VILLAGE OF HORTONVILLE
AMENDED AGENDA OF THE PUBLIC WORKS COMMITTEE
APRIL 25, 2024
5:30 P.M.
Municipal Service Center
531 N Nash St.

AGENDA

1. Call to Order

2. Preregistered Citizens to be heard. – LIMIT 5 MINUTES
   A. State name and address
   B. Comments to be limited to 5 minutes
   C. Pursuant to WI Statutes 19.83(2) and 19.84(2), The Board's role is to listen to public comments, and not to ask questions, discuss, or take action regarding pre-registered citizens' comments.

3. Approval of 3-21-24 meeting minutes

4. Public Hearing – full road reconstruction of N Mill Street

4. Fence at Opera House

5. Any other topics for future discussion

6. Comments and suggestions from citizens present

7. Adjourn

Requests from persons with disabilities who need assistance to participate in this meeting or hearing should be made to the Village Administration Office at 779-6011 with as much advance notice as possible.

Posted: April 23, 2024

Jane Booth, WCMC
Clerk - Treasurer

NORTH MILL STREET UTILITY AND STREET RECONSTRUCTION

VILLAGE OF HORTONVILLE, OUTAGAMIE COUNTY, WISCONSIN

PROJECT LOCATION

LOCATION MAP

NOT TO SCALE

SHEET INDEX

G - GENERAL SHEETS

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ST - SITE PLANS

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ST 2	EROSION CONTROL AND REMOVAL PLAN
ST 3 - 4	NORTH MILL ST INTERSECTION PLANS

P - WATERMAIN & SANITARY SEWER PLAN & PROFILE SHEETS

P 1 - 2	NORTH MILL STREET SEWER & WATER PLAN & PROFILES

R - ROADWAY & STORM PLAN & PROFILE SHEETS

R 1 - 2	NORTH MILL STREET ROADWAY & STORM PLAN AND PROFILES

CS - CROSS SECTION SHEETS

CS 1 - 7	NORTH MILL STREET CROSS SECTION SHEETS

WISCONSIN
DANIEL W. RAMMER
E-46066
NEENAH, WI
PROFESSIONAL ENGINEER

4/12/2024

LEGEND

- EXISTING WATER MAIN
- EXISTING WATER MAIN, VALVE & HYDRANT
- EXISTING WATER SERVICE & CURB STOP
- PROPOSED WATER MAIN, VALVE, & HYDRANT
- PROPOSED WATER SERVICE & CURB STOP
- EXISTING SANITARY SEWER & MANHOLE
- PROPOSED SANITARY SEWER & MANHOLE
- PROPOSED SANITARY SEWER LATERAL
- EXISTING FORCEMAIN
- EXISTING STORM SEWER & INLET
- PROPOSED STORM SEWER & INLET
- PROPOSED STORM SEWER & MANHOLE
- PROPOSED STORM SEWER LATERAL
- BURIED ELECTRIC
- BURIED GAS & VALVE
- BURIED CABLE TELEVISION
- BURIED TELEPHONE
- BURIED FIBER OPTICS
- OVERHEAD UTILITY
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- EXISTING SIDEWALK
- PROPOSED SIDEWALK
- EXISTING CULVERT PIPE
- PROPOSED CULVERT PIPE
- FENCE LINE
- DRAINAGE ARROW
- SILT FENCE
- RIGHT-OF-WAY
- BASELINE
- PROPERTY LINE
- TREE LINE
- BENCHMARK
- IRON PIPE
- IRON ROD
- CONTROL POINT
- UTILITY POLE & GUY
- LIGHT POLE
- PEDESTAL
- STREET SIGN
- MAILBOX
- FLAGPOLE
- TREE - DECIDUOUS
- TREE - CONIFEROUS
- TREE TO BE REMOVED

UTILITIES

SANITARY, WATER & STREET:

VILLAGE OF HORTONVILLE
AARON STEBER
531 NORTH NASH STREET
P.O. BOX 99
HORTONVILLE, WI 54944
920-779-6011

GAS:

WE ENERGIES
EDDIE HENDLUND
800 S LYNNDALE DRIVE
APPLETON, WI 54914
EDDIE.HEDLUND@WE-ENERGIES.COM

ELECTRIC:

WE ENERGIES
ZACH DUGA
800 S LYNNDALE DRIVE
APPLETON, WI 54914
920-330-3458
ZACHARY.DUGA@WE-ENERGIES.COM

TELEPHONE:

SBC AMERITECH
JIM DREIFUERST
221 W WASHINGTON STREET
APPLETON, WI 54911
920-735-3248

CATV:

CHARTER COMMUNICATIONS
RUDI RUDIGER
853 MCINTOSH STREET
WAUSAU, WI 54402
715-302-1550

AT&T
KYLE WEBER
221 W WASHINGTON STREET
APPLETON, WI 54911
KW715W@ATT.COM
920-221-5869

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

NOTE:
UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND CONTRACTOR SHALL HAVE APPROPRIATE UTILITY MARK EXACT LOCATIONS PRIOR TO CONSTRUCTION.

		NO.	DATE	REVISION	BY
PROJECT DATE: 4/5/2024 1:06 PM	DRAWN BY: Init	.	.	-	.
	DESIGNED BY: DWR	.	.	-	.
	CHECKED BY: DWR	.	.	-	.

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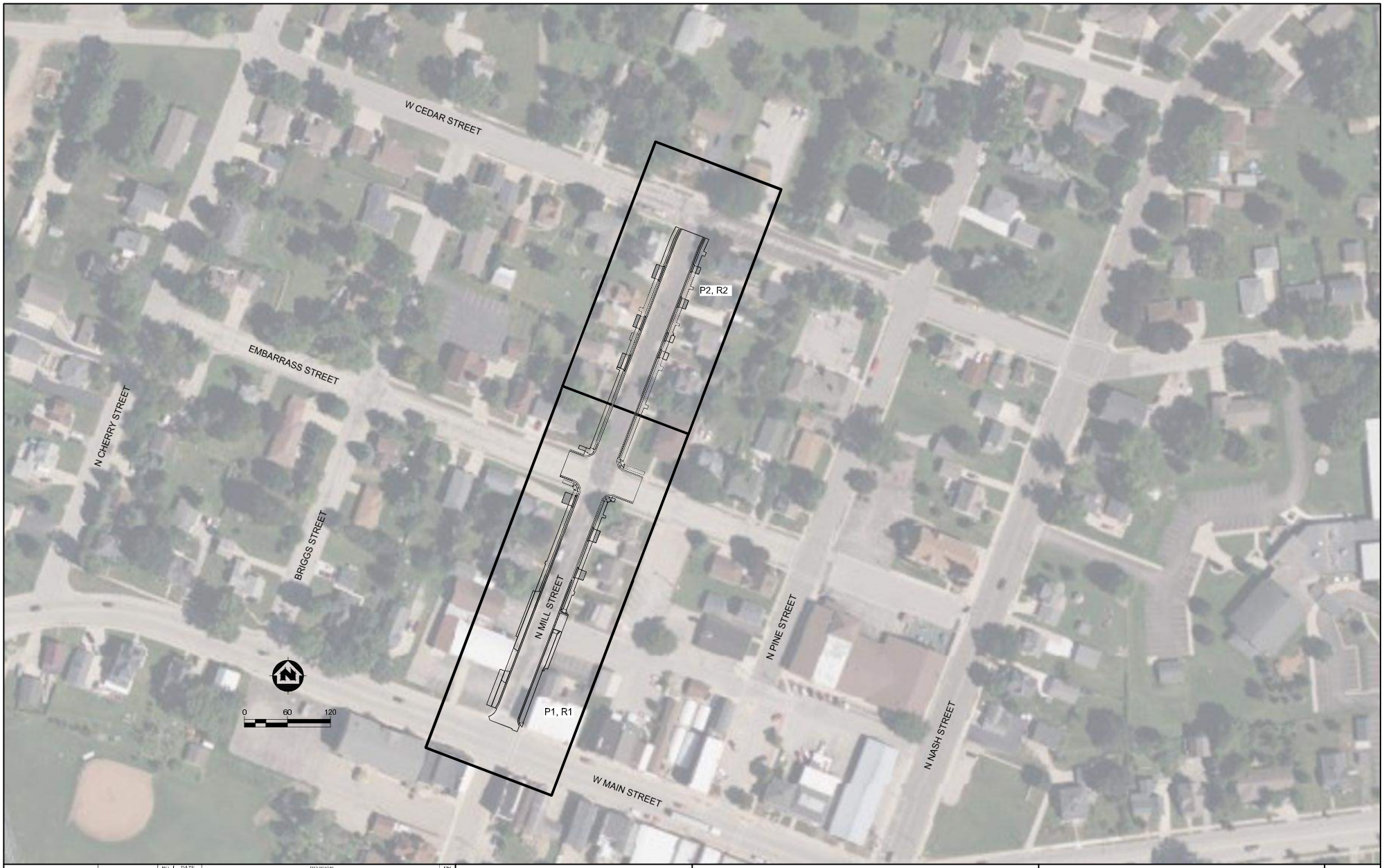
NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

TITLE SHEET

PROJECT NO. 07807030
SHEET G 1



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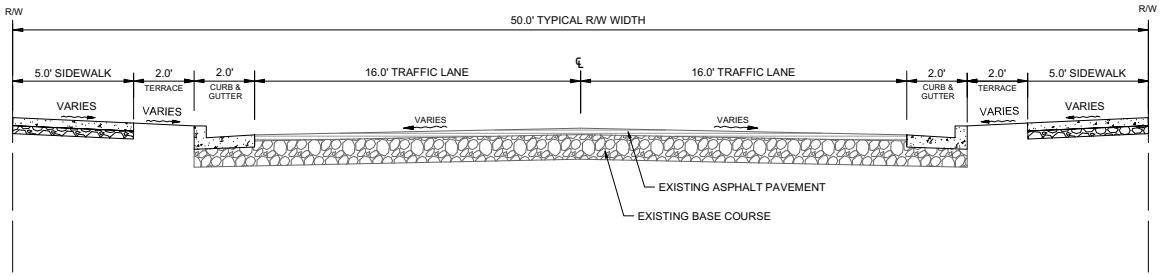
NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

OVERALL PROJECT LAYOUT

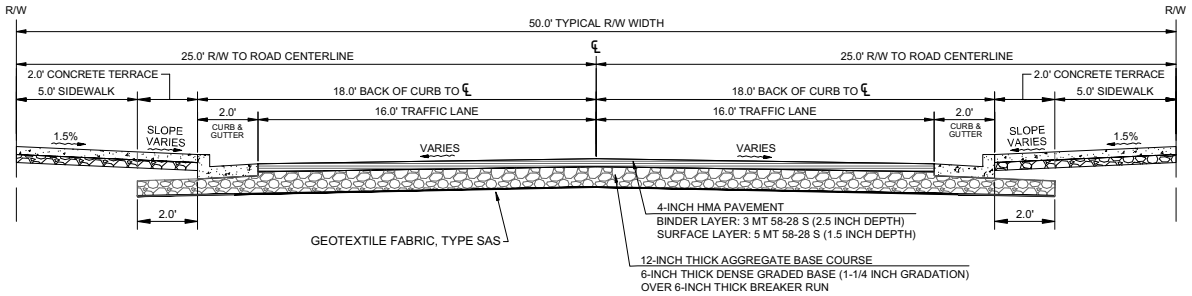
PROJECT NO. 07807030

SHEET G 2



EXISTING N MILL STREET TYPICAL CROSS-SECTION

SCALE: NONE



PROPOSED N MILL STREET TYPICAL CROSS-SECTION

STA. 11+00.00 TO STA. 12+32.00
SCALE: NONE

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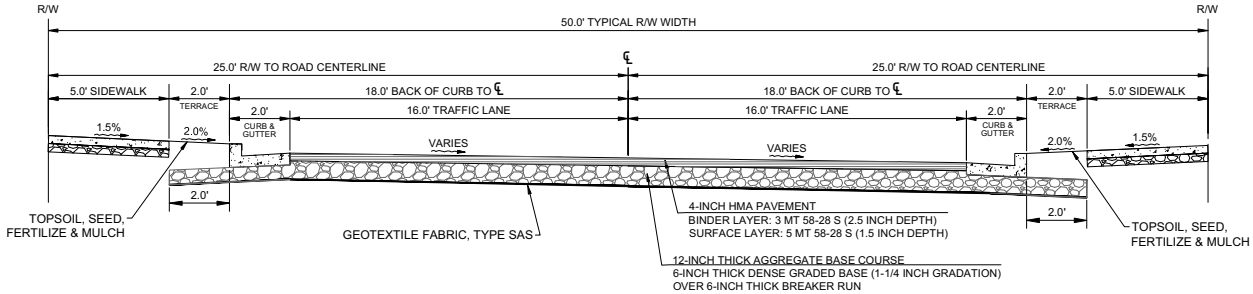
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

TYPICAL SECTIONS

PROJECT NO. 07807030

SHEET G 3

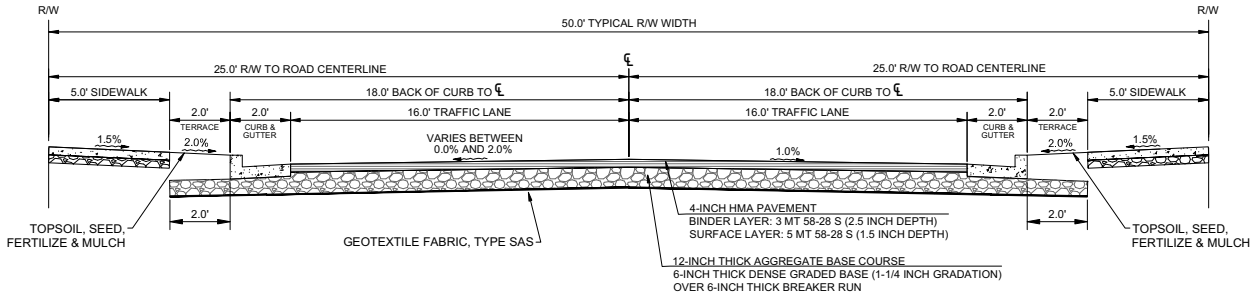


NOTES:

1. THE 2-FOOT TERRACE ON THE RIGHT SIDE OF NORTH MILL STREET BEGINS AT STA. 12+63.00
2. THE 2-FOOT TERRACE ON THE LEFT SIDE OF NORTH MILL STREET BEGINS AT STA. 12+73.50.

PROPOSED N MILL STREET TYPICAL CROSS-SECTION

STA. 12+32.00 TO STA. 14+18.71
STA. 14+89.13 TO STA. 16+16.00
SCALE: NONE



PROPOSED N MILL STREET TYPICAL CROSS-SECTION

STA. 16+16.00 TO STA. 18+16.75
SCALE: NONE

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VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

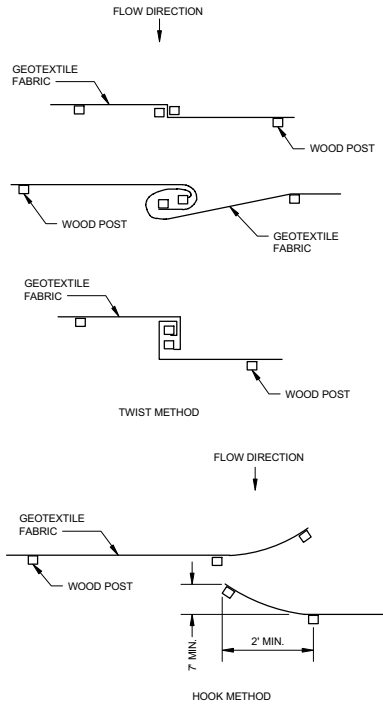
TYPICAL SECTIONS

PROJECT NO. 07807030

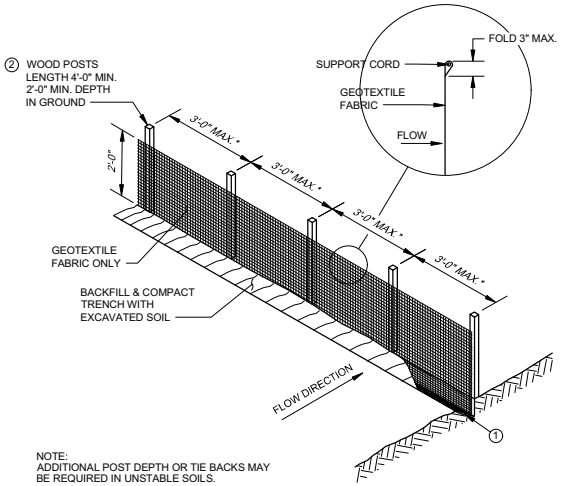
SHEET G 4

CONSTRUCTION SITE
EROSION CONTROL REQUIREMENTS

1. SECTION NR216.46 OF WISCONSIN STATE ADMINISTRATIVE CODE IDENTIFIES REQUIREMENTS FOR CONSTRUCTION SITE AND POST-CONSTRUCTION EROSION CONTROL. IT IS THE INTENT OF THESE PLANS TO SATISFY THESE REQUIREMENTS. THE METHODS AND STRUCTURES USED TO CONTROL EROSION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL IMPLEMENT AN APPROPRIATE MEANS OF CONTROLLING EROSION DURING SITE OPERATION AND UNTIL THE VEGETATION IS RE-ESTABLISHED. ADJUSTMENTS TO THE CONTROL SYSTEM SHALL BE MADE AS REQUIRED.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WISCONSIN DNR'S CONSERVATION PRACTICE STANDARDS. THESE STANDARDS ARE PERIODICALLY UPDATED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REFERENCE THE MOST RECENTLY RELEASED STANDARD.
3. THIS INFORMATION IS ONLY ONE PART OF THE OVERALL EROSION CONTROL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY ALSO BE SHOWN ON THE CONTRACT DRAWINGS AND IN THE ACCOMPANYING SPECIFICATIONS.
4. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED IN WRITING BY THE STATE OR LOCAL INSPECTORS, OR THE OWNER'S ENGINEER, SHALL BE INSTALLED WITHIN 24 HOURS.
5. THE AREA OF EROSIVE LAND EXPOSED TO THE ELEMENTS BY GRUBBING, EXCAVATION, TRENCHING, BORROW AND FILL OPERATIONS AT ANY ONE TIME SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. FOR ANY DISTURBED AREA THAT REMAINS INACTIVE FOR GREATER THAN 7 WORKING DAYS, OR WHERE GRADING WORK EXTENDS BEYOND THE PERMANENT SEEDING DEADLINES, THE SITE MUST BE TREATED WITH TEMPORARY STABILIZATION MEASURES SUCH AS SOIL TREATMENT, TEMPORARY SEEDING AND/OR MULCHING. ALL DISTURBED AREAS SHALL BE TREATED WITH PERMANENT STABILIZATION MEASURES WITHIN 3 WORKING DAYS OF FINAL GRADING.
6. ALL EROSION CONTROL MEASURES AND STRUCTURES SERVING THE SITE MUST BE INSPECTED AT LEAST WEEKLY OR WITHIN 24 HOURS OF THE TIME 0.5 INCHES OF RAIN HAS OCCURRED. ALL NECESSARY REPAIR AND MAINTENANCE WILL BE DONE AT THIS INSPECTION TIME.
7. ALL EROSION CONTROL DEVICES AND/OR STRUCTURES SHALL BE PROPERLY INSTALLED PRIOR TO CLEARING AND GRUBBING OPERATIONS WITHIN THEIR RESPECTIVE DRAINAGE AREAS. THESE SHALL BE PROPERLY MAINTAINED FOR MAXIMUM EFFECTIVENESS UNTIL VEGETATION IS RE-ESTABLISHED.
8. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY INSTALLED PRIOR TO ANY SOIL DISTURBANCE.
9. ANY SLOPES STEEPER THAN 3H:1V SHALL BE STAKED WITH EROSION CONTROL FABRIC UNLESS INDICATED ON THE PLAN.
10. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED OF AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
11. WIND EROSION SHALL BE KEPT TO A MINIMUM DURING CONSTRUCTION. WATERING, MULCH, OR A TACKING AGENT MAY BE REQUIRED TO PROTECT NEARBY RESIDENCES AND WATER RESOURCES.
12. CHANNELIZED RUNOFF ENTERING THE PROJECT SITE FROM ADJOINING LANDS SHALL BE DIVERTED THROUGH NATURALLY OR ARTIFICIALLY EROSION-RESISTANT CONVEYANCES. IF CHANNELIZED RUNOFF CANNOT BE DIVERTED, SITE BEST MANAGEMENT PRACTICES MUST ACCOUNT FOR THE ADDITIONAL FLOW RATES AND EROSION POTENTIAL THAT SUCH RUNOFF PRESENTS.
13. THE CONTRACTOR SHALL TAKE ALL POSSIBLE PRECAUTIONS TO PREVENT SOILS FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEPT AND/OR SCRAPED (NOT FLUSHED) PERIODICALLY TO REMOVE SOIL, DIRT, AND/OR DUST.
14. EROSION CONTROLS SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF TEMPORARY STOCKPILES. ANY SOIL STOCKPILE THAT REMAINS FOR MORE THAN 30 DAYS SHALL BE COVERED OR TREATED WITH STABILIZATION PRACTICES SUCH AS TEMPORARY OR PERMANENT SEEDING AND MULCHING. ALL STOCK PILES SHALL BE PLACED AT LEAST 75 FEET FROM STREAMS OR WETLANDS.
15. ADDITIONAL EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) SHALL INCLUDE THE FOLLOWING:
    a. PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    b. BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    c. DISCHARGE OF TRENCH WATER OR DEWATERING EFFLUENT MUST BE PROPERLY TREATED TO REMOVE SEDIMENT IN ACCORDANCE WITH THE WDNR CONSERVATION PRACTICE STANDARD 1061 - DEWATERING OR A SUBSEQUENT WDNR DEWATERING STANDARD PRIOR TO DISCHARGE INTO A STORM SEWER, DITCH, DRAINAGEWAY, OR WETLAND OR LAKE.
16. ALL DRAINAGE CULVERTS, STORM DRAIN INLETS, MANHOLES, OR ANY OTHER EXISTING STRUCTURES THAT COULD BE DAMAGED BY SEDIMENTATION SHALL BE PROTECTED ACCORDING TO THE VARIOUS METHODS PROVIDED IN THE PRINTED CONSERVATION PRACTICE STANDARDS.
17. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
18. THE FIRST SIX WEEKS AFTER INITIAL STABILIZATION, ALL NEWLY SEEDED AND MULCHED AREAS SHALL WATERED WHENEVER 7 DAYS ELAPSE WITHOUT A RAIN EVENT.
19. WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, TEMPORARY BMP'S SUCH AS SILT FENCES, STRAW BALES, AND SEDIMENT TRAPS SHALL BE REMOVED AND THESE AREAS STABILIZED.
20. ALL TEMPORARY BEST MANAGEMENT PRACTICES SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED.
21. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH SEED AND MULCH UNLESS OTHERWISE SPECIFIED. A MINIMUM OF FOUR INCHES OF TOPSOIL SHALL BE APPLIED TO ALL AREAS TO BE SEEDED OR SODDED.



