



CITY OF ANN ARBOR PROJECT MANAGEMENT

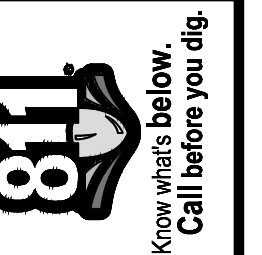
SOUTHSIDE INTERCEPTOR SEWER LINING PH III

NOTES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, 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.

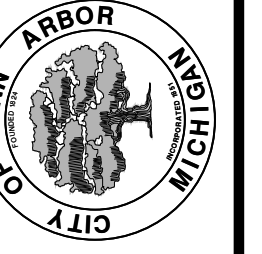
THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

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 48106-8647
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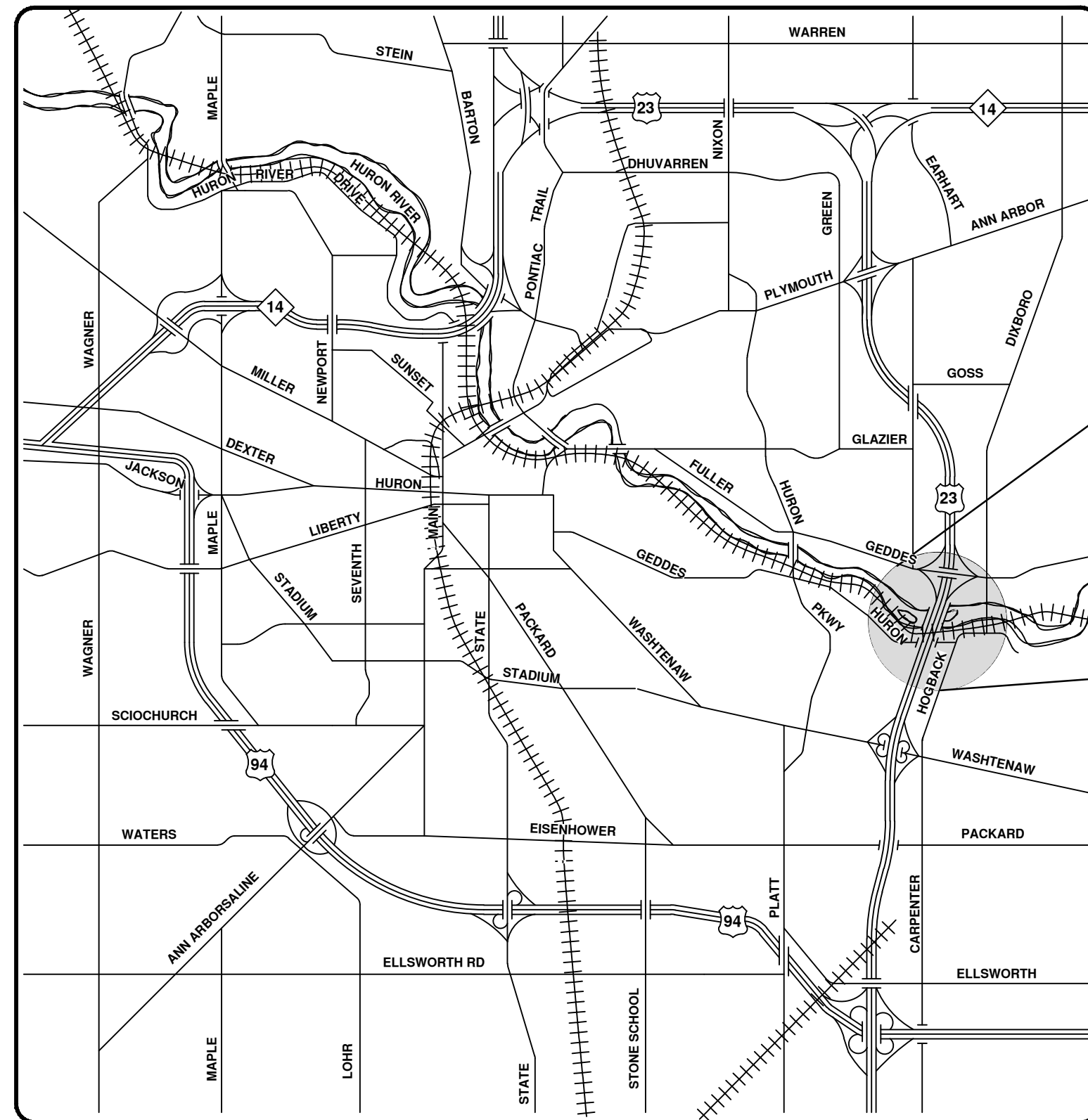
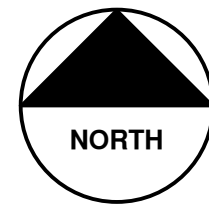
PROJECT MANAGEMENT - CITY OF ANN ARBOR
SOUTHSIDE INTERCEPTOR SEWER LINING PHASE III PROJECT
SCALE
DRAWING No. 2015031-1
SHEET No. 1 OF 12

© SOUTHSIDE INTERCEPTOR SEWER LINING PH III; BID No. 4438; 2015031

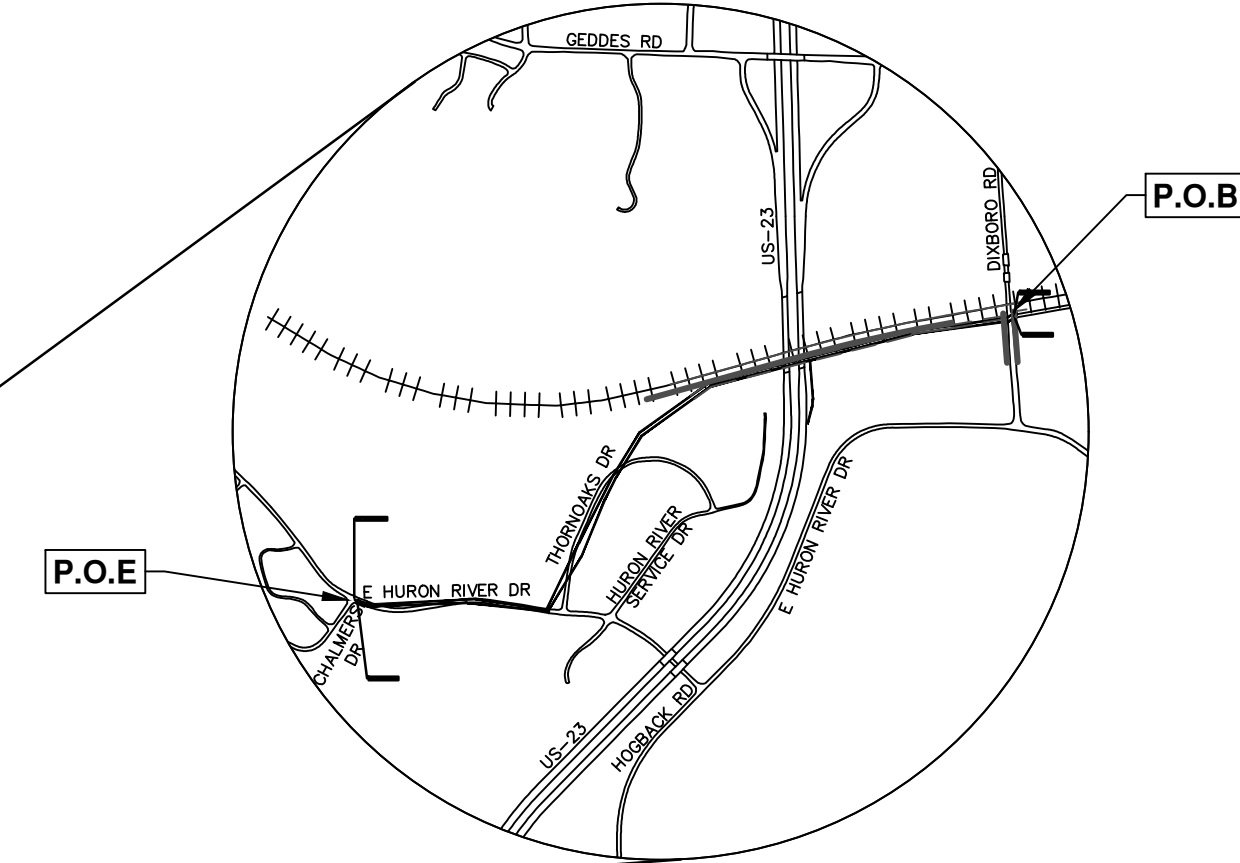
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SHEET LIST TABLE	
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1	COVER SHEET
2	LEGEND
3	STANDARD NOTES
4-5	TRAFFIC CONTROL
6-7	LOCATION SHEETS
8-12	PROPOSED SEWER LINING PLAN AND PROFILE

