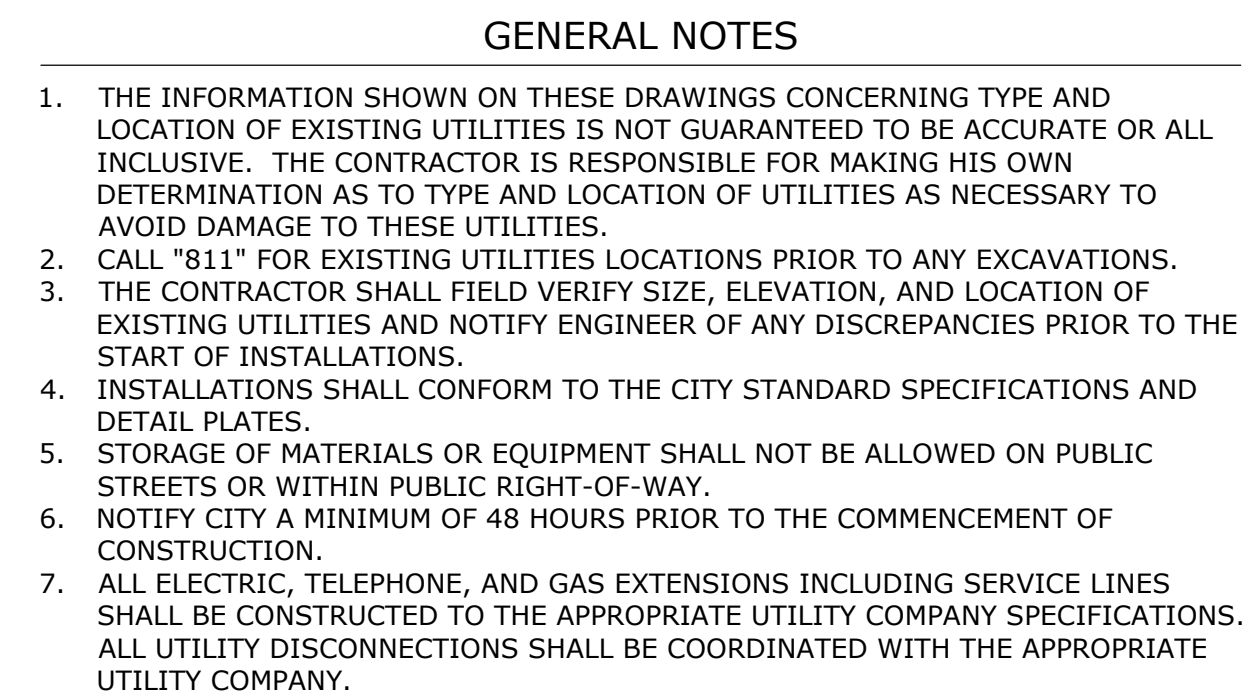
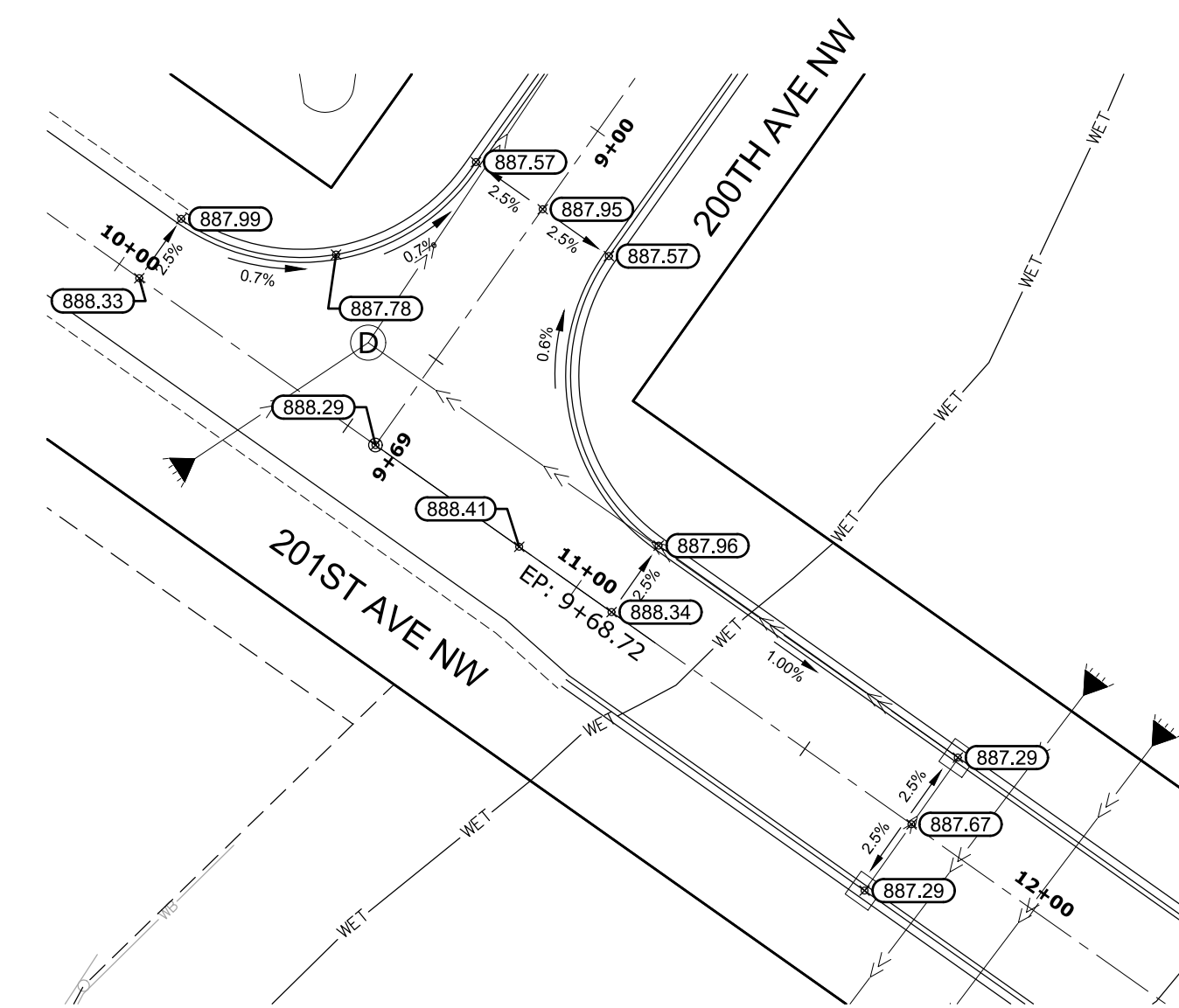


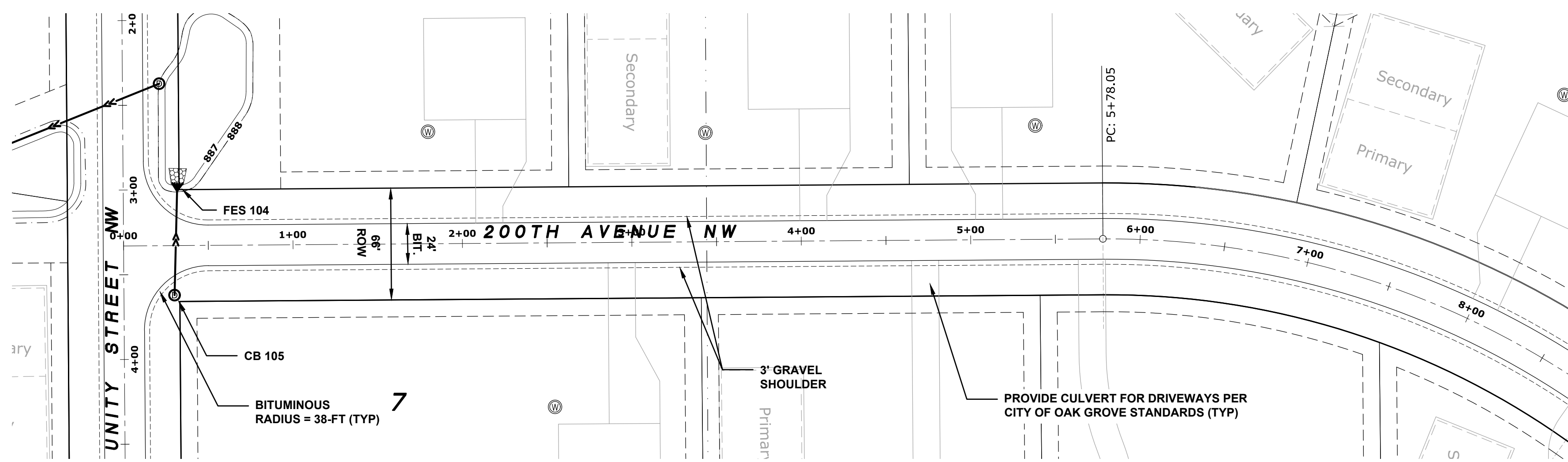


1. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
2. STORM SEWER SHALL BE:
 - (a) REINFORCED CONCRETE PIPE (RCP) ANSI C76 WITH R-4 GASKETS.
 - (b) CMP (RESIDENTIAL DRIVEWAYS ONLY)
4. TIE LAST THREE SECTION PIPE JOINTS FROM THE FLARED END SECTION SHALL BE TIED TOGETHER.
5. PROVIDE HAND-PLACED CLASS III RIP-RAP (MNDOT 3601.2) W/ FILTER FABRIC AT ALL PIPE OUTLETS. THREE INCHES OF BLACK DIRT SHALL BE PLACED OVER THE RIP-RAP, THEN SEED OR SODED.
6. STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF APRON TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.

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2. ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAW-CUT AT FULL DEPTH.
3. RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
4. BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.



SCALE = 1:30 (THIS DETAIL ONLY)



GENERAL NOTES

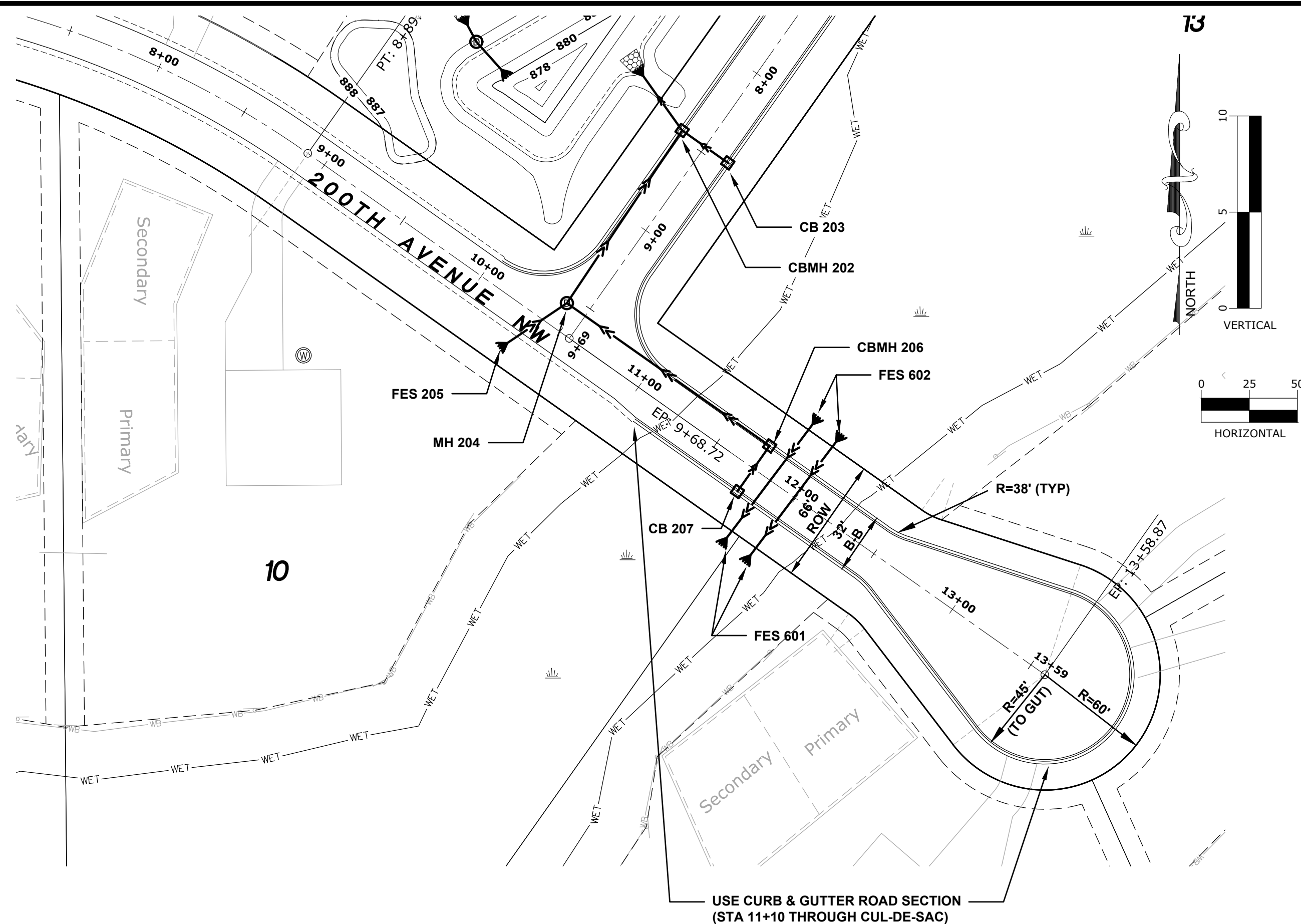
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6. NOTIFY CITY A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
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STORM SEWER NOTES

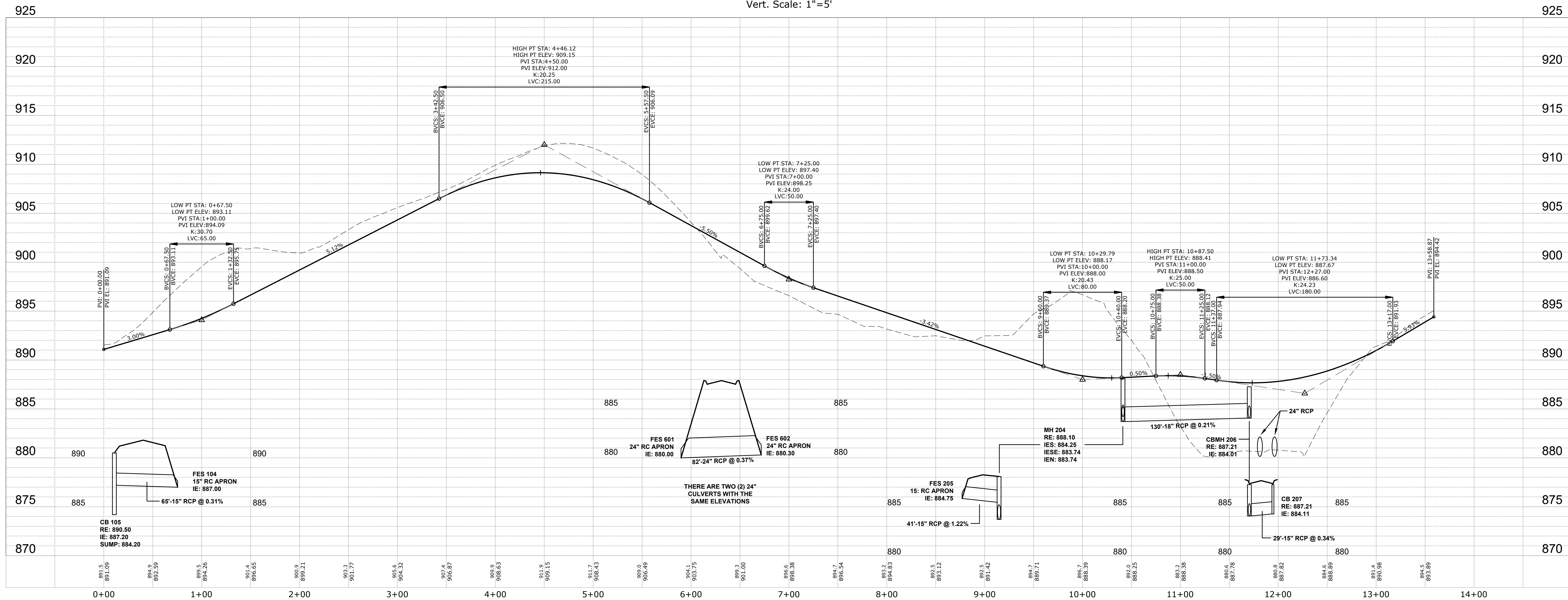
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200th Avenue NW
Horz. Scale: 1"=50'
Vert. Scale: 1"=5'



DRAWN BY:	AG	CHECK BY:	CWP	DATE:	02-24-2020
1	7-30-20	CONSTRUCTION DRAWING SUBMITTAL			
2	4-23-21	CITY REVIEW COMMENTS			
3					
4					
5					
NO.	DATE	DESCRIPTION			

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

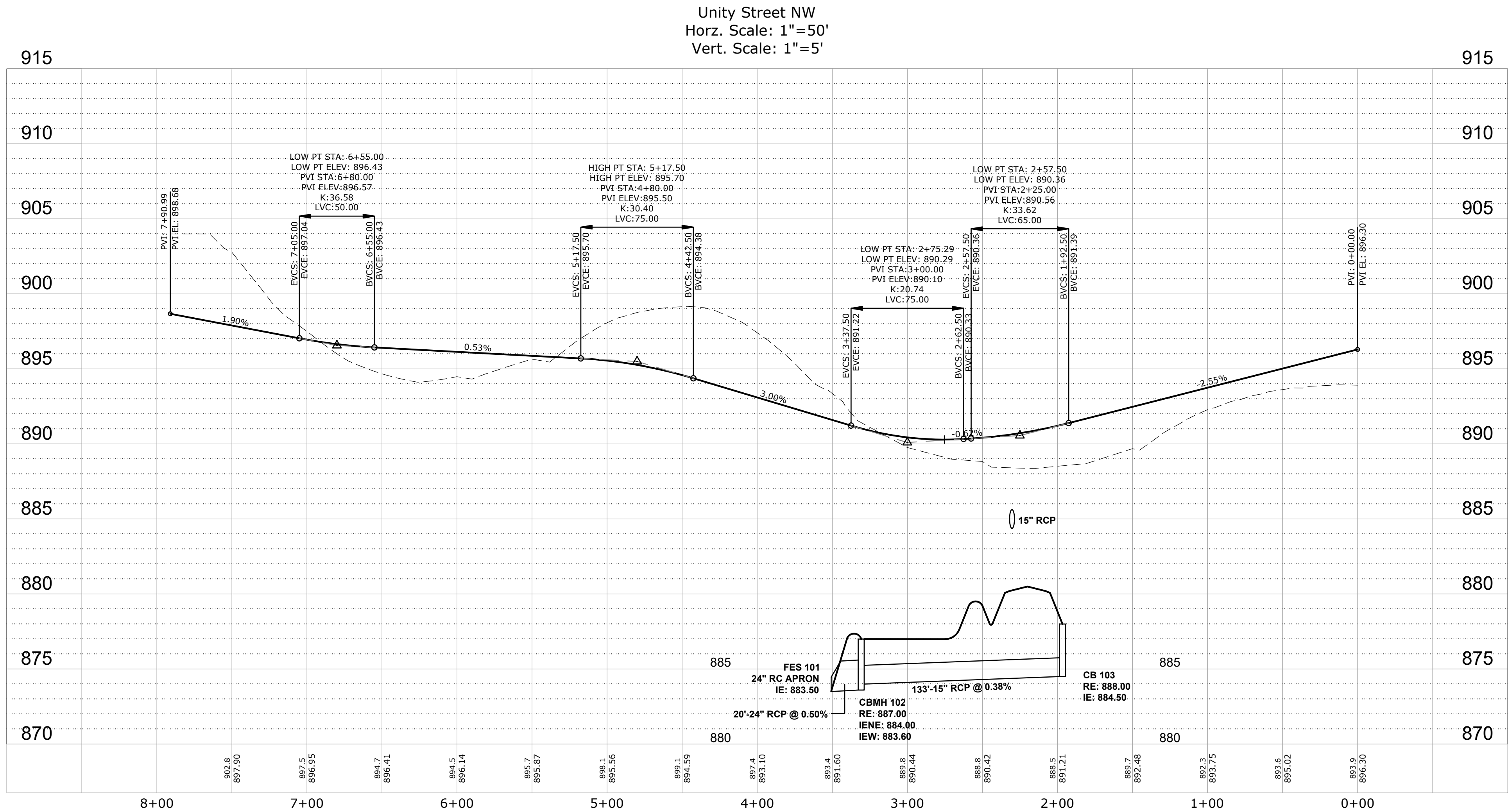
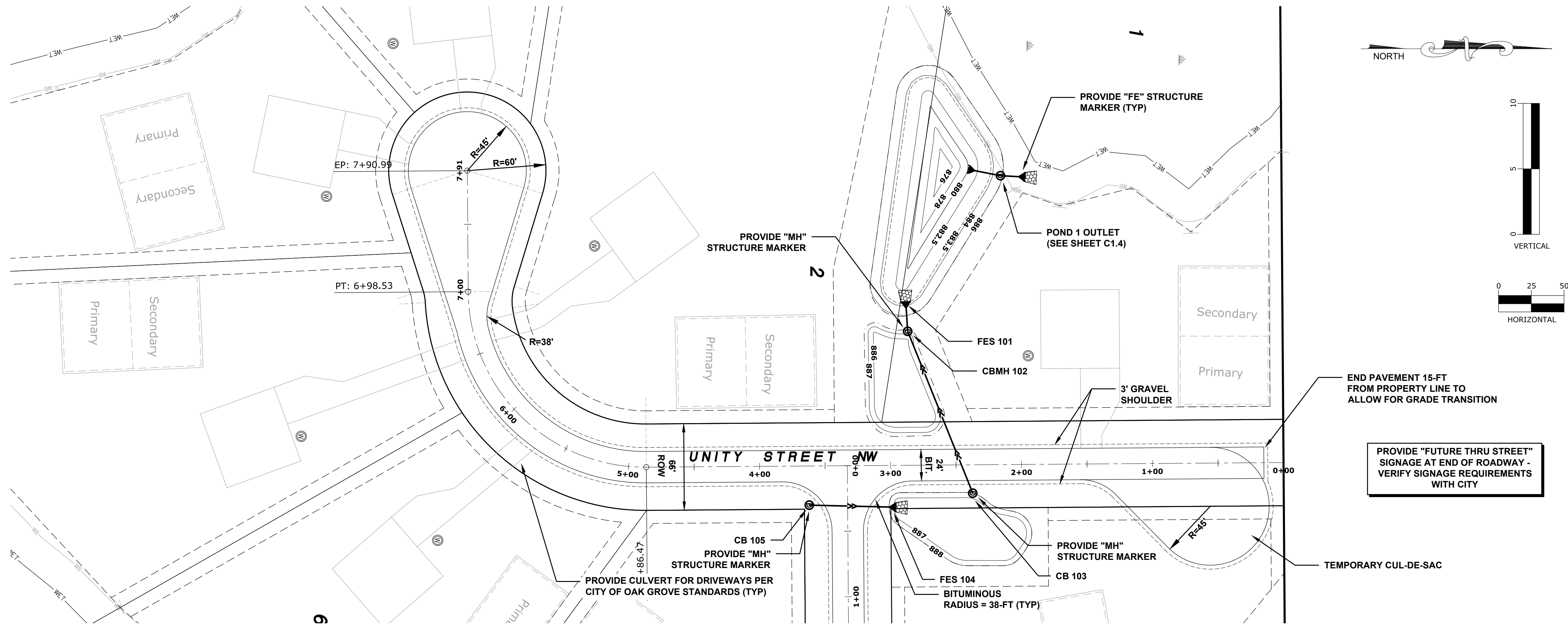
Adam Ginkel
ADAM GINKEL
Date: 06.17.2021
License No. 43963

CEDAR CREEK HILLS
CITY OF OAK GROVE, MN
PLAN/PROFILE - 200TH AVE NW
PREPARED FOR: SHAW TRUCKING, INC.

