

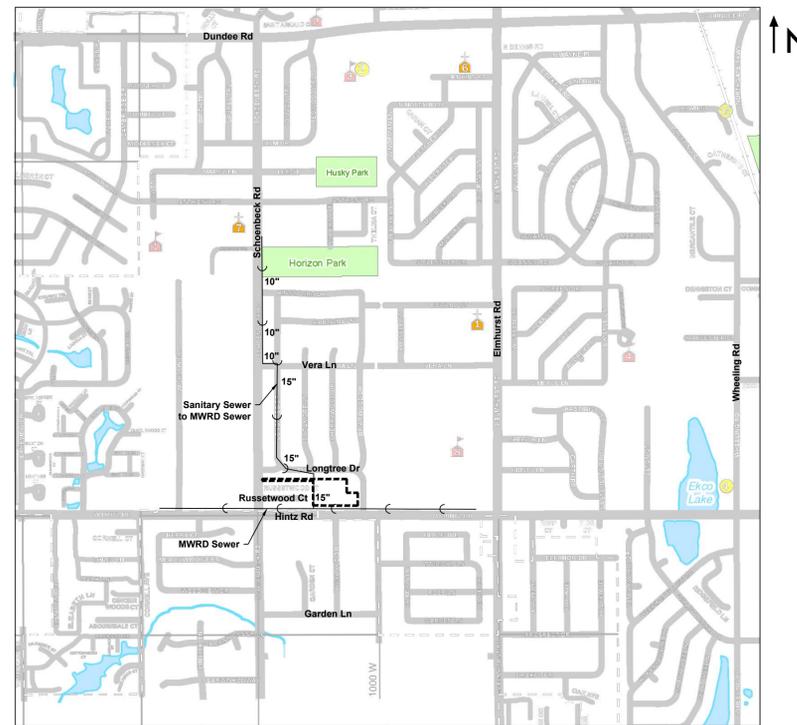
# LONGTREE STORMWATER BASIN SITE IMPROVEMENTS 770 LONGTREE DRIVE

SECTION 10 TOWNSHIP 42 NORTH RANGE 11 EAST  
WHEELING, IL  
COOK COUNTY

**VILLAGE OF WHEELING - VILLAGE HALL:**  
2 Community Boulevard  
Wheeling, IL 60090  
Tel: (847) 459-2600  
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**VILLAGE OF WHEELING - PUBLIC WORKS:**  
77 W. Hintz Road  
Wheeling, IL 60090  
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**CIVIL ENGINEERS / LAND SURVEYORS:**  
Haeger Engineering LLC  
Illinois Prof. Design Firm #184-003152  
100 East State Parkway  
Schaumburg, IL 60173  
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LOCATION MAP

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EC4.0	SWPP TYPICAL DETAILS

Benchmark	
CP # 1171 (see survey)	Description: Bolt on Hydrant Elevation: 661.00 NAVD 88 (Geoid 12A)
CP #603 (see survey)	Description: Cross Cut Elevation: 661.25 NAVD 88 (Geoid 12A)

Existing Symbol	LEGEND Description	Proposed Symbol
	Storm Sewer Manhole	
	Catch Basin	
	Inlet	
	Flared End Section	
	Headwall	
	Area Drain	
	Sanitary Sewer Manhole	
	Clean Out	
	Storm Sewer	
	Storm Sewer Service	
	Perforated Underdrain	
	Sanitary Sewer	
	Sanitary Sewer Service	
	Combined Sewer	
	Force Main	
	Water Main	
	Water Main Service	
	Fire Hydrant	
	Valve Vault	
	Valve Box	
	B-Box	
	Well Head	
	Light Pole	
	Light Pole With Mast Arm	
	Traffic Signal	
	Traffic Signal With Mast Arm	
	Hand Hole	
	Fence	
	Guardrail	
	Pipe Bollard	
	Sign	
	Gas Valve	
	Gas Line	
	Electric Line	
	Overhead Utility Line	
	Fiber Optic Line	
	Electrical Pedestal	
	Electric Manhole	
	Guy Wire	
	Utility Pole	
	Telephone Pedestal	
	Telephone Manhole	
	Telephone Line	
	Cable TV Line	
	Cable TV Pedestal	
	Flagpole	
	Mailbox	
	Handicapped Parking Stall	
	Number of Parking Stalls	
	Curb & Gutter	
	Reverse Pitch Curb & Gutter	
	Depressed Curb	
	Retaining Wall	
	Curb Elevation and Gutter/Pavement Elevation	
	Gutter/Pavement Elevation	
	Pavement Elevation	
	Sidewalk Elevation	
	Ground Elevation	
	Top of Wall Elevation	
	Bottom of Wall Elevation	
	Open Lid Frame & Grate	
	Closed Lid Frame & Lid	
	Swale	
	Hardscape Flow	
	Softscape Flow	
	Contour Line	
	Wetland	
	Wetland Buffer	
	Normal Water Level	
	High Water Level	
	Flood Plain	
	Flood Way	
	Deciduous Tree	
	Coniferous Tree	
	Bush	
	Brushline	
	Soil Boring	
	Over Land Flow Route	



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**TITLE SHEET**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
WHEELING, IL

Project Manager: K M L  
Engineer: D J V  
Date: 02/19/2020  
Project No. 19-186  
Sheet **C1.0**



Know what's below.  
Call before you dig.

Note:  
Call 811 at least 48 hours, excluding weekends and holidays, before you dig.

# VILLAGE OF WHEELING NOTES

## GENERAL NOTES

- Underground construction shall comply with the applicable ordinances and requirements of the Village of Wheeling and the Illinois Department of Transportation ("Specifications for Road and Bridge Construction", latest edition, and the Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition, published by the Illinois Environmental Protection Agency (I.E.P.A.) except for conflicts with the Metropolitan Water Reclamation District of Greater Chicago (M.W.R.D.G.C.) Sewer Permit and Manual and Procedures Ordinances. In case of a conflict the Village standards and requirements shall govern.
- All paving and excavation work shall comply with the applicable ordinances of the Village of Wheeling and the Illinois Department of Transportation ("Specifications for Road and Bridge Construction", latest edition. In case of a conflict, the Village standards and requirements shall govern.
- The contractor shall field check and verify all existing utility locations, dimensions, and elevations in the field prior to the commencement of construction of the improvements or proposed work. All existing utility locations on the plans have been shown based on best available information. Notify the engineer immediately if discrepancies are found.
- Elevations are based upon NAVD 88 Datum.
- The contractor shall notify the Village of Wheeling Engineering (847) 229-4800 and Plumbing Inspector (847) 459-2620 two (2) business days prior to the start of construction. The Contractor shall also contact J.U.L.I.E. (800) 892-0123 at least 48 hours prior to starting work. All other agencies shall also be notified as required.
- The contractor shall restore all disturbed off-site areas to at least a condition that existed prior to construction at the cost of the contractor.
- All existing field drainage tiles encroached or damaged during construction are to be restored to their original condition, properly rerouted, and/or connected to the storm sewer system.
- The contractor and engineer shall maintain records for "as built" drawings which shall be submitted to the Village Engineer at the completion of this project.
- The contractor shall provide video tape(s) or still pictures as required by the Village Engineer prior to beginning work.
- The set of stamped approval plans shall be on site at all times during construction of the project.
- It shall be the responsibility of the Contractor to provide at least 48 hours in advance and set up the necessary and proper inspection(s) for all work to be performed.
- All unpaved areas of right-of-way are to be sodded (salt-tolerant) where disturbance exceeds 18-in in width. Where restoration is less than 18-in in width, restoration shall be salt-tolerant seed and erosion control.
- Storm and sanitary sewer lines shall be cleaned of all construction debris and silt prior to Village inspection.
- The contractor shall maintain and keep at the job site, an up to date set of "Record Drawings" showing all changes from the original plans. The location of all service connections for sanitary sewer, storm sewer and water shall be clearly marked and labeled. All boxes and cleanouts must be shown with tied dimensions. The elevation of all rims and inverts shall be verified by the contractor and shown on the "Record Drawings". The contractor shall deliver the "Record Drawings" to the Engineer at the conclusion of the project, prior to any final inspections. The Engineer will transfer the information to the original plans by furnishing the final Record Drawings to the Village Engineer. The contractor shall provide three (3) sets of complete "Record Drawings", and, if required, one (1) set of reproducible prints.
- It shall be the responsibility of the Developer (Owner) and the Contractor to abide by, adhere to, and perform all work in accordance with the requirements, specifications, standards, practices, policies, and codes of the Village of Wheeling, which includes but is not limited to labor, materials, procedures, and safety.
- All changes to the original plans, specifications, standards, practices, policies, and codes of work shall be submitted to the Village Engineer, in writing, with written approval by the Village Engineer received prior to beginning said work. All materials and construction, whether implicitly or explicitly stated or covered within the requirements, codes, or specifications, shall be approved by the Village Engineer, prior to commencing the installation and construction of the project.
- All obstructions that are not approved by the Village and which currently exist in the right-of-way shall be removed, which include all rocks and boulders.
- OSHA rules, regulations, and requirements shall be strictly adhered to during the execution of all work to be performed.
- Contractor shall pay special attention to the existing street light electrical conduit. If electrical conduit is damaged, repairing only damaged portion of conduit is not allowed; the entire section of electrical conduit between the nearest poles shall be replaced at the cost of the contractor.

## GENERAL UNDERGROUND UTILITIES

- Trench backfill shall be provided under and within two feet (2') of all existing or proposed B/C of all curb non-existent, EOP.
- All manholes and similar structures must be a minimum of 48" diameter, and valve vaults must be a minimum of 60" diameter, unless approved otherwise.
- For modification or repair of all sewers and addition of or repair of sewer clean outs; non-shar couplings shall be used in connection of sewer pipes with prior approval from Village Engineering Department.
- A minimum ten feet (10') horizontal separation shall be maintained between watermain and sewer or drain lines unless precluded by local conditions. When the watermain is located closer than ten feet (10') horizontally or the invert of the watermain is located closer than eighteen inches (18") vertically above the crown of any sewer or drain line, then the sewer or drain line shall be constructed in accordance to watermain standards and shall be pressure tested to assure water tightness in accordance with the Illinois Environmental Protection Agency (I.E.P.A.) requirements.
- When a watermain crossing over a sewer or drain line is closer than eighteen inches (18") vertically above the crown of that sewer or drain line, then that sewer or drain line shall be constructed according to the requirements listed in item 4) above.
- If the watermain passes under a sewer or drain line, the following conditions shall be met: a vertical separation of eighteen inches (18") between the invert of the sewer or drain line and the crown of the watermain shall be maintained, and the sewer or drain line shall be constructed as described in item 4) above.
- The cost of all required testing of underground utilities shall be incidental to the construction cost of the same.
- The contractor shall mark location of the ends, if necessary, of any sanitary, water, and storm services with buried 4" x 4" wood posts placed at three (3) feet out of the ground. The posts shall be painted blue, red, and green respectively, with appropriate signs attached stating "Caution: B-box - Do not remove until landscaping is complete."
- When connecting to an existing sewer main by means other than an existing tee, tee, or an existing manhole, the sewer shall be cut into saw-cut by proper tools ("sewer-tap" machine or similar) with proper cutting or hub-wye saddle or rubber gaskets.
- Sewer connections to an existing structure shall be machine cored.
- A flexible rubber boot shall be used at all sanitary sewer manhole penetration connections.
- Eccentric cone sections shall be used on all manholes, catch basins, vaults, etc. unless approved otherwise for the Village Engineer.
- All sewer construction requires stone bedding 1/4" to 1" in size, (I.D.O.T. equivalent CA-11, CA-13) with a minimum thickness equal to 1/4 the outside diameter of the sewer pipe, but not less than four (4) inches, nor greater than eight (8) inches.
- All sewer work shall conform to the approved permit plans unless revisions have been approved by the Village, as well as any and all other necessary agencies.
- Structures shall have a maximum of twelve inches (12") of adjustment with any combination up to a maximum of three (3) inches.
- Protect and cover all pipes and underground structures until final grading, paving, and landscaping are complete.
- Trench Backfill material for both paved areas and parkways shall be CA-6, Grade 8. For detail, see Trench Backfill Standard on Sheet C-9. Density Test of compacted CA-6 will be performed by a consultant retained by the contractor. If the modified proctor test results are less than 95% of the maximum dry density, backfilling will not be allowed until CA-6 is compacted to Village requirements. Contractor is responsible for providing modified proctor density data of CA-6 and the cost of this work shall be included in the cost of associated underground pay item.
- Design and construct, including suspension of work, and until the final acceptance, the contractor shall keep the site clean and free from rubbish and debris. The contractor shall also abate dust nuisance by cleaning, sweeping and sprinkling with water or other means as necessary. Whenever required by the Engineer, the contractor shall furnish and operate a self loading motor sweeper with spray nozzle at least once each working day for the purpose of keeping paved areas acceptably clean wherever construction, including reconstruction, is incomplete unless directed by the Engineer otherwise.
- Curb and Gutter, Sidewalk, Driveway and Sodding shall be restored within four weeks after all service lines are made to each street. If temperature is above 80 degrees farenheit, sodding shall be delayed until temperature is under 80 degrees. Watering of new sod shall be performed per IDOT standard specifications for Road and Bridge Construction, article 252.08.
- Contractor shall ensure that access by Mail Delivery, Garbage Removal School Buses and Emergency Vehicles on public streets is maintained at all times.

## PAVING

- Base course shall be aggregate base course, type B (crushed limestone, grade 8), conforming to the standard specifications for Illinois.
- Sidewalk shall be Portland Cement concrete with an airment of five (5) percent, plus or minus one (1) percent. A six (6) bag mix shall be used. Maximum allowable slump is three (3) inches. Curing compound shall be applied after finishing.
- Subgrade shall be to a 0.1 feet of design subgrade elevations by the earthwork contractor. Fine grading for sidewalks shall be the responsibility of the paving contractor.
- All sidewalk removal shall be accomplished by saw cutting prior to removal.

## STORM SEWER

- All storm sewer pipes shall be reinforced concrete pipe conforming to ASTM C-76 Class IV with confined gasketing joints in compliance with ASTM C-361 or TyPur Super SMC gasket conforming to ASTM C-361.
- Elevations of flared end sections shall be interpreted at the invert of the flared endsection.
- All storm structures are to have open (grate) lids unless specified as having closed lids (C.L.).
- Rim grades for storm structures located within the curb and gutter are flow line elevations.
- All sump pump and drain tile discharges shall be routed to the storm sewer system. Sump pump service connections shall be four (4) inch PVC SDR 26 conforming to ASTM D2751 or ASTM D3034 at a minimum slope of 2% and shall be air gapped. Minimum cover shall be two (2) feet, wherever possible.
- All downspouts, footing drains, and outside drains shall discharge to the storm sewer or over ground as approved by the Village Engineer.
- Minimum diameter of storm sewer shall be 12" unless approved otherwise.
- No storm water shall be discharged to the sanitary sewer system.
- Any storm sewer damaged during the work shall be repaired with full sized permanent or temporary storm sewer pipe. Use of temporary under-sized storm sewer pipe is strictly prohibited.

# IEPA NOTES

## Sewers crossing water mains shall be laid to meet the following specifications:

- Horizontal Separation:
  - Whenever possible, a water main must be laid at least ten feet horizontally from any existing or proposed drain or sewer line.
  - Should local conditions exist which would prevent a lateral separation of ten feet, a water main may be laid closer than ten feet to a storm or sanitary sewer provided that the water main invert is at least eighteen inches above the crown of the sewer, and is either in a separate trench or in the same trench on an undisturbed earth surface. Any other arrangement than previously indicated shall be approved by the Engineer. If it is impossible to obtain proper horizontal and vertical separation as described in 1 and 2 above, both the water main and sewer must be constructed of pipe material which would conform to water main standards and be pressure tested to assure water tightness before backfilling.
- Vertical Separation:
  - Whenever water mains cross house sewers, storm drains or sanitary sewers, the water main shall be laid at such an elevation that the invert of the water main is eighteen inches above the crown of the drain or sewer. This vertical separation must be maintained for that portion of the water main located within any feet horizontally from the drain crossed. This must be measured as the normal distance from the water main to the drain or sewer.
  - Where conditions exist that the minimum vertical separation set forth in 1) above cannot be maintained, or it is necessary for the water main to pass under a sewer or drain, one of the following two measures must be taken:
    - The water main shall be installed within a PVC carrier pipe and the carrier pipe shall extend on each side of the crossing until the normal distance from the water main to the sewer or drain line is at least ten (10) feet.
    - The involved sewer or drain shall be constructed of pipe material which would conform to water main standards until the normal distance from the water main to the sewer is at least ten (10) feet.
    - In making such crossings, center a length of water main pipe over the sewer to be crossed so that the joints will be equidistant from the sewer and as remote there from as possible. Where a water main must cross under a sewer, a vertical separation of eighteen inches between the invert of the sewer and the crown of the water main shall be maintained with means to support the larger sized sewer lines to prevent their settling and breaking the water main.

The horizontal and vertical separation between water service lines and all sanitary sewers, storm sewers, and water mains shall be the same as for water mains, as detailed above, except that water main horizontal and vertical separation cannot be maintained, water pipe as described under Vertical Separation above, may be used for sewer service lines.

# IEPA CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD) NOTES

## CCDD Compliant Material Disposal:

- Work shall be performed in compliance with the Illinois Environmental Protection Agency (IEPA) guidelines in effect at the time of construction.
- The Contractor will be required to make all arrangements for coordination and submission of the testing reports and certification documents with their chosen CCDD disposal facility. Written confirmation of preliminary approval must be provided from the disposal facility and confirmed by the Village as acceptable.
- All surplus, clean material generated from the Contractor's activities must be disposed of at an IEPA permitted CCDD facility. The Contractor is responsible for providing documentation to the Village for each load hauled off-site showing the quantity of material and the disposal facility.
- The removal and disposal of CCDD compliant trench spoils for the installation of the water main shall be considered incidental to the cost of the pipe.
- No extra compensation will be allowed to the Contractor for any expenses incurred complying with the requirements including, but not limited to: delays, inconvenience, or interruptions in the work resulting from compliance with these requirements.

