



CITY OF ANN ARBOR PROJECT MANAGEMENT

MCKINLEY AVE. WHITE ST. AND ARCH ST. STORM CULVERT ABANDONMENT

NOTES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

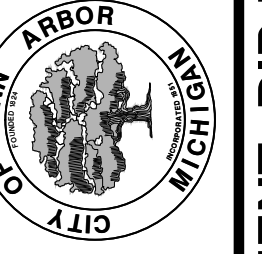
THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, ITS DETAILS, WHICH ARE INCLUDED BY REFERENCE, AND THIS PROJECT'S CONTRACT DOCUMENTS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.



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CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-0667
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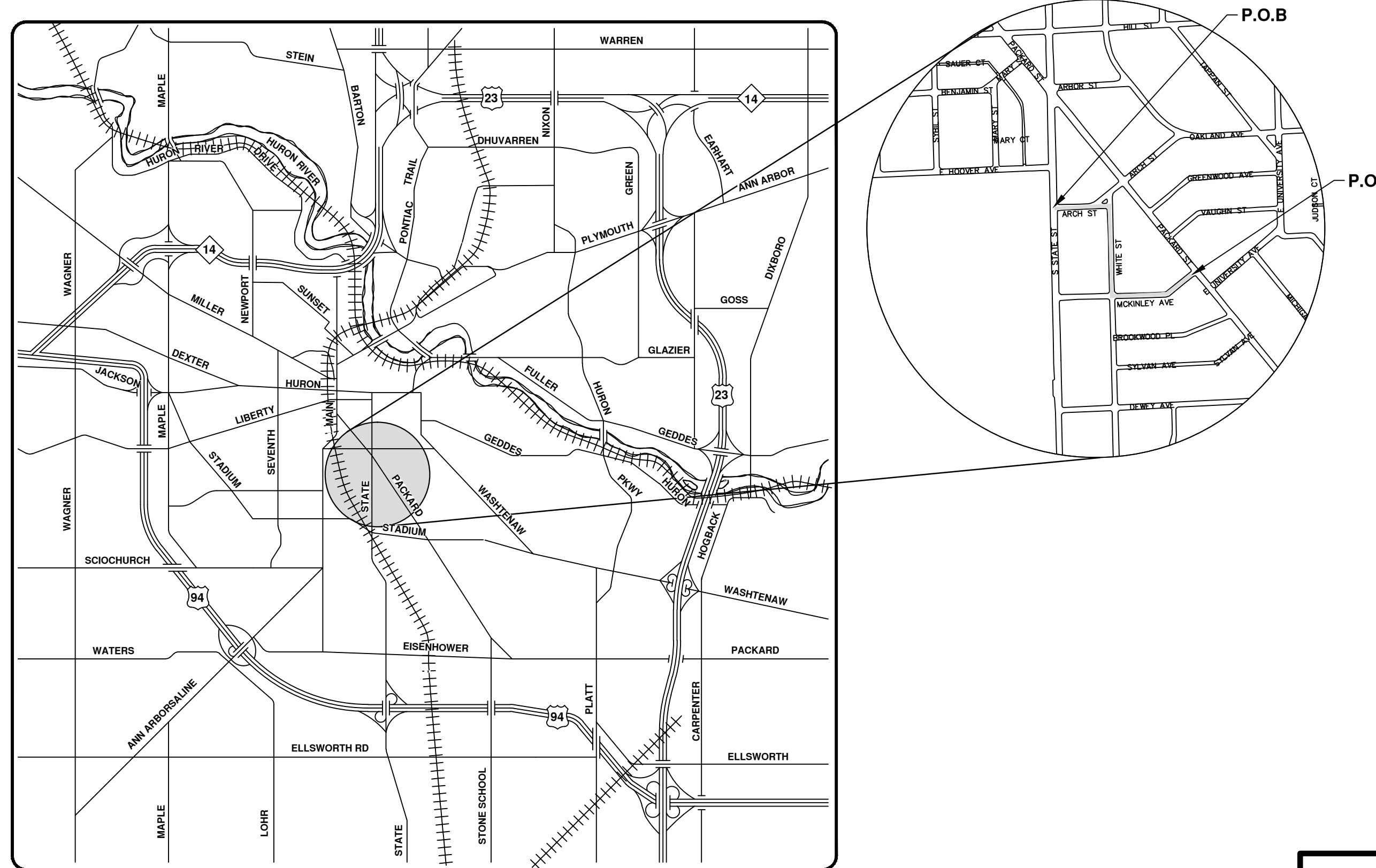
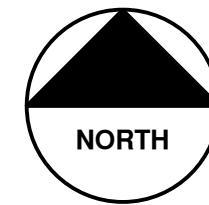
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
STORM CULVERT ABANDONMENT UNDER SIDEWALK ON
ARCH ST., WHITE ST., AND MCKINLEY AVE.

SCALE
DRAWING No.
2014036-1
SHEET No.
1 OF 11


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SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	STANDARD NOTES
3	LEGEND AND DETAILS
4	TRAFFIC CONTROL PHASES
5	TRAFFIC CONTROL
6	ARCH STREET REMOVALS
7	ARCH STREET PLACEMENTS
8	WHITE STREET REMOVALS
9	WHITE STREET PLACEMENTS
10	MCKINLEY AVENUE REMOVALS
11	MCKINLEY AVENUE PLACEMENTS

BID No. 4353 FILE No. 2014036




VICINITY MAP




PROJECT MANAGEMENT SERVICE UNIT

PREPARED UNDER THE SUPERVISION OF



BRIAN SLIZEWSKI, P.E. - MI LICENSE No. 35654
PROJECT MANAGER

3 / 12 / 2015
DATE



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CONSTRUCTION NOTES:

1. 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.
2. The location and depth of all existing utilities and service leads are to be field verified by the Contractor prior to construction.
3. 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.
4. The Contractor is to take special care to protect the existing water main and be responsible for maintaining consistent water service.
5. During non-working and overnight hours maximum 25 feet of trench can remain open; any open trench shall be properly secured with protective fencing. This work shall be included in the item of work "General Conditions".
6. "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.
7. Postal delivery and refuse pickup service shall be maintained at all times by the Contractor.
8. All and castings and plates removed during construction are the property of the City of Ann Arbor. The Contractor within 48 hours shall deliver to City of Ann Arbor Field Operations and Maintenance Facility at the W.R. Wheeler Service Center located at 4251 Stone School Road.
9. Where street curbs are undermined due to construction activities, they shall be removed and replaced as directed by the Engineer.
10. 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".
11. All curb, sidewalk, driveway approach removals shall be approved by Engineer before the work is done.
12. Sawed sewer pipe connections shall be coupled with a Fernco flexible coupling and a stainless steel shear ring.
13. The location of material stock piles and on-site staging areas to be approved by the Engineer.
14. All structures shall receive new castings as directed by the Engineer, as specified on the standard casting schedule. The existing castings are the property of the City of Ann Arbor. The Contractor shall deliver to City of Ann Arbor Field Operations and Maintenance Facility at the W.R. Wheeler Service Center located at 4251 Stone School Road.
15. Payment for drainage structure sumps, where specified, shall be included in the payment for the various drainage structure sizes and or types.
16. 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.
17. In areas where edge drain cannot be installed in accordance with City of Ann Arbor Detail SD-TD-11, the edge drain shall be installed at the depth as indicated on the plans, or as directed by Engineer. In no case shall the edge drain be installed at a grade less than 0.50% or at a depth of less than 2' below top of proposed pavement.
 18. Records indicate that Arch Street is bituminous pavement on concrete/brick base. Removal will be paid as "Remove Concrete Pavement" if concrete/brick base is encountered.

SOIL EROSION & SEDIMENT CONTROL GENERAL NOTES:

NOTIFY THE CITY OF ANN ARBOR SOIL EROSION CONTROL OFFICE 48 HOURS PRIOR TO BEGINNING WORK ON THE PROJECT. PHONE: 734-794-6265.

1. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN SOIL EROSION CONTROL MEASURES AS DIRECTED BY THE ENGINEER AT ALL TIMES DURING CONSTRUCTION. ANY MODIFICATIONS OR ADDITIONS TO THE SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE AS DIRECTED AND APPROVED BY THE ENGINEER.
2. ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE CITY OF ANN ARBOR, CITY ORDINANCE CHAPTER 63, CITY OF ANN ARBOR STANDARDS DIVISION VII, THE LAWS OF THE STATE OF MICHIGAN, AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
3. DAILY, OR AFTER ANY STORM EVENT, INSPECTIONS OF EROSION CONTROL MEASURES SHALL BE MADE BY THE CONTRACTOR. PERIODIC INSPECTIONS MAY BE MADE BY THE ENGINEER TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY CORRECTIONS SHALL BE MADE WITHOUT DELAY, AND WITHOUT ADDITIONAL COST TO THE CITY OF ANN ARBOR.
4. EROSION AND SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED ON THE SITE AND NOT BE ALLOWED TO COLLECT ON ANY OFF-SITE AREAS, ROADWAYS OR WATERWAYS.
5. ALL MUD/DIRT TRACKED ONTO ROADWAYS FROM THE SITE DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. IF SO ORDERED, THE CONTRACTOR SHALL PROVIDE AND OPERATE A VACUUM-TYPE STREET SWEEPER, AT NO ADDITIONAL COST TO THE CITY OF ANN ARBOR, WITHIN FOUR (4) HOURS OF BEING SO ORDERED.
6. RESTORATION OF ALL DISTURBED AREAS, INCLUDING PLACEMENT OF TOPSOIL, SEED, FERTILIZER AND MULCH AND/OR SOD SHALL BE PERFORMED WITHIN FIVE (5) DAYS OF THE COMPLETION OF FINAL GRADE.
7. CONSTRUCTION OPERATIONS SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE SOIL EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION IN CRITICAL AREAS AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING OPERATIONS.
8. SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
9. PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF WATER TRUCKS AND/OR DUST PALLATIVE AS REQUIRED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND REMOVAL OF SOME MEASURES UPON AUTHORIZED COMPLETION OF THE PROJECT. FINAL COMPLETION OF PROJECT WILL NOT BE AUTHORIZED UNTIL ALL SITE WORK AND UTILITY CONSTRUCTION IS COMPLETE AND ALL SOILS ARE STABILIZED.
11. THE CONTRACTOR SHALL NOT GRADE INTO ADJACENT PROPERTIES. SILT AND PROTECTIVE FENCE SHALL BE INSTALLED AND MAINTAINED TO PREVENT GRADING, EROSION AND SEDIMENTATION INTO THE ADJACENT PROPERTIES.
12. TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.

SEQUENCE OF EROSION CONTROL MEASURES:

1. THE CONTRACTOR IS TO SUBMIT TO THE ENGINEER, A SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION CONTROL MEASURES FOR REVIEW, COMMENT AND APPROVAL. THIS SCHEDULE IS TO INCLUDE INSPECTION AND REPAIR OF ALL TEMPORARY EROSION CONTROL MEASURES DAILY AND WITHIN 24 HOURS OF A STORM EVENT.
- SAMPLE SOIL EROSION AND SEDIMENTATION CONTROL INSTALLATION MINIMUM REQUIREMENTS:**
- 1.1. INSTALL SILT FENCE, TREE PROTECTION FENCING, AND INLET FILTERS ON EXISTING DRAINAGE FEATURES PRIOR TO ANY CLEARING OR EARTH MOVING OPERATION.
 - 1.2. STRIP AND STOCKPILE TOPSOIL. STABILIZE STOCKPILE AS REQUIRED.
 - 1.3. INSTALL WATER MAINS, STORM AND SANITARY SEWERS, AND OTHER ENCLOSED DRAINAGE FEATURES. NEW INLET FILTERS SHALL BE INSTALLED IMMEDIATELY FOLLOWING INSTALLATION OF NEW DRAINAGE INLETS.
 - 1.4. PERFORM MACHINE GRADING OPERATIONS AND CONSTRUCT PAVEMENTS (MAINLINE, SIDEWALKS, DRIVES, ETC.).
 - 1.5. CONTINUALLY MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES, AS REQUIRED TO ALLOW DRAINAGE AND SEDIMENT REMOVAL. REMOVE ANY ACCUMULATED SEDIMENT IMMEDIATELY.
 - 1.6. COMPLETE ALL GRADING AND FINE GRADING.
 - 1.7. TEMPORARY SEED AND INSTALL EROSION CONTROL BLANKET IN ALL DISTURBED AREAS.
 - 1.8. CLEAN OUT STORM SEWER SYSTEMS.
 - 1.9. REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES UPON FINAL INSPECTION AND APPROVAL BY THE ENGINEER.
 - 1.10. REMEDY ANY NOTED DEFECTS TO THE SATISFACTION OF THE CITY OF ANN ARBOR'S SOIL EROSION AND SEDIMENTATION CONTROL OFFICIAL.

NOTE: THIS SEQUENCE IS FOR INFORMATION ONLY. IT IS INTENDED TO SHOW THE SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THEIR OWN DETAILED CONSTRUCTION SEQUENCE AND SCHEDULE TO THE ENGINEER FOR REVIEW, COMMENT, AND APPROVAL.

TEMPORARY SEEDING:

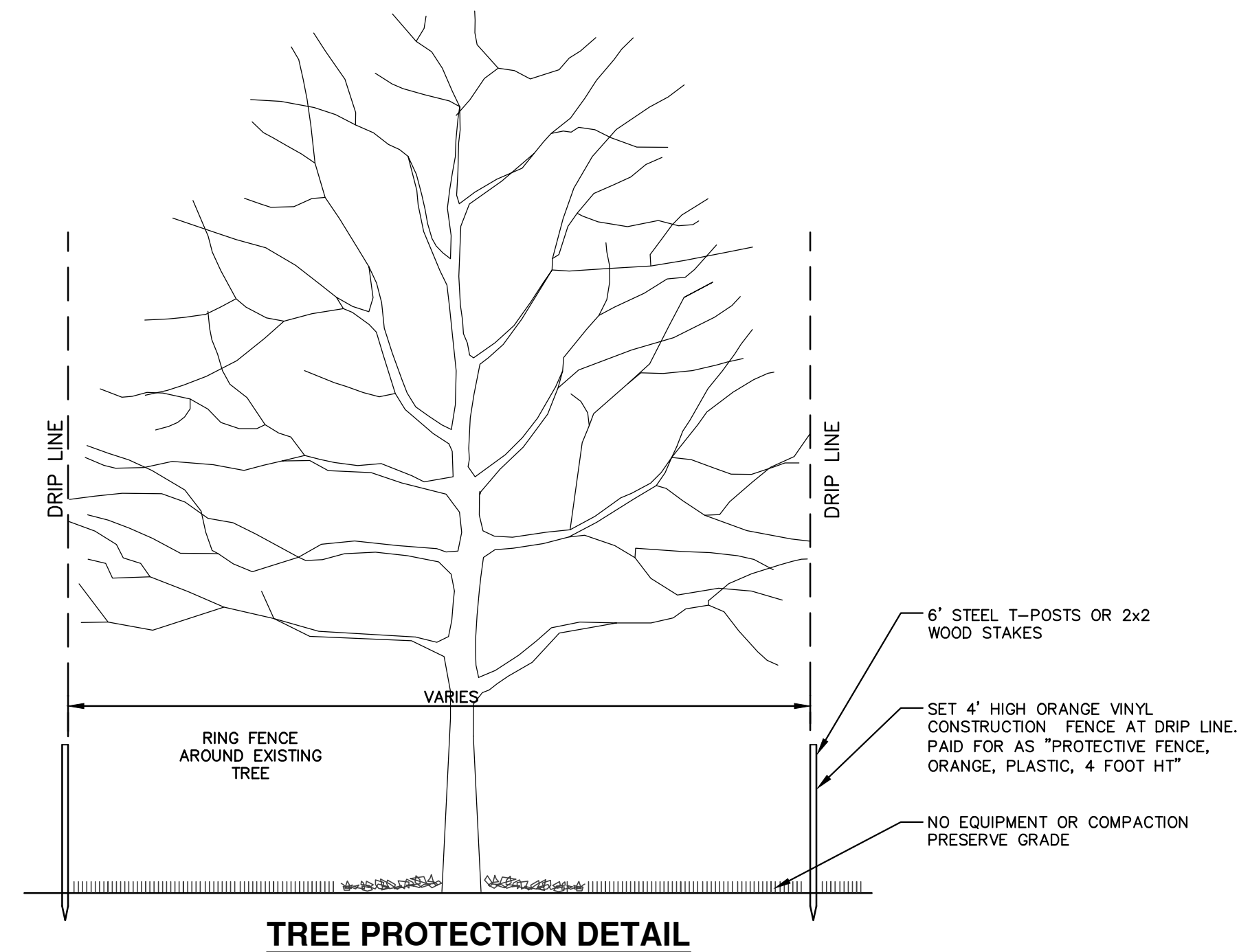
1. SEED IN ACCORDANCE WITH PROJECT DRAWINGS AND SPECIFICATIONS.
2. ANY DISTURBED AREA NOT PAVED, SEEDED, MULCHED, SODDED OR BUILT UPON BY NOVEMBER 15TH OR JUNE 30TH IS TO BE TEMPORARILY STABILIZED PER SPECIFICATIONS.