- GENERAL NOTES
1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
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DRAWN BY: AG	CHECK BY: CWP	JOB NO: 19-1884	DATE: 02-24-2020
1	7-30-20	CONSTRUCTION DRAWING SUBMITTAL	
2	4-23-21	CITY REVIEW COMMENTS	
3			
4			
5			
NO.	DATE	DESCRIPTION	

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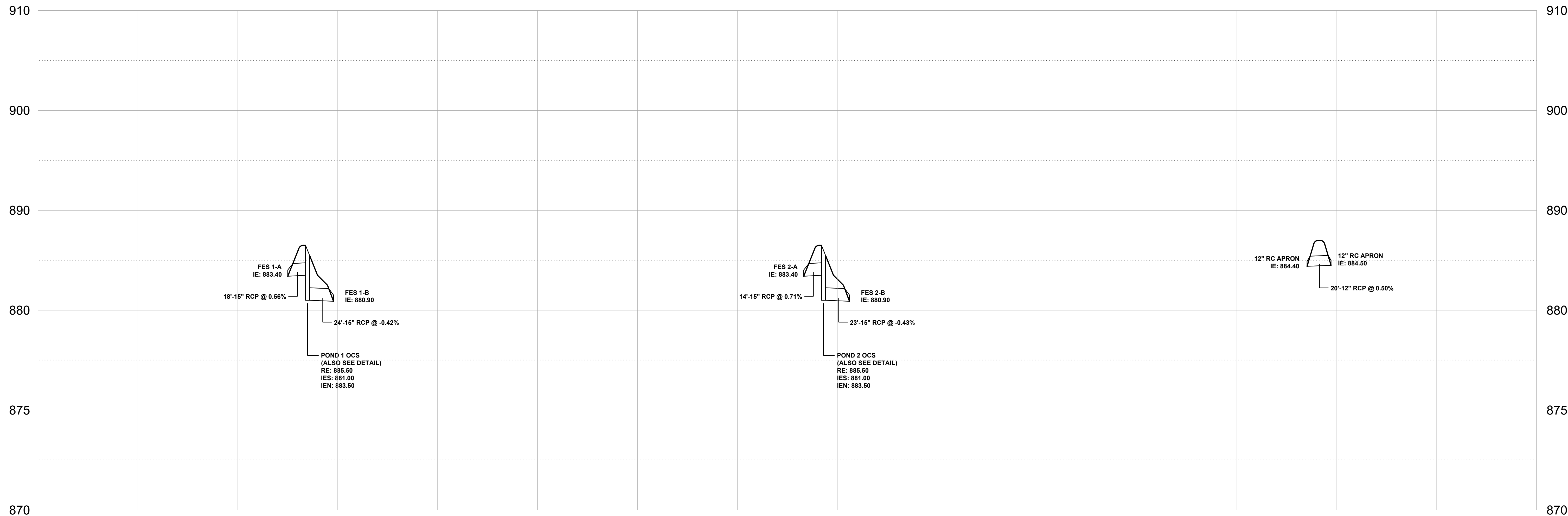
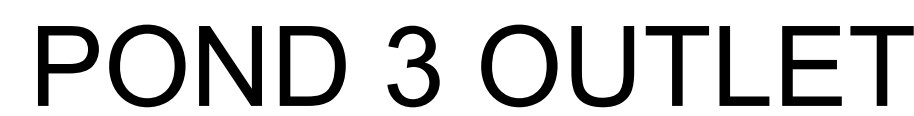
Adam Ginkel
ADAM GINKEL
Date: 06.17.2021 License No. 43963

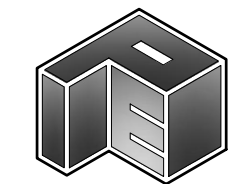
CEDAR CREEK HILLS
CITY OF OAK GROVE, MN
PLAN/PROFILE - UNITY ST NW
PREPARED FOR: SHAW TRUCKING, INC.

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SITE PLANNING
& ENGINEERING

PLOWE
ENGINEERING, INC.

6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

PHONE: (651) 361-8210
FAX: (651) 361-8701

DRAWN BY: AG
CHECK BY: CWP
CONSTRUCTION DRAWING SUBMITTAL
DATE: 02-24-2020

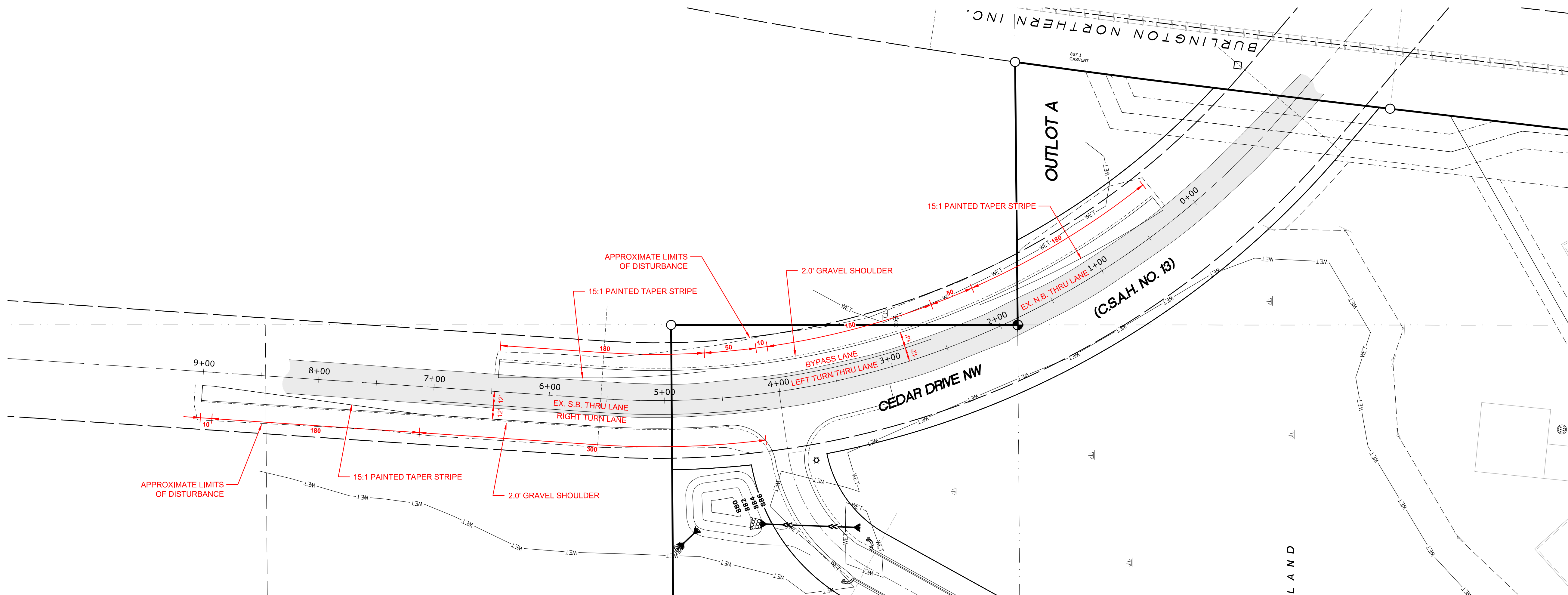
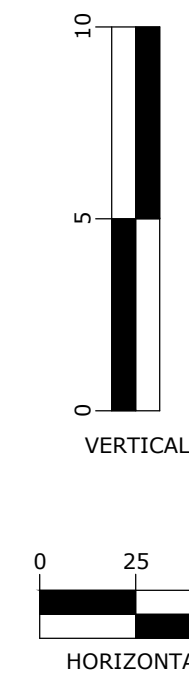
NO.	DATE	DESCRIPTION
1	7-30-20	ANOKA COMMENTS
2	5-25-21	SAWCUT/MILL LINES ADDED TO DETAILS
3	7-8-21	SAWCUT/MILL LINES ADDED TO DETAILS
4	7-22-21	SAWCUT/MILL LINES ADDED TO DETAILS
5		

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Adam Ginkel
ADAM GINKEL
Date: 07.22.2021
License No. 43963

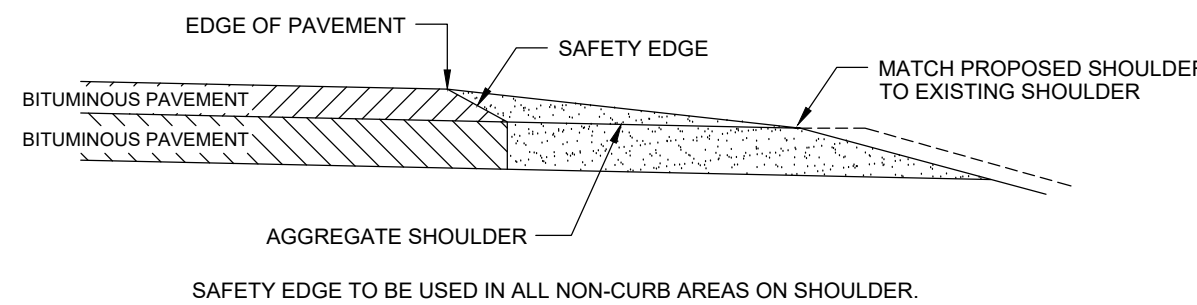
CEDAR CREEK HILLS
CITY OF OAK GROVE, MN
TURN AND BYPASS LANE PLAN
PREPARED FOR: SHAW TRUCKING, INC.

SHEET
C2.1

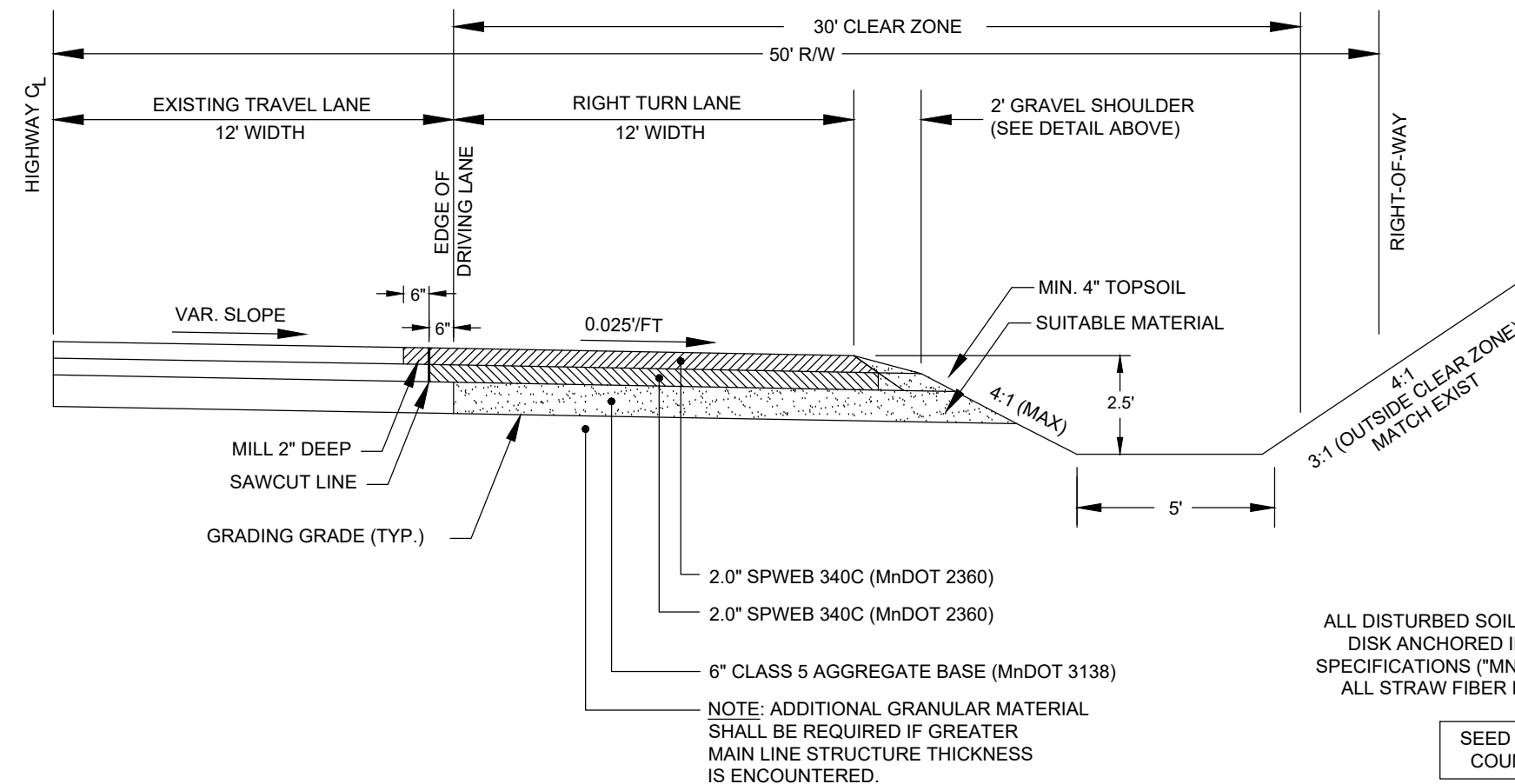


SHOULDER DETAIL

BITUMINOUS SAFETY EDGE
GRAVEL SHOULDER

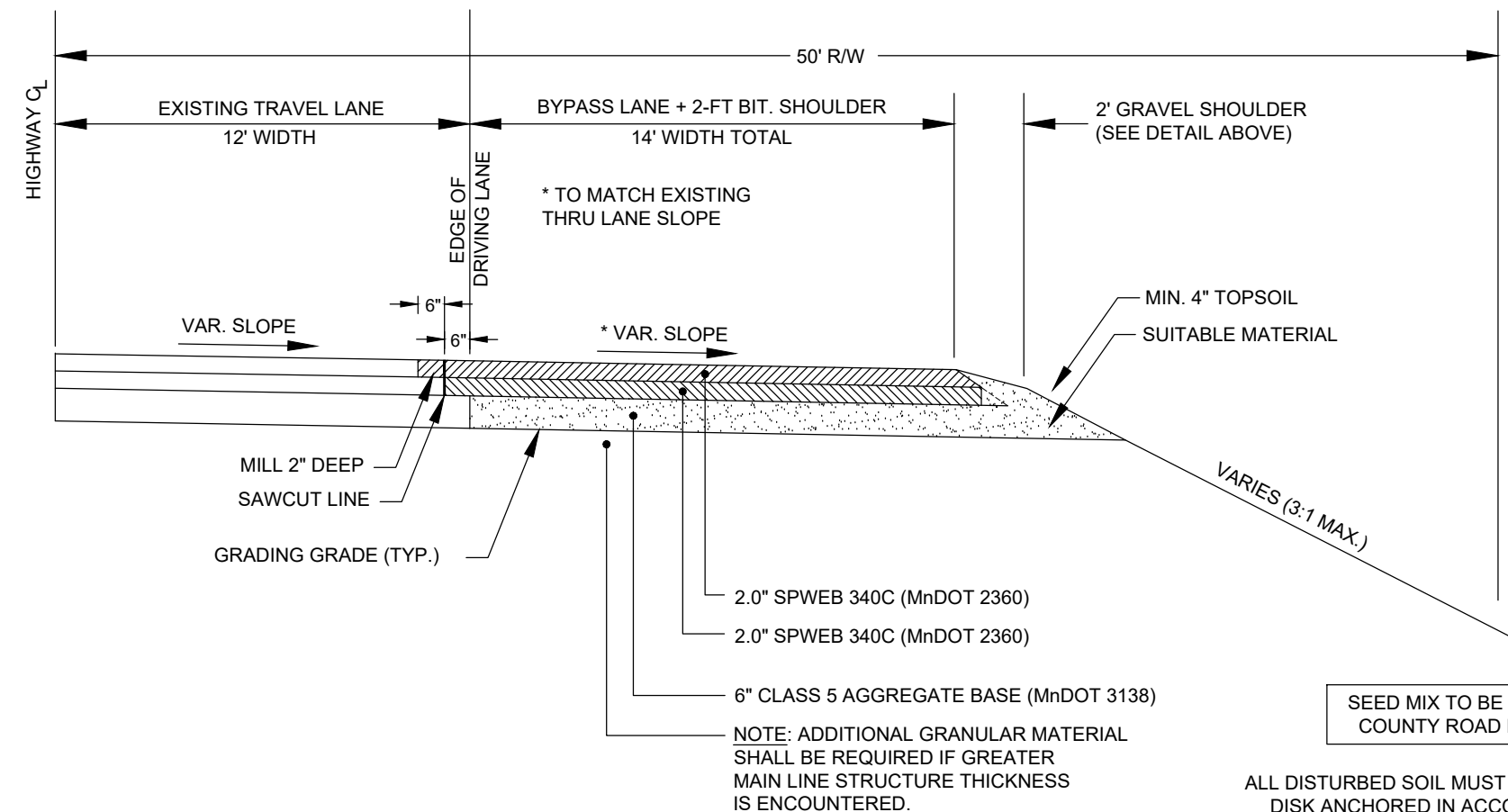


JERRY AUGE, P.E.
ASSISTANT ANOKA COUNTY ENGINEER



ALL DISTURBED SOIL MUST BE SEEDED, MULCHED (TYPE 1), AND
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ALL STRAW FIBER BLANKET FOR DITCH AND ON ALL SLOPES.

