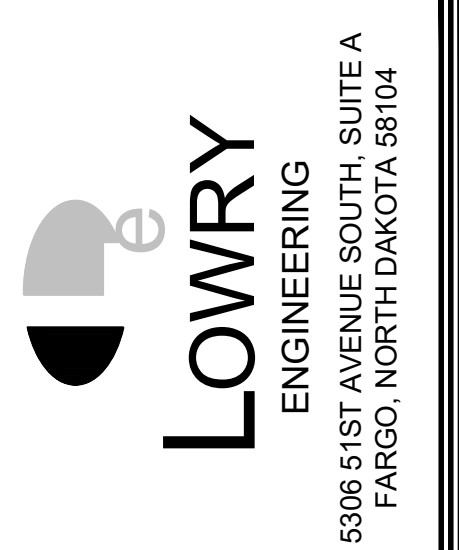
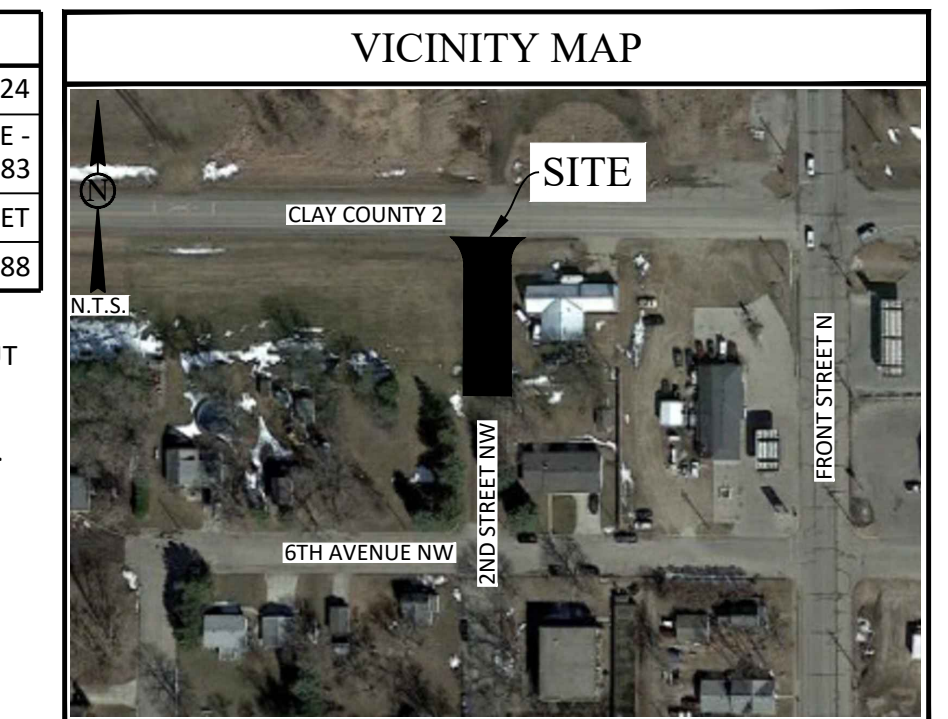


2ND STREET NORTHWEST IMPROVEMENTS BARNESVILLE, MINNESOTA

CIVIL ENGINEER
JONATHAN LOWRY, PE
5306 51ST AVENUE SOUTH, SUITE A
FARGO, ND 58104
PH: 701-235-0199
J.LOWRY@LOWRYENG.COM



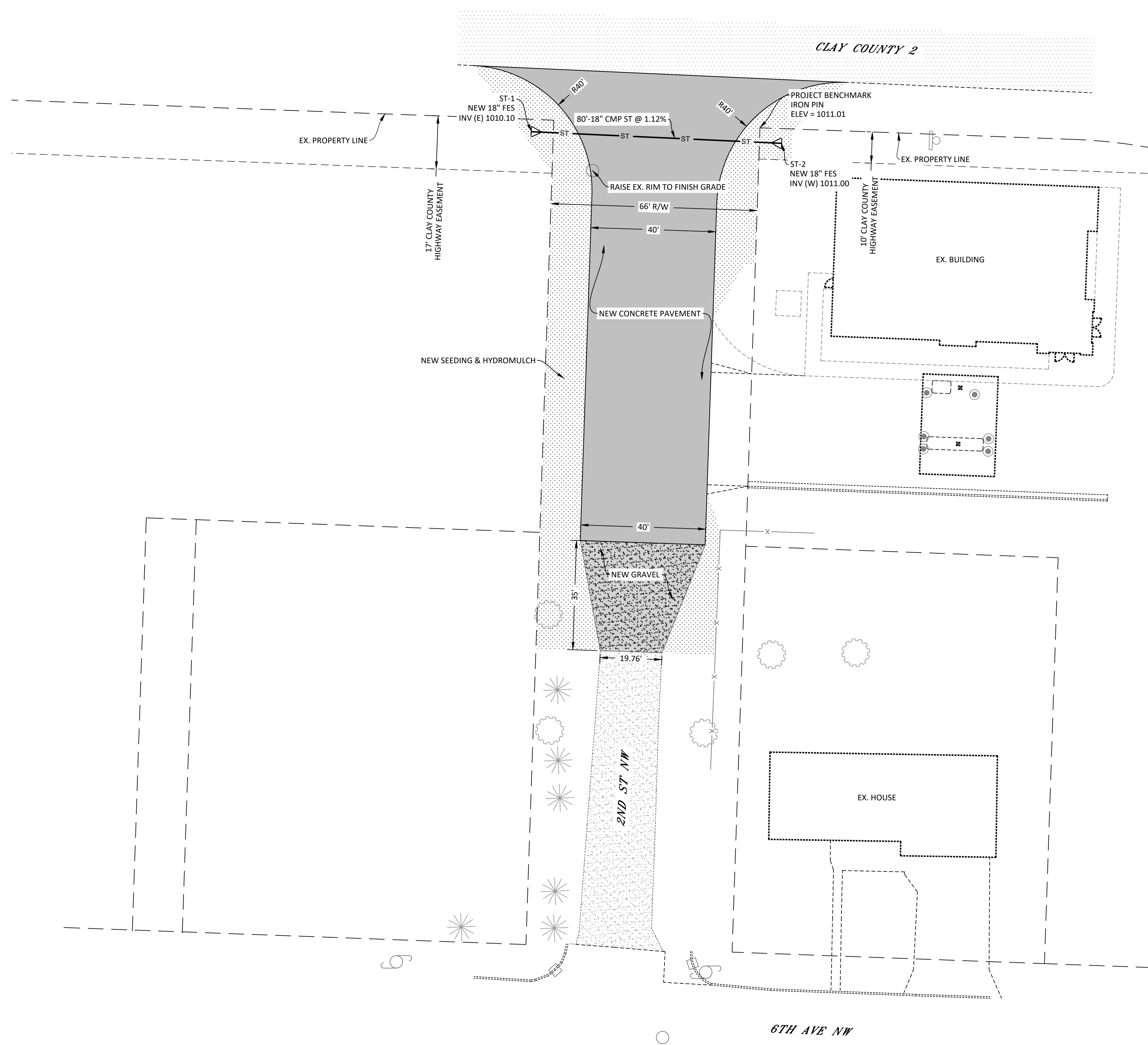
SURVEY INFORMATION	
DATE OF SURVEY	MAY 6, 2024
COORDINATE SYSTEM	MN STATE PLANE - CENTRAL ZONE, NAD83
DRAWING UNITS	US SURVEY FEET
VERTICAL DATUM	NAVD 88



