

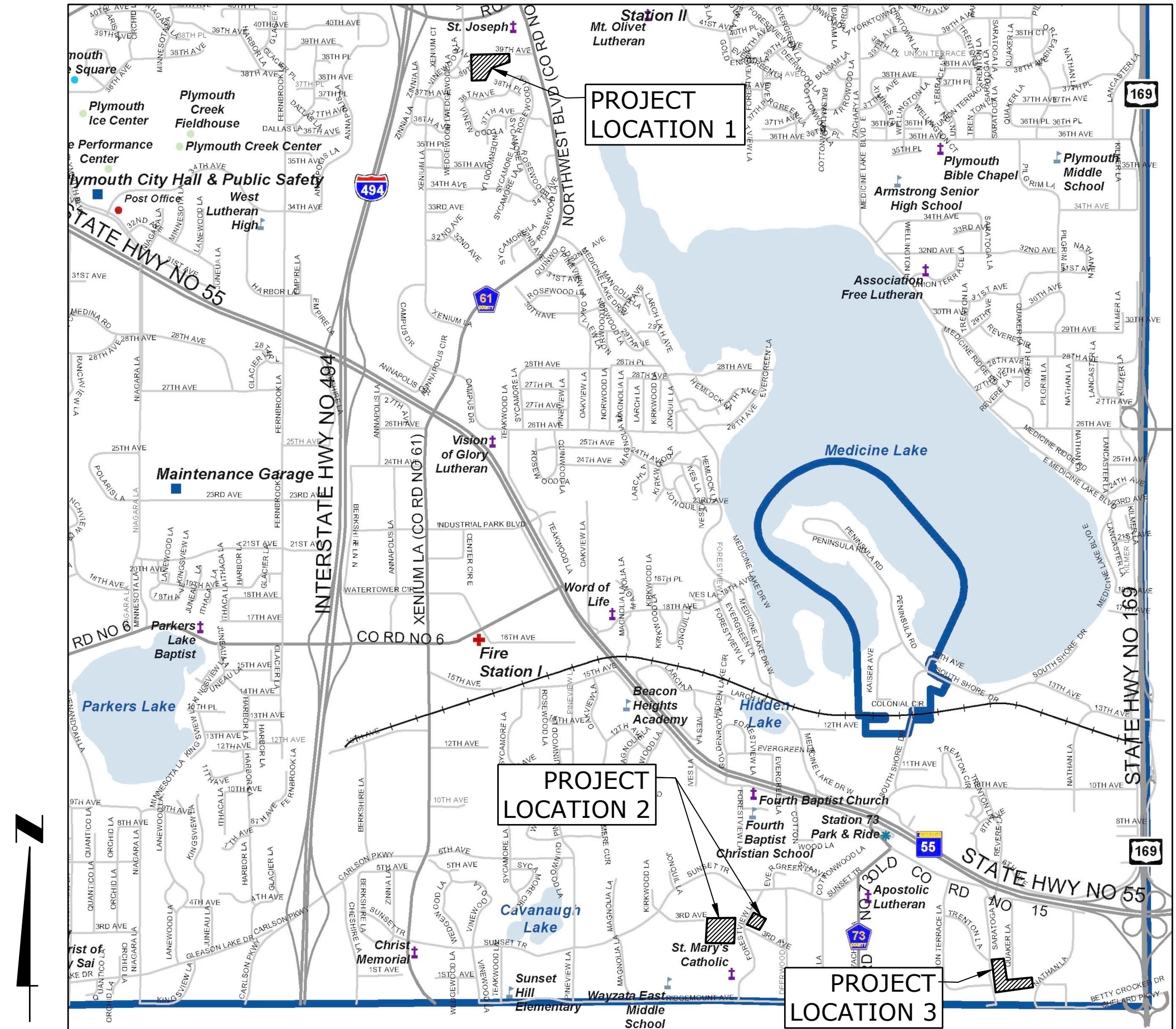
NEIGHBORHOOD DRAINAGE IMPROVEMENTS

FRENCH RIDGE PARK, ST. MARY'S PARK, AND IVANHOE/PHEASANT HILLS NEIGHBORHOODS

PREPARED FOR:
CITY OF PLYMOUTH, MN
CITY PROJECT NO. 18015

LEGEND - EXISTING

— FO — FO —	FIBER OPTIC
— GAS — GAS —	GASMAIN
— — —	WATERMAIN
— > — > —	SANITARY SEWER
— >> — >> —	STORM SEWER
— OHU — OHU —	OVERHEAD UTILITIES
— TEL — TEL —	TELEPHONE LINE
— ELE — ELE —	ELECTRIC LINE
— CTV — CTV —	CABLE LINE
— O — O — O —	GUARDRAIL
— □ — □ — □ —	WOODEN FENCELINE
— X — X — X —	CHAINLINK FENCELINE
— - - - -	RETAINING WALL
— ⊠ — ⊠ — ⊠ —	DELINEATED WETLAND BOUNDARY
— SIGN —	SIGN
— FLAG POLE —	FLAG POLE
— HYDRANT —	HYDRANT
— LIGHT —	LIGHT
— HANDHOLE —	HANDHOLE
— POWER POLE —	POWER POLE
— ELECTRIC BOX —	ELECTRIC BOX
— ELECTRICAL METER —	ELECTRICAL METER
— ELECTRIC TRANSFORMER —	ELECTRIC TRANSFORMER
— CABLE TV BOX —	CABLE TV BOX
— TELEPHONE BOX —	TELEPHONE BOX
— GAS METER —	GAS METER
— GAS VALVE —	GAS VALVE
— WATER METER —	WATER METER
— WATER VALVE —	WATER VALVE
— CATCH BASIN —	CATCH BASIN - BEEHIVE
— SANITARY MANHOLE —	SANITARY MANHOLE
— STORM MANHOLE —	STORM MANHOLE