SEED MIX TO BE MnDOT 25-141 IN
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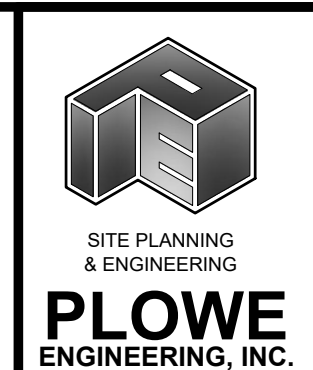
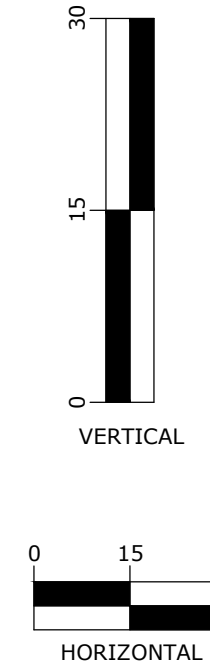
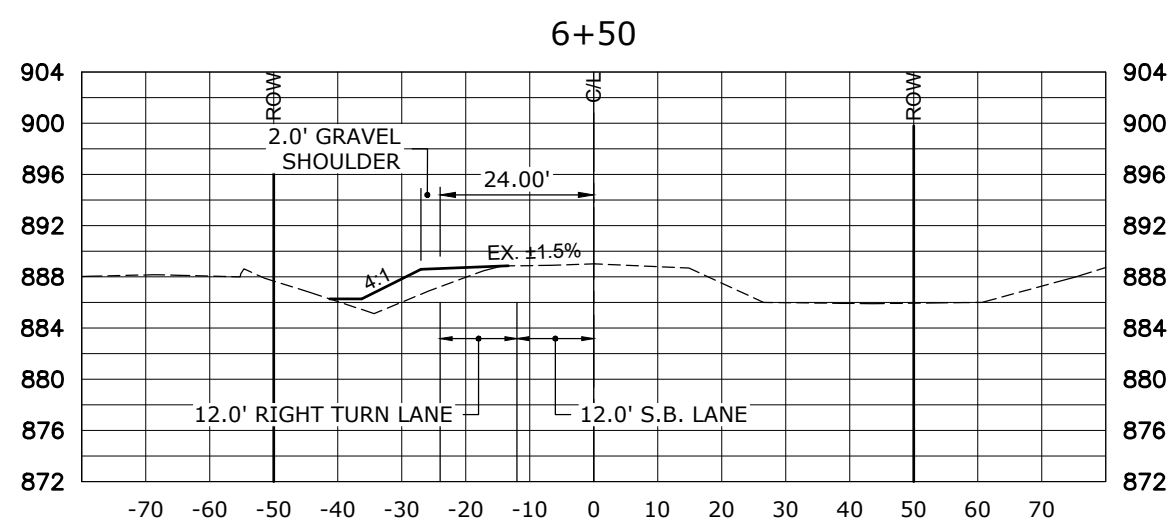
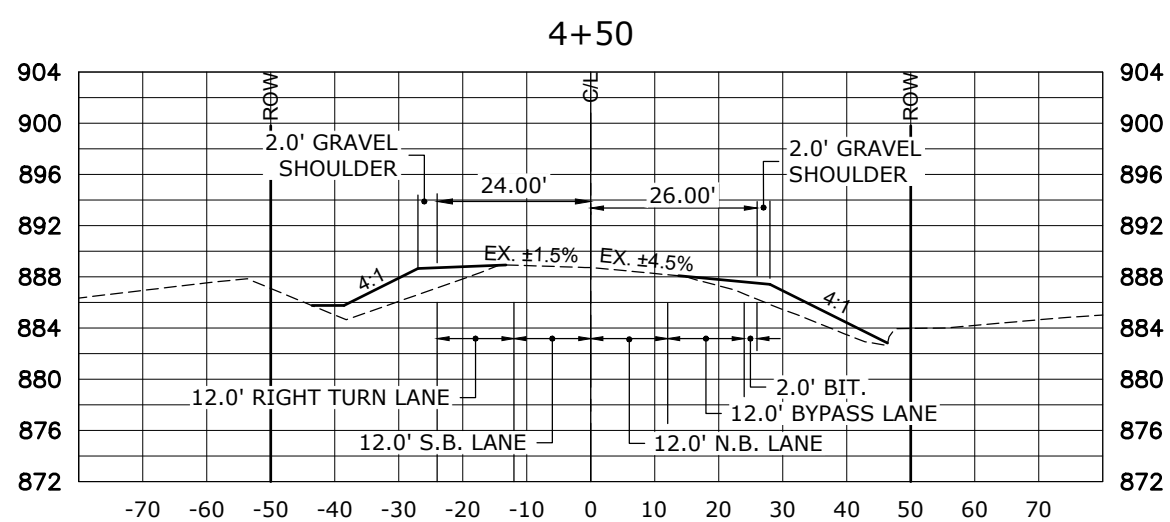
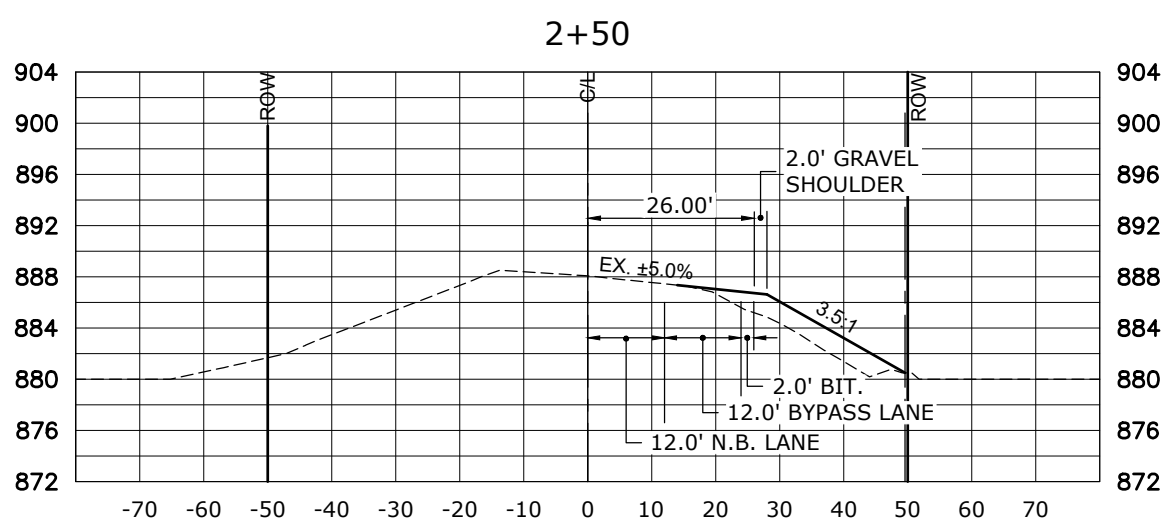
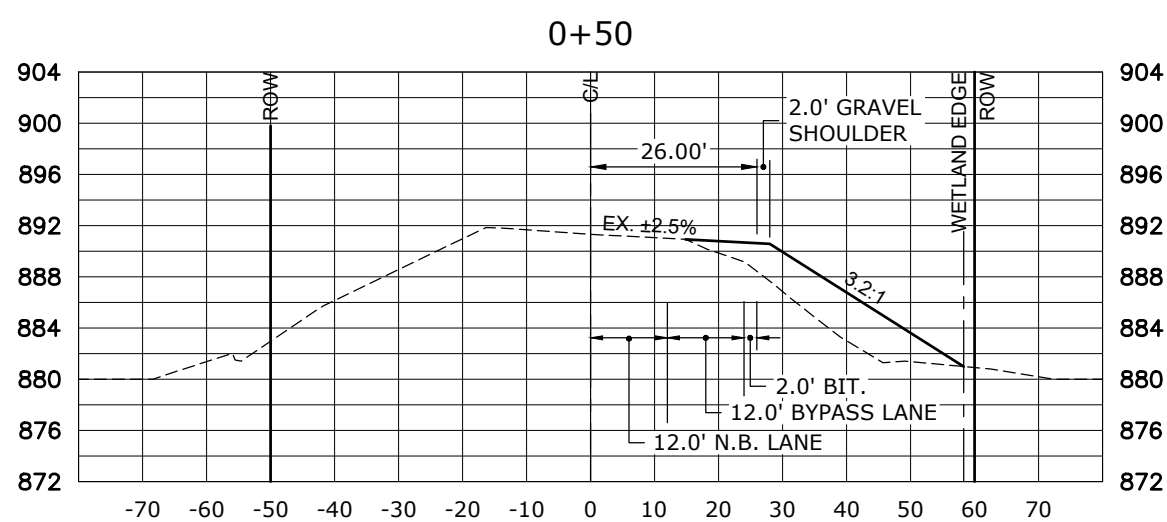
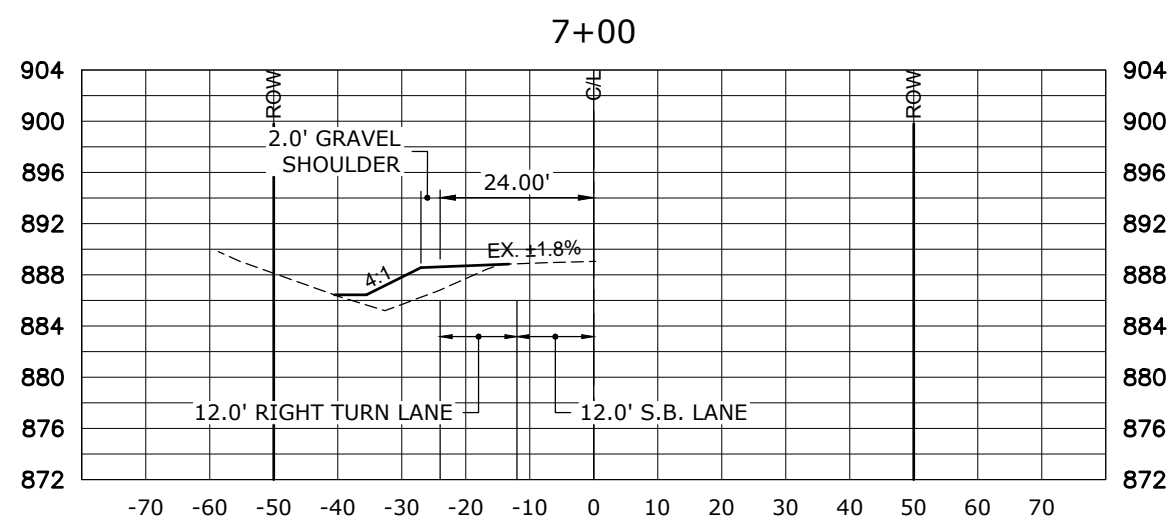
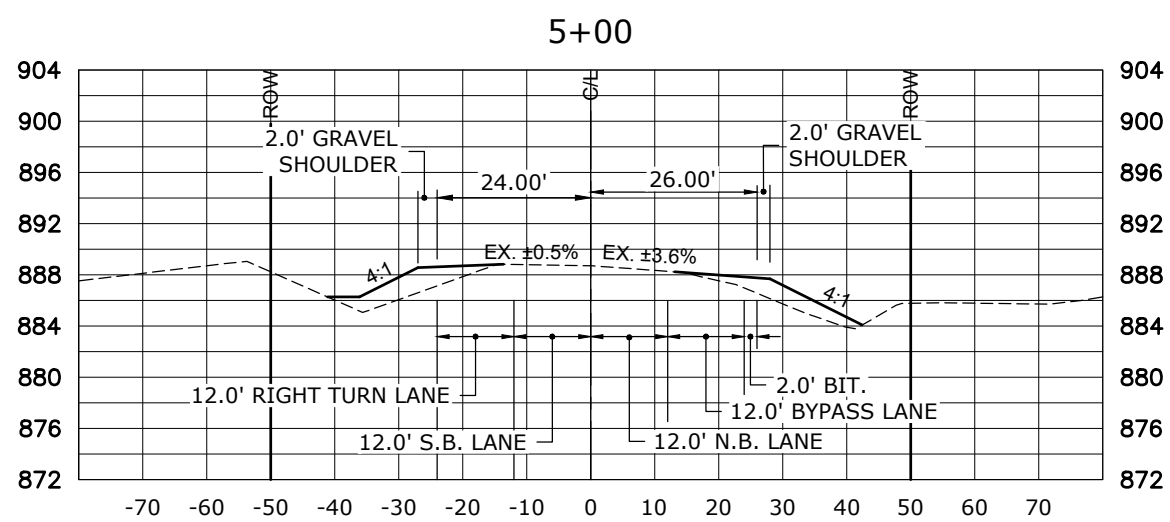
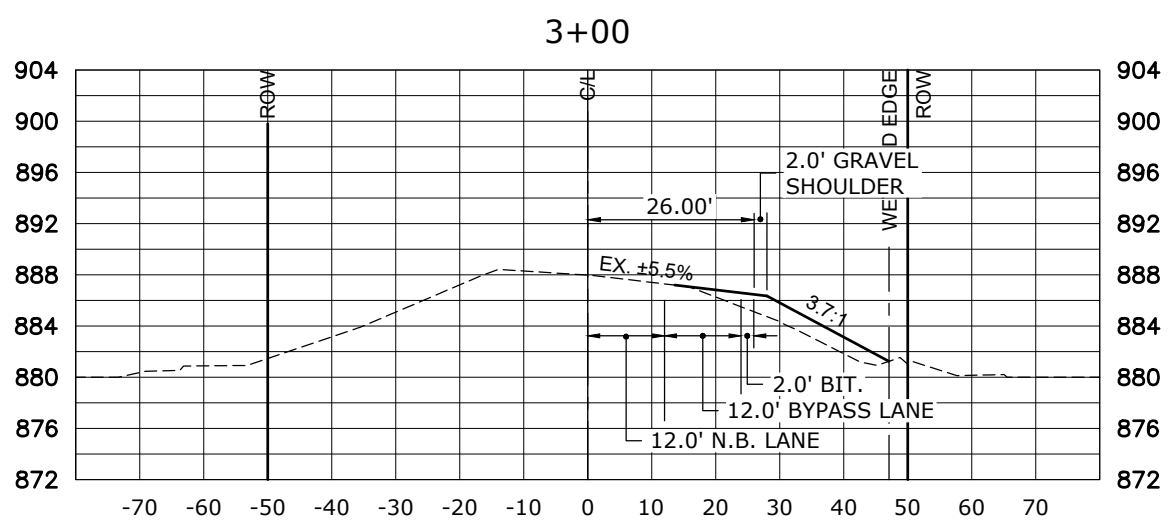
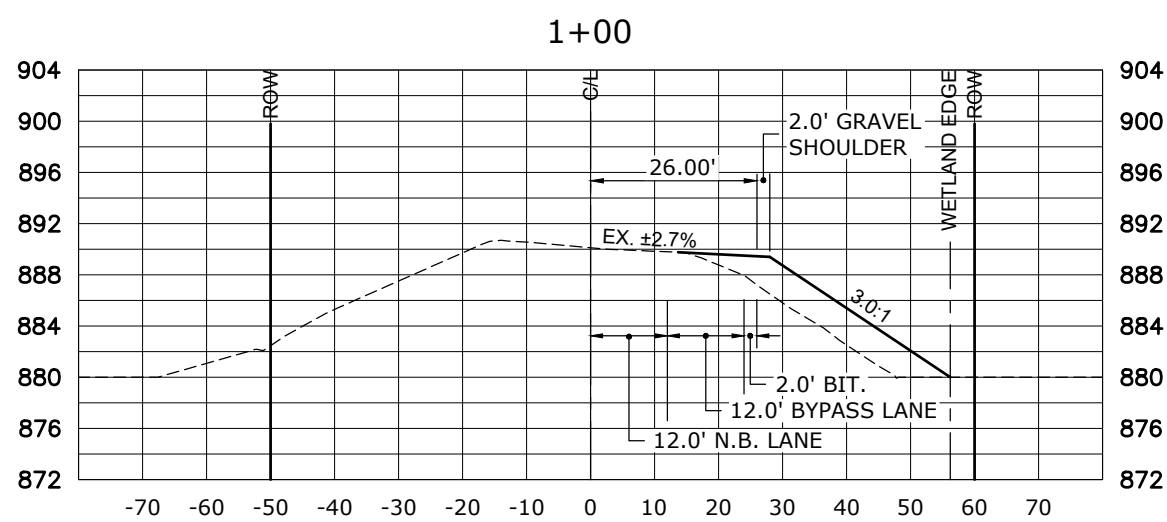
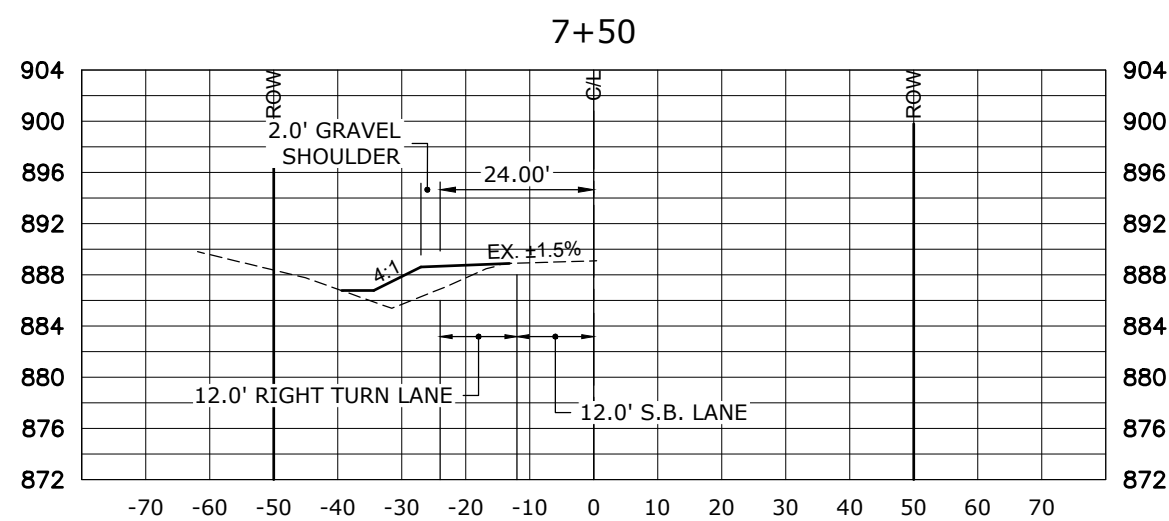
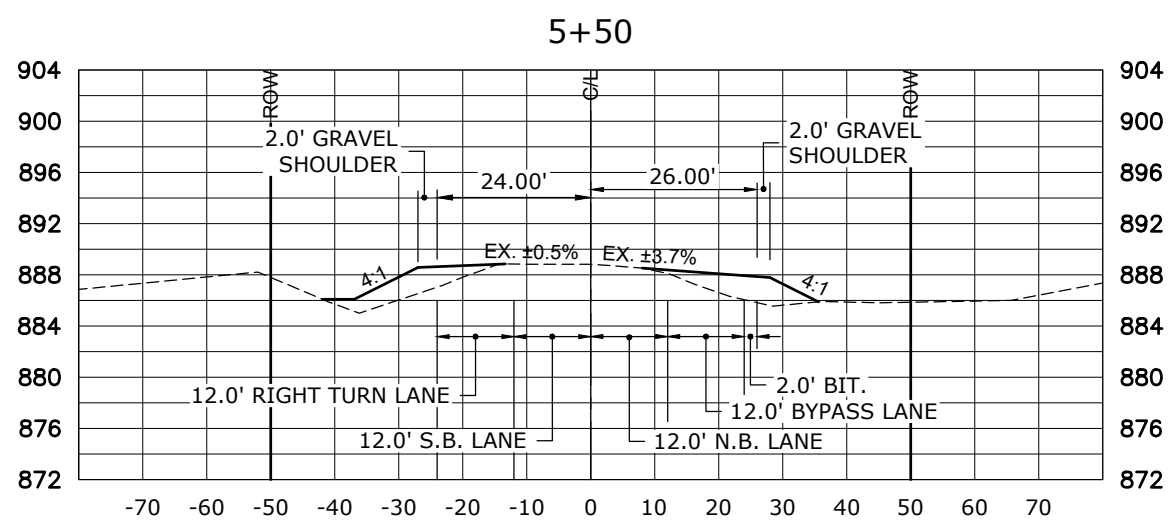
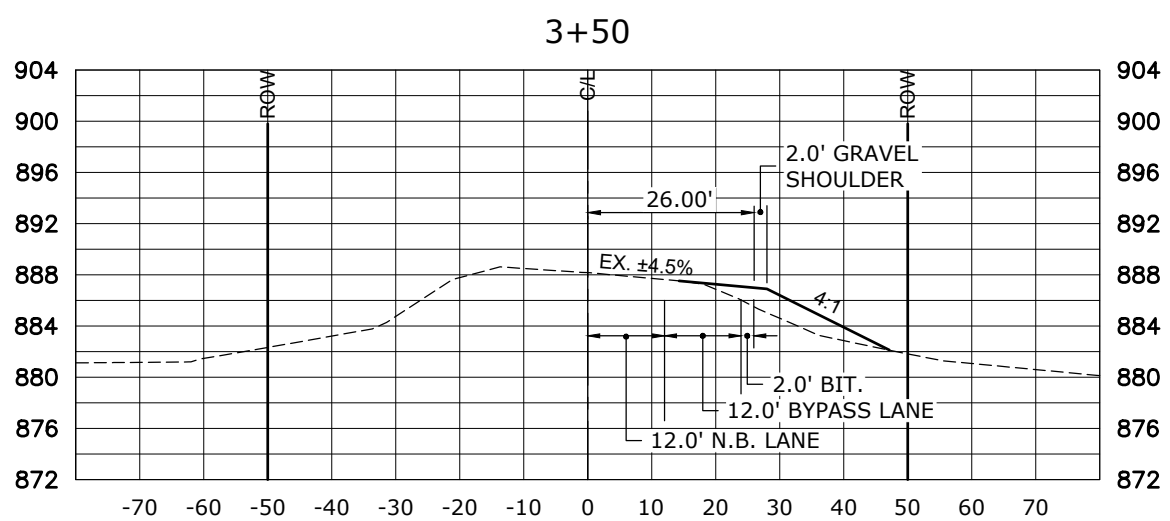
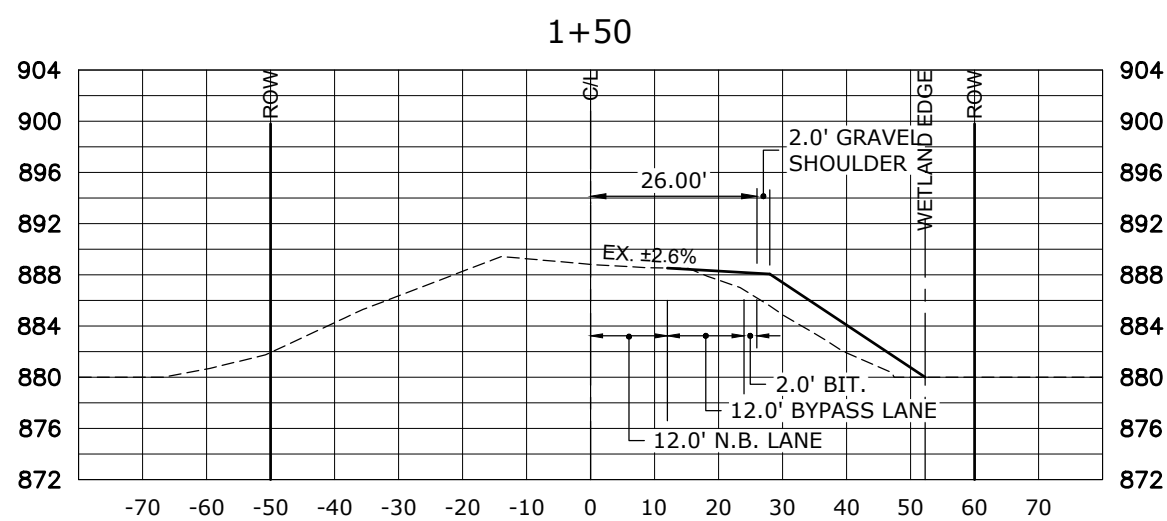
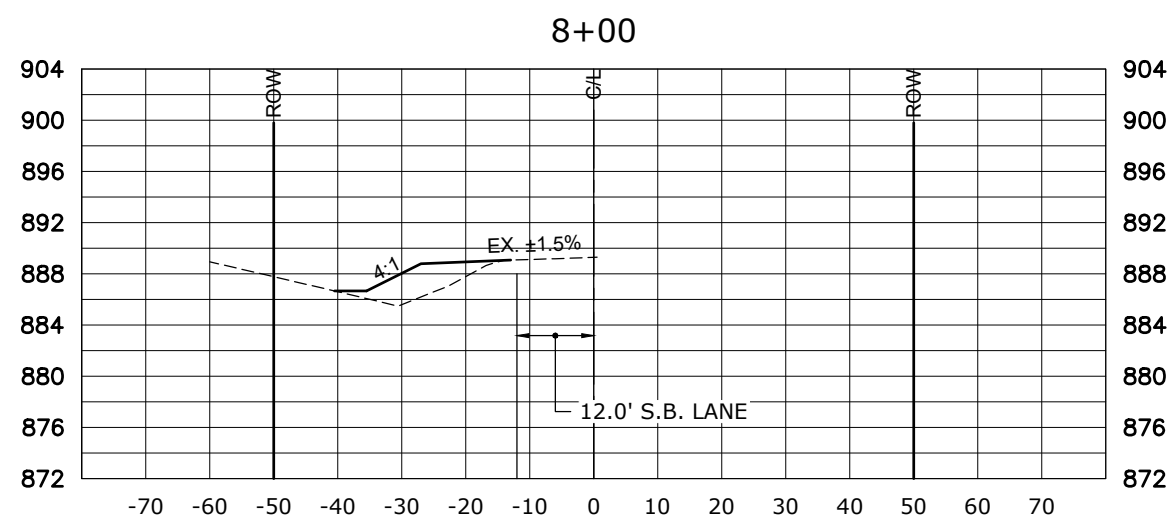
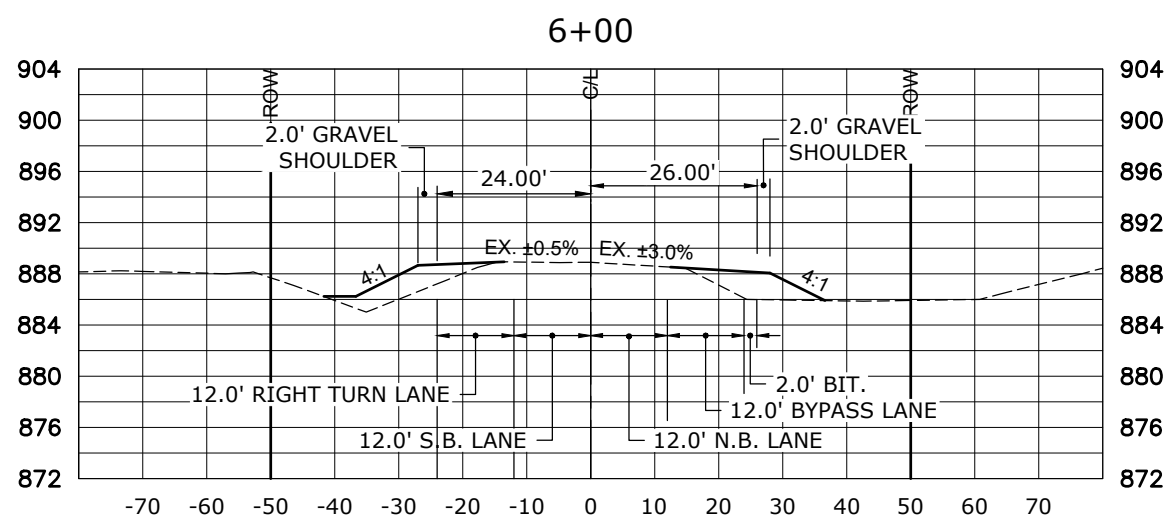
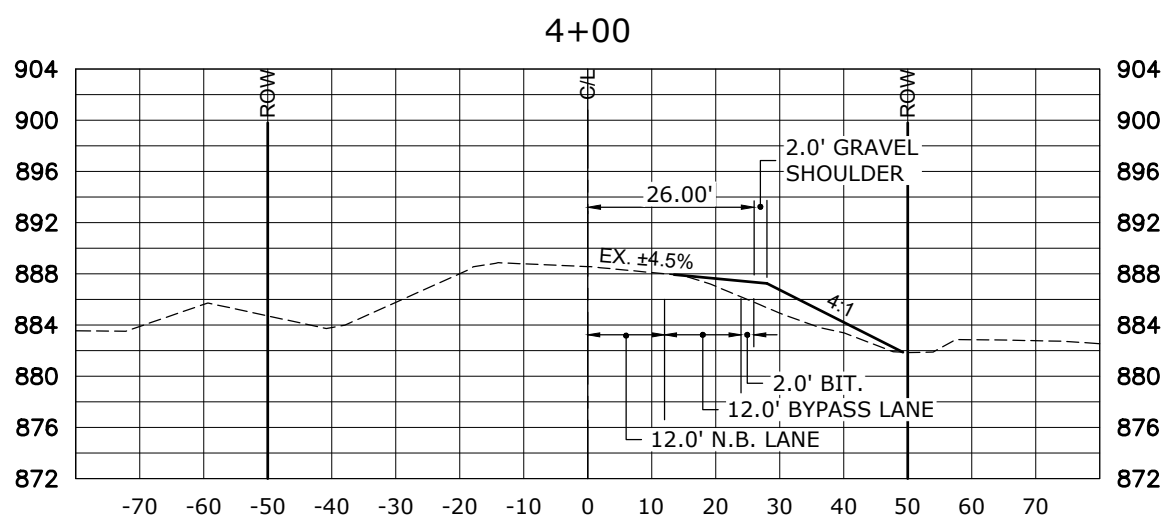
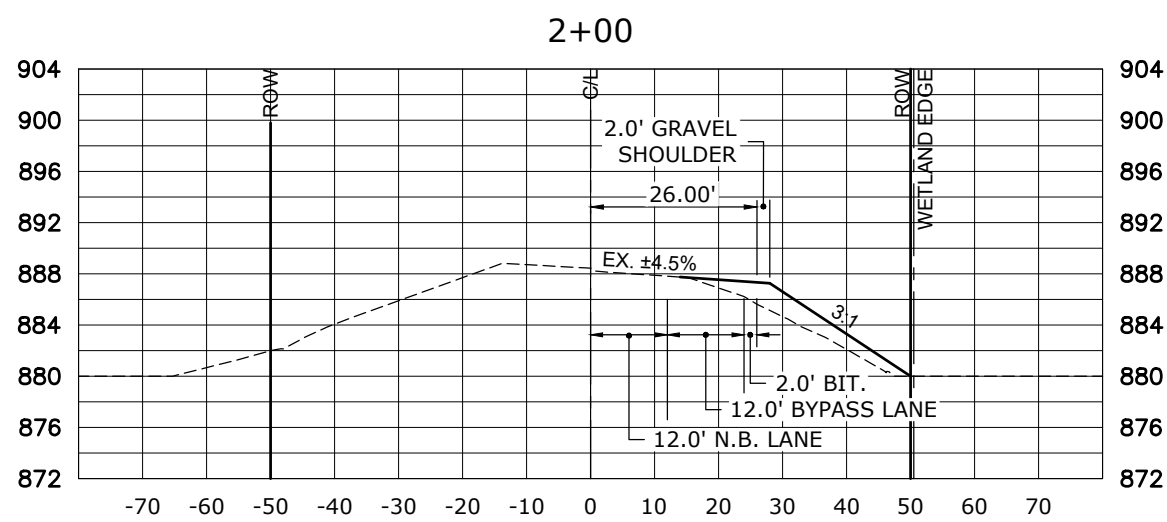


