STORAGE FACILITY

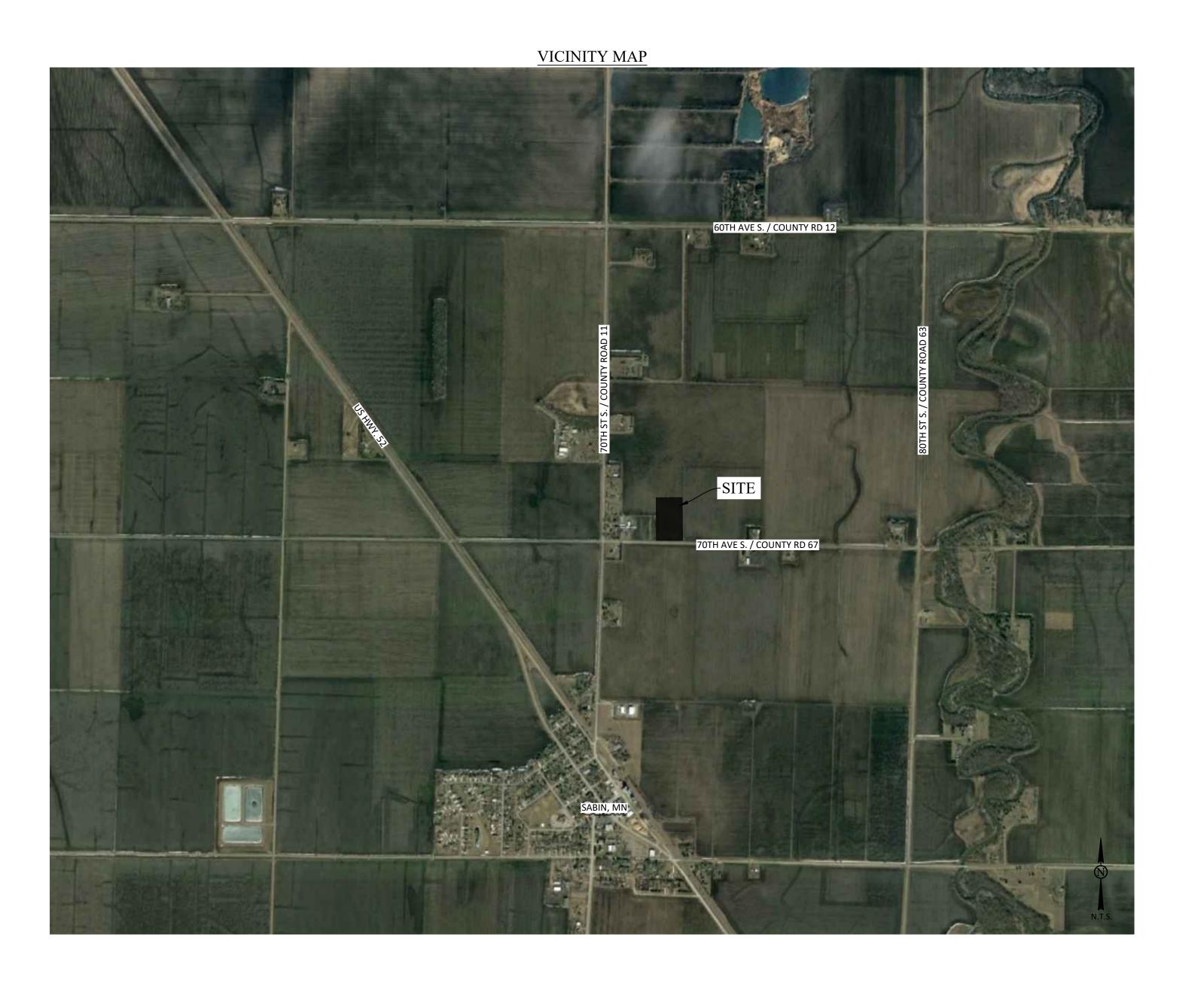
PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF S5, T138N, R47W ELMWOOD TOWNSHIP, CLAY COUNTY, MINNESOTA

OWNER RBF CONTRACTING AARON & ALAYNA STENERSON 1911 26TH ST S MOORHEAD, MN 56560 PH: 701.236.9310

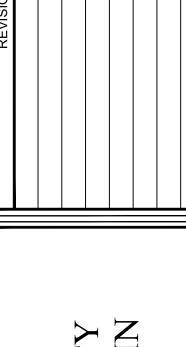
CIVIL ENGINEER DANIELLE HOUTS
5306 51ST AVENUE SOUTH, SUITE A
FARGO, ND 58104
PH: 701.235.0199
DHOUTS@LOWRYENG.COM

SITE INFORMATION			
SITE COVERAGE			
ITEM	AREA (SF)	AREA (%)	
BUILDING	56,700	23.91	
TOTAL IMPERVIOUS	143,332	60.43	
GREEN SPACE	93,838	39.57	
TOTAL AREA	237,170	100	
ZONING INFORMATION			
CURRENT ZONE:		PROTECTION OVERLAY ELLHEAD PROTECTION	
DIMENSIONAL STANDARDS			
BUILDING SETBACKS			
FRONT YARD		125' MINIMUM	
SIDE YARD	15' MINIMUM		
REAR YARD	25' MINIMUM		
SURVEY INFORMATION			
DATE OF SURVEY		AUGUST 21, 2024	
COORDINATE SYSTEM		CLAY COUNTY	
DRAWING UNITS		US SURVEY FEET	
VERTICAL DATUM		NAVD 88	

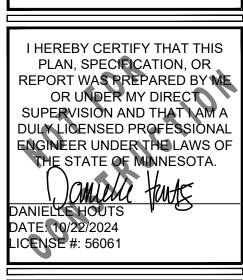
- 1. CHANGES TO APPROVED PLANS SHALL NOT BE MADE WITHOUT OWNER, WATERSHED, AND COUNTY WRITTEN APPROVAL.
- 2. CLAY COUNTY CONDITIONAL USE PERMIT HAS BEEN APPROVED AND RECORDED



SHEET INDEX		
C-1	COVER SHEET	
C-2	GENERAL NOTES & LEGEND	
C-3	SURVEY OVERLAY & DEMOLITION PLAN	
C-4	OVERALL SITE PLAN	
C-5	GRADING PLAN	
C-6	EROSION & SEDIMENT CONTROL PLAN	
C-7	TYPICAL DETAILS	



THIS PLAN SET HAS BEEN ISSUED FOR PERMIT APPLICATION/REVIEW ONLY. ONCE ALL PERMITS HAVE BEEN ISSUED BY THE RESPECTIVE AUTHORITY, THE "NOT FOR CONSTRUCTION" STAMP WILL BE REMOVED AND CONSTRUCTION MAY