JOINING TWO LENGTHS OF SILT FENCE ③



NOTE:
ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS.

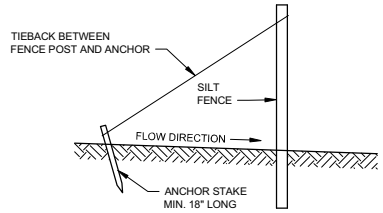
* 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED, OR IF THE SILT FENCE IS FACTORY ASSEMBLED.

ATTACH THE FABRIC TO THE POSTS WITH WIRE STAPLES OR WOODEN LATH AND NAILS.

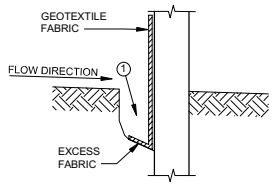
SILT FENCE

GENERAL NOTES

1. TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
2. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 $\frac{3}{8}$" x 1 $\frac{3}{8}$" OF OAK OR HICKORY.
3. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS: A) TWIST METHOD -- OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK METHOD -- HOOK THE END OF EACH SILT FENCE LENGTH.



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)



TRENCH DETAIL

		NO.	DATE	REVISION	BY
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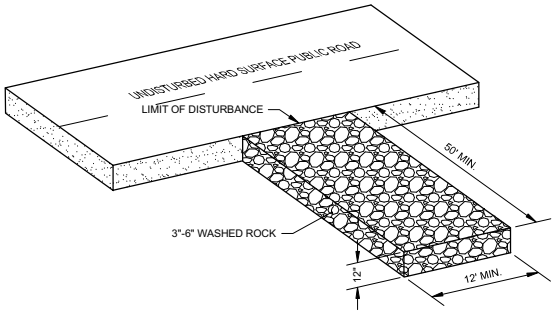
NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

CONSTRUCTION DETAILS

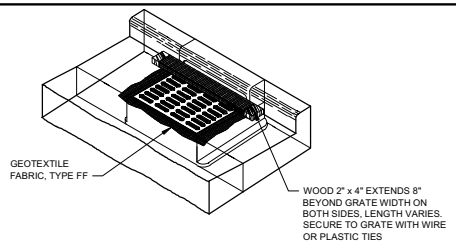
PROJECT NO. 07807030
SHEET G 5



VEHICLE TRACKING PAD

NO SCALE

NOTE: VEHICLE TRACKING PAD LOCATION IS NOT SHOWN ON THE PLANS, BUT SHALL BE INSTALLED BY THE CONTRACTOR AT THE DIRECTION OF THE CITY AND/OR ENGINEER



INSTALLATION NOTES:

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

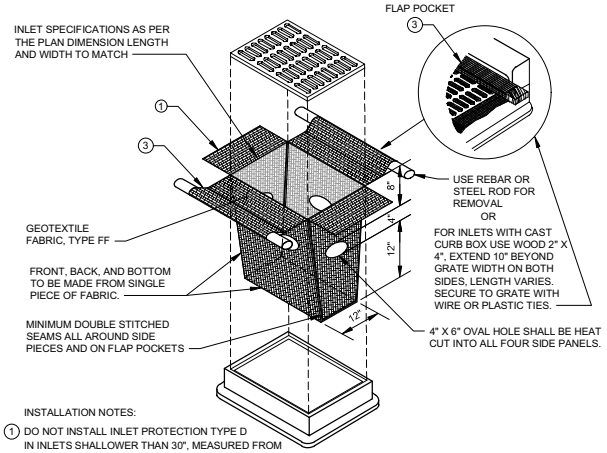
INLET PROTECTION, TYPE C

NO SCALE

GENERAL NOTES - INLET PROTECTION

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER. MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

1. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
2. FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
3. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

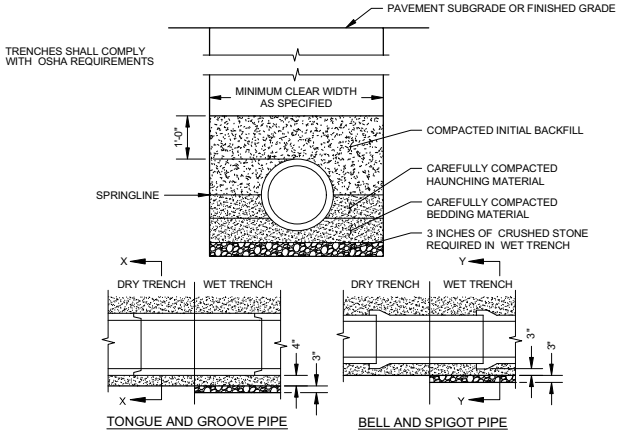


INSTALLATION NOTES:

1. DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.
2. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
3. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION, TYPE D

NO SCALE
CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE



TONGUE AND GROOVE PIPE

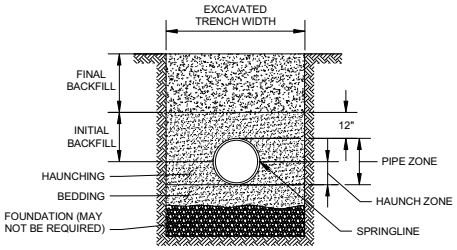
BELL AND SPIGOT PIPE

GENERAL NOTES:

1. BEDDING AND HAUNCHING MATERIAL SHALL BE WELL-GRADED 3/4 TO 1/4 INCH CRUSHED STONE OR OTHER NON-COHESIVE MATERIAL NOT SUBJECT TO MIGRATION AND FREE OF DEBRIS, ORGANIC MATERIAL, AND LARGE STONES.
2. BEDDING MATERIAL TO BE PLACED BEFORE SETTING PIPE, 4 INCH MINIMUM UNDER BARREL WITH 3 INCH MINIMUM UNDER BELL.
3. INITIAL BACKFILL SHALL BE DENSELY COMPACTED, NON-COHESIVE FINELY DIVIDED MATERIAL FREE OF DEBRIS, ORGANIC MATERIAL, AND LARGE STONES.
4. IN ROCK OR OTHER UNCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVEREXCAVATED A MINIMUM OF 6-INCHES AND REFILLED WITH GRANULAR MATERIAL.

CLASS "B" EMBEDMENT FOR RIGID PIPE DETAIL

NO SCALE



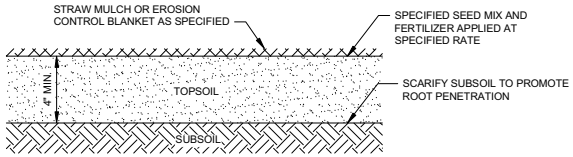
GENERAL NOTES:

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO ASTM D2321.
2. CLASS II EMBEDMENT MATERIAL SHALL BE CLEAN, COARSE-GRAINED SOILS WITH LITTLE TO NO FINES. NO PARTICLES LARGER THAN 1 1/2 -INCHES SHALL BE USED IN THE PIPE EMBEDMENT.
3. WHERE HYDRAULIC GRADIENT EXISTS USE A WELL-GRADED MIXTURE TO MINIMIZE MIGRATION OF FINES FROM ADJACENT SOIL.
4. CLASS II MATERIAL IS SUITABLE AS A FOUNDATION AND FOR REPLACING OVER- EXCAVATED AND UNSTABLE TRENCH BOTTOM. INSTALL AND COMPACT IN 6-INCH MAXIMUM LAYERS.
5. INSTALL AND COMPACT BEDDING IN 6-INCH MAXIMUM LAYERS. LEVEL FINAL GRADE BY HAND. MINIMUM DEPTH 4 INCH (6 INCH IN ROCK CUTS.)
6. INSTALL AND COMPACT HAUNCHING IN 6-INCH MAXIMUM LAYERS. WORK IN AROUND PIPE BY HAND TO PROVIDE UNIFORM SUPPORT.
7. INSTALL AND COMPACT INITIAL BACKFILL TO A MINIMUM OF 6 INCH ABOVE PIPE CROWN.
8. EMBEDMENT COMPACTION:

   MINIMUM DENSITY 85% STANDARD PROCTOR. USE HAND TAMPERS OR VIBRATORY COMPACTORS.

CLASS II - FLEXIBLE PIPE EMBEDMENT DETAIL

NO SCALE



NOTE: WHERE REQUIRED, PLANT HERBACEOUS PLUGS ACCORDING TO PLAN, OR AS DIRECTED BY ENGINEER.

TOPSOIL AND SEEDING DETAIL

NO SCALE

		NO.	DATE	REVISION	BY
PROJECT DATE: .	DRAWN BY: Init	.	.	.	.
	DESIGNED BY: DWR	.	.	.	.
	CHECKED BY: DWR	.	.	.	.

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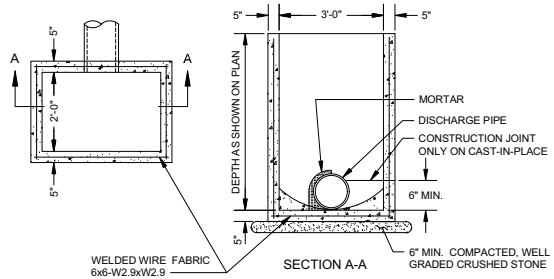
NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

CONSTRUCTION DETAILS

PROJECT NO. 07807030

SHEET G 6

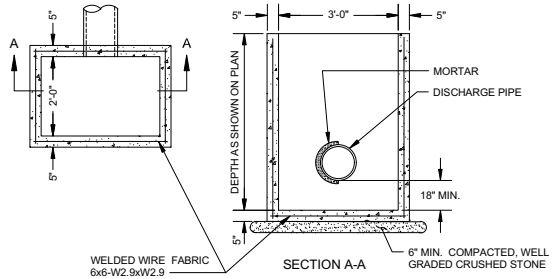


GENERAL NOTES:

1. SEE PLANS FOR SIZE, NUMBER, AND LOCATION OF PIPES.
2. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE SPECIFICATIONS.
3. DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.
4. ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.
5. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR WELL GRADED CRUSHED STONE. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.
6. PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.
7. ALL BAR STEEL AND WELDED WIRE FABRIC REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
8. PRECAST REINFORCED CONCRETE RISERS SHALL BE PLACED WITH TONGUE DOWN.

2' x 3' INLET DETAIL

NO SCALE



GENERAL NOTES:

1. SEE PLANS FOR SIZE, NUMBER, AND LOCATION OF PIPES.
2. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE SPECIFICATIONS.
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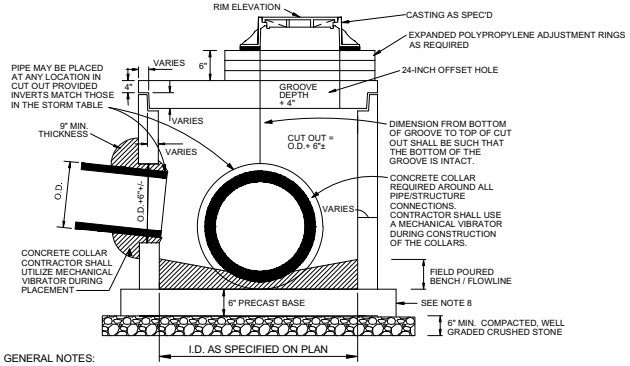
7. ALL BAR STEEL AND WELDED WIRE FABRIC REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
8. PRECAST REINFORCED CONCRETE RISERS SHALL BE PLACED WITH TONGUE DOWN.

2' x 3' INLET WITH SUMP DETAIL

NO SCALE



GENERAL NOTES:

1. SEE PLANS FOR SIZE, NUMBER, AND LOCATION OF PIPES.
2. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE SPECIFICATIONS.
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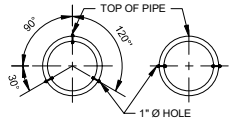
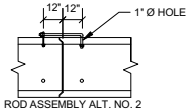
6. ALL BAR STEEL AND WELDED WIRE FABRIC REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
7. PRECAST REINFORCED CONCRETE RISERS SHALL BE PLACED WITH TONGUE DOWN.
8. OVERHANGING BASE NOT REQUIRED WHERE INTEGRAL BASE IS ALLOWED.
SEE SPECIAL PROCEDURES OR CONTACT ENGINEER TO VERIFY.

STORM MANHOLE DETAIL

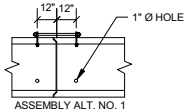
NO SCALE



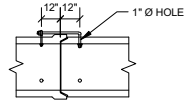
TRANSVERSE SECTION



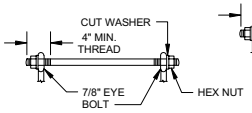
ROD ASSEMBLY ALT. NO. 2
TONGUE AND GROOVE EYE BOLT AND TIE
LONGITUDINAL SECTION



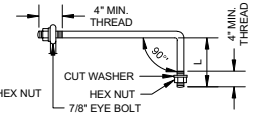
ASSEMBLY ALT. NO. 1
TONGUE & GROOVE EYE BOLT AND TIE ROD
LONGITUDINAL SECTION



ASSEMBLY ALT. NO. 2
MODIFIED BELL EYE BOLT AND TIE ROD
LONGITUDINAL SECTION



ALT. NO. 1 - 7/8 INCH TIE ROD



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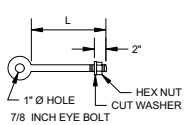


7/8 INCH EYE BOLT

EYE BOLT DIMENSION TABLE

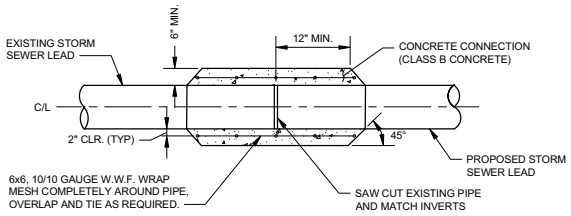
PIPE SIZE (INCHES)	LENGTH, L (INCHES)	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18 TO 24	4 1/2	5 1/2
30	5	7
36	5 1/2	7
42	5	
48	6 1/2	
60	7 1/2	
72	8 1/2	

GENERAL NOTES:

1. CONCRETE CULVERT PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED ON THE PLAN OR AS DIRECTED BY THE ENGINEER.
2. DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
3. HOLES SHALL BE FILLED WITH A NON-SHRINK GROUT OR A NON-SHRINK EPOXY GROUT AS DIRECTED BY THE ENGINEER.
4. BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

CONCRETE PIPE JOINT TIE DETAIL

NO SCALE



STORM SEWER CONNECTION DETAIL

NO SCALE

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	DESIGNED BY: DWR	.	.	.	.
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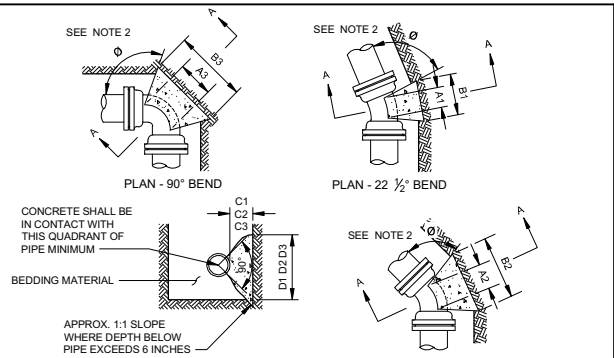
NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

CONSTRUCTION DETAILS

PROJECT NO. 07807030

SHEET G 7



NOTES:

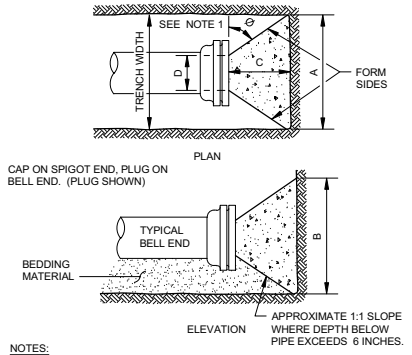
1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 P.S.I. AND AN EARTH RESISTANCE OF 2 TONS PER SQ. FT. INFORM THE ENGINEER IF PRESSURES EXCEED 150 PSI, OR ON-SITE SOIL DOES NOT MEET THIS CONDITION.
2. DIMENSION C1 C2 C3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE Ø EQUAL TO OR LARGER THAN 45°.
3. DIMENSION A1 A2 A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH THE MECHANICAL JOINT.
4. BUTTRESS TO BE POURED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY, ASTM D1557.
5. ALL BUTTRESSED FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.
6. CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
7. IN ADDITION TO BUTTRESS, ALL JOINTS SURROUNDING BENDS SHALL BE RESTRAINED WITH WEDGE ACTION RESTRAINING GLANDS.

BUTTRESS DIMENSIONS

PIPE SIZE	22½° BENDS		45° BENDS		90° BENDS	
	B1	D1	B2	D2	B3	D3
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
10"	1'-2"	1'-2"	1'-7"	1'-7"	2'-3"	1'-10"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"

BUTTRESS FOR BENDS DETAIL

NO SCALE



BUTTRESS DIMENSIONS

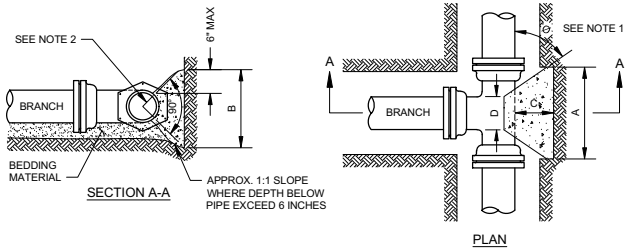
DIA.	A	B	C	D
6"	1'-6"	1'-2"	SEE NOTE NO. 1	SEE NOTE NO. 2
8"	2'-0"	1'-4"		
12"	2'-5"	1'-10"		
16"	3'-4"	2'-4"		
20"	4'-3"	2'-10"		
24"	5'-2"	3'-4"		
30"	6'-9"	4'-0"		

NOTES:

1. DIMENSION 'C' SHOULD BE LARGE ENOUGH TO MAKE ANGLE Ø EQUAL TO OR LARGER THAN 45°.
2. DIMENSION 'D' EQUALS APPROX. I.D. OF PIPE LESS 2 INCHES. THE CONCRETE SHOULD NOT INTERFERE WITH THE MECHANICAL JOINTS.
3. WHERE BUTTRESSES ARE NOT POSSIBLE BECAUSE OF POOR SOIL CONDITIONS OR LACK OF ROOM, WEDGE ACTION RESTRAINING GLANDS SHALL BE PERMITTED.
4. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 PSI. INFORM THE ENGINEER IF ON-SITE SOIL DOES NOT MEET THIS CONDITION OR PRESSURES EXCEED 150 PSI.
5. BUTTRESS TO BE POURED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY, ASTM D1557.
6. CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
7. ALL POURED BUTTRESSED FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.
8. NO WOOD BUTTRESS ALLOWED.

BUTTRESS FOR PLUGS DETAIL

NO SCALE



NOTES:

1. DIMENSION 'C' SHOULD BE LARGE ENOUGH TO MAKE ANGLE Ø GREATER THAN OR EQUAL TO 45°.
2. CONCRETE SHOULD BEAR ON THIS QUADRANT OF PIPE AT A MINIMUM.
3. DIMENSION 'D' SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHOULD NOT INTERFERE WITH MECHANICAL JOINTS.
4. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 PSI. INFORM THE ENGINEER IF ON-SITE SOIL DOES NOT MEET THIS CONDITION OR PRESSURES EXCEED 150 PSI.
5. BUTTRESS TO BE PLACED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95%%% OF MODIFIED PROCTOR DENSITY, ASTM D1557.
6. CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
7. ALL POURED BUTTRESSED FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.
8. IN ADDITION TO BUTTRESSES, ALL JOINTS SURROUNDING TEES SHALL BE RESTRAINED WITH WEDGE ACTION RESTRAINING GLANDS.