BID No. 4438, FILE No. 2015031



VICINITY MAP



PROJECT MANAGEMENT SERVICE UNIT

PREPARED UNDER THE SUPERVISION OF

ANNE M WARROW, P.E. - MI LICENSE No. 48239
PROJECT MANAGER

4/20/2016
DATE

EXISTING LEGEND

	FIRE HYDRANT		WATER MAIN
	GATE VALVE IN BOX		WATER MAIN ABANDONED
	GATE VALVE IN WELL		STORM SEWER
	STOP BOX		STORM SEWER ABANDONED
	WATER VAULT		SANITARY SEWER
	WELL		SANITARY SEWER ABANDONED
	CATCH BASIN (SQ)		GAS MAIN
	CATCH BASIN (RD)		GAS MAIN (DEAD)
	STORM MANHOLE		ELECTRICAL OVER HEAD
	NON-CURB CATCH BASIN (SQ)		ELECTRICAL UNDER GROUND
	END SECTION		ELECTRICAL DUCT BANK
	SANITARY MANHOLE		TELEPHONE OVER HEAD
	CLEAN-OUT		TELEPHONE UNDER GROUND
	POST		TELEPHONE DUCT BANK
	PEDESTRIAN SIGNAL		CABLE TV OVER HEAD
	SIGN		CABLE TV UNDER GROUND
	HAND HOLE		FIBER OPTIC
	ORNAMENTAL LIGHT		FIBER OPTIC DUCT BANK
	FLOOD LIGHT		BOUNDARY
	UNKNOWN MANHOLE		BUILDING
	TELEPHONE MANHOLE		CENTERLINE OF DITCH
	TELEPHONE RISER		CENTERLINE/CROWN OF ROAD
	GAS VALVE		CONTOUR MAJOR
	GAS VENT		CONTOUR MINOR
	GAS BOX		EDGE OF WATER
	ELECTRICAL RISER		FLOODPLAIN
	TRANSFORMER		FENCE
	UTILITY POLE		GRAVEL
	LAMP POLE		GUARDRAIL
	GUY ANCHOR		STONE WALL
	GUY POLE		R.O.W.
	MONITORING WELL		TREELINE
	MAILBOX		WETLAND
	SOIL BORING		EDGE OF BRUSH
	TRAVERSE POINT		HEDGE
	BENCH MARK		
	IRON PIPE		
	MON BOX		

	TREE (DECIDUOUS)
	TREE (CONIFEROUS)
	SHRUB (DECIDUOUS)
	STUMP
	TREE TO REMAIN & PROTECT (DECIDUOUS) CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREAST HEIGHT (INCHES) X 10
	TREE TO REMAIN & PROTECT (CONIFEROUS) CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREAST HEIGHT (INCHES) X 10

PROPOSED LEGEND

	HYDRANT (PLAN)		WATER MAIN
	WATER GATE WELL		STORM SEWER
	REDUCER		SANITARY SEWER
	WATER GATE VALVE		FIBER OPTIC
	WATER STOP BOX		ELECTRICAL
	WATER VAULT		CENTERLINE OF DITCH
	INLET		CENTERLINE OF ROAD
	DOUBLE INLET		FENCE
	INLET JUNCTION CHAMBER		GRAVEL
	ROUND CATCH BASIN		SILT FENCE
	STORM MANHOLE		PROTECTIVE FENCE
	DRAIN ARROW		GUARDRAIL
	FLARED END SECTION		LOT/UNIT
	SANITARY MANHOLE		CURB
	CLEAN-OUT		TEMPORARY GRADING PERMIT
	SIGN		CONTOUR MAJOR
	PUSH BUTTON		CONTOUR MINOR
	HAND HOLE		WATER EASEMENT
			STORM EASEMENT
			SANITARY EASEMENT
			R.O.W.
			LIMITS OF CONSTRUCTION
			LIMIT OF GRADING
			STONE WALL
			DETECTABLE WARNING
			ASPHALT
			CONCRETE
			SIDEWALK
			TREE (DECIDUOUS)
			TREE (CONIFEROUS)
			TREE TO BE REMOVED (DECIDUOUS)
			TREE TO BE REMOVED (CONIFEROUS)
			STUMP TO BE REMOVED



REV.	DATE	DESCRIPTION
01	4/20/2016	BID SET
00	4/13/2016	MDOT PERMIT SUBMITTAL

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR MI 48106-8647
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
SOUTHSIDE INTERCEPTOR SEWER LINING PH III

SCALE: N/A
DRAWING No. 2015031-2

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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. 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".
- 5. "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.
- 6. POSTAL DELIVERY AND REFUSE PICKUP SERVICE SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.
- 7. WHERE STREET CURBS ARE UNDERMINED DUE TO CONSTRUCTION ACTIVITIES, THEY SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER.
- 8. 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".
- 9. ALL CURB, SIDEWALK, DRIVEWAY APPROACH REMOVALS SHALL BE APPROVED BY ENGINEER BEFORE THE WORK IS DONE.
- 10. SAWED SEWER PIPE CONNECTIONS SHALL BE COUPLED WITH A FERNCO FLEXIBLE COUPLING AND A STAINLESS STEEL SHEAR RING.
- 11. THE LOCATION OF MATERIAL STOCK PILES AND ON-SITE STAGING AREAS TO BE APPROVED BY THE ENGINEER.
- 12. 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.
- 13. PAYMENT FOR DRAINAGE STRUCTURE SUMPS, WHERE SPECIFIED, SHALL BE INCLUDED IN THE PAYMENT FOR THE VARIOUS DRAINAGE STRUCTURE SIZES AND OR TYPES.
- 14. 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.
- 15. 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.
- 16. THE CONTRACTOR SHALL MAINTAIN FLOW IN THE EXISTING SANITARY SEWER AT ALL TIMES BY BYPASS PUMPING, AS NECESSARY. DURING WET WEATHER EVENTS, THE FLOW IN THE SANITARY SEWER WILL RISE RAPIDLY AND MAY BECOME SURCHARGED. EQUIPMENT USED SHALL BE SUFFICIENT TO HANDLE ANTICIPATED PEAK FLOWS. THE MINIMUM PUMP SIZE USED SHALL BE 400 GPM. PUMP NOISE SHALL BE KEPT AT OR BELOW 40 DECIBELS AT 100 FEET FROM THE SOURCE. THE CONTRACTOR SHALL MAINTAIN FLOW IN SUCH A MANNER AS THE EXISTING FLOW CAN BE ADEQUATELY TRANSPORTED, INCLUDING WET WEATHER FLOW.
- 17. THE CONTRACTOR SHALL SUBMIT A DETAILED BYPASS PUMPING MANAGEMENT PLAN TO BE REVIEWED AND APPROVED BY THE ENGINEER, PRIOR TO ANY OBSTRUCTION OF FLOWS IN THE SANITARY SEWER. THE CONTRACTOR SHALL PLAN HIS OPERATION SUCH THAT THERE WILL BE NO BACKUPS, LEAKS OR DISCHARGES OF SEWERAGE. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ALL CLEAN-UP OF BACKUPS, LEAKS OR DISCHARGES OF SEWERAGE.
- 18. THE CONTRACTOR SHALL ALSO FURNISH AND HAVE AVAILABLE ON-SITE; REDUNDANT PUMPING FACILITIES IN CASE OF ANY FAILURE OF THE PUMPING SYSTEM INCLUDING PUMPS, PIPING, ELECTRICAL EQUIPMENT, PIPE APPURTENANCES, ETC. REDUNDANT PUMPING FACILITIES ALSO INCLUDE HAVING A BACKUP POWER GENERATOR IN CASE THE PRIMARY POWER SOURCE FAILS. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE LABOR FORCE TO OVERSEE THE BYPASS PUMPING INCLUDING PROVIDING LABOR TO MAINTAIN 24 HOUR PER DAY OPERATION AND EMERGENCY BACKUP SERVICE, IF NECESSARY. THE CONTRACTOR WILL NOT BE ABLE TO OBSTRUCT FLOWS IN THE SEWER UNLESS THE PRIMARY AND REDUNDANT EQUIPMENT IS ON-SITE AND IN OPERABLE CONDITION.

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.