LE JOB#	
	24060
PROJECT DATE:	
	10/22/2024
CHECKED BY:	
	DJH
DRAWN BY:	
	TWT
APPROVED BY:	
	DJH

CALL BEFORE YOU DIG **MINNESOTA**

C-1



UTILITIES UNDERGROUND LOCATION SERVICE 1-800-252-1166

- SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES ON THE DRAWINGS, OR IN THE FIELD PRIOR TO BEGINNING WORK OR DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE
- 2. A COMPLETE SET OF APPROVED DRAWINGS MUST BE MAINTAINED ON SITE AT ALL TIMES BY THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS.
- 3. CHANGES TO APPROVED PLANS SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE OWNER
- 4. CHANGES TO APPROVED PLANS ON PUBLIC PROPERTY SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL FROM THE RESPECTIVE PUBLIC ENTITY.
- 5. ALL SITE AND RIGHT-OF-WAY CONSTRUCTION SHALL MEET COUNTY STANDARD SPECIFICATIONS LATEST REVISION. IN THE CASE OF A DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS, THE PLANS SHALL GOVERN.
- . THE CONTRACTOR IS RESPONSIBLE FOR LOCATING & VERIFYING ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION & IS RESPONSIBLE FOR ANY DAMAGE TO THEM DURING CONSTRUCTION. CONTRACTOR SHALL CONTACT THE LOCAL ONE-CALL SYSTEM AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- 7. THE CONTRACTOR SHALL COMPLY WITH ALL RULES & REGULATIONS OF FEDERAL, STATE, COUNTY, & LOCAL AUTHORITIES.
- 8. THE CONTRACTOR IS REQUIRED TO MEET ALL APPLICABLE FEDERAL, OSHA, STATE, AND LOCAL REGULATIONS CONCERNING PROJECT SAFETY AND ASSUMES FULL RESPONSIBILITY FOR SAFETY ON
- 9. CONTRACTOR SHALL VERIFY THAT ALL NECESSARY PERMITS FOR CONSTRUCTION HAVE BEEN OBTAINED, ALL BONDS ARE POSTED, ALL FEES ARE PAID AND PROOF OF INSURANCE IS PROVIDED PRIOR TO THE START OF THE PROJECT.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL HORIZONTAL AND VERTICAL CONTROLS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEY AND RELATED COSTS.
- 11. CONTRACTOR SHALL BE RESPONSIBLE FOR HIS/HER OWN MEASUREMENTS AND QUANTITIES. ENGINEER QUANTITIES ARE ESTIMATES ONLY.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF UNDERGROUND UTILITIES BY THE APPROPRIATE UTILITY ENTITY. PROPER COORDINATION WITH THE RESPECTIVE UTILITY ENTITIES SHALL BE PERFORMED BY THE CONTRACTOR TO INSURE THAT ALL UTILITY ENTITY STANDARDS FOR MATERIAL AND METHODS ARE MET. THE GENERAL CONTRACTOR SHALL OVERSEE
- INSTALLATION OF UTILITIES AND COORDINATE WITH ALL SUBCONTRACTORS TO AVOID CONFLICTS. 13. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER FOLLOWING COMPLETION OF CONSTRUCTION
- 14. THE CONTRACTOR SHALL PROVIDE TESTING, INSPECTIONS, AS-BUILT DRAWINGS, CERTIFICATIONS AND ANY OTHER PROCEDURES OR DOCUMENTATION REQUIRED BY THE GOVERNING AGENCIES TO CLOSE OUT THE PROJECT.
- 15. THE CONTRACTOR SHALL RESTORE ANY STRUCTURES, PIPE, UTILITY, PAVEMENT, CURBS SIDEWALKS, LANDSCAPED ARES, ETC. WITHIN THE SITE OR ADJOINING PROPERTIES DISTURBED DURING DEMOLITION OR CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AND TO THE SATISFACTION OF THE OWNER/JURISDICTIONAL AUTHORITY.
- 16. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL STRIPPING, RUBBISH,
- TRASH, DEBRIS, ORGANIC, AND EXCESS EXCAVATED MATERIAL IN A LAWFUL MANNER. 17. CONTRACTOR SHALL REFERENCE THE PROJECT GEOTECHNICAL REPORT AVAILABLE IN THE PROJECT MANUAL AND COMPLY WITH ALL REPORT REQUIREMENTS. IF A CONFLICT ARISES BETWEEN THE
- GEOTECHNICAL REPORT AND CIVIL DOCUMENTS, THE GEOTECHNICAL REPORT SHALL GOVERN. 18. FOR THE PURPOSES OF CONSTRUCTION SURVEY, ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH STRUCTURAL AND ARCHITECTURAL PLANS.
- 19. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SHOP DRAWINGS TO THE ENGINEER FOR REVIEW OF ALL APPLICABLE PRODUCTS AND MATERIALS BEING USED FOR CONSTRUCTION.
- 20. ALL UNDERGROUND WORK IN THE DIRECT VICINITY SHALL BE COMPLETED PRIOR TO COMPLETION OF SUBGRADE PREPARATION AND START OF ROADWAY WORK INCLUDING BUT NOT LIMITED TO INSTALLATION OF FABRIC, GRAVEL, PAVING, ETC.

GRADING NOTES

- LOCATION AND TOP ELEVATIONS OF INLETS AND STRUCTURES MAY NEED TO BE ADJUSTED IN THE FIELD BY THE CONTRACTOR WHERE NECESSARY AND SHALL BE APPROVED BY THE ENGINEER. CONTRACTOR SHALL NOTE ANY CHANGES IN AS-BUILT DRAWINGS.
- 2. IF UNSUITABLE SUBGRADE MATERIALS ARE ENCOUNTERED, THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT (FROM OFF-SITE BORROW MATERIAL) OF ALL UNSUITABLE MATERIAL TO CLASSIFIED AS MH, CH, OH, OL AND PEAT IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM, UNLESS APPROVED IN WRITING BY THE PROJECT GEOTECHNICAL ENGINEER. THE SITE ENGINEER AND GEOTECHNICAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY UPON ENCOUNTERING UNSUITABLE SUBGRADE MATERIAL.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATIONS AND GRADING INCLUDING FURNISHING OFF-SITE BORROW AND DISPOSING OF EXCESS MATERIAL AS REQUIRED TO MEET PLAN GRADES. OFF SITE BORROW SHALL MEET ALL REQUIREMENTS OF THE PROJECT GEOTECHNICAL REPORT (IF AVAILABLE) OR PER MNDOT STANDARD SPECIFICATIONS.
- 4. COMPACTION LIFTS AND TESTING SHALL BE PER MNDOT REQUIREMENTS IN TRENCHING, SUB-BASE, BASE, AND PAVING MATERIALS. SUB-BASE LIFTS SHALL NOT EXCEED 12". BASE LIFTS SHALL NOT
- 5. GRADE TO ENSURE POSITIVE DRAINAGE. ALL FINISHED SURFACES SHALL BE FREE FROM SURFACE IRREGULARITIES.

PAVING NOTES:

- 1. ALL PAVEMENT SECTION MATERIALS AND INSTALLATION SHALL MEET THE REQUIREMENTS OF
- 2. AGGREGATE BASE COURSE SHALL MEET THE REQUIREMENTS OF MNDOT.
- 3. CONCRETE FOR FLAT WORK SHALL BE A BATCH PLANT MIX MEETING THE REQUIREMENTS OF THE MNDOT STANDARD SPECIFICATIONS. (MINIMUM 4.000 PSI)
- 4. THE CONTRACTOR SHALL SUBMIT A JOINTING PLAN FOR CONCRETE PAVEMENT TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. IF NO JOINTING PLAN IS SUBMITTED, THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR JOINTING LAYOUT.

STORM SEWER & DRAINAGE NOTES:

- HDPE STORM SEWER SHALL BE ADS N12 OR PRINSCO GOLDFLO OR APPROVED EQUAL.
- INVERTS SHOWN ON PLAN DRAWINGS ARE PIPE INVERTS UNLESS NOTED OTHERWISE. ANY SUBSTITUTION FOR MATERIALS OR PROCEDURES MUST HAVE PRIOR WRITTEN APPROVAL OF THE COUNTY AND THE PROJECT ENGINEER.
- 4. ANNOTATED LENGTH OF CULVERT INCLUDES LENGTH OF FLARED END SECTION. FOR CLARIFICATION ANNOTATED LENGTH = PIPE LENGTH + FES LENGTH.