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RIGHT TURN LANE
N.T.S.

BYPASS LANE
N.T.S.



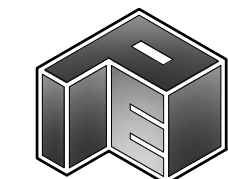
6776 LAKE DRIVE
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NO.	DATE	DESCRIPTION
1	7-30-20	CONSTRUCTION DRAWING SUBMITTAL
2	5-25-21	ANOKA COMMENTS
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ADAM GINKEL
Date: 07.22.2021
License No. 43983

CEDAR CREEK HILLS
CITY OF OAK GROVE, MN
TURN AND BYPASS LANE SECTIONS
PREPARED FOR: SHAW TRUCKING, INC.



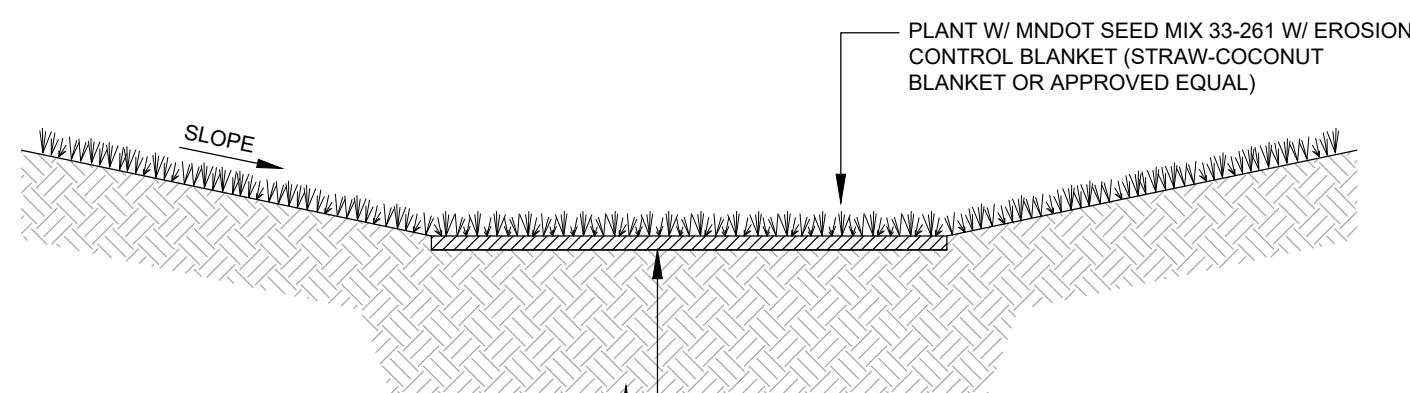
SITE PLANNING
& ENGINEERING

PLOWE
ENGINEERING, INC.

6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

PHONE: (651) 361-8210
FAX: (651) 361-8701

- NOTES:
1. USE LOW-IMPACT, EARTH MOVING EQUIPMENT (WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT-EQUIPMENT WITH TURF-TYPE TIRES) IN BASINS.
 2. NO MINING OF SANDY SOILS ALLOWED BELOW BASINS.
 3. DURING MASS GRADING, PERFORM SOILS CORRECTION IN BASINS AS NECESSARY.
 4. AFTER MASS GRADING, LEAVE BASINS THREE (3) INCHES HIGHER THAN FINISHED GRADE.
 5. PROVIDE SILT FENCE AROUND BASIN.
 6. PROTECT BASIN FROM RUN-OFF DURING REMAINDER OF CONSTRUCTION ACTIVITIES.
 7. KEEP BASIN OFF-LINE UNTIL SITE HAS BEEN STABILIZED.
 8. ONCE SITE HAS BEEN STABILIZED, EXCAVATE BASIN TO FINAL GRADE.



** IN-SITU SOILS
NOTE: MIX IN SALVAGED ON-SITE TOPSOIL INTO TOP 6" (MAX.) OF INFILTRATION AREA

** ALLEVIATE ANY COMPACTED SOILS (BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER OR SUBSOILER) TO A MIN. DEPTH OF 8"

INFILTRATION BASIN #1A

PER PB-6.....WATER ~883.5
PER SB124.....NO MOTTLES IN FULL DEPTH OF TEST PIT (BOTTOM = 885.5)

BOTTOM OF BASIN.....887.0

INFILTRATION BASIN #1B

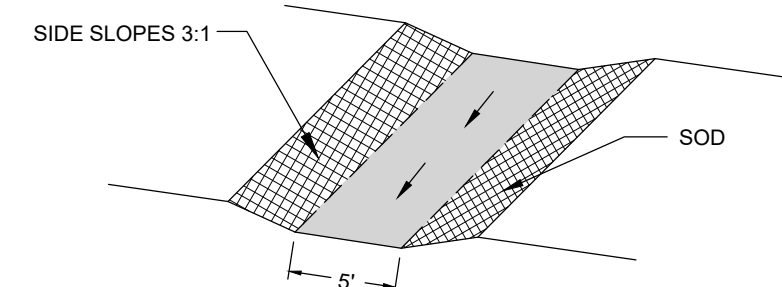
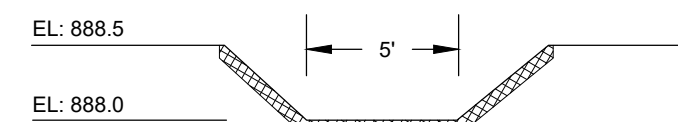
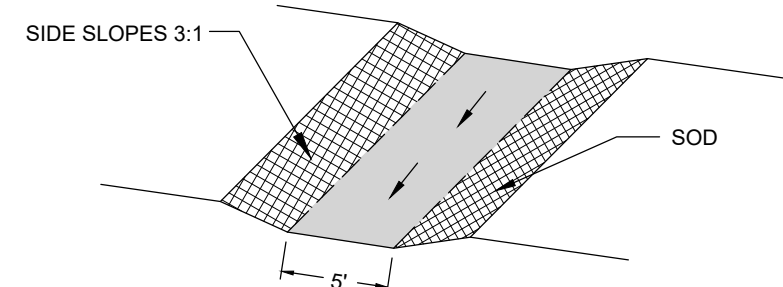
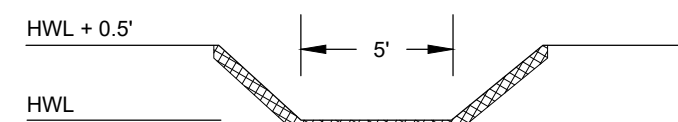
PER PB-7.....WATER ~879.3
PER SB130.....NO MOTTLES IN FULL DEPTH OF TEST PIT (BOTTOM = 882.7)
PER SB131.....NO MOTTLES IN FULL DEPTH OF TEST PIT (BOTTOM = 884.7)

BOTTOM OF BASIN.....886.0

INFILTRATION BASIN #2A

PER PB-3.....WATER ~884.0
PER SB119.....NO MOTTLES IN FULL DEPTH OF TEST PIT (BOTTOM = 884.3)

BOTTOM OF BASIN.....887.0



1 INFILTRATION BASIN

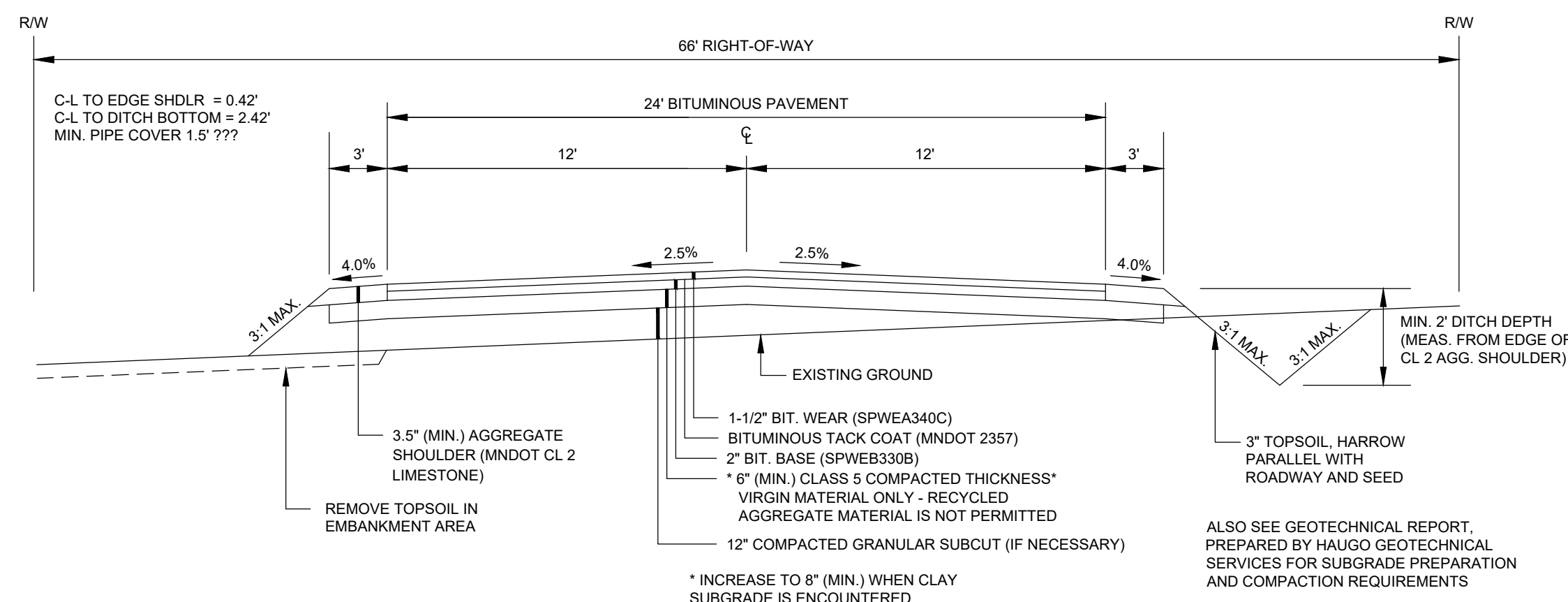
C3.1 N.T.S.

2 POND SODDED OVERFLOW

C3.1 N.T.S.