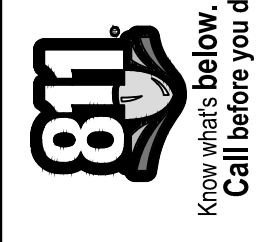
PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT*	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
"NO PARKING" SIGNS PERMIT*	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
RIGHT-OF-WAY PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE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

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

PERMIT	ISSUING AUTHORITY
M.D.O.T. RIGHT-OF-WAY PERMIT	MICHIGAN DEPARTMENT OF TRANSPORTATION

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



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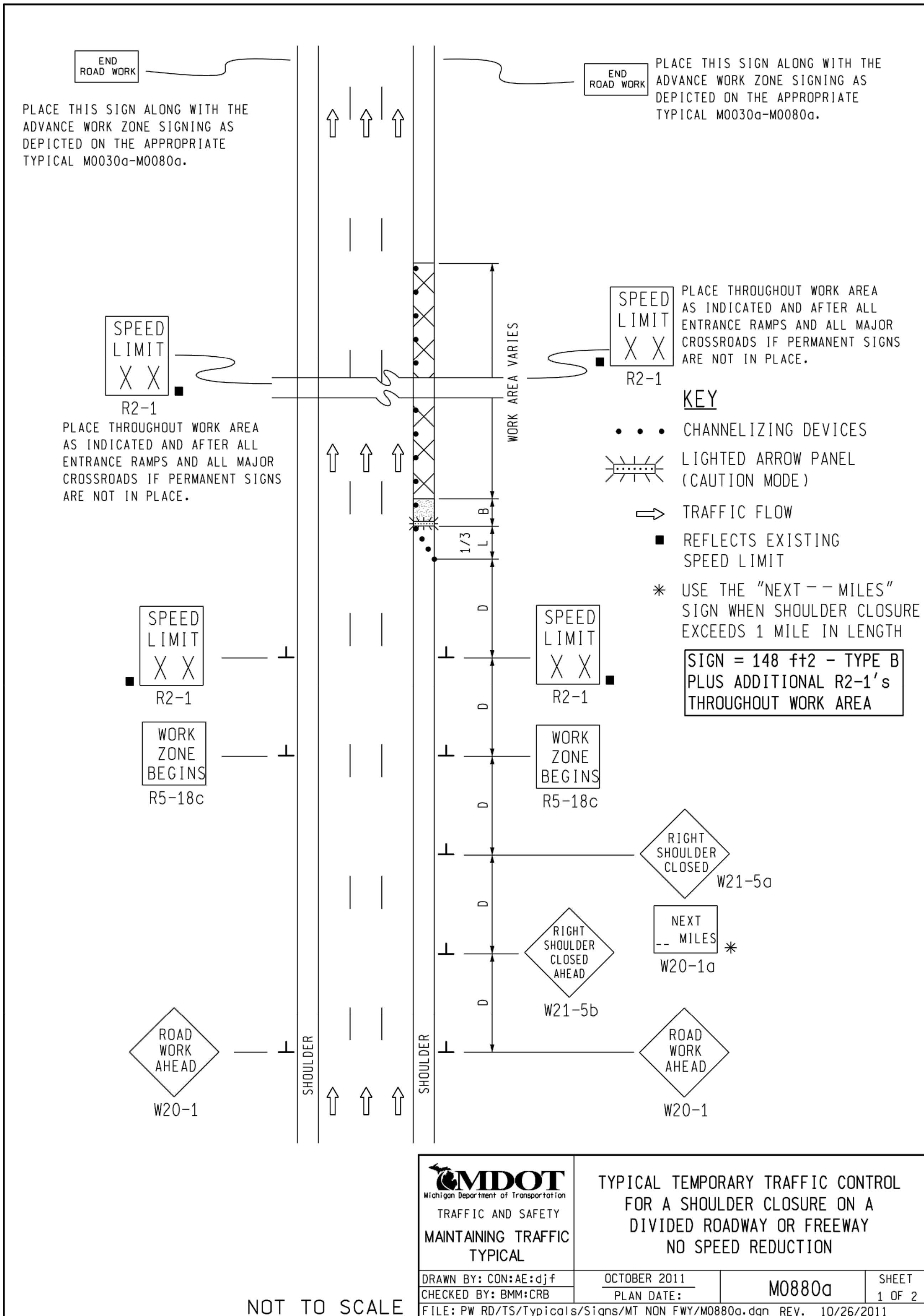
CITY OF ANN ARBOR
PUBLIC SERVICE
301 EAST HURON STREET
PO BOX 886
ANN ARBOR MI 48106-0867
734-794-6410
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
SOUTHSIDE INTERCEPTOR SEWER LINING PH III

SCALE : N/A
DRAWING No. 2015031-3
SHEET No. 3 OF 12

STANDARD NOTES

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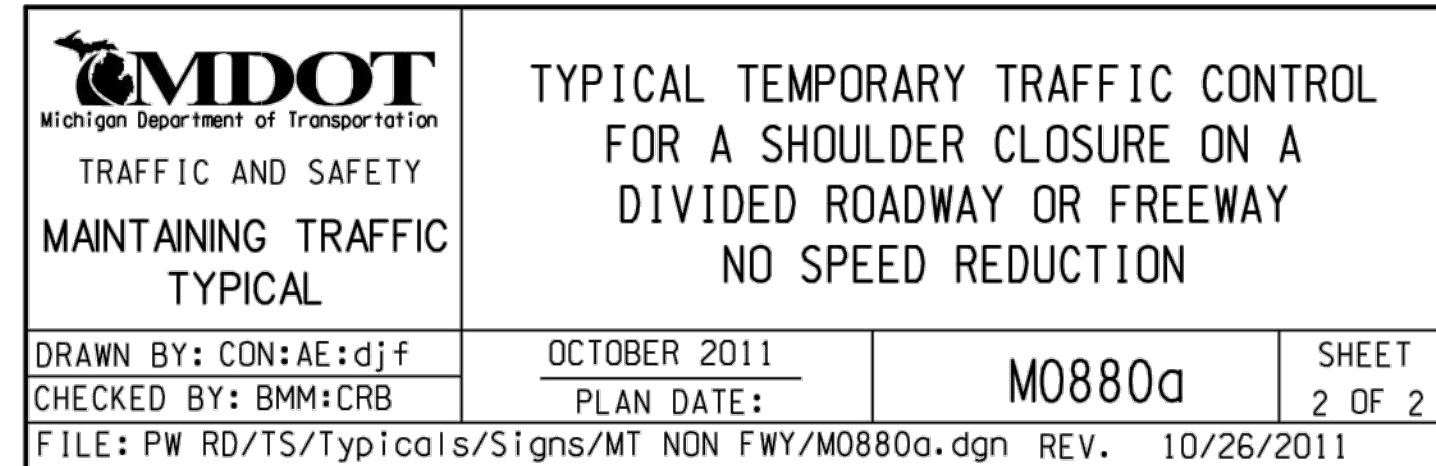
NOTES

1. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 $\frac{1}{3} L$ = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE M0020a FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, TYPE III BARRICADES SHALL BE LIGHTED.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN THE CURRENT EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDOT WILL BE ALLOWED.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 29A. THE TYPE OF REFLECTIVE SHEETING USED FOR THE W20-1a PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN SIZES

- DIAMOND WARNING - 48" x 48"
- W20-1a PLAQUE - 48" x 36"
- R2-1 REGULATORY - 48" x 60"
- R5-18c REGULATORY - 48" x 48"

NOT TO SCALE



Know what's below. Call Before you dig.

