

**EAST SKOKIE DRAINAGE DISTRICT
PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS**

SMC Use Only

1. Eligibility Authorization Form

Received _____

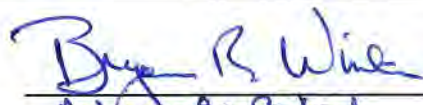
**Department of Commerce & Economic Opportunity Stormwater Capital Improvement
Program (DCEO-STOCIP)
Eligibility Authorization Form**

Disclaimer: Approval of the project described herein is an acknowledgement of potential program eligibility only and in no way authorizes payment of funds, reimbursement of expenses incurred for the project and does not guarantee any future funding for the project. Funding may be available once the project has met all the eligibility requirements and a project agreement has been approved and executed by the Commission and the Illinois Department of Commerce and Economic Opportunity.

Applicant Jurisdiction (s) (Community, Township, HOA)	East Skokie Drainage District		
Brief Project Title	Skokie River Stabilization Phase 2 Construction		
General Location	South of Westleigh Road Lake Forest Illinois		
Project Contact Person	Bryan Winter		
Address	c/o Bryan Winter Fuqua, Winter & Stiles LTD, 9 North County Street		
City, State Zip	Waukegan, IL 60085	Phone	Bryan: 847-244-0770
Resource Request			
<p>Project Description defining stormwater infrastructure problems project will address (Attach Detailed Project Description, including work plan, as separate sheets):</p> <p>Skokie River Phase 2 Construction will stabilize approximately 2,800 linear feet of the Skokie River south of Westleigh Road in Lake Forest. The project will include 5,135 linear feet (LF) of riverbank stabilization practices along both sides of the river. Ten properties in the project area are experiencing severe erosion from frequent high-water flows. Erosion is resulting in property loss throughout the project area; severe erosion is undermining structures such as fences, stormwater outfalls, utility poles, and a pedestrian bridge and recreation path. The Lake County Stormwater Commission (SMC) 2019 stream inventory identifies areas of moderate and severe bank erosion in the project area. A recent riverbank condition assessment by V3 Consultants identified and documented additional areas where moderate erosion has worsened since the SMC inventory was conducted and is now considered severe.</p> <p>In addition to property damage, the riverbank erosion is causing excess sediment loads in the Skokie River, which is impacting water quality. The Illinois Environmental Protection Agency has listed the Skokie River reach that includes the project area as having impaired water quality.</p>			
<p>Is this project part of a larger phased approach? If so, please describe:</p> <p>This project is the second phase of construction for a Skokie River Stabilization Project area that is approximately 1 mile in length between Westleigh Road at its northern extent to Old Elm Road at the south extent. The first phase of construction covering the southern portion of the project area was 95% completed in 2020, trees and shrubs will be installed in spring 2021. The proposed second phase of construction for the northern half of the project area would complete the entire scope of the Skokie River Stabilization Project in Lake Forest.</p>			

EAST SKOKIE DRAINAGE DISTRICT
PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS

Cost Estimate	\$ 1,990,486	Applicant Match	\$298,573	DCEO-STOCIP Share	\$1,691,530
Applicant Match Break-Down	Cash	\$ 298,573	Other	\$0	
"Other" Match Description					
Project Timing	Start Date	November 2021	Completion Date	December 2023	
Summary of Project Area Damages (Quantify Below # and type of damages incurred or threatened to occur)					
<u>Flood Damage Type</u>	<u>Number of Occurrences</u>	<u>Frequency of Occurrences</u> (e.g. Every Year, every two years)			
Primary Property Damage					
Disruption of Business/Revenue					
Secondary Property Damage	10 properties/severe erosion	34 2" rainfall occurrences in last 10 years			
Primary Road Flooding					
Secondary Road Flooding					
Nuisance Flooding					
Summary of Project Benefits (how much of the quantified damage is to be relieved and to what extent)					
<p>All of the property damages caused by erosion during high water flows will be relieved by the riverbank stabilization practices proposed for this project. Stabilization practices that include gabion baskets, natural toe protection streambank regrading and installation of deep-rooted native vegetation will repair and prevent erosion damages on 2,055 LF of 9 individual private property parcels, 646 LF of City of Lake Forest property at Waveland Park, and 2,853 LF of Kendler Ponds Homeowner Association (HOA), which includes 154 HOA property owners.</p>					
Statement of Local Commitment (assurance that applicant has sufficient matching funds and staff capacity)					
<p>The East Skokie Drainage District (ESDD) has been working on the planning phases of the Skokie River Stabilization Project since 2016. The District has made steady progress toward implementation of the project by contracting with V3 as their consultant to study the project area and develop a bioengineering design to stabilize the streambanks. V3 completed a river assessment and developed a draft design and engineering plan set in 2017 and submitted an Individual Section 404 Wetland Permit Application to the Army Corps of Engineers (ACOE), and SMC Watershed Development and IL EPA stormwater permits. These permits were issued prior to Phase 1 Construction in 2020. Bud Reed PE is the ESDD consulting engineer who oversaw Phase 1 Construction and he will be overseeing the execution of Phase 2 of project construction. The ESDD will use revenues generated by annual fees from watershed residents to cover the engineering and landowner agreement expenses and provide the cost-share for the Phase 2 project construction.</p>					



 Acting for District

Signature of Authorized Representative of the Cost Sharing Entity



Spell Name Above

Requested Documentation/Attachments:

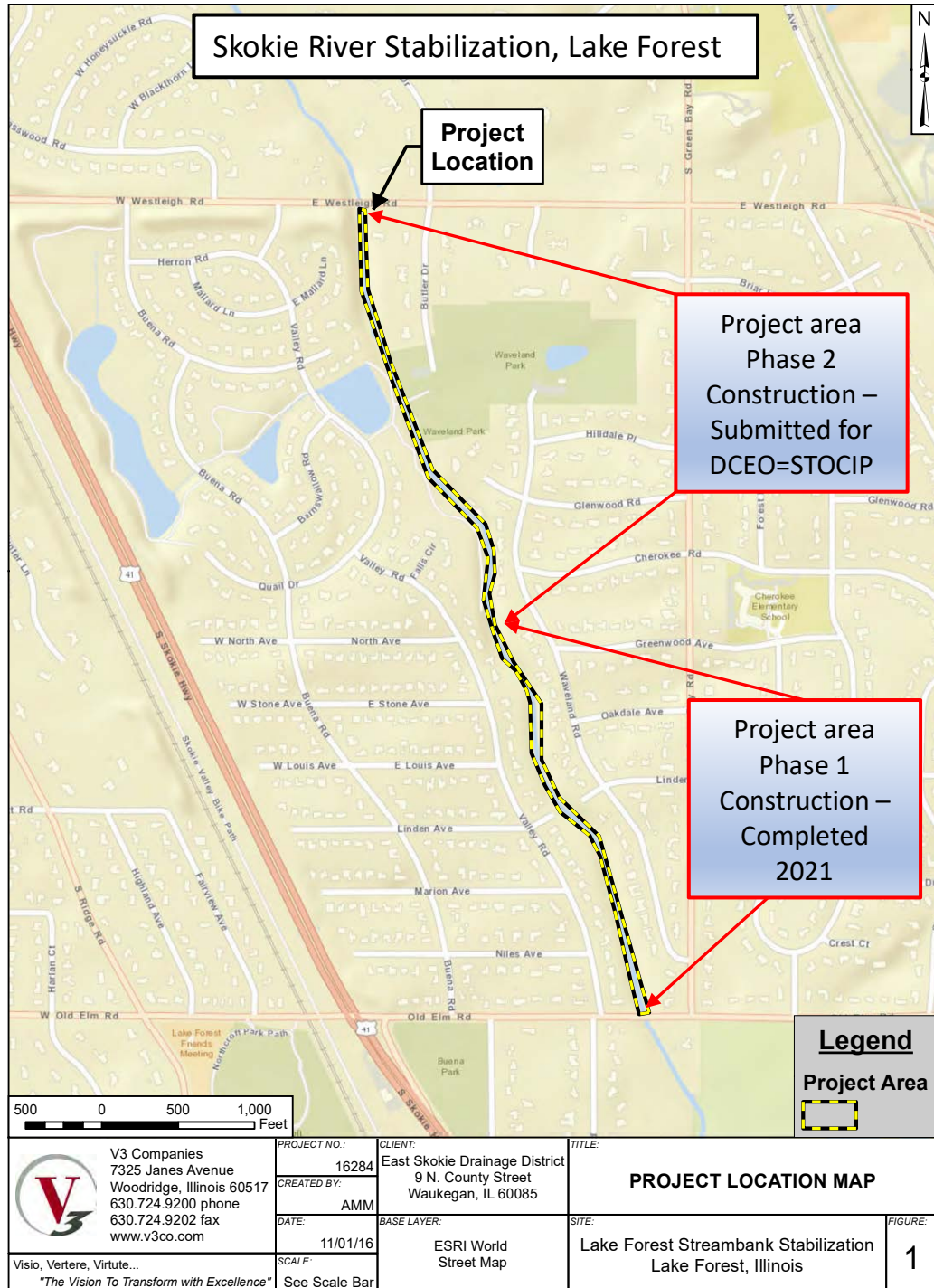
1. Eligibility Authorization Form (this form)
2. Detailed Project Description
3. Location Map and Area Benefitted
4. Statement of compliance with SMC policies, local plans and Ordinance
5. Completed Project Readiness/Phase Categorization Checklist
6. Other comments or supporting documents.

**EAST SKOKIE DRAINAGE DISTRICT
PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS**

2. Project Location Maps

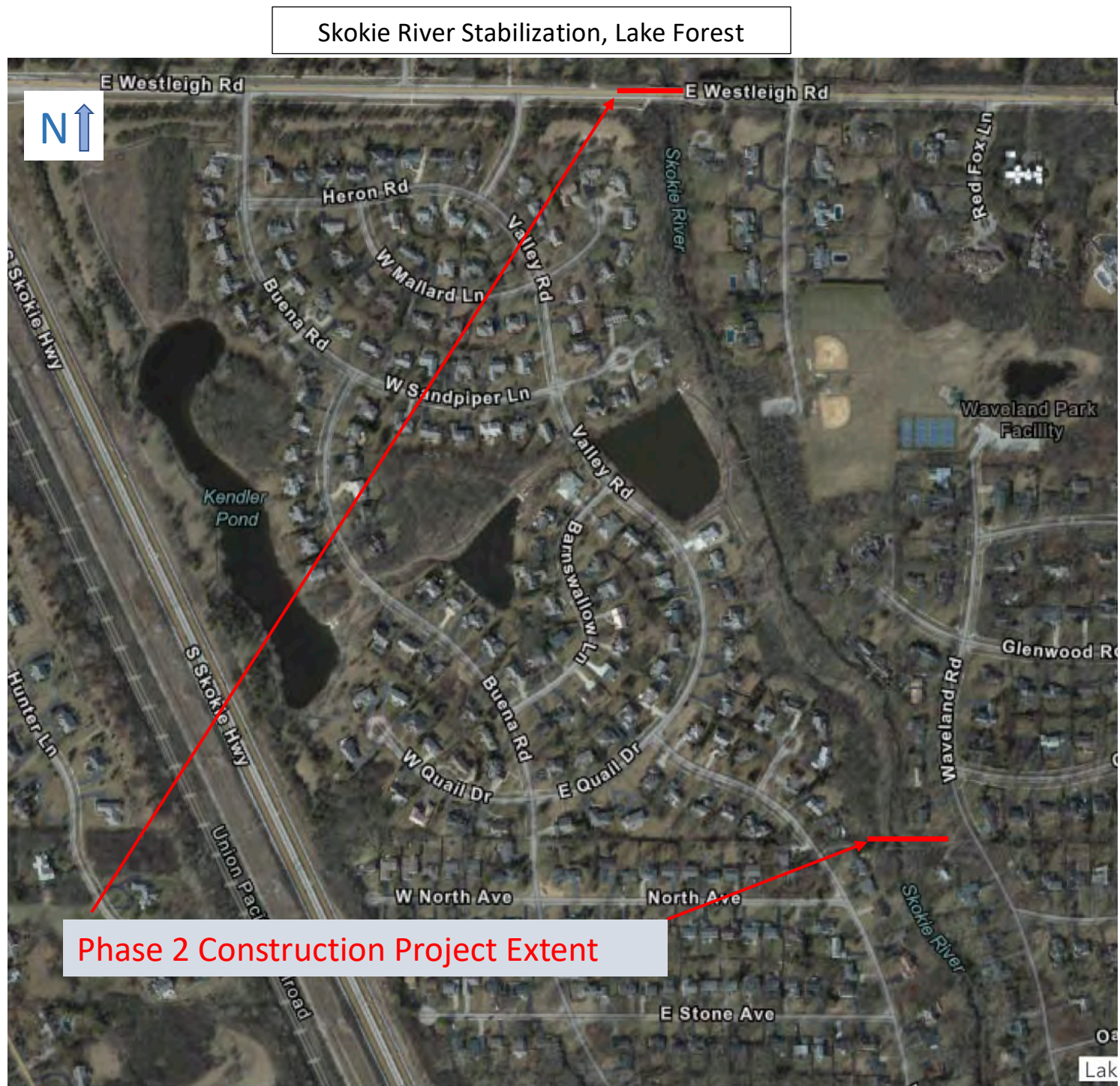
Figure 1 is a project location map that reflects the full extent of the project area with Phases 1 and 2 of construction identified. Figure 2 is an aerial photograph identifying the extent of the proposed Phase 2 construction.