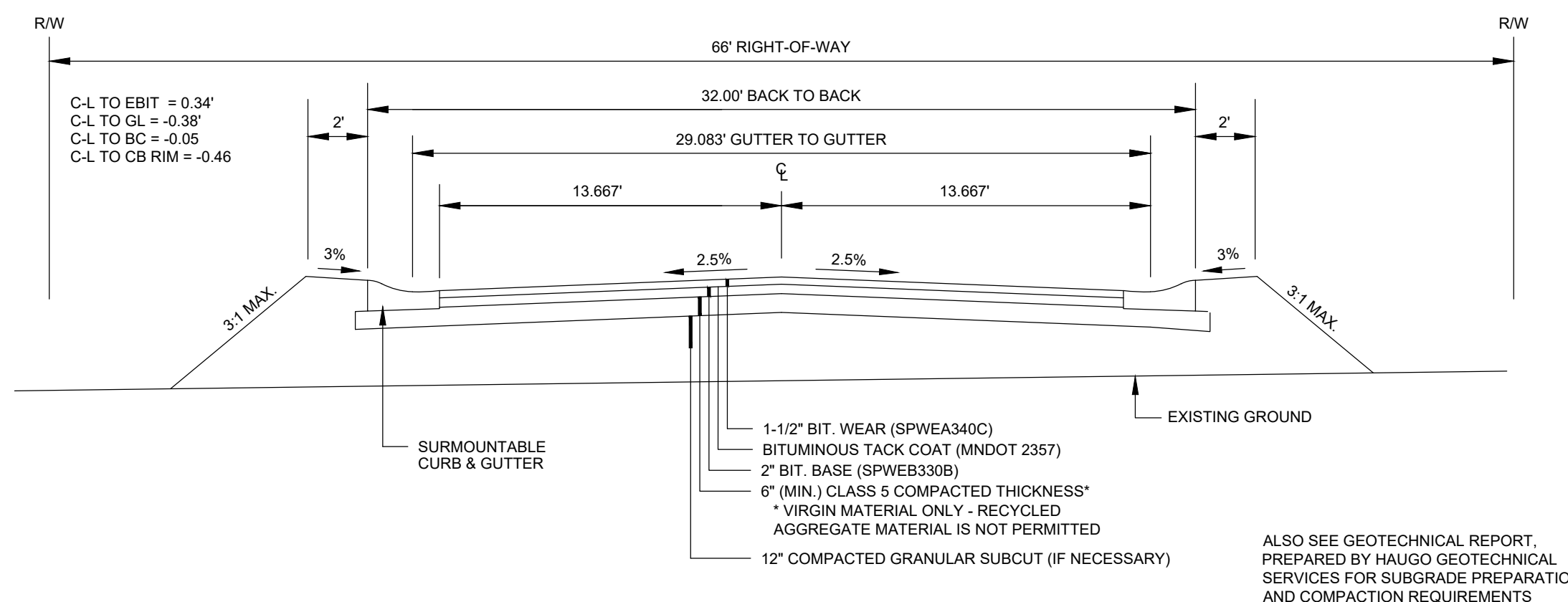
3 BASIN 2A OVERFLOW TO POND 2

C3.1 N.T.S.



4 TYPICAL RURAL STREET SECTION

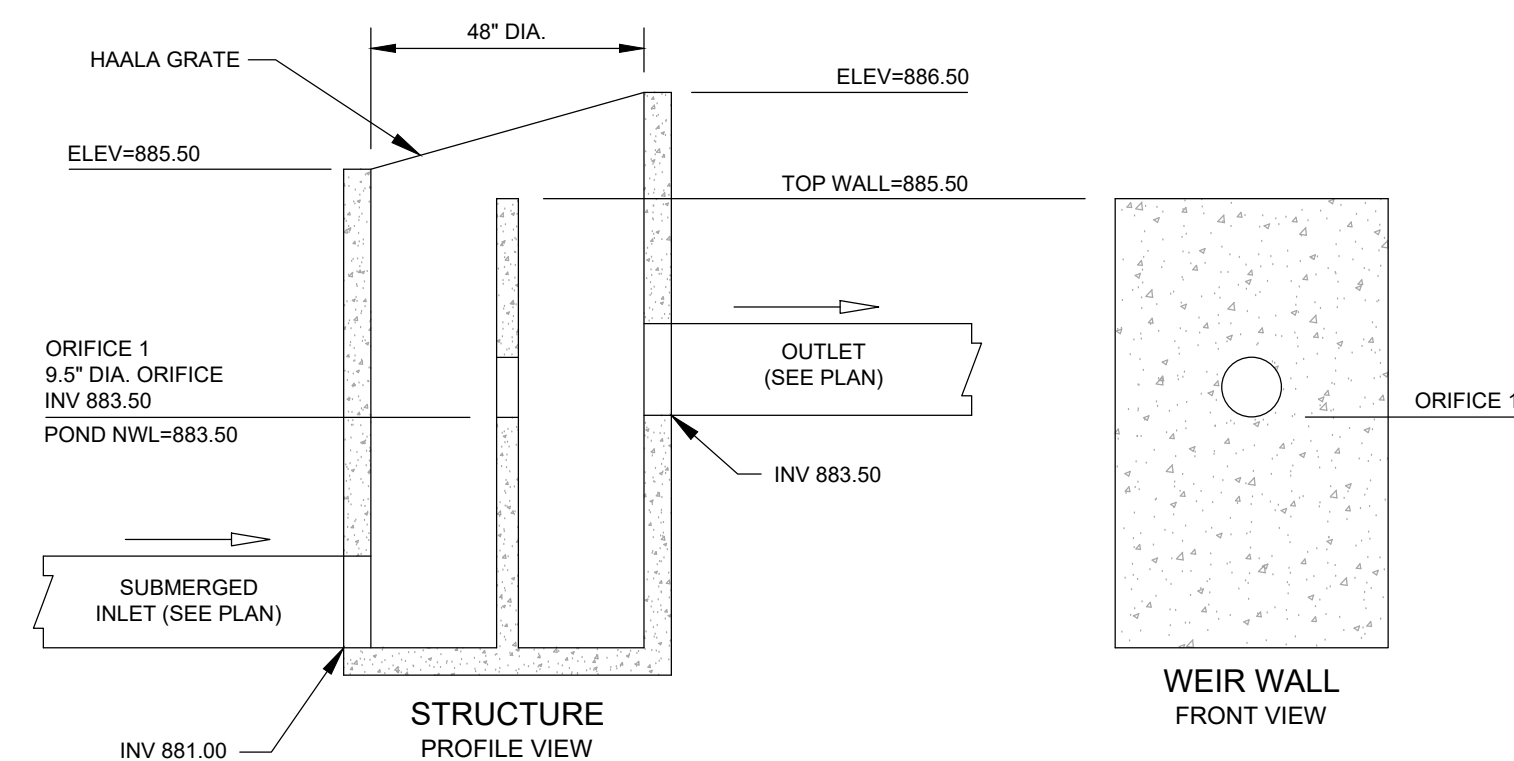
C3.1 N.T.S.



TYPICAL URBAN STREET SECTION

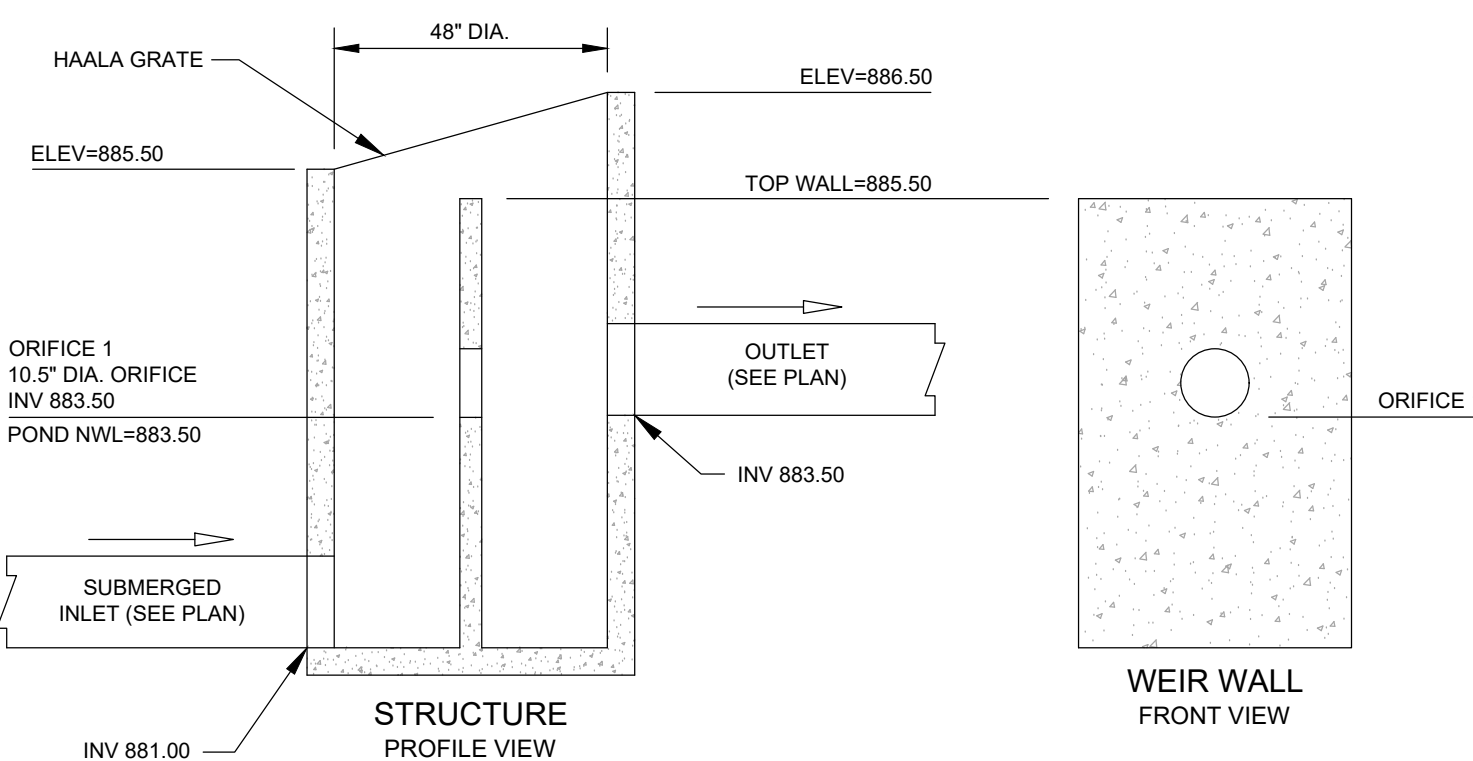
201ST AVE NW - STA 1+75 TO END
200TH AVE NW - STA 11+10 TO END

C3.1 N.T.S.



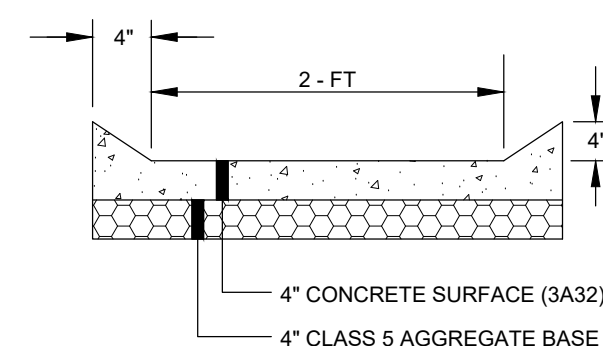
6 POND 1 OCS

C3.1 N.T.S.



7 POND 2 OCS

C3.1 N.T.S.



8 CONCRETE FLUME

C3.1 N.T.S.

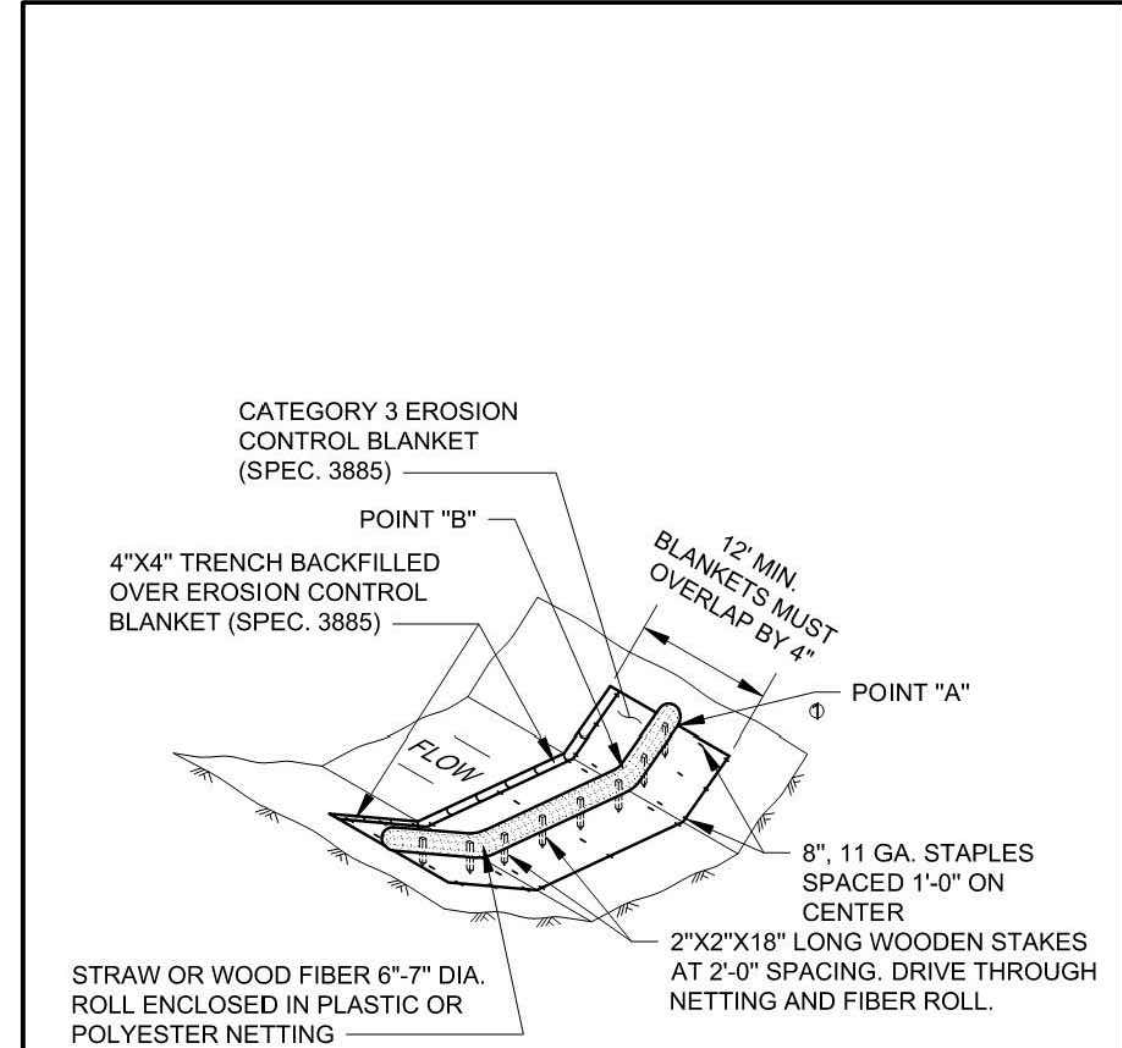
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ADAM GINKEL
Date: 06.17.2021
License No. 43963

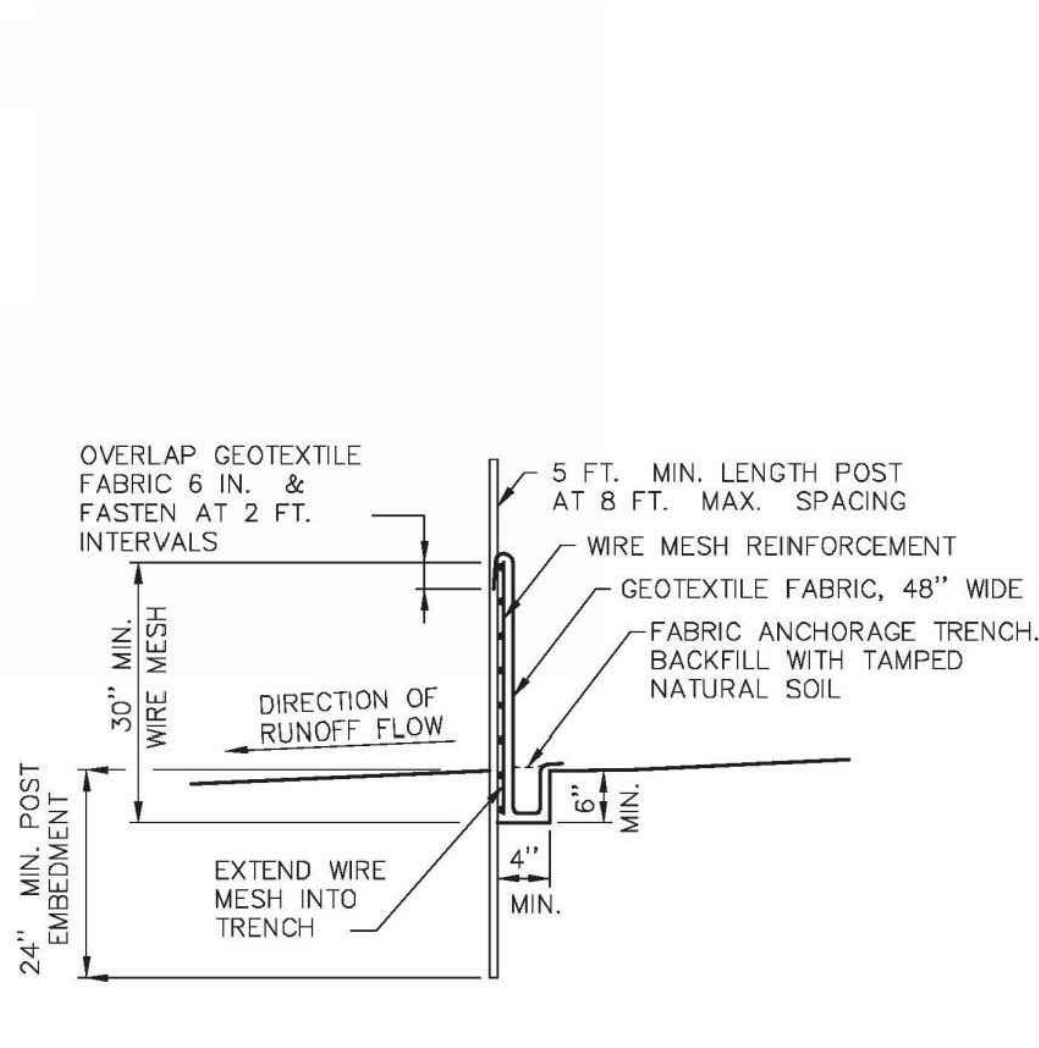
CEDAR CREEK HILLS
CITY OF OAK GROVE, MN
DETAILS
PREPARED FOR: SHAW TRUCKING, INC.