EROSION & SEDIMENT CONTROL / SWPPP NOTES

- IF THE LAND BOUNDARY DENOTED ON THE PLANS ENCOMPASSES MORE THAN 1 ACRE, A NOTICE OF INTENT TO OBTAIN A STORM WATER POLLUTION CONTROL PERMIT SHALL BE ACQUIRED BY THE CONTRACTOR AND OWNER FROM THE MINNESOTA POLLUTION CONTROL AGENCY 7 DAYS PRIOR TO CONSTRUCTION. THIS NOTICE OF INTENT SHALL BE PROVIDED WITH THE BUILDING PERMIT
- APPLICATION. CONTRACTOR IS RESPONSIBLE FOR NOI SUBMITTAL. COPY OF NOI, COVERAGE LETTER FROM THE DOH AS WELL AS ALL MAINTENANCE AND INSPECTION RECORDS TO BE KEPT ON SITE AND AVAILABLE FOR REVIEW BY CITY, STATE OR FEDERAL OFFICIALS UPON REQUEST.
- CONTRACTOR SHALL HAVE AN UPDATED SWPPP AVAILABLE ON SITE ANYTIME WORK IS BEING DONE. THIS DOCUMENT SHALL BE AVAILABLE FOR REVIEW BY CITY, STATE OR FEDERAL OFFICIALS UPON REQUEST. THE SWPPP SHALL BE IN ACCORDANCE WITH THE MINNESOTA GENERAL PERMIT NO. MNR100001 AND THE PLANS. THE ESC PLAN IS THE ENGINEER'S RECOMMENDATION FOR EROSION AND SEDIMENT CONTROL BASED ON THE DESIGN OF THE PROPOSED SITE. THIS DESIGN DOES NOT TAKE INTO EFFECT CONTRACTOR MEANS AND METHODS, CONSTRUCTION SCHEDULE, OR ORDER OF OPERATIONS. CONTRACTOR IS EXPECTED TO ADJUST DESIGN AS IS NECESSARY TO MEET THE REQUIREMENTS OF THE GENERAL PERMIT.
- CONTRACTOR IS RESPONSIBLE FOR ALL EROSION AND SEDIMENT CONTROL ON THE SITE. THIS INCLUDES BUT IS NOT LIMITED TO STORM WATER EROSION, EROSION FROM PUMPING OPERATIONS, OFF SITE TRACKING, DUST CONTROL AND CONTROL OF ANY CONCRETE GRINDINGS OR SAW CUT DUST. CONTRACTOR IS ALSO RESPONSIBLE FOR ALL OTHER ITEMS AS REQUIRED IN THE GENERAL PERMIT.
- INSPECTIONS SHALL BE COMPLETED AND DOCUMENTED BY THE CONTRACTOR AT LEAST ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN ½" IN 24 HOURS. A RAIN GAUGE SHALL BE ONSITE AND USED TO MAKE THIS DETERMINATION.
- 6. SITE SHALL BE STABILIZED WITHIN 14 DAYS OF COMPLETION OF WORK OR WITHIN 14 DAYS OF SUSPENSION OF WORK PER THE GENERAL PERMIT.
- 7. ALL EROSION AND SEDIMENT RELATED CONTROL AND ITEMS NEED TO BE INSTALLED AND

- MAINTAINED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE DICTATED IN THE PLANS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL EXCESS TOPSOIL, EXCAVATED MATERIAL, RUBBISH, TRASH, DEBRIS, AND ORGANIC MATERIAL CONSISTENT WITH LOCAL LAW AND WITH THE GENERAL PERMIT.
- CONTRACTOR IS RESPONSIBLE FOR ALL DE-WATERING AS NECESSARY TO MEET REQUIRED EXCAVATIONS AND GRADES. MUDDY WATER TO BE PUMPED FROM EXCAVATION AND WORK AREAS MUST BE HELD IN SETTLING BASINS OR FILTERED PRIOR TO ITS DISCHARGE INTO SURFACE WATERS OR STORM DRAINAGE SYSTEMS. WATER MUST BE DISCHARGED THROUGH A PIPE, WELL GRASSED OR LINED CHANNEL, OR OTHER EQUIVALENT MEANS SUCH THAT DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENTATION. THIS INCLUDES DE-WATERING OF RAINWATER, GROUND WATER, OR ANY OTHER WATER ON SITE CAUSING IMPACTS TO SITE CONSTRUCTION.
- 10. ALL DISTURBED AREAS SHALL BE SEEDED AND HYDROMULCHED UNLESS SHOWN OTHERWISE IN THE
- 11. TOP SOIL OR OTHER SOIL/CLAY STOCKPILES ARE NOT TO BE LOCATED WITHIN FLOW PATHS, BASES OF ALL STOCKPILES SHALL BE SURROUNDED WITH SILT FENCE.
- 12. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, SEDIMENT REMOVAL/CLEANING, AND REPLACEMENT AS REQUIRED FOR ALL EROSION AND SEDIMENT CONTROL
- 13. CONTRACTOR IS RESPONSIBLE FOR SWEEPING AND CLEANING ANY SEDIMENT TRACKED ONTO ADJACENT ROADWAYS DURING CONSTRUCTION AS NEEDED TO KEEP STREETS CLEAR OF SEDIMENT
- 14. EROSION CONTROL BLANKET SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS FOR
- LAYDOWN PATTERN, REQUIRED OVERLAP WIDTH, TRENCHING, STAPLE PATTERN, ETC. 15. CHEMICAL STORAGE ONSITE SHALL BE IN COMPLIANCE WITH THE GENERAL PERMIT.
- 16. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF INLET PROTECTION THROUGHOUT THE DIFFERENT PHASES OF CONSTRUCTION REGARDLESS OF THE TYPE OF PROTECTION. THE QUANTITY FOR ONE (1) INLET PROTECTION SHALL COVER INSTALLATION, CLEANING, REPLACEMENT, ETC. FROM THE TIME THE MANHOLE IS SET UNTIL FINAL STABILIZATION OF THE ENTIRE AREA DRAINING TO THE INLET. FOR EXAMPLE: ONE (1) INLET PROTECTION QUANTITY MAY COVER BUT IS NOT LIMITED TO: SILT FENCE AROUND MANHOLE PRIOR TO LID AND CASTING BEING INSTALLED, REMOVAL OF SILT FENCE AROUND MANHOLE AFTER CASTING HAS BEEN INSTALLED, INSTALLATION OF DEVICE SUCH AS DANDY SACK INSIDE CASTING, REMOVAL OF SEDIMENT FROM DANDY SACK, REMOVAL OF DANDY SACK FROM CASTING AFTER ALL UPSTREAM AREAS ARE STABILIZED.
- 17. OWNER SHALL REFER TO THE STORMWATER MANAGEMENT PLAN FOR MAINTENANCE REQUIREMENTS OF THE PERMANENT STORMWATER QUANTITY/QUALITY CONTROL MEASURES.

SEEDING NOTES:

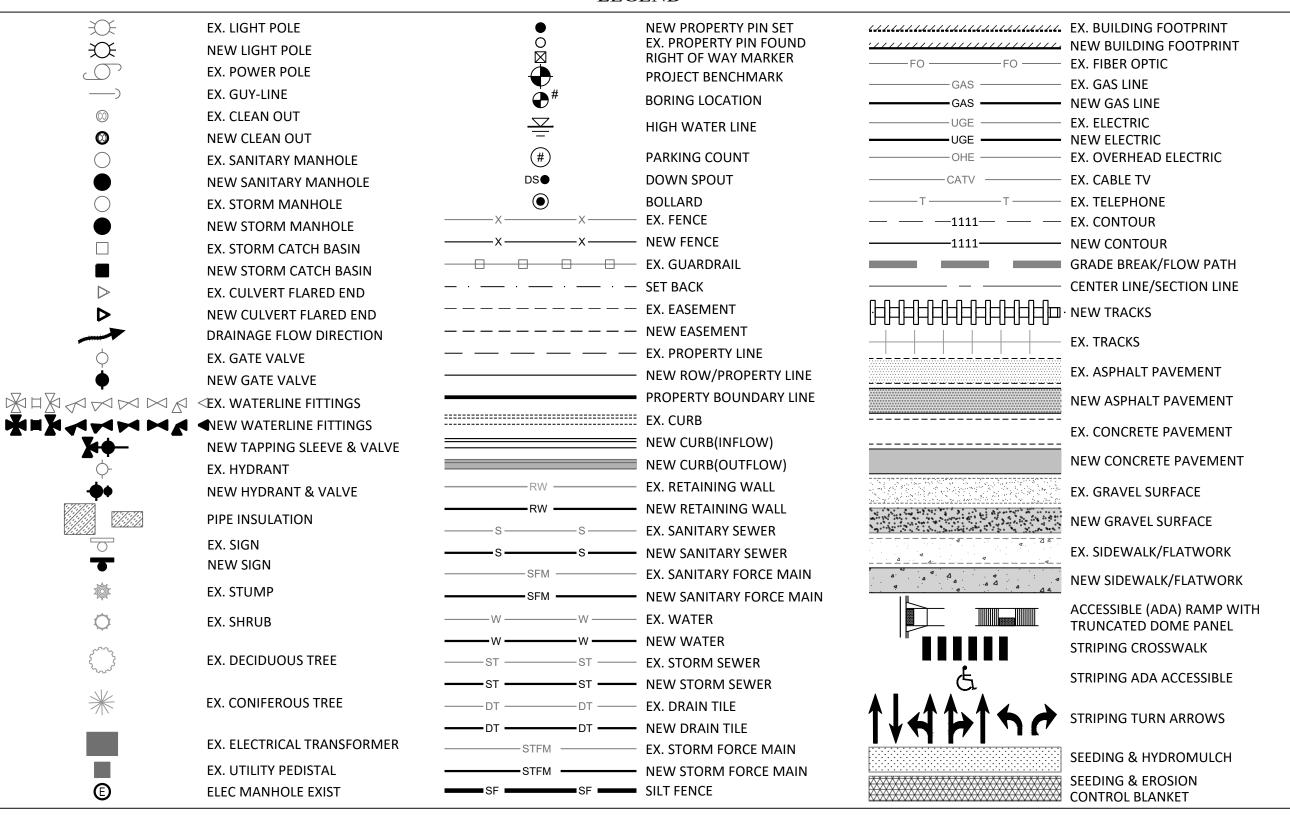
ITEMS.

