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PLYMOUTH CREEK STREAM RESTORATION PHASE 1

CITY PROJECT NO. WR250001

CITY OF PLYMOUTH, MINNESOTA

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

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PRELIMINARY

PROJECT No. 30495

CIVIL LEGEND

EXISTING

- BENCHMARK
- IRON MONUMENT FOUND
- EXISTING PROPERTY LINE
- EXISTING PLAT LOT LINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE
- EXISTING PLAT EASEMENT LINE
- EXISTING GAS LINE MARKER
- EXISTING GAS GATE VALVE
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING LIGHT POLE W/SIGN
- EXISTING GUY WIRE
- EXISTING TRAFFIC SIGNAL ARM
- EXISTING SIGN
- EXISTING CULVERT W/FLARED END SECTION (F.E.S.)
- EXISTING FLARED END SECTION (F.E.S.)
- EXISTING CURB STOP
- EXISTING HYDRANT W/GATE VALVE
- EXISTING GATE VALVE
- EXISTING PROPANE TANK
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER CLEANOUT
- EXISTING STORM SEWER CATCH BASIN
- EXISTING STORM SEWER MANHOLE
- EXISTING WATER MAIN
- EXISTING WATER SERVICE W/CURB STOP
- EXISTING SANITARY SEWER
- EXISTING SANITARY SEWER (RELINE W/ CIPP)
- EXISTING SANITARY FORCEMAIN
- EXISTING SANITARY SEWER SERVICE
- EXISTING STORM SEWER
- EXISTING STORM SEWER FORCEMAIN
- EXISTING STEAM PIPE
- EXISTING AIR CONDITIONER
- EXISTING UTILITY PEDESTAL
- EXISTING UTILITY MANHOLE
- EXISTING UTILITY VAULT
- EXISTING UNDERGROUND COMMUNICATIONS
- EXISTING UNDERGROUND FIBER
- EXISTING UNDERGROUND TELEPHONE
- EXISTING OVERHEAD TELEPHONE
- EXISTING UNDERGROUND TELEVISION
- EXISTING OVERHEAD TELEVISION
- EXISTING UNDERGROUND GAS
- EXISTING UNDERGROUND ELECTRIC
- EXISTING OVERHEAD POWER
- EXISTING BARBED WIRE FENCE
- EXISTING CHAIN LINK/STEEL FENCE
- EXISTING PVC/WOOD FENCE
- EXISTING RAILROAD
- EXISTING SHRUB
- EXISTING STUMP
- EXISTING BOULDER
- EXISTING TREE/TREE CLUSTER
- EXISTING SPRINKLER HEAD
- EXISTING CLUSTER BOX UNIT (CBU)
- EXISTING MAILBOX
- EXISTING CURB AND GUTTER

PROPOSED

- NEW PROPERTY LINE
- NEW PLAT LOT LINE
- NEW RIGHT OF WAY LINE
- NEW EASEMENT LINE
- NEW PLAT EASEMENT LINE
- CONSTRUCTION EASEMENT
- CONSTRUCTION LIMITS
- NEW LIGHT POLE
- NEW LIGHT POLE W/SIGN
- NEW GUY WIRE
- NEW SIGN
- TRAFFIC CONTROL – DRUM
- TRAFFIC CONTROL – TUBULAR MARKER
- NEW CULVERT W/FLARED END SECTION (F.E.S.)
- NEW FLARED END SECTION (F.E.S.)
- NEW CURB STOP
- NEW HYDRANT W/GATE VALVE
- NEW GATE VALVE
- NEW TAPPING SLEEVE
- NEW FITTINGS
- NEW PLUG
- NEW SANITARY SEWER MANHOLE
- NEW SANITARY SEWER CLEANOUT
- NEW STORM SEWER CATCH BASIN
- NEW STORM SEWER MANHOLE
- NEW WATER MAIN
- NEW WATER MAIN (DIRECTIONAL DRILLED, CASED OR BURST)
- NEW WATER SERVICE W/CURB STOP (S.B. ELEV.)
- NEW SANITARY SEWER
- NEW SANITARY SEWER (DIRECTIONAL DRILLED OR CASED)
- NEW SANITARY FORCEMAIN
- NEW SANITARY SEWER SERVICE (S.S. ELEV.)
- NEW STORM SEWER
- NEW STORM SEWER (DIRECTIONAL DRILLED OR CASED)
- NEW STORM SEWER FORCEMAIN
- NEW STEAM PIPE
- INSULATION PER DETAIL
- NEW BARBED WIRE FENCE
- NEW CHAIN LINK/STEEL FENCE
- NEW PVC/WOOD FENCE
- NEW CLUSTER BOX UNIT (CBU)
- NEW MAILBOX
- NEW LARGE DECIDUOUS TREE
- NEW SMALL DECIDUOUS TREE
- NEW SHRUB
- NEW LARGE EVERGREEN TREE
- NEW SMALL EVERGREEN TREE

REMOVALS

- INDICATES REMOVAL
- REMOVE CURB AND GUTTER
- REMOVE ASPHALT PAVEMENT
- REMOVE CONCRETE PAVEMENT
- REMOVE AGGREGATE SURFACE
- UNIFORM MILL & OVERLAY
- TAPERED MILL & OVERLAY
- LEVELING COURSE
- RECLAIM
- ASPHALT PATCH
- CHIP SEAL
- TREE REMOVAL

PAVEMENT

- NEW INFLOW CURB AND GUTTER
- NEW OUTFLOW CURB AND GUTTER
- NEW ASPHALT SURFACE
- NEW CONCRETE SURFACE
- NEW GRANULAR SURFACE
- NEW CRUSHED CONCRETE SURFACE
- NEW DECORATIVE COLORED CONCRETE
- NEW ASPHALT SIDEWALK/MULTI-USE PATH
- NEW CONCRETE SIDEWALK/MULTI-USE PATH
- NEW CONCRETE APPROACH/DRIVEWAY
- NEW DETECTABLE WARNING PANEL
- NEW GRAVEL APPROACH/DRIVEWAY
- NEW CONCRETE VALLEY GUTTER
- NEW MEDIAN NOSE APRON
- NEW ADA RAMP W/WARNING PANEL

- DISTURBANCE AREA / TOPSOIL REMOVAL
- REMOVE STOCKPILE
- EXISTING STOCKPILE
- TEMPORARY STOCKPILE
- PERMANENT STOCKPILE
- REAR YARD GRADING
- GRASS BUFFER STRIP
- TOPSOIL, SEEDING & BLANKET

MISCELLANEOUS

- EXISTING RIPRAP
- NEW RIPRAP
- EXISTING LANDSCAPING AREA
- NEW LANDSCAPING AREA
- EXISTING WATER SURFACE
- NEW WATER SURFACE
- EXISTING WETLAND

- DRAINAGE BREAK LINE
- EXISTING DRAINAGE DIRECTION
- 2.0% FINISHED DRAINAGE DIRECTION & SLOPE
- 4:1 FINISHED GRADE
- 895 EXISTING CONTOUR ELEVATION
- 895 FINISHED CONTOUR ELEVATION
- FL: 900.07 GRADE ELEVATIONS
- SEDIMENTATION CONTROL WATTLE
- SEDIMENTATION CONTROL FENCE
- ROCK CHECK
- S.C.E. STABILIZED CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT
- INLET PROTECTION DEVICE

ABBREVIATIONS:

BOC= BACK OF CURB
BOW= BACK OF WALK
C= COMMUNICATION
CB#= STORM SEWER CATCH BASIN
CIPP= CURED IN PLACE PIPE
CL= CENTERLINE
CSP= CORRUGATED STEEL PIPE
CO#= SANITARY SEWER CLEANOUT
CS#= CONTROL STRUCTURE
DIA= DIAMETER
DIP= DUCTILE IRON PIPE
E= ELECTRICAL
ECC= EDGE OF CRUSHED CONCRETE
EG= EXISTING GRADE
EOC= EDGE OF CONCRETE
EOG= EDGE OF GRAVEL
EOP= EDGE OF PAVEMENT
EOW= EDGE OF WALK
EX= EXISTING
F= FIBER OPTIC
FES= FLARED END SECTION
FG= FINISHED GRADE
FL= FLOWLINE
FM= FORCEMAIN
G= GAS LINE
HP= HIGH POINT
INV= INVERT
LP= LOW POINT
MA= MATCH
M#= STORM SEWER MANHOLE
MT#= STORM SEWER TEE MANHOLE
MM#= STORM SEWER MULTI-MANHOLE
MC= MIDPOINT OF CURVE
OHP= OVERHEAD POWER
OHT= OVERHEAD TELEPHONE
OHTV= OVERHEAD TELEVISION
PC= POINT OF CURVATURE
PRC= POINT OF REVERSE CURVE
PVC= POLYVINYL CHLORIDE PIPE
PT= POINT OF TANGENCY
RIM= RIM OF STRUCTURE
S#= SANITARY SEWER MANHOLE
S.B. ELEV= STOP BOX ELEVATION
S.S. ELEV= SANITARY SEWER SERVICE INVERT
SS= SANITARY SEWER
ST= STORM SEWER
STA= ALIGNMENT STATION
T= TELEPHONE
TOC= TOP OF CONCRETE
TOP= TOP OF PAVEMENT
TOP= TOP OF PIPE
TOW= TOP OF WALK
TR#= SANITARY TELEVISING RISER
TRANS= TRANSFORMER
TV= TELEVISION
U= UTILITY (UNKNOWN UTILITY)

PRELIMINARY

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

CIVIL
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
CIVIL LEGEND

DATE:	12.02.2025
REV DATE:	---
REV NUM:	---
RECORD:	---
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-001

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GENERAL NOTES:

1. Take necessary precautions required to protect adjacent properties during the construction operations.
2. Notify Engineer where section, subsection or property monuments are encountered, before such monuments are removed. Protect and carefully preserve all property markers and monuments until the engineer and authorized surveyor has witnessed or otherwise referenced the location.
3. Coordinate a staging area location with the City for construction. There is no guarantee that City has an area suitable for staging.
4. The removal and replacement of existing street signs are incidental to the installation of the new utility. Replace any damaged signs. Coordinate with homeowners or businesses on the removal/relocation of personal/business affects prior to construction taking place in that area.
5. All mailbox relocations must be coordinated with the city and the post office.
6. The drawings designate those existing items for removal, replacement, or improvement. If not designated for removal, replacement, or improvement, all other existing items within the site to be protected.
7. Any construction traffic damage to roads outside the construction area to be repaired by the contractor.

UNDERGROUND NOTES:

1. Coordinate any utility relocations.
2. Unless otherwise noted, any removal, relocation, replacement, or bracing of power poles or any other utilities is the responsibility of the Contractor.
3. Existing utilities (both public and private) shown on the plans are approximate and may not be complete. It will be the contractor's responsibility to verify and locate any utilities prior to excavation. There will be no additional payment for exploratory time.
4. There is a potential for water on the project. It shall be the contractor's responsibility to dewater for constructability.
5. No extra payment will be made for bedding material for pipe, structures, or fittings.
6. The subsurface utility information in this plan is Utility Quality Level D. This quality level was determined according to the guidelines of ASCE 38-02 entitled "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data".
7. Not all fittings required for a complete installation may be shown on the plans. Provide all required fittings.

REMOVAL NOTES

1. All miscellaneous debris, fittings, pipe material, appurtenances etc. Resulting from construction operations shall be first right of refusal to the owner. Otherwise, it will become the property of the contractor and shall be properly disposed of off-site.
2. All removals shall be saw cut. Saw cuts must be full depth.

TRAFFIC CONTROL NOTES:

1. The contractor will be responsible for maintaining access to all businesses/residences/public facilities at all times. This would include building & maintaining any required temporary access roadways.
2. Contractor must follow the current M.U.T.C.D. for traffic control for any and all construction operations that interfere with traffic.
3. Contractor to give no less than 48 hour notice prior to any work being done on the project. All no parking signs and any traffic control shall be posted at least 48 hours prior to work commencing.

PRELIMINARY

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City of Plymouth

Bassett Creek Watershed Management Commission

CIVIL
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
GENERAL NOTES

DATE:	12.02.2025
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DRAFTER:	DWA
REVIEWER:	DTE

C-002

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Project Description/Location:
The project is located in the City of Plymouth in Hennepin County, MN. The project corridor consists of approximately 2,400 linear feet of Plymouth Creek between Dunkirk Lane North and Vicksburg Lane North, south of Old Rockford Road and north of County Road 9 (Rockford Road). The project proposes to install a number of bank and channel stabilization practices to improve channel conditions and enhance aquatic habitat. The project will also include a variety of vegetation improvements within the adjacent riparian areas, including removing invasive and undesirable species and planting native species.

Land Feature Changes:
Total disturbed area: 3.99 acres
Total existing impervious area: 0.49 acres
Total proposed impervious area: 0.49 acres
Total proposed net change in impervious area: 0.00 acres

Project Contacts:

	Agency	Contact	Phone No.
Owner:	City of Plymouth	Ben Scharenbroich	(763) 509-5527
Contractor:	TBD	TBD	TBD
State:	MPCA	MPCA Duty Officer	(651) 649-5451

Chain of Responsibility:
The Contractor is the permitee for the national pollutant discharge elimination system (NPDES) construction permit. The contractor is responsible to comply with all aspects of the NPDES construction permit at all times until the notice of termination (NOT) has been filed with the MPCA. The contractor will develop a chain of command with all operators on the site to ensure that the SWPPP with be implemented and stay in effect until the construction project is complete, the entire site has undergone final stabilization, and a notice of termination (NOT) has been submitted to the MPCA.

Contractors Responsibilities:
The Contractor shall be responsible for compliance with, monitoring, and maintenance of the requirement of the MPCA general storm water permit for construction activity. The Contractor must identify a certified erosion and sediment control supervisor. This person must be knowledgeable and experienced in the application of erosion prevention and sediment control bmp's. This person is to oversee the implementation of this SWPPP, and the installation, inspection, and maintenance of the erosion prevention and sediment control bmp's before, during, and after construction. The SWPPP is to remain in effect until the project is complete, the entire site has undergone final stabilization, and the MPCA permit been terminated.

Project Personnel and Training:
Name of person with Best Management Practices (BMP) experience who will oversee SWPPP implementation and coordinate with contractor:
TBD and will be documented in this SWPPP narrative prior to start of construction. (First name, last name, company)

SWPPP Designer:
Company: Moore Engineering Inc.
Name: Kelsey Kline
Email: Kelsey.kline@mooreengineeringinc.com
Phone: 320-281-5493
Training date(s): 5/1/2025
Training activity/content: Design of Construction SWPPP, University of Minnesota

Individual overseeing implementation, revision and/or amendment of the SWPPP that are available for an onsite inspection within 72 hours upon request of MPCA:
TBD and will be documented in this SWPPP narrative prior to start of construction.
Company: [ ]
Name: [ ]
Email: [ ]
Phone: [ ]
Training date(s): [ ]
Training activity/content: [ ]

Individual performing or supervising the installation, maintenance and repair of BMPs:
TBD and will be documented in this SWPPP narrative prior to start of construction.
Company: [ ]
Name: [ ]
Email: [ ]
Phone: [ ]
Training date(s): [ ]
Training activity/content: [ ]

Discharges to special and impaired waters:
Discharging into a special or impaired water must comply with MNR100001 Permit 2023 reference 23 of the NPDES Permit. Plymouth Creek is impaired for aquatic life (Benthic macroinvertebrates bioassessments; Chloride) and aquatic recreation (E. coli) and Medicine Lake is impaired for aquatic consumption (mercury), aquatic life (fish bioassessments), and aquatic recreation (nutrients). Both Plymouth Creek and Medicine Lake have established TMDL goals. Plymouth Creek (Basset Creek) is identified as an impaired waterbody and is included in the Upper Mississippi River Bacteria TMDL and Protection Plan and the Twin Cities Metro Area Chloride TMDL approved by the EPA. The creek also drains to Medicine Lake, which is impaired for excess nutrients and has an approved Medicine Lake Nutrient TMDL (PRJ06316-001). The project will improve water quality and habitat by repairing actively eroding sites by stabilizing streambanks; providing and improving instream and riparian habitats; and preventing erosion at other sites by installing preemptive measures to protect existing streambanks. Overall, this project will reduce erosion, total suspended solids, and phosphorous loading to Plymouth Creek and downstream waters.

Discharges to Wetlands:
Discharging into a wetland must comply with MNR100001 Permit 2023 reference 22 of the NPDES Permit. The projects will have impacts to wetlands, and a Section 404 Permit will be obtained prior to construction and will obtain WCA approval.

Permits:
The following water related permits apply to this project:

Agency	Type of Permit
Minnesota Pollution Control Agency (MPCA)	NPDES Construction Permit
	401 Water Quality Certification
City of Plymouth	WCA Approval
Department of Natural Resources (DNR)	Public Waters Work
Army Corps of Engineers	Section 404
Bassett Creek Water Management Commission	Floodplain Review

Stormwater mitigation measures proposed to be part of the final project in any environmental review document, endangered species review, archeological or other required local, state, or federal review conducted for the project:
There are no stormwater mitigation measures required as a result of an environmental, archeological or agency review. All mitigation measures-have been addressed in this plan set or the special provisions.