Figure 1



EAST SKOKIE DRAINAGE DISTRICT
PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS

Figure 2



3. Detailed Project Description

Background

The East Skokie Drainage District (ESDD) is implementing a two-phased approach to stabilize approximately one mile of the Skokie River channel in the City of Lake Forest, Illinois. The Skokie River channel was constructed in the early 1900's when the east fork of the north branch of the Chicago River did not have an established channel but meandered through wetlands. The channel was constructed with no bank-sloping and within a very narrow 50-foot right-of-way. Over time the high and steep banks of the channel within this river corridor have experienced the most severe erosion within the District's 13-mile open channel drainage system.

The scope of this Skokie River Stabilization Project (Project) covers the second phase of construction/installation, which will stabilize approximately one-half of the 1-mile project area. Phase 1 of construction stabilizing the southern (downstream) one-half mile of the Skokie River project corridor was 95% completed in 2020 with shrub and tree installation planned for spring 2021. Phase 2 of Project construction will encompass the northern (upstream) half of the project area. The purpose of the proposed Project is to stabilize severely eroding riverbanks to repair property damages caused by moderate to severe erosion and prevent future property damage caused by up to a 10-year flood event. A combination of best management practices (BMPs) including gabion baskets, natural toe protection and bank re-shaping will be used in conjunction with revegetation with deep-rooted native plants to stabilize the riverbanks.

The Skokie River watershed form is long and very narrow, which results in precipitation runoff reaching the river channel quickly, creating a flashy hydrology that exacerbates channel erosion. A recent study by the Illinois State Water Survey on changing precipitation patterns in Illinois from 1948-2017 found that between 1983 and 2017 rainfall increased by 20-45% in Lake County. The increasing rainfall generates more runoff volume from an urban landscape of streets, parking lots, buildings and yards that gets to the river quickly. Excessive erosion is caused by this altered hydrology with higher rainfall generating more frequent bankfull flows in the river channel. The higher volume of runoff into a straight river channel form also contributes to accelerated riverbank erosion.

a. Property Damages, Project Components, Project Benefits

Property Damage

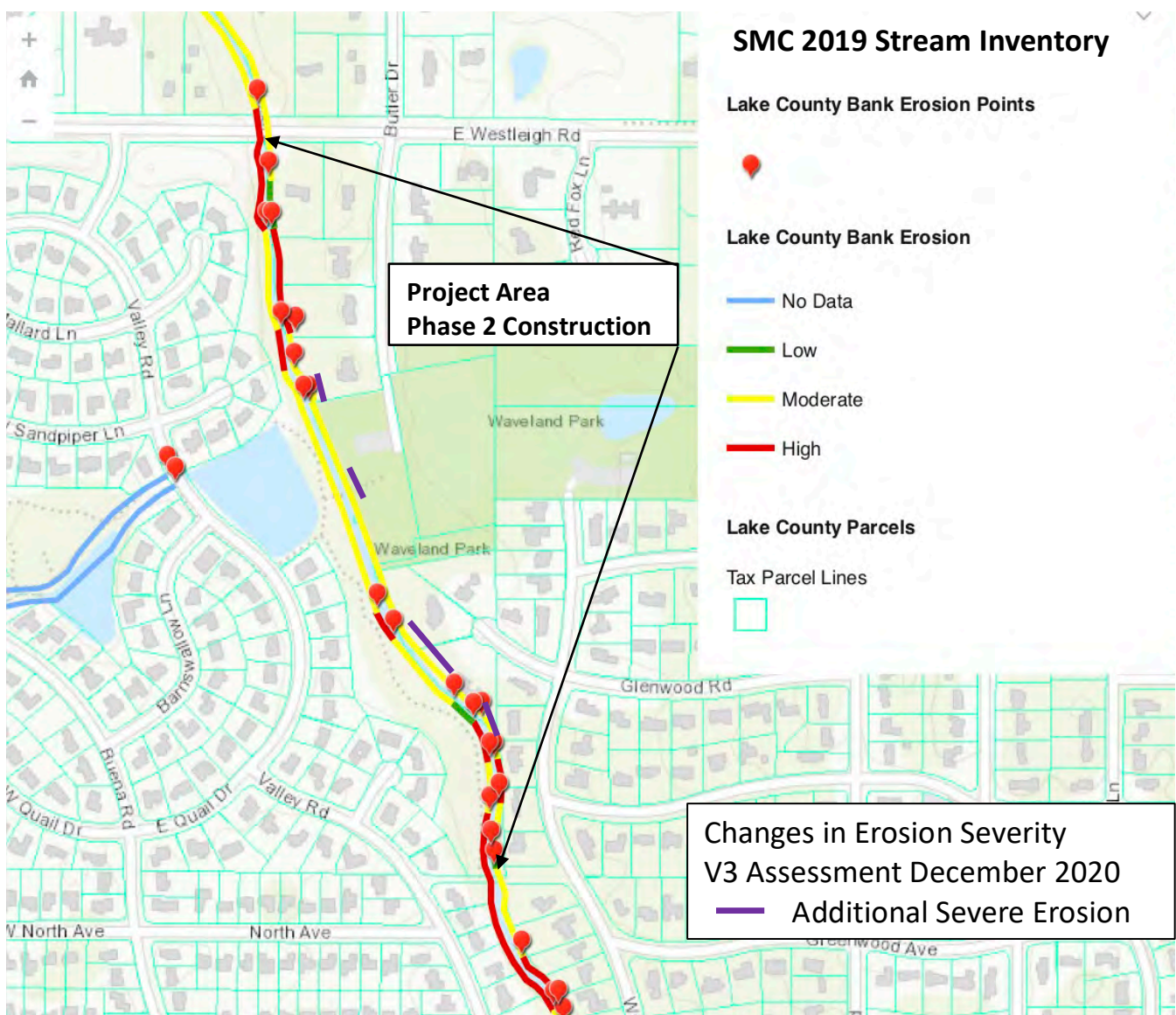
The banks of the channelized Skokie River are heavily eroded within the Project corridor with severe erosion damaging 10 properties in the Phase 2 construction area. The erosion is predominantly classified as moderate or severe along the entire Project area, and bank heights range from 6-10 feet. Erosion worsens during high flow events and has undermined large trees on the banks of the river, utility poles, storm sewer outlets and a pedestrian bridge. Property loss is occurring in the backyards of residences and Waveland Park on the east side of the river; and along property owned by a homeowner's association (2,800+ linear feet) on the west side of the river where a recreational trail is also at risk. Stormwater outfalls are failing, fences and trees are on the cusp of falling down in several locations and the slopes in many backyards and adjacent to the pedestrian bridge have become vertical banks due to severe erosion, which creates a condition that is dangerous and is a safety concern. Figure 3 depicts the locations where severe erosion is occurring combining data from the Lake County Stormwater Management Commission (SMC) 2019 stream inventory assessment and a more recent December 2020 assessment by V3 Consultants.

**EAST SKOKIE DRAINAGE DISTRICT
PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS**

In addition to direct property damage, riverbank erosion results in a number of environmental problems including poor water quality; loss of terrestrial habitat due to loss of land, trees and other riparian vegetation; and degradation of aquatic habitat due to loss of aquatic vegetation and clean substrate when sediment accumulates on the streambed. The Illinois EPA has listed the Project area segment of the Skokie River as being impaired because it does not support aquatic life and primary contact recreation. Total suspended solids and phosphorus (attaches to sediment particles) are listed as two of the causes of impairment. Excessive erosion generates high levels of total suspended solids

Figure 3

Severity of Erosion in Project Area



Attachment 1 documents the locations where severe erosion is occurring on additional properties in the project area as identified by V3's December 2020 assessment.

EAST SKOKIE DRAINAGE DISTRICT
PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS

Project Components - Proposed Stabilization Measures

ESDD contracted with V3 Consultants to develop a river restoration design that will stabilize the heavily eroded riverbanks and restore riparian and aquatic habitat and the natural aesthetics of the river channel. The restoration design will also protect the safety of local residents as the dangers of severe riverbank slumpage and failing stormwater infrastructure will be eliminated. As part of the site investigation for the design, V3 conducted a wetland delineation, tree survey, topographic survey and river assessment.

The proposed bank stabilization measures (best management practices – BMPs) were designed to address the specific needs of each stretch of the river based on the severity and height of the erosion, the proximity to residential property including structures and fences, and the velocities of the river. The design uses a mix of bioengineered natural stabilization and hard armoring methods depending on the severity of the erosion and the anticipated erosive forces from the river. The proposed improvements and construction access routes will be designed to minimize the amount of tree loss, but some tree loss will be necessary to properly construct the bank stabilization measures. The proposed stabilization design calls for selective tree removal where required to install the BMPs. Selective tree trimming or removal in the heavily eroded areas will provide space for the installation of the stabilization measures and will allow the reshaped slopes to establish dense native vegetation adding an extra level of protection against erosion.

The proposed bank stabilization measures include:

- Natural Toe Protection: 2,621 linear feet
- Gabion Walls: 1,838 linear feet
- Bank Reshaping (pull back riverbank slopes): 997 linear feet
- Planting of native vegetation 8,000 square yards

The bioengineering practices incorporated into the Project design were selected because of their effectiveness for stabilizing urban waterways. Installing deep-rooted native plants in combination with the harder practices provides stabilization redundancy; creating riparian and aquatic habitat while contributing riverbank resiliency to the flashier river flows that are occurring due to rainfall changes. Given the more natural character of this section of the Skokie River, the design uses bioengineering methods that include woody structures and native vegetation to provide improved riparian habitat and stream water quality. These improvements will serve to minimize pollution contributed from the bank slumping and eroding sediment in this corridor. Non-point sources of pollution addressed by the proposed Project include sediment (reflected in total suspended solids impairment) and total phosphorus and nitrogen contributed by channel erosion.

Attachment 2 is the December 2020 Revised Skokie River Stabilization Proposed Plans for the Phase 2 Construction Project area depicting the locations of bank stabilization BMPs. Attachment 3 is a BMP summary table for the Phase 2 Construction Project area.

b. Scope of Work:

The proposed scope of work will stabilize riverbanks preventing future property damage caused by up to a 10-year flood event. The ESDD has been working on the planning phases of the Skokie River Stabilization Project since 2016. The District has made steady progress toward implementation of the project by contracting with V3 as their consultant to study the project area and develop a bioengineering design to stabilize the streambanks. V3 completed a river assessment and developed a draft design and engineering plan set in 2017

EAST SKOKIE DRAINAGE DISTRICT

PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS

and submitted applications for required permits in 2018. All required permits were received for Phase 1 of construction, which was 95% completed in 2020; trees and shrubs remain to be installed in spring of 2021.

Project Activities Underway or Completed:

- Design and Engineering - ESDD contracted with V3 Consultants to complete a river assessment, develop a design and engineering plan set, and an engineer's preliminary opinion of probable cost.
- Public Information/Participation - ESDD and the City of Lake Forest held two public information meetings for the Skokie River Stabilization Project in August and October 2017.
- Permitting - V3 submitted permit applications to:
 - the US Army Corps of Engineers (ACOE) for a Section 404 Clean Water Act Wetland Permit;
 - the Lake County Stormwater Management Commission (SMC) Watershed Development Permit (WDP) that includes Illinois Department of Natural Resources – Office of Water Resources (IDNR-OWR) Floodway Permit authorization;
 - the Illinois EPA for an ILR10 NPDES Permit (SWPPP and Erosion Control);
 - and completed a threatened and endangered species consultation with Illinois Department of Natural Resources.

The ACOE permit (LRC-2018-00140) was approved for the entire 1-mile Project area included in Phases 1 and 2 of construction and is valid through 2024. The Lake County SMC permit (WDP-18-256) and the Illinois EPA ILR10 NPDES Permit (SWPPP and Erosion Control) were approved for the Phase 1 Construction area. Attachment 4 is the December 30, 2019 authorization letter from the ACOE for the entire 1-mile Project area.