SHEET

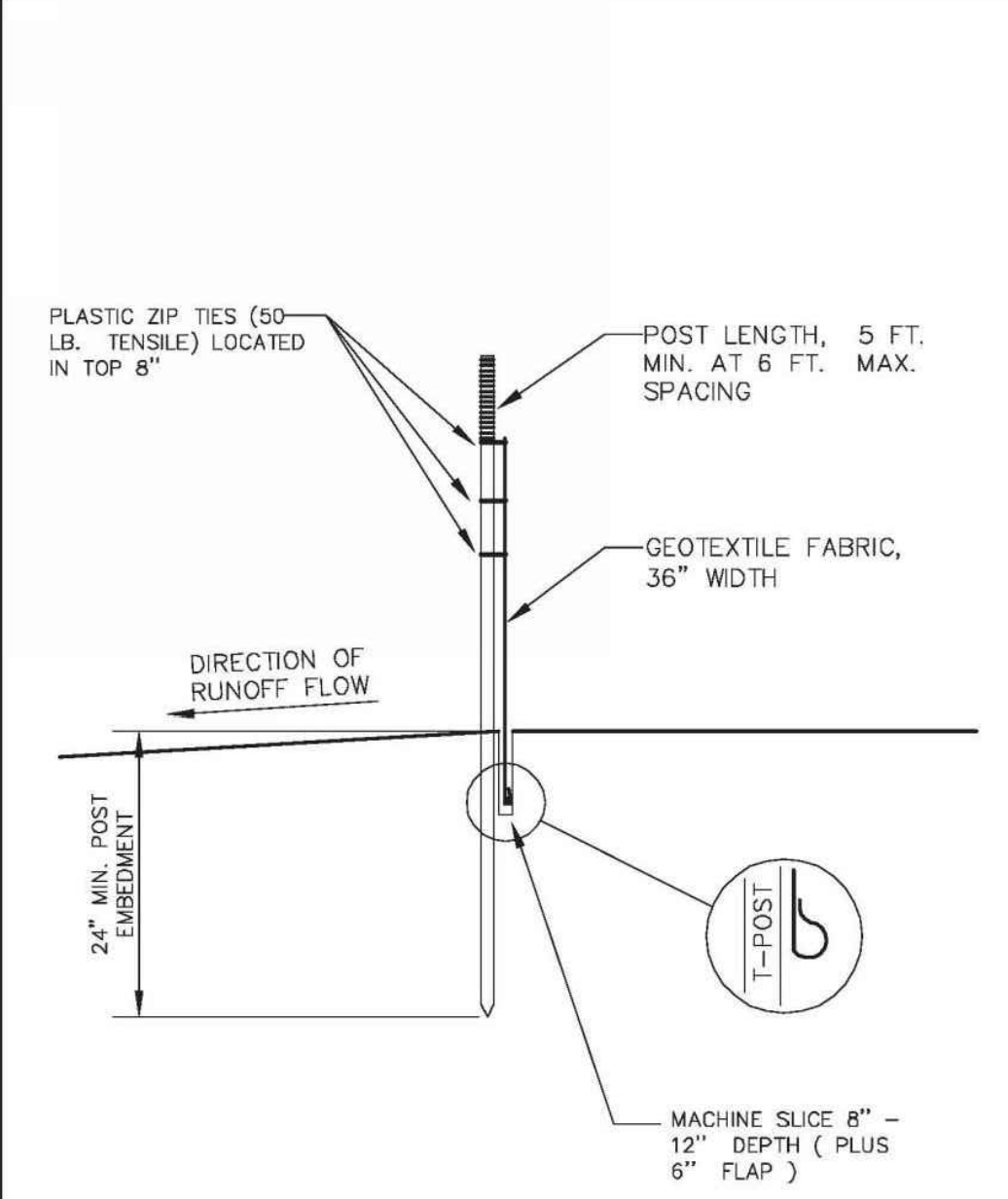
C3.1



BIOROLL BLANKET SYSTEM

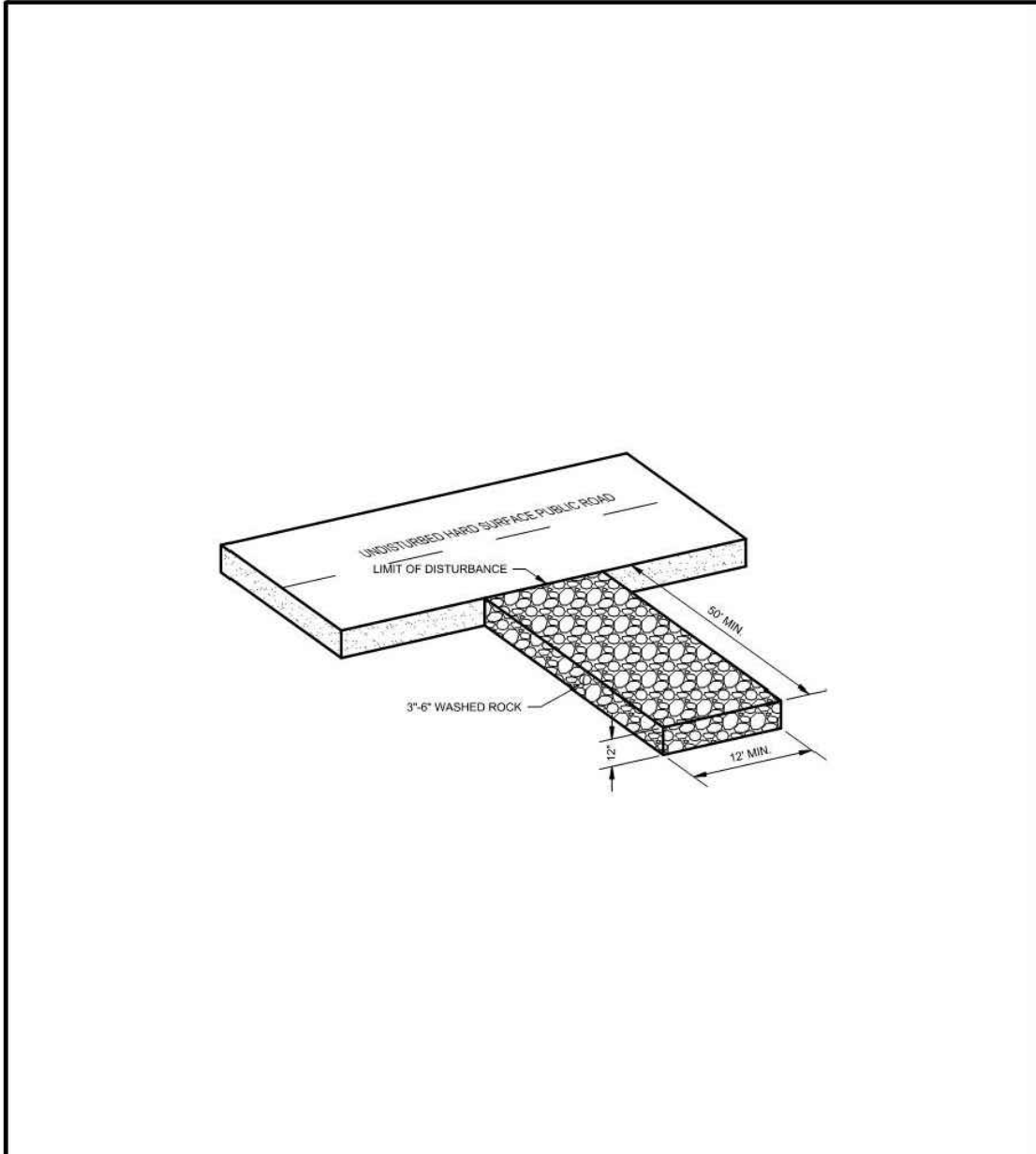


HEAVY DUTY SILT FENCE

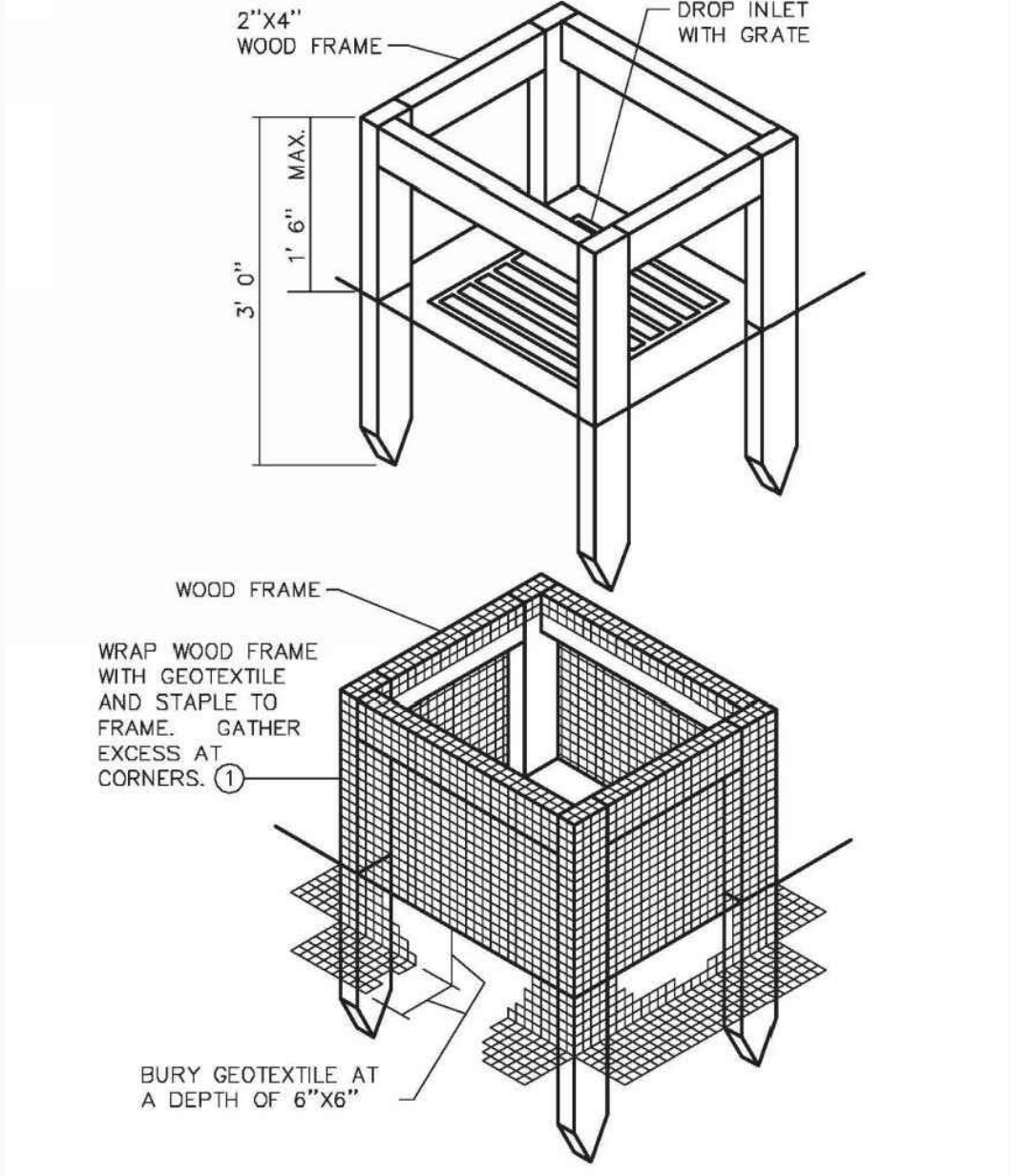


DESIGN GUIDELINES:
MAXIMUM CONTRIBUTING AREA: 3 ACRES

STANDARD MACHINE SLICED SILT FENCE

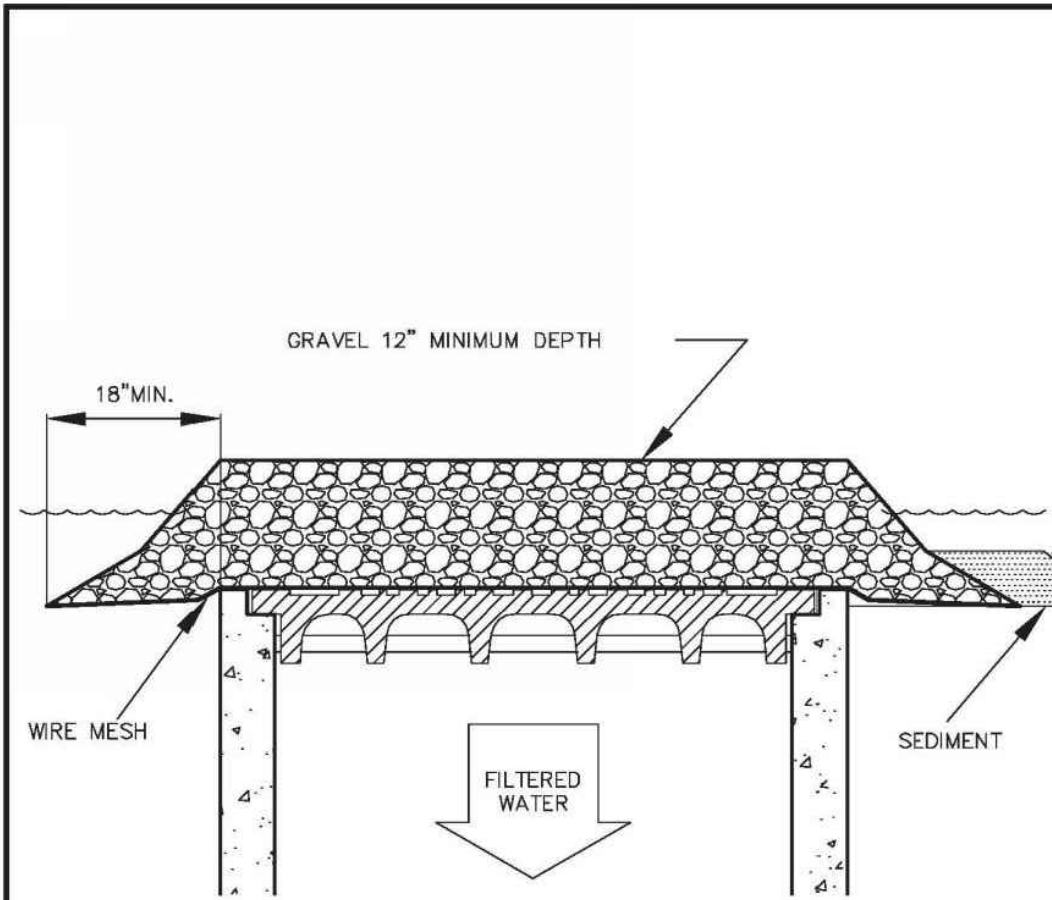


ROCK CONSTRUCTION ENTRANCE

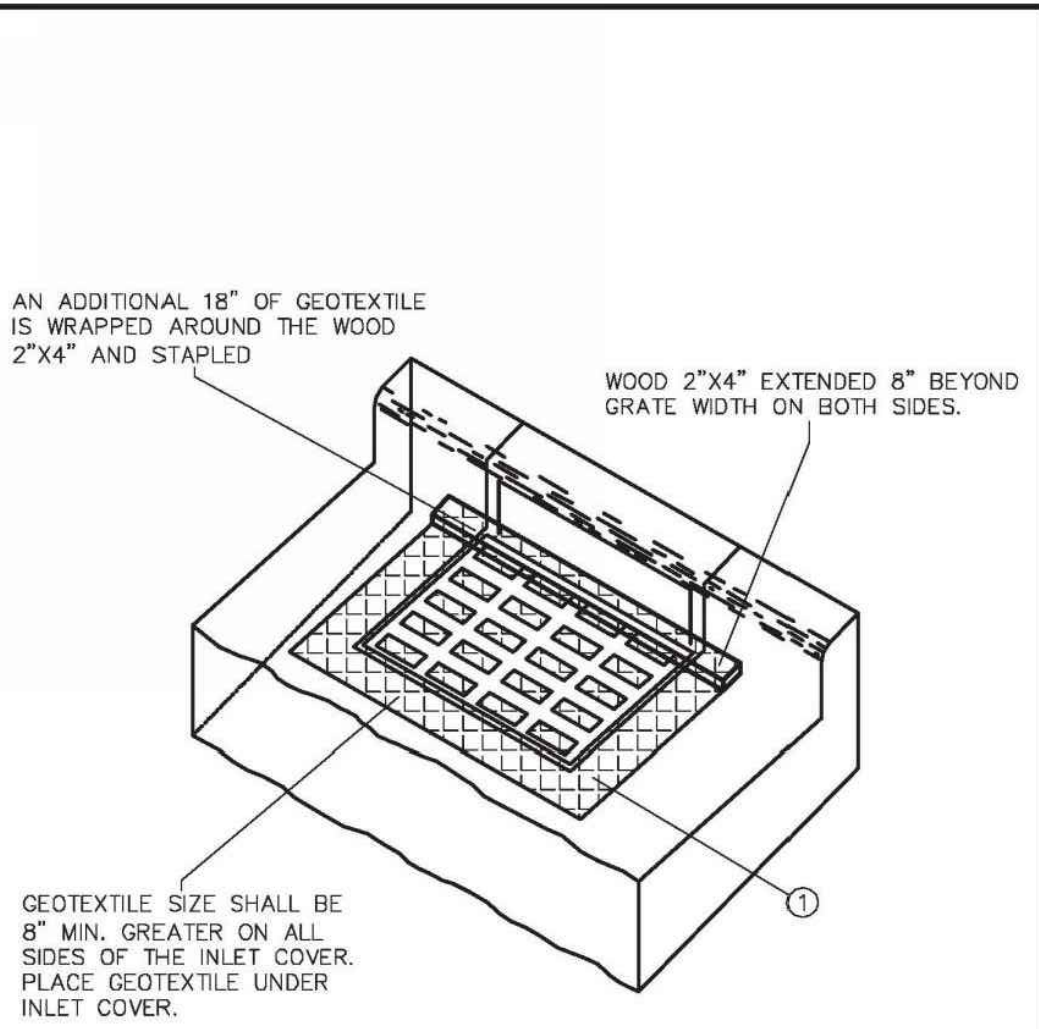


① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL MEET SPEC. 3886 FOR MACHINE SLICED SILT FENCE.
USE WHERE INLET DRAINS AN AREA WITH SLOPES AT 1:3 OR LESS
TYPE A SPEC. 3891

INLET PROTECTION — TYPE A



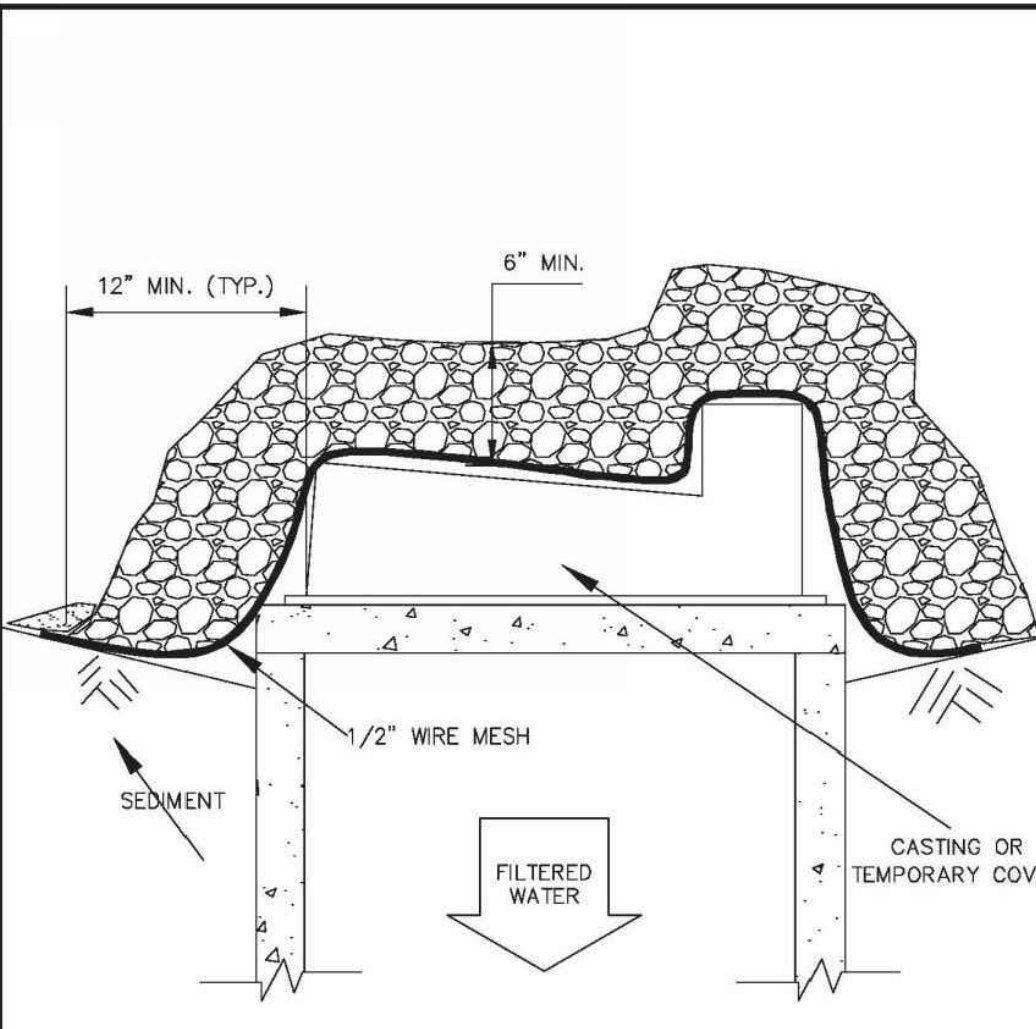
INLET PROTECTION — TYPE B



① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL MEET SPEC. 3886 FOR MACHINE SLICED SILT FENCE.

