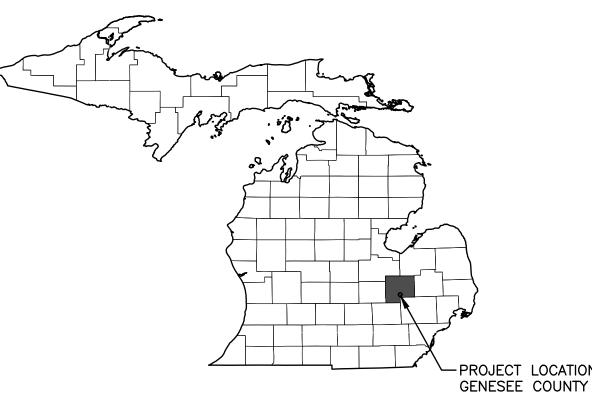


THE DESIGN OF THIS ROAD IS BASED ON SECTION C 4R OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION LOCAL AGENCY PROGRAM GUIDELINES FOR GEOMETRICS, 2017 EDITION. THE CONSTRUCTION OF THIS ROAD SHALL BE PER THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2012 EDITION, AS AMENDED AND ANY SUPPLEMENTAL SPECIFICATIONS ISSUED IN THE PROJECT PROPOSAL. THE PLACEMENT OF PAVEMENT MARKINGS AND SIGNS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2011 EDITION, AS AMENDED AND THE AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, 2012



KEY MAP

NOT TO SCALE

GENERAL SHEETS	SHEET NO.
COVER SHEET	1
PROJECT INFORMATION AND MISCELLANEOUS QUANTITIES	2
LEGEND	3
GENERAL NOTES	4
CITY OF FLINT NOTE SHEET	5
DETAILS	6-9
TYPICAL SECTIONS	10-19
ALIGNMENT SHEETS	20-24
MAINTENANCE OF TRAFFIC SHEETS	25-38
DUPONT STREET NORTH — REMOVAL, CONSTRUCTION AND WATER MAIN PLAN & PROFILE SHEETS	39-59
DUPONT STREET SOUTH — REMOVAL, CONSTRUCTION AND WATER MAIN PLAN & PROFILE SHEETS	60-94
ATHERTON ROAD — REMOVAL, CONSTRUCTION AND WATER MAIN PLAN & PROFILE SHEETS	95–160
DETAILED INTERSECTION GRADES	161-184
PAVEMENT MARKING AND SIGNING SHEETS	185-203
SIGN SPECIAL DETAILS	204
TRAFFIC SIGNAL SHEETS	205-234
ATHERTON ROAD BRIDGE OVER CARMAN CREEK	235-254
SOIL BORINGS SHEETS	255-263

CONTRACT FOR: 5.0 MILES OF HMA ROAD RECONSTRUCTION WITH CONCRETE CURE AND GUTTER, INCLUDING WATER MAIN REPLACEMENT, STORM SEWER IMPROVEMENTS ADA COMPLIANT RAMP IMPROVEMENTS, TRAFFIC SIGNAL MODERNIZATION, BRIDGE RECONSTRUCTION, PAVEMENT MARKINGS AND RESTORATION.

FINAL PLANS 4/19/19

COF1065.01F



555 S. Saginaw Street, Suite 201 Flint, MI 48502 810.235.2555 www.wadetrim.com





JEREMY SCHROT, P.E., REG. NO. 6201059414

TRAFFIC DATA				
	DUPONT SOUTH	DUPONT NORTH	ATHERTON RD	
POSTED SPEED	25/30/35 MPH	35 MPH	35/40 MPH	
DESIGN SPEED	30/35 MPH	35 MPH	40 MPH	
AVERAGE DAILY TRAFFIC (2018)	5901	7205	10557	
% COMMERCIAL VEHICLES (2018)	3.0%	3.0%	3.0%	
GROWTH FACTOR	1.0%	1.0%	1.0%	
AVERAGE DAILY TRAFFIC (2038)	7200	8790	12880	
% COMMERCIAL VEHICLES (2038)	3.0%	3.0%	3.0%	