Any required site assessments for groundwater or soil contamination:
No site assessment for groundwater or soil contamination was conducted prior to construction for the project.

Estimated Quantities:

Item	Estimated Quantity
Flotation Silt Curtain	50 LF
Erosion Control Blanket Cat 20	2,775 SY
Vegetation Establishment	3.5 AC

SWPPP Amendments:
Permitee must amend SWPPP within 7 days to include additional requirements to correct problems identified or address the following situations:
1. There is a change in design, construction, operation, maintenance, weather or seasonal conditions.
2. Inspections or investigations by site owner or operators, USEPA or MPCA officials determine the SWPPP is not minimizing discharge of pollutants to surface waters or underground waters or discharges are causing water quality standard exceedances.
3. The SWPPP is not achieving the objectives of minimizing pollutants in stormwater discharges associated with construction activity, or the SWPPP is not consistent with the terms and conditions of the permit.
4. The MPCA determines that the project's stormwater discharges may cause, have reasonable potential to cause, or contribute to non-attainment of any applicable water quality standard, or the SWPPP does not incorporate the applicable requirements of the permit.

BMP Selection and Stormwater Management:
Permittees must select, install, and maintain the BMPs identified in this SWPPP and in the NPDES permit in an appropriate and functional manner and in accordance with relevant manufacturer specifications and accepted engineering practices to minimize the discharge of pollutants in stormwater from construction activities. If erosion control netting is being utilized for soil stabilization, the permittee is encouraged to use products that have been shown to minimize impacts on wildlife.

Erosion/Sediment Control Measures:
Erosion and sediment control measures must comply with MNR100001 Permit 2023 reference 8 and 9 of the NPDES Permit.
A. Areas not to be disturbed must be properly marked before work begins.
B. Must minimize the need for disturbance of portions of the project with steep slopes.
C. Exposed soils (including stockpiles) must have erosion protection/cover initiated immediately and completed within 14 days (or 7 days per Section 23).
D. For DNR Public Waters with "work in waters restrictions" during specified fish spawning time frames, stabilization must be completed for all exposed soil areas within 200 feet of the water's edge, and draining to the water, within 24 hours during the restriction period.
E. The wetted perimeter of the last 200 linear feet of ditches must be stabilized within 24 hours of connecting to a surface water or property line.
F. Temporary or permanent ditches or swales that are being used as a sediment containment system during construction must be stabilized within 24 hours after no longer being used as a sediment containment system.
G. Pipe outlets must have energy dissipation within 24 hours of connecting to a surface water or permanent stormwater treatment system.
H. Mulch, hydro mulch, tackifier, polyacrylamide, or similar erosion prevention practices cannot be used within the normal wetted perimeter of drainage ditches or swale sections with a continuous slope greater than 2%.

PRELIMINARY

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Bassett Creek Watershed Management Commission

CIVIL
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CITY OF PLYMOUTH, MINNESOTA
SWPPP

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DRAFTER:	DWA
REVIEWER:	DTE

C-003

I. Must not disturb more land than what can be effectively inspected and maintained.
J. Sediment control practices must be established on downgradient perimeters and upgradient of any buffer zones.
K. If downgradient sediment controls are overloaded, based on frequent failure or excessive maintenance requirements, install additional upgradient sediment control practices or redundant BMPs to eliminate the overloading.
L. Sediment control practices must be established at the base of stockpiles on the downgradient perimeter prior to the initiation of stockpiling.
M. Stockpiles must be located outside of natural buffers or surface waters, including stormwater conveyances (e.g., curb and gutter systems) unless there is a bypass.
N. Permittees must install temporary sediment basins as required in Section 14 of the NPDES Permit.
O. Inlet protection BMPs shall be placed at all storm sewer system inlets prior to any work in those areas until permanent cover on all areas that receive discharge from the inlet are established.
P. Inlet protection may be removed for a particular inlet if a safety concern is identified, and it must be documented in this SWPPP.
Q. Vehicle tracking BMPs must be established where vehicles are exiting the site to minimize street tracking. Sediment tracked onto a public street must be removed within 24 hours.
R. Must re-install all sediment control practices adjusted or removed to accommodate short-term activities immediately after the short-term activity is completed or before the next precipitation event even if the short-term activity is not complete.
S. Street sweeping must be used in addition to vehicle tracking BMPs if the vehicle tracking BMPs alone are not adequate to prevent sediment tracking.
T. Topsoil must be preserved unless infeasible.
U. Soil compaction must be minimized.
V. Discharges from BMPs must be directed to vegetated areas, unless infeasible.
W. 50-foot natural buffers must be preserved or (if maintaining buffer is infeasible) redundant sediment controls must be provided when a surface water is located within 50 feet of the project's earth disturbances and drains to the surface water.
X. Any sediment control made of soil must be temporarily or permanently stabilized within 24 hours.

Dewatering:
Dewatering related to the construction activity must comply with MNR100001 Permit 2023 reference 10 of the NPDES Permit. Dewatering must not cause nuisance conditions in surface waters. Turbid or sediment-laden waters must be discharged to a sediment control designed to prevent discharges with visual turbidity. It is prohibited to use receiving waters as part of the treatment area. Visual inspection and photos must be taken every 24 hours of operation to ensure adequate treatment has been obtained and nuisance conditions will not result from the discharge. If nuisance conditions occur from the discharge, dewatering must cease immediately, and corrective actions must occur before dewatering is resumed. Discharge from dewatering must be protected from erosion and scouring by an acceptable energy dissipation method, such as rock riprap, or sandbags. If using filters with backwash water, backwash water must be hauled away for disposal, returned to the beginning of the treatment process, or incorporated into the site in a manner that does not erode into runoff.

Temporary dewatering activities may be required. Therefore, it is possible that a permit for the temporary appropriation of waters of the state, non-irrigation from MNDNR will be required for this project. The contractor is responsible for obtaining this permit prior to commencing dewatering activities.

Site Inspection and Maintenance:
Inspections must comply with MNR100001 Permit 2023 reference 11 of the NPDES Permit. A trained person (as identified in item 21.2.b. of the NPDES Permit) must inspect the entire construction site a minimum of once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. Inspect and maintain all temporary and permanent stormwater treatment BMPs, and erosion prevention and sediment control BMPS until the site has undergone final stabilization and the NOT has been submitted. Inspect areas adjacent yo the project, surface water including drainage ditches and conveyance systems for evidence of erosion and sediment deposition. Inspect construction site vehicle exit locations, streets, and curb and gutter systems within and adjacent to the project for evidence of sedimentation from erosion or tracked sediment from vehicles. Inspect infiltration areas for signs of sediment deposition and compaction.

Record all inspections and maintenance activities in writing within 24 hours of above stated rainfall. Submit inspection reports in a format that is acceptable to the project engineer. Include the following in the records of each inspection:
A. Date and time of inspection.
B. Name of person(s) conducting inspection.
C. Accurate findings of inspections, including the specific location where corrective actions are needed.
D. Corrective actions taken (including dates, times, and party completing maintenance activities).
E. Date and amount of all rainfall events greater than 0.5 inch in 24 hours. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, or by a weather station that is within one mile or by a weather reporting system.
F. If any discharge is observed during the inspection, it must be recorded. Discharge should also be photographed and described.
G. Any amendments to the SWPPP proposed as a result of the inspection must be documented as required in Section 6 within seven (7) calendar days.
H. All photographs of dewatering activities and documentation of nuisance conditions as a result of dewatering

Maintenance requirements are as listed below:
A. All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow.
B. All deltas and sediment deposits must be removed from surface waters (including drainage ways, catch basins, and other drainage systems). Removal and stabilization must be completed within seven days of discovery. Contact all appropriate authorities prior to working in surface waters.
C. Sediment on paved surfaces must be removed within one calendar day of discovery, or within a shorter time to avoid a safety hazard.
D. Perimeter control devices must be repaired, replaced, or supplemented when nonfunctional or sediment reaches one-half the height of the device. Complete repairs by the end of the next business day following discovery.
E. Temporary and permanent sediment basins must be drained, and sediment removed when the depth of sediment collected reaches one-half storage volume within 72 hours of discovery.
F. Dewatering operations must be inspected and photographed at the beginning and at least once every 24 hours during operation.
G. Repair or replace inlet protection devices within 24 hours of discovery when they become nonfunctional, or sediment reaches 1/2 the height and/or depth of the device.

Methods to minimize soil compaction and preserve topsoil:
The contractor is responsible for marking areas that are not to be disturbed on the site. These areas must be marked prior to any construction occurring with stakes, flags, signs, or other appropriate methods. The contractor is responsible for not allowing construction equipment and vehicles to enter these areas in order to minimize soil compaction. Whenever feasible, the contractor must preserve topsoil from the construction site.

Pollution Prevention Measures:
A. Store all construction materials that have potential to leach pollutants, landscape materials, pesticides, fertilizers, and treatment chemicals under cover (e.g., plastic sheeting or temporary roofs) to minimize contact with stormwater.
B. Store, collect and dispose solid waste in compliance with Minn. R. Ch. 7035.
C. Limit vehicle and equipment washing to a defined area of the site. Contain runoff from the washing area to a temporary sediment basin or other effective control. Properly dispose of all waste generated by vehicles and equipment washing. Engine degreasing is not allowed on the site.
D. Provide effective containment for all liquid and solid wastes generated by washout of concrete, stucco, paint, form release oils, curing compounds and other construction materials. Liquid and solid washout wastes must not contact the ground. The liquid and solid waste that is produced must be disposed of in compliance with the MPCA rules. A sign must be installed indicating the location of the washout facility.
E. Portable toilets must be positioned so that they are secure and sanitary waste will be properly disposed of.
F. Fuel and maintain vehicles in a designated contained area whenever feasible. Use drip pans or absorbents to prevent the discharge of spills or leaked chemicals. Provide a spill kit at each location that vehicles and equipment are fueled or maintained at. Spills must be reported and cleaned up immediately as required by Minn. Stat. 115.061.
G. Store all hazardous materials and toxic waste (including but not limited to oil, diesel fuel, gasoline, hydraulic fluids, paint, petroleum-based products, wood preservatives, additives, curing compounds, and acids) in sealed containers with secondary containment. Storage and disposal of hazardous waste materials must be in compliance with Minn. R. ch. 7045

Permit Termination Conditions:
A Notice of Termination (NOT) can be submitted to the MPCA once the following guidelines are met:
A. Permanent uniform perennial vegetative cover must be established at minimum 70% density of its expected final growth.
B. The permanent stormwater treatment system is constructed, meets all requirements, and is operating as designed.
C. All temporary synthetic erosion prevention and sediment control BMPs must be removed, and the surrounding area must be restored to as designed.
D. Clean out sediment from conveyance systems and permanent stormwater treatment systems (return to design capacity).
E. For residential construction only, permit coverage terminates on individual lots if the lot is sold to the homeowner, structures are finished, and permanent cover is established. If permanent cover is not established install temporary erosion protection and downgradient perimeter control and distribute the MPCA's Homeowner Fact Sheet.
F. For construction on agricultural lands, the disturbed land must be returned to its preconstruction agricultural use.
G. When submitting the NOT ground or aerial photographs must be included to show the requirements of Section 13.2 of the NPDES Permit have been met.

Stabilization Time Frames:
A. Initiate stabilization immediately when construction has temporarily or permanently ceased on any portion of the site. Complete stabilization within the time frame listed. In many instances this will require stabilization to occur more than once during the course of the project.
B. Stabilize wetted perimeter of ditch (i.e. where the ditch gets wet).
C. Application of mulch, hydromulch, tackifier and polyarylamide are not acceptable stabilization methods in these areas.
D. Stabilize all areas of the site prior to the onset of winter. Any work still being performed will be snow mulched, seeded, and blanketed within the time frames in the NPDES permit.
E. Topsoil berms must be stabilized in order to be considered perimeter control BMPS. Use rapid stabilization method 2, 3, or 4 as directed by the engineer. The seed mix used in the rapid stabilization may be substituted as follows:
   a. Single year construction between May 1- August 1, seed with seed mixture 21-111
   b. Single year construction between August 1and October 31, seed with seed mixture 21-112
   c. Multi-year construction 22-111
F. Keep ditches and exposed soils in an even rough graded condition in order to be able to apply erosion control mulches, hydromulches and blankets.
G. **Area** **Time Frame**

PRELIMINARY

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City of Plymouth

Bassett Creek Watershed Management Commission

CIVIL
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
SWPPP

DATE:	12.02.2025
REV DATE:	---
REV NUM:	---
RECORD:	---
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-004

Last 200 lineal feet of drainage ditch or swale	Within 24 hours of connection to surface water or property edge
Remaining portions of drainage ditch or swale	Initiate immediately when construction activity has permanently or temporarily ceased 7 days per Section 23 of the NDPES Permit
Pipe and culvert outlets	24 hours
Exposed soils and stockpiles	Initiate immediately when construction activity has permanently or temporarily ceased 7 days per Section 23 of the NPDES Permit
Within 200 feet of a public water	24 hours

Permanent Stormwater Treatment Systems:
There are no permanent stormwater treatment systems needed for the proposed project. If there is a permanent stormwater treatment system needed later in the project the contractor must design and implement the permanent stormwater treatment systems to be compliant with MNR100001 Permit 2023 reference 15 of the NPDES Permit.

Infeasibility Documentation:
No infeasible documentation requirements are anticipated for the project.

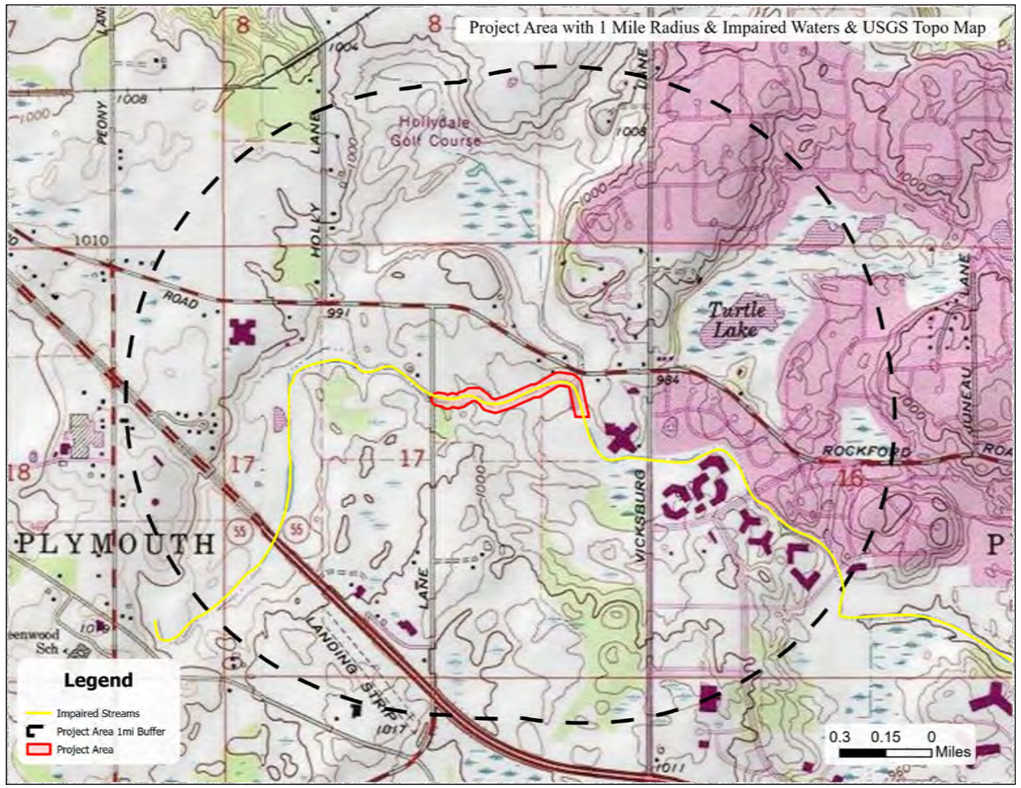
Record Retention:
The SWPPP must be kept at the site during construction by the permittee who has operational control of that portion of the site. The SWPPP and associated records must be stored and maintained by an employee or representative of the Owner for 3 years after the submission of the NOT. Responsibility for overseeing the records will be transferred to another employee or representative should the current personnel become uninvolved with the project or Owner. These records must include the following:

1. The final SWPPP
2. Any other stormwater related permits required for the project
3. Records of all inspection and maintenance conducted during construction
4. All permanent operation and maintenance agreements that have been implemented, including all right-of-way, contracts, covenants and other binding requirements regarding perpetual maintenance
5. All required calculations for design of the temporary and permanent Stormwater Management Systems.

Permanent Cover:
Permanent cover is achieved when vegetative cover is established at minimum 70% density of its expected final growth. This can be done by using permanent seeding with mulch, erosion control blankets, riprap, gravel, concrete, bituminous, etc. The specific permanent cover types can be found in the plan sheets.

Construction Phasing:
Construction will generally work upstream to downstream starting at Dunkirk Lane. Construction will be phased to avoid having areas open that are not being actively worked on. Flotation silt curtain will be moved within the stream as construction moves downstream to ensure disturbed sediment within the stream is captured.