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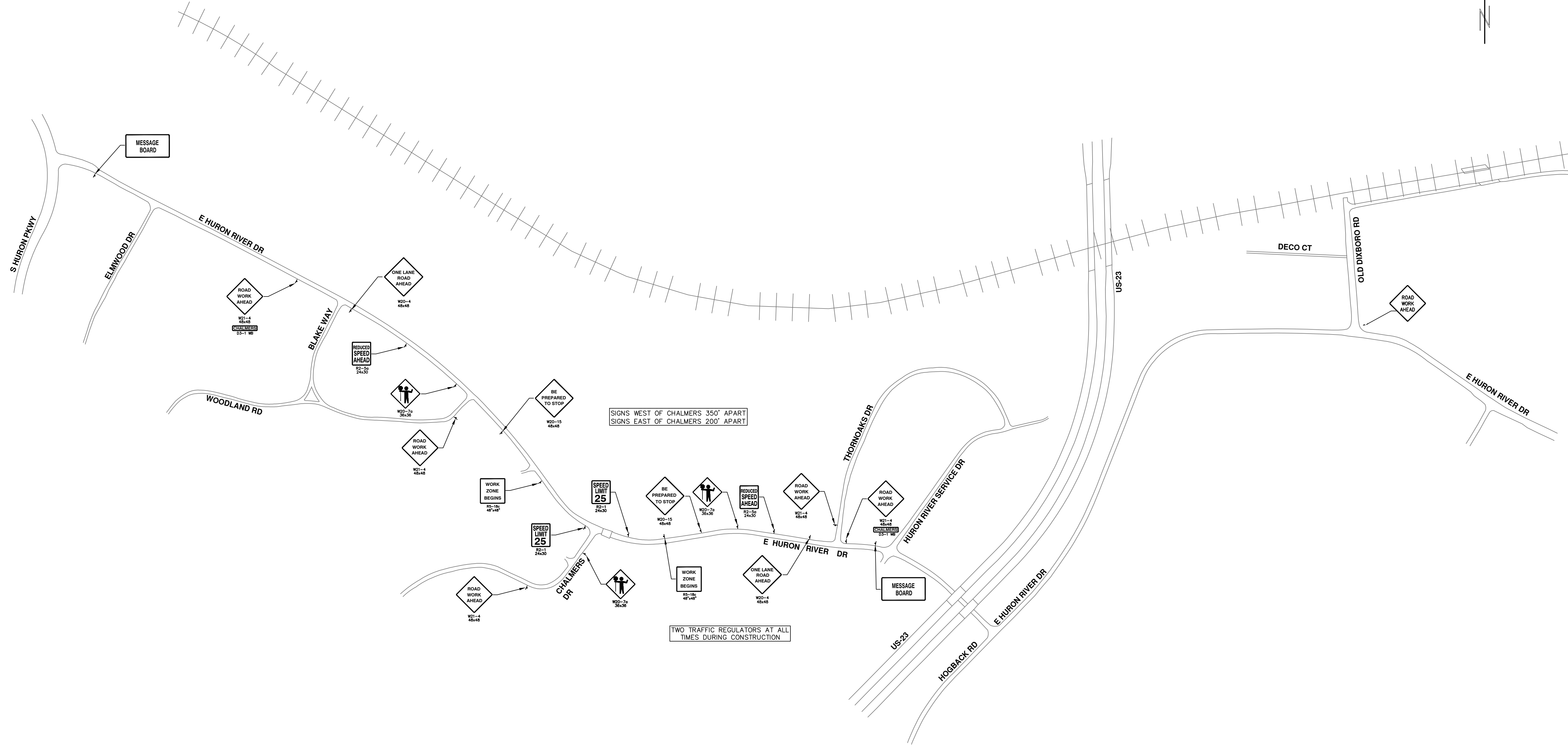
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 301 EAST HURON STREET
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 ANN ARBOR: 734.794.4410
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR	TRAFFIC CONTROL
SOUTHSIDE INTERCEPTOR SEWER LINING PH III	MDOT SHOULDER CLOSURE

SCALE PLAN: 1" = 50'	DRAWING No. 2015031-4
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SHEET No. 4 OF 12

S:\Project Management\Design\2015031 Southside Interceptor\Plan Production\2015031TRAF.dwg - _g2 standard bw.stb - Plot Date: 4/20/2016 10:47:29 AM



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	BID SET	4/20/2016	JKA	AMW
00	MDOT PERMIT SUBMITTAL	4/13/2016	JKA	AMW



S:\Project Management\Design\2015031 Southside Interceptor\Plan Production\2015031COV.dwg - a2_standard_bw.stb - Plot Date: 4/20/2016 10:47:33 AM



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
SOUTHSIDE INTERCEPTOR SEWER LINING PH III

SCALE PLAN: 1" = 100'

DRAWING No. 2015031-6

LOCATION 1

6 OF 12

01	BID SET	4/20/2016	JKA	JKA	AMW	AMW	CHECKED		
00	MDOT PERMIT SUBMITTAL	4/13/2016	JKA	JKA	AMW	AMW	CHECKED		
REV.	DESCRIPTION	DATE	DRAWN	CHECKED					

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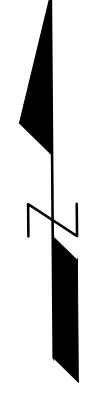
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
SOUTHSIDE INTERCEPTOR SEWER LINING PH III

SCALE PLAN: 1" = 100'