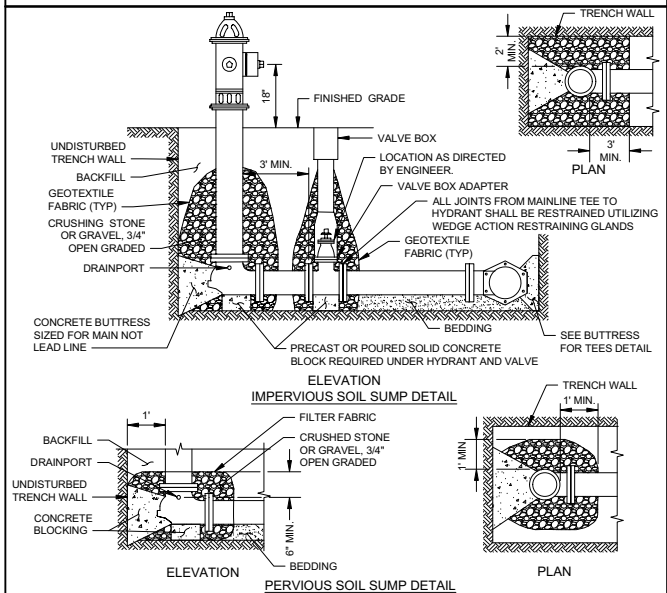
BUTTRESS DIMENSIONS

DIA.	A	B	C	D
6"	1'-3"	1'-0"	SEE NOTE NO. 1	SEE NOTE NO. 3
8"	1'-6"	1'-4"		
10"	1'-10"	1'-8"		
12"	2'-3"	2'-0"		
16"	3'-2"	2'-6"		
20"	4'-0"	3'-0"		
24"	5'-3"	3'-4"		

DIA. = BRANCH DIAMETER

BUTTRESS FOR TEES DETAIL

NO SCALE

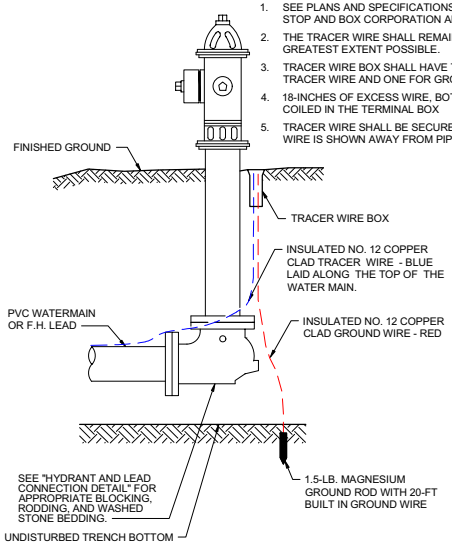


HYDRANT AND LEAD CONNECTION DETAIL

NO SCALE

GENERAL NOTES:

1. SEE PLANS AND SPECIFICATIONS FOR SIZE AND TYPE OF CURB STOP AND BOX CORPORATION AND SERVICE LINE.
2. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE.
3. TRACER WIRE BOX SHALL HAVE TWO TERMINALS, ONE FOR TRACER WIRE AND ONE FOR GROUND WIRE.
4. 18-INCHES OF EXCESS WIRE, BOTH RED AND BLUE, SHALL BE COILED IN THE TERMINAL BOX
5. TRACER WIRE SHALL BE SECURED EVERY 5' ALONG THE PIPE. WIRE IS SHOWN AWAY FROM PIPE FOR CLARITY PURPOSES ONLY.



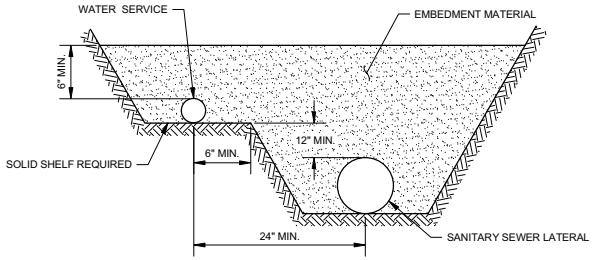
TRACER WIRE INSTALLATION AT HYDRANT FOR PVC WATER MAIN DETAIL

NO SCALE

THE LENGTHS IN THE CHART (GIVEN IN FEET) REPRESENT THE MINIMUM LENGTH OF PIPE TO BE TIED TOGETHER IN EACH REQUIRED DIRECTION FROM THE FITTING DESCRIBED

RESTRAINED/TIED PIPE LENGTH CHART

	MIN LENGTH REQUIRING RESTRAINT IN FEET					
	6"	8"	10"	12"	16"	24"
FITTING TYPE						
11.25° BEND	10	10	10	10	10	10
22.5° BEND	10	10	10	10	11	15
45° BEND	10	15	15	20	25	30
90° BEND	25	30	35	40	55	75
TEE/CROSS	15	25	35	45	65	95
STUB OR PLUG	30	35	45	50	95	100
REDUCER	0	20	35	50	105	125
VERTICAL BEND (45°)	20	30	35	40	50	75



GENERAL NOTES:

1. WATER SERVICES 2 INCHES IN DIAMETER AND LESS SHALL BE LAID WITH A CLEAR HORIZONTAL SEPARATION NOT LESS THAN 2 FEET FROM THE SANITARY LATERAL.

WATER SERVICE AND SANITARY SEWER LATERAL DETAIL

NO SCALE

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PROJECT DATE: .	DRAWN BY: Init	.	.	.	.
	DESIGNED BY: DWR	.	.	.	.
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NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
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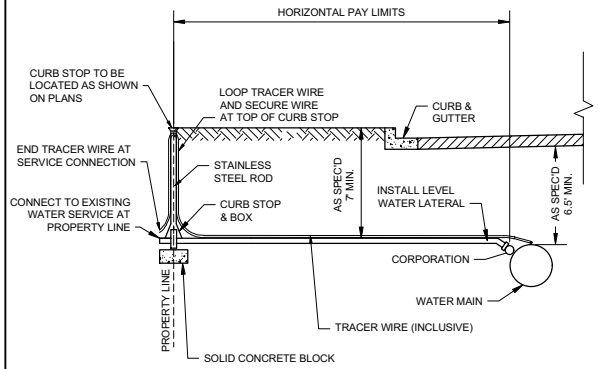
CONSTRUCTION DETAILS

PROJECT NO. 07807030

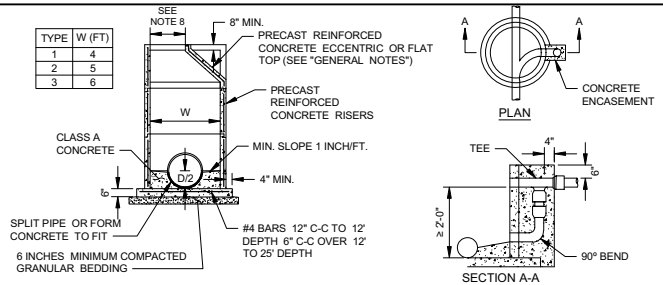
SHEET G 8



GENERAL NOTES:
1. SEE PLANS AND SPECIFICATIONS FOR SIZE AND TYPE OF CURB STOP AND BOX CORPORATION AND SERVICE LINE.

WATER SERVICE DETAIL
NO SCALE

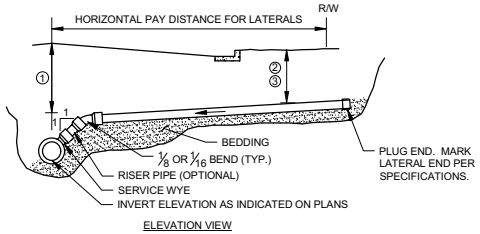
TYPE	W (FT)
1	4
2	5
3	6



DROP ASSEMBLY DETAIL

GENERAL NOTES:
1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING AND THE APPLICABLE SPECIAL CONDITIONS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.
2. DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.
3. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.
4. ECCENTRIC CONE TOPS SHALL BE USED ON ALL STRUCTURES 5 FEET OR GREATER IN DEPTH, AND FLAT TOPS SHALL BE USED ONLY ON STRUCTURES LESS THAN 5 FEET IN DEPTH, UNLESS DIRECTED BY THE ENGINEER.
5. PRECAST REINFORCED CONCRETE RISERS MAY BE PLACED WITH TONGUE UP OR DOWN.
6. ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.
7. DROP CONNECTIONS SHALL BE USED WHEN THE PIPE INVERT IS MORE THAN 2 FEET ABOVE THE MANHOLE INVERT. PRECAST STRUCTURE MANWAY CLEAR OPENING SHALL MATCH CASTING - REFER TO STANDARD SPECIFICATION
8. DIVISION 33 AND THE APPLICABLE SPECIAL CONDITIONS.
   - OPENING SHALL BE 24" FOR R-1550 CASTINGS
   - OPENING SHALL BE 27" FOR R-1642 CASTINGS
9. DROP CONNECTION AND ASSEMBLY SHALL BE CONSTRUCTED WITH DUCTILE IRON PIPE.

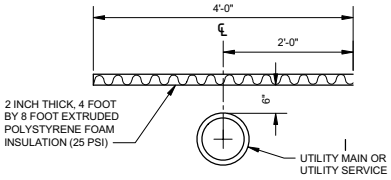
PRECAST REINFORCED CONCRETE MANHOLE DETAIL
NO SCALE



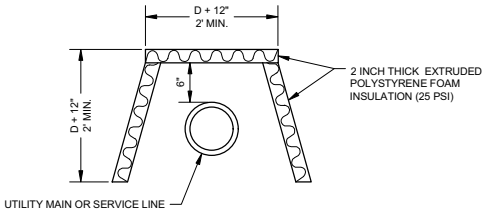
ELEVATION VIEW

NOTES FOR LATERAL INSTALLATION:
1. MINIMUM DEPTH OF COVER UNDER ROADWAY = 7 FEET.
2. MINIMUM DEPTH OF COVER UNDER GRASS AREAS = 5 1/2 FEET.
3. MINIMUM DEPTH OF COVER UNDER GRASS AREAS WITH FROST PROTECTION = 3 FEET 6 INCHES.
4. LATERAL SLOPES SHALL BE 1/8 INCH PER FOOT MINIMUM AND 1/2 INCH PER FOOT MAXIMUM.

SANITARY SEWER LATERAL DETAIL
NO SCALE



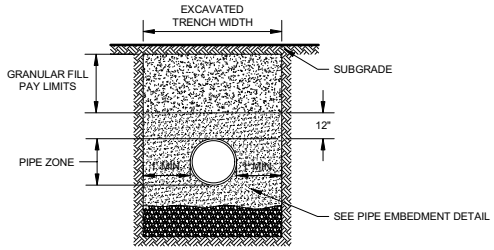
STANDARD INSTALLATION



SIDE PROTECTION INSTALLATION

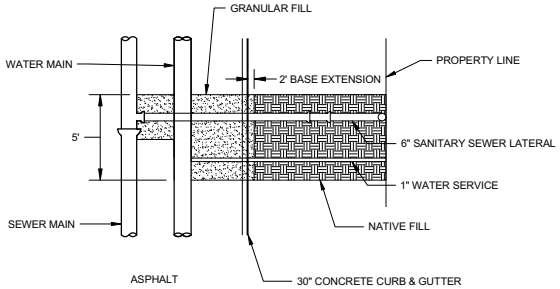
GENERAL NOTES:
1. THE SIDE PROTECTION INSTALLATION SHALL BE USED WHERE FROST WILL PENETRATE BELOW THE PIPE INVERT.

PIPE INSULATION DETAIL
NO SCALE



GENERAL NOTES:
1. FOR PIPES LESS THAN OR EQUAL TO 24-INCHES IN DIAMETER, ASSUME 5-FOOT TRENCH WIDTH.
2. FOR PIPES GREATER THAN 36-INCHES IN DIAMETER, ASSUME 1-FOOT ON EITHER SIDE OF PIPE FOR TRENCH WIDTH.

GRANULAR FILL DETAIL
NO SCALE



PLAN VIEW

NOTE: GRANULAR FILL SHALL BE USED AS BACKFILL WITHIN ROADWAY AREA.

SANITARY LATERAL & WATER SERVICE GRANULAR FILL DETAIL
NO SCALE

		NO.	DATE	REVISION	BY
PROJECT DATE: .	DRAWN BY: Init	.	.	.	.
	DESIGNED BY: DWR	.	.	.	.
	CHECKED BY: DWR	.	.	.	.

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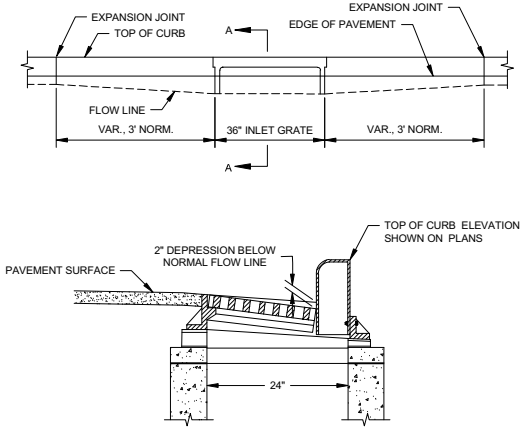
NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

CONSTRUCTION DETAILS

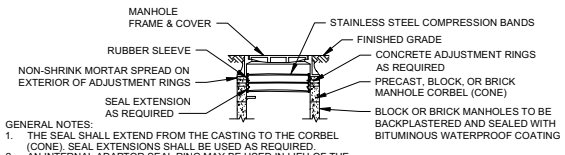
PROJECT NO. 07807030
SHEET G 9



SECTION A-A

CURB AND GUTTER AT INLETS DETAIL

NO SCALE

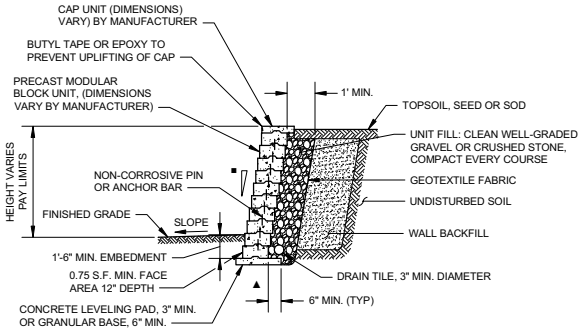


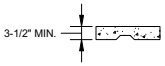
GENERAL NOTES:
1. THE SEAL SHALL EXTEND FROM THE CASTING TO THE CORBEL (CONE). SEAL EXTENSIONS SHALL BE USED AS REQUIRED.
2. AN INTERNAL ADAPTOR SEAL RING MAY BE USED IN LIEU OF THE RUBBER SLEEVE. THE INTERNAL ADAPTOR SEAL RING SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

INTERNAL RUBBER SLEEVE FRAME/CHIMNEY SEAL

MANHOLE WATERPROOFING DETAIL

NO SCALE





CAST-IN-PLACE CONCRETE CAP

NOTES:
1. PAYMENTS SHALL BE BASED ON EXPOSED FACE ONLY.
2. SLOPE WALL TERMINALS NECESSARY TO BLEND INTO ADJACENT TERRAIN.

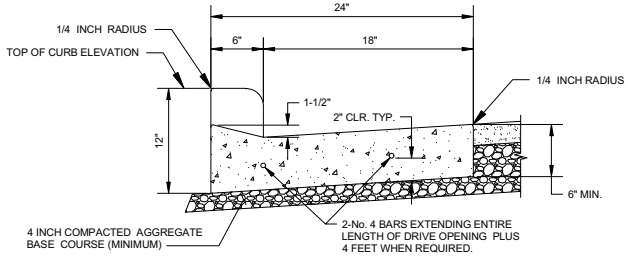
■ SETBACK VARIES BY MANUFACTURER MAXIMUM FRONT FACE SLOPE FROM VERTICAL IS 1 HORIZONTAL TO 4 VERTICAL

▲ BASE SOIL PARAMETERS: SEE GEOTECHNICAL REPORT INCLUDED IN PROJECT MANUAL.

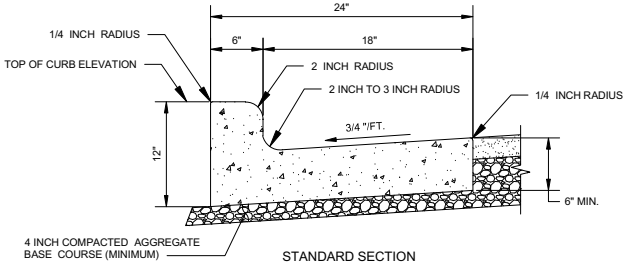
TABLE OF EXTERNAL STABILITY SAFETY FACTORS	
SLIDING	≥ 1.5
OVERTURNING	≥ 2.0
GEOGRID LONG TERM STRENGTH	≥ 1.5
GEOGRID CONNECTION STRENGTH	≥ 1.5
GLOBAL ROTATION	≥ 1.3
BEARING CAPACITY	≥ 2.0

SEGMENTAL RETAINING WALL DETAIL

NO SCALE



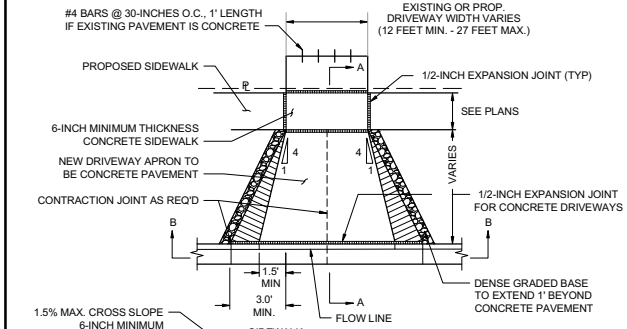
DRIVEWAY SECTION

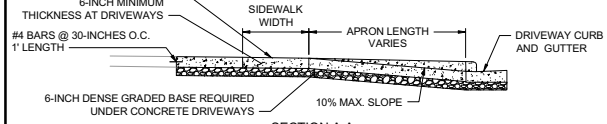


STANDARD SECTION

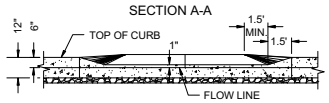
24" CURB AND GUTTER DETAIL

NO SCALE





SECTION A-A

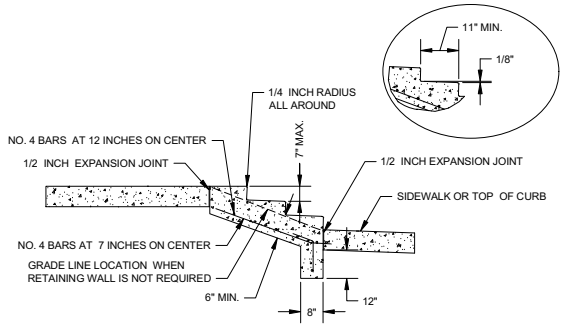


NOTE: CONCRETE DRIVEWAY SHALL HAVE MINIMUM UNIFORM THICKNESS OF 6-INCHES, INCLUDING ALL TAPERS AND TRANSITIONS.

SECTION B-B

CONCRETE DRIVEWAY DETAIL WITH CURB & GUTTER

NO SCALE



GENERAL NOTES:
1. THIS DETAIL SHALL BE USED FOR STAIRWAYS OF THREE RISERS OR LESS.
2. THE WIDTH OF STAIR SHALL MATCH THE ADJOINING SIDEWALK, BUT SHALL NOT BE LESS THAN 3 FEET 8 INCHES.
3. TREADS AND RISERS SHALL BE UNIFORM.
4. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 1 1/2 INCHES CLEAR.
5. BAR STEEL REINFORCEMENT SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS.
6. BAR STEEL REINFORCEMENT SHALL BE FREE OF ALL RUST AND MILL SCALE.
7. CAST-IN-PLACE CONCRETE SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS.
8. CONCRETE ACCESSORIES OF EXPANSION JOINT MATERIAL AND CURING COMPOUND SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS.