Chemical Treatment Systems:
Must use polymers, flocculants, or other sedimentation treatment chemicals in accordance with accepted engineering practices. Must be in compliance with MNR100001 Permit 2023 reference 9.18 of the NPDES Permit and Minn. R. 7090.



PRELIMINARY

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City of Plymouth

Bassett Creek Watershed Management Commission

CIVIL
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
SWPPP

DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-005

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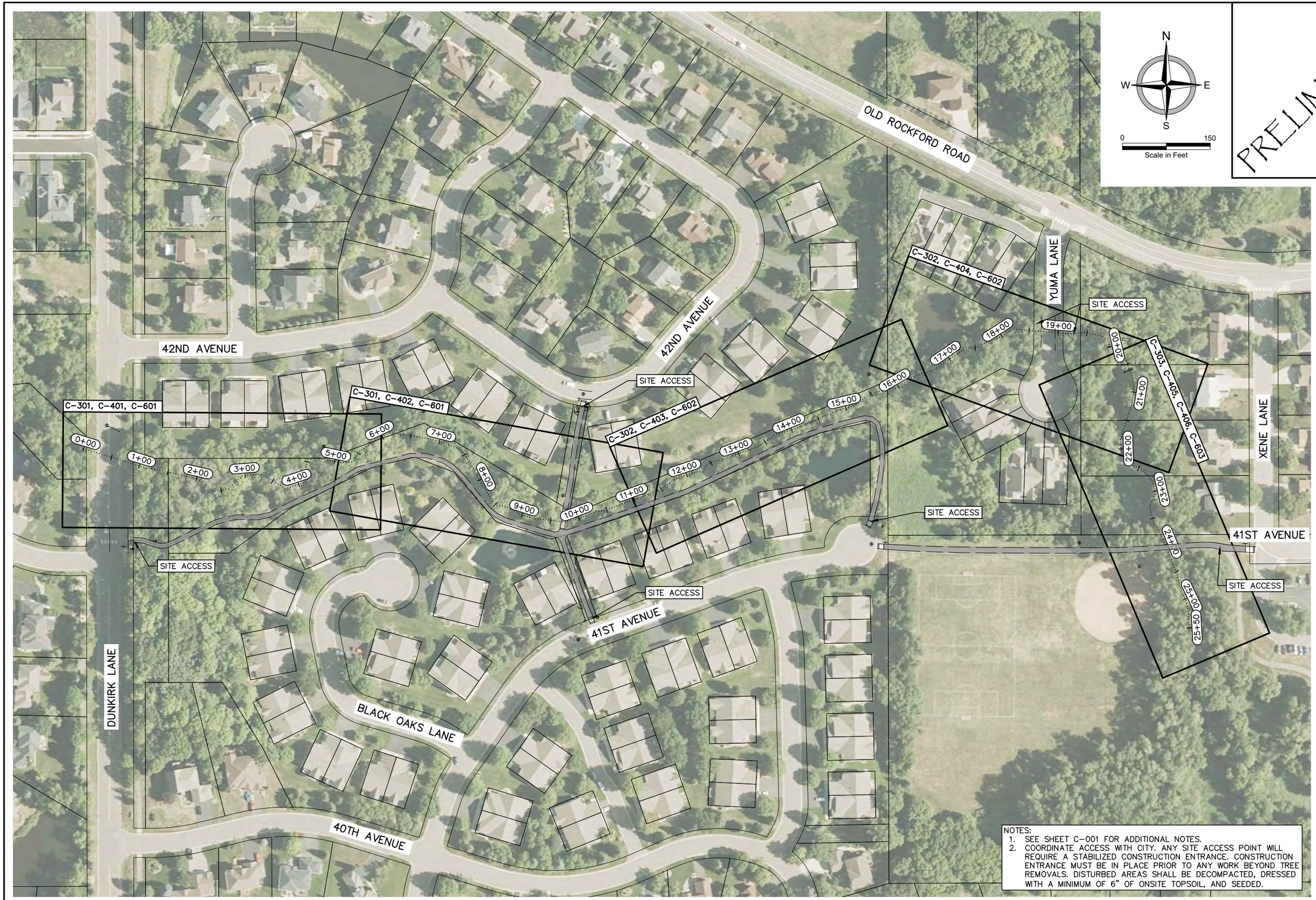

PRELIMINARY

NOTES:
1. SEE SHEET C-001 FOR ADDITIONAL NOTES.
2. COORDINATE ACCESS WITH CITY. ANY SITE ACCESS POINT WILL REQUIRE A STABILIZED CONSTRUCTION ENTRANCE. CONSTRUCTION ENTRANCE MUST BE IN PLACE PRIOR TO ANY WORK BEYOND TREE REMOVALS. DISTURBED AREAS SHALL BE DECOMPACTED, DRESSED WITH A MINIMUM OF 6" OF ONSITE TOPSOIL, AND SEEDED.

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

PROJECT LAYOUTS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
GENERAL LAYOUT

DATE:	11.26.2025
REV DATE:	---
REV NUM:	---
RECORD:	---
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-101

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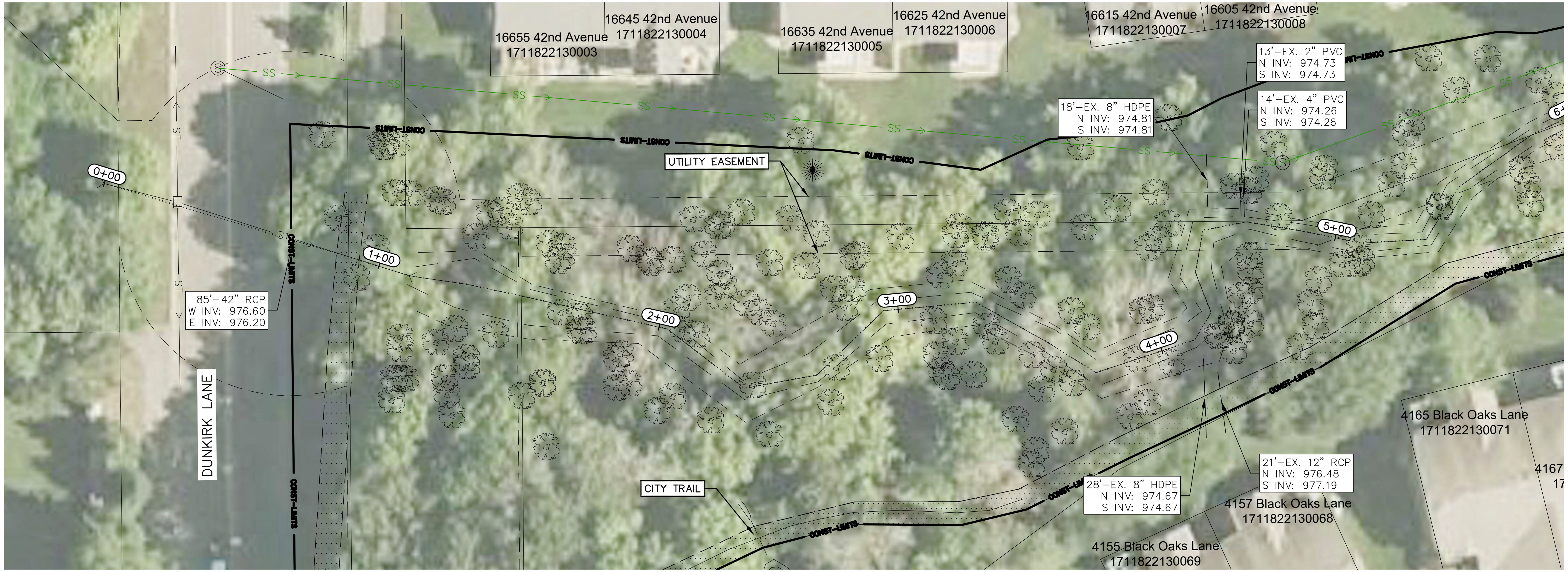
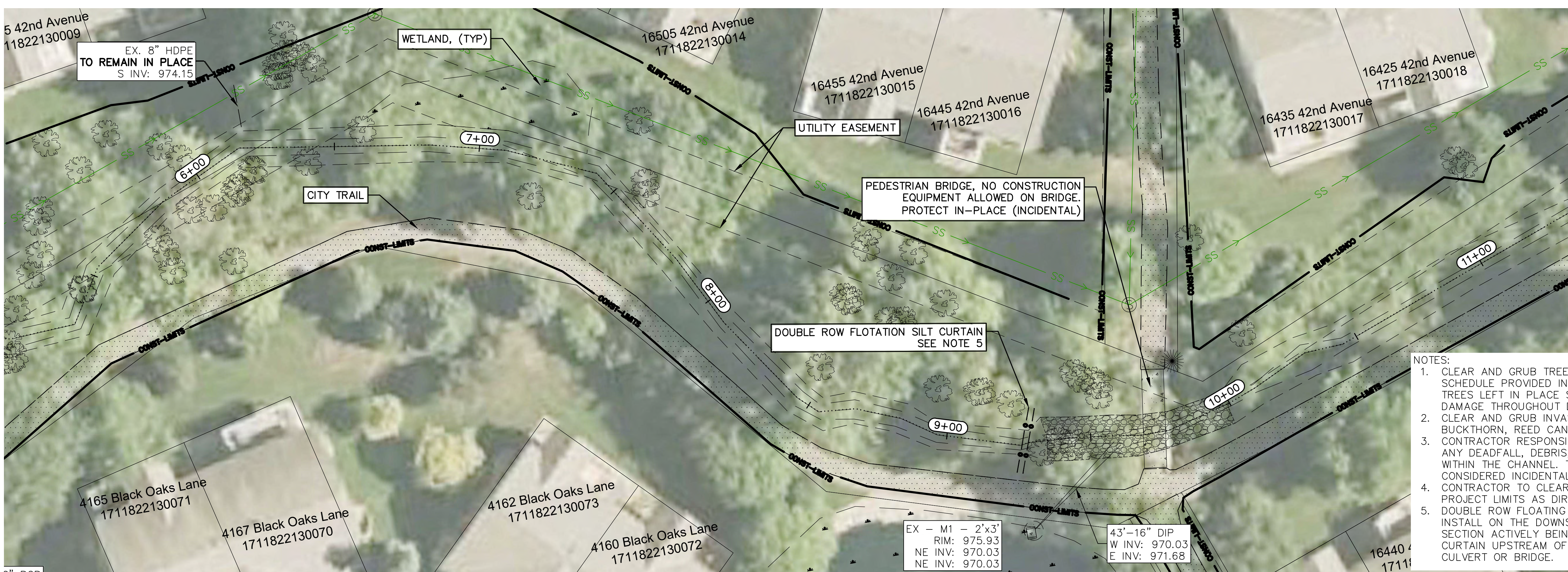
PRELIMINARY



16655 42nd Avenue
1711822130003
16645 42nd Avenue
1711822130004
16635 42nd Avenue
1711822130005
16625 42nd Avenue
1711822130006
16615 42nd Avenue
1711822130007
16605 42nd Avenue
1711822130008
13'–EX. 2" PVC
N INV: 974.73
S INV: 974.73
14'–EX. 4" PVC
N INV: 974.26
S INV: 974.26
18'–EX. 8" HDPE
N INV: 974.81
S INV: 974.81
UTILITY EASEMENT
0+00
1+00
2+00
3+00
4+00
5+00
85'–42" RCP
W INV: 976.60
E INV: 976.20
DUNKIRK LANE
CITY TRAIL
28'–EX. 8" HDPE
N INV: 974.67
S INV: 974.67
21'–EX. 12" RCP
N INV: 976.48
S INV: 977.19
4165 Black Oaks Lane
1711822130071
4157 Black Oaks Lane
1711822130068
4155 Black Oaks Lane
1711822130069
CONST-LIMITS
SS
N
E
S
W
0
40
Scale in Feet



5 42nd Avenue
11822130009
EX. 8" HDPE
TO REMAIN IN PLACE
S INV: 974.15
WETLAND, (TYP)
16505 42nd Avenue
1711822130014
16455 42nd Avenue
1711822130015
16445 42nd Avenue
1711822130016
16425 42nd Avenue
1711822130018
16435 42nd Avenue
1711822130017
UTILITY EASEMENT
CITY TRAIL
6+00
7+00
8+00
9+00
10+00
11+00
PEDESTRIAN BRIDGE, NO CONSTRUCTION
EQUIPMENT ALLOWED ON BRIDGE.
PROTECT IN–PLACE (INCIDENTAL)
DOUBLE ROW FLOTATION SILT CURTAIN
SEE NOTE 5
4165 Black Oaks Lane
1711822130071
4167 Black Oaks Lane
1711822130070
4162 Black Oaks Lane
1711822130073
4160 Black Oaks Lane
1711822130072
EX – M1 – 2'x3'
RIM: 975.93
NE INV: 970.03
NE INV: 970.03
43'–16" DIP
W INV: 970.03
E INV: 971.68
2" RCP
CONST-LIMITS
SS
N
E
S
W
0
40
Scale in Feet

NOTES:

1. CLEAR AND GRUB TREES ACCORDING TO TREE SCHEDULE PROVIDED IN THE PROJECT MANUAL. TREES LEFT IN PLACE SHALL BE PROTECTED FROM DAMAGE THROUGHOUT DURATION OF CONSTRUCTION.
2. CLEAR AND GRUB INVASIVE SPECIES INCLUDING BUCKTHORN, REED CANARY GRASS, AND BURDOCK.
3. CONTRACTOR RESPONSIBLE TO REMOVE AND CLEAR ANY DEADFALL, DEBRIS, OR OTHER BLOCKAGES WITHIN THE CHANNEL. THIS WORK WILL BE CONSIDERED INCIDENTAL TO OTHER REMOVAL ITEMS.
4. CONTRACTOR TO CLEAR AND GRUB BRUSH WITHIN PROJECT LIMITS AS DIRECTED BY THE ENGINEER.
5. DOUBLE ROW FLOATING SILT CURTAIN TO BE INSTALL ON THE DOWNSTREAM END OF ANY SECTION ACTIVELY BEING WORKED ON. INSTALL CURTAIN UPSTREAM OF THE NEXT DOWNSTREAM CULVERT OR BRIDGE.

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

PROJECT LAYOUTS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
EXISTING CONDITIONS & EROSION CONTROL

DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-102

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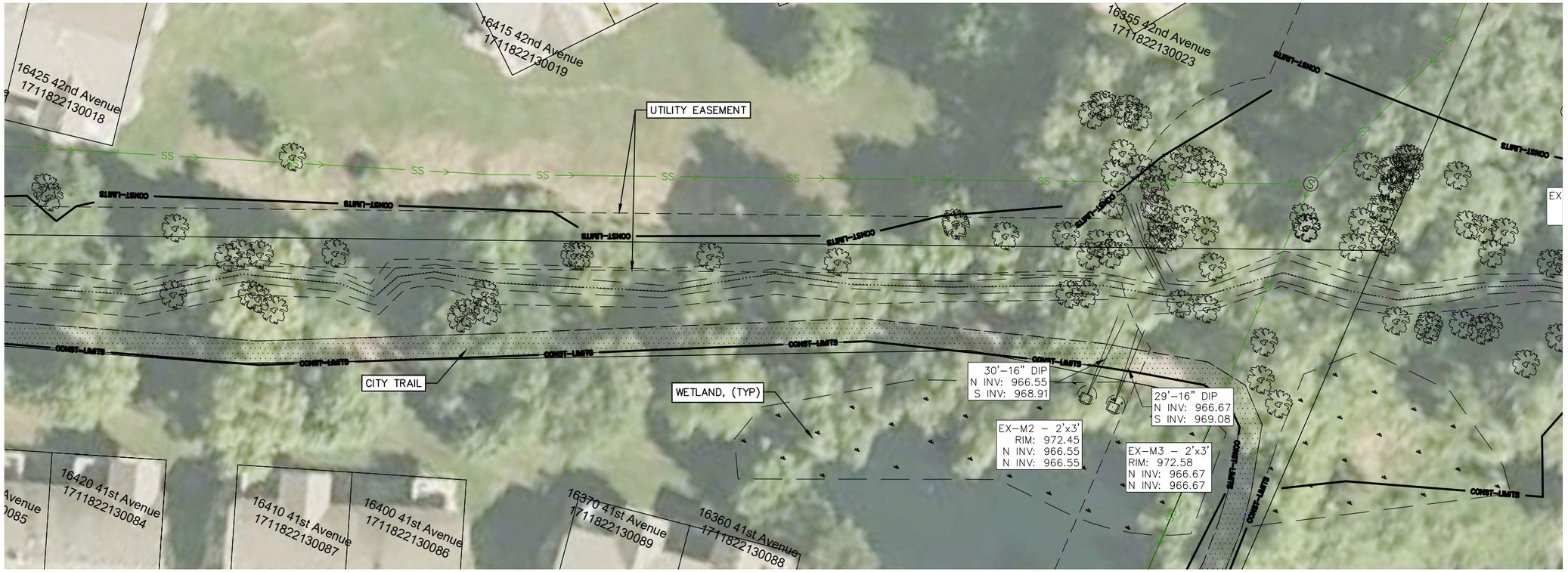