- ESDD acquired easements from property owners to allow for construction of Phase 1 of the Project and for ongoing maintenance of the proposed improvements.
- ESDD prepared bid documents, conducted the bidding process and awarded a contract for Phase 1 of construction to V3 Consultants.
- Funding - ESDD applied for and was awarded a Section 319 Nonpoint Pollution Reduction Clean Water Act grant from the Illinois EPA through the SMC's county-wide application process for Phase 1 of construction in 2019.
- ESDD prepared and submitted a 10-year operating and maintenance (O&M) plan for Phase 1 of the Project.
- Phase 1 Construction of the southern one-half of the 1-mile Skokie River Stabilization Project area was 95% completed in 2020. Trees and shrubs will be installed in 2021.
- The Skokie River Stabilization Proposed Plan Set was updated/revised by V3 in December 2020 for Phase 2 Construction based on current riverbank conditions in the Project area.

Proposed Phase 2 Construction Activities:

- Easement Acquisition - ESDD will acquire the required permanent and construction access easements from property owners to permit construction and for ongoing maintenance of the proposed Phase 2 Construction improvements that will occur outside of the drainage district's 50-foot access easement.
- Permits and Utility Coordination - ESDD will submit a permit application to SMC for a WDP and to the IL EPA for an ILR10 NPDES Permit (SWPPP and Erosion Control) for Phase 2 Construction; and may have to initiate a second threatened and endangered species consultation if the initial authorization is expired by the time

EAST SKOKIE DRAINAGE DISTRICT

PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS

construction begins. ESDD will also obtain City of Lake Forest approval for Phase 2 and coordinate construction with the utility companies (electric, cable, telephone, gas, North Shore Sanitary District, etc.).

- ESDD will prepare a 25-year operating and maintenance (O&M) plan in accordance with grant requirements for Phase 2 Project Construction.
- Bidding and Contracting - Determined by funding availability, ESDD expects to construct approximately 2,800 LF of the 1-mile project corridor for the second phase of construction/installation, which is included in this funding proposal. ESDD and their consultant will prepare construction contract documents, an advertisement for bids, bidder instructions, bid form and agreement, and will solicit and evaluate bids and award the contract for Phase 2 of construction.
- Construction - ESDD and their consultant and contractor will construct the project in accordance with the final plans and specifications. Invasive woody and herbaceous plants will be removed in site preparation.
- Construction Administration - ESDD and their consultant will administer the construction contract, observe if the contractor's work is in conformance with the final design plan, and monitor the contractor's progress.
- Grant administration - ESDD and their consultant will coordinate with the SMC grant administrator, and complete required grant documents and reporting.

Post Construction Activities:

Monitoring and Maintenance - ESDD and their contractor will perform 25 years of monitoring and maintenance of the project improvements and submit reports as required. A 25-year O&M plan will be developed by the ESDD for review and approval by SMC in conformance with DCEO-STOCIP requirements. The O&M plan will include a schedule for monitoring the Project site and methodologies for assessing the condition of the BMPs and Project area. ESDD will perform follow-up maintenance or repair of the Project site as needed based on monitoring results. The plan will also specify who is responsible for monitoring and maintenance and how the monitoring and maintenance will be funded through ESDD operational funds. The following scope-of-work table summarizes the tasks that will successfully complete the Project.

Scope of Work Summary Table

Task	Responsible Entity	Description
Grant Administration	SMC, ESDD, Consultant	Review and execute required grant agreements, and coordinate and assist SMC with the completion of required grant documents and forms.
Design & Engineering	ESDD, Consultant	Prepare final construction plans showing the BMPs in plan, profile, and cross-section view with adequate detail to allow the plan set to be used for developing bidding and construction documents.
Permitting and Utility Coordination	ESDD, Consultant	Follow-up on permit applications necessary to obtain the SMC and IL EPA permits required to implement Phase 2 Construction of the Project. ESDD will also obtain City of Lake Forest approval for Phase 2 and will coordinate construction with utility companies.
Easement Acquisition	ESDD	Acquire required easements from property owners as needed to permit construction and ongoing maintenance of the proposed improvements.
O&M Plan	ESDD, Consultant	Prepare 25-year O&M Plan for review and approval by SMC.
Bidding & Contracting	ESDD, Consultant	Prepare construction contract documents for the Project including an advertisement for bids, bidder instructions, bid form, and agreement, solicit and evaluate bids, and award the construction contract.

EAST SKOKIE DRAINAGE DISTRICT

PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS

Construction	ESDD, Consultant, Contractor	Construct the project in accordance with the final plans and specifications. Plan set to be reviewed and approved by SMC prior to construction.
Construction Oversight/ Administration	ESDD, Consultant	Administer the construction contract, observe if the contractor's work is in conformity with the final design plans, and monitor the contractor's progress.
Post Construction Operation, Monitoring and Maintenance	ESDD, Consultant	Perform 25 years of operation monitoring, maintenance (O&M) and repair as needed. Submit reports to SMC in conformance with the schedule approved in the O&M Plan.

End Results:

Project Implementation

ESDD has a long history of implementing watershed improvement projects in the North Branch Chicago River Watershed. ESDD participated in watershed planning, is a founding member of the North Branch Watershed Workgroup (NBWW), and has successfully completed several Skokie River stream restoration/ stabilization projects recommended by the North Branch Chicago River Watershed Based Plan (NBWBP) including: Phase 1 Construction of Skokie River Stabilization, Skokie River Daylighting and Foss Park stream bank stabilization projects in North Chicago. ESDD also partnered with Lake Forest to stabilize the river at Deerpath Golf Course and completed stabilization at Danny Cuniff Park in Highland Park. These projects have been completed with the benefit of grant funds and through public-private partnerships.

Project implementation will be overseen by a construction engineering manager under contract to the ESDD. The firm and specific engineer selected for this position will need to demonstrate qualifications and construction management experience. ESDD will contract with a construction manager in advance of, or in concert with, the bidding process for construction.

Bud Reed P.E. is the ESDD's engineer. He will verify work completion, process payments, and respond to work order changes (extras and deletions to the work) with the ESDD approval. Bud has many years of engineering oversight experience as the retired Engineer for the Village of Gurnee. Bud also served as the ESDD's engineer for phase one of construction of this project and previous ESDD Skokie River construction projects.

Protection/Prevention Results - Project Benefits

The proposed improvements will:

1. Repair moderate to severe erosion that is undermining trees, stabilize stormwater infrastructure, utility poles, fences, a pedestrian bridge and a trail that has resulted in property damage and loss and created a safety hazard for property owners.
2. Stabilize riverbanks preventing future property damage caused by up to a 10-year flood event.
3. Stabilize the riverbanks reducing pollution transport and sediment deposition in the river; enhance and stabilize the riparian vegetation; provide improved aquatic habitat along the shoreline; and improve the water quality of the Skokie River both in the project area and downstream.
4. Address the most serious stream erosion on the Skokie River in the ESDD's jurisdiction.

The proposed Project also supports the water quality improvement goal of the NBWW and the goals, objectives and action recommendations of the NBWBP.

Project Evaluation

ESDD, their construction oversight consultant, construction contractor and SMC will assess whether or not the

EAST SKOKIE DRAINAGE DISTRICT

PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS

permitted and approved design and engineering plans for the Project have been constructed/installed in accordance with the approved construction plan set. Construction layout and as-built plans will be provided by the construction contractor confirming correct installation of the bioengineering practices.

Post Construction Evaluation and Short-term O&M of BMPs

ESDD will evaluate whether the structural BMPs are secure and functioning as designed and whether native vegetation has successfully established on the riverbanks with a 3-year post construction monitoring and maintenance agreement with the construction contractor that begins when Project construction is finished. The monitoring and maintenance agreement will include standards for assessing the success of the vegetation and the structural integrity of the BMPs. This agreement will specify actions that will be taken by the contractor for repair of the structural BMPs and for vegetation enhancements such as control of invasive plants, reseeding of native vegetation and cover crop, and replacement of trees and shrubs when needed to meet the specified contract standards.

Long-term Evaluation and O&M

The 25-year Operation and Maintenance Plan will be used to evaluate the success of the Project over the long term. A draft 10-year O&M Plan for Phase 1 Construction of the southern half of the 1-mile project area specifies responsibility and frequency of monitoring, maintenance and repair tasks. The 25-year O&M plan for Construction Phase 2 Project area will be adapted from the current O&M plan for Phase 1 Construction. The structural BMPs and vegetation will be visually monitored annually following a major rain event in Year 1 and in the Spring in subsequent years. Follow-up remedial actions are specified in the O&M Plan when needed.

Riverbank stability will be assessed by visual inspection in conformance with the O&M Plan and with periodic more detailed assessments by ESDD and SMC. ESDD engages a contractor to assess channel condition for 1/3 of the Skokie River within their jurisdiction every year, the Project area will be assessed every 3 years within the context of this ongoing program. SMC periodically does stream inventories assessing channel conditions as part of watershed planning updates for the NBWWP. The Project area will be evaluated as part of these periodic assessments.

Water Quality Improvement

Water quality improvement in the segment of the Skokie River with the Project area may also be evaluated in conjunction with monitoring by the NBWW. NBWW is implementing a comprehensive monitoring program that includes a chemical, physical and biological assessment that more accurately identifies the quality of stream and river ecosystems as well as stressors associated with non-attainment of water quality standards and designated uses. The NBWW monitoring program is establishing baseline conditions and will then measure progress towards meeting water quality standards.

c. Project Schedule

The following schedule identifies the approximate Project start and end dates and when each of the tasks included in the Phase 2 Construction Project scope of work will take place.

**EAST SKOKIE DRAINAGE DISTRICT
PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS**

Proposed Project Schedule

Task	2021												2022												2023												
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
Grant Administration																																					
Design/Engineering Plans																																					
Easement Acquisition																																					
Permitting																																					
O&M Plan																																					
Bid Documents/Bidding																																					
Contract/Construction																																					
Construction Administration																																					

As can be seen in the Project Schedule, design and permitting work are expected to be completed for the Project prior to grant award. Minor adjustments will need to be made to the engineering plans prior to bidding to account for any additional areas of gabion baskets due to worsening erosion. SMC Watershed Development and IL EPA stormwater permits will need to be issued for Phase 2 of construction. Coordination efforts with the permitting agencies and with the property owners for easements will be completed in 2021. These tasks are solely funded by ESDD operating funds and will be completed in advance of grant funding for construction. Depending on funding availability, the District's goal is to proceed to construction of this Project by winter/spring 2022. The start of construction will depend on the award of this grant, and timing of execution of the financial assistance agreement and landowner permissions.

d. Property Owners - Land Rights

ESDD is the lead agency responsible for the Skokie River and has a 50-foot right-of-way easement along the river. Much of the stabilization work is expected to occur within this right-of-way. Based on the engineering and construction documents for the Project area, ESDD has identified where construction/installation of bioengineering best management practices (BMPs) will need to occur outside of the ESDD Skokie River easement. ESDD will enter into permanent easement agreements with landowners whose properties will be used for construction/installation of the BMPs; and will enter into temporary construction easements for properties used for construction access.

Attachment 5 is a list of properties that may require easements for Phase 2 construction or access and a map and plan set schematic depicting those property locations.

f. Project Budget Table:

The following table includes estimates of pre-construction and construction Project costs. It reflects the Engineers Opinion of Probable Cost for construction costs and includes the amount of funding requested, the proposed local match, and the total project cost.

**EAST SKOKIE DRAINAGE DISTRICT
PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS**

Proposed Project Budget Summary Phase 2 Construction

Item Description	Units	Unit Cost	Total Cost	Grant Funding Requested	Local Match
Design & Engineering Plans/ Bidding & Contract Preparation	1 LS*	\$15,000	\$15,000	\$0	\$0
Permitting and Utility Coordination	1 LS	\$4,000	\$4,000	\$0	\$0
Easement Acquisition	1 LS	\$10,000	\$10,000	\$0	\$0
Pre-Construction Phase 2 Total**			\$29,000	\$0	\$0
Construction					
Construction Costs***	1 LS	\$1,915,986	\$1,915,986	\$1,691,530	\$224,073
Construction Oversight	1 LS	\$70,000	\$70,000	\$0	\$70,000
Operation & Maintenance Plan	1 LS	\$1,500	\$1,500	\$0	\$1,500
Grant Administration and Reporting	1 LS	\$3,000	\$3,000	\$0	\$3,000
Totals			\$1,990,486	\$1,691,530	\$298,573

* LS = Lump Sum

** Will be expended prior to grant funding for Phase 2 Construction, therefore design, engineering, permitting and easement expenses will not be included as ESDD local match for this project.

*** Attachment 6 is a construction cost estimate based on the Engineer's Opinion of Probable Construction Cost

g. Local Match Breakdown

The following table provides additional details about the breakdown and availability of the local match.

Type of Match	Organization	Match Amount	Date Available	Source of Match	Status
Cash	East Skokie Drainage District	\$298,573	2021- 2022	General Tax Revenue	Secured/ Budgeted

h. Project Partners

Project Implementation/Partnership/Support:

The City of Lake Forest, private property owners and Lake County Stormwater Management Commission (SMC) will partner with the ESDD to complete the Project. While a stabilized river corridor will provide direct benefits to adjacent property owners, the Project will also benefit all watershed communities with improved water quality and aquatic habitat, therefore the Project is supported by the North Branch Watershed Workgroup (NBWW).