CONCRETE STEPS DETAIL

NO SCALE

		NO.	DATE	REVISION	BY
PROJECT DATE: .	DRAWN BY: Init	.	.	.	.
	DESIGNED BY: DWR	.	.	.	.
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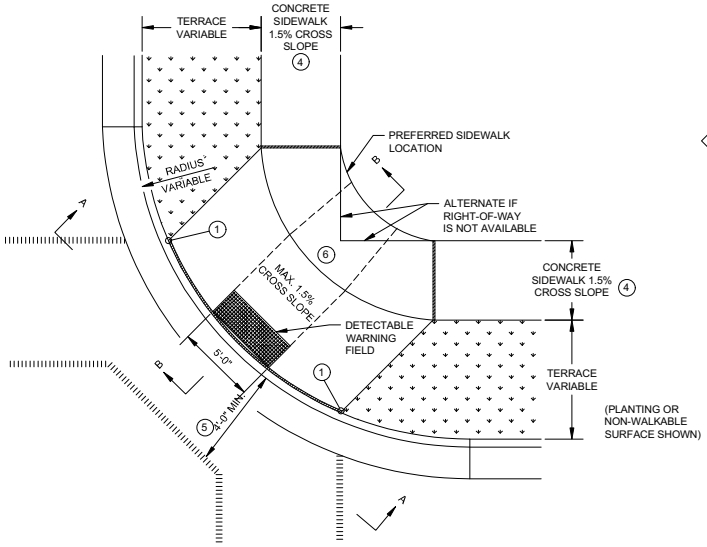
NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

CONSTRUCTION DETAILS

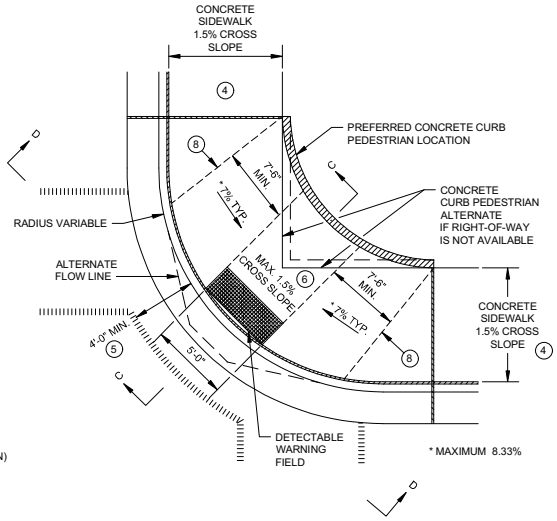
PROJECT NO. 07807030
SHEET G 10



PLAN VIEW

CURB RAMP TYPE 1

(CENTER OF CORNER RADIUS)



PLAN VIEW

CURB RAMP TYPE 1-A

(NO TERRACE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

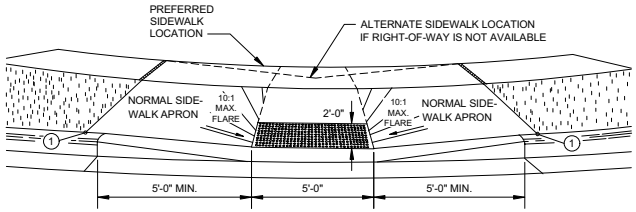
DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

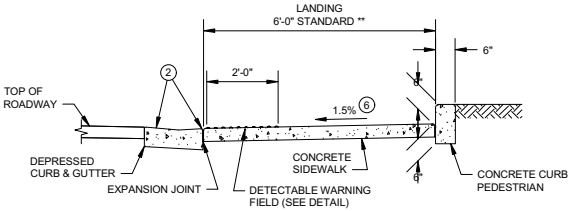
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

1. THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
2. GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
3. MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
4. +0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
5. PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION) WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
6. PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
8. PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A FOR TYPE 1

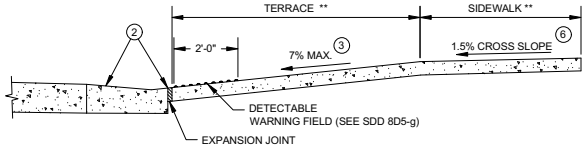


SECTION C-C FOR TYPE 1-A

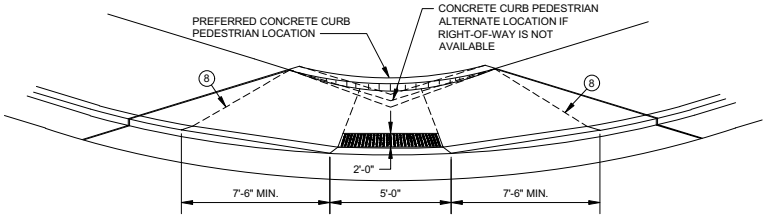
LEGEND

- 1/2 " EXPANSION JOINT - SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B FOR TYPE 1



VIEW D-D FOR TYPE 1-A

CURB RAMPS TYPES 1 AND 1-A

NO SCALE

		NO.	DATE	REVISION	BY
PROJECT DATE: .	DRAWN BY: Init	.	.	.	.
	DESIGNED BY: DWR	.	.	.	.
	CHECKED BY: DWR	.	.	.	.

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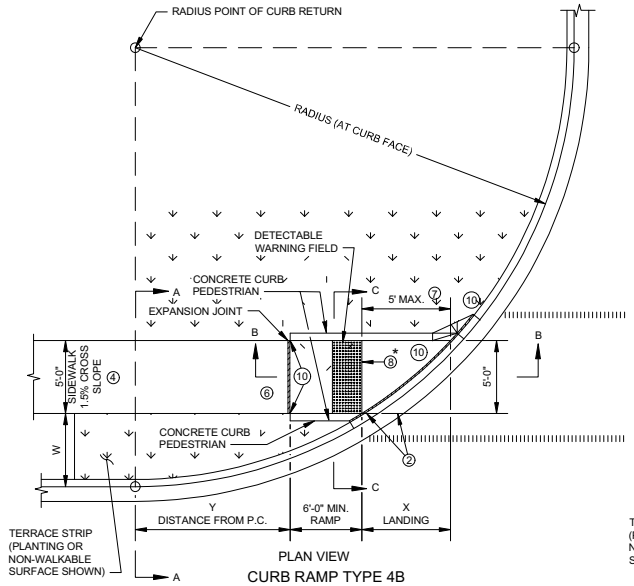
NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

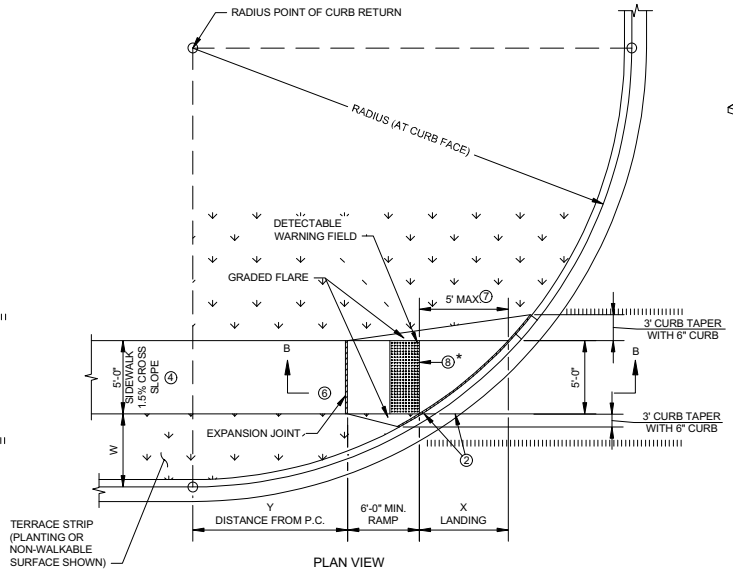
CONSTRUCTION DETAILS

PROJECT NO. 07807030

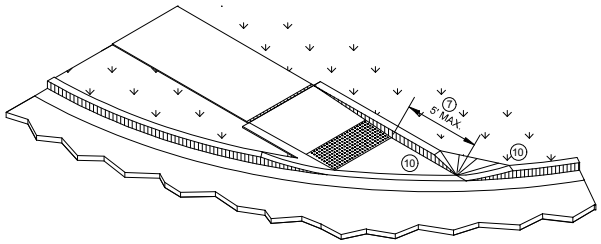
SHEET G 11



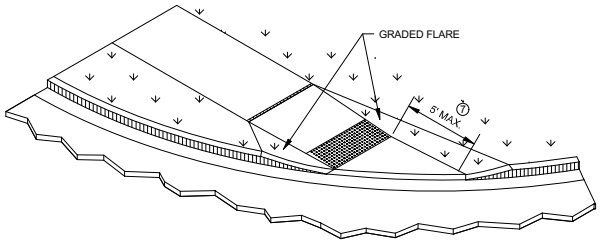
PLAN VIEW
CURB RAMP TYPE 4B



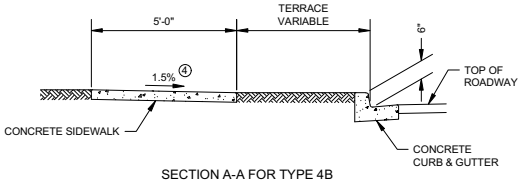
PLAN VIEW
CURB RAMP TYPE 4B1



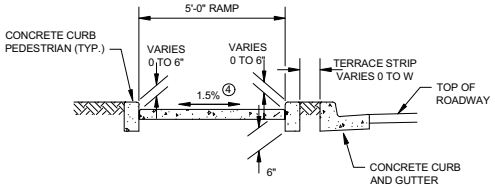
ISOMETRIC VIEW FOR TYPE 4B



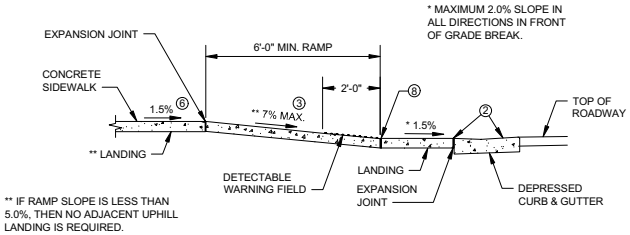
ISOMETRIC VIEW FOR TYPE 4B1



SECTION A-A FOR TYPE 4B



SECTION C-C FOR TYPE 4B



SECTION B-B FOR TYPE 4B AND 4B1

LEGEND

- 1/2" EXPANSION JOINT–SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREA.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

4 +/-0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

7 WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-F.

8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

10 INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS) DO NOT MARK TRANSITION NOSE.

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10 1/4"	0'-5"	2'-1"	1'-4 1/2"	1'-5"	2'-1"	0'-10"	2'-7 1/2"	0'-3 1/4"	3'-0 1/4"						
15 FEET	4'-6 3/4"	2'-1 3/4"	3'-9"	3'-5 3/4"	3'-1 1/2"	4'-6"	2'-6 3/4"	5'-4 1/2"	2'-1"	6'-1"	1'-8"	6'-8 1/2"	1'-3 1/4"	7'-2 1/2"	0' 10 3/4"	7'-7 1/4"
20 FEET	5'-9 3/4"	3'-6 1/2"	4'-11 1/2"	5'-1 3/4"	4'-3 1/4"	6'-5 1/2"	3'-8 3/4"	7'-7"	3'-3"	8'-6 1/2"	2'-10"	9'-4 1/2"	2'-5 1/2"	10'-1 1/4"	2'-1 1/4"	10'-9"
30 FEET			6'-9 1/4"	7'-11 1/4"	6'-0 1/4"	9'-8"	5'-5"	11'-1 3/4"	4'-10 3/4"	12'-5 3/4"	4'-5 1/2"	13'-7 3/4"	4'-0 3/4"	14'-8 1/2"	3'-8 1/2"	15'-8 1/4"
40 FEET									6'-1 3/4"	15'-8 1/2"	5'-8"	17'-2"	5'-3"	18'-5 3/4"	4'-10 3/4"	19'-8 1/4"
50 FEET															5'-10 1/4"	23'-2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

CURB RAMPS TYPE 4B AND 4B1

NO SCALE

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NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

CONSTRUCTION DETAILS

PROJECT NO. 07807030

SHEET G 12

GENERAL PROJECT NOTES:

1. ALL EXISTING UTILITIES WITHIN THIS PLAN ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND NO RESPONSIBILITY IS ASSUMED BY THE ENGINEER OR VILLAGE FOR THEIR ACCURACY OR DEGREE OF COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE, LOCATION, AND ELEVATION OF ALL UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGING ANY SUCH UTILITIES. THE CONTRACTOR SHALL CONTACT DIGGER'S HOTLINE AT (800) 242-8511 PRIOR TO ANY CONSTRUCTION SO THAT THE SITE MAY BE MARKED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY UTILITIES.

2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS ARE APPARENT, BRING TO ATTENTION OF THE PROJECT ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR RE-DESIGN MAY OCCUR.

3. UNLESS SPECIFIED WITHIN THIS CONSTRUCTION PLAN, NO EXISTING TREES SHALL BE DISTURBED OR DAMAGED. THE VILLAGE, IN WRITING, MUST APPROVE THE REMOVAL OF ANY EXISTING TREES IF THE CONTRACTOR BELIEVES THAT AN EXISTING TREE IS IN CONFLICT WITH THE PROPOSED IMPROVEMENTS. NO TREES OR TREE STUMPS SHALL BE BURIED ONSITE.

4. EXISTING KNOWN SURVEY MONUMENTS (SHOWN ON THE PLANS) ENCOUNTERED DURING CONSTRUCTION ARE TO BE PRESERVED AND LEFT UNDISTURBED. SHOULD THE CONTRACTOR ENCOUNTER UNKNOWN MONUMENTS, PROPERTY STAKES, ETC. (NOT SHOWN ON THE PLANS), THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO ANY DISTURBANCE. FAILURE TO PRESERVE SUCH MONUMENTS SHALL NOT BE ALLOWED AND REPLACEMENT BY A REGISTERED LAND SURVEYOR SHALL BE AT THE CONTRACTOR'S EXPENSE.

5. ELEVATIONS SHOWN WITHIN THIS PLAN REFERENCE THE OUTAGAMIE COUNTY VERTICAL DATUM.

6. THE CONTRACTOR SHALL COORDINATE WITH ALL PRIVATE UTILITIES (GAS, ELECTRIC, TELEPHONE, CABLE TV, ETC.) REGARDING THE LOCATION, SIZE, DEPTH, ETC. OF EXISTING AND PROPOSED SERVICE LINES WITHIN THE PROJECT SITE. THE CONTRACTOR SHALL COORDINATE THE RELOCATION OF ANY PRIVATE UTILITIES THAT ARE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL CAREFULLY WORK AROUND EXISTING UTILITY LINES, UTILITY POLES, UTILITY STRUCTURES, GUY WIRES, ETC. THAT ARE TO REMAIN UNDISTURBED. THE CONTRACTOR SHALL PROVIDE ANY NECESSARY TEMPORARY SHORING OR OTHER MEASURES TO PROTECT THESE FEATURES DURING CONSTRUCTION ACTIVITIES. (ALL INCIDENTAL TO CONSTRUCTION)

GENERAL EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL INSTALL ALL NECESSARY EROSION CONTROL MEASURES TO PREVENT EROSION ONTO THE ADJACENT PROPERTIES AND INTO THE ADJACENT EXISTING STREETS. ADDITIONAL EROSION CONTROL, NOT SHOWN ON THIS PLAN, MAY BE REQUIRED BY THE FIELD ENGINEER OR BY THE VILLAGE DURING CONSTRUCTION (INCIDENTAL). EROSION CONTROL AND SITE STABILIZATION MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THIS CONSTRUCTION PLAN, THE PROJECT SPECIFICATIONS, THE LATEST EDITION OF THE WISCONSIN DNR EROSION CONTROL TECHNICAL STANDARDS, ANY LOCAL EROSION CONTROL & STORMWATER ORDINANCES, AND ANY CONDITIONS OF APPROVAL. INSTALL EROSION CONTROL MEASURES PRIOR TO INITIATION OF ANY SITE WORK. SEE THE "CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS" LISTED ON SHEETS G 5 FOR FURTHER EROSION CONTROL REQUIREMENTS AND NOTES.

2. CONTRACTOR SHALL PROTECT ALL EXISTING AND PROPOSED STREET INLETS, MANHOLES, DRAINAGE SWALES, CULVERTS, ETC. FROM SILTATION DURING CONSTRUCTION AND UNTIL FINAL STABILIZATION OCCURS.

3. ALL EROSION CONTROL MEASURES AND STRUCTURES SHALL BE INSPECTED, MAINTAINED, AND DOCUMENTED BY THE CONTRACTOR WEEKLY AND WITHIN 24 HOURS AFTER A PRECIPITATION EVENT 0.5 INCHES OR GREATER. ALL NECESSARY REPAIR AND MAINTENANCE WILL BE DONE AT THIS INSPECTION TIME. THESE INSPECTIONS SHALL BE DOCUMENTED BY THE CONTRACTOR AND AVAILABLE TO THE ENGINEER AND/OR OWNER UPON REQUEST. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OR INCLUDED IN THE CORRESPONDING EROSION CONTROL PRICE BID (IF APPLICABLE).

GENERAL TRAFFIC CONTROL NOTES:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE HIS/HER WORK TO MINIMIZE THE INCONVENIENCE TO THE RESIDENTS AND BUSINESSES LOCATED ALONG THE PROJECT STREET. THE CONTRACTOR SHALL NOTIFY THE VILLAGE AT LEAST TWO DAYS PRIOR TO CLOSING ANY SECTION OF STREET.

2. ALL TRAFFIC CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE LATEST EDITION OF THE UNITED STATES DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD). THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TRAFFIC CONTROL DURING THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL INSPECT ALL TRAFFIC CONTROL MEASURES DAILY AND PERFORM ANY NECESSARY MAINTENANCE OR ADJUSTMENTS BASED ON THE ACTIVITIES PLANNED. ADDITIONAL TRAFFIC CONTROL MEASURES NOT SPECIFIED WITHIN THE CONTRACT DOCUMENTS MAY BE REQUIRED DURING CONSTRUCTION BY THE VILLAGE AND ENGINEER (INCIDENTAL TO CONSTRUCTION). THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND VILLAGE STAFF RELATIVE TO THE PLACEMENT AND MAINTENANCE OF ALL BARRICADES AND OTHER MEASURES USED.

3. AFTER ALL CONSTRUCTION RELATED ACTIVITIES ARE COMPLETED, THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL MEASURES. ANY DISTURBANCE OR DAMAGE RESULTING FROM THE REMOVAL OF THE TRAFFIC CONTROL MEASURES SHALL BE RESTORED OR REPAIRED TO THE SATISFACTION OF THE VILLAGE.

GENERAL REMOVAL NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH THE VILLAGE STAFF REGARDING ANY EXISTING TREES, SHRUBS, AND/OR LANDSCAPING (NOT SPECIFIED ON THE PLAN TO BE REMOVED) THAT THE CONTRACTOR BELIEVES WILL BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS, WILL BE AFFECTED DUE TO ROOT DAMAGE, OR WILL REQUIRE BRANCH TRIMMING TO ALLOW FOR PROPOSED CLEARANCES. UNLESS SPECIFIED WITHIN THIS CONSTRUCTION PLAN OR IF APPROVED IN WRITING BY THE VILLAGE, NO EXISTING TREES, SHRUBS, OR LANDSCAPING SHALL BE DISTURBED OR DAMAGED.

2. UNLESS DIRECTED OTHERWISE BY THE VILLAGE STAFF, THE CONTRACTOR SHALL SALVAGE AND CAREFULLY STOCKPILE ANY EX. LANDSCAPING MATERIALS DISTURBED DURING CONSTRUCTION AS DIRECTED BY EACH OF THE INDIVIDUAL PROPERTY OWNERS OR THE VILLAGE STAFF. ALL DISTURBED LANDSCAPED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE TOPSOILED, SEEDED, FERTILIZED, AND MULCHED IN ACCORDANCE WITH THE CONSTRUCTION PLANS AND SPECIFICATIONS. ALL DISTURBED LANDSCAPED AREAS WITHIN PRIVATE PROPERTY SHALL BE REPAIRED OR RESTORED EQUAL TO OR BETTER THAN EXISTING CONDITIONS AS DETERMINED BY THE VILLAGE STAFF.

3. THE CONTRACTOR SHALL CAREFULLY REMOVE THE EXISTING ROADWAY PAVEMENT, DRIVEWAYS, SIDEWALKS, ETC. AS SHOWN WITHIN THIS CONSTRUCTION PLAN OR AS DIRECTED BY THE VILLAGE STAFF. ALL COSTS ASSOCIATED WITH SAWCUTTING, REMOVING, HAULING, AND DISPOSING OF EXISTING PAVEMENT, DRIVEWAY, SIDEWALKS ETC. MATERIALS SHALL BE INCIDENTAL TO THE UNCLASSFIED EXCAVATION BID ITEM.

4. ALL DISTURBANCE WITHIN THE EXISTING RIGHT-OF-WAY AS WELL AS THE INTERSECTIONS WITH ADJACENT STREETS SHALL BE KEPT TO A MINIMUM. ALL EXISTING PAVEMENT, CURB, SIDEWALK, GRASS AREAS, TREES, LANDSCAPED AREAS, AND OTHER FEATURES THAT ARE NOT PROPOSED TO BE REPLACED (AS SHOWN WITHIN THIS CONSTRUCTION PLAN) SHALL REMAIN UNDISTURBED. ANY NEGLIGENT DAMAGE OR EXCESSIVE REMOVAL OF THESE FEATURES BY THE CONTRACTOR (AS DETERMINED BY THE VILLAGE) SHALL BE REPLACED AND/OR COMPENSATED AT THE CONTRACTOR'S EXPENSE.

GENERAL SANITARY SEWER & WATER NOTES:

1. ALL PROPOSED SANITARY SEWER AND WATER UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THIS CONSTRUCTION PLAN, THE PROJECT SPECIFICATIONS, THE LATEST EDITION OF THE WISCONSIN STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION, AND ANY CONDITIONS OF APPROVAL.

2. ALL PROPOSED SANITARY SEWER LATERALS SHALL BE SDR 35 PVC PIPING WITH A PIPE SIZE AS NOTED ON THE PLANS OR AS DIRECTED BY THE VILLAGE STAFF OR FIELD ENGINEER. THE MINIMUM SLOPE FOR A SANITARY LATERAL IS 1.04%.

3. THE SANITARY LATERAL LOCATIONS SHOWN ON PLAN ARE PER THE TELEVISION REPORTS FURNISHED BY THE VILLAGE. NOT ALL LOCATIONS MAY BE ACTIVE. THE CONTRACTOR SHALL DYE TEST THE LATERALS TO VERIFY WHICH ONES ARE ACTIVE AND RECONNECT ONLY THE ACTIVE LATERALS. INVESTIGATION AND DYE TESTING SHALL BE INCIDENTAL TO THE SANITARY SEWER CONSTRUCTION. THE SIZE/MATERIAL OF THE EXISTING SANITARY LATERALS IS UNKNOWN. THE CONTRACTOR SHALL HAVE A SUFFICIENT AMOUNT OF BOTH 4" AND 6" DIAMETER CONNECTION FITTINGS AND PIPE ON HAND TO MAKE EQUIVALENT SIZE REPLACEMENTS TO A POINT NEAR THE R/W LINE AS DIRECTED BY THE VILLAGE AND/OR FIELD ENGINEER.