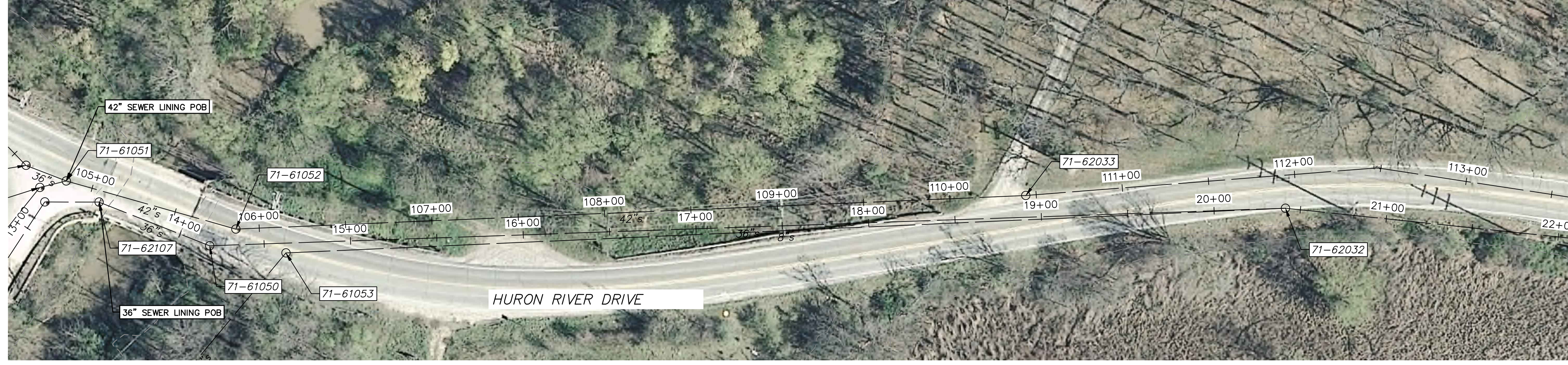
DRAWING No. 2015031-7

LOCATION 2

SHEET No. 7 OF 12

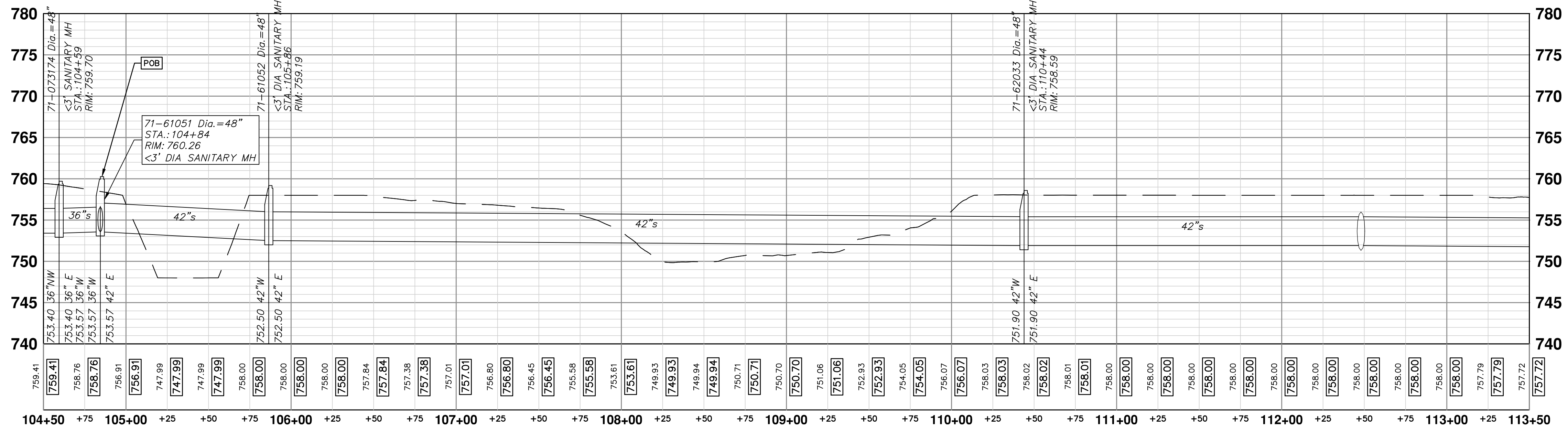


MATCH STA 104+50 (42") OR STA 13+00 (36") SHEET PP1

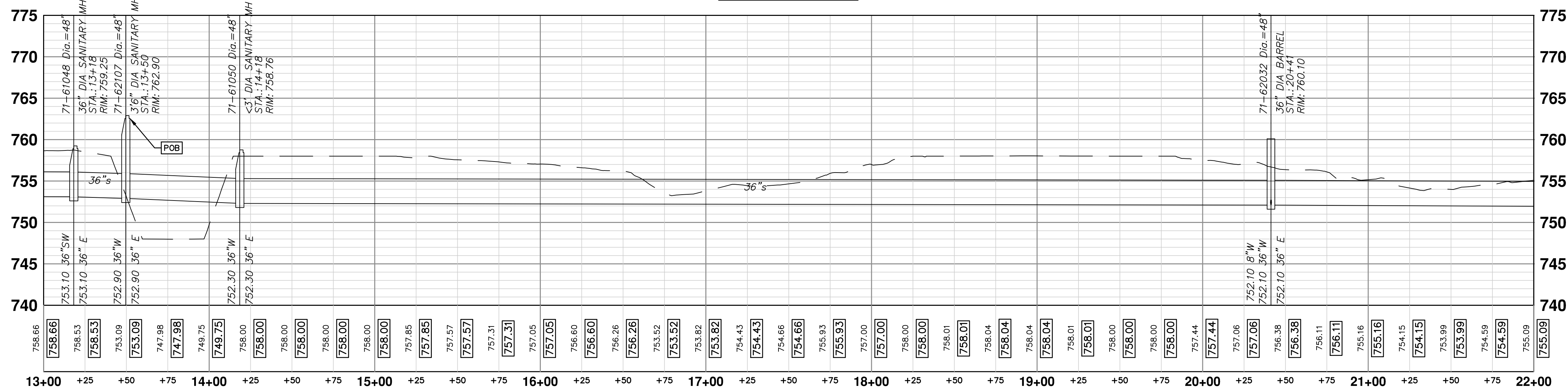


MATCH STA 113+50 (42") OR STA 22+00 (36") SHEET PP3

EX 42 SEWER



EX 36IN SEWER



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

SOUTHSIDE INTERCEPTOR SEWER LINING PH III

SCALE PLAN: 1" = 40' PROFILE: 1" = 8'

DRAWING NO: 2015031-8

SHEET NO. 8 OF 12

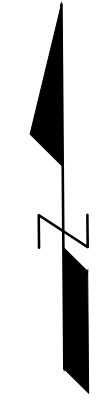
PLAN AND PROFILE

POB TO THORN OAKS DRIVE

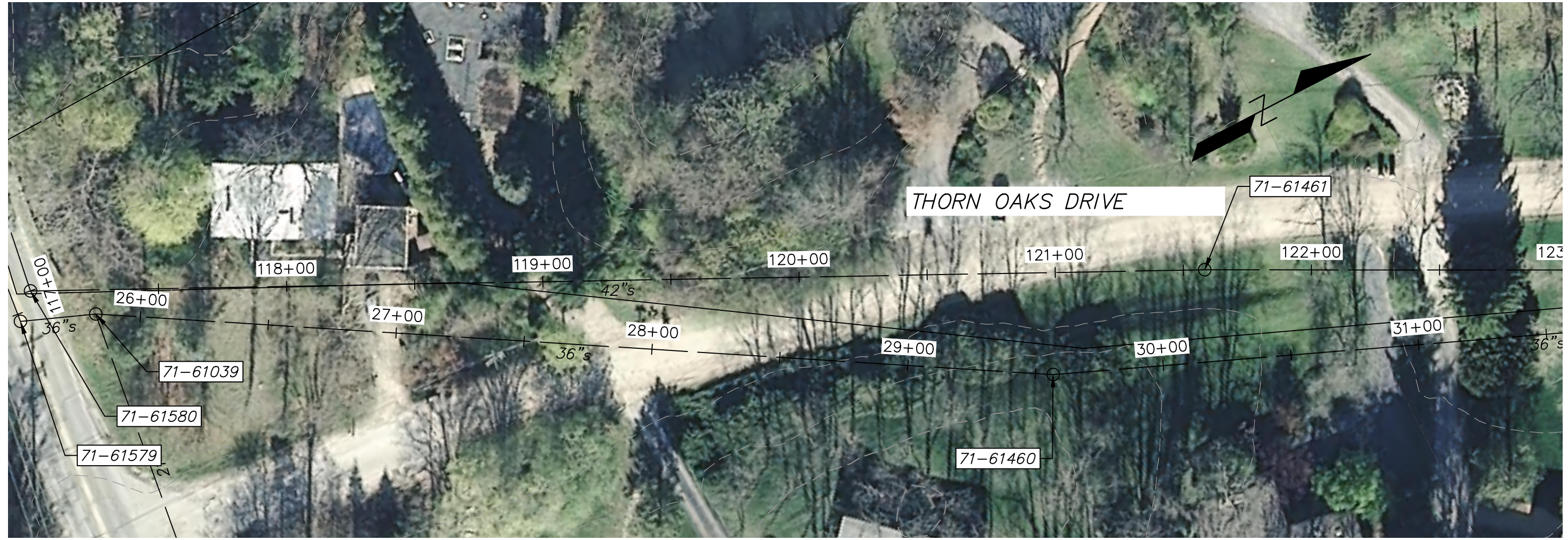
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ANN ARBOR, MI 48106-0667
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	BID SET	4/20/2016	JKA	AMW
00	MOOT PERMIT SUBMITTAL	4/13/2016	JKA	AMW

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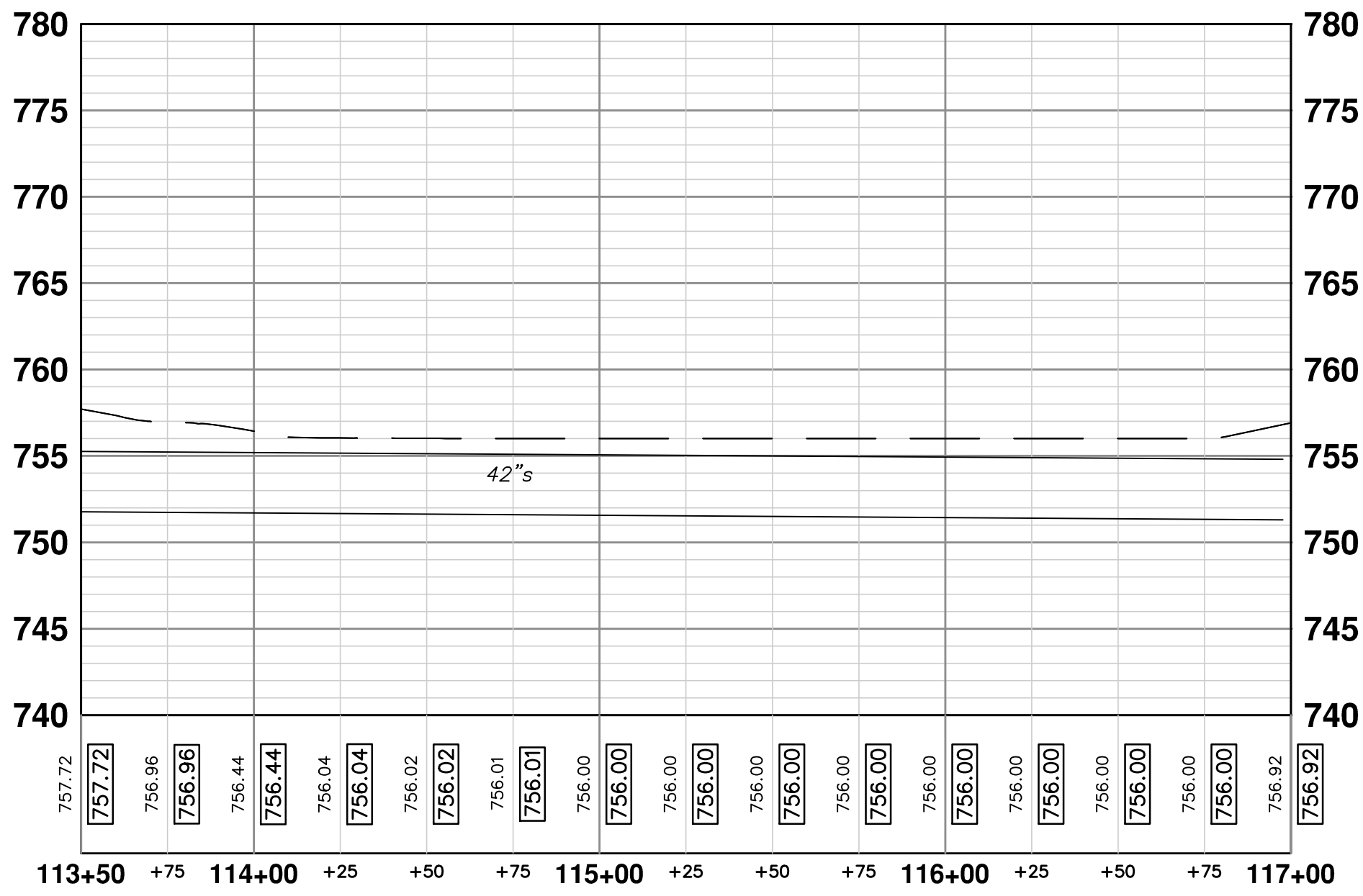