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

PERMIT	ISSUING AUTHORITY
* LANE CLOSURE PERMIT	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
* NO PARKING" SIGNS PERMIT	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
* RIGHT-OF-WAY PERMIT	CITY OF ANN ARBOR CUSTOMER SERVICE
* NO COST TO CONTRACTOR	

CONTACT INFORMATION

PUBLIC UTILITIES	OWNER	CONTACT
WATER	CITY OF ANN ARBOR FIELD OPERATIONS SERVICE UNIT W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	DAN WOODEN (734) 794-6350
SANITARY		MARK COZART (734) 794-6350
STORM		KEVIN ERNST (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



TREE PROTECTION DETAIL

CONTRACTOR SHALL NOT STORE OR PLACE EQUIPMENT AND/OR MATERIALS INSIDE DRIP LINE OF ANY CITY TREE. MECHANICAL DAMAGE TO CITY OWNED TREES (I.E. BARK DAMAGE, BRANCH BREAKAGE) IS NOT PERMITTED. CONTRACTOR IS RESPONSIBLE FOR PROPERLY PRUNING TREES TO PREVENT DAMAGE. IF BRANCHES GREATER THAN 2" IN DIAMETER REQUIRE PRUNING, CONTRACTOR TO CONTACT FORESTRY FOR CONSULTATION AND EVALUATION AT (734) 794-6350. NO ROOTS OF CITY-OWNED TREES GREATER THAN 2 INCHES IN DIAMETER ARE TO BE CUT. IF CONTRACTOR ENCOUNTERS CITY-OWNED TREES WITH ROOTS GREATER THAN 2 INCHES IN DIAMETER THAT THEY DETERMINE NEED TO BE CUT, CONTACT FORESTRY IMMEDIATELY FOR EVALUATION. ALL TRENCHING AND BORE PITS OF ANY KIND SHALL BE CLEAR OF TREE DRIP LINES. IF ANY CITY-OWNED STREET TREES ARE DAMAGED BY THIS WORK, THE CONTRACTOR MUST CONTACT FORESTRY AS SOON AS POSSIBLE SO THAT THE DAMAGE CAN BE ASSESSED. CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH DAMAGE REMEDIATION.

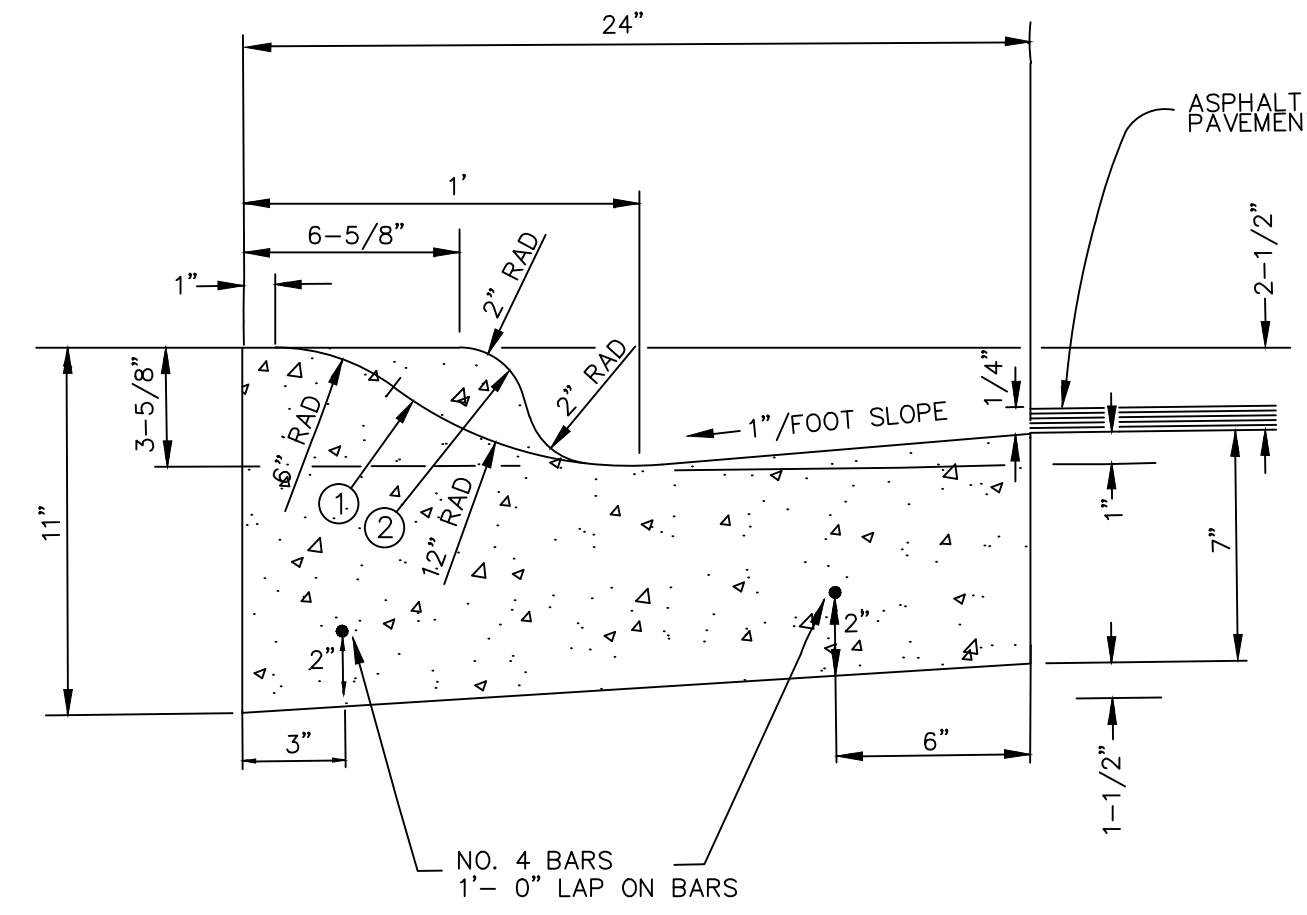
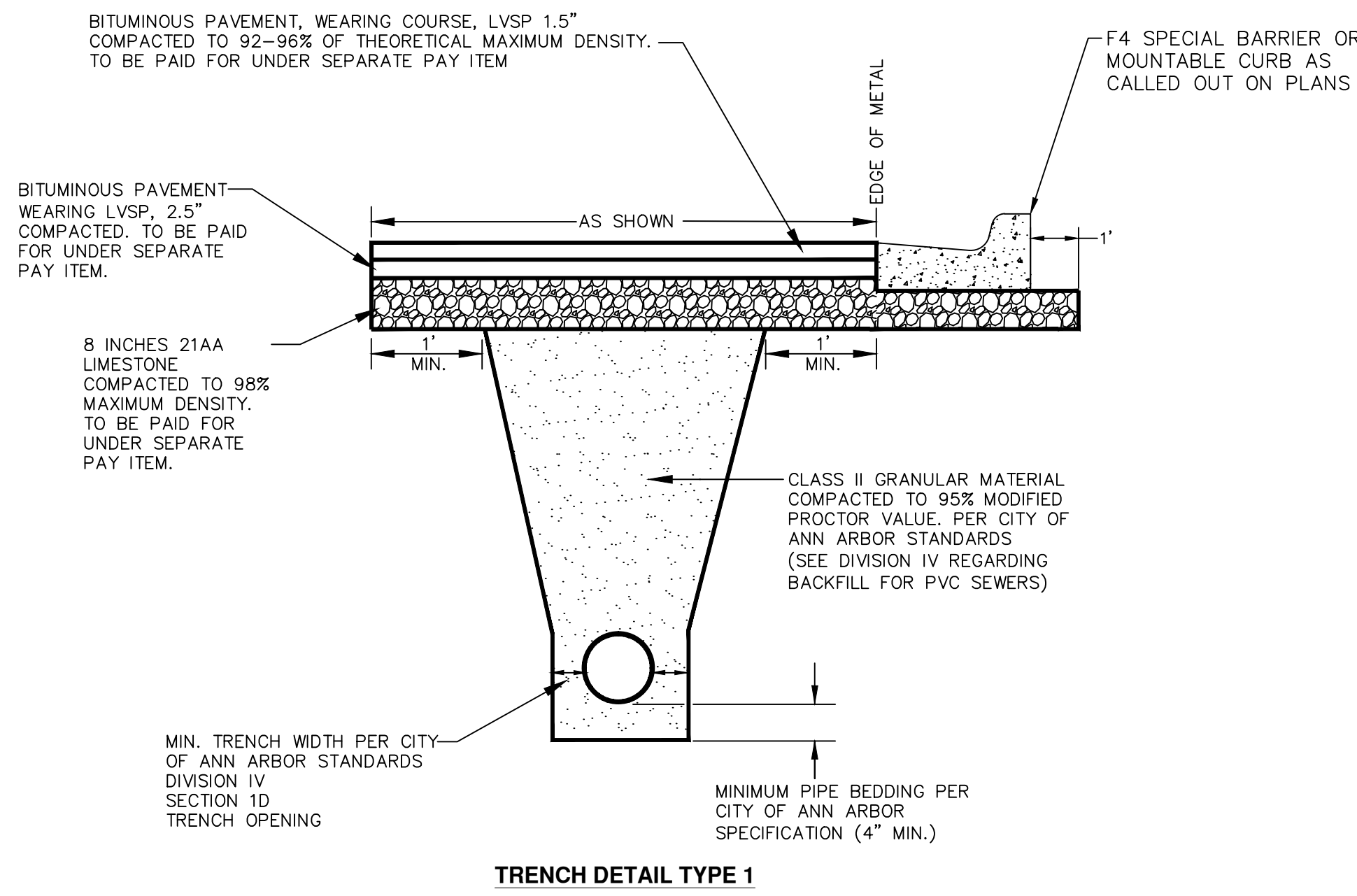


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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
MCKINLEY AVE. WHITE ST. AND ARCH ST.
STORM CULVERT ABANDONMENT
STANDARD NOTES

SCALE: NTS
DRAWING NO.: 2014036-2
SHEET No. 2 OF 11

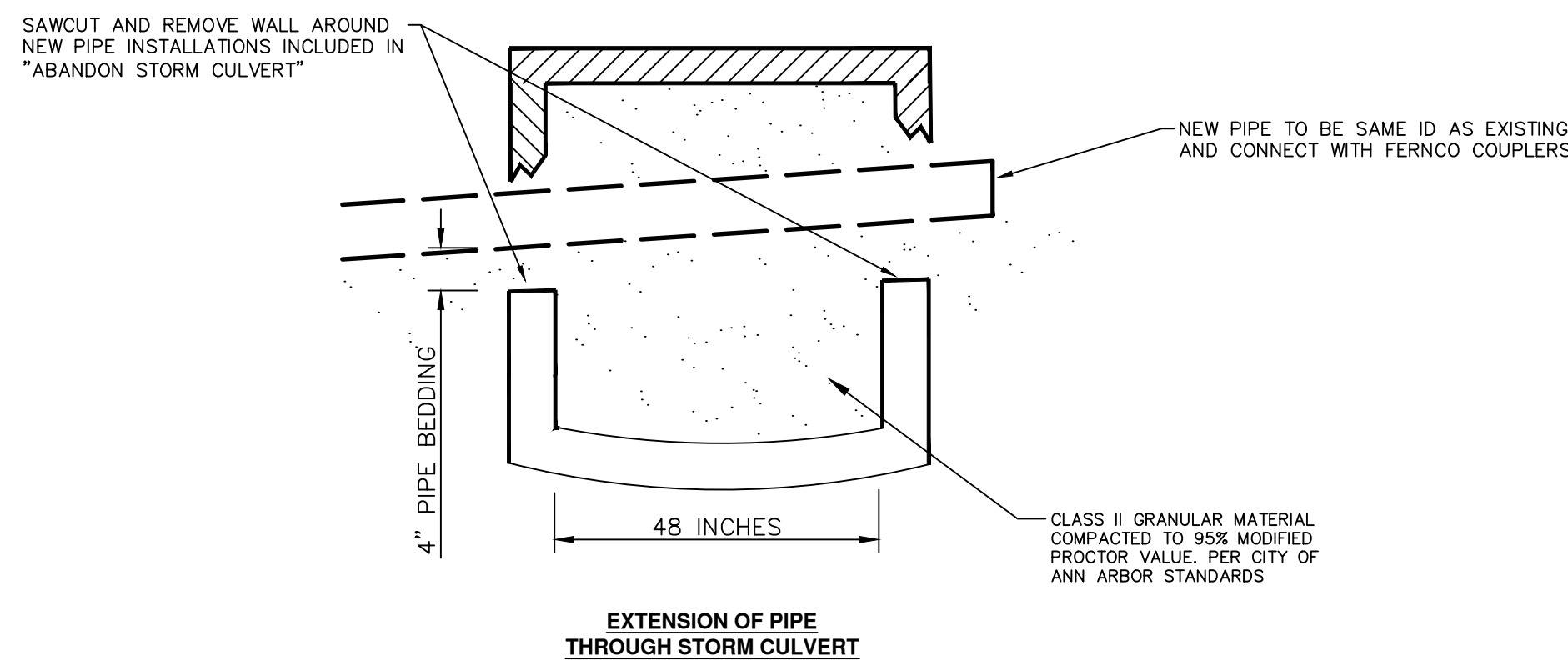
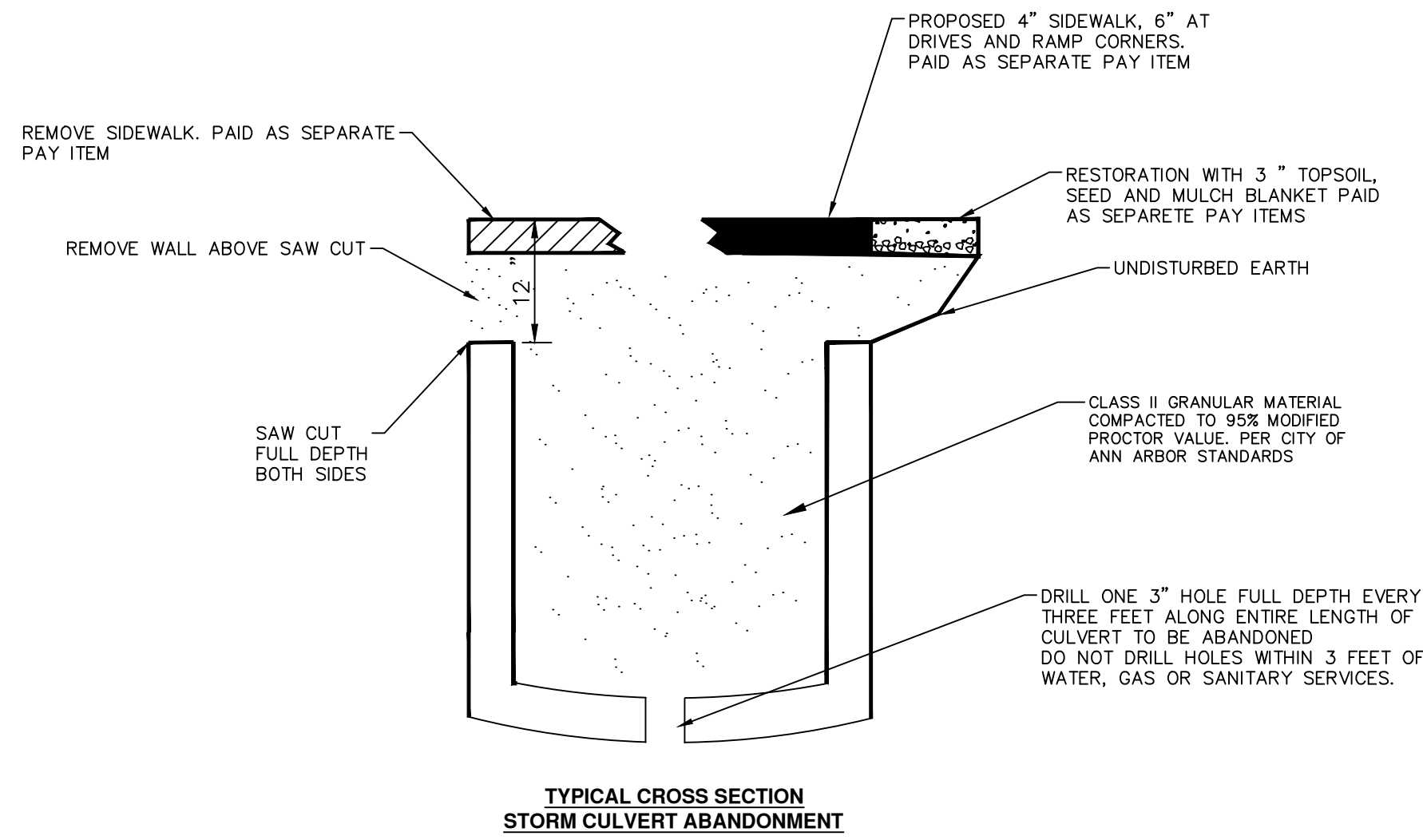
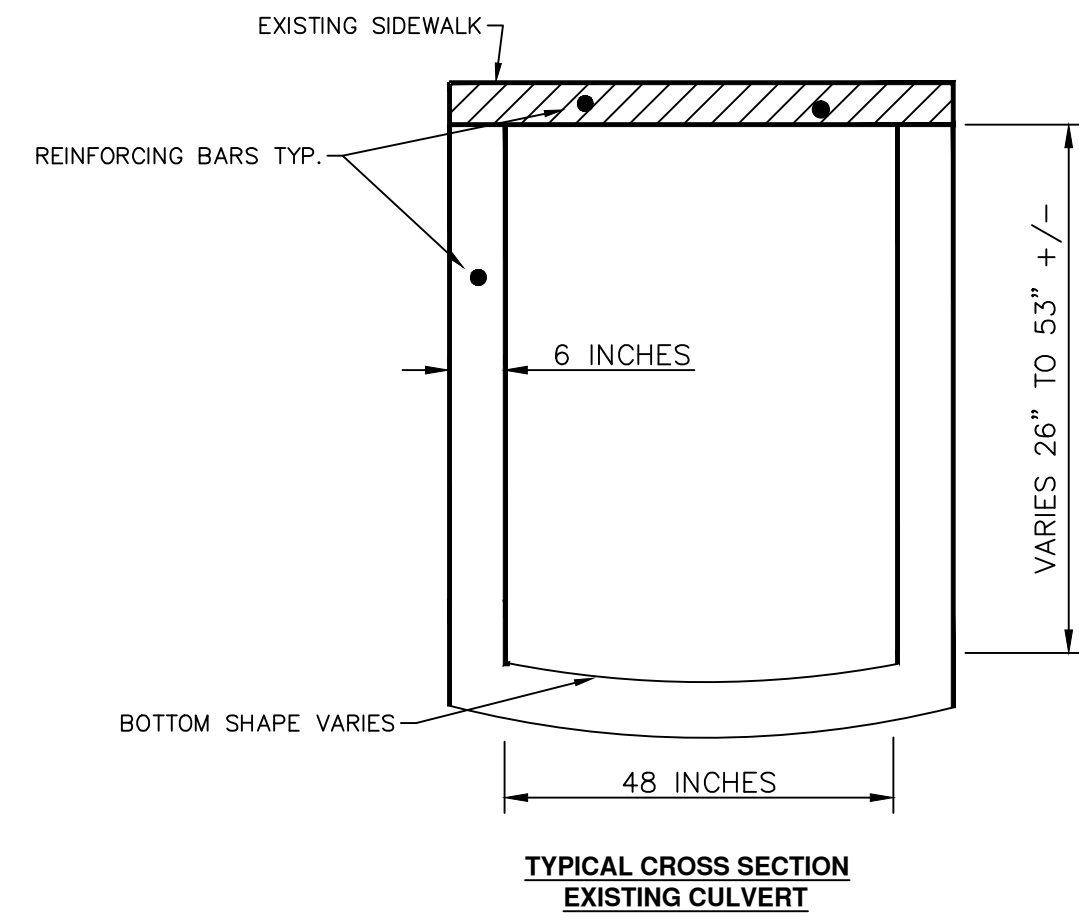