4. THE CONTRACTOR SHALL MAINTAIN ELECTRICAL CONTINUITY ALONG ALL PROPOSED WATERMAIN PIPING AS PER SPECIFICATIONS (INCIDENTAL TO THE SPECIFIC PIPING). IF ANY CURB STOP BOX FALLS WITHIN PROPOSED PAVEMENT, THE CONTRACTOR SHALL INSTALL A PVC SLEEVE AROUND SAID BOX PRIOR TO PAVEMENT RESTORATION SO THAT PAVEMENT DOES NOT ADHERE TO THE BOX (INCIDENTAL TO CONSTRUCTION).

5. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS SHALL BE VERIFIED IN THE FIELD DURING CONSTRUCTION AS MEASURED BY THE FIELD ENGINEER AND THE CONTRACTOR SHALL BE PAID ACCORDING TO THE LENGTH OF PIPING INSTALLED. CONTRACTOR SHALL RECORD INSTALLED QUANTITIES AND REPORT TO FIELD ENGINEER IF NOT PRESENT AT THE TIME OF UTILITY INSTALLATION.

6. THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE & DEPTH OF ALL WATER SERVICES WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL REPLACE ALL WATER SERVICES FROM THE MAIN TO THE RIGHT-OF-WAY WITH 1" OR 2" HDPE (I.D.) PIPING UNLESS NOTED DIFFERENTLY ON THE PLAN OR DIRECTED OTHERWISE BY THE VILLAGE STAFF OR FIELD ENGINEER.

7. TRACER WIRE SHALL BE INSTALLED ALONG ALL NEW WATER MAIN AND WATER SERVICES AND ALONG ALL NEW SEWER MAIN AND LATERALS (INCIDENTAL TO THE SPECIFIC PIPING). TRACER WIRE SHALL BE SURFACED AT ALL HYDRANTS AND CURB STOPS FOR WATERMAIN AND SURFACED AT MANHOLES AND TERMINAL BOXES FOR SANITARY SEWER.

8. ALL BENDS, FITTINGS, AND OTHER MATERIALS NOT SPECIFICALLY ITEMIZED ON THE BID BUT NECESSARY TO MAKE A WATERTIGHT CONNECTION TO THE EXISTING MAINLINE AS WELL AS TO PROVIDE A COMPLETE WORKING SYSTEM SHALL BE INCIDENTAL TO CONSTRUCTION. ALL SAWCUTTING NECESSARY FOR UTILITY INSTALLATION SHALL BE INCIDENTAL TO CONSTRUCTION. REMOVAL OF EX. MANHOLES, CURB STOPS, VALVES, PIPING, ETC. THAT ARE NO LONGER IN USE SHALL BE INCIDENTAL TO CONSTRUCTION.

9. THERE ARE SEVERAL AREAS WHERE THE EXISTING PRIVATE UTILITIES (ELECTRIC, TELEPHONE, GAS, ETC.) CROSS OR ARE IN CLOSE PROXIMITY TO THE PROPOSED PUBLIC UTILITY IMPROVEMENTS. THE CONTRACTOR SHALL REVIEW THESE AREAS FOR CONFLICTS DURING CONSTRUCTION AND SHALL COORDINATE ANY NECESSARY RELOCATION WORK OR ADJUSTMENTS WITH THE RESPECTIVE UTILITY COMPANY (INCIDENTAL).

10. UNLESS PROHIBITED BY FIELD CONDITIONS, THE MINIMUM SEPARATION BETWEEN THE SANITARY, WATER, AND STORM MAINS IS 8 FEET. MINIMUM VERTICAL SEPARATION DISTANCE WHERE WATER MAIN CROSSES OVER SEWERS IS 6 INCHES. MINIMUM VERTICAL SEPARATION DISTANCE WHERE WATER MAIN CROSSES UNDER SEWERS IS 18 INCHES. FINAL ELEVATIONS OF THE UTILITY PIPING WILL BE DETERMINED DURING CONSTRUCTION BY THE FIELD ENGINEER AND VILLAGE STAFF.

11. A 7.0 FEET DEPTH OF COVER OVER ALL NEWLY INSTALLED WATER UTILITY PIPING IS DESIRED FOR THIS PROJECT. THE CONTRACTOR SHALL MAINTAIN A MINIMUM DEPTH OF COVER OF 5.0 FEET UNLESS DIRECTED OTHERWISE BY THE VILLAGE STAFF. ALL NEWLY INSTALLED WATER UTILITY PIPING WITH COVER LESS THAN 7.0 FEET SHALL BE INSULATED ACCORDING TO THE SPECIFICATIONS AND INSULATION DETAIL. INSULATION SHALL ALSO BE INSTALLED AT ALL LOCATIONS WHERE STORM SEWER CROSSES THE WATER UTILITY PIPING.

12. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS (SHORING, BRACING, ETC.) AND SHALL CAREFULLY INSTALL THE NEW SANITARY SEWER AND WATER IMPROVEMENTS SO AS NOT TO DISTURB ANY EXISTING PRIVATE UTILITY STRUCTURES OR PIPING AS WELL AS TO PREVENT ANY DISTURBANCE TO EXISTING SITE FEATURES THAT ARE TO REMAIN UNDISTURBED. ANY DISTURBANCE OR DAMAGE (AS DETERMINED BY THE OWNER) SHALL BE REPAIRED AND/OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

GENERAL STORM SEWER NOTES:

1. ALL PROPOSED STORM SEWER SHALL BE INSTALLED IN ACCORDANCE WITH THIS CONSTRUCTION PLAN, THE PROJECT SPECIFICATIONS, THE LATEST EDITION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, AND ANY CONDITIONS OF APPROVAL.

2. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS SHALL BE VERIFIED IN THE FIELD DURING CONSTRUCTION AS MEASURED BY THE FIELD ENGINEER AND THE CONTRACTOR SHALL BE PAID ACCORDING TO THE LENGTH OF PIPING INSTALLED.

3. CONTRACTOR SHALL MAINTAIN A MINIMUM VERTICAL SEPARATION DISTANCE OF 6 INCHES WHERE WATER MAIN CROSSES OVER SEWERS AND A MINIMUM VERTICAL SEPARATION DISTANCE OF 18 INCHES WHERE WATER MAIN CROSSES UNDER SEWERS. INSULATION SHALL BE INSTALLED BETWEEN ALL STORM SEWER AND WATER MAIN CROSSINGS (INC.).

4. ANY SAWCUTTING NECESSARY FOR UTILITY INSTALLATION SHALL BE INCIDENTAL TO CONSTRUCTION. ALL PROPOSED TO EXISTING STORM SEWER CONNECTIONS SHALL BE MADE WITH A CONCRETE COLLAR IN ACCORDANCE WITH THE DETAIL. ALL EXISTING STORM SEWER PIPE ABANDONMENT SHALL BE MADE BY COMPLETELY FILLING EACH END OF THE PIPE WITH CONCRETE. ALL EXISTING MANHOLES OR INLETS THAT ARE REPLACED OR ARE NO LONGER IN USE SHALL BE COMPLETELY REMOVED (INCIDENTAL TO CONSTRUCTION).

5. THERE ARE SEVERAL AREAS WHERE THE EXISTING PRIVATE UTILITIES (ELECTRIC, TELEPHONE, GAS, ETC.) CROSS OR ARE IN CLOSE PROXIMITY TO THE PROPOSED PUBLIC UTILITY IMPROVEMENTS. THE CONTRACTOR SHALL REVIEW THESE AREAS FOR CONFLICTS DURING CONSTRUCTION AND SHALL COORDINATE ANY NECESSARY RELOCATION WORK OR ADJUSTMENTS WITH THE RESPECTIVE UTILITY COMPANY (INCIDENTAL). THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS (SHORING, BRACING, ETC.) AND SHALL CAREFULLY INSTALL THE NEW STORM SEWER IMPROVEMENTS SO AS NOT TO DISTURB ANY EXISTING PRIVATE UTILITY STRUCTURES OR PIPING AS WELL AS TO PREVENT ANY DISTURBANCE TO EXISTING SITE FEATURES THAT ARE TO REMAIN UNDISTURBED. ANY DISTURBANCE OR DAMAGE (AS DETERMINED BY THE OWNER) SHALL BE REPAIRED AND/OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

GENERAL SUBGRADE PREPARATION & GRADING NOTES:

1. ALL GRADING AND SUBGRADE PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH THIS CONSTRUCTION PLAN, THE PROJECT SPECIFICATIONS, THE LATEST EDITION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, AND ANY CONDITIONS OF APPROVAL.

2. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE HIS/HER OWN COMPUTATIONS FOR DETERMINATION OF EARTHWORK AND TOPSOIL QUANTITIES PRIOR TO BIDDING. IT IS RECOMMENDED THAT EACH BIDDER VISIT THE SITE TO VERIFY THE EXISTING CONDITIONS. NO CHANGES WILL BE MADE IN THE BID QUANTITY AMOUNT OR UNIT PRICE UNLESS CHANGES ARE MADE TO THE CONTRACT DRAWINGS AFTER BIDDING OF THE CONTRACT.

3. IF AFTER THE COMPLETION OF ALL SUBGRADE PREPARATION WORK THERE IS EXCESS FILL MATERIAL, THE CONTRACTOR SHALL HAUL/STOCKPILE THE MATERIAL AT A LOCATION(S) AS DESIGNATED BY THE OWNER OR DISPOSE OF THE MATERIAL AS DIRECTED BY THE OWNER. IF THERE IS A SHORTAGE FILL MATERIAL, THE CONTRACTOR SHALL PURCHASE, EXCAVATE, HAUL, GRADE, AND COMPACT THE MATERIAL FROM AN OFFSITE LOCATION. ALL STOCKPILING OR DISPOSAL OF EXCESS MATERIAL AS WELL AS ALL IMPORTING OF FILL MATERIAL SHALL BE INCIDENTAL TO CONSTRUCTION OR INCLUDED IN THE CORRESPONDING BID ITEM (IF APPLICABLE).

4. THE CONTRACTOR SHALL ADJUST ALL EXISTING AND/OR PROPOSED MANHOLE CASTINGS, INLET CASTINGS, VALVE BOXES, HYDRANTS, AND CURB STOPS TO FINISHED GRADE ELEVATIONS PRIOR TO ANY PAVING & RESTORATION WORK (INCIDENTAL TO CONSTRUCTION).

GENERAL PAVING NOTES:

1. ALL PROPOSED PAVEMENT, CURB, AND GRAVEL BASE SHALL BE INSTALLED IN ACCORDANCE WITH THIS CONSTRUCTION PLAN, THE PROJECT SPECIFICATIONS, ANY LOCAL REQUIREMENTS, THE LATEST EDITION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, AND ANY CONDITIONS OF APPROVAL.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SLOPE OF ALL RE-CONSTRUCTED DRIVEWAY APPROACHES, THE SLOPE OF THE RE-CONSTRUCTED ROADWAY GRASS TERRACE, THE TRANSVERSE/LONGITUDINAL SLOPE OF THE RE-CONSTRUCTED ROADWAY, AND THE LONGITUDINAL SLOPE OF THE RE-CONSTRUCTED CURB & GUTTER PRIOR TO CONSTRUCTION. DRIVEWAY APPROACH SLOPES SHALL RANGE BETWEEN 1.0% AND 8.33% UNLESS DIRECTED OTHERWISE BY THE FIELD ENGINEER. SLOPES FOR GRASS/LAWN AREAS SHALL RANGE BETWEEN 1.0% AND 33.0% UNLESS DIRECTED OTHERWISE BY THE FIELD ENGINEER. THE ROADWAY TRANSVERSE SLOPE SHALL RANGE BETWEEN 1.0% AND 4.0% UNLESS DIRECTED OTHERWISE BY THE FIELD ENGINEER. THE ROADWAY CURB LONGITUDINAL SLOPE SHALL RANGE BETWEEN 0.4% AND 5.0% UNLESS DIRECTED OTHERWISE BY THE FIELD ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, PRIOR TO CONSTRUCTION, OF ANY AREAS WHICH DO NOT SATISFY THE ABOVE MENTIONED SLOPES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE PROPOSED GRADES/ELEVATIONS PRIOR TO THE PAVING ACTIVITIES.

3. THE ELEVATIONS REFERENCED WITHIN THIS PLAN FOR THE PROPOSED ROADWAY CENTERLINE, CURB, AND MATCHLINES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO VERIFY MATCHLINES TO EXISTING PAVEMENT, CURB, SIDEWALK, GRASS AREAS, ETC. DURING CONSTRUCTION AND COORDINATE WITH THE FIELD ENGINEER REGARDING ANY NECESSARY CHANGES/ADJUSTMENTS.

4. ALL MATCHLINES SHOWN ON THIS PLAN ARE APPROXIMATE. THE CONTRACTOR SHALL COORDINATE WITH THE VILLAGE STAFF AND/OR FIELD ENGINEER DURING CONSTRUCTION FOR ALL MATCHLINE LOCATIONS (INCIDENTAL). WHERE NEW PAVEMENT (CONCRETE OR ASPHALT) SHALL ABUT OR MATCH EX. PAVEMENT, THE CONTRACTOR SHALL SAWCUT A STRAIGHT & CLEAN MATCHLINE (INCIDENTAL TO PAVING).

GENERAL RESTORATION NOTES:

1. ALL DISTURBED OPEN SPACE AREAS SHALL BE TOPSOILED (MINIMUM 6" THICK), SEEDED, FERTILIZED, AND MULCHED IN ACCORDANCE WITH THE CONSTRUCTION PLANS, THE PROJECT SPECIFICATIONS, THE LATEST EDITION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY AND STREET CONSTRUCTION, AND THE WISCONSIN DNR CONSERVATION PRACTICE STANDARDS 1058 & 1059.

GENERAL CURB RAMP NOTES:

1. AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

2. DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

3. GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. ELEVATION DIFFERENCE FROM FLOWLINE TO BACK OF CURB SHALL NOT EXCEED $\frac{3}{4}$". WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

4. ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

5. +0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

6. PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

7. WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD.

8. PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

9. WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

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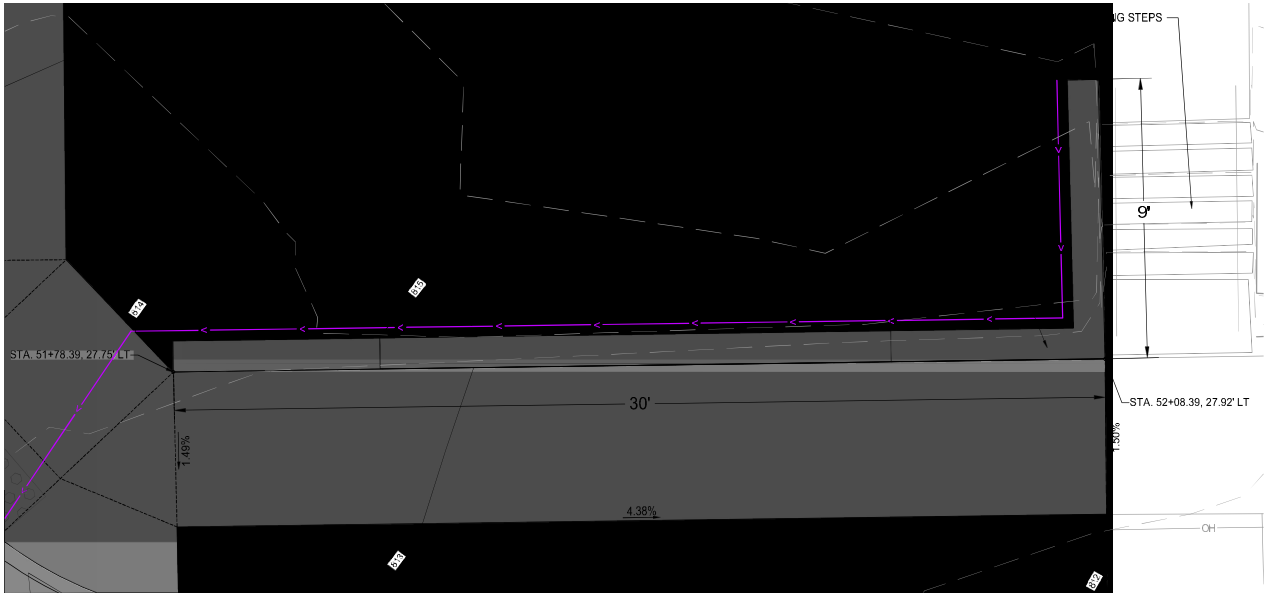
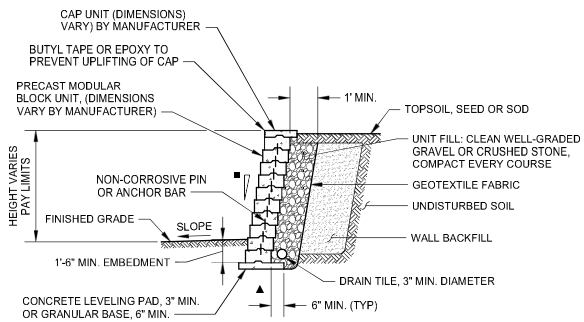
NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

CONSTRUCTION DETAILS

PROJECT NO. 07807030

SHEET G 13





MASONRY WALL CAP

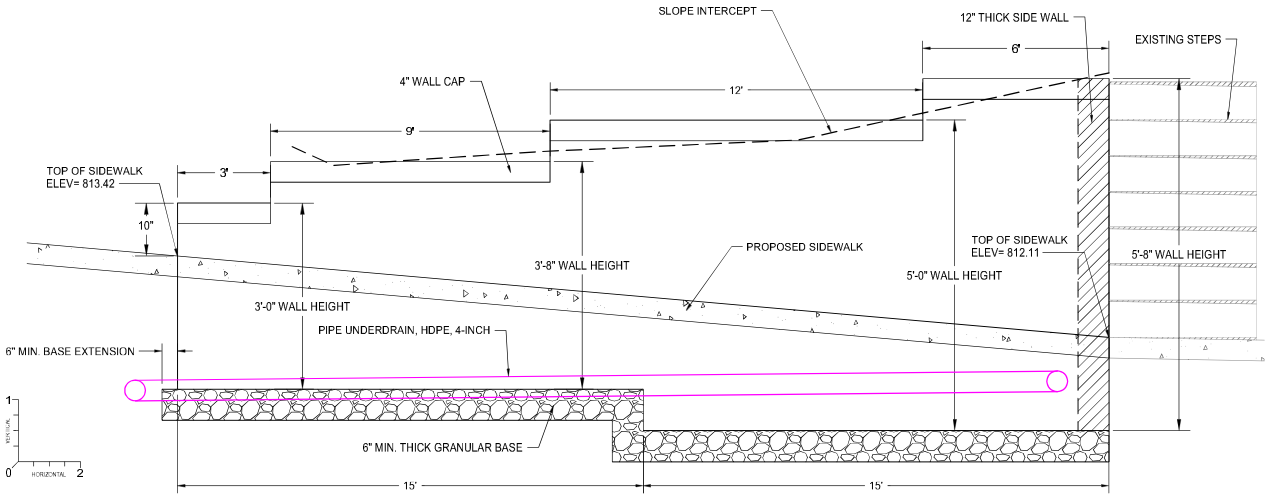
NOTES:
1. PAYMENTS SHALL BE BASED ON EXPOSED FACE ONLY.
2. SLOPE WALL TERMINALS NECESSARY TO BLEND INTO ADJACENT TERRAIN.

■ SETBACK VARIES BY MANUFACTURER MAXIMUM FRONT FACE SLOPE FROM VERTICAL IS 1 HORIZONTAL TO 4 VERTICAL

▲ BASE SOIL PARAMETERS: SEE GEOTECHNICAL REPORT INCLUDED IN PROJECT MANUAL.

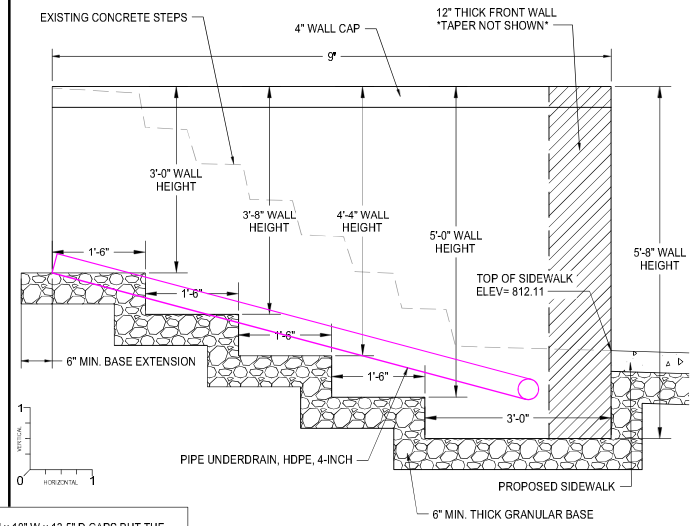
TABLE OF EXTERNAL STABILITY SAFETY FACTORS	
SLIDING	≥ 1.5
OVERTURNING	≥ 2.0
GEOGRID LONG TERM STRENGTH	≥ 1.5
GEOGRID CONNECTION STRENGTH	≥ 1.5
GLOBAL ROTATION	≥ 1.3
BEARING CAPACITY	≥ 2.0

SEGMENTAL RETAINING WALL DETAIL
NO SCALE



FRONT RETAINING WALL PROFILE VIEW (LOOKING NORTH)

NOTES:
- WALL IS DESIGNED USING 8" H x 18" W x 12" D WALL BLOCKS AND 4" H x 18" W x 13.5" D CAPS BUT THE CONTRACTOR SHALL SUBMIT THE BLOCK SIZES AND EXACT LAYOUT FOR HOW THE WALL WILL BE BUILT.
- TOTAL COMBINED EXPOSED WALL FACE FOR THE FRONT AND SIDE WALLS IS 85 SF.
- THE SIDE WALL SHALL NOT BE TAPERED TO AVOID GAP BETWEEN THE OUTSIDE FACE OF WALL AND THE EXISTING STEPS
- THE FRONT AND SIDE WALLS SHALL BE TIED TOGETHER AT THE CORNER AND NOT JUST BE A BUTT JOINT.