MATCH STA 117+00 (42") OR STA 25+50 (36") RIGHT
MATCH STA 117+00 (42") OR STA 25+50 (36") LEFT

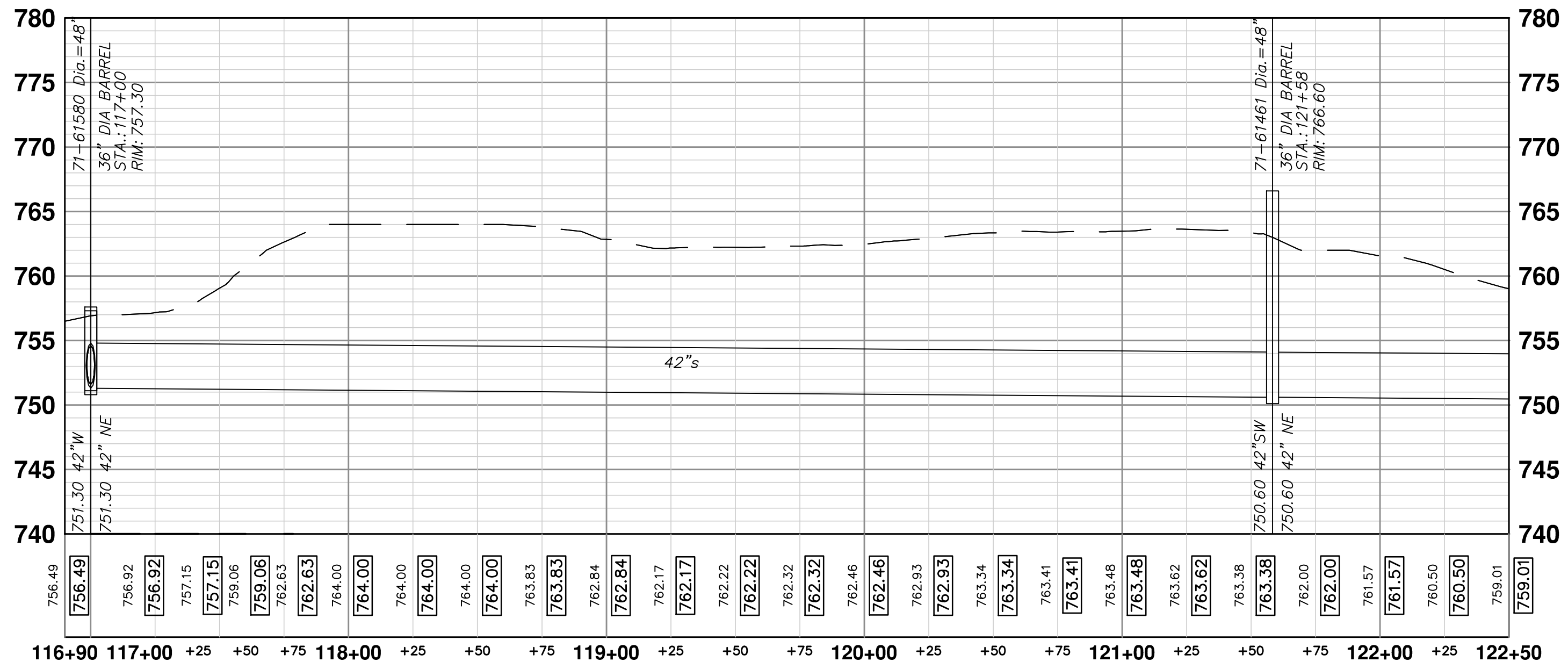


MATCH STA 4210+50 (42") OR STA 3611+15 (36") SHEET X/X

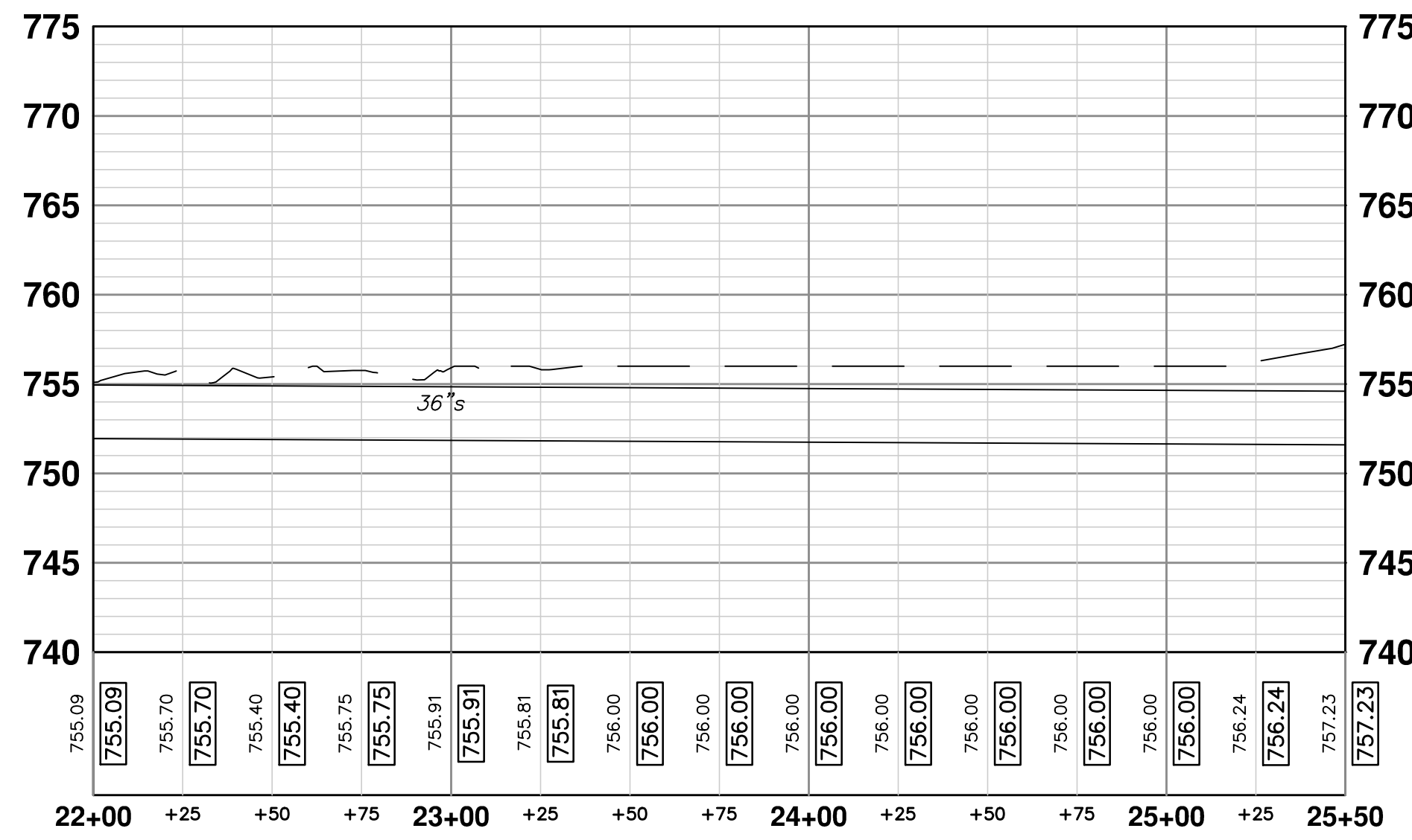
EX 42 SEWER



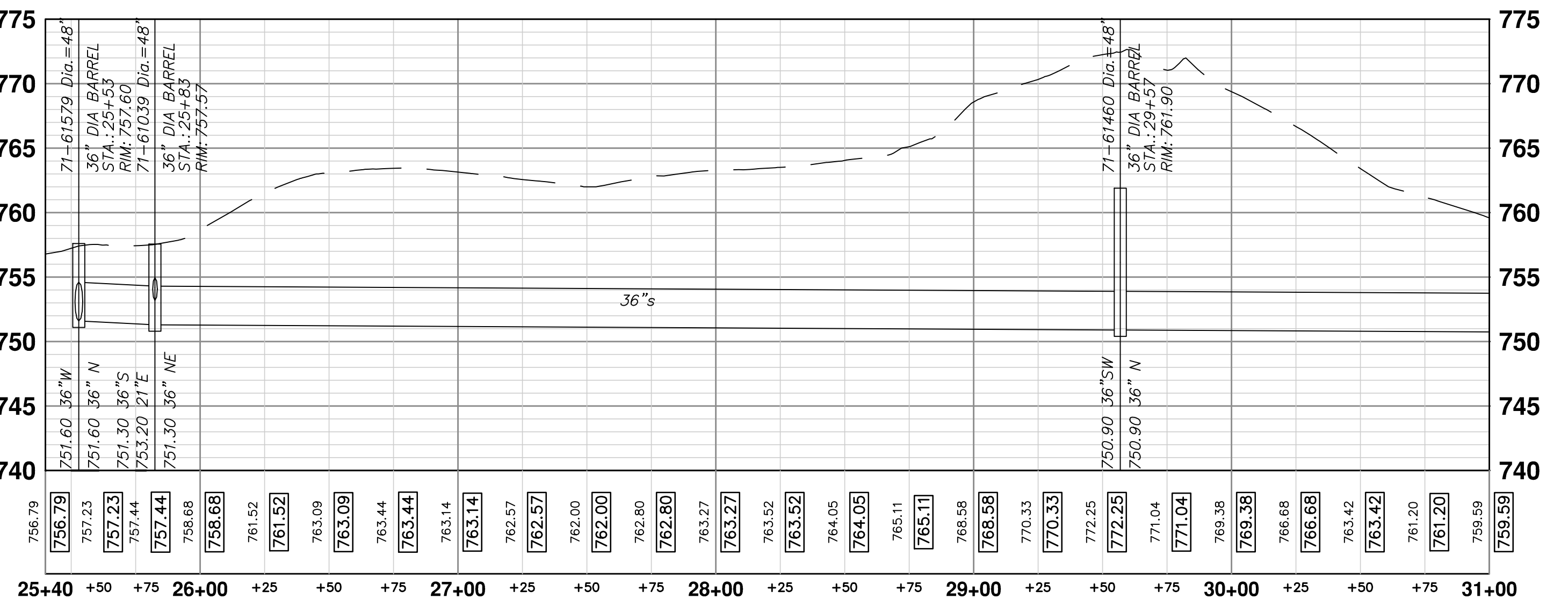
EX 42 SEWER



EX 36IN SEWER



EX 36IN SEWER



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

SOUTHSIDE INTERCEPTOR SEWER LINING PH III

SCALE PLAN: 1" = 40' PROFILE: 1" = 8'

DRAWING No. **2015031-9**

SHEET No. **9 OF 12**

THORN OAKS DRIVE TO CURVE

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DATE: 4/13/2016
DRAWN: JKA
CHECKED: AMW

REV. 00 MDOT PERMIT SUBMITTAL DESCRIPTION

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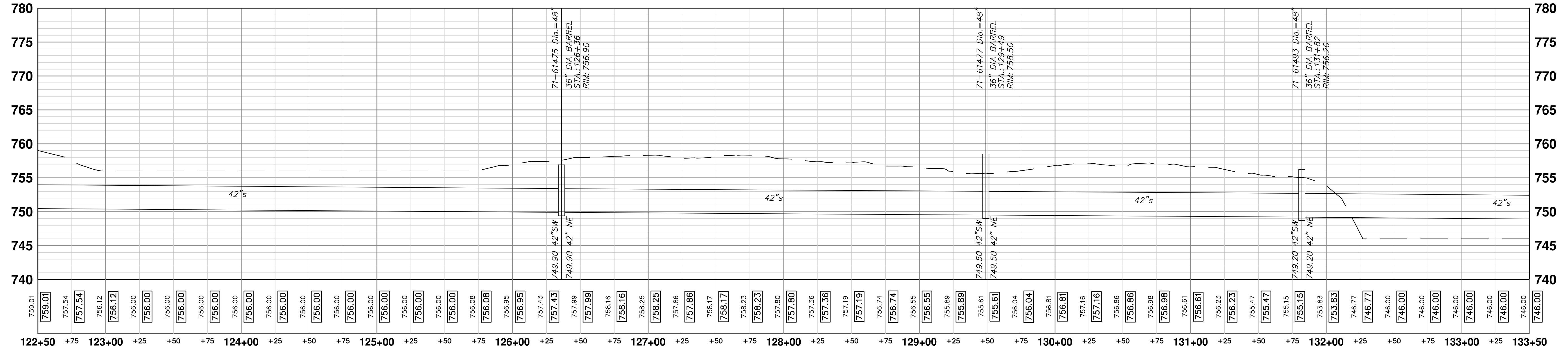
