

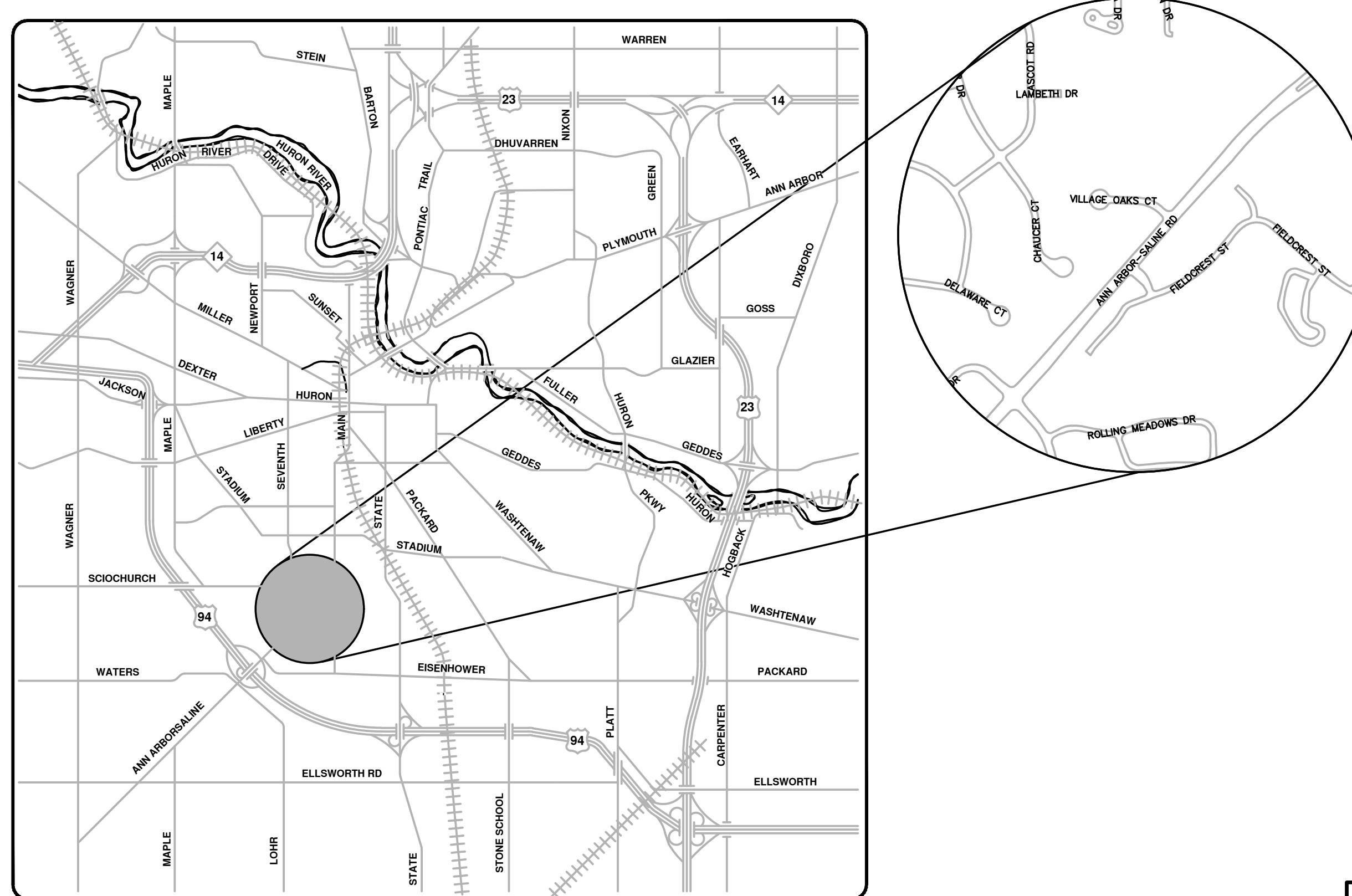
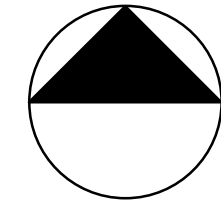


CITY OF ANN ARBOR ENGINEERING

VILLAGE OAKS/CHAUCER COURT EMERGENCY STORM SEWER OVERFLOW PROJECT

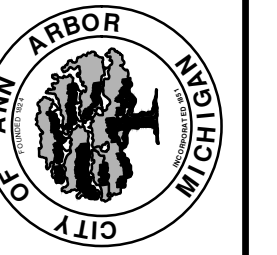
BID No. 4541, FILE No. 2016-019

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	NOTES AND DETAILS
3	STORM SEWER PLAN AND PROFILE
4	TRAFFIC CONTROL PLAN



REV.	DESCRIPTION	DATE	BY	BY	BY	BY	BY
02	FOR BIDS	5-03-2016	JCA	JCA	JCA	JCA	JCA
01	PLAN REVIEW	7-12-2016	JCA	JCA	JCA	JCA	JCA

CITY OF ANN ARBOR
PUBLIC SERVICES
301 W. WASHINGTON STREET
ANN ARBOR, MI 48107-8647
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
VILLAGE OAKS/CHAUCER COURT
EMERGENCY STORM SEWER OVERFLOW PROJECT
COVER SHEET

