

**NOTICE OF MEETING**  
**TUESDAY, OCTOBER 9, 2018 7:00 p.m.**

Park District of Highland Park  
Board of Park Commissioners  
West Ridge Center  
636 Ridge Rd.  
Highland Park, IL 60035

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**WORKSHOP MEETING AGENDA**

- I. CALL TO ORDER
- II. ROLL CALL
- III. ADDITIONS TO THE AGENDA
- IV. PARK AVENUE BARGE
- V. 5-YEAR REPLACEMENT CAPITAL PLAN
- VI. REVIEW OF VOUCHERS
- VII. OPEN TO PUBLIC TO ADDRESS BOARD
- VIII. **CLOSED SESSION PURSUANT TO THE FOLLOWING SECTIONS OF THE OPEN MEETINGS ACT:** Section 2(c)1 – the appointment, employment, compensation, discipline of the District including legal counsel for the District; Section 2(c)5 – the purchase or lease of real estate including discussion on whether a certain parcel of property should be acquired; Section 2(c)6 – the setting of a price for sale or lease of property owned by the District; Section 2(c)8 – security procedures and the use of personnel and equipment to respond to an actual, a threatened, or a reasonably potential danger to the safety of employees, students, staff, the public, or public property; Section 2(c) 11 – litigation against or on behalf of the District or where the District finds that an action is probable or imminent; Section 2(c) 21 – the discussion of minutes lawfully closed under the Act, whether for the purposes of approval of said minutes or for conducting the semi-annual review of the minutes as set forth in section 2.06 of the Act.; Section 2(c) 29 - for discussions between internal or external auditors and the Board. Possible action by the Board on items discussed in closed session.
- IX. ACTION FROM CLOSED SESSION IF ANY
- X. ADJOURNMENT

Persons with disabilities requiring reasonable accommodation to participate in this meeting should contact the Park District's ADA Compliance Officer, Liza McElroy, at the Park District's Administrative Office, 636 Ridge Road, Highland Park, IL Monday through Friday from 8:30 a.m. until 5:00 p.m. at least 48 hours prior to the meeting. Requests for a qualified ASL interpreter require five (5) working days advance notice. Telephone number 847-831-3810; fax number 847-831-0818.



# Memorandum

**To:** Board of Park Commissioners

**From:** Jeff Smith, Assistant Director of Parks, Properties & Planning; Dan Voss, Director of Parks, Properties and Planning; Kathy Donahue, Deputy Director of Operations; Liza McElroy, Executive Director

**Date:** October 9, 2018

**Subject:** **Park Avenue Barge Engineering Concept Development Report**

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In June 2018, the Park District retained SmithGroup to conduct a thorough study for the repair or replacement of the barge at Park Avenue. As part of their work, SmithGroup was asked to explore a variety of solutions, including repair of the existing barge breakwater, removal and replacement of the barge breakwater, and removal of the barge breakwater and replacement with an alternant breakwater structure.

SmithGroup has completed this work and will present four design concepts. Each concept was examined for ease of design and construction, permitting requirements, service life, and cost. A summary of the concepts is below. A detailed description of each concept can be found in the attached Park Avenue Barge Engineering Concept Development Report.

<b>Concept</b>	<b>Permit Review Estimate</b>	<b>Construction Estimate</b>	<b>Opinion of Probable Construction Cost</b>	<b>Service Life (years)</b>
Repair Strategy	6-8 months	8-10 weeks	\$1,588,100	65-70
Barge Replacement	12+ months	12-14 weeks	\$1,337,350	28-34
Cellular Sheetpile	6-8 months	12-14 weeks	\$1,389,620	65-70
Rubble Fill w/ H-Piles	3-4 months	6-9 weeks	\$555,770	20-22

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**PARK DISTRICT OF HIGHLAND PARK**

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**HIGHLAND PARK  
PARK AVENUE BARGE ENGINEERING**

**Concept Development**  
**FINAL DRAFT**

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Prepared For:

Park District of Highland Park  
636 Ridge Road  
Highland Park, IL 60035

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Prepared By:

**SMITHGROUP**

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**October 5, 2018**  
Rev 2

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## 1.0 EXECUTIVE SUMMARY

The barge at Park Avenue Beach has exhausted its service life. Cracks in the cargo hold led to the fill material leaching out into Lake Michigan leaving behind a hole under the concrete slab walking surface which eventually collapsed, breaking the wire rope lateral supports beneath. The remaining structure continues to deteriorate as more of the concrete slab collapses. While this makes the structure unsafe for access, it still performs its primary function which is to protect the boat launch and adjacent beach from wave agitation.

The Park District of Highland Park retained SmithGroup to review the barge and develop concepts to either repair or replace the wave protection structure. Four concepts were developed, and preliminary cost estimates were prepared as outlined in this report. Each concept was examined for ease of design and construction, permitting requirements, service life, and cost. Removal of the barge and replacement with a cellular sheetpile walkway will provide the best value for an extended service life. However, if funding is a concern, we recommend building a breakwater-type structure inside the existing cargo box and bracing the leeside wall with H-Piles. This concept retains the primary function of the structure as wave protection but does not provide pedestrian access. However, this concept will provide years of protection at less than half of the price of replacement and a quicker permitting process.

A summary of the key issues which guided our recommendation are provided in the table below.

	Concept	Permit Review Estimate	Construction Estimate	OPCC	Service Life (yrs.)
1	Repair Strategy	6-8 months	8-10 weeks	\$1,588,100	65-70
2	Barge Replacement	12+ months	12-14 weeks	\$1,337,350	28-34
3	Cellular Sheetpile	6-8 months	12-14 weeks	\$1,389,620	65-70
4	Rubble Fill w/ H-Piles	3-4 months	6-9 weeks	\$555,770	20+

## 2.0 PROJECT BACKGROUND

Installed between 1981 - 1982, the Park Avenue Beach's concrete boat launch ramp is protected from the forces of Lake Michigan by a sunken Hopper Rake Hull Type Barge resting on the lakebed and extending above the waterline to approximately the 584 IGLD elevation. The barge is roughly 195 feet long by 35 feet wide by 11 feet tall and, when placed at Park Avenue Beach, the steel cargo box was filled with "random fill and dredgings" covered by filter cloth and a cast-in-place concrete deck slab. 1-1/4" wire ropes were added into the double hull at 6 foot spacing to provide lateral support.

The Park District of Highland Park owns and maintains the barge. Concerns were raised about its structural integrity in 2015 when large cracks started to appear in the concrete deck and over 60 feet of the outer hull of the steel cargo box ripped away, exposing damaged steel cables and support frames. Damage to these members significantly reduced the lateral support of the structure. Access to the barge was thereafter limited and the condition of the structure was assessed yearly by W-T Group, LLC through March 2018. Continued concrete cracking and separation from the steel cargo box were observed over this time until the steel side plates along the lakeside of the barge collapsed during the winter of 2017-2018, resulting in the collapse of the concrete deck and waves entering into the barge. The barge continued to deteriorate as waves worked to remove the fill material. Photos of the deterioration of the lakeside wall of the steel cargo box can be seen in Figure 1 below.

SmithGroup was hired in July 2018 to inspect the dilapidated barge and develop concepts and cost opinions to either repair or replace the barge. This report outlines the efforts and design process used by SmithGroup to develop these concepts.



7/21/15 W-T Group



9/17/2015 W-T Group



3/4/16 W-T Group



4/27/17 W-T Group



3/8/18 W-T Group



7/11/18 SmithGroup

Figure 1 Timeline Inspection Photos, at North End of Barge Looking South

### 3.0 SITE INSPECTION

A site inspection was conducted on July 11<sup>th</sup>, 2018. A visual inspection was performed by two engineers on the surface and one engineer in the lake with dive equipment. The weather was clear with minor wave activity. Stationing in feet was marked on the barge in pink paint from the north, stern side of the barge to the south measuring 0+00 through 1+95 (or 0 through 195 feet).

A selection of photos are shown below. The lakeside wall of the steel cargo box was found to be severely damaged between 0+23 and 0+88 and the remaining steel seen below the water surface was undergoing repeated flexing due to the passing wave energy. This was resulting in fatigue failure to the steel surrounding the opening in the cargo box lakeside wall. A significant portion of the concrete walking surface had collapsed into the vacant space where fill material had been pulled out of the box opening. The portion between approximately 0+10 through 1+30 was underwater and inaccessible. A number of cracks extending over the edge of the barge and extending into the water were observed. Those on the lakeside actively showed water entering and exiting with each passing wave.

The waterside inspection showed that much of the steel below water was covered in a thick layer of zebra mussels. Hairline and larger cracks were observed on both sides of the barge but at a greater concentration on the lakeside. Water was observed flowing into and out of these cracks. Attempts at repairs were observed both along the surface and sides of the barge with many cracks opening back up. All cracks in the steel cargo box were rusted. Armor stone, placed along the lakeside of the barge after the barge was installed, was scattered throughout the area. Steel debris from the cargo box was also observed along the lakebed adjacent to the barge.



A. Broken Cargo Box Wall



B. Damage to SE Outside Corner



C. Bent/Broken Sheetpile Connections & Box



D. Concrete Slab Failure, 5" Thick



E. Water Escaping through Cracks in Box



F. Broken Wire Rope Supports

Figure 2 Site Inspection Photos, July 11, 2018

When the barge was sunk into place, new sheetpile was driven at the connection point with the esplanade “to prevent fill loss under raked stern of barge.” This sheetpile extended from 0+00 to 0+18 on the lake side and appeared to be in rusted but acceptable condition. Additional sheetpile was driven along the southeastern lakeside face from 1+65 to 1+88 at an unspecified time. The condition of this sheetpile is considered to be poor. The sheetpile appears to

have been pushed into the barge outer hull and has resulted in tearing of the hull side. Some sheets connections were shown to be separated and easily bent with passing wave energy.

Additional field notes and select photos can be found in Appendix B.

### 3.1 Failure Analysis

The steel hull of the cargo box exhibited many signs of wear. Cracks appear to be from fatigue possibly brought on initially by impact, either by an object or movement of ice. Once the crack forms, continual passing of wave energy will, overtime, exploit the weakness and form an opening in the hull. Any opening in the hull will allow wave energy to pass into the inner chamber.

The original construction drawings show the wire rope supports were pushed through the inner hull and looped around wood blocks and L-bracket stiffeners. This created holes in the inner hull which, at higher water levels, creates a space were fill from the interior could leak into the space between hulls. If cracks or holes were to be present, this would further allow that fill material to be pulled out of the cargo box overtime.

Through the cracks in the pavement, very little fill material could be observed. Original construction drawings list the fill as “random fill and dredgings” which suggests this material could have been lake fill sands. Sand can migrate through cracks in the cargo box, eventually creating holes and pockets below the concrete slab. Based on the construction drawings and visual clues of the damage, the concrete slab rested directly above the wire stiffeners. These stiffeners are held in tension as long as the box is filled. Once the fill materials start to disappear from within the box, the stiffeners will relax and the concrete slab will slump and rest on top of the wires. The wire ropes were not designed to hold a heavy weight and, from the original photos taken in 2015, the connection of the wire ropes around the wood blocks within the lakeside double hull had been compromised, further reducing their capacity.

The combined weight of the concrete slab, snow, and ice could not be suspended by the wire ropes once the fill had leached out of the cargo box. This led to the catastrophic failure over the 2017-2018 winter period. Wave events have continued to remove the remaining fill, extending the reaction to either side of the opening in the barge and the continued failure of the concrete slab can be seen in the final two pictures of Figure 1 taken only four months apart.

During the site inspection, it was observed that fill material was actively leaching out of the cargo box which has led to the collapse of the surface concrete slab. Waves were penetrating the cargo box and running up the concrete slab pieces to impact the leeside wall. In more vigorous events, waves are expected to hit this wall and overtop into the boat launch area. The wall will see wave forces and, not being designed for such impacts in a cantilever state, will bend to absorb these forces which may lead to fatigue cracking.

### 3.2 Short Term Stability Forecast

Based on the observed state of the lee side wall of the barge, it is our opinion that there is low risk of catastrophic failure, such as a collapse, during the winter of 2018. However, if it does fail, the leeside infrastructure will be subjected to higher agitation and may be damaged if not protected or removed, if possible.

Should the Park District do nothing, the lee wall of the cargo box will eventually collapse. It is unknown and impossible to predict how many years this might take to occur. Once the wall collapses, wave energy will pass

through the opening and into the boat ramp area causing elevated agitation. This will make launching at the ramp more difficult and result in a greater number of days where the ramp is unusable. People who choose to use the ramp during events where waves within the basin are greater than five inches run the risk of damaging the bottom of their vessels on the ramp or on their trailers.

As it is most likely the lee wall of the barge will fail along the middle length, the wave energy passing through an opening will be hindered from reaching the beach by the interior sheetpile wall that lines the west side of the ramp. The shape of the beach adjacent to the ramp is based on the wave diffraction point which is located at the southern end of the barge. As long as this location does not change, the shape of the beach will not change. The shape of the beach is more directly influenced by lake water levels and upland water runoff.

#### 4.0 SITE CONDITIONS

##### 4.1 Metocean Summary

A metocean analysis was performed for the site to determine design criteria. This analysis is outlined in Appendix A.

The following outlines the project design criteria.

##### Water Levels:

- Extreme High Monthly Static Water Level = 582.37' IGLD85
- Extreme Low Monthly Static Water Level = 575.98' IGLD85
- 50-year Surge = 2.55' above Still Water Line
  - Extreme Water Level with 50-year Surge = 584.92' IGLD85

##### Winds:

- Most Common Wind Direction: NNE
- Peak 100-year Hourly Wind Speed to be Used in Design = 45 mph
- Peak 3-second Wind Speed to be Used in Design = 80 mph (IBC, 2015)

##### Waves:

- Following Conservative Offshore Waves to be Used in Design

Return Periods	NNE		E		SSE	
	Hs (ft)	Tp (s)	Hs (ft)	Tp (s)	Hs (ft)	Tp (s)
1 yr	11.20	9	5.77	5.5	5.15	5
10 yr	19.53	9.5	8.19	6	6.92	5
25 yr	21.19	9.5	9.82	6.5	7.23	5.5
50 yr	22.30	9.5	11.24	7	7.44	5.5
100 yr	23.32	10	12.80	8	7.64	6

- Wave forces on the structure result in the following based on a high-water scenario, with storm surge, and depth limited waves. 100-year event
  - Structure Height = 587 IGLD85
  - Horizontal Force = 9.1 kips/ft

- Horizontal Moment = 53.5 kips-ft/ft

Ice:

- Maximum Ice thickness, 100-year RP = 29.5 inches
- Uplift on 35' x 195' structure = 491 kips
- Maximum Ice Force on Vertical Structure due to buckling of 7" ice = 7 kips/ft

4.2 Borings Summary

Two land-side borings were conducted on July 11, 2018 by ECS Midwest, LLC. The borings and a table of parameters can be found in Appendix E. A summary of ground adjacent to the barge is in the table below.

Table 1 Borings Soil Stratification Summary

Depth Range	Color	Consistency	Soil Description
0-5	Brown and Gray	Fill	Fractured Limestone w/ Sand
5-15	Brown and Gray	Medium Dense	Sand
15-18	Gray	Medium Dense	Silt
18-40	Gray	Very Stiff to Hard	Clay

5.0 ALTERNATIVES

The Park District of Highland Park has requested SmithGroup develop three alternatives; repair the barge, remove and replace the barge with an in-kind design, and remove the barge and replace with a design with a longer service life. In addition, SmithGroup developed an alternative that prolonged the functional life of the remaining structure through minor additions and construction. The following sections explore the design of each of these alternatives.

5.1 Repair Strategy

Though it is estimated that the barge has been used at the Park Avenue Beach since roughly 1981, 37 years, the actual age of the barge prior to that time is unknown. It was estimated by W-T Group that the design life of a barge is approximately 50 years and therefore, if one were to assume the barge was used for a number of years prior to being placed at Park Avenue Beach, it could be argued that the barge has completed its service life.

The damage to the lakeside of the cargo box is significant. As waves continue to enter the open cargo box, the steel surrounding the opening continues to bend and fatigue. At the onset of this project, the simplest repair consisted of removing the full concrete surface, repairing the hole in the cargo box, placing new fill inside the box, and pouring a new concrete slab. However, following the site inspection, repairing the damage locally is not considered an option. The remaining steel cargo box is thin and fatigued making it difficult to weld anything to it that would continue to function in the harsh climate of Lake Michigan. Additionally, welding would have to occur underwater which is expensive and difficult in wave motion.

The best repair option then remains to drive sheetpile across the opening. While the sheetpile at the northeast corner appeared to be in good condition, the sheetpile located at the southeast corner did not and would not be reusable. Being unable to tie into that sheetpile, the new sheetpile would need to wrap around the southeast corner of the barge before it could be terminated at the southwest side of the barge. However, underwater inspection of the barge revealed cracks and deformation along the ramp side of the barge as well. Without additional support, the wall

of the barge would be strained under the weight of the fill. Likewise, the newly placed sheetpile on the lakeside would require deeper embedment as it would need to perform as a cantilever wall.

Recognizing these limitations, it is therefore recommended that the walls of the barge be cut down in order to install sheetpile along all three sides of the barge to encapsulate it. The concrete refuse of the barge can be crushed and reused as fill within the new box. Cut steel and steel surface features of the barge can be recycled. Tie-rods will be attached to the new sheetpile with interior walers to create a solid box which reduces the required embedment depth and therefore sheetpile length. The height of the new concrete deck can mimic the existing barge at 584 IGLD85 or be raised to reduce overtopping during high water events.

In order to encapsulate the barge, sheetpile will need to be driven on the outside of the barge footprint. Leaving a one foot allowance to either side, the new groin structure will have an increased width of approximately 39 feet. It is anticipated the scattered armor stone can be reused to prevent scour along the lakeside wall face.

The construction of this alternative, as described, is estimated to take between 8-10 weeks, weather dependent and is shown graphically in the image below.

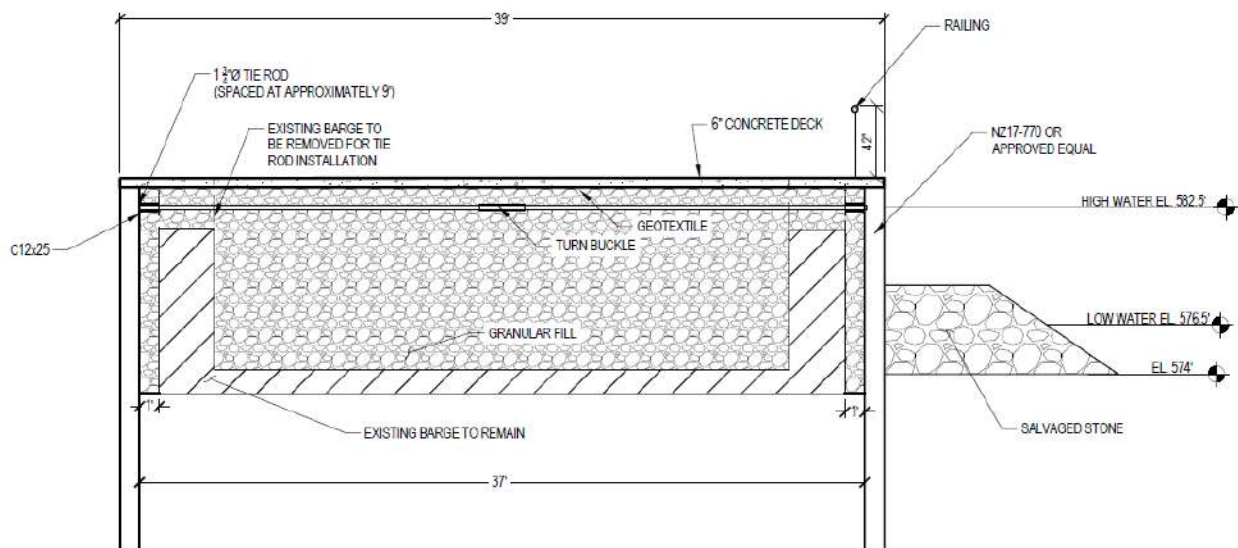


Figure 3 Barge "Repair" Strategy

## 5.2 Barge Replacement Concept

As the existing barge has provided almost 40 years of service life functioning as a breakwater/groin, the replacement of the barge, in kind, was explored. The existing barge is approximately 195' long, by 35' wide, by 11' tall.