SIDE RETAINING WALL PROFILE VIEW (LOOKING EAST)

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VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

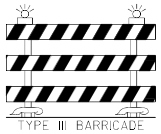
RETAINING WALL LAYOUT & DETAILS

PROJECT NO. 07807030
SHEET G 14

0 80 160

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC BARREL
- SIGN ON TEMPORARY SUPPORT



GENERAL NOTES:

1. LOCATIONS OF SIGNS AND OTHER TRAFFIC CONTROL DEVICES ARE APPROXIMATE. THE ACTUAL LOCATIONS SHALL BE COORDINATED WITH THE VILLAGE PRIOR TO INSTALLATION TO MEET FIELD CONDITIONS.
2. ADDITIONAL DRUMS OR BARRICADES MAY BE REQUIRED ADJACENT TO DROP OFFS, OPEN TRENCHES, OR PROTRUSIONS (INCLUDING MANHOLE COVERS, WATER VALVES AND INLETS). THE COST FOR THESE EXTRA MARKERS SHALL BE INCIDENTAL TO THE TRAFFIC CONTROL BID ITEM.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY TRAFFIC CONTROL TO KEEP AT LEAST ONE LANE OF TRAFFIC OPEN AT ALL TIMES SO THAT ACCESS IS MAINTAINED TO RESIDENCES, MAILBOXES, AND BUSINESSES ADJACENT TO THE PROJECT AREA. THE COST FOR THIS WORK SHALL BE INCIDENTAL TO THE TRAFFIC CONTROL BID ITEM.
4. RESIDENTS SHALL HAVE ACCESS TO N MILL STREET OUTSIDE OF WORKING HOURS, TYPICALLY 7PM TO 7AM.

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NORTH MILL STREET RECONSTRUCTION
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

TRAFFIC CONTROL PLAN

PROJECT NO. 07807030

SHEET ST 1

SDD 15D28 Traffic Control, Work on Shoulder or Parking Lane, Undivided Roadway

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

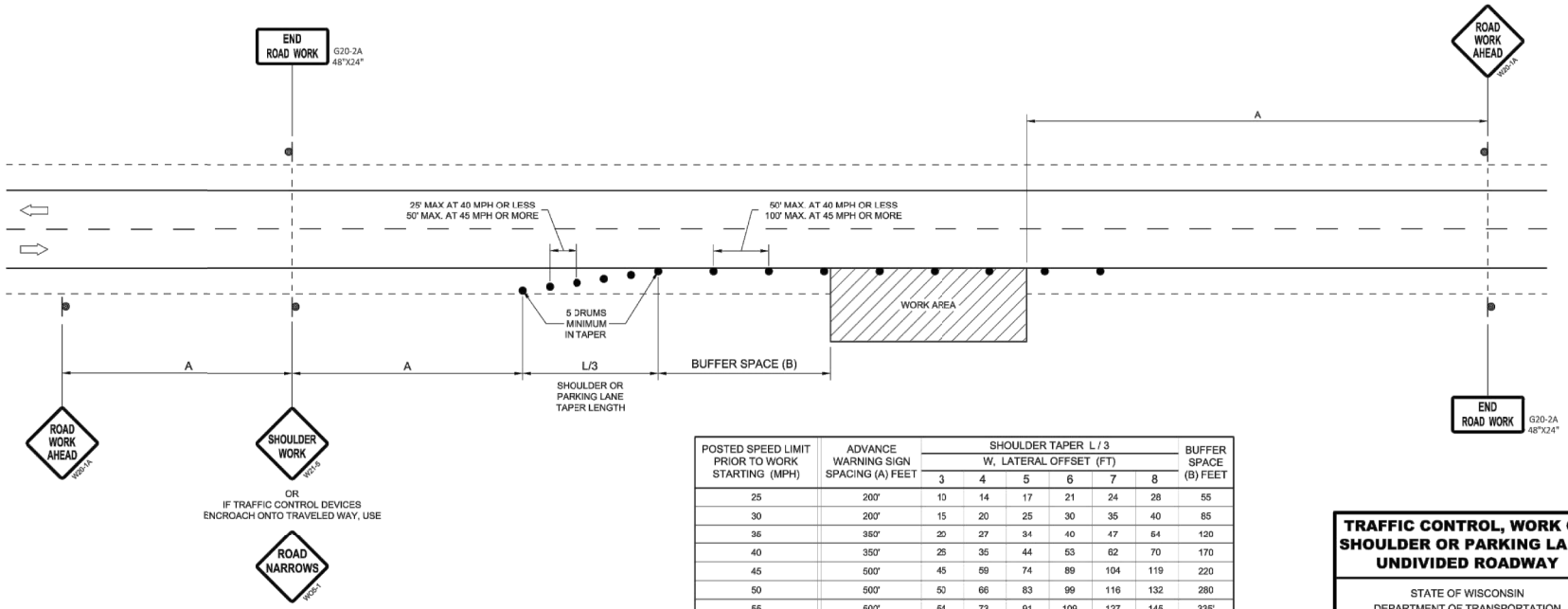
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	25	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 — DATE
/S/ Andrew Heldtke — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

SDD 15D28 - 04

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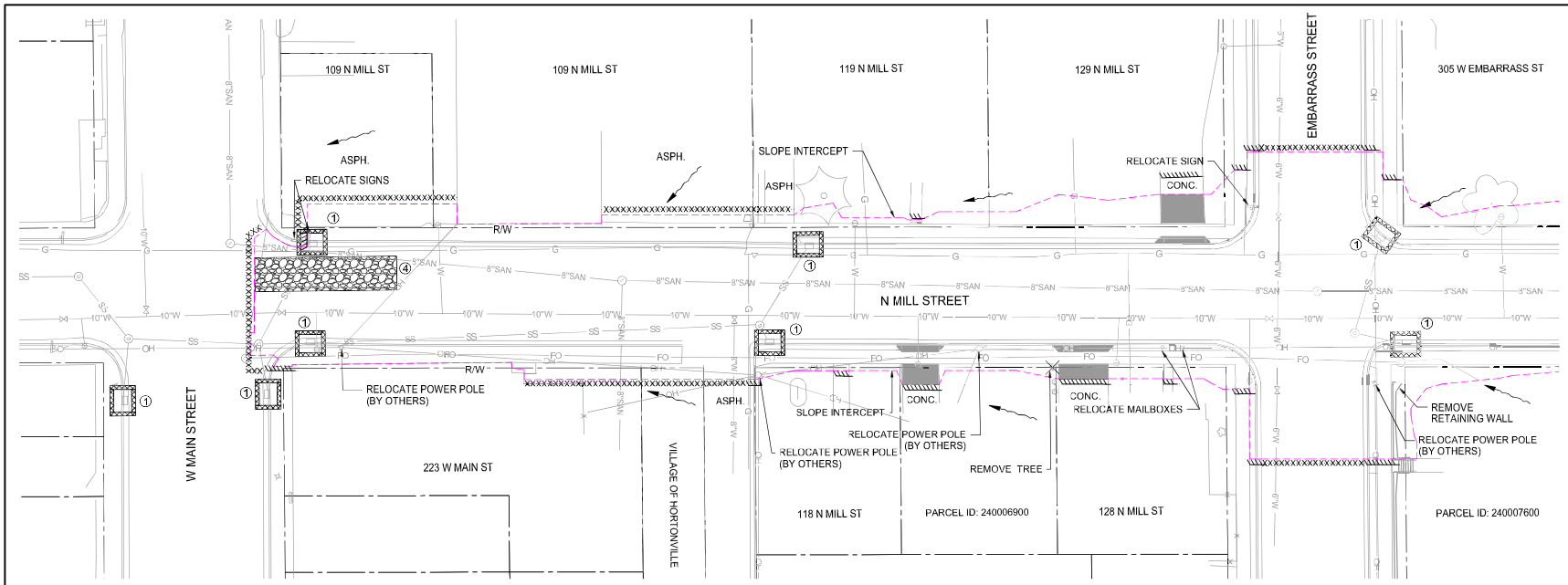
OUTAGAMIE COUNTY, WISCONSIN

TRAFFIC CONTROL, WORK ON PARKING LANE, UNDIVIDED ROADWAY DETAIL

PROJECT NO. 07807030
SHEET ST 2



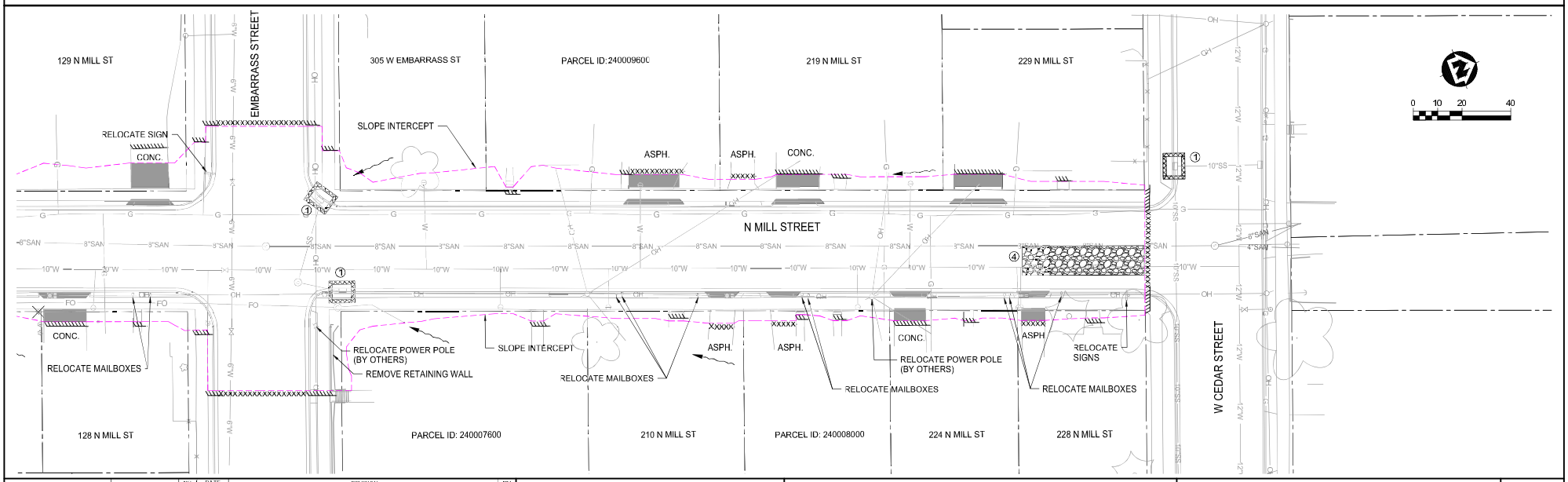
GENERAL NOTES:

1. THE CONTRACTOR SHALL INSTALL INLET PROTECTION IN ALL EXISTING & PROPOSED STORM INLETS & CATCH BASIN (SEE DETAIL) UNTIL THE SITE HAS BEEN STABILIZED.(INCLUDED IN EROSION CONTROL BID ITEM).
2. EXISTING SITE & SURVEY FEATURES (IRON PIPE/ ROD, TREE, SHRUB, UTILITY POLE, UTILITY PED, FENCE, MAILBOXES, LANDSCAPING, ETC.) TO REMAIN UNDISTURBED UNLESS DIRECTED OTHERWISE BY THE VILLAGE. ANY DAMAGE OR DISTURBANCE TO THE EXISTING SITE FEATURE SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. EXISTING SITE FEATURE TO BE CAREFULLY REMOVED.
4. THE CONTRACTOR SHALL INSTALL TRACKING PAD(S) AT ALL ACCESS LOCATIONS TO PROJECT STREET (SEE DETAIL).

LEGEND:

- APPROXIMATE DISTURBANCE LIMITS
- SURFACE DRAINAGE DIRECTION ARROW
- SILT FENCE (SEE DETAIL)
- XXXXX ASPHALT SAW CUT
- CONCRETE SAW CUT

SEE SHEETS G5 AND G6 FOR ADDITIONAL NOTES & REQUIREMENTS



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PLOT DATE: 4/12/2024 10:34 AM, G:\07\07807\07807030\CAD\Construction Documents\07807030 Erosion Control and Removals Plan.dwg

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OUTAGAMIE COUNTY, WISCONSIN

EROSION CONTROL AND REMOVALS PLANS

PROJECT NO. 07807030

SHEET ST 3

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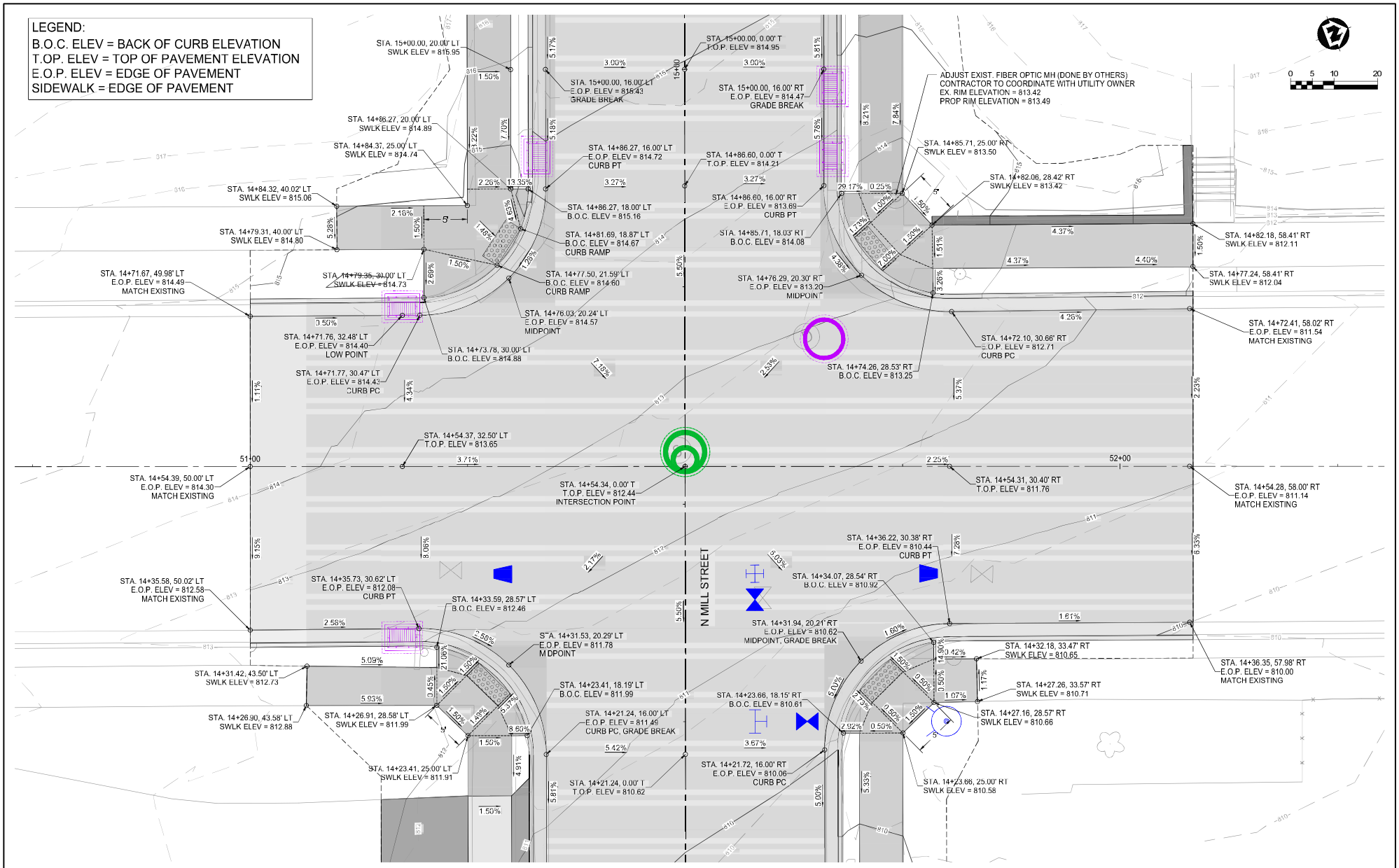
OUTAGAMIE COUNTY, WISCONSIN

MILL AND MAIN INTERSECTION PLAN

PROJECT NO. 07807030

SHEET ST 4



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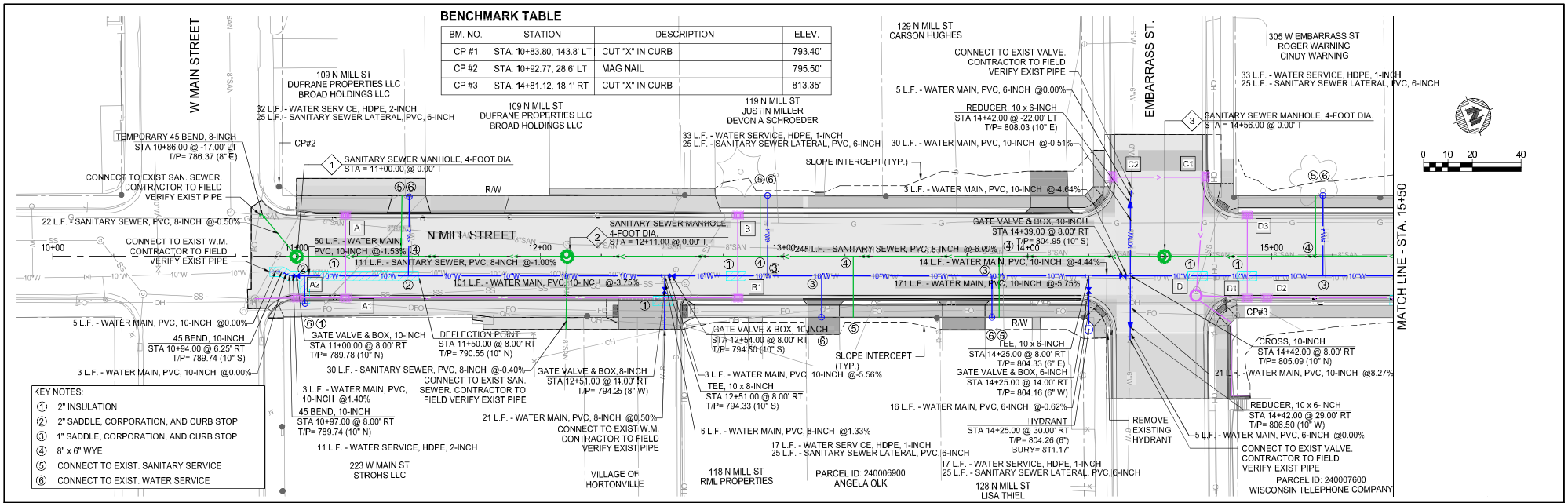
MILL & EMBARRASS INTERSECTION PLAN