S:\Project Management\Design\2015031 Southside Interceptor\Plan Production\2015031PP.dwg Dwg Created: 23-Jul-15 - _a2 standard bw.stb - Plot Date: 20-Apr-16

MATCH STA 122+50 (42") OR STA 31+00 (36") SHEET PP3

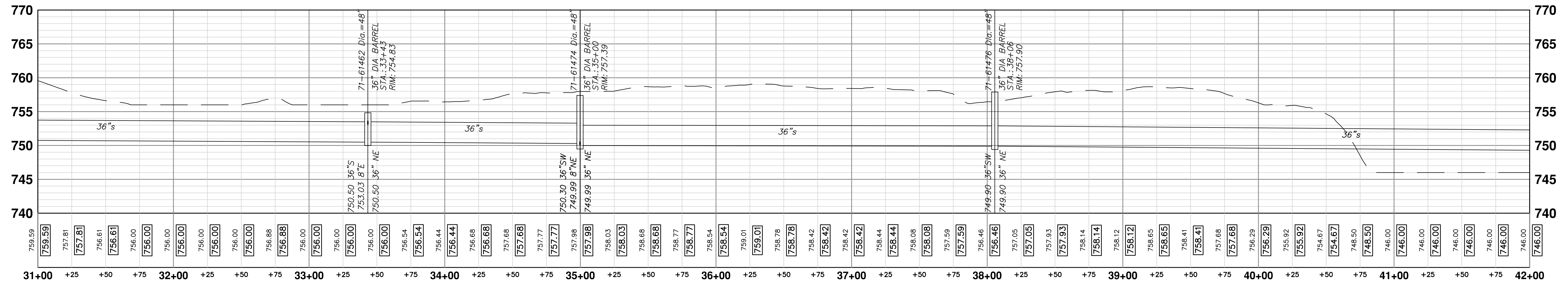


MATCH STA 133+50 (42") OR STA 42+00 (36") SHEET PP5

EX 42 SEWER



EX 36IN SEWER



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

SOUTHSIDE INTERCEPTOR SEWER LINING PH III

PLAN AND PROFILE

THORN OAKS DRIVE CURBE TO US23

SCALE PLAN: 1" = 40'
PROFILE: 1" = 8'

DRAWING NO. 2015031-10

SHEET NO. 10 OF 12

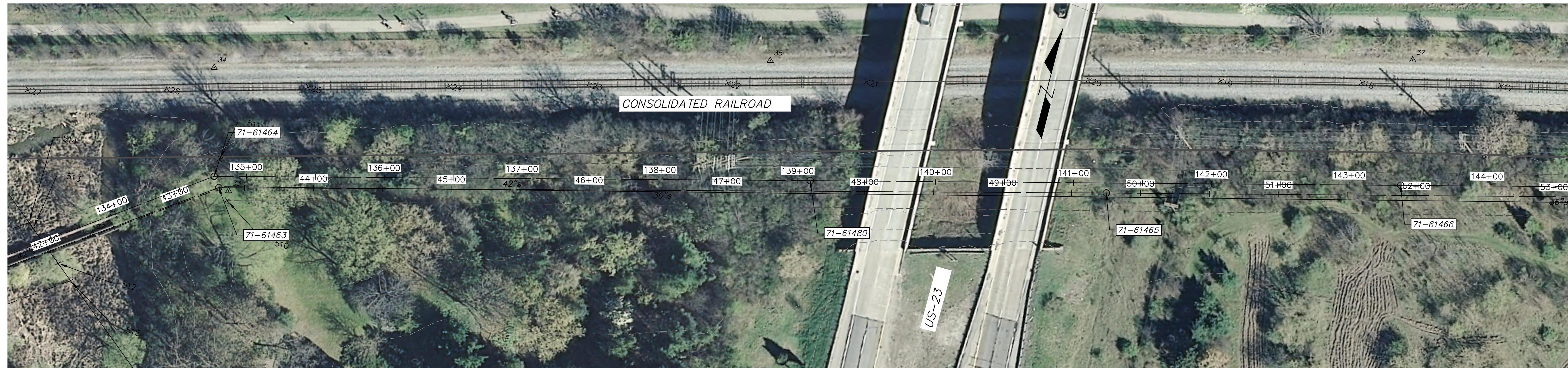
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
01	BID SET	4/20/2016	JKA	AMW
00	MOOT PERMIT SUBMITTAL	4/13/2016	JKA	AMW