The barge would require retrofitting in order to function as a breakwater/groin long term. Within this conceptual phase, a similar lateral restraint system is envisioned. As it is likely the wire rope assembly shown within the construction drawings aided in its eventual failure, better restraint techniques that avoid creating large holes in the hull will be explored.

It is recommended the scattered stone be re-established in front of the barge. Smaller stone will need to be purchased and placed below the larger riprap pieces to provide a bedding and also to prevent scour.

The construction of this alternative, as described, is estimated to take between 12-14 weeks, weather dependent, and is shown graphically in the image below.

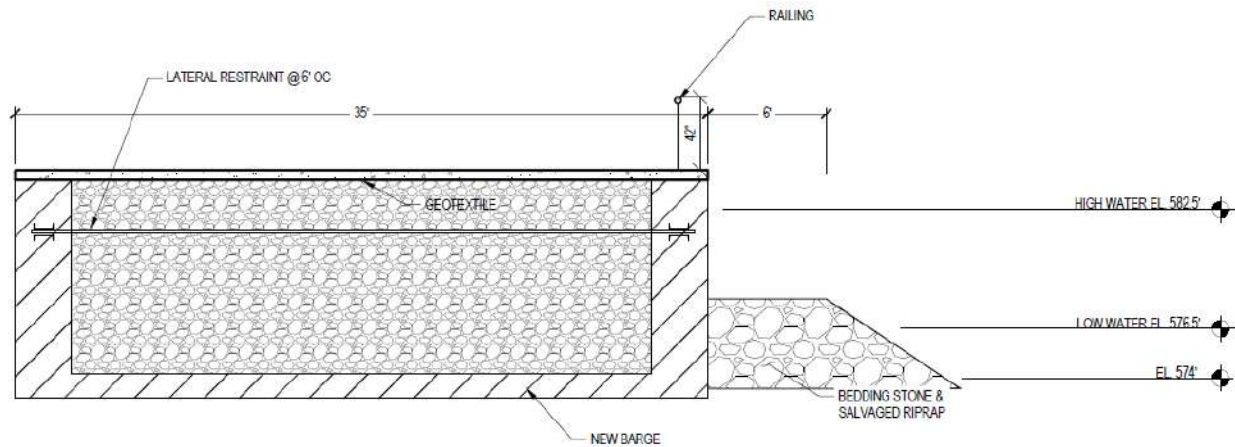


Figure 4 Barge Replacement Concept

### 5.3 New Construction Concept – Cellular Sheetpile

By completely removing the dilapidated barge, a newer structure with a smaller footprint can be installed in its space. This allows for more options related to the boat launch such as expansion or the installation of an additional floating dock to allow for more easy access onto boat on the east side of the ramp.

While binwalls are good options for groins, their installation requires a large amount of embedment below the lakebed and therefore dredging. Dredging along the shoreline in Illinois requires rigorous permitting approvals and testing due to concerns over contamination. Therefore, for this alternative, it is recommended a sheetpile cell be considered. Driving pile results in the minimum ground disturbance and therefore is seen as the most environmentally friendly alternative.

As with the “repair” alternative, the sheetpile cell will be held in shape with tie rods spaced at regular intervals. Smaller widths require less tie rods while wider walkways will require more.

This alternative includes a new 6' wide floating dock alongside the sheetpile cell to allow for easier access into vessels. As vertical sided structures increase wave heights around them due to wave reflection, it is suggested the sheetpile cell structure be fronted with armor stone. This will aid in a reduction of wave agitation within the basin which results in reduced ramp downtime and reduced forces along the shoreline. Furthermore, if stone is placed up to a height within 30 inches of the walkway, a railing is not required.

A minimum walkway width of 8 feet is recommended. This walkway width is common and is sufficient for walking and sitting on benches. Widening the walkway is possible and will have the added benefit of becoming more stable. However, the trade off is additional costs associated with sheetpile, granular fill, and concrete.

The construction of this alternative, as described, is estimated to take between 12-14 weeks, weather dependent, and the 8 foot wide walkway option is shown in the image below.

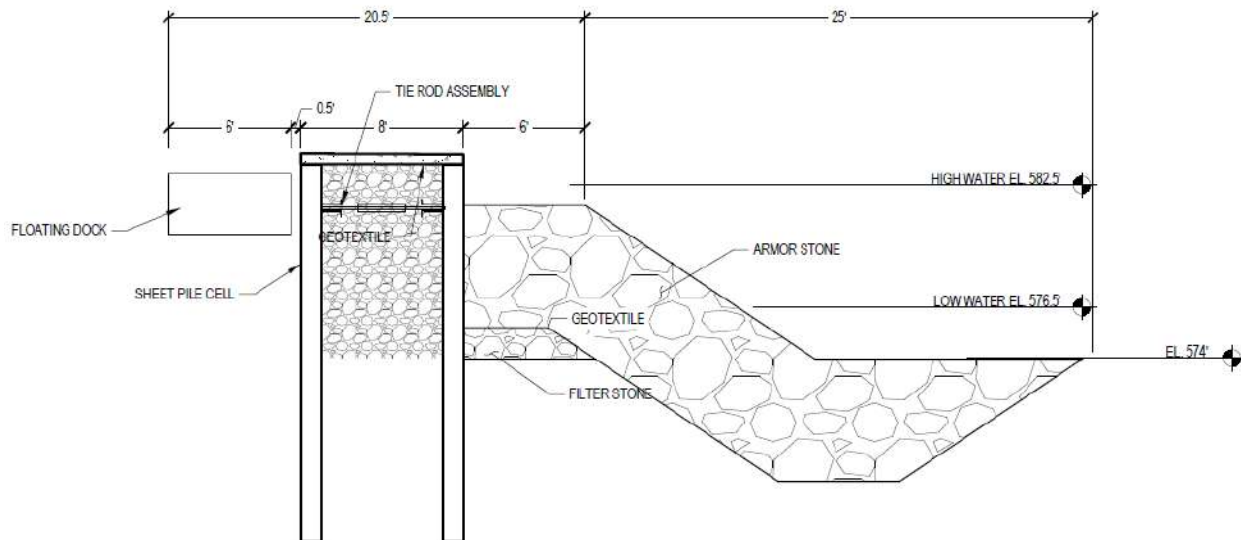


Figure 5 New Construction Concept – Sheetpile Cell

#### 5.4 Adaptive Strategy – Rubble Fill

While it is unlikely the cargo box wall will fail imminently, overtime, it will form cracks and start to bend backward. The best option to delay this is to fill the dilapidated cargo box with larger armor stone. Waves will break over the rocks and will lose energy in the process resulting in less pressure on the leeside wall.

This alternative, like the rest, will require approvals from regulatory agencies. While this type of construction can be conducted during winter months, particularly prior to thick ice growth, rock would need to be quarried before deep freeze which can hide deficiencies in the rock. It is unlikely approval will be provided before winter freeze. Therefore, should this concept be selected to move forward with the intent on being completed by Memorial Day 2019, a contractor would need to be selected prior to receiving all regulatory approvals in order to produce the materials and be ready to start construction as soon as permits were received and weather allowed.

Riprap on the order of 2.5 feet in diameter will provide some protection to the inside wall while remaining stable in extreme storms. It is anticipated this will increase the useful life of the cargo box wall by 10+ years. To extend this estimated service life, additional bracing can be added to the leeside cargo box wall. The likely failure mechanism of the wall is fatigue of the steel near the base. Due to zebra mussel encrustation and settlement into the soft soils, the condition of the base of the wall was not visible during the inspection. Therefore, its remaining service life is indeterminate. By installing H-Piles along the backside of the cargo box, the wall will be supported and less likely to fatigue. The piles will support any movement of the wall toward the boat launch.

Installation of such a redundancy will increase the system's service life. While it is impossible to determine an exact length of time this system will remain functional based on unknown deficiencies and the unpredictability of natural weather events, it is our opinion that the combined condition of the rock fill and the support piles will have a service life of 20+ years.

Unlike the other alternatives presented, this concept does not allow for pedestrian access nor does it remove the existing barge. However, it will continue to provide wave protection to the boat launch and the adjacent beach.

The construction of this alternative, as described, is estimated to take between 6-9 weeks, weather dependent. This alternative, showing a breakwater-like structure within the cargo box, is shown in the images below.

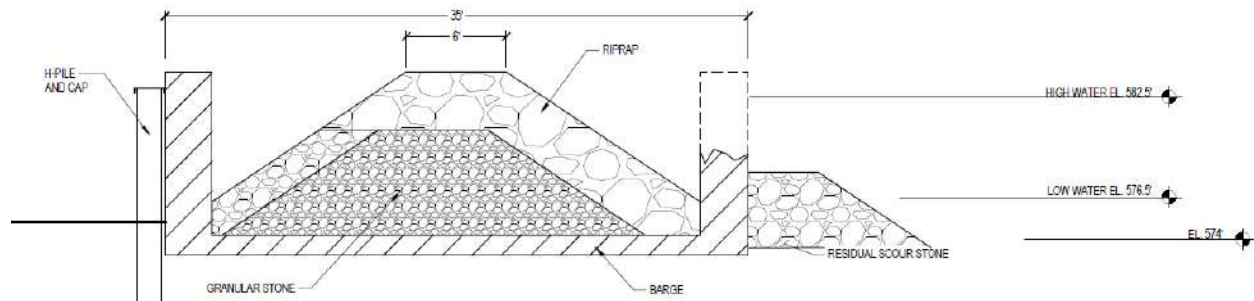


Figure 6 Adaptive Strategy – Rubble Fill

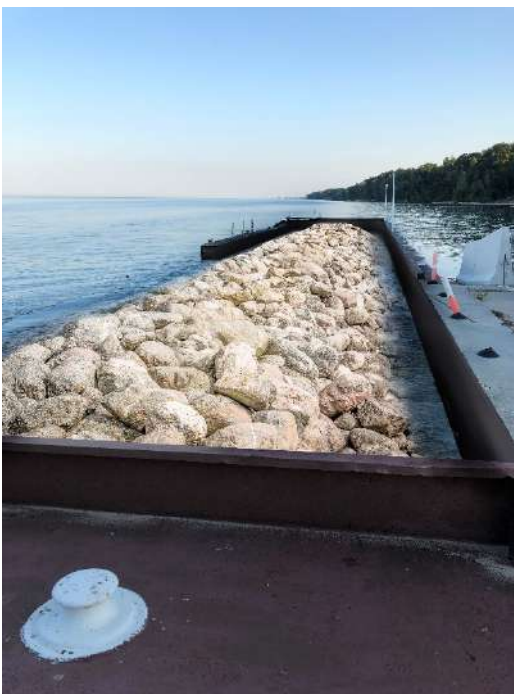


Figure 7 Artist Rendering of Rubble Fill

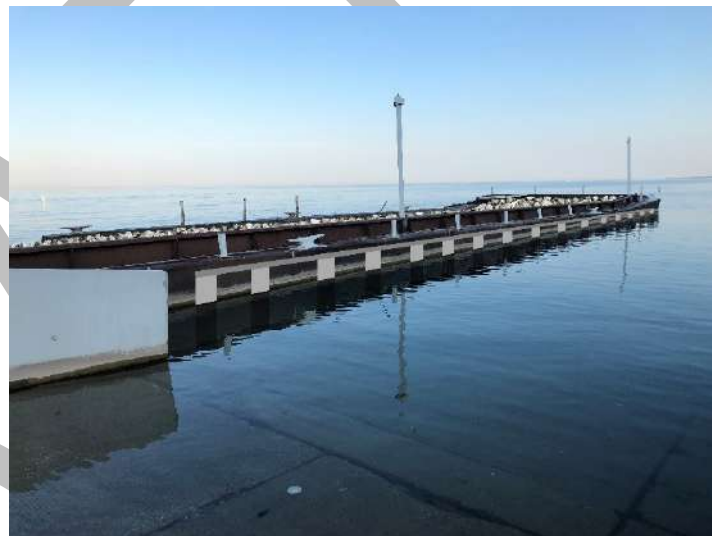


Figure 8 Artist Rendering of H-Pile Bracing

## 6.0 REGULATORY

A Joint Permit Application will need to be submitted for any of the alternatives developed. Due to the nature of the project and construction within Lake Michigan, an Individual Permit will be required. This is more rigorous of a review than the General Permit. The Joint Permit Application provides all the necessary information for the USACE, IDNR/OWR, and IEPA to start the review process. If applications are filed simultaneously (which they usually are), the review process will occur concurrently in an independent manner. However, each agency is given a time frame to review and respond to the application which may require additional information or studies be performed. The best method for shortening the permitting process is to have a pre-application meeting with each agency early in the planning process. This allows revisions to be made prior to submission which will meet agency requirements.

It is best to budget between 6-12 months for this process. If no additional testing or analysis is needed, this process can be shortened to as little as 4 months. Of the repair and replacement strategies presented, based on early conversations with the regulatory agencies, the “repair” strategy presented above has the least impact and therefore would have the shortest permitting review. The rubble fill concept will still require a joint permit application but the review process by USACE will be shortened. Due to its simplistic design and minimal construction, it is anticipated this review process will be the shortest of all alternatives.

#### 6.1 United States Army Corps of Engineers

Any work on the existing structure will require a permit. If the repair work is minimal, it could qualify for maintenance under Regional Permit 11 (RP11) in the Regional Permit Program as long as a permit for the structure was previously provided by the Department of the Army. In initial conversations, only the rubble fill concept could potentially qualify for this streamlined review process which takes on average 2.5-3 months. For all other alternatives, USACE would adhere to the review process of the Individual Permit.

For the USACE to make a determination, they require the approval of the IDNR/OWR and ICMP permits provided by IDNR.

#### 6.2 Illinois Department of Natural Resources/Office of Water Resources

All of the alternatives presented in the preceding section will require an IDNR/OWR permit. This permit will require a sign off from the IEPA for the 401 Water Quality Certification.

As the construction will occur within the boundaries of the Illinois Coastal Management Program, the IDNR will also need to issue a Federal Consistency Determination for the Coastal Management Program (ICMP).

#### 6.3 Illinois Environmental Protection Agency

As an Individual Permit will be required by IDNR, IEPA will require an Individual 401 Water Quality Certification. IEPA will assess whether an antidegradation assessment and material testing will be required. This requirement will be based on the construction methodologies being considered and any previous testing or dredging work performed in the area.

Generally, if only clean course graded materials will be used for backfill, no testing will be required. However, any disturbance of lakebed soil material will require testing if it is intended to place it back within the Lake. This includes soils being used as fill within the sheetpile cell or cargo box and therefore this practice is not recommended.

#### 6.4 Others

In addition to the Joint Permit Application and agencies listed above, applications will need to be submitted to the Illinois Historic Preservation Agency and the Soil and Water Conservation District. These applications do not require any additional information outside of what is required in the Joint Permit Application but do include their own review fees. Generally speaking, these permits/approvals are issued within 2 months of receipt.

## 7.0 OPINION OF PROBABLE CONSTRUCTION COST

The below cost estimations should be considered preliminary. Note that a 20% contingency has been applied to each option to account for changes in the design and detailing. Costs for each line item are based on recent bids received for similar construction in the Chicago area. A more detailed list of costs has been included in Appendix C.

## 7.1 Repair Strategy

Table 2 Repair Strategy OPCC

ITEM	SUBTOTAL
GENERAL REQUIREMENTS	\$203,530
GROIN SHEETPILE & FILL	\$973,890
ATTACHMENTS	\$70,500
CONTINGENCY	\$252,100
ENGINEERING/PERMITTING	\$88,100
	<b>\$1,588,100</b>

## 7.2 Barge Replacement Concept

Barges are bought and sold across the United States. Typically, the cost of the barge itself is not the largest line item when determining overall costs. The purchase of a barge will require shipment to the site and retrofitting before it can be sunken and used as a breakwater/groin. In addition, the barge may require additional cleaning to remove contamination either in the form of foreign species or the materials it carried.

A number of similarly sized options were found and a selection are listed in the table below.

Table 3 Hopper Rake Hull Barges for Sale



	No Picture	
200' x 35' x 12'	200' x 35' x 12'	200' x 35' x 12'
Built in 2002 (34yr SL)	Built in 1998 (30yr SL)	Built in 1996 (28yr SL)
\$220,000	\$80,000	\$170,000
	Gulf of Mexico	Alabama

Table 4 Barge Replacement OPCC

ITEM	SUBTOTAL
GENERAL REQUIREMENTS	\$230,600
BARGE AND RETROFIT	\$722,600
ATTACHMENTS	\$70,500
RIPRAP	\$27,150
CONTINGENCY	\$212,300
ENGINEERING/PERMITTING	\$74,200
	<b>\$1,337,350</b>

### 7.3 New Construction Concept – Cellular Sheetpile

Table 5 Cellular Sheetpile OPCC

ITEM	SUBTOTAL
<b>GENERAL REQUIREMENTS</b>	\$209,000
<b>GROIN SHEETPILE &amp; FILL</b>	\$661,220
<b>ATTACHMENTS &amp; DOCKAGE</b>	\$51,360
<b>RIPRAP</b>	\$170,340
<b>CONTINGENCY</b>	\$220,600
<b>ENGINEERING/PERMITTING</b>	\$77,100
	<b>\$1,389,620</b>

Widening the walkway by 1 foot is roughly equal to increasing the cost estimate by \$20,000.

### 7.4 Adaptive Strategy – Rubble Fill

Table 6 Rubble Fill with H-Piles OPCC

ITEM	SUBTOTAL
<b>GENERAL REQUIREMENTS</b>	\$93,100
<b>RIPRAP</b>	\$198,640
<b>H-PILES</b>	\$144,130
<b>CONTINGENCY</b>	\$92,500
<b>ENGINEERING/PERMITTING</b>	\$26,400
	<b>\$555,770</b>

## 8.0 CONCLUSIONS & RECOMMENDATION

Four concepts were proposed for the repair or replacement of the dilapidated barge at Park Avenue Beach boat launch. Each concept has an associated service life if properly maintained. New sheetpile has the longest service life which can span 65-70 years. A replacement barge's service life will be dependent on the age of the barge. The three barge options provided in Table 3 have residual service life estimates of 28-34 years. Newly constructed riprap breakwaters have an average service life of 50 years with regular maintenance and repair. In the case of the rubble fill concept with H-piles, however, the remaining service life of the leeside wall of the barge hull limits this concept's estimate to be approximately 20 years due to the unknown condition of the wall below the limits of the visual inspection. Should excessive bending or failure be observed, additional bracing may be needed to retain the remaining structure. These estimates do not take into account irregular loading from vessel impact or neglected maintenance. A summary of each concept is given in the table below.

Table 7 Concept Summary

	Concept	Permit Review Estimate	Construction Estimate	OPCC	Service Life (yrs.)
1	Repair Strategy	6-8 months	8-10 weeks	\$1,588,100	65-70
2	Barge Replacement	12+ months	12-14 weeks	\$1,337,350	28-34

3	Cellular Sheetpile	6-8 months	12-14 weeks	\$1,389,620	65-70
4	Rubble Fill w/ H-Piles	3-4 months	6-9 weeks	\$555,770	20+

Based on the above, it is our opinion that the best concept for the money is concept 3, the cellular sheetpile. Sheetpile has the highest service life with minimal maintenance. The cost of concept 3 can be further reduced by eliminating the wave absorbing revetment shown on the lakeside. This would reduce the cost by approximately \$140k to approximately \$1.25M. As stated in section 5.3, the walkway can be widened to provide a larger pedestrian surface for additional cost.

While the most cost-effective option compared to longevity of service is concept 3, the least expensive and quickest to permit and construct is concept 4, filling the remaining structure with rubble. At less than half of the cost of a full replacement, concept 4 is an attractive option.

It is our recommendation that should funds be or become available, concept 3 be implemented. If the goal is to quickly provide a 'repair' to the existing dilapidated barge to ensure its continued function as wave protection, then concept 4 is the preferred option.

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**PARK DISTRICT OF  
HIGHLAND PARK**

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**HIGHLAND PARK AVENUE  
BARGE ENGINEERING**

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**APPENDIX A**

**Metocean Analysis**

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## 1.0 METOCEAN ANALYSIS

### 1.1 Water Levels

NOAA maintained water level stations are located in Milwaukee, WI (Station ID: 9087057) and Calumet Harbor, IL (Station ID: 9087044). The project site, is between these two locations and therefore an interpolation between the two facilities has been approximated. Data was downloaded from <https://tidesandcurrents.noaa.gov/map/> on June 27<sup>th</sup>, 2018.