Lake County Stormwater Management Commission (SMC) is a project partner and will be the administrator of a DCEO-STOCIP grant if awarded for this Project. SMC will oversee all aspects related to project completion including verifying installation of BMPs, permit compliance, grant reporting and grant reimbursement. Ashley Strelcheck will be the project manager for SMC. She has worked with the ESDD as grant administrator for previous grant-funded projects through SMC including the Phase 1 of construction for Skokie River Stabilization in Lake Forest and the Skokie River Daylighting projects. Ashley also has served as SMC liaison with the ESDD and coordinates the North Branch Watershed Workgroup (NBWW).

**EAST SKOKIE DRAINAGE DISTRICT
PHASE 2 CONSTRUCTION SKOKIE RIVER STABILIZATION LAKE FOREST, ILLINOIS**

The City of Lake Forest is also a project partner since the project area is located within the city. City staff have supported the ESDD efforts through partnered outreach with residents, most especially those located along the river channel and within its proximity. The City hosted community meetings for the Project where ESDD's design consultant V3 provided an educational program about the river assessment and proposed stabilization methods. ESDD is coordinating with the City and affected residents regarding the stabilization design and work access. The City of Lake Forest is also a property owner within the project area and will enter into the appropriate easement agreement with the ESDD.

Property owners along the channel and ESDD right of way have provided input on stabilization design. Those whose property includes the installation of BMPS will execute a permanent easement with the ESDD for construction and maintenance. Properties used to access the construction site or store materials will execute a temporary construction easement with the ESDD. ESDD has received a number of positive comments and responses from residents and property owners whose properties are affected by the Project.

4. Statement of Compliance with SMC Policies, Local Plans and Ordinances

Applicant: East Skokie Drainage District

Project Title: Skokie River Stabilization Phase 2 Construction

Statement of Compliance

This project will comply with all Lake County Stormwater Management Commission policies, local plans and ordinances, and applicable state and federal regulations.

Signature: Bryan R. Winter

Printed Name: Bryan R. Winter

Position: Attorney for D. Shick

Date: 1-6-2021

5. Vendor disclosure statement, if applicable (does not apply to utility companies regulated by the Illinois Commerce Commission or local units of government)

Not applicable: East Skokie Drainage District is a local unit of government.

6. Other Supporting Documents

Attachment 1: V3 Consultants December 2020 Erosion Assessment Identifying Additional Properties in the Phase 2 Construction Area with Severe Erosion

Attachment 2: December 2020 Revised Skokie River Stabilization Proposed Plans for Phase 2 Construction

Attachment 3: BMP Summary Table Phase 2 Construction

Attachment 4: Army Corps of Engineer's Permit Authorization Letter December 30, 2019

Attachment 5: List of Property Owners within the Project Phase 2 Construction or Access Areas

Attachment 6: Engineer's Opinion of Probable Construction Cost Phase 2 Construction

Attachment 7: 2019 Stream Inventory Photos of Riverbank Condition in the Project Area

Attachment 8: Letters of Support

ATTACHMENT 1: DECEMBER 2020 EROSION ASSESSMENT - ADDITIONAL PROPERTIES IN THE PHASE 2 CONSTRUCTION AREA WITH SEVERE EROSION

520 Butler



Severe erosion at south end of property near concrete flared end section. Erosion already approximately 10-12 feet back from end of flared end section.



Erosion adjacent to flared end section – south end of property



Erosion adjacent to flared end section – south end of property



Erosion adjacent to flared end section – south end of property



Waveland Park



North side of pedestrian bridge – 4-5 feet of vertical erosion (0.5:1 or steeper)



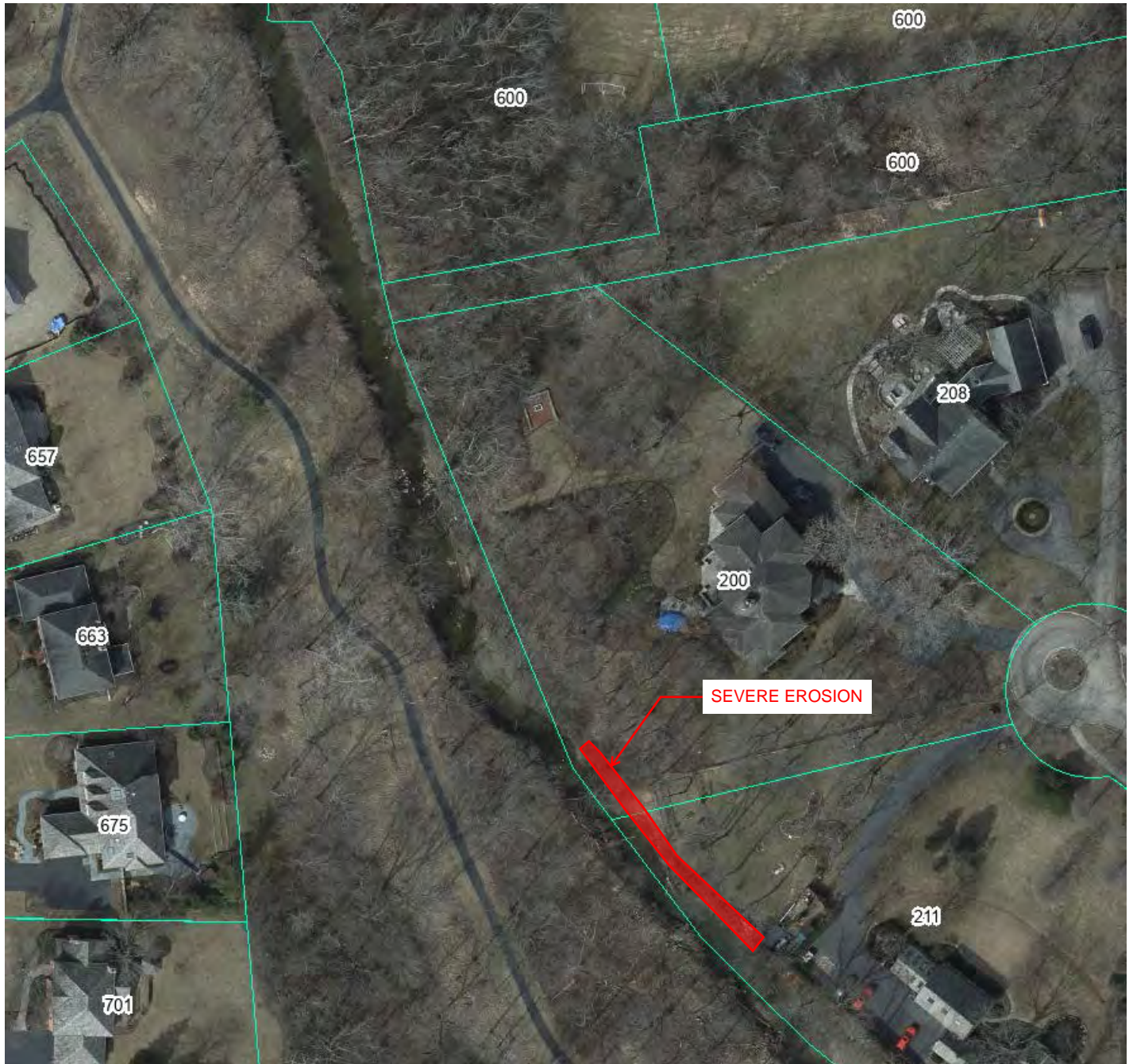
North side of pedestrian bridge from top – 4-5 feet of vertical erosion (0.5:1 or steeper)



South side of pedestrian bridge from top



200 Glenwood



South end of property – 6 to 7 feet of steep erosion (0.5:1 or steeper)



South end of property – 6 to 7 feet of steep erosion (0.5:1 or steeper)



South end of property – 6 to 7 feet of steep erosion (0.5:1 or steeper)



211 Glenwood



North end of property – 6 to 7 feet of steep erosion (0.5:1 or steeper)



North end of property – 6 to 7 feet of steep erosion (0.5:1 or steeper)



North end of property – 6 to 7 feet of steep erosion (0.5:1 or steeper)



North end of property – 6 to 7 feet of steep erosion (0.5:1 or steeper)

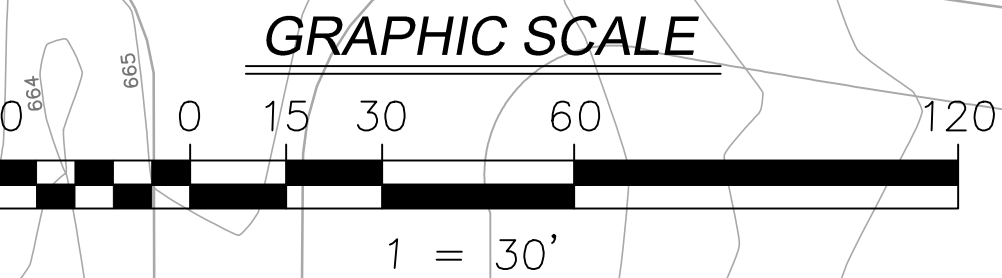
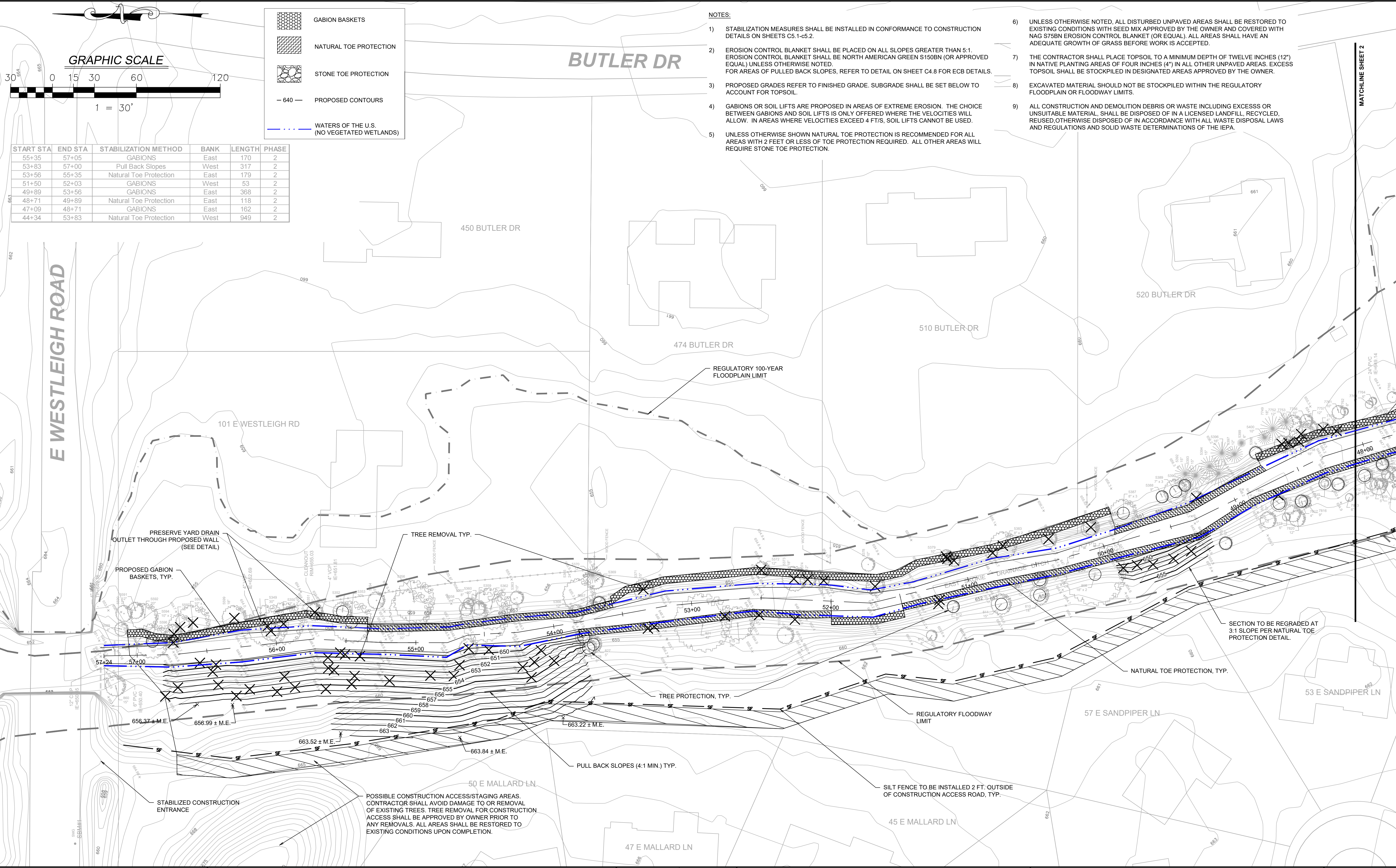