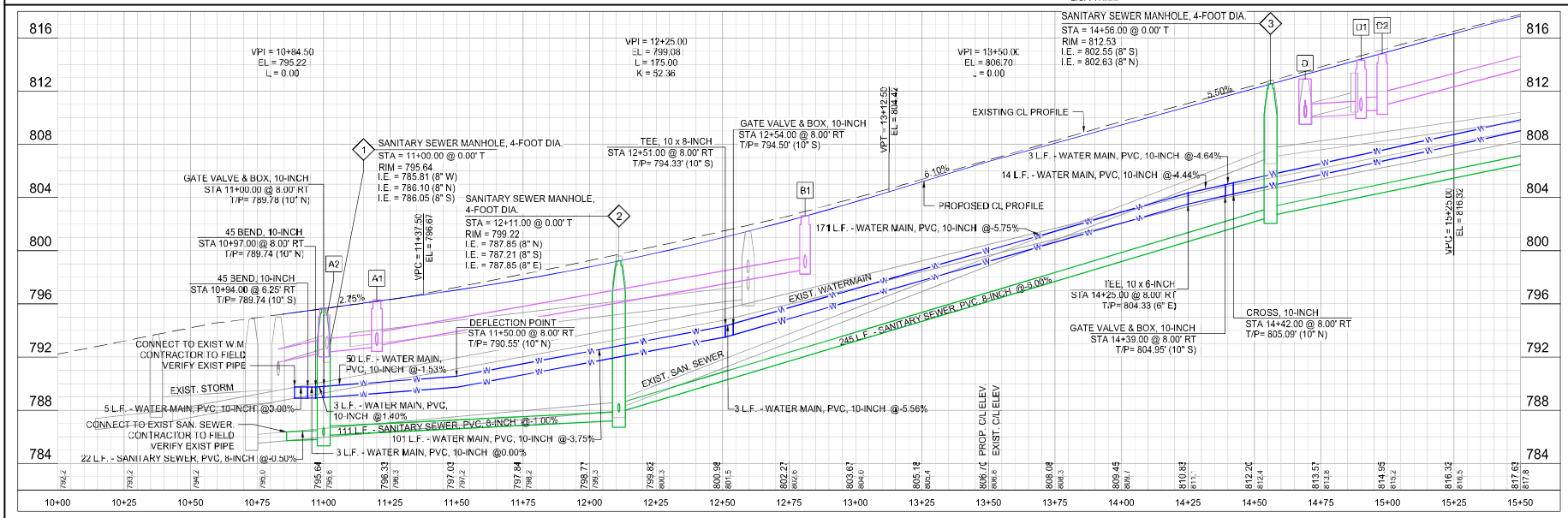
PROJECT NO. 07807030

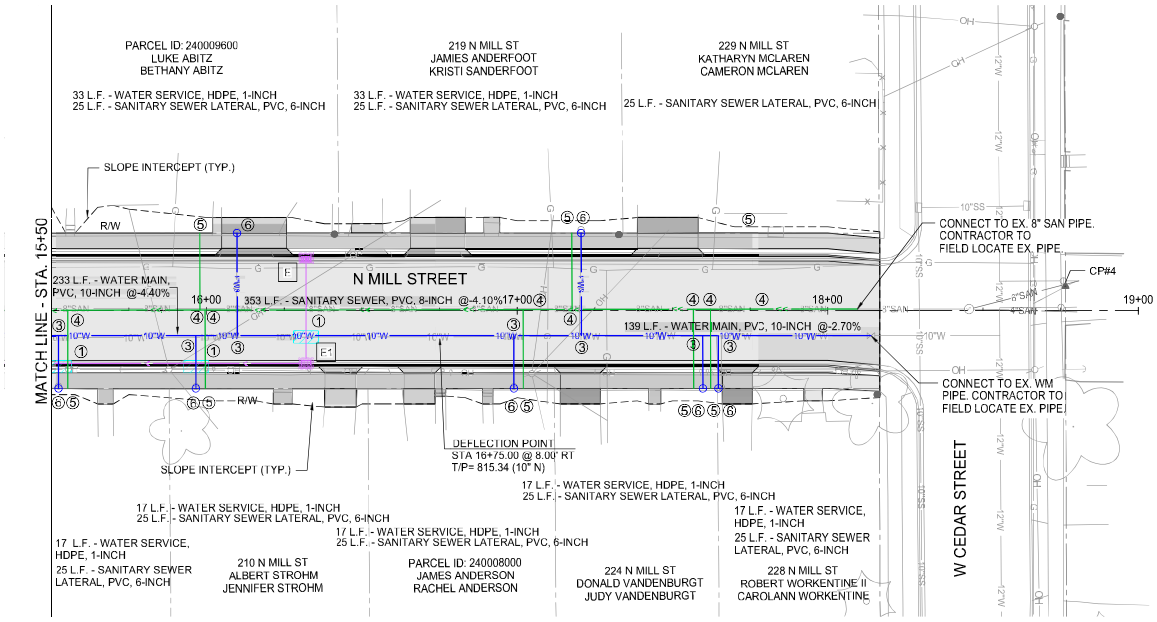
SHEET ST 5

BENCHMARK TABLE

BM. NO.	STATION	DESCRIPTION	ELEV.
CP #1	STA. 10+83.80, 143.8' LT	CUT "X" IN CURB	793.40'
CP #2	STA. 10+92.77, 28.6' LT	MAG NAIL	795.50'
CP #3	STA. 14+81.12, 18.1' RT	CUT "X" IN CURB	813.35'







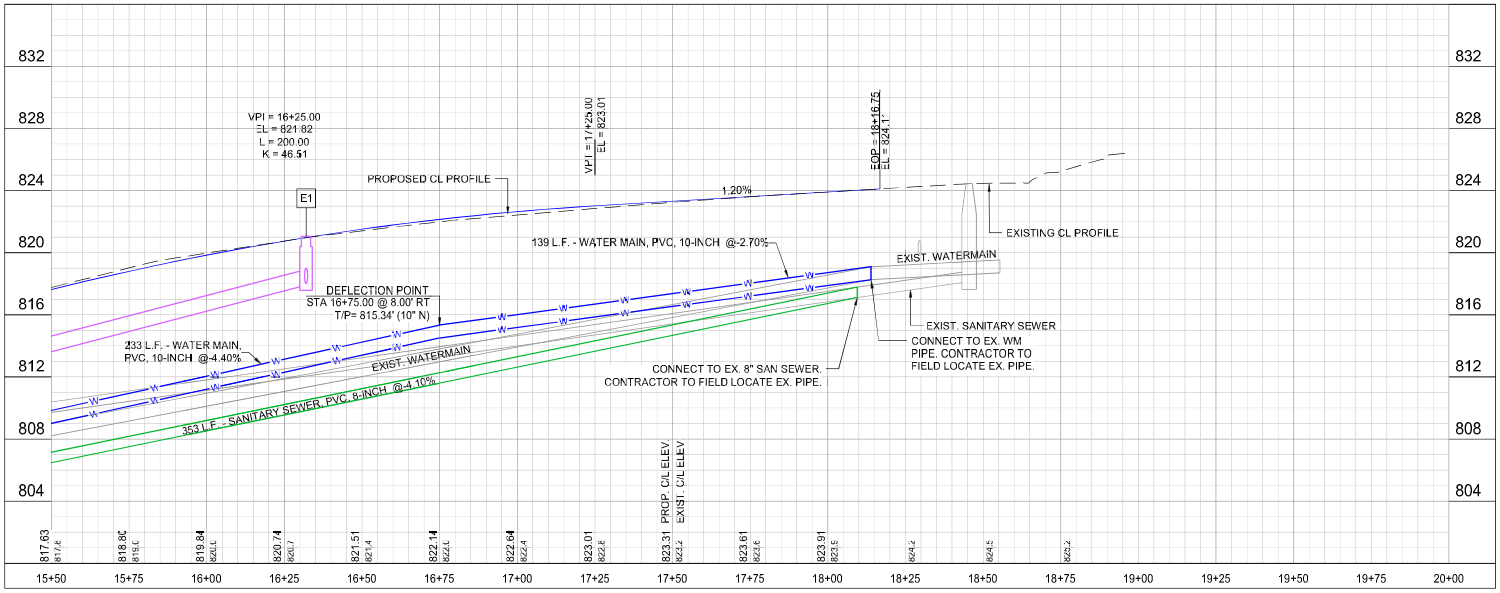
BENCHMARK TABLE

BM. NO.	STATION	DESCRIPTION	ELEV.
CP #4	STA. 18+76.50, 7.9' LT	MAG NAIL	825.64'

0 10 20 40

KEY NOTES:

1. 2" INSULATION
2. 2" SADDLE, CORPORATION, AND CURB STOP
3. 1" SADDLE, CORPORATION, AND CURB STOP
4. 8" x 6" WYE
5. CONNECT TO EXIST. SANITARY SERVICE
6. CONNECT TO EXIST. WATER SERVICE



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N MILL ST SEWER & WATER PLAN AND PROFILE

PROJECT NO. 07807030

SHEET P 2

BENCHMARK TABLE

BM. NO.	STATION	DESCRIPTION	ELEV.
CP #1	STA. 10+83.80, 143.8' LT	CUT "X" IN CURB	793.40'
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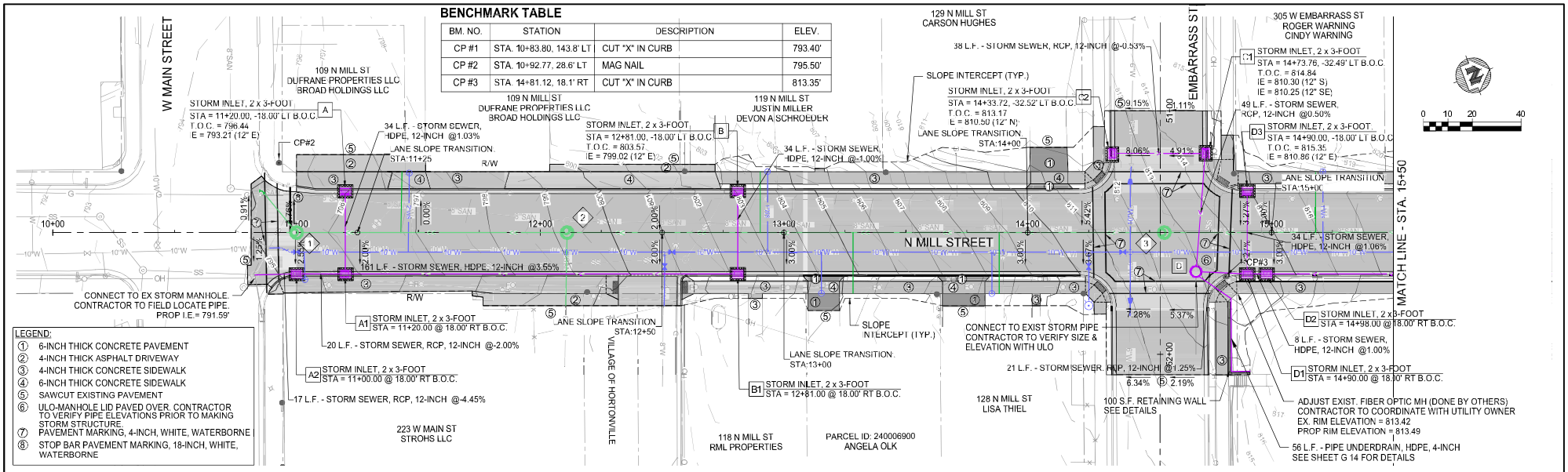
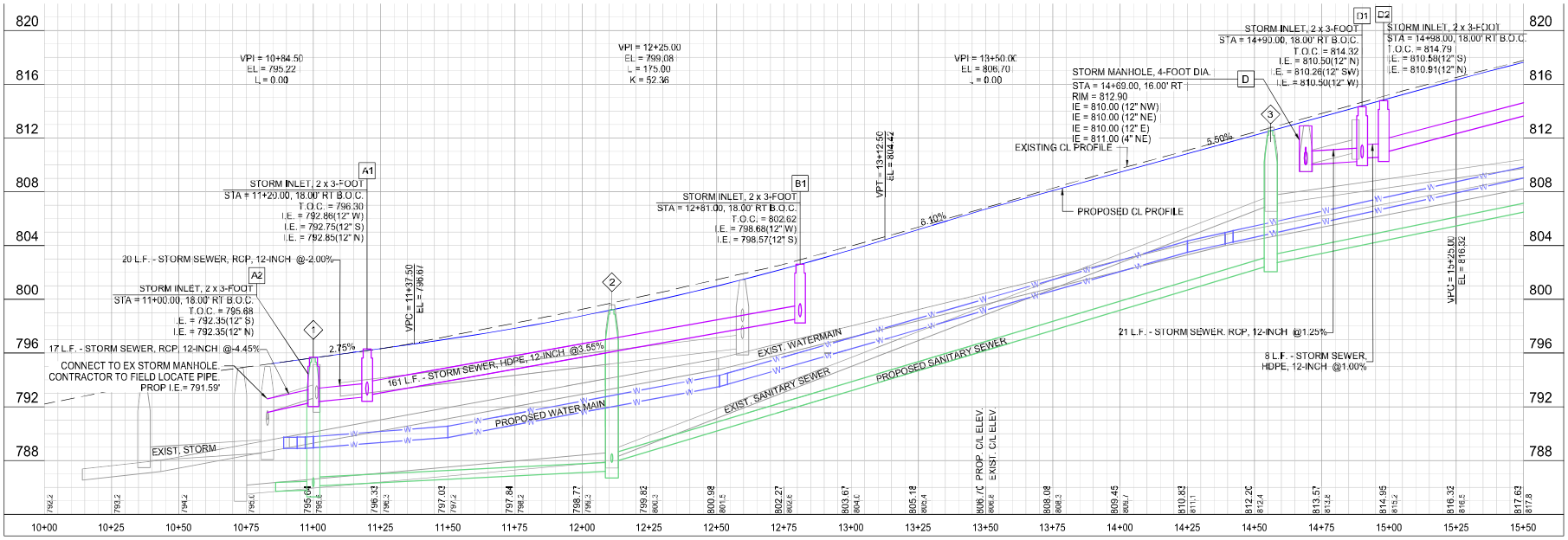


LEGEND:

1. 6-INCH THICK CONCRETE PAVEMENT
2. 4-INCH THICK ASPHALT DRIVEWAY
3. 4-INCH THICK CONCRETE SIDEWALK
4. 6-INCH THICK CONCRETE SIDEWALK
5. SAWCUT EXISTING PAVEMENT
6. ULO-MANHOLE LID PAVED OVER. CONTRACTOR TO VERIFY PIPE ELEVATIONS PRIOR TO MAKING STORM STRUCTURE.
7. PAVEMENT MARKING, 4-INCH, WHITE, WATERBORNE
8. STOP BAR PAVEMENT MARKING, 18-INCH, WHITE, WATERBORNE



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N MILL ST ROADWAY & STORM PLAN AND PROFILE

PROJECT NO. 07807030
SHEET R 1

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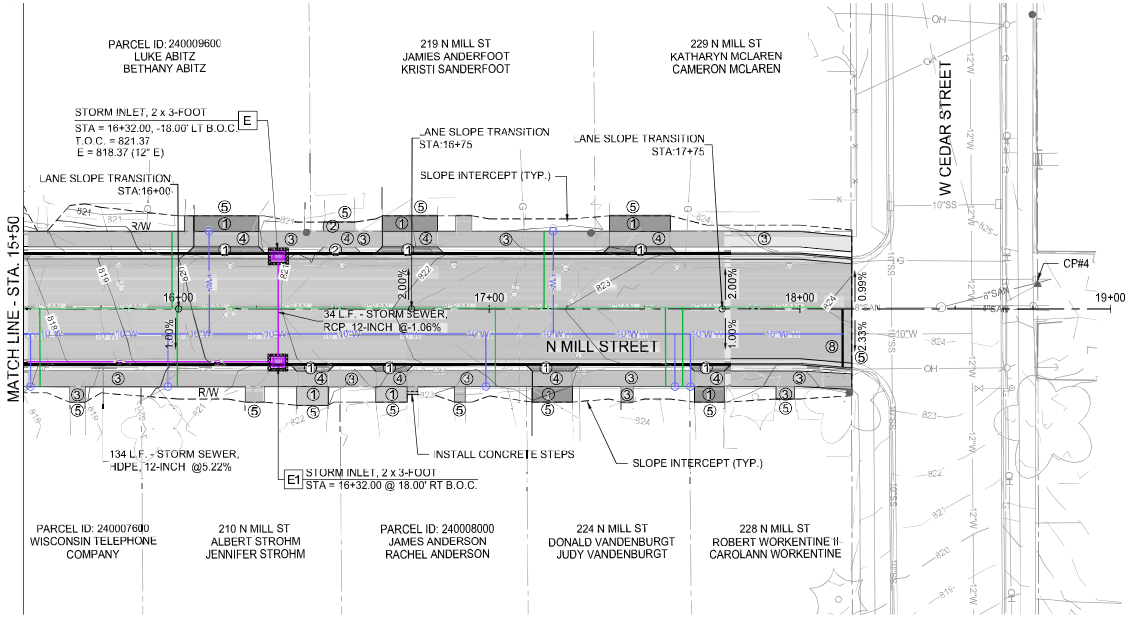

BENCHMARK TABLE

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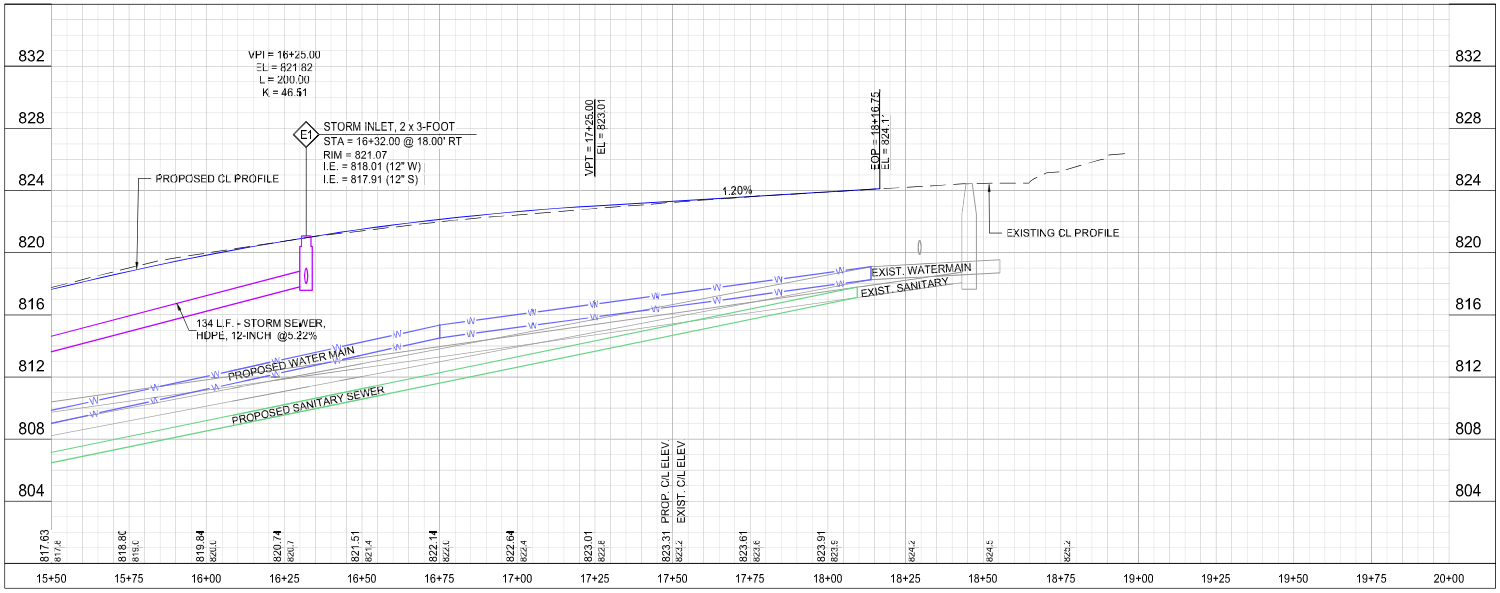

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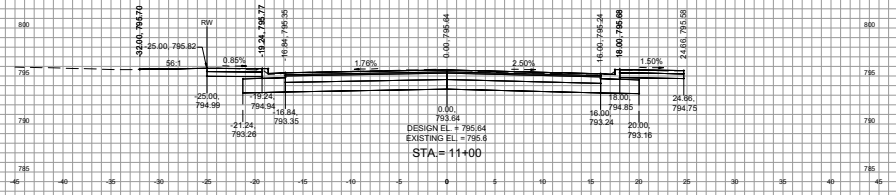
N MILL ST ROADWAY & STORM PLAN AND PROFILE

PROJECT NO. 07807030

SHEET R 2

SEE SHEET ST3 FOR INTERSECTION DETAILS



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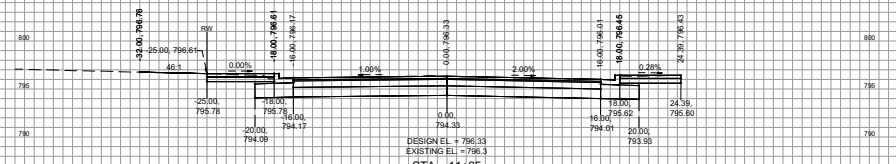

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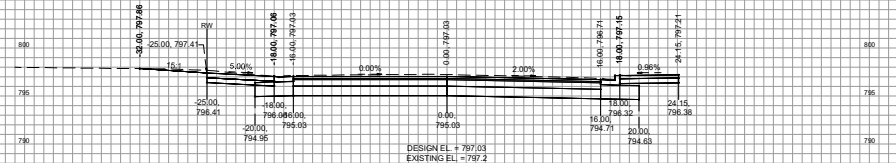

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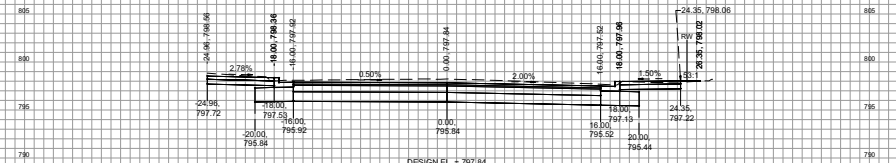

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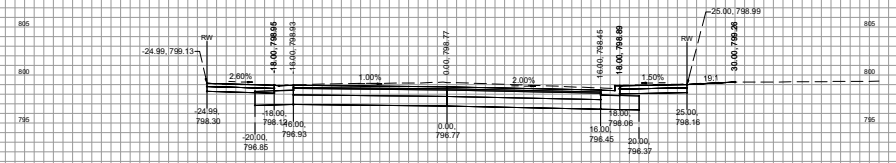