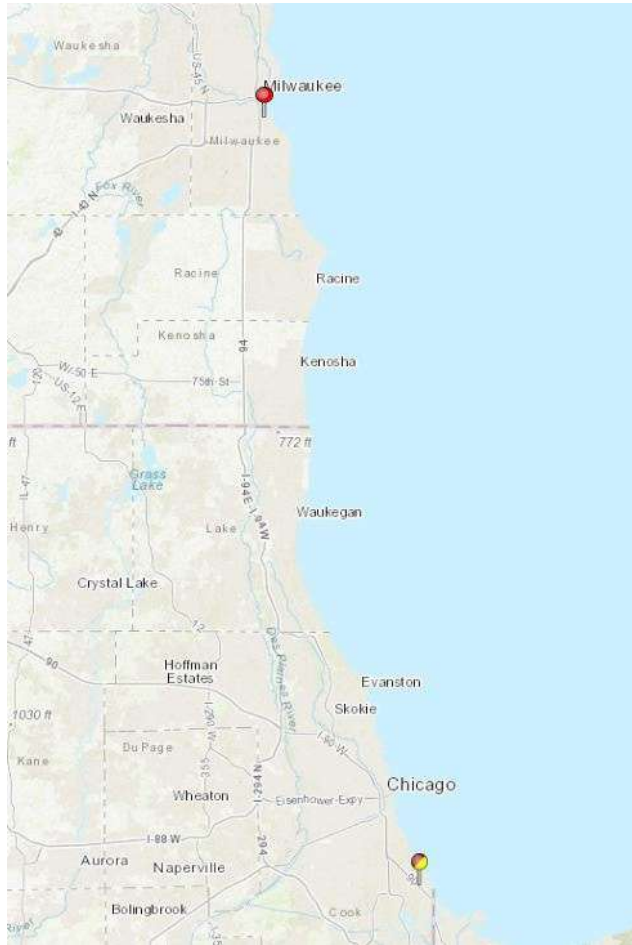


Figure 1 NOAA Water Level Stations

Table 1 Water Level Analysis

	Milwaukee 9087057	Calumet Harbor 9087044	Park Avenue Approximation
<b>Surge Return Periods</b>			
5 yr	1.31	2.20	1.88
10 yr	1.40	2.46	2.07
50 yr	1.60	3.11	2.55
100 yr	1.68	3.40	2.77
500 yr	1.85	4.12	3.29

**Yearly Monthly Peak Flood MSL Return Periods**

5 yr	581.31	580.91	581.05
10 yr	581.67	581.28	581.43
50 yr	582.34	582.02	582.14
100 yr	582.59	582.30	582.41
500 yr	583.10	582.89	582.97

**Yearly Monthly Peak Drought MSL Return Periods**

5 yr	578.08	577.76	577.88
10 yr	577.77	577.41	577.54
50 yr	577.24	576.77	576.94
100 yr	577.06	576.54	576.73
500 yr	576.70	576.08	576.31

**Monthly MSL Water Level**

	IGLD85	IGLD85	IGLD85
Lowest Recorded	576.02	575.96	575.98
5%	577.10	576.74	576.87
10%	577.39	577.14	577.23
25%	578.09	577.83	577.92
50%	579.29	578.86	579.02
75%	580.18	579.72	579.89
90%	580.81	580.42	580.57
95%	581.25	580.85	581.00
Max Recorded	582.40	582.35	582.37

1.2 Winds

Historical recorded wind data was taken from the Wave Information Study (WIS) Station 94027 located offshore, approximately 3.5 miles northeast of the project site. This data includes roughly 36 years of data ranging from 1979 – 2014. The wind data was run through a Weibull Distribution Analysis to determine storm winds from 16 compass directions. The wind rose and return period storm winds in miles/hour are given below.

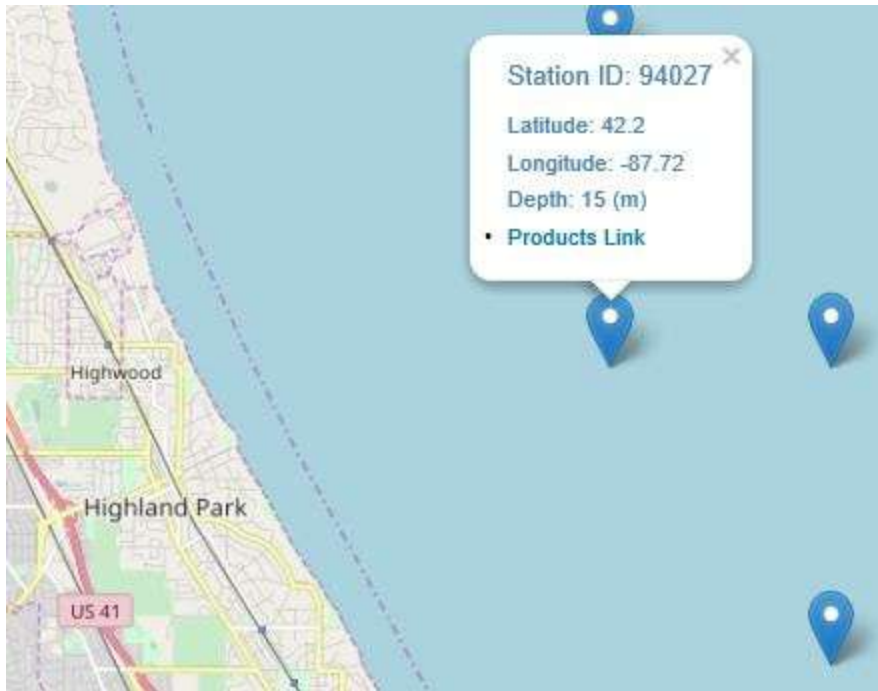


Figure 2 WIS Station Nearest Project Site

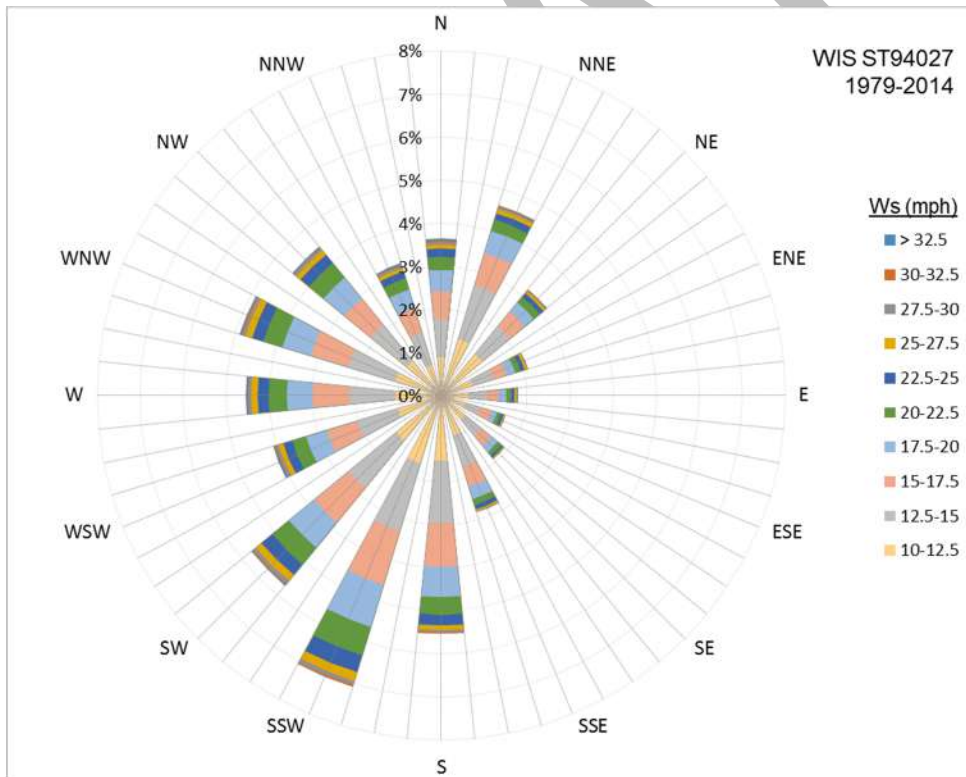


Figure 3 Wind Rose

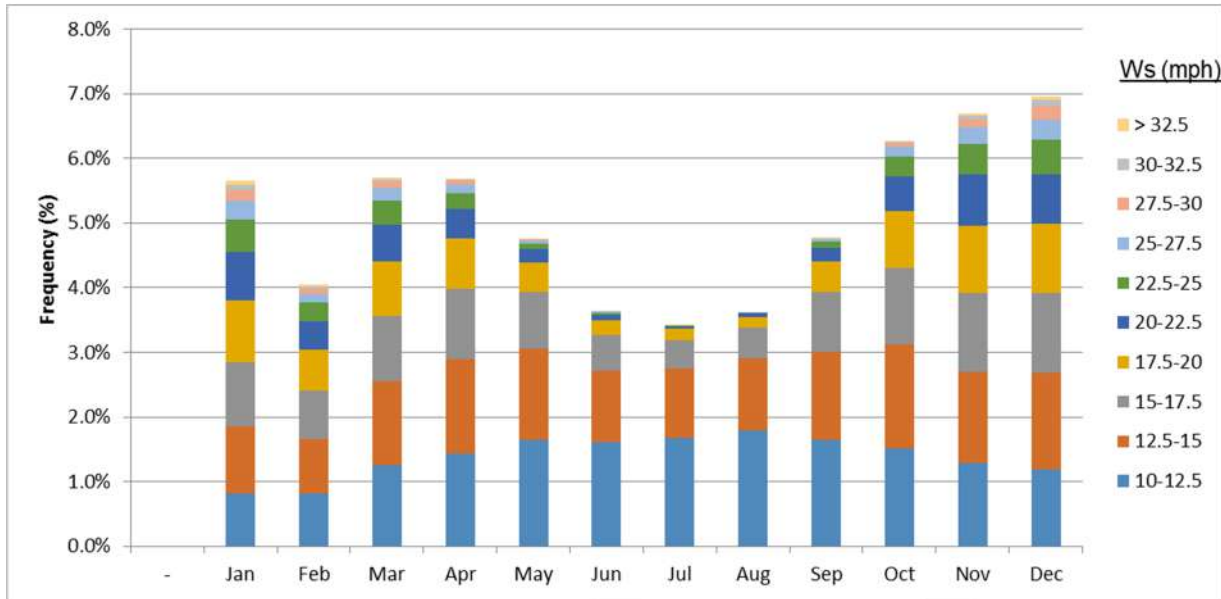


Figure 4 Wind Speed Frequency by Month

Table 2 Return Period Wind Speeds by Direction (mph)

Return Periods	N	NNE	NE	ENE	E	ESE	SE	SSE
1 yr	30.27	29.91	26.47	26.46	25.57	24.76	25.98	27.33
10 yr	38.94	36.23	35.26	32.43	35.76	32.69	31.22	32.20
25 yr	41.79	39.09	37.55	34.45	38.94	35.22	33.38	33.63
50 yr	43.86	41.31	39.14	35.92	41.24	37.05	35.03	34.65
100 yr	45.88	43.57	40.65	37.36	43.46	38.82	36.68	35.63

Return Periods	S	SSW	SW	WSW	W	WNW	NW	NNW
1 yr	29.79	31.20	30.79	30.14	30.41	30.61	29.29	30.77
10 yr	34.50	34.86	38.38	38.45	38.48	36.84	37.28	39.79
25 yr	35.60	36.63	41.00	39.99	40.50	39.84	39.96	43.18
50 yr	36.36	38.03	42.93	41.01	41.90	42.22	41.91	45.72
100 yr	37.07	39.48	44.81	41.95	43.22	44.68	43.81	48.23

### 1.3 Waves

Offshore wave conditions for the site were collected from two sources: USACE's Wave Information Studies (WIS) and Great Lakes Observing System (GLOS). Both of these data sources are based on numerical modeling results for various points throughout the lake. Real-time data is collected from established buoys anchored in each of the Great Lakes and used to drive the numerical models. Each model has gone through an extensive calibration process by the USACE and NOAA respectively.

#### WIS

Information for WIS Station 94027 is provided in the preceding section. The wave data was run through a Weibull Distribution Analysis to determine storm winds from 8 compass directions that can impact the site. The wave rose and return period storm wave characteristics in feet are given below.

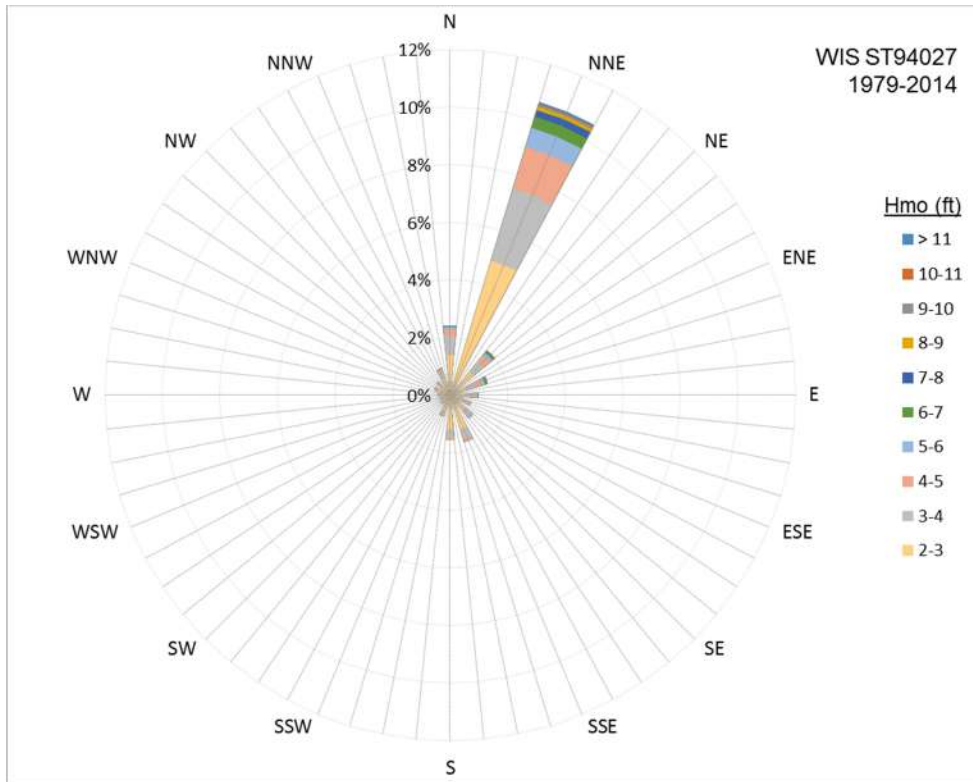


Figure 5 Wave Rose, WIS

Table 3 Return Period Wave Height by Direction (feet), WIS

Return Periods	N	NNE	NE	ENE	E	ESE	SE	SSE
1 yr	6.43	9.73	6.30	6.08	5.48	4.76	4.45	4.90
10 yr	9.77	14.77	9.92	10.11	8.82	6.85	6.01	5.92
25 yr	11.41	16.40	10.93	11.64	10.15	7.69	6.37	6.39
50 yr	12.71	17.59	11.65	12.78	11.15	8.32	6.62	6.76
100 yr	14.06	18.75	12.33	13.92	12.16	8.96	6.86	7.13

Table 4 Wave Period Frequency by Wave Height, WIS

Hmo (ft) \ Tp (s)	0-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
<= 6	79.703%	11.278%	5.977%	1.147%	0.501%	0.102%	0.009%	0.000%	0.000%
6-7	0.005%	0.045%	0.263%	0.135%	0.084%	0.050%	0.011%	0.000%	0.000%
7-8	0.000%	0.003%	0.107%	0.088%	0.059%	0.052%	0.011%	0.002%	0.000%
8-9	0.000%	0.001%	0.036%	0.046%	0.032%	0.027%	0.011%	0.002%	0.000%
9-10	0.000%	0.000%	0.006%	0.015%	0.023%	0.020%	0.012%	0.002%	0.000%
10-11	0.000%	0.000%	0.001%	0.006%	0.011%	0.021%	0.009%	0.003%	0.000%
11-12	0.000%	0.000%	0.000%	0.001%	0.007%	0.014%	0.009%	0.003%	0.001%
12-13	0.000%	0.000%	0.000%	0.000%	0.003%	0.005%	0.005%	0.002%	0.000%
13-14	0.000%	0.000%	0.000%	0.000%	0.001%	0.002%	0.005%	0.004%	0.000%
14-15	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%	0.005%	0.004%	0.000%
> 15	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.002%	0.003%	0.001%

GLOS

Historical recorded wave data was taken from GLOS Point 42.2023 N, -87.7199 W located offshore, approximately 3.5 miles east of the project site. This data includes roughly 10 years of data ranging from 2008 – 2018. The wave data was run through a Weibull Distribution Analysis to determine storm winds from 8 compass directions that can impact the site. The wave rose and return period storm wave characteristics in feet are given below.

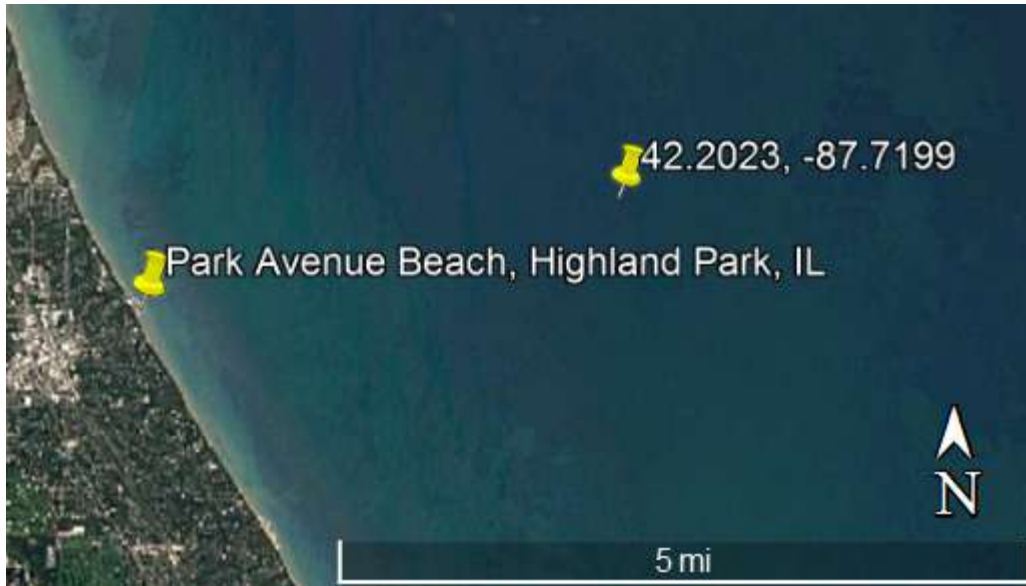


Figure 6 GLOS Point Chosen for Site

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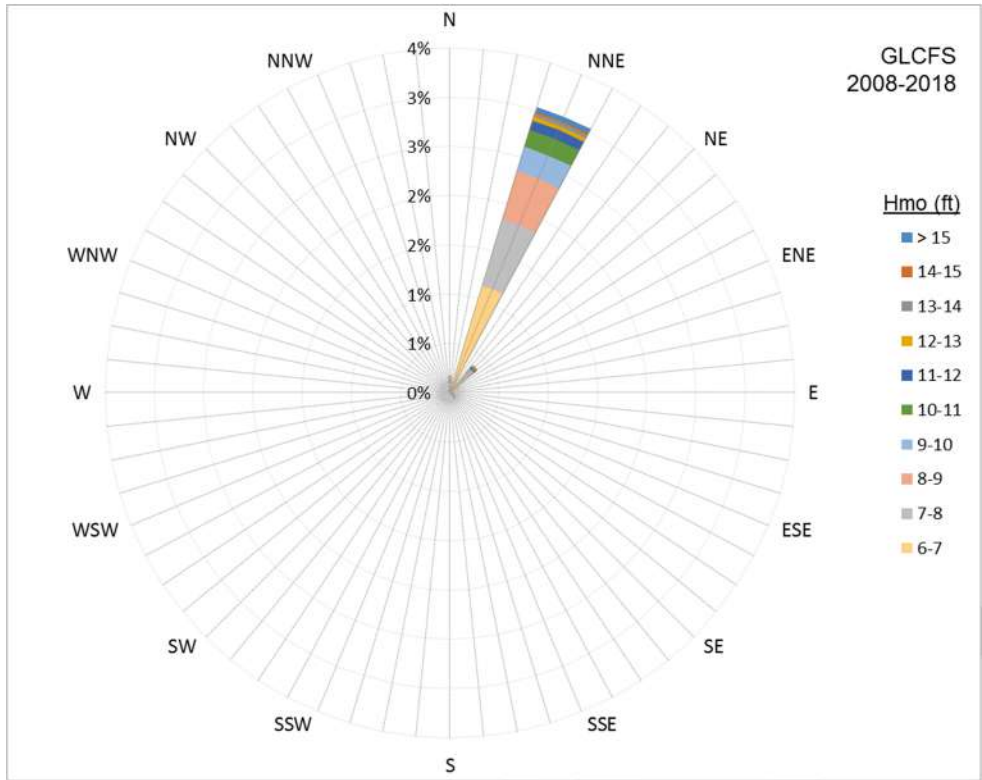