South side of property – bank erosion – driveway at top of slope at risk if erosion continues



**South end of property – 6 to 7 feet of steep erosion (0.5:1 or steeper) with fence at top of slope.
- Slope on 211 Glenwood – fence is owned by 710 Waveland**





START STA	END STA	STABILIZATION METHOD	BANK	LENGTH	PHASE
55+35	57+05	GABIONS	East	170	2
53+83	57+00	Pull Back Slopes	West	317	2
53+56	55+35	Natural Toe Protection	East	179	2
51+50	52+03	GABIONS	West	53	2
49+89	53+56	GABIONS	East	368	2
48+71	49+89	Natural Toe Protection	East	118	2
47+09	48+71	GABIONS	East	162	2
44+34	53+83	Natural Toe Protection	West	949	2

- GABION BASKETS
- NATURAL TOE PROTECTION
- STONE TOE PROTECTION
- 640 - PROPOSED CONTOURS
- WATERS OF THE U.S. (NO VEGETATED WETLANDS)

- NOTES:
- 1) STABILIZATION MEASURES SHALL BE INSTALLED IN CONFORMANCE TO CONSTRUCTION DETAILS ON SHEETS C5.1-C5.2.
 - 2) EROSION CONTROL BLANKET SHALL BE PLACED ON ALL SLOPES GREATER THAN 5:1. EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN S150BN (OR APPROVED EQUAL) UNLESS OTHERWISE NOTED. FOR AREAS OF PULLED BACK SLOPES, REFER TO DETAIL ON SHEET C4.8 FOR ECB DETAILS.
 - 3) PROPOSED GRADES REFER TO FINISHED GRADE. SUBGRADE SHALL BE SET BELOW TO ACCOUNT FOR TOPSOIL.
 - 4) GABIONS OR SOIL LIFTS ARE PROPOSED IN AREAS OF EXTREME EROSION. THE CHOICE BETWEEN GABIONS AND SOIL LIFTS IS ONLY OFFERED WHERE THE VELOCITIES WILL ALLOW. IN AREAS WHERE VELOCITIES EXCEED 4 FT/S, SOIL LIFTS CANNOT BE USED.
 - 5) UNLESS OTHERWISE SHOWN NATURAL TOE PROTECTION IS RECOMMENDED FOR ALL AREAS WITH 2 FEET OR LESS OF TOE PROTECTION REQUIRED. ALL OTHER AREAS WILL REQUIRE STONE TOE PROTECTION.
 - 6) UNLESS OTHERWISE NOTED, ALL DISTURBED UNPAVED AREAS SHALL BE RESTORED TO EXISTING CONDITIONS WITH SEED MIX APPROVED BY THE OWNER AND COVERED WITH NAG S75BN EROSION CONTROL BLANKET (OR EQUAL). ALL AREAS SHALL HAVE AN ADEQUATE GROWTH OF GRASS BEFORE WORK IS ACCEPTED.
 - 7) THE CONTRACTOR SHALL PLACE TOPSOIL TO A MINIMUM DEPTH OF TWELVE INCHES (12") IN NATIVE PLANTING AREAS OF FOUR INCHES (4") IN ALL OTHER UNPAVED AREAS. EXCESS TOPSOIL SHALL BE STOCKPILED IN DESIGNATED AREAS APPROVED BY THE OWNER.
 - 8) EXCAVATED MATERIAL SHOULD NOT BE STOCKPILED WITHIN THE REGULATORY FLOODPLAIN OR FLOODWAY LIMITS.
 - 9) ALL CONSTRUCTION AND DEMOLITION DEBRIS OR WASTE INCLUDING EXCESS OR UNSUITABLE MATERIAL, SHALL BE DISPOSED OF IN A LICENSED LANDFILL, RECYCLED, REUSED, OTHERWISE DISPOSED OF IN ACCORDANCE WITH ALL WASTE DISPOSAL LAWS AND REGULATIONS AND SOLID WASTE DETERMINATIONS OF THE IEPA.

V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

REVISIONS					
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	04-11-18	REVISED FOR CORPS OF ENGINEERS			

PROJECT NO.: 16284	DESIGNED BY: BAO
FILE NAME:	DRAWN BY: BAO
ORIGINAL ISSUE DATE: 04/19/2017	CHECKED BY: CWH
SCALE: 1" = 30'	PROJECT MANAGER: GWV

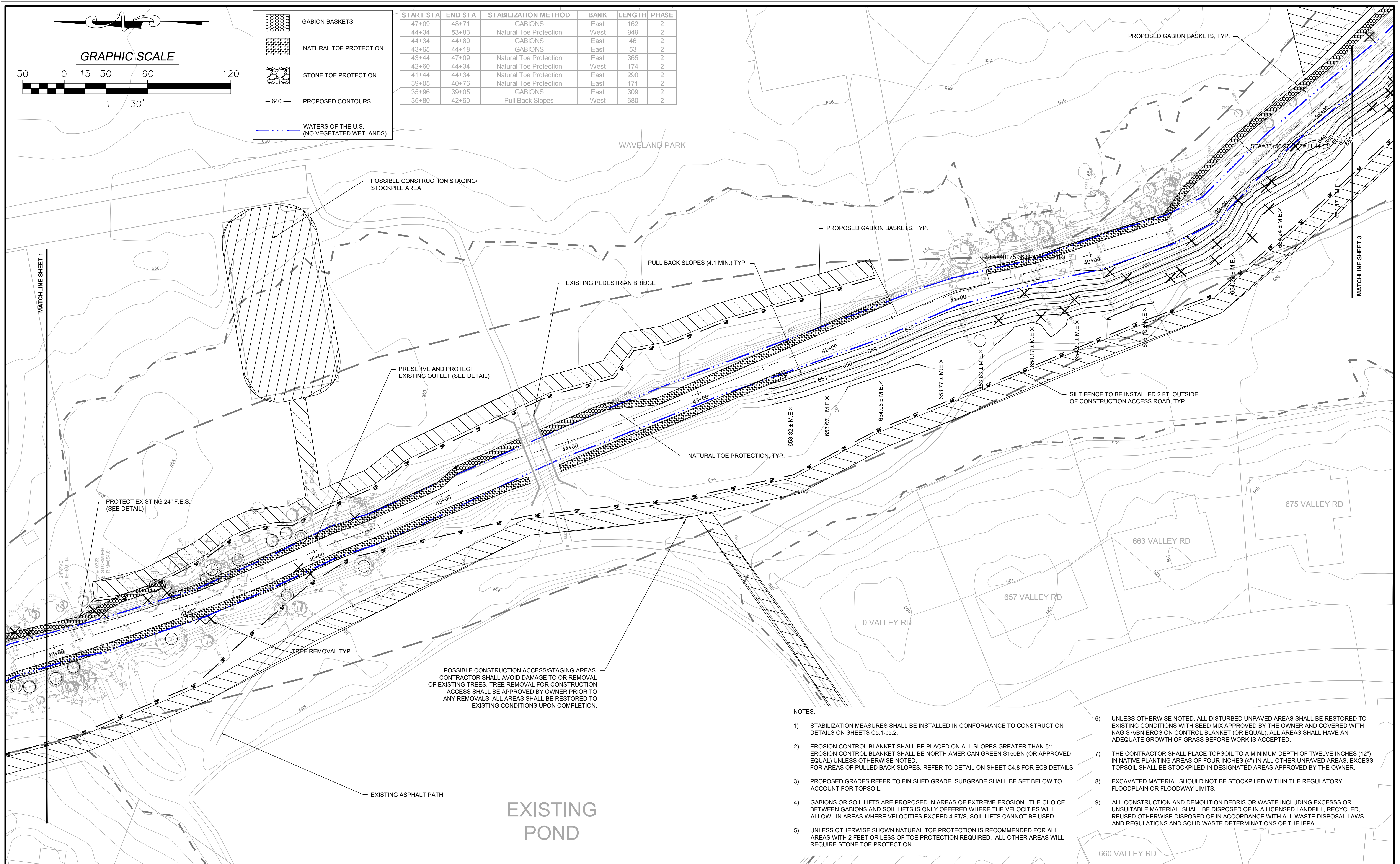
SKOKIE DRAINAGE DITCH STABILIZATION


LAKE FOREST ILLINOIS

PROPOSED STABILIZATION AND GRADING (STA 57+24 - 48+00)

DRAWING NO. C4.1

16284 - PROPOSED STABILIZATION AND GRADING (STA 57+24 - 48+00)





V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

REVISIONS					
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	04-11-18	REVISED FOR CORPS OF ENGINEERS			

PROJECT NO.: 16284	DESIGNED BY: BAO
FILE NAME:	DRAWN BY: BAO
ORIGINAL ISSUE DATE: 04/19/2017	CHECKED BY: CWH
SCALE: 1" = 30'	PROJECT MANAGER: GVW

SKOKIE DRAINAGE DITCH
STABILIZATION

LAKE FOREST

ILLINOIS

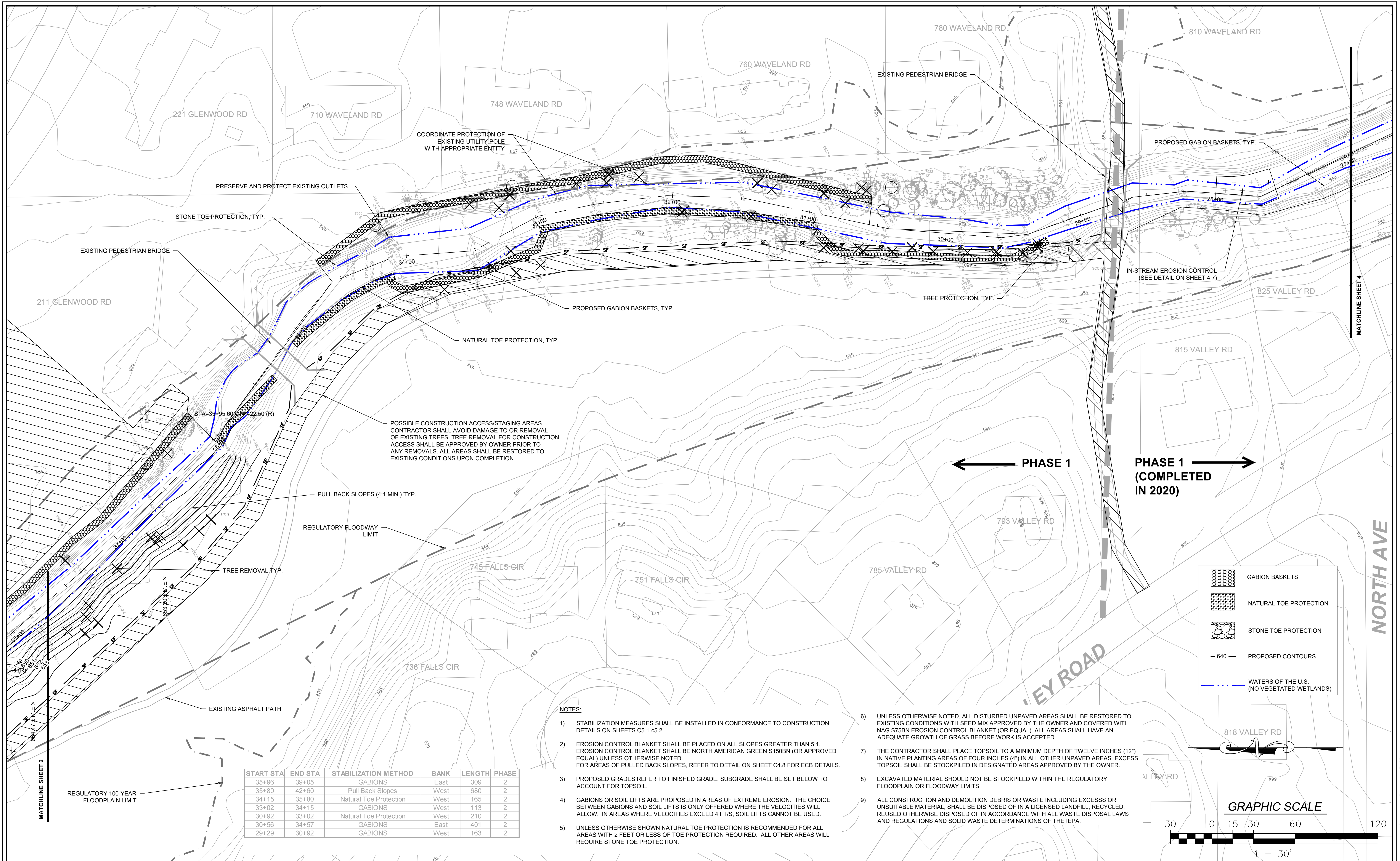
PROPOSED STABILIZATION AND
GRADING (STA 48+00 - 37+50)


C4.2

DRAWING NO.