SCALE
DRAWING No.
14094CV1
SHEET No.
1 OF 4

ENGINEERING UNIT

PREPARED UNDER THE SUPERVISION OF

James C. Ahnert

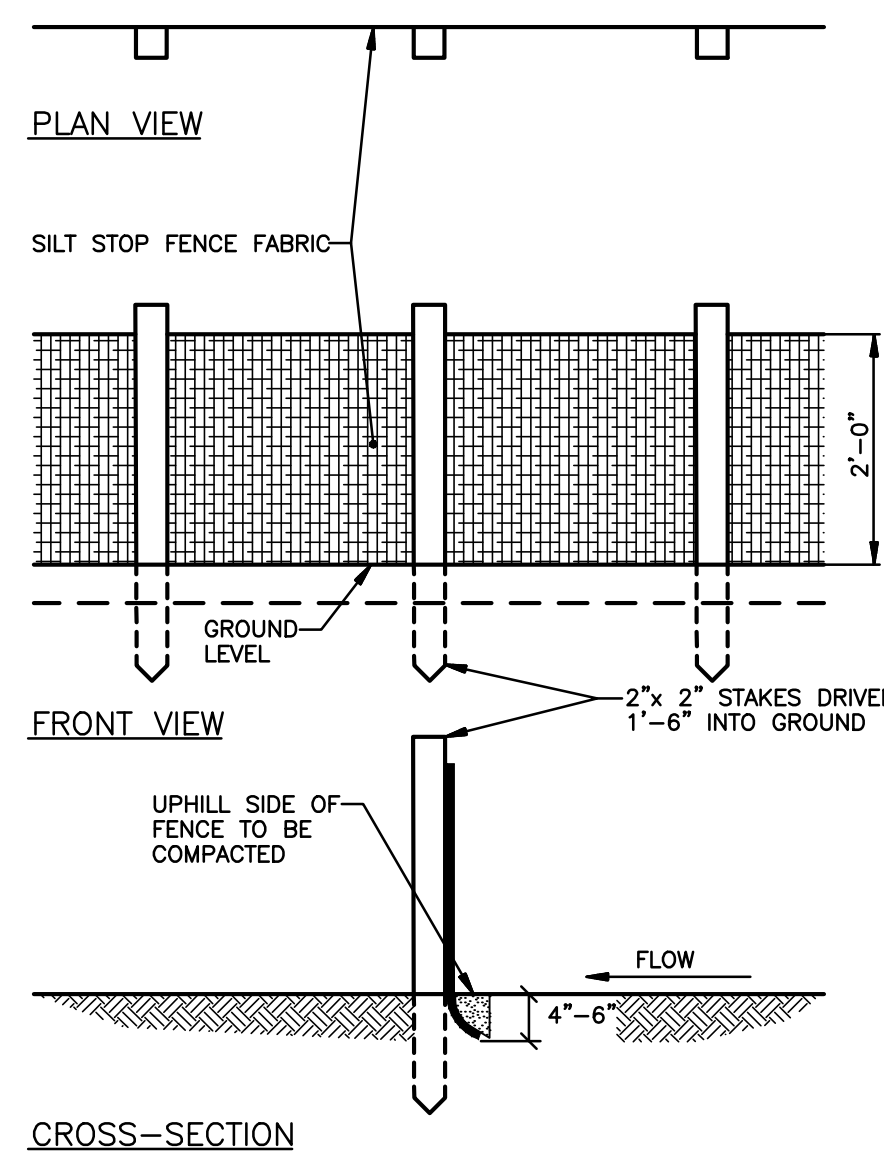
JAMES C. AHNERT
ENGINEER
No. 43208

CONSTRUCTION NOTES:

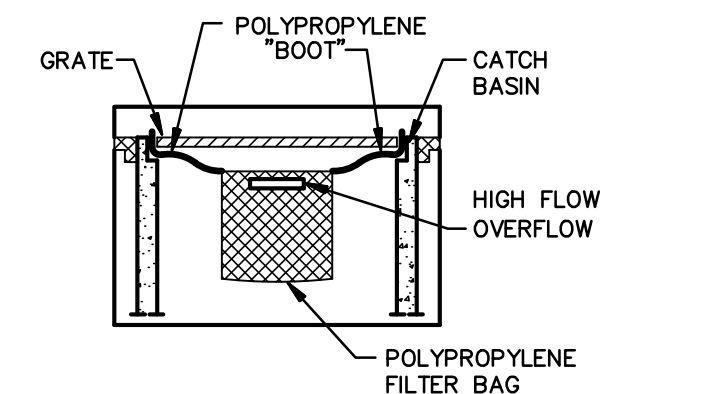
- Driveways and entrances to buildings, real property, and the like shall not be blocked except for short durations and only when approved by the Engineer. Vehicular and pedestrian access shall be maintained at all times. It shall be the Contractor's responsibility to coordinate all necessary driveway closures with the property owner(s) and resident(s) in the areas of construction.
- The location and depth of all existing utilities and service leads are to be field verified by the Contractor prior to construction.
- Location and depth of utilities as depicted on the plans is approximate and shown according to the best information available. It is the Contractor's responsibility to excavate ahead and adjust depth of conflict utilities accordingly. Any damage to utilities is the Contractor's responsibility to avoid and/or repair as necessary.
- The Contractor is to take special care to protect the existing water main and be responsible for maintaining consistent water service.
- During non-working hours no trench shall remain open; any open trench shall be properly secured with protective fencing. This work shall be included in the item of work "General Conditions".
- The Contractor shall backfill trenches in accordance with Trench Detail specified on plans. This work shall be included in the item of work "Storm Sewer, 18". All bituminous and concrete removals and replacements required for this work will be paid for separately.
- "No Parking" signs shall be installed by the Contractor at locations as approved or directed by the Engineer. All signs shall be installed in accordance with the detailed specifications.
- Postal delivery and refuse pickup service shall be maintained at all times by the Contractor.
- Where street curbs are undermined due to construction activities, they shall be removed and replaced as directed by the Engineer.
- The Contractor shall be responsible for the continuous maintenance of the temporary road surface and soil erosion control measures within the construction area until the full completion of the project. This work shall be included in the item of work "General Conditions".
- All curb, sidewalk, driveway approach removals shall be approved by Engineer before the work is done.
- Sawed sewer pipe connections shall be coupled with a Fernco flexible coupling and a stainless steel shear ring.
- The location of material stock piles and on-site staging areas to be approved by the Engineer.
- For mainline paving, the width of the mat for each pass of the paver shall be not less than 10.5' or greater than 15', as directed by the Engineer. The Engineer will direct the layout of the longitudinal joints during construction.
- All structures shall receive new castings as directed by the Engineer, as specified on the structure schedule.
- Payment for drainage structure sumps, where specified, shall be included in the payment for the various drainage structure sizes and or types.
- Where sewer pipes of different sizes or

materials are joined, Fernco flexible couplings with stainless steel shear rings shall be used. The Contractor's purchase price for these devices, including shipping, shall be paid as an extra. Prior to payment for this item, the Contractor shall submit receipts for the Engineer's review and approval. All other costs associated with the installation of these devices shall be included in the payment for the sewer.