## CCDD Non-Compliant Material Disposal:

- Work shall be performed in compliance with the Illinois Environmental Protection Agency (IEPA) guidelines in effect at the time of construction.
- A quantity of 50 CY has been established in the bid proposal to address areas of possible non-compliant material. If such materials are found during construction, the Contractor shall notify the Village immediately. Suspect materials are to be set aside on non-permeable tarp/plastic, etc. and covered until they may be assessed. If after assessment the material is found to be non-compliant, it shall be loaded onto trucks for proper landfill disposal off-site. Disposal documentation will be provided by the Contractor to the Village prior to any applications for payment being requested.
- The Village will provide a third party testing company to sample and analyze discovered suspect non-compliant material. After receipt of the report of the analysis report, the Owner will determine the probable limits of contamination and confirm with the Contractor in order to establish a material quality. Work shall include all labor, equipment, materials, trucking, re-handling, etc. as required to stockpile and dispose of material, whether compliant or not. Only material determined to be non-compliant shall be paid for at the provided unit price. Re-handling and disposal of material determined to be compliant shall be incidental to the water main pipe installation.

# SUPPLEMENTAL NOTES

Note: In case of a conflict, contradiction, or discrepancy between the Village of Wheeling Notes or Village of Wheeling details and the Supplemental Notes, the Village of Wheeling Notes/Details shall apply, unless otherwise approved by the Village of Wheeling Engineer.

## GENERAL NOTES

- Definition of Terms:
  - "Owner" shall mean the person or entity with which Haeger Engineering, LLC has been contracted with to prepare the Plans and Specifications.
  - "Engineer" shall mean Haeger Engineering, LLC.
  - "Contractor" shall mean the persons or entities responsible for performing and constructing the work described in the Plans, Specifications and other Construction Documents including but not limited to furnishing all labor, materials, tools, equipments, and other incidentals necessary.
  - "Plans and Specifications" shall mean the Engineering Drawings and any Specifications prepared by Haeger Engineering, LLC, the Engineer.
  - "Jurisdictional Agency" shall mean any local, municipal, county, township, state or federal entity of government or other entity having jurisdiction of some aspect of the project from whom approval, permit and/or review and approval was required.
- The Specifications governing this project are as follows:
  - All applicable Village/City and other applicable Jurisdictional Agency Ordinances, Codes, Regulations, Requirements, Policies, Specifications, Standards, etc.
  - Roadway and Earthwork construction shall conform to the Illinois Department of Transportation (IDOT) "Standard Specifications for Road and Bridge Construction", latest edition and any subsequent "Supplemental Specifications and Recurring Special Provisions" as well as any applicable IDOT Highway Standards. Hereafter these items shall be collectively be referred to as the IDOT "Standard Specifications".
  - Water Main, Storm Sewer, and Sanitary Sewer construction shall conform to the "Standard Specifications for Water and Sewer Construction in Illinois", latest edition.
  - Soil Erosion and Sedimentation Control shall conform to the Illinois Environmental Protection Agency (IEPA) "Illinois Urban Manual" (IUM), latest edition and "Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control", latest edition.
  - Traffic Control shall conform to the "Manual of Uniform Traffic Control Devices" (MUTCD), latest edition, as well as the latest edition of the "Illinois Supplement to the MUTCD", and IDOT "Quality Standard for Work Zone Traffic Control Devices", latest edition.
  - All handicap accessibility items shall conform to the Illinois Accessibility Code (IAC), latest edition.
  - General Notes and Specifications contained herein or elsewhere as a separate document. If a conflict, contradiction, or discrepancy occurs between any of the above Specifications the more stringent requirement shall apply, unless directed otherwise by the applicable Jurisdictional Agency.
- Contract Documents:
  - The Engineer's Plans and Specifications shall be included as part of the Contract Documents.
  - All Contractors shall carefully examine the Plans and Specifications, and other Contract Documents prepared for the work. They shall visit the site of the work and acquaint themselves with all local conditions, codes, and requirements. They shall be responsible for determining whether they shall not be allowed extra compensation by reason of any unforeseen difficulties or obstacles which the Contractor could have discovered or reasonably anticipated or inferred prior to bidding or start of construction.
  - Should it appear that the work covered by the Plans and Specifications or other Contract Documents is not sufficiently detailed or explained, a Request For Information (RFI) Form shall be submitted to the Engineer for further explanations and drawings as may be necessary to clarify the point in question prior to the contract award. It is the intention of the Contract Documents to provide a job complete in every respect. Incidental items or accessories necessary to complete the work may not be specifically noted or shown but that they are necessary to complete the project shall be considered incidental to the Contract. The Contractor is responsible for this result and to turn over the project in complete operating condition, irrespective of whether the contract documents cover every individual item in minute detail.
  - If any additional soils data is needed to confirm the Contractor's opinions of the subsurface conditions, this shall be at the Contractor's expense. The Contractor shall obtain the Owner's written authorization to access the site to conduct a supplemental soils investigation. Any bracing, sheeting, dewatering or special construction methods deemed necessary by the Contractor in order to install the proposed improvements shall be considered incidental to the Contract and no additional compensation will be allowed.
  - Should it appear that the work covered by the Plans and Specifications or other Contract Documents is not sufficiently detailed or explained, a Request For Information (RFI) Form shall be submitted to the Engineer for further explanations and drawings as may be necessary to clarify the point in question prior to the contract award. It is the intention of the Contract Documents to provide a job complete in every respect. Incidental items or accessories necessary to complete the work may not be specifically noted or shown but that they are necessary to complete the project shall be considered incidental to the Contract. The Contractor is responsible for this result and to turn over the project in complete operating condition, irrespective of whether the contract documents cover every individual item in minute detail.

- The Contractor shall review the subsurface exploration and geotechnical report (a.k.a. soil boring report) prepared by Soil Material Consultants, Inc. dated February 5, 2020, to become familiar with the subsurface soil conditions for the site. Copies of all such soil boring reports for the property can be obtained from the Owner. If any additional soils data is needed to confirm the Contractor's opinions of the subsurface conditions, this shall be done at the Contractor's expense. The Contractor shall obtain the Owner's written authorization to access the site to conduct a supplemental soils investigation. The Owner and Engineer make no representation or warranty regarding the number, location, spacing or depth of borings taken, nor of the accuracy or reliability of the information given in the results thereof. Furthermore, the Owner and Engineer assume no responsibility for the possibility that during construction, the soil and groundwater conditions may be an undisturbed earth surface other than previously indicated. Any bracing, sheeting, dewatering or special construction methods deemed necessary by the Contractor in order to install the proposed improvements shall be considered incidental to the Contract and no additional compensation will be allowed.
- Should any apparent contradictions, discrepancies or conflicts be discovered on the Plans, Specifications, Quantities or other Contract Documents by the Contractor, whether prior to or after the award of the contract, the Engineer's attention shall be called to the same before work is begun thereon, so that proper clarification can be provided or revision made. If any work is done without contacting the Engineer, it shall be considered the Contractor's responsibility. The Owner and Engineer make no representation or warranty regarding the performance of work is indicated on the Plans, and no specific item is included in the Contract for payment, the work shall be considered incidental to the Contract and no additional compensation will be allowed. The Contractor shall provide all necessary labor, material, equipment, etc. necessary to perform all the work required for construction of the proposed improvements.
- The base plan/drawing for the Engineering Plans (existing conditions, site topography, utilities, rights-of-way, etc.) was obtained from the Topographic Survey prepared by:
  - Haeger Engineering, LLC
  - 100 East State Parkway, Schaumburg, IL 60173
  - (847) 394-6600
  - 19-186
  - 11-14-2019

- The Owner shall obtain the necessary approvals from the following Jurisdictional Agencies:
  - Village of Wheeling
  - Metropolitan Water Reclamation District of Greater Chicago (MWRD)
  - Illinois Environmental Protection Agency (IEPA) - Water and Sewer Division
  - Illinois Environmental Protection Agency (IEPA) - Notice of Intent (NOI) General Permit to Discharge Storm Water from Construction Site Activities
  - Illinois Historic Preservation Agency (IHPA)
  - Section 201 of the Illinois Environmental Protection Agency (IEPA)
- The Contractor, unless otherwise agreed upon in writing with the Owner prior to the start of Construction, shall at his own expense, obtain all other approvals including permits, licenses, etc. as may be required for the execution of this work as well as provide all necessary notices, pay all fees required, post bonds, obtain liability insurance, comply with all applicable codes, rules, and regulations relating to the work and to the preservation of public health and safety. The Contractor shall also provide all required insurance and/or bonds as may be required by the Jurisdictional Agencies. In addition, the Contractor shall meet all of the requirements of any permits as might be issued for this work by other Agencies, and shall pay for at their sole expense any surety, insurance or bonds as may be required by the Jurisdictional Agencies.
- No work shall proceed until the appropriate permit or permits have been obtained for the item or items to be constructed. If any work does proceed without the appropriate permits or approvals, it is being done without the permission or consent of the Engineer. The Contractor and Party authorizing the work to proceed shall be assumed to be proceeding at their own risk and the Engineer shall not be held liable or responsible for any work being performed without a permit.
- The Contractor shall indemnify and hold harmless the Owner, Engineer, Village/City, and other Jurisdictional Agencies, as well as all of their respective officers, employees, agents, and Engineers from and against all losses, claims, demands, payments, suits, actions, recoveries, and judgment of every nature and description brought or recovered against the Contractor or any act, error or omission of said Contractor, their agents or employees in the execution of the work or in the guarding of it.
- The construction shall be under the general inspection and observation of the designated individual authorized by the Village/City or other applicable Jurisdictional Agencies. The Village/City, Jurisdictional Agencies, Owner, and Engineer shall be notified at least two working days prior to the commencement of work.
- In some instances, the existing utilities are shown on the Plans according to information obtained from the utility companies (atlas information) and/or surveys performed by Others. The Owner and Engineer do not guarantee the accuracy or completeness of this information. The Contractor shall be aware of potential conflicts with existing or other proposed utilities as indicated on the Plans that become apparent as the result of field locations by Others. The Contractor shall make their own investigations as necessary to determine the existence, nature, and location of all utility lines and related appurtenances within the limits or adjacent to the proposed improvements. The Contractor shall locate all utilities far enough in advance to avoid or conflicts between the existing utilities and proposed improvements. The Contractor shall be responsible for such conflicts. If the Contractor encounters a conflict between the proposed improvements and existing utility that was not located in advance by the Contractor, then the Contractor shall at no cost to Owner, relocate the proposed improvements and/or utility to avoid the conflict.
- The Contractor shall be responsible for coordinating and coordinating with all utility companies involved in connection with the removal, temporary relocation, construction, reconstruction or abandonment by these companies of any and all services or facilities owned or operated by them within the limits or general vicinity of the proposed improvements. Further, at the direction of the Owner and Utility Companies the Contractor shall coordinate the location and installation of sleeves as necessary under the proposed pavement, curbs, walks, etc. for utility companies to run their proposed utility lines.
- Before doing any work which will damage, disturb or leave unattended, or unprotected any utility lines or related appurtenances encountered, the Contractor shall notify the respective Owner thereof, who will make all arrangements for the relocation, protection, or abandonment of such utilities. All existing trees that fall within the limits of the proposed construction without cost to the Contractor, including the removal of all cables, manhole covers and other related appurtenances which the Owner desires to salvage. After such arrangements have been made, the Contractor will proceed with the work as directed by the Engineer. All utility lines and related appurtenances which are abandoned shall be removed if necessary and legally disposed of legally off-site by the Contractor.
- No extra compensation will be allowed by the Contractor for any expense incurred for complying with all of these aforementioned utility coordination and cooperation requirements, or because of delays, inconvenience or interruptions in their work resulting from the failure of any utility company to remove, relocate, construct, reconstruct or abandon their facilities. The responsibility for the removal, reconstruction or abandonment of their facilities by all utility companies involved, and the coordination of their own work with that of these companies to the end that work on this improvement is not delayed because of the necessary changes in the existing utilities, public or private, shall rest upon the Contractor.
- Right-of-way or within the limits of the proposed construction, all existing trees are to be salvaged, materials, sizes, dimensions, and conditions affecting the work, and notify the Engineer immediately if any are any suspected discrepancies. No work shall be performed until the suspected discrepancy has been resolved. The Contractor shall also call to the attention of the Engineer any errors or discrepancies which may be suspected in legally off-site areas or grades which are established by the existing utility companies with the work until any lines and grades which are to be believed to be in error have been verified or corrected by the Engineer.
- The Contractor shall maintain positive drainage at all times during construction. Construction shall not block off-cuts, or create flow from any drainage ways, field tile, storm sewers, drainage ways or similar encountered or damaged during construction shall be maintained, restored to their original pre-construction condition or better, properly re-routed, and/or connected to the proposed stormwater drainage system. If this can't be accomplished then the field tile should be repaired or re-routed with new pipe of similar diameter to the original line and put back in service. The Contractor shall notify the Engineer if any such field tiles are encountered or damaged during any construction activities any loose material is deposited in the flow line of gutters, ditches, drainage structures, etc. such that the natural flow of water is obstructed, this material shall be removed by the responsible party.
- Prior to commencement of construction, on sites that will ultimately result in the disturbance of one (1) acre or more, the Contractor shall be responsible for obtaining a copy of the notice of coverage letter and the IEPA National Pollutant Discharge Elimination System (NPDES) General Permit ILR10 from the Owner. The Owner together along with the Contractor and/or other entities if so designated by the Owner, shall be responsible for ensuring that all the requirements of the General Permit and the Storm Water Pollution Prevention Plan (SWPPP) including but not limited to the installation, maintenance as well as the installation of any additional measures necessary that may be required, and inspections of the soil erosion and sediment control measures as well as completing all of the necessary applicable certifications, reports, logs, etc. Inspections are required to be performed at least once every seven (7) calendar days and within 24 hours of the end of a storm event of 0.5 inches of rain (or equivalent snowfall) or greater. The SWPPP and all the required paperwork shall be kept on-site and be organized and ready for viewing.
- No construction activities, disturbance or fill shall occur within the limits of natural resources such as wetlands, floodplains, riparian areas, streams, ponds, lakes, basins, reservoirs, or other sensitive buffers unless specifically specified on the Plans or further that the work has been approved by the Contractor. The Contractor shall take sufficient precautions to protect these natural resources that are to remain, either on-site or on adjacent property, to protect them from sediment, fuels, oils, bitumens, calcium chloride, or other harmful materials which may be a detriment. The Contractor shall conduct and schedule their Construction so as to avoid sediment, or other disturbance to these natural resource areas. The Contractor shall not disturb or otherwise impact these designated natural resource areas, or areas that have been designated to be protected or as essential habitat for State or Federal listed endangered or threatened species, or Prairie or Savanna areas where the Owner has made commitments for protection of these areas. Also, if previously identified natural resource areas, prairies, savannas, or areas or locations supporting rare or distinctive protected species are identified during construction, the Contractor shall not disturb them unless written permission to do so is granted by the Owner or applicable Jurisdictional Agency. If the Owner, Engineer, or applicable Jurisdictional Agency determines that additional measures are necessary to prevent or mitigate project effects on natural resource areas, prairies, savannas, protected species, or essential habitat the Contractor shall cooperate in accomplishing these measures.
- The Contractor shall confine their activities to within the project boundaries, work areas, or easements specified. No work shall be performed on adjacent private property or outside the project work areas without the written permission of each respective Owner. The Contractor shall be responsible for damage to existing or newly installed improvements as well as any damage on adjacent property or areas outside designated work areas, provided damage as a result of Contractor action, or lack thereof.
- The Contractor is responsible for returning all areas affected by equipment, materials and/or laborers to pre-construction condition, or better. All existing utilities or improvements, including but not limited to pavements, curbs, drives, trees, and parkways damaged or removed during construction shall be properly restored to their respective original pre-construction condition or better. The Contractor is also responsible for protecting all newly constructed work from damage until the project has been completed and has been approved and accepted by the Owner.
- Clean-up and final restoration shall be performed immediately upon completion of each phase of the work or when directed to do so by the Owner, so that these areas will be restored as nearly as possible to their original pre-construction condition or better, and shall include but not be limited to, restoration of maintained lands and rights-of-way, roadways, driveways, sidewalks, ditches, landscaping, fences, mailboxes, storm sewer and drain tile, sanitary sewer, water mains, etc. It shall also be the responsibility of the Contractor to remove from the site any and all materials and debris which results from their construction operations at no

