue a permit (with or without conditions) only if the following requirements are satisfied:

A. Permitting Agency Permits. The applicant has received and provided to the Village all required permits for the Covered Construction from the Permitting Agencies.

B. Height. The height of the Covered Construction and any related structures will be no greater than what is minimally necessary to achieve the intended and proper purpose of the project and to be consistent with the purposes set forth in Section 15.78.010 of this Chapter.

C. Conformity with Code. The Covered Construction and any related structures comply with all other applicable provisions of the Village Code, including, without limitation, the construction permitting requirements of Chapter 15.32 of this Title.

D. Project Scope. The Covered Construction and any related structures include only what is minimally necessary to achieve the intended and proper purpose of the project and to be consistent with the purposes set forth in Section 15.78.010 of this Chapter.

E. No Public Safety Hazard. The Covered Construction and any related structures will not create any public safety hazards, including, without limitation, by unreasonably obstructing or otherwise interfering with ingress or egress to adjacent public beaches or private property.

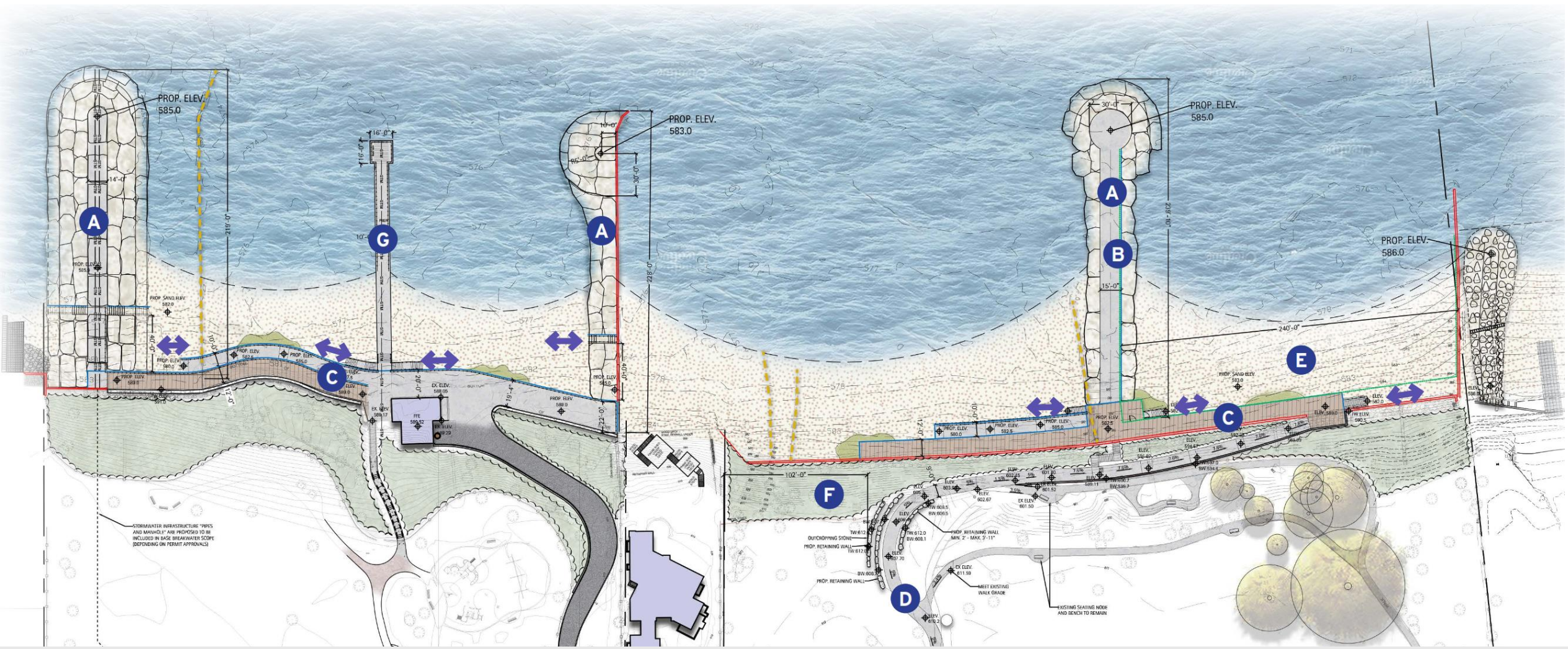
F. Interference with Public Safety Operations. The Covered Construction and any related structures will not block or otherwise unreasonably interfere with the ability of public safety personnel to conduct search and rescue or other public safety operations.

G. Existing ~~Site~~Sight Lines: The Covered Construction and any related structures will alter existing ~~site~~sight lines along the Lake Michigan shoreline no more than is minimally necessary to achieve the intended and proper purpose of the project and to be consistent with the purposes set forth in Section 15.78.010 of this Chapter.

The WPD was compelled to further revise the plans that were approved on May 25, 2023, in order to comply with the specific provisions of the Ordinance MC-05-2023 and additional ordinances adopted on July 6, 2023. Specifically, the WPD revised the plans to meet the conditions imposed by Section 15.78.080 G. prioritizing preservation of "sight lines."

ELDER - CENTENNIAL DESIGN WITHOUT 261 SHERIDAN - AS OF OCTOBER 2023

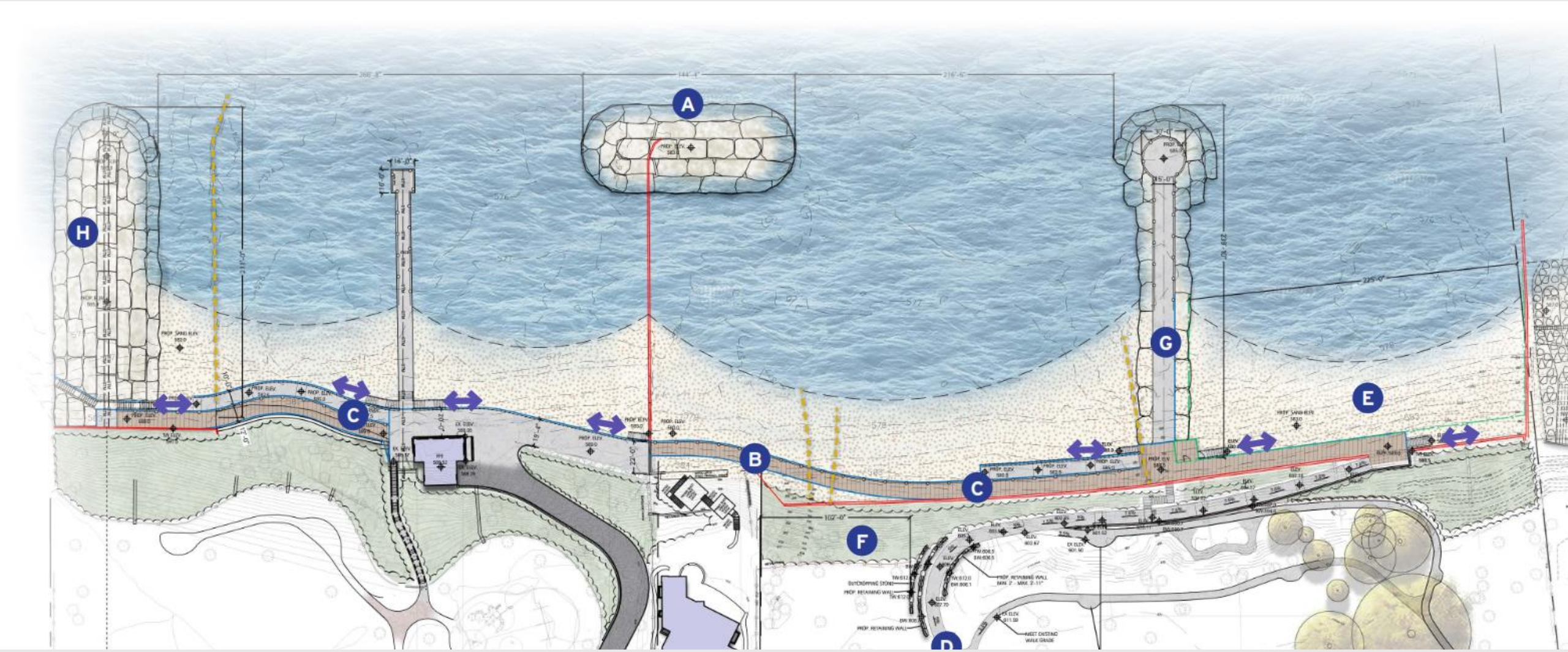
REVISED TO COMPLY WITH NEW ORDINANCE AND VILLAGE DIRECTIVE TO RETAIN PIER AND STORM OUTFALL AT ELDER LANE BEACH



During the summer and fall of 2023, the WPD was compelled to further revise the plans previously approved in May-2023, in order to comply with the specific provisions of the ordinances passed by the Village and further instruction by the Village to maintain the pier and existing stormwater discharge located within the pier. The WPD kept the north groin and outfall pipe in its plan to accommodate a future relocation of the stormwater discharge in keeping with the Lakefront Master Plan.

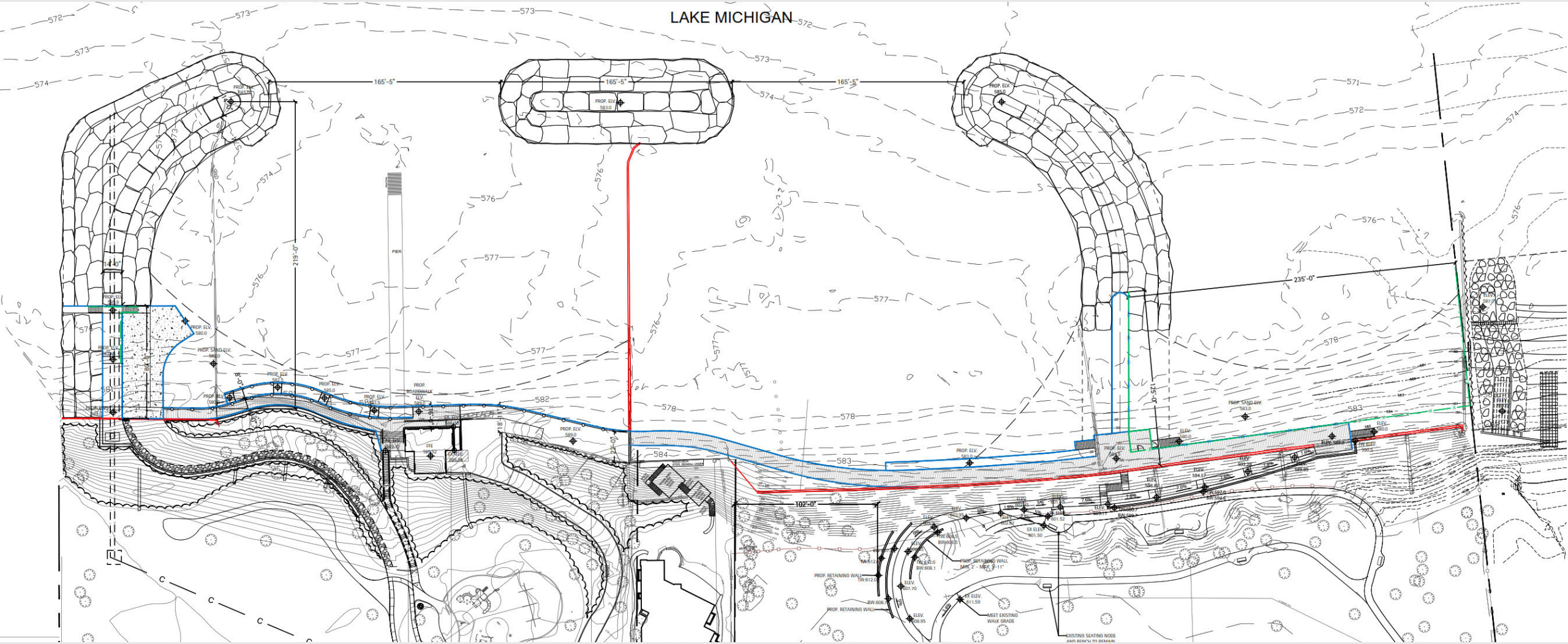
ELDER - CENTENNIAL COMPREHENSIVE DESIGN AS OF OCTOBER 2023

REVISED TO COMPLY WITH NEW ORDINANCE AND VILLAGE DIRECTIVE TO RETAIN PIER AND STORM OUTFALL AT ELDER LANE BEACH



Similar to the preceding plan, this plan keeps the existing storm sewer outfall and pier while introducing a low-crested off-shore breakwater to help dissipate wave energy and hold more beach. The north breakwater was retained for future relocation of the storm sewer discharge and beach preservation. The south breakwater incorporates the pier as shown on the current plans.

ELDER – CENTENNIAL - SCHEMATIC DESIGN – INCLUDING 261 SHERIDAN - MARCH 2023



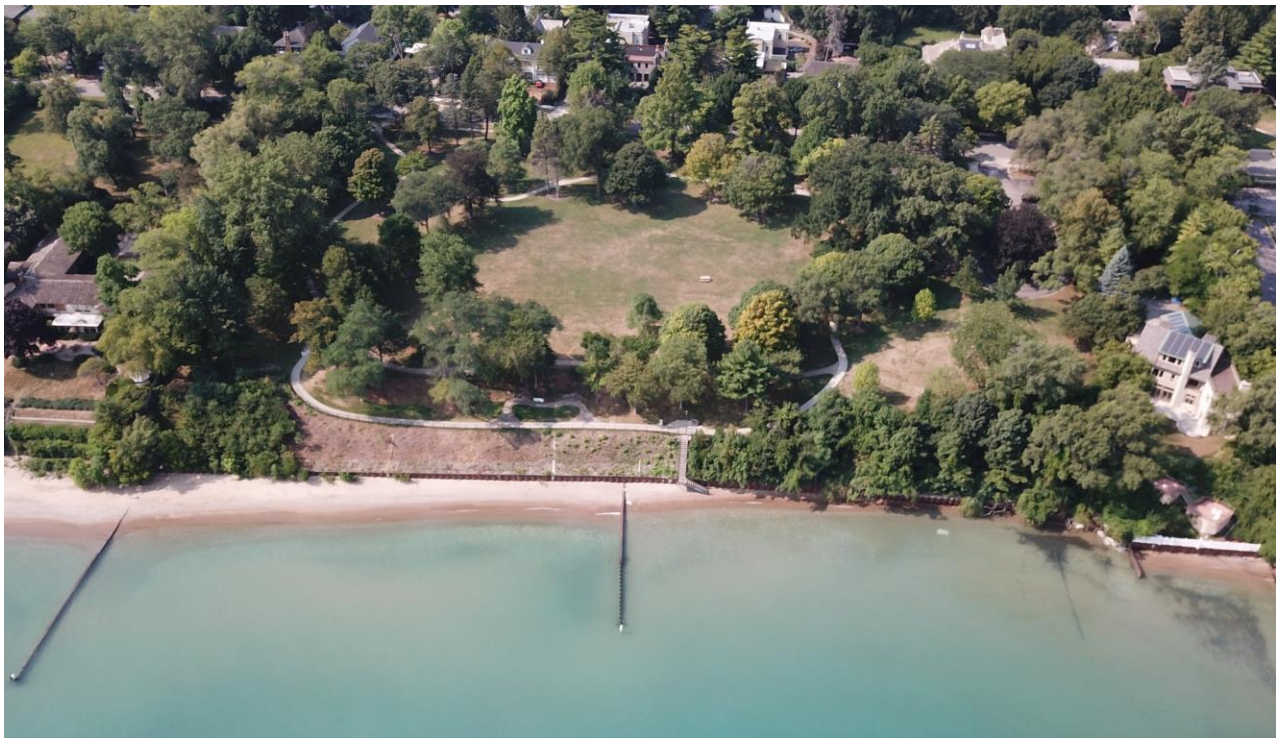
This alternative including the headland beach system, with the dog beach at the south end of Centennial Park is most faithful to the original vision of the Lakefront Master Plan with a dog beach. The plan relocates the storm sewer discharge to the north breakwater as originally envisioned (Village consented to the removal of the pier and relocation of the storm sewer discharge in the Fall of 2024). Further refinements to this plan would include elimination of the new access drive at the north end of Elder and refinements to the ADA access path at Centennial.

Winnetka Park District – Centennial Park Dog Beach
History and Consideration of Off Leash Dog Park & Dog Beach Alternatives

Centennial Park was established in 1969 with the acquisition of the former North Shore Health Resort Property. Park features are largely the same today as when it was first developed, with the notable exceptions of the bluff and shoreline repairs in 1987 and the formation of the Centennial Park off-leash "Dog Beach" in 1995.

Above: Drone image dated 2020-09-29

Below: Drone image dated 2020-08-26



Prepared by Park District Commissioner, Warren James, last updated February 2025

Winnetka Park District – Centennial Park Dog Beach
History and Consideration of Off Leash Dog Park & Dog Beach Alternatives

Publicly owned shoreline in Winnetka is detailed below:

Publicly Owned Lakefront Property – Village of Winnetka & Winnetka Park District

Description	Shore frontage (feet)	Shore frontage (% of total)	Beach Access Allowed (feet)	Beach Access Allowed (% of total)	WPD Managed Beach (feet)	WPD Managed with Beach Access Allowed (%)
Sheridan Rd – Ravines	100	3.3%	100	3.9%	0	0.0%
Tower Rd Beach (WPD)	200	6.6%	200	7.9%	200	8.3%
Tower Rd Beach (VofW)	320	10.6%	320	12.6%	320	13.3%
Tower Rd Power Plant	215	7.1%	0	28.3%	0	0.0%
Lloyd Beach	720	23.8%	720	9.2%	720	29.9%
Maple Beach	235	7.8%	235	0.0%	235	9.8%
Spruce Street ROW	66	2.2%	0	0.0%	0	0.0%
Elm Street ROW	66	2.2%	0	0.0%	0	0.0%
Oak Street ROW	66	2.2%	0	0.0%	0	0.0%
Cherry Street ROW	40	1.3%	40	1.6%	0	0.0%
Willow Road ROW	66	2.2%	0	0.0%	0	0.0%
Elder Lane Beach	410	13.6%	410	16.1%	410	17.0%
Centennial Beach	520	17.2%	520	20.4%	520	**21.6%**
TOTALS:	3024	100.0%	2545	100.0%	2405	100.0%

Note: Centennial Beach represents 21.6% of the total usable beachfront managed by the WPD.

Winnetka Park District – Dog Beach Pass Holders – Summary Report: 2010-2022

Year	Resident	Non-Resident
2010	351	75
2011	311	73
2012	320	89
2013	275	71
2014	285	65
2015	267	63
2016	315	70
2017	333	80
2018	371	94
2019	356	105
2020	245	56
2021	300	86
2022	232	54
AVERAGE:	**305**	**75**

Approx. 4500 Households within the WPD (includes parts of Northfield, Glencoe, Kenilworth)

The 13 year average of 305 resident dog beach passes represents only 6.8% of WPD households.

Prepared by Park District Commissioner, Warren James, last updated February 2025

Winnetka Park District – Centennial Park Dog Beach
History and Consideration of Off Leash Dog Park & Dog Beach Alternatives

DOG BEACH TIMELINE

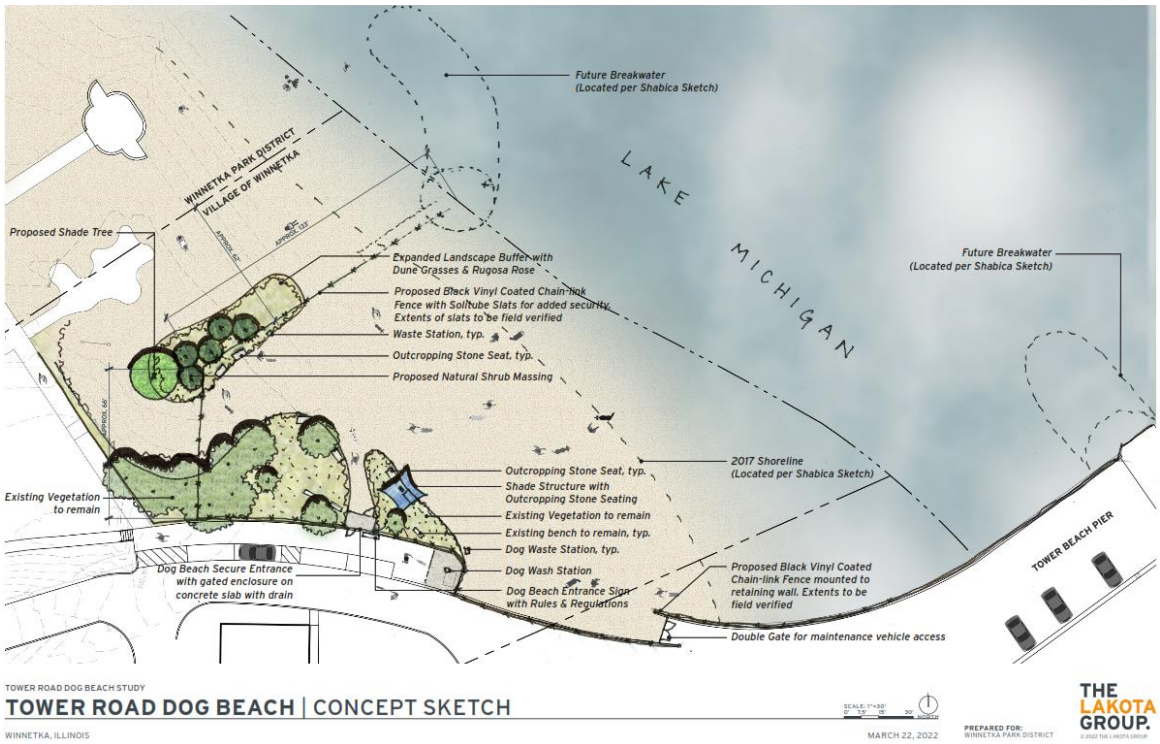
- 1995 – Dog Beach Created at Centennial Park by Winnetka Park District
- 2007 – Village of Winnetka adopts leash ordinance
- 2015 – Lakefront Advisory Committee recommends relocating dog park in the event Elder and Centennial are unified, recognizing that Elder and Centennial combined with 261 Sheridan would result in a 1000-foot public beach.
- April 2016 - Lakefront Master Plan Adopted
- May 2016 – Community needs assessment survey identified dog park as top 5 priority
- Dec 2018 – Residents approach WPD Board to advocate for an off-leash (land based) dog park
- Jan 2019 – Board directs staff to prioritize dry land dog park assessment
- Mar 2019 – Staff evaluated 33 sites and identifies 4 as meeting minimum requirements
- Jun 2019 – WPD host meeting to present findings from community engagement
- Aug 2019 – WPD Board reviews information regarding dog park locations
    - During the board meeting, the need to find a suitable alternative location for a dog park was highlighted, noting that the Lakefront Master Plan called for relocating the dog park away from Centennial Beach in the event the parks were unified.
    - WPD identifies West Elm Park and Crow Island Woods best suited locations for off-leash dog park.
    - West Elm area residents mobilize to oppose dog park at portion of West Elm Park
    - Euclid Avenue residents mobilize to oppose dog park at portion of Crow Island Woods
    - WPD Board drops proposal for dog beach at West Elm or Crow Island due to community opposition and focuses on off leash park on portion of the Village municipal yard south of Willow Road.
- March 2020 – Covid Outbreak
    - WPD meetings to go to zoom only
    - Caucus participation plummets to low 20's total participation
    - Randy Whitchurch and Bill Murphy – both residents of Fuller Lane volunteer to serve on Winnetka Caucus Council Park District commissioner selection committee
- August 19, 2020 – Caucus zoom interviews of candidates for WPD Commissioner; conducted by Randy Whitchurch and Bill Murphy; seven candidates for one open seat; Eric Lussen and Warren James, both incumbents interviewed for second term.
- October 10, 2020 – Winnetka Park District enters into Exchange Agreement to acquire 261 Sheridan.
- November 11, 2020, Caucus Town Hall, presentation of Candidates via zoom:
    - Candidate Colleen Root was recommended by the Winnetka Caucus Council as nominee for park board commissioner.
    - Candidate Root introduces herself as an attorney from Houston, TX, who moved to Winnetka in 2018, is familiar with the Army Corps of Engineers by virtue of the fact her home was flooded and destroyed by a hurricane, stated one of the reasons she moved to Winnetka was for its dog beach.
- March 10, 2021, Caucus Spring Town Hall – question regarding dog beach/parks directed to candidate Colleen Root in lieu of board President Mickey Archambault.

- May 27, 2021, Commissioner Root sworn in as newly elected Commissioner
- Jun 24, 2021, first Regular Board meeting with new board members, including Commissioner Root (in attendance.)
- Aug 26, 2021, WPD Board meeting: 50+ attendees demanding reinstatement of dog beach in lakefront master plan – led by Commissioner Colleen Root & Randy Whitchurch
- WPD Board responded to community input and established Dog Beach Committee which included volunteer time/board liaison from Village President Chris Rintz.
- Village of Winnetka reiterated its offer to allocate land for off leash dog park at Village Municipal Yard, for which specific plans were prepared by WPD. However, the Village noted that off leash park on municipal yard would not be able to be constructed until after the completion of the stormwater project in SW Winnetka.
- Village of Winnetka offered to establish dog beach on a portion of Tower Road Beach owned by the Village of Winnetka immediately adjacent and north of Tower Road pier.
- As detailed above, the total usable publicly owned shoreline at Tower Road Beach is approximately 520 feet. Comprised of 320 feet owned by the Village of Winnetka, leased to the WPD and the 200-foot-wide lot owned by the WPD.

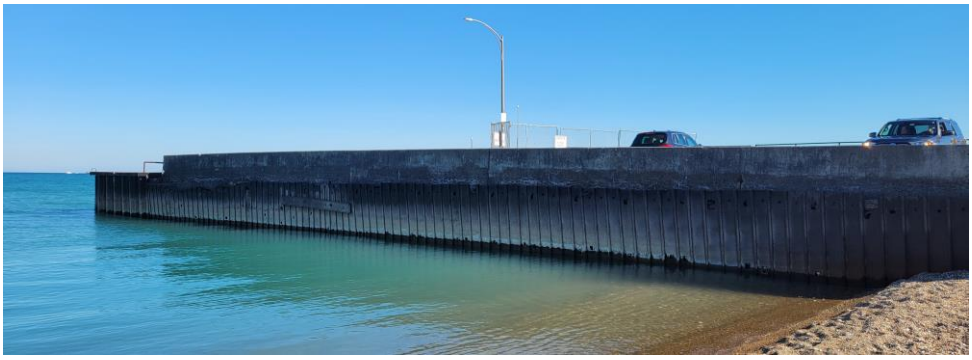
Cook County Viewer – GIS Image – Village of Winnetka Owned Property

Cook County Viewer – GIS Image – Winnetka Park District owned property

- Spring 2022 - Dog Beach Committee developed specific plans for dog beach at Tower Road.
- Spring 2022 - Dog Beach Committee worked with staff and consultants to prepare plans for dog beach on the southern portion of Tower Road Beach, including a fence surrounding the dog beach extending to the waterline.



- WPD Board of Directors reviewed proposed plan for Tower prepared by Dog Beach Committee. The WPD Board made the following observations:
    - With 520' total available shoreline, proposed dog park at 258' wide as depicted on the proposed plan would result in swimming beach of only 262 feet.
    - The exposure to waves from the North-northeast would require more substantial barrier than a temporary chain link fence to properly separate dog beach users from swimmers – likely sheet pile groin and stone breakwater that would add significant expense to the project.
    - Wave action and riptide adjacent to Tower Road pier presents hazard to dogs.



- Randy Whitchurch public comment to WPD Board during Tower Road location consideration: Mr. Whitchurch objected to relocation of dog beach to Tower Road citing steep slope of access drive and parking limitations.
    - Note: given that most dog beach users arrive on foot, moving the dog beach to Tower would result in potential conflicts between dogs, automobiles, pedestrians and cyclists on the steeply sloping access drive at Tower Road Beach, 15'-6" wide.

- June 9, 2022, WPD Board votes 3-2 with (Commissioners Codo and Lussen absent) to withdraw permit applications for Elder and Centennial beaches from the IDNR & ACOE.
- July 8, 2022, Orchard 2020 (Ishbia) acquires 195 Sheridan Road and informs WPD of their intent to move house plans south of Centennial Park, excluding Exchange parcel.
- October 24, 2022; Winnetka homeowner Robert Schriesheim files lawsuit against Winnetka Park District, challenging the Property Exchange Agreement
    - Note: Shriesheim v. Winnetka Park District was settled on January 16, 2025. The Settlement Agreement contains the following provisions: "*the Parties have agreed to the terms herein for the sole purpose of settlement, and nothing herein may be taken as or construed to be an admission or concession of any violation of law, rule, or regulation, or of any other matter of fact or law, or of any liability or wrongdoing or lack thereof*" AND "*The WPD agrees not to transfer title to the beach property at Centennial Park which lies east (or lakeward) of the current steel sheet piling at the toe of the bluff to any non-governmental entity.*"
    - The Settlement Agreement assures that the southern end of Centennial Beach will remain part of the WPD owned shoreline and the proposed dog beach will not be altered.
- October 27, 2022, WPD Board UNANIMOUSLY approves a motion to maintain dog beach at south end of Centennial Park (present location) with several conditions as detailed below.

- **Excerpts from Board Meeting Minutes of October 27, 2022, read as follows:**

Commissioner Lussen made a motion to amend the Waterfront 2030 Lakefront Master Plan to Include a Dog Beach at the south end of Centennial Beach subject to the following conditions:

Exhi

a. *Shore frontage allocated to dog beach use shall not be less than 170 feet and not be greater than 270 feet;*
b. *The dog beach area must include a secure boundary to prevent dogs from straying beyond the borders of the dog beach while off leash;*
c. *The electric gate system be relocated to the beach or boardwalk level to afford public access to the remainder of Centennial Beach; and*
d. *Dog beach boundaries shall accommodate public passage along the lakefront in keeping with the IDNR guidelines.*

Commissioner Archambault seconded the motion.

Commissioner Lussen acknowledged a Cook County law which requires a fenced in dog beach. Commissioner Root commented it appears the Park District is tying design to the desires of Orchard 2020. Commissioner Lussen commented the dog beach provides an important element to our community. Commission Codo stated keeping the dog beach at the south end is a neutral location. The IDNR phrasing in the motion allows the Park District to control what happens on its property and the IDNR to control what happens on adjacent property. Following discussion, item "d" of the motion was amended as follows: "Dog beach boundaries shall accommodate public passage along the lakefront".

- *A roll call vote was taken.*
- *Ayes: Archambault, Codo, James, Lussen, Rapp, Root, Seaman*
- *Nays: None*
- *Motion carried as amended*

ADDITIONAL BACKGROUND INFORMATION:

The Illinois Department of Natural Resources, Office of Water Resources, published Guidelines for the submittal of applications for Illinois Department of Natural Resources, Office of Water Resources Permits for Shore Protection Projects in Lake Michigan in November 2015.

The Guidelines contain the following provisions:

"Where possible, notably in areas where existing access along the lakeshore is available, the project should provide some type of reasonable access over or around it on the landward side."

The WPD proposed plans for the Centennial dog beach comply with the IDNR guidelines by providing a bypass around the dog beach on the landward side of the proposed dog beach.

Winnetka Park District – Centennial Park Dog Beach
History and Consideration of Off Leash Dog Park & Dog Beach Alternatives

The Foreword to the Cook County Animal Control Act reads in part as follows:

The Cook County Animal and Rabies Control Ordinance was developed and passed to establish guidelines in the development of harmonious relationships between animals and man. This Ordinance is the law in all municipalities within Cook County. Any municipality regardless of its population may pass an ordinance effective within its jurisdiction more strict than the County Ordinance.

No person including a municipal corporation, forest preserve district or park district shall designate within the County an outdoor area, even if fenced, as an area where dogs may run off leash unless such person, municipal corporation forest preserve district or park district complies with such regulation as may be issued by the Administrator of the operation of outdoor off leash areas.

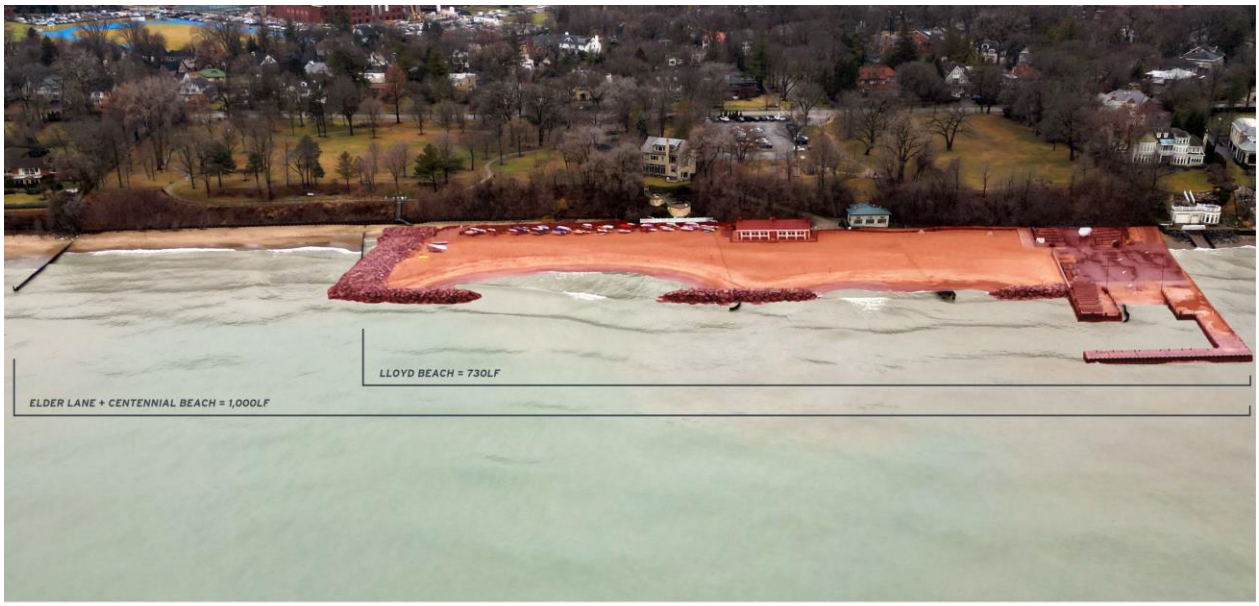
Computer Generated scaled image of proposed Dog Beach with perimeter fence and bypass along landward side as required by Cook County and IDNR.

The shoreline frontage dedicated to the proposed dog beach is approximately 240 feet, slightly less than 10% of the WPD managed shoreline in Winnetka, which is a more appropriate allocation of shoreline than the entire Centennial beach which is 520 feet of shoreline, representing 21.6% of the total usable shoreline managed by the WPD.

The proposed pier provides robust protection from waves coming from the northeast and proper separation between the dog beach and the swimming beach to the north.

Winnetka Park District – Centennial Park Dog Beach
History and Consideration of Off Leash Dog Park & Dog Beach Alternatives

In January 2023, at the Elder-Centennial Open House, the WPD presented the following images to demonstrate the relative size of the combined Elder-Centennial to the existing Lloyd Beach.

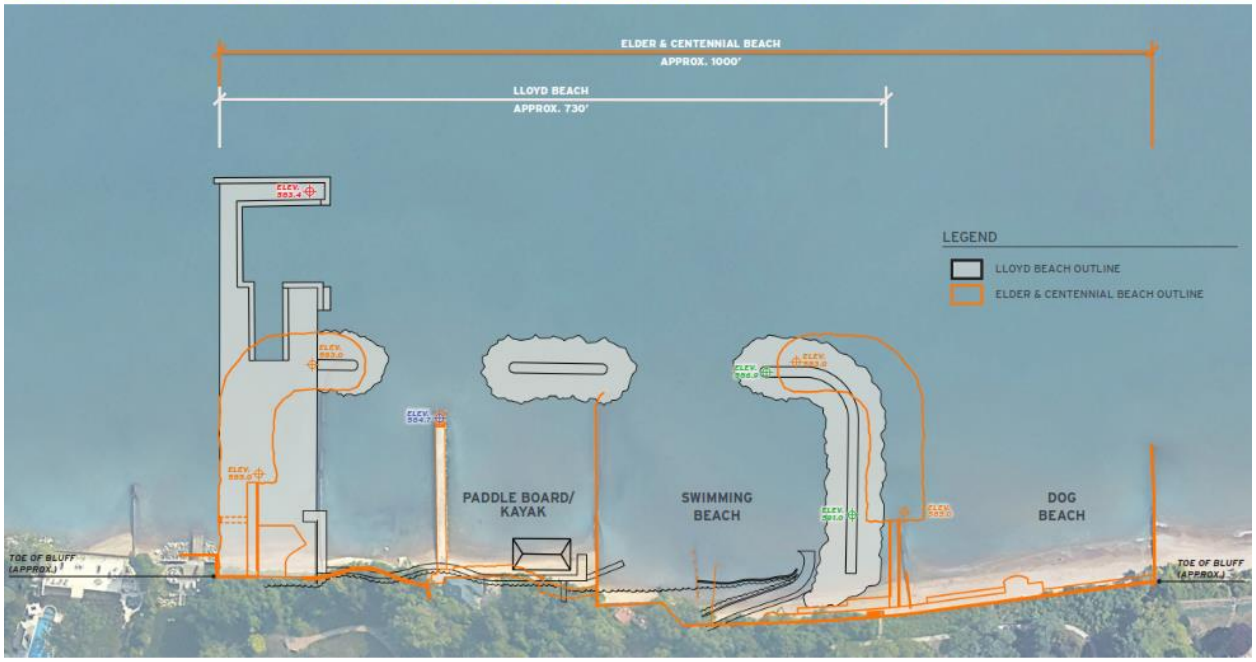


ELDER LANE + CENTENNIAL BEACH
JANUARY 2023

LLOYD BEACH
JANUARY 2023

The picture above demonstrates that the entire 730 feet of Lloyd Beach and Stepan Boat launch easily fits within the 1000-foot combined Elder-Centennial Beach with 270 feet remaining at the south end.

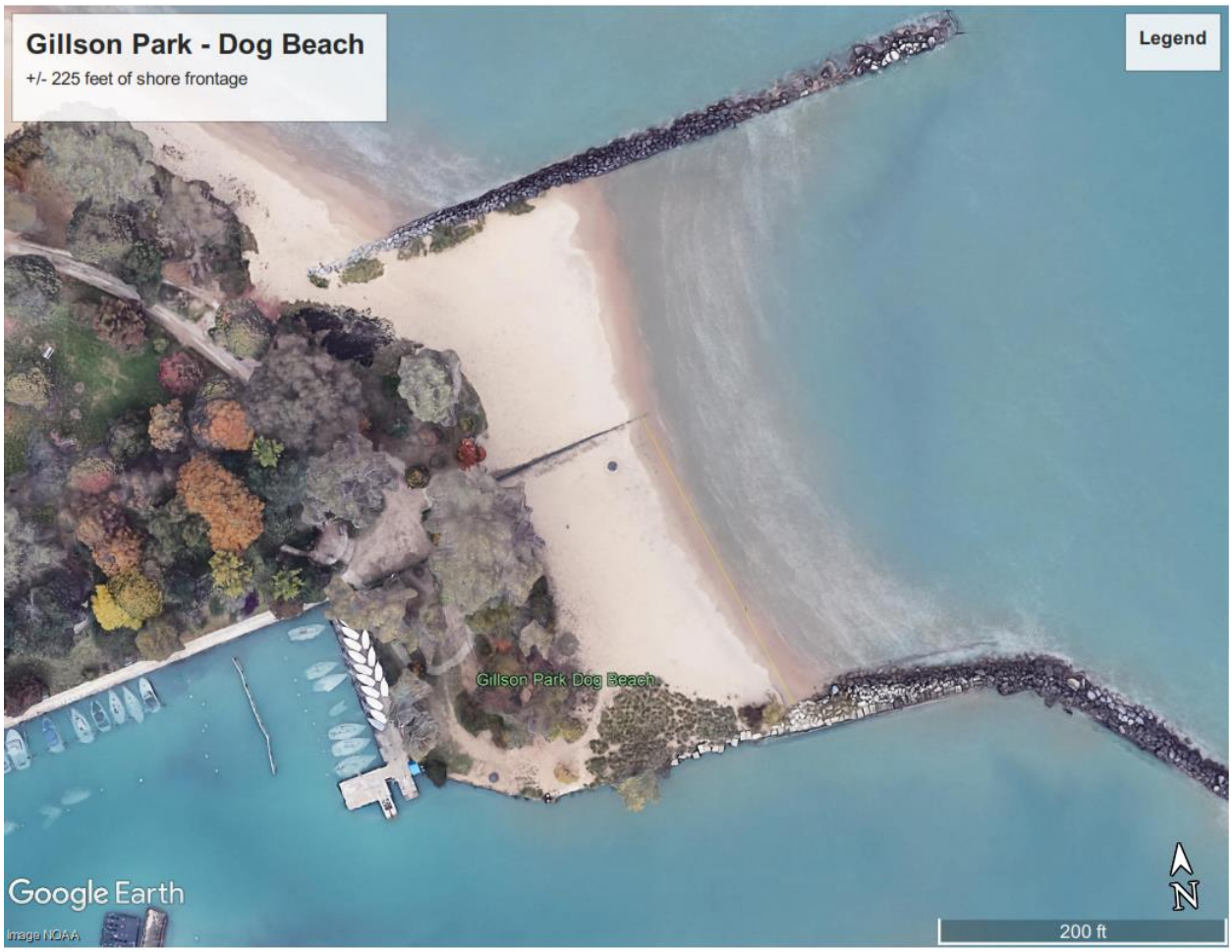
Boat Ramp & Breakwater Systems | Lloyd Beach vs. Elder & Centennial



This image above, also from January 2023, depicts the plan view of Lloyd (in gray) with the contemplated headland beach system and adjacent dog beach planned for Centennial and Elder (in orange). Note that the Lloyd breakwaters project the same distance into the lake as the proposed improvements at Centennial and Elder, while the Stepan boat launch extends further into the lake.

Prepared by Park District Commissioner, Warren James, last updated February 2025

For comparison purposes, the WPD notes the following attributes of the Gillson Park Dog Beach in Wilmette.

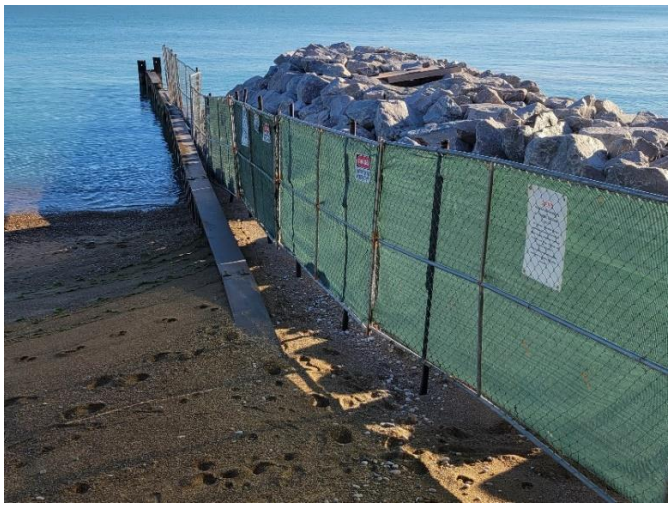


- The shoreline dedicated to the dog beach is approximately 225 feet.
- The dog beach is oriented in an easterly direction and it is protected by a 475-foot long stone breakwater to the north.
- A chain link fence as seen near the middle of the beach area which defines the northerly edge of the dog beach is protected from waves from the northeast by the stone breakwater.

The following page provides and update on the proposed bypass of the dog beach and access to the steps up and over the stone breakwater at 205 Sheridan.

Prepared by Park District Commissioner, Warren James, last updated February 2025

Winnetka Park District – Centennial Park Dog Beach
History and Consideration of Off Leash Dog Park & Dog Beach Alternatives



Sand level at Centennial South Groin, Oct-17-2024

Sand level at Centennial South Groin, Feb-9- 2025

The steel groin (jetty) is located near the south property line of Centennial Dog Beach. The temporary construction fence is located along the northerly property line of 205 Sheridan. The convergence of the fence and steel jetty is the approximate location of where the extended property line of 205 Sheridan intersects the pre-existing steel groin. As of Oct-24, the sand on both sides of the steel extended afforded easy passage over the steel groin. As of Feb-25, the vertical drop on the north side has increased due to the loss of sand. Accumulated sand between the steel groin and the newly constructed stone groin provides dry passage to the steps leading over the stone groin at 205 Sheridan. Proposed dog beach fence to be secured to existing steel groin.

Note: Sand trapped between stone & steel provides 6-foot wide pathway to the steps over the stone groin

Accreted sand between steel & stone groin, Feb-9-2025

Steps over stone groin at 205 Sheridan, Feb-9-2025

There are three options to ensure safe, legal passage for pedestrians desiring to transit the shoreline:

1) Secure legal determination that accumulated sand between steel and stone groin is public land.
2) Secure easement agreement to ensure legal passage to reach steps up and over stone groin.
3) Relocate steel sheet pile to provide pedestrian pathway on the north side of the extended property line between Centennial Dog Beach and 205 Sheridan.

Prepared by Park District Commissioner, Warren James, last updated February 2025

Exhibit 3

RESOLUTION NO. 23-5-25

WINNETKA PARK DISTRICT

**A RESOLUTION
ADOPTING FINDINGS OF FACT CONCERNING PROPOSED LAKEFRONT IMPROVEMENTS FOR ELDER LANE AND CENTENNIAL PARK BEACHES AND GRANTING,
AUTHORIZING AND DIRECTING PREPARATION OF PERMIT PLANS AND SPECIFICATIONS FOR ELDER/CENTENNIAL LAKEFRONT IMPROVEMENTS AND PERMIT APPLICATIONS TO PERMITTING AUTHORITIES**

BE IT RESOLVED by the Board of Commissioners of the Winnetka Park District, Cook County, Illinois, as follows:

A. Legislative Findings about Project Background and History of Beaches. The Board of Commissioners hereby make the following legislative findings:

1. The Winnetka Park District ("Park District") is a body politic established in 1903 and operating in Cook County, Illinois pursuant to the Illinois Park District Code, 70 ILCS 1205/1-1 et seq. (the Park Code") and the laws of the State of Illinois.

2. The Village of Winnetka and Winnetka Park District own a total of twelve properties adjacent to Lake Michigan, seven of which are owned by the Village of Winnetka and five of which are owned by the Winnetka Park District. A portion of Tower Road property owned by the Village of Winnetka is operated by the Winnetka Park District as Tower Road Beach.

3. The combined total beach frontage owned and/or controlled by the Winnetka Park District is approximately 2,410 lineal feet, including the portion of Tower Road Beach owned by the Village, used as Tower Road Beach in accordance with the terms of an agreement between the Village of Winnetka and the Winnetka Park District.

4. The Park District acquired Elder Lane Park in parcels from various families and the Village of Winnetka between 1920-1946, and Centennial Park in 1969 through condemnation, to protect the land from residential development.

5. Since 1969, the Park District has owned and operated Elder Lane Park and Centennial Park, both of which are on the shore of Lake Michigan, depicted in **Exhibit A** (collectively, the "Parks").

6. Elder and Centennial Park span approximately 1,000 feet of Lake Michigan Shoreline, separated by one single family home and lot commonly known as 261 Sheridan Road.

7. Elder Lane Beach includes approximately 410 lineal feet of beach; Centennial Beach approximately 520 lineal feet of beach (collectively, the "Beaches") and the single family lot (261 Sheridan) includes approximately 70 lineal feet of beach.

8. Since acquisition by the Park District, the Beaches have been open to the public on an intermittent basis for a wide range of recreational purposes including swimming, non-motorized boating, an off-leash dog park, and other forms of structured and unstructured recreational use.

9. Since 1995, Centennial Beach, which comprises more than 21% of the total Park District accessible beach frontage, has been fenced, gated and locked for the near-exclusive use of "dog beach" pass holders;, which represent less than seven percent (7%) of the total households in the Winnetka Park District. **Exhibit B, "**Winnetka Park District Dog Beach Pass Holder Data" dated 05/23/23**.**

10. The Park District's Board of Park Commissioners ("Park Board") approved a long range master plan for the protection and enhancement of its five beaches, including Elder Lane and Centennial Beaches, titled the "Winnetka Waterfront 2030 Plan" (the "Lakefront Master Plan," or "Plan") March 16, 2016; the Lakefront Master Plan calls for design and construction of various improvements at each of the Park District's properties adjacent to Lake Michigan, including improvements at the Beaches deemed necessary to protect against the substantial threat of erosion, and to expand the community's safe and healthy recreational use of the Beaches.

11. Since adoption of the Lakefront Master Plan, the Board of Park Commissioners has consistently acted to advance the Plan's objectives, creating a legacy of support for the Plan and action thereon.

12. Since adoption of the Lakefront Master Plan, the Park District has constructed improvements consistent with the Plan's "Implementation" Section, at Tower Beach, Lloyd Beach, and Maple Beach, including the multi-million-dollar construction of a rubble mound breakwater and sand beach at Lloyd Beach.

13. The Park District is now prepared to proceed with certain lakefront improvements described herein at Elder Lane Beach and Centennial Beach, in accordance with the Lakefront Master Plan. Additional detailed legislative findings supporting the Park Board's decision to proceed with lakefront improvements at the Beaches , are set forth in **Appendix A** of this Resolution, pertaining to Lake Michigan conditions, bluff, beach, groin and pier conditions at the Beaches, the Lakefront Master Plan, and the nature and scope of the extensive public engagement that preceded development of the Concept Plan attached hereto as **Exhibit H**.

B. <u>Purpose of this Resolution is to:</u>

1. Make formal legislative findings of fact in support of the lakefront improvements described herein at Elder Lane Park and Beach and Centennial Park and Beach;

2. Approve and ratify various actions by the Park Board and the Park District pertaining to the design process for the lakefront improvements for Elder and Centennial Beach; and

3. Authorize and direct staff to prepare the plans and specifications consistent with the Concept Plan set forth in **Exhibit H,** and to prepare permit applications and related permit documentation for submittal to the Illinois Department of Natural Resources ("IDNR") and United States Army Corps of Engineers ("USAOC"), Metropolitan Water Reclamation District of Greater Chicago ("MWRD"), Illinois Environmental Protection Agency ("IEPA"), Village of Winnetka and other agencies with jurisdiction ("Permitting Authorities") for the lakefront improvements to be constructed at Elder Lane and Centennial Park Beaches.

Section One- Incorporation.

The Legislative Findings and Appendices set forth herein and attached hereto, and all of the facts, findings, and determinations contained therein are hereby incorporated into and made a part of this Resolution as if set forth in their entirety in this Section One. All Exhibits referenced in this Resolution are hereby incorporated into this Resolution and made a part hereof.

Section Two-Park Board General Findings.

The Winnetka Park District Board of Park Commissioners does hereby find and determine as follows:

A. Construction of improvements in Lake Michigan and upon property owned by the Park District is a proper public purpose.

B. The Park District has express authority pursuant to Sections 8-10 and 11-2 of the Illinois Park District Code to construct the breakwaters and related improvements for park purposes at Elder Lane Beach and Centennial Beach. 70 ILCS 1205/8-10, 11-2.

C. Without construction of the steel sheet pile bulkheads, rubble mound breakwaters and related public improvements at Elder Lane Beach and Centennial Beach, the Beaches are likely to experience further damaging erosion, loss of beach, and damage to the bluff and existing infrastructure; Elder Lane Beach will remain closed and Centennial Beach will remain underutilized by the public.

D. Any further delay in re-investing in the Beaches' infrastructure will further jeopardize the public's recreational use and enjoyment of the Beaches, would be contrary to the Park District's mission of maintaining safe, high-quality recreation facilities programs, and services, and is not in the best interests of the Park District and its residents.

E. Constructing the steel sheet pile bulkheads, rubble mound breakwaters, and related public improvements at Elder Lane and Centennial Park and Beach in accordance with the Plans attached hereto as **Exhibit H** is an essential step in achieving and maintaining specific, safe recreational and accessibility objectives for the Beaches identified in the Lakefront Master Plan and further acknowledged in subsequent actions and enactments of the Board of Park Commissioners.

F. Constructing the steel sheet pile bulkheads, rubble mound breakwaters and related public improvements at Elder Lane and Centennial Park and Beach in accordance with the Concept Plan attached hereto as **Exhibit H** is consistent with the program elements and design features previously approved by the Park Board, and with plans and objectives for the Beaches as articulated in the Lakefront Master Plan as approved and amended by the Board of Park Commissioners.

G. Construction of the steel sheet pile bulkheads and rubble mound breakwaters and related public improvements at the Beaches is necessary for the continued delivery of safe lakefront recreational services, programs, and opportunities to the residents of the Winnetka Park District and the general public, consistent with the Park District's statutory purposes.

H. The public improvements will materially improve, expand and enhance public safety and access to Centennial Beach, which since 1995 has been fenced, gated and locked for the exclusive use of 300 +/- dog beach pass holders.

I. Constructing the steel sheet pile bulkheads, rubble mound breakwaters and related public improvements at Elder Lane Beach and Centennial Beach in accordance with the Plans attached hereto as **Exhibit H** is necessary to maintain the Park District's long-standing commitment of making its beaches available and accessible to the public for swimming, off leash dog beach use, beach-walking, and enjoying beautiful vistas.

J. The Concept Plan for the public improvements at Elder Lane Beach and Centennial Beach attached hereto as **Exhibit H**:

1. Has been prepared by licensed and qualified professional engineers, coastal consultants, landscape architects, and related design professionals;
2. Is consistent with the spirit and intent of the Lakefront Master Plan;
3. Was prepared after consideration and inclusion of many principles and concepts received during substantial public engagement regarding the Beaches between 2014 and 2023;
4. Is consistent with and in accordance with parameters established by the Park Board in motions adopted October 27, 2022, March 23, 2023, and April 27, 2023; and
5. Has been prepared in order to comply with the current laws and regulations of:
    i. The United States pertaining to navigable waters including the Clean Water Act (33 U.S.C. 1344 et seq.), as administered by the USACE;
    ii. The State of Illinois, including the Illinois Rivers, Lakes and Streams Act, 615 ILCS 5/4.9 et seq. as administered by the IDNR, and
    iii. Village of Winnetka Ordinance MC-05-2023, Chapter 15.78, "Lakefront Construction."
    iv. MWRD
    v. IEPA
6. Is consistent with and supports the goals, mission and state funding priorities of the Illinois Department of Natural Resource Sustainable Shoreline Program, a part of the Coastal Management Program funded by the National Oceanic Atmospheric Administration ("NOAA").

K. The Concept Plan for the public improvements at Elder Lane Beach and Centennial Beach attached hereto as **Exhibit H**, will:

1. Provide access control to continue fee-based use of the Centennial and Elder Lane recreational beaches and the Centennial Dog Beach;
2. Provide critical public safety and welfare improvements;
3. Eliminate numerous dangers to patrons arising from interaction with damaged or dilapidated improvements, Elder Lane Pier segments, failing gabion mattresses and baskets with exposed rusted metal in the water, corrugated metal Village-owned pipe, and deteriorating concrete, submerged dog beach fence posts, wooden pilings from a pier dating to prior owner before 1969, other pier remnants, and other detritus;
4. Return to public use a more appropriate allocation of beach frontage for use as an off- leash dog beach;
5. Meet the Cook County and Village requirements associated with operation of an off-leash dog beach;
6. Provide long-term protection against beach loss and beach and bluff destruction and severe erosion;
7. Provide improved emergency and maintenance vehicle access route to the beach.

8. Enhance overall aesthetics of Elder Lane and Centennial Beaches;
9. Provide accessibility for disabled users in accordance with the Americans with Disabilities Act ("ADA"), including access to Centennial Beach boardwalk and viewing platform;
10. Eliminate the current gated, locked access that presently precludes the general public access to Centennial Beach; and
11. Update, improve and relocate the Village's existing storm sewer outfall pipe and related storm sewer system improvements.

Section Three-Park Board Findings Relating to Design and Construction

The Winnetka Park District Board of Park Commissioners does hereby find and determine as follows:

A. Design and construction of the Elder-Centennial Improvements in accordance with the Concept Plan attached hereto as **Exhibit H** will serve to preserve and protect that portion of the Lake Michigan shoreline at Elder Lane Beach and Centennial Beach, owned by the Park District, by eliminating numerous current hazards, reducing erosion, preserving coastline, and protecting the value of properties along the Lake and the entire Winnetka community.

B. Design and construction of the Elder-Centennial Improvements in accordance with the Concept Plan attached hereto as **Exhibit H** will stabilize and help to preserve Lake Michigan coastline and vegetation and will help to preserve and protect the Park District's beaches as a unique natural resource.

C. Design and construction of the Elder-Centennial Improvements in accordance with the Concept Plan attached hereto as **Exhibit H** will not cause environmental or ecological damage to the Lake or surrounding areas of the Village, or otherwise adversely impact the health, safety, and welfare of the Village of Winnetka or its residents.

D. The heights of the breakwaters to be constructed at Elder and Centennial Beach pursuant to the Concept Plan attached hereto as **Exhibit H** are 585 feet (IGLD 1985) at the lakeward end (average based on stone) and 585 feet (IGLD 1985) respectively, both of which are approximately two feet lower than the height of Lloyd Beach breakwater previously approved by the USACE and the IDNR; these heights were adjusted partially in response to concern expressed by the public in scores of meetings, workshops, and chats with commissioners over the height of the various breakwaters and the impact on vistas.

E. The existing Elder Lane Pier elevation is 584.67 feet (IGLD 1985) at lakeward end,

F. The heights of the breakwaters to be constructed at Elder and Centennial Beach pursuant to the Concept Plan attached hereto as **Exhibit H** are no greater than what is minimally necessary to achieve the intended and proper purpose of the project and said heights strike an appropriate balance between the competing interests of beach preservation and preservation of aesthetic views from the beach. The height of the proposed breakwaters are consistent with the height of existing Elder Lane Pier.

G. Breakwater heights lower than those set forth in the Concept Plan set forth in **Exhibit H** (which are already lower than the Lloyd Beach breakwater heights) would result in a degree of erosion protection and beach enhancement not consistent with the Project program.

H. It is the intent of the Park District to design and construct of the Elder-Centennial Improvements in accordance with the Concept Plan attached hereto as **Exhibit H** which complies with all other applicable provisions of the Village Code including construction permitting requirements set forth in Section 15.32 of the Municipal Code of the Village of Winnetka.

I. The design and construction of the Elder-Centennial Improvements in accordance with the Concept Plan attached hereto as **Exhibit H** includes only what is minimally necessary to achieve the intended and proper purpose of the project and is consistent with the purposes of section 15.78.010 of the Village Lakefront Construction Ordinance, MC 05-2023.

J. Design and construction of the Elder-Centennial Improvements in accordance with the Concept Plan attached hereto as **Exhibit H** is consistent with sound engineering practices, is not expected to create any public safety hazards and will not unreasonably obstruct or interfere with ingress or egress to adjacent public beaches or private property; to the contrary, the improvements will remove various existing safety hazards and enhance ingress and egress to adjacent public beaches.

K. Design and construction of the Elder-Centennial Improvements in accordance with the Concept Plan attached hereto as **Exhibit H** will not block or otherwise unreasonably interfere with the ability of public safety personnel to conduct search and rescue and other public safety operations, and in fact enhances access to the beaches by public safety vehicles, equipment and personnel. Presently there exists limited vehicle access from Elder Beach and no vehicle access to Centennial Beach. Access to Centennial Beach presently is by stairs, by water or by traversing a portion of beach encumbered by two to three steel jetties, which periodically block access depending upon water and sand elevations. The Elder-Centennial Improvements will expand access to Centennial via an ADA Accessible path and will improve vehicle access to Elder.

L. Design and construction of the Elder-Centennial Improvements in accordance with the Concept Plan attached hereto as **Exhibit H** will not alter existing sight lines along the Lake Michigan shoreline more than is minimally necessary to achieve the intended and proper purpose of the project, and is consistent with the purposes set forth in Section 15.78.010 of the Village Lakefront Construction Ordinance, MC 05-2023; in fact, the Elder-Centennial Improvements will result in: (i) less alteration to sight lines than the comparable improvements constructed at Lloyd Beach in 2020; and (ii) less alteration to sight lines than the existing pier at Elder Lane Park.

M. Breakwater heights lower than those set forth in the Concept Plan set forth in **Exhibit H** (which are already lower than the Lloyd Beach breakwater heights) would result in a degree of erosion protection and beach enhancement not in the best interests of the public.

N. The Plans for the public improvements at Elder Lane Beach and Centennial Beach attached hereto as **Exhibit H**, will:

1. Include rubble-mound breakwaters to create additional recreation area;
2. Protect the shoreline and bluff from long term effects of erosion due to variable water levels while providing a foundation for future phases of upland improvements;
3. Provide an accessible pathway conforming to ADA standards from the existing Centennial parking lot the Centennial Boardwalk and viewing platform, and provide for future ADA accessible route to the beach;
4. Provide public access to, from and across Park District beach property allowing the public to traverse the lakefront including steps up and over any improvement perpendicular to the shoreline;

5. Relocate the existing gated and locked entrance to the existing dog beach to the new boardwalk level to allow public pedestrian access to the remainder of Centennial Beach from Centennial Park and adjacent beaches;
6. Provide vehicular access path from Elder Lane parking lot to Elder Lane Beach for construction, maintenance and emergency purposes, and improved pedestrian access for beach patrons; and
7. Re-locate, replace, and improve the Village's Elder Lane storm sewer discharge within the outer edge of the rubble mound breakwater at the north end of Elder Lane Beach.

O. With this Resolution the Board desires to make clear that it approves the concept plans and parameters for the public improvements at Elder Lane Beach and Centennial Beach as proposed and attached hereto as **Exhibit H**, and further, that it approves preparation of the permit plans in substantial conformance with **Exhibit H**, for submittal to all permitting agencies with jurisdiction including the IDNR, U.S. Army Corps of Engineers, Illinois Environmental Protection Agency, MWRD, the Village of Winnetka for permit approval. .

Section Four- Approval and Ratification.

A. The Park Board hereby approves and adopts the facts, findings, and determinations set forth in this Resolution, including but not by limitation, the Recitals, Appendix I, and Sections One through Three hereof.

B. The Park Board hereby approves the Concept plan and parameters for the public improvements at Elder Lane Beach and Centennial Beach described in this Resolution and attached hereto as **Exhibit H**.

C. The Park Board hereby ratifies and re-affirms the Park Board's 2016 adoption of the Lakefront Master Plan and all subsequent amendments previously approved, and the Plan's vision for development of Elder/Centennial for the public good.

D. The Park Board hereby authorizes and directs Park District staff to prepare applications for permit for the breakwaters and lakefront improvements at Elder Lane Beach and Centennial Beach with plans and specifications in substantial conformance with the Concept Plan attached hereto as **Exhibit H**, for final board approval. The Park Board's review of the applications for permit (including the permit plans and specifications incorporated into said permit applications) for the breakwaters and lakefront improvements at Elder Lane Beach and Centennial Beach shall be solely for the limited purpose of ensuring consistency with the Concept Plan, the primary program elements and design features and the other parameters established by motions approved by this Park Board October 27, 2022, March 23, 2023, and April 27, 2023 (as set forth in detail in Appendix 1, Sections 63–73 of this Resolution).

Section Five- Repealer and Severability.

A. All other resolutions, motions, and parts of the same, in conflict or inconsistent with any of the provisions of this Resolution are hereby repealed to the extent they are inconsistent with this Resolution.

B. If any section, subsection, paragraph, sentence, clause or phrase of this Resolution or any part thereof is for any reason held to be unconstitutional, invalid, or ineffective by any court of competent jurisdiction, such holding shall not affect the validity or effectiveness of the intent or the remaining portions of this Resolution, or any part thereof.

Section Six—Effective Date.

This Resolution shall take effect immediately upon its passage and approval according to law.

PASSED AND APPROVED BY THE BOARD OF PARK COMMISSIONERS OF THE WINNETKA PARK DISTRICT, THIS 25th DAY OF May, 2023 BY ROLL CALL VOTE AS FOLLOWS:

AYES: Archambault, Lussen, Seaman, Codo, James
NAYS: Rapp, Root
ABSENT: None
ABSTAIN: None

EXECUTED THIS 25th DAY OF May, 2023.

ATTEST:

/s/Warren A. James
_____
Warren A. James President,
Board of Park Commissioners Winnetka
Park District

/s/ John Peterson
_____
John Peterson Secretary,
Board of Park Commissioners
Winnetka Park District

SECRETARY'S CERTIFICATE

I, John Peterson, do hereby certify that I am Secretary of the Board of Park Commissioners of Winnetka Park District, Cook County, Illinois, and as such official, I am keeper of the records, ordinances, resolutions, files, and seal of said Park District; and,

I hereby further certify that the foregoing instrument is a true and correct copy of:

RESOLUTION 23-5-25

WINNETKA PARK DISTRICT

FINDINGS OF FACT CONCERNING PROPOSED LAKEFRONT IMPROVEMENTS FOR ELDER LANE AND CENTENNIAL PARK BEACHES AND AUTHORIZATION AND DIRECTION TO STAFF FOR SUBMITTAL OF BREAKWATER AND BEACHFRONT PERMIT APPLICATIONS TO THE UNITED STATES ARMY CORPS OF ENGINEERS AND THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES

adopted at a duly called Regular Meeting of the Board of Park Commissioners of Winnetka Park District, held in Winnetka, Illinois, in said District at 6:00 p.m. on the 25th day of May, 2023.

I do further certify that the deliberations of the Board on the adoption of said resolution were conducted openly, that the vote on the adoption of said resolution was taken openly, that said meeting was held at a specified time and place convenient to the public, that notice of said meeting was duly given to all of the news media requesting such notice, that an agenda for said meeting was posted at the location where said meeting was held and at the principal office of the Board at least 48 hours in advance of the holding of said meeting, that said meeting was called and held in strict compliance with the provisions of the Open Meetings Act of the State of Illinois, as amended, and with the provisions of the Park District Code of the State of Illinois, as amended, and that the Board has complied with all of the provisions of said Act and said Code and with all of the procedural rules of the Board, in the passage of the resolution.

IN WITNESS WHEREOF, I hereunto affix my official signature and the seal of said Park District at Winnetka, Illinois this 25th day of May, 2023.

/s/ John Peterson

_____
John Peterson, Secretary
Board of Park Commissioners
Winnetka Park District

[SEAL]

EXHIBIT SUMMARY

Exhibit

A. Depiction of Elder Lane and Centennial Parks.

B. Winnetka Park District Dog Beach Pass Holder Data" dated 05/23/23.

C. Shabica & Associates, Inc. presentation titled "Lake Michigan Shoreline" originally presented to the Winnetka Park District March 24, 2022. The presentation details dynamic and fluctuating Lake Michigan water levels, effects of lakebed downcutting, sand movement/longshore transport challenges and history and coastal structures.
https://www.winpark.org/wp-content/uploads/2022.3.24-Shabica-Presentation-PDF-1.pdf

D. Each of the exhibits prepared for and presented during the January 21, 2023, Open House/Workshop held at the Winnetka Community House and subsequently posted on the Park District website.
https://www.winpark.org/wp-content/uploads/WPD_2023_BoardExhibits_Reduced_Reduced-2-compressed-1.pdf

E. Each of the exhibits prepared for and presented during the March 18, 2023, Open House held at Skokie School Cafeteria and subsequently posted on the Park District website.
https://www.winpark.org/wp-content/uploads/March-18_23_Final-Boards-Open-House-compressed-2.pdf

F. Each of the exhibits prepared for and presented during the April 15, 2023, Open House held at the Winnetka Community House and subsequently posted on the Park District website.
https://www.winpark.org/wp-content/uploads/Final-Draft-4_17_23-1057-hours-CK-for-the-website-reduced-reduced-compressed.pdf

G. Each of the slides prepared and presented during the May 25, 2023, Regular Park District Board meeting as included in the Board meeting packet and posted on the Park District website in advance of the board meeting being held May 25, 2023.
https://winpark.diligent.community/home/document/05e711fd-c2fa-42f5-9eb9-e45a1a15dcb9

H. Concept Plan showing the proposed improvements which are the basis of the permit plans to be prepared and submitted to the reviewing agencies.

I. Village Engineer, James Bernahl, memo to Village Manager, Rob Bahan regarding Elder Park Stormwater Outfall, dated October 26, 2022.

J. Winnetka Waterfront 2030 | Lakefront Master Plan

https://www.calameo.com/winnetkaparks/read/002854155cf4afa1680fd

K. Village of Winnetka Futures 2040 Comprehensive Plan

https://www.villageofwinnetka.org/DocumentCenter/View/2064/Winnetka-Futures-2040-Plan-PDF

L. Professional Opinion Letter Regarding Resolution 23-5-25

APPENDIX 1
ADDITIONAL LEGISLATIVE FACTUAL FINDINGS

Lake Michigan Conditions

1. Lake Michigan water levels vary both seasonally and over a period of years. In January 2013, the Lake Michigan water level dropped to its lowest level in more than 100 years, declining to 576.02 (IGLD1985). By 2020, Lake Michigan water level rebounded to exceed the 100-year record monthly high-water level from January through August, reaching a peak of 582.22 (IGLD1985) in July 2020. The increase in water level of more than six feet in just seven years was unprecedented within the 1918–2023-time frame..

2. Lake Michigan storm events, even when occurring during low water periods, have damaged the Park District's existing lakefront infrastructure. **Exhibit C,** Shabica Presentation March 24, 2022, slide 50 of 62, picture of Lloyd Beach inundation from Halloween storm 2014**.**

3. More recent high-water conditions in Lake Michigan destroyed lakefront infrastructure and improvements at Elder Lane Beach, which were installed during a prior low water period (paddle board and kayak racks) and at Centennial Beach (dog beach fence). **Exhibit F**, April 15, 2023 Open House, slides 11 and 13.

4. Elder Lane Beach has been closed since 2020 due to damaged infrastructure (gabion blankets, pier end, storm sewer corrugate metal pipe failing) **Exhibit F,** April 15, 2023 Open House, slide 11 (photos, damage reports).

5. Less robust infrastructure, including but not limited to gabion baskets, gabion mattresses have experienced a shorter useful life and upon failure create hazardous conditions to beach users while exposing bluff land and upland improvements vulnerable to damage.

6. Shoreline protection including headland beach systems help to sustain usable beaches in varying lake levels while also providing additional shoreline protection and prevent lakebed downcutting which otherwise may irreversibly damage the lakeshore. **Exhibit C,** Shabica Presentation March 24, 2022. Shabica Presentation March 24, 2022.

7. The erection of a multitude of man-made improvements north of the Beaches—including major improvements at Waukegan Harbor and Great Lakes Naval Training Center that extend more than 2,000 feet into Lake Michigan have interrupted natural littoral drift, caused sand that would normally and naturally drift south towards Elder Lane and Centennial Beaches to drift outward into the lake, dramatically reducing the volume of sand reaching the beaches along the North Shore of Chicago. **Exhibit C,** Shabica Presentation, March 24, 2022, slide 32 of 62).

Beach, Groin, and Pier Conditions at Elder Lane and Centennial Beaches

8. Steel sheet pile groins or "jetties" perpendicular to the shoreline are presently in place, installed in an effort to arrest littoral drift and sustain the Beaches. These improvements are damaged and fragmented, and create potentially dangerous conditions to beach users.

9. Remnants of wooden piles protrude from the lakebed at Centennial Beach.

10. A chain link fence installed to establish the northerly boundary of Centennial Dog Beach was destroyed by waves and ice during the recent high-water period.

11. The Park District has regularly sought to cooperate with the Village of Winnetka on repair and enhancement of stormwater improvements, and the Park District remains prepared to work collaboratively with the Village to incorporate the much-needed modernization of the stormwater improvements at Elder Lane Park.

Elder Lane Beach

12. The Elder Lane Pier was designed and constructed in the late 1940's. The outer section of Elder Lane Beach pier is failing and the pier, in its current condition, constitutes a serious risk to the public's health and safety.

13. The Elder Lane Beach pier incorporates a 54" diameter corrugated metal storm sewer outfall which serves a large portion of southeast Winnetka. This critical infrastructure, owned and operated by the Village of Winnetka, has rusted through to an extreme state of disrepair, as evidenced by a section of pipe that washed ashore in 2022. **Exhibit D,** January 21, 2023, Open House, slide 19

14. The Winnetka Park District and the Village of Winnetka continue to cooperate to improve the Village owned and operated storm sewer system, parts of which are installed on Park District property, including the Elder Lane storm sewer discharge. The Elder storm sewer serves the largest watershed area in east Winnetka and is the only east side watershed that also includes areas west of the railroad tracks. Village Engineer, James Bernahl, issued a Memorandum October 26, 2022, which details the proposed improvements and provided a history of the storm sewer, the area which it serves and the aspects of permitting a replacement as proposed by the Winnetka Park District. **Exhibit I,** James Bernahl, Village Engineer, memorandum to Robert Bahan, Village Manager, dated October 26, 2022, regarding Elder Lane Park Village-owned stormwater Outfall.

15. While Elder Lane Beach has some limited ADA accessibility, it contains only one handicapped accessible parking space at Beach level.

16. In 1987, the Park District installed a variety of improvements at Elder Lane Beach to address erosion, including new steel sheet pile bulkheads (North end), gabion baskets and gabion mattresses (adjacent to the Elder Beach house) and other related improvements as detailed in Harza Engineering Plans titled, Elder Lane Park Plan and Section, dated April 1987 issued for construction, and December 1987, issued for record.

17. The gabion baskets and mattresses installed in 1987 at Elder Lane Beach are beyond their useful lives and sustained damage during the recent period of high water. The gabion mattresses at the beach level south of the Elder Beach house are broken apart and the interior steel wires are exposed below the surface within six (6) feet of the end of the concrete ramp. see **Exhibit F,** pictures provided during April 15,, 2023 open house, slide 11.).

18. Also at Elder Lane Beach, there are failed concrete foundations, remnants of paddle board/kayak racks destroyed by rising water levels which peaked in 2020, which constitute an ongoing safety hazard and require removal.

Centennial Beach

19. The existing steel groins were installed at Centennial beach after IDNR approval, August 1953 by a predecessor owner (prior to Park District ownership of Centennial Beach).

20. Centennial Beach also includes remnants of wooden piles from a pier that was installed at Centennial Beach in approximately 1946; these pier remnants remain in place, constitute an ongoing safety hazard, and require removal.

21. The existing pedestrian path from the Centennial Park parking lot to the mid-bluff path and dog beach access gate has an existing slope in excess of 8.33% and therefore is not compliant with ADA accessibility standards and should be re-designed and remediated.

22. The existing dog beach at Centennial Beach does not conform to Cook County or Village of Winnetka regulations regarding off-leash dogs because it lacks the required fencing to prevent unleashed dogs from straying onto adjacent properties.

23. Centennial Beach currently has no ADA-compliant access from the bluff to the Beach; access consists of stairs only.

24. A chain link fence installed at Centennial Beach to establish the northerly boundary of the Centennial Beach off-leash dog park, was destroyed by waves during the rising water levels, which peaked in 2020.

25. In 1987, the Park District installed steel sheet pile bulkheads and gabion mattresses designed by Harza Engineering to address bluff erosion along Centennial Beach. (Centennial Park Plan & Details, Harza Engineering, April 1987, issued for construction, December 1987, issued for record.) The top of the sheet pile elevation is designed at 588.5 (IGLD1985) with additional erosion protection provided by the gabion mattresses extending behind the steel sheet pile wall and up the slope approximately 9 feet laterally to an elevation of approximately 591.5 (IGLD1985).

26. Other public beaches in the community have handicapped accessible parking, and limited or no handicapped accessible access points, including Maple Street Beach (one handicap accessible parking space at beach level), Lloyd Beach (two handicap accessible parking spaces at beach level), Tower Beach (four handicap accessible parking spaces at beach level).

27. Centennial Beach is the only Winnetka Park District Beach that presently does not afford ADA compliant access.

28. Centennial Beach, by virtue of its length and the comparatively low bluff elevation, is the only Winnetka Park District beach that affords the opportunity to provide an ADA accessible path from Sheridan Road to the boardwalk level without extensive switchbacks.

2030 Waterfront Master Plan

29. In 2014, the Park District's Board of Park Commissioners initiated the development of a comprehensive waterfront plan designed to assess its recreational beach system and develop a plan for addressing continuing beach erosion, expanding recreational uses and enhancing handicapped accessibility for the community and users of its public beach system.

30. The "Winnetka Park District 2030 Waterfront Master Plan" ("Lakefront Master Plan") was a community-driven plan, focused on learning the public's opinions about the beaches and using

experts to develop a plan to arrest erosion, expand recreational offerings on the Winnetka lakefront, and enhance accessibility for all.

31. The Park District was awarded grant funds from the State of Illinois, Department of Natural Resources Sustainable Shoreline Program Grant(s) for the Lakefront Master Plan. The IDNR monitored, reviewed and approved the Park District's Master Plan before releasing its part of the Plan's funding.

32. The Park District was awarded additional grant funds from a second State of Illinois, Department of Natural Resources Sustainable Shoreline Program Grant for bluff restoration plantings at all five Park District-owned beaches.

33. The purpose of the Lakefront Master Plan was "to create a strategic and unified community vision for the future of Winnetka's shoreline."

34. The Lakefront Master Plan's Mission Statement was to "provide a long-term, sustainable strategy for the preservation, protection, restoration and enhancement of Winnetka's lakefront for both Winnetka residents and a broad range of Lake Michigan user groups."

35. Prior to drafting and adopting the Lakefront Master Plan, the Park District:

    A. Formed a citizen's advisory committee, consisting of ten citizens, known as the Lakefront Advisory Committee ("LAC"), a comprehensive team of lakefront experts from varied disciplines, including coastal engineering;

    B. Conducted extensive stakeholder interviews with residents and focus groups including interviews of over 180 residents and stakeholders;

    C. Conducted multiple web-based surveys; and

    D. Held public open house meetings to determine the public's opinion.

36. The LAC held fourteen open meetings, interviewed over 85 stakeholders representing a variety of groups with interest in the future use and enjoyment of the publicly owned lakefront, and interviewed members of the Village's Board of Trustees, the Environmental and Forestry Commission, engineering and planning staff, board members of the Winnetka Parks Foundation, park district staff from neighboring communities, local institutions, and community organizations.

37. Ten public open house meetings were hosted as part of the overall engagement strategy, at which members of the public were free to comment on existing conditions, design concept alternatives, draft concept reviews, and implementation priorities; the various opinions and insight gained from these meetings are recorded in the completed study found online at https://www.winpark.org/park-district-info/plans-projects/waterfront-2030/.

38. The Park District caused three web-based surveys to be conducted to collect public opinion relative to the lakefront planning process, one administered by the Project Team, one by the Park District, and one by the Winnetka Caucus Council.

39. Over 180 residents, stakeholders, public officials, professionals with various types of expertise, property owners, boat beach users, dog beach users, and other beach users interacted with the

LAC at some point during the public engagement process that preceded preparation of Lakefront Master Plan's final report.

40. The findings and recommendations of the Lakefront Master Plan reflect the extensive public engagement summarized above.

41. The Lakefront Master Plan reported on the community's support for and commitment to unification of the Beaches through the possible future acquisition of 261 Sheridan Road, listing the acquisition of the property between Elder and Centennial (261 Sheridan Road) as its top "Land Management" priority, and as a top priority for Centennial Park and Beach.

42. The Lakefront Master Plan highlighted the public's overwhelming support for Park District acquisition of 261 Sheridan Road, finding that the acquisition of 261 Sheridan Road would enable the Park District to (1) establish nearly 1,000 lineal feet of continuous public beach, (2) construct a three-element breakwater system to preserve said beach, (3) resolve the chronic erosion problem plaguing the Beaches, and (4) provide a variety of other recreational amenities for the community as identified during the public engagement process, including continuation of a dog park.

43. The Lakefront Master Plan included alternative designs for lakefront improvements, one with and one without the inclusion of 261 Sheridan Road, both intended to take advantage of Elder/Centennial's full recreational potential; both design alternatives called for the construction of "rubble mound breakwaters," in future lakefront improvements at Elder/Centennial was reaffirmed by the Park Board October 27, 2022.

44. Since its adoption, the Lakefront Master Plan has been endorsed supported and followed by four successive Boards of Park Commissioners and endorsed by the Winnetka Caucus.

45. On or about April of 2016, the Board of Park Commissioners amended the Lakefront Master Plan at the request of Commissioner John Thomas to specifically incorporate ADA accessibility as a primary objective.

Village of Winnetka Futures 2040 Comprehensive Plan

46. On April 18, 2023 the Village of Winnetka adopted the Winnetka Futures 2040 plan as the Comprehensive Plan for the Village of Winnetka ("Village Comprehensive Plan").

47. The Village Comprehensive Plan recognized the important role that the Park District plays in creating a sense of place that is different from surrounding communities.

48. The Village acknowledged the wealth of opportunities it has working in partnership with the Park District to improve resident access to its abundant open spaces and natural areas. **Exhibit K,** Village Comprehensive Plan, p. 35.

49. The Village Comprehensive Plan states that the Lakefront Master Plan "provides a sustainable strategy for the preservation, protection, restoration and enhancement of Winnetka's lakefront for both Winnetka residents and a broad range of Lake Michigan user groups. The plan is meant to serve as a conceptual guide for future projects designed to preserve and enhance Winnetka's lakefront beaches and parks, strengthen resiliency measures, and guard against bluff and shoreline erosion." **Exhibit K,** Village Comprehensive Plan, p. 157.

50. The Village Comprehensive Plan further acknowledges that due to current fluctuating record-high water levels, high wave action, and other environmental factors, shorelines along Lake Michigan are experiencing erosion and significant destruction at unprecedented rates, and that some shorelines are eroding at a rate of 17 feet per year; the Village Comprehensive Plan also points out that Winnetka's lakefront, both publicly and privately owned, has been negatively impacted by shoreline erosion." **Exhibit K,** Village Comprehensive Plan.

51. The Winnetka Comprehensive Plan further acknowledges the Park District's recent efforts to monitor and restore its parkland.

52. Goal 6.1 of the Winnetka Comprehensive Plan commits the Village to "continue to promote and encourage partnerships with other units of government and agencies to conserve, restore, and enhance natural features and ecosystems, to ensure accessibility to natural areas, parks and other open or public spaces, and to support recreational facilities and programs that support the health of residents of all ages and abilities." **Exhibit K,** Village Comprehensive Plan.

Breakwater Design

53. Consistent with the Lakefront Master Plan, on or about November 18, 2020, the Park District began the process of preparing and considering various design options for a breakwater system entirely consistent with the Phase 2 design set forth in the Lakefront Master Plan; the design options consisted of three separate breakwater structures, with one each situated on the north and south ends of the combined Elder/Centennial Park, and one in the middle at 261 Sheridan Road, which would be owned by the Park District upon completion of the exchange closing.

54. On February 23, 2022, the Park District submitted a Breakwater Design to the USACE and IDNR and the other Permitting Authorities, for the south groin to be built on Park District property just north of the Centennial Beach south property line as that line would exist after Orchard and the Park District exchanged parcels.

55. While the permit application was pending before IDNR and the other agencies charged with public review of same, public opposition to the Centennial breakwater design began to spread on social media and throughout the community. Extensive public opposition to the design was communicated to the Park Board at a variety of meetings in May and June of 2022.

56. On June 9, 2022, the Park Board voted to withdraw the pending application for approval of the Centennial breakwater on a vote of three in favor, two opposed, and two absent.

57. In addition to the public engagement provided during the creation of the Lakefront Master Plan, the Park District has regularly sought and received extensive public engagement concerning the Elder Lane and Centennial Beach and Park projects, including but not limited to:

    A. Ten regular board meetings between June 9, 2022, and March 31, 2023 (includes combined Park Board and Committee of the Whole meetings) totaling more than 78 hours of meetings;
    B. Seven Committee of the Whole meetings;
    C. Two special board meetings;
    D. Seven "Chats with Commissioners;" and
    E. Five Open house/workshop meetings referenced in paragraph 70 below.

58. At these meetings, the public supplied hours of detailed comments, studies, and opinions concerning all aspects of the improvements at Elder Lane Park and Beach and Centennial Park and Beach under consideration by the Park Board.

59. In addition to these Board meetings, the Park District held many open house/workshop meetings, including the following:

    A. July 18, 2022: The Winnetka Park District held an Open House/Workshop and Workshop affording the public the opportunity to view proposed Centennial Beach design elements at Centennial Beach, view the existing breakwater at Lloyd Beach to provide context, and share ideas during a community workshop meeting at the Hubbard Woods Elementary School auditorium during which the public could engage with Park District Commissioners, Staff and Consultants.
    B. August 25, 2022: The Winnetka Park District held an Open House/Workshop affording the public the opportunity to view proposed Centennial Beach design elements at the Hubbard Woods Elementary School auditorium during which the public could engage with Park District Commissioners, Staff and Consultants.
    C. January 21, 2023: The Winnetka Park District held an Open House/Workshop at the Winnetka Community House affording the public the opportunity to review the history and plans for Elder and Centennial Park improvements and engage with Park District Commissioners, Staff and Consultants. **Exhibit D.**
    D. March 18, 2023: The Winnetka Park District held an Open House at the Skokie School cafeteria in Winnetka to afford the public the opportunity to review revised and updated plans for Elder and Centennial Park improvements and engage with Park District Commissioners, Staff and Consultants. **Exhibit E.**
    E. April 15, 2023: The Winnetka Park District held an Open House at the Winnetka Community House to afford the public the opportunity to review the further revised and refined plans for Elder and Centennial Park improvements and engage with Park District Commissioners, Staff and Consultants. **Exhibit F.**

60. The public also submitted written documents to the Park District expressing opinions on various aspects of the designs being considered for the improvements at Elder Lane and Centennial Beaches.

61. At its regular Board meeting October 27, 2022, the Park Board continued its process of revising the design of breakwaters for Elder Lane and Centennial Beaches, adopting nine motions which established specific parameters for the new designs, including the following:

    A. Amended the Lakefront Master Plan to include a dog beach at the south end of Centennial Beach subject to the following conditions:

        i. Shore frontage allocated to dog beach use shall not be less than 170 feet and not greater than 270 feet.
        ii. Dog beach area must include secure boundary to prevent dogs from straying beyond the borders of the dog beach while off leash.
        iii. Electric gate system relocated to the beach or boardwalk level to afford public access to the remainder of Centennial Beach.
        iv. Dog beach boundaries to accommodate public passage along the lakefront in keeping with the IDNR guidelines.

B. Reaffirmed use of a headland beach systems at Elder Lane and Centennial Beaches including rubble mound breakwater structures to create additional recreational area and to minimize loss of sand due to littoral transport.

C. Authorized resubmittal for all permits necessary to complete renovation of Elder Lane Park and Beach in keeping with the Elder 2.A. Plan and to proceed with the plan as considered October 13, 2022, subject to the following provisions:

i. Plan to include vehicular access path as previously designed and depicted on prior plans, allowing construction and maintenance access to Elder Lane Beach from existing parking lot.
ii. Plan to include replacement and re-routing of storm sewer from Sheridan Road to the new proposed discharge point within the outer edge of the rubble mound breakwater as previously designed and depicted on prior plans, subject to finalization of plans as guided by permit review comments from the several regulatory authorities and peer review from licensed coastal engineer.
iii. Adjust height of proposed new rubble mound breakwater at north end of Elder to maximize panoramic views of the lake while ensuring adequate shoreline protection, subject to peer review by licensed coastal engineer.
iv. Remove proposed viewing area on top of rubble mound groin at Elder to minimize height of rubble mound breakwater and propose inclusion of pedestrian viewing area to the top of future rubble mound breakwater separating the dog beach from the public swimming beach at Centennial in a manner that extends the ADA accessible path to the top of the future rubble mound breakwater.
v. Amend Elder 2.A. Plan to remove proposed rubble mound breakwater improvements abutting the existing steel groin adjacent to 261 Sheridan until final disposition of Exchange Agreement is determined.

D. Incorporated pedestrian access path that is compliant with ADA standards to Centennial beachfront as previously designed with continuously accessible path from existing parking lot to the boardwalk at elevation 590 or below.

E. Authorized the Director of Parks and Maintenance to secure design proposals for Elder + Centennial from the Lakota Group, Shabica & Associates and a third party coastal engineer for consideration and vote December 1, 2022.

F. Authorized the Executive Director to proceed with a Request for Proposal to engage the services of an Illinois licensed coastal engineering firm not associated with the Joint Applications filed by the Park District with the IDNR and the Army Corps to collaborate with WPD Staff, its Board, and consultants in the creation of beachfront design alternatives for Elder Lane and Centennial Beaches and to promptly engage the services of such firm.

G. Directed the inclusion of pedestrian access to and from park district property to traverse the beachfront beyond WPD property along the highwater mark in accordance with the Illinois Public Trust Doctrine, in the design parameters for the restoration and improvement of Centennial and Elder Lane Beaches.

H. Directed that the designs for the Centennial and Elder Lane Beach improvements limit barriers or impediments to open Lakefront vistas and views of the Lake from all Park District beachfront vantage points.

62. Following the adoption of these motions October 27, 2022, the Park District engaged the services of a registered professional engineer not previously associated with the original breakwater design and permit application, to review the work of the prior consultants, engineers, designers and landscape architects, and to assist in the development of new plans for breakwater structures at Elder Lane Beach and Centennial Beach consistent with new information obtained a variety of sources after withdrawal of the original permit application.

63. The Design Team continued the process of developing new designs for the Elder and Centennial breakwaters in accordance with (a) the October 27, 2022 motions, (b) further Park Board input, (c) reusable elements of the work performed by the Park District's original group of coastal scientists, consultants, engineers, landscape architects, and others with vast experience in the design and construction of breakwaters and related improvements in Lake Michigan, (d) various aspects of public input provided to the Park Board during the many hours of public testimony over the numerous meetings held after withdrawal of the original permit application for the south breakwater, and (d) the perspective provided by the newly engaged coastal engineer.

64. Park District also engaged an attorney/accessibility consultant to assist with the design and development of accessible features and amenities for the beach improvements (John McGovern, W/T Consulting) and enjoys the expertise and review services of Northern Suburban Special Recreation Association ("NSSRA").

65. On January 21, 2023 the Park District conducted a workshop/open house, open to the public at which it obtained additional public opinion concerning the then most recent designs for the breakwater improvements at the Beaches.

66. On March 18, 2023 the Park District conducted another open house, open to the public at which it obtained additional public opinion concerning the then most recent designs for the Breakwater improvements at the Beaches.

67. On March 23, 2023, the Park Board voted to authorize staff and consultants to continue with the preparation of permit plans and applications for permits to the several agencies (now including the Village of Winnetka, which on March 21, 2023, adopted an ordinance establishing a Village permit requirement for persons engaged in construction activities on the Lake Michigan shoreline ("March 23, 2023 Motion").

68. The March 23, 2023, Motion acknowledged plans dated March 18, 2023, and directed staff and consultants to continue work on the plans consistent with the October 27, 2022, motions.

69. The March 23, 2023, Motion included the following conditions:

A. Further refinements to the plan will be incorporated as recommended by staff, consultants and various reviewing agencies and permitting authorities.

B. Upon incorporating the refinements and preliminary review comments, the consultants shall prepare an engineers' estimate of probable construction costs for the improvements included in Elder Phase I and shall submit the estimate for Board consideration.

C. The proposed rubble mound breakwater improvement abutting the existing steel groin adjacent to 261 Sheridan Road is re-incorporated into the plan as recommended by the consulting engineer to address safety concerns and prevent erosion.

D. Recognizing the storm sewer system is owned and operated by the Village of Winnetka, the Park District shall enter into an intergovernmental agreement with the Village of Winnetka to address the rights and responsibilities of each party with respect to the removal, relocation, and improvements to the storm sewer system.

70. On April 27, 2023, the Park Board voted to approve primary program elements and design features for Elder and Centennial Beaches consisting of:

A. Primary Program Elements

i. Swimming at Elder Lane Beach.

ii. Swimming at the north side of Centennial Beach.

iii. Off-leash dog park at the south side of Centennial Beach.

B. Design Features, as depicted in Drawings prepared by The Lakota Group, Design + Concept Plans Elder/Centennial Beach Feasibility Study, Draft Plan April 15, 2023 (Elder + Centennial Phase 1, Phase 2, and Phase 3):

i. Headland Beach System comprised of rubble-mound breakwaters to create additional recreational areas and minimize the loss of sand from littoral transport;

ii. Retaining wall(s) along the bluff and generally parallel to the shoreline, to mitigate long term effects of erosion due to variable water levels to protect the bluff from erosion and provide a foundation for future phases of upland improvements;

iii. ADA accessible pathway from Centennial parking lot to the boardwalk;

iv. Pedestrian access to, from and across Park District beach property allowing the public to traverse the lakefront including steps up and over any improvements perpendicular to the shoreline;

v. Relocated entrance to the dog beach such that the electric key-card operated entry gate is located at the boardwalk allowing Public pedestrian access to remainder of Centennial Beach from Centennial Park;

vi. Vehicular access path from Elder Lane parking lot to Elder Lane Beach for construction, maintenance and emergency purposes and pedestrian access for beach patrons; and

vii. Re-located and improved Elder Lane storm sewer with discharge point within the outer edge of the rubble mound breakwater.

71. The Board further authorized a negotiating team, appointed by the Board, including at a minimum, two Commissioners, the Executive Director and Corporate Counsel, to negotiate an Intergovernmental Agreement with Village of Winnetka for design, construction, operation and maintenance of upgraded Village-owned stormwater improvements/system at Elder Lane Park and Beach.

72. On April 27, 2023, the Board also authorized and directed staff to:

A. Prepare an updated preliminary project schedule and cost estimate with alternates, including phased implementation of the overall Elder-Centennial project for Board review and action;

B. Refine the long-range capital plan budget and develop a detailed project financing plan for Board review and action; and

C. Prepare a resolution summarizing the Board's proceedings and documenting its findings related to the Elder Centennial project for Board consideration and action May 25, 2023.

73. Lastly, April 27, 2023, the Board authorized and directed staff and consultants to:

A. Prepare permit drawings and plans for the Elder Lane Park and Beach and Centennial Park and Beach improvements, based on the program elements and design features approved by the Board earlier April 27, 2023; and

B. Prepare all required permit applications including but not by limitation, applications to the United States Army Corps of Engineers, the Illinois Department of Natural Resources, the Metropolitan Chicago Water Reclamation District, the Illinois Environmental Protection Agency, and the Village of Winnetka, for improvements to Elder Lane Park and Beach and Centennial Park and Beach, for further direction on filing of same with the reviewing agencies from the Park Board at a subsequent meeting.

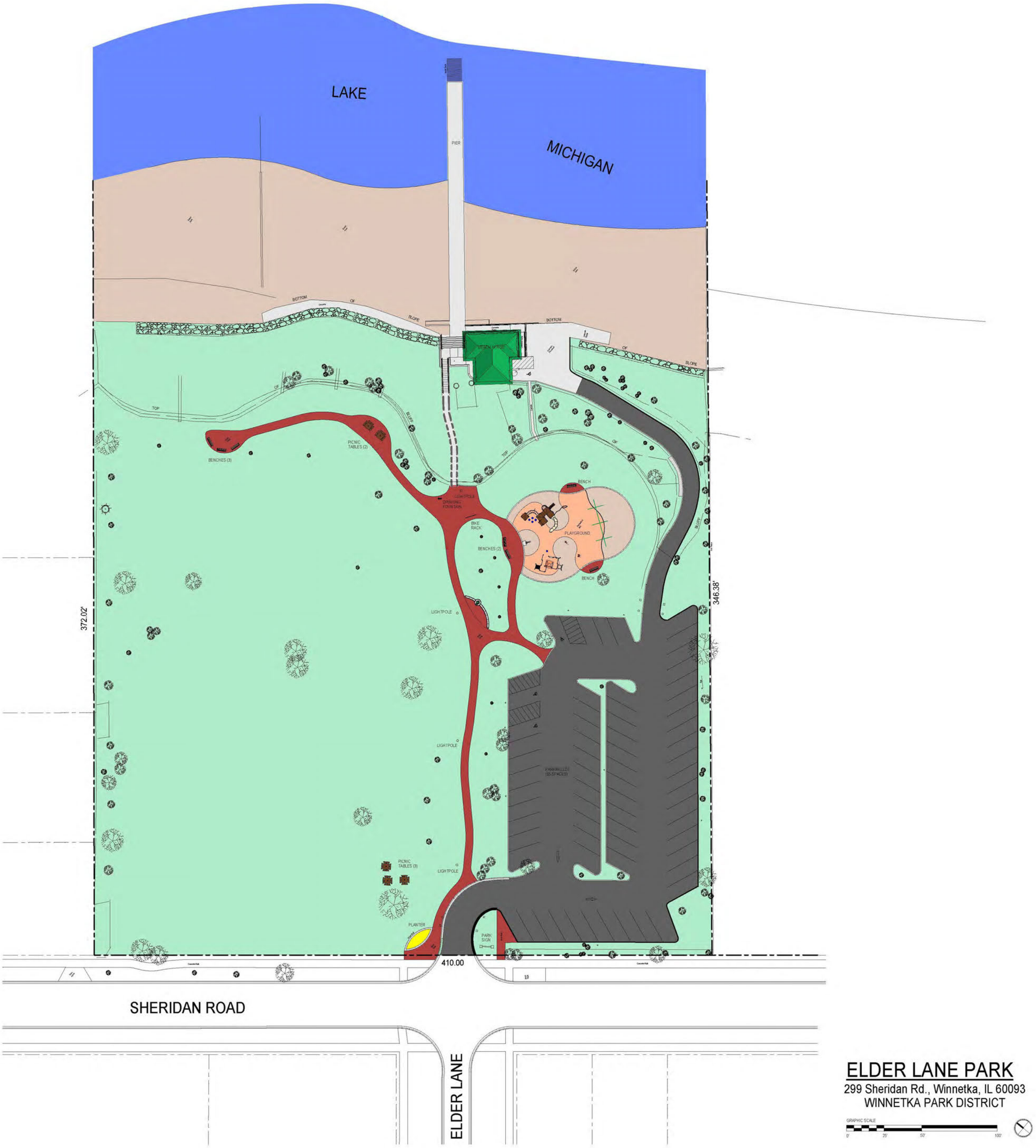
EXHIBITS

Exhibit A:

Depiction of Elder Lane and Centennial Parks.

Exhibit A

Depiction of Elder Lane Park and Beach
Existing Site Plans



ELDER LANE PARK
299 Sheridan Rd., Winnetka, IL 60093
WINNETKA PARK DISTRICT

GRAPHIC SCALE
0' 25' 50' 100'

Exhibit A

Depiction of Centennial Park and Beach
Existing Site Plans

Exhibit B:

Winnetka Park District Dog Beach Pass Holder Data" dated 05/23/23.

Winnetka Park District
BOARD SUMMARY

Date: May 17, 2023

To: Board of Commissioners

From: Kyle Berg, Superintendent of Recreation + Facilities Manager

Through: John Peterson, Executive Director

Subject: Dog Beach Pass Holder Data

Date: 5-23-2023

Summary:
Winnetka Park District routinely tracks dog beach pass data to inform programming decisions. Dog beach passes may be used only at the Centennial Park Dog Beach. Centennial Dog Beach has been fenced, gated, and access restricted to only dog beach pass holders for 28 years. The table below is an overview of total households in possession of a dog beach pass. The information is further delineated according to Winnetka Park District resident vs. non-resident status.

Year	Total Households with Dog Beach Passes	Resident Dog Beach Passes	Non-Resident Dog Beach Passes
2022	286	232	54
2021	386	300	86
2020	301	245	56
2019	461	356	105
2018	465	371	94
2017	413	333	80
2016	385	315	70
2015	330	267	63
2014	350	285	65
2013	346	275	71
2012	409	320	89
2011	384	311	73
2010	426	351	75
Average	380	305	75

The Winnetka Park District includes all residents of Winnetka, as well as a portion from Northfield, Glencoe, and unincorporated areas. According to 2017-2021 U.S. Census data,

Winnetka was comprised of 4,353 unique households. The average total number of households within the Winnetka Park District in possession of a dog beach pass from 2010-2022 was 305. Based on an estimation of 4,500 total unique households within the Winnetka Park District, 6.8% of households possess a dog beach pass in a given year.

Centennial Dog Beach measures 520 lineal feet of shore frontage and represents more than 21% of Winnetka Park District controlled beachfront.

END

Exhibit C:

Shabica & Associates, Inc. presentation titled “Lake Michigan Shoreline” originally presented to the Winnetka Park District March 24, 2022. The presentation details dynamic and fluctuating Lake Michigan water levels, effects of lakebed downcutting, sand movement/longshore transport challenges and history and coastal structures.

https://www.winpark.org/wp-content/uploads/2022.3.24-Shabica-Presentation-PDF-1.pdf

Exhibit D:

Each of the exhibits prepared for and presented during the January 21, 2023, Open House/Workshop held at the Winnetka Community House and subsequently posted on the Park District website.

https://www.winpark.org/wp-content/uploads/WPD_2023_BoardExhibits_Reduced_Reduced-2-compressed-1.pdf

Exhibit E:

Each of the exhibits prepared for and presented during the March 18, 2023, Open House held at Skokie School Cafeteria and subsequently posted on the Park District website.

https://www.winpark.org/wp-content/uploads/March-18_23_Final-Boards-Open-House-compressed-2.pdf

Exhibit F:

Each of the exhibits prepared for and presented during the April 15, 2023, Open House held at the Winnetka Community House and subsequently posted on the Park District website.

https://www.winpark.org/wp-content/uploads/Final-Draft-4_17_23-1057-hours-CK-for-the-website-reduced-reduced-compressed.pdf

Exhibit G:

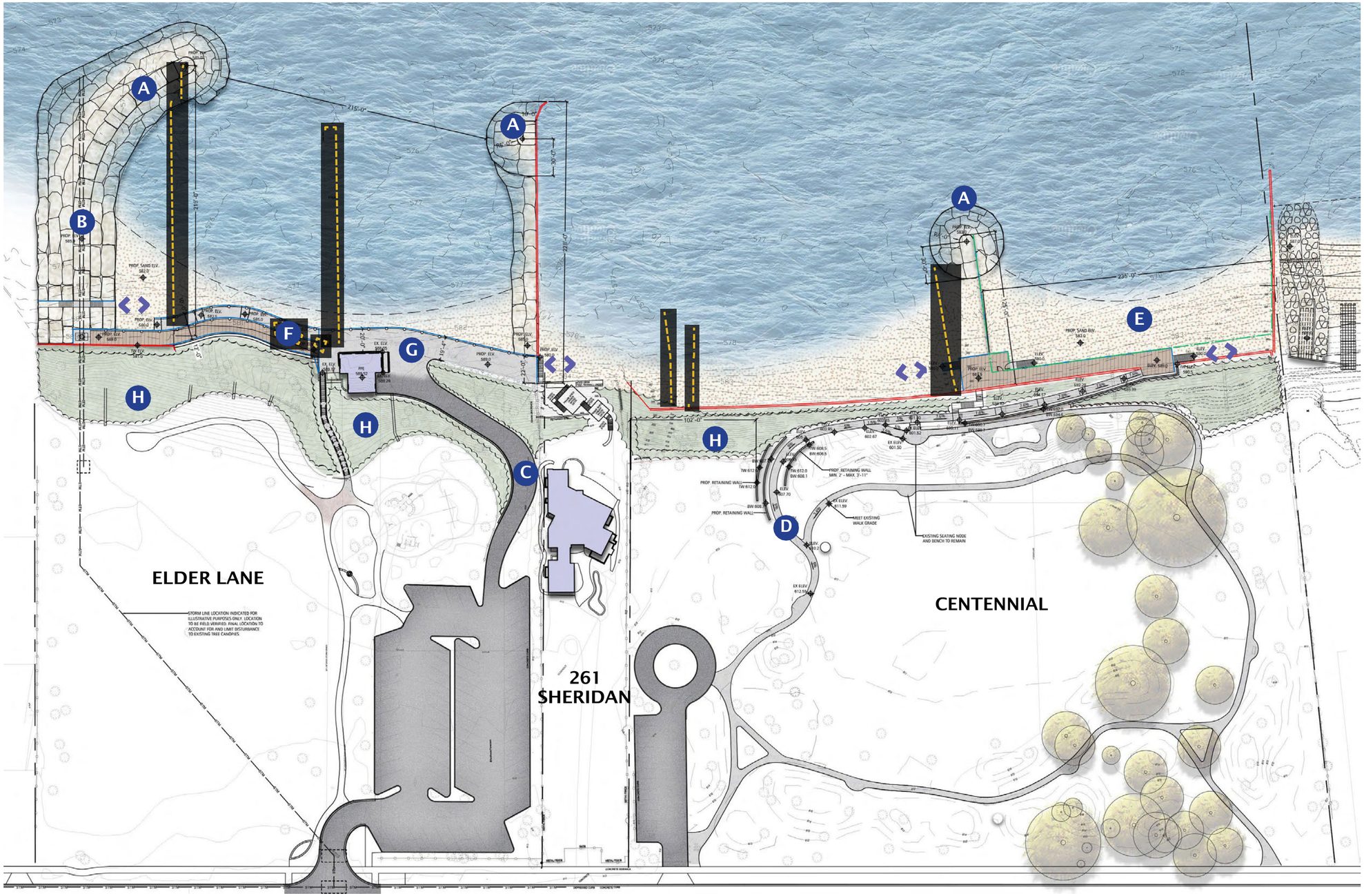
Each of the slides prepared and presented during the May 25, 2023, Regular Park District Board meeting as included in the Board meeting packet and posted on the Park District website in advance of the board meeting being held May 25, 2023.

Exhibit H:

Concept Plan showing the proposed improvements which are the basis of the permit plans to be prepared and submitted to the reviewing agencies.

Elder + Centennial | Design and Concept Plan

ELDER | CENTENNIAL
BEACH FEASIBILITY STUDY



LEGEND

- PROPOSED BLUFF RESTORATION
- ACCESS TO BEACH
- SHEET PILE (PROPOSED)
- SHEET PILE (EXISTING)
- ELEMENT TO BE REMOVED

- **A** RUBBLE MOUND BREAKWATER SHORELINE PROTECTION
- **B** PROPOSED STORMWATER REROUTE
- **C** EXPANDED / RECONFIGURED EXISTING SERVICE DRIVE CONSTRUCTION ACCESS ROUTE
- **D** ACCESSIBLE PEDESTRIAN PATH TO BEACH
- **E** PROPOSED CENTENNIAL DOG BEACH
- **F** BOARDWALK AND BEACH ACCESS
- **G** EXPANDED CONCRETE PAD FOR ACCESS AND SERVICE
- **H** BLUFF RESTORATION ZONE

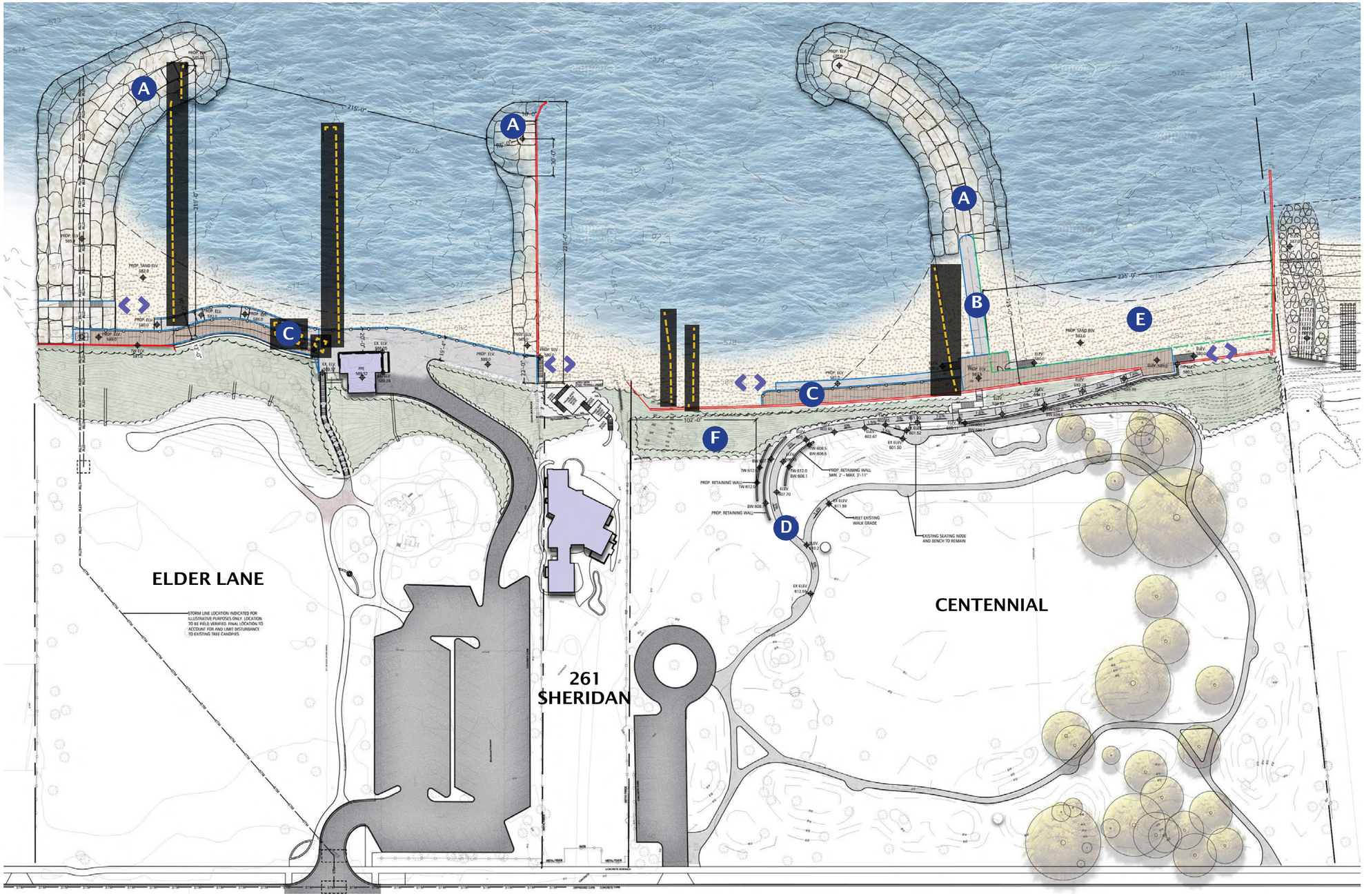
Elder + Centennial | **Phase One**

SCALE: 1"=40'
0 20' 40' 80'
NORTH

5/25/2023

Elder + Centennial | Design and Concept Plan

ELDER | CENTENNIAL
BEACH FEASIBILITY STUDY



LEGEND

- PROPOSED BLUFF RESTORATION
- ACCESS TO BEACH
- SHEET PILE (PROPOSED)
- SHEET PILE (EXISTING)
- ELEMENT TO BE REMOVED

- **A** RUBBLE MOUND BREAKWATER SHORELINE PROTECTION
- **B** ACCESSIBLE VIEWING PIER WITH BENCH SEATING
- **C** BOARDWALK AND BEACH ACCESS
- **D** ACCESSIBLE PEDESTRIAN PATH TO BEACH
- **E** PROPOSED CENTENNIAL DOG BEACH
- **F** BLUFF RESTORATION ZONE

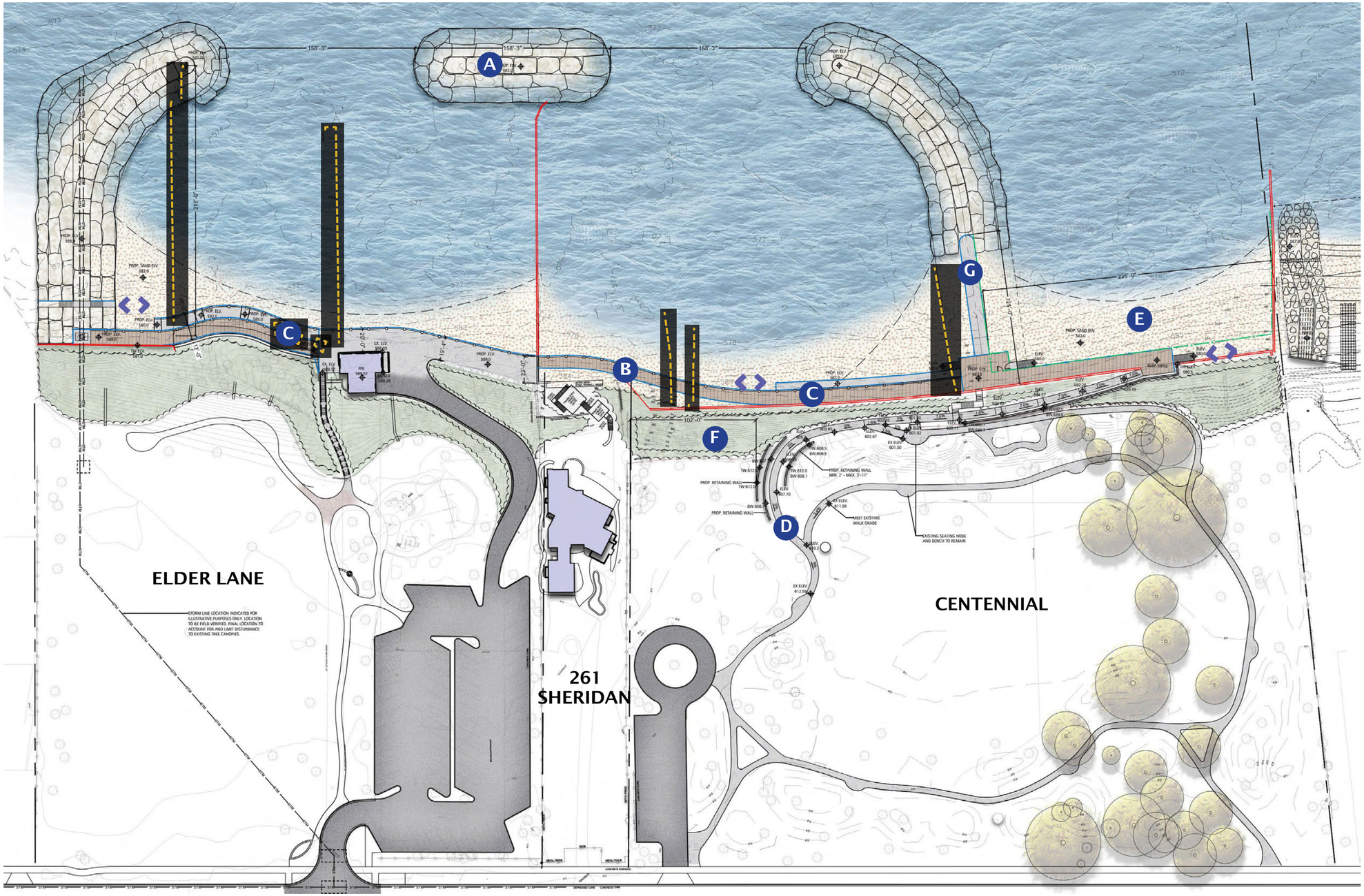
Elder + Centennial | **Phase Two**

SCALE: 1"=40'
0 20' 40' 80'
NORTH

5/25/2023

Elder + Centennial | Design and Concept Plan

ELDER | CENTENNIAL
BEACH FEASIBILITY STUDY



LEGEND

- PROPOSED BLUFF RESTORATION
- ACCESS TO BEACH
- SHEET PILE (PROPOSED)
- SHEET PILE (EXISTING)
- ELEMENT TO BE REMOVED

- A — RUBBLE MOUND BREAKWATER ISLAND SHORELINE PROTECTION
- B — BOARDWALK CONNECTION
- C — BOARDWALK AND BEACH ACCESS
- D — ACCESSIBLE PEDESTRIAN PATH TO BEACH
- E — PROPOSED CENTENNIAL DOG BEACH
- F — BLUFF RESTORATION ZONE
- G — ACCESSIBLE VIEWING PIER WITH BENCH SEATING

Elder + Centennial | **Phase Three**

SCALE: 1"=40'
0 20' 40' 80'
NORTH

5/25/2023

Exhibit I:

Village Engineer, James Bernahl, memo to Village Manager, Rob Bahan regarding Elder Park Stormwater Outfall, dated October 26, 2022.

VILLAGE OF WINNETKA

MEMORANDUM

TO: ROBERT BAHAN, VILLAGE MANAGER

FROM: JAMES BERNAHL, DIRECTOR OF ENGINEERING/VILLAGE ENGINEER

DATE: OCTOBER 26, 2022

SUBJECT: ELDER PARK STORMWATER OUTFALL

This memo serves to summarize the comments and information provided thus far regarding the Elder Park stormwater outfall.

EXISTING SYSTEM

The Elder Park stormwater outfall is the southernmost stormwater outfall in Winnetka that discharges to Lake Michigan. It's watershed area consists of two basins, one on the east side of the underpass at Winnetka Avenue, and one on the west side. Below, please find an exhibit of the watershed area.

The watershed area is the largest Lake Michigan watershed in east Winnetka, and the only east side watershed that also includes areas west of the railroad tracks as the system crosses under the UP-N tracks to the Elder outfall. There are two existing outlet pipes at the Elder outfall, a 24-inch and 27-inch pipe. This stormwater conveyance system has been in place since the 1940's when the railroad tracks were lowered.

The Elder Park stormwater outfall was last studied by the Village in 2011 as part of the Flood Risk Reduction Assessment prepared by Christopher B. Burke Engineering, Ltd (CBBEL), which conceptually reviewed east and west Winnetka flood reduction options. The Village also conducted a sanitary system evaluation in 2013, for this area and others, which was an inflow and infiltration (I&I) study to identify improvements to alleviate sanitary sewer flooding resulting from heavy rain events. It is important to note that Winnetka's stormwater system is a separate system and apart from the sanitary system. Some communities near Winnetka, such as Kenilworth and Wilmette have "combined" systems, where the sanitary and storm sewers are integrated, and the combined flows are conveyed directly to the MWRD sewers for treatment downstream.

The 2013, Baxter and Woodman I&I study, identified "High, Medium and Low" priorities for the study area. The east side that is within the Elder outfall watershed area was identified as a "High" priority to reduce and/or eliminate stormwater inflow and infiltration into the Village's separate sanitary system (Please see Appendix 2 – a Summary of the Sanitary System Evaluations and Improvements).

An action item from the I&I study required investigations into the sanitary systems including the Elder watershed area. As a result, the Village has performed many recent investigations and has taken corrective actions with the sanitary sewer system in this watershed area. The Elder watershed area was identified as a high priority area within the village, and the study and subsequent investigations identified likely sources of inflow and infiltration into the sanitary sewer system, which included illegal cross connections, deficiencies with private sanitary pipe connections to the village's sanitary system, and identified maintenance improvements including lining of sanitary sewers and manholes that would significantly reduce stormwater from entering the sanitary sewer system.

With respect to remediating illegal sanitary cross connections to the stormwater system noted in the 2013 I/I study, the Village undertook dye and smoke testing activities during 2014 & 2015, which required the evaluation of private properties that were either illegally discharging sanitary flow into the stormwater system, or illegally connecting downspouts into the sanitary system that caused the sanitary system to surcharge during heavy rain events resulting in sanitary backups in residences. The dye and smoke testing that identified illicit connections was performed by the Village with contractual assistance, and staff worked with property owners to disconnect these illegal connections. Approximately 67 illegal sanitary cross connections were remedied from entering the stormwater system, and 86 downspout and other connections were remedied from entering the sanitary system within the watershed area.

As noted, the Village performed various maintenance improvements to line the sanitary manholes and sewers and eliminate illegal cross connections and inflow into the sanitary system as identified in the study. As of 2019, all high- and medium- priority repairs have been substantially completed in this watershed.

STORMWATER PERMITTING REQUIREMENTS & BEST PRACTICES

For separate stormwater systems, a significant portion of pollutants enter water bodies during the "first flush" of a storm event.

The first flush is the initial surface runoff of a rainstorm, typically defined as the first one half to one inch of rainfall. During this phase, pollutants are more concentrated compared to the remainder of the storm. For this reason, many stormwater design practices focus on capturing this first flush to combat stormwater pollutants from entering waterways. During prolonged periods of dry weather, the "first flush" can be more problematic than during wetter periods due to the buildup of sediment and material within a stormwater system.

The Village is required to submit to the Illinois Environmental Protection Agency (IEPA), an "Annual Facility Inspection report" as part of the annual National Pollutant Discharge Elimination System (NPDES) Permit for Stormwater Discharges for Municipal Separate Storm Sewer Systems. The (NPDES) stormwater permit is issued by the Illinois Environmental Protection Agency (IEPA) annually. This permitting process regulates stormwater discharges into the water bodies of the State such as the Skokie River or Lake Michigan.

Current requirements of the NPDES Stormwater Permit requires the village to perform many maintenance activities called "Best Management Practices" (BMP's) to limit the amount of pollutants that is discharged from the storm sewer system. These best management practices include resident and business education and outreach material, illicit discharge detection and elimination activities, construction site runoff control, and regular maintenance activities such as street sweeping, catch basin structure cleaning, and chloride reduction methods. The Village has been committed to these BMPs as part of its stormwater pollution control program. Currently, stormwater is not required to be tested for an NPDES IEPA permit. However, IEPA does perform water body testing activities and it is anticipated that potential future regulations may require local testing in addition to the IEPA's programs.

ELDER PARK IMPROVEMENTS

The Park District's request for storm sewer relocation is based on proposed improvements to the Elder Park beach frontage. These improvements are being considered as part of the Park District's lake-front improvement projects.

The Winnetka Park District submitted plans to the Village, as prepared by CBBEL for the potential relocation of the Elder outfall related to the consolidation of Elder and Centennial Beach areas (Please see Appendix 1 – Elder Outfall Plan and Permit Review Timetable). Engineering staff reviewed the plans to ensure that the function of the Elder outfall would not be impaired or reduced. As professional engineers, we reviewed the plans to ensure that they comply with our engineering standards, as well as State and Federal permitting requirements.

The Park District proposed to modify the layout of the existing parallel storm sewers resulting in a single equivalent conveyance pipe with intermittent junction chambers at critical bends at the top and bottom of the bluff. The proposed modification also includes placement of two parallel/stacked 36-inch storm sewers at the bottom of the bluff to be placed through a new break wall discharging out into the lake.

The existing system and proposed design have been modeled by the Park District's consulting civil engineer, Christopher B Burke Engineering, Ltd (CBBEL). CBBEL's modeling indicated that the new proposed storm sewer layout shows no increase in flooding due to the changes in the stormwater outfall. These results have been reviewed by Village staff, and by the Village's consulting engineer Strand Associates, Inc. The Engineering Department believes that the dual pipe outfall as proposed will not cause adverse effects upstream of the proposed modified outfall location.

The proposed design has also been reviewed to make sure any changes are an improvement over the existing conditions and to ensure the proposed design can be easily maintained by our Public Works staff. For example, upstream vortex separators will be a required improvement that captures most first flush sediment at the upstream edge of the outfall and will also provide additional energy dissipation of stormwater into the lake. Also, the drop manhole at the top of the bluff will allow the Village to access the system for necessary cleaning, maintenance, and scheduled inspections.

Given the Park District used CBBEL for professional stormwater modeling, our Engineering staff sought the expertise of our contractual engineering design firm, Strand Associates, to independently verify the modeling submitted by CBBEL was accurate and would not adversely impact our existing system. Strand Associates concludes that the modeling provided to the Village by CBBEL includes the most up to date rainfall data, and the proposed Park District improvements will not exacerbate flooding within the watershed.

We have reviewed the proposed storm sewer modifications and our professional opinion is that the design proposed by the Park District's Civil Engineer will meet current permitting requirements. It should be noted that the Village, even as an authorized municipality under Metropolitan Water Reclamation District (MWRD) district ordinance, cannot approve our own system modifications under MWRD regulations. Therefore, after local engineering has signed off, final permitting authority rests with the MWRD, IEPA/IDNR, and USACE staff who will

review and ensure that any design comments or requests for modification received by State and Federal agencies will be included in the approved final design.

For the proposed Elder Park outfall improvements, the Park District's Engineer used best practices to combat stormwater pollution and energy dissipation techniques for the stormwater entering the Lake. First, the stormwater discharge pipe is being relocated to the outside of the steel sheet pile break walls, so stormwater is discharged away from the beach and outside the proposed swimming area. The Village has also required that the proposed storm sewer meet submersible marine requirements and be embedded in appropriate backfill material within the sheet walls to protect the pipe's integrity. Secondly, the Village under our review authority, has required that vortex separators be installed at the entrance of the park to remove sediment and suspended solids from the water to improve water quality and capture debris before entering the Lake. The vortex separators will also help with system maintenance. The designs that are being proposed will improve water quality at the beach and will be an improvement over the current design.

Final approval for a design is still forthcoming from the Park District and will continue to be reviewed by the Village with a high level of scrutiny. It should be noted that while engineering review and final permitting authority rests with other agencies, it would be anticipated that the Village would require an intergovernmental agreement (IGA) to record a new easement for the re-routed storm system, transference of ownership to the Village, maintenance agreements, and other common recitals. IGA's are a standard practice to memorialize capital assets, easements, ownership, maintenance, and funding considerations.

Potential Extended Outfall into Lake Michigan

It has been proposed that an extended outfall into the lake should be considered for this location. For maintenance purposes, an outfall that extends along the lakebed would be problematic. The Village does not have the resources to reach an outfall that is submerged hundreds of feet out into the lakebed. Depending on the depth and extent of a submerged outfall pipe it may be necessary to use a mechanized pumping station to overcome the hydrostatic pressure of the lake. The existing and proposed stormwater system at this location is a gravity-based system only, which is preferable.

Generally, stormwater permitting requires that stormwater outfalls must be designed to avoid and minimize adverse effects, and that the rate of stormwater flow into the receiving waters cannot be increased. Permitting an outfall that extends out from the shore would most likely not be permitted by the Army Corps, as it could possibly affect the navigability of the waterway and would be putting Village-owned utilities outside of the bounds of the Village's jurisdictional area, as may be extended to include the proposed extension. To permit any of these outfall improvements, the project will require a joint permit application with the IEPA/DNR/Army Corps, and an MWRD permit. The Village must sign off on the MWRD permit application as part of the permit review process because the Village owns and maintains the storm sewer outfall.

The Village is consistently seeking to improve its stormwater and sanitary sewer system. When reviewing design options, the Village keeps in mind maintenance concerns, flood prevention, and performance concerns for all stormwater improvements within the Village, while also always maintaining best practices and striving for water quality improvements within the system as the opportunity and funding sources arise.

APPENDIX 1

Elder Outfall Plan and Permit Review Timetable

Date of Activity	Activity Detail
November/December 2020	Preliminary discussions with Park District on future improvements at Elder Park.
January 8, 2021	Park District prepared "Proposal for Professional Engineering Services for the Stormwater Outlet at Elder Park in Winnetka."
January 15, 2021	Pak District informs Engineering Dept. that it has authorized CBBEL to move forward with Engineering Study of the Elder stormwater outlet.
February 24, 2021	Park District shared February 17th Draft report from CBBEL with Engineering Dept.
February 25, 2021	Engineering Dept. shares preliminary comments with Park District on Draft CBBEL report.
March 2, 2021	Park District shares Lakota Exhibit of Park area with Engineering Dept.
March 18, 2021	CBBEL submits requested stormwater modeling exhibits to Engineering Dept.
March 24, 2021	Park District submits updated February 17, 2021 report and modeling exhibits to Engineering Dept. for review.
March 26, 2021	Engineering Dept. informs Park District there is missing technical information in report and requests re-submittal.
March 29, 2021	Updated CBBEL Elder Stormwater Report shared with Engineering Dept. and Strand Associates.
May 14, 2021	Strand shares preliminary review comments on updated CBBEL report. Engineering conducts internal review of the proposed modifications to outfall pipes at Elder Park.

October 12, 2021	Park District shares modified exhibit of proposed outfall with Engineering Dept. Meeting held to discuss questions and changes needed for further review.
October 19, 2021	Engineering Department and Strand provides formal review comments no. 1 with Park District.
October 22, 2021	CBBEL provides response to Engineering Review Comments No. 1 with Engineering Dept.
October 28, 2021	Engineering Dept and Strand prepare recommendations for the proposed drop structure.
December 19, 2021	CBBEL provides response to Engineering comments and includes draft MWRD permit application documents for review.
January 19, 2022	Engineering Department provides review comments No. 2 to Park District and CBBEL.
January 31, 2022	Park District consultant, Spaceco, Inc., provides requested detailed information on proposed pipe materials to be used in proposed break wall.
February 22, 2022	Engineering Dept. meeting with CBBEL to discuss final design of drop structure with trash rack attachment.
April 19, 2022	Engineering Department signs off on Park District MWRD permit application based on revisions received from Park District and CBBEL. MWRD is final permitting authority.
April 29, 2022	Village receives copy of approved Illinois Department of Natural Resources (IDNR) permit.
June 16, 2022	Engineering Dept. receives notification of Park District withdrawal of MWRD permit application.

APPENDIX: 2

Sanitary Sewer System Evaluation and Improvements:

Date of Action	**Review/Approvals**	**Activity**
February 21, 2012	Village Council awards contract to Strand Associates to perform "Flow Monitoring Analysis" of sanitary system.	Flow monitoring analysis performed between 4/19/12 to 6/8/12.
August 21, 2012	Flow Monitoring results presented to Village Council.	Council directed staff to perform detailed study of high priority sanitary system flooding areas.
March 14, 2013	Follow-up investigation contract awarded to Baxter & Woodman consisting of detailed identification of I/I (inflow and infiltration) sources in eight areas of the Village.	Baxter & Woodman performed detailed I/I investigation of eight high priority areas. (Dye & Smoke testing)
October 15, 2014	Results of 2013 I/I study presented to Village Council.	Council approved additional budget allocation to address high & medium sources in eight areas.
January 2015 thru December 2019	Council approved annual funding to address high & medium sources in eight areas.	High & Medium repairs performed focusing on sanitary sewer relining, dye and smoke testing, and sanitary manhole relining.
June 6, 2017	Staff requests approval from Village Council for new I/I study to investigate 11 sanitary sewer basins.	Council approves contract with RJN Group to perform detailed investigation.
September 4, 2018	Results of 2017/2018 I/I study presented to Village Council.	Council approved budget allocation to address high & medium sources in the 11 sanitary sewer basins.

January 2019 thru December 2022	Council approved annual fudning to address high & medium sources in 11 areas.	High & Medium repairs performed focusing on sanitary sewer relining and sanitary manhole relining.

Exhibit J:

Winnetka Waterfront 2030 | Lakefront Master Plan

https://www.calameo.com/winnetkaparks/read/002854155cf4afa1680fd

Exhibit K:

Village of Winnetka Futures 2040 Comprehensive Plan

https://www.villageofwinnetka.org/DocumentCenter/View/2064/Winnetka-Futures-2040-Plan-PDF

Exhibit L:

Professional Opinion Letter Regarding Resolution 23-5-25

RED BARN
Design & Engineering, S.C.

6750 Woodland Dr.
Waunakee, WI 53597

p. 608.849.2042
c. 608.843.1870

redbarnde@tds.net

Professional Opinion Regarding Findings from the Resolution Pertaining to the Village Lakefront Construction Ordinance

Date: 23 May 2023

Based on our work performed to date regarding preparation of the Elder Lane Beach and Centennial Beach Concept Site Improvements plans, our design team offers the following comments. Please note, all work performed to date is Concept Level of study only and relies upon our current understanding of the existing beachfront and bluffland conditions. The documents, plans and exhibits included herein are prepared at a conceptual level to communicate desired design intent and goals for improvements and enhancements to the Lakefront and bluffland portions of Elder and Centennial Beach and Parks. Additionally, these documents, plans, and exhibits are consistent with universally accepted best management practices, design industry standards and previously implemented design and engineering goals as established in the approved *Winnetka Waterfront Lakefront Master Plan 2030 as formally adopted in 2016.* As currently studied at our conceptual level, we recognize that these documents, plans and exhibits may not be in full compliance with all Village of Winnetka Codes and Ordinances, or any other state or federal regulations and permitting requirements. The Final permitting, bid and construction documents and related specification, when completed, will be prepared in compliance with the current requirements of all of the respective regulating agency requirements, and available for review and comment, in their respective phases of the project.

Accordingly, design and construction of the Elder-Centennial Beachfront and Bluffland Improvements in accordance with the Concept Plan attached hereto as Exhibit P will:

- Stabilize, and with proper maintenance, act to protect that portion of the Lake Michigan shoreline and bluff at Elder Lane Beach and Centennial Beach, owned by the Winnetka Park District. The proposed site Improvements are intended to remove the currently known nearshore and lakebed hazards present on the site and minimize future shoreline, and upland erosion.

- Stabilize and help to preserve Lake Michigan coastline and bluffland vegetation communities, in support of the preservation and stabilization of the Winnetka Park District's beaches.

- Not cause environmental or ecological damage to the Lake, bluffland, parklands, or surrounding areas of the Village, or otherwise adversely impact the health, safety, and welfare of the Village of Winnetka or its residents, beyond that currently experienced at all other non- Park District shoreline sites and public facilities, constructed and maintained in a similar design and program.

- The conceptual designed heights of the breakwaters proposed in the Elder and Centennial Beach Concept Plan, attached hereto as Exhibit P, are shown at elevation 585 feet (IGLD 1985) at the lakeward end (average based on stone), and 585 feet (IGLD 1985) respectively), and:

  - Are approximately two feet lower than the height of Lloyd Beach breakwater previously approved by the USACE and the IDNR;
  - Were revised partially in response to concern expressed by the public in numerous open public meetings, public workshops, and discussions with Park District staff and commissioners over the height of the various breakwaters and the impact on site lines and vistas;
  - Are no greater than what is minimally necessary to achieve the intended and proper goals and purpose of this phase of implementation of the Winnetka Lakefront Master Plan 2030 project;
  - Concept plan designed heights (elevation) strike an appropriate balance between the competing interests of beach preservation and preservation of aesthetic views from the beach;
  - Are consistent with the height (elevation) of the existing Elder Lane Pier.

- The concept plan design breakwater height (elevation) is consistent with the existing Elder Lane Pier elevation which is at elevation 584.67 feet (IGLD 1985) at the lakeward end.

- Breakwater heights (elevations), lower than those set forth in the Concept Plan (which are already lower than the Lloyd Beach breakwater heights) would result in lessening the degree of beach sand retention which, would not be in alignment with the District' s proposed site programming as a swimming beach, nor in the best interests of the publics use, enjoyment and safety

- As noted above, compliance of the Concept Plan with the applicable provisions of the new Village of Winnetka Lakefront Construction Ordinance including those construction permitting requirements set forth in Section 15.32 of the Municipal Code of the Village of Winnetka will be accomplished in later final design, documentation, and permitting phases of the project.

- The Concept Plan (and the anticipated permit, bid and construction plans and specifications) will include only what is minimally necessary to achieve the intended and proper purpose of the project and will be consistent with the purposes of section 15.78.010 of the Village Lakefront Construction Ordinance, MC 05-2023.

- The Concept Plan:

  - Has been prepared with concepts consistent with current industry standards and best management practices for the nature of the work proposed;
  - Is not expected to create any public safety hazards beyond those currently present at the other public shoreline sites throughout the community;
  - Will not unreasonably obstruct or interfere with ingress or egress to adjacent public beaches or private property. The improvements will strive to remove existing safety hazards and enhance ingress and egress to adjacent beaches;
  - Final permitting, design and construction of the Elder-Centennial Improvements will be largely in accordance with the Concept Plan;

- Will not block or otherwise unreasonably interfere with the ability of public safety personnel to conduct search and rescue and other public safety operations beyond those currently present at the other public shoreline sites throughout the community;
- Will enhance vehicular and pedestrian access to the Elder Lane Beach by public safety vehicles, equipment and personnel (presently there exists limited vehicle access to the Elder Lane Beach) through the efficient use of an improved existing Elder Beach access drive and supporting new boardwalk.
- Will enhance pedestrian access to the Centennial Beach by public safety hand-carried equipment and personnel (presently there exists no vehicle access to the beach and access through the use of stairs only. The Concept plan includes a fully accessible ADA-complaint walk providing direct beach access from Centennial Park and Sheridan Road sidewalks.
- Improve the stormwater quality and runoff into Lake Michigan through the use of treatment structures. All upstream areas, which includes the southeast Winnetka area, will pass through the new water quality treatment structures while not impacting the upstream areas. Future improvements can be made by the Village of Winnetka to address stormwater concerns and utilize the new outlets that will provide infrastructure improvements that will convey the runoff into Lake Michigan through new storm sewers.
- Enhance, restore and stabilize upper portions of the bluffland areas at Elder and Centennial Parks through natural vegetative means such as, but not limited to, new native groundlayer, midstory and tree plantings.
- Enhance, restore and stabilize upper portions of the bluffland areas to provide for designed open views and site lines to Lake Michigan for the quiet and passive enjoyment of community residents.
- Enhance, restore and stabilize upper portions of the bluffland areas through vegetative means which support enhanced wildlife habitat.

The aforementioned statements are a summary of our professional teams' opinion of the Elder and Centennial Beach Concept Plans with respect to the requirements of the Village of Winnetka's Lakefront Construction Ordinance. If any of the project site design elements included in the Concept Plans are not in conformance with the Village of Winnetka Lakefront Construction Ordinance, the compliance will be reviewed in future phases of the project development and design.

Respectively,

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EXHIBIT 4 – DEFINITION of TERMS

Erosion, Bluff Protection, Beach Preservation, Littoral Drift, Lakebed Downcutting, Fetch, Waves, Headland Beach System, Jetties, Piers, Hydrodynamic Analysis

What is erosion?

Erosion is the process by which natural forces like wind, water, and ice wear away soil, rock, and other materials from the Earth's surface. Over time, these forces transport eroded materials to new locations, reshaping landscapes and creating various geological features. Erosion can occur gradually over long periods or more rapidly during events like heavy rainfall, storms, or glacial movements. There are several types of erosion:

- **Water Erosion**: Caused by the movement of water, such as overland flow, rivers, rain, and nearshore and offshore waves.
- **Wind Erosion**: Occurs when strong winds blow loose soil and sand particles.
- **Glacial Erosion**: Happens when glaciers move, scraping and grinding the Earth's surface.
- **Coastal Erosion**: Involves the wearing away of onshore, nearshore, and offshore coastal lands and sediments by wave action, tides, and currents.

Erosion plays a significant role in shaping the Earth's surface, but it can also lead to problems like loss of fertile soil, damage to infrastructure, and increased sedimentation in water bodies. Understanding and managing erosion is crucial for environmental conservation and sustainable land use.

What's the Difference Between Bluff Protection and Beach Preservation?

Bluff protection and beach preservation are both essential for maintaining coastal areas, but they focus on different aspects of coastal management:

1. **Bluff Protection**:
    - **Purpose**: Bluffs, which are shallow to steep banks present along the coastal shoreline are typically subject to erosion from a number of erosive factors. Bluff protection aims to prevent erosion and loss of material along the bluff face and stabilize the bluff toe.
    - **Methods**: Techniques include constructing bulkheads, rubble mound revetments, headland beach systems and/or offshore rubble mound breakwaters. These structures help protect the bluffs from wave action, storm surges, and other erosive forces.
    - **Focus**: The primary focus is on safeguarding the land and structures located on top of the bluffs from erosion and collapse.
2. **Beach Preservation**:
    - **Purpose**: Beach preservation focuses on stabilizing, maintaining and restoring the natural state and profile of beaches, ensuring they remain healthy and functional.
    - **Methods**: Techniques include beach nourishment (adding sand to eroded beaches), dune restoration, and removing artificial structures that disrupt natural processes. Efforts are made to enhance sediment supply and protect natural habitats.
    - **Focus**: The primary focus is on preserving the beach's ecological functions, recreational value, and natural beauty.

In summary, bluff protection is about stabilizing and protecting coastal bluffs from erosion, while beach preservation is about maintaining and restoring the natural state and ecological functions of beaches. Both are crucial for sustainable coastal management.

EXHIBIT 4 – DEFINITION of TERMS

Erosion, Bluff Protection, Beach Preservation, Littoral Drift, Lakebed Downcutting, Fetch, Waves, Headland Beach System, Jetties, Piers, Hydrodynamic Analysis

What is lakebed downcutting?

Lakebed downcutting refers to the process where the bottom of a lake erodes and becomes deeper over time. This phenomenon occurs due to various factors, including changes in water levels, wave action, and sediment transport. For instance, during stable lake levels, erosion can occur both as bank recession and nearshore lakebed downcutting. When water levels rise, bank recession continues, but lakebed downcutting slows down except at the new transgressed shoreline. Conversely, when water levels fall, bank recession nearly stops, and lakebed downcutting resumes.

In the context of the Great Lakes, lakebed downcutting is common along cohesive shoreline banks and bluffs composed of glacial till and clay. This process can significantly impact the stability of coastal slopes and the overall geomorphology of the lakebed.

See "**Exhibit 15 - Shabica Presentation, March 24, 2022"**

What is littoral drift?

Littoral drift, also known as longshore drift, is the process by which sediment (such as sand, gravel, and other materials) is transported along the coast by the action of waves and currents. This movement occurs in the littoral zone, which is the area between the high-water mark and low water marks. Here's how it works:

1. **Wave Action**: Waves approach the shore at an angle, carrying sediment with them.
2. **Swash and Backwash**: When waves break, the swash (the forward movement of water up the beach profile) carries sediment up the shore at an angle. The backwash (the backward return movement of water down the beach profile) then pulls the sediment back down the slope of the beach.
3. **Net Movement**: This zigzag pattern of sediment movement results in a net transport of material along the coast in the direction of the prevailing waves and currents.

Littoral drift plays a significant role in shaping coastal landscapes, forming features such as beaches, spits, barrier islands, and offshore sandbars. It also affects coastal erosion and deposition patterns, which can impact coastal management and engineering projects.

What is Fetch?

In the context of waves, "fetch" refers to the distance over which wind blows across the surface of the water, generating waves. It plays a crucial role in determining the size and energy of the waves. Here's a bit more detail:

Fetch Distance: The longer the fetch distance, the more time the wind has to transfer energy to the water, resulting in larger and more powerful waves.

Wind Strength and Duration: Along with the fetch distance, the strength and duration of the wind are also important factors in wave formation.

EXHIBIT 4 – DEFINITION of TERMS

Erosion, Bluff Protection, Beach Preservation, Littoral Drift, Lakebed Downcutting, Fetch, Waves, Headland Beach System, Jetties, Piers, Hydrodynamic Analysis

Wave Development: Waves start as small ripples and grow as they travel across the fetch area, accumulating energy and forming larger waves.

The fetch of Lake Michigan in Winnetka is approximately 275 miles when the wind is out of the north-northeast, 60 miles from the east and 45 miles from the southeast.

What is the largest wave measured on Lake Michigan in the Chicago Area?

The largest recorded wave in the Chicago area on Lake Michigan reached up to 20 feet. This occurred during a powerful storm in October 2023, when high winds whipped up massive waves along the lakefront, particularly near 63rd Street Beach in Jackson Park. The NOAA mid-lake buoy east of Kenosha recorded at wave height of 21.7 feet at 11AM on 10/31/2014. (Shabica Report)

What is a Headland Beach System?

A headland and beach system is a coastal formation resulting from the interaction between the land and sea. Here's a brief overview of its components:

1. Headland: A headland is a coastal landform that juts out into the sea, usually composed of resistant rock. It stands against the erosive forces of waves and wind.
2. Bay: Adjacent to headlands, bays are recessed coastal areas where the land curves inward, often forming sandy beaches. They are typically more sheltered from the full force of waves, leading to gentler slopes and sediment accumulation.
3. Beach: Beaches are areas of loose sediments, such as sand, pebbles, along the shoreline. They form and change shape due to wave action, tides, and currents. Beaches in bays can be quite dynamic, constantly being eroded and rebuilt by the sea.

In essence, the headland and beach system is a balance between erosion and deposition, where headlands protect parts of the coast and beaches provide areas for sediment to accumulate.

See Appendix to these definitions Effects of structurally-engineered beaches on coastal processes and shore of the Great Lakes – Charles W. Shabica, Ph.D., P.G."

How do gaps between breakwaters influence wave energy and beach retention?

The length of the gap between breakwaters plays a crucial role in determining the amount of wave action that reaches the shore. Here's how:

1. Wave Energy Diffusion: When the gap between breakwaters is narrow, the structures effectively block and diffuse a significant portion of the wave energy. This results in calmer waters on the shoreward side of the breakwaters, leading to reduced wave action and less coastal erosion.
2. Channeling of Wave Energy: Conversely, if the gap between breakwaters is wide, more wave energy can pass through the opening and reach the shore. This means that wave action at the shoreline can be stronger, potentially leading to increased erosion and sediment movement.
3. Wave Refraction and Diffraction: The gap size also affects how waves bend (refract) and spread out (diffract) as they pass through. Narrow gaps cause more pronounced diffraction, leading to

wave energy spreading out and dispersing over a broader area. This can result in a more even distribution of wave energy along the shore. Wide gaps allow waves to pass through more directly, concentrating wave energy on specific areas of the shoreline.

4. Sediment Dynamics: The design and spacing of breakwaters can influence sediment deposition and erosion patterns. Narrow gaps may promote sediment accumulation and beach stabilization behind the breakwaters. Wider gaps might not provide the same level of protection, resulting in more dynamic sediment movement and potentially less stable beach environments.

In summary, the length of the gap between breakwaters directly influences the extent of wave action reaching the shore and the resulting coastal processes. Narrower gaps generally lead to reduced wave energy and calmer conditions, while wider gaps allow more wave energy to reach the shore, leading to stronger wave action.

How do Jetties and Piers impact littoral drift?

Jetties and piers significantly impact littoral drift by altering the natural flow of sediment along the coastline. Here's how:

1. Interruption of Sediment Transport: Jetties and piers extend into the water and act as barriers to the natural movement of sediment. They block the longshore current, causing sediment to accumulate on one side (usually the updrift side) while leading to erosion on the other side (downdrift side).
2. Changes in Erosion and Deposition Patterns: On the updrift side of a jetty or pier, sediment buildup can lead to the formation of wider beaches and, in some cases, new landforms such as sandbars and spits. Conversely, on the downdrift side, the lack of sediment supply results in increased erosion, narrowing beaches, and sometimes exposing underlying structures or bedrock.
3. Impact on Coastal Ecosystems: The alteration of sediment transport can affect coastal habitats, impacting plant and animal species that rely on stable beach environments. It can also change the underwater topography, affecting marine life and potentially disrupting ecosystems.
4. Human Intervention and Maintenance: Coastal managers often need to undertake measures such as beach nourishment or construction of additional structures to mitigate the negative effects of jetties and piers. Regular maintenance of these structures is essential to ensure their effectiveness and to manage the ongoing impacts on littoral drift. Jetties and piers are essential for navigation and coastal protection but require careful planning and management to balance their benefits with the environmental changes they bring about.

What is a hydrodynamic analysis?

In coastal engineering, hydrodynamic analysis involves studying the behavior of water bodies and their interactions with coastal structures and environments. This analysis is crucial for designing, constructing, and maintaining marine and coastal infrastructure. Here are some key aspects:

1. Wave Dynamics: Understanding how waves move, break, and interact with the coastline. This includes studying wave height, period, and direction.

2. Currents and Tides: Analyzing the movement of water due to tidal forces and ocean currents, which can impact coastal erosion and sediment transport.

3. Storm Surges: Predicting the rise in water level during storms, which can lead to flooding and significant coastal damage.

4. Numerical Modeling: Using computer simulations to predict water movement and behavior under various conditions. This helps in designing structures that can withstand extreme events.

5. Sediment Transport: Studying how sediments are moved by water, which affects beach profiles and coastal stability.

Hydrodynamic analysis helps engineers design structures like seawalls, breakwaters, and jetties to protect coastlines and ensure the safety and sustainability of coastal developments.

Is a hydrodynamic analysis required by the IDNR for a permit to construct the proposed improvements at Elder and Centennial?

No. The IDNR permit requirements read as follows: *The submittal should include an analysis of the proposed structure on the wave climate and impact to the movement of sand (littoral drift). The analysis should include a review of the proposed structure individual and cumulatively with adjacent structures. Professionals with experience in this area should be utilized for this work.*

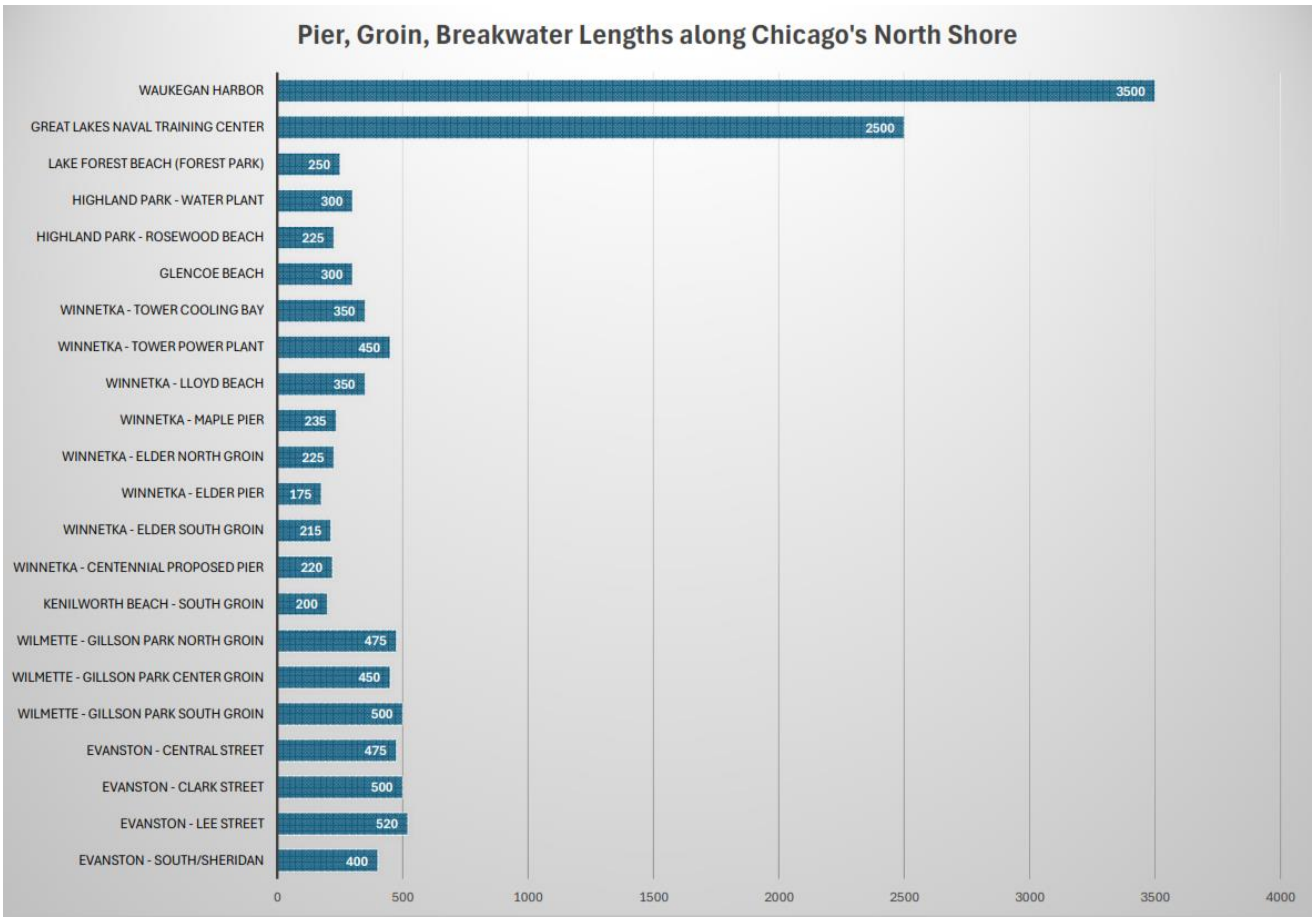
Charles Shabica, Ph.D., P.G. is widely regarded as one of the foremost experts with respect to the Lake Michigan shoreline along the North Shore. He has been recognized as an expert by the United States Court of Federal Claims in the case Banks v. United States, decided December 22, 2011. An abstract of Banks v. United States follows. Charlie Shabica is also a life-long Winnetka resident. With a BS in Geology from Brown, a MS in geology from Yale and a Ph.D. in geology from the University of Chicago, he is more than qualified as a "professional with experience in this area." He has published dozens of articles, including the following: "Effects of structurally-engineered beaches on coastal processes and shores of the Great Lakes."

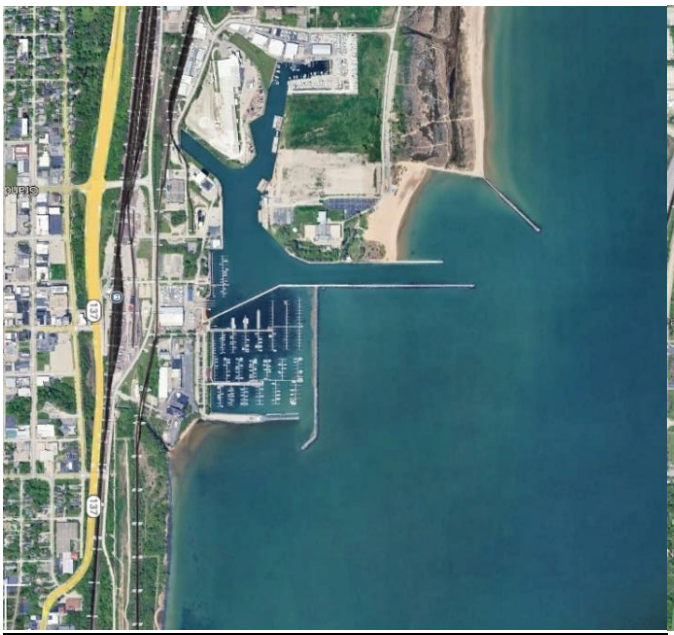
The following table, images and abstract of the case Banks v. United States are included to show the relatively small scale of the existing and proposed improvements at Elder and Centennial Parks. Waukegan Harbor and Great Lakes Training Center are major improvements which result in a sand starved environment south of their location. A similar interruption of littoral drift occurs on the other side of the lake at the St. Joseph Inlet. In the seminal case, Banks v. United States, Charles Shabica, Ph.D., P.G., was admitted as an expert, testifying to the effects of the improvements on the littoral system. The court initially found that 30% of the erosion south of the St. Joseph inlet was attributed to the jetties protecting the inlet. The case proceeded to the damages phase but ultimately the claims were time barred as the improvements were completed decades prior to the claim. Two conclusions should be noted:

1) Waukegan Harbor & Great Lakes Training Center improvements create a "sand starved" environment along the North Shore
2) Charles Shabica, PhD, is an expert in the arena of coastal erosion

EXHIBIT 4 – DEFINITION of TERMS

Erosion, Bluff Protection, Beach Preservation, Littoral Drift, Lakebed Downcutting, Fetch, Waves, Headland Beach System, Jetties, Piers, Hydrodynamic Analysis





Waukegan Harbor

Great Lakes Training Center

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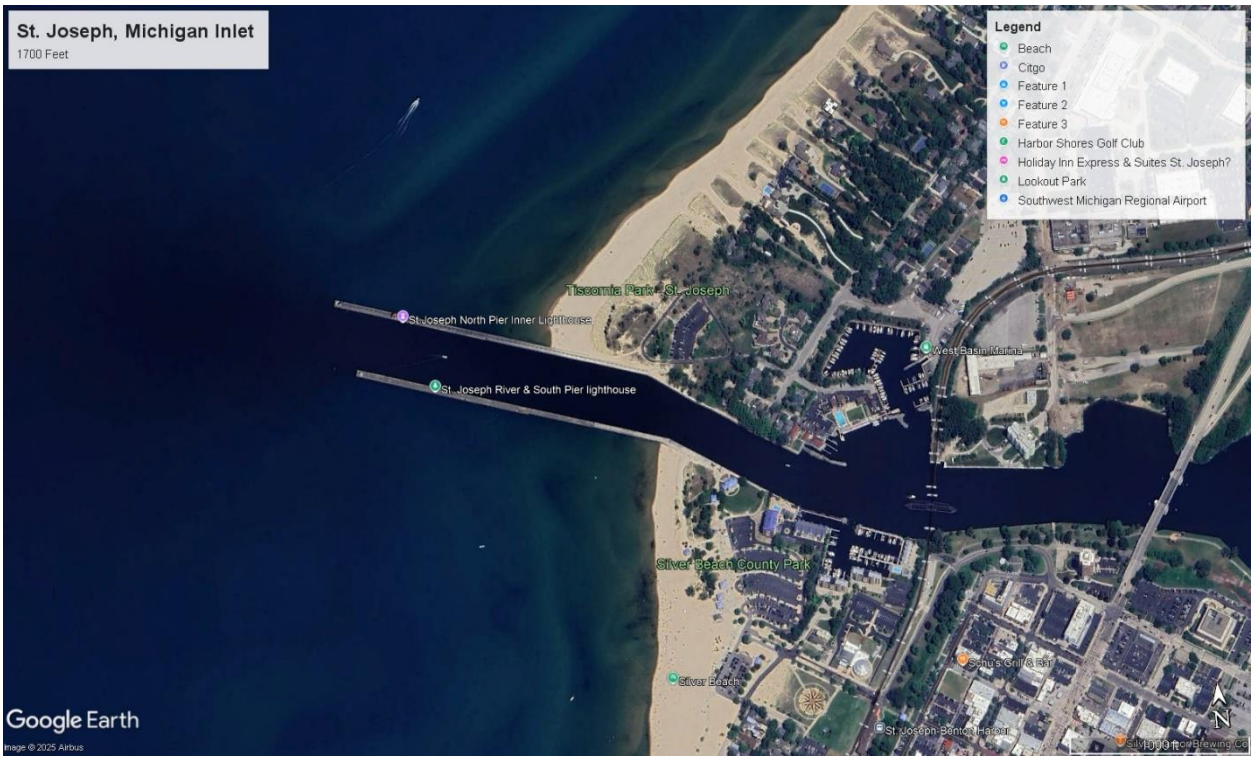
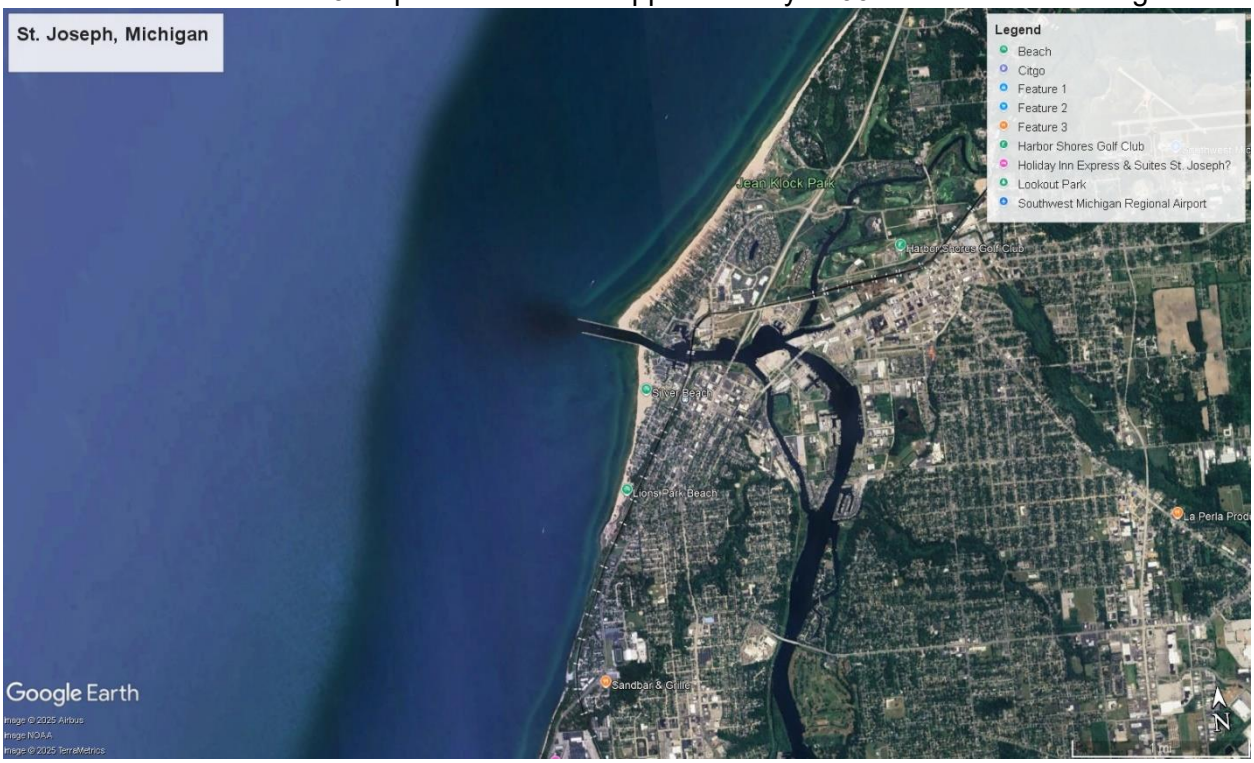


The Piers at the St. Joseph's Inlet extend approximately 1700 feet into Lake Michigan



The beaches south of St. Joseph Michigan sustained excess erosion due to the interruption of the littoral drift.

RELEVANT EXCERPT FROM COURT FINDINGS: BANKS V. UNITED STATES

Charles Shabica, PhD, admitted as expert witness

Corps Liable for Shoreline Erosion on Lake Michigan

Banks v. United States, 78 Fed. Cl. 603 (Ct. Cl. 2007).

Terra Bowling, J.D.

In a takings case arising from coastal erosion on Lake Michigan caused by an Army Corps of Engineers project, the U.S. Court of Federal Claims has ruled that the government is responsible for 30 percent of each plaintiff's property loss above the mean high-water mark.

Background
Between 1950 and 1989, the Corps performed construction and maintenance on harbor jetties around the mouth of St. Joseph River to accommodate commercial shipping. After the lake shore south of the jetties began to erode, the Corps began a beach renourishment program in the 1970s; however, the project proved ineffective.

In 1999, property owners affected by the erosion filed suit against the United States, alleging that the Corps' activities caused erosion of their shoreline property and resulted in a taking under the Fifth Amendment. After the trial on liability in June 2007, the U.S. Court of Federal Claims had to consider whether the government's renourishment efforts compensated for the effects of the jetties enough to show that the erosion was not attributable to the government.

Liability
The court first looked at whether the jetties affected plaintiffs' properties. The court found that the plaintiffs' properties were affected by the jetties, citing a 1958 study as well as Corps reports attributing 30 percent of the total erosion to the jetties.

To determine whether the renourishment project was effective, the court looked at the adequacy of nourishment material used by the Corps, the sediment transport rate, and the effective placement of nourishment material. The court first found that the plaintiffs failed to prove that their properties were located on a cohesive lake bottom, meaning that the property damage would not be analyzed as permanent and irreversible. Next, the court found that the sediment used by the Corps in the renourishment process was the inappropriate size and was ineffective. Therefore, that portion of the renourishment program was not credited as mitigation to the Corps. The court next looked at the sediment transport rate, including the net littoral drift and the various factors affecting the net southerly littoral drift, to determine how much sediment was affected by the jetties. Finally, in looking at the effective placement of the nourishment material, the court found "by a preponderance of credible evidence" most of the nourishment was placed in a way that would replenish the plaintiffs' property.

The court considered additional arguments regarding the Corps' liability. The plaintiffs argued that revetments constructed by the Michigan Department of Transportation and Chesapeake and Ohio Railway Company to stop erosion resulted in further erosion to their property and was attributable to the Corps' restoration project. The court found that the plaintiffs failed to prove that the Corps caused direct injury to the plaintiffs through the building of the revetments. Although the plaintiffs also argued that the impermeable nature of the jetties contributed to erosion, the court found that the property owners failed to prove that the jetties were impermeable. Finally, the plaintiffs argued that although Lake Michigan is lowering, the plaintiffs

would still suffer erosion because the lakebed was lowering due to sand deprivation. The court noted that owners failed to prove that the lowering of the water level was due to human intervention.

Holdings

Through exhaustive testimony and reports, the court found that the Corps did not mitigate erosion that it caused by dumping dredged sand into deep water before 1970. The court concluded that the Corps was responsible for 30 percent of the unmitigated erosion above the high-water mark occurring after each owner's acquisition of the property from 1950 to 1970. The court then turned to liability for erosion caused after 1970.

While the court found that the court had mitigated erosion since 1970, it also found that the coarse material it used was not effective for mitigation. Therefore, the court was liable for damages of for any portion of 30 percent of each plaintiff's total erosion above the high-water mark since 1970 and after each owner's acquisition of the property. Additionally, the Corps is liable for 30 percent of all reasonably foreseeable future loss. Finally, the court held that the Corps was liable to plaintiffs with property at the northernmost end of the plaintiffs' zone. Because the property in this area was found to be permanent and irreversible, the Corps was liable for 30 percent of total erosion above the ordinary high-water mark that occurred after plaintiff's acquisition of the property after 1950, as well as any reasonably foreseeable future loss.

Conclusion

The case will next move to the damages phase, in which the government will determine the appropriate payments for each plaintiff.

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Decided December 22, 2011

Banks v. United States, No. 99-4451 L:

From the web: The case involves thirty-six property owners along a four and one-half mile stretch of the eastern shoreline of Lake Michigan south of St. Joseph's Harbor. The plaintiffs allege that the United States Army Corps of Engineers, through its construction and maintenance of certain jetties at St. Joseph Harbor, interfered with the natural littoral flow of sand and river sediment, causing damage to the lakebed and resulting in a gradual and continued taking of their shoreline property. The activities of the Corps affecting St. Joseph Harbor and shoreline began in the 1830s, with the construction of the jetties completed in 1903. The Corps' actions have significantly increased the annual rate of shoreline erosion, which naturally occurs at a rate of approximately one foot per year.

The case was brought before the United States Court of Federal Claims, where the plaintiffs' motion for summary judgment on liability was denied. The Federal Circuit had previously determined that the plaintiffs' physical takings claims were not time-barred and remanded the claims for further proceedings.

Effects of structurally-engineered beaches on coastal processes and shores of the Great Lakes

By

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ABSTRACT

Impacts of coastal structures on America's shores and beaches represent a scientific, economic and engineering challenge to assure that our beaches are protected and sustained. Coastal professionals go to great lengths to properly design, build, monitor, and maintain engineered beaches. However, the beach has a powerful and visceral connection to human nature that makes us all personally and emotionally sensitive to possible threats, proposed changes, and, ultimately, loss of this important component of human well-being. Inadvertent sand starvation and loss of beaches downdrift of 19th- and 20th-century harbor structures has left many people with a natural aversion to "engineered structures." Despite that, a common solution to eroding beaches downdrift of harbors was construction of groins and groin fields that functioned like smaller versions of the harbor breakwaters trapping sand on their updrift sides. Sand bypassing and nourishment of downdrift beaches, introduced in most cases more than 50 years after harbor construction, was generally "too little and too late" to keep groin fields filled with sand.

Toward the end of the 20th century, coastal scientists and engineers, recognizing the reduced effectiveness of groins on sediment-starved coasts, began designing and constructing nearshore stone breakwaters and headlands that are better able to hold sand. These projects were typically filled (premitigated) with sand to minimize downdrift problems. Breakwater projects designed to protect beaches in the Great Lakes, including the first designed by the U.S. Army Corps of Engineers are reviewed, and several are examined in detail. These include public and private beaches on the south shore of Lake Erie, the north shore of Lake Ontario near Toronto, and the west shore of Lake Michigan north of Chicago. The largest is a 55-breakwater system designed to protect the state park at Presque Isle in Lake Erie (58 were originally designed and approved).

Monitoring and examination of historic air photos has shown that attached and detached breakwaters and armored headlands, if built well within the surf zone, have minimal impacts on downdrift beaches and shores. Exceptions are temporary interruption of the littoral drift when structures are built without being adequately filled (nourished) with sand, or interruptions to planned nourishment due to lack of funding. In Illinois, state regulators adopted a requirement that any structure that may trap sand be pre-mitigated with the anticipated sand fill quantity plus a 20% overfill of new sand to assure no negative impact.

Importantly, access to Google Earth on the Internet has allowed citizens and scientists to view and monitor the coast in a historical context, unbiased by a lack or misunderstanding of scale or perceived bias of coastal "experts."

The shores of the Great Lakes are fertile grounds for innovation in coastal design and engineering. The variety of shorelines left by the glaciers is grist for the creative mill of coastal planners, scientists and engineers. The Great Lakes, in addition to being the largest body of freshwater in North America, has more than 9,400 miles of shoreline. The shores include rocky headlands and natural pocket beaches primarily in the upper Great Lakes (notably Lake Superior and the northern ends of Lake Michigan and Lake Huron), and eroding glacial deposits of cohesive or sandy material with narrow sand beaches in the lower Great Lakes (Pope *et al.* 1999). Although most of the Great Lakes coasts are still rural, intense urbanization has developed along the shores adjacent to river mouths and natural harbors.

ADDITIONAL KEYWORDS:
Breakwaters, headlands, pocket beach, beach erosion, coastal surveys, groins, sand, littoral drift.

Manuscript submitted 14 May, 2010, revised and accepted 9 September 2010.

The earliest and most disruptive human-made structures affecting Great Lakes beaches are harbor entrance breakwaters and jetties. When many of these were built in the mid- to late-19th century in the Great Lakes, sand was often considered a nuisance, as harbors and channels filled with sand and had to be removed, typically by dredging. Up until the late 20th century, dredged sand

Figure 1. A 31 May 2007 Google photo of Lakeview Park Beach in Lorain, Ohio (Note 100-ft scale bar).

was removed from the harbor and was either dumped in deep water, used in lake fills, or mined for the construction industry. The lake fills, sometimes extending over a mile into the lake, are complete barriers to littoral drift sand transport if they extend beyond the surf zone. The result is often a sediment-starved system downdrift of the littoral barriers, where natural beaches are ephemeral and most wide beaches (exceeding 100 ft) are trapped updrift of the lake fills and harbors. Sediment-starved coasts in the Great Lakes include the east and west shores of southern Lake Michigan, the south shore of Lake Erie and the north shore of Lake Ontario.

The sources of beach sand in the Great Lakes include sediment from rivers and streams, as well as storm wave erosion of the lakeshores and nearshore lakebed. While fine silts and clays are typically carried offshore by waves and currents, coarser material is left close to shore as sand bars and beaches. This coarse material is in a dynamic equilibrium, moving alongshore and on and off the beach, driven by wind, storm waves, and alongshore currents. The larger the waves and more frequent the storm, the greater the rate of sand transport within a coastal "littoral cell." Littoral cells are bounded by structures that extend beyond the surf zone, such as rocky headlands or harbor entrance channel jetties, and engineered fills, like the Chicago or Toronto lake fill, where dynamic equilibrium becomes "forced equilibrium."

STRUCTURES THAT PROTECT BEACHES

On urban Great Lakes coasts, impermeable piers, groins and groin fields were constructed as early as the mid- to late-19th century to protect eroding beaches and shores. Like the harbor entrance breakwaters, wide beaches developed on updrift sides of the structures. As a rule-of-thumb, the longer the structure, the wider the trapped beach and the greater the impact on littoral drift sand. Depending on availability of construction material, groins evolved from wood piles and rock-filled cribs to concrete and steel sheetpile in the early 20th century after World War I. In general, the groins worked well until high lake levels of the 1970s, combined with accelerated nearshore lakebed erosion, left groin-held beaches narrow to non-existent in many areas including Lake Michigan (Shabica *et al.* 2004) and Lake Erie (Pope and Rowen 1983).

A structural solution applied to beach preservation in other countries and at Winthrop Beach, Massachusetts (1935) is the segmented, shore parallel, breakwater. The first in the Great Lakes was built in Lake Erie at Lorain, Ohio, in 1977, followed by others in urban areas of the lower Great Lakes. Constructed of quarrystone, these systems, on both public and private beaches, include detached shore-parallel breakwaters, attached breakwaters and armored headlands. They were typically nourished (pre-mitigated) with sand brought in from other locations (inland sources or dredge sites).

LAKEVIEW PARK BEACH, LORAIN, OHIO

Lake Erie breakwater-held beaches, in addition to Presque Isle, Pennsylvania, include three in Lorain, Ohio; one in Euclid, Ohio; one in the Village of Geneva-on-the-Lake, Ohio; and one in North Madison, Ohio. Lakeview Park Beach in Lorain is notable in that it was the first use of segmented nearshore breakwaters constructed by the Corps of Engineers to control beach erosion (Pope and Rowen 1983). Built in 1977, the system was designed using wave diffraction analysis and corresponding littoral drift patterns, to be stable under a variety of wave and lake level conditions. It includes two end-groins and three 250-ft-long breakwaters separated by 160-ft gaps, 450-500 ft offshore in depths of 10-13 ft. Littoral drift sands are intended to pass landward of the structures. The system replaced failing seawalls, a revetment and six groins that,

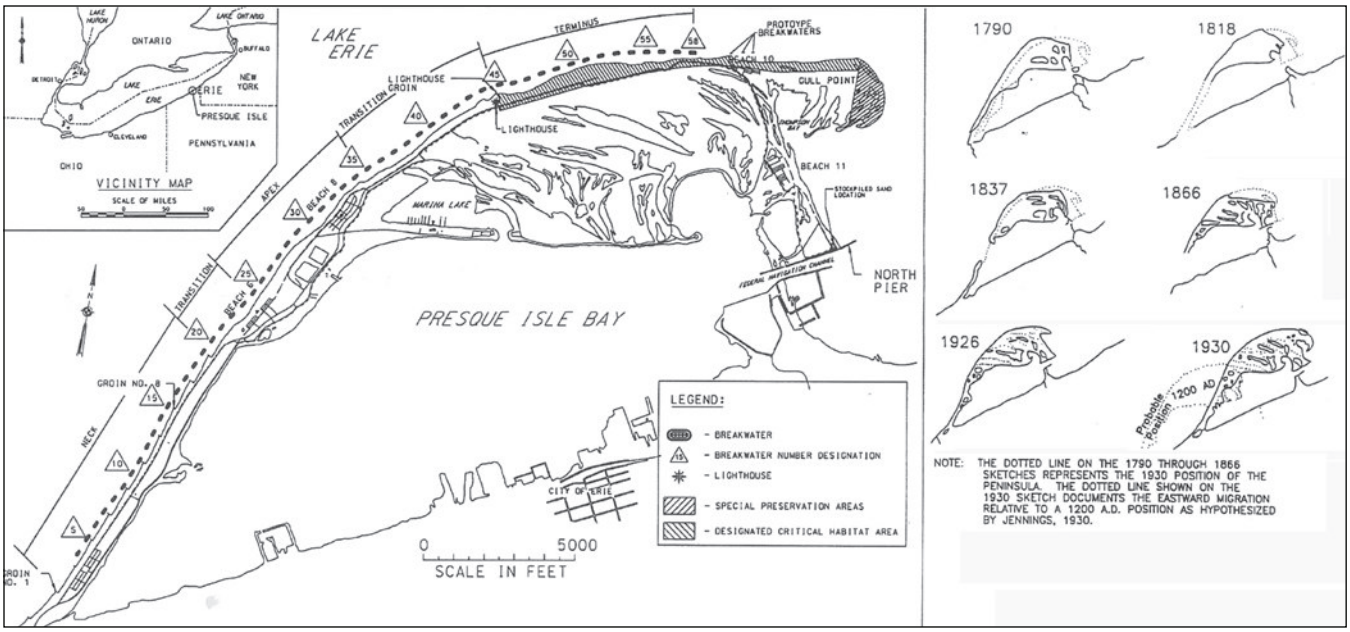

Figure 2. Vicinity and location map of Presque Isle, Erie, Pennsylvania (left). Growth and migration of Presque Isle 1790-1930 (right).

with dwindling littoral drift quantities, were no longer effective at holding sand. Potential littoral drift was estimated to be 20,000 cu yds per year to the east but only 5,000 to 8,000 cu yds per year passed the site and overtopped the landward extension of Lorain Harbor's west breakwater, immediately to the east. Approximately 110,000 cu yds of medium (0.5mm) sand was placed landward of the breakwaters, resulting in a beach averaging 200 ft wide and 1,320 ft long. Annual maintenance of 5,000 cu yds of sand was predicted by the designers. The beach was nourished only twice during the monitoring period with a total of 9,000 cu yds of medium-fine sand placed between 1980 and 1981 at the western end of the beach. Five years of monitoring from 1977 to 1983 showed a net gain in the system of 3,000 cu yds (for more details see Pope and Rowen 1983). A 200-ft-wide band of fine sand accumulated lakeward of the breakwaters over a previously gravel and cobble lakebed between 1977 and 1981. According to a U.S. Army Corps of Engineers report (1996), Lakeview beach received a total of 16,000 cu yds of maintenance sand prior to the project being turned over to the local sponsor. Since then, the city of Lorain has relocated a small amount of sand and placed 4,000 cu yds new sand on the beach (James Reagan, Acting Administrator, city of Lorain Engineering Dept., pers. comm. 2010). Comparison of the 1977 shoreline with a 2007 Google air photo shows a net beach recession of approximately 150 ft. The system was designed for average beach widths of 150 ft behind the east and central breakwaters, 100 ft behind the west breakwater and 20 ft next to the west groin, based on a lake level of +1.7 ft LWD (Low Water Datum, IGLD 1955). Examination of the 2007 Google air photo (Figure 1) shows that these standards have been maintained.

PRESQUE ISLE STATE PARK, PENNSYLVANIA

Presque Isle State Park, established in 1921, surrounds Presque Isle Bay at the eastern end of Lake Erie and includes recreational beaches, hiking trails, and a marina that hosts more than 4 million visitors per year. Presque Isle (French for "almost an island") is a compound recurved sand spit that projects from the Pennsylvania mainland into Lake Erie and protects the federal commercial harbor at Erie, Pennsylvania (Figure 2). Formed during the Wisconsinan glaciation of glacial clays, sands and gravel, the spit is an anomalous sandy feature on a generally sand-starved coast. Historic maps (Jennings 1930, Gorecki and Pope 1993) suggest that the entire peninsula moved in a northeasterly direction along the shore at an estimated rate of one-half mile per century (Figure 2).

After the conclusion of the War of 1812, the attention of the United States government was directed to Erie Harbor because of the role it had played in Commodore Perry's memorable battle at the west end of Lake Erie. The first beach erosion study of the peninsula by the U.S. Army Corps of Engineers was done in 1819. The River and Harbor Act of 26 May 1824 authorized improvement of Erie Harbor and protection of the shore at the neck of the peninsula, which by its position forms the federal commercial harbor of Erie. With the construction of harbors and shore protection to the west (updrift) over the last two centuries, sediment supply to the peninsula has been diminished. Numerous (more than six dozen) shore protection works along the peninsula were also constructed during that time. Storm waves readily overtopped the neck that has a low crest elevation of approximately +10 ft LWD. Over the last 200 years, the neck (generally less than 800 ft in width) breached four times (winter 1828-29, winter 1832-33, November 1874, and October 1917). It should be noted that several of these occurred after creation/enlargement of federal harbors to the west, most notably Conneaut Harbor, Ohio (initial jetties built 1827-1832, lengthened 1868-1871, 1894; original breakwaters built 1897-1905, modified and enlarged 1912-1917), approximately 20 mi to the west. The earliest shore protection structures consisted of timber seawalls or vegetative plantings. In the last century, a number of stone revetments and steel sheetpile seawalls were constructed. While these were more durable, they were built in response to immediate threats at specific locations. In 1955, 11 steel sheetpile groins nourished with sand fill were constructed along the neck to stabilize

Figure 3. A 1992 aerial view of Presque Isle.

this vulnerable area. This began the shift to beach augmentation using sand, such that by 1960 periodic nourishment was the main source of shore protection.

The large quantities and cost of beach nourishment needed (160,000 to 172,000 cu yds annually), prompted the Commonwealth of Pennsylvania to request an evaluation of this practice in 1968. Numerous alternatives were considered including no action, nourishment alone, nourishment and sand recycling from the east end of the peninsula, and a variety of structural configurations with nourishment. Section 501(a) of the Water Resources Development Act of 1986 (Public Law 99-662), authorized and funded the construction of 58 offshore segmented rubble-mound breakwaters (55 were built) with initial placement of 373,000 cu yds of sand fill. The design included beach berms with average widths of 75 ft and crest elevations of 10 ft above LWD. Existing shore protection structures were removed prior to construction. The plan also provided for annual nourishment of approximately 38,000 cu yds of sand fill. The breakwaters are 150 ft long with crest elevations of 7.8 ft above LWD and are separated by 350-ft gaps. Construction began in October 1989 and was completed in November 1992 (Figure 3). A more complete description of the project may be found in Mohr (1994).

The project design was the result of extensive technical investigations that included two- and three-dimensional physical model studies, as well as construction of three 125-ft prototype breakwaters in the vicinity of Beach 10 near the east end of the peninsula. Numerous studies were also conducted to assure that the project was socially, environmentally, and economically viable. These studies were key to the success of the project as they improved public awareness and acceptance of segmented breakwaters for shoreline protection, particularly for a project of this magnitude.

During construction, the need for the breakwaters at the root (western end) of the peninsula was questioned. Aerial photographs from 1955 to 1990 suggested that the area between Groins 1 and 2 has been stable. Nourishment has not been needed in this area since groin construction in 1955. In order to confirm the need for breakwater construction at this location, GENESIS (GENEralized model for SImulating Shoreline change, Hanson and Kraus 1989) modeling was conducted (Mohr 1992). This led to the decision to defer construction of Breakwaters 1, 2 and 3.

From 1975 until completion of the shoreline erosion control project in 1992, sand was added to the new system on the order of about 160,000-172,000 cu yds per year using a medium coarse sand with a median size of about 1.8 mm. The scheduled annual nourishment of 38,000 cu yds is based upon a sediment budget analysis of the peninsula developed for the General Design Memorandum (GDM) that determined that the breakwaters would reduce sediment transport rates along the shore by 75 percent (USACE 1986). Naturally occurring sediment inputs to the system are relatively small in quantity, estimated at 40,000 cu yds annually, primarily from bluff recession to the west of the peninsula.

Littoral material travels along the Presque Isle peninsula in a predominantly eastward direction. As it reaches the depositional east end, some sediment accumulates at Gull Point, some travels beyond Gull Point to build up offshore bars and a platform off Thompson Bay, and the remainder is transported into the Erie Harbor entrance channel. The natural pre-project subaerial growth rate of Gull Point was estimated at 0.4 acres per year. If it is found that this growth rate is not being maintained, a portion of the scheduled project nourishment is directed to this area.

Since the annual nourishment program began in 1975, the monitoring program has consisted of obtaining complete aerial photo coverage of the peninsula three times per year and biannual visual inspections by walking the beaches. After completion of the breakwaters in 1992, the program was augmented by annual topographic/bathymetric surveys. Funding constraints have precluded obtaining the photos and surveys the last several years. The objectives of the nourishment and monitoring program are as follows:

1) Confirm the decision to defer construction of the first three authorized breakwaters using GENESIS (Hanson and Kraus 1989) modeling. Measured shoreline position using aerial photography is compared with GENESIS results.

2) Evaluate breakwater settlement. Subsurface conditions below the western breakwaters (7-11) suggested potential settlement. Crest elevation change is examined.

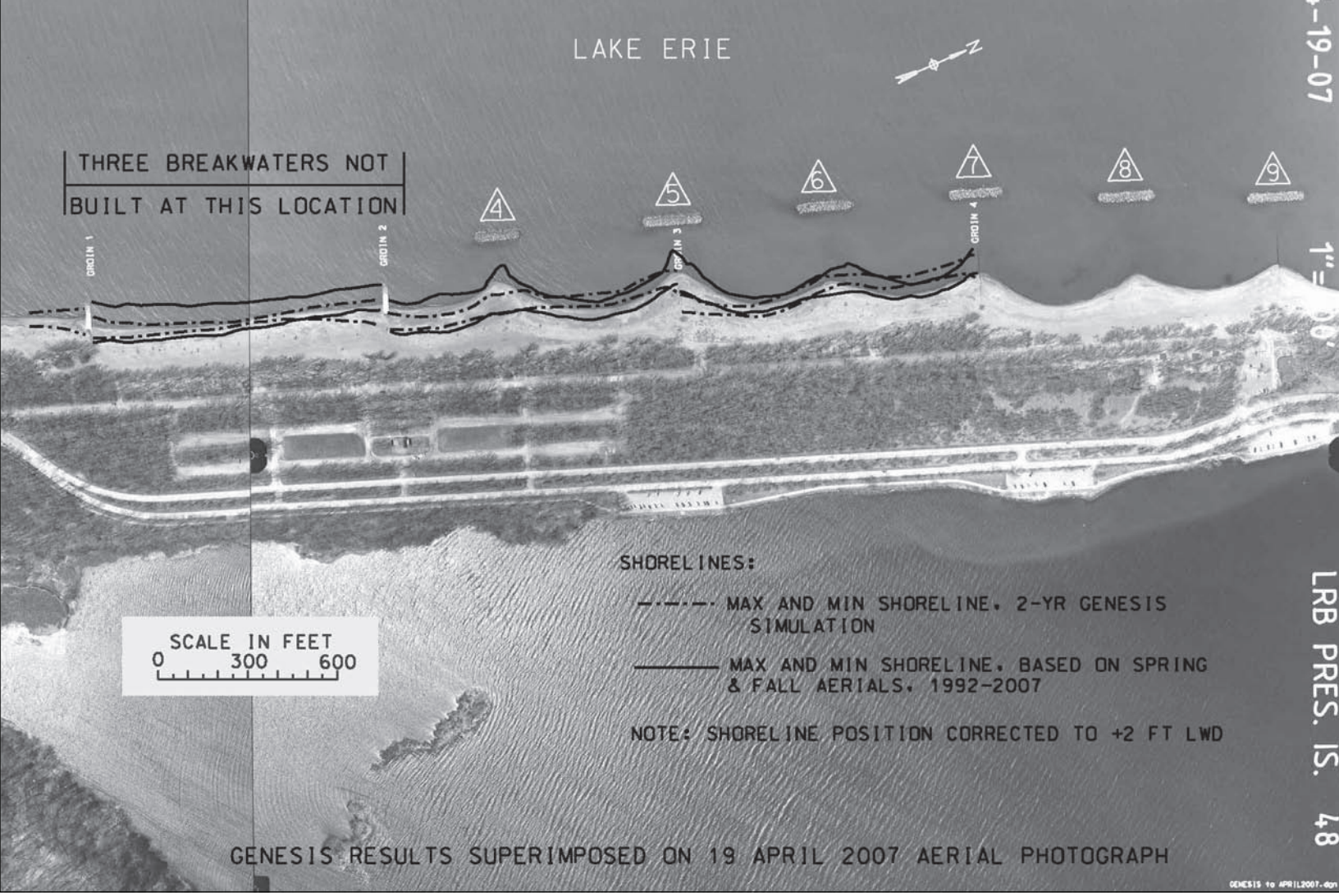

Figure 4. Surveys confirm GENESIS-based decision to defer construction of three breakwaters.

3) Document annual nourishment quantities and locations.

4) Measure shoreline position with respect to the breakwaters. The maximum lakeward extent of the salients formed behind the breakwaters should average approximately 250 ft from the breakwater centerlines.

5) Maintain Gull Point growth.

Time has proven the decision to defer construction of the first three breakwaters to be wise. A comparison of the GENESIS prediction, based upon the two-year simulation run, with measured shorelines taken from the spring and fall aerial photographs for the time period ranging from 1993 to spring 2007 (dated of latest photographs) is shown on Figure 4. The dashed lines represent the maximum and minimum shoreline resulting from the two-year GENESIS simulation. The locus of maximum and minimum shoreline locations (corrected to the +2 ft LWD elevation using a beach slope of 1V:9H) from the spring and fall 1992 to 2007 aerial photographs is also presented. The actual minimum shoreline (most landward retreat) response between Groins 1 and 2 has been similar to that predicted by the GENESIS model. However, the actual maximum shoreline has advanced further lakeward than that predicted by GENESIS. The recommendation to defer construction of the three breakwaters at this location remains valid. This recommendation saved approximately $1 million in construction costs.

The geotechnical analysis performed during the design of the breakwaters indicated that there was a potential for long-term settlement of about 1.5 ft to 4.5 ft for Breakwaters 7 through 11 with the maximum occurring at Breakwater 8. For this reason, these breakwaters were constructed near the beginning of the contract and additional stone was placed as needed later in the contract to ensure the design crest elevation of +8 ft LWD. In order to determine the extent of any additional settlement, periodic surveys have been taken along the crests of Breakwaters 6 through 13. The first surveys consisted of taking physical measurements. However, this was changed to SHOALS (Scanning Hydrographic Operational Airborne Lidar Survey) surveys in 1997. A 2004 survey revealed some settlement in these breakwaters with Breakwater 7 showing the most. Settlement below +6 ft LWD (a loss of more than 1.8 ft in elevation below design level) has occurred in 33 percent of Breakwater 7's crest. The rest had crest elevations predominantly above +7 ft LWD. Since no adverse beach response has been observed behind the breakwaters, no further action besides continuing monitoring is recommended at this time.

Since the completion of the breakwaters, an average annual nourishment quantity of 32,200 cu yds has been placed (1993 to 2009). Only lake-dredged sand is allowed that has a median particle size of 0.7 mm. While the initial placement was done by hydraulic dredge due to the large quantities, subsequent annual nourishment placement has been by land-based equipment. From 1993 to 2003, the

Figure 5. Built on reclaimed land in Lake Ontario east of Toronto, Bluffer's Park first opened in 1975 and was expanded to its current size in the early 1980s. The park is home to four sailing clubs. Note 100-ft scale bar and armored headland on left (Google air photo 2009).

sand was trucked through the city of Erie into the park and placed on the beaches. The Erie North Pier was strengthened allowing for the overloading of sand from self-unloading vessels into a designated stockpile area. Since that time, all new sand is distributed to the beaches from the replenished stockpile.

The sediment budget calculated for the project (USACE 1986) predicted that with the breakwaters installed, the required annual nourishment amounts would be approximately 25% of pre-project quantities. Comparison of pre- and post-project nourishment quantities reveal that annual nourishment with the project is about 19% of pre-project amounts and is about 86 percent of the GDM estimate with the project. The GDM estimate has not been met due to funding limitations and represents about 99,300 cu yds of sand that has not been added to the system since 1993. The federal government shares equally in funding the nourishment with the Commonwealth of Pennsylvania. It should be noted that in 2005 and 2006, federal funding was substantially reduced, and in 2007 no federal funding for nourishment was available. The shortfall was significantly augmented by funds from the Commonwealth of Pennsylvania to ensure its success. However, as will be noted in the Gull Point growth discussion, it has been observed that Gull Point has not been expanding at the minimum desired rate. This may be partially attributed to the reduced nourishment program.

Since construction, the sand behind Breakwaters 1 to 19 has been stable with little or no nourishment or excavation needs. At higher number breakwaters, an alternating "hot-spot" erosion and "cold-spot" accretion pattern has developed where new sand is placed annually due to shoreline recession. Sand is excavated from an average of five breakwaters per year where excessive sediment accumulation behind the breakwater causes tombolo development. This results in the shoreline extending out to the breakwater, and erosion immediately downdrift. The hydraulic model study (Seabergh 1983) indicated that with the formation of a tombolo, the sediment movement was diverted lakeward of the breakwaters, moved downcoast parallel to the breakwater and then shoreward around the downcoast tip of the breakwater. Actual experience has shown that downdrift erosion extends several breakwaters until a rhythmic shoreline is restored. This situation is not desired and thus material is excavated from the zones of unwanted accretion and recycled into areas of erosion.

A goal of the project and the designed breakwater configuration was to develop a stable, sinuous shoreline with the breakwaters averaging approximately 250 ft off the shoreline. In order to determine the shoreline distance from the centerline of the breakwaters, the shorelines were measured using uncorrected-scaled aerial photographs obtained spring 1993 to 2007. Based upon the average water level for the day of the photo and assuming an average slope of 1V:9H for the beach near the waterline, the shoreline position was corrected to represent the shore at an average water level of +2 ft LWD. Since construction, the shoreline annually returns to a planform that varies from project sector to sector. The average distance during the spring between the salients and the breakwaters from 1993 to 2007 was 225 ft, with a standard deviation per breakwater of 62 ft. The occurrence of significant salients and tombolos is primarily limited to east of the lighthouse (Figure 2).

Throughout the neck (Breakwaters 4 through 19), the shoreline has been very

Figure 6. Armored headland and attached breakwaters constructed in 2005-2006 to protect public beaches in Port Union, Ontario. A second system was constructed about a half mile to the north in 2009. Note 100-ft scale bar (Google air photo 2009).

stable with no required renourishment and salients averaging 240 ft (+/- a standard deviation of 30 ft from the breakwater line). Although there are slight oscillating patterns of varying salient widths, they are temporally stable, and the shoreline position is naturally maintained within design tolerances. Through the apex of the peninsula (zone of greatest curvature, Breakwaters 20 through 34), there is more temporal and spatial fluctuation in the shore position with a range of 110 to 340 ft. The shoreline in Sector 2 (transition from the neck to the apex) averages 250 ft from the breakwaters. The average distance of the shoreline from the breakwater line throughout the Apex (Breakwaters 23-34) is 225 ft with a standard deviation of 39 ft. The transition from the apex and into the project terminus displays significant spatial and temporal fluctuation in shoreline position, increasing in amplitude toward Breakwater 58. Although the average position was 220 ft, there is a significant range (425 ft) in the distances from the breakwater to the shore for individual breakwaters and for a single breakwater from year to year. A wave-like pattern of alternating zones of erosion (no salient, shoreline cut back) and accretion (tombolo or near tombolo) passes through the Terminus (Breakwaters 45-58) as sediment waves move along the shore. These waves have a longshore periodicity of approximately 4 or 5 breakwater lengths.

Shoreline change east of the project area at Gull Point has been computed annually until 2006 (last available fall aerial photograph) to determine if sufficient growth continues to occur. The GDM (USACE 1986) stated that the condition of growth must be maintained if the integrity of Gull Point is to be preserved. The GDM also states that adverse impacts to Gull Point exist if:

(1) The average annual growth rate of Gull Point falls below the prenourishment rate of 18,400 cu yds per year or 0.4 acres of surface area growth per year, or

(2) The Gull Point area is in danger of being severed from the main body of the peninsula due to severe erosion immediately downdrift of the breakwater system. Physical contact between Gull Point and the peninsula must be maintained if migrating sediment is to reach Gull Point.

Each year the change in the size of Gull Point is computed using the recent fall aerial photograph and the May 1991 shoreline. The shorelines were corrected to +2 ft LWD. The May 1991 shoreline is used as the basis of comparison since it was used for the Gull Point environmental study. If it is determined that Gull Point is not growing at the minimum desired rate, a portion of the nourishment material is placed east of Beach 10, updrift of Gull Point. Until recently the goal was met. However, the average annual planform change of Gull Point from 1991 to 2005 was -0.01 acres per year, and from 1991 to 2006 was -0.30 acres per year, which is less than the minimum desired value of 0.4 acres per year. As previously noted, actual annual nourishment has been about 86 percent of the GDM estimate with the project. The GDM estimate has not been met due to funding limitations and represents about 99,300 cu yds (2.6 years of nourishment material) of sand not added to the system since 1993.

In summary, 55 of the authorized 58 breakwaters were completed in 1992. Since then the shoreline response at the location of the three deferred (not built) breakwaters has shown that the decision to not construct those has been appropriate. The project goal to establish a sinuous shoreline behind the breakwaters has been achieved, with areas requiring sand or with excessive sand (tombolo

Figure 7. View of the largest headland-protected beach in Lake Michigan at Forest Park Beach in Lake Forest, Illinois (above). The system lies within the surf zone, extending about 400 ft from the bluff toe into the lake. In comparison, 3.5 miles updrift (north) is Great Lakes Naval Training Center Harbor (below) that was, for nearly a half century, a total littoral barrier. The breakwaters, built in 1923, protrude 2,400 ft into Lake Michigan. Between 1923 and 1976, approximately 2.5 million cu yds of sand was impounded in the harbor and on its updrift side (Chrzastowski and Trask 1995). 2007 Google photos both to same scale.

formation) addressed during the annual nourishment program. However, the predicted annual nourishment requirement of 38,000 cu yds has not been met due to funding limitations, resulting in an actual average annual amount of 32,200 cy yds placed and represents a deficit of 2.6 years of nourishment material over the past 17 years. This is beginning to affect Gull Point downdrift of the breakwaters and is being partially addressed by placing a portion of the nourishment sand downdrift of the project area.

TORONTO REGION, LAKE ONTARIO

Western Lake Ontario has a long history of engineered coastal structures. The Toronto metropolitan area waterfront is characterized by lake fills (Figure 5) and headland-protected beaches. According to the Ontario Ministry of the Environment (Persaud 2003):

Most of the large lake fills for the purpose of land creation have been centered in the western basin of Lake Ontario, especially the area adjacent to the Toronto waterfront. The Toronto Harbour Commission, under Federal charter, has been using this technique to develop the Toronto waterfront since 1911. Since the 1950s, the Commission has been involved in the construction of the Eastern Headland (also known as the Leslie Street Spit) which is the largest lake fill structure in Lake Ontario. During the late 1960s and 1970s, the conservation authorities bordering western Lake Ontario and other government agencies (e.g. municipalities, Government of Ontario) proposed shoreline plans which included varying degrees of land creation through lake filling.

Creation of new land resources through filling in the littoral (shallow, near-shore) zone can be an appealing concept for several reasons. With lakefront property commanding a premium price, the creation of new land by lake filling is attractive, particularly in the heavily populated western basin of Lake Ontario. In many cases, lake fills provide recreational opportunities that would otherwise not exist and could not be provided through the purchase of existing shoreline properties.

Study of the coastal system dynamics has played an important role in the development of the Toronto lakeshore. For example, modeling of the littoral drift system in the Toronto region, a key component to proper design and sustainability, was developed in the latter part of the 20th century (Greenwood and McGillivray 1978).

Armored headlands and breakwaters are a prominent form of beach protection in Toronto and include two systems constructed in 2005 and 2009 in Port Union, Ontario (Figure 6). Planned and constructed by the Toronto Region Conservation Authority, the beach systems are being monitored for impacts to the littoral system and fisheries (Ontario Ministry of the Environment 2000). As the shorelines are nearly fully engineered and the structures well-designed, impacts are likely to be minimal. More importantly, the government is committed to monitoring and remediation if necessary.

FOREST PARK BEACH, LAKE FOREST AND SUNRISE PARK BEACH, LAKE BLUFF, ILLINOIS

Attached breakwaters at Forest Park Beach in Lake Forest, and Sunrise Park Beach in Lake Bluff, both of which are on the Lake Michigan shore in Illinois, were built in 1987 and 1991 respectively to protect municipal beaches. The beaches are located on Illinois' shoreline north of Chicago, a 24-mile stretch of urban coast that (with the exception of Illinois Beach State Park) is fully engineered. The nearshore is considered sediment starved, with eroding cohesive clay lakebed exposed in many locations or covered with a thin veneer of sand in others (Shabica and Pranschke 1994). Sand mining and construction of total littoral barriers like Great Lakes Naval Training Center Harbor and Waukegan Harbor breakwaters in the early 20th century have exacerbated the loss of littoral sand.

The coastal geology of Illinois' North Shore is primarily eroding glacial clay-till bluffs and lakebed that are composed of about 10 percent sand. Photographs of the North Shore from the 1880s through the 1930s show extensive development of rock-filled wood crib piers that performed like groins, trapping sand on their northern sides. In unprotected areas, bluff retreat rates averaged 8 to 10 inches per year (approximately 0.4 cu yds of sand and gravel lost per linear foot of lakeshore per year) (Jibson *et al.* 1994). After World War I, most of the piers were progressively replaced with steel sheetpile groins. Over the next 50 years the groins would steadily lose effective-

ness. Forest Park Beach and Sunrise Park Beach groins were no exception, with beaches narrowed and bluff toes scoured by storm waves in the 1970s.

In the mid 1980s, the city of Lake Forest hired W.F. Baird and Associates to design and engineer a sustainable beach to replace the failing groins at Forest Park Beach. In addition to numerical analysis, a physical hydraulic model of the system was conducted in order to maximize the probability for success of the project. Designers assumed littoral drift in this coastal cell would be negligible (Anglin *et al.* 1987). This is not surprising as Great Lakes Naval Training Center Harbor, 3.5 miles updrift, was considered a total littoral barrier (Figure 7). Based on results of the model, five attached breakwaters were built in depths of up to -11 ft LWD, 180 ft lakeward of the preconstruction shoreline (Figure 7). The four north beach cells were filled with 200,000 cu yds of 2.8 mm fine gravel "birdseye sand" that the engineers anticipated would be more stable than the native medium sand (Anglin *et al.* 1987). State regulators required as-built and post-construction surveys to assure no negative impacts. Monitoring consultants recommended an additional 20,000 cu yds of sand be added immediately downdrift of the site prior to project construction as insurance that the littoral stream would not be disrupted by the work (Dean and Seymour 1986). Although this was not done, it is noteworthy that the Illinois DNR now recommends a 20% sand overfill for projects, both public and private, that may trap sand.

The Forest Park site, including the shore 800 ft updrift and 1,200 ft downdrift, was surveyed from 1987 to 1989 and included 43 profiles ranging from 100 ft to 620 ft apart. Results of the monitoring showed stable profiles in the beach cells but sand accretion on the updrift side of the project of approximately 10,000 cu yds of sand. To compensate for the accretion, the city of Lake Forest placed 10,000 cu yds of sand downdrift of the site over a three-year period between 1991 and 1993. Because of the unanticipated sand accretion, another five years of monitoring was recommended from 1991 to 1995 with the Illinois State Geological Survey providing independent oversight. This survey included 71 profiles at 50-ft intervals extending up to 800 ft lakeward and 27 profiles at 200-ft intervals extending up to 2,950 ft offshore to depths of 23 ft (beyond the approximate depth of closure of 20 ft). Sand accretion was reported around the structure during rising lake levels between 1992 and 1994 followed by net erosion during falling lake levels between 1994 and 1995.

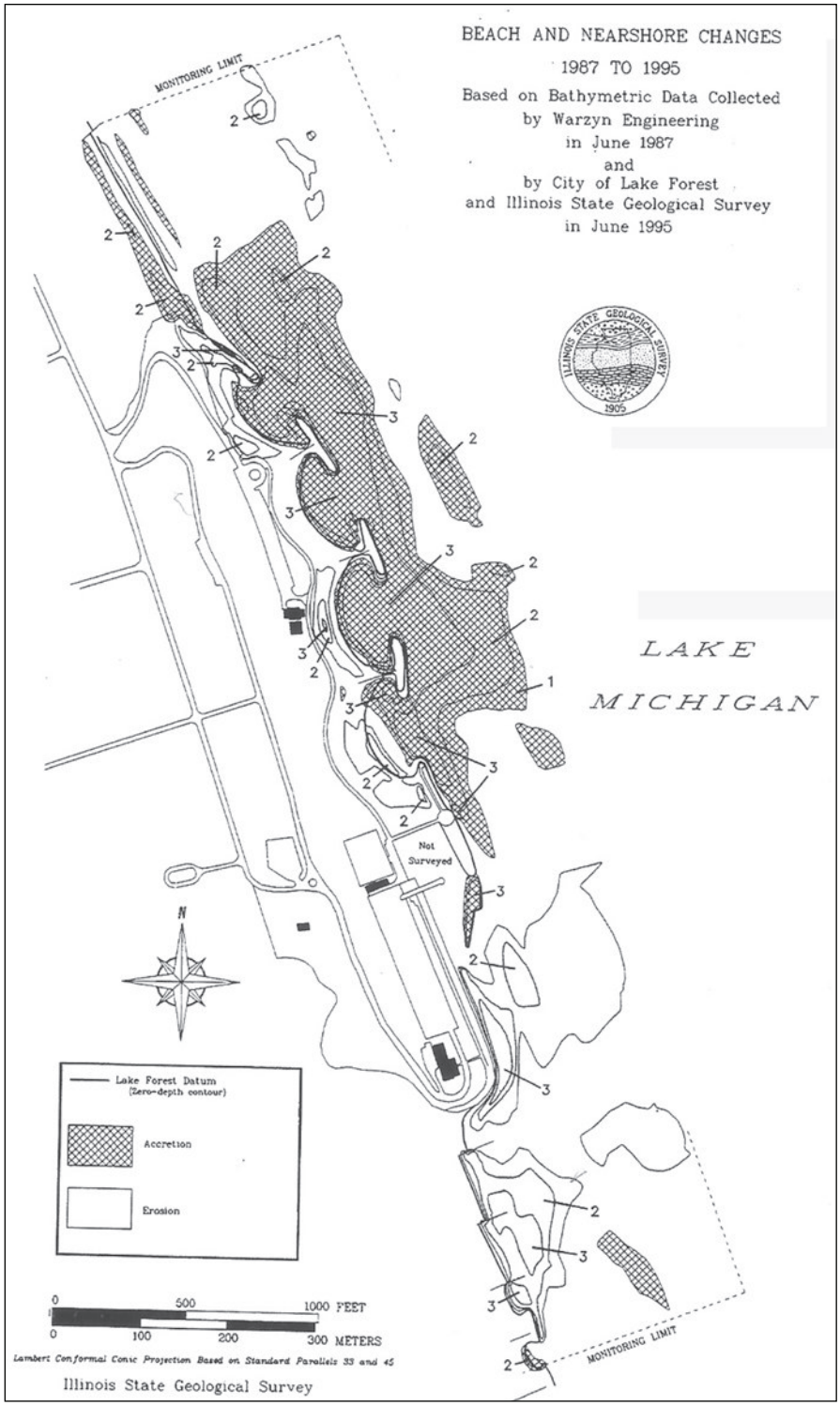

Figure 8. Isopach map showing sand accretion and erosion at Forest Park Beach, Lake Forest. The map is based on a comparison of survey data from 1987 and 1995 (first eight years after construction) and shows sand loss off the dry beach and an accretionary wedge of sand around the structure. Only changes greater than 1 ft are shown (from Chrzastowski and Trask 1996).

Results show some sand loss to the dry beach areas and a 3-ft thick accretionary wedge extending from the shore within the beach cells to 300 to 400 ft beyond the breakwaters (Figure 8). The net volume of material removed from the littoral system from 1987 to 1995 was

Beach (Chrzastowski and Trask 1996). Future surveys might show whether the accretionary wedge is a permanent feature or simply the result of varying levels of littoral drift sand related to irregular bypassing of sand dredged from Waukegan Harbor (7 miles updrift) and storm activity.

From 1989 to 1995, the boat launch basin at the south end of the project trapped 22,440 cu yds of fine sand that was dredged and then placed in the nearshore (depth less than 10 ft) downdrift (south) of the property (Chrzastowski and Shabica 1996). More recently, between 2,500 and 6,000 cu yds per year of fine sand has been dredged from the basin (Chrzastowski 2005 and Mary Van Arsdale, director, Lake Forest Park District, pers. comm. 2010). This is evidence that native sand is bypassing the facility. A 2010 inspection of the surface sand in beach cells 2 and 4 show a mixture of native sand and birdseye sand in proportions of about 50/50.

North of Forest Park Beach is Sunrise Park Beach in Lake Bluff, a single-cell breakwater system designed and engineered by Shabica and Associates. The objective was to create a sustainable public beach and protect an actively eroding bluff. With a limited budget and the newly constructed Forest Park Beach as a functioning "prototype," it was determined that a physical hydraulic model would not be necessary. The site is approximately 2 mi south of Great Lakes Naval Training Center Harbor and is fronted by a lakebed that was "stripped of nearshore sand" due to sand impoundment at the harbor (Chrzastowski and Shabica 1996). A stone headland and a spur breakwater were constructed in 1990-91 to protect a single-cell beach at the south end of Sunrise Park that was to be used for sailboat access and recreation. The beach was filled with 2,300 cu yds of granular material as a base and 6,600 cu yds of new medium to coarse sand

Figure 9. Sunrise Park Beach, Lake Bluff, Illinois, Lake Michigan. South Beach (project beach) opposite 100-ft scale bar, with spur breakwater on the north side of the beach cell and armored headland on south side of cell. North Beach (control beach) with new headland breakwaters at top of photo. Google air photo, 11 October 2007.

(Figure 9). State regulators required a five-year monitoring survey program that was voluntarily extended by two years. Sunrise Park Beach (South Beach) and a groin-protected control site (North Beach) located updrift from the site were surveyed from 1992 to 1999. During two periods of rising lake levels, the project beach gained 0-1 cu yd of sand while the control beach lost approximately 0-2.6 cu yds of sand per linear foot of lakeshore per year. During two periods of falling lake levels, the project beach lost 1-4 cu yds of sand while the control beach lost 0-0.5 cu yds sand per linear foot of lakeshore per year. Both beaches showed a net loss of sand over the study period.

The North Beach, already narrow at the beginning of the study was in poor condition at the end of the study and was considered unsuitable for public recreation. In 2003, the decision was made to protect it with headland breakwaters that were installed in 2004 with 2,300 cu yds of new sand fill (Figure 9). At the South Beach, approximately 250 cu yds of new sand are added to the beach every few years to compensate for a net loss of sand from the beach cell. This amounts to about 1.5 percent of the original fill quantity in annual maintenance. No maintenance fill is added to the North Beach. No adverse impacts on downdrift beaches or shore protection structures has been observed. The five property owners immediately south of Sunrise Park Beach either are or were clients of the senior author. These properties have been inspected on an annual basis through 2010. From north to south, the properties are respectively protected by a steel sheetpile seawall and revetment, two beaches held by stone headland breakwaters, and steel groins with quarrystone revetments.

In terms of sustainability and environmental impacts, survey data from Forest Park Beach and Sunrise Park Beach show that attached breakwater systems are able to hold sandfill within the beach cells with minimal maintenance. Sand accretion on the nearshore sediment-starved lakebed off Forest Park Beach, while unanticipated by the designers, may help minimize lakebed erosion but more importantly, should improve the quality of the shallow water benthic ecosystem (Meadows *et al.* 2005).

Today, more than 18 engineered beach systems have been permitted and constructed in Illinois. All but one are attached breakwater-held pocket beaches. Illinois regulators now require a 20% sand overfill for new beach construction. This assures that there is continuity of sand bars around the new structures and no net loss of sand from the littoral drift system.

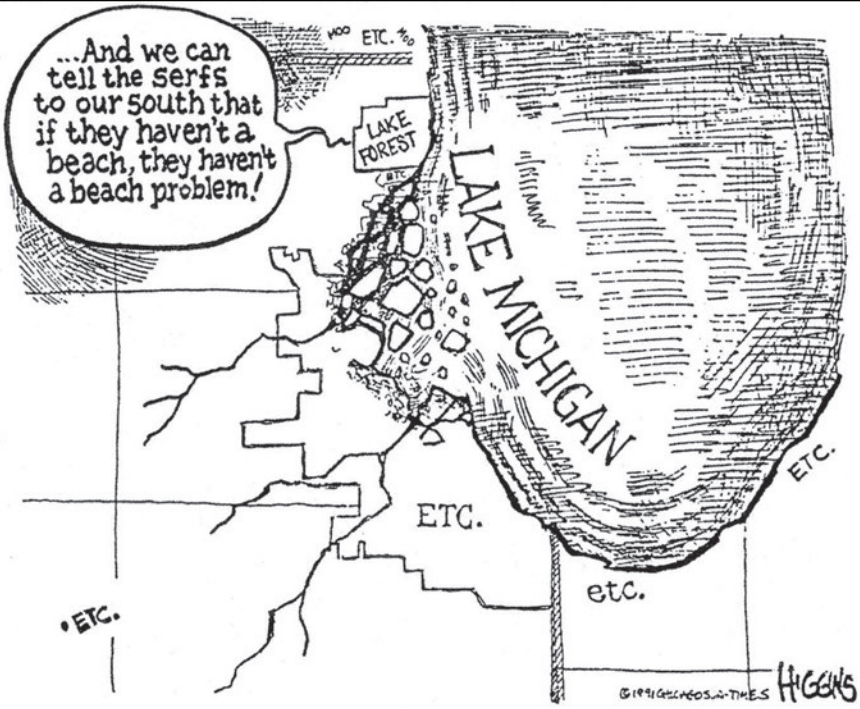

Figure 10. Cartoon that accompanied an editorial in the Chicago Sun-Times, 22 May 1991, commenting on the Forest Park Beach Project. Despite the doomsayers, the project has had no measurable impacts on downdrift beaches.

SUMMARY

Monitoring surveys at Lakeview Park Beach, Sunrise Park Beach, Forest Park Beach, as well as comparison of historic air photos at other Great Lakes sites has shown that beach protection structures including segmented (detached) breakwater systems and attached breakwaters (pocket beaches) and armored headlands, if built well within the surf zone, pre-mitigated with sand fill, and maintained following design standards, have minimal impact on downdrift beaches and shores and require minimal quantities of maintenance sand. In contrast, sand monitoring is crucial to assure sustainability at the more than 4-mile-long detached breakwater system at Presque Isle. Here additional sand is required to assure growth of the downdrift sand spit at Gull Point.

The detached breakwater system at Lakeview Park, by design requires 5,000 cu yds per year sand maintenance. However, after five years of monitoring and 9,000 cu yds of new sand placed, the system showed a net gain of 3,000 cu yds of sand by 1983, or an average of 1,200 cu yd per year of sand nourishment during the study period. The city of Lorain later placed an additional 4,000 cu yds of sand and none has been needed since then. The Presque Isle detached breakwater system by design requires annual surveys with nourishment of 38,000 cu yds of sand per year including removal of tombolos behind breakwaters to assure sand bypassing of the system and growth of Gull Point downdrift. If the breakwaters had not been built, the Presque Isle site would have required beach nourishment quantities of 160,000-172,000 cu yds annually. The beaches at Bluffer's Park and Port Union, Ontario need minimal sand maintenance. The attached breakwater system (pocket beaches) at Forest Park by design requires little or no sand nourishment after the initial 10,000-cu-yd sand gain was compensated for. At Sunrise Park south sailing beach, annual sand nourishment is about 125 cu yds per year to compensate for the wide gap between breakwaters.

LESSONS LEARNED

Structural solutions to protect beaches should be a last resort for unengineered stretches of coast where beach nourish-

Compensation for structural impacts: The sand bank

Many of America's urban beaches today are threatened due to sand loss caused by human activities including harbor dredging and shore armoring. Attempts to mitigate these problems are often too little-too late. Cumulative impacts of activities that reduce the supply of sand to coastal beaches is sometimes difficult to assess but should be considered in any shore management plan. A detailed "sediment budget" that identifies sinks and sources for sand can provide a useful starting point. Sediment budgets are approximations of the yearly balance of sand entering a self-contained coastal system (coastal cell) through rivers and shore erosion, and exiting the system through loss to deep water, entrapment in an embayment and upland loss.

For coastal beaches to be sustainable, sand removed from the system, or prevented from getting into the cell by a human-made structure, should either be replaced or compensated for. A vehicle proposed for assuring fair-play in sand management is a "sand bank" administered by a local or state agency, where a section of coast deprived of sand could benefit from sand paid-for out of a special taxing district fund generated by offending structures or activities.

Structural impacts on a coastal include:

• Impoundment of sand by a new structure

• Diversion of sand out of the littoral system either offshore beyond the surf zone (lake fills and harbor breakwaters) or to upland areas (sand mining)

• Prevention of sand entering the system through rivers and streams (dams, harbor dredging) or prevention of shore erosion (seawalls, revetments, groins, breakwaters)

Mitigation for these impacts can take the form of sand bypassing, nourishment with new sand brought in from outside the system, sand overfills with construction of new structures and/or financial compensation.

While the greatest impacts are from fills and harbors, there is a growing concern that eroding shores that are armored should also contribute to the system. For example, on a fully engineered coast using an estimate of the annual average shore recession rates, eroding sediments retained by structures that might have otherwise nourished the beach can be calculated. According to Jibson and Staude (1994) under natural conditions, annual sand and gravel loss from Illinois' North Shore bluff recession averaged 0.4 cu yds per linear foot of lakeshore. This is based on an average recession rate of 8 to 10 inches per year and bluff soils containing 20% sand and gravel. Thus, a coastal property with a bluff protected by a 100-ft-wide revetment, under the "sand bank" would be taxed for 40 cu yds per year. At a delivered cost of $36 per yard of new sand, this represents an assessment of $1,440 per year. In many states (including Illinois), coastal properties are taxed substantially higher than adjacent properties inland, yet rarely is that money is used for coastal sand management. A well-managed sand bank would assure the health and longevity of the beach, one of our most important natural resources.

ment cannot be justified based on cost/benefit analyses. Sediment-starved coasts, such as Presque Isle or Illinois' North Shore, are good candidates for structures when nourishment is no longer an economical solution.

In regions where there are no existing structures to study for effectiveness and impact on the littoral system and adjacent shorelines, it will be prudent to build a prototype like the three-breakwater system at Presque Isle or conduct a physical hydraulic model. This will not guarantee a "perfect solution" as seen at Forest Park but can fine-tune the performance of the structures assuring an economical and effective solution to sustainable beaches.

Great care should be exercised when applying structural solutions to locations where most downdrift beaches are in a natural state. For example, at Presque Isle, the Corps of Engineers has quantified the sand necessary to successfully sustain the Gull Point sand spit downdrift of the breakwaters. The only impediment to Gull Point's health might be insufficient funding for beach nourishment. A "sand bank" would make that problem moot.

A big hurdle in proposing a new type of beach protection system is political or sociological. By nature, humans are resistant to change. Even legitimate engineering or scientific arguments pale in the face of fear-of-change. Planners of the Presque Isle and Lorain Beaches in Lake Erie showed good insight in preparing the public for the realities of a new method of shore protection. On the other hand, the Forest Park Beach project is a good example of the difficulties in dealing with outspoken adversaries that oppose the project regardless of the benefits and costs both economic and environmental. A lack of understanding of "scale" is often at the root of opposition. For example, well-meaning citizens may see no difference between impacts of complete barriers to littoral drift, like Illinois' Great Lakes Naval Training Center Harbor, and a substantially smaller structure like Forest Park Beach that lies well within the surf zone. A 1991 cartoon published in the Chicago Sun-Times is an example of an outspoken adversary stirring up opposition (Figure 10). Despite the doomsayers and an intense campaign to derail the project, the Forest Park Beach was completed, and to date, no measurable negative impacts have been reported. Three years after the

completion of Forest Park Beach, Sunrise Park Beach also met with some public resistance. Fortunately, the fact that breakwaters at Forest Park Beach did not fulfill cataclysmic predictions of downdrift destruction of property helped.

The breakwaters reviewed in this paper fall into two main types: detached with a continuous beach and attached with separate beach cells (pocket beaches) between breakwaters or headlands. Regular transport of littoral drift sand landward of the breakwaters is a key component of detached breakwater systems. Natural irregularities in wave regime and bathymetry can result in formation of tombolos behind some breakwaters and excessive erosion behind others, disrupting sand transport and requiring sand relocation maintenance. In contrast, littoral drift transport at attached breakwater systems, placed closer to shore, occurs primarily lakeward of the structures. Tombolo formation is not an issue and sand transported between adjacent cells is quantitatively less, resulting in lower maintenance costs.

In conclusion, the most successful sustainable beaches on sediment-starved coasts are nearshore attached-breakwater beaches that are pre-mitigated with sand fill. This must include fill to capacity within the structures, and as we have learned in this study, sand fill should also be placed around the structure to assure an uninterrupted littoral system. The systems should be streamlined at both ends to promote continuity of sand transport around the structure.

It is also important that an annual monitoring plan be developed. However, as we have seen with Forest Park Beach, irregularities in the quantities of sand entering the system, including periodic dredged sands from Waukegan Harbor, can result in misleading survey data. This phenomenon was also observed at Presque Isle where sand moved intermittently alongshore in "slugs." Survey profiles should extend updrift and downdrift at least twice the length of the new system, and to the offshore depth of closure. Repeatability of survey points is important and the minimum number of profiles should be undertaken to economically show areas of sand gain and loss. Depending on survey results, the builder should be prepared to add approximately 20% new sand to the system (Illinois regulators already require a 20% sand overfill). If a "sand bank" system is instituted, a well-funded regional cell-by-cell sediment budget will assure the sustainability of this valuable coastal resource, the beach.

ACKNOWLEDGMENTS

We wish to thank Susan Shabica, Dr. Michael Chrzastowski (Illinois State Geological Survey), Dr. Scudder Mackey (S.D. Mackey & Associates), Joan Pope (U.S. Army Corps of Engineers), Gord MacPherson (Toronto and Region Conservation Authority), James Reagan (city of Lorain Engineering Department) and Melissa Bach (Shabica & Associates) for manuscript review and recommendations.

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Exhibit 5
Overview of Illinois Beach State Park Shoreline Stabilization Project

with comparison to Lloyd, Elder & Centennial projects in Winnetka

Illinois Beach State Park (IBSP) Shoreline Stabilization Project Team Members:

Illinois Capital Development Board

Illinois Department of Natural Resources

SMITHGROUP

Moffatt & Nichol

MICHELS

IBSP Project Overview:

- Stabilize and protect 2.2 miles of shoreline at Illinois Beach State Park, the last remaining undeveloped lakefront in Illinois
- $73 million funding from Governor J.B. Pritzker's Rebuild Illinois capital plan.
- Construction of 22 stone breakwaters offshore to reduce wave energy and prevent further erosion while helping to maintain the sandy beachfront and protect critical habitats.
- Replenish beach with 35,000 truckloads (750,000 tons) of sand.
- Earned the Waterfront Edge Design Guidelines (WEDG) Verification, marking it as the first freshwater project in the Midwest to achieve this recognition.
- Major step towards preserving the natural beauty and ecological significance of Illinois Beach State Park for future generations.

IBSP compared Lloyd Beach, Elder/Centennial Beaches

Project	IBSP	Lloyd Beach	Elder/Centennial
Length:	2.2 Miles	720 feet	1000 feet
Stone:	320,000 tons	20,000 tons	TBD
Sand:	750,000 tons	8,000 tons	TBD
Cost:	$73 million	$5 million	TBD
Max. Offshore:	850 feet	225 feet	225 feet

Presentation and Press Releases: IL Beach State Park Shoreline Stabilization Project

Illinois Beach State Park – Illinois Capital Development Board Presentation -

Illinois Beach State Park Shoreline Stabiliazation Project Earns Waterfront Edge Design Guidelines Verification

WEDG's First Freshwater Project: Illinois Beach State Park Shoreline Stabilization Project

SMITHGROUP: Illinois Beach State Park Shoreline Protection

WTTW: State Spends $73M to Protect Illinois' Only Undeveloped Lake Michigan Shoreline

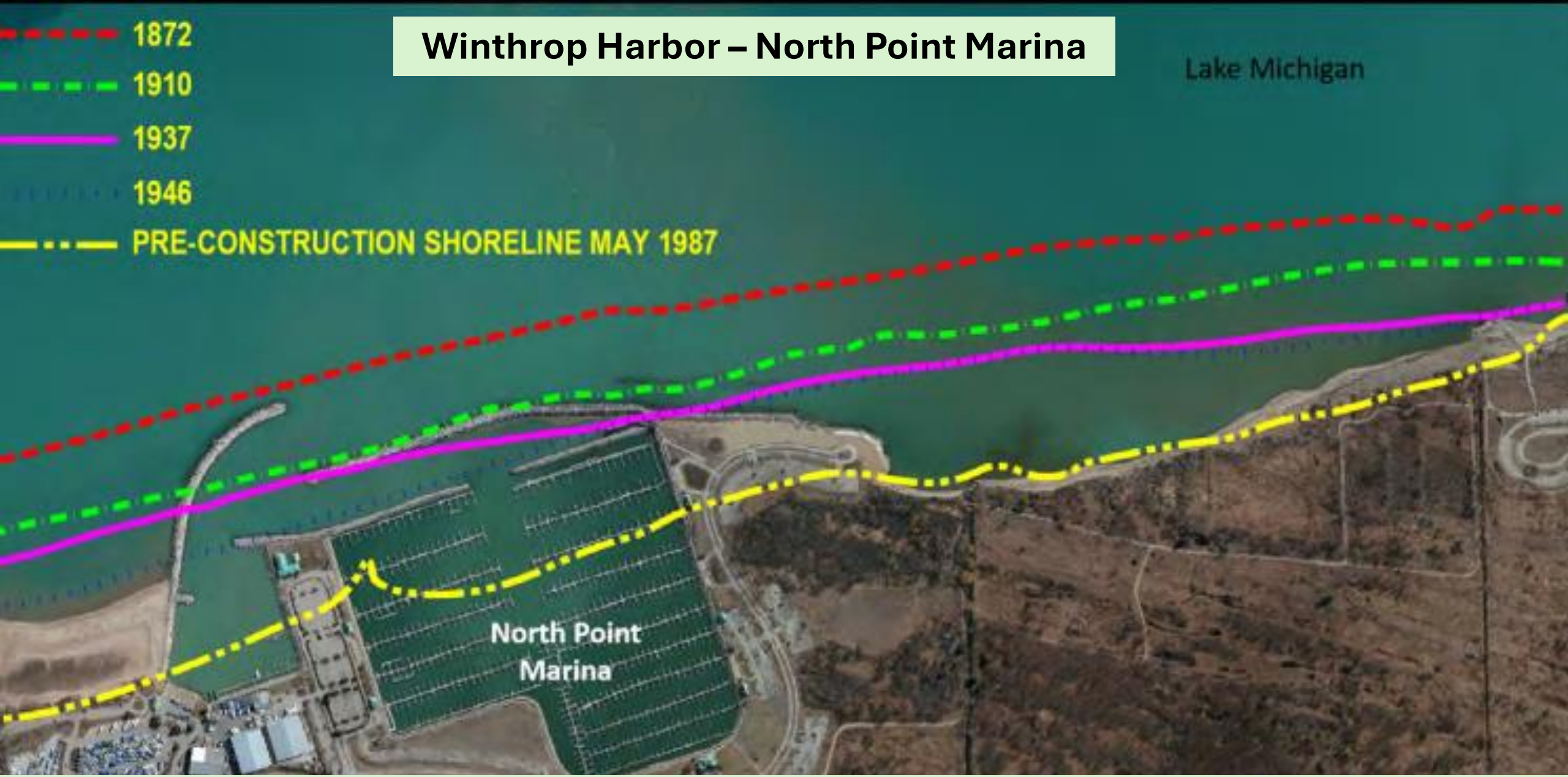
Chicago YIMBY: Major Restoration Efforts Completed at Illinois Beach State Park in Lake County

Hydrodynamic Modeling

The hydrodynamic modeling for the Illinois Beach State Park Shoreline Stabilization Project was completed by Moffatt & Nichol, an engineering firm specializing in coastal and marine projects and the Smith Group. The modeling was performed using advanced simulation software to analyze wave propagation, sediment transport, and the impact of proposed structures on the shoreline as well as 2-dimensional and 3-dimensional modeling tests at the at the HR Wallingford laboratory in Wallingford, UK. These tests aimed to find a cost-effective beach control structure configuration to stabilize the shoreline. The physical models helped optimize the design of the beach control structures and ensure their effectiveness under various wave and water level conditions. Hydrodynamic modeling for the Illinois Beach State Park Shoreline Stabilization Project involved several key steps:

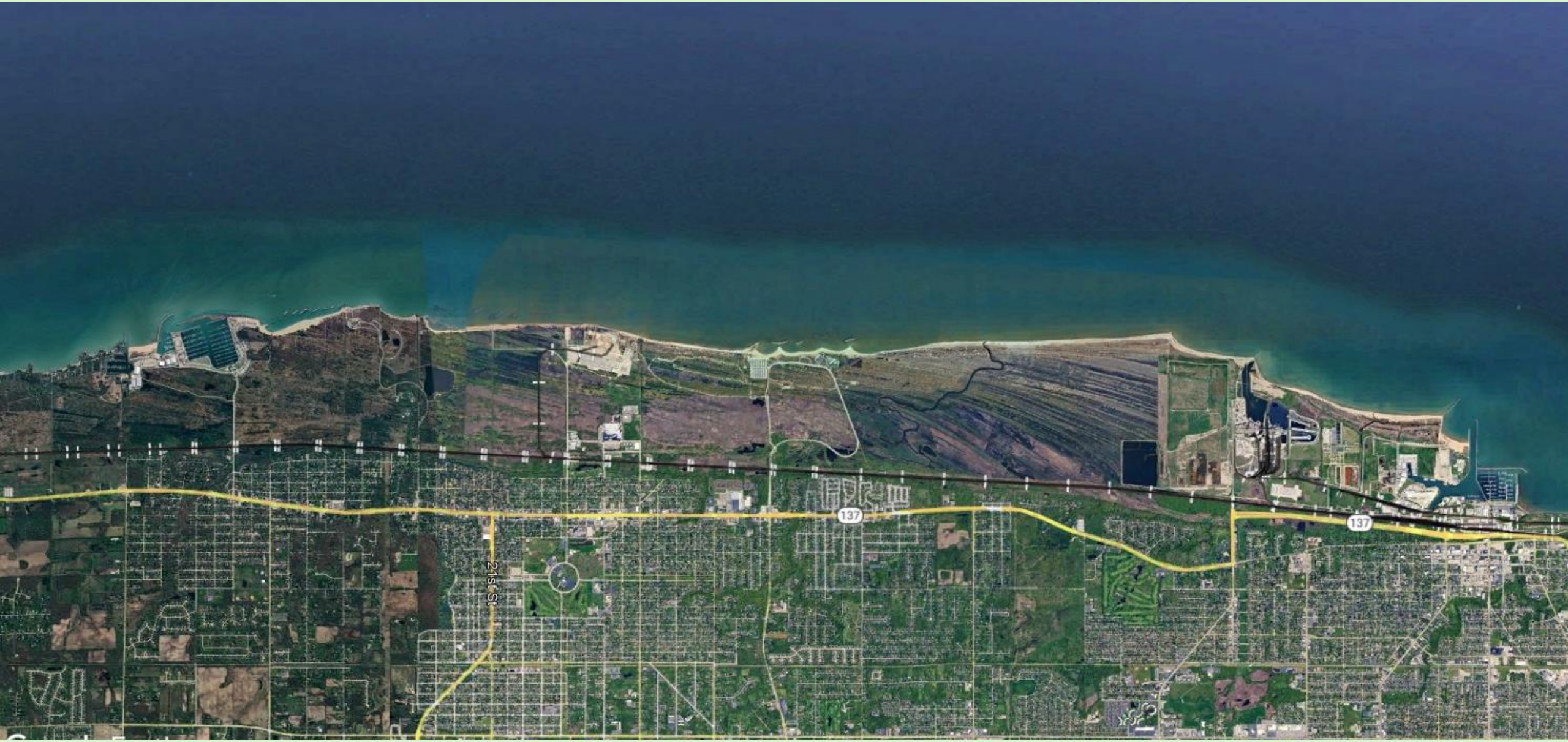
- Bathymetric Survey: An overall bathymetric survey of the park was conducted, using data from a variety of sources
- Wave Data Collection: Offshore wave data was collected from a data point maintained by the U.S. Army Corps of Engineers (USACE).
- Wave Propagation Modeling: A wave model was used to simulate the propagation of offshore waves as they approached the nearshore area.
- Littoral Drift Calculation: The longshore sediment transport, or littoral drift, along the coastline was calculated using the nearshore bathymetry and annual average wave climate.
- Model Calibration and Verification: The model's results were calibrated and verified to ensure accuracy.
- Transport Rates Computation: The transport rates along the park's shoreline were computed, both before and after the implementation of coastal structures.

Winthrop Harbor – North Point Marina



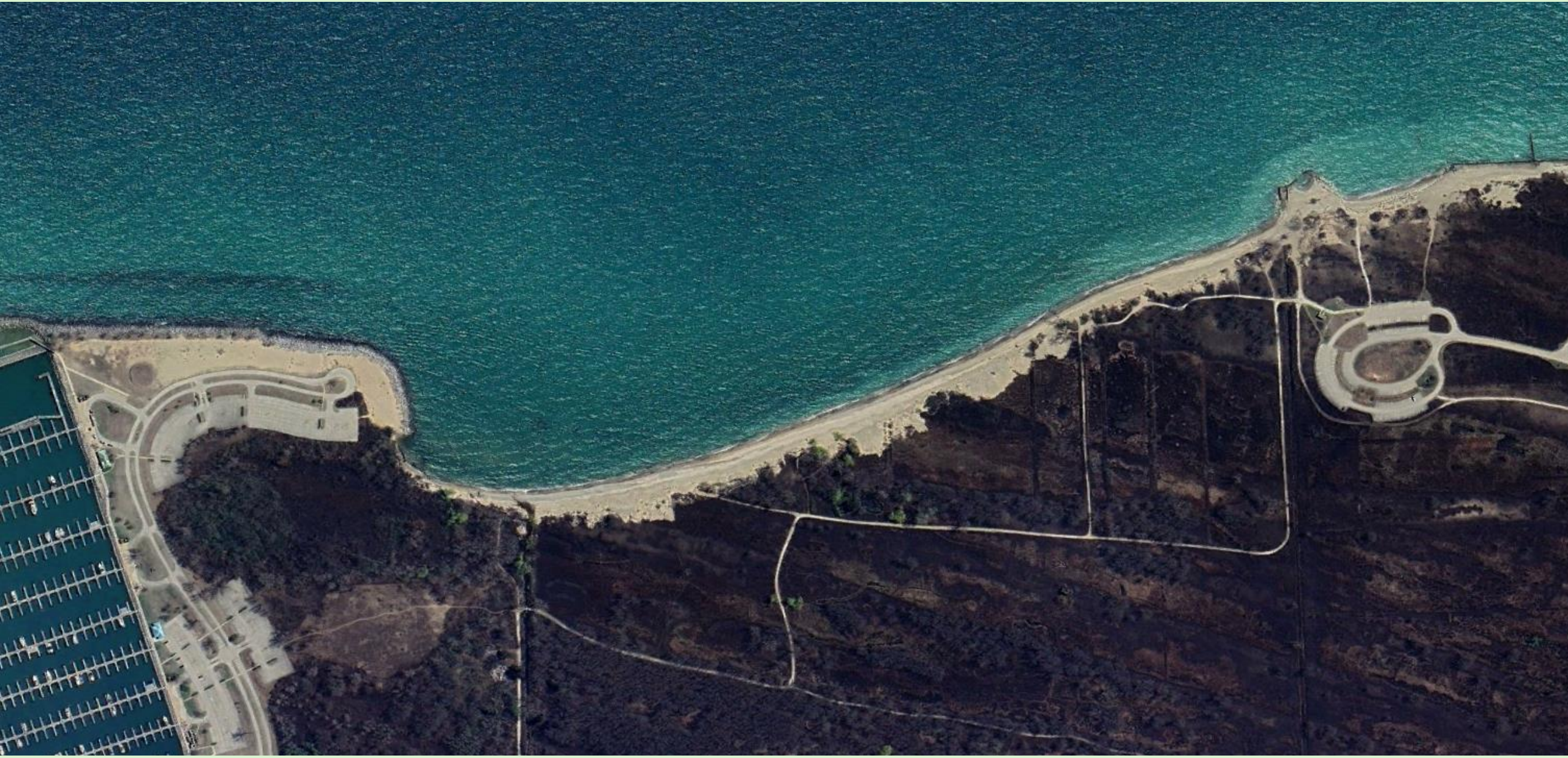
This slide, excerpted from the IDNR presentation regarding IL Beach State Park, shows the history of the natural erosion of the Lake Michigan Shoreline from 1872 – 1987. The erosion is a response to natural factors rather than a result of human influences in this instance. In addition to the quarter mile of erosion, one can also glean from this slide the scale of the North Point Marina improvement completed after 1987. The northerly breakwater is 1650 feet long, protecting the entrance to the 1500 slip marina. This is an example of the scale of a project that requires coastal engineering and hydrodynamic analysis.

WINTHROP HARBOR – NORTH DUNES – HOSAH PARK - ILLiNOIS BEACH STATE PARK - WAUKEGAN HARBOR

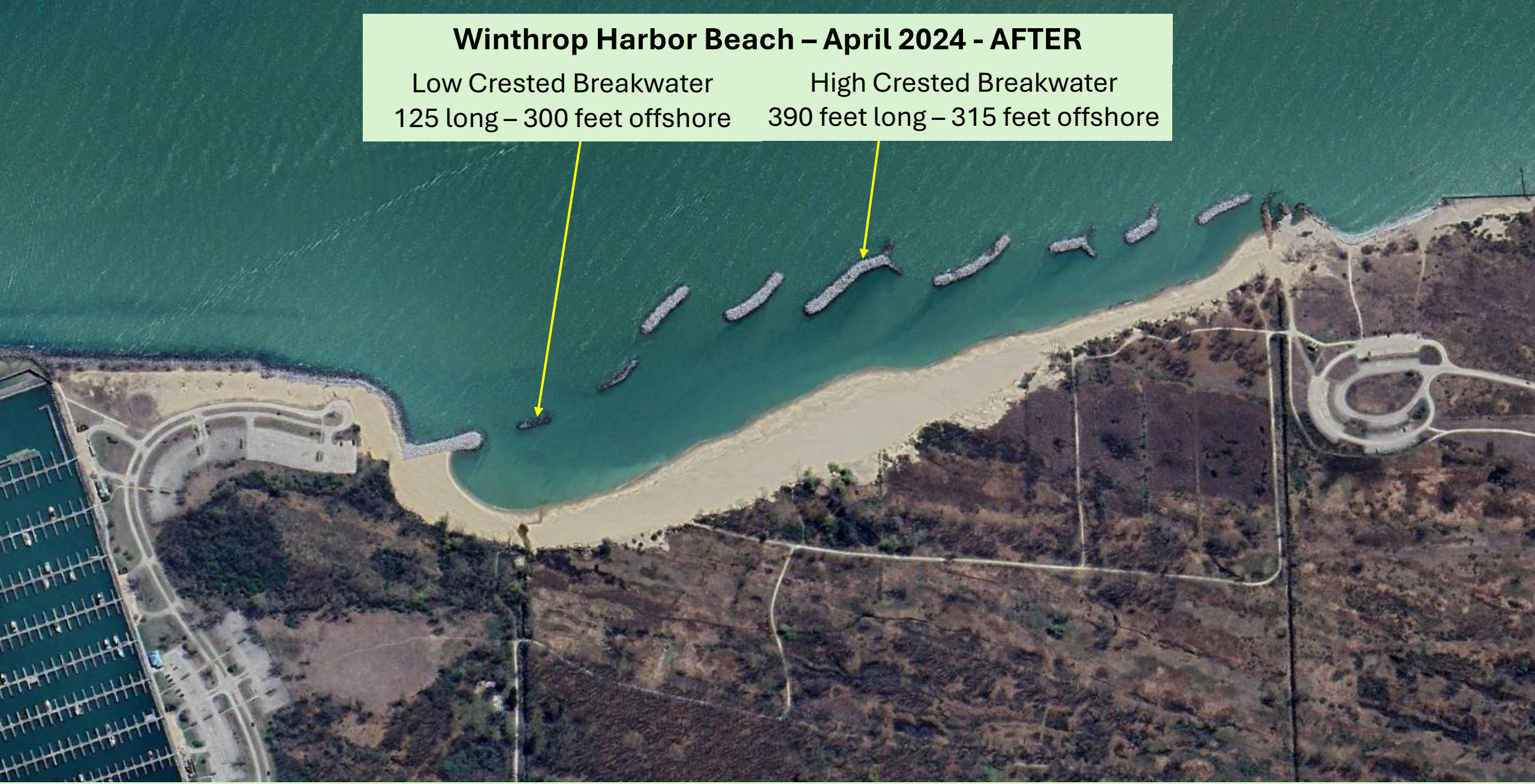


This Google Earth image shows the Lake Michigan Shoreline, including the 8.5 mile stretch of shoreline between Winthrop Harbor to the North and Waukegan Harbor to the South. In between is the Illinois Beach State Park and adjacent parks that were recently improved with a series of off-shore breakwaters in a large scale project completed by the IDNR.

Winthrop Harbor Beach – April 2023 - BEFORE



Winthrop Harbor Beach, just south of Wintrop Harbor is the north end of the Illinois Beach State Park project. This stretch of beach is approximately 3100 feet. This image is from Google Earth, dated April 2023, before work began on the project.

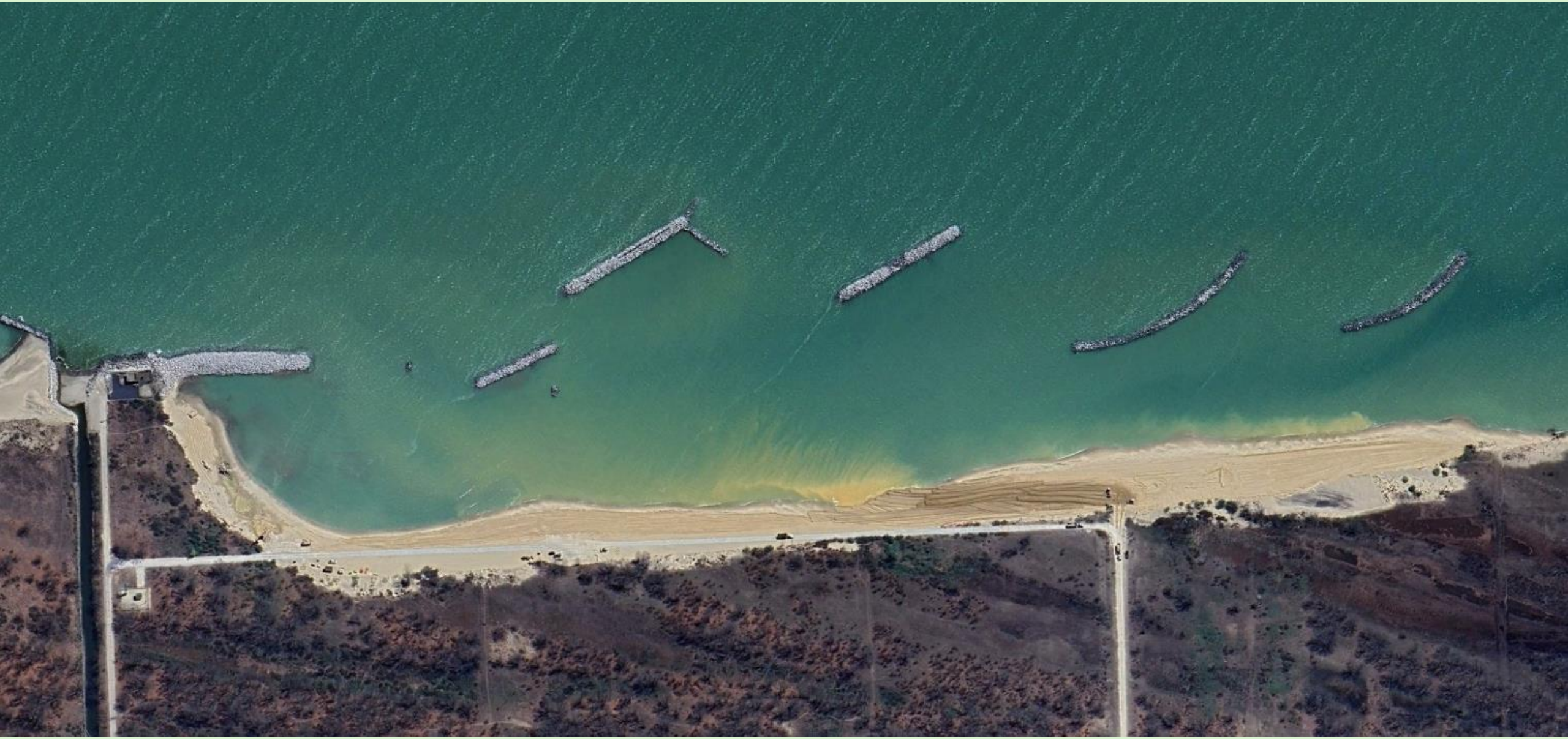


This image is AFTER completion of construction of the off-shore low-crested and high-crested breakwaters. The scale of the improvements is significant, including breakwaters as long as 390 feet and as more than 300 feet off-shore.

North Dunes Nature Preserve – Camp Logan Beach - North of Hosah Park - BEFORE

This stretch of beach is nearly 3500 feet long, it is subject to natural erosion.

North Dunes Nature Preserve – Camp Logan Beach - North of Hosah Park - AFTER



The recently installed off-shore breakwaters range from 240 feet to 530 feet long and were constructed between 290 and 800 feet from the original shoreline prior to sand replenishment. This is the middle of the three stretches of beach that were part of the overall project. This image was captured during construction as you can see the equipment on the beach.

Adeline Jay Geo Karis Illinois Beach State Park – BEFORE

This is the southernmost beach that is part of the project – covering approximately 4000 feet of shoreline.

Adeline Jay Geo Karis Illinois Beach State Park – AFTER

The southernmost phase of the project spans nearly 4000 feet

The off-shore breakwaters are between 325 and 580 feet long and are approximately 130 to 400 feet off-shore.

WAUKEGAN HARBOR AND ADJACENT SHORELINE – SOUTH OF ILLINOIS BEACH STATE PARK

WAUKEGAN HARBOR AND ADJACENT SHORELINE

3500 feet from tip of breakwater to base of harbor

The construction of Waukegan Harbor in the early 1900's had a substantial impact on the littoral system south of the improvements. The tip of the northerly breakwater is 3500 feet lakeward of the base of the marina, causing the naturally occurring sand in the system to be trapped north of the harbor, collected in the harbor or pushed into deeper water.