— FLARED END SECTION —	FLARED END SECTION
— TREE —	TREE



LOCATION MAP
NOT TO SCALE

HTPO Engineering • Surveying
Landscape Architecture

HANSEN THORP PELLINEN OLSON, Inc.
7510 Market Place Drive • Eden Prairie, MN 55344
952-829-0700 • 952-829-7806 fax

HTPO PROJECT NO. 18-027

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Adam Pawell
Adam Pawell
Lic. No. 49990 Date 09-17-18

SHEET INDEX

1	COVER SHEET
2	CONSTRUCTION PLAN: LOCATION 1 - FRENCH RIDGE PARK NEIGHBORHOOD
3	CONSTRUCTION PLAN: LOCATION 2 - ST. MARY'S PARK NEIGHBORHOOD
4	CONSTRUCTION PLAN: LOCATION 3 - IVANHOE-PHEASANT HILLS NEIGHBORHOOD
5	CONSTRUCTION DETAILS

GENERAL NOTES

CONTRACTOR SHALL DETERMINE LOCATION OF EXISTING PUBLIC AND PRIVATE UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR PRESERVING THESE. ANY REPAIRS NECESSARY DUE TO CONTRACTORS OPERATIONS SHALL BE MADE AT CONTRACTORS EXPENSE. BEFORE DIGGING CALL: GOPHER STATE ONE CALL (651) 454-0002.

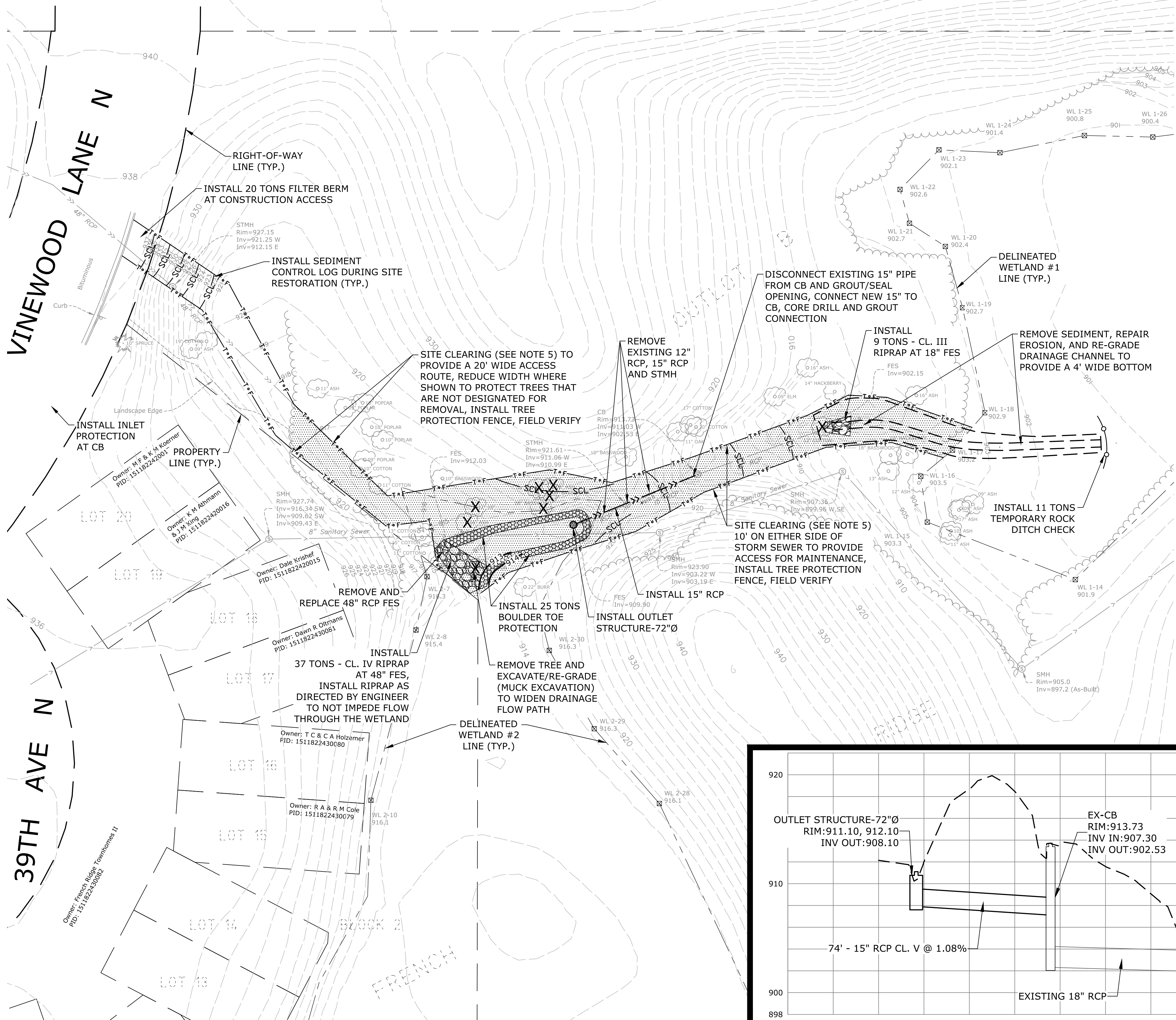
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL "C". THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF PLYMOUTH STANDARD SPECIFICATIONS.