- 1. ALL SEEDING MIX SHALL CONSIST OF THE FOLLOWING: -KENTUCKY BLUEGRASS = 4 LBS OF LIVE SEED PER ACRE -PERENNIAL RYEGRASS = 5.4 LBS OF LIVE SEED PER ACRE -BLUE GAMMA = 2.4 LBS OF LIVE SEED PER ACRE -SIDEOATS GRAMA = 7.2 LBS OF LIVE SEED PER ACRE
- -TOTAL LBS PER ACRE = 19 -FERTILIZER TYPE = 20 LBS NITROGEN AND 20 LBS PHOSPHOROUS PER ACRE
- CULTIVATE OR DISK TOPSOIL TO A DEPTH OF APPROXIMATELY 3". 3. REMOVE MATERIALS GREATER THAN 1" IN DIAMETER THAT CANNOT BE BROKEN UP.
- 4. PLANT SEEDS TO A DEPTH BETWEEN $\frac{1}{4}$ " AND $\frac{3}{4}$ ".
- 5. SEED ONLY WHEN WIND IS LESS THAN 15 MPH WHEN NOT USING A GRASS DRILL.
- 6. MULCHING SHALL BE USED IMMEDIATELY AFTER SEEDING TO PREVENT EROSION AND PROMOTE
- 7. CONTRACTOR IS RESPONSIBLE FOR WATERING TO ESTABLISH GRASS GROWTH TO A HEIGHT OF 3".
- 8. FERTILIZER SHALL BE 12-24-12 AT AN APPLICATION RATE OF 220 POUNDS PER ACRE (5 POUNDS PER
- 9. CONTRACTOR SHALL FOLLOW STATE AND LOCAL LAWS REGARDING THE USE OF PHOSPHORUS FERTILIZER.

TEMPORARY TRAFFIC CONTROL NOTES:

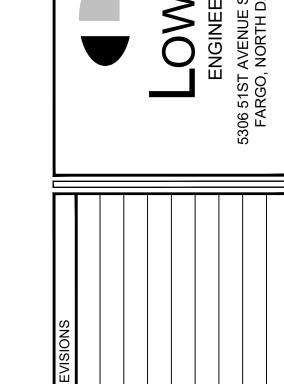
- L. UNLESS NOTED OTHERWISE, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AN ATSSA CERTIFIED TRAFFIC CONTROL SUPERVISOR (TCS) AND ANY NECESSARY TEMPORARY TRAFFIC CONTROL DEVICES ON AND OFF-SITE INCLUDING OBTAINING ANY APPLICABLE PERMITS. THE CONTRACTOR SHALL IDENTIFY THE TCS AND PROVIDE PROOF OF CERTIFICATION AT A
- 2. UNLESS A TEMPORARY TRAFFIC CONTROL PLAN IS INCLUDED WITH THE DESIGN DOCUMENTS CONTRACTOR SHALL SUBMIT A COPY OF THE APPROVED TRAFFIC CONTROL PLAN TO THE ENGINEER
- CONTRACTOR IS RESPONSIBLE TO INSTALL. INSPECT. MAINTAIN. AND REMOVE TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE LATEST STANDARDS AND REQUIREMENTS OF THE MUTCD, STANDARD HIGHWAY SIGNS AND MARKINGS BOOK PUBLISHED BY THE FHWA, AND LOCAL REGULATIONS.
- 4. CHANGES TO THE TEMPORARY TRAFFIC CONTROL PLAN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE OWNER, ENGINEER, AND PERMITTING AUTHORITY IF APPLICABLE

LEGEND



ABBREVIATIONS

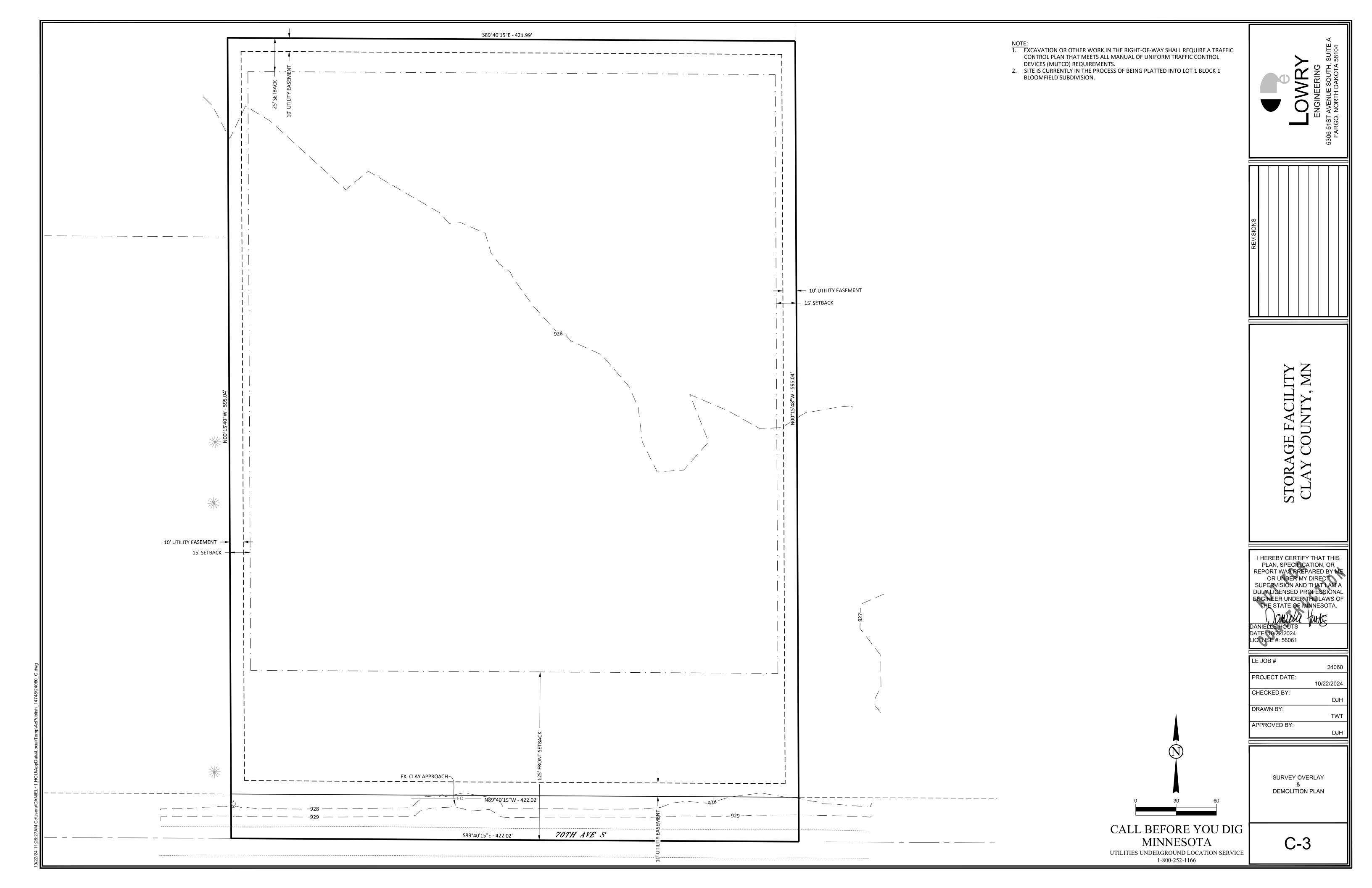
		A	DDKEVIATIONS		
ADJ	ADJACENT	ELEV	ELEVATION	PVIE	POINT OF VERTICAL INTERSECTION
ALT	ALTERNATE	ENCL	ENCLOSURE		ELEVATION
ARCH	ARCHITECT	E.O.P.	END OF PROJECT	PVIS	POINT OF VERTICAL INTERSECTION
ACP	ASBESTOS CEMENT PIPE	E.J.	EXPANSION JOINT		STATION
BIT	BITUMINOUS	EX.	EXISTING	PREFAB	PREFABRICATED
BLDG	BUILDING	EX.A.	EACH WAY	PSI	POUNDS PER SQUARE INCH
BM	BENCHMARK	EVCE	END VERTICAL CURVE ELEVATION	PVC	POLYVINYL CHLORIDE PIPE
B.O.	BY OWNER/BY OTHERS	EVCS	END VERTICAL CURVE STATION	PP	POWER POLE
B.O.P.	BEGINNING OF PROJECT	FD	FIRE DEPARTMENT	R	RADIUS
BV	BUTTERFLY VALVE	FFE	FIRST FLOOR ELEVATION	RCP	REINFORCED CONCRETE PIPE
BVCE	BEGINNING VERTICAL CURVE	FO	FIBER OPTICS	RD	ROOF DRAIN
	ELEVATION	FTG	FOOTING	REQ'D	REQUIRED
BVCS	BEGINNING VERTICAL CURVE	G.C.	GENERAL CONTRACTOR	RIM	RIM OF INLET OR CASTING
	STATION	GALV	GALVANIZED	ROW	RIGHT OF WAY
С	CIVIL	GAL	GALLON	SAN	SANITARY
B.P.	CAST IRON	GRAN	GRANULAR	SS	SANITARY SEWER
CIP	CAST IRON PIPE	GV	GATE VALVE	ST	STORM
CU	COPPER	HDPE	HIGH DENSITY POLYETHYLENE	STD	STANDARD
CMP	CORRUGATED METAL PIPE	HORZ	HORIZONTAL	SB	SOIL BORING
CJ	CONTROL JOINT	HB	HOSE BIB	STRUCT	STRUCTURAL
CONC	CONCRETE	HDCP	HANDICAPPED	SF	SQUARE FEET
CF	CUBIC FEET	HYD	HYDRANT	SCH	SCHEDULE
CS	CURB STOP	I	INLET	SW	SIDEWALK
C.O.	CLEAN OUT	K	CURVATURE VALUE	T	TELEPHONE
CNTR	CENTER	M	MECHANICAL	TYP	TYPICAL
CONST	CONSTRUCTION	MH	MANHOLE	UNEX	UN-EXCAVATED
CONTR	CONTRACTOR	MAX	MAXIMUM	UE	UTILITY EASEMENT
CY	CUBIC YARD	MIN	MINIMUM	UGE	UNDERGROUND ELECTRIC
DIA	DIAMETER	M.J.	MECHANICAL JOINT	UNO	UNLESS NOTED OTHERWISE
DIP	DUCTILE IRON PIPE	MISC.	MISCELLANEOUS	VERT	VERTICAL
DEMO	DEMOLITION	NC	NON-CORROSIVE	V	VERIFY
DTL	DETAIL	NOM	NOMINAL	VCL	VERTICAL CURVE LENGTH
DIM	DIMENSION	NIC	NOT IN CONTRACT	VOL	VOLUME
DOM	DOMESTIC	NTS	NOT TO SCALE	VCP	VITRIFIED CLAY PIPE
D.S.	DOWN SPOUT	OD	OUTSIDE DIMENSION	W/	WITH
DWG	DRAWING	OCEW	ON CENTER EACH WAY	W/O	WITH OUT
DWL	DOWEL	OC	ON CENTER	WTH	WIDTH
EA	EACH	OHE	OVERHEAD ELECTRIC	W	WATER
ELEC	ELECTRIC	P.C.	PRECAST CONCRETE		