- ① PLACE CITY OF ANN ARBOR MOUNTABLE CURB AND GUTTER SD-R-2 AT DRIVEWAYS.
- ② PLACE ABOVE MODIFIED BARRIER CURB AT NON DRIVEWAY SECTIONS.

NOTE:

- 1. PAID FOR AS CONC CURB AND GUTTER.
- 2. TRANSITION FROM MOUNTABLE CURB AND GUTTER TO BARRIER CURB AND GUTTER SHALL BE OVER 5 FEET ON EITHER SIDE OF DRIVEWAY SECTIONS.
- 3. FRONT EDGE OF INLET CASTING SHALL BE FLUSH WITH FRONT EDGE OF GUTTER (EDGE OF METAL).

**ARCH STREET
MOUNTABLE CURB & GUTTER, BARRIER MODIFIED**



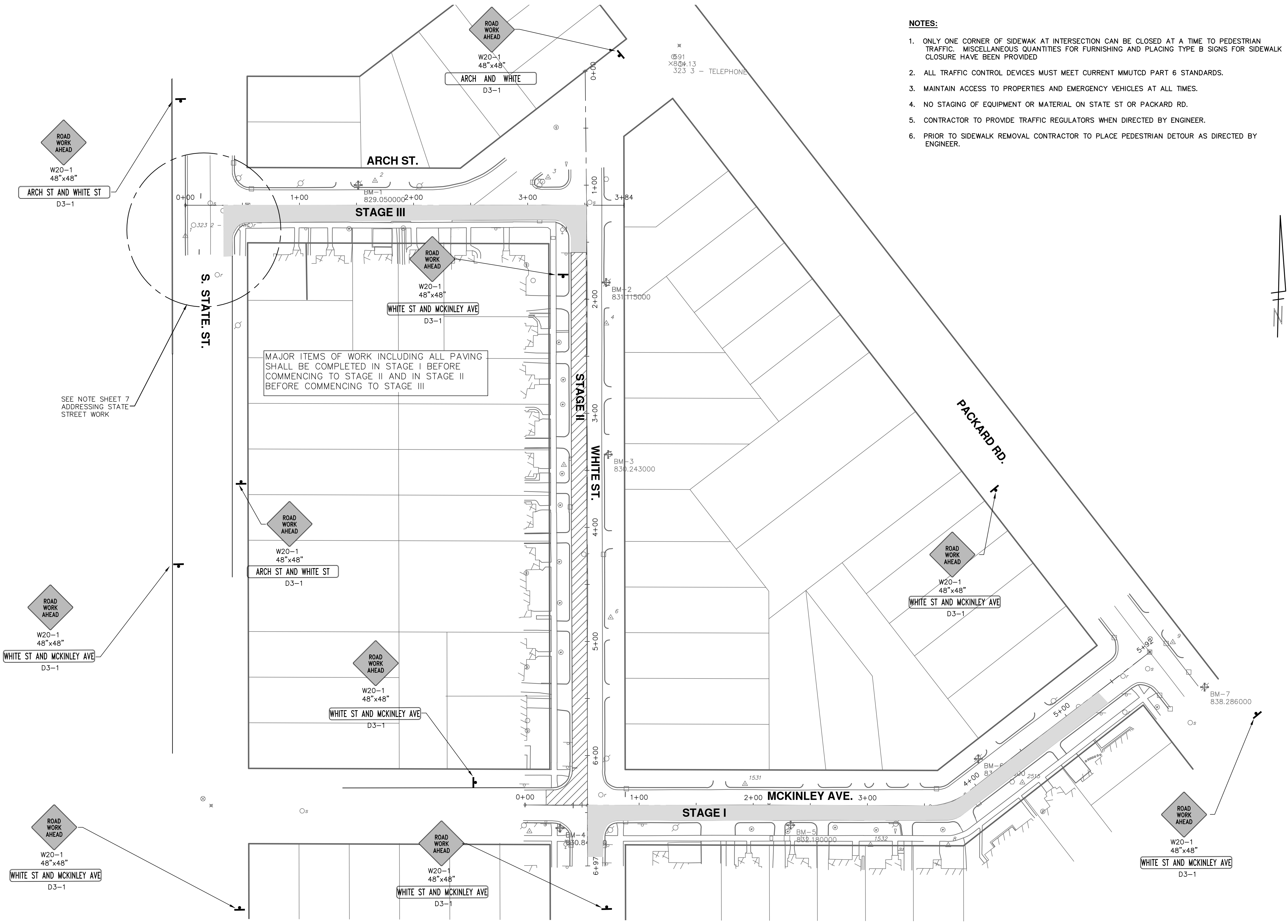
EXISTING LEGEND

⊕	FIRE HYDRANT	---	W	WATER MAIN
I	GATE VALVE IN BOX	---	r	STORM SEWER
⊗	GATE VALVE IN WELL	---	s	SANITARY SEWER
⊙	STOP BOX	---	---	GAS MAIN
⊠	WATER VAULT	---	---	ELECTRICAL OVER HEAD
⊙	WELL	---	---	ELECTRICAL UNDER GROUND
⊠	CATCH BASIN (SQ)	---	---	BOUNDARY
⊙	CATCH BASIN (RD)	---	---	BUILDING
⊙	STORM MANHOLE	---	---	CENTERLINE OF DITCH
⊠	NON-CURB CATCH BASIN (SQ)	---	---	CENTERLINE/CROWN OF ROAD
⊙	SANITARY MANHOLE	---	---	EDGE OF WATER
○	CLEAN-OUT	---	---	FENCE
●	POST	---	---	GRAVEL
⊕	PEDESTRIAN SIGNAL	---	---	STONE WALL
+	SIGN	---	---	R.O.W.
⊠	HAND HOLE	---	---	TREELINE
⊕	ORNAMENTAL LIGHT	---	---	WETLAND
★	FLOOD LIGHT	---	---	
⊙	UNKNOWN MANHOLE	---	---	
⊕	TELEPHONE MANHOLE	---	---	TREE (DECIDUOUS)
⊕	TELEPHONE RISER	---	---	
⊙	GAS VALVE	---	---	TREE (CONIFEROUS)
○	GAS VENT	---	---	
⊠	GAS BOX	---	---	STUMP
⊕	ELECTRICAL RISER	---	---	
⊕	TRANSFORMER	---	---	SHRUB (DECIDUOUS)
⊕	UTILITY POLE	---	---	
○	LAMP POLE	---	---	
∇	GUY ANCHOR	---	---	
∇	GUY POLE	---	---	
⊕	MONITORING WELL	---	---	
⊠	MAILBOX	---	---	
●	SOIL BORING	---	---	
△	TRAVERSE POINT	---	---	
+	BENCH MARK	---	---	
○	IRON PIPE	---	---	
⊠	MON BOX	---	---	

PROPOSED LEGEND

⊕	HYDRANT (PLAN)	---	W	WATER MAIN
⊗	WATER GATE WELL	---	R	STORM SEWER
∇	REDUCER	---	S	SANITARY SEWER
I	WATER GATE VALVE	---	---	CENTERLINE OF DITCH
⊙	WATER STOP BOX	---	---	CENTERLINE OF ROAD
⊠	WATER VAULT	---	---	FENCE
●	INLET	---	---	SILT FENCE
⊠	DOUBLE INLET	---	---	LOT/UNIT
●	INLET JUNCTION CHAMBER	---	---	
●	ROUND CATCH BASIN	---	---	CURB
○	STORM MANHOLE	---	---	TEMPORARY GRADING PERMIT
∇	DRAIN ARROW	---	---	WATER EASEMENT
∇	FLARED END SECTION	---	---	STORM EASEMENT
○	SANITARY MANHOLE	---	---	SANITARY EASEMENT
○	CLEAN-OUT	---	---	R.O.W.
●	BARREL	---	---	LIMITS OF CONSTRUCTION
+	SIGN	---	---	STONE WALL
⊕	PUSH BUTTON	---	---	
---		---		DETECTABLE WARNING
---		---		ASPHALT
---		---		CONCRETE
---		---		SIDEWALK
---		---		TREE (DECIDUOUS)
---		---		TREE (CONIFEROUS)

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SEE NOTE SHEET 7 ADDRESSING STATE STREET WORK

MAJOR ITEMS OF WORK INCLUDING ALL PAVING SHALL BE COMPLETED IN STAGE I BEFORE COMMENCING TO STAGE II AND IN STAGE II BEFORE COMMENCING TO STAGE III

- NOTES:**
1. ONLY ONE CORNER OF SIDEWALK AT INTERSECTION CAN BE CLOSED AT A TIME TO PEDESTRIAN TRAFFIC. MISCELLANEOUS QUANTITIES FOR FURNISHING AND PLACING TYPE B SIGNS FOR SIDEWALK CLOSURE HAVE BEEN PROVIDED
 2. ALL TRAFFIC CONTROL DEVICES MUST MEET CURRENT MMUTCD PART 6 STANDARDS.
 3. MAINTAIN ACCESS TO PROPERTIES AND EMERGENCY VEHICLES AT ALL TIMES.
 4. NO STAGING OF EQUIPMENT OR MATERIAL ON STATE ST OR PACKARD RD.
 5. CONTRACTOR TO PROVIDE TRAFFIC REGULATORS WHEN DIRECTED BY ENGINEER.
 6. PRIOR TO SIDEWALK REMOVAL CONTRACTOR TO PLACE PEDESTRIAN DETOUR AS DIRECTED BY ENGINEER.

811
Know what's below. Call before you dig.

REV.	DATE	DESCRIPTION
00	3-13-15	BID SET
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

MCKINLEY AVE. WHITE ST. AND ARCH ST. STORM CULVERT ABANDONMENT

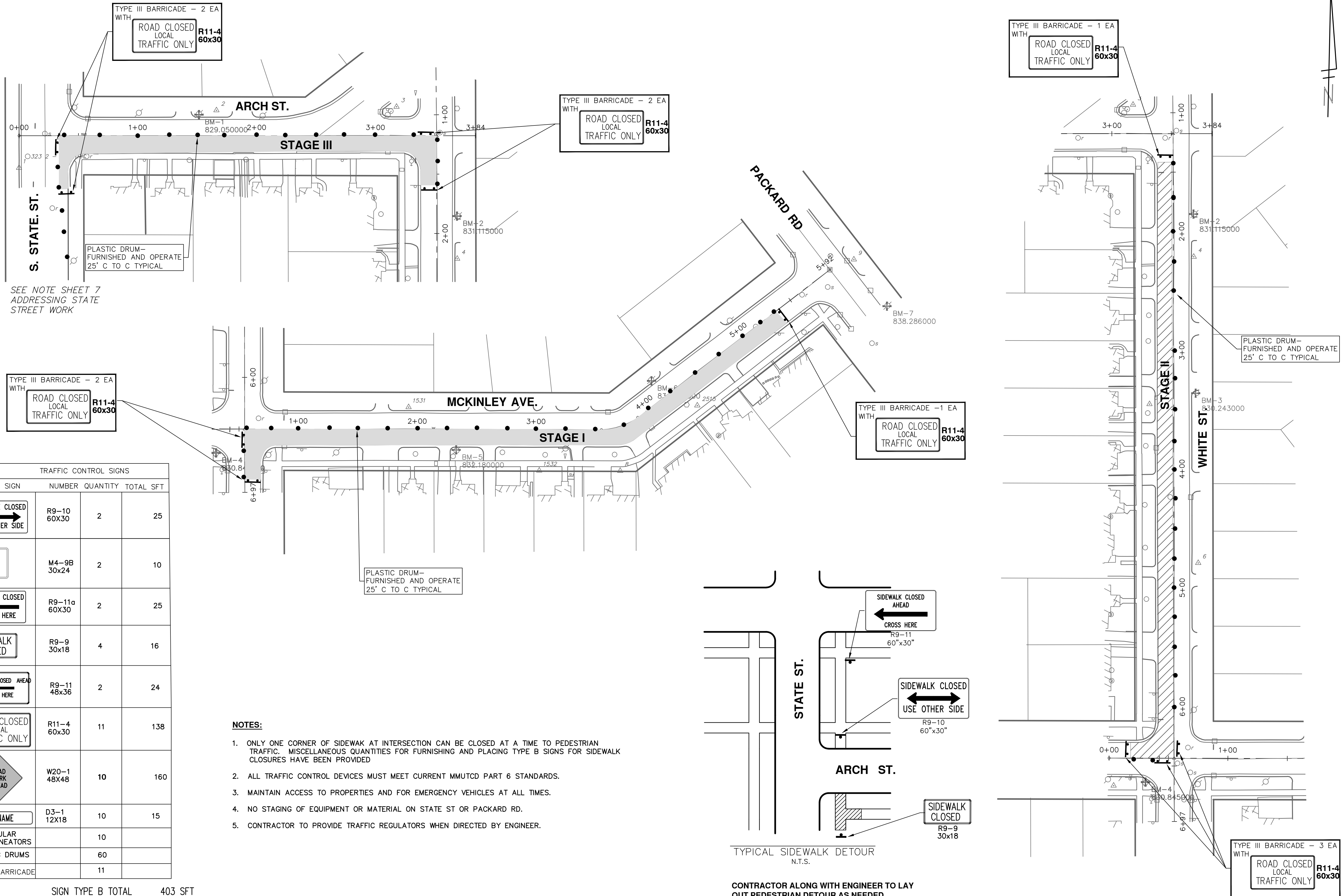
TRAFFIC CONTROL PHASES

SCALE PLAN: 1" = 40'