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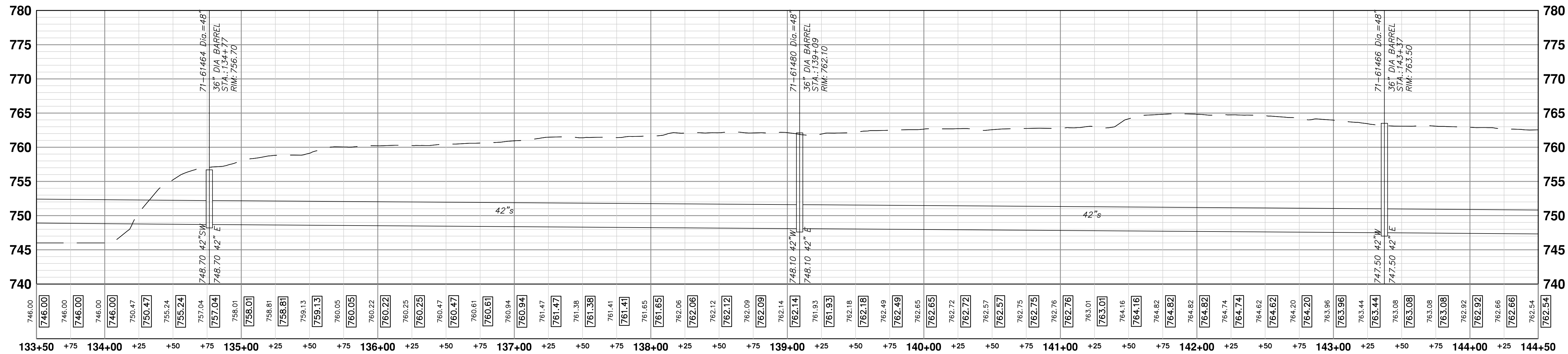
S:\Project Management\Design\2015031 Southside Interceptor\Plan Production\2015031PP.dwg Dwg Created: 23-Jul-15 - a2 standard bw.stb - Plot Date: 20-Apr-16

MATCH STA 133+50 (42") OR STA 42+00 (36") SHEET PP4

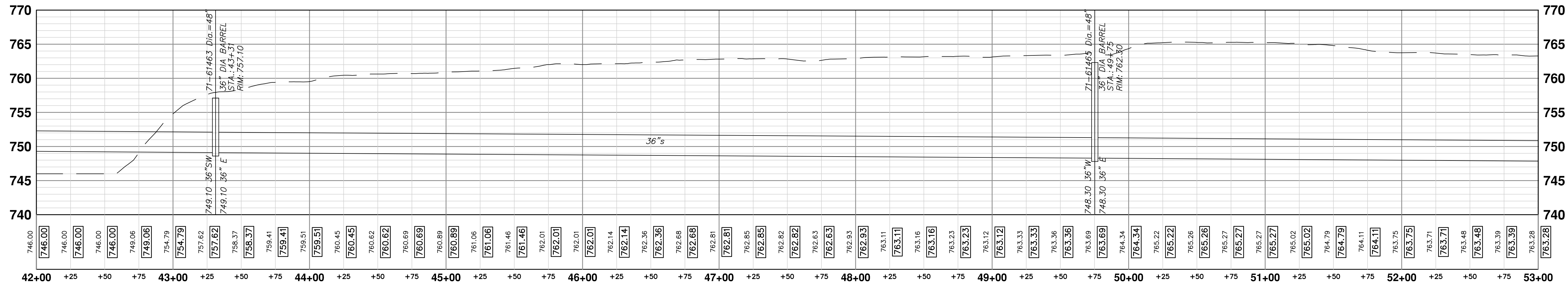


MATCH STA 144+50 (42") OR STA 53+00 (36") SHEET PP6

EX 42 SEWER



EX 36IN SEWER



01	BID SET	4/20/2016	JKA	AMW
00	MOOT PERMIT SUBMITTAL	4/13/2016	JKA	AMW
	DESCRIPTION	DATE	DRAWN	CHECKED
REV.				

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
SOUTHSIDE INTERCEPTOR SEWER LINING PH III
PLAN AND PROFILE
US23 TO DECO CT

SCALE PLAN: 1" = 40'
PROFILE: 1" = 8'

DRAWING No.
2015031-11

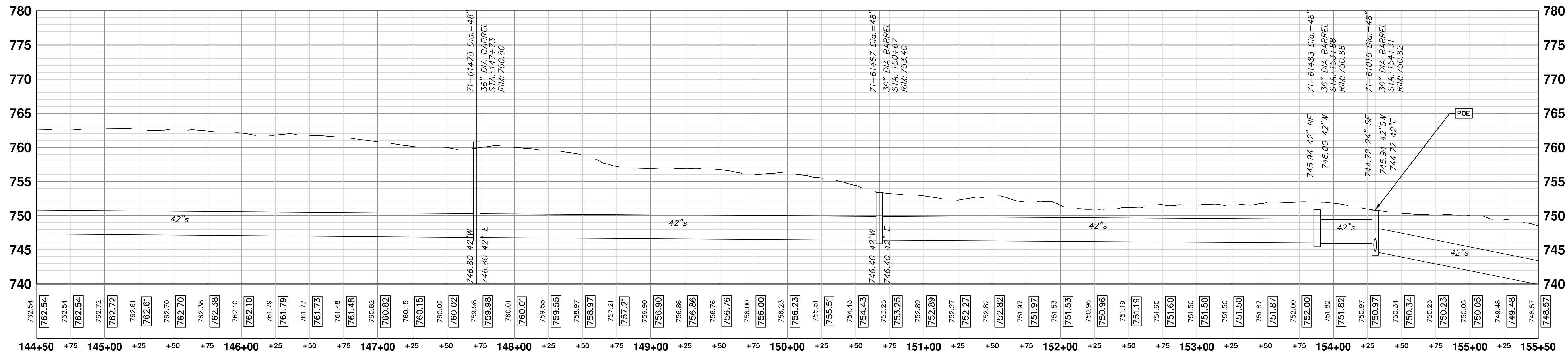
S:\Project Management\Design\2015031 Southside Interceptor\Plan Production\2015031PP.dwg Dwg Created: 23-Jul-15 - a2 standard bw.stb - Plot Date: 20-Apr-16

MATCH STA 144+50 (42") OR STA 53+00 (36") SHEET PP 5

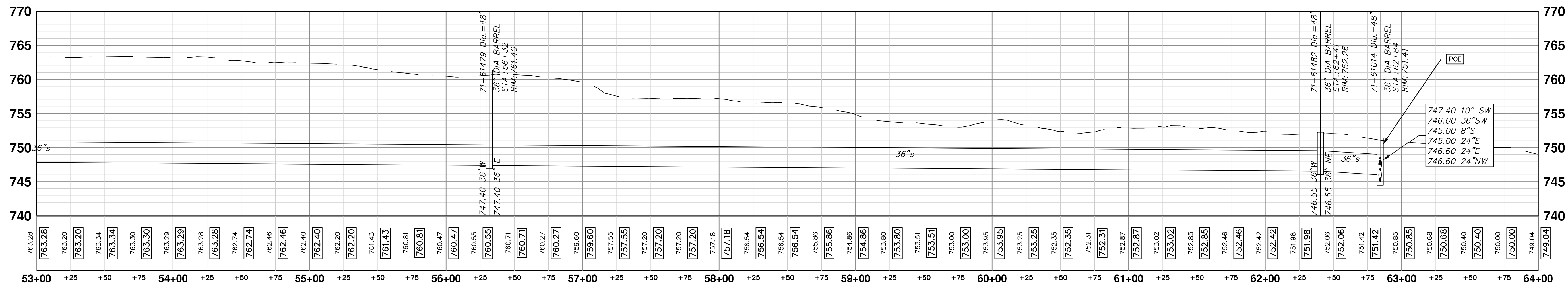


POE STA 154+31 (42") OR STA 62+84 (36")

EX 42 SEWER



EX 36IN SEWER



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
SOUTHSIDE INTERCEPTOR SEWER LINING PH III
PLAN AND PROFILE
DECO ST TOP POE

SCALE PLAN: 1" = 40'
PROFILE: 1" = 8'

DRAWING NO. 2015031-12
SHEET NO. 12 OF 12

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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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