MDOT ROAD & BRIDGE STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR IN THE PLANS THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARDS GIVEN BELOW, OPPOSITE EACH ITEM, UNLESS OTHERWISE INDICATED. * R−1−G DRAINAGE STRUCTURES R-7-FCOVER B R-15-F COVER K **★** R-28-J SIDEWALK RAMP AND DETECTABLE WARNING DETAILS R-29-I DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALK R-30-G CONCRETE CURB AND CONCRETE CURB & GUTTER LOCATION OF TRANSVERSE JOINTS IN PLAIN CONCRETE PAVEMENT R-43-I R-44-F CONCRETE PAVEMENT REPAIR * R−45−J PAVEMENT REINFORCEMENT FOR BRIDGE APPROACH * R−62−H GUARDRAIL APPROACH TERMINAL TYPE 2M GUARDRAIL ANCHORAGE, BRIDGE, DETAILS **★** R-67-G R-80-E GRANULAR BLANKET, UNDERDRAINS, OUTLET ENDINGS FOR UNDERDRAINS, AND SEWER BULKHEADS R-82-D BEDDING AND FILLING AROUND PIPE CULVERTS R-83-C UTILITY TRENCHES R-96-E SOIL EROSION & SEDIMENTATION CONTROL MEASURES R-100-H SEEDING AND TREE PLANTING BRIDGE RAILING, AESTHETIC PARAPET TUBE B-25-K MOLDING, BEVEL, LIGHT STANDARD ANCHOR BOLT ASSEMBLY B-103-E AND NAME PLATE DETAILS * MDOT SPECIAL DETAILS - LOCATED IN PROPOSAL

MDOT TRAFFIC AND SAFETY STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR IN THE PLANS THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARDS GIVEN BELOW, OPPOSITE EACH ITEM, UNLESS OTHERWISE INDICATED.

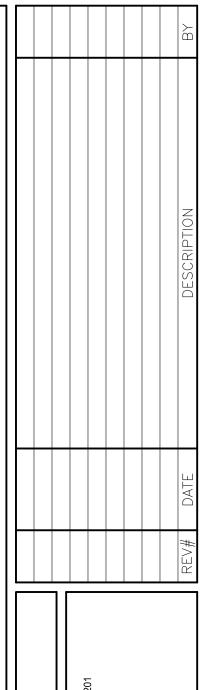
PAVE-900-F PAVEMENT ARROW AND MESSAGE DETAILS PAVE-945-C INTERSECTION, STOP BAR, AND CROSSWALK MARKINGS **★** WZD−100−A GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS * WZD−125−E TEMPORARY TRAFFIC CONTROL DEVICES * SIG-010-A SPAN WIRE TS ON STEEL AND WOOD POLES * SIG-020-B 6 ANCHOR BOLT STRAIN POLE AND FOUNDATION * SIG−050−A WOOD POLE GUYS AND SETTING DEPTH ★ SIG-070-A PEDESTAL FOUNDATIONS * SIG-110-A BASE MOUNTED TS CONTROLLER CABINET/FOUNDATIONS SECONDARY SERVICE/DISCONNECT FOR WOOD POLES **★** SIG-200-A * SIG-230-A COLOR CODE WIRING/EQUIPMENT GROUNDING ★ SIG-240-A HANDHOLE- PRECAST, POLYMER CONCRETE CONDUIT (DIRECT BURIAL/ENCASED) * SIG−250−A SPAN WIRE MOUNTED TS BRACKET ASSEMBLY * SIG−300−A **★** SIG-302-A BRACKETING FOR 5-SECTION HEADS TRAFFIC SIGNAL BACKPLATES * SIG-304-A **★** SIG-305-A SPAN WIRE TETHER DETAILS PEDESTAL MOUNTED SIGNAL DISPLAYS **★** SIG-330-A PEDESTAL MOUNTING FOR SIGNALS * SIG-331-A POLE MOUNTED SIGNAL DISPLAYS * SIG-340-A POLE MOUNTING DETAILS FOR SIGNALS * SIG-341-A BACK BRACKET SIGNAL DISPLAYS PEDESTRIAN PUSHBUTTON DETAILS * SIG−342−A * SIG-400-A TRAFFIC LOOPS * SIG-410-A