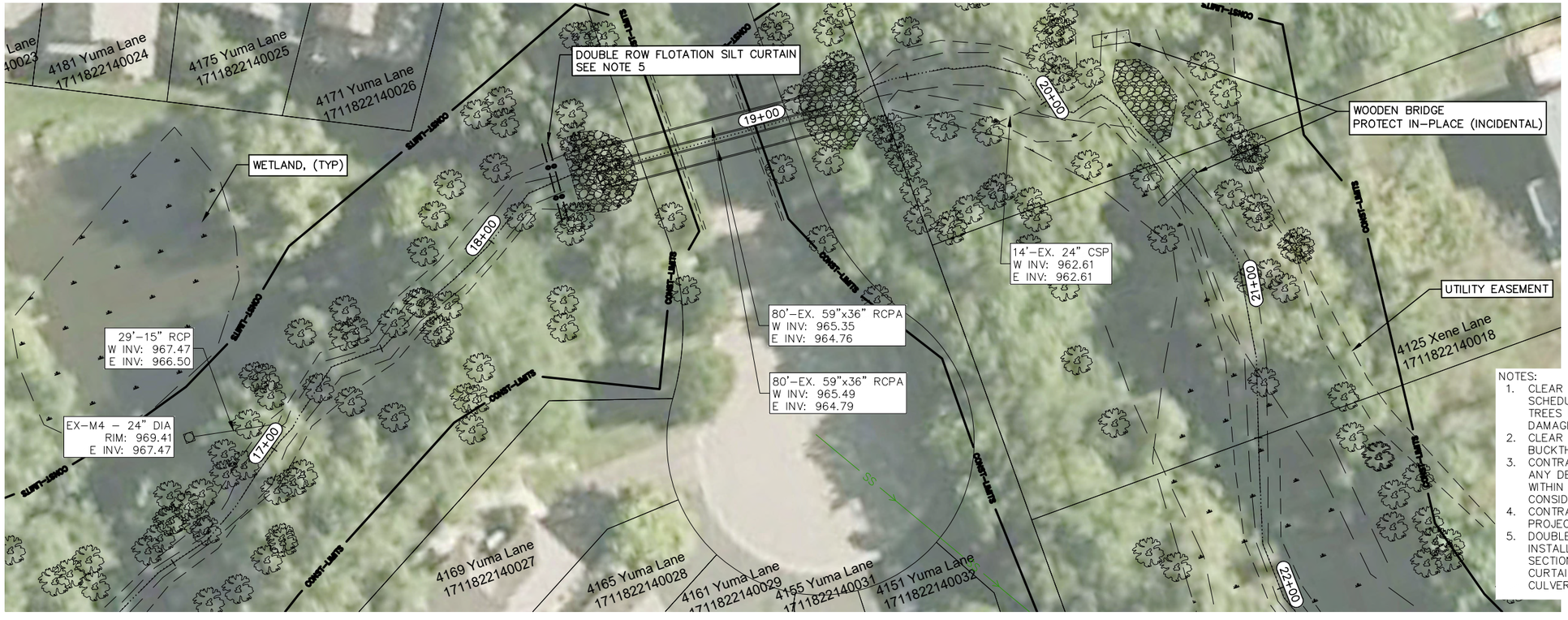

PRELIMINARY

N
W E
S

0 40
Scale in Feet

NOTES:
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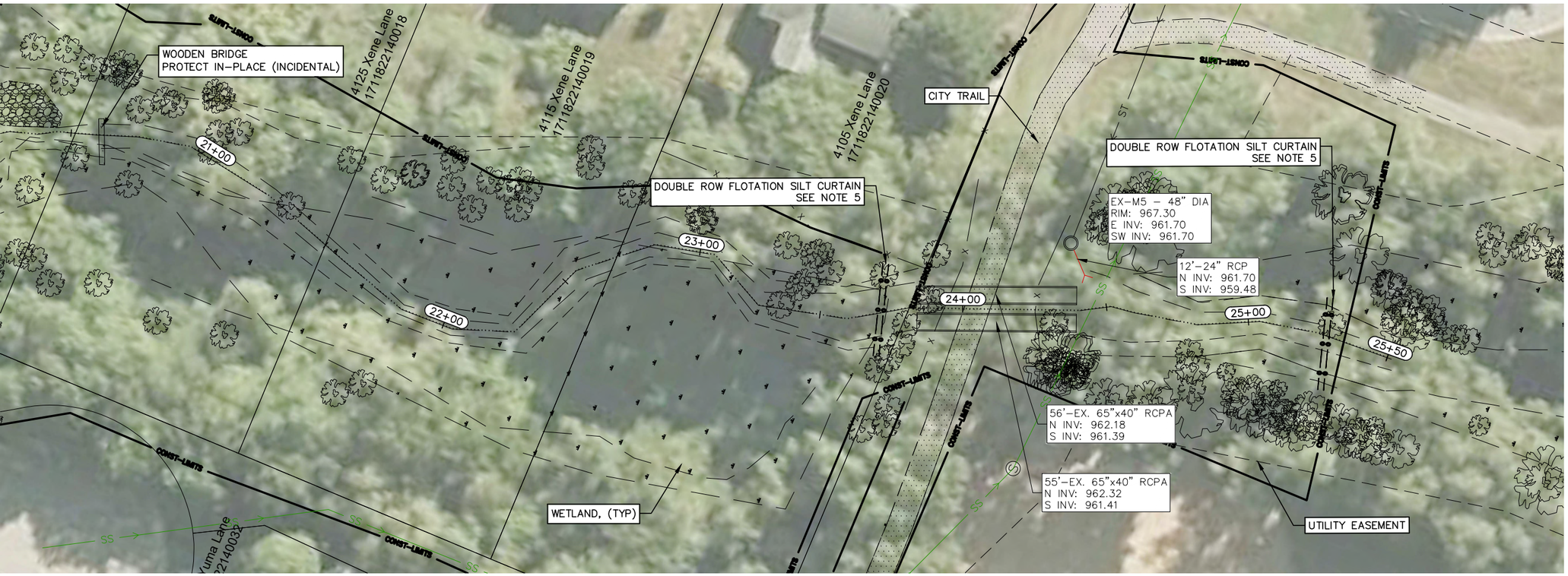
City of Plymouth

Bassett Creek Watershed Management Commission

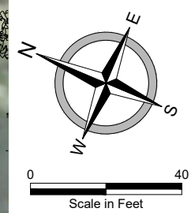
PROJECT LAYOUTS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
EXISTING CONDITIONS & EROSION CONTROL

DATE:	12.02.2025
REV DATE:	---
REV NUM:	---
RECORD:	---
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-103



PRELIMINARY



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City of Plymouth

Bassett Creek Watershed Management Commission

NOTES:

1. CLEAR AND GRUB TREES ACCORDING TO TREE SCHEDULE PROVIDED IN THE PROJECT MANUAL. TREES LEFT IN PLACE SHALL BE PROTECTED FROM DAMAGE THROUGHOUT DURATION OF CONSTRUCTION.
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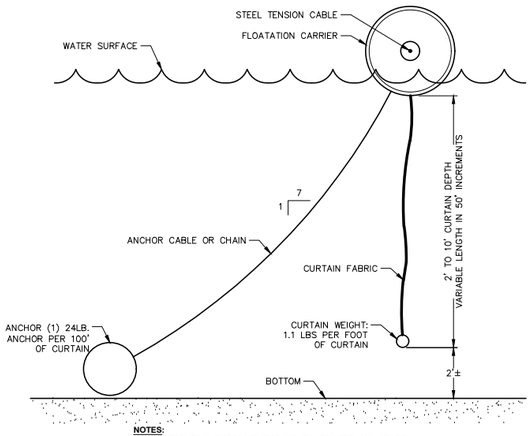
PROJECT LAYOUTS
P. YMOUTH CREEK STREAM RESTORATION PHASE 1
C TY PROJECT NO. WR250001
C TY OF PLYMOUTH, MINNESOTA
E :ISTING CONDITIONS & EROSION CONTROL

DATE:	12.02.2025
REV DATE:	---
REV NUM:	---
RECORD:	---
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

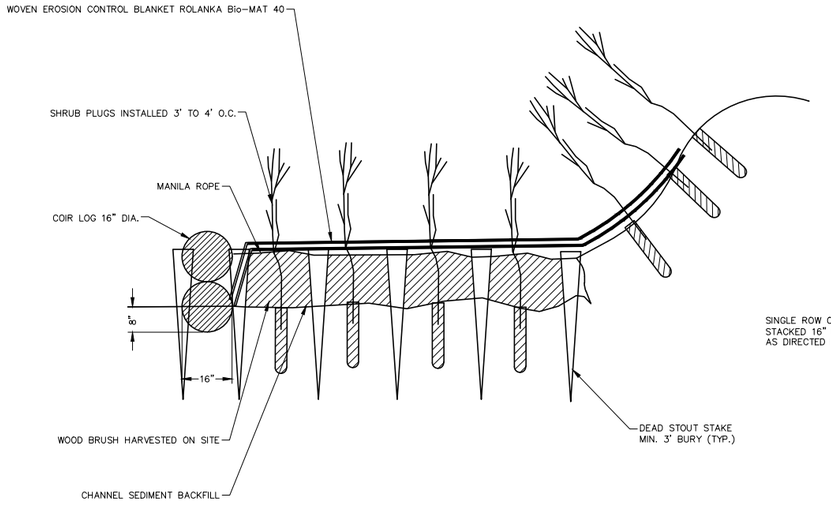
C-104



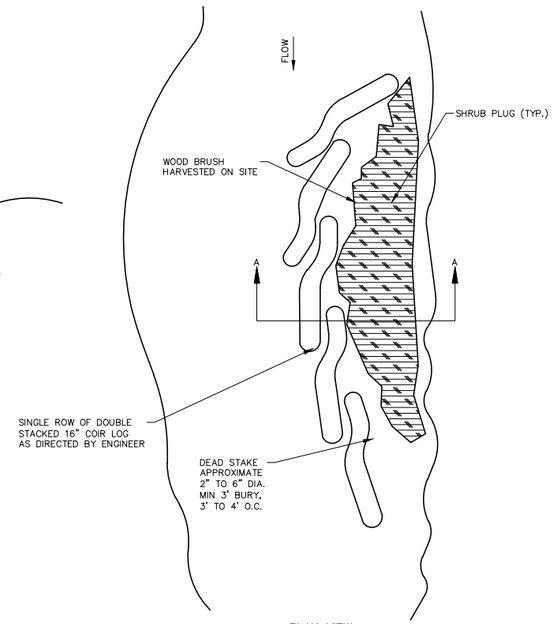
NOTES:
1. DOUBLE SILT CURTAINS SHOULD BE SPACED 10' APART
2. CONSTRUCT IN ACCORDANCE WITH (NDDOT SECTION 262) (MnDOT SECTION 2573 AND 3887.)

FLOATING SILT CURTAIN

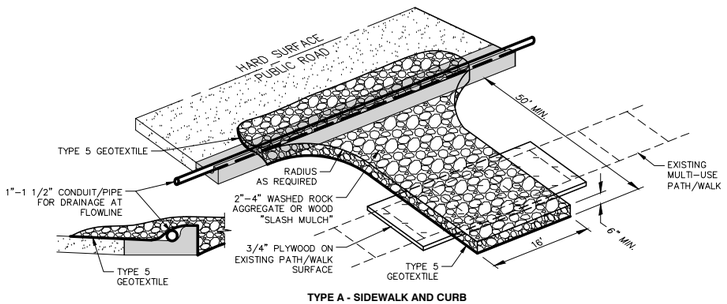
NO SCALE *06.26.25*



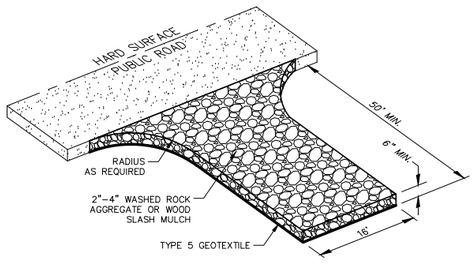
SECTION A-A



PLAN VIEW



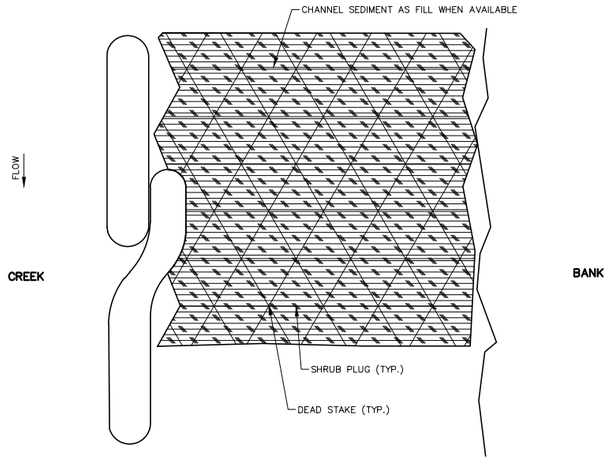
TYPE A - SIDEWALK AND CURB



TYPE B - NO SIDEWALK OR CURB

CONSTRUCTION ENTRANCE

NO SCALE *06.26.25*



PLAN VIEW

COIR TOE NOTES:

1. PLACE COIR LOG
2. OVERLAY BRANCHES
3. COVER BRANCHES WITH SOIL
4. COVER SOIL WITH COIR EROSION CONTROL BLANKET & MANILA ROPE – MINIMUM ⅜"
5. DEAD STAKES MAY BE HARVESTED ON SITE 3' TO 5' O.C. MIN 3' BURY, APPROXIMATE 2"-6" DIAMETER
6. SHRUB PLUGS 3' TO 4' O.C., MIN 2' BURY, MIN 12" ABOVE MATTRESS

COIR TOE WITH BRUSH MATTRESS

NO SCALE

PRELIMINARY

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

DETAILS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
DETAILS

DATE:	12.02.2025
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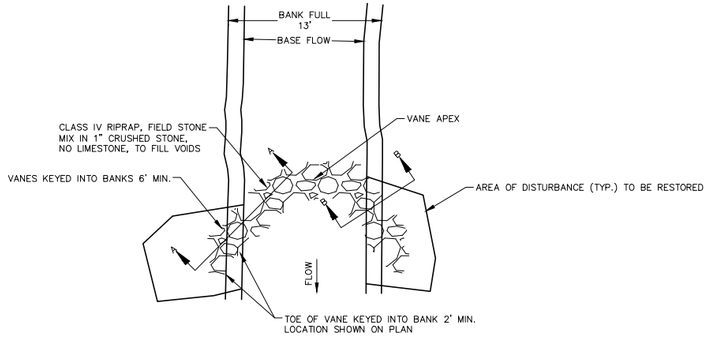
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-201

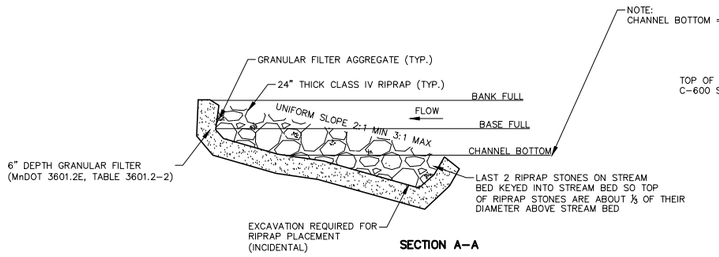
PRELIMINARY



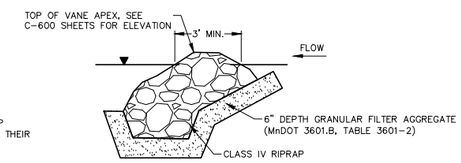
PLAN VIEW

ARCH VANE NOTES:

1. CLASS IV RIPRAP SHALL BE FIELD STONE, NO LIMESTONE ALLOWED.
2. FINAL PLACEMENT OF ARCH VANE AND RIPRAP TO BE FIELD VERIFIED BY ENGINEER.
3. ALL VANES EXTEND UPSTREAM INTO FLOW OF CREEK.
4. EXCAVATED SEDIMENT TO BE PLACE UPSTREAM OF ARCH VANE TO PROMOTE VOID FILLING. DO NOT PLACE SEDIMENT ABOVE TOP OF VANE AND DO NOT EXTEND SEDIMENT PLACEMENT MORE THAN 1' UPSTREAM OF ARCH VANES.