Waukegan Harbor Entrance

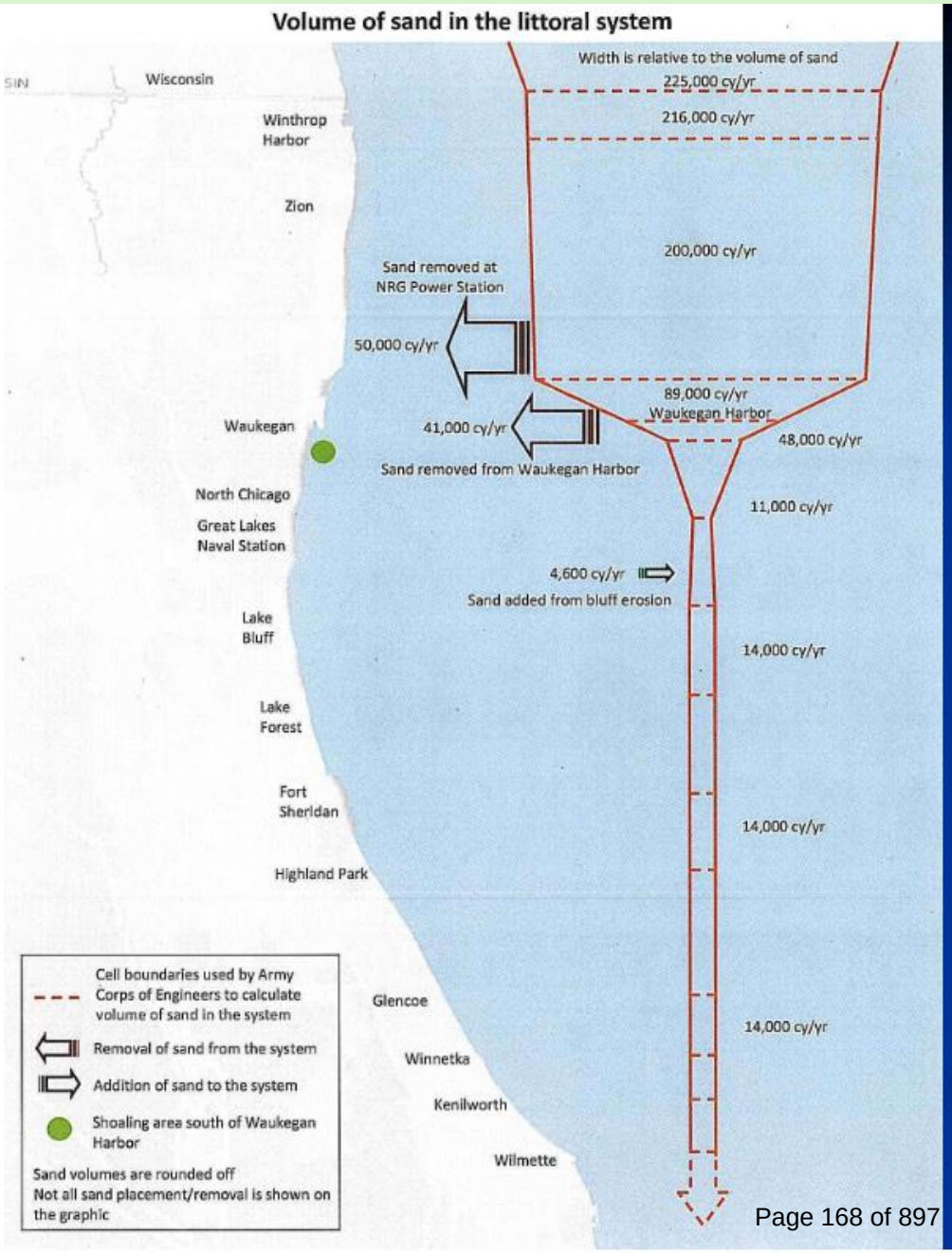
This picture is from the Shabica Presentation to the Winnetka Park District – March 24, 2022

GREAT LAKES TRAINING CENTER – LAKE BLUFF

The northerly breakwater at Great Lakes extends approximately 2500 feet into the Lake, resulting in further reduction of sand in the littoral system southward.

This slide identifies a 94% reduction in sand volume in the littoral system due to Waukegan Harbor and Great Lakes

Source: Shabica Presentation to Winnetka Park District March 24, 2022



Corps of Engineers estimate that ~225,000 cy/yr of sand cross the Illinois border and only ~14,000 cy/yd of sand are in the littoral system south of Waukegan

Summary - Conclusions

- Illinois Beach State Park (IBSP) was the last unprotected stretch of Lake Michigan shoreline in Illinois
- IBSP Improvements are vastly larger than what is contemplated at Elder and Centennial Parks
- The scale and offshore distance of IBSP improvements warrant hydrodynamic modeling
- The IDNR General Permit requirements for projects such as Elder-Centennial do not require hydrodynamic modeling
- The IBSP benefits from much more sand in the littoral system than the beaches south of Waukegan Harbor and Great Lakes Training Center
- Cost drivers include trucking distance from quarries to job site, marine versus land-based operation and steel sheet piling versus stone and sand. Note: IBSP is much closer to quarries than Winnetka.
- Off-shore breakwaters are not inherently safer than a headland beach system (note: two drownings at IBSP in July 2024)

Slides, Summary and Conclusions prepared by Warren James, Commissioner, Winnetka Park District

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Memorandum

Date: January 5, 2022

To: President Rintz and Village Trustees
Robert Bahan, Village Manager

From: Village Attorney

Re: Lake Michigan Jurisdiction

The public debate relating to the property exchange negotiations between the Winnetka Park District and the owner of the lakefront properties at 195, 203, 205, and 209 Sheridan Road raised numerous questions about the nature and extent of public and private property rights along the portions of the Lake Michigan shoreline within the Village. These issues were raised again in conjunction with the Village's public consideration of the property owner's request to consolidate its lakefront properties into one contiguous lot of record.

In advance of the January 10 Study Session, we have prepared this memorandum to summarize the nature and extent of the public trust doctrine and the Village of Winnetka's jurisdiction over Lake Michigan and adjoining properties, specifically with regard to structures, such as breakwaters, that are built by private property owners into Lake Michigan and residential principal and accessory structures and construction activity in and around the bluffs overlooking the Lake. The memorandum also explains how property boundaries are determined for land abutting Lake Michigan.

State statutes and the Illinois Constitution grant the Village certain powers and jurisdiction with regard to Lake Michigan and adjoining property. With regard to activities in and immediately adjacent to the Lake, these powers are, however, subject to state and federal authority and to the traditional limits on the Village's exercise of its municipal powers. That said, the Village has fairly broad powers as a home rule municipality to regulate the land areas fronting along Lake Michigan and any structures that extend into Lake Michigan.

I. Regulation of Private Construction Within Lake Michigan.

A. Federal Jurisdiction.

The ultimate authority over Lake Michigan waters and the entire bed of the Lake lies with the federal government. The use of navigable waterways, such as Lake Michigan, are subject to the federal navigational servitude.

The dominant power of the federal government, as has been repeatedly held, extends to the entire bed of a navigable stream or lake, which includes the lands below (or lakeward of) the *ordinary high-water mark*. The ordinary high-water mark is the place where lake waves have

noticeably left an impression on the shoreline but where the water as receded back to another area. The Code of Federal Regulations defines ordinary high-water mark as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas." 33 CFR 328.3(c)(7).

The exercise of the power within these limits is not an invasion of any private property right in these lands for which the United States must make compensation. The damage sustained results not from a taking of the riparian owner's property in the stream or lake bed, but from the lawful exercise of a power to which that property has always been subject. *United States v. Chicago, M., St. P. & P.R.R.*, 312 U.S. 592 (1941).

Federal power over Lake Michigan and other navigable waters is rooted in the United States Constitution. U.S. Const. art IV, Section 3, Clause 2 ("Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States"). Federal jurisdiction extends to all of the land and water below the *ordinary high-water mark*. 33 C.F.R. § 329.11. Any structure or work located in or affecting navigable waters of the United States is within the limits of federal jurisdiction. 33 C.F.R. § 322.3(a).

The regulatory framework for federal jurisdiction is set forth in the Rivers and Harbors Appropriations Act of 1899 (33 U.S.C. § 401 *et seq*.) ("***Federal Act***"). Under Section 10 of the Federal Act (33 U.S.C. § 403), no "wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States" may be constructed without a permit issued by the Army Corps of Engineers. Since neither Section 10 nor its regulations place a restriction on the Army Corps of Engineers' discretion to issue permits, the Corps is fully entitled to consider pertinent factors other than navigability, such as environmental impact, when deciding whether to issue a particular permit. *United States v. Members of the Estate of Boothby*, 16 F.3d 19 (1st Cir. 1994). Thus, lakefront property owners in the Village must apply for and obtain an Army Corps permit before constructing any breakwater or similar structure within Lake Michigan.

B. State Jurisdiction.

Federal jurisdiction is preeminent, but it is not exclusive. While federal jurisdiction is very broad over Lake Michigan and all navigable waters (including land up to the ordinary high water mark), Section 10 of the Federal Act and the Army Corps permitting powers were not intended to paralyze all state power concerning structures in navigable waters within state borders or to destroy automatically all vested rights. *Gring v. Ives*, 222 U.S. 365 (1912).

Notwithstanding federal *jurisdiction*, States *own* the land under the navigable waters within their boundaries and possess broad power to regulate those waters for the general welfare, even though that power is ultimately subordinate to federal navigational power. *Bowes v. City of Chicago*, 3 Ill. 2d 175, 186-87 (1954), *citing* 43 U.S.C. § 1311; *see also* 15 C.F.R. § 923 (authorizing state coastal zone management programs); 15 C.F.R. §§ 923.30-923.32 (establishing coastal zone boundaries of Great Lakes states). Section 10 of the Federal Act makes no reference to state action or state law. Accordingly, the authority of the State of Illinois to regulate the construction of structures within its navigable waters (such as Lake Michigan) is not superseded by Section 10 of the Federal Act. *Cummings v. Chicago*, 188 U.S. 410 (1903).

While a construction project not affirmatively approved under the Federal Act is prohibited (regardless of whether the state would allow it or not), a state is not required to approve all structures approved by the Army Corps under the Federal Act. *North Shore Boom & Driving Co. v. Nicomen Boom Co.*, 212 U.S. 406 (1909). If state law requires a permit prior to construction within Lake Michigan, it does not matter that the Army Corps has issued a permit for that construction – construction requiring both state and federal permits cannot be undertaken without both, so that if the federal government grants a permit but the State of Illinois denies its permit, the project cannot proceed.

Under a 1911 enactment ("An Act in relation to the regulation of the rivers, lakes and streams of the State of Illinois," now known as the "Rivers, Lakes, and Streams Act"), the Illinois General Assembly long ago prohibited Lake Michigan construction projects without a state permit. Section 18 of that Act provides as follows:

> It is unlawful to make any fill or deposit of rock, earth, sand, or other material, or any refuse matter of any kind or description or build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, causeway, harbor, or mooring facilities for watercraft, or build or commence the building of any other structure, or do any work of any kind whatsoever in any of the public bodies of water within the State of Illinois, without first submitting the plans, profiles, and specifications therefor, and such other data and information as may be required, to the Department of Natural Resources of the State and receiving a permit therefor signed by the Director of the Department and authenticated by the seal thereof.

615 ILCS 5/18. Under this and related state statutes, lakefront property owners in the Village must apply for and obtain an Illinois Department of Natural Resources ("***IDNR***") permit before constructing any breakwater or similar structure within Lake Michigan. Further, as with federal jurisdiction, state jurisdiction extends to the ordinary high-water mark.

C. Municipal Jurisdiction.

Just as federal jurisdiction does not eliminate state jurisdiction, so too federal and state jurisdictions do not prohibit or eliminate municipal jurisdiction over construction in and around Lake Michigan. *Chicago Park District v. City of Chicago*, 111 Ill. 2d 7 (1986) (existence of statutes regulating harbors does not show legislative intent to establish exclusive statewide dominion over harbors); *Bowes*, 3 Ill. 2d at 204-05 (statute authorizing municipalities to construct water filtration plants on submerged lands permitted that construction without necessity of state permit).

It is important to note that in some circumstances a municipality may have powers (or "jurisdiction") outside its corporate boundaries. For example, municipalities generally have subdivision authority over unincorporated territory within a mile and a half of the corporate boundaries. *See* 65 ILCS 5/11-12-5. This distinction between (i) extraterritorial jurisdiction and (ii) authority over land within a municipality's corporate boundaries comes into play with regard to Lake Michigan, as explained below.

Unlike some of its municipal Lake Michigan neighbors whose corporate boundaries extend only to the water's edge, the Village's corporate boundary extends one-half mile into the water of

Lake Michigan contiguous to the Village (*see* Village of Winnetka Charter § 1.1[1]). Within the area of the Village's corporate boundaries that extend one-half mile into the portions of Lake Michigan contiguous to the Village, the Village enjoys its municipal authorities, including zoning, building, and general home rule powers, all of which are subject to the same standards and limitations as apply to the application of these powers on land. Beyond the one-half mile area (outside its boundaries), the Village can only act pursuant to a specific legislative grant of authority. *Harris Bank of Roselle v. Village of Mettawa*, 243 Ill. App. 3d 103, 114-15 (2d Dist. 1993).

1. Specific Legislative Jurisdiction in Lake Michigan.

The General Assembly has, in fact, specifically granted the Village and other municipalities certain powers (or "jurisdiction") over construction and other activities within the Lake up to three miles out from their respective corporate boundaries.

Specifically, Section 7-4-4 of the Illinois Municipal Code grants all municipalities jurisdiction, but not necessarily zoning power, over waters bordering the municipality:

> The corporate authorities in all municipalities have jurisdiction over all waters within or bordering upon the municipality, *to the extent of 3 miles beyond the corporate limits, but not beyond the limits of the State*. Nothing in this Section shall be construed to authorize a municipality to exercise zoning power or otherwise restrict the use of private property outside of the corporate limits of the municipality.

65 ILCS 5/7-4-4 (*emphasis added*). These three-mile jurisdictional powers could be used to regulate such things as boat registration and safety laws as well as some criminal statutes.

Under Section 7-4-4, the Village has statutory jurisdiction from the water's edge extending out three miles beyond the Village's corporate boundaries, which for Winnetka means that technically the Village's jurisdiction extends out 3.5 miles into the Lake. It also means that within the Village's corporate limits (one half mile into the Lake) the Village enjoys not only its general home rule powers but also a specific statutory grant of jurisdiction. That said, to the extent it ever matters (and we are unable to envision a circumstance where it would), the Village's zoning jurisdiction only extends one-half mile into the Lake because the Village does not have authority to exercise zoning authority outside its corporate limits and its corporate limits extend only one-half mile into the Lake.

In addition to Section 7-4-4, the General Assembly has provided municipalities with various other relevant statutory authorities as described below.

2. Authority to Approve Construction of Certain Structures on Submerged Lands.

Division 123 of the Illinois Municipal Code, 65 ILCS 5/11-123-1 *et seq.*, authorizes all cities and villages to acquire, own, construct, maintain, and operate "utilities" on public waters bordering their corporate limits and to control construction of utilities by other persons or entities. The term "utilities" is defined to include, among other things, harbors, wharves, docks, quay walls,

[1] Village of Winnetka Charter § 1.1 provides, in relevant part, that the Village's corporate boundaries include "the bed and water of Lake Michigan to the width of one-half mile adjoining and contiguous to the territory aforesaid," and that all that territory "shall form, and constitute, and they are hereby constituted a body corporate and politic for municipal purposes under the name and style of "the Village of Winnetka."

breakwaters, and other harbor structures and facilities, which would also include water treatment and intake systems. 65 ILCS 5/11-123-1. Section 11-123-5 specifically authorizes municipalities to approve the construction of any utilities by private parties within public waters bordering the municipality:

> Except as otherwise provided in this Code or in any other law of this state, no person or corporation, private, public, or municipal, other than a city or village, shall hereafter construct a utility over and upon such submerged lands within the limits or jurisdiction of any such city or village, or over or upon any public waters bordering thereon, without first securing the consent of the corporate authorities of such city or village.

65 ILCS 5/11-123-5. Although there are no cases interpreting Section 11-123-5, the plain language of the statute indicates that the Village may enact standards and procedures for reviewing and approving or denying proposed construction of "utilities," including breakwaters, within the portion of Lake Michigan that borders the Village. As explained in Section 5.b of this memo, these statutory authorities are not self-executing and the Village has not to date adopted the necessary specific code provisions and procedures to regulate lakeshore structures.

3. Authority to Establish a Lakefront Protection District on the Land Fronting Lake Michigan.

Section 11-48.2-2 of the Illinois Municipal Code provides another source of statutory authority for the Village to regulate breakwater and similar lakefront construction. This section empowers municipalities to adopt ordinances designating specific areas as "having a special historical, community, or aesthetic interest or value" and to exercise various regulatory controls over such areas, including the following:

> [I]n connection with such areas, . . . so designated by ordinance, whether owned or controlled privately or by any public body, to provide special conditions, to impose regulations governing construction, alteration, demolition and use, and to adopt other additional measures appropriate for their preservation, protection, enhancement, rehabilitation, reconstruction, perpetuation, or use. . . .

65 ILCS 5/11-48.2-2. The City of Chicago has created a "Lakefront Protection District" under its "Lake Michigan and Chicago Lakefront Protection Ordinance" pursuant to Section 11-48.8-2. Within that district, which includes the shoreline and open waters of Lake Michigan, the ordinance grants the Chicago Plan Commission authority to approve or veto any proposed construction project. Chicago Municipal Code, Sections 16-4-010 through 16-4-180; *see also Clement v. O'Malley*, 95 Ill.App.3d 824 (1st Dist. 1981) (applying the Chicago Lake Michigan and Lakefront Protection Ordinance).

Similarly, other lakefront municipalities such as the City of Highland Park and the Village of Glencoe have created Steep Slope Zone or Steep Slope regulations which create specific construction, aesthetic, maintenance, and other requirements for the ravines, bluffs, and costal steep slopes in those municipalities. For example, the City of Highland Park's Steep Slope Zone regulations are meant to ensure that all land use and development in those areas:

1) Protects people and property from the potentially hazardous geological and hydrological conditions characteristic of ravine and bluff areas;

2) Recognizes and furthers maintenance of stable ecological relationships and minimizes environmental degradation of the land and Lake Michigan;
3) Recognizes that construction should not contribute to erosion or slope destabilization; and
4) Utilizes building techniques that adhere to the criteria stipulated in this Article.

Highland Park's Steep Slope Zone regulations provide for the reasonable use of steep slope areas and related lands while attempting to protect the public health, safety, and welfare by:

1) Requiring analysis to determine whether certain types of soil conditions exist (such as loose or easily eroded or rocky soils) and ensuring the utilization of appropriate engineering technology to result in stable slopes during and subsequent to development;
2) Reducing storm water runoff, soil erosion, and mud slides by minimizing grading, encouraging the preservation of Trees and other vegetation and, where necessary, requiring revegetation;
3) Permitting intensity of development compatible with the natural characteristics of steep slope terrain, such as degree of sloping, soil suitability and existing natural and man-made drainage patterns;
4) Preserving the scenic quality of the ravine and bluff environment through the retention of dominant steep slopes and ridges in their natural state;
5) Reducing the physical impact of top of slope and bluff development by encouraging innovative site and architectural design, minimizing grading and requiring restoration of graded areas; and
6) Discouraging development in steeply sloped terrain.

See City of Highland Park Municipal Code Sections 150.1901-150.1915. These and other regulations are further explained and analyzed in the materials prepared for the January 10 Study Session by the Community Development Department.

The Village has authority to create a similar steep slope zone encompassing land fronting Lake Michigan and adopt regulations on construction and related activities within those areas. The Village also likely could apply those regulations to the waters or submerged lands of Lake Michigan that are within the Village's corporate boundaries (within .5 miles of the normal water line). *See* Village Charter § 1.1. The grant of authority in Section 11-48.2-2 has been characterized as "auxiliary to the general zoning power" granted by the Municipal Code. *Rebman v. City of Springfield*, 111 Ill. App. 2d 430, 440 (4th Dist. 1969). But the Village could regulate structures and construction-related activities, such as traffic and transportation and storage of construction materials and equipment, on the land lying along the lakeshore for the purpose of preserving the community and aesthetic value of the lakefront, beaches, and shoreline, subject, of course, to other variables such as whether proposed construction is designed properly to prevent erosion and degradation of the shoreline and adjacent bluffs and complies with federal and state Lake Michigan regulations.

4. Other Statutory Authorities.

The General Assembly has also granted the following additional general statutory authorities that could be relied upon in adopting and enforcing lakefront regulations:

- Regulate construction and alteration of buildings and structures to prevent or lessen impacts of flooding, 65 ILCS 5/11-30-2;

- Regulate the strength and manner of constructing buildings and structures, 65 ILCS 5/11-30-4;
- Regulate grading, draining, retaining walls, and drainage channels, 65 ILCS 5/11-30-8; and
- Regulate boats, harbors, watercraft, and related facilities and structures and regulate, license and prohibit use of watercraft, 65 ILCS 5/11-44-1 *et seq.*[2];
- Designate restricted water areas for fishing, bathing, swimming, or similar uses in which boat use is prohibited, 625 ILCS 45/5-7[3]; and
- Provide for changes to or relocation of natural or artificial water courses in order to properly lay out, establish, open, alter, widen, extend, grade, pave, or otherwise improve any streets, sidewalks, or other public ways, 65 ILCS 5/11-87-1 *et seq.*

Given that the Village's Charter has established the Village's territorial boundaries .5 miles into Lake Michigan, the Village has the ability to utilize these authorized powers at least within this half-mile zone.

5. Restrictions on Lake Michigan Authority and Jurisdiction.

Notwithstanding the seemingly broad authority the Village enjoys to regulate various aspects of lakefront construction and activities, there are several principal and practical limitations on the Village's current authority and jurisdiction.

a. Preemption

Although the Village has powers to regulate activities in Lake Michigan, as discussed above, municipal authority can be preempted by the State. *See Pesticide Public Policy Foundation v. Village of Wauconda*, 117 Ill. 2d 107, 109, 114 (1987). For example, it could be argued that that the Village's authority over breakwater construction is preempted because Sections 18 and 26 of the Rivers, Lakes, and Streams Act ("***RLSA***") give IDNR jurisdiction over public bodies of water and authority to issue permits for construction of certain structures, including breakwaters. *See* 615 ILCS 5/18, 5/26. It is our opinion, however, that state law does ***not*** preempt the Village's jurisdiction over construction of breakwaters and other structures in the Lake.

The General Assembly has granted IDNR "full and complete jurisdiction over every public body of water in the State of Illinois," 615 ILCS 5/26, and at the same time has granted all municipalities "jurisdiction over all waters within or bordering upon the municipality, to the extent of 3 miles beyond the corporate limits, but not beyond the limits of the State," 65 ILCS 5/7-4-4. Additionally, the General Assembly has specifically authorized both IDNR and municipalities to issue permits or approvals for various structures in public waters, including breakwaters and harbor structures. 65 ILCS 5/11-123-5 (it is unlawful to construct a breakwater in public waters without the consent of the bordering municipality); 615 ILCS 5/18 (it is unlawful to construct a breakwater in public waters without an IDNR permit). Since the legislature has expressly granted municipalities jurisdiction over public waters within or bordering their corporate limits and

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[2] The Boat Registration and Safety Act, 625 ILCS 45/1-1 *et seq.*, regulates the operation and use of watercraft but specifically preserves the authority of municipalities to adopt "any ordinance or local law…relating to operation and equipment of vessels the provisions of which are not inconsistent with the provisions of this Act." 625 ILCS 45/8-1.

[3] For example, the Village of Wilmette has established a restricted area extending 600 feet into Lake Michigan "from the south limits of the Village of Wilmette to the south breakwater of the Wilmette Harbor; and from the 500-foot pier north of the harbor to the north Village limits." *See* Wilmette Code of Ordinances, Chapter 8.

authorized municipalities to approve or deny construction of breakwaters and similar structures in those public waters, "it cannot seriously be argued that the General Assembly specifically has declared that the State has the exclusive power to regulate" in these areas. *See T&S Signs, Inc. v. Village of Wadsworth*, 261 Ill. App. 3d 1080, 1086 (2d Dist. 1994), *quoting Scadron v. City of Des Plaines*, 153 Ill. 2d 164, 186 (1992) (discussing regulation of outdoor advertising signs; internal quotations omitted).

This interpretation is also consistent with well-established rules of statutory construction. Courts will construe legislative enactments in an attempt to give meaning to all of the words in statutes. *In re Detention of Lieberman*, 201 Ill. 2d 300, 308 (2002). Additionally, courts will not interpret statutes to give rise to an absurd result. *See Lily Lake Road Defenders v. County of McHenry*, 156 Ill. 2d 1, 15-16 (1993). If Sections 18 and 26 of the RLSA were interpreted to preempt the authority granted to municipalities by the Municipal Code, then Sections 7-4-4 and 11-123-5 would be meaningless. This would be an absurd result. To give meaning to the language of both the RLSA and the Municipal Code, the statutes must be read as concurrent grants of regulatory jurisdiction and permitting authority. *See T&S Signs*, 261 Ill. App. 3d at 1086, 1090-91.

While we are confident that there is no broad preemption of Village lakefront authority, it is also true that in exercising its home rule authority and any other authority granted by the Municipal Code or the Illinois Constitution, the Village may not act in a manner that is inconsistent with or less restrictive than the applicable federal and state regulations. For example, if the Army Corps or IDNR denies a permit for construction of a particular structure, the Village has no authority to grant a permit and allow the project to proceed. At the same time, just because the Army Corps and IDNR grant permits for a construction project, that does not mean that the Village cannot prohibit the structure under properly adopted and enforced Village regulations. *See T&S Signs*, 261 Ill. App. 3d at 1090-91.

b. Implementing Legislation.

Neither the Village's home rule powers nor the various statutory authorities described in this memorandum, including the provisions of Section 7-4-4 or Section 11-48.2-2, are self-executing, and we are not aware of any current provision in the Village Code that specifically regulates Lake Michigan structures. Accordingly, without the adoption of implementing legislation, and thus policy direction, the Village has no real power at this time to regulate or prohibit construction of breakwaters, revetments or other structures that extend into the Lake and receive the otherwise required permits from the Army Corps and IDNR. Likewise, other than generally applicable setback and bulk regulations, the Village has not adopted specific zoning and building rules for construction on lakefront properties, including in and around the bluffs and steep slope areas of these properties. Further, the general public health and safety purposes set forth in various provisions of the Winnetka Municipal Code do not provide the necessary standards and procedures for implementing a regulatory regime to cover lakefront building issues, at least without subjecting the Village to a significant risk of challenge from private property owners.

c. Substantive Limitation.

Finally, as with all municipal regulations, any set of Village Lake Michigan regulations must be reasonable and based on a proper public purpose. The Village must also enforce its regulations in a manner that is not unreasonable, arbitrary, or capricious.

6. Village Zoning Authority Over Park District Property.

The Winnetka Park District owns significant land within the Village and along the shores of Lake Michigan – for example, the properties constituting the Tower Road, Maple Street, Lloyd, Elder Lane, and the Centennial Beaches. We have been asked whether these Park District properties are subject to Village building and zoning regulations, including any bluff and shoreline regulations that the Village may implement in the future. Our opinion is that the Park District is *not* exempt from compliance with Village land use regulations.

Generally, Illinois courts have held that park districts and other governmental agencies must comply with the host municipality's regulations absent a specific legislative grant of immunity. Absent a specific legislative grant of immunity, courts will uphold a municipal regulation against a park district unless the municipal regulation would frustrate the statutory purpose of the unit of local government.

For example, in *Wilmette Park District v. Village of Wilmette*, the Park District sued the Village when Wilmette refused to allow the Park District to install lights along one of its recreational fields. 112 Ill.2d 6, 12 (1986). The Park District argued that it was not subject to the Village's zoning regulations. *Id.* at 14.

The Illinois Supreme Court disagreed and found that the Illinois General Assembly did not grant park districts immunity from a host municipality's zoning regulations. *Id.* In fact, the court stated that "[a]bsent an explicit statutory grant of immunity, the mere fact that the park district, a local unit of government, has a statutory duty to operate its parks cannot be extended to support the inference that it can exercise its authority without regard to the zoning ordinances of its host municipality." *Id.* at 14-15. Since there was no explicit grant of power involved, the Court held that the park district must comply with the host municipality's zoning regulation. *Id.* at 18.

Although the Court recognized that park districts are independent bodies charged with the responsibility of managing parks, the "village's interest in this case does not originate from a desire to 'manage' park land or projects, but rather from its legitimate interest and authority in planning and regulating the use of land within the entire community to minimize the abrasive activities and promote uses consistent with the community character and expectations of the residents." 112 Ill.2d at 18. In this case, the "abrasive activities" were the "potential impact that nighttime open-air sports programming may have on its surrounding neighborhood." *Id.* at 17.

Past practice also supports the applicability of Village building and zoning regulations to Park District construction projects. The Park District sought and obtained special use permit approval related to the improvements to Dwyer Park and most recently the Park District agreed that its Skokie Playfield improvements were subject to compliance with the Village zoning regulations. *See* Village – Park District Stormwater Intergovernmental Agreement, Section III.F.

Further, since there is no explicit statute preempting Village zoning and building regulations, the only other argument that could be made is that applying Village regulations to Park District lakefront properties would somehow frustrate the statutory purpose of the Park District. This argument could only be made if, after going through the Village's zoning process, a Park District project was denied required zoning relief and thus could not proceed as proposed. Even then, if the Village denial was reasonable it would be very difficult for the Park District to successfully argue that they were exempt from the Village zoning regulations.

Accordingly, Park District lakefront properties and projects are subject to Village building and zoning regulations.

7. Conclusion.

It is our opinion that the Village has authority, but not the obligation, to: (i) exercise its home rule municipal powers, including zoning powers, within its corporate boundaries, which pursuant to its Charter extend one-half mile into Lake Michigan; (ii) exercise extraterritorial jurisdiction (excluding zoning powers) over that portion of Lake Michigan that lies beyond the Village's corporate boundaries for an additional three miles; (iii) enact zoning and building regulations applicable to properties bordering Lake Michigan, such as bluff and steep slope regulations and related building and permit requirements; (iv) establish a lakefront protection district or overlay zone to specifically identify the properties and the regulations that will apply to lakefront construction; and (iv) require Village permits for the construction of breakwaters and similar structures within the portion of Lake Michigan bordering the Village. All of these authorities are subject to the requirements that municipal regulations be reasonable and not arbitrary and capricious, and that any permit requirements procedures are fair. Should the Village decide to adopt code amendments and new requirements above and beyond the existing permit requirements and regulations of the Army Corps of Engineers and the IDNR, the Village must ensure that that the Village requirements are rationally based and supported by proper study and fact finding.

II. Ownership of, and Access to, Lake Michigan Shoreline Property – The Public Trust Doctrine.

A. Ownership.

In the seminal case of *Illinois Central Railroad Co. v. State of Illinois*, 146 U.S. 387 (1892), the United States Supreme Court held that the lands under the navigable waters of Lake Michigan are held by the state in trust for the people of the state. *See* 146 U.S. at 452. This doctrine has since been codified by Illinois statute through the Submerged Lands Act. *See* 5 ILCS 605/1. Because the land under the Lake is held in public trust, the state cannot sell the land to a private party, but may permit the improvement of submerged lands with structures such as wharves, docks, and piers that improve the use of the Lake for public purposes such as navigation and commerce and do not impair the public's interest. *See Illinois Central Railroad*, 146 U.S. at 452, 460; *People ex rel. Scott v. Chicago Park Dist.*, 66 Ill. 2d 65, 74-75 (1976) (quoting *Illinois Central*).

Illinois courts have held that the boundary between private land and land owned by the state in public trust is "the line where the water usually [stands] when unaffected by storms or other disturbing causes." *Brundage v. Knox*, 279 Ill. 450, 471 (1917); *see also Smith v. City of Greenville*, 115 Ill. App. 3d 39, 42-43 (5th Dist. 1983) ("In a conveyance calling for a lake as a boundary line, the boundary line is that line at which the water usually stands when free from disturbing causes."); and *Hammond v. Shepard*, 186 Ill. 235, 241 (1900) ("The law of this State, as repeatedly announced, is, that shore owners on meandered lakes, whether navigable or non-navigable, take title only to the water's edge, the bed of the lake being in the State."). This line is variously referred to as the "water's edge," "still water shoreline," "calm waterline," "unaffected waterline," or the "normal waterline."

Illinois courts have explicitly rejected using the "high-water mark" or the "ordinary high-water mark" as the boundary line. *See Brundage*, 279 Ill. at 471-72; *Smith*, 115 Ill. App. 3d at 43.

This differs from some neighboring states, such as Indiana and Michigan, where public land extends up to the ordinary high-water mark. *See Gunderson v. State,* 90 N.E.3d 1171 (2018) (the Indiana Supreme Court held that the boundary separating public land from privately owned land along Lake Michigan is the common-law ordinary high water mark and that, absent an authorized legislative conveyance, the State retains exclusive title up to that boundary); and *Glass v. Goeckel*, 473 Mich. 667, 687 (2005) ("Michigan's courts have adopted the ordinary high water mark as the landward boundary of the public trust.").

Accordingly, in Illinois the boundary between private land and public land is the point at which the water normally stands (the "***Normal Waterline***"). It is well established in Illinois that the Normal Waterline boundary, and the principles that apply to changes in the Normal Waterline as discussed below, determine the separation between private and state property on the shores of Lake Michigan. *See, e.g., Revell v. People*, 177 Ill. 486, 478-79 (1898); *Brundage*, 279 Ill. at 462-63. A rule of thumb that generally applies in Illinois and other jurisdictions that rely on the Normal Waterline for the public-private property demarcation is that if your feet are wet, you are on public property, and if your feet are dry then you are on private property.

Based on these principles, the demarcation line in Illinois between public and private land is the same demarcation line that identifies where land held in trust begins and ends – both lines are the Normal Waterline. This is not the case in all states. For example, in Michigan, the line between public and private property is the Normal Waterline, but the property held in trust for the public extends landward to the ordinary high-water mark. *Glen v. Goeckel*, 473 Mich. 667 694 (2005). This means that the dry land (the beach) between the Normal Waterline and the ordinary high-water mark is protected by the public trust doctrine (and thus available for public use) even though it is privately owned by the littoral property owner. This is not the case in Ohio or Illinois, where the public trust doctrine extends only to the Normal Waterline.

The Illinois Supreme Court has held that the public trust doctrine for Lake Michigan extends "to recreational uses, including bathing, swimming and other shore activities." *People ex rel. Scott v. Chicago Park District*, 66 Ill. 2d 65, 78 (1976). This holding, however, appears to apply only to protected uses that are lakeward of the water's edge when free from disturbing causes (that is, the Normal Waterline). *Schulte v. Warren*, 218 Ill. 108, 124 (1905). As such, Illinois Courts have acknowledged that the ability of the public to freely use Lake Michigan for recreationally uses also ends at the Normal Waterline.

The Normal Waterline may change over time as a result of various processes, including accretion, reliction, and erosion. Accretion is the increase or reclamation of land along the shoreline due to the deposit, by water, of solid material such as mud, sand, or sediment, *Brundage*, 279 Ill. at 462. Reliction is the creation of dry land due to the recession of water. *Hammond*, 186 Ill. at 242. Similarly, dry land may become submerged by the erosion or removal of solid materials from the shoreline. *County of St. Clair v. Lovingston*, 90 U.S. 46, 69 (1874).

Gradual changes to the Normal Waterline over time resulting in either increases or decreases in the amount of dry land are an "inherent and essential attribute of the original property," and the property line changes with the Normal Waterline. *Id.* at 68-69 ("The owner takes the chances of injury and benefit arising from the situation of the property. If there be a gradual loss, he must bear it; if, a gradual gain, it is his."). However, if the addition or loss of property is sudden (*i.e.,* caused by a violent storm), then the property line does not change. *Comm'rs of Lincoln Park v. Fahrney*, 250 Ill. 256, 265-67 (1911); *Hammond*, 186 Ill. at 242-43. In the case of a sudden loss of land (called an avulsion), the owner may assert control over and reclaim the submerged land. *Comm'rs of Lincoln Park*, 20 Ill. at 266. The test of what change is gradual, as

opposed to sudden, is "that though the witnesses may see from time to time that progress has been made, they could not perceive it while the process was going on." *County of St. Clair*, 90 U.S. at 68.

Changes to the Normal Waterline (and, consequently, the property line of waterfront parcels) may be caused by both natural and artificial means, provided that the change is gradual. *Id.*; *Brundage*, 279 Ill. at 468. However, if an increase in dry land is caused by artificial means, it must have resulted from actions or improvements of third parties, and not of the owner whose land was increased:

> The authorities are generally agreed that a riparian owner will not be permitted to increase his estate by himself creating an artificial condition for the purpose of effecting such an increase, and that the doctrine of accretion does not apply to land reclaimed by man through filling in land once under water and making it dry. The title to the land thus filled in remains where it was before...But if the accretion is indirectly induced by artificial conditions created by third parties, it would seem that the right of the riparian owner to such accretion would not be affected[.]

Brundage, 279 Ill. at 465.

Thus, although a riparian owner may protect his property from erosion, he has no right to affect an increase of his own land, the result of which is a corresponding loss of land owned by the state in trust for the public. *Revell*, 177 Ill. at 483. But to be barred from claiming title to newly formed land, the owner must have taken some affirmative action to further the accretion and been "more than a mere passive looker-on as to building a pier at the boundary line of his property or the building of other purpresture by public authorities at a location which may aid in causing accretions." *Id.* at 469 (lakefront owner could claim title to accretions even though he was an alderman when a public pier was extended that caused a benefit to his property, and he did not oppose the project).

Under these principles, the owner of real estate fronting on Lake Michigan owns the property to the Normal Waterline, and the land east of the Normal Waterline is owned by the state in trust for the public. The Normal Waterline may change with respect to a lakefront parcel over time and, so long as those changes occurred gradually and imperceptibly, the property line has moved with them and lies at the current Normal Waterline. *County of St. Clair*, 90 U.S. at 68. If, however, a property owner could prove that there had been a sudden or violent loss of his land, then the property owner could assert ownership to the Normal Waterline as it occurred before those sudden events and reclaim the resulting submerged land. *Comm'rs of Lincoln Park*, 20 Ill. at 266.

Moreover, the owner of a lakefront property may construct a breakwater or other structure on the state-owned submerged land offshore (with all required permits and approvals) to prevent further erosion or loss of his property, but that owner will not gain ownership of any new land created by accretion that results from that owner's construction of the breakwater or other structure. *See Revell*, 177 Ill. at 483. Rather, any such land will remain the property of the State of Illinois. *See Brundage*, 279 Ill. at 465.

Although it is clear that a current owner cannot benefit from artificial accretion that they themselves cause, it is less clear whether a property owner may claim title to artificially created accretion caused by a prior owner of the property, assuming that the current owner was not

involved in causing the artificial accretion. We are not aware of an Illinois case that definitively addresses this issue.

The only discussion we have found that addresses whether a current property owner may take title to accreted land caused by a predecessor owner is in a legal treatise, *Brown's Boundary Control and Legal Principles*, Fourth Edition by Curtis M. Brown, Walter G. Robillard and Donald A. Wilson, which states as follows:

> In general, most courts have held that shoreline changes resulting from manmade actions, such as those associated with dredging or groins, do not change title if the upland owner ***or a predecessor in title*** caused the changes, but may change title if the shoreline changes were caused by action beyond the control of the upland owner. An illustration of this is case law in the state of Florida, which generally holds that artificial accretion caused by the upland owner remains the property of the sovereign. However, case law in that state holds that artificial accretion caused by third parties will accrue to the upland owner. This principle does not hold true in all jurisdictions.

(*Emphasis added*) The authors of the treatise do not identify the legal authority for their analysis on accretion caused by a predecessor in title, and the Florida case they reference, *Board of Trustees v. Sand Key Associates*, 512 So. 2d 934, 940 (Fla. 1987), does not concern accretion caused by a predecessor in title. Thus, this issue awaits future ligation that will provide Illinois courts an opportunity to decide the issue.

B. Access.

The other major common law riparian right of landowners with frontage along Lake Michigan is a right of access to and use of the body of water. *See Revell*, 177 Ill. at 483-84; *Hasselbring v. Lizzio*, 332 Ill. App. 3d 700, 705 (3d Dist. 2002). In the event that additional dry land is created by accretion on the land of a property owner resulting from construction by that property owner, and that new property is owned by the State as discussed in Part II.A above, the owner will continue to have a riparian right of access to and use of Lake Michigan.

We have not located any regulations by the IDNR relating to whether it is exercising any control over State-owned accretions of land that is not submerged. We did locate a Draft Coastal Management Program Document that addresses this topic on the IDNR's website. In Chapter 5, entitled "Shore Access and Recreation," the authors provide the following discussion regarding the distinction between public and private beaches:

> According to Illinois Supreme Court (Brundage v. Knox, 1917), coastal sections with riparian ownership, the boundary between public and private ownership is the still-water shoreline. Above (i.e., landward of) the still-water shoreline is private; below (i.e., lakeward of) the still-water shoreline is public. As the lake level fluctuates and the still-water shoreline shifts landward or lakeward, the boundary line shifts accordingly. The submerged part of the beach, the sandy lake bottom lakeward from the still-water shoreline, always remains in public ownership.
>
> Beach accretion of sand or gravel by natural or artificial means for which the riparian owner is not responsible, that accreted above-water beach area belongs to the riparian owner. Case law does not grant private ownership of any beach area resulting from the entrapment or retention of sand caused by construction of

> any type of shore structure. Because of a long history of constructing numerous private groins along the North Shore (Keefe 2002; Shabica et al. 2004), there are many such areas of accreted beach. However, any beach area that is artificially accreted beach is legally public.

ICMP, Chapter 5, page 58. This excerpt shows IDNR's concurrence with the caselaw discussed in Part II.A. above. The owner of a lakefront property will not gain ownership of any new land created by accretion that results from the owner's construction of the breakwater or other structure and any such land will remain the property of the State of Illinois.

It is not always possible to determine where the correct boundary line is between private and public ownership. Therefore, it may be difficult for the IDNR to control any public land that is created because of the difficulty of determining the precise public-private property line at each property and due to the gradual nature of any changes to the land and lake levels along the shore. The Village may want to consider whether there is a need to adopt laws or ordinances governing this area beyond those already in place, and whether for zoning purposes the Village in determining setbacks and related conditions may want to use a line that may not fluctuate as much as the Normal Waterline, such as the ordinary high-water mark, the toe of bluff, or the Army Corps' long-term average annual mean lake level.

III. Applicability of New Regulations on Lakefront Construction.

If the Village Council desires to consider whether to adopt regulations governing construction of structures along or in the Lake, the Village does have authority to adopt a temporary moratorium on certain types of new construction while it studies potential regulations.

Certain procedural steps must be followed to adopt a temporary moratorium. A legally enforceable moratorium is considered to be, and must be treated as, a Zoning Ordinance. *See People ex rel. J.C. Penney Properties, Inc. v. Oak Lawn*, 38 Ill. App. 3d 1016, 1018 (1st Dist. 1976). This means that a moratorium must go through the typical public notice and hearing process in the same manner as a text amendment to the Zoning Ordinance. *Id.* at 1019. A municipality cannot impose an "unofficial" moratorium or adopt a moratorium by a motion or resolution. *Gary-Wheaton Bank v. Lombard*, 84 Ill. App. 3d 125, 128 (2d Dist. 1980). Further, the moratorium must be "temporary" and extend only for a reasonable time and only for so long as is necessary to study, consider, and adopt new regulations, if at all.

There are primarily two limitations on imposing zoning moratoria. The first is that the imposition of the moratorium may not violate the doctrine of vested rights. "The general rule is that a property owner has no vested right in the continuation of a zoning classification." *1350 Lake Shore Assocs. v. Randall*, 401 Ill. App. 3d 96, 102 (1st Dist. 2010). Thus, a property owner is not guaranteed to be able to use their property for uses that are currently allowed under a zoning ordinance simply because they spent money to acquire the property.

However, "[u]nder the vested-right doctrine, a property owner may acquire a vested right in a prior zoning classification where the owner sustained a significant change of position, by either making substantial expenditures or incurring substantial obligations, in good-faith reliance upon the probability of the issuance of a building permit." *Id.* If an owner can establish a vested right, the Village may be required to issue the owner a building permit despite adopting a moratorium or changing the zoning regulations.

The determination as to when the issuance of a building permit becomes "probable" or when an owner has made a substantial enough expenditure based on that probability is a fact-intensive and case-specific inquiry. However, one case found that there is low probability of a permit, and, therefore, expenditures became unreasonable, once a municipality or a local official informs a property owner that the Village is going to consider adopting a moratorium. *See 1350 Lake Shore Associates v. Mazur-Berg*, 339 Ill. App. 3d 618 (1st Dist. 2003). Accordingly, if the Village Council desires to consider adopting a moratorium on lakefront construction, it should inform property owners that it plans to consider a moratorium as soon as possible to prevent a property owner from claiming that they have a vested right in a building permit and the moratorium cannot be applied to them.

The second limitation is that the moratorium must be a valid exercise of the municipality's zoning authority. To make this determination, the courts would apply the *LaSalle* Factors, named after the seminal Illinois zoning case *LaSalle National Bank v. County of Cook*, 12 Ill. 2d 40 (1957). The eight *LaSalle* Factors – six of which originated from the *LaSalle* case along with two from a later case (*Sinclair Pipe Co. v. Village of Richton Park*, 19 Ill. 2d 370 (1960)) – are used to determine whether a moratorium is: (i) reasonable; (ii) bears a relation to public health, safety, morals or general welfare; and (iii) not arbitrary and capricious. *La Grange State Bank v. County of Cook*, 75 Ill. 2d 301, 307 (1979). The *LaSalle* Factors provide a framework to determine if a zoning decision is fair to the owner of the property in question, the owners of the surrounding properties, and all of the residents of that municipality. *Harvard State Bank v. County of McHenry*, 251 Ill. App. 3d 84 (1993). The eight *LaSalle* Factors are as follows:

(1) The existing uses and zoning of nearby property;

(2) The extent to which property values are diminished by the moratorium;

(3) The extent to which the destruction of the plaintiff's property values promotes the health, safety, morals or welfare of the public;

(4) The relative gain to the public as compared to the hardship imposed on the plaintiff;

(5) The suitability of the plaintiff's property for the zoned purposes that are allowed during the moratorium;

(6) The length of time the plaintiff's property has been vacant as zoned considered in the contest of the land development in the vicinity;

(7) The care that the community has taken to plan land use development; and

(8) The community need for the moratorium.

See *LaSalle*, 12 Ill. 2d at 46-47; *Sinclair Pipe*, 19 Ill. 2d at 378.

The shorter the moratorium is, the less likely it is for a property owner to be able to successfully claim that the moratorium violates the *LaSalle Factors*. Further, the narrower the moratorium is, the less likely a property owner is to prevail on a claim that the moratorium is invalid. For example, it is more likely for a moratorium to withstand a challenge if it only prohibits the construction of certain types of structures (e.g. groins and breakwaters) than if it prohibited all types of construction on any property that borders the Lake.

IV. Specific Questions from Trustees.

At President Rintz's suggestion, the Trustees were invited to provide specific questions for our office and Village staff to address.

1) What is VC jurisdiction and authority over the lakefront and shoreline, including projects on land and projects that extend over the beach and into the water. If any, does our authority extend to both private land and public land (including WPD initiatives). There has been talk of municipalities having jurisdiction on area 3 miles into the lake, but Winnetka's code apparently says .5 mile (so I've been told). True, not true, please explain, and what are the implications of that extension into the water?

   Answer: *See* Section 1.C of this memo. The Village Charter established that the Village's territorial boundaries extend one half mile from the shoreline of Lake Michigan. This means that the Village may exercise its full home rule municipal powers, including zoning powers, up to one-half mile into Lake Michigan. Further, the Illinois Municipal Code provides municipalities with jurisdiction three miles into the lake. This is an extension, not a limitation, of the Village's existing authority over Lake Michigan waters. Pursuant to this authority, the Village may exercise extraterritorial jurisdiction (excluding zoning powers) over that portion of Lake Michigan that lies beyond the Village's corporate boundaries for an additional three miles. Further, the Village zoning and building regulations apply to Park District property and projects.

2) Please define the 'public trust doctrine' that is so often cited. If there is an actual 'doctrine' that should be included?

   Answer: *See* Section II.A of this memo. The United States Supreme Court held that the lands under the navigable waters of Lake Michigan are held by the state in trust for the people of the state. Because the land under the Lake is held in public trust, the state cannot sell the land to a private party, but may permit the improvement of submerged lands with structures such as wharves, docks, and piers that improve the use of the Lake for public purposes such as navigation and commerce and do not impair the public's interest. The Illinois Supreme Court has also said that Lake Michigan public trust land may also be used for recreational uses such as swimming, bathing, and boating, but subject to the Normal Waterline limit.

3) How specifically are neighboring communities overseeing the lakefront and shoreline, including zoning and any other related ordinances/regulations?

   Answer: *See* comparative chart and descriptions of municipal regulations prepared by the Community Development and Engineering Departments.

4) Has VC had this authority all along and not exercised oversight?

   Answer: *See* Section 1.C of this memo. At this time, the Village has not adopted any specific regulations on lakefront construction. The Village may adopt certain zoning or building regulations with respect to lakefront property, subject to the limitations set forth in this memorandum.

5) What if a private landowner has structures along the lakefront that were built but not properly permitted? What recourse is there?

Answer: If a Village permit was required, the Village could require that a permit be obtained and take action, such as the issuance of citations, if any Village Code provisions were violated. The Village could also seek a court order that the structure built without a permit be removed. If a structure was built without the required State or Federal permit, the IDNR or Army Corps of Engineers would be responsible for any enforcement action.

6) How to define the east property line for zoning purposes? How do other communities define it? Is there flexibility through case law on how that line is defined?

Answer: *See* comparative chart and descriptions of municipal regulations prepared by the Community Development Department. *See also* Section II.A of this memo. In Illinois the boundary between private land and public land is the Normal Waterline – the point at which the water normally stands. The Village has flexibility in setting a line that will be used for zoning purposes. It does not have to be the Normal Waterline. For example, it could be the ordinary high-water mark, the line that represents the toe of the bluff, or the Army Corps' mean lake level determination.

7) Given the work that needs to be done, and its importance, can we put a moratorium on lakefront projects until decisions are made? The 195-205 Sheridan project should fall under any changes made and not be 'grandfathered' because they have a permit submitted. How is that accomplished? That homeowner also has a lakefront permit submitted to IDNR. That should be part of our review process if we have jurisdiction.

Answer: *See* Section III of this memo.

8) To the extent Peter identifies issues that have nuances or if his judgement could be argued otherwise, he should say so. There seems to be differences of opinion on certain issues, and that is fine, but we should know where the gray areas are and how to navigate.

Answer: We hope this memo clarifies the issues. The one specific matter that is unresolved under Illinois law is how the eastern demarcation between public and private property is determined when artificial accretion may have been caused by a previous owner of the property in question.

9) Does 'home rule' provide us with any additional flexibility to exercise jurisdiction over lakefront/shoreline projects?

Answer: Yes. The Village maintains its traditional home rule powers with respect to lakefront construction. The Village can also exercise its home rule municipal powers, including zoning powers, within its corporate boundaries, which pursuant to its Charter extend one-half mile into Lake Michigan. The Village has authority to consider and enact the types of zoning and building regulations that are included in the Community Development Department's survey of lakefront regulations of other nearby municipalities.

10) Over the last 15 to 20 years, the number of unprecedented projects that have been built on the lake and into our bluffs has been remarkable. If you look at Winnetka vs. many other north suburban communities with lake property and responsibility, we appear to have a lack of oversight ordinances and understanding of the complexities involved in lakefront management. In looking at the language in our existing statutes/ordinances regarding protection of the public health and welfare, can we apply them to projects on Winnetka's

most important asset, our lake? Our town logo is a picture of the lake. Can we use these existing codes/ ordinances, to immediately have better oversight of the lake and bluff?

Answer: See Section 1.C of this memo. The Village may adopt zoning and building regulations with respect to lakefront property, subject to the limitations set forth in this memorandum. At this time, the Village has not adopted any specific regulations on lakefront construction.

11) In looking at the stormwater detention requirements for the Village, have we done any recent study to show the effect on lake? Do lakefront residents have to go through the Village for stormwater review? How do we know what affects it has on the bluff? What are best practices in other north shore communities for lakefront properties and stormwater run-off? Why would we allow any homeowner to drain their property directly into the lake?

Answer: See Engineering Department report and further information regarding stormwater detention requirements.

12) What are we doing to understand and address the cumulative effect of all these projects on the lake and bluff? And the effects of these large-scale projects, especially side by side such as Elder Centennial and 250 Sheridan on the surrounding neighborhoods?

Answer: See Engineering Department report and further information regarding these issues.

13) We have zoning, plan, DRB – what can we do to add a lakefront review commission to the application process for projects on the lake?

Answer: The Village may adopt zoning or building regulations with respect to lakefront property, subject to the limitations set forth in this memorandum.

14) Since none of us are experts on water, can we invite an expert to better inform us on such an important topic during our study session? If having a costal engineer on staff is too expensive, perhaps we could share costs with our coastal neighbors?

Answer: Representatives of IDNR and the Army Corps will be at the January 10 Study Session to discuss federal and state jurisdiction and oversight of lakefront construction activities.

15) I have heard of several very recent troubling encounters with the IDNR. I have heard from both WPD and WVC leads that the IDNR will give oversight and protect our lakefront. After getting firsthand accounts of how understaffed and undermotivated the IDNR is in its current state, it is now clear that we will have to step up protection of our own lakefront, for they will not. In fact, they told us that we need to look in the mirror as we have the authority to handle our own business, similar to what Evanston, Wilmette, Kenilworth, Highland Park, Glencoe and Lake Forest are already doing. They do not have the staff and appear not able or willing to represent our interests, at present.

Answer: Representatives of IDNR and the Army Corps will be at the January 10 Study Session to discuss federal and state jurisdiction and oversight of lakefront construction activities. If the Village determines that reliance on federal and state agencies is

insufficient, the Village may adopt certain zoning or building regulations with respect to lakefront property, subject to the limitations set forth in this memorandum. *See* Section 1.C of this memo. Specifically, the Village has authority to consider and enact the types of zoning and building regulations that are included in the Community Development Department's survey of lakefront regulations of other nearby municipalities.

16) I have heard of several examples of case law precedent used with totally different interpretations by those on opposite sides of the issue. The Supreme Court decision in *Illinois Central Railroad v. Illinois*, 146 U.S. 387 (1892), reaffirmed that each state in its sovereign capacity holds title to all submerged lands within its borders and holds these lands in public trust. This is a foundational case for the public trust doctrine.

Answer: We are well aware of the *Brundage* and *Illinois Central* cases. *See* Section II.A of this memo. In the seminal case of *Illinois Central Railroad Co. v. State of Illinois*, 146 U.S. 387 (1892), the United States Supreme Court held that the lands under the navigable waters of Lake Michigan are held by the state in trust for the people of the state. *See* 146 U.S. at 452. This doctrine has since been codified by Illinois statute through the Submerged Lands Act. *See* 5 ILCS 605/1.

17) I'm generally interested in understanding whether and to what extent we can impose zoning restrictions on lakefront properties to protect light, air, views, water quality, and shoreline and bluff integrity. My concern would primarily be focused on any new structures, including fences, piers, etc., that would block views of the lake from neighboring properties or access to the lake by the public while traveling along any land in the public trust. I would want to implement any new restrictions prospectively. For the construction of new residences, I would not want to impose any new restrictions beyond what is already provided in our zoning code, except perhaps to change the eastern lot line for purposes of measuring setbacks to a more stable and definite point - not the waterline - perhaps we could define that line as the land beginning at a specific elevation that is well above the 100 year high water mark (which I think is about 582, so setting the lot line at 587). Finally, I anticipate others may be very concerned about lakefront aesthetics - perhaps there are some design standards that our DRB could use to review applications for any structures along the shoreline or projecting into the lake. I'm wondering if it would not be possible to borrow liberally from whatever Glencoe has in this area.

Answer: *See* Section 1.C of this memo. The Village may adopt certain zoning or building regulations with respect to lakefront property, subject to the limitations set forth in this memorandum. The Village can look at the regulations that other municipalities have adopted, including Glencoe, and use them as a model in adopting its own regulations. Staff has prepared a chart of the different types of regulations that have been adopted by other lakefront municipalities in Illinois. While the 100-year high water mark might not be practical (see additional information provided by the Engineering Department), the Village has the authority to use a line other than the Normal Waterline for setback and zoning purposes. This line could be the ordinary high-water mark, or the line representing the toe of the bluff, or some other reasonable demarcation.

18) [Section 1.04.020] says our code applies to persons and property located within the Village corporate limits. Not just home owners on the lake, but wouldn't this indicate that the Park District has to comply with the overarching objectives of Comp Plan and Zoning--and therefore, don't we have more jurisdiction over what they are a doing than just the issue of the stormwater pipe at Elder/Centennial or specific zoning variations they may request.

Specifically, jurisdiction related to the objectives of the code re: overall land use, character, etc.

Answer: *See* Section I.C.6 of this memo. Illinois courts have held that park districts and certain other governmental agencies must comply with the host municipality's regulations absent a specific legislative grant of immunity. Absent a specific legislative grant of immunity, courts will then look at whether application of a municipal ordinance would frustrate the statutory purpose of the unit of local government. There is no blanket statutory exemption for the Park District with regard to the Village's regulations, and it would be difficult to demonstrate that compliance with reasonable Village zoning or building codes would frustrate the Park District's statutory purposes. Accordingly, we have concluded that the Park District must comply with Village zoning and building regulations, which they have already agreed to do, for example, with regard to Dwyer Park and Skokie playfield stormwater improvements. As we have noted, other than general setback and use requirements, the Village currently does not have in its Code specific zoning or other regulations directly related to construction of structures into the Lake. Even so, with regard to the Park District's Elder/Centennial project, the Park District will need to seek permits from the Village to reroute the stormwater utilities impacted by the project on the Village's behalf. We would anticipate that the Park District and the Village will enter into an intergovernmental agreement to comprehensively set out the various levels of cooperation and regulatory oversight that will be necessary as part of that project. Additionally, depending on the final plans, the Park District may require zoning relief, such a special use permit, related to the construction and location of various amenities that may be part of the project.

19) Specifically, what does [Article 1 Section 1 of the Village Charter] mean? It sounds like we actually DO have jurisdiction over the beach and water of Lake Michigan out to ½ mile. Other communities (and the IDNR) say we have jurisdiction 3 miles out. I realize there are other agencies who also have some (a lot!) of say in certain aspects of lakefront development, but we need to understand exactly what everyone's roles are and what aspects our Village Council has jurisdiction over.

Answer: *See* Section 1.C of this memo. The Village Charter has established the Village's territorial boundaries extend one half mile from the shoreline into Lake Michigan. This means that the Village may exercise its traditional municipal powers, including zoning powers, within these corporate boundaries. The Illinois Municipal Code also provides municipalities with "jurisdiction" three miles into the lake from the applicable municipal boundary (so for Winnetka, this mean a total of 3.5 miles from the Normal Waterline). This is an extension, not a limitation, on the Village's existing authority over Lake Michigan waters. Pursuant to this authority, the Village may exercise extraterritorial jurisdiction (excluding zoning powers) over that portion of Lake Michigan that lies beyond the Village's corporate boundaries for an additional three miles.

20) With respect to Section 15.26.100 of the Village Code:

a. Where are our Public Works and Engineering Guidelines?

Answer: See additional information provided by the Engineering Department.

b. Re: land grading. This is an OR statement. I read this as projects cannot "significantly alter existing drainage patterns" at all--not that they can do so as long

as they mitigate any stormwater runoff to abutting properties. There have been (and I suspect will be) private and public projects in town that had to have altered existing drainage patterns. How are we reviewing/determining/enforcing this?

Answer: See additional information provided by the Engineering Department.

c. These are "Shall" statements and indicate a specific calculation. The code doesn't say "at a minimum" provide storm water detention based on this calculation--it says "shall provide." How are we enforcing this? As we are learning, more than the required stormwater management is not necessarily better.

Answer: See additional information provided by the Engineering Department.

21) I believe in another section in the code, the lakefront is defined as a public street. (Zoning Definitions section R) Have we been treating it as such?

Answer: Section 17.04.030(R)(10) of the Village Code defines Public Street as "the area lying within the described limits of a right-of-way or thoroughfare dedicated for vehicular traffic (excluding an alley), whether or not so used. For purposes of this Zoning Ordinance, Lake Michigan shall be considered a 'public street.'" See additional information provided by the Community Development Department related to how this definition has been enforced or utilized for zoning purposes

22) This term [Direct Discharge] is not used anywhere in this chapter. Why is it here? What would it relate to? Shouldn't we have some control of Direct Discharge? (Isn't this what is being proposed--we introduce the concept, but appear to not have any code related to this.)

Answer: See additional information provided by the Engineering Department

23) Do all the homes along the lake have their own stormwater system and apply for this credit?

Answer: See additional information provided by the Engineering Department.

24) Won't the discharge from a 60" of stormwater pipes impact the pattern and direction of the Village stormwater system.

Answer: See additional information provided by the Engineering Department.

25) Is this right that the only consequence of an owner sending "bad" water into the lake is that they don't receive a credit on their utility bill?!!! How/who would address the bigger issue of impact on the lake? Not living up to our standard of protecting the health and safety of residents in the zoning code. Where in our code is this information?

Answer: See additional information provided by the Engineering Department. If necessary, the Village has the authority to adopt additional regulations relating to stormwater discharge. *See* comparative chart of municipal regulations prepared by the Engineering Development Department. Additionally, there are State and Federal regulations in place with respect to polluting Lake Michigan.

26) Per previous note, the lakefront is defined as a street. Many lakefront properties have accreted sand which is becomes public property/public place. Proposed "planters" will contain trees or shrubs that will be located and grow in a manner to extend over public place and will obstruct/impede or interfere with persons walking on lakefront. Have we enforced this and how can we enforce this?

Answer: The Village has authority to enact and enforce zoning and building regulations regarding structures that are built into the Lake (within the part of the Lake that is within the Village's corporate boundaries -- .5 miles out). *See* additional information provided by Engineering Development Department.

Exhibit 7 Cook County
Animal /control Ordinance

FOREWORD

In most every community known to man there exists a relationship with animals. This relationship has been documented in many ways since the caveman first drew pictures on the walls of his cave. Problems occur in the urban community when lovers of animals forget that this kind of love is not necessarily shared by their neighbors. The animals that create most of the problems are cats and dogs. The Cook County Animal and Rabies Control Ordinance was developed and passed to establish guidelines in the development of harmonious relationships between animals and man. This Ordinance is the law in all municipalities within Cook County. Any municipality regardless of its population may pass an ordinance effective within its jurisdiction more strict than the County Ordinance. Rabies, while well controlled, still exists mainly in bats and skunks within Cook County. Prevention of rabies is the basic reason for the Animal Bite Report form. The guidelines offered in this booklet provide information for those most frequently involved with bites by animals.

Finally, Cook County is almost totally urbanized. Each municipality is responsible for the animals in the area under its jurisdiction. Part IV of this booklet outlines one way in which a municipality can establish an Animal Control program.

DEPARTMENT OF ANIMAL CONTROL

ARTICLE I. IN GENERAL

Sec. 10-1. Purpose.

The purpose of this chapter is to provide harmonious relationships in the interaction between man and animal by:

(1) Protecting the citizens of the County from rabies by specifying such preventive and control measures as may be necessary;

(2) Protecting animals from improper use, abuse, neglect, inhumane treatment and health hazards, particularly rabies;

(3) Providing security to residents from annoyance, intimidation, and injury from cats, dogs and other animals;

(4) Encouraging responsible pet ownership;

(5) Providing for the assessment of penalties for violators and for the enforcement and administration of this chapter.

(Code 1980, § 20-1; Res. of 1-3-1977; Ord. No. 99-O-25, § 20-1, 10-5-1999.)

Sec. 10-2. Definitions.

The following words, terms and phrases, when used in this chapter shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Administrator means the licensed veterinarian appointed by the County Board, pursuant to the Illinois Animal Control Act (510 ILCS 5/1 et seq.) or authorized representative.

Animal means any live vertebrate creature except man.

Animal capable of transmitting rabies means all animals classified as mammals.

Animal control warden means an employee of the County appointed by the Administrator to powers in the enforcement of this chapter.

Bird means any flying vertebrate that is covered with feathers.

Bite means seizure of a person with the jaws or teeth of any cat, dog or other animal capable of transmitting rabies so that the person so seized has been wounded or pierced and further includes contact of the saliva of cat, dog or other animal with any break or abrasion of the skin.

Cat means all members of the classification, *Felis catus* .

Confined means the restriction of the cat, dog or other animal at all times by the owner in a manner that will isolate the cat, dog or other animal from the public and other cats, dogs or other animals.

Control means any owned animal that is either secured by a leash or lead, or within the premises of its owner, or confined within a crate or cage, or confined within a vehicle, or within the premises of another person with the consent of that person.

Dangerous or *vicious animal* means any animal which has known vicious propensities or which has been known to attack or injure any person who was peacefully conducting themselves in any place where they may lawfully be.

Dog means all members of the classification, *Canis familiaris* .

Domestic animal means any animal which has been domesticated by man so as to live and breed in a tame condition.

Guard dog means a dog used in a commercial business or by a municipal or police department for the purposes of patrol and protection.

Inoculation against rabies means the injection of a rabies vaccine approved by the Illinois Department of Agriculture and administered by a licensed veterinarian in accordance with the company's recommendations for the vaccine used.
Owner means any person having the right of property in an animal, who keeps or harbors an animal, who has it in their care, acts as its custodian or who knowingly permits an animal to remain on or about any premises occupied by them unless possession is prohibited by Federal or State laws. Native wildlife remaining on or about any premises shall not be included in this definition.
Pound means any facility licensed by the Illinois Department of Agriculture and approved by the Administration for the purpose of enforcing this chapter and used as a shelter for seized, stray, homeless, abandoned or unwanted animals.
Service animal means any guide dog, signal dog, or other animal individually trained to do work or perform tasks for the benefit of an individual with a disability, including, but not limited to, guiding individuals with impaired vision, alerting individuals with impaired hearing to intruders or sounds, providing minimal protection or rescue work, pulling a wheelchair, or fetching dropped items.
Stray animal means any owned animal that is not controlled.
Tethering means to restrain a dog by tying the dog to any object or structure, including without limitation a house, tree, fence, post, garage, shed, [or] clothes line by any means, including without limitation a chain, rope, cord, leash or running line.
Tow chain or *log chain* means any chain that is more than one-quarter of an inch in width.
(Code 1980, § 20-2; Res. of 1-3-1977; Ord. No. 99-O-25, § 20-2, 10-5-1999; Ord. No. 04-O-44, § 1, 11-3-2004; Ord. No. 10-O-09, 1-26-2010.)

Sec. 10-3. Violations.
(a) Any person violating any provision of this chapter or counterfeiting or forging any certificate, permit or tag, or resisting, obstructing or impeding any authorized officer in enforcing this chapter is guilty of a misdemeanor punishable by a fine not exceeding $500.00 or by imprisonment for a period not exceeding six months or both such fine and imprisonment. Each person shall be guilty of a separate offense for every day in which any violation of any of the provisions of this chapter is committed or permitted to continue and shall be punished as provided in this chapter.
(b) The Administrator or State's Attorney or any citizen of the County may maintain a complaint in the Circuit Court of Cook County to enjoin all persons in the control of a dangerous animal from allowing or permitting such animal to leave their premises when not under the control of a leash and muzzle or other recognized methods of physical restraint.
(c) If any owned animal injures another animal which is under control, the owner of the attacking animal is liable for the full amount of the injuries sustained.
(d) If any owned animal, without provocation, attacks or injures any person who is peacefully conducting himself in any place where he may lawfully be, the owner of such animal is liable for damages to such person for the amount of the injury sustained.
(Code 1980, § 20-11; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-11, 10-5-1999.)

Sec. 10-4. Administrator authority, dog parks or areas.
No person including a municipal corporation, forest preserve district or park district or park district shall designate within the County any outdoor area, even if fenced, as an area where dogs

may run off leash unless such person, municipal corporation, forest preserve district or park district complies with such regulations as may be issued by the Administrator for the operation of outdoor off leash areas.
(Ord. No. 04-O-44, § 6, 11-3-2004.)

Sec. 10-5. Supervision by Department; rules and regulations.
The Administrator may issue regulations, consistent with the provisions of this chapter, for their administration and enforcement, and may prescribe forms which shall be used in connection therewith.
(Code 1980, § 20-15; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-15, 10-5-1999.)

Sec. 10-6. Duties of Administrator; police power; cooperation of Sheriff and police.
(a) It shall be the duty of the Administrator, through public education, rabies inoculation, stray control, impoundment, quarantine and other means deemed necessary to control and prevent the spread of rabies in the County.
(b) The Administrator and Animal Control Wardens are for the purpose of enforcing this chapter and the Animal Control Act (510 ILCS 5/1 et seq.), clothed with full police power.
(c) The Sheriff and Sheriff's Deputies and municipal police officers shall cooperate with the Administrator in carrying out the provisions of the Animal Control Act (510 ILCS 5/1 et seq.).
(d) The Administrator shall be authorized to develop new programs to implement the animal control goals of this chapter and the Animal Control Act (510 ILCS 5/1 et seq.). Such programs may include but are not limited to; programs to aide in the elimination of uncontrolled and/or stray animals in the community, programs to educate the public on issues pertaining to animal control and rabies, programs to impound stray animals, and programs to fund surgical treatment to render animals unable to reproduce. The Administrator is further authorized, subject to annual budget approval by the Board of Commissioners to use Animal Control Funds collected from the issuance of annual animal tags as authorized in Section 10-41(b) of this chapter, to fund such programs.
(Code 1980, § 20-12; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-12, 10-5-1999.)

Sec. 10-7. Powers of municipalities and other political subdivisions to regulate animals.
Nothing in this chapter shall be held to limit, the power of any municipality or other political subdivision to prohibit animals from running at large, nor shall anything in this chapter be construed to limit the power of any municipality or other political subdivision to further control and regulate animals in such municipality or other political subdivision by enacting stricter requirements, including a requirement of inoculation with rabies vaccine.
(Code 1980, § 20-13; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-13, 10-5-1999.)

Sec. 10-8. Animal care.
(a) No owner shall fail to provide his or her animals with sufficient wholesome food and water, proper shelter and protection from the weather, veterinary care when needed to prevent suffering, and with humane care and treatment.
(b) No person shall beat, torment, overload, overwork or otherwise abuse an animal.
(c) No person shall own, keep, harbor, or otherwise maintain within the County, any breeds of fowl that are or will be used in the pursuit of and staging of cockfighting on any premises.
(d) No person shall use a tow or log chain as a collar, leash or tether.

(e) Restrictions on a dog that is tethered:
(1) A tethered dog must have access at all times to water, adequate shelter, and dry ground.
(2) If there are multiple dogs, each dog must be tethered separately and each dog must have separate food, water, and shelter.
(3) A dog must be tethered in such a manner as to prevent injury or strangulation and the tether must be at least ten feet long.
(4) The tether must be attached to the dog by a properly fitting collar or harness with a rotating toggle attachment. Pinch, prong, or choke collars shall not be used. The tether shall not wrap directly around the dog's neck.
(5) No dog may be tethered in the case of extreme weather conditions, including when a heat advisory, a wind chill warning or tornado warning has been issued by local, state, or national authority.
(6) No dog shall be tethered within 200 yards of a school.
(7) No person shall permit at any time a tethered dog to bark, whine, howl or make excess noises so as to cause a nuisance.
(f) No person shall promote, stage, hold, manage, conduct, or carry on any animal fight or any other type of contest, game or fight of a similar nature, nor any simulated version of same that involves baiting or inciting an animal toward intent to fight.
(g) No person shall hold a greased pig contest.
(h) No person shall be permitted to keep animals in violation of the Humane Care for Animal Act (510 ILCS 70/1 et seq.) or the Animal Welfare Act (225 ILCS 605/1 et seq.).
(i) No owner may abandon any animal where it may become a public charge or may suffer injury, hunger or exposure.
(j) No person shall keep any animal within a building or upon any premises without food, water, or proper care and attention for a period of time sufficient to cause undue discomfort or suffering. If the owner cannot be located after reasonable search, or if the owner shall be known to be absent due to injury, illness, incarceration or other involuntary circumstances, it shall be the duty of the Administrator or a Humane Investigator to act upon the complaint as directed by the Humane Care for Animals Act (510 ILCS 70/1 et seq.).
(k) No person shall give away or use any live animal as a prize for or as an inducement to enter any contest, game, or other competition or as an inducement to enter a place of amusement or offer such animal as an incentive to enter any business agreement whereby the offer was for the purpose of attracting trade.
(l) No person shall bring or cause to have brought into the County, sell, offer for sale, barter or display living baby chicks, ducklings or other fowl or rabbits which have been dyed, colored or otherwise treated so as to impart to them an artificial color, or give away as pets or sell, offer for sale, barter or give away at no cost or as novelties or prizes. Nothing in this section shall be construed to prohibit legitimate commerce in poultry for agricultural or food purposes.
(m) No person may knowingly poison or cause to be poisoned any domesticated animal. The only exception will be written permit from the Illinois Department of Agriculture for the purpose of controlling diseases transmissible to humans or other animals and only when all other methods and means have been exhausted. Such a permit shall name a person or persons conducting the poisoning, specify the products to be used, give the boundaries of the area involved and specify the precautionary measures to be employed to insure the safety of humans and other animals. Any drugs used for euthanasia shall be by or under the direction of a licensed veterinarian.

(n) No person shall kill or wound, attempt to kill or wound, or take the nest or eggs or young of any bird that is protected by Federal or State law. Birds that are regulated by the Illinois Department of Conservation are excluded from this restriction during the period of regulation.
(o) No person shall keep or permit to be kept or display for exhibition purposes any wild animal contrary to Federal, State and local laws or regulations.
(p) No person shall permit at any time their animal to:
(1) Run uncontrolled;
(2) Molest persons or vehicles by chasing, barking or biting;
(3) Attack other animals;
(4) Damage property other than the owner's.
(q) No person shall allow animal feces to accumulate in any yard, pen or premises in or upon which an animal shall be confined or kept so that it becomes offensive to those residing in the vicinity or a health hazard to the residing animal.
(r) No person shall fail to remove feces deposited by the person's cat or dog, except service animals, upon the public ways or within the public places of the County or upon the premises of any person other than the owner without that person's consent.
(s) No person shall leave any animal unattended in a motor vehicle or enclosed trailer when the outside temperature shall exceed 30 degrees Celsius (86 degrees Fahrenheit) or contain any animal in such manner that the animal does not have proper air circulation while confined in a motor vehicle, trailer, kennel, dog house, or any type of container or structure in which an animal may be confined.
(t) No person shall own any animal which is known to be infected with any disease transmissible to other animals or man, including severe parasitism, unless such animal shall be confined in such a manner as not to expose other animals or man.
(u) Any animal which is on any public way or public place and which appears to be injured or severely diseased and for which care is not being provided on the scene by the owner or any injured or severely diseased animal that has strayed onto private premises shall be removed, if possible, to the care of the Cook County Department of Animal and Rabies Control, to the nearest humane society, to the nearest municipal pound, or to the nearest veterinarian or veterinary hospital willing to accept same without guarantee of payment. If immediate removal shall not appear practical or possible or if the removed animal is in critical condition such animal may be deprived of life by the most humane method available on the scene unless the owner shall come forward beforehand and assume responsibility for immediate removal and care.
(v) Any person who, as the operator of a motor vehicle, strikes an animal shall stop at once and render such assistance as may be possible; or shall immediately report such injury to the animal owner, if known; or the appropriate law enforcement agency; or to the local humane society.
(w) Any person having a dead animal within their possession or control or upon any premises owned or occupied by such person without the proper permit shall dispose of the dead animal in compliance with the Illinois Dead Animal Disposal Act (225 ILCS 610/1 et seq.).
(x) Every person in possession or control of any stable or place open for public use where any animals are kept, shall maintain the stable or place at all times in a clean, sanitary condition and conform to State fire prevention regulations.
(Code 1980, § 20-3; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-3, 10-5-1999; Ord. No. 04-O-44, § 2, 11-3-2004; Ord. No. 10-O-09, 1-26-2010.)

Sec. 10-9. Stray animals.

(a) Whenever an Animal Control Warden observes or is informed that an animal is a stray or is running-at-large and not under the control of the owner, the animal shall be immediately apprehended and impounded. Any person may apprehend a stray animal and inform the local police or the Administrator so that the stray animal can be impounded. Stray animals impounded by the Department of Animal and Rabies Control shall be kept at a location closest to the point at which the stray animal is apprehended. A minimum of two impoundment locations shall be used by the Department, one optimally convenient to that portion of the County outside the City of Chicago lying north of the Eisenhower Expressway and one optimally convenient to that portion of the County outside the City of Chicago lying south of the Eisenhower Expressway.

(b) All stray animals impounded shall have a record. The record shall include the owner's name, address and telephone number, if known; species or breed, color, sex, and physical condition of the animal; license or tag number, if known; and the time and date impounded.

(c) When owners of stray animals impounded are known, notice shall be given by mail to the last known address. Stray animals shall not be held less than seven days, if the owner is known. All unclaimed apprehended animals shall be placed for adoption, humanely euthanized or otherwise disposed of in accordance with the Illinois State Law.

(d) The stray animal owner is responsible for all costs relating to the apprehension and impoundment of the animal found not under control.

(Code 1980, § 20-7; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-7, 10-5-1999; Ord. No. 04-O-44, § 4, 11-3-2004.)

Sec. 10-10. Restrictions on controlled animals.

(a) Animals shall not be permitted to enter any place where food is processed for human consumption. Service animals and guard dogs used in food establishments are exempt from this restriction.

(b) Animals, except service animals, shall not be present at or upon any school premises, public playground or public swimming pool unless official written permission has been granted by the public agency or its agent owning the property. At no time shall animals be permitted in any sand box or sand piles in which children play.

(Code 1980, § 20-8; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-8, 10-5-1999; Ord. No. 04-O-44, § 5, 11-3-2004.)

Sec. 10-11. Female animals in heat.

The owner of any female animal in heat (estrus) shall confine such animal in a building or secure enclosure and shall attend the animal in such a manner that such female animal cannot come into contact with a male of the same species except for planned breeding.

(Code 1980, § 20-9; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-9, 10-5-1999.)

Sec. 10-12. Dangerous or vicious animals.

Dangerous or vicious animals shall be confined by the owner within a building or secure enclosure and shall be muzzled or caged whenever off the premises of its owner.

(Code 1980, § 20-10; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-10, 10-5-1999.)

Secs. 10-13--10-40. Reserved.

ARTICLE II. RABIES CONTROL

Sec. 10-41. Rabies vaccination.

(a) Every owner, except animal shelters, animal impounding facilities, and laboratory animal facilities, of a dog, cat or ferret four months or more of age shall cause such animal to be inoculated with a rabies vaccine by a licensed veterinarian at such intervals as approved by the State Department of Agriculture. The rabies vaccine shall be licensed by the United States Department of Agriculture and approved by the State Department of Agriculture.

(b) Evidence of such rabies inoculation shall be entered on a certificate approved by the County Board of Commissioners. Veterinarians who inoculate an animal shall procure from the County Department of Animal and Rabies Control serially numbered tags, one to be issued with each inoculation certificate. Only one animal shall be included on each certificate. Upon change of ownership application shall be made for a new inoculation certificate. Such tags shall be attached to the collar or harness worn by the animal for which the tag was issued when the animal is off the property of the owner. The cost of the tags shall be as set out in Section 32-1 for a one-year tag and for a three-year tag. The tag fees shall be paid to the Department and transferred to the County Treasurer on the last day of each month.

(Code 1980, § 20-4; Ord. of 1-3-1977; Ord. No. 83-O-09, 2-28-1983; Ord. No. 99-O-25, § 20-4, 10-5-1999; Ord. No. 02-O-31, § 20-4, 9-19-2002; Ord. No. 04-O-44, § 3, 11-3-2004; Ord. No. 08-O-55, 11-19-2008.)

Sec. 10-42. Biting animal capable of transmitting rabies.

(a) It shall be unlawful for any person knowing that an individual has been bitten by an animal to refuse to notify, within 24 hours, the police or other officer with the delegated authority who are responsible for the area in which the bite occurred.

(b) Except as otherwise provided by State law with respect to police dogs, when the Administrator receives information that any person has been bitten by an animal the Administrator shall have the owner confine the biting animal under observation of a licensed veterinarian for a period of ten days beginning within 24 hours of the biting incident. The biting animal may be confined in the house of its owner in a manner which will prohibit it from biting any person or animal if the animal is currently vaccinated with an approved rabies vaccine. Caged animals such as rats, guinea pigs, rabbits, etc., can be placed under home confinement.

(1) When the biting animal is currently inoculated with rabies vaccine the animal's health shall be reported by the veterinarian to the Cook County Department of Animal and Rabies Control on the first and tenth days of the observation period for rabies.

(2) When the biting animal is not currently inoculated with rabies vaccine the animal shall be confined for ten days in a veterinary hospital or animal control or humane shelter provided there is a veterinarian daily on the premises.

(c) Confirmation of the health of the biting animal shall be sent by the veterinarian to the Cook County Department of Animal and Rabies Control within 24 hours of the first and final examinations. Official forms shall be provided by the Department.

(d) When an animal confined for biting shows signs of rabies or acts in a manner which would lead a person to believe that an animal may have rabies, the owner or veterinarian shall notify the Administrator immediately by telephone or in person of these signs. The Administrator shall immediately notify the physician attending the bitten person or responsible health agency as soon as the Administrator receives notice of such signs and shall securely confine the animal.

(e) If the animal confined is determined not to be infected with rabies at the end of the period of confinement, it shall be released from quarantine. The animal owner shall show proof of rabies inoculation for the animal and shall pay any fee, charge or penalty including any fee for

veterinary services attributed to the bite. A confined animal, when not redeemed by the owner may be disposed of in accordance with State law.
(f) It shall be unlawful for the owner of a biting animal to euthanize, sell, give away or otherwise dispose of, or have inoculated against rabies the animal known to have bitten a person until it has been released from confinement for observation for rabies by the Administrator. It shall be unlawful for the owner of such animal to refuse or fail to comply with the written or printed instructions made by the Administrator. If such instructions cannot be delivered in person they shall be mailed to the owner of such animal by regular mail, postage prepaid, return receipt requested. The affidavit of testimony of the Administrator delivering or mailing such instructions is prima facie evidence that the owner of such animal was notified of their responsibilities.
(Code 1980, § 20-5; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-5, 10-5-1999.)

Sec. 10-43. Rabies case procedure.

(a) It shall be unlawful for the owner of an animal which shows signs of rabies or which acts in a manner which would lead a person to believe that such animal may have rabies to fail to notify the local police or the Administrator immediately by telephone or in person.
(b) The Administrator shall investigate each report of an animal which shows signs of rabies or acts in a manner which would lead a person to believe that the animal may have rabies. Upon determination by the Administrator or a licensed veterinarian that an animal may be infected with rabies, the owner of such animal shall be required by the Administrator to surrender the animal to the Administrator or a licensed veterinarian for confinement for a period of time as determined by the State Department of Agriculture.
(c) When the animal confined is determined to be infected with rabies by the examining veterinarian the Administrator shall order the animal humanely destroyed. A copy of this order shall be given to the owner of the animal or mailed to the last known address of the owner. Any animal capable of transmitting rabies in direct contact with the rabid animal whether or not the exposed animal has been inoculated with rabies shall be confined as recommended by the Administrator. The Administrator may order the exposed animal euthanized.
(d) If the animal confined is determined not to be infected with rabies at the end of the period of confinement it shall be released to the owner of such animal upon presenting proof of a current rabies inoculation certificate for the animal and payment of any fee, charge or penalty including any fee for veterinary services. If the animal is not redeemed by the owner, the animal may be disposed of in accordance with State law.
(e) Whenever a case of rabies has occurred in a locality, or whenever the proper officials of a government unit are apprehensive of the spread of rabies, the Administrator shall act as directed by the rules and regulations of the State Department of Agriculture.
(Code 1980, § 20-6; Ord. of 1-3-1977; Ord. No. 99-O-25, § 20-6, 10-5-1999.)
Secs. 10-44--10-75. Reserved.

ARTICLE III. VICIOUS AND DANGEROUS DOGS

Sec. 10-76. Confinement.

Dangerous or vicious animals shall be confined by the owner within a building or secure enclosure and shall be muzzled or caged whenever off the premises of its owner.
(Ord. No. 04-O-09, § 20-10, 1-22-2004.)

Sec. 10-77. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Bodily organ includes but is not limited to skin, which is considered the largest of the human organs.

Cat means all members of the family *Felidae* .

Dangerous dog means any individual dog when unmuzzled, unleashed, or unattended by its owner or custodian that behaves in a manner that a reasonable person would believe poses a serious and unjustified imminent threat of serious physical injury or death to a person or a companion animal in a public place.

Dog means all members of the classification, *Canis Familiaris* .

Enclosure means a fence or structure of at least six feet in height, forming or causing an enclosure suitable to prevent the entry of young children, and suitable to confine a vicious dog in conjunction with other measures that may be taken by the owner or keeper, such as tethering of the vicious dog, within the enclosure. The enclosure shall be securely enclosed and locked and designed with secure sides, top, and bottom and shall be designed to prevent the animal from escaping from the enclosure. If the enclosure is a room within a residence, the door must be locked. A vicious dog may be allowed to move about freely within the entire residence if it is muzzled at all times.

Ferret means all members of the classification, *Mustela putorius furo* .

Impounded means taken into the custody of the public animal control facility in the city, town, or county where animal is found.

Muzzle means a fastening or covering for the mouth of an animal used to prevent biting and eating.

Owner means any person having a right of property in an animal or who keeps or harbors an animal, or acts as its custodian, or who has it in his care.

Physical injury means the impairment of physical condition.

Police animal means an animal owned or used by a law enforcement department or agency in the course of the department's or agency's work.

Serious physical injury means a physical injury that creates a substantial risk of death or that causes death, serious disfigurement, serious impairment of health, impairment of the function of any bodily organ, or injury requiring plastic surgery, or injury or injuries that when viewed by a reasonable person are considered significant and substantial.

Vicious dog means a dog that, without justification, attacks a person and causes serious physical injury or death or any individual dog that has been found to be a "dangerous dog" upon three separate occasions.

(Ord. No. 04-O-09, § 20-10(A), 1-22-2004.)

Sec. 10-78. Declaration of a "vicious" dog.

(a) A dog may be declared vicious if the Court determines that without justification, the dog attacks a person causing serious physical injury or death, or any individual dog that has been found to be a "dangerous dog" upon three separate occasions.

(b) In order to have a dog deemed "vicious," the County Animal Control Administrator must give notice of the infraction that is the basis of the investigation to the owner, conduct a thorough investigation, interview any witnesses, including the owner, gather any existing medical records, veterinary medical records or behavioral evidence, and make a detailed report recommending a finding that the dog is a vicious dog and give the report to the State's Attorney's office and the owner.

(c) A complaint may be filed in the Circuit Court of the County after a complete investigation by the County Animal Control Administrator, or designee. The County Department of Animal Control shall accept requests for investigation by any party. Such investigation shall follow these requirements:

(1) The investigation must be thorough and include interviews with witnesses to the conduct in question;

(2) Medical records concerning the injuries inflicted on the person of the alleged vicious conduct and veterinary records of the dog regarding behavioral evidence must be gathered and reviewed;
(3) A detailed report must be provided to the Office of the State's Attorney and the owner of the dog recommending a finding that the dog is or is not vicious;
(4) The Animal Control Administrator shall determine whether the dog shall be confined, and if so where, during the pendency of the case.
(d) In order to have a dog deemed "vicious" a complaint must be filed by the County Department of Animal Control, the Office of the State's Attorney, any citizen of the County, or any victim of a dog attack if such attack occurred within the County, in the Circuit Court of the County to deem a dog a "vicious" dog.
(e) Testimony of a certified applied behaviorist, a board certified veterinary behaviorist, or another recognized expert, may be relevant to the court's determination as to whether the dog's behavior was vicious or justified.
(f) The petitioner must establish by clear and convincing evidence that the dog is vicious. If the burden of proof is met, the court shall deem the dog to be a vicious dog.
(g) A dog shall not be declared vicious if the court determines the conduct of the dog was justified because:
(1) The threat, injury, or death was sustained by a person who at the time was committing a crime or offense upon the owner or custodian of the dog; or upon the property of the owner or custodian of the dog;
(2) The injured, threatened, or killed person was tormenting, abusing, assaulting, or physically threatening the dog or its offspring, or has in the past tormented, abused, assaulted, or physically threatened the dog or its offspring; or
(3) The dog was responding to pain or injury, or was protecting itself, its owner, custodian or member of its household, kennel, or offspring;
(4) No dog shall be deemed vicious if it is a professionally trained dog for law enforcement or guard duties;
(5) Vicious dogs shall not be classified in a manner that is specific as to breed.
(h) Guide dogs for the blind or hearing impaired, support dogs for the physically handicapped, and sentry, guard, or police-owned dogs are exempt from this section; provided, an attack or injury to a person occurs while the dog is performing duties as expected. To qualify for exemption under this section, each such dog shall be currently inoculated against rabies in accordance with this article. It shall be the duty of the owner of such exempted dog to notify the Administrator of changes of address. In the case of such exempted dogs, the owner shall register the animal with the Administrator and keep the Administrator advised of the location where such dog will be stationed. The Administrator shall provide police and fire departments with a categorized list of such exempted dogs, and shall promptly notify such departments of any address changes reported to him.
(Ord. No. 04-O-09, § 20-10(B), 1-22-2004.)

Sec. 10-79. Finding of a vicious dog.

If a dog is found to be a vicious dog, the dog shall be spayed or neutered and microchipped within days of the finding at the expense of its owner. The dog shall be subject to enclosure. A dog found to be a vicious dog shall not be released to the owner until the Administrator approves the enclosure. No owner or keeper of a vicious dog shall sell or give away the dog without court approval. Whenever an owner of a vicious dog relocates, he or she shall notify both the Administrator of the County Animal Control where he or she has relocated and the Administrator of the County Department of Animal Control.
(Ord. No. 04-O-09, § 20-10(C), 1-22-2004.)

Sec. 10-80. Confinement of a vicious dog.

(a) It shall be unlawful for any person to keep or maintain any dog which has been found to be a vicious dog unless the dog is kept in an enclosure. The only times that a vicious dog may be allowed out of the enclosure are:

(1) If it is necessary for the dog owner or keeper of the dog to obtain veterinary care for the dog;

(2) In the case of an emergency or natural disaster where the dog's life is threatened; or

(3) To comply with the order of a court of competent jurisdiction;

provided that the dog is securely muzzled and restrained with a leash not exceeding six feet in length, and shall be under the direct control and supervision of the owner or keeper of the dog or muzzled in its residence.

(b) Any dog which has been found to be a vicious dog and which is not confined to an enclosure shall be impounded by the Administrator or the law enforcement authority having jurisdiction in such area.

(c) If the owner of the dog has not appealed the impoundment order to the Circuit Court of the County within 15 working days, the dog may be euthanized.

(d) Upon filing a notice of appeal, the order of euthanasia shall be automatically stayed pending the outcome of the appeal. The owner shall bear the burden of timely notification to the County Department of Animal Control, in writing.

(Ord. No. 04-O-09, § 20-10(D), 1-22-2004.)

Sec. 10-81. Dangerous dog determination.

(a) After a thorough investigation including: sending within three days of the Administrator becoming aware of the alleged infraction, notifications to the owner of the alleged infractions, the fact of the initiation of an investigation, and affording the owner an opportunity to meet with the Administrator prior to the making of a determination; gathering of any medical or veterinary evidence; interviewing witnesses; and making a detailed written report, an animal control warden, deputy administrator, or law enforcement agent may ask the Administrator, or designee, to deem a dog to be "dangerous." No dog shall be deemed a "dangerous dog" without clear and convincing evidence. The owner shall be sent immediate notification of the determination by registered or certified mail that includes a complete description of the appeal process.

(b) A dog shall not be declared dangerous if the Administrator, or designee determines the conduct of the dog was justified because:

(1) The threat was sustained by a person who at the time was committing a crime or offense upon the owner or custodian of the dog; or upon the property of the owner or custodian of the dog;

(2) The threatened person was tormenting, abusing, assaulting, or physically threatening the dog or its offspring;

(3) The injured, threatened, or killed companion animal was attacking or threatening to attack the dog or its offspring; or

(4) The dog was responding to pain or injury or was protecting itself, its owner, custodian, or a member of its household, kennel, or offspring.

(c) Testimony of a certified applied behaviorist, a board certified veterinary behaviorist, or another recognized expert may be relevant to the determination of whether the dog's behavior was justified pursuant to the provisions of this section.

(d) Guide dogs for the blind or hearing impaired, support dogs for the physically handicapped, and sentry, guard, or police-owned dogs are exempt from this section; provided, an attack or injury to a person occurs while the dog is performing duties as expected. To qualify for

exemption under this section, each such dog shall be currently inoculated against rabies in accordance with this article. It shall be the duty of the owner of such exempted dog to notify the Administrator of changes of address. In the case of such exempted dogs, the owner shall keep the Administrator advised of the location where such dog will be stationed. The Administrator shall provide police and fire departments with a categorized list of such exempted dogs, and shall promptly notify such departments of any address changes reported to him.
(Ord. No. 04-O-09, § 20-10(E), 1-22-2004.)

Sec. 10-82. Finding of a dangerous dog.

(a) If deemed dangerous, the Administrator, or designee, shall order the dog be spayed or neutered within ten days at the owner's expense and microchipped, if not already, and one or more of the following as deemed appropriate under the circumstances and necessary for the protection of the public:
(1) Evaluation of the dog by a certified applied behaviorist, a board certified veterinary behaviorist, or another recognized expert in the field and completion of training or other treatment as deemed appropriate by the expert. The owner of the dog shall be responsible for all costs associated with evaluations and training ordered under this subsection; or
(2) Direct supervision by an adult 18 years of age or older whenever the animal is on public premises.
(b) The Administrator may order a dangerous dog to be muzzled whenever the animal is on public premises in a manner that will prevent it from biting any person or animal, but that shall not injure the dog or interfere with its vision or respiration.
(Ord. No. 04-O-09, § 20-10(F), 1-22-2004.)

Sec. 10-83. Control of a dangerous dog; leash.

It is unlawful for any person to knowingly or recklessly permit any dangerous dog to leave the premises of its owner when not under control by leash or other recognized control methods.
(Ord. No. 04-O-09, § 20-10(G), 1-22-2004.)

Sec. 10-84. Appeal of dangerous dog determination.

(a) The owner of a dog found to be a dangerous dog pursuant to this ordinance by Administrator may file a complaint against the Administrator in the County Circuit Court within 35 days of receipt of notification of the determination, for a de novo hearing on the determination. The proceeding shall be conducted as a civil hearing pursuant to the Illinois Rules of Evidence and the Code of Civil Procedure, including the discovery provisions. After hearing both parties' evidence, the court may make a determination of dangerous dog if the Administrator meets his or her burden of proof of clear and convincing evidence. The final order of the Circuit Court may be appealed pursuant to the civil appeals provisions of the Illinois Supreme Court Rules.
(b) The owner of a dog found to be a dangerous dog pursuant to this ordinance by the Director, may, within 14 days of receipt of notification of the determination, request an administrative hearing to appeal the determination. The administrative hearing shall be conducted pursuant to the Department of Agriculture's rules of application to formal administrative proceedings, 8 Ill. Admin. Code Part 1, Subparts A and B. An owner desiring a hearing shall make his or her request for a hearing to the Illinois Department of Agriculture. The final administrative decision of the Department may be reviewed judicially by the Circuit Court of the County. If the plaintiff in a review proceeding is not a resident of Illinois, the venue shall be in Sangamon County. The Administrative Review Law and all amendments and modifications

thereof, and the rules adopted thereto, apply to and govern all proceedings for the judicial review of final administrative decisions of the Department hereunder.
(c) Until the order has been reviewed and at all times during the appeal process, the owner shall comply with the requirements set forth by the Administrator, the court, or the Director.
(d) At any time after the final order has been entered, the owner may petition the circuit court to reverse the designation of dangerous dog.
(Ord. No. 04-O-09, § 20-10(H), 1-22-2004.)

Sec. 10-85. Expenses of microchipping.

A clinic for microchipping companion animals of County residents should be conducted at least once a year under the direction of the Administrator at the animal control facility, animal shelter, or other central location within the County. The maximum amount that can be charged for microchipping an animal at this clinic shall be as set out in Section 32-1. Funds generated from this clinic shall be deposited in the County Animal Control Fund.
(Ord. No. 04-O-09, § 20-10(I), 1-22-2004.)

Sec. 10-86. Violations.

(a) Any person violating or aiding in or abetting the violation of any provision of this ordinance, or counterfeiting or forging any certificate, permit, or tag, or making any misrepresentation in regard to any matter prescribed by this ordinance, or resisting, obstructing, or impeding the Administrator or any authorized officer in enforcing this ordinance, or refusing to produce for inoculation any dog in his possession or who removes a tag from a dog for purposes of destroying or concealing its identity, or who removes a tag, microchip, or tattoo, is guilty of a Class B misdemeanor. A second offense will constitute a Class A misdemeanor.
(b) Each day a person fails to comply constitutes a separate offense. Each State's Attorney to whom the Administrator reports any violation of this article shall cause appropriate proceedings to be instituted in the proper manner provided by law.
(Ord. No. 04-O-09, § 20-10(J), 1-22-2004.)

Sec. 10-87. Penalties; vicious dog.

If the owner of a vicious dog subject to enclosure:
(1) Fails to maintain or keep the dog in an enclosure or fails to spay or neuter the dog;
(2) The dog inflicts serious physical injury upon any other person or causes the death of another person; and
(3) The attack is unprovoked in a place where such person is peaceably conducting himself or herself and where such person may lawfully be;
the owner shall be guilty of a Class 4 felony unless the owner knowingly allowed the dog to run at large or failed to take steps to keep the dog in an enclosure then the owner shall be guilty of a Class 3 felony. The penalty provided in this section shall be in addition to any other criminal or civil sanction provided by law.
(Ord. No. 04-O-09, § 20-10(K), 1-22-2004.)

Sec. 10-88. Penalties; dangerous dog.

If the owner of a dangerous dog knowingly fails to comply with any order of the court or the Administrator regarding the dog and the dog inflicts serious physical injury on a person or a companion animal, the owner shall be guilty of a Class A misdemeanor. If the owner of a dangerous dog knowingly fails to comply with any order regarding the dog and the dog kills a person the owner shall be guilty of a Class 4 felony.
(Ord. No. 04-O-09, § 20-10(L), 1-22-2004.)
Secs. 10-89--10-94. Reserved.

ARTICLE IV. MANAGED CARE OF FERAL CATS

Sec. 10-95. Definitions.

For the purpose of this Ordinance, the following terms shall have the meaning set forth in this section. When not inconsistent with the context, words used in the present tense include the future, words in the plural number include the singular, words in the singular number include the plural, and words in the male gender include the female gender.

Abandoned Cat means a domesticated cat that an owner has forsaken entirely or neglected or refused to provide care and support.

Animal Control Officer or *ACO* means any person employed or appointed by the County or a municipality who is authorized to investigate violations of laws and regulations concerning animals, and to issue citations in accordance with Illinois law and this Code.

Department means the Cook County Department of Animal and Rabies Control.

Domesticated cat means a cat that is socialized to humans and is appropriate as a companion for humans.

EAID means an electronic animal identification device.

Eartipping means straight-line cutting of the tip of the left ear of a cat while the cat is anesthetized.

Feral Cat means a cat that:

(1) Is born in the wild or is the offspring of an owned or feral cat and is not socialized;
(2) Is a formerly owned cat that has been abandoned and is no longer socialized; or
(3) Lives on a farm.

Feral Cat Caretaker means any person other than an owner who provides food, water or shelter to, or otherwise cares for, a feral cat.

Feral Cat Colony means a group of cats that congregate, more or less, together as a unit. Although not every cat in a Colony may be feral, any nonferal cats that congregate with a colony shall be deemed to be a part of it.

Feral Cat Colony Caretaker means any Feral Cat Caretaker who is approved by a Sponsor to care for a Feral Cat Colony.

Microchip means, for the purpose of this Ordinance, to implant an EAID (electronic animal identification device) in an animal.

Nuisance means, for purposes of this Ordinance, conduct by stray or feral cats that disturb the peace. Stray or feral cats may create a nuisance by:

(1) Habitually or continually howling, crying or screaming; or
(2) Habitually and significantly destroying, desecrating or soiling property against the wishes of the owner of the property.

Owner means any person having a right of property in an animal or who keeps or harbors an animal, or who has it in his care, or acts as its custodian, or who knowingly permits an animal to remain on any premises occupied by him or her. "Owner" does not include a Feral Cat Colony Caretaker.

Sponsor is any animal Humane Society that agrees to comply with the requirements of this Ordinance for Sponsors and provides written notice to the Department that it will serve as a Sponsor.

Stray Cat means a cat that is regularly off the property of the owner, is not under the physical control and restraint of the owner, and is not regularly provided with food by its owner.

TNR means Trap, Neuter and Return.

TNR Program means a program pursuant to which feral and stray cats are trapped, neutered or spayed, microchipped, vaccinated against rabies, and returned to the location where they congregate, in accordance with this ordinance.

(Ord. No. 07-O-72, 10-16-2007.)

Sec. 10-96. Responsibilities of owners of domesticated cats.

(a) Owners of domesticated cats shall provide appropriate and adequate food, water and shelter for their cats.
(b) The owner of a domesticated cat shall exercise reasonable care to guard against the cat creating a Nuisance.
(c) Owners of domesticated cats shall not permit their cats to roam unsupervised off their property.
(d) An owner shall not abandon a domesticated cat.
(Ord. No. 07-O-72, 10-16-2007.)

Sec. 10-97. Feral cat colonies.

(a) *[Permitted.]* Feral Cat Colonies shall be permitted and Feral Cat Colony Caretakers shall be entitled to maintain and care for Feral Cats by providing food, water, shelter and other forms of sustenance, provided that the Feral Cat Colonies are registered with a Department-approved Sponsor, as defined in Subsection 10-97(b), and that the Feral Cat Colony Caretaker takes all appropriate and available steps to meet the terms and conditions of this Ordinance.
(b) *Sponsorship of Colony TNR Programs.* Any animal Humane Society that agrees to comply with the requirements of this Ordinance for Sponsors shall be eligible to act as a Sponsor. Any Humane Society intending to undertake the responsibilities of Sponsor shall so advise the Department in writing and provide its address and telephone number, and electronic mail address if applicable.
(c) *Sponsor Requirements.* It shall be the duty of the Sponsor to:
(1) Review, and in its discretion, approve of Feral Cat Colony Caretakers.
(2) Help to resolve any complaints over the conduct of a Feral Cat Colony Caretaker or of cats within a colony.
(3) Maintain records provided by Feral Cat Colony Caretakers on the size and location of the colonies as well as the vaccination, microchipping, and spay and neuter records of cats in the Sponsor's colonies.
(4) Provide, at a minimum, written educational training for all Caretakers addressing uniform standards and procedures for colony maintenance.
(5) Report annually to the Department on the following:
a. Number and location by zip code of colonies for which it acts as a Sponsor in the County;
b. Total number of cats in each of its colonies;
c. Number of cats from its colonies microchipped, vaccinated, spayed and neutered pursuant to the TNR program and number of cats and kittens from its colonies placed in permanent homes.
(6) Use due consideration to prevent Feral Cat Colonies from being maintained on lands managed for wildlife or other natural resources, such as but not limited to Nature Preserves, where the presence of a Feral Cat Colony is a proven threat, and to avoid the taking of rare, threatened or endangered species under the Illinois Endangered Species Protection Act;
(7) Provide any forms or other documentation necessary to allow Feral Cat Colony Caretakers to receive any public or private subsidies, medical care or other forms of assistance for their Feral Cat Colonies which may be available to them;
(8) Provide to the Department the location, by address, of Feral Cat Colonies where Feral Cat Colony Caretakers have regularly failed to comply with this Ordinance or where the Sponsor has been unable to resolve a nuisance behavior situation.
(d) *Feral Cat Colony Caretaker Responsibilities.* In order to be an approved managed Feral Cat Colony Caretaker, said Caretakers shall be responsible for the following:
(1) Registering the colony with the Sponsor;

(2) Taking all appropriate and available steps to vaccinate the colony population for rabies, preferably with a three-year vaccine, and to update the vaccinations as warranted and mandated by law;
(3) Taking all appropriate and available steps to have the colony population spayed or neutered by a licensed veterinarian;
(4) Eartipping the left ear of a colony cat that has been vaccinated and spayed or neutered, so that colony cats can be readily identified;
(5) Having an EAID inserted into each colony cat by a veterinarian in accordance with professional medical standards. The Sponsor and the Feral Cat Colony Caretaker shall be the named contacts for purposes of the EAID;
(6) Providing the Sponsor with descriptions of each cat in the colony and copies of documents demonstrating that the cats have been vaccinated, microchipped, and spayed or neutered;
(7) Providing food, water, and if feasible, shelter for colony cats;
(8) Obtaining proper medical attention for any colony cat that appears to require it;
(9) Observing the colony cats at least twice per week and keeping a record of any illness or unusual behavior noticed in any colony cat;
(10) Obtaining the written approval of the owner of any property, or any authorized representative of the owner, to which the Caretaker requires access to provide colony care;
(11) Taking all reasonable steps to:
a. Remove kittens from the colony after they have been weaned;
b. Place the kittens in homes or foster homes for the purpose of subsequent permanent placement; and
c. Capture and spay the mother cat.
(12) Reporting semiannually in writing to the Sponsor on:
a. The location of the colony;
b. The number and gender of all cats in the colony;
c. The number of cats that died or otherwise ceased being a part of the colony;
d. The number of kittens born to colony cats and their disposition;
e. The number of cats placed in animal shelters or in permanent homes as companion cats;
f. The number of cats vaccinated;
g. The number of cats microchipped; and
h. The number of cats spayed or neutered.
(e) *Withdrawal of Feral Cat Colony Caretaker or Sponsor.* In the event that a Feral Cat Colony Caretaker is unable or unwilling to continue in that role, he or she shall notify his or her Sponsor. In the event a Sponsor is unable or unwilling to continue to perform its role, it shall so advise the Department. The Sponsor shall work with the Department to obtain a replacement Sponsor. If no new Sponsor is found within 30 days, the Sponsor shall notify the Department.
(f) *Disposition of Feral Cat Colony cats.*
(1) An Animal Control Officer who has trapped a cat whose left ear has been tipped or which bears some other distinguishing mark, such as but not limited to a tattoo, indicating that it belongs to a Feral Cat Colony, shall scan the cat for an EAID. If an EAID is found, the Officer shall attempt to contact the Sponsor or Feral Cat Colony Caretaker. If an EAID is not found, the Officer shall take reasonable steps to notify a Sponsor of the description and sex of the cat, and if available, the address or location where the cat was trapped. The Sponsor shall then take all appropriate and available steps to identify the Feral Cat Colony Caretaker of this cat or a Feral Cat Colony Caretaker who will take responsibility for managing this cat.
(2) If the Feral Cat Colony Caretaker is not able to immediately take custody of the cat, the Officer shall transport the cat to the Sponsoring Humane Society's Animal Shelter or nearest Animal Shelter. The Feral Cat Colony Caretaker shall be responsible for retrieving the cat from the Shelter within three business days or advising the Shelter if he or she does not intend to retrieve the cat.

(3) The Department, its designee, or a licensed veterinarian, in accordance with Section 10-98, Ordinance Enforcement, shall be the only persons permitted to destroy a Feral Cat. No person may knowingly poison or cause to be poisoned, or cause the destruction by any other means, of a Feral Cat. In accordance with Subsection 10-8(k), Animal Care, the only exception will be by written permit from the Illinois Department of Agriculture for the purpose of controlling diseases transmissible to humans or other animals and only when all other methods and means have been exhausted. Such a permit shall name a person or persons conducting the poisoning, specify the products to be used, give the boundaries of the area involved and specify the precautionary measures to be employed to ensure the safety of humans and other animals. Any drugs used for the euthanasia shall be by or under the direction of a licensed veterinarian.
(Ord. No. 07-O-72, 10-16-2007.)

Sec. 10-98. Ordinance enforcement.

(a) The Department or its designee, in order to encourage the stabilization of the Feral Cat population in Cook County, shall have the following rights:
(1) The right to trap in a humane manner and remove any cats that:
a. Have not been vaccinated against rabies or which are demonstrating signs of the disease;
b. Are not spayed or neutered;
c. Are not identifiable through an EAID as belonging to a Feral Cat Colony that has a Sponsor and a Feral Cat Colony Caretaker; or
d. For public health or public safety concerns.
1. If no issue of public health or safety exists, or if any issues of public health and safety can be addressed by the removal and relocation of the cat to another area, a Sponsor can arrange to have the cat spayed or neutered, eartipped, and vaccinated against rabies by a licensed veterinarian, and have an EAID inserted. The Sponsor may then arrange for the cat to be adopted or placed in a Feral Cat Colony.
2. If a Feral Cat is demonstrating signs of having rabies, or has an illness or injury that presents an imminent danger to the public health or safety, or to its own person, that cat shall be humanely destroyed.
(2) The right to direct that a Sponsor remove a Feral Cat that is creating a nuisance if the Sponsor has failed to adequately resolve the nuisance within 30 days after being given written notice thereof. In the event that the Department directs the Sponsor to remove the cat, the Sponsor shall have 30 days to do so. Failure of the Sponsor to remove the cat within said time period (or such longer time as the Department may specify) shall constitute grounds for the Department to remove the cat.
(b) Animal Control Officers ("ACO") or police officers shall investigate any nuisance complaint allegedly caused by a Feral Cat.
(1) In the event that an ACO or police officer finds that a Feral Cat or Feral Cat Colony has created a nuisance, the ACO or police officer shall advise the Department and Sponsor in writing of the nuisance.
(2) The Sponsor shall have the right to review the matter with the Administrator of the Department. If the Sponsor is not able to satisfy the Administrator that a nuisance is not occurring, the Sponsor shall have 30 days to comply with the Administrator's direction with respect to correcting the nuisance. If the Sponsor fails to correct the nuisance, the Department shall have the right to remove the cat.
(c) If a Sponsor fails to perform its responsibilities as defined in Subsection 10-97(c) of this article, the Department may notify the Sponsor that it must comply with the requirements of this article within 30 days. If the Sponsor fails to do so, the Department may remove this Sponsor from the list of Department-approved Sponsors, and may reassign the Feral Cat Colonies from this Sponsor to another Sponsor.

(d) If a Feral Cat Colony Caretaker regularly fails to comply with this article, the Sponsor may notify the Feral Cat Colony Caretaker that he or she has 30 days to make all reasonable efforts to fulfill the responsibilities defined in Subsection 10-97(d) of this article. If the Feral Cat Colony Caretaker fails to comply within that time period, the Sponsor may identify and obtain replacement Feral Cat Colony Caretakers for the Feral Cat Colonies of the non-compliant Feral Cat Colony Caretaker. If no other Feral Cat Colony Caretaker can be found within 30 days, the Sponsor shall notify the Department, and the Department may humanely remove all, or parts of, the Feral Cat Colonies and dispose of them in accordance with Section 10-98 of this article.
(e) Feral Cats who were spayed or neutered and vaccinated for rabies prior to the date on which this article became effective, but did not have an EAID inserted or were marked as Feral by some indication other than a left eartip, such as but not limited to a tattoo, shall be deemed to be in compliance with this article, if all other requirements in Subsection 10-97(d) are being met by their Feral Cat Colony Caretaker. Feral Cat Colony Caretakers shall take all appropriate and available steps to bring these cats into compliance with the provisions of this article within three years of its enactment, or upon revaccination of the cats for rabies, whichever comes first.
(Ord. No. 07-O-72, 10-16-2007.)

Sec. 10-99. Effective date.

This Ordinance shall become effective 30 days after adoption.
(Ord. No. 07-O-72, 10-16-2007.)

Part II.

ADMINISTRATIVE REGULATIONS TO THE COOK COUNTY ANIMAL AND RABIES CONTROL ORDINANCE

Regulation I-Animal Bite Report Procedures

A. Animal Bite Report Form – The Cook County Department of Animal and Rabies Control shall be the official form used within the county for the recording of information when an animal capable of transmitting rabies bites a person.

B. Animal Bite Investigation Responsibilities – Municipal police or other municipal officers with the delegated authority or the Sheriff's Police in unincorporated Cook County shall investigate and complete each animal bite report. They shall notify the owner of the biting animal that the animal must be taken to a Veterinarian within twenty-four hours after the bite. All police departments and the Sheriff's Police shall accept bite reports from medical authorities, bite victims and their families, animal owners and any other person having knowledge of a bite.

C. Department Notification of Animal Bite – Time Limit – The animal bite report form shall be mailed and transmitted via facsimile to the Cook County Department of Animal and Rabies Control within 24 hours after the receipt of a report. The animal bite report shall be mailed to health departments recognized by the State of Illinois within Cook County also within 24 hours of the examination, when directed by the Administrator.

Regulation II – Biting Animal Examination Form – Procedures for Veterinarians

A. First Veterinary Examination – Exam Ten or More Days After Bite. Veterinarians performing the first examination of an animal that has bitten a person shall complete the county rabies observation confinement notice form. However, if the veterinarian has proof (police animal bite report) that the first examination is taking place ten or more days after the bite, and the animal is currently vaccinated against rabies, the veterinarian shall at that time also complete the county rabies observation confinement release form. All forms shall be mailed, preferably faxed to the Cook County Department of Animal and Rabies Control within 24 hours of the examination. If not currently vaccinated the animal must be confined for 10 days regardless of the date of the first examination.

B. Final Veterinary Examination – Failure to Return. Ten days after the bite, if known, or ten days after the first examination the veterinarian shall complete the county rabies observation confinement release form. If an owner of a biting animal fails to return on the final day of the rabies observation period the veterinarian shall return the signed form with the notation "Failure to Return" placed thereon. This form shall be mailed, but facsimile preferred to the County Department of Animal and Rabies Control within 24 hours of the release date.

All animals not currently vaccinated must be vaccinated prior to release from confinement.

Regulation III – Special Procedures for Groups of Unusual Biting Animals

A. Owned Animal to Owned Animal Bite. Any owned animal that bites a person or other owned animal which may contract rabies must be presented to a licensed veterinarian within 24 hours of the bite and if not currently vaccinated for rabies impounded for 10 days.

B. Caged Animals. Owners of caged rabbits, guinea pigs, gerbils, rats and mice that have been owned over thirty days shall not be required to obtain a veterinary examination when their caged animal has bitten a person, but shall report the health of the biting animal by telephone or in person to the County Department of Animal and Rabies Control on the first and tenth day following the bite.

C. Guard Dogs. Owners of guard dogs that have bitten a person in performance of guard duty and have been officially registered shall not be required to obtain a veterinary examination of the dog but shall report the health of the biting animal by telephone or in person to the County Department of Animal and Rabies Control on the first and tenth days following the bite. Guard dogs that are not officially registered shall be confined under observation of a licensed veterinarian for a period of 10 days within 24 hours of the biting incident. If the guard dog is currently vaccinated it may be confined on the premises of the owner in a manner which will prohibit it from biting any person or animal and the guard dog's health shall be reported by the veterinarian to the Cook County Department of Animal and Rabies Control on the first and tenth days of the observation period. When the guard dog is not registered and not currently inoculated with rabies vaccine, the guard dog shall be confined for 10 days in a veterinary hospital or animal control or humane shelter provided there is a veterinarian daily on the premises.

D. Large Animals. Cattle, sheep swine and horses that have bitten a person shall be confined to the owner's property and examined by a veterinarian on the first and tenth days after a bite.

E. Stray Animals. Stray animals that have bitten a person shall be apprehended and held for ten days or less. When the biting stray animal is not held for ten days, it shall be humanely euthanized, unless otherwise directed by the Administrator and the head submitted for rabies examination.

F. Death Before Confinement Period Expires. Any animal, including caged animals, that has bitten a person and dies, is accidentally killed or is humanely euthanized, before the tenth day following the bite shall have the head removed and sent to the local public health laboratory for rabies virus analysis. (FRA Test).

Regulation IV – Guard Dog Registration Certificates

A. Eligibility – Application Form. Owners of dogs used in commercial business for the purpose of patrol and protection shall send a request to the County Department of Animal and Rabies Control for an application form for a Guard Dog Registration Certificate. To be eligible, guard dogs must be inoculated with rabies vaccine that is effective through 1 December of the year which the application is made, and must be subcutaneously injected with a microchip for identification purposes. All guard dogs shall be registered with the County Department of Animal Rabies and Control each and every year.

B. Registration Fee-Exceptions. Guard Dog Registration Certificates will be mailed upon the receipt of a properly completed form and a $10 registration fee. The fee will be waived for police and municipal departments.

C. Expiration Date. Registration certificates shall expire on 31 December of each year.

Regulation V. Rabies Vaccination Certificates

A. Filing of Certificates-Date Due. Veterinarians shall send to the County Department of Animal and Rabies Control Certificates of animals inoculated with rabies vaccine by the 15^{th} and 30^{th} of each month following information. Hospitals using the ACE program must back up certificate information daily.

B. Vaccination Certificate File in the Animal Hospital. Veterinarians shall maintain their own rabies vaccination file for three years past the date of inoculation.

Regulation VI. Submission of Specimens for Rabies Virus Analysis

A. Specimen to be Submitted. Only the head of animals that are capable of transmitting rabies and that have bitten a person, shall be submitted for rabies virus analysis except those in which the suspect animal weighs approximately five hundred grams or one pound (bats, mice, gerbils, hamsters, etc.) In the latter case the entire animal shall be submitted.

B. Time Limit for Submission: Specimens shall be submitted with 24 hours of the bite whenever possible or within 24 hours of the receipt of the specimen.

C. Refrigeration. All specimens shall be refrigerated (not frozen) until received by the public health laboratory.

D. Packaging. Specimens shall be shipped or sent by messenger only in leak proof (double wrapped in plastic) containers accompanied by an information card indicating the species and number of specimens submitted, name, address and telephone number of the bite

victim and the name, address and telephone number of the person submitting the specimen.

E. Location for Submission. Residents of the county shall submit specimens to the Illinois Public Health Laboratory at 2121 West Taylor in Chicago, during the hours of 8:30 a.m. and 4:40 p.m. on Monday through Friday. On weekends and holidays the specimens should be refrigerated and submitted to the Illinois Public Health Laboratory on the next working day. Emergency service on weekends and holidays is provided by calling the County Department of Animal and Rabies Control. A fee of $30 will be charged for this service, as set forth in subsection F.

F. Fee for Transporting Specimens. The County Department of Animal and Rabies Control will transport specimens to the Public Health Laboratory from facilities such as veterinary hospitals and humane societies and from individual residents of Cook County, for a fee of $30.

Regulation VII. Redemption of Apprehended Animals

A. Place of Impoundment. Animals apprehended by the County Department of Animal and Rabies Control shall be impounded in facilities designated by the department.

B. Duration of Impoundment. The impoundment period shall be four days at which time animals impounded become the property of the department.

C. Redemption of Impounded Animals-Conditions. Owners of apprehended animals prior to release of the animal shall present proof of current rabies inoculation for animals and pay the following redemption fee:

1. $25 to cover the pick-up service and the requirement under the Illinois Animal Control Act.

2. Boarding fees as determined by the holding facility for each day or part of day that the animal is held.

3. Rabies inoculation fee for animals as determined by the holding facility if no current rabies inoculation is present.

Regulation VIII. Dog Parks and Areas

A. Definitions

Terms not defined in this Regulation VIII shall be defined in Section II of the Cook County Animal and Rabies Control Ordinance.

Dog Park means an enclosed area of land where dogs are permitted to be off leash.

Leash means a cord, rope, strap, or chain which shall be securely fastened to the collar or harness of a dog or other animal and shall be of sufficient strength to keep such dog or other animal under control.

Operator means any Person who owns, operates or provides for use by patrons a Dog Park.

B. Requirements

1. No person shall be an Operator of a Dog Park unless such Dog Park is in compliance with this Regulation VIII.

2. A Dog Park must be completely enclosed by a contiguous fence with each entrance designed in such a manner as to secure against accidental opening.

3. There must be prominently displayed at each entrance to a Dog Park a sign that sets forth the Operator's rules for use of the Dog Park by patrons which rules shall not be inconsistent with these regulations.

4. Dogs must be on a Leash when entering into and leaving a Dog Park. They may be taken off a leash while within the Dog Park except as necessary for the safety of the dog or patrons.

5. The Operator must institute a plan (e.g. licensing/permitting and/or use of a key or keycard system) satisfactory to the Administrator for each Dog Park that reasonably ensures that access to the dog park is limited to dogs:

   a. for whom there is written proof of an examination within the past year for any communicable diseases including an examination of a stool specimen for internal parasites, and current vaccinations for Distemper, Hepatitis, Leptospirosis, Para-influenza, Parvovirus and Bordetella (kennel cough) unless an exemption to this requirement has been granted by the Administrator upon the written recommendation from the Owner's veterinarian; and

   b. who are in compliance with rabies vaccination requirements of the Illinois Animal Control Act (510 ILCS 5); and

c. who are currently licensed by the local government where the Dog's Owner lives.

6. The plan required by B (5) above shall be filed in writing with and must be approved by the Administrator prior to the Operator permitting patrons to use a Dog Park after the effective date of these regulations. Once approved by the Administrator, any proposed change in the plan must be approved by the Administrator prior to such change becoming effective.

7. The Operator must institute a system of periodic surveillance to monitor compliance by Dog Park Patrons with the Operator's Dog Park plan and rules. The Operator shall have a policy for those instances in which a patron does not observe the Operator's rules. The Operator shall permit the Administrator to monitor and enforce compliance by Dog Park Patrons with the Operator's Dog Park plan and rules.

8. The Dog Park must have covered leak-proof containers available for storage of waste materials for disposal to control vermin and insects, which containers shall be periodically emptied and maintained in a sanitary condition.

9. Patrons shall comply with the Operator's rules and regulations.

A. Violations

A Violation of these regulations by an Operator or Patrol shall be punishable as set forth in Section XI of the Cook County Rabies and Animal Control Ordinance.

Effective Date:

These regulations shall become effective on January 1, 2010

Part III.

WHEN AN ANIMAL BITES

1. These guidelines are based on requirements and recommendations of the Illinois Department of Agriculture and Public Health, the Illinois Animal Control Act and the Cook County Department of Animal and Rabies Control for:

    a. Biting Animal Owners
    b. Bite Victims
    c. Physicians and other Medical Personnel
    d. Police Officers
    e. Veterinarians

2. Animal bites can cause rabies and other serious infections and scarring. These truths should be known about rabies:

    a. Rabies is a fatal disease that affects all mammals including man.

    b. Rabies vaccination is safe for all animals. To be effective, rabies vaccine must be given at least four weeks before an animal is exposed to rabies.

    c. Rabies is decreasing as a human disease because there has been an increasing number of cats and dogs inoculated with the rabies vaccine and there are improved Public Health Programs stressing the need for stray control and rabies vaccination for cats and dogs.

    d. In spite of vaccination programs, rabies is still very prevalent in wildlife. It will continue to be a serious public health problem for many years to come.

Section I. Guidelines for Owners of Biting Animals

A. LAW ENFORCEMENT-LEGAL REQUIREMENTS

The Cook County Department of Animal and Rabies Control is the organization that is given the authority to enforce the laws relating to biting animals (510 ILCS 5/1 et seq.). The basis for these laws is protection of the health of the bite victim through the control of rabies. The health of the biting animal is determined by an examination and through the observation of the biting animal by a veterinarian for ten days following the bite.

The need to impound a biting animal is dependent upon the laws of the County in which the biting animal owner lives.

A more direct and effective method of determining rabies in the biting animal is through the examination of the brain of the killed animal. This method is less than pleasing to most animal owners.

B. REPORT EACH BITE

Owners of biting animals, regardless of the reason for the bite, must recognize that all bites must be reported to protect the bite victim's health. All confirmed cases of rabies in man have been fatal. All bite report forms are forwarded to the Cook County Department of Animal and Rabies Control. When the Department receives an Animal Bite Report form without the additional veterinary health evaluation of the biting animal, the biting animal owner is contacted by telephone or by mail and informed of this requirement.

C. LOCAL POLICE ACCEPT ALL BITE REPORTS-CORRECTED REPORTS

Police personnel are trained to complete the Animal Bite Report form. Information for this report form is supplied to the local police department in which the owner of the biting animal lives by: medical personnel, bite victims, animal owners and other persons who have knowledge of a bite. Whenever there is controversy about the Animal Bite Report, the local police district shall be called so that a corrected report can be filed. Disputes not resolved in the local police district will require the bite victim to request a court appearance by the owner of the biting animal.

D. EXCEPTION

Owners of biting caged rabbits, hamsters, guinea pigs, gerbils, rats and mice (if ownership can be established over thirty days duration) and biting registered guard dogs are only required to call the Cook County Department of Animal and Rabies Control on the first and tenth day after the bite and report the health of the biting animal.

E. DEATH OF BITING ANIMAL

Whenever a biting animal dies within ten days of the bite, the head of the animal must be submitted to the local public health laboratory for rabies virus analysis. If the death of a biting animal other than a dog or a cat occurs for any unspecified reason within thirty days of a bite, it is advisable for the animal owner to submit the animal head for laboratory evaluation.

F. COURT APPEARANCES

Owners of biting animals shall be required to appear in court for violation of the law whenever any of the following occur:

1. If the biting animal is not currently vaccinated against rabies.

2. If the biting animal is allowed to bite a person when under the ten day home confinement.

3. If the biting animal is given away or sold, is allowed to roam, escapes or is otherwise disposed of during confinement period.

4. If the biting animal is not submitted for the required veterinary examination after the bite.

Section II. Guidelines for Bite Victims

A. HOME CARE FOR BITE WOUNDS-MEDICAL ADVICE

Awareness of the importance of the care of animal bite wounds will help prevent infection and rabies and relieve much of the anxiety about animal bites. It is essential that all bite wounds receive immediate attention. An immediate thorough flushing of the wound with water while allowing the wound to bleed freely, followed by a scrubbing with soap or a good disinfectant agent will minimize serious side effects of a bite. Following the first aid treatment of the animal caused wound, medical advice should then be sought to determine the most effective final treatment.

B. REPORT ALL BITES TO LOCAL POLICE-CAPTURE OF THE BITING ANIMAL-SCRATCHES

All bites (breaks in the skin) shall be reported to the local police, but those bites caused by at large (stray) and high risk kinds (species) or wild animals, such as the skunk and bat, shall be immediately reported to the police while it is possible to capture the biting animal. Because of the risk involved, the at large (stray) or wild animal should be continually observed until it is captured by the local police or authorized officer.

C. REDUCE THREAT OF RABIES

The threat of rabies to the life of the bite victim also will be minimized if the biting animal is captured and placed under observation of a veterinarian. The bite victim must recognize that the medical decision to administer anti-rabies injections (shots) is based mainly on these facts:

1. Capture and clinical evaluation of the health status of the biting animal by a veterinarian.

2. Kind (species) of biting animal.

3. Circumstances surrounding the biting incident.

    a. Was the bite provoked?

    b. Was the wound caused by the animal's nails or claws?

In addition the bite victim must understand that any break in the skin caused by an animal should not be regarded lightly. Death is the result of clinical rabies in animals or humans.

Section III. Guidelines for Medical Doctors and Associated Medical Personnel

A. REQUIREMENT TO REPORT ANIMAL BITES-CONTENTS OF ANIMAL BITE REPORT FORM

All medical personnel are required under the Cook County Animal and Rabies Control Ordinance to report all animal bites. Within Cook County the animal bite incident is reported to the police or other authorized personnel in the area in which the biting animal owner lives. If the biting animal was a stray or wild animal, the bite report should be given to the police or other authorized personnel in the area in which the bite occurred. The Animal Bite Report form requires this information:

1. Name, address and telephone number of the animal owner;

2. Name, address and telephone number of the bite victim;

3. Address where the bite happened;

4. Type, breed, sex and color of the biting animal;

5. Rabies Vaccination status of the biting animals (Cook County Rabies Vaccination tag number is necessary);

6. Community animal license number (not a Cook County requirement);

7. The name of the veterinarian who examined or will examine the biting animal;

8. Date the bite occurred;

9. Notation if a ticket was issued for any violation.

B. RATIONALE OF TREATMENT FOR BITTEN PERSONS (As adapted from the U.S. Public Health Service) Every exposure to possible rabies infection must be individually evaluated. Over eight thousand (8,000) animal bites are reported each year in Cook County. The following factors should be considered before anti-rabies treatment is initiated:

1. Species of biting animal

Carnivorous animals (within Cook County, skunks, raccoons, coyotes, stray dogs, stray cats, ferrets) and bats are more likely than other animals to be infected with rabies. However, any warm blooded animal can be infected with the rabies virus.

2. Circumstances of the biting incident

An UNPROVOKED ATTACK is more likely to mean the animal is rabid. Bites inflicted on a person attempting to feed or handle an apparently healthy animal should generally be regarded as PROVOKED.

3. Types of exposure

Rabies is commonly transmitted by the inoculation of infectious saliva through the skin. The possibility infection will result from exposure to a rabid animal varies with the nature and extent of exposure. Two categories of exposures should be considered:

a. Bite, any penetration of the skin;

b. Non-bite, scratches, abrasions, open wounds or mucous membranes contaminated with saliva.

4. Vaccination status of the biting animal

A properly immunized animal has only a small chance of developing rabies and transmitting the virus.

5. Presence of rabies in the area

Cook County is endemic for skunk and bat rabies.

C. MANAGEMENT OF THE BITING ANIMAL

The Cook County Department of Animal and Rabies Control is the department that administers the Cook County Animal and Rabies Control Ordinance. Each animal, except as noted below, that bites a person must be examined within twenty-four hours of the bite and placed under observation of a veterinarian for ten days. Owners of laboratory type animal pets (rabbits, guinea pigs, hamster, gerbils, rates and mice) owned over thirty days and registered guard dogs are required to call the Cook County Department of Animal and Rabies Control on the first and tenth day following a bite. Strays or unwanted animals may be killed immediately and their heads submitted for rabies examination by fluorescent microscopy. Signs of rabies in wild animals cannot be interpreted reliably; therefore, any wild animal that bites or scratches a person shall be killed at once (without necessary damage to the head) and the brain examined for evidence of rabies.

D. RABIES CASE PROCEDURE

Whenever a biting animal develops signs suggestive of rabies, the animal will be euthanized and the head removed and taken to the Illinois Public Health Laboratory. In all cases positive for rabies the medical personnel or health facility reporting the bite will immediately be notified through a telephone call from the Administrator.

E. POST EXPOSURE PROPHYLAXIS

The latest recommendation for post exposure prophylaxis are published by the United States Public Health Service Advisory Committee on Immunization Practices found in the Morbidity and Mortality Weekly Report of the U.S. Department of Health Education and Welfare. The report is dated 31 December 1976 – Volume 25 – Number 51. If questions persist after reviewing these recommendations, consultation can be sought at the full time local Public Health Department or the Cook County Department of Public Health.

F. LOCAL TREATMENT OF WOUNDS

Immediate and thorough local treatment of all bite wounds and scratches is perhaps the most effective rabies preventive. The wound shall be thoroughly cleansed with soap and water. When the wound treatment is under the direction of a physician, tetanus prophylaxis and control of bacterial infection should be given as indicated. Experimentally, the incidence of rabies in animals can be markedly reduced with local therapy alone.

Section IV. Guidelines for Police Personnel

A. METHOD OF ENFORCEMENT

All police officers are sworn to uphold all Federal, State and Local Laws. Within Cook County, the local police are usually designated to investigate each animal bite. In some communities, special police officers are assigned to this duty.

B. PURPOSE OF ANIMAL BITE REPORTS

The purpose of the animal bite investigation is to determine if a bitten person has been exposed to rabies. The question of rabies exposure can best and most quickly be determined by killing the biting animal, removing the head and submitting it to an approved public health laboratory for rabies virus analysis. Killing of all biting animals, particularly domestic pets, is not generally acceptable. Therefore, the biting animal that is not killed and checked at the laboratory must be examined by a veterinarian within twenty-four hours of the bite.

C. ANIMAL BITE PROCEDURE

1. Assist the bite victim to a medical facility or advise the victim to seek medical advice.

2. Inform the owners of the biting animals that the animal must be examined by a veterinarian within twenty-four hours of the bite.

3. Capture or keep under continuous surveillance all wild animals and other biting animals that are at large (stray).

4. Complete and mail within twenty-four hours an Animal Bite Report form to the Cook County Department of Animal and Rabies Control. In Chicago the police officer must complete form CPD-34.226 and call 311 to report bite and make bite report available to the Cook County Department of Animal and Rabies Control.

D. CONTENTS OF AN ANIMAL BITE REPORT FORM

Information required to complete the Animal Bite Report form is as follows:

1. Name, address and telephone number of the animal owner

2. Name, address and telephone number of the bite victim

3. Address where the bite happened

4. Type, breed, sex and color of the biting animal.

5. Rabies Vaccination status of the biting animal (Cook County Rabies Vaccination Tag Number is necessary)

6. Community animal license number (not a Cook County requirement)

7. The name of the veterinarian who examined or will examine the biting animal

8. Date the bite occurred

9. Notation if a ticket was issued – for any violation.

E. LEGAL GUIDELINES FOR IMPOUNDMENT

The County Ordinance applies throughout Cook County including within a home rule municipality. Any municipality, regardless of its population may pass an Ordinance effective within jurisdiction more strict than the County ordinance.

F. FACTS ABOUT ANIMAL BITES AND RABIES

All animal bites involving a person must be reported, but the break-down into high risk and low risk bites is intended to aid the police officer in determining the need for animal capture and the urgency for rabies treatment of a bitten person.

1. High risk bites (victims commonly receive shots)

   a. Stray (at large) animals where ownership is not known.

   b. Wild animals. Within Cook County the bat and the skunk are the species most often involved.

   c. Sick animals not under the care of a veterinarian.

   d. Any pet animal that attacks a person for no known reason (UNPROVOKED BITE).

2. Low risk bites (victims rarely receive shots).

   a. Pet animals that bite as a result of an action of a person (PROVOKED BITE).

   b. Bites inflicted by rabbits, squirrels, guinea pigs, hamsters, gerbils, chipmunks, rats, mice and other rodents. Within the United States human rabies has never resulted from a bite from these animals.

   c. Bites that in fact are wounds caused by the animal's claws or nails (scratches) without contamination by the animal's saliva.

Section V. Guidelines for Veterinarians

A. VET EXAM REQUIRED – EXCEPTIONS

All biting animals except those listed below must receive a veterinary examination within twenty-four hours of a bite. Guard dogs registered with the Cook County Department of Animal and Rabies Control, and laboratory pet type animals (rabbits, hamsters, guinea pigs, gerbils, rats and mice) owned over thirty days are exempt from veterinary examination, but their owners must contact the Department within twenty-four hours after the bite.

B. PROCEDURE FOR RABIES OBSERVATION HOME CONFINEMENT AGREEMENT – SPECIAL PROCEDURES

1. Instruct the animal owner to read the Rabies Observation Home Confinement Agreement.

2. Complete the forms.

3. Have owners sign the Rabies Observation Confinement Notice.

4. Mail the Rabies Observation Confinement Notice within twenty-four hours after the time of the examination.

5. Mail the Rabies Observation Release Notice within twenty-four hours of the date listed as the tenth day on the Rabies Observation Confinement Agreement (Section 4B).

6. Details regarding special procedures are incorporated in Regulation 2 and Regulation 3 of the Cook County Animal and Rabies Control Ordinance.

C. RABIES IN ANIMALS

Rabies in animals is sporadic and found mainly in wild animals. Whenever wild animals lose their natural fear of people in the wild state and are involved in an animal or person bite, rabies should be considered a possibility. Specific symptoms of rabies in wild animals are varied so that there is not one reliable symptom to assist in the diagnosis. All biting wild animals should be killed, and the head should be removed and sent to the public health laboratory for rabies virus analysis.

Symptoms of rabies in domesticated animals are more reliable and include the following: un-coordination, lethargy, dilated pupils, futile attempts to eat and drink, excessive salivation with frothy accumulation about the mouth, change in voice, change in disposition, restlessness, progressive aggression, paralysis and death. While rabies transmission is possible because of a bite, in most cases, the animal is showing symptoms one or two days after the bite and is dead by the fifth day.

D. LEGAL GUIDELINES FOR IMPOUNDMENT

The County Ordinance applies throughout Cook County including within home rule municipalities. Any municipality regardless of its population may pass an ordinance effective within its jurisdiction more strict than the County ordinance.

Part IV.

ANIMAL CONTROL THROUGH THE FORMATION OF A COMMUNITY DEPARTMENT OF ANIMAL CONTROL

1. Introduction
2. Community Governmental Participation
3. Animal Control Advisory Committee
4. Department of Animal Control
5. Improvement of Local Animal Control Ordinance
6. Training of Police and/or Animal Control Personnel
7. Public Education in Animal Control
8. Summary

1. Introduction

Animal control is a term often misunderstood in most urban communities. It is frequently thought to be not more than a change from the expression of dog catcher-dog pound. In reality an Animal Control program of today is a multifaceted concept involving local government, public health, media cooperation, public education and citizen participation in cooperation with specialists in animal health, care and control. Communities within Cook County have many types of animal control programs varying from a sophisticated program to little or no program at all. The purpose of these guidelines is to present a workable formula which can be used by any community as pattern for establishing a sound functional Animal Control program. Innovations and variations of this formula, of course, would have to be adapted to each community's individual problems and peculiarities.

2. Community Governmental Participation

The first and most important step in the establishment of a good Animal Control program is to secure the interest and cooperation of the local governing body. A knowledgeable person should meet with the members of the local government and present to them a concise, explicit and comprehensive description of Animal Control and the animal control problems within their community. It is important that the governing body of a community be aware of the problems, purposes and goals of Animal Control. Since there are often many difficulties and differences of opinion concerning Animal Control, a carefully outlined program will help insure cooperation of local governmental officials.

3. Animal Control Advisory Committee

A community Animal Control program is a very new concept. Not all communities have people available who have enough real expertise to set up and direct a sound workable program. When this expertise or experience is not available, the community should appoint a small group of experts to act as an advisory committee. The Cook County Department of Animal and Rabies Control is willing and anxious to assist the local community in its search for individuals to fill these positions. This committee can assist in developing and organizing a complete Animal Control program. Impounding methods, licensing procedures, record keeping, training procedures for personnel, development of a humane educational program and the organization of a community Animal Control committee should be included in this program. The committee should be limited in number but should include such people as:

PURPOSE

a. A person knowledgeable in humane society work.

b. A person with expertise in animal care facility (dog pound) operations.

c. An interested veterinarian.

d. A public citizen interested in animal control work.

e. A community official responsible for the local program.

4. Department of Animal Control

Every community that is interested in a good Animal Control program must establish a Department of Animal Control. In most cases it is not necessary to have a separate department but the department can be placed under the administration of another governmental agency, such as the Health Department or Police Department. It is important, however, for the department to have its own title and identity for it to be effective in dealing with the public and other governmental agencies. At least one person should be given the responsibility and authority to carry out the duties of the Department.

5. Improvement of Local Animal Control Ordinances

In order to achieve a good Animal Control program in any community proper Animal Control Ordinances must be legislated. Local ordinances usually need to be updated, revised, or completely re-written to include changes in State and Federal Laws as they apply to the community. The Cook County Department of Animal and Rabies Control has available as a guideline its recently passed Cook County Animal and Rabies Control Ordinance that can be used with a few revisions in most areas of Cook County. No local Animal Control program should be without a sound basic Animal Control Ordinance from which to establish goals and guidelines.

6. Training of Police and/or Animal Control Personnel

All police officers are sworn to uphold all Federal, State and Local laws. The trend over the last several years is to separate the Animal Control Department from the local Police Department. However, within Cook County the local police officer is, most frequently, the person who investigates and completes the Cook County Animal Bite Report form.

Each officer, whether a police officer or an Animal Control officer, assigned the responsibility for Animal Control should be kept informed about the existing laws concerning animals. The Cook County Department of Animal and Rabies Control has the capability to provide training for the local police officer involved in Animal Control. Good cooperation between the police personnel and the Animal Control personnel is essential for the effective program.

7. Public Education in Animal Control

The real key to a successful Animal Control program involves the community resident. In actuality Animal Control in its simplest interpretation means keeping owned pets and unwanted stray pets from roaming in a community. At one time or other most all free roaming pets have had or have an owner. Consequently, an informed public is the answer to a successful program. Good public participation in Animal Control must be accomplished through education and pet identification. Most communities can produce a good educational program through these areas:

a. SCHOOLS

Children love pets and are very attentive and sensitive to pet problems. Children can be very effective in their approach at home relative to what they have learned in school about their pets needs and cares. The American Humane Society and the Chicago Anti-Cruelty Society have education programs as part of their services. There are many movies, posters and literature geared to grade school level that are effective in teaching Animal Control to your children. The Illinois Dog Clubs and Breeder's Association has formulated an excellent core curriculum which can be incorporated into the grade school (Grade K through 6) with great ease and success.

b. SERVICE CLUBS

Most local service clubs develop their meetings around a speaker oriented program. Through these programs responsible community leaders can be informed of responsible Animal Control. If this program is developed by many communities, the Cook County Department of Animal and Rabies Control will assist through the formation of a speaker's bureau.

c. MEDIA

There is no human story easier to sell to local newspapers than dog and cat stories. A good Animal Control program should include press releases and messages to the public relative to animal control problems.

d. PET IDENTIFICATION

Every community should have a pet identification program through effective licensing. If every pet that was picked up had a license tag on it for identification, the pet could be immediately returned to its owner. The pet owner should be charged a fee for this service. This kind of service would be well accepted in the community. The fee would reduce impounding cost, return most lost pets, and increase community revenues to help defray animal control expenses. Each community should establish as part of the Animal Control Officer's job

description a door to door enforcement of the laws concerning inoculation of pet animals with rabies vaccine and the purchase of the community animal license.

8. Summary

Responsible ownership should become a goal of each community government. Involvement of the community residents in the creation of an Animal Control Department is the method suggested. Training of personnel involved in Animal Control and the development of a local educational program are necessary to help teach and assist the community's residents in effective Animal Control.

Approved As Amended
By The Board Of The Cook County Commissioners January 1, 2010

Exhibit 8

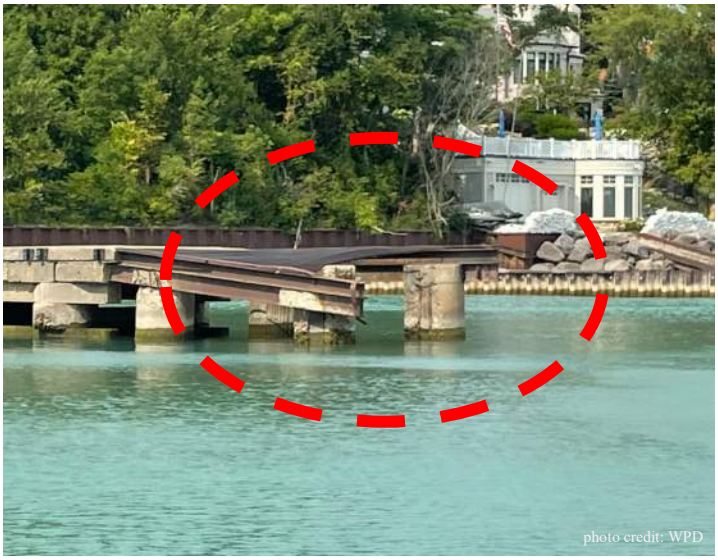
Winnetka Park District

Elder and Centennial Park and Beach Project Presentation

October 13, 2021

EXISTING CONDITIONS

Elder Park and Beach and its 400 feet of shoreline have experienced water quality issues, erosion and soil breakaway, bluff management challenges, and sea wall damage through the years. The existing steel groins intended to help hold the beach are deteriorating and tipping. The public beach house is regularly flooded by lake water and runoff. The Village's pier and stormwater outfall pipe have suffered significant damage. This beach is currently closed because the existing lakefront structures are unsafe to use.



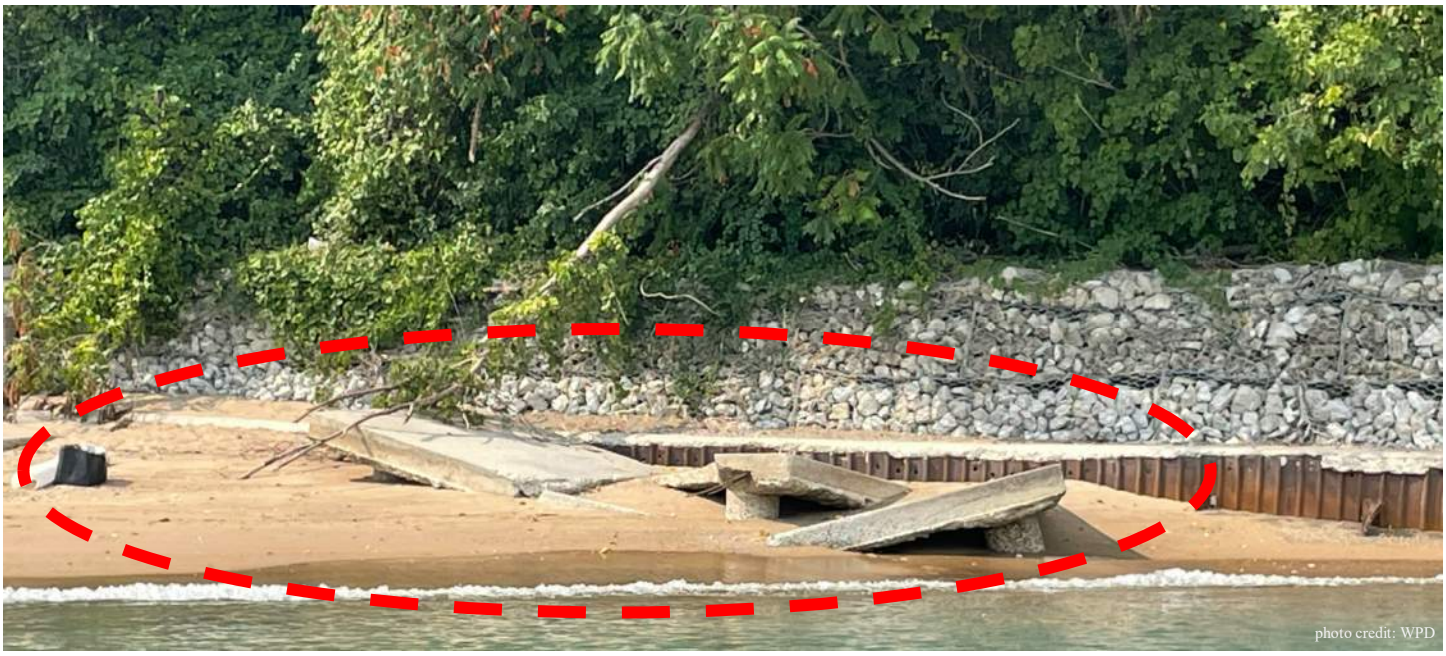
Damaged pier

Damaged pier

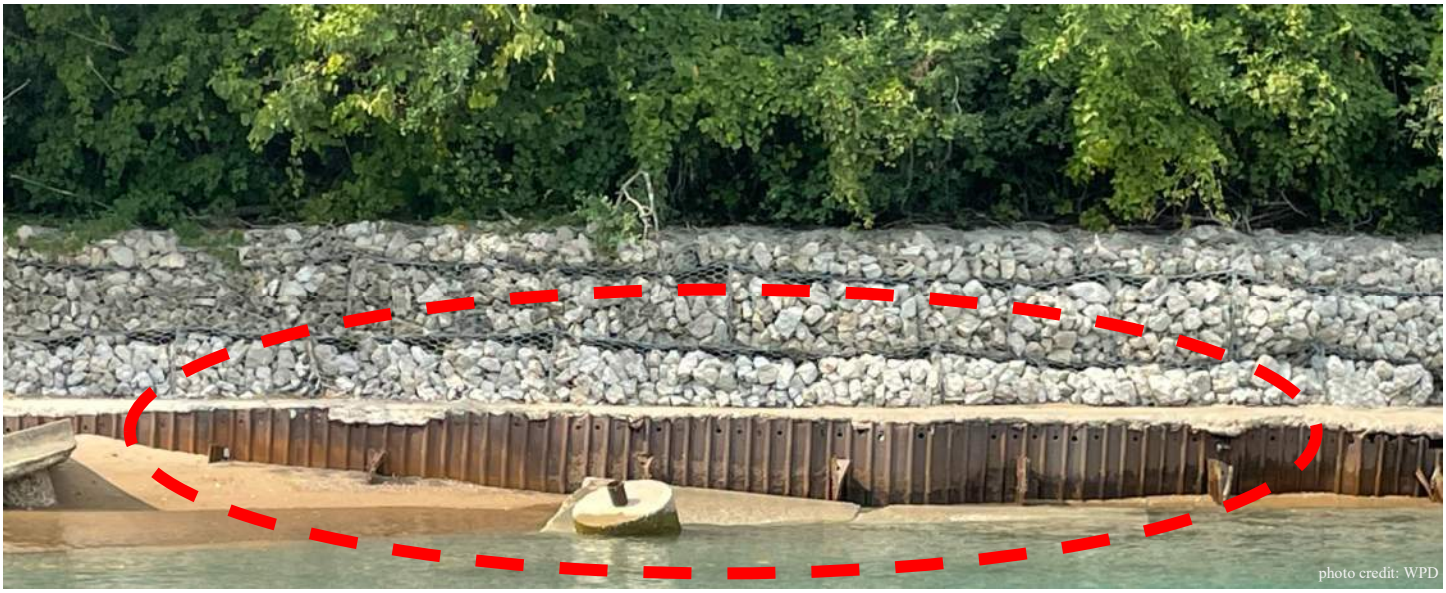
Damaged pier

Damaged gabion baskets

Elder Park and Beach (continued)



Damaged kayak storage rack foundations

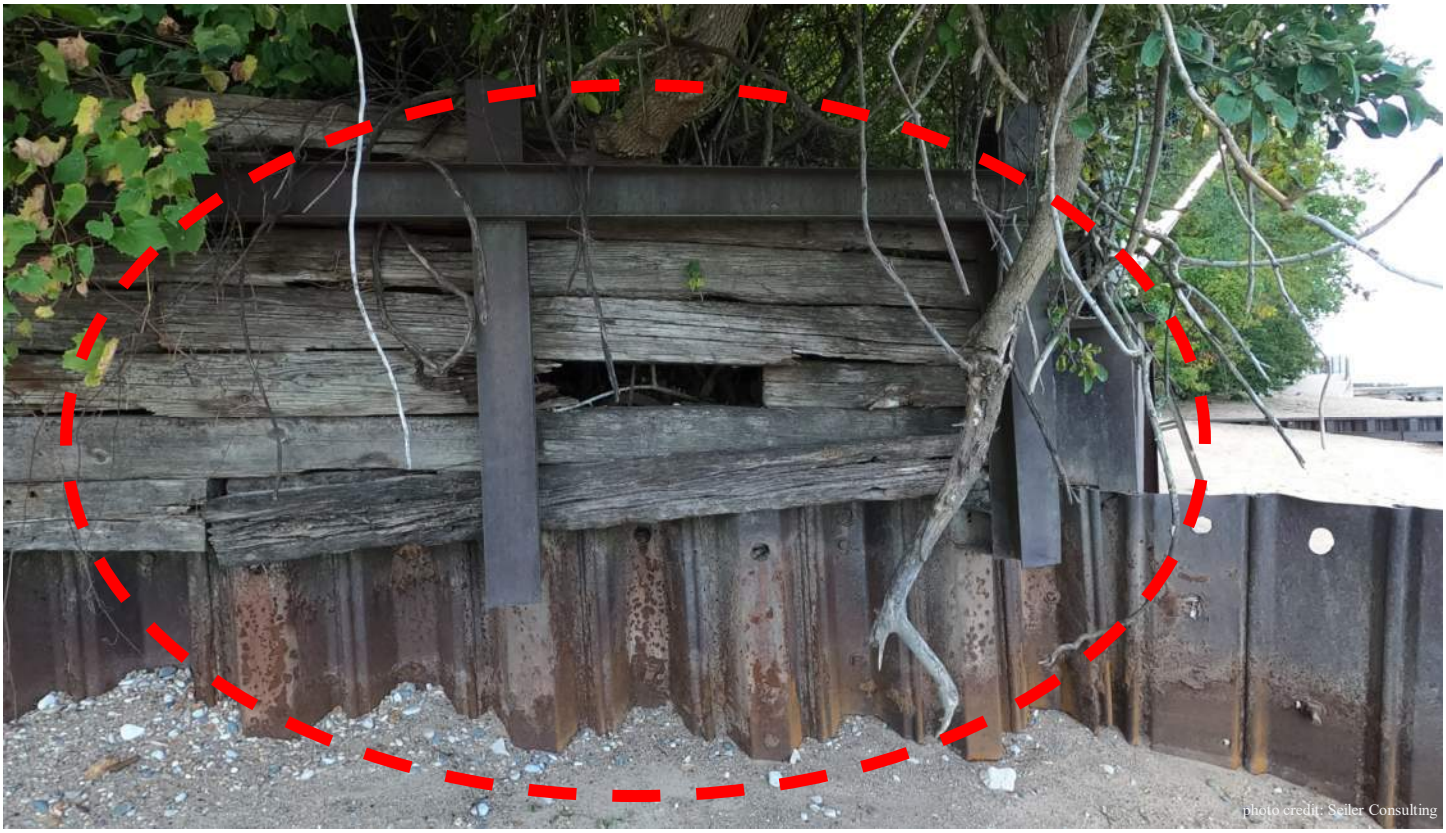


Damaged steel sea wall

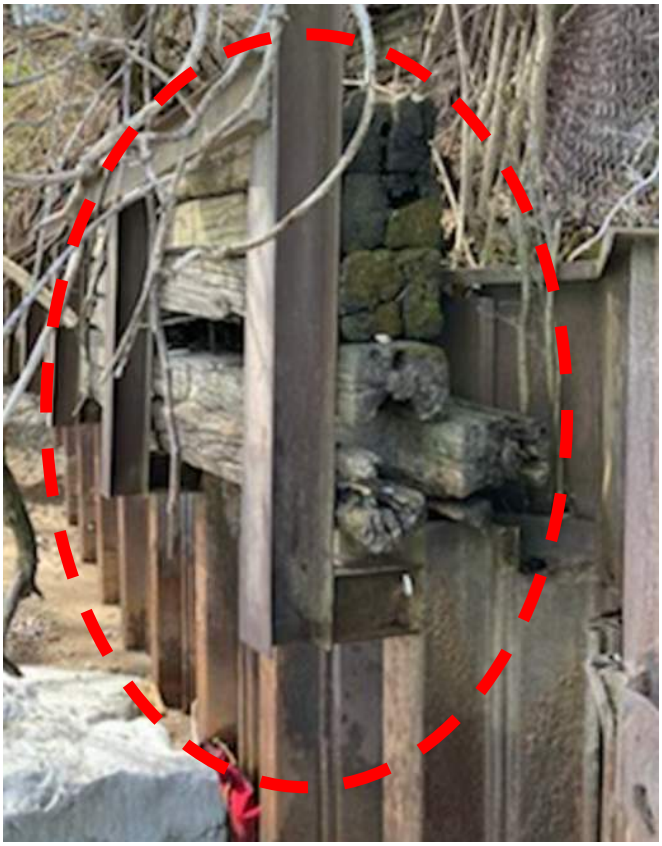
Damaged gabion basket

Spalling concrete sea wall

261 Sheridan Road is a 0.64-acre lakefront property with an existing 5,400 square foot home situated on the eastern portion of the lot. Its steel and timber groins are damaged and failing. The existing steel sheet pile structures on this property prohibit access from Elder to Centennial.



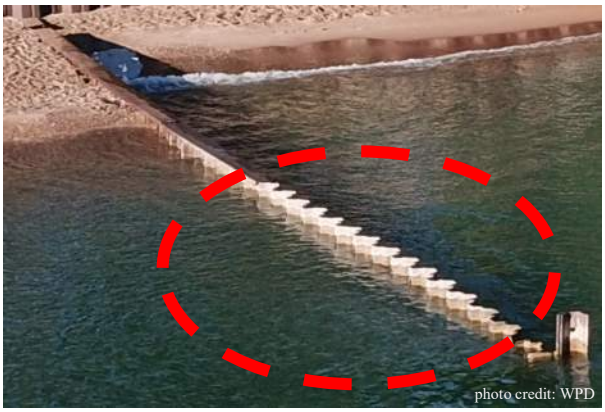
Damaged sea wall



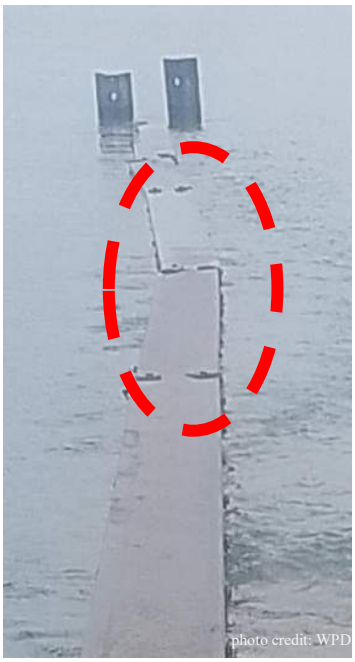
Damaged sea wall

Centennial Park and its 550 feet of shoreline represent the largest and highest quality beach in Winnetka, with a shallow lakebed profile and easy access. The existing steel groins that help hold the beach have deteriorated, are damaged, missing parts and need to be replaced. The beach needs protection against storm surges and high water to prevent future sand washout.

High water and extreme weather conditions have damaged existing infrastructure, causing beach and bluff erosion



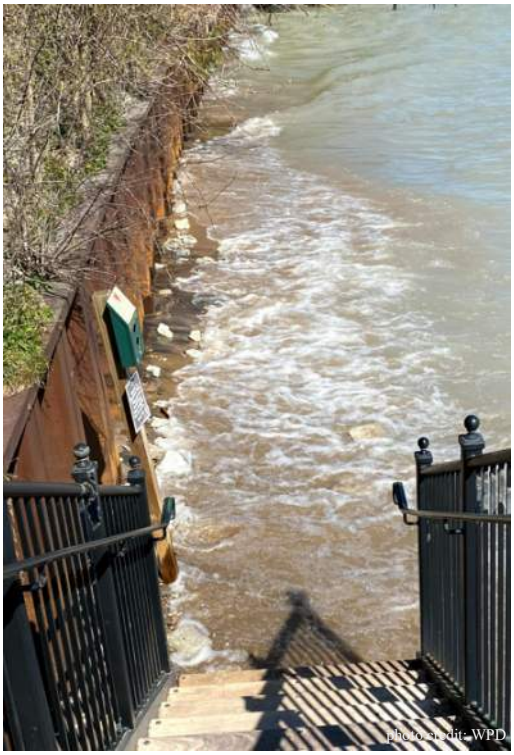
Damaged groin



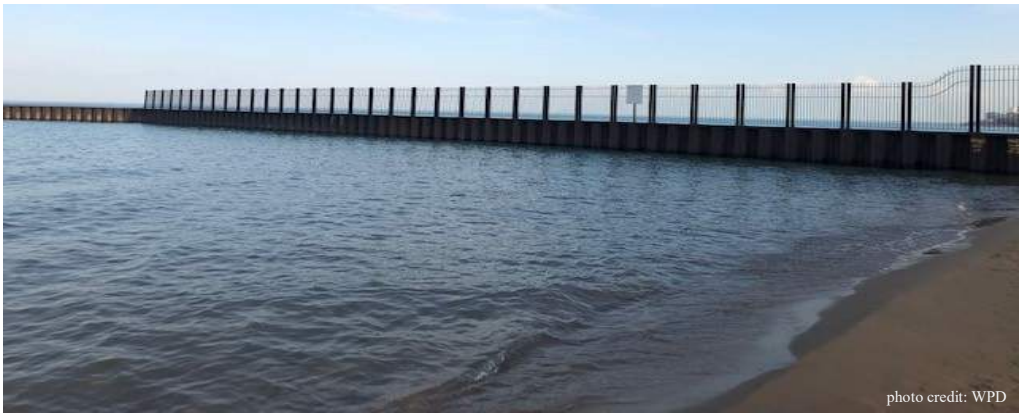
Damaged groin

Centennial Park (continued)

Beach erosion in 2020 meant stairs ended 24” above the beach level

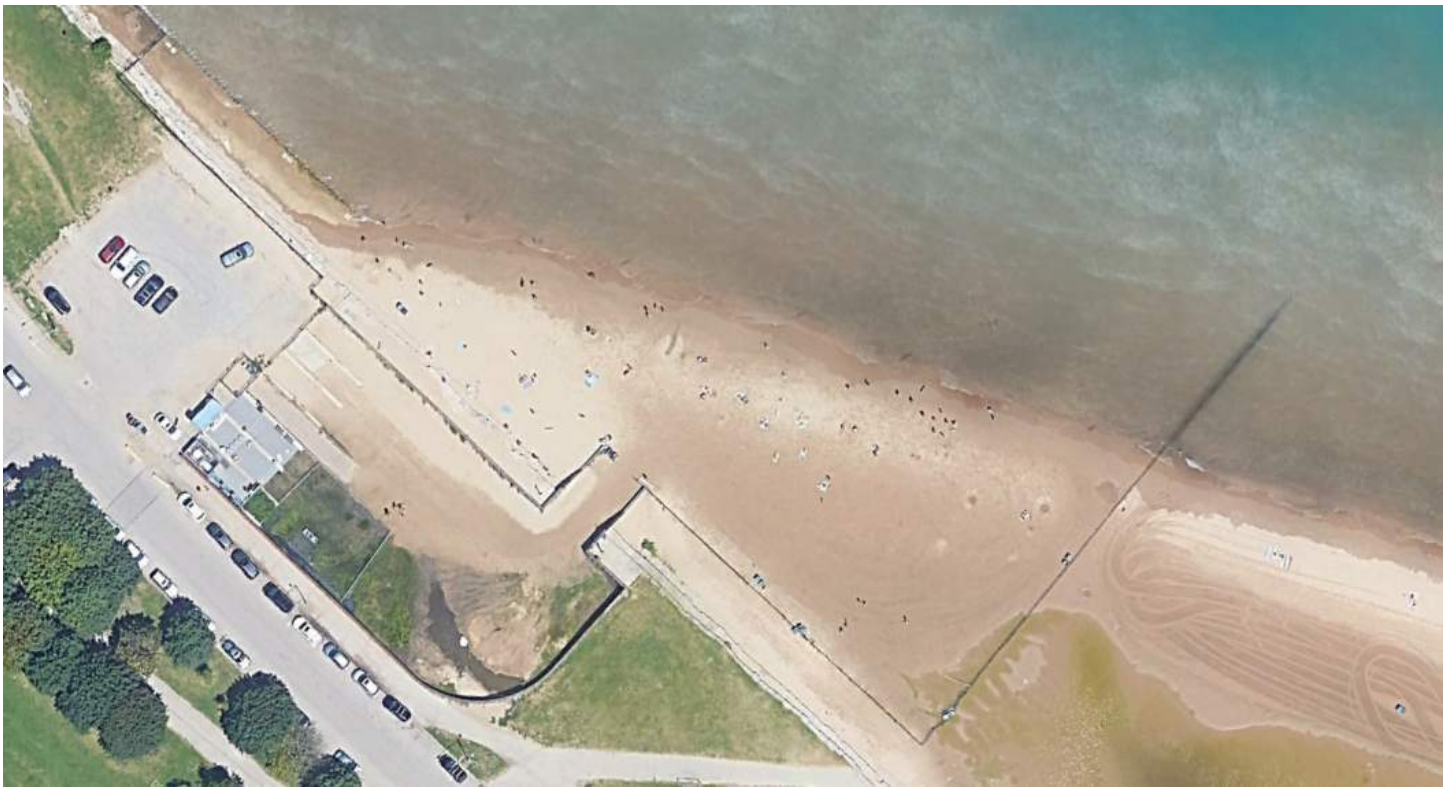


Response to #4 (aesthetics - continued):
Other municipalities have not been as thoughtful or considerate in their solutions to protect beach patrons - and the beach experience is negatively impacted as a result.



Safety measures by other municipalities that are not aesthetically considerate

Response to #9 (access – continued):



Montrose Dog Beach, Chicago

EXISTING PUBLIC PROJECTS with SAFETY STRUCTURES

Glencoe, Beach and Pier

This public beach has a 320’ long pier with a 4-foot-tall white metal safety guardrail along the lakeward sides. This public pier is a shore perpendicular structure that does not have pedestrian access over, across, around, or through it.

Glencoe Beach and Pier (continued)

Kenilworth, Kenilworth Beach

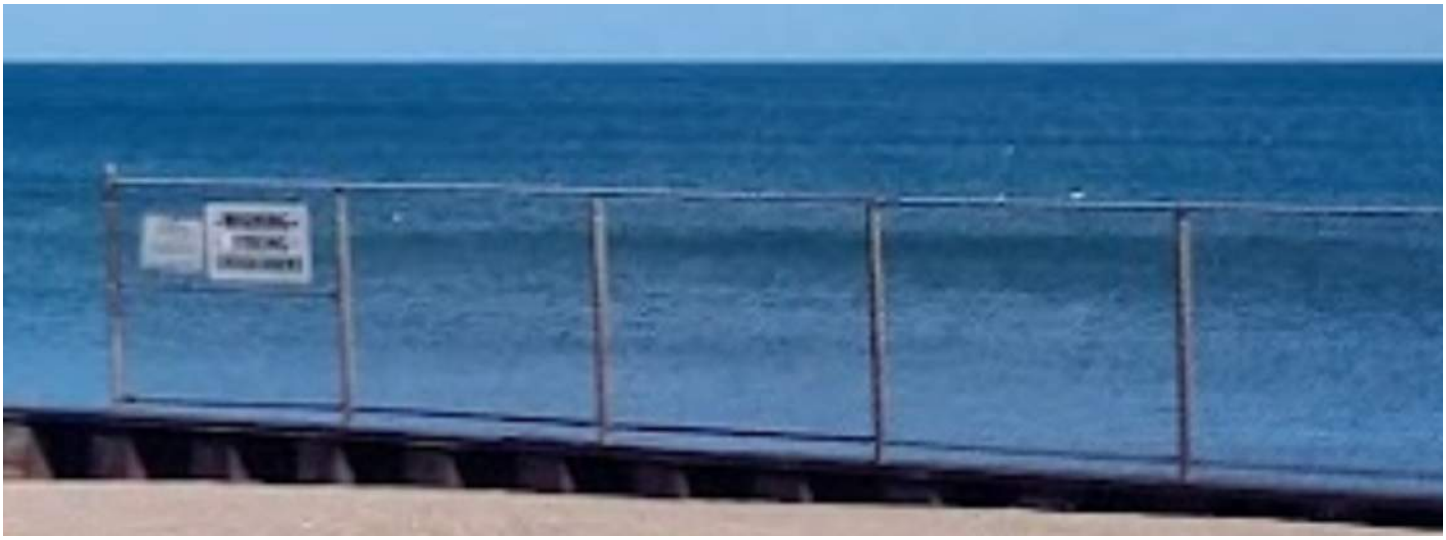
This public beach has a 75-foot-long steel groin with a 4-foot-tall metal chain link fence on top of it that functions as a guardrail. This guardrail protects beach patrons from the fall risk and vertical drop created by the inherent but uneven natural accumulation of sand on the northern and southern faces of a groin – the same safety issue the Park District will face at the New Park and Beach.

This public groin and fence are shore perpendicular structures that do not have pedestrian access over and across them.

Evanston, South Boulevard Beach

This public beach has a 420-foot-long steel groin with a 4-foot tall chain link fence on top of it that functions as a guardrail. This guardrail protects beach patrons from the fall risk and vertical drop created by the inherent but uneven natural accumulation of sand on the northern and southern faces of the groin – the same safety issue the Park District will face at the New Park and Beach.

This public groin and fence are shore perpendicular structures that do not have pedestrian access over and across them.



Evanston, Lee Street Beach

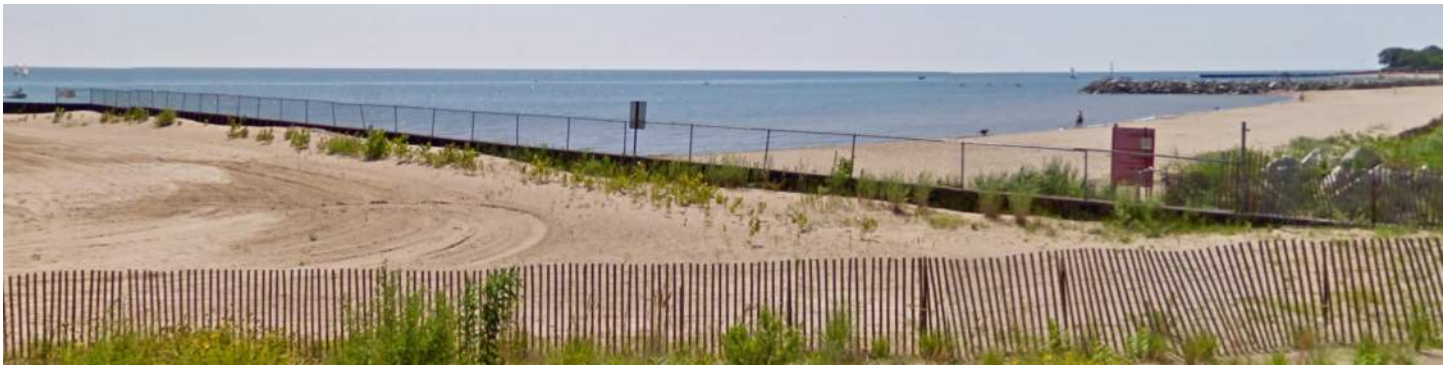
This public beach has a 260-foot-long steel groin with a combination of 6-foot and 8-foot tall metal fence on top of it that functions as a guardrail. This guardrail protects beach patrons from the fall risk and vertical drop created by the inherent but uneven natural accumulation of sand on the northern and southern faces of the groin – the same safety issue the Park District will face at the New Park and Beach.

This public groin and fence are shore perpendicular structures that do not have pedestrian access over and across them.

Evanston, Clark Street Beach

This public beach has a 585-foot-long steel groin with a 4-foot tall chain link fence on top of it that functions as a guardrail. This guardrail protects beach patrons from the fall risk and vertical drop created by the inherent but uneven natural accumulation of sand on the northern and southern faces of the groin – the same safety issue the Park District will face at the New Park and Beach.

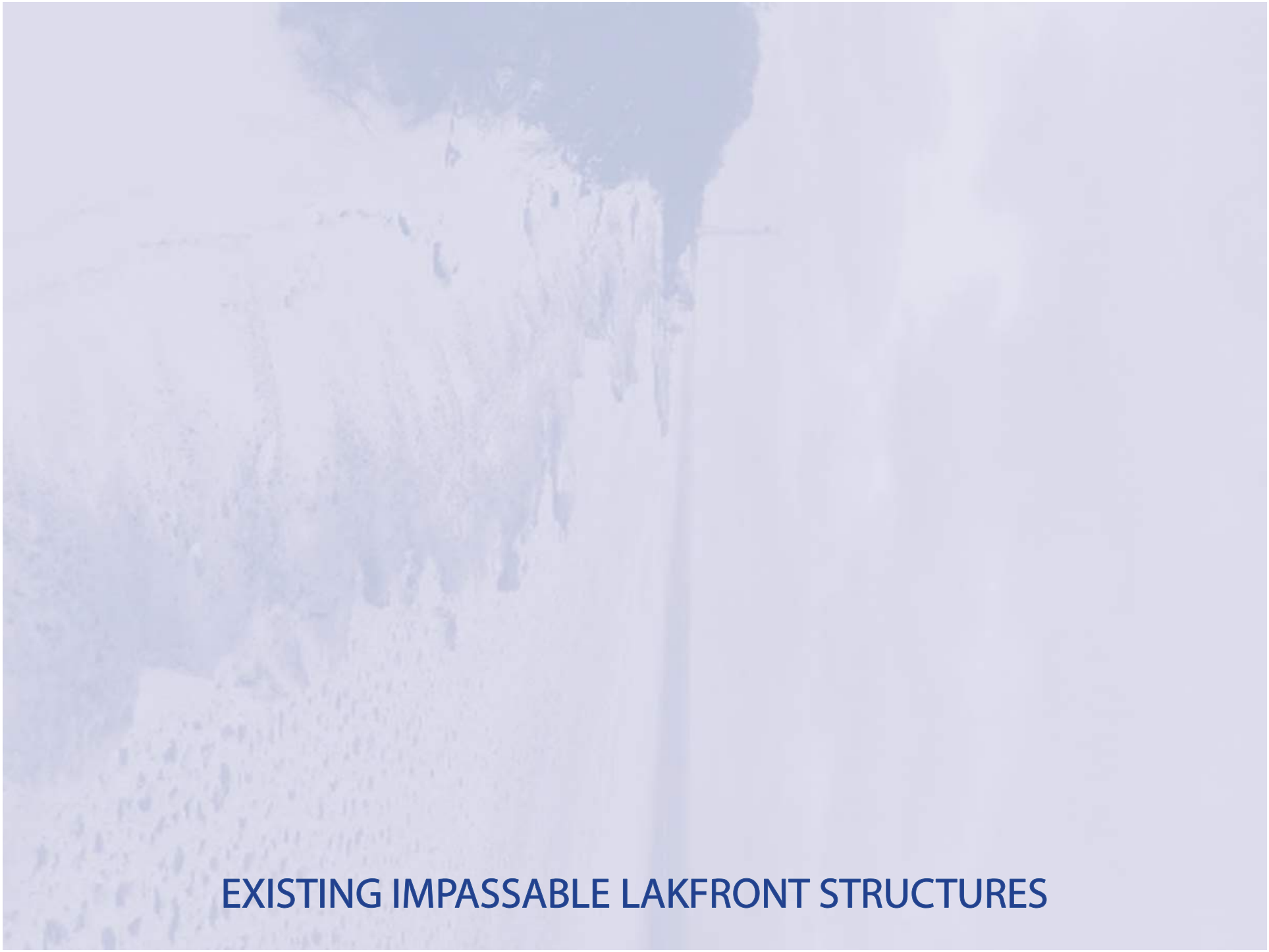
This public groin and fence are shore perpendicular structures that do not have pedestrian access over and across them.



Lake Bluff, Sunrise Beach

This public beach has a 50-foot-long steel groin with a 4-foot-tall metal chain link fence on top of it that functions as a guardrail. This guardrail protects beach patrons from the fall risk and vertical drop created by the inherent but uneven natural accumulation of sand on the northern and southern faces of a groin – the same safety issue the Park District will face at the New Park and Beach.

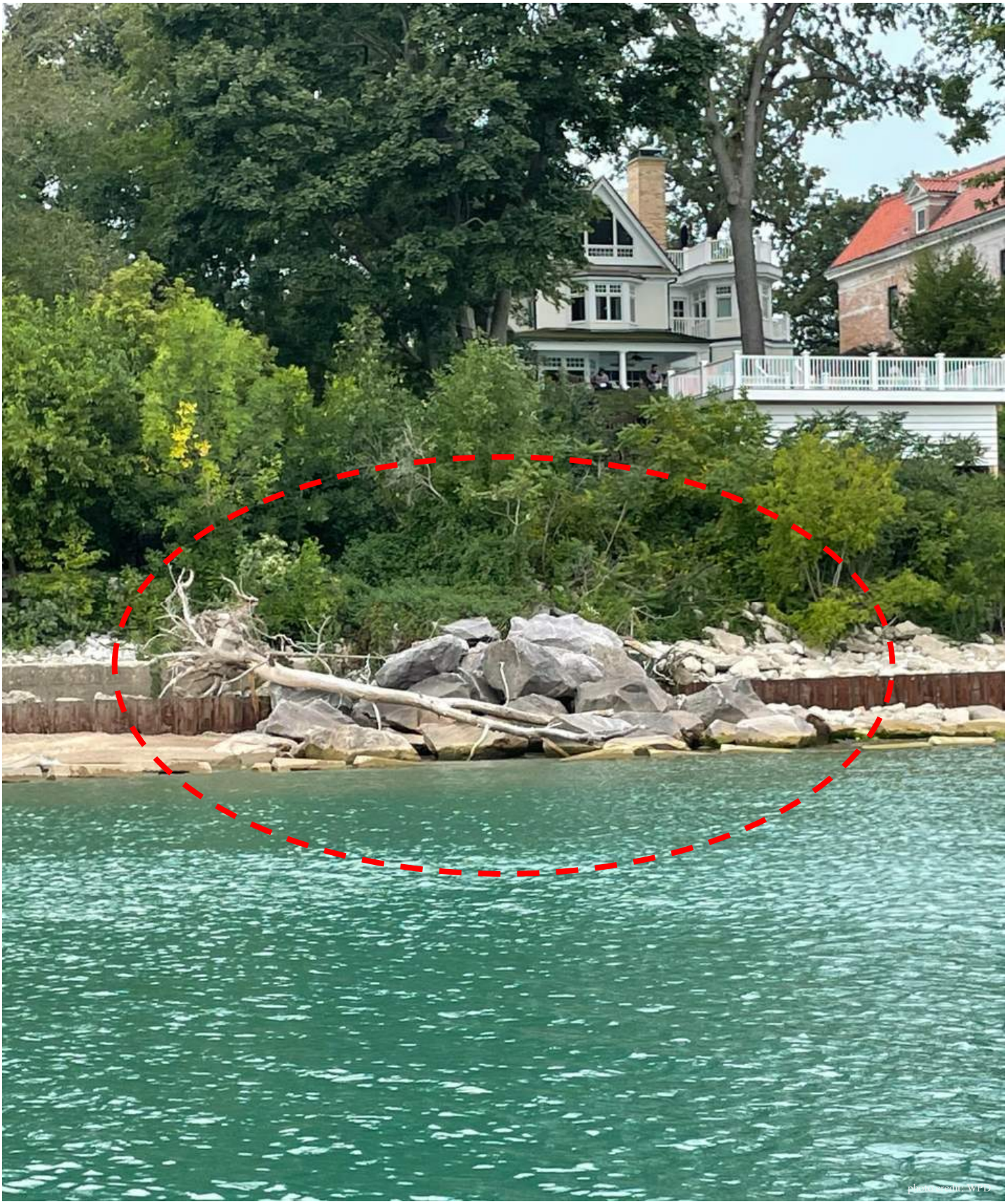
This groin and fence are shore perpendicular structures that do not have pedestrian access over and across them.



EXISTING IMPASSABLE LAKFRONT STRUCTURES

This Village of Winnetka stormwater outfall breakwater completely blocks pedestrian movement along the shoreline.

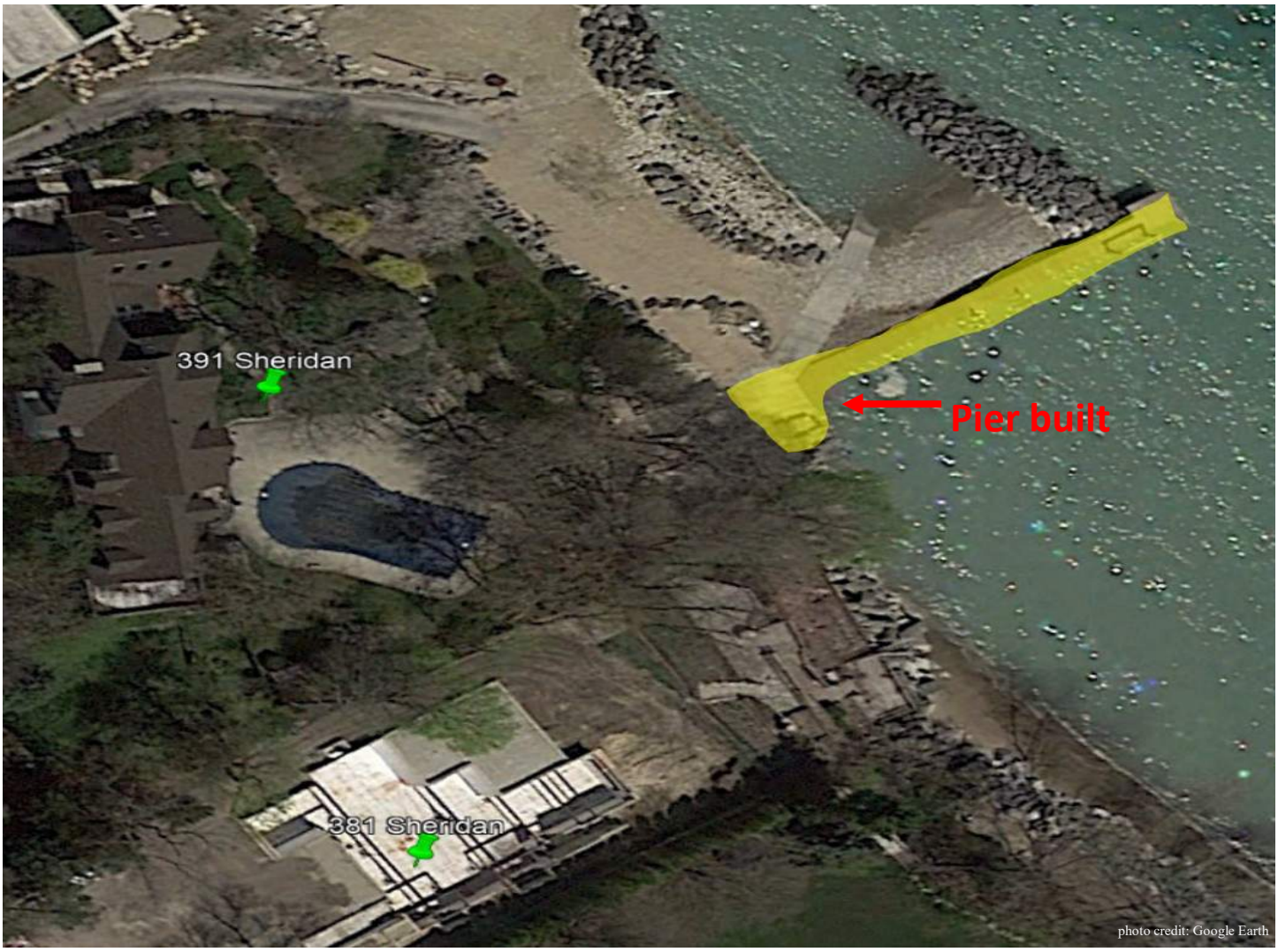
This Village of Winnetka stormwater outfall breakwater completely blocks pedestrian movement along the shoreline.



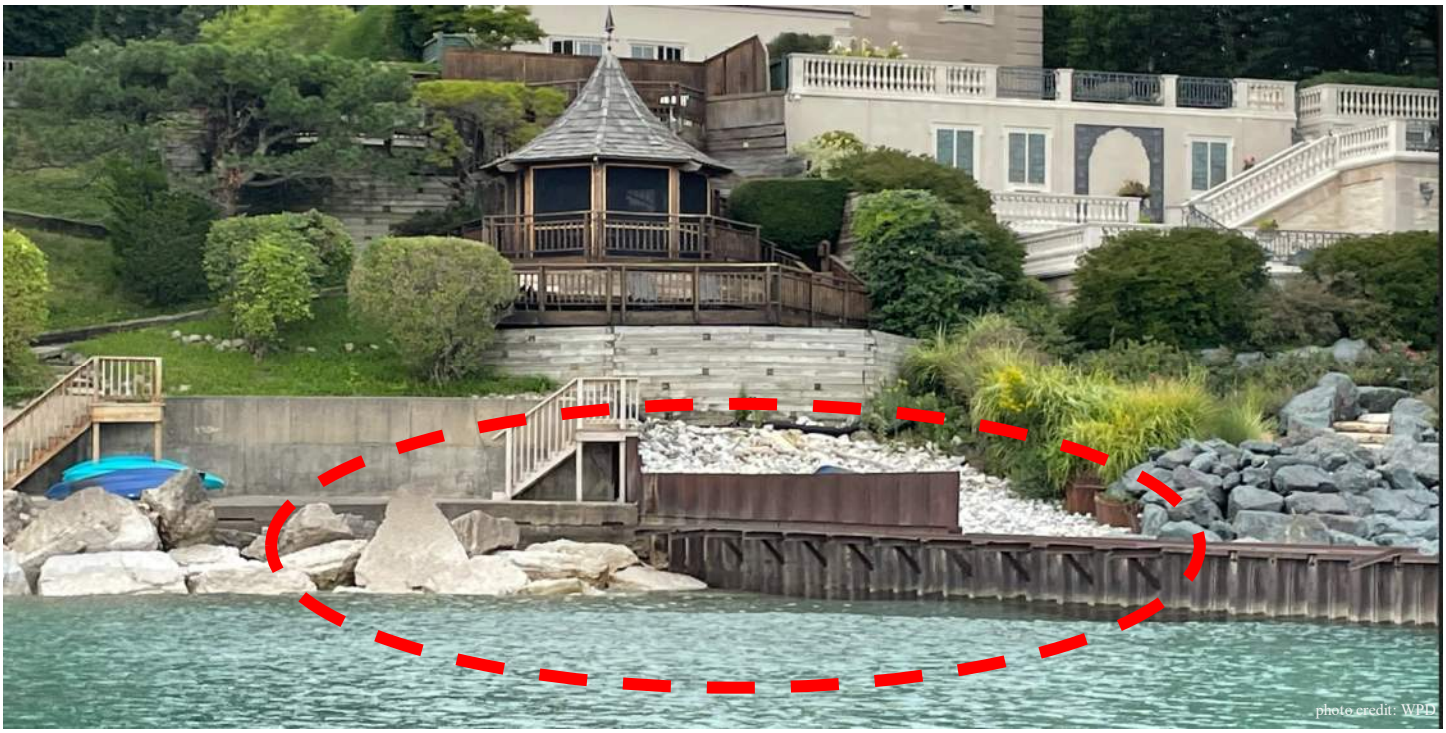
This Village of Winnetka stormwater outfall breakwater and planting pocket completely block pedestrian movement along the shoreline.

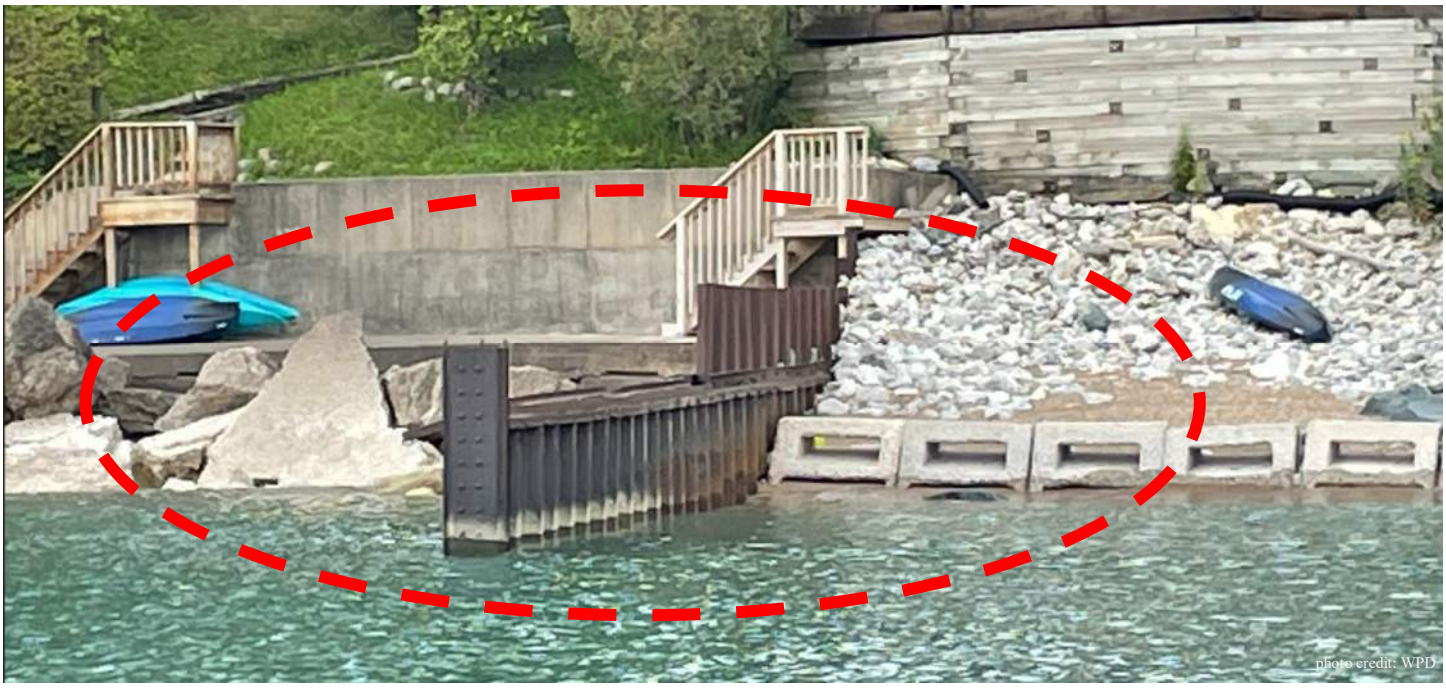
This section of shoreline has multiple structures that completely block pedestrian movement along the shoreline.

The private pier is approximately 54” above the current water line and completely blocks pedestrian movement along the shoreline.



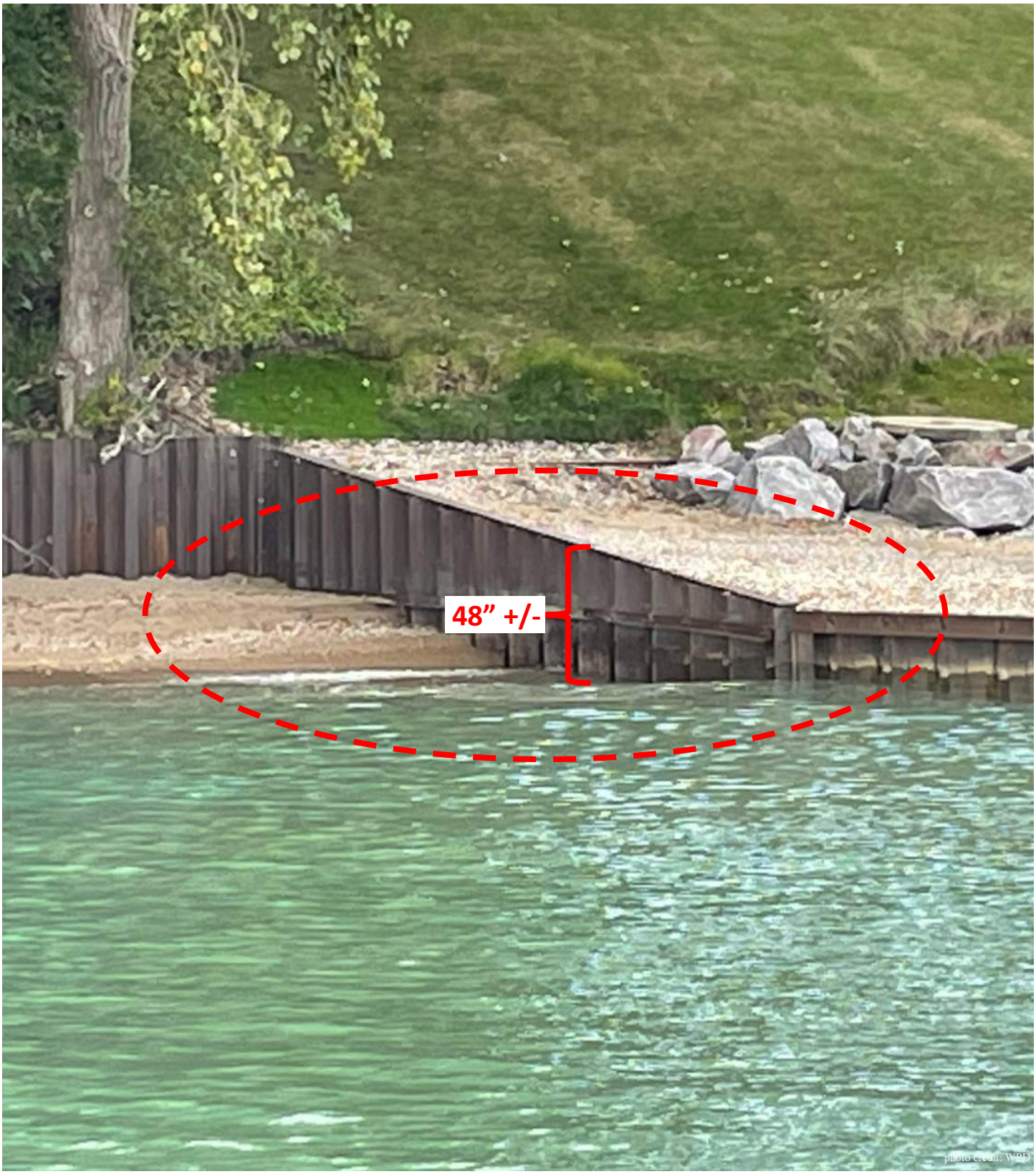
This section of shoreline has multiple structures that completely blocks pedestrian movement along the shoreline.





2013 water line
480 Sheridan
473 Sheridan
photo credit: Google Earth

The top of the groin is approximately 48” above the water line on the south face. This structure blocks pedestrian movement along the shoreline. Furthermore, this structure presents a fall risk for any pedestrian who should attempt to move along the shoreline from north to south.


48” +/-
photo credit: WPD

This breakwater and groin completely block pedestrian movement along the shoreline.

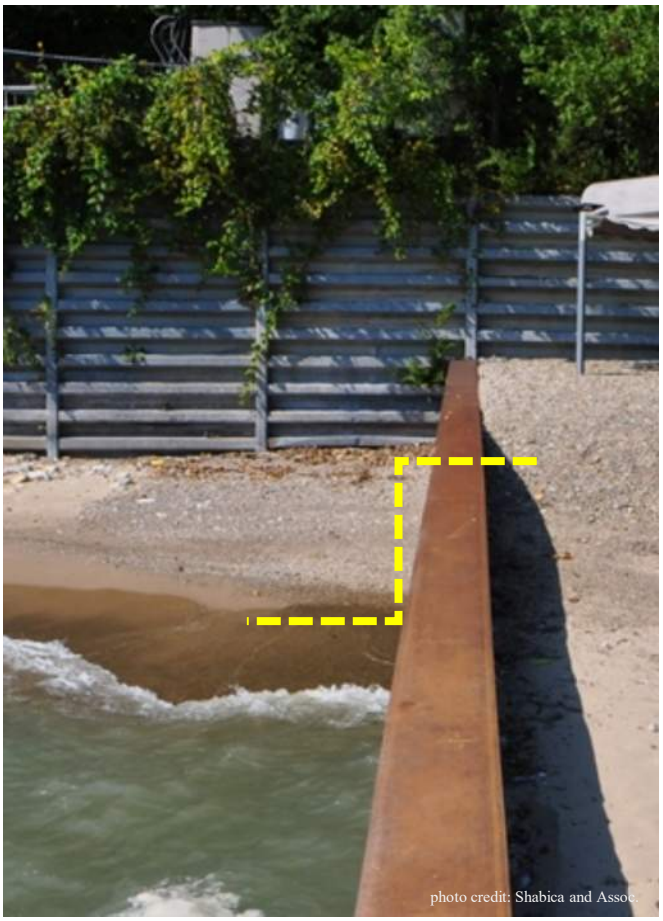
photo credit: WPD

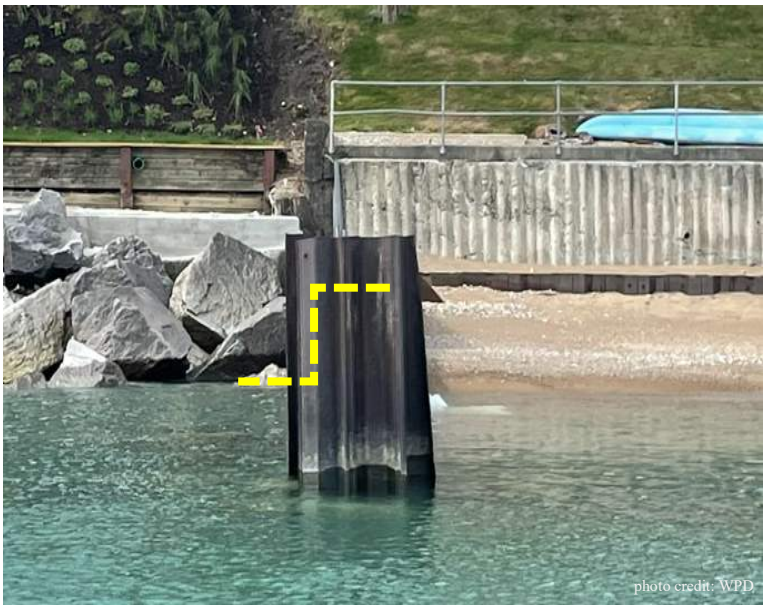
SAFETY CONCERNS OUTSIDE the PROJECT

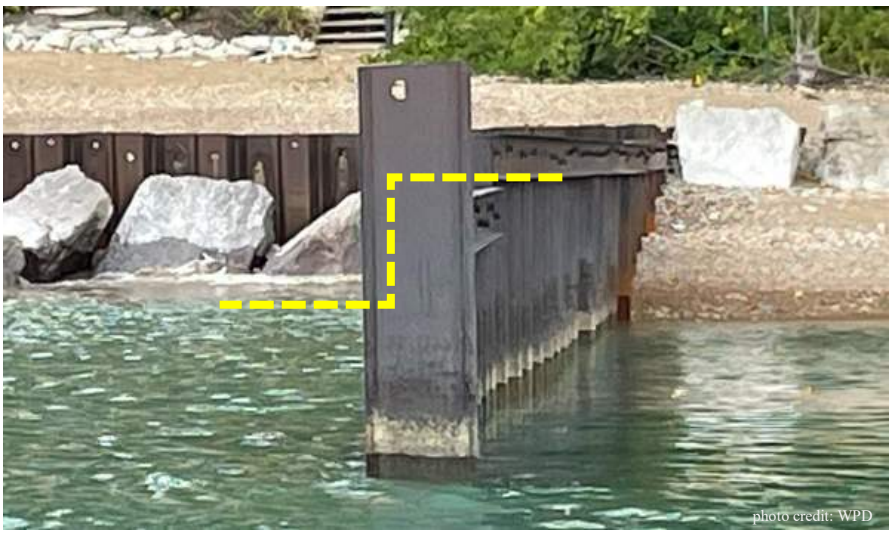
Safety for all patrons is paramount of importance in the project. The Park District wants all users to embrace the New Park and Beach and comfortably enjoy the improved facilities. Paramount to this effort is assuring all users they are safe and secure while on site, and clearly indicating the edges of the park. There are many safety concerns outside park boundaries - over which the Park District has no control.

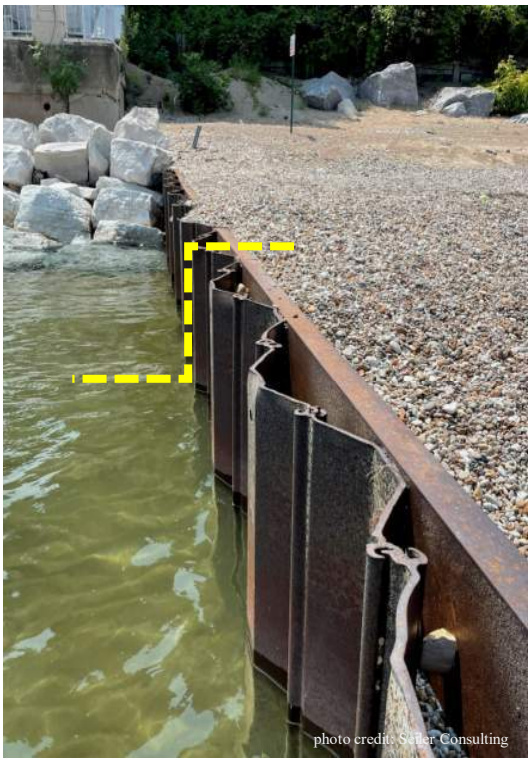
Concern #1 – Fall Risk

The Park District understands through time and because of storm events, large amounts of sand will move and create unsafe conditions (including substantial grade change) on opposite sides of groins which create fall hazards. The proposed groin extension guardrail will function as a safety railing, protecting users from falling over this edge.







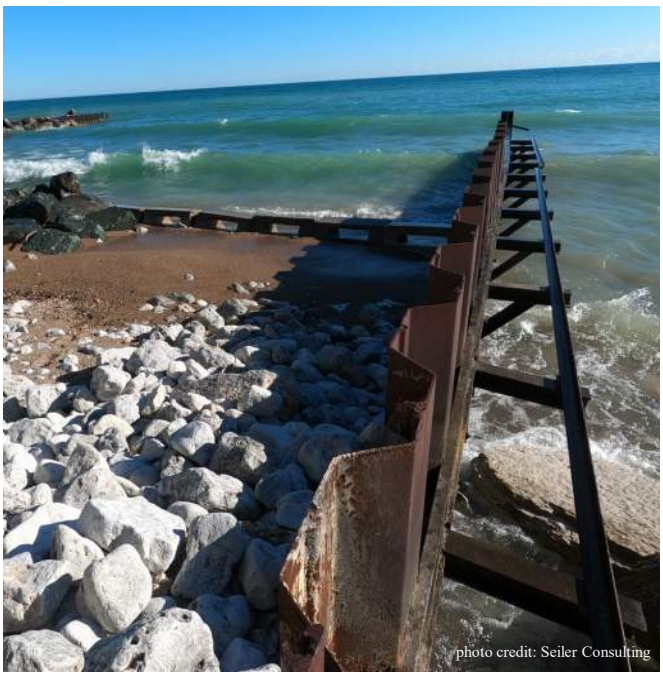


Concern #1 – Fall Risk (continued)

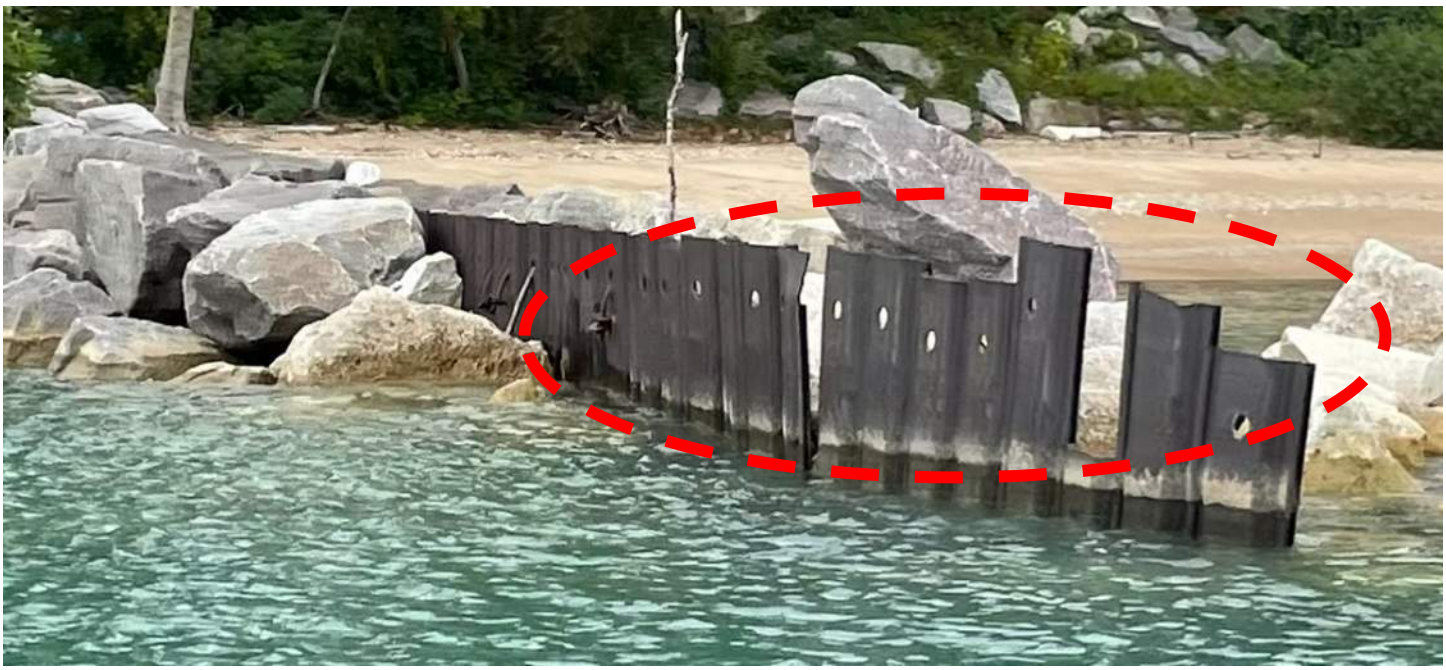
Concern #1 – Fall Risk (continued)

Concern #2 – Physical Hazards

The shoreline to the north and south has hazardous conditions from which the Park District must protect its patrons. Unsafe rock formations, damaged sharp steel groin sections and unmaintained major debris are present in both directions. The Park District seeks to avoid needing to defend themselves should a beach patron, wandering from the beach and encountering one of these items, get injured.

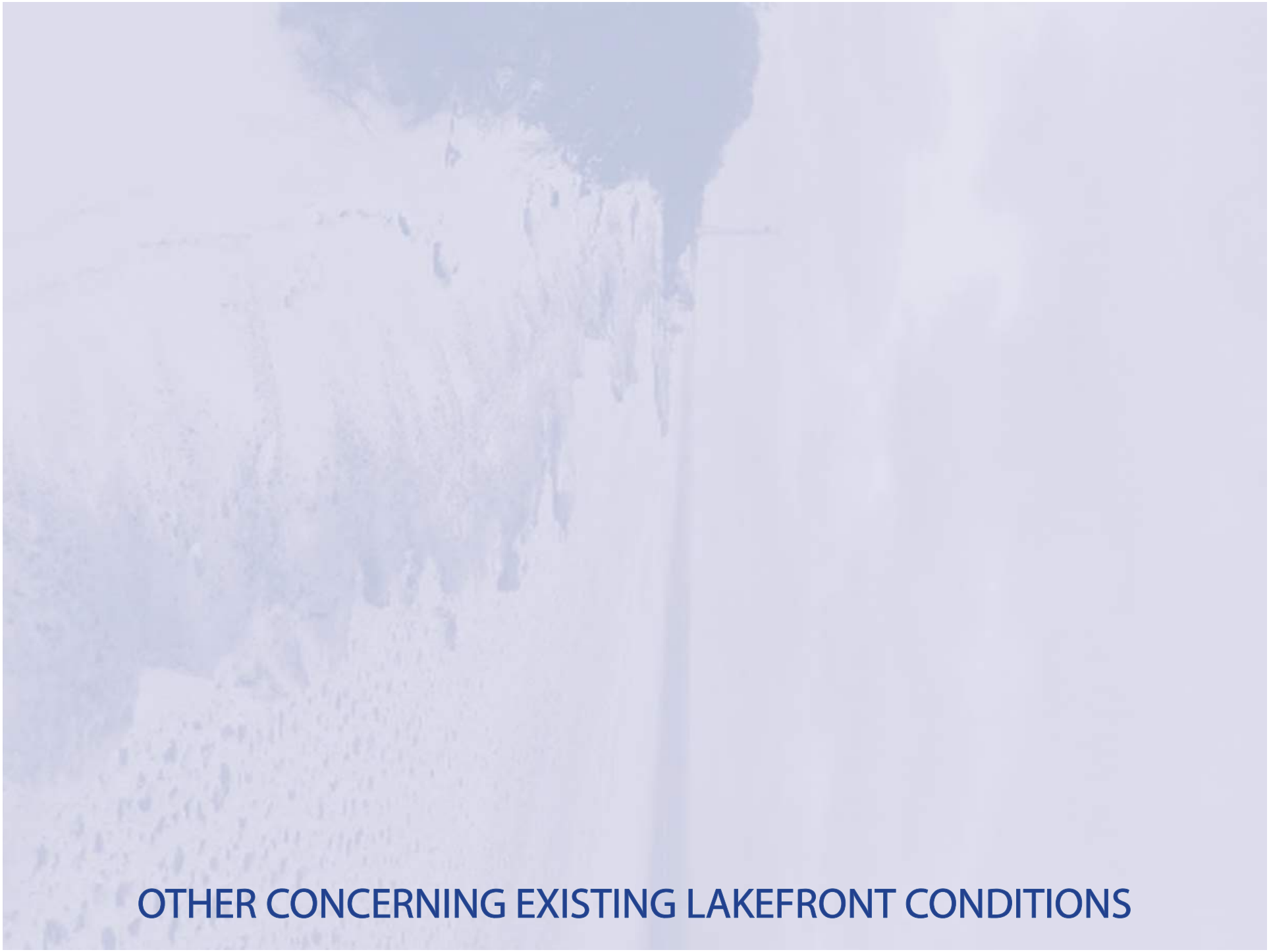


Concern #2 – Physical Hazards (continued)



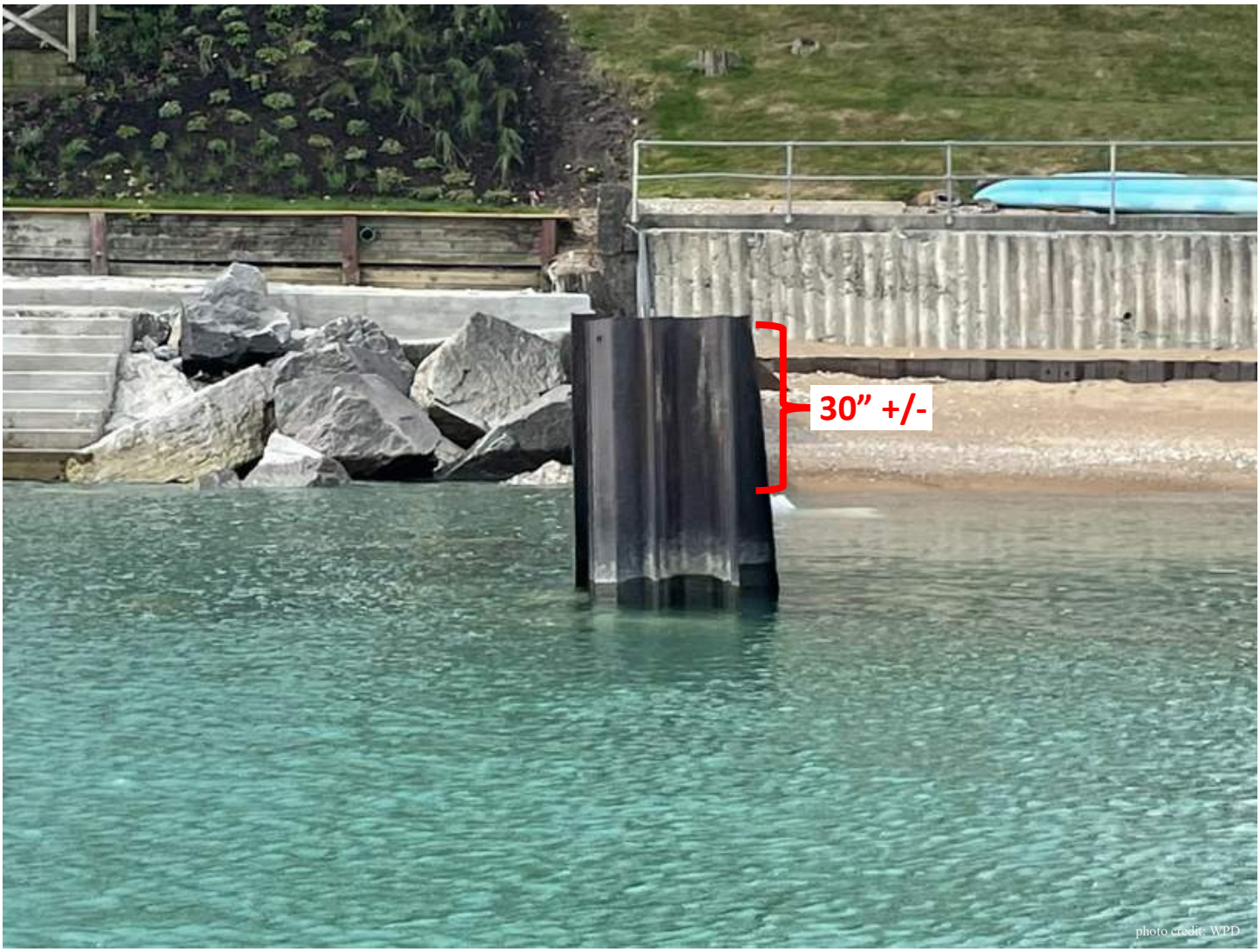
Concern #3 – Dangerous pathways

In multiple locations up and down the shorelines, lakefront users are subject to significant obstacles and structures which significantly inhibit safe movement. Again, the Park District seeks to keep park patrons safe and free from injury. The planting pockets and groin extensions will encourage patrons to safely enjoy the beach and amenities the New Park and Beach offers.



OTHER CONCERNING EXISTING LAKEFRONT CONDITIONS

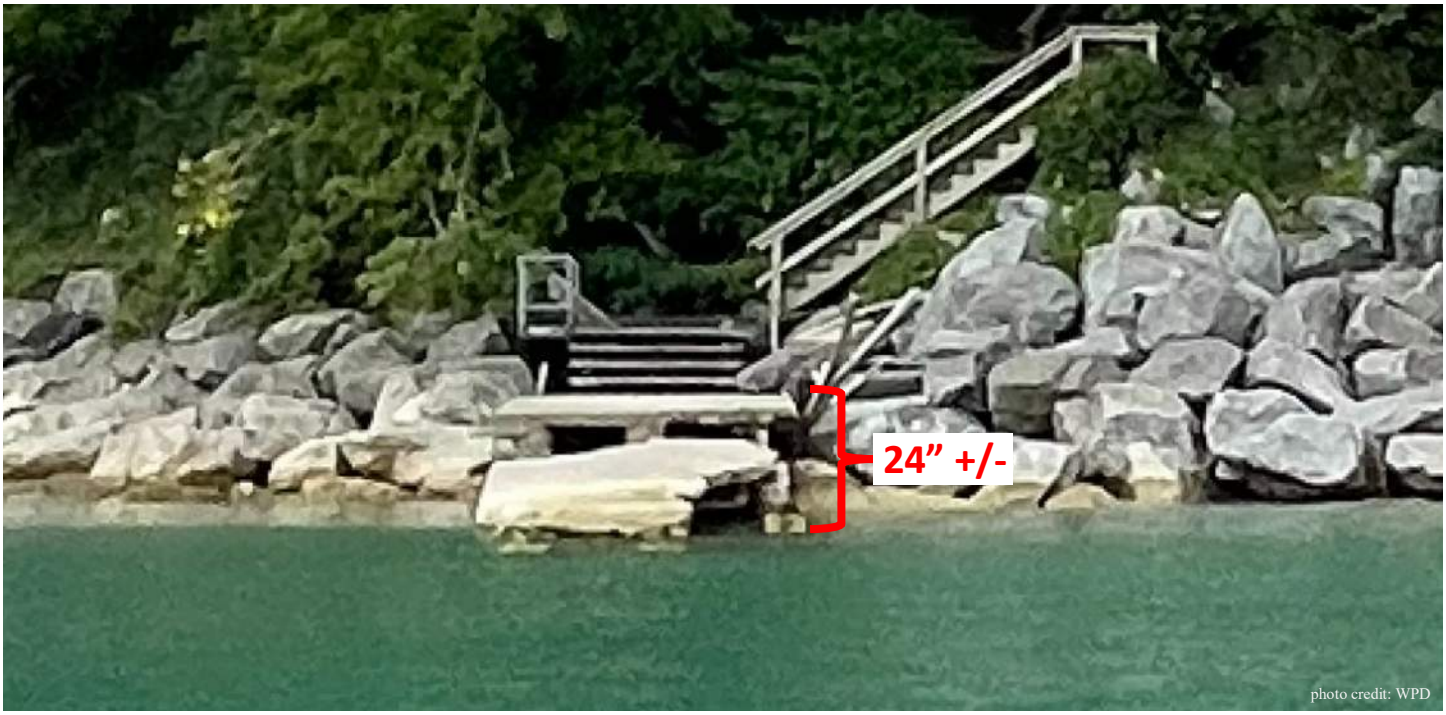
The top of the groin is approximately 30” above the water line on the north face. This structure blocks pedestrian movement along the shoreline. A pedestrian would need to scale this unsafe structure in order to safely walk the beach below the OHWM.

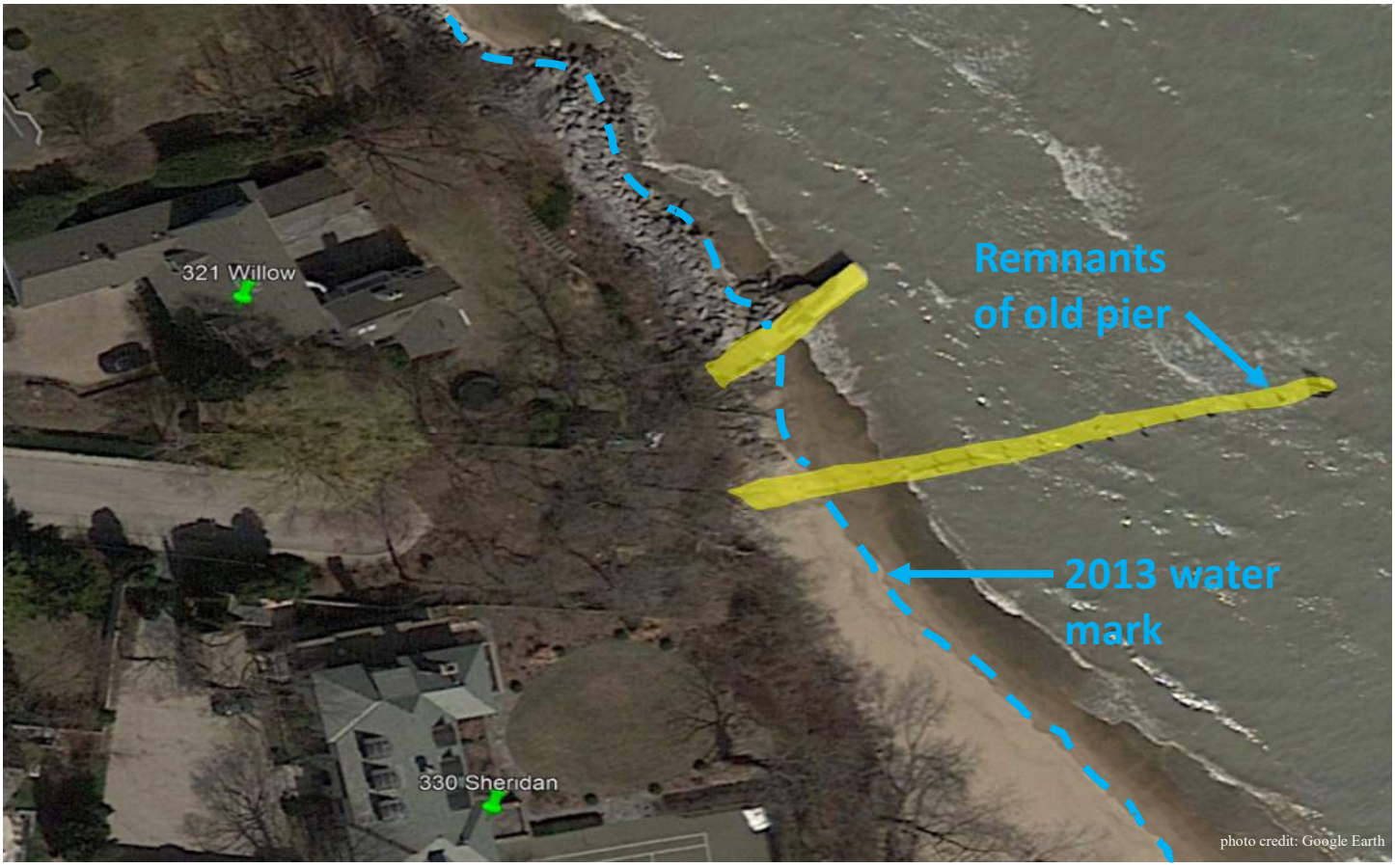


The top of the private pier is approximately 30” above the beach grade at the water line. This structure blocks pedestrian movement along the shoreline. A pedestrian would need to scale this structure in order to safely walk the beach below the OHWM. Furthermore, this structure presents a fall risk for any pedestrian who should attempt to scale it. Even when the lake level was low in 2013, the pier blocked pedestrian movement along the shoreline.

The top of the groin is approximately 30” above the water line on the south face. This structure blocks pedestrian movement along the shoreline. A pedestrian would need to scale this unsafe structure in order to safely walk the beach below the OHWM.

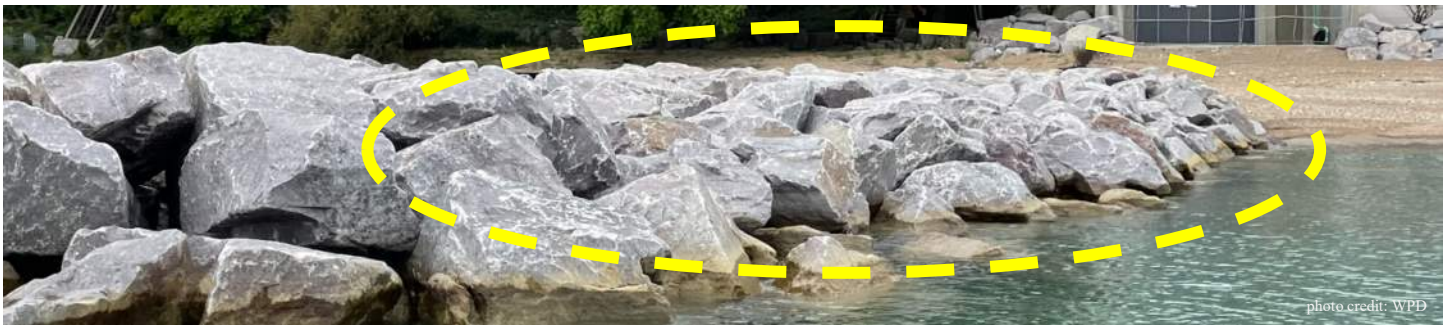
The top of this damaged private pier is approximately 24” above the beach grade at the water line. This structure blocks pedestrian movement along the shoreline. A pedestrian would need to scale this structure in order to safely walk the beach below the OHWM. Even when the lake level was low in 2013, the pier blocked pedestrian movement along the shoreline. In addition, there are scattered remnants of an old pier which are only visible during low lake levels – these are dangerous under foot.

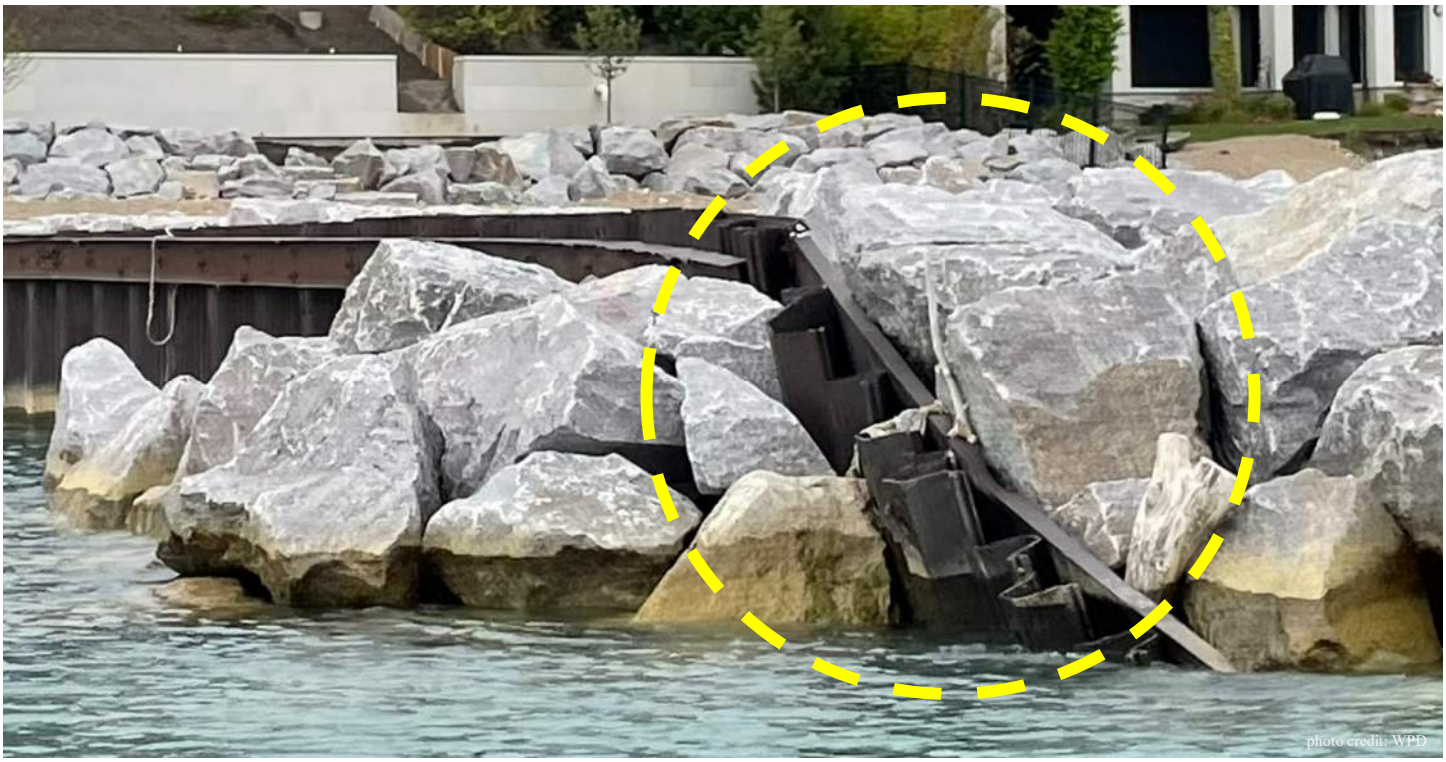




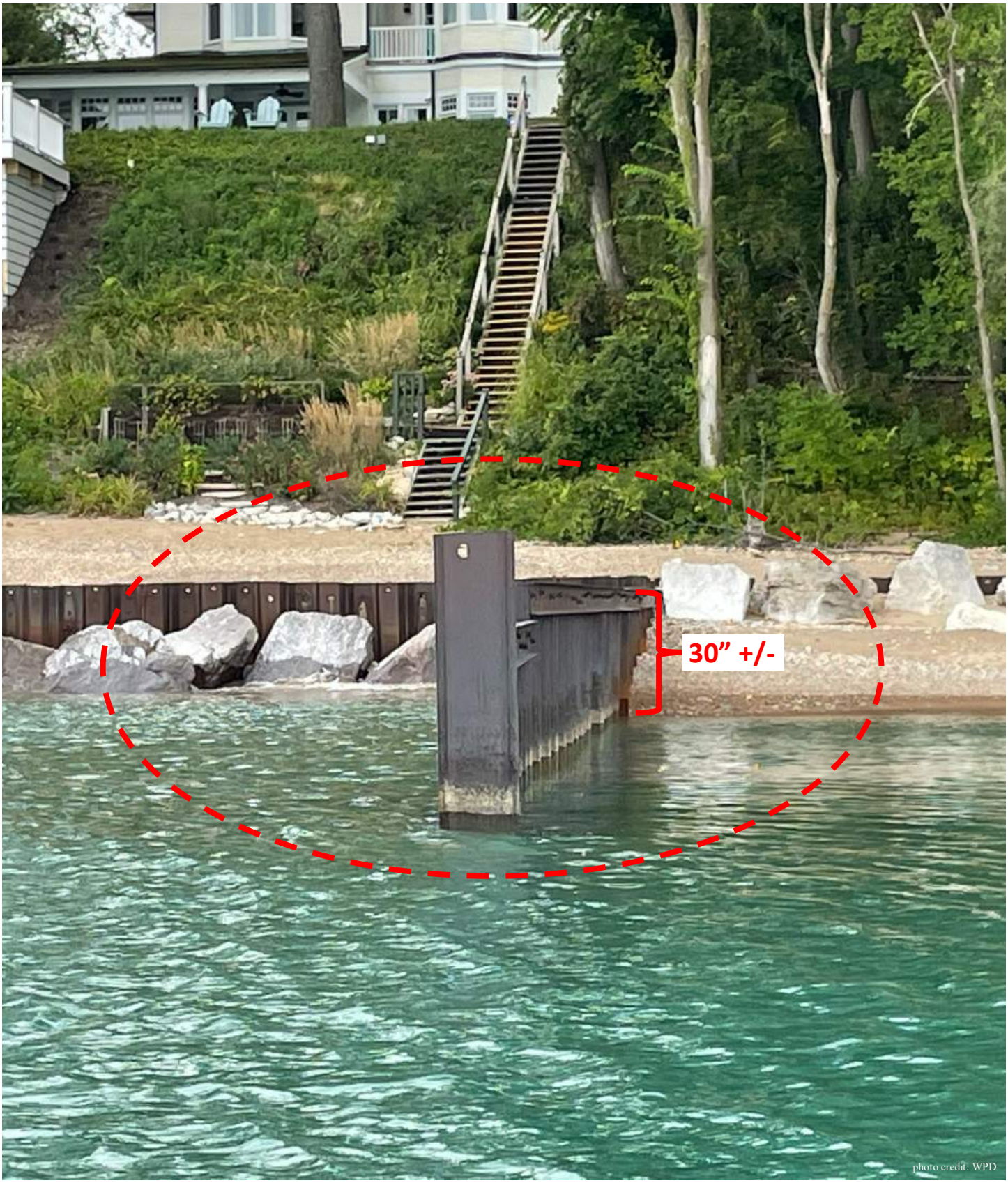
The top of the groin is approximately 24” above the water line on the south face. This structure blocks pedestrian movement along the shoreline. A pedestrian would need to scale this unsafe structure in order to safely walk the beach below the OHWM.

The top of the groin is approximately 36” above the waterline on the south face. This structure blocks pedestrian movement along the shoreline. A pedestrian would need to scale this unsafe structure in order to safely walk the beach below the OHWM. Additionally, there are stones on the north side of the groin, making climbing up and over even more treacherous. The steel groin is damaged and has been displaced by the stone revetment.





The top of the groin is approximately 30” above the water line on the north face. This structure blocks pedestrian movement along the shoreline. A pedestrian would need to scale this unsafe structure in order to safely walk the beach below the OHWM.



667 Sheridan

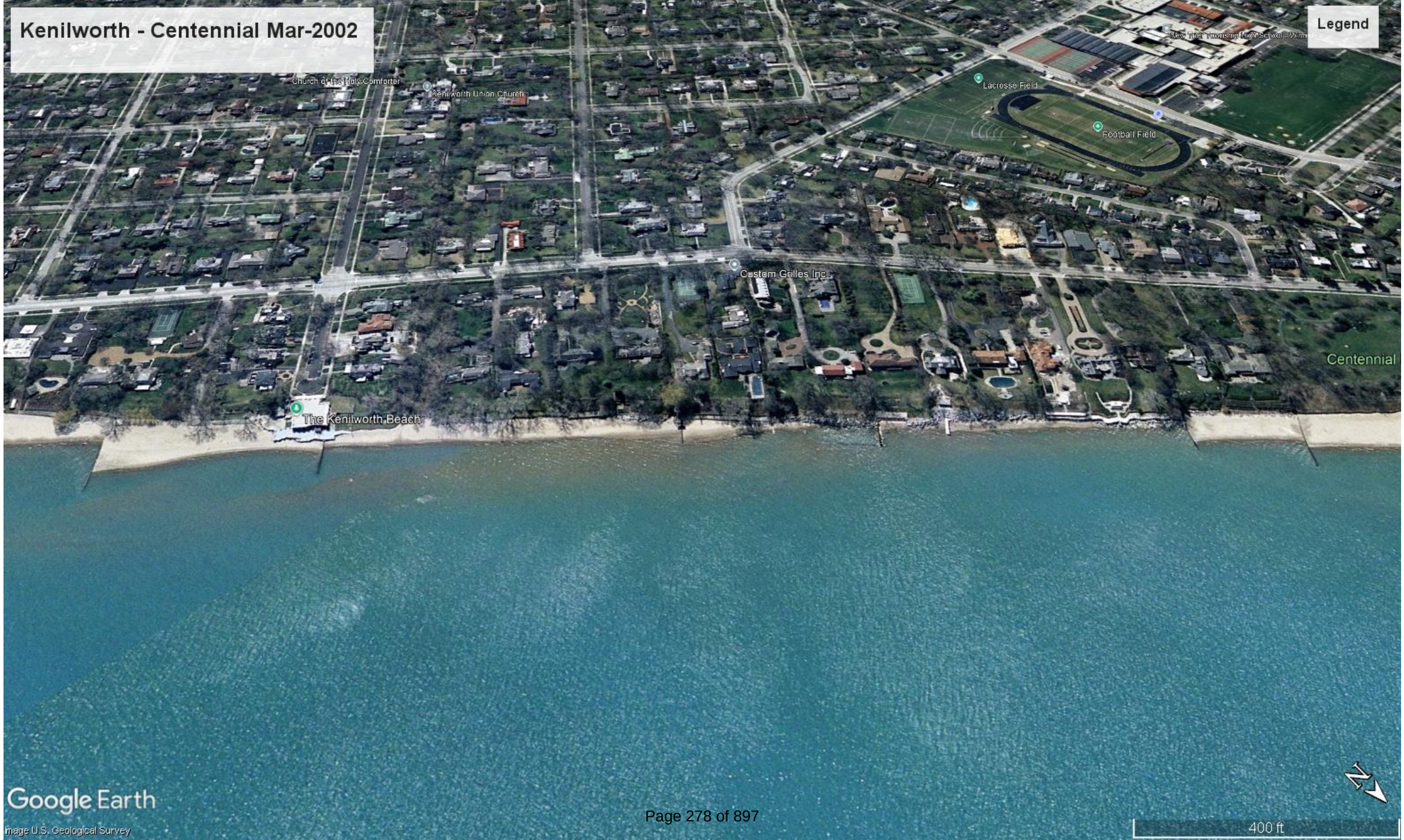
The top of this pier is approximately 30” above the water line on the north face. This structure, in addition to the fence, blocks pedestrian movement along the shoreline. Furthermore, this structure presents a fall risk for any pedestrian who should attempt to move along the shoreline from north to south.