- Where sewer and water main are to be removed & replaced or added, all pipe shall be installed using Trench Detail detailed in the specifications or shown on Plans. Backfill for sewer and water construction shall be MDOT Granular Material, Class II, Modified.
- Existing street name, guide, and regulatory signs, and mailboxes which conflict with the proposed construction shall be removed prior to construction, stored in a manner which will prevent damage, and re-set in locations as directed by the Engineer. This work will not be paid for separately, but shall be included in "Machine Grading, Modified"

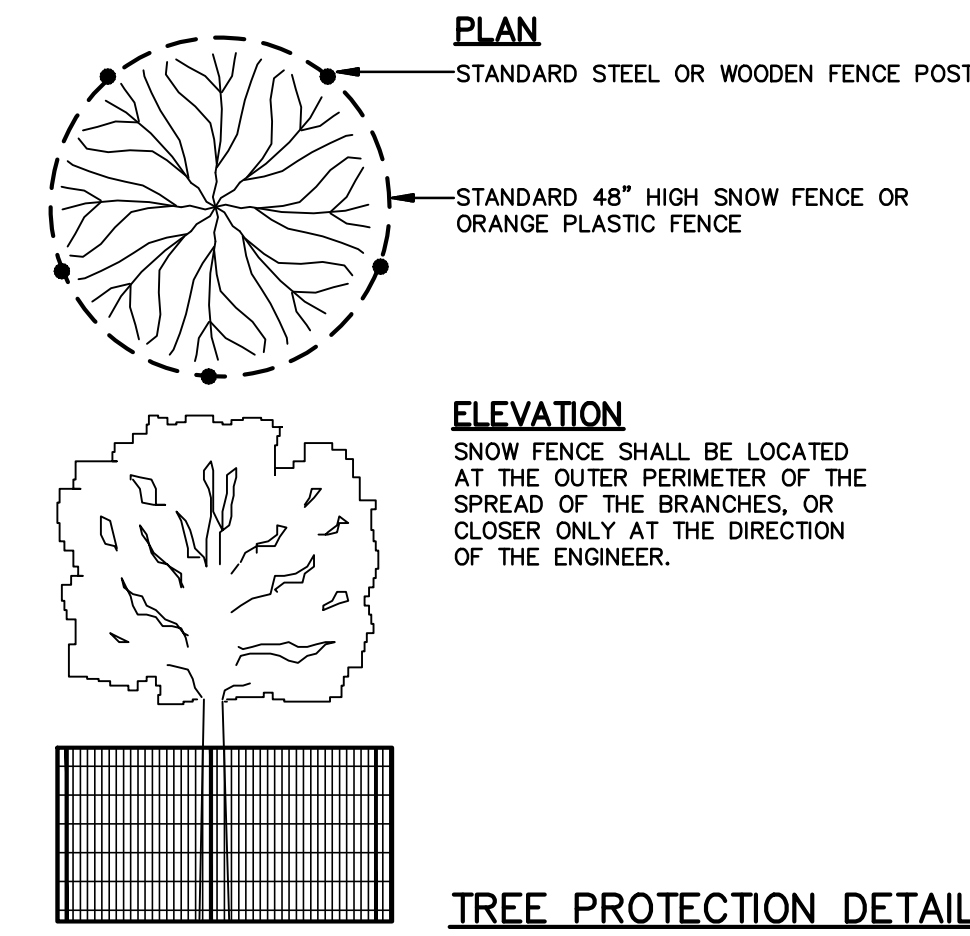


SILT FENCE DETAIL
NO SCALE



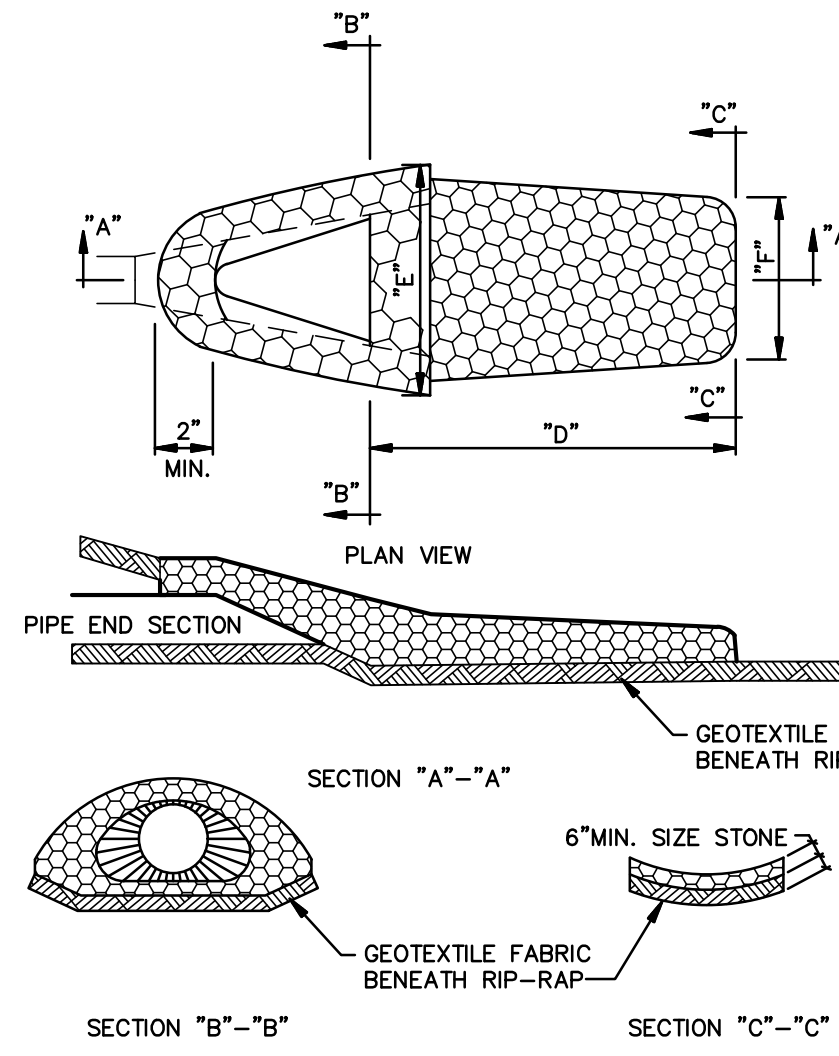
TEMPORARY SILT SACK
NO SCALE

CONSTRUCTION SEQUENCE	SOIL EROSION CONTROL MEASURES
PRIOR TO CONSTRUCTION	<ul style="list-style-type: none"> PRE-GRADING MEETING WITH ANN ARBOR SOIL EROSION CONTROL STAFF IDENTIFY CONSTRUCTION LIMITS INSTALL SILT FENCE INSTALL CURB AND GUTTER INLET FILTERS STRIPPING AND TREE REMOVAL
CONSTRUCT UTILITIES	<ul style="list-style-type: none"> MAINTAIN EXISTING CONTROLS INSTALL STORM SEWER OPEN CUT AND BORE JACK OPERATION
PAVE ROADS	<ul style="list-style-type: none"> MAINTAIN EXISTING CONTROLS INSTALL REPLACE BIT. PATH AND DRIVEWAY AND ANY OTHER DAMAGED AREAS
SEEDING	<ul style="list-style-type: none"> STABILIZE ALL DISTURBED AREAS WITH TOPSOIL AND SEED MAINTAIN EXISTING CONTROLS
STREET TREES	<ul style="list-style-type: none"> STREET TREE REPLACEMENT MAINTAIN EXISTING CONTROLS
CLEAN UP SITE	<ul style="list-style-type: none"> RE-SOD OR SEED MULCH AREAS THAT HAVE NOT TAKEN MAINTAIN EXISTING CONTROLS
AFTER DISTURBED AREAS HAVE STABLE VEGETATION	<ul style="list-style-type: none"> REMOVE CURB AND GUTTER INLET FILTERS CLEAN OUT INLET SUMPS



TREE PROTECTION DETAIL

PIPE #	D	E	F	SQ. YDS.
12"	5'-0"	6'-6"	3'-0"	4