- NOTES:
- 1) STABILIZATION MEASURES SHALL BE INSTALLED IN CONFORMANCE TO CONSTRUCTION DETAILS ON SHEETS C5.1-C5.2.
 - 2) EROSION CONTROL BLANKET SHALL BE PLACED ON ALL SLOPES GREATER THAN 5:1. EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN S150BN (OR APPROVED EQUAL) UNLESS OTHERWISE NOTED. FOR AREAS OF PULLED BACK SLOPES, REFER TO DETAIL ON SHEET C4.8 FOR ECB DETAILS.
 - 3) PROPOSED GRADES REFER TO FINISHED GRADE. SUBGRADE SHALL BE SET BELOW TO ACCOUNT FOR TOPSOIL.
 - 4) GABIONS OR SOIL LIFTS ARE PROPOSED IN AREAS OF EXTREME EROSION. THE CHOICE BETWEEN GABIONS AND SOIL LIFTS IS ONLY OFFERED WHERE THE VELOCITIES WILL ALLOW. IN AREAS WHERE VELOCITIES EXCEED 4 FT/S, SOIL LIFTS CANNOT BE USED.
 - 5) UNLESS OTHERWISE SHOWN NATURAL TOE PROTECTION IS RECOMMENDED FOR ALL AREAS WITH 2 FEET OR LESS OF TOE PROTECTION REQUIRED. ALL OTHER AREAS WILL REQUIRE STONE TOE PROTECTION.
 - 6) UNLESS OTHERWISE NOTED, ALL DISTURBED UNPAVED AREAS SHALL BE RESTORED TO EXISTING CONDITIONS WITH SEED MIX APPROVED BY THE OWNER AND COVERED WITH NAG S75BN EROSION CONTROL BLANKET (OR EQUAL). ALL AREAS SHALL HAVE AN ADEQUATE GROWTH OF GRASS BEFORE WORK IS ACCEPTED.
 - 7) THE CONTRACTOR SHALL PLACE TOPSOIL TO A MINIMUM DEPTH OF TWELVE INCHES (12") IN NATIVE PLANTING AREAS OF FOUR INCHES (4") IN ALL OTHER UNPAVED AREAS. EXCESS TOPSOIL SHALL BE STOCKPILED IN DESIGNATED AREAS APPROVED BY THE OWNER.
 - 8) EXCAVATED MATERIAL SHOULD NOT BE STOCKPILED WITHIN THE REGULATORY FLOODPLAIN OR FLOODWAY LIMITS.
 - 9) ALL CONSTRUCTION AND DEMOLITION DEBRIS OR WASTE INCLUDING EXCESS OR UNSUITABLE MATERIAL, SHALL BE DISPOSED OF IN A LICENSED LANDFILL, RECYCLED, REUSED, OTHERWISE DISPOSED OF IN ACCORDANCE WITH ALL WASTE DISPOSAL LAWS AND REGULATIONS AND SOLID WASTE DETERMINATIONS OF THE IEPA.

16284 - PROPOSED STABILIZATION AND GRADING (STA 48+00 - 37+50)





V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

REVISIONS					
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	04-11-18	REVISED FOR CORPS OF ENGINEERS			

PROJECT NO.: 16284	DESIGNED BY: BAO
FILE NAME:	DRAWN BY: BAO
ORIGINAL ISSUE DATE: 04/19/2017	CHECKED BY: CWH
SCALE: 1" = 30'	PROJECT MANAGER: GWV

SKOKIE DRAINAGE DITCH STABILIZATION

LAKE FOREST

ILLINOIS

PROPOSED STABILIZATION AND GRADING (STA 37+50 - 27+00)

DRAWING NO.
C4.3

ATTACHMENT 3: BMP CALCULATIONS

SKOKIE RIVER STABILIZATION PHASE 2 CONSTRUCTION

BMP TOTALS (Linear Feet)		Approximate Locations and Lengths of BMPs				
		Stabilization Practice	East Bank Downstream Station	East Bank Upstream Station	Length (feet)	Total Linear Feet
Gabion Baskets	1838	Gabion Baskets	30+56	34+57	401	
Natural Toe Protection	2621		35+96	39+05	309	
Pull Back Slopes	997		43+65	44+18	53	
Native Vegetation	5456		44+34	44+80	46	
			47+09	48+71	162	
			49+89	53+56	368	
			55+35	57+05	170	
						1509
		Natural Toe Protection	39+05	40+76	171	
			41+44	44+34	290	
			43+44	47+09	365	
			48+71	49+89	118	
			53+56	55+35	179	
						1123
		Stabilization Practice	West Bank Downstream Station	West Bank Upstream Station	Length (feet)	
		Gabion Baskets	29+29	30+92	163	
			33+02	34+15	113	
			51+50	52+03	53	
						329
		Natural Toe Protect	30+92	33+02	210	
			34+15	35+80	165	
			42+60	44+34	174	
			44+34	53+83	949	
						1498
		Pull Back Slopes	35+80	42+60	680	
			53+83	57+00	317	997
		TOTAL LENGTH OF STRUCTURAL BMPs				5456
		NATIVE VEGETATION				5456

ATTACHMENT 4: ARMY CORPS OF ENGINEERS PERMIT LETTER



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
231 SOUTH LA SALLE STREET
CHICAGO, ILLINOIS 60604-1437

December 30, 2019

Technical Services Division
Regulatory Branch
LRC-2018-00140

SUBJECT: Individual Permit for Skokie River Streambank Stabilization, north of Old Elm Road, south of Westleigh Street, east of Skokie Highway (Route 41) and west of Green Bay Road in Lake Forest, Lake County, IL. (Latitude 42.2309, Longitude -87.84514)

Joseph Bridges
East Skokie Drainage District
9 N County Street
Waukegan, Illinois 60085

Dear Mr. Bridges:

The U.S. Army Corps of Engineers has made a favorable determination on your application for a Department of the Army individual permit. Two copies of your permit for the above-referenced project are enclosed. Please review the conditions before signing the permit

You are hereby advised that the following options are available to you in your evaluation of the enclosed permit:

- 1) You may sign the permit, and return it to this office for final authorization. Your signature on the permit means that you accept the permit in its entirety, and waive all rights to appeal the permit, or its terms and conditions. If the terms and conditions of the permit are acceptable, please sign both copies on the line above the word "PERMITTEE" and return them to this office for counter-signature. Upon receipt, this office will sign both copies and return one to you for your records. You are not authorized to do work until you receive your copy of the permit that has been countersigned by the Corps.
- 2) You may decline to sign the permit because you object to certain terms and conditions therein, and you may request that the permit be modified accordingly. You must outline your objections to the terms and conditions of the permit in a letter to the District Commander. Your objections must be received by the District Commander within 60 days of the date of this letter, or you will forfeit your right to request changes to the terms and conditions of the permit. Upon receipt of your letter, the District Commander will evaluate your objections, and may: (a) modify the permit to address all of your concerns, or (b) modify the permit to address some of your objections, or (c) not modify the permit, having determined that the permit should be issued as previously written. In any of these three cases, the District Commander will send you a final permit for your reconsideration, as well a notification of appeal (NAP) form and a request

ATTACHMENT 4 ACOE Permit Letter

for appeal (RFA) form. Should you decline the final proffered permit, you can appeal the declined permit under the Corps of Engineers Administrative Appeal Process by submitting the completed RFA form to the Division Engineer. The RFA must be received by the Division Commander within 60 days of the date of the NAP that was transmitted with the second proffered permit.

Under Federal regulations, a fee is required for permits issued for work or construction in waters of the United States. Your project constitutes a non-commercial activity and the fee for such activities is \$10.00 (non-commercial site). Please remit a check for that amount, payable to FAO, U.S. Army Corps of Engineers, Chicago District, along with the signed permit forms. Please make sure that the permit number is mentioned in the memo portion of your check.

Please review the conditions before signing the permit. Your signature constitutes your specific agreement to the enclosed permit. Failure to meet any of the conditions may result in revocation of your permit. If the copies of the permit with your signature are not returned to this office within thirty (30) days of the date of this letter, your authorization will no longer be valid and the application will be considered withdrawn. If you wish to reinstate your permit request after the thirty (30) day time period, this office reserves the right to reevaluate your project, which may include the reissuance of a public notice.

This permit does not obviate your responsibility to obtain any required state or local approvals for this project. If you have any questions, please contact Kaitlyn A. Pascus of my staff by telephone at (312) 846-5533, or email at Kaitlyn.A.Pascus@usace.army.mil.

Sincerely,

CHERNICH.K
ATHLEEN.G.
1230365616
Kathleen G. Chernich
Chief, East Section
Regulatory Branch

Digitally signed by
CHERNICH.KATHLE
EN.G.1230365616
Date: 2019.12.30
18:18:38 -06'00'

Enclosures

V3 Companies (Thomas Slowinski)

ATTACHMENT 5: PROPERTY OWNERS WITHIN THE PROJECT PHASE 2 CONSTRUCTION OR ACCESS AREAS

SKOKIE RIVER STABILIZATION PHASE 2 CONSTRUCTION

PERMANENT EASEMENTS MAY BE REQUIRED

Taxpayer Name	Address	PIN	Project Work
SAMEER CHHABRIA	101 E. Westleigh	1604301001	Permanent easement for gabion baskets at north end and tree revetment at south and natural toe protection
HARRY W SHORT, TRUSTEE	474 Butler Drive	1604301003	Permanent easement for gabion baskets
JOHN C OLSEN REV TRUST	510 Butler Drive	1604301004	Permanent easement for gabion baskets
LUIS F & MARCY E MACHADO	520 Butler Drive	1604301005	Permanent easement for gabion baskets and natural toe protection
THE CITY OF LAKE FOREST	600 S Waveland	1604300003	Permanent easement for gabion baskets at north end and natural toe protection
FESSLER, RICHARD G & CAROL A	200 Glenwood Road	1604303011	Permanent easement for gabion baskets at south and natural toe protection
GILMOUR, DANE & THERESA	211 Glenwood Road	1604303012	Permanent easement for gabions at north and south end
MR & MRS BARRETT DAVIE	710 Waveland Road	1604303012	Construction of the gabions will require excavation behind the slope
RALPH J ELWART, JR	748 Waveland Road	1604306003	Permanent easement for gabions at south end
PATRICK V WHITE & JESSICA T WHITE	760 Waveland Road	1604306004	Permanent easement for gabions at north end
HOA	Entire west side		Permanent easement for gabions, pulling back of slopes and natural toe protection

TEMPORARY CONSTRUCTION EASEMENTS MAY BE REQUIRED

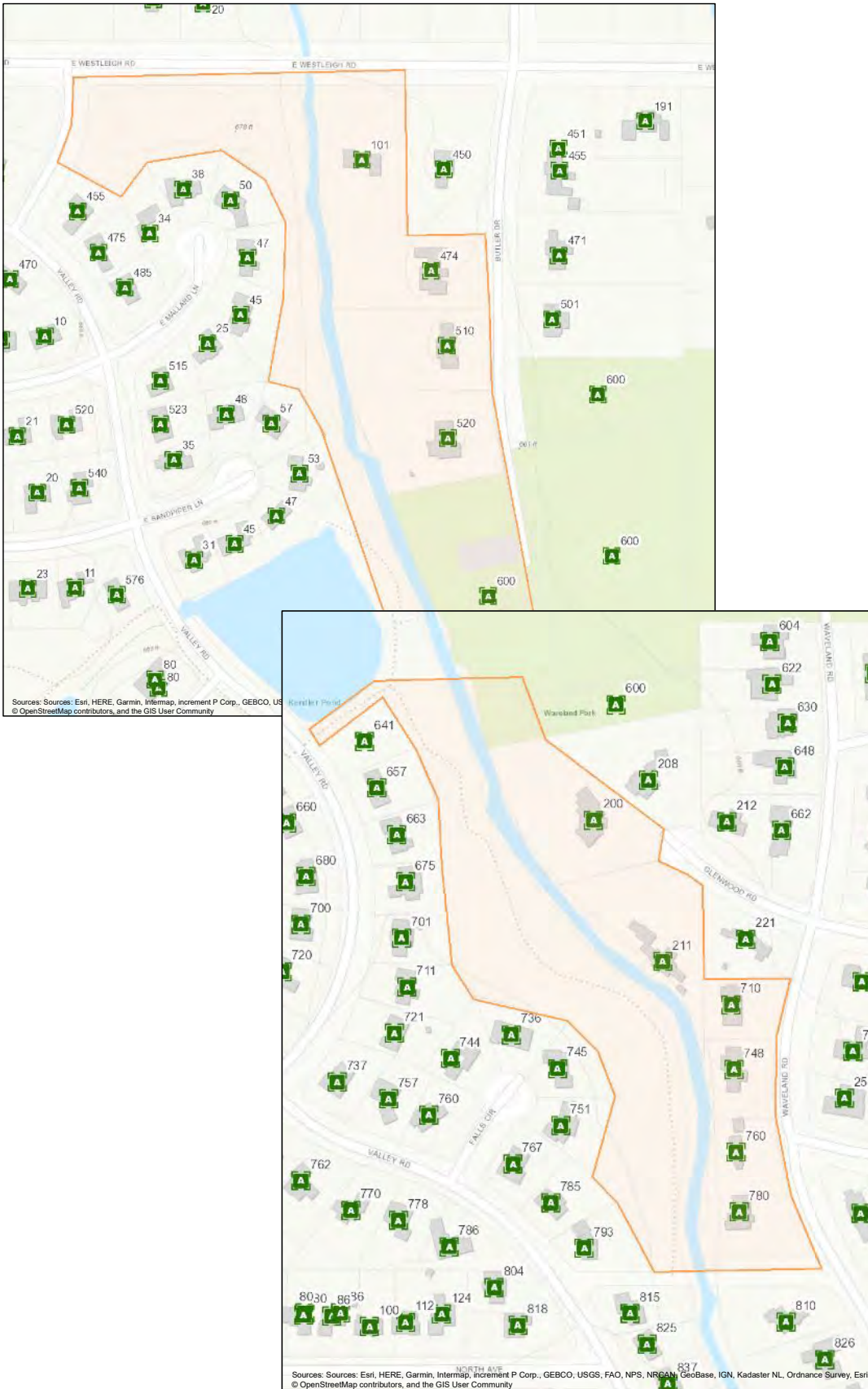
THE CITY OF LAKE FOREST	600 S Waveland	1604300003	Construction access road and equipment and materials staging area
HOA	Entire west side		Construction access road and equipment and materials staging area