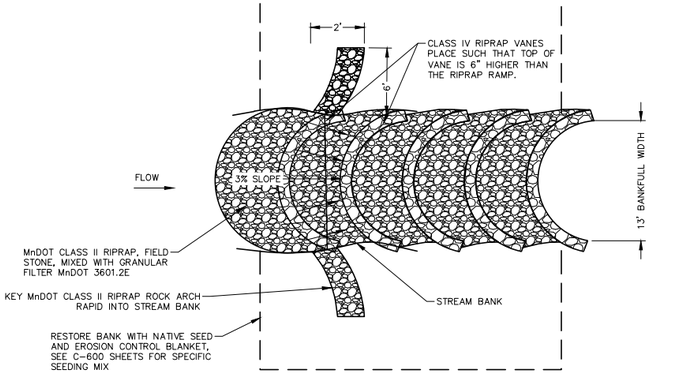
SECTION A–A

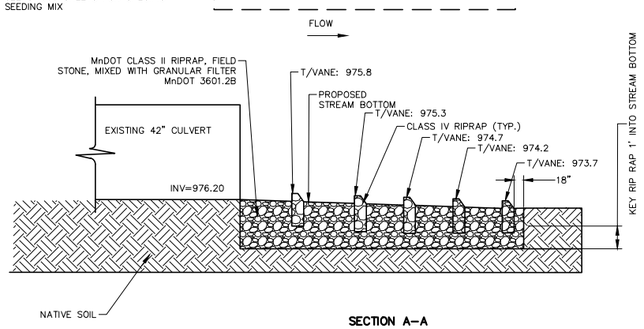


SECTION B–B

ARCH VANE DETAIL (TYPICAL)

NO SCALE





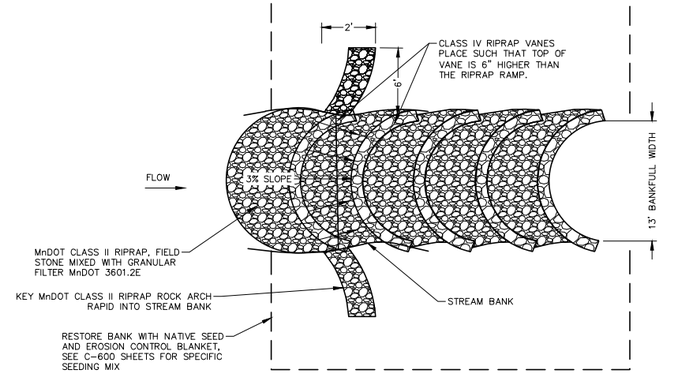
SECTION A–A

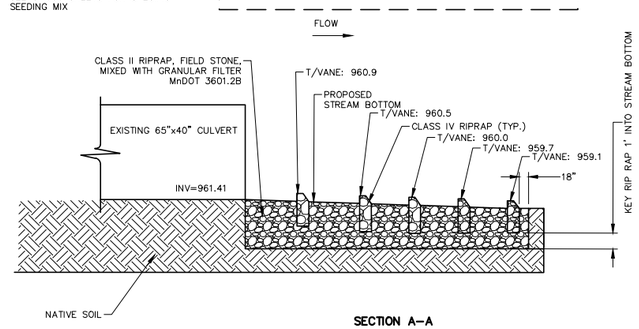
ROCK ARCH RAPIDS - STA 1+11 TO 1+41

NO SCALE

ROCK ARCH RAPIDS NOTES:

1. WATER SHOULD POOL AND FLOW OVER THE STRUCTURE, NOT THROUGH IT. MIX ALL RIPRAP WITH A WELL-GRADED GRANULAR FILTER PER MNDOT 3601.2E TO CREATE A VOID-FREE STRUCTURE. GRADE AND INSTALL THE MIX TO RESIST WASHOUT FROM RIVER CURRENTS.





SECTION A–A

ROCK ARCH RAPIDS - STA 24+39 TO 25+27

NO SCALE

ROCK ARCH RAPIDS NOTES:

1. WATER SHOULD POOL AND FLOW OVER THE STRUCTURE, NOT THROUGH IT. MIX ALL RIPRAP WITH A WELL-GRADED GRANULAR FILTER PER MNDOT 3601.2E TO CREATE A VOID-FREE STRUCTURE. GRADE AND INSTALL THE MIX TO RESIST WASHOUT FROM RIVER CURRENTS.

moore engineering, inc.

City of Plymouth

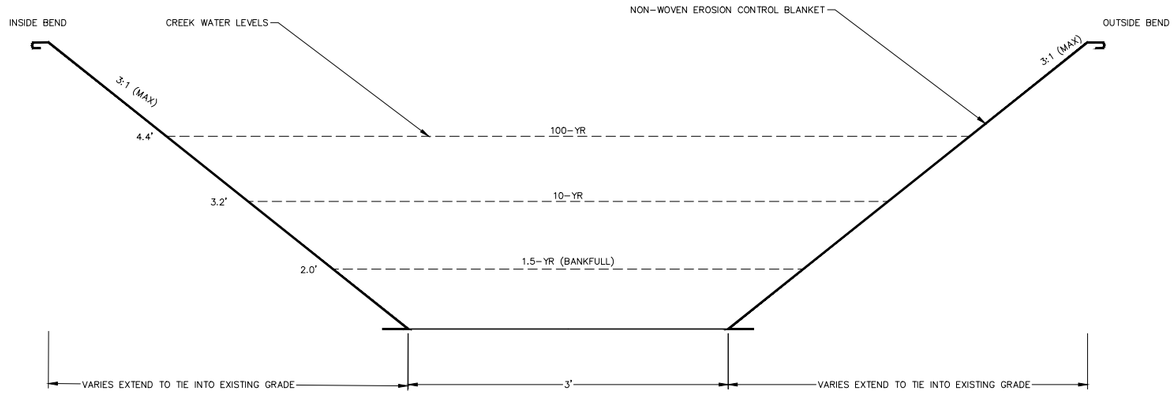
Bassett Creek Watershed Management Commission

DETAILS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
DETAILS

DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

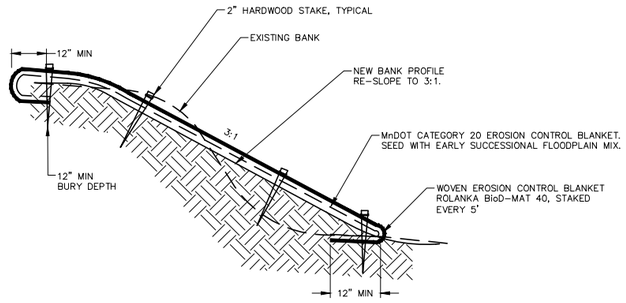
C-202

PRELIMINARY



GRADED BANKS TYPICAL CHANNEL SECTION

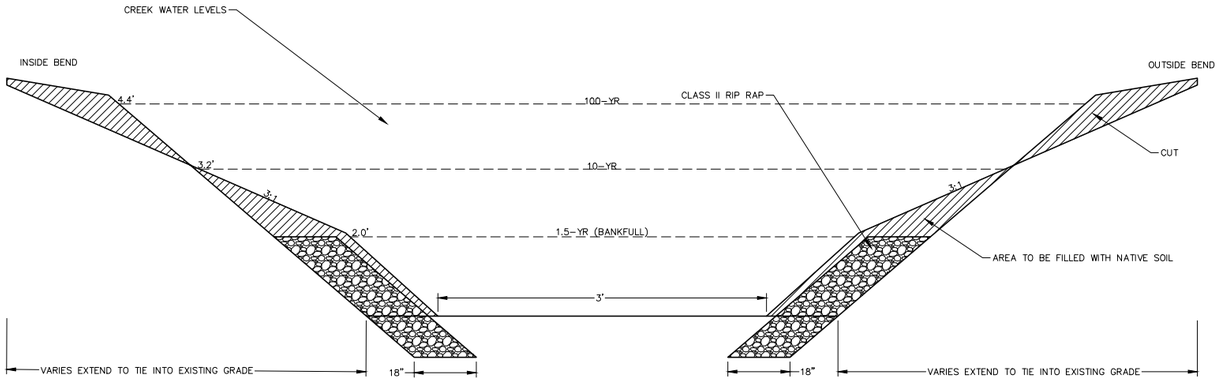
NO SCALE



NOTE:
PROVIDE FLOTATION SILT CURTAIN TO CONTAIN SOIL MATERIAL DURING BANK RESLOPING OPERATIONS. FLOTATION SILT CURTAIN SHALL BE MAINTAINED AND RELOCATED AS OPERATIONS OF BANK RESLOPING PROGRESS. FLOTATION SILT CURTAIN SHALL NOT BE RELOCATED UNTIL CURRENT SITE IS STABILIZED.

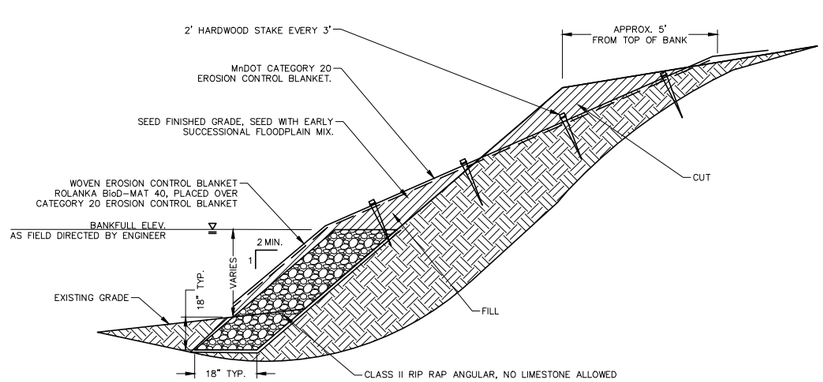
GRADED BANK

NO SCALE



VEGETATED RIPRAP TYPICAL CHANNEL SECTION

NO SCALE



CLASS II VEGETATED RIP RAP TOE DETAIL

NO SCALE

moore engineering, inc.

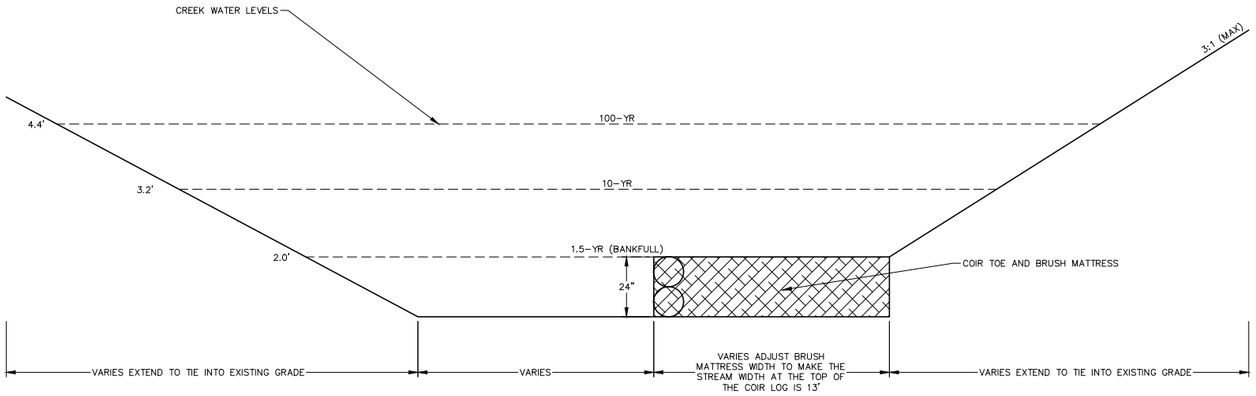
City of Plymouth

Bassett Creek Watershed Management Commission

DETAILS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
DETAILS

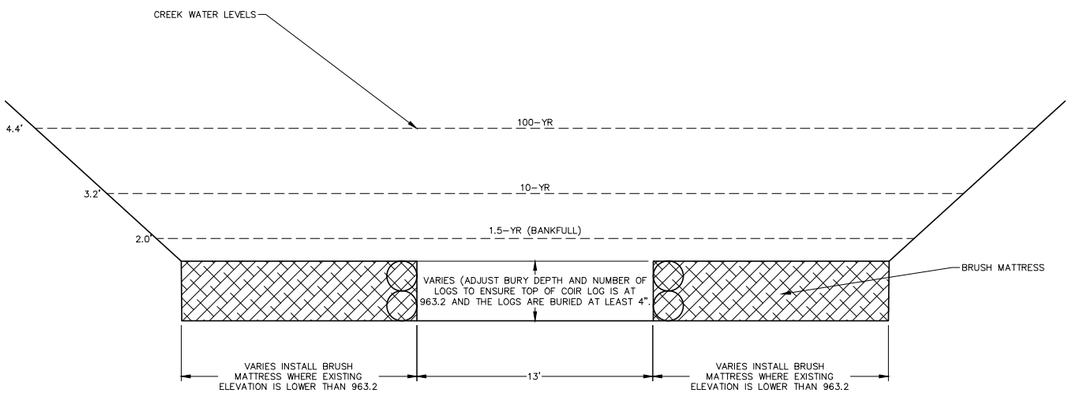
DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-203



TYPICAL CHANNEL SECTION

NO SCALE



TYPICAL CHANNEL SECTION STATION 20+50 TO 23+84

NO SCALE

PRELIMINARY

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

DETAILS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
DETAILS

DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-204

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CADD\C3D\Production\30495_Removals.dwg

PRELIMINARY

16655 42nd Avenue
1711822130003

16645 42nd Avenue
1711822130004

16635 42nd Avenue
1711822130005

16625 42nd Avenue
1711822130006

16615 42nd Avenue
1711822130007

16605 42nd Avenue
1711822130008

REMOVE INVASIVE SPECIES WITHIN HATCHED AREA. PAID UNDER SEEDING ITEMS.

UTILITY EASEMENT

EX. 2" PVC
TO REMAIN IN PLACE
S INV: 974.73

EX. 4" PVC
TO REMAIN IN PLACE
S INV: 974.26

EX. 8" HDPE
TO REMAIN IN PLACE
S INV: 974.81

85'-42" RCP
TO REMAIN IN PLACE
W INV: 976.60
E INV: 976.20

EX - FES2

DUNKIRK LANE

CITY TRAIL

EX. 8" HDPE
TO REMAIN IN PLACE
N INV: 974.67

21'-EX. 12" RCP
TO REMAIN IN PLACE
N INV: 976.48
S INV: 977.19

4165 Black Oaks Lane
1711822130071

4157 Black Oaks Lane
1711822130068

4155 Black Oaks Lane
1711822130069

0+00 1+00 2+00 3+00 4+00 5+00

N
W E
S

0 40
Scale in Feet

16505 42nd Avenue
1711822130014

16455 42nd Avenue
1711822130015

16445 42nd Avenue
1711822130016

16435 42nd Avenue
1711822130017

16425 42nd Avenue
1711822130018

EX. 8" HDPE
TO REMAIN IN PLACE
S INV: 974.15

WETLAND, (TYP)

UTILITY EASEMENT

CITY TRAIL

PEDESTRIAN BRIDGE, NO CONSTRUCTION EQUIPMENT ALLOWED ON BRIDGE. PROTECT IN-PLACE (INCIDENTAL)

6+00 7+00 8+00 9+00 10+00 11+00

4165 Black Oaks Lane
1711822130071

4167 Black Oaks Lane
1711822130070

4162 Black Oaks Lane
1711822130073

4160 Black Oaks Lane
1711822130072

EX - M1 - 2'x3'
RIM: 975.93
NE INV: 970.03
NE INV: 970.03

43'-16" DIP
TO REMAIN IN PLACE
W INV: 970.03
E INV: 971.68

NOTES:
1. CLEAR AND GRUB TREES ACCORDING TO TREE SCHEDULE PROVIDED IN THE PROJECT MANUAL. TREES LEFT IN PLACE SHALL BE PROTECTED FROM DAMAGE THROUGHOUT DURATION OF CONSTRUCTION.
2. CLEAR AND GRUB INVASIVE SPECIES INCLUDING BUCKTHORN, REED CANARY GRASS, AND BURDOCK.
3. CONTRACTOR RESPONSIBLE TO REMOVE AND CLEAR ANY DEADFALL, DEBRIS, OR OTHER BLOCKAGES WITHIN THE CHANNEL. THIS WORK WILL BE CONSIDERED INCIDENTAL TO OTHER REMOVAL ITEMS.
4. CONTRACTOR TO CLEAR AND GRUB BRUSH WITHIN PROJECT LIMITS AS DIRECTED BY THE ENGINEER.
5. DOUBLE ROW FLOATING SILT CURTAIN TO BE INSTALL ON THE DOWNSTREAM END OF ANY SECTION ACTIVELY BEING WORKED ON. INSTALL CURTAIN UPSTREAM OF ANY CULVERT OR BRIDGE.