Figure 7 Wave Rose, GLOS

Table 5 Return Period Wave Height by Direction (feet), GLOS

Return Periods	N	NNE	NE	ENE	E	ESE	SE	SSE
1 yr	7.93	11.20	7.66	6.23	5.77	4.56	6.41	5.15
10 yr	9.92	19.53	14.47	7.19	8.19	9.15	8.66	6.92
25 yr	10.74	21.19	16.62	7.69	9.82	10.47	10.35	7.23
50 yr	11.37	22.30	18.17	8.10	11.24	11.42	11.86	7.44
100 yr	12.00	23.32	19.67	8.52	12.80	12.32	13.56	7.64

Table 6 Wave Period Frequency by Wave Height, GLOS

Hmo (ft) \ Tp (s)	0-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
<= 6	89.763%	5.959%	0.430%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
6-7	0.000%	0.821%	0.733%	0.015%	0.000%	0.000%	0.000%	0.000%	0.000%
7-8	0.000%	0.046%	0.801%	0.074%	0.000%	0.000%	0.000%	0.000%	0.000%
8-9	0.000%	0.000%	0.453%	0.133%	0.001%	0.000%	0.000%	0.000%	0.000%
9-10	0.000%	0.000%	0.089%	0.200%	0.006%	0.000%	0.000%	0.000%	0.000%
10-11	0.000%	0.000%	0.001%	0.186%	0.013%	0.000%	0.000%	0.000%	0.000%
11-12	0.000%	0.000%	0.000%	0.087%	0.024%	0.003%	0.000%	0.000%	0.000%
12-13	0.000%	0.000%	0.000%	0.025%	0.025%	0.004%	0.000%	0.000%	0.000%
13-14	0.000%	0.000%	0.000%	0.001%	0.032%	0.001%	0.000%	0.000%	0.000%
14-15	0.000%	0.000%	0.000%	0.000%	0.015%	0.001%	0.000%	0.000%	0.000%
> 15	0.000%	0.000%	0.000%	0.000%	0.012%	0.044%	0.001%	0.000%	0.000%

Suggested Design

As shown above, GLOS data suggests higher wave heights with lower wave periods than the WIS data. Review of storms over the same time period reveal the same trend. For this type of project, design of a 'breakwater' to reduce agitation, it is recommended the higher wave height values developed by the GLOS data be used; despite the data only being 10 years of historical length. In the design of this breakwater, it is determined it is better to error on the side of conservatism. Along the same thought process, it is recommended that related wave periods given by WIS be used in this project.

The summary of wave heights and periods can be reduced to the following:

Return Periods	NNE		E		SSE	
	Hs	Tp	Hs	Tp	Hs	Tp
1 yr	11.20	9	5.77	5.5	5.15	5
10 yr	19.53	9.5	8.19	6	6.92	5
25 yr	21.19	9.5	9.82	6.5	7.23	5.5
50 yr	22.30	9.5	11.24	7	7.44	5.5
100 yr	23.32	10	12.80	8	7.64	6

Wave Loads on Vertical Walls

When waves impact a vertical wall, they surge up that wall to heights greater than the wave height alone. If the wave is in the process of breaking, air entrapment between the wave and the wall will create an explosive force which has been known to break away poorly constructed concrete. In the case of Park Avenue Barge, it is possible to have a breaking wave impact the vertical wall of a sheetpile cell or new barge construction. Therefore, the force loads on the wall were determined using the Goda Method with modifications by Takahashi and Tanimoto as outlined in the Coastal Engineering Manual (CEM) published by the USACE.

The larger the wave, the higher the force on the wall. Pressure on the wall is greatest at the still water line and therefore it can be recognized that once the height of the structure is below the still water line, due to high water levels, the force on that structure decreases. The existing barge, per the recent survey, has a crest elevation of roughly 584 IGLD85. At historic high water levels, combined with surge during a storm event, the water level is over the top of the barge. Therefore, the forces to be used in design were maximized to a structure height of 587 IGLD85. This allows for a higher crest elevation in the event a new design is constructed, or it would otherwise mimic an ice covered railing. This combination of water level and return period storm event can be considered very low probability and therefore these initial forces can be considered conservative.

The following variables were used to determine the design wave forces against a vertical wall.

Table 7 Wave Forces on a Vertical Wall by Return Period

Return Period	5	10	50	100
High Water Level	582.37	582.37	582.37	582.37
Surge Level (ft)	1.88	2.07	2.55	2.77
Water Depth at Toe (ft)	10.25	10.44	10.92	11.14
Max Wave Height (ft)	8.89	9.05	9.47	9.66
Wave Period (s)	9.5	9.5	9.5	10
Horizontal Force (kips/ft)	8.7	8.8	8.9	9.1

Horizontal Moment (kips-ft/ft)	50.5	51.0	52.4	53.5
Uplift Force (kips/ft)	5.0	5.1	5.3	5.5

For design purposes, it is recommended to use the 100year return period forces.

#### 1.4 Ice

During the winter months, ice forms along the shorelines and extends out into the lake. The thickness of the ice is a function of many factors including temperature, sunlight, snow insulation, cracking & refreezing, water movement, etc. As these variables change year to year, it is impossible to accurately estimate ice thickness without obtaining core samples. In lieu of samples, the USACE recommends using the Stefan Equation to estimate ice thickness. This simple equation uses accumulated freezing degree days (AFDD) and a coefficient based on ice cover condition to estimate thickness. This method can be calibrated to known data, if available, to further refine the estimation.

Daily average temperature was collected from Chicago Executive Airport, located approximately 8 miles southwest of the project site. Temperature data includes roughly 23 years of data ranging from 1995 – 2018. The coldest winter on record during this time occurred in 2013-2014.

A Weibull Distribution was used on the maximum ice thicknesses for each year based on the Stefan Equation. This provides return period ice thickness values which can be used for design. This analysis developed the following.

Table 8 Ice Thickness by Return Period

Return Period	AFDD (F°)	Ice Thickness (in)
1 yr	660	18.0
5 yr	984	22.0
10 yr	1154	23.8
50 yr	1582	27.8
100 yr	1778	29.5

Based on the thickness of 29.5 inches, the estimated uplift on a structure with a width of 35ft and a length of 195ft, such as the existing barge, will be approximately 491 kips.

A sheet of ice can be pushed into a structure as a result of drag force caused by ice moving across the water. A return period analysis of winds which occur in the winter from the east revealed an upper limit of approximately 66 ft/s. This results in a drag force of approximately 3.5 kips/ft on the structure.

For extreme ice conditions, the upper limit of force on a structure will be the ice failure limit. The failure can occur as either buckling or crushing. The movement of ice which would allow for ice failure necessitates open water in which the ice will move. This suggests a thinning of ice below the values given in the table above. It has been observed that an upper end of ice movement relates to approximately 7 inches of ice thickness. Thicker ice sheets are harder to break and therefore do not move around freely. Using a thickness of 7 inches, the maximum forces related to ice failure in buckling are 7 kips/ft. It is recommended to use this force in design.

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**PARK DISTRICT OF  
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**HIGHLAND PARK AVENUE  
BARGE ENGINEERING**

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**APPENDIX B**

**Site Inspection**  
Notes & Select Photos

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**PARK DISTRICT OF  
HIGHLAND PARK**

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**HIGHLAND PARK AVENUE  
BARGE ENGINEERING**

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**APPENDIX C**

**Opinion of Probable  
Construction Costs**

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# SMITHGROUP

www.smithgroup.com

Client                    Park District of Highland Park  
 Project                 Highland Park Ave Barge  
 Project #               10857.000  
 Detail                   Conceptual Design-Option 1 ( Sheet Pile Barge Repair)  
 Date                     9/14/2018

Item	Quantity	Unit	Unit Cost	Item Total	Subtotal
<b>General Requirements</b>					<b>\$ 203,526.40</b>
Mobilization and Demobilization	1	LS	\$ 113,446.40	\$ 113,446.40	
Temporary Construction Fence	115	LF	\$ 40.00	\$ 4,600.00	
Temporary Construction Gate	1	LS	\$ 2,700.00	\$ 2,700.00	
Temporary Project Signage	1	LS	\$ 2,000.00	\$ 2,000.00	
Silt Fence	170	LF	\$ 4.00	\$ 680.00	
Turbidity Barrier	475	LF	\$ 60.00	\$ 28,500.00	
Stone Tracking Pad	1	LS	\$ 5,000.00	\$ 5,000.00	
Temporary Concrete Washout Area	1	LS	\$ 1,250.00	\$ 1,250.00	
Selective Barge Demolition & Removal	1	LS	\$ 20,000.00	\$ 20,000.00	
Riprap Removal Allowance	195	LF	\$ 130.00	\$ 25,350.00	
<b>Groin</b>					<b>\$ 1,044,384.00</b>
Sheetpile (NZ14, 19' Long)	89	TON	\$ 5,000.00	\$ 445,000.00	
Tie Rod System	21	EA	\$ 3,250.00	\$ 68,250.00	
Waler and Accessories	428	LF	\$ 230.00	\$ 98,440.00	
Granular Material	1373	CY	\$ 110.00	\$ 151,030.00	
Geotextile	434	SY	\$ 6.00	\$ 2,604.00	
Concrete Cap w/Steel Plate to Sheeting	430	LF	\$ 188.00	\$ 80,840.00	
Concrete Pavement	7215	SF	\$ 15.00	\$ 108,225.00	
42" Metal Railing	233	LF	\$ 215.00	\$ 50,095.00	
Safety Ladder Assembly	1	EA	\$ 1,500.00	\$ 1,500.00	
Mooring Cleat Assembly	9	EA	\$ 300.00	\$ 2,700.00	
Fender and Mount Assembly	18	EA	\$ 900.00	\$ 16,200.00	
Riprap Placement	195	LF	\$ 100.00	\$ 19,500.00	
<b>Construction Subtotal</b>					<b>\$ 1,247,910</b>
Bonds and Insurance	1%			\$ 12,500.00	
Contractor Fee	0%			\$ -	
Phasing	0%			\$ -	
Escalator	2.0%		0 years	\$ -	
<b>Construction Total</b>					<b>\$ 1,260,410</b>
Design/Engineering/Permits	6%			\$ 75,600.00	
Construction Contingency & Remaining Elements	20%			\$ 252,100.00	
<b>Project Total (Construction, design, contingency and permitting)</b>					<b>\$ 1,588,110</b>

# SMITHGROUP

www.smithgroup.com

Client                    Park District of Highland Park  
 Project                 Highland Park Ave Barge  
 Project #               10857.000  
 Detail                  Conceptual Design-Option 2 (Barge Replacement)  
 Date                     9/14/2018

Item	Quantity	Unit	Unit Cost	Item Total	Subtotal
<b>General Requirements</b>					<b>\$ 230,612.50</b>
Mobilization and Demobilization	1	LS	\$ 95,532.50	\$ 95,532.50	
Temporary Construction Fence	115	LF	\$ 40.00	\$ 4,600.00	
Temporary Construction Gate	1	LS	\$ 2,700.00	\$ 2,700.00	
Temporary Project Signage	1	LS	\$ 2,000.00	\$ 2,000.00	
Silt Fence	170	LF	\$ 4.00	\$ 680.00	
Turbidity Barrier	475	LF	\$ 60.00	\$ 28,500.00	
Stone Tracking Pad	1	LS	\$ 5,000.00	\$ 5,000.00	
Temporary Concrete Washout Area	1	LS	\$ 1,250.00	\$ 1,250.00	
Selective Barge Demolition & Removal	0	LS	\$ -	\$ -	
Riprap Removal Allowance	195	LF	\$ 130.00	\$ 25,350.00	
Existing Barge Demolition	1	LS	\$ 65,000.00	\$ 65,000.00	
<b>Pier</b>					<b>\$ 820,245.00</b>
Barge (Material+Installation+Transportation+Profit)	1	LS	\$ 340,000.00	\$ 340,000.00	
Barge Retrofitting	1	LS	\$ 100,000.00	\$ 100,000.00	
Granular Material	1800	CY	\$ 110.00	\$ 198,000.00	
Geotextile	600	SY	\$ 6.00	\$ 3,600.00	
Concrete Cap w/Steel Plate to Sheeting	0	LF	\$ 188.00	\$ -	
Concrete Pavement	5400	SF	\$ 15.00	\$ 81,000.00	
42" Metal Railing	233	LF	\$ 215.00	\$ 50,095.00	
Safety Ladder Assembly	1	EA	\$ 1,500.00	\$ 1,500.00	
Mooring Cleat Assembly	9	EA	\$ 300.00	\$ 2,700.00	
Fender and Mount Assembly	18	EA	\$ 900.00	\$ 16,200.00	
Riprap Placement	195	LF	\$ 100.00	\$ 19,500.00	
Riprap Bedding Material	90	TON	\$ 85.00	\$ 7,650.00	
<b>Construction Subtotal</b>					<b>\$ 1,050,858</b>
Bonds and Insurance	1%			\$ 10,500.00	
Contractor Fee	0%			\$ -	
Phasing	0%			\$ -	
Escalator	2.0%		0 years	\$ -	
<b>Construction Total</b>					<b>\$ 1,061,358</b>
Design/Engineering/Permits	6%			\$ 63,700.00	
Construction Contingency & Remaining Elements	20%			\$ 212,300.00	
<b>Project Total (Construction, design, contingency and permitting)</b>					<b>\$ 1,337,358</b>

# SMITHGROUP

www.smithgroup.com

Client                      Park District of Highland Park  
 Project                     Highland Park Ave Barge  
 Project #                   10857.000  
 Detail                      Conceptual Design-Option 3 (Double Sheet Pile Wall Structure-8' Width)  
 Date                        9/14/2018

Item	Quantity	Unit	Unit Cost	Item Total	Subtotal
<b>General Requirements</b>					<b>\$ 208,995.20</b>
Mobilization and Demobilization	1	LS	\$ 99,265.20	\$ 99,265.20	
Temporary Construction Fence	115	LF	\$ 40.00	\$ 4,600.00	
Temporary Construction Gate	1	LS	\$ 2,700.00	\$ 2,700.00	
Temporary Project Signage	1	LS	\$ 2,000.00	\$ 2,000.00	
Silt Fence	170	LF	\$ 4.00	\$ 680.00	
Turbidity Barrier	475	LF	\$ 60.00	\$ 28,500.00	
Stone Tracking Pad	1	LS	\$ 5,000.00	\$ 5,000.00	
Temporary Concrete Washout Area	1	LS	\$ 1,250.00	\$ 1,250.00	
Selective Barge Demolition & Removal	0	LS	\$ -	\$ -	
Riprap Removal Allowance	0	LF	\$ 130.00	\$ -	
Existing Barge Demolition	1	LS	\$ 65,000.00	\$ 65,000.00	
<b>Pier</b>					<b>\$ 882,922.00</b>
Sheetpile (NZ14, 19' Long)	77	TON	\$ 5,000.00	\$ 385,000.00	
Tie Rod System	21	EA	\$ 1,750.00	\$ 36,750.00	
Waler and Accessories	406	LF	\$ 230.00	\$ 93,380.00	
Granular Material	412	CY	\$ 110.00	\$ 45,320.00	
Geotextile	1149	SY	\$ 6.00	\$ 6,894.00	
Concrete Cap w/Steel Plate to Sheeting	406	LF	\$ 188.00	\$ 76,328.00	
Concrete Pavement	1170	SF	\$ 15.00	\$ 17,550.00	
42" Metal Railing	0	LF	\$ 215.00	\$ -	
Safety Ladder Assembly	1	EA	\$ 1,500.00	\$ 1,500.00	
Mooring Cleat Assembly	9	EA	\$ 500.00	\$ 4,500.00	
Riprap	2004	TON	\$ 85.00	\$ 170,340.00	
Floating Dock	648	SF	\$ 70.00	\$ 45,360.00	
<b>Construction Subtotal</b>					<b>\$ 1,091,917</b>
Bonds and Insurance	1%			\$ 10,900.00	
Contractor Fee	0%			\$ -	
Phasing	0%			\$ -	
Escalator	2.0%		0 years	\$ -	
<b>Construction Total</b>					<b>\$ 1,102,817</b>
Design/Engineering/Permits	6%			\$ 66,200.00	
Construction Contingency & Remaining Elements	20%			\$ 220,600.00	
<b>Project Total (Construction, design, contingency and permitting)</b>					<b>\$ 1,389,617</b>

# SMITHGROUP

www.smithgroup.com

Client                      Park District of Highland Park  
 Project                    Highland Park Ave Barge  
 Project #                 10857.000  
 Detail                     Conceptual Design-Option 4 (Barge Fill)  
 Date                        10/1/2018

Item	Quantity	Unit	Unit Cost	Item Total	Subtotal
<b>General Requirements</b>					<b>\$ 93,105.00</b>
Mobilization and Demobilization	1	LS	\$ 39,625.00	\$ 39,625.00	
Temporary Construction Fence	115	LF	\$ 40.00	\$ 4,600.00	
Temporary Construction Gate	1	LS	\$ 2,700.00	\$ 2,700.00	
Temporary Project Signage	1	LS	\$ 2,000.00	\$ 2,000.00	
Silt Fence	170	LF	\$ 4.00	\$ 680.00	
Turbidity Barrier	475	LF	\$ 60.00	\$ 28,500.00	
Stone Tracking Pad	1	LS	\$ 5,000.00	\$ 5,000.00	
Temporary Concrete Washout Area	0	LS	\$ 1,250.00	\$ -	
Selective Demolition	1	LS	\$ 10,000.00	\$ 10,000.00	
Riprap Removal Allowance	0	LF	\$ 130.00	\$ -	
Existing Barge Demolition	0	LS	\$ 65,000.00	\$ -	
<b>Pier</b>					<b>\$ 342,770.00</b>
Barge (Material+Installation+Transportation+Profit)	0	LS	\$ 340,000.00	\$ -	
Barge Retrofitting	0	LS	\$ 100,000.00	\$ -	
Granular Material	794	CY	\$ 110.00	\$ 87,340.00	
Geotextile	0	SY	\$ 6.00	\$ -	
Concrete Cap w/Steel Plate to Sheeting	0	LF	\$ 188.00	\$ -	
Concrete Pavement	0	SF	\$ 15.00	\$ -	
42" Metal Railing	0	LF	\$ 215.00	\$ -	
Safety Ladder Assembly	0	EA	\$ 1,500.00	\$ -	
Mooring Cleat Assembly	0	EA	\$ 300.00	\$ -	
Fender and Mount Assembly	0	EA	\$ 900.00	\$ -	
Riprap	1113	TON	\$ 100.00	\$ 111,300.00	
H-Piles	29	TON	\$ 4,970.00	\$ 144,130.00	
<b>Construction Subtotal</b>					<b>\$ 435,875</b>
Bonds and Insurance	1%			\$ 4,400.00	
Contractor Fee	0%			\$ -	
Phasing	0%			\$ -	
Escalator	2.0%		0 years	\$ -	
<b>Construction Total</b>					<b>\$ 440,275</b>
Design/Engineering/Permits	6%			\$ 26,400.00	
Construction Contingency & Remaining Elements	20%			\$ 88,100.00	
<b>Project Total (Construction, design, contingency and permitting)</b>					<b>\$ 554,775</b>

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**PARK DISTRICT OF  
HIGHLAND PARK**

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**HIGHLAND PARK AVENUE  
BARGE ENGINEERING**

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**APPENDIX D**

**Concept Drawings**

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**DRAFT**



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**PARK DISTRICT OF  
HIGHLAND PARK**

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**HIGHLAND PARK AVENUE  
BARGE ENGINEERING**