- additional expense to the Owner.
- All proposed Grades shown on the Plans shall be considered to be finished grade surface elevations unless noted otherwise.
- Construction staking/layout shall be provided by the Contractor and shall be included in the Contract Price unless otherwise agreed upon in writing with the Owner prior to the start of Construction.
- All Construction means and methods, techniques, procedures, scheduling, sequencing, and job site safety is the sole responsibility of the Contractor. The Owner and Engineer make no representation or warranty regarding the number, location, spacing or depth of borings taken, nor of the accuracy or reliability of the information given in the results thereof. Furthermore, the Owner and Engineer assume no responsibility for the possibility that during construction, the soil and groundwater conditions may be an undisturbed earth surface other than previously indicated. Any bracing, sheeting, dewatering or special construction methods deemed necessary by the Contractor in order to install the proposed improvements shall be considered incidental to the Contract and no additional compensation will be allowed.
- The Contractor shall take whatever steps necessary to protect the public from open trenches, excavations, and other site obstructions or hazards. No trenches, excavations or holes in the pavement or parkway are to be left open over a holiday, weekend, or after 3 p.m. on the day preceding a holiday or weekend.
- The Contractor shall take whatever steps necessary to protect the public from open trenches, excavations, and other site obstructions or hazards. No trenches, excavations or holes in the pavement or parkway are to be left open over a holiday, weekend, or after 3 p.m. on the day preceding a holiday or weekend.
- The Contractor shall immediately remove any sediment or debris including but not limited to dirt, mud, clay, sediment, concrete, gravel, sand, stones, plant material, refuse, garbage, oil, grease, etc. deposited on any roadway, street, walk, alley or other pavement by any equipment, vehicles or personnel associated with this project. This work shall be considered incidental to the Contract.
- The Contractor shall at all times maintain proper dust control at the site and shall have a watering truck readily available during all working hours. The Contractor shall water the entire site whenever the site conditions become unhealthy due to blowing soil or dust. The site shall be watered as many times per day as necessary to maintain a healthy work site as determined by the Owner or Engineer. Water for watering shall be provided by the Contractor or other Jurisdictional Agency unless the Contractor provides a proper backup preventer in accordance with Village/City or Jurisdictional Agency requirements. The cost to furnish dust control shall be incidental to the cost of Construction.
- Trees not marked for removal shall be protected as necessary by the Contractor. In the event that a tree is damaged or removed, the Contractor shall replace such tree with a tree or trees in accordance with Village/City requirements. If the Village/City does not have specific tree replacement requirements, the damaged existing or newly planted tree shall be replaced in accordance with the procedures outlined in Section 201 of the IDOT Standard Specifications. The Contractor shall ensure that trees are replaced with trees of the same or greater size and species as the tree being replaced. The replacement of all damaged trees not designed for removal, and any penalties associated with the unapproved removal of trees.
- Where overhanging branches, limbs, or roots interfere with the required construction activities, said branches, limbs, or roots shall be trimmed or pruned as necessary in accordance with Section 201 of the IDOT Standard Specifications. This work shall be performed under the supervision of an approved arborist or landscape architect.
- The Contractor is responsible for the installation and maintenance of adequate signs, traffic control devices, and warning devices, in accordance with the Plans, applicable IDOT Standard Specifications and the MUTCD Standards to inform and protect the public during all phases of construction. The Contractor shall provide all signage, barricades, devices, equipment, personnel, etc. necessary to provide for safe and efficient traffic flow in all areas where the work will interrupt, interfere or cause to change in any form, the conditions of traffic flow that existed prior to the commencement of any portions of the work. Roadways shall remain open to a degree that will not impede the appropriate permit or permits have been obtained for the item or items to be constructed. If any work does proceed without the appropriate permits or approvals, it is being done without the permission or consent of the Engineer. The Contractor and Party authorizing the work to proceed shall be assumed to be proceeding at their own risk and the Engineer shall not be held liable or responsible for any work being performed without a permit.
- Where noted in the Plans, the Contractor shall have Shop Drawings and any other required supporting documentation or calculations prepared and submitted for review and approval prior to any fabrication, placement, or construction. If structural elements such as retaining walls are required, the drawings and any required calculations shall be prepared, and signed and sealed by an Illinois licensed Structural Engineer.
- The Contractor is responsible for having a set of approved Plans and Specifications with the latest revision date on the job site at all times during the construction period.
- The Contractor shall maintain a set of approved Plans and Specifications of Field Marked Construction Plans. These Field Marked Construction Plans shall show the location of the actual installed location of all underground utilities including related appurtenances (sanitary, storm, water, service stubs, gas, telephone, electric, cable TV, etc.) giving particular attention to concealed elements that would be difficult to measure and record at the time of construction. The Contractor shall be responsible for the maintenance of the approved Plans should any conflicts with existing or other proposed utilities as indicated on the Plans that become apparent as the result of field locations by Others. The Contractor shall make their own investigations as necessary to determine the existence, nature, and location of all utility lines and related appurtenances within the limits or adjacent to the proposed improvements. The Contractor shall locate all utilities far enough in advance to avoid or conflicts between the existing utilities and proposed improvements. The Contractor shall be responsible for such conflicts. If the Contractor encounters a conflict between the proposed improvements and existing utility that was not located in advance by the Contractor, then the Contractor shall at no cost to Owner, relocate the proposed improvements and/or utility to avoid the conflict.
- All work performed under the Plans, Specifications or other Contract Documents shall be guaranteed against all defects in materials and workmanship of whatever nature by the Contractor and his surety for a minimum period of one (1) year after the date of substantial completion of the work by the Contractor, or the applicable Jurisdictional Agencies, and the Owner, unless otherwise agreed upon in writing with the Owner prior to the start of construction.
- Before acceptance by the Owner and prior to final payment all work shall be inspected and approved by the Owner or the designated individual authorized by the Village/City or other applicable Jurisdictional Agencies. The Contractor shall coordinate the location and installation of sleeves as necessary under the proposed pavement, curbs, walks, etc. for utility companies to run their proposed utility lines.
- All work performed under the Plans, Specifications or other Contract Documents shall be guaranteed against all defects in materials and workmanship of whatever nature by the Contractor and his surety for a minimum period of one (1) year after the date of substantial completion of the work by the Contractor, or the applicable Jurisdictional Agencies, and the Owner, unless otherwise agreed upon in writing with the Owner prior to the start of construction.
- Before acceptance by the Owner and prior to final payment all work shall be inspected and approved by the Owner or the designated individual authorized by the Village/City or other applicable Jurisdictional Agencies. The Contractor shall coordinate the location and installation of sleeves as necessary under the proposed pavement, curbs, walks, etc. for utility companies to run their proposed utility lines.

## DEMOLITION AND CLEARING

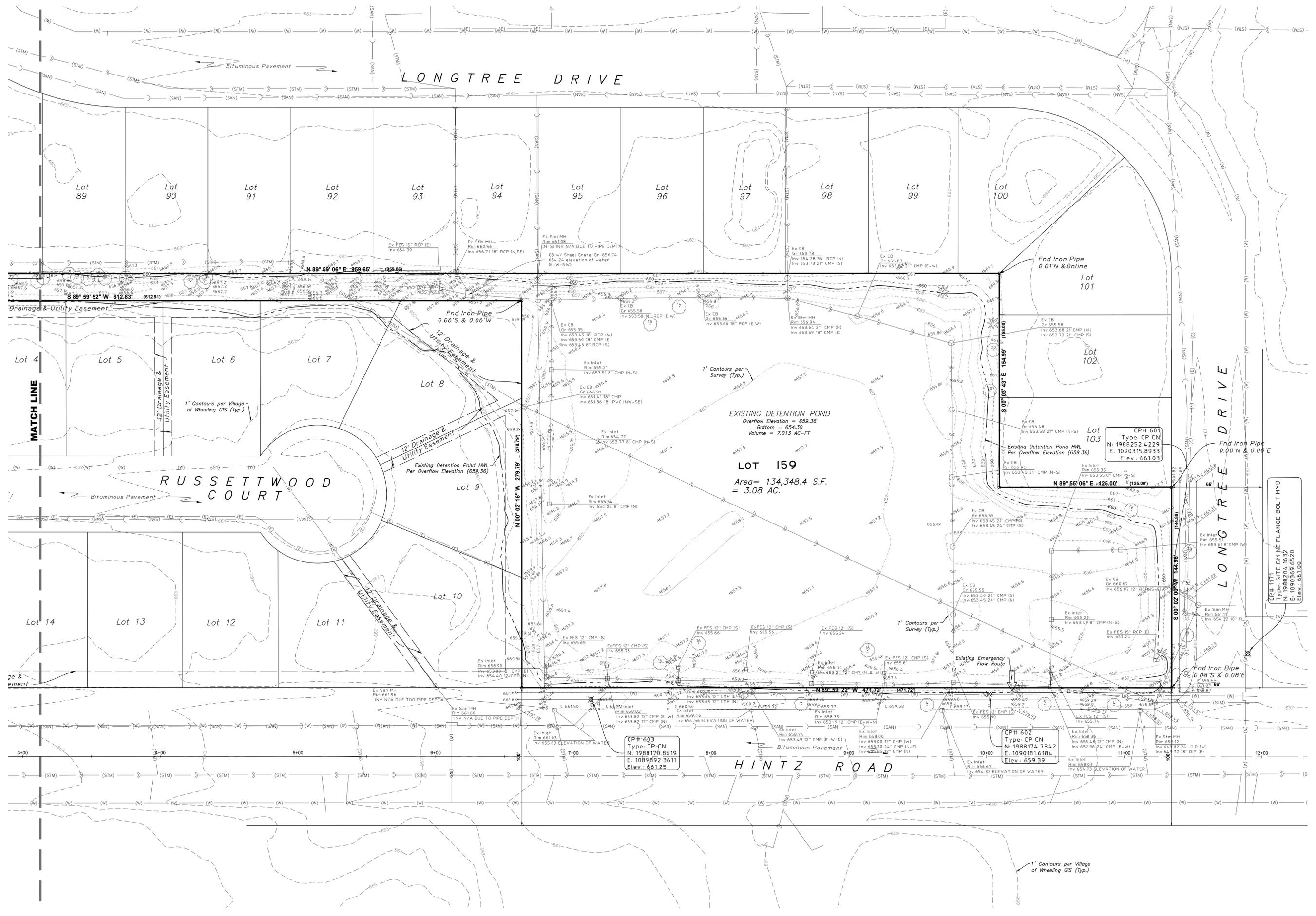
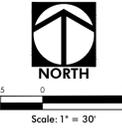
- The Contractor shall perform all demolition, clearing, grubbing, and tree removal and protection work in accordance with all applicable Federal, State, County and Local requirements or as noted in the Plans.
- Prior to the commencement of any demolition or clearing activities, the Contractor shall obtain all applicable permits and approvals from the applicable Jurisdictional Agencies for each building project for demolition.
- The Contractor shall coordinate all demolition work with the Village/City, utility companies, and other Jurisdictional Agencies, so as to ensure the protection of all existing sewer, water main, and other utilities, and further to ensure that proper stormwater conveyance is attained until the proposed improvements can be installed and the existing utilities are removed. The responsibility for the removal, reconstruction or abandonment of their facilities by all utility companies involved, and the coordination of their own work with that of these companies to the end that work on this improvement is not delayed because of the necessary changes in the existing utilities, public or private, shall rest upon the Contractor.
- Right-of-way or within the limits of the proposed construction, all existing trees are to be salvaged, materials, sizes, dimensions, and conditions affecting the work, and notify the Engineer immediately if any are any suspected discrepancies. No work shall be performed until the suspected discrepancy has been resolved. The Contractor shall also call to the attention of the Engineer any errors or discrepancies which may be suspected in legally off-site areas or grades which are established by the existing utility companies with the work until any lines and grades which are to be believed to be in error have been verified or corrected by the Engineer.
- The Contractor shall maintain positive drainage at all times during construction. Construction shall not block off-cuts, or create flow from any drainage ways, field tile, storm sewers, drainage ways or similar encountered or damaged during construction shall be maintained, restored to their original pre-construction condition or better, properly re-routed, and/or connected to the proposed stormwater drainage system. If this can't be accomplished then the field tile should be repaired or re-routed with new pipe of similar diameter to the original line and put back in service. The Contractor shall notify the Engineer if any such field tiles are encountered or damaged during any construction activities any loose material is deposited in the flow line of gutters, ditches, drainage structures, etc. such that the natural flow of water is obstructed, this material shall be removed by the responsible party.
- Prior to commencement of construction, on sites that will ultimately result in the disturbance of one (1) acre or more, the Contractor shall be responsible for obtaining a copy of the notice of coverage letter and the IEPA National Pollutant Discharge Elimination System (NPDES) General Permit ILR10 from the Owner. The Owner together along with the Contractor and/or other entities if so designated by the Owner, shall be responsible for ensuring that all the requirements of the General Permit and the Storm Water Pollution Prevention Plan (SWPPP) including but not limited to the installation, maintenance as well as the installation of any additional measures necessary that may be required, and inspections of the soil erosion and sediment control measures as well as completing all of the necessary applicable certifications, reports, logs, etc. Inspections are required to be performed at least once every seven (7) calendar days and within 24 hours of the end of a storm event of 0.5 inches of rain (or equivalent snowfall) or greater. The SWPPP and all the required paperwork shall be kept on-site and be organized and ready for viewing.
- No construction activities, disturbance or fill shall occur within the limits of natural resources such as wetlands, floodplains, riparian areas, streams, ponds, lakes, basins, reservoirs, or other sensitive buffers unless specifically specified on the Plans or further that the work has been approved by the Contractor. The Contractor shall take sufficient precautions to protect these natural resources that are to remain, either on-site or on adjacent property, to protect them from sediment, fuels, oils, bitumens, calcium chloride, or other harmful materials which may be a detriment. The Contractor shall conduct and schedule their Construction so as to avoid sediment, or other disturbance to these natural resource areas. The Contractor shall not disturb or otherwise impact these designated natural resource areas, or areas that have been designated to be protected or as essential habitat for State or Federal listed endangered or threatened species, or Prairie or Savanna areas where the Owner has made commitments for protection of these areas. Also, if previously identified natural resource areas, prairies, savannas, or areas or locations supporting rare or distinctive protected species are identified during construction, the Contractor shall not disturb them unless written permission to do so is granted by the Owner or applicable Jurisdictional Agency. If the Owner, Engineer, or applicable Jurisdictional Agency determines that additional measures are necessary to prevent or mitigate project effects on natural resource areas, prairies, savannas, protected species, or essential habitat the Contractor shall cooperate in accomplishing these measures.
- The Contractor shall confine their activities to within the project boundaries, work areas, or easements specified. No work shall be performed on adjacent private property or outside the project work areas without the written permission of each respective Owner. The Contractor shall be responsible for damage to existing or newly installed improvements as well as any damage on adjacent property or areas outside designated work areas, provided damage as a result of Contractor action, or lack thereof.
- The Contractor is responsible for returning all areas affected by equipment, materials and/or laborers to pre-construction condition, or better. All existing utilities or improvements, including but not limited to pavements, curbs, drives, trees, and parkways damaged or removed during construction shall be properly restored to their respective original pre-construction condition or better. The Contractor is also responsible for protecting all newly constructed work from damage until the project has been completed and has been approved and accepted by the Owner.
- Clean-up and final restoration shall be performed immediately upon completion of each phase of the work or when directed to do so by the Owner, so that these areas will be restored as nearly as possible to their original pre-construction condition or better, and shall include but not be limited to, restoration of maintained lands and rights-of-way, roadways, driveways, sidewalks, ditches, landscaping, fences, mailboxes, storm sewer and drain tile, sanitary sewer, water mains, etc. It shall also be the responsibility of the Contractor to remove from the site any and all materials and debris which results from their construction operations at no

## EARTHWORK AND GRADING

- All earthwork and grading activities shall be performed in accordance with the IDOT Standard Specifications or as noted in the Plans. Included in this work, but not necessarily limited to the following are: stripping and stockpiling of topsoil, mass grading and fine grading of the site and roadways, excavation of unsuitable materials and adequate disposal of unsuitable materials and their replacement with suitable materials where the construction of detention ponds, berm construction, and miscellaneous topsoil respread and seeding.
- Any earthwork quantities, calculations, summaries that have been furnished by the Engineer are for information purposes only and are provided without any guarantee by the Owner or Engineer whatsoever as to their sufficiency or accuracy. They are intended to be used solely as a guide for the Contractor in determining the scope of the completed project. It is the responsibility of the Contractor to determine all material quantities and apprise themselves of all site conditions. The Contractor warrants that he has performed his own investigations as necessary and his own calculations to determine site soil conditions and earthwork quantities. The Engineer makes no representation or guarantee regarding the quantity or accuracy of the earthwork quantities, calculations, summaries that have been furnished by the Engineer are for information purposes only and are provided without any guarantee by the Owner or Engineer whatsoever as to their sufficiency or accuracy. They are intended to be used solely as a guide for the Contractor in determining the scope of the completed project. It is the responsibility of the Contractor to determine all material quantities and apprise themselves of all site conditions. The Contractor warrants that he has performed his own investigations as necessary and his own calculations to determine site soil conditions and earthwork quantities. The Engineer makes no representation or guarantee regarding the quantity or accuracy of the earthwork quantities, calculations, summaries that have been furnished by the Engineer are for information purposes only and are provided without any guarantee by the Owner or Engineer whatsoever as to their sufficiency or accuracy. They are intended to be used solely as a guide

SUMMARY OF QUANTITIES			
NO.	ITEM	UNIT	QUANTITY
1.01	Storm Sewer Removal	LF	1,312
1.02	Drain Tile Abandon & Fill with CLSM	LF	702
1.03	Drainage Structure Removal	EA	23
1.04	Existing Tree Removal	EA	39
1.05	Remove Sidewalk	SF	186
1.06	Tree Protection Fence	LF	315
2.01	Earth Excavation	CY	11,701
2.02	Clay Haul Off	CY	10,586
2.03	Fine Grade Basin	SY	11,353
3.01	Flared End Section - 12"	EA	3
3.02	Flared End Section w/ Grate - 18"	EA	1
3.03	Flared End Section w/ Grate - 24"	EA	1
3.04	Connect to Existing Structure	EA	4
3.05	Manhole w/ Frame & Lid - 48"	EA	8
3.06	Catch Basin w/ Frame & Lid - 48"	EA	3
3.07	Catch Basin w/ Frame & Lid - 84"	EA	1
3.08	Storm Sewer - RCP 12"	LF	107
3.09	Storm Sewer - RCP 18"	LF	1,247
3.10	Storm Sewer - RCP 21"	LF	220
3.11	Storm Sewer - RCP 24"	LF	57
3.12	Storm Sewer - RCP 24" (WM Quality)	LF	37
3.13	Storm Sewer - RCP 14"H x 23"W EI.	LF	104
3.14	Storm Sewer - RCP 14"H x 23"W EI. (WM Quality)	LF	86
3.15	Televise Storm Sewer	LF	1,858
3.16	Temp. Dewatering Device	EA	1
4.01	PCC Sidewalk 5"	SF	186
5.01	Erosion Control Fence	LF	1,453
5.02	Inlet Protection	EA	15
5.03	Stabilized Construction Entrance & Maintenance	EA	1
5.04	Rip Rap at FES	EA	5
5.05	Culvert Protection	EA	6
5.06	Topsoil, Seed & Blanket	AC	3.08
5.07	Concrete Washout Station	EA	1
6.01	Mobilization	L SUM	1
6.02	Construction Layout	L SUM	1
6.03	Construction Contingency	L SUM	1

DRAINAGE STRUCTURES									
STRUCTURE NAME	TYPE	DIAMETER	FRAME & GRATE/LID	RIM	INVERT	INVERT	INVERT	INVERT	INVERT
CB A1	Catch Basin	84"	EJ 1020A or Neenah R-1713	659.35	655.75 E	652.80 N	649.83 NW	649.83 SE	649.83 W
CB A1-1	Catch Basin	48"	EJ 1020A or Neenah R-1713	656.50	653.05 NW	653.05 S	-	-	-
FES A1-A	Flared End Section	24"	-	-	650.00 SE	-	-	-	-
CB A1-B	Catch Basin	48"	EJ 1020A or Neenah R-1713	659.80	657.24 E	656.00 W	-	-	-
CB A2	Catch Basin	48"	EJ 1020A or Neenah R-1713	659.35	650.39 W	650.39 E	650.39 N	-	-
FES A2-1	Flared End Section	12"	-	-	750.60 S	-	-	-	-
MH A3	Manhole	48"	EJ 1020A or Neenah R-1713	659.55	650.83 W	650.83 E	650.83 N	-	-
FES A3-1	Flared End Section	12"	-	-	651.10 S	-	-	-	-
MH A4	Manhole	48"	EJ 1020A or Neenah R-1713	659.60	651.04 N	651.04 E	-	-	-
MH A5	Manhole	48"	EJ 1020A or Neenah R-1713	657.60	651.49 N	651.49 S	651.49 E	-	-
FES A5-1	Flared End Section	12"	-	-	651.70 W	-	-	-	-
MH A6	Manhole	48"	EJ 1020A or Neenah R-1713	658.10	651.78 W	651.78 S	-	-	-
MH A7	Manhole	48"	EJ 1020A or Neenah R-1713	657.00	651.96 W	651.96 E	-	-	-
MH A8	Manhole	48"	EJ 1020A or Neenah R-1713	656.80	652.65 W	652.65 E	-	-	-
MH A9	Manhole	48"	EJ 1020A or Neenah R-1713	657.35	653.35 W	653.35 E	-	-	-
MH A10	Manhole	48"	EJ 1020A or Neenah R-1713	662.65	653.59 N	653.59 E	-	-	-
FES B1	Flared End Section	18"	-	-	653.70 NE	-	-	-	-



LONGTREE DRIVE

RUSSETTWOOD COURT

HINTZ ROAD

LOT 159  
Area = 134,348.4 S.F.  
= 3.08 AC.