15"	6'-0"	7'-0"	3'-0"	4
18"	5'-0"	7'-6"	3'-6"	4
21"	5'-6"	8'-0"	4'-0"	5
24"	6'-0"	8'-6"	4'-6"	6
27"	6'-6"	9'-0"	5'-0"	7
30"	7'-0"	9'-6"	5'-6"	8
33"	7'-6"	10'-3"	6'-3"	9
36"	8'-0"	10'-9"	6'-9"	10
42"	9'-0"	11'-9"	8'-6"	12
48"	10'-0"	13'-0"	7'-0"	14



RIP-RAP DETAIL

SOIL EROSION AND SEDIMENTATION CONSTRUCTION NOTES:

- ALL SOIL EROSION CONTROL MEASURES SHALL COMPLY WITH THE CURRENT CITY OF ANN ARBOR ORDINANCES, WASHTENAW COUNTY STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND STATE OF MICHIGAN "SOIL EROSION AND SEDIMENTATION CONTROL ACT" (ACT #347).
- CONTRACTOR SHALL HAVE A PRE-GRADING MEETING WITH THE CITY OF ANN ARBOR SOIL EROSION CONTROL STAFF PRIOR TO ANY GRADING ACTIVITIES.
- PRIOR TO COMMENCING EARTHMOVING OPERATIONS, THE CONTRACTOR SHALL INSTALL THE SILT FENCE AND TREE PROTECTION FENCE AS SHOWN ON THE PLANS.
- ANY LAWN AREA WHICH WILL HAVE A SLOPE STEEPER OR EQUAL TO 3:1 (3 FT. MEASURED HORIZONTALLY AND 1 FT. MEASURED VERTICALLY) SHALL BE SODDED AND PEGGED OR SEEDED AND MULCHED USING A SOIL EROSION CONTROL FABRIC OR BLANKET. HYDROSEEDING MAY BE USED IN LIEU OF SEED AND MULCH OR SOD WHERE SLOPES ARE FLATTER THAN 3:1.
- ALL DISTURBED AREAS ARE TO BE REVEGETATED PER COUNTY STANDARDS FOR SEEDING.
- BOTH INTERNAL AND EXTERNAL STREETS WILL BE CLEANED OF ANY MUD IMMEDIATELY FOLLOWING EACH MUD TRACKING OCCURRENCE.
- PERMANENT SOIL EROSION CONTROLS ARE REQUIRED TO BE INSTALLED WITHIN 5 DAYS AFTER FINAL GRADING OR FINAL EARTH CHANGE.

MAINTENANCE REQUIREMENTS

- ALL SILT FENCE SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. IF AT ANY TIME THE DEPTH OF SILT AND SEDIMENT COMES TO WITHIN 12" OF THE TOP OF ANY SILT FENCE, ALL SILT AND SEDIMENT SHALL BE REMOVED TO ORIGINAL GRADE.
- ONLY UPON STABILIZATION OF ALL DISTURBED AREAS MAY THE SILT FENCE BE REMOVED. ALSO, ALL STORM SEWERS MUST BE CLEANED OF ALL SEDIMENT.