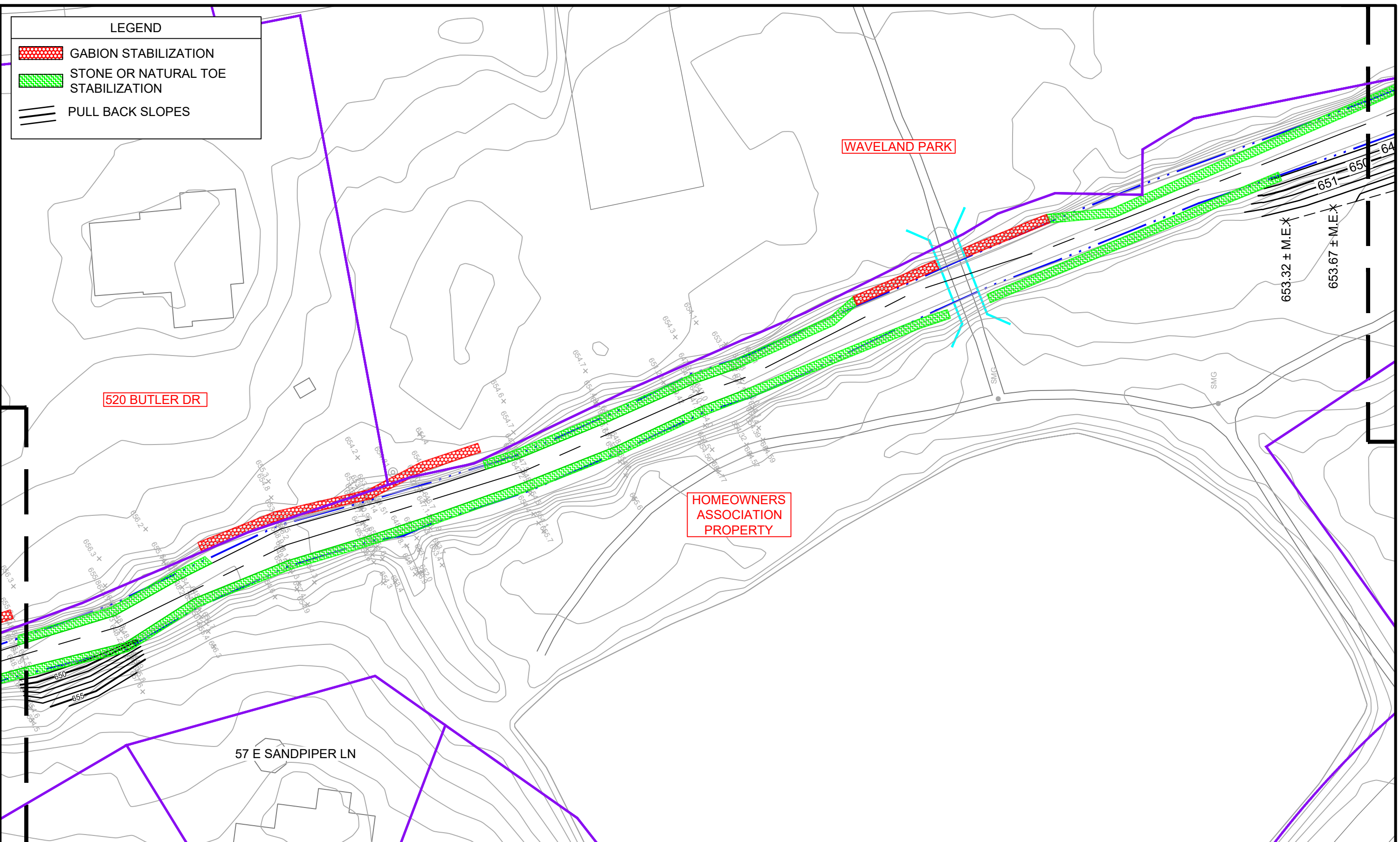
UTILITY PERMISSION/AGREEMENT

	748 Waveland Road		Utility poles in standing water 3-4 feet from bank – coordinate with utility for protection
--	-------------------	--	---

CITY OF LAKE FOREST PARTNER AGREEMENT

Properties in Skokie River Stabilization Phase 2 Construction Area





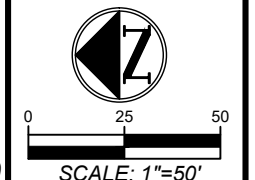
LEGEND

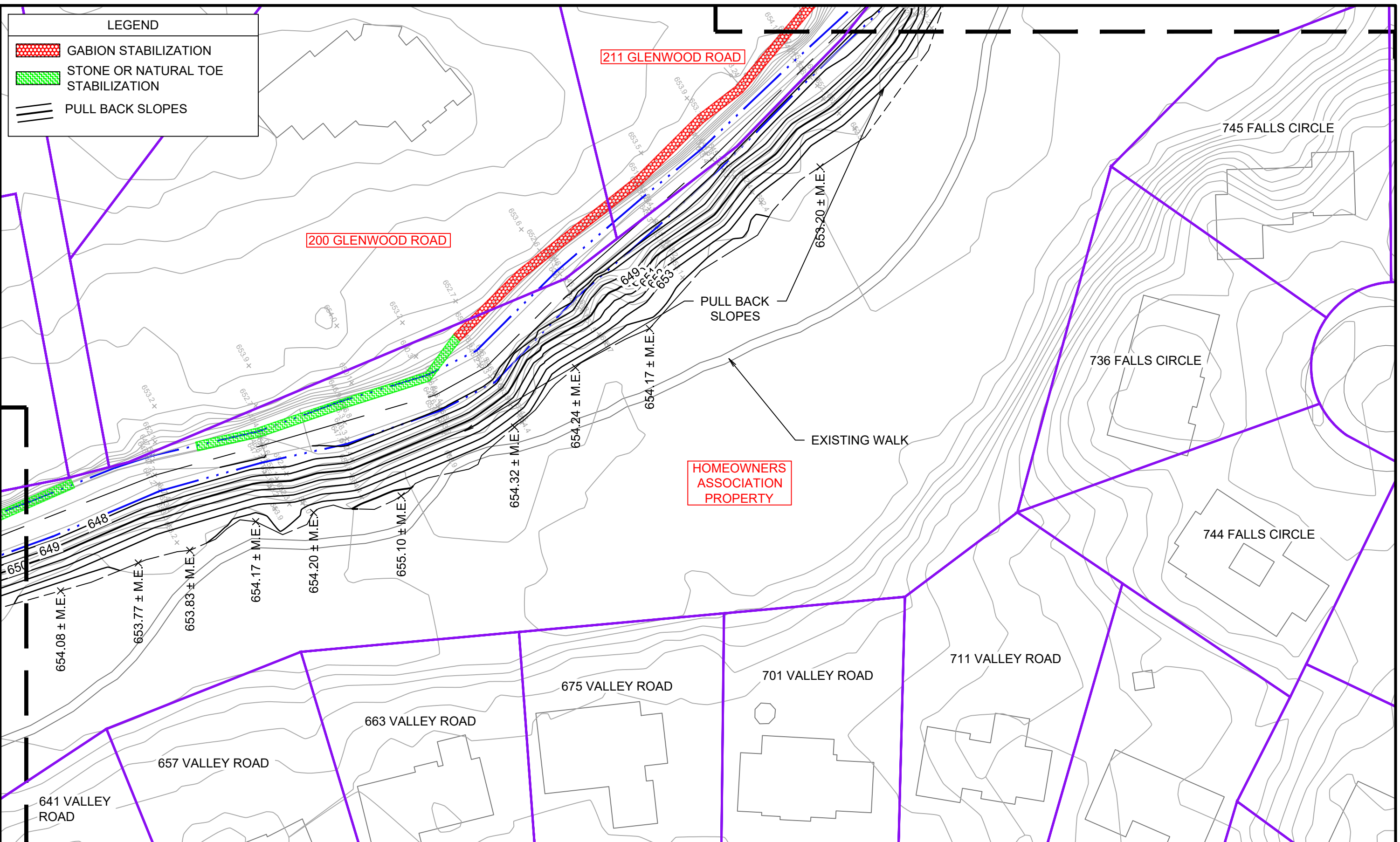
- GABION STABILIZATION
- STONE OR NATURAL TOE STABILIZATION
- PULL BACK SLOPES

 7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

EAST SKOKIE DRAINAGE DISTRICT
LAKE FOREST ILLINOIS

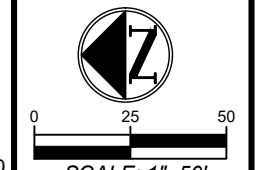
PROPOSED SABILIZATION
EXHIBIT (NORTH) - 2 OF 4


DATE: 12-15-20
SCALE: 1"=50'



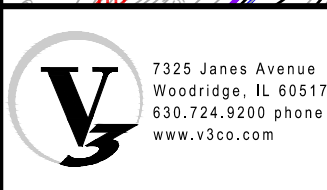
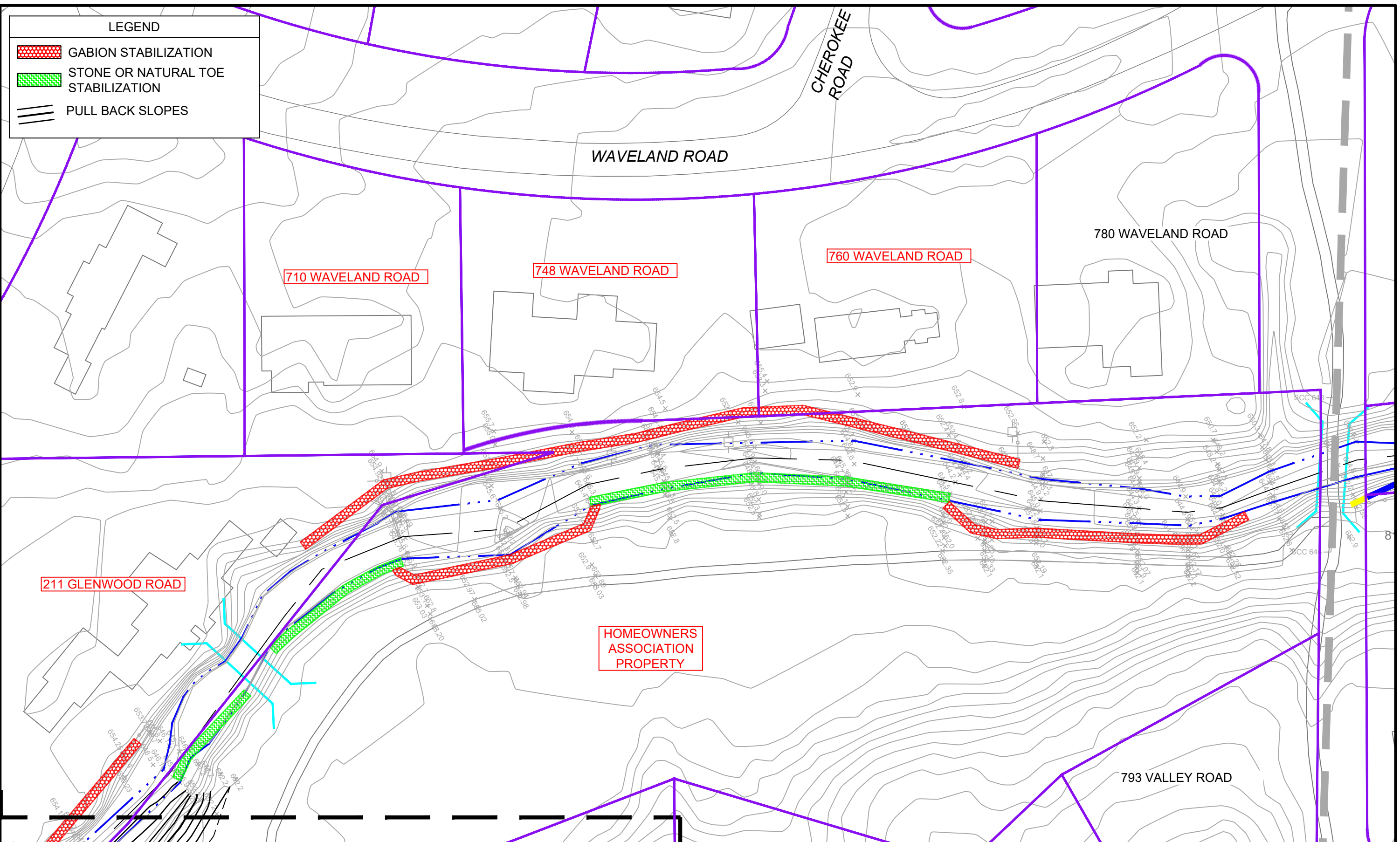
EAST SKOKIE DRAINAGE DISTRICT
LAKE FOREST
ILLINOIS