- NOTES:**
- CHANGES TO APPROVED PLANS SHALL NOT BE MADE WITHOUT OWNER'S WRITTEN APPROVAL
 - CHANGES TO APPROVED PLANS ON PUBLIC PROPERTY SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL FROM THE CITY.
 - DIMENSIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.

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

ESTIMATED SITE QUANTITIES		
ITEM	QUANTITY	UNIT
8" CONCRETE PAVEMENT	744	SY
18" CMP PIPE	80	LF
18" FES	2	EA
RAISE EX. RIM	1	EA



REVISIONS	

**2ND STREET NORTHWEST
IMPROVEMENTS
BARNESVILLE, MINNESOTA**

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JONATHAN LOWRY
DATE: 6/10/24
LICENSE #: 49127

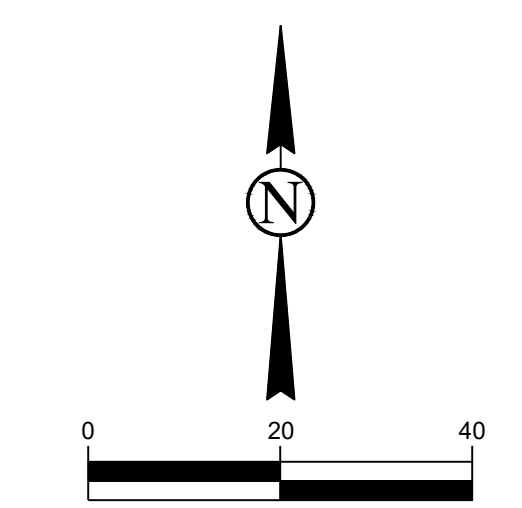
LE JOB #	24070
PROJECT DATE:	06/10/2024
CHECKED BY:	JML
DRAWN BY:	TWT
APPROVED BY:	JML

OVERALL
SITE & UTILITY
PLAN

C-1

BENCHMARK: IRON PIN LOCATED IN THE NW CORNER OF CENEX PROPERTY. ELEV = 1011.01.

BASIS OF BEARING: ASSUMED



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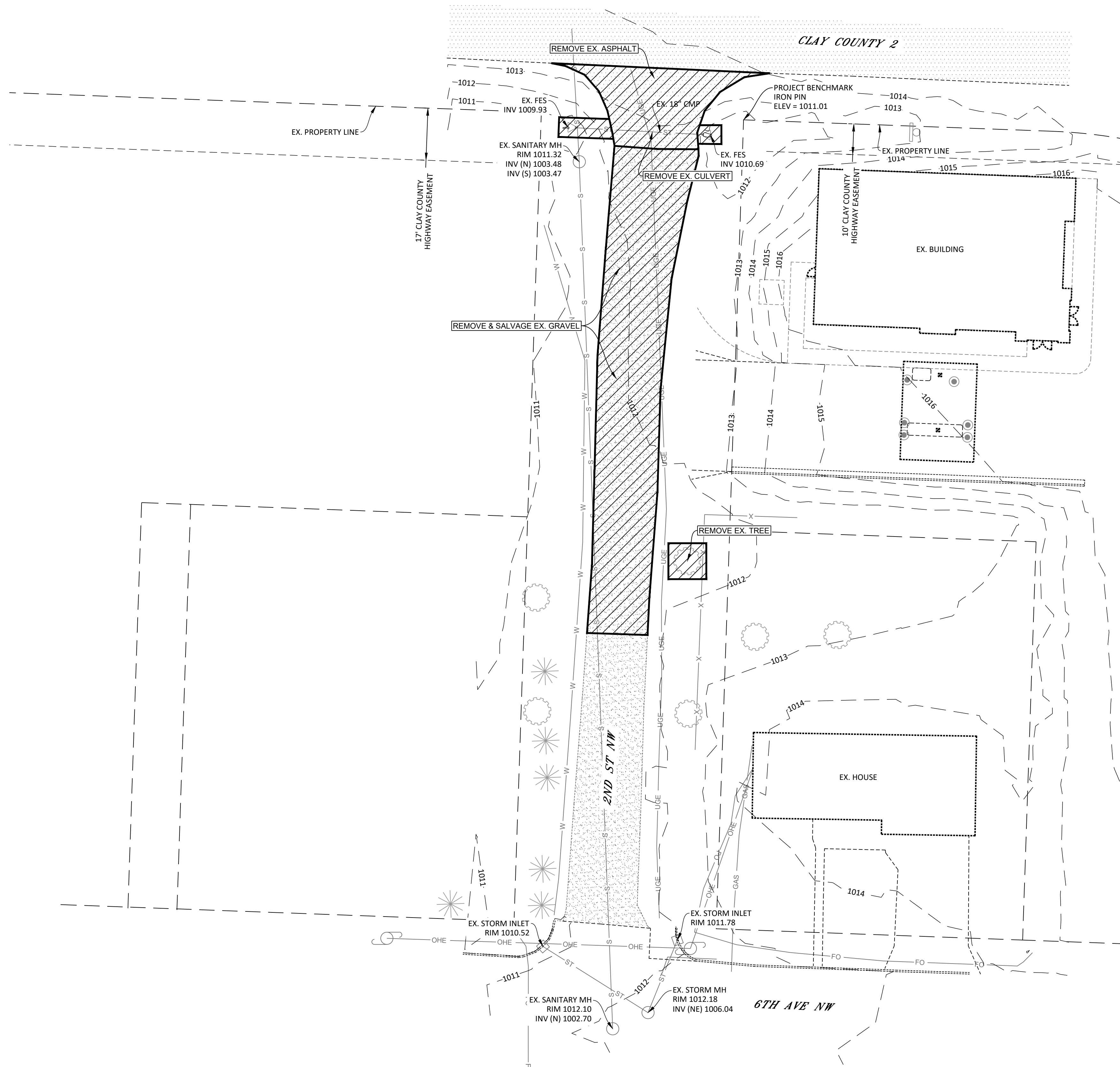
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REMOVAL AREAS

DEMOLITION CALLOUTS

ITEM	QUANTITY	UNIT
REMOVE & SALVAGE EX. GRAVEL	385	SY
REMOVE EX. ASPHALT	108	SY
REMOVE EX. CULVERT	46	LF
REMOVE EX. TREE	1	EA

- NOTE:
1. WORK IN THE RIGHT-OF-WAY SHALL REQUIRE A TRAFFIC CONTROL PLAN THAT MEETS ALL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REQUIREMENTS.
 2. EXISTING ASPHALT SECTION IS ASSUMED TO BE 5" OF ASPHALT OVER 7" OF AGGREGATE BASE.
 3. EXISTING GRAVEL DEPTH IS ASSUMED TO BE 12".