CALL BEFORE YOU DIG !
MINNESOTA LAW REQUIRES EXCAVATORS TO NOTIFY THE REGIONAL NOTIFICATION CENTER AT LEAST TWO (2) BUSINESS DAYS BUT NOT MORE THAN FOURTEEN (14) CALENDAR DAYS PRIOR TO EXCAVATION
GOPHER STATE ONE CALL
www.gopherstateonecall.org
1-800-252-1166

FILE: P:\2018\18-027 - Plymouth Drainage Improvements\CAD\DWG\PLANS\18-027_CIV-SITE-FRCH.dwg LAYOUT: 2
DATE/TIME: Sep 17, 2018 - 1:10 pm
USER: ajawek XREF(s): 18-027_X-SUR-FRCH.dwg 18-027_X-ENG-FRCH.dwg 18-027_X-TBLK.dwg



NOTES:

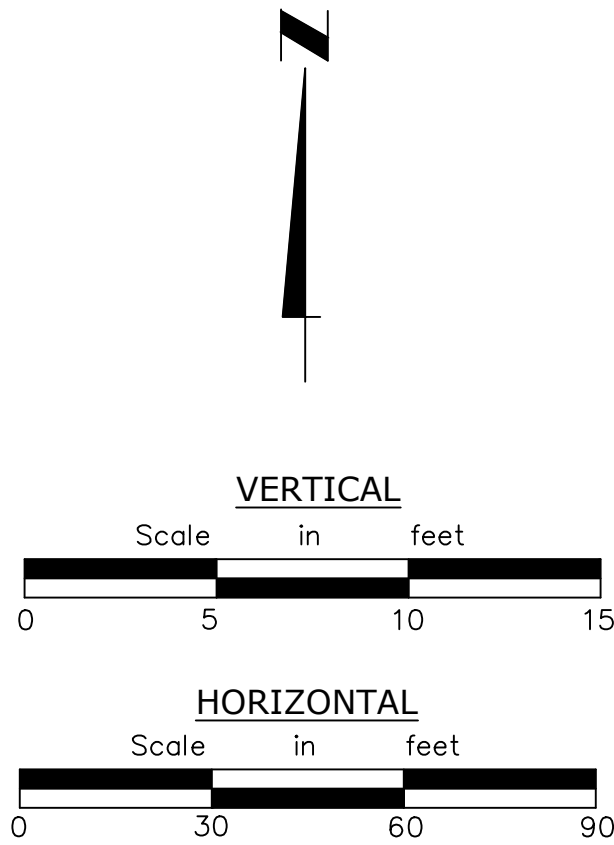
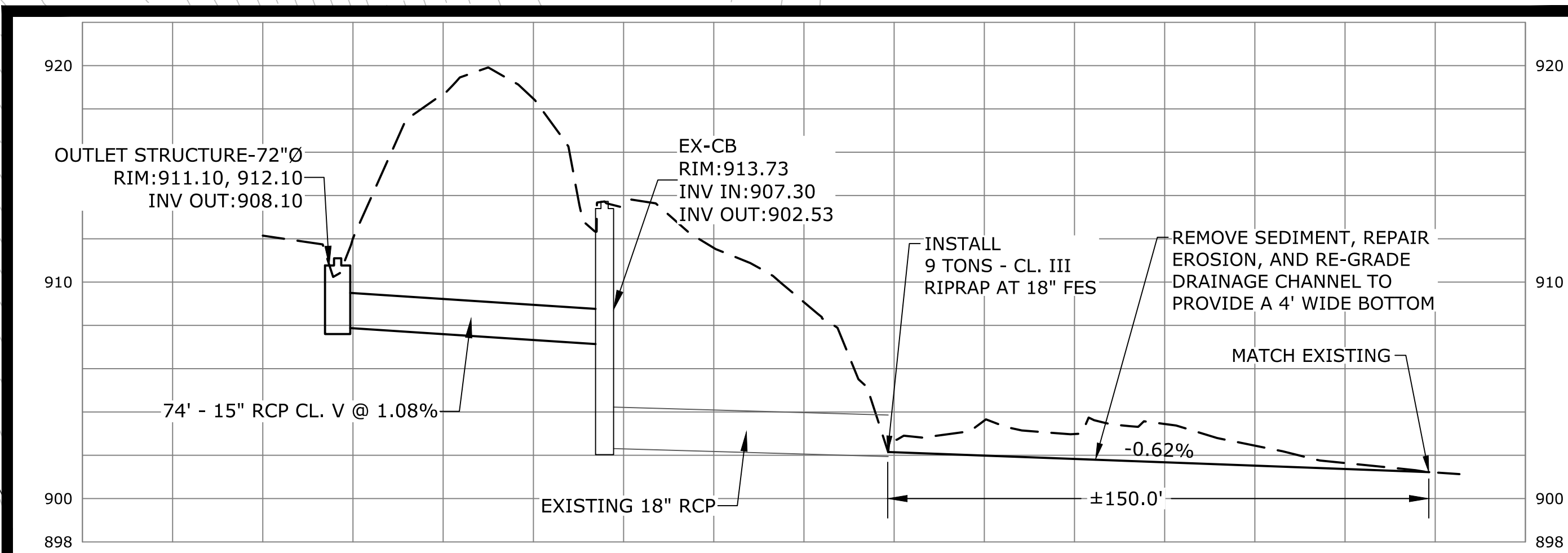
- THE EXISTING CONDITIONS ARE A COMPILATION OF FIELD SURVEYED LOCATIONS AND ELEVATIONS, MN TOPO LIDAR DATA, AND CITY AS-BUILT DOCUMENTS. FIELD VERIFY AND ADJUST IMPROVEMENTS TO MATCH EXISTING CONDITIONS AND TO PROVIDE POSITIVE DRAINAGE.
- WETLAND DELINEATION WAS COMPLETED BY KJOLHAUG ENVIRONMENTAL ON JUNE 1, 2018.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS NOTED OR AS DIRECTED BY ENGINEER, INCLUDING FILTER BERMS AT CONSTRUCTION ACCESS POINTS AND INLET PROTECTION AT NEAREST DOWNSTREAM CATCH BASINS, PRIOR TO COMMENCING CONSTRUCTION AND MAINTAINED THROUGHOUT CONSTRUCTION UNTIL SURFACE RESTORATION IS COMPLETE. SWEEP TRACKOUT DAILY OR AS DIRECTED BY ENGINEER.
- COORDINATE SITE ACCESS, STAGING AREA, AND LIMITS OF CONSTRUCTION WITH ENGINEER AND CITY TO MINIMIZE DISTURBANCE.