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

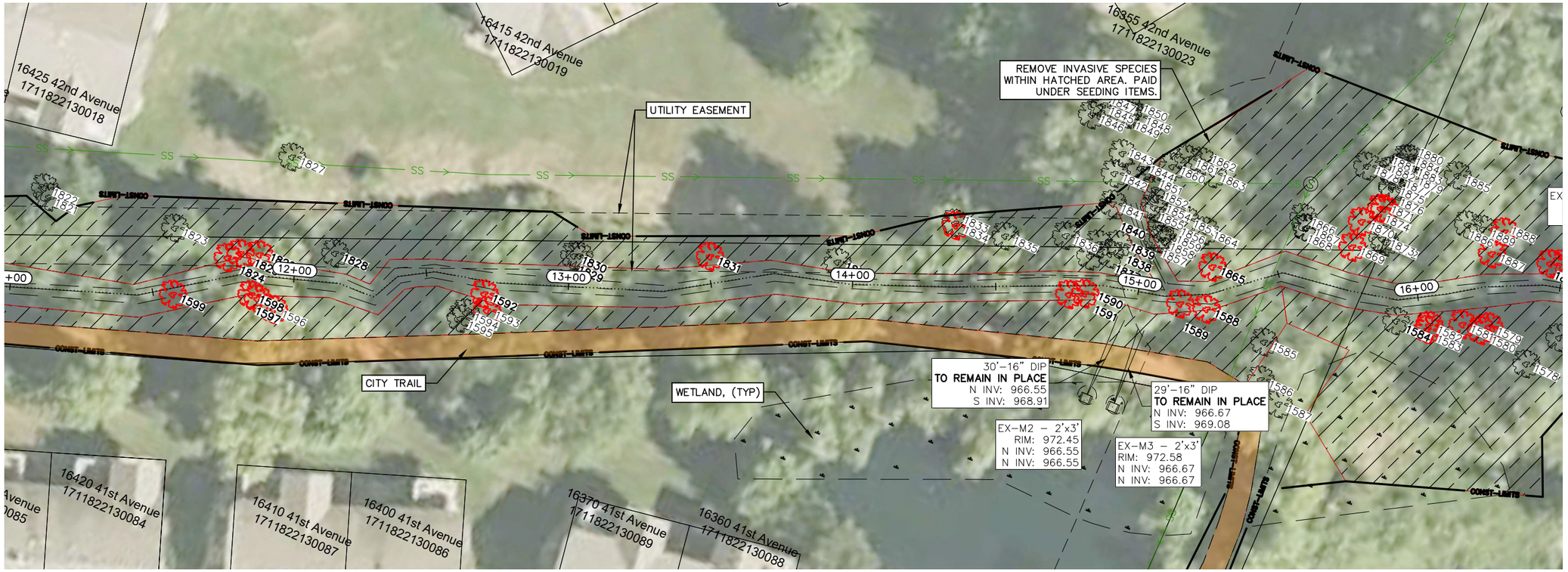
REMOVALS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
REMOVALS

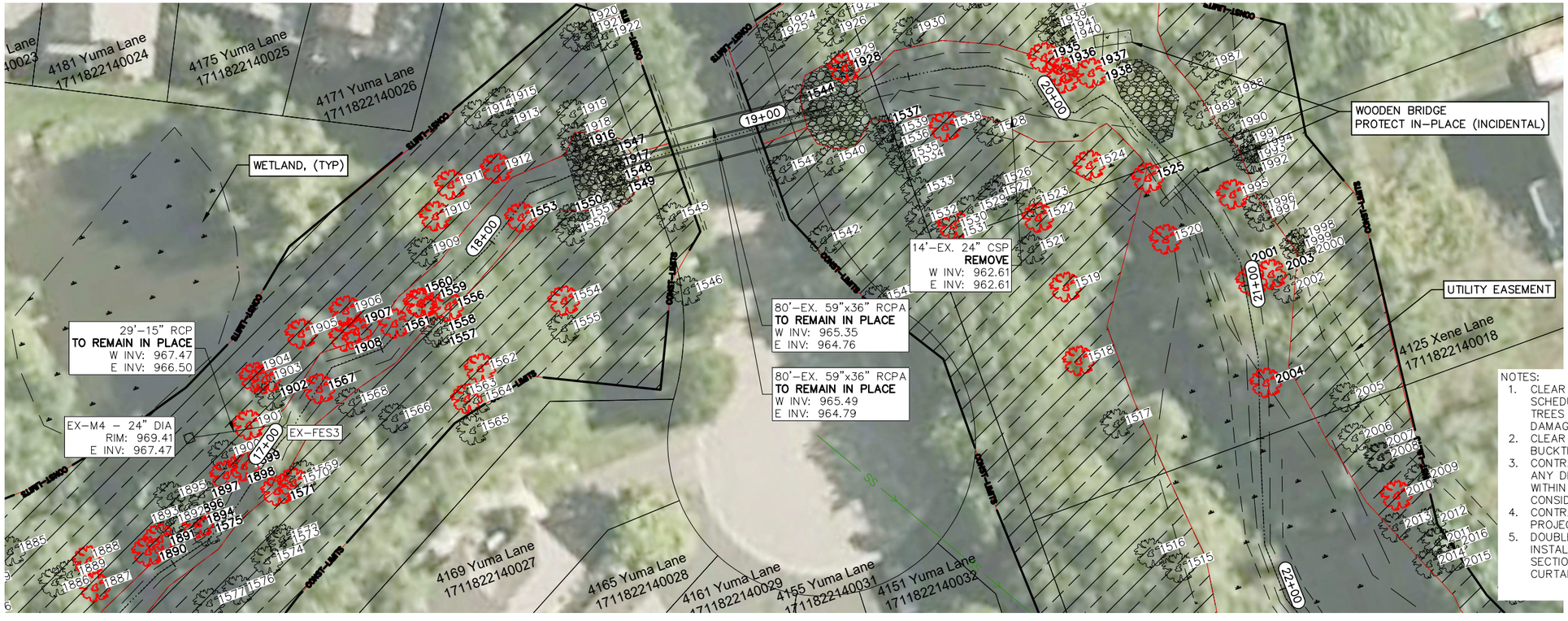
DATE:	12.02.2025
REV DATE:	---
REV NUM:	---
RECORD:	---
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-301

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CADD\C3D\Production\30495_Removals.dwg

PRELIMINARY





N
W E
S
0 40
Scale in Feet

NOTES:
1. CLEAR AND GRUB TREES ACCORDING TO TREE SCHEDULE PROVIDED IN THE PROJECT MANUAL. TREES LEFT IN PLACE SHALL BE PROTECTED FROM DAMAGE THROUGHOUT DURATION OF CONSTRUCTION.
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moore engineering, inc.

City of Plymouth

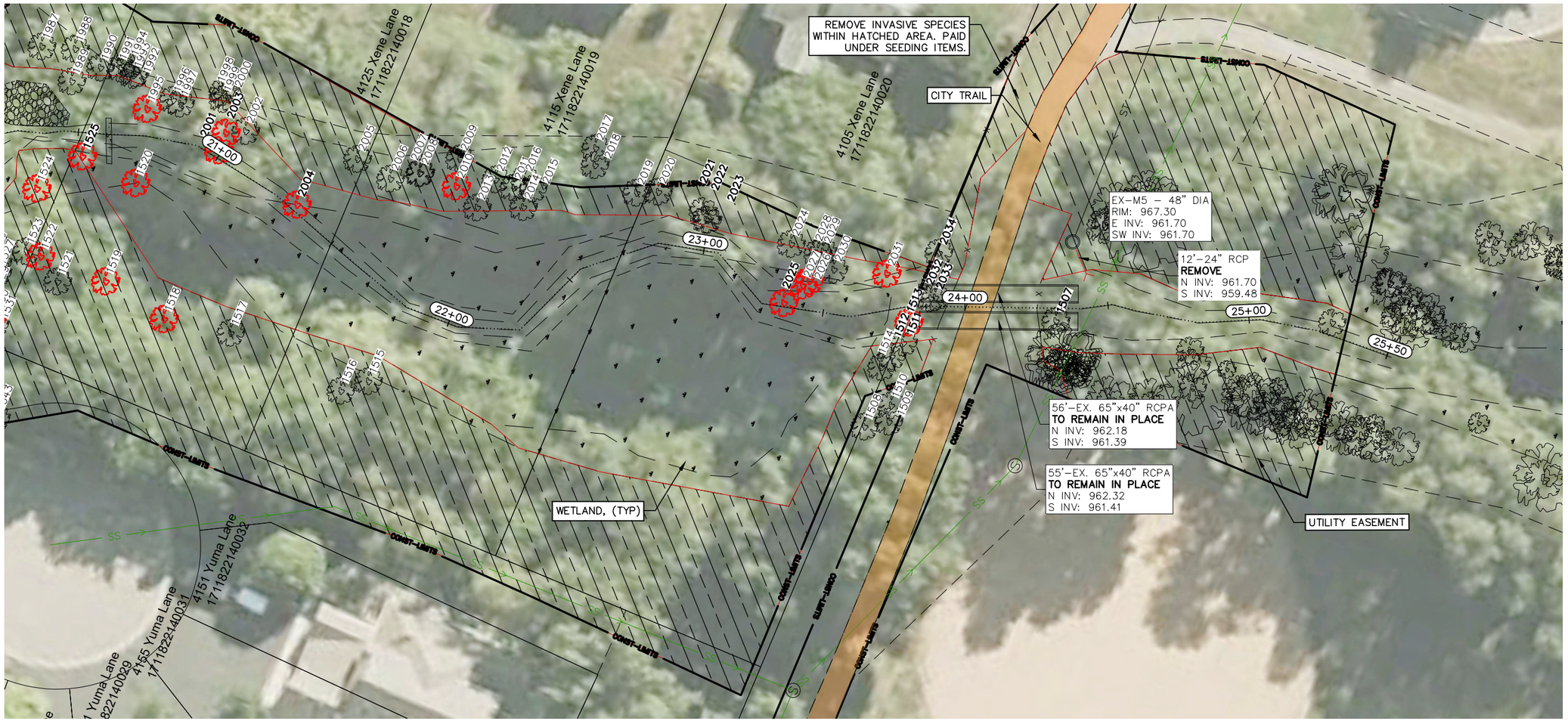
Bassett Creek Watershed Management Commission

REMOVALS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
REMOVALS

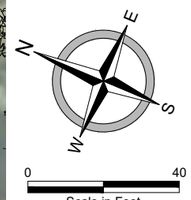
DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-302

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CADD\C3D\Production\30495_Removals.dwg



PRELIMINARY



moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

NOTES:

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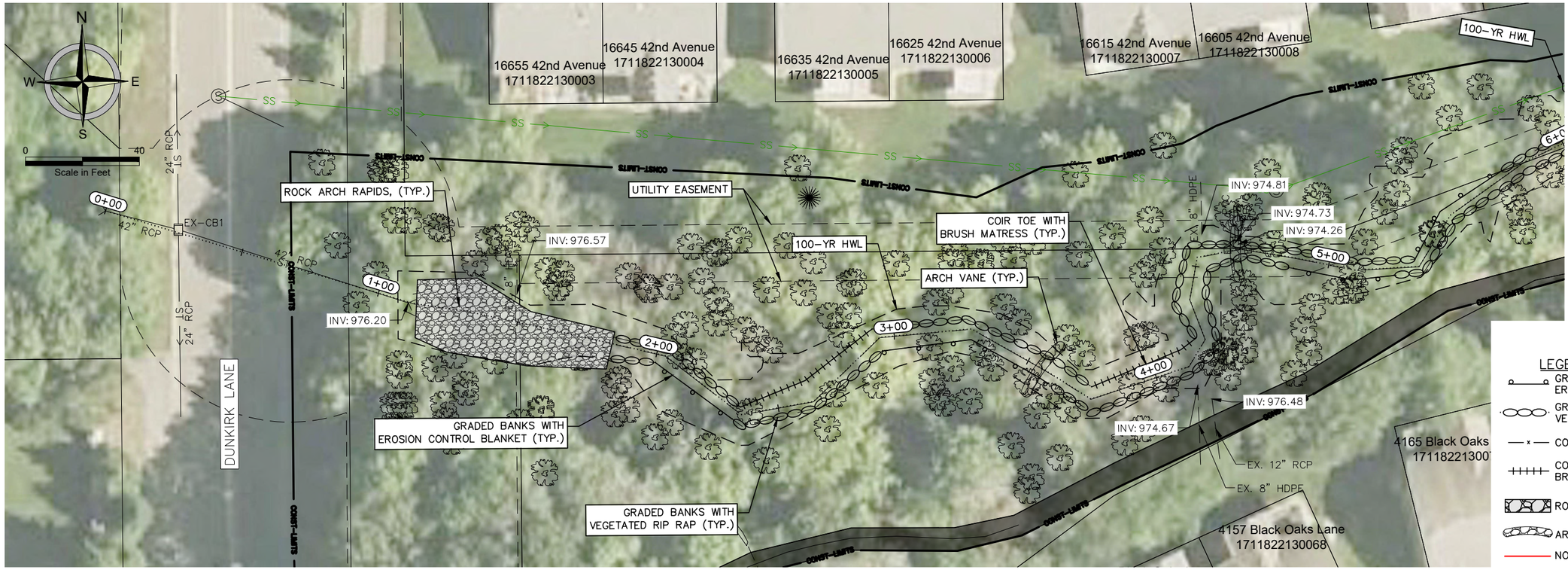
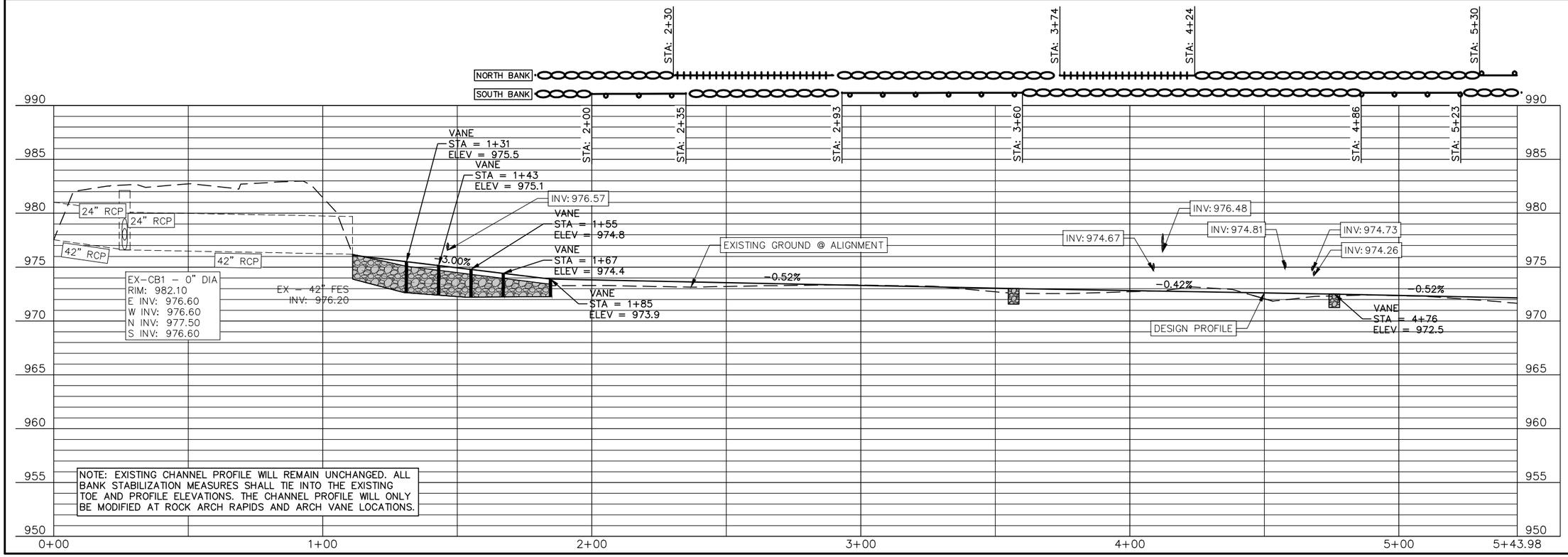
REMOVALS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
REMOVALS

DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-303

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CAD\C3D\Production\30495_PP.dwg





PRELIMINARY

moore engineering, inc.