DRAWING No. **2014036-4**

SHEET No. **4 OF 11**

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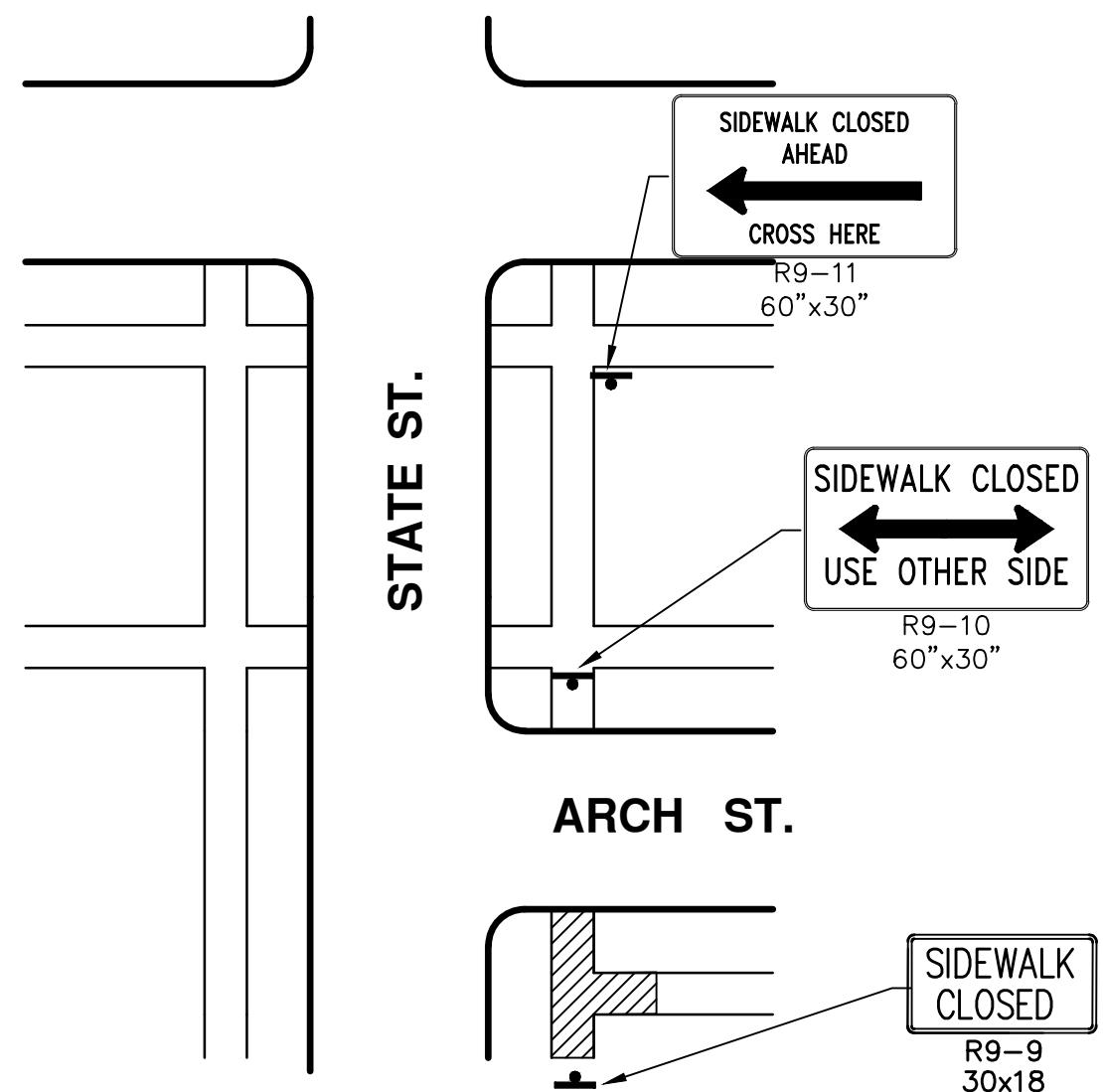
SEE NOTE SHEET 7 ADDRESSING STATE STREET WORK

TRAFFIC CONTROL SIGNS			
SIGN	NUMBER	QUANTITY	TOTAL SFT
	R9-10 60x30	2	25
	M4-9B 30x24	2	10
	R9-11a 60x30	2	25
	R9-9 30x18	4	16
	R9-11 48x36	2	24
	R11-4 60x30	11	138
	W20-1 48x48	10	160
	D3-1 12x18	10	15
TUBULAR DELINEATORS		10	
PLASTIC DRUMS		60	
TYPE III BARRICADE		11	

SIGN TYPE B TOTAL 403 SFT

NOTES:

1. ONLY ONE CORNER OF SIDEWALK AT INTERSECTION CAN BE CLOSED AT A TIME TO PEDESTRIAN TRAFFIC. MISCELLANEOUS QUANTITIES FOR FURNISHING AND PLACING TYPE B SIGNS FOR SIDEWALK CLOSURES HAVE BEEN PROVIDED
2. ALL TRAFFIC CONTROL DEVICES MUST MEET CURRENT MMUTCD PART 6 STANDARDS.
3. MAINTAIN ACCESS TO PROPERTIES AND FOR EMERGENCY VEHICLES AT ALL TIMES.
4. NO STAGING OF EQUIPMENT OR MATERIAL ON STATE ST OR PACKARD RD.
5. CONTRACTOR TO PROVIDE TRAFFIC REGULATORS WHEN DIRECTED BY ENGINEER.



CONTRACTOR ALONG WITH ENGINEER TO LAY OUT PEDESTRIAN DETOUR AS NEEDED



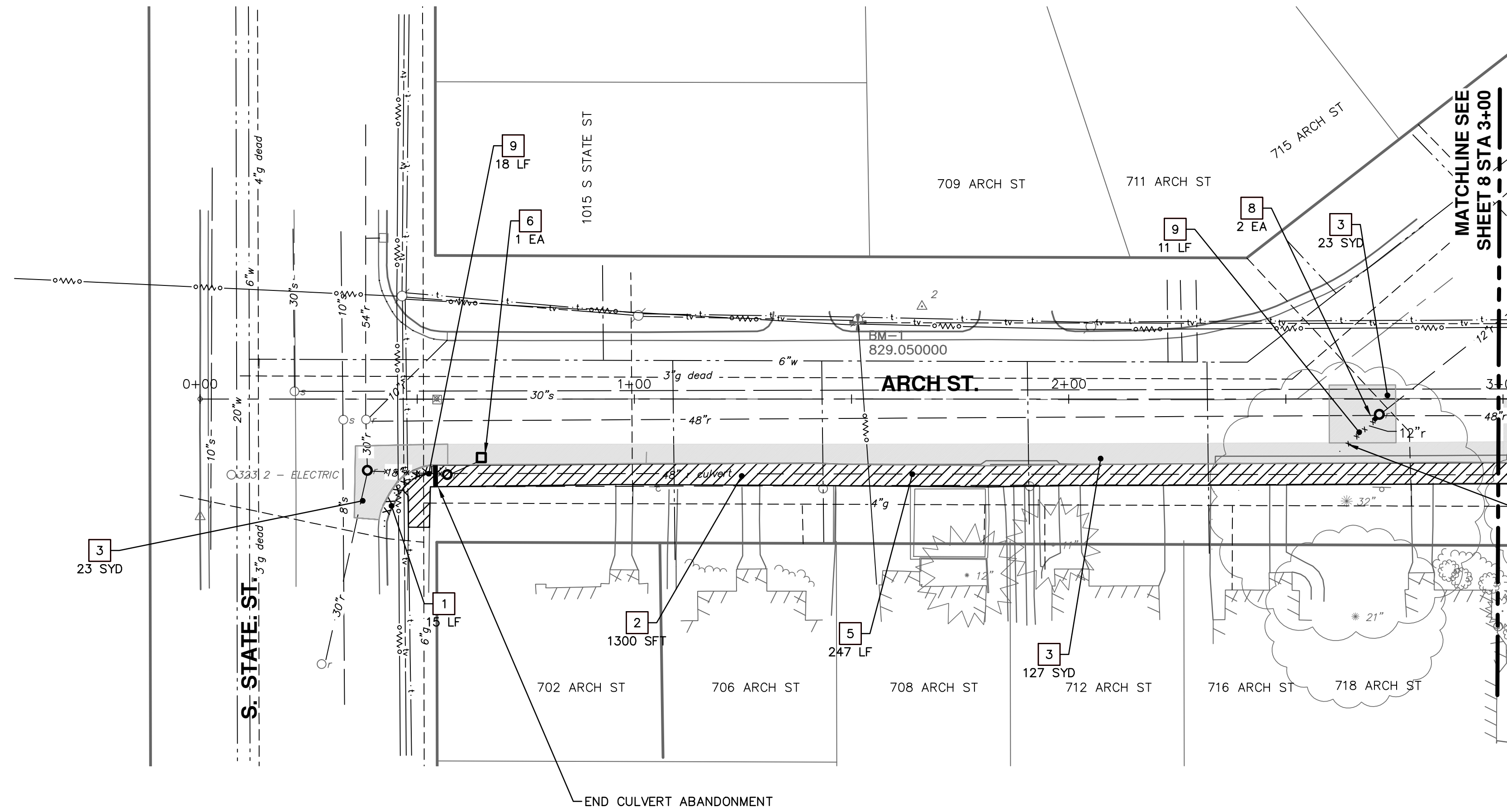
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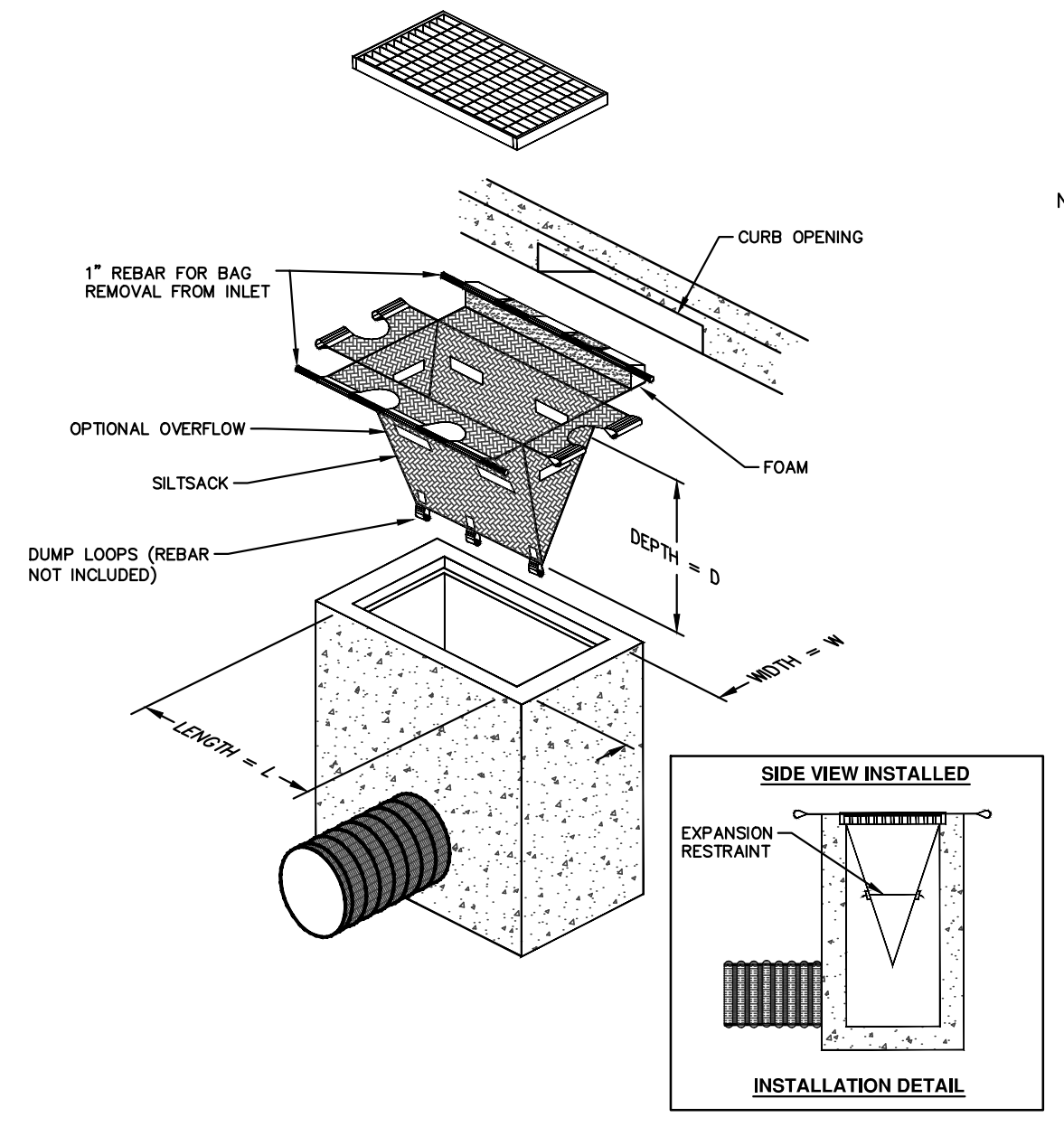
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
MCKINLEY AVE, WHITE ST. AND ARCH ST.
STORM CULVERT ABANDONMENT
TRAFFIC CONTROL

SCALE PLAN: 1" = 40'
DRAWING No. 2014036-5



- NOTES
1. REMOVAL OF BROKEN CULVERT WALLS, BLOCK, BRICK, CASTINGS, PLATES, ROCK, SEDIMENT, EXISTING BULK HEADS, OR OTHER AS DIRECTED BY ENGINEER IS INCLUDED IN STORM CULVERT ABANDONMENT.
 2. DEPTH OF CULVERT TO BE ABANDONED VARIES, ABANDONMENT IS PAID FOR BY LINEAR FOOT.
 3. PAVEMENT TO BE SAWCUT AT CENTER OF ROAD OR MIDDLE OF LANE.

CONTRACTOR TO REMOVE SIDEWALK PRIOR TO PAVEMENT REMOVAL. ENGINEER TO DETERMINE IF PIPE ABANDONMENT/BULKHEAD IS REQUIRED.