EXISTING DETENTION POND  
Overflow Elevation = 659.36  
Bottom = 654.30  
Volume = 7,013 AC-FT

Fnd Iron Pipe  
0.01'N & Online

Existing Detention Pond H/WL  
Per Overflow Elevation (659.36)

Fnd Iron Pipe  
0.00'N & 0.00'E

CP# 1171  
Type: SITE BM NE FLANGE BOLT HYD  
N: 1988204.1632  
E: 1090369.6520  
Elev.: 661.00

CP# 603  
Type: CP-CN  
N: 1988170.8619  
E: 1089892.3611  
Elev.: 661.25

CP# 602  
Type: CP-CN  
N: 1988174.7342  
E: 1090181.6184  
Elev.: 659.39

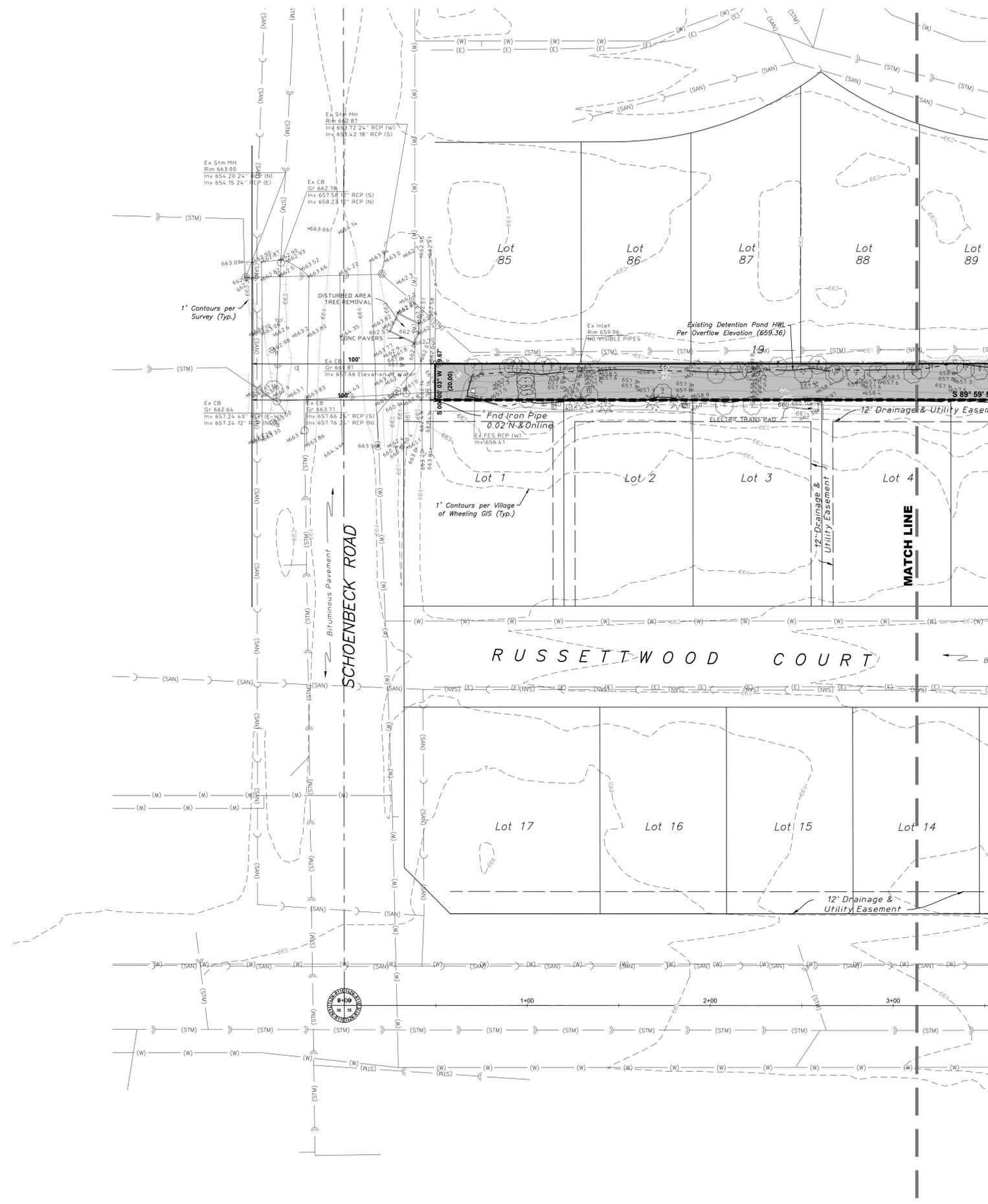
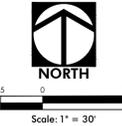
Date	No.	Revision
04/03/2020	1	Revised Per Village of Wheeling Comments

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www.haegerengineering.com

**EXISTING CONDITIONS - EAST**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
WHEELING, IL

Project Manager: K.M.L  
Engineer: D.J.V  
Date: 02/19/2020  
Project No. 19-186  
Sheet **C4.0** C8



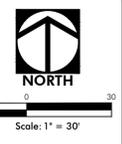
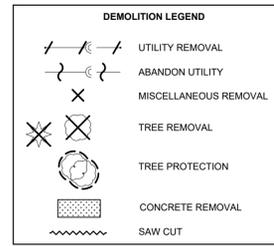
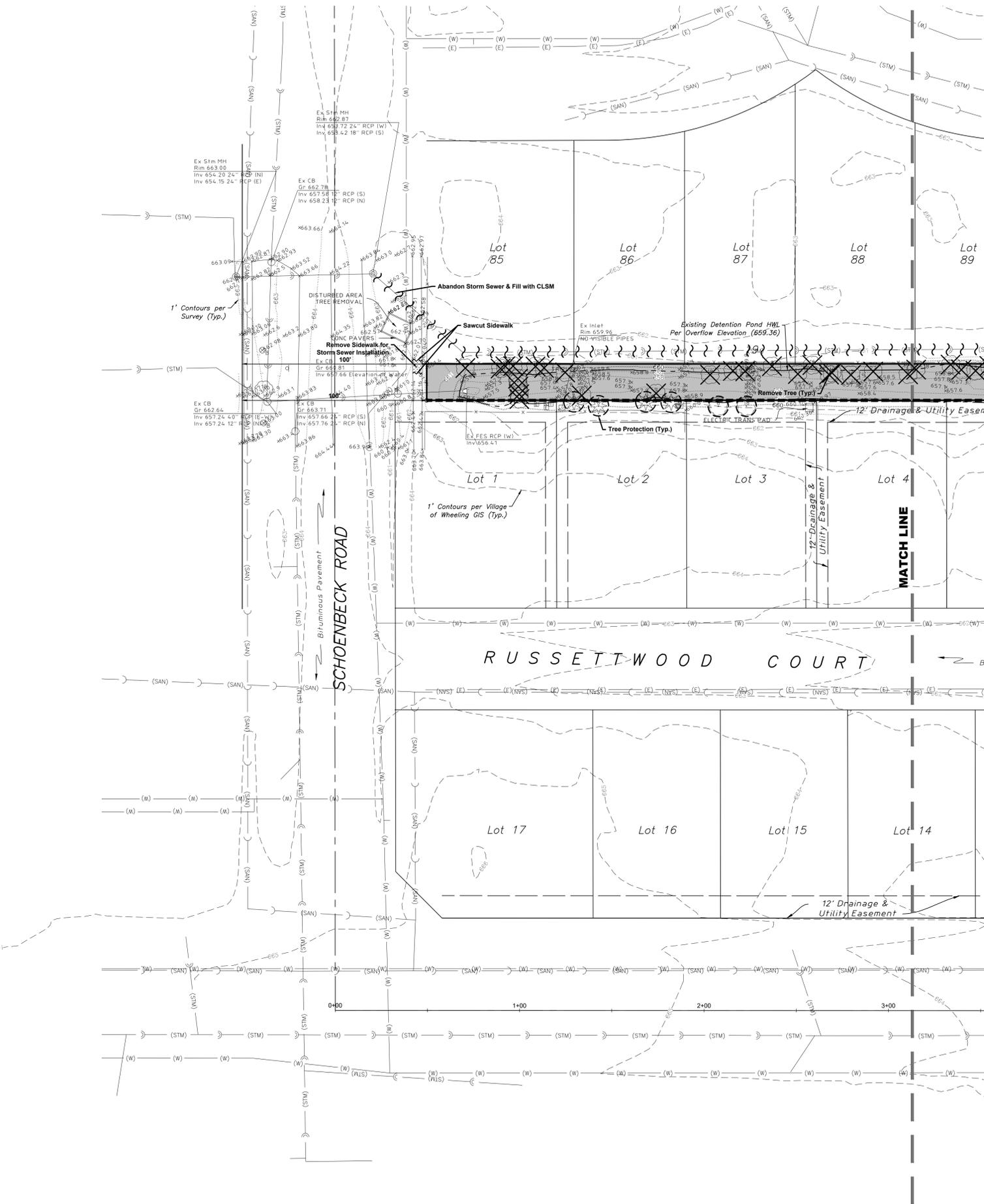
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**EXISTING CONDITIONS - WEST**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
 WHEELING, IL

Project Manager: K.M.L.  
 Engineer: D.J.V.  
 Date: 02/19/2020  
 Project No. 19-186  
 Sheet **C4.1** of C8

No.	Date	Revision
1	04/03/2020	Revised Per Village of Wheeling Comments



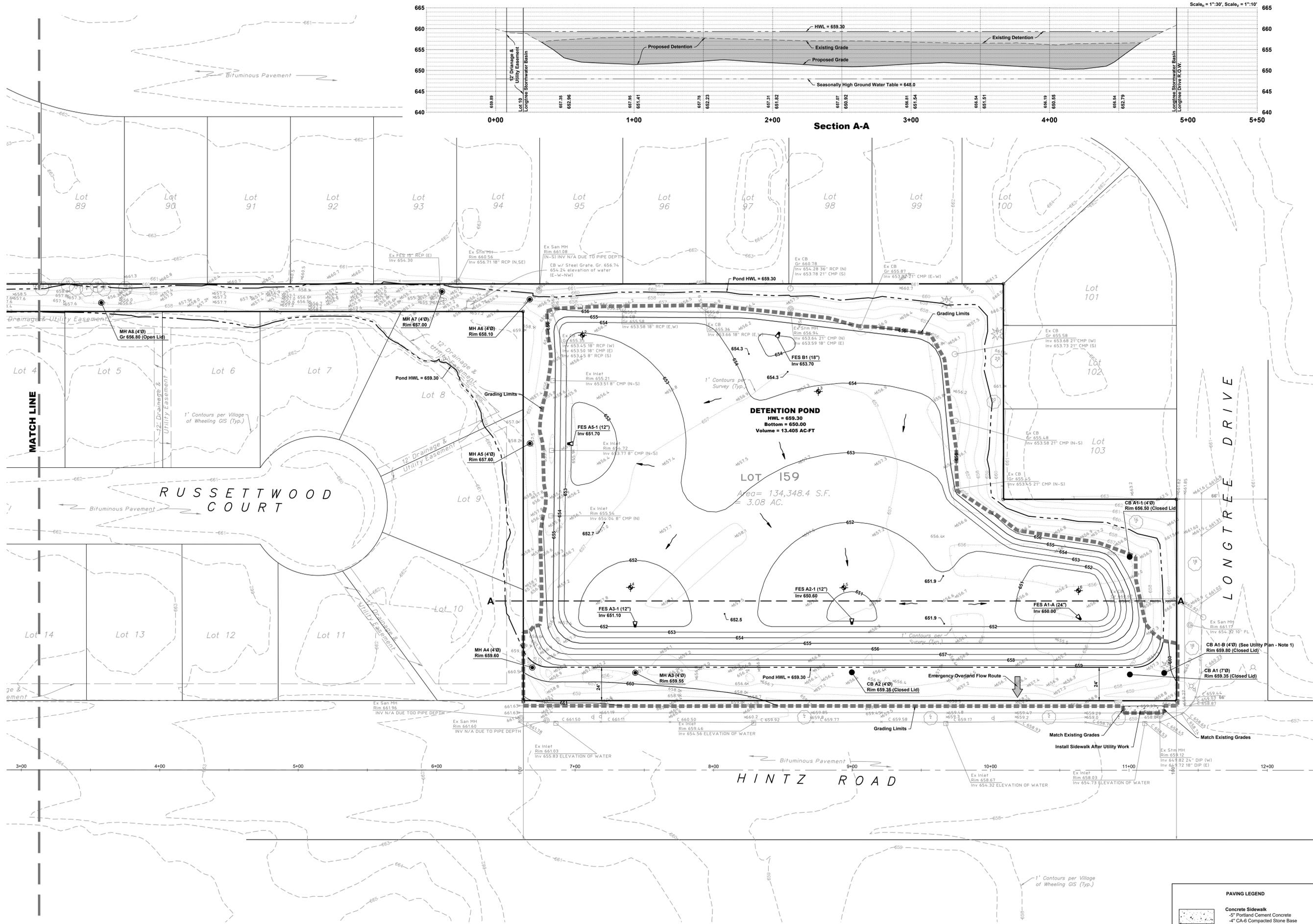
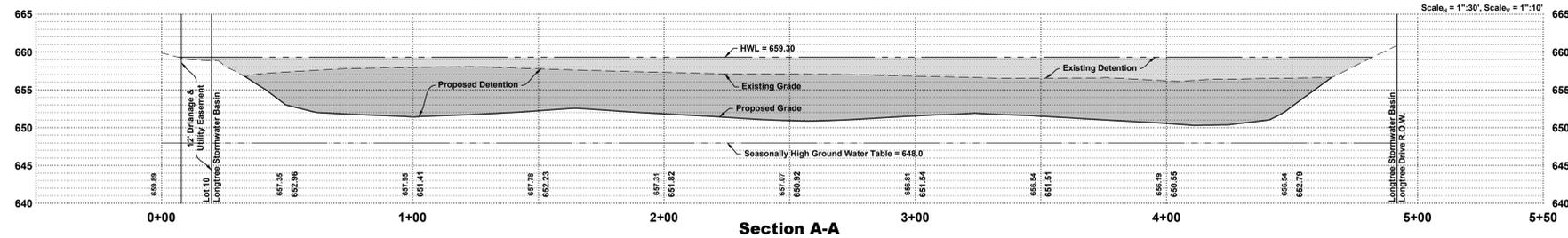


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**DEMOLITION PLAN - WEST**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
 WHEELING, IL

Project Manager: K.M.L.  
 Engineer: D.J.V.  
 Date: 02/19/2020  
 Project No. 19-186  
 Sheet **C5.1**

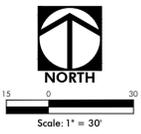
04/03/2020  
 1  
 Date  
 No.  
 Revision



**PAVING LEGEND**

	Concrete Sidewalk
	2" Portland Cement Concrete
	4" CA-6 Compacted Stone Base

Note:  
Contractor to provide access to pedestrians during work through sidewalk.