City of Plymouth

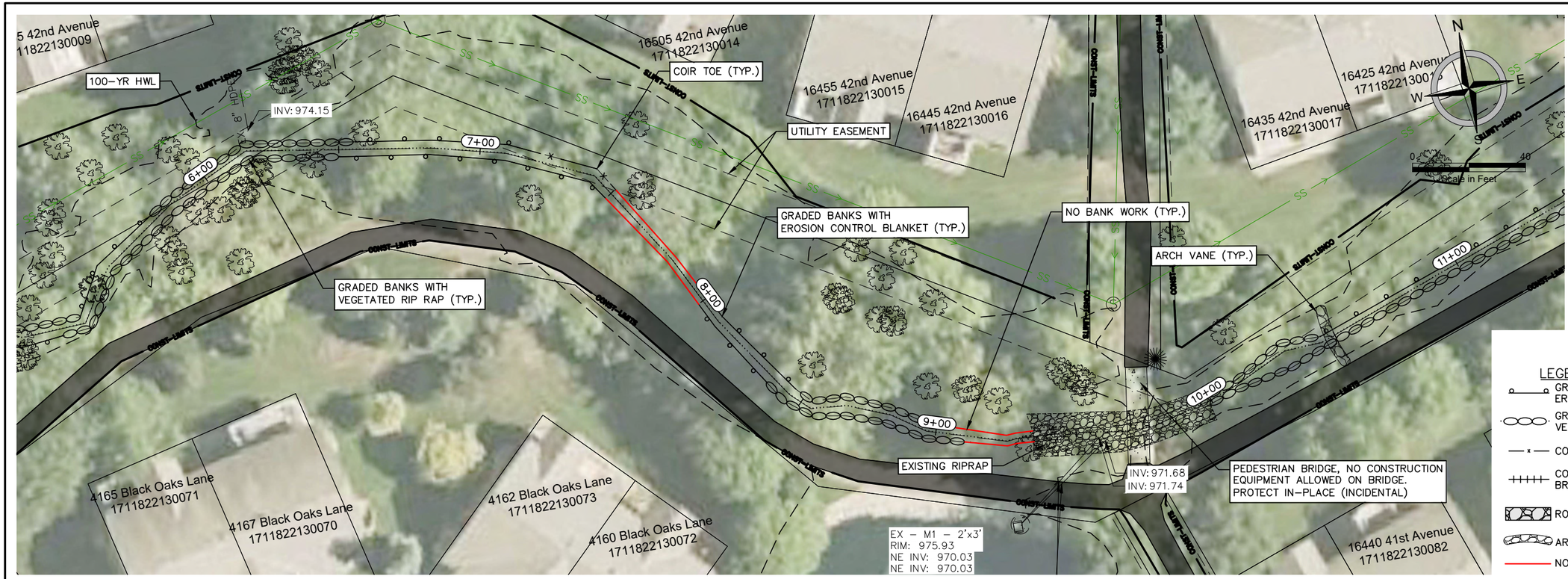
Bassett Creek Watershed Management Commission

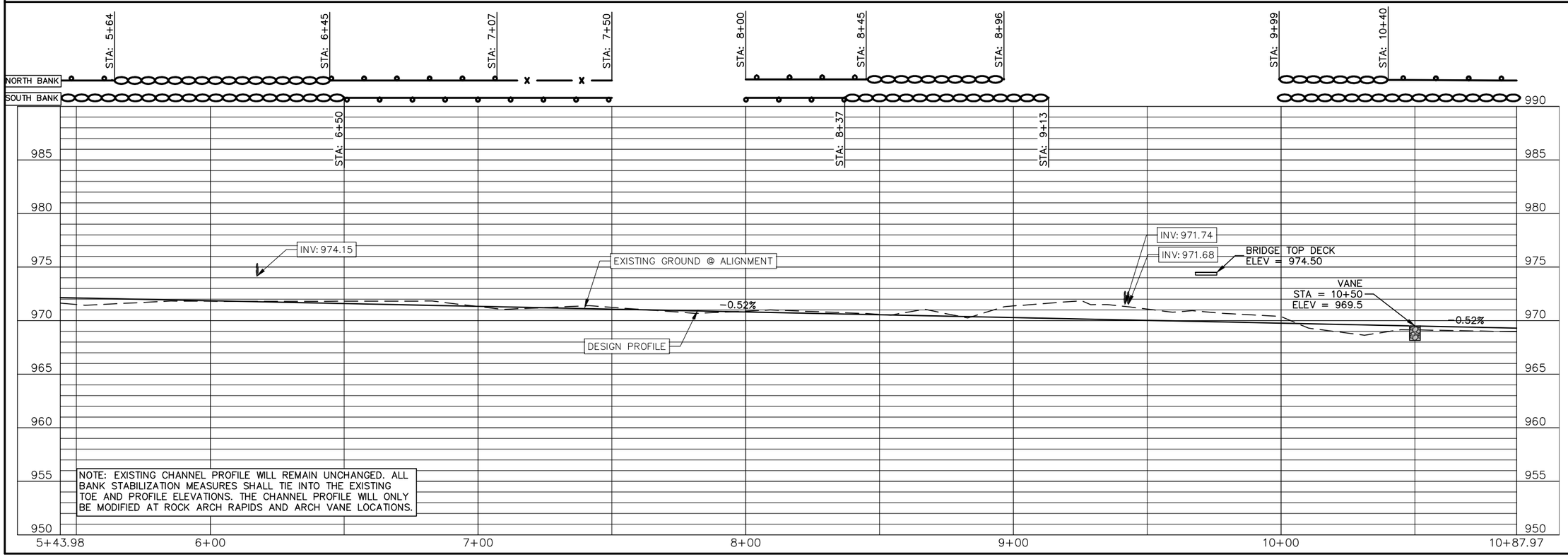
UNDERGROUND
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
PROPOSED CONDITIONS

DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-401

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CAD\C3D\Production\30495_PP.dwg





PRELIMINARY

moore engineering, inc.

City of Plymouth

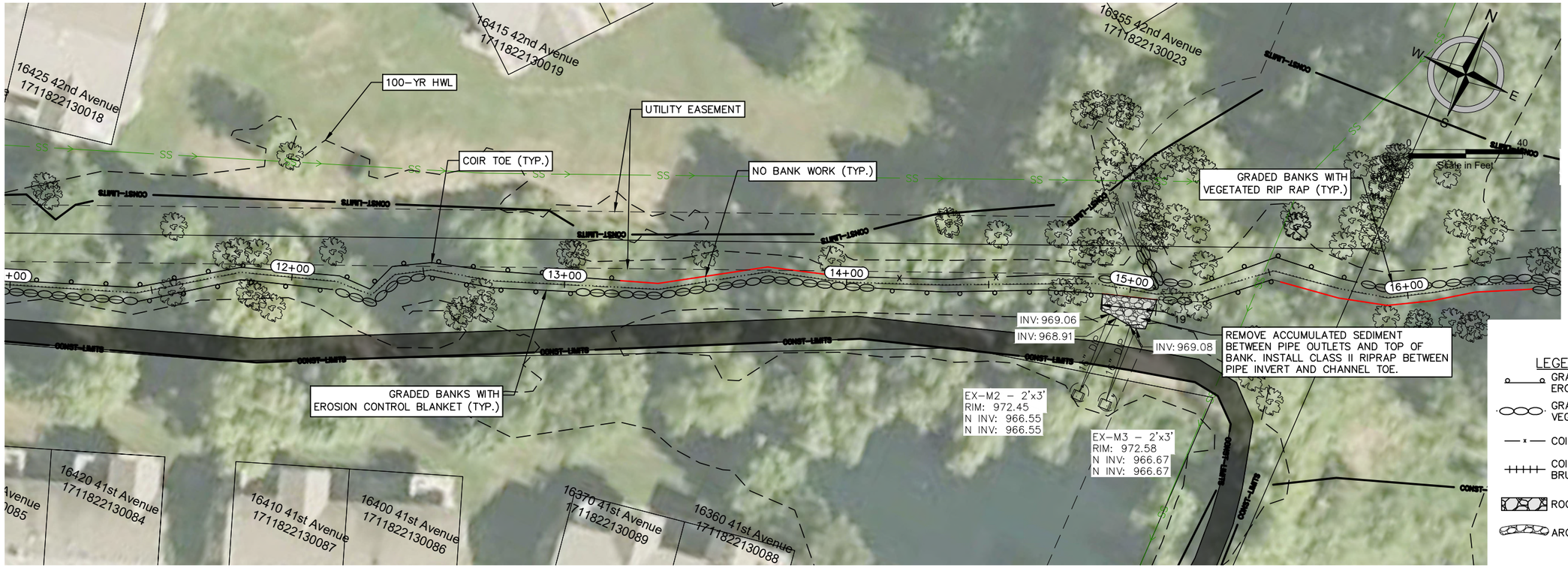
Bassett Creek Watershed Management Commission

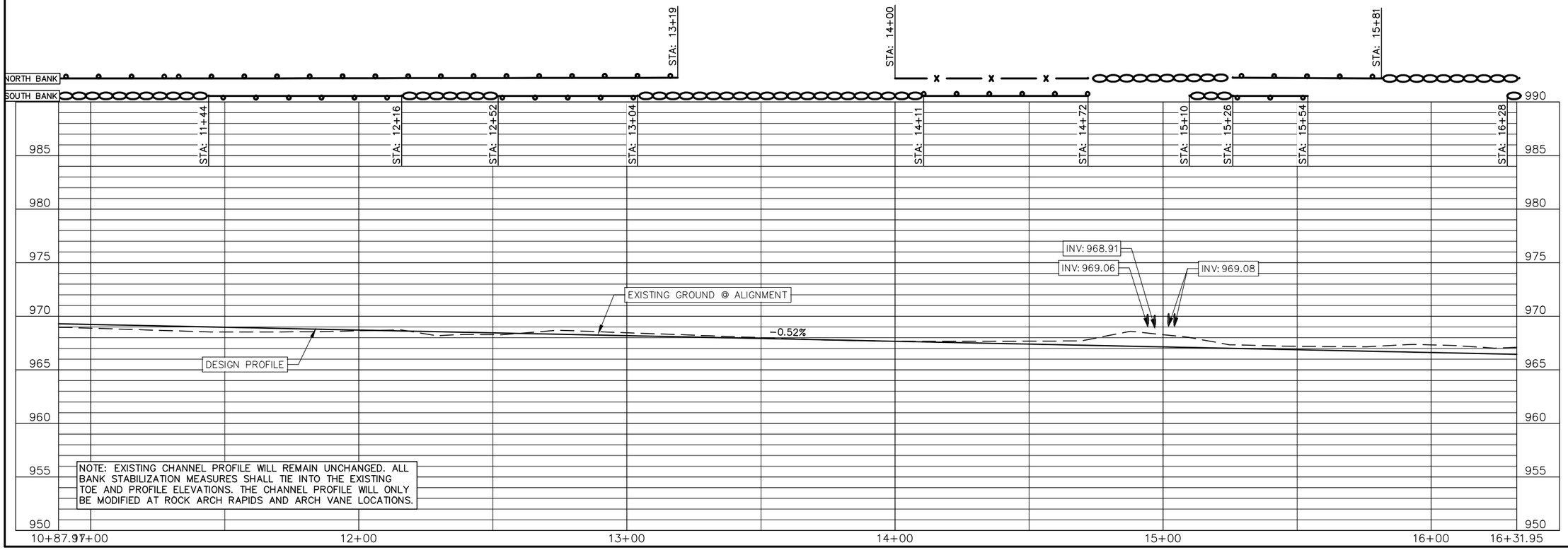
UNDERGROUND
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
PROPOSED CONDITIONS

DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-402

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CAD\C3D\Production\30495_PP.dwg





PRELIMINARY

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City of Plymouth

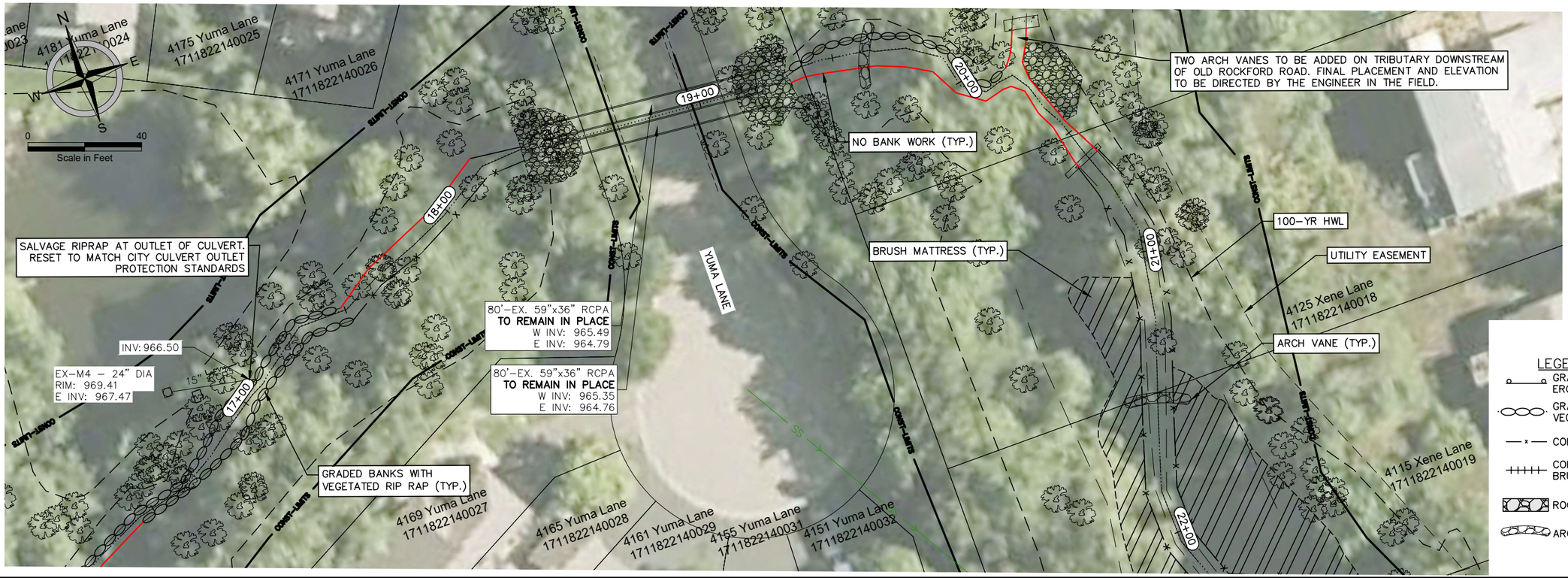
Bassett Creek Watershed Management Commission

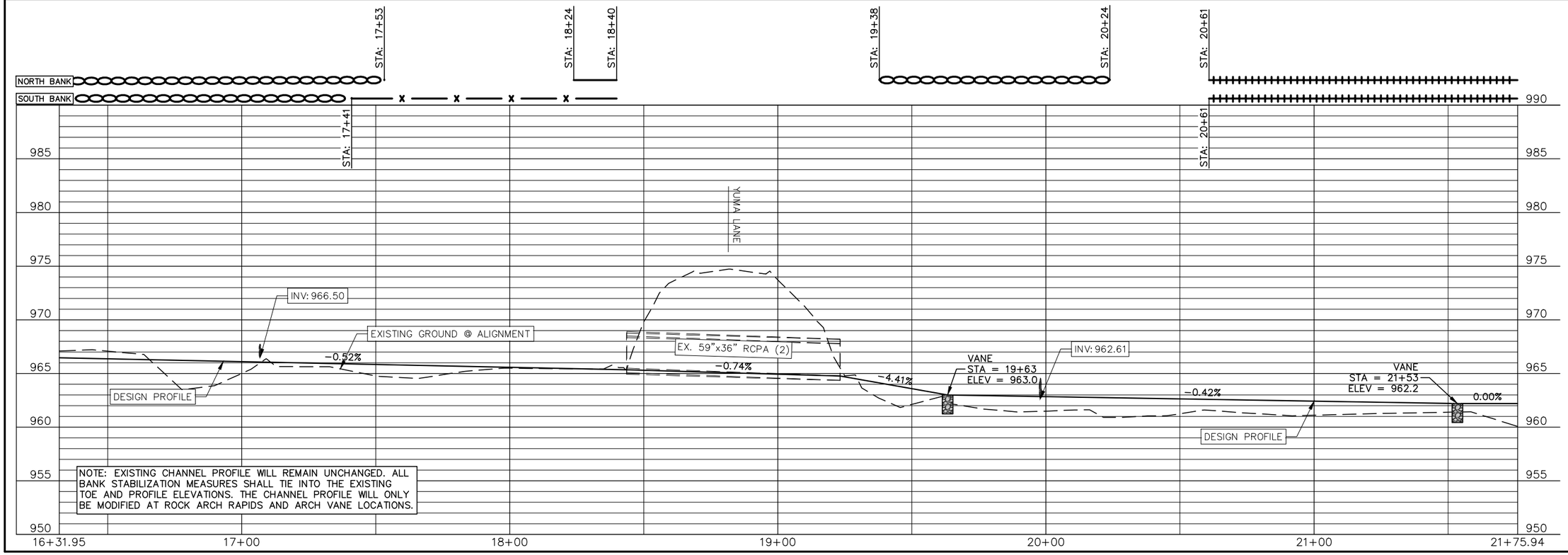
UNDERGROUND
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
PROPOSED CONDITIONS

DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-403

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CAD\C3D\Production\30495_PP.dwg





PRELIMINARY

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

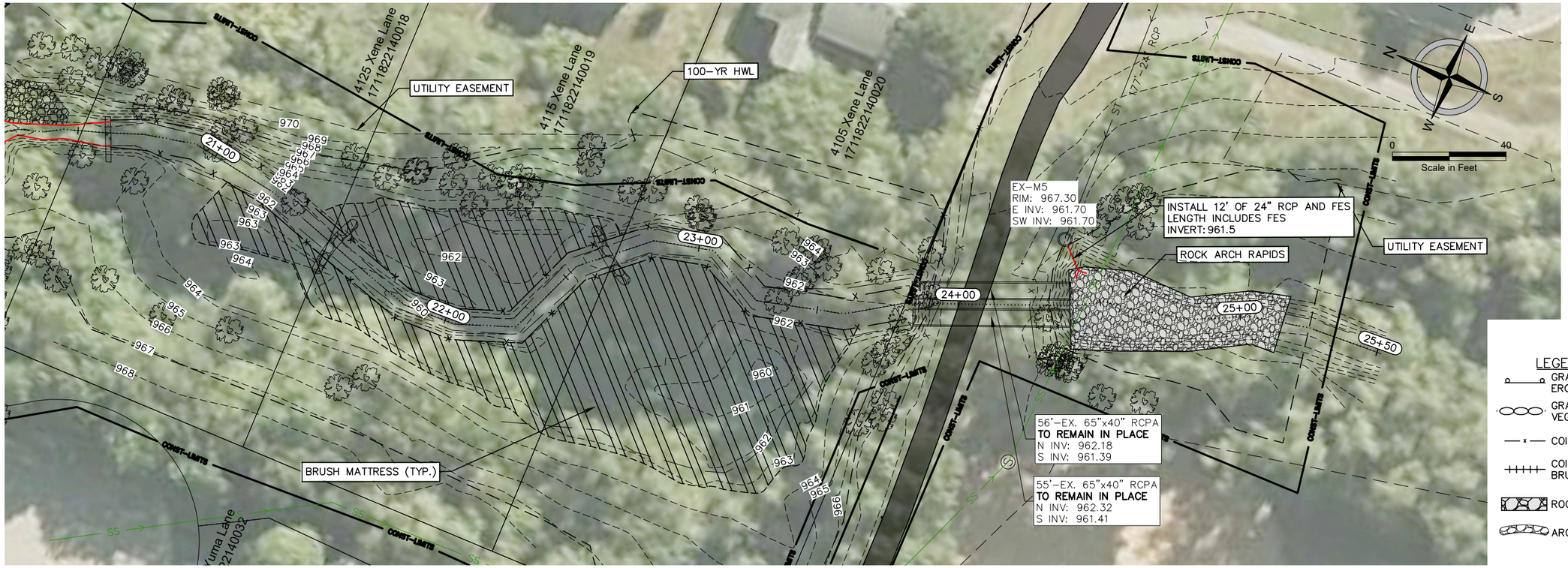
UNDERGROUND
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
PROPOSED CONDITIONS