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

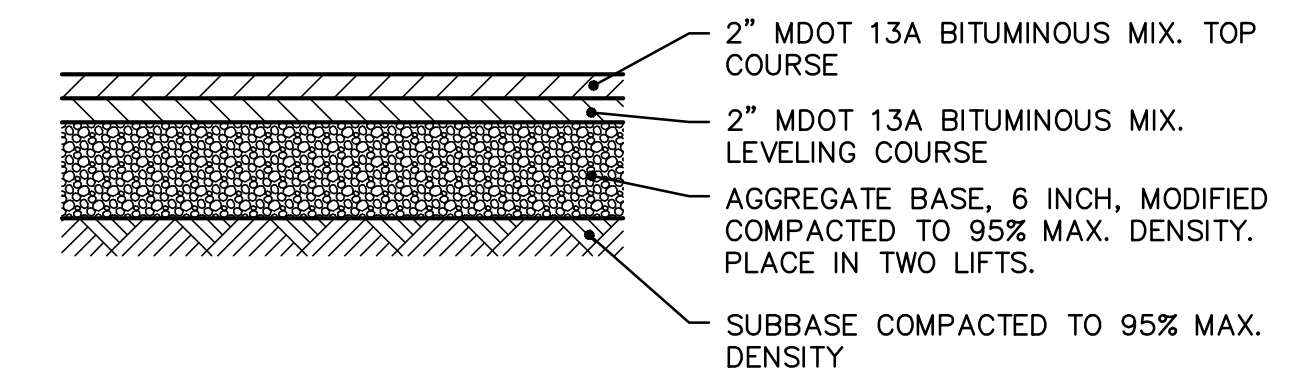
PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT*	CITY OF ANN ARBOR ENGINEERING UNIT
"NO PARKING" SIGNS PERMIT*	CITY OF ANN ARBOR ENGINEERING UNIT
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
RIGHT-OF-WAY PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
* NO COST TO CONTRACTOR	

PERMITS REQUIRED TO BE OBTAINED BY THE CITY OF ANN ARBOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

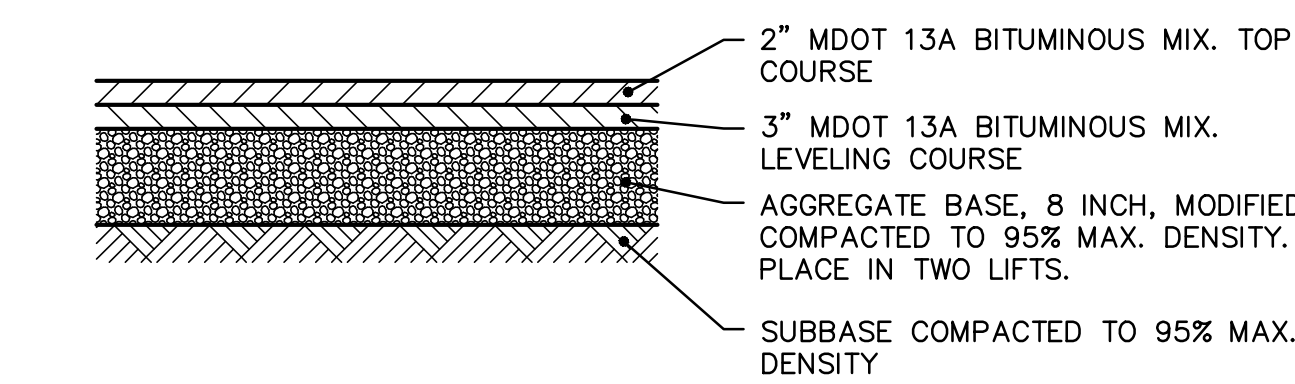
PERMIT	ISSUING AUTHORITY
DRAIN TAP PERMIT	WASHTENAW COUNTY WATER RESOURCES COMMISSIONER

CONTACT INFORMATION

PUBLIC UTILITIES	OWNER	CONTACT
WATER		DAN WOODEN (734) 794-6350
SANITARY		MARK COZART (734) 794-6350
STORM	CITY OF ANN ARBOR FIELD OPERATIONS SERVICE UNIT W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	MATT WALDSMITH (734) 794-6350
FORESTRY		STEVEN GOEBEL (734) 794-6350
SIGNS SIGNALS STREET LIGHTS		CHUCK FOJTIK (734) 794-6361
PRIVATE UTILITIES	OWNER	CONTACT
GAS	DTE ENERGY 3150 E. MICHIGAN AVE, YPSILANTI TOWNSHIP, MI 48198	ROBERT CZAPIEWSKI (734) 544-7818
ELECTRIC	DTE ENERGY WESTERN WAYNE SERVICE CENTER 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	CLAY COMBEE (734) 397-4112
CABLE	COMCAST 27800 FRANKLIN ROAD SOUTHFIELD, MI 48034	RON SUTHERLAND (313) 999-8300
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	(734) 996-2135
FIBER OPTIC	MCI 2800 N. GLENFILLE ROAD RICHARDSON, TX 75082	DEAN BOYERS (972) 729-6016



HMA PATH SECTION
NOT TO SCALE

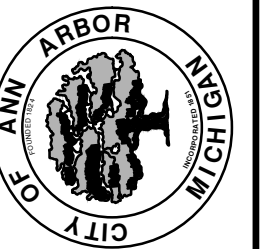


HMA ROAD/DRIVE SECTION
NOT TO SCALE



DATE	BY	CHKD	DESCRIPTION
5-03-2018	JCA	BY	FOR BIDS
7-12-2018	JCA	BY	PLAN REVIEW
			REV.