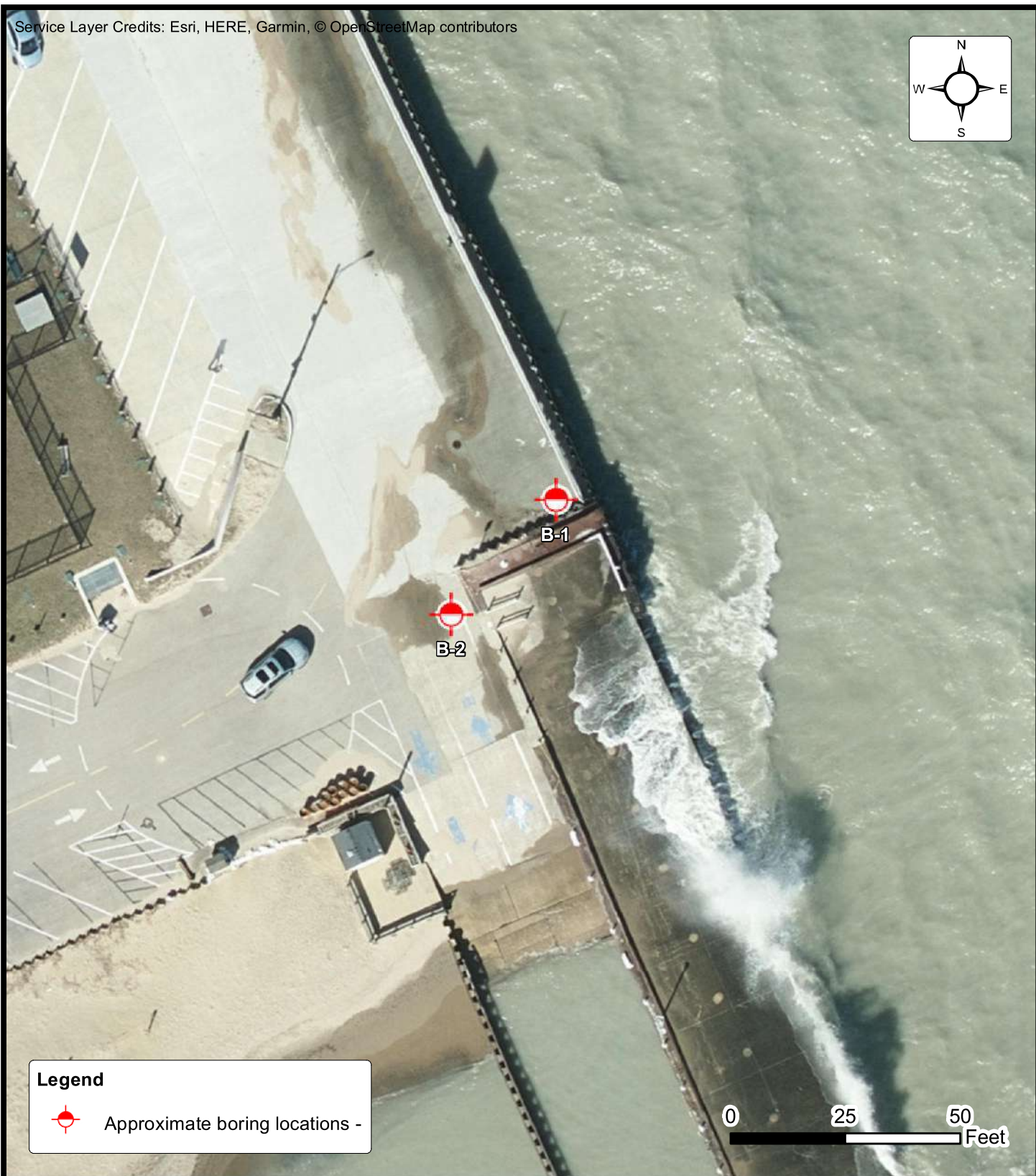
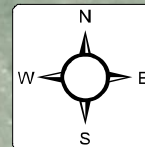
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**APPENDIX E**

**Soil Borings**

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DRAFT



**Legend**



Approximate boring locations -



# BORING LOCATION DIAGRAM PARK AVENUE BEACH

31 PARK AVENUE, HIGHLAND PARK, IL

SMITHGROUP JJR

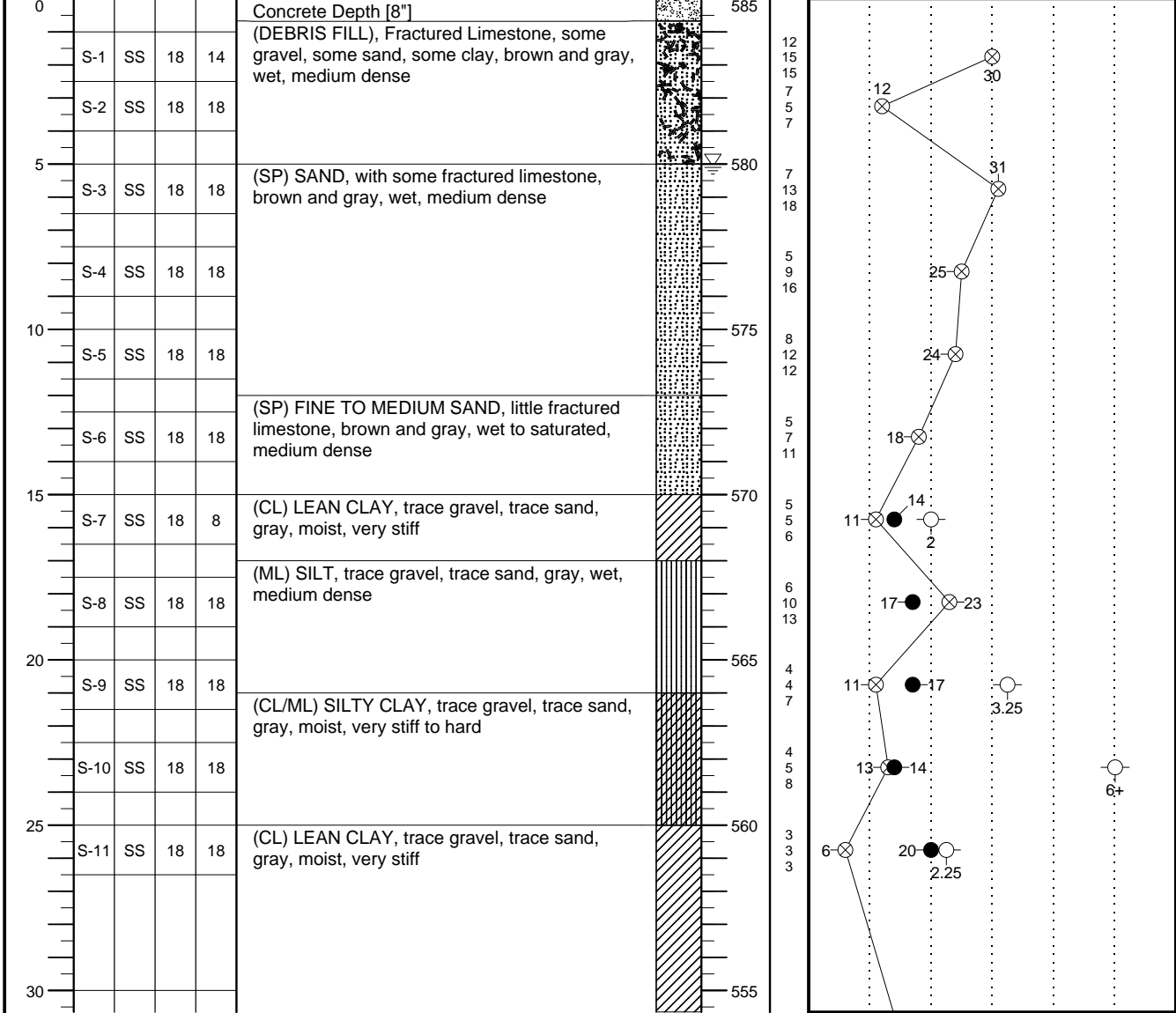
ENGINEER	KSC
SCALE	1" = 30'
PROJECT NO.	12464
SHEET	1 OF 1
DATE	7/28/2018

CLIENT <b>SmithGroup JJR</b>	Job #: <b>16:12464</b>	BORING # <b>B-1</b>	SHEET <b>1 OF 2</b>	
PROJECT NAME <b>Park Avenue Beach</b>	ARCHITECT-ENGINEER			

SITE LOCATION  
**31 Park Avenue, Highland Park, Cook, IL**

NORTHING	EASTING	STATION
----------	---------	---------

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	ENGLISH UNITS	WATER LEVELS ELEVATION (FT)	BLOWS/6"	ROCK QUALITY DESIGNATION & RECOVERY			
									RQD% - - - -	REC% - - - -		
					BOTTOM OF CASING		LOSS OF CIRCULATION			PLASTIC LIMIT%	WATER CONTENT%	LIQUID LIMIT%
					SURFACE ELEVATION <b>585 +/-</b>					STANDARD PENETRATION BLOWS/FT		



CONTINUED ON NEXT PAGE.

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

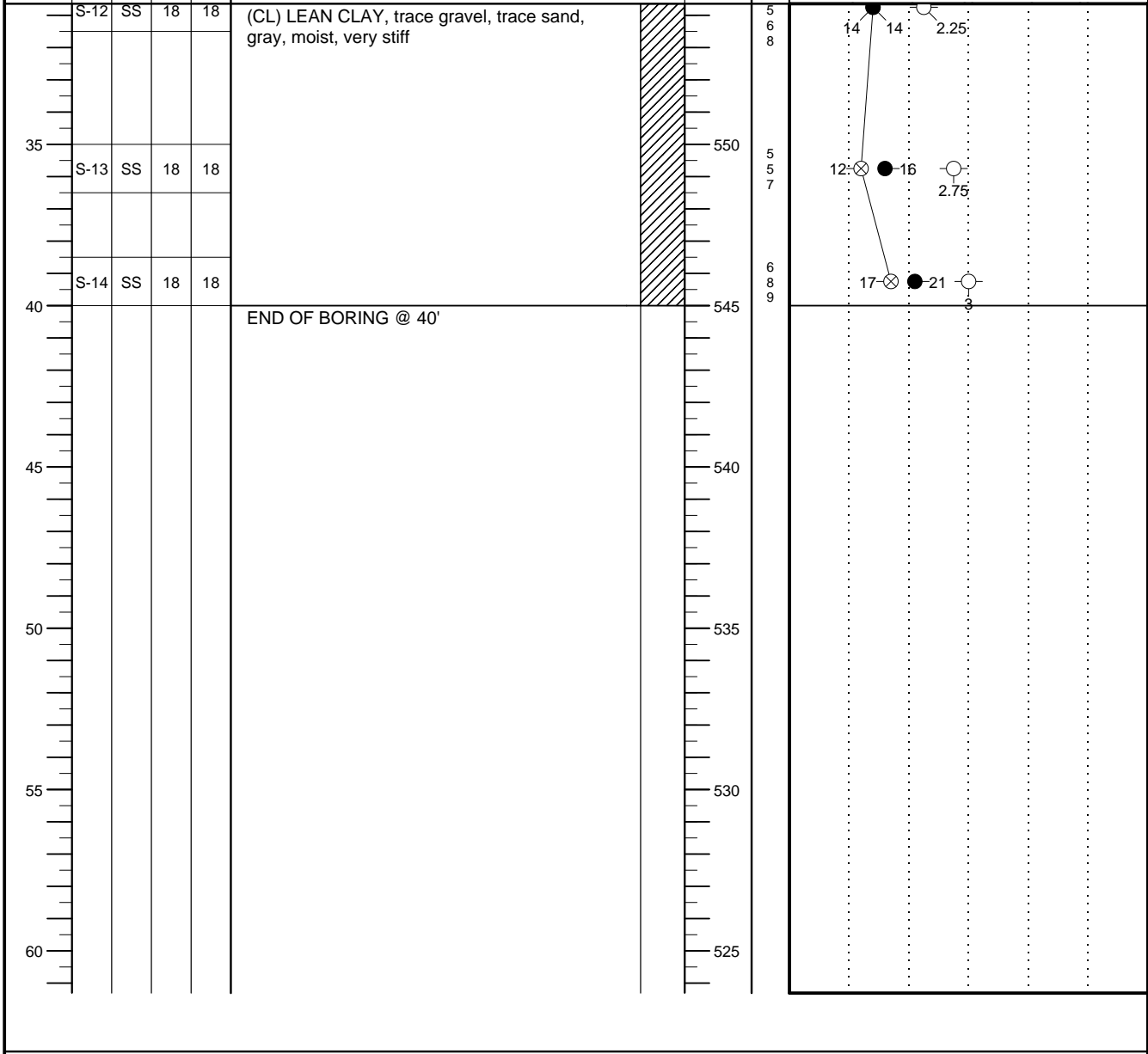
WL 5	WS <input checked="" type="checkbox"/> WD <input type="checkbox"/>	BORING STARTED	07/17/18	CAVE IN DEPTH
WL(SHW)	WL(ACR)	BORING COMPLETED	07/17/18	HAMMER TYPE Auto
WL		RIG Truck	FOREMAN Jason	DRILLING METHOD HSA

CLIENT <b>SmithGroup JJR</b>	Job #: <b>16:12464</b>	BORING # <b>B-1</b>	SHEET <b>2 OF 2</b>	
PROJECT NAME <b>Park Avenue Beach</b>	ARCHITECT-ENGINEER			

SITE LOCATION  
**31 Park Avenue, Highland Park, Cook, IL**


NORTHING	EASTING	STATION
----------	---------	---------

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	ENGLISH UNITS	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
					BOTTOM OF CASING	LOSS OF CIRCULATION			
					SURFACE ELEVATION <b>585 +/-</b>				



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

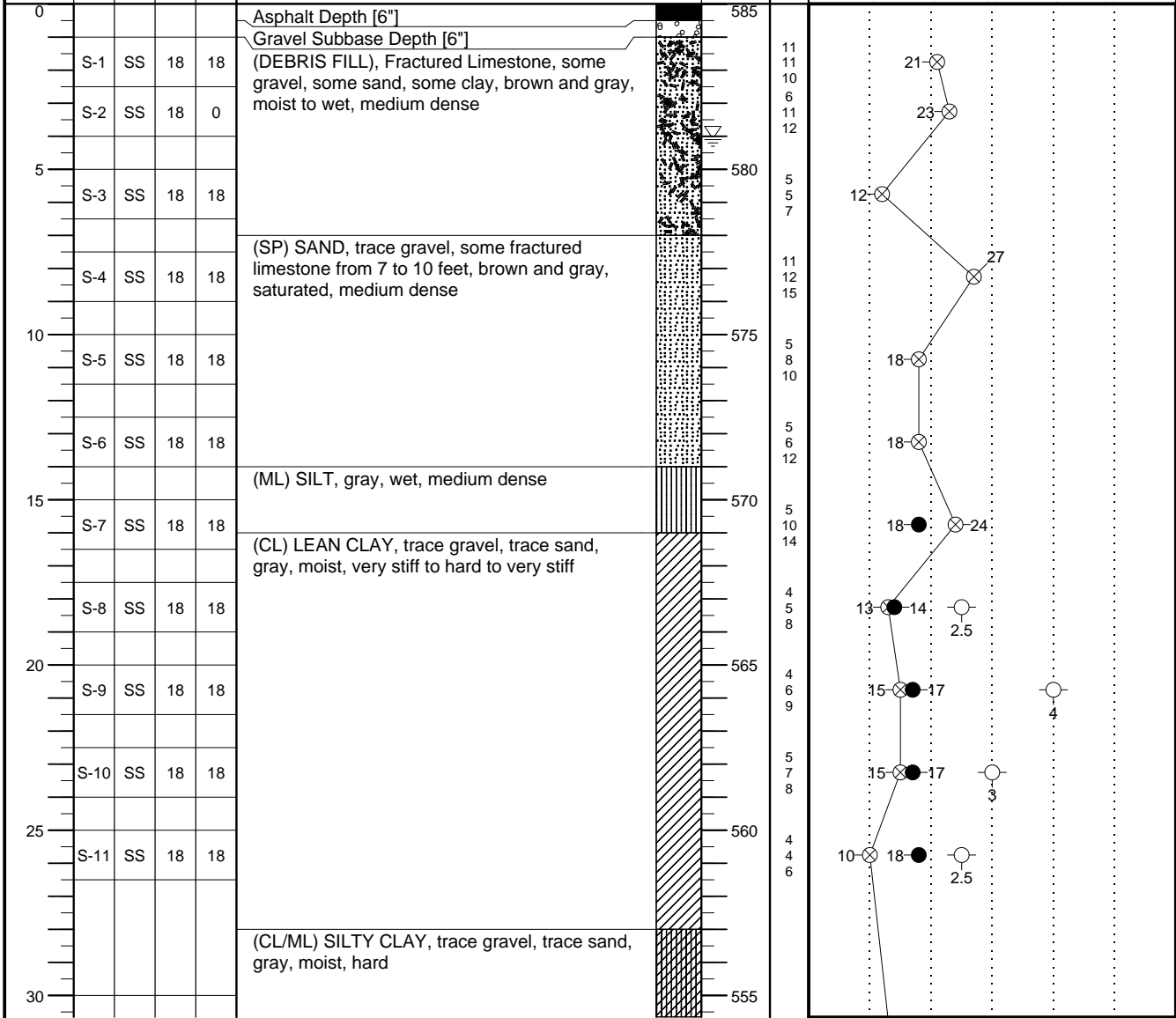
WL 5      WS <input checked="" type="checkbox"/> WD <input type="checkbox"/>	BORING STARTED <b>07/17/18</b>	CAVE IN DEPTH
WL(SHW)       WL(ACR)	BORING COMPLETED <b>07/17/18</b>	HAMMER TYPE <b>Auto</b>
WL	RIG <b>Truck</b> FOREMAN <b>Jason</b>	DRILLING METHOD <b>HSA</b>

CLIENT <b>SmithGroup JJR</b>	Job #: <b>16:12464</b>	BORING # <b>B-2</b>	SHEET <b>1 OF 2</b>	
PROJECT NAME <b>Park Avenue Beach</b>		ARCHITECT-ENGINEER		

SITE LOCATION  
**31 Park Avenue, Highland Park, Cook, IL**

NORTHING	EASTING	STATION
----------	---------	---------

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	ENGLISH UNITS	WATER LEVELS	ELEVATION (FT)	BLOWS/6"
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**CONTINUED ON NEXT PAGE.**

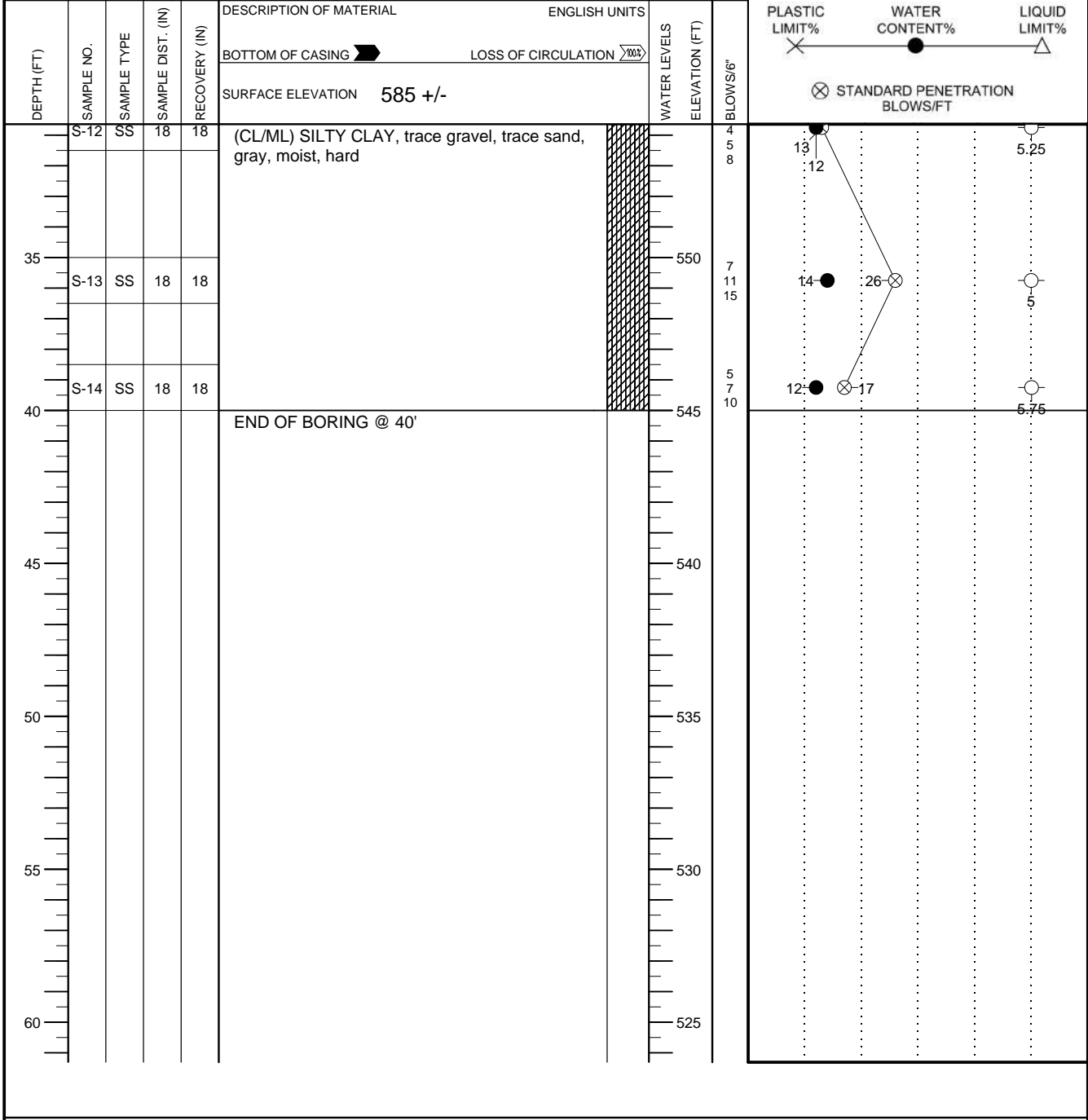
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 4	WS <input checked="" type="checkbox"/>	WD <input type="checkbox"/>	BORING STARTED <b>07/17/18</b>	CAVE IN DEPTH
WL(SHW)	WL(ACR)		BORING COMPLETED <b>07/17/18</b>	HAMMER TYPE <b>Auto</b>
WL			RIG <b>Truck</b> FOREMAN <b>Jason</b>	DRILLING METHOD <b>HSA</b>