NOTE: THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

REGULAR FLOW SILTSACK

(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	REQUIRED VALUE	TEST METHOD
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING SIZE	ASTM D-4751	40 US SEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

HI-FLOW SILTSACK

(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

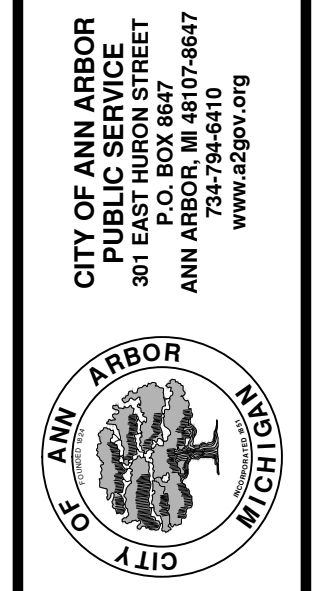
PROPERTIES	REQUIRED VALUE	TEST METHOD
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	115 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING SIZE	ASTM D-4751	20 US SEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC-1

OIL-ABSORBANT SILTSACK

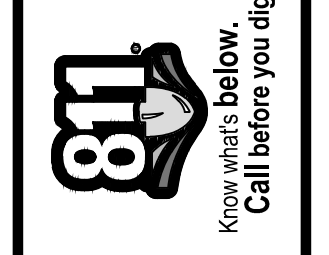
(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

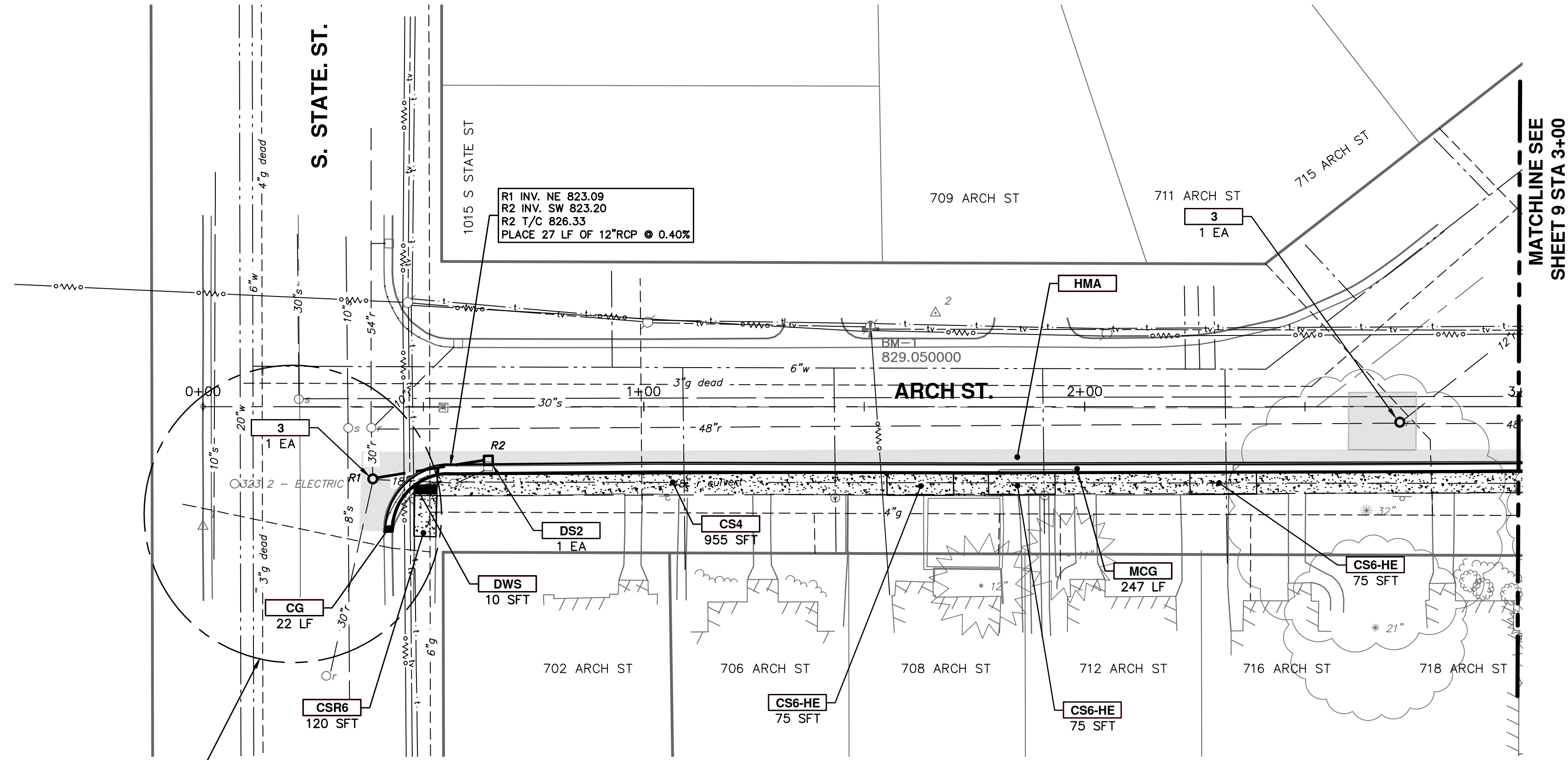
IT IS THE INTENT OF THE PLANS AND SPECIFICATIONS THAT THE CONTRACTOR INSTALL THE REBAR AS SHOWN IN THIS DETAIL TO PROVIDE A FULLY FUNCTIONING UNIT. ALL COSTS ASSOCIATED WITH FURNISHING, CLEANING AS MANY TIMES AS REQUIRED, DISPOSAL OF SEDIMENT, AND REMOVING THE INLET FILTER WHEN NO LONGER NEEDED IS INCLUDED IN THE ITEM OF WORK AND WILL NOT BE PAID FOR SEPARATELY.

REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE EXISTING CURB AND GUTTER - ANY TYPE
2	REMOVE EXISTING SIDEWALK OR RAMP - ANY TYPE OR THICKNESS
3	REMOVE EXISTING PAVEMENT - ANY THICKNESS, SAWCUT FULL DEPTH AT REMOVAL LIMITS
4	REMOVE EXISTING DRIVEWAY ANY THICKNESS
5	ABANDON STORM CULVERT, CASTINGS AND PLATE REMOVAL INCLUDED, SEE DETAIL SPECIFICATION.
6	ABANDON STORM STRUCTURE
8	BULKHEAD STORM PIPE 4 INCH TO 12 INCH
9	ABANDON STORM SEWER.
10	REMOVE EXISTING BULK HEAD FROM VAULT



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
00	BID SET	3-13-15	RAG	BS





STATE ST WORK

FOLLOWING TO BE COMPLETED PRIOR TO WORKING IN STATE ST

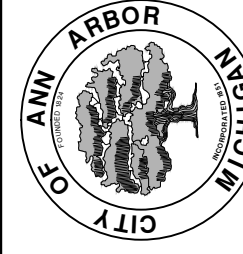
1. BIKE LANES TO BE CLOSED WITH PROPER SIGNAGE.
2. SHIFT DOUBLE YELLOW TO WEST WITH TUBULAR DELINEATORS TO ACCOMMODATE TWO WAY TRAFFIC AND PLACEMENT OF STORM AND ROAD PATCH.
3. WORK TO BE SCHEDULED IN ADVANCE AND COMPLETED AS SOON AS POSSIBLE.
4. HAVE METER BAGS PLACED AS NEEDED (TWO) ON WESTSIDE OF STATE ST.
5. OBTAIN LANE CLOSURE PERMIT.

CONSTRUCTION KEY	
KEY	DESCRIPTION
CG	PLACE CURB AND GUTTER, CONC, F4, SPECIAL
MCG	PLACE MOUNTABLE CURB AND GUTTER, BARRIER MODIFIED
CS4	PLACE SIDEWALK, CONC, 4 INCH
CS6-HE	PLACE SIDEWALK AT DRIVEWAY, CONC, 6 INCH P-NC
DC6-HE	PLACE CONC. DRIVE APPROACH NON-REINFORCED, P-NC, 6 INCH
CSR6	PLACE SIDEWALK RAMP, CONC, 6 INCH P1
DOM-HE	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
1	ADJUST GATE VALVE, MONUMENT, CURB STOP, OR GAS BOX
2	ADJUST INLET STRUCTURE COVER
3	REMOVE, REPLACE, AND ADJUST MANHOLE COVER
DWS	DETECTABLE WARNING SURFACE, MODIFIED
HMA	4 INCHES LVSP, 1.5 INCHES WEARING COURSE, 2.5 INCHES BASE COURSE
DS2	CONSTRUCT 2 FT. DIAMETER DRAINAGE STRUCTURE WITH SUMP

MATCHLINE SEE SHEET 9 STA 3+00



CITY OF ANN ARBOR
PUBLIC SERVICE
301 EAST HURON STREET
ANN ARBOR MI 48106-8647
www.a2gov.org

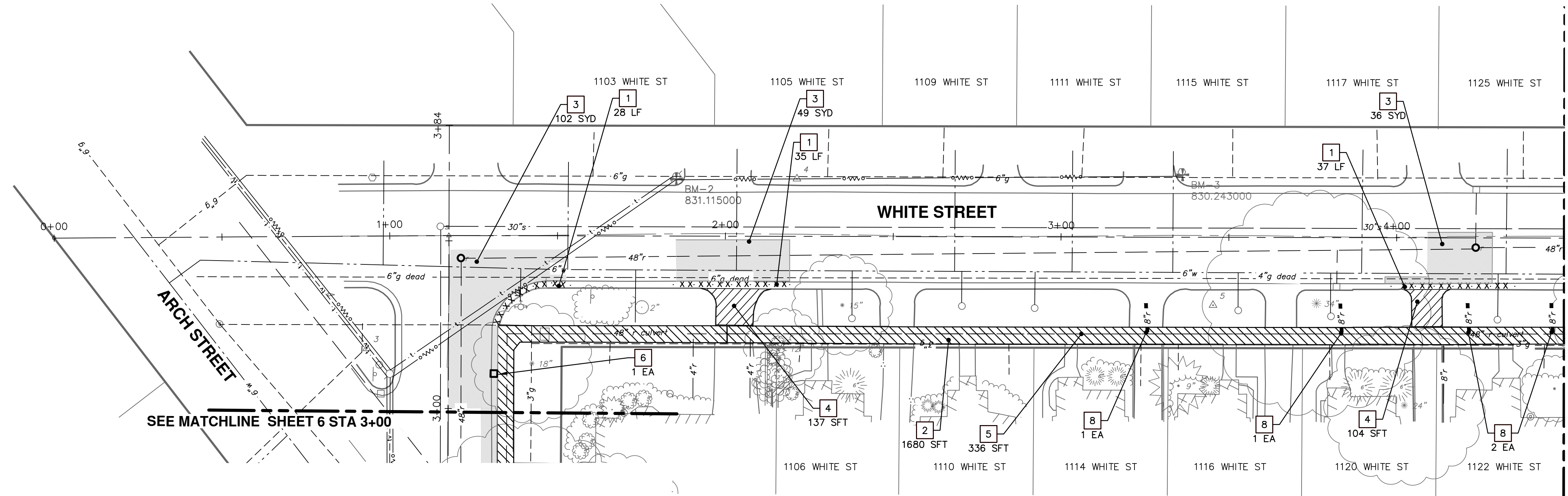


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
MCKINLEY AVE. WHITE ST. AND ARCH ST.
STORM CULVERT ABANDONMENT
ARCH STREET
ROAD PLANS

SCALE PLAN: 1/20
DRAWING No. 2014036-7

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
00	BID SET	3-13-15	RAG	BS

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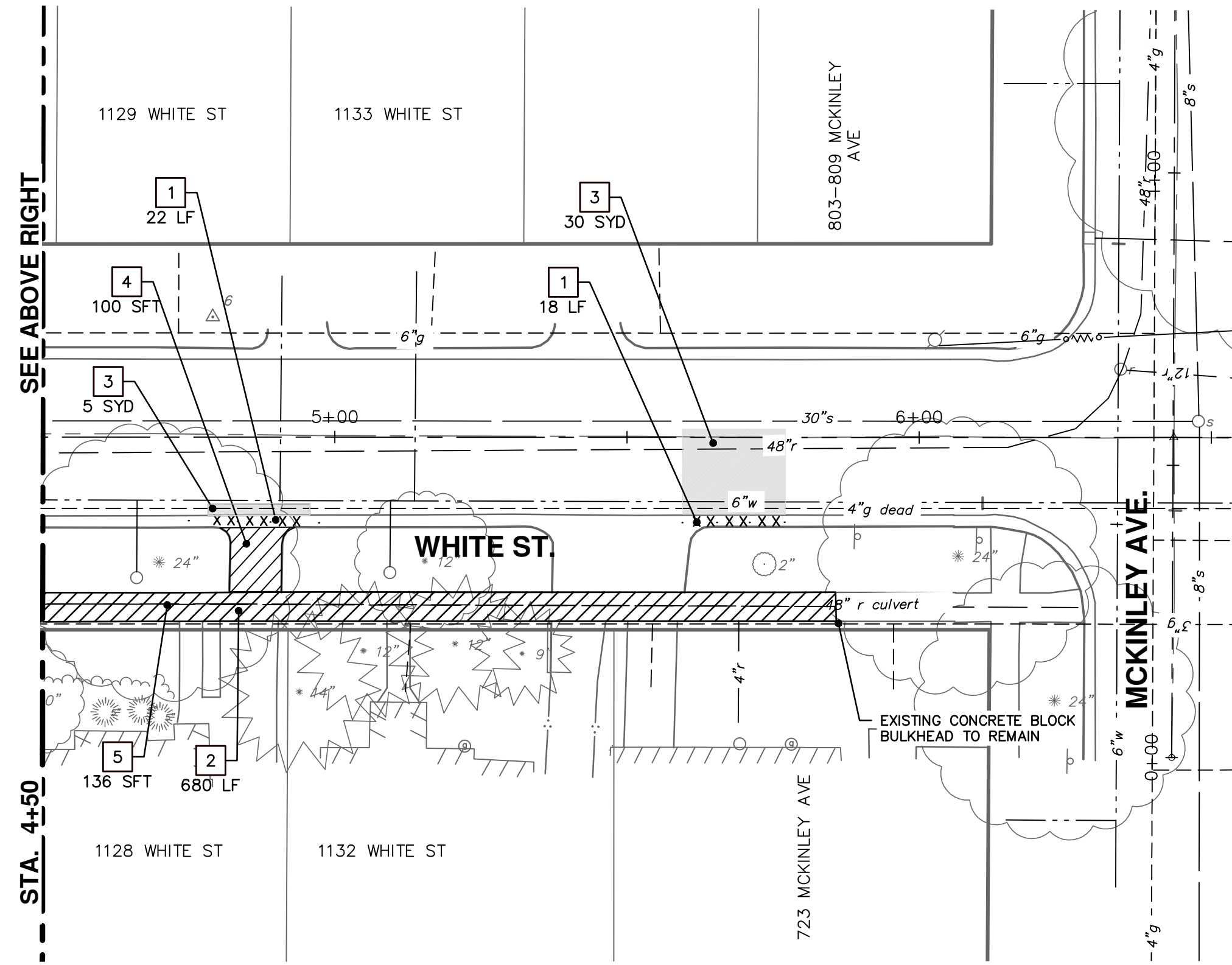


SEE MATCHLINE SHEET 6 STA 3+00

SEE BELOW LEFT

STA. 4+50

8 INCH OPENINGS OBSERVED AT STATIONS 3+25, 3+83, 4+21, AND 4+46 DURING VIDEO INSPECTION OF CULVERT TO BE ABANDONED PRIOR TO BULK HEADING VISUAL INSPECTION OF OPENING TO BE DONE BY ENGINEER. PERFORM DIGITAL VIDEO INSPECTION AND/OR ABANDON SEWER PIPE (SEPARATE PAY ITEM) AS DIRECTED BY THE ENGINEER



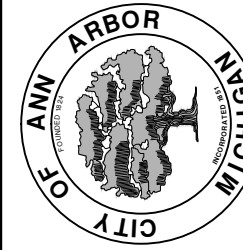
SEE ABOVE RIGHT

STA. 4+50

REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE EXISTING CURB AND GUTTER - ANY TYPE
2	REMOVE EXISTING SIDEWALK OR RAMP - ANY TYPE OR THICKNESS
3	REMOVE EXISTING PAVEMENT - ANY THICKNESS, SAWCUT FULL DEPTH AT REMOVAL LIMITS
4	REMOVE EXISTING DRIVEWAY ANY THICKNESS
5	ABANDON STORM CULVERT. CASTINGS AND PLATE REMOVAL INCLUDED, SEE DETAIL SPECIFICATION.
6	ABANDON STORM STRUCTURE
8	BULKHEAD STORM PIPE 4 INCH TO 12 INCH
9	ABANDON STORM SEWER.
10	REMOVE EXISTING BULK HEAD FROM VAULT