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REVISIONS

NO.	DESCRIPTION	DATE

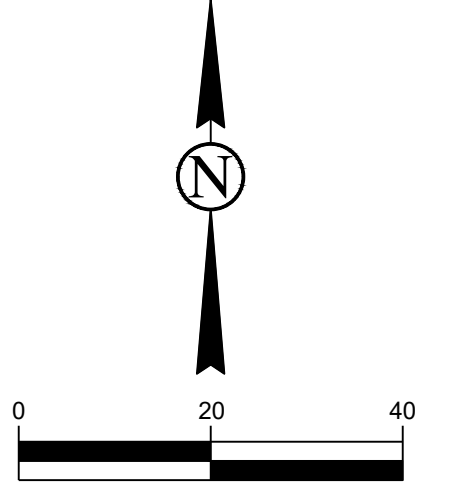
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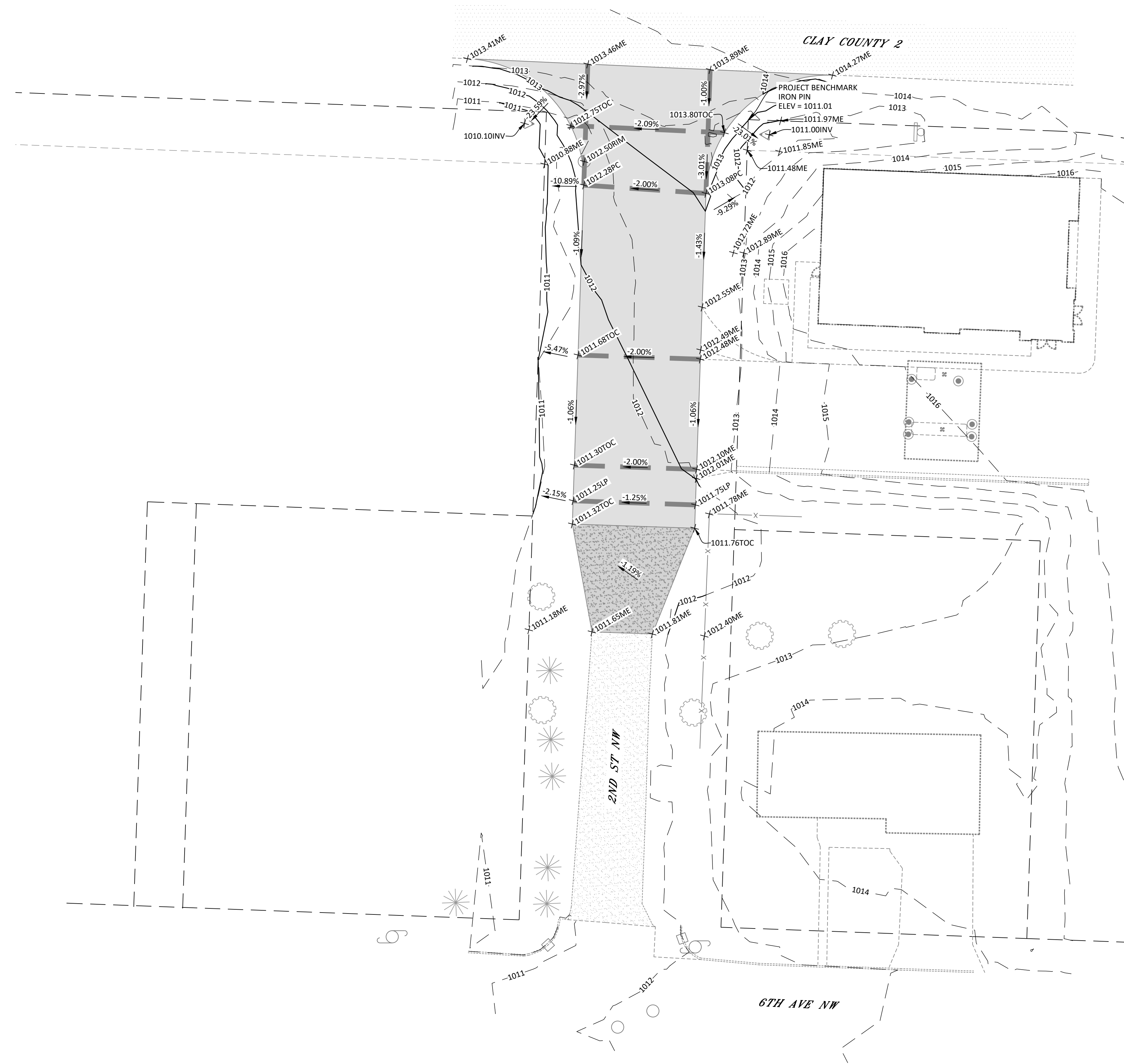
SURVEY OVERLAY
&
DEMOLITION PLAN



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ESTIMATED GRADING QUANTITIES		
ITEM	QUANTITY	UNIT
6" TOPSOIL STRIPPING	135	CY
6" TOPSOIL SPREADING	74	CY
COMMON EXCAVATION	60	CY
EXPORT	115	CY
SUBGRADE PREPARATION/GEOTEXTILE FABRIC	898	SY
AGGREGATE BASE & SURFACE	299	CY

- NOTES:
- 6" OF TOPSOIL STRIPPING WAS ASSUMED TO ALLOW FOR CLEARING OF ALL VEGETATION FROM THE SITE.
 - COMMON EXCAVATION AND EXPORT QUANTITIES ASSUME A FILL FACTOR OF 1.3.
 - NO COMPACTION WAS ASSUMED IN THE QUANTITY FOR AGGREGATE BASE.
 - AGGREGATE BASE AND GEOTEXTILE FABRIC QUANTITY ASSUME IT EXTENDS TO 1' BEYOND EDGE OF PAVEMENT.
 - GEOTEXTILE FABRIC PANELS SHALL BE A MINIMUM OF 12" WIDE AND INSTALLED WITH A MINIMUM OVERLAP OF 18" WITH JOINTS ORIENTATED TO FOLLOW TRAFFIC MOVEMENT.
 - GEOTEXTILE FABRIC QUANTITY DOES NOT INCLUDE REQUIRED OVERLAP.
 - GEOTEXTILE FABRIC SHALL BE MNDOT TYPE 5 AND MEET REQUIREMENTS OF MNDOT SECTION 3733.