PROPOSED SABILIZATION
EXHIBIT (NORTH) - 3 OF 4



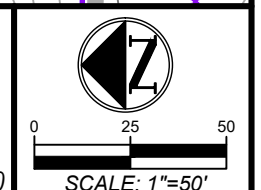
DATE: 12-15-20

SCALE: 1"=50'



EAST SKOKIE DRAINAGE DISTRICT
LAKE FOREST
ILLINOIS

**PROPOSED SABILIZATION
EXHIBIT (NORTH) - 4 OF 4**



DATE: 12-15-20



ATTACHMENT 6: ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COST PHASE 2

Client:	East Skokie Drainage District	Contact:	Bud Reed
Address:	9 N. County Street, Suite 200 Waukegan, IL 60085	Phone:	(847) 727-2659
		Email:	budr49@comcast.net
Project Name:	Skokie Drainage Ditch Restoration - Phase 2		
Location:	Lake Forest, IL	Date:	12/29/2020

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

1.00	DRAINAGE IMPROVEMENTS	QUANTITY	UNIT	UNIT PRICE	TOTAL
1.11	Pre-Construction Video Recording	1	LSUM	\$ 4,000.00	\$ 4,000.00
1.12	Sanitary Sewer Televising	1	LSUM	\$ 15,000.00	\$ 15,000.00
1.13	IEPA CCDD Disposal Analysis	1	LSUM	\$ 10,000.00	\$ 10,000.00
1.14	Construction Layout/As-Built	1	LSUM	\$ 25,000.00	\$ 25,000.00
1.15	Construction Access & Restoration	1	LSUM	\$ 100,000.00	\$ 100,000.00
1.16	Water Management	1	LSUM	\$ 160,000.00	\$ 160,000.00
1.17	Erosion Control Management	1	LSUM	\$ 25,000.00	\$ 25,000.00
1.18	Clearing/Tree Removal	1	LSUM	\$ 80,000.00	\$ 80,000.00
1.19	Gabion Basket - 3.0'	167	LF	\$ 420.00	\$ 70,140.00
1.19	Gabion Basket - 4.5'	217	LF	\$ 460.00	\$ 99,820.00
1.20	Gabion Basket - 6.0'	1256	LF	\$ 520.00	\$ 653,120.00
1.21	Gabion Basket - 7.5'	52	LF	\$ 550.00	\$ 28,600.00
1.22	Gabion Basket - 9.0'	146	LF	\$ 730.00	\$ 106,580.00
1.23	Natural Toe Protection	2621	LF	\$ 35.00	\$ 91,735.00
1.24	Slope Grading	997	LF	\$ 30.00	\$ 29,910.00
1.25	Storm Outlet Stabilization	25	EA	\$ 750.00	\$ 18,750.00
1.26	Seed/Blanket Stabilization	8000	SY	\$ 4.25	\$ 34,000.00
1.27	Furnish and Install Trees	50	EA	\$ 600.00	\$ 30,000.00
1.28	Furnish and Install Shrubs	100	EA	\$ 150.00	\$ 15,000.00
SUBTOTAL					\$ 1,596,655.00
CONTINGENCY (20%)					\$ 319,331.00
ESTIMATE TOTAL					\$ 1,915,986.00

Notes:

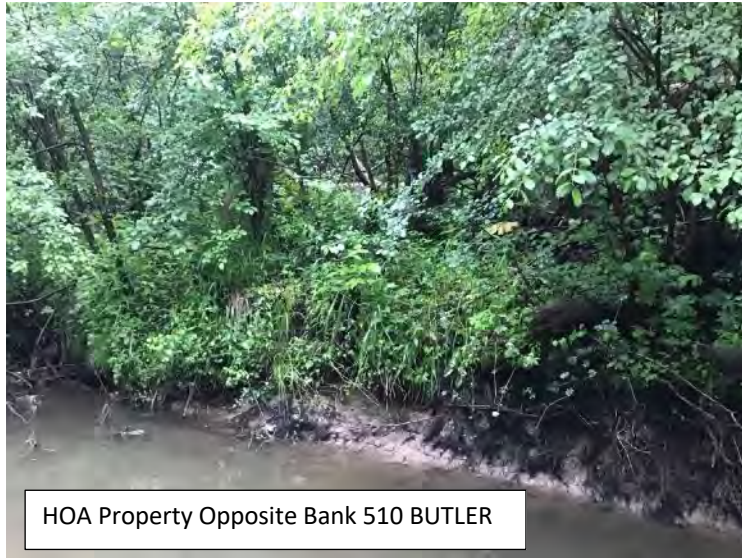
- 1) This estimate is based upon the current level of system distress between E. Westleigh Road and the Hickory Ct. pedestrian bridge. It should be expected that additional degradation will occur as erosion continues prior the actual start of construction. This expected additional erosion may result in significant variations from this estimate.
- 2) Soft costs are not provided for in this estimate. These costs may include but are not limited to; additional design engineering and/or permitting services, bidding services, construction engineering services, DECI/SWPPP inspections, etc.

This Engineers Opinion of Probable Construction Cost (EOPCC) is based on drawings by V3 Companies, Ltd. titled "Preliminary Engineering Plans for Skokie Drainage Ditch Stabilization, Lake Forest, IL" with the latest revision date of 04/11/18. Since V3 Companies of Illinois, Ltd. has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, this Opinion of Probable Construction Cost is made based on V3 Companies of Illinois' best judgment as an experienced and qualified professional engineer, familiar with the Construction industry; however, V3 Companies of Illinois cannot and does not guarantee that proposals, bids or actual Construction Costs will not vary from Opinions of Probable Construction Cost prepared by V3.

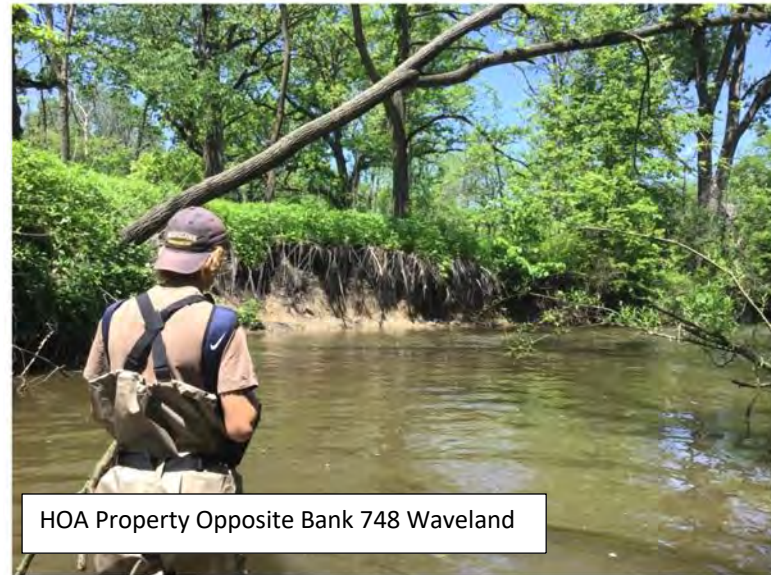
ATTACHMENT 7: 2019 STREAM INVENTORY PHOTOS SKOKIE RIVER STABILIZATION PHASE 2 CONSTRUCTION AREA



ATTACHMENT 7: 2019 STREAM INVENTORY PHOTOS SKOKIE RIVER STABILIZATION PHASE 2 CONSTRUCTION AREA



ATTACHMENT 7: 2019 STREAM INVENTORY PHOTOS SKOKIE RIVER STABILIZATION PHASE 2 CONSTRUCTION AREA



ATTACHMENT 7: 2019 STREAM INVENTORY PHOTOS SKOKIE RIVER STABILIZATION PHASE 2 CONSTRUCTION AREA



HOA Property Opposite Bank 780 Waveland

ATTACHMENT 8: LETTERS OF SUPPORT



December 15, 2020

Lake County Stormwater Management Commission
Attn: Ashley Strelcheck, North Branch Chicago River Watershed DCEO-STOCIP Project Manager
500 W. Winchester Road, Suite 201
Libertyville, Illinois 60048

Re: Letter of Support for ESDD Lake Forest Project Phase 2

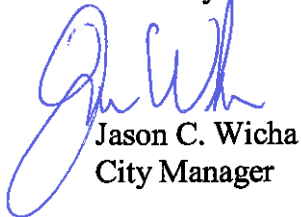
Dear Ms. Ashley Strelcheck,

On behalf of the City of Lake Forest, I am pleased to write in support of the East Skokie Drainage District's (ESDD) application for funding under the Stormwater Capital Improvement Program (DCEO-STOCIP). The District is submitting a request for funding for its Lake Forest Stabilization Phase 2 Project and will take place within a drainage channel, which is located adjacent to park property owned by the City of Lake Forest.

The City is supportive of this effort to provide watershed function benefits to this stretch of the Skokie River for which ESDD has jurisdiction over. The project will be addressing areas of very severe erosion of the stream bank of the Skokie River. We applaud ESDD's effort to preserve the natural aesthetics of the river channel.

The ESDD and the City of Lake Forest have partnered on other efforts to improve and benefit properties along and adjacent to the Skokie River in the past. With the generous support under the Stormwater Capital Improvement Program (DCEO-STOCIP), we anticipate this valuable resource can be further preserved.

Sincerely Yours,



Jason C. Wicha
City Manager



NORTH BRANCH
CHICAGO RIVER
WATERSHED
WORKGROUP

December 14, 2020

Lake County Stormwater Management Commission
Attn: Ashley Strelcheck, North Branch Chicago River Watershed DCEO-STOCIP Project Manager
500 W. Winchester Road, Suite 201
Libertyville, Illinois 60048

Dear Ms. Ashley Strelcheck,

The North Branch Chicago River Watershed Workgroup (NBWW) is pleased to support the East Skokie Drainage District (ESDD) for funding under the Department of Commerce and Economic Opportunity - Stormwater Capital Improvement Program (DCEO-STOCIP). The ESDD is submitting a request for funding for its Lake Forest Stabilization Project Phase 2, which is shovel ready and has received an Army Corp of Engineering Permit to perform the project. The proposed project includes best management practices for water quality improvements towards stabilizing approximately one mile of the Skokie River corridor that has severe and very severely eroded streambanks. A combination of BMPs including gabion baskets, natural and stone toe protection and bank reshaping will be used with deep-rooted native plants to stabilize the streambanks. This water quality improvement project is recommended in the North Branch Chicago River Watershed-Based Plan BMP action plan to reduce pollutant loads and improve water quality and will allow for collaboration on projects and activities to restore habitat to improve aquatic life.

Through facilitating the collection and analysis of water quality monitoring data, the NBWW hopes to achieve attainment of water quality standards and designated uses for the North Branch of the Chicago River waterbodies. We believe that this project closely aligns with the NBWW's mission, goals and objectives (see below).

Mission: "The mission of the Workgroup is to bring together a diverse coalition of stakeholders to preserve and enhance water quality in the North Branch Chicago River and its tributaries."

Goals: (B) "Education and outreach targeted towards achieving attainment of water quality standards and designated uses for the watershed."

Objectives: (B) "Update and implement the North Branch of the Chicago River Watershed-Based Plan."

Thank you for your consideration of this project proposal and funding request.

Sincerely,

Brandon Janes
President, NBWW
Village of Deerfield
bjanes@deerfield.il.us

Matt Farmer
Vice President, NBWW
Village of Northbrook
Matt.Farmer@northbrook.il.us