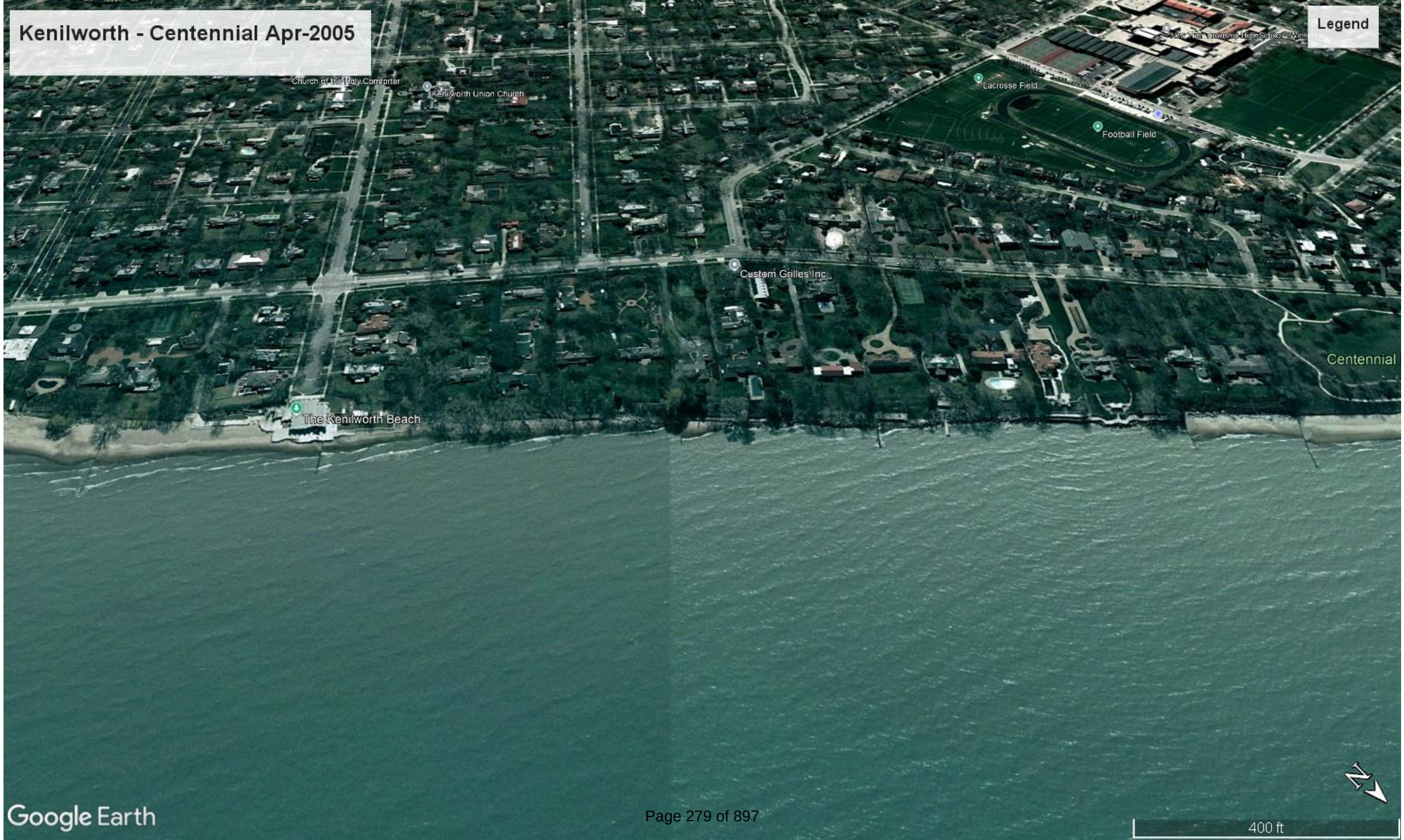
Exhibit 9

Lake Michigan Shoreline

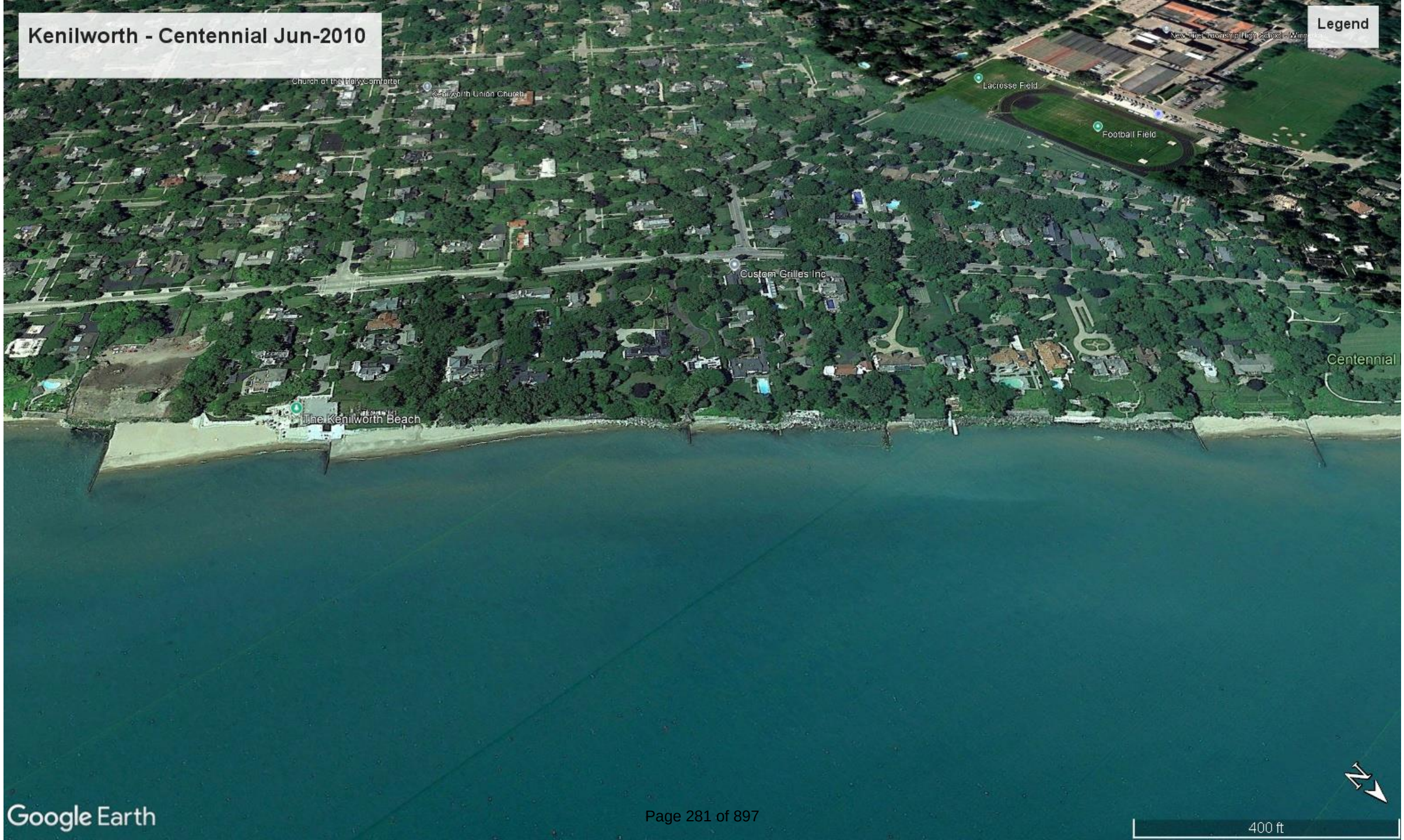
Kenilworth Beach to Centennial Beach

2002-2024

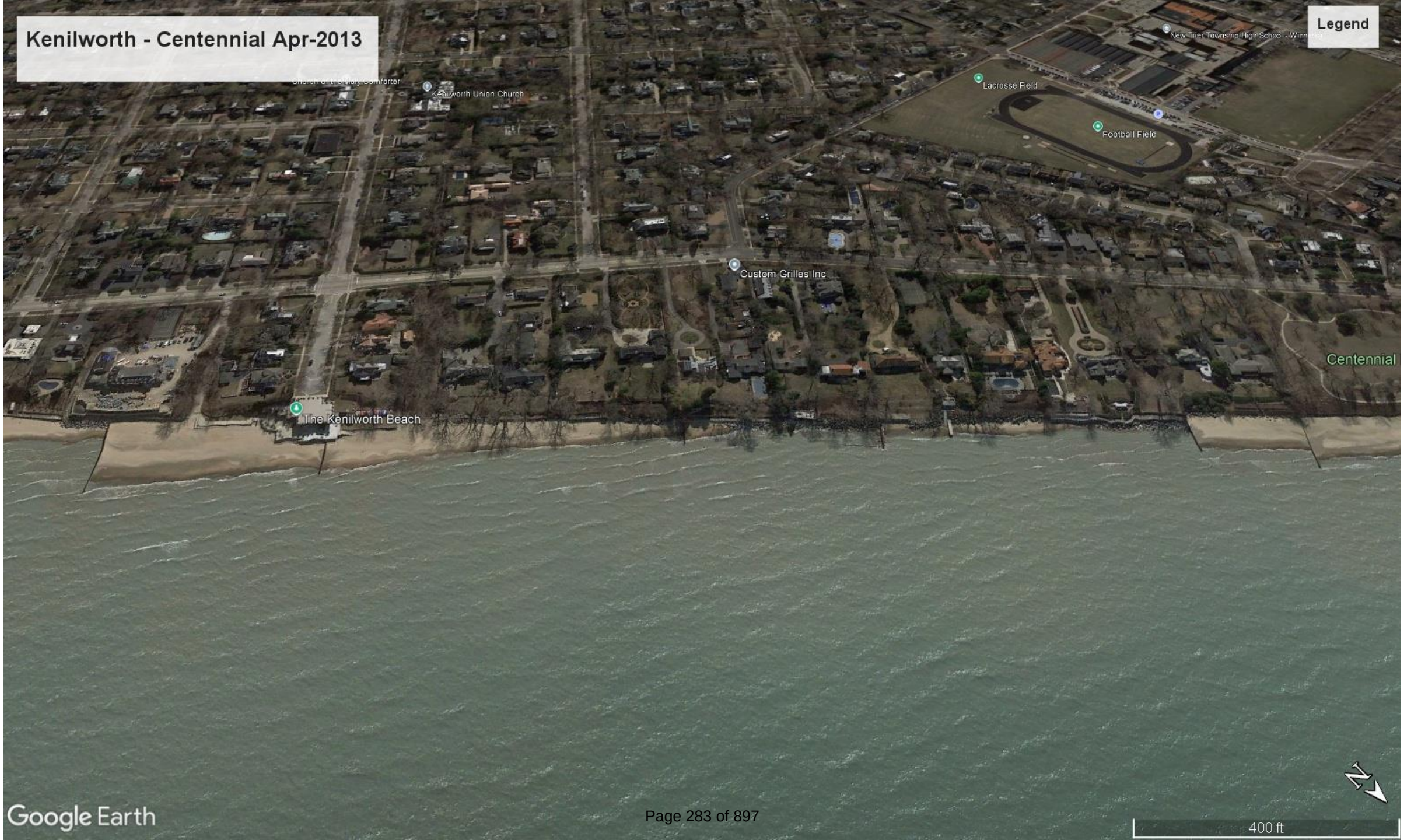

Kenilworth - Centennial Mar-2002
Legend
Church of the Holy Comforter
Kenilworth Union Church
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial
The Kenilworth Beach
Google Earth
Image U.S. Geological Survey
400 ft

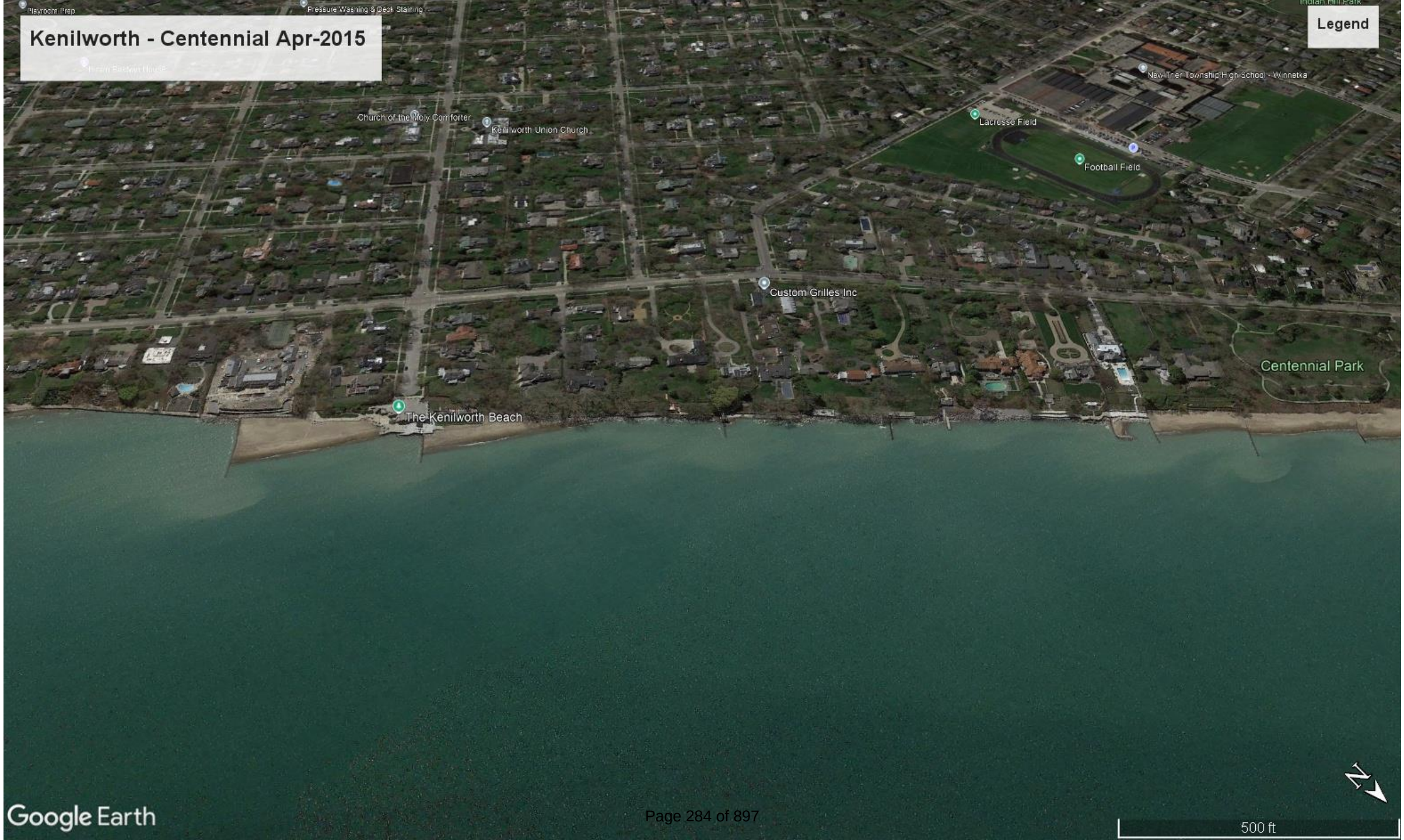

Kenilworth - Centennial Apr-2005
Legend
Church of the Holy Comforter
Kenilworth Union Church
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial
The Kenilworth Beach
Google Earth
400 ft

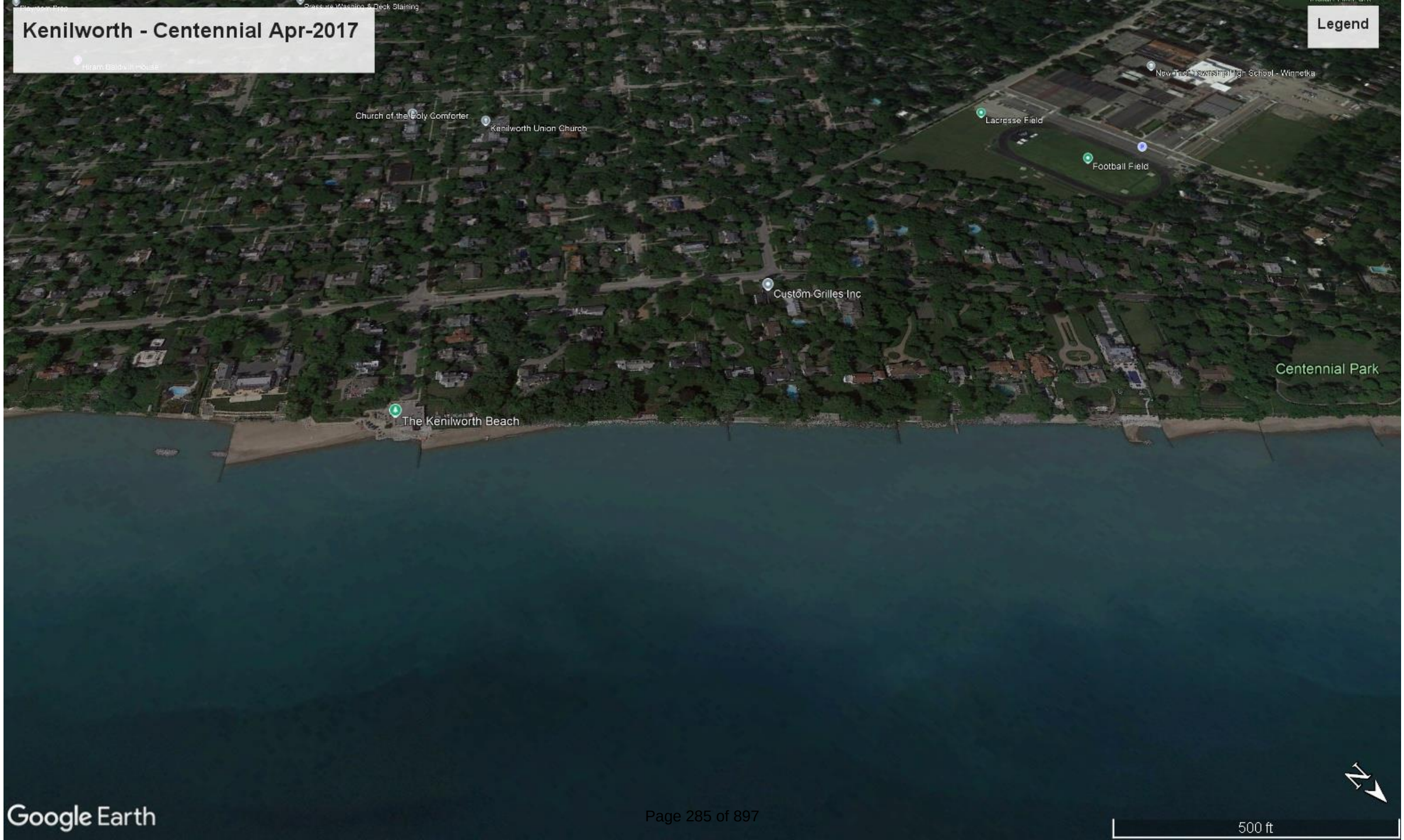
Kenilworth - Centennial Oct-2007
Legend
Church of the Holy Comforter
Kenilworth Union Church
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial
The Kenilworth Beach
Google Earth
400 ft


Kenilworth - Centennial Jun-2010
Legend
Church of the Holy Comforter
Kenilworth Union Church
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial
The Kenilworth Beach
Google Earth
400 ft

Kenilworth - Centennial Mar-2012
Legend
Church of the Holy Comforter
Kenilworth Union Church
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial
The Kenilworth Beach
Google Earth
400 ft


Kenilworth - Centennial Apr-2013
Legend
Kenilworth Union Church
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial
The Kenilworth Beach
Google Earth
400 ft

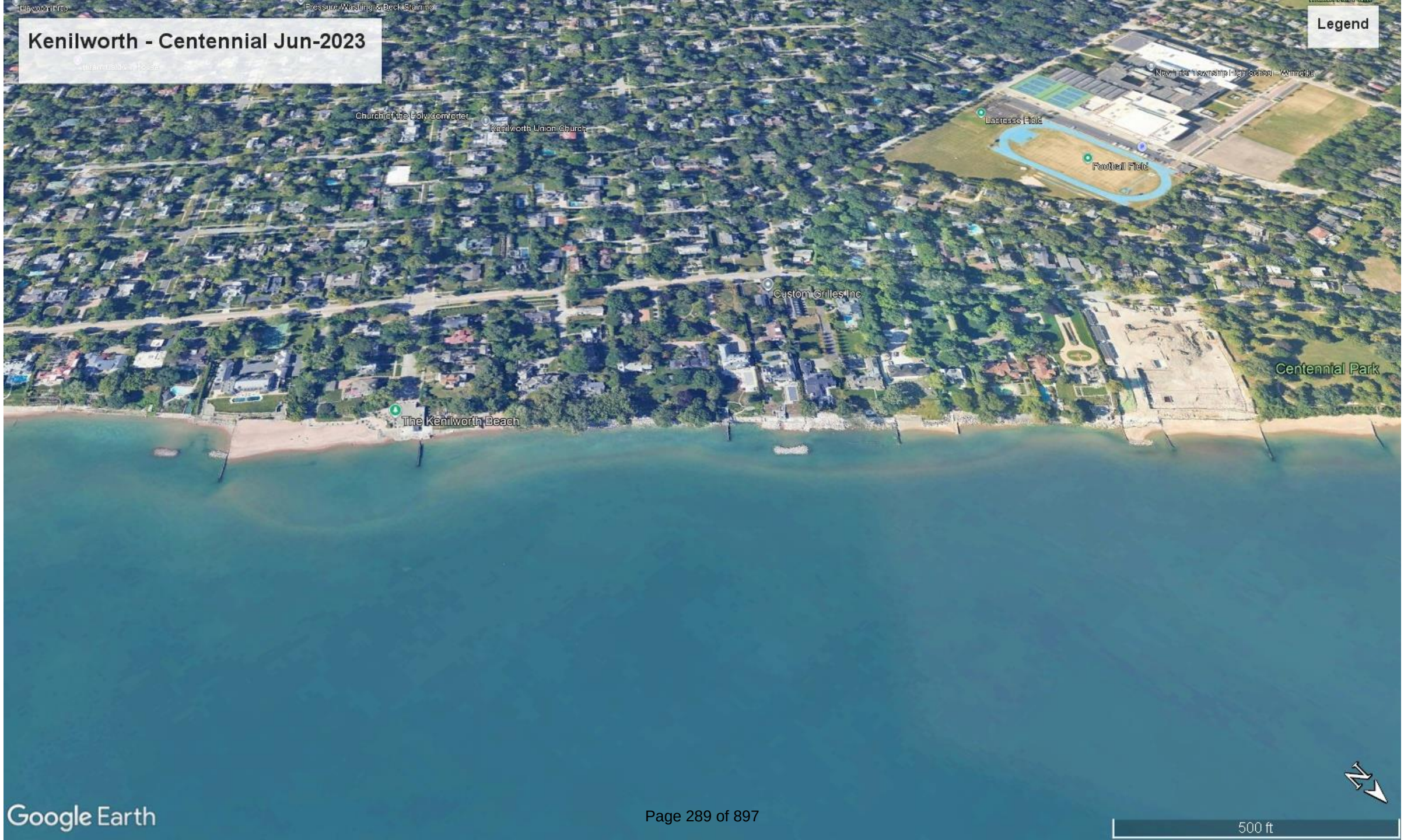

Kenilworth - Centennial Apr-2015
Legend
Pressure Washing & Deck Staining
New Trier Township High School - Winnetka
Church of the Holy Comforter
Kenilworth Union Church
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial Park
The Kenilworth Beach
Google Earth
500 ft

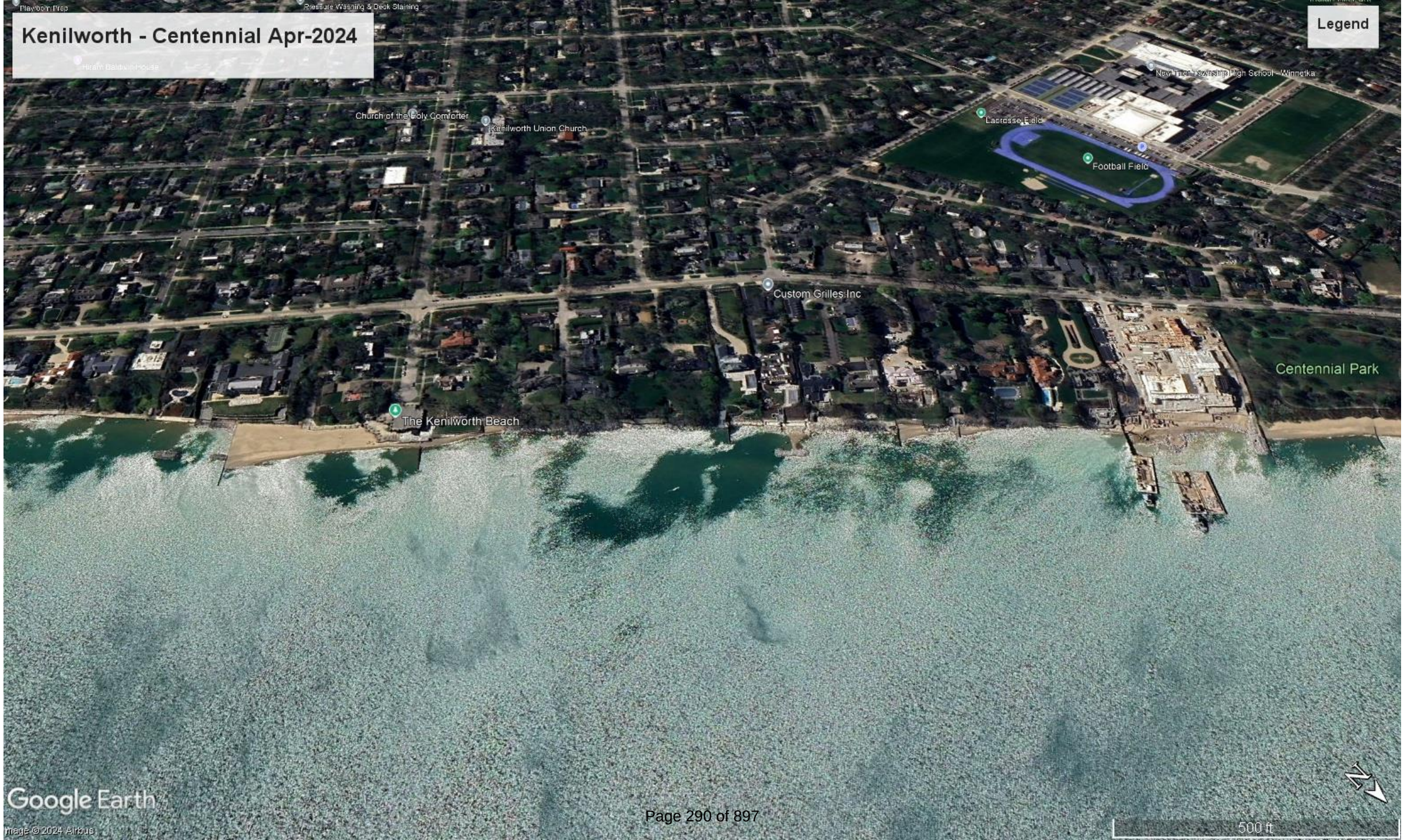

Kenilworth - Centennial Apr-2017
Legend
Church of the Holy Comforter
Kenilworth Union Church
New Trier Township High School - Winnetka
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial Park
The Kenilworth Beach
Google Earth
500 ft

Kenilworth - Centennial Oct-2019
Legend
Playroom Preo
Pressure Washing & Deck Staining
Hiram Baldwin House
Church of the Holy Comforter
Kenilworth Union Church
New Trier Township High School - Winnetka
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial Park
The Kenilworth Beach
Google Earth
500 ft

Kenilworth - Centennial Oct-2020
Legend
Playroom Prep
Pressure Washing & Deck Staining
Hiram Baldwin House
Church of the Holy Comforter
Kenilworth Union Church
New Trier Township High School - Winnetka
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial Park
The Kenilworth Beach
Google Earth
500 ft

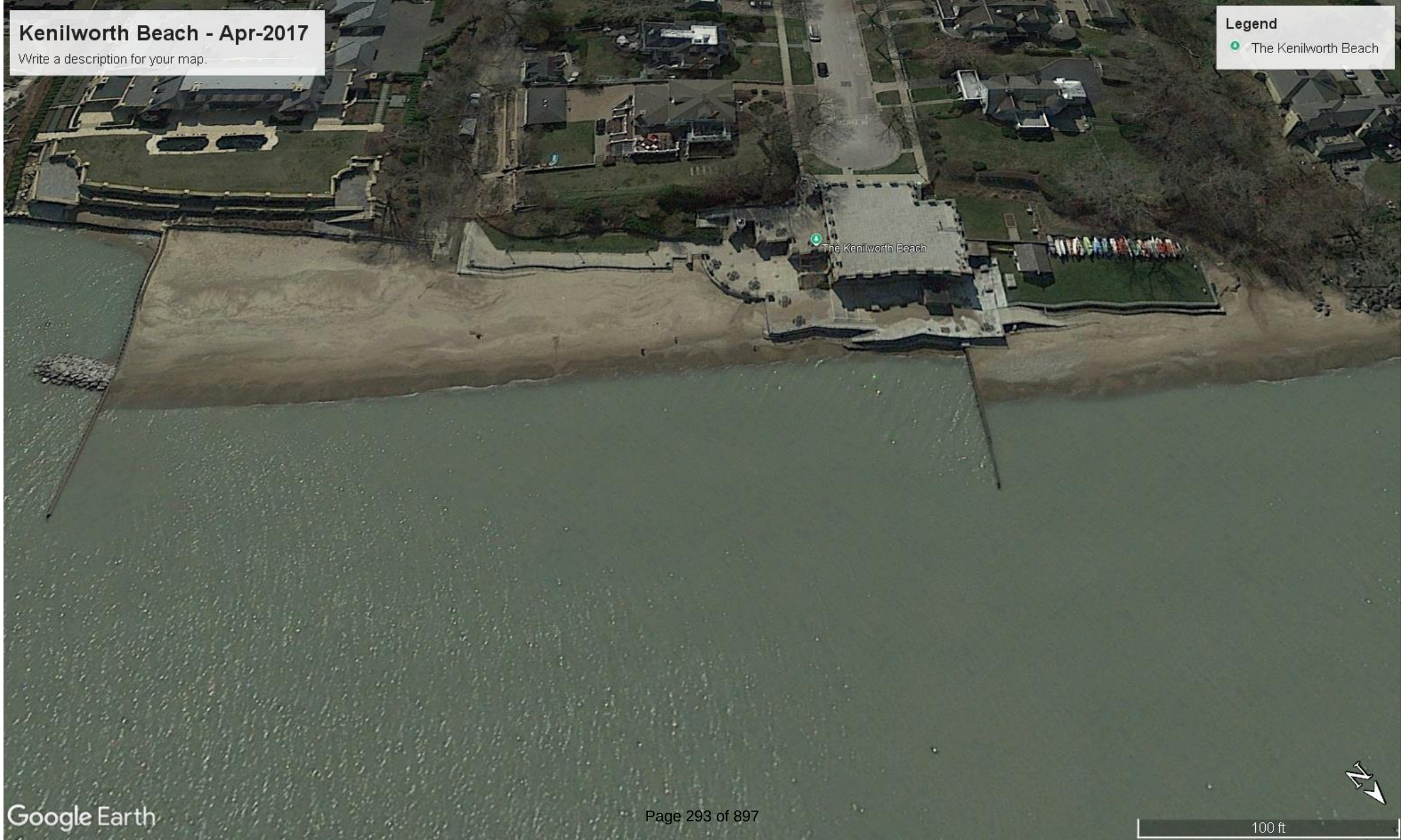
Kenilworth - Centennial May-2021
Legend
Hiram Baldwin House
Church of the Holy Comforter
Kenilworth Union Church
New Trier Township High School - Winnetka
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial Park
The Kenilworth Beach
Google Earth
500 ft


Kenilworth - Centennial Jun-2023
Legend
Church of the Holy Comforter
Kenilworth Union Church
Lacrosse Field
Football Field
Custom Grilles Inc
The Kenilworth Beach
Centennial Park
Google Earth
500 ft


Kenilworth - Centennial Apr-2024
Legend
Playroom Prep
Pressure Washing & Deck Staining
Hiram Baldwin House
Church of the Holy Comforter
Kenilworth Union Church
New Trier Township High School - Winnetka
Lacrosse Field
Football Field
Custom Grilles Inc
Centennial Park
The Kenilworth Beach
Google Earth
Image © 2024 Airbus
500 ft

Kenilworth Beach - Apr-2013
Write a description for your map.
Legend
The Kenilworth Beach
The Kenilworth Beach
Google Earth
100 ft

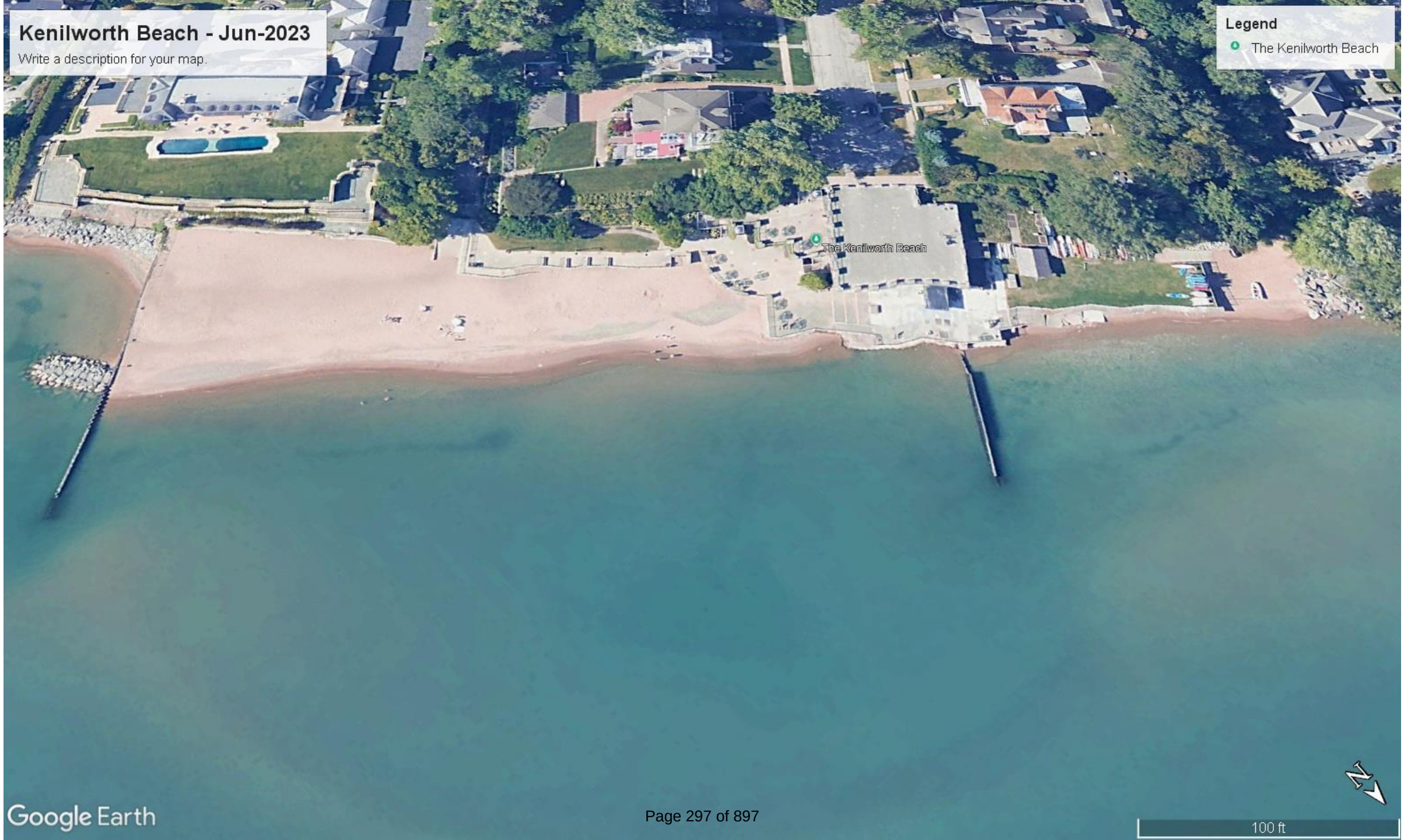
Kenilworth Beach - Apr-2015
Write a description for your map.
Legend
The Kenilworth Beach
The Kenilworth Beach
Google Earth
100 ft


Kenilworth Beach - Apr-2017
Write a description for your map.
Legend
The Kenilworth Beach
The Kenilworth Beach
Google Earth
100 ft

Kenilworth Beach - Oct-2018
Write a description for your map.
Legend
The Kenilworth Beach
The Kenilworth Beach
Google Earth
100 ft

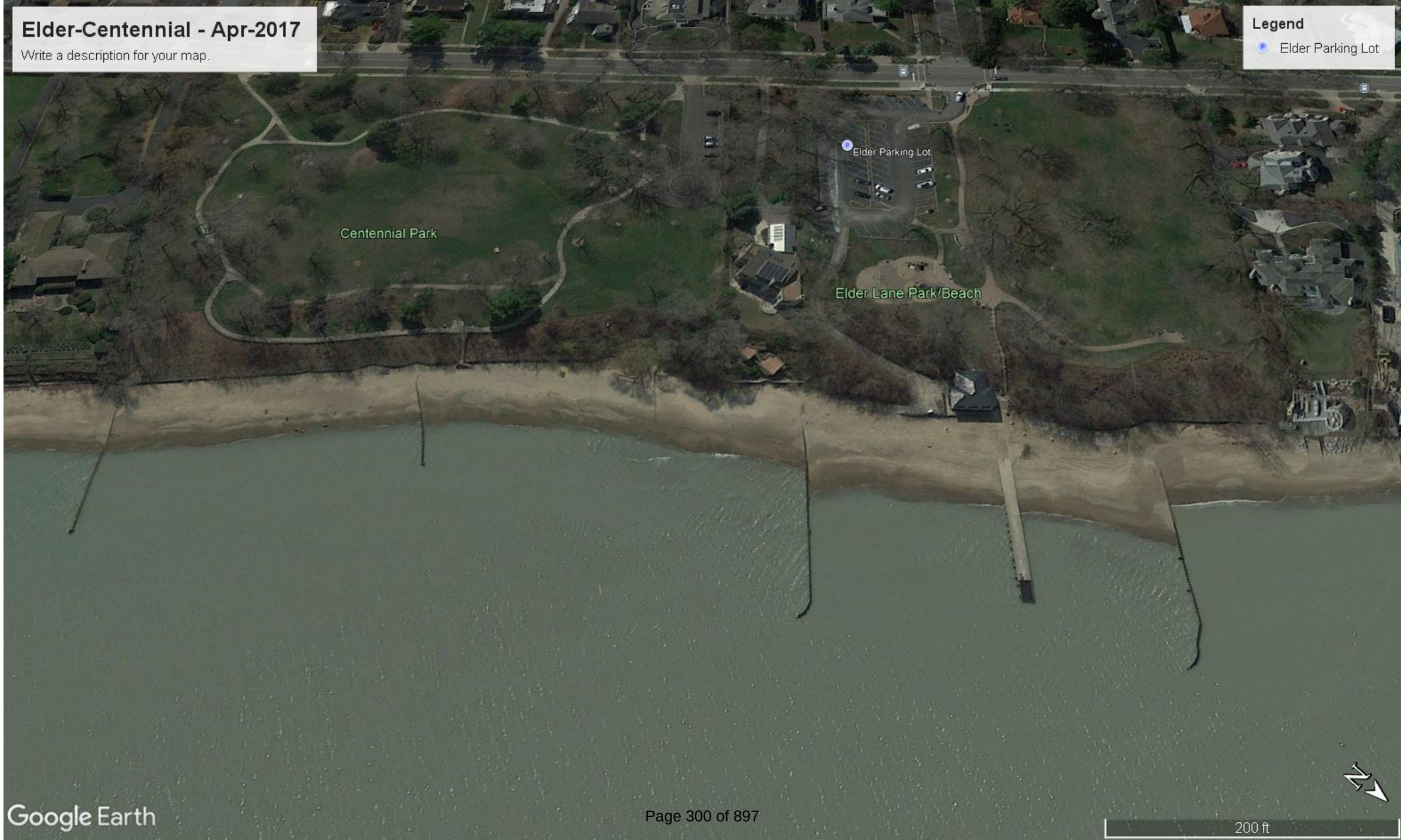
Kenilworth Beach - Oct-2020
Write a description for your map.
Legend
The Kenilworth Beach
The Kenilworth Beach
Google Earth
100 ft

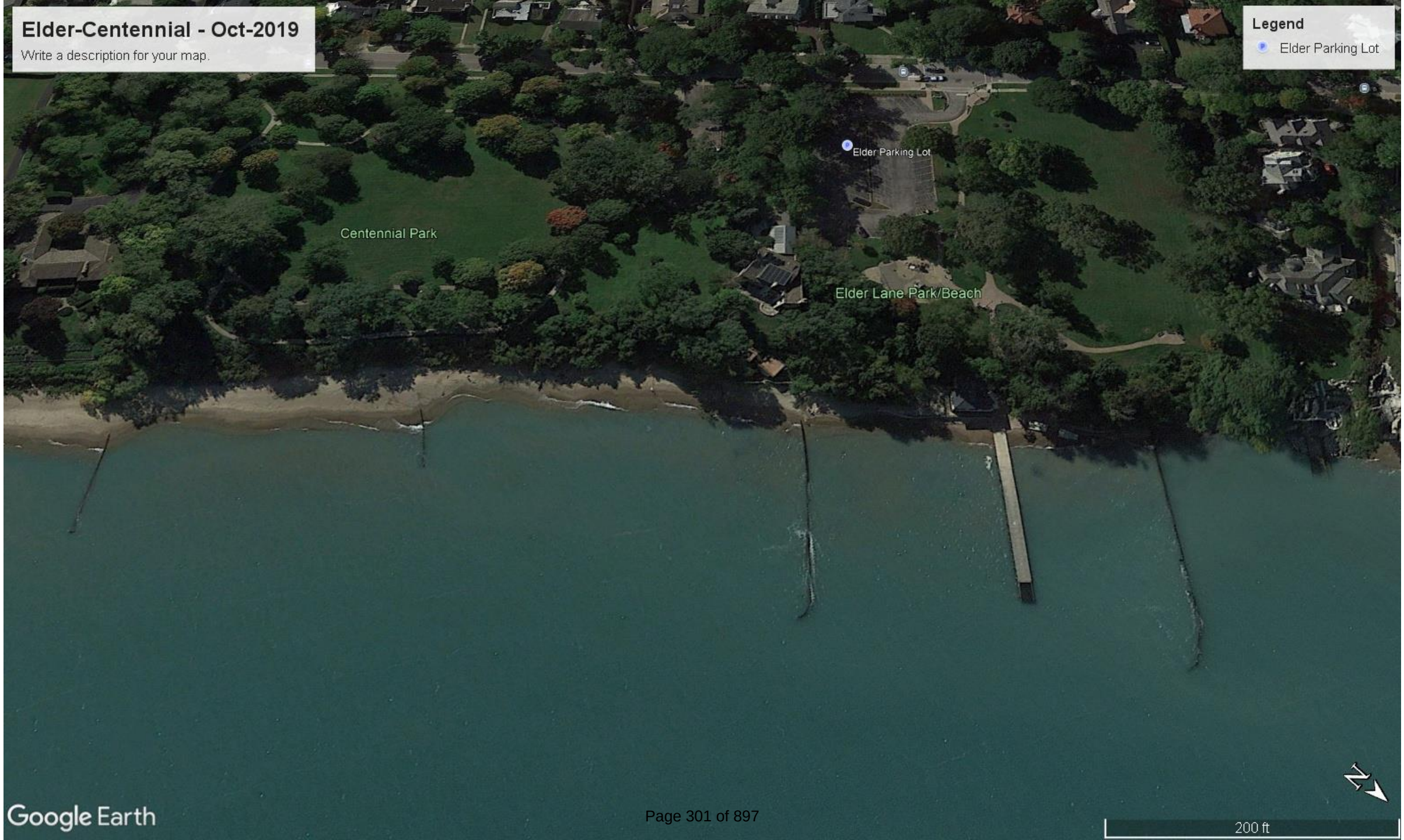
Kenilworth Beach - May-2021
Write a description for your map.
Legend
The Kenilworth Beach
The Kenilworth Beach
Google Earth
100 ft


Kenilworth Beach - Jun-2023
Write a description for your map.
Legend
The Kenilworth Beach
The Kenilworth Beach
Google Earth
100 ft

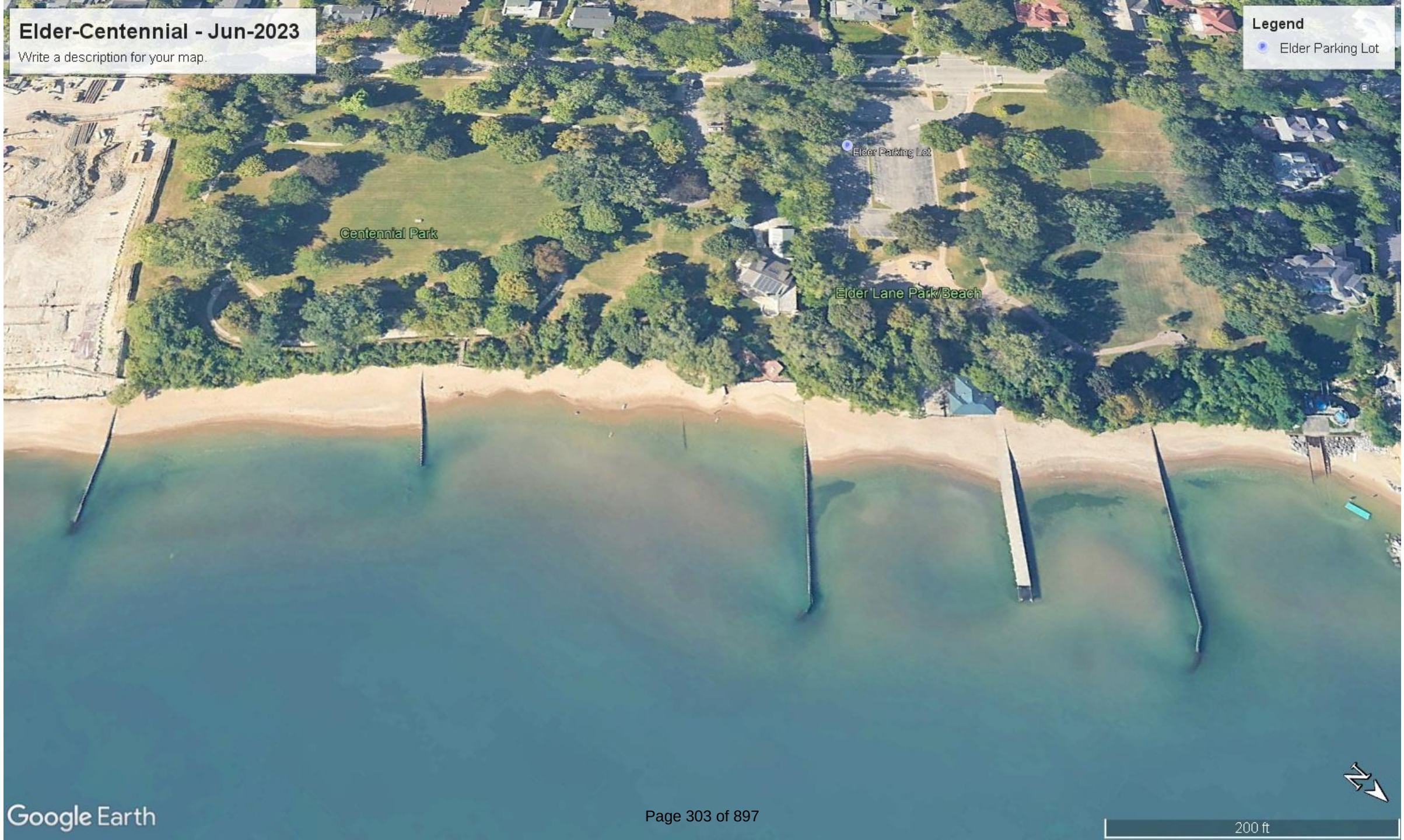
Elder-Centennial - Apr-2013
Write a description for your map.
Legend
Elder Parking Lot
Elder Parking Lot
Centennial Park
Elder Lane Park/Beach
Google Earth
200 ft

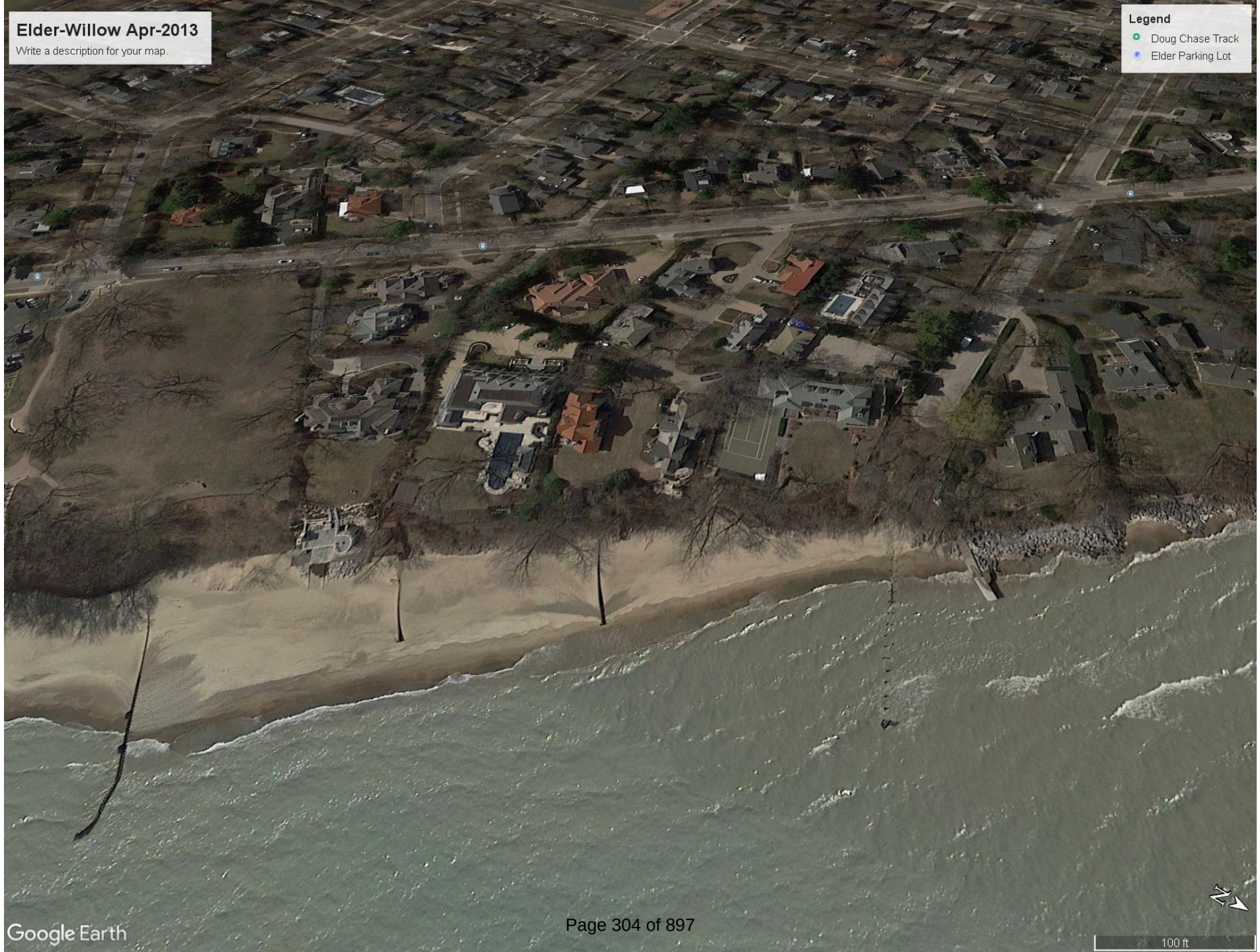
Elder-Centennial - Apr-2015
Write a description for your map.
Legend
Elder Parking Lot
Elder Parking Lot
Centennial Park
Elder Lane Park/Beach
Google Earth
200 ft

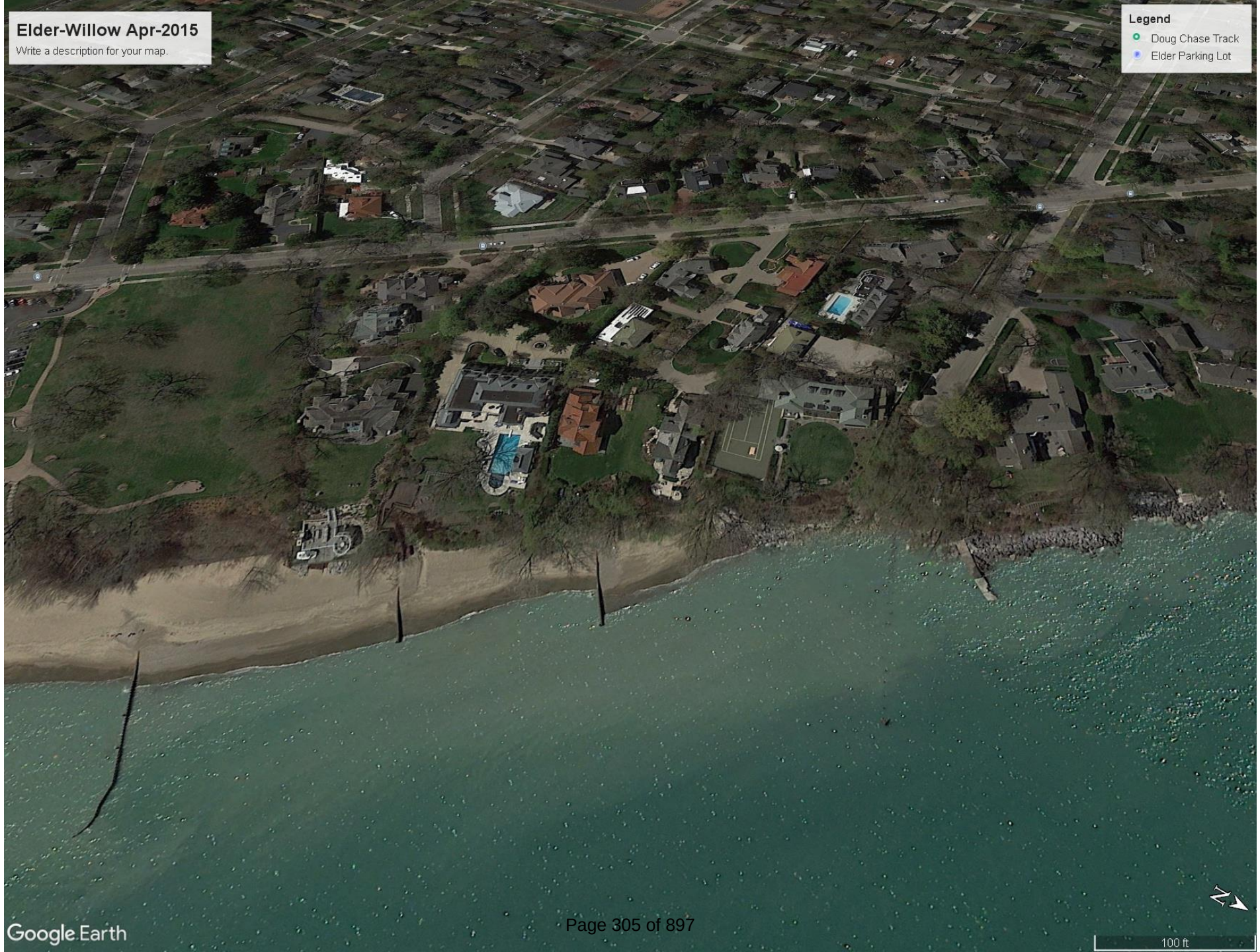

Elder-Centennial - Apr-2017
Write a description for your map.
Legend
Elder Parking Lot
Elder Parking Lot
Centennial Park
Elder Lane Park/Beach
Google Earth
200 ft


Elder-Centennial - Oct-2019
Write a description for your map.
Legend
Elder Parking Lot
Elder Parking Lot
Centennial Park
Elder Lane Park/Beach
Google Earth
200 ft

Elder-Centennial - May-2021
Write a description for your map.
Legend
Elder Parking Lot
Elder Parking Lot
Centennial Park
Elder Lane Park/Beach
Google Earth
200 ft


Elder-Centennial - Jun-2023
Write a description for your map.
Legend
Elder Parking Lot
Elder Parking Lot
Centennial Park
Elder Lane Park/Beach
Google Earth
200 ft


Elder-Willow Apr-2013
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Google Earth
100 ft


Elder-Willow Apr-2015
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Google Earth
100 ft

Elder-Willow May-2016
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Google Earth
100 ft

Elder-Willow Apr-2018
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Google Earth
100 ft

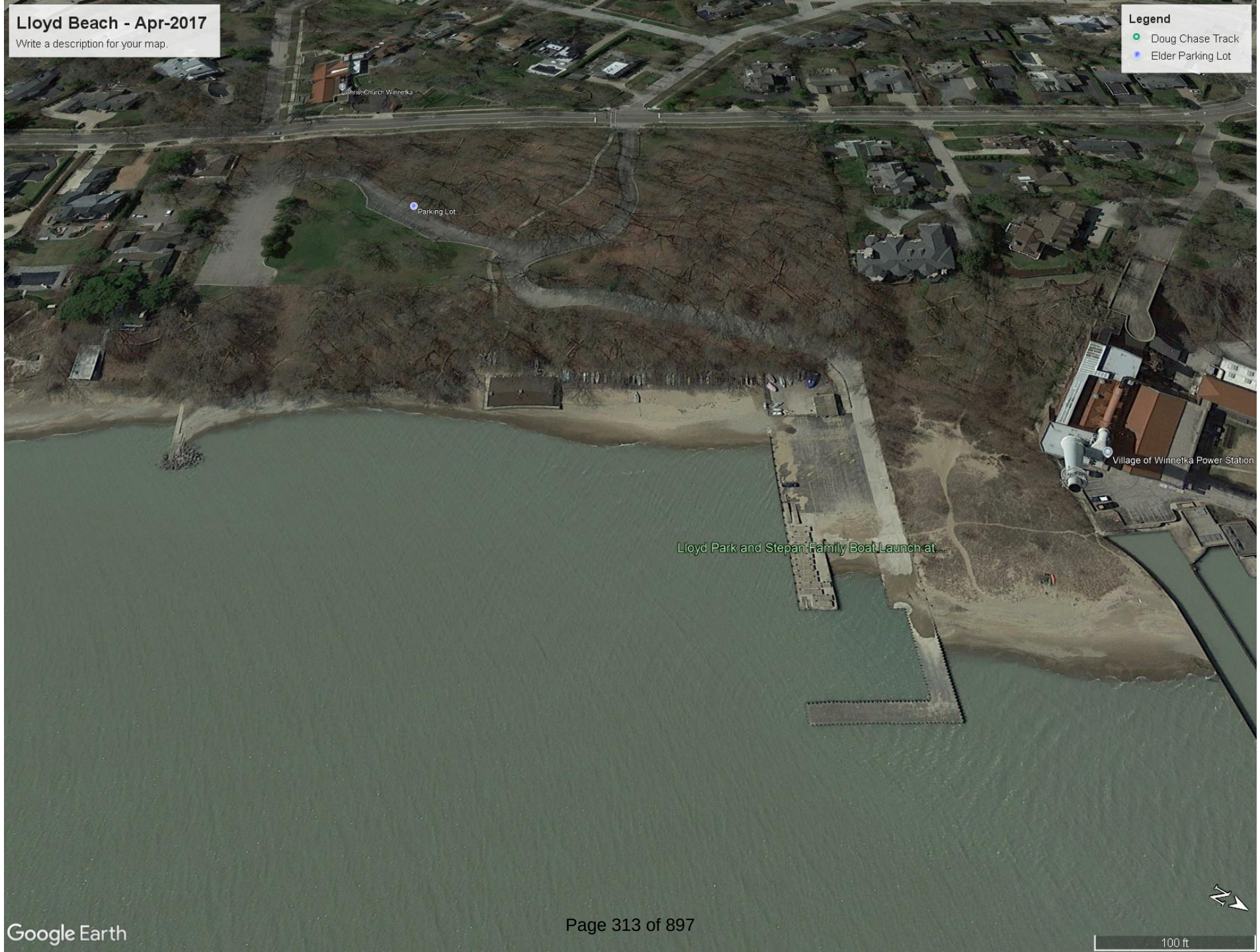
Elder-Willow Oct-2019
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Google Earth
100 ft

Elder-Willow - May-2021
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Google Earth
100 ft

Elder-Willow - Jun-2023
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Google Earth
100 ft

Lloyd Beach - Apr-2013
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Christ Church Winnetka
Parking Lot
Village of Winnetka Power Station
Lloyd Park and Stepan Family Boat Launch at ...
Google Earth
100 ft

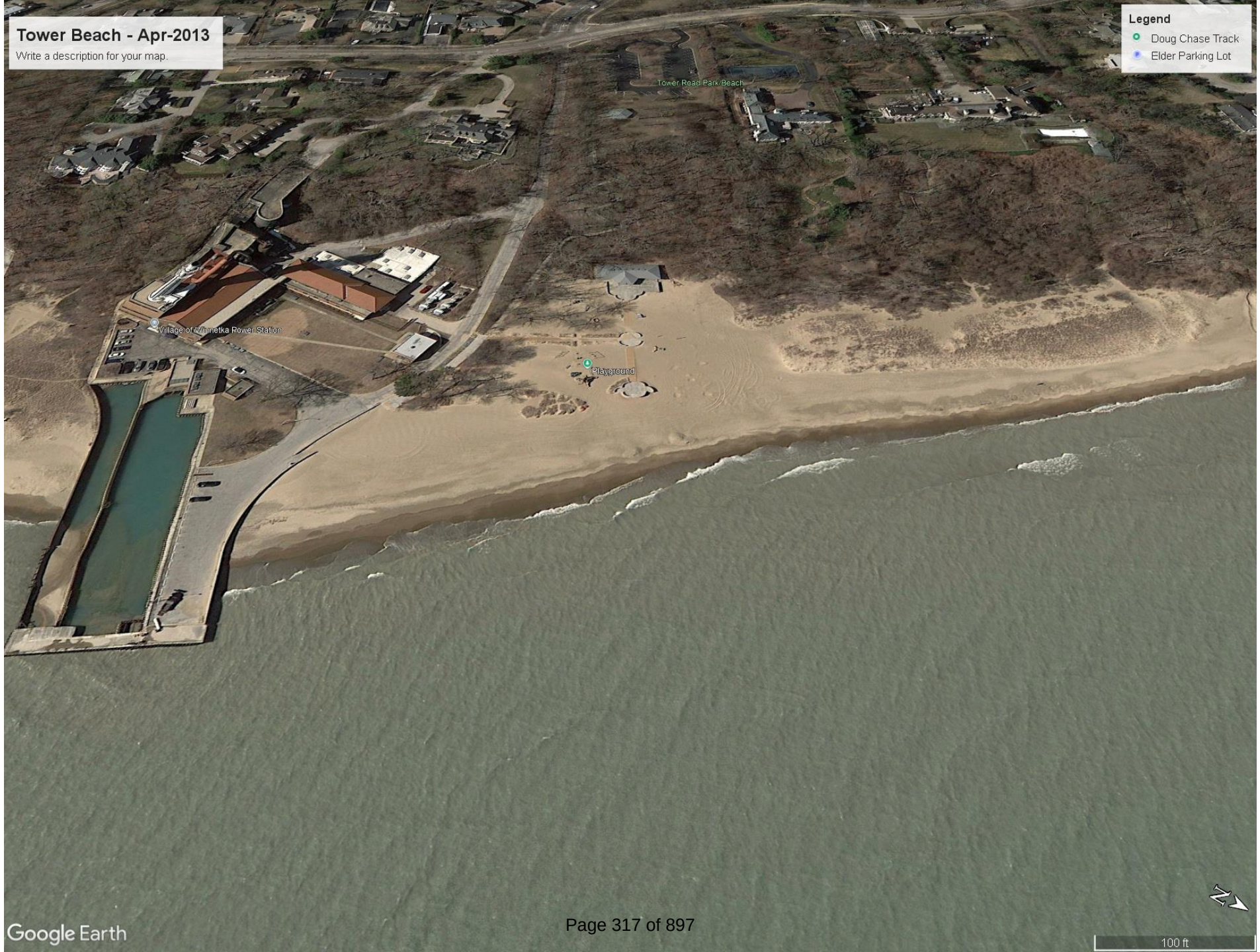
Lloyd Beach - Jun-2015
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Christ Church Winnetka
Parking Lot
Village of Winnetka Power Station
Lloyd Park and Stepan Family Boat Launch at...
Google Earth
100 ft


Lloyd Beach - Apr-2017
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Christ Church Winnetka
Parking Lot
Village of Winnetka Power Station
Lloyd Park and Stepan Family Boat Launch at ...
Google Earth
100 ft

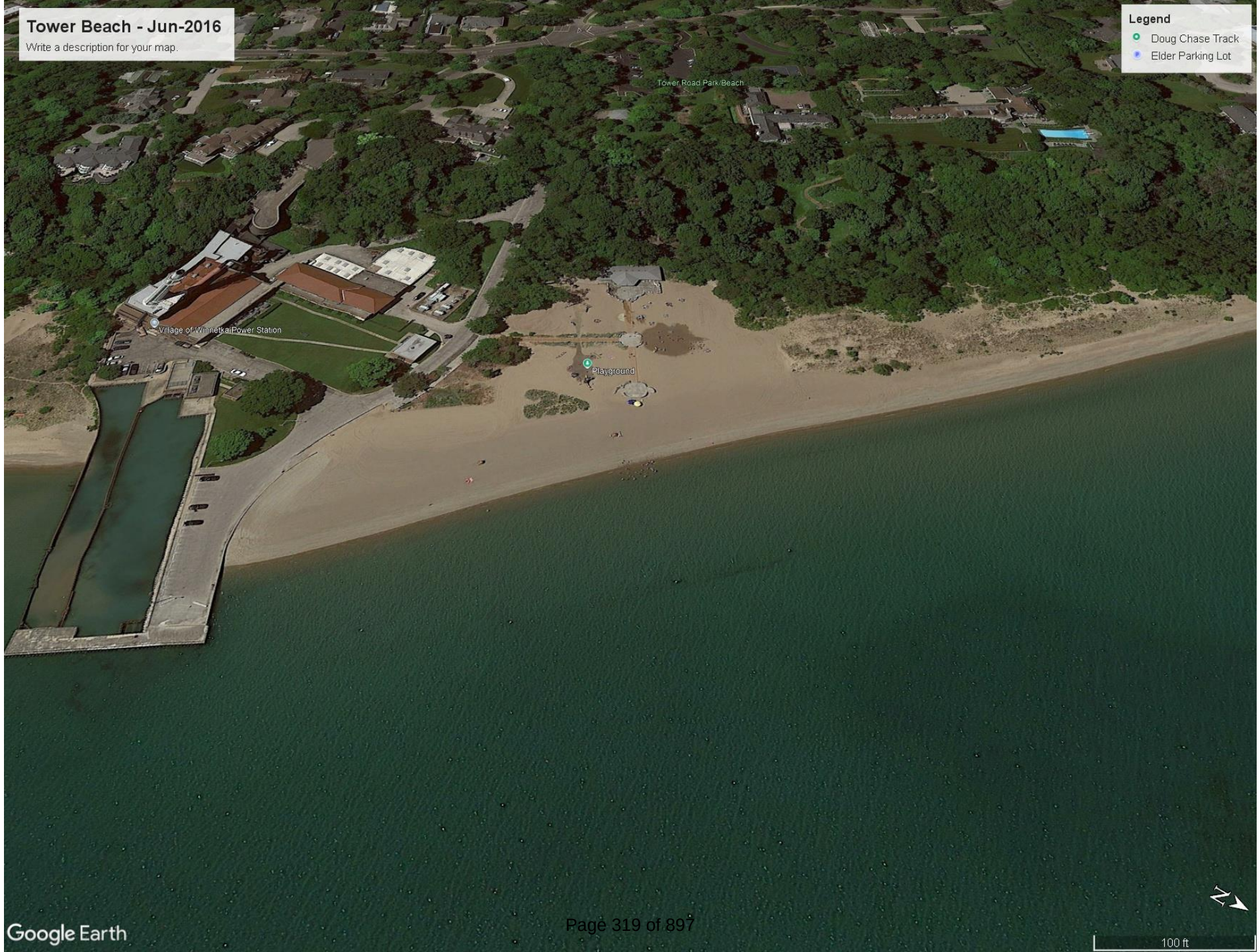
Lloyd Beach - Oct-2019
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Christ Church Winnetka
Parking Lot
Village of Winnetka Power Station
Lloyd Park and Stepan Family Boat Launch at ...
Google Earth
100 ft

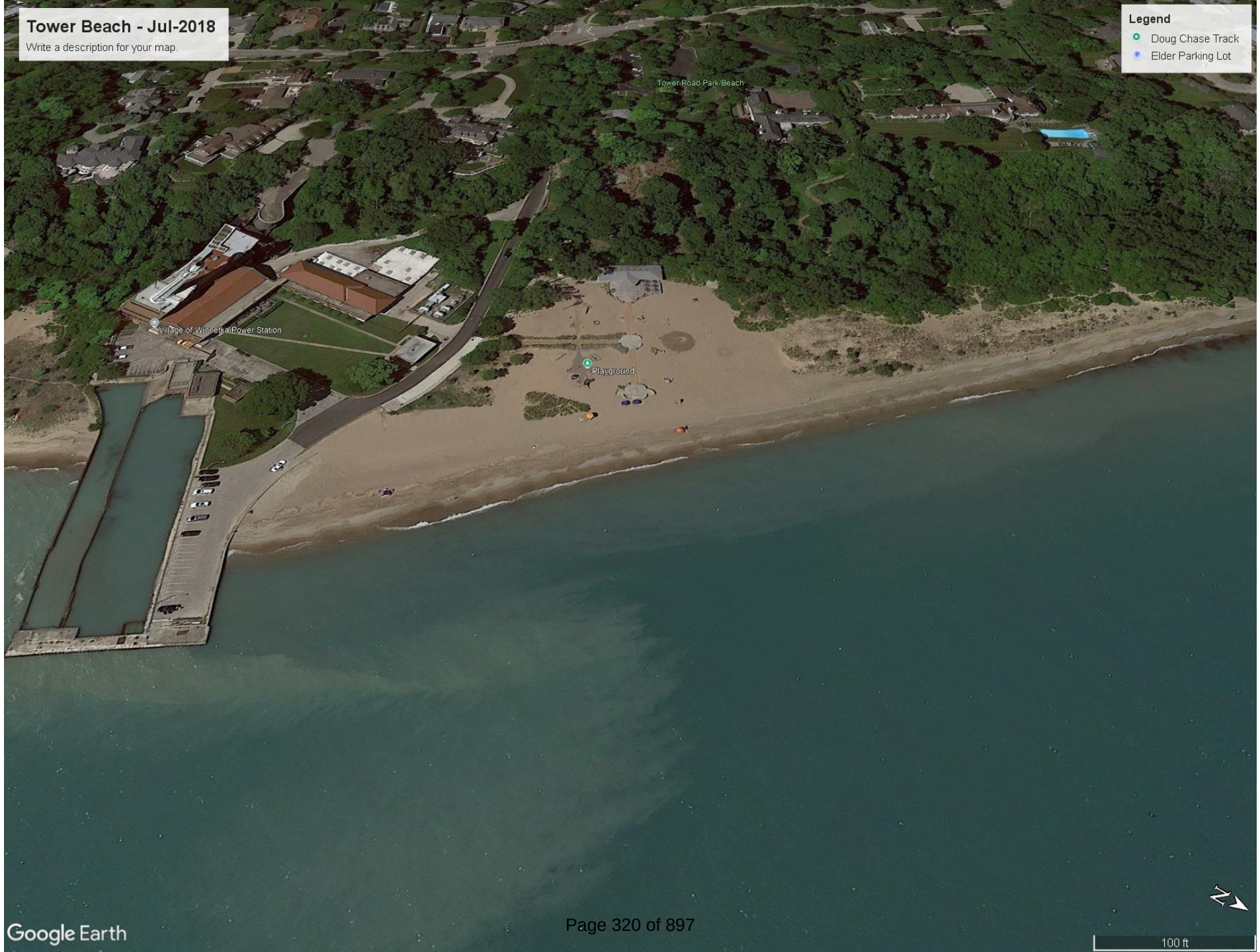
Lloyd Beach - Oct-2020
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Christ Church Winnetka
Parking Lot
Village of Winnetka Power Station
Lloyd Park and Stepan Family Boat Launch at ...
Google Earth
100 ft

Lloyd Beach - Jun-2023
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Village of Winnetka Power Station
Lloyd Park and Stepan Family Boat Launch at...
Google Earth
100 ft


Tower Beach - Apr-2013
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Tower Road Park/Beach
Village of Winnetka Power Station
Playground
Google Earth
100 ft

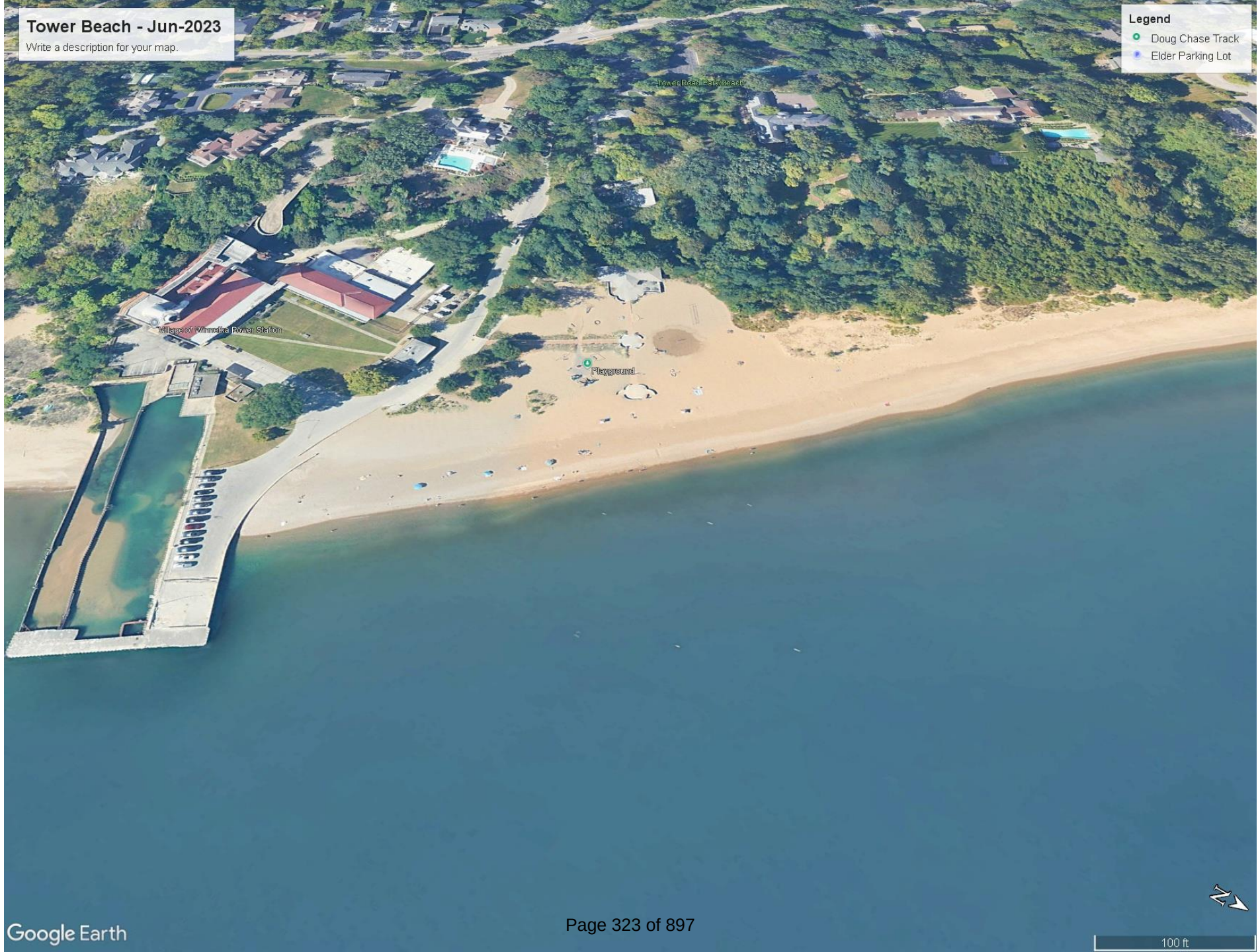
Tower Beach - Apr-2015
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Tower Road Park/Beach
Village of Winnetka Power Station
Playground
Google Earth
100 ft


Tower Beach - Jun-2016
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Tower Road Park/Beach
Village of Winnetka Power Station
Playground
Google Earth
100 ft

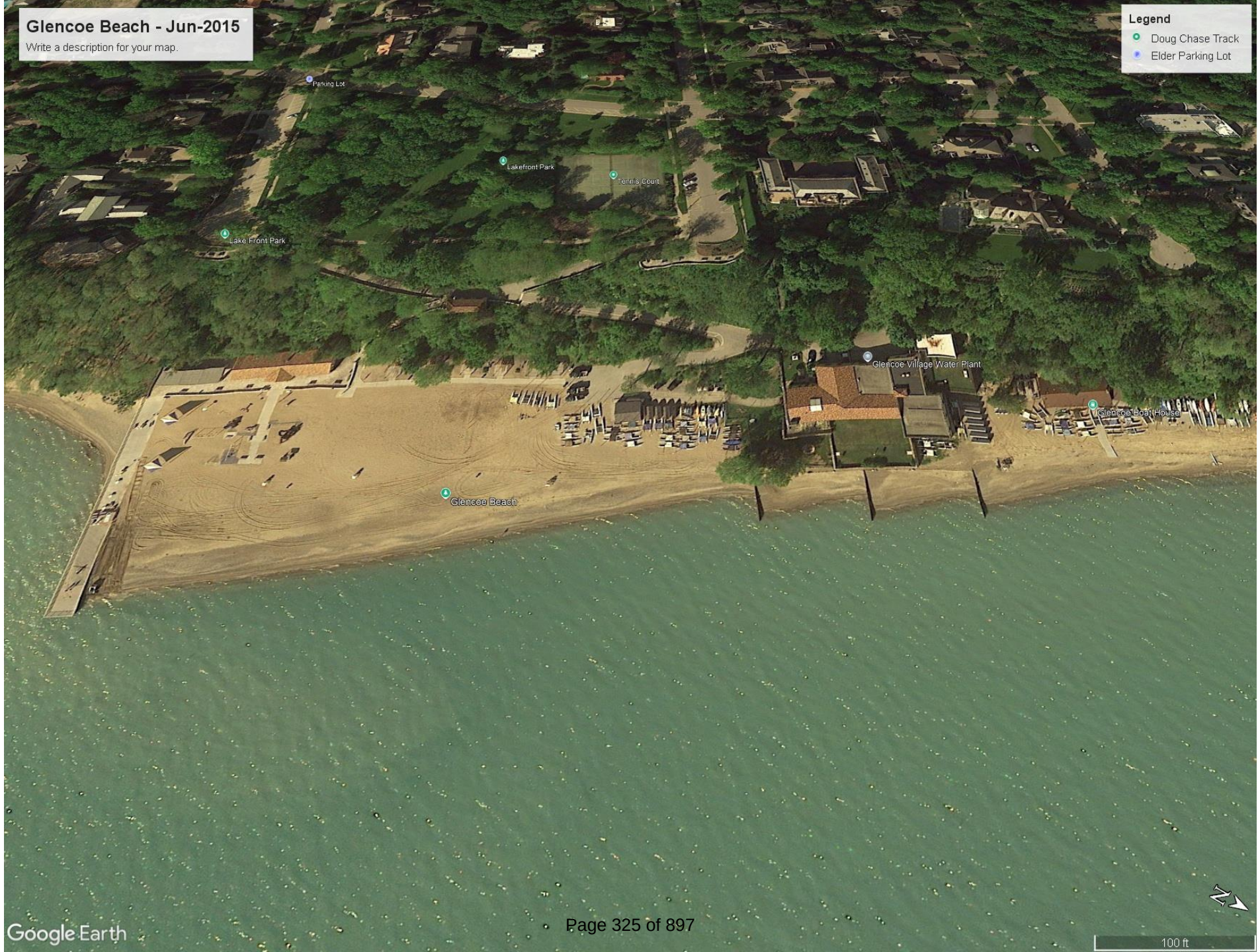

Tower Beach - Jul-2018
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Tower Road Park/Beach
Village of Winnetka Power Station
Playground
Google Earth
100 ft

Tower Beach - Oct-2019
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Tower Road Park/Beach
Village of Winnetka Power Station
Playground
Google Earth
100 ft

Tower Beach - Jun-2020
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Tower Road Park Beach
Village of Winnetka Power Station
Playground
Google Earth
100 ft


Tower Beach - Jun-2023
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Tower Road Park Beach
Village of Winnetka Power Station
Playground
Google Earth
100 ft

Glencoe Beach - Apr-2013
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Parking Lot
Lakefront Park
Tennis Court
Lake Front Park
Glencoe Village Water Plant
Glencoe Boat House
Glencoe Beach
Google Earth
100 ft


Glencoe Beach - Jun-2015
Write a description for your map.
Legend
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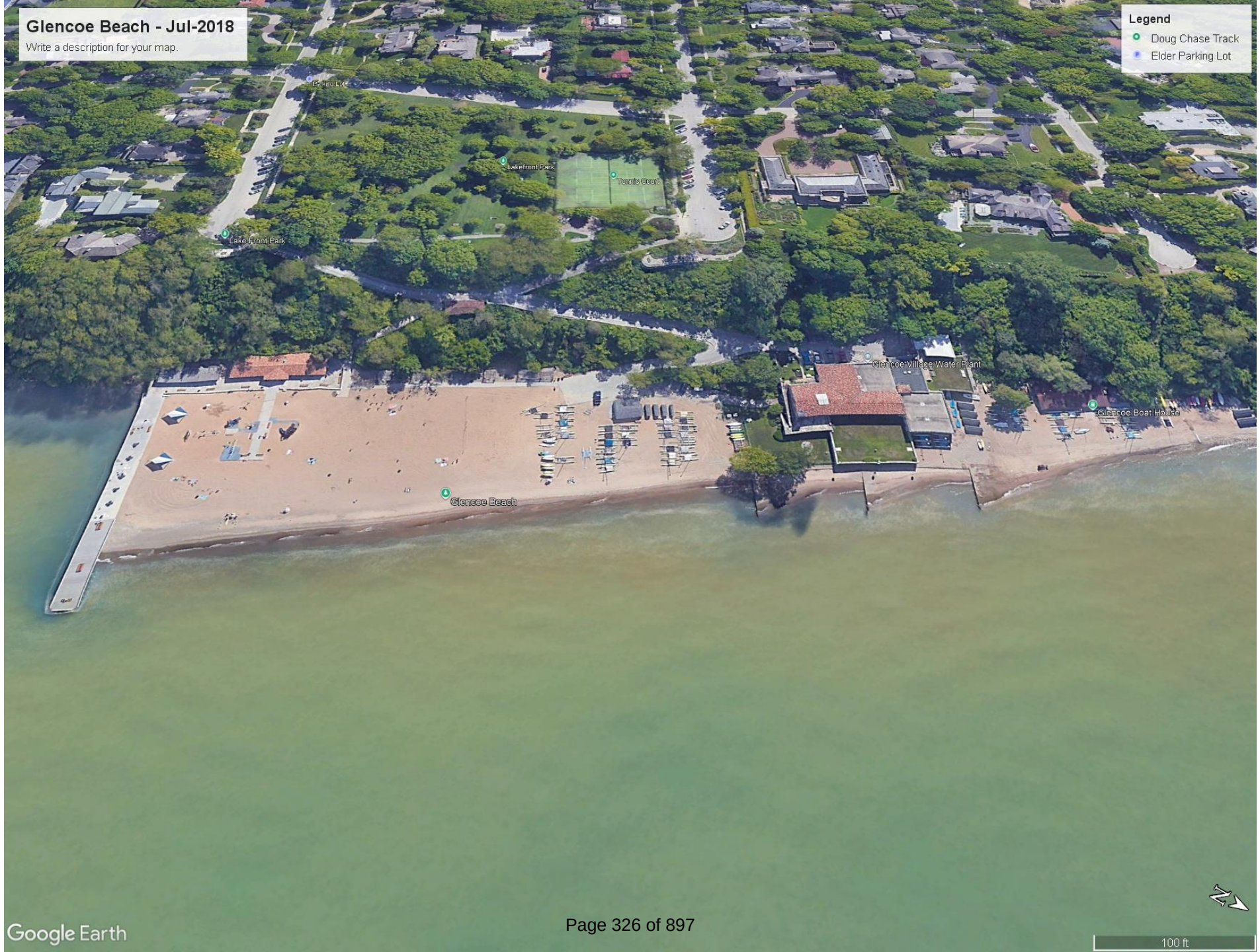
Parking Lot
Lakefront Park
Tennis Court
Lake Front Park
Glencoe Village Water Plant
Glencoe Boat House
Glencoe Beach
Google Earth
100 ft


Glencoe Beach - Jul-2018
Write a description for your map.
Legend
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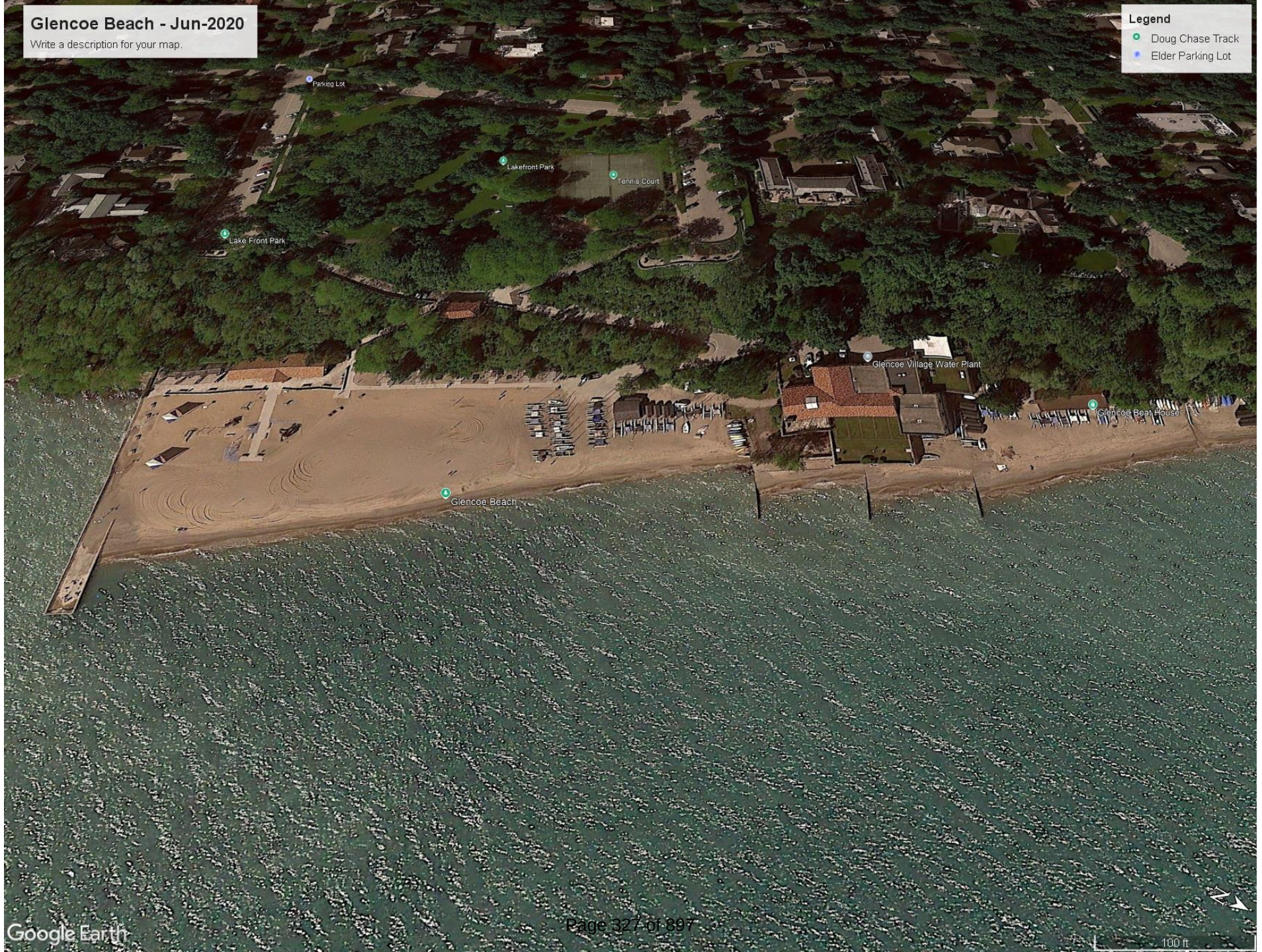
Parking Lot
Lakefront Park
Tennis Court
Lake Front Park
Glencoe Village Water Plant
Glencoe Boat House
Glencoe Beach
Google Earth
100 ft


Glencoe Beach - Jun-2020
Write a description for your map.
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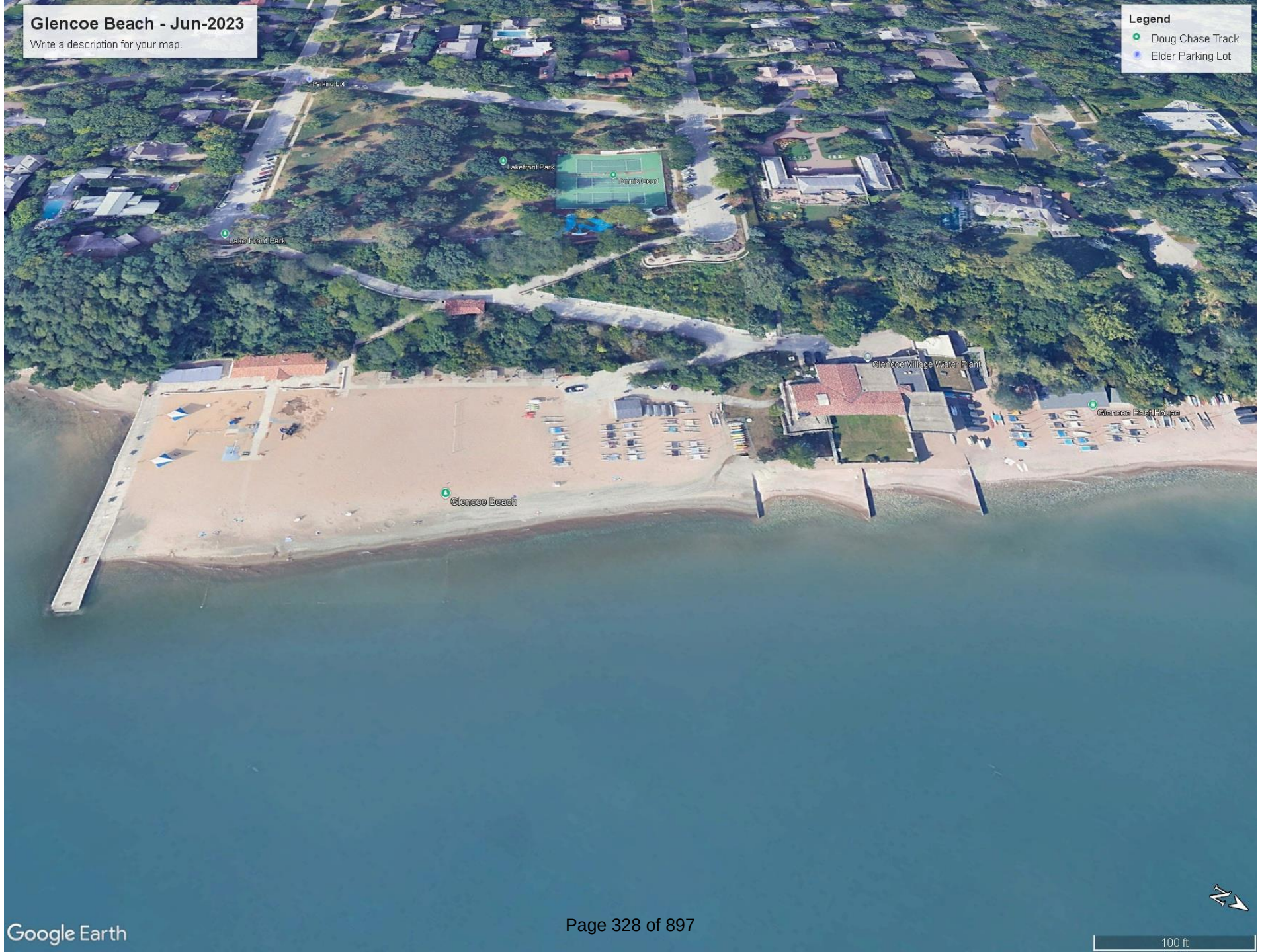
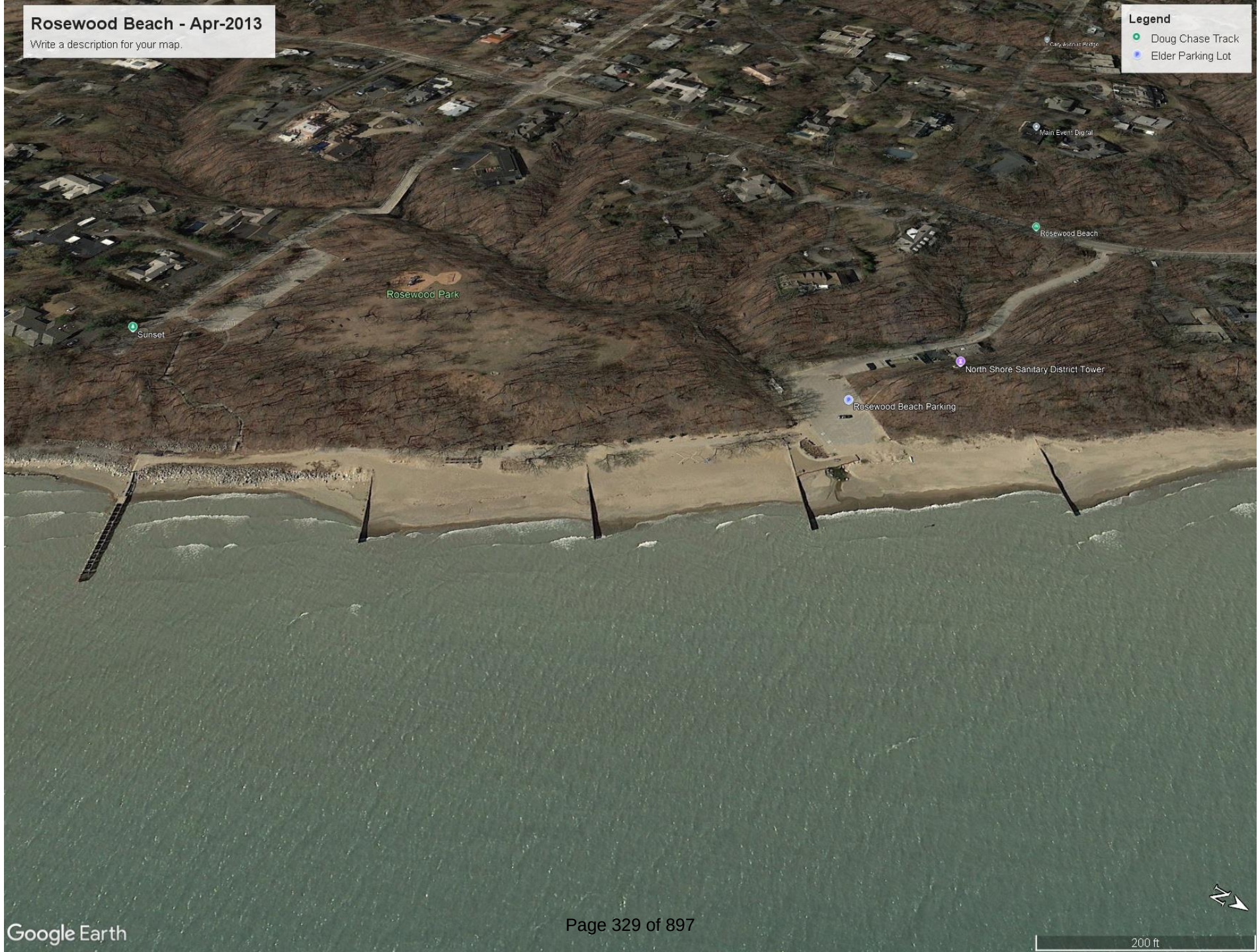
Parking Lot
Lakefront Park
Tennis Court
Lake Front Park
Glencoe Village Water Plant
Glencoe Beach House
Glencoe Beach
Google Earth
100 ft


Glencoe Beach - Jun-2023
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Parking Lot
Lakefront Park
Tennis Court
Lake Front Park
Glencoe Village Water Plant
Glencoe Boat House
Glencoe Beach
Google Earth
100 ft


Rosewood Beach - Apr-2013
Write a description for your map.
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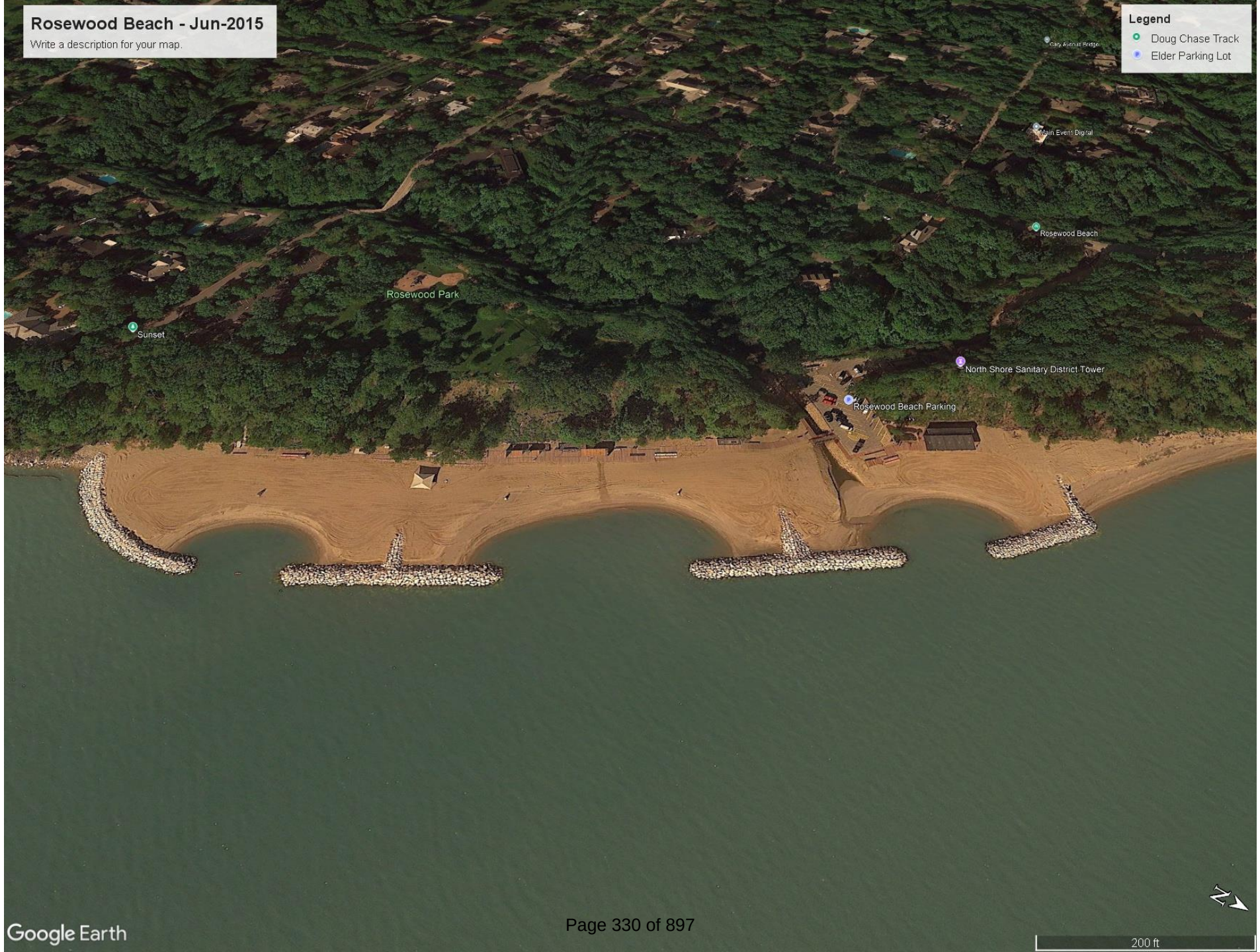
Elder Parking Lot
Main Event Digital
Rosewood Beach
Rosewood Park
Sunset
North Shore Sanitary District Tower
Rosewood Beach Parking
Google Earth
200 ft


Rosewood Beach - Jun-2015
Write a description for your map.
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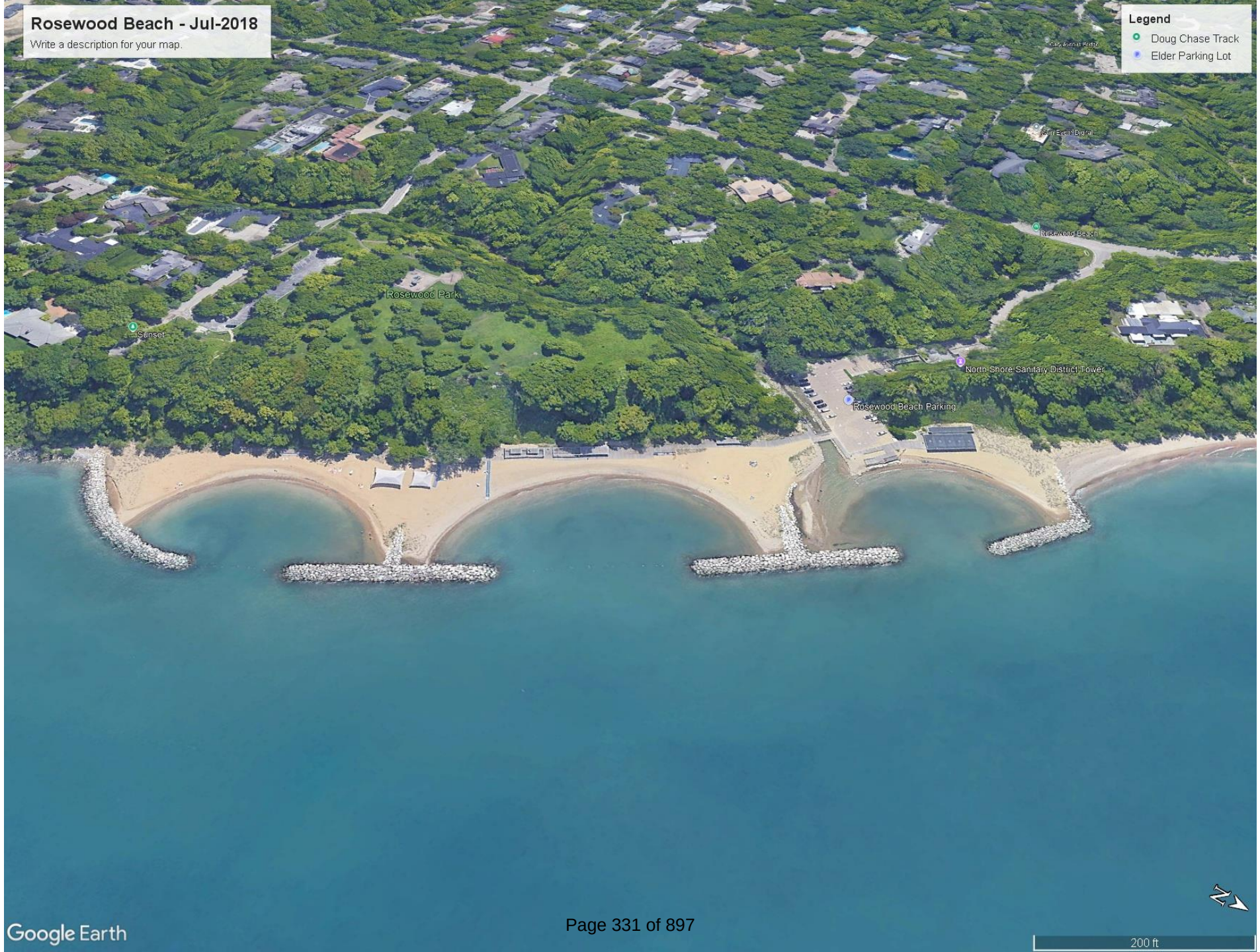
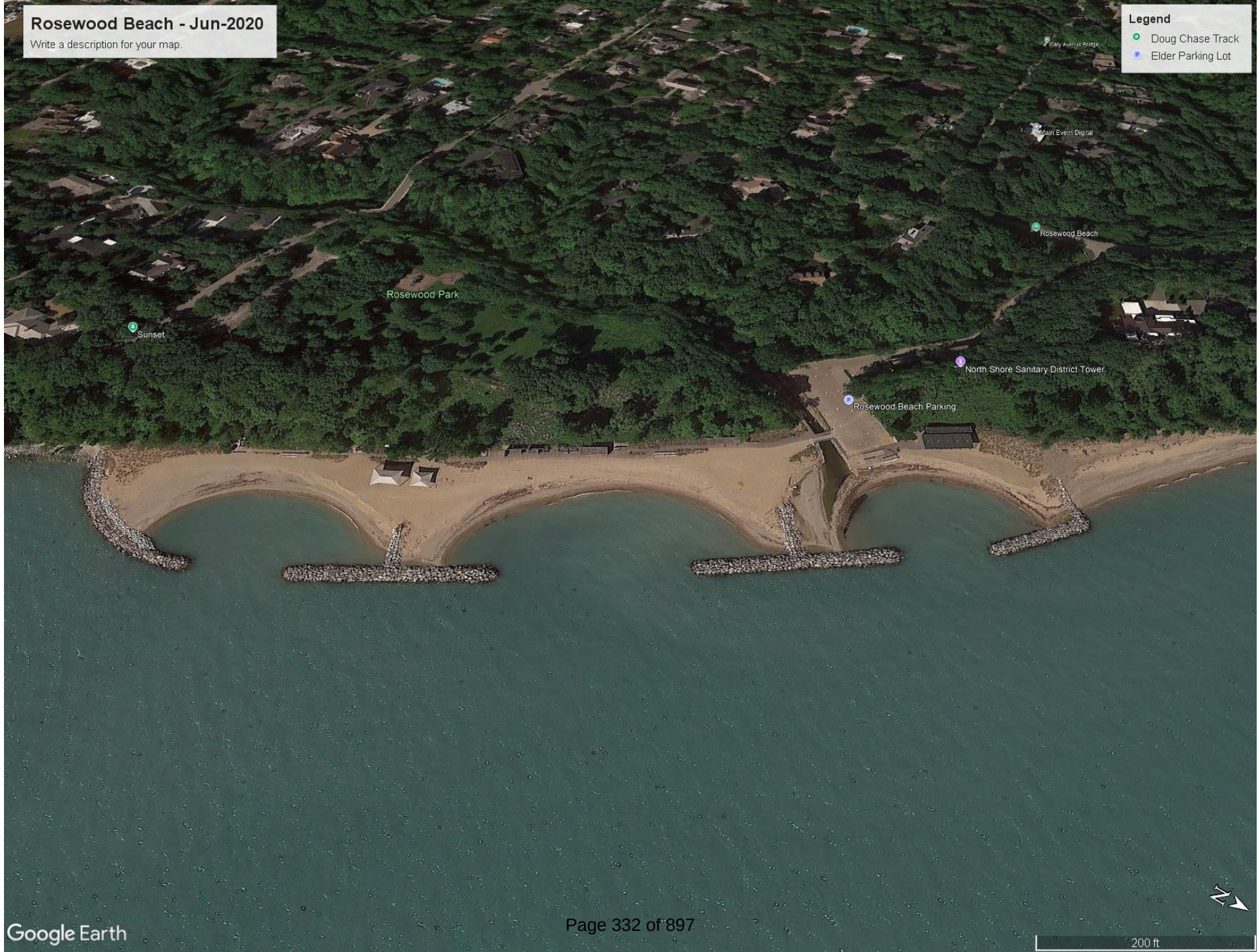
Elder Parking Lot
Gary Avenue Bridge
Main Event Digital
Rosewood Beach
Rosewood Park
Sunset
North Shore Sanitary District Tower
Rosewood Beach Parking
Google Earth
200 ft


Rosewood Beach - Jul-2018
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Rosewood Beach
Rosewood Park
Sunset
North Shore Sanitary District Tower
Rosewood Beach Parking
Google Earth
200 ft


Rosewood Beach - Jun-2020
Write a description for your map.
Legend
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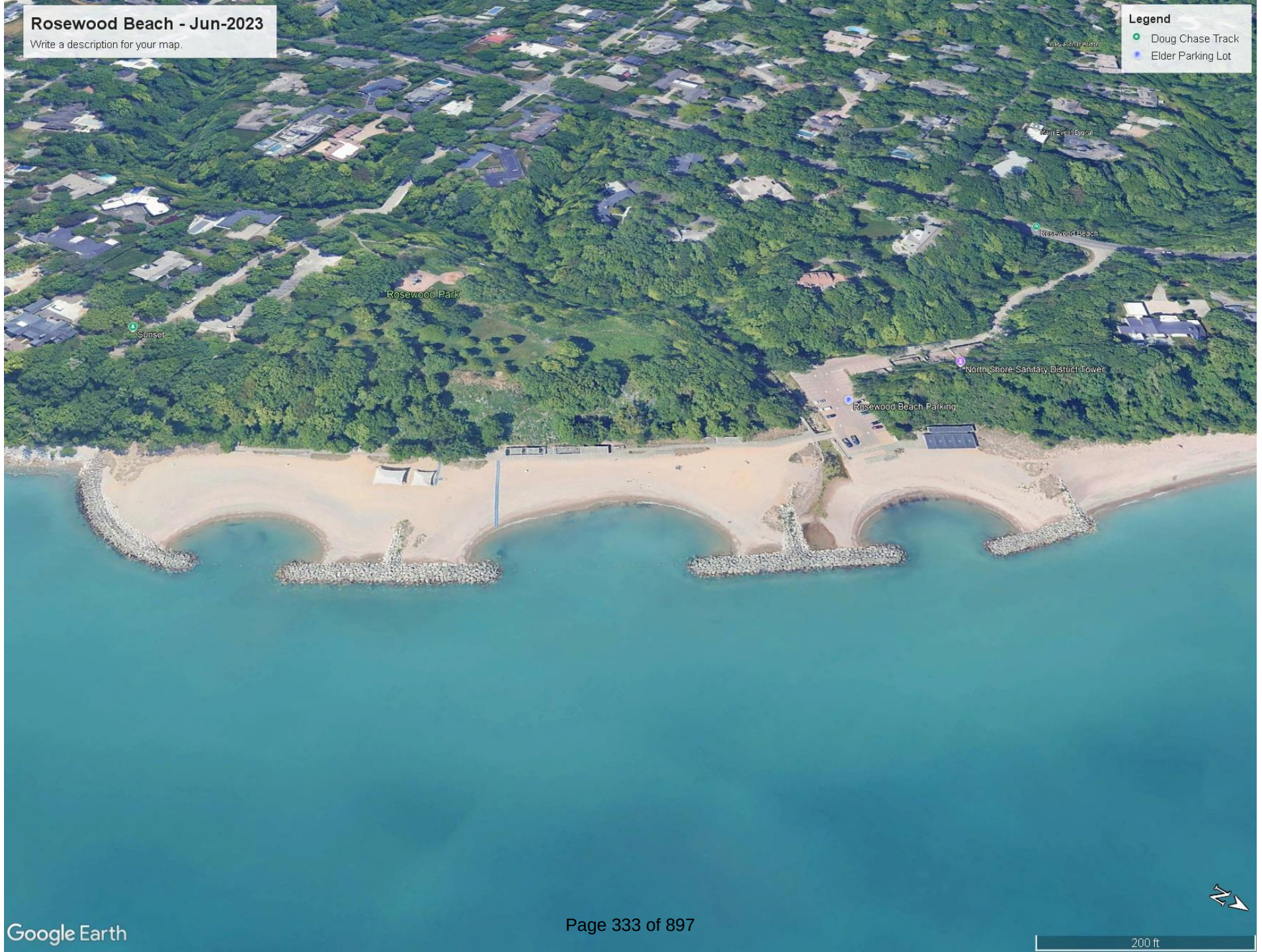
Elder Parking Lot
Gary Avenue Bridge
Main Event Digital
Rosewood Beach
Rosewood Park
Sunset
North Shore Sanitary District Tower
Rosewood Beach Parking
Google Earth
200 ft


Rosewood Beach - Jun-2023
Write a description for your map.
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Doug Chase Track
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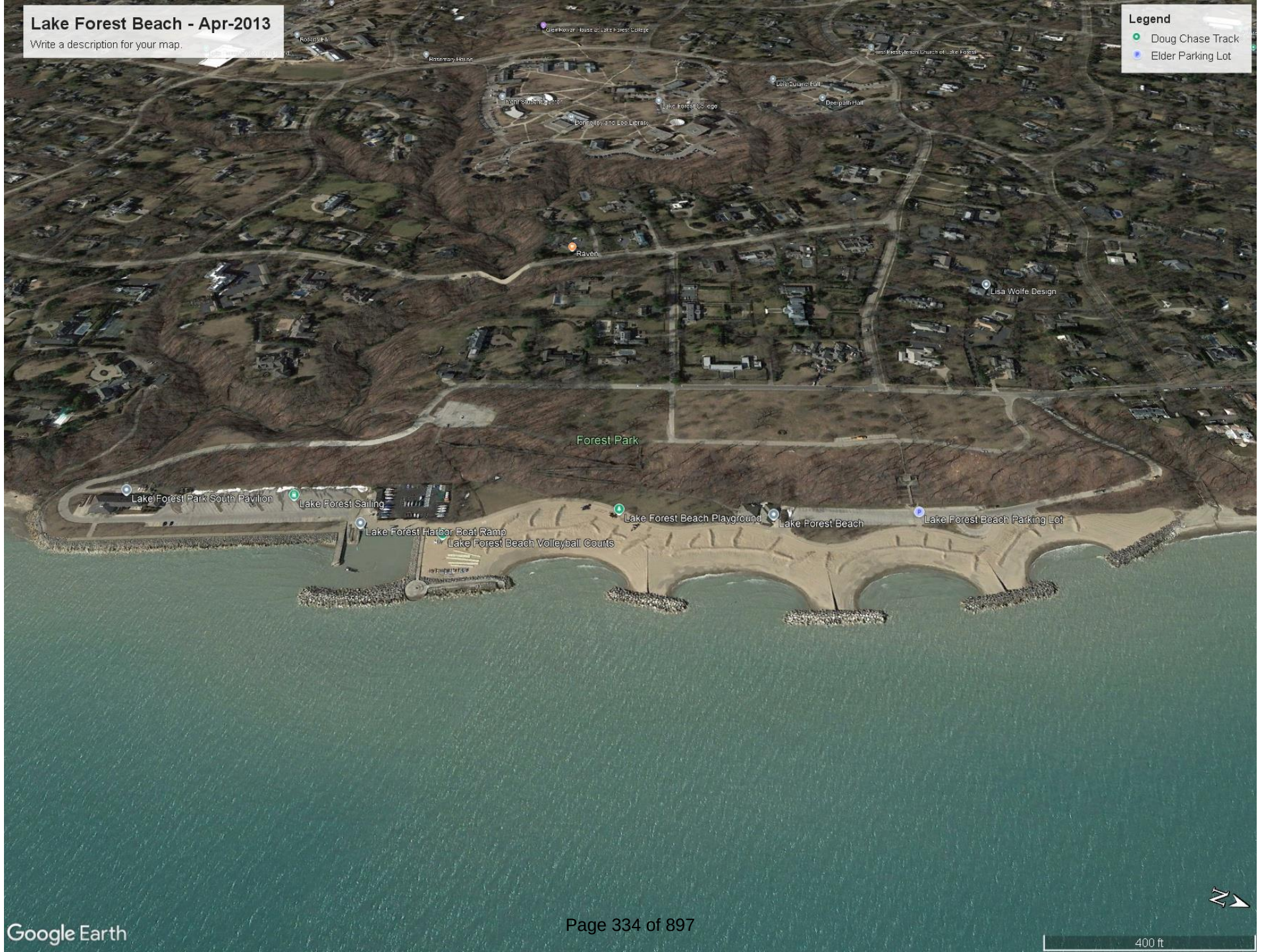
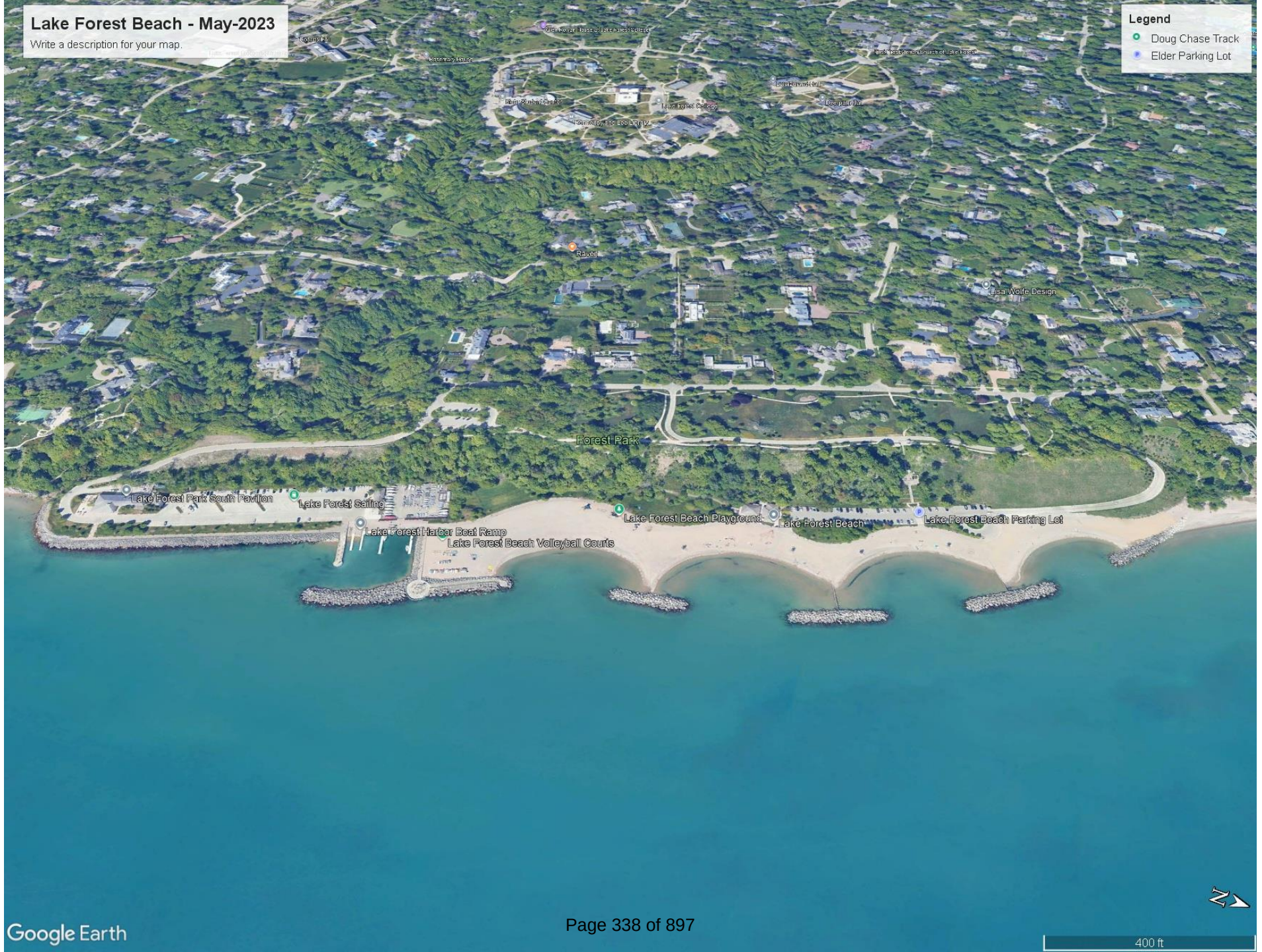
Rosewood Park
Sunset
Rosewood Beach
North Shore Sanitary District Tower
Rosewood Beach Parking
Google Earth
200 ft


Lake Forest Beach - Apr-2013
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Raven
Lisa Wolfe Design
Forest Park
Lake Forest Park South Pavilion
Lake Forest Sailing
Lake Forest Harbor Boat Ramp
Lake Forest Beach Volleyball Courts
Lake Forest Beach Playground
Lake Forest Beach
Lake Forest Beach Parking Lot
Google Earth
400 ft

Lake Forest Beach - Jun-2015
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Raven
Lisa Wolfe Design
Forest Park
Lake Forest Park South Pavilion
Lake Forest Sailing
Lake Forest Harbor Boat Ramp
Lake Forest Beach Volleyball Courts
Lake Forest Beach Playground
Lake Forest Beach
Lake Forest Beach Parking Lot
Google Earth
400 ft

Lake Forest Beach - Jul-2018
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Raven
Lisa Wolfe Design
Forest Park
Lake Forest Park South Pavilion
Lake Forest Sailing
Lake Forest Harbor Boat Ramp
Lake Forest Beach Playground
Lake Forest Beach Volleyball Courts
Lake Forest Beach
Lake Forest Beach Parking Lot
Google Earth
400 ft

Lake Forest Beach - Jun-2020
Write a description for your map.
Legend
Doug Chase Track
Elder Parking Lot
Raven
Lisa Wolfe Design
Forest Park
Lake Forest Park South Pavilion
Lake Forest Sailing
Lake Forest Harbor Boat Ramp
Lake Forest Beach Volleyball Courts
Lake Forest Beach Playground
Lake Forest Beach
Lake Forest Beach Parking Lot
Google Earth
400 ft


Lake Forest Beach - May-2023
Write a description for your map.
Legend
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Elder Parking Lot
Raven
Lisa Wolfe Design
Forest Park
Lake Forest Park South Pavilion
Lake Forest Sailing
Lake Forest Harbor Boat Ramp
Lake Forest Beach Volleyball Courts
Lake Forest Beach Playground
Lake Forest Beach
Lake Forest Beach Parking Lot
Google Earth
400 ft

A Collection of Videos of Winnetka Beaches

Tower, Lloyd, Maple, Elder & Centennial 2018 through 2024

during periods of high wind and large waves.

The intent of this collection is to demonstrate the effectiveness of the headland beach system at Lloyd Beach as compared to unprotected beaches at Tower, Maple, Elder and Centennial

Tower Road Beach – October 14, 2023

Lloyd Beach & Stepan Boat Launch October 14, 2023

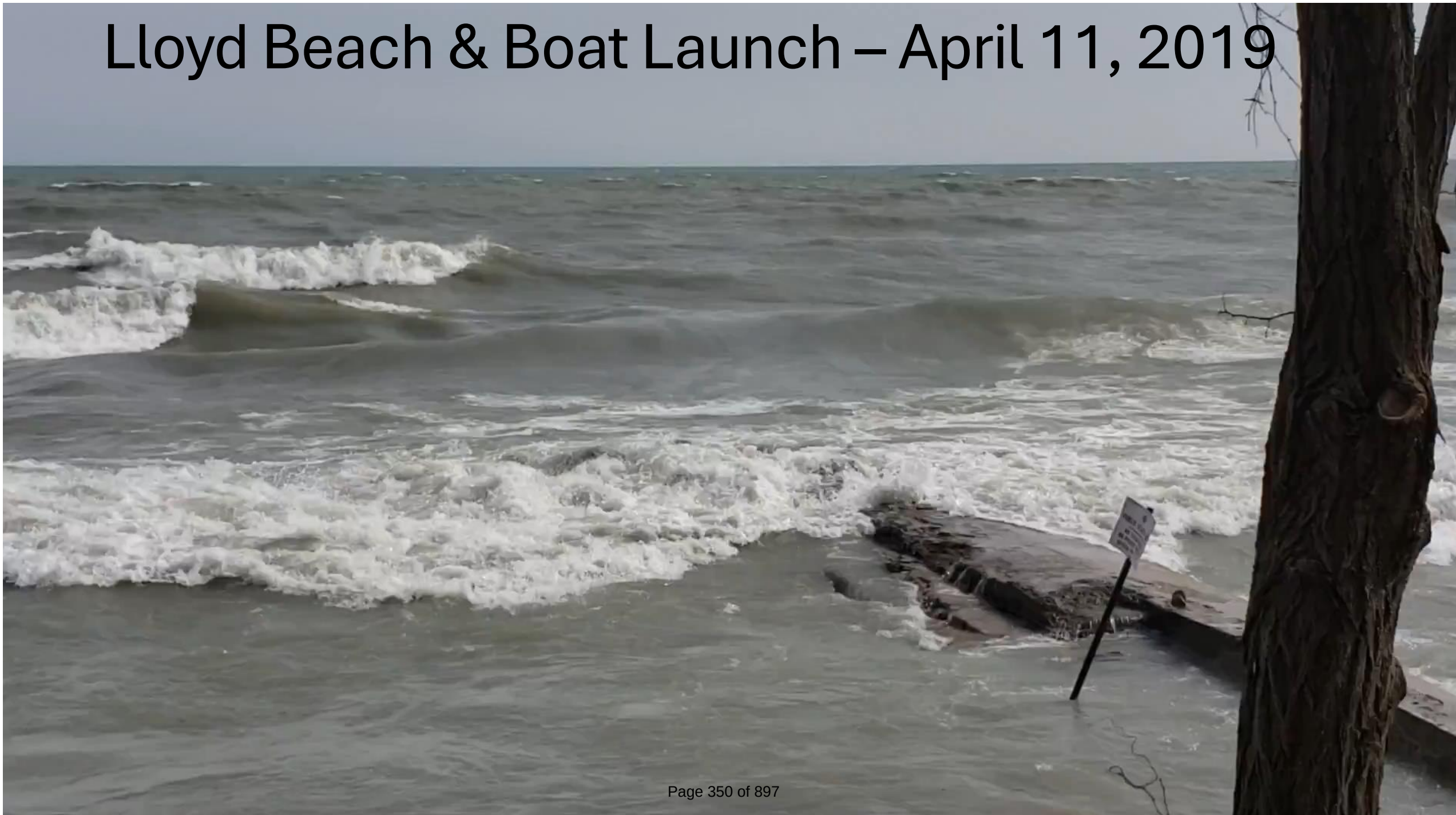
Maple Beach & Pier – October 14, 2023

Elder & Centennial Beaches – October 14, 2023

Tower Road Beach – April 14, 2018

Lloyd Beach & Boat Launch April 11, 2019

Lloyd Beach & Boat Launch – April 11, 2019



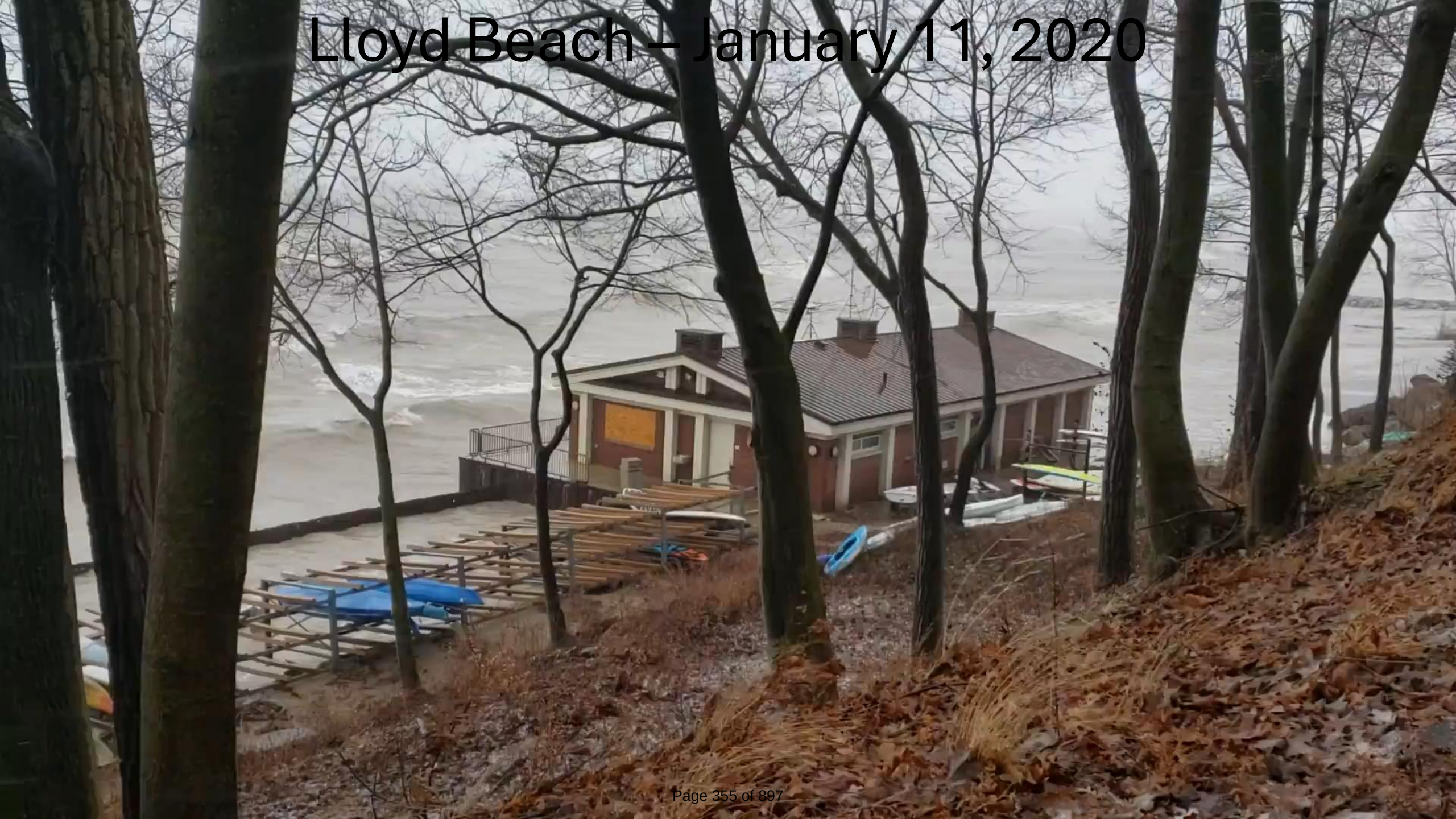
Lloyd Beach & Boat Launch April 11, 2019

Lloyd Beach – April 11, 2019

Tower Road Pier – October 31, 2019

Lloyd Beach – October 31, 2019

Lloyd Beach – January 11, 2020



Elder and Centennial Beaches – September 22, 2021

Centennial Beach – September 22, 2021

Lloyd Beach & Stepan Boat Launch October 6, 2021

Lloyd Beach and Stepan Boat Launch – January 12, 2024

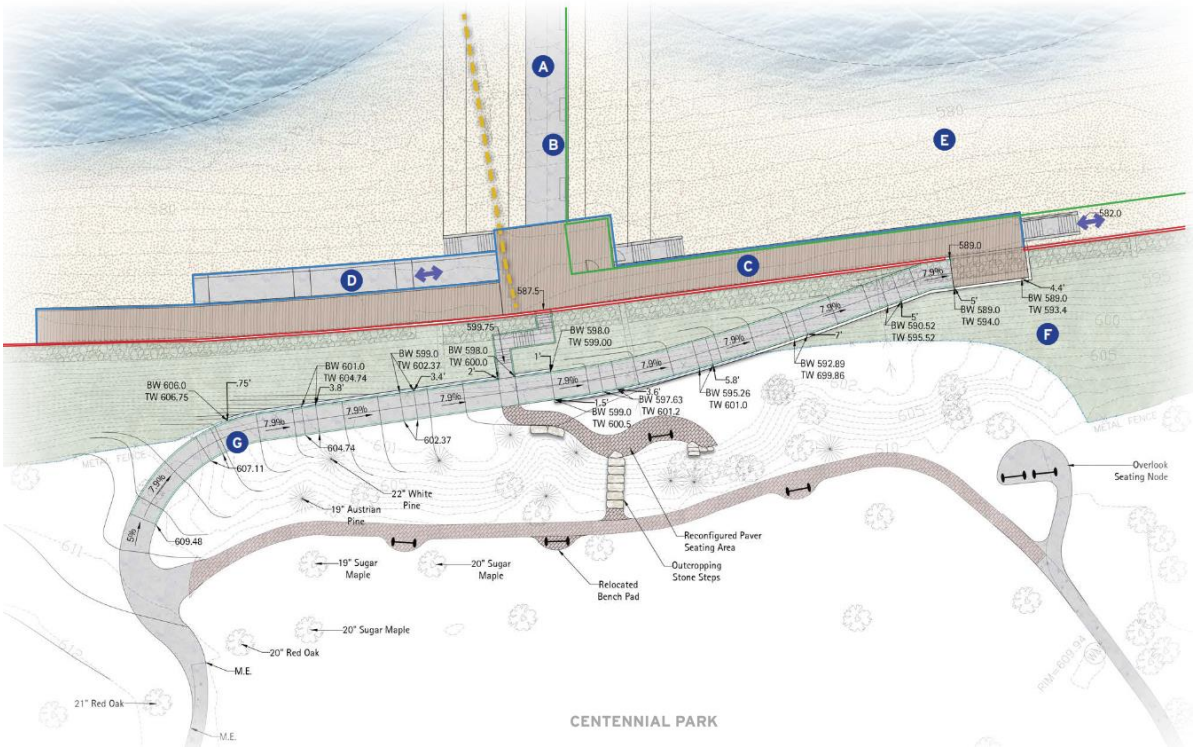
Exhibit 12

Centennial Beach - ADA Access

Centennial Beach is presently the only Winnetka Park District Beach that does not provide ADA access to the beach level. All other beaches (Tower, Lloyd, Maple, Elder) address ADA access by way of parking spaces at the beach level. The approved plan for Centennial creates an ADA accessible path from Sheridan Road to the beach, independent of parking at the beach level. Centennial Park is unique among the five lakefront parks given its beach frontage and relatively low bluff which make it the only beach where it is practical to accomplish pedestrian friendly ADA access to the beach.

Elder Lane Beach has a single handicap parking space at the base of a steep driveway. The driveway is far outside of compliance with ADA standards. Utilizing the ADA parking space at Elder requires a beach patron to call ahead are request the park district to unlock the gate. With a single parking space at the base of the driveway, Elder meets minimum accessibility standards. Moreover, Elder Lane Beach does not embrace the principle of universal design.

Universal design is the design of buildings, products or environments to make them accessible to people, regardless of age, disability or other factors. It is a design process that increases the potential for developing a better quality of life for a wide range of individuals. It addresses common barriers to participation by creating things that can be used by the maximum number of people possible.



The Park District's plans for Centennial incorporate universal design principles, providing a continuous accessible pathway from Sheridan Road to the end of the new pier and viewing area on the lake. The plan includes multiple opportunities to enjoy panoramic views of the lake, whether from the mid-bluff landing (currently not "accessible"), on the boardwalk level or all the way onto the lake on the new breakwater. In addition, the design includes an accessible ramp to the beach, where a beach mat may allow patrons with differing abilities to enter the lake directly.

Winnetka Park District – February 2025

Centennial Beach - ADA Access

The Park District's long-term vision for Elder includes the removal of the old pier and relocation of the storm sewer outfall pipe, thus the importance and efficacy of constructing the breakwater at Centennial. The Centennial breakwater with integrated pier serves multiple purposes:

1. Provides access onto the lake for people of all abilities.
2. Creates proper separation between the dog beach and the swimming beach with a non-permeable barrier.
3. Arrests the littoral drift of sand along the lakeshore, creating a usable swimming beach.

There can be no misunderstanding, the Park District's approved plan for Centennial Park and Beach embraces the principle of universal design and affords much greater opportunities to far more people than what is presently available at Elder Lane Beach.

ADA Design Standards

ADA design standards require a maximum continuous slope of 5% or maximum overall slope of 8.33%, provided there are rest areas spaced not more than 50 feet apart. The proposed design incorporates sections of the path that are 5% and less than 8.33% with the required rest areas. The elevation of the table land is approximately 612 msl, the mid-bluff area is around 600 msl, the boardwalk varies between 587 and 589 msl and the end of the ramp to the beach is designed at 580 to ensure the bottom of the ramp will be covered by sand at all times. Minimum ramp lengths are calculated as follows:

Table Land: elevation 612
12’ drop @ 5% = 240 feet; or 12’ @ 8.33% = 144’ + 10’ (2 rest stops) = 154’ minimum ramp length
Mid Bluff: elevation 600
11’ drop @ 5% = 220 feet; or 11’ @ 8.33% = 132’ + 10’ (2 rest stops) = 142’ minimum ramp length
Boardwalk: elevation 589
9’ drop @ 5% = 180 feet; or 9’ @ 8.33% = 108 + 10’ (2 rest stops) = 118’ minimum ramp length
Beach: elevation 580

Any alternative design that introduces additional switchbacks would result in an increase in the overall ramp length and area and reduce the usability of the path for maintenance and emergency vehicles.

Exhibit 13

RED BARN
Design & Engineering, S.C.

6750 Woodland Dr.
Waunakee, WI 53597

p. 608.849-2042
c. 608.843.1870

redbarnde@tds.net

Matthew D. Wright, P.E
Principal Engineer/Owner
RED BARN Design & Engineering, S.C.

Education
BS-Civil Engineering
University of Wisconsin-Madison, 1981

Registrations
Prof. Engineer
WI, IL, MI, PA, IA, MN, IN, GA, KY

Mr. Wright, for over 43 years, the last 22 as founder/owner of RED BARN Design & Engineering, has served as project manager and Senior Civil Design Engineer on numerous civil and environmental engineering, coastal engineering and waterfront development projects. Mr. Wright's project involvement typically includes design and preparation of plans and specifications for bidding and construction, bid phase involvement, construction documentation, construction administration, permitting and client liaison. Mr. Wright is experienced in the areas of civil engineering design, marina, harbor infrastructure, breakwater and shore protection design and construction, as well as site infrastructure design, feasibility studies, data acquisition and analysis, and construction materials investigations.

Relevant Experience

1st Avenue Revetment Repair, Kenosha, Wisconsin

Project engineer responsible for design and preparation of plans and specifications for repair and installation of rubble mound revetment of 1,300' of City of Kenosha shoreline on Lake Michigan. Additional responsibilities include USACE, WDNR, USEPA and local permitting, cost estimating, bid phase involvement, and performance of construction administration. The project was performed from a water-based plant. The project was designed and constructed in 2023. The total construction cost for the project was $4.3 million.

Restoring Ecological Health and Aquatic Biodiversity in Southeastern Wisconsin (REHAB), Pleasant Prairie, Wisconsin

Project engineer responsible for design and preparation of Concept plans for design and installation of rubble mound revetments, pocket beaches, and onshore breakwaters to stabilize and improve site habitat of 1,900' of WDNR property at the Chiwaukee Prairie in Pleasant Prairie, Wisconsin on Lake Michigan. Working collaboratively with WDNR staff with input from the Natural Resources Foundation of Wisconsin, Wisconsin Coastal Management Program, Fund for Lake Michigan, and NFWF, the concept plan to stabilize and provide

site habitat improvements was developed over the past four years. Final design, permitting, and construction are planned to be completed in 2022/2023. Project estimated construction cost is approximately $10,000,000.

Shoreline Stabilization 9040 E. Bayside Dr, Bayside, Wisconsin

Project engineer responsible for design and preparation of plans and specifications for design and installation of rubble mound revetment of 860' of private shoreline on Lake Michigan. Project was performed as a water-based operation. All site preparation, material disposals, revetment material delivery and construction were performed from water-based plants. Additional responsibilities include USACE, WDNR, USEPA, and local permitting. cost estimating, bid phase involvement, and performance of construction administration. Project was designed and constructed in 2021. Project construction cost $4,200,000.

Shoreline Stabilization Airing Ravine LLC, Bayside, Wisconsin

Project engineer responsible for design and preparation of plans and specifications for design and installation of rubble mound revetment and pocket beach of 640' of private shoreline on Lake Michigan. Project was performed as a water-based operation. All site preparation, material disposals, revetment material delivery and construction were performed from water-based plants. Additional responsibilities include USACE, WDNR, USEPA, and local permitting. cost estimating, bid phase involvement, and performance of construction administration. Project was designed and constructed in 2021. Project construction cost was $4,000,000.

Southport Park Shoreline Repair Phases 1, 2, and 3, Kenosha, Wisconsin

Project engineer responsible for design and preparation of plans and specifications for repair and installation of rubble mound revetment of 3,100' of City of Kenosha shoreline on Lake Michigan. Additional work elements included localized storm sewer design and installation through the new revetment, site staging and marshalling area design and restoration. Additional responsibilities include USACE, WDNR, USEPA, and local permitting, cost estimating, bid phase involvement, and performance of construction administration. The projects were designed and constructed in 2015, 2018, and 2020. The total construction costs for the three projects were over $10 million.

Kennedy Drive Revetment Repair, Kenosha, Wisconsin

Project engineer responsible for design and preparation of plans and specifications for repair and installation of rubble mound revetment of 3,500' of City of Kenosha shoreline on Lake Michigan. Additional responsibilities include USACE, WDNR, USEPA, and local permitting, cost estimating, bid phase involvement, and performance of construction administration. The project was designed in 2019 and constructed in 2019. The total construction cost for the project was over $7.3 million.

Harbor Mooring Improvements, Kenosha, Wisconsin

Project engineer responsible for design and preparation of plans and specifications for installation of heavy marine mooring bollards in the Kenosha harbor. The bollard installation was performed to provide mooring and safe harbor for commercial vessels namely the Tall Ships festival. Additional responsibilities include USACE, WDNR, USEPA, and local permitting, cost estimating, bid phase involvement, and performance of construction administration. The project was designed in 2019 and constructed in 2019. The total construction cost for the project was over $1.2 million.

Limnology Dock & Sidewalk Repair, Madison, Wisconsin

Project engineer responsible for design and preparation of plans and specifications for removal and repair of the Limnology Building seawall and lakeshore revetment on the shore of Lake Mendota. Additional responsibilities include USACE, WDNR, USEPA, and local permitting, cost estimating, bid phase involvement, and performance of construction administration. The project was designed in 2017 and constructed in 2020. The total construction cost for the project was over $500,000.

Harbor Wall Improvements, Kenosha, Wisconsin

Project engineer responsible for design and preparation of plans and specifications and analysis to determine bulkhead failures and repairs needed to return the harbor to commercial operations. Additional responsibilities include USACE, WDNR, USEPA, and local permitting, cost estimating, bid phase involvement, and performance of construction administration. The project was designed in 2018 and constructed in 2018 and 2019. The total construction cost for the project was $1,1 million.

Christophe Harbor Marina Fuel System and Condition Assessment, St. Kitts, West Indies

Project engineer responsible for design and preparation of plans and specifications for the high capacity diesel and gasoline fuel system at the Christophe Harbour Marina. Project elements included design of state-of-the-art fuel dispensing, controls, piping, valving for landbased fuel hydrants, marina based fuel hydrants, and floating fuel pier dispenser. Controls included three touch screen PLS control stations with manual switch backup devices. Additional utilities included water service to the floating fuel pier. Additionally, RED BARN performed a visual Condition Assessment and prepared a Condition Assessment Report for the Christophe Harbor marina fuel system and sanitary and water utility systems on the island of St. Kitts for the purpose of observing and documenting the existing condition of the installed fuel system and utilities at the fixed pier marina. The Condition Assessment Report was prepared to document and discuss the quality of the installed work in response to inadequate and improper installation methods performed by the construction contractor. Additionally our recommendations for remedial action and repair were included in the report. The Condition Assessment project was performed in the spring of 2015. The fuel system was designed in 2015. Construction estimate for the fuel system is $950,000. The fuel system is currently under construction with a scheduled late 2015 start-up.

Edgewater Pier at the Edgewater Hotel, Madison, Wisconsin

Project engineer responsible for design and preparation of plans and specifications for fixed and floating pier improvements for the Edgewater Hotel on Lake Mendota in Madison, Wisconsin. Project element included pile supported fixed main pier with 40- slips of floating dockage and floating fuel pier. Project utilities included electric, sanitary and water utilities to serve the floating fuel pier. Additional responsibilities include USACE, WDNR, USEPA, and local permitting, cost estimating, bid phase involvement, and performance of construction administration. The project was designed in 2014 and was constructed in 2015. Project construction cost is estimated at $1,450,000.

Wilmette Dockage and Anchorage, Wilmette, Illinois

Project engineer responsible for design and preparation of plans and specifications for 440’ of fixed pile anchored floating dockage, 15 slips of spud pile with sea-flex anchored swing moorings, and 390’ pile supported adjustable waler wall for mooring of small craft in the Wilmette Harbor. Additional responsibilities include cost estimating, bid phase involvement, and performance of construction administration. The project was designed in 2015 and will be constructed in 2016. Estimated construction cost is $650,000.

Washburn Marina, Travel Lift Well and Fuel System Improvements, Washburn Wisconsin
Project engineer responsible for design and preparation of plans and specifications for removal and replacement of the travel lift well, fuel and sanitary pumpout systems, at the Washburn Marina. Project elements included removal and replacement of the existing binwall pier system, and removal, replacement and upgrade of the existing diesel and gasoline fuel system. The design was prepared in 2013 and was constructed in 2014. Project construction cost estimate is $420,000.

Schultz Park Improvements, Paducah, Kentucky
Project engineer responsible for design and preparation of plans and specifications for landform fill to create a new landmass in the Ohio River for development of transient dockage and future marina improvements along the Paducah shoreline. Additional project elements included floating breakwater, floating administration building platform and fuel pier, and floating fuel system including floating fuel barge for storage and dispensing of diesel and gasoline fuels, and sanitary pumpout system. Additional project responsibilities included coordination of all Client project subconsultants to integrate and produce a single bid package for all site civil and coastal engineering, electrical improvements, and building architecture for floating Marina Administration building. The project is currently out for bid. Project construction cost estimate is $11,000,000.

AYA NAPA Marina, Cypress
Project engineer responsible for design and preparation of preliminary plans and specifications for harbor improvements including fixed pier and headwalks, rubblemound breakwaters and revetments, and slit-faced cayways, fixed and floating dockage layout and detail design of sanitary, water, dry fire, and domestic water supply systems, and floating fuel pier and fuel system for 250-acre waterfront development and 600 slip marina. Design and specifications were prepared for bidding both concrete, and aluminum floating dockage. The preliminary design was performed in 2013. Project construction estimate is $250,000,000.

Waukegan Marina Fuel Pier Reconstruction, Waukegan, IL
Project manager/engineer/designer responsible for design and preparation of plans and specifications for removal and replacement of the 980’ long fuel pier at Waukegan Port District. Project elements included removal of the existing pile supported fixed fuel pier and all sanitary, water, fuel and electrical utilities, and replacement with a floating fuel pier of the same configuration with upgraded utilities. Upgraded utilities included new diesel and gasoline fuel delivery, dispensing and monitoring systems, new constant-vacuum sanitary pumpout and discharge system, new pier electrical system, and new fire and domestic water system. Additional project elements included design and construction of a 850 sf fuel attendant building and restroom located mid-length on the floating fuel pier. Additional responsibilities include permitting, cost estimating, bid phase involvement, and performance of construction administration. The project was designed in 2008 and constructed in 2009/2010. Project construction cost was $1,050,000.

Boat Launch Ramp Reconstruction, Waukegan, IL
Project manager/engineer/designer responsible for design and preparation of plans and specifications for removal and replacement of the 8-lane boat launch ramp at the Waukegan Port District. Project elements included removal of the floating access dockage and storage for reinstallation, demolition of the fixed access piers and cast-in-place and precast concrete plank boat launch ramp, and dredging of the ramp basin. The new 8-lane launch ramp was designed as a cast-in-place ramp using a cofferdam for dewatering and construction of the new ramp. The existing floating access ramps were reused, with two new floating access

ramps included in the final design. Project was designed in 2010 and constructed in 2011. Project construction cost was $347,000.

Pearl City Station Bulkhead Repair and Plaza Reconstruction, Muscatine, IA
Project manager/engineer/designer responsible for design and preparation of plans and specifications for repair of 263' of Mississippi River bulkhead, and removal and replacement of a 60,000 sf public plaza. Bulkhead repair elements included construction of a cast-in-place concrete bulkhead riverward of the failing bulkhead to stabilize failed portion of the existing bulkhead and provide stability and erosion protection for the existing bulkhead. Additionally, a rip rap revetment was constructed to provide toe protection for the bulkhead improvements. The public plaza elements included hardscape elements framing the open space surrounding the historic Pearl City Station building to provide a public gathering space for reception, festivals and general use. Plaza element included cast-in-place concrete deck framed by a low brick wall capped with cut limestone caps and integral decorative cast iron railing. The plaza corners were defined with brick pilasters, access stairways, and decorative lighting. Storm drainage improvements and landscaping were integral details of the design. Additional responsibilities include permitting, cost estimating, bid phase involvement, and performance of construction administration. The project was designed in 2009 and constructed in 2009/2010. Project construction cost was $910,000.

Boat Launch Ramp and Sanitary Sewer, Muscatine Riverside Park, Muscatine, IA
Project Manager/Engineer responsible for design and preparation of plans and specs for 4-lane boat launch ramp and supporting entrance roadway and parkway, and improvements to existing park infrastructure. Improvements to existing Park infrastructure included upgrade of all site electrical facilities and addition of new site lighting, site irrigation, storm sewer facilities, water main and service laterals, and replacement of 2.500 lf of gravity sanitary interceptor with HDPE forcemain to existing sanitary lift station, and addition of two sanitary lift stations to service existing park facilities. Additional responsibilities include permitting, cost estimating, bid phase involvement, and performance of construction administration and construction management. The project was designed in 2005 and constructed in 2006. Project construction cost was $2,875,000.

Port-O-Call Shoreline, Castle Rock Lake, WI
Project Manager/Engineer responsible for design and preparation of plans and specs for 3,000 lf of new shoreline improvements. Design elements included removal and replacement of pile supported shore parallel walkway, rip rap revetment and site grading. Additional responsibilities included permitting, cost estimating, bid phase involvement, and performance of construction observation. The project was designed in 2005 and constructed in 2006. Project construction cost was $1,200,000.

Evanston Boat Launch Ramp Condition Assessment, Evanston, Illinois
Performed a visual Condition Assessment and prepared a Condition Assessment Report for the City of Evanston public boat launch ramp in Evanston, Illinois for the purpose of observing and documenting the existing condition of the launch ramp and waterfront infrastructure. Facility elements and amenities included in the Condition Assessment Report included floating dockage, fixed dockage, breakwater, revetments and launch ramp basin interior shore protection. Additional project elements included preparation of cost estimates for repair and/or replacement of the existing facilities. Project was performed in March 2014.

Lewis & Clark Marina Condition Assessment, Yankton, South Dakota
Performed a visual Condition Assessment and prepared a Condition Assessment Report for the Lewis & Clark Marina in Yankton, South Dakota for the purpose of observing and documenting the existing condition of the marina and waterfront infrastructure. Facility elements and amenities included in the Condition Assessment Report included floating dockage, fixed travel lift boat launch facility, boat launch ramp, site and

marina electrical facilities, and land and water based fuel system. Additional project elements included preparation of cost estimates for repair and/or replacement of the existing facilities. Project was performed in April 2013.

Cleveland Edgewater Marina Condition Assessment, Cleveland, Ohio
In response to damage resulting from Hurricane Sandy, performed a visual Condition Assessment and prepared a Condition Assessment Report for the Edgewater Marina in Cleveland, Ohio for the purpose of observing and documenting the existing condition of the marina and waterfront infrastructure. Facility elements and amenities included in the Condition Assessment Report included exterior breakwaters and revetments, floating dockage, fixed travel lift boat launch facility, boat launch ramp, interior shoreline improvements including revetments and sheet pile walls, site and marina electrical facilities, and land-based fuel system. Additional project elements included preparation of cost estimates for repair and/or replacement of the existing facilities. Project was performed in December 2012.

Bay Port Marina Condition Assessment, Bay Port, Minnesota
Performed a visual Condition Assessment and prepared a Condition Assessment Report for the Bay Port Marina in Bay Port, Minnesota for the purpose of observing and documenting the existing condition of the marina and waterfront infrastructure. Facility elements and amenities included in the Condition Assessment Report included floating dockage, fixed travel lift boat launch facility, boat launch ramp, shoreline improvements, site and marina electrical facilities, and land and water-based fuel system. Additional project elements included preparation of cost estimates for repair and/or replacement of the existing facilities. Project was performed in October 2012.

Chicago Botanical Gardens, Northbrook, IL
Project Engineer responsible for design and oversight of the stabilization of 4 miles of the Botanical Gardens shoreline. Stabilization improvements include development of submerged shelves for aquatic planting beds through steel sheet pile walls, earthwork and geomembrane stabilization materials.

Lakeshore State Park, Milwaukee, WI
Project Engineer responsible for design and preparation of plans and specifications for harbor improvements including walkway, breakwater, steel sheetpile bulkhead, dredging, all land and water-based utilities, including domestic and fire water supply, sanitary forcemain and site storm sewer, earthwork, grading, and all site development layout and design, and cost estimating. Additional responsibilities include contract administration and construction observation.

Duncan L. Clinch Marina, Traverse City, MI
Project Engineer responsible for design and preparation of plans and specifications for $10M harbor improvements including walkway, breakwater, steel sheetpile bulkhead, dredging, all land and water-based utilities, including domestic and fire water supply, sanitary forcemain and site storm sewer, 256-boat marina, fuel system design, earthwork, grading, and all site development layout and design, and cost estimating. Additional responsibilities include contract administration and construction observation.

War Memorial and Art Museum Expansion/ Shoreline Protection and Seawall Replacement, Milwaukee, WI
Project Manager responsible for design and preparation of plans and specifications for 2800 foot shoreline protection. Shoreline protection features included pile supported concrete walkway and revetment, and low profile off-shore breakwater. Additional responsibilities included permitting, cost estimating, contract administration, and construction observation.

Silver Bay Marina, Silver Bay, MN
Project Engineer responsible for design of a 250-boat marina, fuel system and utilities to serve the marina, site improvements including roadway, parking, boat launch ramp and earthwork. Site nestled carefully into a natural park setting located on Lake Superior's North Shore.

LaCrosse Downtown Mississippi Riverfront, LaCrosse, WI
Project Engineer responsible for design and preparation of plans and specifications for all site improvements for a small harbor for visiting boaters and a riverfront park with 2,000 ft of frontage including a riverboat landing area.

Navy Pier Dockwall Improvements, Chicago, IL
Design of dockwall improvements for stabilization and upgrade of existing dockwall, pile preservation containment and pumping system, and preparation of plans and specifications for construction and permitting.

Racine Harbor/Marina Development, Racine, WI
Project Engineer responsible for design and preparation of plans and specifications for $21M harbor improvements including 921-boat marina, walkway, breakwater, steel sheetpile bulkhead, dredging, all land and water-based utilities, including domestic and fire water supply, sanitary forcemain and site storm sewer, fuel system design, earthwork, grading, and all site development layout and design. Additional responsibilities include cost estimating, contract administration and construction observation.

U.S. Army Corps of Engineers, Chicago, IL
Project Engineer providing coastal engineering design, calculations, project plan and specification development for twelve shoreline protection projects within the Chicago Lake Michigan shoreline under Corps of Engineers open-end contract.

Professional Affiliations
- OSHA 40-hour Health and Safety Training
- OSHA 8-hour Site Supervisor Training
- Troxler Nuclear Density Gauge Certification

Charles W. Shabica, Ph.D., P.G., AM ASCE

EDUCATION
Brown University, B.A. Geology, 1965
Yale University, Geology, 1966
University of Chicago, Ph.D., 1971, Thesis: Depositional Environments, M. Pennsylvanian Francis Creek Shale

REGISTRATION
Professional Geologist, Illinois

UNIVERSITY POSITIONS

- 1971-present: Professor Emeritus, Department of Earth Science, Northeastern Illinois University, Chicago, IL. Specialization: coastal geology and coastal engineering
    - Instrumental in the establishment of the Weather Climate Service at Northeastern Illinois University, a cooperative program co-sponsored by the National Weather Service.
    - Developed coastal studies program. New courses included: Coastal Marine Research, Environmental Stability in Lake Michigan, and Coastal Engineering.
    - Updated 1944 Chicago Park *District Lake Shore Protection Work Map of Shoreline Bulkhead Types* with Luke Cosme CPD in 1986.
    - Acquired research vessels and sampling equipment through grants and donations.
    - Supervised four research fellows working on coastal research projects sponsored by Great Lakes Commission, National Park Service, NOAA, National Geographic Society, Illinois/Indiana Sea Grant, U.S. Geological Survey.
- 1999-2001: Adjunct Professor, Department of Environmental Science, Northwestern University, Evanston, IL. Specialization: research in coastal geology, coastal engineering, wetland management.
- 1980-1981: Adjunct Professor, College of the Virgin Islands. Developed marine science program including new faculty position, marine science center and research vessels. Awarded $248,000 National Science Foundation Grant, "Improved Marine Science Curricula – Access to the Sea."

PROFESSIONAL POSITIONS

- 1984 – present: President, Shabica & Associates, Inc., 550 Frontage Road, Suite 3735, Northfield, IL 60093, charles@shabica.com, 847-446-1436. Consultants in coastal geology and coastal engineering.
- 2005-2006: Principal Investigator, Great Lakes Commission, Monitoring Ravines for Water Quality
- 2004-2005: Principal Investigator, NOAA: Foss Park Beach Restoration
- 2003-2005: Principal Investigator, Great Lakes Commission: Ravine Settling Ponds
- 1993-1995: Principal Investigator, Great Lakes Commission: Ravine Erosion Control Project
- 1993-1994: Principal Investigator, Earthwatch Expedition: Cumberland Island Georgia
- 1992-1993: Principal Investigator, National Geographic Society: Relict Forest in Lake Michigan
- 1989-1996: Research Collaborator, National Park Service: Hydrogeology of Cumberland Island, Georgia
- 1989-1993: Research Collaborator, National Park Service: National Parks Inlet Dynamics, E. & Gulf Coasts

- 1987-1988: Commissioner, Structural Measures Work Group, Chicago Shoreline Protection Commission. Identified technical solutions for the reconstruction of the Chicago lakefront.
- 1986: Chair, Task Force on Lake Michigan: Convened by the City Club of Chicago and sponsored by Northeastern Illinois University. Brought lake experts and policy makers together to study Chicago lakefront. Included graduate course on Lake Michigan and conference.
- 1979-1980: Kellogg Fellow, Northeastern Illinois University
- 1978-1982: Research Collaborator, National Park Service: Shore management and dynamics of sand transport and barrier island migration, Gulf Islands National Seashore
- 1976: Member, Task Force on Illinois Coastal Zone Management
- 1966-1967: Research Assistant, Woods Hole Oceanographic Institution, Department of Biology: Several voyages to: North Atlantic R.V. Chain and R.V. Atlantic II, Chief Scientist R.V. Panulirus

AWARDS

2012 Designer, ASBPA Top Restored Beach, Sunrise Park, Lake Bluff, Illinois; 1986 Faculty of the Year, Northeastern Illinois University; 1990 Northeastern Illinois University Nominee – Board of Directors Distinguished Professor; 1993 Case Professor of the Year; 1995 Finalist, Chicago Tribune Academic All-Stars; 1993, 1995, 1996 Faculty Excellence Award, Northeastern Illinois University

PROJECT HIGHLIGHTS

1987-2022 shore management and restoration projects include design and engineering for beaches and beach nourishment, marinas, breakwaters, revetments, groins, spurs, piers, boat ramps, and bluff and ravine stabilization. Lake Michigan work includes more than 150 projects in the following Illinois communities: Chicago, Evanston, Highland Park, Glencoe, Kenilworth, Lake Bluff, Lake Forest, North Chicago, Waukegan, Wilmette and Winnetka. Work in other states includes: Florida, Massachusetts, Michigan, Ohio and Wisconsin. International projects: Mexico and Belize. Project highlights include:

- Village of Winnetka: Design and Engineering, Lloyd Beach, Elder/Centennial Beach 2020-2022
- Park District, Highland Park, IL: Design and Engineering - Ravine Stabilization for Fish Habitat, 2011
- ASBPA National Conference Co-Chair, Chicago, 2009
- Ara Macao Resort, Placencia, Belize: Marina Design, Coastal Engineering, Environmental Impact Assessment, 2005-2011
- San Felipe, Mexico: Waterways Design and Coastal Engineering, 2006
- North Park University, Chicago River: Design and Coastal Engineering for Revetment and Pier, 2003-2005
- City of Whiting, Indiana: Lakefront Redevelopment, Design and Coastal Engineering, 2004-2005
- Foss Park, North Chicago, Illinois: Design and Coastal Engineering of municipal lakefront, 2000-present
- Wilmette Harbor, Illinois: Permitting for dredging and redesign of marina, 1996-present
- City of Whiting, Indiana: Design and Coastal Engineering of new revetment and harbor, 1998-1999
- Fort Sheridan, Illinois: Design and Engineering: Landfills 6 & 7 Stabilization and Shore Protection, 1998
- ASBPA National Conference: Co-Chair, Chicago, 1996
- City of Highland Park, Illinois, Department of Public Works: Coastal Engineering Consultant, 1993-1995
- Lake Bluff Park District, Illinois: Design and Engineering: Sunrise Park Bluff and Beach Restoration, 1990
- Shedd Aquarium, Chicago, Illinois: Design Consultant, Cold Water Mammal Facility, 1988-1991
- Fort Sheridan Commission: Member, Environmental Panel, 1989-1990
- City of Lake Forest, Illinois: Member, Shore Monitoring Team, 1989-1990
- Loyola University, Chicago, Illinois: Technical Consultant, 18.3-Acre Lakefill Project, 1988-1989
- Waukegan Harbor, Illinois: Harbor Redesign Consultant, PCB Cleanup, 1988
- Village of Kenilworth, Illinois: Review Shoreline Expansion Plans, 1988. Public Boat access, 2019

- Laurel Avenue Project, Highland Park, Illinois: Design and Engineering: shore protection stone berms, breakwaters, beaches and revetments to the City of Highland Park and 3 riparian property owners, 1988
- *Shedd Aquarium Cold Water Mammal Expansion*: Environmental Impact Report, 1987
- *Water Treatment Plant Expansion Alternative*: Report to City of Highland Park, 1986
- *Short & Long Term Shore Management Alternatives*: Report to City of Highland Park, 1986

OTHER INTERESTS

Board Member Winnetka Historical Society; Curator, Mazon Creek Project, 1997-2007; Chair, American Environmental Science & Technology Corporation, 1990-1996; Director, Great Lakes Naval & Maritime Museum, 1983-1986; Asst. Cannoneer, Ravinia Festival, Tchaikovsky's *1812 Overture*, 1983-2013; Section Chair, Winnetka Congregational Church Rummage, 1993-2010; Experienced SCUBA diver, Red Cross Water Safety Instructor, Cert. 1966; Organized and Director Hurricane Hugo Relief Fund for University of The Virgin Islands, Northeastern Illinois University, 1988-1989; Asst. Scoutmaster, Troop 18, Boy Scouts of America, Northeast Illinois Council, 1984-1986; Packmaster, Cub Pack 18, BSA, Northeast Illinois Council,1986-1988; Boy Scout Commissioner, 1988-1991; Illinois Shore Girl Scout Council, Long Term Planning Committee, Properties Manager, 1976-1980.

PUBLICATIONS & REPORTS

2019 Shabica, C.W., ***T**he Winnetka Lakeshore 2100. Mimicking Nature to Cope with Climate Change: Maintaining Adaptive Living Shorelines*. Winnetka Historical Society Gazette

2018 Shabica, C.W., *Admiral Dewey's Cannon*, Invited article, Winnetka Hist. Soc. Gazette

2016 Shabica, C.W., A. Bartolai, J, Arrigoni, *Ravines – Natural History and Now*. Invited paper Ravine Symposium, November 15, Park District, Highland Park, Illinois

2012 Shabica, C.W. and G.C. Baird, *A Window into a Catastrophic Coal Age Flood Event: The Mazonian Fossil Bonanza*, Invited Paper, Mid America Paleontological Society

2012 Shabica, J., J. Ehret and C. Shabica, *State of the Great Lakes*, Shore and Beach, v80, # 3.

2011 Shabica, C.W., M.C. Mohr and S. Nagelbach, *Effects of Structurally-Engineered Beaches on Coastal Processes & Shores of the Great Lakes.* Abst. Coastal Zone 2011, Chicago, IL.

2011 Shabica, C.W., and S. Nagelbach, *Coastal Disaster Management Planning in the Caribbean*, ASCE Solutions to Coastal Disasters Conference, Anchorage, Alaska

2011 Grill, R, and C. Shabica, *Using Volunteers to Monitor Results of Restoring Native Aquatic Diversity to a Lake Michigan Ravine Ecosystem*, Coastal Zone 2011 Conference, Chicago, Illinois

2010 Shabica, C.W., M.C. Mohr and S. Nagelbach, *Effects of Structurally-Engineered Beaches on Coastal Processes and Shores of the Great Lakes*, Shore & Beach, v78/4/, v79/1, pp. 1-13

2010 Shabica, C.W., J. Jennings, M. Riley, J. Boeckler, *Stabilization of Ravines, Adjacent Beaches and Bluffs on Lake Michigan*, Shore & Beach, Vol. 78, No. 1, pp. 1-24

2008 Shabica, C., *Sustainable Great Lakes Beaches: The Illinois Experiment*, Shore & Beach, Vol 26, #3

2007 Campbell, T., R. Boudreay, S. Douglass, L. Ewing, J.R. Houston, T. Jarrett, J. Pope, A.P. Pratt, C.W. Shabica, M. Walther, *ASBPA Position Statement: Innovative Erosion Control Devices*, Shore & Beach, Vol. 75, No. 3, pp. 58-59

2005 Shabica, C.W., *Urban Beaches Series*, Shore & Beach, Vol. 73, No. 1, p. 23

2004 Shabica, C.W., *Mimicking Mother Nature – Learning from the Landscape to Control Ravine Erosion and Polluted Runoff*, Restoring the Connections, Stories of Ecosystem Restoration in the Great Lakes, edited by Chris Grubb and Wil Cwikiel, Tip of the Mitt Watershed Council

2004 Shabica, C.W., *Shoreline Erosion and Coastal Management*, Sea Technology, Soapbox, Dec. 2004

2004 Shabica, C.W., J. Meshberg, R. Keefe, R. Georges, *Evolution and Performance of Groins on a Sediment Starved Coast: The Illinois Shore of Lake Michigan North of Chicago, 1880-2000*, Journal of Coastal Research, Special Issue No. 33, pp. 39-56

2002 Magoon, O.T., C.W. Shabica, B.L. Edge, L.C. Ewing and D.D. Treadwell, *Importance of Urban Shore and Beaches*, 28th International Conf. on Coastal Eng. Cardiff, Wales, July 7-12, 2002

2002 Shabica, C.W., *Ravine, Bluff and Lakeshore Restoration*, invited paper, Illinois Landscape Association, Winter Seminar, Oakbrook, IL

2001 Shabica, C.W., *Urban Lakes as a Recreational Resource*, invited paper, Symposium on Urban Shorelines, NE Shore and Beach Preservation Assoc, 4th Annual Conf., Hoboken, NJ

2001 Shabica, C.W., Convener, Great Lakes Coastal Issues Roundtable, Coastal Zone Conference, Cleveland, OH, July 15, 2001

2000 Shabica, C.W., L. Dick, T. Donovan, J.D. Jones, J. Lynch, *Performance of Engineered Beaches on Urban Coasts: The Illinois Shore of Lake Michigan North of Chicago*, American Shore & Beach Preservation Association, Abstract, Kaanapali, HI

1999 Schramm (Nagelbach), S., and C.W. Shabica, *Evolution of an Engineered Lakeshore: The Illinois Northshore*, North Central Section Geological Society of America, Abstract, Urbana, IL

1999 Shabica, C.W., and R. Keefe, *Ravine Erosion Control – Sediment/Nutrient Transport Reduction*, North Central Geological Society of America, Abstract, Urbana, IL

1998 Shabica, C.W., Ravine Erosion Control, Soil Erosion and Sediment Control Conference, Toledo, OH, Great Lakes Commission and USEPA, invited presentation, September 16-18, 1998

1997 Shabica, C.W. and A.H. Hay, (eds.), *Richardson's Guide to the Fossil Fauna of Mazon Creek*, Northeastern Illinois University Press

1996 Shabica, C.W. and J.R. Jennings, *Shoreline Monitoring, Lake Bluff, Illinois*, American Shore & Beach Preservation Association National Conference, Chicago, IL, October 13-16, 1996

1996 Chrzastowski, M.J. and C.W. Shabica, *The Illinois Coast of Lake Michigan: North Point*

Marina to Evanston's Dawes Park, Field Guide, American Shore & Beach Preservation Association National Conference, Chicago, IL, October 13-16, 1996

1994 Shabica, C.W. and F. Pranschke, *Survey of Littoral Drift Sand Deposits Along the Illinois and Indiana Shores of Lake Michigan*, U.S. Geological Survey Symposium, Vol. 20, pp. 61-72

1993 Shabica, C.W., S.V. Cofer-Shabica, D. Anderson, S. Boom, *Inlets of SE Region National Park Units: Effects of Inlet Maintenance and Recommended Action,* Report, National Park Service, 59 pp.

1993 Shabica, C.W., G.E. Hultman, C. Miller, *The Lake Bluff Billow: Recreation of Illinois' Pre-Settlement High Bluff Shoreline with Native Vegetation and Soft-Shore Coastal Engineering,* Proceedings, 13th International Conference, The Coastal Society, pp. 779-785

1992 Shabica, C.W., F. Pranschke, M.J. Chrzastowski, *Effects of Engineered Structures on Illinois Lake Michigan Sand Deposits*, Geological Society of America, Abst., Cincinnati, OH

1991 Shabica, C.W. and F. Pranschke, *Survey of Littoral Drift Sand Deposits Along the Illinois Shore of Lake Michigan from Fort Sheridan to Evanston,* Illinois/Indiana Sea Grant, Report IL-IN-SG-91-3, 15 pp.

1991 Hultman, G.E., C.W. Shabica, *The Lake Bluff Billow: Re-creation of an Extinct Shoreline Feature with Native Vegetation and Soft-Shore Coastal Engineering*, Poster Session, Natural Areas Management Association Conference

1991 Chrzastowski, M.J., F. Pranschke, C.W. Shabica, *Discovery and Preliminary Investigations of the Remains of an Early Holocene Forest on the Floor of Lake Michigan*, Journal of Great Lakes Research, Vol. 17, No. 4, pp. 543-552

1990 Shabica, C.W. and F. Pranschke, *Survey of Littoral Drift Sand Deposits Along the Illinois Shore of Lake Michigan from Fort Sheridan to Evanston,* Programs and Abstracts, International Association of Great Lakes Research, 83rd Conference, May 13-17, Windsor, Ontario

1990 Chrzastowski, M.J., D.W. Folger, C.F. Polloni, F. Pranschke, C. Shabica, *Geologic Setting of the Olson Tree Site, Southern Lake Michigan*, Geological Society of America, Ann. Meeting, Dallas, TX

1990 Chrzastowski, M.J., F. Pranschke, C. Shabica, *Discovery and Radiocarbon Dating of Tree Stumps in Growth Position on the Floor of Lake Michigan*, USGS 2nd Annual Southern Lake Michigan Coastal Erosion Study Workshop, St. Petersburg, FL, Report 90-272

1990 Pranschke, F., C.W. Shabica, M.J. Chrzastowski, *Early Holocene Forest Remains Discovered on the Floor of Southern Lake Michigan*, Transactions of The Illinois State Academy of Science, Abstract, Supplement to Vol. 83, p. 58

1990 Pranschke, F., C.W. Shabica, M. Chrzastowski, J. Booth, *Discovery of Mid-Holocene Submerged Forest Remains on the Floor of Lake Michigan*, N Cent. Sect., Geological Society of America, Abst

1989 Shabica, C.W. and F. Pranschke, *Survey of Littoral Drift Sand Deposits Along the Illinois Shore of Lake Michigan from Fort Sheridan to Evanston*, Illinois/Indiana Sea Grant, Report

1989 Shabica, C.W. and W.F. Baird, *Beach With No Sand – Evolution of the Illinois Lakeshore*, in Magoon, O.T., H. Converse, D. Miner, L.T. Tobin, D. Clarks (eds), Coastal Zone 89, Proc. Sixth Symposium on Coastal and Ocean Mgmt., July 11-14, 1989, Charleston, SC, V 2, pp. 1738-1739

1988 Shabica, C.W., D. Becker, S. Hesser, T. Koach, J. Martin, P. Vojack, C. Cornelius, A. Broulard, *Shore Management Recommendations for Martha's Vineyard, MA – South Beach, East Chop and Sengekontacket Pond*, Report to the Martha's Vineyard Commission, 15 pp.

1988 Chicago Shoreline Protection Commission, Recommendations for Shoreline Protection & Recreational Enhancement, Final Report, City of Chicago, Mayor's Office, 52 pp., plus 7 app.

1987 Shabica, C.W., *The Chicago Lakefront Plan*, 1986 in Magoon, O.T., H. Converse, D. Miner, L.T. Tobin, D. Clark and G. Domurat (eds), Coastal Zone 87, Proceedings of the Fifth Symposium on Coastal and Ocean Management, May 26-29, 1987, Seattle, WA, Vol. 4, pp. 4585-4586

1987 Shabica, C.W. *Coastal Development Criteria.* Edgewater's Lakefront: The Next Mile, Proceedings of a Design Charette. Edgewater Community Council , Association of Sheridan Condo-Coop Owners, Illinois-Indians Sea Grant

1985 Shabica, C.W., *Sediment Accretion Associated with Surgebreaker Offshore Reef, A Low Cost Shore Protection Device: An Update on the Corps of Engineers Section 54 Program*, Proceedings, Oceans 85 Conference

1985 Ledvina, C.T. and C.W. Shabica, *Mining Geology of Secondary Paleo-channels affecting the Herrin (No. 6) and Harrisburg (No. 5) Coals of Illinois*, Second conference on ground control problems in Illinois coal basin, Abstract

1985 Shabica, C.W. and D. Gawlik, *Sand deposits off the Highland Park Lakeshore,* unpublished report to the City of Highland Park, 25 pp.

1984 Baird, G., C.W. Shabica, G. Kuecher, *Depositional Events Recorded in Francis Creek Shale: Taphonomy of the Pennsylvanian Mazon Creek Locality in Illinois*, GSA Abstract

1980 Shabica, S.V. and C.W. Shabica, *Management Strategies for Human Related Shoreline Changes on Petit Bois Island, Gulf Islands Nat. Seashore*, 2nd Conf: Scientific Rsch. in The National Parks

1980 Baird, G. and C.W. Shabica, *The Francis Creek Shale, Depositional Environments,* Illinois Geological Survey Field Guidebook Series

1980 Shabica, C.W. and S.V. Shabica, *Sediment transport processes, Horn and Petit Bois Islands National Seashore*, Research in the National Parks

1979 Shabica, S.V. and C.W. Shabica, *Management Strategies Applicable to Off-Road Vehicle Use of Perdido Key, Florida*, Proc. 4th Annual Conf., Coping with the Coast, the Coastal Society, pp. 67-87

1978 Shabica, C.W., *Pennsylvanian Sedimentation in Northern Illinois, Evidence for a Deltaic,* Eustatic Model,

Geological Society of America, North Central Section, Abstract

1978 Shabica, C.W., *Sedimentary Structures from the Carbondale Formation (Middle Pennsylvanian) of Northern Illinois*, Field Museum, Fieldiana Geology, Vol. 33, No. 29, pp. 541-568

1977 Shabica, C.W., J. Amft, J. Kussmann, J. Tylus, *Tidal Currents in Sengekontacket, Menemsha and Nashaquitsa Ponds*, Report to Martha's Vineyard Commission, Section 208

1976 Shabica, C.W., *Coastal Zone Management Alternatives – Pros and Cons*, Report to Illinois Coastal Zone Management Project and Illinois Department of Transportation

FILMS

2003 *Up the Mississippi*, Movie and workbook, Northeastern Illinois University and Central School, Wilmette, Co-director and Producer with James Tingey
2002 *On the Beach with Dr. Shabica*, Science Advisor, James Tingey, Director
1988 *The Great Barrier Reef*, Museum of Science & Industry, Omnimax Theater, Science Advisor
1986 *Beach with no Sand*, Northeastern Illinois University, Renay Kerkman, Director
1984 *Lake Michigan, its Geologic History*, Scriptwriter, Shedd Aquarium
1977 *Understanding our Earth: How its Surface Changes*, Science Advisor, Coronet Instructional Media
1977 *Glaciers*, Science Advisor, Coronet Instructional Media
1976 *Soil*, Science Advisor, Coronet Instructional Media

Exhibit 14

Lake Michigan Shoreline

Shabica & Associates, Inc.

Need to establish some facts…

- Erosion is a dynamic process influenced by waves, lake levels and shoreline profile
- Shoreline hardening has been going on for over 100+ years
- People become passive during times of low lake levels and ***PANICKED*** at highs!
- This process has gone on as long as people have lived along the shoreline

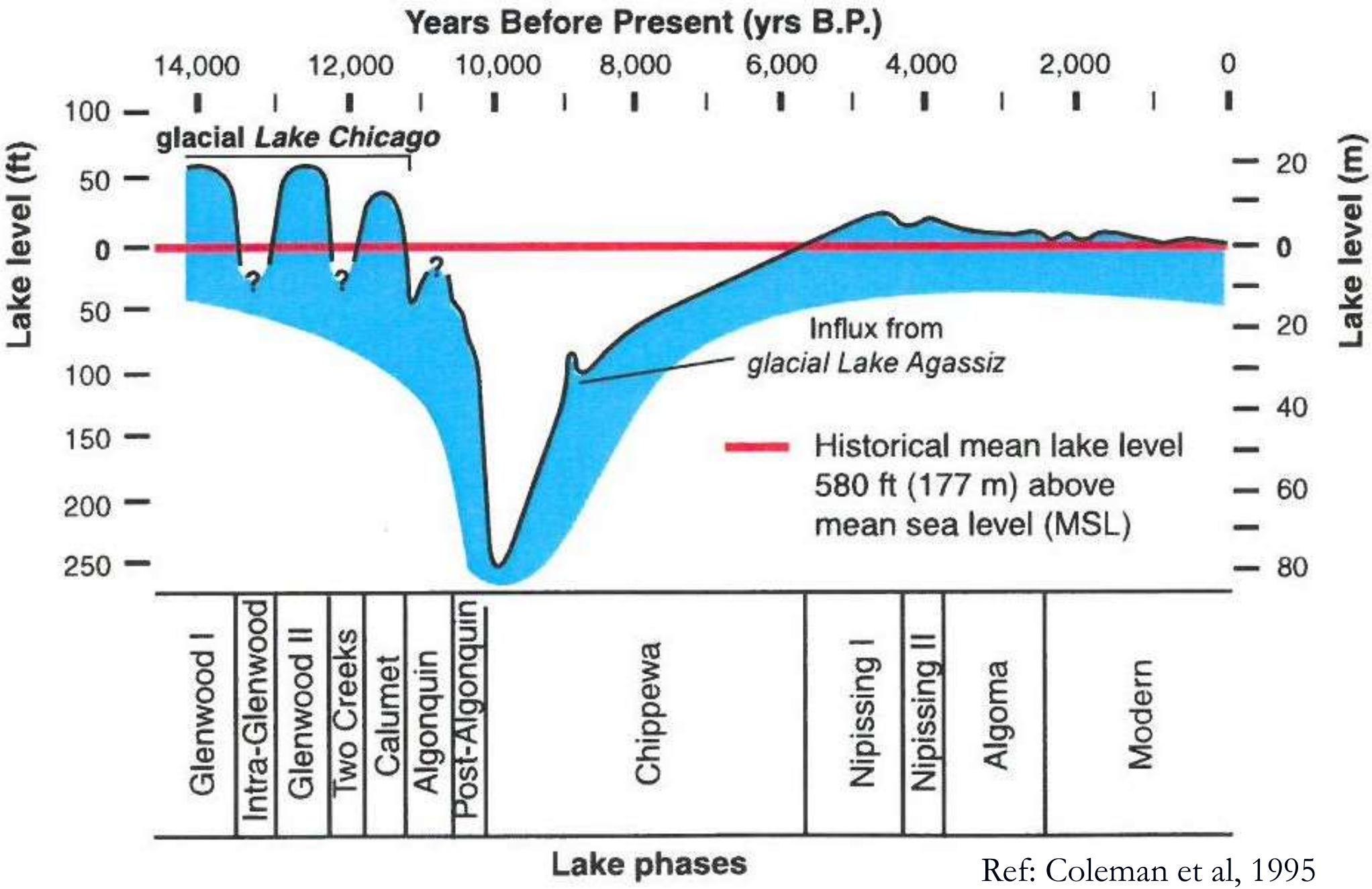
Review 4 Key Factors:

- Dynamic and fluctuating Lake Michigan water levels
- Effects of lakebed downcutting
- Sand movement/longshore transport challenges
- History and coastal structures

Fluctuating Water Levels

- Lake Michigan recently has fluctuated ~6.5' between low and high lake levels
- Evaporation is typically balanced by precipitation, making the level of the lakes fairly consistent
- Number of factors that impact lake levels make forecasting basically impossible
- Seasonally we anticipate a 1' fluctuation

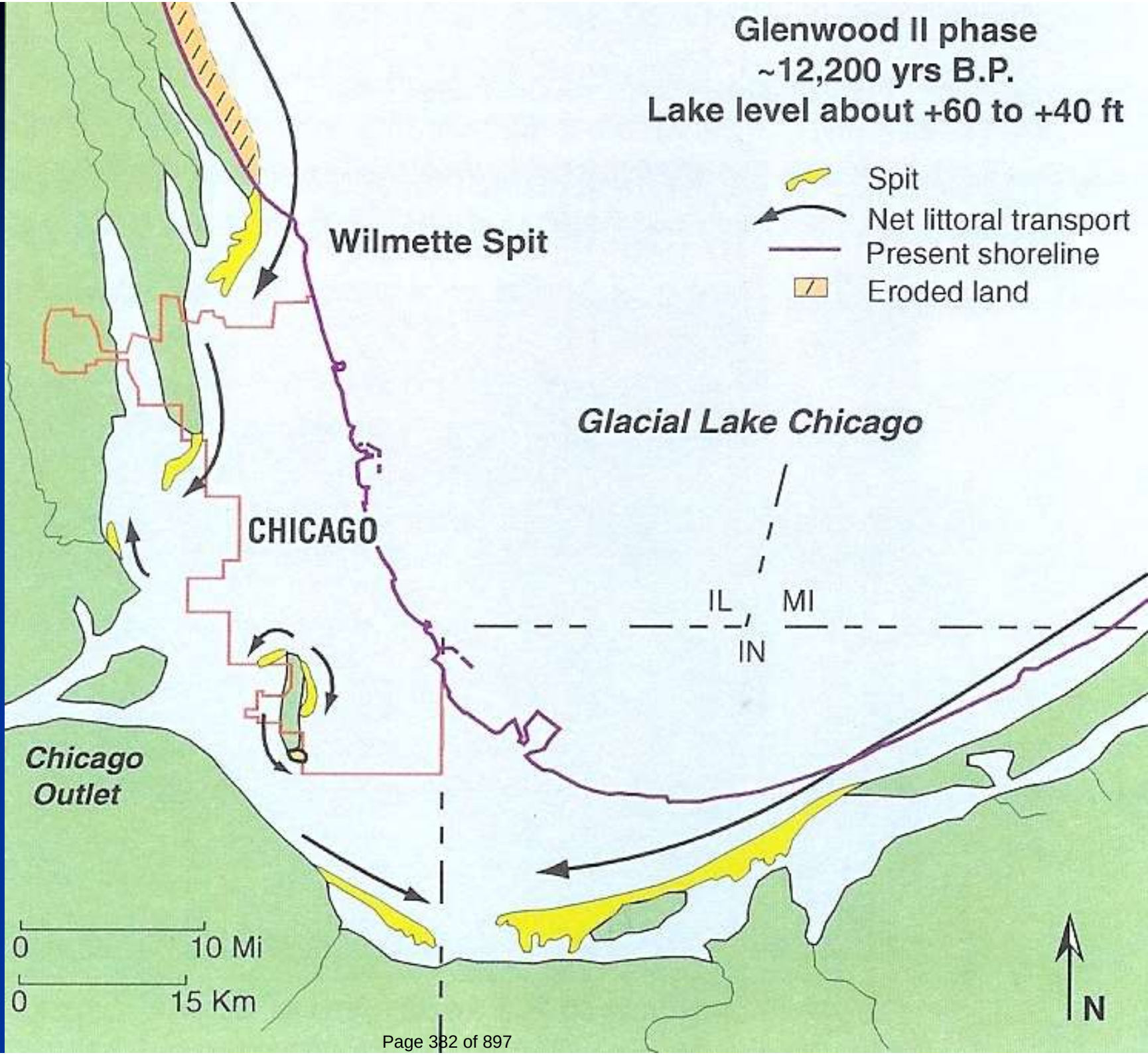
14,000 years of Lake Michigan water levels

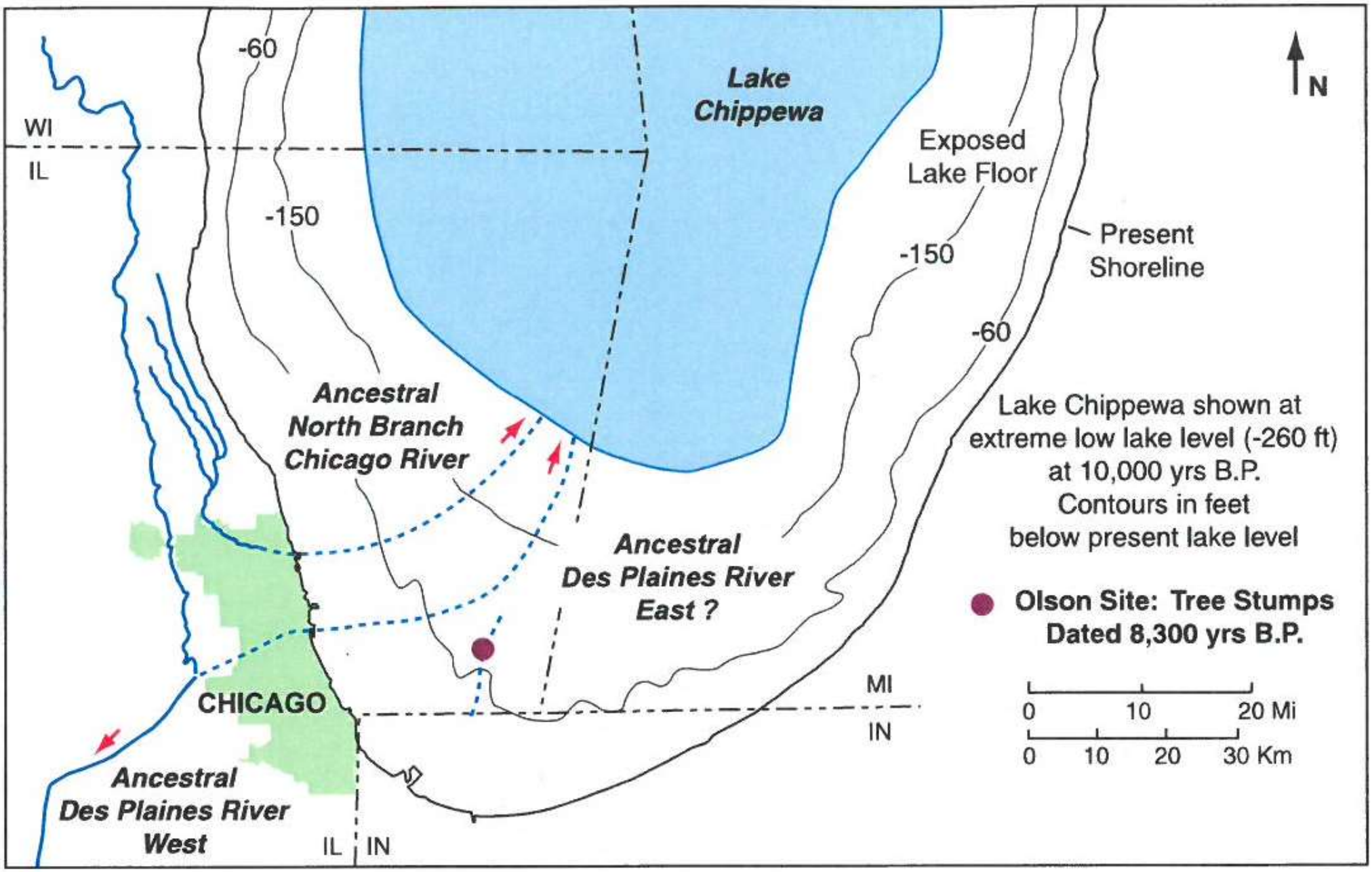


Ref: Coleman et al, 1995

12,000 YBP Glacial Lake Chicago.

Ridge Road in Wilmette is an old beach ridge - evidence for a lake elevation about 50 feet higher than today.




-60
Lake
Chippewa
N
WI
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Exposed
Lake Floor
-150
-150
Present
Shoreline
-60
Ancestral
North Branch
Chicago River
Lake Chippewa shown at
extreme low lake level (-260 ft)
at 10,000 yrs B.P.
Contours in feet
below present lake level
Ancestral
Des Plaines River
East ?
Olson Site: Tree Stumps
Dated 8,300 yrs B.P.
MI
IN
CHICAGO
0 10 20 Mi
0 10 20 30 Km
Ancestral
Des Plaines River
West
IL
IN

How does the lake level affect the size of the sandy beach?

- Beaches typically vary from a 1’ vertical:12’ horizontal slope to a 1’:65’
- For example, with ~4’ of lake level rise you can expect to submerge roughly 48’ of beach

2013
Native bluff at low lake water levels…

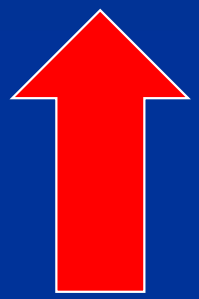
2014

2016

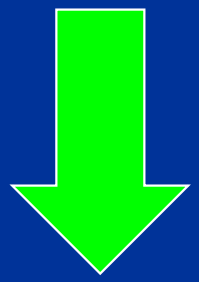
Average lake water levels

2021

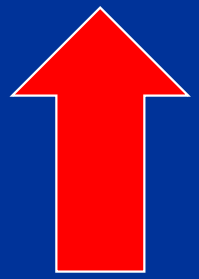
Does Lake Michigan's record low mark beginning of a new era for the Great Lakes – Chicago Tribune



Rising Lake Michigan waters threaten shoreline homes– Chicago Tribune



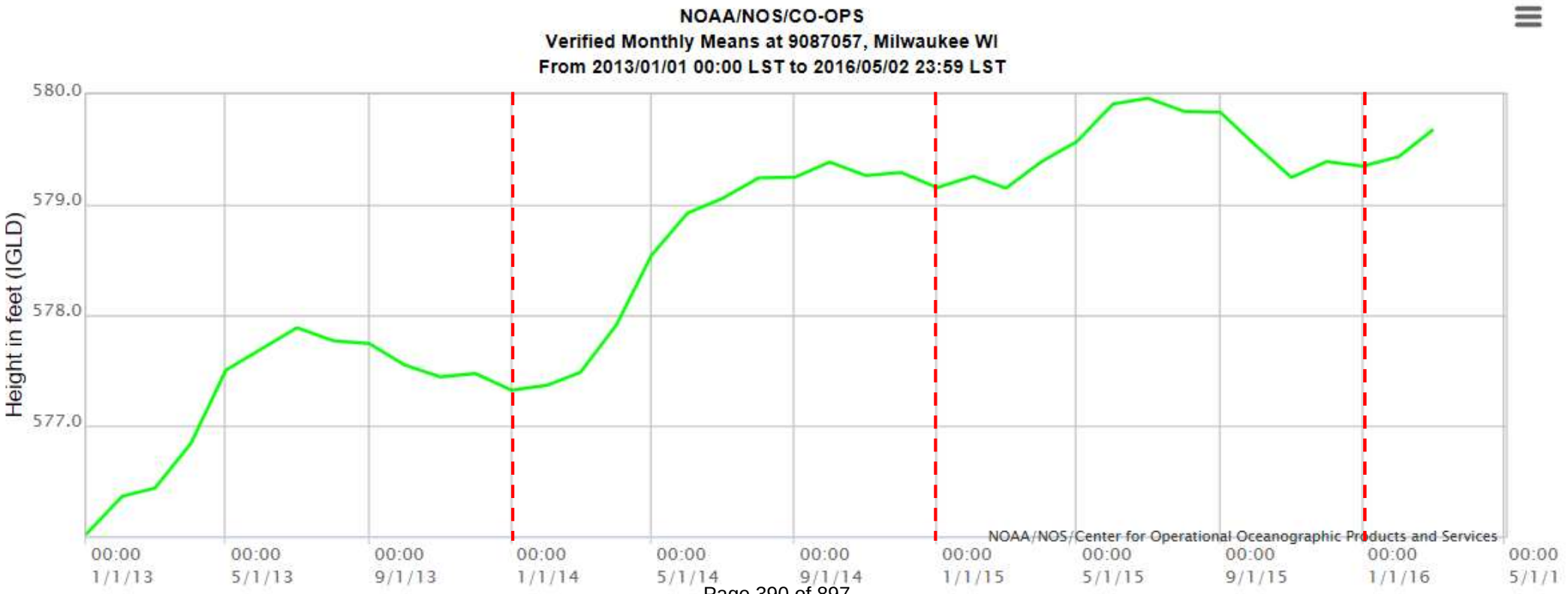
Lake Michigan below- average water levels for 14 years – Milwaukee Sentinel

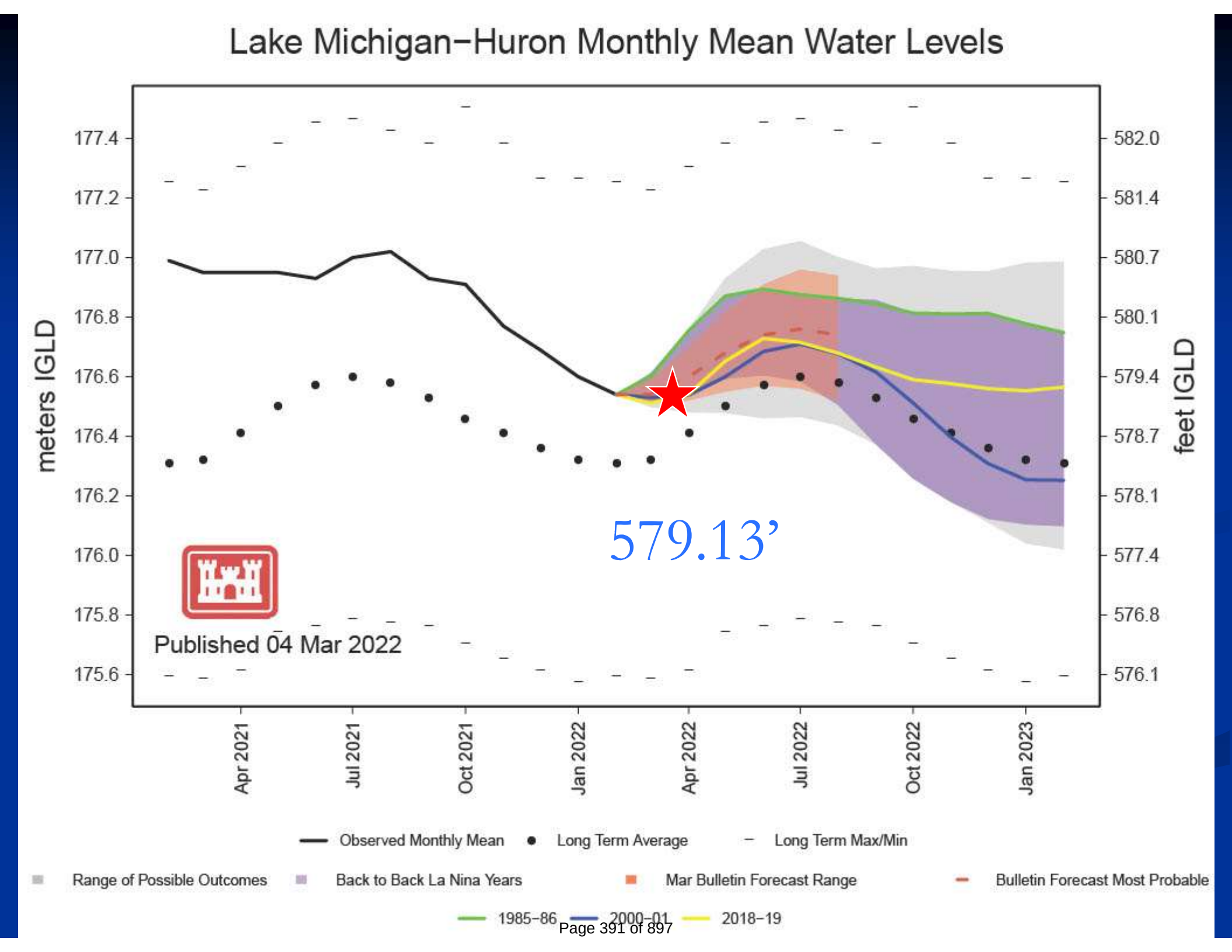


Lake Michigan levels, erosion is a "very big" concern - Milwaukee Sentinel

2013

2014


NOAA/NOS/CO-OPS
Verified Monthly Means at 9087057, Milwaukee WI
From 2013/01/01 00:00 LST to 2016/05/02 23:59 LST
Height in feet (IGLD)
580.0
579.0
578.0
577.0
00:00 1/1/13
00:00 5/1/13
00:00 9/1/13
00:00 1/1/14
00:00 5/1/14
00:00 9/1/14
00:00 1/1/15
00:00 5/1/15
00:00 9/1/15
00:00 1/1/16
00:00 5/1/1
NOAA/NOS/Center for Operational Oceanographic Products and Services


Lake Michigan–Huron Monthly Mean Water Levels
meters IGLD
feet IGLD
177.4
177.2
177.0
176.8
176.6
176.4
176.2
176.0
175.8
175.6
582.0
581.4
580.7
580.1
579.4
578.7
578.1
577.4
576.8
576.1
579.13’
Published 04 Mar 2022
Apr 2021
Jul 2021
Oct 2021
Jan 2022
Apr 2022
Jul 2022
Oct 2022
Jan 2023
Observed Monthly Mean
Long Term Average
Long Term Max/Min
Range of Possible Outcomes
Back to Back La Nina Years
Mar Bulletin Forecast Range
Bulletin Forecast Most Probable
1985–86
2000–01
2018–19

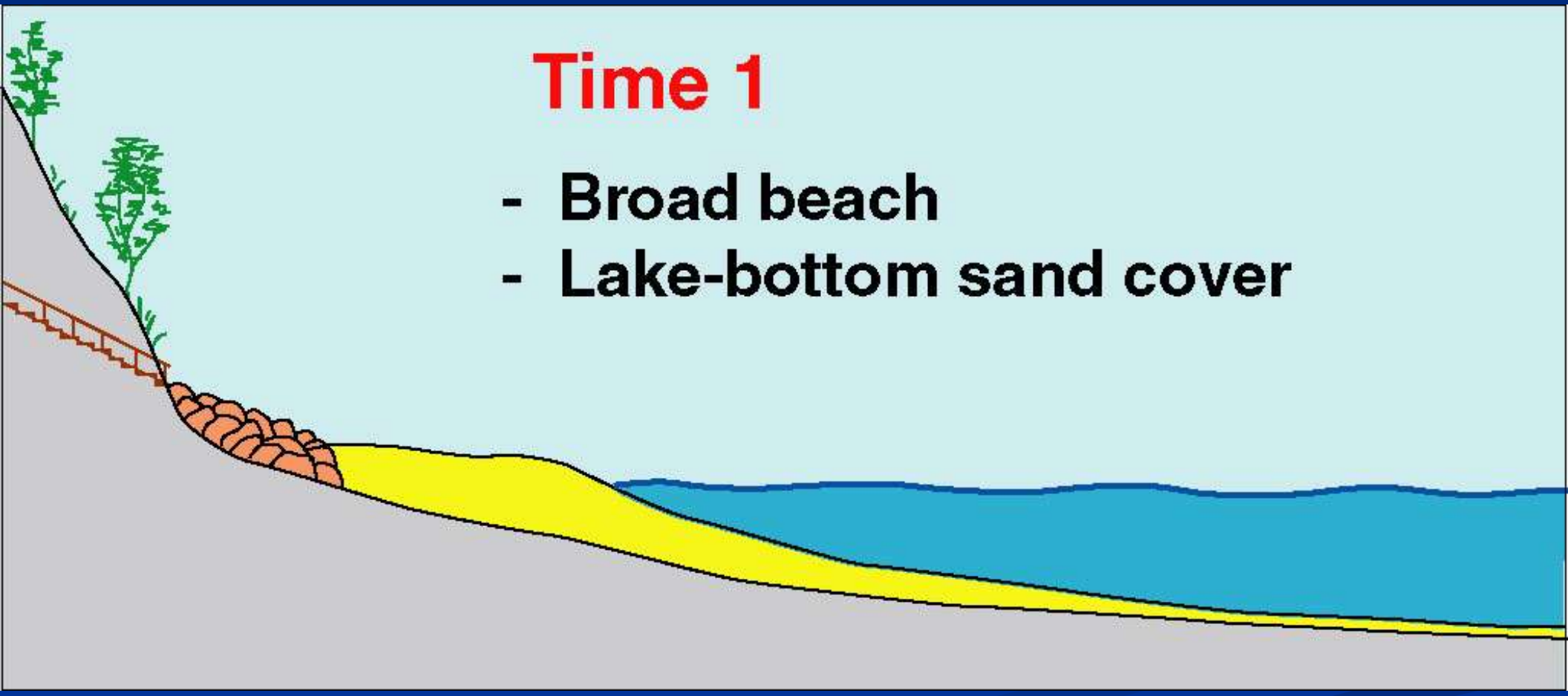
Water levels will always fluctuate

- Lake Michigan came near the all-time high water level record of 582' in January, 2020
  - ~6.5' Higher than January, 2013
- Seeing the affects of climate change:
  - Record monthly rainfall – May 2020
  - September 2021 drought almost set a record
- Established a shorter duration metric between low and high water levels

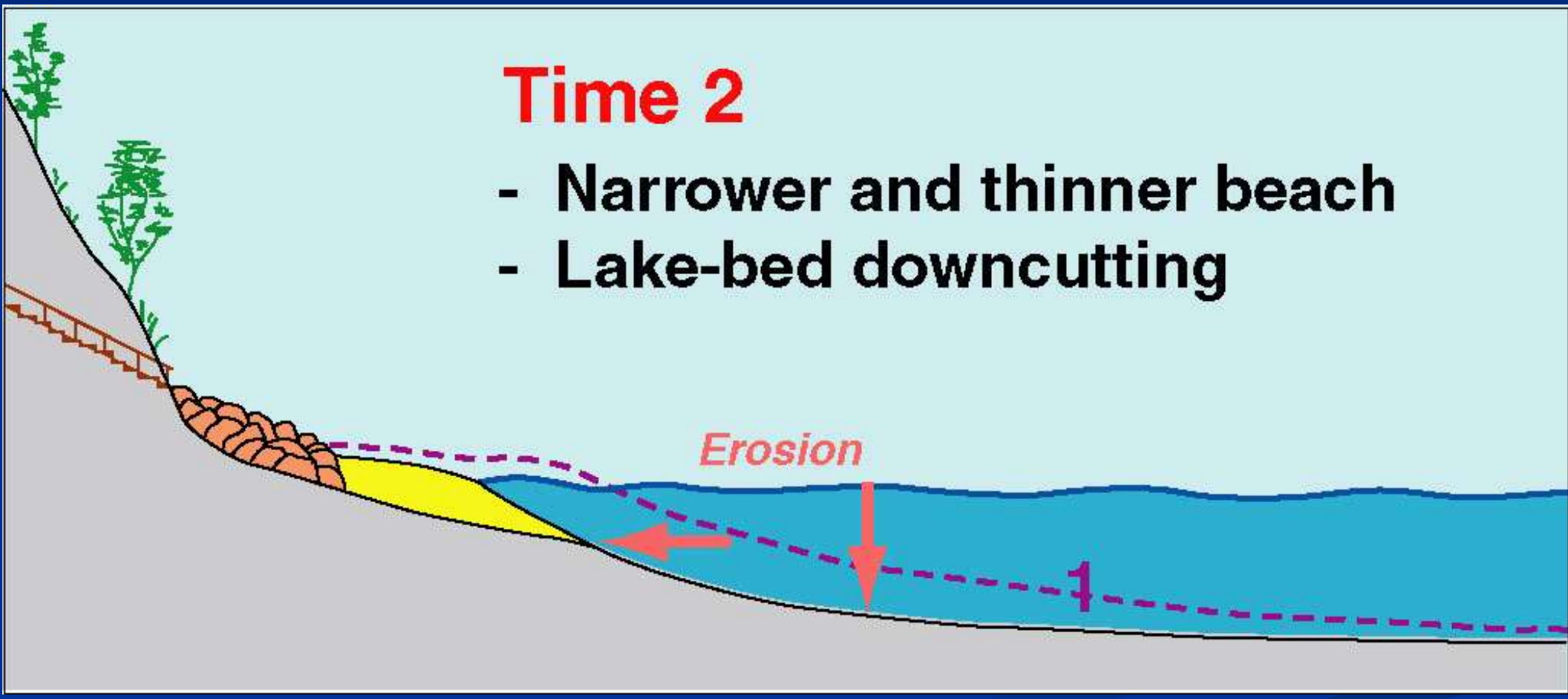
Lakebed Downcutting

- Lakebed downcutting is a geological process by hydraulic action (waves) that deepens a lake by removing cohesive material from the lakebed (lakebed clay)
- The speed of downcutting depends on the lake's base water level, the lowest point to which the lake can erode

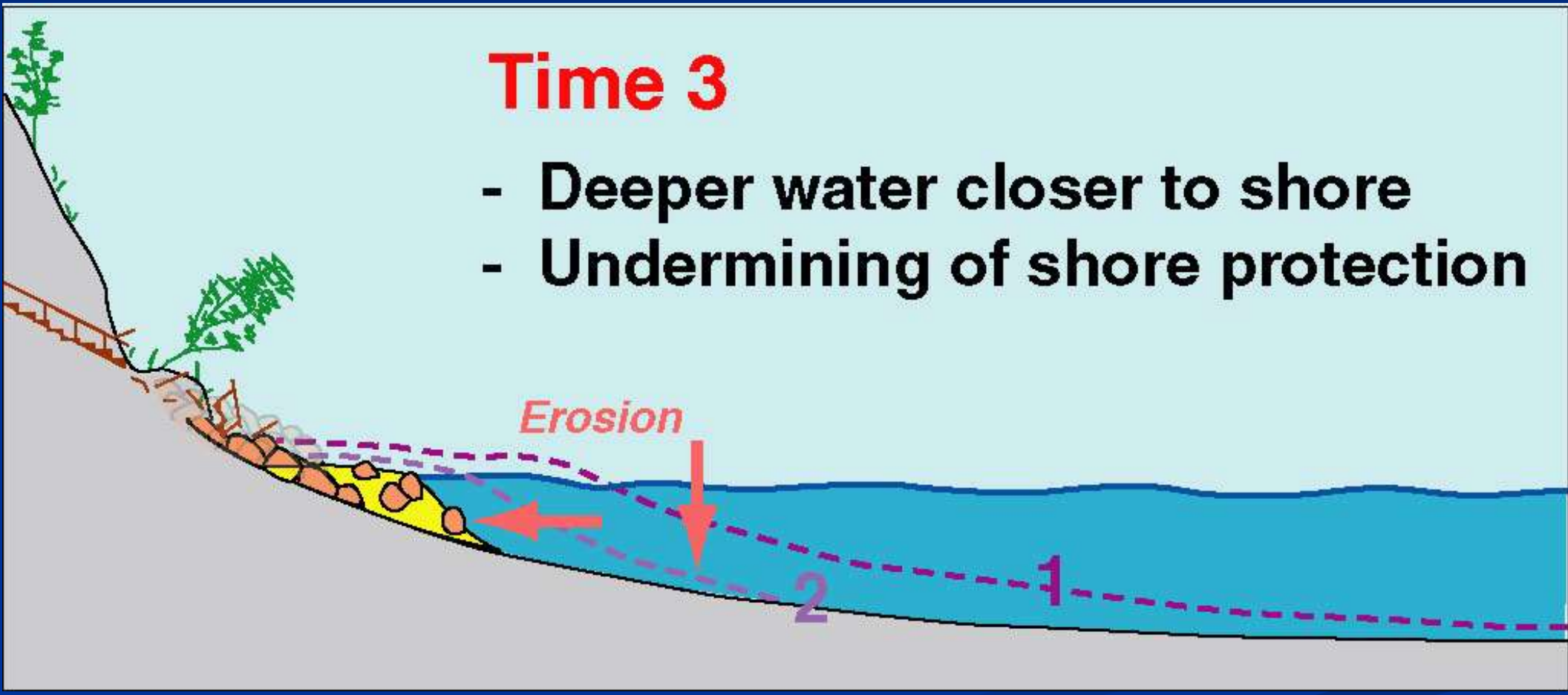
Low Lake Levels



Eroding Lakebed Clay



Bigger waves at average conditions



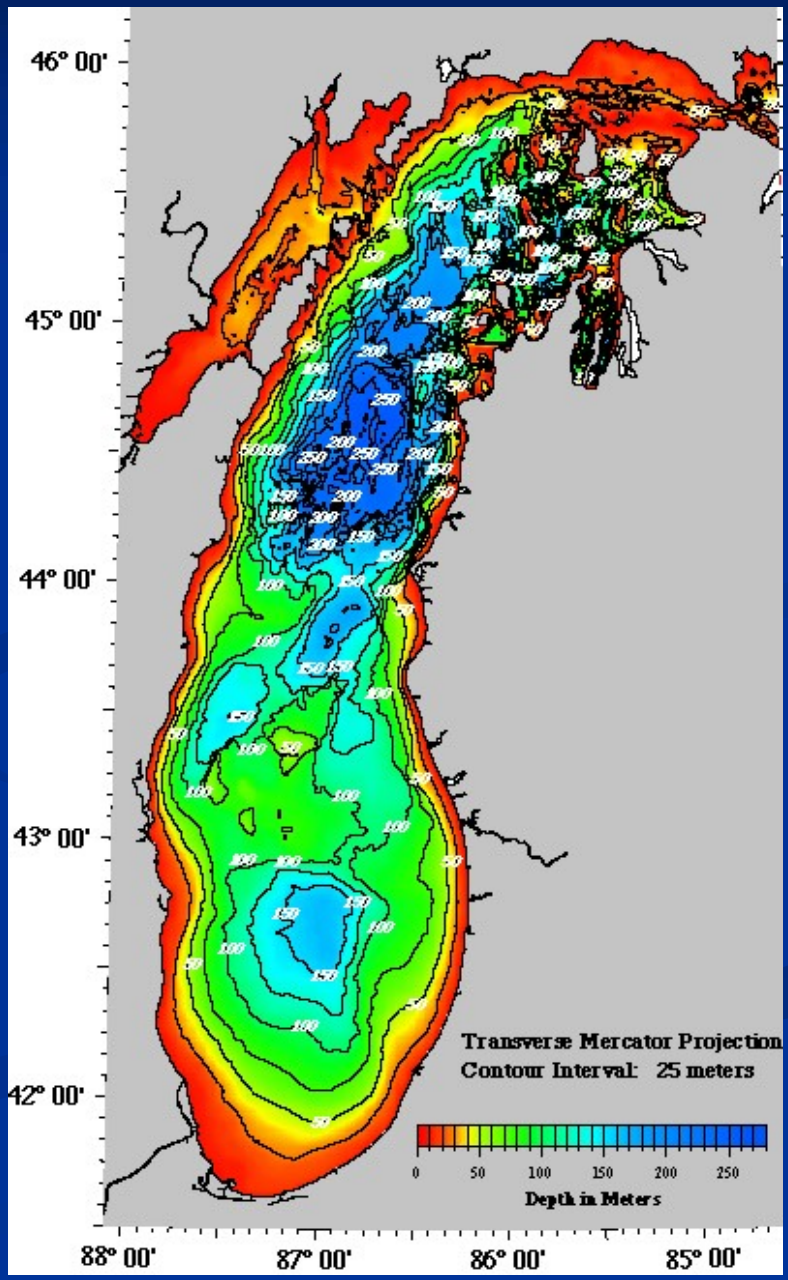
It is estimated that in areas where sand deposits are thin, the nearshore lakebed may erode at a rate up to 8 inches per year (Nairn, 1997)

Wilmette

2020

How does sand move?

- In many places there is a net movement of sand in one direction
- This is controlled by wave climate, bathymetry, shoreline orientation and natural or artificial headlands that deflect waves and currents
- Called littoral drift



Door County

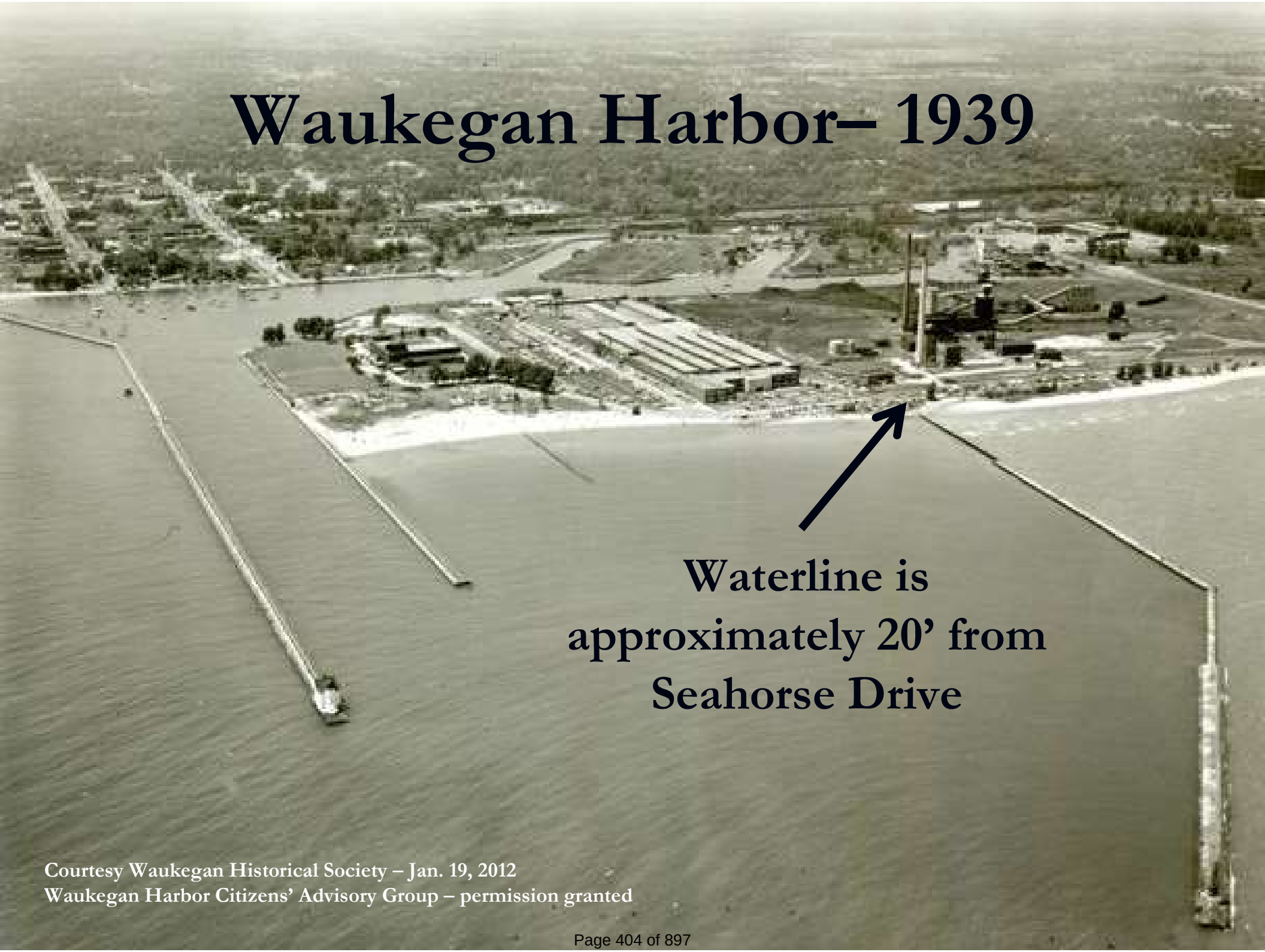
Chicago
South Lagoon
Simmons Island
41

Indiana Dunes

Littoral Barriers

- An obstacle to littoral drift or migration of material along the shore
- Littoral barriers may be natural, for example, rocky headlands or man made such as jetties, breakwaters or dredged channels. These hinder the normal drift of material along the shore

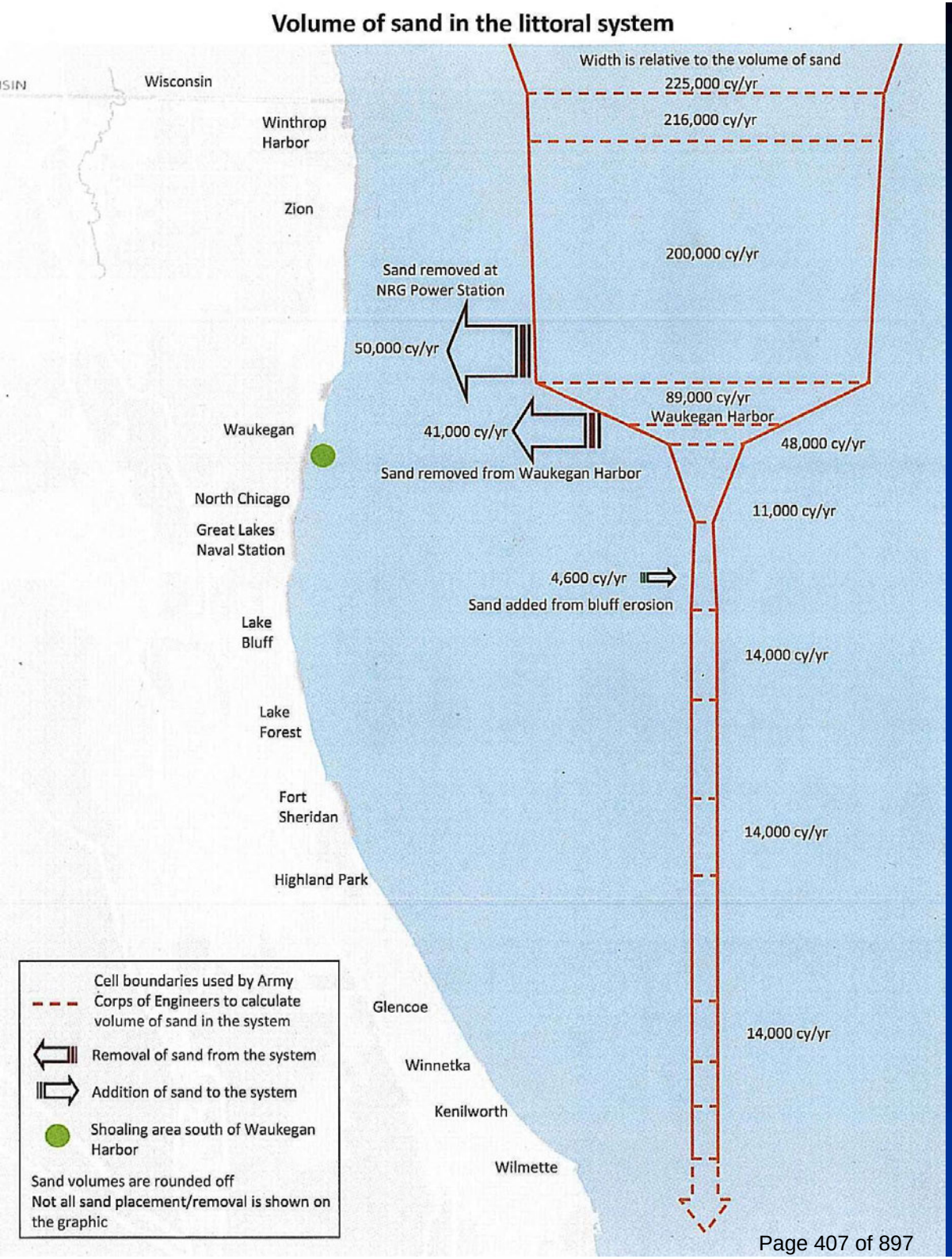
Waukegan Harbor– 1939



Courtesy Waukegan Historical Society – Jan. 19, 2012
Waukegan Harbor Citizens’ Advisory Group – permission granted

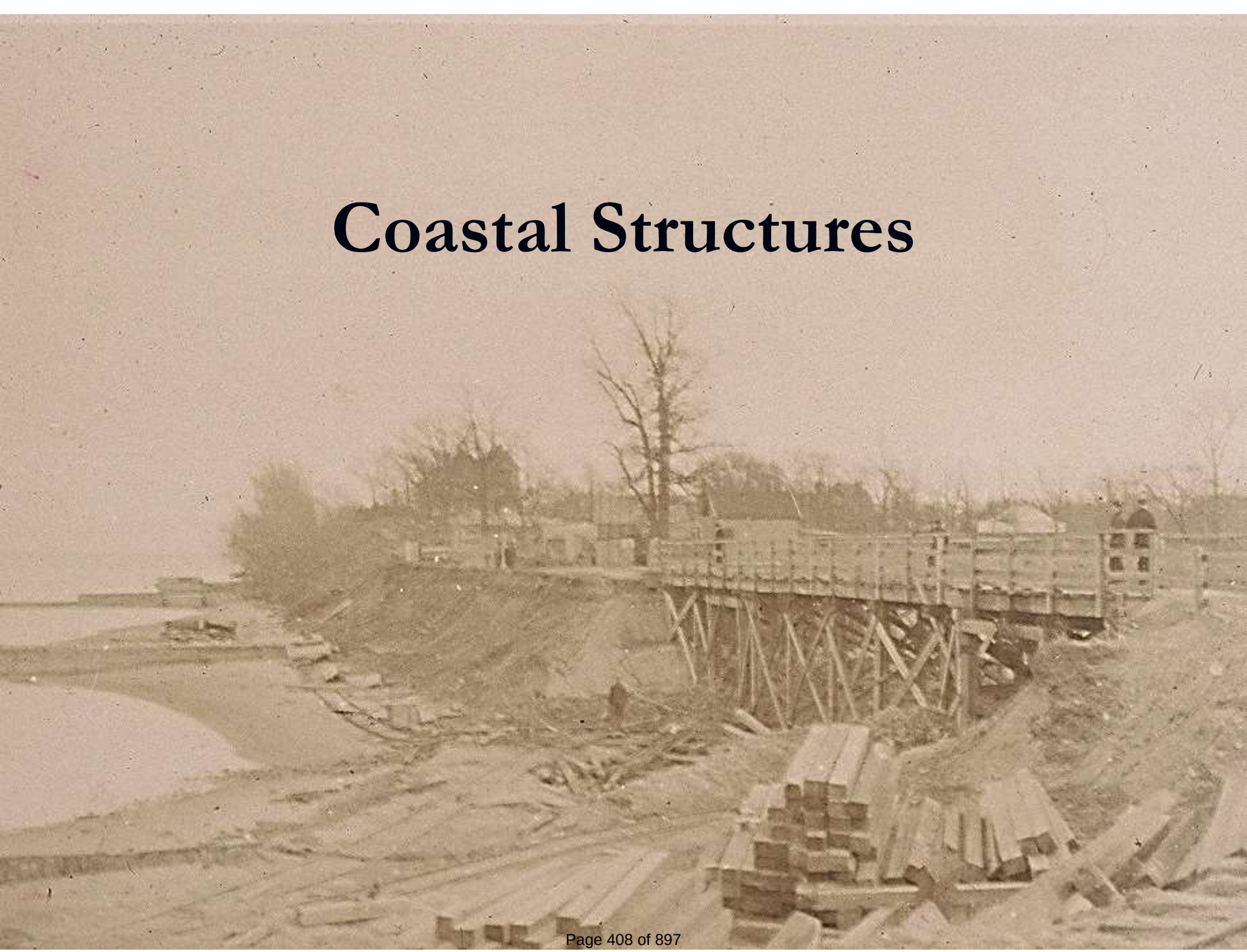
Waterline is
approximately 1,150’ from
Seahorse Drive today

4/2013

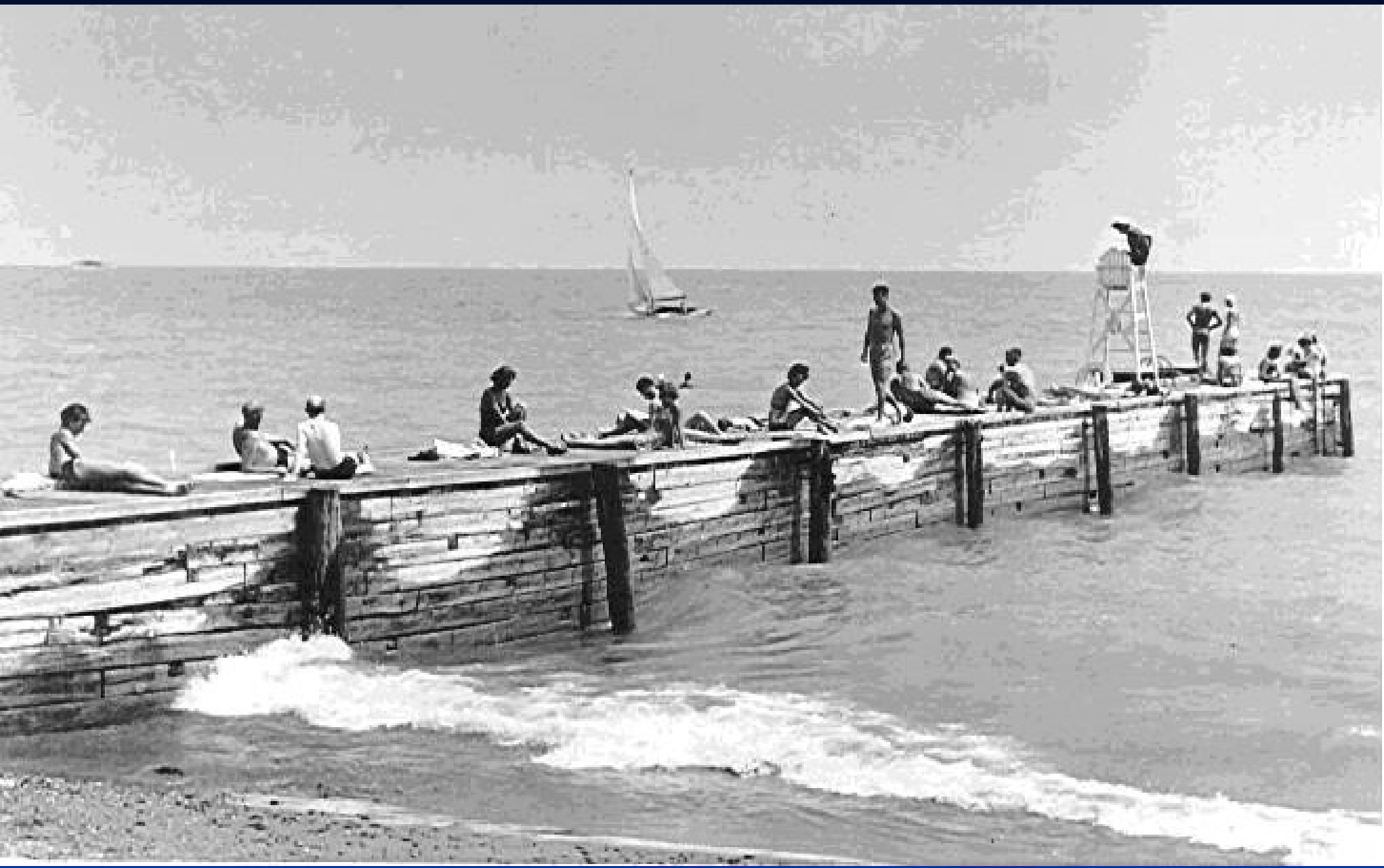


Corps of Engineers estimate that ~225,000 cy/yr of sand cross the Illinois border and only ~14,000 cy/yd of sand are in the littoral system south of Waukegan

Coastal Structures



1897 Winnetka

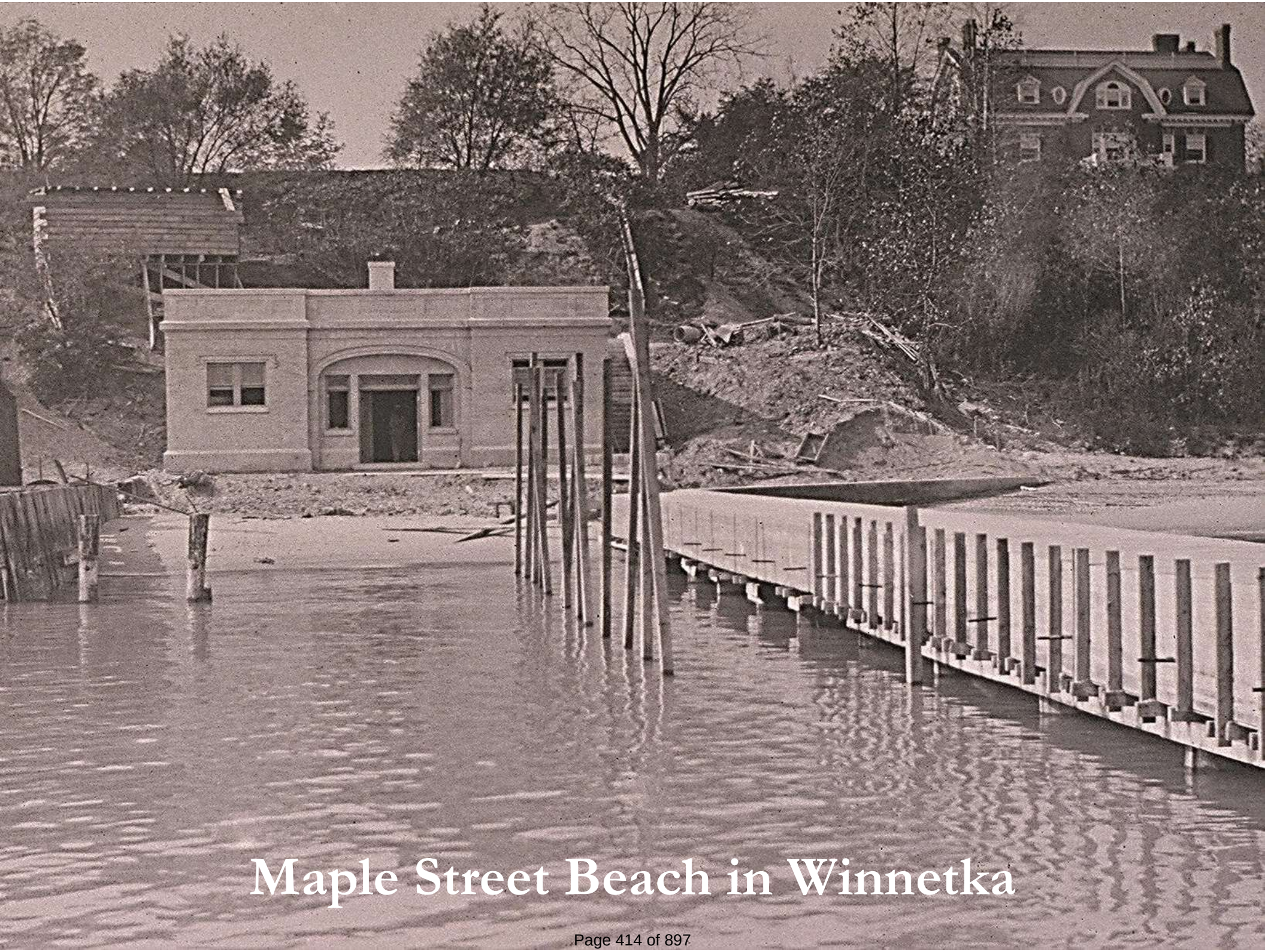


1907 Northwestern University

Edgewater Beach Hotel - 1916

Burnham Plan for Chicago:

First large scale environmental management plan in USA



Maple Street Beach in Winnetka

1977

1985 Elder Beach

1985 Maple Street

1987

2020

2021

2021

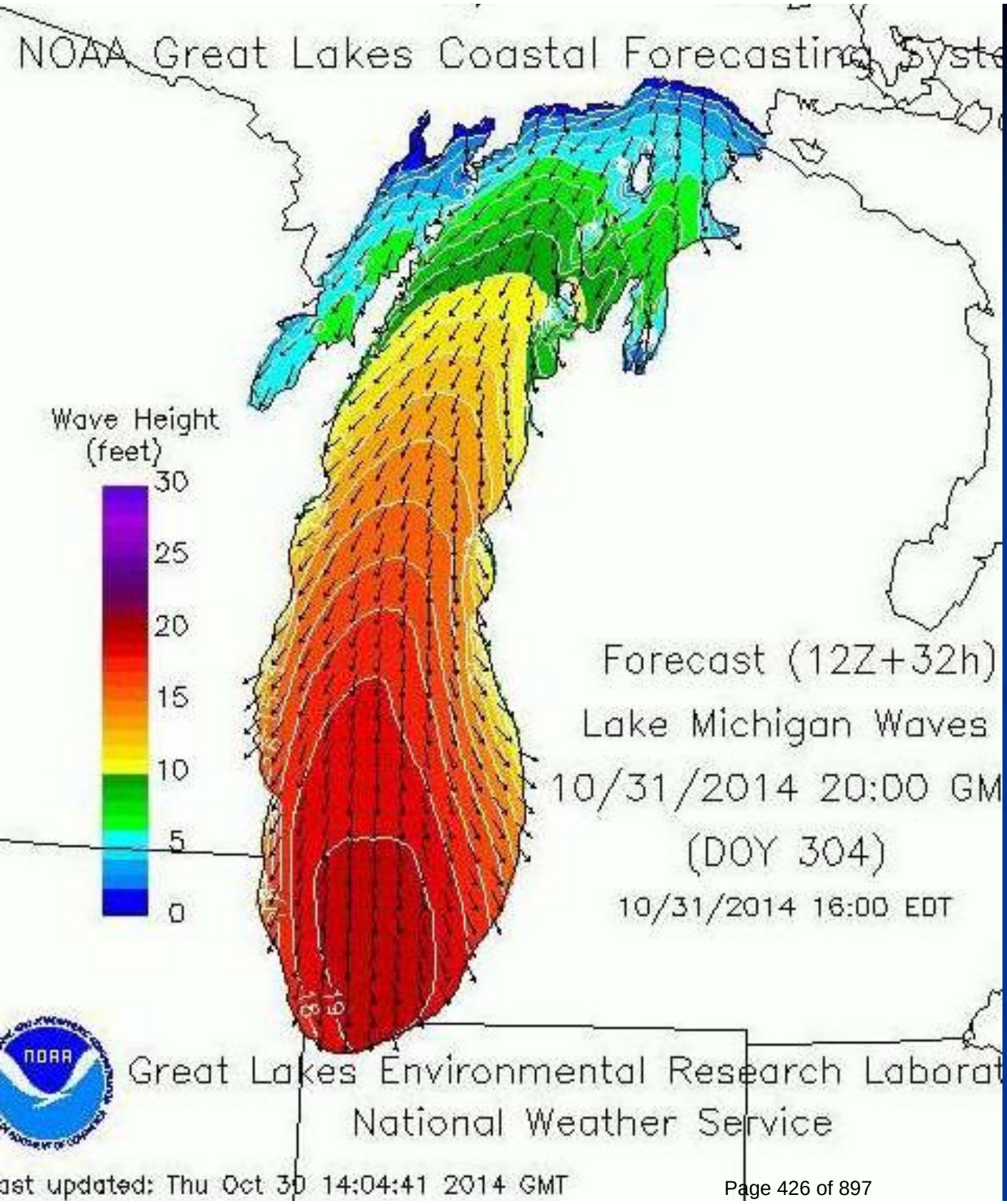
Engineered Shorelines Today

- Have new metrics as it relates to coastal design due to the recent high water levels
- Still balancing the cost benefit of constructing larger structures in response to the recent high lake levels
- Access to the beach and along the shoreline is not clearly defined by the Army Corps of Engineers and Illinois DNR

- Army Corps of Engineers outlines in the Lake Michigan Regional General Permit (LMRGP) application the following:
  - "Structures must provide reasonable accommodations, as determined by this office, to maintain public access to the shoreline."
- The Illinois DNR in the 2008 permitting guidelines for coastal structures state:
  - "Where possible, notably in areas where existing access along the lakeshore is available, the project should provide some type of reasonable access over or around it on the landward side."

Lloyd Boat Launch

2014



Tom Skilling, WGN9 Weather Center, reported 72mph peak winds at the Harrison-Dever Crib, 3 miles off Chicago.

"So strong were Friday's winds that waves reached heights of 21.7 ft. at the NOAA mid-lake buoy east of Kenosha around 11am."

Spring 2020

Winnetka Park District
Lakefront Master Plan

October, 2020

2021

Presque Isle, Pennsylvania - Lake Erie

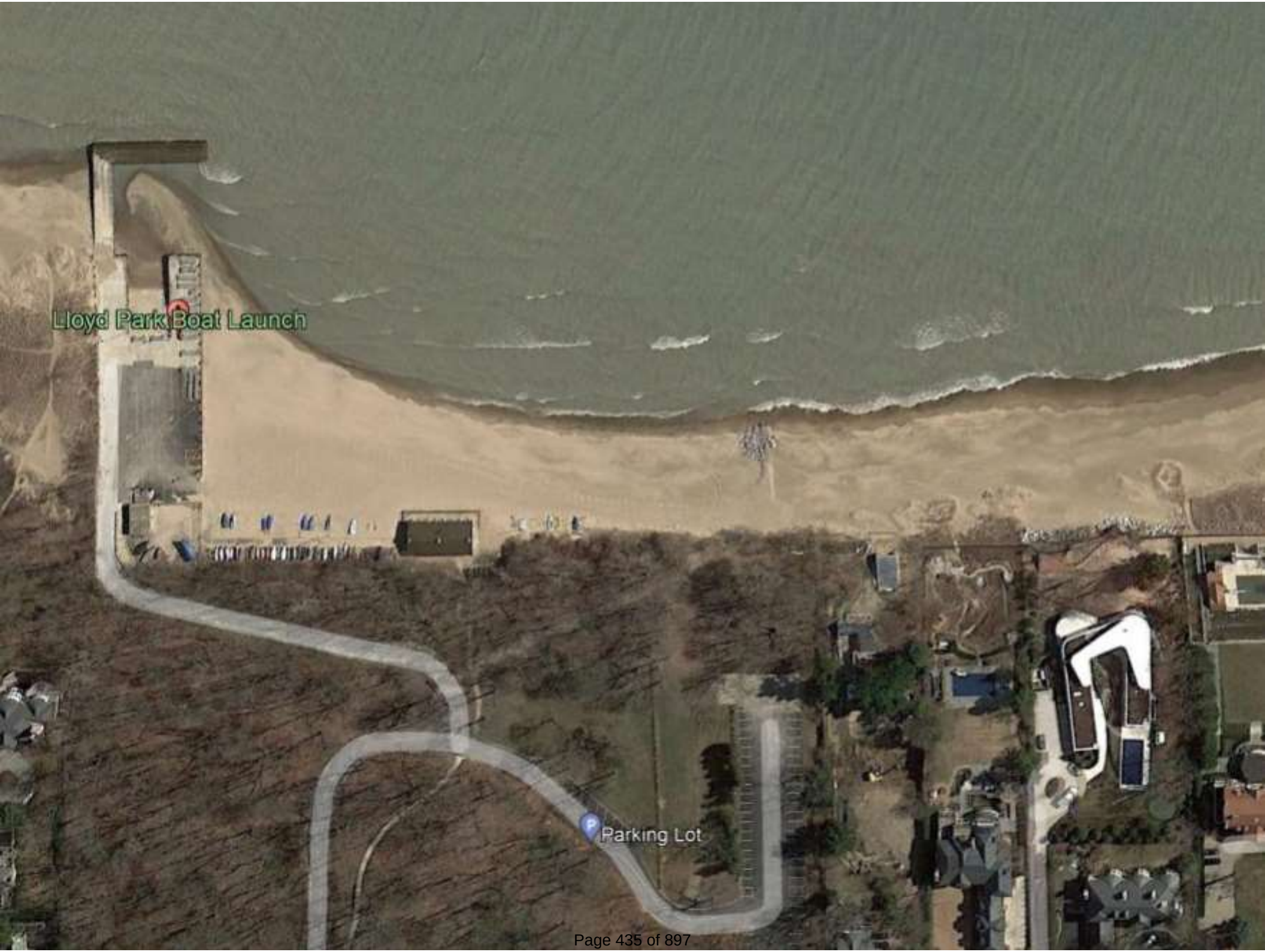
Municipal Option? 1986 Highland Park

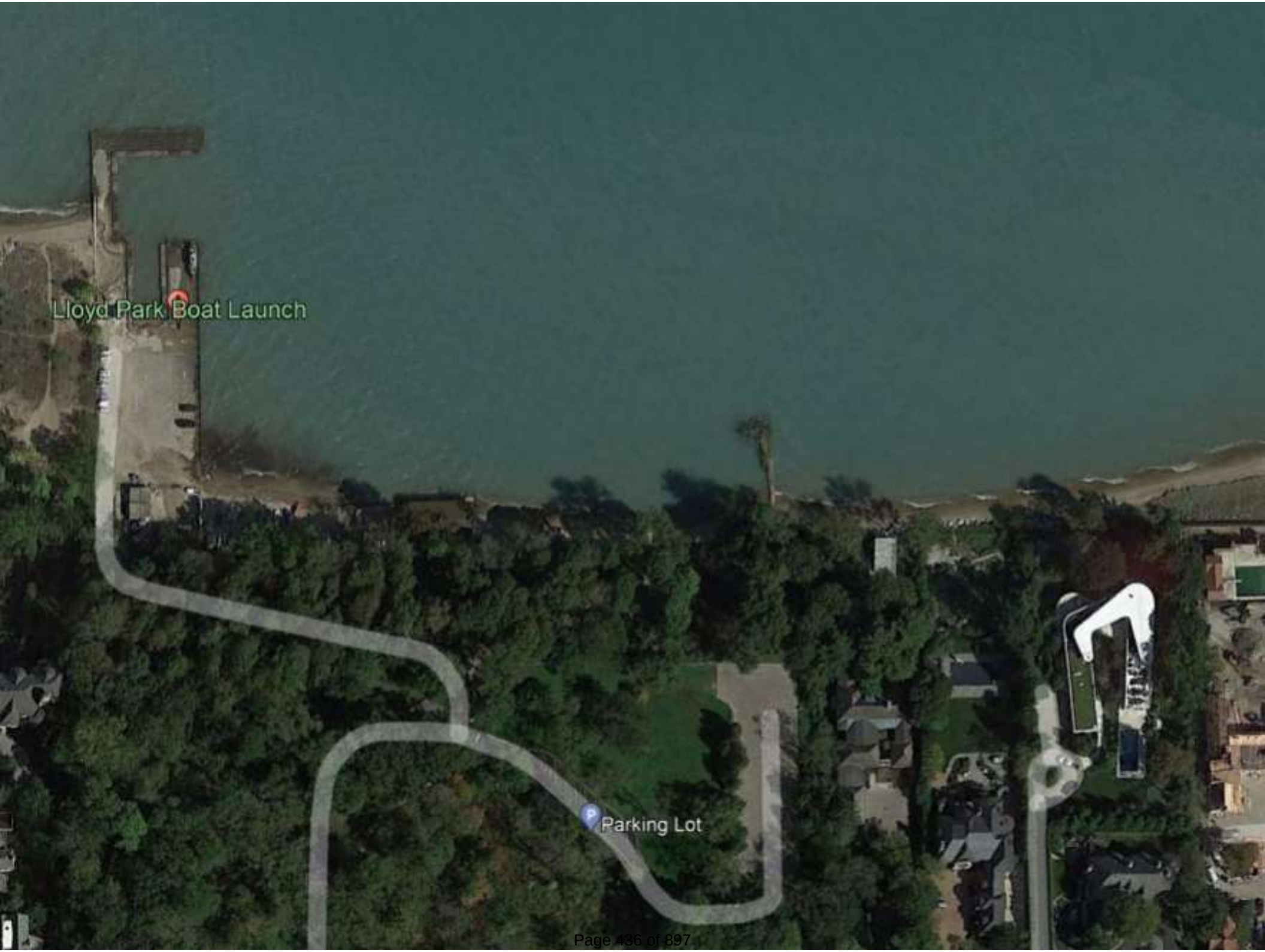
Recognize times are changing!

- Acknowledge that we are dealing with a dynamic and changing environment
  - Climate change models are unpredictable
  - Extreme storm events are becoming common
  - Seeing changes in habitats, impacts of invasive species, varying water quality
  - Science and engineering are changing regularly as we continue to exceed historic conditions

Questions?

Shabica & Associates, Inc.


Lloyd Park Boat Launch
Parking Lot


Lloyd Park Boat Launch
Parking Lot

Lloyd Park Boat Launch
Parking Lot

MEMORANDUM
VILLAGE OF WINNETKA
COMMUNITY DEVELOPMENT DEPARTMENT

TO: PLAN COMMISSION

FROM: DAVID SCHOON, DIRECTOR
ANN KLAASSEN, ASSISTANT DIRECTOR

DATE: JANUARY 15, 2025

SUBJECT: CENTENNIAL PARK & BEACH – 225 SHERIDAN ROAD - SPECIAL USE PERMIT & EXCEPTIONS (CASE NO. 24-08-SU)

INTRODUCTION

On January 22, 2025, the Plan Commission is scheduled to commence a public hearing on an application submitted by the Winnetka Park District (the "Applicant"), as the owner of the property located at 225 Sheridan Road (the "Subject Property"). The Applicant is proposing improvements to the existing park and beach located on the Subject Property and requests approval of the following relief:

1. Approval of a **Special Use Permit** to allow construction of improvements to the existing park and beach on the Subject Property, which is located in the R-2 Single-Family Residential Zoning District and the Lakefront Preservation Overlay District; and
2. Approval of the following **steep slope exceptions** [Section 17.82.040 Development in the Steep Slope Zone]:
    a. Concrete access ramp 10 feet in width and associated retaining walls to support the ramp;
    b. Outcropping stone steps that exceed 5 feet in width; and
    c. Reconfigured mid-bluff paver walkway and seating area that extends beyond the footprint of the existing walkway and seating area and exceeds 5 feet in width.

The Applicant has also submitted an application for approval the following **zoning variations:**

- **Fence and Wall Heights** of 8, 9, and 10.5 feet for various improvements, whereas a maximum of 6.5 feet above natural grade is permitted, for variations of 1.5, 3, and 4 feet (61.54%) [Section 17.30.130 Obstructions in Required Yards or Courts].

The Zoning Board of Appeals (ZBA) considered the special use permit, steep slope exceptions, and the zoning variations at its October 14, 2024, November 11, 2024, and December 9, 2024 meetings. At the December meeting, by a vote of 4-3, the ZBA recommended approval of the variations and exceptions, subject to the approval by the Village Council of the special use for the project. However, by a vote of 7-0, the ZBA recommended denial of the special use for the proposed improvements. Details regarding the ZBA's consideration are provided later in this report.

A mail notice was sent to property owners within 250 feet of the Subject Property in compliance with the Zoning Ordinance, informing them of the public hearing being held by the Plan Commission. The hearing

was also properly noticed in the *Winnetka Talk* on December 26, 2024. Additionally, a public notice sign was posted on the Subject Property informing the public of the Plan Commission meeting. As of the date of this memo, staff has received several written comments from the public regarding this application. **Most of these comments were received by the Village for consideration by the Zoning Board of Appeals. Others have been received since the ZBA's consideration of the Applicant's request.** Comments previously included in the ZBA agenda packets are provided in **Attachment C**. Comments received since the posting of the December 9, 2024, ZBA agenda packet are provided in **Attachment D**.

The Village Council has final jurisdiction on this application. The Council has sole authority to (i) grant a Special Use Permit and (ii) grant variations or exceptions related to the special use.

PROPERTY DESCRIPTION

The Subject Property, which is approximately 5.3 acres (230,911.56 square feet) in size, is located on the east side of Sheridan Road generally between Fuller Lane and Elder Lane and contains Centennial Beach and Park (see Figure 1). Under the Village Zoning Ordinance, the Subject Property has two front yards: (i) the street frontage along Sheridan Road to the west; and (ii) lake frontage along Lake Michigan to the east.

The Comprehensive Plan designates the Subject Property as appropriate for "Open Space" land uses, which includes public parks & recreation facilities, pocket parks/plazas, and Cook County Forest Preserve Land (see Figure 2). The Comprehensive Plan also includes the following related goals:

> *Goal 1.7: The Village will continue to ensure that open space uses, such as Park District parks, beaches, and facilities, are compatible with the residential neighborhoods in which they are located.*
>
> > *Initiative 1.7.1: Study and consider establishing a specific zoning district for open space uses, or specific zoning standards for such uses within existing residential districts. This would allow more appropriate zoning standards for these uses.*
>
> *Goal 6.1: The Village will continue to promote and encourage partnerships with other units of government and agencies to conserve, restore, and enhance natural features and ecosystems, to ensure accessibility to natural areas, parks, and other open or public spaces, and to support recreational facilities and programs that support the health of residents of all ages and abilities.*
>
> > *Initiative 6.1.1. Continue to collaborate with the Park District, local school districts, Forest Preserves of Cook County, and others to create opportunities that enhance accessibility to the open spaces of Winnetka. (refer to initiative 8.3.5)*
> >
> > *Initiative 6.1.2. Continue to collaborate with the Park District, School District, Library District, Community House of Winnetka, and other community institutions to offer programs that maintain active and thriving Village recreation programs, offering a variety of sports, exercise, arts and crafts, cultural, life skills, educational, social, and leisure programs for residents of all ages and abilities.*
>
> *Goal 6.4: The Village will support health and wellness through innovative and diversified recreational, learning, and cultural opportunities in its public parks, plazas, trails, and open spaces.*

Initiative 6.4.4. Support the efforts of the Park District and other community organizations to expand and/or modify Winnetka's recreational programming to fill gaps in services.

Goal 6.5: The Village will support policies that preserve and protect the unique natural resources of and the recreational opportunities provided by the Lake Michigan shoreline and bluffs.

Initiative 6.5.1. Continue to study and consider establishing development regulations addressing construction of shoreline stabilization projects and specific recreational projects in and adjacent to Lake Michigan and its shoreline that will not cause environmental damage to or interfere with the greater recreational opportunities provided by the Lake and adjacent areas. [Ordinance MC-05-2023 was adopted by the Village Council on March 21, 2023, which created a new chapter of Village Code – Chapter 15.78 Lakefront Construction.]

Initiative 6.5.2. Study and consider establishing development regulations that requires construction on and adjacent to the bluffs along the Lake Michigan shoreline that protects, restores, and manages the stability of the bluffs and natural shoreline and that are contextually sensitive to the natural features of the bluffs. [Ordinance MC-01-2024 was adopted by the Village Council on February 6, 2024, amending the Zoning Ordinance concerning establishing bluff regulations for development in the steep slope area along Lake Michigan.]

The Subject Property is zoned R-2 Single Family Residential and is in the Lakefront Preservation Overlay District, and it is bordered by R-2 Single Family Residential to the north and south, and R-4 Single Family Residential to the west (see Figure 3).

In addition to single-family residential uses, the R-2 District allows a limited range of additional uses by Special Use Permit. Allowed Special Uses in the R-2 District include (a) church or temple; (b) public school, elementary and high, or private school having a curriculum equivalent to a public elementary school, public high school or public institution of higher learning; and (c) library. In addition, the Zoning Ordinance allows park and recreational uses in any zoning district within the Village by special use permit approval.

The Applicant's *current* use of the Subject Property as a park and recreational facility is generally consistent with the Comprehensive Plan land use designation and the R-2 zoning district.

Figure 1 – GIS Aerial Map

Figure 2 – Comprehensive Plan Land Use Map – Winnetka Futures 2040 Plan

Figure 3 – Zoning Map

PROPERTY HISTORY AND PREVIOUS ZONING APPLICATIONS

Based upon documents provided by the Applicant, it appears that the Applicant has owned the Subject Property since 1969. There are five (5) previous zoning cases on file for the Subject Property, which occurred prior to the Applicant acquiring the Subject Property:

1. In 1923, ZBA Case No. 43 was approved to allow an addition to a nonconforming use for the North Shore Health Resort;
2. In 1945, ZBA Case No. 702 was approved to allow the alteration of a nonconforming use and building for the North Shore Health Resort;
3. In 1949, ZBA Case No. 751 was not approved to allow a building addition to the North Shore Health Resort;
4. In 1951, ZBA Case No. 776 was not approved to allow enclosure of the front entrance of the North Shore Health Resort; and
5. In 1964, ZBA Case No. 935 was approved to allow the extension of a nonconforming use (North Shore Health Resort) with the construction of an accessory building.

Figures 4 through 9 on the following pages are photos of the site where the improvements are proposed.

Figure 4– Subject Property – Looking East from Centennial Park Towards Lake Michigan

Figure 5 – Subject Property – Top of Centennial Park Bluff

Figure 6 – Subject Property – Looking North at Centennial Beach

Figure 7 – Subject Property – Looking South at Centennial Beach

Figure 8 – Subject Property – Looking North from Centennial Beach

Figure 9 – Subject Property – Looking South at Existing Steel Groin on Centennial Beach & Stone Groin at 205 Sheridan Road Property

LAKEFRONT CONSTRUCTION AND STEEP SLOPE ORDINANCES

Given the Subject Property is located along Lake Michigan it is subject to the recently adopted lakefront construction ordinance, Chapter 15.78 of the Village Code, and the steep slope regulations, Chapter 17.82 of the Village Code. The requirements of both chapters are administratively reviewed and approved by staff (in this case after zoning approval). However, an applicant may appeal the decision of staff regarding the application of the lakefront construction ordinance to the Village Council or may request exceptions from the steep slope requirements, which will be discussed later in this section.

The **lakefront construction regulations** govern construction along, adjacent to, and within Lake Michigan. A permit pursuant to the lakefront construction ordinance is required for any construction activity within Lake Michigan regulated areas that requires a permit from any of the following governmental agencies ("Permitting Agencies"): the United States Army Corp of Engineers, the Illinois Department of Natural Resources, the Metropolitan Water Reclamation District of Greater Chicago, or the Illinois Environmental Protection Agency (collectively, "Covered Construction"). Typical construction activity relates to beach preservation, which consist of steel or stone groins, revetments/bulkheads/seawalls, or other means of lakefront stabilization and preservation. The Village's formal review and approval of such a permit occurs after the applicable zoning approvals and the regulatory agencies review and approve their respective permits. The Village's review and approval is conducted administratively by the Village Director of Engineering in consultation with the applicant and the Village's coastal engineering consultant. This review is based upon a set of criteria identified in the regulations.

Figure 10 - Steel and Stone Groin

Figure 11 - Stone Revetment

Figure 12 - Existing Sea Wall on Subject Property

The **steep slope regulations** govern construction activity on or adjacent to the steep slope of the bluffs along Lake Michigan. The steep slope regulations are part of the Zoning Ordinance and include the following key slope definition regulations, which are illustrated in the image below.