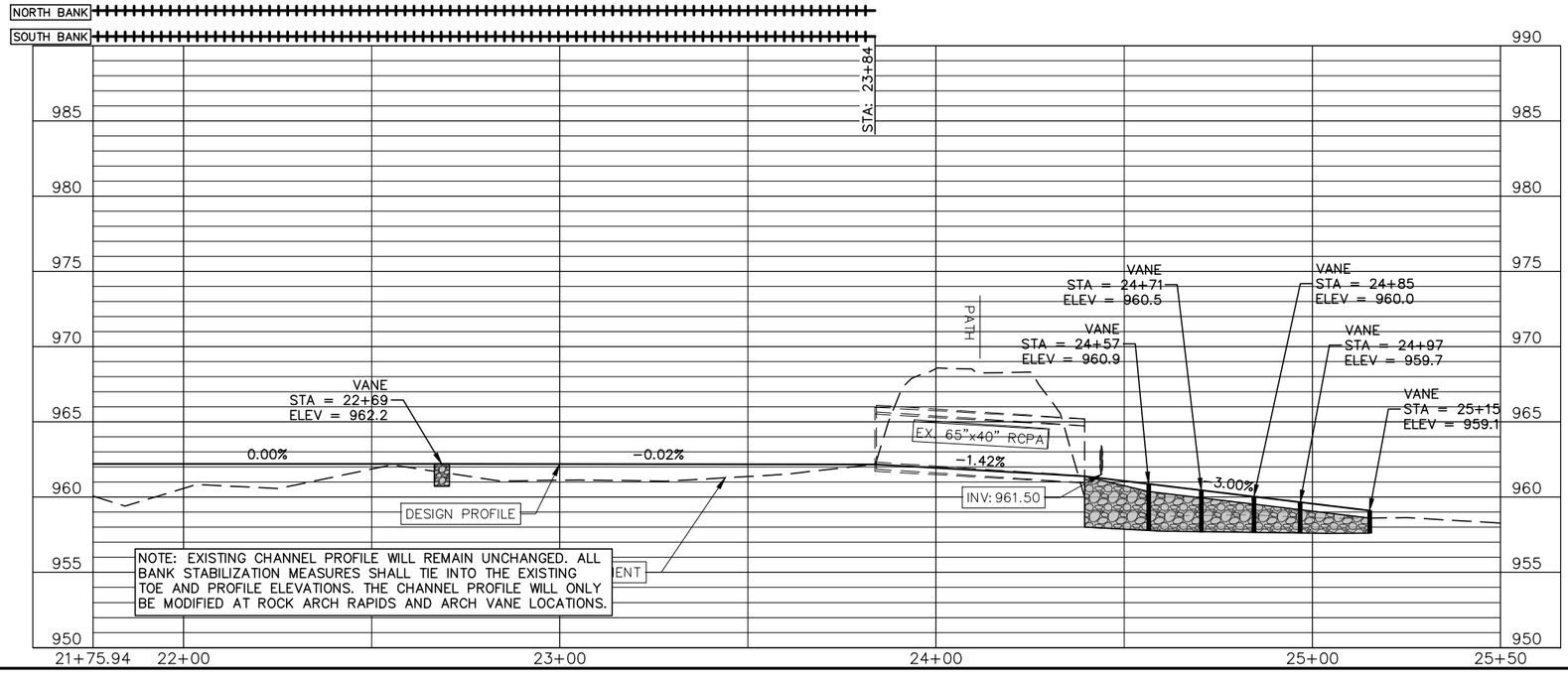
DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-404

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CAD\C3D\Production\30495_PP.dwg

PRELIMINARY





moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

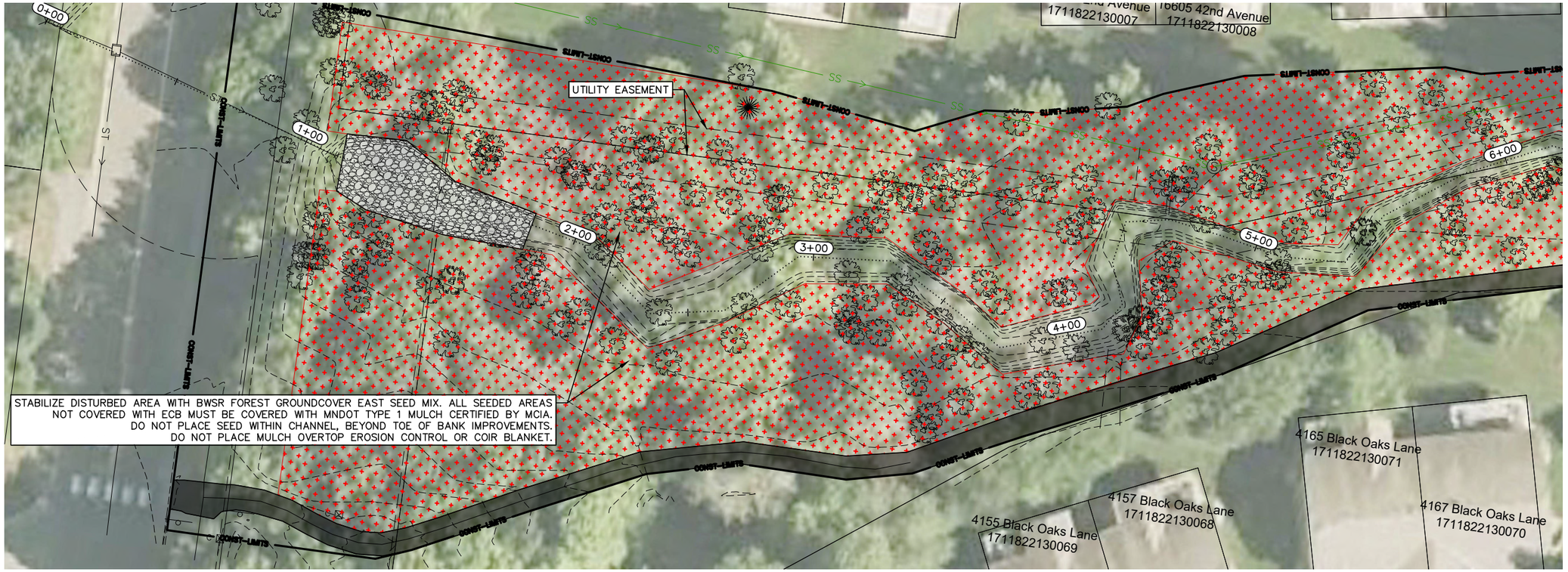
UNDERGROUND
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
PROPOSED CONDITIONS

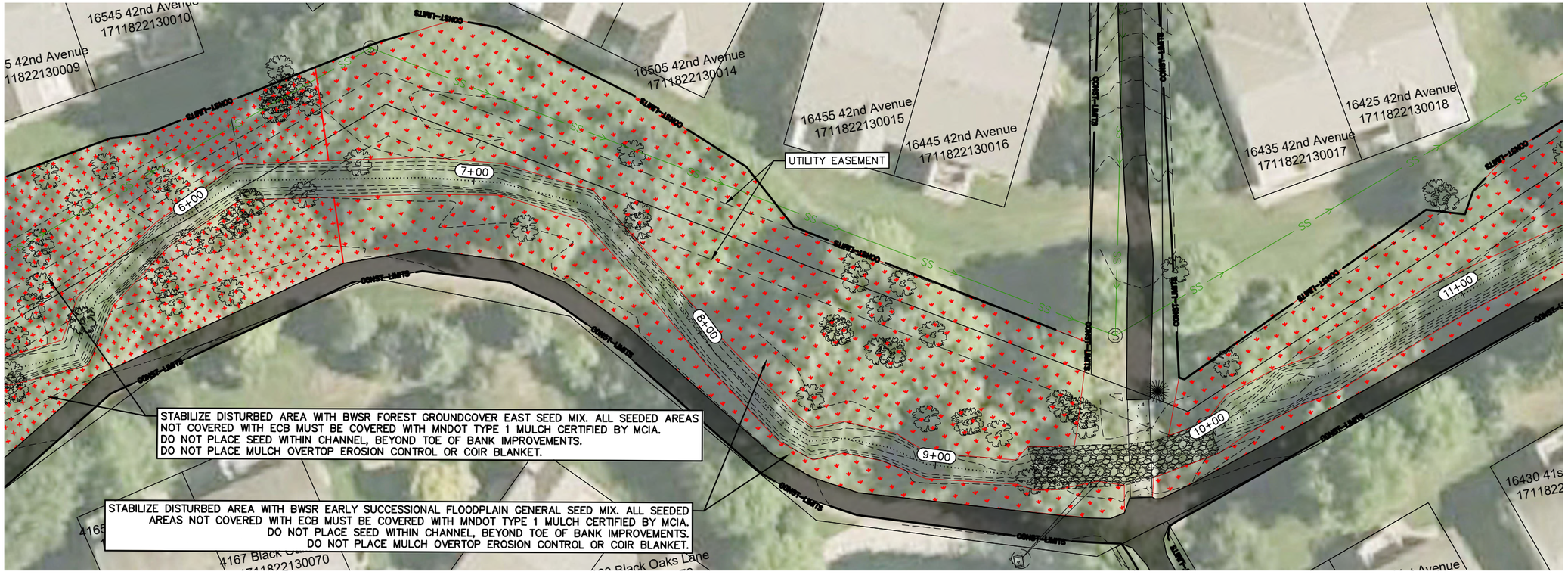
DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-405

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CAD\C3D\Production\30495_Site.dwg

PRELIMINARY





N
W E
S
0 40
Scale in Feet

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

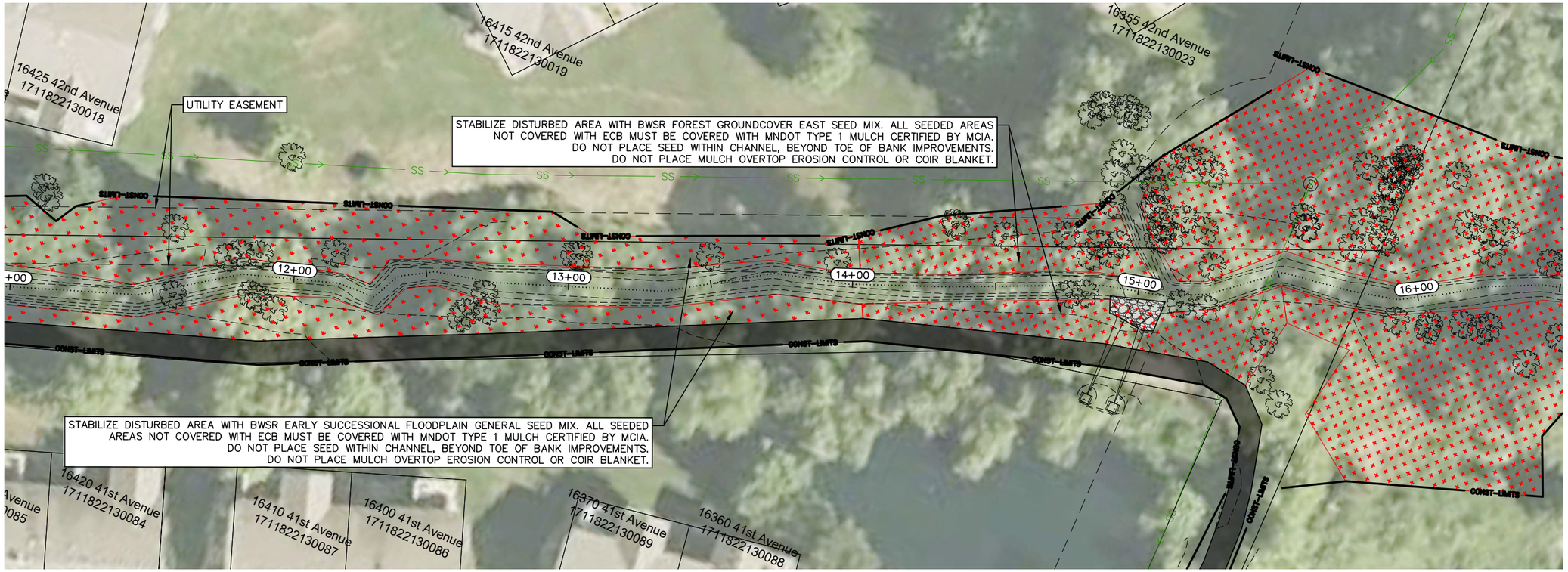
SITE PLANS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
VEGETATION ESTABLISHMENT PLAN

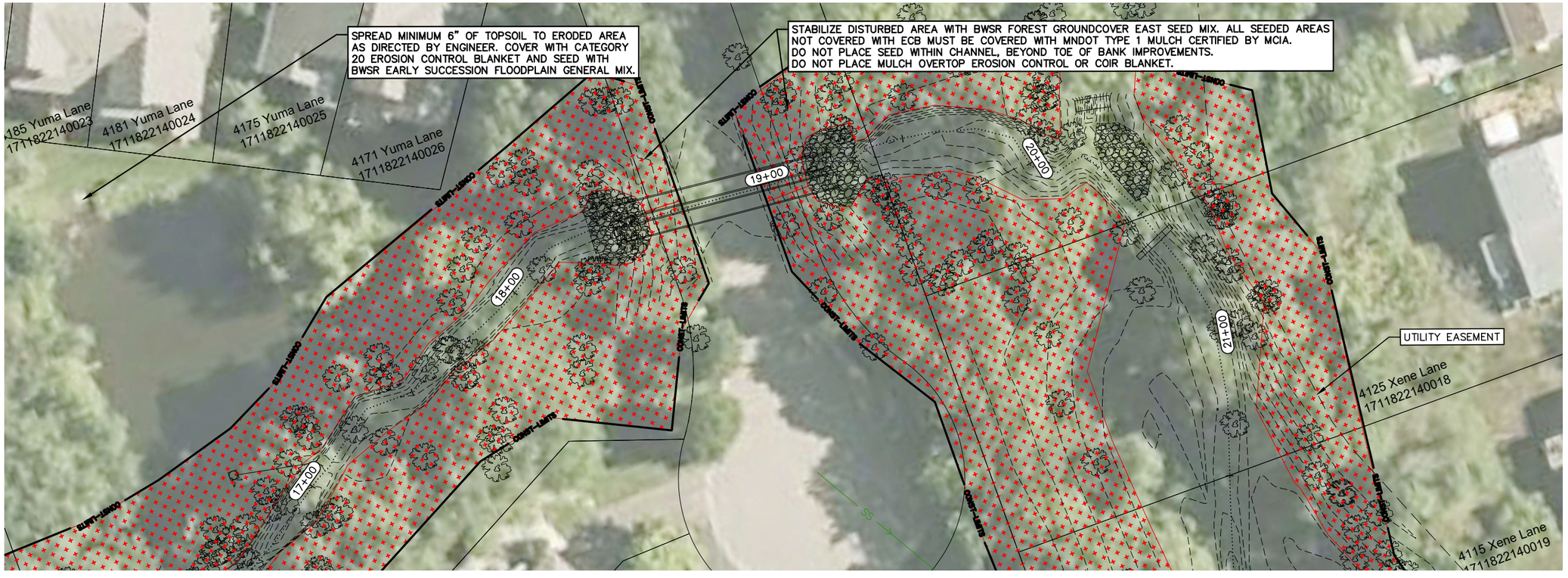
DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-601

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CAD\C3D\Production\30495_Site.dwg

PRELIMINARY





N
W E
S
0 40
Scale in Feet

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

SITE PLANS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
VEGETATION ESTABLISHMENT PLAN

DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-602

FILE LOCATION: Q:\Projects\30000\30400\30495 StreamRestorationPlymouth\CAD\C3D\Production\30495_Site.dwg

N
W E
S
0 40
Scale in Feet

PRELIMINARY

moore engineering, inc.

City of Plymouth

Bassett Creek Watershed Management Commission

SITE PLANS
PLYMOUTH CREEK STREAM RESTORATION PHASE 1
CITY PROJECT NO. WR250001
CITY OF PLYMOUTH, MINNESOTA
VEGETATION ESTABLISHMENT PLAN

DATE:	12.02.2025
REV DATE:	----
REV NUM:	----
RECORD:	----
PROJECT No.	30495
MANAGER:	JCM
DESIGNER:	QDS
DRAFTER:	DWA
REVIEWER:	DTE

C-603