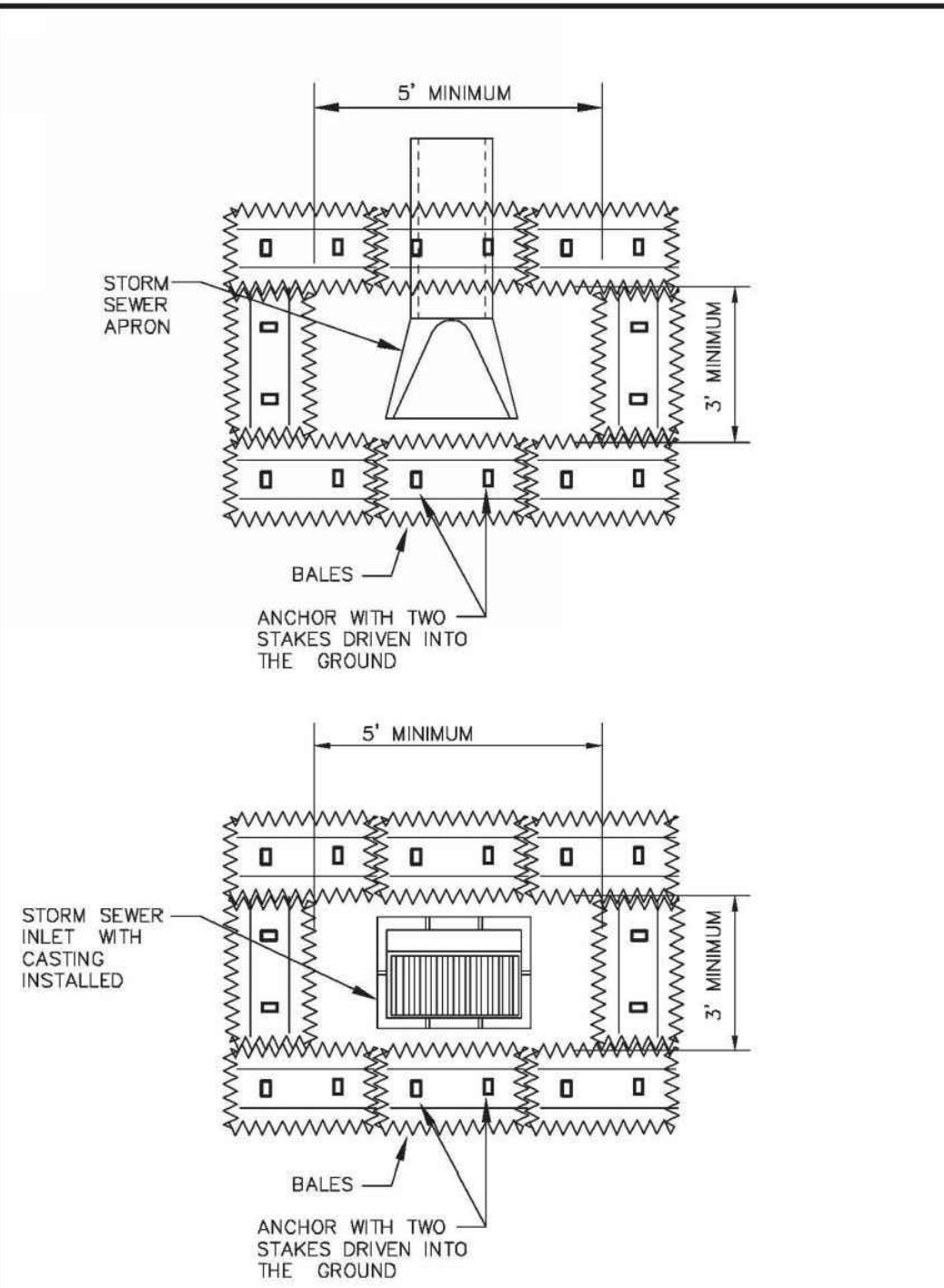
TYPE C SPEC. 3891

INLET PROTECTION — TYPE C

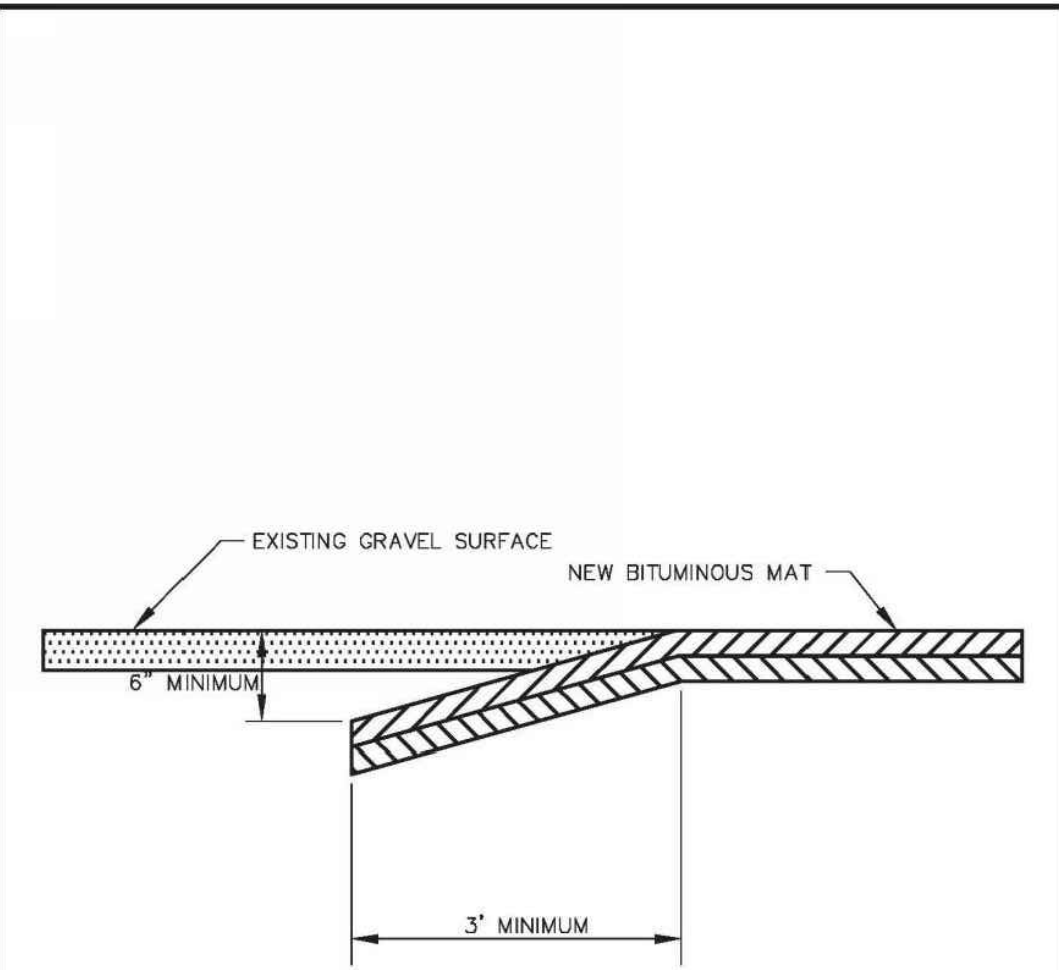


(TYPE B OR C SPEC. 3891)

INLET PROTECTION — TYPE C



INLET PROTECTION — TYPE D



BITUMINOUS TERMINATION DETAIL



SITE PLANNING
& ENGINEERING

PLOWE
ENGINEERING, INC.

6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

PHONE: (651) 361-8210
FAX: (651) 361-8701

NO.	DATE	DESCRIPTION
1	7-30-20	CONSTRUCTION DRAWING SUBMITTAL
2		
3		
4		
5		

DRAWN BY: AG
CHECK BY: CWP
DATE: 02-24-2020
JOB NO.: 19-1884

HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ADAM GINKEL
Date: 06.17.2021
License No. 43963

CEDAR CREEK HILLS
CITY OF OAK GROVE, MN
DETAILS
PREPARED FOR: SHAW TRUCKING, INC.

SHEET
C3.2

PROJECT NAME
CEDAR CREEK BLUFFS

PROJECT LOCATION
** NO ASSIGNED ADDRESS **
WEST SIDE OF CEDAR DR NW
(AT APPROX. 200TH ST NW)
OAK GROVE, MN 55011

LATITUDE: 45.3322
LONGITUDE: -93.2869
P.I.D. 23-33-24-41-0001
23-33-24-42-0001
23-33-24-14-0005 (PART OF)
24-33-24-32-0002

DEVELOPER
SHAW TRUCKING, INC.
18530 BUCHANAN ST NE
CEDAR, MN 55011

CONTACT NAME: DON SHAW
CONTACT PHONE: (763) 434-3300
CONTACT E-MAIL: DSHAW@SHAWTRUCKINGINC.COM

GENERAL CONTRACTOR
TBD

NARRATIVE - PERMANENT STORMWATER TREATMENT SYSTEMS

STORM WATER FROM SITE IMPROVEMENTS IS TO BE ROUTED TO NEW ON-SITE INFILTRATION BASINS, WHICH WILL RETAIN/INFILTRATION ALL DESIGN STORM EVENTS (2-, 10-, AND 100-YEAR). SEE "STORMWATER DRAINAGE REPORT" FOR FURTHER DISCUSSION AND SITE SPECIFIC CALCULATIONS.

SITE IMPERVIOUS AREAS	BEFORE CONSTRUCTION	AFTER CONSTRUCTION
TOTAL SITE AREA	97.5± ACRES	
TOTAL ESTIMATED IMPERVIOUS	0.4 ACRES	4.63 ACRES
TOTAL ESTIMATED PERVIOUS	97.1 ACRES	92.87 ACRES

APPROX. 4.23 ACRE INCREASE IN IMPERVIOUS

TOTAL DISTURBED AREA
~15 ACRES

SITE MAP W/ EXISTING AND FINAL GRADES AND DESIGN CALCULATIONS

SEE "STORMWATER DRAINAGE REPORT" FOR EXISTING AND PROPOSED AREA MAPS, DENOTING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW, AND DISCHARGE POINTS WHERE STORMWATER LEAVES THE SITE.

RECEIVING WATERS WITHIN ONE MILE	TYPE OF WATER BODY	SPECIAL WATER	IMPAIRED WATER
NAME OF WATER BODY	WETLAND	NO	NO
UNNAMED WETLAND	CREEK	NO	NO
CEDAR CREEK			

BUFFER TO SURFACE WATER

☐ YES ☒ NO ☐ N/A

IF THE SITE DRAINS TO A SURFACE WATER, IS A 50-FT NATURAL BUFFER ADJACENT TO THE SURFACE WATER PRESERVED?

NOTE: NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS.

A. NO - A 50-FT NATURAL BUFFER IS NOT MAINTAINED IN ALL LOCATIONS. WHERE IT IS NOT ACHIEVED, REDUNDANT SEDIMENT CONTROL MEASURES ARE PROVIDED.

TEMPORARY SEDIMENTATION BASINS

☒ YES ☐ NO ☐ N/A

IF TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, IS A TEMPORARY SEDIMENT BASIN PROVIDED FOR TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS?

A. IT IS NOT ANTICIPATED THAT THERE WILL BE 10 OR MORE ACRES OF DISTURBED SOIL DIRECTED TO A COMMON LOCATION. BUT IF SITE CONDITIONS REQUIRE THIS, THE CONTRACTOR WILL PROVIDE TEMPORARY SEDIMENTATION BASINS AS NECESSARY.

INFILTRATION FEASIBILITY

☒ YES ☐ NO ☐ N/A

ARE THERE ANY INFILTRATION RESTRICTIONS FOR THE SITE (SEE 16.14 THROUGH 16.21)?

A. THE SITE GENERALLY HAS SOILS SUITABLE FOR INFILTRATION. THERE ARE LOCATIONS WHERE THE 3-FT OF SEPARATION TO SEASONALLY HIGH WATER LEVELS CANNOT BE ACHIEVED.

ADDITIONAL STORMWATER MITIGATION MEASURES

☐ YES ☒ NO

ARE THERE ANY STORMWATER MITIGATION MEASURES PER:

- ENVIRONMENTAL REVIEW DOCUMENT?
- ENDANGERED SPECIES REVIEW?
- ARCHAEOLOGICAL REVIEW?
- OTHER LOCAL, STATE OR FEDERAL REVIEW?

IF YES TO ANY OF THE ABOVE, DESCRIBE THE MITIGATION MEASURES. FOR PURPOSES OF THIS PERMIT, MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE, OR MITIGATE FOR IMPACTS RELATED TO EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORMWATER TREATMENT SYSTEM, POLLUTION PREVENTION MANAGEMENT MEASURES AND DISCHARGES ASSOCIATED WITH THE PROJECT'S CONSTRUCTION ACTIVITY. [MINN. R. 7090]

A. THERE ARE NO STORMWATER MITIGATION MEASURES KNOWN.

DOCUMENTATION OF TRAINED INDIVIDUALS

A. INDIVIDUAL WHO PREPARED THE SWPPP:

ADAM GINKEL
PLOWE ENGINEERING, INC.
8776 LAKE DRIVE
LINO LAKES MN 55014
(651) 361-8234
adam@plowe.com

B. INDIVIDUAL(S) OVERSEEING IMPLEMENTATION OF, REVISING AND/OR AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS FOR THE PROJECT. ONE OF THESE INDIVIDUALS MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA. [MINN. R. 7090]

NAME _____
COMPANY _____
ADDRESS 1 _____
ADDRESS 2 _____
PHONE _____
EMAIL _____

TBD - WHEN INFORMATION BECOMES AVAILABLE, CONTRACTOR TO PROVIDE INFORMATION TO CITY AND UPDATE SWPPP ACCORDINGLY

C. INDIVIDUAL(S) PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPS. [MINN. R. 7090]

NAME _____
COMPANY _____
ADDRESS 1 _____
ADDRESS 2 _____
PHONE _____
EMAIL _____

TBD - WHEN INFORMATION BECOMES AVAILABLE, CONTRACTOR TO PROVIDE INFORMATION TO CITY AND UPDATE SWPPP ACCORDINGLY

LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER FACILITIES

THE PROPOSED STORMWATER MANAGEMENT FOR THIS SITE INCLUDES SEVERAL INFILTRATION BASINS AND NURP PONDS THAT WILL BE MAINTAINED BY THE CITY OF OAK GROVE.

REVEGETATION SPECIFICATIONS	ITEM	MNDOT SPECIFICATION/NOTES
	SOD	3878
	SEED **	3876
	* FOR TURF ESTABLISHMENT	
	COMMERCIAL TURF	MNDOT MIX 25-131 (220 LBS/ACRE)
	RESIDENTIAL TURF	MNDOT MIX 25-131 (120 LBS/ACRE)
	TEMPORARY FALL COVER	MNDOT MIX 21-112 (100 LBS/ACRE)
	SPRING/SUMMER	MNDOT MIX 21-111 (100 LBS/ACRE)
	SOIL-BUILDING COVER	MNDOT MIX 21-113 (110 LBS/ACRE)
	1-2 YEARS COVER	MNDOT MIX 22-111 (30.5 LBS/ACRE)
	2-5 YEARS COVER	MNDOT MIX 22-112 (40 LBS/ACRE)
	MULCH	3882 (TYPE 1 - DISC ANCHORED)
	HYDROMULCH	3884
	FERTILIZER	3881
	WOOD FIBER BLANKET	3885 (CATEGORY 2)

* MOW A MINIMUM OF:
RESIDENTIAL TURF - ONCE PER 2 WEEKS
COMMERCIAL TURF - ONCE PER 4 WEEKS

** SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.

QUANTITIES - ESTIMATED QUANTITIES FOR EROSION AND SEDIMENT CONTROL MEASURES	TYPE	QTY	UNIT
	SILT FENCE	12,555	LINEAR FEET
	REDUNDANT SEDIMENT (EX: SILT FENCE, BIOROLL)	2,701	EACH
	RIP-RAP W/ GEO-FABRIC	30.8	CUBIC YARDS
	CATCH BASIN INLET PROTECTION	5	EACH
	STABILIZED (SODDED) OVERFLOW	5	EACH
	EROSION CONTROL BLANKET	3	SQUARE YARDS
	SEED & MULCH (GENERAL)	15	ACRE
	ROCK CONSTRUCTION ENTRANCE	1	EACH

NARRATIVE - TIMING FOR INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES

- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
- CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON PLAN.
- 2.1. ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.
- 2.2. THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION.
- 2.3. SILT FENCE SHALL REMAIN IN-PLACE UNTIL SITE HAS BEEN STABILIZED.
- CONTRACTOR SHALL INSTALL THE ROCK CONSTRUCTION ENTRANCE
- CONTRACTOR TO INSTALL TREE PROTECTION FENCING AS APPLICABLE
- CONTRACTOR SHALL PERFORM SITE GRADING ON AN AREA-BY-AREA BASIS TO MINIMIZE UNSTABILIZED AREAS.
- 5.1. CONTRACTOR MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 OF THE PERMIT, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.
- 5.2. CONTRACTOR TO PROVIDE TEMPORARY SEDIMENTATION BASINS AS REQUIRED IN SECTION 14.1 THROUGH 14.10 WITH THE REQUIREMENT BEING FIVE (5) OR MORE ACRES OF DISTURBED SOILS - AN IMPAIRED WATER IS LOCATED WITHIN ONE (1) MILE OF THE PROJECT BOUNDARY.
- CONTRACTOR TO SHALL PAY SPECIAL ATTENTION TO ADJACENT PROPERTY LINES TO ENSURE THE EROSION CONTROL PRACTICES INPLACE IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS OR IMPLEMENTED IN THE FIELD SHALL BE IN ACCORDANCE WITH THE CITY AND NPDES PHASE II PERMIT REQUIREMENTS.
- CONTRACTOR TO PROVIDE ADDITIONAL SILT FENCE, BIOROLLS, EROSION CONTROL BLANKET, OR OTHER APPROVED EQUAL FOR ANY SLOPES THAT APPEAR TO BE FAILING
- CONTRACTOR TO STABILIZE SOIL STOCKPILES; STABILIZATION SHALL BE INITIATED IMMEDIATELY
- CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS
- CONTRACTOR SHALL BE RESPONSIBLE TO SWEEP/SCRAPE ADJACENT STREETS WHEN MATERIALS OR DEBRIS HAVE WASHED/FLOWED ONTO ADJACENT STREETS OR AS DIRECTED BY CITY
- CONTRACTOR TO COORDINATE SMALL UTILITIES INSTALLATIONS (GAS, PHONE, ELECTRIC, CABLE, FIBEROPTIC, ETC.) AFTER PAVEMENT INSTALLATION.

NPDES DEFINITIONS

"BEST MANAGEMENT PRACTICES (BMPs)" MEANS THE MOST EFFECTIVE AND PRACTICABLE MEANS OF EROSION PREVENTION AND SEDIMENT CONTROL, AND WATER QUALITY MANAGEMENT PRACTICES THAT ARE THE MOST EFFECTIVE AND PRACTICABLE MEANS OF TO CONTROL, PREVENT, AND MINIMIZE DEGRADATION OF SURFACE WATER, INCLUDING AVOIDANCE OF IMPACTS, CONSTRUCTION-PHASING, MINIMIZING THE LENGTH OF TIME SOIL AREAS ARE EXPOSED, PROHIBITIONS, POLLUTION PREVENTION THROUGH GOOD HOUSEKEEPING, AND OTHER MANAGEMENT PRACTICES PUBLISHED BY STATE OR DESIGNATED AREA-WIDE PLANNING AGENCIES. [MINN. R. 7090]

"CONSTRUCTION ACTIVITY" MEANS ACTIVITIES INCLUDING CLEARING, GRADING, AND EXCAVATING, THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE ACRE, INCLUDING THE DISTURBANCE OF LESS THAN ONE ACRE OF TOTAL LAND AREA THAT IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE IF THE LARGER COMMON PLAN WILL ULTIMATELY DISTURB EQUAL TO OR GREATER THAN ONE ACRE. THIS INCLUDES A DISTURBANCE TO THE LAND THAT RESULTS IN A CHANGE IN THE TOPOGRAPHY, EXISTING SOIL COVER, BOTH VEGETATIVE AND NONVEGETATIVE, OR THE EXISTING SOIL TOPOGRAPHY THAT MAY RESULT IN ACCELERATED STORMWATER RUNOFF THAT MAY LEAD TO SOIL EROSION AND MOVEMENT OF SEDIMENT. CONSTRUCTION ACTIVITY DOES NOT INCLUDE A DISTURBANCE TO THE LAND OF LESS THAN FIVE ACRES FOR THE PURPOSE OF ROUTINE MAINTENANCE PERFORMED TO MAINTAIN THE ORIGINAL LINE AND GRADE, HYDRAULIC CAPACITY, AND ORIGINAL PURPOSE OF THE FACILITY. ROUTINE MAINTENANCE DOES NOT INCLUDE ACTIVITIES SUCH AS REPAIRS, REPLACEMENT AND OTHER TYPES OF NON-ROUTINE MAINTENANCE. PAVEMENT REHABILITATION THAT DOES NOT DISTURB THE UNDERLYING SOILS (E.G., MILL AND OVERLAY PROJECTS) IS NOT CONSTRUCTION ACTIVITY. [MINN. R. 7090]

"DEWATERING" MEANS THE REMOVAL OF SURFACE OR GROUND WATER TO DRY AND/OR SOLIDIFY A CONSTRUCTION SITE TO ENABLE CONSTRUCTION ACTIVITY. DEWATERING MAY REQUIRE A MINNESOTA DEPARTMENT OF NATURAL RESOURCES WATER APPROPRIATION PERMIT AND, IF DEWATERING WATER IS CONTAMINATED, DISCHARGE OF SUCH WATER MAY REQUIRE AN INDIVIDUAL MPCA NPDES/SDS PERMIT. [MINN. R. 7090]

"EROSION PREVENTION" MEANS MEASURES EMPLOYED TO PREVENT EROSION SUCH AS SOIL STABILIZATION PRACTICES, PERMANENT COVER OR CONSTRUCTION PHASING. [MINN. R. 7090]

"GENERAL CONTRACTOR" MEANS THE PARTY WHO SIGNS THE CONSTRUCTION CONTRACT WITH THE OWNER TO CONSTRUCT THE ENTIRE PROJECT DESCRIBED IN THE FINAL PLANS AND SPECIFICATIONS WHERE THE CONSTRUCTION PROJECT INVOLVES MORE THAN ONE CONTRACTOR. THE GENERAL CONTRACTOR IS THE PARTY RESPONSIBLE FOR MANAGING THE ENTIRE PROJECT ON BEHALF OF THE OWNER. IN SOME CASES, THE OWNER IS THE GENERAL CONTRACTOR. IN THESE CASES, THE OWNER SIGNS THE PERMIT APPLICATION AS THE OPERATOR AND BECOMES THE SOLE PERMITEE. [MINN. R. 7090]

"GROUNDWATER" MEANS THE WATER CONTAINED BELOW THE SURFACE OF THE EARTH IN THE SATURATED ZONE INCLUDING, WITHOUT LIMITATION, ALL WATERS WHETHER UNDER CONFINED, UNCONFINED, OR PERCHED CONDITIONS, IN NEAR SURFACE UNCONSOLIDATED SEDIMENT OR REGOLITH, OR IN ROCK FORMATIONS DEEPER UNDERGROUND. [MINN. R. 7090]

"HOMEOWNER FACT SHEET" MEANS AN MPCA FACT SHEET AVAILABLE ON THE MPCA CONSTRUCTION STORMWATER WEBSITE FOR PERMITEES TO GIVE TO HOMEOWNERS AT THE TIME OF SALE. [MINN. R. 7090]

"INFEASIBLE" MEANS NOT TECHNOLOGICALLY POSSIBLE OR NOT ECONOMICALLY PRACTICABLE AND ACHIEVABLE IN LIGHT OF THE BEST INDUSTRY PRACTICES. [MINN. R. 7090]