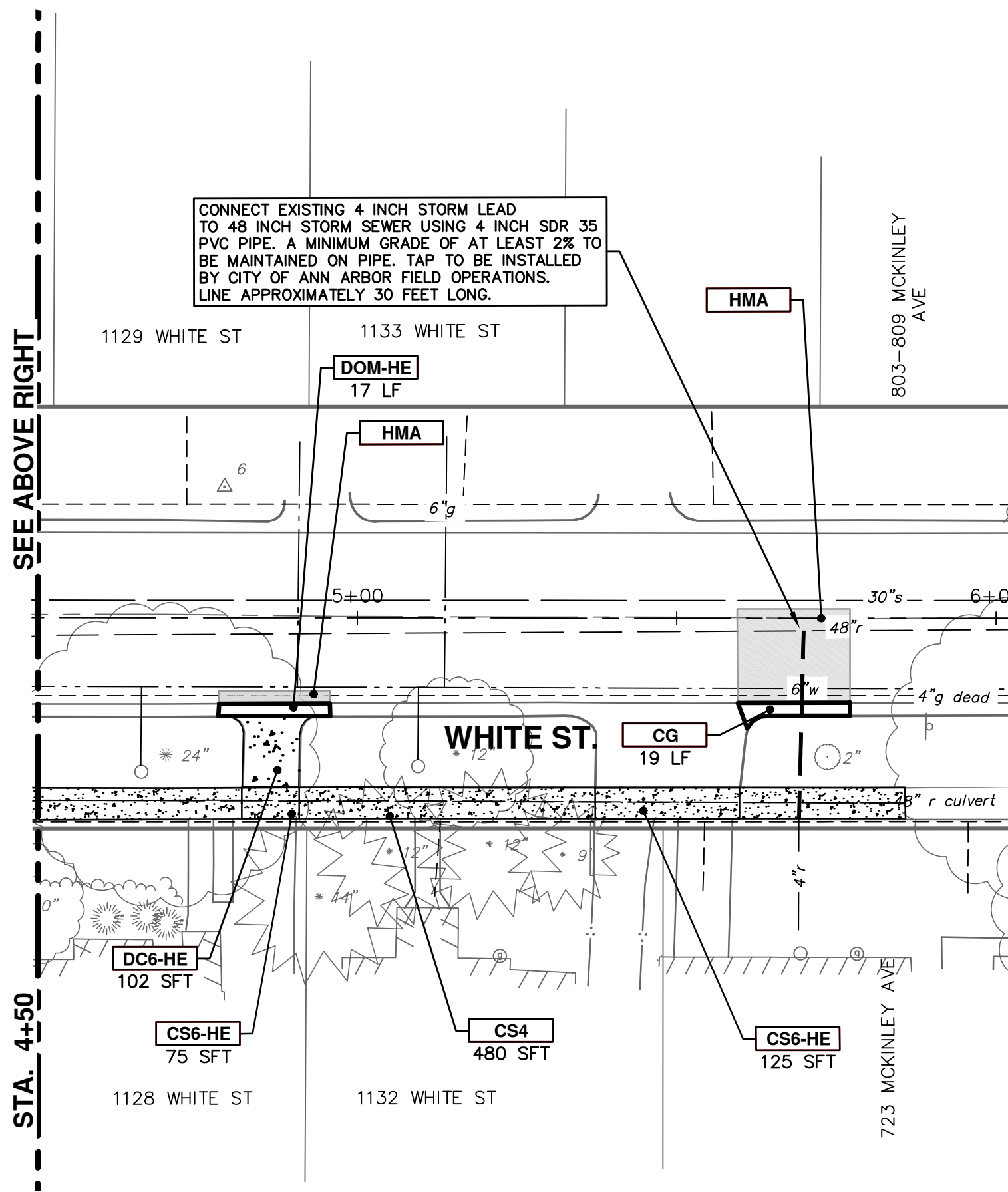
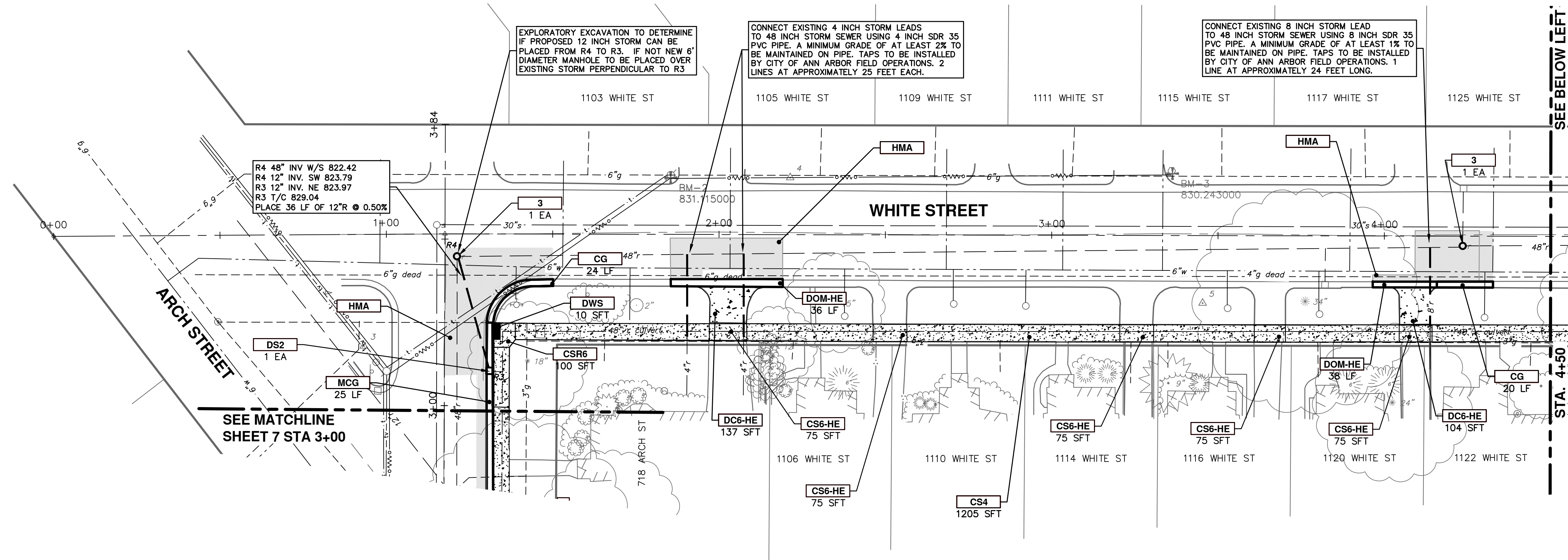
CITY OF ANN ARBOR
PUBLIC SERVICE
301 EAST HURON STREET
PO BOX 8647
ANN ARBOR MI 48108-0867
www.a2gov.org



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
MCKINLEY AVE. WHITE ST. AND ARCH ST.
STORM CULVERT ABANDONMENT
WHITE STREET
REMOVALS

SCALE PLAN: 1/20
DRAWING No. 2014036-8

SHEET No.



NOTES

1. EXCAVATION AND BACKFILL FOR STORM SEWER TAP ON EXISTING SEWER INCLUDED IN PRICE OF PIPE BEING PLACED
2. PRIOR TO ANY TAPS ON EXISTING STORM SEWER LEAD ACTIVITY VERIFIED BY CITY ONCE TOP OF VAULT REMOVED.

CONSTRUCTION KEY	
KEY	DESCRIPTION
CG	PLACE CURB AND GUTTER, CONC, F4, SPECIAL
MCG	PLACE MOUNTABLE CURB AND GUTTER, BARRIER MODIFIED
CS4	PLACE SIDEWALK, CONC, 4 INCH
CS6-HE	PLACE SIDEWALK AT DRIVEWAY, CONC, 6 INCH P-NC
DC6-HE	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH
CSR6	PLACE SIDEWALK RAMP, CONC, 6 INCH P1
DOM-HE	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
1	ADJUST GATE VALVE, MONUMENT, CURB STOP, OR GAS BOX
2	ADJUST INLET STRUCTURE COVER
3	REMOVE, REPLACE, AND ADJUST MANHOLE COVER
DWS	DETECTABLE WARNING SURFACE, MODIFIED
HMA	4 INCHES LVSP, 1.5 INCHES WEARING COURSE, 2.5 INCHES BASE COURSE
DS2	CONSTRUCT 2 FT. DIAMETER DRAINAGE STRUCTURE WITH SUMP



CITY OF ANN ARBOR
PUBLIC SERVICES
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ANN ARBOR MI 48106-0667
www.a2gov.org

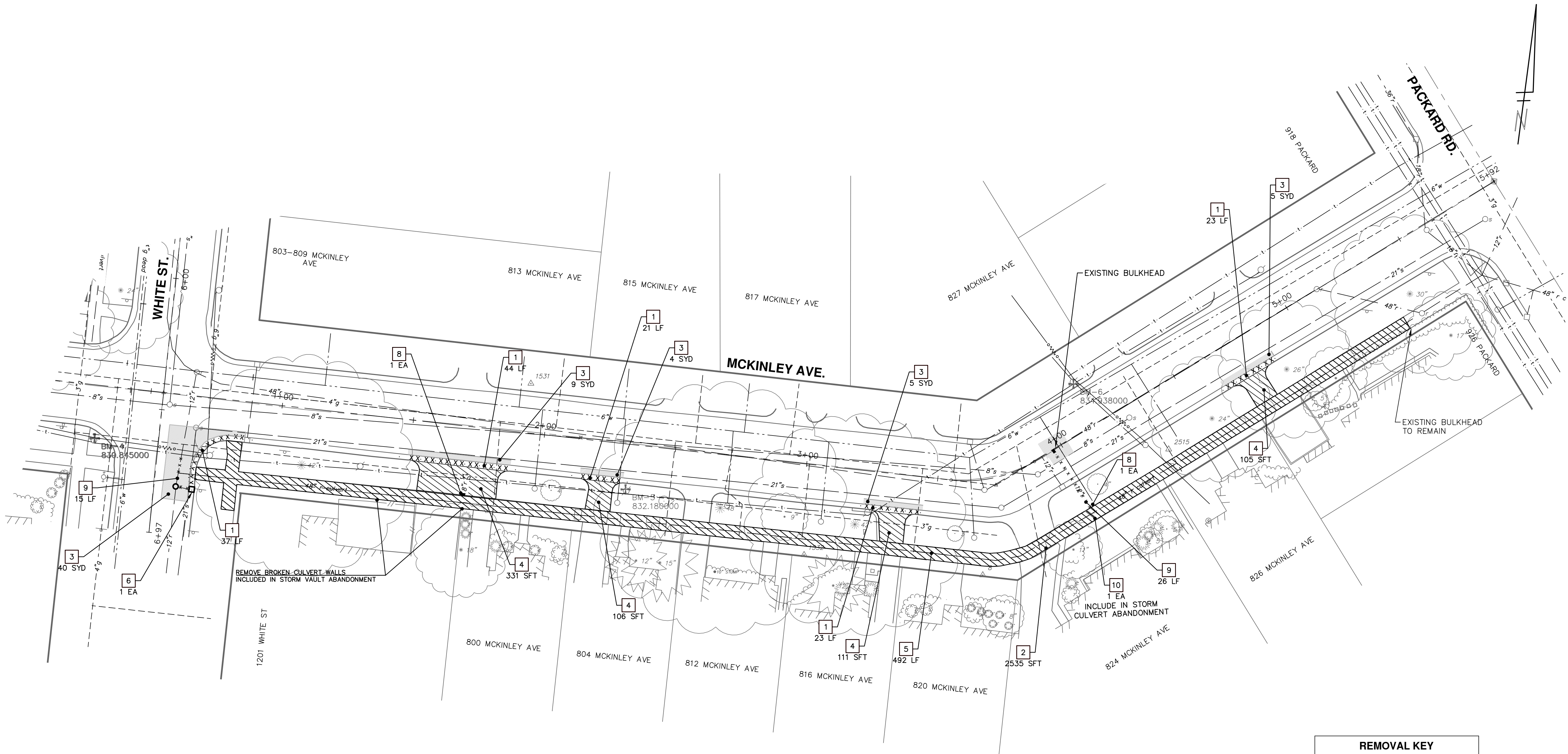


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
MCKINLEY AVE. WHITE ST. AND ARCH ST.
STORM CULVERT ABANDONMENT
WHITE STREET
ROAD PLANS

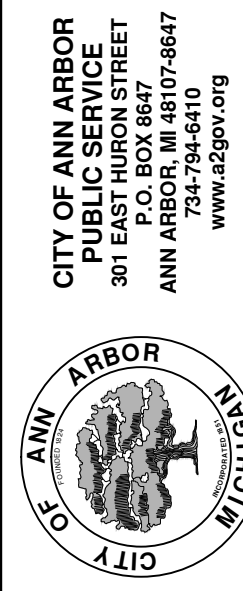
SCALE PLAN: 1/20
DRAWING No. 2014036-9

SHEET No.

REV.	DATE	DESCRIPTION
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01		DRAWN
02		CHECKED



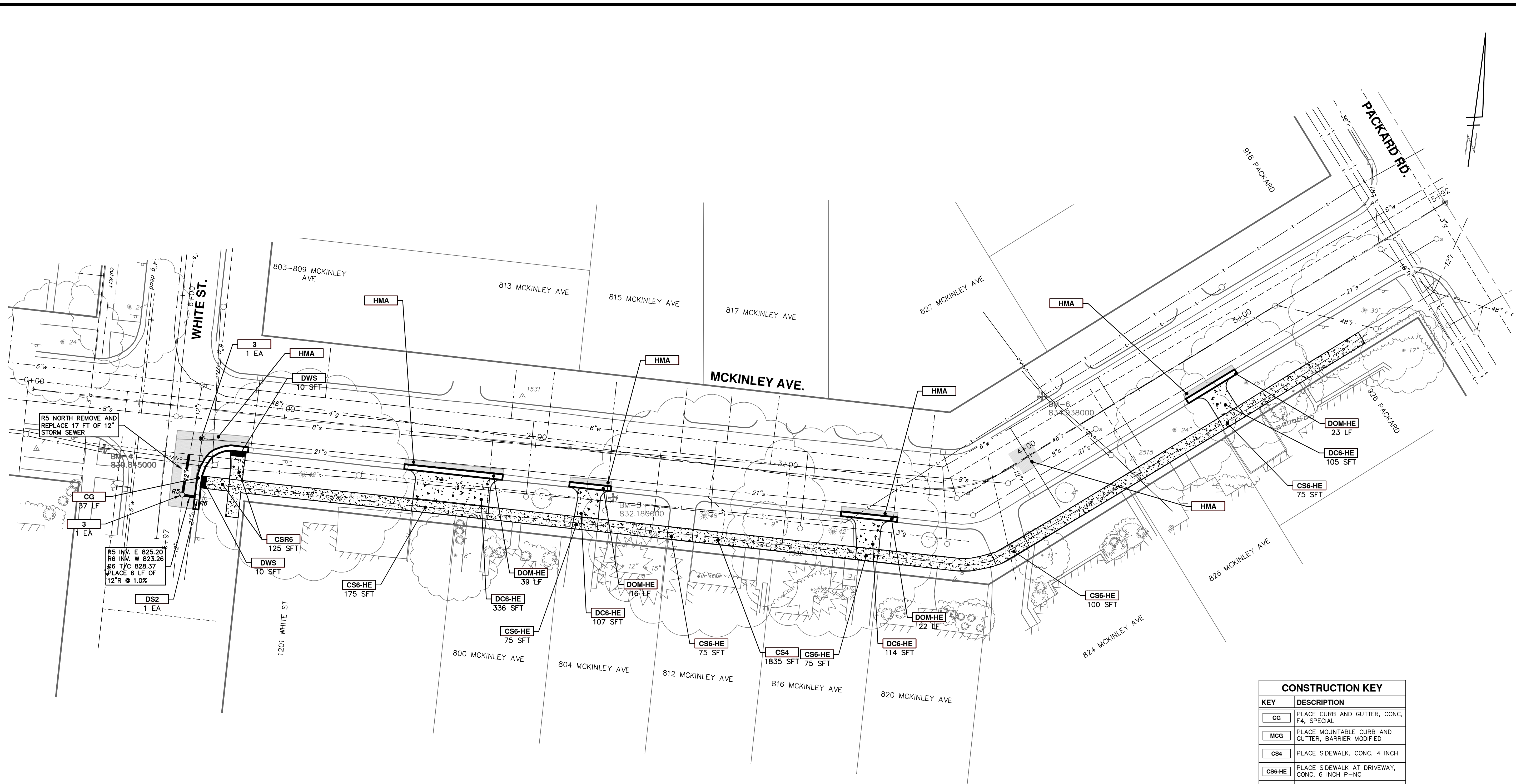
REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE EXISTING CURB AND GUTTER - ANY TYPE
2	REMOVE EXISTING SIDEWALK OR RAMP - ANY TYPE OR THICKNESS
3	REMOVE EXISTING PAVEMENT - ANY THICKNESS, SAWCUT FULL DEPTH AT REMOVAL LIMITS
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9	ABANDON STORM SEWER.
10	REMOVE EXISTING BULK HEAD FROM VAULT