* MDOT SPECIAL DETAILS - LOCATED IN PROPOSAL

<u>UTILITIES & MUNICIPALITIES</u>

TELEPHONE AT&T ENGINEERING 54 NORTH MILL STREET, P.O. BOX 32 PONTIAC, MICHIGAN 48342 CONTACT: JEFF HEATH PHONE: 313.263.9939	CITY OF FLINT 1101 SOUTH SAGINAW STREET TRANSPORTATION (SOUTH) BUILDING FLINT, MI 48502 CONTACT: KAY MUHAMMAD, DIRECTOR PHONE: 810.766.7165 2ND CONTACT: DAUGHTERY JOHNSON
TELECOM COMLINK 1515 TURF LANE EAST LANSING, MI 48823 CONTACT: ZACK BOLLINGER PHONE: 517.742.4020	CITY OF FLINT WATER SERVICE CENTER 3310 EAST COURT STREET FLINT, MICHIGAN 48506 CONTACT: ROB BINCSIK PHONE: 810.766.7202
ELECTRIC CONSUMERS ENERGY — ELECTRIC 3201 EAST COURT STREET FLINT, MICHIGAN 48501 CONTACT: TRACY MAHAR PHONE: 810.760.3506	CITY OF FLINT 1101 SOUTH SAGINAW STREET TRANSPORTATION (SOUTH) BUILDING FLINT, MI 48502 CONTACT: ROD McGAHA PHONE: 810.766.7135
GAS CONSUMERS ENERGY 3201 EAST COURT STREET FLINT, MICHIGAN 48501 CONTACT: MATT COX PHONE: 810.760.3486	CITY OF FLINT TRAFFIC ENGINEERING 702 WEST 12TH STREET FLINT, MI 48502 CONTACT: BETTY WIDEMAN PHONE: 810.766.7350
BUS ROUTES FLINT COMMUNITY SCHOOLS 923 EAST KEARSLEY STREET FLINT, MI 48503 CONTACT: LARRY WATKINS, SUPERINTENDENT PHONE: 810.760.1249	BUS ROUTES MASS TRANSPORTATION AUTHORITY (MTA) 1401 SOUTH DORT HIGHWAY FLINT, MI 48503 CONTACT: EDGAR BENNING PHONE: 810.767.6950
TELECOM SIGMA NETWORK SERVICES 27096 OAKMEAD DRIVE PERRYSBURG, OH 43551 CONTACT: NICK STAMPER PHONE: 419.874.9262 EXT. 208	TELECOM US SIGNAL CONTACT: KEITH VANDER PLOEG PHONE: 616.295.0868
TELECOM WINDSTREAM CONTACT: DAVID ACKERMAN PHONE: 800.289.1901	