CLIENT <b>SmithGroup JJR</b>	Job #: <b>16:12464</b>	BORING # <b>B-2</b>	SHEET <b>2 OF 2</b>	
PROJECT NAME <b>Park Avenue Beach</b>	ARCHITECT-ENGINEER			

SITE LOCATION  
**31 Park Avenue, Highland Park, Cook, IL**

NORTHING	EASTING	STATION
----------	---------	---------



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL 4	WS <input checked="" type="checkbox"/> WD <input type="checkbox"/>	BORING STARTED	07/17/18	CAVE IN DEPTH
WL(SHW)	WL(ACR)	BORING COMPLETED	07/17/18	HAMMER TYPE Auto
WL		RIG Truck	FOREMAN Jason	DRILLING METHOD HSA



# REFERENCE NOTES FOR BORING LOGS

MATERIAL <sup>1,2</sup>	
	<b>ASPHALT</b>
	<b>CONCRETE</b>
	<b>GRAVEL</b>
	<b>TOPSOIL</b>
	<b>VOID</b>
	<b>BRICK</b>
	<b>AGGREGATE BASE COURSE</b>
	<b>FILL<sup>3</sup> MAN-PLACED SOILS</b>
	<b>GW WELL-GRADED GRAVEL</b> gravel-sand mixtures, little or no fines
	<b>GP POORLY-GRADED GRAVEL</b> gravel-sand mixtures, little or no fines
	<b>GM SILTY GRAVEL</b> gravel-sand-silt mixtures
	<b>GC CLAYEY GRAVEL</b> gravel-sand-clay mixtures
	<b>SW WELL-GRADED SAND</b> gravelly sand, little or no fines
	<b>SP POORLY-GRADED SAND</b> gravelly sand, little or no fines
	<b>SM SILTY SAND</b> sand-silt mixtures
	<b>SC CLAYEY SAND</b> sand-clay mixtures
	<b>ML SILT</b> non-plastic to medium plasticity
	<b>MH ELASTIC SILT</b> high plasticity
	<b>CL LEAN CLAY</b> low to medium plasticity
	<b>CH FAT CLAY</b> high plasticity
	<b>OL ORGANIC SILT or CLAY</b> non-plastic to low plasticity
	<b>OH ORGANIC SILT or CLAY</b> high plasticity
	<b>PT PEAT</b> highly organic soils

DRILLING SAMPLING SYMBOLS & ABBREVIATIONS			
SS	Split Spoon Sampler	PM	Pressuremeter Test
ST	Shelby Tube Sampler	RD	Rock Bit Drilling
WS	Wash Sample	RC	Rock Core, NX, BX, AX
BS	Bulk Sample of Cuttings	REC	Rock Sample Recovery %
PA	Power Auger (no sample)	RQD	Rock Quality Designation %
HSA	Hollow Stem Auger		

PARTICLE SIZE IDENTIFICATION	
DESIGNATION	PARTICLE SIZES
Boulders	12 inches (300 mm) or larger
Cobbles	3 inches to 12 inches (75 mm to 300 mm)
Gravel: Coarse	¾ inch to 3 inches (19 mm to 75 mm)
Gravel: Fine	4.75 mm to 19 mm (No. 4 sieve to ¾ inch)
Sand: Coarse	2.00 mm to 4.75 mm (No. 10 to No. 4 sieve)
Sand: Medium	0.425 mm to 2.00 mm (No. 40 to No. 10 sieve)
Sand: Fine	0.074 mm to 0.425 mm (No. 200 to No. 40 sieve)
Silt & Clay ("Fines")	<0.074 mm (smaller than a No. 200 sieve)

COHESIVE SILTS & CLAYS		
UNCONFINED COMPRESSIVE STRENGTH, $Q_p$ <sup>4</sup>	SPT <sup>5</sup> (BPF)	CONSISTENCY <sup>7</sup> (COHESIVE)
<0.25	<3	Very Soft
0.25 - <0.50	3 - 4	Soft
0.50 - <1.00	5 - 8	Firm
1.00 - <2.00	9 - 15	Stiff
2.00 - <4.00	16 - 30	Very Stiff
4.00 - 8.00	31 - 50	Hard
>8.00	>50	Very Hard

RELATIVE AMOUNT <sup>7</sup>	COARSE GRAINED (%) <sup>8</sup>	FINE GRAINED (%) <sup>8</sup>
Trace	≤5	≤5
Dual Symbol (ex: SW-SM)	10	10
With	15 - 20	15 - 25
Adjective (ex: "Silty")	≥25	≥30

GRAVELS, SANDS & NON-COHESIVE SILTS	
SPT <sup>5</sup>	DENSITY
<5	Very Loose
5 - 10	Loose
11 - 30	Medium Dense
31 - 50	Dense
>50	Very Dense

WATER LEVELS <sup>6</sup>		
	WL	Water Level (WS)(WD) (WS) While Sampling (WD) While Drilling
	SHW	Seasonal High WT
	ACR	After Casing Removal
	SWT	Stabilized Water Table
	DCI	Dry Cave-In
	WCI	Wet Cave-In

<sup>1</sup>Classifications and symbols per ASTM D 2488-09 (Visual-Manual Procedure) unless noted otherwise.

<sup>2</sup>To be consistent with general practice, "POORLY GRADED" has been removed from GP, GP-GM, GP-GC, SP, SP-SM, SP-SC soil types on the boring logs.

<sup>3</sup>Non-ASTM designations are included in soil descriptions and symbols along with ASTM symbol [Ex: (SM-FILL)].

<sup>4</sup>Typically estimated via pocket penetrometer or Torvane shear test and expressed in tons per square foot (tsf).

<sup>5</sup>Standard Penetration Test (SPT) refers to the number of hammer blows (blow count) of a 140 lb. hammer falling 30 inches on a 2 inch OD split spoon sampler required to drive the sampler 12 inches (ASTM D 1586). "N-value" is another term for "blow count" and is expressed in blows per foot (bpf).

<sup>6</sup>The water levels are those levels actually measured in the borehole at the times indicated by the symbol. The measurements are relatively reliable when augering, without adding fluids, in granular soils. In clay and cohesive silts, the determination of water levels may require several days for the water level to stabilize. In such cases, additional methods of measurement are generally employed.

<sup>7</sup>Minor deviation from ASTM D 2488-09 Note 16.

<sup>8</sup>Percentages are estimated to the nearest 5% per ASTM D 2488-09.

## Park Avenue Beach – Soil Properties Table

ECS Project Number 16:12464

July 30, 2018

Depth Range	Color	Consistency	Soil Description	Depth Range (Elevation)	Soil Description	In-situ Unit Weight (pcf)	Undrained		Drained		Active Earth Pressure Coefficient (Ka)	Passive Earth Pressure Coefficient (Kp)	At Rest Earth Pressure Coefficient (Ko)	Subgrade Modulus, K (pci)	E50	Friction Factor $\mu$ (Sheet Pile to Soil Strata)
							Cohesion (psf)	Friction	Cohesion	Friction Angle						
0-5	Brown and Gray	FILL	Fractured Limestone w/ Sand	585-580 (0-5)	FILL Brown and Gray Sand with Gravel	111	-	26	0	26	0.39	2.56	0.56	60	N/A	0.4
5-15	Brown and Gray	Medium Dense	Sand	580-570 (5-15)	Brown and Gray Medium Dense Sand	111	-	29.5	0	29.5	0.34	2.94	0.51	60	N/A	0.3
15-18	Gray	Medium Dense	Silt	570-567 (15-18)	Gray Medium Dense Silt	112	-	27.5	0	27.5	0.37	2.71	0.54	60	N/A	0.25
18-40	Gray	Very Stiff to Hard	Clay	567-545 (18-40)	Gray Very Stiff to Hard Clay	137	3,650	0	125	26	0.39	2.56	0.56	1,820	0.005	Adhesion, Ca = 1,100 psf/ft



# Memorandum

**To:** Finance Committee  
**From:** Jeff Smith Asst. Director of Parks, Properties & Planning,  
Liza McElroy Executive Director, & Annette Curtis Director of Finance & IT  
**Date:** October 9, 2018  
**Subject:** 2019 Replacement Capital, 5yr Replacement Capital Planning

---

On September 27, 2018, the Finance Committee reviewed the repair and replacement needs related to the District's parks and facilities. In addition to 2019's budget, future needs 2020-2024 were discussed.

Capital planning is a district-wide effort. Planning, Parks and Facility Managers come together to discuss the future needs of parks and facilities. Replacement schedules and general maintenance records are reviewed and included in the Replacement Capital Plan to ensure the Districts' assets are maintained at a high-quality level. New initiatives are included to provide additional amenities for the community.

Attached for review:

- [Draft Five Year Capital Replacement- Detail](#)

To provide a comprehensive look at capital, GreenPrint 2024 initiatives have been added at the end of the report.

Description	2018	2018 projected		2019	2020	2021	2022	2023	2024	Total
Park District of Highland Park										
DRAFT FIVE YEAR CAPITAL REPLACEMENT-DETAIL										
Fiscal Years Ending December 31, 2019-2024										
Revised 10/1/2018										
		<i>DRAFT</i>		<i>DRAFT</i>	<i>DRAFT</i>	<i>DRAFT</i>	<i>DRAFT</i>	<i>DRAFT</i>	<i>DRAFT</i>	

Description	2018	2018 projected		2019	2020	2021	2022	2023	2024	Total
<b>District Wide/Annual</b>		<i>year end</i>								
District Wide Master Plan/Project Planning	50,000	13,195		0	50,000	50,000	50,000	50,000	50,000	250,000
ADA Transition Plan	0	0		50,000	13,500	50,000	50,000	50,000	50,000	263,500
Asphalt Allowance	0	0		0	200,000	200,000	200,000	200,000	200,000	1,000,000
Emerald Ash Borer Removal/General Tree Removal	50,000	50,000		75,000	30,000	30,000	30,000	30,000	30,000	225,000
District Wide Park Sign Replacement	75,000	55,000		40,000	40,000	40,000	40,000	40,000	40,000	240,000
Storm Water Management Improvements	50,000	50,000		100,000	100,000	75,000	75,000	75,000	75,000	500,000
District Wide Pond Survey	20,000	0								0
Park Avenue Dredging	32,250	33,119								
Park Shelter Roof Replacements	20,000	20,000				15,000			15,000	30,000
District Wide Bridge Inspection				10,000		10,000		10,000		30,000
District Wide Athletics Light Automation and Replacement							1,000,000			1,000,000
<b>Total District Wide</b>	<b>297,250</b>	<b>221,314</b>		<b>275,000</b>	<b>433,500</b>	<b>470,000</b>	<b>1,445,000</b>	<b>455,000</b>	<b>460,000</b>	<b>3,538,500</b>
<b>Technology</b>										
PCI Compliance Penetration & Audit Testing				11,000	11,000	11,000	11,000	11,000	11,000	66,000
PCI Compliance Equipment	4,000	0								0
Technology Infrastructure Project	10,000	28,062								0
Payroll System Replacement	75,000	0								0
Security Cameras	20,000	127,570		0	0					0
Security Enhancement - Fobs	95,000	73,904		0	0	20,000	20,000			40,000
<b>Total Technology</b>	<b>204,000</b>	<b>229,536</b>		<b>11,000</b>	<b>11,000</b>	<b>31,000</b>	<b>31,000</b>	<b>11,000</b>	<b>11,000</b>	<b>106,000</b>
<b>Parks-Equipment</b>										
Trailer Lg Equipment-706	0	13,116								0
Light Duty Truck w/lift-874	35,220	35,220								0
4 x 4 Pickup w/plow 859	39,484	39,484								0
Tractor-839	60,000	60,000								0
2008 Ford F-150 w/lift-864	24,000	24,000								0
Light Duty Truck-834 Escape	22,000	22,000								0
2.5 Ton Dump Truck 835	95,000	95,000								0
Natural Areas Utility Vehicle	12,000	10,732								0
2008 Ford F-150-108	30,000	30,000								0
Medium Duty Truck-Refuse-855				40,000						40,000
Cargo Van-104				32,000						32,000
John Deere Backhoe-857				100,000						100,000
Light Duty Truck w/lift-840				24,000						24,000
Zero Turn Mower392				15,000						15,000
Zero Turn Mower 393				15,000						15,000
Zero Turn Mower 394				15,000						15,000
Zero Turn Mower (propane) 395				15,000						15,000
Zero Turn Mower (propane) 396				15,000						15,000
Kubota F2680E Mower 397				15,000						15,000
Large Area Mower-901					90,000					90,000
4 x 4 Pickup w/plow 123					40,000					40,000
4x4 ext. Cab w/ lift & plow 124					40,000					40,000
Ball Field Groomer 390					15,000					15,000
Ball Field Groomer 391					15,000					15,000
Service Body Truck -820					35,000					35,000
Utility Vehicle (Kubota) 890						12,000				12,000



Park District of Highland Park  
DRAFT FIVE YEAR CAPITAL REPLACEMENT-DETAIL  
Fiscal Years Ending December 31, 2019-2024  
Revised 10/1/2018

DRAFT                      DRAFT                      DRAFT                      DRAFT                      DRAFT                      DRAFT

Description	2018	2018 projected		2019	2020	2021	2022	2023	2024	Total
Tennis Court Patch/Color/Stripe	152,000	45,000								0
Disk Golf Goals	0	4,500								0
Basketball Court Grind/Overlay/Color/Stripe				23,000						23,000
Asphalt Allowance - Entrance Drive Section 1				40,000						
Tennis Court Grind/Overlay/Color/Stripe									225,000	225,000
Playground Replacement									700,000	700,000
<b>Total L. Fink Park</b>	<b>152,000</b>	<b>49,500</b>		<b>63,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>925,000</b>	<b>948,000</b>
<b>Lincoln Park</b>										
Basketball Court Patch/Color/Stripe				5,000						5,000
Playground Replacement							200,000			200,000
<b>Total Lincoln Park</b>	<b>0</b>	<b>0</b>		<b>5,000</b>	<b>0</b>	<b>0</b>	<b>200,000</b>	<b>0</b>	<b>0</b>	<b>205,000</b>
<b>Moraine Park</b>										
Repair Retaining Walls/Beach Walk (Construction)	390,000	0		390,000						390,000
Feailbilty Study	17,500	0		17,000						17,000
Replace Wooden Stairs				100,000						100,000
Ravine Restoration						375,000				375,000
<b>Total Moraine Park</b>	<b>407,500</b>	<b>0</b>		<b>507,000</b>	<b>0</b>	<b>375,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>882,000</b>

Park District of Highland Park  
 DRAFT FIVE YEAR CAPITAL REPLACEMENT-DETAIL  
 Fiscal Years Ending December 31, 2019-2024  
 Revised 10/1/2018

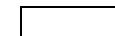
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Description	2018	2018 projected		2019	2020	2021	2022	2023	2024	Total
<b>Mooney Park</b>										
Basketball Court Grind/Overlay/Color/Stripe				23,000						23,000
<b>Total Mooney Park</b>	<u>0</u>	<u>0</u>		<u>23,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>23,000</u>
<b>Moroney Park</b>										
Playground Replacement						250,000				250,000
<b>Total Moroney Park</b>	<u>0</u>	<u>0</u>		<u>0</u>	<u>0</u>	<u>250,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>250,000</u>
<b>Old Elm Park</b>										
Tennis Court Grind/Overlay/Color/Stripe	60,000	50,355								0
Tennis Court Fence Replacement	40,000	33,900								0
Basketball Court Grind/Overlay/Color/Stripe	15,000	17,000								0
Playground Replacement								400,000		400,000
Basketball Court Patch/Color/Stripe									5,000	5,000
Tennis Court Patch/Color/Stripe									25,000	25,000
<b>Total Old Elm Park</b>	<u>115,000</u>	<u>101,255</u>		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>400,000</u>	<u>30,000</u>	<u>430,000</u>
<b>Port Clinton Park</b>										
Playground Replacement						350,000				350,000
<b>Total Port Clinton Park</b>	<u>0</u>	<u>0</u>		<u>0</u>	<u>0</u>	<u>350,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>350,000</u>

Park District of Highland Park  
DRAFT FIVE YEAR CAPITAL REPLACEMENT-DETAIL  
Fiscal Years Ending December 31, 2019-2024  
Revised 10/1/2018

DRAFT                      DRAFT                      DRAFT                      DRAFT                      DRAFT                      DRAFT

Description	2018	2018 projected		2019	2020	2021	2022	2023	2024	Total
<b>R. D. Deutsch Park</b>										
Playground & Patio Replacement					300,000					300,000
<b>Total R. Deutsch Park</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>300,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>300,000</b>
<b>Rosewood Beach</b>										
Beach Monitoring/Replenishment	52,090	37,590		83,050	50,000			200,000		333,050
Replace Sewer Line	25,500	25,500								0
Ravine Repairs	100,000	0								0
<b>Total Rosewood Beach</b>	<b>177,590</b>	<b>63,090</b>		<b>83,050</b>	<b>50,000</b>	<b>0</b>	<b>0</b>	<b>200,000</b>	<b>0</b>	<b>333,050</b>
<b>Rosewood Park</b>										
Bluff Staircase Rebuild	350,000	0		200,000						200,000
Ravine Path Drainage Improvments				250,000						250,000
Playground Replacement								300,000		300,000
<b>Total Rosewood Park</b>	<b>350,000</b>	<b>0</b>		<b>450,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>300,000</b>	<b>0</b>	<b>750,000</b>
<b>Skokie River Woods</b>										
North-South Trail Development	300,000	38,000		262,000						262,000
<b>Total Skokie River Woods</b>	<b>300,000</b>	<b>38,000</b>		<b>262,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>262,000</b>
<b>Sunset Woods Park</b>										
Athletic Lights Survey	22,000	25,000								0
Playground Replacement					850,000					850,000
Basketball Court Grind/Overlay/Color/Stripe					23,000					23,000
Tennis Court Patch/Color/Stripe					50,000					50,000
ADA Path Improvements -- Tennis Access and Curb Cut					31,000					31,000
Skate Park Component Replacement							80,000			80,000
<b>Total Sunset Woods Park</b>	<b>22,000</b>	<b>25,000</b>		<b>0</b>	<b>954,000</b>	<b>0</b>	<b>80,000</b>	<b>0</b>	<b>0</b>	<b>1,034,000</b>
<b>West Ridge Park</b>										
Athletic Lights Replacement	200,000	0								0
Basketball Court Patch/Color/Stripe				5,000						5,000
<b>Total West Ridge Park</b>	<b>200,000</b>	<b>0</b>		<b>5,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,000</b>
<b>Woodridge Park</b>										
Basketball Court Patch/Color/Stripe	15,000	7,000								0
Tennis Court Patch/Color/Stripe				25,000						25,000
Basketball Court Grind/Overlay/Color/Stripe								30,000		30,000
<b>Total Woodridge Park</b>	<b>15,000</b>	<b>7,000</b>		<b>25,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30,000</b>	<b>0</b>	<b>55,000</b>
<b>Total Parks</b>	<b>2,637,794</b>	<b>1,104,635</b>		<b>2,321,450</b>	<b>1,554,000</b>	<b>1,059,000</b>	<b>515,000</b>	<b>1,124,000</b>	<b>1,621,500</b>	<b>8,154,950</b>
<b>Totals-District Wide, Technology and Parks</b>	<b>3,139,044</b>	<b>1,555,485</b>		<b>2,607,450</b>	<b>1,998,500</b>	<b>1,560,000</b>	<b>1,991,000</b>	<b>1,590,000</b>	<b>2,092,500</b>	<b>11,799,450</b>
<b>FACILITIES</b>										
<b>Centennial</b>										
Water Heater Replacement					35,000					35,000
Mechanical Duct Room Sealing					20,000					20,000
Rooftop Heating Unit Replacement					50,000					50,000
ADA Improvements -- Railing, Restrooms, Ice Ramp	5,500	0			5,500					5,500
Flooring					75,000					75,000
Security Enhancements - Fobs					60,000					60,000