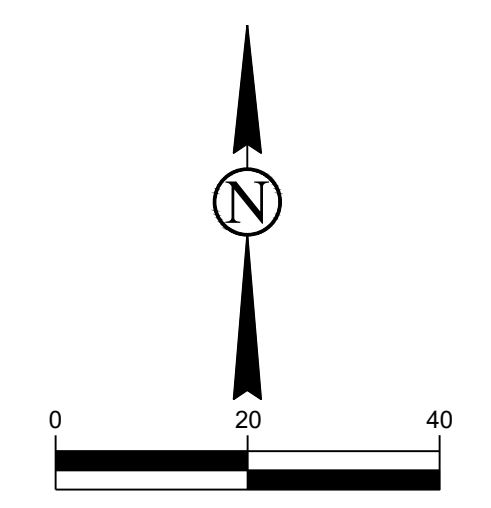
FG	GRADE BREAK/FLOWLINE
FL	FINISH GROUND
HP	FLOWLINE
INV	HIGH POINT
LP	STRUCTURE INVERT ELEVATION
ME	LOW POINT
PC	MATCH EXISTING GROUND
RIM	POINT OF CURVATURE
TOC	STRUCTURE RIM ELEVATION
	TOP OF CONCRETE

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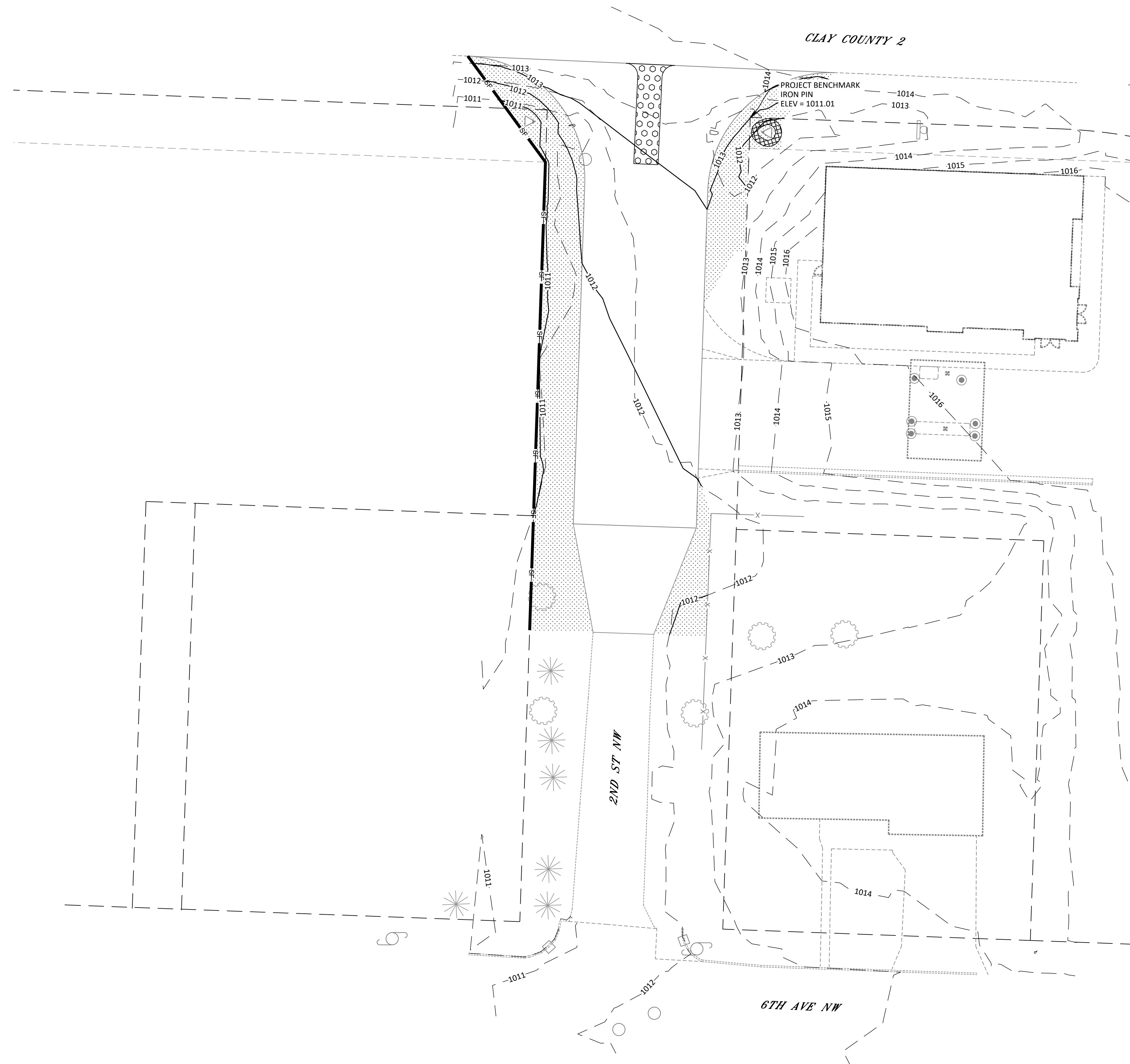


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GRADING PLAN

C-4

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EROSION CONTROL LEGEND			
	SILT FENCE	195	LF
	FIBER ROLL PROTECTION (STRAW WATTLE)	29	LF
	SEEDING & HYDROMULCH	437	SY
	VEHICLE TRACKING PAD	1	EA

- NOTES:
- CONTRACTOR SHALL FOLLOW MPCA STORMWATER POLLUTION PREVENTION STANDARDS FOR ALL EROSION CONTROL DURING CONSTRUCTION.
 - CONTRACTOR SHALL INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS PRIOR TO ANY LAND DISTURBING ACTIVITY.
 - IF CONCRETE WASHOUT WILL OCCUR ONSITE, CONTRACTOR SHALL COORDINATE LOCATION WITH OWNER.
 - CONTRACTOR IS RESPONSIBLE FOR ALL INSTALLATION, MAINTENANCE, REPLACEMENT IF NECESSARY, REMOVAL, ETC OF ANY AND ALL PROTECTION MEASURES NEEDED FROM THE START OF CONSTRUCTION UNTIL FINAL PERMANENT STABILIZATION IS ACHIEVED.
 - 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.