MISCELLANEOUS QUANTITIES WHERE DIRECTED I	İ				<u> </u>
	JN 200906	JN 200906	JN 201292	JN 201292	
		CAT 0003			
TEM					LIAUT
TEM	QUANTITY	QUANTITY	·	QUANTITY	UNIT
Mobilization, Max	0.865		0.135		LS
Sidewalk, Rem	100		100		SYD
Exploratory Investigation, Vertical	270		310		FT
Non Haz Contaminated Material Handling and Disposal, LM	70		1000		CYD
Embankment, CIP	10		10		CYD
Excavation, Earth	100		100		CYD
Subgrade Undercutting, Type II	130		220		CYD
Subbase, CIP	1566		2813		CYD
Curb and Gutter, Conc, Det F4 Sidewalk, Conc, 4 inch	50		100 150		FT
Hand Patching	100		10		SFT TON
Pavt Mrkg, Longit, 6 inch or Less Width, Rem	1300		300		FT
HMA, 3E1	100		100		TON
Dr Structure, Rem	2		2		EA
Sewer, Rem, Less than 24 inch	50		50		FT
Sewer Bulkhead, 12 inch	5		7		EA
Sewer, CL A, 12 inch, Tr Det B	50		50		EA
Sewer, CL E, 12 inch, Tr Det B	10		10		FT
Sewer Tap, 12 inch	10		10		EA
Video Taping Sewer and Culv Pipe	2000		3000		FT
Dr Structure, 24 inch dia	2		3		EA
Dr Structure, 48 inch dia	2		3		EA
Dr Structure Cover, Adj, Case 1	2		3		EA
Dr Structure, Add Depth of 48 inch dia, 8 foot to 15 foot	15		30		FT
Dr Structure Cleaning	40		50		EA
Gate Valve and Box, 8 inch, Modified		1	· · · · · · · · · · · · · · · · · · ·	1	EA
Gate Valve and Box, 24 inch, Modified		1		1	EA
Gate Valve and Box, 16 inch, Modified				1	EA
Hydrant Assembly, SD-1W		1		1	EA
Hydrant Extension		10		10	FT
Hydrant, Rem, Modified		1		1	EA
Water Main Bedding and Backfill, SD-7W		200		300	FT
Water Main, 8 inch, Open Cut		100		100	FT
Water Main, 16 inch, Open Cut				100	FT
Water Main, 24 inch, Open Cut		100		100	FT
In Line Stop, 6 inch		15		15	EA
In Line Stop, 8 inch		10		10	EA
In Line Stop, 12 inch		4		4	EA
In Line Stop, 16 inch		2		4	EA
Live Tap, 6 inch by 8 inch		2		2	EA
Live Tap, 8 inch by 16 inch		2		2	EA
Live Tap, 10 inch by 24 inch		2		2	EA
Live Tap, 12 inch by 16 inch		_		2	EA
Live Tap, 12 inch by 24 inch		2		2	EA
Live Tap, 16 inch by 24 inch		_		2	EA
Water Serv, Retire	1500	5	5000	5	EA ON (P
Maintenance Gravel, LM	4500		5000		CYD
Barricade, Type III, High Intensity, Lighted, Furn			33		EA FA
Barricade, Type III, High Intensity, Lighted, Oper			31		EA EA
Pedestrian Type II Barricade, Temp			59		EA EA
Lighted Arrow, Type C, Furn Lighted Arrow, Type C, Oper			4		EA EA
Minor Traf Devices	0.65		4 0.35		EA LS
Plastic Drum, High Intensity, Furn	0.00		388		EA
Plastic Drum, High Intensity, Oper			388		EA EA
Sign Cover			11		EA
Sign, Portable, Changeable Message, NTCIP—Compliant, Furn			2		EA
Sign, Portable, Changeable Message, NTCIP—Compliant, Oper			2		EA
Sign, Type B, Temp, Prismatic, Special, Furn			1979		SFT
Sign, Type B, Temp, Prismatic, Special, Oper			1798		SFT
Sign, Type B, Temp, Prismatic, Furn			4505		SFT
Sign, Type B, Temp, Prismatic, Oper			4096		SFT
Traf Regulator Control	0.65		0.35		LS
Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, White, Temp	3.33		44500		FT
Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, Yellow, Temp			58630		FT
Rem Spec Mrkg	100		550		SFT
Conc Barrier, Temp, Limited Deflection, Det 2, Furn			100		FT
Conc Barrier, Temp, Limited Deflection, Det 2, Oper			100		FT
Erosion Control, Inlet Protection, Fabric Drop	130		242		EA
Erosion Control, Inlet Protection, Sediment Trap	20		98		EA
Erosion Control, Silt Fence	10000		15000		FT
Monument Preservation	2		2		EA
Protect Corners	10		10		EA
Monument Box Adjust	2		2		EA
Pavt Mrkg, (binder), For On—Street Parking, 4 inch, White		650			FT