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
00	BID SET	3-13-15	RAG	BS



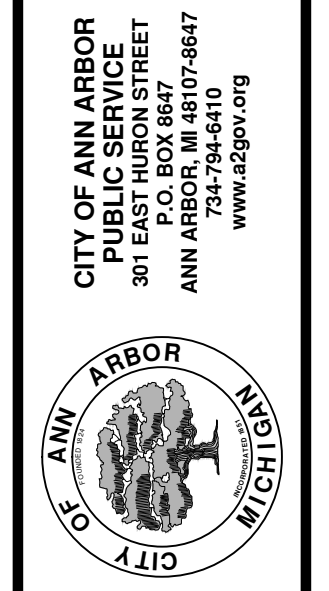
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CONSTRUCTION KEY	
KEY	DESCRIPTION
CG	PLACE CURB AND GUTTER, CONC, F4, SPECIAL
MCG	PLACE MOUNTABLE CURB AND GUTTER, BARRIER MODIFIED
CS4	PLACE SIDEWALK, CONC, 4 INCH
CS6-HE	PLACE SIDEWALK AT DRIVEWAY, CONC, 6 INCH P-NC
DC6-HE	PLACE CONC. DRIVE APPROACH NON-REINFORCED, P-NC, 6 INCH
CSR6	PLACE SIDEWALK RAMP, CONC, 6 INCH P1
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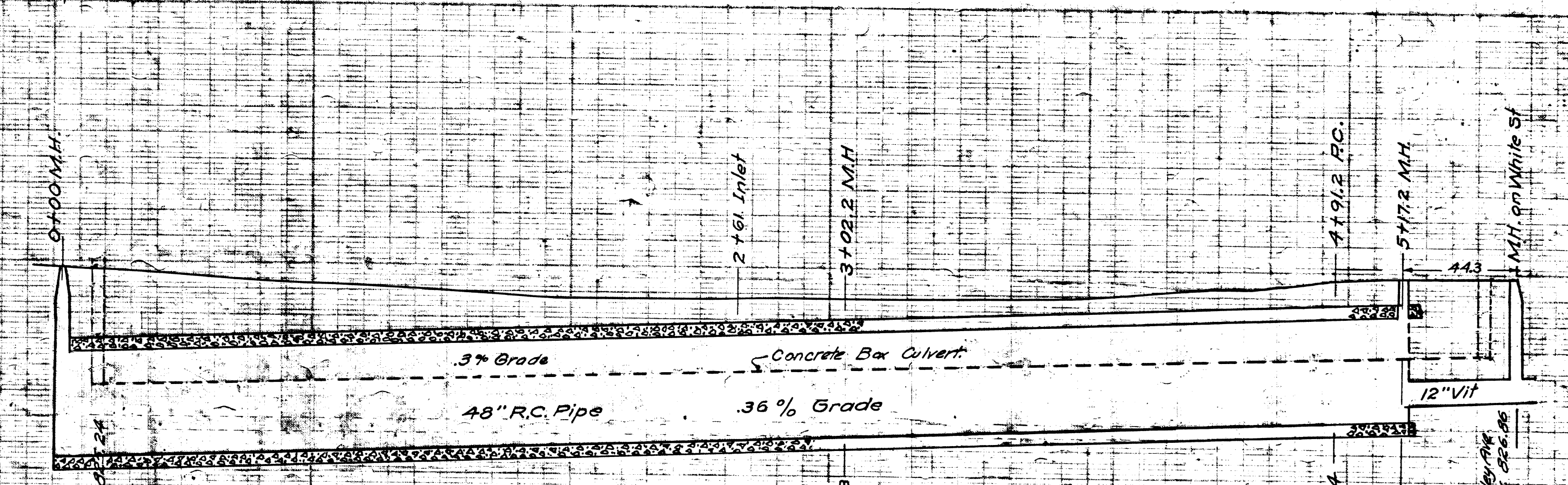
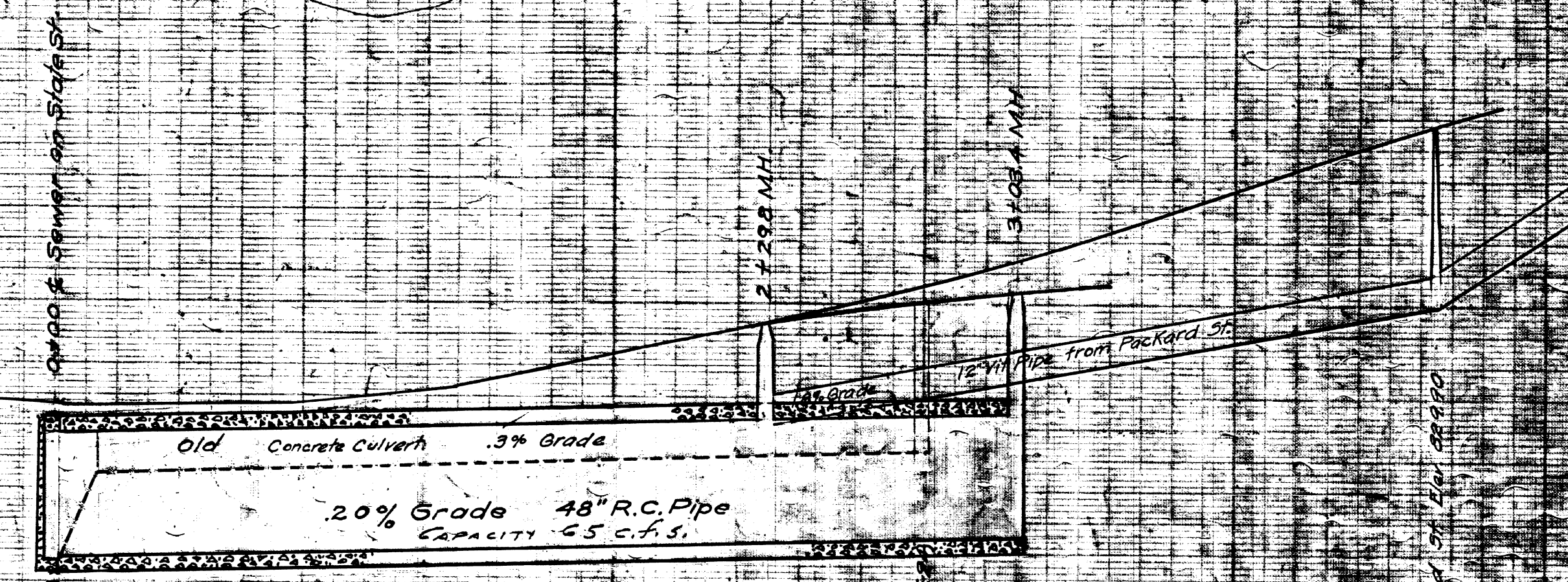
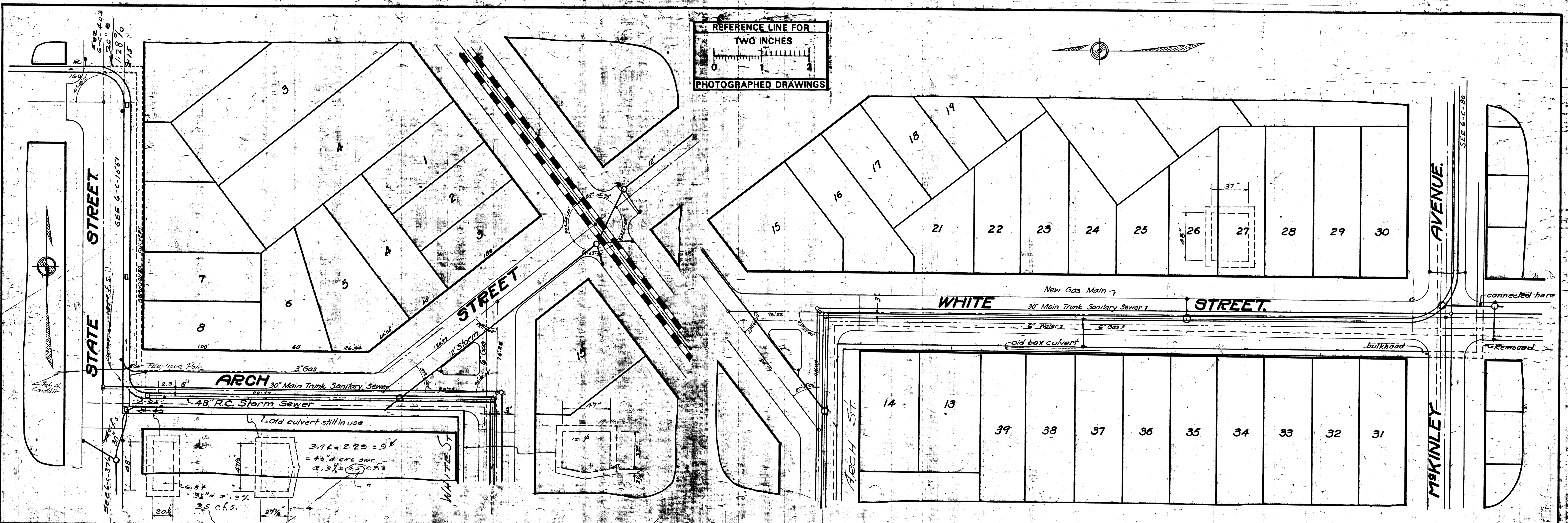
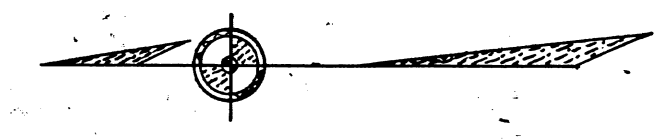
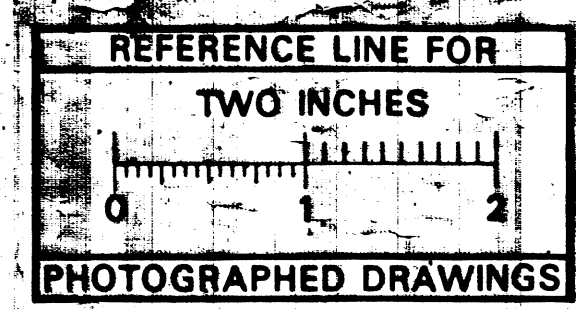
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 MCKINLEY AVE. WHITE ST. AND ARCH ST.
 STORM CULVERT ABANDONMENT
 MCKINLEY AVENUE
 ROAD PLANS