CITY OF ANN ARBOR
301 EAST HURON STREET
ANN ARBOR, MI 48106
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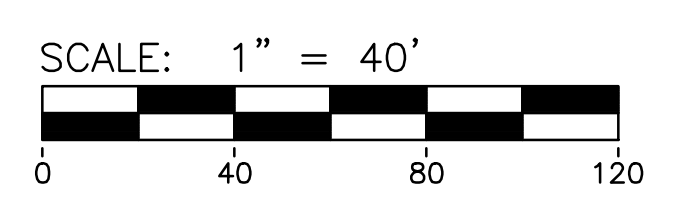
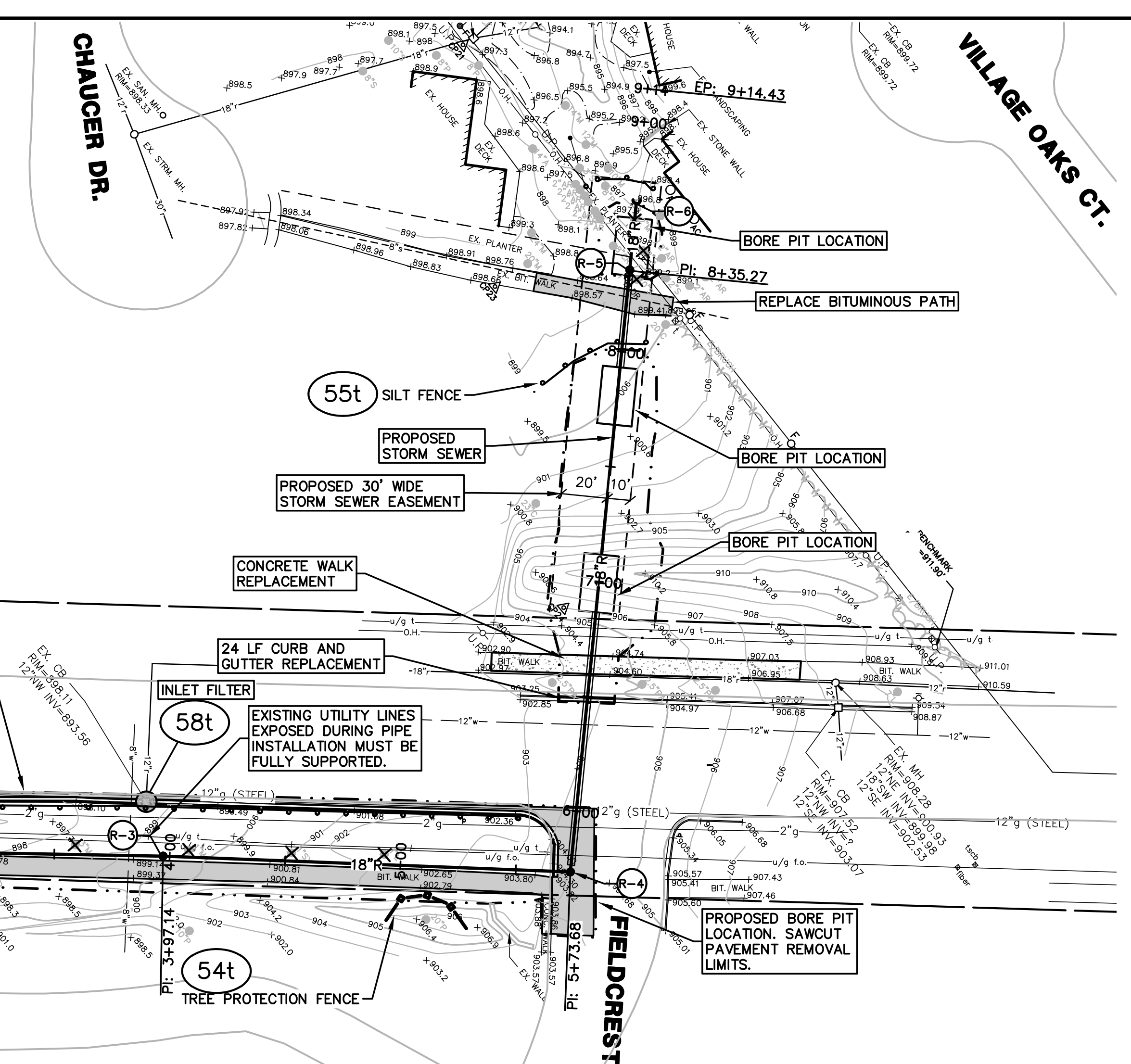
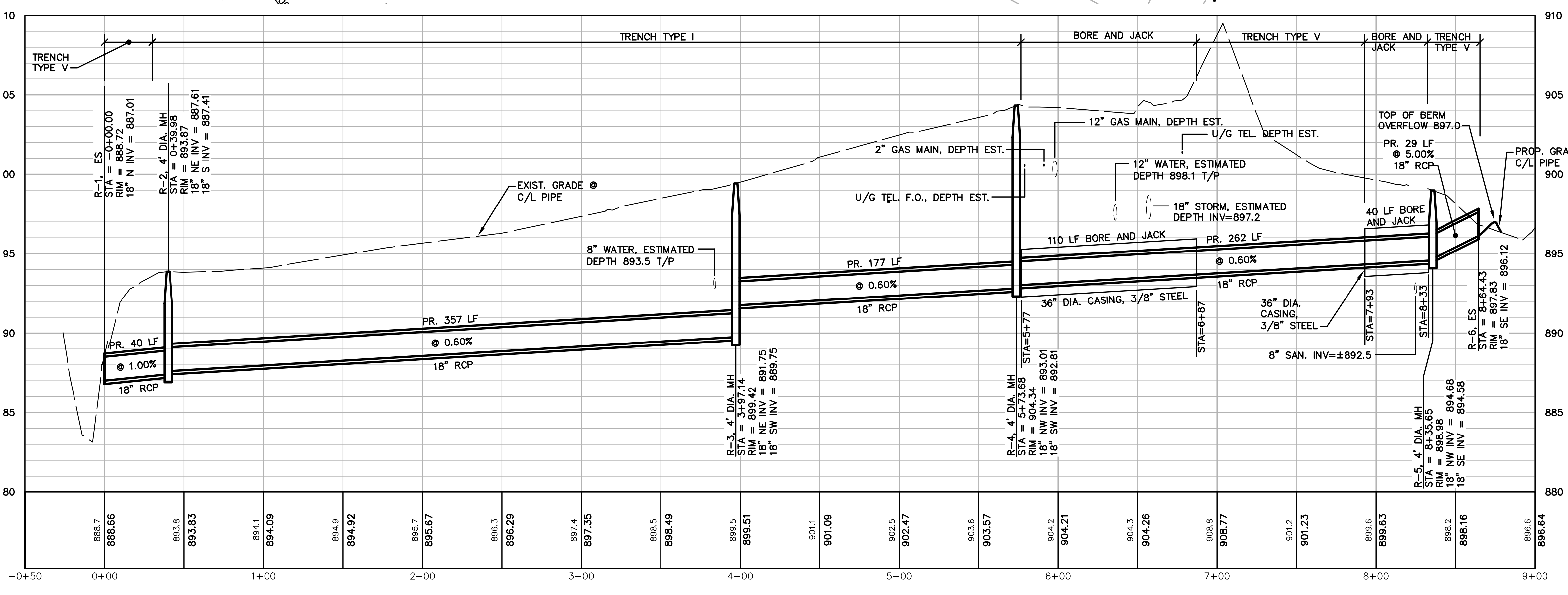
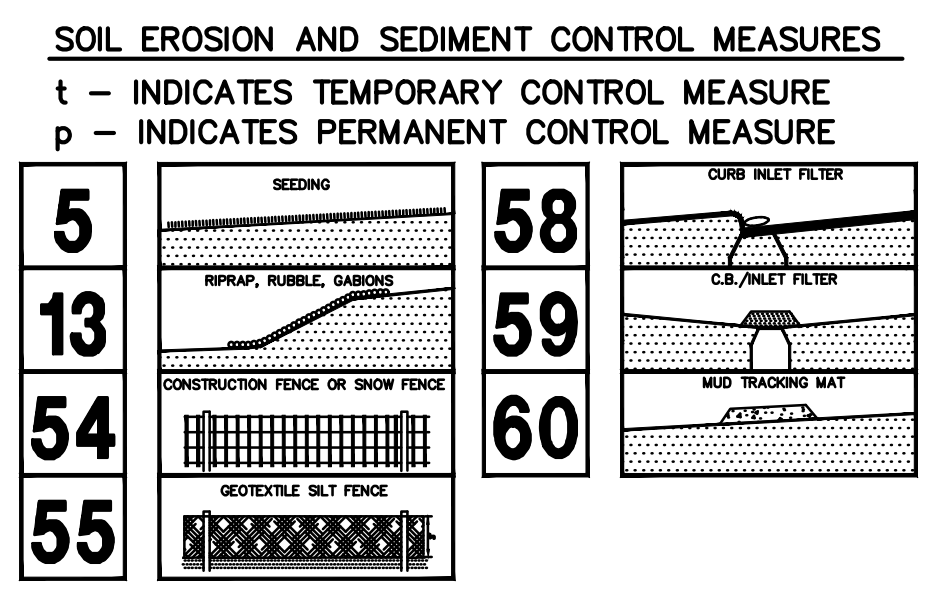
ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
VILLAGE OAKS/CHAUCER COURT
EMERGENCY STORM SEWER OVERFLOW PROJECT