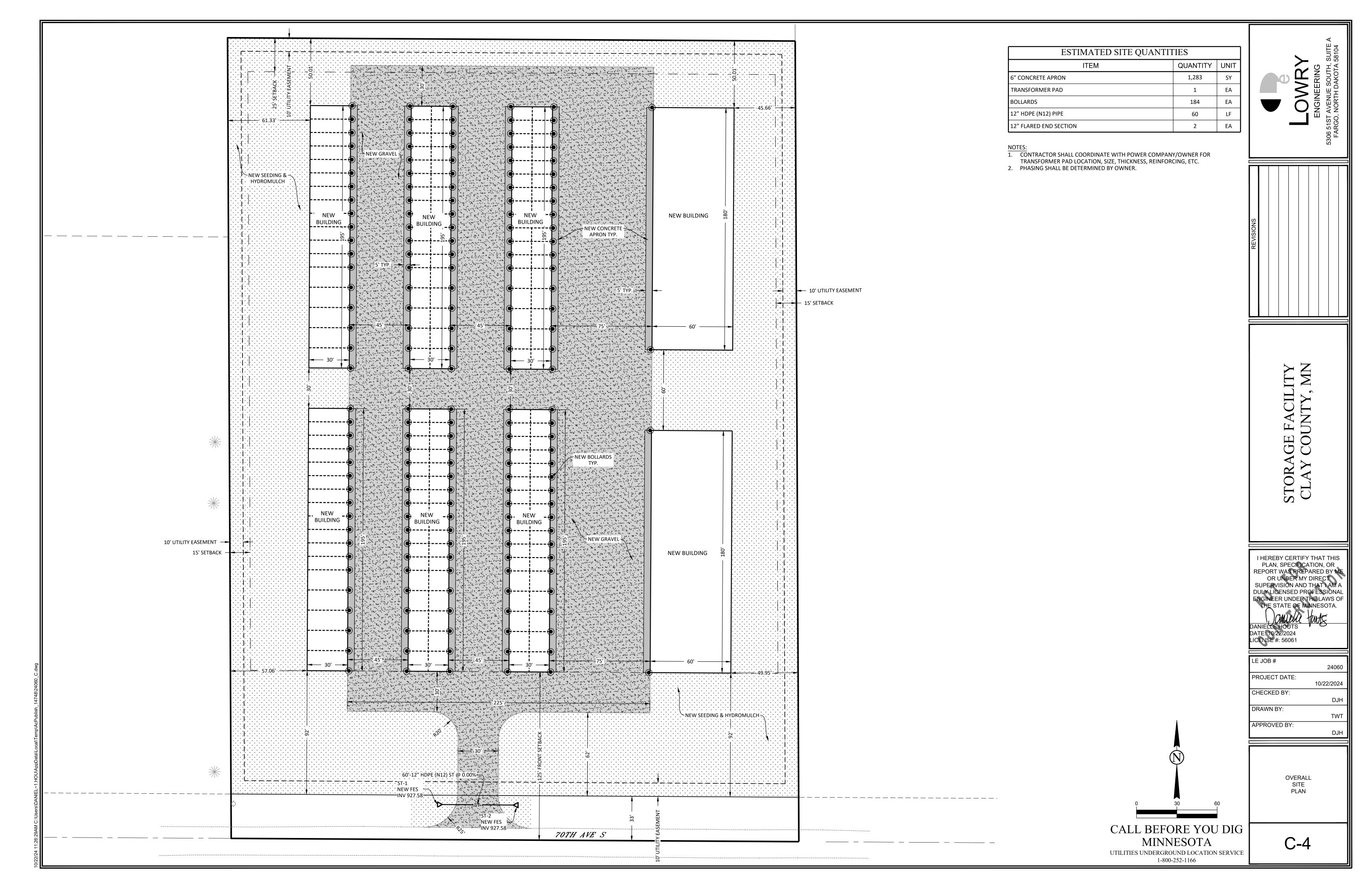


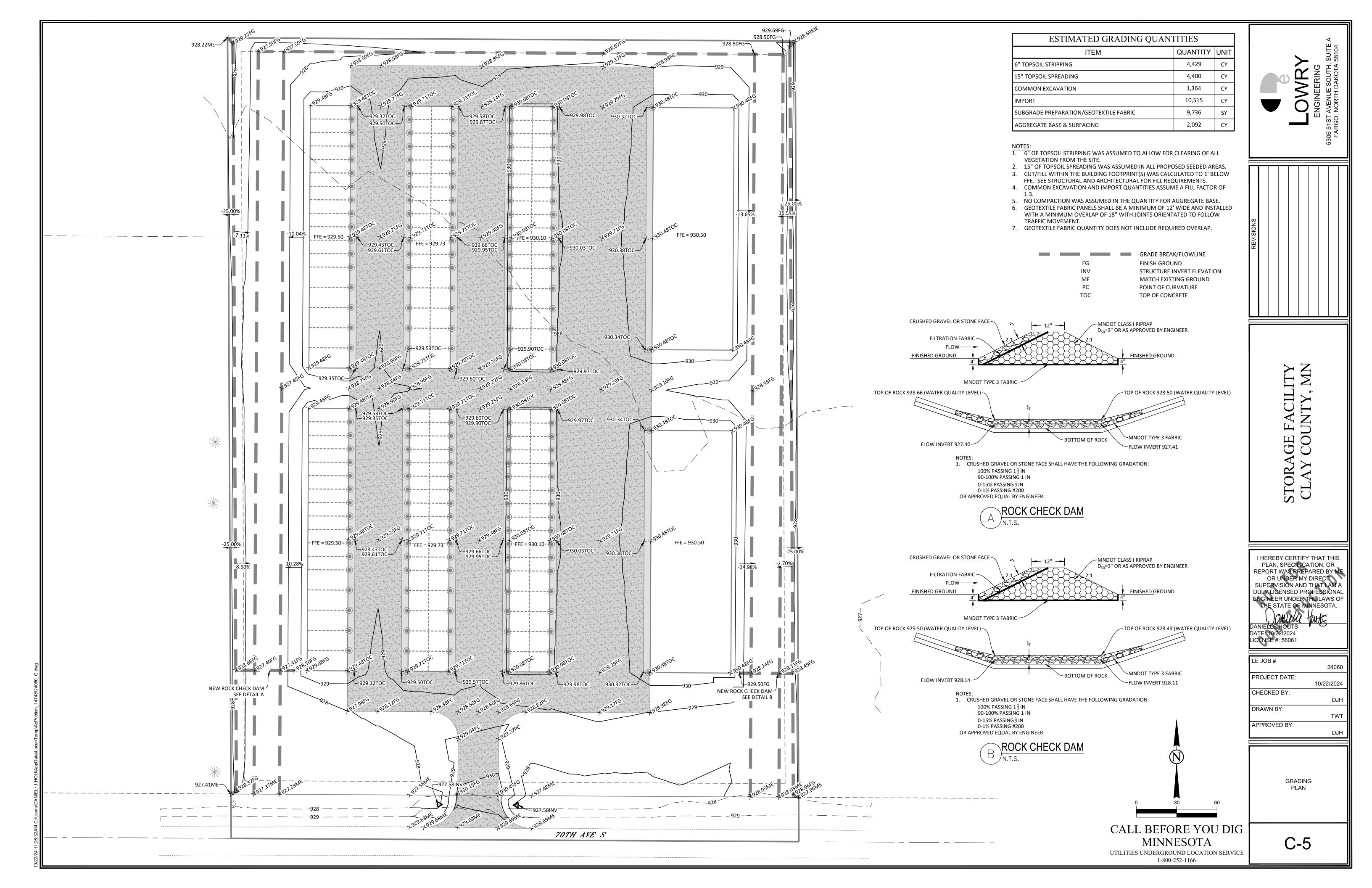
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

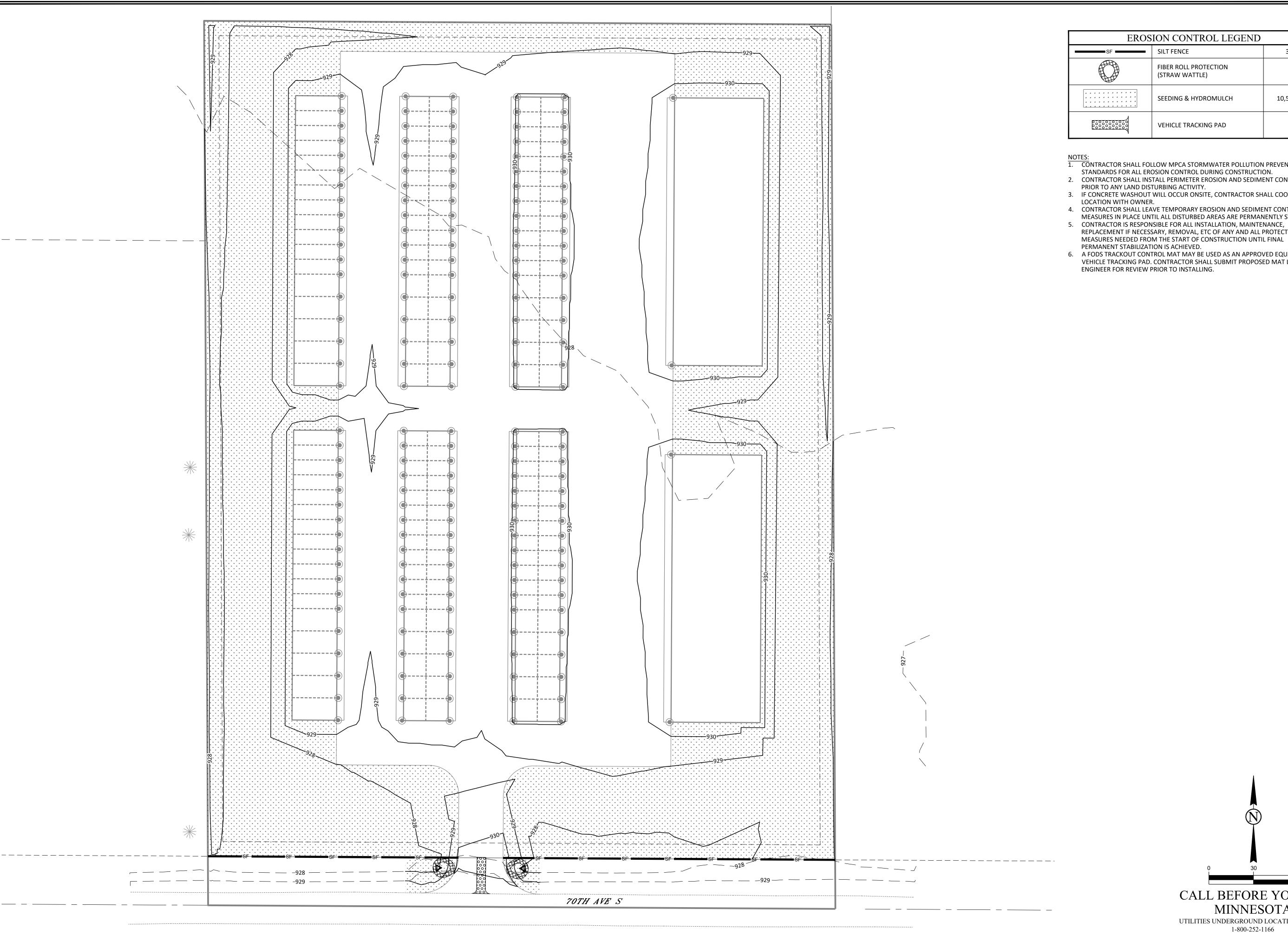
LE JOB# 24060 PROJECT DATE: 10/22/2024 CHECKED BY: DRAWN BY: TWT APPROVED BY:

> **GENERAL** NOTES & LEGEND





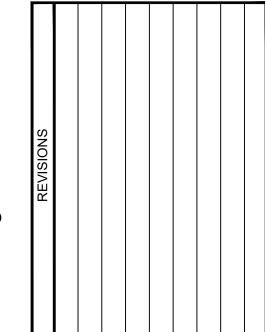




EROSION CONTROL LEGEND			
SF	SILT FENCE	392	LF
	FIBER ROLL PROTECTION (STRAW WATTLE)	54	LF
	SEEDING & HYDROMULCH	10,559	SY
000000000	VEHICLE TRACKING PAD	1	EA



- 1. CONTRACTOR SHALL FOLLOW MPCA STORMWATER POLLUTION PREVENTION STANDARDS FOR ALL EROSION CONTROL DURING CONSTRUCTION.
- 2. CONTRACTOR SHALL INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS
- 3. IF CONCRETE WASHOUT WILL OCCUR ONSITE, CONTRACTOR SHALL COORDINATE
- 4. CONTRACTOR SHALL LEAVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES IN PLACE UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- REPLACEMENT IF NECESSARY, REMOVAL, ETC OF ANY AND ALL PROTECTION MEASURES NEEDED FROM THE START OF CONSTRUCTION UNTIL FINAL PERMANENT STABILIZATION IS ACHIEVED.
- 6. A FODS TRACKOUT CONTROL MAT MAY BE USED AS AN APPROVED EQUAL TO THE VEHICLE TRACKING PAD. CONTRACTOR SHALL SUBMIT PROPOSED MAT LAYOUT TO ENGINEER FOR REVIEW PRIOR TO INSTALLING.