- Bluff
- Table Land
- Toe of the Bluff
- Steep Slope Line
- Steep Slope Zone
- Slope Transition Area
- Slope Impact Area

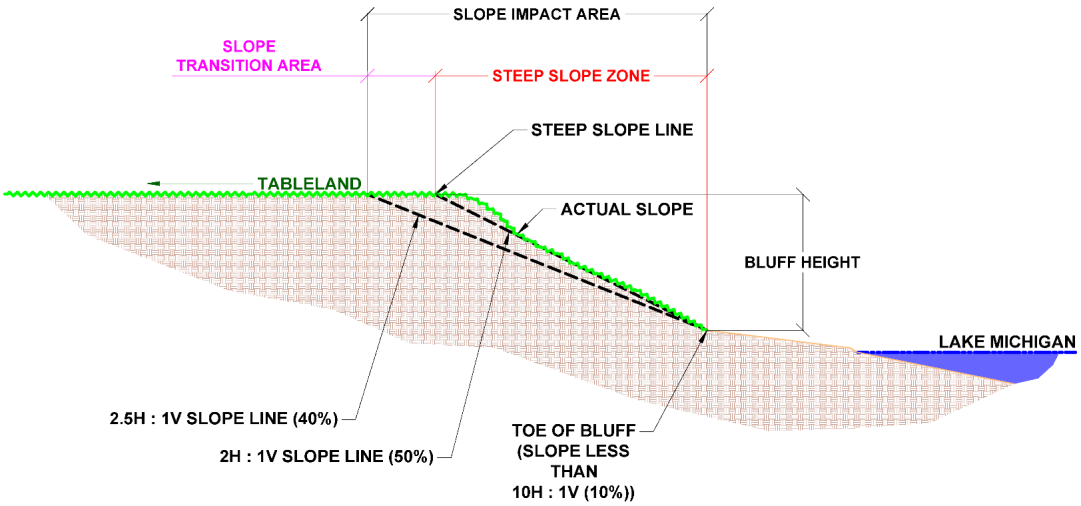


Figure 13 – Illustration of Steep Slope Regulation Terminology

The steep slope ordinance allows certain structures within the steep slope zone (area in red above). Additionally, it allows any structure within the slope transition area (area in magenta above) subject to certain engineering conditions and standards. In either the steep slope zone or the slope transition area, which together is the slope impact area, development must meet applicable geotechnical and structural engineering standards as noted in the ordinance.

The ordinance also **allows existing structures to remain and certain new development in the steep slope zone, which is summarized as follows:**

a) Decks no larger than 50 square feet, unless exceptional engineering is provided.
b) Retaining walls when necessary for stabilization, that do not increase or create tableland, and backfilling only allowed for stabilization.
c) Stairs no more than 5 feet wide with landings no more than 50 square feet.
d) Mechanical or electrical lifts, which do not obstruct the flow of light and water.
e) Fences that comply with all other Village codes.
f) Rebuilt, repaired, or remodeled existing structures that do not extend beyond the footprint or dimensions of the previously existing structure and constructed according to plans of an architect or structural engineer who certify that the new foundation or existing foundation (with appropriate engineering modifications and repairs, if any) will support the rebuilt, repaired or remodel structure without material adverse impact on the steep slope zone.
g) Cantilevering of the principal structure with no more than a four-foot extension over the steep slope unless otherwise limited by the code. The cantilevering cannot block natural sunlight or alter natural stormwater drainage in a way that jeopardizes slope stability.
h) Boat houses with a gross floor area limited to no more than 860 square feet, height limited to one-story and no taller than 15 feet, and the Engineering Director's determination that the structure will not impact slope stability.

The steep slope regulations include a provision that allows the Village Council to grant exceptions to the regulations as part of granting a special use permit, if the development includes construction activity that would not otherwise comply with the requirements under the steep slope regulations.

The steep slope regulations also identify development standards for the slope impact area, which includes both the steep slope zone and the slope transition area. The standards include items related to:

1. Safety and control of steep slopes.
2. Construction techniques to enhance bluff stabilization.
3. Hydrological controls.
4. Vegetation maintenance and revegetation.
5. Filing, grading, and earth moving.

As with the lakefront construction regulations, the steep slope regulations are also administratively reviewed and approved through the Village's permit review process by the Village Director of Engineering with the assistance of the Village's coastal engineering consultant. They review proposed plans based upon whether the plans comply with the above steep slope development standards.

The technical review and approval of proposed plans set forth in the lakefront construction regulations and the steep slope regulations occurs during the building permit process, which occurs after the zoning entitlement process (e.g. special use, variations, etc.). That said, during Village staff's review of a zoning entitlement application, Village staff and consultants will conduct a preliminary review of the project for code requirements to determine if the development should be able to, in general terms, comply with administrative code requirements. Detailed construction plans are not required at this time, but the applicant is required to provide sufficient information so staff can determine whether the proposed site layout can be achieved and still comply with other Village regulations as noted above. If after the Village Council approves a special use permit and during the building permit process an applicant changes the design of the project to such an extent that it would be considered a major change, the applicant would be required to go through the full special use permit process again before staff issues a building permit.

Regarding the Centennial Park and Beach zoning relief application, the Applicant has submitted preliminary engineering plans that have been reviewed by the Village Director of Engineering and Village's coastal engineer. The initial review that was performed assumes that the special use and all the Applicant's request for exceptions to the Village's steep slope regulations would be approved and the other applicable regulatory agencies would approve the proposed improvements regulated by the Village's lakefront construction regulations and steep slope regulations. The Engineering Department has provided preliminary comments to the Applicant. Based on the responses provided by the Applicant's engineering team to date, the Village Director of Engineering has determined that the Applicant will need to provide additional required information. Based upon this additional information, the Village Engineer will determine if the information meets the design requirements of all Village Code requirements, including the lakefront construction regulations and the steep slope regulations.

Attached is a memo prepared by Village staff and the Village Attorney summarizing the role of Village staff, Boards/Commission, and the Council in the Centennial Park & Beach zoning relief application (**Attachment B**). As stated in this memo, each advisory board and commission will review the application based upon the applicable standards for that advisory body. Their review is based upon these broad standards and not based upon a review of the ***technical*** code requirements for such items as the Village's stormwater requirements, building code requirements, lakefront construction approval criteria, or steep slope regulation development standards. Those technical items are reviewed in detail administratively by qualified engineering staff during the building permit process. As noted above, if the Village Council were to approve zoning relief for the Centennial Park and Beach improvements and then during the building permit process the Applicant changed the design of the project to such an extent that it would be considered a major change, the Applicant would need to go through the full special use permit process again prior to the building permit being issued by staff.

PUBLIC TRUST DOCTRINE

Given the proposed improvements are located along the lakefront, it is important to review the nature and extent of the "public trust doctrine". At the January 10, 2023, Village Council study session, the Village Attorney reviewed a memorandum summarizing governmental jurisdiction as well as property rights and access along Lake Michigan. A copy of this memorandum can be found on the Village website by going to www.villageofwinnetka.org/agendas and looking for the January 10, 2023, Village Council study session agenda materials. The following are highlights of the applicable sections of the memo regarding the "public trust doctrine".

Generally, the "public trust doctrine" is a concept based upon an 1892 United States Supreme Court decision that held that lands under the navigable waters of Lake Michigan are held by the state in trust for the people of the state. This doctrine has since been codified by Illinois statue. Illinois courts have held that the boundary between private land and land owned by the state in public trust is "the line where the water usually [stands] when unaffected by storms or other disturbing causes." This line is variously referred to as the "water's edge," "still water shoreline," "calm waterline," "unaffected waterline," or the "normal waterline." Accordingly, in Illinois the boundary between private land and public land is the point at which the water normally stands (the "Normal Waterline").

A rule of thumb that generally applies in Illinois and other jurisdictions that rely on the Normal Waterline for the public-private property demarcation is that if your feet are wet, you are on public property, and if your feet are dry then you are on private property. Based on these principles, the demarcation line in Illinois between public and private land is the same demarcation line that identifies where land held in trust begins and ends – both lines are the Normal Waterline.

The Illinois Supreme Court has held that the public trust doctrine for Lake Michigan extends "to recreational uses, including bathing, swimming and other shore activities." Illinois Courts have acknowledged that the ability of the public to freely use Lake Michigan for recreational uses also ends at the Normal Waterline.

The Normal Waterline may change over time as a result of various processes, including accretion, reliction, and erosion. Accretion is the increase or reclamation of land along the shoreline due to the deposit, by water, of solid material such as mud, sand, or sediment. Reliction is the creation of dry land due to the recession of water. Similarly, dry land may become submerged by the erosion or removal of solid materials from the shoreline. Gradual changes to the Normal Waterline over time resulting in either increases or decreases in the amount of dry land are an "inherent and essential attribute of the original property," and the property line changes with the Normal Waterline. However, if the addition or loss of property is sudden (i.e., caused by a violent storm), then the property line does not change. In the case of a sudden loss of land (called an avulsion), the owner may assert control over and reclaim the submerged land. The test of what change is gradual, as opposed to sudden, is "that though the witnesses may see from time to time that progress has been made, they could not perceive it while the process was going on". Although a riparian owner may protect his property from erosion, he has no right to affect an increase of his own land, the result of which is a corresponding loss of land owned by the state in trust for the public.

Under these principles, the owner of real estate fronting on Lake Michigan owns the property to the Normal Waterline, and the land east of the Normal Waterline is owned by the state in trust for the public.

PROPOSED PLAN

The following is a summary of the Applicant's proposed improvements on the tableland, the slope impact area, and the lakefront. Each item described below is called out on an image by the corresponding paragraph number and the Applicant's plan sheet number from which the image comes from is identified. The complete set of plans is provided in the application materials, which are included in **Attachment A**.

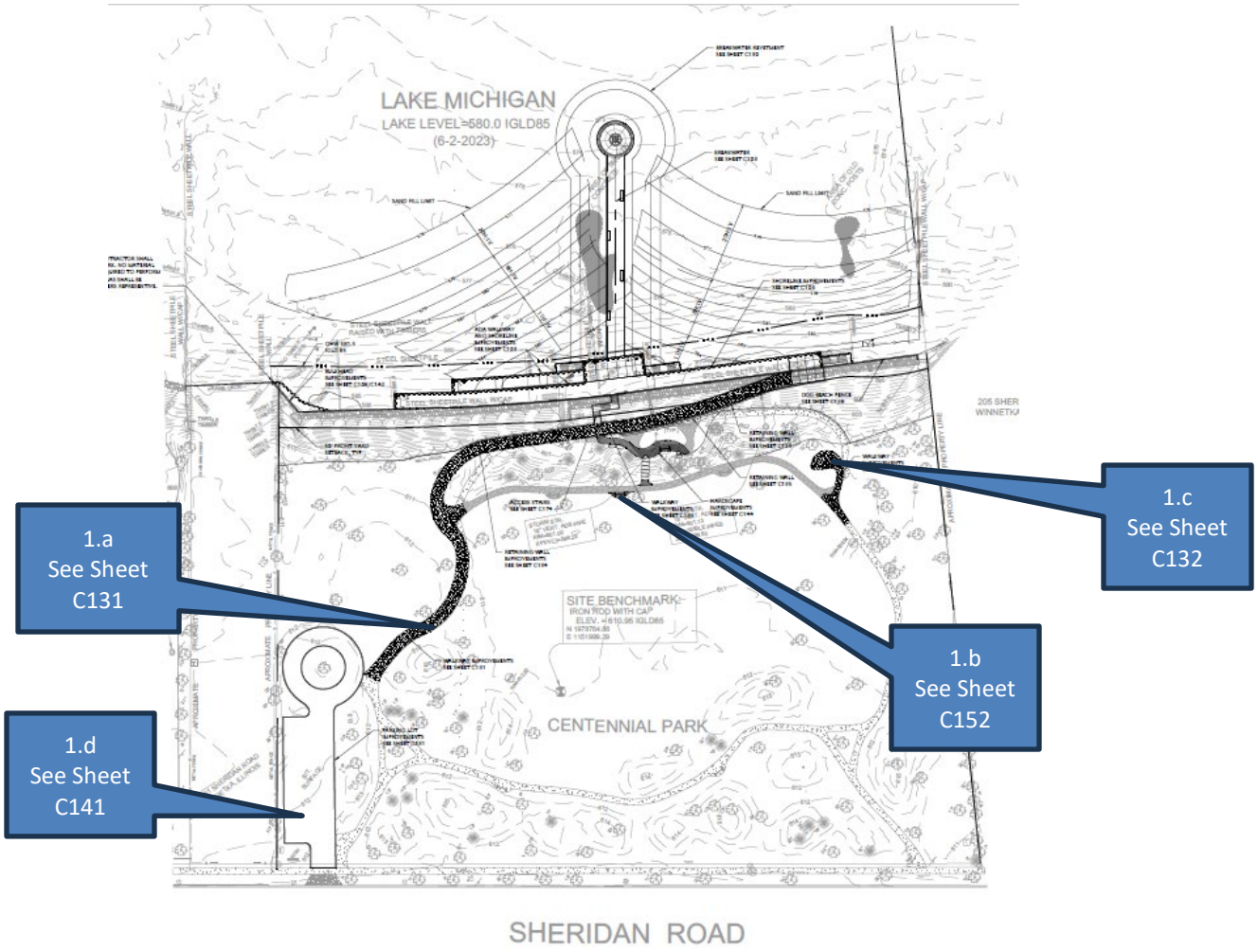


Figure 14 – General Site Development Plan (Sheet C101)

1. Tableland

a. Walkway Improvements. The existing 5-wide concrete walkway from the circular vehicular island to the existing paver walkway would be expanded to 10 feet in width.

b. Relocated Bench. An existing bench currently located mid-bluff would be relocated onto a new paver bench pad toward the center of the site.

c. Overlook Seating Node: The existing bench towards the south side of the site would be replaced with an overlook seating node that would accommodate two benches.

d. Resurfacing Parking Lot. The existing parking lot would be resurfaced. No expansion of the parking lot is proposed.

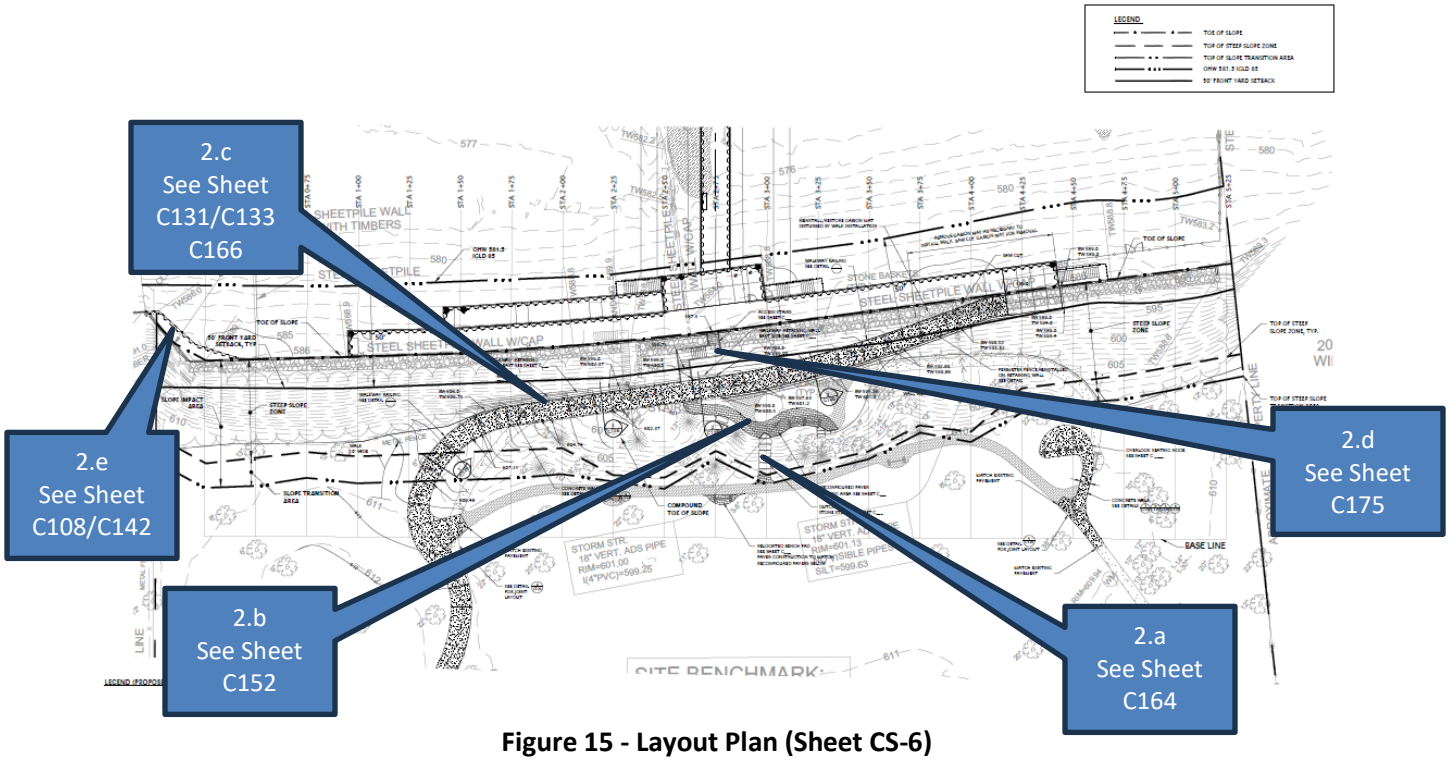


Figure 15 - Layout Plan (Sheet CS-6)

2. Steep Slope (Bluff)

a. Outcropping Stone Steps. Stone steps measuring 6 feet in width are proposed from the existing walkway located on the tableland down to a reconfigured seating area. The distance from the existing walkway to the reconfigured seating area is approximately 22 feet.

b. Mid-Bluff Paver Walkway and Seating Area. The existing paver seating area and walkway would be reconfigured to provide access to the proposed ramp that goes down to the beach).

c. Concrete Access Ramp with associated Retaining Walls. The existing concrete mid-bluff walkway, which is approximately 4-5 feet in width, would be replaced with a new 10-foot-wide concrete walkway/ramp to provide park users access to the proposed beach improvements as well as access for maintenance equipment for the beach. The slope of the ramp would be 7.9% or less to provide access for persons with disabilities.

Retaining walls are proposed to construct the proposed ramp. Towards the northern portion of the walkway/ramp, a retaining wall, 105 feet in length, would be located on the east of the access ramp until it intercepts with the proposed access stairs down to the proposed boardwalk. This portion of the retaining wall varies in height from 0.75 feet to 3.74 feet. Approximately 12.5 feet south of the proposed access stairs, the retaining wall transitions to the west side of the ramp, and it varies in height from 1.5 feet to 7.97 feet. The west retaining wall is approximately 175 feet in length; 30 feet of which is between 6.5 feet and 7.97 feet in height, the remaining 145 feet of the wall would be 1.5 feet to 6.4 feet in height. The approximate south 40 feet of the west retaining wall would be located within the required front yard, and it does not exceed 6.5 feet in height.

d. Access Stairs (Bluff Staircase). Elevated wooden stairs, 5 feet in width, are proposed to provide a connection from the ramp described above to the proposed boardwalk below. The staircase would sit above the bluff on nine (9) helical piers. Traditional wood frame construction is proposed with Ipe wood decking and horizontal black metal railings.

e. Steel Sheet Pile Replacement. At the northeast corner of the site, combined wooden timbers, steel I-beams, and steel sheet piling currently support a section of the bluff (see Figure 15 below). Due to the age and materials of this structure, the Applicant proposes to replace it with new steel sheet piling in front of the existing timber wall. The proposed steel sheet piling wall would be approximately 52 feet in length and approximately 8 feet in height from the current sand level, but 6.5 feet from the proposed sand (beach) elevation. This proposed sheet pile wall is located in the required front yard, and as discussed later in the report would require approval of a zoning variation. The proposed replacement steel sheeting will connect to the existing steel sheeting on the adjacent property to the north, just as the existing steel sheeting does today.

Figure 16 - Existing Wooden Timbers, Steel I-Beams, and Steel Sheet Piling to be Replaced

f. Bluff Clearing and Restoration. The Applicant's plans for the site also include extensive clearing of invasive species as well as dead and dying trees. As described by the Applicant in the attached written explanation, an estimated 1.34 acres of invasive and noxious species control is proposed to be completed on the bluff. The Applicant's plan outlines four different restoration zones and strategic planting plans. The four zones include the: (i) bluff restoration zone (23,800 square feet); (ii) green gabion wall zone (3,200 square feet); (iii) dune grass planting zone (800 square feet); and (iv) turf restoration zone (32,162 square feet). The plan calls for the removal of 32 trees, four (4) of which are dead. To replace the trees being removed from the bluff, the Applicant states that it will plant nearly 30 caliper inches of trees on the site, and the remaining replacement caliper inches at other parks.

The Village Forester has reviewed preliminary landscape plans submitted by the Applicant. Most of the trees to be removed are located along the bluff, an area with a steep slope and otherwise challenging growing conditions for large-growing shade trees. Many of these trees are thus crowded and have not had space or other resources necessary to reach their potential mature size. Therefore, the canopy of these trees can be replaced by planting a less than one-to-one ratio if the trees are planted in locations with suitable growing conditions.

The Village will require the planting of at least 12 large-growing shade trades in Centennial Park. Upon maturity these trees should replace the canopy lost through tree removal. Trees not replaced with large-growing shade tree plantings as required may be planted as other shade trees, ornamentals or evergreens. It is preferred that these trees be planted in Centennial Park unless doing so would not be possible under good forestry practices. Any inches that cannot be planted in Centennial Park will need to be planted in another park in the Village. The species indicated in the landscape plan are suitable for the site. The number of trees to be planted should be increased to meet replanting requirements. The final landscape plan will be reviewed and approved by the Village Forester when the building permit plans are submitted for permit review.

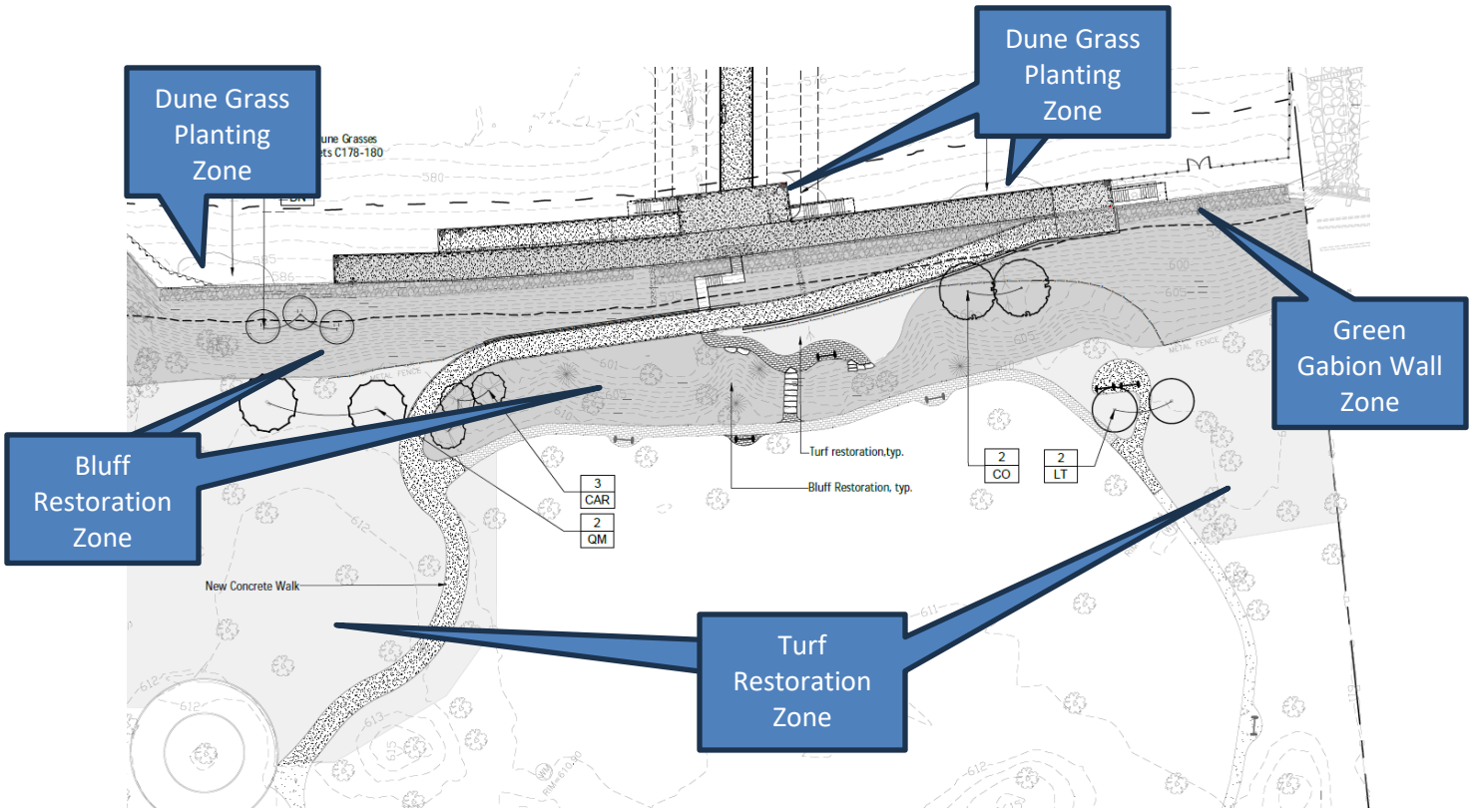


Figure 17 - Proposed Landscape Plan (Sheet C145)

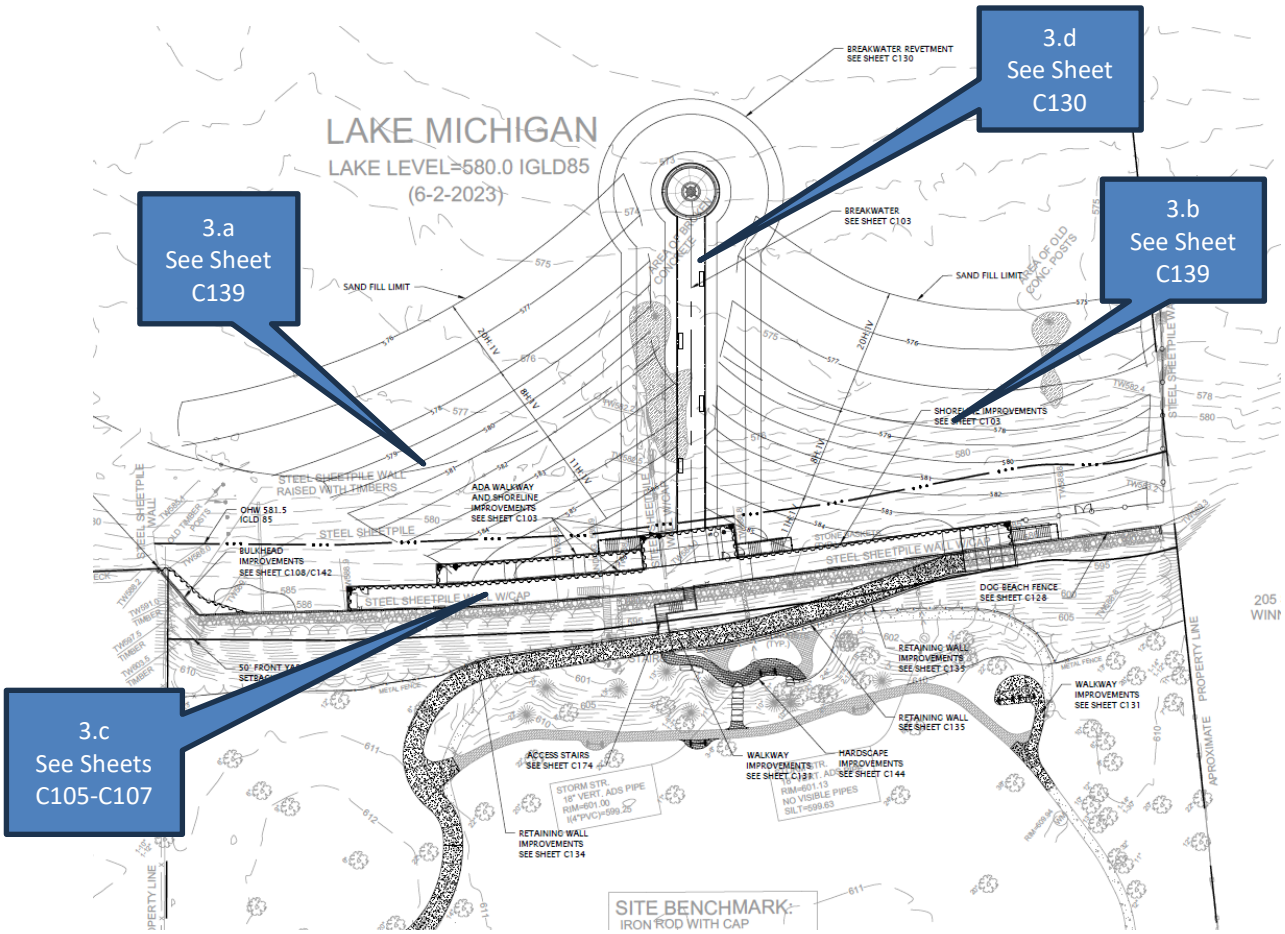


Figure 18 - Excerpt of General Site Development Plan (Sheet C101)

3. Lakefront (beach & within lake)

a. Swimming Beach. A swimming beach is proposed on the north 250 feet of the site. It would operate under the same rules as the other Park District swimming beaches, with staff on site from late May until early September. The beach would be closed for swimming during the off-season but still open for beachgoers. At this time, the Applicant does not intend for the beach to be used for sailing, kayaking, paddleboarding, or other activities involving a boat or watercraft.

b. Off-Leash Dog Beach. The Applicant has stated that it has operated a dog beach at Centennial Park since 1995. The existing dog beach would be reduced in size to accommodate the proposed swimming beach. The proposed 240-foot dog beach would have controlled access with a key fob system that would restrict access to registered users. The dog beach would be bordered by a 5-foot-tall black fence on the west and south boundaries of the specified area. The northern boundary of the dog beach would be the proposed pier and 3.5-foot-tall black handrail. On the southern portion of the site there is an existing steel groin that is perpendicular to the existing steel sheet piling (seawall identified in Figure 11) at the toe of the bluff. The steel groin extends approximately 145 feet easterly into the lake. Approximately 65 feet east of the seawall the steel groin is beyond the ordinary high water mark (OHWM). The southern portion of the proposed fencing enclosing the dog beach would be installed on top of the existing steel groin and extend into the lake approximately 103 feet. Approximately 26 feet of

the dog beach fence is within the required front yard but does not exceed 6.5 feet in height. The dog beach fence is off-set approximately 12.5 feet from the existing north/south seawall to maintain public access along the beach without having to walk through the dog beach. The dog beach would be accessed from 6-foot-wide concrete stairs off the proposed boardwalk within a secured entrance area. The existing dog beach is open year round and this would continue with the proposed improvements.

c. Boardwalk. The proposed 12-12.5-foot-wide concrete boardwalk would connect to the existing seawall and is intended to not only provide a beach amenity but also maintain existing shore protection. The boardwalk would be elevated between 3 and 5.5 feet above the existing ground level, with a fence 3.5 feet in height on top. With the proposed sand nourishment, the boardwalk would be 1.5 to 4 feet above the beach.

   The concrete would be tinted with a color additive used in other concrete on the site and it would be stamped with a wood decking pattern to give the boardwalk the appearance of natural wood. The goal is to achieve a weathered Ipe wood aesthetic to match the bluff staircase described earlier. The boardwalk would be 349 feet in length with integrated backed Ipe wooden benches mounted to the bulkhead along the western edge. Four low level LED bollard light fixtures are proposed for the boardwalk. Low-intensity lighting is also proposed along the walkway, or ramp, down to the boardwalk, and the dog beach area.

   East of the proposed boardwalk would be a beach access ramp to the swimming beach. The concrete ramp would be 10-feet-wide and provide access to the beach as well as access for maintenance equipment.

   Three staircases are proposed from the boardwalk to access the different elements of the beach. The northernmost staircase would be east of the beach access ramp to provide access to the swimming beach. A second staircase would be from the fenced dog beach entry area down to the dog beach. The third staircase would be on the southernmost end of the boardwalk to provide access to properties south of the Subject Property for those walking the shoreline. The entire boardwalk and fencing on top of the boardwalk would be located within the required front yard, and as discussed later in the report would require approval of a zoning variation.

d. Pier. According to the Applicant, a pier is proposed to serve several purposes, the primary purpose is to substantially delineate the swimming beach from the dog beach to the north and south respectively. The pier is also intended to provide additional shore protection and help hold sand for the beaches. Lastly, the Applicant believes that the pier would provide additional recreational use of the lake. The proposed pier would replace an existing sheet pile groin that currently splits the Centennial Beach. It would extend 192.5 feet from the boardwalk to the farthest end of the structure. The pier would be surrounded by 33.5 feet of stone, consisting of a bedding stone layer, armor stone, and elevated armor stone 3.5 feet above the ordinary high water mark (581.5). The elevated armor stone would be at the same height as the pier and extends 6 feet out from the pier, and then tapers down into the lake. The pier starts at 6 feet above grade (existing grade), or an elevation of 587.5 feet, and tapers down to the east by 2.5 feet, ending at an elevation of 585 feet. A small portion of the proposed pier and the fencing on top of the pier would be located within the required front yard and would require approval of a variation.

The south side of the pier would have modular fence panels designed to provide a secure boundary for the dog beach. The proposed 3.5-foot-tall fence would consist of galvanized steel and powder coated black with horizontal rails. The east end of the pier would have six (6) concrete benches centered around a decorative 8-foot bronze compass rose inset on the flat surface of the pier.

The linear portion of the pier would also have four (4) 8-foot-long benches, equally spaced on both sides of the pier.

With the proposed design of the improvements along the lakefront, the Applicant is proposing that the public would be allowed access along the lakefront as illustrated in the following images.

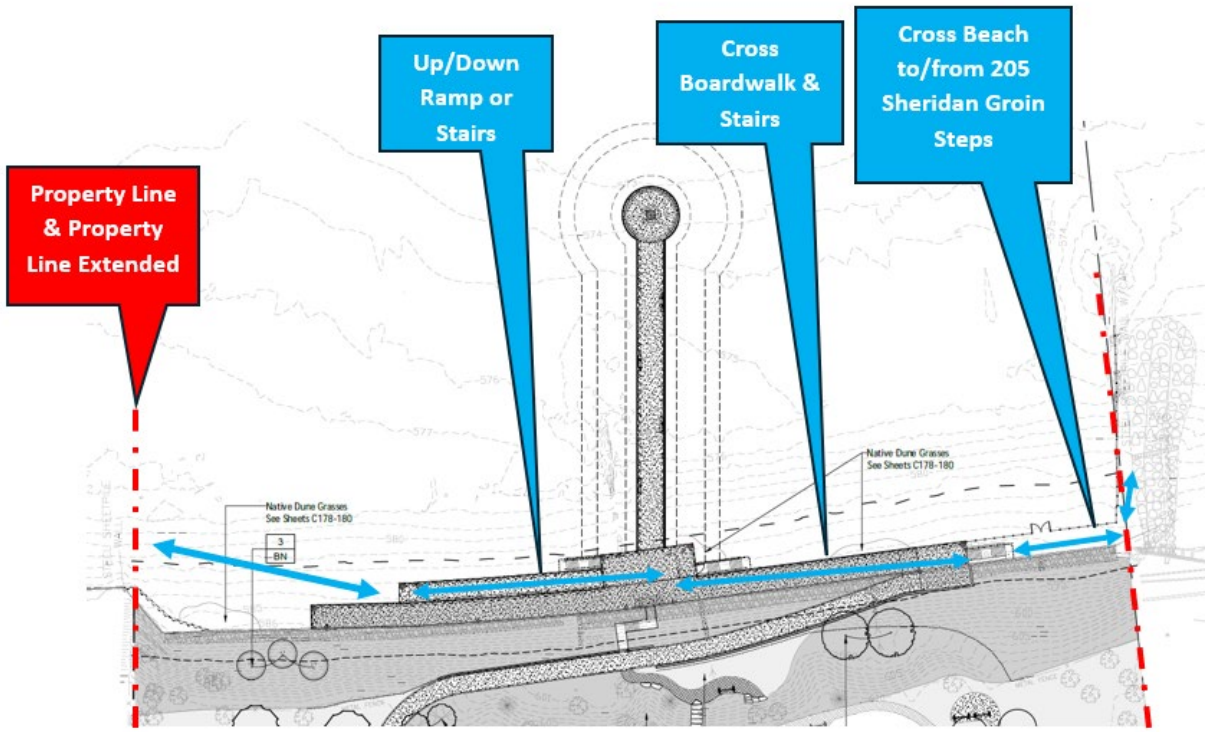


Figure 19 - Proposed Public Access Across Centennial Beach

As proposed, to walk along the beach from the north end to the south end of the Subject Property, or vice versa, a member of the public would need to use the proposed boardwalk and its ramp or stairs given the fencing around the dog park. Also, along the south property line, a member of the public would need to walk between the existing steel groin on which the dog fence would be placed, and the new stone groin associated with the 205 Sheridan Road property. The Applicant has stated that this portion of the path at its narrowest point will be 6 feet wide, which the Fire Department has indicated would be adequate. As noted in the figure below, given the placement of the existing steel groin on which the Park District proposes to place the dog beach fence, a significant portion of the 6-foot-wide pathway would require one to walk on the 205 Sheridan Road property to access the stairs that go over the 205 Sheridan Road stone groin. At the Plan Commission meeting, the Village Attorney will further describe this situation, and the Park District will provide additional details regarding how the public can legally access this area.

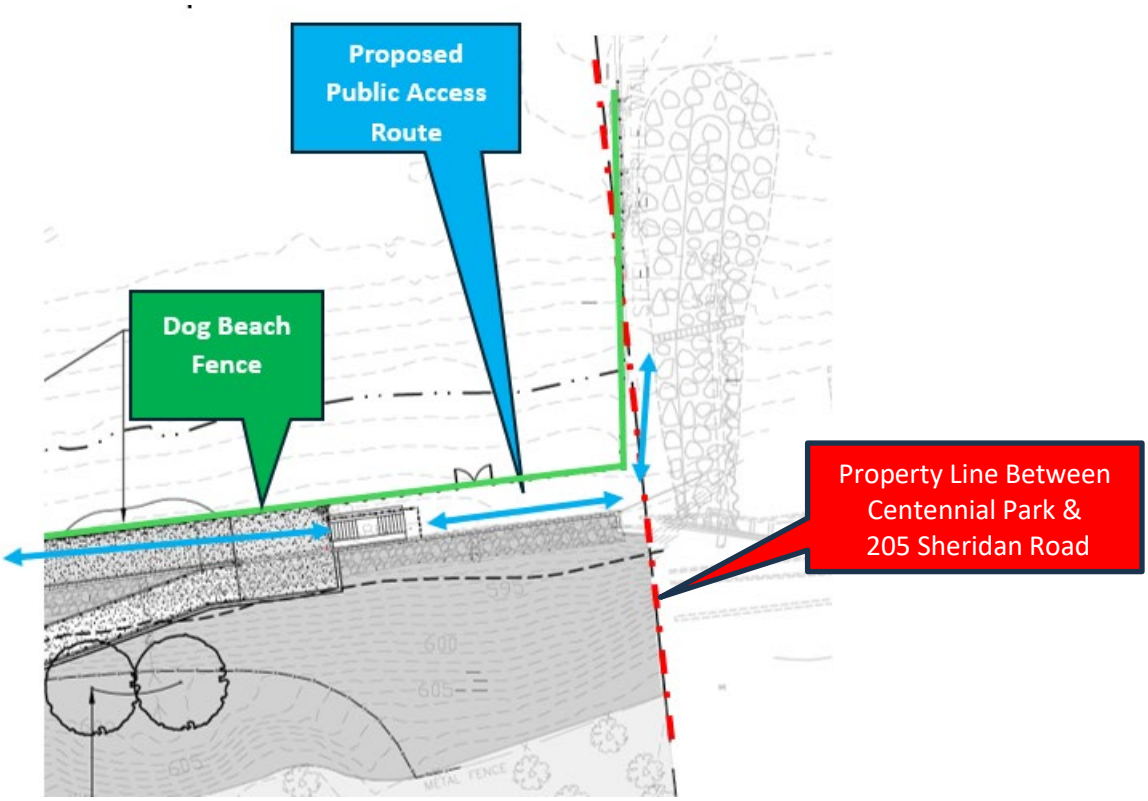


Figure 20 - Closeup of Proposed Public Access Across Centennial Beach Near South Property Line

Given the Plan Commission often receives questions regarding the stormwater regulations applicable to a specific request being considered by the Commission, as previously noted, the Village Director of Engineering has reviewed preliminary engineering plans submitted by the Applicant. Based on these preliminary engineering plans and discussions between the Village Director of Engineering and the Applicant's engineering team, the Village Director of Engineering preliminarily believes that the preliminary plans for addressing stormwater on the site should be approved for the proposed improvements.

REQUESTED ZONING RELIEF

In addition to the special use permit request, the Applicant also requests approval of the following zoning exceptions and variations. The Plan Commission is to consider the zoning exceptions; *however, the zoning variations are not part of the Commission's consideration. The zoning variations were considered by the ZBA*.

Steep Slope Zoning Exceptions

As previously stated, the steep slope regulations allow certain uses and structures within the steep slope zone. The proposed improvements require exceptions from the following two permitted structures – stairs and retaining walls.

To traverse from the top of the bluff to the toe of the bluff, the steep slope regulations allow stairs with the following limitations:

> *Stairs can be no greater than five feet in width. Stair landings can be no larger than 50 square feet. Stair landings for the purpose of this Chapter are defined as an intermediate platform on a flight of*

stairs, greater than 10 square feet, constructed for the purpose of allowing a change in stair direction down the steep slope zone or to break up ten or more stair steps.

The steep slope regulations also allow retaining walls subject to the following standards:

Retaining walls and other structures that are necessary for slope stabilization if constructed in a manner approved by the Director and in accordance with the following standards:

(1) Retaining walls cannot be used to increase table land;

(2) Retaining walls cannot be used to create a shelf or other table area within the steep slope zone, unless it is necessary for slope stabilization; and

(3) Backfilling of a retaining wall is not permitted, unless it is necessary for slope stabilization.

The Applicant is requesting exceptions to these standards for the following proposed elements.

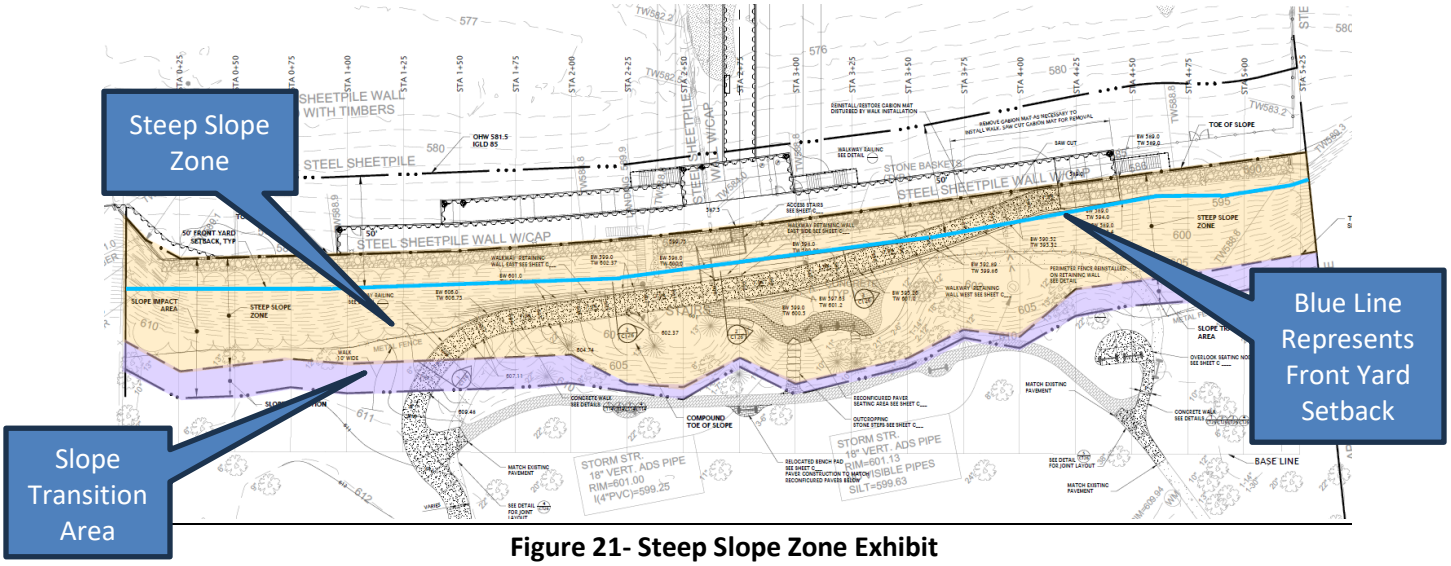


Figure 21- Steep Slope Zone Exhibit

- Concrete Access Ramp and Associated Retaining Walls. The steep slope regulations allow stairs no wider than 5-feet in width within the steep slope zone. The Applicant proposes a 10-foot-wide walkway to serve as a ramp for persons with disabilities and to provide access for equipment to the beach. The proposed 10-foot-wide ramp, or walkway, exceeds the maximum permitted width of 5 feet. Retaining walls, on either side of the ramp, are necessary to construct the ramp, and therefore also require an exception from the steep slope regulations.

- Outcropping Stone Stairs. The proposed 6-foot width of the outcropping stone steps exceeds the permitted width of 5 feet. These are stairs down from the existing walkway on the tableland to the reconfigured mid-bluff seating area.

- Reconfigured mid-bluff paver walkway and seating area. This proposed element would extend beyond the footprint of the existing mid-bluff seating area and exceed the permitted width of 5 feet.

Zoning Variations. As previously noted, the Commission is not considering the zoning variations requested by the Applicant. The following information is being provided so that the Commission is aware of the full extent of the zoning relief necessary to allow the proposed improvements.

- Fence and wall height within required setbacks. With the recent adoption of the steep slope regulations, the Village also amended the Zoning Ordinance to redefine the front line along the lake as well as the front yard setback along the lake. The front lot line is now the ordinary high water mark and is defined as the line on the shore of Lake Michigan consistent with the U.S. Army Corps of Engineers' administrative benchmark, which is currently set at 581.5'. The front yard setback along the lake is now defined as the toe of the bluff or 50 feet from the ordinary high water mark, whichever results in the line farthest from the ordinary high water mark.

  The Zoning Ordinance currently allows fences, walls, or a combination of a fence and wall within a required yard that is no taller than 6.5 feet from natural grade. The following proposed elements exceed this maximum permitted height.

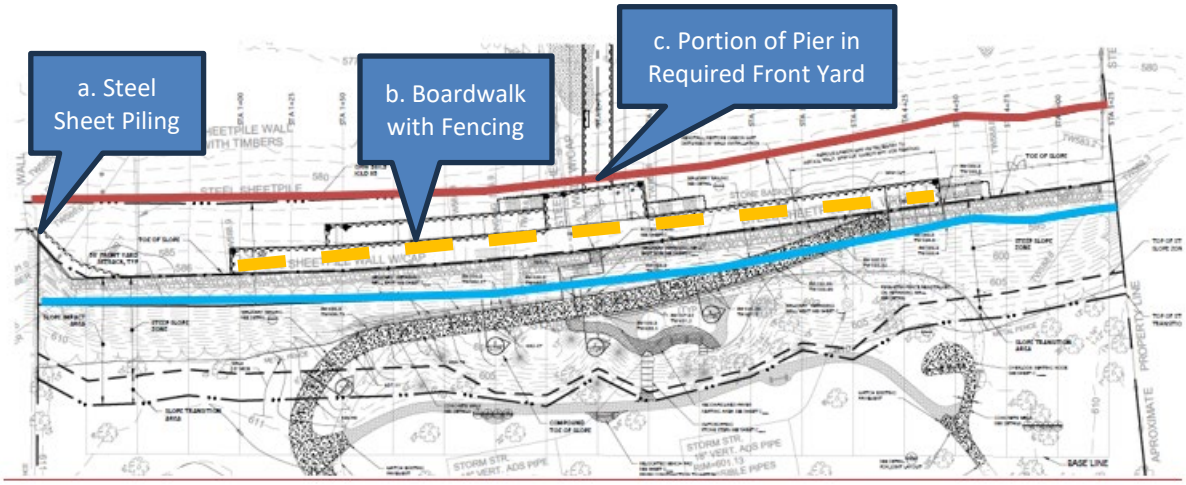


Figure 22 - Proposed Elements in Required Front Yard

a. Steel sheet piling wall at northeast corner of Subject Property would be 8 feet above the natural grade, requiring a variation of 1.5 feet (23.08%);

b. Boardwalk with fencing. The height of the northern 120 feet of the boardwalk and the fencing on top of the boardwalk would be 8.5 feet above the natural grade. The center section (approximately 50 feet) of the boardwalk fencing has two sections that flare out to the proposed pier and range in overall height (boardwalk + fence) from 9.32 feet to 10.5 feet. The southern 95 feet of the boardwalk would have fencing that would be 8 feet in height at its tallest point. Therefore, at a maximum proposed height of 10.5 feet, the boardwalk fencing requires a variation of 4 feet (61.36%);

c. Pier. That portion of the fencing on top of the pier that runs along the south side of the pier and is in required front yard would be 9.5 feet above natural grade, requiring a variation of 3 feet (46.15%). The length of this portion of the pier is 6 feet as it projects from the proposed boardwalk.

CONSIDERATION BY OTHER ADVISORY BOARDS/COMMISSIONS

The Zoning Board of Appeals first considered the zoning relief application for the proposed improvements on October 14, 2024. After hearing presentations by Village staff and by the Applicant, the ZBA heard from over 20 members of the public. More than a majority of the speakers spoke in opposition to the plan, and the remaining speakers spoke in support. After hearing from the public and given the hour, nearly 11:00 p.m., Board members directed questions to the Applicant to respond to at a future meeting.

The Board then continued the public hearing to its regular meeting on November 11, 2024. The Applicant was informed that Board members may have additional questions at that meeting.

In response to the comments and questions the Applicant heard from the Board at the October 14 ZBA meeting, the Applicant provided written responses, which are included in **Attachment A,** for consideration at the November 11, 2024, meeting.

At the November 11, 2024 meeting, the ZBA held a continued public hearing on the Applicant's zoning relief application for the proposed improvements. After a presentation by staff and a presentation by the Applicant, the ZBA heard from over 25 members of the public. Approximately 70% of the speakers spoke in opposition or with major reservations to the plan, while the remaining 30% spoke in support. After hearing from the public, the Board discussed the plan and proposed improvements. All members expressed concerns regarding the special use request related to the design elements of the swimming beach and dog beach and their potential impacts on the surrounding area. All members expressed concerns regarding safety elements of the pier design. Some members also expressed concerns regarding the length and width of the pier, the location of the dog beach fence, lack of adequate parking, and lack of on-site restrooms. Members also expressed concern that the Applicant had not met the applicable zoning relief standards.

At the conclusion of the public comments and ZBA questions, the Chair asked the Park District representatives whether they wanted the Board to proceed with a vote that evening or whether they wanted time to respond to, or adjust the plans in one or more ways, to try to address the Board's concerns. The Applicant indicated that the District would like additional time so that they could try to address the Board's concerns at the December 9, 2024, ZBA meeting.

The Board then continued the item to its December 9 meeting at which the Applicant would be provided an opportunity to respond to the Board's concerns regarding the special use and to hear from the public regarding the Applicant's response.

On December 9, 2024, the ZBA held a continued public hearing on the Applicant's application. At the meeting the Applicant presented information in response to questions and concerns the ZBA members and the public expressed during previous portions of the public hearing. The new information consisted of a Transportation Review by Kimley Horn and a one-page design statement from Red Barn Design & Engineering. The documents are included in **Attachment A**.

ZBA members then spent a significant amount of time questioning the Applicant on the new information and its proposed plan. The ZBA then heard from 12 members of the public; all but one were opposed to the project. After hearing from the public, the Board deliberated amongst themselves. The Board ultimately made the following two recommendations to the Village Council:

- By a vote of 4-3, the ZBA **recommended approval of the variations and exceptions** requested in the application for the project, **subject to** the approval by the Village Council of the special use for the project.
- By a vote of 7-0, the ZBA **recommended denial of the special use** requested in the application for the proposed improvements.

The proposed improvements also require review by the Design Review Board; its review will occur after the Plan Commission's review is complete.

STAFF & CONSULTANT REVIEW

As noted in the previous section, at the December 9, 2024 ZBA meeting, the Applicant handed out a one-page Transportation Review study to the ZBA members. Given the study was handed out at the meeting, the Director of Engineering did not have an opportunity to review the study prior to the ZBA receiving a copy of the study. Since that meeting, the Director of Engineering has had a chance to review the Transportation Review study. Though the study provides some useful information, it is incomplete in terms of the data necessary to determine the potential impact of the proposed improvements on parking and traffic flow in the area. The traffic engineer notes in their review that "supplemental data collection and review planned in Summer 2025 will inform whether additional measures may be warranted." Until that additional data is collected and reviewed, the Director of Engineering is unable at this time to opine on the parking and traffic flow impacts of the proposed improvements.

The Police Department recommends the installation of security cameras for the Centennial Park and Beach areas. These improvements are likely to draw large volumes of visitors and guests to enjoy the lakefront. The presence of security cameras not only provides safety for the patrons visiting this location, but also is a highly visible deterrent of potential crimes. Over the last several years, the safety and security of some of the Winnetka beaches and parks have been monitored by the presence of security cameras. These cameras have assisted law enforcement in several areas related to safety, security, and follow-up investigations; most notably with a recent drowning. Through security camera footage, public safety was able to identify how many people accessed the property and how many may have succumbed to the rough waters.

Various types of security camera systems are available ranging from those that require a hardwire connection between the security cameras and nearby data storage equipment to others that wirelessly transmit data from the cameras to the storage equipment located some distance from the site, such as the security camera equipment the Village uses in our commercial districts. The security camera system should provide adequate coverage of the property, function properly during day and nighttime hours (low or minimal light), and footage saved should be easily accessible to Park District staff for efficient and timely collaboration with public safety when an incident needs further investigation or follow-up.

Given the design of the proposed breakwater/pier elevation will allow wave action over the top, the Applicant has stated that they will have interchangeable signage as they have for other swimming beaches that will inform the public of the lake conditions. These signs will be monitored and changed as needed throughout the season. In addition to the signage, they anticipate installing type 2 barricades at the western pier entrance as necessary to prevent the use of the pier during the high lake conditions where there could be an opportunity for waves to top the pier. The Director of Engineering recommends the installation of a more robust permanent solution to ensure public safety at all times. As weather events can change very quickly, the installation of temporary safety measures can leave opportunities for avoidable accidents to occur and heavy weather events can disturb temporary type 2 barricades.

The Applicant has not incorporated these two recommendations, the installation of security cameras or the installation of a more permanent system to note when the pier is closed due to poor weather conditions, into their proposal.

FINDINGS & RECOMMENDATION

The Plan Commission is charged with evaluating Special Uses and associated steep slope exceptions for consistency with the six standards for granting specials use permits. In the attached application materials submitted by the Applicant, the Applicant has provided a statement of justification regarding how the requested Special Use Permit meets the standards for granting the requested Special Use Permit.

After hearing from the Applicant and the public, the Commission will have the following options:

1) Continue the public hearing to a specific date to provide the Applicant and/or staff with additional time to address questions and comments from the Commission.

2) Consider a motion recommending approval or denial of the Special Use and Exceptions. If the Plan Commission is prepared to make a recommendation to the Village Council regarding the requested relief, a Commissioner may wish to make a motion recommending approval or recommending denial based upon the following and direct staff and the Village Attorney to prepare written findings and determinations for the Plan Commission's consideration and final vote at a subsequent meeting:

   Move to recommend **approval [denial]** of

   A. A **Special Use Permit** to allow construction of improvements to the existing park and beach on the Subject Property, which is located in the R-2 Single-Family Residential Zoning District and Lakefront Preservation Overlay District; and
   B. The following **steep slope zoning exceptions** [Section 17.82.040 Development in the Steep Slope Zone]:
      a. Concrete access ramp 10 feet in width and associated retaining walls to support the ramp;
      b. Outcropping stone steps that exceed 5 feet in width; and
      c. Reconfigured mid-bluff paver walkway and seating area that extends beyond the footprint of the existing walkway and seating area and exceeds 5 feet in width.

   based on evidence in the record, or a public document, and upon the following findings of fact:

   1. The proposed improvements **are [are not]** consistent with the Comprehensive Plan's Land Use Map designation of the Subject Property as appropriate for "Open Space" land uses and **are [are not]** consistent with the following goals of Pillar 1: Quality Livable Neighborhoods and Pillar 6: Healthy and Engaging Lifestyles of the Winnetka Futures 2040 Comprehensive Plan:

      a. Goal 1.7: The Village will continue to ensure that open space uses, such as Park District parks, beaches, and facilities, are compatible with the residential neighborhoods in which they are located.

      b. Goal 6.1: The Village will continue to promote and encourage partnerships with other units of government and agencies to conserve, restore, and enhance natural features and ecosystems, to ensure accessibility to natural areas, parks, and other open or public spaces, and to support recreational facilities and programs that support the health of residents of all ages and abilities.

      c. Goal 6.4: The Village will support health and wellness through innovative and diversified recreational, learning, and cultural opportunities in its public parks, plazas, trails, and open spaces.

      d. Goal 6.5: The Village will support policies that preserve and protect the unique natural resources of and the recreational opportunities provided by the Lake Michigan shoreline and bluffs.

2. The proposed improvements **are consistent [are not consistent]** with the Standards for the granting of Special Use Permits and associated exceptions, as follows:

    a. That the establishment, maintenance and operation of the special use and associated exceptions will not be detrimental to or endanger the public health, safety, comfort, morals or general welfare;

    b. That the special use and the associated exceptions will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity which are permitted by right in the district or districts of concern, nor substantially diminish or impair property values in the immediate vicinity;

    c. That the establishment of the special use and associated exceptions will not impede the normal and orderly development or improvement of other property in the immediate vicinity for uses permitted by right in the district or districts of concern;

    d. That adequate measures have been or will be taken to provide ingress and egress in a manner which minimizes pedestrian and vehicular traffic congestion in the public ways;

    e. That adequate parking, utilities, access roads, drainage and other facilities necessary to the operation of the special use exist or are to be provided; and

    f. That the special use and associated exceptions in all other respects conforms to the applicable regulations of this and other Village ordinances and codes.

[The special use and the requested exceptions should only be approved subject to the following two conditions and any other conditions that the Plan Commission may approve.

1. **The Applicant shall incorporate security cameras into areas of the park and beach in a manner approved by the Police Chief.**
2. **The Applicant shall install a more robust permanent method to notify the public for when the pier is closed due to high wave action in a manner approved by the Director of Engineering.**
3. **Other conditions.]**

As noted above, any motion on a decision by the Plan Commission should direct the Village Attorney to prepare written findings and determinations for the Plan Commission to consider and vote on at a subsequent meeting.

ATTACHMENTS

Attachment A: Application Materials
Attachment B: Staff Report Regarding Village's Role in the Centennial Park & Beach Zoning Relief Application
~~Attachment C: Public Correspondence Previously Included in ZBA Agenda Packets~~
~~Attachment D: Public Correspondence Received Since Posting of December 9, 2024, ZBA Agenda Packet~~

ATTACHMENT A

David Schoon
Director of Community Development
Village of Winnetka
510 Green Bay Road
Winnetka, Illinois 600930

Dear Mr. Schoon,

On behalf of the Winnetka Park District, I am pleased to submit the following items for inclusion in the Special Use Permit application for Case No. 24-08-SU: 255 Sheridan Road – Centennial Park and Beach. Based on our previous discussions, we are anticipating a meeting with the Plan Commission on January 22, 2025. We greatly appreciate your time and effort in this process and look forward to collaborating to address community concerns. We also look forward to future meetings with both the Design and Review Board and the Village Council for final review.

As we learned from our prior presentations to the Zoning Board of Appeals, we want to ensure that the Plan Commission and future boards has access to all pertinent information for the project. This includes presentations made during the Village Council Study Sessions. For reference, at the January 10, 2023, Village Council Study Session, Village Staff, the Village Attorney, and representatives from both the Army Corps of Engineers and the Illinois Department of Natural Resources provided valuable information regarding the shoreline and bluff conditions along the Illinois coastline. Additional presentations were held on September 12, 2023, by Village Staff and the Village's Coastal Engineering Firm, Baird and Associates. These presentations focused on the shoreline and bluffs along Lake Michigan, particularly in Winnetka. The information presented during these sessions laid the groundwork for the Village's approval of the Steep Slope Ordinance. The Park District used this information, along with the approved Steep Slope Ordinance, to refine the previous plan to ensure that the proposed plan meets the Villages Special Use Permit process and is the best for our patrons.

We kindly ask that you share the following links with the Plan Commission to provide them with the necessary background and context regarding the coastal zone in Winnetka. These presentations, along with our own, will offer the Plan Commission the information needed to support the proposed improvements outlined in our Special Use Permit application for Centennial Park and Beach:

January 10, 2023: https://winnetkail.portal.civicclerk.com/event/515/overview

September 12, 2023: https://winnetkail.portal.civicclerk.com/event/523/overview

Moreover, the supporting letters from Kimley-Horn and Red Barn Design and Engineering will further strengthen our application regarding the six Special Use Standards.

Park District staff have also carefully considered the concerns raised during the three Zoning Board meetings. We presented this feedback to the Park Board on December 19, 2024. This information can be found in the December 19, 2024, Board Packet under Agenda Item 5.3: Memo from Costa Kutulas, Attachment A, "Centennial Park and Beach Project Review and Considerations Outline." A link to the Park Board Packet is available below:

December 19, 2024: https://winpark.diligent.community/Portal/MeetingInformation.aspx?Org=Cal&Id=128

The Park District is committed to building the best park and beach for our community, and we are confident that our plan will achieve that goal and more.

We look forward to presenting our plan to the Village's remaining advisory boards and Council in the upcoming months. For your convenience, I have only included the amended documents in this submittal. Should you require anything further from me prior to your submission to the Plan Commission, please do not hesitate to let me know.

Thank you for your continued support.

Sincerely,

Costa Kutulas
Director of Parks and Maintenance
Winnetka Park District

Kimley»Horn

MEMORANDUM

To: Shannon Nazzal
Winnetka Park District

Costa Kutulas
Winnetka Park District

From: Peter Lemmon, P.E., PTOE

Date: December 6, 2024

Subject: Transportation Review
Centennial Park and Elder Lane Park
Winnetka, Illinois

Introduction

Kimley-Horn and Associates, Inc. (Kimley-Horn), was retained by the Winnetka Park District to conduct a transportation and parking review of proposed improvement plans at Centennial Park and Elder Lane Park, located on the east side of Sheridan Road in Winnetka, Illinois. The objectives of the assessment include review of the proposed plans, particularly focusing on the Village of Winnetka's Special Use Permit Standards relating to pedestrian/vehicle traffic and parking, outline potential strategies or measures that could be applied to improve conditions, and detail next steps for subsequent data collection that would validate conclusions drawn from this review. The park locations are illustrated on **Exhibit 1**.

This memorandum summarizes the transportation and parking review of the proposed plans, highlights the transportation characteristics and site design elements, and outlines key findings.

Plan Overview

The Park District's plans for Centennial Park and Elder Lane Park would be implemented across two phases. The first phase includes improvements to the beach and bluff at Centennial Park, comprised of establishing an ADA-accessible access pathway to the beach, a boardwalk, and modifying the dog beach to be reduced to the southern half and establishing a swimming beach on the northern half, separated by an elevated accessible pier with armour stone surround. The current parking and access via Sheridan Road would remain with 11 spaces.

Elder Lane Park improvements would follow as a second phase; however, the 68-space parking lot would be modified slightly to 67 spaces (to accommodate a relocated dumpster) during phase one and throughout construction of phase two, available for visitors of Centennial Park and weekday permit parking for New Trier students (7 AM to 4 PM). Access between this lot and Centennial Park would remain via the public sidewalk along Sheridan Road.

Kimley»Horn

EXHIBIT 1
SITE LOCATION MAP

Improvements at Elder Lane Park do not contain changes to parking or traffic flow. The parking lot, its access to Sheridan Road, and the access lane to the Beach House will remain. The proposed site plans for both parks are illustrated in **Figure 1**.

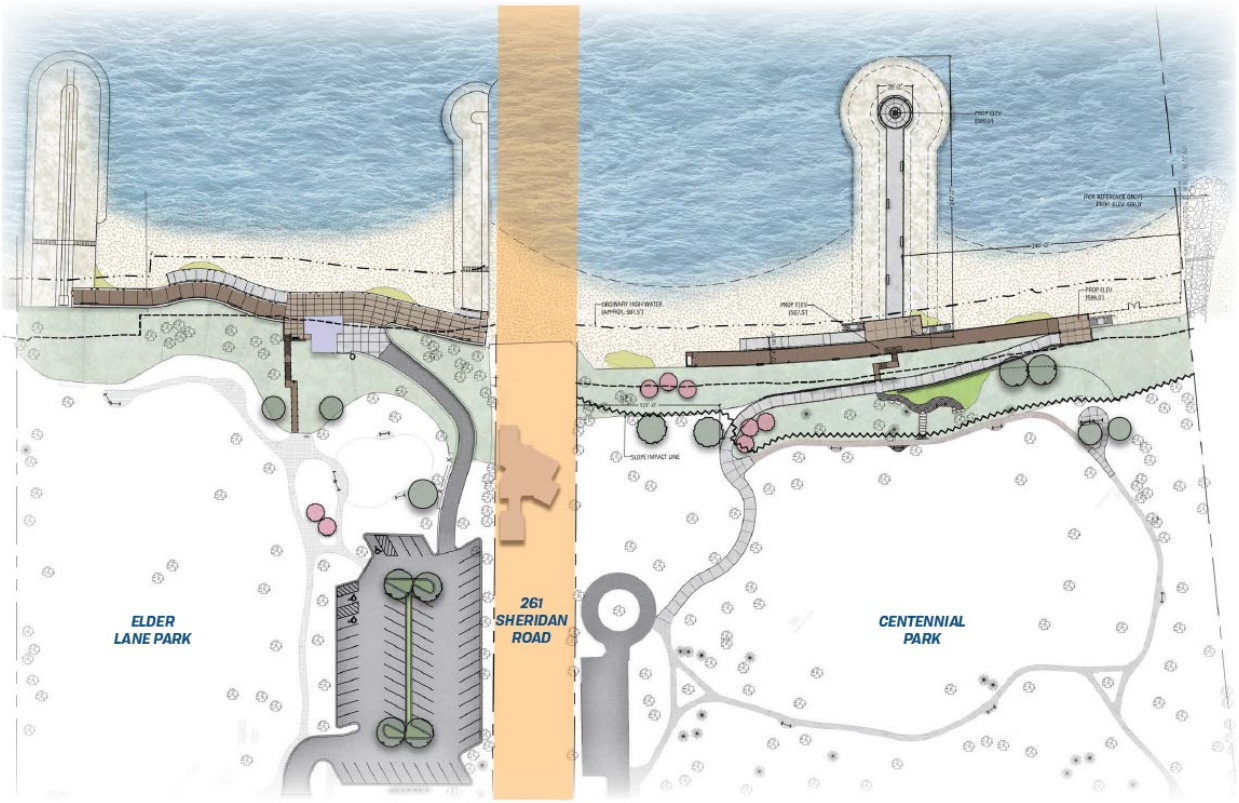


Figure 1. Elder Park and Centennial Park Site Plans

Existing Conditions

One of the initial steps with any evaluation includes field visits, observations of traffic conditions, and review of available data. Kimley-Horn visited the subject sites and surrounding area to observe traffic operation in the immediate vicinity and document existing transportation characteristics and infrastructure including lane configurations, traffic control, access driveways, parking, and circulation patterns.

Roadway and Access Characteristics

Sheridan Road is a two-lane north-south roadway along the west boundaries of both Centennial Park and Elder Lane Park that extends through the Village of Winnetka and neighboring North Shore communities serving a mix of local and through traffic. The Annual Average Daily Traffic (AADT) volume along Sheridan Road is reported by the Illinois Department of Transportation (IDOT) as 6,800 vehicles per day. Adjacent to Centennial Park and Elder Lane Park, Sheridan Road maintains a single travel lane in each direction with share bike lane markings. The intersection of Sheridan Road at Elder Lane and the park access is signalized with marked crosswalk on all approaches. Public sidewalk is maintained along both sides of Sheridan Road. The nearest crosswalks across Sheridan Road are maintained at the Elder Lane traffic

signal and the north leg of the Sheridan Road/Winnetka Avenue intersection (approximately ¼-mile south of Centennial Park). Sheridan Road has a posted speed limit of 30 mph and is under IDOT jurisdiction.

The **Centennial Park Access** is a "T" intersection at Sheridan Road, extending east into the park with stop sign control. 11 parking spaces are maintained along the north side of access with a circular turnaround at the east end of the drive.

The **Elder Lane Park Access** serves as the east leg of the Sheridan Road/Elder Lane signalized intersection, leading to a 68-space parking lot. At the southeast corner of the lot, a gated access lane leads down to the beach house, providing access to an additional accessible parking space when the beach house is open.

Parking

Centennial Park and Elder Lane Park each provide off-street parking lots. Parking in these two lots is free for residents and is included in beach pass purchases. The Winnetka Park District works separately with New Trier High School for weekday school time parking. Collectively, not including the accessible space at the beach house, these two lots provide 79 total spaces currently without the beach-level parking space at Elder Lane Park.

Centennial Park maintains 11 spaces (10 regular + 1 ADA) with posted signs indicating parking for "Centennial Dog Beach Pass Holders and Park Patrons Only" – student parking is prohibited.

At Elder Lane Park, 68 spaces (65 regular + 3 ADA) are provided in the lot with an additional accessible space next to the beach house – available when the beach house is open with access via a service drive from the southeast corner of the parking lot. Within the lot, 61 spaces are posted as restricted permit parking for New Trier students on weekdays from 7 AM to 4 PM, except on holidays. Seven spaces (4 regular + 3 ADA) at the east end of the lot are reserved for park patrons only.

Beach Passes and Daily Fee Users

Active swimming beaches in Winnetka for the past several years have been open at Tower Road and Maple Street Beaches. Season passes, available to residents and non-residents, can be used on weekdays, weekends, and holidays. Daily admissions are available for a fee only on weekdays, excluding holidays. Use of the dog beach at Centennial Park is available to those who purchase a season pass. Daily dog beach access is not available.

Daily fee attendees are tracked as they complete a transaction via cash or credit. When season pass holders are admitted, they show their pass, but it is not scanned in or otherwise tallied. Thus, the number of beachgoers is not tracked on a daily basis. To provide a sense of the levels of activity over the past three years, **Tables 1-3** summarize the annual distribution of beach season passes, beach daily fee visits, and dog beach season passes, respectively.

Table 1. Beach Season Passes

Year	Resident	Non-Resident	Total
2022	5,988	247	6,235
2023	4,980	155	5,135
2024	5,299	136	5,435

Table 2. Beach Daily Fee Visits

Year	Daily Fee Visits		
	Tower Road Beach	Maple Street Beach	Total
2022	125	12	137
2023	99	33	132
2024	351	93	444

Table 3. Dog Beach Season Passes

Year	Resident	Non-Resident	Total
2022	252	58	310
2023	242	52	294
2024	331	64	395

As shown in the tables above, the number of beach season passes sold over the past three years has varied between 15-20 percent between the high and low, averaging approximately 5,600 passes annually. Daily fee visits saw an uptick in 2024, but the number of daily fee visits over the summer season is relatively low compared to season pass holders. Dog beach season passes are generally steady with a bit of an uptick this season due to a centered effort by the Winnetka Park District to ensure accounts were current if access was granted to the dog beach. However, similar to daily fee visits to the beaches, the volume is much lower than beach season pass distribution.

Plan Evaluation

Based on review of existing conditions and the proposed plans at Centennial Park and Elder Lane Park, key findings regarding transportation and parking elements are detailed below.

Traffic Generation

Typically for new or redeveloped properties, traffic projections can be prepared based on industry resources that provide compilations of traffic data for similar uses. Common uses like residential, retail, office, and restaurants have a lot of available data. Parks and beaches are not so common, have little data available, and are typically unique in terms of programming and other characteristics. As such, developing traffic projections for improved beach and park facilities referencing traditional resources is not very dependable. However, when thinking about the Park District's lakefront parks and beaches as a system and considering the current beach access policies (i.e., daily and season passes on weekdays, season passes only on

weekends and holidays), reviewing season pass distribution and daily fee visits over the past three years, and considering that the proposed improvements will reintroduce another option to the system of swimming beaches while reducing the size of an existing dog beach, projections for additional traffic are not likely to be significantly different than what is experienced at other Winnetka swimming beaches.

Initially, it is reasonable to assume that improved Centennial and Elder Lane Parks may be popular destinations as people want to check out the new and improved facilities. But after an initial period of time, visitor volume will likely reduce to some degree and normalize. The park locations in the southern portion of the Village will also likely attract visitors that are currently patronizing Maple Street and Tower Road Parks further north on Sheridan Road. However, since these parks and beaches are all part of a system and accessible with the same season pass and daily fees, visits are also likely to be generally distributed or limited by their access capacity. For example, if visitors decide to drive rather than walk/bike and the parking lots are close to full, they may instead visit one of the other beaches to the north.

In general, traffic volumes generated by the improved parks and beaches are expected to be similar to that experienced at other lakefront parks in Winnetka.

Access

Access and parking for these two parks remains consistent with current conditions. The 11 parking spaces and traffic circulation pattern at Centennial Park functions well with the single access driveway on Sheridan Road. Based on the traffic volumes along Sheridan Road and the size of the parking lot, vehicle traffic should not have significant issues or congestion when entering or exiting the park.

Elder Lane Park provides parking to serve both parks with public sidewalk along the east side of Sheridan Road providing a short pedestrian connection between the two parks (just over 200 feet between the two parking lot access points). The traffic signal at Elder Lane also provides a controlled crossing for the neighborhood to the west when accessing the lakefront and both parks and this condition does not change as part of the park improvement plans.

Parking

The proposed plans for Centennial and Elder Lane Parks include maintaining the current parking lot at Centennial Park and reducing the parking at Elder Lane Park by one space to allow for a designated dumpster location, collectively providing 78 spaces, not including the accessible space at the Elder Lane Park Beach House. Elder Lane Park provides more parking than the 64 parking spaces at Tower Road and Maple Street Parks combined. For context, **Table 4** summarizes a review of representative lakefront beaches on the North Shore to provide a comparison of parking facilities and other characteristics to those in Winnetka.

As presented in Table 4, parking provisions range from 0 (Sunrise Beach in Lake Bluff) to 208 (Forest Beach Park in Lake Forest includes a 93-space lot that also serves a boat launch facility). Aside from those two anomalies, the parking at Elder Lane and Centennial Parks are more in line with the parking at Glencoe Beach in Glencoe (94 spaces) and Rosewood Beach in Highland Park (87 spaces).

As a system, the Winnetka lakefront parks and swimming beaches provide 142 off-street parking spaces. This capacity is expected to be adequate to serve most needs for vehicle parking as patrons can distribute

among the beaches if one is too crowded. Providing additional parking as part of this plan and displacing open space is not recommended.

Table 4. Comparable Beach Characteristics

Location	Town	Parking	Access	Beachfront[1]	Park Features
Centennial Park	Winnetka	Parking Lot 11 spaces	Season Dog Beach Pass	520 feet	Park / Open Space Dog Beach Swimming Beach[2]
Elder Lane Park	Winnetka	Parking Lot 67 spaces[3]	Currently Closed	400 feet	Park / Open Space Swimming Beach[4] Playground
Maple Street Park	Winnetka	Parking Lot 14 spaces	Season Pass Daily Fee	175 feet	Park / Open Space Swimming Beach
Tower Road Park	Winnetka	Parking Lot 50 spaces	Season Pass Daily Fee	500 feet	Park / Open Space Swimming Beach Playground
Glencoe Beach	Glencoe	On-Street 94 spaces	Season Pass Daily Fee (only available on weekdays after 12 PM)	550 feet	Park / Open Space Swimming Beach Sailing Tennis Courts Playground
Rosewood Beach	Highland Park	2 Parking Lots (resident only with decal) 87 spaces	Residents: Free Pass Non-Residents: Season Pass or Daily Fee	1,000 feet	Park / Open Space Swimming Beach Playground
Forest Beach Park	Lake Forest	3 Parking Lots (resident only) 208 spaces Metra Station (non-residents) ¾-mile walk	Residents: Free Pass Non-Residents: Daily Fee	1,770 feet	Park / Open Space Swimming Beach Boat Launch Sailing Playground
Sunrise Beach	Lake Bluff	On-Street in Neighborhood	Residents: Free Pass Non-Residents: Daily Fee	950 feet + 250 feet dog beach	Swimming Beach Playground

1 Approximate length
2 Proposed for southern ½
3 Proposed parking capacity
4 Beach has been closed since 2020

Potential Additional Measures

The transportation and parking elements of the proposed plan are expected adequately serve the access, circulation, and parking needs of Centennial Park and Elder Lane Park in a safe and effective manner. However, if negative impacts materialize following implementation of the proposed plans, additional measures could be followed to mitigate such impacts. Potential additional measures to consider include, but are not limited to:

- **Installation of signs directing visitors to other lakefront parks/beaches if full**
  If the parking lots are full, signs could be installed and "activated" to direct visitors to other swimming beaches at Tower Road and Maple Street.

- **Resident parking only in parking lots**
  If parking is regularly full during peak days, parking in the off-street lots at Elder Lane and Centennial Park could be restricted to residents only.

- **Secure overflow parking at New Trier**
  The Park District provides 61 spaces for off-campus permit parking for New Trier students on weekdays at the Elder Lane Park parking lot. Students use Elder Lane and Essex Road to walk between campus and the parking lot (approximately ¼-mile). During the summer when the parks and beaches are busiest and when school is not in session at New Trier, the school could reciprocate with an off-site parking agreement that allows overflow park and beach parking on busy days to occur at the high school campus. If needed, this option provides considerable parking capacity and given the relatively close proximity, limits the potential for vehicles trying to park on neighborhood streets.

Next Steps

Given the seasonal nature of peak activity at lakefront parks and beaches, data collection to supplement and validate the evaluation summarized in this memorandum is not appropriate at this time. As such, while the Park District progresses through the various permitting steps, Kimley-Horn and the Park District will collect additional data in Summer 2025 to document and evaluate peak season activity at Tower Road and Maple Street Beaches. All data collection will be coordinated with the Village Engineer, but anticipated data includes:

- Daily beach attendance counts (season pass and daily fee)
- Parking counts (beach parking lots and any overflow parking that may occur on adjacent streets)
- Observations and documentation of pedestrian and bicycle access/parking patterns on busy days

Data will be summarized, reviewed, and presented to the Village for review during the Lakefront Construction Permit process. The transportation evaluation of the proposed plans will be validated, and as appropriate, any recommended changes to the plan based on the new data collection will be highlighted.

Kimley»Horn

Summary

Based on review of current conditions, the proposed plans for Centennial and Elder Lane Parks, and data relating to beach passes and daily fee visits, the transportation and parking elements of the proposed plan are expected to continue to adequately serve the two park sites. As part of the Village's review and permitting process, six standards are considered to evaluate special use applications, two of which relate to transportation and parking. Review of these two standards is detailed below.

Special Use Standards

4. *That adequate measures have been or will be taken to provide ingress and egress in a manner which minimize pedestrian and vehicular traffic congestion in the public ways;*

    - Access to both Centennial Park and Elder Lane Park are proposed to remain as existing. Given the traffic volume along Sheridan Road, and the size of the parking lots, and the configurations and traffic control at the two intersections, vehicle traffic should not have issues or cause meaningful congestion when entering or exiting the parks.

    - The traffic signal at Sheridan Road/Elder Lane provides a controlled crossing for pedestrians walking between the lakefront and the neighborhood west of Sheridan Road. Elder Lane Park is immediately east of this signal and Centennial Park is located just over 200 feet south of this traffic signal, so this crossing supports pedestrians walking to/from either park.

    - Pedestrian sidewalk currently exists along the park frontages on Sheridan Road exiting vehicles maintain good visibility of pedestrians as they approach the respective access drives. The proposed plans do not negatively impact these sight lines.

    - Upon further validation of the findings in this evaluation, supplemental data collection and review planned in Summer 2025 will inform whether additional measures may be warranted. This data collection and review will be coordinated with the Village Engineer.

5. *That adequate parking, utilities, access roads, drainage, and other facilities necessary to the operation of the special use exists or are to be provided; and*

    - The parking at Elder Lane Park is available to supplement Centennial Park needs and is easily accessible via a short walk (approximately 200 feet between access points) along Sheridan Road's public sidewalk.
    - The 67 spaces just at Elder Lane Park offers more parking more than Tower Road and Maple Street Parks combined. As a system, the lakefront parks with swimming beaches would provide 142 off-street parking spaces. This capacity is expected to adequately serve the collective vehicle parking demand as patrons can distribute among the beaches if one is too crowded.
    - The combined 78 spaces at Centennial and Elder Lane Parks is generally in line with parking provided at other comparable lakefront parks/beaches along the North Shore.

- Additional parking measures are possible to provide overflow parking and/or limit use of off-street lots to residents only, if needed.
- Upon further validation of the findings in this evaluation, supplemental data collection and review planned in Summer 2025 will inform whether additional parking measures may be warranted. This data collection and review will be coordinated with the Village Engineer.

RED BARN
Design & Engineering, S.C.

6750 Woodland Dr.
Waunakee, WI 53597

p. 608.849.2042
c. 608.843.1870

redbarnde@tds.net

6 December 2024

DESIGN STATEMENT: Site Improvements Centennial Park and Beach Project

The design elements and project components, and project documents for the Centennial Park and Beach site, have been prepared and under the direction of the Winnetka Park District (WPD). These documents were prepared in accordance with current State and Federal codes, regulations, and industry standards for site improvement projects along the Great Lakes shoreline.

The projects incorporate elements that reflect a balance of environmental sustainability, and industry standard engineering, while being responsive to community feedback. These elements, combined with input received from local stakeholders and the requirements outlined in the Village's Amended Lakefront Construction Ordinance, have shaped the project design now presented for Special Use Permitting for Centennial Park and Beach.

A key feature of the proposed design is the new pier structure, which features a steel sheet pile core bordered by a rubble mound revetment structure. This structure serves as an improvement over the existing steel groin as it relates to reduction of any existing rip currents currently experienced along the steel groin, while performing additional sand retention and seasonal accretion at the beach areas. These improvements provide enhanced public space at the park beachfront. The pier's length and width were carefully selected to ensure it provides the right scale for the site while achieving vital environmental goals.

The crest elevations of both the pier core and rubble mound revetment were selected to follow the Village's Lakefront Ordinance, while adhering to the principle of minimal intervention necessary to fulfill these objectives.

The chosen length of the pier aligns with the dimensions of other piers along the Winnetka shoreline, ensuring consistency with the area's existing shoreline improvements. This thoughtful consideration allows the design to blend harmoniously with the surrounding environment while enhancing the functionality of the beach.

The project documents were prepared by a collaborative team including the WPD, RED BARN Design & Engineering, The Lakota Group, Spaceco Inc., Shabica & Associates, and Christopher Burke Engineering. Documents for State and Federal permitting, and project documents for bidding and construction have been prepared as part of this coordinated effort.

August 5, 20244

David Schoon
Director of Community Development
Village of Winnetka
510 Green Bay Road
Winnetka, Illinois 60093

Dear Mr. Schoon,

On behalf of the Winnetka Park District, I would like to thank you, the rest of the Village staff, and additional consultants for all your time and effort in refining our submittal application for the Special Use Permit for the project implementation for Centennial Beach, Bluff, and Park improvements.

As you know, the Winnetka Park District seeks approval of this Special Use Permit to continue reinvesting in long-term sustainable recreation and open space infrastructure, as identified in its approved and previously executed Lakefront Master Plan, Winnetka Waterfront 2030.

The Centennial beach, bluff, and park improvements will not only enhance and support the continued successful operation of community-desired amenities such as the controlled off-leash dog beach and recreational swimming beach, but also foster a sense of pride and connection within the community.

Primary shoreline and bluff stabilization infrastructure seeks to provide a long-term, meaningful strategy to lessen beach and bluff erosion, create and stabilize the beach environment, and meet state and regional lakefront stabilization goals. Additionally, through a carefully crafted ramp and boardwalk system, the district looks to provide meaningful and continuous ADA access to beachfront users of all ages and abilities.

The Winnetka Park District's Mission is to provide a balance of quality recreation and leisure opportunities while protecting assets, natural resources, and open space to benefit present and future generations. As a District, we believe the plan outlined in this application meets all the required Special Use Standards and Lakefront and Bluff ordinances that have been put in place to protect one of Winnetka's greatest community assets, its beautiful Lake Michigan Shoreline.

We have reviewed all the comments and questions from the various department heads and put together what we feel is a very thoughtful project that considers the founding pillars of the Waterfront 2030 Plan while balancing the community information we received throughout our engagement in this project.

Completing the Centennial Beach, Bluff, and Park improvements will allow the Park District to complete another lakefront park and move one-step closer to implementing the Winnetka Waterfront 2030 Plan.

We look forward to presenting our plan to the Village's governing boards in the next couple of months.

Sincerely,

[redacted]

Shannon Q. Nazzal, CPRE

Executive Director

Winnetka Park District

Winnetka Park District - Special Use Permit Application Narrative for Centennial Park and Beach Project

Introduction

The Winnetka Park District (the "District") is seeking a Special Use Permit, exceptions from the Steep Slope Regulations and related Variances to allow the construction, maintenance and operation of proposed improvements at Centennial Park and Beach as outlined in the plans. The District proposes the improvement project for Centennial Park and Beach to implement the Winnetka Waterfront 2030 Master Plan with goals to protect and improve access and safety for the community.

Relief Requested

1. Under the Winnetka Zoning Ordinance, a “nonessential public use” includes a use affected with the public interest, regardless of ownership, including uses owned and operated by local governments other than the Village. Section 17.56.020 of the Winnetka Zoning Ordinance establishes nonessential public uses as special uses in all districts within the Village. Consequently, the Park District is seeking a Special Use Permit to ratify and expand the public recreational use of Centennial Park and Beach within the R-2 single-family residential district.

2. The project outlined in the plans meets some of the requirements outlined in the recently enacted Steep Slope Regulations, codified at Chapter 17.82 of the Winnetka Zoning Ordinance. As permitted by Section 17.82.110, the submitted Special Use Permit application also asks for “exceptions” from Chapter 17.82 for items included in the plan that protect the beach, bluff, and tableland for the Centennial Park and Beach site.

3. Section 17.30.050.C.7 of the Winnetka Zoning Ordinance establishes the front yard setbacks for lakefront properties. The regulation states the required front yard setback is the toe of the bluff or 50 feet from the ordinary high-water mark, whichever results in the line farthest from the ordinary high-water mark. The District’s proposed plans include improvements which do not otherwise qualify as permitted obstructions in required yards, as defined by Section 17.130.130.A. For those improvements we are requesting variances to permit construction as presented in the plans.

Background

The redevelopment planning of Centennial Park and Beach began in 2014 with the District’s Winnetka Waterfront 2030 Master Planning process. When the Winnetka Waterfront 2030 Plan was adopted in 2016, it set the stage for the District's investment in the lakefront. The initiatives and founding pillars of that plan, along with the near-all-time high lake levels from 2020, have made this project a priority for the District. The Winnetka Park Board has been invested in this

project for several years and they have not wavered from the responsibility to repair the beach and protect the beach and bluff for future generations to come. This narrative supports the District's application by demonstrating that the proposed Centennial Park and Beach project meets the standards for granting a Special Use Permit and the related variances. Additionally, the narrative addresses comments from the Special Use Permit review process, outlines access and operational details, and provides a clear overview of the project's components and intended use. The District is excited for the opportunity to meet with each one of the different review boards and commissions, not only to present the project but also to tell the story of why this is a wonderful opportunity to allow the District to reinvest in one of the greatest and most unique amenities that Winnetka has to offer its residents.

In Section 17.56.120 of the Winnetka Zoning Ordinance, the Special Use Permit process outlines six standards that must be met and reviewed by each review board and commission as a condition of granting a Special Use Permit. This narrative shows that the District is proposing a project that clearly and unequivocally meets those standards and has been well-vetted with public input and feedback from the community every step of the way.

In Section 17.60.040 and 17.60.050 of the Winnetka Zoning Ordinance it describes the evidence to be presented in support of a variance application and the standards for granting such relief. This narrative summarizes the facts in support of the District's application to construct improvements within the front yard of Centennial Park and Beach facing Lake Michigan, as defined by Section 17.30.060 of the Winnetka Zoning Ordinance. The District's application shows it clearly satisfies all the evidentiary standards.

Project Summary

The Centennial Park and Beach project (the "Project"), is designed with a clear purpose to protect the bluff and tableland from erosion due to high lake levels and waves, improve site access and accessibility, create greater lake access for all community members and secure the off-leash dog beach. The District is proposing to restore and improve a public beach that can be used for both swimming and recreational uses, while maintaining an off-leash dog beach, and investing to secure the dog beach with fencing on three sides.

The Project was designed while considering many factors, including (1) the former use of Centennial Beach as a swimming beach, (2) the historical use of Centennial Beach as a dog park for the past 30 years, (3) the existing uses of nearby properties, (4) protecting and enhancing neighborhood property values, (5) promoting the public's health, safety and welfare, (6) the suitability of the property for the proposed uses and improvements, (7) the amount of time the beach has been closed due to shore erosion, and (8) the community's expressed desire for the proposed use. The Project also considers accessibility, newly adopted Village of Winnetka ordinances, County, State, and Federal laws and regulations, ongoing and future maintenance needs, community input and low impact to the community.

The Project which is proposed for Centennial Park and Beach includes a range of elements, such as:

- Swimming Beach;
- Off-leash dog beach with fencing and double entry gate system and stairs;
- Bluff clearing and restoration;
- Steel sheet pile replacement;
- New steel sheet pile bulkhead;
- Accessible boardwalk;
- Accessible pier with armor stone groin surrounding the pier;
- ADA beach ramp;
- Beach stairs (2), Low level safety bollard lighting;
- Boardwalk access staircase;
- Concrete ADA accessible walkway retaining walls;
- Reconfigured paver walkway; and
- Outcropping stone steps.

These elements are divided into two sections for zoning review: Chapter 17.30, Section 17.30.050 Front and Corner Yard Setbacks, and Chapter 17.82, Section 17.82.040 Development in Steep Slope Zone. The variations and exceptions being requested are outlined in the narrative and the chart titled "Proposed Project Elements" and can be viewed in the final plans submitted with the Special Use Permit application.

Project Elements

Human Swimming Beach (Reintroduction): Centennial Beach was once a swimming beach for the community before the development of the dog beach in 1995. The proposed human swimming beach will operate to the same standards as our other swimming beaches, such as Tower Road Beach or Maple Street Beach. The proposed swimming beach is 250 feet in length.

The sand elevations, compared to the new proposed pier, start 18” below the western most elevation of the pier. Moving east, the sand profile gradually drops to the water level.

The anticipated use for the human swimming beach includes swimming, sunbathing, passive recreation activities, sandcastle building, and other activities you would expect on a public beach. Currently, there is no proposed sailing, kayaking, paddle boarding, or other activities that include using a boat or watercraft of any kind.

Below is a list of the current beach rules we anticipate enforcing at Centennial Swimming Beach.

Swimming Beach Rules: The following regulations will be implemented by the Winnetka Park District staff during hours of operations to ensure that all beach users will be able to use, understand and will follow all rules when they are at the beaches.

1. Hours of Operation are 9am to dusk.
2. When lifeguards are not present, swimming is not allowed.
3. Swimming is allowed only in the supervised swimming areas as posted at each beach.
4. Parents and guardians are responsible for the supervision of children.
5. Children 9 and under must be accompanied by an adult.
6. Coast Guard approved life jackets are allowed when the child is within arm's reach of their parent. All other floatation devices are not allowed.
7. No scuba or snorkeling equipment is allowed.
8. Children who are not toilet trained must wear tight fitting plastic pants or swim diapers.
9. Beach facilities will be closed whenever water is considered unsafe by Health Department or lifeguards.
10. There is no roughhousing or horseplay allowed. Lifeguards will enforce this rule to ensure the safety of others.
11. No skateboards, bicycles, roller skates, or similar items allowed at beach.
12. No throwing rocks or sand in the swimming areas.
13. No jumping off piers.
14. No fires, including grills, are allowed on the beach.
15. Glass containers are not allowed on the beach.
16. No alcohol is allowed on the beach.
17. Smoking is prohibited at all Winnetka Park District facilities.
18. Dogs are only allowed at Centennial Dog Beach. Village Ordinance #504 will be enforced.
19. Motorized vessels are only allowed at Lloyd Boat Launch.
20. Non-motorized vessels are only allowed at Lloyd Boat Launch.
21. The Village of Winnetka Police Department maintains a regular patrol of the beach and enforces all Park District ordinances.
22. All other state and local health codes apply.

We anticipate operating the Centennial Swimming Beach from May 25 to September 2 (estimated) from year to year, and the beach would be staffed with personnel during the hours of operations for those dates. The beach would be closed off season (prior to May 25, and after September 3) for swimming but still open for beach goers to enjoy the beach.

There is no zoning relief needed for the swimming beach, this was to provide perspective on operations.

Off-Leash Dog Beach: The proposed off-leash dog beach is an existing on-leash element at Centennial Beach today and will remain per the project plans. The District has operated the dog beach since 1995, allowing controlled access to a single type of activity. The proposed off-leash dog beach will be reduced in size to allow for the re-introduction of the human swimming beach. The proposed 240' dog beach will be controlled with a double entry gate system and electronic key fob system, which will allow access for the registered users. The dog beach will be surrounded on the west and south boundaries by 5' black fencing on the beach. The northern boundary of the off-leash dog beach will be the pier structure and have a 42" black handrail (Type A) providing the required security. The eastern side of the dog beach will be the natural barrier of Lake Michigan.

On the southern end of the site and dog beach perimeter there is an existing steel groin running perpendicular to the existing steel sheet piling (seawall) at the toe of the bluff. The steel groin runs approximately 145-feet east into the lake, with a western elevation of 583.2’ and an eastern elevation of 581.70’. Roughly 65 feet off the seawall, the existing steel groin crosses the south property line of Centennial Park. At this point, the steel groin is beyond the ordinary high water mark of 581.5’. The portion of fencing on the south perimeter of the dog beach will be installed on top of the existing steel groin going east into the lake approximately 103 feet. The 5-foot height fence may step down to maintain a maximum overall height of 6.5-feet off the adjacent proposed sand contours. The proposed fencing can be seen on sheet C161 of the construction plans.

Approximately 12.5-feet offset from the existing seawall along the toe of the bluff, the 5-foot height dog beach perimeter fencing continues north-south along the west edge of the dog beach area. This offset allows the public to cross Centennial Beach without walking through an active off-leash dog beach. A 10-foot-wide maintenance access gate is situated along this fence line, allowing access for beach maintenance equipment. This gate will be secured and operated as needed by maintenance personnel only.

The 42-inch-high (Type A) handrail will double as a fence on the pier and boardwalk to further secure the off-leash dog beach. In addition, a line of armor stone creates a border along the south of the pier, helping further separate the pier and the off-leash dog beach. The fencing is mounted to the pier and boardwalk at a consistent height of 42-inches. When viewing the fence line from the dog beach side, there will be a visual incline due to the sand contouring. The proposed grading for the dog beach sand fill is as follows: The westernmost sand elevation is set at 585.0’, sloping at 11:1 to 583.0'. The slope then increases at 8:1 to an elevation of 578.0', then flattens again to a slope of 20:1 to elevation 575.0'.

To access the off-leash dog beach, there is a single concrete access stair of the boardwalk within the secure entrance area. The stairs are designed to be constructed with concrete within a steel sheet pile cell to support the harsh lake environment. The stairs have a 6-foot-wide clearance

with handrails on both sides. The stairs are designed with accessibility in mind, using acceptable materials with the proper rise and run for the treads and appropriate returns on the handrails. The bottom of the stairs are set to an elevation of 579.33' to allow for the fluctuating sand levels. The handrails are 1.5-inch brushed stainless steel round tubing set at 42-inch height. The detailed design can be viewed on Sheet C159.

The dog beach is operated year-round (excluding high wave events) from sunrise to sunset for the community's enjoyment.

To receive a dog beach pass, each applicant must complete a Dog Beach Pass Application which includes: owner information, pet information, vaccine certificate with vet signature, insurance acknowledgement (waivers, rules, waring of risk, release of all claims, indemnification agreement, assumption of rick, and policies). All applicants must adhere to dog beach rules anticipated below, though they may be changed by the Park Board.

Anticipated Off-leash Dog Beach Rules:

1. Leashed Area: Park + Parking Lot + walkways and boardwalk.
2. Only unleashed area is area inside the dog beach gate and dog beach itself.
3. You are solely responsible for the actions of your dog.
4. Leashes must not exceed 8 feet.
5. You must bring your electronic key fob each visit.
6. Attendants are not allowed to let anyone through the gate without a fob.
7. Keep an eye on your dog and keep your dog’s leash with you at all times.
8. For safety reasons children must be at least 10 years of age to use the park and they must be closely supervised.
9. Children will be expected to behave in an appropriate manner: no running, no chasing dogs, no petting of other dogs unless permission is granted from the owner first.
10. Be polite: pick up dog feces and dispose of the dog feces in the waste receptacles, which are available throughout the park.
11. Dogs must wear current license tag and be up-to-date on shots.
12. Fill any holes your dog digs.
13. No more than 2 dogs per person on any one visit.
14. Check with your veterinarian before bringing a puppy under the age of four months to the park.
15. No dogs known to be aggressive toward other dogs or people may enter the area.
16. Owners/handlers are asked to closely supervise their dogs and at no time should anyone leave the area without his/her dog(s).
17. Do not bring rawhide or food into the dog area as dogfights may result.
18. Please remove pinch and spike collars from your dog prior to entering the beach.

19. Hours are sunrise to sunset.

The District has also reached out to Cook County Department for Animal Control for guidelines on how best to address the eastern barrier of the off-leash dog beach. It has been suggested that the District submit for a waiver until Cook County Animal Control is able to address this matter for all dog parks that abut Lake Michigan.

Bluff Clearing and Restoration: The bluffs will undergo an extensive clearing of invasive species and dead and dying trees to improve the overall health of the vegetated environment. The proposed work is outlined in the attached plans, sheets C178-C181. An estimated 1.34 acres of invasive and noxious species control is proposed to be completed on the Centennial Park bluff. There are approximately 30 different target invasive species identified on the removal list. This list includes a handful of various deciduous tree species that can be detrimental to the bluff environment if left uncontrolled and unmonitored. The plan outlines the four different restoration zones and strategic planting plans, dependent on the impact of construction and best management practices for each bluff zone. These four zones include the bluff restoration zone (23,800 sq. ft.), the green gabion wall zone (3,200 sq. ft.), the dune grass planting zone (800 sq. ft.), and the turf restoration zone (31,162 sq. ft.). All of these different zones combined account for the required installation and long-term maintenance to reestablish the bluffs and repair disturbed areas affected by construction. As part of the slope planting, the seed and plugs will be covered with a two-layer erosion control fabric while the plant material is established to minimize erosion. To replace the trees removed from the bluff, we will re-plant nearly 30 caliper inches of new trees on site, and the remaining replacement caliper inches at other park locations within the agency. This entire process will allow for greater views and vistas of the lake, one of the highest-ranked pillars of the Waterfront 2030 Lakefront Master Plan and a point of emphasis from public input.

Variations for Section 17.30.050 Front and Corner Yard Setbacks

As outlined in Chapter 17.30, Section 17.30.050(C)(7) Front yard setback for Lakefront Properties, it's noted that the required front yard setback is the toe of the bluff or 50 feet from the ordinary high-water mark, whichever results in the line farthest from the ordinary high-water mark. Nonetheless, Section 17.30.130(A) describes permitted obstructions in required yards. Village staff have issued an opinion that the District's vertical improvements in the front yard are characterized as either a wall or a fence, as described in Section 17.30.130(A)(10). Based on the District's review of these sections and staff's code interpretation, we propose including the following project elements as variations since they exceed a height of 6.5' from grade. The work proposed in the lakeward front yard includes the following elements which exceed 6.5' tall: Boardwalk with Type A handrailing (fencing), a 226 foot long elevated pier structure with armor

stone surround. The improvements listed below are those elements of the project that fall within the Ordinary High-Water (581.5’ OHWM) Mark and the 50’ setback associated with section 17.30.050 of the zoning code.

As outlined in the “Proposed Project Elements Chart”, the maximum variation requested is 4’ over the allowed 6.5’ height as measured from the existing grade. This is outlined in detail in the “Non- conforming Elements” chart. Please note, as part of our overall proposed plan, the District has included sand nourishment for the two beaches and once completed the overall height variances will fall within the acceptable limits of the zoning requirements. The District, through its consultants, designed this element while listening to feedback from the community and with what would be minimally required from a coastal engineering perspective.

Based on the information and the zoning requirements, there is a small 6’ section requiring a variance. The south 6’ of the Type A handrail is set at 592.0’ elevation, 9.5’ above the existing sand profile. At this time, the District is requesting a zoning variance of 3’ for this 6’ section of Type A handrailing and pier. Please note, once the project is completed, and the sand is placed on the beach, the overall height for this area will fall within the 6.5’ zoning requirement for the front yard setback.

Steel Sheet Pile Replacement: Located on the northern property line, north of the existing steel sheet wall, a combined wooden timber, steel I beam, and steel sheet piling hold back the bluff section. Due to the age of these structures and materials, this structure has the potential risk of failure, causing severe erosion concern for the northern portion of bluff. The District is preparing to correct this issue by installing a new line of steel sheet piling in front of the existing timber wall as a best practice repair. The proposed wall would consist of about 25 sheets of PZC-18 Steel Sheet Pile Bulkhead wall (roughly 52 feet in length), with a 3/8" bent plate cap welded on top of it. These 25-foot-tall sheets will be driven in place to a finish elevation of 592’ to create the new vertical sheet piling wall with a height that does exceed 6.5 feet from grade. The existing grade of the beach in this area adjacent to the wall is 584’ and the new proposed steel seawall is set at an elevation of 592’, which is 8 feet tall with the current sand profile. The proposed replacement steel sheeting will connect to the existing steel sheeting on the adjacent property located at 261 Sheridan Road as it does today to ensure a mechanical connection to prevent future bluff erosion. These replacement sheets will become the primary shore protection for this area of the bluff.

The bluff areas located behind the eroded wall will be filled in, creating a sustainable slope of 2 to 1 (or greater) allowing for new for new plantings, stabilizing the bluff for the future. The bluff will be backfilled and compacted in 12” lifts for proper grading and planting. The slope will be covered with an erosion fabric while the plant material is established.

Elevated Boardwalk: As discussed previously, the District intends to create a boardwalk element at the Centennial Beach site to serve several functions. The boardwalk will maintain the existing shore protection for the Centennial Park bluff and protect against bluff erosion by using the

existing steel sheet pile seawalls installed in 1987. The boardwalk will connect to the existing walls to provide a continuous line of defense against future bluff erosion while establishing a foundation for additional improvements, including ADA accessible paths, and beach and pier amenities. The boardwalk also doubles as a recreational platform to allow greater access to the beaches and help delineate the beach elements. It also allows for greater connectivity for the beaches while permitting individuals the ability to traverse the lakeshore without having to pass through the off-leash dog beach.

Set at a base height of 3 feet above grade and ramping up slightly near the concrete ADA access ramp interchange, the boardwalk finishes at a height of 5.5 feet. The boardwalk is set between 18”-48” above the final sand nourishment and is pitched minimally to allow storm water runoff from the structure. The boardwalk is built by installing steel sheet piling which is driven in the clay to maintain the shore protection for the bluff and park backfilling with angular stone and capped with a thickened concrete slab. To help soften the feel for the boardwalk, the concrete will be tinted with a color additive used in other concrete areas across the site, to provide a seamless aesthetic throughout the site. The boardwalk concrete will be further distinguished with a stamped wood decking pattern to give the appearance of natural wood. The final result will achieve a weathered Ipe wood aesthetic to match the style of the bluff staircase which will land on the boardwalk. The boardwalk runs for a total length of 349’, with integrated backed Ipe wooden benches mounted to the bulkhead along the western edge. These benches are provided to allow beach goers the opportunity to sit and relax on the boardwalk while enjoying the lake environment. There are also four (4) low level LED bollard light fixtures that will also be installed for safety and security. Low-intensity lighting will be used along pathways and in the dog beach area. Lights will be designed to minimize light pollution and focus on safety.

Like the stair access, the boardwalk also serves as the accessible transition route planned to ADA standards for the public to use and access the swimming beach, off-leash dog beach, and pier elements. There are three staircases that can be used to access the different elements of Centennial Beach. The northernmost staircase is set just to the east of the ADA access ramp, allowing quick access down to the beach level. The stairs have a 5-foot-wide clearance with 1.5-inch brushed stainless steel tube handrails on both sides to help patrons access the beach.

A second staircase runs from the boardwalk level fencing for the dog leash entry area (just beyond the electric dog gate) down to the dog beach. This staircase is described in the off-leash dog beach review.

A third staircase runs due south at the farthest southern end of the boardwalk allowing a clear access path to the properties south of Centennial Park, for those who chose to walk the Lake Michigan shoreline. This staircase was also described in the off-leash dog beach review.

To complement the access routing, an ADA accessible concrete ramp has also been included in the design for the human swimming beach. The ramp is 10 feet wide to allow access for both beach goers and maintenance equipment. Please note, current Centennial Beach improvements do not allow personnel to access the beach with the required equipment to maintain the beach. The proposed design allows for maintenance equipment to access the swimming beach and off-leash dog beach areas. While the site does not allow for large vehicle access such as ambulances or fire trucks, the same access route along the park ramp and boardwalk will allow first responders direct access to the Centennial Beach sites, as needed. The completed stamped drawing set has been included for final review by the Village.

District staff will utilize the northern-most section of the boardwalk for storage and respite between on-water shifts.

The proposed work is designed to be built upon the existing toe of slope, but east of and outside the steep slope zone.

Elevated Pier Structure: The proposed pier structure was designed to serve several purposes on site. The main purpose of the pier is to more substantially delineate the two distinctive swimming beach and dog beach uses, north and south respectively. Furthermore, the pier provides additional shore protection by diffusing wave energy and helps hold sand for both beaches from erosion and littoral drift. Finally, the pier provides an additional recreational use allowing visitors greater interaction with the lake. The pier structure replaces an existing steel sheet pile groin that splits the Centennial Beach site. The pier structure is 192.5 feet in length from the boardwalk to the farthest end of the concrete**.** Surrounding the outer ring of the pier is an additional 33.5 feet of stone, which makes up the bedding stone layer, armor stone, and elevated armor stone ring 3.5 feet above the ordinary high-water mark of 581.5’. The armor stone is set at the same height of the pier and goes out for 6 feet, from there the stone tapers into the lake at a slope of 1.5 to 1. The pier starts 6 feet above grade and tapers down to the east by 2.5 feet, ending at an elevation of 585.00’. The pier structure is lined with armor stone to dissipate wave action, help hold sand and prevent reflective rip currents from the steel surfaces. The pier is erected by driving steel sheet piling into the lake and capping the structure with a 12" concrete cap tied into the steel with welded pins. The southern edge of the pier is lined with modular fence panels, which by design provide a secure boundary for the off-leash dog beach, as previously described. The ornamental handrail (Type A) is designed for a marine setting made from galvanized steel and powder coated black with a rectangular framework of¾ inch horizontal rails to minimize visual obstructions. The fence height is 42 inches high. The eastern end of the pier is ornamented with six (6) 9'9" concrete benches matching the outer pier's radius pinned into the 12-inch concrete cap. The benches are 18 inches tall with a spacing of an 18-inch gap between each bench to allow for drainage. Interior of the benches in the center of the pier's flat surface is a decorative 8-foot bronze compass rose inset with two gray granite border inlays around the inner and outer

perimeters of paving. The linear section of the pier is set with four (4) 18" x 18" x 8' long benches equally spaced with two on each side of the pier.

The design heights and elevation for the pier were driven by community input and what was minimally required to achieve its intended and proper purpose. To address the concerns of possible waves overtopping the pier from time to time during high wave events, the District intends to provide signage when necessary, noting that the pier is closed due to unsafe wave activity. This is the same signage used for the other three lakefront beach sites operated by the District. In the case of severe storms, Type 2 barricades would be installed to close the pier as needed.

Exceptions from Section 17.82.040 Development in Steep Slope Zone & Variations for Section 17.30.050 Front and Corner Yard Setbacks

After reviewing the zoning standards, there are two project elements which fall within the combined zoning for both the Front Yard Setback requirements and the slope impact area. The park staircase and the concrete ADA access ramp are split within these zones. The notes below outline these elements and how they fall within the zoning code.

Bluff Staircase to Park: (from the concrete ADA Access Ramp to the Boardwalk) To provide a more direct route to the proposed boardwalk, included in the Plan is a set of stairs that would allow a person to walk down a staircase from the ADA Access Ramp to the proposed elevated boardwalk. This staircase follows the design details from the existing staircase at Centennial and our Tower Road staircase, which utilizes an elevated platform built on helical piers that suspend over the bluff, allowing an individual to access the beach down an Ipe wood staircase with black powder-coated metal railings. The proposed staircase has two landing areas. The staircase is designed with 42" tall black Type A handrails with a horizontal top rail and .75" square tubing used to complete the horizontal rails on both sides of the access stairs from the intersection with the concrete ADA access ramp down to the boardwalk. The staircase is a traditional wood frame construction, with Ipe wood decking and metal handrails as described. The staircase sits above the bluff and is supported by nine helical piers. The proposed design was completed by structural engineers, who completed a similar design at the Tower Road bluff in 2019-2020. Based on the design, size of the landing areas, and where it falls within the front yard setback and steep slope zone, the staircase design meets the requirements for both sets of regulations.

Concrete ADA Access Ramp: The proposed concrete ADA access ramp falls within both the steep slope zone and the front yard setback. There is a short section (approximately 110 feet) of the lower south section of the ramp that falls within the front yard setback area, while the remaining

section (west of the front yard setback and east of the upper table land) falls within the Steep Slope Zone.

Currently, a mid-bluff sidewalk exists today, which runs parallel to the existing top of the bluff fence line, as shown in the Plan. The current sidewalk does not meet ADA requirements due to its slope. It is only a looped path that reconnects to the upper parkland; no current ADA-accessible route down to the Centennial beach exists. The proposed concrete ADA access ramp has been designed to meet several requirements for the project site. First, it will be used as an accessible walkway to access the proposed beach improvements for the recreation swimming beach and the off-leash dog beach. The current beach access is only for the gated dog beach, which is only accessed by a single stairway installed over the current bluff vegetation. During the high lake levels, there was a two-foot drop down to the sand from the Centennial Beach dog beach stairs, causing closures on the dog beach. In addition, the current stairway is only accessible to those who register with the District and purchase a key fob to access the beach. It is the vision of the Winnetka Waterfront 2030 Master Plan to reopen Centennial Beach to the greater population of the District.

The proposed design includes an accessible pathway to the new boardwalk, pier, swimming beach, and off-leash dog beach. In addition, the current 5-foot sidewalk in the park from the parking lot to the dog gate is being widened to allow greater access for users to all the beach elements. It also serves as an access point for maintenance equipment needed for the beach as previously described.

The new proposed width of the access ramp is 10-foot edge to edge, with integrated handrails on each side of the access ramp. The plans illustrate the handrails as 36inch in high, 1.5-inch round brushed stainless steel with a 9-foot clear width. The District also widened this walkway back to the parking lot as suggested by Village staff upon the initial review of the plans. To lessen the impact in the bluff steep slope zone, the design team utilized a single walkway with a slope of 7.9% or less with 5-foot landings every 30 feet as required by law. Since the bluff at Centennial Park is significantly narrower in width compared to the bluffs on the northern end of Winnetka, logic dictates a single walkway without switchbacks is best suited to achieve our goal. This also helps soften the impact on the bluff and keep clear and open sight lines for access and safety. Additional retaining walls were added to meet the required structural requirements to build the access ramp. The District's structural engineering team designed the retaining walls, with design input from contracted civil engineers and landscape architects. The north retaining wall runs on the east side of the access ramp (on the downslope side) for 105 feet until it intercepts with the access stair opening. The retaining wall height varies from .75 feet to 3.74 feet at its tallest section. There is a gap of 6 feet where it then starts again for an additional 12.5 feet with a height starting at 2 feet and tapering down to 1 foot.

At that point, the bluff topography switches due to the elevation, and the retaining wall transitions to the western edge of the access ramp. The proposed western retaining wall runs for approximately 175 feet in total length. It begins with a wall height of 1.5 feet. At the farthest south section of the western retaining wall, the final wall height is 4.07 feet. The wall height varies from 1.5 feet at its shortest and 7.97 feet at the tallest section. There is roughly 30 feet in which the retaining wall height is over 6.5 feet and maxes out at 7.97 feet. The remaining 145 feet vary between 1.5 feet and 6.4 feet. The face of the retaining wall in this section faces downslope so it is invisible from the table land at the top of the bluff.

The retaining wall is built into the bluff with a spread-type footing and is required to support the proposed ADA access ramp. Consideration was taken to help soften the retaining wall, as shown in the plans with a wave patterned concrete form liner. The wave reliefs on the liner are up to 0.75 inches deep (maximum depth), creating a flowing pattern on both the east and west sections of the retaining wall. Individuals can look to the east with uninterrupted lake views from the park and access ramp. When looking back from the shoreline, individuals can see the gentle waves of the form liners and bluff restoration to help break up the view.

Based on the design and engineering, the District is proposing a 10-foot-wide accessible ramp to allow access for beach users, life safety, and maintenance equipment to access the beach. To accomplish this, we are proposing to install retaining walls within this zone. The District is requesting an exception for this improvement within the slope impact area.

Please note, the Centennial Park bluff in question has been reconstructed over the years, including the erosion and rebuilding of the bluffs in the mid-'80s and previous developments that have taken place on-site prior to newly approved Village ordinances.

Variations for Section 17.82.040 Development in Steep Slope Zone

The elements listed below are the remaining project improvements that fall within the zoning requirements for section 17.82.040 Development in Steep Slope Zone.

Outcropping Stone Steps: Outcropping stone steps are being included as an active way to allow individuals to utilize the bluff more naturally. The outcropping stones are being proposed to be placed at the midlevel bluff passive seating area to allow an individual to walk up the limestone outcropping steps to access the upper park tableland. The rise and run of these steps are designed to be an active recreational step feature for users and not the sole source of access for the site. These steps are proposed to have a tread height of 13.5 inches with a total width of 72 inches. They are designed to be installed on a geotextile fabric supported by CA-6 stone bedding and dry stacked with mortar as needed for stability and proper drainage.

Due to their 6-foot width, which is 1 foot greater than the allowable 5-foot limit, the district is requesting exception for this project element.

Improved Mid-bluff Paver Walkway and Seating Area: The Plan has two seating node areas. As described below, one is within the steep slope, and the second is on the upper park tableland, outside the slope transition area. The seating node on the steep slope of the bluff is an existing park feature and has been since its development years ago. The proposed seating area is a reconfiguration of the existing pavers in the mid-bluff level to allow access to the seating area from the new ADA ramp at this location. The current pavers will be stockpiled and reused to set a walkway to the entrance location off the concrete ADA access ramp. Less than 150 square feet of pavers are being relocated to access this area. In addition to reworking the pavers, the current park bench will be replaced with the proposed natural stone benches. Due to the reconfiguration of the paver walkway, the District is requesting exception for this improvement which is located within steep slope of the bluff.

Standards for Granting a Special Use Permit

As a preliminary statement, a refusal to grant a Special Use Permit for the District to provide park and recreational uses on Centennial Park and Beach will frustrate the essential purpose and statutory function of the District. Moreover, the District is not proposing to change the essential character of the subject property, which will continue to provide community access to active and passive recreational activities along the lakeshore. The District has taken great care to plan this project and has accepted and considered the public comments it received for over two years. Based on the feedback received, a failure to issue a Special Use Permit will frustrate the community's interest and deny our shared residents a lakeshore amenity for which they have expressed a desire to see completed.

1. **That the establishment, maintenance and operation of the special use will not be detrimental to or endanger the public health, safety, comfort, morals, or general welfare;**

   The proposed improvements will not be detrimental to or endanger the public health, safety, comfort, morals, or general welfare of the community. Rather, the proposed improvements are compatible with the community and will enhance the general welfare by improving the applicants' facilities and the quality of the applicants' programming in service of the community.

The Applicant does not intend to expand the scope of its programming in connection with the Project from activities that have previously been provided at the park and beach. The Applicant only needs to apply for a Special Use Permit because of amendments to the Zoning Ordinance which were approved after the establishment of Centennial Park and Beach as a public amenity.

The proposed improvements are designed to complement and enhance the existing park and beach environment. Features such as the off-leash dog beach, swimming beach, elevated boardwalk, and pier, as well as concrete ADA access ramp are strategically located to minimize impact on neighboring properties while enhancing the park's role as a community asset.

The proposed improvements also result in the implementation of the Winnetka 2030 Waterfront Master Plan. The Lakefront Master Plan has been adopted and endorsed by the Village of Winnetka Comprehensive Plan, which provides further evidence the proposed improvements are compatible with and will enhance the public health, safety, comfort, morals, or general welfare.

2. **That the special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity which are permitted by right in the districts or districts of concern, nor substantially diminish or impair property values in the immediate vicinity;**

For the same reasons, the Proposed Improvements will not be substantially injurious to the use and enjoyment of other properties in the immediate vicinity or substantially diminish or impair property values in the immediate vicinity. First and foremost, the beach has existed in this location for decades and the public's use of the park and beach has had no negative impact on the enjoyment of any private property or property values in the immediate vicinity. As direct evidence of this, our neighbor to the south at 205 Sheridan Road is investing millions of dollars in a new home – an investment that would not occur if the park and beach was injurious to the use and enjoyment of that property.

As described above: (i) the Proposed Improvements and the Programming are compatible with the mix of uses in the vicinity of the Property; (ii) the height, bulk, and density of the Centennial Beach and Park improvements are compatible with the height, bulk, and density of shoreline improvements on Lake Michigan and are designed to fit within the R-2 District; and (iii) the Proposed Improvements will not increase vehicular traffic or parking demand in a manner that would be injurious to the use or reduce the property values of neighboring properties.

3. **That the establishment of the special use will not impede the normal and orderly development or improvement of other property in the immediate vicinity for the uses permitted by right in the districts or districts of concern;**

   The Proposed Improvements will not impede the normal and orderly development or improvement of other properties in the immediate vicinity. The Proposed Improvements do not change the essential nature of the property as a public park that provides community access to Lake Michigan. As a result, the proposed improvements will not change the park and beach's impact on development. Moreover, the surrounding area is already developed. If development sites become available, the Proposed Improvements will not discourage additional development in the area because the Proposed Improvements will not change the essential character of the property nor negatively impact surrounding properties or the general welfare of the community (as discussed above). As direct evidence of this, our neighbor to the south at 205 Sheridan Road is investing millions of dollars in a new home – an investment that would not occur if the Project impeded the normal and orderly development in the immediate vicinity.

4. **That adequate measures have been or will be taken to provide ingress and egress in a manner which minimize pedestrian and vehicular traffic congestion in the public ways;**

   Existing traffic and parking infrastructure is sufficient to minimize pedestrian and vehicular traffic congestion in the public ways. As discussed above, the Applicant does not expect the Proposed Improvements to create new parking demand or materially increase traffic. The existing and proposed parking supply provides adequate capacity to accommodate vehicular traffic generated by the Applicant's programming without causing unreasonable congestion in the right-of-way. The beach site is a walking destination for most of the community, and with the supplemental parking at Elder Lane Park, there is enough parking to help with any potential overflow.

5. **That adequate parking, utilities, access roads, drainage, and other facilities necessary to the operation of the special use exits or are to be provided; and**

   Existing parking, utilities, access roads, drainage, and other facilities necessary for the Proposed Improvements are adequate. The Property is served by all existing utilities and drainage necessary to operate the Proposed Improvements. The Proposed Improvements do not require additional utilities or facilities to support the project.

6. **That the special use in all other respects conforms to the applicable regulations of this and other village ordinances and codes.**

   Except for the Variations and Exceptions (described on the Chart Titled "Proposed Project Elements), the Proposed Improvements will conform to all applicable regulations of the

Zoning Ordinance and other Village ordinances and codes. Moreover, Section 17.56.020 of the Winnetka Zoning Ordinance establishes nonessential public uses as special uses in all districts within the Village.

Standards for Granting a Variation:

1. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that district

Because the Property is owned by the District, a public entity, the conventional interpretation of this criteria is not germane to this application. The District does not operate property with an aim to obtaining a reasonable return, but for the purpose of providing park and recreational amenities for the use and enjoyment of the community. The proposed improvements will clearly enhance the public's use and enjoyment of Centennial Park and Beach and benefit the public's health and welfare.

2. The plight of the owner is due to unique circumstances;

The Front Yard setback regulations are designed for a residential zoning district. Because the property is not used for residential purposes, the variances needed for the Project result from unique circumstances that are not generally applicable within the R-2 zoning district. The improvements located in the front yard setback area for which variances are required have been designed in response to community interest to minimize their height and maximize the visual aesthetics of the lakefront environment so the degree of incompatibility with the front yard setback regulations has been minimized.

3. The variation, if granted, will not alter the essential character of the locality;

The current use of the property is a park and beach. With the variations, the proposed improvements will permit the property to continue to be used as a park and beach, but with enhanced access to the lakefront for patrons of all abilities. The variations will most definitely not alter the essential character of the property and the locality.

4. An adequate supply of light and air to adjacent property will not be impaired;

The Project will result in no impairment to the supply of the light and air to adjacent property because all the proposed improvements within the front yard setback area for which variances

are required are built to maximize views of Lake Michigan and minimize their height. The improvements do not cause any shadows or encroachments on adjoining parcels.

5. The hazard from fire and other damages to the property will not be increased;

The design, nature and building materials used for the proposed improvements in the front yard setback area for which variances are required will not increase any hazard from fire or other damages to the property.

6. The taxable value of land and buildings throughout the Village will not diminish;

The proposed improvements in the front yard setback area for which variances are required will not diminish the taxable value of land and buildings in the Village. Just the opposite, the creation of an enhanced beach is an additional community amenity that will make Winnetka a more attractive place to live and enhance property values.

7. The congestion in the public street will not increase;

The proposed improvements in the front yard setback area for which variances are required will not result in an increase in congestion in the public streets nearby. The District has adequate off-street parking to accommodate patrons at the park and beach.

8. The public health, safety, comfort, morals and welfare of the inhabitants of the Village will not be otherwise impaired.

The proposed improvements in the front yard setback area for which variations are required will not be detrimental to or endanger the public health, safety, comfort, morals, or general welfare of the community. Rather, the proposed improvements are compatible with the community and will enhance the general welfare by improving the District's facilities and the quality of the applicants' programming in service of the community.

Conclusion:

The Centennial Park and Beach project is designed to significantly enhance community recreational opportunities while ensuring environmental stewardship and public safety. By meeting the six standards for a Special Use Permit, addressing review comments, and providing detailed operational plans, the project is positioned to serve as a valuable community asset for generations to come. The District looks forward to presenting this project to required boards and

commissions in the near future to continue the process of making these much-needed beach improvements a reality for the community.

Winnetka Park District
Centennial Park and Beach Project
Proposed Project Elements

Code Section	Project Element	Requirement	Existing Condition	Proposed Improvement	Variance/Exception Required (yes/no)	Rational
Front and Corner Yard Setback Section 17.30.050 subsection	Steel Sheet Pile Replacement (Failing Wall)		The existing steel sheet pile bulkhead is at an elevation varying from 586.0' to 591.0'	New proposed steel piling is designed at an elevation of 592.0'	Yes, we are requesting a maximum variance of 1.5' for this primary shore protection	Primary shore protection, structural replacement to the existing sheeting and allow for proper backfilling and planting of the bluff slope.
	Boardwalk with Type A Handrail (Fencing) (elev. 587.5' - 589.0')		The existing sand contours vary from section to section ranging from 583' to 585.	Northern section of the boardwalk approx.. 120' have a height differential of greater than 6.5' ranging from 6.51' - 8.5'. This elevation includes a Type A style handrail that can be viewed on Sheet C155 (Drawing 1). Once the Beach is nourished, the height differential will be roughly the same.	Yes, we are requesting a maximum variance of 2' for this section of the boardwalk.	Suplemntal Shore Protection and structural support for the beach boardwalk, Type A handrails, accessible beach route and support access for life safety and maintenance equipment for the beach.
	Boardwalk with Type A Handrail (Fencing) (elev. 587.5' - 589.0')		The existing sand contours vary from section to section. ranging from 581.5' to 585.	The center section of the boardwalk approx. 50' has two smaller sections (20' and 16') where it flares out to the proposed pier area, ranging in overall heigh of 9.32' and 10.5' (which includes the 42" Type A Handrail (Fence). Once the Beach is nourished, the height differential will be 5.32' and 6.5'.	Yes, we are requesting a maximum variance of 4' for this section of the boardwalk.	Suplemntal Shore Protection and structural support for the beach boardwalk, Type A handrails, accessible beach route and support access for life safety and maintenance equipment for the beach.
	Boardwalk with Type A Handrail (Fencing) (elev. 587.5' - 589.0')		The existing sand contours vary from section to section. ranging from 583.5' to 585.	The southern section of the boardwalk approx. 95' from the southernmost end of the boardwalk to the center, ranges from 591.75' - 592.5', creating a difference of 6.51' - 8.0'.	Yes, we are requesting a maximum variance of 1.5' in the section of the boardwalk.	Suplemntal Shore Protection and structural support for the beach boardwalk, Type A handrails, accessible beach route and support access for life safety and maintenance equipment for the beach.
	Elevated Pier Structure	Development on lots abutting Lake Michigan between the ordinary high water mark of lake Michigan (581.5') and the table land as defined by section 17.82.020 will also comply	Existing Contours 581.5' OHWM to 582.0'	The south 6' of the Type A handrail is set at an elevation of 591.0' which is 9.5'. Upon completion of the project, the sand elevation will increase to 585.0' leaving a difference of 6' including the 42" handrail.	Yes, we are requesting a maximum variance of 3' in this six foot area of the pier.	Beach stabilization, structural support for the pier, type A handrails, accessible beach route and support access for life safety.

ADA Beach Access Ramp	with Chapter 17.82, Steep Slope, Regulations and Chapter 15.78 Lakefront Construction. For lots abutting lake Michigan, the required front yard setback is the toe of the bluff or 50 feet from the ordinary high water mark, whichever results in the line farthest from the ordinary high water mark. And Section 17.30.130 Obstructions in Required Yards or Court (10).	Existing Contours 582.5' - 585.0'	The ADA accessible beach access ramp ranges from 580.0' to 587.5', with a maximum height differential of 4.5' to the top of the ramp. Type B Handrails do not count in the overall height Measurment.	No, not greater than 6.5' from existing conditions.	ADA Universal Design.
Beach Access Stair (North) Swimming Beach		Existing Contours 581.5 - 583.0'	Access stair for the north swimming beach is set at elevation of 580.0' and meets the boardwalk at an elevation of 587.5'. The Type B Handrail do not count in the overall height measurement.	No, not greater than 6.5' from existing conditions.	Site Connectivity, swimming beach access.
Beach Access Stair (South)		Existing Contours 585.0' - 586.0'	Access stair for the south beach access is set at an elevation of 589.23' - 579.90'	No, not greater than 6.5' from existing conditions.	Site Connectivity, south beach bypass route.
Dog Beach Fencing		Existing Contours for exiting sheet piling 581.8' - 583.2'	The proposed off leashe dog beach is surronded on the three sides with 5' high fencing. The fencing located on the southern boundery is proposed to be secured to the existing steel sheet pile groin, which till not exceed the 6.5' limit of fencing. The western fencing is designed to be installed on the beach and will be set at a height of 5'. Neither the southern or western fencing is proposed to surpass the maximum height for fencing within the front yard setback.	No, not greater than 6.5' from existing conditions.	Off leash dog beach site fening to secure the dogs within the boundries of the designated off leash dog beach area.
Dog Beach Access Stair (Off-leash Dog Beach)		Existing Contours 582.5' - 584.0'	Access stair for the Off-leash dog beach is set at an elevation of 587.50' - 579.33.	No, not greater than 6.5' from existing conditions.	Site Connectivity, off-leash dog beach access.
Concrete ADA Access Ramp		Existing Contours 589.0' -596.0'	ADA accessible ramp from upper park table land to the proposed boardwalk. Proposed retaining wall maximum height within the 50' setback is 595.52' with a bottom of wall at 590.52' tapering down to 593.4' with a bottom of wall at 589.0'	No, not greater than 6.5' from existing conditions.	ADA Universal Design and site connectivity.
Staircase to Park		Existing Contours 587.0' - 600.0'	Elevated access stair that is being installed on helical piles, that support a wooden sub structure, type A hand railings (42"), and a 5' wide Ipe decked stair landings and treads.	No, the design width for the staircase is 5' and landings fall within their perspective sizes for each zoning location requirements.	Site Connectivity and secondary access to boardwalk and beach improvements.

Development in Steep Slope Zone Section 17.82.040	Concrete ADA Access Ramp and required retaining walls to support the ramp	Proposed improvements must meet the requirements for Ordinance No. MC-01-2024, Steep Slope Area Along Lake Michigan and required Zoning Requirements as noted in Section 17.82.040.	The current bluff existing elevation ranges from 611.0' down to 594.0' within the Slope Impact Area.	The proposed 10' walkway starts at the upper park table land and contours down to the bluff to the 50' front yard setback as noted in Chapter 17.30.050 Front and Corner Yard Setbacks. We are proposing a 10' wide accessible ramp for to allow access for beach users, life safety, and maintenance equipment to access the beach. To accomplish this, we are proposing to install retaining walls on both the upslope side and down slope side of the access ramp to support the bluff and grade.	The Park District is looking for exception of this improvement from the Slope Impact Area, to allow for the accessible connection to the Centennial Beach Level amenities.	ADA Universal Design and site connectivity.
	Outcropping Stone Steps		The existing conditions for the proposed outcropping stone staircase is set between 601.0' and 611.0'	The proposed outcropping stone steps are proposed to be 72" wide per the specifications.	The proposed stair width is 1' greater than the allowable limit. We are requesting an exception for this improvement to accommodate the additional 1 foot width of the outcropping stone staircase.	Recreational Asset and Site Connectivity
	Improved Mid-Bluff paver walkway and seating area		This location is set at an elevation of 600.0' and 602.0'. Currently there is a brick paver path and bench seating area.	The proposed re-design of this area include the installation of two (2) natural stone benches and the reconfiguration of the brick paver path to connect it to the proposed concrete ADA access ramp. The square-footage between the old configuration and new proposed configuration is about the same.	The proposed paver walkway is being reconfigured and not following the current footprint, which makes it a new improvement. Since the new area is wider than 5' we are requesting a exception.	Recreational Asset and Site Connectivity
	Staircase to Park		Existing Contours 587.0' - 600.0'	Elevated access stair that is being installed on helical piles, that support a wooden sub structure, type A hand railings (42"), and a 5' wide Ipe decked stair landings and treads.	No, the design width for the staircase is 5' and landings fall within their perspective sizes for each zoning location requirements.	Site Connectivity and secondary access to boardwalk and beach improvements.

VILLAGE OF WINNETKA, ILLINOIS
DEPARTMENT OF COMMUNITY DEVELOPMENT

SPECIAL USE PERMIT APPLICATION

Case No. _____

Property Information

Site Address: 225 Sheridan Road, Winnetka, Illinois 60093 (Centennial Park)

Applicant Information

Name: Winnetka Park District
Primary Contact: Costa Kutulas
Address: 540 Hibbard Road
City, State, ZIP: Winnetka, IL 60093
Phone No. 847-501-2052
Email: ckutulas@winpark.org

Owner Information

Name: Winnetka Park District
Primary Contact: Shannon Nazzal
Address: 540 Hibbard Road
City, State, ZIP: Winnetka, IL 60093
Phone No. 847-501-2052
Email: Snazzal@winpark.org

Architect Information

Name: The Lakota Group
Primary Contact: Scott Freres
Address: One East Wacker Dr. Ste. 2700
City, State, ZIP: Chicago, Illinois 60601
Phone No. 312-467-5445
Email: sfreres@thelakotagroup.com

Attorney Information

Name: Ancel Glink
Primary Contact: Adam Simon
Address: 175 E. Hawthorn Parkway, Suite 145
City, State, Zip: Vernon Hills, IL 60061
Phone No. 847-247-7400
Email: asimon@ancelglink.com

Applicant Signature: [redacted] Date: 04/03/2024

Property Owner Signa [redacted] Date: 04/03/2024

Printed Name of Owner: Shannon Nazzal

October 30, 2024

David Schoon
Director of Community Development
Village of Winnetka
510 Green Bay Road
Winnetka, Illinois 60093

Dear David,

As a follow-up to the Zoning Board of Appeals meeting from October 14, 2024, the Winnetka Park District has reviewed the comments and questions asked in response to the Centennial Park and Beach Special Use Permit Application. After reviewing the meeting questions and comments, staff and consultants have put together a response to those items in the attached memorandum. We are updating our presentation for the upcoming meeting to help the zoning board members review the questions and concerns more clearly. The finished presentation will be shared with Village staff before the meeting as we did for the last ZBA meeting.

We're hopeful that our responses, along with updated visuals, will inform the Zoning Board Members and answer their questions, allowing for a recommendation regarding our project that evening.

If you have any questions about the memorandum, feel free to contact Shannon Nazzal or me.

We look forward to seeing you and your staff at next month's Zoning Board Meeting.

Kind Regards,

Costa Kutulas

Director of Parks and Maintenance

Winnetka Park District
1380 Willow Road
Winnetka, Illinois 60093

WINNETKA PARK DISTRICT
PARKS AND MAINTENANCE DEPARTMENT
MEMORANDUM

TO: David Schoon, Village of Winnetka
FROM: Costa Kutulas, Director of Parks and Maintenance
DATE: October 30, 2024
SUBJECT: Centennial Park + Beach 225 Sheridan Road (Case No. 24-08 SU) ZBA Response

The following comments are the result of the staff's review of comments and questions asked by Zoning Board Members for the Centennial Park and Beach - Zoning Board of Appeals Meeting dated October 14, 2024.

The Park District acknowledges the natural tension that can arise when public spaces are classified as special uses within residential areas. We understand that a public park, intended as a community gathering space for recreation, may at times differ in character from the surrounding single-family homes. The Park District recognizes this and has taken thoughtful steps to design Centennial Park and Beach to minimize the conflicts with the surrounding community while addressing very specific needs for public spaces.

While these differences exist, it's important for the Zoning Board of Appeals (ZBA) to remember that the Village has designated the park and beach as a special use. This does not result in the zoning decision being left to the Village's discretion. Calling the park and beach a special use represents a legislative finding that the Park District's use is *compatible* with the surrounding property. The Illinois Supreme Court has held that a special use permit can be denied only when granting it "would result in an adverse effect upon adjoining and surrounding properties unique and different from the adverse effect that would otherwise result from the development of such a special exception use located anywhere within the zone."

The appropriate inquiry is whether there are facts and circumstances showing that a particular use proposed at a particular location would have any adverse effects above and beyond those inherently associated with the use wherever it is located in the zoning district.

There are similar existing public uses within residential neighborhoods that demonstrate why the proposed Centennial Park and Beach will not produce unusual or heightened adverse effects. For example, the armor stone proposed for Centennial Park and Beach are consistent with numerous other stone groins which already exist along the Village's shore. Likewise, many other current public beaches along the North Shore also share a productive balance with their surrounding residential neighborhoods, including Lake Bluff, Highland Park, Lake Forest, Glencoe, Wilmette and Kenilworth.

For these reasons, the Park District respectfully requests the board vote on November 11 and passes a positive recommendation to the Village Council.

Response to review comment received from the October 14, Zoning Board of Appeals Meeting. The Park District has attempted to organize the questions and our responses by the reference to the standards for granting special use permits set forth in Section 17.56.120:

1. **That the establishment, maintenance and operation of the special use will not be detrimental to or endanger the public health, safety, comfort, morals or general welfare;**

The proposed improvements will not be detrimental to or endanger the public health, safety, comfort, morals, or general welfare of the community. Rather, the proposed improvements are compatible with the community and will enhance the general welfare by improving the applicants' facilities and the quality of the applicants' programming in service of the community.

The Applicant does not intend to expand the scope of its programming in connection with the Project from activities that have previously been provided at the park and beach. The Applicant only needs to apply for a Special Use Permit because of amendments to the Zoning Ordinance which were approved after the establishment of Centennial Park and Beach as a public amenity.

The proposed improvements are designed to complement and enhance the existing park and beach environment. Features such as the off-leash dog beach, swimming beach, elevated boardwalk, and pier, as well as concrete ADA access ramp are strategically located to minimize impact on neighboring properties while enhancing the park's role as a community asset.

The proposed improvements also result in the implementation of the Winnetka 2030 Waterfront Master Plan. The Lakefront Master Plan has been noted in the Village's Winnetka Comprehensive Plan. The Village's Comprehensive Master Plan further notes that the fluctuating record-high lake levels are and other environmental factors are contributing to erosion and significant destruction of the Winnetka Shoreline and Bluffs. This further supports the need to address these types of concerns along Winnetka's Beaches to enhance the public health, safety, comfort, morals, or general welfare.

Question: What kind of maintenance equipment will be used on the ADA walkway?

Response: The park district is proposing using a tracked skid steer and rubber tired tractor to be able to maintain both the off-lease dog beach and human swimming beach. It is also important to note that this walkway serves as emergency vehicle (cart with gurney) access to the beach. Allowing two way traffic (pedestrian / vehicle) on this walkway is equally important as a safety feature for pedestrians in the case of an emergency response needing immediate, unimpeded access to the beach which reduces response times and increasing the chances of successful emergency outcomes.

Question: The variety of participants and how everything converges at the center of the boardwalk (the choke point), how does this work together? Concerns of the choke point in this design?

Response: The Park District disagrees with the premise for this question that the area of confluence is unsafe and for the reasons described below asserts it is safe. The space offers much more width than a typical sidewalk or a crowded market setting, accommodating clearances that facilitate freedom of movement and safety. From the bluff steps, users arrive at a generous 19'x40' (760 SF) landing area with direct access to the dog beach entrance, swimming beach stairs/ramp, and the expansive pier/boardwalk, with options to move forward, left, or right. The Park District plans to station a beach attendant near the swim beach steps, ensuring

direct visibility of all beachgoers at this central threshold. Dog traffic entering from the south pedestrian ramp will turn right through the gate before crossing the central threshold.

The number of examples demonstrating the amicable co-existence of pedestrians and dogs throughout the Winnetka community is innumerable and can be seen daily. Dogs are allowed at the Farmers Market, yet it does not result in a risk to public safety. Pedestrians and dogs share the sidewalks throughout the Village when owners take their pets for walks or enjoy time at one of Winnetka's pet friendly establishments including restaurants. The concern expressed for negative impacts caused by the confluence at the center of the boardwalk lacks any foundation in support of the premise that there will be any negative impacts.

Question: What did the WPD do in regards to make the pier safe for the community?

Response: To the extent this question presumes the pier is unsafe, the Park District disagrees and finds no evidence was introduced to support the claim the pier is unsafe. The proposed pier structure at Centennial Beach was designed to meet the requirements for the Lakefront Construction ordinances. The pier design includes a pier width of 15 feet, allowing for safe multi-direction passage along the structure. The pier was also lined with armor stone to reduce the reflective wave energy, resulting in a reduction of rip currents. The stone's width and elevation also act as a deterrent to reduce the risk of diving from the pier. The pier structure has a fence that runs the length of the southern edge of the pier to act as a handrail as well. The easternmost end of the pier has several integrated concrete benches, providing a physical barrier from the water's edge, which further reduce safety concerns. The pier elevations are set at an elevation similar to those already existing in the community at Elder Lane, Maple, Lloyd, and Tower beaches to minimize the impact on the views further evidence that the proposed improvements will not create unique and different impacts. The pier with armor stone surround will help collect sand and break the wave energy, helping to reduce erosion.

Question: Was any work or studies done to review and address the concerns of rip currents with the pier?

Response: The pier was designed by professional engineers with decades of experience working along the Lake Michigan shoreline and on the North Shore. There are studies than indicate that steel groins promote rip currents. To reduce these risks, armor stone revetments are placed adjacent to or on the steel groins to break up that reactive energy and significantly reduces the risk of rip currents. If the steel groins were removed entirely, Centennial Beach would be at significantly higher risk of erosion, lake bed down cutting, and the possibility of losing the beach entirely in the future.

The current design promoting safety, creating proper separation of the beaches, and sustaining the beach for future generations while also being responsive to aesthetic concerns to minimize the impact on the status quo.

Question: Are you safer with a pier with armor stone as you would be with no pier?

Response: To the extent this question presumes the pier is unsafe, the Park District disagrees and finds no evidence was introduced to support the claim the pier is unsafe. The proposed pier structure was designed with user safety in mind, but safety also relies on individuals following established guidelines including those outlined in Winnetka Park District Ordinance 504 (Conduct Ordinance) to include park hours of operation and adhering to designated use areas. To maintain a safe environment, users need to adhere to these rules, as any structure can become unsafe if not used as intended.

The existing Centennial Park and Beach shoreline has two steel groin structures surrounding the public beach to the south and middle. The reflective wave energy off of these structures creates the possibility of rip currents. Removing or lining these types of structures with stone helps reduce these concerns and improves safety. The proposed pier is lined with armor stone, which minimizes this risk, helps with sand retention, and reduces erosion as well as lakebed down cutting.

2. **That the special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity which are permitted by right in the district or districts of concern, nor substantially diminish or impair property values in the immediate vicinity;**

For the same reasons, the Proposed Improvements will not be substantially injurious to the use and enjoyment of other properties in the immediate vicinity or substantially diminish or impair property values in the immediate vicinity. First and foremost, the beach has existed in this location for decades and the public's use of the park and beach has had no negative impact on the enjoyment of any private property or property values in the immediate vicinity. As direct evidence of this, our neighbor to the south at 205 Sheridan Road is investing millions of dollars in a new home – an investment that would not occur if the park and beach was injurious to the use and enjoyment of that property.

As described above: (i) the Proposed Improvements and the Programming are compatible with the mix of uses in the vicinity of the Property; (ii) the height, bulk, and density of the Centennial Beach and Park improvements are compatible with the height, bulk, and density of shoreline improvements on Lake Michigan and are designed to fit within the R-2 District; and (iii) the Proposed Improvements will not increase vehicular traffic or parking demand in a manner that would be injurious to the use or reduce the property values of neighboring properties.

3. **That the establishment of the special use will not impede the normal and orderly development or improvement of other property in the immediate vicinity for uses permitted by right in the district or districts of concern;**

The Proposed Improvements will not impede the normal and orderly development or improvement of other properties in the immediate vicinity. The Proposed Improvements do not change the essential nature of the property as a public park that provides community access to Lake Michigan. As a result, the proposed improvements will not change the park and beach's impact on development. There has been no evidence introduced which demonstrates the current park and beach has any negative impact on development in the immediate vicinity. Moreover, the surrounding area is already developed. If development sites become available, the Proposed Improvements will not discourage additional development in the area because the Proposed Improvements will not change the essential character of the property nor negatively impact surrounding properties (e.g. the Proposed Improvements will not cast shadows or light onto neighbors) or the general welfare of the community (as discussed above). As direct evidence of this, our neighbor to the south at 205 Sheridan Road is investing millions of dollars in a new home – an investment that would not occur if the Project impeded the normal and orderly development in the immediate vicinity.

Question: Longer-term plan to join these two plans together, what is the combined plan?

Response: The Park District has submitted separate Special Use Permit Applications for Centennial and Elder Lane Parks, as these sites are currently independent. While there is a plan outlined in the Winnetka Waterfront 2030 Plan adopted by the Winnetka Park District in 2016, the Park District is currently planning the parcels

separately and have provided details in each separate application as to the elements that best fit both locations. Hence, the two sites need to operate independently while remaining compatible for future consolidation. The Park District has considered elements such as the boardwalk, beach locations, access, flow, and circulation. If it is determined in the future that combining locations is a feasible option, the Park District would finalize the plans and submit a Special Use Permit Application to the Village to proceed with that scope of work.

4. **That adequate measures have been or will be taken to provide ingress and egress in a manner which minimizes pedestrian and vehicular traffic congestion in the public ways;**
5. **That adequate parking, utilities, access roads, drainage and other facilities necessary to the operation of the special use exist or are to be provided;**
   Questions below are in response to both Standards 4 &5.

Existing traffic and parking infrastructure is sufficient to minimize pedestrian and vehicular traffic congestion in the public ways. As discussed above, the Applicant does not expect the Proposed Improvements to create new parking demand or materially increase traffic. The existing and proposed parking supply provides adequate capacity to accommodate vehicular traffic generated by the Applicant's programming without causing unreasonable congestion in the right-of-way. The dog beach will be reduced in scale, resulting in less capacity and fewer patrons than the current dog beach that comprises the entirety of Centennial Beach. The beach site is a walking destination for most of the community, and with the supplemental parking at Elder Lane Park, there is enough parking to help with any potential overflow. As noted in the Village Comprehensive Plan, 90% of the parks in Winnetka are within a 10 minute walk for the residents.

Existing parking, utilities, access roads, drainage, and other facilities necessary for the Proposed Improvements are adequate. The Property is served by all existing utilities and drainage necessary to operate the Proposed Improvements. The Proposed Improvements do not require additional utilities or facilities to support the project.

Question: Why are the outcropping natural stone steps set at 6' vs 5'?

Response: The 6-foot-wide outcropping steps enhance user flow and accessibility, allowing multiple people to navigate the bluff slope comfortably without impeding pedestrian traffic flow. This broader width also strengthens the design's impact, offering a striking, natural focal point and ample space for users to pause and enjoy the landscape. The width also allows them to be utilized as a sitting area, while allowing people to traverse the steps.

Question: Are elements shown in the mid bluff, items J (paver walkway) and K (outcropping stones) ADA accessible?

Response: The reconfigured paver walkway is accessible by the proposed ADA Access Ramp near the mid bluff. The Outcropping natural stone steps are ADA accessible at the top and bottom of the mid bluff, but the steps themselves are not designed to be an accessible route. They are installed as a second point of access to the mid bluff.

Question: With the proposed improvements, I would anticipate an increase in park usage resulting in greater vehicular traffic and parking demand. Why doesn't the plan provide for an increase in parking?

Response: The Park District is not anticipating a drastic change in the parking needs at Centennial Park and Beach. With previous lakefront projects at Tower, Lloyd, and Maple beaches, the parking needs for these sites were managed within the existing footprints, and it has been found that there was no need to decrease green space and replace it with paved parking areas. Because the beaches are geographically distributed between the north and south ends of town, the community does a wonderful job of utilizing alternative methods of travel, i.e. bicycles, scooters, walking; minimizing the need for additional parking and its carbon footprint.

The Elder Lane parking lot is a great overflow parking lot due to its proximity to Centennial Park. Because beach season is generally the school off-season, the shared use of the parking lot with New Trier High School allows for great collaboration with a community partner without burdening Centennial's neighbors with a larger parking lot, which could sit empty during the off-season. If additional parking is needed, the Park District can rebalance the allocation of spaces to students to ensure adequate spaces are available for community use.

Question: Where are the bathrooms?

Response: No bathrooms are included in the current design. Instead, the goal is to utilize the bathrooms at the Elder Lane Beach House to support beach operations as both a short- and long-term solution. The Park District's future vision is to connect Elder Lane Park and Centennial Park, enabling shared use of the existing infrastructure and providing accessible bathroom facilities without constructing a second facility at Centennial Beach. This approach supports smoother circulation flow and preserves the open, scenic space created by the Centennial Project, avoiding the need for a second beach house several hundred feet from the existing Elder Lane Beach House.

Question: How many Dog Passes are currently issued??

Response: As of October 2024, for the season of April 1, 2024 through March 30, 2025, there are 300 active resident dog beach passes, and 61 non-resident dog beach passes for Centennial Park and Beach Dog Beach.

6. **That the special use in all other respects conforms to the applicable regulations of this and other Village ordinances and codes. In the event that the application for special use permit involves a request for variation from the terms of this title, such request, subject to required notification procedures, may be considered at the same public hearing at which the proposed special use is reviewed by the Board of Appeals.**

Except for the Variations and Exceptions (described on the Chart Titled "Proposed Project Elements), the Proposed Improvements will conform to all applicable regulations of the

Zoning Ordinance and other Village ordinances and codes. Moreover, Section 17.56.020 of the Winnetka Zoning Ordinance establishes nonessential public uses as special uses in all districts within the Village.

Question: How much of the bluff slope will need to be excavated to install the ADA walkway?

Response: The design team carefully balanced slope impact with accessibility and functionality. Our goal was to minimize disturbance to the bluff while maintaining key elevation points—such as the mid-bluff seating area—and providing an ADA-compliant path for life-safety and maintenance vehicles, and a diverse range of users.

To reduce soil removal, we reused the existing park path footprint, elongated the path horizontally along the slope, and designed a comfortable ADA compliant gradient. According to the grading plan, approximately 312 cubic yards (CY) of soil will be cut, with 155 CY filled, totaling 467 CY of soil moved.

Additionally, the installation of retaining walls that support the ADA ramp requires about 340 CY of temporary soil disturbance. This soil will be replaced and stabilized with erosion control matting and native bluff plug plantings to ensure long-term slope resilience. These steps reflect our commitment to maintaining the site's character while achieving a durable, accessible pathway for public use.

Question: Concerns of fencing and wall heights of 10.5'

Response: The height in question is along the eastern edge of the boardwalk, just north and south of its transition to the pier. Based on the Village zoning ordinance, the proposed heights, as defined by the special use standards, must be measured from the existing topography rather than the finished sand elevations. It is also meant to address residential fencing at a current grade, rather than an altered grade, boardwalk and handrails for safety purposes. The 10.5-foot height measurement is taken from existing grade and includes both the boardwalk and the 42-inch fence (Type A Handrail as shown in the original design packet). In practice, the boardwalk itself will sit approximately 3 feet above the proposed sand elevation, with the 42-inch fence (Type A Handrail) bringing the total height to 6.5 feet from sand to handrail top. On the boardwalk, visitors will enjoy unimpeded panoramic views of the lake and shoreline over the 42-inch fence (Type A Handrail).

Question: Consider alternative to the ADA ramp, such as a lift or mechanical access chair to lessen the impact to the bluff?

Response: An ADA lift, while compact, may not be well-suited for a public setting like this bluff for several reasons. Lifts are typically designed for low-volume, individual use, which can lead to wait times during peak usage periods. In contrast, an ADA-compliant ramp, though it requires more space, can accommodate multiple users at once, including those using wheelchairs, walkers/canes, strollers, or scooters – ensuring inclusive access for all visitors. Furthermore, patrons do not need to suspend their use while emergency responders use the ramp – there is sufficient breadth so that visitors can continue their ingress and egress without jeopardizing access by EMTs or the police.

Additionally, a lift requires ongoing maintenance, especially in coastal or outdoor environments, where exposure to the elements, particularly harsh winter conditions, can lead to frequent mechanical issues, posing both safety and reliability concerns. In a public space, an out-of-service lift could limit accessibility, creating frustration among users and diminishing overall accessibility. Therefore, the design team recommends that the ADA ramp will provide a more reliable, inclusive, and sustainable option for accessibility on a steep bluff.

In developing the most inclusive and practical solution, the Park District consulted with individuals with disabilities and organizations like the Northern Suburban Special Recreation Association (NSSRA) to further understand accessibility needs and preferences. Through these conversations, it became clear that a lift is often seen as less inclusive, with some perceiving it as a segregated option rather than a fully integrated pathway. Additionally, lifts are more susceptible to damage and misuse in public outdoor settings, leading to frequent downtime that can disrupt access. By contrast, a ramp provides equitable access to everyone, allowing all visitors—regardless of ability—to move through the space without barriers or delays. For these reasons, the ramp is the preferred choice to create a more inclusive and universally accessible environment for all.

Question: Regarding the steep slope ordinance, would like to understand what is driving the 10' width of the ADA/maintenance ramp? What mitigation efforts has the park district take to minimize the impact on the steep slope?

Response: The initial conceptual design featured a 6-foot wide walkway; however, this was developed before the separation of the two beach designs. As the projects progressed and maintenance and access to each beach were evaluated independently, the request for increased path width for maintenance access led to a shift to a 9-foot wide clear path. Ultimately, during the construction documents phase, the width was further revised to 10 feet to ensure the 9-foot clearance between the required ADA ramp handrails.

There is a notable shift among municipalities and institutions toward 8-foot-wide pathways in public spaces such as parks, schools, and shopping districts. This trend reflects a growing commitment to inclusivity and functionality in design, recognizing the importance of accommodating a broad range of users—pedestrians, families with strollers, and those using mobility devices—comfortably and safely on shared paths.

Wider pathways not only enhance user experience by improving traffic flow and reducing congestion but also provide essential safety benefits. In emergencies, these spacious routes facilitate the movement of essential workers and their equipment, allowing for swift access to the beach or other critical areas. This design consideration is crucial for ensuring that emergency responders can efficiently transport equipment or carts during urgent situations. Furthermore, the increased width supports ease of maintenance and enabling access for service vehicles, which ultimately reduces long-term upkeep costs. By prioritizing safety, accessibility, and community well-being, these pathways contribute to a more resilient and functional public environment. Ability to accommodate both pedestrians and emergency responders at the same time. First responders cannot wait for path to clear to access a patient at the beach. Imagine what happens when an ambulance tries to pass on a one lane road.

To minimize the impact on the steep slope, the Park District has implemented several mitigation measures, including careful alignment of the walkway to follow the natural contours of the land minimize impact to the tableland and bluff. Additionally, native vegetation will be used to help stabilize the slope, minimize erosion, and integrate the walkway aesthetically into the landscape. These efforts balance ADA accessibility with environmental stewardship and slope preservation.

Additional Questions that did not fall within a Zoning Standard:

Question: Wouldn't the safer access for swimmers be the south beach vs. the north beach?

Response: There is no evidence that the north swimming beach is unsafe, so the Park District respectfully expresses that the foundation for this question is untrue and misleading. The primary safety component of the beach design is the clear delineation created by the proposed pier structure, which separates the swimming beach from the off-leash dog beach. This physical barrier minimizes interactions between swimmers and off-leash dogs, reducing the risk of accidents. It allows for more effective monitoring by lifeguards and staff, ensuring compliance with safety regulations. Additionally, this separation offers peace of mind for families with children while allowing dog owners to let their pets play freely in the off-leash area.

Positioning the swimming beach north of the dog beach on Lake Michigan is advantageous because it allows for better monitoring of swimmers and calmer water conditions, as the northern placement is less exposed to prevailing southern winds. The sunny, sheltered area is ideal for families seeking comfortable swimming conditions. Most importantly, the arrangement is designed knowing the proximity to Elder Lane Beach. This

location enables closer access to the existing Elder Lane Beach House for restrooms. Ultimately, this approach improves circulation and provides accessible bathroom facilities without the need for a second facility at Centennial Beach, preserving the open, scenic space created by the current Centennial Project.

Question: Is there anywhere in the plans for a Life Guard Station, bathroom, water fountain for humans, shade structures?

Response: Some of these elements are site furniture comprising part of the park's operations and maintenance, while others are installed seasonally and do not fall under the purview of the Zoning Board of Appeals. Although not indicated on the plans, the Park District intends to station a lifeguard on the beach, with the exact location subject to adjustment as needed. Currently, no bathrooms are included in this plan and is addressed in a previous question. We are open to re-evaluating the locations of the water fountain and may adjust the foot shower to create a combined-use fountain, currently there are two water fountains at the park level, one near each entry location of the park. The current plan assumes that visitors, as many beachgoers typically do, will bring their own shade structures (tents/umbrellas) to the beach.

Question: Beach access, understanding the walkway and access behind the dog beach fencing?

Response: The stone groin at the north property line of 205 Sheridan Road will cause the artificial accretion of sand. As described by Village Staff's presentation, artificially accreted sand/land becomes public property, resulting in the ability to walk across the artificially accreted land. The Centennial Park and Beach plan accommodates this passage of public property behind the proposed off-leash dog beach as indicated on the plan documents.

Question: Reasoning for limiting one's ability to walk the water line?

Response: There currently is no reason to limit a person's ability to walk across the beach to only the waterline because Centennial Beach is a public site, allowing anyone to walk the beach at any level. There is a safety reason for the proposed design of the off-leash dog beach. A pathway was created to allow anyone to be able to walk the beach and, in this case, walk around the off-leash dog beach to safely access the adjacent properties to walk along the Lake Michigan shoreline. Public access to the swimming beach is similar at Tower, Lloyd, Maple, and Elder beaches as well, allowing visitors to walk the public beach to traverse the Lake Michigan shoreline.

Based on state law, the Park District has discretion to allocate the property between different uses and to adopt regulations governing the use of its property.[1]

Question: Understand how you are able to build the fencing on the steel groin beyond the extended property line as it extends into the water, and how the access tapers to the stairs and access to the south.

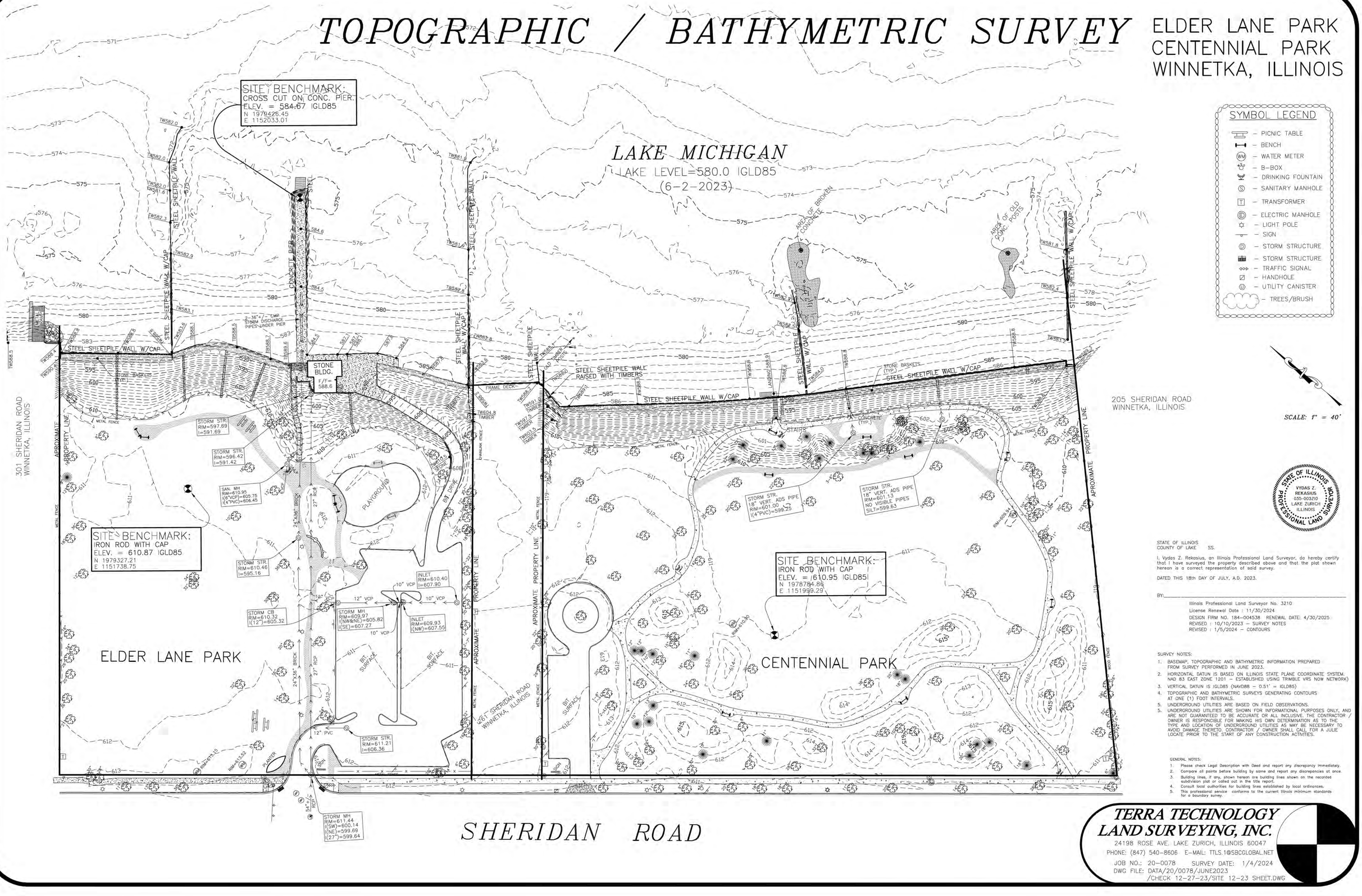
Response: It belongs to the Park District pursuant to Section 11-2 of the Park District Code:

[1] See 70 ILCS 1205/8-1(d): To pass all necessary ordinances, rules and regulations for the proper management and conduct of the business of the board and district and to establish by ordinance all needful rules and regulations for the government and protection of parks, boulevards and driveways and other property under its jurisdiction, and to effect the objects for which such districts are formed.

“When any park district borders upon any navigable body of water, the title to the bed or submerged land of which is vested in the State of Illinois, said district may take possession of, enclose, fill in, reclaim and protect any portion of such submerged land bordering thereon, over which there shall be shoal and shallow water not fit for navigation and shall have the power to establish, construct and maintain parks and boulevards over and upon the same, and all right, title and interest of the State of Illinois in and to the bed or submerged land of such body of water so taken possession of, enclosed, filled in and reclaimed is hereby granted and ceded to such park district and the title thereto shall vest in such park district to be held for the use and benefit of the public as a part of said park district for park and boulevard purposes exclusively, and said district shall have power for the purpose of reclaiming such submerged land and protecting the same thereafter, to construct all necessary break-waters, or protection for the building and maintenance of such parks and boulevards, and the enclosing or reclamation of such submerged lands.”

TOPOGRAPHIC / BATHYMETRIC SURVEY

ELDER LANE PARK
CENTENNIAL PARK
WINNETKA, ILLINOIS



STATE OF ILLINOIS
COUNTY OF LAKE SS.

I, Vydas Z. Rekasius, an Illinois Professional Land Surveyor, do hereby certify that I have surveyed the property described above and that the plat shown hereon is a correct representation of said survey.

DATED THIS 18th DAY OF JULY, A.D. 2023.

BY:_____

Illinois Professional Land Surveyor No. 3210
License Renewal Date : 11/30/2024
DESIGN FIRM NO. 184-004538 RENEWAL DATE: 4/30/2025
REVISED : 10/10/2023 – SURVEY NOTES
REVISED : 1/5/2024 – CONTOURS

STATE OF ILLINOIS
VYDAS Z. REKASIUS
035-003210
LAKE ZURICH
ILLINOIS
PROFESSIONAL LAND SURVEYOR

SURVEY NOTES:

1. BASEMAP, TOPOGRAPHIC AND BATHYMETRIC INFORMATION PREPARED FROM SURVEY PERFORMED IN JUNE 2023.
2. HORIZONTAL DATUN IS BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM. NAD 83 EAST ZONE 1201 – ESTABLISHED USING TRIMBLE VRS NOW NETWORK)
3. VERTICAL DATUN IS IGLD85 (NAVD88 – 0.51' = IGLD85)
4. TOPOGRAPHIC AND BATHYMETRIC SURVEYS GENERATING CONTOURS AT ONE (1) FOOT INTERVALS.
5. UNDERGROUND UTILITIES ARE BASED ON FIELD OBSERVATIONS.
5. UNDERGROUND UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY, AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR / OWNER IS RESPONCIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR / OWNER SHALL CALL FOR A JULIE LOCATE PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.

GENERAL NOTES:

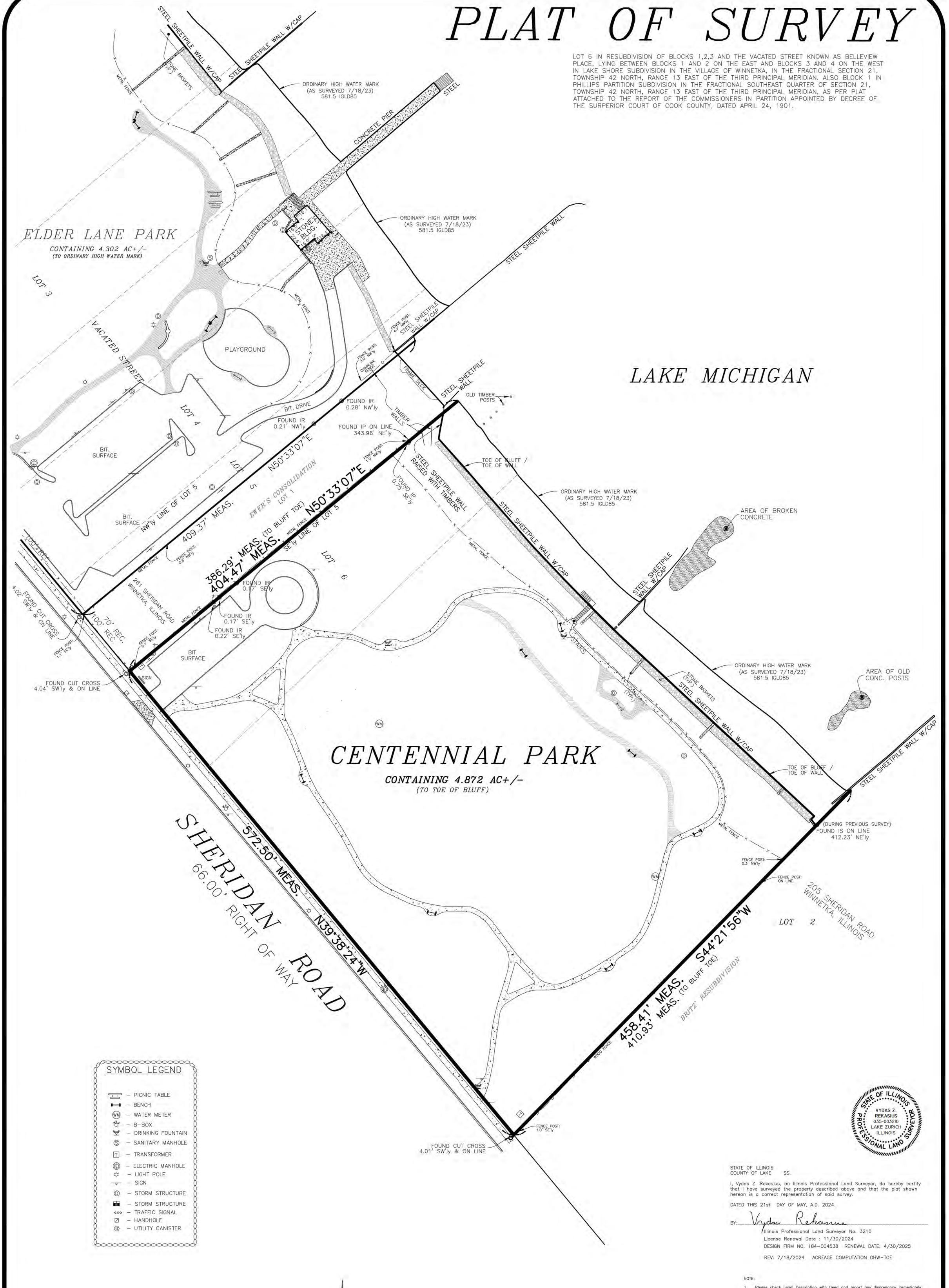
1. Please check Legal Description with Deed and report any discrepancy immediately.
2. Compare all points before building by same and report any discrepancies at once.
3. Building lines, if any, shown hereon are building lines shown on the recorded subdivision plat or called out in the title report.
4. Consult local authorities for building lines established by local ordinances.
5. This professional service conforms to the current Illinois minimum standards for a boundary survey.

TERRA TECHNOLOGY LAND SURVEYING, INC.
24198 ROSE AVE. LAKE ZURICH, ILLINOIS 60047
PHONE: (847) 540-8606 E-MAIL: TTLS.1@SBCGLOBAL.NET

JOB NO.: 20-0078 SURVEY DATE: 1/4/2024
DWG FILE: DATA/20/0078/JUNE2023
/CHECK 12-27-23/SITE 12-23 SHEET.DWG

PLAT OF SURVEY

LOT 6 IN RESUBDIVISION OF BLOCKS 1,2,3 AND THE VACATED STREET KNOWN AS BELLEVIEW PLACE, LYING BETWEEN BLOCKS 1 AND 2 ON THE EAST AND BLOCKS 3 AND 4 ON THE WEST IN LAKE SHORE SUBDIVISION IN THE VILLAGE OF WINNETKA, IN THE FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN. ALSO BLOCK 1 IN PHILLIPS PARTITION SUBDIVISION IN THE FRACTIONAL SOUTHEAST QUARTER OF SECTION 21, TOWNSHIP 42 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, AS PER PLAT ATTACHED TO THE REPORT OF THE COMMISSIONERS IN PARTITION APPOINTED BY DECREE OF THE SURPERIOR COURT OF COOK COUNTY, DATED APRIL 24, 1901.



SYMBOL LEGEND

- PICNIC TABLE
- BENCH
- WATER METER
- B-BOX
- DRINKING FOUNTAIN
- SANITARY MANHOLE
- TRANSFORMER
- ELECTRIC MANHOLE
- LIGHT POLE
- SIGN
- STORM STRUCTURE
- STORM STRUCTURE
- TRAFFIC SIGNAL
- HANDHOLE
- UTILITY CANISTER

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

SCALE: 1" = 40'

STATE OF ILLINOIS
COUNTY OF LAKE SS.

I, Vydas Z. Rekasius, an Illinois Professional Land Surveyor, do hereby certify that I have surveyed the property described above and that the plat shown hereon is a correct representation of said survey.

DATED THIS 21st DAY OF MAY, A.D. 2024.

BY: Vydas Rekasius

Illinois Professional Land Surveyor No. 3210
License Renewal Date : 11/30/2024
DESIGN FIRM NO. 184-004538 RENEWAL DATE: 4/30/2025

REV: 7/18/2024 ACREAGE COMPUTATION OHW-TOE

STATE OF ILLINOIS
VYDAS Z. REKASIUS
035-003210
LAKE ZURICH
ILLINOIS
PROFESSIONAL LAND SURVEYOR

NOTE:

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TERRA TECHNOLOGY LAND SURVEYING, INC.
24198 ROSE AVE. LAKE ZURICH, ILLINOIS 60047
PHONE: (847) 540-8606 E-MAIL: TTLS.1@SBCGLOBAL.NET

JOB NO. : 20-0078 SURVEY DATE : 7/18/2023
DWG FILE: JUNE2023/BOUNDARY2024/BOUNDARY-CENT.DWG

Centennial Park and Beach Existing Conditions

Centennial Parking Lot (East View)

East of Centennial Parking Lot (East View)

Sidewalk leading from Parking Lot to Upper Park (East View)

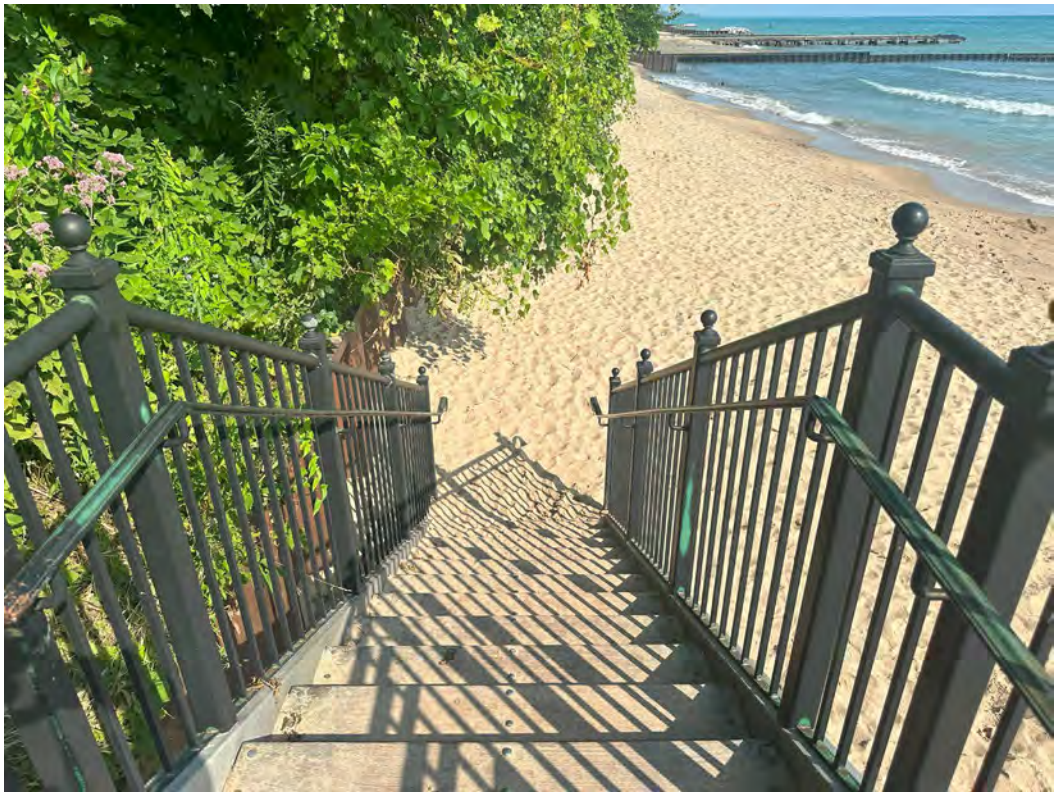
Existing Sidewalk From Parking Lot Beach (West View)

Park Sidewalk Split (Upper Park Loop and Beach Loop)

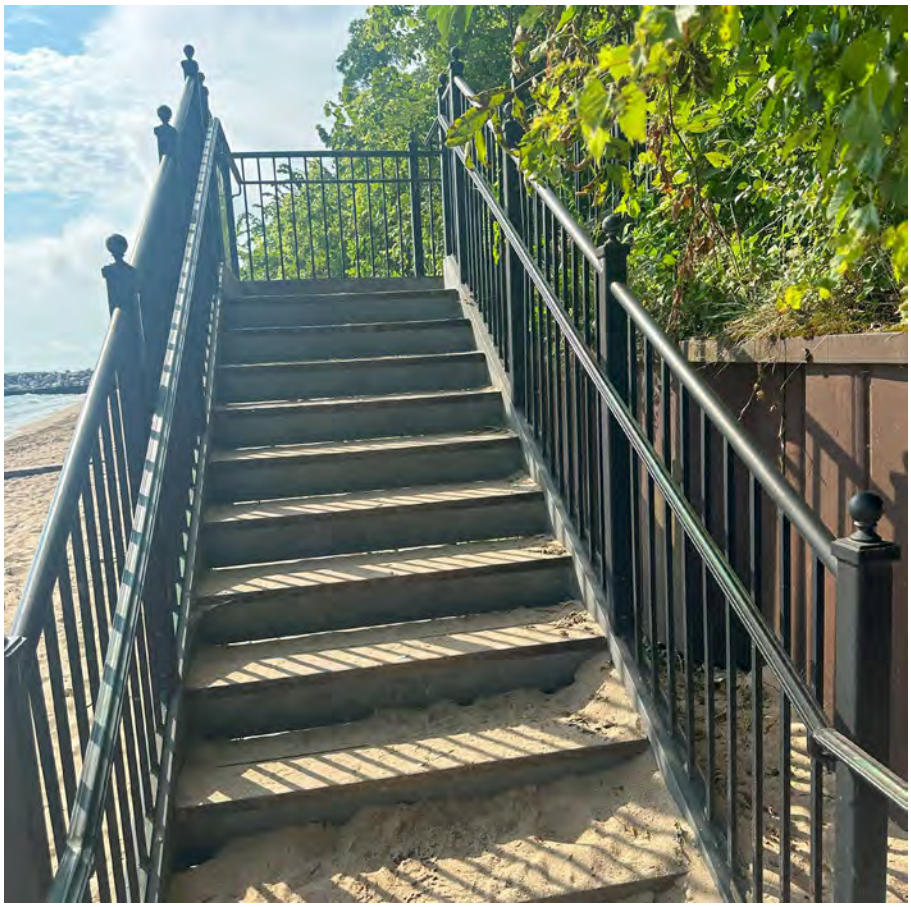
Dog Beach Access Area (Looking North)

Dog Shower Amenities (Looking Northwest)

Dog Beach Access Gate (Looking East)



Dog Beach Access Stairs (Looking East)



Dog Beach Access Stairs Beach Level (Looking South)

Dog Beach Stairs Beach View (Looking West)

Dog Beach (Looking North)

North Seawall (Looking West)

North Seawall (Looking Northwest)

Dog Beach (Looking South)

Bog Beach (Looking South)

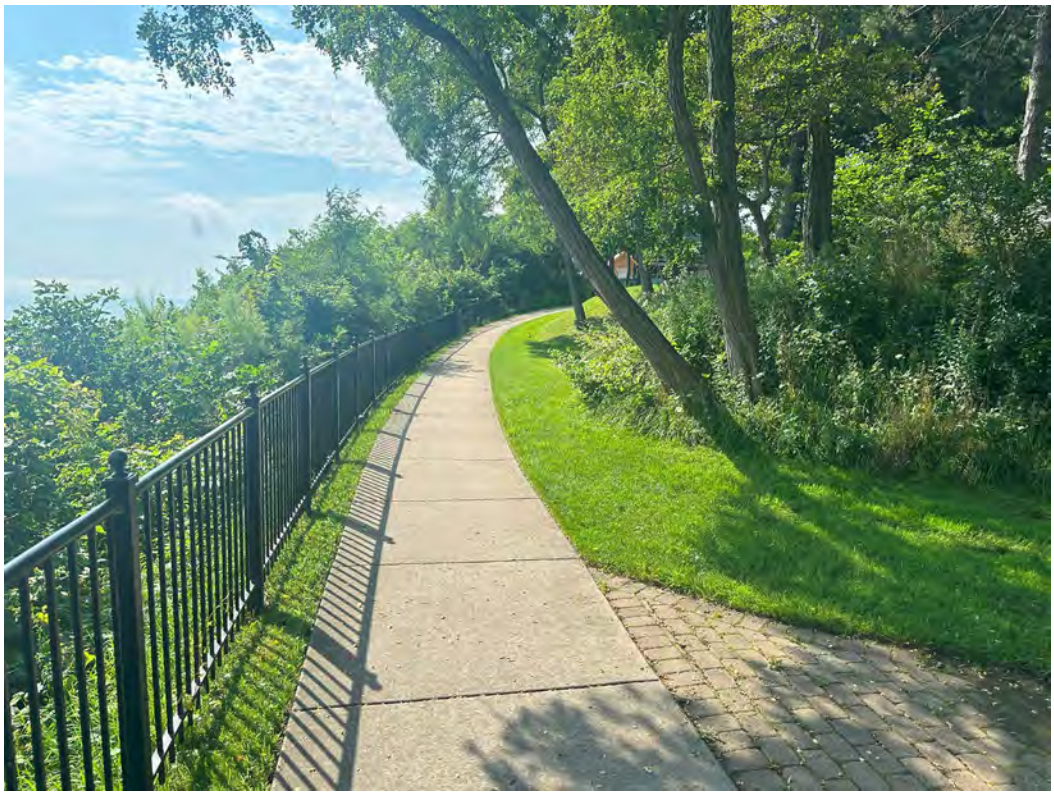
Dog Beach South Property Line (Looking West)

Dog Beach Seawall (Looking West)

Mid-level Bluff Sidewalk (Looking South)

Mid-level Bluff Paver and Bench Area (Looking Southwest)

Mid-level Bluff Paver and Bench Area (Looking West)



Mid-level Bluff Sidewalk (Looking South)

Mid-level Bluff Sidewalk to Park Area (Looking West)

Upper Bench Southeast Section of Upper Parkland

Upper Park Sidewalk Southwest Corner of the Park (Looking East)

Upper Park Sidewalk South End (Looking East)

Upper Park (Looking South)

Upper Park (Looking East)

Upper Park Sidewalk (Looking North)

Upper Park Center East Side (Looking East)

Upper Park Center Overlooking Dog Entry Gate (Looking East)

Upper Park Sidewalk (Looking North)

Upper Park Area (Looking Southwest)

Upper Park Area (Looking Northeast)

Upper Park Sidewalk (Looking Southwest)

Sheridan Road Sidewalk South side of Park (Looking North)

ILLUSTRATIVE CONCEPT IMAGERY

FOR REFERENCE ONLY. ALL RENDERINGS ARE BASED ON WPD APPROVED SCHEMATIC DESIGN. NOT FOR CONSTRUCTION.

VIEW 1
CENTENNIAL BREAKWATER PIER LOOKING WEST (EYE-LEVEL, APPROX. 65.5" HT.)

VIEW 2
SOUTH CENTENNIAL LOOKING W/NW (BIRDS EYE)

VIEW 3
CENTENNIAL SWIMMING BEACH LOOKING SOUTH (EYE-LEVEL, APPROX. 65.5" HT.)

VIEW 4
CENTENNIAL ACCESS PATH LOOKING E/SE (EYE-LEVEL, APPROX. 65.5" HT.)

RED BARN
Design & Engineering, S.C.

6750 Woodland Drive
Waunakee Wisconsin 53597
p. 608.849.2042
c. 608.843.1870
redbarnde@tds.net

Consultants

THE LAKOTA GROUP.
116 West Illinois Street
Floor 7
Chicago, Illinois 60654
p 312.467.5445
f 312.467.5484
thelakotagroup.com

Issued for	Rev.	Date
Village of Winnetka Special Use Permit		04/03/2024

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

Scale NONE

Drawing Title
Overall Site Plan

Sheet No.
C102

DRAWING LIST

T101 Title Sheet
C100 Existing Conditions Plan
C101 General Site Development Plan
C102 Site Preparation and Erosion Control Plan
C103 Shoreline Improvement Plan Overview
C104 Shoreline Improvement Layout Plan 1
C105 Shoreline Improvement Layout Plan 2
C106 Shoreline Improvement Layout Plan 3
C107 Shoreline Improvement Layout Plan 4
C108 Shoreline Improvements Sections and Details Section A-A'
C109 Shoreline Improvements Sections and Details Section B-B'
C110 Shoreline Improvements Sections and Details Section C-C'
C111 Shoreline Improvements Sections and Details Section D-D'
C112 Shoreline Improvements Sections and Details Section E-E'
C113 Shoreline Improvements Sections and Details Section F-F'
C114 Shoreline Improvements Sections and Details Section G-G'
C115 Shoreline Improvements Sections and Details Section H-H'
C116 Shoreline Improvements Sections and Details Section I-I'
C117 Shoreline Improvements Sections and Details Section J-J'
C118 Shoreline Improvements Sections and Details Section K-K'
C119 Shoreline Improvements Sections and Details Section L-L'
C120 Shoreline Improvements Corner Details 1
C121 Shoreline Improvements Corner Details 2
C122 Shoreline Improvements Corner Details 3
C123 Shoreline Improvements Corner Details 4
C124 Breakwater Plan Overview
C125 Breakwater Layout Plan 1
C126 Breakwater Layout Plan 2
C127 Breakwater Section and Details Section M-M'
C128 Breakwater Section and Details Section N-N'
C129 Breakwater Corner Details
C130 Breakwater Revetment Layout Plan and Sections
C131 Walkway Layout Plan and Details
C132 Walkway Details
C133 Retaining Wall Overview
C134 East Retaining Wall Plan and Profile View
C135 West Retaining Wall Plan and Profile View 1
C136 West Retaining Wall Plan and Profile View 2
C137 East Retaining Wall Details
C138 West Retaining Wall Details
C139 Sand Fill Layout Plan
C140 Sand Fill Sections
C141 Parking Lot Improvements
C142 Centennial North Bulkhead Corner Improvements
C143 Tree Preservation Plan
C144 Overall Site Plan
C145 Landscape Plan
C146 Planting Details
C147 Handrail and Fencing Plan
C148 Handrail and Fencing Enlargement Plan A
C149 Handrail and Fencing Enlargement Plan B
C150 Handrail and Fencing Enlargement Plan C
C151 Handrail and Fencing Enlargement Plan C and D
C152 Hardscape Details
C153 Hardscape Details
C154 Boardwalk Details
C155 Handrail Details
C156 Handrail Details
C157 Handrail Details
C158 Handrail Details
C159 Handrail Details
C160 Handrail Details
C161 Fencing Details
C162 Fencing Details
C163 Gate Details
C164 Site Furnishings
C165 Site Furnishings
C166 Retaining Wall Details
C167 Retaining Wall Details
C168 Lighting and Electrical Plan
C169 Lighting and Electrical Details
C170 Lighting and Electrical Details
C171 Lighting and Electrical Details
C172 Lighting and Electrical Details
C173 Dog and Foot Wash Plumbing Layout Plan
C174 Stairs - General Notes and Bill of Materials
C175 Stairs – General Plan, Foundation Plan and Framing Plan
C176 Stairs – Structural Details (Sheet 1 of 2)
C177 Stairs – Structural Details (Sheet 1 of 2)
C178 Overall Restoration Plan
C179 Restoration Plan
C180 Restoration Notes
C181 Restoration Notes
C182 Site Closure Plan

Site Improvements
Centennial Park
Winnetka, IL

LOCATION MAP
NTS

North

SOURCE : GOOGLE EARTH

PROJECT SITE
NTS

North

ENGINEER:

RED BARN Design & Engineering, SC
6750 Woodland Drive
Waunakee, Wisconsin 53597
Ph: (608) 849-2042
Attn: Matthew Wright, P.E.

LANDSCAPE ARCHITECT:

The Lakota Group
One East Wacker Drive
Chicago, IL 60601
Ph: (312) 467-5445
Attn: Scott Freres, ASLA

OWNER:

Winnetka Park District

540 Hibbard Road
Winnetka, IL 60093
Ph: (847) 501-2040
Attn: Costa Kutulas

MATTHEW D. WRIGHT REGISTERED NO. 062-046994 STATE OF ILLINOIS 7/19/24	LOUIS MOBASSERI 081-005088 ILLINOIS LICENSED STRUCTURAL ENGINEER 7/17/24	WILLIAM B. LOFTUS 46926 REGISTERED PROFESSIONAL ENGINEER STATE OF ILLINOIS 7-17-24	LICENSED STRUCTURAL ENGINEER ANDREW C. KNUTSON 081-006499 7/19/24 STATE OF ILLINOIS THIS STAMP COVERS SHEETS: C103-C129 AND C133-C138	KATRINA LORD 062.059619 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS DATE: 7/19/2024
License Expires 11-30-25	License Expires 11-30-24	License Expires 11-30-25	License Expires 11-30-24	License Expires 11-30-25

RED BARN
Design & Engineering, S.C.

6750 Woodland Drive
Waunakee Wisconsin 53597
p. 608.849.2042
c. 608.843.1870
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Consultants

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding And Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

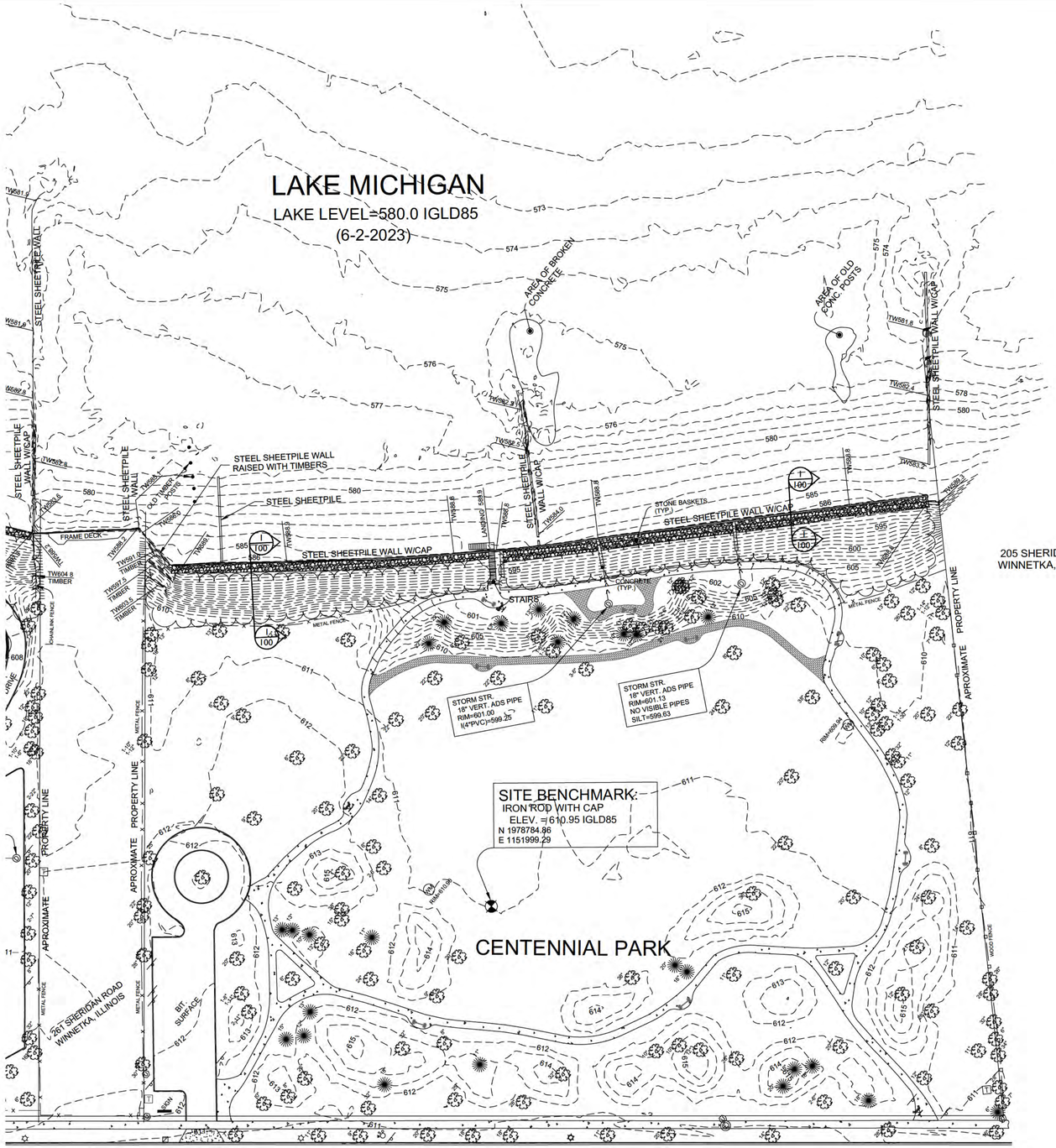
Graphic Scale

Scale None

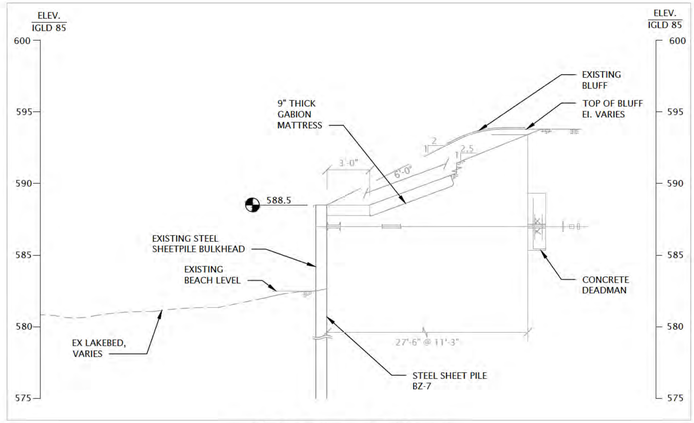
Drawing Title

Title Sheet

Sheet No. T101



205 SHERIDAN ROAD
WINNETKA, ILLINOIS



1 / C100 Existing Bulkhead
Scale : 0' 2.5' 5'

LEGEND (EXISTING)

- PICNIC TABLE
- BENCH
- WATER METER
- B-BOX
- DRINKING FOUNTAIN
- SANITARY MANHOLE
- TRANSFORMER
- ELECTRIC MANHOLE
- LIGHT POLE
- SIGN
- STORM STRUCTURE
- STORM STRUCTURE
- TRAFFIC SIGNAL
- HANDHOLE
- UTILITY CANISTER
- TREES/BRUSH

"The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto."

811 Know what's below. Call before you dig.

NOTES:

1. BASEMAP, TOPOGRAPHIC AND BATHYMETRIC INFORMATION PREPARED FROM SURVEYS PERFORMED IN JAN 2024.
2. HORIZONTAL DATUM IS BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM. NAD 83 EAST ZONE 1201 - ESTABLISHED USING TRIMBLE VRS NOW NETWORK .
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CONTROL POINTS/BENCHMARKS

CROSS CUT ON CONC. PIER
ELEV. = 584.67 IGLD 85
N 1979426.45
E 1152033.01

IRON ROD WITH CAP
ELEV. = 610.95 IGLD 85
N 1978784.86
E 1151999.29

IRON ROD WITH CAP
ELEV. = 610.87 IGLD 85
N 1979327.21
E 1151738.75

RED BARN
Design & Engineering, S.C.

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p. 608.849.2042
c. 608.843.1870
redbarnde@tds.net

Consultants

TERRA TECHNOLOGY LAND SURVEYING, INC.
24188 ROSE AVE. LAKE ZURICH, ILLINOIS 60047
PHONE: (847) 540-9008 E-MAIL: TLS.1@COMCAST.NET

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding And Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale
0' 20' 40'
(In Feet)
1 Inch = 40 Ft.

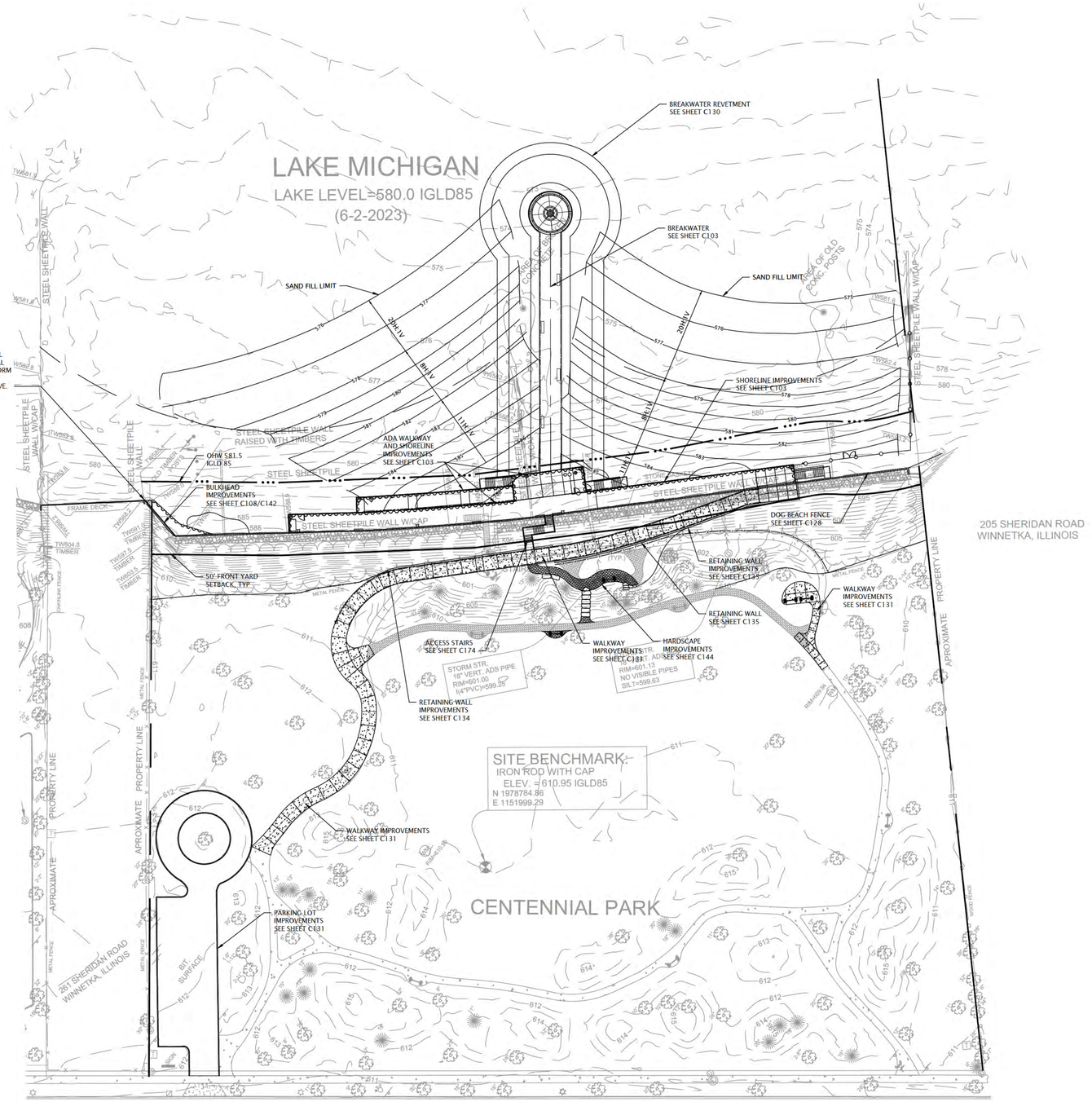
Scale 1 Inch = 40 Ft.

Drawing Title

Existing Conditions Plan

Sheet No.
C100

CORNER CONSTRUCTION REQUIRES WORK ON ADJACENT PROPERTY. THE CONTRACTOR SHALL MINIMISE ENCROACHMENT ONTO ADJACENT PROPERTY TO PERFORM THE WORK. NO MATERIAL STOCKPILING, EQUIPMENT STAGING, OR ANY ACTIVITY BEYOND THOSE IS REQUIRED TO PERFORM THE WORK SHALL BE PERFORMED. ALL DISTURBANCES TO UPLAND BEACH AREAS SHALL BE RESTORED TO PREEXISTING CONDITIONS TO THE SATISFACTION OF THE OWNERS REPRESENTIVE.



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811 Know what's **below.** **Call** before you dig.

LEGEND (PROPOSED)

OHW 581.5 IGLD 85

50' FRONT YARD SETBACK

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Consultants

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Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

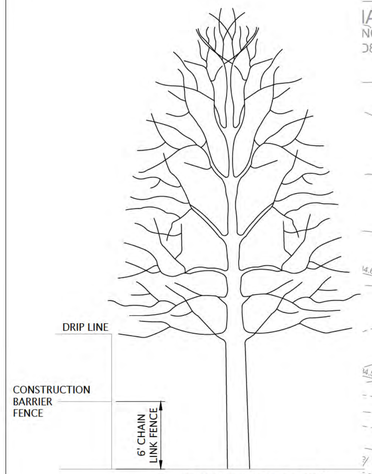
0' 20' 40'
(In Feet)
1 Inch = 40 Ft.

Scale 1 Inch = 40 Ft.

Drawing Title

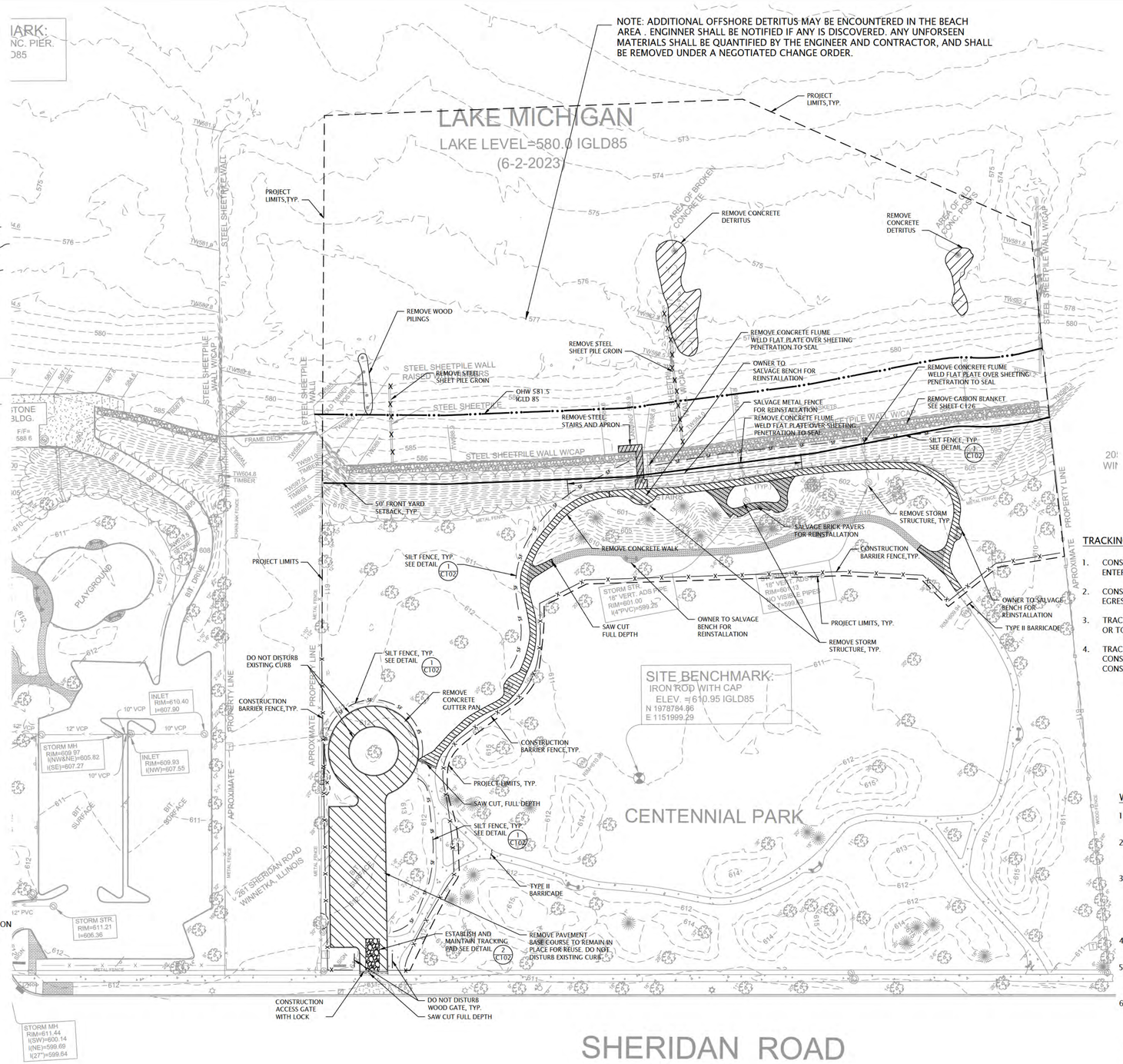
General Site
Development Plan

Sheet No.
C101



3 / C102 CONSTRUCTION BARRIER FENCING TREE PROTECTION
NOT TO SCALE

NOTE: ADDITIONAL OFFSHORE DETRITUS MAY BE ENCOUNTERED IN THE BEACH AREA . ENGINNER SHALL BE NOTIFIED IF ANY IS DISCOVERED. ANY UNFORSEEN MATERIALS SHALL BE QUANTIFIED BY THE ENGINEER AND CONTRACTOR, AND SHALL BE REMOVED UNDER A NEGOTIATED CHANGE ORDER.


LAKE MICHIGAN
LAKE LEVEL=580.0 IGLD85
(6-2-2023)
PROJECT LIMITS,TYP.
REMOVE CONCRETE DETRITUS
AREA OF BROKEN CONCRETE
AREA OF OLD CONC. POSTS
REMOVE WOOD PILINGS
REMOVE STEEL SHEET PILE GROIN
STEEL SHEETPILE WALL RAISED
REMOVE STEEL SHEET PILE GROIN
OHW 581.5 IGLD 85
STEEL SHEETPILE WALL
STEEL SHEETPILE WALL W/CAP
REMOVE CONCRETE FLUME WELD FLAT PLATE OVER SHEETING PENETRATION TO SEAL
OWNER TO SALVAGE BENCH FOR REINSTALLATION
SALVAGE METAL FENCE FOR REINSTALLATION
REMOVE CONCRETE FLUME WELD FLAT PLATE OVER SHEETING PENETRATION TO SEAL
REMOVE GABION BLANKET SEE SHEET C126
REMOVE STEEL STAIRS AND APRON
SILT FENCE, TYP. SEE DETAIL 1 C102
50' FRONT YARD SETBACK, TYP.
REMOVE STORM STRUCTURE, TYP
SALVAGE BRICK PAVERS FOR REINSTALLATION
REMOVE CONCRETE WALK
CONSTRUCTION BARRIER FENCE,TYP.
PROJECT LIMITS
SAW CUT FULL DEPTH
OWNER TO SALVAGE BENCH FOR REINSTALLATION
PROJECT LIMITS, TYP.
REMOVE STORM STRUCTURE, TYP.
OWNER TO SALVAGE BENCH FOR REINSTALLATION
TYPE II BARRICADE
DO NOT DISTURB EXISTING CURB
SILT FENCE, TYP. SEE DETAIL 1 C102
CONSTRUCTION BARRIER FENCE,TYP.
REMOVE CONCRETE GUTTER PAN
CONSTRUCTION BARRIER FENCE,TYP.
PROJECT LIMITS, TYP.
SAW CUT, FULL DEPTH
SILT FENCE, TYP. SEE DETAIL 1 C102
TYPE II BARRICADE
ESTABLISH AND MAINTAIN TRACKING PAD SEE DETAIL 2 C102
REMOVE PAVEMENT BASE COURSE TO REMAIN IN PLACE FOR REUSE. DO NOT DISTURB EXISTING CURB.
CONSTRUCTION ACCESS GATE WITH LOCK
DO NOT DISTURB WOOD GATE, TYP.
SAW CUT FULL DEPTH
SITE BENCHMARK:
IRON ROD WITH CAP
ELEV. =610.95 IGLD85
N 1978784.96
E 1151999.29
CENTENNIAL PARK
SHERIDAN ROAD
PROPERTY LINE
APPROXIMATE
STEEL SHEETPILE WALL
STEEL SHEETPILE WALL W/CAP
FRAME DECK
PLAYGROUND
8FT DRIVE
INLET RIM=610.40 I=607.90
STORM MH RIM=609.97 I(NW&ME)=605.82 I(SE)=607.27
INLET RIM=609.93 I(NW)=607.55
STORM STR RIM=611.21 I=606.36
STORM MH RIM=611.44 I(SW)=600.14 I(NE)=599.69 I(27")=599.64
STORM STR RIM=611.21 I=606.36
STORM STR RIM=611.21 I=606.36
STORM STR RIM=611.21 I=606.36

LEGEND

ORDINARY HIGH WATER MARK (OHW)

50' SETBACK LINE FROM OHW

SEE SHEET C124 FOR MORE DETAILS

SEE SHEET C104

SEE SHEET C105

SEE SHEET C106

SEE SHEET C107

SEE EAST RETAINING WALL SHEETS FOR MORE DETAILS

SEE WEST RETAINING WALL SHEETS FOR MORE DETAILS

SEE UPLAND SITE IMPROVEMENTS SHEETS FOR MORE DETAILS

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CENTENNIAL PARK SHORELINE IMPROVEMENTS OVERVIEW

RED BARN
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Consultants

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p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' 10' 20'
(In Feet)
1 Inch = 20 Ft.

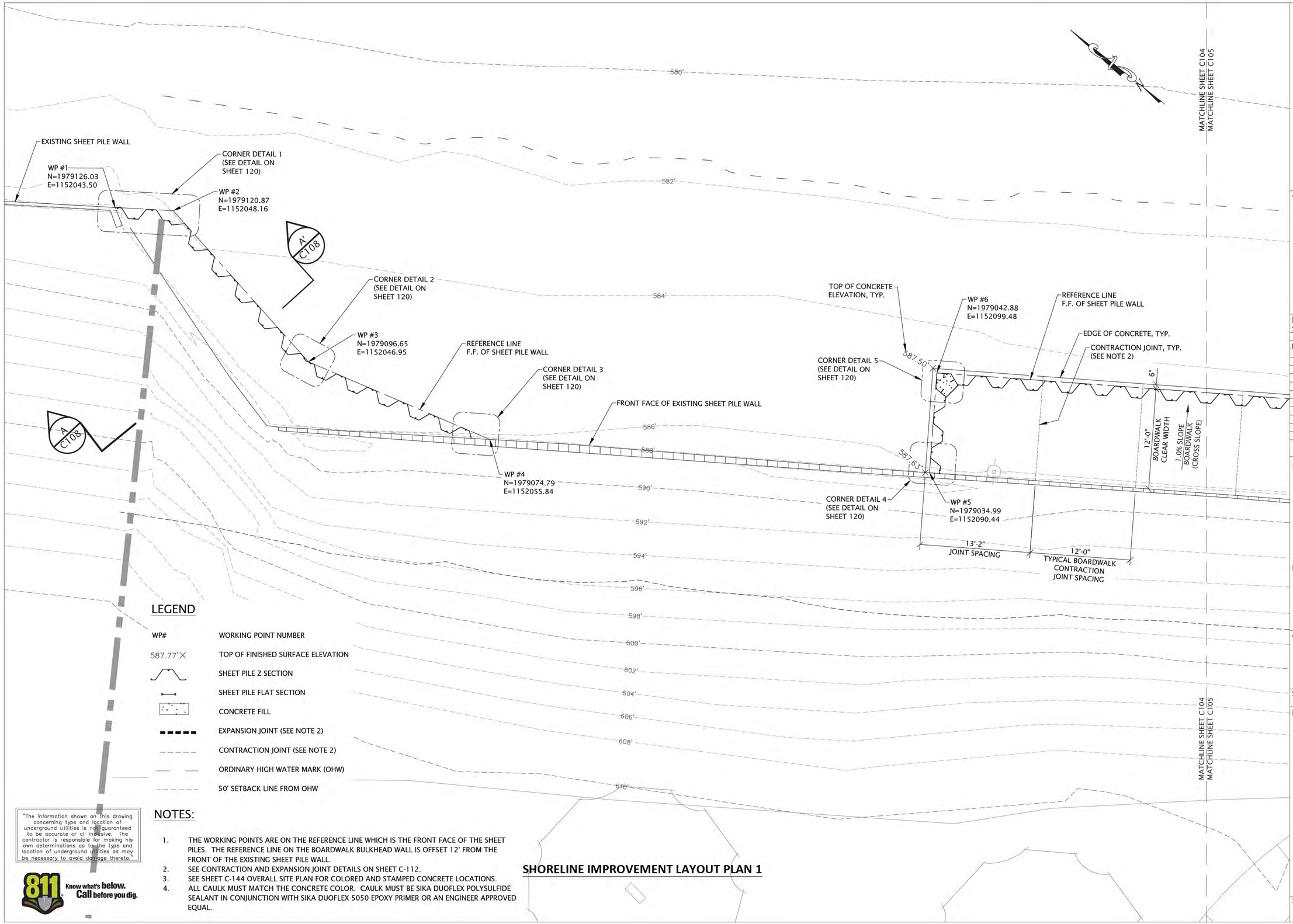
Scale 1 Inch = 20 Ft.

Drawing Title

SHORELINE IMPROVEMENT OVERVIEW

Sheet No.

C103



LEGEND

WP#	WORKING POINT NUMBER
587.77'×	TOP OF FINISHED SURFACE ELEVATION
	SHEET PILE Z SECTION
	SHEET PILE FLAT SECTION
	CONCRETE FILL
	EXPANSION JOINT (SEE NOTE 2)
	CONTRACTION JOINT (SEE NOTE 2)
	ORDINARY HIGH WATER MARK (OHW)
	50' SETBACK LINE FROM OHW

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NOTES:

1. THE WORKING POINTS ARE ON THE REFERENCE LINE WHICH IS THE FRONT FACE OF THE SHEET PILES. THE REFERENCE LINE ON THE BOARDWALK BULKHEAD WALL IS OFFSET 12' FROM THE FRONT OF THE EXISTING SHEET PILE WALL.
2. SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C-112.
3. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
4. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN ENGINEER APPROVED EQUAL.

SHORELINE IMPROVEMENT LAYOUT PLAN 1

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Project Title:

Site Improvements
Elder Lane Park &
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' 2.5' 5'
(In Feet)
1 Inch = 5 Ft.

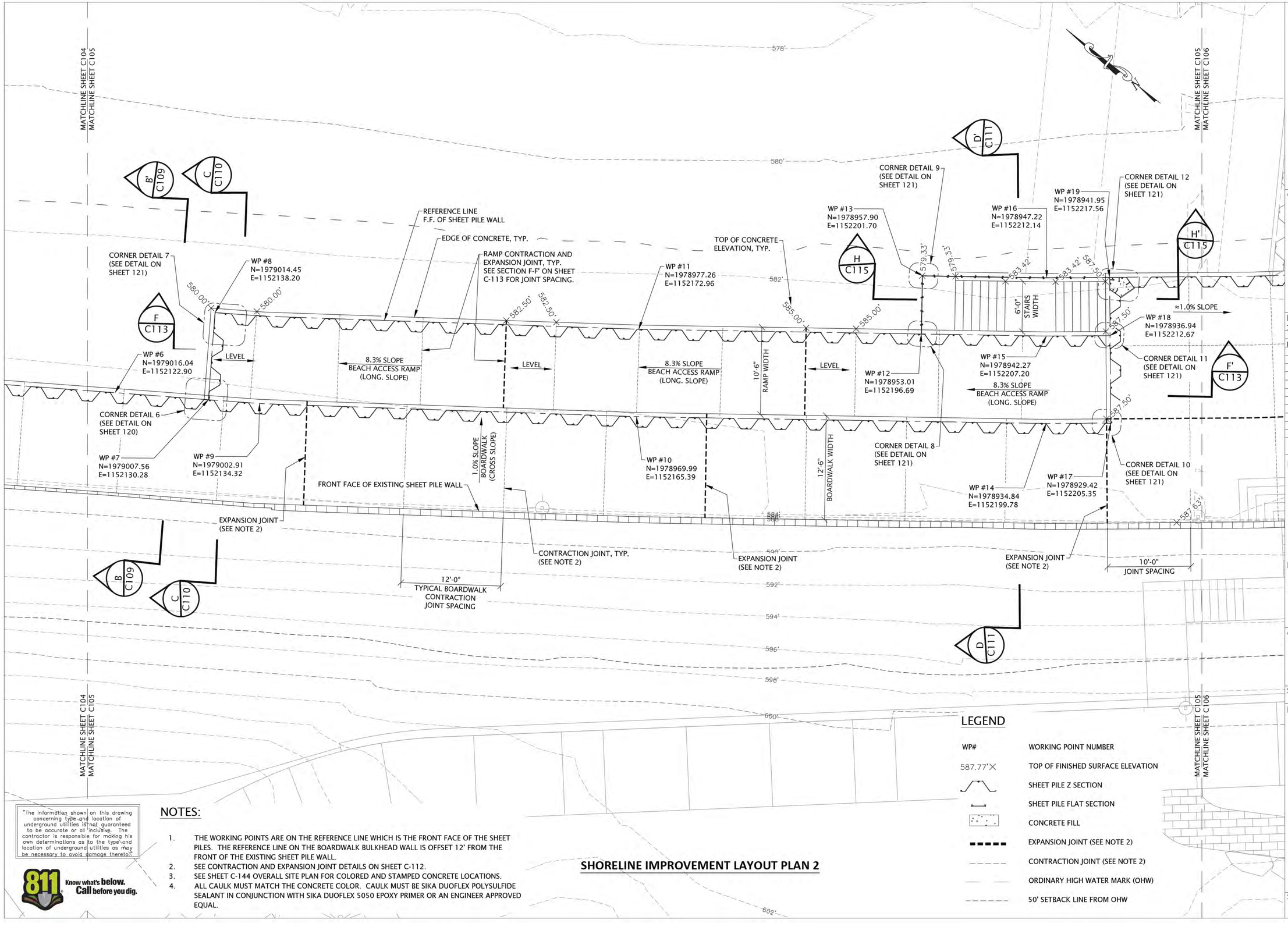
Scale 1 Inch = 5 Ft.

Drawing Title

SHORELINE IMPROVEMENT
LAYOUT PLAN 1

Sheet No.

C104



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NOTES:

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2. SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C-112.
3. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
4. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN EINGINEER APPROVED EQUAL.

SHORELINE IMPROVEMENT LAYOUT PLAN 2

LEGEND

WP#	WORKING POINT NUMBER
587.77'	TOP OF FINISHED SURFACE ELEVATION
	SHEET PILE Z SECTION
	SHEET PILE FLAT SECTION
	CONCRETE FILL
	EXPANSION JOINT (SEE NOTE 2)
	CONTRACTION JOINT (SEE NOTE 2)
	ORDINARY HIGH WATER MARK (OHW)
	50' SETBACK LINE FROM OHW

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Issued for	Rev. Date
70% Submittal	04/08/24
100% Submittal	06/28/24
Bidding and Construction	07/19/24

Project Title:

Site Improvements
Elder Lane Park &
Centennial Park
Winnetka, IL

Prepared For:

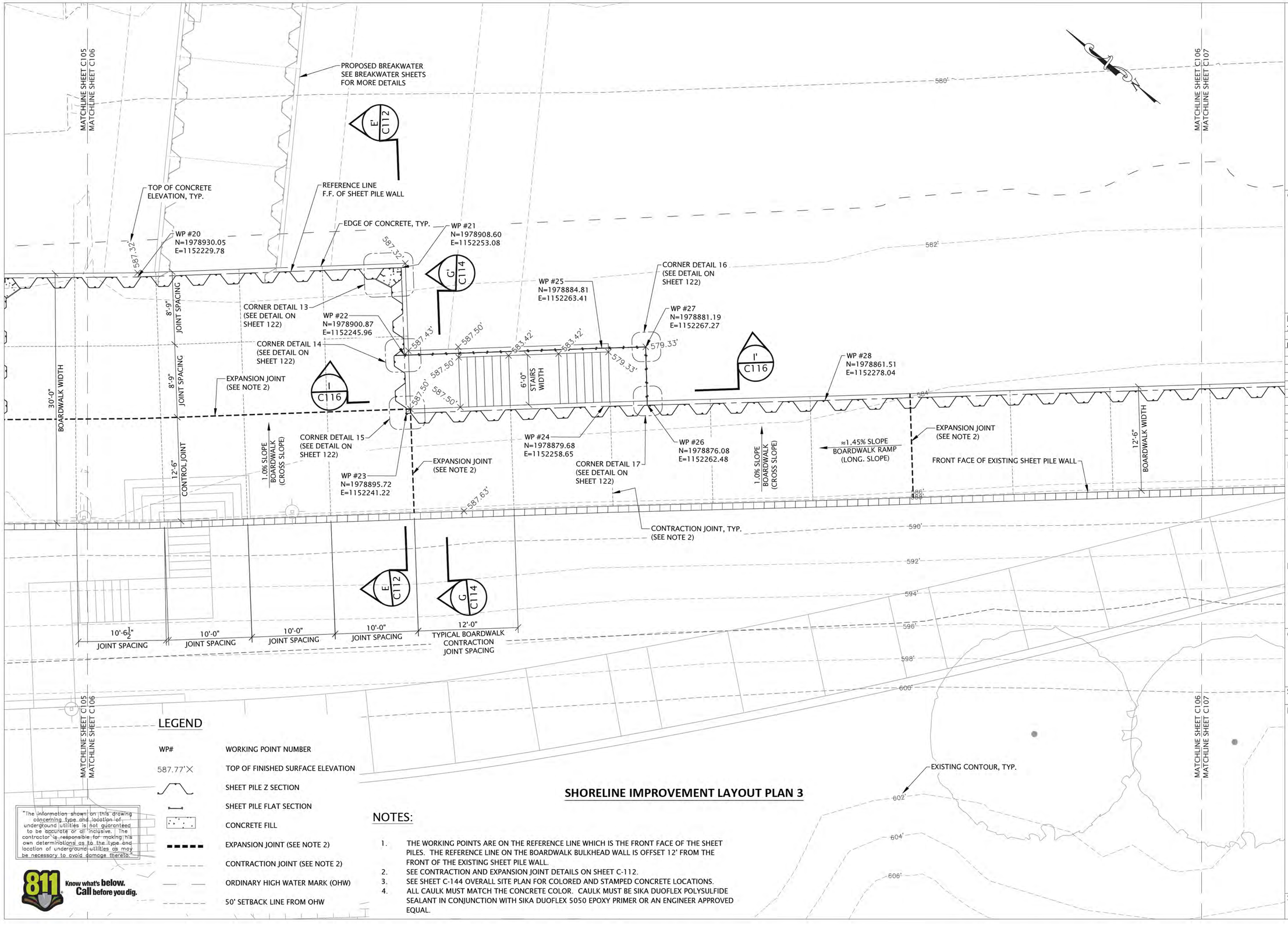
Winnetka Park District
Winnetka, IL

Graphic Scale
0' 2.5' 5'
(In Feet)
1 Inch = 5 Ft.

Scale 1 Inch = 5 Ft.

Drawing Title
SHORELINE IMPROVEMENT LAYOUT PLAN 2

Sheet No.
C105



LEGEND

WP#	WORKING POINT NUMBER
587.77'×	TOP OF FINISHED SURFACE ELEVATION
	SHEET PILE Z SECTION
	SHEET PILE FLAT SECTION
	CONCRETE FILL
	EXPANSION JOINT (SEE NOTE 2)
	CONTRACTION JOINT (SEE NOTE 2)
	ORDINARY HIGH WATER MARK (OHW)
	50' SETBACK LINE FROM OHW

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SHORELINE IMPROVEMENT LAYOUT PLAN 3

NOTES:

1. THE WORKING POINTS ARE ON THE REFERENCE LINE WHICH IS THE FRONT FACE OF THE SHEET PILES. THE REFERENCE LINE ON THE BOARDWALK BULKHEAD WALL IS OFFSET 12' FROM THE FRONT OF THE EXISTING SHEET PILE WALL.
2. SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C-112.
3. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
4. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN EINGINEER APPROVED EQUAL.

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p. 608.588.7866

Issued for	Rev. Date
70% Submittal	04/08/24
100% Submittal	06/28/24
Bidding and Construction	07/19/24

Project Title:

Site Improvements
Elder Lane Park &
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

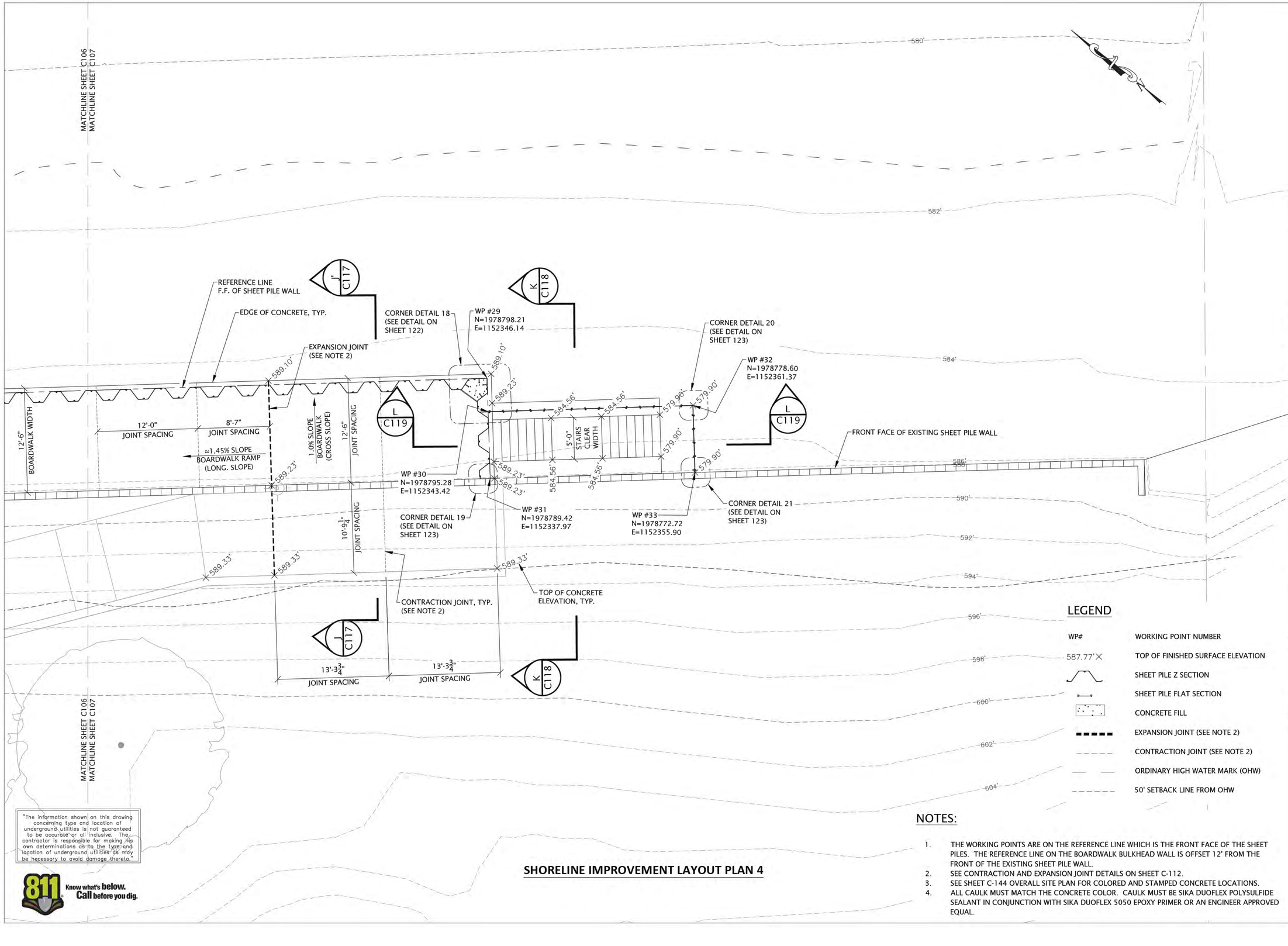
0' 2.5' 5'
(In Feet)
1 Inch = 5 Ft.

Scale 1 Inch = 5 Ft.

Drawing Title

SHORELINE IMPROVEMENT
LAYOUT PLAN 3

Sheet No.
C106



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SHORELINE IMPROVEMENT LAYOUT PLAN 4

LEGEND

WP#	WORKING POINT NUMBER
587.77'×	TOP OF FINISHED SURFACE ELEVATION
	SHEET PILE Z SECTION
	SHEET PILE FLAT SECTION
	CONCRETE FILL
	EXPANSION JOINT (SEE NOTE 2)
	CONTRACTION JOINT (SEE NOTE 2)
	ORDINARY HIGH WATER MARK (OHW)
	50' SETBACK LINE FROM OHW

NOTES:

1. THE WORKING POINTS ARE ON THE REFERENCE LINE WHICH IS THE FRONT FACE OF THE SHEET PILES. THE REFERENCE LINE ON THE BOARDWALK BULKHEAD WALL IS OFFSET 12' FROM THE FRONT OF THE EXISTING SHEET PILE WALL.
2. SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C-112.
3. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
4. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN ENGINEER APPROVED EQUAL.

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Issued for	Rev.	Date
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100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Elder Lane Park &
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' 2.5' 5'
(In Feet)
1 Inch = 5 Ft.

Scale 1 Inch = 5 Ft.

Drawing Title

SHORELINE IMPROVEMENT LAYOUT PLAN 4

Sheet No.

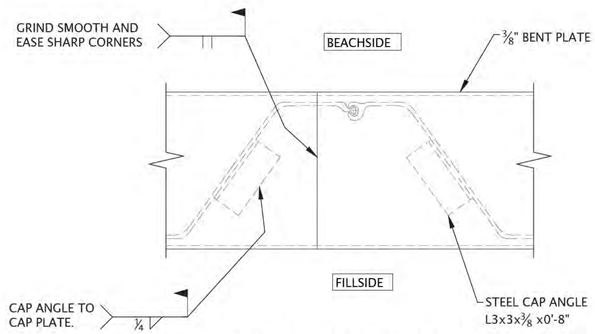
C107

LEGEND:

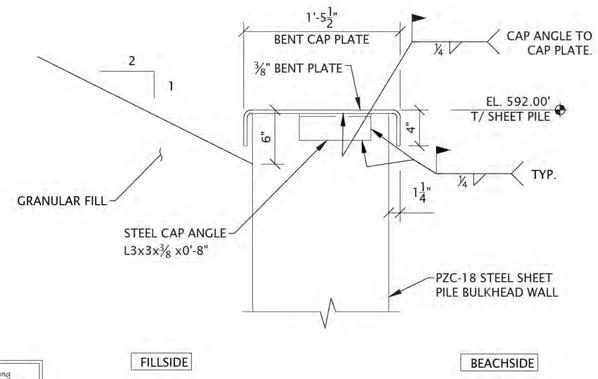
- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

GRANULAR FILL COMPACTION NOTES:

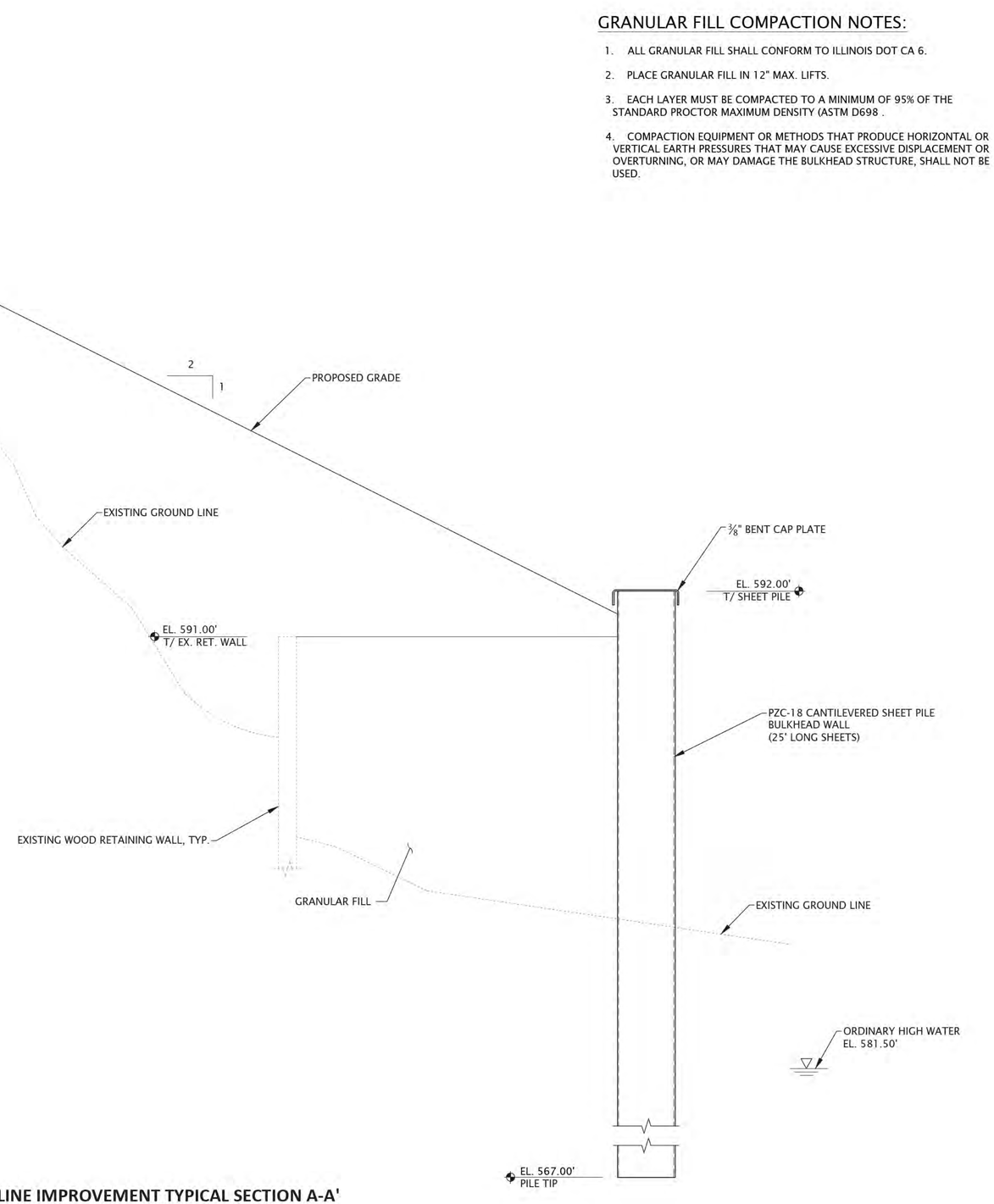
1. ALL GRANULAR FILL SHALL CONFORM TO ILLINOIS DOT CA 6.
2. PLACE GRANULAR FILL IN 12" MAX. LIFTS.
3. EACH LAYER MUST BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY (ASTM D698 .
4. COMPACTION EQUIPMENT OR METHODS THAT PRODUCE HORIZONTAL OR VERTICAL EARTH PRESSURES THAT MAY CAUSE EXCESSIVE DISPLACEMENT OR OVERTURNING, OR MAY DAMAGE THE BULKHEAD STRUCTURE, SHALL NOT BE USED.



CAP BENT PLATE SPLICE DETAIL



CAP BENT PLATE ELEVATION VIEW



SHORELINE IMPROVEMENT TYPICAL SECTION A-A'

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Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" 3/8" 3/4"
(In Feet)
3/4" Inch = 1 Ft.

Scale: 3/4" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION A-A'

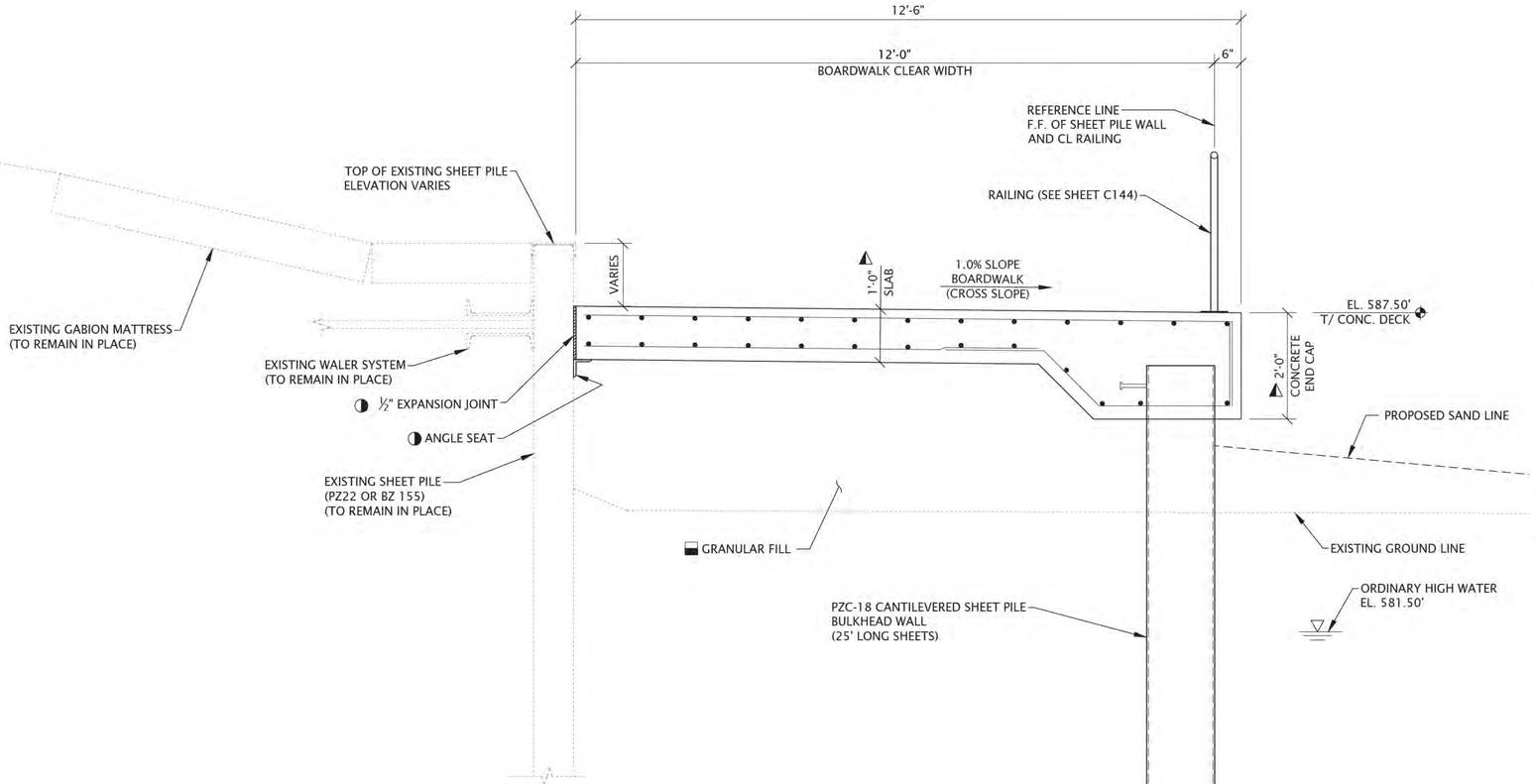
Sheet No.
C108

LEGEND:

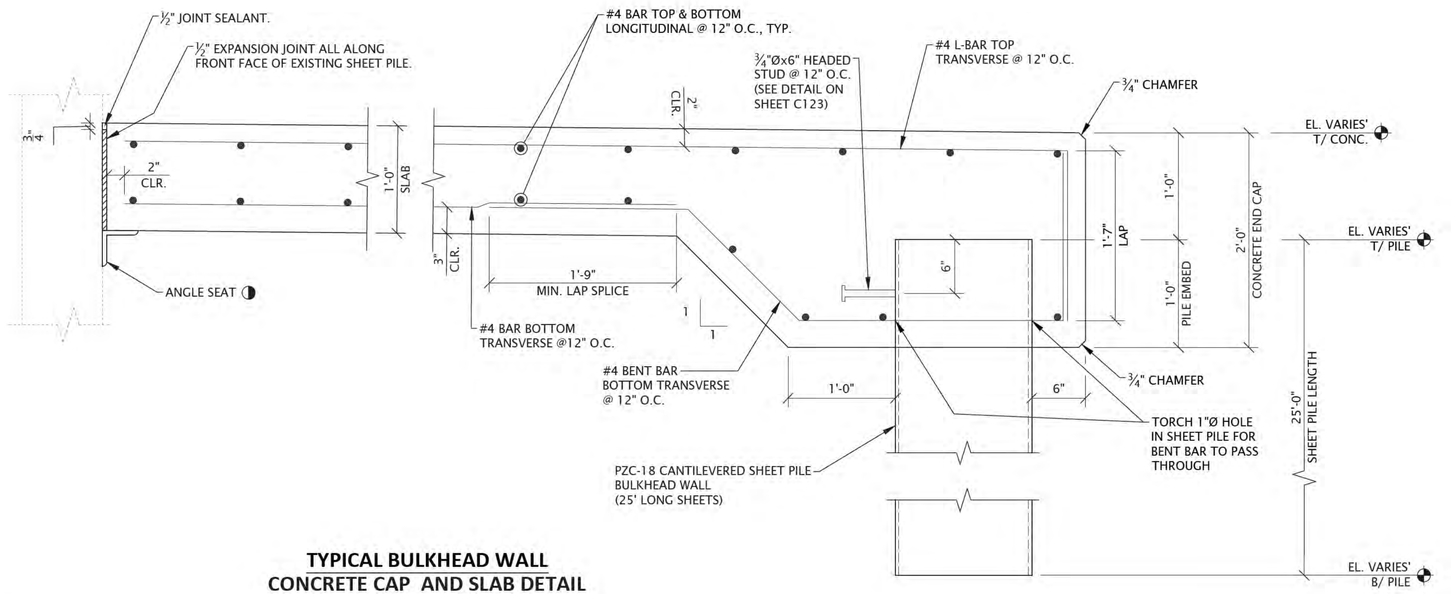
- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

NOTES:

1. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
2. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN ENGINEER APPROVED EQUAL.



SHORELINE IMPROVEMENT TYPICAL SECTION B-B'



TYPICAL BULKHEAD WALL CONCRETE CAP AND SLAB DETAIL

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Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" ⅜" ¾"
(In Feet)
¾" Inch = 1 Ft.

Scale: ¾" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION B-B'

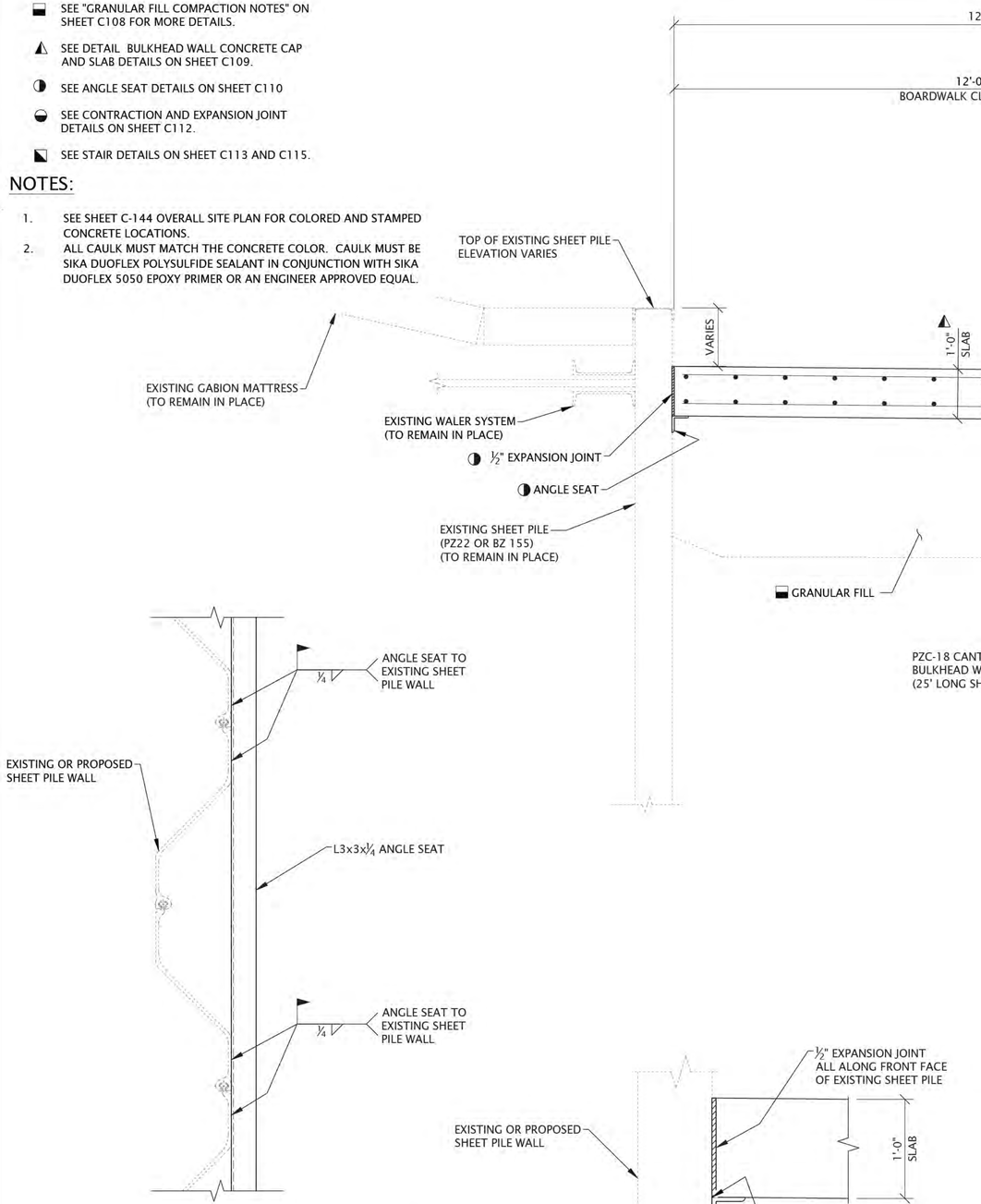
Sheet No.
C109

LEGEND:

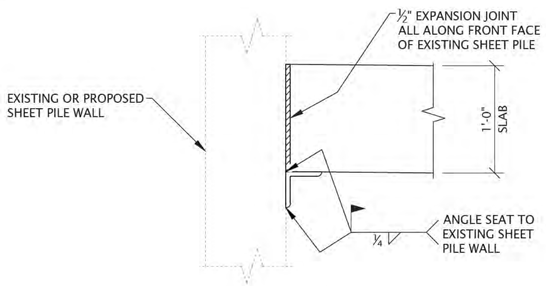
- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

NOTES:

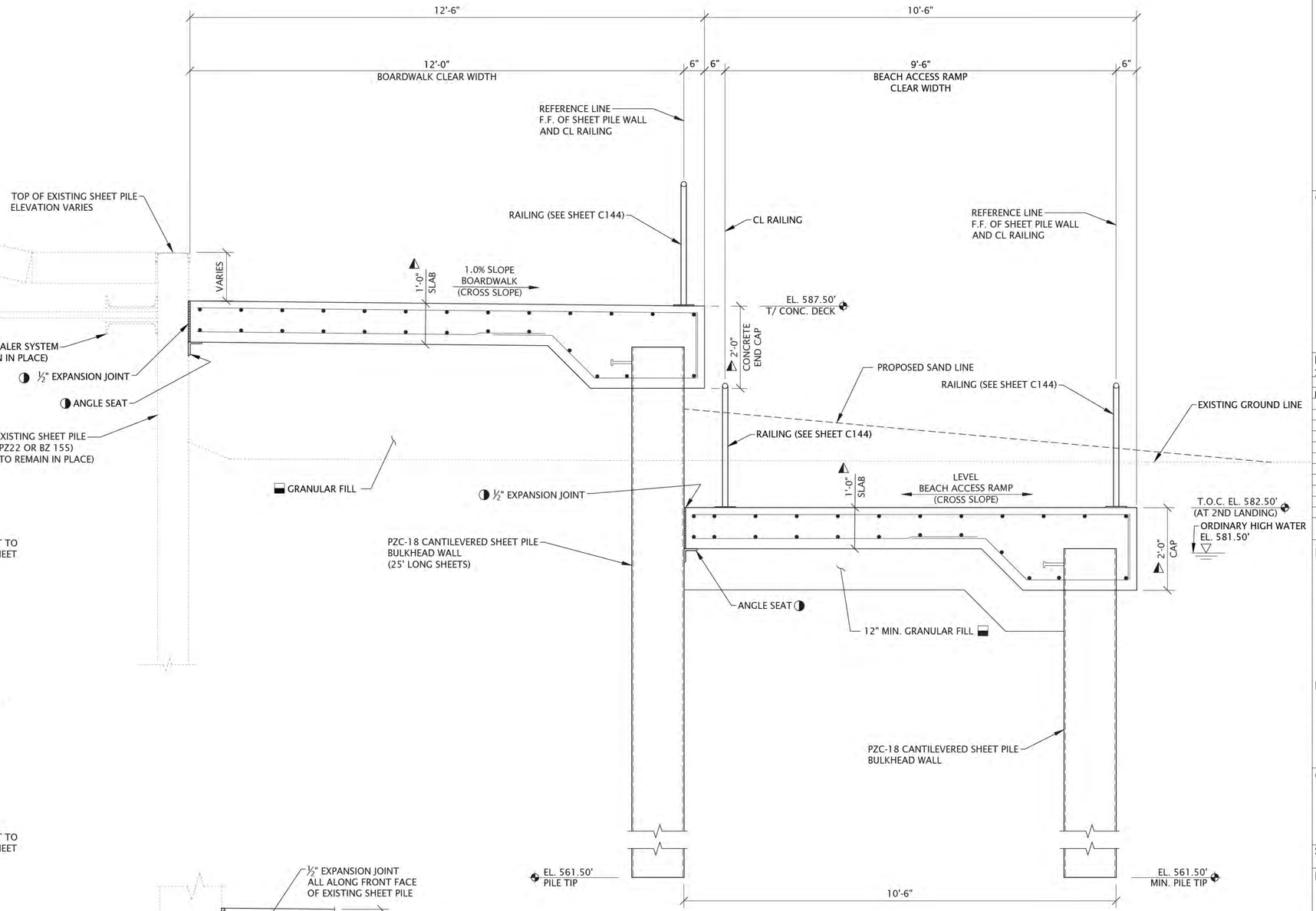
1. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
2. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN ENGINEER APPROVED EQUAL.