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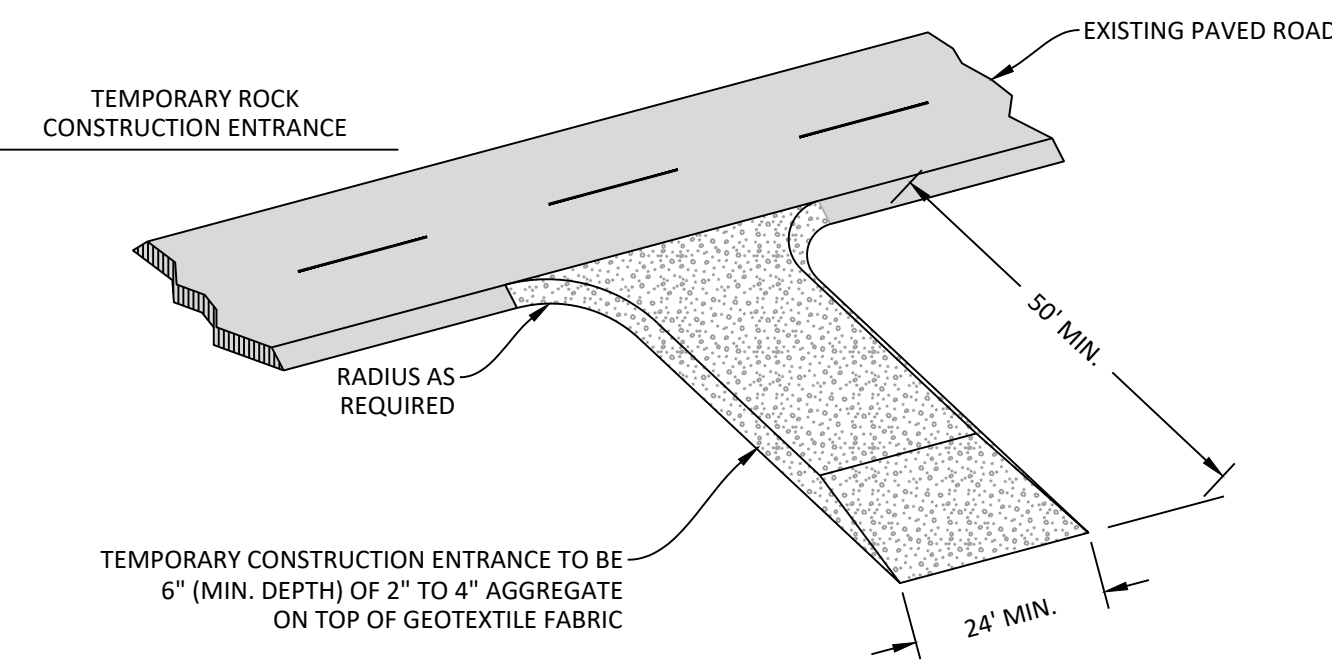
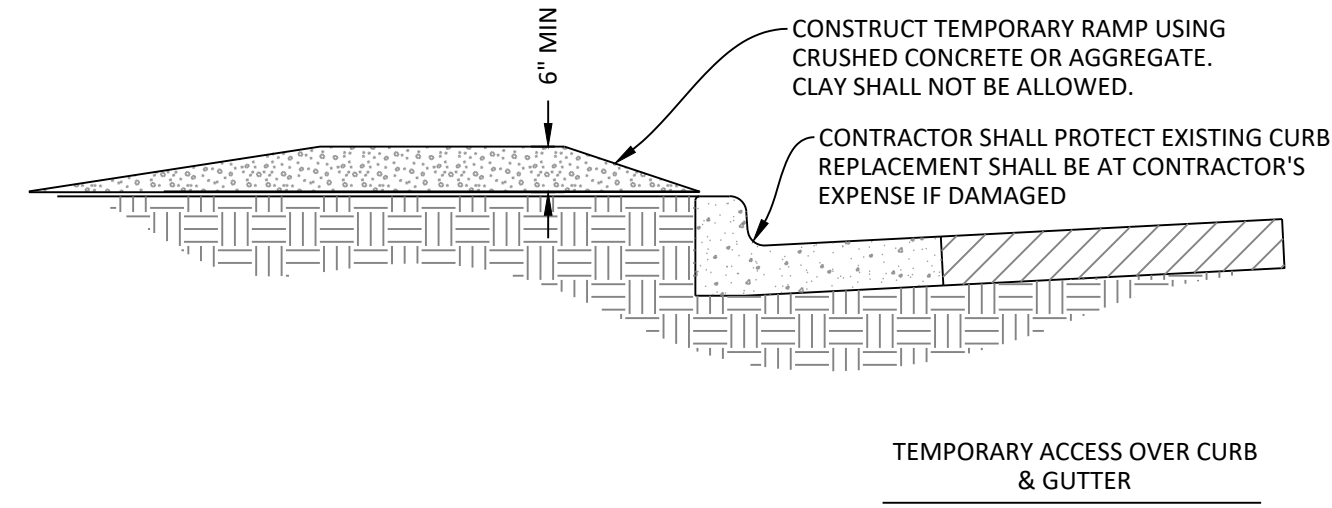
J. Lowry
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EROSION & SEDIMENT CONTROL PLAN