SCALE PLAN: #00000000
DRAWING No.

SHEET No.

M:\Civild\Pro\14094\Construction\14094PR1.dwg Dwg Created: 30-Apr-18 - _regular b6w.ctb - Plot Date: 3-May-18

STORM STRUCTURE TABLE						
STRUCTURE NO.	TYPE	RIM ELEV.	INV.	DEPTH	SUMP	TYPE OF CASTING
R-1	18" ES	888.72	18" N 887.01	N/A	0'	N/A
R-2	4' MH	893.87	18" S 887.41 18" NE 887.61	6.46	0'	EJW 1040 Type B
R-3	4' MH	899.42	18" SW 889.75 18" NE 891.75	9.67	0'	EJW 1040 Type B
R-4	4' MH	904.34	18" SW 892.81 18" NW 893.01	11.53	0'	EJW 1040 Type B
R-5	4' MH	898.98	18" SE 894.58 18" NW 894.68	4.40	0'	EJW 1040 Type B
R-6	18" ES	897.83	18" SE 896.12	N/A	0'	N/A



- LEGEND**
- 838 EXIST. CONTOUR
 - 838 PROP. CONTOUR
 - x 836.2 EXIST. SPOT ELEVATION
 - 36.60 PROP. SPOT ELEVATION
 - U.P. EXIST. UTILITY POLE
 - GUY WIRE
 - ELEC. TRANSFORMER
 - DH EXIST. OVERHEAD UTILITY LINE
 - t EXIST. TELEPHONE LINE
 - e EXIST. ELECTRIC LINE
 - g EXIST. GAS LINE
 - w EXIST. WATER MAIN
 - h EXIST. HYDRANT
 - g EXIST. GATE VALVE IN BOX
 - r EXIST. GATE VALVE IN WELL
 - r EXIST. STORM SEWER
 - R PROP. STORM SEWER
 - EXIST. CATCH BASIN OR INLET
 - PROP. CATCH BASIN OR INLET
 - END SECTION
 - CULVERT
 - EXIST. SANITARY SEWER
 - C.O.F. DITCH
 - SIDWALK RAMP
 - MAILBOX
 - TELEPHONE RISER
 - POST
 - FENCE
 - SINGLE TREE
 - TREE TO BE REMOVED
 - LANDMARK TREE
 - TREE OR BRUSH LIMIT
 - SECTION CORNER
 - SOIL BORING LOCATION
 - FOUND IRON PIPE
 - FOUND MONUMENT
 - CONTROL PT.
 - SILTFENCE
 - TREE PROTECTION FENCING

Know what's below. Call before you dig.