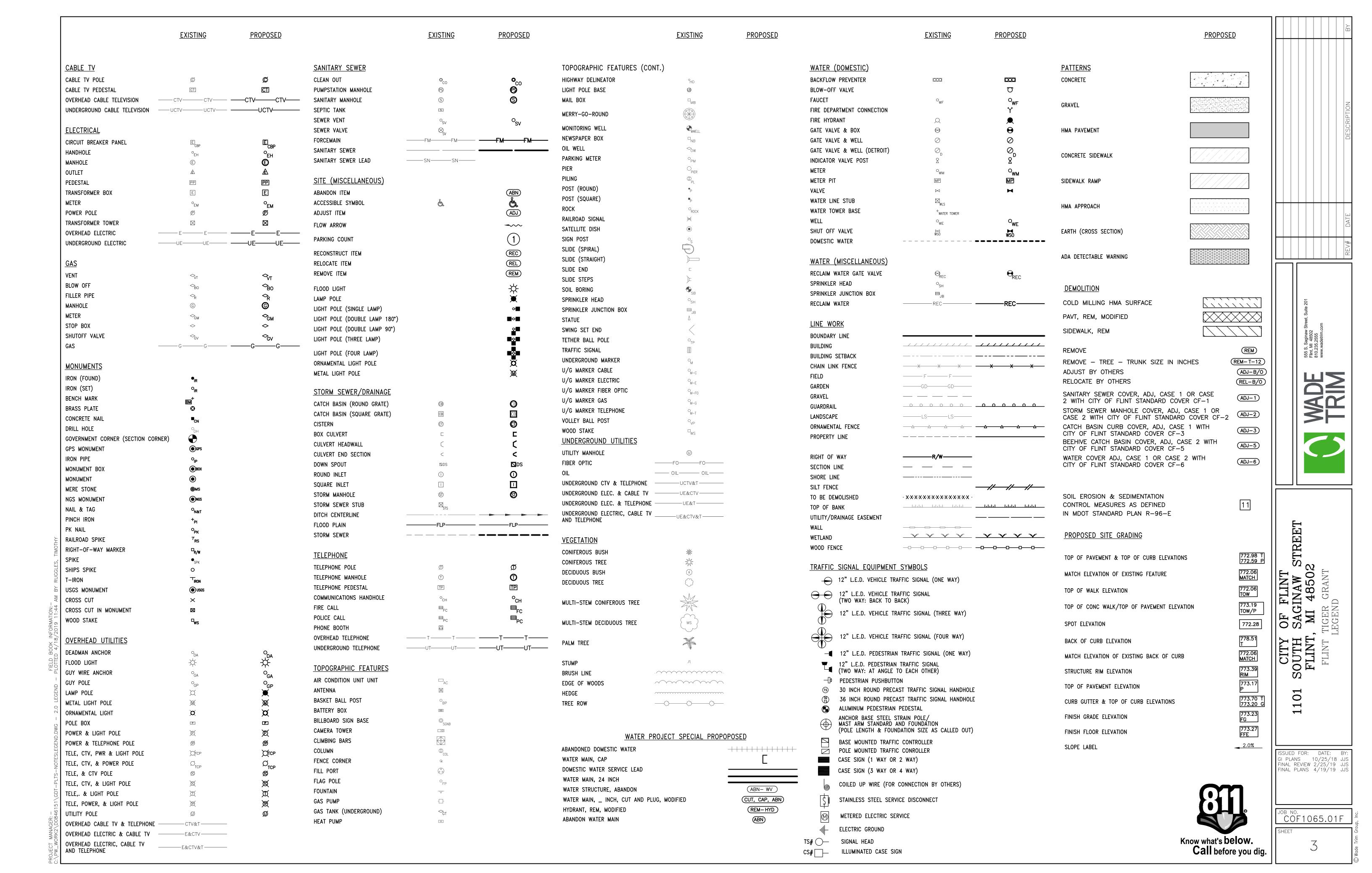
OF FLINT
SAGINAW STREET
MI 48502
IGER GRANT
INFORMATION

1101 SOU FI

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

Know what's below.
Call before you dig.