- SITE CLEARING INCLUDES BRUSH REMOVAL, REMOVAL OF DEAD, DISEASED, DISEASE SUSCEPTIBLE, AND LOW VALUE TREES, AND TREE PRUNING. ALL TREE REMOVAL SHALL BE FIELD VERIFIED AND APPROVED BY THE CITY PRIOR TO REMOVAL. PRUNE TREES AS DIRECTED TO OPEN UP CANOPY AND TO MINIMIZE DAMAGE TO TREES DURING CONSTRUCTION. ONLY TREES 8" DIA. OR GREATER ARE SHOWN. INSTALL CONSTRUCTION FENCE (TREE PROTECTION) AS SHOWN OR AS DIRECTED BY ENGINEER.
- RESTORE SITE TO EXISTING CONDITIONS OR BETTER.
- DISTURBED GREENSPACE AREAS SHALL BE RESTORED IN ACCORDANCE WITH MNDOT 2575 AND INCLUDE INSTALLATION OF MIN. 4" TOPSOIL, SEED (MNDOT 3876), TYPE 4 FERTILIZER NPK 0-10-20 (MNDOT 3881) APPLIED AT A BULK RATE OF 120 LBS/AC, AND EROSION CONTROL BLANKET TYPE III (MNDOT 3885). SEDIMENT CONTROL LOG PLACEMENT TO BE DETERMINED IN THE FIELD BY ENGINEER. PRIOR TO PLACING TOPSOIL, SCARIFY COMPACTED SOILS TO A MIN. DEPTH OF 12" WHILE TAKING CARE TO AVOID UTILITIES, TREE ROOTS, AND OTHER EXISTING VEGETATION.
- SEED MIXES SHALL BE AS FOLLOWS:
 - CURRENTLY MAINTAINED AREAS - SEED MIX 25-131 APPLIED AT A RATE OF 220 LB/AC
 - DELINEATED WETLAND #1 AREA AND DRAINAGE CHANNEL AREA - SEED MIX 34-271 APPLIED AT A RATE OF 12 LB/AC
 - DELINEATED WETLAND #2 AREA - SEED MIX 34-181 APPLIED AT A RATE OF 5 LB/AC
 - ALL OTHER WOODED AREAS - SEED MIX 36-211 APPLIED AT A RATE OF 35 LB/AC
- IF WEATHER CONDITIONS DO NOT ALLOW FOR THE PLACEMENT OF THE SEED AND BLANKET AS DETERMINED BY THE ENGINEER, DISTURBED AREAS SHALL BE TEMPORARILY RESTORED WITH TYPE 3 MULCH (MNDOT 3882) AND SHALL BE INSTALLED BY WINTER MULCHING IN ACCORDANCE WITH MNDOT 2575.3 C.7. FINAL RESTORATION AS NOTED ABOVE SHALL THEN OCCUR AFTER APRIL 15 OR AFTER THE SPRING SNOW MELT, WHICHEVER IS LATER.
- TOTAL DISTURBED AREA = 0.34 ACRES