No.	Date	Revision
1	04/03/2020	Revised Per Village of Wheeling Comments

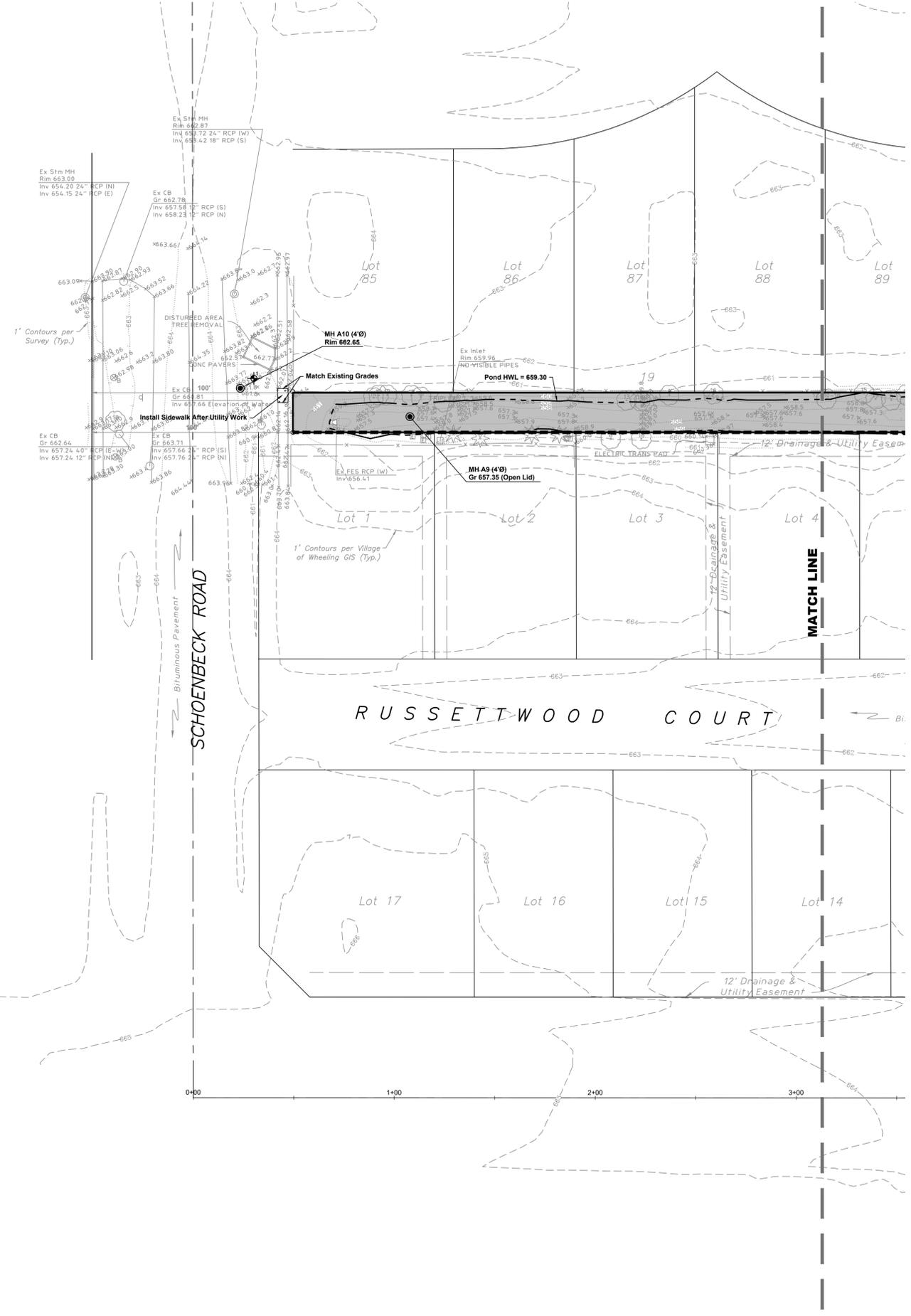
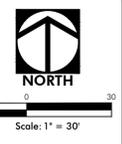
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**GRADING & PAVING PLAN - EAST**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
 WHEELING, IL

Project Manager: K.M.L.  
 Engineer: D.J.V.  
 Date: 02/19/2020  
 Project No. 19-186  
 Sheet **C6.0** of C8

PAVING LEGEND	
	Concrete Sidewalk
	5' Portland Cement Concrete
	4" CA-6 Compacted Stone Base

Note:  
Contractor to provide access to pedestrians during work through sidewalk.



SCHOENBECK ROAD

RUSSETTWOOD COURT

MATCH LINE

0+00 1+00 2+00 3+00

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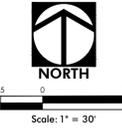
**GRADING & PAVING PLAN - WEST**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
WHEELING, IL

Project Manager: K.M.L.  
Engineer: D.J.V.  
Date: 02/19/2020  
Project No. 19-186  
Sheet **C6.1**  
C8

Revised Per Village of Wheeling Comments  
Revision

Date

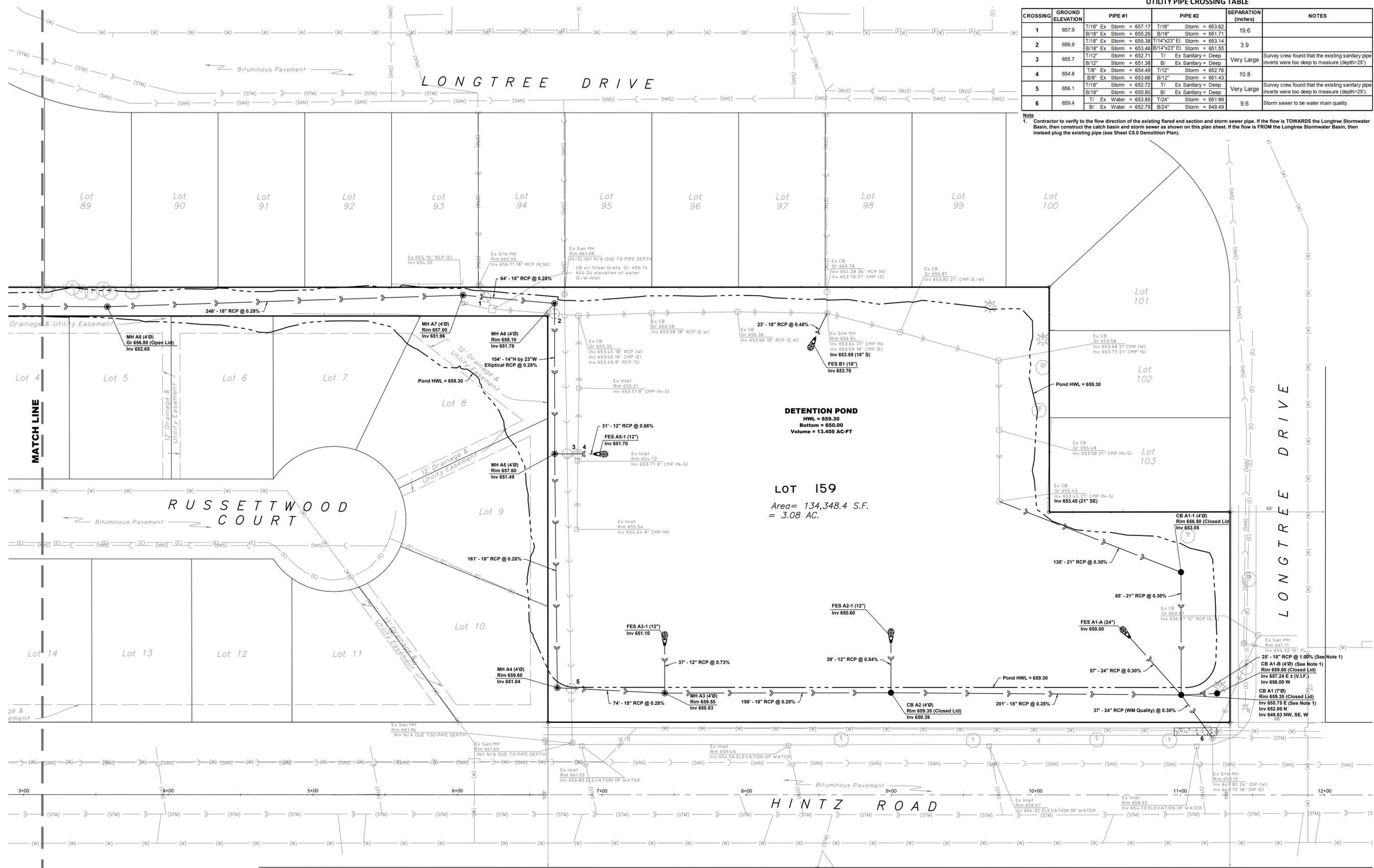
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UTILITY PIPE CROSSING TABLE

CROSSING	GROUND ELEVATION	PIPE #1	PIPE #2	SEPARATION (Inches)	NOTES
1	657.9	T/18" Ex Storm = 657.17 B/18" Ex Storm = 655.26	T/18" Storm = 663.62 B/18" Storm = 661.71	19.6	
2	656.9	T/18" Ex Storm = 655.38 B/18" Ex Storm = 653.46	T/14"x23" El Storm = 653.14 B/14"x23" El Storm = 651.55	3.9	
3	655.7	T/12" Storm = 652.71 B/12" Storm = 651.38	T/ Ex Sanitary = Deep B/ Ex Sanitary = Deep	Very Large	Survey crew found that the existing sanitary pipe inverts were too deep to measure (depth>25').
4	654.8	T/8" Ex Storm = 654.49 B/8" Ex Storm = 653.66	T/12" Storm = 662.76 B/12" Storm = 661.43	10.8	
5	656.1	T/18" Storm = 652.72 B/18" Storm = 650.80	T/ Ex Sanitary = Deep B/ Ex Sanitary = Deep	Very Large	Survey crew found that the existing sanitary pipe inverts were too deep to measure (depth>25').
6	659.4	T/ Ex Water = 653.85 B/ Ex Water = 652.79	T/24" Storm = 651.99 B/24" Storm = 649.49	9.6	Storm sewer to be water main quality.

Note 1. Contractor to verify to the flow direction of the existing flared end section and storm sewer pipe. If the flow is TOWARDS the Longtree Stormwater Basin, then construct the catch basin and storm sewer as shown on this plan sheet. If the flow is FROM the Longtree Stormwater Basin, then instead plug the existing pipe (see Sheet C5.0 Demolition Plan).



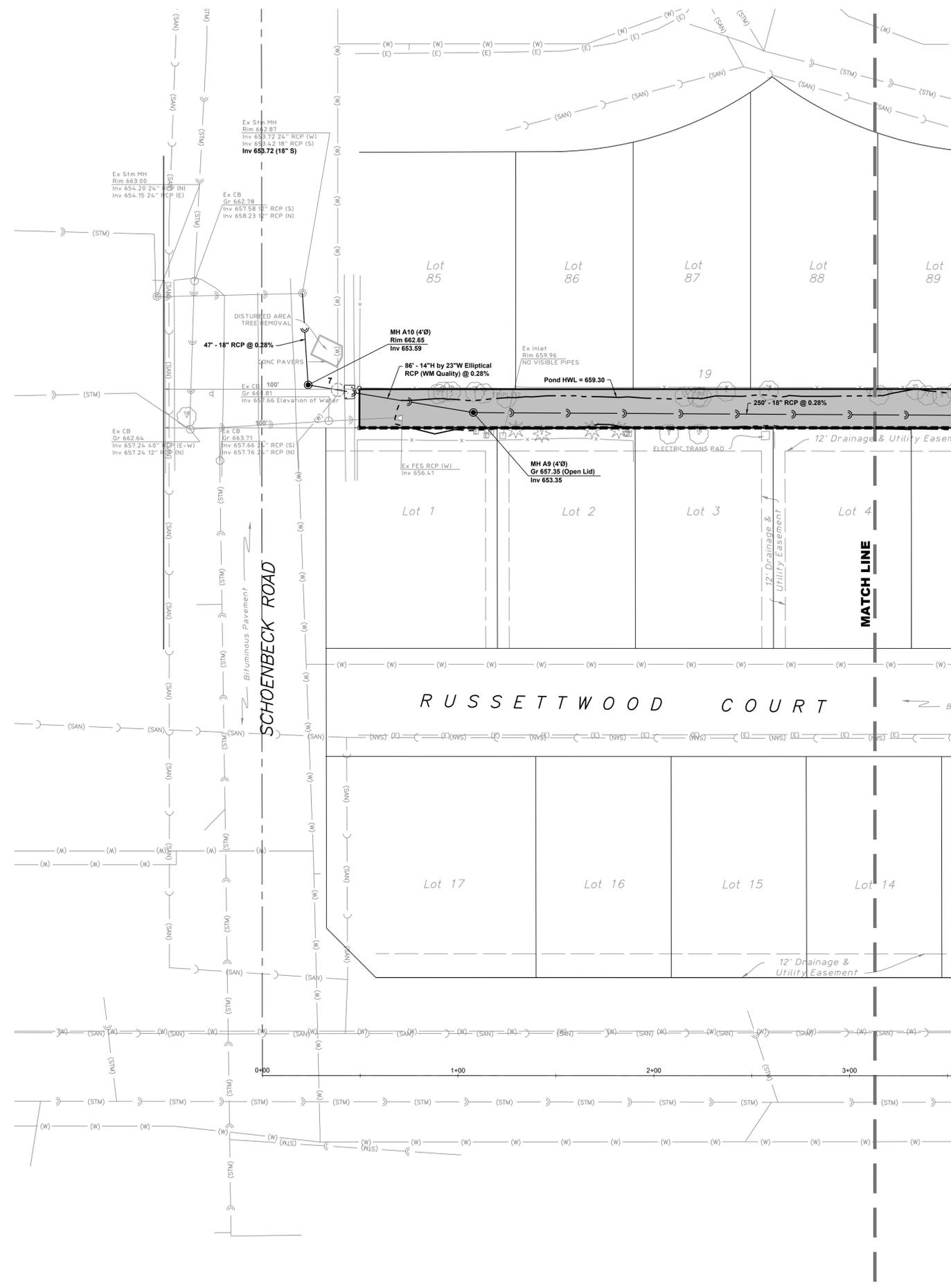
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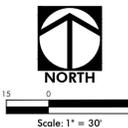
**UTILITY PLAN - EAST**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
WHEELING, IL

Project Manager: K.M.L.  
Engineer: D.J.V.  
Date: 02/19/2020  
Project No. 19-186  
Sheet **C7.0** of C8

04/03/2020 Date  
1 No.  
Revision



CROSSING	GROUND ELEVATION	PIPE #1	PIPE #2	SEPARATION (inches)	NOTES
7	662.0	T/ Ex Water = 656.46 B/ Ex Water = 655.40	T/14"x23" El. Storm = 654.92 B/14"x23" El. Storm = 653.34	5.7	Storm sewer to be water main quality.



Revised Per Village of Wheeling Comments  
Revision

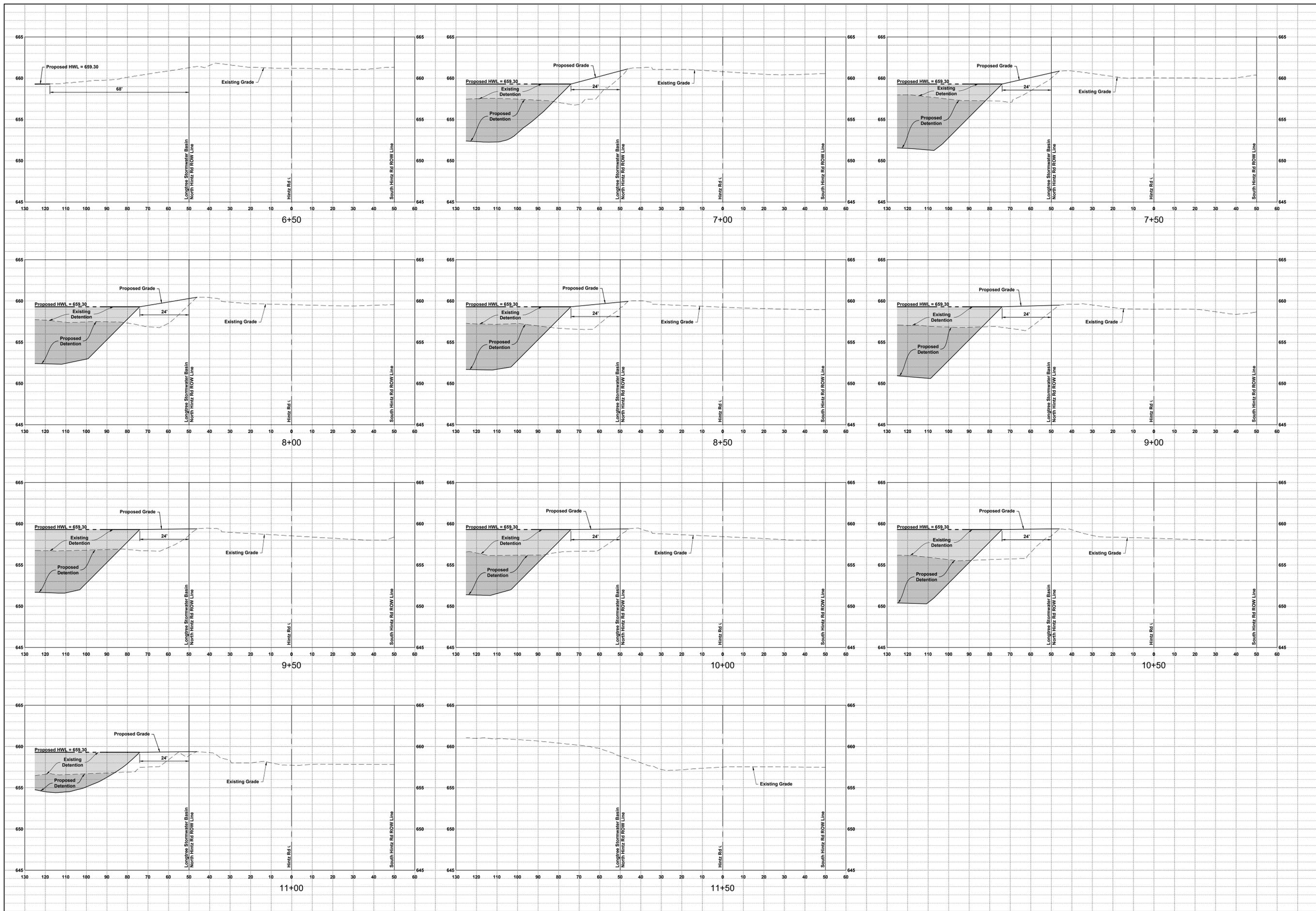
Date  
04/03/2020

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1

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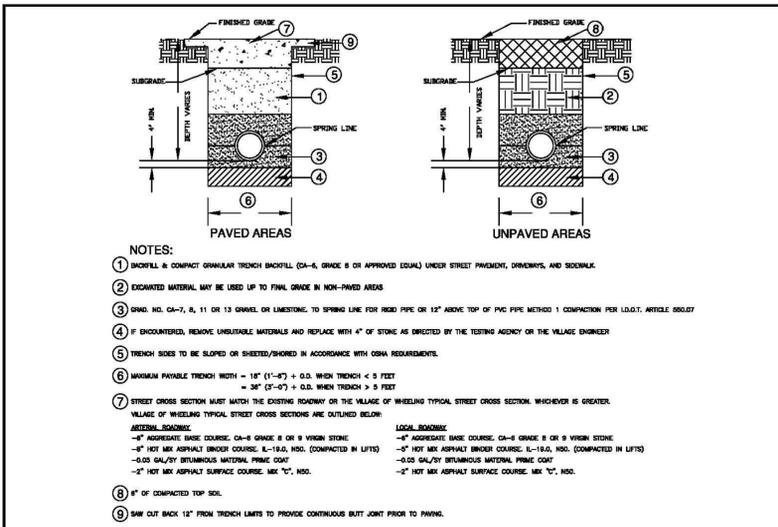
**GRADING PLAN - WEST**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
WHEELING, IL