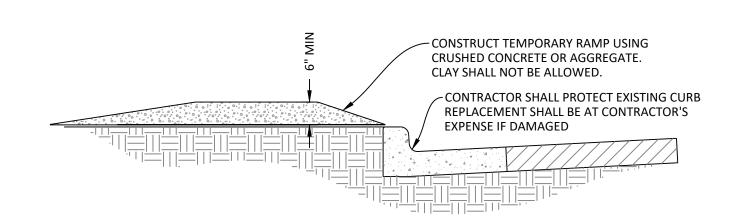
PLAN, SPECIFICATION, OR
REPORT WAS PREPARED BY ME
OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A
DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF
THE STATE OF MINNESOTA.

LE JOB# PROJECT DATE: 10/22/2024 CHECKED BY: DRAWN BY: APPROVED BY:

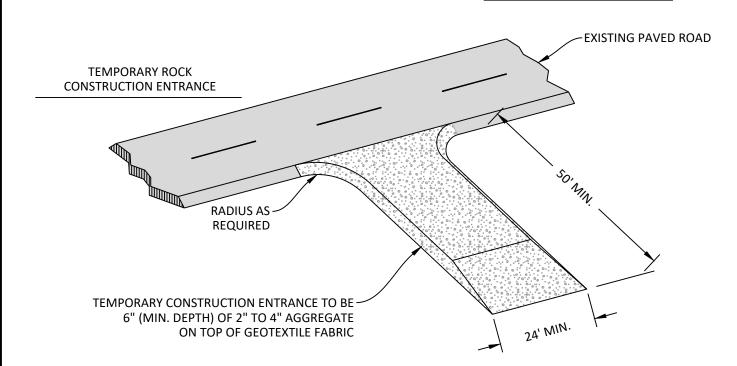
> **EROSION** SEDIMENT CONTROL

CALL BEFORE YOU DIG **MINNESOTA** UTILITIES UNDERGROUND LOCATION SERVICE 1-800-252-1166

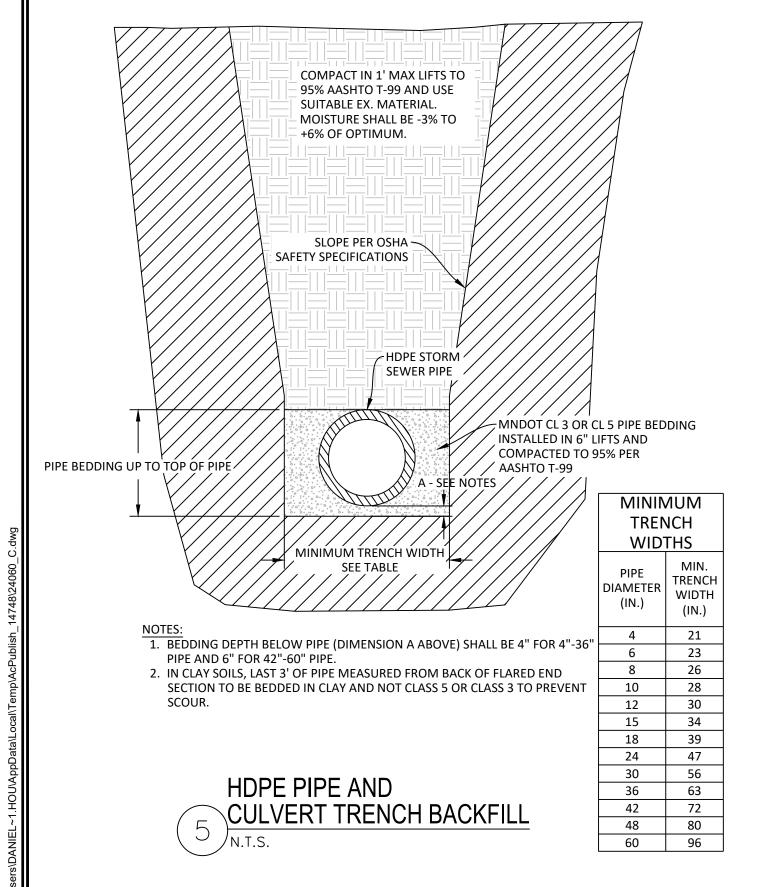
C-6

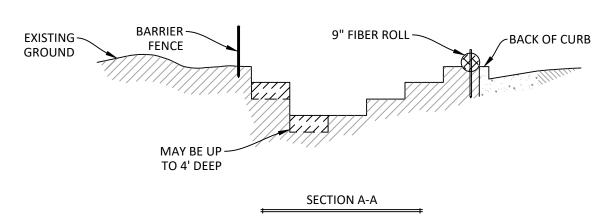


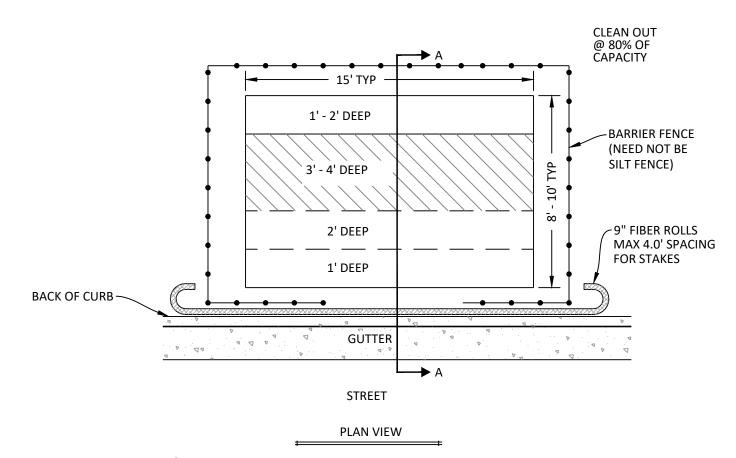
TEMPORARY ACCESS OVER CURB & GUTTER



- . A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT ALL LOCATIONS WHERE CONSTRUCTION VEHICLES OR EQUIPMENT ENTER OR EXIT THE CONSTRUCTION SITES.
- UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE THE TEMPORARY CONSTRUCTION ENTRANCE UNLESS NOTED OTHERWISE, AND THE SITE SHALL BE RESTORED TO ITS PREVIOUS CONDITION.
- 3. ENTRANCES SHALL BE MAINTAINED IN A MANNER TO MINIMIZE THE TRACKING OF SEDIMENT ONTO PAVED SURFACES.
- 4. TEMPORARY ACCESS OVER EXISTING CURB AND GUTTER SHOULD BE LOCATED AT HIGH POINTS IN THE STREET IF POSSIBLE TO MAINTAIN STREET DRAINAGE.
- 5. REMOVE TOPSOIL BEFORE CONSTRUCTION OF STABILIZED CONSTRUCTION ACCESS.

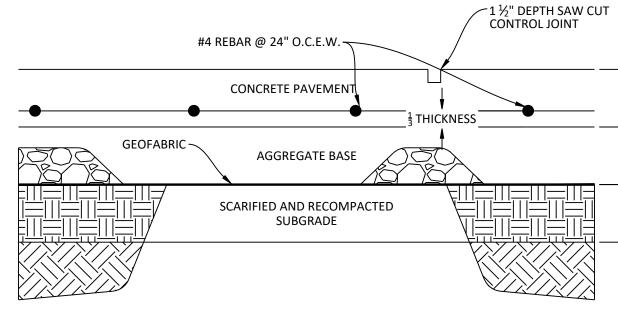






1. CONCRETE WASH OUT IS NOT REQUIRED IF CONTRACTOR IS PERFORMING WASHOUT ACTIVITIES OFF-SITE IN A LEGAL AND APPROPRIATE MANNER.