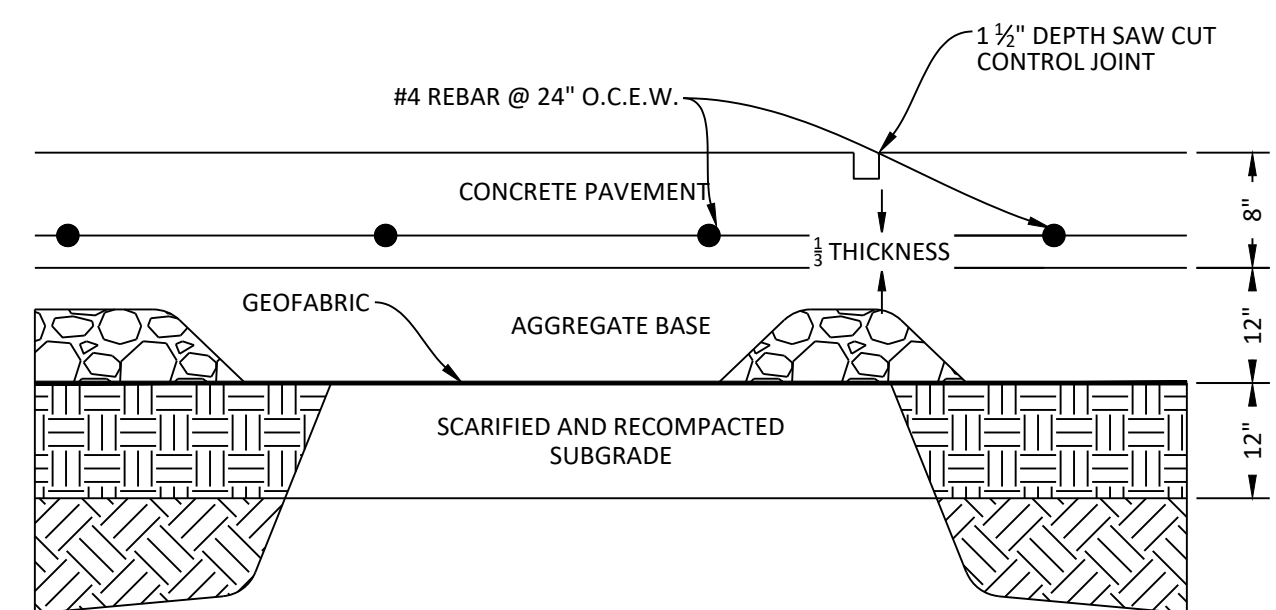
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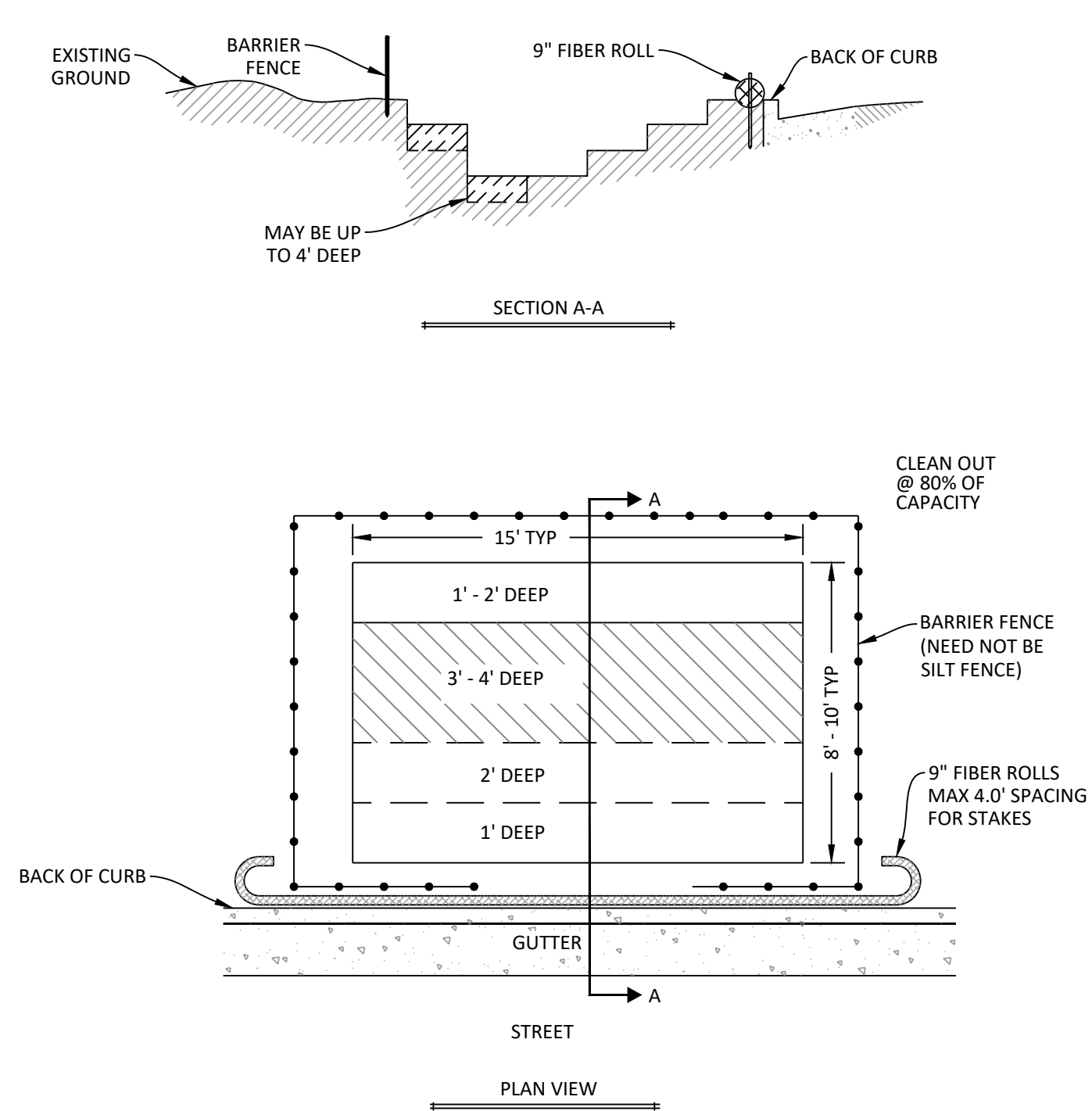
- NOTES:
1. A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT ALL LOCATIONS WHERE CONSTRUCTION VEHICLES OR EQUIPMENT ENTER OR EXIT THE CONSTRUCTION SITES.
 2. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE THE TEMPORARY CONSTRUCTION ENTRANCE UNLESS NOTED OTHERWISE, AND THE SITE SHALL 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 VEHICLE TRACKING PAD
N.T.S.



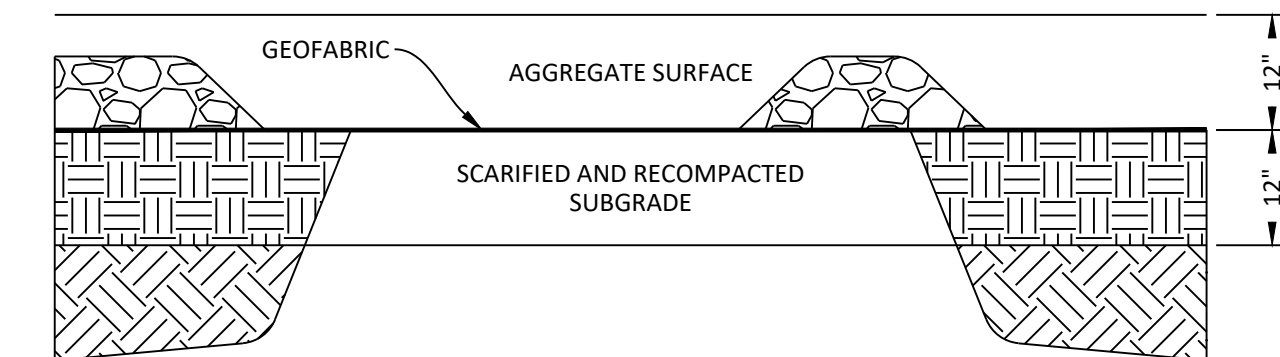
- NOTES:
1. PROVIDE SAWCUT CONTROL JOINTS AT 16' MAXIMUM SPACING EACH WAY.
 2. PROVIDE 18" EPOXY COATED #4 REBAR @ 24" O.C. AT CONNECTION TO CURB & GUTTER, THICKENED EDGE SIDEWALK, EXISTING CONCRETE, AND CONSTRUCTION JOINTS.
 3. WHITE CONCRETE CURING COMPOUND SHALL BE APPLIED PER MANUFACTURERS INSTRUCTIONS ON ALL EXTERIOR CONCRETE SURFACES.
 4. PROVIDE 1/2" 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.