ANGLE SEAT PLAN VIEW DETAIL



ANGLE SEAT ELEVATION VIEW DETAIL



SHORELINE IMPROVEMENT TYPICAL SECTION C-C'

"The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto."

811 Know what's below. Call before you dig.

RED BARN
Design & Engineering, S.C.

6750 Woodland Drive
Waunakee Wisconsin 53597
p. 608.849.2042
c. 608.843.1870
redbarnde@tds.net

Consultants

WESTBROOK
Associated Engineers, Inc.

619 E. Hoxie St.
Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev. Date
70% Submittal	04/08/24
100% Submittal	06/28/24
Bidding and Construction	07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" 3/8" 3/4"
(In Feet)
¾" Inch = 1 Ft.

Scale: ¾" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION C-C'

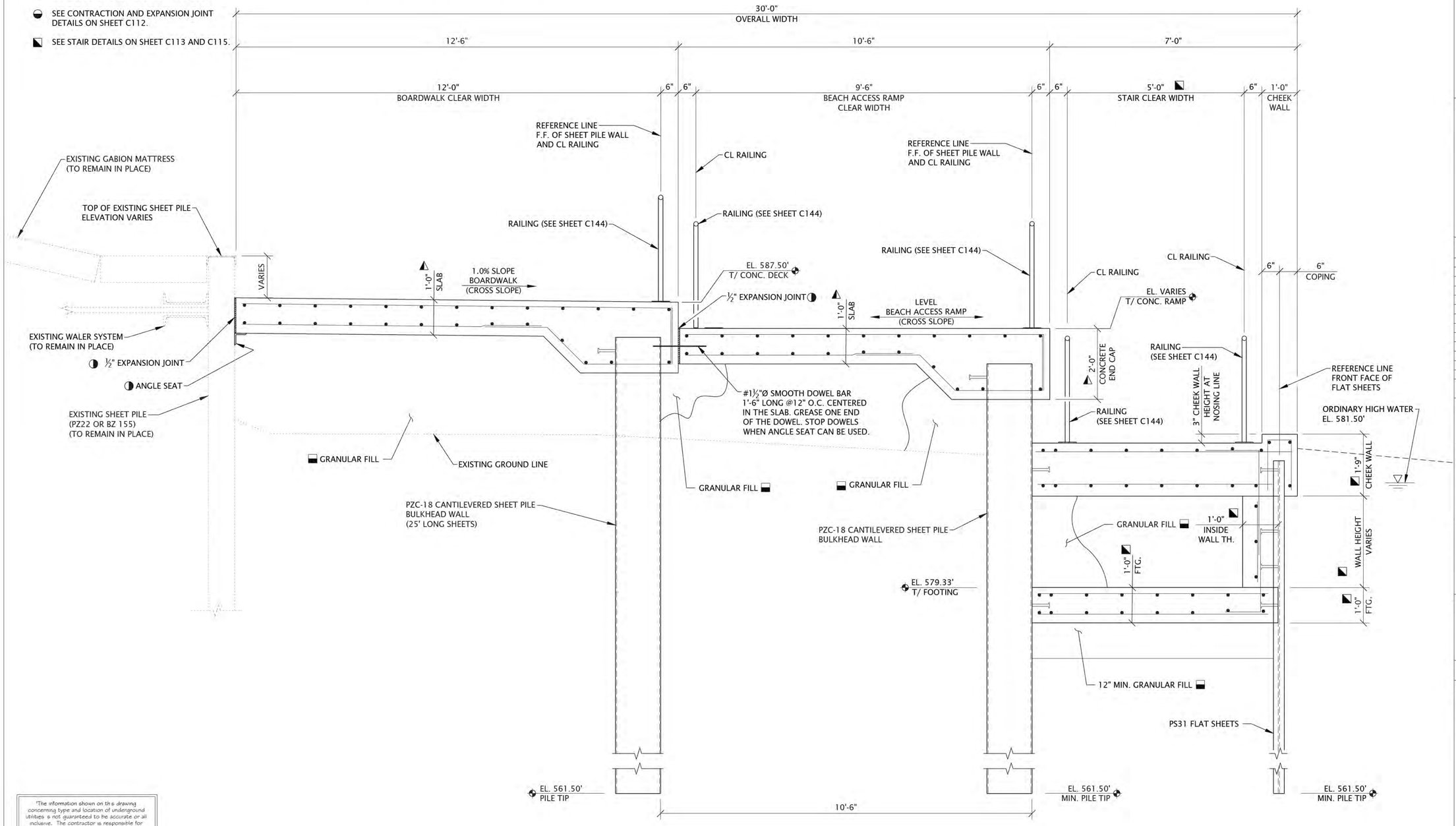
Sheet No.
C110

LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

NOTES:

1. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
2. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN ENGINEER APPROVED EQUAL.



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SHORELINE IMPROVEMENT TYPICAL SECTION D-D'

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Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" ⅜" ¾"
(In Feet)
¾" Inch = 1 Ft.

Scale: ¾" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION D-D'

Sheet No.
C111

LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

NOTES:

1. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
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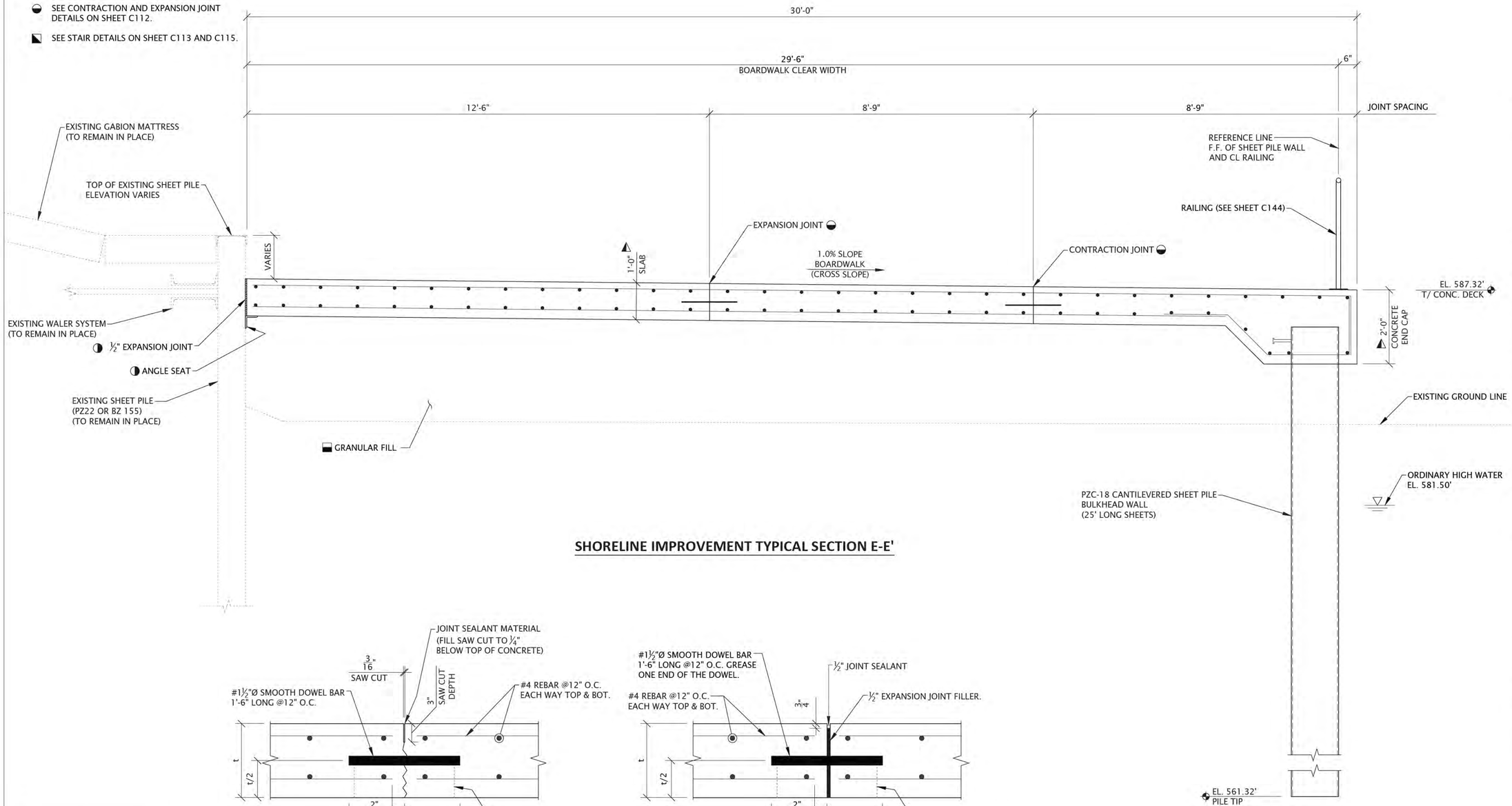
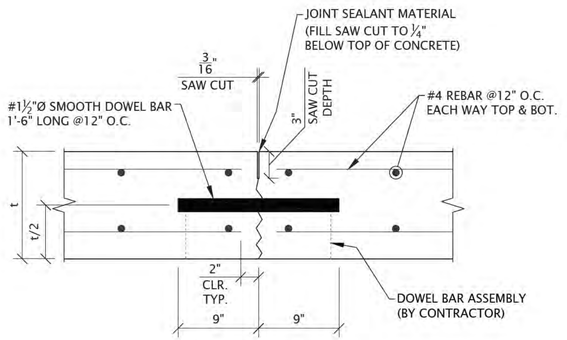
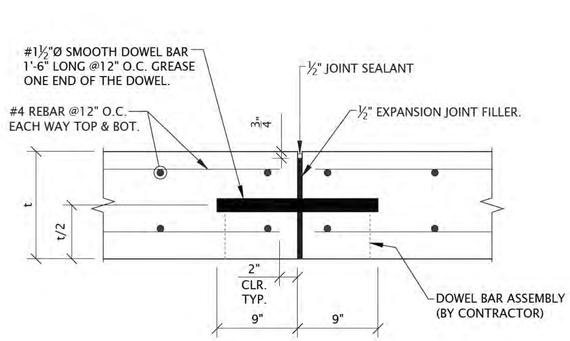


SHORELINE IMPROVEMENT TYPICAL SECTION E-E'



TYPICAL CONTRACTION JOINT DETAIL



TYPICAL EXPANSION JOINT DETAIL

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WESTBROOK
Associated Engineers, Inc.

619 E. Hoxie St.
Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

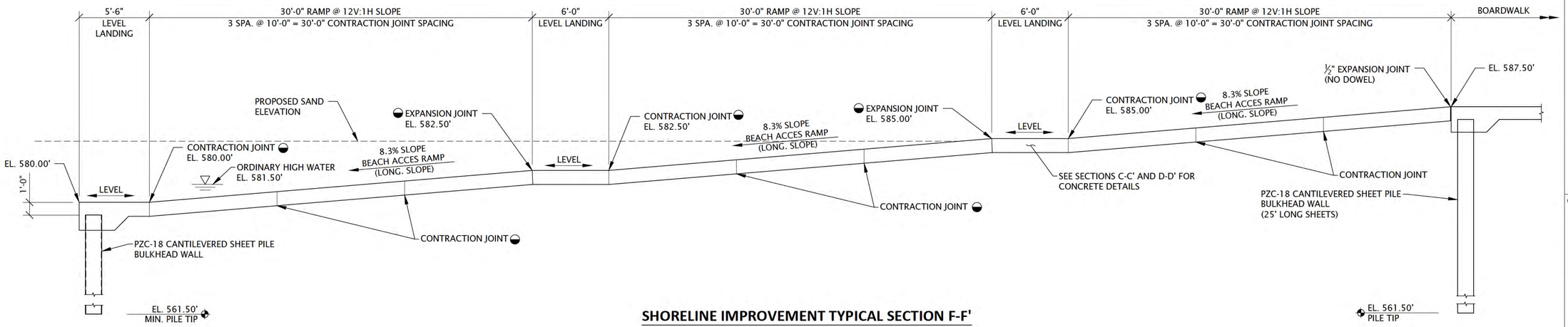
0" 3/8" 3/4"
(In Feet)
3/4" Inch = 1 Ft.

Scale: 3/4" Inch = 1 Ft.

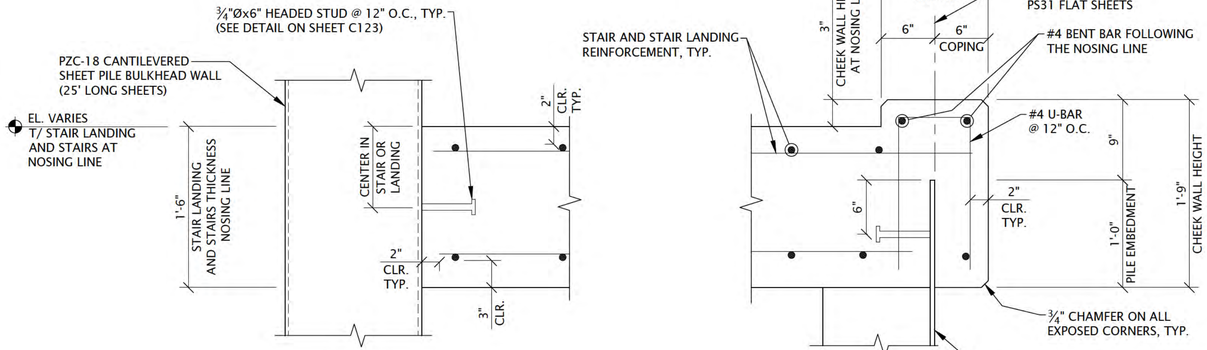
Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION E-E'

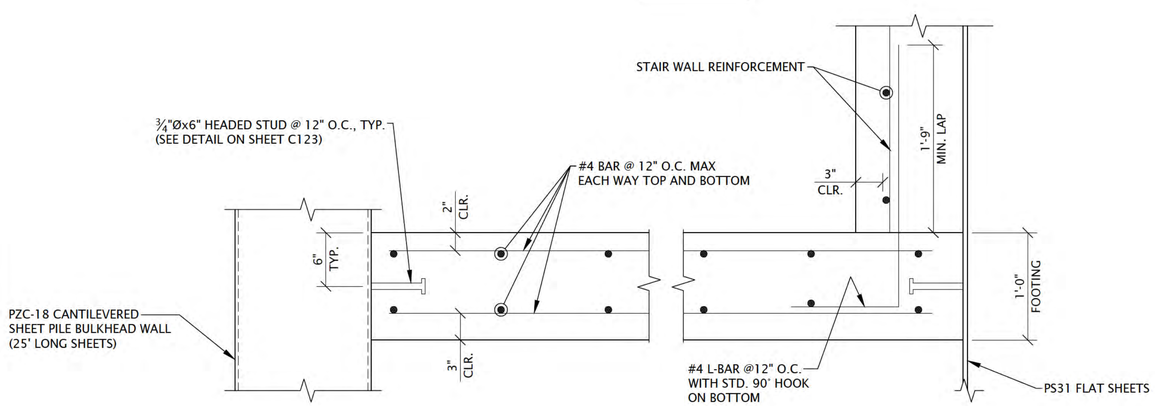
Sheet No.
C112



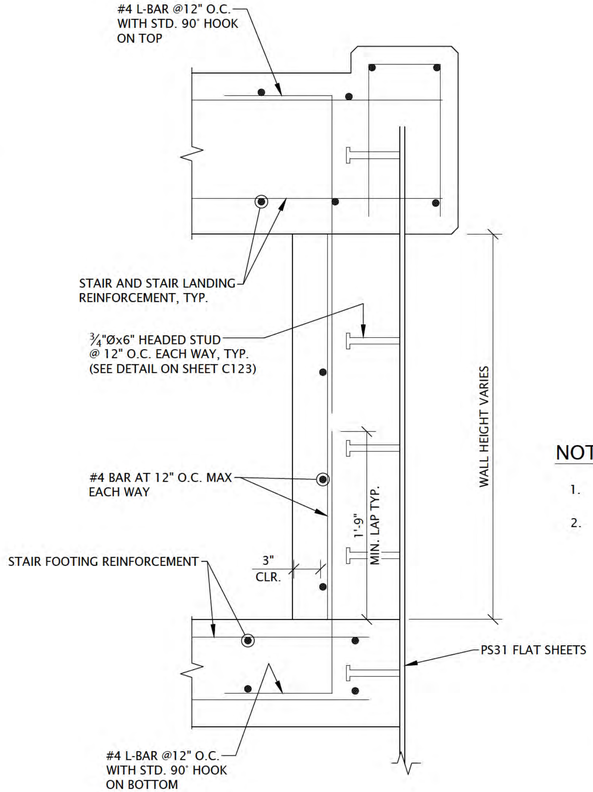
SHORELINE IMPROVEMENT TYPICAL SECTION F-F'



TYPICAL STAIR CHEEKWALL OVER SHEET PILE DETAIL



TYPICAL STAIR FOOTING DETAIL



TYPICAL STAIR WALL DETAIL

NOTES:

1. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
2. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN ENGINEER APPROVED EQUAL.

LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

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WESTBROOK
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Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" ⅛" ¼" (In Feet)
¼" Inch = 1 Ft.

Scale: ¾" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION F-F'

Sheet No.
C113

LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

NOTES:

1. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
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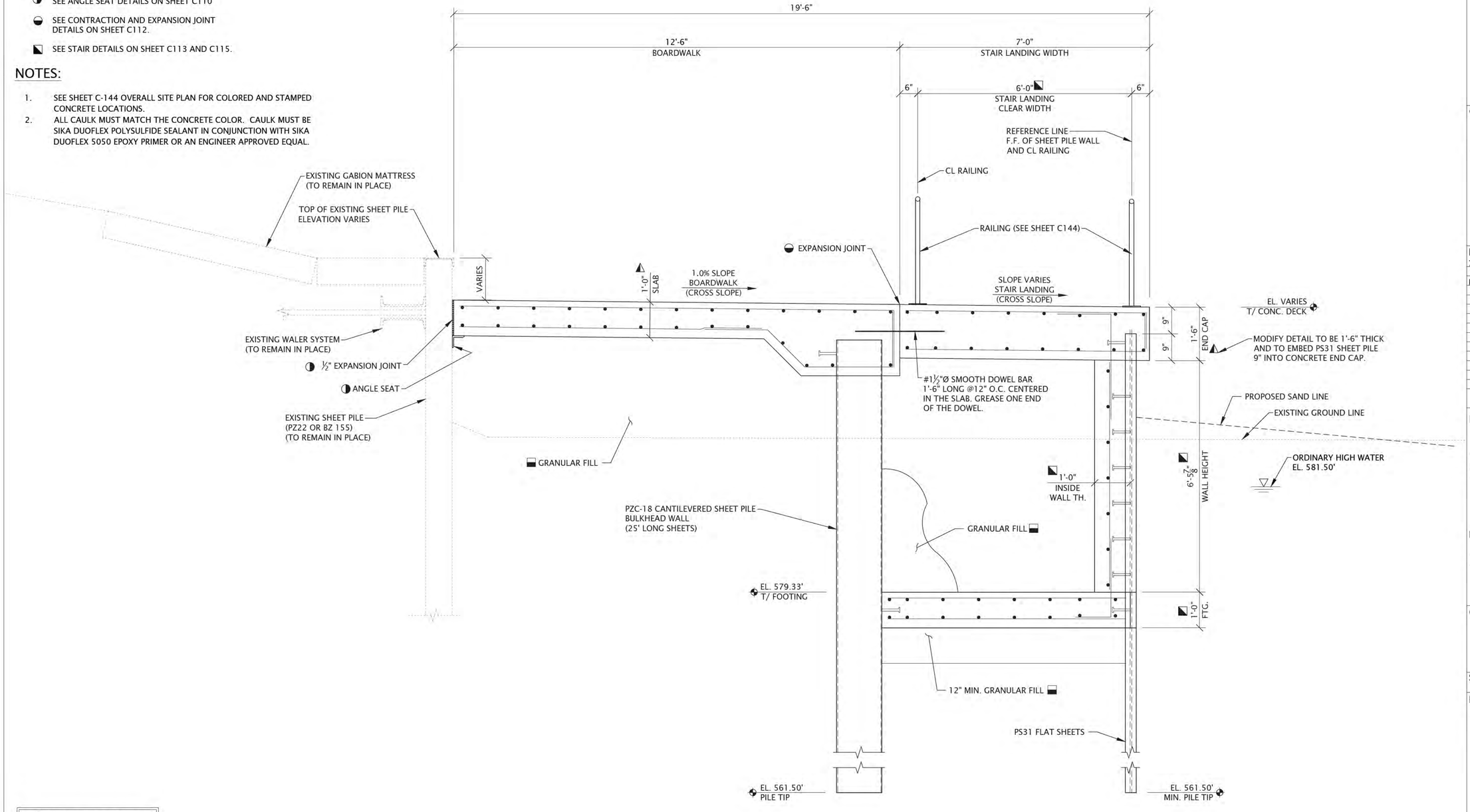

SHORELINE IMPROVEMENT TYPICAL SECTION G-G'

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Consultants

WESTBROOK
Associated Engineers, Inc.

619 E. Hoxie St.
Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev. Date
70% Submittal	04/08/24
100% Submittal	06/28/24
Bidding and Construction	07/19/24

Project Title:

Site Improvements
Elder Lorraine Park &
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" ⅜" ¾"
(In Feet)
¾" Inch = 1 Ft.

Scale: ¾" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION G-G'

Sheet No.
C114

LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

NOTES:

1. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
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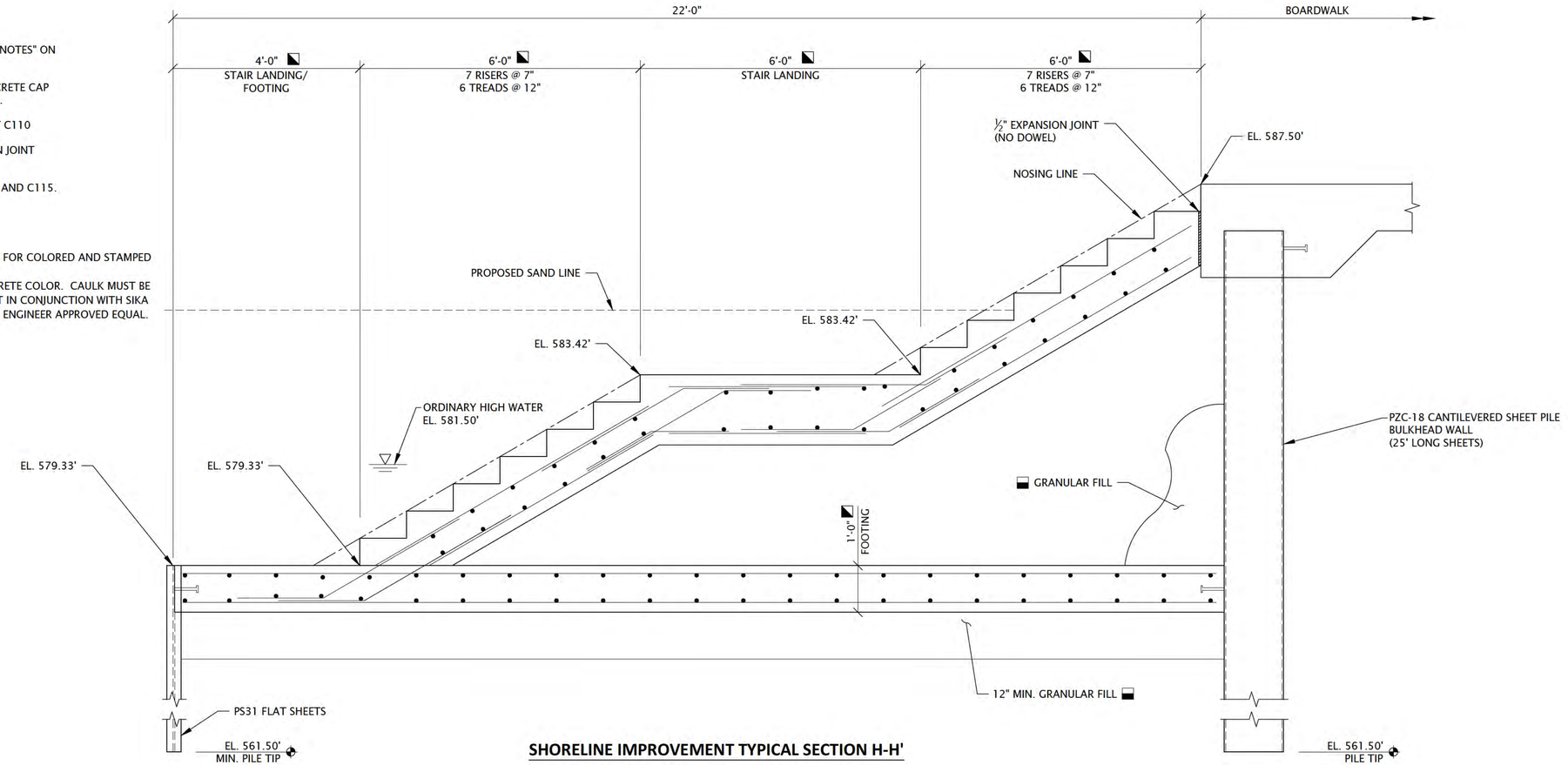
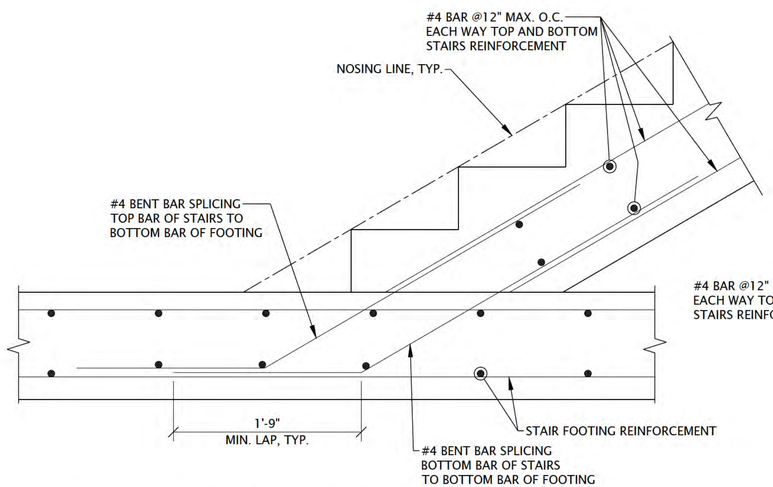
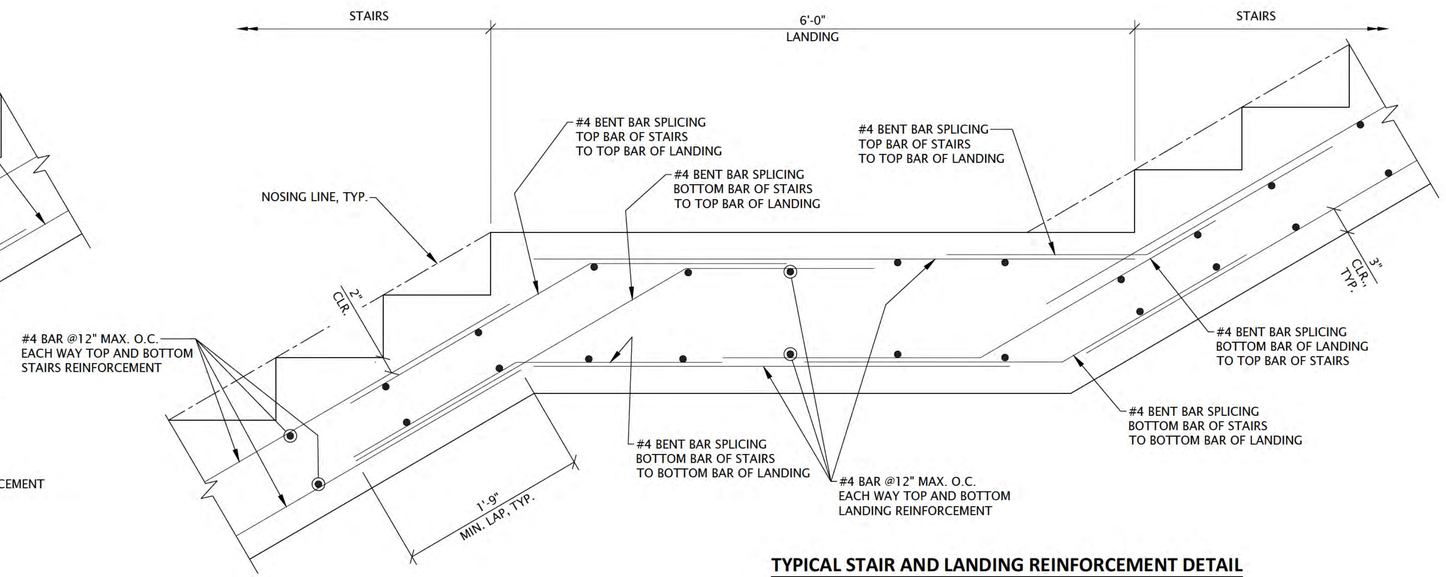


SHORELINE IMPROVEMENT TYPICAL SECTION H-H'



TYPICAL STAIR TO FOOTING REINFORCEMENT DETAIL



TYPICAL STAIR AND LANDING REINFORCEMENT DETAIL

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redbarnde@tds.net

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WESTBROOK
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Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" 3/8" 3/4"
(In Feet)
3/4" Inch = 1 Ft.

Scale: 3/4" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION H-H'

Sheet No.

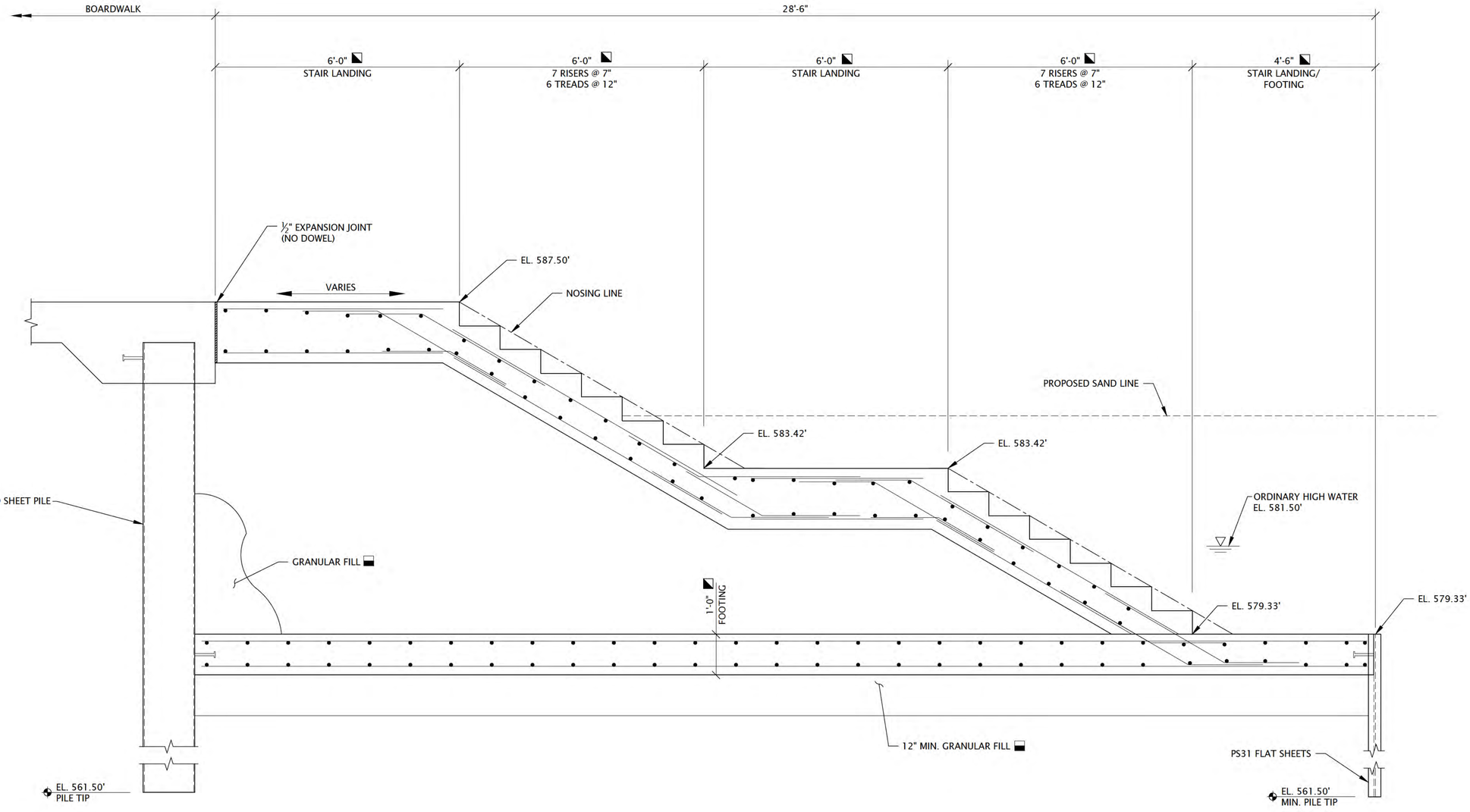
C115

LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

NOTES:

1. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
2. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN ENGINEER APPROVED EQUAL.



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SHORELINE IMPROVEMENT TYPICAL SECTION I-I'

RED BARN
Design & Engineering, S.C.

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Waunakee Wisconsin 53597
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c. 608.843.1870
redbarnde@tds.net

Consultants

WESTBROOK
Associated Engineers, Inc.

619 E. Hoxie St.
Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

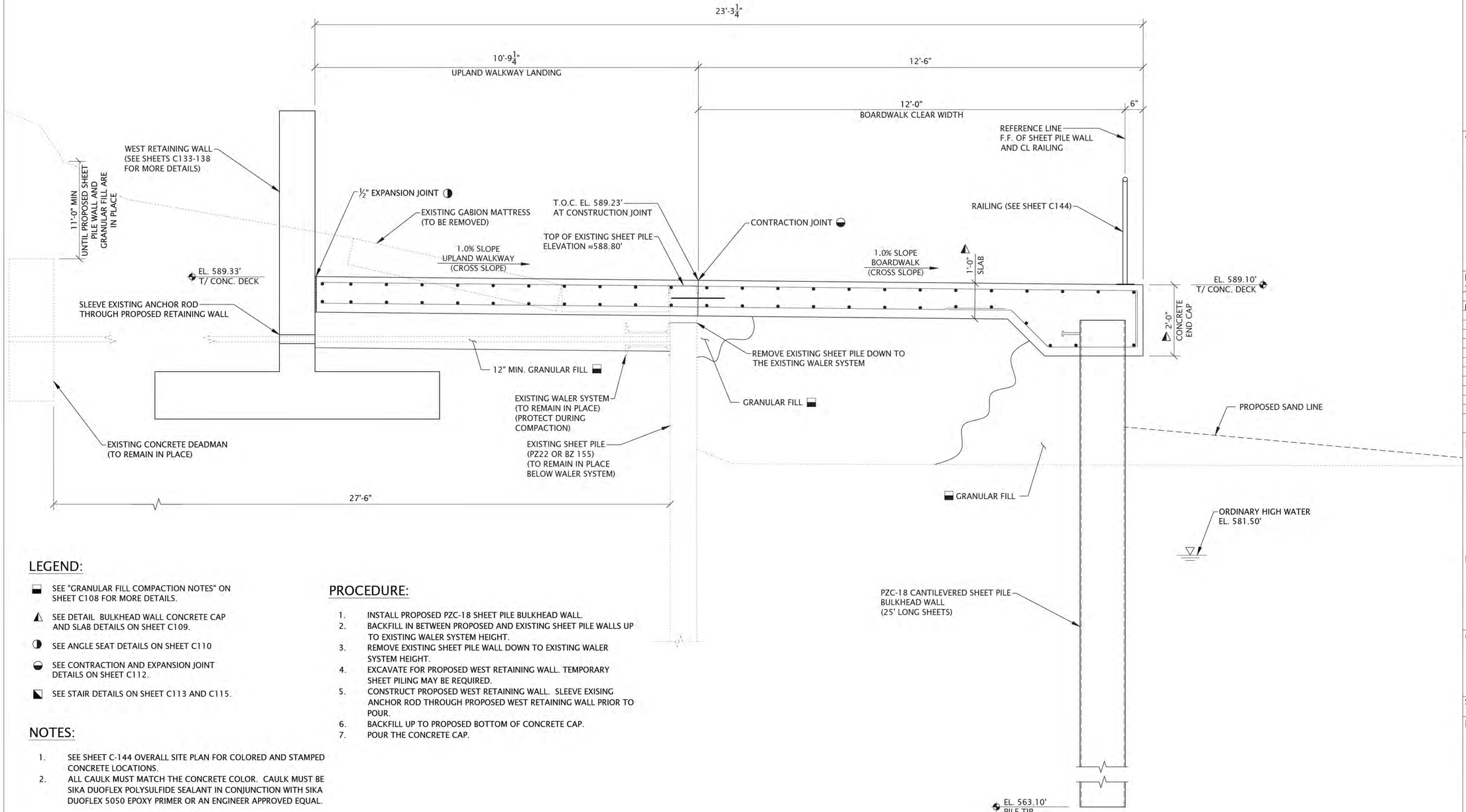
0" 3/8" 3/4"
(In Feet)
3/4" Inch = 1 Ft.

Scale: 3/4" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION I-I'

Sheet No.
C116



LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

NOTES:

1. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
2. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN ENGINEER APPROVED EQUAL.

PROCEDURE:

1. INSTALL PROPOSED PZC-18 SHEET PILE BULKHEAD WALL.
2. BACKFILL IN BETWEEN PROPOSED AND EXISTING SHEET PILE WALLS UP TO EXISTING WALER SYSTEM HEIGHT.
3. REMOVE EXISTING SHEET PILE WALL DOWN TO EXISTING WALER SYSTEM HEIGHT.
4. EXCAVATE FOR PROPOSED WEST RETAINING WALL. TEMPORARY SHEET PILING MAY BE REQUIRED.
5. CONSTRUCT PROPOSED WEST RETAINING WALL. SLEEVE EXISING ANCHOR ROD THROUGH PROPOSED WEST RETAINING WALL PRIOR TO POUR.
6. BACKFILL UP TO PROPOSED BOTTOM OF CONCRETE CAP.
7. POUR THE CONCRETE CAP.

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SHORELINE IMPROVEMENT TYPICAL SECTION J-J'

RED BARN
Design & Engineering, S.C.
6750 Woodland Drive
Waunakee Wisconsin 53597
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redbarnde@tds.net

Consultants

WESTBROOK
Associated Engineers, Inc.
619 E. Hoxie St.
Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev. Date
70% Submittal	04/08/24
100% Submittal	06/28/24
Bidding and Construction	07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" 3/8" 3/4"
(In Feet)
3/4" Inch = 1 Ft.

Scale: 3/4" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION J-J'

Sheet No.

C117

LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

NOTES:

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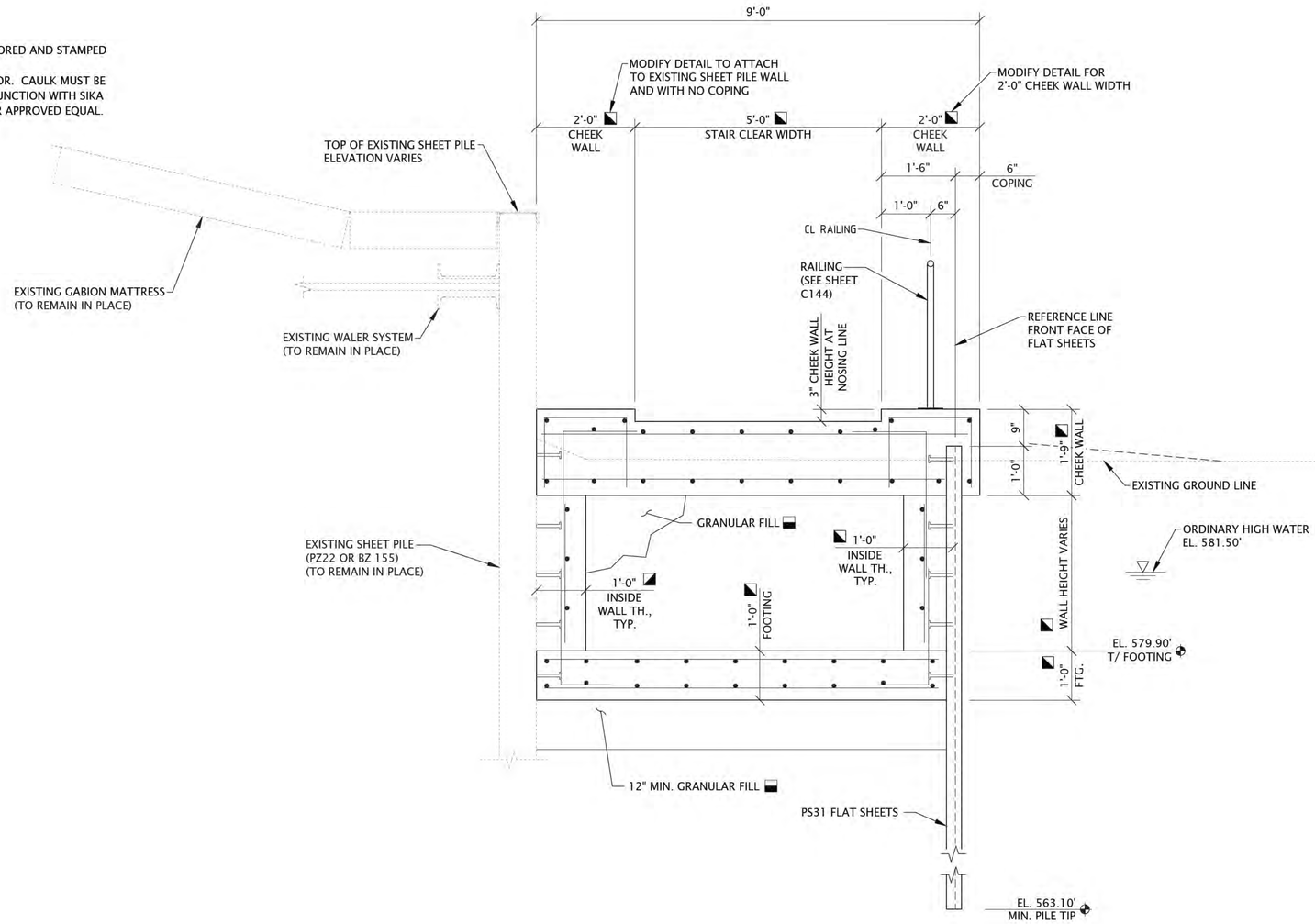

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811 Know what's below. Call before you dig.

SHORELINE IMPROVEMENT TYPICAL SECTION K-K'

RED BARN
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6750 Woodland Drive
Waunakee Wisconsin 53597
p. 608.849.2042
c. 608.843.1870
redbarnde@tds.net

Consultants

WESTBROOK
Associated Engineers, Inc.

619 E. Hoxie St.
Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" 3/8" 3/4"
(In Feet)
3/4" Inch = 1 Ft.

Scale: 3/4" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION K-K'

Sheet No.
C118

LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
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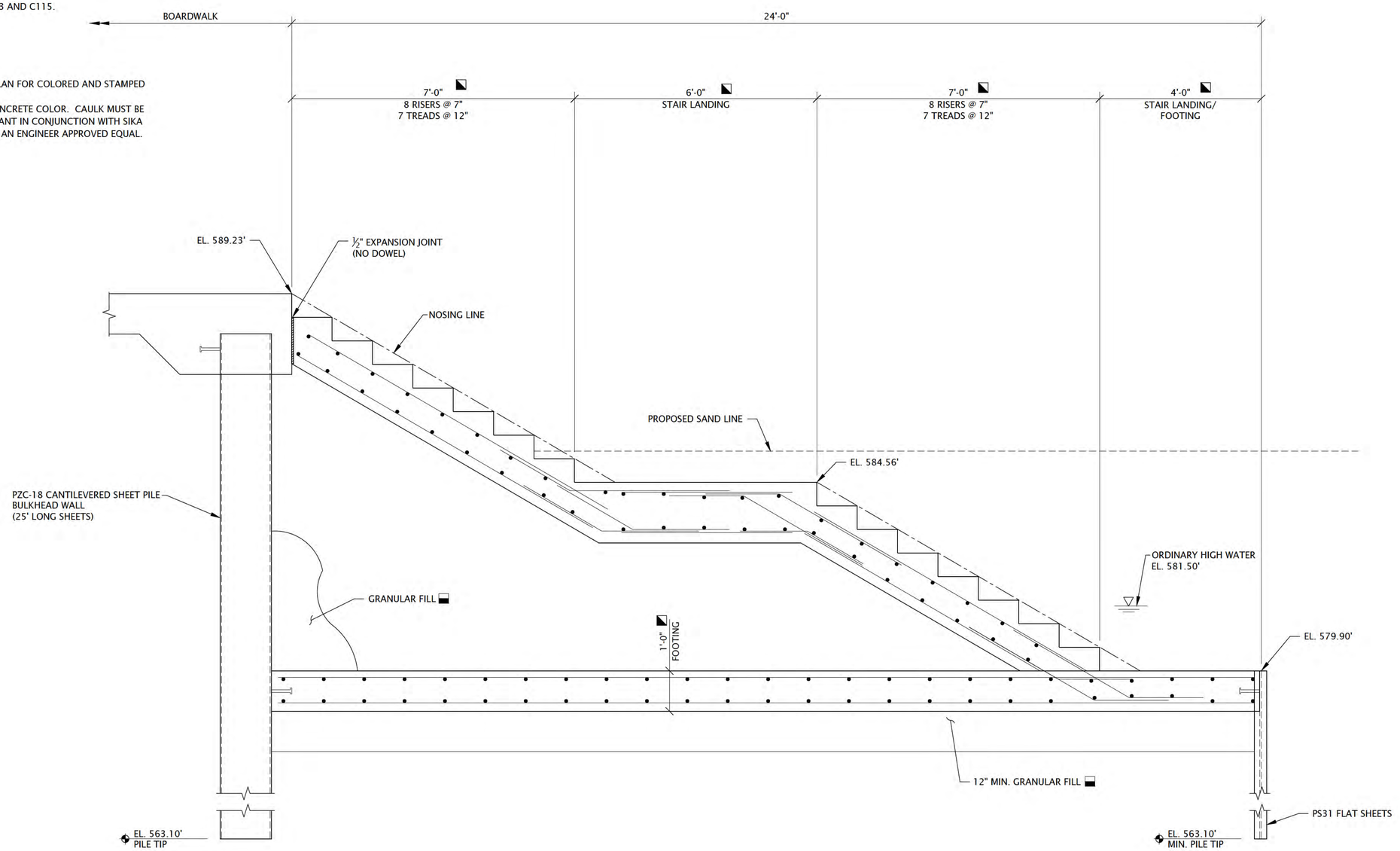
- SEE ANGLE SEAT DETAILS ON SHEET C110
- SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C112.
- SEE STAIR DETAILS ON SHEET C113 AND C115.

NOTES:

1. SEE SHEET C-144 OVERALL SITE PLAN FOR COLORED AND STAMPED CONCRETE LOCATIONS.
2. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN ENGINEER APPROVED EQUAL.



"The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto."

811 Know what's below. Call before you dig.

SHORELINE IMPROVEMENT TYPICAL SECTION L-L'

RED BARN
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6750 Woodland Drive
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Consultants

WESTBROOK
Associated Engineers, Inc.

619 E. Hoxie St.
Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

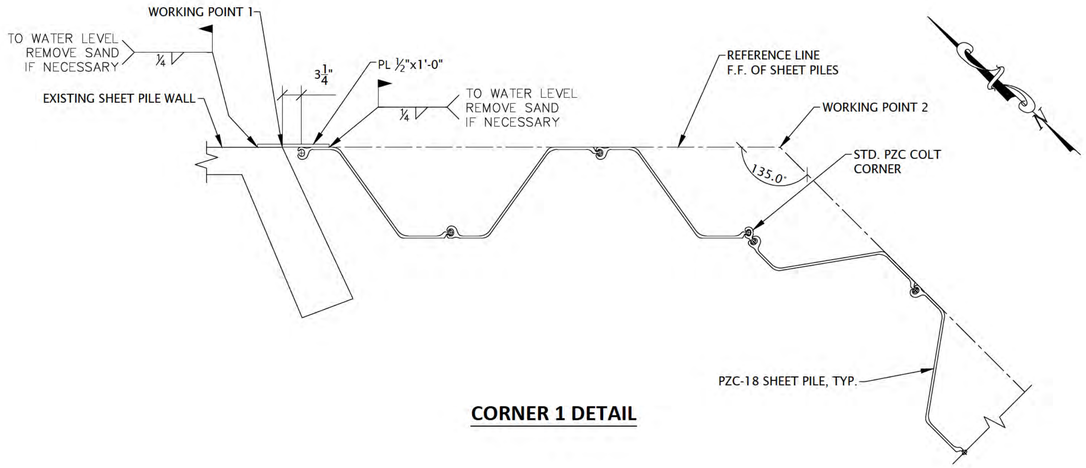
0" 3/8" 3/4"
(In Feet)
3/4" Inch = 1 Ft.

Scale: 3/4" Inch = 1 Ft.

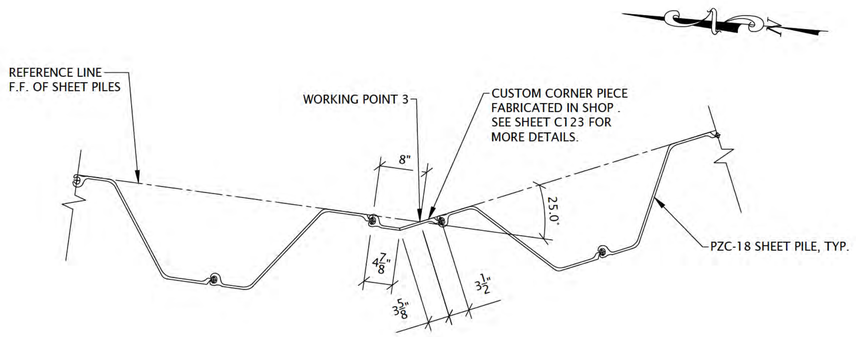
Drawing Title

SHORELINE IMPROVEMENTS
SECTIONS AND DETAILS
SECTION L-L'

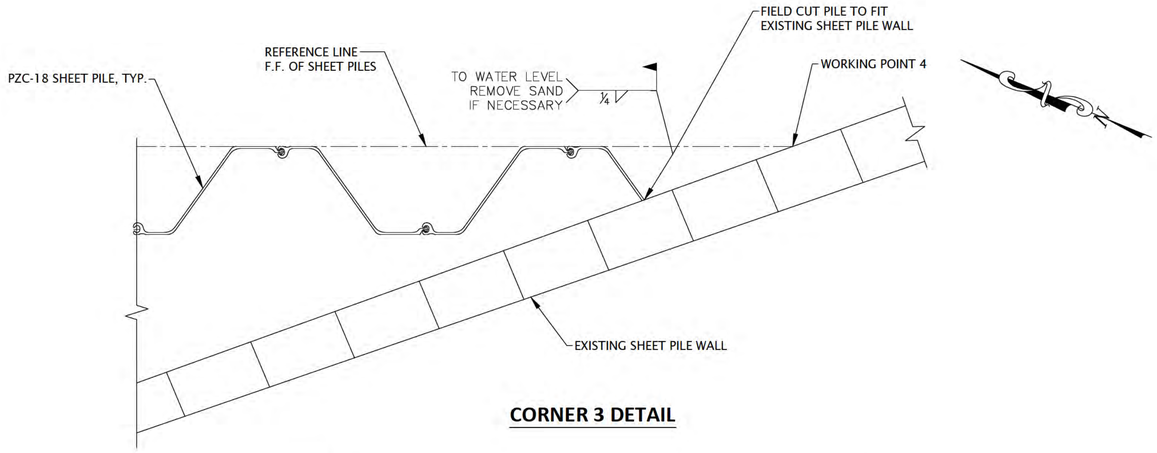
Sheet No.
C119



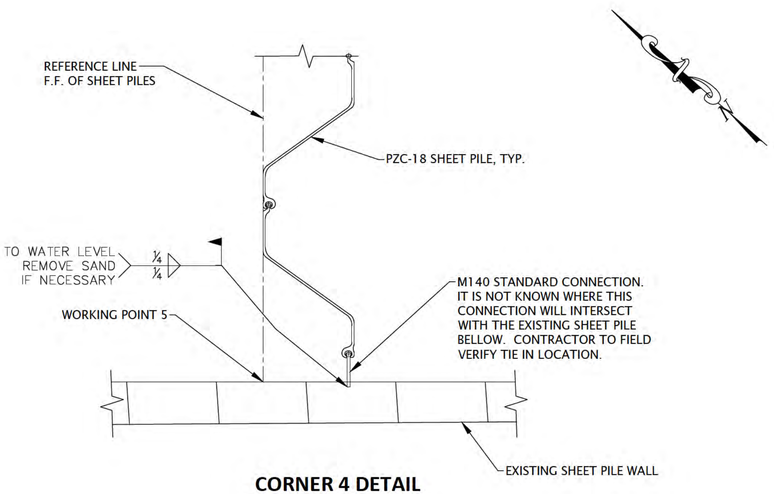
CORNER 1 DETAIL



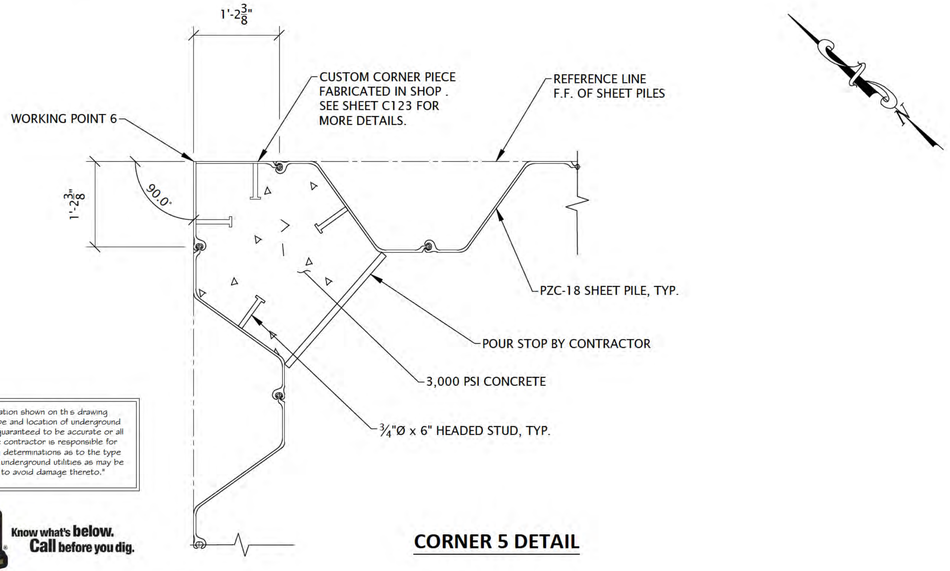
CORNER 2 DETAIL



CORNER 3 DETAIL



CORNER 4 DETAIL



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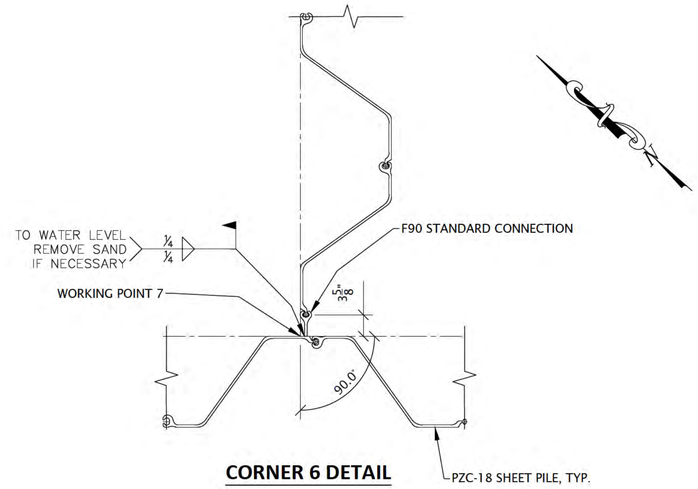
811 Know what's below. Call before you dig.

CORNER 5 DETAIL



CORNER 6 DETAIL

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Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" ½" 1"
(In Feet)
1" Inch = 1 Ft.

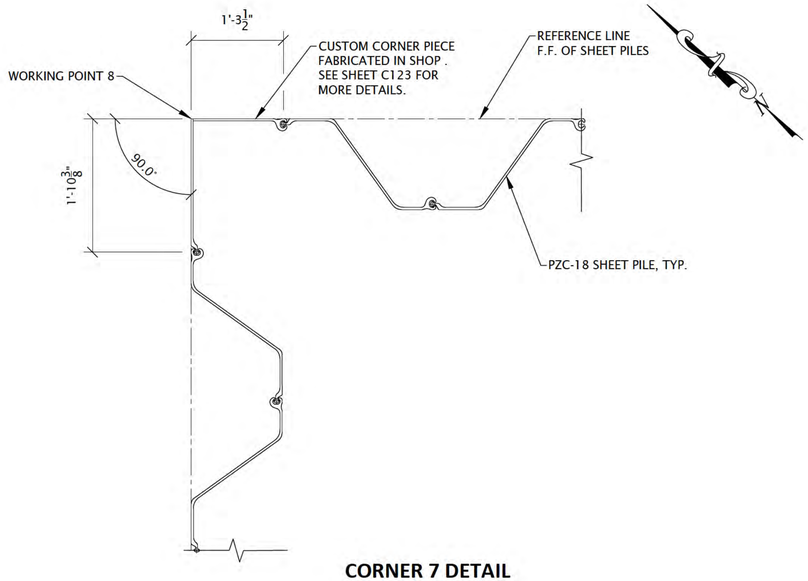
Scale: 1" Inch = 1 Ft.

Drawing Title

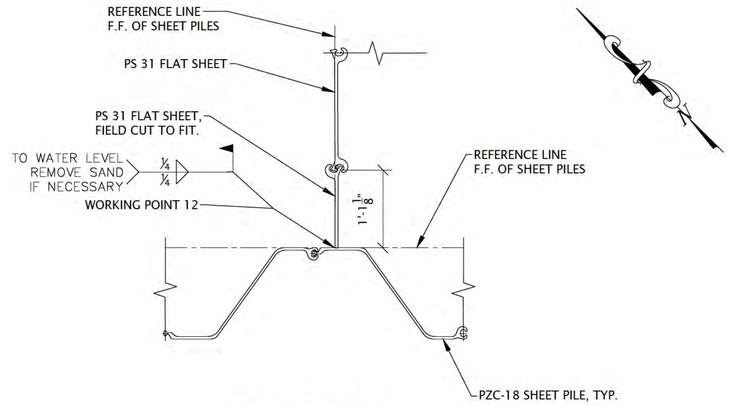
SHORELINE IMPROVEMENTS
CORNER DETAILS 1

Sheet No.

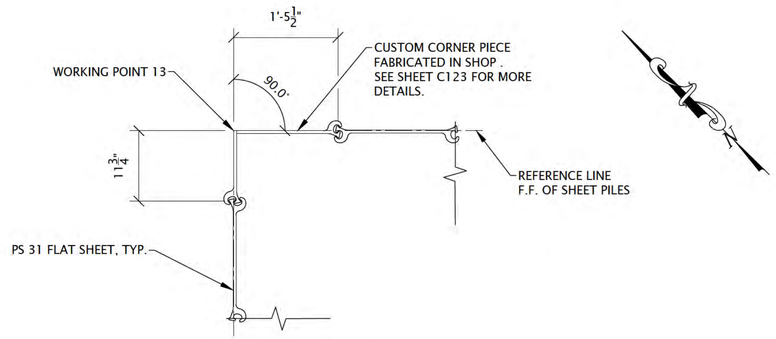
C120



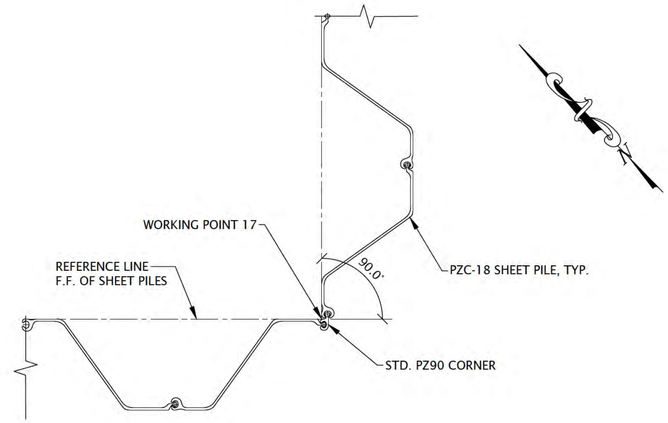
CORNER 7 DETAIL



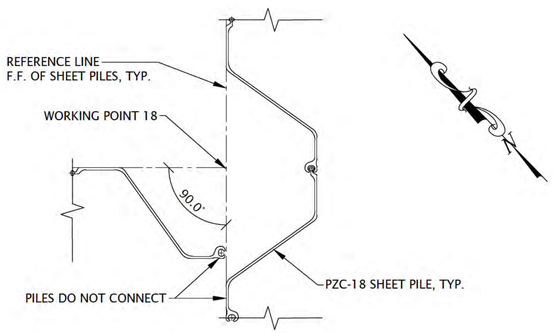
CORNER 8 DETAIL



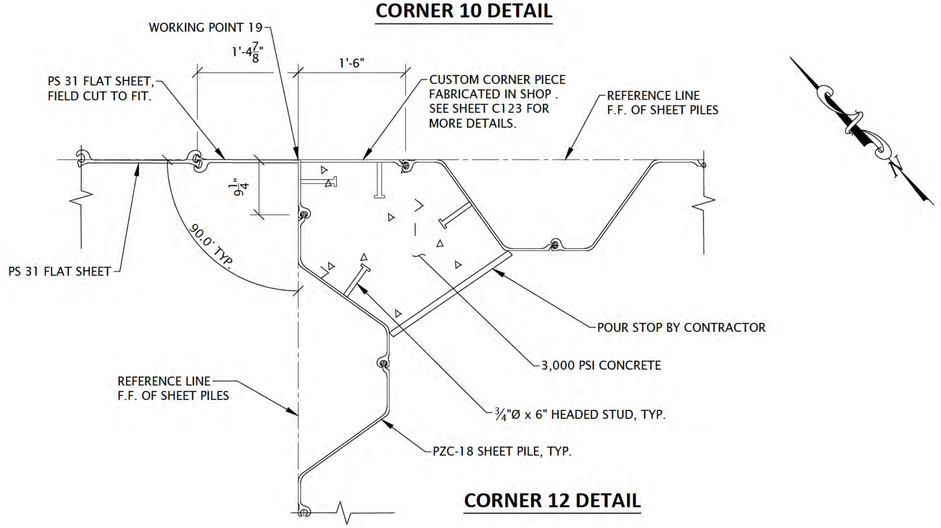
CORNER 9 DETAIL



CORNER 10 DETAIL



CORNER 11 DETAIL



CORNER 12 DETAIL

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Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" ½" 1"
(In Feet)
1" Inch = 1 Ft.

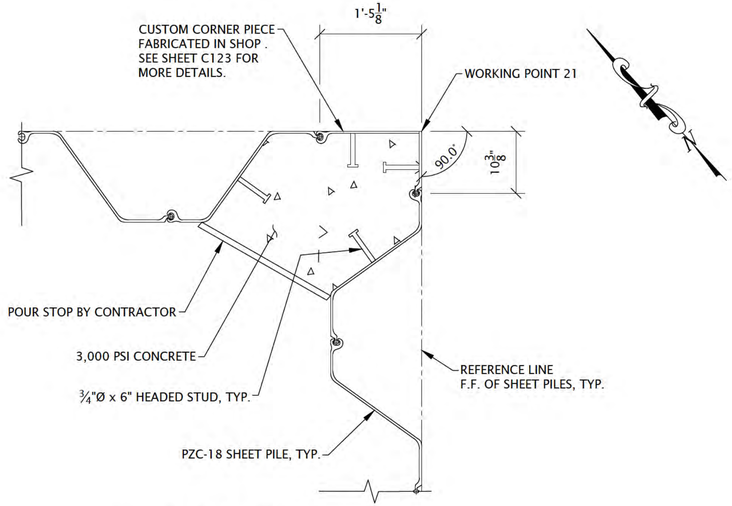
Scale: 1" Inch = 1 Ft.

Drawing Title

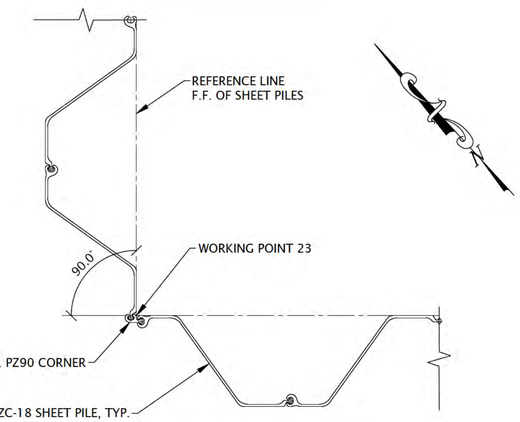
SHORELINE IMPROVEMENTS
CORNER DETAILS 2

Sheet No.

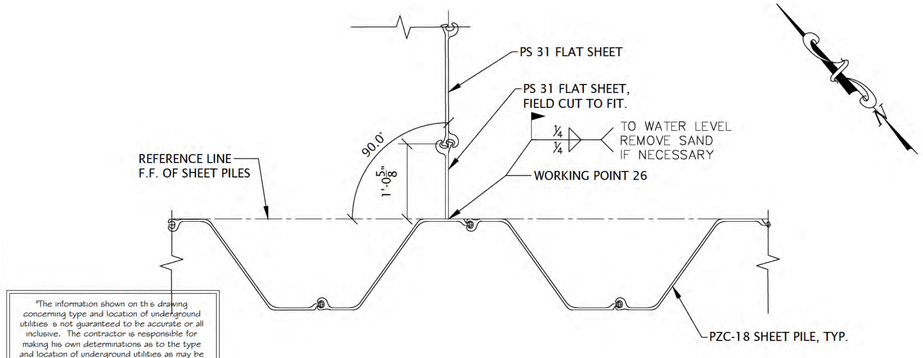
C121



CORNER 13 DETAIL



CORNER 15 DETAIL



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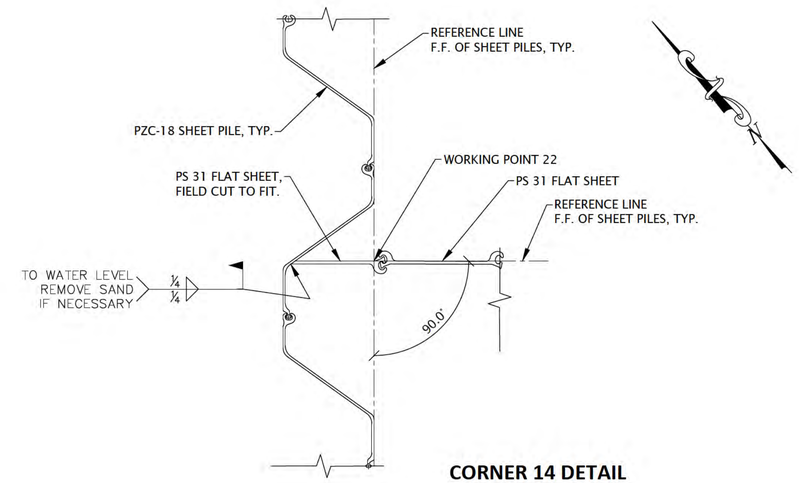
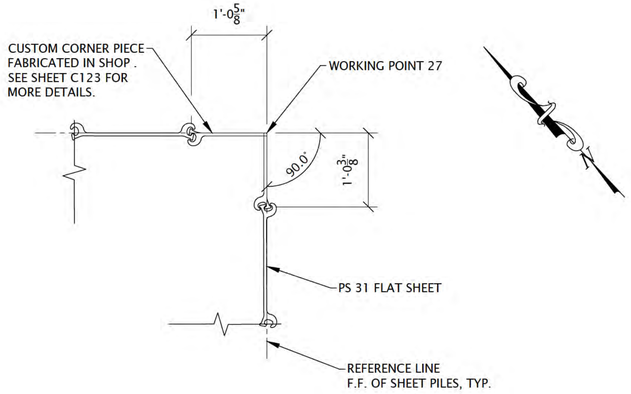
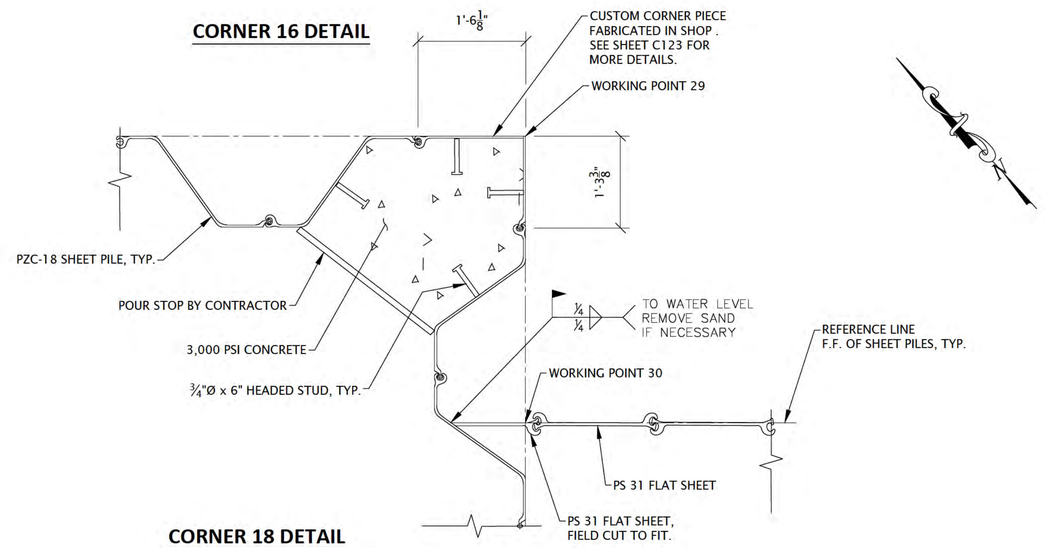
CORNER 17 DETAIL



CORNER 14 DETAIL



CORNER 16 DETAIL



CORNER 18 DETAIL

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WESTBROOK
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Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

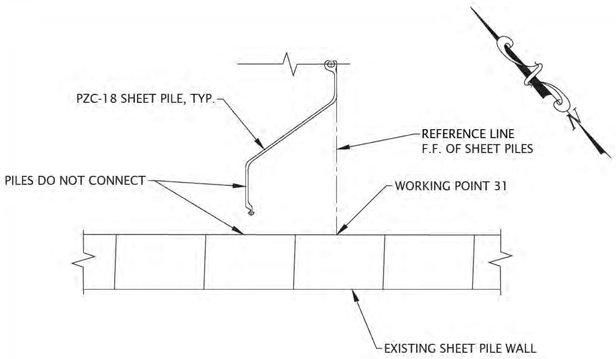
0" ½" 1"
(In Feet)
1" Inch = 1 Ft.

Scale: 1" Inch = 1 Ft.

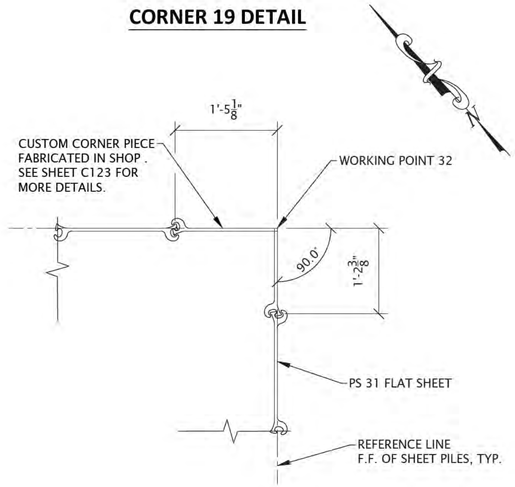
Drawing Title

SHORELINE IMPROVEMENTS
CORNER DETAILS 3

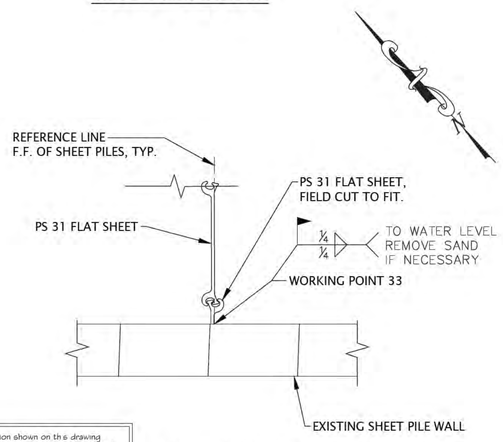
Sheet No.
C122



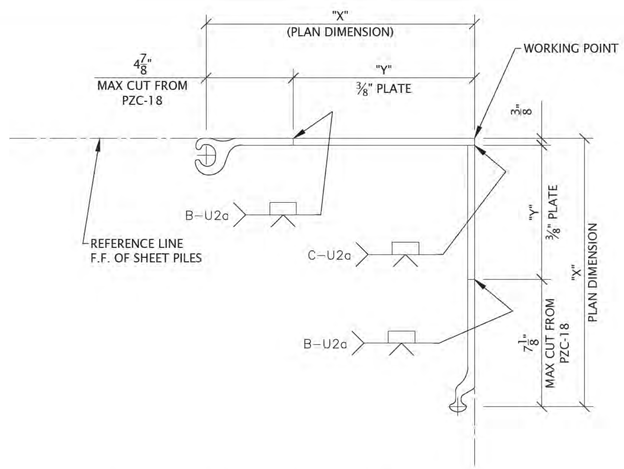
CORNER 19 DETAIL



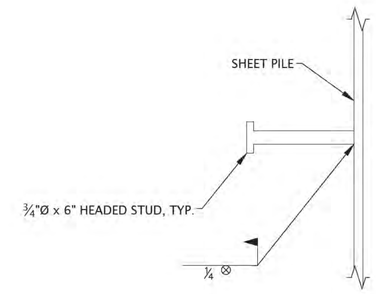
CORNER 20 DETAIL



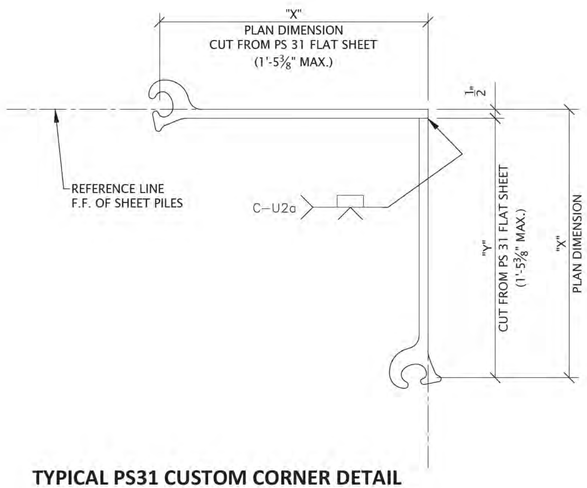
CORNER 21 DETAIL



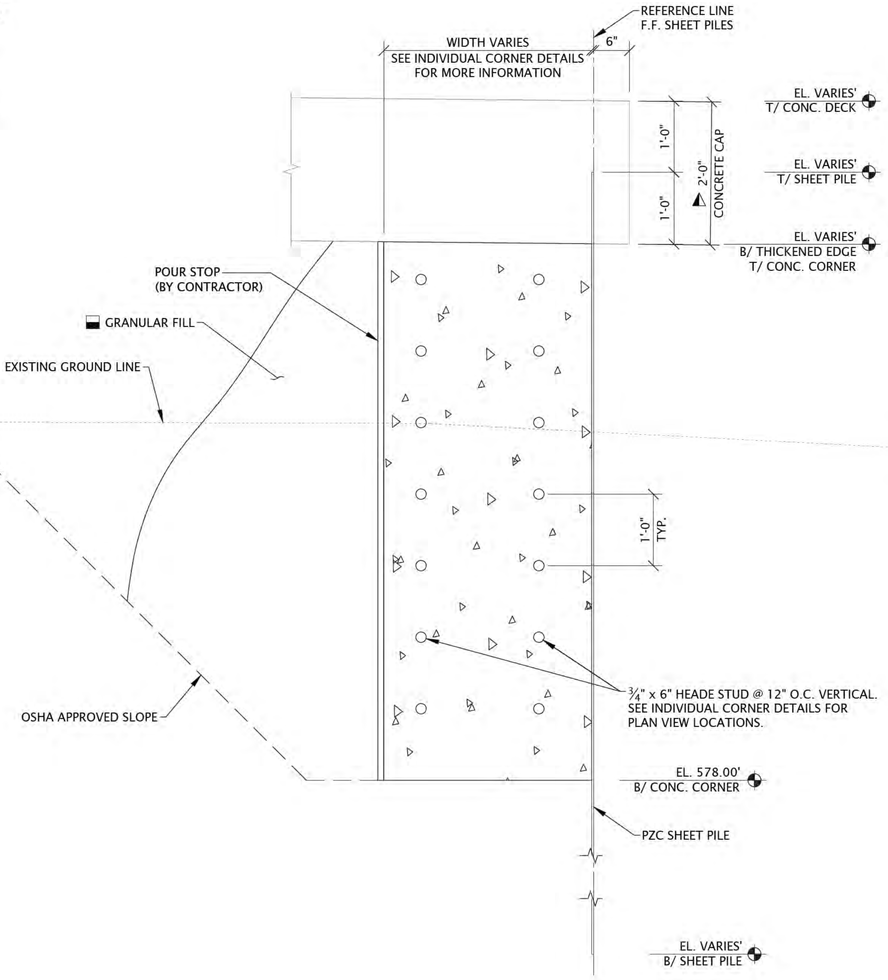
TYPICAL PZC-18 CUSTOM CORNER DETAIL



TYPICAL STUD DETAIL



TYPICAL PS31 CUSTOM CORNER DETAIL



TYPICAL SECTION THROUGH CONCRETE CORNER

LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.

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RED BARN
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c. 608.843.1870
redbarnde@tds.net

Consultants

WESTBROOK
Associated Engineers, Inc.

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Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev. Date
70% Submittal	04/08/24
100% Submittal	06/28/24
Bidding and Construction	07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" ½" 1"
(In Feet)
1" Inch = 1 Ft.

Scale: 1" Inch = 1 Ft.

Drawing Title

SHORELINE IMPROVEMENTS
CORNER DETAILS 4

Sheet No.

C123

LEGEND

ORDINARY HIGH WATER MARK (OHW)

50' SETBACK LINE FROM OHW

SEE SHEET C126

SEE SHEET C125

SEE SHORELINE IMPROVEMENTS SHEETS FOR MORE DETAILS

SEE EAST RETAINING WALL SHEETS FOR MORE DETAILS

SEE WEST RETAINING WALL SHEETS FOR MORE DETAILS

SEE UPLAND SITE IMPROVEMENTS SHEETS FOR MORE DETAILS

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CENTENNIAL PARK BREAKWATER OVERVIEW

RED BARN
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c. 608.843.1870
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Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' 10' 20'
(In Feet)
1 Inch = 20 Ft.

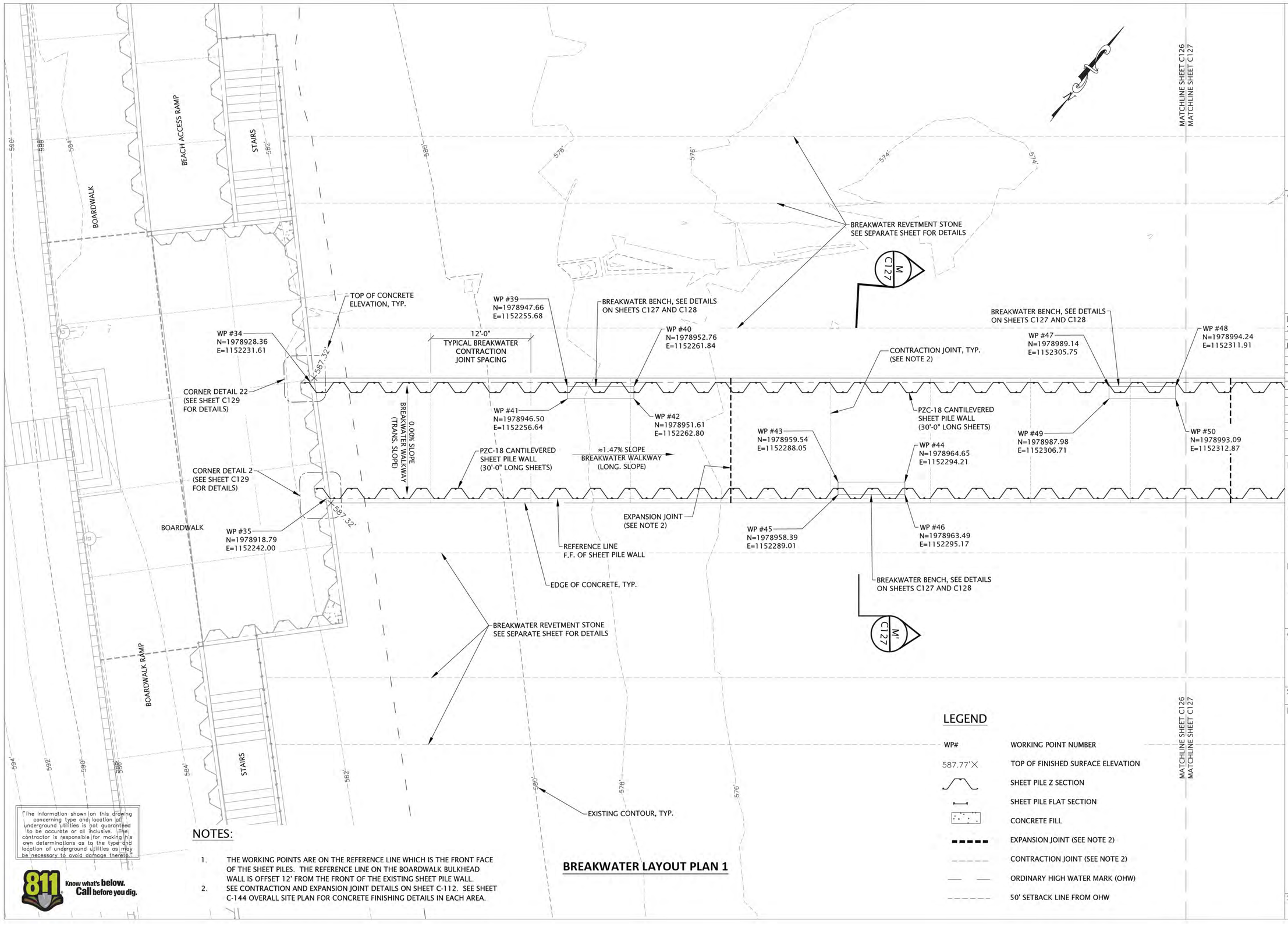
Scale 1 Inch = 20 Ft.

Drawing Title

BREAKWATER PLAN OVERVIEW

Sheet No.

C124



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811 Know what's below. Call before you dig.

NOTES:

1. THE WORKING POINTS ARE ON THE REFERENCE LINE WHICH IS THE FRONT FACE OF THE SHEET PILES. THE REFERENCE LINE ON THE BOARDWALK BULKHEAD WALL IS OFFSET 12' FROM THE FRONT OF THE EXISTING SHEET PILE WALL.
2. SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C-112. SEE SHEET C-144 OVERALL SITE PLAN FOR CONCRETE FINISHING DETAILS IN EACH AREA.

BREAKWATER LAYOUT PLAN 1

LEGEND

WP#	WORKING POINT NUMBER
587.77'X	TOP OF FINISHED SURFACE ELEVATION
	SHEET PILE Z SECTION
	SHEET PILE FLAT SECTION
	CONCRETE FILL
	EXPANSION JOINT (SEE NOTE 2)
	CONTRACTION JOINT (SEE NOTE 2)
	ORDINARY HIGH WATER MARK (OHW)
	50' SETBACK LINE FROM OHW

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Consultants

WESTBROOK
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619 E. Hoxie St.
Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Elder Lane Park &
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' 2.5' 5'
(In Feet)
1 Inch = 5 Ft.

Scale 1 Inch = 5 Ft.

Drawing Title
BREAKWATER
LAYOUT PLAN 1

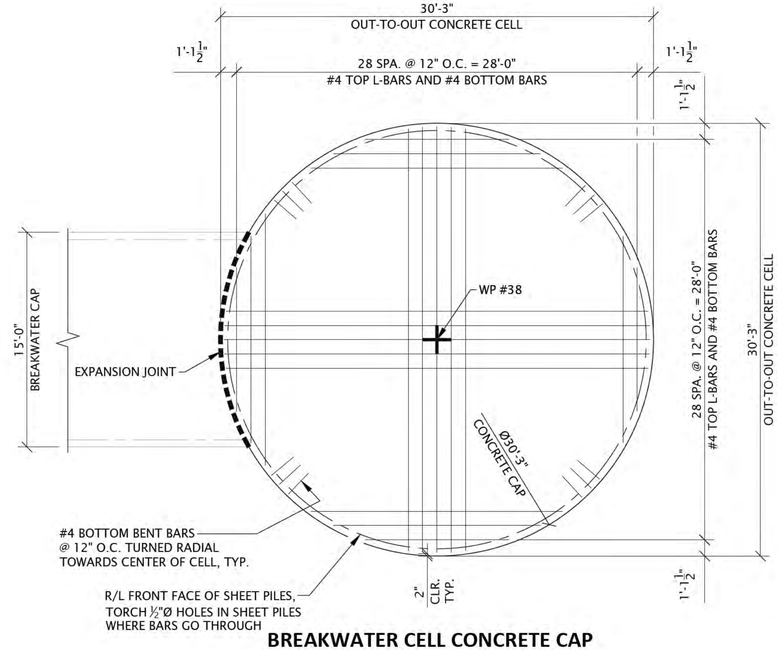
Sheet No.
C125

LEGEND (PROPOSED)

WP#	WORKING POINT NUMBER
587.77'×	TOP OF FINISHED SURFACE ELEVATION
	SHEET PILE Z SECTION
	SHEET PILE FLAT SECTION
	CONCRETE FILL
	EXPANSION JOINT (SEE NOTE 2)
	CONTRACTION JOINT (SEE NOTE 2)

NOTES:

1. THE WORKING POINTS ARE ON THE REFERENCE LINE WHICH IS THE FRONT FACE OF THE SHEET PILES. THE REFERENCE LINE ON THE BOARDWALK BULKHEAD WALL IS OFFSET 12' FROM THE FRONT OF THE EXISTING SHEET PILE WALL.
2. SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C-112. SEE SHEET C-144 OVERALL SITE PLAN FOR CONCRETE FINISHING DETAILS IN EACH AREA.



BREAKWATER CELL CONCRETE CAP REINFORCEMENT PLAN VIEW

MATCHLINE SHEET C126
MATCHLINE SHEET C127

574'

N C128

M C127

CORNER DETAIL 24 (SEE SHEET C129 FOR DETAILS)

TOP OF CONCRETE ELEVATION, TYP.

GRANITE BANDS, SEE HARDSCAPE DETAILS ON SHEET C153

COMPASS ROSE, SEE HARDSCAPE DETAILS ON SHEET C153

29'-3"Ø TO STEEL DRIVE LINE (30'-3"Ø TO OUTSIDE CONCRETE CAP) NOMINAL CELLULAR STRUCTURE CONSTRUCTED WITH (56) PS31 STEEL SHEET PILES 30'-0" LONG

EXPANSION JOINT (SEE NOTE 2)

CONTRACTION JOINT, TYP. (SEE NOTE 2)

585.00'

WP #36
N=1979033.77
E=1152358.85

0.00% SLOPE BREAKWATER CELL (TRANS. SLOPE)

WP #38
N=1979036.58
E=1152373.20

≈1.47% SLOPE BREAKWATER CELL (LONG. SLOPE)

584.58'

Ø29'-3"

EXPANSION JOINT (SEE NOTE 2)

WP #37
N=1979022.99
E=1152367.78

0.00% SLOPE BREAKWATER CELL (TRANS. SLOPE)

585.00'

CORNER DETAIL 25 (SEE SHEET C129 FOR DETAILS)

PZC-18 CANTILEVERED SHEET PILE WALL (30'-0" LONG SHEETS)

12'-0" TYPICAL BREAKWATER CONTRACTION JOINT SPACING

6'-6" JOINT SPACING

0.00% SLOPE BREAKWATER WALKWAY (TRANS. SLOPE)

≈1.47% SLOPE BREAKWATER WALKWAY (LONG. SLOPE)

PZC-18 CANTILEVERED SHEET PILE WALL (30'-0" LONG SHEETS)

WP #51
N=1979001.03
E=1152338.12

WP #52
N=1979006.13
E=1152344.28

REFERENCE LINE F.F. OF SHEET PILE WALL

WP #53
N=1978999.87
E=1152339.08

WP #54
N=1979004.97
E=1152345.24

EDGE OF CONCRETE, TYP.

BREAKWATER BENCH, SEE DETAILS ON SHEETS C127 AND C128

BREAKWATER CELL BENCH, SEE DETAILS ON SHEETS C127 AND C128

BREAKWATER REVETMENT STONE SEE SEPARATE SHEET FOR DETAILS

M' C127

N' C128

BREAKWATER LAYOUT PLAN 2

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p. 608.849.2042
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Consultants

WESTBROOK
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619 E. Hoxie St.
Spring Green Wisconsin 53588
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Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Elder Lane Park &
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

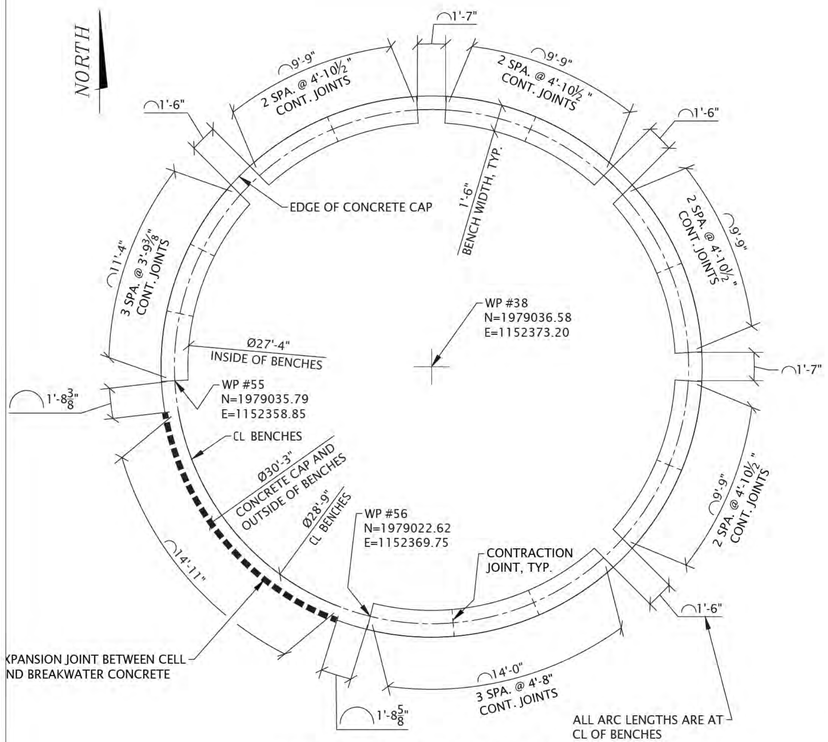
0' 2.5' 5'
(In Feet)
1 Inch = 5 Ft.

Scale 1 Inch = 5 Ft.

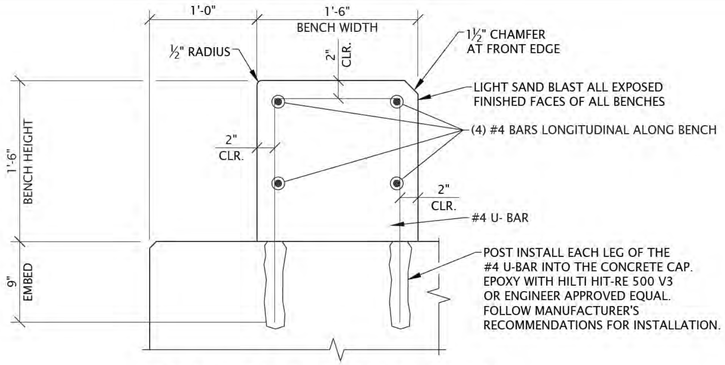
Drawing Title

BREAKWATER
LAYOUT PLAN 2

Sheet No.
C126



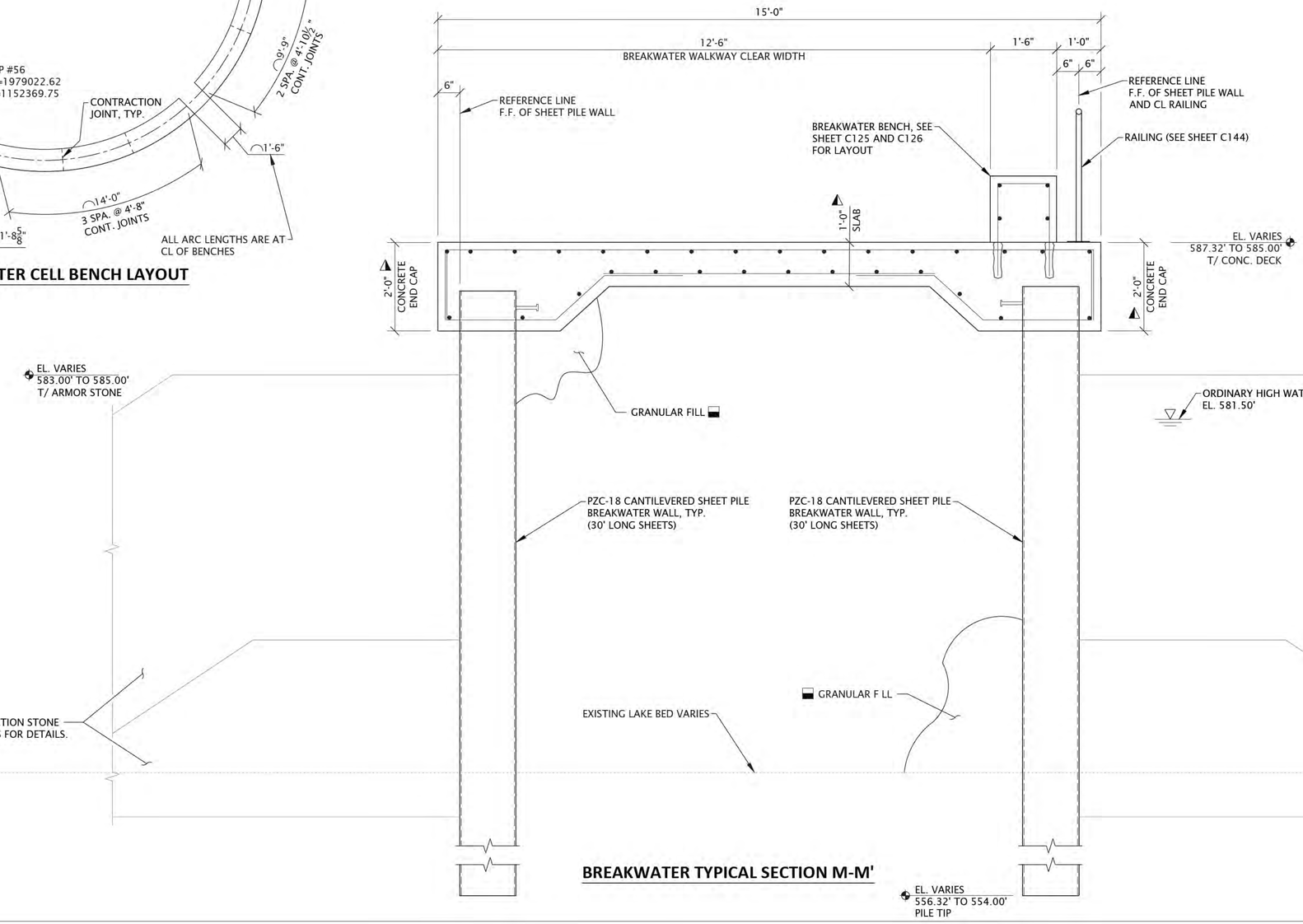
BREAKWATER CELL BENCH LAYOUT



BREAKWATER BENCH TYPICAL SECTION

LEGEND:

- SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.
- SEE DETAIL BULKHEAD WALL CONCRETE CAP AND SLAB DETAILS ON SHEET C109.



BREAKWATER TYPICAL SECTION M-M'

"The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto."

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Waunakee Wisconsin 53597
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Issued for	Rev. Date
70% Submittal	04/08/24
100% Submittal	06/28/24
Bidding and Construction	07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

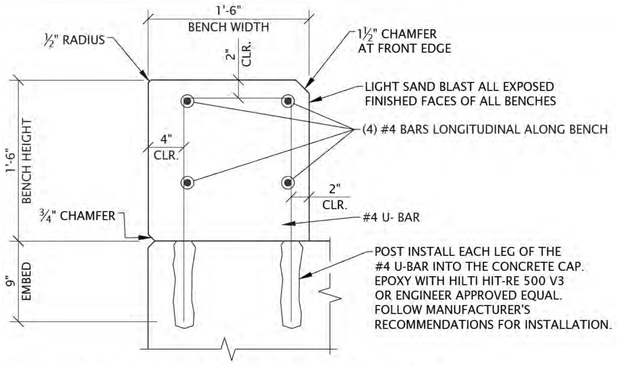
0" ⅜" ¾"
(In Feet)
¾" Inch = 1 Ft.

Scale: ¾" Inch = 1 Ft.

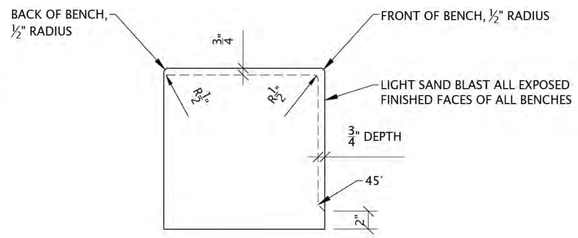
Drawing Title

BREAKWATER IMPROVEMENTS
SECTIONS AND DETAILS
SECTION M-M'

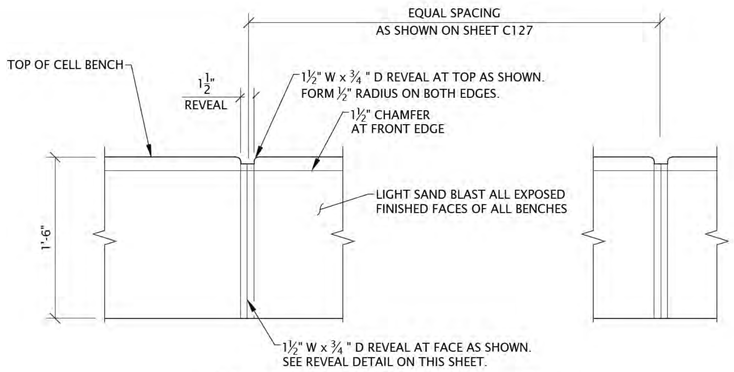
Sheet No.
C127



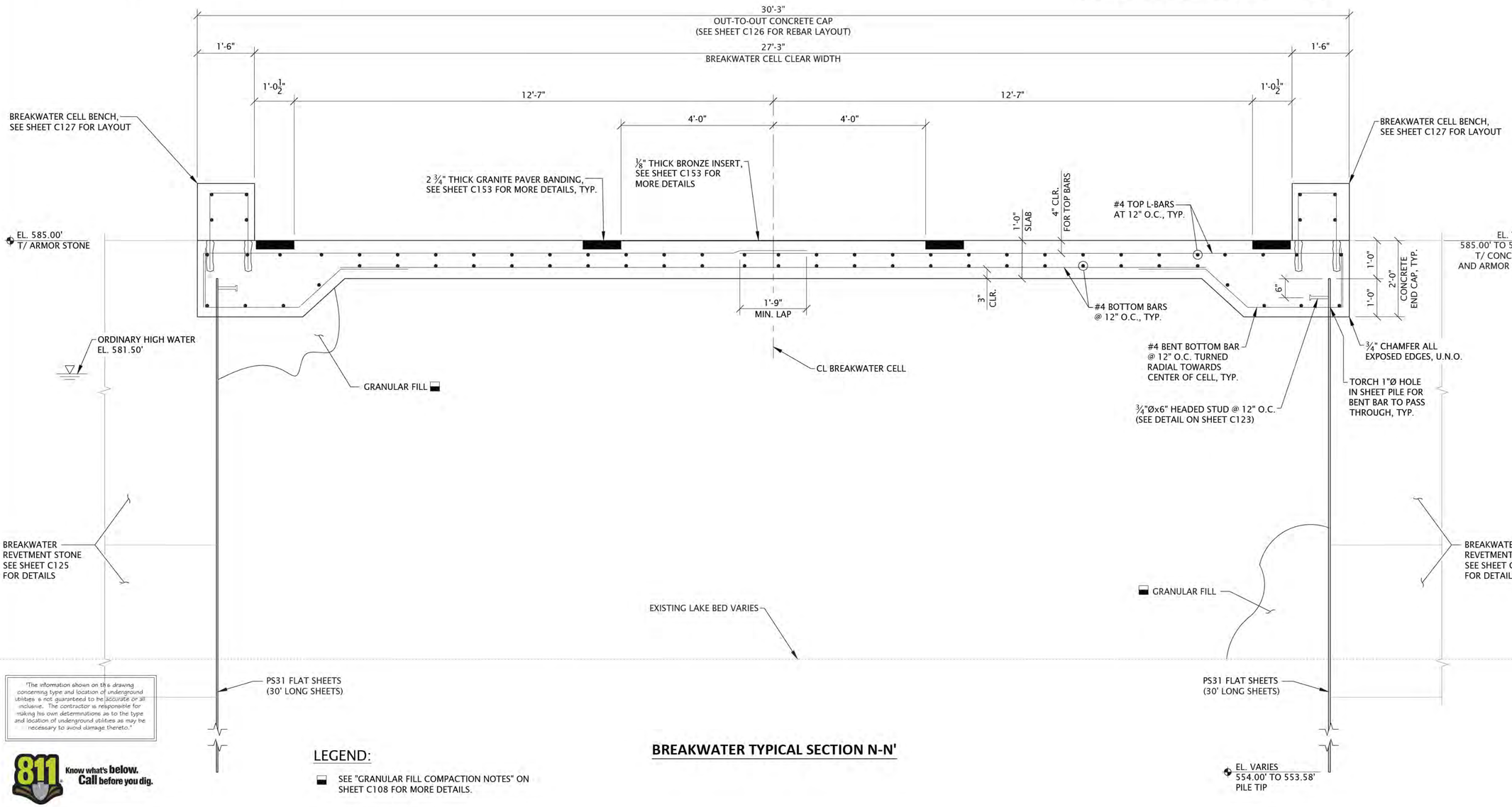
BREAKWATER CELL BENCH TYPICAL SECTION



CONCRETE BENCH REVEAL DETAIL



CONCRETE BENCH ELEVATION VIEW



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LEGEND:

SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.

BREAKWATER TYPICAL SECTION N-N'

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p. 608.588.7866

Issued for	Rev. Date
70% Submittal	04/08/24
100% Submittal	06/28/24
Bidding and Construction	07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

0" ⅜" ¾"
(In Feet)
¾" Inch = 1 Ft.

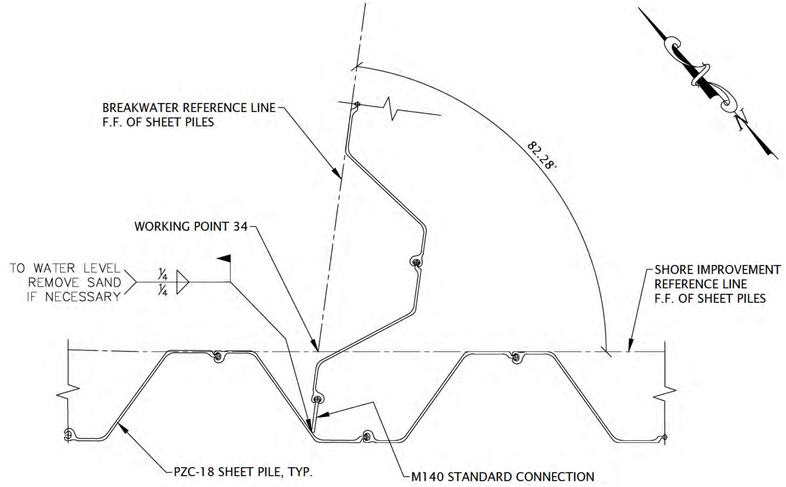
Scale: ¾" Inch = 1 Ft.

Drawing Title

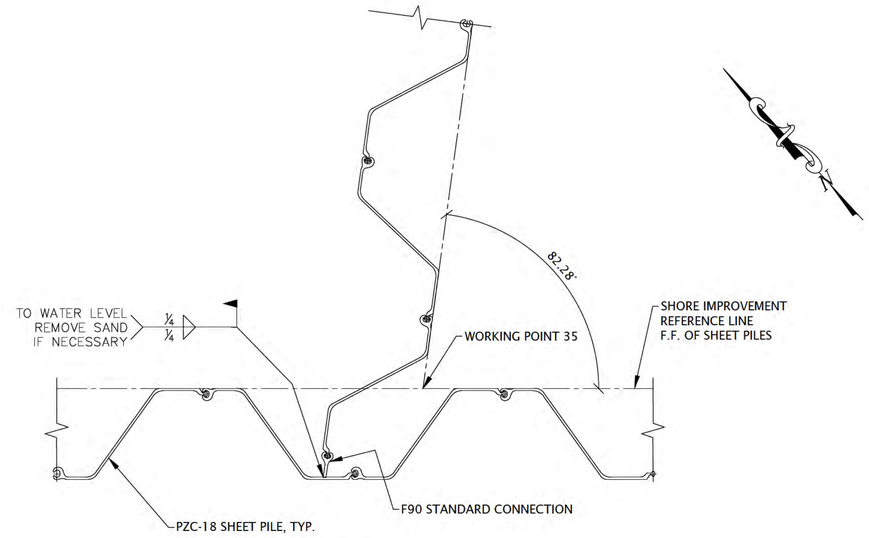
BREAKWATER IMPROVEMENTS
SECTIONS AND DETAILS
SECTION N-N'

Sheet No.

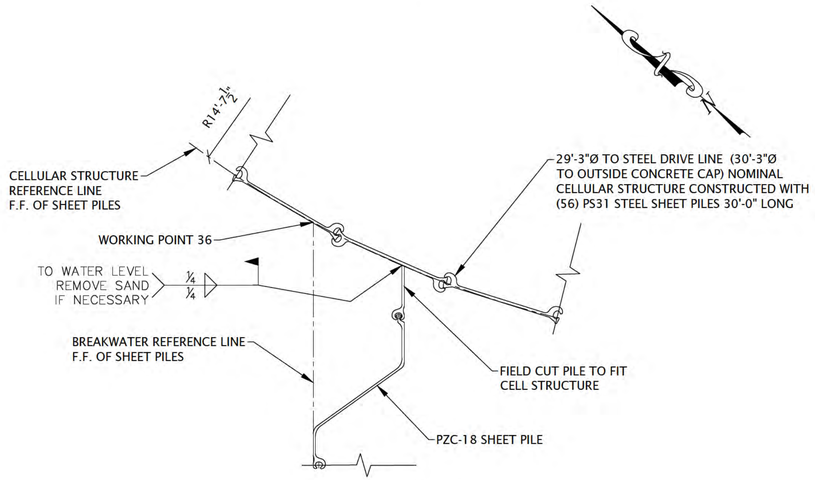
C128



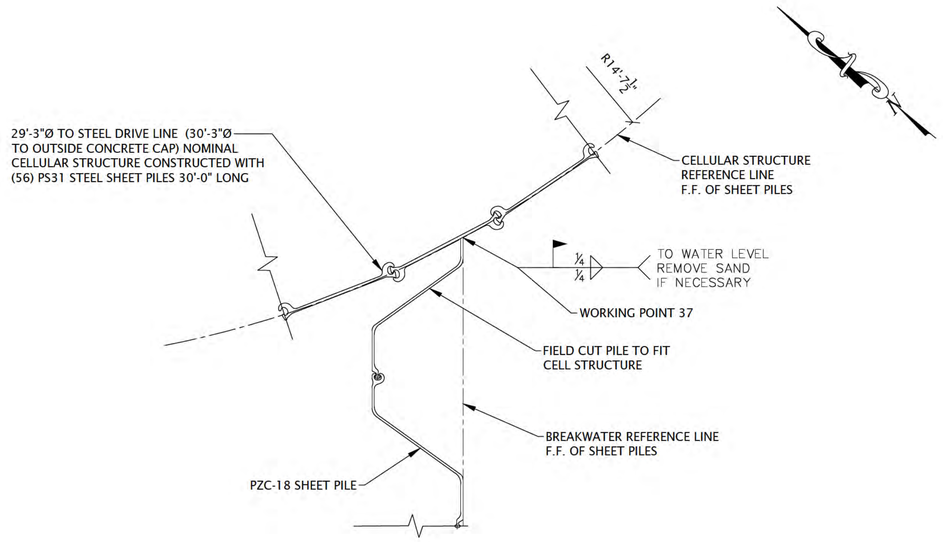
CORNER 22 DETAIL



CORNER 23 DETAIL



CORNER 24 DETAIL



CORNER 25 DETAIL

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Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale:

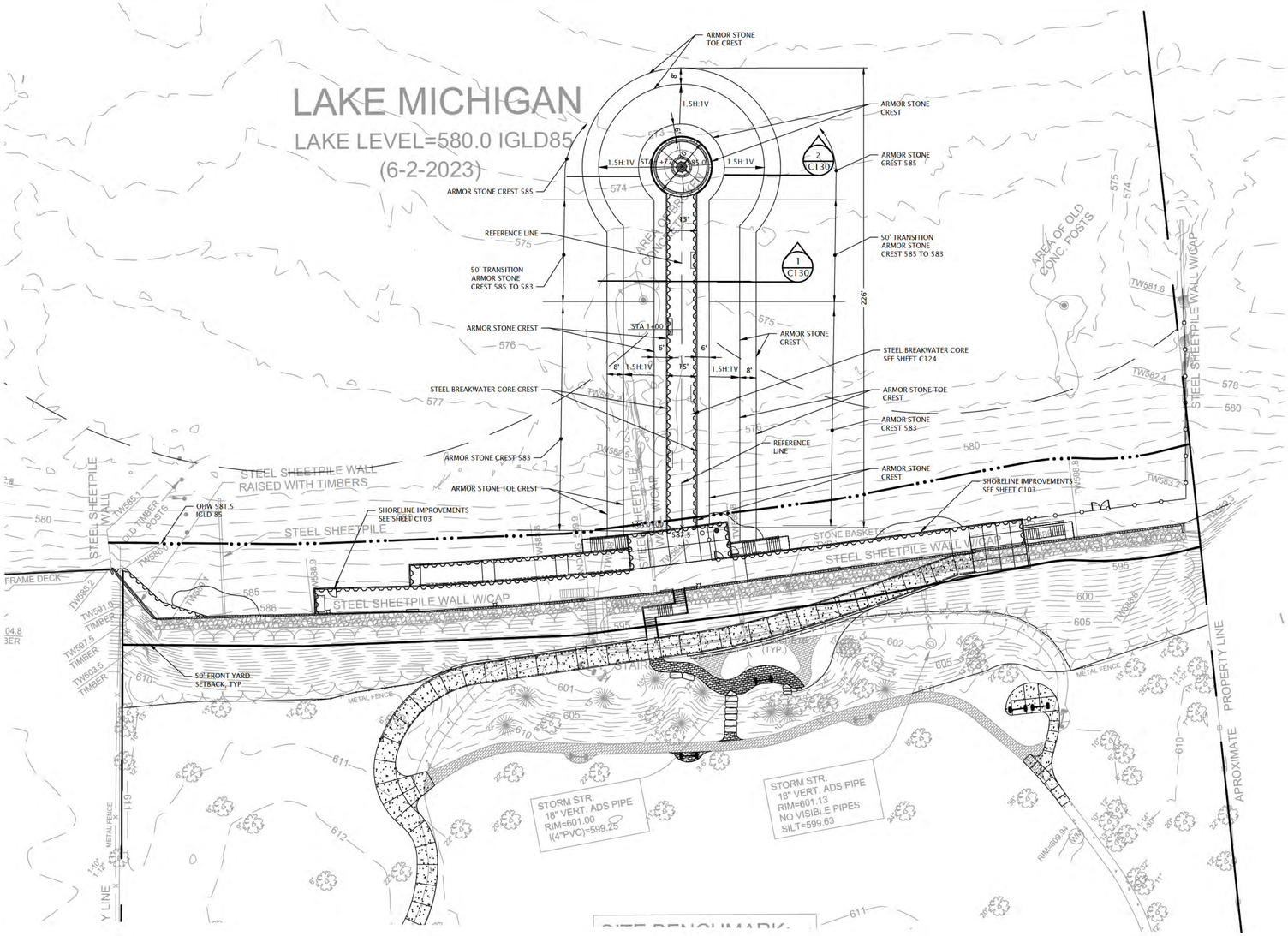
0" ½" 1"
(In Feet)
1" Inch = 1 Ft.

Scale: 1" Inch = 1 Ft.

Drawing Title

BREAKWATER
CORNER DETAILS

Sheet No.
C129



LEGEND (PROPOSED)

- BOARD WALK
- CONCRETE ADA RAMP
- BREAKWATER
- STORM SEWER
- X585 - SPOT ELEVATION
- REFERENCE LINE
- OHW 581.5 IGLD 85
- 50' FRONT YARD SETBACK

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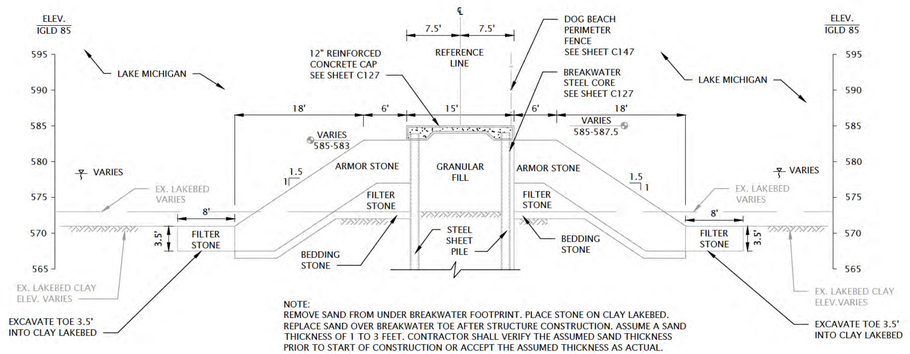
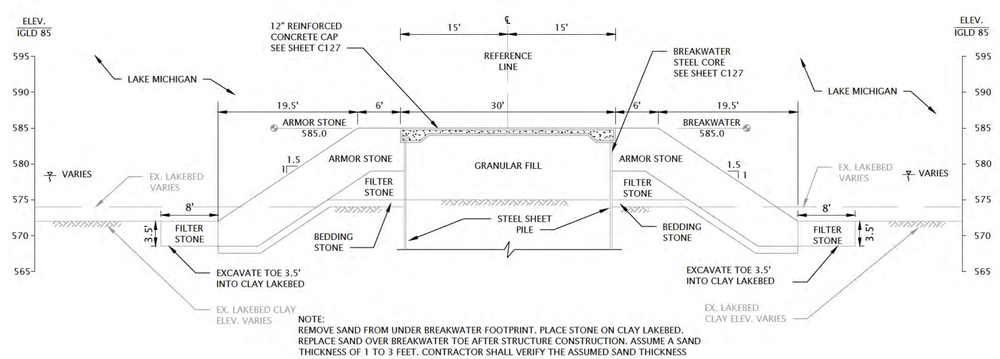


1 / C130 BREAKWATER SECTION STA 0+00 TO STA 1+45
Scale : 0' 5' 10'



2 / C130 BREAKWATER SECTION STA 1+45 TO STA 1+77
Scale : 0' 5' 10'

WORK SEQUENCE NOTES:

1. ESTABLISH AND MAINTAIN EROSION CONTROL AND TRAFFIC BARRICADES PRIOR TO COMMENCEMENT OF WORK.
2. CONTRACTOR SHALL FURNISH AND MAINTAIN CONSTRUCTION FENCING BARRICADE TO SECURE CONSTRUCTION AND STAGING AREAS FROM PUBLIC ACCESS.
3. CONTRACTOR MAY CONSTRUCT AND MAINTAIN TEMPORARY HAUL ROAD(S) THROUGH THE PROJECT SITE NEEDED FOR THIS DURATION OF THE PROJECT. FOR THE UPLAND AND COASTAL WORK. NO COASTAL WORK SHALL BE ACCESSED FROM THE UPLAND SITE. DAMAGE TO THE ENTRANCE ONTO SHERIDAN ROAD RESULTING FROM THE CONTRACTORS ACTIONS WILL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
4. NO STOCKPILING OF BREAKWATER MATERIALS MAY BE PERFORMED ON THE UPLAND AREAS OF THE SITE.
5. CONTRACTOR SHALL DETERMINE FOR THE PURPOSE OF THEIR WORK THE AREAS REQUIRED FOR STAGING AND STOCKPILING OF ANY UPLAND STRIPPED MATERIALS.
6. ALL PARKING LOT SIGNS AND SIGN POLES SHALL BE REMOVED AND SALVAGED FOR REINSTALLATION BY THE OWNER.

NOTES:

1. SEE SHEET C100 FOR LEGEND OF EXISTING CONDITIONS.
2. CONTRACTOR WILL BE PROVIDED AUTOCAD DRAWING FILE FOR CONSTRUCTION LAYOUT AFTER AWARD OF CONTRACT.
3. LIMITS OF CONSTRUCTION ARE AS SHOWN UNLESS OTHERWISE NOTED.
4. BEFORE EXCAVATION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING JULIE AND APPROPRIATE UTILITY COMPANIES FOR UTILITY LOCATIONS.

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Consultants

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding And Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

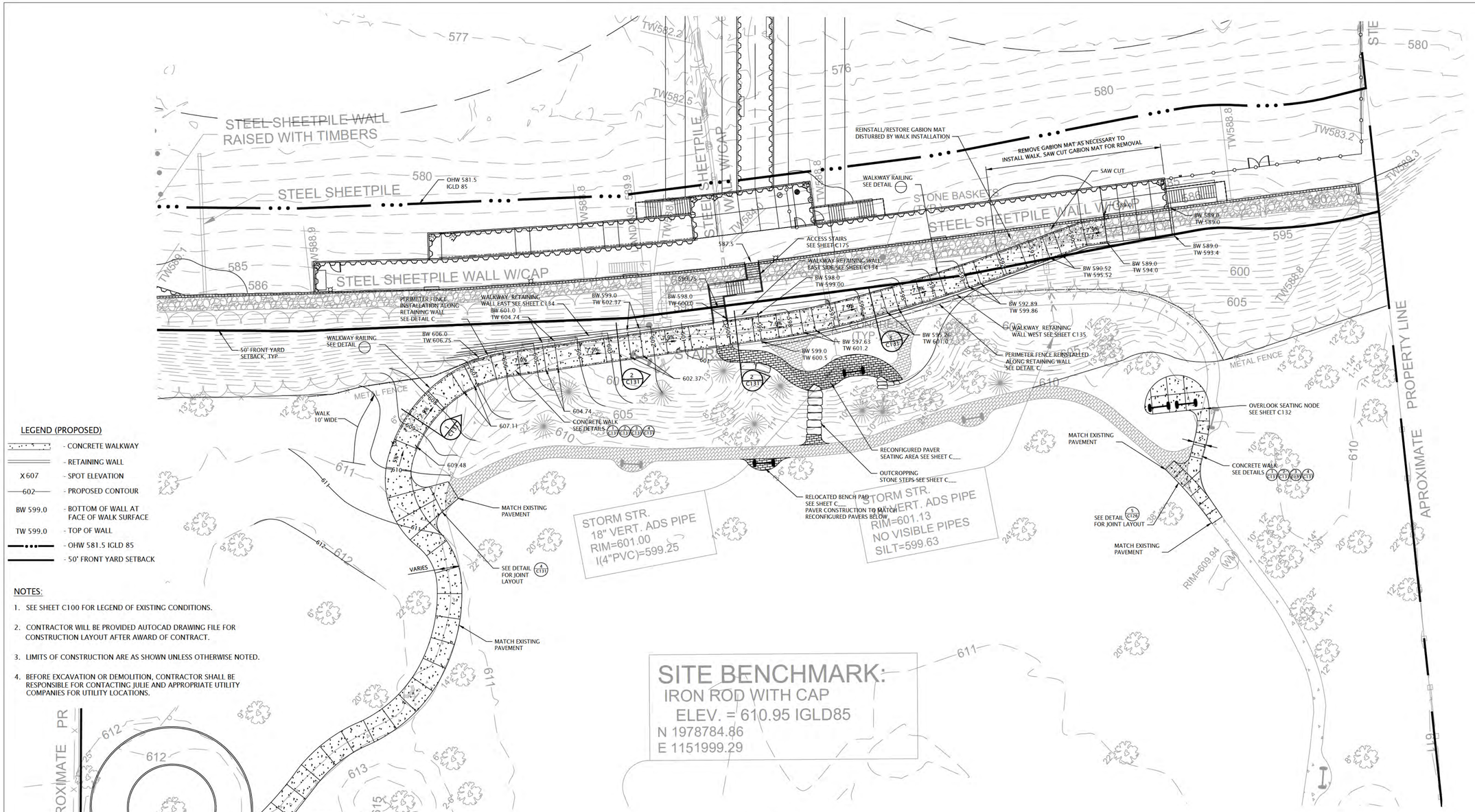
Winnetka Park District
Winnetka, IL

Graphic Scale
0' 15' 30'
(In Feet)
1 Inch = 30 Ft.

Scale 1 Inch = 30 Ft.

Drawing Title
Breakwater Revetment Layout Plan and Sections

Sheet No.
C130



LEGEND (PROPOSED)

- CONCRETE WALKWAY
- RETAINING WALL
- X607 - SPOT ELEVATION
- 602 - PROPOSED CONTOUR
- BW 599.0 - BOTTOM OF WALL AT FACE OF WALK SURFACE
- TW 599.0 - TOP OF WALL
- OHW 581.5 IGLD 85
- 50' FRONT YARD SETBACK

NOTES:

1. SEE SHEET C100 FOR LEGEND OF EXISTING CONDITIONS.
2. CONTRACTOR WILL BE PROVIDED AUTOCAD DRAWING FILE FOR CONSTRUCTION LAYOUT AFTER AWARD OF CONTRACT.
3. LIMITS OF CONSTRUCTION ARE AS SHOWN UNLESS OTHERWISE NOTED.
4. BEFORE EXCAVATION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING JULIE AND APPROPRIATE UTILITY COMPANIES FOR UTILITY LOCATIONS.

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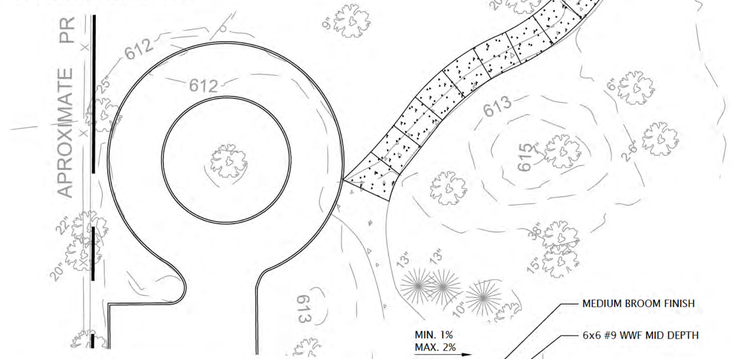
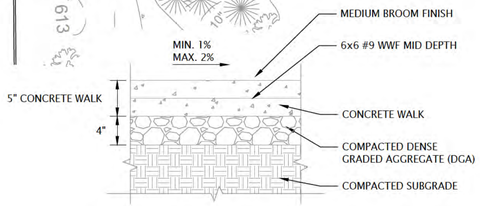
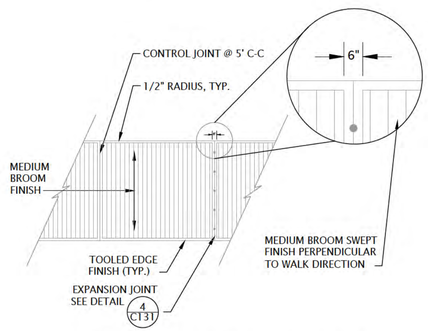
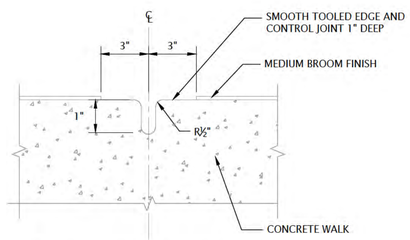




1 C131 CONCRETE PAVEMENT
NOT TO SCALE

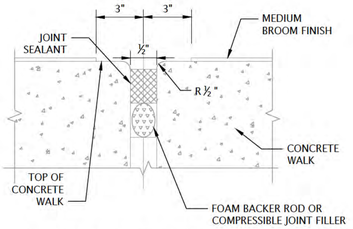


2 C131 CONCRETE SIDEWALK FINISH
NOT TO SCALE



NOTE: CONTROL JOINT @ 10' UNLESS NOTED OTHERWISE

3 C131 CONTROL JOINT
NOT TO SCALE



NOTE: EXPANSION JOINT @ 70' UNLESS NOTED OTHERWISE

4 C131 EXPANSION JOINT
NOT TO SCALE

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Consultants

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding And Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

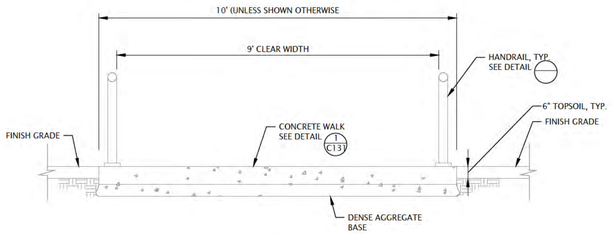
0' 10' 20'
(In Feet)
1 Inch = 20 Ft.

Scale
1 Inch = 20 Ft.

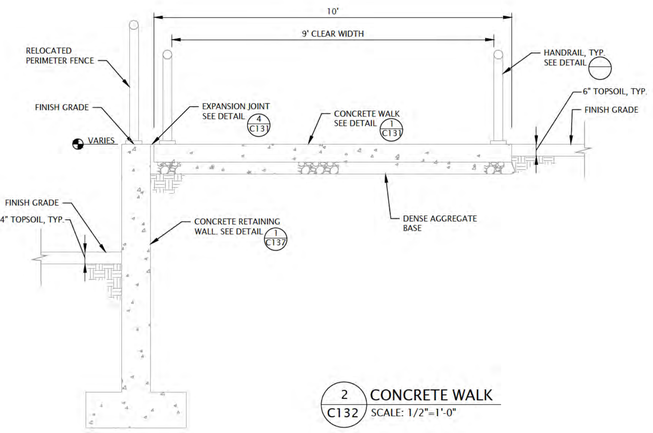
Drawing Title

Walkway Layout
Plan and Details

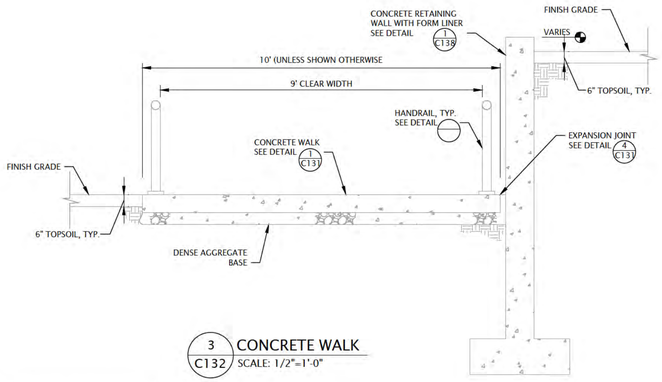
Sheet No.
C131



1 C132 CONCRETE WALK
SCALE: 1/2"=1'-0"



2 C132 CONCRETE WALK
SCALE: 1/2"=1'-0"



3 C132 CONCRETE WALK
SCALE: 1/2"=1'-0"

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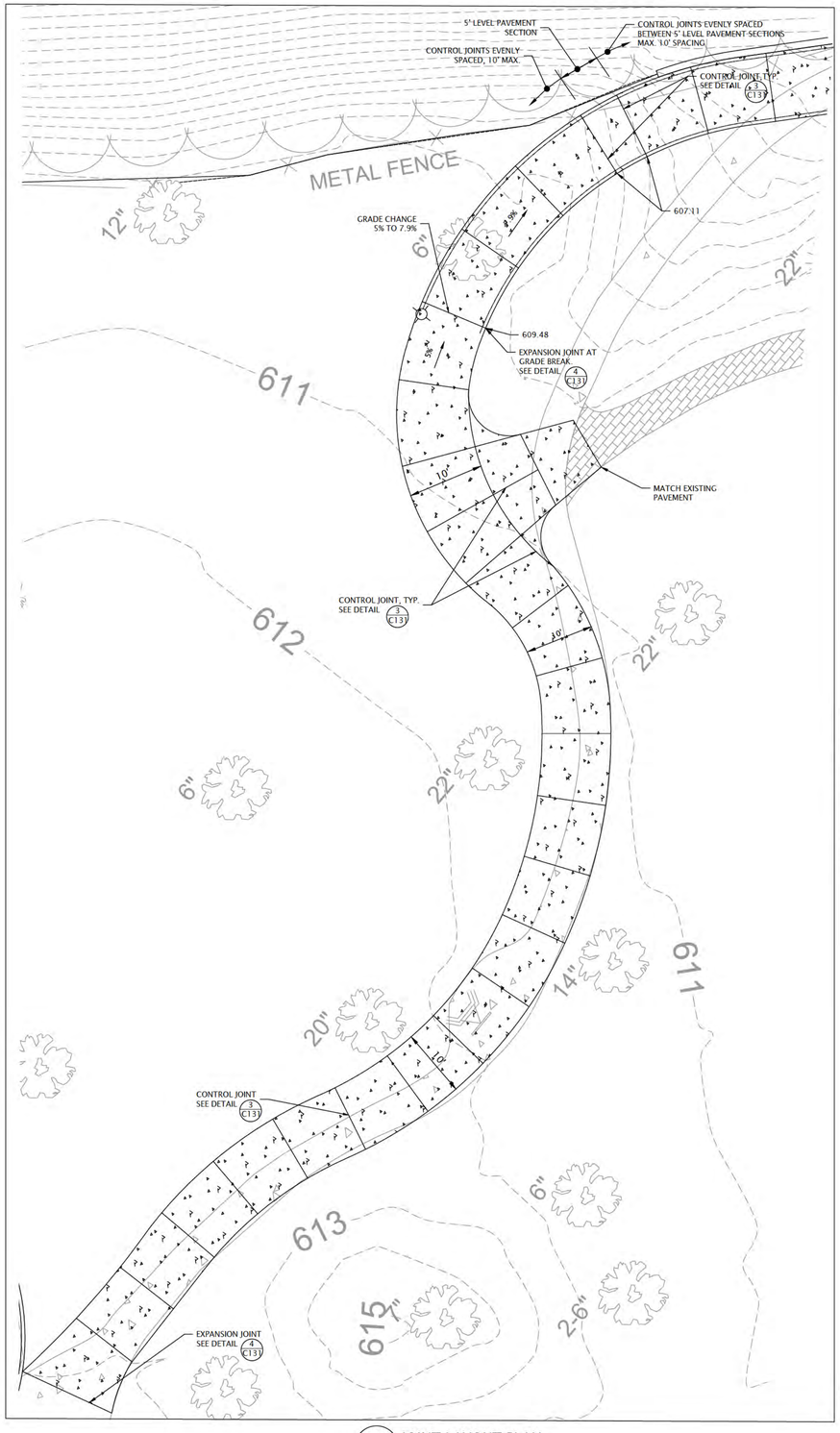
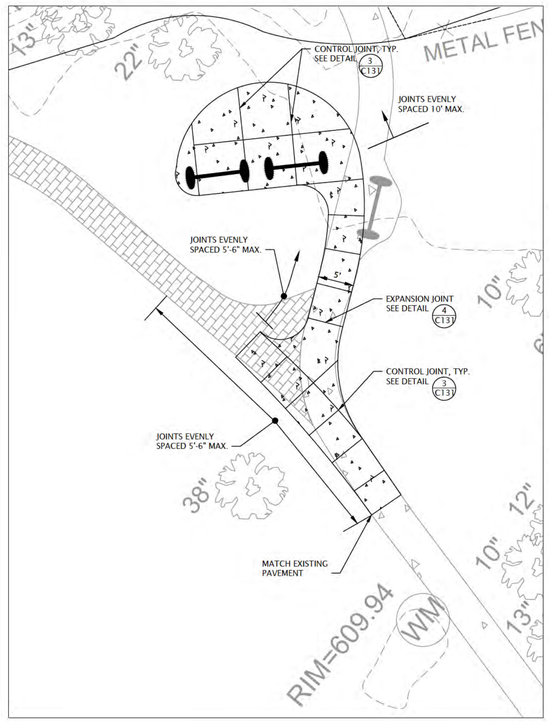


4 C132 JOINT LAYOUT PLAN
SCALE: 1" = 10'



5 C132 JOINT LAYOUT PLAN
SCALE: 1" = 10'

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Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' ½" ½"
(In Feet)
½" Inch = 1 Ft.

Scale 1/2" = 1'-0"

Drawing Title
Walkway Details

Sheet No.
C132

LEGEND

ORDINARY HIGH WATER MARK (OHW)

50' SETBACK LINE FROM OHW

EXISTING CONTOUR, TYP.

SEE NORTH BREAKWATER SHEET FOR MORE DETAILS

SEE SHORELINE IMPROVEMENT SHEETS FOR MORE DETAILS

SEE SHORELINE IMPROVEMENT SHEETS FOR MORE DETAILS

SEE UPLAND SITE IMPROVEMENTS SHEETS FOR MORE DETAILS

SEE SHEET C134

SEE SHEET C135

SEE SHEET C136

PROPERTY LINE

PROPERTY LINE

0 20 40 Feet

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CENTENNIAL PARK RETAINING WALLS OVERVIEW

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Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

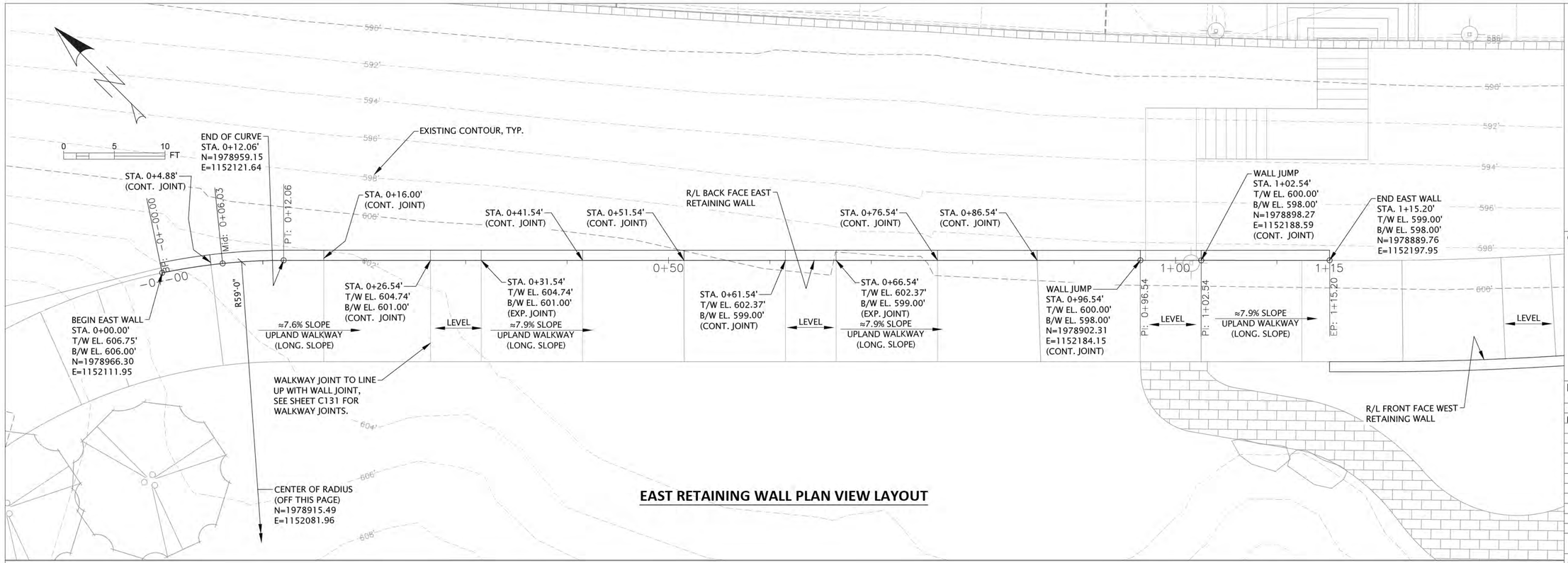
Scale 1" = 40'

Drawing Title

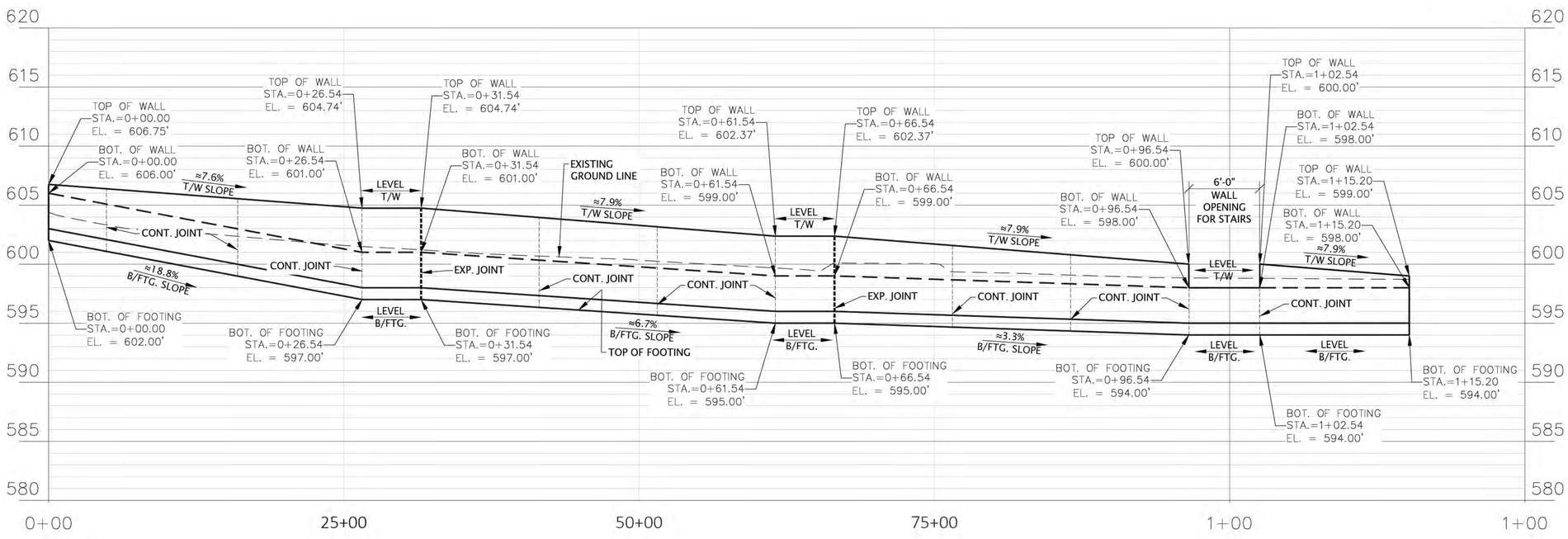
RETAINING WALL OVERVIEW

Sheet No.

C133



EAST RETAINING WALL PLAN VIEW LAYOUT



EAST RETAINING WALL PROFILE VIEW

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100% Submittal		06/28/24
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Project Title:

Site Improvements
Elder Lane Park &
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

Scale 1" = 10'

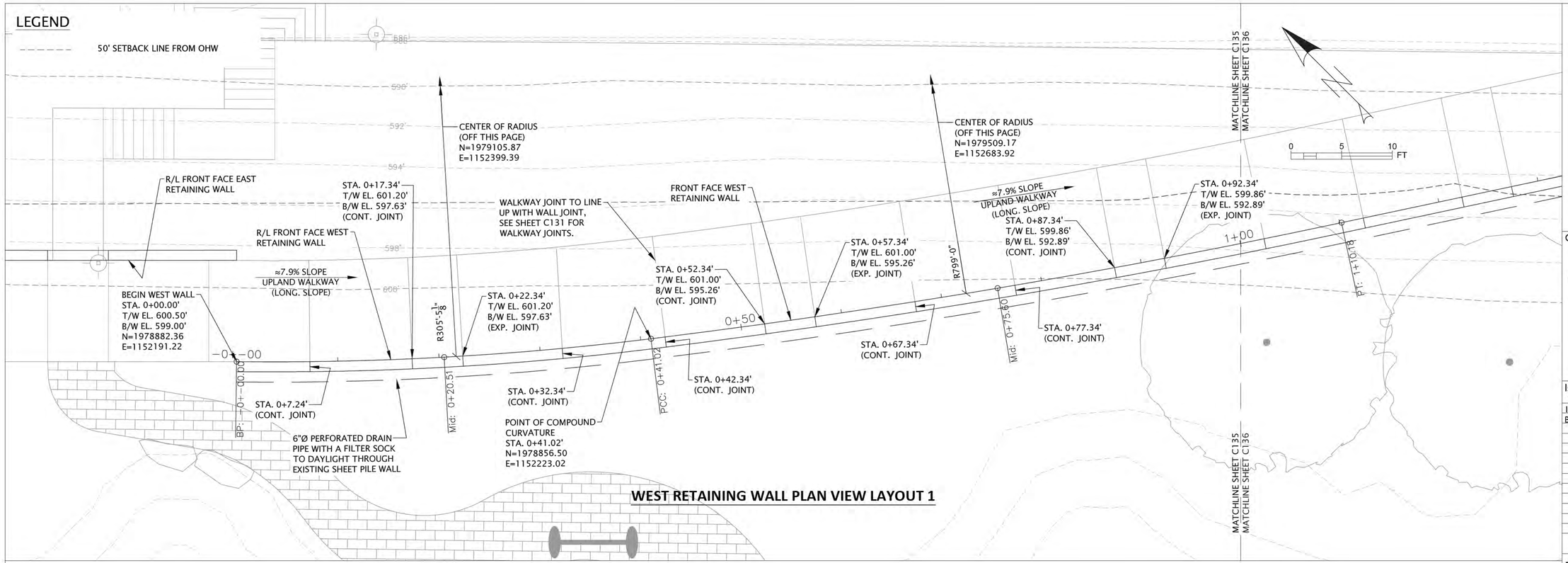
Drawing Title

EAST RETAINING WALL PLAN AND PROFILE VIEW

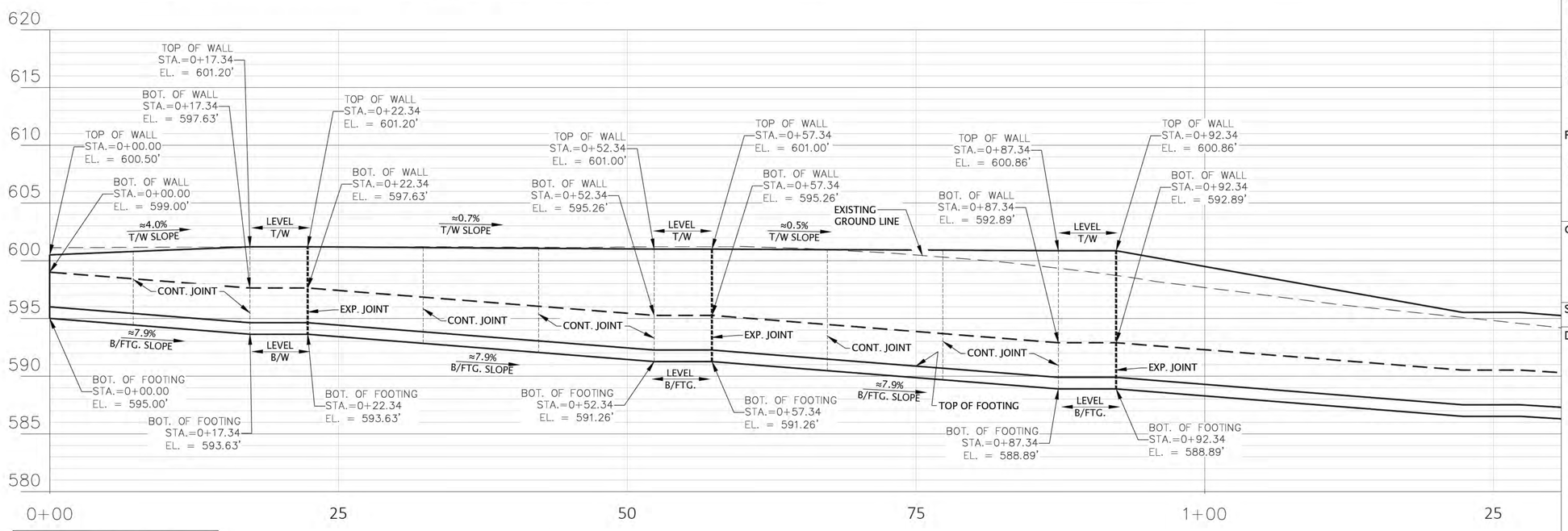
Sheet No.
C134

LEGEND

50' SETBACK LINE FROM OHW



WEST RETAINING WALL PLAN VIEW LAYOUT 1



WEST RETAINING WALL PROFILE VIEW 1

811 Know what's **below.** **Call** before you dig.

"The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto."

RED BARN
Design & Engineering, S.C.

6750 Woodland Drive
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Consultants

WESTBROOK
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619 E. Hoxie St.
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Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Elder Lane Park &
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

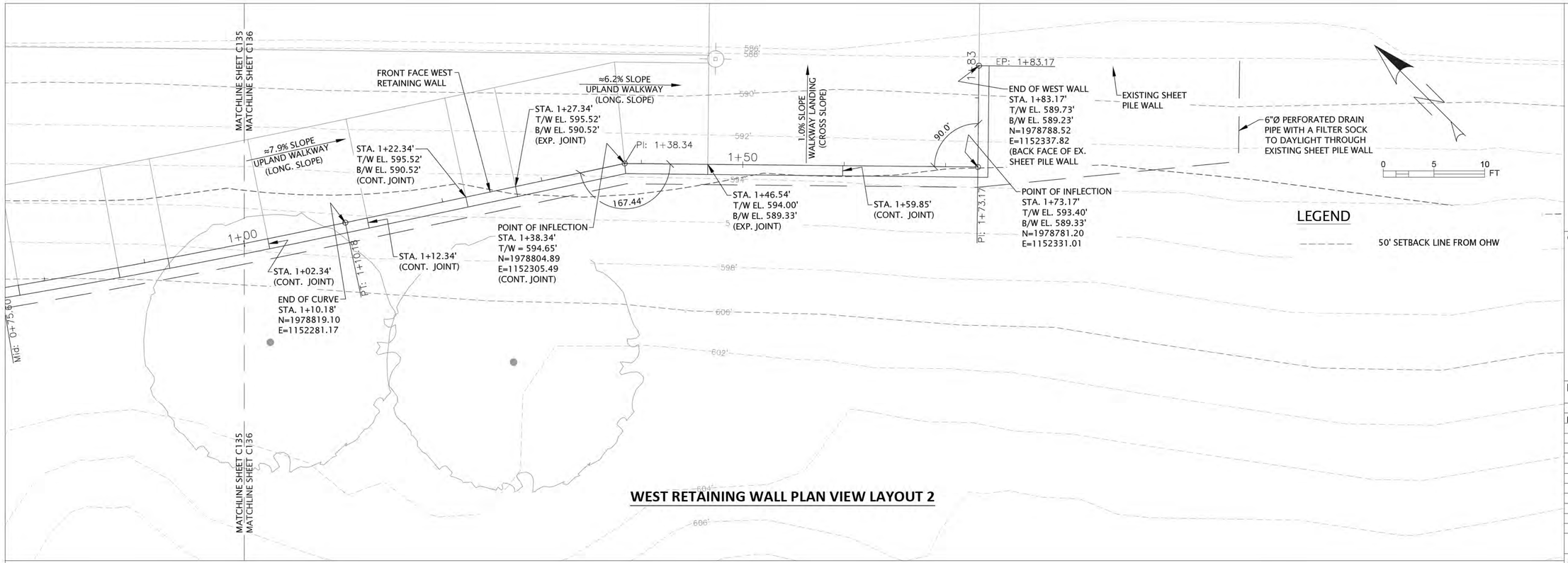
Scale 1" = 10'

Drawing Title

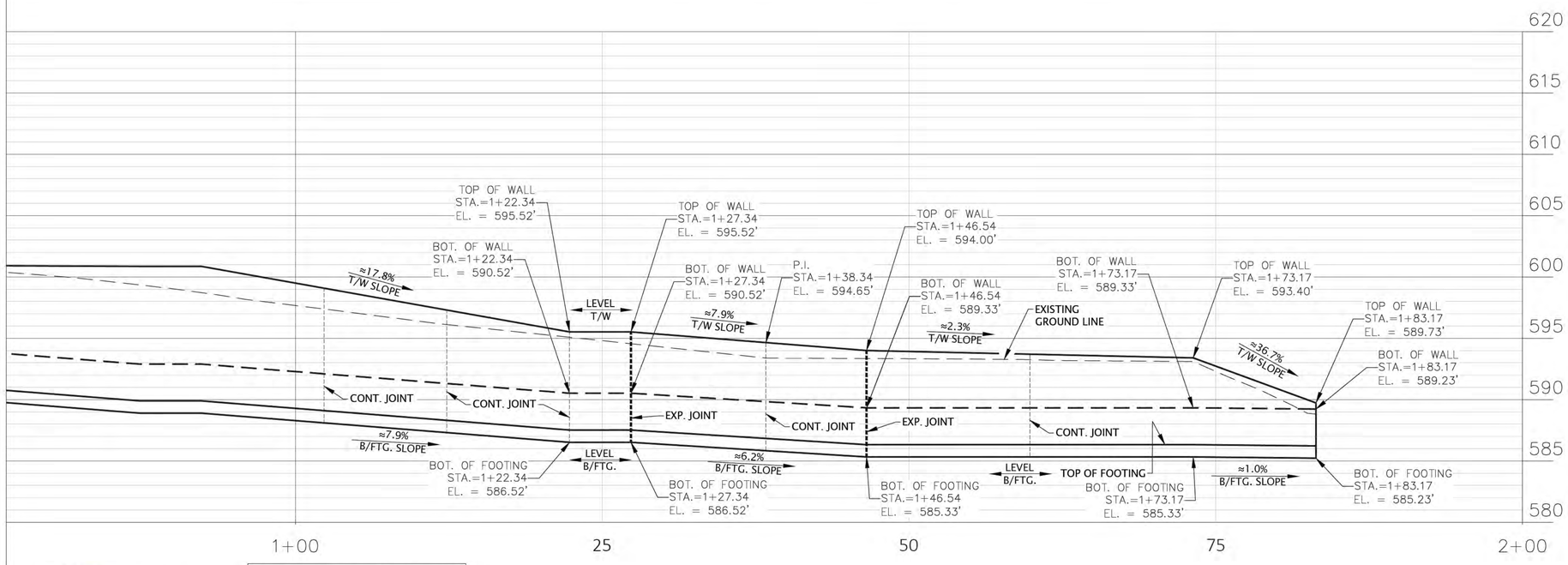
WEST RETAINING WALL PLAN AND PROFILE VIEW 1

Sheet No.

C135



WEST RETAINING WALL PLAN VIEW LAYOUT 2



WEST RETAINING WALL PROFILE VIEW 2

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Winnetka Park District
Winnetka, IL

Graphic Scale

Scale 1" = 10'

Drawing Title

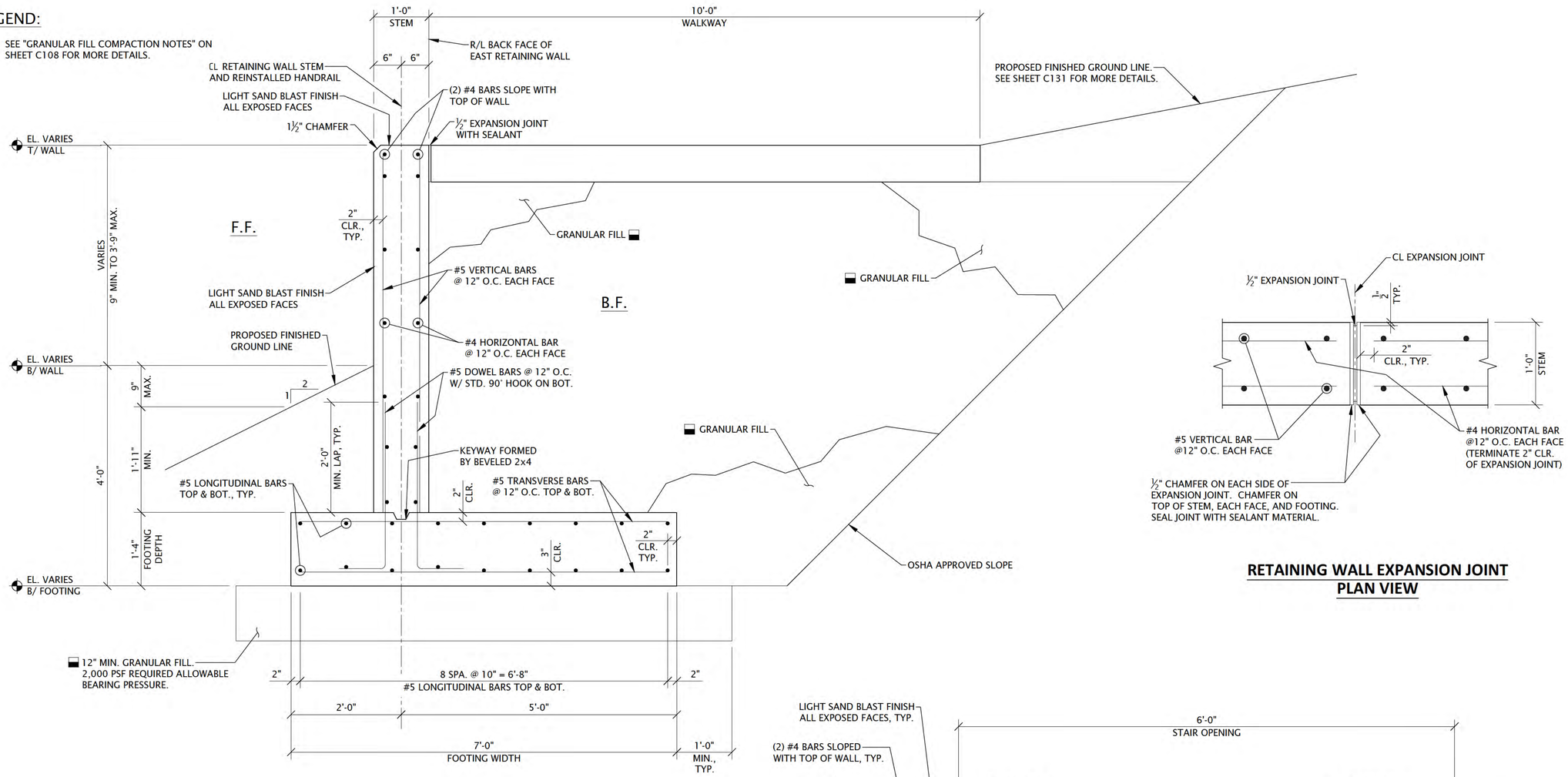
WEST RETAINING WALL PLAN AND PROFILE VIEW 2

Sheet No.

C136

LEGEND:

SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.

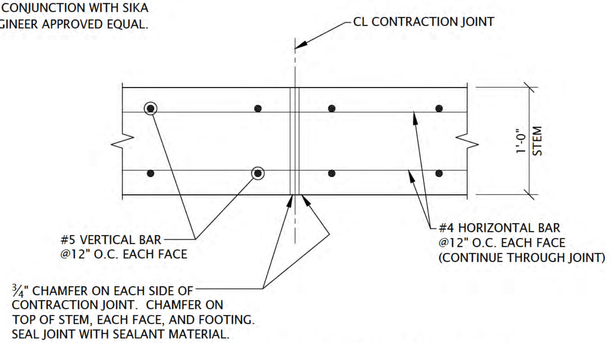


EAST RETAINING WALL TYPICAL SECTION

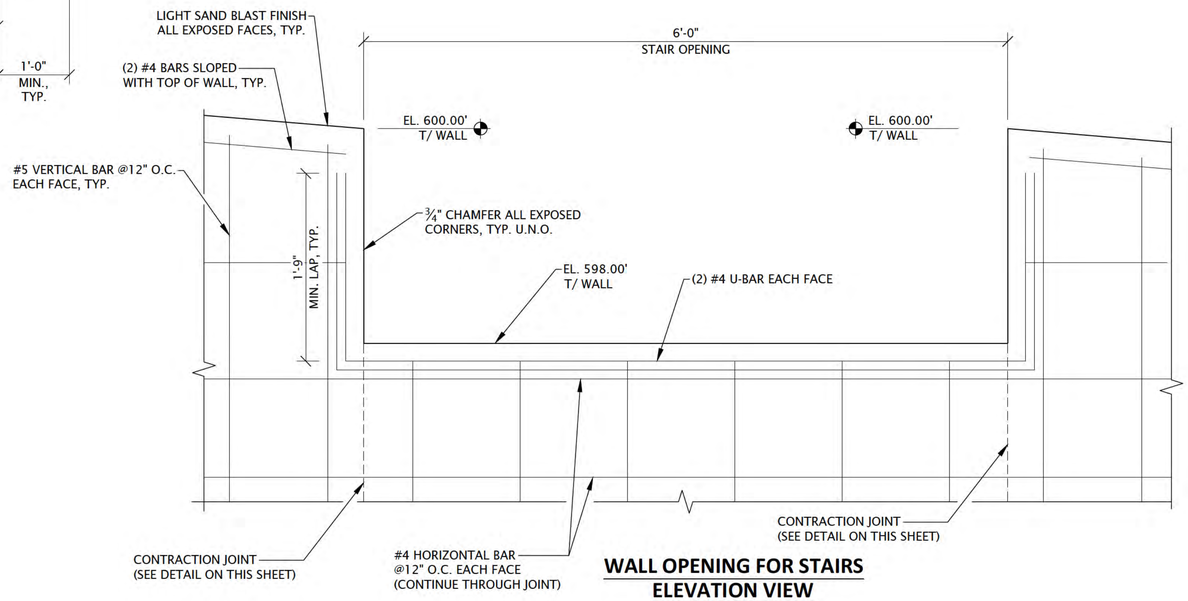
RETAINING WALL EXPANSION JOINT PLAN VIEW

NOTES:

1. SEE SHEET C-166 FOR FORMLINER DETIALS.
2. ALL CAULK MUST MATCH THE CONCRETE COLOR. CAULK MUST BE SIKA DUOFLEX POLYSULFIDE SEALANT IN CONJUNCTION WITH SIKA DUOFLEX 5050 EPOXY PRIMER OR AN ENGINEER APPROVED EQUAL.



RETAINING WALL CONTRACTION JOINT PLAN VIEW



WALL OPENING FOR STAIRS ELEVATION VIEW

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Project Title:

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Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

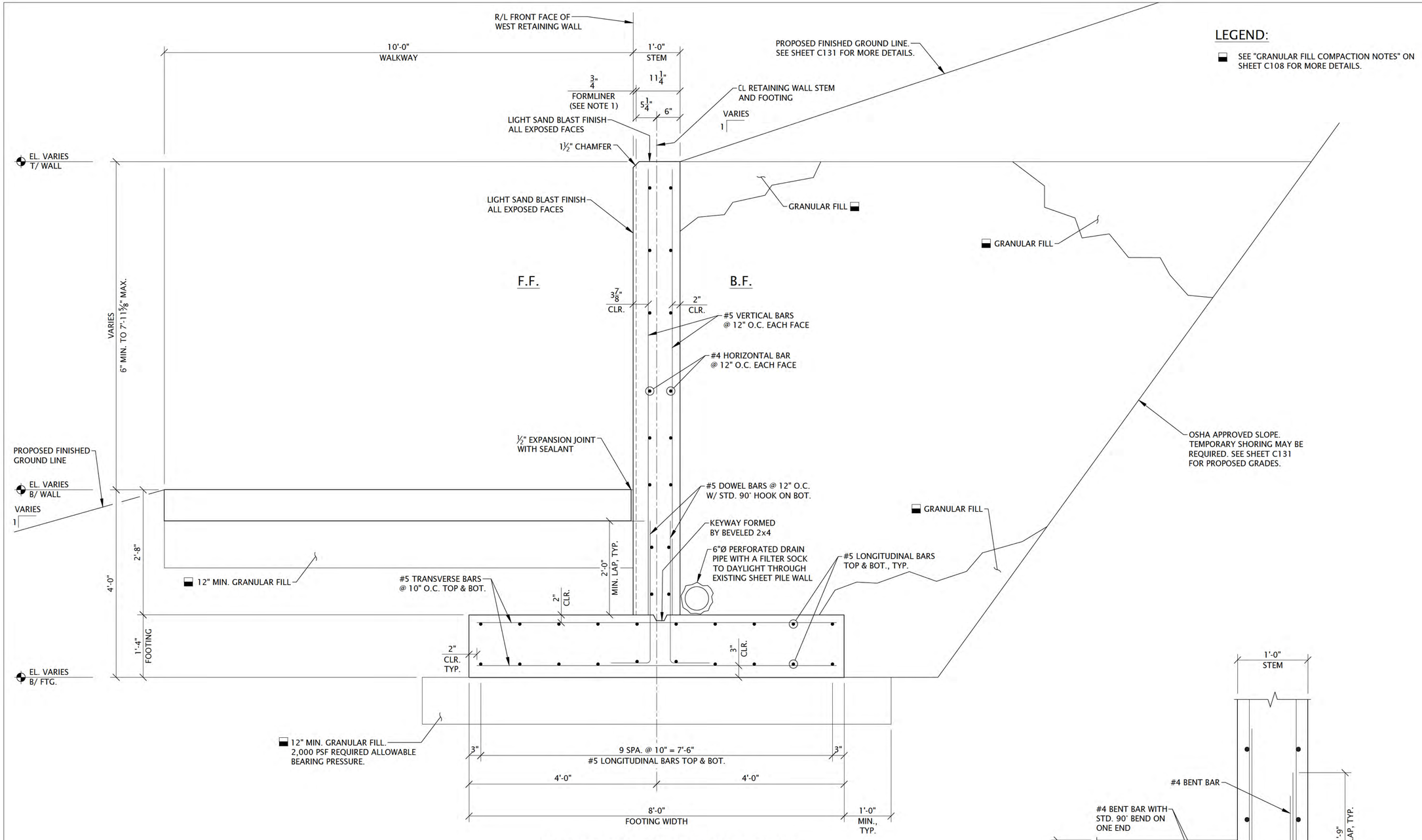
Scale

Drawing Title

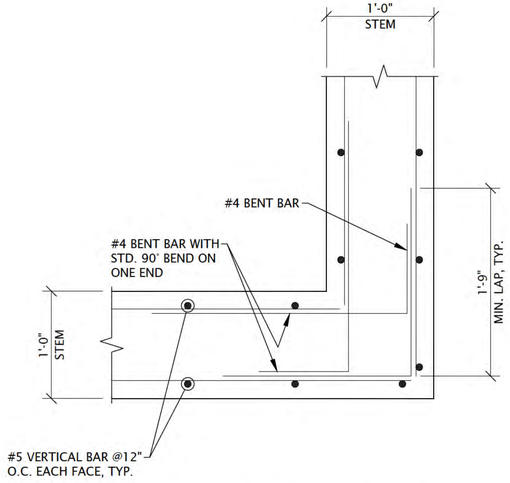
EAST RETAINING WALL DETAILS

Sheet No.

C137



WEST RETAINING WALL TYPICAL SECTION



RETAINING WALL CORNER DETAIL PLAN VIEW

LEGEND:

SEE "GRANULAR FILL COMPACTION NOTES" ON SHEET C108 FOR MORE DETAILS.

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NOTES:

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Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

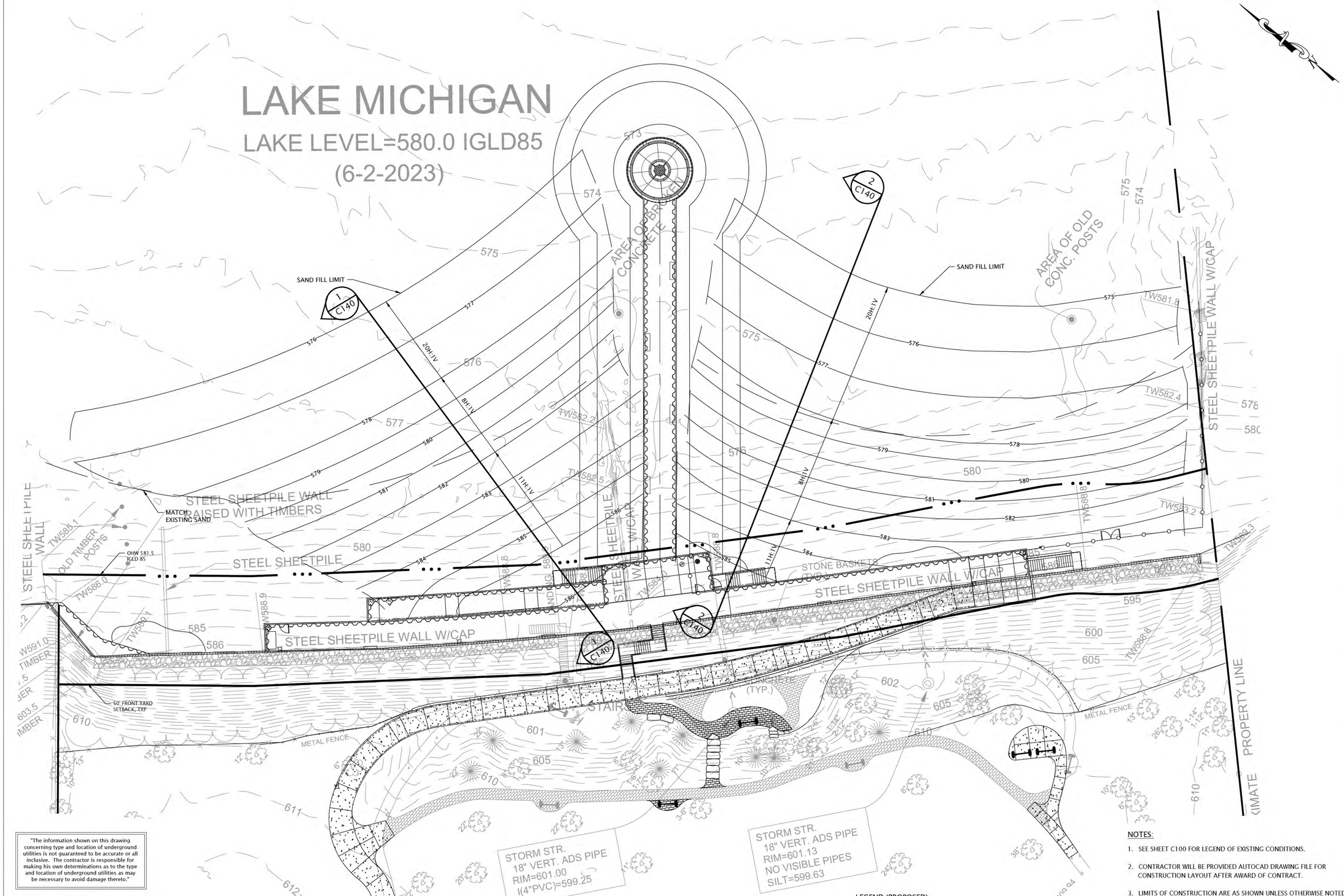
Graphic Scale

Scale

Drawing Title

WEST RETAINING WALL DETAILS

Sheet No.
C138



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LEGEND (PROPOSED)

OHW 581.5 IGLD 85

50' FRONT YARD SETBACK

NOTES:

1. SEE SHEET C100 FOR LEGEND OF EXISTING CONDITIONS.
2. CONTRACTOR WILL BE PROVIDED AUTOCAD DRAWING FILE FOR CONSTRUCTION LAYOUT AFTER AWARD OF CONTRACT.
3. LIMITS OF CONSTRUCTION ARE AS SHOWN UNLESS OTHERWISE NOTED.
4. BEFORE EXCAVATION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING JULIE AND APPROPRIATE UTILITY COMPANIES FOR UTILITY LOCATIONS.

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Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

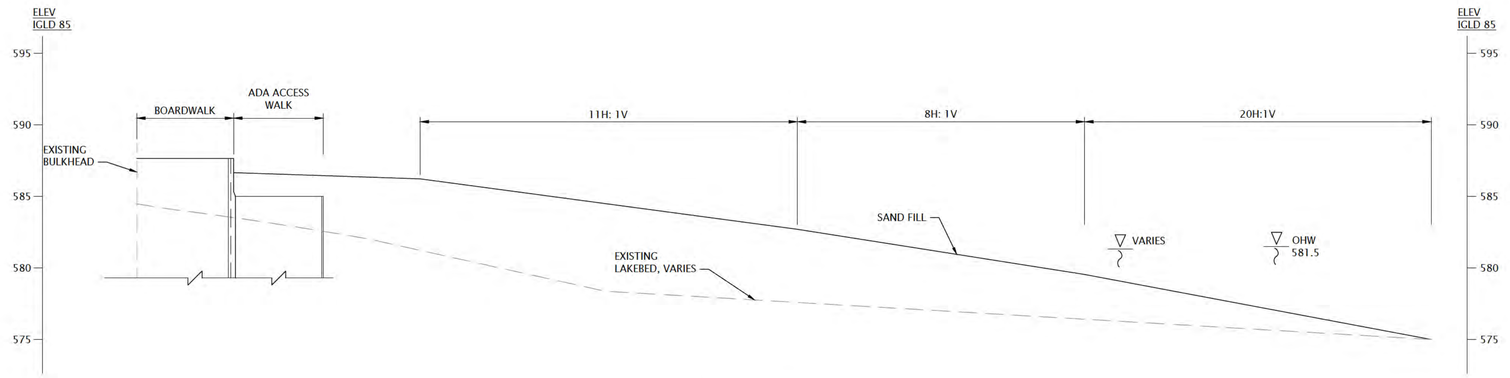
0' 10' 20'
(In Feet)
1 Inch = 20 Ft.

Scale 1 Inch = 20 Ft.

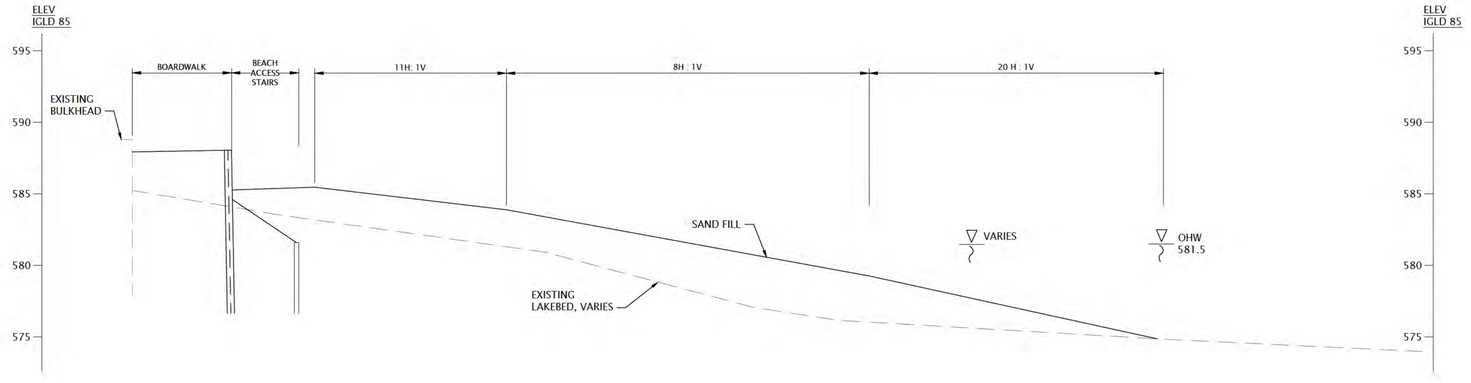
Drawing Title

Sand Fill Layout Plan

Sheet No.
C139



1 / C140 SAND FILL SECTION 1
SCALE : H: 1" = 10'
V: 1" = 5'



2 / C140 SAND FILL SECTION 2
SCALE : H: 1" = 10'
V: 1" = 5'

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Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

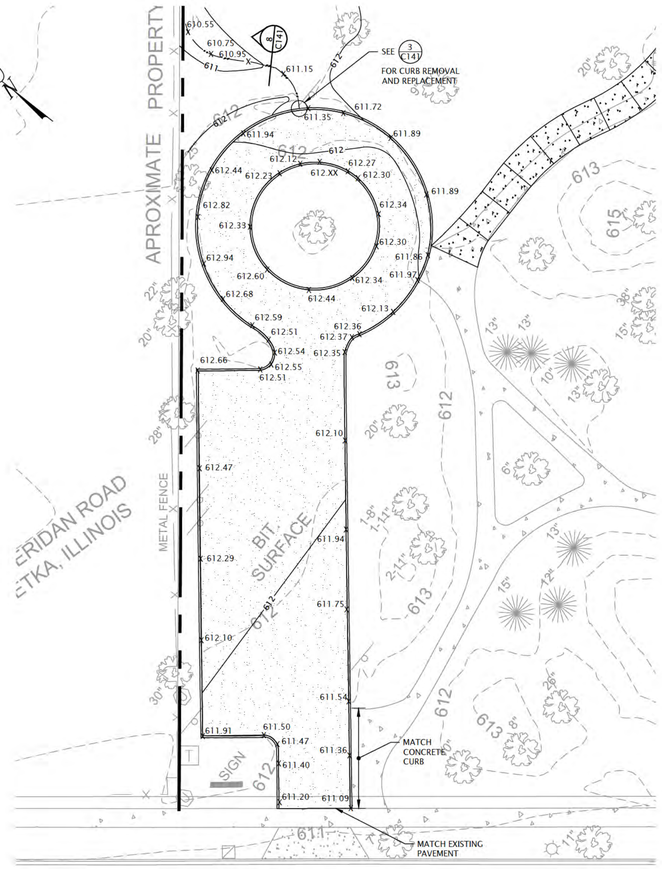
Graphic Scale

0' 2.5' 5'
(In Feet)
1 Inch = 5 Ft.

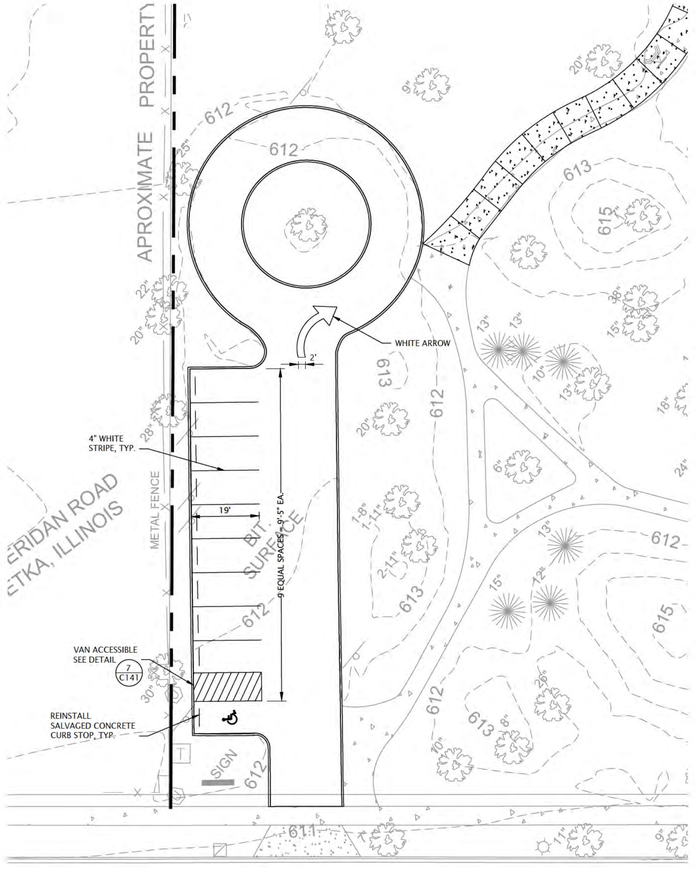
Scale 1 Inch = 5 Ft.

Drawing Title
SAND FILL SECTIONS

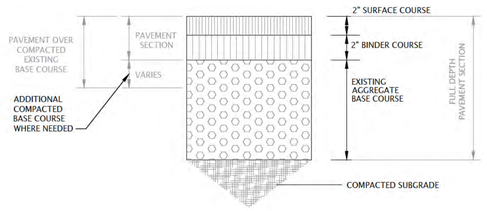
Sheet No.
C140



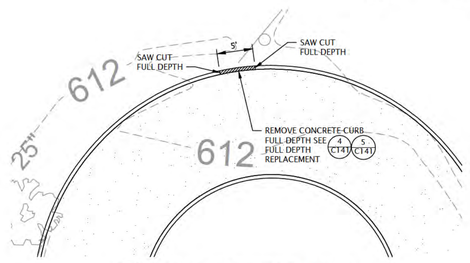
1 C141 PAVEMENT LAYOUT AND GRADING
SCALE: 0' 10' 20'



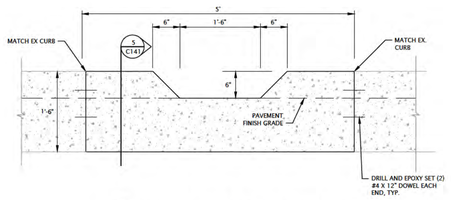
6 C141 PARKING LOT PAVEMENT MARKING PLAN
SCALE: 0' 10' 20'



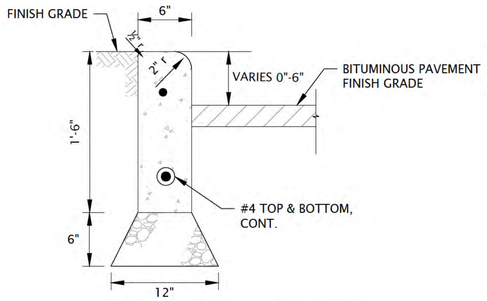
2 C141 BITUMINOUS PAVEMENT
NOT TO SCALE



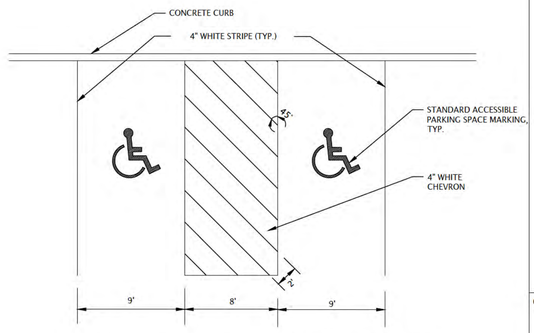
3 C141 CONCRETE CURB REMOVAL
SCALE: 0' 5' 10'



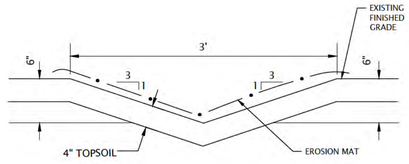
4 C141 CONCRETE CURB ELEVATION
SCALE: 0' 3/8" 3/4"



5 C141 CONCRETE CURB - SECTION
SCALE: 0' 3/4" 1-1/2"



7 C141 ACCESSIBLE PARKING SPACE PAVEMENT MARKING
NOT TO SCALE



8 C141 SWALE SECTION
NOT TO SCALE

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LEGEND (PROPOSED)

- ASPHALT PAVEMENT
- 612 — PROPOSED CONTOUR
- X 589 — SPOT ELEVATION

WORK SEQUENCE NOTES:

1. LIMIT OF CONSTRUCTION ARE PAVEMENT EDGE UNLESS NOTED OTHERWISE.
2. SEE SHEET C100 FOR LEGEND OF EXISTING CONDITIONS.
3. BEFORE EXCAVATION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING APPROPRIATE UTILITY COMPANIES AND JULIE FOR UTILITY LOCATIONS.
4. CONTOUR INTERVAL IS ONE (1) FOOT.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED PRIOR TO DISTURBANCE ACTIVITIES.
6. SEED AND MULCH ALL DISTURBED AREAS.
7. PROPOSED GRADES SHOWN INDICATE FINISH GRADE.
8. CONTRACTOR WILL BE PROVIDED AUTOCAD DRAWING FILE FOR CONSTRUCTION LAYOUT AFTER AWARD OF CONSTRUCTION CONTRACT.

NOTES:

1. SEE SHEET C100 FOR LEGEND OF EXISTING CONDITIONS.
2. CONTRACTOR WILL BE PROVIDED AUTOCAD DRAWING FILE FOR CONSTRUCTION LAYOUT AFTER AWARD OF CONTRACT.
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Project Title:

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Centennial Park
Winnetka, IL

Prepared For:

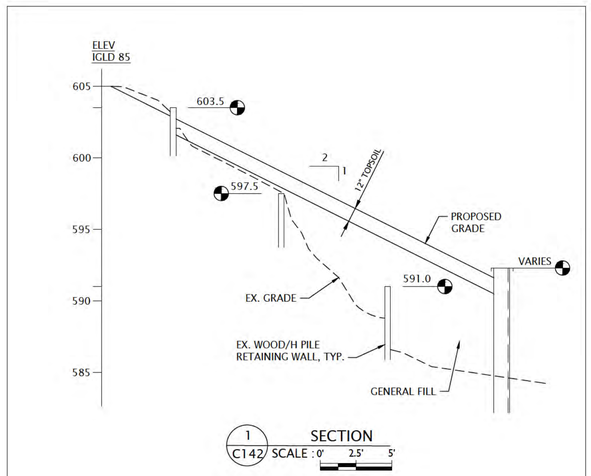
Winnetka Park District
Winnetka, IL

Graphic Scale
0' 10' 20'
(In Feet)
1 Inch = 20 Ft.

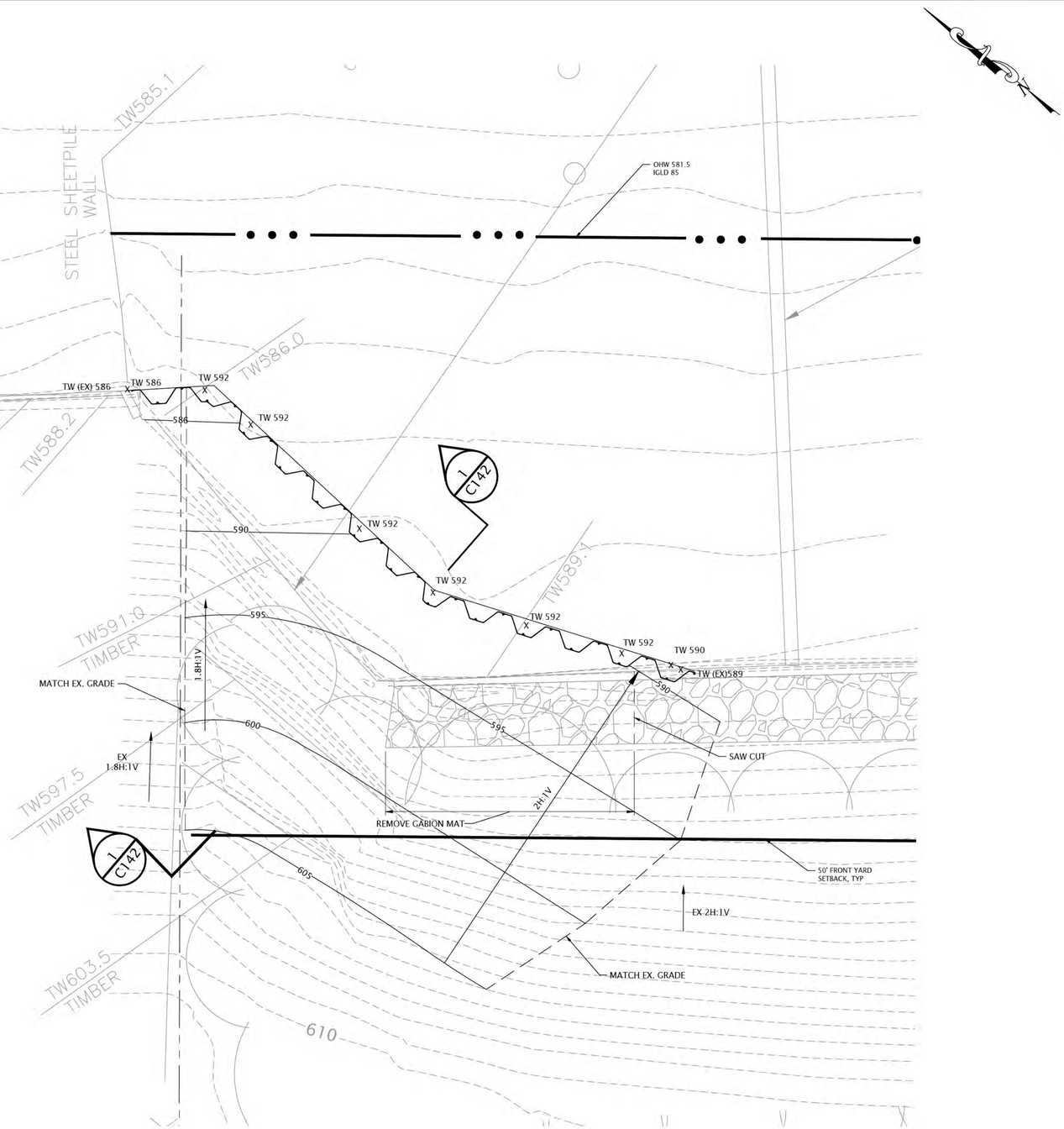
Scale 1 Inch = 20 Ft.

Drawing Title
Park Parking Lot Improvements

Sheet No.
C141



1 C142 SECTION
SCALE : 0' 2.5' 5'



LEGEND (PROPOSED)

OHW 581.5 IGLD 85

50' FRONT YARD SETBACK

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Winnetka Park District
Winnetka, IL

Graphic Scale

0' 2.5' 5'
(In Feet)
1 Inch = 5 Ft.

Scale 1 Inch = 5 Ft.

Drawing Title

Centennial North Bulkhead
Corner Improvements

Sheet No.
C142

LEGEND

- Existing Trees to Remain
- Existing Tree to be Removed
- Tree Protection Fencing, typ.

TREE REMOVAL LIST

Tree Removals - Centennial Beach

#	Caliper	Common Name	Species	Condition	Notes
1024	7	Tuliptree	Liriodendron tulipifera	2	
1121	11.75	Black Locust	Robinia pseudoacacia	3	
1122	13.75	Black Locust	Robinia pseudoacacia	3	
1123	12	Black Locust	Robinia pseudoacacia	4	
1126	13.75	Black Locust	Robinia pseudoacacia	3	forked at 3' w ith co-leaders
1127	15.75	Black Locust	Robinia pseudoacacia	4	
1129	12.5	Black Locust	Robinia pseudoacacia	3	forked at 3' w ith co-leaders
1130	18	Black Locust	Robinia pseudoacacia	3	
1133	18.25	Austrian Pine	Pinus nigra	3	
1134	11.75	Black Locust	Robinia pseudoacacia	3	
1135	10.25	Austrian Pine	Pinus nigra	3	
1149	19	Austrian Pine	Pinus nigra	4	
1154	13	Norw ay Maple	Acer platanoides	2	
1155	35	Black Willow	Salix nigra	5	fallen over uprooted, cut off at w all
1156	11.75	Norw ay Maple	Acer platanoides	3	
1157	7.25	Norw ay Maple	Acer platanoides	2	
1158	11	Siberian Elm	Ulmus pumila	6	snapped off at 8'
1159	8	Norw ay Maple	Acer platanoides	3	
1165	17	Mulberry	Morus spp.	4	
1168	8.5	Boxelder Maple	Acer negundo	3	
1169	9	Green Ash	Fraxinus pennsylvanica	6	dead
1171	24	Boxelder Maple	Acer negundo	5	on w ooden w all
1180	6	Mulberry	Morus spp.	3	
1181	7.25	Mulberry	Morus spp.	3	
1182	6.75	Norw ay Maple	Acer platanoides	2	
1183	6	Norw ay Maple	Acer platanoides	2	
1184	7	Norw ay Maple	Acer platanoides	2	forked at base w ith a 5" co-leader
1185	7.25	Tree-of-heaven	Ailanthus altissima	3	

Notes: The condition of the trees shall be based on a six (6) point scale and one (1) being the best and six (6) being the w orst.
1 - Excellent, 2-Good to Fair, 3-Fair (average), 4-Fair to Poor, 5-Poor, 6-Dead

	Total Quantity of Trees	Total Caliper Inches
Trees to be Removed	28	269.5
Dead Trees to be Removed	4	79

Dead trees are not factored into the total number of replacement trees.

	Total Quantity of Trees	Total Caliper Inches
Required Replacement Trees (3" caliper)	30	90
New Trees Provided (To be Confirmed)	9	36

TREE REMOVAL NOTES

1. Any existing tree surveys or locations for these plans were prepared by the engineer or a certified arborist. Full tree inventory survey will be provided upon request.
2. Contractor is to familiarize themselves with the restoration plan areas. All tree removals including understory tree removals within restoration areas shall be tagged or identified and confirmed by the contractor with the owner and owner's representative.
3. For tree removals in restoration areas, cut off flush with finished grade and leave roots in place so as not to disturb slope.
4. For tree removals outside of restoration areas, grind out stumps to a minimum of 18" depth and remove all roots prior to installation of proposed materials. Bring to finish grade with soil fill per specifications.
5. Keep all areas clean, neat, and orderly at all times. Legally dispose of all materials removed from the site per local codes and regulations.
6. Contractor shall limit all work and disturbance to within designated project areas. It shall be the responsibility of the contractor to restore to the original condition any damage or disturbance outside these limits.
7. Streets, sidewalks, and adjacent property shall be protected throughout the work as required by local codes and regulations and as approved by the Village.
8. Protect structures, utilities, sidewalks, pavements, fencing, furnishings, trees, and landscaping from damage caused by settlement, lateral movement, undermining, washouts, and other hazards created by site improvements. If any damage occurs, contractor shall repair to original condition at no additional cost.

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1 East Wacker Drive
Suite 2700
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p 312.467.5445
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thelakotagroup.com

Issued for	Rev.	Date
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100% Subm tta		06/28/24
B dd ng and Construct on		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' 15' 30'
(In Feet)

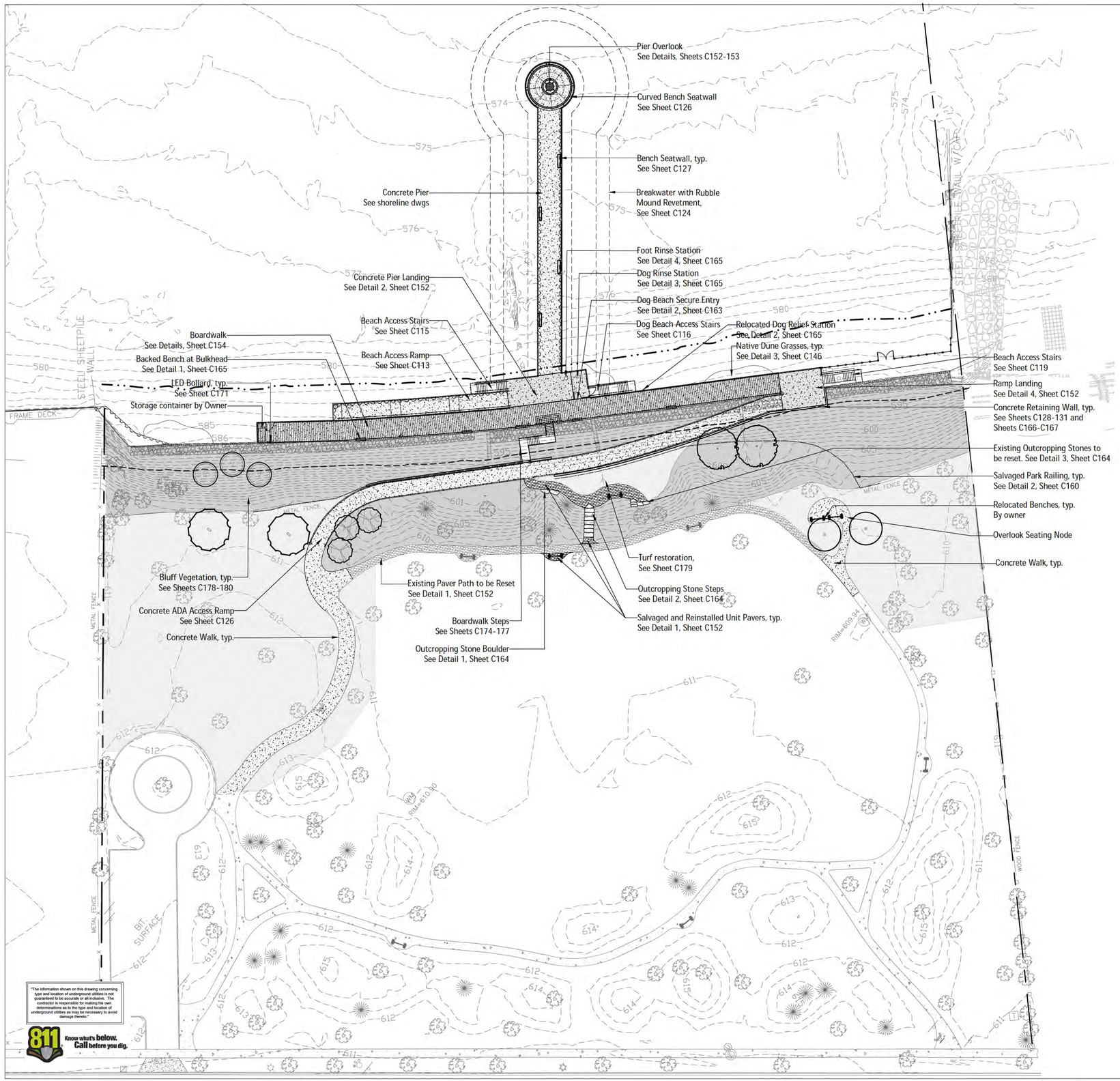
Scale 1 nch = 30 Ft.

Drawing Title

TREE PRESERVATION PLAN

Sheet No.

C143



LEGEND

- Ordinary High Water Mark (OHW)
- 50' Setback Line from OHW
- Concrete Walks, typ.
- Salvaged and Reinstalled Unit Pavers, typ. See Detail 1, Sheet C152
- Boardwalk, typ. See Details, Sheet C154
- Bluff Restoration, typ. See Restoration Plans
- Turf Restoration, typ. See Restoration Plans
- Proposed Shade Tree See Detail 1, Sheet C146
- Proposed Ornamental Tree See Details 2 & 4, Sheet C146
- Existing Trees to Remain
- Existing Bench to be Relocated
- Backed Bench Top
- Bollard, typ. See Lighting and Electrical Plans

GENERAL NOTES

1. Contractor responsible for field layout of all new improvements. The Owner's Representative is to verify in field all layout and locations prior to installation and provide additional coordinates and dimensions as needed.
2. Digital files of geometric information will be provided upon request in AutoCAD format by the landscape architect.
3. Contact the Owner's Representative for resolution of discrepancies between existing conditions and dimensioned layout as shown in contract documents. No additional payment will be made for adjustments necessary to construct the work as drawn.
4. Contractor to field verify site conditions and information on drawings. Contractor to promptly report any concealed conditions, mistakes, discrepancies or deviations from the information shown in the Contract Documents. The Owner is not responsible for unauthorized changes or extra work required to correct unreported discrepancies.
5. Contractor responsible to maintain all layout stakes during construction. No additional payment will be made to replace layout stakes.
6. Place stakes at edges of concrete and every 25 feet on center along centerline of all pathways for review by the Owner's Representative prior to earthwork operations.
7. All curves and radii to be smooth and not segmented.
8. Contractor to provide layout stakes every 10 feet minimum for large arcs where radius points are not accessible.
9. Adjustment to stake locations due to discrepancies between coordinates and dimensions is incidental to the contract. No additional payments will be made for this work.
10. Layout all surfacing, score joints, and paving patterns as identified in the plans. Do not deviate from the plans unless approval is obtained from the Owner's Representative.
11. Layout of pavers, site amenities, light fixtures, control box enclosure(s), and outcropping stones shall be verified in field by the Owner's Representative prior to placement.
12. All surface drainage shall be diverted away from structures and noted site features in all areas as shown on the civil engineer's grading plans. Where poor subsurface drainage conditions occur in the field, contractor shall notify the Owner's Representative immediately and make recommendations for solutions to drainage issues before proceeding with work.
13. Landscape accent lighting as shown on these plans is for general location and intent only. The specified fixture and wattage shall be provided and installed on the desired feature per the electrical drawings and at the Owner's Representative's direction. Contractor shall field stake all accent lighting locations and obtain the Owner's Representative's approval before final installation. Please refer to electrical plans for conduit or low-voltage cable routing and power-source (timer, transformers, switch boxes, etc.).

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Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale
0' 15' 30'
(In Feet)

Scale 1 Inch = 30 Ft.

Drawing Title
OVERALL SITE PLAN

Sheet No.
C144

LEGEND

- Ordinary High Water Mark (OHW)
- 50' Setback Line from OHW
- Concrete Walks, typ.
- Salvaged and Reinstalled Unit Pavers, typ. See Detail 1, Sheet C152
- Boardwalk, typ. See Details, Sheet C154
- Bluff Restoration, typ. See Sheets C178-180
- Turf Restoration, typ. See Sheets C178-180
- Proposed Shade Tree See Detail 1, Sheet C146
- Proposed Ornamental Tree See Details 2 & 4, Sheet C146
- Existing Trees to Remain
- Existing Bench to be Relocated
- Backed Bench Top
- Bollard, typ.

TREE PLANTING SCHEDULE

SYMBOL	QTY	BOTANIC NAME	COMMON NAME	SIZE	SPACING
DECIDUOUS TREES					
CO	2	Celtis occidentalis	Common Hackberry	3" caliper, B&B	As shown
LT	2	Liriodendron tulipifera	Tulip Tree	3" caliper, B&B	As shown
QM	2	Quercus macrocarpa	Bur Oak	3" caliper, B&B	As shown
ORNAMENTAL TREES					
BN	3	Betula nigra 'Heritage'	Heritage River Birch	1.5" - 2", B&B	As shown
CAR	3	Carpinus caroliniana JN Upright	Firespire American Hornbeam	1.5" - 2", B&B	As shown

NOTES

General Conditions

1. Contractor shall familiarize themselves with all landscape specifications prior to commencement of work. Any questions or concerns shall be directed to the Owner's Representative in writing prior to landscape work commencement.
2. The landscape contractor shall keep all areas clean and orderly at all times.
3. The landscape contractor shall keep all roadways and walkways clear of mud and debris that result from landscape operations.

Planting Standards

1. All plant material shall be top-quality grade, free of defects, and meet accepted horticultural standards established by the american nurserymen's association (aan) and as deemed appropriate by landscape architect. Landscape architect shall have the right to reject any, and all, plant material delivered to the site that does not meet acceptable standards.
2. Sizes shown on plant schedule are minimum acceptable sizes.
3. All plants to be balled-in-burlap or container-grown as specified in plant schedule. All plastic root wrapping material and metal wire baskets shall be removed.
4. All new and transplanted plants to be sprayed with an antidessecant within twenty-four (24) hours after planting. Antitranspirant shall be "wiltpruf" or an approved equal.
5. Landscape architect shall field verify and approve all final staked tree locations prior to installation.
6. The landscape contractor shall repair to its original condition any plant material which becomes damaged as a result of landscape operations.
7. Landscape architect shall approve all trees for quality, condition and specified sizes. Trees shall be approved at nursery location, during tagging or before removal and transport to job site. See specifications for additional information regarding planting standards.

Fertilizer & Mulching

1. Prior to mulching tree planting areas, apply time-release fertilizer by broadcasting over entire planting areas. Rate is to manufacturer's recommendations. Fertilizer is to have no less than 10% available phosphoric acid, and 3-8% total nitrogen soluble potash.
2. All plantings shall receive a slow-release fertilizer with a ratio of 10/10/10.
3. All trees shall receive a minimum of 3" thick shredded hardwood mulch top-dressing.
4. See specifications for additional information regarding fertilizer and mulching.

Maintenance & Warranties

1. All plants shall be thoroughly watered in at time of planting and watered and maintained throughout construction until final acceptance by owner. Contractor shall water all plants immediately after planting. Flood plants twice during the first twenty-four (24) hours after planting.
2. Landscape contractor shall warranty all trees under this contract will be healthy and in flourishing condition of active growth one year from date of final acceptance.
3. See specifications for additional information regarding maintenance and warranties.

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Graphic Scale

0' 15' 30'
(In Feet)

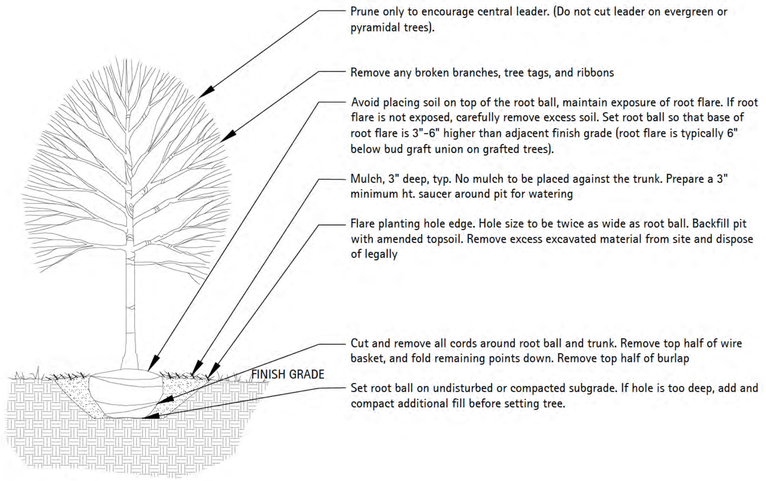
Scale 1 Inch = 30 Ft.

Drawing Title

LANDSCAPE PLAN

Sheet No.

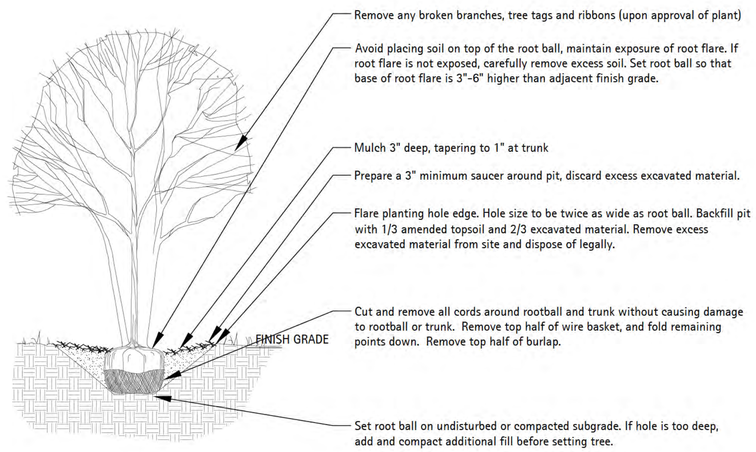
C145



1 Shade Tree Planting

Scale: 1/2" = 1'-0"

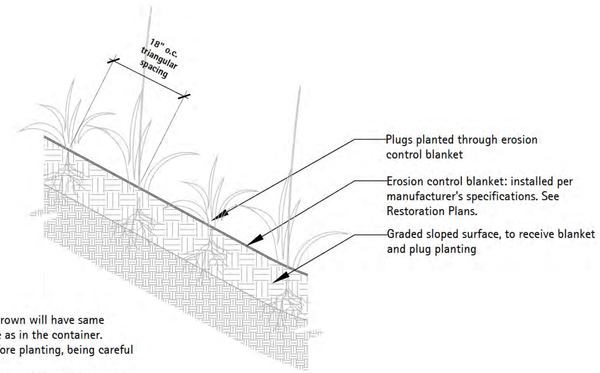
d-shade-tree-planting_0.0417



2 Section - Ornamental Tree Planting

Scale: 1/2" = 1'-0"

d-plant-tree-orn_0.0417

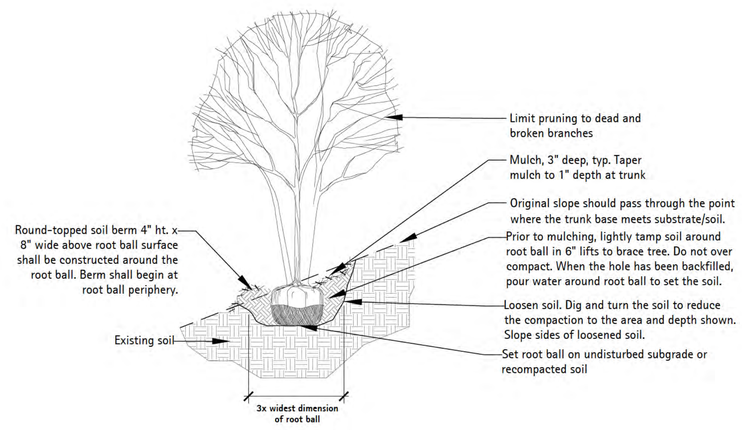


NOTE:
1. Set individual plugs so that crown will have same relationship to finished grade as in the container.
2. Remove plastic container before planting, being careful to keep root system intact.
3. Take precautions to protect slopes from erosion during construction activities.

3 Section - Plug Planting Detail at Bluff

Scale: 1/2" = 1'-0"

d-plant-bluff plug



4 Section - Ornamental Tree on Slope 5% (20:1) to 50% (2:1) Unmodified Soil

Scale: 1/2" = 1'-0"

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Prepared For:

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Winnetka, IL

Graphic Scale

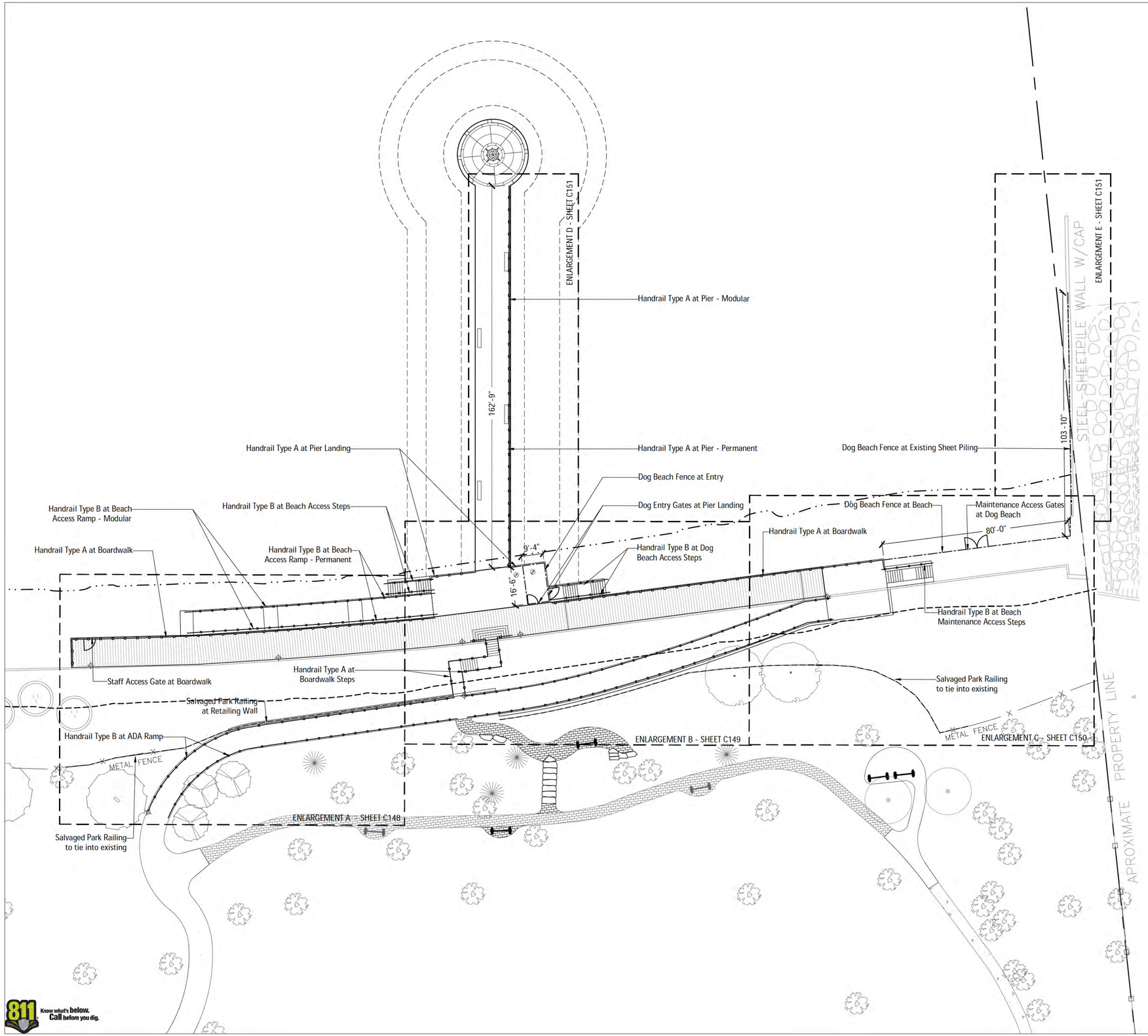
Scale

Drawing Title

PLANTING DETAILS

Sheet No.

C146



811 Know what's below. Call before you dig.

LEGEND

- Ordinary High Water Mark (OHW)
- 50' Setback Line from OHW
- Handrail Type A
  See Details, Sheets C155-157
- Handrail Type B
  See Details, Sheet C158-C160
- Dog Beach Fencing
  See Details, Sheet C161-163
- Salvaged Park Railing
  See Detail 2, Sheet C160

METAL FABRICATION NOTES

1. Metal fabricator to provide shop drawings and specifications for all metal work including, but not limited to, all connections, fixtures, hardware, and related equipment needed to provide structure and coverage per the contract drawings and for review by the Owner's Representative.
2. Contractor shall provide coordinated shop drawings for all fabrication components and installation of these elements for approval by Owner's representative. Shop drawings shall coordinate all aspects of the bluff ramp, boardwalk, and staircase construction including structural, ipe decking, wood, concrete, and metal fabrication.
3. Contractor shall assume full structural and manufacturing responsibility for all mounting components and ensure durability and integrity of these elements.
4. Mockups of each handrail type shall be submitted for review and approval by Owner and Owner's representative. Approved mockups to become part of final installation.

HANDRAIL NOTES

The following notes apply to all handrails, see sheets C155-C160.

1. Coordinate with Structural Drawings for framework and footing details.
2. All steel components, other than than stainless steel, to be powder coated black. See specifications.
3. All welds shall be ground smooth, clean, and as close to straight angles as possible for a clean finished appearance.
4. All hardware and fasteners for handrail Type A shall be stainless steel, heads painted black, unless otherwise noted.
5. All hardware and fasteners for handrail Type B shall be stainless steel, unless otherwise noted.
6. Metal fabricator to determine appropriate anchor bolt depth and indicate in coordinated shop drawings.
7. Metal Fabricator to indicate expansion joint locations and splice connections for all permanent handrails (Type A and Type B) and for horizontal bars for the length of dog beach fence where mounted at sheet piling.
8. Samples of all metal component finishes to be submitted for review and approval by the Owner's Representative.

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Prepared For:

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Winnetka, IL

Graphic Scale

0' 0' 20'
(In Feet)

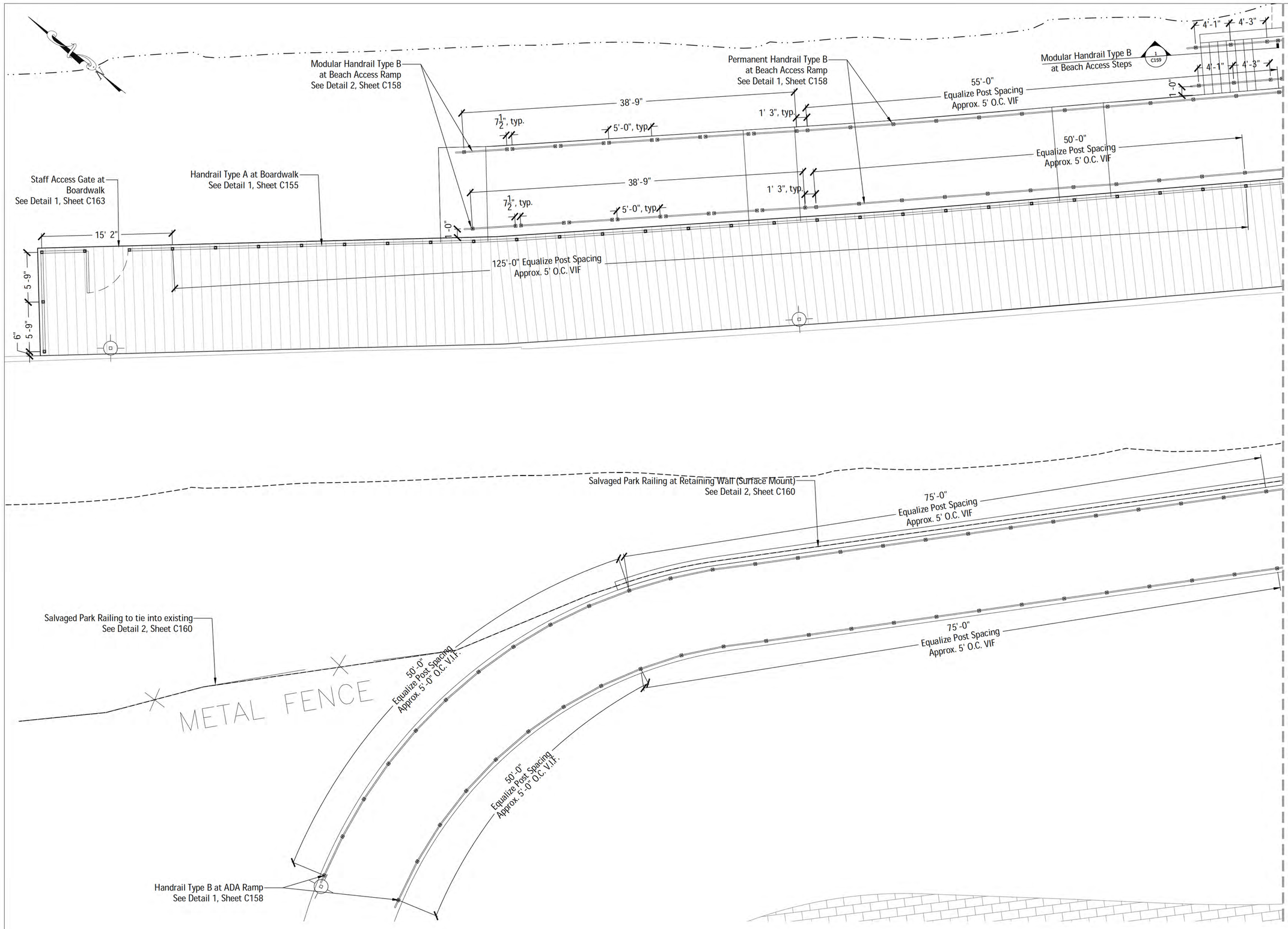
Scale 1 Inch = 20 Ft.

Drawing Title

HANDRAIL AND FENCING PLAN

Sheet No.

C147



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Graphic Scale

0' 2.5' 5'
(In Feet)

Scale 1 Inch = 5 Ft.

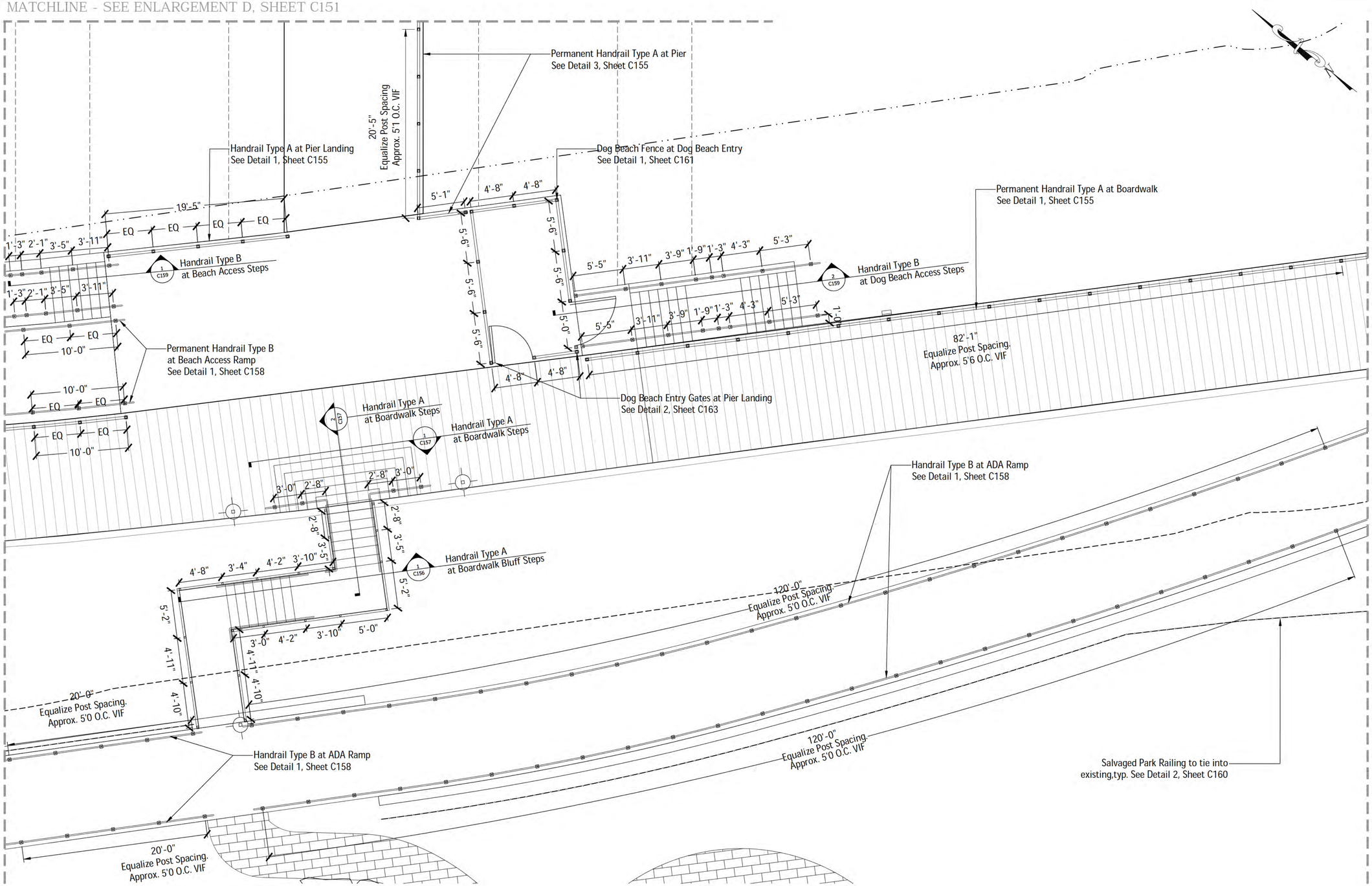
Drawing Title

HANDRAIL AND FENCING
ENLARGEMENT PLAN A

Sheet No.

C148

MATCHLINE - SEE ENLARGEMENT D, SHEET C151



MATCHLINE - SEE ENLARGEMENT A, SHEET C148

MATCHLINE - SEE ENLARGEMENT C, SHEET C150

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(In Feet)

Scale 1 Inch = 5 Ft.

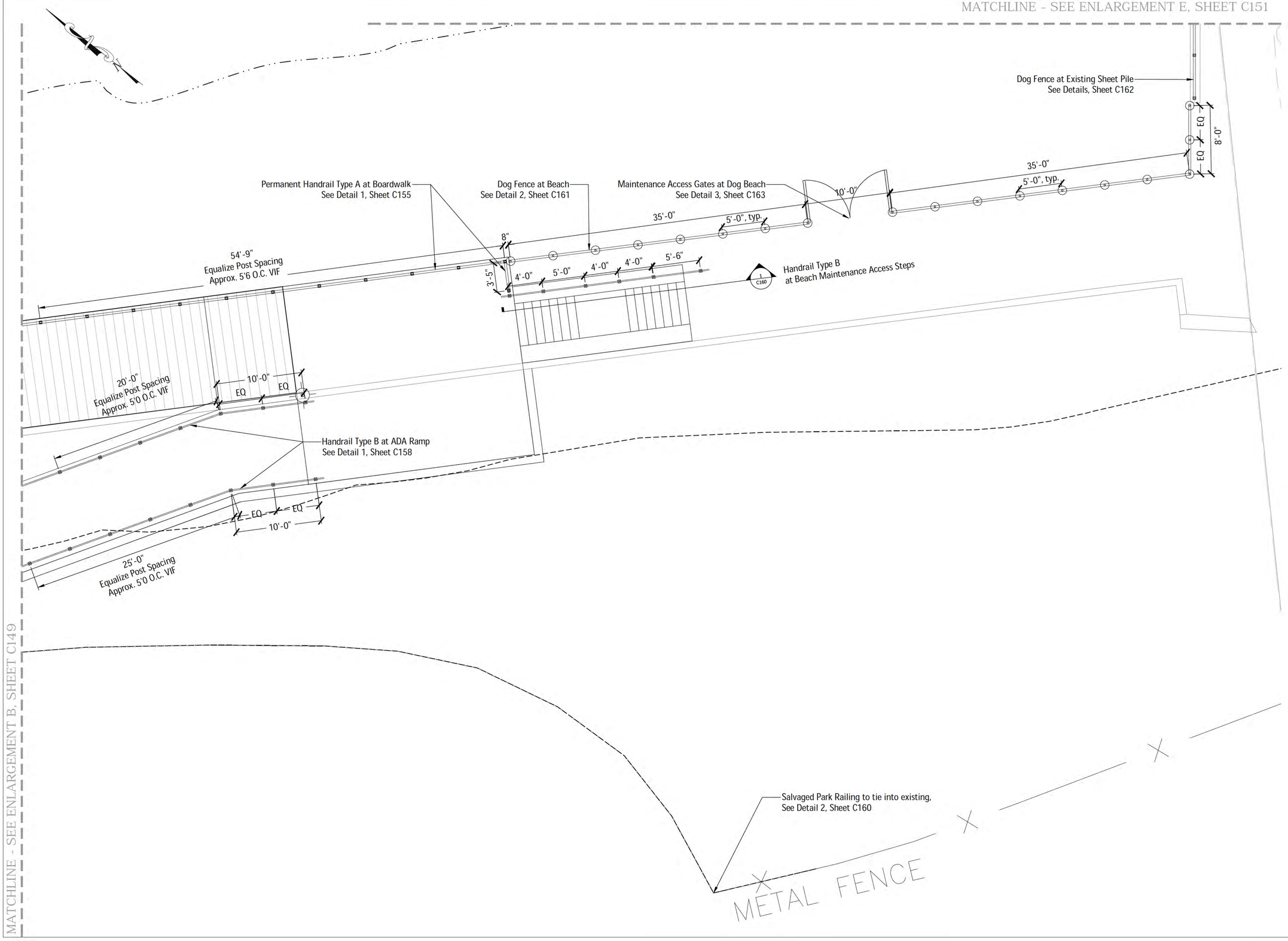
Drawing Title

HANDRAIL AND FENCING
ENLARGEMENT PLAN B

Sheet No.

C149

MATCHLINE - SEE ENLARGEMENT E, SHEET C151



MATCHLINE - SEE ENLARGEMENT B, SHEET C149

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Graphic Scale

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(In Feet)

Scale 1 Inch = 5 Ft.

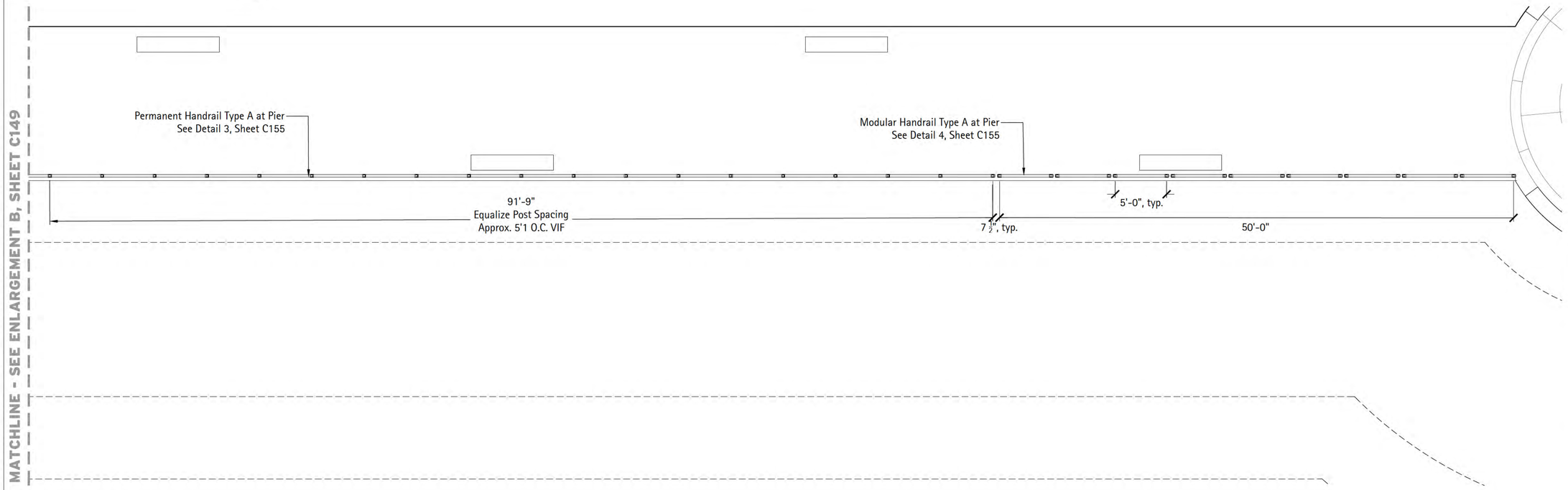
Drawing Title

HANDRAIL AND FENCING
ENLARGEMENT PLAN C

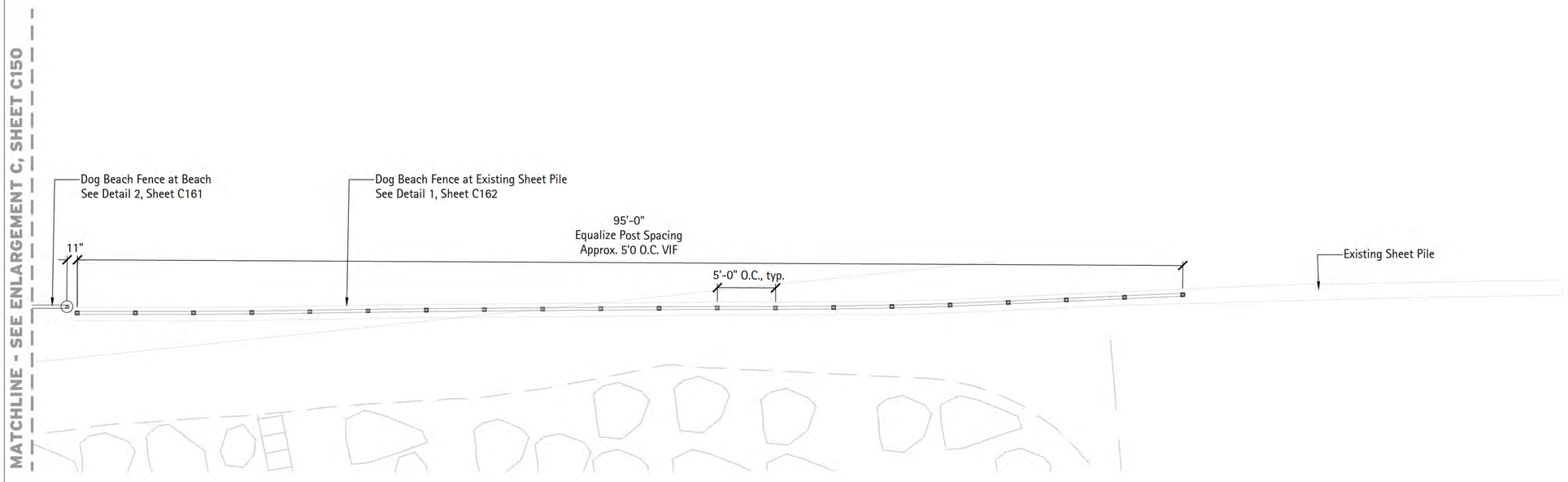
Sheet No.

C150

ENLARGEMENT PLAN D



ENLARGEMENT PLAN E



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(In Feet)

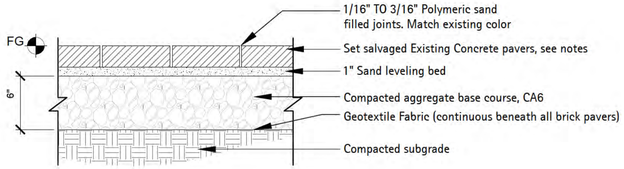
Scale 1 Inch = 5 Ft.

Drawing Title

HANDRAIL AND FENCING
ENLARGEMENT PLANS D AND E

Sheet No.

C151

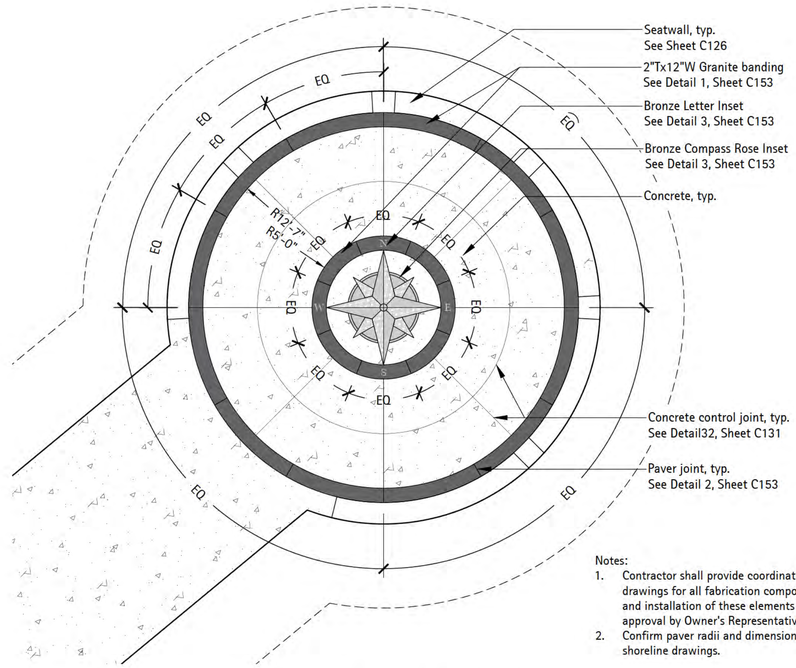


Notes:
1. Infill paver walkway with salvaged pavers from elsewhere on site. Match herringbone paving pattern with soldier course edging and adjust paver edging as necessary to accommodate new edge of paving.
2. CA6 base course and geotextile fabric shall be incidental to paver installation.
3. Engraved Pavers to be stockpiled and relocated at Owner's direction.

1 Proposed Paver Walk

Scale: 1 1/2" = 1'-0"

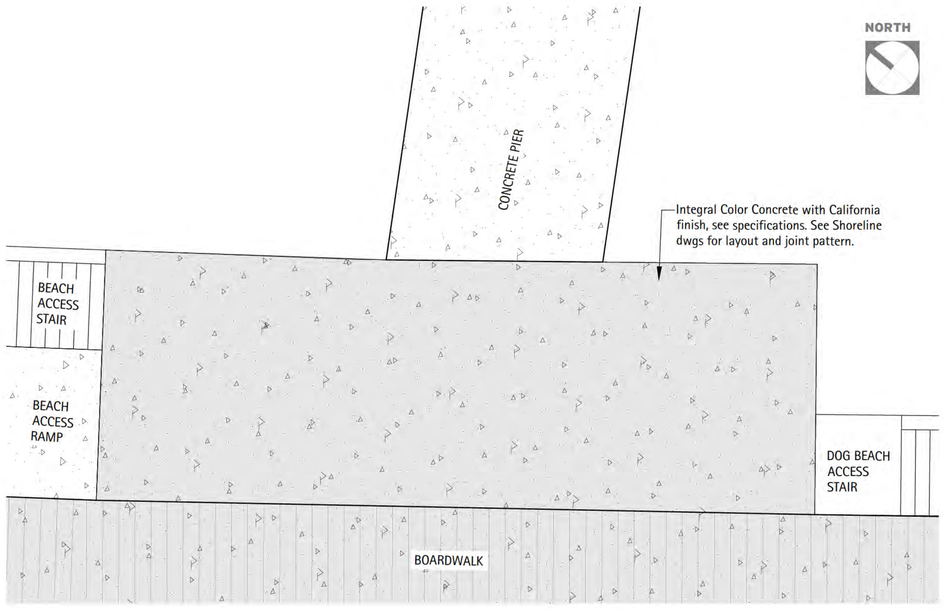
d-unit-paving



Notes:
1. Contractor shall provide coordinated shop drawings for all fabrication components and installation of these elements for approval by Owner's Representative.
2. Confirm paver radii and dimensions with shoreline drawings.

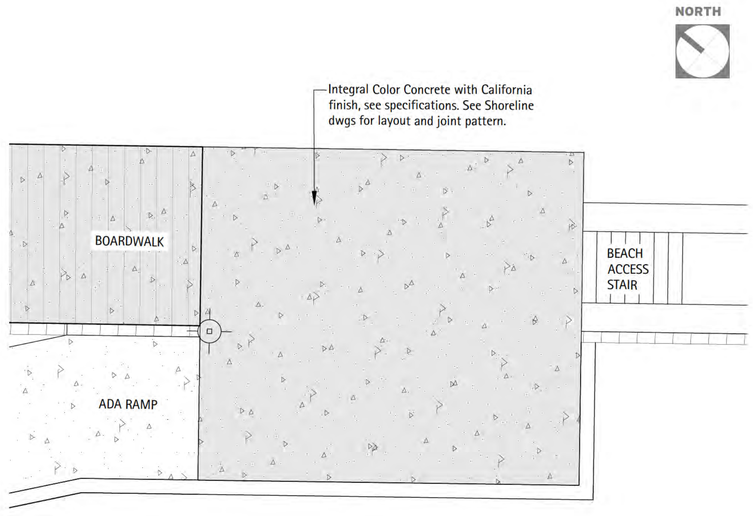
2 Enlarged Plan - Paving Pattern Pier Overlook

Scale: 1" = 5'-0"



3 Enlarged Plan - Paving Pattern at Pier Landing

Scale: 1" = 5'-0"



4 Enlarged Plan - Paving Pattern at Ramp Landing

Scale: 1" = 5'-0"

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Prepared For:

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Winnetka, IL

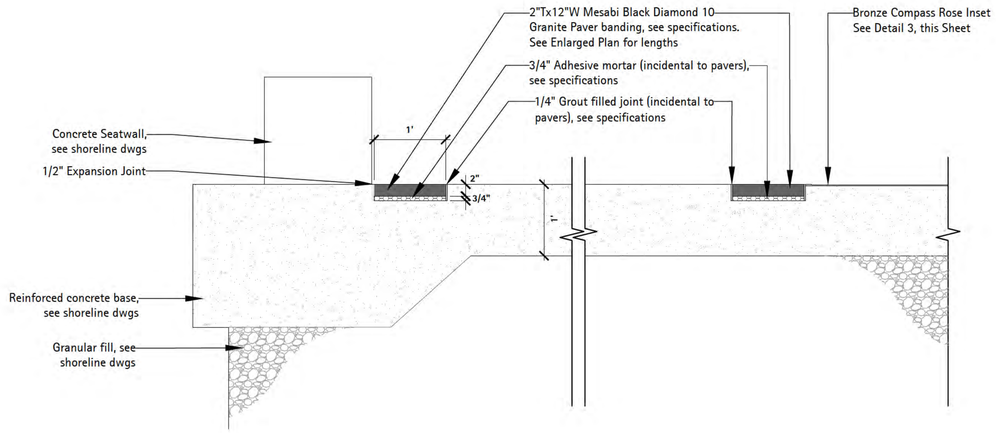
Graphic Scale

Scale None

Drawing Title

HARDSCAPE DETAILS

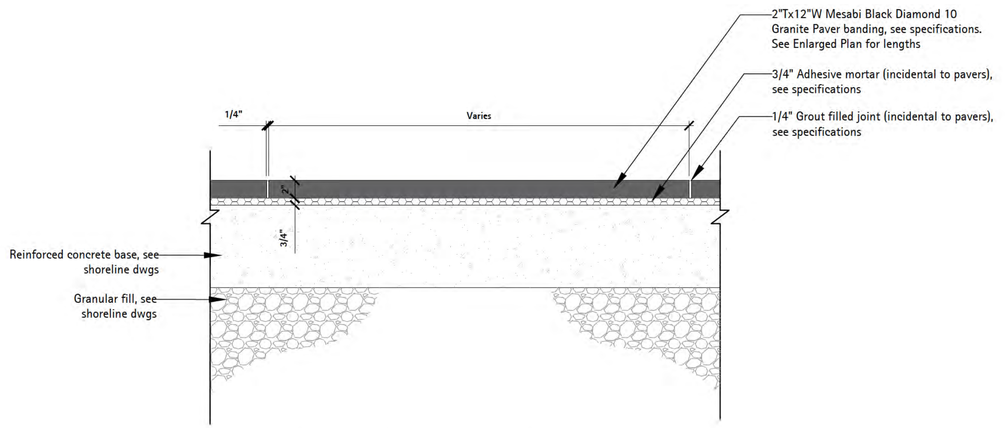
Sheet No.
C152



1 Section - Granite Banding

Scale: 1" = 1'-0"

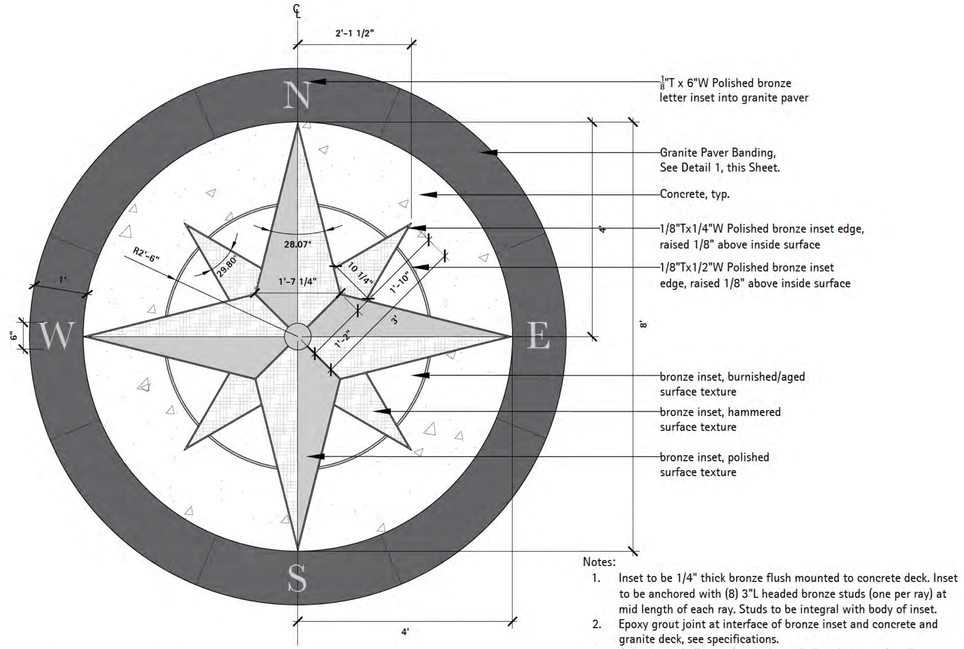
d-granite banding



2 Section - Granite Paver Joint Spacing

Scale: 1 1/2" = 1'-0"

d-file name



Notes:

1. Inset to be 1/4" thick bronze flush mounted to concrete deck. Inset to be anchored with (8) 3"L headed bronze studs (one per ray) at mid length of each ray. Studs to be integral with body of inset.
2. Epoxy grout joint at interface of bronze inset and concrete and granite deck, see specifications.
3. Contractor shall provide coordinated shop drawings for all fabrication components and installation of these elements for approval by Owner's Representative.

3 Enlarged Plan - Bronze Compass Rose Inset

Scale: 3/4" = 1'-0"

d-bronze inset

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Graphic Scale

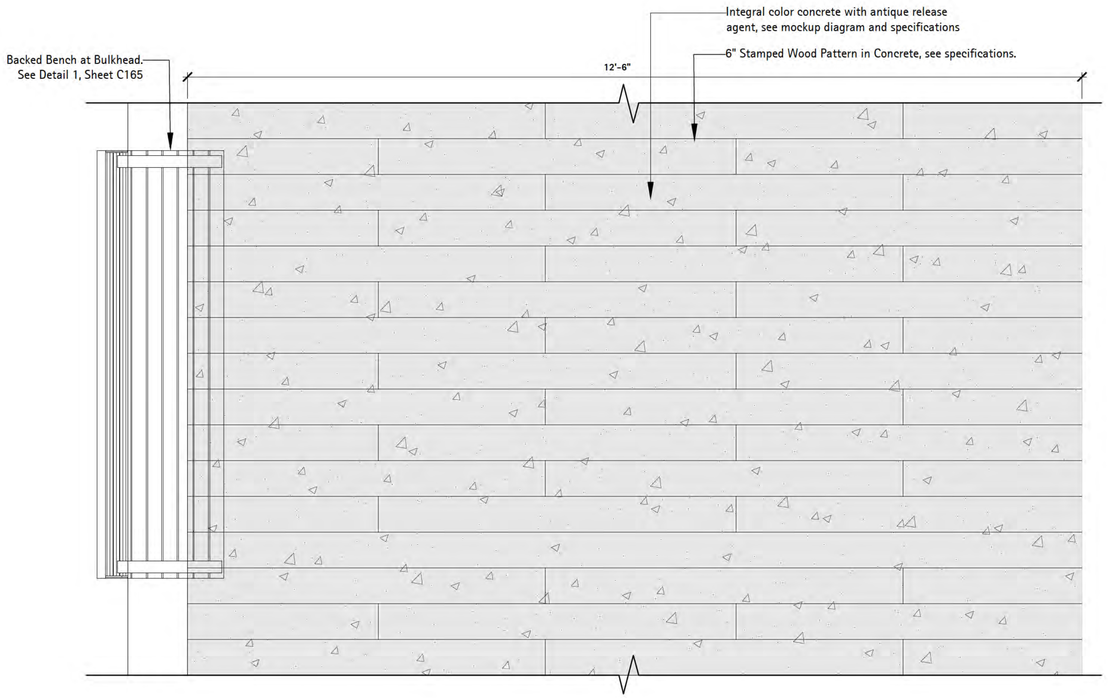
Scale None

Drawing Title

HARDSCAPE DETAILS

Sheet No.