Park District of Highland Park  
DRAFT FIVE YEAR CAPITAL REPLACEMENT-DETAIL  
Fiscal Years Ending December 31, 2019-2024  
Revised 10/1/2018

DRAFT                      DRAFT                      DRAFT                      DRAFT                      DRAFT                      DRAFT

Description	2018	2018 projected		2019	2020	2021	2022	2023	2024	Total
Compressor Replacement					1,500,000					1,500,000
Security Cameras					60,000					60,000
Roof Replacement								400,000		400,000
<b>Total Centennial</b>	<b>5,500</b>	<b>0</b>		<b>0</b>	<b>1,805,500</b>	<b>0</b>	<b>0</b>	<b>400,000</b>	<b>0</b>	<b>2,205,500</b>
<b>Deer Creek Racquet Club</b>										
Painting of Ceiling in Courts				20,000						20,000
Roof Replacement					350,000					350,000
Tennis Court Resurfacing					150,000					150,000
Racquetball Court Conversion Planning					40,000					40,000
Racquetball Court Conversion						285,000				285,000
Men's & Women's Locker Room Renovation						75,000				75,000
Court Sweeper									12,000	12,000
Court Scrubber									12,000	12,000
<b>Total Deer Creek Racquet Club</b>	<b>0</b>	<b>0</b>		<b>20,000</b>	<b>540,000</b>	<b>360,000</b>	<b>0</b>	<b>0</b>	<b>24,000</b>	<b>944,000</b>
<b>Golf Learning Center</b>										
Pump Replacement	25,000	21,160								0
Lighting Repair	50,000	9,160								0
Replace Hitting Station Mats	19,000	14,722								0
Mini Golf Carpet Replacement						20,000				20,000
Canopy						85,000				85,000
Sign Replacement (50% of Cost)						24,000				24,000
<b>Total Golf Learning Center</b>	<b>94,000</b>	<b>45,042</b>		<b>0</b>	<b>0</b>	<b>129,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>129,000</b>
<b>Heller Nature Center</b>										
Teams Course Additions	20,000	20,000								0
Lobby Exhibit Repairs and Improvements	45,000	16,000		65,000						65,000
ADA Teams Course Improvments	50,000	32,100								0
Compound Fence/Gate Replacement				13,000						13,000
John Deere Tractor/Loader/Mower				23,000						23,000
2007 Kubota RTV 900 4x4						12,000				12,000
Front Sidewalk Replacement w/ Curb						22,000				22,000
<b>Total Heller Nature Center</b>	<b>115,000</b>	<b>68,100</b>		<b>101,000</b>	<b>0</b>	<b>34,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>135,000</b>
<b>Hidden Creek</b>										
Splash Pad Repairs	0	20,739								0
Pool Shell Painting	51,000	40,550								0
ADA Parking Lot Improvements	30,000	26,940								0
Asphalt Allowance - Parking Lot (East Side)	82,000	72,100								0
Asphalt Allowance - Parking Lot (West Side)	68,000	63,000								0
Asphalt Allowance - Roadway to POGO	70,000	0								0
Water Heater Replacement	25,000	20,159								0
Filter Sand Replacement	40,000	0		425,000						425,000
Body Slide Pump Rebuild				11,500						11,500
Speed Slide Pump				11,500						11,500
Bath House Roof Replacement				40,000						40,000
Filter House Roof Replacement				25,000						25,000
Feature Pump				11,500						11,500
Children's Slide Resurfacing					9,000					9,000
Speed Slide Resurfacing					28,000					28,000



Park District of Highland Park  
**DRAFT FIVE YEAR CAPITAL REPLACEMENT-DETAIL**  
 Fiscal Years Ending December 31, 2019-2024  
 Revised 10/1/2018

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Description	2018	2018 projected		2019	2020	2021	2022	2023	2024	Total
Fairway Mower 1	52,000	51,633								0
Rough Mower	64,000	60,531								0
Greens Roller	22,000	19,695								0
Slit Seeder	15,000	14,093								0
Fairway Mower 2	52,000	51,633								0
Half-Way House Improvements	100,000	80,009								0
Fairway Machine 2				52,000						52,000
Erosion Control				75,000	75,000					150,000
Fescue Mower				42,000						42,000
Heavy Duty Workman 1				28,500						28,500
Heavy Duty Workman 2					22,500					22,500
ProCore 648 Aerifier						40,000				40,000
Triflex Greens Mower 1							40,000			40,000
Triflex Greens Mower 2							40,000			40,000
Tractor 1							35,000			35,000
Triflex Tee Mower								40,000		40,000
Greens Bank Mower 1									45,000	45,000
Greens and Tees Topdresser									37,500	37,500
<b>Total SVGC</b>	<b>413,257</b>	<b>481,201</b>		<b>288,322</b>	<b>188,322</b>	<b>123,015</b>	<b>187,085</b>	<b>115,000</b>	<b>157,500</b>	<b>1,059,244</b>

Park District of Highland Park  
**DRAFT FIVE YEAR CAPITAL REPLACEMENT-DETAIL**  
 Fiscal Years Ending December 31, 2019-2024  
 Revised 10/1/2018

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Description	2018	2018 projected		2019	2020	2021	2022	2023	2024	Total
<b>West Ridge Center</b>										
Facility Maintenance Fund	75,000	17,000		75,000	25,000	25,000	25,000	25,000	25,000	200,000
Furniture and Fixtures for Preschool, Board and MPR Rooms	20,000	20,000								0
HVAC/Furance Replacements	40,000	47,825		32,175	10,000	10,000	10,000	10,000		72,175
Safety Village Asphalt Repairs (asphalt and fencing)		13,420								0
Gym Area Asphalt Grind/Overlay		6,250								0
Security Enhancements - Entrance Security				70,000						70,000
Facility Improvements Master Planning				50,000						50,000
Facility Improvements					250,000	250,000	250,000	250,000		1,000,000
Roof Replacement						375,000				375,000
Dodge Caravan 105							25,000			25,000
Dodge Caravan 106							25,000			25,000
<b>Total West Ridge Center</b>	<b>135,000</b>	<b>104,495</b>		<b>227,175</b>	<b>285,000</b>	<b>660,000</b>	<b>335,000</b>	<b>285,000</b>	<b>25,000</b>	<b>1,817,175</b>
<b>Total Facilities</b>	<b>1,583,757</b>	<b>1,090,002</b>		<b>1,720,797</b>	<b>3,272,822</b>	<b>1,753,515</b>	<b>1,090,085</b>	<b>524,000</b>	<b>556,500</b>	<b>9,292,719</b>
<b>5 Year Captial Grand Totals</b>	<b>4,722,801</b>	<b>2,645,487</b>		<b>4,328,247</b>	<b>5,271,322</b>	<b>3,313,515</b>	<b>3,081,085</b>	<b>2,114,000</b>	<b>2,649,000</b>	<b>21,092,169</b>

<b>GreenPrint 2024 Projects</b>										
<b>Track One</b>										
RCHP Final payment	0	75,957								
SV Course	453,607	453,607								
SV Club House/cartbarn	2,129,575	2,129,575								
Maintenance Facility	1,051,613	1,051,613								
Centennial ICE Lobby & Gymnastics					3,172,000					
<b>Total Track One</b>	<b>3,634,795</b>	<b>3,710,752</b>		<b>-</b>	<b>3,172,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,172,000</b>
<b>Track Two</b>										
Purchase HPCC	500,000	500,010								
HPCC Conversion	220,000	220,000		1,070,000	100,000	100,000	100,000			
<b>Total Track Two</b>	<b>720,000</b>	<b>720,010</b>		<b>1,070,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>-</b>	<b>-</b>	<b>1,370,000</b>
<b>GreenPrint 2024 Grand Totals</b>	<b>4,354,795</b>	<b>4,430,762</b>		<b>1,070,000</b>	<b>3,272,000</b>	<b>100,000</b>	<b>100,000</b>	<b>-</b>	<b>-</b>	<b>4,542,000</b>

<b>5 Year Capital and GreenPrint Totals</b>	<b>9,077,596</b>	<b>7,076,249</b>	<b>-</b>	<b>5,398,247</b>	<b>8,543,322</b>	<b>3,413,515</b>	<b>3,181,085</b>	<b>2,114,000</b>	<b>2,649,000</b>	<b>25,634,169</b>
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**ADDITIONAL UNBUDGETED ITEMS**

Park Ave Barge Repair/Replacement  
 RCHP/HPCC Shared Capital Repairs  
 GreenPrint 2024 Track One Sunset Woods  
 Deer Creek Courts - Skyjack Lift  
 HCAP Kitchen Improvements  
 Lakefront Master Plan Update Improvements  
 Millard-Open Ravine, Stablization- w/Grant  
 Moroney Park Redevelopment  
 Park Gates

POGO Pole Barn Painting and Repairs  
 Rec Center Blinds Replacement  
 Rec. Center Track Resurfacing  
 Rosewood Pond Restoration  
 Rosewood Solar Entrance Lights  
 SVGC Short Game Area  
 Synthetic Field Groomer/equipment  
 WRC Jammin Jungle Improvments

Note: This plan is for internal purposes only. It is not yet board approved.



To: Board of Park Commissioners

From: Karen Lakoske - Accounts Payable Administrator  
Annette Curtis - Finance Director  
Liza McElroy - Executive Director

Date: October 9, 2018

Subject: Bills presented for the Board's review on October 9, 2018.  
Checks written September 21, 2018 through October 4, 2018.

**BILLS**

<b><u>DATE</u></b>	<b><u>AMOUNT</u></b>
September 25, 2018	\$ 4,050.90
October 4, 2018	\$ 564,369.19
Void Payments	\$ (6,611.90)
Bank Drafts	\$ 59,671.20
P-Card	\$ 298,051.28
<b>TOTAL</b>	<b>\$ 919,530.67</b>

**PAYROLL DISBURSEMENTS**

**TOTAL**

**GRAND TOTAL**



Park District of Highland Park, IL

# Check Register

Packet: APPKT01741 - 09252018 3

By Check Number

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Bank Code: AP-AP BANK						
17484	OPEN KITCHENS INC	09/25/2018	Regular	0.00	4,050.90	182281
04043 091218	Invoice	08/22/2018	097 08/17/18 Event	0.00	4,050.90	

**Bank Code AP Summary**

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	1	1	0.00	4,050.90
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	<b>1</b>	<b>1</b>	<b>0.00</b>	<b>4,050.90</b>



Park District of Highland Park, IL

# Check Register

Packet: APPKT01753 - 20181004 4

By Check Number

Vendor Number Payable #	Vendor DBA Name Payable Type	Payment Date Payable Date	Payment Type Payable Description	Discount Amount Discount Amount	Payment Amount Payable Amount	Number
<b>Bank Code: AP-AP BANK</b>						
10006 <u>092118</u>	3301-NCBERS - IL IMRF Invoice	10/04/2018 09/21/2018	Regular NCPERS Group Life Insurance	0.00 0.00	32.00 32.00	182282
15147 <u>228555</u>	ABC PRINTING COMPANY invoice	10/04/2018 09/18/2018	Regular 29-42 13 Ninety Restaurant Sign 81/2x14	0.00 0.00	33.02 33.02	182283
17048 <u>615089</u>	AMY GREGOR invoice	10/04/2018 10/01/2018	Regular Refund	0.00 0.00	12.40 12.40	182284
10149 <u>65398</u>	ANCEL, GLINK, DIAMOND, BUSH, Invoice	10/04/2018 08/08/2018	Regular Professional fees thru 07/31/18	0.00 0.00	6,290.16 6,290.16	182285
10149 <u>66002</u>	ANCEL, GLINK, DIAMOND, BUSH, Invoice	10/04/2018 09/12/2018	Regular Professional fees thru August 31, 2018	0.00 0.00	2,934.34 2,934.34	182286
17542 <u>608833</u>	AVA MARKOUTSAS Invoice	10/04/2018 09/24/2018	Regular Refund	0.00 0.00	10.40 10.40	182287
17547 <u>611724</u>	BETTY COVICI Invoice	10/04/2018 09/27/2018	Regular Refund	0.00 0.00	64.55 64.55	182288
10420 <u>7033291</u>	CENTERPOINT ENERGY SERVICES, IN Invoice	10/04/2018 09/27/2018	Regular 08/01/18-08/31/18	0.00 0.00	4,629.82 4,629.82	182289
16853 <u>614758</u>	CITY OF HIGHLAND PARK Invoice	10/04/2018 10/01/2018	Regular Refund	0.00 0.00	50.00 50.00	182290
17558 <u>100318</u>	COLIN LOUGHLIN Invoice	10/04/2018 10/03/2018	Regular Learn to skate membership reimbursed	0.00 0.00	19.25 19.25	182291
10537 <u>1814767015 092</u> <u>7261044014 092</u>	COMED Invoice Invoice	10/04/2018 09/20/2018 09/21/2018	Regular Egandale Sec Light at Boat Beach, Cuniff 8 1240 Fredrickson 08/22/18-09/21/18	0.00 0.00 0.00	1,186.63 210.73 975.90	182292
16142 <u>12795781801</u> <u>12795781801 09</u>	CONSTELLATION NEWENERGY INC Invoice Invoice	10/04/2018 09/20/2018 09/20/2018	Regular August-September 2018 July-August 2018	0.00 0.00 0.00	25,922.42 11,232.29 14,690.13	182293
17551 <u>615082</u>	DEIDRA GOLD Invoice	10/04/2018 10/01/2018	Regular Refund	0.00 0.00	50.24 50.24	182294
15576 <u>608836</u>	DOROTA WANDYCZ Invoice	10/04/2018 09/24/2018	Regular Refund	0.00 0.00	32.00 32.00	182295
10803 <u>092018</u>	ELK GROVE PARK DISTRICT Invoice	10/04/2018 09/20/2018	Regular 3 Registration fees - 2019 MSBL Baseball	0.00 0.00	1,800.00 1,800.00	182296
16328 <u>00020 060118</u> <u>00023 070218</u>	EXCEL AERIAL IMAGES, LLC Invoice Invoice	10/04/2018 06/01/2018 07/02/2018	Regular 01-22 SVGC Drone video 01-13, 01-22 Video capture, Drone still ph	0.00 0.00 0.00	514.00 139.00 375.00	182297
16915 <u>100218</u>	FALCONS HOCKEY ASSOCIATION Invoice	10/04/2018 10/02/2018	Regular Fall 2018 Hockey classes	0.00 0.00	3,372.20 3,372.20	182298
10878 <u>PDHPIPRO90118-</u>	FERRET BACKGROUND CHECK Invoice	10/04/2018 09/01/2018	Regular 01-11 Applicant profiles 08/01/18-08/31/	0.00 0.00	26.95 26.95	182299
10887	FIRST STUDENT, INC.	10/04/2018	Regular	0.00	15,250.95	182300

Check Register

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Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
<u>11503005</u>	Invoice	09/03/2018	August 2018 Transportation service	0.00	15,250.95	
10954	MAGIC OF GARY KANTOR	10/04/2018	Regular	0.00	81.90	182301
<u>100418</u>	Invoice	10/04/2018	557 10/02/18 class fee	0.00	81.90	
10974	GEWALT HAMILTON ASSOCIATES, IN	10/04/2018	Regular	0.00	8,578.25	182302
<u>5430.100.1G</u>	Invoice	09/11/2018	70-11 PDHP Danny Cunniff Tennis Design	0.00	8,578.25	
17541	GOVTEMPS USA, LLC	10/04/2018	Regular	0.00	3,727.50	182303
<u>2615997</u>	Invoice	09/13/2018	01-11 09/02/18-09/09/18	0.00	3,727.50	
17427	GREEN SOURCE, INC	10/04/2018	Regular	0.00	5,368.00	182304
<u>1734</u>	Invoice	09/12/2018	29-41 Sod	0.00	2,300.00	
<u>1751</u>	Invoice	09/25/2018	29-41 Sod	0.00	3,068.00	
15888	HEARTLAND BUSINESS SYSTEMS LLC	10/04/2018	Regular	0.00	21,874.60	182305
<u>263786-H</u>	Invoice	05/25/2018	Palo Alto Firewall,Deer Creek Switch,Fiber	0.00	3,303.75	
<u>HBS00536336 10</u>	Invoice	10/28/2016	2016 infrastructure project balance due	0.00	18,570.85	
17556	HEY AND ASSOCIATES, INC	10/04/2018	Regular	0.00	31,360.00	182306
<u>18-0054-9062</u>	Invoice	08/28/2018	70-11 HPCC Planning	0.00	19,750.00	
<u>18-0054-9160</u>	Invoice	09/21/2018	70-11 HPCC Planning	0.00	11,610.00	
11049	HIGHLAND PARK GIANTS HOCKEY A'	10/04/2018	Regular	0.00	225.00	182307
<u>092018</u>	Invoice	09/20/2018	29-38 Advertising-Hockey yearbook	0.00	225.00	
17548	JAMES BEHLING	10/04/2018	Regular	0.00	13.87	182308
<u>611726</u>	Invoice	09/27/2018	Refund	0.00	13.87	
17440	JENNI LAKHANI	10/04/2018	Regular	0.00	37.50	182309
<u>611709</u>	Invoice	09/27/2018	Refund	0.00	5.42	
<u>611709-1</u>	Invoice	09/27/2018	Refund	0.00	32.08	
13794	JENSEN'S PLUMBING & HEATING IN	10/04/2018	Regular	0.00	1,981.00	182310
<u>J25963</u>	Invoice	08/31/2018	29-32 Repairs to equipment	0.00	1,981.00	
17557	JIMMY KNOTEK	10/04/2018	Regular	0.00	888.60	182311
<u>100318</u>	Invoice	10/03/2018	145 Athletics stipend for 06/27-07/01	0.00	888.60	
17544	KRISTI METRICK	10/04/2018	Regular	0.00	18.55	182312
<u>608835</u>	Invoice	09/24/2018	Refund	0.00	18.55	
17543	LARRY POWERS	10/04/2018	Regular	0.00	29.00	182313
<u>608834</u>	Invoice	09/24/2018	Refund	0.00	29.00	
11612	LITTLE TOMMY'S PLUMBING	10/04/2018	Regular	0.00	888.00	182314
<u>1022-41033</u>	Invoice	09/06/2018	70-11 4" backwater check valve install	0.00	888.00	
16928	E-QUANTUM CONSULTING, LLC	10/04/2018	Regular	0.00	165.00	182315
<u>4808</u>	Invoice	10/01/2018	01-11 Natural Gas Consulting Services	0.00	165.00	
13604	NORTH SHORE GAS	10/04/2018	Regular	0.00	633.54	182316
<u>0601145072-000</u>	Invoice	09/21/2018	RCHP 08/16/18-09/12/18	0.00	633.54	
11935	NORTH SUBURBAN BASKETBALL LEA	10/04/2018	Regular	0.00	1,980.00	182317
<u>092618</u>	Invoice	09/26/2018	127 Team registration fees	0.00	1,980.00	
11947	NORTHSHORE OMEGA	10/04/2018	Regular	0.00	101.00	182318
<u>091718</u>	Invoice	10/03/2018	29-11 Preplacement evaluation	0.00	101.00	
11959	NSSRA	10/04/2018	Regular	0.00	17,414.14	182319
<u>109</u>	Invoice	09/17/2018	25-11 2018 Member agency capital fund	0.00	17,414.14	
11959	NSSRA	10/04/2018	Regular	0.00	13,174.17	182320
<u>091918</u>	Invoice	09/19/2018	2018 Reduced Fees	0.00	13,174.17	
11959	NSSRA	10/04/2018	Regular	0.00	39,343.39	182321