"INITIATED IMMEDIATELY" MEANS TAKING AN ACTION TO COMMENCE SOIL STABILIZATION AS SOON AS PRACTICABLE, BUT NO LATER THAN THE END OF THE WORK DAY, FOLLOWING THE DAY WHEN THE LAND-DISTURBING ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE. IF THE PERMITEES KNOW THAT CONSTRUCTION WORK ON THAT PORTION OF THE SITE WILL BE TEMPORARILY CEASED FOR 14 OR MORE ADDITIONAL CALENDAR DAYS OR 7 CALENDAR DAYS WHERE ITEM 23.9 APPLIES, PERMITEES CAN INITIATE STABILIZATION BY:

- PREPPING THE SOIL FOR VEGETATIVE OR NON-VEGETATIVE STABILIZATION; OR
- APPLYING MULCH OR OTHER NON-VEGETATIVE PRODUCT TO THE EXPOSED SOIL AREA; OR
- SEEDING OR PLANTING THE EXPOSED AREA; OR
- STARTING ANY OF THE ACTIVITIES IN A, C ON A PORTION OF THE AREA TO BE STABILIZED, BUT NOT ON THE ENTIRE AREA; OR
- FINALIZING ARRANGEMENTS TO HAVE STABILIZATION PRODUCT FULLY INSTALLED IN COMPLIANCE WITH THE APPLICABLE

DEADLINE FOR COMPLETING STABILIZATION. [MINN. R. 7090]

"IMPERVIOUS SURFACE" MEANS A CONSTRUCTED HARD SURFACE THAT EITHER PREVENTS OR RETARDS THE ENTRY OF WATER INTO THE SOIL AND CAUSES WATER TO RUN OFF THE SURFACE IN GREATER QUANTITIES AND AT AN INCREASED RATE ON THAT PORTION OF THE DEVELOPMENT. EXAMPLES INCLUDE ROOFTOPS, SIDEWALKS, DRIVEWAYS, PARKING LOTS, AND CONCRETE, ASPHALT, OR GRAVEL ROADS, BRIDGES OVER SURFACE WATERS ARE CONSIDERED IMPERVIOUS SURFACES. [MINN. R. 7090]

"NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)" MEANS THE PROGRAM FOR ISSUING, MODIFYING, REVOKING, REISSUING, TERMINATING, MONITORING, AND ENFORCING PERMITS UNDER THE CLEAN WATER ACT, AS AMENDED (33 U.S.C. 1251 ET SEQ. SECTION 1342 AND 40 CFR PARTS 122, 123, 124 AND 450). [MINN. R. 7090]

"NATURAL BUFFER" MEANS AN AREA OF UNDISTURBED COVER SURROUNDING SURFACE WATERS WITHIN WHICH CONSTRUCTION ACTIVITIES ARE RESTRICTED. NATURAL BUFFER INCLUDES THE VEGETATION, EXPOSED ROCK, OR BARREN GROUND THAT EXISTS PRIOR TO COMMENCEMENT OF EARTH-DISTURBING ACTIVITIES. [MINN. R. 7090]

"NOTICE OF TERMINATION (NOT)" MEANS THE FORM (ELECTRONIC OR PAPER) REQUIRED FOR TERMINATING COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT. [MINN. R. 7090]

"OPERATOR" MEANS THE PERSON (USUALLY THE GENERAL CONTRACTOR), FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY DESIGNATED BY THE OWNER WHO HAS DAY TO DAY OPERATIONAL CONTROL AND/OR THE ABILITY TO MODIFY PROJECT PLANS AND SPECIFICATIONS RELATED TO THE SWPPP. THE PERMIT APPLICATION MUST LIST THE OPERATOR AS A PERMITEE. SUBCONTRACTORS HIRED BY AND UNDER SUPERVISION OF THE GENERAL CONTRACTOR ARE NOT OPERATORS. [MINN. R. 7090]

"OWNER" MEANS THE PERSON, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY POSSESSING THE TITLE OF THE LAND ON WHICH THE CONSTRUCTION ACTIVITIES WILL OCCUR OR, IF THE CONSTRUCTION ACTIVITY IS FOR A LEASE, EASEMENT, OR MINERAL RIGHTS LICENSE HOLDER, THE PARTY OR INDIVIDUAL IDENTIFIED AS THE LEASE, EASEMENT OR MINERAL RIGHTS LICENSE HOLDER, OR THE CONTRACTING GOVERNMENT AGENCY RESPONSIBLE FOR THE CONSTRUCTION ACTIVITY. [MINN. R. 7090]

"PERMANENT COVER" MEANS SURFACE TYPES THAT WILL PREVENT SOIL FAILURE UNDER EROSION CONDITIONS. EXAMPLES INCLUDE: GRAVEL, CONCRETE, PERENNIAL COVER, OR OTHER LANDSCAPED MATERIAL THAT WILL PERMANENTLY ARREST SOIL EROSION. PERMITEES MUST ESTABLISH A UNIFORM PERENNIAL VEGETATIVE COVER (I.E., EVENLY DISTRIBUTED, WITHOUT LARGE BARE AREAS) WITH A DENSITY OF 70 PERCENT OF THE NATIVE BACKGROUND VEGETATIVE COVER ON ALL AREAS NOT COVERED BY PERMANENT STRUCTURES, OR EQUIVALENT PERMANENT STABILIZATION MEASURES. PERMANENT COVER DOES NOT INCLUDE TEMPORARY BMPs SUCH AS WOOD FIBER BLANKET, MULCH, AND ROLLED EROSION CONTROL PRODUCTS. [MINN. R. 7090]

"PERMITEES" MEANS THE PERSONS, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY IDENTIFIED AS THE OWNER AND OPERATOR ON THE APPLICATION SUBMITTED TO THE MPCA AND ARE RESPONSIBLE FOR COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. [MINN. R. 7090]

"PROJECT(S)" MEANS ALL CONSTRUCTION ACTIVITY PLANNED AND/OR CONDUCTED UNDER A PARTICULAR PERMIT. THE PROJECT OCCURS ON THE SITE OR SITES DESCRIBED IN THE PERMIT APPLICATION. THE SWPPP AND THE ASSOCIATED PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS. [MINN. R. 7090]

"PUBLIC WATERS" MEANS ALL WATER BASINS AND WATERCOURSES DESCRIBED IN MINN. STAT. SECT. 103G.005 SUBP. 15. [MINN. R. 7090]

"SEDIMENT CONTROL" MEANS METHODS EMPLOYED TO PREVENT SUSPENDED SEDIMENT IN STORMWATER FROM LEAVING THE SITE (E.G. SILT FENCES, COMPOST LOGS AND STORM DRAIN INLET PROTECTION). [MINN. R. 7090]

"STABILIZE," "STABILIZED," "STABILIZATION" MEANS THE EXPOSED SOIL SURFACE HAS BEEN COVERED BY APPROPRIATE MATERIALS SUCH AS MULCH, STAKED SOD, RIPRAP, EROSION CONTROL BLANKET, MATS OR OTHER MATERIAL THAT PREVENTS EROSION FROM OCCURRING. GRASS SEEDING, AGRICULTURAL CROP SEEDING OR OTHER SEEDING ALONE IS NOT STABILIZATION. MULCH MATERIALS MUST ACHIEVE APPROXIMATELY 90 PERCENT GROUND COVERAGE (TYPICALLY 2 TON/ACRE). [MINN. R. 7090]

"STORMWATER" MEANS PRECIPITATION RUNOFF, STORMWATER RUNOFF, SNOWMELT RUNOFF, AND ANY OTHER SURFACE RUNOFF AND DRAINAGE. [MINN. R. 7090]

"STEEP SLOPES" MEANS SLOPES THAT ARE 1:3 (V:H) (33.3 PERCENT) OR STEEPER IN GRADE. [MINN. R. 7090]

"STORM WATER POLLUTION PREVENTION PLAN (SWPPP)" MEANS A PLAN FOR STORMWATER DISCHARGE THAT INCLUDES ALL REQUIRED CONTENT UNDER IN SECTION 5 THAT DESCRIBES THE EROSION PREVENTION, SEDIMENT CONTROL AND WASTE CONTROL BMPs AND PERMANENT STORMWATER TREATMENT SYSTEMS. [MINN. R. 7090]

"SURFACE WATER OR WATERS" MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WETLANDS, RESERVOIRS, SPRINGS, RIVERS, DRAINAGE SYSTEMS, WATERWAYS, WATERCOURSES, AND IRRIGATION SYSTEMS WHETHER NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, EXCEPT THAT SURFACE WATERS DO NOT INCLUDE STORMWATER TREATMENT SYSTEMS CONSTRUCTED FROM UPLAND. THIS PERMIT DOES NOT CONSIDER STORMWATER TREATMENT SYSTEMS CONSTRUCTED IN WETLANDS AND MITIGATED IN ACCORDANCE WITH SECTION 22 AS SURFACE WATERS. [MINN. R. 7090]

"WATERS OF THE STATE" (AS DEFINED IN MINN. STAT. SECT. 115.01, SUBP. 22) MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WATERCOURSES, WATERWAYS, WELLS, SPRINGS, RESERVOIRS, AQUIFERS, IRRIGATION SYSTEMS, DRAINAGE SYSTEMS AND ALL OTHER BODIES OR ACCUMULATIONS OF WATER, SURFACE OR UNDERGROUND, NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, WHICH ARE CONTAINED WITHIN, FLOW THROUGH, OR BORDER UPON THE STATE OR ANY PORTION THEREOF. [MINN. STAT. 115.01, SUBP. 22]

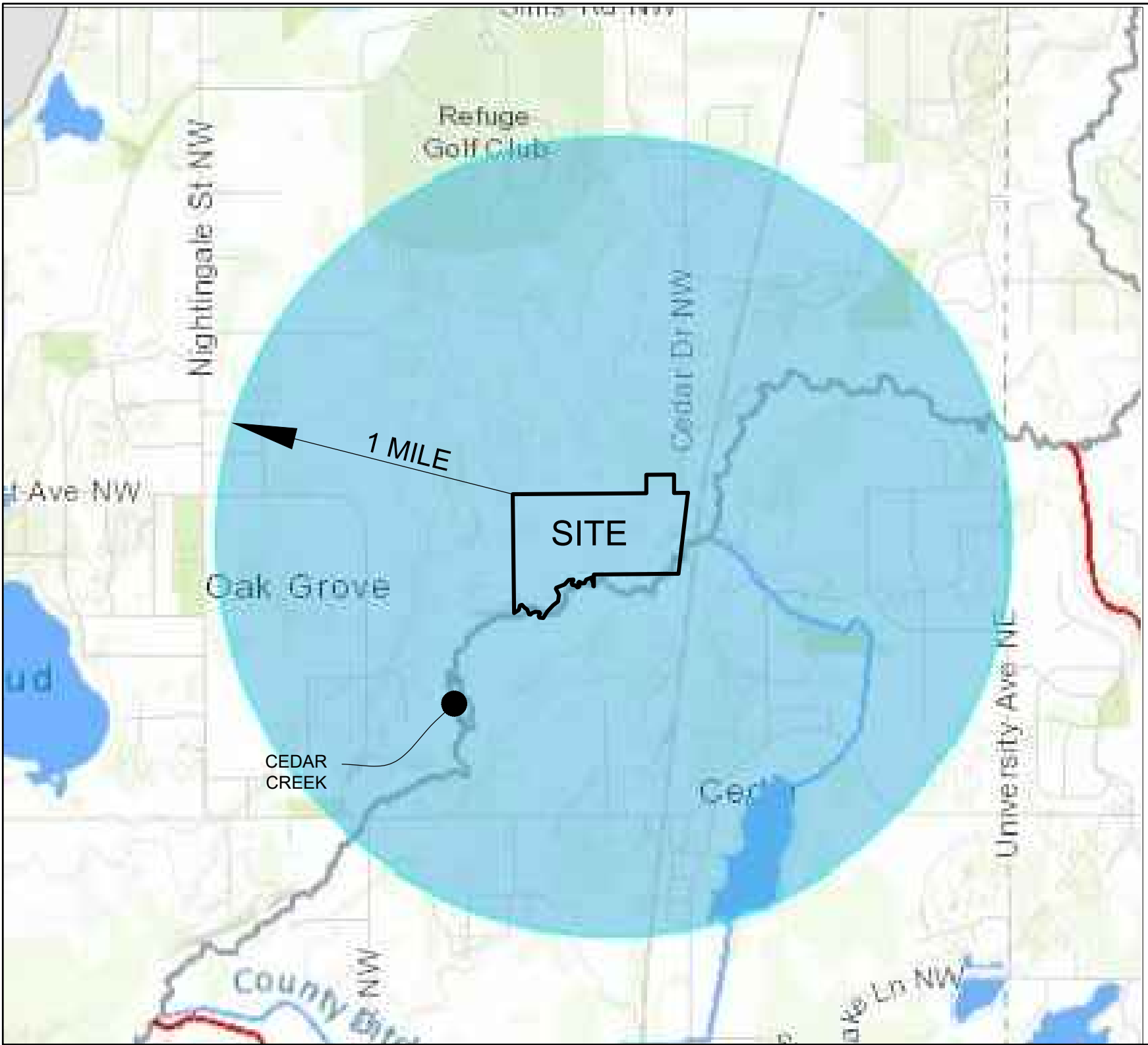
"WATER QUALITY VOLUME" MEANS ONE (1) INCH OF RUNOFF FROM THE NET INCREASE IN IMPERVIOUS SURFACES CREATED BY THE PROJECT (CALCULATED AS AN INSTANTANEOUS VOLUME). [MINN. R. 7090]

"WETLANDS" (AS DEFINED IN MINN. R. 7050.0186, SUBP. 1A.B.) MEANS THOSE AREAS THAT ARE INUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT, AND UNDER NORMAL CIRCUMSTANCES DO SUPPORT, A PREVALENCE OF VEGETATION TYPICALLY ADAPTED FOR LIFE IN SATURATED SOIL CONDITIONS. WETLANDS GENERALLY INCLUDE SWAMPS, MARSHES, BOGS, AND SIMILAR AREAS. CONSTRUCTED WETLANDS DESIGNED FOR WASTEWATER TREATMENT ARE NOT WATERS OF THE STATE. WETLANDS MUST HAVE THE FOLLOWING ATTRIBUTES:

- A PREDOMINANCE OF HYDRIC SOILS; AND
- INUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT A PREVALENCE OF HYDROPHYTIC VEGETATION TYPICALLY ADAPTED FOR LIFE IN A SATURATED SOIL CONDITION; AND
- UNDER NORMAL CIRCUMSTANCES SUPPORT A PREVALENCE OF SUCH VEGETATION. [MINN. R. 7050.0186, SUBP. 1A.B]

MAP OF SURFACE WATERS

THERE ARE NO SPECIAL OR IMPAIRED WATERS WITHIN ONE (1) MILE OF THE PROJECT BOUNDARY.



SITE PLANNING
& ENGINEERING

PLOWE
ENGINEERING, INC.

6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014

PHONE: (651) 361-8210
FAX: (651) 361-8701

DRAWN BY: AG	CHECK BY: CWP	DATE: 02-24-2020
1	7-30-20	CONSTRUCTION DRAWING SUBMITTAL
2		
3		
4		
5		
NO.	DATE	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

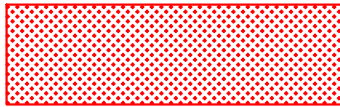
Adam Ginkel
ADAM GINKEL
License No. 43963
Date: 06.17.2021

CEDAR CREEK HILLS
CITY OF OAK GROVE, MN
SWPPP
PREPARED FOR: SHAW TRUCKING, INC.

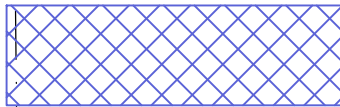
SHEET
C4.2

LEGEND

MNDOT SEED MIX 25-131 W/ EROSION
CONTROL BLANKET FOR SLOPES 3:1



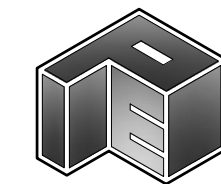
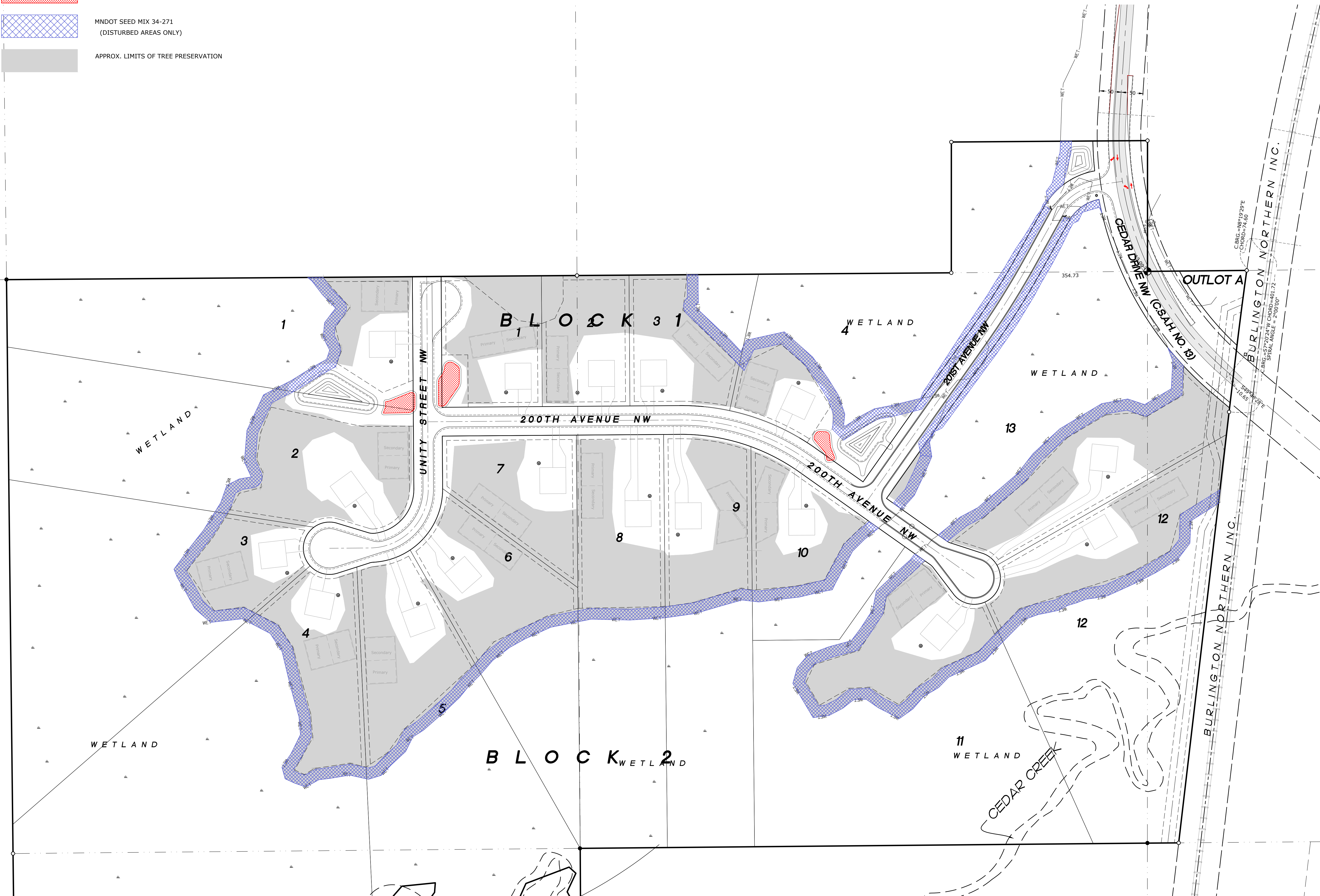
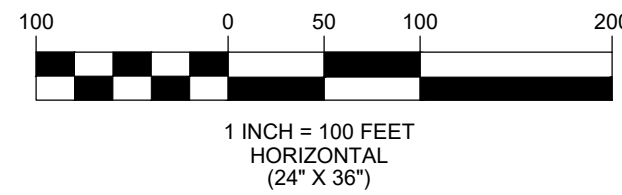
MNDOT SEED MIX 33-261



MNDOT SEED MIX 34-271
(DISTURBED AREAS ONLY)



APPROX. LIMITS OF TREE PRESERVATION



SITE PLANNING
& ENGINEERING
PLOWE
ENGINEERING, INC.

6776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (651) 361-8210
FAX: (651) 361-8701

DRAWN BY: AG	CHECK BY: CWP	JOB NO.: 19-1884	DATE: 02-24-2020
1	7-30-20	CONSTRUCTION DRAWING SUBMITTAL	
2	4-23-21	CITY REVIEW COMMENTS	
3			
4			
5			
NO.	DATE	DESCRIPTION	

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY
ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM
A DULY LICENSED PROFESSIONAL ENGINEER UNDER
THE LAWS OF THE STATE OF MINNESOTA.

Adam Ginkel
ADAM GINKEL
Date: 06.17.2021 License No. 43963

CEDAR CREEK HILLS
CITY OF OAK GROVE, MN
TREE PRESERVATION & RESTORATION PLAN
PREPARED FOR: SHAW TRUCKING, INC.

SHEET
L1.1