LEGEND-PROPOSED:

- BOULDER TOE PROTECTION (FIELD STONE)
- RIPRAP (FIELD STONE)
- SITE CLEARING AREA (SEE NOTE 5)
- CONSTRUCTION FENCE (TREE PROTECTION)/LIMITS OF CONSTRUCTION
- TEMPORARY ROCK DITCH CHECK
- SEDIMENT CONTROL LOG
- OUTLET STRUCTURE
- STORM PIPE
- CONTOUR LINE
- DRAINAGE CHANNEL/LIMITS OF CONSTRUCTION
- TREE REMOVAL
- FLARED END SECTION (APRON)

BENCHMARK

TOP NUT OF HYDRANT (TNH),
ELEVATION = 921.32 (NAVD88), LOCATED AT
WEST END OF CUL-DE-SAC ON 39TH AVE N.



**Engineering • Surveying
Landscape Architecture**
HANSEN THORP PELLINEN OLSON, Inc.
7510 Market Place Drive • Eden Prairie, MN 55344
952-829-0700 • 952-829-7806 fax

PROJECT NO. 18-027
DRAWN BY AMP
DESIGN BY AMP
CHECKED BY LAJ

DATE 09-17-18
ISSUES / REVISIONS
BID SET

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Adam Pawelk
ADAM PAWELK
LIC. NO. 49990 DATE: 09-17-18

STATE AID PROJECT NO.
STATE PROJECT NO.
COUNTY PROJECT NO.
CITY PROJECT NO. 18015
CLIENT PROJECT NO.

CONSTRUCTION PLAN
LOCATION 1 - FRENCH RIDGE PARK NEIGHBORHOOD
NEIGHBORHOOD DRAINAGE IMPROVEMENTS
PLYMOUTH, MN

SHEET 2
OF
5 SHEETS

FILE: P:\2018\18-027 - Plymouth Drainage Improvements\CADD\DWG\PLANS\HETS\CVL18-027_CIV-SITE-MARY.dwg LAYOUT: 3
DATE/TIME: Sep 17, 2018 - 11:00pm
USER: apawelk XREF(s): 18-027_X-SUR-MARY.dwg 18-027_X-ENG-MARY.dwg 18-027_X-TBLK.dwg

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ADAM PAWELK
LIC. NO. 49990 DATE: 09-17-18

STATE AID PROJECT NO.	
STATE PROJECT NO.	
COUNTY PROJECT NO.	
CITY PROJECT NO.	18015
CLIENT PROJECT NO.	

CONSTRUCTION PLAN
LOCATION 2 - ST. MARY'S PARK NEIGHBORHOOD
NEIGHBORHOOD DRAINAGE IMPROVEMENTS
PLYMOUTH, MN

SHEET 3
OF
5 SHEETS

NOTES:

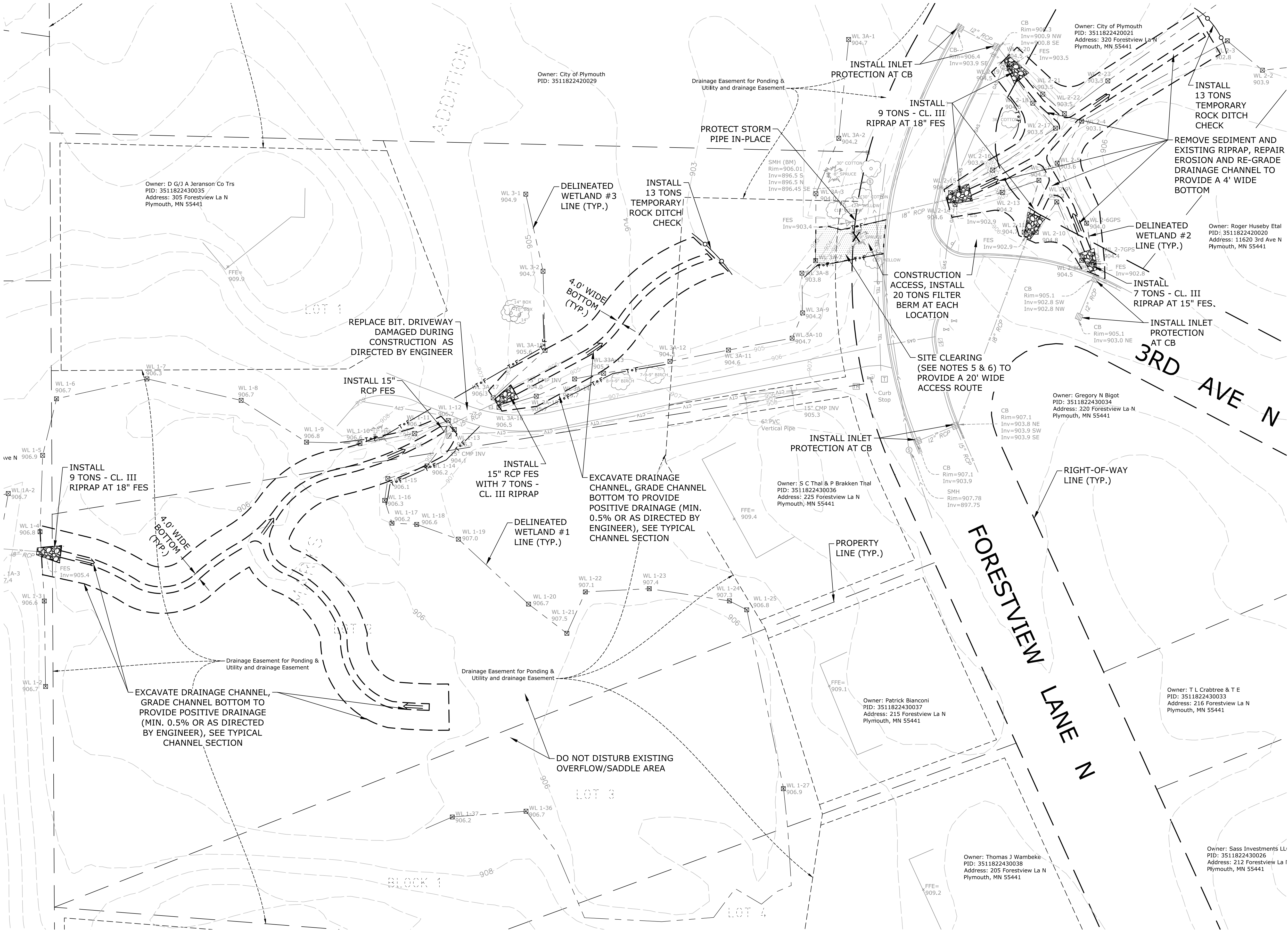
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- WETLAND DELINEATION WAS COMPLETED BY KJOLHAUG ENVIRONMENTAL ON JUNE 1, 2018.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS NOTED OR AS DIRECTED BY ENGINEER, INCLUDING FILTER BERMS AT CONSTRUCTION ACCESS POINTS AND INLET PROTECTION AT NEAREST DOWNSTREAM CATCH BASINS, PRIOR TO COMMENCING CONSTRUCTION AND MAINTAINED THROUGHOUT CONSTRUCTION UNTIL SURFACE RESTORATION IS COMPLETE. SWEEP TRACKOUT DAILY OR AS DIRECTED BY ENGINEER.
- CONTRACTOR TO MAINTAIN ACCESS TO RESIDENTS AT ALL TIMES UNLESS CLOSURE OF DRIVEWAYS IS APPROVED BY CITY.
- COORDINATE SITE ACCESS, STAGING AREA, AND LIMITS OF CONSTRUCTION WITH ENGINEER AND CITY TO MINIMIZE DISTURBANCE. PROTECT EXISTING SITE FEATURES IN-PLACE, COORDINATE WITH CITY AND/OR PROPERTY OWNER IF RELOCATION OF FEATURES IS NEEDED FOR CONSTRUCTION.
- ALL TREE REMOVAL SHALL BE FIELD VERIFIED AND APPROVED BY THE CITY PRIOR TO REMOVAL. PRUNE TREES AS DIRECTED TO MINIMIZE DAMAGE TO TREES. ONLY TREES 8" DIA. OR GREATER ARE SHOWN. INSTALL CONSTRUCTION FENCE (TREE PROTECTION) AS SHOWN OR AS DIRECTED BY ENGINEER.
- RESTORE SITE TO EXISTING CONDITIONS OR BETTER.
- DISTURBED GREENSPACE AREAS SHALL BE RESTORED IN ACCORDANCE WITH MNDOT 2575 AND INCLUDE INSTALLATION OF MIN. 4" TOPSOIL, SEED (MNDOT 3876), TYPE 4 FERTILIZER NPK 0-10-20 (MNDOT 3881) APPLIED AT A BULK RATE OF 120 LBS/AC, AND EROSION CONTROL BLANKET TYPE III (MNDOT 3885). SEDIMENT CONTROL LOG PLACEMENT TO BE DETERMINED IN THE FIELD BY ENGINEER. PRIOR TO PLACING TOPSOIL, SCARIFY COMPACTED SOILS TO A MIN. DEPTH OF 12" WHILE TAKING CARE TO AVOID UTILITIES, TREE ROOTS, AND OTHER EXISTING VEGETATION.
- SEED MIXES SHALL BE AS FOLLOWS:
 - CURRENTLY MAINTAINED AREAS - SEED MIX 25-131 APPLIED AT A RATE OF 220 LB/AC
 - WETLAND #1 AND #3 AREAS AND SURROUNDING NON-MAINTAINED AREAS - SEED MIX 34-271 APPLIED AT A RATE OF 12 LB/AC
 - WETLAND #2 AREA AND SURROUNDING NON-MAINTAINED AREAS - SEED MIX 34-261 APPLIED AT A RATE OF 32 LB/AC
- IF WEATHER CONDITIONS DO NOT ALLOW FOR THE PLACEMENT OF THE SEED AND BLANKET AS DETERMINED BY THE ENGINEER, DISTURBED AREAS SHALL BE TEMPORARILY RESTORED WITH TYPE 3 MULCH (MNDOT 3882) AND SHALL BE INSTALLED BY WINTER MULCHING IN ACCORDANCE WITH MNDOT 2575.3 C.7. FINAL RESTORATION AS NOTED ABOVE SHALL THEN OCCUR AFTER APRIL 15 OR AFTER THE SPRING SNOW MELT, WHICHEVER IS LATER.
- TOTAL DISTURBED AREA = 0.82 ACRES.