C153



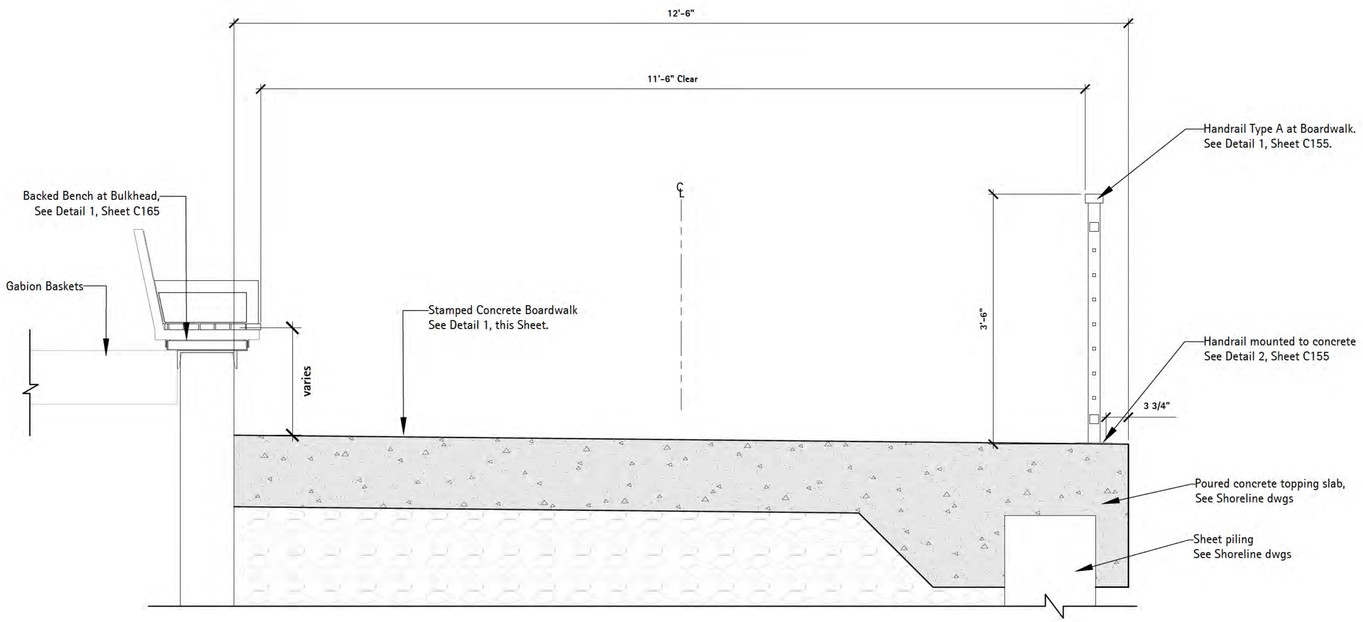
Mockup Diagram		
	Color Option 1 Uni-Mix U-10 Sonoran Tan	Color Option 2 Uni-Mix U-20 Smoke
Type A Finish Antique Release Color SikaColor-300 R24 Colina1an		
Type B Finish Antique Release Color SikaColor-300 R14 Walnut		
Type C Finish Broom Finish		

Note:
1. Mockup panels to be 4' x 4' x full depth.
2. See specifications for product information and mockup requirements.
3. Wood pattern to run perpendicular to boardwalk alignment. Break and re-set pattern at any changes in boardwalk alignment direction. Askew pattern will not be acceptable.

1 Enlarged Plan - Stamped Concrete Boardwalk

Scale: 1" = 1'-0"

d-boardwalk-plan



2 Section - Stamped Concrete Boardwalk

Scale: 1" = 1'-0"

d-boardwalk-section

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100% Subm tta		06/28/24
B dd ng and Construct on		07/19/24

Project Title:

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Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

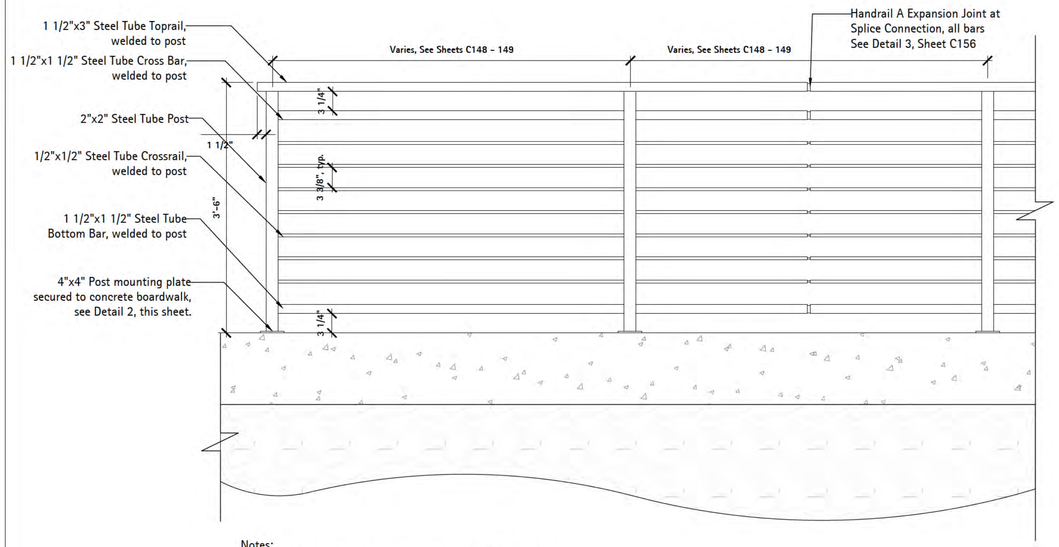
Graphic Scale

Scale
None

Drawing Title

BOARDWALK DETAILS

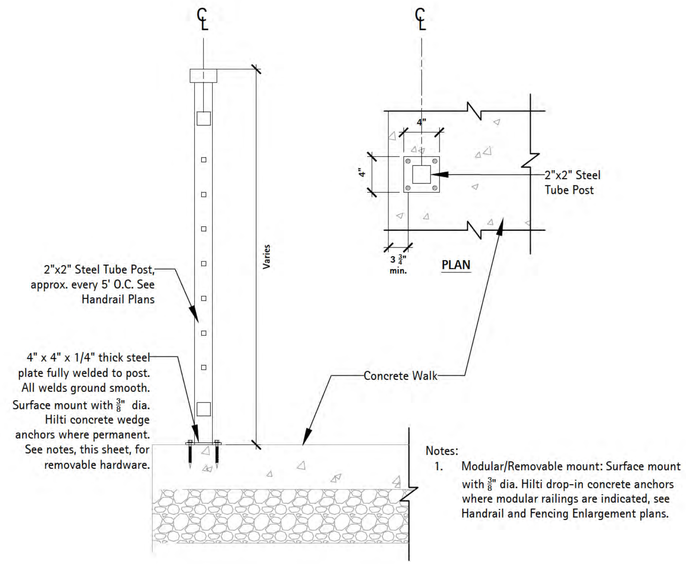
Sheet No.
C154



Notes:
1. Steel top rail to run continuously over multiple posts.
2. All steel tube rails and posts to have $\frac{1}{8}$" rounded edges.
3. Cap exposed steel posts and horizontal rails for water-tight seal, both ends.
4. All steel to be galvanized steel, powder-coated black.

1 Elevation - Handrail Type A at Boardwalk and Pier Landing

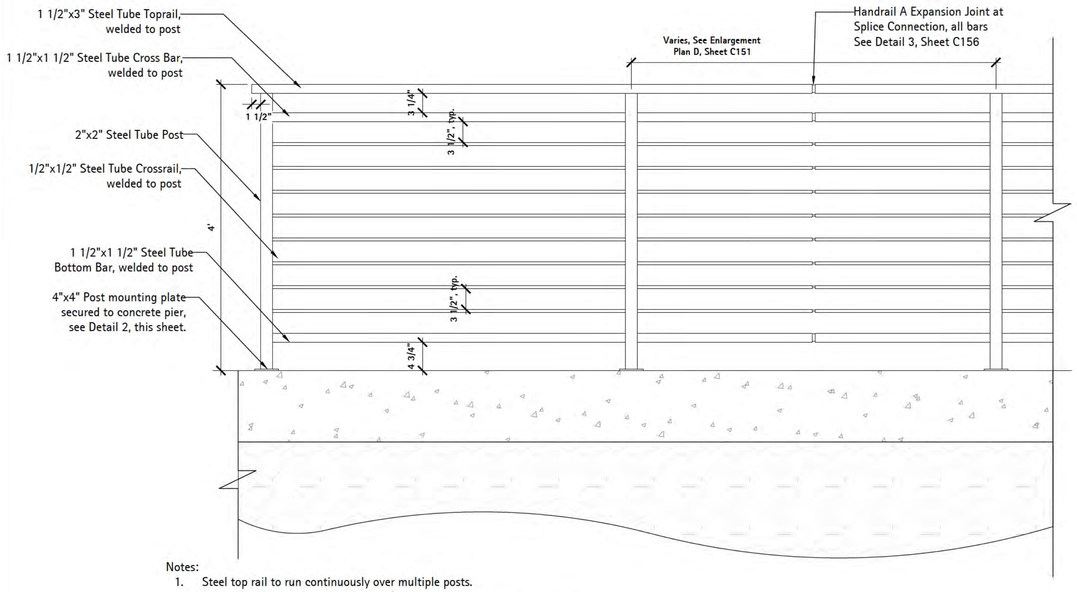
Scale: 1" = 1'-0"



Notes:
1. Modular/Removable mount: Surface mount with $\frac{3}{8}$" dia. Hilti drop-in concrete anchors where modular railings are indicated, see Handrail and Fencing Enlargement plans.

2 Section - Handrail Type A at Concrete (Surface Mount)

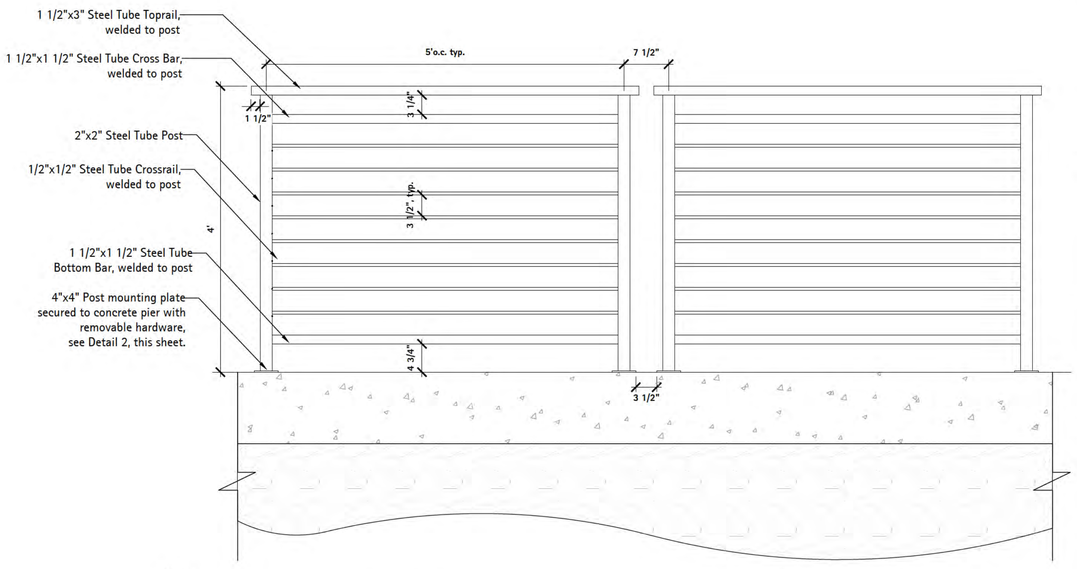
Scale: 1 1/2" = 1'-0"



Notes:
1. Steel top rail to run continuously over multiple posts.
2. All steel tube rails and posts to have $\frac{1}{8}$" rounded edges.
3. Cap exposed steel posts and horizontal rails for water-tight seal, both ends.
4. All steel to be galvanized steel, powder-coated black.

3 Elevation - Handrail Type A at Pier - Permanent

Scale: 1" = 1'-0"



Notes:
1. Steel top rail to run continuously over multiple posts.
2. All steel tube rails and posts to have $\frac{1}{8}$" rounded edges.
3. Cap exposed steel posts and horizontal rails for water-tight seal, both ends.
4. All steel to be galvanized steel, powder-coated black.

4 Elevation - Handrail Type A at Pier - Modular

Scale: 1" = 1'-0"

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Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

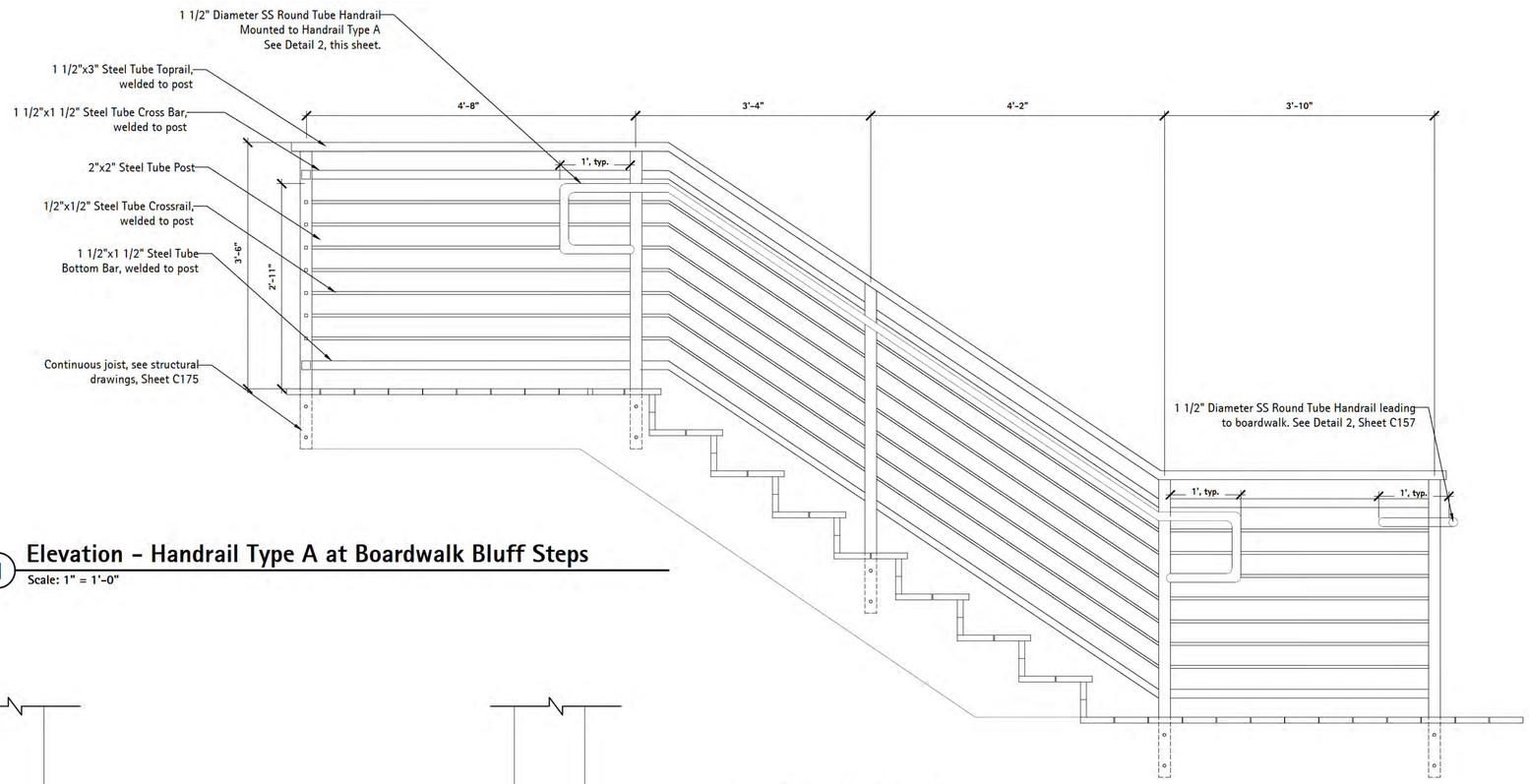
Scale None

Drawing Title

HANDRAIL DETAILS

Sheet No.

C155



1 Elevation - Handrail Type A at Boardwalk Bluff Steps

Scale: 1" = 1'-0"

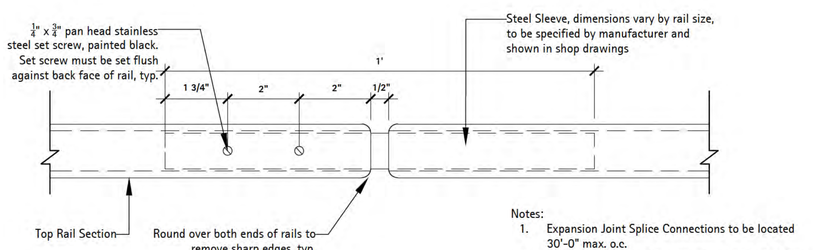
TOP AND BOTTOM POST CROSS SECTION

MIDDLE POST CROSS SECTION

2 Handrail at Elevated Boardwalk Steps (Post-Mounted)

Scale: 6" = 1'-0"

d-handrail



Notes:

1. Expansion Joint Splice Connections to be located 30'-0" max. o.c.
2. Expansion Joints to be shown on all horizontal bars and rails for all permanent railings.
3. Final screw sizes and spacing to vary per rail size, indicate screw sizing and spacing on shop drawings for all horizontal rails on permanent railings.

3 Handrail A Expansion Joint Splice Connection

Scale: 6" = 1'-0"

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Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

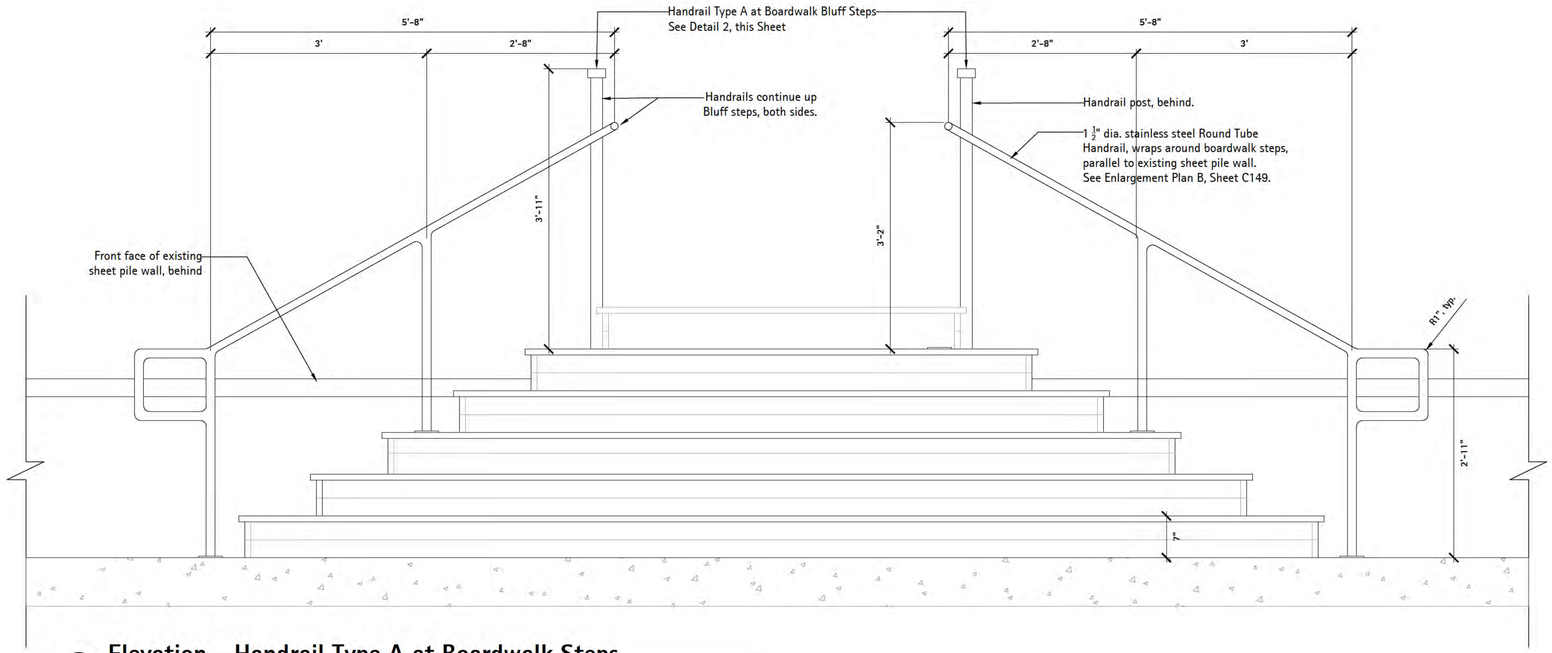
Scale None

Drawing Title

HANDRAIL DETAILS

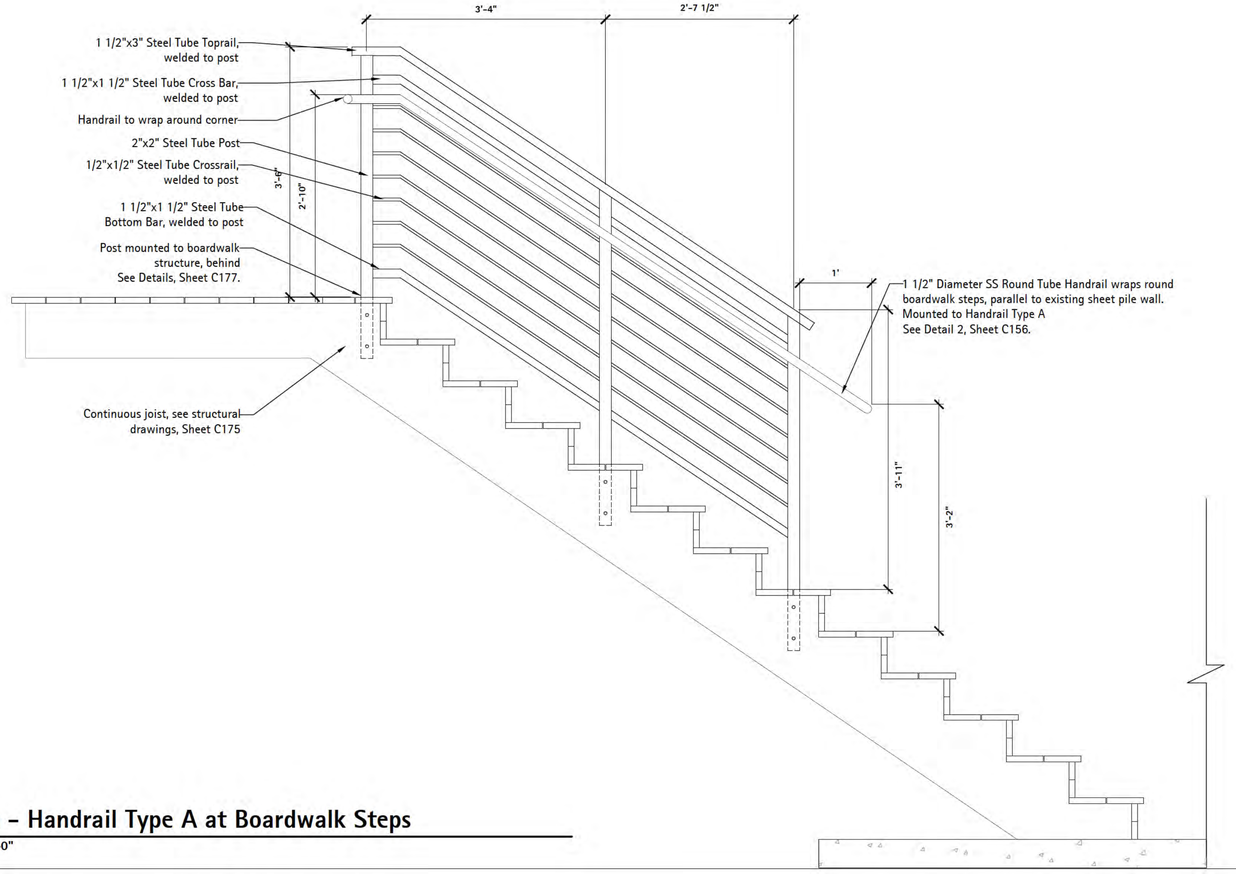
Sheet No.

C156



1 Elevation - Handrail Type A at Boardwalk Steps

Scale: 1" = 1'-0"



2 Section - Handrail Type A at Boardwalk Steps

Scale: 1" = 1'-0"

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Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

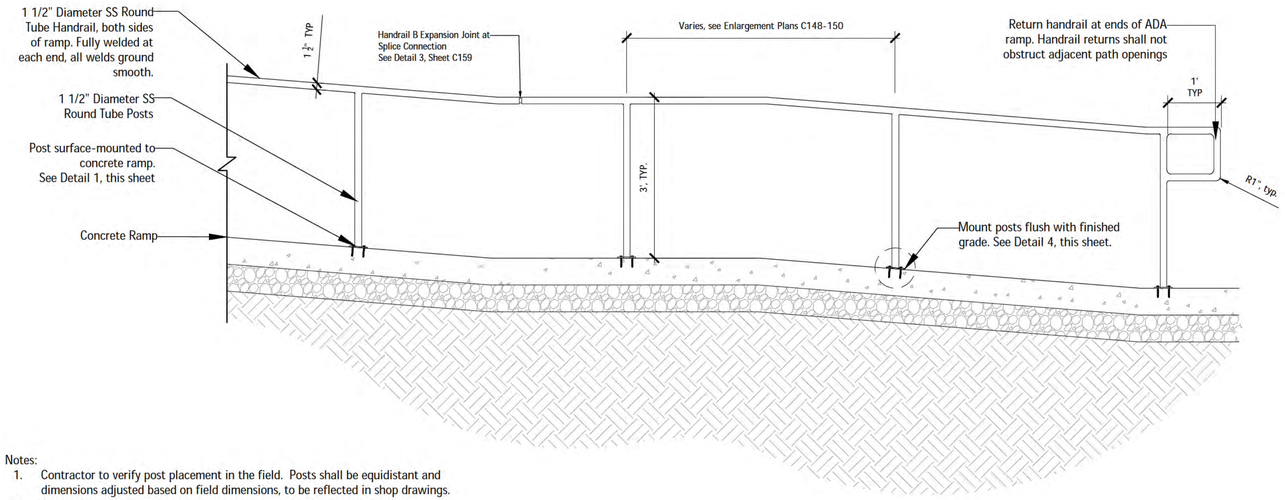
Scale None

Drawing Title

HANDRAIL DETAILS

Sheet No.

C157

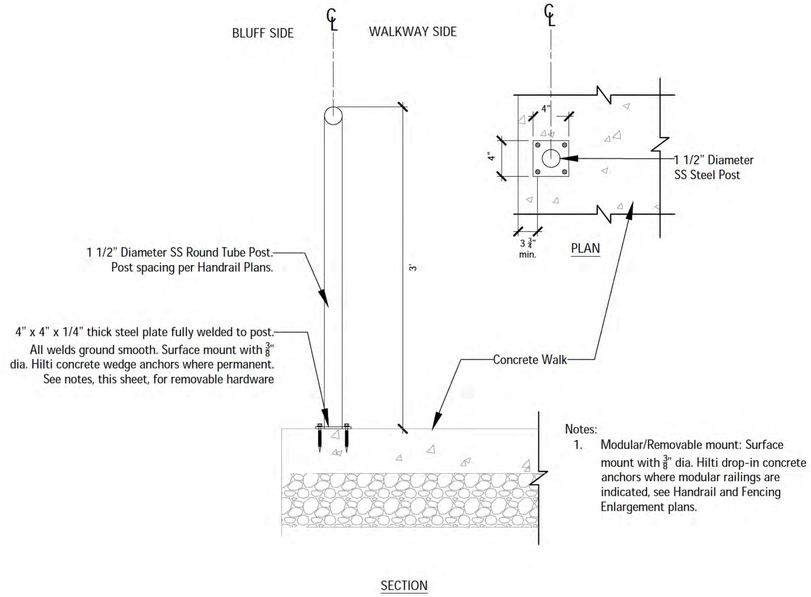


Notes:
1. Contractor to verify post placement in the field. Posts shall be equidistant and dimensions adjusted based on field dimensions, to be reflected in shop drawings.
2. Contractor shall provide shop drawings for all fabrication components and installation of these elements for approval by Owner's representative.
3. All welds to be ground smooth.
4. All steel to be 316 stainless steel, see specifications.

1 Elevation - Handrail Type B at ADA Ramp and Beach Access Ramp - Permanent

Scale: 3/4" = 1'-0"

d-handrail at ada ramp

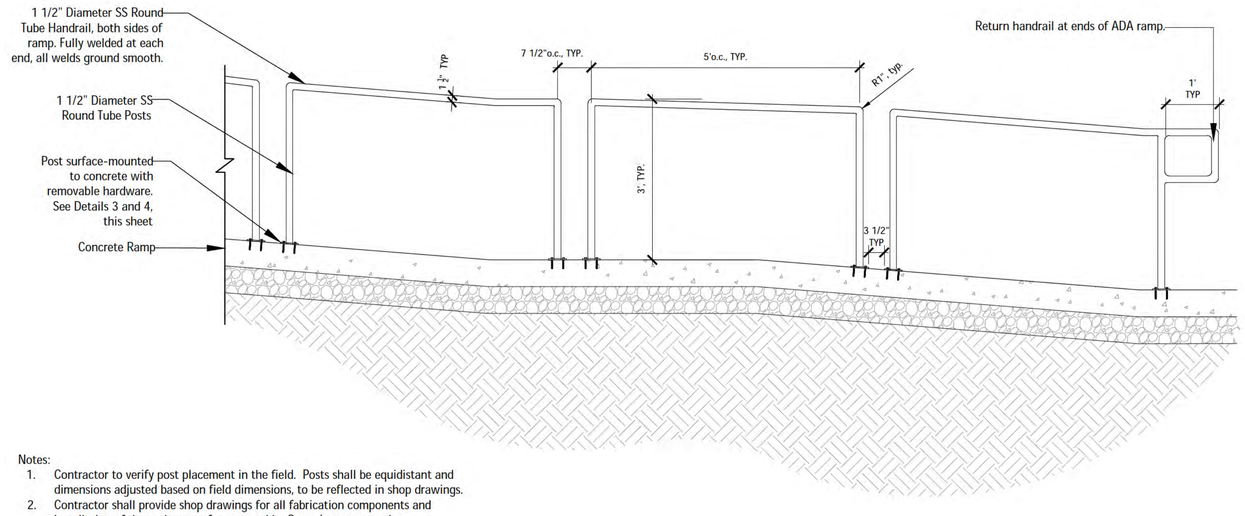


SECTION

3 Section - Handrail Type B at Concrete (Surface Mount)

Scale: 1 1/2" = 1'-0"

d-handrail at conc

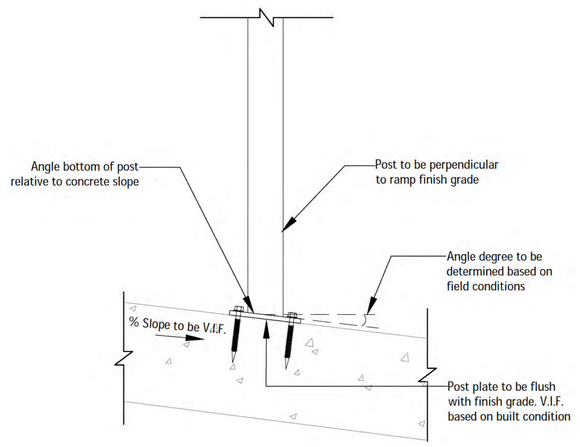


Notes:
1. Contractor to verify post placement in the field. Posts shall be equidistant and dimensions adjusted based on field dimensions, to be reflected in shop drawings.
2. Contractor shall provide shop drawings for all fabrication components and installation of these elements for approval by Owner's representative.
3. All welds to be ground smooth.
4. All steel to be 316 stainless steel, see specifications.

2 Elevation - Handrail Type B at Beach Access Ramp - Modular

Scale: 3/4" = 1'-0"

d-handrail at ada ramp



SECTION

4 Section - Handrail Type B Post Mount at Slope

Scale: 3" = 1'-0"

d-handrail at conc

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Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

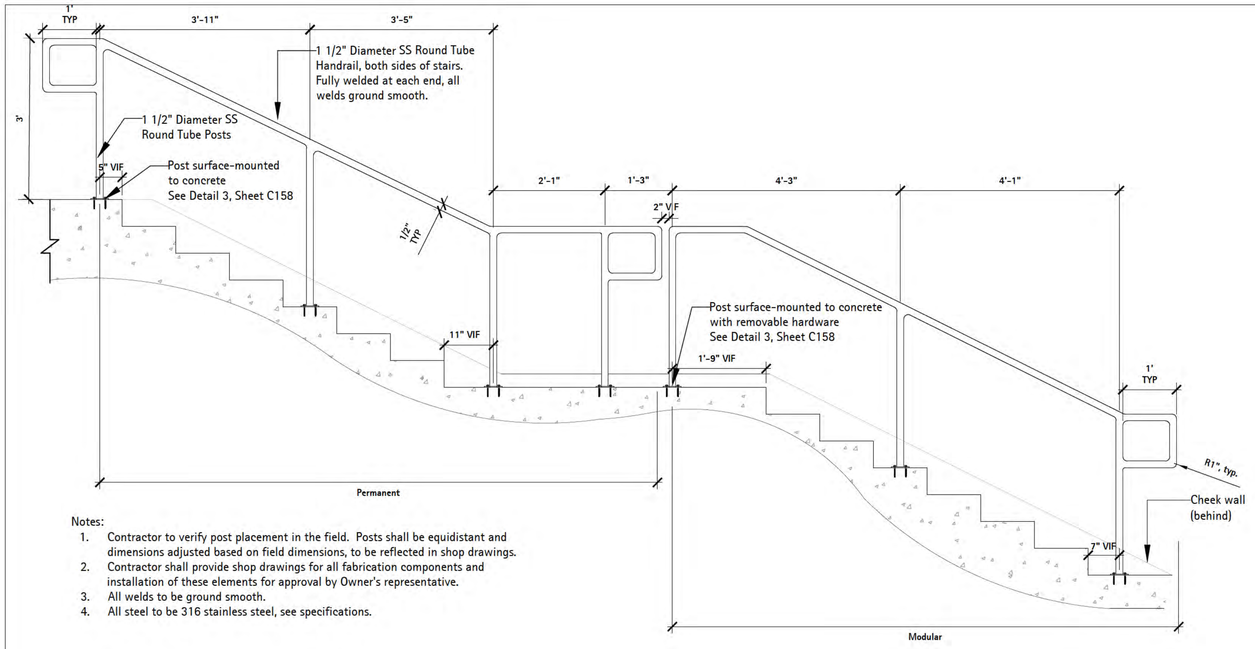
Scale None

Drawing Title

HANDRAIL DETAILS

Sheet No.

C158

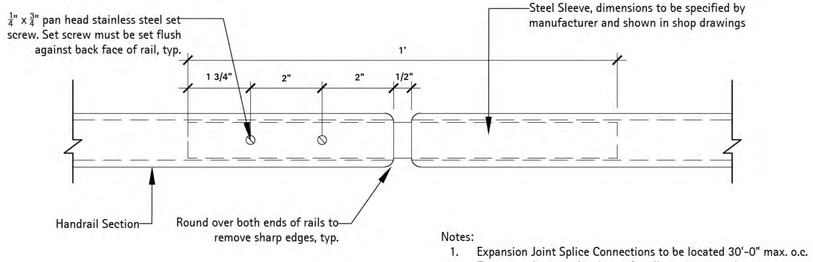


Notes:
1. Contractor to verify post placement in the field. Posts shall be equidistant and dimensions adjusted based on field dimensions, to be reflected in shop drawings.
2. Contractor shall provide shop drawings for all fabrication components and installation of these elements for approval by Owner's representative.
3. All welds to be ground smooth.
4. All steel to be 316 stainless steel, see specifications.

1 Elevation - Handrail Type B at Beach Access Steps

Scale: 3/4" = 1'-0"

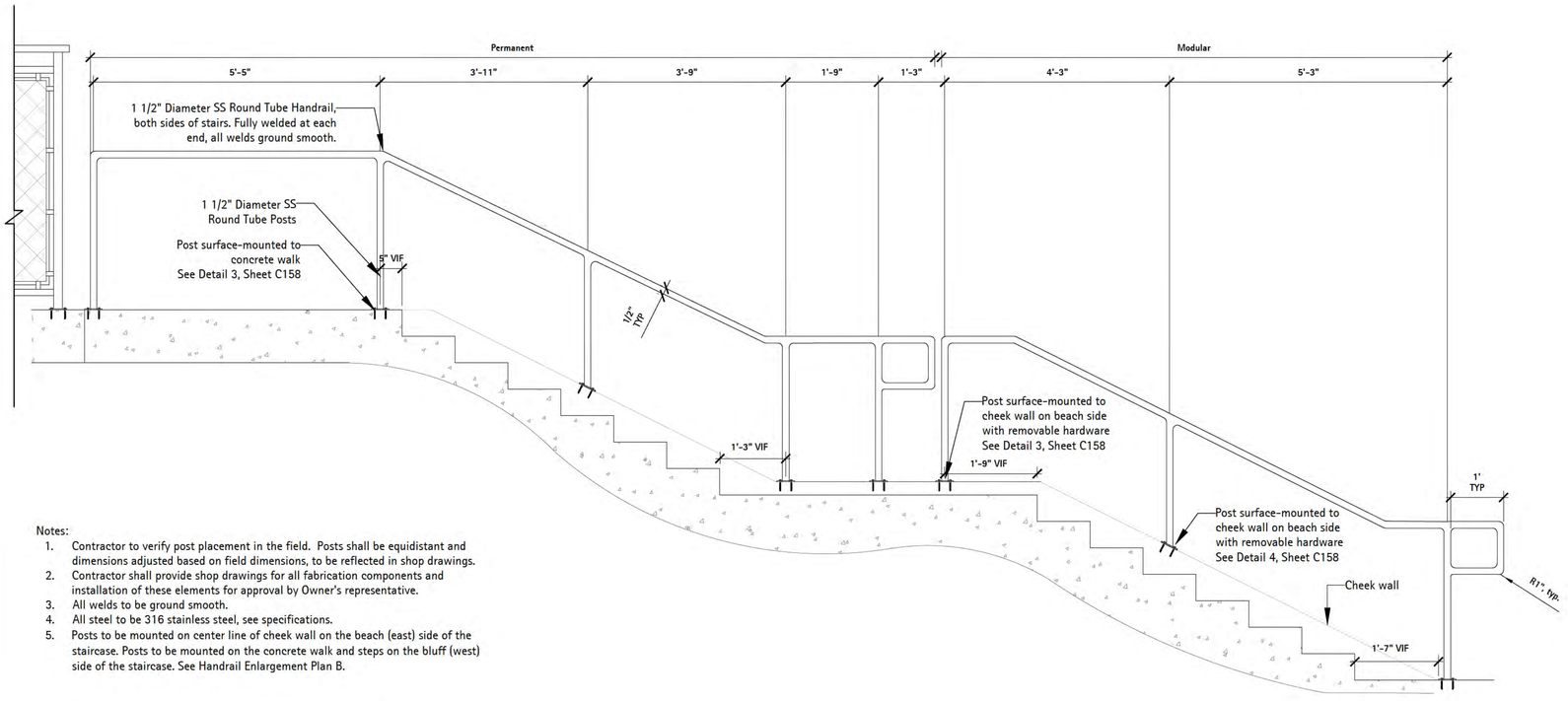
d-conc handrail exst steps elevation



Notes:
1. Expansion Joint Splice Connections to be located 30'-0" max. o.c.
2. Expansion Joints to be shown for all permanent railings.
3. Final screw sizes and spacing to be determined by manufacturer and indicated on shop drawings.

3 Handrail B Expansion Joint Splice Connection

Scale: 6" = 1'-0"



Notes:
1. Contractor to verify post placement in the field. Posts shall be equidistant and dimensions adjusted based on field dimensions, to be reflected in shop drawings.
2. Contractor shall provide shop drawings for all fabrication components and installation of these elements for approval by Owner's representative.
3. All welds to be ground smooth.
4. All steel to be 316 stainless steel, see specifications.
5. Posts to be mounted on center line of cheek wall on the beach (east) side of the staircase. Posts to be mounted on the concrete walk and steps on the bluff (west) side of the staircase. See Handrail Enlargement Plan B.

2 Elevation - Handrail Type B at Dog Beach Access Steps

Scale: 3/4" = 1'-0"

d-conc handrail exst steps elevation

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Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

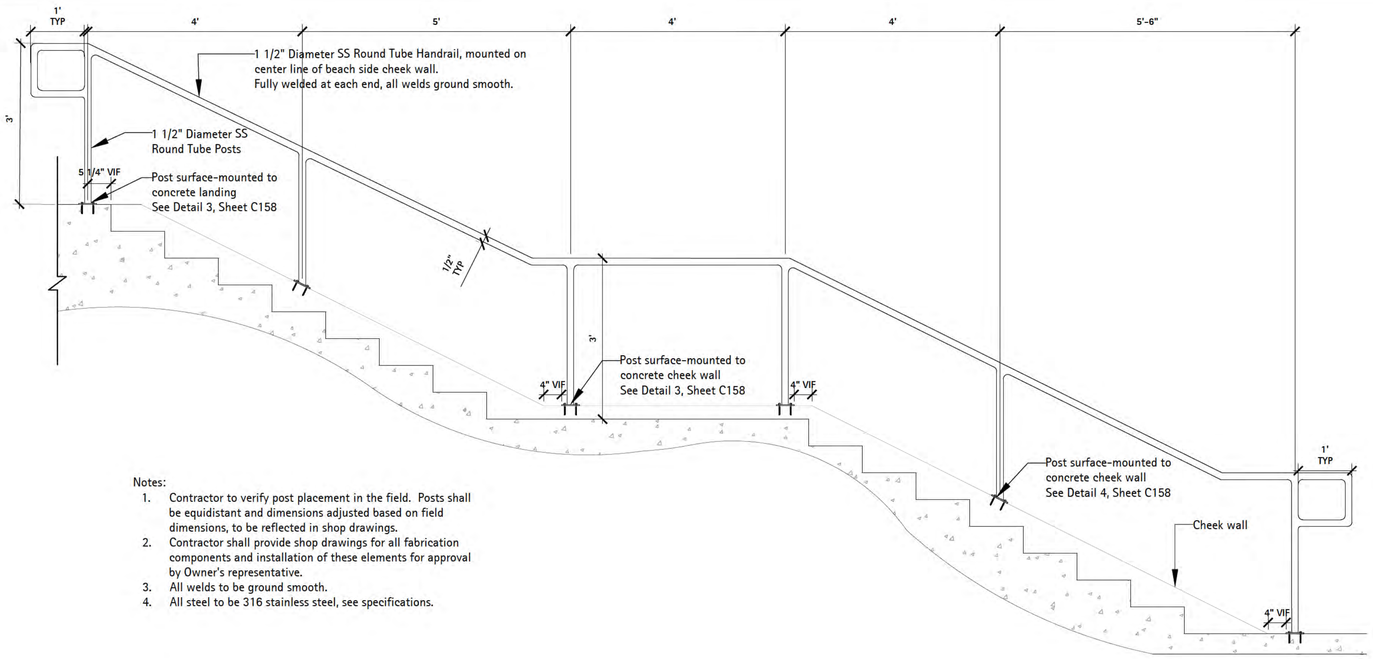
Scale None

Drawing Title

HANDRAIL DETAILS

Sheet No.

C159



Notes:

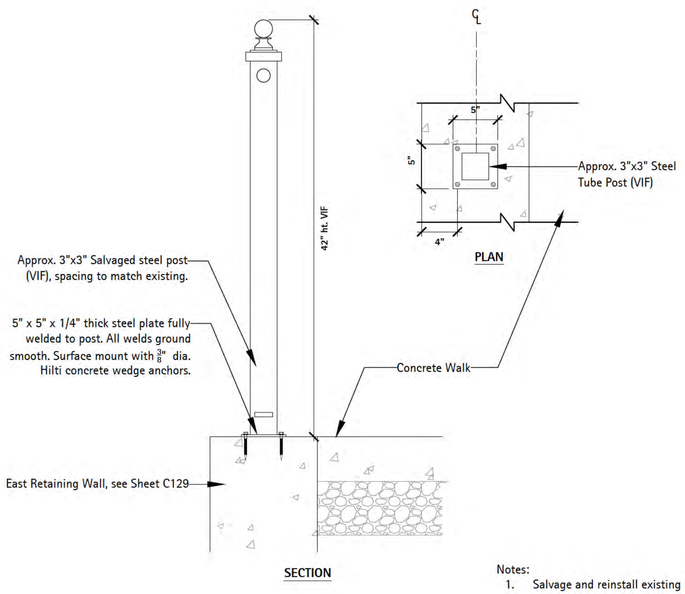
1. Contractor to verify post placement in the field. Posts shall be equidistant and dimensions adjusted based on field dimensions, to be reflected in shop drawings.
2. Contractor shall provide shop drawings for all fabrication components and installation of these elements for approval by Owner's representative.
3. All welds to be ground smooth.
4. All steel to be 316 stainless steel, see specifications.

1 Elevation - Handrail Type B at Beach Maintenance Access Steps

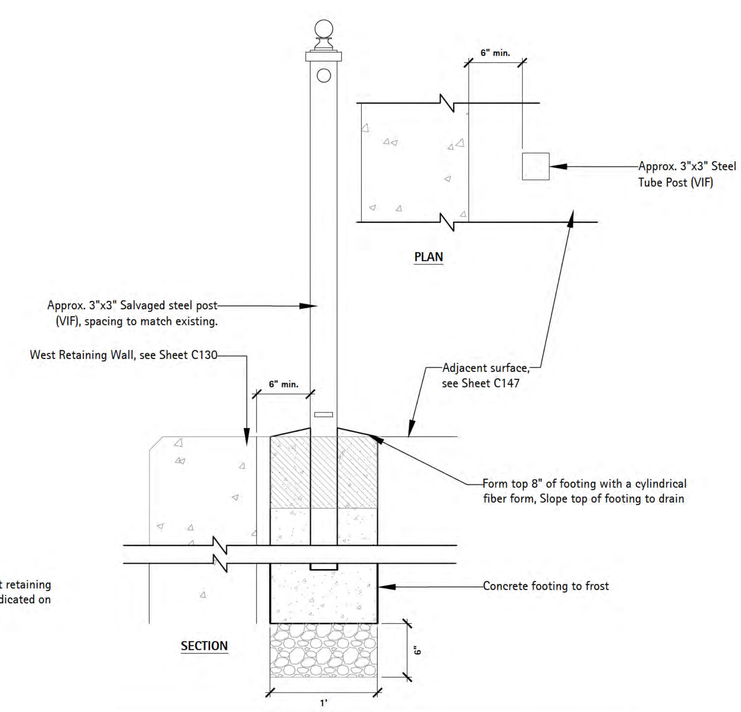
Scale: 3/4" = 1'-0"

d-conc handrail exst steps elevation

EAST RETAINING WALL - SURFACE MOUNT



WEST RETAINING WALL - DIRECT BURIAL



Notes:

1. Salvage and reinstall existing park railing at retaining wall, surface mounted or direct burial as indicated on Handrail and Fencing Plan, see Sheet C147.

2 Section - Salvaged Park Railing at Retaining Wall

Scale: 1 1/2" = 1'-0"

d-handrail at conc

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Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

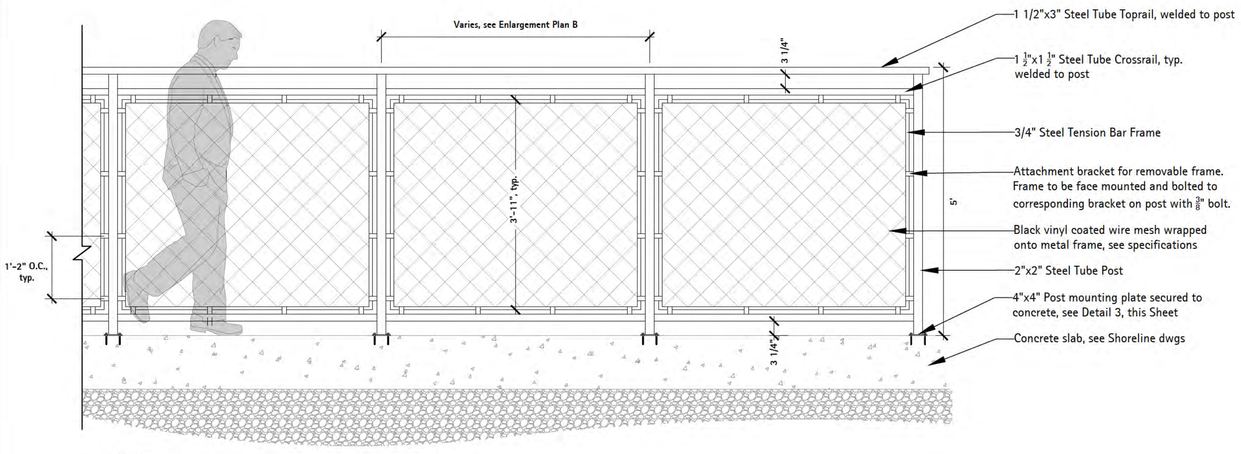
Scale None

Drawing Title

HANDRAIL DETAILS

Sheet No.

C160

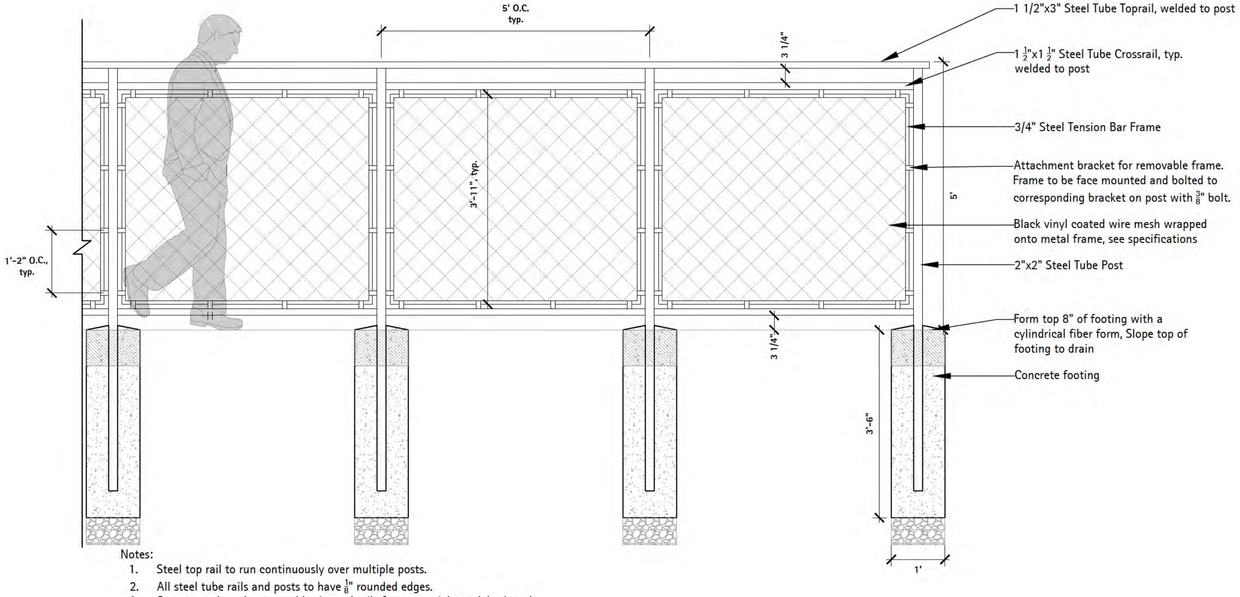


Notes:
1. Steel top rail to run continuously over multiple posts.
2. All steel tube rails and posts to have 1/8" rounded edges.
3. Cap exposed steel posts and horizontal rails for water-tight seal, both ends.
4. All steel to be galvanized steel, powder-coated black.

1 Elevation - Dog Beach Fence at Dog Beach Entry

Scale: 3/4" = 1'-0"

d-dog beach fence type a - pier

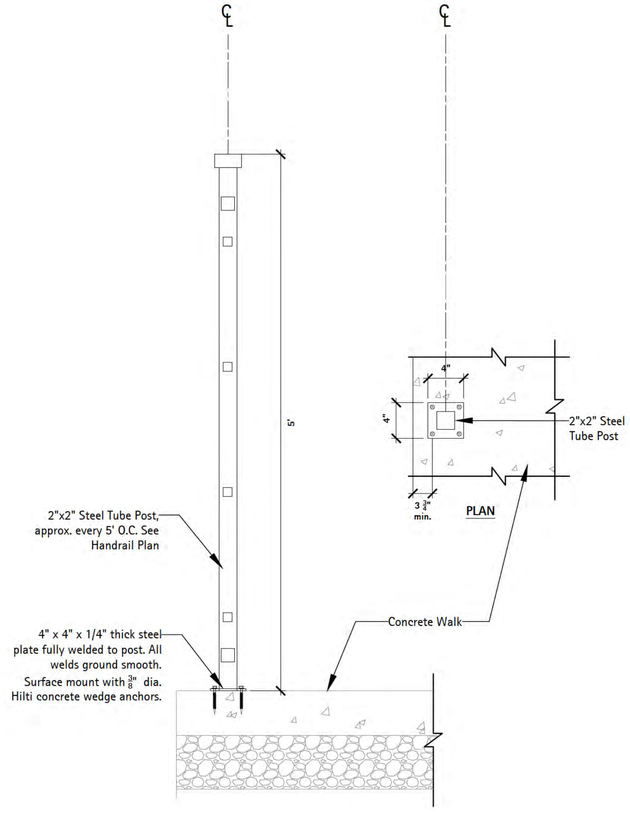


Notes:
1. Steel top rail to run continuously over multiple posts.
2. All steel tube rails and posts to have 1/8" rounded edges.
3. Cap exposed steel posts and horizontal rails for water-tight seal, both ends.
4. All steel to be galvanized steel, powder-coated black.

2 Elevation - Dog Beach Fence at Beach

Scale: 3/4" = 1'-0"

d-dog beach fence type a - pier



3 Section - Dog Beach Fence at Concrete (Surface Mount)

Scale: 1 1/2" = 1'-0"

d-handrail at conc

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Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

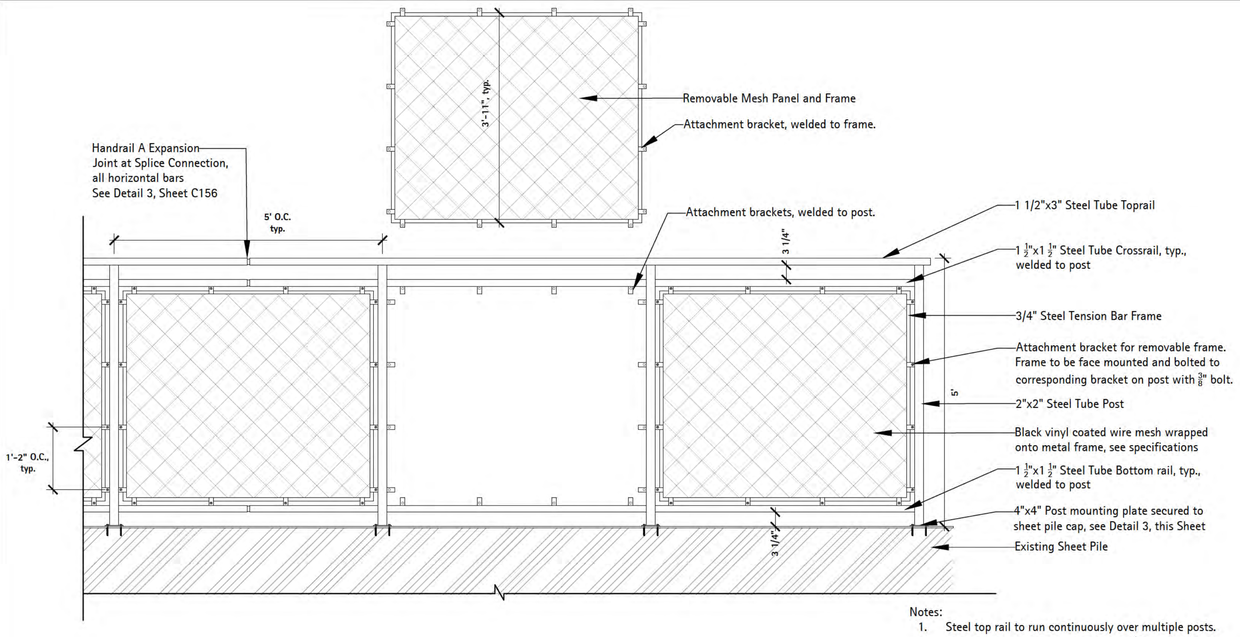
Scale None

Drawing Title

FENCING DETAILS

Sheet No.

C161

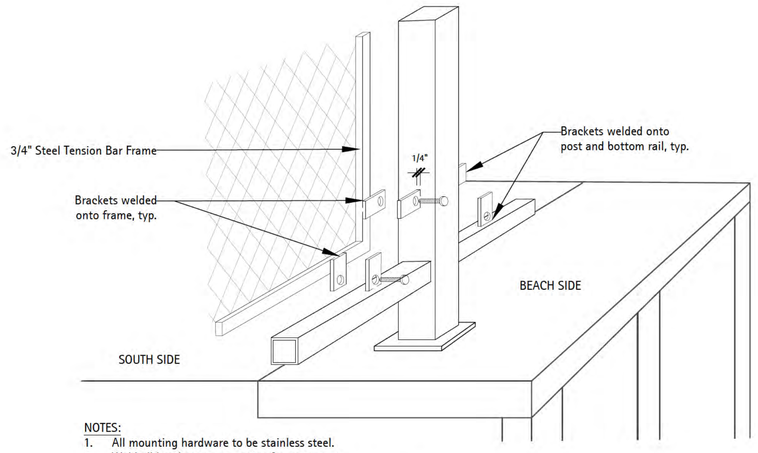


Notes:
1. Steel top rail to run continuously over multiple posts.
2. All steel tube rails and posts to have 1/8" rounded edges.
3. Cap exposed steel posts and horizontal rails for water-tight seal, both ends.
4. All steel to be galvanized steel, powder-coated black.

d-dog beach fence type a - pier

1 Elevation - Dog Beach Fence at Existing Sheet Pile

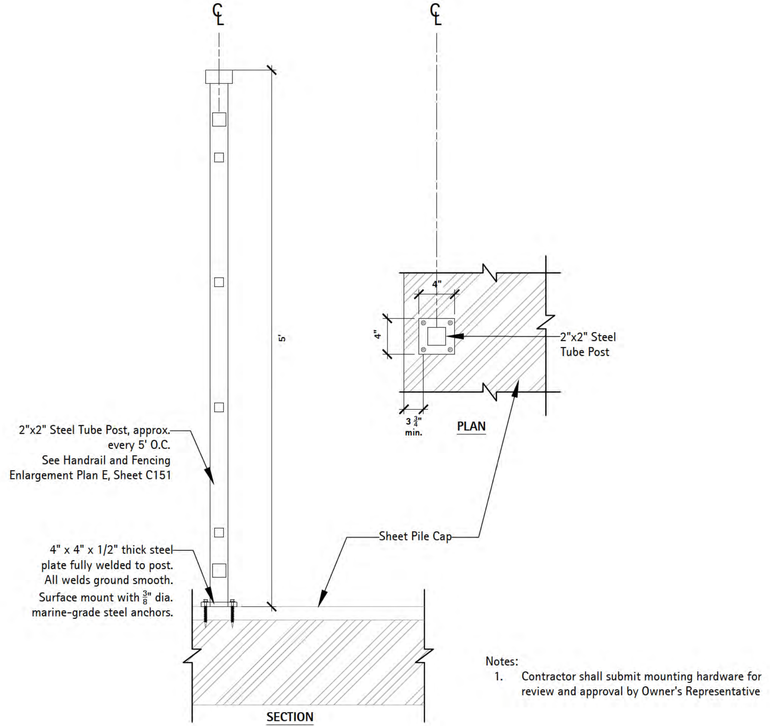
Scale: 3/4" = 1'-0"



NOTES:
1. All mounting hardware to be stainless steel.
2. Weld all brackets to respective frame or post.
3. Brackets on frame to be aligned with and bolted to brackets welded on posts using a 3/8" bolt.

2 Section - Removable Panel Attachment at Dog Beach Fence

Scale: 3" = 1'-0"



Notes:
1. Contractor shall submit mounting hardware for review and approval by Owner's Representative

3 Section - Dog Beach Fence at Existing Sheet Pile (Surface Mount)

Scale: 1 1/2" = 1'-0"

d-handrail at conc

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100% Subm tta	06/28/24
B dd ng and Construct on	07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

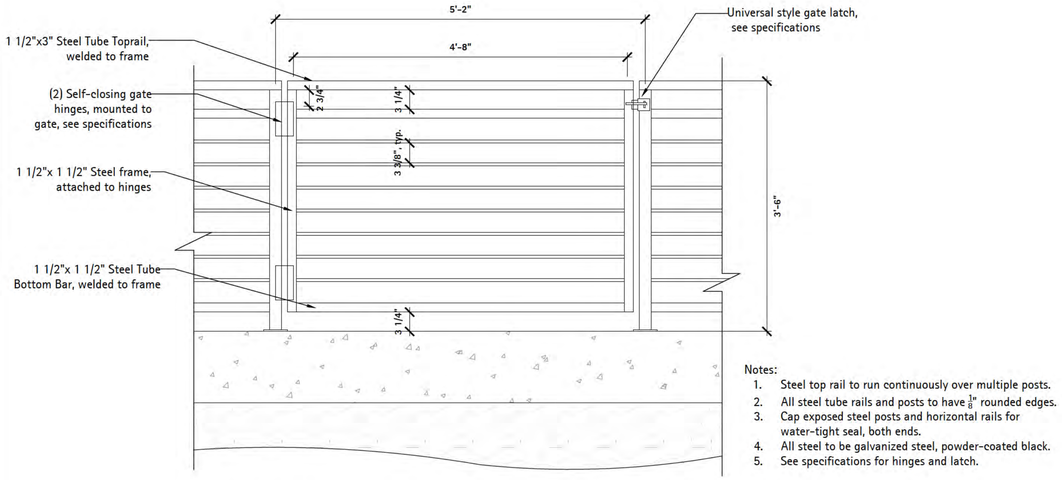
Scale None

Drawing Title

FENCING DETAILS

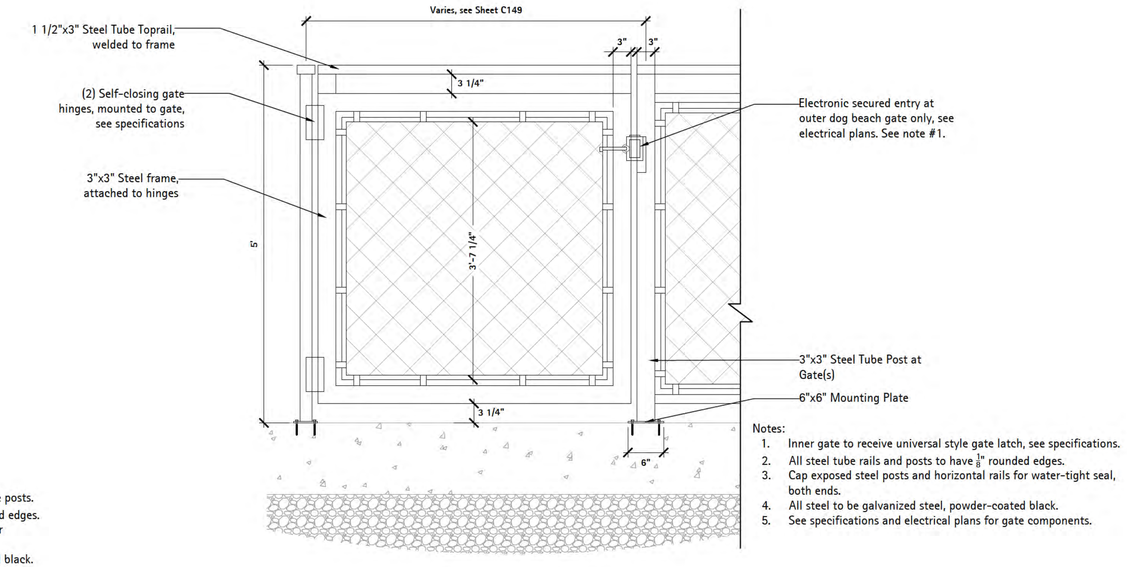
Sheet No.

C162



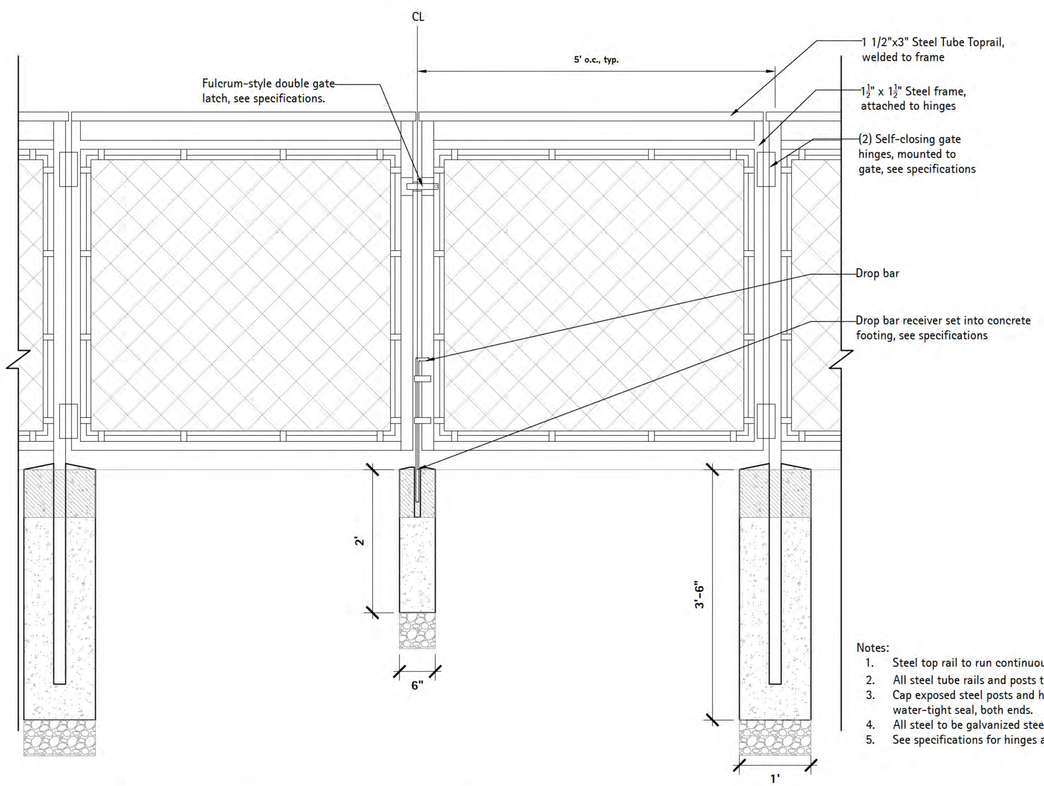
Notes:
1. Steel top rail to run continuously over multiple posts.
2. All steel tube rails and posts to have $\frac{1}{8}$" rounded edges.
3. Cap exposed steel posts and horizontal rails for water-tight seal, both ends.
4. All steel to be galvanized steel, powder-coated black.
5. See specifications for hinges and latch.

1 Elevation - Staff Access Gate at Boardwalk
Scale: 1" = 1'-0"



Notes:
1. Inner gate to receive universal style gate latch, see specifications.
2. All steel tube rails and posts to have $\frac{1}{8}$" rounded edges.
3. Cap exposed steel posts and horizontal rails for water-tight seal, both ends.
4. All steel to be galvanized steel, powder-coated black.
5. See specifications and electrical plans for gate components.

2 Elevation - Dog Beach Entry Gates at Pier Landing
Scale: 1" = 1'-0"



Notes:
1. Steel top rail to run continuously over multiple posts.
2. All steel tube rails and posts to have $\frac{1}{8}$" rounded edges.
3. Cap exposed steel posts and horizontal rails for water-tight seal, both ends.
4. All steel to be galvanized steel, powder-coated black.
5. See specifications for hinges and latch

3 Elevation - Maintenance Access Gate at Dog Beach
Scale: 1" = 1'-0"

d-dog beach fence type a - pier

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Project Title:

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Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

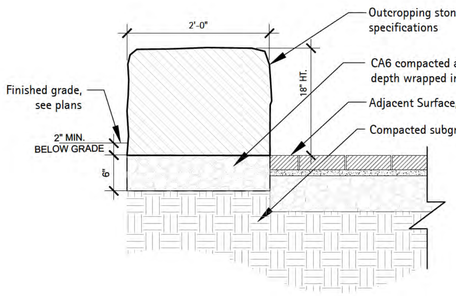
Graphic Scale

Scale None

Drawing Title

GATE DETAILS

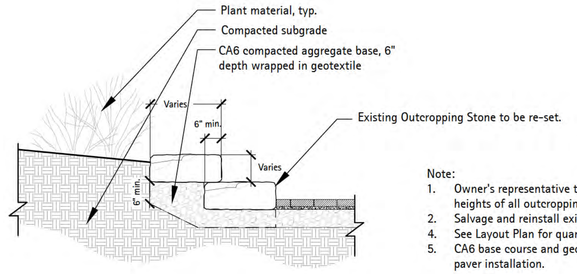
Sheet No.
C163



Note:
1. Owner's representative to field verify and approve layouts and heights of all outcropping stone areas shown on the plans.
2. See specifications for outcropping stone type and sizes.
3. Provide pictures of stones for review and approval by Owner's representative prior to ordering.
4. See Layout Plan for quantity and locations.
5. CA6 base course and geotextile fabric shall be incidental to paver installation.

1 Section - Outcropping Stone Boulder

Scale: 1" = 1'-0"

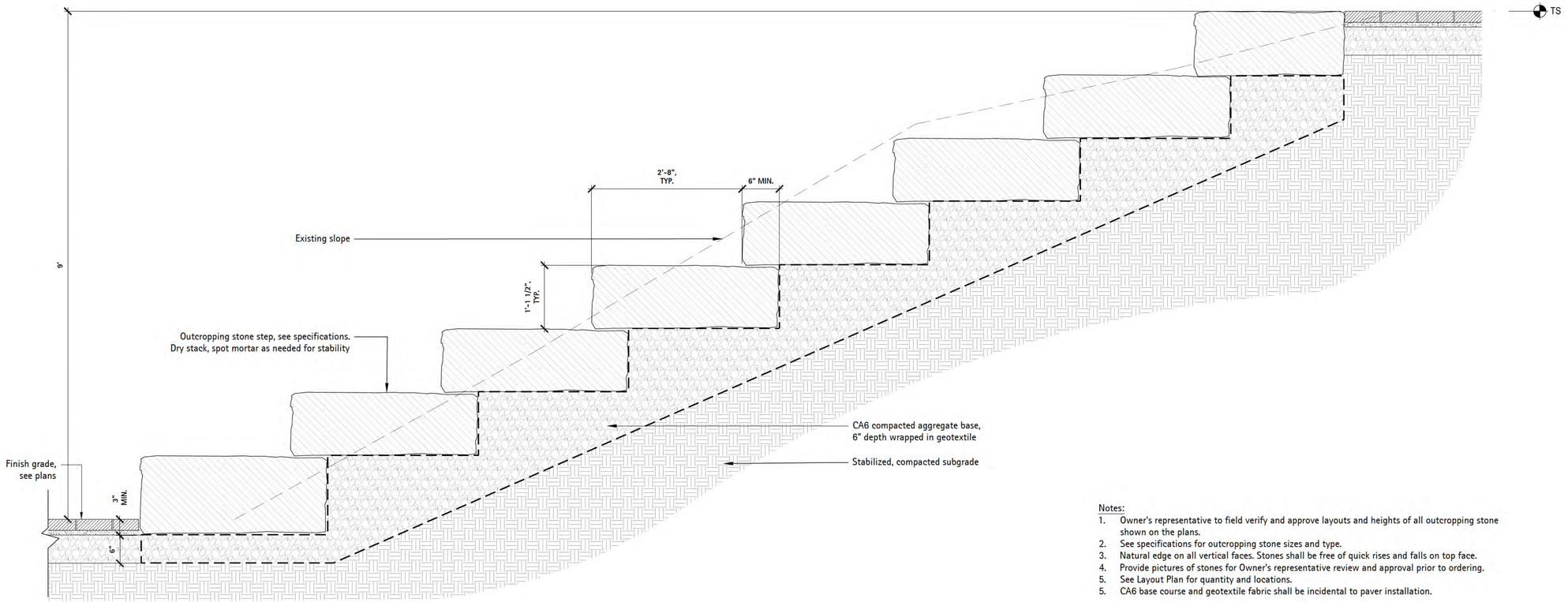


Note:
1. Owner's representative to field verify and approve layouts and heights of all outcropping stone areas shown on the plans.
2. Salvage and reinstall existing outcropping stone.
4. See Layout Plan for quantity and locations.
5. CA6 base course and geotextile fabric shall be incidental to paver installation.

3 Section - Existing Outcropping Stone to be Reset

Scale: 1/2" = 1'-0"

d-stone-outcroppings-sec



Notes:
1. Owner's representative to field verify and approve layouts and heights of all outcropping stone shown on the plans.
2. See specifications for outcropping stone sizes and type.
3. Natural edge on all vertical faces. Stones shall be free of quick rises and falls on top face.
4. Provide pictures of stones for Owner's representative review and approval prior to ordering.
5. See Layout Plan for quantity and locations.
5. CA6 base course and geotextile fabric shall be incidental to paver installation.

2 Section - Outcropping Stone Steps

Scale: 1" = 1'-0"

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Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

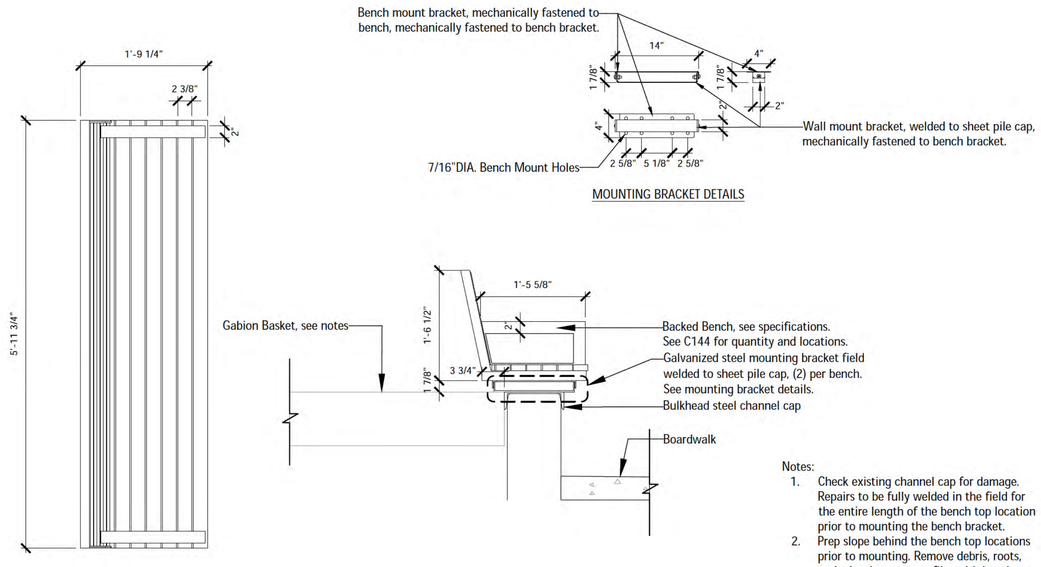
Scale None

Drawing Title

FURNISHINGS

Sheet No.

C164

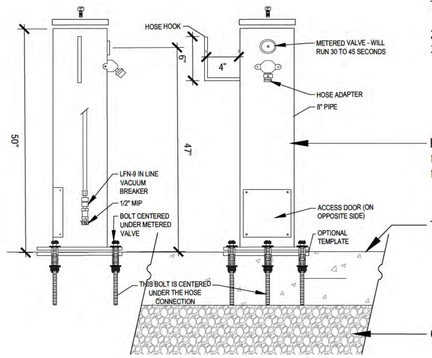


Notes:
1. Check existing channel cap for damage. Repairs to be fully welded in the field for the entire length of the bench top location prior to mounting the bench bracket.
2. Prep slope behind the bench top locations prior to mounting. Remove debris, roots, and wire that may conflict with bench top.
3. Contractor to submit shop drawings for custom steel mounting bracket for review and approval by Owner's Representative.

1 Backed Bench at Bulkhead
Scale: 1" = 1'-0"

Relocate pet relief station and signage as directed by Owner. See locations on Overall Site Plan, Sheet C144. Verify in the field.

2 Pet Relief Station (Relocated)
NTS



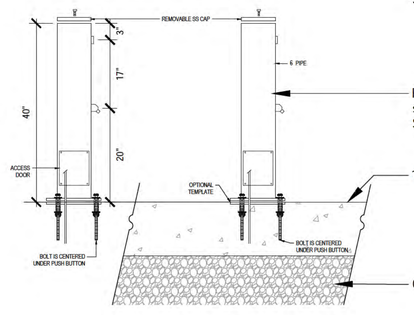
Notes:
1. Install dog rinse station per manufacturer's recommendation.
2. See Sheet C144 for Location.
3. Locations to be verified in the field with Owner's representative prior to placement.

Rinse station to face west. See specifications for manufacturer and type. See Sheet C173 for location, drainage, and connection.

12" Concrete slab, see shoreline dwgs

Granular fill, see shoreline dwgs

3 Section - Dog Rinse Station
Scale: 3/4" = 1'-0"



Notes:
1. Install foot rinse station per manufacturer's recommendation.
2. See Sheet C144 for location.
3. Locations to be verified in the field with Owner's representative prior to placement.

Rinse station to face north. See specifications for manufacturer and type. See Sheet C173 for drainage and connection.

12" Concrete slab, see shoreline dwgs

Granular fill, see shoreline dwgs

4 Section - Foot Rinse Station
Scale: 3/4" = 1'-0"

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Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

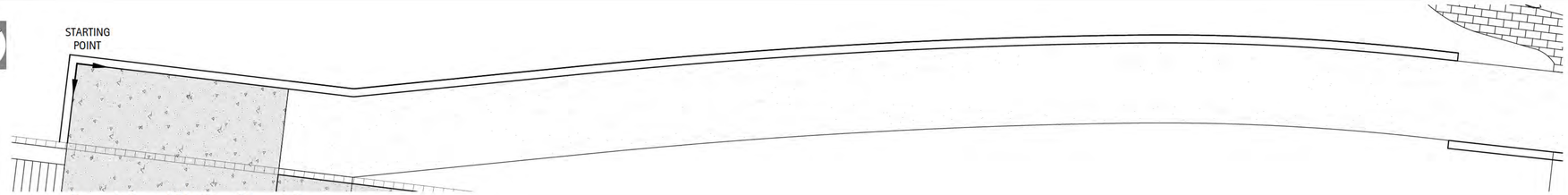
Scale None

Drawing Title

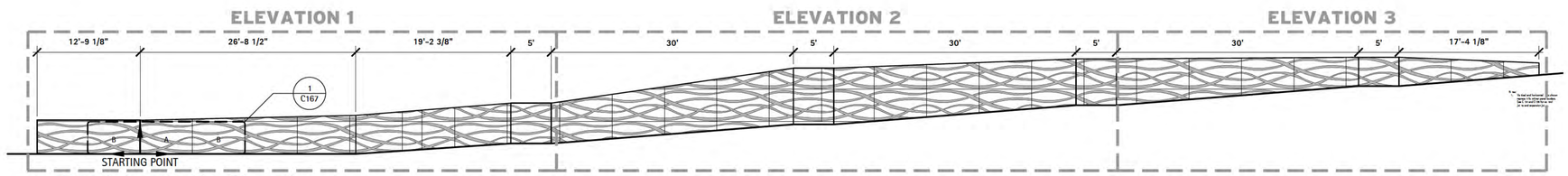
FURNISHINGS

Sheet No.
C165

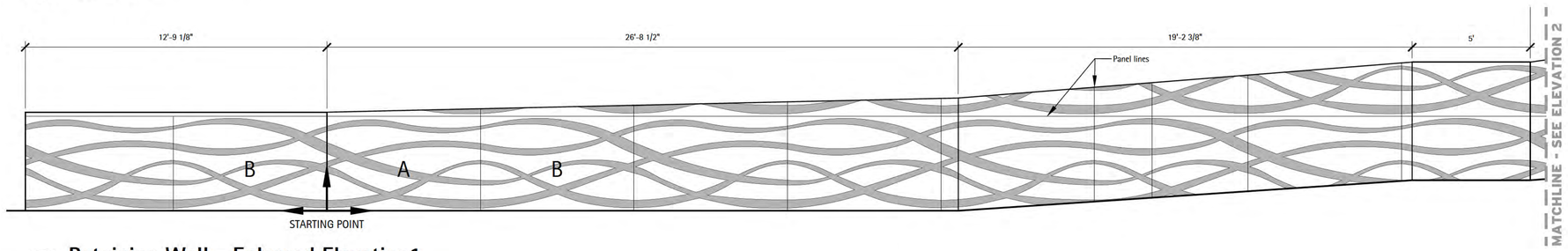
NORTH



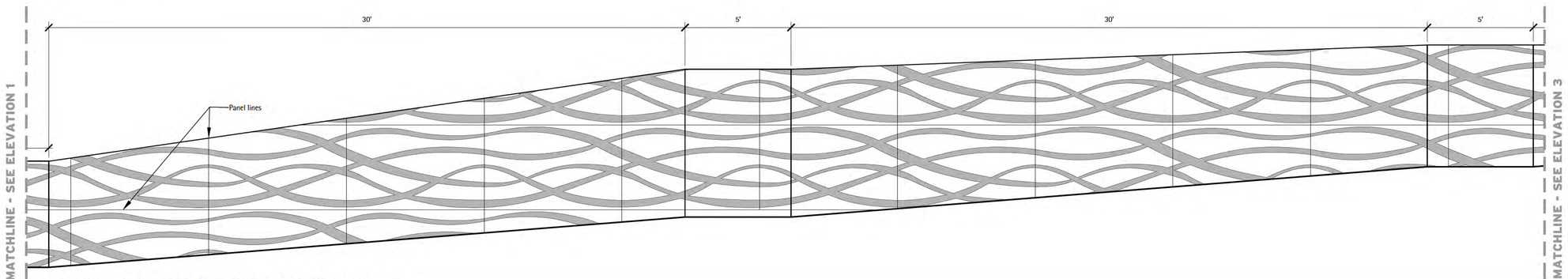
1 Retaining Wall - Plan View
Scale: 1/8" = 1'-0"



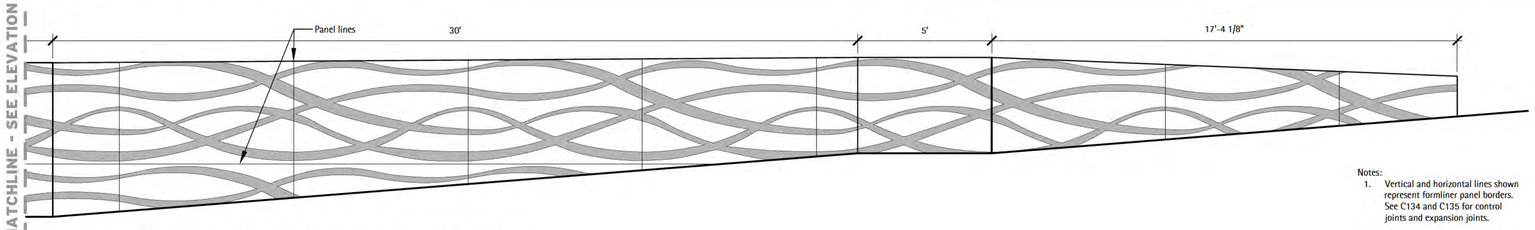
2 Retaining Wall - Elevation
Scale: 1/8" = 1'-0"



3 Retaining Wall - Enlarged Elevation1
Scale: 3/8" = 1'-0"



4 Retaining Wall - Enlarged Elevation 2
Scale: 3/8" = 1'-0"



Notes:
1. Vertical and horizontal lines shown represent formliner panel borders. See C134 and C135 for control joints and expansion joints.

5 Retaining Wall - Enlarged Elevation 3
Scale: 3/8" = 1'-0"

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Winnetka Park District
Winnetka, IL

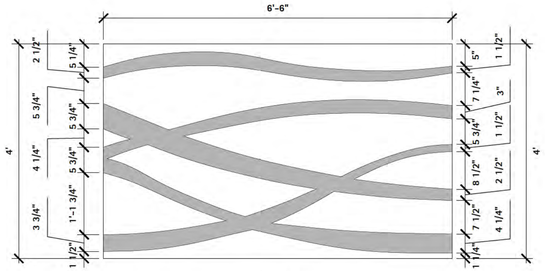
Graphic Scale

Scale None

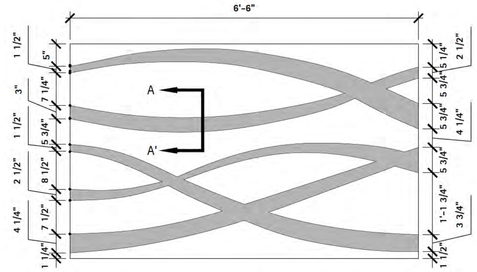
Drawing Title

RETAINING WALL DETAILS

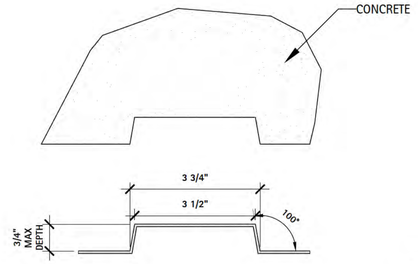
Sheet No.
C166



PANEL A



PANEL B



SECTION A-A'

1 Detail - Formliner Wave Pattern Panels

Scale: 3/4" = 1'-0"

Notes:

1. See sheet C166 for form liner pattern layout.
2. See sheet C135 for wall location and layout.
3. See sheet C134 and C135 for control and expansion joints for walls.
4. See specifications for manufacturer type and details for form liner.

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Winnetka, IL

Graphic Scale

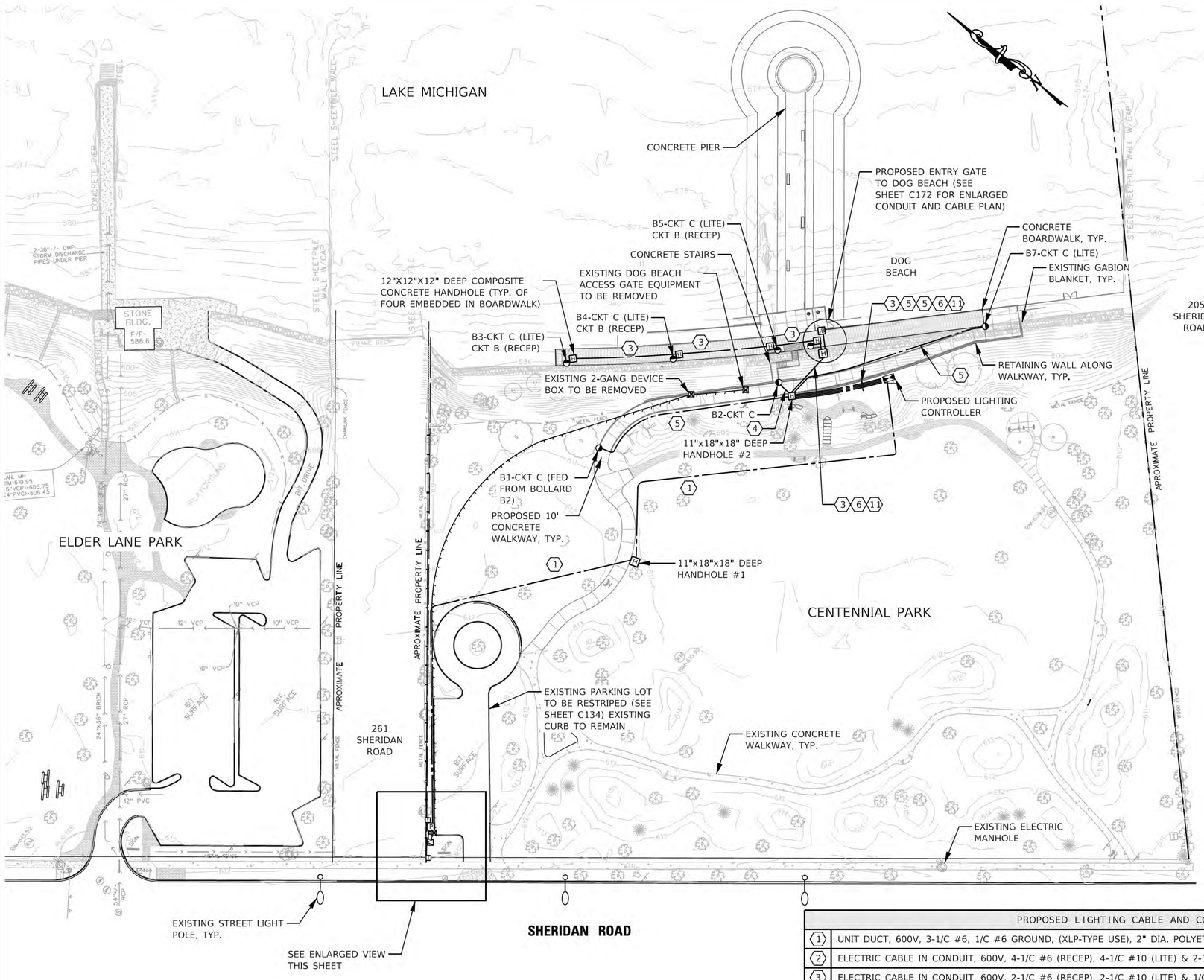
Scale None

Drawing Title

RETAINING WALL DETAILS

Sheet No.

C167

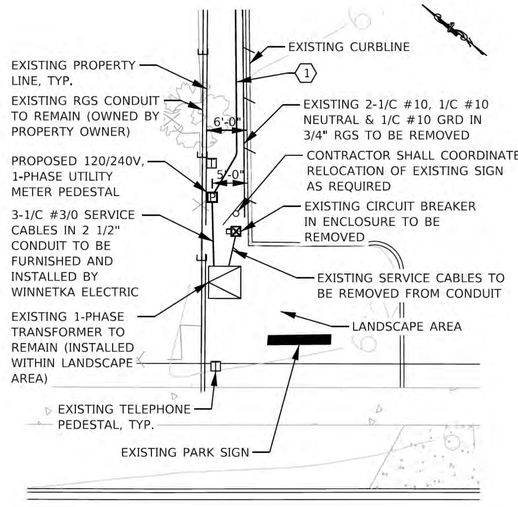


LIGHTING LEGEND

- PROPOSED BOLLARD
- ORIENTATION OF LED LIGHT
- PROPOSED CONDUIT AND CABLE (SEE PROPOSED LIGHTING CABLE AND CONDUIT SCHEDULE)
- E — SERVICE CONDUIT
- LIGHTING CONTROLLER
- H — COMPOSITE CONCRETE HANDHOLE
- P — UTILITY METER PEDESTAL
- EXISTING CABLE IN CONDUIT TO BE REMOVED
- X — EXISTING EQUIPMENT TO BE REMOVED (AS INDICATED)

NOTES:

1. SEE SHEET C171 FOR TYPICAL WIRING TO BOARDWALK BOLLARDS. HANDHOLES SHALL BE INSTALLED ADJACENT TO EACH BOLLARD FOR WIRING PURPOSES.



SHERIDAN ROAD

ENLARGED VIEW

PROPOSED LIGHTING CABLE AND CONDUIT SCHEDULE	
1	UNIT DUCT, 600V, 3-1/C #6, 1/C #6 GROUND, (XLP-TYPE USE), 2" DIA. POLYETHYLENE
2	ELECTRIC CABLE IN CONDUIT, 600V, 4-1/C #6 (RECEP), 4-1/C #10 (LITE) & 2-1/C #6 GROUND, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 1 1/2" DIA.
3	ELECTRIC CABLE IN CONDUIT, 600V, 2-1/C #6 (RECEP), 2-1/C #10 (LITE) & 1/C #6 GROUND, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 1 1/2" DIA.
4	ELECTRIC CABLE IN CONDUIT, 600V, 4-1/C #10, 2-1/C #10 GROUND, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 1 1/4" DIA.
5	ELECTRIC CABLE IN CONDUIT, 600V, 2-1/C #10, 1/C #10 GROUND, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 1 1/4" DIA.
6	ELECTRIC CABLE IN CONDUIT, 600V, 2-1/C #10, 1/C #10 GROUND, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 3/4" DIA.
7	MANUFACTURER CORD CABLE IN CONDUIT ATTACHED TO STRUCTURE, LIQUIDTIGHT FLEXIBLE CONDUIT, 1/2" DIA
8	ELECTRIC CABLE IN CONDUIT, 600V, 4-1/C #12 (XLP-TYPE USE), IN CONDUIT ATTACHED TO STRUCTURE, LIQUIDTIGHT FLEXIBLE CONDUIT, 1/2" DIA.
9	ELECTRIC CABLE IN CONDUIT, 600V, 2-1/C #12, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 1/2" DIA.
10	ELECTRIC CABLE IN CONDUIT, 600V, 2-1/C #12, (XLP-TYPE USE), IN CONDUIT ATTACHED TO STRUCTURE, LIQUIDTIGHT FLEXIBLE CONDUIT, 1/2" DIA.
11	UNDERGROUND CONDUIT, PVC, 2" DIA. (SPARE) WITH PULL ROPE
12	UNDERGROUND CONDUIT, PVC, 3/4" DIA. (SPARE) WITH PULL ROPE

"The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto."

811 Know what's below. Call before you dig.

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Winnetka Park District
Winnetka, IL

Graphic Scale

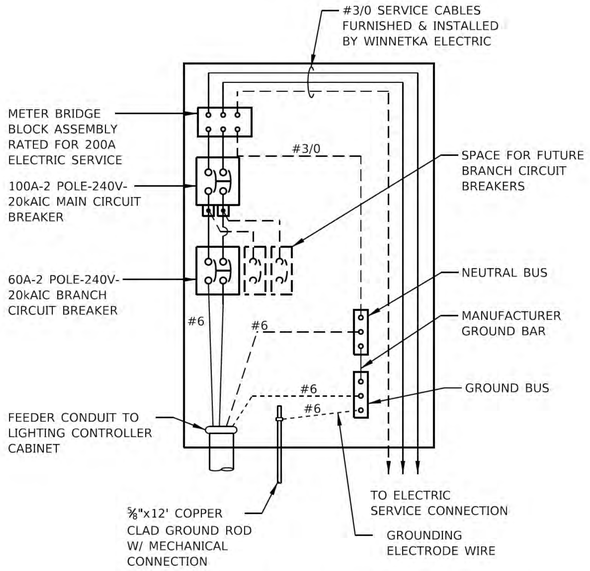
0' 20' 40'
(In Feet)
1 Inch = 40 Ft.

Scale 1 Inch = 40 Ft.

Drawing Title

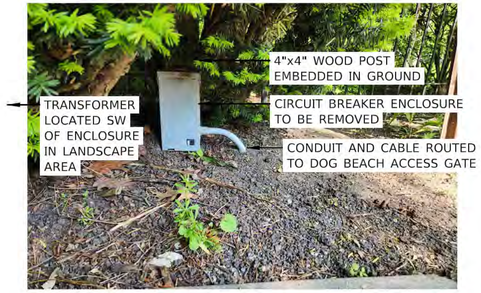
Lighting and Electrical Plan

Sheet No.
C168



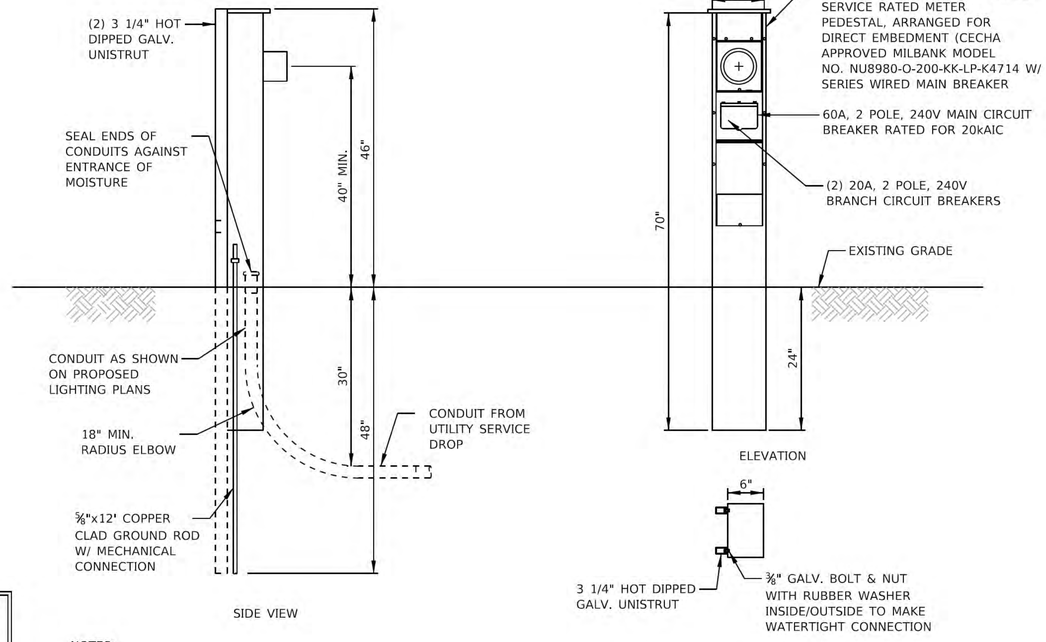
SERVICE METER PEDESTAL WIRING DIAGRAM

N.T.S.



EXISTING ELECTRIC SERVICE (FOR REFERENCE ONLY)

N.T.S.



NOTES:

1. METER PEDESTAL CIRCUIT BREAKERS SHALL HAVE LOCKABLE COVERS.

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811 Know what's below. Call before you dig.

SERVICE METER PEDESTAL

N.T.S.

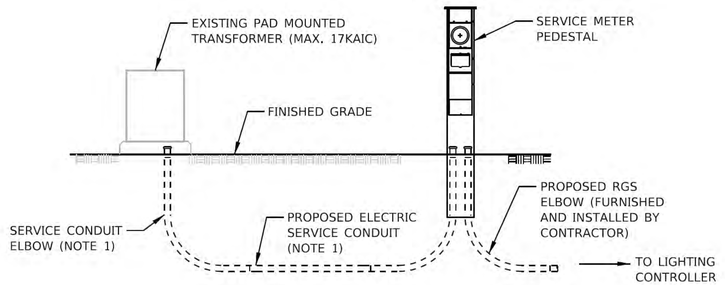
LIGHTING GENERAL NOTES

1. THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE SHOWN FOR INFORMATION ONLY. REROUTING, DISCONNECTION, RELOCATION, PROTECTION ETC., OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BASED ON UTILITY/JULIE MARKINGS PRIOR TO BEGINNING CONSTRUCTION.
2. THE LOCATIONS OF EXISTING LIGHTING/ELECTRICAL FACILITIES SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS.
3. BEFORE INSTALLING LIGHT STANDARDS NEAR OVERHEAD AND UNDERGROUND ELECTRIC UTILITIES THE CONTRACTOR SHALL CALL ELECTRIC UTILITY COMPANY FOR LOCATION APPROVAL AND MINIMUM CLEARANCE REQUIREMENTS.
4. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FOLLOWING SPECIFICATIONS:
   A. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS PREPARED BY IDOT, ALSO REFERRED TO AS THE "STANDARD SPECIFICATIONS"
   B. NATIONAL ELECTRIC CODE (NEC)
   C. LOCAL CODES AND STANDARDS
   D. WINNETKA ELECTRIC UTILITY STANDARDS
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION.
6. UNDERGROUND CABLES SHALL BE DISCONNECTED AND REMOVED FROM CONDUITS TO BE ABANDONED.
7. UNDERGROUND CONDUITS TO BE ABANDONED SHALL BE REMOVED TO A MINIMUM OF 2 FT BELOW GRADE.
8. UPON COMPLETION OF THE SITE LIGHTING AND ELCTRICAL IMPROVEMENTS, THE CONTRACTOR SHALL PERFORM ELECTRICAL TESTING AND VERIFY THAT THE INSTALLATION COMPLIES WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS. ALL ELECTRICAL TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE ENIGNEER/OWNER, PARK DISTRICT, AND THE VILLAGE.

PROJECT CONTACTS

WINNETKA ELECTRIC

CONTACT: MR. RYAN BRIDGES
OFFICE NO.: (847) 716-3550



NOTES:

1. WINNETKA ELECTRIC DEPARTMENT WILL SUPPLY SERVICE CONDUIT, ELBOWS, AND CABLES BETWEEN THE EXISTING PAD MOUNTED TRANSFORMER AND SERVICE METER PEDESTAL.
2. CONTRACTOR TO SCHEDULE & COORDINATE ALL WORK WITH WINNETKA ELECTRIC DEPARTMENT.

ELECTRIC SERVICE DETAIL

N.T.S.

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Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

Scale N.T.S.

Drawing Title

Lighting and Electrical Details

Sheet No.
C169

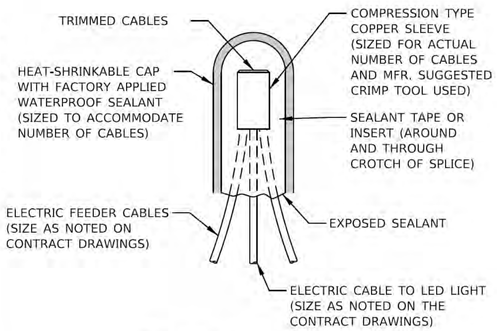
LIGHTING CONTROLLER EQUIPMENT

	ITEM	SPECIFICATION	MANUFACTURER MODEL NO. OR EQUAL
A	MAIN CIRCUIT BREAKER	60A, 2P, 240V SERVICE RATING, 10KAIC	SQUARE D NO. BDL26060
B	CONTROL CIRCUIT BREAKER	15A, 1P, 120V RATING, 10KAIC	SQUARE D NO. BDL16015
C	CABINET CIRCUIT BREAKER	20A, 1P, 120V RATING, 10KAIC	SQUARE D NO. BDL16020
D	AUXILIARY RELAY	30A-120 V OPERATED DPDT 60 HZ COIL 2 NO & 2 NC CONTACTS, PLUG IN	MAGNECRAFT NO. 389 FXBXC1-120A
E	LIGHTING CONTACTOR	30A, 2-POLE, 120V COIL, MECH HELD, OPEN TYPE	SQUARE D NO. 8903SMO1 V02
F	CABINET RECEPTACLE AND BOX	COMMERCIAL GRADE GFCI 20A/120V, MOUNTED IN A WEATHERPROOF CAST ALUMINUM SINGLE GANG BOX WITH WEATHERPROOF COVER	RECEPTACLE: LEVITON NO. 8899, BOX: APPLETON NO. WSM150 COVER: APPLETON NO. WHG1
G	DOOR SWITCH	20A-120V, DOOR MTD SNAP ACTION PLUNGER SWITCH	OMRON NO. A-20GQ-K
H	CABINET LIGHT	5 WATT LED STRIP LIGHT, 60K HOUR RATING, DOOR SWITCH CONTROLLED, FASTENED TO TOP OF CABINET	PENTAIR NO. LEDA1S35
I	BRANCH CIRCUIT BREAKER	8-20A, 1P, 120V RATING, 10 KAIC	SIEMENS NO. ED21B020
J	HAND-AUTO-OFF CONTROL SWITCH	20A, 3 POS. MTD IN 3-GANG CAST ALUM. BOX	SQUARE D NO. 9001 KYK 111
K	SURGE ARRESTOR	10 K AMPERE RATING	SQUARE D NO. SDSA 1175
L	POWER DISTRIBUTION BLOCK	600 VOLT, INSULATED, SIZE AS REQ'D, 10KAIC	MARATHON
M	GROUND & NEUTRAL COPPER BUS	NEUTRAL BUS-MIN 24 TERMINATIONS (#3/0-#10) & GROUND BUS-MIN 16 TERMINATIONS (#3/0-#10), BUSES SHALL BE HORIZONTAL & LOCATED AT THE BASE OF CABINET	ERICO NO. TCB
N	PHOTOCELL TERMINAL BLOCK	3 TERMINAL, SCREW TYPE, #14-#10 WIRE SIZE	CINCH NO. 3-142
P	PHOTOCELL	120V, MTD ON CABINET, DELAY TYPE, SPST-NC	FISHER PIERCE NO. FPFA-105M
R	TERMINAL BLOCK	30A, 240V, #12-#1/0 AWG WIRE RANGE (MAX 3 #10 PER LUG), INSULATED, CKTS SHALL BE LABELED	SQUARE D NO. GD6
S	FUTURE TRILOGY WIRELESS ACCESS	8"x8" SPACE FOR FUTURE WIRELESS CONTROL BOX AND CONNECTIONS	TRILOGY NETWORX LOCK
T	TIMECLOCK	120V, DPST, 24-HOUR MECHANICAL TIME CLOCK WITH METAL ENCLOSURE	INTERMATIC NO. T103

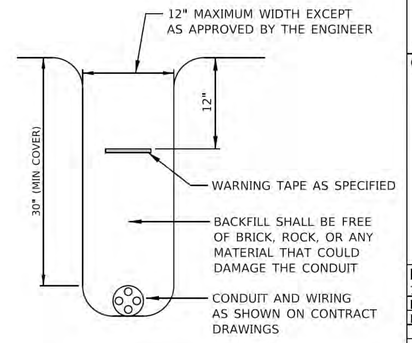
NOTES:
1. THE CONTROLLER, ALONG WITH ALL ITS COMPONENTS, SHALL BE UL LISTED 508A AS AN "ENCLOSED INDUSTRIAL CONTROL PANEL."
2. THE MAIN CIRCUIT BREAKER SHALL BE LABELED "SERVICE DISCONNECT."
3. ALL SWITCHES SHALL BE IDENTIFIED USING TWO COLOR ENGRAVED NAME PLATES.
4. THE CABINET SHALL BE LABELED WITH THE APPROPRIATE ARC FLASH LABEL AND INCLUDE PERSONNEL PROTECTION DESIGNATIONS.
5. ALL EXPOSED BUS BARS AND COMPONENTS SHALL BE INSULATED.
6. CONTROL WIRE SHALL BE #12 MTW.

PROPOSED LIGHTING CONTROLLER LOAD TABLE

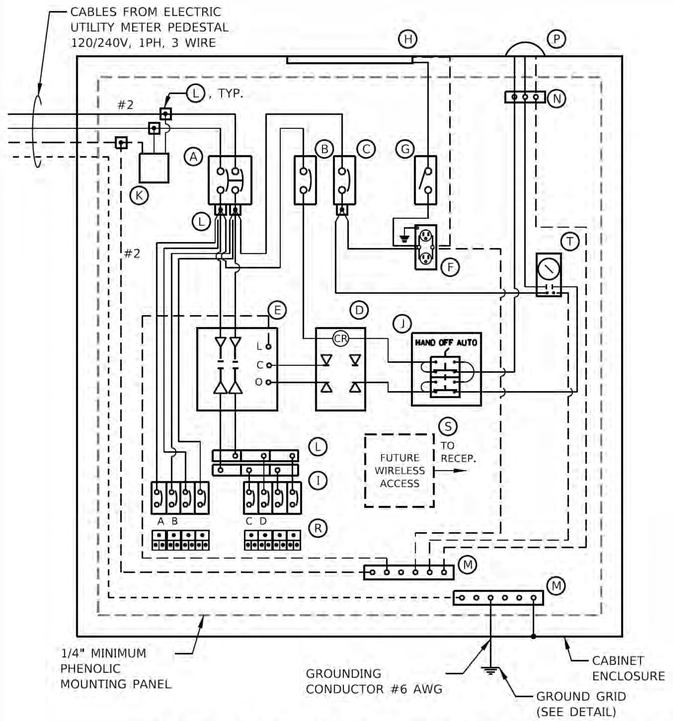
CIRCUIT ID (INSULATION COLOR)	CIRCUIT BREAKER/ POLES	BOLLARD		DUPLEX RECEPTACLE		MOTORIZED GATE		TOTAL CIRCUIT LOAD		
		QTY.	LOAD/FIXT	QTY.	LOAD/FIXT.	QTY.	LOAD/FIXT.	WATTS	AMPS	VOLTS
A - RED	20A-1P	0	20	0	500	1	100	100	0.8	120
B - BLACK	20A-1P	0	20	4	500	0	100	2,000	16.7	120
C - RED	20A-1P	7	20	0	500	0	100	140	1.2	120
D - BLACK	20A-1P	0	20	0	500	0	100	0	0.0	120
E - RED	20A-1P	0	20	0	500	0	100	0	0.0	120
F - BLACK	20A-1P	0	20	0	500	0	100	0	0.0	120
TOTAL		7		4	-	1		2240W	9.33A	240



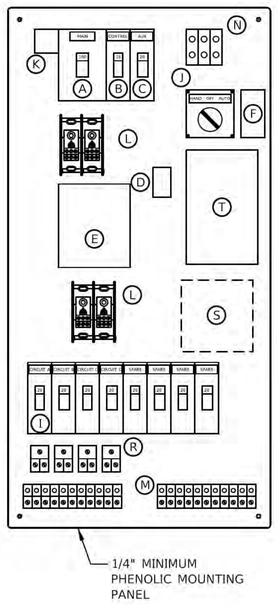
TYPICAL SPLICE DETAIL
N.T.S.



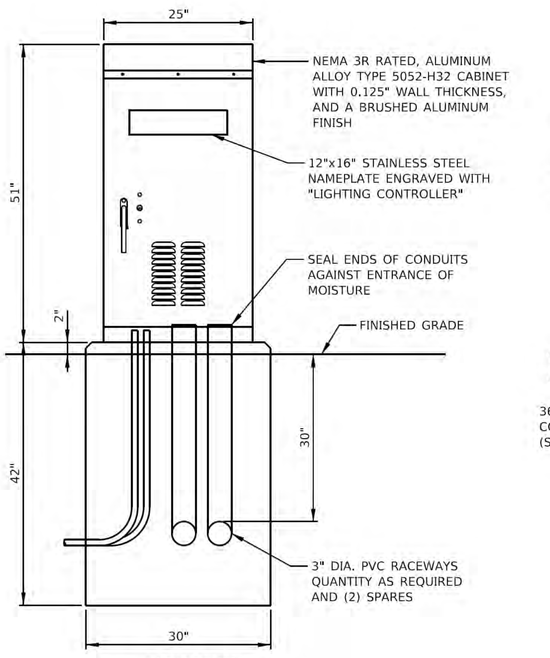
TYPICAL WIRING IN TRENCH DETAIL
N.T.S.



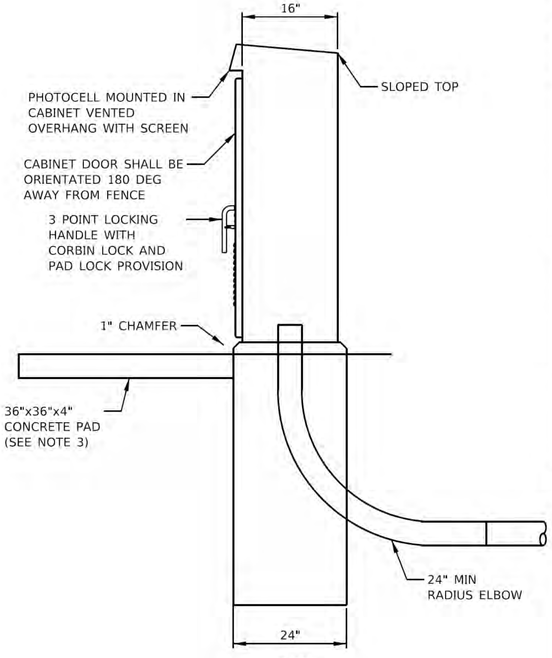
LIGHTING CONTROLLER WIRING DIAGRAM
N.T.S.



LIGHTING CONTROLLER EQUIPMENT LAYOUT
N.T.S.



ELEVATION



SIDE

NOTES:
1. CABINET DIMENSIONS SHOWN ARE APPROXIMATE. CABINET SHALL BE AS COMPACT AS POSSIBLE.
2. FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR SHALL REMOVE VEGETATION IN FRONT OF CONTROL CABINET DOOR, LEVEL THE AREA AND TOP WITH 2" TOPSOIL, WHERE THERE IS NO SIDEWALK.

LIGHTING CONTROLLER CABINET DETAIL
N.T.S.

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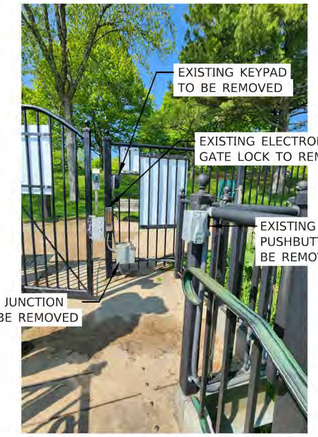
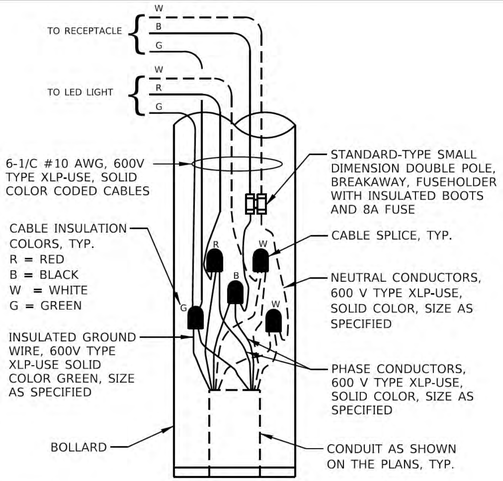


EXISTING GATE ACCESS EQUIPMENT TO BE REMOVED

N.T.S.

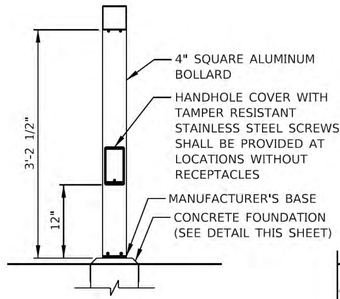


NOTES:

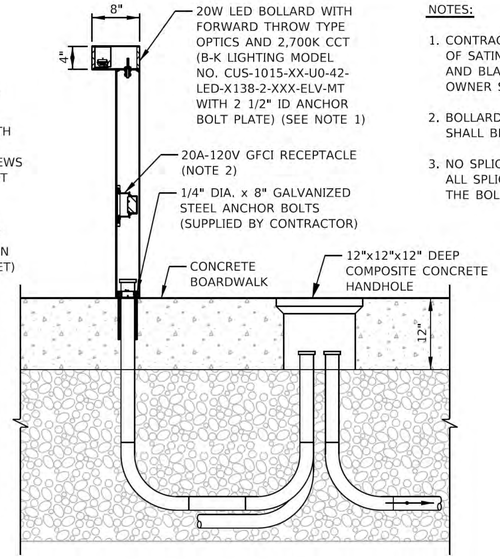
1. BOLLARDS MOUNTED TO BOARDWALK (B3-B6) SHALL BE PROVIDED WITH RECEPTACLES. ALL OTHER BOLLARDS SHALL ONLY BE PROVIDED WITH A LED LIGHT.

BOLLARD WIRING DETAIL

N.T.S.



MOUNTED TO CONCRETE FOUNDATION



MOUNTED TO BOARDWALK

NOTES:

1. CONTRACTOR SHALL SUBMIT COLOR SAMPLES OF SATIN BLACK (BLP), BLACK WRINKLE (BLW), AND BLACK CHROME (BCM) PAINT CHIPS FOR OWNER SELECTION.
2. BOLLARDS MOUNTED TO CONCRETE BOARDWALK SHALL BE PROVIDED WITH GFCI RECEPTACLE (ONLY).
3. NO SPLICING SHALL BE ALLOWED IN HANDHOLES. ALL SPLICES SHALL BE MADE AT THE BASE OF THE BOLLARDS ONLY.

BOLLARD DETAIL

N.T.S.

EXISTING GATE ACCESS JUNCTION BOX TO BE REMOVED

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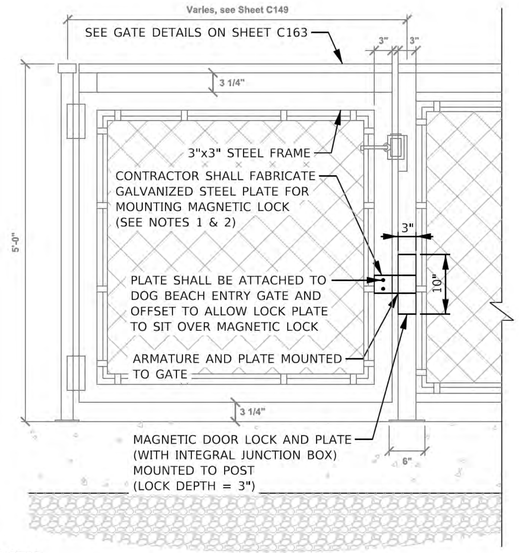
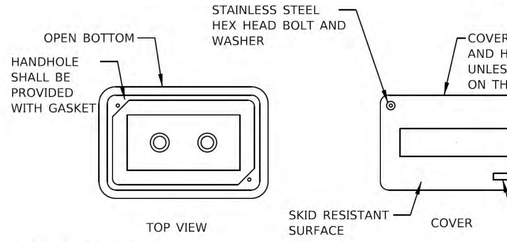


NOTES:

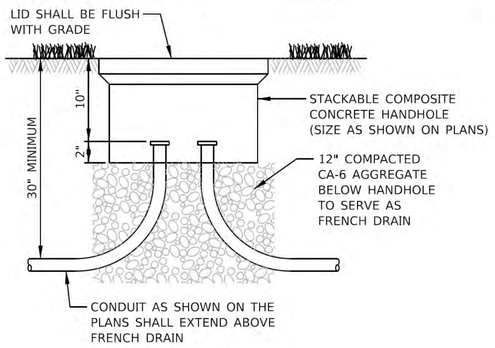
1. STEEL PLATE SHALL BE PROVIDE WITH A BLACK FINISH TO MATCH THE GATE.
2. STEEL PLATE SHALL BE AS COMPACT AS POSSIBLE. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND MOCK UP AS REQUESTED BY ENGINEER/OWNER.
3. MAGNETIC LOCK SHALL BE WELDED TO STEEL FENCE AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. SEE EXISTING GATE ACCESS EQUIPMENT PHOTO (THIS SHEET) FOR REFERENCE.

MAGNETIC LOCK GATE MOUNTING DETAIL

N.T.S.



TOP VIEW



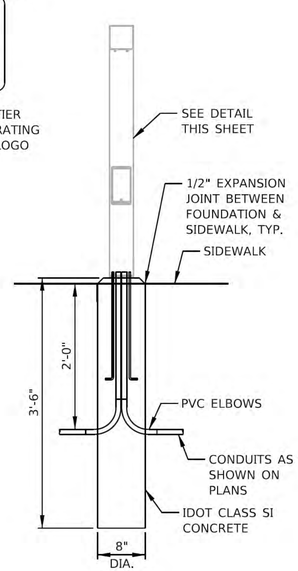
ELEVATION

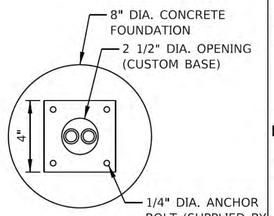
NOTES:

1. NO SPLICING SHALL BE ALLOWED IN HANDHOLE.
2. POLYMER CONCRETE HANDHOLE AND LID SHALL BE GREEN IN LANDSCAPED AREAS AND MATCH COLOR IN CONCRETE/BRICK AREAS.
3. BOX & LID SHALL MEET/EXCEED ANSI TIER 15 LOADING REQUIREMENTS, AND BE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF THE ANSI/SCTE 77 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY", AND THE PROVISIONS OF PARAGRAPHS 5.2.3 AND 5.2.4 OF WESTERN UNDERGROUND COMMITTEE GUIDE 3.6.

COMPOSITE CONCRETE HANDHOLE DETAIL

N.T.S.





ANCHOR BASE

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLING ALL FASTENERS AND ACCESSORIES TO MOUNT THE BOLLARD TO CONCRETE FOUNDATION.
2. CONTRACTOR SHALL INSTALL BOLLARD IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BOLLARD CONCRETE FOUNDATION DETAIL

N.T.S.

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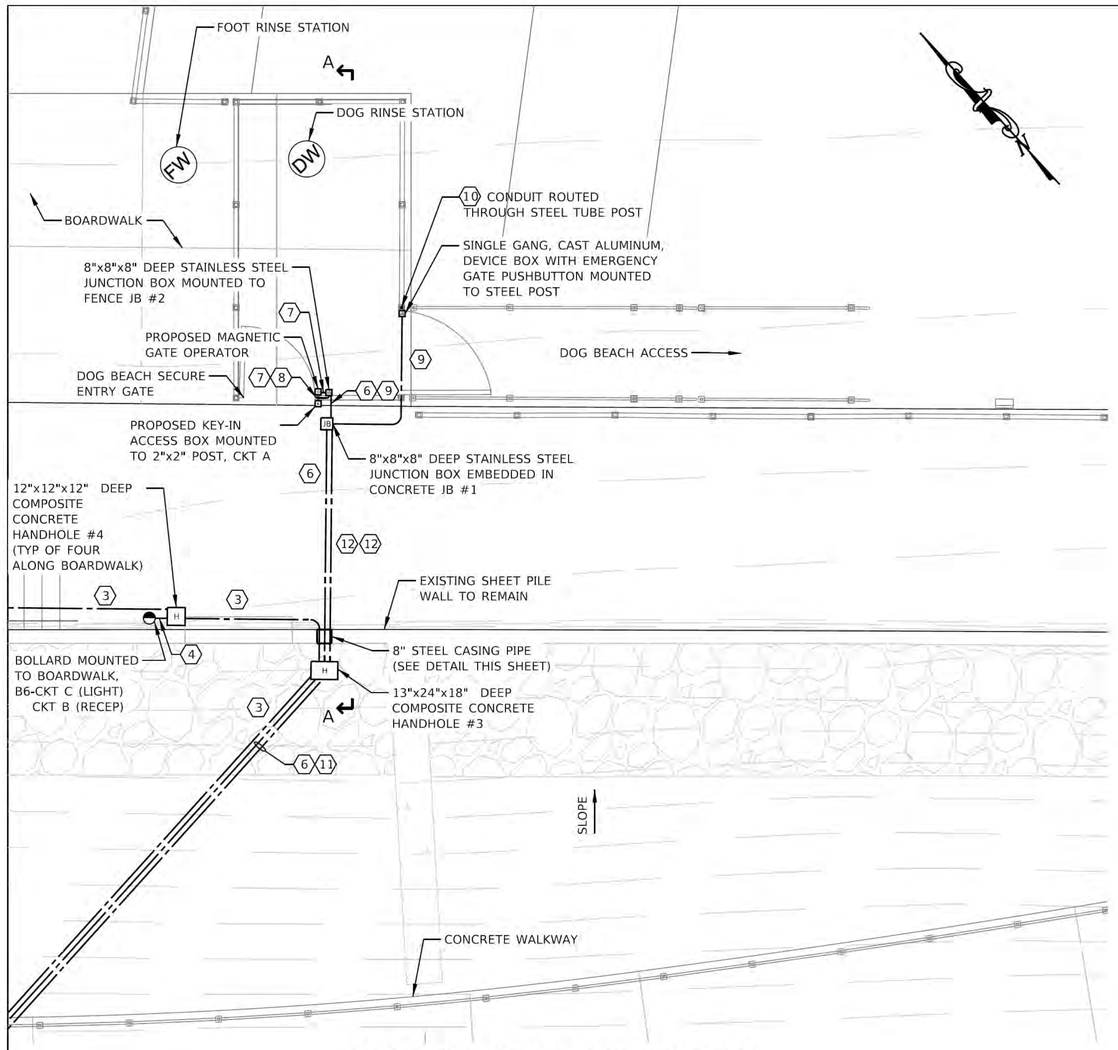
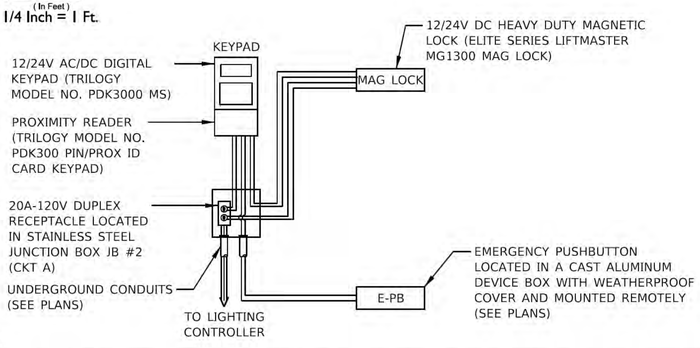


ENLARGED CONDUIT AND CABLE PLAN

0' 2' 4'
(In Feet)
1/4 Inch = 1 Ft.



NOTES:

1. GATE OPERATOR AND COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
2. MANUFACTURER AND MODEL NUMBERS SPECIFIED ARE OWNER PREFERRED MANUFACTURERS. NO SUBSTITUTIONS ALLOWED.
3. CONTRACTOR SHALL COORDINATE EQUIPMENT LOCATIONS AND ORIENTATIONS WITH ENGINEER AND OWNER.

GATE OPERATOR WIRING DETAIL

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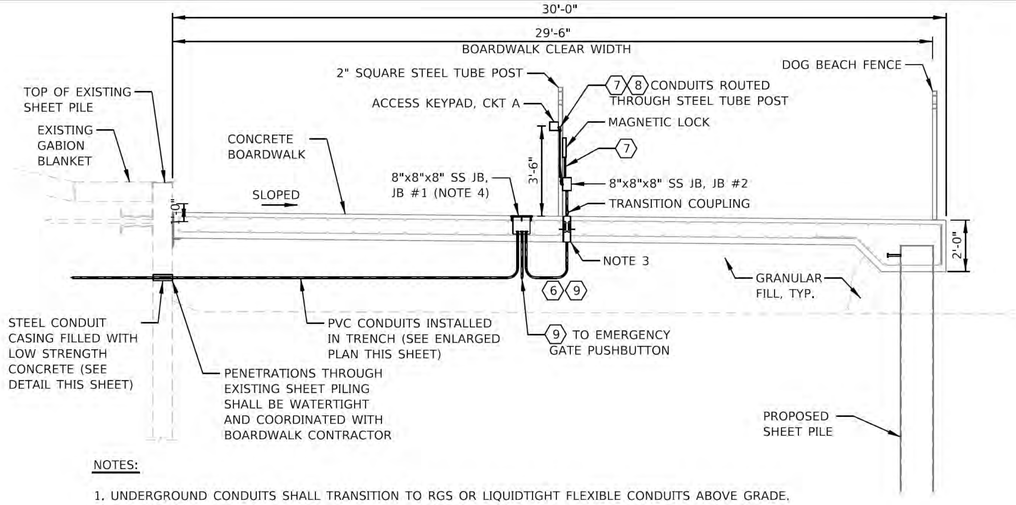
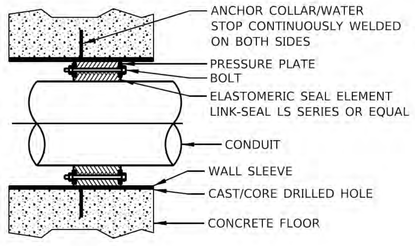


NOTES:

1. UNDERGROUND CONDUITS SHALL TRANSITION TO RGS OR LIQUIDTIGHT FLEXIBLE CONDUITS ABOVE GRADE.
2. CONDUIT PENETRATIONS THROUGH EXISTING SHEET PILING SHALL BE WATERTIGHT.
3. CONDUIT PENETRATIONS THROUGH BOARDWALK SHALL BE SEALED WATERTIGHT WITH WALL SLEEVE, WATER STOP COLLAR, AND ELASTOMERIC SEAL ELEMENT (SEE DETAIL THIS SHEET).
4. JUNCTION BOXES EMBEDDED IN CONCRETE BOARDWALK SHALL BE INSTALLED FLUSH WITH CONCRETE.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE CONDUIT ROUTING THOUGH FENCE POST WITH FENCE CONTRACTOR. CONDUITS SHALL BE NOT BE MOUNTED TO THE FACE OF FENCE POST, UNLESS SHOWN ON THE PLANS.
6. CONTRACTOR SHALL COORDINATE EQUIPMENT MOUNTING AND ORIENTATION WITH ENGINEER.
7. SEE CONTRACT SPECIFICATIONS FOR GATE OPERATOR EQUIPMENT.

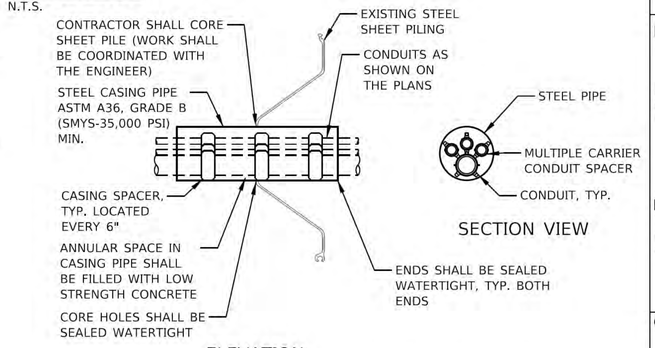
SECTION A–A

N.T.S.



BOARDWALK/CONCRETE WALL CONDUIT PENETRATION DETAIL

N.T.S.



SHEET PILING CONDUIT PENETRATION DETAIL

N.T.S.

PROPOSED LIGHTING CABLE AND CONDUIT SCHEDULE	
1	UNIT DUCT, 600V, 3-1/C #6, 1/C #6 GROUND, (XLP-TYPE USE), 2" DIA. POLYETHYLENE
2	ELECTRIC CABLE IN CONDUIT, 600V, 4-1/C #6 (RECEP), 4-1/C #10 (LITE) & 2-1/C #6 GROUND, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 1 1/2" DIA
3	ELECTRIC CABLE IN CONDUIT, 600V, 2-1/C #6 (RECEP), 2-1/C #10 (LITE) & 1/C #6 GROUND, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 1 1/2" DIA.
4	ELECTRIC CABLE IN CONDUIT, 600V, 4-1/C #10, 2-1/C #10 GROUND, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 1 1/4" DIA.
5	ELECTRIC CABLE IN CONDUIT, 600V, 2-1/C #10, 1/C #10 GROUND, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 1 1/4" DIA.
6	ELECTRIC CABLE IN CONDUIT, 600V, 2-1/C #10, 1/C #10 GROUND, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 3/4" DIA.
7	MANUFACTURER CORD CABLE IN CONDUIT ATTACHED TO STRUCTURE, LIQUIDTIGHT FLEXIBLE CONDUIT, 1/2" DIA
8	ELECTRIC CABLE IN CONDUIT, 600V, 4-1/C #12 (XLP-TYPE USE), IN CONDUIT ATTACHED TO STRUCTURE, LIQUIDTIGHT FLEXIBLE CONDUIT, 1/2" DIA.
9	ELECTRIC CABLE IN CONDUIT, 600V, 2-1/C #12, (XLP-TYPE USE), IN UNDERGROUND CONDUIT, PVC, 1/2" DIA.
10	ELECTRIC CABLE IN CONDUIT, 600V, 2-1/C #12, (XLP-TYPE USE), IN CONDUIT ATTACHED TO STRUCTURE, LIQUIDTIGHT FLEXIBLE CONDUIT, 1/2" DIA.
11	UNDERGROUND CONDUIT, PVC, 2" DIA. (SPARE) WITH PULL ROPE
12	UNDERGROUND CONDUIT, PVC, 3/4" DIA. (SPARE) WITH PULL ROPE

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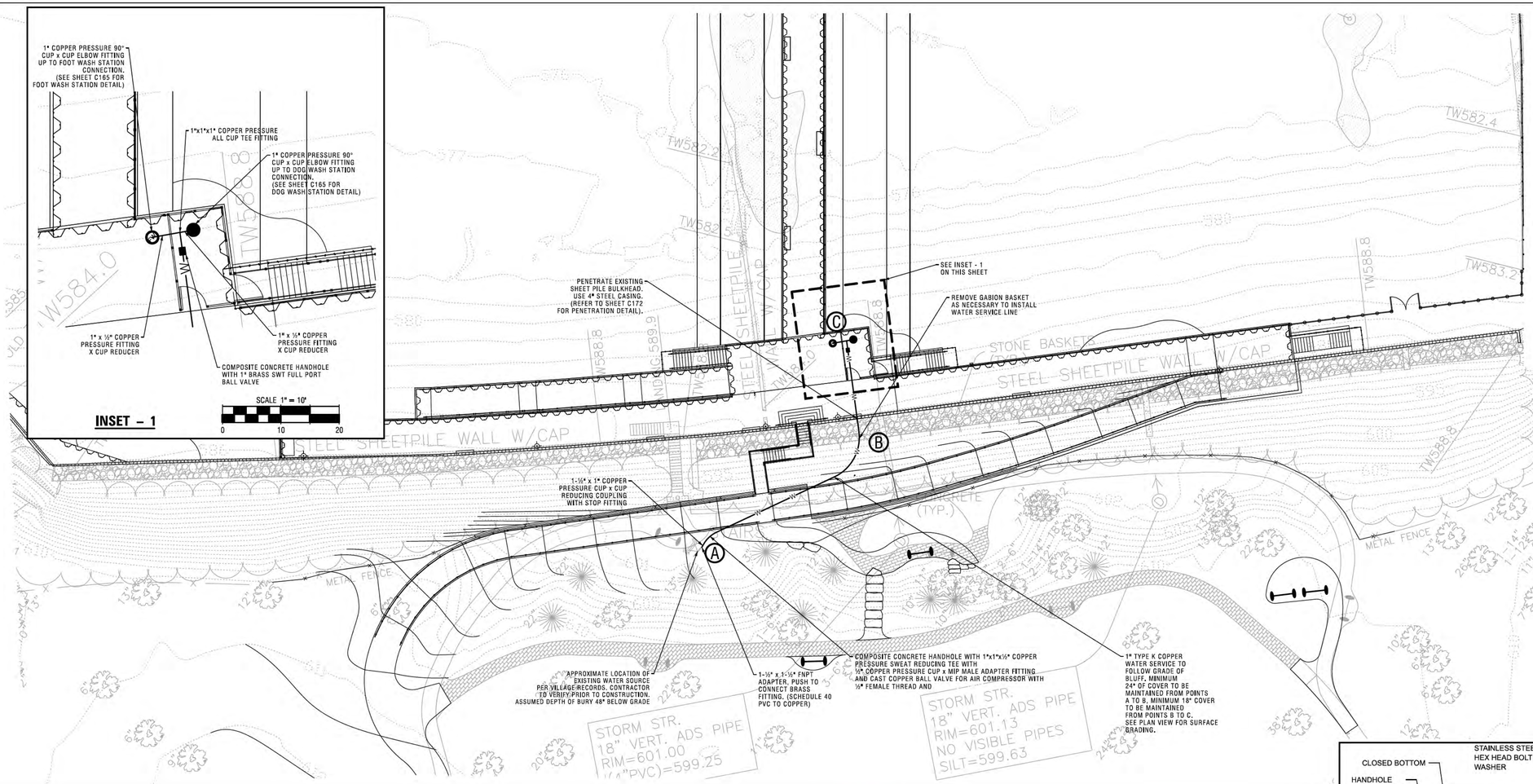
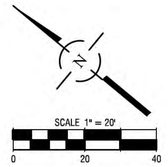
Sheet No.
C172

INSET – 1





LEGEND

—W— 1" TYPE K COPPER WATER SERVICE

NOTES:

1. SEE SHEET C100 FOR LEGEND OF EXISTING CONDITIONS
2. CONTRACTOR WILL BE PROVIDED AUTOCAD DRAWING FILE FOR CONSTRUCTION LAYOUT AFTER AWARD OF CONTRACT.
3. LIMITS OF CONSTRUCTION ARE AS SHOWN UNLESS OTHERWISE NOTED.
4. BEFORE EXCAVATION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING JULIE AND APPROPRIATE UTILITY COMPANIES FOR UTILITY LOCATIONS.

TENNUODA CAST COPPPER BALL VALVE FOR AIR COMPRESSOR WITH 1/2" FEMALE THREAD AND 1/4" MALE THREAD

LIBRA SUPPLY 1" x 1" x 1/2" COPPER PRESSURE SWEAT REDUCING TEE

EVERBILT 1" BRASS SWT FULL PORT BALL VALVE

EVERBILT 1" COPPER PRESSURE 90 DEGREE CUP x CUP ELBOW FITTING

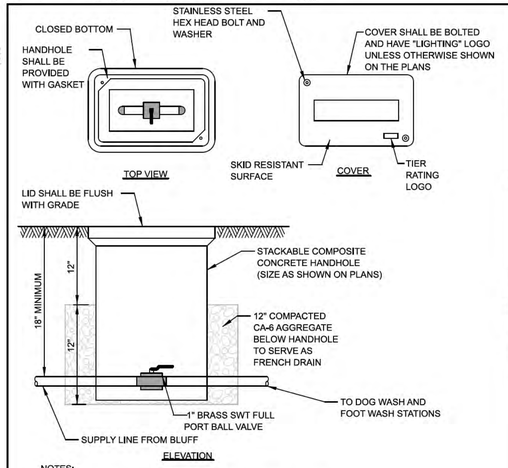
EVERBILT 1" COPPER PRESSURE ALL CUP TEE FITTING

EVERBILT 1/2" COPPER PRESSURE CUP x MIP MALE ADAPTER FITTING

EVERBILT 1" x 1/2" COPPER PRESSURE FITTING x CUP REDUCER

EVERBILT 1–1/2" x 1" COPPER PRESSURE CUP x CUP REDUCING COUPLING WITH STOP FITTING

SHARKBITE 1–1/2" FNPT ADAPTER, PUSH TO CONNECT BRASS PLUMBING FITTING



ELEVATION

NOTES:

1. POLYMER CONCRETE HANDHOLE AND LID SHALL BE GREEN IN LANDSCAPED AREAS AND MATCH COLOR IN CONCRETE/BRICK AREAS.
2. BOX & LID SHALL MEET/EXCEED ANSI TIER 15 LOADING REQUIREMENTS, AND BE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF THE ANSI/SCTE 77 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY", AND THE PROVISIONS OF PARAGRAPHS 5.2.3 AND 5.2.4 OF WESTERN UNDERGROUND COMMITTEE GUIDE 3.6.

COMPOSITE CONCRETE HANDHOLE DETAIL

N.T.S.

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spacecoinc.com

Issued for	Rev.	Date
70% Submittal		04/08/24
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Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

SCALE 1" = 20'
0 20 40

Scale 1 Inch = 20 Ft.

Drawing Title

DOG AND FOOT WASH PLUMBING LAYOUT PLAN

Sheet No. C173

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General Notes

1. The building code applicable to this project is the International Building Code (IBC) 2017

2. All details and sections shown on the drawings are typical and shall be used wherever a similar condition occurs unless noted otherwise.

3. Contractor shall field verify all existing dimensions and conditions as it relates to new construction. Contractor shall report any discrepancies to the E/A.

4. The stability and strength of the completed structure depends upon the interaction of various connected parts such as diaphragms, braces and/or shear walls. Contractor shall provide temporary bracing and/or shoring as necessary to complete the work.

5. Design Loads:

Dead Load	actual weight
Uniform Live Load	100 psf
Concentrated Live Load	300 pounds
Roof Snow Load:	
Ground Snow Load (P_g)	25 psf
Flat Roof Snow Load (P_f)	17 psf
Snow Exposure Factor (C_e)	0.8
Snow Load Importance Factor (I)	1.0
Wind load:	
Basic Wind Speed	107 mph
Wind Load Importance Factor	1
Wind Exposure Category	D
Wind Design Pressure (P)	30 psf

Soil borings

1. For location of soil borings see Civil or Architectural Plans.

2. For boring logs and foundation report see the appendix to the project manual.

Excavation and Backfilling

1. Minimum required net bearing capacity is: 3000 psf

   3000 psf - for spread footings

2. Where foundation is over excavated, remove all disturbed foundation soil and replace with lean concrete or compacted structural backfill.

3. Over excavate unsuitable foundation soil where required by the E/A and replace with compacted structural backfill. See specifications.

Removal and Protection

1. Provide shoring and bracing for structural elements during partial removal to avoid any damage to the existing facilities.

2. Existing structures shall be protected from overloading due to construction loadings. Heavy equipment shall not be operated close to existing tanks to avoid high lateral earth pressures on walls.

3. Damage to adjacent facilities during construction shall be repaired at no additional cost to the owner.

Cast-in-place concrete

1. Concrete work on this project shall conform to all requirements of ACI 301, standard specifications for structural concrete, published by the American Concrete Institute (ACI), Detroit, Michigan, except as modified by the requirements of these contract documents.

2. All concrete shall be provided with a minimum ultimate compressive strength at 28 days (f'c) of 3000 psi

3. All exterior concrete, building foundations and concrete subject to freeze-thaw shall have 4% to 7% air content by volume measured in accordance with ASTM C231. Air entraining admixtures shall conform to ASTM C260. The slump shall not exceed 4 inches measured in accordance with ASTM C143.

4. Reinforcing steel shall conform to ASTM A-615 Grade 60. Welded wire fabric shall conform to ASTM A-185.

5. Submit shop drawings of the reinforcement bars prepared in accordance with ACI 315, details and detailing of concrete reinforcement.

6. Welding of reinforcing bars shall not be permitted.

7. No calcium chloride will be used in concrete.

8. Dusting with any material to absorb surface water is prohibited.

9. Curing procedures in accordance with ACI 301 shall continue for a period of at least 7 days.

10. Do not mix salt, chemicals or other foreign materials with the concrete to prevent freezing. Maintain the temperature of the concrete above 50 degrees Fahrenheit for five days after placement.

11. Cover for reinforcement for cast-in-place concrete shall be as follows:

	Minimum Cover, Inches
Slabs and joists:	
Top and bottom bars for dry conditions: #11 bars and smaller	3/4
Formed concrete surfaces exposed to earth, water, or weather, and over or in contact with sewage and for bottoms bearing on work mat, or slabs supporting earth cover:	
#5 bars and smaller	1 1/2
#6 through #11 bars	2
Beams and Columns:	
For dry conditions: stirrups, spirals, and ties	1 1/2
principal reinforcement	2
Exposed to earth, water, sewage, or weather: stirrups and ties	2
principal reinforcement	2 1/2
Walls:	
For dry conditions: #11 bars and smaller	3/4
Formed concrete surfaces exposed to earth, water, sewage, weather, or in contact with ground:	2
Footings and base slabs:	
At formed surfaces and bottoms bearing on concrete work mat	2
At unformed surfaces and bottoms in contact with earth	3
Top of footings - same as slabs over top of piles	2

12. Unless shown otherwise on plans, lap splices of uncoated reinforcement bars shall be as follows:

	Bar Size	Lap length - inches (smaller bar)*								
		#3	#4	#5	#6	#7	#8	#9	#10	#11
A)	horizontal bars so placed that more than 12 inches of concrete will be cast below the bars	24	32	40	48	70	80	91	102	113
B)	Horizontal bars so placed that less than 12 inches of concrete will be cast below the bars	19	25	31	37	54	62	70	79	87
C)	Vertical Bars 19	25	31	37	54	62	70	79	87	

* Lap lengths are calculated for uncoated bars in accordance with ACI 318, class B splices and f'c = 4000 psi. Minimum clear spacing between bars is two bar diameters and minimum cover is one bar diameter. For other conditions, calculate splices in accordance with ACI 318, class b splices required unless noted otherwise.

13. Obtain E/A's written approval for any additional or relocated construction joints other than those shown on drawings.

14. Unless shown otherwise, chamfer all exposed edges of concrete 3/4 inch.

INDEX OF SHEET

C174 Stairs - General Notes and Bill of Materials

C175 Stairs - General Plan, Foundation Plan and Framing Plan

C176 Stairs - Structural Details (Sheet 1 of 2)

S177 Stairs - Structural Details (Sheet 2 of 2)

"The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto."

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Issued for	Rev.	Date
100% Submittal		6/28/24
Bidding and Constr.		7/19/24

Project Title:

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Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

Scale

Drawing Title

STAIRS - GENERAL NOTES AND BILL OF MATERIALS

Sheet No. C-174

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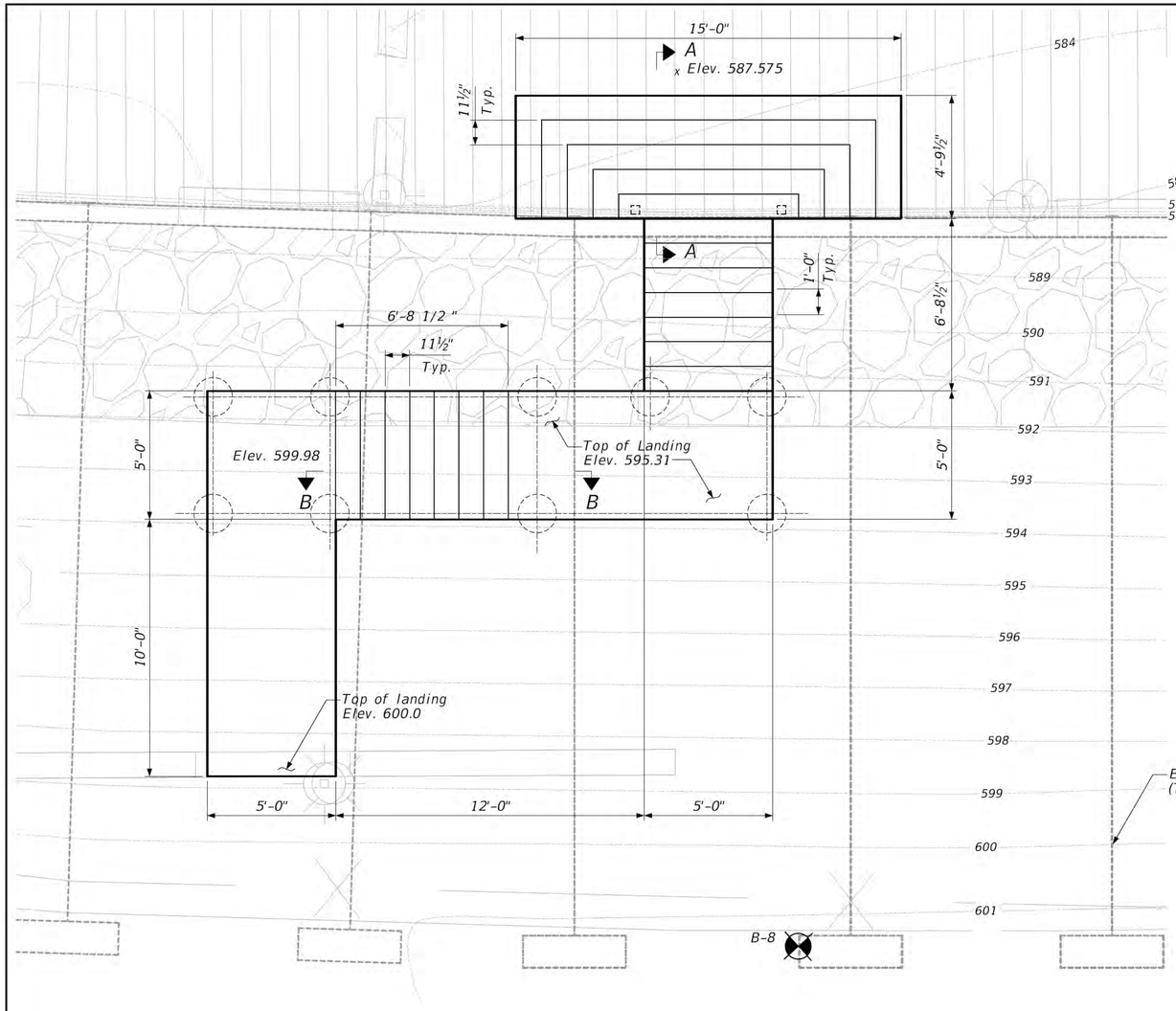
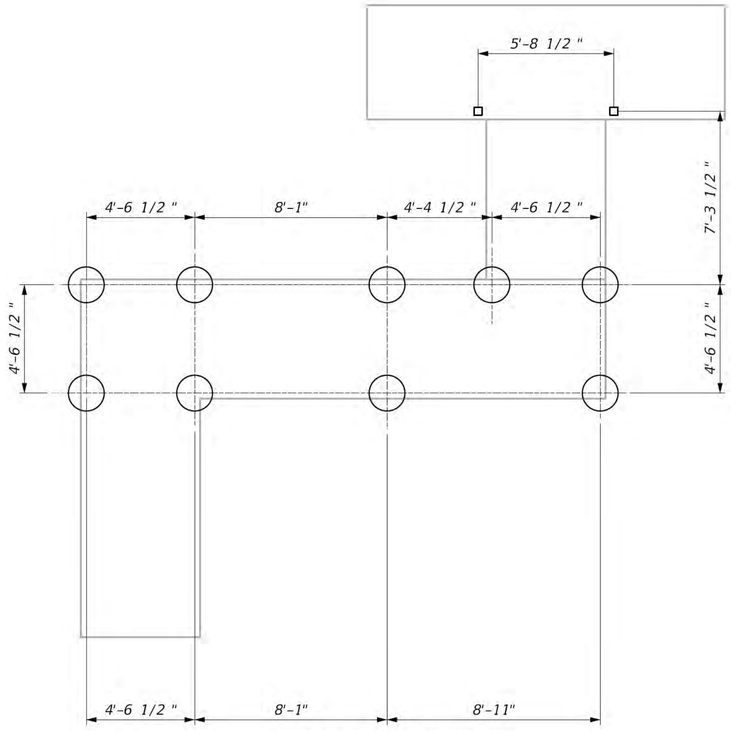
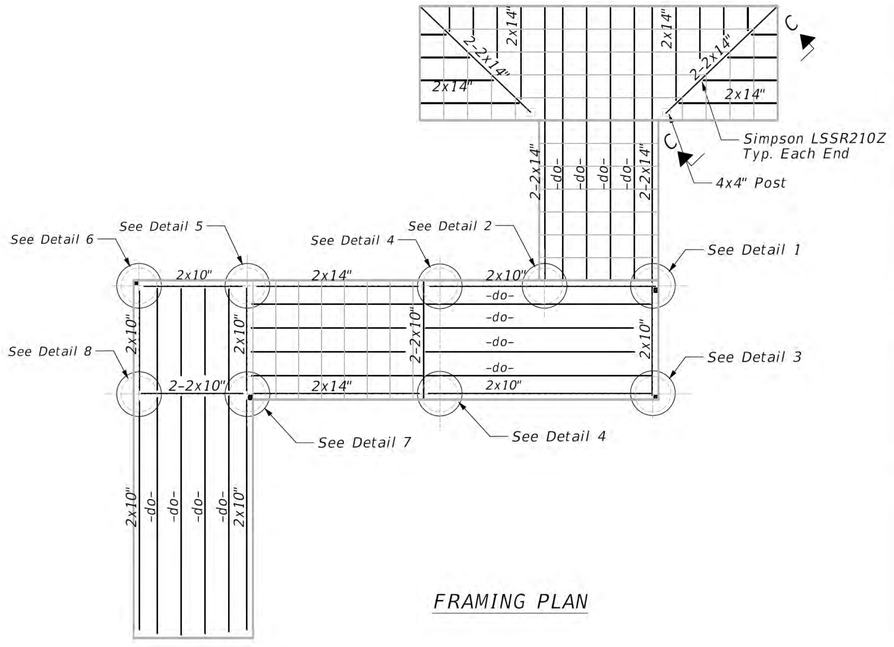


GENERAL PLAN



FOUNDATION PLAN

NOTE:
The Contractor shall remove and restore the gabion blankets where the helical piles conflict with existing gabion blankets (5 piles).



FRAMING PLAN

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Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

Scale

Drawing Title

STAIRS - GENERAL PLAN, FOUNDATION PLAN AND FRAMING PLAN

Sheet No. C-175

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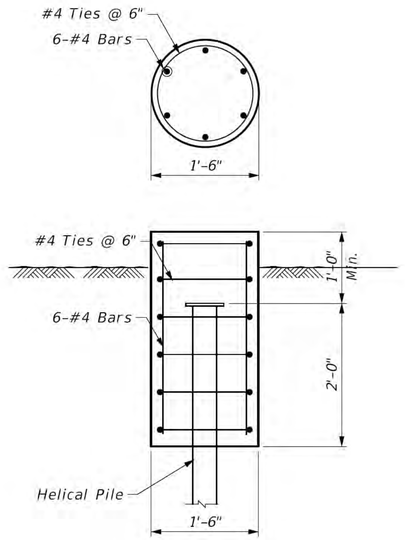
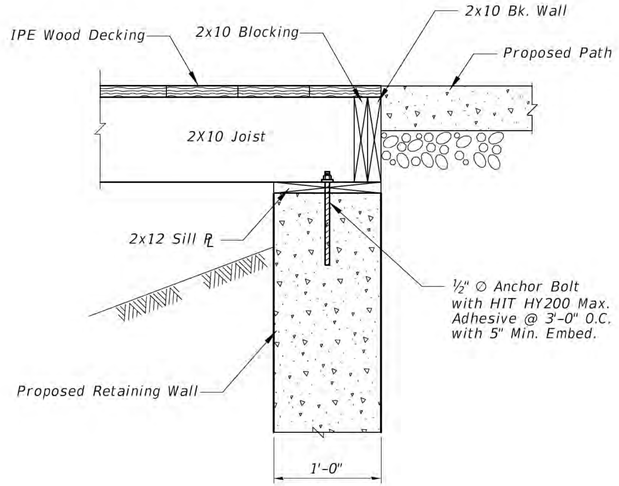
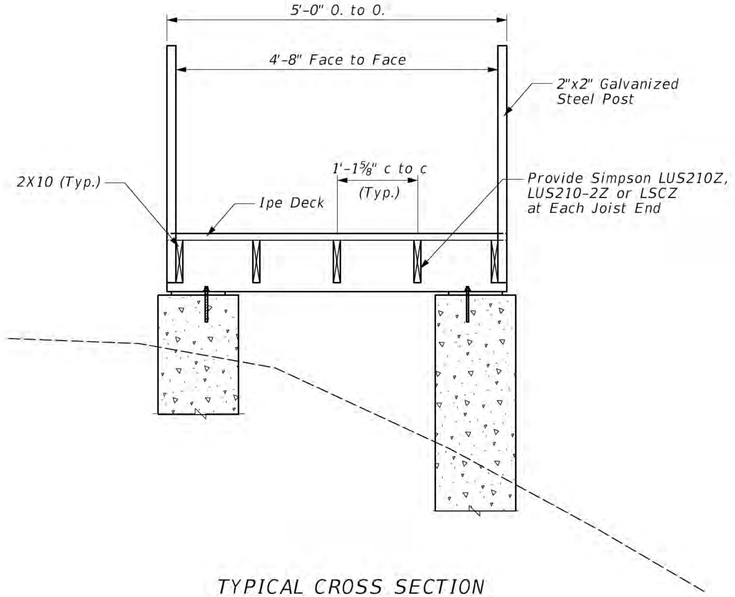


FOOTING DETAIL

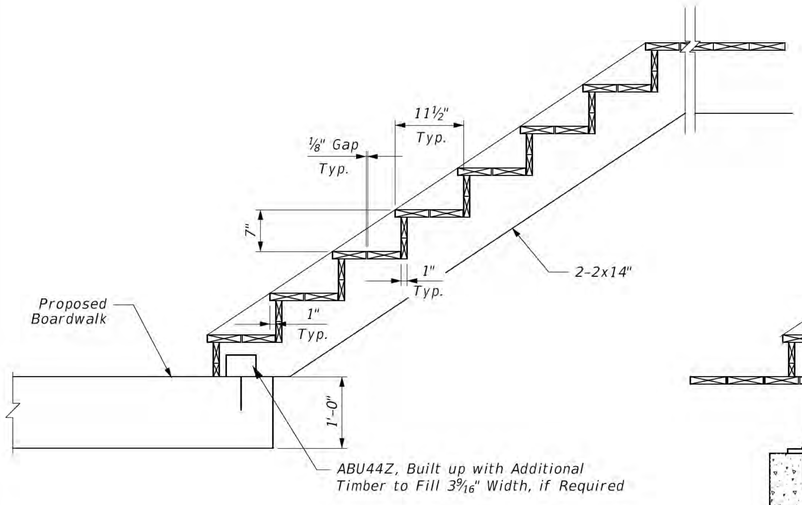
Typical Concrete Encasement for Helical Piles Supporting Timber Posts



DECK SUPPORT DETAIL AT TOP STAIRS



TYPICAL CROSS SECTION



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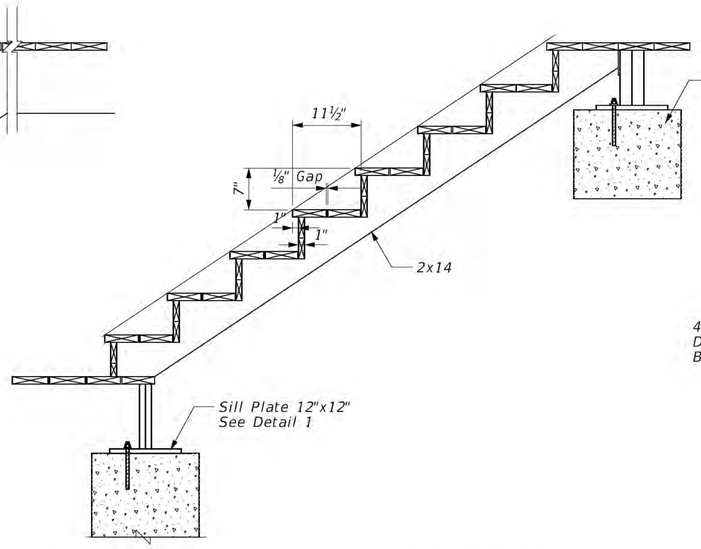

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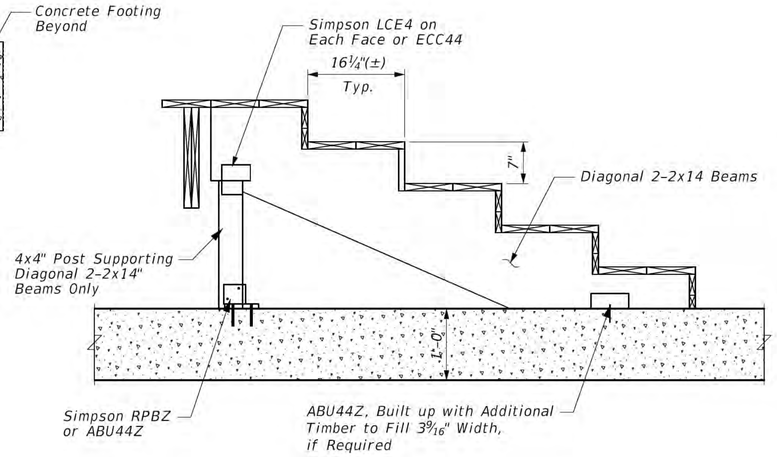

SECTION C-C

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Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

Scale

Drawing Title

STAIRS - STRUCTURAL DETAILS (SHEET 1 OF 2)

Sheet No. C176

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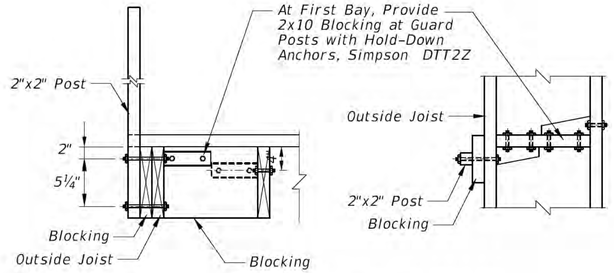
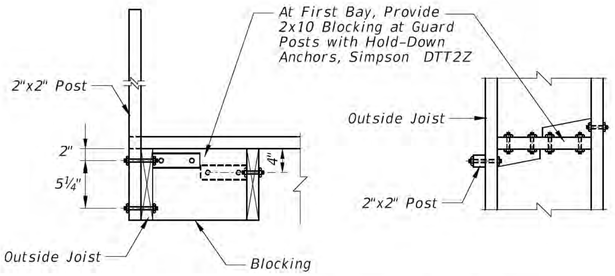


TYPICAL RAILING DETAIL



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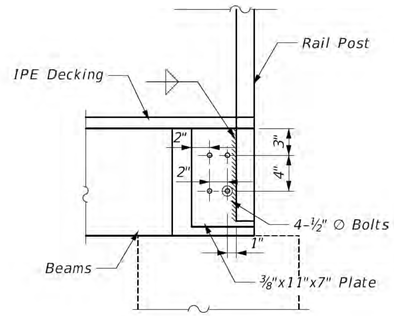
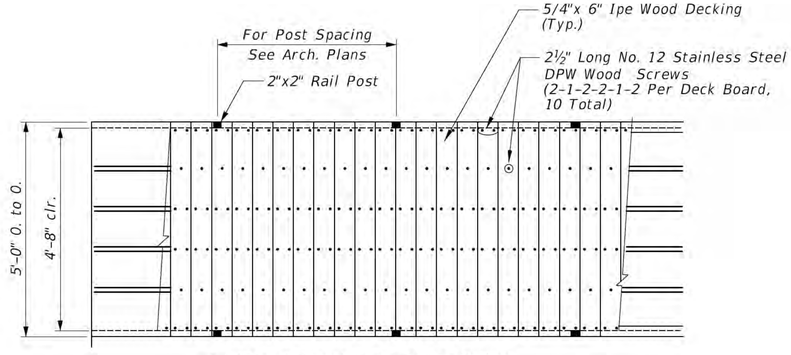


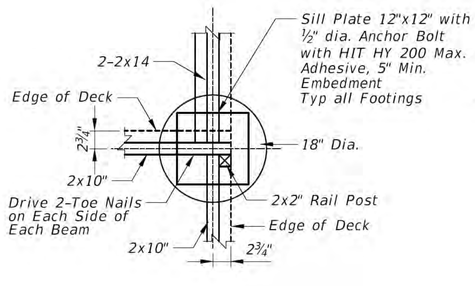
RAIL POST DETAIL AT DECK CORNERS



* NOTE: All Boards Must Be Pre-Drilled

PARTIAL DECKING PLAN

(Provide Blocking at 6'-0" Spacing)



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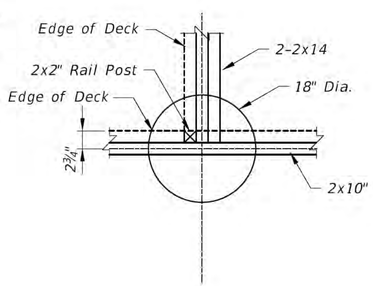

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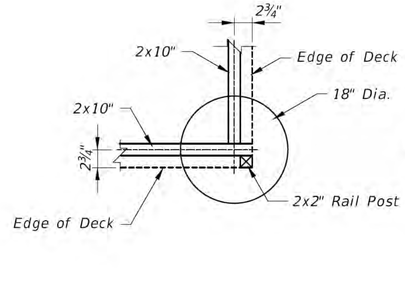

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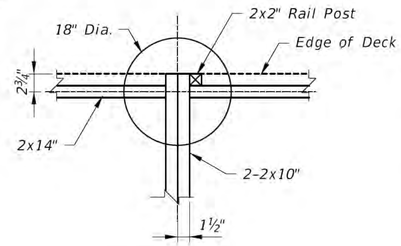

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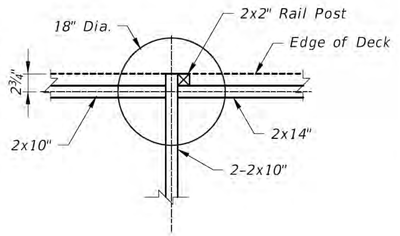

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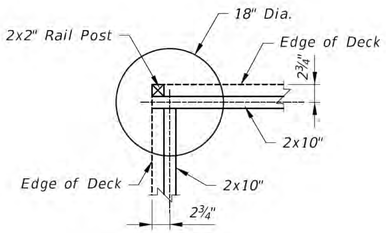

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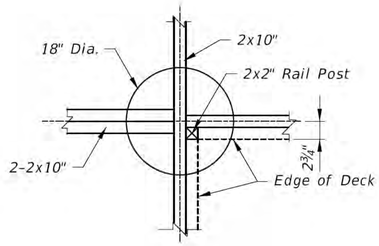

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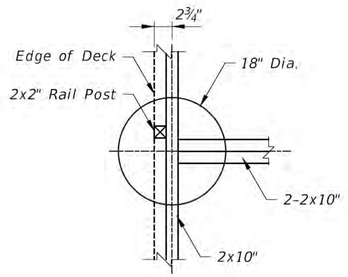

DETAIL 8

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Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

Scale

Drawing Title

STAIRS-
STRUCTURAL
DETAILS
(SHEET 2 OF 2)

Sheet No. C177

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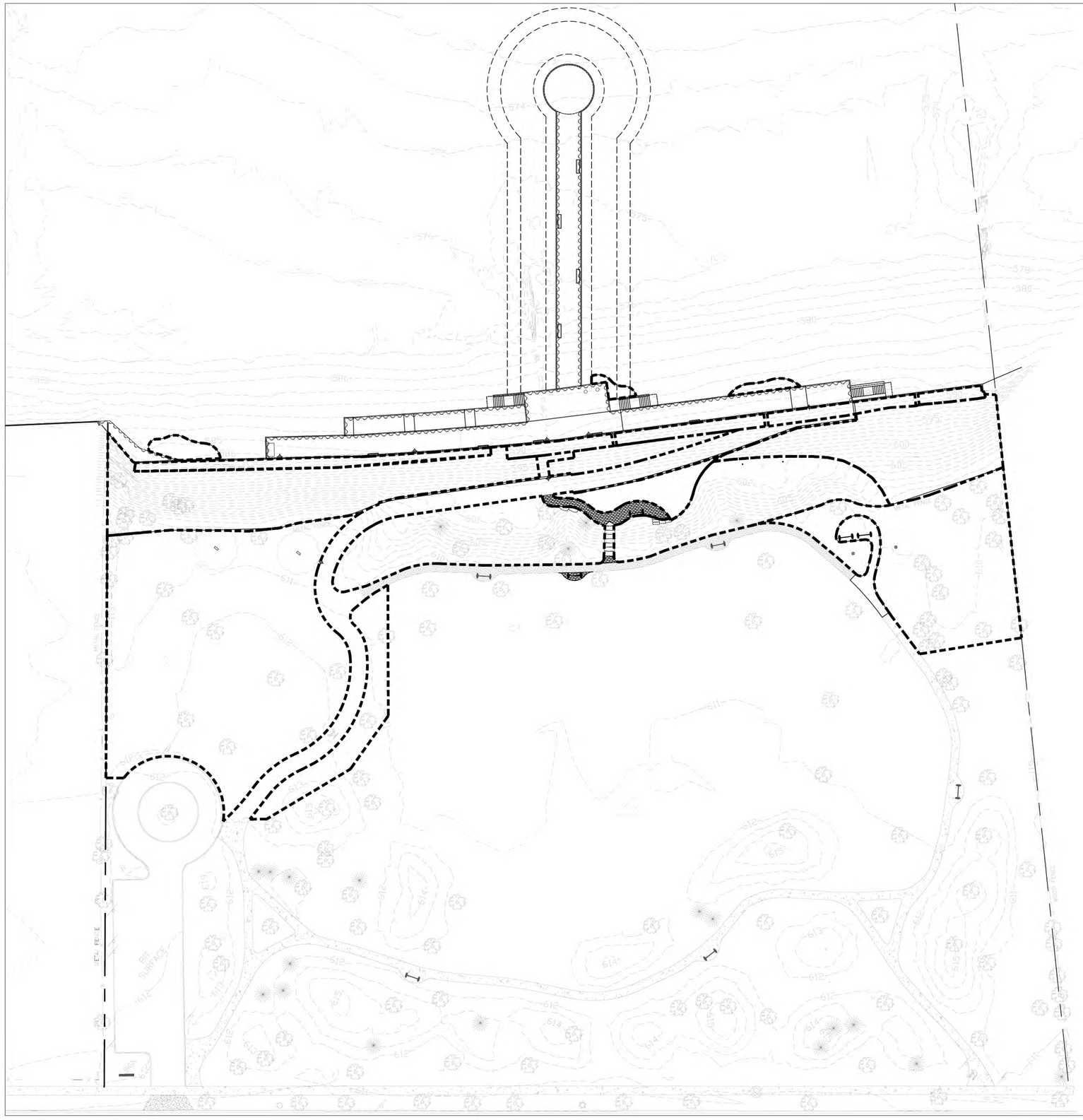
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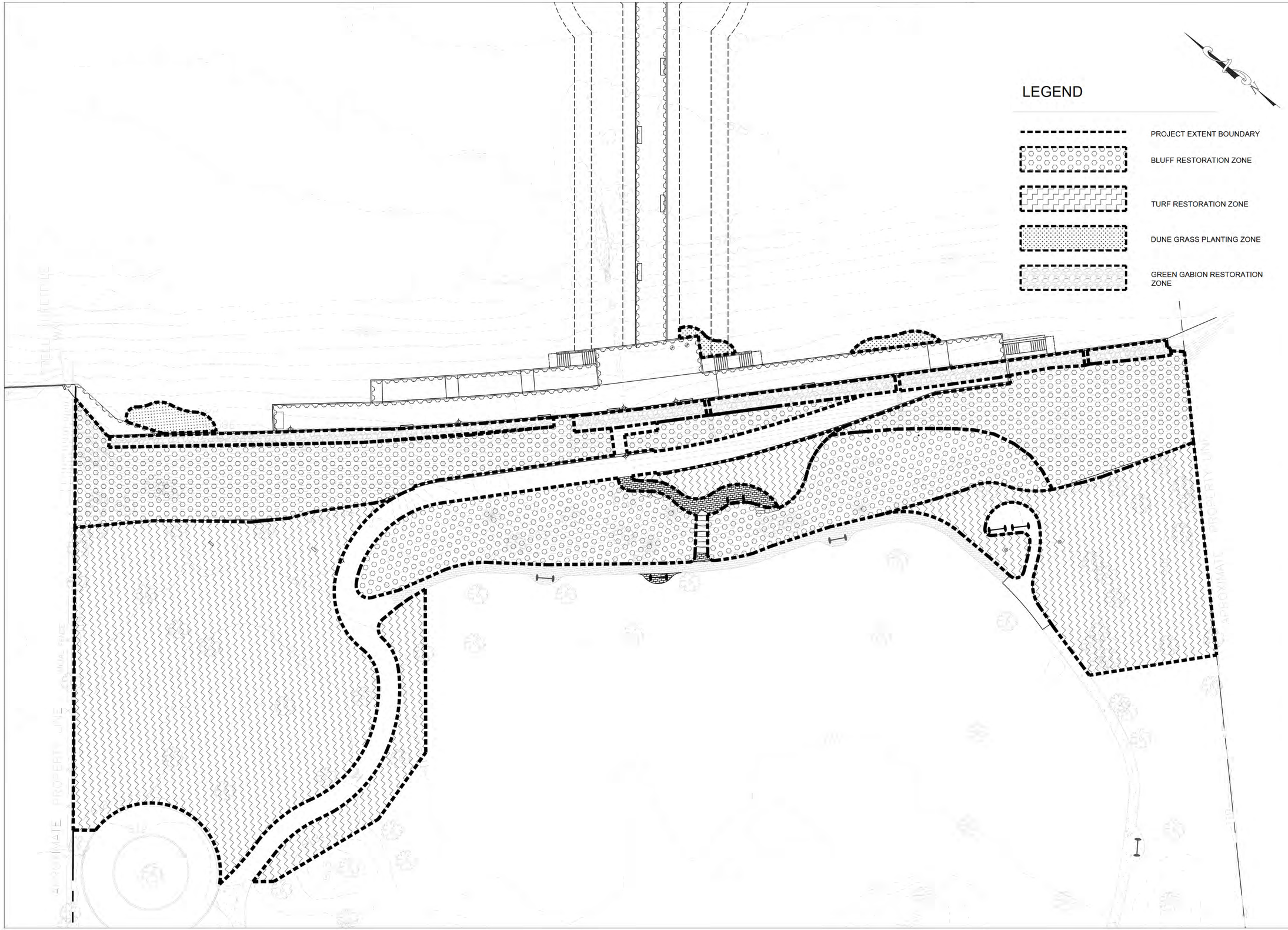

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Issued for	Rev.	Date
70% Subm tta		04/08/24
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Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' 10' 20'
(In Feet)

Scale 1 nch = 20 Ft.

Drawing Title

RESTORATION PLAN

Sheet No.

C179

RESTORATION NOTES

PLANTING AND SEEDING NOTES

Bluff Restoration Zone - 23,755 sq. ft.

1. In planting areas with slopes 3H:1V or greater, the area shall be covered with a single layer of a biodegradable double-net straw blanket, such as BioNet® S150BN® or similar product. Blanket shall be anchored using 6" wooden stakes, such as an Eco-stake. Installation should follow the manufacturer's recommendations for the site conditions.
2. Areas disturbed during construction will require a single layer of BioNet® S150BN® followed by a single layer of BioD-Mat® 70 coir mat. The coir mat will be installed and anchored with wooden wedges per the manufacturer's recommendations for the site conditions. Native seed and cover crop will need to be spread prior to the installation of the erosion fabric. The native seed will be applied at a rate of 7 PLS lbs. per acre with species from the Bluff Restoration Seed list. The extent of the disturbed area has not been determined; therefore, the area of erosion fabric and seeding will need to be determined as the work is concluded.
3. Plant material shall be obtained from a nursery that specializes in native plant production and is produced from material sourced from within 250 miles of the site. The 250-mile range is limited to the central and southern Lake Michigan watershed.
4. Plugs shall be at least 2" in diameter and 5" deep and be grown in either a 38- or 50- cell propagation tray.
5. Install plant plugs on 18" centers in offset rows (triangular pattern) throughout the bluff restoration zone following 2025 herbaceous species herbicide applications. Plants should be installed in individual species clusters of 5-7 plants. All planting areas will be watered immediately following installation.
6. Groundcover species should be planted primarily along the gabion wall with other species as these species should gradually grow over this wall. These species include, *Clematis virginiana*, *Potentilla simplex*, *Ruellia humilis*, and *Tephrosia virginiana*.
7. Plant installation should occur during typical perennial planting windows. If the installation is to be performed during the dry summer months, the contractor will irrigate as needed to promote the successful establishment of the plant material.
8. The successful establishment of the plant material is considered an 80% survival, or greater, at the end of the first growing season.
9. A cover crop of seed oats should be spread at a rate of 35 lbs./acre following the plug installation.

Green Gabion Wall - 3210 sq. ft.

1. Remove all vegetation from the gabions and cut the woody species as close to flush with the wire as feasible. Treat all the cut stumps as detailed in the Invasive and Noxious Species Removal and Control section.
2. A clean, sandy loam topsoil will be utilized to backfill any voids in the gabions and cover the exposed wire to a depth of 2 inches.
3. Utilize a vibratory plate compactor, or other approved equipment, to settle and compact the soil around the rocks in the gabions. Continue to add topsoil and compact to achieve a 2" thick soil layer over the gabions.
4. The area will be hydroseeded within a week following the topsoil installation to stabilize the slope. The hydroseed will consist of an approved hydraulic mulch, tackifier, native seed from the Bluff Restoration Seed list, and a seed oats cover crop.

Dune Grass Planting Zone - 800 sq. ft.

1. This zone is currently open sand that is adjacent to construction activities.
2. Install bare root plants on 8" centers in offset rows (triangular pattern) throughout the dune grass restoration zone in the spring or fall following the conclusion of construction activities. The bare root plants should be planted 10" or more beneath the surface and in accordance with the supplier's recommendation.
3. In planting areas with slopes 3H:1V or greater, the area shall be covered with a single layer of a biodegradable double-net straw blanket, such as BioNet® S150BN® or similar product. Blanket shall be anchored using 6" wooden stakes, such as an Eco-stake. Installation should follow the manufacturer's recommendations for the site conditions.
4. All bare root plants should be inspected prior to installation, any moldy or rotted plants shall be discarded. Installation of this type of plant material is unlikely to survive.
5. Dune grass plantings shall be watered immediately following installation and irrigated as needed throughout the first growing season to achieve an 80% survival.

Turf Restoration Zone - 31,162 sq. ft.

1. Prior to seeding, the area shall be tilled to a depth of 4" and any branches, rocks, or debris greater than 0.75" in diameter shall be removed.
2. A general-purpose turf mix will be selected that matches the existing turf growing in the park and installed per the manufacturer's recommendations for the selected installation method.
3. Seed shall be applied with either a broadcaster or hydraulically. If applied with a broadcast method, half the seed shall be installed while working in one direction. The second half of seed shall be applied while going in a direction perpendicular to the first pass to ensure 100% coverage of the site. The area should be lightly rolled or raked after seeding to ensure adequate seed to soil contact.
4. Following seed installation, the seeded area shall be covered with either straw or hydraulic mulch with a tackifier. Straw should be applied at 2 tons/acre and crimped or anchored in place. Hydraulic mulch should be paper- or wood-based and applied at the manufacturer's rate for the site conditions.
5. Seeded areas shall be irrigated by the contractor during the establishment period until a dense and consistent stand of grass is established without any bare spots larger than 2 square feet.

Bluff Restoration Zone Planting List
Centennial Park

Species	Common Name	Plug Amount
Asclepias tuberosa	Butterfly weed	1432
Calamovilfa longifolia	Sand Reed Grass	2046
Clematis virginiana	Virgin's bower	409
Elymus virginicus	Virginia Wild Rye	2046
Euphorbia corollata	Flowering Spurge	409
Helianthus occidentalis	Western sunflower	614
Monarda fistulosa	Wild bergamot	409
Panicum virgatum	Switch grass	1227
Penstemon hirsutus	Hairy beard-tongue	409
Potentilla simplex	Common cinquefoil	409
Ruellia humilis	Wild petunia	409
Schizachyrium scoparium	Little Bluestem	2046
Symphyotrichum ericoides	Heath Aster	409
Symphyotrichum sericeum	Silky aster	409
Tephrosia virginiana	Goat's rue	409
Tradescantia ohiensis	Ohio spiderwort	409
Verbena stricta	Hoary vervain	409
Total		**13910**

Bluff Restoration Zone Seed List
Centennial Park

Species	Common Name
Asclepias tuberosa	Butterfly weed
Calamovilfa longifolia	Sand Reed Grass
Elymus virginicus	Virginia Wild Rye
Monarda fistulosa	Wild bergamot
Panicum virgatum	Switch grass
Penstemon hirsutus	Hairy beard-tongue
Schizachyrium scoparium	Little Bluestem
Tradescantia ohiensis	Ohio spiderwort
Verbena stricta	Hoary vervain

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Issued for	Rev.	Date
70% Subm tta		04/08/24
100% Subm tta		06/28/24
B dd ng and Construct on		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

Scale NOT TO SCALE

Drawing Title

RESTORATION NOTES

Sheet No.
C180

RESTORATION NOTES

INVASIVE SPECIES NOTES

Invasive and Noxious Species Removal and Control - 1.34 ac.

1. The Bluff Restoration Zone has steep, irregular slopes, and a relatively dense understory with some significant stands of invasive shrubs, trees, and vines. The native herbaceous plant community here is not particularly well established throughout most portions of the bluff restoration zone. There are small clusters of native spring ephemeral species that should be avoided during late-winter and early-spring target species treatment applications. The Turf Restoration and Dune Grass Planting Zones are included in the total acreage but do not require any target species treatments.
2. The contractor shall be responsible for submitting an Invasive Species Control Plan for review and approval prior to the start of any target species control. This plan will include the contractor's proposed schedule and treatment methodology for both woody and herbaceous target species.
3. All target non-native and invasive species are to be treated within the limits of the restoration project area as shown on the plan.
4. Only non-native tree and shrub species with a DBH < 8" are to be removed/treated as part of this project. Exceptions to the size class limit apply to invasive and highly aggressive species noted in the target species list.
5. All trees, shrubs, and vines greater than 1' in height shall have their stumps cut to a height less than or equal to 2" above the ground surface. Trees, shrubs, and vines less than 1' in height shall receive a foliar treatment with an appropriate selective herbicide once the leaves have fully emerged.
6. All cut woody species will be chipped and disposed of at an appropriate off-site area.
7. All cut stumps will be treated with an herbicide containing glyphosate as an active ingredient and applied at the manufacturer's recommended rate for dormant stump treatment. If the area of treatment is within 50' of the lakeshore, an herbicide approved for aquatic use shall be used. Cut stumps will be treated within 30 minutes of cutting. Contractors may propose the use of alternative herbicides as part of the Invasive Species Control Plan. The use of alternative herbicides would require the approval of the project engineer and would be done at no additional cost.
8. Any cut stumps that are not treated within the specified time limit, or cut to the correct height, should be recut and treated.
9. Target woody species removal and cut stump treatment will be conducted during the winter season of the contracted construction year when plants are dormant. Woody and herbaceous target species foliar treatments to begin in spring season of contracted construction year.
10. Quantity and timing of herbicide treatments will be dependent upon species to be controlled and should follow industry standard practices and herbicide manufacturer's recommendations to achieve an 95% reduction in target species cover by the end of the growing season of the contracted construction year.

Maintenance

1. Monthly inspections of the three restoration zones will be conducted to identify any areas with insufficient plant growth and/or areas of erosion.
2. Any bare areas larger than 4 square feet will be reseeded and/or replanted and mulch as necessary to obtain an even and vigorous stand of vegetation.
3. Any areas of erosion will be repaired as deemed appropriate to stabilize the eroded area in coordination with the engineer.
4. The contractor shall control non-native and invasive species to maintain a 5% or lower areal cover of the Bluff Restoration and Dune Grass Planting zones.

Target Species List

Species	Common Name	Tree Removal Size Limit (If Applicable)
Acer platanoides	Norway Maple	≤8" DBH
Ailanthus altissima	Tree-of-Heaven	All Sizes
Alliaria petioiata	Garlic Mustard	
Arctium minus	Common Burdock	
Artemisia vulgaris	Common Mugwort	
Berberis thunbergii	Japanese Barberry	
Celastrus orbiculatus	Asian Bittersweet	
Centaurea stoebe	Spotted Knapweed	
Cirsium arvense	Canada Thistle	
Conium maculatum	Poison hemlock	
Dipsacus spp.	Teasel	
Elaeagnus umbellata	Autumn Olive	
Euonymus alatus	Winged Euonymus	All Sizes
Euonymus fortunei	Winter creeper	
Hedera spp.	Ivy	
Humulus japonicus	Japanese Hop	
Leymus arenarius	European Lyme Grass	
Ligustrum spp.	Privet	All Sizes
Lonicera japonica	Japanese honeysuckle	
Lonicera spp.	Bush honeysuckles	All Sizes
Lotus cornicuiatus	Bird's Foot Trefoil	
Lysimachia nummularia	Moneywort	
Lythrum salicaria	Purple Loosestrife	
Melilotus spp.	Sweet Clover	
Morus alba	White Mulberry	All Sizes
Pastinaca sativa	Wild Parsnip	
Phalaris arundinacea	Reed Canary Grass	
Phragmites australis	Common Reed	
Reynoutria spp.	Knotweed	
Rhamnus cathartica	Common Buckthorn	All Sizes
Rhus typhina	staghorn sumac	≤4" DBH
Robinia pseudoacacia	Black Locust	All Sizes
Rosa multiflora	Multiflora Rose	
Securigera varia	Crown Vetch	
Solidago sempervirens	Seaside Goldenrod	
Typha spp.	Cattail	
Ulmus pumila	Siberian Elm	All Sizes
Vinca spp.	Periwinkle	
Vitis spp.	Grapevines	

*List includes some of the region's commonly encountered noxious and invasive species, but not limited to this list.

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Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

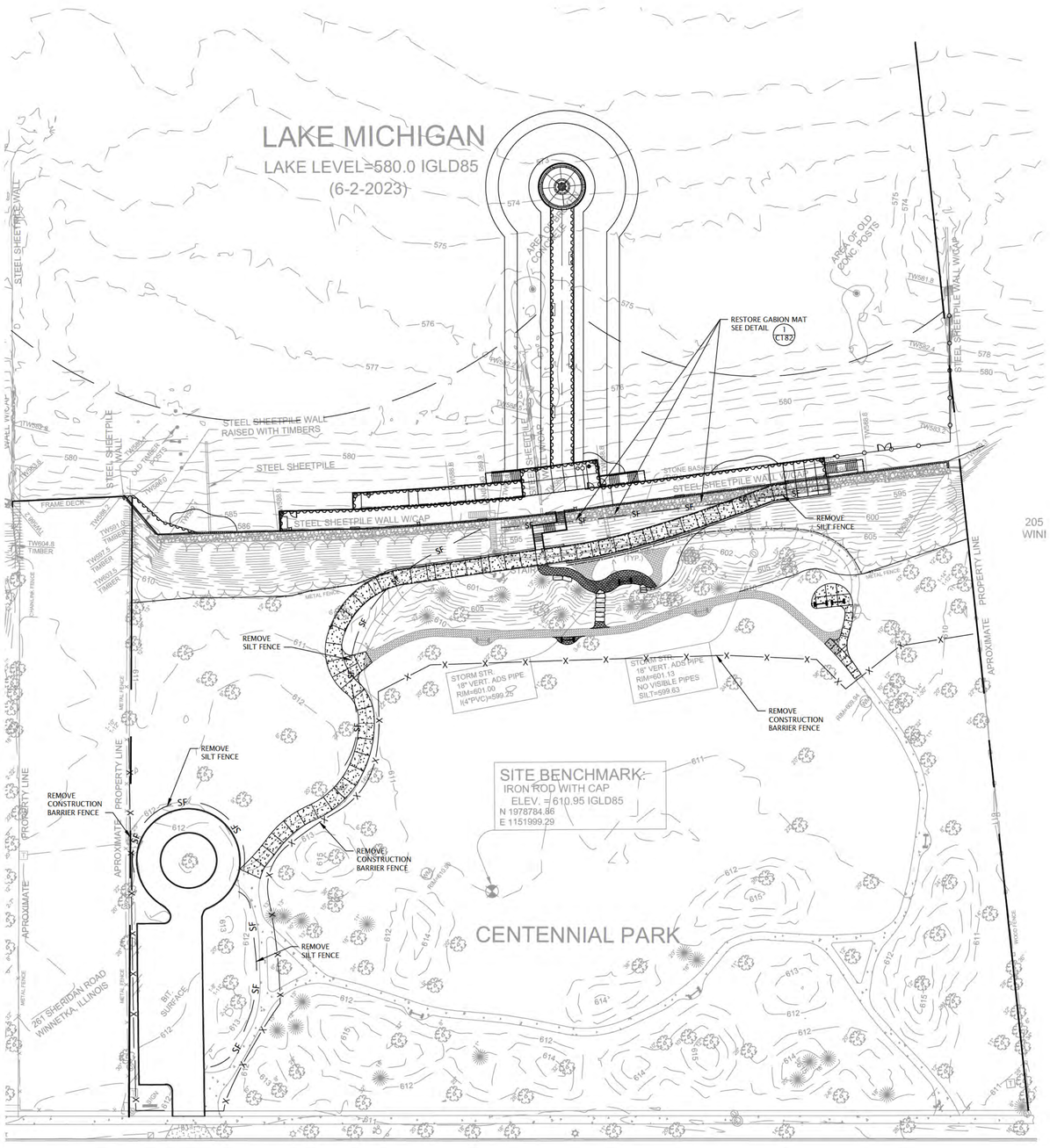
Scale NOT TO SCALE

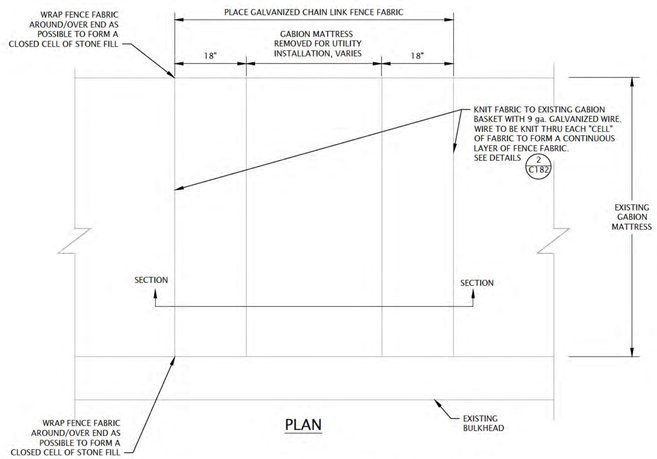
Drawing Title

RESTORATION NOTES

Sheet No.

C181





1 C182 GABION MATTRESS RESTORATION
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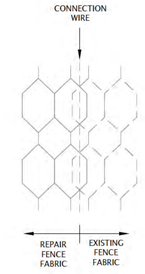

2 C182 FENCE FABRIC CONNECTION
NOT TO SCALE

"The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto."

811 Know what's below. Call before you dig.

NOTE:

RESTORE/SEED/MULCH ALL TRENCHING AND DISTURBANCE FROM SILT FENCE INSTALLATION AND REMOVAL.

NOTES:

1. SEE SHEET C100 FOR LEGEND OF EXISTING CONDITIONS.
2. CONTRACTOR WILL BE PROVIDED AUTOCAD DRAWING FILE FOR CONSTRUCTION LAYOUT AFTER AWARD OF CONTRACT.
3. LIMITS OF CONSTRUCTION ARE AS SHOWN UNLESS OTHERWISE NOTED.
4. BEFORE EXCAVATION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING JULIE AND APPROPRIATE UTILITY COMPANIES FOR UTILITY LOCATIONS.

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Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding And Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' 20' 40'
(In Feet)
1 Inch = 40 Ft.

Scale 1 Inch = 40 Ft.

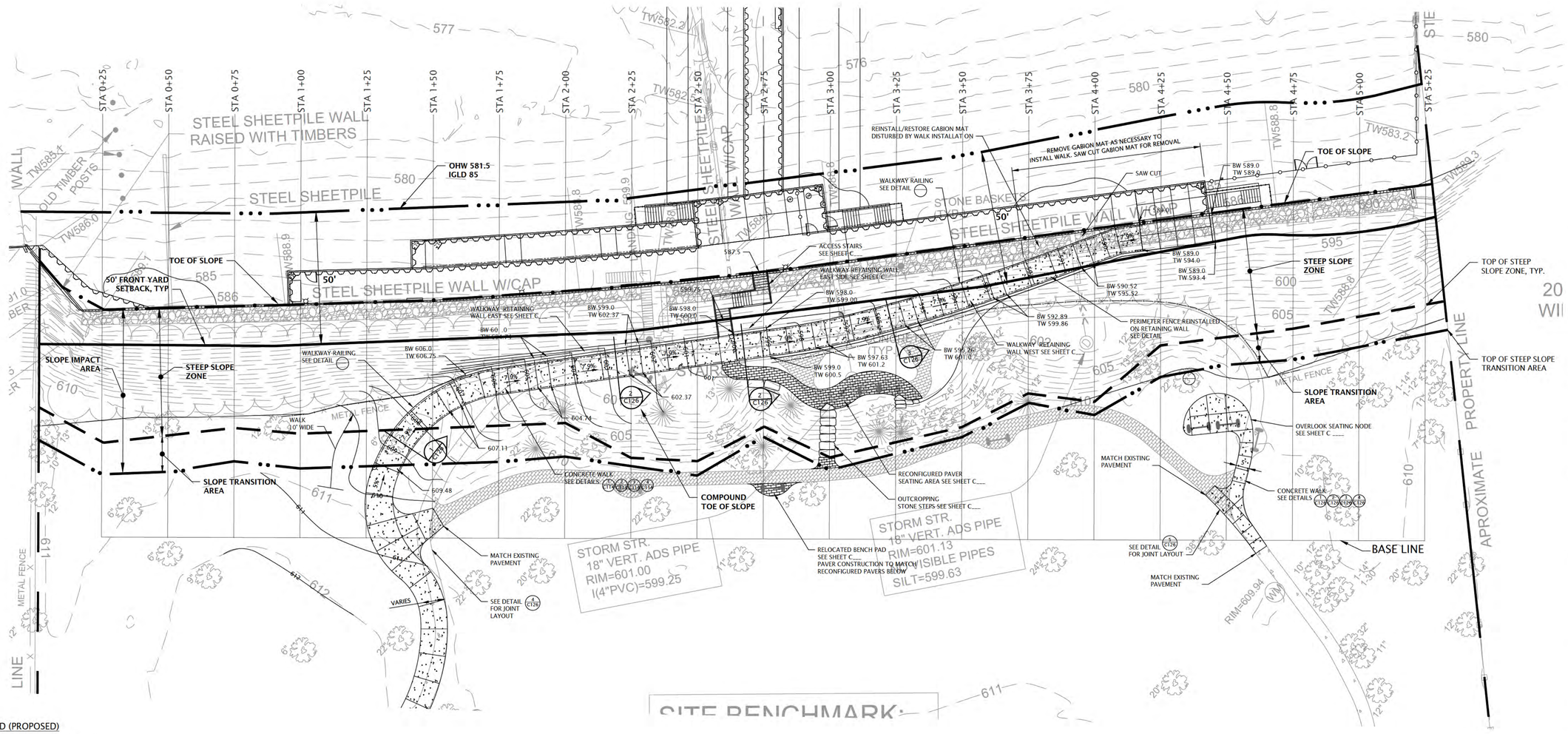
Drawing Title

Site Closure Plan

Sheet No.
C182

LEGEND

- TOE OF SLOPE
- TOP OF STEEP SLOPE ZONE
- TOP OF SLOPE TRANSITION AREA
- OHW 581.5 IGLD 85
- 50' FRONT YARD SETBACK



LEGEND (PROPOSED)

- - CONCRETE WALKWAY
- - RETAINING WALL
- X607 - SPOT ELEVATION
- —602— - PROPOSED CONTOUR
- BW 599.0 - BOTTOM OF WALL AT FACE OF WALK SURFACE
- TW 599.0 - TOP OF WALL

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Issued for	Rev.	Date
Village Response		07/30/24
Village Revisions		08/02/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

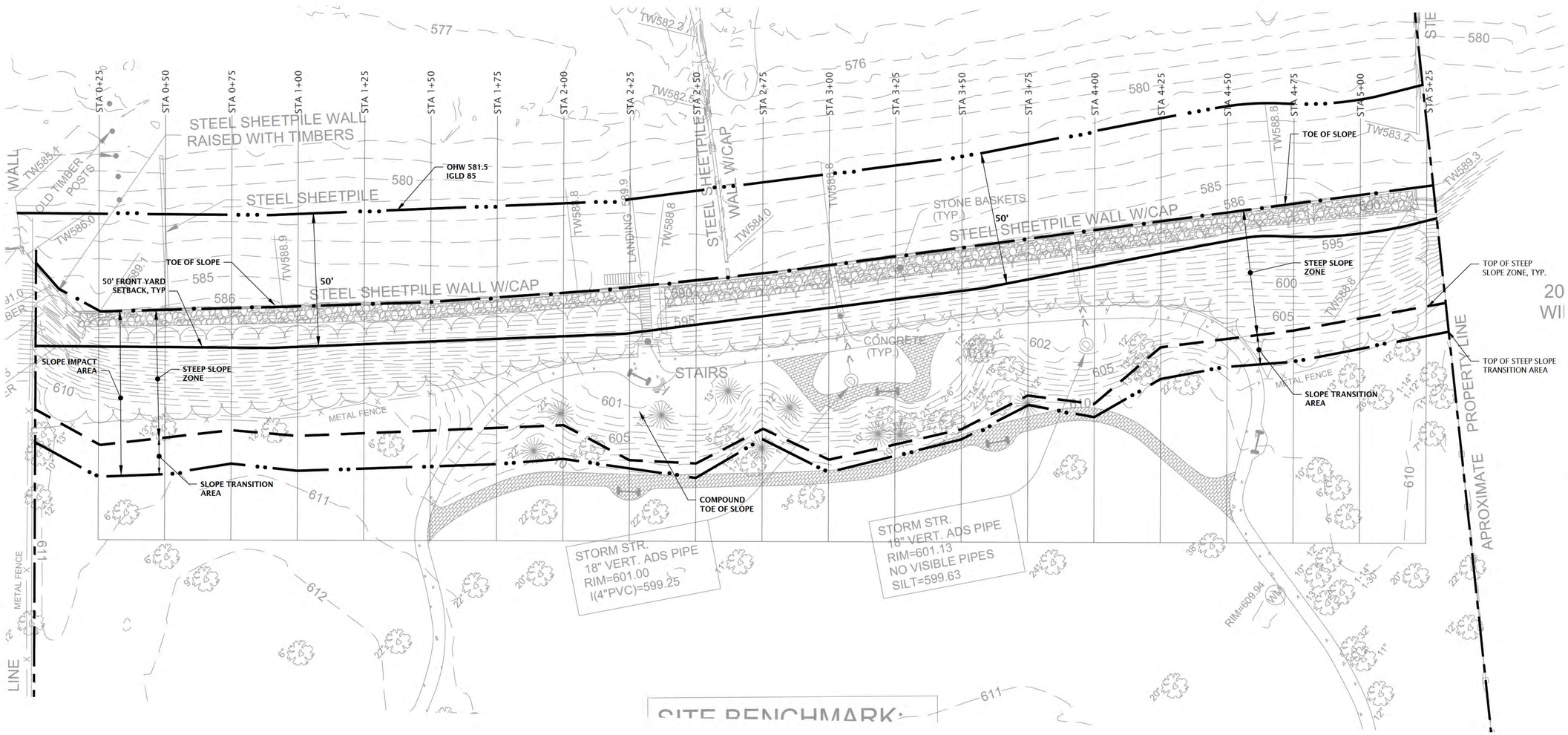
0' 10' 20'
(In Feet)
1 Inch = 20 Ft.

Scale 1 Inch = 20 Ft.

Drawing Title

Cross Section
Layout Plan

Sheet No.
CS - 6



LEGEND

- TOE OF SLOPE
- TOP OF STEEP SLOPE ZONE
- TOP OF SLOPE TRANSITION AREA
- OHW 581.5 IGLD 85
- 50' FRONT YARD SETBACK

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Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

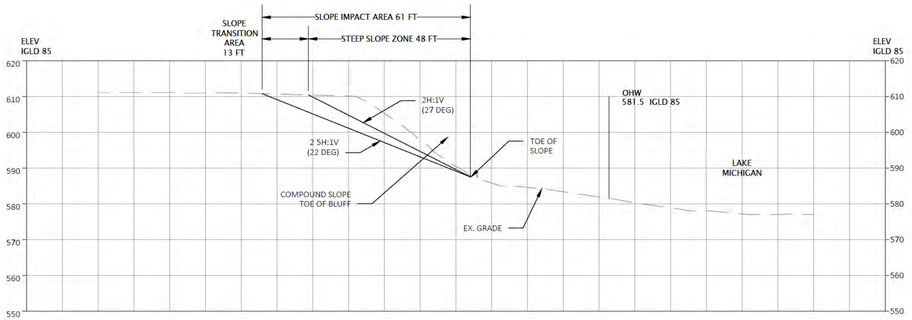
Graphic Scale

0' 10' 20'
(In Feet)
1 Inch = 20 Ft.

Scale
1 Inch = 20 Ft.

Drawing Title
Cross Section
Layout Plan

Sheet No.
CS - 6A



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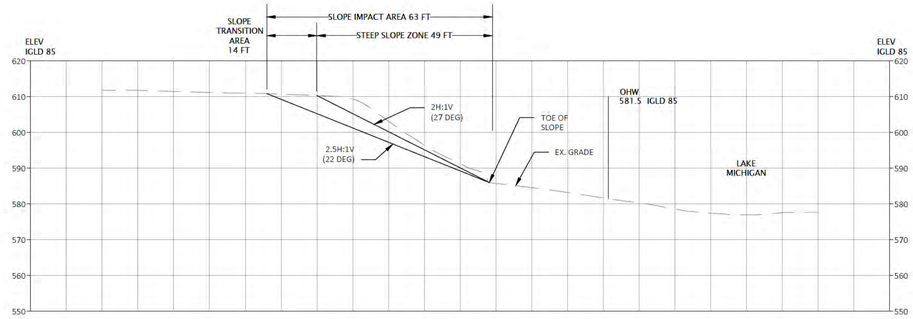

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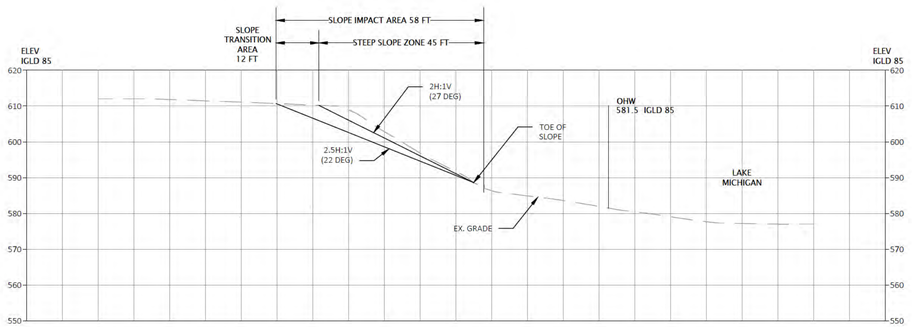

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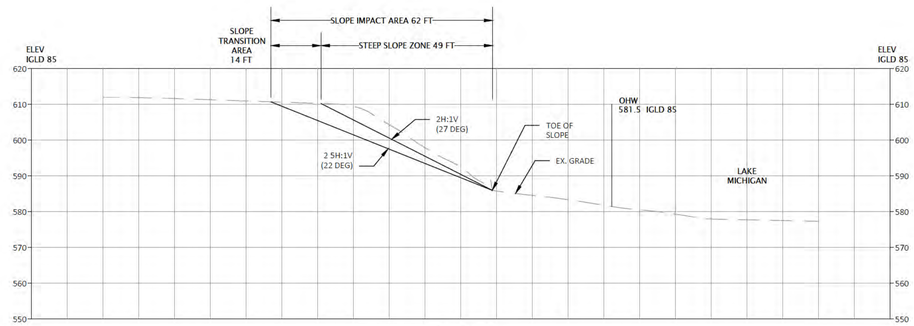

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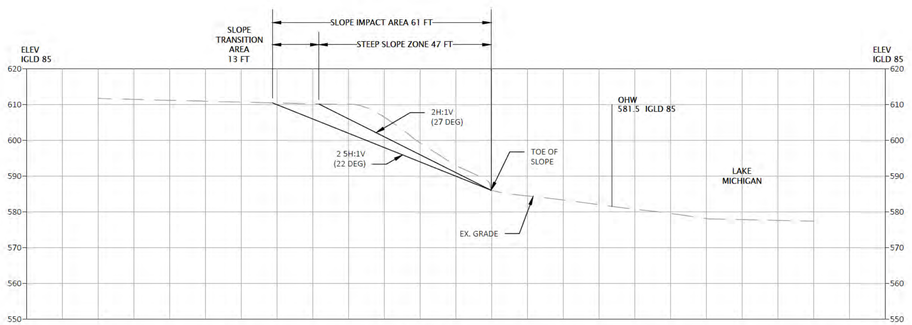

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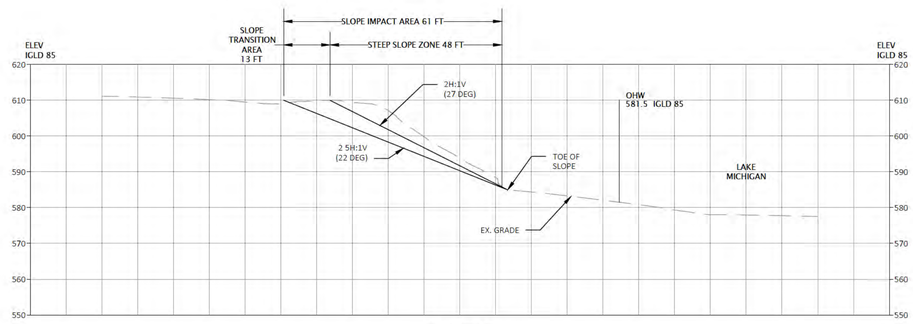

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Village Response		07/19/24
Village Revisions		08/02/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

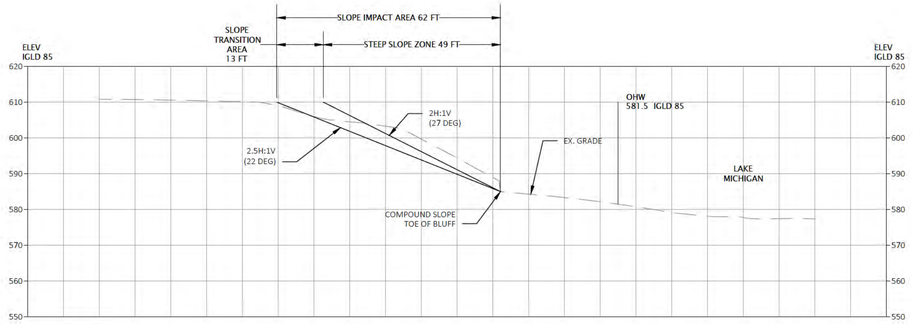
Graphic Scale

0' 10' 20'
(In Feet)
1 Inch = 20 Ft.

Scale 1" = 20'

Drawing Title
Cross Sections

Sheet No.
CS -7



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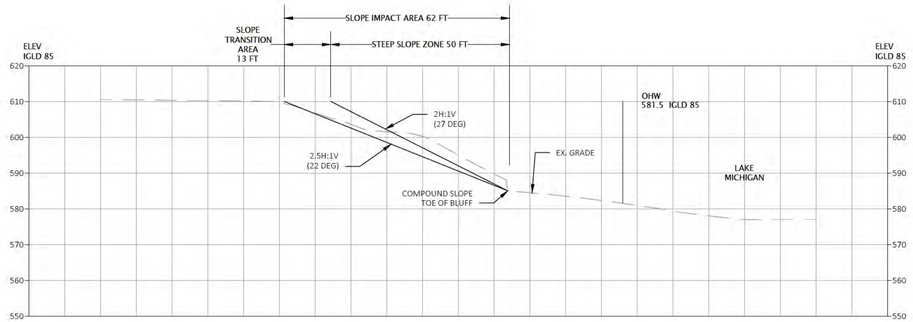

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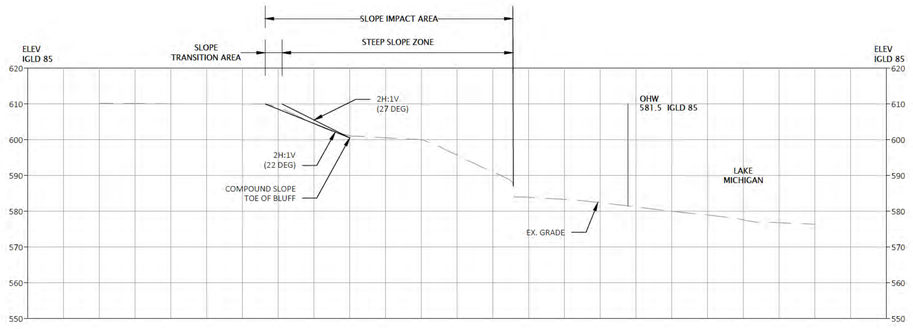

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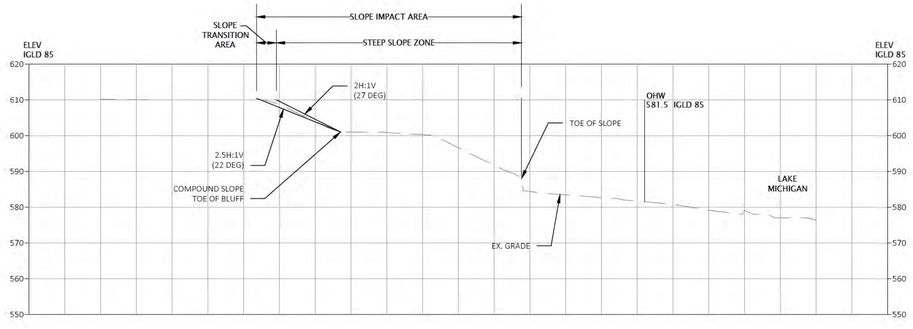

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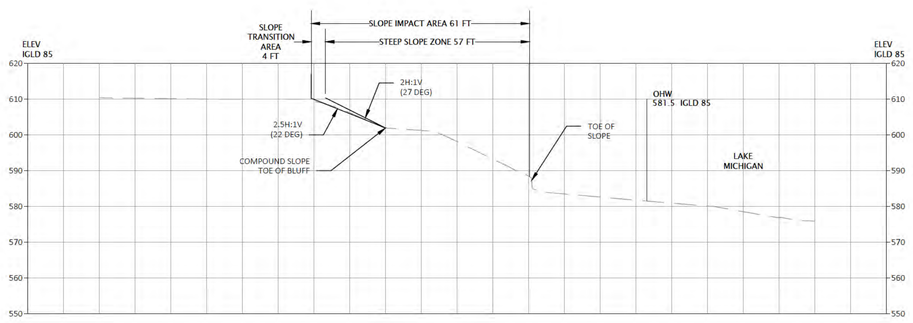

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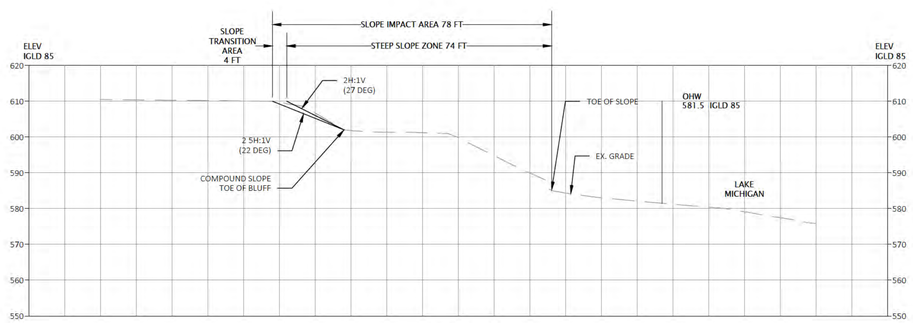

STA 3+00

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V : 0' 10' 20'

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Winnetka, IL

Graphic Scale

0' 10' 20'
(In Feet)
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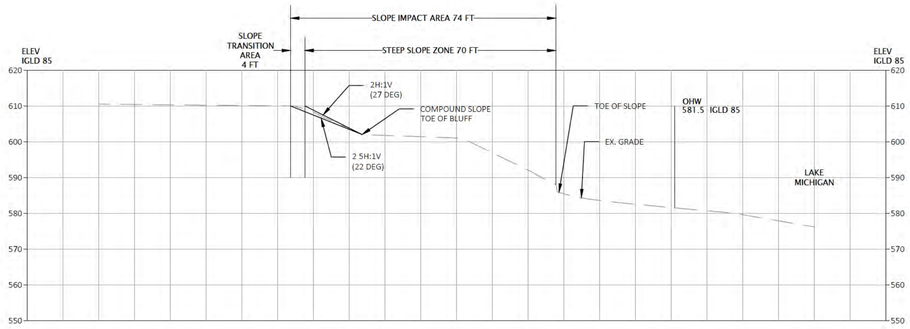
Scale 1" = 20'

Drawing Title
Cross Sections

Sheet No.
CS - 8



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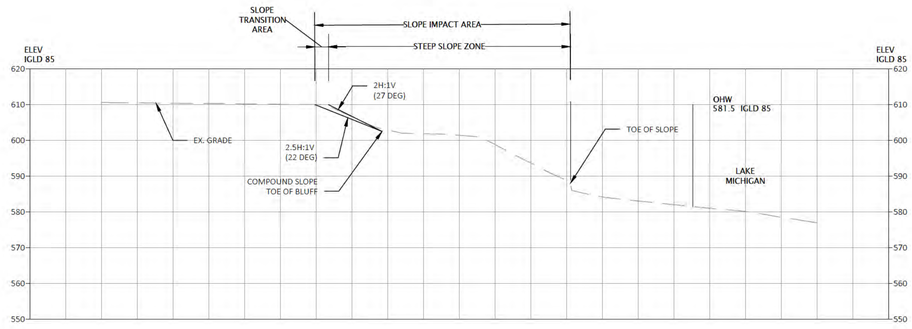

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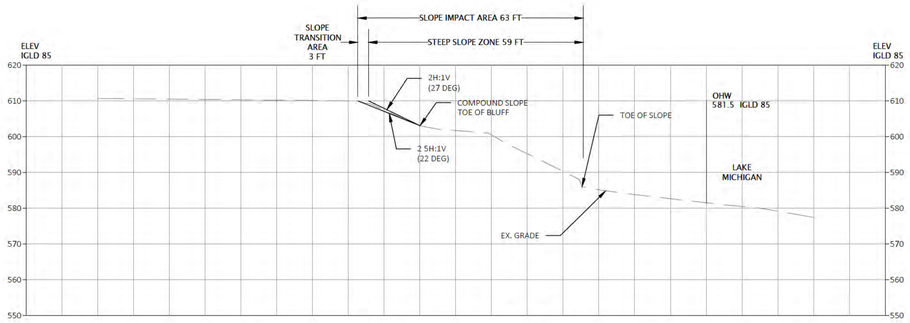

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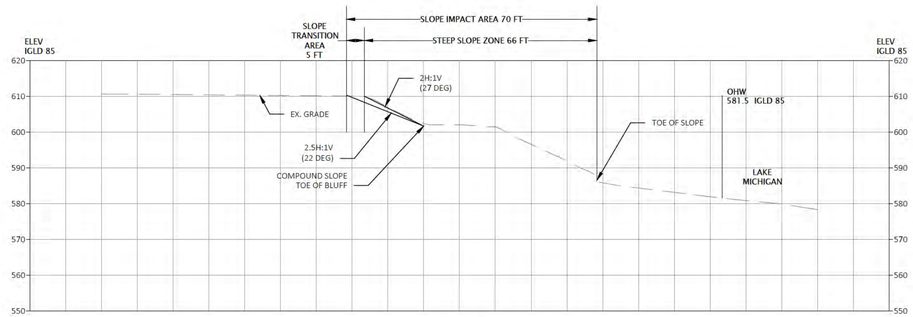

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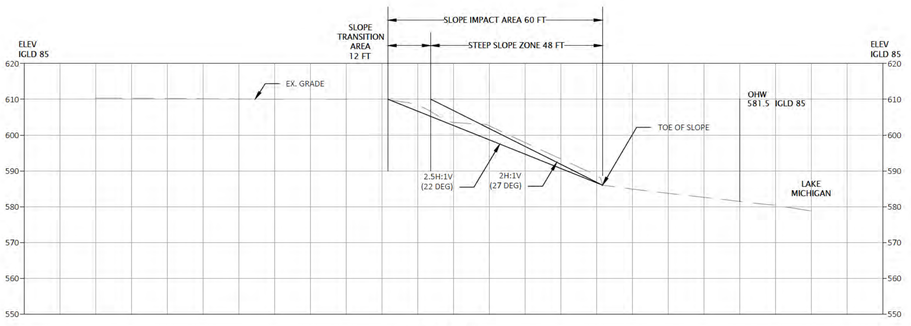

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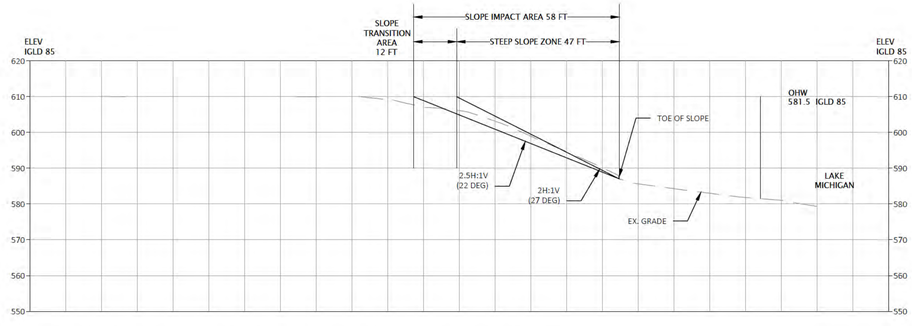


STA 4+50

SCALE: H : 0' 10' 20'

V : 0' 10' 20'

RED BARN
Design & Engineering, S.C.

6750 Woodland Drive
Waunakee Wisconsin 53597
p. 608.849.2042
c. 608.843.1870
redbarnde@tds.net

Consultants

Issued for	Rev.	Date
Village Response		07/19/24
Village Revisions		08/02/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

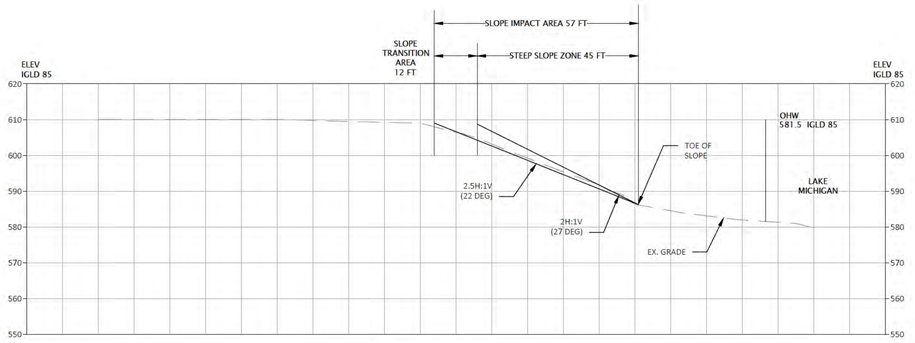
Graphic Scale

0' 10' 20'
(In Feet)
1 Inch = 20 Ft.

Scale 1" = 20'

Drawing Title
Cross Sections

Sheet No.
CS -9



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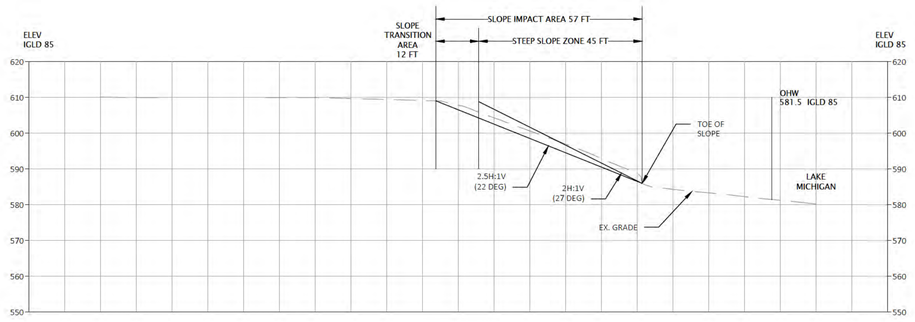

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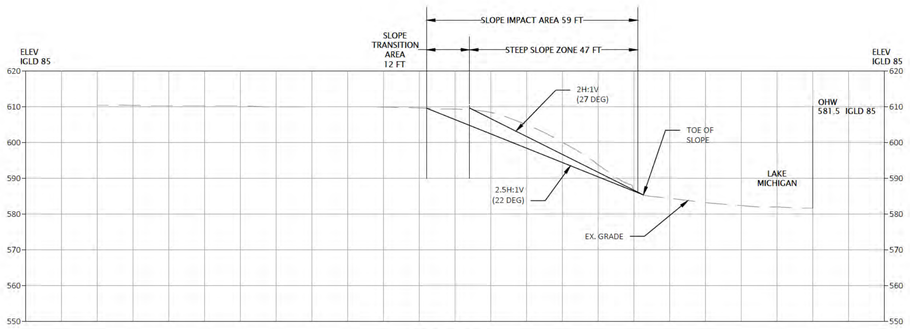

STA 5+25

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V : 0' 10' 20'

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Drawing Title
Cross Sections

Sheet No.
CS - 10

MEMORANDUM
VILLAGE OF WINNETKA
COMMUNITY DEVELOPMENT DEPARTMENT

TO: VILLAGE COUNCIL

FROM: DAVID SCHOON, COMMUNITY DEVELOPMENT DIRECTOR
PETER FRIEDMAN, VILLAGE ATTORNEY

DATE: AUGUST 1, 2024

SUBJECT: REVIEW OF SPECIAL USE PROCESS - ROLE OF VILLAGE STAFF, BOARDS/COMMISSIONS, AND COUNCIL IN THE CENTENNIAL PARK & BEACH ZONING RELIEF APPLICATION

INTRODUCTION

Given recent public comments regarding the Village's role in the review and approval of the zoning relief necessary for the proposed improvements to Centennial Park and Beach, Village staff and the Village Attorney have prepared this memorandum summarizing the Village's process and the various roles of the advisory bodies and Village Council. At the August 6, 2024, Village Council meeting, we plan to review the following materials with the Village Council.

WINNETKA PARK DISTRICT AS ZONING ENTITLEMENT APPLICANT

As Council members know, the Winnetka Park District ("WPD") is a separate and distinct governmental entity from the Village of Winnetka government. The WPD Board of Commissioners ("Board") is the governing body of the WPD, which Board members are elected by the residents located within the WPD borders. As a separate governmental body, the Board makes all decisions regarding the WPD's use of the land that it owns, such as Centennial Park and Beach.

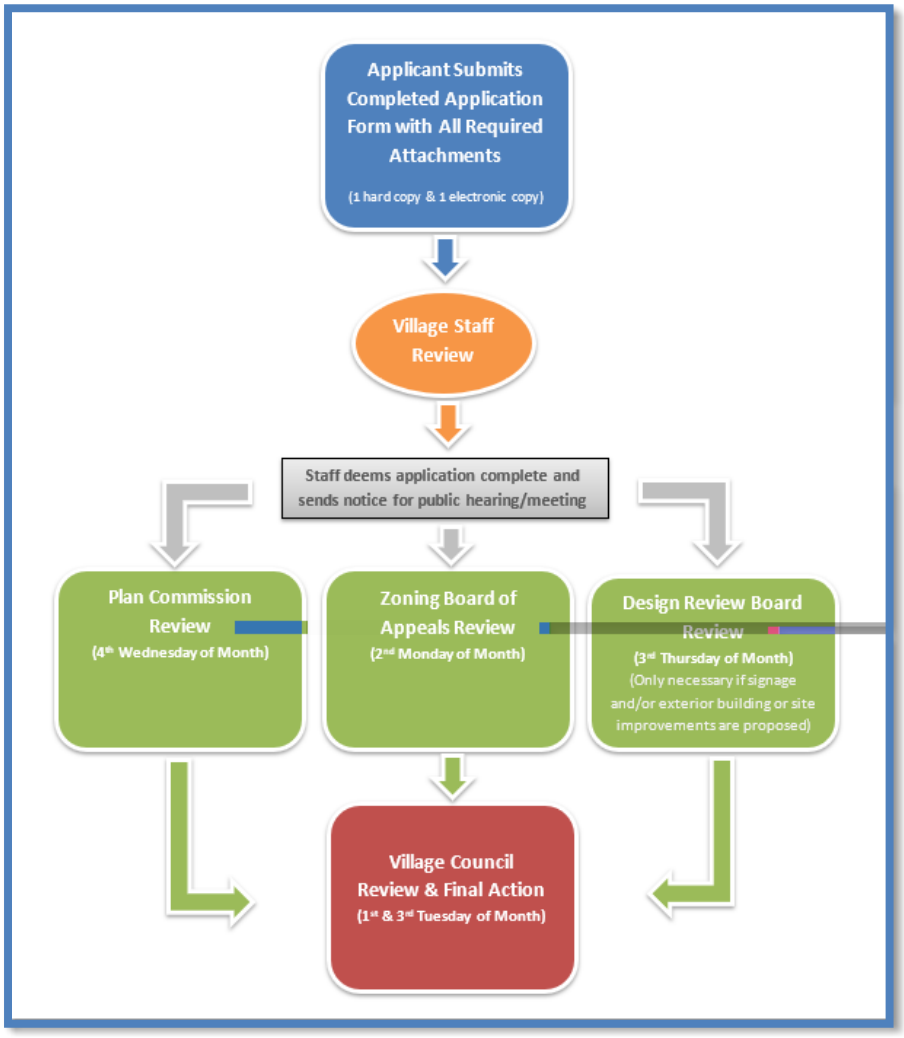
In Winnetka, a park or recreation facility, such as those operated by WPD, are allowed as a special use within any zoning district within the Village. This means any new facility or any major changes to an existing facility, such as with Centennial Beach and Park, requires approval of the proposed use by the Village Council, but not before the Village Council receives recommendations from its advisory bodies - the Plan Commission and the Zoning Board of Appeals. (If physical improvements are proposed to the property, the Design Review Board would also provide a recommendation regarding a certificate of appropriateness for the design of exterior physical improvements.)

The Village Attorney has advised that WPD's request for Village approval will include at least one official public hearing before each of the three advisory bodies. Public notice will be provided for all public hearings. Public hearings are designed to allow the applicant (here, WPD) to present all of its materials and testimony in support of its request, and to allow any other interested persons, including of course Village residents, to provide comments and testimony regarding the

requested zoning relief. The Village Attorney has also explained that it is important for the Council to allow the public hearing process to proceed and to begin Council deliberations only after the public hearings and all testimony before the applicable advisory bodies has been completed and the advisory bodies have made their respective recommendations. This is important to ensure that due process protections are afforded to the WPD and to any other interested parties who provide testimony at the hearings. Accordingly, the Village Attorney recommends against any substantive public discussions by the Council regarding WPD's requested zoning relief until the matter is officially before the Council for consideration.

As with any proposed use, the property owner or an entity with contractual interest in a property and with the property owner's consent ("property owner") has the right to submit an application requesting special use permit approval of a proposed use that is an allowed special use within a particular zoning district. The property owner has the right under our Zoning Ordinance to also request other zoning relief such as zoning variations and exceptions. Once a property owner has submitted such zoning relief applications, the Village has an obligation to process the application according to the rules of procedure established in the Village's Zoning Ordinance. A general flow chart of the review process is provided below.

General Zoning Relief Reviews Process



ZONING RELIEF PROCESS FOR CENTENNIAL PARK AND BEACH

The Park District has chosen to first proceed with a zoning relief application for Centennial Park and Beach, which is allowed since Centennial is a separate legal parcel from Elder Lane Park and Beach. The Park District has submitted a zoning relief application for Centennial Park and Beach, which is under review by staff and the Village's consultants. At the end of June, staff completed its second review of materials submitted by the Park District and provided the Park District staff with comments and informed them that additional information is necessary prior to determining that the application is ready for review by the advisory bodies. In mid-July, the Park District submitted revised plan sheets and some of the revised narrative materials. This week we anticipate receiving additional materials associated with the zoning relief application. Village staff is in the process of reviewing the revised materials to determine if the application is complete and ready for review by the advisory bodies. It is not unusual for a special use permit application involving site improvements to require multiple staff reviews prior to the application being ready for review by the advisory bodies. At this time, the earliest the Zoning Board would begin reviewing this application would be in September.

With any development project there are various types of review – some are administrative reviews handled by staff and as mentioned above, other reviews involve a public review process. If a proposed development is allowed by right and does not require approval of a special use, variation, certificate of appropriateness or other zoning or subdivision entitlement ("zoning entitlement"), the development can proceed to the building permit approval stage, which is administratively handled by staff. At the building permit approval stage, staff determines if the project complies with all requirements of the Village Code, such as storm water detention and drainage requirements, building code requirements, Village utility service requirements, lakefront construction regulations, steep slope regulations, etc., before a building permit can be issued.

If a proposed development does require approval of some type of zoning entitlement relief, during Village staff's review of the zoning entitlement application we will conduct a preliminary review of the project for code requirements to determine if the development should be able to, in general terms, comply with administrative code requirements. Detailed construction plans are not required at this point, but the applicant is required to provide sufficient information so staff can determine that the proposed site layout can be achieved and still comply with other Village regulations as noted above. If after the Village Council approves a special use permit and during the building permit process an applicant changes the design of the project to such an extent that it would be considered a major change, the applicant would need to go through the full special use permit process again prior to the building permit being issued by staff. (Attachment B)

With any proposed development project, the property owner will submit a proposal for the Village's review. If during Village staff's review of a project, staff determines that the project does not comply with Village zoning or subdivision requirements, the applicant:

a) may seek relief from the requirement, if the Village Code provides for such ability, or

b) may request that the Village Council amend the Village Code to allow the development as proposed.

During the zoning entitlement process the Village advisory bodies determine if the requested relief is consistent with the applicable Village Code standards During this process, each advisory body may identify changes to the plans that would be necessary before the body could make a favorable recommendation of the project. Though the advisory body may suggest changes or include conditions with their recommendation, the applicant determines:

a) if it wishes to make the changes or agree to the conditions of the advisory bodies, or
b) if it would rather move forward to the Village Council with a recommendation of approval with conditions or a recommendation of denial from the advisory body.

In the end, the Village Council will determine if the project as proposed by the applicant is appropriate for the proposed location. Again, the property owner has the right to make requests as it sees fit, and in the end it is within the Council's legislative authority to determine whether to approve the zoning relief requested by the property owner.

Below, please see a matrix summarizing the role of Village staff, each Village advisory body, and the Village Council in the various aspects of Village approval process for the proposed Centennial Park project. Attachment A contains the standards, findings of fact, or criteria that staff, the advisory bodies, or Village Council will use when considering whether to grant approval to the project.

Involvement of Village Staff, the Village Advisory Bodies, and the Village Council in the Centennial Park & Beach Project Process

	Staff	ZBA	PC	DRB	Village Council
Special Use Permit	X	X	X		X
Exceptions – Steep Slope Zoning	X	X	X		X
Variations – Other Zoning (e.g. front yard setbacks)	X	X			X
Certificate of Appropriateness	X			X	X
Lakefront Construction Permit (Lakefront work requiring USACE, IDNR, MWRD, or IEPA permits)	X				
Site Improvement Permit (All other site improvements not requiring lakefront construction permit)	X				

Each advisory body will review the application based upon the applicable standards for that advisory body, which are identified in Attachment A. Their review is based upon these broad standards and not based upon a review of the technical code requirements for such items as the Village's stormwater requirements, building code requirements, lakefront construction approval criteria, or steep slope regulation development standards. Those items are reviewed in detail administratively by staff during the building permit process. As previously stated, if the Village Council were to approve zoning relief for the Centennial Park and Beach improvements and then during the building permit process the WPD changed the design of the project to such an extent that it would be considered a major change, the WPD would need to go through the full special use permit process again prior to the building permit being issued by staff.

Finally, the applicant, in this case the Park District, will be required to submit all required information, analysis, and evaluations for the Village's review. This required information is then evaluated by professional staff, consultants, and the Council to render a decision on the project. The Village would not undertake independent studies, but rather evaluate required information when required for submittal. Also, a construction permit from the Village would not be issued for any of the improvements until after the Village Council granted the applicable zoning relief and then staff and the Village's consultants completed their administrative function of reviewing the permit for compliance with all applicable Village regulations including, but not limited to, the lakefront construction regulations and the steep slope regulations.

ATTACHMENTS

Attachment A Applicable Standards, Findings of Fact, or Criteria and Standards for Staff, the Advisory Bodies or Village Council for Review of Zoning Applications – Village Code Excerpts

Attachment B Amendments to Special Use Permits – Major Changes

ATTACHMENT A

Applicable Standards, Findings of Fact, or Criteria and Standards for Staff, the Advisory Bodies, or Village Council for Review of Zoning Applications - Village Code Excerpts

SPECIAL USE STANDARDS

– APPLICABLE TO PLAN COMMISSION AND ZONING BOARD OF APPEALS

Section 17.56.120 Standards for Granting of Special Use Permits.

A. General Standards for the Granting of Special Use Permits. No special use permit shall be granted unless it is found:

1. That the establishment, maintenance and operation of the special use will not be detrimental to or endanger the public health, safety, comfort, morals or general welfare;

2. That the special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity which are permitted by right in the district or districts of concern, nor substantially diminish or impair property values in the immediate vicinity;

3. That the establishment of the special use will not impede the normal and orderly development or improvement of other property in the immediate vicinity for uses permitted by right in the district or districts of concern;

4. That adequate measures have been or will be taken to provide ingress and egress in a manner which minimizes pedestrian and vehicular traffic congestion in the public ways;

5. That adequate parking, utilities, access roads, drainage and other facilities necessary to the operation of the special use exist or are to be provided;

6. That the special use in all other respects conforms to the applicable regulations of this and other Village ordinances and codes. In the event that the application for special use permit involves a request for variation from the terms of this title, such request, subject to required notification procedures, may be considered at the same public hearing at which the proposed special use is reviewed by the Board of Appeals.

VARIATION STANDARDS
– APPLICABLE TO ZONING BOARD OF APPEALS & VILLAGE COUNCIL

Section 17.60.050 Standards for Granting Variations.

****

C. Variation Standards for Zoning Board of Appeals and Zoning Administrator. The Zoning Board of Appeals shall not grant a standard variation, and the Zoning Administrator shall not grant a minor variation, unless the Board or the Zoning Administrator, as the case may be, makes an affirmative finding, based on evidence in the record or in a public document, that the variation requested is in harmony with the general purpose and intent of the Zoning Ordinance and that each of the eight conditions on which evidence is required pursuant to Section 17.60.050 of this Code has been met in connection with the variation application.

D. Variation Standards for Village Council. The Village Council shall have the discretion to grant variations, without further public hearing, upon finding that the variation requested is in harmony with the general purpose and intent of the Zoning Ordinance and in accordance with general or specific rules contained in this chapter, and upon finding that there are practical difficulties or particular hardships in the way of carrying out the strict letter of any of the provisions or regulations of the Zoning Ordinance; provided that, the passage of any ordinance granting a variation or application for variation that failed to receive a recommendation of approval by the Zoning Board of Appeals shall require the favorable vote of four Village Trustees.

Section 17.60.040 Variation Procedures: Standard and Major Variations.

****

C. Evidence Required at Hearing. The Zoning Board of Appeals shall require evidence on the following issues:

1. that the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that district;
2. that the plight of the owner is due to unique circumstances;
3. that the variation, if granted, will not alter the essential character of the locality;
4. that an adequate supply of light and air to adjacent property will not be impaired;
5. that the hazard from fire and other damages to the property will not be increased;
6. that the taxable value of land and buildings throughout the Village will not diminish;
7. that the congestion in the public street will not increase; and
8. that the public health, safety, comfort, morals and welfare of the inhabitants of the Village will not be otherwise impaired.

D. Recommendation by the Zoning Board of Appeals. The Zoning Board of Appeals shall not recommend that the Village Council grant a variation unless the Zoning Board of Appeals makes an affirmative finding, based on evidence in the record or in a public document, that each of the foregoing eight conditions is met in connection with the variation application. The findings of the Zoning Board of Appeals shall comply with Section 17.60.050.

CERTIFICATE OF APPROPRIATENESS FINDING OF FACTS
– APPLICABLE TO DESIGN REVIEW BOARD & VILLAGE COUNCIL

Section 15.40.010 Certificate of appropriateness of design.

****

F. Scope of Hearing, Findings of Fact. At the hearing, the Board shall consider the application materials, including construction documents, and any additional evidence including, in the Board's discretion, testimony given under oath, regarding the following issues:

(1) whether the proposed external architectural features and site improvements are appropriate to and compatible with the character of the immediate neighborhood;

(2) whether the proposed external architectural features and site improvements are appropriate to and compatible with adopted Village plans for and improvements in the immediate neighborhood, and including both urban design and site arrangement considerations;

(3) whether the proposed external architectural features and site improvements are consistent with applicable Village design guidelines and such standards and criteria as may be adopted by the Board; and

(4) the probable effect of the proposed external architectural features on the integrity of the immediate vicinity.

I. Denial of Certificate.

1. Criteria. The Board or, where applicable, the Village Council, may deny a request for a certificate of appropriateness of design only upon findings that external architectural features of the proposal when completed will be:

(a) so inconsistent with applicable Village design guidelines and such standards and criteria as may be adopted by the Board for the review of such external architectural features and site improvements as to be inappropriate and incompatible with the character of the immediate neighborhood; or

(b) so inappropriate and incompatible with adopted Village plans or public improvements in the immediate neighborhood as to cause substantial depreciation in the effectiveness and value of such plans or improvements; or

(c) so inappropriate and incompatible with the existing character of the immediate neighborhood as to cause substantial depreciation in property values in such neighborhood.

STEEP SLOPE EXCEPTION STANDARDS
- APPLICABLE TO PLAN COMMISSION AND ZONING BOARD OF APPEALS

Section 17.82.110 Exceptions.
If a development that requires a special use permit includes construction activity that does not comply with the requirements of this Chapter, the Village Council may grant exceptions to the regulations set forth in this Chapter as part of granting the special use permit. [Note: This means, the special use standards are used when considering an exception associated with a special use permit request.]

LAKEFRONT CONSTRUCTION APPROVAL CRITERIA
– APPLICABLE TO STAFF'S ADMINISTRATIVE REVIEW FOR PERMITTING.

Section 15.78.080 Criteria for Permit Approval.
The Village Engineer (and, if applicable on appeal, the Village Council) will issue a permit (with or without conditions) only if the following requirements are satisfied:

A. Permitting Agency Permits. The applicant has received and provided to the Village all required permits for the covered construction from the permitting agencies.

B. Height. The height of the covered construction and any related structures will be no greater than what is minimally necessary to achieve the intended and proper purpose of the project and to be consistent with the purposes set forth in Section 15.78.010 of this chapter.

C. Conformity with Code. The covered construction and any related structures comply with all other applicable provisions of the Village Code, including, without limitation, the construction permitting requirements of Chapter 15.32 of this title.

D. Project Scope. The covered construction and any related structures include only what is minimally necessary to achieve the intended and proper purpose of the project and to be consistent with the purposes set forth in Section 15.78.010 of this chapter.

E. No Public Safety Hazard. The covered construction and any related structures will not create any public safety hazards, including, without limitation, by unreasonably obstructing or otherwise interfering with ingress or egress to adjacent public beaches or private property.

F. Interference with Public Safety Operations. The covered construction and any related structures will not block or otherwise unreasonably interfere with the ability of public safety personnel to conduct search and rescue or other public safety operations.

G. Existing Sight Lines. The covered construction and any related structures will alter existing sight lines along the Lake Michigan shoreline no more than is minimally necessary to achieve the intended and proper purpose of the project and to be consistent with the purposes set forth in Section 15.78.010 of this chapter.

STEEP SLOPE DEVELOPMENT STANDARDS
– APPLICABLE TO STAFF'S ADMINISTRATIVE REVIEW.

Section 17.82.050 Development Standards.

A. Any application for development in the slope impact area will be reviewed by the Director, who will consider such application in light of the standards of this section relating to landscape planning, soil mechanics engineering, hydrology, geology, environmental design, structural and coastal engineering, and structural architecture. The Village recognizes each slope impact area may have different characteristics and features that affect its stability and preservation. Therefore, the Director may determine that certain standards of this Section do not apply to every application. Whenever the Director waives or alters otherwise applicable requirements in this Section, the waiver or alteration will be memorialized in a written decision that provides the rationale for the waiver or alteration. Before the Director finalizes the waiver or alteration, the Director will confer with the Village Manager and the Director of Community Development. The Director will have the authority to determine if the application in its totality satisfies the purposes of this Chapter to a substantial degree without creating an economic hardship as provided in Section 17.82.090.

B. Development standards for the slope impact area are as follows:

(1) Safety control of steep slopes.
a. The development will not jeopardize slope stability on the subject site or neighboring properties.
b. Except as necessary for an approved development, no filling, grading, or earth moving is permitted in a slope impact area.
c. A fence must be erected temporarily along the top edge of the steep slope zone, during any construction or demolition activity in the steep slope zone or adjacent to the steep slope zone.

(2) Construction techniques. All proposed structures must have foundations designed in a matter consistent with sound engineering and geological principals. Additionally, the following techniques must be used to enhance bluff stabilization:
a. Planning the development to recognize and fit the natural topography, soils, geology, hydrology, and other existing conditions on the proposed sites;
b. Orienting development so that filling, grading, and earth moving, landscaping and other site preparation is kept to an absolute minimum;
c. Preserving and enhancing the landscape through minimized disruption of natural terrain and existing vegetation;
d. Minimizing disruption or alteration of natural drainage ways;
e. Minimizing the time during which areas are bare and exposed;
f. Designing and properly locating structures so that the structure's weight does not negatively impact slope stability; and
g. Considering the effect of undercutting at the base of a slope impact area caused by wave action, storm water flow, erosion, or channel changes.

(3) Hydrological controls.

a. Natural channels. Natural drainage ways must be preserved to the maximum extent possible.

b. Controlled runoff. Concentrated runoff from impervious surfaces will be collected and transported in a pipe or other approved manner to a municipal storm sewer system, if available or to the toe of the bluff as determined by the Director.

c. Water discharge into steep slope. Whenever stormwater is transported across a property for discharge into a sleep slope zone, the conveyance pipe material must be installed below ground by directional boring where possible.

d. Trenching. No pipe can be installed within a steep slope zone by excavating a trench unless such trench is approved by the Director.

e. Pipe materials. Flexible corrugated pipes may not be used within a slope impact area unless directional boring is found to be infeasible in the sole determination of the Director.

f. Water Quality. The Director will determine the appropriate water quality requirements for all stormwater that is discharged to Lake Michigan.

g. Interceptor ditches. When required by the Director pursuant to sound professional engineering principles, interceptor ditches will be established above steep slopes in order that soil will not become saturated and the intercepted water will be conveyed in a pipe or other approved manner to a municipal storm sewer system, if available, or to the toe of the bluff as determined by the Director.

h. Discharge point stabilization. Natural drainage ways will be stabilized by landscape integration and rip-rap or other means consistent with sound professional engineering practice, to a distance below drainage and culvert discharge points sufficient to convey the discharge without channel erosion and in such a manner as to dissipate the energy of the discharge as approved by the Director.

i. Energy dissipater. All outflow from a stormwater conveyance pipe must discharge into an energy dissipater.

j. Early completion. The overall drainage system must be completed and made operational at the earliest possible time during construction, the schedule of which will be approved by the Director.

k. Impact on adjacent property. The natural or usual flow of surface or subsurface water must not be altered or obstructed in any way by grade changes that may adversely affect the property of another by contributing either to pooling or collection of waters or to the concentration or intensification of surface water discharge. However, development which might otherwise be prohibited hereinabove may be allowed if such waters are properly drained by a pipe or other approved manner to a municipal storm sewer system, if available, or to the toe of the bluff as determined by the Director. All grade changes must comply with the Village Code.

(4) Vegetation and revegetation.

a. Native vegetation will be maintained to the greatest extent possible within the slope impact area.

b. Smallest area. At all times, the smallest practical area of raw soil will be exposed for as short a duration of time as practical.

c. Revegetation. A mixed planting of native perennial grasses and woody species with deep root systems will be used to landscape steep slope areas disturbed by construction, demolition or earth moving. When sound engineering practices dictates and when required by the Director, temporary vegetation, or other acceptable cover shall be used to protect areas of raw soils exposed during development and to prevent erosion.
d. Erosion control mat. Temporary erosion control matting properly staked and trenched must be provided over raw soil areas until new vegetation is established.

(5) Filling, grading, and earth moving.
a. Minimum alterations. Filling, grading, and earth moving will be limited to the minimum required for building foundations, driveways, drainage control structures, and immediate yard areas. With the exception of restoration efforts, substantial filling, grading, and earth moving is prohibited.
b. Erosion control. All filling, grading, and earth moving will be accomplished in a manner that will create the lowest possible potential for airborne or waterborne transportation of soil.
c. Soil fill in steep slope zone. All fill in steep slope zone is prohibited, other than back-fill which will be determined by the Director to be necessary for slope stabilization or re-establishment of the steep slope zone as part of general maintenance.
d. Soil fill on table land. In conformance with generally accepted engineering standards, all fill on table land will be stabilized to at least 90% of maximum dry density as determined in ASTM procedure D-1557 or equivalent.
e. Prompt completion. All filling, grading, and earth moving will be accomplished in the shortest practical period of time, the schedule of which will be approved by the Director. All excavated material must be removed from the slope impact area and no temporary or permanent material storage will be permitted within the slope impact area. No existing natural vegetation will be destroyed, removed or disturbed prior to the commencement of development activities.

Attachment B
Amendments to Special Use Permits – Major Changes

"Section 17.56.130 Amendments to Special Use Permits.

A. Definitions. For purposes of this Section, the following terms are defined as follows:

"*Major Change*" means any change in the uses, site plan, design details, or operations of an approved special use which is not a Minor Change.

"Minor Change" means any change in the uses, site plan, design details, or operations of an approved special use which is (i) consistent with the standards and conditions applicable to the special use, (ii) does not alter the concept or intent of the special use, and (iii) does not materially:

1. increase the special use's density;
2. increase the special use's operational intensity;
3. change programming in a way that alters the fundamental character of the existing special use;
4. change the use or add new uses;
5. increase the extent of the measurement of any applicable bulk regulation;
6. reduce open space;
7. expand, relocate, or add new parking areas;
8. relocate pedestrian walkways or access points;
9. alter alignment of roads, utilities, or drainage; or
10. change or conflict with any standard or condition imposed by the Village Council in approving the special use.