5 REINFORCED CONCRETE CROSS SECTION
N.T.S.



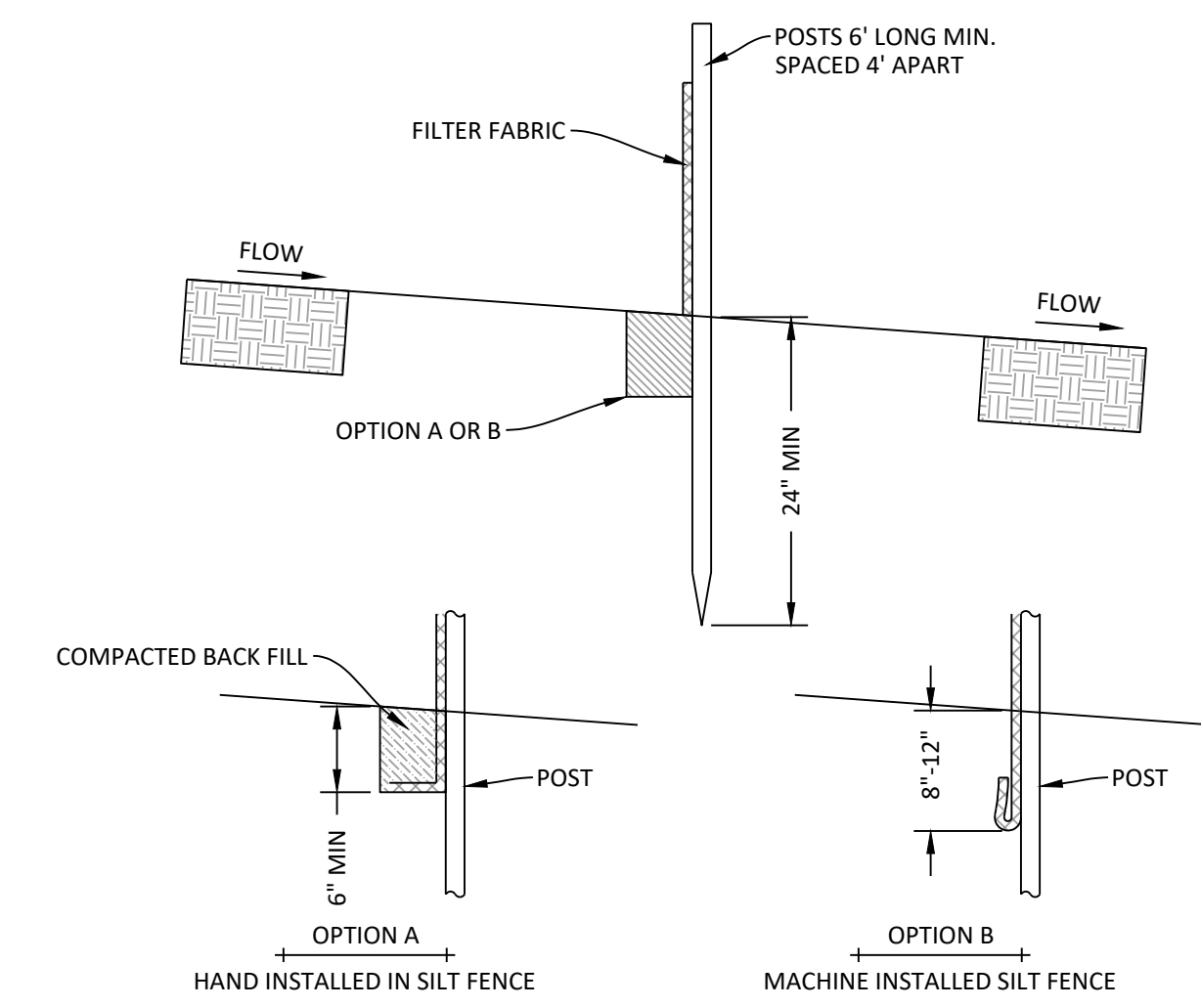
- NOTE:
1. CONCRETE WASH OUT IS NOT REQUIRED IF CONTRACTOR IS PERFORMING WASHOUT ACTIVITIES OFF-SITE IN A LEGAL AND APPROPRIATE MANNER.

2 CONCRETE WASHOUT
N.T.S.



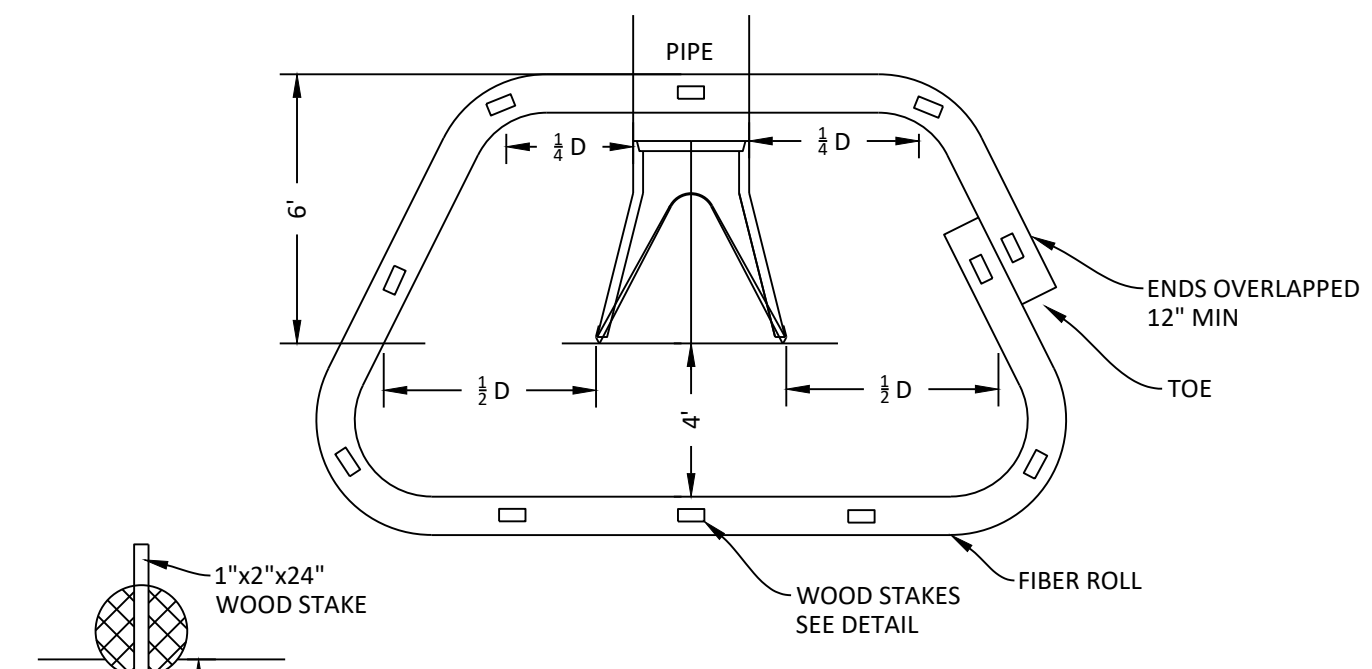
- NOTES:
1. MnDOT TYPE V MODIFIED FABRIC SHALL BE PLACED UNDER AGGREGATE SURFACE PER MnDOT SPECIFICATIONS.