LEGEND-PROPOSED:

- | | |
|--|---|
| | DRAINAGE CHANNEL/LIMITS OF CONSTRUCTION |
| | RIPRAP (FIELD STONE) |
| | TEMPORARY ROCK DITCH CHECK |
| | CONSTRUCTION FENCE (TREE PROTECTION)/LIMITS OF CONSTRUCTION |
| | TREE REMOVAL |
| | DRAINAGE FLOW |

BENCHMARK

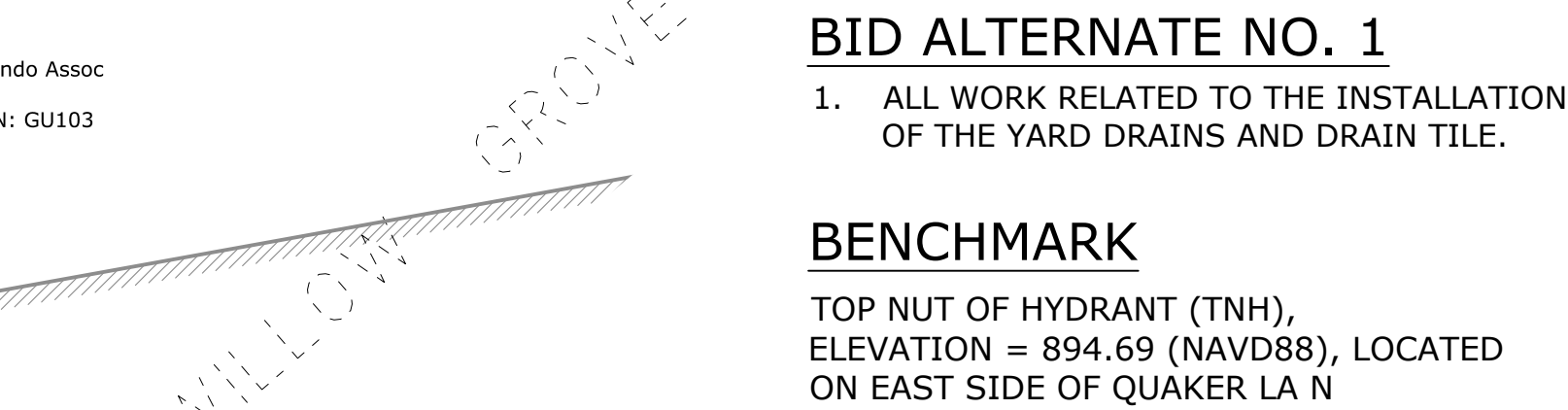
CENTER OF SANITARY SEWER MANHOLE RIM, ELEVATION = 906.01 (NAVD88), MANHOLE LOCATED ON WEST SIDE OF FORESTVIEW LA N, NORTH OF 3RD AVE N INTERSECTION, NOTED ON PLAN AS SMH (BM).