Project Manager: K.M.L.  
Engineer: D.J.V.  
Date: 02/19/2020  
Project No. 19-186  
Sheet **C7.1**

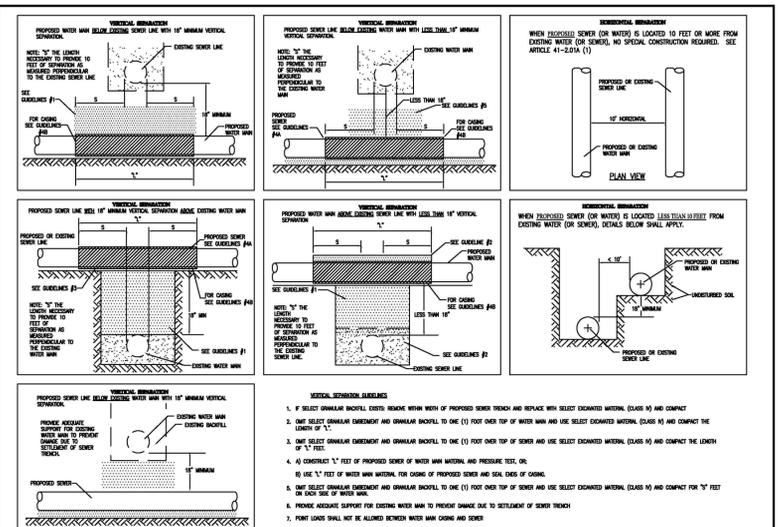


H: 1" = 20' V: 1" = 5'

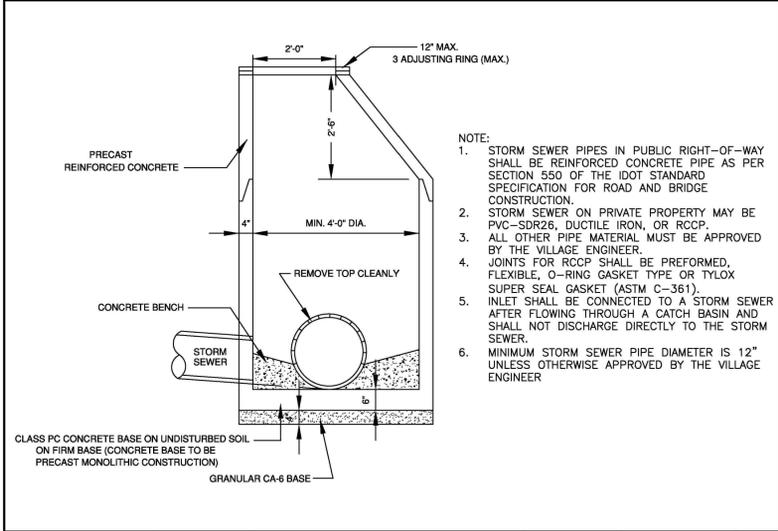
Date	No.	Revision
04/03/2020	1	Revised Per Village of Wheeling Comments



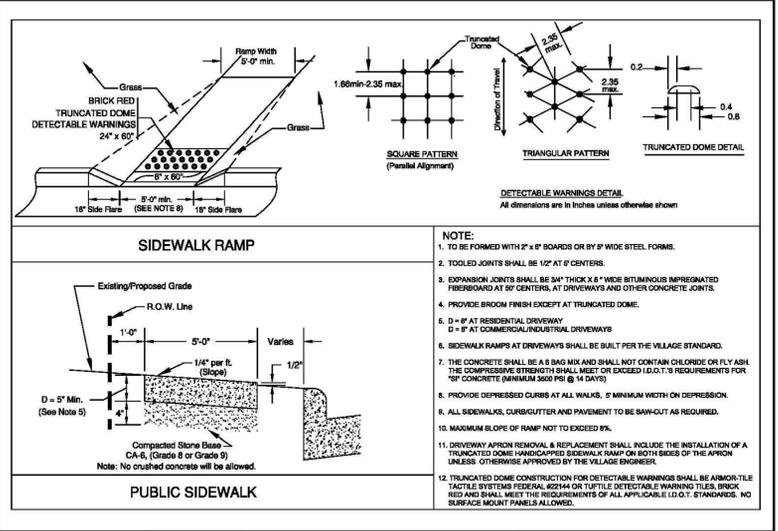
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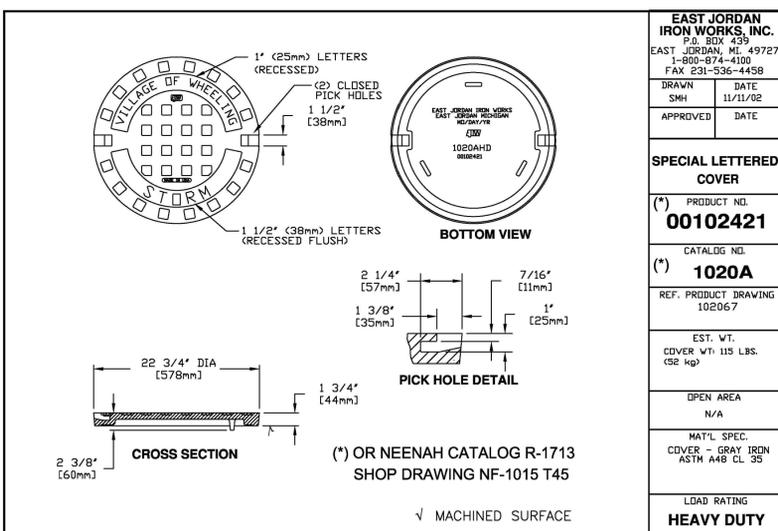
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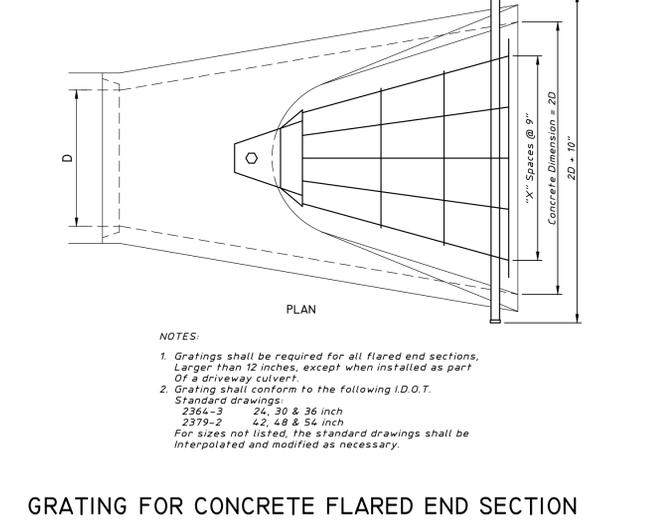
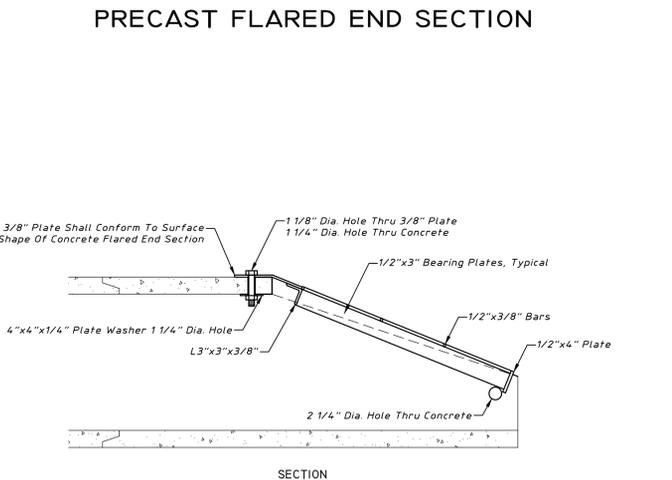
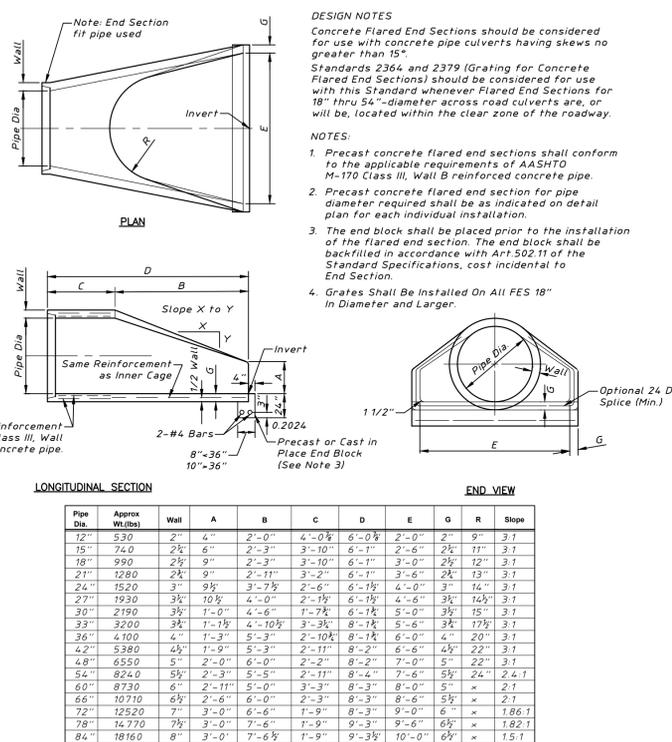
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**TYPICAL DETAILS**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
 WHEELING, IL

Project Manager: K.M.L.  
 Engineer: D.J.V.  
 Date: 02/19/2020  
 Project No.: 19-186  
 Sheet: **C9.0**

# LONGTREE STORMWATER BASIN STORM WATER POLLUTION PREVENTION PLAN

## SECTION 10 TOWNSHIP 42 NORTH RANGE 11 EAST WHEELING, ILLINOIS COOK COUNTY



**VILLAGE OF WHEELING - VILLAGE HALL:**  
2 Community Boulevard  
Wheeling, IL 60090  
Tel: (847) 459-2600  
Fax: (847) 459-9692

**VILLAGE OF WHEELING - PUBLIC WORKS:**  
77 W. Hintz Road  
Wheeling, IL 60090  
Tel: (847) 279-6900  
Fax: (847) 279-6420

**CIVIL ENGINEERS / LAND SURVEYORS:**  
Haeger Engineering LLC  
Illinois Prof. Design Firm #184-003152  
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LOCATION MAP

Existing Symbol	Description	Proposed Symbol
	Storm Sewer Manhole	
	Catch Basin	
	Inlet	
	Flared End Section	
	Headwall	
	Area Drain	
	Sanitary Sewer Manhole	
	Clean Out	
	Storm Sewer	
	Storm Sewer Service	
	Perforated Underdrain	
	Sanitary Sewer	
	Sanitary Sewer Service	
	Combined Sewer	
	Force Main	
	Water Main	
	Water Main Service	
	Fire Hydrant	
	Valve Vault	
	Valve Box	
	B-Box	
	Well Head	
	Light Pole	
	Light Pole With Mast Arm	
	Traffic Signal	
	Traffic Signal With Mast Arm	
	Hand Hole	
	Fence	
	Guardrail	
	Pipe Bollard	
	Sign	
	Gas Valve	
	Gas Line	
	Electric Line	
	Overhead Utility Line	
	Fiber Optic Line	
	Electrical Pedestal	
	Electric Manhole	
	Guy Wire	
	Utility Pole	
	Telephone Pedestal	
	Telephone Manhole	
	Telephone Line	
	Cable TV Line	
	Cable TV Pedestal	
	Flagpole	
	Mailbox	
	Handicapped Parking Stall	
	Number of Parking Stalls	
	Curb & Gutter	
	Reverse Pitch Curb & Gutter	
	Depressed Curb	
	Retaining Wall	
	Curb Elevation and Gutter/Pavement Elevation	
	Pavement Elevation	
	Sidewalk Elevation	
	Ground Elevation	
	Top of Wall Elevation	
	Bottom of Wall Elevation	
	Open Lid Frame & Grate	
	Closed Lid Frame & Lid	
	Swale	
	Hardscape Flow	
	Softscape Flow	
	Contour Line	
	Wetland	
	Wetland Buffer	
	Normal Water Level	
	High Water Level	
	Flood Plain	
	Flood Way	
	Deciduous Tree	
	Coniferous Tree	
	Bush	
	Brushline	
	Soil Boring	
	Over Land Flow Route	

Benchmark
CP # 1171 (see survey) Description: Bolt on Hydrant Elevation: 661.00 NAVD 88 (Geoid 12A)
CP #603 (see survey) Description: Cross Cut Elevation: 661.25 NAVD 88 (Geoid 12A)

INDEX TO STORM WATER POLLUTION PREVENTION PLAN SHEETS	
NO.	DESCRIPTION
EC1.0	SWPP TITLE SHEET
EC2.0	SWPPP GENERAL NOTES AND SPECIFICATIONS
EC3.0	STORMWATER POLLUTION PREVENTION PLAN (SWPPP) - EAST
EC3.1	STORMWATER POLLUTION PREVENTION PLAN (SWPPP) - WEST
EC4.0	SWPP TYPICAL DETAILS



Know what's below.  
Call before you dig.

Note:  
Call 811 at least 48 hours, excluding weekends and holidays, before you dig.

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**SWPPP TITLE SHEET**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
 WHEELING, ILLINOIS

Project Manager: K M L  
 Engineer: D J V  
 Date: 02/19/2020  
 Project No. 19-186  
 Sheet **EC1.0** EC4

Stormwater Pollution Prevention Plan

This plan has been prepared to comply with the provisions of the NPDES Permit Number \_\_\_\_\_ issued by the Illinois Environmental Protection Agency for storm water discharges from Construction Site Activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner's Name Signature
Title Date

Name of Firm/Company

I. Site Description:

A. The following is a description of the project location:

The project is located at the northwest corner of Hintz Road & Longtree Drive in Wheeling, IL, in Section 10, Township 42 North, Range 11 East all in Cook County, Illinois (See the Location Map on the Title Sheet for additional information).

B. The following is a description of the construction activity which is the subject of this plan:

Excavating the Longtree Stormwater Basin for additional storage and revising the storm sewer routing.

C. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site, such as grubbing, excavation and grading:

Exact phasing and sequencing has yet to be determined. Generally, trees will be removed as required, and then clearing and grubbing will occur. Next, mass grading will commence for the building pad and parking areas. Then the underground utilities will be constructed. Finally, the buildings, parking lots, etc. will be constructed, followed by the installation of landscaping.

D. The total area of the construction site is estimated to be approximately ± 2.35 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

The weighted runoff coefficient after completion of all construction activities is approximately 0.45.

F. The following is a description of the soil types found at the project site followed by information regarding their erosivity:

Please refer to the geotechnical report prepared by Soil and Material Consultants, Inc., dated 02/05/2020.

G. The following is a description of potentially erosive areas associated with this project:

Areas with side slopes exceeding 3:1 slopes. Although slopes in excess of 3:1 are not proposed, the Contractor shall monitor the slopes and provide stabilization and/or protection as necessary.

H. The following is a description of soil disturbing activities, their locations, and their erosive factors (e.g. steepness of slopes, length of slopes, etc):

The soil disturbing activities consist of grading and general infrastructure improvements over the entire site. The Contractor shall be responsible for maintaining all disturbances within the site, and shall protect all off-site areas as needed.

I. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) and locations where storm water is discharged to surface water including wetlands.

J. The following is a list of receiving water(s) and the ultimate receiving water(s), and aerial extent of wetland acreage at the site. The location of the receiving waters can be found on the erosion and sediment control plans:

The closest receiving water is Buffalo Creek.

K. The following pollutants of concern will be associated with this construction project:

Soil sediment and dust.

II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in I.C. above and for all use areas, borrow sites, and waste sites. For each measure discussed, the contractor will be responsible for its implementation as indicated. The contractor shall provide to the resident engineer a plan for the implementation of the measures indicated. The contractor, and subcontractors, will notify the resident engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the permit. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan.

A.Erosion and Sediment Controls

1. Stabilized Practices: Provided below is a description of interim and permanent stabilization practices, including site specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(A)(1)(a) and II(A)(3), stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of 14 or more calendar days.

a. Where the initiation of stabilization measures by the 7th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

The following Stabilization Practices will be used for this project: Temporary blanket & seeding, permanent seeding as shown on the Plans.

Describe how the Stabilization Practices listed above will be utilized: Seed & blanket.

See Storm Water Pollution Prevention (SWPPP) Plan. SWPPP Plan shall be modified as necessary by the Contractor during construction to prevent sediment from leaving the site or entering the offsite storm sewer.