REV.	DATE	DESCRIPTION
02	5-03-2018	FOR BIDS
01	7-12-2016	PLAN REVIEW
		DATE
		DRAWN
		CHECKED
		BY
		SNB
		JCA

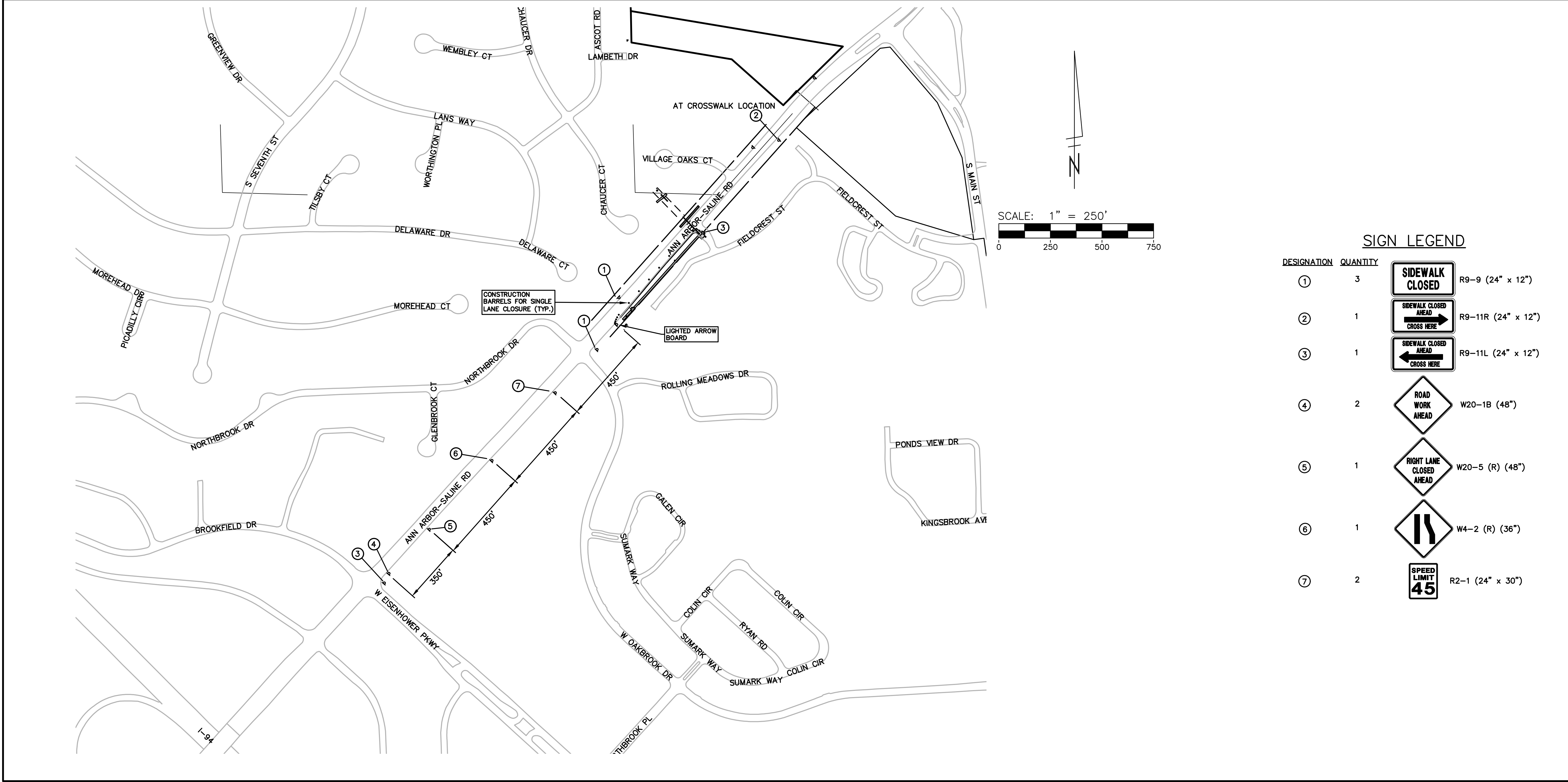
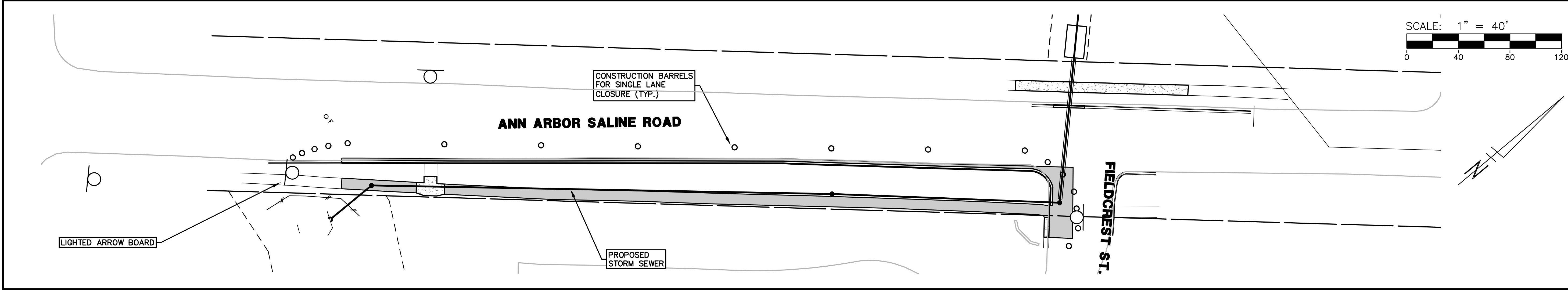
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 ANN ARBOR, MI 48106-1544
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ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
VILLAGE OAKS/CHAUCER COURT
EMERGENCY STORM SEWER OVERFLOW PROJECT
 STORM SEWER PLAN AND PROFILE

SCALE PLAN: 1" = 40'
 PROFILE: 1" = 4'
 DRAWING NO. 14094PR1

SHEET No. **3 OF 4**

M:\Civi3d_Proj\14094\Construction\14094TR1.dwg Dwg Created: 26-Apr-18 - _regular b&w.ctb - Plot Date: 3-May-18



SIGN LEGEND

DESIGNATION	QUANTITY	DESCRIPTION
①	3	SIDEWALK CLOSED R9-9 (24" x 12")
②	1	SIDEWALK CLOSED AHEAD R9-11R (24" x 12")
③	1	SIDEWALK CLOSED AHEAD R9-11L (24" x 12")
④	2	ROAD WORK AHEAD W20-1B (48")
⑤	1	RIGHT LANE CLOSED AHEAD W20-5 (R) (48")
⑥	1	LANE NARROWING W4-2 (R) (36")
⑦	2	SPEED LIMIT 45 R2-1 (24" x 30")

CITY OF ANN ARBOR
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811
Know what's below.
Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	PLAN REVIEW	7-12-2016	JCA	SNB

ENGINEERING - PUBLIC SERVICES - CITY OF ANN ARBOR
 VILLAGE OAKS/CHAUCER COURT
 EMERGENCY STORM SEWER OVERFLOW PROJECT
 TRAFFIC CONTROL PLAN

PROFILE: "1" = "1/4"
 SCALE PLAN: "1" = "1/4"
 DRAWING No. 14094TR1

SHEET No. **4 OF 4**