1. THE EXISTING CONDITIONS ARE A COMPILATION OF FIELD SURVEYED LOCATIONS AND ELEVATIONS AND CITY AS-BUILT DOCUMENTS. FIELD VERIFY AND ADJUST IMPROVEMENTS TO MATCH EXISTING CONDITIONS AND TO PROVIDE POSITIVE DRAINAGE.
2. COORDINATE SITE ACCESS, STAGING AREA, AND LIMITS OF CONSTRUCTION WITH ENGINEER AND CITY TO MINIMIZE DISTURBANCE. PROTECT EXISTING SITE FEATURES IN-PLACE, COORDINATE WITH CITY AND/OR PROPERTY OWNER IF RELOCATION OF FEATURES IS NEEDED FOR CONSTRUCTION.
3. WETLAND DELINEATION WAS COMPLETED BY KJOLHAUG ENVIRONMENTAL ON JUNE 1, 2018.
4. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS NOTED OR AS DIRECTED BY ENGINEER, INCLUDING FILTER BERMS AT CONSTRUCTION ACCESS POINTS AND INLET PROTECTION AT NEAREST DOWNSTREAM CATCH BASINS, PRIOR TO COMMENCING CONSTRUCTION AND MAINTAINED THROUGHOUT CONSTRUCTION UNTIL SURFACE RESTORATION IS COMPLETE. SWEEP TRACKOUT DAILY OR AS DIRECTED BY ENGINEER.
5. SITE CLEARING INCLUDES BRUSH REMOVAL, REMOVAL OF DEAD, DISEASED, DISEASE SUSCEPTIBLE, AND LOW VALUE TREES, AND TREE PRUNING. ALL TREE REMOVAL SHALL BE FIELD VERIFIED AND APPROVED BY THE CITY PRIOR TO REMOVAL. PRUNE TREES AS DIRECTED BY ENGINEER TO OPEN UP CANOPY AND TO MINIMIZE DAMAGE TO TREES DURING CONSTRUCTION. ONLY TREES WITH 8" DIA. OR GREATER ARE SHOWN. INSTALL CONSTRUCTION FENCE (TREE PROTECTION) AS SHOWN OR AS DIRECTED BY ENGINEER.
6. RE-GRADE EXISTING DRAINAGE DITCH (MUCK EXCAVATION) WHERE NOTED AND AS DIRECTED BY ENGINEER TO PROVIDE POSITIVE DRAINAGE TO THE EAST TO THE EXISTING PIPE OUTLET ADJACENT TO NATHAN LANE.
7. YARD DRAINS SHALL BE MANUFACTURED BY TUF-TITE MODEL NO. 4HDS-1 OR APPROVED EQUAL AND SHALL BE A 4-HOLE DRAIN SUMP WITH INLET GRATE (GREEN). TOP OF YARD DRAIN SHALL HAVE A WIDTH OF 11"x11". PROVIDE 6" RISER SECTIONS WHERE REQUIRED. SEE CITY'S STANDARD SPECIFICATIONS FOR STORM SEWER CONSTRUCTION FOR ADDITIONAL INFORMATION.
8. RESTORE SITE TO EXISTING CONDITIONS OR BETTER.
9. DISTURBED GREENSPACE AREAS SHALL BE RESTORED IN ACCORDANCE WITH MNDOT 2575 AND INCLUDE INSTALLATION OF MIN. 4" TOPSOIL, SEED (MNDOT 3876) OR SOD (MNDOT 3878), TYPE 4 FERTILIZER NPK 0-10-20 (MNDOT 3881) APPLIED AT A BULK RATE OF 120 LBS/AC, AND EROSION CONTROL BLANKET TYPE III (MNDOT 3885). SEDIMENT CONTROL LOG PLACEMENT TO BE DETERMINED IN THE FIELD BY ENGINEER. PRIOR TO PLACING TOPSOIL, SCARIFY COMPACTED SOILS TO A MIN. DEPTH OF 12" WHILE TAKING CARE TO AVOID UTILITIES, TREE ROOTS, AND OTHER EXISTING VEGETATION.
10. SOD/SEED MIXES SHALL BE AS FOLLOWS:
 - CURRENTLY MAINTAINED AREAS - SOD
 - ALL OTHER AREAS - SEED MIX 34-261 APPLIED AT A RATE OF 32 LB/AC
11. IF WEATHER CONDITIONS DO NOT ALLOW FOR THE PLACEMENT OF THE SEED AND BLANKET AS DETERMINED BY THE ENGINEER, DISTURBED AREAS SHALL BE TEMPORARILY RESTORED WITH TYPE 3 MULCH (MNDOT 3882) AND SHALL BE INSTALLED BY WINTER MULCHING IN ACCORDANCE WITH MNDOT 2575.3 C.7. FINAL RESTORATION AS NOTED ABOVE SHALL OCCUR AFTER APRIL 15 OR AFTER THE SPRING SNOW MELT, WHICHEVER IS LATER.
12. TOTAL DISTURBED AREA = 0.99 ACRES

Owner: Bigos-Williw Creek LLC
PID: 3611822430016
Address: 135 E. Main St., Janesville, WI 53401
Phone: 608.785.1234

INSTALL E.TONG



<div><div>HTPO</div><div>Engineering • Surveying Landscape Architecture</div><div>HANSEN THORP PELLINEN OLSON, Inc. 7510 Market Place Drive • Eden Prairie, MN 55344 952-829-0700 • 952-829-7806 fax</div></div>	PROJECT NO.	18-027	DATE	ISSUES / REVISIONS	<div>I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.</div> <div><div>Adam Pawelk</div><div>ADAM PAWELK</div><div>LIC. NO. 49990 DATE: 09-17-18</div></div>	STATE AID PROJECT NO.	<div>CONSTRUCTION PLAN</div> <div>LOCATION 3 - IVANHOE-PHEASANT HILLS NEIGHBORHOOD</div> <div>NEIGHBORHOOD DRAINAGE IMPROVEMENTS</div> <div>PLYMOUTH, MN</div>			SHEET	4
	DRAWN BY	AMP				STATE PROJECT NO.				OF	
	DESIGN BY	AMP					COUNTY PROJECT NO.				
	CHECKED BY	LAJ					CITY PROJECT NO. 18015	5 SHEETS			
						CLIENT PROJECT NO.					