2. Structural Practices: Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The following Structural Practices will be used for this project: Perimeter erosion control (silt) fence.

Describe how the Structural Practices listed above will be utilized:

See Storm Water Pollution Prevention (SWPPP) Plan. SWPPP Plan shall be modified as necessary by the Contractor during construction to prevent sediment from leaving the site or entering the offsite wetland.

3. Storm Water Management: Provided below is a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after

construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

a. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

The practices selected for implementation were determined on the basis of the technical guidance in Section 59-8 (Erosion and Sediment Control) in Chapter 59 (Landscape Design and Erosion Control) of the Illinois Department of Transportation Bureau of Design and Environment Manual. If practices other than those discussed in Section 59-8 are selected for implementation or if practices are applied to situations different from those covered in Section 59-8, the technical basis for such decisions will be explained below.

b. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of Storm Water Management Controls: Installation of a storm sewer system. All inlets will be protected with silt baskets.

4. Other Controls:

a. Vehicle Entrances and Exits - Stabilized construction entrances and exits must be constructed to prevent tracking of sediments onto roadways.

The contractor will provide the resident engineer with a written plan identifying the location of stabilized entrances and exits and the procedures (s)he will use to construct and maintain them.

b. Material Delivery, Storage, and Use - The following BMPs shall be implemented to help prevent discharges of construction materials during delivery, storage, and use:

- All products delivered to the project site must be properly labeled.
Water tight shipping containers and/or semi trailers shall be used to store hand tools, small parts, and most construction materials that can be carried by hand, such as paint cans, solvents, and grease.
A storage/containment facility should be chosen for larger items such as drums and items shipped or stored on pallets. Such material is to be covered by a tin roof or large sheets of plastic to prevent precipitation from coming in contact with the products being stored.
Large items such as light stands, framing materials and lumber shall be stored in the open in a general storage area. Such material shall be elevated with wood blocks to minimize contact with storm water runoff.
Spill clean-up materials, material safety data sheets, an inventory of materials, and emergency contact numbers shall be maintained and stored in one designated area and each Contractor is to inform his/her employees and the resident engineer of this location.

c. Stockpile Management - BMPs shall be implemented to reduce or eliminate pollution of storm water from stockpiles of soil and paving materials such as but not limited to portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, aggregate sub base, and pre-mixed aggregate. The following BMPs may be considered:

- Perimeter Erosion Barrier
Temporary Seeding
Temporary Mulch
Plastic Covers
Soil Binders
Storm Drain Inlet Protection

The contractor will provide the resident engineer with a written plan of the procedures (s)he will use on the project and how they will be maintained.

d. Waste Disposal. No materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.

e. The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

f. The contractor shall provide a written and graphic plan to the resident engineer identifying where each of the above areas will be located and how they are to be managed.

5. Approved State or Local Laws

The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual, 1995. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

See Storm Water Pollution Prevention (SWPPP) Plan. SWPPP Plan shall be modified as necessary by the Contractor during construction to prevent sediment from leaving the site or entering the offsite storm sewer.

III.Maintenance:

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. The resident engineer will provide maintenance guides to the contractor for the practices associated with this project.

All disturbed areas shall be graded to keep runoff and sediment on-site to the greatest extent possible. Site shall be graded in such a manner to direct runoff to storm structures with catch-all inlet protection. Contractor shall maintain, replace, clean, and add additional measures as needed during the progression of construction to prevent sediment, debris, etc from leaving the site.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site. Such inspections shall be conducted at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

A. Disturbed areas, use areas (storage of materials, stockpiles, machine maintenance, fueling, etc.), borrow sites, and waste sites shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Discharge locations or points that are accessible, shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sediment tracking.

B. Based on the results of the inspection, the description of potential pollutant sources identified in section I above and pollution prevention measures identified in section II above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within 1/2 hour to 1 week based on the urgency of the situation. The resident engineer will notify the contractor of the time required to implement such actions through the weekly inspection report.

C. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with section IV(B) shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI. G of the general permit.

D. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the resident engineer shall notify the appropriate IEPA Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within 24 hours of the incident. The resident Engineer shall then complete and submit an "Incidence of Noncompliance" (ION) report for the identified violation within 5 days of the incident. The resident engineer shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

V. Non-Storm Water Discharges:

Except for flows from fire fighting activities, sources of non-storm water that is combined with storm water discharges associated with the industrial activity addressed in this plan must be described below. Appropriate pollution prevention measures, as described below, will be implemented for the non-storm water component(s) of the discharge.

A. Spill Prevention and Control - BMPs shall be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. The contractor shall produce a written plan stating how his/her company will prevent, report, and clean up spills and provide a copy to all of his/her employees and the resident engineer. The contractor shall notify all of his/her employees on the proper protocol for reporting spills. The contractor shall notify the resident engineer of any spills immediately.

B. Concrete Residuals and Washout Wastes - The following BMPs shall be implemented to control residual concrete, concrete sediments, and rinse water:
Temporary Concrete Washout Facilities shall be constructed for rinsing out concrete trucks. Signs shall be installed directing concrete truck drivers where designated washout facilities are located.
The contractor shall have the location of temporary concrete washout facilities approved by the resident engineer.
All temporary concrete washout facilities are to be inspected by the contractor after each use and all spills must be reported to the resident engineer and cleaned up immediately.
Concrete waste solids/liquids shall be disposed of properly.

C. Litter Management - A proper number of dumpsters shall be provided on site to handle debris and litter associated with the project. The Contractor is responsible for ensuring his/her employees place all litter including marking paint cans, soda cans, food wrappers, wood lathe, marking ribbon, construction string, and all other construction related litter in the proper dumpsters.

D. Vehicle and Equipment Cleaning - Vehicles and equipment are to be cleaned in designated areas only, preferably off site.

E. Vehicle and Equipment Fueling - A variety of BMPs can be implemented during fueling of vehicles and equipment to prevent pollution. The contractor shall inform the resident engineer as to which BMPs will be used on the project. The contractor shall inform the resident engineer how (s)he will be informing his/her employees of these BMPs (i.e. signs, training, etc.). Below are a few examples of these BMPs:

- Containment
Spill Prevention and Control
Use of Drip Pans and Absorbents
Automatic Shut-Off Nozzles
Topping Off Restrictions
Leak Inspection and Repair

F. Vehicle and Equipment Maintenance - On site maintenance must be performed in accordance with all environmental laws such as proper storage and no dumping of old engine oil or other fluids on site.

VI. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of an Erosion and Sediment Control Deficiency Deduction against the contractor and/or penalties under the NPDES permit which could be passed onto the contractor.

SUPPLEMENTARY EROSION CONTROL NOTES

- 1. Prior to commencement of construction, on sites that will ultimately result in the disturbance of one (1) acre or more, the Contractor shall be responsible for obtaining a copy of the notice of discharge letter and the IEPA National Pollutant Discharge Elimination System (NPDES) General Permit ILR10 from the Owner. The Owner together along with the Contractor and/or other entities if so designated by this Contractor shall be responsible for ensuring that all the requirements of the General Permit and the Storm Water Pollution Prevention Plan (SWPPP) including but not limited to the installation, maintenance as well as the installation of any additional measures necessary that may be required, and inspections of the soil erosion and sediment control measures as well as completing all of the necessary applicable certifications, reports, logs, etc. Inspections are required to be performed at least once every seven (7) calendar days and within 24 hours of the end of a storm event of 0.5 inches of rain (or equivalent snowfall) or greater. The SWPPP and all the required paperwork shall be kept on-site and be organized and ready for viewing.
2. All erosion control measures are to be installed prior to any demolition, earth moving activities or other disturbance.
3. Contractor to establish a temporary stabilized construction entrance as well as install all perimeter fencing prior to the start of any clearing or grading activities.
4. Temporary gravel stabilized construction entrance shall be maintained, adjusted, and/or relocated as necessary to prevent mud and other debris from being tracked onto adjacent public roadways. Any mud or other debris that is tracked onto a public road shall be properly removed as soon as practical, but before the end of each working day.
5. Disturbed areas shall be stabilized by seeding within seven (7) calendar days of the completion of disturbance. If construction activity on a portion of the site is to resume within fourteen (14) calendar days of the end of the last disturbance, then stabilization measures do not have to be initiated on that portion of the site by the 7th day after the completion of said disturbance. Areas with slopes 3H:1V or greater shall be stabilized with erosion control blanket or mat in addition to seeding.
6. The Contractor shall provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.
7. No sediment or debris shall be allowed to enter the existing storm sewer system or flow off-site.
8. All temporary and permanent erosion and sedimentation control measures shall be maintained, repaired and/or replaced as necessary to ensure effective performance. If required, a designated erosion control inspector shall inspect all measures every seven (7) calendar days, or within twenty-four (24) hours of a 0.5-inch rain event or equivalent snowfall, and report where items are in non-compliance. Otherwise, the Contractor shall be responsible for the inspection as well as maintenance of all measures and shall be subject to the terms of Federal, State, and local requirements.
9. All temporary erosion and sedimentation control measures are to remain in place and be functioning until final stabilization. After final stabilization, the Contractor is to remove and properly dispose of all erosion and sedimentation measures according to Jurisdictional Agency requirements within thirty (30) days. All disturbed areas or trapped sediment that accumulates from said measures shall be permanently stabilized.
10. Topsoil stockpiles shall not be located in flood prone areas or buffers protecting wetlands, or waters of the United States or County. Stockpiles shall be protected from erosion by installing silt fence around the perimeter of the stockpile(s). Stockpiles shall be seeded within seven (7) calendar days of completion.
11. If dewatering services are used, adjoining properties and discharge locations shall be protected from erosion. Discharges shall be routed through an effective sediment control measure (i.e., sediment Trap, sediment Basin, or other appropriate measure).
12. Extreme caution shall be taken by the Contractor to prevent erosion and siltation during construction. The Contractor shall inspect catch basins and clean out if necessary. The contractor shall use silt/erosion control fence staked in place to prevent siltation of all drainage structures.
13. The Contractor shall assume responsibility for maintenance of all soil erosion and sedimentation control measures during and after construction. However, the Contractor shall not transfer these improvements for the purpose of maintenance until they have completed with the above and until they have received final inspection and approval from the Jurisdictional Agency or designated erosion control inspector and a Notice of Termination has been filed (NOT).
14. The work shall generally follow the following typical Construction Sequencing:
a. Installation of the soil erosion and sediment control (SE/SC) measures:
a.1. Selective vegetation removal for silt fence installation
a.2. Silt fence installation
a.3. Stabilized construction entrance
b. Tree removal where necessary
c. Strip and stockpile topsoil and mass grade the site
d. Temporarily stabilize topsoil stockpiles (seed and silt fence around toe of slope)
e. Construction of storm sewer system and other utilities, along with associated inlet protection
f. Temporary stabilization of areas that have reached temporary grade
g. Building construction
h. Parking lot construction
i. Permanently stabilize site with topsoil, seed and blanket
j. Remove all temporary SE/SC measures after the site is stabilized with vegetation

Owner/Contractor Certification Statement

This certification statement is part of the Storm Water Pollution Prevention Plan for the Longtree Stormwater Basin project, in accordance with General NPDES Permit No. \_\_\_\_\_ issued by the Illinois Environmental Protection Agency. I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR 10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of the certification.

In addition, I have read and understand all of the information and requirements stated in the Storm Water Pollution Prevention Plan for the above mentioned project. I have provided all documentation required to be in compliance with the ILR10 and Storm Water Pollution Prevention Plan and will provide timely updates to these documents as necessary.

Name Signature
Title Date
Name of Firm/Company Telephone
Address City/State/Zip

The Owner, and all Contractor's and Sub-Contractor's performing work on this site are required to sign the above illustrated Certification Statement. The signed Certification shall be maintained on the site with the SWPPP.

HAEGER ENGINEERING consulting engineers land surveyors
100 East State Parkway, Schaumburg, IL 60173 Tel: 847.394.6600 Fax: 847.394.6498
Illinois Professional Design Firm License No. 184-003152 www.haegerengineering.com

SWPPP GENERAL NOTES AND SPECIFICATIONS
LONGTREE STORMWATER BASIN SITE IMPROVEMENTS WHEELING, ILLINOIS

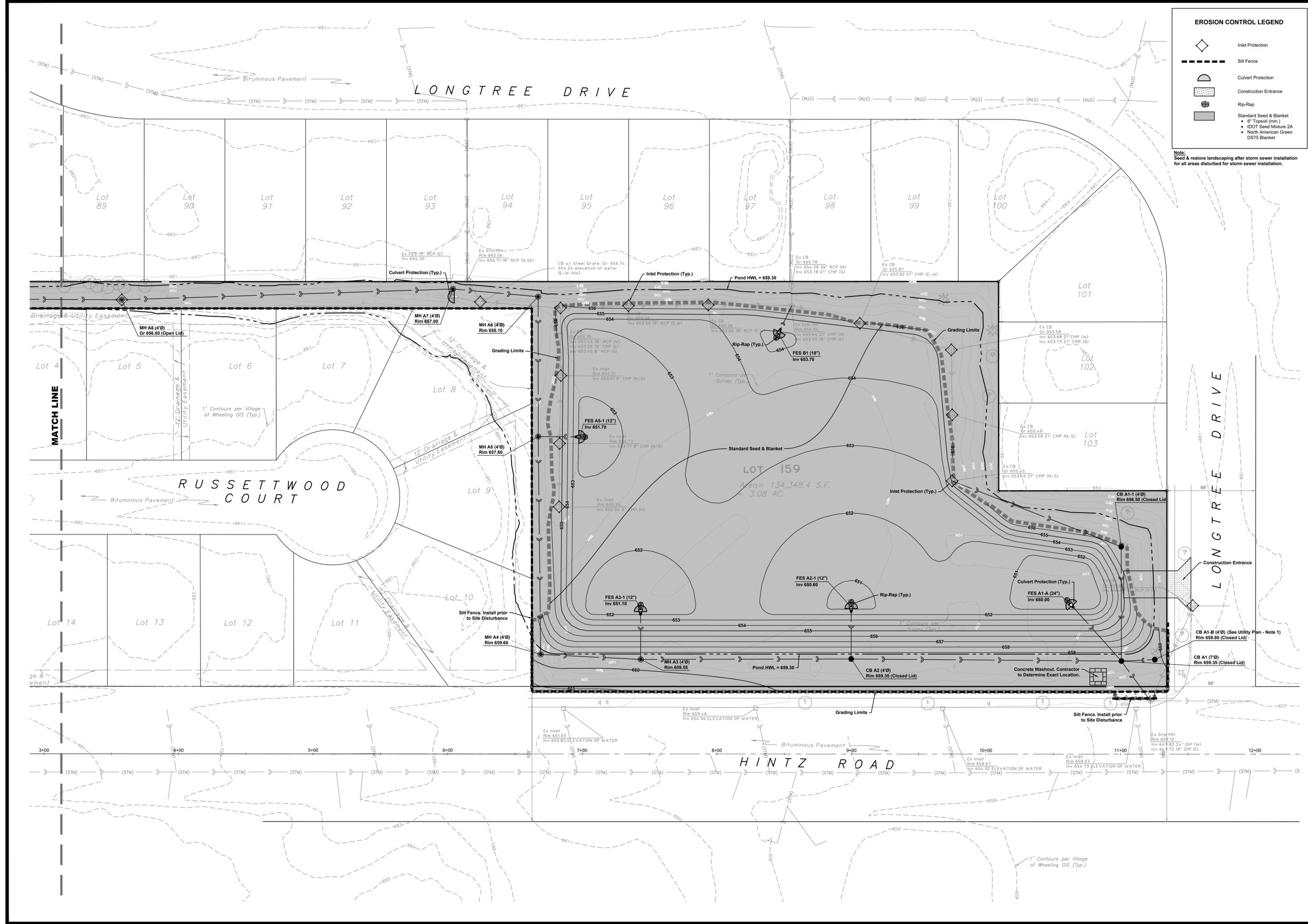
Project Manager: K M L
Engineer: D J V
Date: 02/19/2020
Project No. 19-186
Sheet EC2.0 EC4

Revised Per Village of Wheeling Comments

Date

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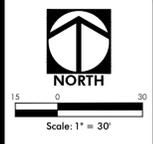
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**EROSION CONTROL LEGEND**

	Inlet Protection
	Silt Fence
	Culvert Protection
	Construction Entrance
	Rip-Rap
	Standard Seed & Blanket
	<ul style="list-style-type: none"> <li>• 6" Topsoil (min.)</li> <li>• 100T Seed Mixture 2A</li> <li>• North American Green</li> <li>• DS75 Blanket</li> </ul>

Note: Seed & restore landscaping after storm sewer installation for all areas disturbed for storm sewer installation.