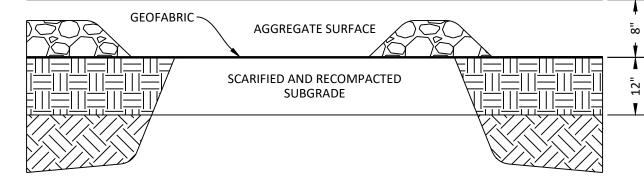
CONCRETE WASHOUT



1. PROVIDE SAWCUT CONTROL JOINTS AT 12' MAXIMUM SPACING EACH WAY. 2. PROVIDE 18" EPOXY COATED #4 REBAR @ 24" O.C. AT CONNECTION TO CURB & GUTTER, THICKENED

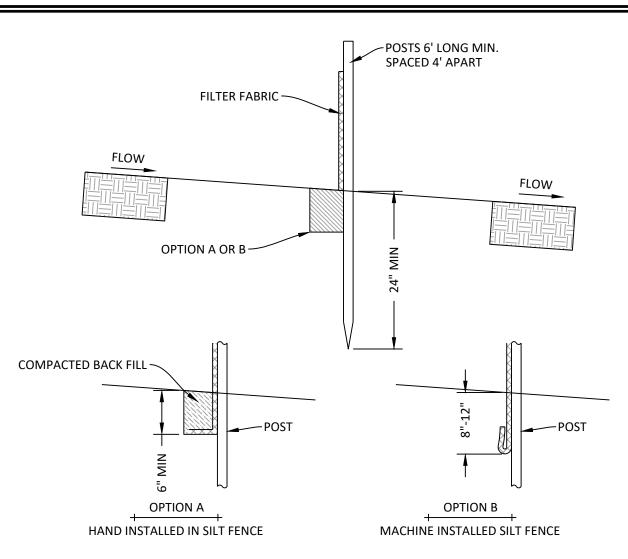
- EDGE SIDEWALK, EXISTING CONCRETE, AND CONSTRUCTION JOINTS. 3. WHITE CONCRETE CURING COMPOUND SHALL BE APPLIED PER MANUFACTURERS INSTRUCTIONS ON ALL EXTERIOR CONCRETE SURFACES.
- 4. PROVIDE ½" EXPANSION MATERIAL ADJACENT TO BUILDINGS AND ANY OTHER FIXED OBJECTS SUCH AS LIGHT POLE BASES, SIGN FOUNDATIONS, ETC. AND AT CONNECTIONS TO EXISTING CONCRETE.
- 5. MnDOT TYPE V MODIFIED FABRIC SHALL BE PLACED UNDER AGGREGATE BASE PER MnDOT SPECIFICATIONS.
- 6. REBAR SHALL BE SUPPORTED BY CHAIRS.

REINFORCED CONCRETE CROSS SECTION



1. MnDOT TYPE V MODIFIED FABRIC SHALL BE PLACED UNDER AGGREGATE SURFACE PER MnDOT SPECIFICATIONS.

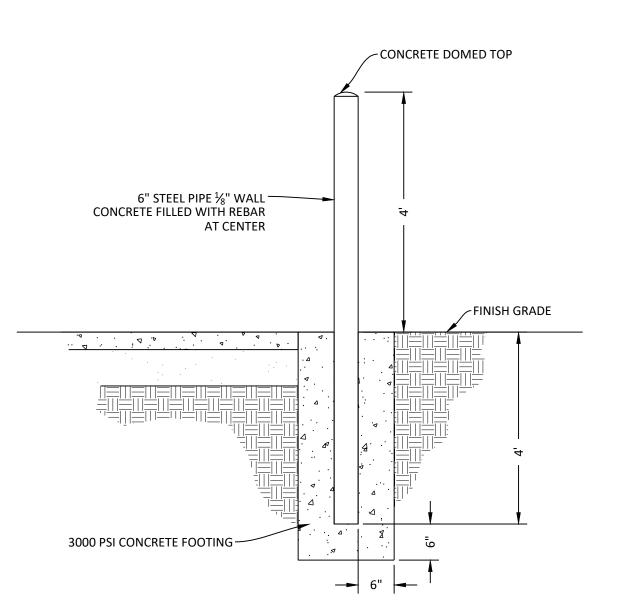




POSTS SHALL BE 2 INCH DIAMETER ROUND WOOD, 1.5 INCH RECTANGULAR WOOD, OR STEEL WITH A MINIMUM OF 0.95 POUNDS PER FOOT AND HAVE PROJECTIONS FOR FASTENING WIRE OR FABRIC.

- 2. FILTER FABRIC SHALL BE AS SPECIFIED IN AASHTO M 288 WITH A MINIMUM WIDTH OF 36 INCHES. 3. SILT FENCE SHALL BE INSTALLED ALONG THE CONTOURS OF THE SITE SO WATER CANNOT FLOW AROUND THE END OF THE FENCE.
- 4. IF JOINING TWO SECTION OF FILTER FABRIC, OVERLAP AT SUPPORT POSTS A MINIMUM OF 18 INCHES IN SUCH A MANNER THAT PREVENTS SILT FROM PASSING THROUGH THE FENCE.
- 5. REMOVE SEDIMENT FROM SILT FENCE WHEN IT REACHES $\frac{1}{3}$ OF THE EXPOSED HEIGHT OF ANY SECTION, OR AS DIRECTED BY THE ENGINEER. THE ENGINEER MAY DIRECT THE INSTALLATION OF ADDITIONAL SILT FENCE IF REMOVING THE SEDIMENT DEPOSIT IS NOT FEASIBLE.

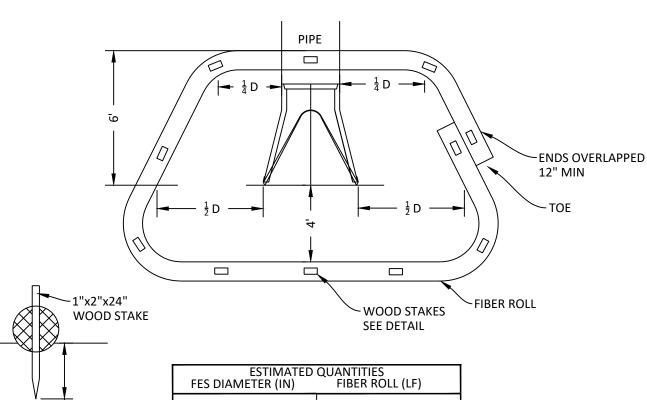




1. GALVANIZED PAINT SHALL BE USED ON ALL METAL: ONE COAT METAL PRIMER AND TWO COATS YELLOW METAL ENAMEL OR INSTALL EZ

SLEEVE BY STRIKE PRODUCTS OR APPROVED EQUAL. 2. CONTRACTOR MAY INSTALL STEEL PIPE BY AUGURING TO A DEPTH OF 4' BELOW GRADE IN LIEU OF OVER-EXCAVATION WITH CONCRETE



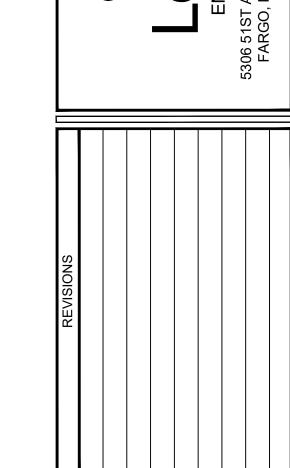


27 12 28 15 18 29 21 30 24 31 27 32 30 33 34

1. D = DIAMETER OF PIPE

- FIBER ROLLS SHALL BE COMPOSED OF DEGRADABLE NETTING THAT CONTAINS COMPRESSED HAY OR STRAW THAT IS FREE OF SEEDS AND NOXIOIUS WEEDS, OR WOOD EXCELSIOR.
- 3. REMOVE SEDIMENT FROM FIBER ROLL WHEN IT REACHES $\frac{1}{3}$ OF THE EXPOSED HEIGHT OF ANY SECTION, OR AS DIRECTED BY THE ENGINEER. THE ENGINEER MAY DIRECT THE INSTALLATION OF A SECOND FIBER ROLL IF REMOVING THE SEDIMENT DEPOSIT IS NOT FEASIBLE.

FIBER ROLL PROTECTION FLARED END SECTION



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

LE JOB#	
	24060
PROJECT DATE:	
	10/22/2024
CHECKED BY:	
	DJH
DRAWN BY:	
	TWT
APPROVED BY:	
	DJH

DETAILS

C-7