## Check Register

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Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
<u>108</u>	Invoice	09/17/2018	25-11 2018 Inclusion billing 2nd instalime	0.00	39,343.39	
11998 <u>0918133</u>	PARK DISTRICT RISK MGMT AGCY Invoice	10/04/2018 09/30/2018	Regular Property/Liability/Workers Comp/Emp	0.00	30,537.26	182322
11998 <u>0918033H</u>	PARK DISTRICT RISK MGMT AGCY Invoice	10/04/2018 09/30/2018	Regular Health Invoice	0.00	148,019.62	182323
11998 <u>100118</u>	PARK DISTRICT RISK MGMT AGCY Invoice	10/04/2018 10/01/2018	Regular Health Invoice	0.00	2,040.92	182324
16993 <u>1574221</u>	POLSINELLI PC Invoice	10/04/2018 09/17/2018	Regular Professional Services	0.00	902.00	182325
17546 <u>611722</u>	RAKESH SINGH Invoice	10/04/2018 09/27/2018	Regular Refund	0.00	24.60	182326
17552 <u>092818</u>	RENEE A. BRAINERD Invoice	10/04/2018 09/28/2018	Regular 01-11 Outside contract	0.00	1,575.00	182327
12393 <u>0133603</u>	SMITHGROUP, INC. Invoice	10/04/2018 09/24/2018	Regular Professional services 07/28/18-08/31/18	0.00	1,650.00	182328
17545 <u>610801</u>	STAN FALETSKY Invoice	10/04/2018 09/26/2018	Regular Refund	0.00	60.00	182329
17555 <u>100218</u>	STEVEN KING Invoice	10/04/2018 10/02/2018	Regular 01-11 Payroll Correction	0.00	31,859.54	182330
12489 <u>118288</u>	SUNBURST SPORTSWEAR, INC Invoice	10/04/2018 09/18/2018	Regular 29-24 6 shirts w/ logo	0.00	127.79	182331
13374 <u>091218</u>	TAM TENNIS AND FITNESS COMPLE Invoice	10/04/2018 09/12/2018	Regular 002 League fee	0.00	60.00	182332
16420 <u>615079</u>	TERESA MAK Invoice	10/04/2018 10/01/2018	Regular Refund	0.00	79.20	182333
17549 <u>615066</u>	TERRY CLUTTER Invoice	10/04/2018 10/01/2018	Regular Refund	0.00	5.70	182334
17553 <u>073018</u>	TURFSCIENCE, INC Invoice	10/04/2018 07/30/2018	Regular 29-41 6 Greens brush attachments	0.00	4,337.82	182335
17550 <u>615068</u>	TYLER LANG Invoice	10/04/2018 10/01/2018	Regular Refund	0.00	37.40	182336
12679 <u>684952590</u>	UNITED PARCEL SERVICE Invoice	10/04/2018 08/30/2018	Regular 201 Delivery fee	0.00	62.00	182337
12703 <u>093018</u>	UNITED WAY OF METRO CHICAGO Invoice	10/04/2018 09/30/2018	Regular United Way	0.00	51.00	182338
12732 <u>589 6 R</u>	W.B. OLSON, INC. Invoice	10/04/2018 10/03/2018	Regular 70-11 Sunset Valley Golf Club	0.00	132,618.00	182339
16126 <u>092118</u>	WINGS AND TALONS Invoice	10/04/2018 09/21/2018	Regular 263 09/21/18 Event	0.00	200.00	182340
17554	Yael MORGENSTERN	10/04/2018	Regular	0.00	7.00	182341

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
<u>092418</u>	Invoice	09/24/2018	098 Supplies reimbursed	0.00	7.00	

**Bank Code AP Summary**

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	67	60	0.00	564,369.19
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	<b>67</b>	<b>60</b>	<b>0.00</b>	<b>564,369.19</b>



Park District of Highland Park, IL

# Check Register

Packet: APPKT01739 - 20181025 1

By Check Number

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Bank Code: AP-AP BANK 17484	OPEN KITCHENS INC	09/20/2018	Regular	0.00	-4,550.90	182259

**Bank Code AP Summary**

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	0	0	0.00	0.00
Manual Checks	0	0	0.00	0.00
Voided Checks	0	1	0.00	-4,550.90
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	<b>0</b>	<b>1</b>	<b>0.00</b>	<b>-4,550.90</b>



Park District of Highland Park, IL

# Check Register

Packet: APPKT01744 - 10022018 1

By Check Number

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Bank Code: AP-AP BANK						
16328	EXCEL AERIAL IMAGES, LLC	07/19/2018	Regular	0.00	-514.00	181925

**Bank Code AP Summary**

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	0	0	0.00	0.00
Manual Checks	0	0	0.00	0.00
Voided Checks	0	1	0.00	-514.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	<b>0</b>	<b>1</b>	<b>0.00</b>	<b>-514.00</b>



Park District of Highland Park, IL

# Check Register

Packet: APPKT01747 - 10032018 2

By Check Number

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Bank Code: AP-AP BANK 14827	MOLLY MAID OF SE LAKE & NE COO	08/09/2018	Regular	0.00	-147.00	182000

### Bank Code AP Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	0	0	0.00	0.00
Manual Checks	0	0	0.00	0.00
Voided Checks	0	1	0.00	-147.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	0	1	0.00	-147.00



Park District of Highland Park, IL

# Check Register

Packet: APPKT01748 - 20181003 1

By Check Number

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Bank Code: AP-AP BANK						
10411	CATHY FIORI - PETTY CASH	05/17/2018	Regular	0.00	-1,400.00	181601

**Bank Code AP Summary**

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	0	0	0.00	0.00
Manual Checks	0	0	0.00	0.00
Voided Checks	0	1	0.00	-1,400.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	<b>0</b>	<b>1</b>	<b>0.00</b>	<b>-1,400.00</b>



Park District of Highland Park, IL

# Check Register

Packet: APPKT01752 - 20181004 3

By Check Number

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
<b>Bank Code: PAYROLL-PAYROLL BANK</b>						
10058	AFLAC	10/04/2018	Bank Draft	0.00	1,248.04	DFT0001893
<u>AFLAC 100218</u>	Invoice	10/02/2018	AFLAC 10/02/18	0.00	1,248.04	
11161	ICMA RETIREMENT TRUST #302037	10/04/2018	Bank Draft	0.00	7,152.50	DFT0001894
<u>ICMA 457 10021</u>	Invoice	10/02/2018	Wire Transfer ICMA 457 Deferred Comp	0.00	7,152.50	
12825	ICMA RETIREMENT TRUST #705568	10/04/2018	Bank Draft	0.00	325.00	DFT0001895
<u>ICMA Roth 10021</u>	Invoice	10/02/2018	Wire Transfer ICMA Roth	0.00	325.00	
11177	ILL MUNICIPAL RETIREMENT FUND	10/04/2018	Bank Draft	0.00	50,945.66	DFT0001896
<u>IMRF October 20</u>	Invoice	10/02/2018	IMRF 10/02/18	0.00	50,945.66	

**Bank Code PAYROLL Summary**

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	0	0	0.00	0.00
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	4	4	0.00	59,671.20
EFT's	0	0	0.00	0.00
	<b>4</b>	<b>4</b>	<b>0.00</b>	<b>59,671.20</b>



Park District of Highland Park, IL

# Check Register

Packet: APPKT01743 - 20180925 2

By Check Number

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Bank Code: AP-AP BANK						
10313	BOA P-CARD STATEMENTS	09/25/2018	Bank Draft	0.00	298,051.28	DFT0001887
<u>090718</u>	Invoice	09/07/2018	P-Card with PA	0.00	298,051.28	

**Bank Code AP Summary**

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	0	0	0.00	0.00
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	1	1	0.00	298,051.28
EFT's	0	0	0.00	0.00
	<b>1</b>	<b>1</b>	<b>0.00</b>	<b>298,051.28</b>

P-Card Transactions  
08/08/18 - 09/07/18

Vendor Name	Transaction Count	Amount Total
10-S TENNIS SUPPLY	2	\$887.65
22ND CENTURYMEDIA	1	\$39.00
2XL CORP/CARE-GYMWIPES	1	\$700.00
845 - BRUNSWICK ZONE -	1	\$17.97
AAU MEMBERSHIPS	2	\$76.00
ABC BUSINESS FORMS INC	2	\$141.90
ACCESS INTELLIGENCE	1	\$299.00
ACUSHNET COMPANY	5	\$8,673.69
AED SUPERSTORE	1	\$864.00
ALLEN DISPLAY	1	\$290.34
ALPHA PRIME WIRELESS C	1	\$248.00
AMAZON.COM AMZN.COM/BI	10	\$1,852.23
AMC NORTHBROOK 14 #082	2	\$301.95
AMERICAN GASES CORP	1	\$39.60
AMJ SPECTACULAR EVENTS	1	\$1,050.60
AMZN Mktp US	14	\$1,148.25
AMZN MKTP US AMZN.COM/	7	\$793.95
AMZN Mktp US MT8274422	1	\$71.88
ANDERSON PEST SOLUTION	1	\$350.00
AQUAVISIONS	1	\$230.00
ARTHUR CLESEN - MA	2	\$322.52
AT&T PREMIER EBIL	1	\$1,438.68
ATT BUS PHONE PMT	5	\$2,276.08
AUTOMATIC ICEMAKERS	1	\$300.00
AVALON PETROLEUM	1	\$6,540.17
BARNABYS OF NORTHBROOK	1	\$481.95
BED BATH & BEYOND #651	2	\$741.89
BHFX #10	2	\$95.00
BLS SPAMTITAN	1	\$180.00
BTSI	12	\$29,460.35
BUDGET RENT-A-CAR	1	\$274.69
BULBS.COM INC	2	\$285.81
BURRIS EQUIPMENT CO	4	\$1,281.59
CANTEEN COFFEE78052560	2	\$244.00
CHEMCRAFT INDUSTRIES I	1	\$3,700.50
CHICAGO BANDITS	1	\$200.00
CITY OF HIGHLAND PARK	2	\$15,867.50
CLASSIC BOWL	1	\$290.00
CLAY-KING.COM	1	\$2,230.88
CLIFFORD WALD AND COMP	1	\$671.99
CNN NEWS ST857	1	\$20.61
COMCAST	1	\$11,685.04
COMCAST CHICAGO	1	\$144.85
COMCAST CHICAGO CS 1X	10	\$2,151.24
COMPLIANCE SIGNS COM	1	(\$25.16)
CRAFTWOOD LUMBER & HAR	42	\$990.59
CVS/PHARMACY #04787	4	\$145.41
DD/BR #301361 Q35	1	\$18.89
DD/BR #306048	1	\$37.84
DD/BR #336980	1	\$12.20
DEERFIELD AUTO AND TIR	1	\$366.18

P-Card Transactions  
08/08/18 - 09/07/18

DICK'S CLOTHING&SPORTI	1	\$52.66
DICK'S SPORTING GOODS	4	\$558.55
DIRECT FITNESS SOLUTIO	3	\$932.43
DISPLAYS2GO	3	\$259.31
DK ORGANICS	5	\$1,676.48
DNH GODADDY.COM	1	\$292.72
DOLLAR TREE	3	\$66.69
DOMESTIC UNIFORM IL	1	\$177.00
DOMINO'S 2765	5	\$248.34
DROP ZONE	3	\$810.00
DROPBOX 8TQF4D3X6DXV	1	\$9.99
DTV DIRECTV SERVICE	2	\$452.95
DUNBAR ARMORED	1	\$1,617.14
DURABAK COMPANY	1	\$138.17
ECOLAB INC MF	2	\$764.00
ELEPHANT STOCK	2	\$343.96
ELEPHANT STOCK	2	(\$139.12)
EMPIRE COOLER SERVICE	1	\$150.00
ENCHANTED CASTLE - IL	2	\$366.85
FACEBK KNCLLGS4D2	1	\$658.99
FAUCETDIRECT.COM	1	\$68.19
FISH TECH	3	\$52.38
FOX VALLEY FIRE AND SA	1	\$465.50
FRANKLIN SPORTS	1	\$90.00
FROMUTH TENNIS	1	\$1,095.32
G&O THERMAL SUPPLY CO	1	\$38.57
GIGSALAD	1	\$215.00
GOKEYLESS	1	\$339.76
GOOGLE GSUITE_pdhp.or	1	\$4.16
GOPHER SPORT	1	\$58.44
GRAINGER	2	\$254.24
GROOT INDUSTRIES INCOR	1	\$51.95
GROWER EQUIPMENT & SUP	1	\$303.92
HALOGEN SUPPLY COMPANY	8	\$12,699.80
HARRELLS LLC	10	\$16,532.44
HEY AND ASSOCIATES	1	\$10,985.00
HIGHWOOD RENTAL & PART	1	\$565.00
HOMEDEPOT.COM	2	\$1,199.36
HOMEGOODS #470	1	\$3.98
HORNUNG S GOLF PRODS	3	\$522.33
HOUSTON PROTECTION & I	2	\$1,147.50
HUNZINGER WILLIAMS INC	1	\$4,310.00
ID WHOLESALER	1	\$38.56
IDLEWOOD ELECTRIC SUPP	7	\$394.33
ILIPRA.ORG	5	\$925.00
ILLINOIS BASSET COURSE	1	\$19.75
IMPERIAL SURVEILLANCE,	1	\$690.00
INDEED	2	\$33.04
INT IN IRELAND HEATIN	2	\$715.30
INT IN ROCKSOLID LLC	1	\$2,155.67
INT IN SOUND OF MUSIC	1	\$38.00
INTEGRITY FITNESS	1	\$225.00

P-Card Transactions  
08/08/18 - 09/07/18

INTERNATIONAL TRANSACTION	1	\$1.44
J2 EFX SERVICES	1	\$33.90
JASPERSON SOD SERVIC	3	\$7,272.00
JEWEL-OSCO	6	\$311.31
JIMMY JOHNS # 533 - E	1	\$46.97
JOHNSTONE SUPPLY OF VH	2	\$38.56
JOOMAG	1	\$479.40
JORSON AND CARLSON COM	2	\$140.04
JW TURF INC	4	\$1,414.40
K & M PRINTING	3	\$755.00
KEYTH TECHNOLOGIES	2	\$290.00
LAKE IL RECORDER	3	\$47.00
LAKESHORE IT SOLUTIONS	2	\$816.25
LAKESHORE LEARNING #33	1	\$168.01
LAKESHORE RECYCLING SY	13	\$6,960.18
LIFEGUARD STORE - ONLI	1	\$341.75
LINDEMANN CHIMNEY CO.	1	\$18,178.00
LITTLE TOMMY S PLUMBIN	1	\$2,507.00
LOWES #02728	1	\$139.86
MAHONEY ENVIRONMEN	1	\$153.00
MAILCHIMP MONTHLY	1	\$240.00
MARIANOS #524	1	\$65.17
MARK VEND CO.	3	\$592.90
MENARDS 3327	2	\$64.98
MENONI AND MOCOJNI	14	\$4,029.01
METAVANTE-TDS CONV FEE	1	\$1.95
MICHAELS STORES 1338	1	\$21.98
MICHAELS STORES 2037	4	\$124.91
MID TOWN PETROLEUM ACQ	1	\$482.95
MIDWEST GROUNDCOVERS-Y	1	\$452.40
MID-WEST SIGN SUPPLY C	1	\$149.70
MOBILE MINI	1	\$600.00
MOLLY MAID 1417	1	\$150.50
MS TEDDY BEAR	1	\$1,492.20
MUTUAL ACE HARDWARE &	47	\$3,806.52
NAPA AUTO PARTS	37	\$3,153.58
NEPELRA	1	\$250.00
NEW WAVE LAX, LLC	1	\$211.23
NIKEGOLF	1	\$1,056.16
NIR ROOF CARE INC	1	\$400.00
NORTH SHORE POOL &	4	\$8,180.00
NORTHSHORE PHYSICIAN	1	\$222.00
NORTON'S RESTAURANT	1	\$200.00
OFFICESUPPLY.COM	6	\$1,467.34
OTC BRANDS, INC.	1	\$209.70
P & W GOLF SUPPLY LLC	4	\$3,409.03
PALOS SPORTS	1	\$955.00
PANERA BREAD #601763	2	\$170.13
PAPA JOHN'S #4792	1	\$16.00
PARK DISTRICT OF HIGHL	18	\$1.00
PARTY CITY 168	4	\$137.79
PAYPAL GOVHR USA	1	\$100.00

P-Card Transactions  
08/08/18 - 09/07/18

PAYPAL HOME DEPOT	1	\$114.43
PAYPAL HOME DEPOT	1	(\$114.43)
PERSONALIZATION MALL	4	\$33.35
PIER 1 IMPORTS00012617	1	\$77.70
PITMAN	1	\$624.57
PLAYGROUND GAMES	2	\$1,485.00
POTBELLY #42	1	\$148.79
POTTERY BARN 0288	1	\$74.02
PROFESSIONAL TENNIS RE	1	\$159.00
PROMO DIRECT	1	\$853.00
READYREFRESH BY NESTLE	1	\$242.45
REINDERS - SUSSEX AR	1	\$592.64
REINDERS - SUSSEX CS	6	\$1,619.90
ROSATIS PIZZA - BANNOC	1	\$85.95
RR PRODUCTS INC	1	\$136.78
RUDIG TROPHY CO	1	\$131.84
SAMSClub.COM	1	\$4,334.34
SANTO SPORT STORE	9	\$7,245.00
SHELL OIL 57444090807	1	\$10.00
SHELL OIL 57444090906	1	\$51.50
SHELL OIL 57444566806	1	\$10.00
SHRM	1	\$189.00
SITEONE LANDSCAPE SUPP	25	\$18,260.09
SKOKIE VALLEY CLEANERS	1	\$907.20
SMARTSIGN	4	\$356.67
SMITHEREEN PEST MANAGE	3	\$172.00
SPG RETAIL RESOURCE	3	\$910.54
SQU SQ MOBILE LOCK &	1	\$275.00
STAPLES 00116616	9	\$524.13
SUNSET FOODS #1	2	\$65.20
SUNSET VALLEY GOLF COU	2	\$0.02
SUR LA TABLE #74	1	\$74.95
SUR LA TABLE DIRECT	4	\$179.87
T C FURLONG INC	1	\$216.97
TARGET 00011676	1	\$68.90
TARGET 00011684	10	\$418.07
TARGET 00013425	1	\$28.00
TARGET 00013854	1	\$59.97
TDS PAYMENT	1	\$783.70
TERMINAL SUPPLY - TR	1	\$191.48
THE HOME DEPOT #1926	25	\$715.41
THE HOME DEPOT #1938	1	\$19.11
THE HOME DEPOT 1926	5	\$654.41
THE WEBSTAUANT STORE	1	\$2,454.03
THORNTONS #0312	5	\$237.02
TLF FLORAL GARDENS INC	2	\$118.00
TRADER JOE'S #682 QPS	2	\$119.67
TRIBUNE PUBLISHING COM	1	\$49.60
UNITED 01626077487226	1	\$25.00
UPS 2947I20AEDH	1	\$6.90
UPS 2997F0MG771	1	\$5.80
US FIGURE SKATING	1	\$26.51

P-Card Transactions  
08/08/18 - 09/07/18

USA FOOTBALL	1	\$2,384.65
USPS PO 1636060035	3	\$60.15
UST USTA MEMBERSHIP	2	\$88.00
VERIZON ONETIMEPAYMENT	1	\$281.26
VERTICAL ENDEAVORS-GLE	1	\$176.00
WALGREENS #1438	1	\$51.90
WALGREENS #5428	2	\$25.23
WAL-MART #3893	1	\$101.71
WALMART.COM	1	\$80.85
WALSH MARINE PRODUCTS,	1	\$620.76
WAREHOUSE DIRECT	51	\$8,286.07
WAYFAIR WAYFAIR	3	\$714.96
WEB NETWORKSOLUTIONS	1	\$11.98
WHENTOWORK INC	1	\$200.00
WRISTBANDEXPRESSCOM	1	\$29.61
YOUR ADVANTAGE II LTD	1	\$219.00
<b>TOTAL</b>		<b>\$298,051.28</b>