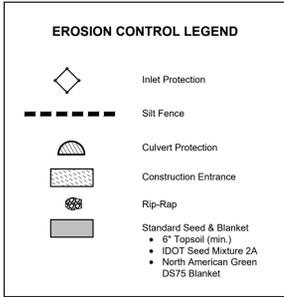
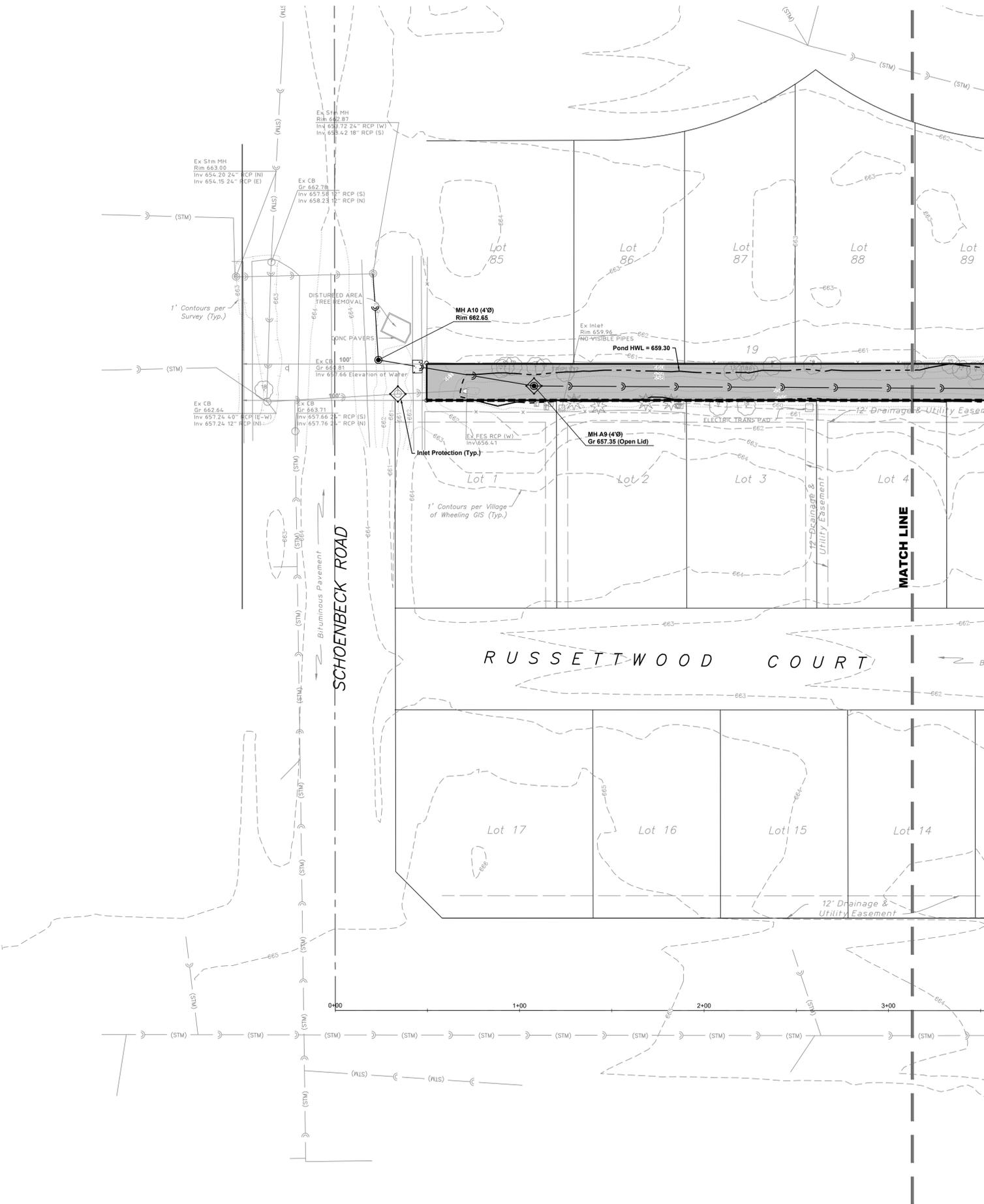


No.	Date	Revision
1	04/03/2020	Revised Per Village of Wheeling Comments

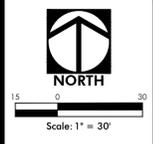
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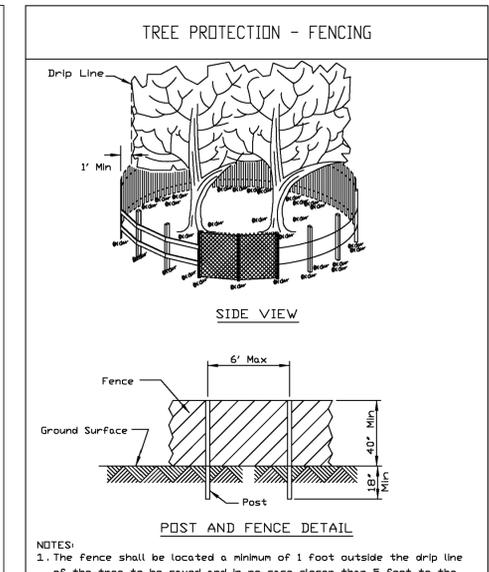
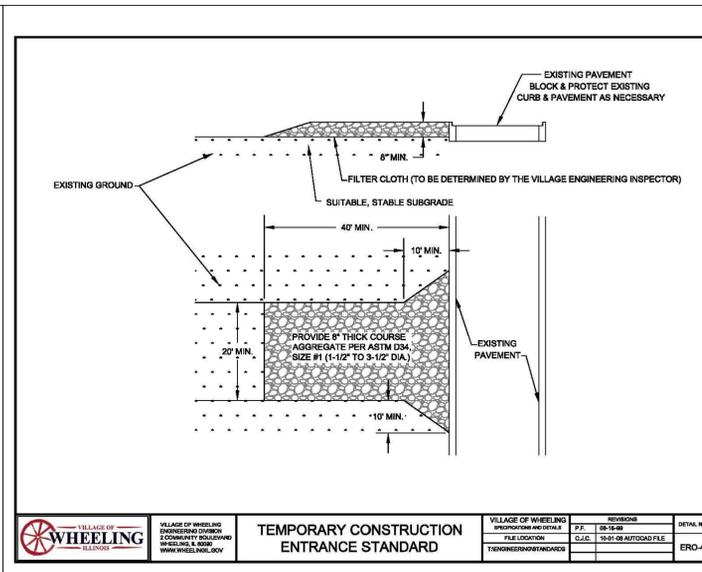
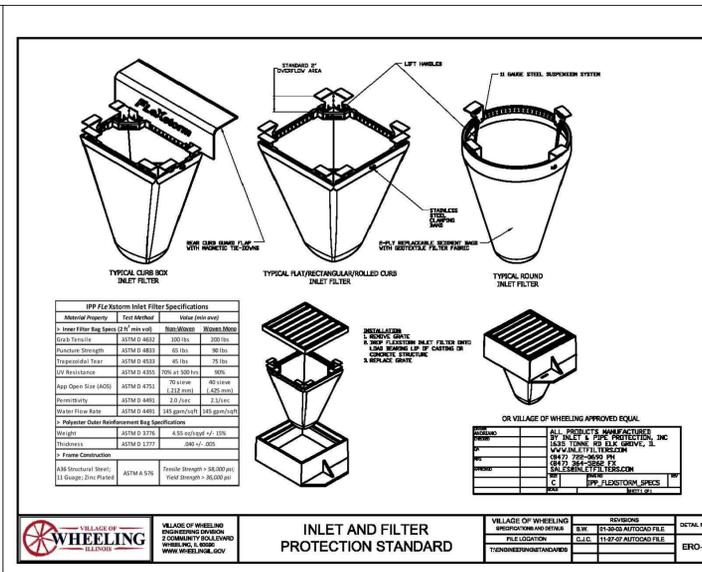
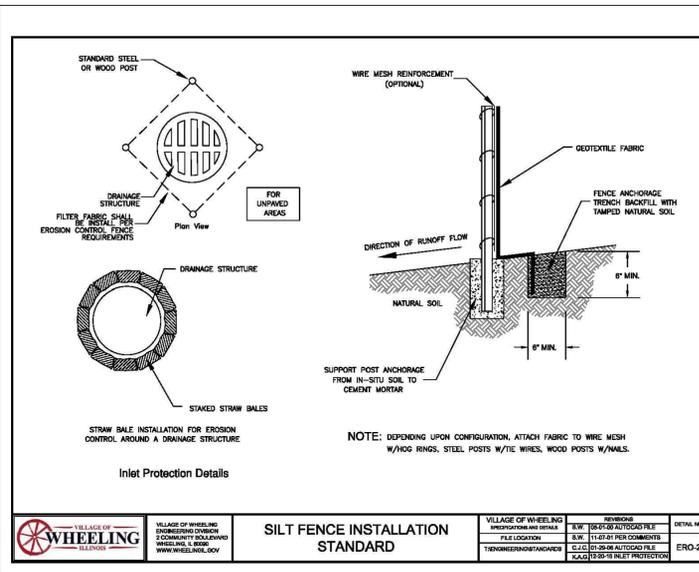
**STORMWATER POLLUTION PREVENTION PLAN (SWPPP) - EAST LONGTREE STORMWATER BASIN SITE IMPROVEMENTS**  
 WHEELING, ILLINOIS

Project Manager: K.M.L.  
 Engineer: D.J.V.  
 Date: 02/19/2020  
 Project No. 19-186  
 Sheet **EC3.0** of EC4



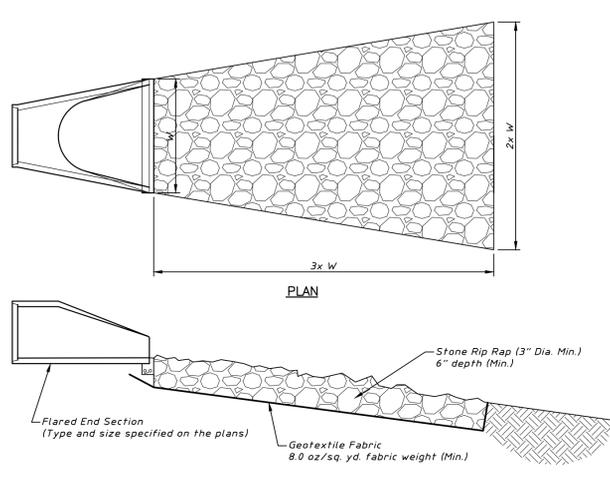
**Note:**  
Seed & restore landscaping after storm sewer installation for all areas disturbed for storm sewer installation.





**CONSTRUCTION SEQUENCE AND RESPONSIBLE CONTRACTOR**

CONSTRUCTION SEQUENCE AND RESPONSIBLE CONTRACTOR	GRADING CONTRACTOR	UNDERGROUND CONTRACTOR	PAVING CONTRACTOR	LANDSCAPE CONTRACTOR
1. INSTALL SEDIMENT CONTROL MEASURES - EROSION CONTROL FENCE - STABILIZED CONSTRUCTION ENTRANCE - SPECIFIED STORM SEWER LINES	=====	=====		
2. GRADE SITE/STOCKPILE TOPSOIL	=====			
3. INSTALL STORMWATER MANAGEMENT MEASURES - STORM SEWER - SEDIMENT TRAP (INLET PROTECTION) - DITCH/SWALES	=====	=====		
4. TEMPORARY VEGETATIVE STABILIZATION - CONTROL MEASURES - TEMPORARY SEEDING - MULCHING			=====	=====
5. SITE CONSTRUCTION WORK - PAVING (SIDEWALKS)		=====		
6. VEGETATIVE COVER ON ALL AREAS TO BE EXPOSED LONGER THAN 60 DAYS - TEMPORARY SEEDING			=====	=====
7. PERMANENT VEGETATIVE STABILIZATION OF ALL EXPOSED AREAS - PERMANENT SEEDING - SODDING			=====	=====
8. INSTALL PERMANENT LANDSCAPING			=====	=====
9. PERFORM CONTINUING MAINTENANCE	=====	=====	=====	=====

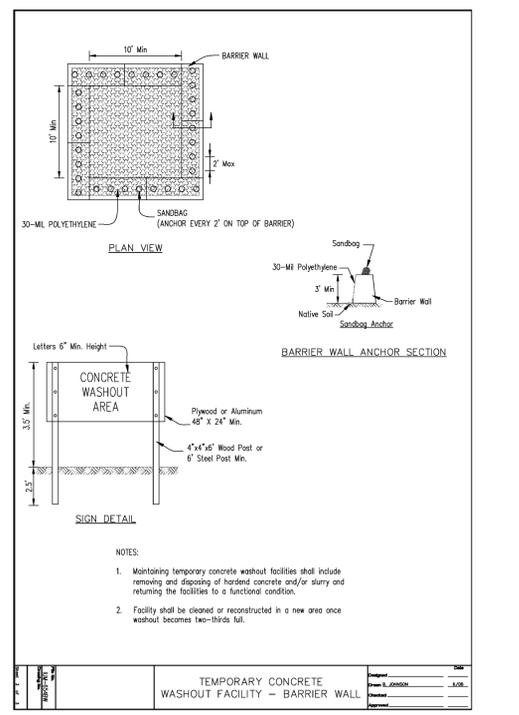
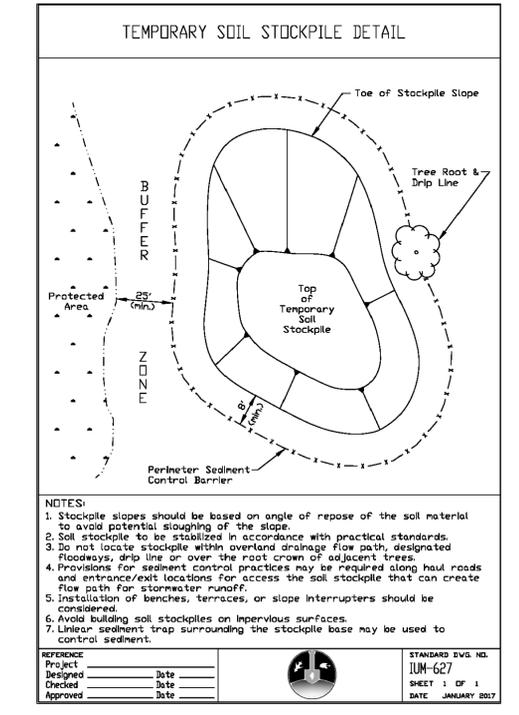
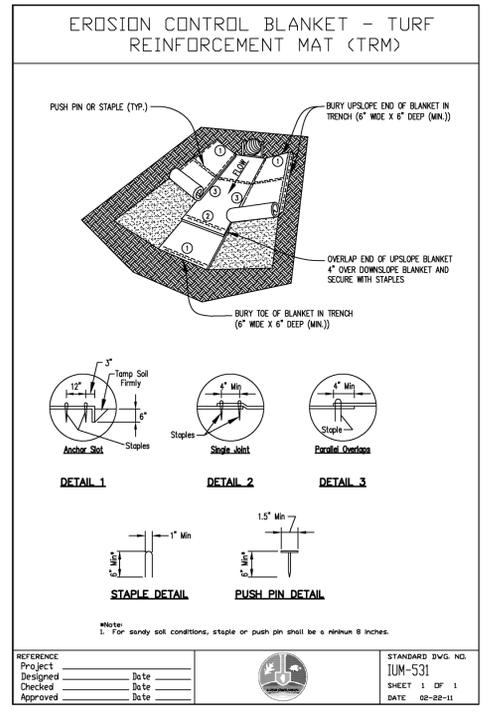
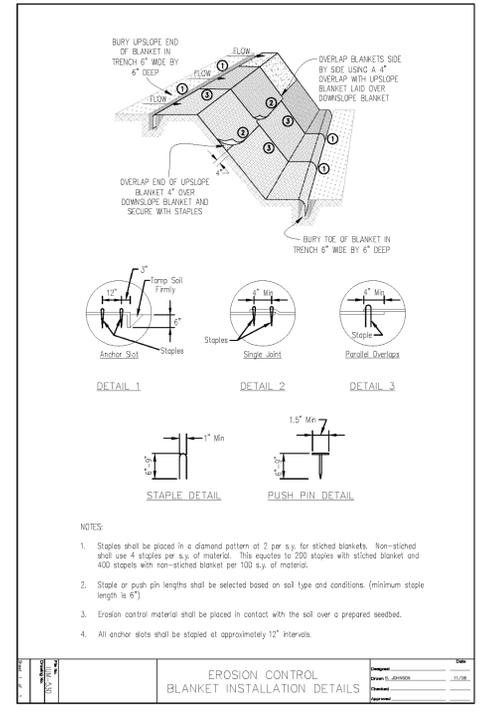
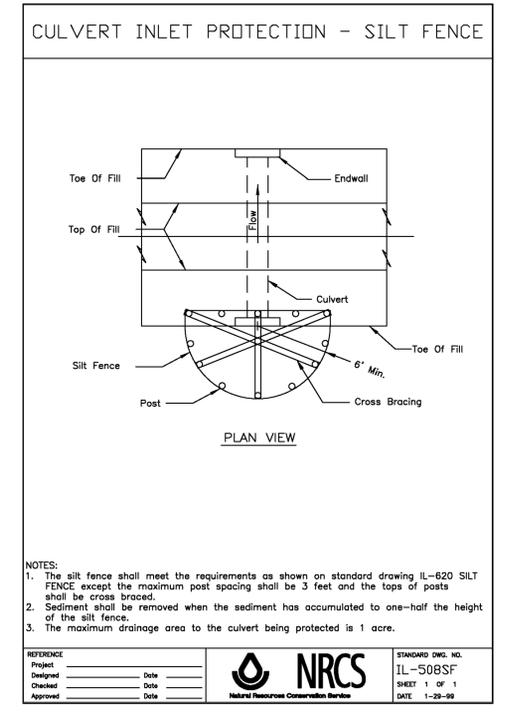


**Soil Protection Chart**

Stabilization Type	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Permanent Seeding			A			*	*		*			
Dormant Seeding	B										B	
Temporary Seeding			C			D						
Sodding			E**									
Mulching	F											

A KENTUCKY BLUEGRASS 90 LBS/AC MIXED WITH PERENIAL RYEGRASS 30 LBS/AC  
 B KENTUCKY BLUEGRASS 135 LBS/AC MIXED WITH PERENIAL RYEGRASS 45 LBS/AC + 2 TONS STRAW MULCH PER AC  
 C SPRING OATS 100 LBS/AC  
 D WHEAT OR CEREAL RYE 150 LBS/AC  
 E SOD  
 F STRAW MULCH 2 TONS/AC

\* IRRIGATION NEEDED DURING JUNE, JULY AND SEPTEMBER  
 \*\* IRRIGATION NEEDED FOR 2-3 WEEKS AFTER SODDING



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**SWPPP TYPICAL DETAILS**  
**LONGTREE STORMWATER BASIN**  
**SITE IMPROVEMENTS**  
 WHEELING, ILLINOIS

Project Manager: KML  
 Engineer: DJV  
 Date: 02/19/2020  
 Project No: 19-186  
 Sheet: EC4.0

04/03/2020 Date  
 1 No.  
 Revision