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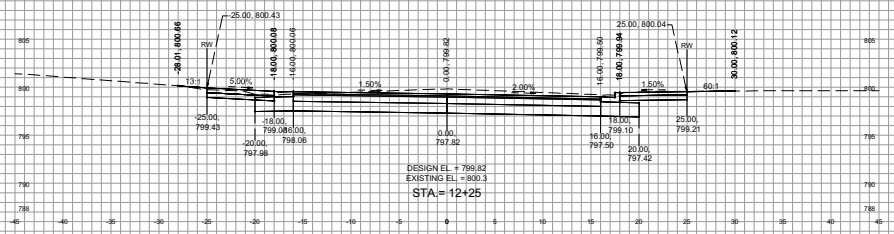
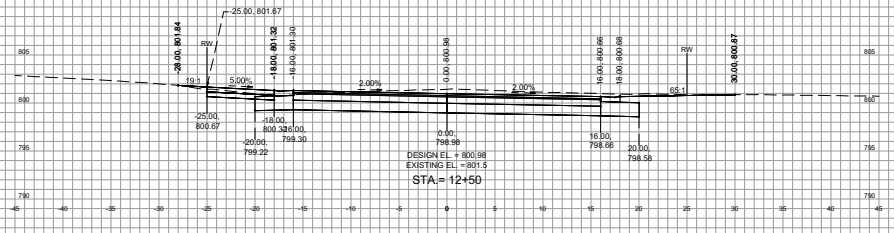
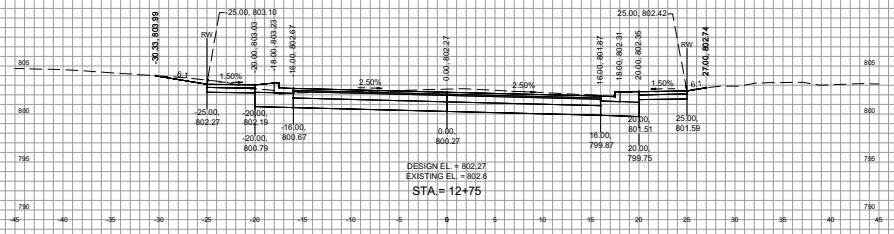
VILLAGE OF HORTONVILLE
OUTAGAMIE COUNTY, WISCONSIN

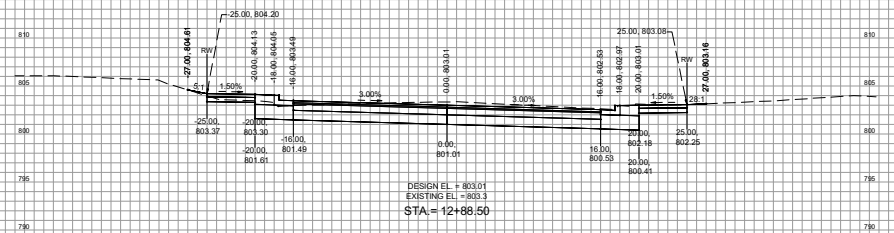
CROSS SECTIONS

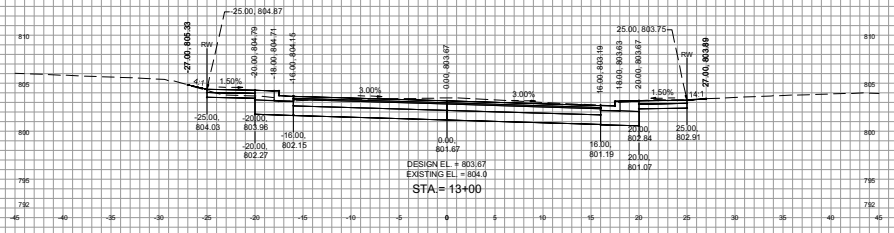
PROJECT NO. 0780/700
SHEET NO. CS 1











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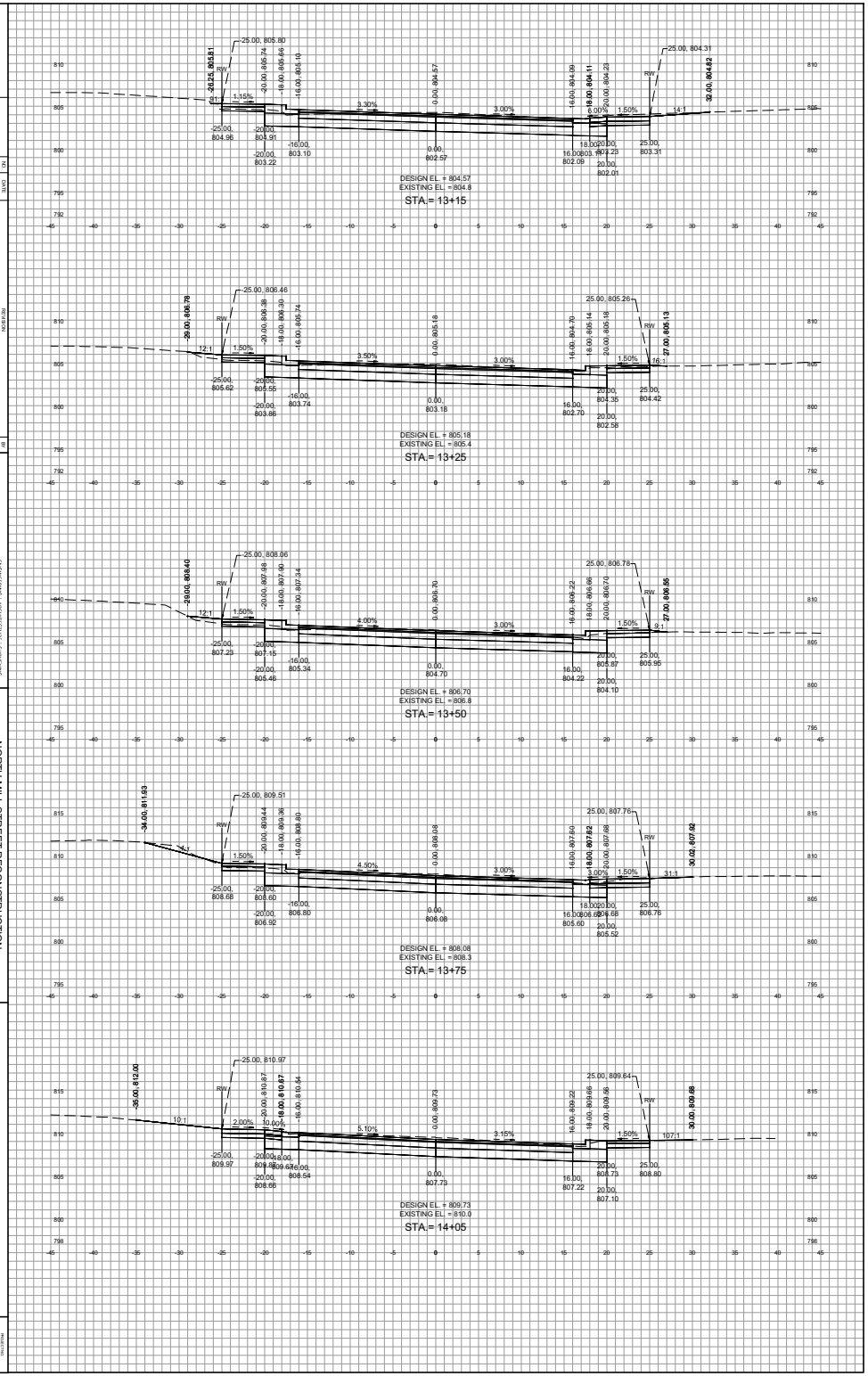
CROSS SECTIONS

PROJECT NO.
07060700
SHEET NO.
CS 2



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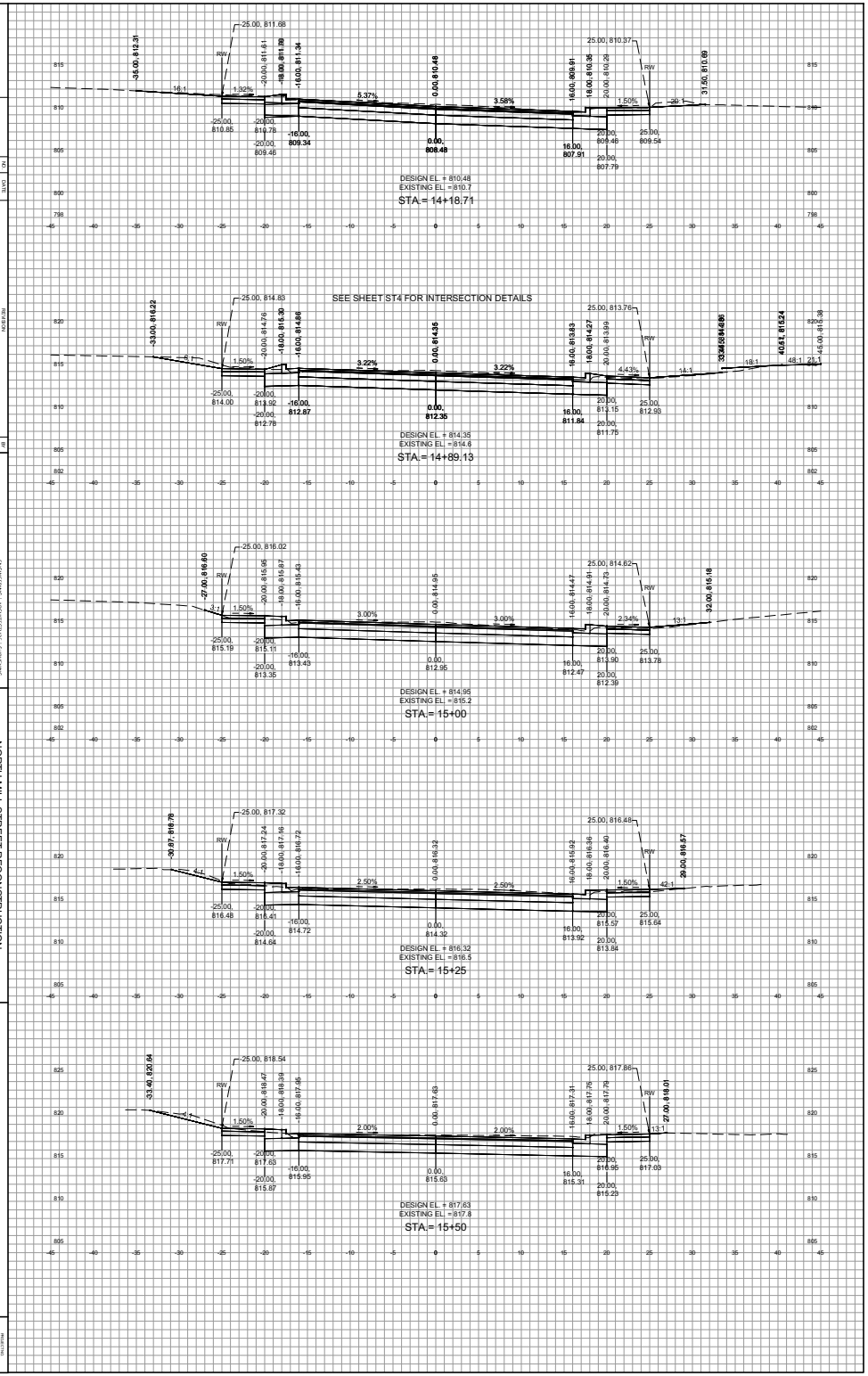
PROJECT NO. 0780700
SHEET NO. CS 3



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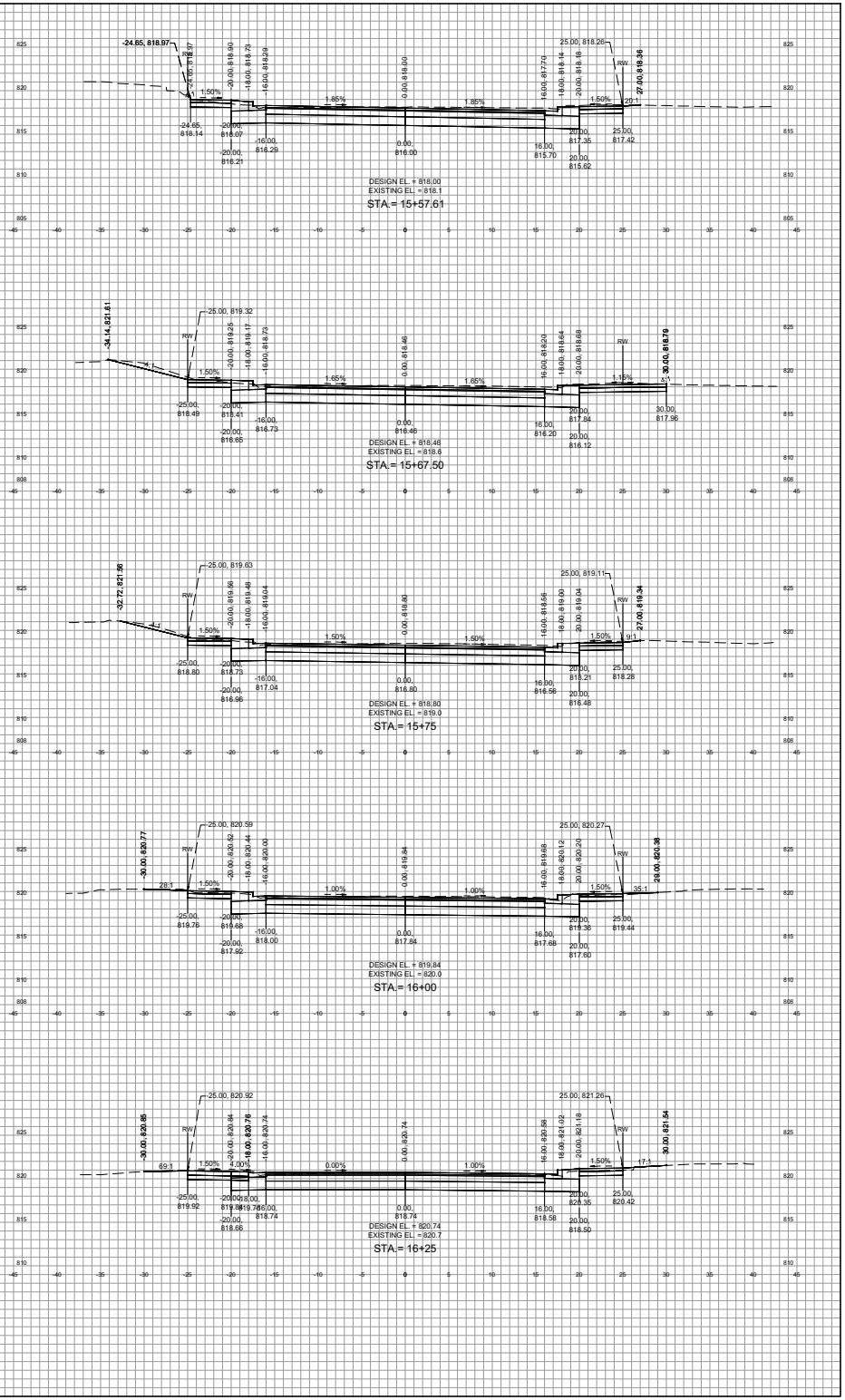
CROSS SECTIONS

PROJECT NO. 07807030
SHEET NO. CS 4



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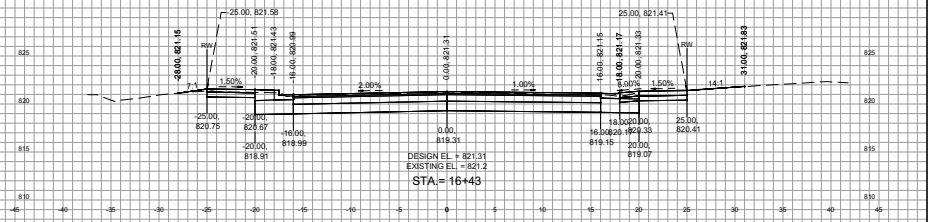
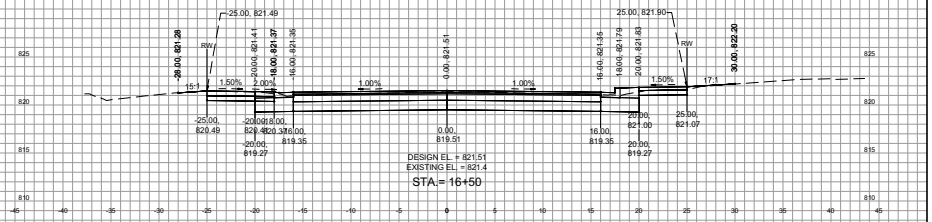
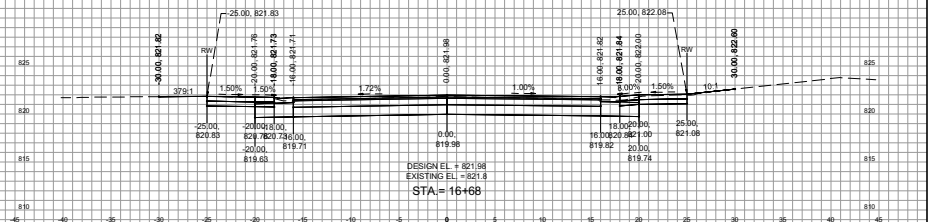
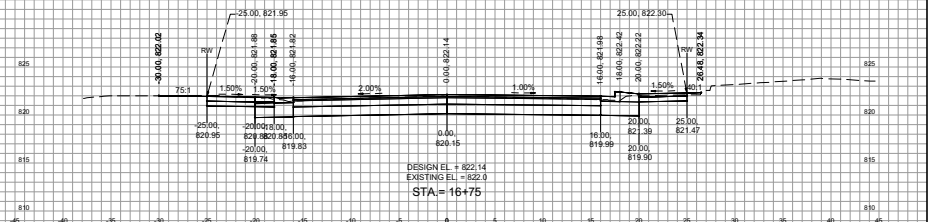
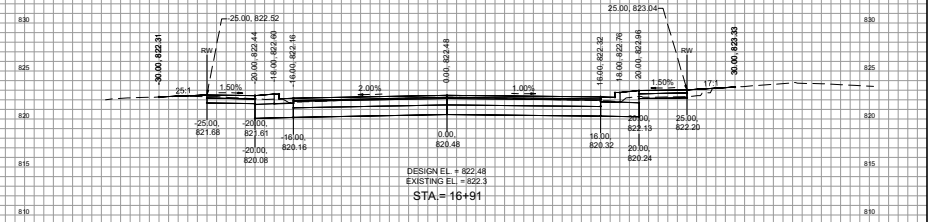
PROJECT NO.
07807030
SHEET NO.
CS 5











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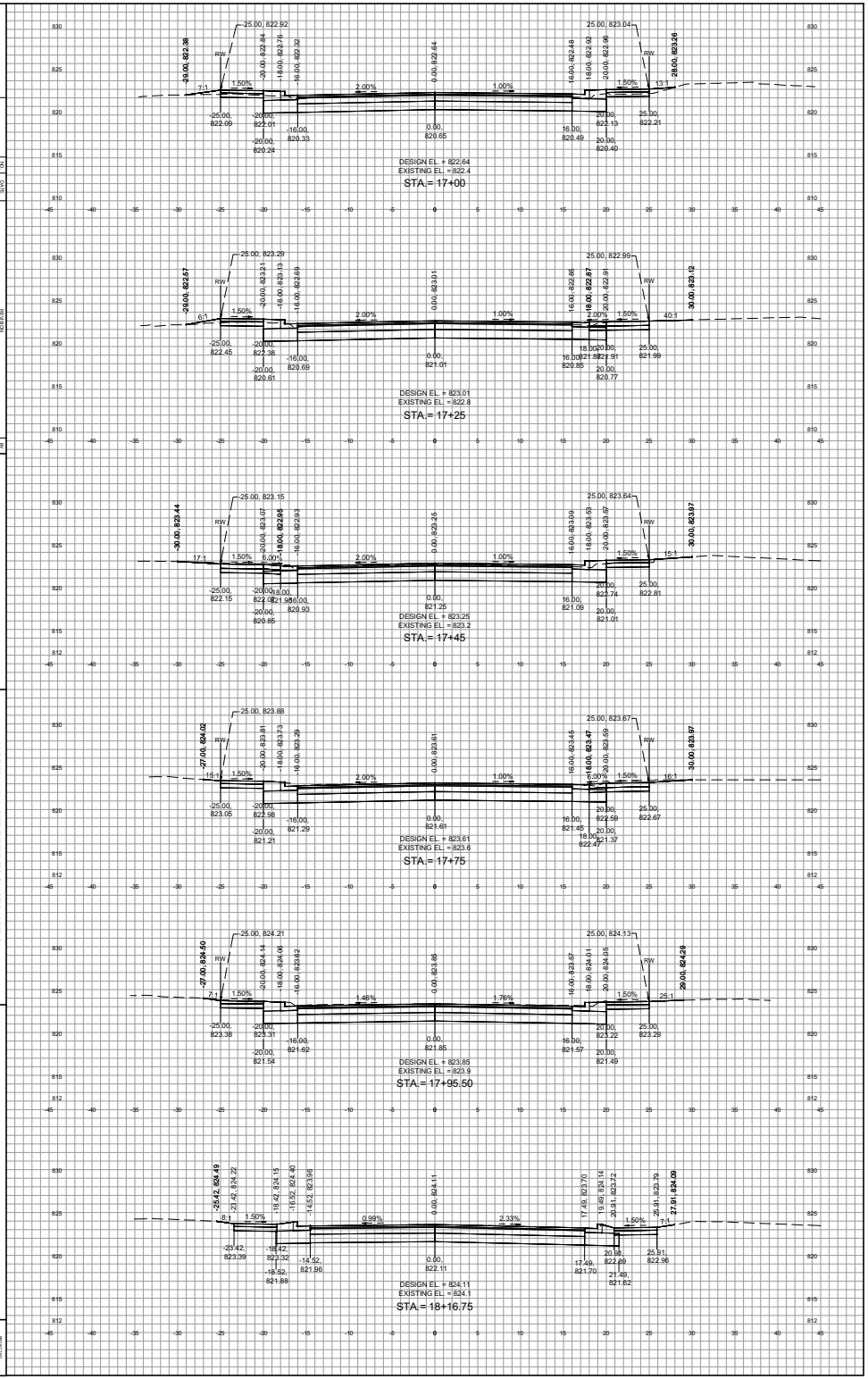

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CS 7

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