WINNETKA PLAN COMMISSION MEETING MINUTES EXCERPT
JANUARY 22, 2025

Members Present:	Layla Danley, Chairperson Jonathan Alt Matthew Bradley Mamie Case Liz Kunkle Cyrus Subawalla
Members Absent:	Chris Enck
Non-Voting Members Present:	Rob Apatoff
Village Staff:	David Schoon, Director of Community Development Ann Klaassen, Assistant Director of Community Development
Village Attorney:	Peter Friedman

***

New Applications:

a. **Case No. 24-08-SU: 225 Sheridan Road - Centennial Park & Beach: An application seeking approval of (i) a Special Use Permit to allow construction of improvements to the existing park and beach; and (ii) steep slope exceptions to allow walkways, retaining walls, steps, and seating areas within the steep slope zone. The Village Council has final jurisdiction on this request.**

Mr. Friedman outlined the procedures to be followed for the meeting. Mr. Schoon informed the Commission and audience that a video recording of the meeting would be posted to the Village's website. He then outlined the Commission's purview and summarized the application's background information including: (i) the Winnetka Park District as the applicant; (ii) the Village's role in the special use process; and (iii) the public trust doctrine. Mr. Schoon referred to the Centennial Park approval matrix and outlined the approval process undertaken by the various bodies. He also discussed the recently adopted lakefront construction and steep slope regulations in detail. Mr. Schoon identified proposed permitted development in the steep slope zone, examples of items considered to be steep slope exceptions and development standards for the slope impact area and the administrative review and approval process. He then explained the public trust doctrine in detail.

Ms. Klaassen identified the property's location and its zoning classification in the lakefront preservation overlay district noting that public parks and recreation facilities are allowed as a special use in the R-2 district. She referred to the Comprehensive Plan land use map and several of its goals as well as several of the property's images. Ms. Klaassen then provided a brief overview of the proposed improvements and uses as well as the requested relief. She summarized the ZBA's review of the proposed improvements noting the DRB's review would take place after the Commission's review is complete. Ms. Klaassen also identified recommendations from the Village Director of Engineering and Police Chief for the project, which have not been incorporated into the Applicant's plans. She referred to the special use standards the Commission is to consider and stated following the applicant's presentation and public comment, the Commission can either continue the public hearing to a date certain to allow the applicant and/or Village

staff time to address any concerns and comments or consider a motion recommending approval or denial of the special use and exceptions with draft language provided on page nos. 30 and 31 of the agenda packet and provide direction to Village staff and Village Attorney to prepare written findings and determinations to be considered and voted on at a subsequent meeting. Ms. Klaassen then asked if there were any questions. No questions were raised at this time.

Chairperson Danley swore in those speaking to this matter.

Christina Codo, Winnetka Park District President, provided background and context for the proposed plan. She then summarized the applicant's plan and introduced the Winnetka Park District team to the Commission.

Costa Kutulus, Winnetka Park District Director of Parks and Maintenance, stated that he and Scott Freres would discuss the following agenda items in connection with the plan: (i) natural systems; (ii) the history of the Master Plan; (iii) the lakefront implementation plan; (iv) Centennial Beach's evolution; (v) why we are here; and (vi) the proposed design, all of which he outlined in detail. He also referred to illustrations showing the lake level fluctuations and explained the meaning of littoral drift in detail. Mr. Kutulus also described lake-bed down cutting and referred to several illustrations in explanation. He then identified bluff characterizations and littoral barriers as well as images of the Waukegan systems in place.

Scott Freres of The Lakota Group explained the need to undertake a long term 100-year infrastructure strategy in an effort to stabilize and protect the lakefront. He described the background in terms of what drove the Master Plan study project and their master planning efforts to develop strategies for stabilization and shoreline improvements to benefit the communities. Mr. Freres described the dialog with the community throughout the process as well as the purpose, mission statement and project guiding pillars. He explained the reasoning that the plan included clearing trees from the bluff which would enhance views, and they would reestablish the appropriate plant and vegetative community on the bluff. Mr. Freres then referred to the component of the Comprehensive Plan in which the Village acknowledged the opportunities it has working in partnership with the Park District to improve resident access to its abundant open spaces and natural areas. He summarized his presentation by stating that the proposed plan has strong merits which met the Comprehensive Plan tenets and the tenets of a changing environmental system and the science behind it which he described as done tastefully and with respect to the community and engagement. Mr. Freres concluded they hoped for a collaborative discussion with the Commission.

Mr. Kutulus then referred to the project timeline for the lakefront parks implementation plan. Mr. Freres went on to discuss the project's long-term investment aspects, shared responsibility, community stewardship and extended lifespan. Mr. Kutulus then referred to the loss of trees and infrastructure due to the change in lake levels and how it was corrected with a headland beach system which has had no negative impact. He also described similar improvements at Maple Beach and provided a comparison illustration for the proposed plan. Mr. Kutulus explained how the plan is considered as a comprehensive systematic approach and explained the planned design's timeline evolution. He outlined the Centennial Beach pillars in terms of the items on which they focused that include long term investment in public open space, increased stewardship and natural resource management, improved operational efficiencies and response to public input. Mr. Kutulus then summarized the process in terms of planning and zoning review in conjunction with engineering concerns noting the biggest issue being the site's development is being considered based on residential zoning standards with the Park District not being a residential based organization.

Shannon Nazzal, Winnetka Park District Executive Director, asked the Commission Members if they had any questions with regard to the project's history before they address the special use permit and exceptions being requested. Chairperson Danley suggested the applicant continue the presentation with questions to be presented at the end.

Mr. Kutulus stated with regard to why they are here at this point, he stated they are seeking a favorable recommendation from the Commission for special use permit approval to allow the construction of the proposed improvements to the new and existing uses as outlined in the plans as well as an exception to permit development in the steep slope zone. He referred to the special use standards and their shared purpose and mission of the project to activate the Centennial Beach in two different capacities with regard to active and passive activities including a fenced off dog beach, increased ADA accessibility, view and access from the pier and the re-vegetation of the bluff. Mr. Kutulus referred to an illustration of the proposed plan and explained each plan element in detail. He also explained how the elements were addressed as a result of the comments and concerns previously raised. Mr. Kutulus referred to cross section illustrations of the bluff and its various elements which he explained in detail. He then identified the concrete ADA accessible ramp and retaining walls, the outcropping stone steps and improved mid-bluff paver walkway as items which are part of the exceptions being requested.

Mr. Kutulus identified an illustration of the coastal design criteria which drove the design and which he explained to the Commission. He also explained the pier's function in terms of safety in that the pier would be an improved public amenity as well as the training and operations functions as well. Mr. Kutulus referred to the swim zone safety concerns raised and explained how the swim zone function would be addressed. He also explained the process undertaken to train lifeguards in detail as well as the Beach SAFE Water Safety campaign.

Chairperson Danley stated the Commission would take a 5-minute break at this time.

Chairperson Danley called the meeting back to order and explained how the remainder of the public hearing would proceed.

Peter Lemmon of Kimley Horn stated they were engaged by the applicant in November 2024 to address traffic and parking concerns and outlined the number of parking spaces at the Centennial and Elder Lane Parks and the limitations on its use as well as their parking review, land banking and offsite parking options. He then referred to general beach characteristics and stated an actual parking usage study was not done due to the time of year but could be generated in the future if necessary. Mr. Lemmon identified the options they considered as factors such as dog pass sales, parking passes, etc. which he identified as generally steady. He then stated there would be an initial uptick in use at the beginning which would then decline. He added the beaches are not parking constrained and described several examples of parking alternatives as well as beach access, traffic patterns and parking availability. Mr. Lemmon also described their consideration of other North Shore beaches and summarized their response to special use standard nos. 4 and 5.

Mr. Kutulus referred to illustrations of offsite parking options as well as several computer generated elevation views of the proposed pier. He stated in conclusion; they are asking for the Commission to recommend approval of the special use to allow the construction of the proposed improvements and approval of exceptions to permit development in the steep slope zone. Mr. Kutulus thanked the Commission for their consideration and asked if there were any questions.

Chairperson Danley then asked for public comment and provided instructions to those speaking.

John Root spoke regarding the Comprehensive Plan's adoption and referred to Goal No. 5. He also referred to illustrations relating to construction at 205 Sheridan Road. Mr. Root stated the special use permit violated ADA requirements and referred to illustrations showing alternative plans. He encouraged the Commission to reject the applicant's ADA path design and uphold the Comprehensive Plan and steep slope ordinances.

Alexandra Nichols, 900 Mt. Pleasant, read a letter into the record on behalf of Carol Rasmus, 175 Sheridan Road, in opposition to the application.

Ted Wynnychenko questioned the Commission's purpose in reviewing the application and referred to the neighboring property's acquisition. He also commented on the dog park and the proposed plan which would encumber and take away public park land for 50 years. He stated it would be inappropriate for the Commission to approve the special use which did not adhere to the Comprehensive Plan or the Park District's lakeshore plan.

Wendy Dury read a letter from Kris Schriesheim into the record. She informed the Commission that her concerns related to safety.

Tom Border, Old Green Bay Road, commented on the proposed pier, walkway and the existing park. He also referred to unobstructed views from the tableland and bluff. Mr. Border stated there are safety concerns and the Park District cannot create a known danger with no plans to increase safety. He compared the proposed pier to a mini-Atlantic City setting and commented on the proposed ADA accessible ramp which presented another safety issue.

Steve Juliusson, 1436 Asbury, referred to a Winston Churchill quote and stated the proposed plan included a lot of factors that they are not aware of and identified various scenarios. He asked for the Commission to deny the special use and for the applicant to come back with a new plan.

Melissa Mizel, 939 Tower Road, referred to comments raised at the October 2024 ZBA meeting from parents of disabled children. She stated no one wanted to interfere with these children's enjoyment of any Winnetka facility while noting ADA accessibility is one of two stated objectives for the project with the project not being made to be ADA compliant. Ms. Mizel stated the proposal failed the compliance test as well as the intergenerational test in the absence of any bathroom facilities and urged the Commission to reject the proposal.

Maggie Hayes, Orchard Lane, read Chuck Dowding's statement into the record in opposition to the request. She also commented on her disappointment with regard to the Elder Beach closure.

Kim Marsh, 360 Forest, asked the Commission to deny the special use permit application and stated the proposed pier would impede sight lines and create serious safety issues. She commented on how the proposed pier would affect views and described two safety incidents including a fatal drowning. Ms. Marsh also commented on the plan's inadequate dependence on lifeguards and signs which would not be effective and asked for the special use permit application to be denied.

Susie Schreiber, a former Park District and Commission Member, passed out information to the Commission and described the installation at Illinois Beach State Park which addressed littoral drift, sand

loss and impounded area blowouts. She commented on how the proposal would significantly affect the bluff and ecologic systems and stated other options are available other than those being presented to the Commission. Ms. Schreiber provided information relating to the successful completion of the NOAA projects and also stated there are other ADA compliant alternatives that can be used for the project which she identified for the Commission.

Irene Smith, Elm Street, referred to a photo of Centennial Park and the view which she commented should not be given up for the project. She then read a letter from Angie Dahl, former member of the Park District, into the record.

Anne Wilder read a letter from Mary Garrison into the record in opposition to the request.

Peggy Marte, Sunset Road, stated she is representing Kris Schriesheim and read correspondence in opposition to the request into the record.

Martha Gillum, Orchard Lane, described her family's affinity for the lake and its resources as well as the amount of public opposition to the request. She stated the public should be allowed to participate in the vote and referred to several issues regarding the proposal and asked the Commission to recommend denial of the special use permit.

Phil Enquist, a Village resident, architect and planner, encouraged the Commission to question the design which he described as significantly flawed and he outlined why to the Commission. He also referred to the Park District Board's discussion at its November 16, 2023, meeting questioning the coastal analysis asking for justification of the need for such a huge pier and the response that the pier's purpose is to separate the dog beach from the swimming beach and the walkway is to provide access to the beach. Mr. Enquist asked the Commission to recommend denial of the special use permit. No additional comments were made at this time.

Chairperson Danley asked the applicant if they would like to respond to the public comments. The applicant chose to defer its response. Chairperson Danley then closed public comment and asked if there were any questions from the Commission.
Mr. Friedman stated if there are significant questions from the Commission, it would be helpful for the Commission to provide them to the applicant to allow them time to respond. He also stated specific questions can be provided to Village staff and Park District staff.

Ms. Kunkle stated she did not have significant questions at this time. Mr. Bradley deferred to ask his questions at the end of the Commission's question-asking session given he has already opined on the application as a member of the Zoning Board of Appeals, which has already considered the application. Mr. Alt asked why the Park District did not wait and present both the Centennial Beach and Elder Beach plans together. Ms. Case asked since Centennial and Elder parks and beaches work together, why was the Commission not presented with both sets of improvements together. She also referred to handicapped parking and asked if it would only be at Elder Beach with there not being at least one handicap parking space at Centennial Beach. It was confirmed there is one handicap parking space at Centennial. Ms. Case then stated she had difficulty with the dog beach placement. Mr. Subawalla stated he had several questions which he would put in writing for the applicant. Trustee Apatoff stated he would defer his questions until the end as well. Chairperson Danley stated she would also submit her questions in writing and asked for additional information relating to the separation of Elder Beach and Centennial Beach and Park. She also asked for additional information relating to the decision process in terms of the dog beach's

location selection.

Mr. Bradley noted he is a nonvoting Commission Member and referred to changes in the Park District's plan over time presented to the Commission which were not presented to the ZBA and asked at what point the headland system was abandoned in favor of the break wall structure which has successfully been done at other beaches. He also referred to other North Shore communities which have not been required to catch littoral drift. Mr. Bradley also referred to the complaints made from neighbors south of 205 Sheridan Road. He then asked to what extent the surrounding neighbors may be affected by putting a break wall into effect to catch the sand which would otherwise flow further south. Mr. Bradley also questioned the cost to dredge and remove the sand in terms of cost and potential exposure. He then asked to what extent have private residents had any input into the plan presented. Mr. Bradley questioned the consultant's input mentioned from the 2023 Park District Board meeting compared to the December 2024 memo from the same consultant included in the agenda packet.

Trustee Apatoff noted the request has not formally been presented to the Village Council and referred to several ordinances put in place against which measurements are taken. He then stated he visited Illinois Beach State Park and saw how the technology was put in place which had unobstructed sight lines. Trustee Apatoff questioned whether that type of alternative was considered and referred to an Illinois state governmental agency which considered several new types of technology. He described coastal engineers as beach architects and stated they should adhere to the same standards with regard to the project's consideration. Trustee Apatoff then referred to the bluff issues and ADA concerns raised and the difficulty in navigating the path in terms of its pitch. He also stated in looking at both projects together, he stated there is ADA accessibility and bathrooms at Elder Beach. Trustee Apatoff also referred to the proposed dog beach and questioned whether it is appropriate and whether other accommodations can be made.

Chairperson Danley also referred to recently received material from the applicant which the Commission is to consider and asked the applicant to provide a summary of the additional materials. She asked if there were any other questions. No additional questions were raised at this time. Chairperson Danley then asked Mr. Schoon for direction in terms of continuing the item. Mr. Schoon provided information to the Commission as to upcoming agenda items for the next meeting.

Chairperson Danley then asked for a motion to continue the matter to the Commission's February 26, 2025, meeting.

The Commission Members discussed their availability.

Mr. Schoon asked the Commission Members to provide their questions for the applicant to Village staff by the end of the week in order for the applicant to have time to prepare a response.

A motion to continue the matter to the February 26, 2025, meeting was made by Mr. Bradley and seconded by Ms. Kunkle. A vote was taken and the motion unanimously passed, 6 to 0:

AYES: Alt, Bradley, Case, Danley, Kunkle, Subawalla
NAYS: None
NON-VOTING: Apatoff

***

Respectfully submitted,
Antionette Johnson
Recording Secretary

January 15, 2025
To the Plan Commission

My name is Phil Enquist, and I am a resident of Winnetka, a licensed architect/urban planner, and a very concerned citizen.

I am supportive of the various reviews of the Winnetka Park District's proposal for Centennial Beach and encourage the Plan Commission to seriously question this current design as it is flawed, and in need of substantial revisions.

The large stone Pier has no justification, does not solve any coastal erosion issues, creates a very large public safety hazard, and is not necessary in the design concept for Centennial Beach.

To emphasize this point, I am including a summary of the Winnetka Board discussion from the Regular Board Meeting, November 16, 2023.

(available on Youtube)
https://www.youtube.com/watch?v=emAfgjqGLWI&list=PLgOxGHUtn2rOy_ThL10GcqlzZBv1f_Dl5&index=40 (around 1:33.00 minutes into the meeting)

Summary of Board discussion

A question was asked by one of the Winnetka Park District Board members who was looking for background and engineering studies that justified how the design and engineering team arrived at the current design for Centennial Beach, specifically, the large stone pier that projects over 200 feet into the lake.

There was a second part to this question which included the fact that Orchard 2020 had just built a stone breakwater on the southern boundary of Centennial Beach, and how does this affect the Centennial Beach design? (all reasonable questions)

The Board member specifically asked:
"Where is the coastal analysis that justifies the need for this huge central pier that segments Centennial Beach?"

Christine Codo asked Matt Wright, the Founder of Red Barn Design and Engineering, the engineering consultant for the Centennial Beach project, to come up to the microphone and answer this question.

His answer is as follows, (this is my writing of his words from the recording at 1:34.00)

"We were directed to prepare the permit documents for schematic design which we have done. The need for a justification of the pier, there is no justification or need. The purpose of this pier

is to separate the dog beach from the swimming beach. The purpose of the central walkway is to provide public access to the water, it (the pier) is a pure public amenity, there is no need for it.

It was in the schematic design plan so we put it in the permit documents. To justify it with a coastal analysis, there is none, it is a barrier between two public facilities, that is all it is."

My summary of this presentation is that there has been no coastal analysis, and that there is **no purpose for this pier from a coastal or hydrologic standpo**int, there is no indication that this pier will limit or slow beach erosion, or prevent annual sand loss from the beaches. It is simply a "public amenity" that is a barrier between two public beach facilities.

With that in mind, the pier should be eliminated from this design effort and the money saved should be applied to beach and bluff protection and restoration, ADA bathroom facilities on the top of the bluff, rethinking the ADA parking and the reopening of Elder Beach.
There is no need for the Centennial Pier, it is destructive to our lakefront, and there is no need to continue to include it in this design proposal.

I encourage the Plan Commission to deny the Winnetka Park District's application for a Special Use Permit.

Thank you
Phil Enquist

From: [redacted]
To: Ann Klaassen; Robert Bahan
Subject: Please include in Plan Commission 1/22/25 meeting packet
Date: Wednesday, January 15, 2025 3:34:05 PM

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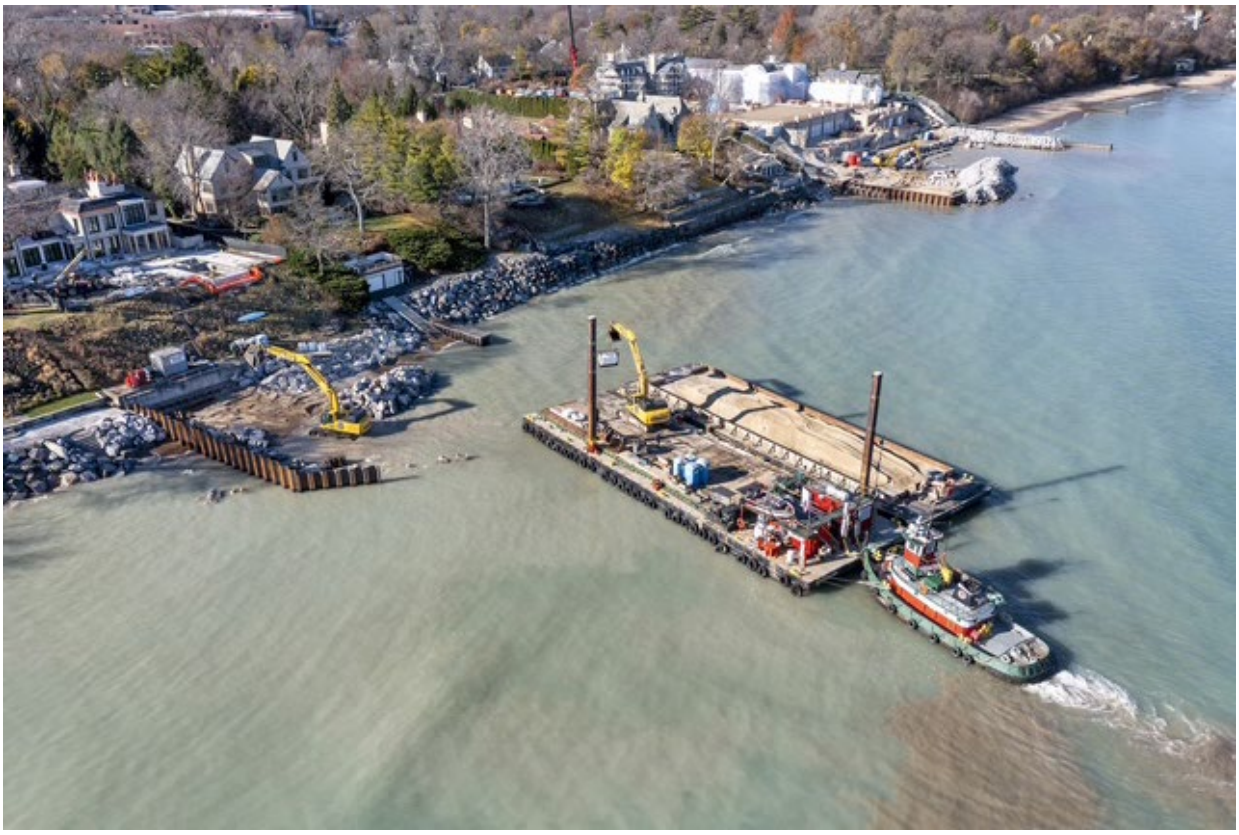
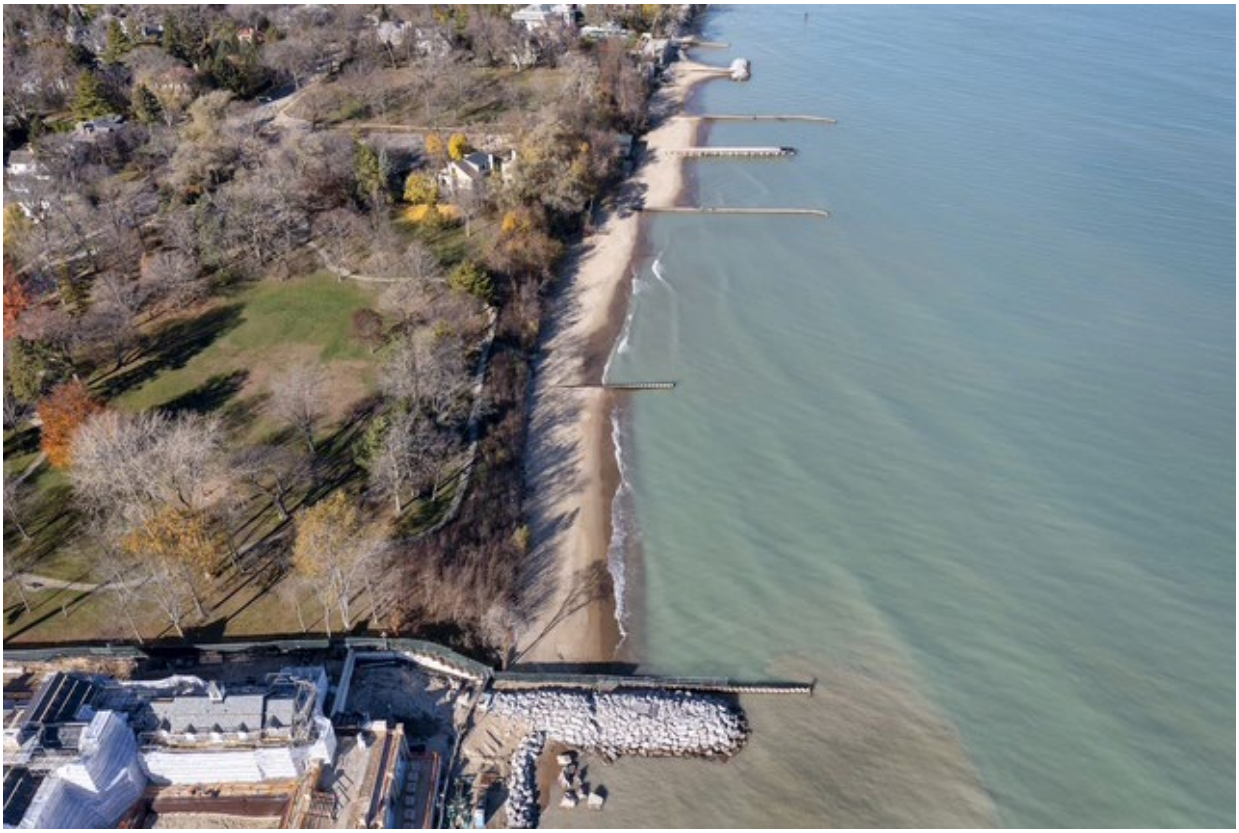
Download full resolution images
Available until Feb 14, 2025

Hello Ann:
Would you please include these photos dated 1/15/25 in the Plan Commission's meeting packet and provide to the Village Trustees as well?
As a layperson, I am struck by noticeable shoreline/waterfront changes now that it has snowed and gotten icy. I should think the Village's consulting coastal engineer would be able to evaluate these views and any changes from the fall.
Also, I am struck by New Trier High School's proximity to Centennial as well as Elder Lane Parks. The snow and ice that have built up east of the armored stone revetments, groins and breakwaters, would allow the public to travel far out into the lake. WPD's planned armored stone breakwater at Centennial would stretch 252 feet from the toe of the bluff into the lake, without adding additional distance from accumulated winter snow and ice, which looks significant.
As the past owner of a black lab who loved going to Centennial Beach twelve months a year, I am really worried about dogs, their owners, and first responders trying to navigate what to me are the obvious perils of adding huge breakwaters along the lakefront.
Also WPD's proposed fencing on top of the steel groin at Centennial's southern lot line will provide a way to climb and travel far out into the lake, and/or hopping over the groin-mounted fence onto 205 Sheridan's northern breakwater, and then south down the lakefront.
Thank you.
Kris Schriesheim

FYI, here are some of the same views dated 11/26/24.





Sent from my iPad

From: Ann Klaassen
To: Ann Klaassen
Subject: FW: WPD's design engineer states no need for the pier
Date: Wednesday, January 15, 2025 4:49:55 PM

From: Katie Stevens
Sent: Wednesday, January 15, 2025 12:56 PM
To: Ann Klaassen <AKlaassen@winnetka.org>
Subject: WPD's design engineer states no need for the pier

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Please include this email with a video to for the meeting. It probably has to be an email. Thank you.

Please watch for just 3 minutes starting at 1:33.
You will see from the WPD's only design engineer, that there is no justification for a pier. It is not necessary, and he states the purpose of the pier is to separate the dogs from the swimming beach. So we spend 8 million taxpayer dollars and get 167 feet of rocks on our beach! The pier has rocks under the water and kids will break their necks if they dive off the pier, if they fall, if they slip, or fall off a paddle board. It is hard the rocks to see under the water.
Mathew Wright is a one man show in Wisconsin and not a coastal engineer. Mathew's design with the park district puts 90 feet of stone on our beaches at Elder and another 76 feet at Centennial. VISUALIZE THE ALMOST 18 STORIES OF ROCKS HORIZONTALLY ON THE BEACH. Why didn't we hire a coastal engineer from our area?
YOU CANNOT FINALIZE THIS PLAN UNLESS YOU KNOW WHAT IS GOING ON AT ELDER WHERE WE CURRENTLY HAVE THE PIER! PICTURE 10 FOOT HIGH WALLS IN THE WATER WHERE WE WILL NOT BE ABLE TO SEE TO WAUKEGAN OR GILSON.
We have had 4 accidents (two quadriplegics and two deaths) on our beaches in the last two years. How will anyone see or save anyone on the other side of a 10 foot stone wall? The rocks are jagged, slippery, unsafe, and unsightly and ridiculously expensive.

Regular Board Meeting - Nov 16 2023
youtube.com

Please do not move forward, Winnetka only needs our simple pier with views. We do not need to spend a total of 16 million in total on Elder and Centennial on rocks.
Questions to ask:
What is happening at Elder, and is it an event space?
Why are you not submitting Elder with Centennial?
Why are the people swimming next to the stormwater pipe and the dogs (only 174 passes) get millions of dollars of public land and the taxpayers get the tiny beach and the dirty water?
Kids are kids, with 4 accidents this pier has rocks for 76 feet under the water, do you really think in high waves or when the beach is closed people won't jump or dive?
Why are you covering 17 stories of our beaches what a waste of such a beautiful beach with spectacular views.
Does this have anything to do with the master agreement with the southern homeowner that allegedly requires dogs on the southern end at Centennial?
Would it not make sense for our group to see the entire plan, it is hard to approve a pier when we already have one? We all agree the park has let the pier go for almost 5 years with no maintenance with a closed beach.
The pier we had held up from 1945 until 4 or 5 years ago, (That has no rocks on either side or 10 foot walls? It has held for 75 years.
Why are you designing 90 feet horizontally across the beach at Elder? 9 stories? 167 feet total 17 stories of rocks across.
Thank you for your time and stop this now!!!

Sent from my iPad

From: [redacted]
To: Ann Klaassen
Cc: Robert Bahan; David Schoon
Subject: Plan Commission hearing January 22, 2025
Date: Friday, January 17, 2025 9:21:06 AM
Attachments: Letter to Plan Commission re_ EC Beach Project 1-14-25.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Klaassen:

Attached to this email is a summary and outline of major concerns expressed by ZBA commissioners during their deliberations as well as statements from many Winnetka residents at several public hearings. Please forward this email and attachment to all members of the Plan Commission before the January 22, 2025 meeting.

I have been a resident of Winnetka for over 40 years. During that time, I've had the privilege of serving as a Commissioner and President of the Winnetka Park District. I was also a member of the Village Plan Commission.

Given this experience, I understand the importance of public input to the governing process. Additionally, I greatly value the open, deliberative approach undertaken by elected officials when addressing complex community issues. The Village Council and Village boards are to be commended for the thoughtful manner they are utilizing as they address this difficult situation.

The attached fact sheet is submitted for your consideration and review and hopefully will help clarify and focus upcoming discussion.

I greatly appreciate all the hard work you and your staff do in preparation for these meetings.

Thank you very much for your assistance.

Best regards,

Angie Dahl

1277 Forest Glen Dr N

[redacted]

Dear Plan Commission members:

The following fact sheet is an outline and summary of major concerns expressed by the ZBA commissioners during their deliberations. All information was derived directly from meeting videos and minutes which can be found on the Village website under the ZBA commission agenda and minutes section: https://www.villageofwinnetka.org/129/Agendas-Minutes.

For your reference/background:
The October ZBA meeting was the first public review of the Centennial Plan outside the WPD Board since its introduction almost 3 years ago.

The Zoning Board of Commissioners carefully reviewed the plan during 3 separate meetings, all lasting an average of 4 hours.

The WPD presented their plan and answered questions and concerns from the ZBA through WPD staff members, WPD board members, the WPD attorney, and WPD consultants.

Between each meeting the WPD was given a month to respond to questions in writing for the ZBA to review prior to the next meeting.

In spite of having a month to do so, the WPD chose not to respond or provide additional context between the 2nd and 3rd meetings until 2 hours before the start of the 3rd and final meeting. Several ZBA commissioners expressed their frustration by what appeared to be a lack of respect for their time and not being able to properly opine without more time to digest the WPD information.

The meetings were well attended by the public and many residents spoke during the public comment. A multitude of letters were submitted to the ZBA in advance of the meetings. The majority of public comments and letters were against the plan. All public comments and letters can be viewed on the Village of Winnetka website under the Zoning Board of Appeals section.

After careful review of the plan and with substantive feedback from the public and the WPD, the Zoning Board voted 7-0 to deny the request for a special use permit.

During each meeting, the ZBA commissioners asked for more detail around the plan, including questions and concerns regarding:

1. The ZBA Commissioner frustrations that they were only allowed to review the Centennial plan without knowing what was planned for Elder. Without the ability to see the total Elder/Centennial Plan at the same time, they could not determine the total impact of the plan in their review - difficult to sign off on a plan for one part and then have the second half of the plan come back later for approval.

2. The safety of the pier and breakwaters - how they will impact swimmers, kayakers, paddle boarders, rip tides, etc. The breakwaters added at Lloyd have caused serious safety issues - how will adding more at Centennial be any different? The ability of 15+ year old lifeguards to manage the increase of safety concerns.

3. The massive size of the pier - why it is nearly double the size of the Tower Road pier, which services and protects the Winnetka electric power plant campus.

4. The need for a 10 foot wide walkway cutting through the protected bluffs

5. The plan does not align with the minimally necessary requirements of the Winnetka village code for projects on the lake.

6. The unprecedented and unnecessary metal fences across the beach and into the lake. Are they allowed by the IDNR or other regulatory agencies?

7. The absence of an easement from a private landowner south of the beach, which would be necessary to allow the public to traverse the shoreline per the public trust doctrine.

7. No coastal engineer was hired by the WPD to do the proper hydrologic studies and modeling in order to determine what the minimally necessary requirements are to protect the beach and bluffs.

8. The congestion and lack of parking necessary to accommodate the increased usage the project would bring to the area.

9. The ADA walkway being the only path down to the beach creating an unsafe situation for walkers, bikers, skateboarders, wheel chairs, visually impaired, dogs and maintenance crews who will all have to exit at the same spot. No vehicle access to the dog beach side for emergency responders because of the stairs. The walkway originally proposed was made of Ipe wood, similar to what was installed on Tower, but has been replaced with a cheaper and chemically dyed stamped concrete option.

10. No bathrooms provided at Centennial beach. Going across private land (261 Sheridan) to get to the Elder beach bathrooms is against zoning ordinances. The proposed solution by the WPD, to avoid trespassing across private property, is that the users would have to go back up the ramp, down Sheridan road, into Elder park and down to the ADA bathrooms at Elder. No place for the lifeguards to go to the bathroom, shelter from the sun or have access to clean water if there was an injury. A second option proposed by the WPD was to place porta-potties in Centennial Park.

11. Swimmers and dogs right next to each other on Centennial. Safety risk, especially for children. No plan for swim safety zones or how to keep the two apart besides the pier.

12. No study was conducted to properly identify the ADA access and needs for Centennial beach and several ADA requirements were missing from the plan. Why a lift/elevator was not considered instead of a long 1-14-25walkway along the bluff.

13. The addition of wide breakwaters and a pier on Centennial significantly reduces the amount of usable beachfront and ability to safety traverse the shoreline and blocks views.

14. In spite of a multitude of requests from the ZBA to the WPD to make changes to the plan, nothing was changed and no solutions were provided in response to the ZBA request. The original plan, as presented to the ZBA is the same plan that is presented to the Plan Commission.

From: [redacted]
To: Ann Klaassen; David Schoon
Subject: Supplement to Plan Commission Submittal
Date: Tuesday, January 21, 2025 4:52:39 PM
Attachments: January2025PCSupplementalInformation.pdf

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Hello Ann:
In light of WPD's submissions to the Plan Commission dated January 17, 2025 and January 21, 2025 (today), I am making an additional submission to the Plan Commission as well. Please provide this email and attachment to them. Thank you.
Sincerely,
Kris Schriesheim

Winnetka Park District's submissions to the Plan Commission fail to establish that its Centennial design is or would be compatible with Sheridan Road's residential neighborhood. In fact, they indicate that the plans would egregiously violate the neighborhood's stately grace and quiet nature.
1. WPD's Centennial plans propose industrial breakwater and pier structures that are associated with harbors, piers, and even commercial ports.
2. WPD's Centennial plans raise multiple legal issues including Fifth Amendment claims, Public Trust Doctrine Violations, and property damage to neighbors.

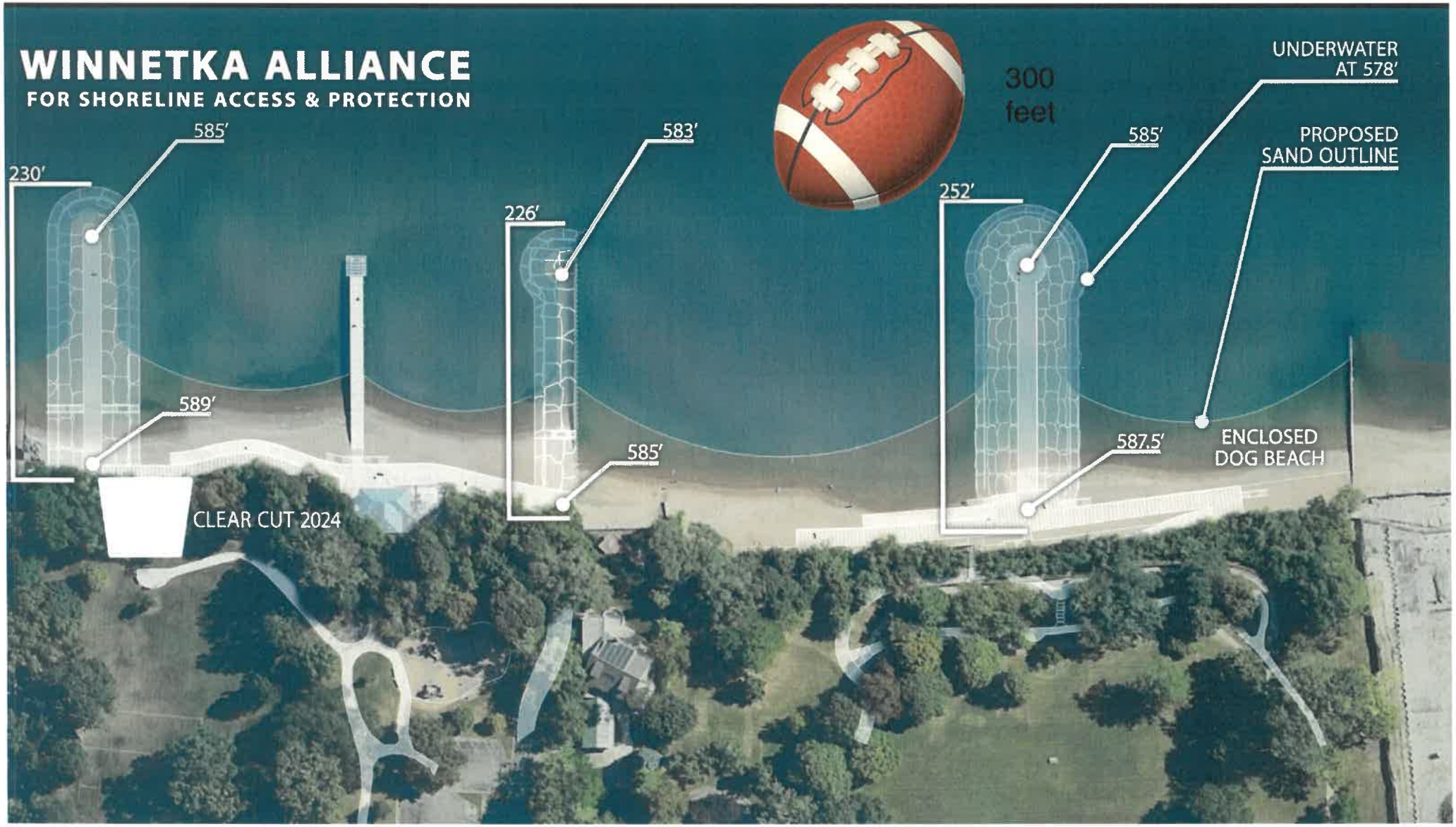
Other concerns are as follows:

3. WPD's Centennial plans fail to comply with ADA requirements for Beach Access Routes, for which the maximum running slope is 5%. Other failures include but are not limited to providing no ADA access to recreational water level, which would last for at least 50 years at the dog beach as it would not be located on an accessible route. Because WPD failed to obtain expert reports for the Centennial plans, it is not possible to determine what other ADA issues the designs present.
4. WPD's Centennial plans would violate OSLAD and Land and Water Conservation Fund grant terms, which forbid the conveyance or encumbrance by easement or otherwise, of the entire park and beach.
5. WPD's Centennial plans violate 2024 WCC survey results indicating strong opposition to the "Donation Agreement" and Restrictive Covenant. WPD's 2023 Strategic Plan Survey results rank the lakefront beaches and parks last among constituent project priorities. Two unscientific, outdated and vague 2015 surveys involved only 177 respondents (2030 LMP Survey) and 117 (Dog Beach Survey). Both are statistically irrelevant and do not support WPD's attempts to justify today's Centennial plans.
6. I understand Winnetka's Plan Commission's mission is ensuring adherence to established design standards that maintain the feel of the Village. WPD's Centennial plans violate this mission, including by proposing porta-potties on the park's Sheridan Road tabletop.
7. Among the flaws in WPD's Centennial plans are violations of Village Code provisions that disallow use of a neighboring lot to satisfy zoning requirements and the Public Trust Doctrine; violations of key WPD Policy Manual tenets such as keeping all park sites as open as possible, discouraging fencing, and disallowing private fencing. WPD also ignores the Policy Manual's statement that "Zoning of land within a community is a legislative function of the Village of Winnetka . . . The development and maintenance of urban form are direct responsibilities of the Village."
8. WPD continues to misstate the law and facts surrounding the Centennial plan design's failure to comply with Cook County "Dog Park" regulations. Cook County describes Centennial Dog Beach as

a “Dog Friendly Area,” no specific fencing required.
9. WPD continues to misstate parking issues raised by its designs, including but not limited to the lack of parking at Elder during NTHS’s school year, which runs all or part of eleven months annually—August through June.
10. WPD’s Centennial plans clash with the Village of Winnetka’s “Tree City” designation. WPD proposes to demolish 32 trees at Centennial and 32 at Elder, on top of the loss of approximately 300 trees on now-clear cut 205 Sheridan Road.
11. WPD’s Centennial plan’s dominant features are impermeable hard-structures that block access and create dangerous water conditions that are not present today.
12. WPD’s Centennial plans are reactionary and disfavored by the State of Illinois and the Village’s consulting coastal expert Baird’s coastal research. Both are looking to resilient plans that protect, maintain and improve the shoreline as well as public access.
13. WPD’s Centennial plans do not reflect taxpayer input outside of a limited number of private parties, and should be rejected.
Thank you.
Sincerely,
Kris Schriesheim

Sent from my iPad

Winnetka Futures 2040 Plan Ten Community Pillars, Goal 1.7: The Village will continue to ensure that open space uses, such as Park District parks, beaches, and facilities, are compatible with the residential neighborhoods in which they are located.


WINNETKA ALLIANCE
FOR SHORELINE ACCESS & PROTECTION
300 feet
UNDERWATER AT 578′
PROPOSED SAND OUTLINE
585′
230′
589′
583′
226′
585′
585′
252′
587.5′
ENCLOSED DOG BEACH
CLEAR CUT 2024

Shabica Article Warning of Constitutional Issues with Structures

Figure 9. Northern end of Chicago lakefill. Some littoral drift sand from the North Shore would be deposited here at Kathy Osterman Beach. The rest is likely to end its journey at the 0.6 mile-long Montrose-Wilson Beach and nearshore. (Chrzastowski, pers. comm. 2008.)

Fifth Amendment and private property rights

Like the Public Trust Doctrine, the Fifth Amendment may have an important influence on coastal shore protection management and planning. If a coastal property owner can prove that a municipal, state, or federal structure has resulted in a taking of his property (in this case – accelerated shore erosion caused by harbor jetties or a lakefill), he has the right to just compensation (see *Banks et al. v. United States*). In Illinois, sediment entrapment around the Waukegan Harbor complex has resulted in nearly 3,000 feet (914 m) of sand accretion into Lake Michigan. This is the largest offset associated with an engineered structure in Lake Michigan (Chrzastowski and Frankie 2000). Three miles south, the harbor at Great Lakes Naval Training Center is another complete barrier to littoral drift. In the 1970s, the village of Lake Bluff unsuccessfully sued for compensation for shore erosion caused by sand entrapment at both harbors (Louis Steadman, pers. comm. 1990).

breakwaters and groins were built as wood cribs, filled with stone. After World War I, steel became plentiful and many of the wood groins and piers were replaced with steel that has a longer design life in the alkaline waters of Lake Michigan. Steel groins, although not as user-friendly as the wood piers, continued to hold sand beaches with varying degrees of success. A growing problem was their progressive loss of effectiveness at holding beaches due to dwindling sand resources and eroding nearshore lakebed (Figure 10).

Stone Headlands and Pocket Beaches: In the 1980s, two North Shore communities decided their narrowing public beaches were no longer safe. Stone armored headlands with sand fill were introduced at Forest Park Beach in Lake Forest (1987) and at Sunrise Park Beach in Lake Bluff (1991) to restore beaches in areas where the groins failed to hold sand. These were the first breakwater-held pocket beaches or "beach-cells" constructed north of Chicago, and they engendered intense scrutiny. The structures were designed to function despite a wide range in lake levels. After construction, monitoring was carried out by the Illinois State Geological Survey to measure any impacts on the littoral system at Forest Park Beach (Figure 11). Despite minor sand accumulation at the updrift breakwater and siltation of the boat launch, no negative impacts were reported for downdrift properties and the littoral drift system, despite periodic gains and losses of sand (Chrzastowski and Trask 1995). In the report, the authors conclude:

> Forest Park Beach is the largest of numerous beach-cell systems constructed along the Illinois bluff coast in recent decades along both municipal and private properties. This design to contain placed sand is becoming necessary because of reduced volume of littoral sand in transport. Bluff erosion was once the primary source of beach sediment supply. The volume of sediment in the littoral transport stream has diminished as more of the bluff coast has been armored, and bluff erosion has nearly been eliminated.
>
> At Sunrise Park in Lake Bluff prior to construction, the south beach was so degraded that the wooded bluffs had failed due to storm wave attack (Figure 12). After beach construction, the bluff was restored with native plant species and more than 8,500 tons of new fill was added to the beach cell (Figure 13). Sand monitoring, as required by the state, was conducted at Sunrise Park Beach and an

Shabica Article

Domino effect of hard shoreline structures moving
south down the shoreline
Lakefront homes south of 205 Sheridan have no sandy beaches

Neighboring Properties Threatened

8/3/23

Kris Schriesheim
To: David Schoon >

Soil samples to be taken at Elder, Centennial beaches-Chicago Tribune

https://www.chicagotribune.com/suburbs/winnetka/ct-wtk-wpd-update-tl-0622-20230616-x4oht5ex3rga3ofbeukziupnpq-story.html

David:
This is the article I mentioned to you on Centennial Park bluff stabilization work now required and also being performed by the private landowner's contractor's own destabilizing work at 205 Sheridan. I searched it up using the inquiry "Soil Samples Winnetka."
Kristine Schriesheim
Sent from my iPad

Red Bay Proposed Contract Language for Stormwater IGA

- Professional engagement and coordination with Spaceco Inc and Burke Engineering.
- Performance of all permit submittals and payment for any and all associated fees.

SCHEDULE

RBD&E assumes a six-month project (preliminary and final design, permitting). RBD&E will not be available to perform any project assistance after 31 May 2025. We are immediately available to proceed with the review and meeting responsibilities. We will proceed upon receipt of written authorization from the CLIENT. If any additional services are needed or requested, or if project delays, and project time extension(s) outside of the control of RBD&E occur, this schedule, and associated services and subsequent fees may need to be adjusted.

INDEMNIFICATION

The CLIENT understands and has been informed by RBD&E of the possible impacts to the neighboring properties north and south of the proposed project site resulting from implementation of the project elements. Further, the CLIENT has consulted with their legal representatives as to the potential legal action that may be taken against the CLIENT by owners of the neighboring properties, municipalities, State or Federal agencies, resulting from implementation of the project elements.

The CLIENT agrees, to the fullest extent permitted by law, to indemnify and hold RBD&E and its subconsultants harmless from any damage, liability or cost (including reasonable attorneys' fees and costs of defense) to the extent caused by the CLIENT's negligent acts, errors or omissions, and those of anyone for whom the CLIENT is legally liable, and arising from the project that is the subject of this Agreement.

WPD Centennial Design FAILS to Meet ADA Beach Access Route Requirements

12:44 PM Tue Jan 21 ... 73%
WilmetteW-TGroupADABARCompliance.pdf Done

WT Group
Engineering • Design • Consulting

PLAN REVIEW

- Beach Access Route (BAR) goal: max 5% running slope and max 2.08% cross slope
- BAR from entry at top of bluff to Lake Michigan "normal recreation water level"
- BAR can be a permanent route or a temporary route New sites addressed by US DOJ at 28 CFR Part 35.151
- The North option is the only compliant option, likely must also address stairs

ADA FAILURES

3. WPD claims its Centennial designs would provide "universal ADA access," yet they lack a critical component for public beaches: an accessible path to the normal recreational water level. WPD's only ADA report—prepared by staff in 2010–says access to the dog beach and waterline is a requirement. Nonetheless, WPD's current plans would prevent ADA access to the dog beach for half a century, violating not only applicable ADA requirements, but its OSLAD/LWCF grant conditions as well. WPD misrepresents that naturally occurring views currently available on the beach would morph into an ADA accessible feature, forcing persons who wish to traverse the beach onto a huge and potentially crowded boardwalk and/or rubble mound breakwater/pier. The boardwalk has a ramp only on its north side, with inaccessible stairs facing the private property owner to the south. The likely windy, possibly dirty (bird droppings), industrial looking, concrete-topped armored stone breakwater, which the Winnetka police chief said will be overtopped with waves, does not have steps that would allow patrons to traverse the beach. And, to date WPD has not agreed to follow the chief's safety requirements.

Summarily, in addition to not including access to the recreational water line, Illinois ADA design violations appear to be: (a) failure to provide an accessible route from the boardwalk to the dog beach/"animal pen"; (b) lack of ADA accessible drinking fountains (WPD proposes merely to move the two old fountains); (c) lack of a professional ADA review to see if parking spots are properly located; (d) potential lack of ADA-mandated lighting for low vision individuals; and (e) potential lack of properly sized ADA stairs, hand-railings and fencing. There could be other ADA issues

WPD Centennial Designs Are Not ADA Compliant

or to be on an accessible route.

203.11 Water Slides. Water slides shall not be required to comply with these requirements or to be on an accessible route.

203.12 Animal Containment Areas. *Animal cages, pens, corrals, and similar areas in which animals are contained shall be on an accessible route but shall not otherwise be required to comply with these requirements. Public circulation routes where animals may travel, such as in*

petting zoos and passageways alongside animal pens in State fairs, are not eligible for this exception.

203.13 Raised Boxing or Wrestling Rings. Raised boxing or wrestling rings shall not be required to comply with these requirements or to be on an accessible route.

203.14 Raised Diving Boards and Diving Platforms. Raised diving boards and diving platforms shall not be required to comply with these requirements or to be on an accessible route.

WPD Centennial Designs Do Not Meet ADA Requirements

does not exceed 1:12 (8.33%). A trail segment can run for a distance of 30 feet at slopes between 1:2 and 1:10 (10%), and for 10 feet at slopes between 1:10 and 1:8 (12%).

Highlights: Beach Access

When an entity that administers or manages a beach undertakes a beach nourishment project, or constructs or alters circulation paths or parking, toilet, or bathing facilities to serve the beach, at least one beach access route needs to be provided for each 1/2 mile of beach shoreline.

The entity does not have to spend more than 20% percent of the cost of the beach nourishment, construction, or alteration costs to provide beach access routes, and the number of beach access routes does not have to be greater than the number of pedestrian access points provided (pedestrian access points include parking facilities that serve the beach, dune crossings, and stairways or ramps leading from boardwalks to the beach)

Beach access routes should connect an entry point to the beach with the:

- Mean high water level at river beaches; or,
- Normal recreation water level at lake, pond, and reservoir beaches.

Beach access routes, like outdoor recreation access routes, can have steeper slopes or longer running segments than typical accessible routes or ramps. A beach access route can run for a distance of 50 feet at slopes between 1:20 (5%) and 1:12 (8.33%), and for a distance of 30 feet at slopes between 1:12 and 1:10 (10%).

Where the slope of a beach access route at a dune crossing is steeper than 1:20 (5%), handrails need to be provided, and curbs or other barriers to prevent the passage of a 2-inch diameter sphere.

Find Out More

These are just a few highlights of the new requirements. Visit the Access Board to find more details, background, and resources related to outdoor access.

Pack a picnic basket, air out the tent, and have a good summer!

WPD Plans to Re-Use Old Drinking Fountains

Exciting news for the Wilmette community! The Wilmette Park District has been awarded a transformative $600,000 grant from the Illinois Department of Natural Resources through its Open Space Land Acquisition and Development (OSLAD) program. This significant grant, combined with a $890,600 cash match from the District and a generous $10,000 donation from the Wilmette Baseball Association, brings the total investment in Hibbard Park's redevelopment to an impressive $1,500,600.

Hibbard Park is about to receive a long-awaited upgrade, with plans crafted to enhance accessibility, recreation, and community enjoyment. The project team includes Upland Design Ltd., civil engineers from Engineering Resource Associates (ERA), and Illinois licensed surveyors from JLH Surveying LLC. These experts will guide the development of construction documents, permitting, bidding, and administration to bring the vision to life.

Community feedback played a pivotal role in shaping the project's scope. During 2024, the Park District gathered input through two public meetings at Hibbard Park, two surveys generating 491 responses, and presentations at Committee of the Whole (COW) and Board meetings. This collaborative effort ensures the improvements reflect the needs and desires of our community.

Construction is slated to begin in spring 2025, with completion anticipated by October 2025. Here's what you can look forward to:

- **Six new pickleball courts** replacing the two existing tennis courts, providing a vibrant hub for players of all ages.
- **A 16' x 16' picnic shelter** which will greatly enhance summer programming at this park central to our seasonal activities.
- **A new ADA-compliant water fountain** offering dual drinking fountains, a bottle fill station, and a dog fountain.
- **A 6-foot-wide concrete path** improving accessibility with a safe, interior loop free of car traffic.
- **Renovated baseball fields** with updated fencing, dugouts, benches, bleachers, and shade structures—plus solutions for drainage issues.
- **Wayfinding signage** helping visitors navigate the park with ease.

But that's not all! The park will also bloom with **new pollinator gardens** featuring native plants and educational signage, aligning beautifully with the District's Comprehensive, Strategic, and Sustainability Plans. These enhancements underscore our ongoing commitment to creating a greener, more inclusive community space.

Stay tuned for more updates and project details! Visit Hibbard Park Project Page to explore the project master plan and survey results. We can't wait to share Hibbard Park's exciting transformation with all of you!

Two more items:

1. My exchange with Nazzal asking for expert reports if any received in preparing the E-C project plans. None.
2. Mary and Susie have pointed out the plans' ADA-related flaws to ZBA; I pointed out and questioned the lack of ADA access to the proposed Centennial dog pen beach. It turns out that WPD's 2010 ADA Report highlights dog beach access as necessary under existing ADA standards at that time.

WPD's Plans Violate IDNR/Dept. of Interior Grants

The State of Illinois, represented by the Director of the Department of Conservation, and the herein named project Sponsor, mutually agree to perform this Agreement in accordance with the Open Space Lands Acquisition and Development Act, as amended, (P.A. 84-711, effective January 1, 1986), and with the terms, promises, conditions, plans, specifications, procedures, project proposals, maps, and assurances contained in the approved project application, and, which by reference, is hereby made a part of this Agreement.

The State of Illinois hereby promises, in consideration of the promises and assurances made by the Sponsor herein, to obligate to the Sponsor the amount of money referred to herein, and to tender to the Sponsor that portion of the obligation which is required to pay the State of Illinois' share of the costs of the herein described project stage, based upon the herein stated percentage of assistance. Obligations of the State will cease immediately without penalty of further payment being required if in any fiscal year the Illinois General Assembly or Federal funding source fails to appropriate or otherwise make available sufficient funds for this Agreement.

The Sponsor hereby promises, in consideration of the promises made by the State of Illinois herein, to execute herein described project and operate and maintain the project site in accordance with the terms of this Agreement.

The following special project terms and conditions were added to this Agreement before it was signed by the parties thereto:

1. All overhead utilities on the project property, excepting electric lines over 15kv, must be buried or otherwise screened.
2. No easements or other land encumberances may be granted on the project property without the prior written approval of the Illinois Department of Conservation.
3. No portion of project property may be traded, sold or otherwise exchanged, nor converted from outdoor recreation use, without the prior written approval of the Illinois Department of Conservation.
4. No indoor buildings, exclusive of service/support structures or sanitary facilities may be constructed on the property acquired and/or developed hereunder.

In witness whereof, the parties hereto have executed this Agreement as of the date entered below.

STATE OF ILLINOIS

By: [redacted]
(Signature)

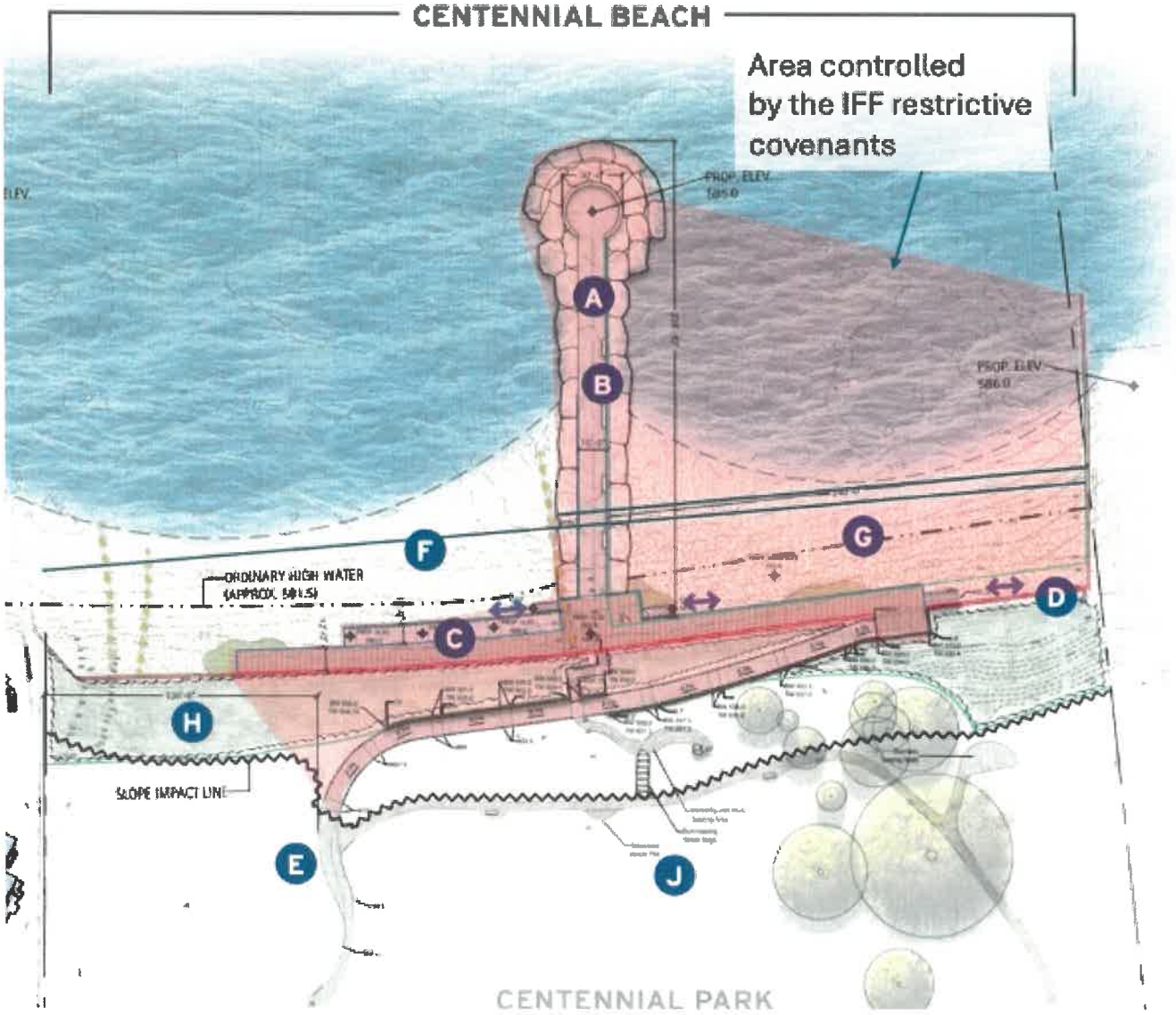
Director

SPONSOR

WINNETKA PARK DISTRICT
(Agency)

[redacted]

Huge Area Proposed to Fall Under Private Control For Half a Century



LEGEND

- PROPOSED BLUFF RESTORATION
- ACCESS TO BEACH
- SHEET PILE (PROPOSED)
- SHEET PILE (EXISTING)
- ELEMENT TO BE REMOVED
- ORNAMENTAL FENCE

- A — RUBBLE MOUND BREAKWATER SHORELINE PROTECTION
- B — ACCESSIBLE VIEWING PIER WITH BENCH SEATING
- C — ADA ACCESSIBLE BOARDWALK & CONCRETE RAMP BEACH ACCESS
- D — MAINTAIN ACCESS ACROSS BEACH
- E — ACCESSIBLE PEDESTRIAN PATH TO BEACH
- F — SWIMMING BEACH
- G — PROPOSED OFF-LEASH DOG BEACH
- H — BLUFF RESTORATION ZONE
- I — REPAIRED EXISTING CONCRETE PIER
- J — MAINTAIN PASSIVE USES & VIEWS TO LAKE

2024: WCC Survey Results Show the Public Rejects WPDs Plans to Privatize & Restrict Centennial Park and Beach

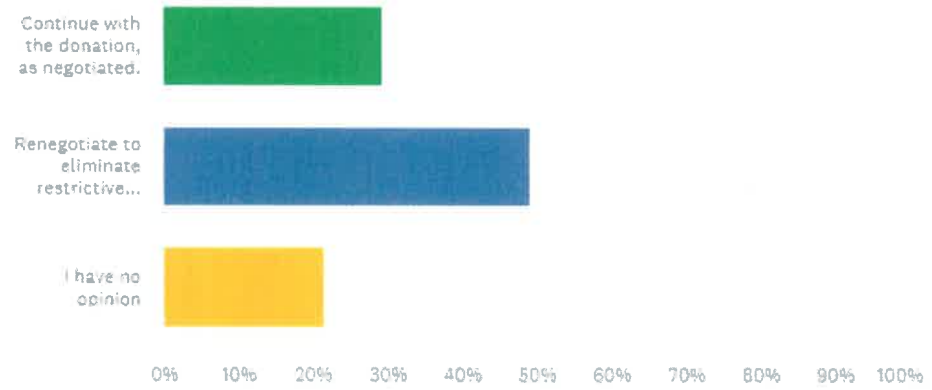
2024 WCC - WPD Committee - Survey and Platform review

Done

Plank 2: Donation Agreement

Q23: We asked if the Park District should continue with donation agreement or renegotiate

Answered: 1,248 Skipped: 375



The Park District entered into a Donation Agreement with a private party, which had restrictive covenants. The survey question asked if this should be renegotiated or go forward. 50% of all respondents agree that the Park District should renegotiate the Donation Agreement. This rises to 63% if those with "No Opinion" are excluded. The Park District should renegotiate the terms of the agreement to eliminate the restrictive covenants, or pursue alternative funding if necessary.

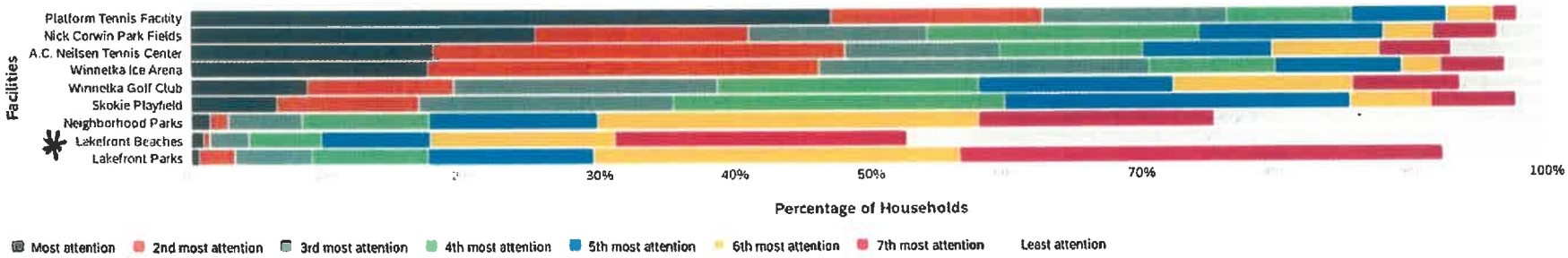
Note: The vast majority of comments were not in favor of the agreement, especially the 50-year term

Winnetka Caucus

2023 - Lakefront Beaches and Parks are WPD Constituents' Lowest Priority

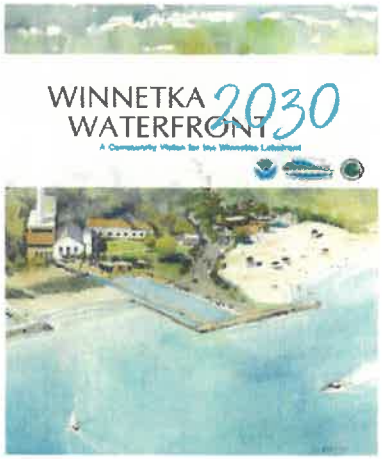
StrategicPlanSurveyResults_2023-2027

21) Parks + facilities households believe should receive the most attention - 5yrs 393



Statistically Irrelevant, Outdated Public Surveys

2014 + 2015 Community Engagement



Three web-based surveys completed:

- The Lakefront Master Plan Survey – July 2015:
  - 177 participants
  - Asked for feedback regarding preliminary lakefront plans
- Winnetka Caucus Council Survey – August 2015
  - Number of participants not known
  - Range of Village topics, to include resident preferences for future of lakefront
- Dog Beach Survey – September 2015
  - 117 participants
  - Sent to all current dog beach pass holders
  - Asked how users interacted with the Centennial Beach dog park

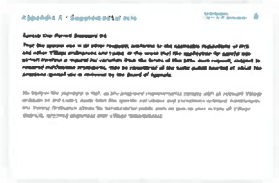
How did the results break down, pro/con/unsure

2014 + 2015 Community Engagement

~~Nine public open house sessions~~ in 2015

This rendering , I assume by the design consultant for the park district, communicates the harshness of the design. Out of scale, highway like and terrible. The rendering helps our case that this is a poorly designed and destructive proposal to Winnetka s lakefront.

WPD Proposes Public Porta-Potties on Sheridan Road



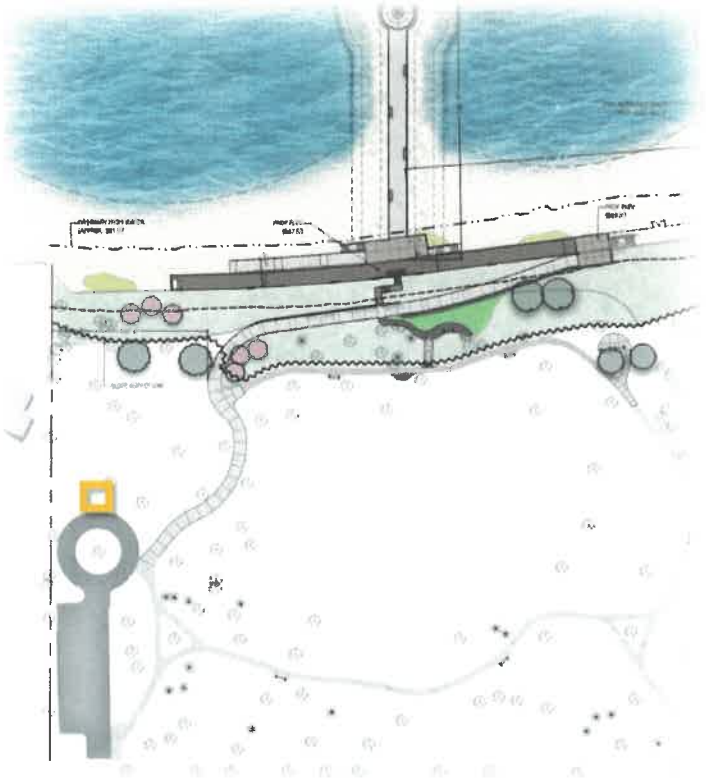
Appendix A - Supplemental Info

CENTENNIAL BEACH & BLUFF IMPROVEMENTS

Restrooms

Restrooms

- *WPD can provide ADA accessible portable restrooms on the park table land for in-season use*



Appendix A - Supplemental Info

CENTENNIAL BEACH & BLUFF IMPROVEMENTS

Winnetka has strict design standards

natalie batalie @naeritace · 11/14/24

Winnetka has a TON of architectural style restrictions to “keep the vibe” (uber wealthy). They were the first place in America to have a Mcdonalds with no sign. The exterior of the Mcdonalds is very tudor cottage-y. You wouldnt even know its there

Midwest Antiquarian @Eric_Erins · 11/14/24

I just assumed this had to be an adaptive reuse, but nah this is a new build. Welcome back Art Deco x.com/CrainsChicago/...

WPD Plans Violate Village Code and Public Trust Doctrine

DISCUSSION POINT 8:

Village Counsel Peter Friedman has determined that for zoning purposes the sand on the other side of Centennial's southernmost groin is the private property of 205 Sheridan. Although Mr. Friedman suggested WPD could potentially resolve the Centennial plan's public access issue by getting a public easement across 205 Sheridan's sand to the waterline, that seems unlikely. When I recently asked WPD Executive Director Nazzal about the prospect for such an easement, she said no negotiations were taking place.

8:51 PM Thu Jan 16
Fencing and Barriers Violate Key Park District Tenets
41%
winpark.org — Private

C. The Park District believes all park sites should be as open as possible. Permanent fencing of ball diamond outfields will not be allowed, unless the field has a single user group and the fencing can be made permanent. Special requests for temporary fencing will be considered, and the Executive Director will make the final decision on each request.

D. No private fencing is permitted on Park District owned property. Repair, maintenance, upkeep and replacement cost of any fence or barrier material such as landscaping located on private property adjoining Park District property shall be the responsibility of the private property owner.

5.13 ZONING OF LAND

Zoning of land within a community is a legislative function of the Village of Winnetka. Obtaining, preserving, and developing open space for active and passive leisure use is primarily the responsibility of the Park District.

The development and maintenance of urban form are direct responsibilities of the Village. The Park District should share in the development and overall aesthetic

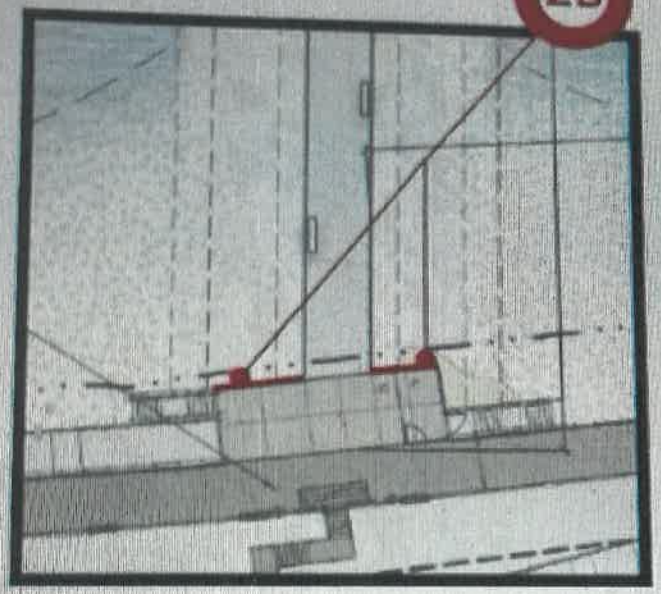
WPD Misstatements of Law and Facts Re: Dog Park Regs

DISCUSSION POINT 9:

I continue to object to WPD staff misrepresenting to the Village that Cook County's Animal Control Ordinance and Regulations require them to put up three-sided fencing at the dog beach. Multiple FOIA's by various persons, including myself, have not turned up any such mandate. Instead, Cook County provided WPD with an example of a fully-enclosed, contiguously fenced in dog park at Beck Lake; said Centennial beach is a "dog friendly area" such that WPD may call the waterline a "barrier," and also that no "affirmative permission" was implied regarding Centennial's status as a less than fully fenced "dog park" rather than a "dog friendly area." I think it is clear that Cook County not only rightly classifies Centennial as a "DFA," but also that the Administrator is aware that he does not have statutory authority to grant "waivers" to the four-sided fencing requirement for dog parks.

AWFUL, PRISON LIKE DESIGN

2B



SITE LOCATION

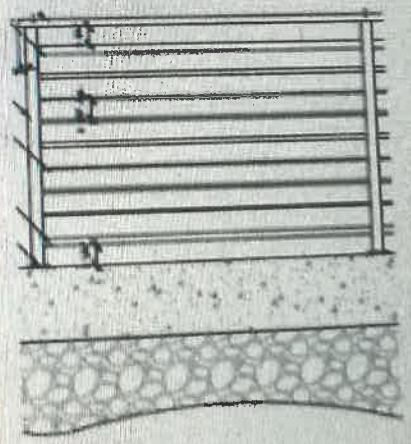
PROPOSED BOARDWALK/SHORE PROTECTION WITH 42" HT. HANDRAIL (PER ADA REQUIREMENTS)

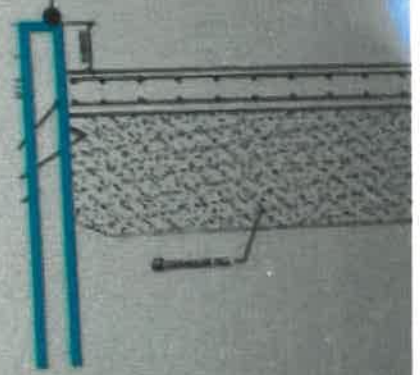
EXISTING STEEL SEAWALL

PLAN

REQUEST: 4'
OVER THE AL
6.5' LIMIT

PROPOSED HANDRAIL





SECTION

NTHS - Parking at Elder Usex August - June

NEW TRIER TOWNSHIP HIGH SCHOOL DISTRICT 203

NEW TRIER TOWNSHIP HIGH SCHOOL DISTRICT 203
2025-2026 SCHOOL YEAR CALENDAR

2025	**August**	18	Monday	Opening Teacher Institute – Day 1
		19	Tuesday	Opening Teacher Institute – Day 2
		20	Wednesday	First Day of Student Attendance
	September	1	Monday	Labor Day – **No School**
		23	Tuesday	Rosh Hashanah – **No School**
	October	2	Thursday	Yom Kippur – **No School**
		3	Friday	Fall Break – **No School**
	November	26-28	Wednesday – Friday	Thanksgiving – **No School**
	December	19	Friday	1st Semester Ends
		20	Saturday	Winter Break Begins
2026	**January**	5	Monday	School Resumes after Winter Break
		19	Monday	Martin Luther King Day – **No School**
	February	16	Monday	Presidents' Day – **No School**
	March	28	Saturday	Spring Break Begins
	April	6	Monday	**No School**
		7	Tuesday	School Resumes after Spring Break
	May	25	Monday	Memorial Day – **No school**
		31	Sunday	Graduation (NOW Arena; Time TBD)
	June	5	Friday	Last Day of Student Attendance
		8	Monday	Summer School Begins

WPD Tree Demolition Plans Clash With Tree City Designation

4:41 PM Tue Jan 7

97%

arborday.org

We want to hear your opinion. Please take our quick survey about trees. And when you donate, you'll receive a gift as a thank you. Take survey

Arbor Day Foundation

DONATE

FIND NURSERY TREES, GIFTS, AND MORE

To purchase products from our tree nursery, visit our shop website.

TREE NURSERY

Winnetka (31 Years Recognized)

... Tree City USA **Winnetka** (31 Years Recognized) **Illinois** ... **Winnetka** (31 Years Recognized) ...

Arbor Day

ABOUT US

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WPD Plans did not Rely on Experts

Generally: Tree Protection Plans. PDHP notes that the USDA Forest Services has stated that management solutions are urgently needed to cope with the large number of oak trees that are declining in our national forests. Note that Winnetka Park District constituents are very concerned about WPD/Lakota's proposal to demolish 28 of Centennial's trees. The Winnetka Garden Club provided Centennial Park with its southern oak trees, which are in grave danger under WPD's proposed plans. WPD already unlawfully cleared Elder's bluffs and appears to be

*32

unaware that buckthorn is (1) a tree; and (2) provides important migratory bird habitat so should be replaced gradually. By the way it is migratory bird season.

IMG_5538-scaled.jpg

WPD's Centennial plan poses multiple safety threats, including drowning and injury risks associated with breakwater and associated fencing. WPD's proposed fence locations on the breakwater as well as on the existing steel groin located next to 205 Sheridan's northern breakwater raise public shoreline access issues and threats to safety. At ZBA's November meeting, WPD staff revealed that it knows the proposed breakwater-located fencing creates serious safety risks--stating it would create the risk of persons climbing onto the fencing to dive or jump off into the water. This is extremely unsafe--the same WPD staff member also said that "only" 1/4 of the breakwater will be visible above the waterline, so anyone climbing onto the fencing to jump or dive into the water will be doing so without knowing that 3/4 of the massive breakwater lies below the surface. Similarly, putting fencing on Centennial's southern groin, which crosses over onto property considered "private" for Village zoning purposes, will create a new risk there as well. It will allow beachgoers to use the fencing to climb up onto the groin and travel over 125' out into the lake, where they may jump or dive into the water, either into Centennial's lakefront, where WPD testified the steel groin creates dangerous rip currents, or into 205 Sheridan's, with structural and rip currents potentially present, and where large armored stones supporting that breakwater are embedded under the waterline as well.

Rather than embracing contemporary shoreline solutions, WPD's plan is based on outdated 19th and 20th century methodologies. The Village should look to the U.S. Army Corps of Engineers' initiative "Engineering with Nature," which offers contemporary, scientifically sound and forward-thinking shoreline solutions. It promotes "the intentional alignment of natural and engineering processes to efficiently and sustainably deliver economic, environmental, and social benefits through collaboration." Baird & Associates' "Illinois North Shore Coastal Resilience Plan" says "Resilient solutions should not aim to continue hardening the shoreline, as this only provides immediate relief to the problem while complicating public access to the shoreline and in some cases exacerbating the loss of recreational assets. For instance, shoreline hardening in combination with unmitigated lakebed downcutting eventually leads to the loss of shallow littoral features (including beaches) and associated aquatic habitat. Resilient solutions require longer-term planning to effectively incorporate a holistic strategy that protects a stretch of shoreline, maintains, or improves public access to the lake, and restores or creates habitat . . . "

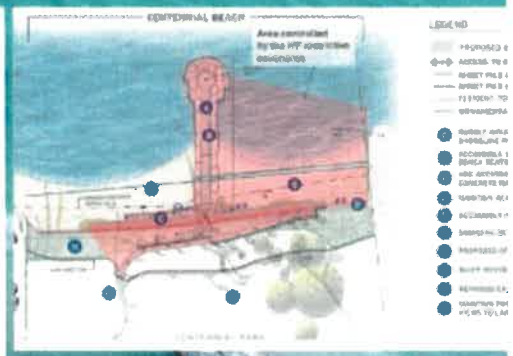
Please reject WPD's Centennial Permit Application

January 14, 2025

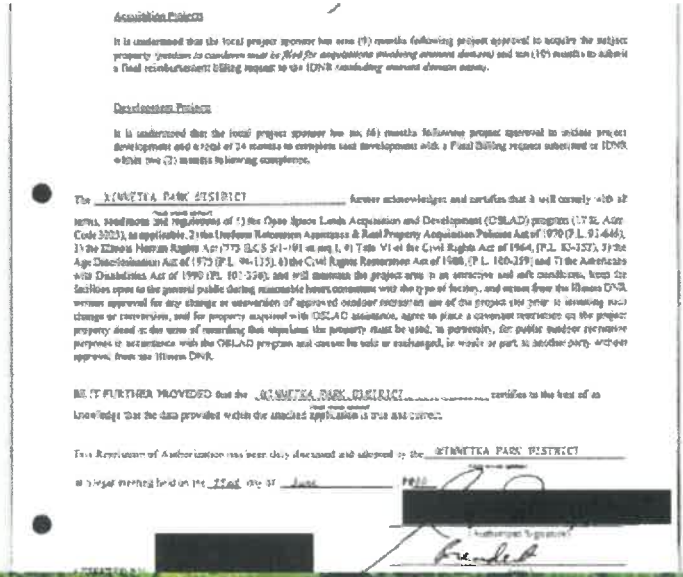
STATEMENT ON WINNETKA SETTLEMENT THAT PROTECTS PUBLIC BEACH

"Our goal is to protect the public beach along the shore of Lake Michigan. The agreement with the Winnetka Park District is a clear victory upholding the Public Trust Doctrine and ensures that public access to the beach cannot be denied and the beach cannot be given to a private party. It also preserves our ability to challenge future decisions that threaten to privatize precious natural resources, including our public parks and shoreline, that belong to the people."

Robert Schriesheim, plaintiff



s crash against a pier near Oakwood Beach as frigid temperatures and a winter storm move through Chicago area Monday. | Ashlee Rezin/Sun-Times



Acquisition Projects

It is understood that the local project sponsor has one (1) months following project approval to acquire the subject property (portion to easement must be filed for acquisitions involving eminent domain) and ten (10) months to submit a final reimbursement billing request to the IDNR (excluding eminent domain cases).

Development Projects

It is understood that the local project sponsor has six (6) months following project approval to initiate project development and a total of 24 months to complete said development with a Final Billing request submitted to IDNR within two (2) months following completion.

The WINNETKA PARK DISTRICT hereby acknowledges and certifies that it will comply with all terms, conditions and regulations of 1) the Open Space Lands Acquisition and Development (OSLAD) program (17 Ill. Adm. Code 3020), as applicable, 2) the Uniform Relocation Assistance & Real Property Acquisition Policies Act of 1970 (P.L. 91-646), 3) the Illinois Human Rights Act (775 ILCS 5/1-101 et seq.), 4) Title VI of the Civil Rights Act of 1964, (P.L. 88-352), 5) the Age Discrimination Act of 1975 (P.L. 94-135), 6) the Civil Rights Restoration Act of 1988, (P.L. 100-259), and 7) the Americans with Disabilities Act of 1990 (P.L. 101-336), and will maintain the project area in an attractive and safe condition, keep the facilities open to the general public during reasonable hours consistent with the type of facility, and secure from the Illinois DNR, written approval for any change or conversion of approved outdoor recreation use of the project site prior to investing such change or conversion, and for property acquired with OSLAD assistance, agree to place a covenant restricting the project property deed or the term of recording that stipulates the property must be used, in perpetuity, for public outdoor recreation purposes in accordance with the OSLAD program and cannot be sold or exchanged, in whole or part, to another party, without approval from the Illinois DNR.

BE IT FURTHER PROVIDED that the WINNETKA PARK DISTRICT certifies to the best of its knowledge that the data provided within the attached application is true and correct.

This Resolution of Authorization was duly discussed and adopted by the WINNETKA PARK DISTRICT at a legal meeting held on the 21st day of June

[redacted]

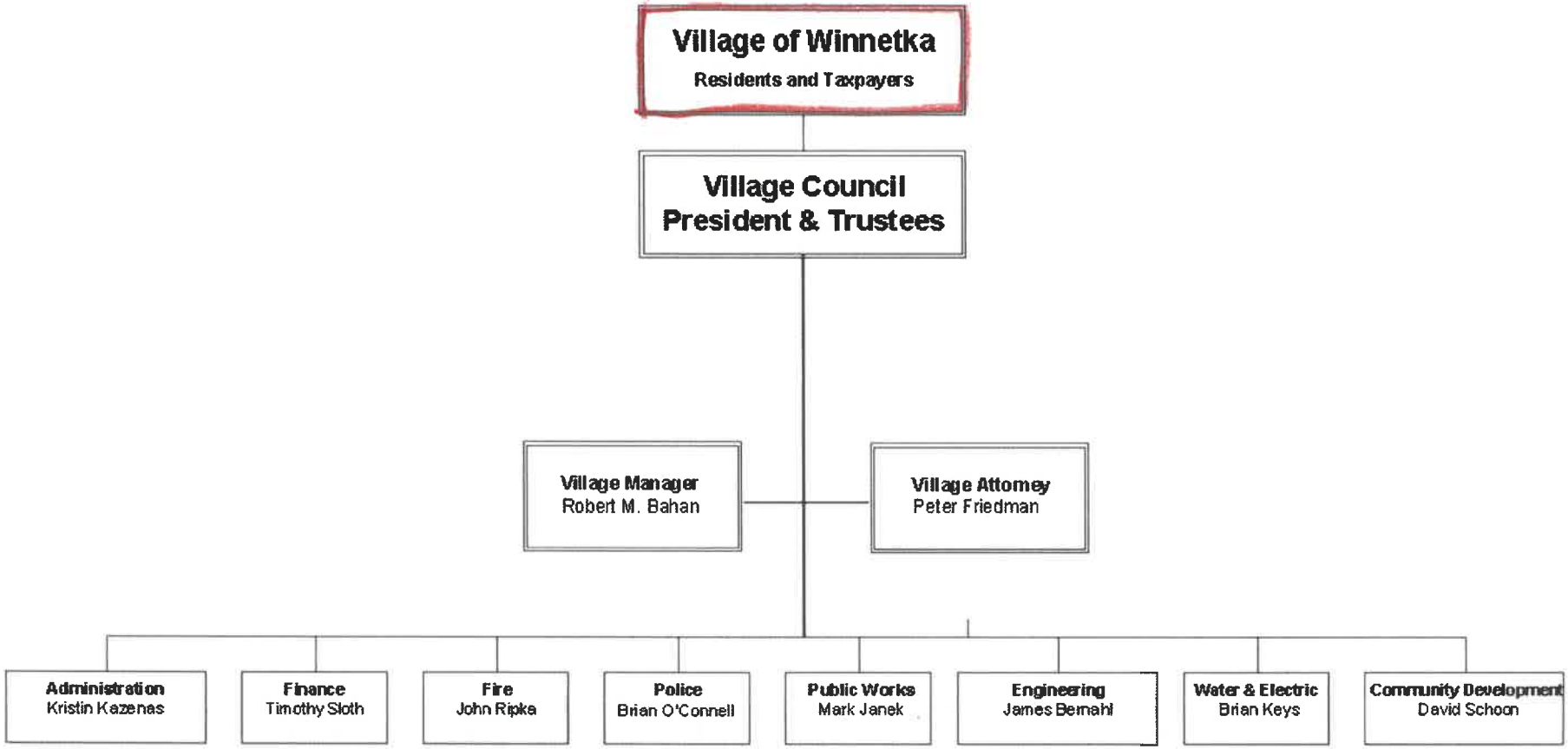
[redacted]

1:31PM Mon Aug 19

49%

files.illinoiscomptroller.gov — Private

Village of Winnetka Government

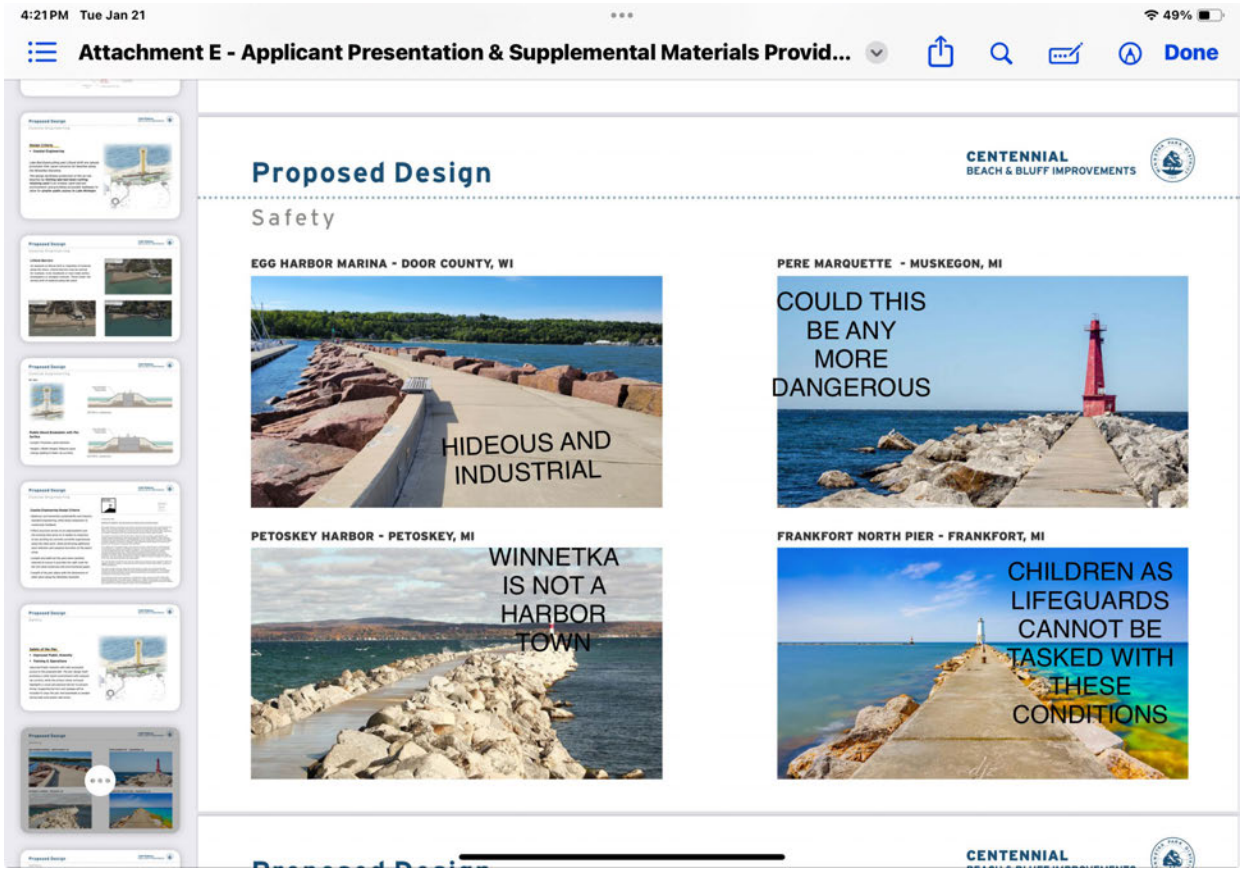


From: Ann Klaassen
To: Ann Klaassen
Subject: FW: One more comment
Date: Wednesday, January 22, 2025 10:12:59 AM

From: Kris Schriesheim <[redacted]>
Sent: Tuesday, January 21, 2025 5:31 PM
To: Ann Klaassen <AKlaassen@winnetka.org>; David Schoon <DSchoon@winnetka.org>
Subject: One more comment

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

How could these photos, which WPD submitted on Friday in an attempt to justify its Centennial plans, do anything other than convince Village commissions of the plan's unsuitable nature for Winnetka?
Kris Schriesheim



Sent from my iPad

RECEIVED
JAN 22 2024
BY:

January 15, 2025...To the Plan Commission

My name is Phil Enquist, and I am a resident of Winnetka, a licensed architect/urban planner, and a very concerned citizen.

Thank you for your time to review/critique the Winnetka Park District's proposal for Centennial Beach and I encourage the Plan Commission to seriously question this current design as it is flawed, and in need of substantial revisions.

The large stone Pier has no justification, does not solve coastal erosion issues, creates a public safety hazard, and is not necessary in the design to create a dog beach and a swimming beach.

To emphasize this point, I am including a summary of the Winnetka Board discussion from the Regular Board Meeting, November 16, 2023.

(available on Youtube)
https://www.youtube.com/watch?v=emAfgiqGLWI&list=PLgOxGHUtn2rOy_ThL10GcqlzZBv1f_DI5&index=40 (around 1:33.00 minutes into the meeting)

A question was asked by one of the Winnetka Park District Board members that was relevant.

The WPD Board member asked:
"Where is the coastal analysis that justifies the need for this huge central pier that segments Centennial Beach?"

Matt Wright, the Founder of Red Barn Design and Engineering, the engineering consultant for the Centennial Beach project, came up to the microphone and clearly answered this question.

His answer is as follows, (this is my writing of his words from the recording at 1:34.00)

"We were directed to prepare the permit documents for schematic design which we have done. The need for a justification of the pier, there is no justification or need. The purpose of this pier is to separate the dog beach from the swimming beach. The purpose of the central walkway is to provide public access to the water, it (the pier) is a pure public amenity, there is no need for it.

It was in the schematic design plan so we put it in the permit documents. To justify it with a coastal analysis, there is none, it is a barrier between two public facilities, that is all it is."

My summary of this very honest presentation is that there is **no purpose for this pier from a coastal or hydrology standpoint**. It is simply a a barrier between two public beach facilities.

With that in mind, the pier should be eliminated from this design.
There is no need for the Centennial Pier, it is destructive to our lakefront.

I encourage/urge the Plan Commission to deny the Winnetka Park District's application for a Special Use Permit.

Thank you
Phil Enquist

Safety Statement by Kimberley Marsh (1/22/25)

RECEIVED
JAN 22 2024
BY:

I am also urging the Plan Commission to DENY the Winnetka Park District's application for a Special Use Permit.

The massive rubble mound pier as designed will impede sightlines from the shore out to where swimmers and dogs will be enjoying Lake Michigan, creating serious safety issues. Like others who have spoken tonight, I urge Plan Commission members to go down to Elder and Centennial, stand on the sand at waters edge and imagine the views with a pier of this enormous height and width, as well as its potential impact along the shoreline going North and South. Visual aids and computer models do not fully depict what will be lost because most are from a bird's eye view.

I am opposed to any pier structure because I have been an eyewitness to 2 serious safety incidents, one of which was a fatal drowning, that occurred in the water off the current dog beach. In July 2023, a man drowned after jumping in to assist some children who had been tipped off an inflated raft being towed by a boat. Multiple people on the dog beach saw the swimmer in distress and called 911. The 2 people I was standing with swam out to assist. A massive rubble mound pier as proposed would have impeded the sightlines to this incident and delayed response time.

Last August, I witnessed a concerning near-miss incident, again at the dog beach. A man had a young dog who swam out to deep water and then suddenly headed south toward Kenilworth. The man (who was a strong swimmer) jumped in to get his dog but was unable to keep up. From the beach I could not visualize them at all past the south breakwater/construction fence, but the man was clearly struggling. A much younger man jumped in to aid the struggling swimmer. All ended well but the whole incident again raises the "sightline" safety issue and reinforces the need to have a safe land route at the water line. The presence of a teen lifeguard monitoring a "swim zone" area would not have made a difference because the height of the rubble mound rocks would block sightlines to where the dogs swim. Nor could a lifeguard visualize kids or dogs climbing unsafely on the jagged southern side rocks of the rubble mound pier. Life guards go back to school mid-August but people swim into October so plan is unrealistic

Finally, I witnessed the weeklong search by the Coast Guard in late summer 2023 to find the young man who had jumped off the Elder pier with 2 friends in high waves and was missing for a week. His family kept vigil at the dog beach gate, so I passed them each day as they watched the sweeps of the Coast Guard, including the use of metal probes in the sand around the Elder pier. From my own knowledge of the Elder Park fencing & signage, I can confirm that there was contiguous chain link fencing and signage stating the beach was closed. Does anyone think intermittent signage or a chain barrier on a Centennial rubble mound pier during high wind/waves would deter people? Signage certainly does not deter the daily rock-climbing excursions by teens at Lloyd, of which the Park District is aware. This enormous pier is a terrible idea and detracts from the passive beauty of the sandy beach.
Please deny the proposed Special Use Permit application.

Alexandra Nichols

From: Irene Smith <[redacted]
Sent: Wednesday, January 22, 2025 11:09 AM
To: Alexandra Nichols
Subject: Carol's speech

To the Members of the Winnetka Plan Commission:

My name is Carol Rasmus. I reside at 175 Sheridan Road. My residence is located on Lake Michigan, four properties down from the southern end of Centennial Park. I urge the Plan Commission to deny the Winnetka Park District's application for the development of Centennial Park.

The proposed project is an expensive boondoggle which is unneeded, unwanted, unsafe and unsightly. If the WPD's existing plan was to be submitted for Referendum, it is very doubtful the Village residents would approve the project!

The massive proposed pier extending into the lake would interfere with the natural littoral drift of lake sand. Since construction of the breakwater/rock pile (or whatever term is appropriate) commenced at 205 Sheridan Rd, our beach has disappeared entirely. The proposed pier, which if approved, would extend even farther into the lake. This in turn would further inhibit the replenishment of sand and degrade the ability or likelihood for ourselves and our neighbors south of Centennial to have and maintain a natural beach.

Mathew Wright, the consulting civil engineer engaged by the Winnetka Park District, stated that the pier would not provide protection for the bluff from erosion. Mr. Wright's own words described the main function of the pier as an 'amenity'. The pier is not an amenity or even an expensive luxury. It is a white elephant and the application should be denied!

Winnetka Plan Commission
Winnetka Village Hall – Council Chambers

January 22, 2023

Introduction

Good evening members of the Winnetka Plan Commission and Village staff.
I am Susie Schreiber, former Winnetka Park District Commissioner, former Winnetka Plan Commission member, and member of a lead team involved over the past 30 years with the cleanup of the Waukegan Harbor Area of Concern and Extended Area of Concern on the Great Lakes under the guidance of the International Joint Commission for Canada and the United States. I am quite familiar with various issues on the Illinois shoreline of Lake Michigan.

Please refer to the handouts for questions related to the new installations at Illinois Beach State Park.

Communities around the Great Lake Basin have been working together over the past 50+ years at maintaining and enhancing the Ecosystem Integrity of the entire watershed. The coastal hydrology and geology is critically important.

In-Lake

- Lake Michigan is a part of the Great Lakes Watershed. The watershed represents 20% of the world's fresh water. Illinois has 63 miles of shore on the 1,638 miles of the Lake Michigan coast.

- The Winnetka Park District's current proposal on the bluffs and in the nearshore of Centennial Park is to extensively remove and pave a great deal of the critically important bluff habitat for a poorly designed equipment access road running diagonally across the steep slope, and to build an unsightly and unneeded heavily fortified rock pier well out into the lake at Centennial.

- Their plan exacerbates and undermines the ecological functioning of the steep slope land intersecting with the shoreline for the floristic and faunal communities. Hardening the steep slope interface between the land and waters is not a healthy option for the already impacted Lake Michigan coast, and this in turn, effects the Great Lakes Ecosystem and hydrology as a whole.

- There are other options, ones far more studied and advanced scientifically, than those under consideration in the Winnetka Park District proposal before you.

- NOAA, the USACE, State Departments of Natural Resources and State Capital Development Boards selected 3 areas on the Great Lakes to collect extensive in lake and shoreline data at these sites for pilot studies: Lake Erie in Ohio, Lake Ontario in New York, and Lake Michigan – Illinois Beach State Park in our own state. Studies began about ten years ago.

- Our Illinois project was completed this past summer, and now immense data is currently being collected on how well it is functioning related to the intended goals. At a cost of $73 million, twenty two offshore somewhat parallel islands made of large granite rock have been carefully designed and placed offshore of Illinois Beach State Park. These islands are NOT solid, but were instead designed to be porous, and to include natural habitat features on their interior and exteriors, both under and above water to provide benthic, fisheries and avian habitat. The islands act as gentle wave attenuation devices, and are positioned to both feed the nearshore beaches, and direct some of the sand into the littoral drift to replenish the sands along the Illinois coastlines to the south of the Park.

  I was told last week by the present Acting Supt, of Illinois Beach State Park that the project actually has come in under budget.

ADA

Related to the ADA needs at Centennial Park, there are other design alternatives, which have been suggested by ADA users, some of whom are from my own family, and from a former member of the Univ. of Ill. School of Architecture who sat on the first National ADA Commission appointed by Pres. Clinton for ten years, and chaired it for about 6 years, who himself was a quadriplegic wheelchair user from age 3 until his death a year ago. I remind you that this same individual worked with the Winnetka Park District to design and implement the ADA pathway and boardwalk at Tower Rd. Beach which is extensively utilized by ADA and non ADA users regularly, and in all seasons.

- At Centennial, the road is to be used for ADA access, has NOT been properly vetted to meet ADA standards to date. The Park District uses the term *Universal ADA* which is not a formally accepted term when actually designing and implementing ADA components of one's plans. You must be much more specific.
- The present design of the ADA access pathway looks like a long wide Luge Run, and as it nears the bottom of the slope, the proposed pathway makes a sharp left turn onto the proposed highly elevated boardwalk which then takes the user northward to a small congested interface with a south ramp leading to the dog beach, a north ramp leading down to the beach, or due east onto a huge unsightly and definitely uneeded lengthy rock trimmed pier.
- Once down at beach level, you **will** want to come back up. The current design creates a very long, heavy push back up this lengthy diagonal path.
- Parents, caregivers, ADA ussers of various ability levels whether sighted or limited sight, independent or assisted, will have a heck of a time getting back up to the tableland area and parking area of the park. They may well be carting their beach blankets, sand castle toys, diaper bags, etc., too.
- And, What it you are partially sighted, blind or using a service or guide dog on this path and are joined by an excited happy beach user pup, or a grumpy older

dog going down to the Dog Beach who prefers its own space on the ADA access path? Altercations do occur amongst our furry friends... occasionally.

- Having an elevated board walk is incompatible with being at the beach. Tower, Lloyd and Maple have very nice board walks at beach level. Nothing to accidentally fall from, and all of which get you right to the sand!

WATERWIRE

News and Stories about the Waterways of New York and New Jersey

Beach and Breakwater Overview. Photo credit: Michels Construction, Inc.

WEDG

WEDG's First Freshwater Project: Illinois Beach State Park Shoreline Stabilization Project

February 22, 2024

By Valery Aguilar, Waterfront Design Coordinator

This park became the first breakwaters, freshwater, and rural project to achieve WEDG® (Waterfront Edge Design Guidelines) Verification.

Home to six miles of natural lake shoreline and over 4,000 acres of public park, Illinois Beach State Park faces chronic erosion from Lake Michigan waves and evolving climate change impacts. With portions of the site eroding away at over 100 feet per year, the Illinois Department of Natural Resources and Capital Development with design-build team lead Moffatt & Nichol, set into motion the Illinois Beach State Park Shoreline Stabilization Project. In December 2023, this park became the first breakwaters, freshwater, and rural project to achieve WEDG® (Waterfront Edge Design Guidelines) Verification, and the first to complete its WEDG Verification using the new WEDG V3.0.

WEDG is a national rating system and gold standard for resilient, ecological, and accessible waterfront design. External specialists in engineering, architecture, and landscape architecture determined that the project exceeded the requirements for WEDG Verification, earning 146 out of 250 possible points in the standard (130 are needed to pass). In October 2023, the standard expanded to include inland rivers and lakes.

The project team devised an environmentally balanced approach to stabilize, renourish, and protect Illinois Beach State Park. This undertaking is a part of Illinois Governor J.B. Pritzker's bipartisan Rebuild Illinois capital plan intended to reinvest in the state's infrastructure. Illinois Beach State Park received $73 million for the construction of shoreline stabilization structures across three locations in the park. The result of this investment will transform the beach into an ecologically thriving environment and maintain a lasting crucial resource for parkgoers.

Renourishing & Protecting the Shoreline

To protect the beach from the threat of ongoing erosion, the project team designed 22 stone breakwaters. These breakwaters will reduce transmission of wake energy before it reaches the shoreline and upland habitat. The resilient

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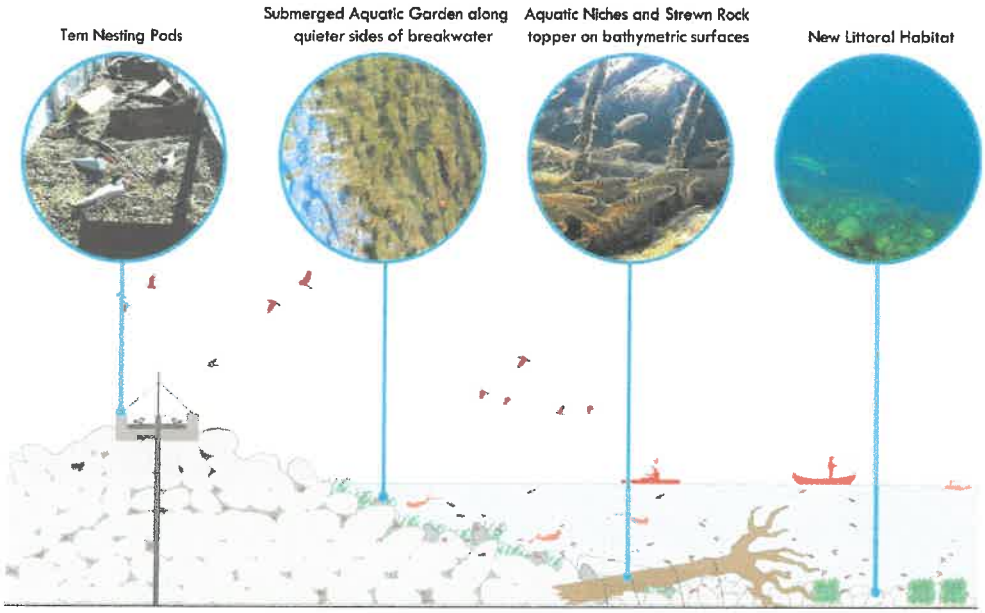
structures will also help maintain about 2.2 miles of sandy beachfront. Construction of the Kellogg Creek groin will ensure that cobbles and stone are retained, and sand is deposited at the mouth of the creek when water level rises. In turn, sand will be cleared and drained into the lake, reducing upstream flooding and restoring upland wetlands.

The project team was conscious of the park user's experience, purposefully arranging the breakwaters to allow for unobstructed waterfront views between the structures and choosing stone material for a more natural appearance. The widened beach also restored an eroded trail connection along Burnett Avenue, improving pedestrian pathways.

Building for Habitation

With an overarching goal to restore habitat, the project team integrated under and over water habitat elements into the breakwaters' design. The rough surfaces of the stone breakwaters will provide aquatic habitats for mudpuppies and yellow perch. One breakwater will host nests for Caspian and common terns with incorporated predator deterrent components to encourage colonial nesting behavior. The newly stabilized beach will also increase connectivity between the beach and internationally significant and rare wetland, which will support nesting habitat for federally endangered Great Lakes piping plovers.



Breakwater Section. Credit: Living Habitats

Repurposing Site Materials

To minimize construction debris disposal, enhance biodiversity, and protect habitat creation during construction, the project team tactically reused site materials. Salvaged concrete ecoblocks will be repurposed into vegetated blocks that will promote root structure among plant species, provide refuge for juvenile fish, and encourage vegetation growth. Repurposed driftwood and cut

trees create natural windrows along the edge of the beach fill template to create a natural barrier between the beach activities and wetland habitats.

The renourishment, resilience, and ecology of Illinois Beach State Park will allow parkgoers to enjoy a flourishing natural lake shoreline and direct connection to Lake Michigan for years to come. This project demonstrates that the leading principles of WEDG are not only possible to incorporate on freshwater sites, but imperative, too.

The Project Team

The collaborative efforts between the Illinois Department of Natural Resources and Capital Development Board with design-build team lead Moffatt & Nichol have led to the WEDG Verification of the Illinois Beach State Park Shoreline Stabilization Project. Other project partners included:

- American Surveying/Engineering: surveying
- Carmona Strategic Solutions: stakeholder outreach
- Collins Engineering: construction quality and site civil design
- Living Habitats LLC: habitat design and landscape architecture
- Michels Construction, Inc.: contractor, design-build team lead
- Moffatt & Nichol: coastal design, design team lead
- SmithGroup: bridging document design, owner's engineer
- Wang Engineering: geotechnical site investigation
- Edgewater Resources: design work in a previous phase of the project

Waterfront Alliance congratulates the whole team in its endeavor to protect Illinois Beach State Park and looks forward to the project's anticipated completion in spring 2024. View the official project case study.

Questions about the WEDG Verification process can be directed to Joseph Sutkowi, Chief Waterfront Design Officer at Waterfront Alliance, at jsutkowi@waterfrontalliance.org.

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Major Restoration Efforts Completed At Illinois Beach State Park In Lake County

View of breakwater construction via Michels Construction

BY: IAN ACHONG 7:45 AM ON OCTOBER 7, 2024

A major restoration effort has been completed along the border with Wisconsin at Illinois Beach State Park in Lake County. Announced in 2019 with work kicking off last year, the work helped restore part of the park's 6.5 mile shoreline while protecting it from future erosion. The project was led by the state with SmithGroup working on its design and Michels Construction having executed the work.

MARCH 31, 2023

A Full Breakdown of West Loop's Development Boom

MARCH 15, 2023

1000M Begins to Rise Above South Loop Skyline

View of completed portion of shoreline reconstruction via Google Maps

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The park itself contains roughly 10 percent of the state's shoreline, however rising water levels and strengthening storms have led to mass erosion which reached up to 100 feet of coast per year in some portions. Because of this, Winthrop Harbor Beach was closed a few years ago as the lake reached the parking lot, destroying crucial natural habitats in its wake.

View of eroded beach via Google Maps

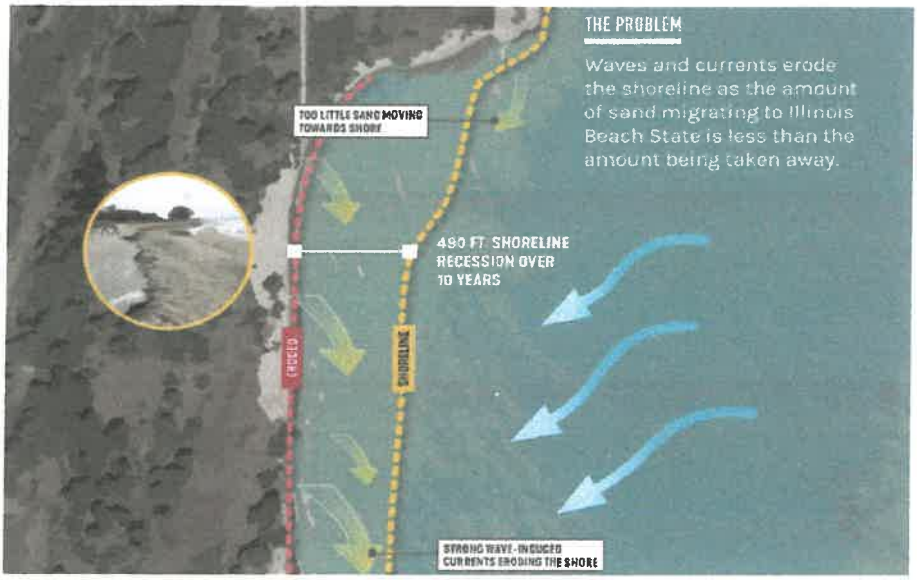


Diagram of shoreline protection plan by SmithGroup

Now, 22 off-shore rock breakwaters stand across the park protecting the newly rebuilt sand shoreline. Designed with the local ecosystem in mind, the structures required over 300,000 of stone including durable granite quarried in Wisconsin as it can endure the constant crashes of the waves. The work also included 430,000 cubic yards of sand to replenish the aforementioned beach.

View of eroded beach via Google Maps

These new breakwaters include various types of permanent nests above water and within the rock as well. They also include submerged aquatic gardens along the inner sides with sunken trees and reclaimed concrete blocks will be

used to create various habitats for species like mudpuppies and yellow perch per WTTW.

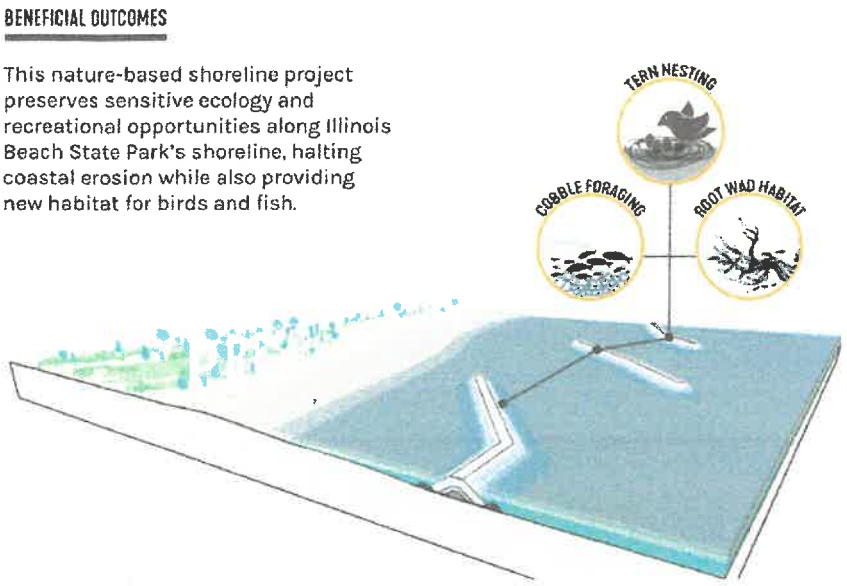
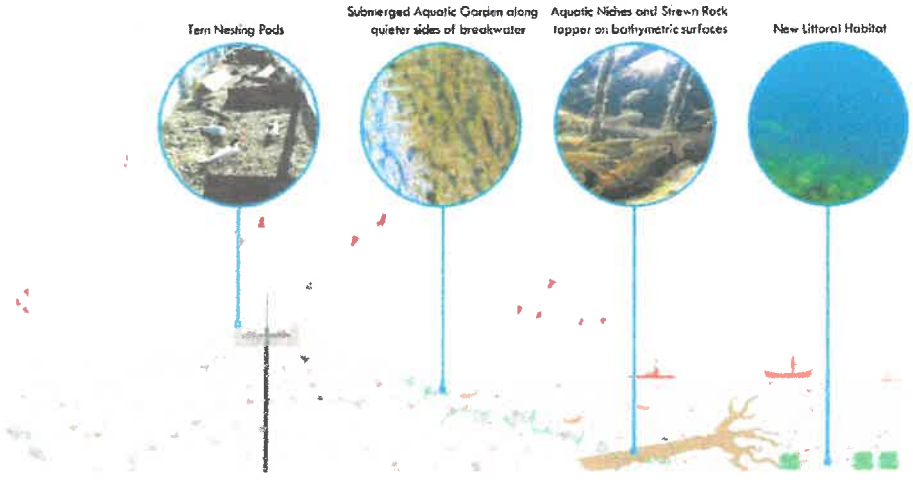


Diagram of shoreline protection plan by SmithGroup

Meanwhile the restored beaches, dunes, and coastal vegetation creates a new habitat for endangered species like the piping plover. Locals also hope this will bolster tourism to the park from the surrounding areas. With a total cost of $73 million, the project was funded by the state's $45 billion infrastructure plan which mostly went to roads and bridges.



Breakwater diagram via State of Illinois

However this isn't the only major project working towards the benefit of the Great Lakes recently. Earlier this year a bi-partisan bill was introduced in Michigan in order to set aside $200 million towards fully mapping the bottom of all

five lakes. Efforts for this are being led by the Great Lakes Observing System who will utilize high-definition equipment.

View of beach during construction via Google Maps

Not much is known about the bottom's of these massive bodies of water that cover 94,250 square miles, with the last effort to fully map them being in the 1970s. Knowing this information will help study how erosion is occurring, underwater hazards and infrastructure, as well as identify fisheries and inform storm surge and flooding models.

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To: Ann Klaassen
Subject: FW: ADA questions for Village review of WPD's Centennial Plans
Date: Monday, February 3, 2025 3:26:01 PM
Attachments: IMG_2590.png
What is Universal Design – The UD Project.pdf
ChicagoADACommitteeADAGtLakesCenter.pdf
CTAEvanstonADAAccess.pdf
EquitableRestroomsActBabyChanging.pdf

From: Kris Schriesheim <[redacted]>
Sent: Wednesday, January 29, 2025 5:38 PM
To: Ann Klaassen <AKlaassen@winnetka.org>
Subject: Re: ADA questions for Village review of WPD's Centennial Plans

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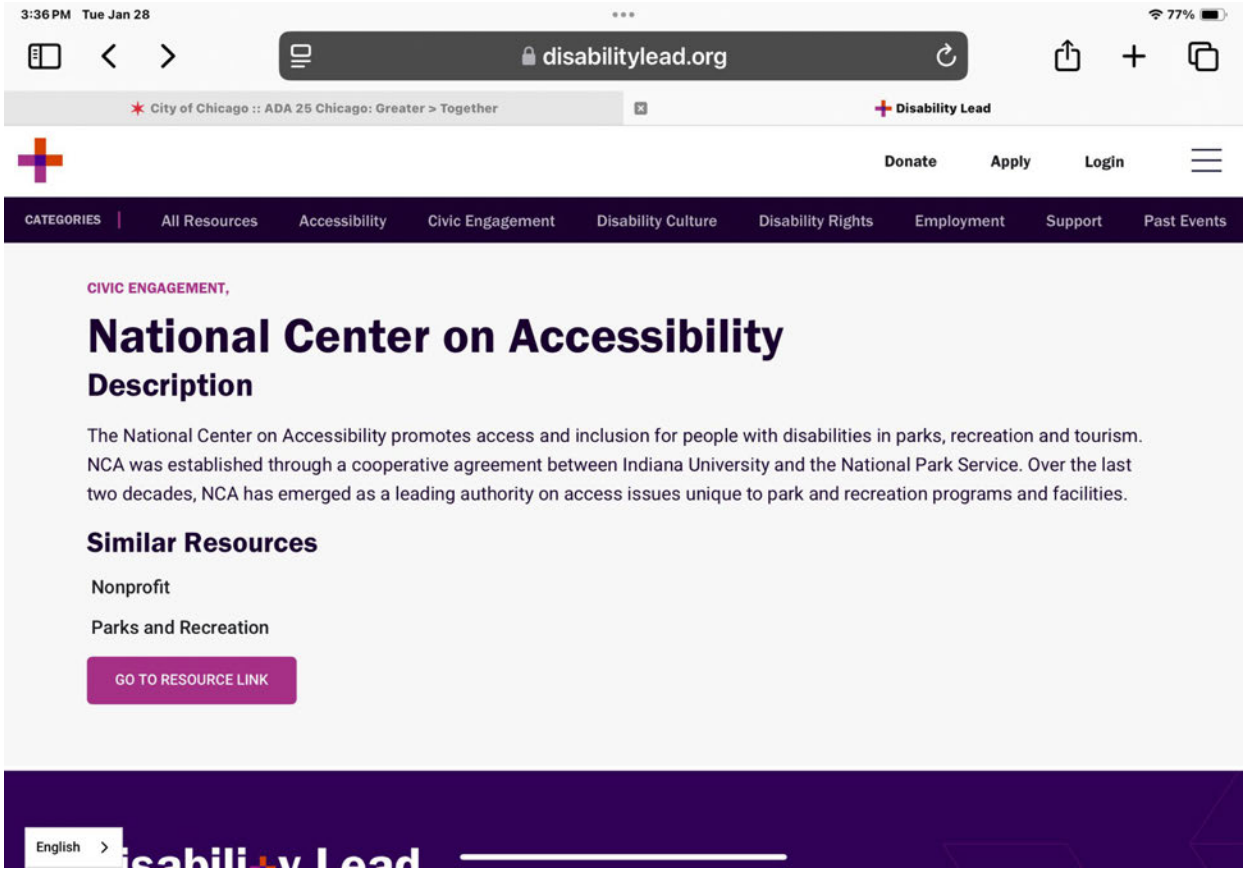
Hello:
Would you please share my email below with the Plan Commission? I am relocating my attachments to the bottom of this email for them. Thank you for your patience.
Sincerely,
Kris Schriesheim



Sent from my iPad

> On Jan 29, 2025, at 4:20 PM, Kris Schriesheim <[redacted]> wrote:
>
> Hello Ann:
> I am sending you the attached information in hopes that the Village will assess the best course of action regarding WPD's seemingly off-point assertion that its Centennial plans are based on "Universal Design."
>
> Based on what I have read, "Universal Design" is applicable to housing construction, private stadiums (e.g., Ryan Field) and other private construction projects.

As the Village already knows, units of local government like WPD are required to follow federal and state ADA laws, regulations and guidelines. WPD's plans do not conform to these guidelines, as laid out in my and other Winnetkans' prior submissions to Zoning and Plan (no ADA access to dog beach, improperly pitched Beach Access Route (5% max under ADA), other questionable design elements).
.
My suggestion would be for the Village to have ADA experts review WPD's designs, so that the Village Trustees and commissions are assured that WPD's designs meet what is legally required for public facilities.

Here are some resources that I've located:
1. disabilitylead.org
2. National Center on Accessibility, which has a particular expertise in reviewing park project designs.
3. Expert explanation of what Universal Design is and where it may be used:

<What is Universal Design? – The UD Project.pdf>

4. Chicago Park District's project descriptions encompassing ADA designs:

<Accessibility | Chicago Park District.pdf>

5. O'Hare ADA project elements, with list of local ADA-knowledgeable persons and groups on final page:

<ChicagoADACommitteeADAGtLakesCenter.pdf>

6. Daily Northwestern article delineates distinction between City of Evanston's obligation to provide appropriate ADA features, versus private institution Northwestern University's incorporation of Universal Design elements into Ryan Field project.

<CTAEvanstonADAAccess.pdf>

Thank you very much.
Sincerely,
Kris Schriesheim
Winnetka resident and taxpayer

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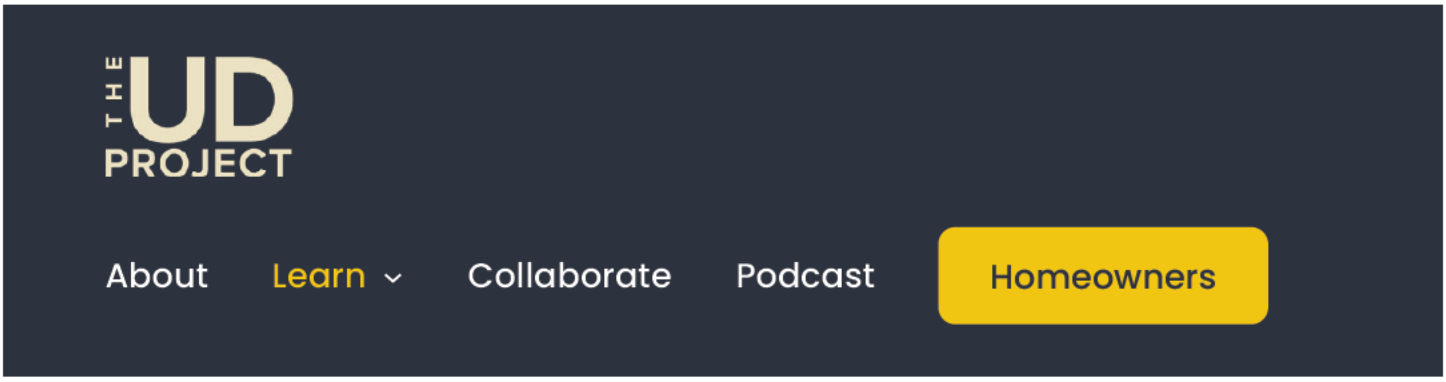
Sent from my iPad


THE UD PROJECT
About
Learn
Collaborate
Podcast
Homeowners

(UD = Universal Design)

What is Universal Design?

"Universal design is design that is usable by all people, to the greatest extent possible, without the need for adaptation or specialized design."

–Ron Mace

Meaning what? ↓

Common questions ↓

Ronald Lawrence Mace (August 3, 1942 – June 29, 1998) was an American architect, product designer, educator, and consultant. His work influenced national legislation, including the Fair Housing Amendments Act of 1988 and the Americans with Disabilities Act of 1990. Mace coined the term "universal design," advocating for designing all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless of age, ability, or status in life.

Let’s unpack the definition of universal design:

Part 1: “Design that is usable by all people…”

The biggest challenge of designing for “all people” is ensuring it’s functional for people with diverse abilities. Do it well, and the results will be usable and marketable to everyone.

Universal design is often misunderstood as only being for people with disabilities, but disability is part of the human condition. It’s not a diagnosis. Our bodies don’t always work as they

should.

Universal design aims to make products and environments accessible and usable by everyone, regardless of age, ability, or status in life. The focus should be on creating intuitive, flexible, simple designs, minimizing physical effort, and accommodating all users through perceptible information presentation. UD emphasizes error tolerance and adequate space for approach and use, ensuring safety and comfort for all.

Part 2: “To the greatest extent possible…”

Something universally designed will work for as many people as possible, including those with any impairment of the body or mind. UD will be functional for anyone, regardless of if

12. Limited stamina.
13. Difficulty sitting.
14. Limited coordination.
15. Limited sensation.
16. Limited balance.

he or she has…

1. Difficulty interpreting or processing information.
2. A susceptibility to fainting, dizziness, or seizures.
3. A speech impediment.
4. Difficulty processing sensory input.
5. Blindness (loss of sight).
6. Low vision (limited sight).
7. Deafness (loss of hearing).
8. A hearing impairment.
9. A mental health impairment.
10. A need for caregiver assistance.
11. Difficulty moving the neck or head.
17. Loss of upper extremity motor control.
18. Loss of lower extremity motor control.
19. Difficulty reaching, lifting, or carrying items.
20. Difficulty bending, kneeling, etc.
21. A reliance on walking aids or mobility devices.
22. Difficulty manipulating items.
23. Chemical sensitivities.
24. An extreme height or weight.

Part 3: “Without the need for adaptation or specialized design.”

Adaptation is a process in which an individual changes how he or she interacts with something. This often includes an assistive product or a different technique.

Specialized design is specific to a demographic or need. If elements in a design serve no purpose for some people, the design may be accessible [to some] but not universal [for all].

Universal design provides usability to everyone.

Important:

Some people have significant functional needs that require specialized design. If universal design is the foundation, adding specialized features (i.e., adaptations) as needed is much easier and more cost-effective than modifying an inaccessible design.

Our Perspective

Common questions.

Q. Is universal accessibility even possible?

Yes, but this requires an understanding of universal accessibility. There is no “one-size-fits-all” solution. Universal design is about creating as much usability as possible for as many people as possible, with options for easy adaptation for specific needs.

Q. Is universal design only for homes?

Q. Is universal design expensive?

Q. What universal design features

are most important?

Q. Why universal design when we have the ADA?

Q. Why isn't housing regulated for accessibility?

Q. Can't people modify homes to meet their needs?

Q. Don't builders already do universal design?

Q. Why are occupational therapists needed?

Q. Isn't universal design an inefficient use of space?

Q. Isn't universal design only useful for the disabled?

Q. Won't universal design make homes ugly?

Q. What if I don't need accessibility at home?

Q. Won't this lead to government overreach?

Q. Does universal design really matter?

Q. What are the principles of universal design?

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AN ACT concerning health.

Be it enacted by the People of the State of Illinois, represented in the General Assembly:

Section 5. The Equitable Restrooms Act is amended by adding Section 18 as follows:

(410 ILCS 35/18 new)

Sec. 18. Baby changing stations.

(a) As used in this Section:

"Public building" means:

(1) a place of public accommodation, as that term is defined in Section 10;

(2) a State building open to the public;

(3) a retail store of more than 5,000 square feet that contains a restroom open to the public; or

(4) a restaurant that meets the following criteria: (A) the restaurant has an occupancy of at least 60 persons, as determined by the State Fire Marshal; (B) the restaurant contains a restroom that is open to the public; and (C) the restaurant's entrance is not within 300 feet of a centrally located facility with a baby diaper changing station that is open to the public.

"Restaurant" means a business having sales of ready-to-eat food for immediate consumption comprising at least 51% of the

total sales, excluding the sale of liquor.

(b) Every public building with restrooms open and accessible to the public shall have:

(1) at least one safe, sanitary, convenient, and publicly accessible baby diaper changing station that is accessible to women entering a restroom provided for use by women and at least one safe, sanitary, convenient, and publicly accessible baby diaper changing station that is accessible to men entering a restroom provided for use by men; or

(2) at least one safe, sanitary, convenient, and publicly accessible baby diaper changing station that is accessible to both men and women.

This requirement is in addition to any accommodations that may be made for individuals in accordance with any local, State, or federal laws regarding access for persons with disabilities and to existing fire, health, and safety codes or standards.

(c) Subsection (b) does not apply to the following:

(1) An industrial building, nightclub, or bar that does not permit anyone who is under 18 years of age to enter the premises.

(2) A restroom located in a health facility, if the restroom is intended for the use of one patient or resident at a time.

(3) A renovation, if a local building permitting entity

or building inspector determines that the installation of a baby diaper changing station is not feasible or would result in a failure to comply with applicable building standards governing the right of access for persons with disabilities. The permitting entity or building inspector may grant an exemption from the requirements of this subsection under those circumstances.

(d) A public restroom that is open and accessible to the public and includes a baby diaper changing station shall include signage at or near the entrance to the baby changing station indicating the location of the baby diaper changing station.

(e) This Section shall not be enforceable by a private right of action.

City of Chicago Forms New Committee To Increase Accessibility for Passengers with Disabilities at Chicago's Airport

CHICAGO—People with Disabilities (MOPD) have convened a new advisory group aimed at optimizing accessibility features at both O'Hare and Midway International Airports. The Airport Advisory Committee brings together 10 members of government and advocacy groups to seek input from travelers with disabilities and identify opportunities for removing barriers, expanding accessibility features and making it easier to access Chicago's airports.

One of the newest airport accessibility enhancements opened this past month: a new fully equipped, accessible bathroom which makes O'Hare the first airport in North America to offer this level of service for disabled passengers.

"We are committed to working with the Mayor's Office for People with Disabilities (MOPD) and all our airport partners to provide the highest level of customer service for all passengers visiting Chicago's airports," said Jamie L. Rhee, Commissioner to the CDA. "With our capital programs focused on elevating the travel experience, we will work with experts of this Committee to advise on best practices in accessibility and how we can build better facilities that work for everyone. O'Hare's new Changing Places restroom is

just the first step, and the Airport Advisory Committee will be the catalyst for additional innovations going forward."

The Committee has convened its first meeting, and will make recommendations on best practices for incorporating accommodations to meet the needs of all passengers flying through O'Hare and Midway. The Committee will look at ways to remove physical barriers, communications barriers, creating additional wayfinding signage, as well as the need for increased staff training. This includes evaluation of ADA and Title VI codes, set forth regulations for airport facilities across the country, and how Chicago can leverage and build upon them with modern new features to improve ease for travelers with disabilities.

"We are pleased to launch the new advisory committee that will seek the input from travelers with various types of disabilities," said MOPD

Commissioner Karen Tamley. "By listening to travelers and evaluating best practices in airport accessibility, we can move closer to our goal of making Chicago's airports the most accessible in the nation."

The new Changing Places Restroom was designed by the CDA, with input by MOPD, to better serve all travelers with disabilities and limited mobility. Located at O'Hare's Terminal 2, this specialized 110 square-foot facility is equipped with an adult, adjustable changing table, passenger lift system, an accessible roll-in and transfer shower, and accessible toilet and sink.

"We are very excited that Chicago has opened a Changing Places Restroom at O'Hare International Airport," said Sabrina Kimball, founder and CEO of Universal Changing Places, a grassroots movement geared at enhancing accessibility in public spaces. "This new facility provides everything needed by individuals who have self-care issues or are non-ambulatory in order to travel while having access to a changing facility that is safe and clean. We commend Chicago for leading the nation in this important step forward and for all its efforts to improve accessibility for people with disabilities. Way to go O'Hare!"

The facility features a motorized passenger lift with a detachable sling and ample space for maneuvering allows passengers who cannot stand or walk to use the restroom comfortably. These components, hallmarks of the Changing Places facility, exceed federal, state, and local regulations for accessibility provisions.

"This truly is a groundbreaking facility for O'Hare--the first of its kind specialized restroom (Changing Place) for disabled people for any airport in North America," said Tony Clough, MBE, Consultant, Changing Places, a leading advocacy group in the UK. "It is great to see that the airport and the City of Chicago have gone above and beyond the minimum requirements to encourage more disabled people their families and friends to travel by air."

The new Airports Advisory Committee will ensure that the City of Chicago increases accessibility for all members of the traveling public as both airports prepare to grow and modernize. The Committee will have its next meeting in February, and will guide its recommendations by first developing a framework for incorporating accessibility on airport facility projects.

In addition to the City of Chicago, a full list of members of the new Committee is below:

Access Living

ADA Great Lakes Center

Chicago Community Trust

Chicago Lighthouse

Equip for Equality

Helen Keller Center for the Deaf and Blind

Illinois Commerce Commission

State of Illinois

CTA yet to improve accessibility at Evanston ‘L’ stations

Evanston resident Michael Pearce, who uses a wheelchair, used to ride the CTA’s Purple Line to visit his grandparents. However, Pearce said he ran into so many issues around platform accessibility that he has stopped using the trains.

“When I pressed the button to call for elevator assistance, I’ve had no one come,” Pearce said. “I don’t want to run into those issues again.”

He added that sometimes stations’ elevators don’t work at all.

The Purple Line currently has three stations that are considered accessible based on the Americans with Disabilities Act. ADA standards include ensuring the scope of space accessible to everyone is the same.

The Linden station in Wilmette has a ramp and the Davis and Howard stations have elevators. Other stations on the line do not currently have either.

The Chicago Transit Authority's Red and Purple Modernization Project aims to improve accessibility in stations across the Red and Purple lines. The plan aims to widen platforms for access and ensure stations are accessible in compliance with the ADA, according to a CTA presentation given to the city's ADA Advisory Commission in June.

The project is currently in Phase 1, which aims to improve the Belmont station and stations between Lawrence and Bryn Mawr on the Red Line, according to CTA spokesperson Tammy Chase.

The phase's pre-stage began in 2019, and construction is projected to be completed by the end of 2025.

Evanston's Purple Line stations are part of later phases of the project, Chase said.

"The timing and funding for that work has not yet been determined," she wrote in an email to The Daily.

Evanston resident Julia Pantoga, a member of the Commission on Aging and Disabilities, said it seems like the CTA does not prioritize helping "vulnerable populations."

While she can climb stairs independently, Pantoga said her disability requires her to use a walker for long distances.

When she has to take the train, Pantoga doesn't always bring her walker. At a certain point, she said it is so inconvenient and exhausting to use the CTA that she would rather pay for a cab. However, not everyone with a disability has that option.

"If someone is in a wheelchair, they cannot take a cab because their wheelchairs are too heavy and too big to get in a car," she said.

Pantoga said the CTA is basing its plans for improvement on previous station use data. As a result, the agency isn't aware of the increase in demand Central station will face once Ryan Field is complete in 2026, she said.

Lauren Ruiz, the city's ADA coordinator, said her priority is making every station accessible as soon as possible, but Central station is high on the list. The stadium itself will incorporate universal design standards to be accessible for people with disabilities and those with strollers or arthritic knees.

"The stadium might be the most accessible stadium, but if people can't get to that stadium, that takes away from it," Ruiz said.

She said the community's main accessibility concerns — based on surveys published by the city — are regarding transportation and sidewalk accessibility. In response, the city launched a sidewalk improvement program to create a safe, non-vehicular transportation option for community members.

Pearce said wider platforms, more responsive call-buttons and

reliable door-platform levelers would improve the CTA's accessibility.

For Pantoga, functioning elevators are key. She said sometimes, if one elevator isn't working, riders with accessibility needs have to cross the street, go up the elevator on the wrong side and ride in the opposite direction until they reach a station with two working elevators to make the switch.

No matter how long it takes, Pantoga said accessibility improvements are crucial.

"They take a long time, but I also understand there's a lot involved with these things with the city and the state and the feds, and it takes a lot of money and time," Pantoga added. "But it is very rough on people."

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Email: merylli2027@u.northwestern.edu

Related Stories:

— City Council to vote on sustainability standards for large buildings

— Despite financial strain, Pace seeks to revitalize bus network

— As transit faces uncertain future, Evanston advocates question fixes

Memorandum

To:	Honorable Mayor and Members of the City Council
From:	Lara Biggs, City Engineer
Subject:	Dog Beach ADA Access Discussion
Date:	January 27, 2025

Recommended Action:
Staff will provide an update on the Dog Beach ADA access design and request feedback on how to proceed with finalizing the project design and rebidding the project for construction.

Council Action:
For Discussion

Summary:
City Council directed staff in 2022 to reopen the dog beach that had closed in 2016, understanding that ADA access could not be immediately available, but also directing staff to work towards building it. State and federal statutes legally require this access; violating the ADA requirements is considered a civil rights violation. Since the City Council directed the staff to open the dog beach, there have been 15 engagements regarding the ADA access ramp with the City Council, commissions, stakeholders, and the public. The list of meetings has been included as an attachment.

The proposed dog beach ADA access was advertised for bid in spring 2024. A recommendation for the construction contract award was first brought to the City Council on June 24, 2024. After several council and commission discussions, the bid expired with no action. The original schedule was to begin construction in the fall of 2024, with completion by December 31, 2024.

At the July 22, 2024, meeting, the City Council approved a motion to direct staff to keep the same general design but look for options to value engineer and/or add ADA parking as close to the dog beach entrance as feasible. Following the city council meeting, Councilmember Kelly requested an additional onsite meeting with the design consultant, SmithGroup. She also requested staff meet with an outside ADA consultant, John McGovern of WT Group. Coordinating and attending these meetings and incorporating the feedback extended the timeline for staff to return to the City Council with the requested information on value engineering. However, at this point, staff has worked with SmithGroup to identify three options for moving forward with required ADA access.

Option 1 - Rebid the Current Design

This option would keep the same design as was previously bid in Spring 2024. A summary of the benefits and challenges of this option is shown in the table below:

Option 1 - Rebid Current Design	
Benefits	**Challenges**
- Bid package can be easily deployed with minimal updates - Preserves all existing design features	- Higher than expected construction costs

This option would require an engineering change order with SmithGroup of $12,300.

Bid prices often increase when rebidding the same project, even if the scope has not been modified. In addition, Chicago construction inflation has been approximately 5% in the last year. Therefore, an estimated bid price would be $765,000, an estimated 10% increase over last year's bid price of $693,577.

Option 2 - Value Engineer the Current Design

Based on the direction provided by the City Council on 7/22/24, staff worked with SmithGroup to look at options to reduce scope while keeping the same general design in order to potentially save on construction. SmithGroup identified multiple options for value engineering as follows:

Item	Description	Impact	Cost Implication
1	Replace boardwalk with concrete path	Increases path impact to beach plantings	$$$$
2	Remove electrical scope (safety lighting, electrical strike gate)	Decreases comfort and ability to use gate at night, removes ability to install a visual disability-friendly gate lock	$$$
3	Reduce path length (and rock revetment) on dog beach by 25%	Increases risk of pathway undermining during extreme high lake levels	$$
4	Reduce path length on dog beach by 50%		$$$
5	Lower protective revetment by 14 inches		$$
6	Eliminate plaza benches	Eliminates comfort seating	$
7	Eliminate connection path, steps and handrail	Eliminates the direct stair access for easier (non-ADA) access from the south.	$

*$ = < $10,000 COST REDUCTION
$$ = $10-25,000 COST REDUCTION
$$$ = $25-50,000 COST REDUCTION
$$$$ = $50- 100,000 COST REDUCTION
$$$$$ = > $100,000 COST REDUCTION
+ = $0-$20,000 COST INCREASE

A more detailed evaluation of the items listed above is included as an attachment. The proposed layout is included as an attachment to this memo. A summary of the benefits and challenges of this option is shown in the table below:

Option 2 - Value Engineer Current Design	
Benefits	**Challenges**
- Preserves the dog wash area - Should result in construction cost savings	- Requires additional design work - Eliminates design features that increased functionality - Reduces resilience to wave action

This option would require an engineering change order with SmithGroup of $22,500.

Rebidding the same project may increase costs, but removing one or more of the features described above will likely offset this increase and save additional funds. If this option is pursued, staff will request feedback on which features to value engineer.

Option 3 - Modify the Current Design

Working with SmithGroup, staff developed an option to significantly shorten the section of the path on the adjacent beach dune area. While shortening the path, this option significantly increases the slope of the path, although the pathway remains ADA compliant. In addition, while the current design has a relatively low impact on a larger area of the beach, the area of the beach by the proposed path will need significant regrading, temporarily removing all plant material from this area of the dunes. (Replanting would be included in the construction contract.) However, shortening the pathway on the adjacent beach and the dog beach itself will result in cost savings. The proposed layout is included as an attachment to this memo. A summary of the benefits and challenges of this option is presented below:

Option 3 - Modify the Current Design	
Benefits	**Challenges**
- Minimizes project footprint in naturalized landscape - Should result in construction cost savings	- Requires additional design work - Smaller area of the beach impacted, but impact is much higher - Eliminates most design features that increased functionality - Significantly decreases access for all users to safely enjoy naturalized dune area - Eliminates dog wash area - Reduces resilience to wave action

This option would require an engineering change order with SmithGroup of $19,800.

While rebidding the same project can increase the cost, the significant decrease in scope makes a cost decrease more likely.

ADA Parking Options:

As part of the city council motion provided on 7/22/24, staff was directed to look at options for adding additional accessible parking close to the proposed dog beach entrance. Staff evaluated two options for adding accessible parking.

Option A - Locate new ADA parking by Clark Street Beach Entrance

This parking would be located on the landscaped island closest to the proposed entrance to the new Dog Beach ADA Access path. Since the old entrance to the dog beach will be closed off as part of the construction, this location will be closest to the new accessible dog beach entrance, regardless of which option is selected. However, the parking will be located within the turn-around/drop-off area for Clark Street Beach, which may make that area dense. It

may also require the removal of 1-2 small trees, which will be replaced in the adjacent park area. The cost of this parking is estimated at $15,000.

Option B - Locate new ADA parking in the Church Street Boat Ramp Parking Lot

This parking would be located in the gated Church Street Boat Ramp Parking Lot. Two ADA spaces would be striped at the north end of the diagonal parking adjacent to the turnaround area. Because this lot serves the Church Street Boat Ramp, an additional two ADA spaces would need to be striped to the parking closest to the boat ramp at the south end of the parking lot. Parking spaces along the rock revetment would be removed, and that area would be striped as an accessible pedestrian walkway. The surface of the parking lot has deteriorated, so limited patching of the parking lot may be needed. The minimum cost of this option (based on minimal pavement marking) is $35,000, but the cost could be significantly higher, depending on the need to patch the pavement.

Staff is not aware of a legal requirement to supply additional ADA parking, and 3 ADA parking spaces already exist within 250 feet of the proposed dog beach entrance. However, if additional ADA parking is desired, staff recommends proceeding with Option A, based on adjacency to the proposed dog beach entrance and cost. A figure showing the two parking options is shown below.

Feedback from WT Group:
At Councilmember Kelly's request, staff met with John McGovern and Tanya Scheibe from WT Group to discuss the state and federal requirements for ADA accessibility. During the discussion, the consultants confirmed that the design proposed by SmithGroup seemed to be an appropriate way of meeting the legal requirements.

Next Steps:
Staff requests feedback on the preferred option for the legally required dog beach ADA access. Based on the selected option, staff will bring a change order for engineering services to the next City Council meeting. Staff will then work with SmithGroup to update the drawings and bid on the project, with the goal of beginning construction in late summer/early fall.

Attachments:
Dog Beach Meeting List
Proposed Layouts of Different Options
Value Engineering Options

Dog Beach Public and Stakeholder Coordination Meetings Lists:

Dog Beach ADA Access Meetings with Stakeholders and Commissions (7 total):

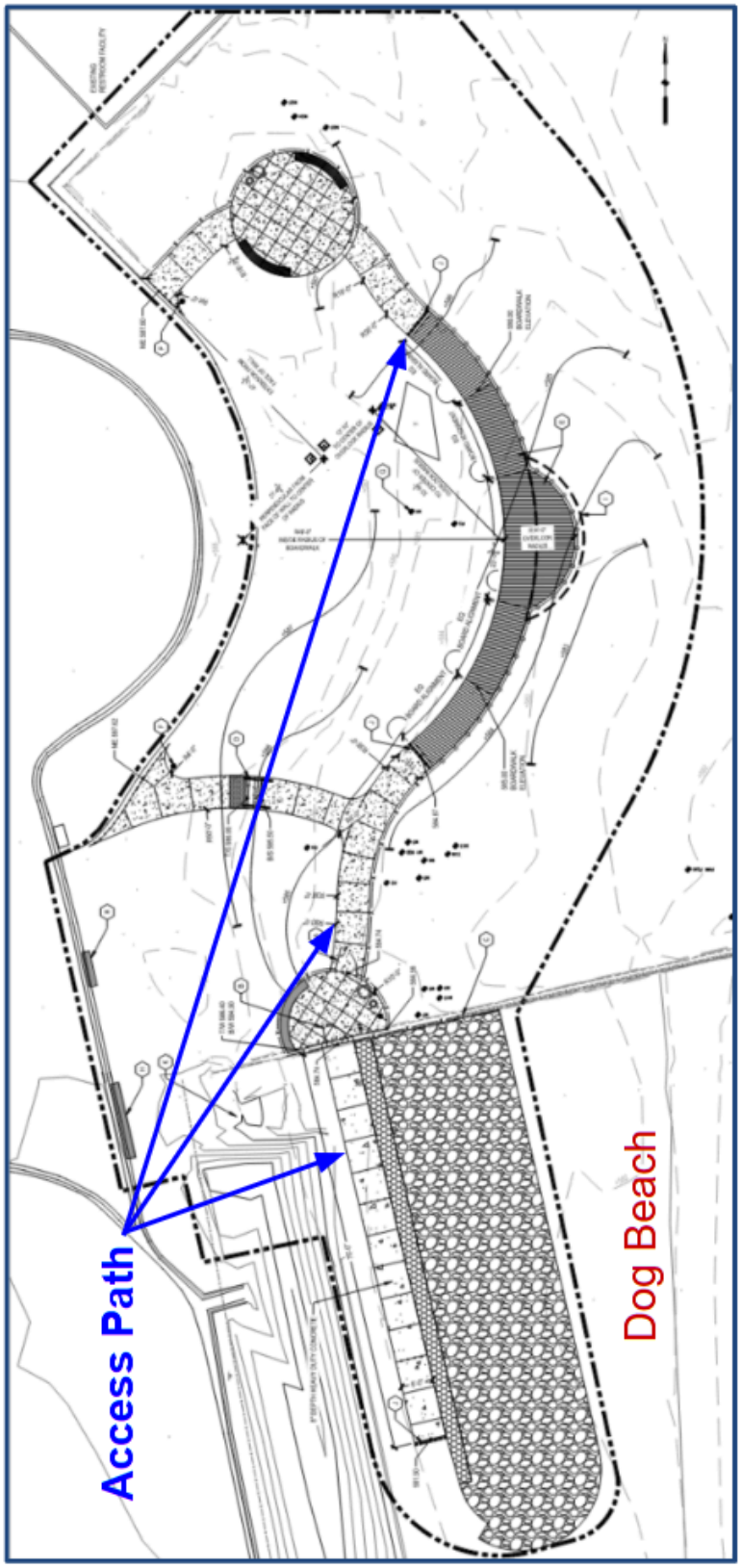
Date	Meeting Type	Description
03/08/23 03/23/23	Community Members	Resolve concerns over the potential impacts to sensitive plant materials on the adjacent beach.
05/30/23	Dog Beach Users, Select members of ADA Advisory Committee	Review ADA access design and receive feedback.
06/07/23	Plant Consultant, Community Members	Discussion of how to protect sensitive plants, resulting in the addition of a section of boardwalk.
07/02/24	Preservation Commission	Staff met with the Preservation Commission for discussion (a Certificate of Appropriateness had been previously approved so there was no item to vote on).
08/28/24	Cm. Kelly, Cm. Nieuwsma, Cm. Burns, John Kennedy	Staff and SmithGroup met onsite to answer questions and hear design feedback.
10/30/24	WT Group	At Cm. Kelly's request, staff met with John McGovern and his colleague from WT Group, a consulting firm that does ADA access work to receive feedback.

Dog Beach ADA Access Meetings with Administration & Public Works Committee and City Council (8 total):

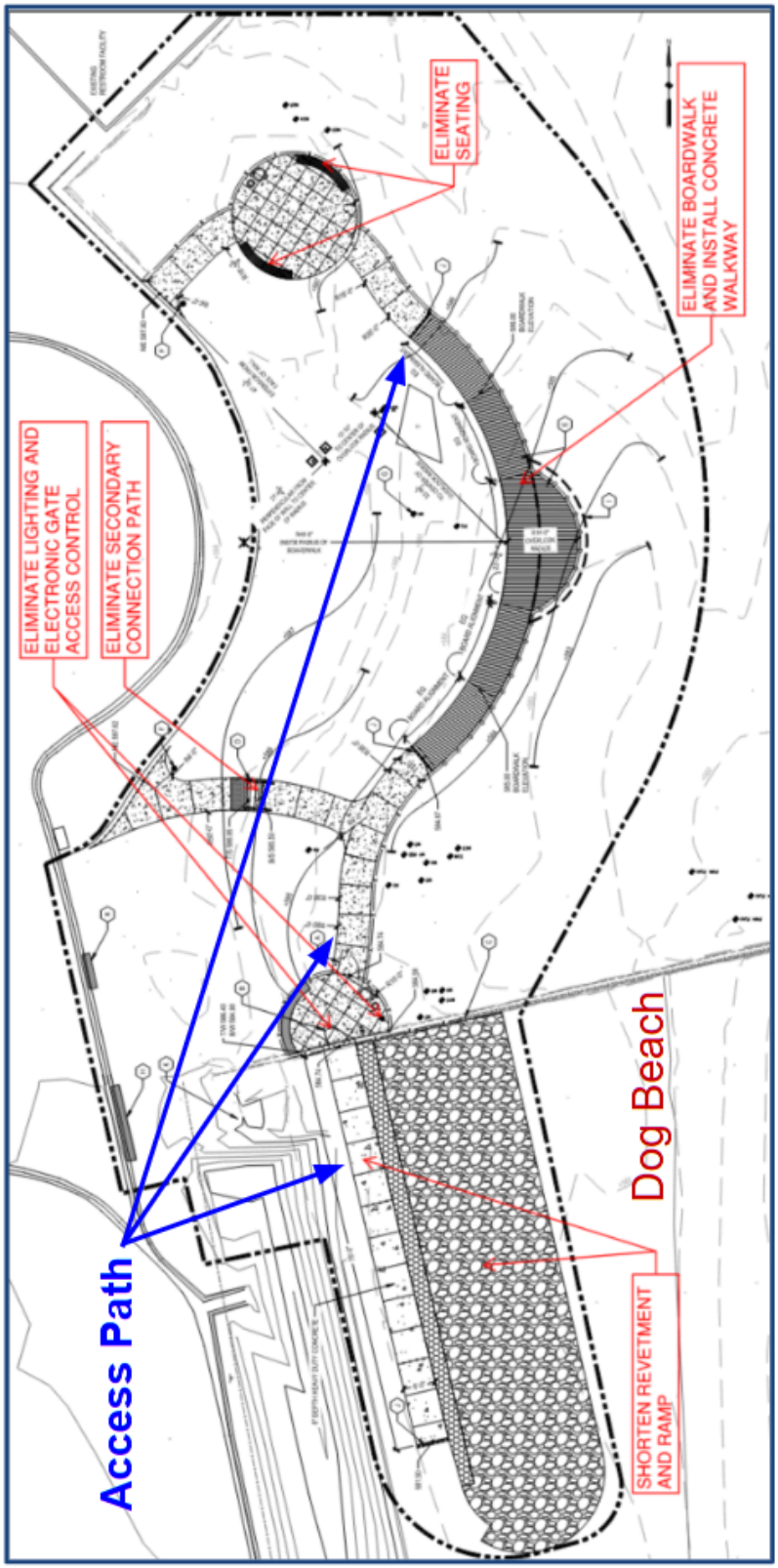
Date	Meeting Type	Description
10/10/22	City Council	Staff was directed to open the dog beach and move forward with designing and constructing the ADA access.
11/14/22	City Council	Approval of Change Order 1 to the Shoreline Stabilization study contract with SmithGroup to design ADA access to the Dog Beach.
02/27/23	City Council	SmithGroup presented two concept solutions for the potential design of the ADA access. City Council directed staff to proceed with the less expensive option to build the majority of the path on the adjacent dune area.
04/24/23	City Council	Approval of Change Order 3 with SmithGroup to authorize consulting services by SmithGroup to develop construction documents, bid and oversee construction of the proposed ADA access.

Date	Meeting Type	Description
10/09/24	City Council	Approval of Change Order 4 with SmithGroup to incorporate boardwalk and other elements to help protect plants into the construction documents
06/24/24	Administration and Public Works Committee	Recommendation of construction award. Staff was directed to meet with the Preservation Commission for review of the proposed improvements.
07/08/24	City Council	Recommendation of construction award. Staff advised City Council that further delays in award of the construction contract would result in the bid expiring and no longer being valid. The item was tabled to the July 22 City Council meeting.
07/22/24	City Council	Staff informed the City Council the bid was no longer valid. Staff was directed via an approved motion from City Council to keep the same general design but look for options to value engineer and/or add ADA parking as close to the dog beach entrance as feasible.

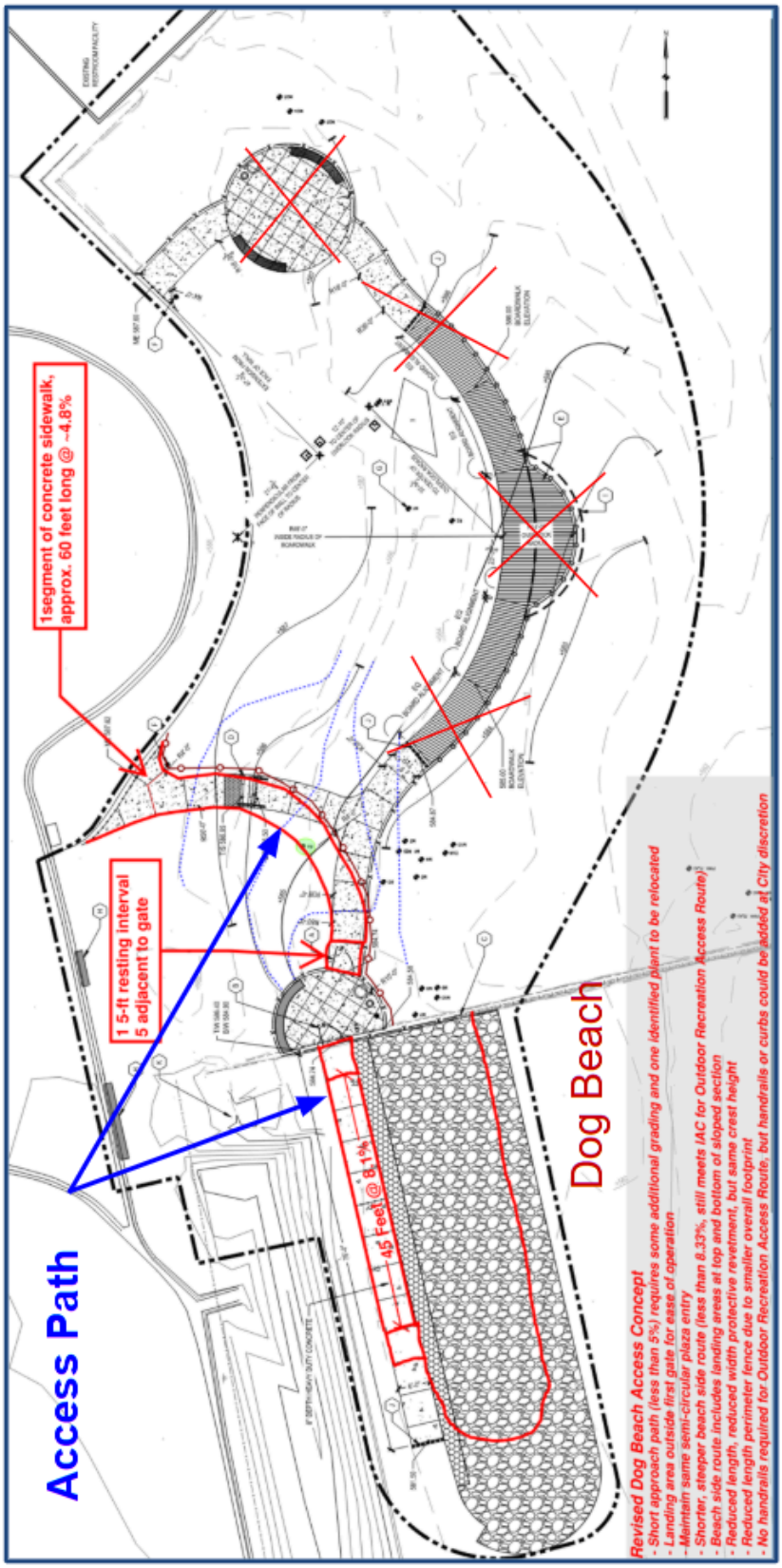
Proposed Layout - Option 1 - Rebid the Current Design



Proposed Layout - Option 2 - Value Engineer the Current Design



Proposed Layout - Option 3 - Modify the Current Design

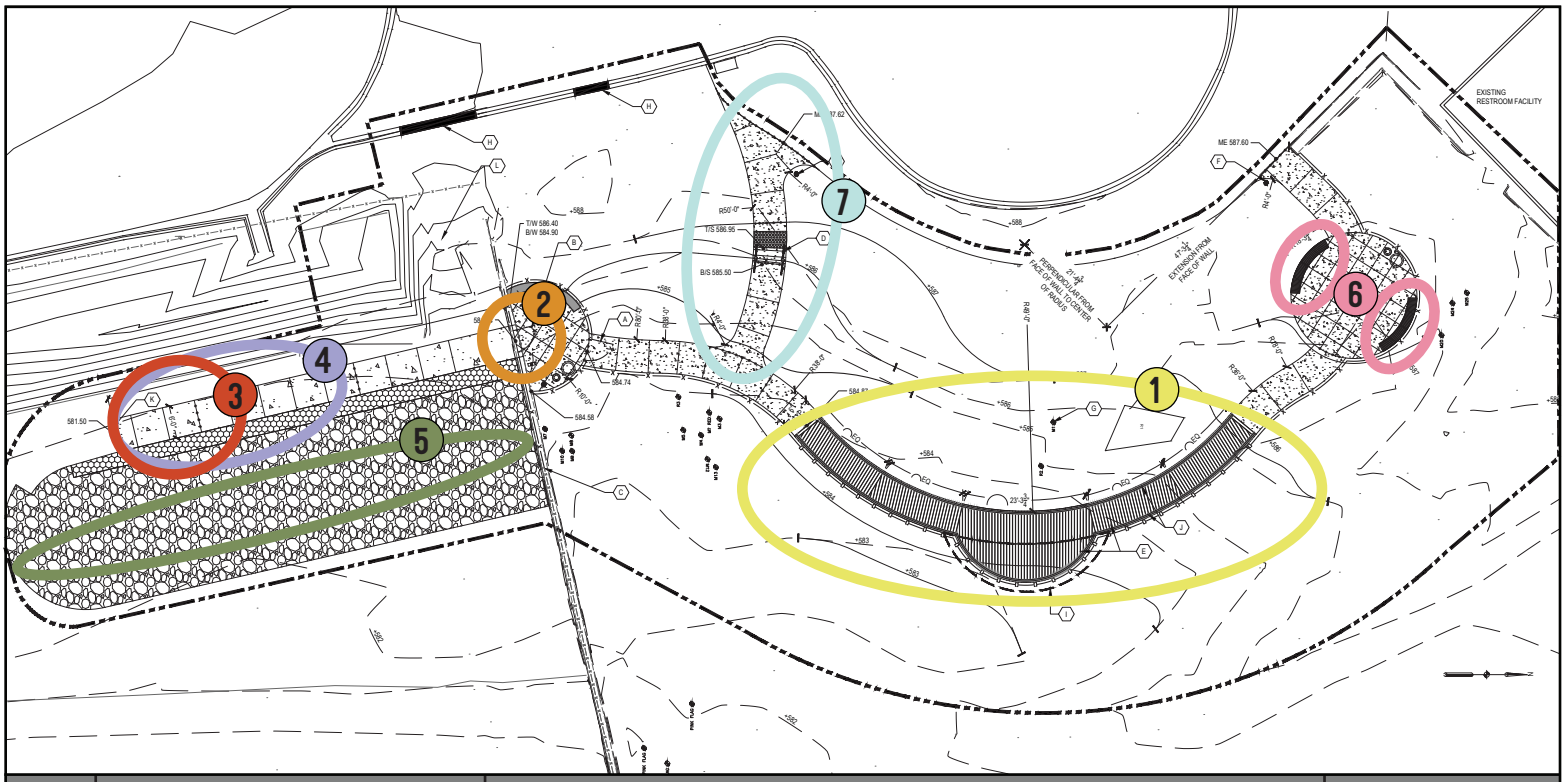


CITY OF EVANSTON DOG BEACH ACCESS

REDESIGN COST SAVINGS AND IMPLICATIONS

For Review

08/27/2024 3:22:25 PM



#	SITE ELEMENT	DESCRIPTION	COST IMPLICATION
-	ESCALATION FROM FALL 2024 TO SUMMER 2025	Delaying the project for approximately 9 months will likely increase the cost of the work. Allowing summer construction would offset this increase by reducing weather-related risk for the contractor.	+*
1	REPLACE BOARDWALK WITH CONCRETE PATH	The boardwalk, with the concrete footings, durable hardwood surface, and specialty fencing adds significant cost to the project. However, eliminating the boardwalk will require additional grading, and add to the area of disturbance.	$$$$*
2	REMOVE ELECTRICAL SCOPE (LIGHTING, ELECTRICAL STRIKE GATE)	Eliminating the electrical service would require a different access system (e.g. push button lock as is currently installed).	$$$*
3	REDUCE PATH LENGTH ON DOG BEACH BY 25%	Reducing the length of the path (and protective revetment) on the dog beach increases the risk that the path could be undermined under extreme high lake levels.	$$*
4	REDUCE PATH LENGTH ON DOG BEACH BY 50%	Reducing the length of the path (and protective revetment) on the dog beach increases the risk that the path could be undermined under extreme high lake levels.	$$$*
5	LOWER PROTECTIVE REVETMENT CREST BY 14 INCHES	Reducing the length of the path (and protective revetment) on the dog beach increases the risk that the path could be undermined under extreme high lake levels.	$$*
6	ELIMINATE PLAZA BENCHES	This change only affects the northern plaza close to the clark street beach house. The proposed seating near the groin wall is integral with a necessary retaining wall.	$*
7	ELIMINATE CONNECTION PATH, STEPS AND HANDRAIL	This change would provide only a single access point north of the groin wall (close to the clark street beach house).	$*

KEY

* $ = < $10,000 COST REDUCTION
$$ = $10-25,000 COST REDUCTION
$$$ = $25-50,000 COST REDUCTION
$$$$ = $50- 100,000 COST REDUCTION
$$$$$ = > $100,000 COST REDUCTION
+ = $0-$20,000 COST INCREASE

From: David Schoon
To: [redacted]; Ann Klaassen; Robert Bahan
Cc: Peter Friedman (Elrod Friedman Law); Josie Clark
Subject: RE: Is it possible to share a video with Village Trustees and Commission members?
Date: Wednesday, February 19, 2025 7:33:47 AM
Attachments: image001.png

Good Morning Kris –

Given the video you would like us to share with the Council and Plan Commission can be accessed through YouTube, we can provide them with the link to the video (see below) when we save your email and this response as a PDF document. This way we can post your email and this response as part of the public comments in February 26 Plan Commission agenda packet.

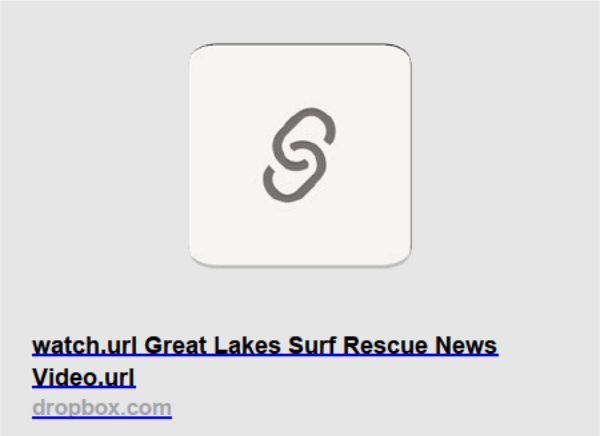
https://www.youtube.com/watch?v=frBpsDjpX6s

David Schoon, Director
Village of Winnetka Community Development
847-716-3526

From: Kris Schriesheim [redacted]>
Sent: Tuesday, February 18, 2025 6:55 PM
To: David Schoon <DSchoon@winnetka.org>; Ann Klaassen <AKlaassen@winnetka.org>; Robert Bahan <RBahan@winnetka.org>; Kristin Kazenas <KKazenas@winnetka.org>
Subject: Is it possible to share a video with Village Trustees and Commission members?

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello:
I don't know if this is possible or not. Along with the American Red Cross, Great Lakes Surf Rescue Project is the park district's linked-to "Beach Safety" expert on winpark.org. Based on GLSRP's knowledge of the extreme dangers posed by shoreline structures like the one WPD is attempting to get permission to build, it produced a video, the link to which is attached. If nothing else, I hope you'll watch it and take whatever steps you deem appropriate to communicate the dangers with Village Trustees and Commission members.
Thank you.
Kris Schriesheim



watch.url Great Lakes Surf Rescue News Video.url
dropbox.com

Sent from my iPad

Members of the Winnetka Plan Commission:
I submit this letter for your consideration as you continue to review the submission from the Winnetka Park District. As a former President of the Winnetka Park District, as well as a former member of the Plan Commission, I realize the importance of this process. I greatly appreciate the thorough, thoughtful approach of the many Village Council committee members who are involved with this project.

One issue that has not been addressed by the WPD is the environmental impact of the Elder Centennial Plan. The question has been asked many times over 3 years with no response from the Winnetka Park Board.

100s of trees, many of them heritage and over 100 years old, were destroyed on the property just south of Elder/Centennial Park. An entire bluff was demolished and 1000s of tons of rocks were dumped into the lake. The natural southern littoral drift of the sand has been stopped and beaches to the south have been destroyed due to the massive construction in the water, as the owners of those properties have testified.

And now the WPD is asking you to approve even more drastic destruction right next door. But, to date, there has been no evidence of meaningful oversight or research regarding the permanent harm this could do to our bluff and lake.

In spite of a substantial section of the Winnetka 2040 Comprehensive Plan being devoted to preservation of our natural resources, it does not appear that these key components are being considered in the review of this plan.

Page 35 refers to the “value of open space, natural areas, bluff and beaches along Lake Michigan” and how Winnetka should build on this legacy. Page 44 and 45 refers to Winnetka, by its translation - “A Beautiful Land” and is “a treasured North Shore Lakefront Village committed to the stewardship of its natural resources”. On page 129 and 130 there is an edict to “conserve, restore and enhance natural features and ecosystems: protect and improve water quality”.

Although there is a representative from Environmental and Forestry on the Plan Commission, the public has not heard questions pertaining to any of

these critical issues how the WPD is going to achieve the goals of the Comprehensive Plan.

Initiatives 6.5.1 and 6.5.2 in the plan specify that “projects will not cause environmental damage to the lake and adjacent areas and will protect, restore and manage the stability of the bluffs and natural shoreline”.

Who is responsible for ensuring these projects are meeting these requirements? The residents of Winnetka expect these issues to be thoroughly vetted to the specifications documented in the 2040 comprehensive plan, but it does not appear that there is a proper mechanism in place to do that.

The Plan Commission has a duty to enforce these goals, which have been embraced by the entire community and codified by our governing bodies. Please deny this application until the WPD can present a plan that meets these critical elements of the plan.

Thank you for your attention to this very important matter.

Angie Dahl
[redacted]
Winnetka

To Anne Klaassen

PROPOSAL FOR THE ELEVATOR DESIGN FOR ELDER BEACH
ALEXANDRA C. NICHOLS
FEBRURARY 20, 2025

ATTACHED YOU WILL FIND A PROPOSAL FOR AN ELEVATOR DESIGN FOR ELDER BEACH.

I WOULD APPRECIATE YOUR MAKING COPIES OF THIS PROPOSAL TO BE INCLUDED IN THE

MATERIALS FOR THE MEMBERS OF THE WINNETKA PLAN COMMISSION FOR THEIR NEXT

MEETING ON FEBRUARY 26, 2025.

THANK YOU VERY MUCH.

ALEXANDRA C. NICHOLS

[redacted]

RECEIVED
FEB 20 2025
BY:

Alexandra Nichols

From: Tim Toan Edi124 <[redacted]>
Sent: Monday, February 17, 2025 1:43 PM
To: Alexandra Nichols
Subject: Re: Beach Elevator
Attachments: JHI Proposal Elder beach project Winnetka IL rev-1-2-17-25.pdf

Alexandra yes we would love to be involved in this very unique project. Attached is our proposal for elevator design and consulting services. As we discussed we will develop a design that can be sent out for competitive bid and then we manage the project to completion. Our fees are billed in phases, once we complete the phase we bill for our work.

Thanks

Tim

On Monday, February 17, 2025 at 01:03:03 PM CST, Alexandra Nichols <[redacted] wrote:

Tim,
I am following up on our previous conversation. We are going ahead with an elevator at Elder Beach in Winnetka. I wanted to see if you wanted to be involved in this project.

Please email me or call me is better. [redacted].

Thank you.

Alexandra
--
Alexandra C. Nichols
[redacted]

JENKINS & HUNTINGTON, INC. *Horizontal -Vertical Transportation Consultants*
17W106 91st Street . Willowbrook, IL 60527 . Office 773-823-7424 . FAX 708.564.2242
Climax Road . Avon, Connecticut 06001 . 860.677.5942 . FAX 860.677.1409

February 17, 2025

Alexandra C. Nichols
[redacted]

Subject: Elder Beach in Winnetka
Vertical Consulting Services

Dear Alexandra:

This is to confirm our pricing for vertical transportation consulting services for the Elder Beach project in Winnetka IL.

We will design an elevator system to meet the requirements of the site. This design will include drawings for the new elevator, with pit requirements, overall hoistway size and construction requirements. Our fee does not include any architect fees, structural engineering fees or building permit fees.

I. Schematic Design Phase

This step provides input on the requirements to install an elevator in a beach environment. The scope of work during this phase includes:

- Design and engineer the required elevations to allow for the addition of a fully automatic elevator at Elder Beach in Winnetka.
- Identify the required elevator equipment space requirements.
- Review structural drawings for compliance with the elevator equipment.
- Review electrical requirements for compliance with the elevator equipment.
- Prepare a written report for your files.
- Prepare an Equipment Summary for the vertical transportation system for incorporation into the Concept and Schematic Design documents.

Our price for this "Schematic Design Phase" portion of the scope of work is

Four Thousand Five Hundred ($4,500.00) Dollars.

II. Design Development Phase

After we have determined the optimal solution for your vertical transportation needs, we provide assistance during the design development phase. This phase includes:

- Provide drawings for the elevator, including dimensioned hoistway & machine room plans and sections. The drawings are to comply with all local authority requirements. The drawings will show anticipated reactions.
- Provide electrical / mechanical loads for the elevator equipment.
- Prepare a complete and comprehensive performance-based specification
- Attend Design Development Meetings in as required to provide input relative to the vertical transportation system requirements. Make revisions to Design Development Documentation as required.
- Review Value Engineering proposals and Design Development contractor pricing.

Our price for this "Design Development Phase" portion of the scope of work is

Three Thousand Five Hundred ($3,500.00) Dollars.

III. Contract Documents Phase

We continue to provide services during this crucial phase. This phase includes:

- Update specifications as required to reflect changes during the various phases of Contract Document issue dates.
- Discuss all open questions with selected elevator bidders.
- Provide updates to elevator drawings to reflect any changes.
- A complete review of proposals is included in this phase, to make sure the company selected is in agreement / compliance with the requirements of the project. This includes one day of scope review meetings in Denver with the selected elevator equipment suppliers.
- Provide corrections to specifications as required by local code authorities.
- Answer any contractors RFIs during this bidding process promptly.
- Additional review meetings as required for final scope verification are included as well.

Our price for this "Contract Documents Phase" portion of the scope of work is

Two Thousand Three Hundred ($2,300.00) Dollars.

IV. Construction Administration Phase

This phase includes:

- Elevator shop drawing / submittal review for completeness / compliance.
- Review all contractor RFI's and respond.
- Perform one (1) progress inspection during construction and provide written report.
- Review elevator contractor change notice proposals and provide written responses to requests.
- Final Acceptance review (including accelerometer readings / ride comfort analysis on all elevators) prior to payout of final retention.
- Provide follow up review to make sure deficient items were corrected and review final close out documents.

Our price for this "Construction Administration Phase" portion of the scope of work is

Two Thousand Five Hundred ($2,500.00) Dollars.

The **total cost** for a complete vertical transportation engineering consulting services package on this project would be

TWELVE THOUSAND EIGHT HUNDRED ($12,800.00) Dollars.

ADDITIONAL SERVICES

Other work not included in our proposal will be on a quoted sum basis or at our hourly rates as follows:

2025-2026 $350.00

As we have a local presence with the project team and building, we anticipate no reimbursable expenses for Chicago area meetings.

PROPOSAL

Personnel involved on this project will include Ray Volk, Tim Toan, Mike Corson And Julian Shibley. A brief write up on the company, services offered, personnel description, and a listing of similar sized projects and a list of references are included for your review as part of this proposal.

Terms and conditions

1. Jenkins & Huntington, Inc. (the Consultant) will perform its work in strict accordance with all applicable law, ordinances, governmental regulations and building codes.

2. The Consultant will produce job-specific insurance certificates in the amounts as shown on the attached sample certificates.

3. Invoicing will be submitted monthly (by the 21st of each month) on a progress basis as projected through the end of the month. Payment is due within 45 days of receipt of invoice.

Thank you for this opportunity to work together with you on this fine project. Should you have any questions, please give me a call at 708-870-0370.

Sincerely,

Timothy Toan
Jenkins & Huntington, Inc.

By signing this agreement, you are agreeing to our terms and releasing us to enter this project into our schedule.

Name: _____ Date: _____

Signature: _____

CC:
Ray Volk - Jenkins & Huntington, Inc

From: Dave Benjamin [redacted]
Subject: Re: Winnetka Park District proposed breakwater project on Lake Michigan
Date: Nov 12, 2024 at 1:07:52 PM
To: Kris Schriesheim [redacted]

Kris,

Send me the permit filing and project plans, and I'll take a look.

The simplest explanation is that water follows the path of least resistance.

Installing any solid structure in the water increases hazards for beach goers and, waders, swimmers and other water enthusiasts.

Water cannot flow through solid structures. It has to flow around the structures. When there's wave activity, currents are present. When there's wave activity and structures, the currents are hyperactive.

In addition, dumping sand is temporary. It will eventually wash away and have to be replenished.

Dave Benjamin

[redacted]

RECEIVED
FEB 21 2025
BY:

On Tue, Nov 12, 2024, 11:57 AM Kris Schriesheim <[redacted]> wrote:

Hello Mr. Benjamin:

I read the Chicago Tribune's front page article dated today (November 12, 2024) highlighting your Lake Michigan expertise and remarks on dangerous structures and currents in the lake.

I had previously read GLSRP's statistics and your comments on drownings in connection with community advocacy against the Winnetka Park District's proposed plan for its Centennial Park and Beach, currently a "dog beach" with 60+ old steel groins, but no other "jetties"—piers, breakwaters, etc. Currently, the Village of Winnetka (villageofwinnetka.org) is reviewing WPD's application for a Special Use Permit zoning variance for Centennial Beach, that would see a huge and unnecessary breakwater project constructed in the lakefront at Centennial Beach, followed by two more at nearby Elder Beach, blocking access, views, and creating novel drowning risks for people and their dogs.

Because of serious concerns over safety issues with WPD's proposed plan, the Village of Winnetka's Zoning Board of Appeals has not approved the permit filing after

listening to both WPD's presentations and the public's concerns in October and November. The next ZBA meeting is scheduled for December 9, 2024. If I send you the permit filing and project plans, and you have time to review them, would you be willing to submit comments on the design prior to ZBA's December meeting, and/or attend the meeting in person? Written comments would be due by December 2, 2024.

Winnetka has had multiple drownings over the past couple of years, both pier- and non-pier related. Witnesses have said breakwaters of the type WPD is proposing would have prevented them from seeing struggling persons, and/or also impeded their rescue efforts. Winnetka has also seen two teenaged boys paralyzed in pier-related accidents. I attached information on 18 year old Clayton Scherb's 2022 accident involving Winnetka's Lloyd Beach pier. He was working as a WPD employee at the time.

My layperson's safety-related comments on WPD's proposed project since the designs became public in September 2024 were submitted to ZBA and are attached.

By the way, Winnetka uses high school and college kids who are home for the summer as lifeguards—it does not

have a professional lifeguard staff. I feel WPD's breakwater heavy plan is dangerous and irresponsible to those young adults as well as swimmers, paddle boarders, kayakers and others using the lake.

Thank you.

Sincerely,

Kris Schriesheim

[redacted]

Sent from my iPad

From: [redacted]
To: Ann Klaassen; David Schoon; Robert Bahan; Kristin Kazenas; Chris Rintz; Robert Apatoff
Subject: WPD Claim That Centennial Beach Needs to be Re-Opened
Date: Monday, February 24, 2025 5:18:00 PM
Attachments: DooleyLMPComplianceLetter.pdf
LACMinutesADAAccessElevator.pdf
Screenshot 2024-08-27 at 1.18.48 PM.pdf
Preliminary-Engineering-Erosion-Study-Report.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Please share this with all Village Trustees and members of the Plan Commission. Thank you.

To the Village of Winnetka:

At WPD's 2/20/25 meeting the board made a motion to usurp the public's right to participate in the Elder-Centennial permit review process. I feel confident that the Village will not move WPD's permit application into the proverbial smoke-filled room. WPD's 2/20/25 board meeting video is available on winpark.org—if you have time you may want to see for yourself how WPD operates, including what comes across as intimidating body language from one board member towards another.

To begin with, despite a complete lack of documentation WPD's April 2024 Centennial permit filing was falsely premised on the existence of a Special Use Permit. Over ten months later, WPD continues a disturbing pattern of falsehoods and segues, including reluctance to acknowledge the project's "designed in dangers" and unlawfulness. On February 21, 2025 WPD made the bald-faced lie that Centennial needs "reopening." I insist upon a correction.

Furthermore:

(1) Similar to the Village, as a unit of local government WPD must follow federal and state ADA laws and regulations. WPD knows this. It has never provided documentation addressing how "Universal Design" is relevant to public projects. WPD's attempts to distract Village review bodies' attention from what ADA lawfully requires is subterfuge. SEE WT Group report to Wilmette Park District submitted to ZBA; SEE WT Group Beach Access Route ADA requirements submitted to Plan; SEE City of Evanston engineer's comprehensive review of ADA requirements applicable to public beaches, including a dog beach, encompassing among other things accessibility requirements, low vision requirements, key fob placement requirements, parking requirements, and stating that Evanston received professional ADA design input from John McGovern of WT Group and Smith Group. Note the total absence of "Universal Design" language in any of the foregoing park districts' ADA compliant designs and reports.
(2) NSSRA's undocumented review of WPD's plans does not credibly substitute for an independent ADA written report assessing the same. NSSRA's Executive Director and staff are generously funded by WPD as a member of the NSSRA parks consortium, and WPD Executive Director Nazzal sits on NSSRA's board. Other NSSRA park district members, for example the Wilmette Park District, obtain professional ADA reports to ensure their plans are lawful, and do not rely upon a captive agency's unwritten representations. No written,

professional ADA report? It appears WPD knows the designs are unlawful.
(3) No survey has ever supported WPD's effort to build what Shabica's "Coastal Structures 101" tutorial—included in WPD's 2030 LMP documentation provided to ZBA—defines as a harbor/marina-appropriate breakwater structure in the middle of Centennial's residential neighborhood or, for that matter, acquiring 261 Sheridan and/or giving Centennial parkland to a private party. WPD's Lakefront Advisory Committee ("LAC") meeting minutes and survey results confirm this. The Village must insist upon truthful WPD testimony regarding the intended purpose of its designs. WPD must go to referendum.
(4) ZBA and Plan received sworn testimony not only that 205 Sheridan's shoreline structures have already damaged neighboring properties, but also drone photos documenting the same, as well as Red Barn Design & Engineering's known coastal expert, UW-Madison professor Dr. Wu's, engineering study results affirming the same in connection with a lawsuit against Concordia University. SEE Concordia University lawsuit article, Attorney Paul Gaynor's letter on behalf of Mr. and Mrs. Rasmus, and excerpt from Dr. Charles Shabica's report on how shoreline structures can damage neighboring properties, violating the Public Trust Doctrine and creating causes of action under the 5th Amendment.
(5) Given the absence of acknowledged authorship, it appears that a WPD staff or board member made up the claim that WPD's Elder-Centennial project is too small to merit bona fide hydrologic and coastal reviews. A combined, roughly 1000' wide public beach construction project whose taxpayer-financed costs are upwards of $13-$15 million with no caps, definitely merits hydrologic and coastal engineering reviews. See attached AECOM 2019 coastal analysis for Lake Bluff's 1000' wide public beach project, which provides 2019 era options that do not include perpendicular breakwaters, and highlights the importance of getting bona fide coastal engineering input.
(6) By dismissing non-paying neighbors' opposition to the project as mere "NIMBY," WPD signals that it will listen only to a certain neighbor, while repulsing input from taxpayers who are not engaged in pecuniary campaigns to its liking. SEE Centennial neighbors' sworn testimony to ZBA and Plan, and media coverage at chicagotribune.com, patch.com and other news sites of WPD's repulsion of $3 million anonymous philanthropic donation offer made through the Winnetka Parks Foundation, with potentially more money available; see also Ms. Codo's 2023 and 2024 public comments that WPD would not accept taxpayer input into its October 19, 2023 re-designs.
(7) Providing an elevator or lift for ADA access to Centennial is not only feasible, it was specifically contemplated by the LAC that worked on WPD's 2030 Lakefront Master Plan. See LAC minutes, attached.
(8) In addition to the flaws noted above, on its face WPD's designs violate (a) the Public Trust Doctrine; (b) the IL Swimming Facility Act (restroom facilities required within 300 feet of the shoreline); [c] the IL Equitable Restrooms Act (ADA-accessible diaper changing facilities required); (d) multiple government grant conditions; (e) OSHA toilet facilities requirements; (f) IL Department of Public Health requirements that pre-qualified architects/engineers design public beaches; (g) the Constitution. The Village should not waste any more time or taxpayer resources on WPD permit applications until they are brought into compliance with the law.
(9) WPD falsely states that public parks are not being managed adequately if over time they are not "developed," which is complete nonsense and contradictory to WPD's Policy Manual. Given that WPD counsel Adam Simon is also representing Mr. Ishbia's zoning attorney, Cal Bernstein, as president of the Park District of Highland Park, I refer you to PDHP's website, www.pdhp.org. Among PDHP's four public beaches, its website declares that Millard Beach is valued for its natural state and undeveloped condition, reflecting what we all know about public parks—they are immensely valuable in an "undeveloped" state. WPD's policy-violating assertions to the contrary seem no more than the impatient aspirations of persons

with private ambitions. SEE former WPD commissioner Joe Dooley's letter on WPD policy valuing natural beauty and open space, attached.
(10) WPD falsely stated to Plan that its proposed Centennial pier is 220' long, when it is properly measured at 252' long from the toe of the bluffs. Its permit application says the breakwater is 239' 10" long, measured not from the toe of the bluffs, but from east of its 14' wide boardwalk. WPD's attempt to mislead the Village over an immutable breakwater dimension should result in throwing out the permit application.
(11) WPD falsely claims Centennial dog beach usage is too low unless it builds barriers consuming close to 50% of the beach, when in fact WPD can increase usage by opening the entire 525' beach to the public 365 days a year, with or without dogs. See park district websites in Wilmette and the aforementioned Park District of Highland Park.
(12) WPD board majority members are not in a position to insist upon Maoist "re-education" measures when its plans are broadly disfavored, or to claim that the public is "confused" because it values natural settings, and/or wants to preserve Winnetka's dignified, residential lakefront neighborhood (see WPD 2/20/25 board meeting video). WPD is degrading our values and lives with these misplaced, disrespectful, strange jabs.
(13) Last week's WPD's Plan submittal from Warren James makes a false statement that the WPD-initiated settlement of Robert Schriesheim's Public Trust Doctrine lawsuit included agreement to or approval of WPD's proposed dog beach designs. It did not.
(14) WPD scoffs at public opposition to Orchard 2020 Trust's role in its project plans, arguing that close neighbors are typically consulted about construction projects . . . yet in the case at hand it provides no evidence of relevant neighborhood consults other than the one or two who would pay WPD directly for the privilege, or perhaps have agreed to refrain from suing in exchange for certain beneficial design elements. Likewise WPD offers no precedent or opinion of counsel supporting WPD's Restrictive Covenant granting legal interests in public parkland to Centennial's southern neighbor.

Members of the public who have advocated for Winnetka's parkland are former WPD commissioners and former board presidents, physicians, teachers, businesspeople, engineers, architects, landscape architects, professors, communication experts, public land use and lakefront experts, attorneys, persons experienced in ADA compliance, parents, grandparents, beach users, dog owners, boaters, swimmers, former lifeguards and taxpayers. None has a business relationship with WPD consultants. None is engaged in the harbor management business, or would attempt to obtain park district harbor management or other contracts should WPD receive its permits. None serves as counsel to Mr. Ishbia's attorneys in any capacity at all. Mr. Hemmings' rude resignation letter aside, please consider that a factor in his decision to leave WPD's board could have been mounting alarm at the spiraling loss of control in advancing an unsafe, unpopular, unnecessary and unaffordable, non-publicly oriented plan that violates grant conditions and the law. Mr. Hemmings is an attorney.

Thank you to the Village for your professionalism and integrity. Please do not allow WPD to subvert the public interest, and do not perpetuate WPD's lie that Centennial needs "re-opening."

Sincerely,
Kristine Schriesheim

From: "Joseph M. Dooley III" [redacted]
To: "John Muno" <JMuno@winpark.org>, "Ian Larkin" <ILarkin@winpark.org>, "Warren James" <WJames@winpark.org>

Subject: RE: LLoyd Park Signage

Dear Director Muno, Hon. President Larkin and Hon. Vice President James, and Commissioners of the Winnetka Park Board,

As you know, I served on the Advisory Board for The Lakefront Master Plan 2030 as Co-Chairman along with Warren James. Mr. Larkin and Ms. Claybrook served as Park Board liasons to the Advisory Board for The Lakefront Master Plan 2030. Also, I live at 849 Sheridan Rd. so I am an immediate next door neighbor of Lloyd Park. I am also a former Winnetka Park Board of Commissioners member who served on the Board of Commissioners from 1993-2003, serving 6 of those years as President of the Board. I have more than a passing interest in the issue of maintaining the beauty and serenity of our open spaces and compliance with the goals of the Lakefront Master Plan 2030 and the overall Mission Statement of the Winnetka Park District.

I am writing to object to the continual placement of Park District advertising signs in our lakefront parks as those depicted in the attached photos which have been in place in Lloyd Park on Sheridan Road since approximately March 25, 2018. The Park District has done a wonderful job of clearing Lloyd Park of the cyclone fence which once fronted the property and the numerous dead trees and weed trees which inhabited the property. These two actions are in perfect compliance with the Master Plan which called for unobstructed views of the lakefront throughout the lakefront parks on Sheridan Road. These actions are very much appreciated and you are to be commended.

My objection to the signage in Lloyd Park is that the signs violate the goal of creating enhanced beauty and unobstructed views of the lakefront. In addition they are not in any way fitting with the overall Mission Statement of the Park District to protect open space. I am asking that these signs be immediately removed and I am further asking the Park Board to once again review the Park District signage policy which was instituted during my service on the Park Board to assure not only strict compliance with the existing policies but to amend the policy or create a new one which includes a policy that no signs shall be installed for any advertising purpose in the lakefront parks, except in very limited or exceptional circumstances as deemed by the full Park Board on a case by case basis.

Joe Dooley

LAKOTA

PLANNING
URBAN DESIGN
LANDSCAPE ARCHITECTURE
HISTORIC PRESERVATION
COMMUNITY RELATIONS

MEETING AGENDA

Winnetka Lakefront Master Plan – Advisory Committee Meeting

Date: December 8, 2014
Time: 8:00 AM – 9:00 AM
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road
Invitees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Ian Larkin, Board Liaison	Scott Freres, The Lakota Group
Cheryl Christian	Teresa Claybrook, Board Liaison	Terry Schwartz, The Lakota Group
Jim Petersen	Bob Smith, Staff Liaison	Sarah White, The Lakota Group
Ken Alt	Costa Kutulas, Staff Liaison	Don Matthews, Gewalt Hamilton (GHA)
Newton Marshall	John Muno, Staff Liaison	Tom Rychlik, GHA
Charles Dowding	John Shea, Staff Liaison	Craig McGillawee, Baird
Chris MacRitchie	Mary Cherveny, Staff Liaison	Jon Shabica, Shabica Associates
Joe Dooley		Stefanie Nagelbach, Shabica Associates
Mike Doornweerd		Mike Fitzgerald, OKW Architects
Warren James		

Items to be discussed:

1. Welcome and Introductions
   a. Team overview and roles
   b. LAC Committee structure and introductions
      i. Nomination / identification of Committee Chair
   c. Correspondence protocol
      i. Agendas / meeting direction
      ii. Meeting minutes
      iii. Website posting and updates
      iv. Park District newsletter
      v. Media outreach
2. Project Overview
   a. Grant Application Overview
   b. Project work scope and schedule
   c. "Branding" of process
3. Project Mission and Goals
   a. IDNR goals summary – regional (handout)
   b. WPD Lakefront Master Plan goals - local
4. Stakeholder Outreach
   a. Goals – triangulation of data
   b. Interview list development and verification (handout) **(homework)**
   c. Interview schedule – December / January sessions
   d. "Big Ideas" list
      i. To-date
      ii. Additional

5. Next Steps
    a. Engage - Stakeholder Interviews and Focus Groups
    b. Draft State of the Lakefront Summary (January 12, 2015) (handout)
    c. Media Outreach
        i. WPD Newsletter
        ii. Press Release in Pioneer Press / Patch
        iii. Community Education Session
    d. Lakefront Advisory Committee Meeting #2 (January 12, 2015)
        i. Meeting time?
        ii. Agenda:
            1. Review of stakeholder input to date
            2. Review of first draft State of the Lakefront Summary
            3. Discussion of Community Open House #1 (February 2015)

6. Other business / ideas

7. Adjourn

LAKOTA

PLANNING
URBAN DESIGN
LANDSCAPE ARCHITECTURE
HISTORIC PRESERVATION
COMMUNITY RELATIONS

MEETING SUMMARY

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #1
DRAFT FOR REVIEW

Date: December 8, 2014
Time: 8:00 AM
Location: Winnetka Park District Administration Office Community Room
Attendees:

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding
Joe Dooley
Mike Doornweerd
Warren James

Winnetka Park District
Teresa Claybrook, Board Liaison
Bob Smith, Staff Liaison
Jon Shea, Staff Liaison

Consultant Team
Scott Freres, The Lakota Group
Sarah White, The Lakota Group
Don Matthews, Gewalt Hamilton (GHA)
Jon Shabica, Shabica Associates
Stefanie Nagelbach, Shabica Associates
Mike Fitzgerald, OKW Architects

Items discussed:

1. **Welcome and Introductions**
   a. The group discussed the master planning process, and requirements of the grant.
   b. The need for a Committee Chair was discussed. No nominations were announced at the meeting, but a discussion will be hosted via email prior to LAC meeting #2.
   c. Going forward, all meeting agendas and approved meeting notes will be posted to the project website.
   d. LAC meetings will be considered public meetings, and may require public notice. WPD to confirm.
2. **Project Overview**
   a. The master plan will consider improvements and investment over a 20-year time horizon.
   b. A first-draft State of the Lakefront report will be distributed at the January LAC meeting. Since stakeholder interviews will still be in progress, stakeholder feedback summary will be added to the report as part of the second draft.
   c. LAC members and consultant team to send ideas for a project brand to group via email. Will discuss and finalize at LAC meeting #2.
3. **Project Mission, Visions, and Goals**
   a. LAC members and consultant team to send ideas for mission, vision, and goals to group via email. Will discuss and finalize at LAC Meeting #2. Lakota will distribute draft ideas in advance of the meeting.
4. **Stakeholder Outreach**
   a. Community involvement will be key to the success of the master plan, the project team plans to seek input from community members through interviews, focus groups, a web-based survey, and community open houses. . Survey questions will be vetted with the LAC prior to making the survey available to the public.
   b. LAC members to send contacts for interviews to Lakota via email.
   c. LAC members will be interviewed as stakeholders, may be interviewed in groups (size of groups may be restricted by Open Meetings Act).
   d. Lakota will continue to manage a master list of project stakeholders and their contact information.

e. Although some interviews may occur prior to the new year, the majority of interviews are planned to be scheduled the weeks of January 12th and January 19th, 2015.

5. **Next Steps**
   a. LAC meeting #2 will occur on January 12, 2014. Time TBD.
   b. Meeting times will alternate between morning appointments and evening appointments.
   c. Group to consider content of an "elevator speech" to help explain the master planning process to outside parties.

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MEMORANDUM

Date: December 16, 2014
To: Lakefront Advisory Committee Members
From: Sarah White, The Lakota Group

RE: Lakefront Master Plan Mission, Vision, and Goals Development DRAFT FOR REVIEW

The following list was developed by the project team based on topics discussed at LAC Meeting #1 and suggestions offered by LAC members. They are provided to the LAC as preliminary ideas which will be refined and finalized through further discussion at LAC Meeting #2.

1. **Brand Ideas**
   a. Lake Effects
   b. Lakefront Renewal
   c. Waves of the Future
   d. Live Lake Michigan
   e. Shoreline 2020
   f. Hydro Pinnacle
   g. Blue Catalyst
   h. Neptune Blue
   i. Waterfront Odyssey
   j. Winnetka Waterfront 2020
   k. Lake of the Future
   l. WOW2020 (Winnetka on the water)
   m. Live Love Lake - Winnetka 2020
   n. Winnetka Lakefront Vision Plan

2. **Challenges / Issues**
   a. Permitting and approval of improvements
   b. Community buy-in
   c. Access, circulation, and parking
   d. Coastal environmental conditions
   e. Storage
   f. Interface / conflict of user groups
   g. Lack of connection between Tower and Lloyd, and between all beaches
   h. Stormwater and water quality issues
   i. Issues other park districts are currently facing? (identify)

3. **Opportunities**
   a. Realistic improvement options
   b. Funding is available from both public and private sources
   c. Bike linkage along Sheridan Road
   d. Strategic land acquisition
   e. Partnerships, both public and private

4. **Big Ideas / Wish List**
   a. Lakefront multi-use trail (run/bike, non-motorized) connecting all Winnetka beaches/shoreline
   b. Increased Paddleboard storage (vertical racks) and lockers
   c. Open water swim lane(s)
   d. Contemporized beach house/ facilities
   e. Independent launch area for non-motorized recreation (SUP, windsurf, sail, surf, etc.)
   f. Lakefront restaurant / terrace or overlook
   g. Marina
   h. Vertical boat storage
   i. Educational coastline / beach
   j. Tower / Lloyd bridge
   k. Aesthetic improvement / treatment of cooling pond between Tower / Lloyd
   l. Open viewshed to lake from Sheridan Road at park locations
   m. Improve Tower Road access
   n. Purchase residential property between Elder and Centennial
      i. In its place build the main Community Lakefront building, build 1 or 2-storey facility at street level, possibly a rental space for events such as weddings / birthdays, etc., open view of the lake, with a large patio facing east; four-season facility; offer a space for a restaurant / bar to rent out or kitchen for catering options; provide space for a Winnetka yacht club or a Winnetka lake front club; the new building steps down along the bluff and provides new concessions and bath facilities below; lounge area; new playground area for children; handicap access via elevator; no cars at beach level; boat house / boating beach to the north of this building and bathing beach with facility building to the south; provide a paved promenade running the entire distance along the bluff.
   o. Area for community garden club along a beach promenade
   p. Open air (with a covered space) for a community are on the water – Lake Forest has one with a fire pit. Church groups and book clubs are down there all the time.
   q. Floating swim platform for kids to swim to
   r. Build a horse shoe shaped break wall into the lake at Lloyd, encompass Lloyd launch in this harbor, provide safe / secure moorings (day or seasonal). Provide a beach, bar facility at Lloyd Harbor, similar to Millennium Harbor.
   s. Construct a continuous lakefront path

5. **Mission Statement**
   Note: This is meant to be context-sensitive to Winnetka, above and beyond IDNR's mission
   a. What is the timeframe of the plan?
      i. Long-term plan
      ii. Incremental, sustainable strategy
   b. What will the plan accomplish?
      i. Preserve, protect, restore, and enhance the lakefront
      ii. Leverage regional, state, and local resources
      iii. Address a wide array of active and passive recreational and open space needs
   c. Who is the plan serving?
      i. Winnetka residents
      ii. Intergenerational audience
      iii. Broad range of regional Lake Michigan waterfront and shoreline user groups

6. **Vision**
   Note: In progress, for discussion at LAC Meeting #2, should relate to opportunities, challenges, and wish list
   a. The vision for Winnetka's lakefront will provide:

7. **Goals**

a. Enhance the recreational and open space programming and facilities for Winnetka residents
b. Develop facilities with intergenerational appeal
    i. Accommodate the sustainable use of the lakefront by a diverse range of users
c. Improve safety and access
    i. To provide safe, inviting, easily accessible, and beautifully maintained parks and facilities
d. Support and enhance Lake Michigan ecosystems
    i. Recognize the impact of environmental change
    ii. Apply resources to improve aging infrastructure
e. Adopt a fiscally responsible / financially neutral operations model
    i. Seek to balance or maximize revenue opportunities
    ii. Promote a self-supporting, sustainable lakefront management strategy
f. Expose and educate Winnetka residents to the value of the public lakefront
    i. "leverage the value" of the lakefront
    ii. Optimize utilization of the lakefront:
        1. On the water
        2. In the water
        3. And on the shore / bluffland
g. Encourage and seek partnerships (public and private – including schools, institutions, and individuals)

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MEETING SUMMARY

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #2 DRAFT FOR REVIEW

Date: January 12, 2015
Time: 6:30 PM
Location: Winnetka Park District Administration Office Community Room

Attendees:

Lakefront Advisory Committee
Blake Hannafan
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding
Joe Dooley
Warren James
Chris MacRitchie

Winnetka Park District
Teresa Claybrook, Board Liaison
Ian Larkin, Board Liaison
Bob Smith, Staff Liaison
Jon Shea, Staff Liaison
Costa Kutulas, Staff Liaison

Consultant Team
Scott Freres, The Lakota Group
Terry Schwartz, The Lakota Group
Sarah White, The Lakota Group
Don Matthews, Gewalt Hamilton (GHA)
Jon Shabica, Shabica Associates
Charles Shabica, Shabica Associates
Mike Fitzgerald, OKW Architects

Items discussed:

1. **Review and approval of Meeting #1 minutes**
   - Minutes from LAC Meeting #1 were approved by the Committee.
   - Minutes from each LAC meeting will be posted to the project website (www.winnetkalakefrontplan.com) following approval by the committee.
   - Draft minutes from each LAC meeting will be distributed to the Committee via email for review so comments may be considered prior to motion for approval.

2. **Committee Chairperson Selection**
   - A vote was conducted to elect a committee chairperson. LAC members and Winnetka Park District representatives were invited to vote.
   - Warren James and Joe Dooley were elected co-chairs of the Lakefront Advisory Committee.

3. **Lakefront Master Plan Brand**
   - A vote was conducted to select the Lakefront Master Plan brand.
   - "Winnetka Waterfront 2020" was selected as the project brand. The consultant team will work to refine and finalize the brand and will present concepts at LAC Meeting #3.

4. **Stakeholder Outreach**
   - An update was provided to the group:
     - 217 stakeholders identified
     - 132 stakeholders contacted
     - 50 stakeholders scheduled for interviews (to date)

5. **Lakefront Master Plan Mission, Vision, and Goals**

- Draft Mission Statement
  - The draft mission statement was reviewed with the LAC:
    To provide a long-term, sustainable strategy for the preservation, protection, restoration, and enhancement of Winnetka's lakefront for Winnetka residents and a broad range of Lake Michigan and shoreline user groups. Comments: None provided.

- Draft Vision Statement
  - A draft Vision Statement will be developed based on the Big Ideas generated by the LAC and input from project stakeholders.

- Draft Goals
  - Draft goals were reviewed with the LAC:
    - Enhance the recreational and open space programming and facilities for Winnetka residents.
      Comments: Use "recreation" instead of "recreational".
    - Develop facilities with intergenerational appeals
      Comments: None provided.
    - Improve safety and access.
      Comments: Concern was raised that the phrasing of this goal implied serious issues with existing safety and access. The goal will be revised to read, "Facilitate safe and convenient access"
    - Support and enhance Lake Michigan ecosystems.
      Comments: None provided.
    - Adopt a fiscally responsible / financially-neutral operations model.
      Comments: Concern was raised that the term "financially neutral" was restrictive. It was suggested that the phrasing be modified to "sustainable operations model."
    - Expose and educate Winnetka residents to the value of the public lakefront.
      Comments: Concern was raised that "educate" seems condescending. Phrasing will be changed to "Expose and inform..."
    - Encourage and seek partnerships (public and private).
      Comments: None provided.
  - The project team will define a project process goal in addition to the master plan goals. The process goal should speak to the inclusive nature of the master-planning process.
  - The project team was advised to consider which goals have "baseline" data which can be used to measure accomplishment of goals. This information should be included in the State of the Lakefront report.

6. **Lakefront Issues and Opportunities**

- A preliminary list of lakefront issues and opportunities was discussed with the group.
  - Comments on issues:
    - The power plant and water intake facility at Tower should be included as an issue, including potential restrictions related to federally mandated setbacks.
  - Comments on opportunities:
    - "Bike linkage along Sheridan Road" seems like it doesn't fit with the rest of the list, may be changed to improved trail connections for bikes, pedestrians and watercraft (water trails)

7. **Lakefront Big Ideas**

- A preliminary list of lakefront "big ideas" was discussed with the group.
  - More "big ideas"

- Winter activities
  - Sled hill / toboggan run
  - Yurt / warming shelter accessible during winter months
- Zipline course
- Remove power plant
- Bury any existing overhead utility lines

8. State of the Lakefront Report Update

- Topic reports were delivered by consultant team members
  - Shabica: Will report on shoreline issues, permitting, lakefront history.
    - A question was asked about how marinas have functioned in similar communities, examples for LAC review would be helpful for the discussion.
    - A question was asked the use of dredge, and requirements for asbestos testing for use of dredge.
  - Gewalt Hamilton: Will report on access, utilities, storm water issues. Will include more information regarding restrictions related to the power plan / water intake following interview with Village personnel.
  - OKW: Will report on physical condition and appearance / aesthetics of park structures.
    - A question was asked about whether or not OKW will report on the appearance or aesthetics of shoreline structures (in addition to their evaluation of the buildings). The project team will address the appearance of shoreline structures as part of the existing conditions assessment.
  - Lakota: Lakota will knit together the report narrative, and provide information regarding land use, ownership, zoning, park programming / amenities.
- "Lakefront FAQs"
  - A preliminary list of FAQs was discussed with the group, others were suggested including:
    - "How much of the beach do lakefront property owners own? How are these limits described by state law?"
    - "Who owns the ravines at the north end of the Winnetka lakefront?"
    - "How often does the power plant operate? Is the power plant coal powered or natural gas powered? How are my electricity rates impacted by the municipal power plant?"
    - "What are the lagoons used for outside of the power plant?"
  - In addition, the project team will add FAQs regarding the master-planning process and Lakefront Advisory Committee.

9. Next Steps

- Stakeholder interviews and focus groups
  - Scheduled for the week of 1/12 and the week of 1/19
  - More interviews scheduled, as needed
- LAC Meeting #3 (**February 9, 2015 8:00AM**)
- Open House #1 (dates confirmed)
  - Thursday, February 19th 6pm – 8pm, Winnetka Park District Administration Office Community Room
  - ALTERNATE: Saturday, February 28th 9am – 11am, Winnetka Park District Administration Office Community Room

10. Other business

- None reported

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COMMUNITY RELATIONS

MEETING AGENDA

Winnetka Lakefront Master Plan – Advisory Committee Meeting

Date: January 12, 2015
Time: 6:30PM – 7:30PM
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road
Invitees:

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding
Chris MacRitchie
Joe Dooley
Mike Doornweerd
Warren James

Winnetka Park District
Ian Larkin, Board Liaison
Teresa Claybrook, Board Liaison
Bob Smith, Staff Liaison
Costa Kutulas, Staff Liaison
John Muno, Staff Liaison
John Shea, Staff Liaison
Mary Cherveny, Staff Liaison

Consultant Team
Scott Freres, The Lakota Group
Terry Schwartz, The Lakota Group
Sarah White, The Lakota Group
Don Matthews, Gewalt Hamilton (GHA)
Tom Rychlik, GHA
Craig McGillawee, Baird
Jon Shabica, Shabica Associates
~~Stefanie Nagelbach~~, Shabica Associates
Mike Fitzgerald, OKW Architects

Items to be discussed:

1. Review and approval of Meeting #1 minutes
2. Committee Chairperson Selection
3. Stakeholder Outreach
4. Lakefront Master Plan Mission, Vision, and Goals
   a. Draft Mission Statement
   b. Draft Vision Statement
   c. Draft Goals
5. Lakefront Master Plan Brand
6. Lakefront Issues and Opportunities
7. Lakefront Big Ideas
8. State of the Lakefront Report Update
   a. Topic reports from consultant team members
   b. "Lakefront FAQs"

9. Next Steps
   a. Stakeholder interviews and focus groups (**week of 1/12 and week of 1/19**)
   b. LAC Meeting #3 (**February 9, 2015 8:00AM**)
   c. Open House #1: Project Introductions and Existing Conditions (February 19th and alternate 2/26 or 2/28)
      i. Confirm alternate date, will be posted to WPD website prior to mailing of spring brochure

10. Other business

11. Adjourn

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MEETING AGENDA

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting

Date: February 9, 2015
Time: 8:00AM – 9:00AM
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road

Invitees:

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding
Chris MacRitchie
Joe Dooley
Mike Doornweerd
Warren James

Winnetka Park District
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Don Matthews, Gewalt Hamilton (GHA)
Tom Rychlik, GHA
Craig McGillawee, Baird
Jon Shabica, Shabica Associates
Stefanie Nagelbach, Shabica Associates
Mike Fitzgerald, OKW Architects

Items to be discussed:

1. Review and approval of Meeting #2 minutes
2. Stakeholder Outreach Update
3. Lakefront Master Plan Brand
4. Draft State of the Lakefront Report Update
5. Lakefront Big Ideas
6. Next Steps
   a. Continued stakeholder interviews and focus groups (**week of 2/9 and week of 2/16**)
   b. LAC Meeting #4 (**March 9, 2015 6:30PM**)
   c. Open House #1: Project Introductions and Existing Conditions (**2/19 at 6:00PM and 2/28 at 9:00AM**)
7. Other business
8. Adjourn

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COMMUNITY RELATIONS

MEETING SUMMARY

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting DRAFT FOR REVIEW

Date: February 9, 2015
Time: 8:00AM – 9:00AM
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road

Attendees:

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Ken Alt
Newton Marshall
Charles Dowding
Chris MacRitchie
Joe Dooley
Warren James

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Jon Shabica, Shabica Associates
Stefanie Nagelbach, Shabica Associates
Mike Fitzgerald, OKW Architects

1. Review and approval of Meeting #2 minutes
    a. Minutes from LAC Meeting #2 were approved by the Committee
    b. Minutes will be posted to the project website

2. Stakeholder outreach update
    a. Preliminary anecdotal themes (as determined from stakeholder interviews conducted so far):
        i. Provide more boat storage options
        ii. Regular care and maintenance of the beach houses needs to be addressed
        iii. Connect Tower and Lloyd
        iv. Determine a way to control jet ski traffic
        v. Initiate a rental program
        vi. Provide more food options
        vii. Use Glencoe Beach as a model to update beach parks in Winnetka

    b. **Preliminary** lakefront priorities (as determined from a survey administered to stakeholder interviewees, more responses will be collected at the first public open house and via a web-based survey):
        i. Areas of Lakefront Parks that **need more focus:**
            1. New facility development
            2. Existing facility improvements
            3. Bluff preservation
            4. Maintenance
            5. Program services / plant life preservation

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ii. Desired **sequence of improvement**:
    1. Beaches
    2. Upper level parks
    3. Shoreline
    4. Bluffs
    5. Other issues

3. Lakefront Master Plan brand
    a. 12 logos were presented to the group for consideration
    b. At the end of the meeting LAC members were asked to vote for their top three favorite logos. Logo #7 (above) received the most votes and will be used as the logo representing the project brand.

4. Draft State of the Lakefront Report update
    a. Draft report to be distributed to LAC by the end of the week (2/13)
    b. Draft will be updated following Open House #1, will be redistributed to LAC for review prior to March 9th meeting
    c. March 9th meeting will discuss draft and approval for distribution to:
        i. IDNR (informational update)
        ii. General public

5. Lakefront Big Ideas
    a. The group reviewed the Big Idea list, and reviewed a diagram similar to what will be presented at Public Open House #1.

6. Next Steps:
    a. Continued stakeholder interviews and focus groups (week of 2/9 and 2/16)
    b. LAC Meeting #4 (March 9, 2015, 6:30PM)
        i. Extended meeting (6:30PM – 8:30PM)
    c. Open House #1: Project Introduction and Existing Conditions Overview (2/19 at 6:00PM and 2/28 at 9:00AM)

7. Other business
    a. None reported

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MEETING SUMMARY

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting DRAFT FOR REVIEW

Date: February 9, 2015
Time: 8:00AM – 9:00AM
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road

Attendees:

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Ken Alt
Newton Marshall
Charles Dowding
Chris MacRitchie
Joe Dooley
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Jon Shabica, Shabica Associates
Stefanie Nagelbach, Shabica Associates
Mike Fitzgerald, OKW Architects

1. Review and approval of Meeting #2 minutes
    a. Minutes from LAC Meeting #2 were approved by the Committee
    b. Minutes will be posted to the project website

2. Stakeholder outreach update
    a. Preliminary anecdotal themes (as determined from stakeholder interviews conducted so far):
        i. Provide more boat storage options
        ii. Regular care and maintenance of the beach houses needs to be addressed
        iii. Connect Tower and Lloyd
        iv. Determine a way to control jet ski traffic
        v. Initiate a rental program
        vi. Provide more food options
        vii. Use Glencoe Beach as a model to update beach parks in Winnetka

    b. **Preliminary** lakefront priorities (as determined from a survey administered to stakeholder interviewees, more responses will be collected at the first public open house and via a web-based survey):
        i. Areas of Lakefront Parks that **need more focus:**
            1. New facility development
            2. Existing facility improvements
            3. Bluff preservation
            4. Maintenance
            5. Program services / plant life preservation

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ii. Desired **sequence of improvement**:
    1. Beaches
    2. Upper level parks
    3. Shoreline
    4. Bluffs
    5. Other issues

3. Lakefront Master Plan brand
    a. 12 logos were presented to the group for consideration
    b. At the end of the meeting LAC members were asked to vote for their top three favorite logos. Logo #7 (above) received the most votes and will be used as the logo representing the project brand.

4. Draft State of the Lakefront Report update
    a. Draft report to be distributed to LAC by the end of the week (2/13)
    b. Draft will be updated following Open House #1, will be redistributed to LAC for review prior to March 9th meeting
    c. March 9th meeting will discuss draft and approval for distribution to:
        i. IDNR (informational update)
        ii. General public

5. Lakefront Big Ideas
    a. The group reviewed the Big Idea list, and reviewed a diagram similar to what will be presented at Public Open House #1.

6. Next Steps:
    a. Continued stakeholder interviews and focus groups (week of 2/9 and 2/16)
    b. LAC Meeting #4 (March 9, 2015, 6:30PM)
        i. Extended meeting (6:30PM – 8:30PM)
    c. Open House #1: Project Introduction and Existing Conditions Overview (2/19 at 6:00PM and 2/28 at 9:00AM)

7. Other business
    a. None reported

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MEETING SUMMARY

Winnetka Lakefront Master Plan – Open House 1 DRAFT FOR REVIEW

Date: February 19, 2015: 6pm-8pm; February 28, 2015: 9am-11am
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road

Open House 1 took place on Thursday, February 19, 2015 from 6pm-8pm. 20 people were in attendance. Open House 1 was repeated on Saturday, February 28, 2015 from 9am-11am and allowed an additional 15 people to participate in the following activities:

1. Introductory presentation
    a. Overview of project team, planning process, project mission and goals, stakeholder outreach to date, lakefront issues and opportunities, and "big ideas".
2. Invitation to fill out survey
    a. The survey asked attendees to rank which areas of the lakefront parks need more focus, and to sequence the priority of improvements at five generalized park locations (upper level parks, bluffs, beaches, buildings, shorelines, or other).
3. Station discussions
    a. Planning process – timeline graphic of project phases.
    b. Lakefront context – aerial context map labeled with walking distances to the lakefront. Attendees were asked to place stickers on the map over their homes.
    c. Lakefront and coastal dynamics – exhibits prepared by Baird, conveying the implications of coastal dynamics on the lakefront.
    d. Lakefront park existing conditions – analysis of existing infrastructure and amenities at each of the lakefront parks.
    e. Lakefront park issues and opportunities – site plan exhibits on which attendees were asked to mark issues and opportunities with color-coded stickers.
    f. Lakefront "big ideas" – site plan diagrams conveying ideas collected throughout stakeholder outreach.

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MEETING AGENDA

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting

Date: March 9, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road

Invitees:

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding
Chris MacRitchie
Joe Dooley
Mike Doornweerd
Warren James

Winnetka Park District
Ian Larkin, Board Liaison
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Tom Rychlik, GHA
Craig McGillawee, Baird
Jon Shabica, Shabica Associates
Stefanie Nagelbach, Shabica Associates
Mike Fitzgerald, OKW Architects

Items to be discussed:

1. Review and approval of Meeting #3 minutes
2. Stakeholder Outreach Update
    a. Interview Update
    b. Open House #1
        i. Overview
        ii. Presentation materials and survey posted to project website
3. Draft State of the Lakefront Report Update
    a. Draft final report for review and approval
    b. Next steps:
        i. Approval to send to IDNR
        ii. Approval to post to project website
4. Lakefront Big Ideas – TOWER AND LLOYD Charrette
    a. Environmental improvements
        i. Table-land
        ii. Bluff
        iii. Shoreline and beach
    b. Access, circulation and linkage improvements
    c. Existing facility / infrastructure improvements
    d. New facility / infrastructure development
    e. New or improved programming
    f. Maintenance and management improvements

5. Next Steps
   a. Continued stakeholder interviews and focus groups
   b. LAC Meeting #5 MAPLE, ELDER, AND CENTENNIAL Charrette (**April 13th, 2015 8:30AM**)
   c. Open House #2 – Design Alternatives:
      i. Confirm date (Suggested: **5/21 at 6:00PM and 5/23 at 9:00AM**)

6. Other business

7. Adjourn

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MEETING SUMMARY

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #4 – DRAFT FOR REVIEW

Date: March 9, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road

Attendees:

Lakefront Advisory Committee
Cheryl Christian
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding
Joe Dooley
Mike Doornweerd
Warren James

Winnetka Park District
Ian Larkin, Board Liaison
Teresa Claybrook, Board Liaison
Bob Smith, Staff Liaison
John Shea, Staff Liaison

Consultant Team
Scott Freres, The Lakota Group
Sarah White, The Lakota Group
Ian Sisson, The Lakota Group
Don Matthews, Gewalt Hamilton (GHA)
Craig McGillawee, Baird
Mike Fitzgerald, OKW Architects

Items discussed:

1. Review and approval of Meeting #3 minutes
   a. Minutes from LAC Meeting #3 were approved by the Committee
   b. Minutes will be posted to the project website

2. Stakeholder Outreach Update
   a. A summary of interviews and survey data to date was presented to the group
      i. An e-blast and/or coordination with the Winnetka Caucus were suggested as ideas to increase community participation, at the appropriate time in the project process
   b. Open House #1
      i. Overview
      ii. Presentation materials and survey have been posted to project website

3. Draft State of the Lakefront Report Update
   a. A draft final report was delivered to group members for review and approval
   b. Next steps:
      i. Group to provide comments and revisions by end of day Friday, March 13, 2015
      ii. Group approval to send to IDNR at April meeting
      iii. Group approval to post to project website at April meeting

4. Lakefront Big Ideas – TOWER AND LLOYD Charrette
   a. The project team presented three conceptual schemes that sought to address the following issues and opportunities identified throughout the Engage project phase:
      i. Environmental improvements
         1. Table-land
         2. Bluff
         3. Shoreline and beach
      ii. Access, circulation and linkage improvements
      iii. Existing facility / infrastructure improvements
      iv. New facility / infrastructure development
      v. New or improved programming
      vi. Maintenance and management improvements
   b. The three schemes presented – A (Min), B (Mid), and C (Max) - demonstrated a range of possibilities and intensities of use. The project team gave an overview of each concept and opened for discussion.
   c. Comments from the group:
      - Expanding trailer parking may bring in more boat launch users and increase traffic
      - There is a need for more boat storage. People park on the street on busy days at Lloyd – associated, traffic, noise, and safety issues
      - Table-land is underutilized at all lakefront parks
      - Water trail hub could connect to the Hubbard Woods business district; signage should direct water trail users to Winnetka restaurants and other business district amenities
      - Updated or new lakefront party rooms would be in high demand
      - Boat storage discussion:
        - Boat valet - service could be offered by WPD or a private vendor (off-site boat storage)
        - Boat club – members would be trained and certified and share access to boats. A section of boat storage could be leased to the boat club by WPD (on or off-site boat storage)
        - Fractional boat ownership – the community may be interested in this as an opportunity to share the cost and use of boats, and may help WPD mitigate a likely large demand surplus for boat storage (on or off-site boat storage)
        - Private rack licensing – based on a rotating agreement of staggered leases for storage racks; similar to NFL private seat license model
        - Double-stacked storage would require a forklift
          - WPD operation of a forklift would increase liability and risk, require specialized staff
          - This type of storage is challenging to make aesthetically appealing – if multi-level storage is to be provided, the team should look at ways to improve aesthetics or conceal the racks.
        - Determine to what degree/intensity storage should be provided
        - Weather-protected storage would generate revenue year-round
        - Idea of boat storage at the top of the Village landfill
        - Boat storage in Winnetka is in demand and people will pay a premium to access storage facilities close to home
      - If on or off-site boat storage capacity is increased, the boat launch at Lloyd should be expanded (double in size) to accommodate more users
      - The max plan looks interesting, but expensive and politically difficult (large amount of development shown on Village property; conversion of cooling pond to boat launch)
        - Change the names to 'A', 'B', and 'C' - titles like Min, Mid, and Max skew perception
      - Tower beach could be modified as a swimming beach to look the way Lloyd is shown in the Max scheme
      - Investigate sand migration at Lloyd, how to minimize launch area dredging and mitigate fluctuating water levels
      - As a swimming beach Lloyd is better than Tower (orientation, water depth, wave/rip intensity)

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MEETING AGENDA

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting

Date: April 13, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road

Invitees:

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding

Chris MacRitchie
Joe Dooley
Mike Doornweerd
Warren James

Winnetka Park District
Ian Larkin, Board Liaison
Teresa Claybrook, Board Liaison
Bob Smith, Staff Liaison
Costa Kutulas, Staff Liaison
John Muno, Staff Liaison
John Shea, Staff Liaison
Jen Gorczyck
Mary Cherveny, Staff Liaison

Consultant Team
Scott Freres, The Lakota Group
Terry Schwartz, The Lakota Group
Sarah White, The Lakota Group
Don Matthews, Gewalt Hamilton (GHA)
Tom Rychlik, GHA
Craig McGillawee, Baird

Jon Shabica, Shabica Associates
Stefanie Nagelbach, Shabica Associates
Mike Fitzgerald, OKW Architects

Items to be discussed:

1. Review and approval of Meeting #4 minutes
2. Draft Final State of the Lakefront Report Update
3. Lakefront Park Charrette
   a. What is a charrette?
      i. Generate ideas
      ii. Evaluate ideas
   b. Big ideas
   c. Evaluation criteria
   d. Tower, Lloyd refined concepts
   e. Maple, Elder, Centennial draft initial concepts
4. Next Steps
   a. LAC Meeting #6 (**May 11th, 2015 ~~8:30AM~~**) 6:30pm – 8:30pm
      i. Confirm time
   b. Open House #2 – Design Alternatives
      i. **Thursday, 5/21 at 6:00PM and Saturday, 5/30 at 9:00AM** at the Winnetka Community House
5. Other business
6. Adjourn

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MEETING AGENDA

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #5 – DRAFT FOR REVIEW

Date: April 13, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road

Attendees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Ian Larkin, Board Liaison	Scott Freres, The Lakota Group
Cheryl Christian	Teresa Claybrook, Board Liaison	Sarah White, The Lakota Group
Jim Petersen	Bob Smith, Staff Liaison	Ian Sisson, The Lakota Group
Ken Alt	Costa Kutulas, Staff Liaison	Don Matthews, Gewalt Hamilton (GHA)
Newton Marshall	John Shea, Staff Liaison	Jon Shabica, Shabica Associates
Charles Dowding	Jen Gorczyck, Staff Liaison	
Chris MacRitchie		
Joe Dooley		
Mike Doornweerd		
Warren James		

Items discussed:

1. Review and approval of Meeting #4 minutes
   a. Minutes from LAC Meeting #4 were approved by the Committee
   b. Minutes will be posted to the project website

2. Draft Final State of the Lakefront Report Update
   a. A Draft Final State of the Lakefront Report will be sent to the group by Wednesday, April 22nd, 2015
      i. Group to provide comments and revisions by end of day Monday, April 27th, 2015
      ii. Group to provide approval to send to IDNR
      iii. Group to provide approval to post to project website

3. Lakefront Park Charrette
   a. The project team defined the charrette process and outlined objectives for the discussion of design concepts
   b. Evaluation criteria for Tower + Lloyd refined concepts
      i. The project team provided a matrix with criteria by which to evaluate each scheme
      ii. Group to fill out evaluation matrices and submit to Lakota by Friday, April 24th, 2015
   c. Tower + Lloyd refined concepts
      i. The project team presented 5 refined design concepts for Tower Road Beach and Lloyd Park. The schemes presented – A, B, C, D, and E – demonstrated a range of possibilities and intensities of use.
      ii. Schemes A, B, and C show improvements at Tower Road Beach as the dedicated swimming beach and at Lloyd Park as the dedicated boating beach. Schemes D and E swap the uses at each park and show design concepts for Tower Road Beach as a dedicated boating beach and

Lloyd Park as a dedicated swimming beach. The project team gave an overview of each concept and opened for discussion.

iii. Comments from the group:

- The demand and price elasticity for boat storage should be considered to determine the right size of any proposed boat storage facility. Winnetka residents will likely be willing to pay a high premium for boat storage, as the current wait list for the fenced-in area at Lloyd is extensive.
- The proposed facility built into the bluff on concept B at Lloyd Park should include space for a catering kitchen.
- Upper bluff dog park discussion:
    - If a fenced-in dog park is to be included on upper park land in any of the concepts, it should be placed out of sight from residential neighbors
    - Cook County requires specific equipment, separate spaces for large and small dogs, and minimum acreage for fenced-in dog areas. This needs to be considered before including in concept plans
    - The dog-owning community in Winnetka would likely support an upper-bluff dog park, especially on the north side of town, but the overall community may not support the idea
    - If a dog park is provided on top of the bluff, WPD may have issues managing dog owners attempting to take dogs down to the beach
    - The "bump" may be a better location for a dog park
- The group liked the idea of a small stage area for events
- Concepts D and E showing Tower Road Beach as a dedicated boating beach:
    - There is too much pavement at beach level and the community may not support it. However, the group noted that the beaches need to activated, as well as inclusive and accessible, which may mean paving over portions of beach to provide parking and circulation
    - Because the beach at Tower is significantly smaller than the beach at Lloyd, these concepts will import the issue of conflict between motorized and non-motorized watercraft currently experienced at Lloyd
    - The conflict between motorized and non-motorized boaters could be resolved by including sailing at Tower but relocating smaller non-motorized boating such as kayaks and SUP to Maple
    - Overall, the group supports showing at least one concept to the community where the uses at Tower and Lloyd are swapped. It is important to show the full range of options
- The ADA beach boardwalk shown at Tower should include nodes similar to the existing boardwalk, where users can sit or congregate. The boardwalk does not necessarily need to extend all the way to the water, as WPD owns a wheelchair with special beach tires that can be used to accommodate water access
- The boat launch basin at Lloyd Park should be expanded in at least one of the concept to accommodate more staging
- The project team should show an option where near term improvements would still accommodate major changes such as the switching of beach uses long term
- Refine the list to three concepts:
    - Low intensity option – maintain current beach uses and show low intensity improvements
    - Medium intensity option – maintain current beach uses and show higher intensity improvements
    - High intensity option – switch beach uses

d. Maple, Elder, Centennial draft initial concepts
    i. The project team presented baseline diagrammatic concepts for Maple, Elder, and Centennial
    ii. Comments from the group:
        - To accommodate a sailing facility for New Trier High School at Maple Park, there would need to be a launch ramp and trailer access
        - Integrating SUP, kayak, and other non-motorized watercraft use at Maple Park as a swimming beach would present major safety and lifeguarding issues. However if swimming was not allowed, this may be feasible
        - The dog beach could be relocated to Maple:
            - Centennial is too large and the space is not fully utilized. Maple would be a better size for a dog beach
            - If the dog beach facility were to be relocated, it would need to be an improvement upon the current facility to have any support from the community
            - The beach house could be integrated into the dog beach as a boarding facility
            - If Elder Lane Park and Centennial Park are intended to be connected long-term by acquiring the private residential property between them, it would make sense to relocate the dog beach
        - The connection of Elder Lane Park and Centennial Park long-term was supported by the group. The group would like the project team to move forward with schemes that show the parks as connected and to investigate how that would impact use at Tower, Lloyd, and Maple

4. Next Steps
    a. Tower-Lloyd concept development as discussed
        i. Revised concepts will be sent to the group ahead of LAC Meeting #6 for review and comment
    b. Maple, Elder, and Centennial concept development as discussed
        i. Revised concepts will be sent to the group ahead of LAC Meeting #6 for review and comment
    c. LAC Meeting #6 will be held **May 11th, 2015 at 6:00**
        i. Extended meeting (6:00PM - 8:00PM)
        ii. The Illinois Water Trail Association will present to the group at the end of the meeting
    d. Open House #2 – Design Alternatives
        i. Open House #2 will be held **Thursday, 5/21 at 6:00PM and Saturday, 5/30 at 9:00AM** at the Winnetka Community House
        ii. The project team will circulate materials to publicize the events

5. Other business
    a. None reported

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MEETING SUMMARY

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting 6
DRAFT FOR REVIEW

Date: May 11, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road

Attendees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Ian Larkin, Board Liaison	Scott Freres, The Lakota Group
Jim Petersen	Teresa Claybrook, Board Liaison	Sarah White, The Lakota Group
Newton Marshall	Bob Smith, Staff Liaison	Jon Shabica, Shabica Associates
Charles Dowding	Costa Kutulas, Staff Liaison	Mike Fitzgerald, OKW Architects
Chris MacRitchie	John Shea, Staff Liaison	
Joe Dooley		
Warren James		

Items discussed:

1. Review and approval of Meeting #5 minutes
   a. Minutes from LAC Meeting #5 were approved by the Committee
   b. Minutes will be posted to the project website

2. Lakefront Park Charrette
   a. Maple, Elder, Centennial refined concepts
      i. The project team presented design concepts for Maple, Elder, and Centennial. The concepts presented – A, B, and C – demonstrated a range of possibilities and intensities of use.
         - Maple Concept A: Improve Existing Conditions. This concept includes:
            a. Selective vegetation clearing and understory re-planting of parkland and bluffs.
            b. New lifeguard station, beach house improvements and upgrades, boardwalk improvements, pier enhancements, seating / shade structure on pier.
         - Maple Concept B: Conversion to Dog Beach. This concept includes:
            a. Moving Winnetka's dog beach from Centennial Beach to Maple Street Beach.
            b. Selective vegetation clearing and understory re-planting of parkland and bluffs.
            c. New controlled access point to beach
            d. Beach house improvements and upgrades, boardwalk improvements, pier enhancements, seating on pier, dog wash area, new perimeter fencing.
         - Maple Concept C: Conversion to Non-Motorized Boating Beach. This concept includes:
            a. Conversion of Maple Street Beach to non-motorized boating beach.
            b. Selective vegetation clearing and understory re-planting of park and bluff.

c. Beach house improvements and upgrades, boardwalk improvements, pier enhancements, seating on pier, new kayak / canoe / SUP / small sailboat storage rack

- Elder / Centennial Concept A: Improve Existing Conditions
  a. Selective vegetation clearing and understory re-planting of parkland and bluff.

[redacted]

- Elder / Centennial Concept C: Join Elder and Centennial

ii. Comments from the Commission:

- Show option for upper-level dog run at Maple (where beach converted to dog beach)
  a. It was noted that fencing was an issue the last time the Park District went to the public for approval of a dog run on lakefront table land.
  b. While the Commission largely supported moving the dog beach to Maple, not all Commission members support the table land dog park. The two uses may be disconnected (one may exist without the other).
  c. A new shoreline structure at Maple should be included as part of the plan to protect the beach, and to help establish a fence line, should the use change to a dog beach.
  d. If Maple is converted to a non-motorized boating beach, it will not be able to accommodate New Trier's program, without a full-size launch.
  e. The non-motorized beach at maple could be used for paddle and kayaking, it could accommodate a regional water trail stop (with a restroom). Water trail users want 24-hour access, would necessitate a light on the pier. Parking may be an issue.
  f. The new restroom at Centennial should be shown at the same location in Concept B and Concept C (allow for phasing).
  g. In both Concept B and Concept C the beach at Elder could be converted to a non-motorized boating beach, Centennial could be used as the swimming beach.
  h. There is an opportunity for increased revenue with expanded parking at Centennial / Elder through lease to New Trier.

b. Tower, Lloyd refined concepts

i. The project team presented revised design concepts for Tower and Lloyd based on feedback from April's meeting. The concepts presented – A, B, and C – demonstrated a range of possibilities and intensities of use.

- Tower / Lloyd Concept A: Improve Existing Conditions
- Tower / Lloyd Concept B: New Lloyd Beach House
- Tower / Lloyd Concept C: Beach-Use Swap, New Launch at Tower

ii. Comments from the Commission:

- Make sure to illustrate how to improve the functionality / capacity of the existing launch. Review best practices of slopes for boat ramps with bAird.
- Review shoreline structure geometry with Baird to ensure best functionality.
-

3. Next Steps
   a. Open House #2 – Design Alternatives
      i. **Thursday, 5/21 at 6:00PM and Saturday, 5/30 at 9:00AM** at the Winnetka Community House
   b. LAC Meeting #7 (**June 8th, 2015 6:30PM**)

4. Other business
   a. None reported.

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MEETING SUMMARY DRAFT FOR REVIEW

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #7

Date: June 8, 2015
Time: 6:00PM – 7:00PM
Location: Winnetka Park District Golf Clubhouse
1300 Oak Street

Attendees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Warren James	Ian Larkin, Board Liaison	Sarah White, The Lakota Group
Cheryl Christian	Teresa Claybrook, Board Liaison	Ian Sisson, The Lakota Group
Joe Dooley	Bob Smith, Staff Liaison	Don Matthews, Gewalt Hamilton (GHA)
Ken Alt	Costa Kutulas, Staff Liaison	Mike Fitzgerald, OKW Architects
Chris MacRitchie	Jen Gorczyck, Staff Liaison	
Charles Dowding	John Shea, Staff Liaison	

Items discussed:

1. Review and approval of Meeting #6 minutes
    a. Minutes from LAC Meeting #6 were approved by the Committee
    b. Minutes will be posted to the project website

2. Open House #2 Summary
    a. Lakota provided a summary of feedback from Open House 2, including common themes from open house conversations and the results of 14 surveys submitted
    b. Recommended providing a simpler, more generalized form for community feedback on concept plans
    c. The Committee discussed opportunities for getting more community members involved in public meetings
        i. Information, exhibits, and simple surveys could be provided at WPD's Total Fitness Challenge on June 27th, as well as at Winnetka's 4th of July celebration. Lakota to prepare simplified plan exhibits and survey
        ii. Social media, WPD newsletters, and other public postings should be arranged for future promotion of community meetings
        iii. Promotional materials should aim to grab attention by communicating top "big ideas" for the waterfront that are included in concept plans

3. Lakefront Master Plan Schedule Update
    a. An updated project schedule was provided to the Committee for review. An additional LAC meeting will be held at the end of July
    b. The Committee moved to present refined concepts at a third community meeting on Saturday, July 25, 2015 at Elder Lane Park

4. Concept Refinement
    a. Based on community input, the Committee evaluated preferred concept plans to move forward with:
        i. Tower Road Beach + Lloyd Park: The Committee supports moving forward with a phased approach to implementation at Tower and Lloyd. Concept A and Concept B will be refined, respectively, to represent near-term and long-term improvements at each park. The plans will show each park maintaining its current beach use (swimming at Tower and boating at Lloyd).
        Concept C, switching the uses between the two parks, will no longer be included in the Master Plan.
        ii. Maple Street Park: The Committee supports moving forward with Concept B, converting Maple to a dog beach. The concept will include a fenced-in dog run on the upper parkland, and the project team will provide a visual representation of its appearance from Sheridan Road. In this plan, it is implied that Centennial Park will no longer be a dog beach and will be converted to another use.
        Concept A (improving the existing swimming beach) and Concept C (converting to a non-motorized boating beach) will no longer be included in the Master Plan.
        [redacted] Elder Lane Park + Centennial Park: The Committee supports moving forward with a phased approach to implementation at Elder and Centennial. Concept A and Concept C will be refined, respectively, to represent near-term and long-term improvements at each park. Concept A will show improvements to existing conditions at Elder and the conversion of Centennial to a swimming beach. Concept C will represent WPD acquisition of the residential property between Elder and Centennial and the connection of the two swimming beaches.
        Concept B, converting Elder to a non-motorized boating beach, will no longer be included in the Master Plan. However, the Committee would like a portion of the connected beach in Concept C to be dedicated to paddleboard and kayak use and rentals.

5. Next Steps
    a. Winnetka Total Fitness Challenge
        i. **Saturday, June 27th, 2015.**
        ii. Winnetka Waterfront 2030 exhibits and a simple survey will be provided
    b. Winnetka July 4th Parade
        i. **Saturday, July 4th, 2015.**
        ii. Winnetka Waterfront 2030 exhibits and a simple survey will be provided
    c. LAC Meeting #8
        i. **Tuesday, July 14th, 2015. 6:30pm – 7:30pm**
        ii. The project team will present refined concepts, draft preliminary budgets and phasing scenarios
    d. LAC Meeting #9
        i. **Monday, July 20th, 2015. 6pm-8pm**
        ii. Concept Update and Water Trails Presentation
    e. Open House #3
        i. **Saturday, July 25th, 2015. 9am-11am at Elder Lane Park**

6. Other business
    a. None reported.

7. Adjourn

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July 13 — meeting
— Lake front information for 4th of July — / include surveys

MEETING AGENDA

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #7

Date: June 8, 2015
Time: 6:00PM – 7:00PM
Location: Winnetka Park District Golf Clubhouse
1300 Oak Street

Invitees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Ian Larkin, Board Liaison	Scott Freres, The Lakota Group
Cheryl Christian	Teresa Claybrook, Board Liaison	Terry Schwartz, The Lakota Group
Jim Petersen	Bob Smith, Staff Liaison	Sarah White, The Lakota Group
Ken Alt	Costa Kutulas, Staff Liaison	Don Matthews, Gewalt Hamilton (GHA)
Newton Marshall	John Muno, Staff Liaison	Tom Rychlik, GHA
Charles Dowding	John Shea, Staff Liaison	Craig McGillawee, Baird
Chris MacRitchie	Mary Cherveny, Staff Liaison	Jon Shabica, Shabica Associates
Joe Dooley		Stefanie Nagelbach, Shabica Associates
Mike Doornweerd		Mike Fitzgerald, OKW Architects
Warren James		

Items to be discussed:

Staff meeting
- How to engage the community
  - Free Giveaways
  - Better outreach
  - Better thought process

1. Review and approval of Meeting #6 minutes
2. Open House #2 Summary
3. Lakefront Master Plan Schedule Update
4. Next Steps
   a. LAC Meeting #8
      i. July 13th, 2013, AM or PM meeting?
      ii. Water Trails Presentation
5. Other business
6. Adjourn

Narrow Down to two Concepts —

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Lake Michigan Water trails - 30-40 min - possible special meeting

MEMORANDUM

Date: June 8, 2015
To: Team
From: Sarah White, The Lakota Group

RE: Project Schedule - Winnetka Lakefront Master Plan

Phase 1: Engage

Establish Lakefront Advisory Committee	October 2014
LAC Member Reception	November 5, 2014
Finalize stakeholder list and contacts, begin stakeholder outreach	November 2014
Lakefront Advisory Committee 1	December 8, 2014
Prepare Draft State of the Lakefront Summary	December 2014 – January 2015
Lakefront Advisory Committee 2	January 12, 2014
Stakeholder Interviews and Focus Groups	January 2015 – March 2015

Phase 2: Analyze	
Prepare Final State of the Lakefront Summary	December 2014 - February 2015
Lakefront Advisory Committee 3	February 9, 2015
Community Open House 1	February 19 + 28, 2015
Lakefront Advisory Committee 4	March 9, 2015

Phase 3: Envision	
Prepare schematic design alternatives	January – May 2015
Lakefront Advisory Committee 5	April 13, 2015
Lakefront Advisory Committee 6	May 11, 2015
Community Open House 2	May 21 + 30, 2015
Lakefront Advisory Committee 7	**June 8, 2015**
Refine schematic design alternatives	**June 2015**
Prepare draft Lakefront Master Plan report	**June 2015**
Lakefront Advisory Committee 8	**July 13, 2015 w/ Water trails**
Community Open House 3	**July 2015**
Prepare final Lakefront Master Plan report	**July 2015**
Lakefront Advisory Committee 9	**August 2015**
Community Open House 4	**September 2015**
Lakefront Advisory Committee 10	**September 2015**
Park Board Presentation	**September 2015**
Village Council Presentation	**September 2015**

Possible 2nd Meeting

25th — Elder Lane Beach

July 9th — Committee Meeting

Maple

A - most liked	B - most liked	C - most liked
Selective vegetation clearing	Convert Maple to dog beach	
Boardwalk improvements	Vendor / concession space in the beach house	
Pier improvements - resurfacing, railing, seating		
Beach house improvements		
A - most disliked	**B - most disliked**	**C - most disliked**
A - mixed responses	**B - mixed responses**	**C - mixed responses**
	Fenced-in dog run on upper park land	Convert to non-motorized boating beach
Comments	**Comments**	**Comments**
"Would love to see the lake from Sheridan"; "Stairs and handrails should be rebuilt and the bluff needs stabilazation" ; "Consider double-sided parking depending on the final use of the park"	"Accessible parking down low adds problems"; "Love the dog beach"; "Fence in the grass area for a year round dog park"; "Maple should become the dog beach for Winnetka: smallest, most central, conveniently located. Great idea"; "Love moving the dog beach. Great idea with the fenced-in dog run"	

Elder

A - most liked	B - most liked	C - most liked
Selective vegetation clearing		
Stormwater management		
Existing pier enhancements		
A - most disliked	**B - most disliked**	**C - most disliked**
Nature-based play area	Convert to non-motorized boating beach	Acquire private property and connect beaches
A - mixed responses	**B - mixed responses**	**C - mixed responses**
Lakefront lab		
Comments	**Comments**	**Comments**
"Please don't increase parking. Use increased bicycle storage + roads instead. Encourage walking and biking to the beaches, not driving"; "Keep the existing pier"	"Please keep the existing pier or create a walkable breakwater. I really enjoy walking or sitting "out" on the water."; "Should keep this as a swimming beach"	"Like the nature based play area for any beach"; "Do not increase parking. Encourage biking and walking"

Centennial

A - most liked	B - most liked	C - most liked
Bike trail hub + restroom shelter	New beach access ramp	Connected, protected swimming beach
Removal of central groin structure	Convert to protected swimming beach	
	New beach house	
	Beach boardwalk	
A - most disliked	**B - most disliked**	**C - most disliked**
A - mixed responses	**B - mixed responses**	**C - mixed responses**
	Beachfront playground	
Comments	**Comments**	**Comments**
	"Great idea to convert dog beach to swimming. Don't expand parking, but encourage walking and biking"; "Keep as the dog beach"; "Consider keeping the central breakwaters out of plans so they don't need to be removed if the residential property is acquired by WPD."	"Given the large size of the beach, need to incorporate non-motorized boating. Families want to go to one beach to swim and paddle"

Winnetka Waterfront 2030 - Open House 2 Feedback Summary

Tower

A - most liked	B - most liked	C - most liked
Improve existing staircase	New beach house (8 like, 5 neutral)	Mid-bluff terrace with seating and food option
Selective vegetation clearing	Exercise stairs + fitness stations	
Swimming beach improvements		
Dune plantings		
A - most disliked	**B - most disliked**	**C - most disliked**
A - mixed responses	**B - mixed responses**	**C - mixed responses**
Beach terrace with fire pit		New 3-lane boat launch
Comments	**Comments**	**Comments**
	"Like the fire pit and shelter on the beach" "Playground can go at any beach, but keep the accessible boardwalk at a single beach"	"Love the boat beach at tower and new boat launch"

Lloyd

A - most liked	B - most liked	C - most liked
Selective vegetation clearing	Extend boat launch basin	
Improve existing staircase	Walking + jogging paths	
New southern staircase + overlook	New boat house with launch office	
Separation of boating types w/ breakwaters	Boardwalk	
	Boat share program	
A - most disliked	**B - most disliked**	**C - most disliked**
		Convert to swimming beach
		Reconfigured parking + circulation
		New lakefront pavilion
A - mixed responses	**B - mixed responses**	**C - mixed responses**
		New walking jogging paths
		Exercise stairs, fitness stations, shelter, and overlook
Comments	**Comments**	**Comments**
	"Increase non-resident usage fees to keep this awesome facility local"; "Should not have multiple entrances for sidewalks or drives - one entrance is more secure and controllable"; "Love the idea of using local restaurants as food service providers"; "Use food trucks"; "Love the lakefront pavilion"; "Convert the upper park area next to the parking lot to a dog park. Plenty of parking and can be used year-round (esepecially by the elderly)"	"Beach too narrow, no PM sun. But the water is better for swimming"

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MEETING SUMMARY DRAFT FOR REVIEW

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #8

Date: June 14, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Admin Office Community Room
1300 Oak Street

Attendees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Charles Dowding	John Shea, Staff Liaison	Scott Freres, The Lakota Group
Cheryl Christian	Costa Kutulas, Staff Liaison	Cade Sterling, The Lakota Group
Joe Dooley	Bob Smith, Staff Liaison	Don Matthews, Gewalt Hamilton (GHA)
Newt Marshall		Mike Fitzgerald, OKW Architects
		Jon Shabica, Shabica Associates

Items discussed:

1. Review and approval of Meeting #7 minutes
    a. Minutes from LAC Meeting #7 were approved by the Committee
    b. Minutes will be posted to the project website

2. Quick review of community input thus far.
    a. Community input has been enormously positive with the exception of a few neighbors adjacent to Maple Park. We think it would be beneficial to post 36x48" laminated boards at their corresponding parks/beaches to capture the public's interest.

3. Certification and funding were reviewed.
    a. More funding opportunities may be possible if we reach for a higher quality of design and implement best management standards throughout. However, the cost will also increase both with design, implementation, operations and maintenance. We need to find a balance.
        i. What rules are existing that must be followed
        ii. What can we do in the existing framework (permitting and codes)
        iii. What is our scope and how far do we want to take this.
    b. Rules and regulations regarding development are constantly fluctuating and the permitting process for projects such as this is long and cumbersome. We need to be able to expedite the process using our status as a municipality.
    c. Federal grants support ideas such as the harbor of refuge, outdoor, environmental education opportunities, riparian and habitat restoration for waterfowl, butterflies and bees.
    d. The park district needs to find areas where an immediate impact can be made. Maple beach is a perfect example of immediate progress.

4. Plan Refinements
    a. Based on the LAC's critique, the following revisions were made to the presented concepts:
        i. **Tower Road Beach + Lloyd Park:**
            1. An interest existed in the harbor of refuge plan and the addition of another boat launch. Committee and consultant members ultimately decided to keep the double launch but add a space for vertical launches in the new slip. This area would support the committees, "boat club" idea. The harbor of refuge may alleviate congestion that exists with boats currently mooring off the beach. However, costs involved with constant dredging and maintenance should be considered.
            2. It was recommended that the internal slips be removed from the design but the inner, "harbor" remain for boats to moor in. We should also rename the area to boat basin instead of harbor of refuge to remove liability.
            3. It was also recommended that we eliminate the designation between motorized and non-motorized areas. Simplify and expand boat storage further north as open air, rack storage. The management office would be relocated to the area between the two boat ramps and would be decreased in size to a 10x10 prefab building.
            4. The larger boat/beach house seemed redundant with the acquisition of the property between Elder and Centennial beaches. A simpler structure or retrofit of the existing structure are preferred although the proposed second access road remained popular.
            5. The existing storm water outfall should be moved further north and released into a constructed riparian wetland system. This system would improve safety and create a buffer from the neighbor's property. There are three sources of funding for this, local schools, the neighbor, and federal grants.
        ii. **Maple Street Park:**
            1. Maple Street Park will be the new dog beach and there is demand and support for it within the community. It seemed preferable to contain the dog areas to the beach itself however, concepts showing a fenced area on the table land should remain as an option.
            2. The existing structure should be retrofitted and leased out for a revenue stream.
        iii. **Elder Lane Park + Centennial Park:**
            1. We need to stress the unique opportunity that exists for environmental education on site due to the proximity of New Trier and North Shore Country Day School.
            2. The committee doesn't want to show a concept where the dog beach is kept as is. In the minimum scheme we need to relabel as a swim beach and add a life guard station.
            3. Showing pieces of the eventual coastal improvements should be implemented. These can be moved later.
            4. Butterfly and bee habitat should be incorporated to improve sources of funding. Nature play areas should be shown in other locations such as north of tower beach, on the south side of Lloyd or moved to the south side of centennial. Kayak, Sail and SUP storage should be shown at South Centennial beach in the minimum and maximum schemes. This will become the new sailing beach for residents and New Trier.