6 GRAVEL CROSS SECTION
N.T.S.



- NOTES:
1. 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 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.

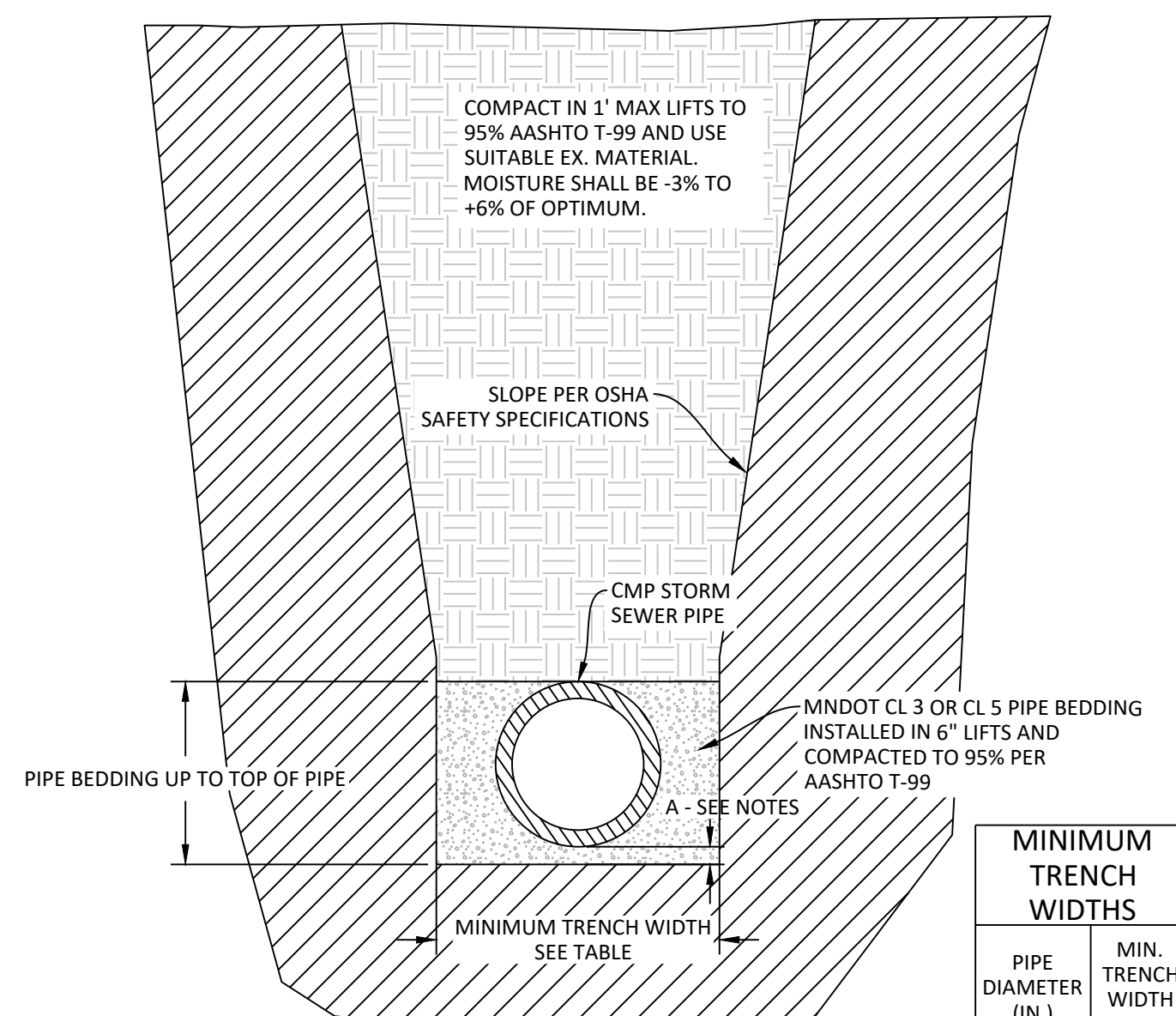
3 SILT FENCE INSTALLATION
N.T.S.



ESTIMATED QUANTITIES	
FES DIAMETER (IN)	FIBER ROLL (LF)
12	27
15	28
18	29
21	30
24	31
27	32
30	33
36	34

- NOTES:
1. D = DIAMETER OF PIPE
 2. FIBER ROLLS SHALL BE COMPOSED OF DEGRADABLE NETTING THAT CONTAINS COMPRESSED HAY OR STRAW THAT IS FREE OF SEEDS AND NOXIOUS WEEDS, OR WOOD EXCULSION.
 3. REMOVE SEDIMENT FROM FIBER ROLL WHEN IT REACHES 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.

4 FIBER ROLL PROTECTION FLARED END SECTION
N.T.S.



- NOTES:
1. BEDDING DEPTH BELOW PIPE (DIMENSION A ABOVE) SHALL BE 4" FOR 4"-36" PIPE AND 6" FOR 42"-60" PIPE.
 2. IN CLAY SOILS, LAST 3' OF PIPE MEASURED FROM BACK OF FLARED END SECTION TO BE BEDDED IN CLAY AND NOT CLASS 5 OR CLASS 3 TO PREVENT SCOUR.

MINIMUM TRENCH WIDTHS	
PIPE DIAMETER (IN.)	MIN. TRENCH WIDTH (IN.)
4	21
6	23
8	26
10	28
12	30
15	34
18	39
24	47
30	56
36	63
42	72
48	80
60	96

7 CMP PIPE AND CULVERT TRENCH BACKFILL
N.T.S.

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