SCALE PLAN: 1/20
 DRAWING No. 2014036-11



REV.	DATE	DESCRIPTION
00	3-13-15	BID SET
		RAG DRAWN
		BS CHECKED



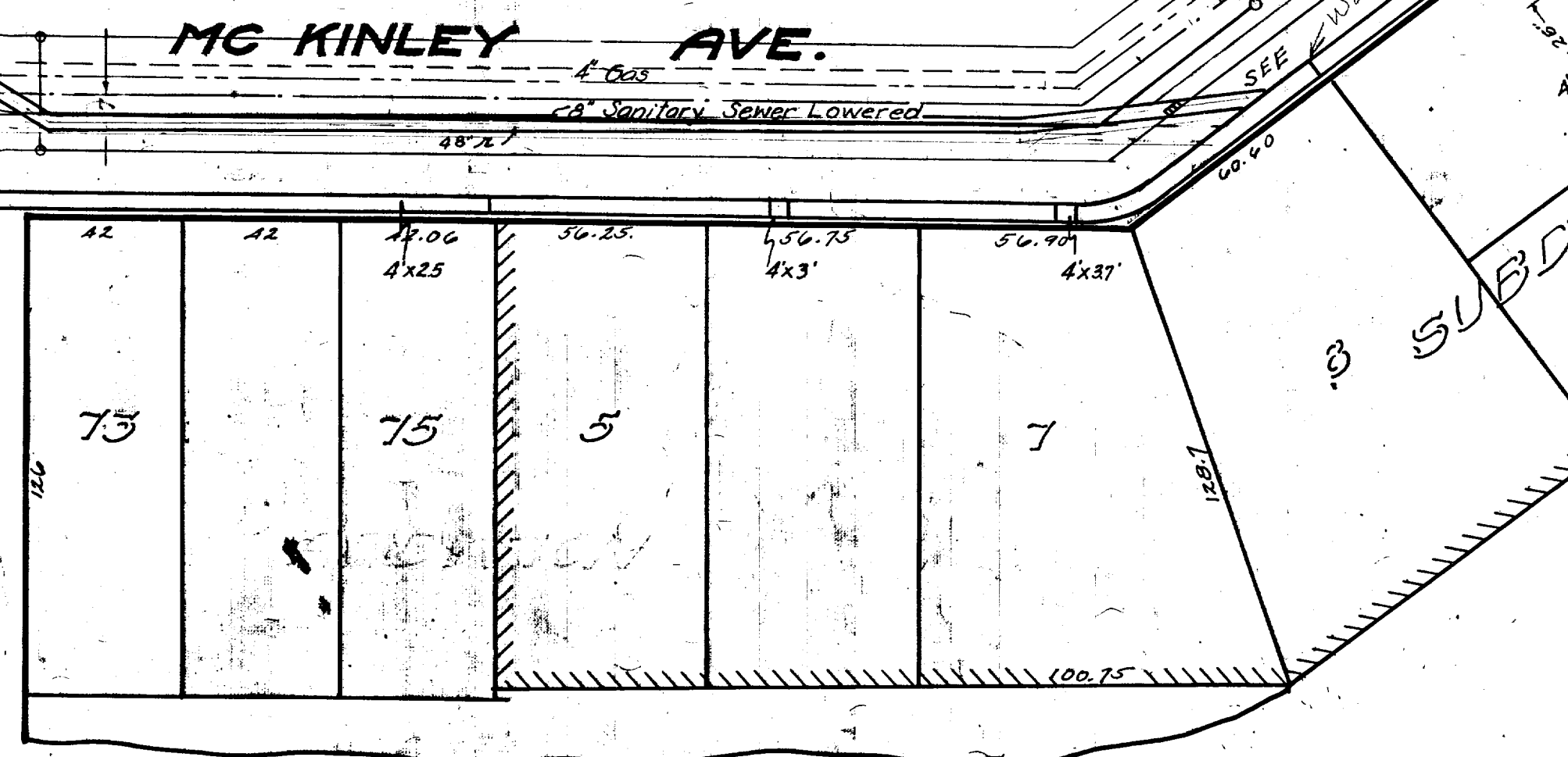
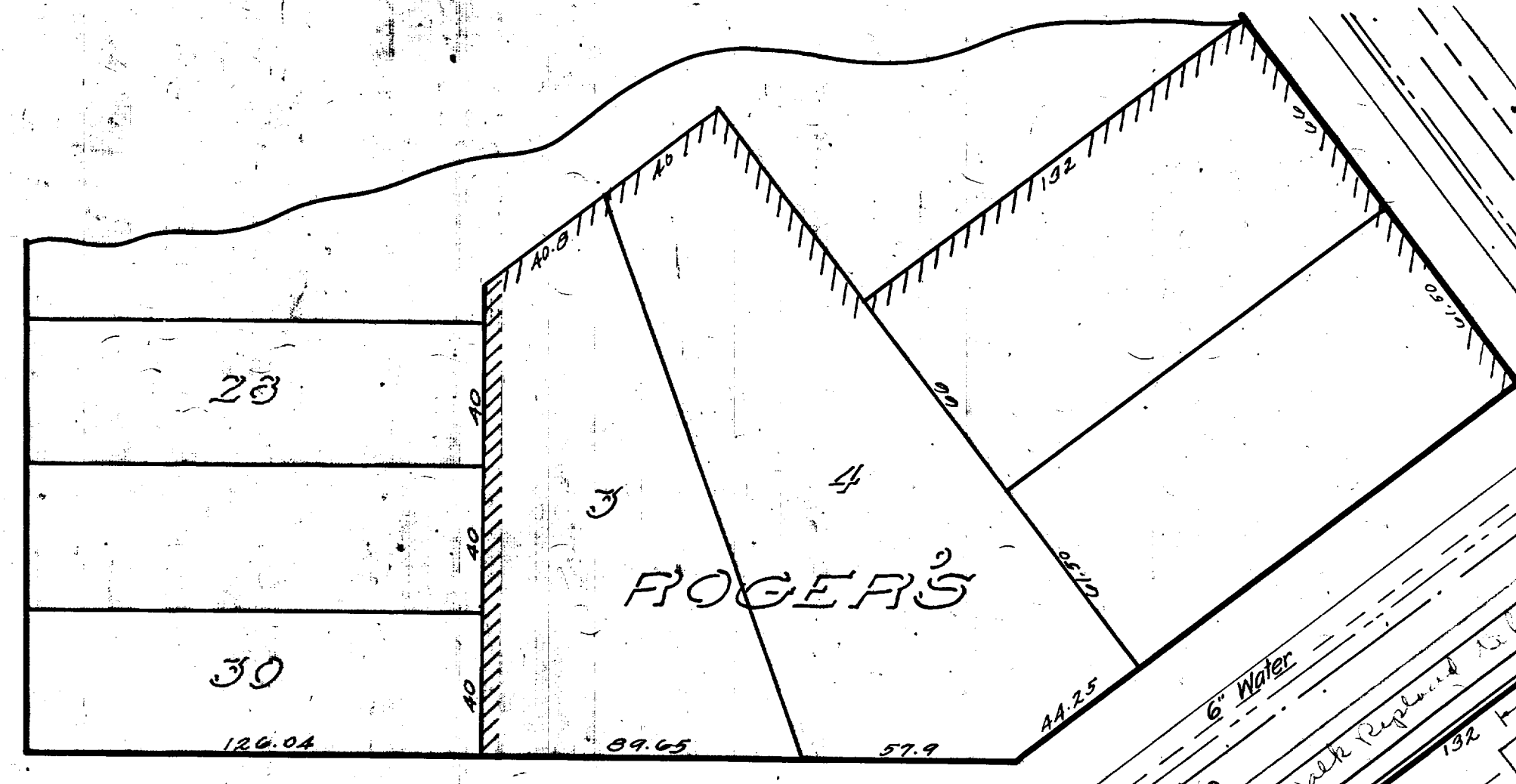
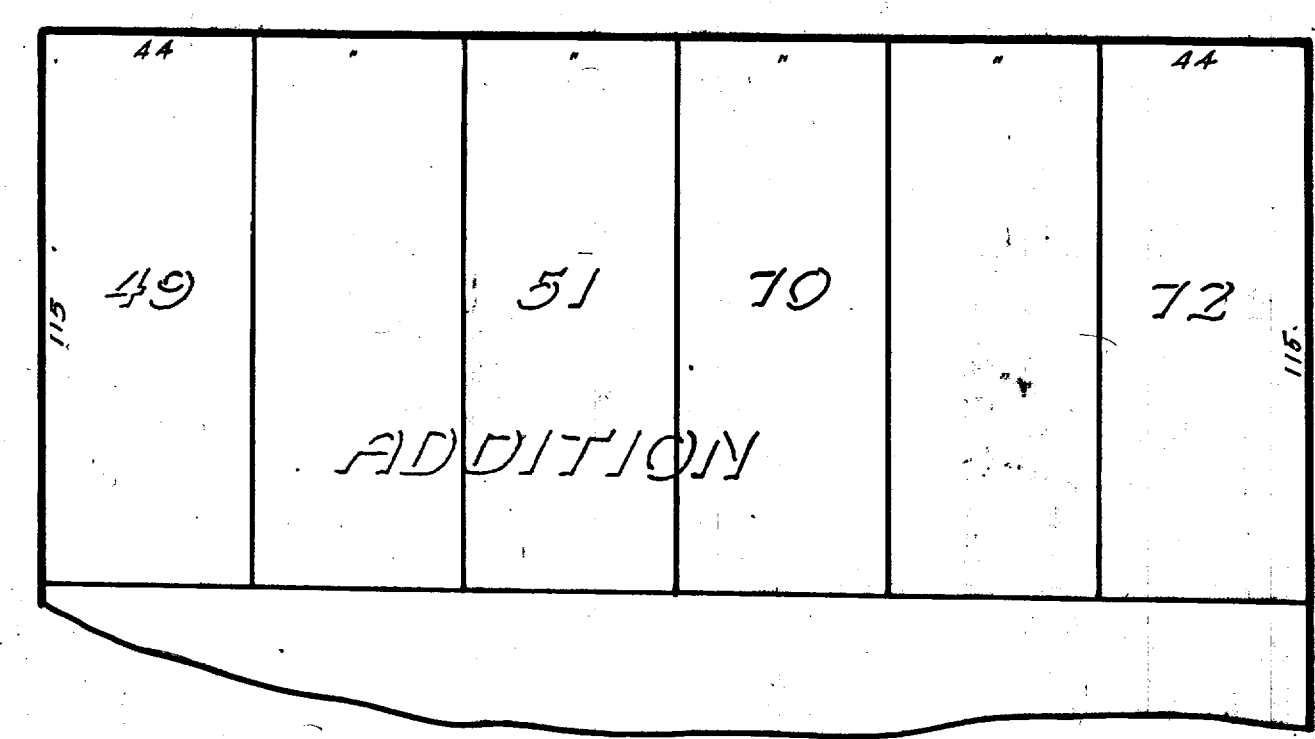
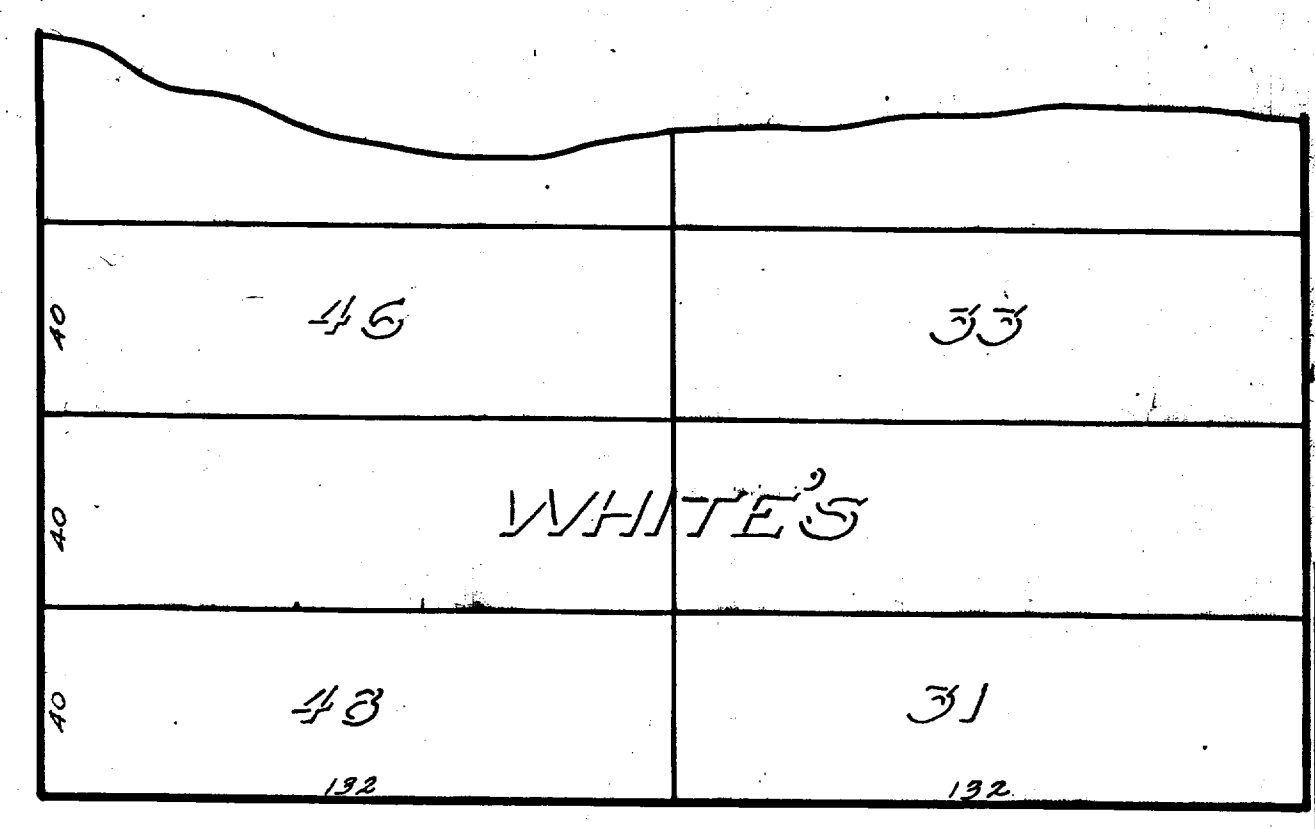


**ARCH-WHITE STORM SEWER
RECORD DRAWING
6C386-R**

Digital Status
Scanned On: 9-3-04
By: DKG
Despeckled: Yes
Vectors:
O.C.R.:

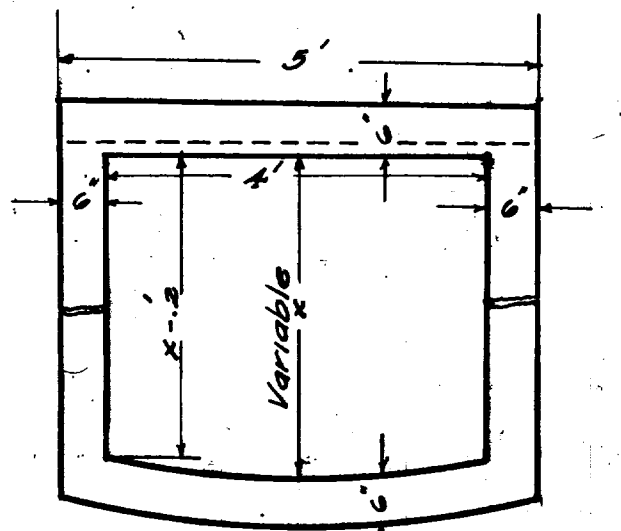
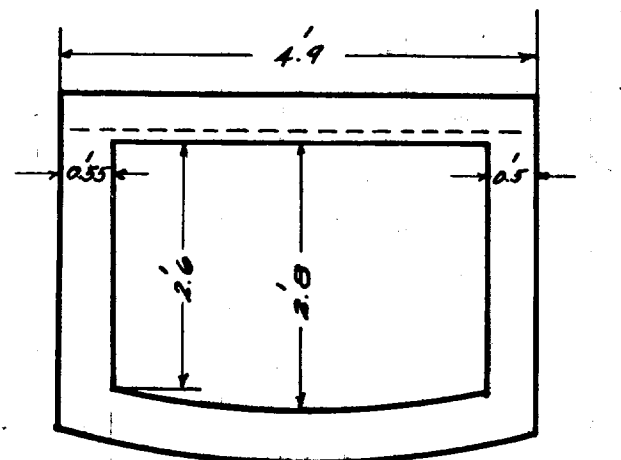
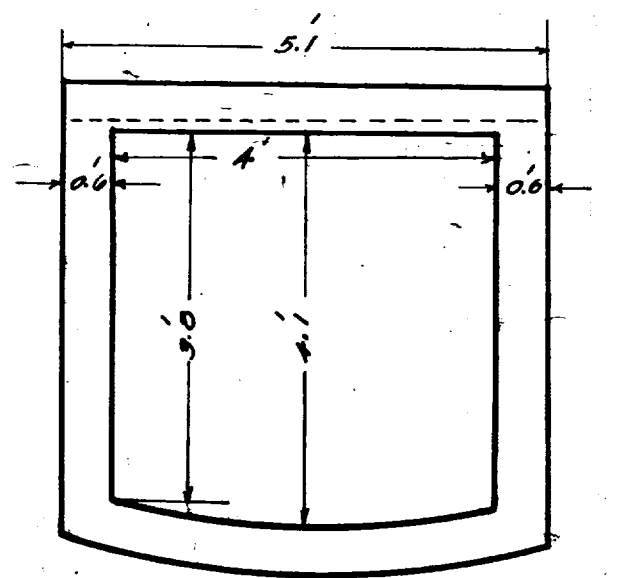
INDEX No. 7016	CITY ENGINEER'S OFFICE ANN ARBOR, MICH.
SHELF No. 6	PLAN AND PROFILE OF STORM SEWER
SIZE C	ARCH STREET STATE ST. TO PACKARD ST.
SUB No. 386	WHITE STREET ARCH ST. TO MCKINLEY AVE.
Drawn by: Bone	Geo. H. Sandenburgh, City Engineer
Traced by: Bone	Box Culvert 1918 - 1937, 48" Concrete
Checked by:	Scales: Plan, 1" = 40'; Profile, 1" = 4' V.T.L.

STATE ST.



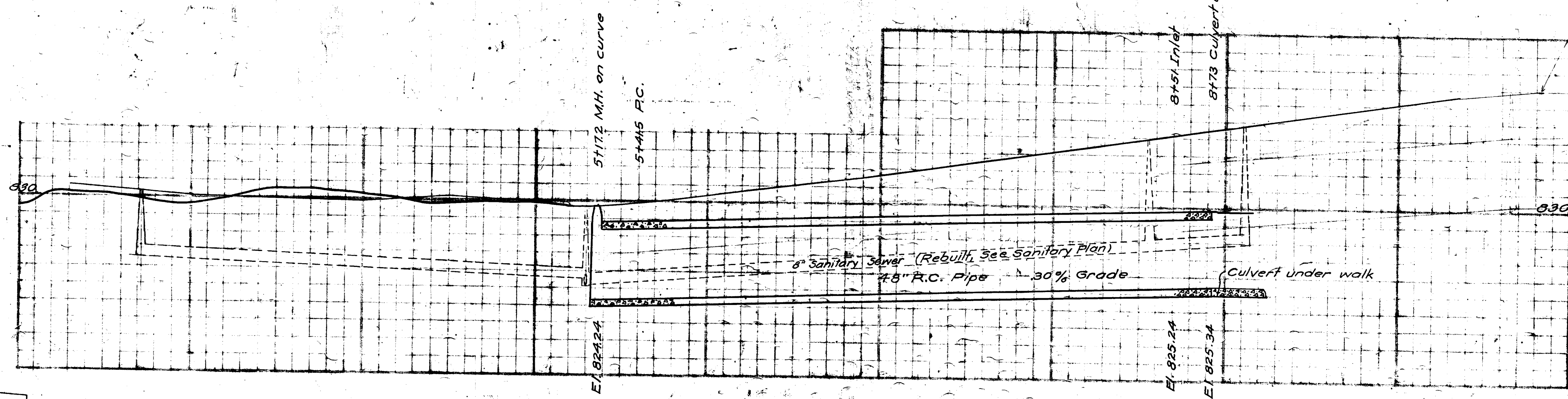
MC KINLEY AVE.

PACHARD ST.
E. UNIVERSITY ST.

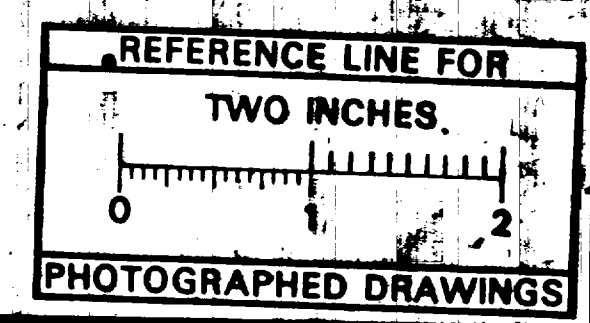


.15 Sq. In Reinforcing per Lineal Ft.
Scale 1/2" = 1'

Replace top of old Culvert
E. Curb line to M.H. Casting at 4



**McKINLEY STORM SEWER
RECORD DRAWING
6C80-R**



Digital Status
Scanned On: 8-25-04
By: DGK
Despeckled: Yes
Vectors:
O.C.R.:

SEE BOOK 858-74 FOR FIELD
LOCATION OF 48" STORM SEWER

INDEX No. 697
SHELF No. 6
SIZE C
SUB No. 80
Drawn by SLEMAN
Traced by SLEMAN
Checked by

CITY ENGINEER'S OFFICE
ANN ARBOR, MICH.
PLAN AND PROFILE
OF
STORM SEWER
MC KINLEY AVE.
STATE TO PACHARD
(Manley Osgood, City Engineer)
(1916)
Scales - Plan = 40' Profile = 10' Vertical
Geo. H. Sanderburgh, City Eng. 1938