5. Don Mathews presented several best management practices and their benefits to the project both environmentally and economically.
    a. Bioswales
    b. Naturalized detention basins
    c. Infiltration basins
    d. Direct runoff to vegetated areas
    e. Inverted vegetated islands in parking lots
    f. Permeable pavements
    g. Oil/water separators
    h. Sediment removal systems and catchbasins with sumps
    i. Low maintenance no mow grass

j. Bluff clearing and the introduction of deep rooted, native vegetation
k. Beach stabilization and the introduction of native dune grass systems
l. High reflective pavement materials
m. LED lighting
n. Sharp cut off Lighting
o. Solar panels
p. Geothermal applications
q. Wind turbines
r. Use of recycled materials or reuse of materials existing on site
s. Use of local materials and contractors
t. Green roofs and highly reflective roofing
u. Bird friendly windows
v. Vehicle charging stations

6. Next Steps
   a. LAC Meeting #9
      i. **Monday, July 20th, 2015. 6pm-8pm**
      ii. Concept Update and Water Trails Presentation
   b. Open House #3
      i. **Saturday, July 25th, 2015. 9am-11am at Elder Lane Park**
   c. **September 12th meeting was scheduled**

7. Other business
   a. None reported.

8. Adjourn

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MEETING SUMMARY DRAFT FOR REVIEW

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #8

Date: June 14, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Admin Office Community Room

Attendees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Charles Dowding	John Shea, Staff Liaison	Scott Freres, The Lakota Group
Cheryl Christian	Costa Kutulas, Staff Liaison	Cade Sterling, The Lakota Group
Joe Dooley	Bob Smith, Staff Liaison	Don Matthews, Gewalt Hamilton (GHA)
Newt Marshall		Mike Fitzgerald, OKW Architects
		Jon Shabica, Shabica Associates

Items discussed:

1. Review and approval of Meeting #7 minutes
    a. Minutes from LAC Meeting #7 were approved by the Committee
    b. Minutes will be posted to the project website

2. Quick review of community input thus far.
    a. Community input has been enormously positive with the exception of a few neighbors adjacent to Maple Park. We think it would be beneficial to post 36x48" laminated boards at their corresponding parks/beaches to capture the public's interest.

3. Certification and funding were reviewed.
    a. More funding opportunities may be possible if we reach for a higher quality of design and implement best management standards throughout. However, the cost will also increase both with design, implementation, operations and maintenance. We need to find a balance.
        i. What rules are existing that must be followed
        ii. What can we do in the existing framework (permitting and codes)
        iii. What is our scope and how far do we want to take this.
    b. Rules and regulations regarding development are constantly fluctuating and the permitting process for projects such as this is long and cumbersome. We need to be able to expedite the process using our status as a municipality.
    c. Federal grants support ideas such as the harbor of refuge, outdoor, environmental education opportunities, riparian and habitat restoration for waterfowl, butterflies and bees.
    d. The park district needs to find areas where an immediate impact can be made.

4. Plan Refinements
    a. Based on the LAC's critique, the following revisions were made to the presented concepts:
        i. **Tower Road Beach + Lloyd Park:**
            1. An interest existed in the harbor of refuge plan and the addition of another boat launch. Committee and consultant members ultimately decided to keep the double launch but add a space for vertical launches in the new slip. This area would support the committees, "boat club" idea. The harbor of refuge may alleviate congestion that exists with boats currently mooring off the beach. However, costs involved with constant dredging and maintenance should be considered.
            2. It was recommended that the internal slips be removed from the design but the inner, "harbor" remain for boats to moor in. We should also rename the area to boat basin instead of harbor of refuge to remove liability.
            3. It was also recommended that we eliminate the designation between motorized and non-motorized areas. Simplify and expand boat storage further north as open air, rack storage. The management office would be relocated to the area between the two boat ramps and would be decreased in size to a 10x10 prefab building.
            4. The larger boat/beach house seemed redundant with the acquisition of the property between Elder and Centennial beaches. A simpler structure or retrofit of the existing structure are preferred although the proposed second access road remained popular.
            5. The existing storm water outfall should be moved further north and released into a constructed riparian wetland system. This system would improve safety and create a buffer from the neighbor's property. There are three sources of funding for this, local schools, the neighbor, and federal grants.
        ii. **Maple Street Park:**
            1. Maple Street Park is being evaluated as the new dog beach. It seemed preferable to contain the dog areas to the beach itself however, concepts showing a fenced area on the table land should remain as an option.
            2. The existing structure should be retrofitted and leased out for a revenue stream.
        iii. **Elder Lane Park + Centennial Park:**
            1. We need to stress the unique opportunity that exists for environmental education on site due to the proximity of New Trier and North Shore Country Day School.
            2. The committee doesn't want to show a concept where the dog beach is kept as is. In the minimum scheme we need to relabel as a swim beach and add a life guard station.
            3. Showing pieces of the eventual coastal improvements should be implemented. These can be moved later.
            4. Butterfly and bee habitat should be incorporated to improve sources of funding. Nature play areas should be shown in other locations such as north of tower beach, on the south side of Lloyd or moved to the south side of centennial. Kayak, Sail and SUP storage should be shown at South Centennial beach in the minimum and maximum schemes. This will become the new sailing beach for residents and New Trier.

5. Don Mathews presented several best management practices and their benefits to the project both environmentally and economically.
    a. Bioswales
    b. Naturalized detention basins
    c. Infiltration basins
    d. Direct runoff to vegetated areas
    e. Inverted vegetated islands in parking lots
    f. Permeable pavements
    g. Oil/water separators
    h. Sediment removal systems and catchbasins with sumps
    i. Low maintenance no mow grass
    j. Bluff clearing and the introduction of deep rooted, native vegetation

k. Beach stabilization and the introduction of native dune grass systems
l. High reflective pavement materials
m. LED lighting
n. Sharp cut off Lighting
o. Solar panels
p. Geothermal applications
q. Wind turbines
r. Use of recycled materials or reuse of materials existing on site
s. Use of local materials and contractors
t. Green roofs and highly reflective roofing
u. Bird friendly windows
v. Vehicle charging stations

6. Next Steps
    a. LAC Meeting #9
        i. **Monday, July 20th, 2015. 6pm-8pm**
        ii. Concept Update and Water Trails Presentation
    b. Open House #3
        i. **Saturday, July 25th, 2015. 9am-11am at Elder Lane Park**
    c. Open House #4
        i. **September 12th at 9AM**
        ii. **September 16th at 6PM**

7. Other business
    a. None reported.

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MEETING AGENDA

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #8

Date: July 14, 2015
Time: 6:30PM – 7:30PM
Location: Winnetka Park District Admin Office Community Room

Invitees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Ian Larkin, Board Liaison	Scott Freres, The Lakota Group
Cheryl Christian	Teresa Claybrook, Board Liaison	Terry Schwartz, The Lakota Group
Jim Petersen	Bob Smith, Staff Liaison	Sarah White, The Lakota Group
Ken Alt	Costa Kutulas, Staff Liaison	Don Matthews, Gewalt Hamilton (GHA)
Newton Marshall	John Muno, Staff Liaison	Tom Rychlik, GHA
Charles Dowding	John Shea, Staff Liaison	Craig McGillawee, Baird
Chris MacRitchie	Mary Cherveny, Staff Liaison	Jon Shabica, Shabica Associates
Joe Dooley		Stefanie Nagelbach, Shabica Associates
Mike Doornweerd		Mike Fitzgerald, OKW Architects
Warren James		

Items to be discussed:

1. Review and approval of Meeting #7 minutes

2. Summary of input from community events:
    a. Total Fitness Challenge
    b. 4th of July Parade

3. Refined concepts
    a. Plan refinements
    b. Schematic costs
    c. Phasing and prioritizing
    d. Best management practices and sustainable programs to be considered at parks and beaches

4. Next Steps
    a. LAC Meeting #9
        i. July 20th, 2015 at 6:30PM
            1. Review of concepts for presentation at Open House #3
            2. Phasing / prioritizing discussion
            3. Water Trails Presentation (7:30PM)
    b. Open House #3
        i. July 25th, 2015 9AM – Elder Beach
    c. Party on the Pier presentation boards?
        i. August 28, 2015
    d. Review meeting with IDNR
        i. August 2015 (date TBD)

e. Open House #4
    i. September 2015 (date TBD)
        1. **If date is set today, we will be able to publish the meeting in the fall brochure (deadline is July 17th)**

5. Other business Sept. 12, Sept 16

6. Adjourn

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MEMORANDUM

Date: July 14, 2015
To: Team
From: Sarah White, The Lakota Group

RE: Project Schedule - Winnetka Lakefront Master Plan

Phase 1: Engage

Establish Lakefront Advisory Committee	October 2014
LAC Member Reception	November 5, 2014
Finalize stakeholder list and contacts, begin stakeholder outreach	November 2014
Lakefront Advisory Committee 1	December 8, 2014
Prepare Draft State of the Lakefront Summary	December 2014 – January 2015
Lakefront Advisory Committee 2	January 12, 2014
Stakeholder Interviews and Focus Groups	January 2015 – March 2015

Phase 2: Analyze	
Prepare Final State of the Lakefront Summary	December 2014 - February 2015
Lakefront Advisory Committee 3	February 9, 2015
Community Open House 1	February 19 + 28, 2015
Lakefront Advisory Committee 4	March 9, 2015

Phase 3: Envision	
Prepare schematic design alternatives	January – May 2015
Lakefront Advisory Committee 5	April 13, 2015
Lakefront Advisory Committee 6	May 11, 2015
Community Open House 2	May 21, 2015
Lakefront Advisory Committee 7	June 8, 2015
Refine schematic design alternatives	June 2015
Lakefront Advisory Committee 8	**July 13, 2015**
Community Open House 3	**July 2015**
Lakefront Advisory Committee 9	**July 2015**
Prepare draft Lakefront Master Plan report	**July / August 2015**
Lakefront Advisory Committee 10	**September 2015**
Community Open House 4	**September 2015**
Prepare draft final Lakefront Master Plan report	**July / August 2015**
Lakefront Advisory Committee 11	**October 2015**
Park Board Presentation	**September or October 2015**
Submit final Lakefront Master Plan report	**October 2015**
Lakefront Advisory Committee 12	**October 2015**
Village Council Presentation	**October 2015**

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MEETING SUMMARY

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #9

Date: July 20, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Admin Office Community Room

Invitees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Ian Larkin, Board Liaison	Sarah White, The Lakota Group
Jim Petersen	Bob Smith, Staff Liaison	
Ken Alt	Costa Kutulas, Staff Liaison	
Newton Marshall	John Shea, Staff Liaison	
Charles Dowding		
Chris MacRitchie		
Joe Dooley		
Warren James		

Items to be discussed:

1. Refined concepts
    a. Revied revised plan with LAC to be presented at the upcoming Open House #3.
    b. Phasing and prioritizing was discussed, a "budget study" sub-group will be formed.

2. Illinois Water Trails Presentation
    a. Tom Heineman and Laurie Morse presented on behalf of Illinois Water Trails.

3. Next Steps
    a. LAC Meeting #10
        i. August 31, 2015 6:30PM Community Room
    b. Open House #3
        i. July 25th, 2015 9AM – Elder Beach
    c. Open House #4
        i. September 12th and 16th 2015

4. Other business
    a. No other business reported.

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MEETING SUMMARY DRAFT FOR REVIEW

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #10

Date: August 31, 2015
Time: 6:30PM – 8:15PM
Location: Winnetka Park District Admin Office Community Room

Attendees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Ian Larkin, Board Liaison	Sarah White, The Lakota Group
Ken Alt	Bob Smith, Staff Liaison	Scott Freres, The Lakota Group
Newton Marshall	Costa Kutulas, Staff Liaison	Cade Sterling, The Lakota Group
Cheryl Chmsham	John Shea, Staff Liaison	
Chris MacRitchie	Jen Gorczyca	Public
Joe Dooley		Hope Poor, New Trier Rowing Coach
Warren James		

Items discussed:

1. Motion to approve minutes from LAC meetings #8 & #9
    a. Minutes approved without comment

2. Project Review by Scott Freres
    a. Members of the LAC and consultant team have been engaged in public comment and community engagement
        i. Open houses
        ii. Available at public meetings and events
        iii. Open survey

    b. Open house #3 was discussed
        i. Estimated attendance around 40
        ii. Significant dialogue and positive response. The open house was successful and met its primary goal of delivering information and getting people talking and thinking about Winnetka's Lakefront.
            1. This is evident by a spike in survey responses after the July 25th meeting.
                a. There was worries that the results might be deceiving due to the potential for a single resident to file multiple surveys
                b. Although the survey may not be statistically significant due to this fact, it still serves the primary purpose of collecting information that can challenge the committee and the design group

c. The survey results were shown question by question. To date there were over 120 responses.
    i. Results were mostly positive other than an overwhelmingly negative response to moving the dog beach to Maple.
    ii. The survey showed that there was no single reason for the negative response but rather a multitude of reasons.
        1. Current beach conditions at Maple are favorable compared to the condition of Winnetka's other beaches.
            a. Conducive to younger children
        2. Residents see dogs conflicting with popular beach activities.
        3. Maple is small
        4. Fear of decreasing property values
        5. Dogs may disturb neighboring residents
    iii. The committee would like it to be known that the reasoning for moving dogs to maple was never because of a lack of attendance. Rather it was because Centennial Beach is the most valuable beach both in terms of economics, safety and potential.
        1. Centennial has the potential to be a world class facility with the acquisition of the residential property separating it from elder beach.
        2. Dogs, more specifically, 300 license holders, should not control the most valuable asset available to the park district.
    iv. It will be absolutely necessary to educate people about the value and appeal of Centennial beach and the park districts vision for it.
        1. Show photos | Show how magnificent this beach is
            a. Table land
            b. Gentle slope
            c. Longest beach
            d. Calmest water
        2. Potentially hold focus group meetings at Centennial
        3. There is a need to show the plans for all the beaches as a single vision. They're being seen as separate and unrelated which is absolutely false.

d. It was suggested that the LAC should focus on their long term plans and primary objective of increased access and use at waterfront parks.
    i. It was agreed after some discussion that the LAC should not be distracted by the issues brought up in the lakefront survey, comments made at the open house as well as a letter to park district officials (the threat of legal action).
        1. The LAC asked for public comment, they received it and they're listening
        2. Let's not alienate residents surrounding Maple beach by catering to 300 dog users
        3. Also, let's not alienate dog users altogether
        4. Propose eliminating dogs from beaches altogether and re-locate dogs to a land based open area to be determined
            a. Potential Sites Included
                i. Potential FPDCC cooperation
                ii. Potential Landfill site
                iii. Potentially locate it above the beach at Centennial
                iv. Formalizing a smaller area at centennial was discussed but this ultimately had two problems
                    1. Logistics of controlling the dogs
                    2. Too small of an area for dog runs
        5. When the dog beach was first placed at centennial, it wasn't because a beach was asked for. Rather, it occurred here by default.
        6. A Survey should be sent to the 300 license holders of Centennial to see if they primarily use the beach for the access to water or simply the large open area for the dog to run.

e. It was brought up that during the Open House, several attendees were concerned with the size and scale of the breakwaters shown on the plans
    i. Lets show photos of Rosewood so the public can get a better idea of what to expect
    ii. There was a strong desire to not to anything. To stick with the status quo.
        1. However, this is most likely due to a lack of education
        2. The facts are, the beaches are eroding and need protection
        3. If nothing is done, the beaches will disappear.
    iii. This conversation brought up the fact that the park district is one of the last property owner to protect their beaches. Many private land owners have already built their own breakwaters and bluff protection systems.
        1. There is a slope ordinance in Kenilworth (similar to that of Highland Park) that the city is attempting to get adopted
            a. This would limit the ability of private land owners to manipulate the beach and bluff lands.
                i. Should Winnetka look into this.
        2. Should the Winnetka Park district look into creating a mini documentary about these issues to educate and inform the public?
            a. This documentary (if made) should include education about water quality at Winnetka beaches
                i. There is a lingering perception, despite immense progress, that they're dirty.

f. Programming beaches around generations was discussed
    i. A counter point was made that the reality may be users go to beaches based on proximity to their residence instead of the individual feel of the beach
g. A vote was taken and it was decided to remove the dog beach at maple for the upcoming open house
    i. However, the LAC wanted it to be known that they were very disappointed in the response they received and how a handful of citizens decided to approach their discontent
    ii. Results of the vote were 5 yays to 0 nays with 2 members abstaining.
h. During the meeting a member of the New Trier Rowing Team as well as a long time Winnetka Resident proposed increased access to the lake for rowers
    i. This was received favorably and should be included on the drawings for the next open house
    ii. Plans should include utilizing the boat house at maple or the proposed boat house at tower as an education and event space with rowing machines
        1. Fitness space needs to be re-phrased to event space so we do not compete with and duplicate existing park district and village facilities

3. A subcommittee on budgeting and finance was formed
    a. Warren
    b. Larz
    c. Scott
    d. Chris

4. Next Steps:
    a. Open House #4 on September 12th
    b. Open House $5 on September 16th
    c. LAC Meeting on October 5th @ 6:30
    d. Subcommittee on budgeting and finance meeting TBD

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MEETING AGENDA

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #10

Date: August 31, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Admin Office Community Room

Invitees:

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding
Chris MacRitchie
Joe Dooley
Mike Doornweerd
Warren James

Winnetka Park District
Ian Larkin, Board Liaison
Teresa Claybrook, Board Liaison
Bob Smith, Staff Liaison
Costa Kutulas, Staff Liaison
John Muno, Staff Liaison
John Shea, Staff Liaison
Mary Cherveny, Staff Liaison
Jen Gorczyck, Staff Liaison

Consultant Team
Scott Freres, The Lakota Group
Terry Schwartz, The Lakota Group
Sarah White, The Lakota Group
Cade Sterling, The Lakota Group
Don Matthews, Gewalt Hamilton (GHA)
Tom Rychlik, GHA
Craig McGillawee, Baird
Jon Shabica, Shabica Associates
Stefanie Nagelbach, Shabica Associates
Mike Fitzgerald, OKW Architects

Items to be discussed:

1. Review and approval of Meeting #8 and Meeting #9 minutes
2. Project status update
3. Brief overview of concepts
4. Review of public input, open house #3, survey (paper and online)
5. Budget study sub-group session
6. Next Steps
    a. LAC Meeting #11
        i. Date?
    b. Open House #4
        i. September 12th at 9am, Winnetka Park District Admin Office Community Room
        ii. September 16th at 6pm, Winnetka Park District Admin Office Community Room
7. Other business
8. Public comment
9. Adjourn

MEETING SUMMARY

Winnetka Lakefront Master Plan – Open House 4 DRAFT FOR REVIEW

Date: September 12th, 2015: 9am-11am; September 16, 2015: 6pm-8pm
Location: Winnetka Park District Administration Office Community Room
540 Hibbard Road

Open House 4 took place on Saturday, September 12, 2015 from 9am-11am. 21 people were in attendance. Open House 4 was repeated on Wednesday, September 16, 2015 from 6pm-8pm and allowed an additional 12 people to participate in the following activities:

1. Participants were given the opportunity to view concept boards, engage in conversation and submit an evaluation survey prior to and after the presentation.
2. Introductory presentation
    a. Overview of project team, planning process, project mission and goals, survey results to date, lakefront issues and opportunities, and "best management practices".
    b. The question was brought up often, "why do we need a master plan."
        i. State and Federal funding is available but municipalities with master plans are given first priority. Those that don't have a plan, don't get looked at for funding.
3. An open forum for concerns, interests and questions:
    a. Bacteria counts at Elder and Centennial are an immediate public concern and should be addressed as a priority
    b. A resident living close to Maple street beach expressed continued concern over our earlier plans to convert it into a dog beach.
        i. The concept of moving dogs from Centennial is not going away
        ii. It will be included in our master plan that Maple beach was considered to absorb centennials role as a dog beach
        iii. It will also be included that there was great public outcry and concern at this proposed change of use
            1. Maple was not preferred and was largely not conducive to use as a dog beach
    c. There was concern over the proposed breakwaters
        i. Unnatural look
        ii. Collecting garbage and pests
        iii. Unpredictable and prone to failure
            1. Cited instances in Waukegan, Lake Forest and Michigan.
    d. Community members wanted to know if Boating could be moved from Elder Beach to Tower Beach
        i. Not viable due to the costs associated with a new boat launch and access road
        ii. Lack of infrastructure and property ownership
    e. There was a concern expressed over altering the lake bottom from rocks to sand
        i. People like to collect the pebbles
    f. Interest in full season activities was expressed

    i. Walking
    ii. Venues
    iii. Fitness
    iv. Education Center
    v. Fire Pits
g. Tower beach is traditionally sunny, sandy and shallow and doesn't need much maintenance.
    i. The thought of leaving it as it was brought up
    ii. The challenge with sand blowing into the water/power plants lagoons could be prevented with new breakwaters
h. Linkages along the Lake Michigan water trail was a popular concept
i. It was asked that inventory of existing beach conditions be brought to open house meetings
    i. Sun studies
    ii. Beach facts
j. Promotion of community events and outreach needs to be improved.
    i. Ideas included marketing at beaches, community boards and public newsletters.
k. There is a desire for increased cooperation between the village and the park district
l. Could we find a way to get around insurance liability and operate non-motorized boating alongside swimming?
m. There were concerns over the surveys legitimacy
    i. Sample size
    ii. Multiple entries

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LANDSCAPE ARCHITECTURE
HISTORIC PRESERVATION
COMMUNITY RELATIONS

MEETING AGENDA

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #11

Date: October 14, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Admin Office Community Room

Park Board Approval 12/17

Invitees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Ian Larkin, Board Liaison	Scott Freres, The Lakota Group
Cheryl Christian	Teresa Claybrook, Board Liaison	Terry Schwartz, The Lakota Group
Jim Petersen	Bob Smith, Staff Liaison	Sarah White, The Lakota Group
Ken Alt	Costa Kutulas, Staff Liaison	Cade Sterling, The Lakota Group
Newton Marshall	John Muno, Staff Liaison	Don Matthews, Gewalt Hamilton (GHA)
Charles Dowding	John Shea, Staff Liaison	Tom Rychlik, GHA
Chris MacRitchie	Mary Cherveny, Staff Liaison	Craig McGillawee, Baird
Joe Dooley	Jen Gorczyck, Staff Liaison	Jon Shabica, Shabica Associates
Mike Doornweerd		Stefanie Nagelbach, Shabica Associates
Warren James		Mike Fitzgerald, OKW Architects

Items to be discussed:

1. Review and approval of Meeting #10 minutes
2. Project status update
3. Project prioritization
4. Next Steps
   a. LAC Meeting #12
      i. Date?
   b. Open House #5
      i. October 15th at 6pm, Winnetka Park District Admin Office Community Room
      ii. October 17th at 9am, Winnetka Tennis Center Lobby
5. Other business
6. Public comment
7. Adjourn

—Oct. 24 - Lloyd Beach Tour — a? —

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LANDSCAPE ARCHITECTURE
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COMMUNITY RELATIONS

MEETING AGENDA

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Items to be discussed:

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   a. LAC Meeting #12
      i. Date?
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      ii. October 17th at 9am, Winnetka Tennis Center Lobby
5. Other business
6. Public comment
7. Adjourn

LAKOTA

PLANNING
URBAN DESIGN
LANDSCAPE ARCHITECTURE
HISTORIC PRESERVATION
COMMUNITY RELATIONS

MEETING SUMMARY

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #11 DRAFT

Date: October 14, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Admin Office Community Room

Attendees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Bob Smith, Staff Liaison	Scott Freres, The Lakota Group
Cheryl Christian	Costa Kutulas, Staff Liaison	Mike Fitzgerald, OKW Architects
Newton Marshall	John Shea, Staff Liaison	
Warren James	Jen Gorczyca, Staff Liaison	

Items discussed:

1. Review and approval of Meeting #10 minutes
    a. Meeting #10 minutes were approved.

2. Project status update
    a. The group reviewed lakefront priorities as reported by the informal survey conducted with stakeholders at the project onset.
    b. The group reviewed the plan mission and goals, priority projects should support plan mission and goals.
    c. The group reviewed considerations for coastal improvement:
        i. Understanding existing coastal processes, regulatory requirements and development costs will be key to the sequence in which the following proposed improvements are implemented
        ii. Coastal and bluff improvements are likely the most costly, but should be completed first due to their direct impact on the success of all other improvements

3. Project prioritization
    a. The group reviewed the draft lakefront plans, and discussed proposed improvements. LAC members were asked to first think about priorities for the lakefront without thinking about costs.
    b. A "prioritization worksheet" was distributed, LAC members were asked to fill out the worksheet and return it before the next meeting. An updated worksheet, reflecting comments given during the meeting is attached.
    c. The budget sub-committee will meet in October to assign costs to proposed improvements to help

4. Next Steps
    a. Open House #5
        i. October 15th at 6pm, Winnetka Park District Admin Office Community Room
        ii. October 17th at 9am, Winnetka Tennis Center Lobby
    b. WPD Board Presentation
        i. October 22nd, 2015
    c. Draft Master Plan for LAC review
        i. November 5th, 2015
    d. Budget sub-committee meeting

i. Friday, October 30th, 2015 at 10am, Tennis Center Lounge

e. LAC Meeting #12
   i. November 9th, 2015 at 6:30PM, Winnetka Park District Admin Office Community Room

f. Lakefront Tour
   i. November 14th, 2015 at 10:00AM, Lloyd Beach

g. LAC Meeting #13
   i. December 7th, 2015 at 6:30PM

h. Master Plan Presentation to WPD Board
   i. Thursday, December 17th

5. Other business
   a. None reported

6. Public comment
   a. None reported

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URBAN DESIGN
LANDSCAPE ARCHITECTURE
HISTORIC PRESERVATION
COMMUNITY RELATIONS

MEETING AGENDA

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #12

Date: November 9, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Admin Office Community Room

Invitees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Ian Larkin, Board Liaison	Scott Freres, The Lakota Group
Cheryl Christian	Teresa Claybrook, Board Liaison	Terry Schwartz, The Lakota Group
Jim Petersen	Bob Smith, Staff Liaison	Sarah White, The Lakota Group
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Joe Dooley	Jen Gorczyca, Staff Liaison	Jon Shabica, Shabica Associates
Mike Doornweerd		Stefanie Nagelbach, Shabica Associates
Warren James		Mike Fitzgerald, OKW Architects

Items to be discussed:

1. Review and approval of Meeting #11 minutes

2. Project status update
   a. Open House #5 Summary
   b. WPD Board Presentation Summary
   c. Budget Sub-Committee Summary
   d. Draft Master Plan Status

3. Project prioritization
   a. Mission and goals review
   b. Survey priorities
   c. Revised concept review
   d. Order of magnitude cost discussion

4. Next Steps
   a. Lakefront Tour
      i. November 14th, 2015 10AM, Lloyd Beach
   b. LAC Meeting #12
      i. December 7, 2015, 6:30PM, Winnetka Park District Admin Office Community Room

5. Other business

6. Public comment

7. Adjourn

LAKOTA

PLANNING
URBAN DESIGN
LANDSCAPE ARCHITECTURE
HISTORIC PRESERVATION
COMMUNITY RELATIONS

MEETING SUMMARY

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #12 DRAFT

Date: November 9, 2015
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Admin Office Community Room

Attendees:

Lakefront Advisory Committee	Winnetka Park District	Consultant Team
Blake Hannafan	Ian Larkin, Board Liaison	Scott Freres, The Lakota Group
Ken Alt	Teresa Claybrook, Board Liaison	Terry Schwartz, The Lakota Group
Newton Marshall	Bob Smith, Staff Liaison	Sarah White, The Lakota Group
Charles Dowding	Jen Gorczyca, Staff Liaison	Mike Fitzgerald, OKW Architects
Joe Dooley		
Warren James		

Items to be discussed:

1. Review and approval of Meeting #11 minutes
    a. Minutes approved.

2. Project status update
    a. Open House #5 Summary
        i. 14 surveys complete
    b. Budget Sub-Committee Summary
    c. Draft Master Plan Status

3. Project prioritization
    a. Revised plans (based on community input) presented to LAC.
    b. Comments from LAC:
        i. Shorten the length of the south breakwater at Lloyd.
        ii. Keep a Lake Michigan water trail stop at Lloyd.
        iii. Accommodate rowers at Lloyd.
        iv. Need more cross sections, plan illustrations.
            1. Aerial views of north and south beaches
            2. View from beach pavilion at Lloyd
            3. View from the beach
        v. Could signal control work at Tower to improve access?
        vi. Centennial: show near term and long term plan, show what may be done w/out acquiring property
        vii. Lessen extent of access road at Centennial / Elder. Too much road, as currently shown.
        viii. Check requirements for emergency access
        ix. Check revenue stream for facility at The Grove, comparable to what WPD could earn with an event venue on the lake?
        x. Elder: #1 priority: fix stormwater issues, convert to boating beach
        xi. How can we accommodate better concessions in the near term?

1. Vernon Hills Town Center beer garden, comparable to what WPD could operate seasonally at the lakefront?
2. Lakota to confirm timing for permits / construction on shoreline improvements.

xii. Lakota to send simple project list to help LAC define priority projects.

4. Next Steps
   a. Lakefront Tour
      i. November 14th, 2015 10AM, Lloyd Beach
   b. LAC Meeting #12
      i. December 7, 2015, 6:30PM, Winnetka Park District Admin Office Community Room
   c. Park Board Presentation – Draft Master Plan
      i. December 17, 2015

5. Other business
   a. None reported

6. Public comment
   a. The shipwreck at the south end of Lloyd Beach may be in conflict with the proposed location of the new breakwater.
   b. Southeast winds can be a problem at the Lloyd launch, and should be taken into consideration when designing the new shoreline systems. Sand accretion is a particular problem at that location. A sand management plan should be considered.

7. Adjourn

LAKOTA

PLANNING
URBAN DESIGN
LANDSCAPE ARCHITECTURE
HISTORIC PRESERVATION
COMMUNITY RELATIONS

MEETING AGENDA

Winnetka Lakefront Master Plan – Lakefront Advisory Committee Meeting #13

Date: January 13, 2016
Time: 6:30PM – 8:30PM
Location: Winnetka Park District Admin Office Community Room

Invitees:

Lakefront Advisory Committee
Blake Hannafan
Cheryl Christian
Jim Petersen
Ken Alt
Newton Marshall
Charles Dowding
Chris MacRitchie
Joe Dooley
Mike Doornweerd
Warren James

Winnetka Park District
Ian Larkin, Board Liaison
Teresa Claybrook, Board Liaison
Bob Smith, Staff Liaison
Costa Kutulas, Staff Liaison
John Muno, Staff Liaison
John Shea, Staff Liaison
Mary Cherveny, Staff Liaison
Jen Gorczyca, Staff Liaison

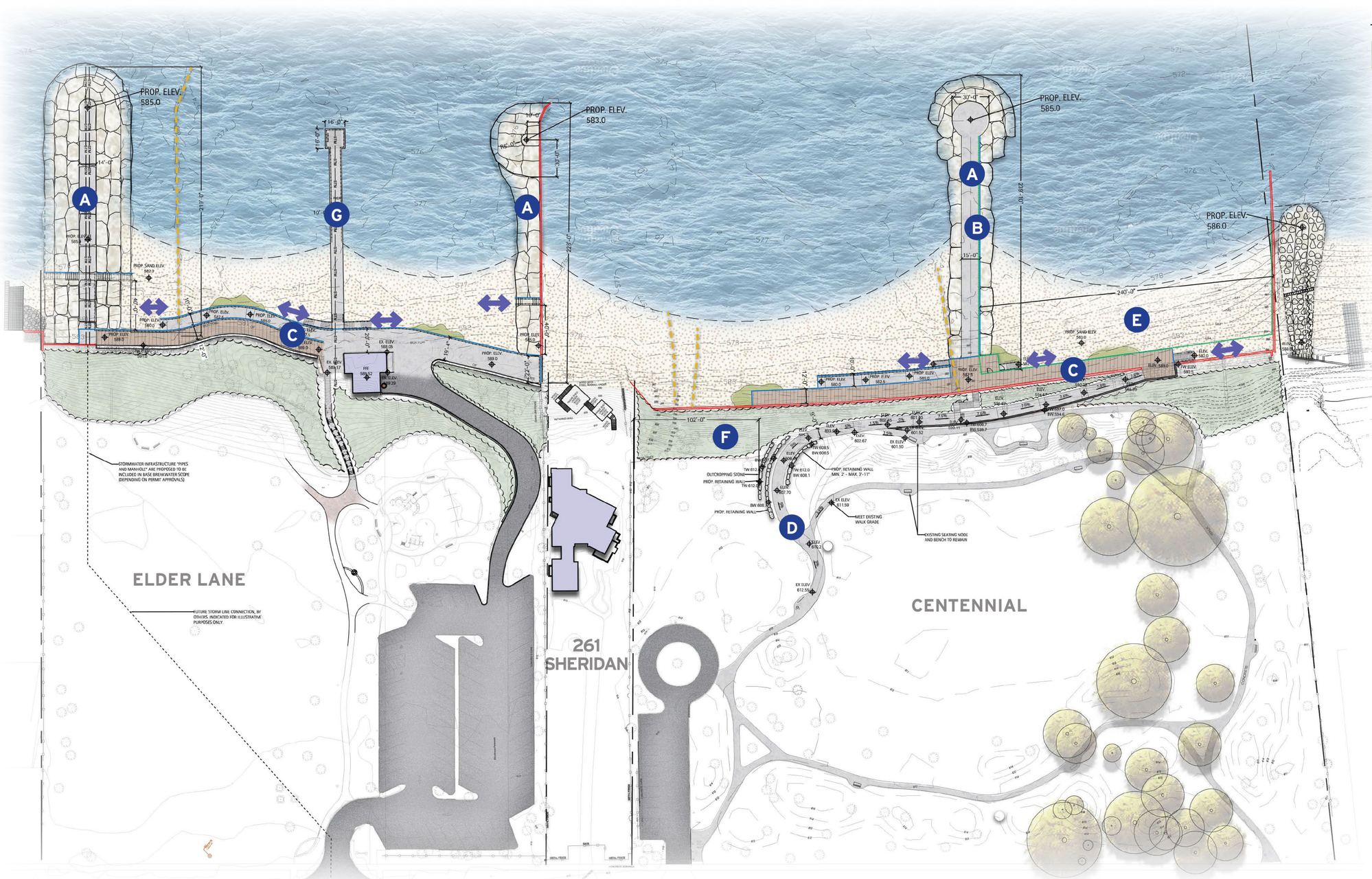
Consultant Team
Scott Freres, The Lakota Group
Terry Schwartz, The Lakota Group
Sarah White, The Lakota Group
Cade Sterling, The Lakota Group
Don Matthews, Gewalt Hamilton (GHA)
Tom Rychlik, GHA
Craig McGillawee, Baird
Jon Shabica, Shabica Associates
Stefanie Nagelbach, Shabica Associates
Mike Fitzgerald, OKW Architects

Items to be discussed:

1. Review of draft final plan
2. IDNR Coastal Management Program Grant - application update
3. Next Steps
    a. Board Presentation
        i. January 21, 2016
    b. Grant application submission

Elder + Centennial | Schematic Design

ELDER | CENTENNIAL
BEACH FEASIBILITY STUDY



LEGEND

- PROPOSED BLUFF RESTORATION
- ACCESS TO BEACH
- SHEET PILE (PROPOSED)
- SHEET PILE (EXISTING)
- ELEMENT TO BE REMOVED
- ORNAMENTAL FENCE

- **A** RUBBLE MOUND BREAKWATER SHORELINE PROTECTION
- **B** ACCESSIBLE VIEWING PIER WITH BENCH SEATING
- **C** ADA ACCESSIBLE BOARDWALK & CONCRETE RAMP BEACH ACCESS
- **D** ACCESSIBLE PEDESTRIAN PATH TO BEACH
- **E** PROPOSED CENTENNIAL DOG BEACH
- **F** BLUFF RESTORATION ZONE
- **G** REPAIRED EXISTING CONCRETE PIER

Elder + Centennial | Final Schematic Design

SCALE: 1"=40'
0 20' 40' 80'
NORTH

10/19/2023

THE LAKOTA GROUP.

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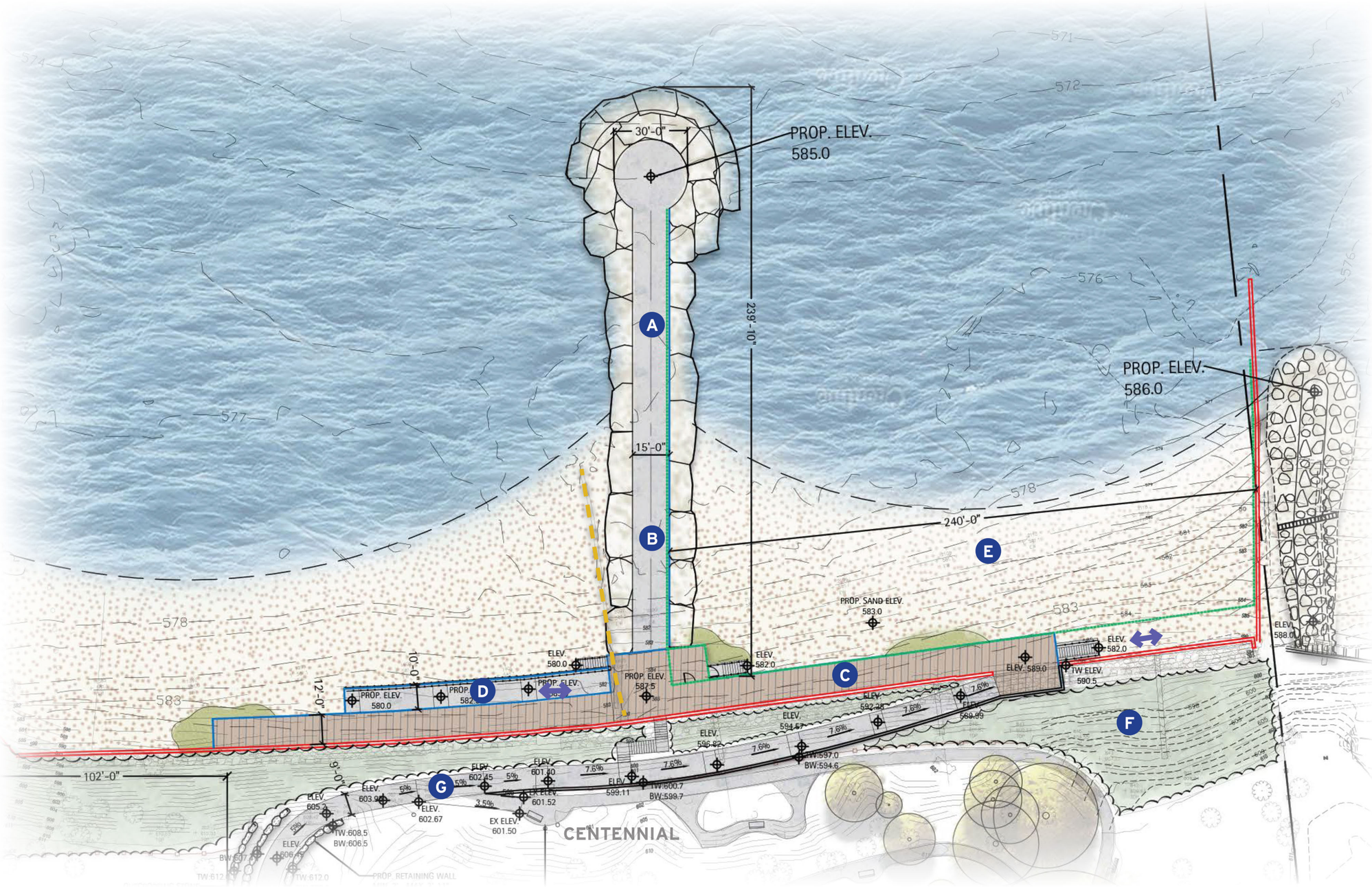
Elder + Centennial | Schematic Design

ELDER | CENTENNIAL
BEACH FEASIBILITY STUDY



LEGEND

- PROPOSED BLUFF RESTORATION
- ACCESS TO BEACH
- SHEET PILE (PROPOSED)
- SHEET PILE (EXISTING)
- ELEMENT TO BE REMOVED
- ORNAMENTAL FENCE

- **A** RUBBLE MOUND BREAKWATER SHORELINE PROTECTION
- **B** ACCESSIBLE VIEWING PIER WITH BENCH SEATING
- **C** ADA ACCESSIBLE BOARDWALK
- **D** ADA ACCESSIBLE CONCRETE RAMP BEACH ACCESS
- **E** PROPOSED CENTENNIAL DOG BEACH
- **F** BLUFF RESTORATION ZONE
- **G** ACCESIBLE PEDESTRIAN PATH & RAMP TO BEACH

Centennial Enlargement | Final Schematic Design

SCALE: 1"=20'
0 10' 20' 40'
NORTH

10/19/2023

THE LAKOTA GROUP.

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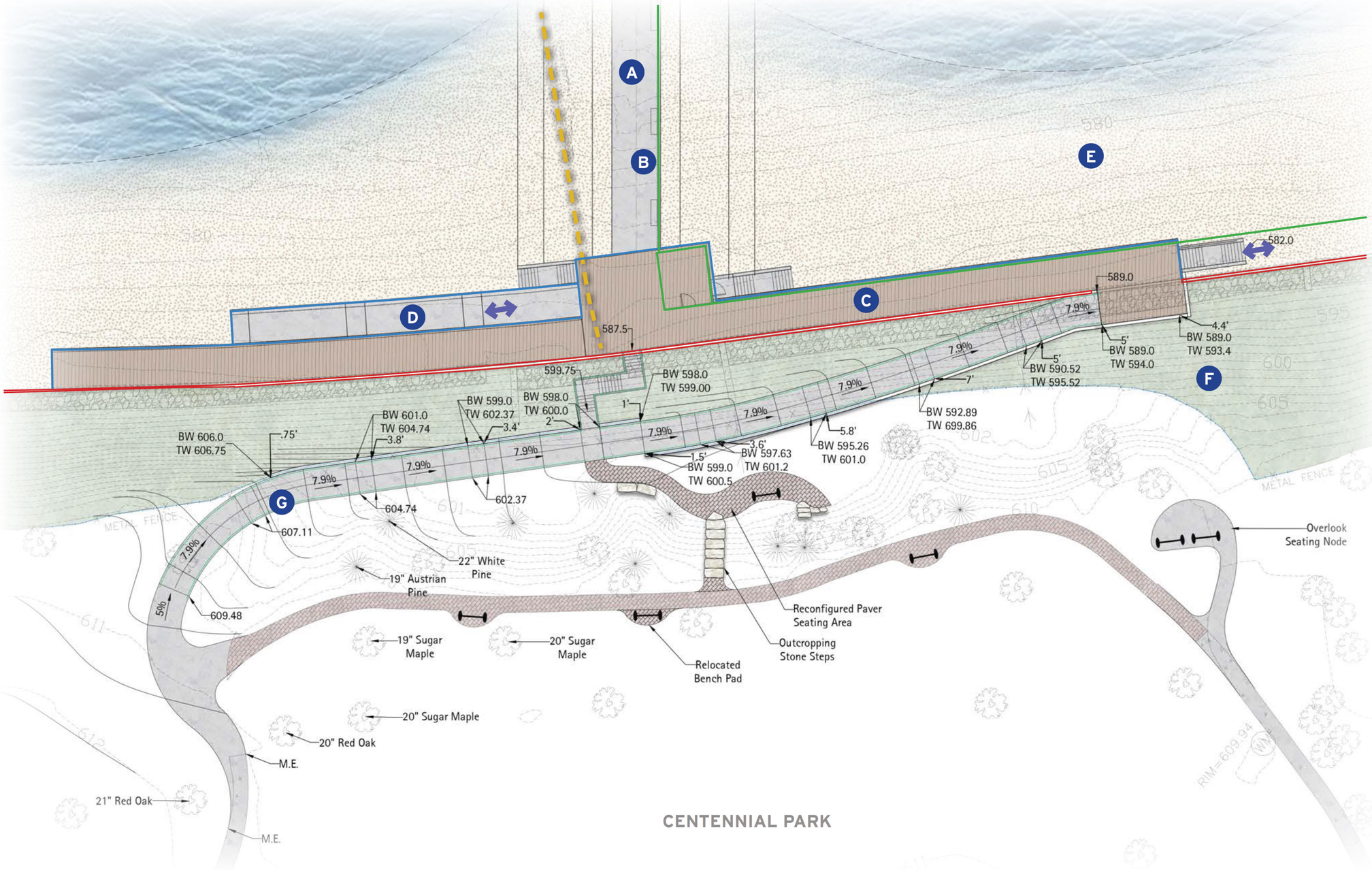

LEGEND

- PROPOSED BLUFF RESTORATION
- ACCESS TO BEACH
- SHEET PILE (PROPOSED)
- SHEET PILE (EXISTING)
- ELEMENT TO BE REMOVED
- ORNAMENTAL FENCE

- **A** RUBBLE MOUND BREAKWATER SHORELINE PROTECTION
- **B** ACCESSIBLE VIEWING PIER WITH BENCH SEATING
- **C** ADA ACCESSIBLE BOARDWALK
- **D** ADA ACCESSIBLE CONCRETE RAMP BEACH ACCESS
- **E** PROPOSED CENTENNIAL DOG BEACH
- **F** BLUFF RESTORATION ZONE
- **G** ACCESSIBLE PEDESTRIAN PATH & RAMP TO BEACH

ELDER & CENTENNIAL BEACH & BLUFF IMPROVEMENTS

CENTENNIAL ACCESS RAMP

WINNETKA, ILLINOIS

SCALE: 1"=10'
0 5' 10' 20'
NORTH

MARCH 18, 2024

PREPARED FOR:
VILLAGE OF WINNETKA

THE LAKOTA GROUP.

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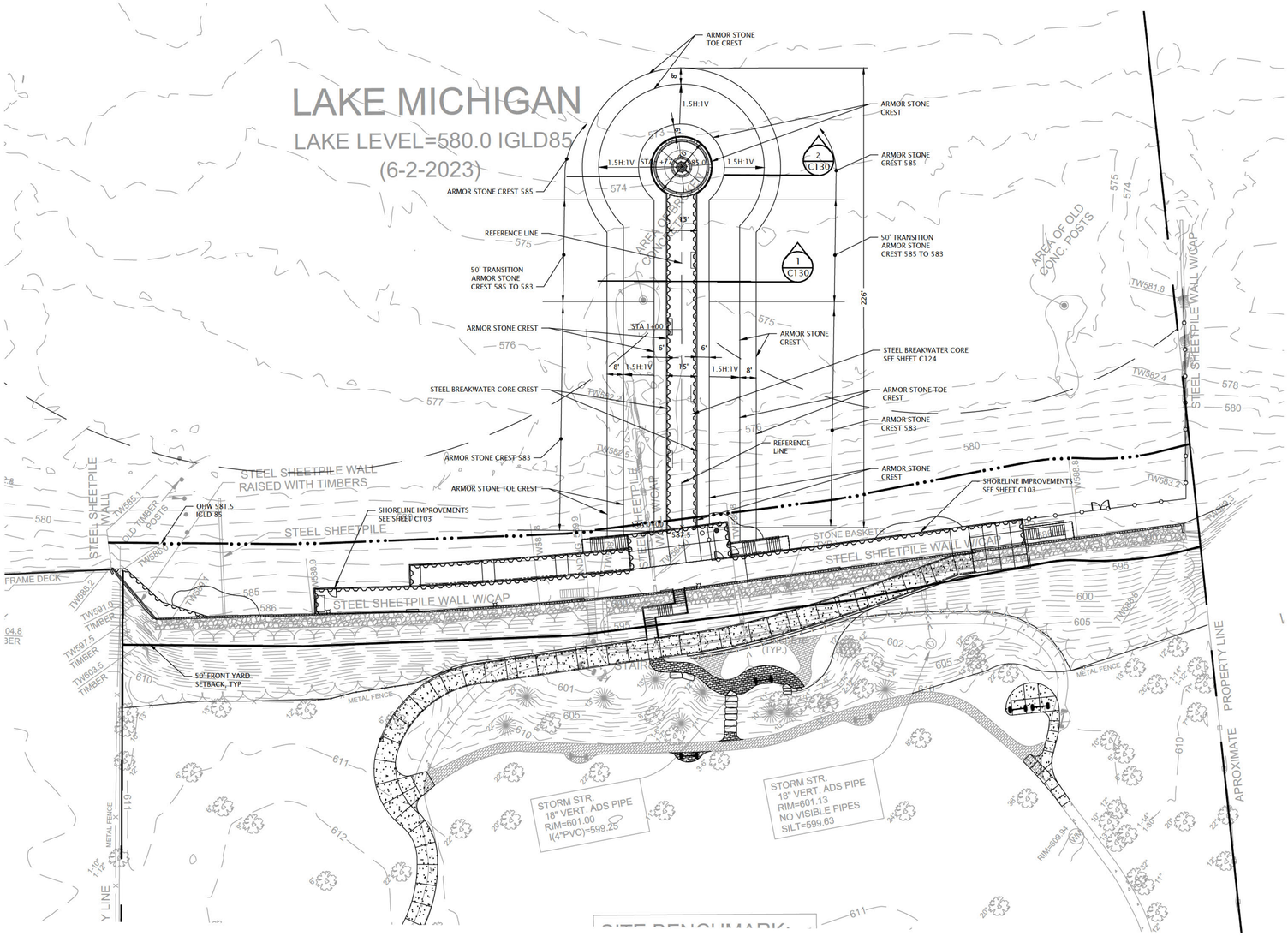
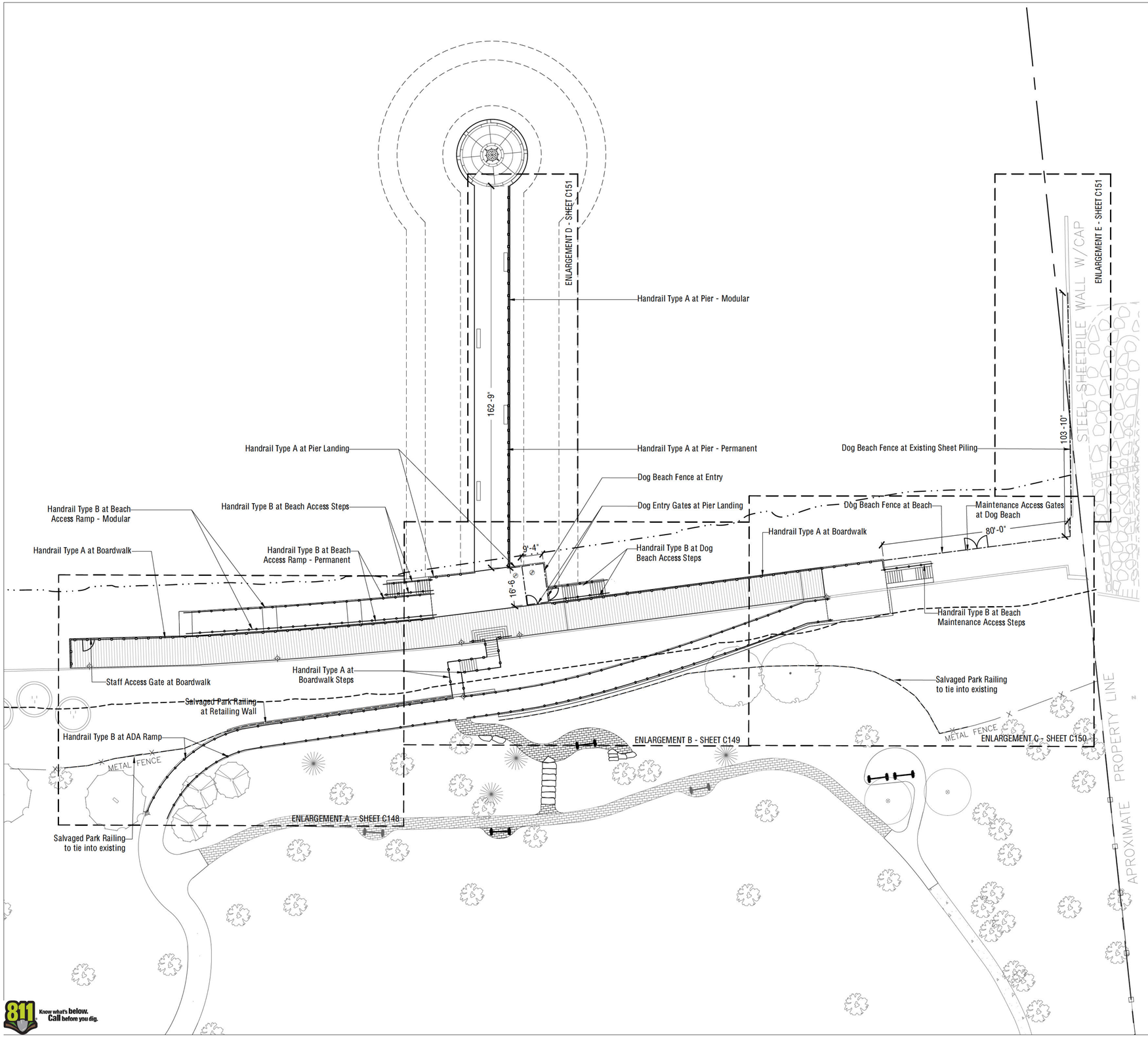

LAKE MICHIGAN
LAKE LEVEL=580.0 IGLD85
(6-2-2023)
ARMOR STONE TOE CREST
ARMOR STONE CREST
ARMOR STONE CREST 585
ARMOR STONE CREST 585
REFERENCE LINE
50' TRANSITION ARMOR STONE CREST 585 TO 583
50' TRANSITION ARMOR STONE CREST 585 TO 583
ARMOR STONE CREST
ARMOR STONE CREST
STEEL BREAKWATER CORE SEE SHEET C124
STEEL BREAKWATER CORE CREST
ARMOR STONE TOE CREST
ARMOR STONE CREST 583
ARMOR STONE CREST 583
REFERENCE LINE
ARMOR STONE TOE CREST
ARMOR STONE CREST
SHORELINE IMPROVEMENTS SEE SHEET C103
SHORELINE IMPROVEMENTS SEE SHEET C103
STEEL SHEETPILE WALL RAISED WITH TIMBERS
STEEL SHEETPILE WALL
STEEL SHEETPILE
STEEL SHEETPILE WALL W/CAP
STEEL SHEETPILE WALL W/CAP
STEEL SHEETPILE WALL W/CAP
STONE BASKET
OHW 581.5 IGLD 85
OLD TIMBER POSTS
AREA OF OLD CONC. POSTS
FRAME DECK
TIMBER
TIMBER
TIMBER
50' FRONT YARD SETBACK, TYP
STAIRS (TYP.)
METAL FENCE
METAL FENCE
STORM STR. 18" VERT. ADS PIPE RIM=601.00 I(4"PVC)=599.25
STORM STR. 18" VERT. ADS PIPE RIM=601.13 NO VISIBLE PIPES SILT=599.63
RIM=600.84
PROPERTY LINE
APPROXIMATE
Y LINE
SITE BENCHMARK:
STA 1+00
STA 1+45
226'
1.5H:1V
1.5H:1V
1.5H:1V



LEGEND

- Ordinary High Water Mark (OHW)
- 50' Setback Line from OHW
- Handrail Type A
  See Details, Sheets C155-157
- Handrail Type B
  See Details, Sheet C158-C160
- Dog Beach Fencing
  See Details, Sheet C161-163
- Salvaged Park Railing
  See Detail 2, Sheet C160

METAL FABRICATION NOTES

1. Metal fabricator to provide shop drawings and specifications for all metal work including, but not limited to, all connections, fixtures, hardware, and related equipment needed to provide structure and coverage per the contract drawings and for review by the Owner's Representative.
2. Contractor shall provide coordinated shop drawings for all fabrication components and installation of these elements for approval by Owner's representative. Shop drawings shall coordinate all aspects of the bluff ramp, boardwalk, and staircase construction including structural, ipe decking, wood, concrete, and metal fabrication.
3. Contractor shall assume full structural and manufacturing responsibility for all mounting components and ensure durability and integrity of these elements.
4. Mockups of each handrail type shall be submitted for review and approval by Owner and Owner's representative. Approved mockups to become part of final installation.

HANDRAIL NOTES

The following notes apply to all handrails, see sheets C155-C160.

1. Coordinate with Structural Drawings for framework and footing details.
2. All steel components, other than than stainless steel, to be powder coated black. See specifications.
3. All welds shall be ground smooth, clean, and as close to straight angles as possible for a clean finished appearance.
4. All hardware and fasteners for handrail Type A shall be stainless steel, heads painted black, unless otherwise noted.
5. All hardware and fasteners for handrail Type B shall be stainless steel, unless otherwise noted.
6. Metal fabricator to determine appropriate anchor bolt depth and indicate in coordinated shop drawings.
7. Metal Fabricator to indicate expansion joint locations and splice connections for all permanent handrails (Type A and Type B) and for horizontal bars for the length of dog beach fence where mounted at sheet piling.
8. Samples of all metal component finishes to be submitted for review and approval by the Owner's Representative.

RED BARN
Design & Engineering, S.C.
6750 Woodland Drive
Waunakee Wisconsin 53597
p. 608.849.2042
c. 608.843.1870
redbarnde@tds.net

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THE LAKOTA GROUP.
1 East Wacker Drive
Suite 2700
Chicago, Illinois 60601
p 312.467.5445
f 312.467.5484
thelakotagroup.com

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding and Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' 10' 20'
(In Feet)

Scale 1 Inch = 20 Ft.

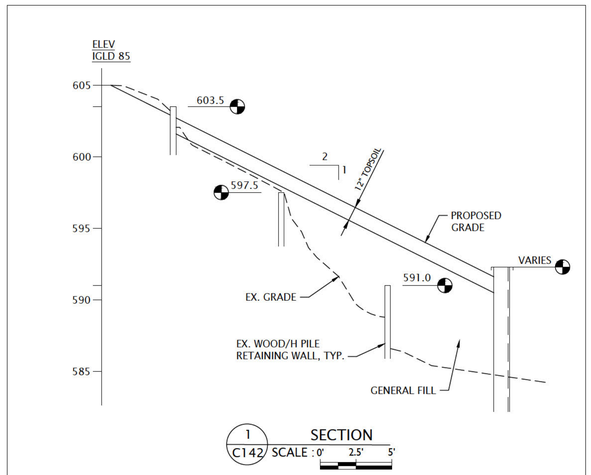
Drawing Title

HANDRAIL AND FENCING PLAN

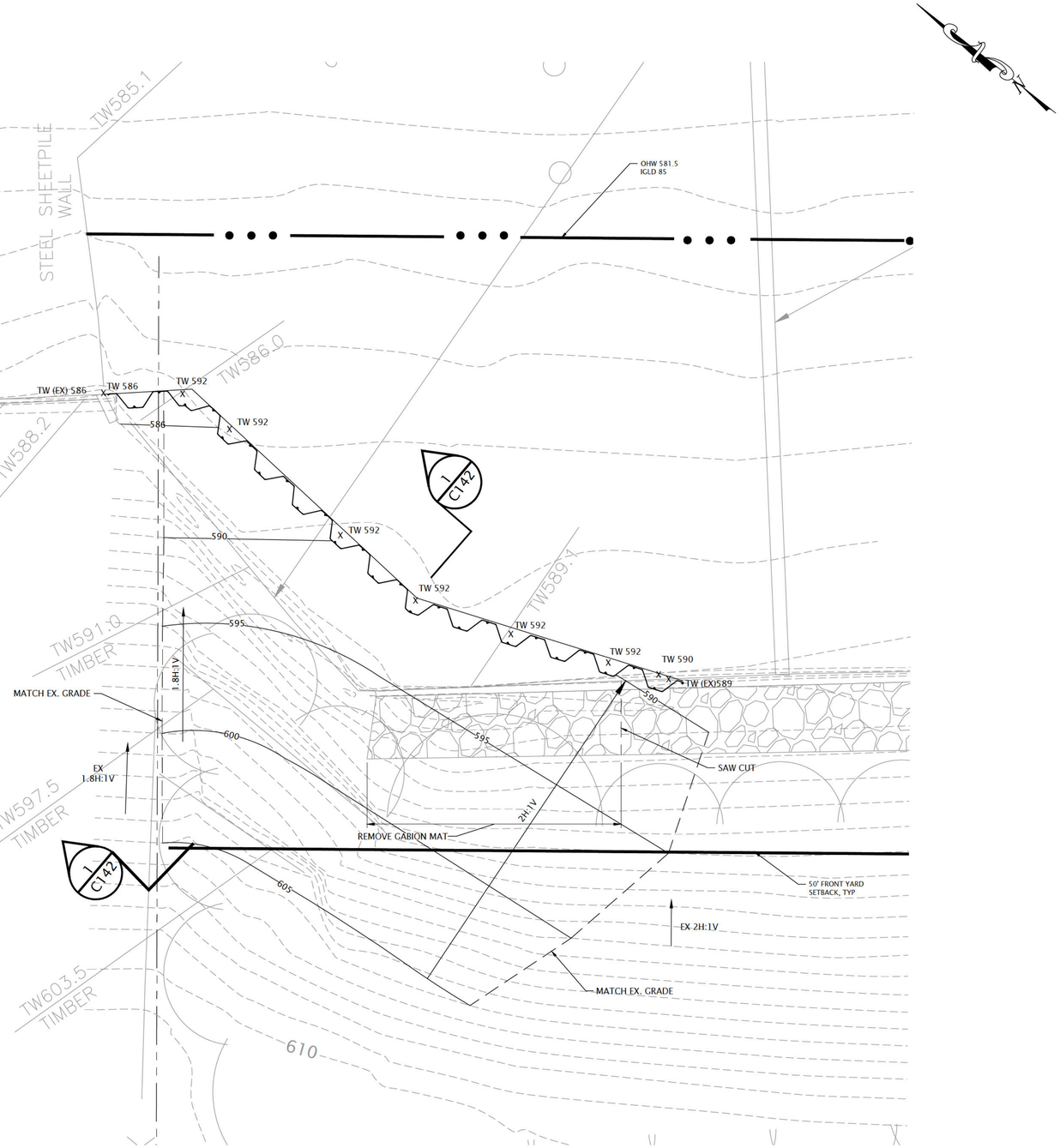
Sheet No.

C147

811 Know what's below. Call before you dig.



1 C142 SECTION
SCALE : 0' 2.5' 5'



LEGEND (PROPOSED)

OHW 581.5 IGLD 85

50' FRONT YARD SETBACK

"The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto."

811 Know what's below. Call before you dig.

RED BARN
Design & Engineering, S.C.

6750 Woodland Drive
Waunakee Wisconsin 53597
p. 608.849.2042
c. 608.843.1870
redbarnde@tds.net

Consultants

Issued for	Rev.	Date
70% Submittal		04/08/24
100% Submittal		06/28/24
Bidding And Construction		07/19/24

Project Title:

Site Improvements
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

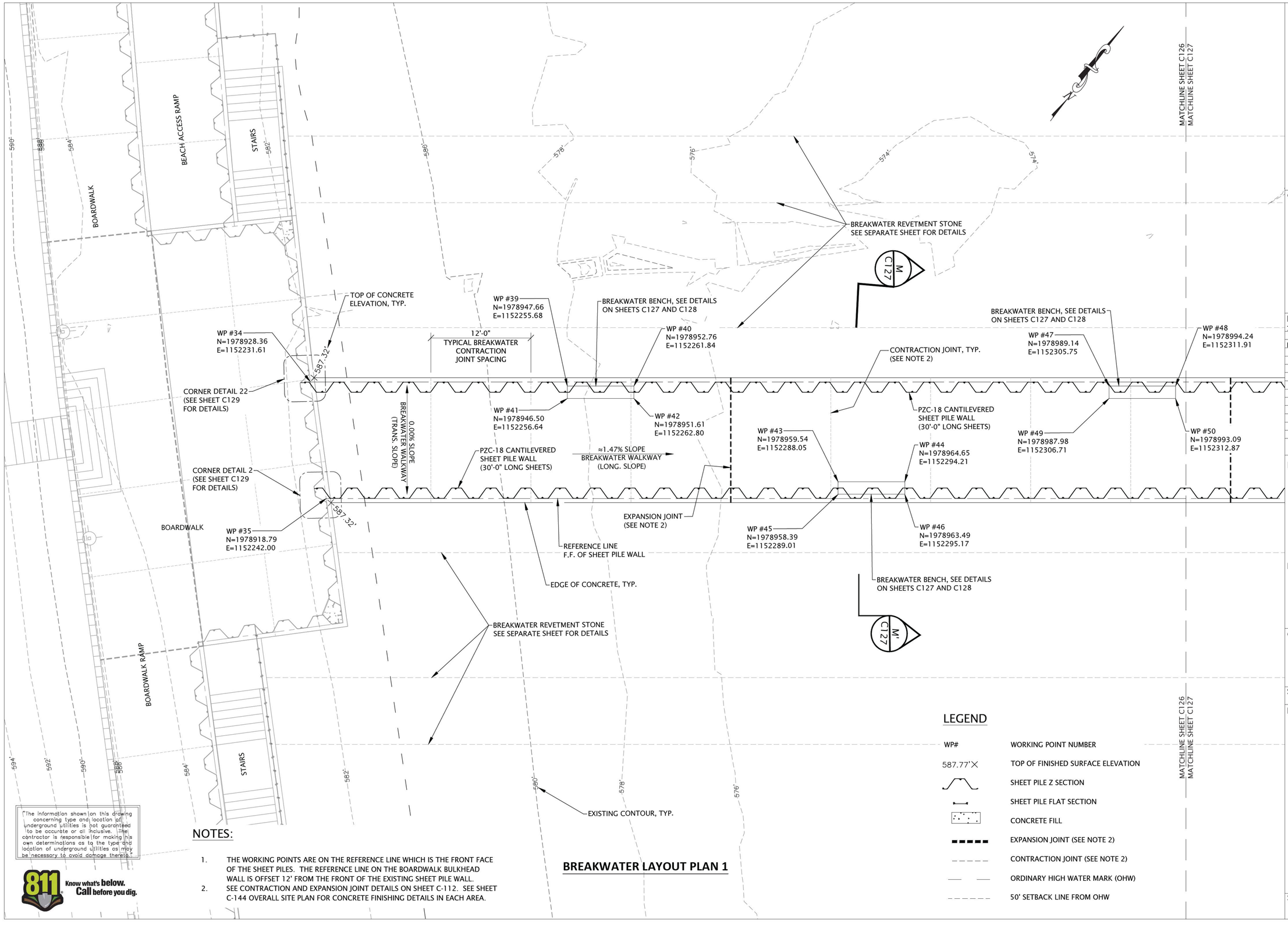
0' 2.5' 5'
(In Feet)
1 Inch = 5 Ft.

Scale 1 Inch = 5 Ft.

Drawing Title

Centennial North Bulkhead
Corner Improvements

Sheet No.
C142



"The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to the type and location of underground utilities as may be necessary to avoid damage thereto."

811 Know what's below. Call before you dig.

NOTES:

1. THE WORKING POINTS ARE ON THE REFERENCE LINE WHICH IS THE FRONT FACE OF THE SHEET PILES. THE REFERENCE LINE ON THE BOARDWALK BULKHEAD WALL IS OFFSET 12' FROM THE FRONT OF THE EXISTING SHEET PILE WALL.
2. SEE CONTRACTION AND EXPANSION JOINT DETAILS ON SHEET C-112. SEE SHEET C-144 OVERALL SITE PLAN FOR CONCRETE FINISHING DETAILS IN EACH AREA.

BREAKWATER LAYOUT PLAN 1

LEGEND

WP#	WORKING POINT NUMBER
587.77'×	TOP OF FINISHED SURFACE ELEVATION
	SHEET PILE Z SECTION
	SHEET PILE FLAT SECTION
	CONCRETE FILL
	EXPANSION JOINT (SEE NOTE 2)
	CONTRACTION JOINT (SEE NOTE 2)
	ORDINARY HIGH WATER MARK (OHW)
	50' SETBACK LINE FROM OHW

RED BARN
Design & Engineering, S.C.

6750 Woodland Drive
Waunakee Wisconsin 53597
p. 608.849.2042
c. 608.843.1870
redbarnde@tds.net

Consultants

WESTBROOK
Associated Engineers, Inc.

619 E. Hoxie St.
Spring Green Wisconsin 53588
p. 608.588.7866

Issued for	Rev. Date
70% Submittal	04/08/24
100% Submittal	06/28/24
Bidding and Construction	07/19/24

Project Title:

Site Improvements
Elder Lane Park &
Centennial Park
Winnetka, IL

Prepared For:

Winnetka Park District
Winnetka, IL

Graphic Scale

0' 2.5' 5'
(In Feet)
1 Inch = 5 Ft.

Scale
1 Inch = 5 Ft.

Drawing Title
BREAKWATER
LAYOUT PLAN 1

Sheet No.
C125

SUNRISE PARK AND BEACH

Preliminary Engineering/Consulting Erosion Study

Lake Bluff Park District

May 30, 2019

AECOM

May 23, 2019

Ron Salski, Executive Director
Lake Bluff Park District
355 W. Washington Avenue
Lake Bluff, Illinois 60044
rsalski@lakebluffparkdistrict.org

SUBJECT: Sunrise Park and Beach: Preliminary Engineering/Consulting Erosion Study
Draft Report

Dear Ron:

Enclosed is a final draft report summarizing the preliminary engineering study of options to upgrade Sunrise Park and Beach. Please let us know if you have additional comments. We are available to meet you at your convenience.

The Park District acknowledges the financial support of NWSRD to complete this important report for future planning. NWSRD, Park District and Village of Lake Bluff have worked cooperatively to provide services for the residents and surrounding communities.

Sincerely,

William J. Weaver, PE, D.WRE
Vice President – Sr. Principal Engineer

Sam Shaffer
Project Engineer

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DEFINITIONS

100-year Lake Storm Event
A wave event that has a 1% chance of occurring any given year. Wave events are based on the combined probability of lake level and wave heights. In this area, a general rule of thumb would consider the combination of a 20 year recurrence interval wave height (5% chance of exceedance in any given year) and a 10 year recurrence interval lake level (10% chance of exceedance in any given year) would produce a 100 year event. The same is true of a combination of a 10- year wave height and a 20- year lake level. Coastal structure design considers a variety of combinations in order to design for that combination that produces the worst case from a design perspective.

Central Beach Gravel Maintenance Road (Gravel Maintenance Road)
The Central Beach contains a maintenance road that is constructed of gravel and located on the west edge of the beach. This maintenance road is usually buried in sand except when it is damaged by wave attack.

ACES Computer Program
Automated Coastal Engineering System is a collection of coastal engineering software that is used to provide a comprehensive system for using a broad spectrum of coastal engineering analysis.

Armor Stone
Armor stone is large heavy stone that is sized to withstand the forces of broken and unbroken wave attack. It is usually constructed with a range of stone sizes nested together to act as a stone fabric. The stone quality is specified to be durable for the coastal environment. The stone is usually obtained from quarries in Wisconsin that can meet required quality specifications.

Bathymetry
The measurement of depth of water in the lake and presented as a topography of the lake floor.

Beach Cell
A beach cell is formed when structures are installed in the lake in a way that allows for the formation of a beach. The orientation of the structures in the cell influences the littoral drift, comprised of sand carried by water currents, and creates the potential for sand to deposit on the beach.

Beach Planforms
The shape or outline of a beach as projected upon a horizontal plane. This term generally refers to the plan view shape of the beach at the normal water line. The shape of the beach at the waterline are influenced by types and extent of coastal structures that form the boundaries of the beach cell.

Breakwater
Stone or solid structures constructed to absorb or reflect wave attack to provide a relatively quiescent zone landward of approaching waves.

Buttress
A support built against a wall. For this project, buttress structures are comprised of armor stone placed against steel or other stone structures to provide structural support, or to enhance wave management function.

Deepwater Wave Height
A term used to describe waves in very deep water that have heights and wave direction unaltered by the action of lake bottom bathymetry and depth.

Dune Plantings
Vegetation that stabilizes the sand dune and prevents erosion.

Erosion
The gradual destruction or diminution of something by wind, water, or other natural agents. For this project, erosion generally refers to the loss of beach, beach sand, bluff soil, and lakebed clay due to the action of wave action or wave overtopping of structures.

Flow Separation
When a fluid moves along the surface of an object causing it to detach from its original path and takes the form of an eddy or vortex.

Groin
A long, narrow structure built into the water from a shoreline that interrupts the water flow and limits the movement of sediment to prevent beach erosion and accumulate sand.

Littoral Drift
The transport of non-cohesive sediments along the shore due to the action of the breaking waves and the current along the shore.

Longshore Current
Wind induced water currents cause water to move along the coast in the direction of the wind.

Mathcad
A software that helps to calculate, graph and communicate technical ideas.

NSWRD
North Shore Water Reclamation District
(formerly North Shore Sanitary District).

Overtopping
When a wave meets a structure lower than the approximate height of the wave energy potential. The water that passes over the structure is termed as overtopping or wave uprush.

Sand Deposition
The process of sand particles carried in water that drop to the lake bed when the currents slow due to nearshore conditions.

Sheet Pile
Heavy thick steel sheets that are driven into the ground close together to form walls or barriers

Stone Island
An armor stone pile in the shape of an island not connected to land.

Sand Prenourishment
If a structure is constructed in the nearshore environment in a way that it causes sand to deposit near this structure, the regulatory agencies require the structure owner to place sand in the water as a "prenourishment" so that natural sand is not taken from the littoral drift.

Toe Stones
Stones placed at the toe of the armor stone revetment to address focusing of wave energy attacking a revetment or lakewall structure.

Tombolo
An expansion of the sand beach in the wave shadow of an island breakwater. This occurs due to the reduction of wave energy landward of the breakwater that slows the water currents and allows sand particles to fall to the lake bottom.

Uprush
The movement of water up the beach face or other structure due to the breaking of a wave.

Wave Convergence
When the crests of two waves merge to create a larger wave.

Wave Diffraction
The process whereby a wave passing through a breakwater gap with a relatively narrow opening spreads into the wider water body closer to shore. As the waves diffract into the nearshore area, the wave heights are reduced.

Wave Reflection
When a wave hits an object or structure, it reflects with an opposite and equal angle to the angle of approach.

Wave Refraction
The way the direction of a traveling wave is changed due to its interaction with the lake bottom. For example waves approaching the area from the north northeast tend to experience higher lake bottom friction closer to shore where the water is more shallow. This causes the west side of the waves to slow more than the portion of the waves farther out in deeper water to the east. This explains why most large storm waves tend to turn and approach land near perpendicular to shore.

Wind Setup
When winds act on water they cause the lake level to rise in the direction of the wind. In the Northshore, this phenomenon can cause the lake level to increase by up to 3 feet or more during a wind storm. This in turn allows large waves to arrive closer to shore as they are more easily supported in the deeper water.

1. Project Introduction and Background

This preliminary engineering study of Sunrise Park and Beach is an outgrowth of the high lake levels and wave attacks of the last 5 years which have led to severe sand loss and beach erosion. The continuing loss of sand and the subsequent permanent loss of the underlying clay lakebed is what led to the severe bluff erosion problems experienced by the Park District in the 1970s and 1980s. While the beach can recover from temporary loss of sand during such periods, the loss of clay lakebed is a permanent phenomenon that can cause long term losses of land and bluff damage.

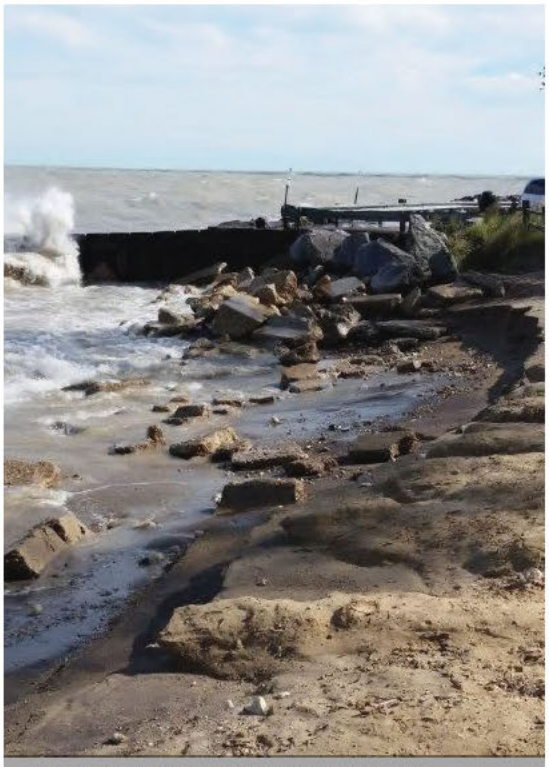
Manmade shoreline structures located north of Sunrise Beach extending to the Illinois State Line have had an influence on shoreline conditions and erosion at Sunrise Beach. Littoral drift which includes the transport of sand in the wind driven longshore currents occur predominantly in a southerly direction. This flow of sand in the lakefront currents nourishes the shorelines in the region. If these flows are interrupted, downdrift shoreline erosion can accelerate. As the southerly currents drop sand in the wave shadow of an offshore structure, the water traveling to the south is relatively free of sediment and has significant sand carrying capacity. The energy of flowing water can then accelerate erosion down-drift of such structures as the water current seeks to get back to a state of equilibrium.

Significant shoreline developments that have had an outsize influence include the following:

- **Waukegan Coal Fired Power Plant and Waukegan Harbor.** Waukegan Harbor construction began soon after the incorporation of the City of Waukegan in 1850 with support from the federal government. The harbor has undergone several expansions and improvements over the years. The Waukegan Power Plant was developed in 1954. Both of these facilities have intercepted sand from the littoral drift by virtue of the influence of their shoreline structures that cause sand deposition to occur. Shoreline areas to the south of these developments have eroded considerably over the years. Due to the accelerated erosion, many properties to the south have installed armor stone structures to manage the loss of land to erosion.
- **Great Lakes Naval Station.** Construction of the Great Lakes Naval Station lakefront facility began in 1906 with the installation of a boat basin. By 1923, several large breakwaters were constructed to form the harbor that exists today. Some estimates indicate that more than 1,000,000 cubic yards of sediment have settled into the harbor during that period. Some of this sediment originated from the Pettibone Creek; however, a significant amount arrived in the littoral drift from the north. The orientation of the harbor mouth is such that some of the southerly littoral drift likely bypasses the harbor and continues to the south.

Armor stone structures constructed in areas located north of Sunrise Beach have likely caused some impacts to the littoral drift because erosion of the slopes is reduced and sand present in the shoreline slopes and bluffs is lost as a contribution to this drift. However, the amount of beach compatible sand in these bluffs is not that significant. Most of the bluffs tend to be comprised of clay with thin sand

Central Beach Gravel Maintenance Road Damage



Erosion: South End Central Beach

seams and the amount of sand present on a given property is not all that significant. Without protection, many of these properties would eventually be lost to erosion. There are many examples of northshore properties that have lost several hundred feet of property to erosion over a period of decades. The erosion can also be damaging as the fine-grained organic soils, vegetation, silts and clays that erode into the water simply flow offshore and can degrade water quality.

All of the above shoreline developments have contributed to erosion at Sunrise Beach to varying degrees.

Sunrise Beach has experienced damage due to high lake levels and wave attack including lake bed and beach erosion. The Central Beach Gravel Maintenance Road (gravel maintenance road) has periodically experienced significant damage. The beach erosion has reduced the beach width in the South Beach cell to the point where wave attack can now regularly reach the toe of the bluff. If left unchecked, erosion at the North Beach will soon lead to wave attacks regularly reaching the toe of the bluff if lake levels remain above average.

The following photographs are an example of current erosion problems that are being experienced at the south end of the Central Beach area. This wave induced erosion is attacking the underlying clays that are important in maintaining a good base for the sand beach. The erosion has damaged the Gravel Maintenance Road recently as shown on page 6. Erosion at the south end of the beach is also shown on page 6.

If the cause of this erosion is not addressed, the beach is at risk of experiencing the loss of additional clay lakebed soils that underpin the beach sand which helps to absorb and reduce the severity of wave attack. Once the clay lakebed is diminished, the ability of the beach to hold sand is reduced. This phenomenon allows larger waves to approach closer to shore and the added wave energy becomes more destructive to the nearshore and bluff toe areas.

Plan options developed for this study seek to reuse, modify and optimize existing breakwater, groin and shoreline protection structures to address the continuing erosion. The Lake Bluff Park District (LBPD) is evaluating Beach improvement options that take full advantage of the coastal structure assets that exist at this site. This study focuses on lakefront improvements that protect the beach and address existing weaknesses and gaps in the current shoreline protection structures. The overarching goal of the project is to protect the shoreline, beach and toe of the bluff from damage due to wave attack.

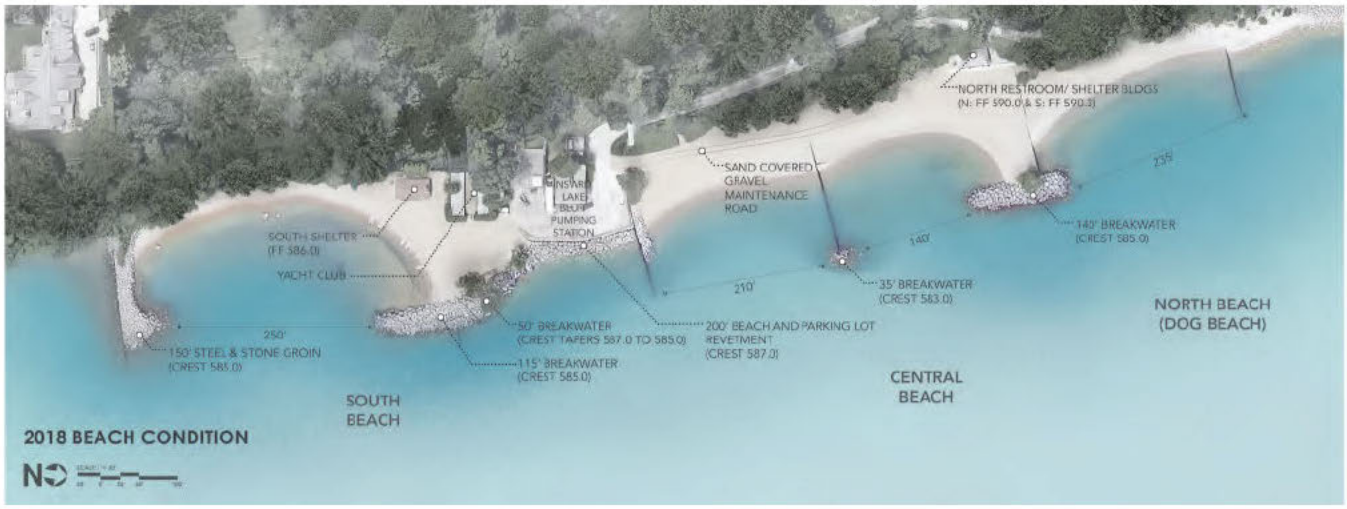
This report provides an assessment of the performance, function, opportunities and constraints of each of the existing beach cells. This includes a comparative analysis of the existing beach structures and geometry with other successful beaches in Illinois. The study identifies the types of modifications that can be made, without wholesale removals or replacements of the existing structures, to develop beach cell geometries that provide an increase in sand deposition and beach planform potential.

Many of the improvement features developed for the project will result in a larger beach planform by modification of the armor stone breakwater structures. The intent of these improvements is not necessarily to increase the beach size. However, a more robust beach will alter the surf zone dynamics in a way that better protects the near shore infrastructure and reduces beach foreshore erosion.

The rendering below illustrates the existing beach condition. A larger size rendering copy is provided as Rendering 1 in Appendix A.

The existing beach structures include a variety of approaches to support different beach planforms. These forms take shape due to the presence of the groins and breakwaters that modify the littoral drift which exhibits a predominant south flow in this area. These structures transform the nearshore littoral drift as follows:

– The movement of longshore currents create the potential for the water to carry sand. The net transport of sand in water is from north to south in this area.



- As the sand laden water passes by a breakwater or groin structure, the water currents passing by the site separate from their southerly flow direction and cause reverse flow circulation into the beach cell in a clockwise rotation.
- These flow separations are generally slow moving. As a result, the ability of the water to carry sand is reduced and the sand falls to the lake bottom.
- The beach cell between groin and breakwater structures attains an equilibrium condition when the beach fills with sand to the cells potential. The sand supply in the littoral drift then simply bypasses the site to the southern shoreline areas.
- The ability of a beach to hold sand varies by cell depending on the shape, character, geometry and elevations of each beach structure.
- The project proposes modifications to the beach cell stone structures to improve sand retention in areas where wave attack is causing problems. The new structures will address these issues by reducing the wave heights and energy that can reach shore, and by improving the beach sand stability at the same time.
- Any new sand deposition potential that is created by the project will be mitigated by prefilling sand adjacent to the modified structures. In this way, the natural littoral drift sand transport potential will not be altered.
- The beach improvement alternatives will improve the beach planforms by modifying the shapes, elevations and geometries of the existing structures.
- In some cases, the physical geometry of the armor stone structures will be modified to better manage damages from direct wave attack and overtopping.

The existing beach cells have long distances between the groin structures. Some of the steel groins are exposed to direct unaltered open coast wave attack. This allows excessive wave energy to enter the cell and littoral flows can bypass from one cell to the next. The steel structures begin to degrade over time, and the extra wave energy that passes to shore can cause damage. Unchecked beach erosion can result in a permanent loss of clay soil that underlies the sand beach. Once that happens, a permanent change to the wave climate can occur for the beach areas making it more difficult for the protective sand to be retained in the nearshore areas.

When lake levels are high as they have been for 5 years now, the amount of wave energy that can access the nearshore beach areas can increase dramatically. This results in a smaller beach and deeper water close to shore that allows larger waves to approach shore. As a result, wave attack and uprush is experienced closer to shore. There are several ways to modify the existing coastal structures to address these issues – and these have been explored in the proposed improvement options.

In addition to the beach evaluation and development of associated improvement options, the study investigates the following issues that were presented as options in the 2013 Master Plan:

- Fishing pier
- Rock island breakwater

We provide an analysis considering technical and economic issues associated with these concepts.

2. History of the Lake Bluff Park District's Sunrise Beach

Sunrise Beach conditions have varied since the incorporation of the Village of Lake Bluff in 1895 and the creation of the Lake Bluff Park District in 1925. The three primary factors affecting the overall quality of Sunrise Beach throughout the last 100+ years have been water pollution, lake level, and coastal erosion/ sand deposition.

Water Pollution

Water Pollution first became a problem in Lake Michigan along the North Shore during the late 1800's. During the late 1800's, as lakeside populations began to increase, raw sewage, as well as other forms of polluted wastewater, were typically discharged directly into the Lake. The North Shore Sanitary District (NSSD) (now North Shore Water Reclamation District-NSWRD) was created in 1914 in response to increasing public health issues associated with the poor water quality of Lake Michigan. By the mid 1920's, a series of basic wastewater treatment plants were constructed along the lake shore to provide rudimentary treatment of most sewage before it was dumped into the Lake.

In the late 1960's, national environmental regulations began to be developed and enforced. The NSSD responded to this charge by abandoning the older treatment plants along the lakefront. The older lakefront treatment plants, including Lake Bluff's, were replaced with a series of pump stations which pumped wastewater to larger more technically proficient regional wastewater treatment plants. The outflow from the regional plants was discharged into the North Branch of the Chicago River and the Des Plaines River and no longer drained into Lake Michigan.

The Park District's Sunrise Beach was closed to all public swimming for a period of approximately 10 years from 1965 until 1975 due to public health issues associated with poor Lake Michigan water quality. Finally, as a result of the significant numerous wastewater treatment improvements by many communities, Lake Michigan water quality improved and in 1975, the Lake County Health Department declared the water safe for swimming. Since 1975, except for isolated smaller periods of time, Lake Bluff's Sunrise Beach (as well as other nearby community beaches) continues to be opened for summer swimming.

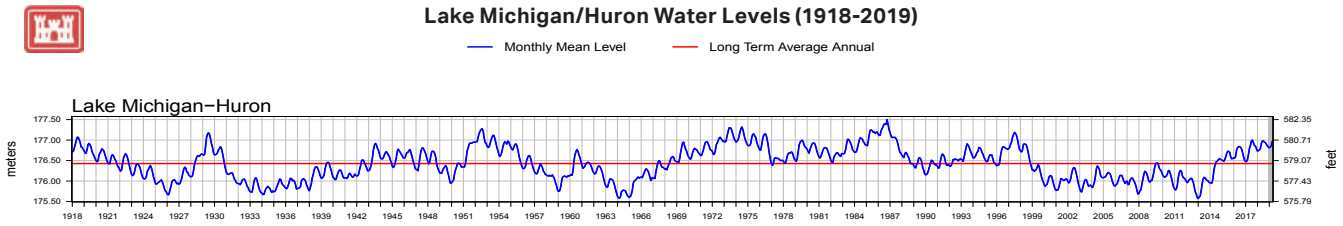
Lake Michigan Level and Coastal Erosion/Sand Deposition

Since the 1880's, when the water levels of Lake Michigan first were monitored, it has been found that the water level of the Lake has varied over a range of almost 6-feet. The chart below illustrates Lake Michigan water levels over the past 100-year period. From 1969 through 1999 Lake Michigan water levels remained almost entirely **above** the long-term annual average (as shown by the red line). This 30-year period of high-water level was followed by a 15-year period extending from 1999 through 2014 where water levels remained **below** the long-term annual average. From midyear 2014 through the present time, water levels have remained above normal.

During highwater periods, unprotected bluffs and beach areas experience accelerated and often severe erosion. High water levels coupled with high wave storm events have caused and will continue to cause considerable erosion and loss of sand along **unprotected** sections of Sunrise Beach. As will be explained further in this report, when sand is lost, the underlying clay lakebed becomes subjected to erosion. The reduction of the lakebed elevation near the shore results in long term or permanent reduction in the beach area and exposes the toe of the bluffs to more frequent wave attack and subsequent erosion.

As the bluff toe begins to erode, bluff surface slides (failures) and overall erosion of the bluff accelerates.

Since 1975 when the Sunrise Beach was reopened for supervised swimming, the Lake Bluff Park District has completed the following four beach erosion control related projects:



Steel Groin Extending into Lake from North Side of Restroom/Guard Building – 1976

A 188-foot long steel sheet pile groin was constructed in 1976. The groin was installed immediately north of the Restroom/Guard Building and was extended due easterly into the lake. The primary purpose of the project was to encourage the accumulation of sand northeast of the Restroom/Guard Building. A photo of the Restroom/Guard Building taken in 1973 prior to the groin project is show at right.

North Bluff Armor Stone Revetment Project and North Bluff Rehabilitation - 1988

In 1988, an erosion control project was performed at the very north end of Sunrise Beach. This project was performed under the supervision of the Army Corps of Engineers at a total cost of $210,000, 30% of which was paid by the Corps of Engineers. The project consisted of the construction of a 335-foot-long armor stone revetment located along the toe of the bluff at the far north end of Sunrise Beach. The project included the rehabilitation of the failed and denuded bluff which was located directly below the intersection of Sunrise Avenue and Mountain Avenue. Thirty years (30) later this bluff area remains stable and has successfully revegetated. A photo of the denuded bluff at the north end of Sunrise Beach taken during the early 1970's is shown above.

South Beach Breakwaters and South Bluff Rehabilitation – 1991/1992

In November 1987, the Park District residents voted down a referendum to finance a proposed $2.3 million Sunrise Beach Project, the focus of which was the construction of breakwaters for the South Beach Area, creation of a park area extending lakeward directly in front of the NSWRD Pumping Station parking lot, and the construction of one breakwater opposite the very south end of Central Beach.

Several years after the failure of the referendum, the Park District pursued the design of a project which focused solely on the reestablishment of the South Beach and rehabilitation of the south bluff. The South Beach project was completed in 1992 at a cost of $550,000. The project was funded by a non-referendum bond issue and included two offshore breakwaters and the stabilization and re-vegetation of the south bluff. Without this project, there would be no South Shelter today and no area of usable south beach. Above is a photo of the denuded bluff at the south end of Sunrise Beach taken in the early 1970's.

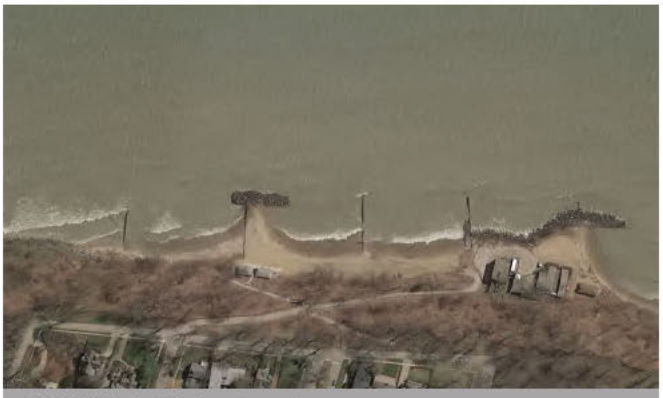
Central Beach, North Cell Breakwater Project – 2000/2001

In 2000, the Park District constructed the armor stone breakwater that is located in the lake opposite the north shelter. The breakwater was constructed parallel to shore and along the end of the steel groin built in 1976 extending out from the Restroom/Guard Building. The project was funded with a $255,000 grant received from the State of Illinois. With the remaining funds available, a small amount of armor stone was added at the tip of the older steel groin at the midpoint of the Central Beach. This project, and the steel groin constructed in 1976, are largely responsible for the beach that remains today in front of the North shelter. Above is a photograph of the North Cell Breakwater taken in 2005.

3. Existing Site Conditions

The following aerial photographs illustrate beach planforms for the years 2003 and 2018. Lake levels at present are in the range of 3' to 4' higher than they were during the years 2000 to 2013. The unusual extended period of low water lulled many shoreline owners into complacency.

2003 (Low Water Case)



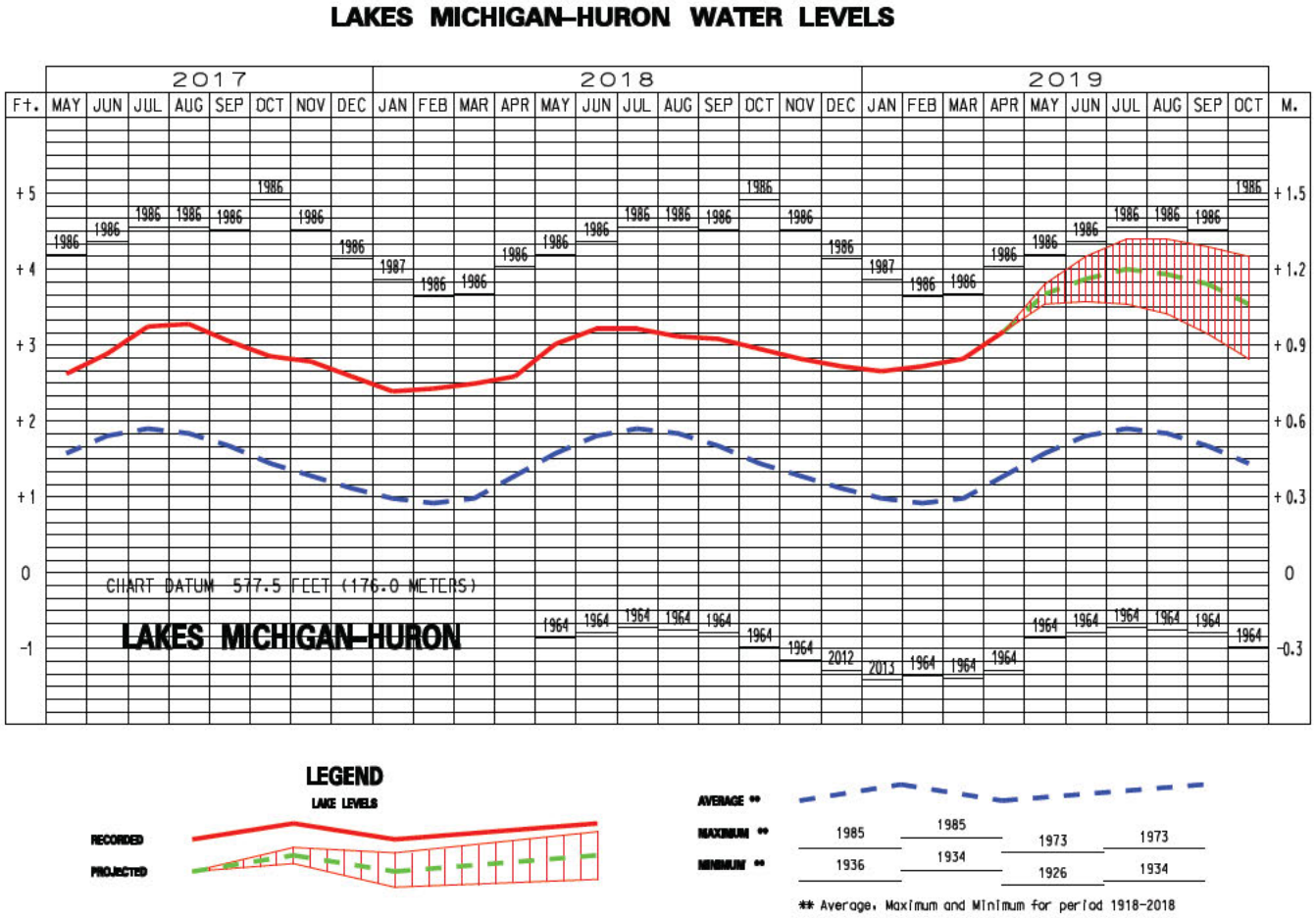
2018 (High Water Case)

Recent water levels are approaching record highs. The last time that the lake experienced the current levels or greater was during 1986 and 1987. Beach planforms reduce in size during periods of high lake levels due several factors:

- Deeper water depths close to shore allow large waves to approach the shoreline. This increased wave energy and attack can cause beach and bluff erosion.
- The overall beach profile tends to migrate to shore in response to the changed condition.
- The higher water levels submerge portions of the beach even in areas where erosion or profile change do not occur.
- If the increased wave attack erodes the nearshore lakebed beneath the sand, a permanent reduction in the beach can occur if left unchecked.

Furthermore, wave interactions with beach structures, such as wave convergence and reflections, can change significantly depending on the structure planforms and elevations.

Reductions of beach size have occurred at Sunrise Beach during the past 5 years in response to elevated Lake Michigan levels. The following chart produced monthly by the Corps of Engineers illustrates the comparison of today's levels to historical average and extreme levels.



A number of beach problems have occurred in response to the elevated levels and increased wave attack:

- Wave overtopping of the Central Beach south steel groin and stone revetment in front of the NSWRD Plant area have caused Pavement flooding and damage in the parking lot.
- Erosion of the South Beach north side beach sand is occurring due to overtopping of the existing stone breakwater.
- Erosion of the south end of the Central Beach is extensive and includes erosion of the Central Beach gravel maintenance road located along the west edge of the beach.
- The North Beach has eroded considerably in recent years. Open coast wave attack from large waves arriving from the north and east have depleted the sand and eroded the lakebed. Cobbles are now the predominate feature on the beach surface with little sand.
- South Beach sand losses are allowing waves to lap up on to the toe of the bluff.
- Deepening of the near shore clay lake bed may be occurring due to the extended period of elevated lake levels and wave activity.
- Sand consistency has become more course and a greater amount of cobbles are depositing on certain areas of the beach.
- The Central Beach middle groin stone breakwater has been damaged and its effectiveness has been reduced.

The proposed beach options are designed to address these issues.

Far North Beach Cell as Proposed in the Park District's 2013 Waterfront Master Plan (area north of existing dog beach)

The beach cell located north of the dog beach receives the predominate longshore littoral transport from the north without interruption. The steel groin on the north side is not substantive enough to hold sand during high water conditions. The beach does not have sufficient protection from wave energy to retain a sand beach. Preliminary discussions with the Park District staff and Park and Beach Committee determined that no improvements to this beach would be considered at this time.

The 2013 Master Plan contemplated the relocation of the dog beach to the far North Beach Cell. However, this beach is in a very poor and unsafe condition and is not suitable for recreational uses.

This beach cell is currently not an area that is safe for pedestrians and is in very poor condition. The southerly 40% of this cell between the toe of bluff and water's edge is comprised entirely of remnants of eroded concrete slabs placed here many years ago presumably as an informal method of shoreline protection. The northerly 60% of this cell is comprised of a high armor stone revetment constructed during the years 1988 and 1989. The easterly edge of the revetment currently extends into the lake. The water extends to the revetment toe during high and low water conditions. The photos of this cell illustrate current conditions. A construction of a usable safe beach in this cell would be considerably more expensive than the projected beach restoration costs presented for the Park District's existing beach cells to the south of this area.

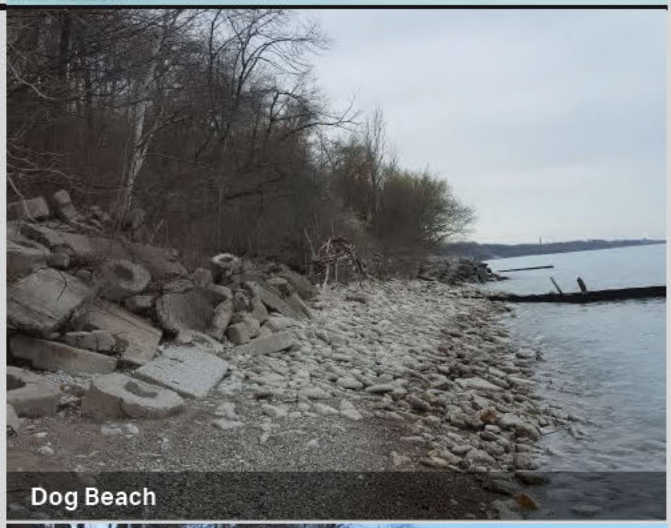
1988/1989 Far North Revetment Construction

North Beach Cell (Existing Dog Beach)

This beach area is contained between a steel groin at its north end and a steel groin and stone breakwater at its south end. This entire North Beach Cell serves as the existing dog beach. At the southerly end of this area, a fence extends from the toe of bluff to the stone breakwater which serves to separate the unleashed dogs from the swimming beaches to the south. The groin structures that bracket this beach cell extend approximately 185' from the toe of the bluff to the east ends. The beach cell is about 280 feet wide. The average width of the beach is currently about 40 feet. During the years between 2000 and 2013, the beach width was approximately 50% wider due to low water and associated reduced wave attack energy. This beach cell is relatively exposed to open coast wave attack from the large storm waves approaching from the north-northeast.

The spacing of the groins and the lack of shore parallel structure at the east end of the north groin does not provide significant sand deposition potential at the north end of this cell. The sand on this beach has a large component of cobble stone present. The finer sand is more easily transported from the beach due to the significant wave activity that has access to this beach. There is also erosion at the very north end of the beach in an area where there is a good amount of old concrete rubble. This rubble originated from concrete remnants of a pier built by the Park District in 1939 at the north end of the existing dog beach. The concrete pier was removed during 1974 and 1975 because it had significantly deteriorated. The demolished pier rubble was left at the west edge of the beach to serve as bluff toe protection from wave attack during high water. The land surface between the pier and rubble and the water's edge is currently primarily comprised of eroded concrete slabs, some of which contain protruding steel rebar.

The beach cell benefits from a steel groin and stone peninsula formation at its south end – an impermeable relatively high elevation land mass that helps redirect the longshore transport currents away from the beach cell. The reduction in beach size and erosion during the recent period of high water is typical to what would be expected for this geometry of beach cell.


Dog Beach

Dog Beach: South End

Dog Beach Rubble Pile

Dog Beach Rubble Pile

Central Beach: North Cell

This beach area is the north half of the Central Beach and is formed between a steel groin at its south end and a steel groin at its north end that includes a shore parallel stone breakwater at the east groin end. The South groin has a small amount of stone at its east end. This stone is not effective in significantly managing wave conditions in the cell. Though it does provide some protection for the end of the steel structure against wave attack damage. The cell has a gap between the stone breakwaters of 140 feet - smaller than the south half of the Central Beach. The presence of a stone breakwater at the groin end has a significant influence in protecting the shore structures. This stone feature provides added potential for sand retention west of the structure. The breakwater has a crest width of 17 feet and a base width of 40 feet. This geometry makes the structure effective at absorbing wave energy and creating a quiescent water condition to the west of the structure.

The average width of the beach is currently about 80 feet. During the years between 2000 and 2013, the beach width was approximately 50% wider due to low water and associated reduced wave attack energy in the cell.

The north end of this beach cell is somewhat protected from wave attack; however, the restroom/guard building has experienced erosion approaching the structure. The presence of a shore parallel breakwater at the east end of the north groin provides for efficient sand deposition potential in this cell. A sand tombolo also forms on the west side of that breakwater due to its large size and position. The formation is significant enough to maintain a connection of the sand tombolo to the stone breakwater even during the current high-water conditions. Partial erosion of the tombolo does occur during periods of high water. This structure helps alter the north to south predominant littoral current pattern in the nearshore to an east west pattern. As a result, the sand retention potential and beach planform are increased. The North Shelter Building is better protected on this swimming beach as it is located south of the Restroom/Guard Building. The Restroom/ Guard Building is somewhat threatened by waves approaching from the northeast under current high water conditions. The south side of the beach has experienced beach width reductions during recent high water conditions.

North End, Central Beach: North Cell

North End Groin/Breakwater

Central Beach: South Cell

This beach area is formed between a steel groin at its north end and a steel groin 210 feet to the south. The North groin is a free-standing steel wall and has a small pile of armor stones at its east end. The armor stone has a small footprint and has been dislodged to a certain extent by wave action. This armor stone is not of sufficient size to provide significant protection. Though it does cause sand deposition that places the beach position a small amount farther east than adjacent areas.

The average width of the beach is currently about 70 feet. During the years between 2000 and 2013, the beach width was approximately 50 % wider due to low water and associated reduced wave attack energy in the cell.

The south end of this beach cell is anchored by the gravel maintenance road and parking lot on the east side of the NSWRD Lake Bluff Pumping Station. This filled land and the 95-foot-long steel groin that extends from the fill out into the lake provide an anchor for the beach formation. The steel groin has a small amount of stone revetment at the northeast parking lot corner. The parking lot is subjected to significant wave attack overtopping from the north and has been damaged as a result. The steel groin has been observed to contain several large holes below the water line. If this deterioriation continues unchecked, the steel structure could experience failure.

Beach erosion occurs periodically due to wave attack, as shown below and to the right.

South End, Central Beach

South End, Central Beach

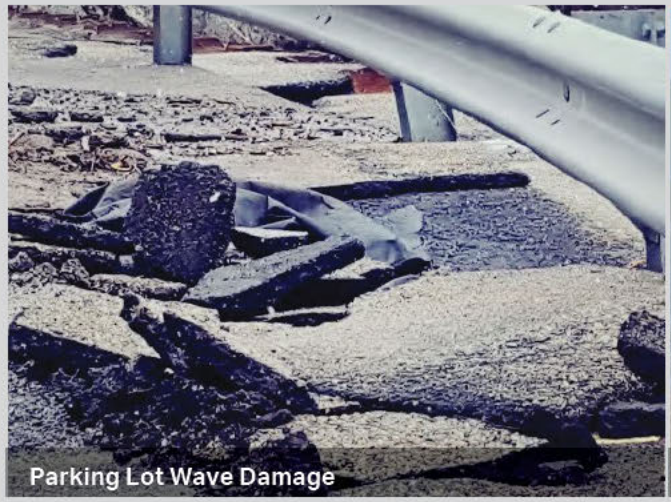
South Cell Beach Erosion Damage

Central Area Groin

South End Groin

Access Road/ Parking Lot Area

The parking lot area is fronted on the lake side edge with a stone breakwater. This armor stone revetment has held up well; however, waves can overtop this revetment regularly resulting in flooding of the lot and damage to the pavement. The parking lot is also damaged by wave attack on its north side where there is no formal stone revetment. We believe it is the responsibility of the NSWRD to maintain and repair the parking lot, the steel groin on the north side of this area and the armor stone revetment along the lake side edge of the parking area.



Parking Lot Wave Damage

Groin at North End Parking Lot

South Beach Cell

The South Beach cell is formed by a stone and a steel groin on the south end, and a landfill and breakwater on the north. The shape and orientation of the south groin is somewhat limited in its ability to influence sand deposition due to the width of the gap between groins, and the orientation to the shoreline in this cell. The lake is also 2.5' deeper out at the groin limits than the other beach breakwaters to the north. This deeper water as well as the orientation of the groin tends to encourage a strong littoral current separation that encourages the currents and wave induced stress to circle into the beach area. This reduces the potential for this beach cell to reach its full potential – especially during periods of high lake level and wave activity.

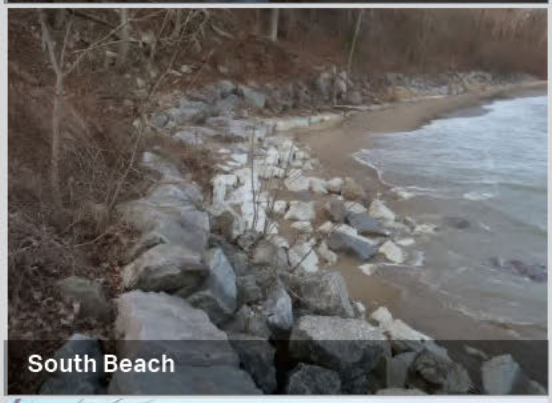
This cell doesn't take full advantage of the presence of the significant lakefill that exists at the north end of the cell. This land forms an impervious beach cell boundary. The size of the water gap between the north fill and the south stone groin is 250 feet. As such, refracted waves approaching shore have near full access to this beach cell. The large gap also allows partially refracted waves from the north to directly access the cell and attack the north side of the south groin head on. A strong south to east wave reflection causes wave agitation throughout the beach cell. This combined with the flow separation described above does not provide for a conversion of a southerly littoral drift flow to an east west flow dynamic. This reduces the ability for the cell to hold sand – especially during periods of high water. During periods of high water, the beach is not present in portions of this cell.

Wave action in this beach cell can now reach the armor stone revetment at the toe of the upland bluff. Wave action within the cell can also be an issue to boater navigation. The existing bluff revetment appears to be doing well as it is armored by a competent stone revetment. It would help if the beach cell gap is altered to encourage a larger beach cell formation since the existing beach is nearly entirely submerged during periods of high water.

The south side of the south breakwater is comprised of steel sheet pile. While this wall is getting old, it appears to be holding up ok. It does not appear at present that any repairs or buttressing are necessary. This structure should be periodically observed in the future to confirm that it continues to be stable. At some point in the future, it may be necessary to buttress this structure.

If the property owner located south of the South Beach South End Groin should decide to perform bluff, slope, or beach restoration, the approach would need to consider the narrow strip of land owned by the Park District between that property and the South Beach South End Groin. Such improvement may need to include a requirement that the south property owner install a stone buttress along the south side of the Park District's South End Groin at the same time that they complete beach improvements. Otherwise, any future improvements to the Park District groin would be difficult due to the limitation of future construction access that the south property project may create.

South Beach


South Beach

South Beach South End Groin

4. Engineering Issues and Assessment of Beach Environment

A. Analysis Approach

The project objective includes reaching a consensus on the type, location, organization, scale, character and potential cost for specific beach capital improvements. In a general sense, the process will include consideration of alternative improvements to the individual beach cells that make economic sense while helping to attain project goals. The function of the beach cell will be considered as well as the beach planform upgrade potential. And the cell modifications will be developed keeping in mind the context and character of improvements being considered for adjacent cells and for all cells as a whole.

Before delving in to the proposed alternatives, an engineering analysis was completed to help in understanding design boundary conditions that will influence the proposed designs. We undertook analysis of the existing beach environment to understand the factors that will influence the designs. Based on the analysis, a toolbox of construction configurations and features is compiled for a variety of beach cell elements. These elements include the construction and modification of items such as breakwater segments, revetments, groins, piers, buttress structures, stone islands, and lakefills. The toolbox includes the following elements and information:

- Wave heights and other wave characteristics that influence the size of armor stone and other structural materials at various lakefront exposures and depths.
- Estimates of stone sizes, gradations and weights at various lakefront locations and scenarios.
- Unit costs for materials from prior bid tabulations at other sites for different material types and construction settings.
- Existing site bathymetry, beach topography and beach planforms as well as historic documentation of changed beach planforms and profiles for a variety of lake levels.
- Input from meetings with key regulatory agencies on shoreline modification concepts and those that have a reasonable chance to be approved.
- Beach modification structure geometry needed to manage wave attack and overtopping. Establishment of approximate structure crest elevations, widths and sections for a variety of locations, settings and water depths.
- Compilation of beach structure planforms, armor stone sizing, elevations, beach formation potential and other relevant factors from similar beach structures in the north shore that have been shown to be successful and stable for many years.

The toolbox provides a variety of elements that can be added to a proposed beach modification option for Sunrise Park and Beach. The toolbox provides the ability to efficiently facilitate consideration of a variety of options.

The following sections summarize tasks completed that supported the development of the toobox.

Task 1 FIELD OBSERVATIONS

Visited the beach site on several occasions to collect information on existing beach structure condition and structural features and geometries. Identified the condition of structures relative to the beach climate and stress at each beach structure. Made measurements of existing stone structure sizes and estimate stone weights – assessed how these structures have held up since their original construction. Observed the beach characteristics including sand sediment size, beach edge planforms, erosion, site damage and beach profiles both onshore and off. Observed the beach functions in each beach cell as they relate to the effectiveness of the existing cell configuration and structures.

Task 2 COMPILE REGIONAL BEACH DATA AND INFORMATION

Completed a preliminary assessment of beach cell geometries, wave climate, historic review of aerial photographs, field data, and access deficits and needs. Compared the Sunrise Park and beach structure types, conditions, configurations, planforms, and structure geometries to other structures in the region. AECOM had data on a number of beaches in the region including sizes and geometries of structural elements and a sense of how these have performed over time. This is an important assessment in that these existing beaches serve as case history models that help to support and check engineering computations for these types of structures. We also performed field checks on other sites as well as performance of historic aerial photo interpretation cross checked against historic lake levels.

Task 3 BASE MAP PREPARATION

Prepared a base map at the project outset using existing available information. Utilized information from a survey, prepared during April 2015 by Bleck Engineering, to supplement base map features for the beach site. AECOM completed a lake bed bathymetric survey and a beach survey during spring 2018. The survey included a complete upland beach survey. The bathymetric survey extends from deep water up to the waterline and includes spot elevations on the stone structures. Following are the survey scope details:

VESSEL	INLAND WATERWAY SURVEY BOAT
Crew	**Sonar Operator/Survey Technician**
Scope	• Perform Hydrographic Survey, Project Area estimated: 20 acres • Soundings spaced at approximately 10 feet along transects • Soundings spaced at approximately 10 feet along transects • Transects spacing at approximately: 100 feet
Assumptions	• Vertical elevation benchmark to be based on benchmark chosen by client • Minimum Survey Depth for boat: 2.5 feet • Illinois State Plane East, IGLD85
Equipment	• Trimble DSM 232 DGPS Sub-Meter Positioning System • Odom HydroTrac single-beam echosounder with 200 kHz tranducer (0.1 foot precision)
Deliverables	• Comma-delimited ASCII point file (Point, Northing, Easting, Elevation, Description) • Contour Map in AutoCAD Civil3d format

Task 4 COASTAL WAVE CLIMATE AND STONE SIZE EVALUATION

Prepared a preliminary coastal analysis to assess wave heights for a variety of wave storm recurrence intervals and transform these waves to Sunrise Beach. The analysis was fact checked against the 30-year historic performance of the existing stone structures. Preliminary armor stone sizing analysis computations were checked against observations of the size, size ranges and performance of the existing stone structures. We also checked other Northshore beach structures with respect to performance of stone sizing, gradations, geometry, and orientations of structures to assess long term performance. Our offshore survey crew made notations of the stone sizes and range of sizes that exist in the current structures as well as their condition and performance.

We compiled available wave records and analysis and identified the wave storm frequencies that occurred over the last 30 years. The geometry of the existing structures are not presumed to follow modern design standards; however, we used the performance and characteristics of these structures as a check against our preliminary computations and analysis regarding what a proper design should be. Results of the preliminary coastal analysis provided the boundary conditions for the beach structures that will be modified for future changes to the existing beach structures.

A preliminary wave transformation analysis was completed and includes the following steps:

- Identified the deep-water wave height and wave period statistics offshore from Sunrise Beach from available Corps of Engineers Wave Information Study. This information included recorded historic wave heights.
- Performed statistical analysis of the largest annual wave heights in the record using the ACES computer program to obtain preliminary wave recurrence intervals in deep water offshore from the site.
- Analyzed Lake Michigan lake level statistics to assess level recurrence intervals. We have updated the Corps of Engineers published information on this topic which is somewhat dated.
- Performed a combined probability analysis of wave height and lake level recurrence intervals to assess design storm conditions. We estimated several combinations of lake levels and wave heights that comprise a 100-year wave event. The lake level analysis includes provisions for lag between wind setup and peak wave arrival, and the directionality of wind setup.
- Transformed the deep-water wave heights approaching the site using desktop analytical software. This analysis considered a number of factors that affect wave heights as they approach shore from deep water. These included refraction which tends to turn the waves towards parallel shore orientations, wave shoaling, wave breaking in the relatively shallow surf zone lake side of the structures, and wave runup and overtopping potential on structures.
- Armor stone sizes for various locations and water depths were estimated using standard Coastal Engineering Manual methods built into our Mathcad programs.

The analysis of beach planform was based on experience with beach bottom profiles that traditionally occur in north shore beach environments. The profiles are influenced by beach sand gradations and nearshore beach structure geometry. The beach profile slopes become steeper closer to shore when beach structures alter the littoral drift patterns. Some structures such as significant groins alter the north to south trending currents by causing flow separations within the shadow of these structures. As the longshore current patterns are converted to an east – west pattern near shore within the influence of these structures, the beach profiles steepen causing an increase in sand deposition potential. The beach form analysis was informed by the following:

- Historical analysis of the relationship of beach edges and profiles for Sunrise Beach correlated to lake levels. Considered other influences of beach structures on beach planform such as depth of water at the structures, crest elevations, geometries, gap widths between groins and breakwaters, distance from shore, natural lakebed slopes, nuances of sand characteristics and depths lakeward of structures.
- Similar historical analysis of the same relationships at other North Shore beach sites.
- Preliminary engineering analysis for anticipated beach planform for the proposed beach structures.

Preliminary analysis of the size of armor stone needed for the various structures included in the options developed for this study are as follows:

CONSTRUCTION ITEM	ARMOR STONE SIZE
South Beach - Breakwater	4 to 6.6 Tons
Parking Lot - Revetment Buttress	3 to 5 Tons
Central Beach - North Cell Groin	1.7 to 2.8 Tons
Central Beach - North Cell Breakwater	3 to 5 Tons
Central Beach - South Breakwater	3 to 5 Tons
Central Beach - Central Breakwater	4 to 6.6 Tons
North Beach - Breakwater	3 to 5 Tons
Lakefill Revetment	3 to 5 Tons

Task 5 HISTORIC ANALYSIS OF EXISTING BEACH LIMITS

An analysis of the position of the existing beach water's edge is insightful from a number of perspectives. It informs the process of predicting beach edge position for the proposed options. It also provides a physical full-scale field model for the interpretation of beach edge nuances for the variety of structures that exist at present. Photographic imagery exists for specific dates periodically during the past 30-year period allows for an approximate measurement of the location of the water's edge for a variety of lake levels. Lake levels including on the dates of the aerial photographs are available in the historic record along with level trends and storm conditions leading up to the date of the photographs.

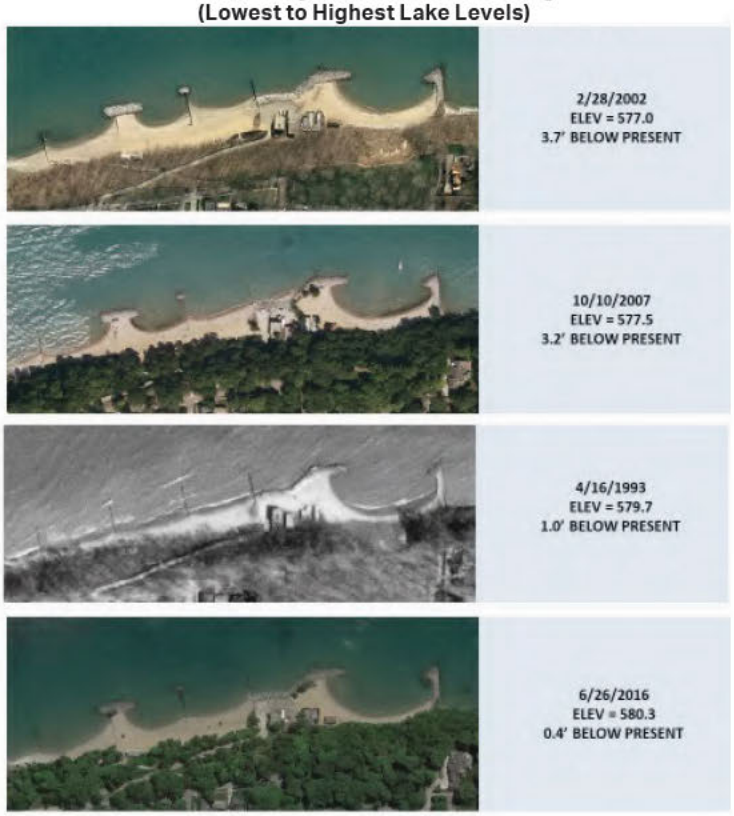
The following exhibit illustrates beach edge positions for four historic events. The aerial photos are stacked from the lowest lake level to the highest. These events begin with the year 2002 that experienced a level within 0.9 feet of the record low, and 2016 that attained a level about 2 feet below the record high. We also have visual observations for current conditions where the lake level is now within less than 1 foot of the record high.

The beach position exhibit at the top of the following page includes information on the overall lake level statistics. It also compares interpreted beach edge positions for the existing Sunrise Beach configuration for record low, average and record high lake level conditions. This exhibit provides guidance that assists with predicting water edge locations associated with beach modifications. As well, this information helps the evaluation of the degree of water's edge changes that can occur for a variety of Lake Michigan level conditions. The rendering on the following page illustrates the existing beach condition with the range of beach positions correlated to historic variations shown. A larger size rendering copy is provided as Rendering 2 in Appendix A.

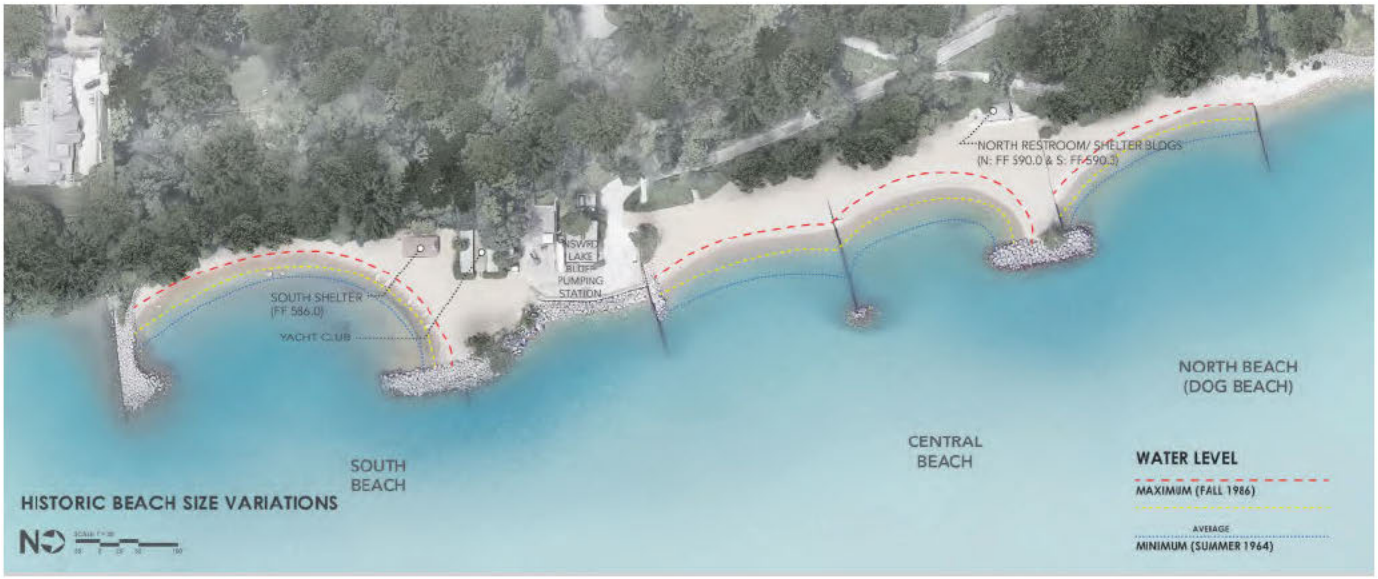
It is important to understand that the normal level beach position will change depending on Lake Michigan level and storm conditions. When lake levels rise, the shoreline position will also change. One reason is simply the apparent change in the shoreline due to the fact that higher water submerges more of the beach. More important is the natural adjustment of the entire shore facing profile of sand closer or farther from shore - moving as an adjustment to the changed energy of the littoral currents and wave action, and permanent erosion of lakebed clay that underlies the sand.

The presence of a stable sand beach coastline can provide a relative equilibrium with respect to wave energy and littoral drift. A stable beach condition will not erode extensively nor will it accrete sand in a long-term sense. The presence of a stable beach can better absorb wave attack and when stable, does not alter existing littoral drift. A shoreline area without a stable beach can experience lake bed downcutting of the clays that exist offshore. When the

Beach form for Variety of Historic Lake Michigan Levels (Lowest to Highest Lake Levels)



Lake Michigan Elevation (IGLD 1985)		
Record High	October 1976	582.5
Average	- - -	578.9
Record Low	July 1964	576.1
Current	April 2019	581.0



lakebed or near shore clay soils are eroded, the impact is more a long-term situation that is not easily turned back. The planned improvements at Sunrise beach are targeted to maintain and improve the stability of the shoreline and beach. Any additional potential for sand deposition on the beach that may be created by the project will be mitigated. Clean sand will be imported to pre-nourish the new sand deposition potential as part of any planned improvements.

B. Regulatory Considerations

Lakefront construction that extends below the Lake Michigan Mean and Ordinary High Water Mark (Elev. 581.5 IGLD85), or is located east of the toe of bluff along the Lake Michigan shoreline, requires permits from the U.S. Army Corps of Engineers (USACE), the Illinois Department of Natural Resources (IDNR), and the Village of Lake Bluff. For complex lakefront projects requiring an "Individual Permit" from the USACE, a Water Quality Certification would also be required from the Illinois Environmental Protection Agency. The IDNR permit process also requires the IEPA to weigh in on environmental issues associated with habitat and threatened and endangered species.

This project would be considered in the "Individual Permit" category by USACE. These permits take longer than more minor permits that fall under the "Regional Permit" category by USACE, or "General Permit" category by IDNR. Most projects involving lakefront construction with shore parallel structures out in the water fall under the higher-level permit categories. Individual Permits tend to take 9 months to 1 year or more for non- controversial projects.

Following is a summary of how each agency is likely to address this project.

USACE

The Corps of Engineers will regulate this through the Chicago District office. They will categorize this project as an Individual Permit candidate. The key focus of their review is on lake bed impacts at this and adjacent sites. They also review potential navigation impacts. In addition, they can review the engineering aspects of the design as it relates to impacts on public waters and nearby structures and properties. Though that is not likely to be an issue with this project. We recently met with this agency in their Chicago office to assess how they would likely view and treat this project through the review process. The agency indicates that they do not believe there would be significant issues beyond the need to go through the process. This application should be reasonably well received by this agency since the project addresses a situation that is causing erosion and other issues.

This agency normally follows the same rules that IDNR does with respect to offshore improvements. The rule of thumb is that any offshore structures must be constructed no farther offshore than 125 feet. AECOM explained to them that the restoration would include work beyond that limit since the existing structures are farther offshore than 125'. However, the improvements would extend no farther offshore than the existing structures and would not impact adjacent properties. Appropriate sand pre-nourishment would be incorporated to mitigate for increased sand deposition potential that is created on the beaches, and as such the littoral drift would not be negatively impacted. The agency indicated that they understand that this would be a project that is addressing a public need. They tend to look more favorably on such projects. There will be a public notice process for this agency whereby nearby property owners along the lakefront have a chance to weigh in and comment. As such, it is usually a good practice to communicate projects to the community in advance so they are not surprised by such notices. This should not be an issue for this project since the planning process will involve public input.

This agency will require mitigation for the acreage of lakebed impacts. This is measured as being the acreage of lakebed that is covered by fill of any type including stone, fill, structures and any other fill. They prefer that the mitigation be addressed within the watershed – which is often not possible for Lake Michigan projects. There is the possibility that they may agree to allow the Park District, or Village through an intergovernmental agreement, to fund a local project as mitigation. For example, if the Village had a plan to implement a ravine restoration project, it might be possible that mitigation funds coming from the Park District or Village could be invested in the Village project. If a local project is not available for funding, the USACE will often allow the mitigation to be accomplished by purchasing credits in a certified wetland bank. The cost of this mitigation can vary but it would not be unusual for the cost to be in the range of $150,000 per acre of mitigation. The amount of mitigation is computed based on a multiplier times the acreage of lakebed fill. The multiplier varies with the most reasonable value being reserved for mitigation located within the same watershed. A multiplier of 3.0 is usually applied to out of watershed projects.

The USACE does not charge a review fee. They will require that IEPA review the project for issuance of a Water Quality Certification before the Corps will issue their permit. The agency will be asking questions about how the project will influence water quality. Finally, USACE will likely require that Lake County SMC shall be involved with erosion control review and field observation. This would supersede the normal case whereby this jurisdiction resides with the Village as a community with delegated authority under the Watershed Ordinance. Lake County generally charges a fee for this effort. This fee is generally approximately $5,000.

IEPA

This agency is most concerned with water quality impacts to Lake Michigan. They will issue a 401 Water Quality Certification for the project, and consider degradation impacts to Lake Michigan water quality. IEPA can require a review fee of up to $10,000. This agency generally takes the longest to issue their approval and, can at times, set the critical path for obtaining permits.

IDNR

This agency is concerned with construction within water bodies with particular attention to flood impacts, navigation impacts and construction in public waters. In addition to the permit application preparation and coordination, they also require development of a Coastal Zone Management compliance submittal.

We met with this agency to evaluate their potential concerns. The agency generally indicates no anticipated issues beyond the normal response to public comments, and the need to respond to agency technical questions. The project will need to discuss project need as balanced against public and environmental interests. This agency charges a review fee. The fee can vary from $2,500 to $10,000. We believe they will charge a fee at the mid to higher end of this range for this project. The IDNR will issue a public notice to nearby property owners along the lakefront and request comments.

Village of Lake Bluff

This municipality will require a building permit. We would use the same application package for the Village as we have developed for the USACE and IDNR. We anticipate that the Park District will keep the Village informed early on to incorporate any comments that they may have.

It is important to note that several of the agencies require that alternatives are investigated before settling in on a planned solution. The preliminary engineering process completed for this preliminary design includes investigations of alternatives and is a good starting process for the permit application requirements.

We normally prepare a permit application package for submission to each agency. We meet with USACE and IDNR in a pre-application meeting to help expedite their understanding of the project. The USACE and IDNR will initiate public notice reviews – we will help prepare the public notice language to expedite the process. We would also meet with the Village Engineer to explain the project. We normally coordinate with the agencies during their reviews and respond to questions that arise from the agencies or from the public notice process.

NSWRD

The project will require close coordination with the North Shore Water Reclamation District (NSWRD). Most important is the planned changes to the NSWRD Lake Bluff Pumping Station which is slated to include a new Overflow Storage Facility. This facility is planned to be buried below grade at the location of the current yacht club boat house storage area. The facility will be buried and the yacht club boat house storage facility will be reconstructed on top of this facility at essentially the same grade that it is at present. The potential lakefill expansion on the east side of the parking lot as shown on Rendering 5 in Appendix A is being considered as a potential location to use some of the excavated soil from the overflow facility. In addition, coordination with NSWRD is necessary for the funding and configuration of the parking lot revetment and improvements to the parking lot groin located on the north side of the parking lot.

5. Site Plan Analysis

The planning phase of the project included consideration of issues that will influence the design. The Engineering Analysis (Section 4) includes the preparation of a toolbox of ideas, physical information and concepts that can inform the design. This tool box and information was used during the site plan analysis to develop and analyze lakefront improvement concepts. Planning kept the overriding goal of the project in mind for each task – that is, to develop an economical and practical plan that evaluates and reuses existing groins and breakwaters. Following is a summary of the general planning approach:

Opportunities and Constraints

- Address areas of focus/best opportunities
- Beach cell analysis assesses plan concepts that make best use of existing structure, beach uses, and activities
- Natural limitations that impact plan options or appear to provide insurmountable practical barriers
- Beach cell planform potential and priorities
- Synergies between beach cells to be gained by working with natural wave and littoral characteristics

The engineering concepts included consideration of these guidelines. We worked through the screening of options with the Park District Staff and Parks & Beach Board Committee to make sure the concepts address project goals. The team worked through physical and engineering issues that influence the concepts. The options that survived screening are considered feasible and the actions in each beach cell would be compatible with the natural forces that affect beach design.

Natural Resources

- Consider master plan landscape plan features that the Park District intends to implement
- Water Quality issues that are affected by beach cell conditions and design
- Dune form potential and plantings that can benefit beach planform and natural setting
- Wave stress considerations on natural resources and potential enhancements

The plan includes elements of the 2013 Master Plan that the Park District indicated were priorities for inclusion in the design. For example, the design addresses beach problems that have been caused by erosion at the Central Beach gravel maintenance road and the parking lot flooding and damage. Potential impacts on the yacht club activities were addressed by maintaining an appropriate gap between the breakwaters while also reducing wave action within the cell. The options were developed to reduce wave stress in those areas that have experienced issues in the past, and areas that could experience issues if the 100-year design wave event were to occur. The type of stresses that have occurred at the beach cell areas would not be adequately addressed with dune plantings. However, with the beach improvements that are contemplated in place, the potential for dune form improvements and plantings on some of the upper beach will be significantly improved. These features can be easily implemented in the upland portions of the wider beach area, once the beach is stabilized.

Infrastructure

- Influence of existing infrastructure on beach planform goals, activities and improvements
- Protection of existing infrastructure such as NSWRD facilities, shelters, restroom/guard building, storage spaces, roads and accessways, bluff slopes, and pavements

The concept plans consider existing infrastructure. Preservation of beach shelters and NSWRD issues were discussed at length and these needs are reflected in the proposed options.

Site Access

- Standards, deficits and opportunities

Adjacent Influences:

- Influence of plan changes on adjacent areas north and south of the park property
- Influence on adjacent beach cells and upland fills/slopes

The proposed options are designed such that all beach cells will be complimentary in terms of their planform and littoral drift characteristics. There will be sand pre-nourishment in amounts that fill the new sand deposition potential that will be created by the structure modifications. As such, the natural littoral drift from a regional perspective will not be affected. Furthermore, the overall wave reflections and diffractions within the beach cells will not alter conditions to the north or south of the park. The plan changes will not impact adjacent properties.

6. Engineering Design for Selected Options

Two options were developed for this study:

- Base Option
- Expanded Base Option

Both options would meet the project planning goals and objectives. The expanded plan would require an increased investment.

Finally, a third plan was developed related to the future NSWRD underground overflow storage reservoir. This plan includes consideration of a lakefill east of the NSWRD Lake Bluff Pumping Station. The plan would contemplate a funding coordination with the North Shore Water Reclamation District associated with their proposed project.

The development of the options utilizes the information developed for the toolbox as described in Section 5. The geometry of the construction elements and unit quantities of structures were developed in that project phase. The plan locations, limits of structure improvements and beach planform changes were also developed in the planning stages. This engineering design phase included preparation of preliminary design drawings and renderings, and preparation of preliminary opinions of probable construction cost for each option.

The opinion of probable costs provided in this report include a certain amount of uncertainty due to market conditions for coastal construction in the north shore. The armor stones for coastal structures originates from Wisconsin which is the nearest stone source that can provide stone that passes quality requirements. There has been considerable consolidation of the Wisconsin quarries with much of the supply coming from one company. This has tended to drive stone prices up over the last few years. The unusually high lake levels for 5 years now has also impacted the market. There are many projects underway due to shoreline and bluff damage driven by high water conditions. This has made it difficult for the quarries to keep up with stone supplies recently. As well, the construction contractors are all very busy which tends to increase their pricing. The opinion of construction costs presented in this preliminary design report have used unit price assumptions that reflect construction bids that we have seen during 2019. Presumably these costs could moderate as the Lake Levels at some point will inevitably drop following long term trends.

The project could potentially be completed by either barge or from land. When possible, it is best to include both land and water-based contractors in the bid competition. Both types of firms have shown an ability to win bid awards for coastal projects in the Northshore. This project would be feasible for either type contractor to perform. A land-based contractor would be trucking the stone in from Wisconsin and pass through the local streets on the way to the beach. A water-based Contractor would have significantly less need to use the streets for construction access. There are a limited number of construction firms that operate in the Northshore; therefore, it is usually best to allow both types of firms to bid these projects and the competition should include firms that are a combination of both types of firms. This approach provides the best opportunity to obtain a competitive bid.

A. Base Option

The base option includes armor stone breakwater and groin improvements to improve the beach planforms and address erosion issues. The following rendering illustrates this option.

A larger size rendering is provided as Rendering 3 in Appendix A. A preliminary engineering drawing is provided as Drawing B2 in Appendix B.

This option includes improvements in each beach cell. The improvements are targeted towards reducing wave energy that can enter the beach cells in order to reduce erosion potential and stress:

North Beach (Existing Dog Beach)

The existing shore parallel breakwater at the end of the North Shelter building steel groin will be extended 65 feet to the north. In addition, a 100-foot long armor stone breakwater will be constructed at the east end of the existing steel groin located at the north end of the North Beach. During the October 2014 wave event, waves were lapping at the toe of slope of the bluff in the center of the North Beach. The average monthly lake level at that time was approximately 1.6 feet lower than it is today. The storm produced very high winds that generated a significant wind induced setup that elevated the lake level by 2 feet. The wave height for that storm is estimated to be approximately 14 feet. The combined probability of lake level and wave height during this storm produced an estimated 15-year storm – an event that has a 7 percent chance of being equaled or exceeded in any given year. If that storm was repeated at today's lake levels, the risk of bluff and beach damage would be much worse.

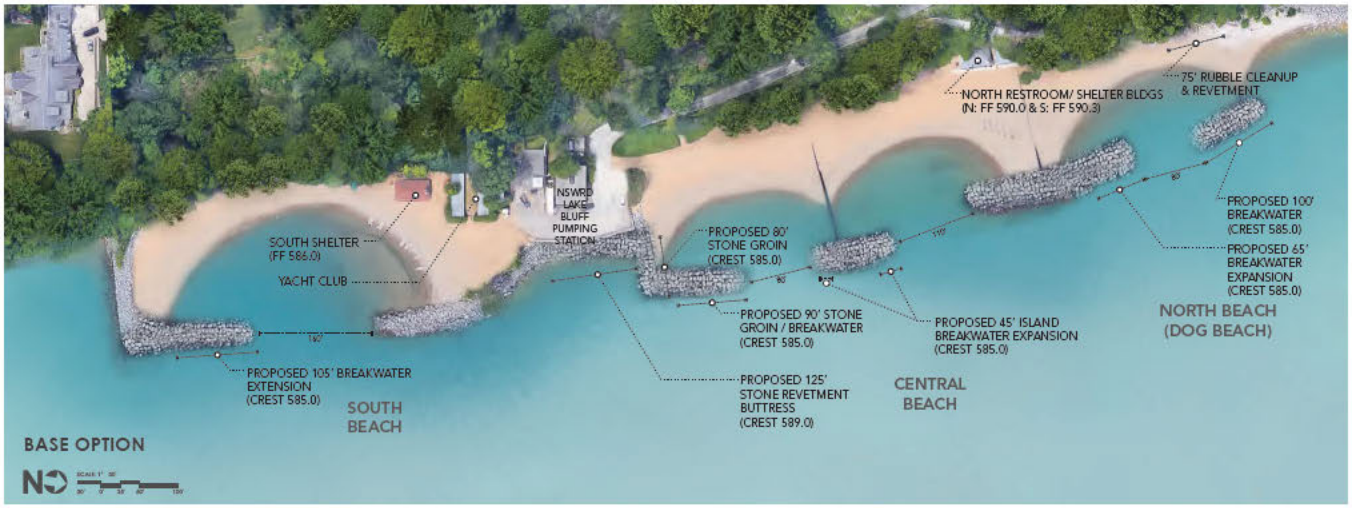
If left unattended, this beach cell will continue to experience beach erosion including downcutting of lakebed clay. The resulting deeper water closer to shore will allow larger waves to reach shore without breaking and will exacerbate the erosion. This phenomenon could ultimately result in bluff erosion and slides as are currently occurring at many locations in the Northshore.

The two breakwater improvements at this beach will reduce the gap between the existing structures from 235 feet to 80 feet. These improvements will reduce the amount of wave energy that can reach shore and will help to protect the North Restroom/Shelter Buildings south of this cell as well as the base of the bluff in the northern portions of this cell. The 100-foot-long breakwater at the north end of this cell combined with the proposed 65-foot breakwater extension at the south side of this cell are also expected to improve the characteristics of the beach sand in this cell.

These improvements will reduce the potential that the restroom/guard building would be impacted if the 100-year design wave storm were to occur. The North Shelter Building is somewhat better protected; however, it could be impacted during the design wave event. The beach sand consistency will be improved by the reduction of wave energy entering this beach cell. The potential for erosion of the clay lakebed within this cell will be reduced as the energy is absorbed more efficiently as wave energy is absorbed and reflected by the new structures.

Central Beach North Cell

The Island Breakwater at the central groin will be expanded 15 feet to the south and 30 feet to the north. This option will address the movements of the existing stones and the small size of the structure that makes the existing breakwater ineffective. The existing structure is small and does not have standard armor blanket geometry to withstand wave attack. As such, the stones have been dislodged to a certain extent. This new structure will reduce the wave overtopping of the steel groin between the North and South Cells and the potential for erosion of the gravel maintenance road near the bluff will be addressed. This structure will increase wave diffraction and reduce wave heights and erosion potential on the lakebed within this cell. The beach sand consistency will be improved by the reduction of wave energy entering this beach cell. The potential for erosion of the clay lakebed within this cell will be reduced as the energy is absorbed more efficiently through wave reflection at the new stone structure. This improvement will also reduce the potential for waves from the east and southeast to approach the North Shelter building during a 100-year wave event.



Central Beach South Cell

This beach cell will benefit from the Island Breakwater Expansion discussed above as well as the new 90-foot-long shore parallel breakwater proposed at the south end of this cell. The new south end breakwater construction will begin at the east end of the existing steel groin and extend for 90 feet to the north. The water gap between these two structures will be reduced from 210 feet to 80 feet. This new configuration will significantly reduce the amount of wave energy that can enter the cell. Some of the incoming wave energy will be reflected from the east faces of these new structures back out to the lake with only a portion of the energy overtopping and transmitting through the structure and coming towards shore. The Waves that pass through the 80-foot gap will reduce in height as they approach shore due to wave diffraction. Diffraction occurs when a wave passes through a structure gap. As it expands inside the gap to the wider interior cell, the wave height is reduced by the process of wave spreading. The net effect of this breakwater arrangement is that the wave energy and potential for beach erosion and the periodic significant damage to the Central Beach and Central Beach Gravel Maintenance Road will be reduced. These structures will also be designed to address the potential for erosion of the clay beneath the beach and lakebed sand.

There will also be an upgrade to the condition of the steel sheet pile groin that exists at the south end of this beach cell. This groin is significantly deteriorated and includes corrosion that has caused several large holes in the steel sheeting below the water line. This NSWRD structure is an important element in the protection of the parking lot and in the formation of the Central Beach sand planform that manages much of the wave energy approaching the south end of the cell. Eighty feet of the steel structure will be encased in armor stone that will provide a buttress on both sides of the steel essentially replacing much of the structural support function of this structure. The steel will continue to perform as a relatively impermeable barrier that helps to support the sand beach form on the north side of this structure.

Asphalt Parking Lot Revetment between the Central and South Beach Cells

The existing stone revetment is not sufficient to manage wave attack and keep overtopping flows from flooding and damaging the parking lot. The addition of a stone buttress will reduce the overtopping potential and provide additional space for wave absorption on the crest. The existing stone revetment crest elevation is approximately 587.0. The proposed stone buttress will raise 125 feet of the revetment crest at the lake side edge to elevation 589.0. This feature will significantly reduce the overtopping amount and frequency of wave overtopping and uprush that can reach the parking lot.

We believe it is the NSWRD responsibility to protect and maintain the parking lot pavement and the existing steel groin at the north end of the parking lot.

South Beach

The existing sheet pile and stone groin at the far south end of the beach will be expanded to include a new 105' long breakwater expansion. This feature will address a tendency for the largest waves from the northeast to channel energy into this beach cell. The large gap width between the north and south stone groins that bracket the cell, and the reflected wave energy from the south groin, combine to reduce beach sand deposition potential. The proposed improvement will reduce wave energy and improve beach formation at the east beach edge where wave action is attacking the toe of the bluff slope. Boat naviagion from the lake into the yacht club area should be improved as wave action is reduced.

The potential for erosion of the clay lakebed within this cell will be reduced as the energy is absorbed more efficiently through wave reflection at the new breakwater expansion area. As well, the current tendency for this beach cell to converge direct attack waves and reflected waves from the south groin and towards the beach will be significantly reduced.

A preliminary opinion of probable construction cost for the Base Option is provided on page 29. The opinion of probable construction costs for each beach construction element includes the cost of construction and beach nourishment. Lake bottom fill mitigation costs are also listed assuming mitigation will be accomplished by purchasing credits in a certified wetland mitigation bank. The Engineering line item includes design fees; construction administration, observation and oversight; and regulatory permit fees which typically include the following:

- USACE: No Fee
- IEPA: $5,000 to $10,000
- IDNR: $5,000 to $10,000
- Lake County Erosion Control: $2000 to $10,000

Base Option - Preliminary Construction Cost Opinion

CONSTRUCTION ITEM	PROBABLE CONSTRUCTION COST
A. LAKE BLUFF PARK DISTRICT COST COMPONENTS	
SOUTH BEACH	
105' Breakwater Extension	$709,300
Wetland Mitigation	$56,800
Subtotal	**$766,100**
Permitting, Engineering and Construction Admin.	$122,600
Contingencies	$183,900
Total	**$1,072,600**
CENTRAL BEACH	
90' Stone Breakwater	$544,500
45' Island Breakwater Expansion	$301,300
Wetland Mitigation	$68,000
Subtotal	**$913,800**
Permitting, Engineering and Construction Admin.	$146,200
Contingencies	$219,300
Total	**$1,279,300**
NORTH BEACH	
65' Breakwater Expansion	$360,100
100' Breakwater	$525,000
75' Rubble Cleanup & Revetment	$150,000
Wetland Mitigation	$92,800
Subtotal	**$1,127,900**
Permitting, Engineering and Construction Admin.	$180,500
Contingencies	$270,700
Total	**$1,579,100**
LBPD SUBTOTAL	**$3,931,000**
B. POTENTIAL NSWRD COST COMPONENTS	
80' Stone Groin	$244,000
125' Beach Revetment Buttress	$283,500
Wetland Mitigation	$41,000
Subtotal	**$568,500**
Permitting, Engineering and Construction Admin.	$91,000
Contingencies	$136,400
Total	**$795,900**
C. GRAND TOTAL	**$4,726,900**

B. Expanded Base Option

The expanded base option includes the same armor stone breakwater and groin improvements that are included in the base option. This option also includes an 80-foot armor stone revetment buttress just south of the NSWRD parking lot and adjacent to the north beach in the South Beach Cell. In addition, the plan includes a fishing pier overlook structure which is included as a potential amenity in the Park District 2013 Waterfront Master Plan. This option is more expensive than the base option. The rendering below illustrates this option.

A larger size rendering is provided as Rendering 4 in Appendix A. A preliminary engineering drawing is provided as Drawing B3 in Appendix B.

This option includes the following improvements that are additional to the Base Option:

South Beach North End Revetment 80-foot Buttress

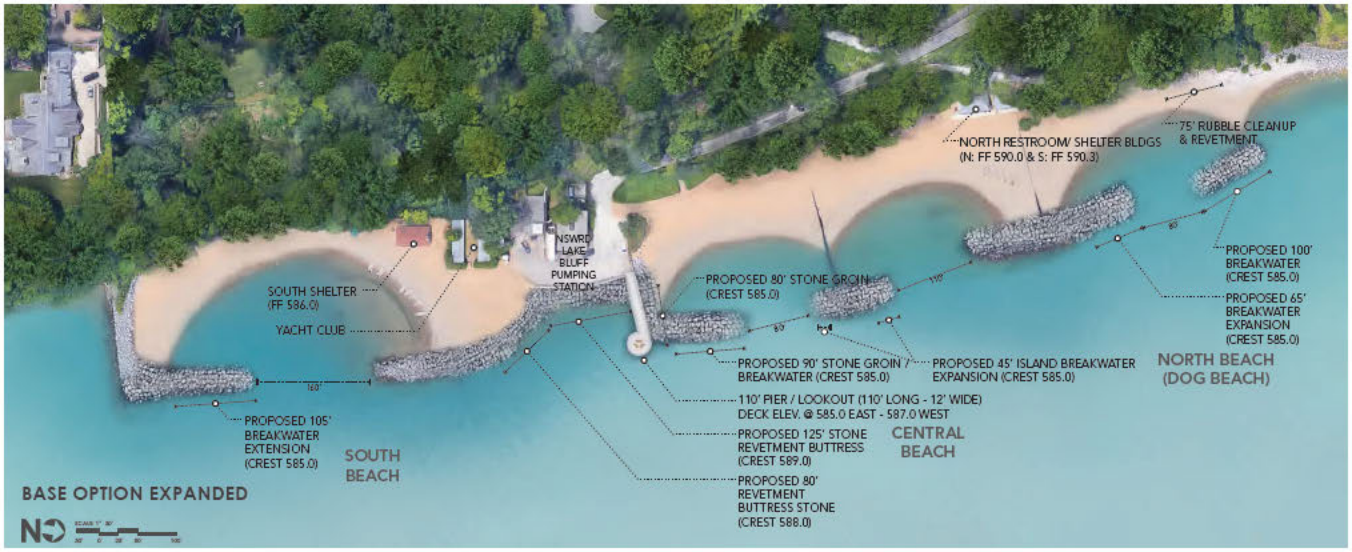
The existing beach sand on the west side of this revetment experiences periodic nuisance erosion at the interface of the beach sand and the armor stone due to wave overtopping. This improvement will reduce the frequency of this erosion issue at this popular beach area by reducing the wave overtopping potential and frequency. It will also provide a wider surface for overtopping waves to spend and absorb overtopping flows.

Fishing Pier/Overlook Structure

Based on the 2013 Waterfront Master Plan, a fishing pier/ overlook on the south side of the existing steel groin at the south side of the Central Beach Cell was evaluated. This structure would be constructed with steel sheet pile walls, crushed stone fill and a concrete surface. Seating surfaces would be included in the surface of this pier as well as structures and railings to facilitate fishing activities. The pier would be 110 feet long and 12 feet wide and would connect to the parking area thereby providing ADA accessibility. The south and east side base of the steel walls would be protected with submerged toe stones. Water depths at the east end of the pier would be approximately 5 feet.

A preliminary opinion of probable construction cost for the Base Option is provided on page 31. The opinion of probable construction costs for each beach construction element includes the cost of construction and beach nourishment. Lake bottom fill mitigation costs are also listed assuming mitigation will be accomplished by purchasing credits in a certified wetland mitigation bank. The Engineering line item includes design fees; construction administration, observation and oversight; and regulatory permit fees which typically include the following:

- USACE: No Fee
- IEPA: $5,000 to $10,000
- IDNR: $5,000 to $10,000
- Lake County Erosion Control: $2000 to $10,000



Expanded Base Option - Preliminary Construction Cost Opinion

CONSTRUCTION ITEM	PROBABLE CONSTRUCTION COST
A. LAKE BLUFF PARK DISTRICT COST COMPONENTS	
SOUTH BEACH	
105' Breakwater Extension	$709,300
80' Revetment Buttress	$181,400
Wetland Mitigation	$66,700
Subtotal	**$957,400**
Permitting, Engineering and Construction Admin.	$153,200
Contingencies	$229,800
Total	**$1,340,400**
PIER / OVERLOOK	
110' Pier / Lookout	$266,000
Wetland Mitigation	$12,700
Subtotal	**$278,700**
Permitting, Engineering and Construction Admin.	$44,600
Contingencies	$66,900
Total	**$390,200**
CENTRAL BEACH	
90' Stone Breakwater	$544,500
45' Island Breakwater Expansion	$301,300
Wetland Mitigation	$68,000
Subtotal	**$913,800**
Permitting, Engineering and Construction Admin.	$146,200
Contingencies	$219,300
Total	**$1,279,300**
NORTH BEACH	
65' Breakwater Expansion	$360,100
100' Breakwater	$525,000
75' Rubble Cleanup & Revetment	$150,000
Wetland Mitigation	$92,800
Subtotal	**$1,127,900**
Permitting, Engineering and Construction Admin.	$180,500
Contingencies	$270,700
Total	**$1,579,100**
LBPD SUBTOTAL	**$4,589,000**

B. POTENTIAL NSWRD COST COMPONENTS	
80' Stone Groin	$244,000
125' Beach Revetment Buttress	$283,500
Wetland Mitigation	$41,000
Subtotal	**$568,500**
Permitting, Engineering and Construction Admin.	$91,000
Contingencies	$136,400
Total	**$795,900**

C. GRAND TOTAL	**$5,384,900**

C. Lakefill Option

A Lakefill option includes 0.3 acres of usable space on the east side of the parking lot. This option was developed to address a potential collaboration with the North Shore Water Reclamation District (NSWRD). The NSWRD proposes to construct a buried reservoir under the boat storage area. The NSWRD would also seek to construct building improvements on the east side of their buildings. These improvements include fence and entry improvements on the outside of the buildings.

The Park District is exploring the possibility of accommodating some of the large amount of excavated soil that would have to be disposed offsite to construct the reservoir. The option helps to explore the potential for overall cost savings while adding a park amenity. The Park District would construct a lakefill that would provide for the creation of usable space on the east side of the parking lot. The NSWRD would provide funding support for the lakefill and armor stone construction that would be needed to create the park expansion. The following rendering illustrates this option.

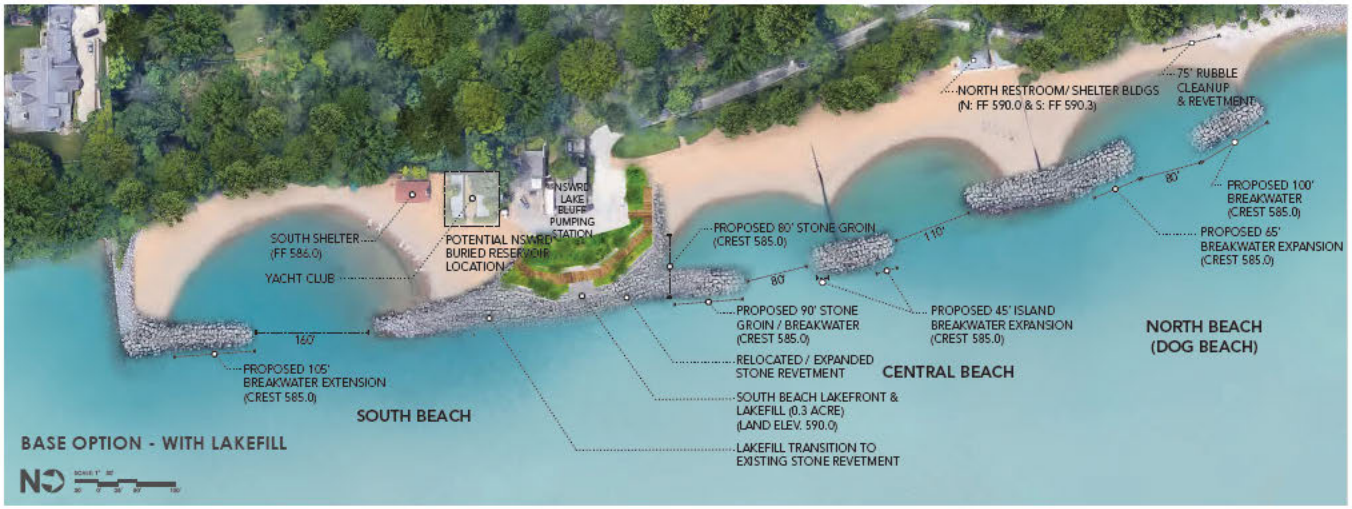
An enlarged size rendering of the lakefill area is provided as Rendering 5 in Appendix A. The plan view below and in Rendering 5 (Appendix A) for the Lakefill Option illustrates a comprehensive landscape scheme. The first two cross sections on page 33 illustrate two variations on vegetation for the comprehensive approach. One shows a tall tree concept and the other a lower vegetation approach. The third cross section on page 33 illustrates an engineering section that includes the various elements of the park fill as well as a basic landscape scheme that includes grass with a crushed stone trail. Preliminary cost opinions for the trail were developed in detail for the basic landscape scheme. The cost estimate is footnoted with a preliminary cost opinion for the comprehensive landscape scheme. An enlarged view is provided on Rendering 6 in Appendix A. A preliminary engineering drawing is provided as Drawing B4 in Appendix B.

The new park area would allow the Park District to create a park connection between the Central and South Beach Cells. Beach goers would no longer need to walk through the parking lot to walk from the Central Beach to the South Beach. A lakefront overlook would be created in this park space with a new promenade. The park would be elevated to elevation 590 for wave management purposes and to create vertical separation from the parking lot.

This feature also provides additional room to potentially reuse fill from the NSWRD reservoir excavation. Landscaping would help to screen the park from the parking lot. Step structures would be incorporated into the south side of the new park to provide access to the north and central beach areas. ADA access would be provided from the north access road to the park area. ADA access to the south beach would continue to remain on the parking lot pavement. The lakefill east edge would form a very similar alignment as the existing stone revetments north and south of the parking lot. As such, the littoral drift characteristics would not be altered for the region.

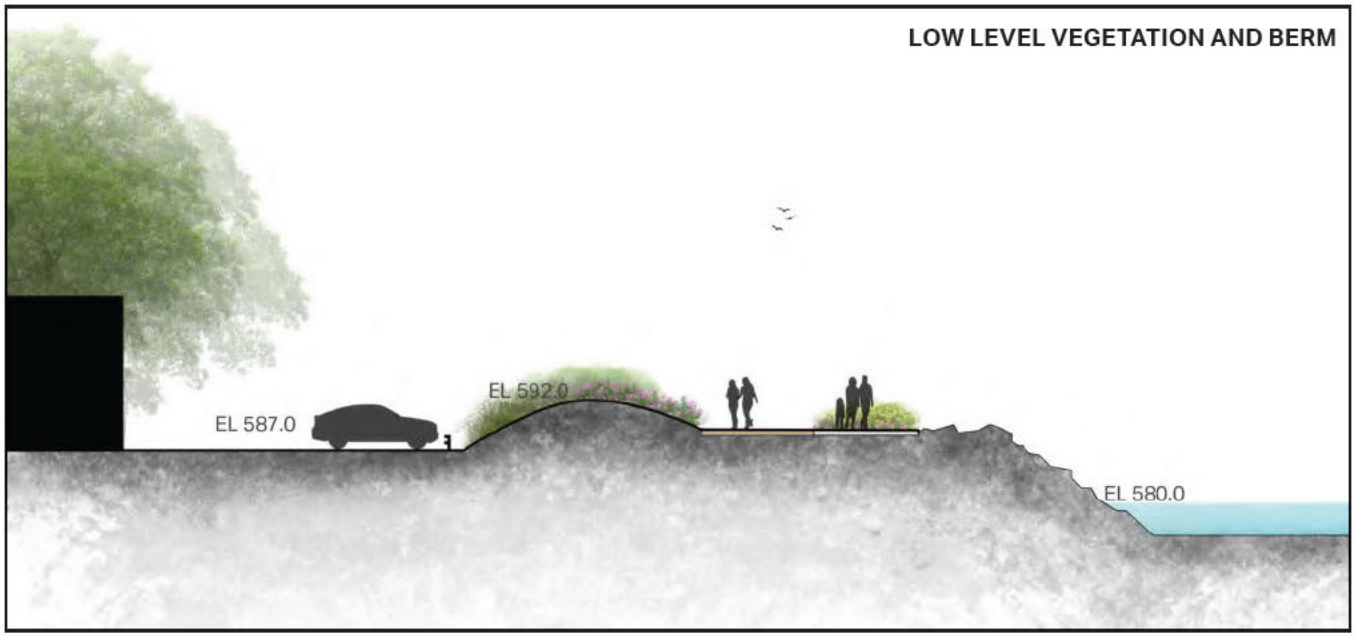
Construction of the NSWRD reservoir would occur under the existing boat storage area. The reservoir would be constructed completely below ground and covered with earth to approximately the existing ground elevations. The boat storage area would then be reconstructed. Preliminary estimates indicate that more than 10,000 cubic yards of earth would need to be removed to construct the reservoir. A portion of this earth would be reused to construct the lakefill. It may be possible that as much as 2,500 cubic yards of fill from the reservoir site could be used in the lakefill. The soil targeted for reuse in the lakefill would include unsaturated soil that exists above the water table that also has a consistency that is acceptable as an engineered fill. A cross section of the lakefill site on page 33 illustrates a conceptual construction approach that will create usable space.

The existing armor stone at the east edge of the parking area would need to be moved. The stone is too large to construct a fill on top. This stone will be used as part of a starter dike for a stone revetment at the new park edge.

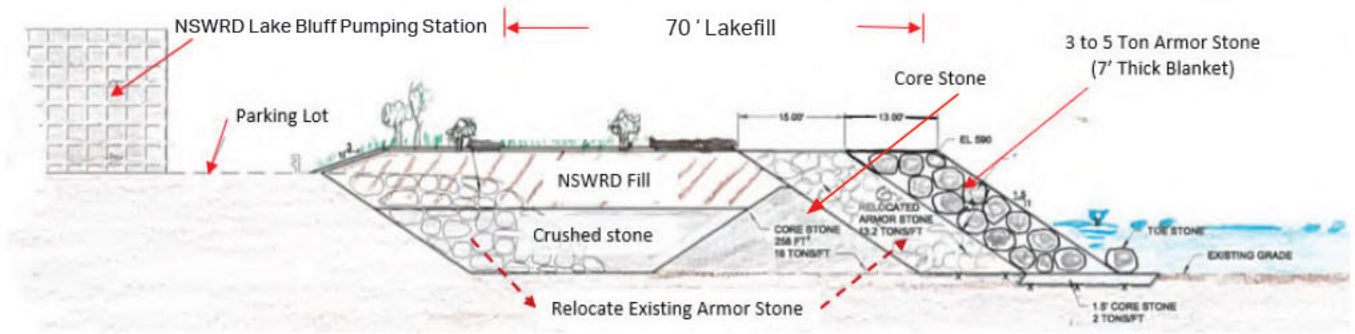


TALL TREE OPTION

LOW LEVEL VEGETATION AND BERM



LAKEFILL CROSS SECTION*



*This section illustrates simple landscaping including topsoil, grass and a crushed stone trail

A good portion of the new revetment would need to be constructed before the landfill can be placed due to potential wave attack during construction. All fill beneath the lake level will need to be comprised of crushed stone which will also provide a transition between the large armor stone and the landfill. The earth from the NSWRD reservoir construction can then be placed.

A preliminary opinion of probable construction cost for the lakefill option is provided on this page. This opinion includes the cost of construction and beach nourishment. Lake-bottom fill mitigation costs are also listed assuming mitigation will be accomplished by purchasing credits in a certified wetland mitigation bank.

The illustration of this option is superimposed on the Base Option; however, the construction cost opinion reflects only those costs attributed to the usable space. They do not include the costs associated with the Base Option. Furthermore, the Lakefill will replace the need to construct the 125' stone revetment buttress along the east edge of the NSWRD parking lot. Therefore, the cost of the 125' stone revetment buttress that would be included in the base option is deducted from the lakefill cost. Thus, the parking lot protection construction that is listed as a Probable NSWRD cost for the Base Option is considered an offset to the cost of the usable space which will provide even more protection than the revetment buttress concept.

The Engineering line item includes design fees; construction administration, observation and oversight; and regulatory permit fees which typically include the following:

- USACE: No Fee
- IEPA: $5,000 to $10,000
- IDNR: $5,000 to $10,000
- Lake County Erosion Control: $2000 to $10,000

Lakefill Option - Preliminary Construction Cost Opinion

CONSTRUCTION ITEM	PROBABLE CONSTRUCTION COST
Relocate Existing Armor Stone	$79,000
Core Stone Starter Dike	$191,000
Armor Stone Revetment	$775,000
CA-2 Lake Fill Stone	$83,000
Fill from NWRSD Reservoir Site	$0
Top Soil, Seed and Erosion Mat	$15,000
Crushed Stone Trail	$23,000
Credit for 125' Armor Stone Revetment from NSWRD	(-$249,100)
Lake Bottom Fill Mitigation	$138,600
Subtotal	**$1,055,500**
Permitting, Engineering and Construction Admin.	$168,900
Contingencies	$253,300
TOTAL	**$1,477,700***

*This estimate assumes a basic landscape including grass and a simple crushed stone trail. If the comprehensive landscape scheme illustrated in Rendering 5 (Appendix A) is implemented, add $286,000 to this option.

If desired the pier/overlook structure that is illustrated in the Base Option Expanded can be included with the lakefill option. The added cost is estimated to be approximately $300,000. Much of the pier would be embedded in the new park surface; however, the east end would protrude from the park such that a vertical wall surface would extend over the water in a semi – circular arch. The pier could not extend much farther into the water since the regulatory agencies will not allow structures that extend beyond the east limits of existing structures.

In conclusion, the Lakefill Option does not achieve the objective of reducing costs. However, it does improve protection of the parking lot and pumping station.

D. Island Breakwater

The 2013 Waterfront Master Plan included discussion of the creation of an island breakwater. A quick assessment of the Island Breakwater is provided in this study to address the potential for this type of structure.

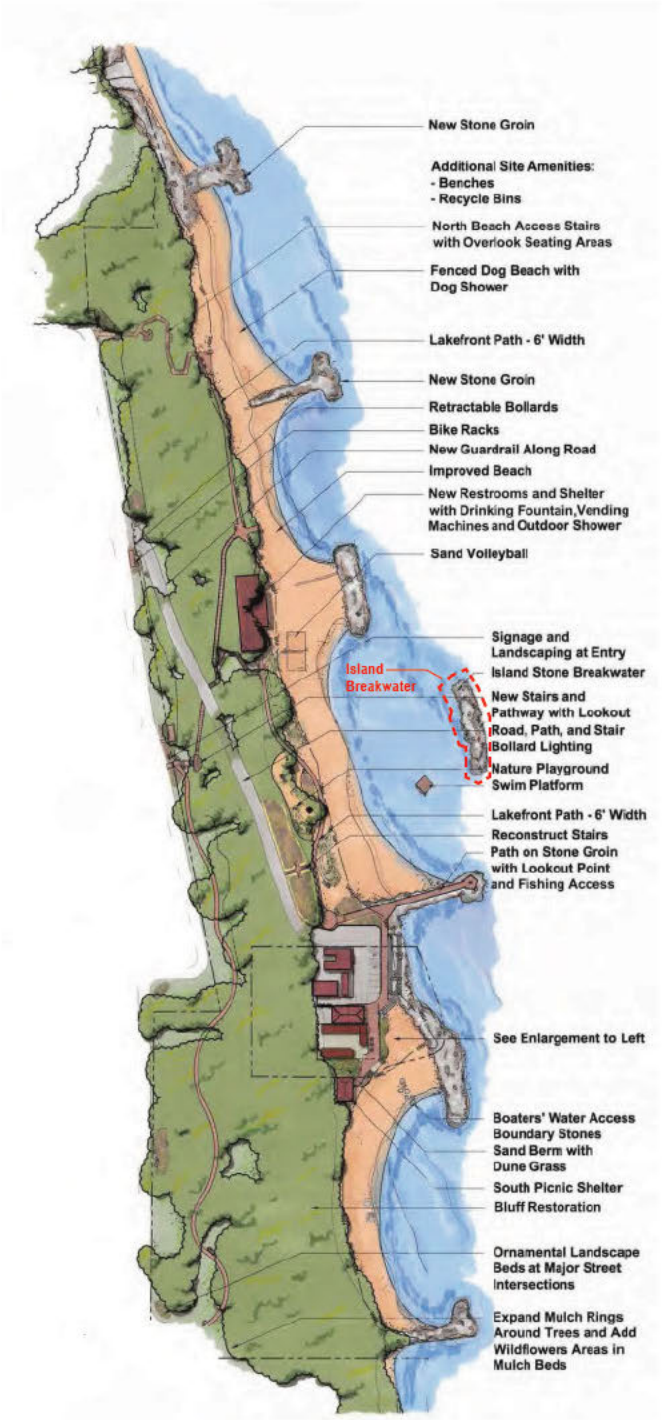
An Island Breakwater would be constructed as a free-standing breakwater not connected to land by a groin. These structures can cause the formation of a sand tombolo at the shoreline. A tombolo is an expansion of the sand beach in the wave shadow of the island breakwater. The waters edge would tend to grow east some distance. Depending on the size of the breakwater at this site, the adjustment of the beach would likely be minimal. The island breakwater does not completely interrupt the north south currents along the beach. Therefore, it is not as effective in causing beach formation behind the breakwater.

This type of breakwater can create some interesting shaping of the water's edge. However, Sunrise beach has significant gaps between the existing breakwaters. Therefore, an island breakwater would need to be sizeable and closer to shore to cause a significant adjustment of the beach planform.

The Master Plan concept for the Island Breakwater has the structure located out in the lake farther east than the existing breakwaters. The water depth at that location would result in a large structure that would be costly. As well, the structure would be located in the littoral zone beyond the influences of the other breakwater structures. Significant wave energy would bypass to the west of this structure and the larger waves from the north northeast would have direct access behind the structure. The location of this structure in the 2013 Master Plan would not be acceptable to the regulatory agencies.

The term island would mean only that the structure is not connected to a land-based feature. It does not imply that the island would be accessible for boaters and swimmers. The stone breakwater would be comprised of stones that are larger than the other stones that exist on the other beach structures due to its location in deep water. As well, revetment stones are very dangerous to walk and climb on— especially in wet conditions. Swimmers and boaters should not be encouraged to access such a structure from a safety perspective.

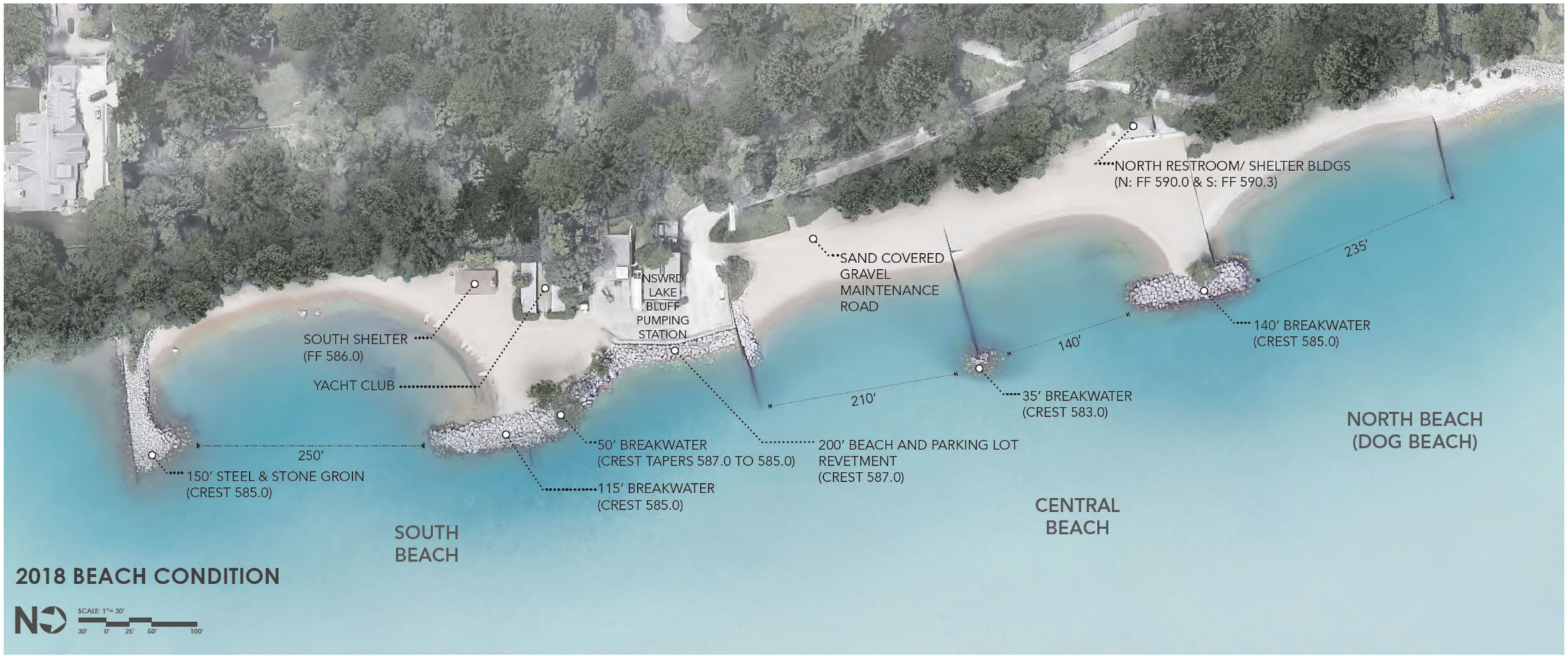
2013 MASTER PLAN ISLAND BREAKWATER CONCEPT



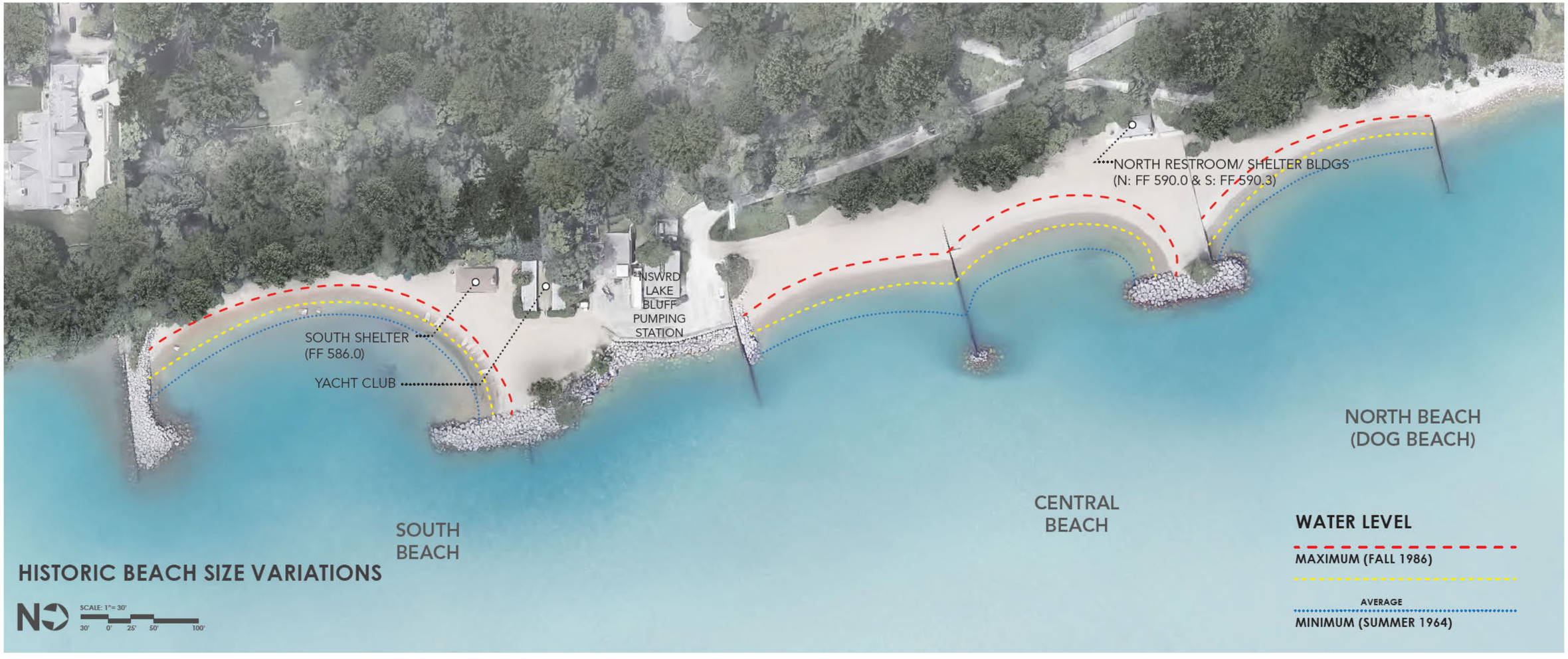
Appendix A
PROJECT RENDERINGS

Rendering 1 – Existing Conditions
Rendering 2 – Existing Conditions w/ Historic Beach Positions Noted
Rendering 3 – Base Option
Rendering 4 – Expanded Base Option
Rendering 5 – Base Option With Lakefill
Rendering 6 – Lakefill Cross Section A
Rendering 7 – Lakefill Cross Section B

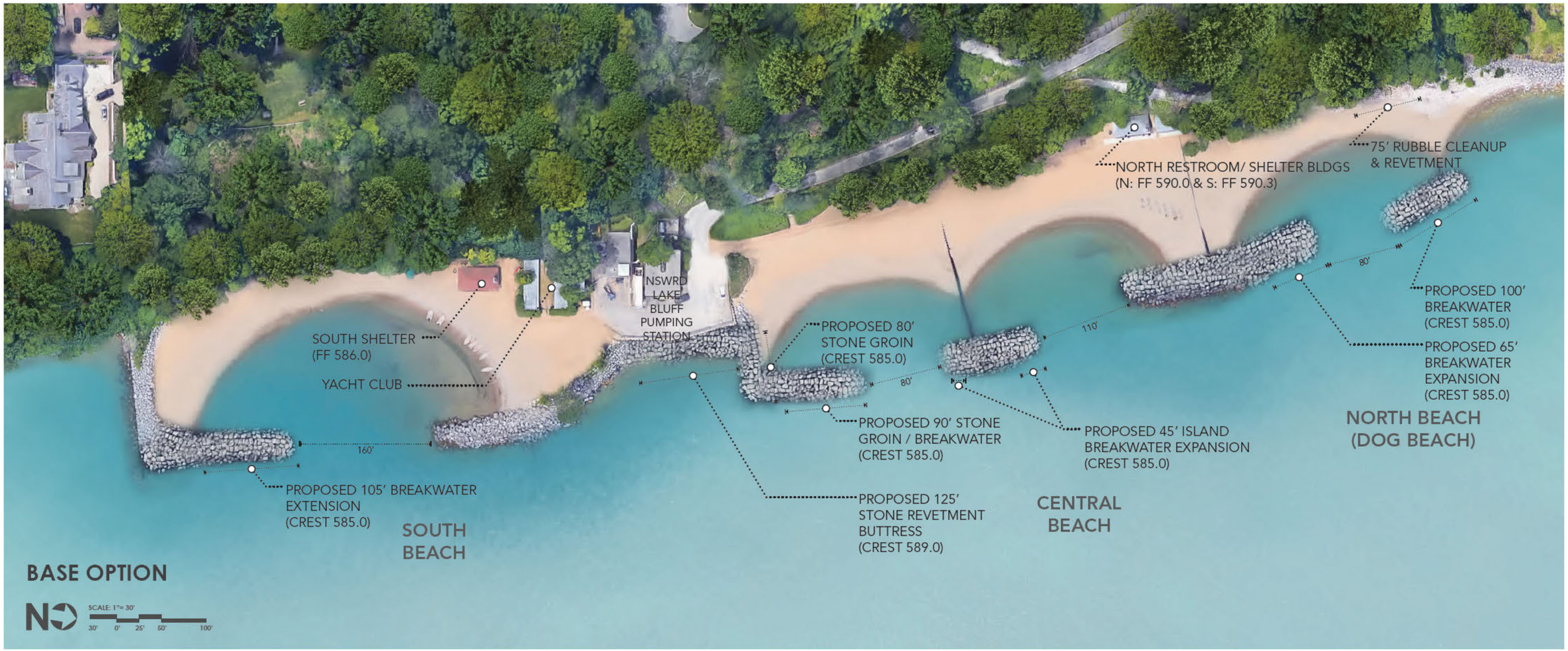
Rendering 1 – 2018 Conditions



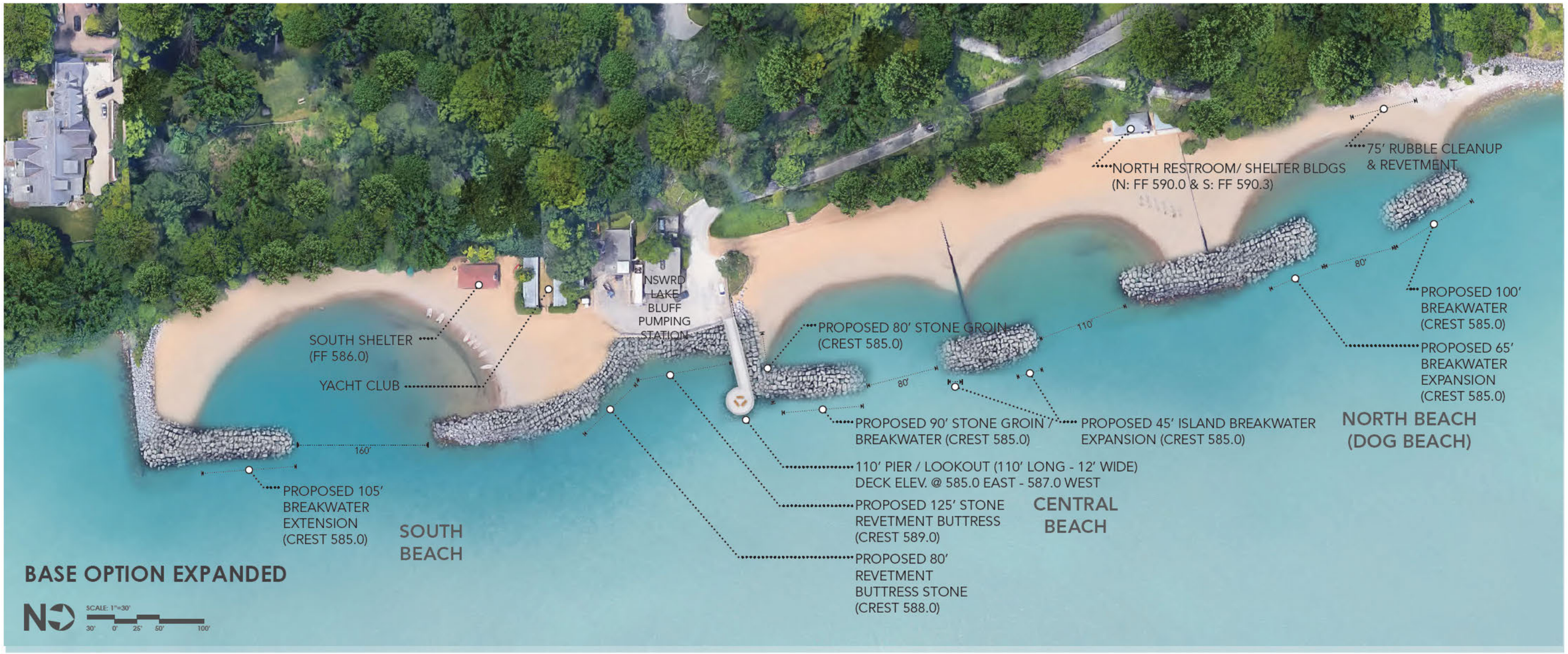
Rendering 2 – 2018 Conditions w/ Historic Beach Positions Noted



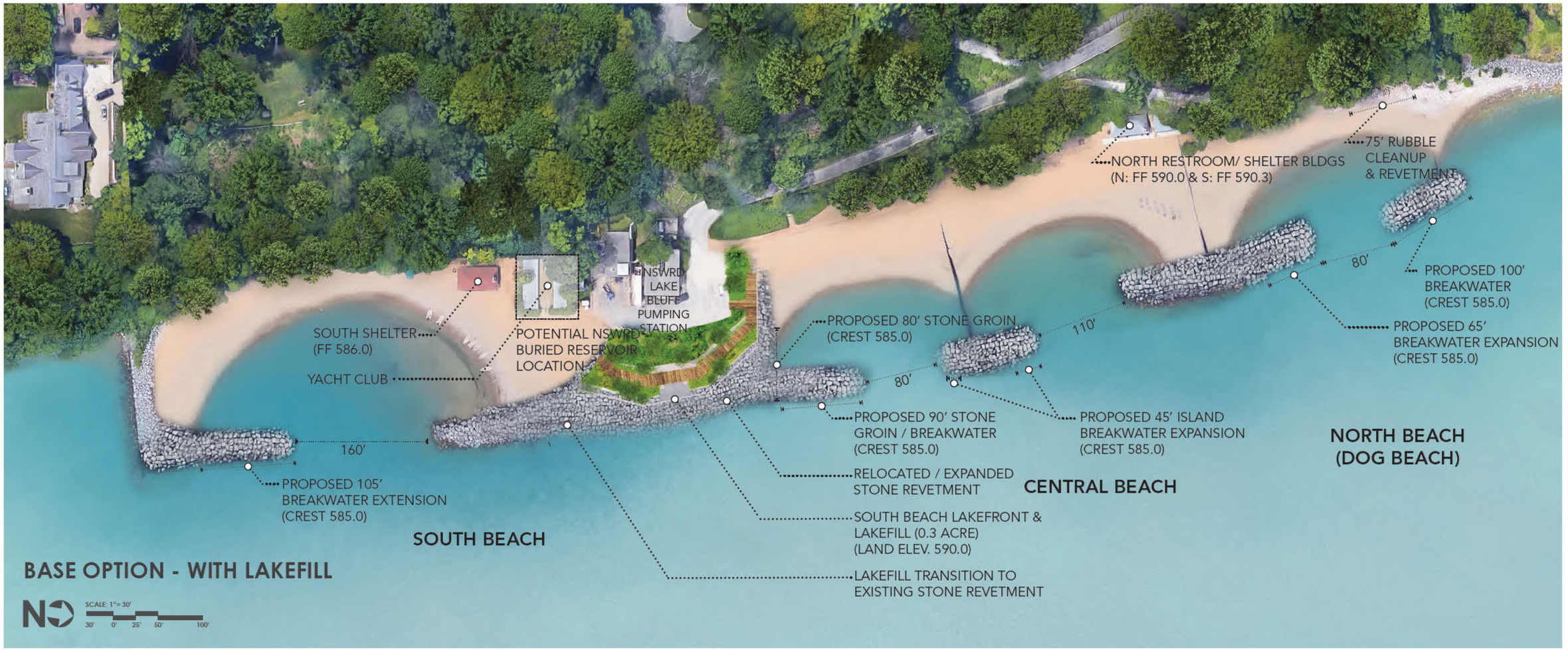
Rendering 3 – Base Option



Rendering 4 – Expanded Base Option

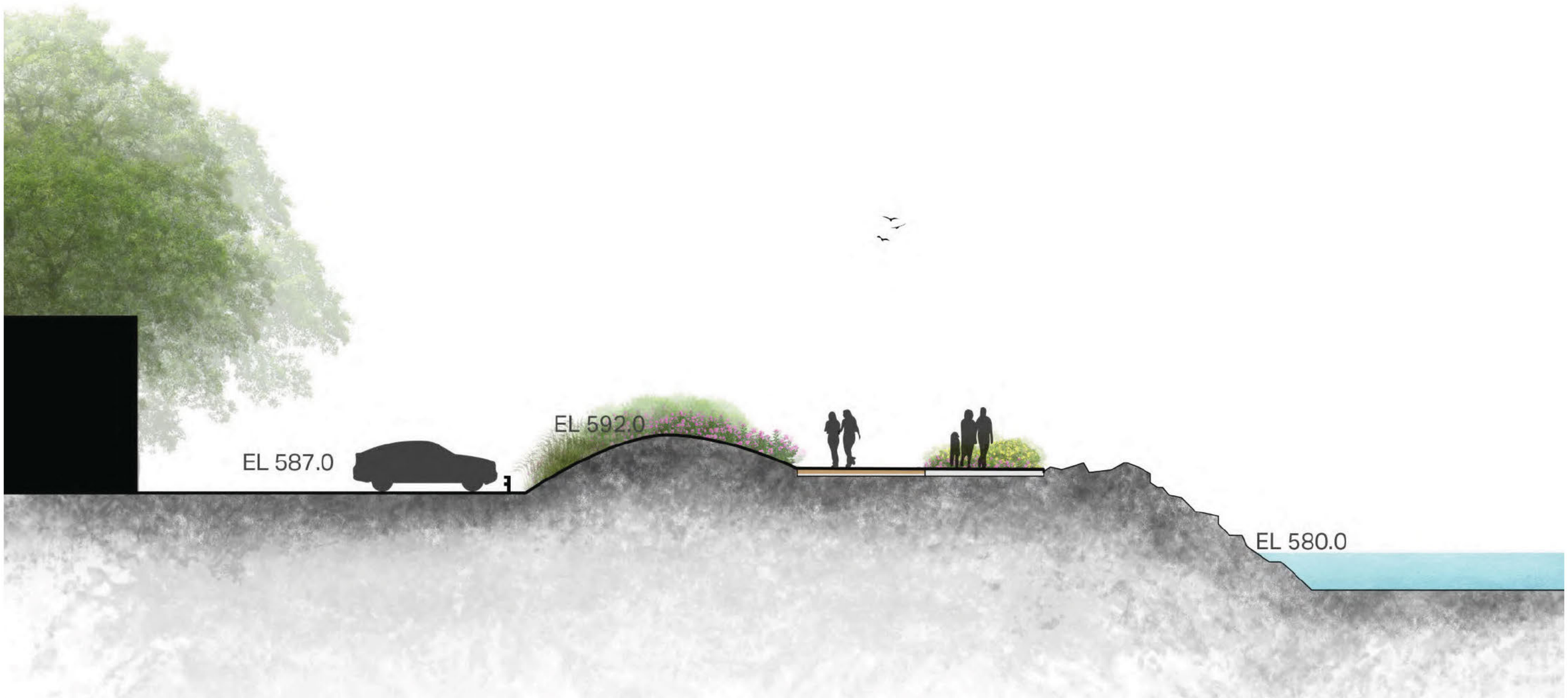


Rendering 5 – Base Option With Lakefill



Rendering 6 – Base Option With Lakefill Cross Section (Tall Trees)

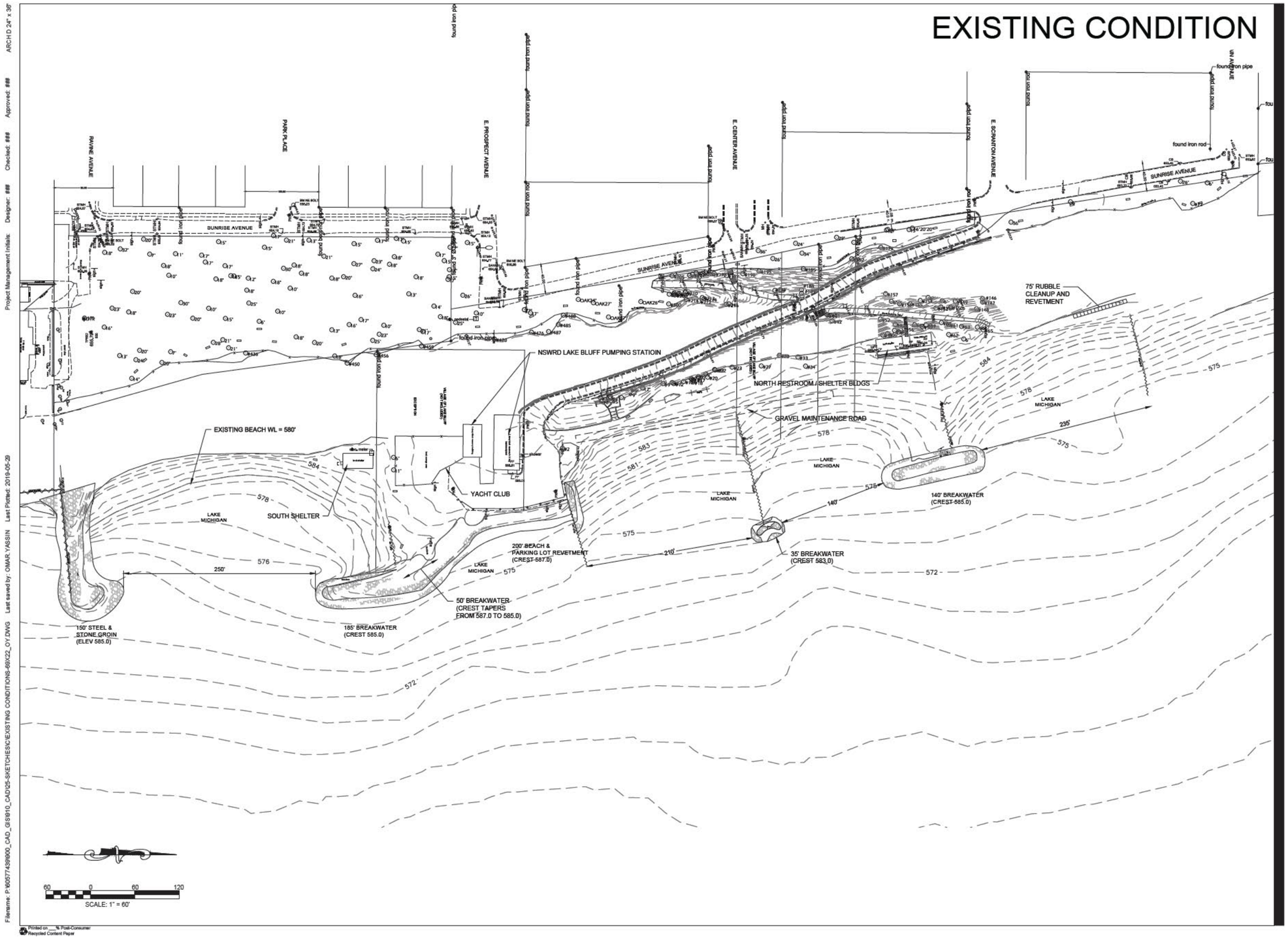
Rendering 7 – Base Option With Lakefill Cross Section (Low Vegetation)



Appendix B
ENGINEERING DRAWINGS

Drawing B1 – 2018 Condition
Drawing B2 – Base Option
Drawing B3 – Expanded Base Option
Drawing B4 – Base Option With Lakefill
Drawing B5 – Lakefill Sections

Drawing B1 – 2018 Condition



AECOM

PROJECT

SUNRISE PARK BEACH PRELIMINARY ENGINEERING

SUNRISE PARK
Sunrise Ave
Lake Bluff, IL 60044

CLIENT

VILLAGE OF LAKE BLUFF

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LAKE BLUFF, IL 60044
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www.aecom.com

ISSUE/REVISION

I/R	DATE	DESCRIPTION
A	YYYY-MM-DD	

KEY PLAN

PROJECT NUMBER

60577439

SHEET TITLE

EXISTING CONDITION

SHEET NUMBER

B-1

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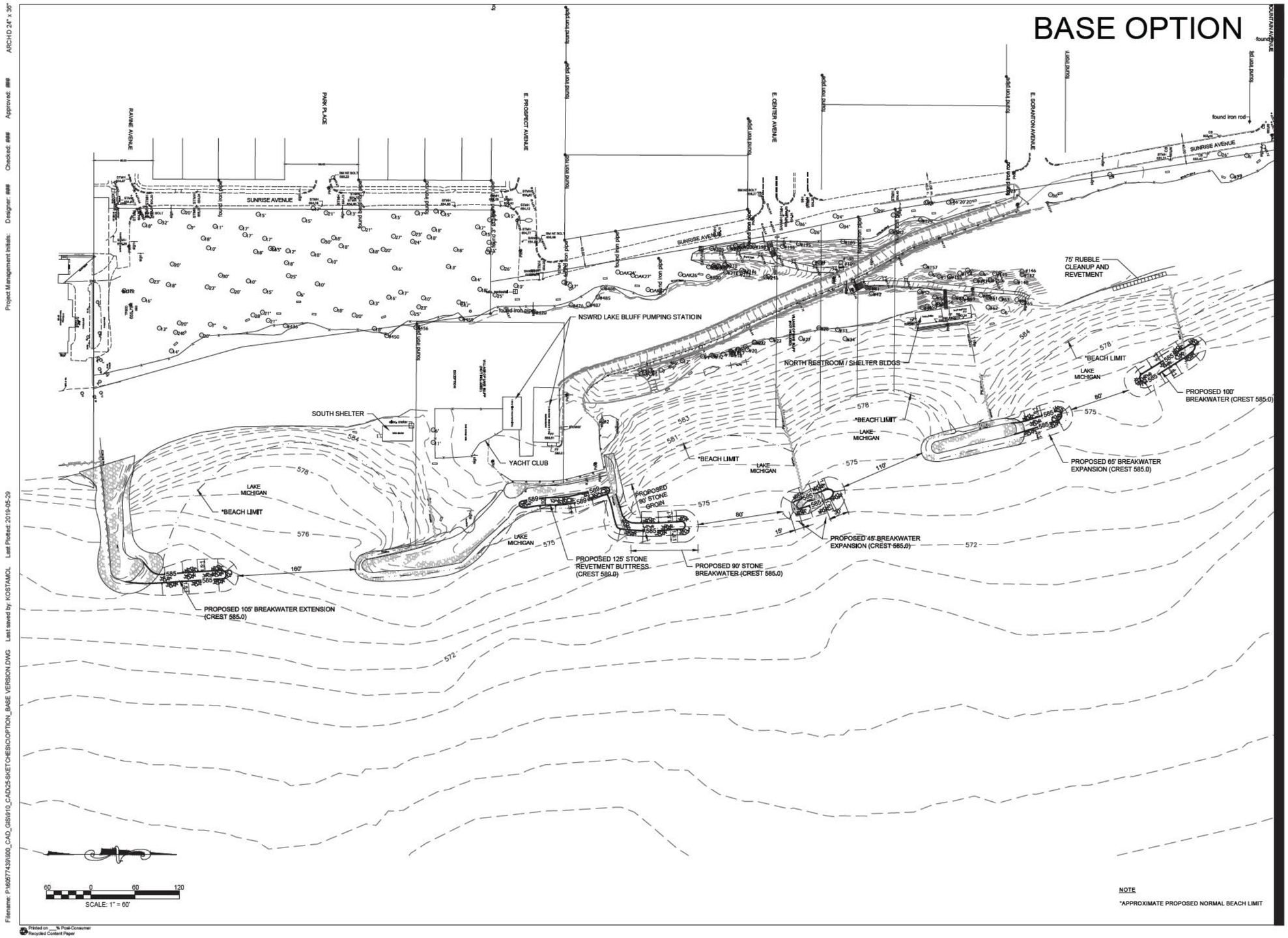
Drawing B2 – Base Option



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AECOM

PROJECT

SUNRISE PARK BEACH PRELIMINARY ENGINEERING

SUNRISE PARK
Sunrise Ave
Lake Bluff, IL 60044

CLIENT

VILLAGE OF LAKE BLUFF

40 E CENTER AVE
LAKE BLUFF, IL 60044
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ISSUE/REVISION

I/R	DATE	DESCRIPTION
A	YYYY-MM-DD	

KEY PLAN

PROJECT NUMBER

60577439

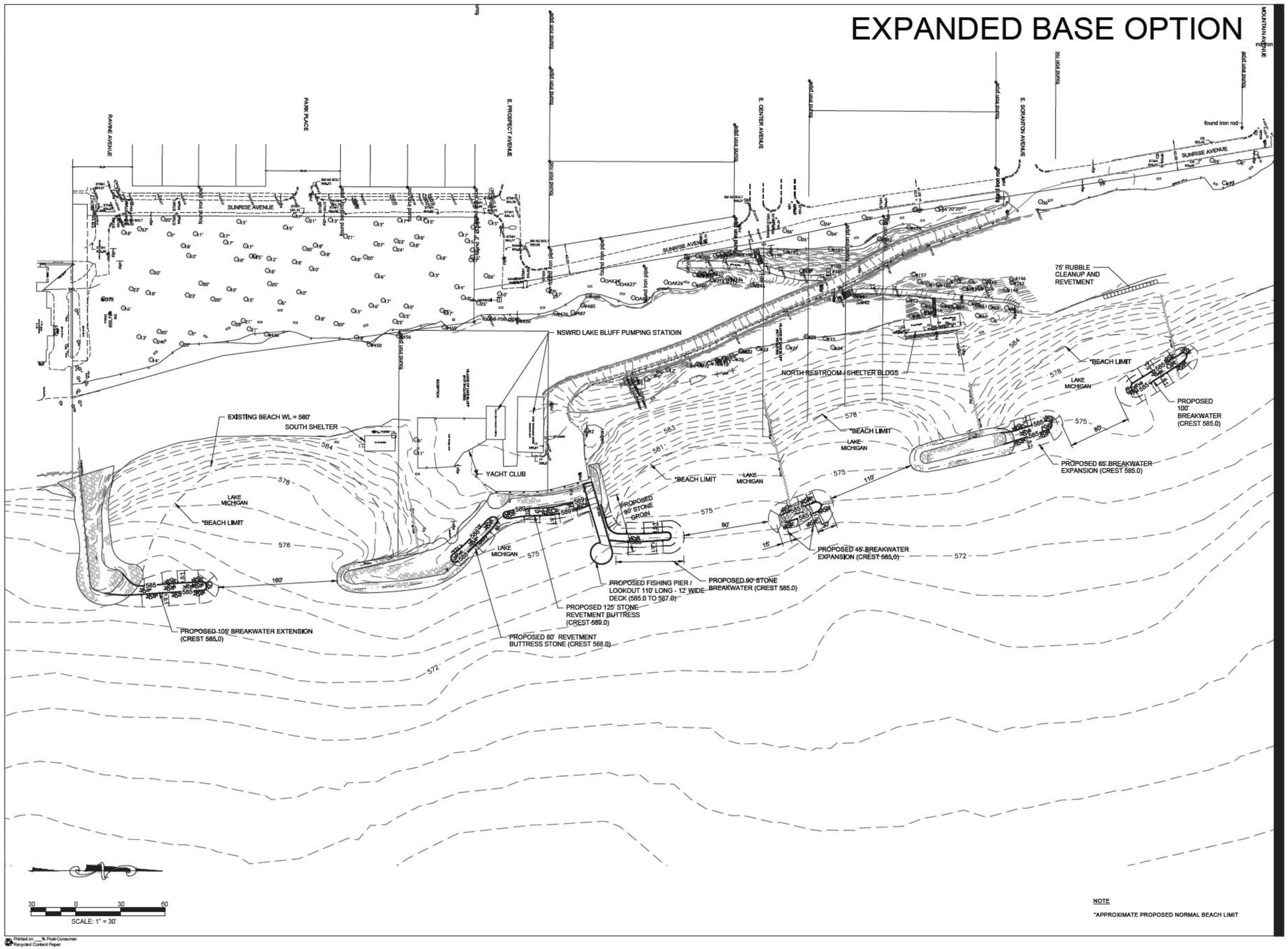
SHEET TITLE

BASE OPTION

SHEET NUMBER

B-2

Drawing B3 – Expanded Base Option



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PROJECT

SUNRISE PARK BEACH PRELIMINARY ENGINEERING

SUNRISE PARK
Sunrise Ave
Lake Bluff, IL 60044

CLIENT

VILLAGE OF LAKE BLUFF

40 E CENTER AVE
LAKE BLUFF, IL 60044
847 234 0774 TEL 847 234 7254 FAX
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ISSUE/REVISION

I/R	DATE	DESCRIPTION
A	YYYY-MM-DD	

KEY PLAN

PROJECT NUMBER

60577439

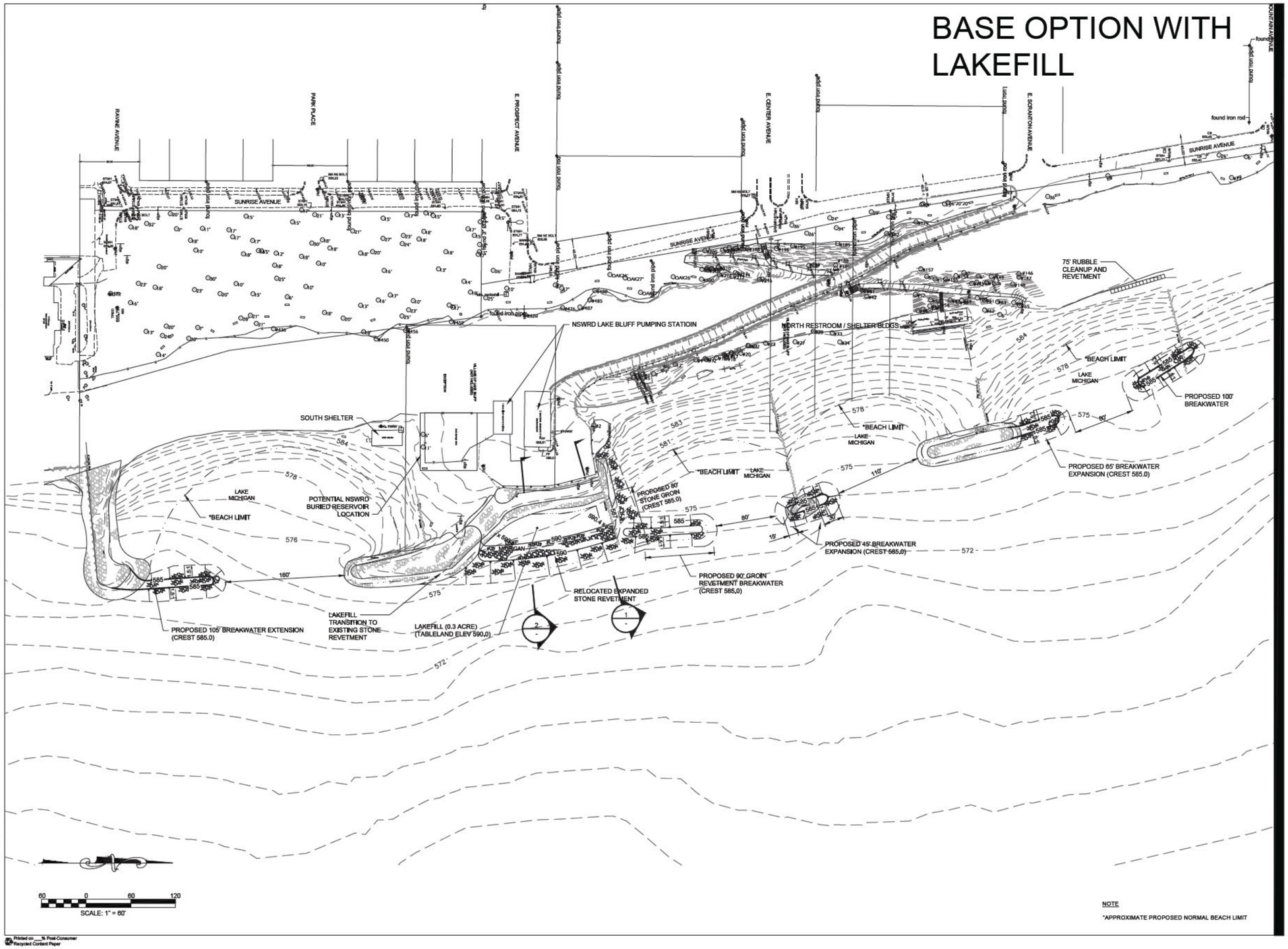
SHEET TITLE

EXPANDED BASE OPTION

SHEET NUMBER

B-3

Drawing B4 – Base Option With Lakefill



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Project Management Initials: Designer: ### Checked: ### Approved: ### ARCH D 24" x 36"

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PROJECT

SUNRISE PARK BEACH PRELIMINARY ENGINEERING

SUNRISE PARK
Sunrise Ave
Lake Bluff, IL 60044

CLIENT

VILLAGE OF LAKE BLUFF

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ISSUE/REVISION

I/R	DATE	DESCRIPTION
A	2019-05-15	PRELIM. DESIGN

KEY PLAN

PROJECT NUMBER

60577439

SHEET TITLE

BASE OPTION WITH LAKEFILL

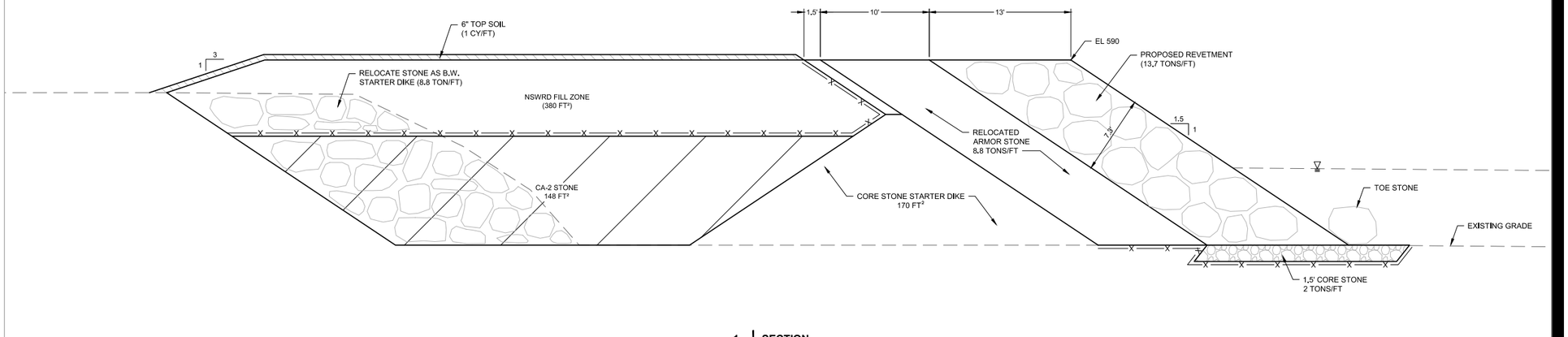
SHEET NUMBER

B-4

Drawing B5 – Lakefill Sections

ARCH D 24" x 36"
Approved: ###
Checked: ###
Designer: ###
Project Management Initials:
Last saved by: KOSTAMOL
Last Plotted: 2019-05-30
Filename: P:\60577439\900_CAD_GIS\910_CAD\25-SKETCHES\OPTION_BASE VERSION WITH LAKEFILL.DWG

LAKEFILL SECTIONS



1 SECTION
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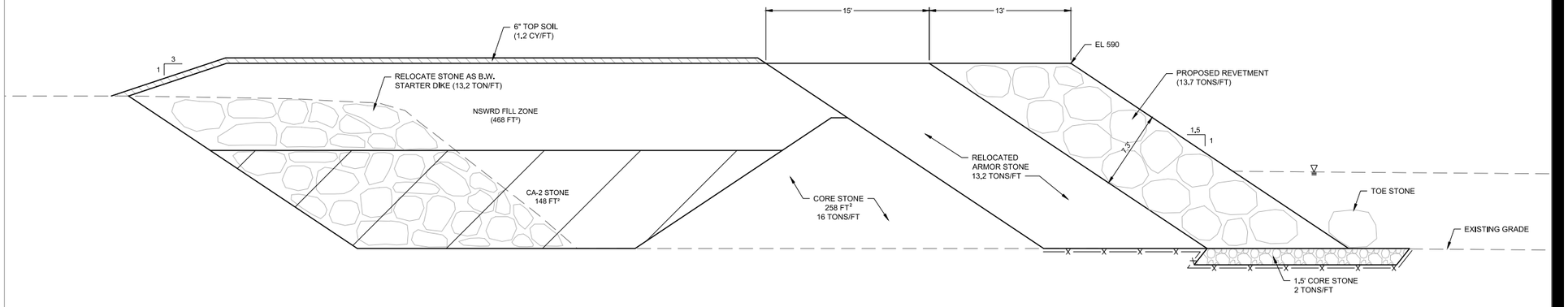

2 SECTION
Scale 1" = 5'

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PROJECT

SUNRISE PARK BEACH PRELIMINARY ENGINEERING

SUNRISE PARK
Sunrise Ave
Lake Bluff, IL 60044

CLIENT

VILLAGE OF LAKE BLUFF

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CONSULTANTS

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION
A	2019-04-19	MASTER PLAN

KEY PLAN

PROJECT NUMBER

60577439

SHEET TITLE

LAKEFILL SECTIONS

SHEET NUMBER

B-5

From: [redacted]
To: Robert Bahan; Ann Klaassen; Peter Friedman (Elrod Friedman Law)
Subject: Plan Commission and Village Trustees and Chris Rintz
Date: Friday, February 28, 2025 3:57:32 PM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Ann pls give to plan commission, Rob pls give to the Village Trustee's and to Chris Rintz. Please put in their packets.

We have spent countless years spent trying to get the WPD to follow the open meetings act and be transparent which has been a full time job. We have all followed the Villages rules and regulations and our time spent was properly going through the Zoning board and the Plan commission and design review board.
1. Since the WPD lost the Zoning Board 7-0, and made no suggested changes to the Plan commission, it appears they are trying to circumvent the process we have all followed by having/wanting closed meetings with 5 people because they were losing.

2. We are a democracy and the need to let the process follow our rules. Two citizens and one commissioner should not have that much power. The power is with the people, not individuals.

They have spent I believe over 2 million dollars for a plan the public clearly does not want and have nothing to show for it.

3. They have not gone to referendum, which both Kenilworth and Glencoe did for a lot less money than 18 million.

4. They have not always in my opinion followed the open meetings act, and I did not waste my time for 4 years of Elder being closed, for it to come down to 5 people going around the system that has been in place for years. This would set a precedent for all future boards that are losing. Follow the rules! The WPD admitted in public many many times stated they would follow the process! (Our process)

5. They did not hire a coastal engineer from Illinois, they did not take the free 150 feet of land at Tower offered by the Village for the dog beach, what park district doesn't take free parkland?

They want to build a pier so in this case a pier at tower that is far tinier than what they are proposing at approx 250 feet is ok at Elder/ Centennial but not at Tower?

6.. They are apparently giving away the rights to our park for 50 years and insist the dogs are on the south 46 percent of the beach. Why can't the dogs take your 150 feet where there are more than 9 spots.
7. Most importantly, We have the right to walk on our beaches, all of it from north to south per the public trust doctrine. We have always been able to walk the waterline.
The list goes on and on but I hope the Village turns down an IGA with the WPD! All meetings need to be open and transparent and not a back door agreement without public input.

8. They met with Brad Schneider last week and did not make it open to the public or report it at their public meeting that night. Are they trying to do a deal with him/them behind the scenes?
9. They haven't told you it is a
Venue/restaurant that is in the most residential neighborhood. That is why it was submitted separately. A pier next to a pier that they have purposely neglected for 5 years. The pier could be condemned if they don't fix it they are jeopardizing your stormwater pile. Take it over and get it done! Take the park by eminent domain, they certainly are not interested in fixing it.
REMEMBER THE OATH LEAVE IT BETTER THAN TOU FOUND IT.

Thank you for your consideration,

- Katie Stevens
[redacted]

From: [redacted]
To: Ann Klaassen
Subject: Comments for PC April 23 Agenda Packet
Date: Tuesday, April 8, 2025 11:46:19 AM

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Ann,

I would appreciate your including the following letter to the Plan Commission regarding the Park District's Centennial Beach application which I understand will be on the agenda on April 23rd.

These are the comments I made at the February PC meeting which, for legal reasons, evidently couldn't be included in the public record. I'm not a lawyer and I'm dumbfounded that a legal procedure results in the disregarding of a safety concern. To ensure this concern is addressed "legally" and to spare the Committee the time it would take for me to reread it in the public comment session, I am submitting it in writing for the upcoming PC meeting.

Please confirm you have received this email and that the letter will be distributed to the Plan Commission as part of the record.

Thank you.

Anne Wilder

Dear Plan Commission Members:

I encourage you to read the emails in your packet between Kris Schriesheim, a Winnetka resident and Dave Benjamin, the Executive Director of The Great Lakes Surf Rescue Project, a nonprofit committed to reducing the number of Great Lakes drownings through training, preparedness and education. Dave's organization is linked in the Park District's (PD) website under "Beach Safety" along with the American Red Cross and has created a compelling video about Lake Michigan, the deadliest Great Lake. The link to the short video is provided in your packet in material Kris submitted. I encourage you to watch it.

Bottom line: This communication raises serious safety concerns, and the project should be denied.

Kris asked Dave for his opinion on the safety of the huge, unnecessary breakwater project at Centennial, followed by two more at Elder.

Kris expressed concerns:

- about the recent drownings and paralyses of young adults, both pier- and non-pier-related.

- that the breakwater heavy plan is dangerous and irresponsible to the young high school and

  college-aged kids home for the summer working as lifeguards and who are not professionals, as

  well as to swimmers, paddle boarders, kayakers and others using the lake.

- and about new drowning risks for people and their dogs, citing witness statements that the type

  of breakwater proposed would have prevented them from seeing struggling people, and/or

  impeded their rescue efforts.

Dave responded by confirming her concerns. He wrote:

> The simplest explanation is that water follows the path of least resistance.
>
> Installing any solid structure in the water increases hazards for beach goers and waders, swimmers and other water enthusiasts.
>
> Water cannot flow through solid structures. It has to flow around the structures. When there's wave activity, currents are present. When there's wave activity and structures, the currents are hyperactive.
>
> In addition, dumping sand is temporary. It will eventually wash away and have to be replenished.

In preparing these comments, I corresponded with Kris who noted that despite pointed questions from the Village about the plan’s safety flaws, PD had not reached out to GLSRP for advice on the beach project at any point 2022-November 2024. Mr. Benjamin did not indicate to her the slightest degree of familiarity with the project and her questions about the designs were also news to him.

I couldn’t graduate from college without passing a swimming test. The PD shouldn’t be allowed to proceed with its plans without passing a water safety test either, especially when safety concerns are expressed by an organization accepted as an authority by the PD. The safety concerns are major and should cause denial of the project.

Yours truly,

Anne Wilder

From: [redacted]
To: Ann Klaassen
Subject: Note for the Plan Commission.
Date: Wednesday, April 9, 2025 12:04:38 PM

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Ann - Would you please pass this on to the members of the Plan Commission?

Thank you.

Friends -

I am sending you this beautiful photo to remind you of what we will lose if the Winnetka Park District builds its giant pier.

The photo was taken by Professor Phil Enquist of Winnetka. Phil was on one of the paths at Centennial Park looking directly out to where the Park's massive pier will be. The pier is ugly, dangerous, expensive, and unnecessary.

Centennial is our most beautiful beach. Let's leave it that way.

Thank you for your consideration.

Irene Smith
[redacted] Elm St.

****

Though I may not be here with you, I urge you to answer the highest calling of your heart and stand up for what you truly believe. In my life I have done all I can to demonstrate that the way of peace, the way of love and nonviolence is the more excellent way. Now it is your turn to let freedom ring.

When historians pick up their pens to write the story of the 21st century, let them say that it was your generation who laid down the heavy burdens of hate at last and that peace finally triumphed over violence, aggression, and war. So I say to you, walk with the wind, brothers and sisters, and let the spirit of peace and the power of everlasting love be your guide.

John Lewis, from the essay he wrote shortly before his death on July 17, 2020.

John William Root
326 Woodland Avenue
Winnetka, IL 60093
Telephone: [redacted]
Email: [redacted]

Sent by electronic mail: smangum@winnetka.org
AKlaassen@winnetka.org

Mr. Scott Mangum
Village of Winnetka
Director of Community Development
Ms. Ann Klaassen
Assistant Director
510 Green Bay Road
Winnetka, IL 60093

May 21, 2025

Re: Case No. 24-08-SU
225 Sheridan Road – Centennial Park & Beach
Comments for 5/28/25 Hearing

Dear Ms. Klaassen and Mr. Mangum:

The following comments summarize my concerns about the proposed WPD Centennial beach design and how that design conflicts with Village ordinances, particularly the Village zoning ordinances. I would appreciate your assistance in sharing my comments as part of the official packet to be delivered to the members of the Village of Winnetka Plan Commission for the meeting on Wednesday, May 28, 2025.

As indicated in my letterhead, I am a resident of Winnetka with a Bachelor of Science in Geology from the University of Texas, a Master of Science in Petroleum Engineering, and a Juris Doctor from the University of Houston. Over the course of my 41-year career in the oil and gas industry, I held both technical and leadership roles, including the supervision of engineering and geoscience teams. My remarks are informed by that background.

Definitions for Clarity

For purposes of this letter:

- A **groin** is a structure extending from shore into the lake, perpendicular to the shoreline, rising above lake level, typically constructed of sheet pile or armor stone.
- A **breakwater** is a structure running parallel to shore, potentially submerged or emerging above water, generally built of armor stone, and may be either attached to land or free-standing.

- A **headland beach system** combines groins and breakwaters to form an artificial bay.

Mischaracterization of Village Ordinances

At its January 22, 2025, meeting, the Plan Commission raised the following question to the Park District regarding the evolution of the Park District's design:

> *6.* (From Plan) *Why were this breakwater design chosen to move forward versus previous designs presented in the presentation? When and why was the headland system abandoned for the break wall system that has been presented? Why was not an island system considered versus what was proposed?*
>
> *a. (*Response from Park*) The Village of Winnetka adopted a series of ordinances addressing lake front improvements in March 2023, July 2023 and February 2024. The newly adopted ordinances prioritize unencumbered views of the lake over beach preservation; thus the Park District revised its plan to comply. See attached " Exhibit 1 – Plan Evolution" for a more complete explanation.*

I believe the Park's response is both misleading and factually incorrect.

The Lakefront Construction ordinances do not prioritize views over beach preservation, nor do they list prohibited structures, nor do they list any preapproved designs for construction on the lakefront. Section 15.78.030 A. states the following:

> *A permit pursuant to this chapter ("Required Permit") is required for any construction activity within the Lake Michigan regulated areas that requires a permit from any of the following government agencies ("Permitting Agencies"): the United States Army Corps of Engineers, the Illinois Department of Natural Resources, the Metropolitan Water Reclamation District of Greater Chicago, or the Illinois Environmental Protection Agency (collectively, "Covered Construction"). No person shall undertake any covered construction without a required permit issued by the Village pursuant to this chapter.*

By incorporating IDNR and USACE standards, the Village has implicitly allowed for a range of shoreline designs, including groins and breakwaters, provided they meet general approval standards.

A survey of the Illinois shoreline through the use of Google Maps reveals widespread use of such structures: 176 sheet pile groins, 71 attached breakwaters, 61 piers, 41 armor stone groins, and 29 detached breakwaters—all presumably permitted under IDNR and USACE guidelines.

The Village standards in **Section 15.78.080 Criteria for Permit Approval of which paragraph B. includes the following:**

> *B. Height. The height of the covered construction and any related structures will be no greater than what is minimally necessary to achieve the intended and proper purpose of the project and to be consistent with the purposes set forth in Section 15.78.010 of this chapter.*

The above standard has already been applied to a headland beach system constructed on 205 Sheridan. 205 Sheridan's design consists of a 125' armor stone groin on its northern boundary and a north-south armor stone breakwater that is attached to the bluff with an east-west groin that creates a single cell protected bay (figure 1).

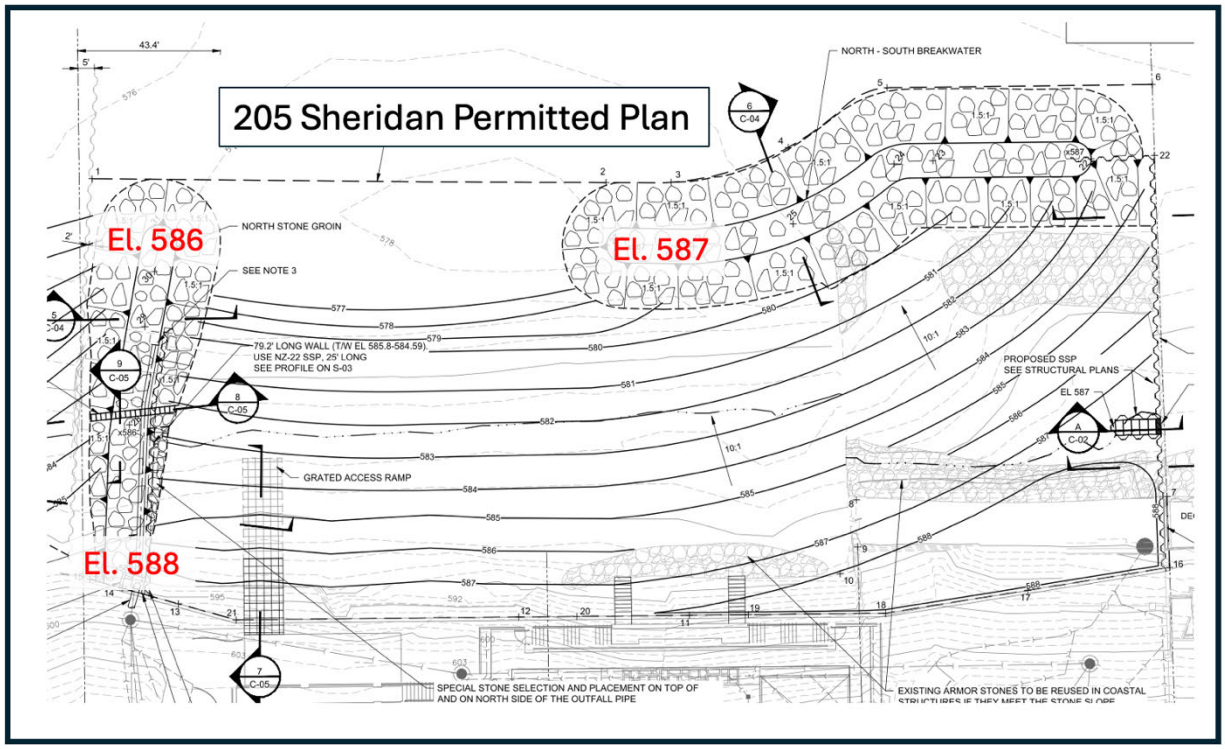

Figure 1: Permit for Lakefront Construction from 205 Sheridan

This 205 Sheridan design was submitted on 5/28/2023 to the Village and was reviewed by the Director of Engineering, James Bernahl, in accordance with the newly passed lakefront construction ordinances. Mr. Bernahl engaged the services of Caleb Barth, a Senior Marine Engineer with Baird & Associates, a civil engineering firm, to review the design. Mr. Barth determined that 205 Sheridan's design violated Section 15.78.080 (B) in that the northern groin's designed height exceeded what was minimally necessary. 205 Sheridan reduced the elevation of the northern groin at the toe of the bluff from 591' elevation to 589' elevation and reduced its 587' elevation to 586' elevation as it terminates to the east (*See, September 12, 2023 Notice of Final Permit Approval attached*). Mr. Bernahl then approved the permit with its revisions making this one of the first, if not the first lakefront construction permit for Winnetka. This approval set a precedent that stone breakwaters at an elevation of 589' or lower are an acceptable design for Winnetka lakefront construction.

The current design of the pier in the Park's SUP has an elevation of 587' at toe of the bluff and an elevation of 585' at its eastern termination. The elevation of the pier is one to two feet lower than 205 Sheridan's northern groin (figure 2).

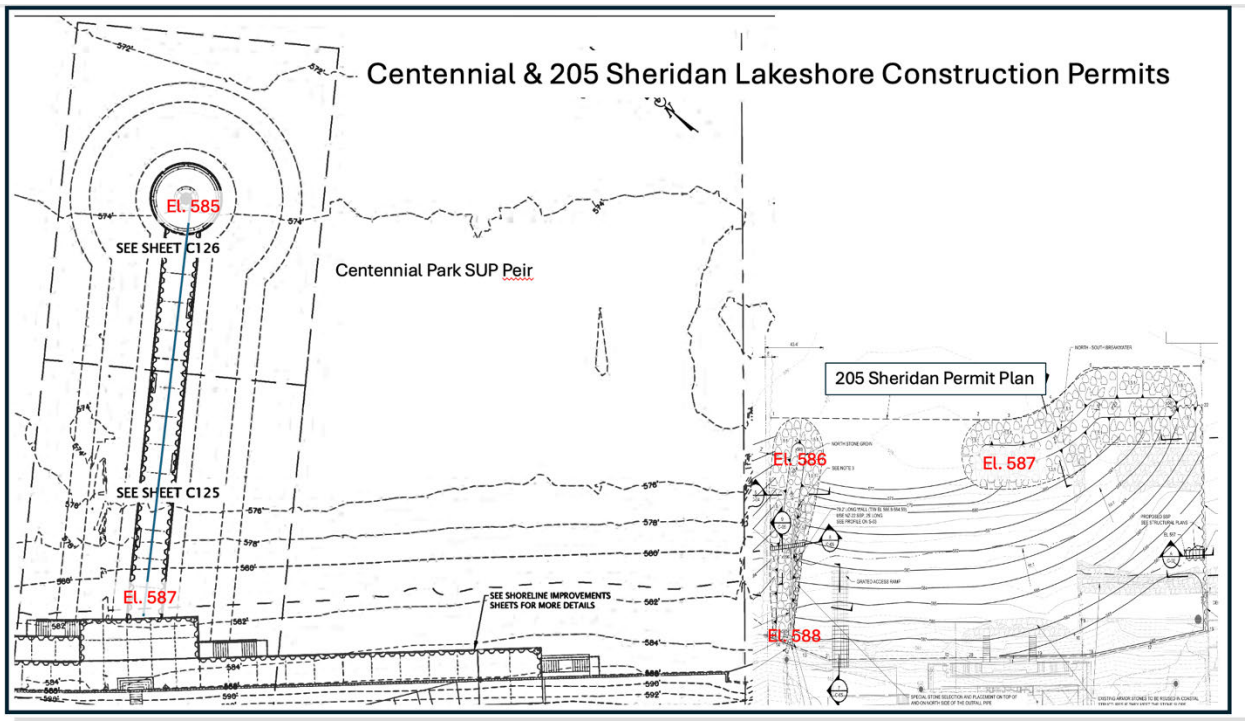

Figure2: Centennial Park & 205 Sheridan Lakeshore Construction Design Permits

One could assume that the Park would get approval for a breakwater design for a headland beach system provided that the elevation of that breakwater is less than 587'. One is left wondering how the Park concluded that breakwaters are prohibited by the Village Lakefront Construction Ordinances. The Park knew of the design for 205 Sheridan's headland beach because 205 Sheridan was required by the IDNR to provide notice of their plan to the Park, and the Park certainly witnessed the construction of 205 Sheridan's breakwater immediately adjacent to Centennial's southern boundary.

Key Questions for the Plan Commission and Village Council

Given the precedent and permissibility under state and federal law, the Park District's claim that it was compelled to abandon the headland system is unconvincing. It appears far more likely that the design shift was due to the Park District's failure to acquire 261 Sheridan—the property located between Elder and Centennial Parks and land critical for extending a headland-style breakwater.

Accordingly, the Commission should ask:

1. **Did the Park District request formal guidance from Village staff on whether a breakwater design would be permissible under the ordinances?**
2. **If so, what was the Village's response?**
3. **If not, why did the Park assume such designs were prohibited?**

The Park's claim that "the Village made us do it" rings hollow and deflects accountability for a design failure rooted in premature planning and flawed land negotiations.

Recommendation

I strongly urge the Plan Commission to recommend against approval of the current lakefront design. The Park District's explanation lacks credibility and transparency, and its proposal fails to align with prior approvals and known regulatory standards.

Attached are documents confirming Village approval of the 205 Sheridan headland system, which set the relevant precedent.

Sincerely,

/s/

John W. Root

cc: Members of the Village of Winnetka Plan Commission
Mr. Robert Bahan, Village Manager
By Email: *rbahan@winnetka.org*

VILLAGE·OF·WINNETKA
Incorporated in 1869

Date:	September 12, 2023
From:	James Bernahl, PE, CFM, Director of Engineering/Village Engineer
	Obaid Khalid, PE, CFM, Assistant Village Engineer/Stormwater Manager
Re:	205 Sheridan, Winnetka, Illinois
	Lakeshore Improvements – Notice of Final Approval

Per Chapter 15.78 of the Village Code, these comments pertain to the application for the Village permit for the shoreline protection project being proposed at 205 Sheridan as part of the new home construction. The shoreline protection plans, and accompanying documents were sent to a third-party Coastal Engineer for review. Comments for the project are included below:

1. The applicant shall reimburse the Village of Winnetka for all fees associated with the review by the third-party Costal Engineer. Attached is a copy of the final invoice for these fees totaling **$4,996,75**. Payments shall be made at the Village of Winnetka Finance office located at 510 Green Bay Road. Once payment has been made, please provide a copy of the receipt to the Engineering Department for confirmation.

2. Permitting Agency Permits: This is a requirement of Section 15.78.080 (A) of the Village Code that states that the applicant has received and provided the Village all required permits for the Covered Construction from the Permitting Agencies. It has been determined that all required regulatory permits have been received and meet these requirements. This approval shall apply to the final approved IDNR permit and attached plans dated September 1, 2023.

3. AS-BUILT REQUIREMENTS

   Important: An as built topographic survey (topographic survey after all construction grading and landscaping is completed) will be required to verify compliance with grading and drainage and floodplain requirements, prior to final inspection approval. If there are any grading/drainage disputes or disagreements, the Village of Winnetka reserves the right to require additional information, including a new storm sewer connection to the public storm sewer, and/or additional inlets or drainage swales.

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Determination:

Based on the determination above, and upon payment to the Village of Winnetka for the reimbursement of Costal Engineering review fees, the Engineering Department officially approves the permit for the proposed lake front improvements.

The Village Engineer as part of this technical review has determined that the applicant has met the Village's requirements for the proposed lake front improvements and construction under the standards in Chapter 17.58 of the Village Code. This letter should be deemed as a final approval and permit of record for the proposed Covered Construction. This approval is based on the Village receiving the additional information noted above, and the agreement to submit certified AS-BUILT drawings for the completed lake front improvements.

Baird.
W.F. Baird & Associates Ltd.
Office | 2924 Marketplace Drive, Suite 200, Madison, WI 53719, USA
Phone | +1 608 273 0592 Email | madison@baird.com

Memorandum

Reference # 13918.101.M1.Rev0

Status: Correspondence

July 20, 2023

Attention:	**Robert Bahan,**
CC:	James Bernahl, P.E., CFM
From:	Caleb Barth, P.E.

RE: 205 SHERIDAN RD. – VILLAGE OF WINNTEKA PERMIT REVIEW

The Village of Winnetka (Village) has requested that W.F. Baird & Associates Ltd. (Baird) provide permit review services for a shoreline protection project at a private residence at 205 Sheridan Rd (Permittee). The permit application was reviewed for its conformance with Chapter 15.78 of the Village Code titled Lakefront Construction. The following memorandum summarizes the permit review process.

Permit Review 1

Initial Review and Request for Additional Information

The pertinent documents provided for the initial review consisted of the following:

- 20230309_AECOM_Revised Permit Drawings.pdf - received via FTP site upload from Village Engineering on 5/8/2023.
- Joint Permit Application - 20221104_IDNR_Public Notice.pdf - received via email from Village Engineering on 5/9/2023.

Baird provided eight (8) preliminary comments and requests for additional information which were delivered to the Village on May 11, 2023 (ref: 13918.101.L1.RevA) and sent to the Permittee on May 19, 2023. A summary of Permit Review 1 comments are as follows:

- North-South Breakwater: The documents provided for the initial review did not include adequate design information such as subsurface data, design water depth at structure, and design significant wave height required to determine if the proposed structure was in conformance with "what is minimally necessary to achieve the intended and proper purpose of the project" per Chapter 15.78 of the Village Code. Baird made assumptions on the missing data, estimated the design environmental conditions, evaluated the proposed structure design, and raised potential concerns. A request for additional information was included in the permit review response.
- North Stone Groin: The height of the north groin structure appeared in conflict with Chapter 15.78 of the Village Code. The permittee was requested to justify the design of the North Stone Groin. No major concerns were raised regarding the outfall structure.

- North Stone Groin Stairs: It is our opinion that the proposed location of the stairs will impede public and public safety operations access during above average water levels. The location of the stairs appear to be in conflict with Chapter 15.78 , "E. No Public Safety Hazard" and "F. Interference with Public Safety Operations." The permittee was requested to move the stairs landward.

Response from Permittee

The Permittee provided a response to the comments on May 22, 2023. The response included clarifications and some requested additional information. A conference call was conducted on June 1·2023ᵗ to provide the Permittee an opportunity to discuss their response to the comments.

No changes to the design were proposed by the Permittee in the response to Permit Review 1.

Permit Review 2

Permit Review

With the additional requested data provided by the Permittee, Baird reevaluated the proposed project and the original 8 comments. A summary of Permit Review 2 comments are as follows:

- General: 4 of the 8 Permit Review 1 comments were closed out and 1 new comment was added.
- North-South Breakwater: In our opinion, the design of the North-South Breakwater meets the Village Code requirements for "what is minimally necessary to achieve the intended and proper purpose of the project". The height of the structure was reviewed using the ratio of the freeboard (F) (distance from the design water elevation to the structure crest elevation) to the significant wave height (Hs). Using the subsurface data provided by the Permittee, the relative freeboard (F/Hs) is approximately 0.3 under the design water level, wave conditions, and potential subsurface erosion/downcutting. A relative freeboard of 0.3 represents a low-crested breakwater that is subject to severe wave overtopping under the design conditions. For the goal of stabilizing the beach behind the breakwater and minimizing the formation of an embayment, a relative freeboard of 0.3 is reasonable.
- North Stone Groin: The response from the Permittee discussed the importance of the structure elevation for the stormwater outfall design/performance. The permittee did not provide an adequate response to justify the crest elevation of the North Stone Groin from a shore protection requirement. During this stage of the review, it appeared that the design of the storm water outfall was driving the elevation of the North Groin Structure. The height of the groin appeared to be in conflict with Chapter 15.78 , "D. Project Scope" and "G. Existing Sight Lines."
- North Stone Groin Stairs: No change to this comment. The location of the stairs appear to be in conflict with Chapter 15.78 , "E. No Public Safety Hazard" and "F. Interference with Public Safety Operations."
- South Steel Sheet Pile (SSP) Groin Access Stairs: A new comment was added regarding fall hazards near the stairs which appear to be in conflict with Chapter 15.78 , "E. No Public Safety Hazard."

Response from Permittee

The Permittee provided a response to the comments on June 9, 2023, provided revised drawings on June 12, 2023, and a conference call was held on June 13, 2023.

The revised drawings included changes to the height of the North Stone Groin (see Table 1), a reduced lakebed footprint of the North Stone Groin, and a 1-foot lower stormwater outfall pipe invert elevation to accommodate the new proposed groin crest elevation.

Permit Review 3

Permit Review

Baird evaluated the responses to the 5 open comments and the conformance of the revised plans with the Village Code. A summary of Permit Review 3 comments are as follows:

- North Stone Groin: The site line impacts were reduced with the changes to the plans, however, the height of the groin appeared to remain in conflict with Chapter 15.78 , "D. Project Scope" and "G. Existing Sight Lines." Our professional opinion was that the primary purpose of the proposed improvements (mitigate bluff toe erosion) could still be met with a lower crest elevation North Groin Structure.
- North Stone Groin Stairs: The location of the stone groin stairs was not changed in the revised plans. The location of the stairs appear to remain in conflict with Chapter 15.78 , "E. No Public Safety Hazard" and "F. Interference with Public Safety Operations."
- South Steel Sheet Pile (SSP) Groin Access Stairs: During the conference call held on June 13, the Permittee indicated that they were directed to remove the proposed handrail/guardrail by the Illinois Department of Natural Resources. This comment was no longer tracked in Baird's technical review.

Response from Permittee

The permittee provided a response to the comments and revised drawings on June 29, 2023.

The revised drawings included changes to the height of the North Stone Groin (see Table 1), a reduced lakebed footprint of the North Stone Groin (approximate 20-25% reduction from the original plans), a new stormwater outfall design to accommodate the new proposed groin crest elevation, and the relocation of the north stone groin stairs closer to the toe of the bluff.

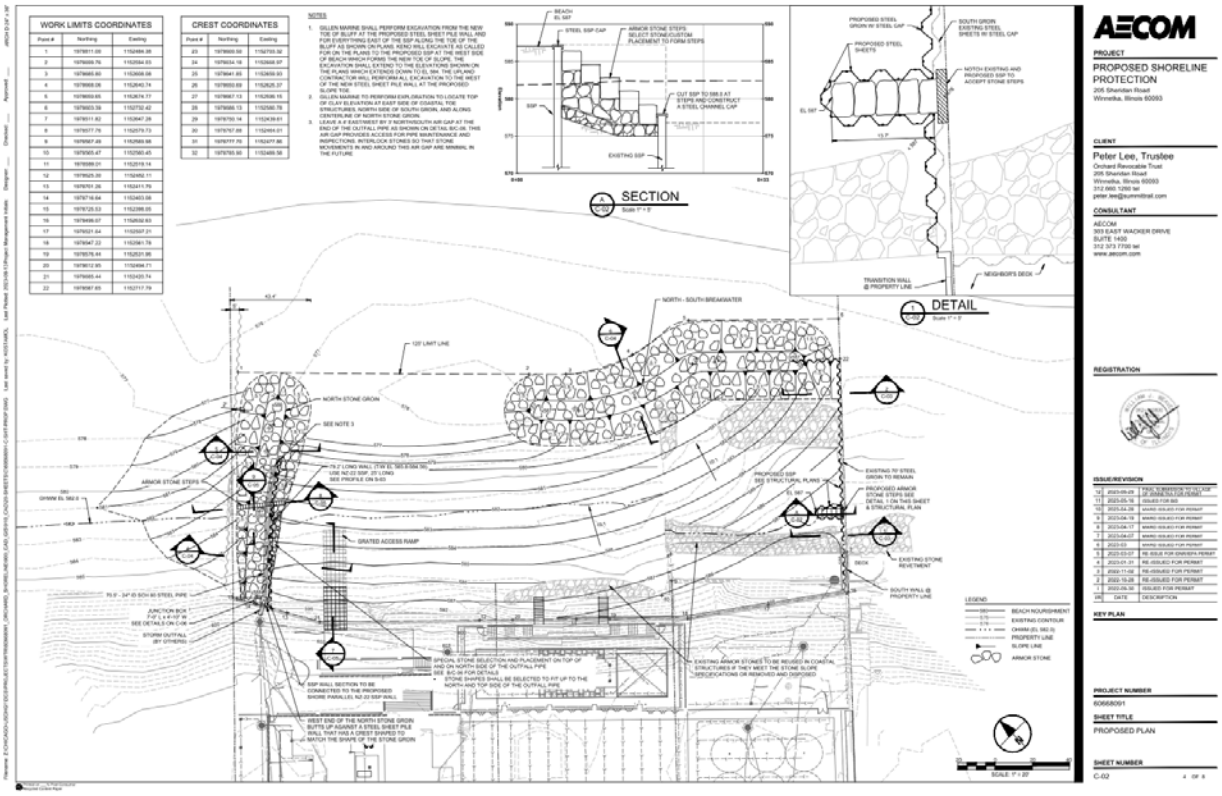
Interim Approval

With the changes to the design provided in the permit drawing provided on June 29, 2023, it is our opinion that the project is in conformance with Chapter 15.78 of the Village Code titled Lakefront Construction, and the Village provided interim approval of the project on July 6, 2023.

Table 1: Changes to the Height of North Stone Groin in Response to Permit Reviews

Approx. distance from toe of bluff	Elevation of sand north of existing groin (NAVD88) [1]	Original Crest Elevation (NAVD88)	Original Site Line Impact		Permit Review 2 Revision - Proposed Crest Elevation (NAVD88)	Permit Review 2 Revision - Site Line Impact		Final Revised Crest Elevation (NAVD88)	Final Site Line Impact
0 ft	586 ft	591 ft	5 ft		589 ft	3 ft		588 ft	2 ft
40 ft	582 ft	591 ft	9 ft		589 ft	7 ft		586 ft	4 ft
70 ft	579 ft	587 ft	7.8 ft [2]		587 ft	7.8 ft [2]		586 ft	6.8 ft [2]
100 ft	577 ft	587 ft	7.8 ft [2]		587 ft	7.8 ft [2]		586 ft	6.8 ft [2]

[1] The elevations provided for comparison are existing sand elevations according to the permit plans. The Permittee is expected to place sand north of the proposed North Stone Groin where sand is expected to accrete post-construction, which will reduce the site line impact.
[2] The Site Line Impact calculation for in-water sections of the groin is height above long-term average lake level (579.18 ft NAVD88).


WORK LIMITS COORDINATES
CREST COORDINATES
NOTES
SECTION
DETAIL
AECOM
PROJECT
PROPOSED SHORELINE PROTECTION
205 Sheridan Road
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AECOM
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SUITE 1400
312 373 7700 tel
www.aecom.com
REGISTRATION
ISSUE/REVISION
KEY PLAN
PROJECT NUMBER
60668091
SHEET TITLE
PROPOSED PLAN
SHEET NUMBER
C-02
LEGEND
NORTH - SOUTH BREAKWATER
NORTH STONE GROIN
GRATED ACCESS RAMP
SOUTH WALL @ PROPERTY LINE
EXISTING STONE REVETMENT
SCALE: 1" = 20'