COF1065.01F



GENERAL PLAN NOTES

- 1. THE CONTRACTOR SHALL CONTROL NOISE, CARRY OUT A PROGRAM OF DUST CONTROL AND SHALL ALLOW NO ON-SITE BURNING, WITHOUT APPROVAL FROM THE LOCAL FIRE DEPARTMENT.
- 2. ALL WORK NECESSARY TO COMPLETE THIS PROJECT SHALL CONFORM TO ALL RELATED CITY CODES AND ORDINANCES.
- 3. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE GENESEE COUNTY DRAIN COMMISSIONER, DIVISION OF SURFACE WATER MANAGEMENT FOR SOIL EROSION & SEDIMENTATION CONTROL. CONTACT PHONE NUMBER IS 810.732.1590.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PROPERLY IDENTIFIED EXISTING WATER MAINS AND/OR EXISTING SEWERS DURING THE CONSTRUCTION OF THIS PROJECT.
- 5. MAINTENANCE "GRAVEL, LM" SHALL BE PLACED AS DIRECTED TO MAINTAIN ACCESS TO EXISTING DRIVEWAYS AS
- 6. EARTHWORK QUANTITIES ARE COMPUTED BY THE AVERAGE END AREA METHOD, BASED UPON GROUND SURVEY INFORMATION
- 7. THE CONTRACTOR SHALL NOT PARK ANY VEHICLES OR STORE ANY EQUIPMENT ON PUBLIC RECREATIONAL PROPERTY. ACCESS TO THE RECREATIONAL PROPERTIES MUST BE MAINTAINED AT ALL TIMES. NON—COMPLIANCE, EVEN WITHOUT THE KNOWLEDGE AND APPROVAL OF MDOT PERSONNEL, CAN RESULT IN PENALTIES UP TO AND INCLUDING TERMINATION OF THE CONSTRUCTION CONTRACTOR AND LOSS OF FEDERAL FUNDING FOR THE PROJECT. SHOULD THERE BE ANY QUESTIONS REGARDING THIS REQUIREMENT, CONTACT THE MDOT ENVIRONMENTAL SECTION AT 517.373.8350.
- 8. OWNERS OF EXISTING LAWN SPRINKLER SYSTEMS AND/OR LANDSCAPING SHALL BE NOTIFIED (IN WRITING WITH A COPY SENT TO THE ENGINEER) BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF ANY WORK TO BE DONE THAT WILL AFFECT THOSE SYSTEMS AND/OR LANDSCAPING. IF THE PROPERTY OWNER FAILS TO RELOCATE THE LAWN SPRINKLER SYSTEM PRIOR TO THE CONTRACTOR BEGINNING WORK, AND IF THE CONTRACTOR CUTS THE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR SHALL CAP THE SYSTEM PIPE AND WITNESS THE LOCATION OF THE CAP WITH A WOODEN STAKE FOR THE PROPERTY OWNER'S USE. THE CONTRACTOR SHALL PLACE THE SALVAGED SPRINKLER HEADS ON THE PROPERTY OWNER'S PROPERTY. IF THE PROPERTY OWNER FAILS TO RELOCATE THE LANDSCAPING PRIOR TO THE CONTRACTOR BEGINNING WORK, THE CONTRACTOR SHALL CAREFULLY SALVAGE THE LANDSCAPING ITEMS AND STOCKPILE THEM ON THE PROPERTY OWNER'S PROPERTY FOR THE PROPERTY OWNER. ANY OTHER MODIFICATION TO THE LAWN SPRINKLER SYSTEMS AND/OR LANDSCAPING, IS THE RESPONSIBILITY OF THE PROPERTY OWNER AND IS NOT PART OF THIS CONTRACT. THIS WORK IS INCLUDED IN OTHER ITEMS OF THE PROJECT.
- 9. THE DESIGNATION FOR THE PERMANENT TURF SEED MIXTURE ON THIS PROJECT SHALL BE "THM".
- 10. PROPOSED RIM ELEVATIONS SHOWN ON THESE PLANS AT CATCH BASINS WITH TYPE K COVERS IS AT THE EDGE OF PAVEMENT. PROPOSED RIM ELEVATIONS SHOWN ON STRUCTURES WITH TYPE B COVERS IS AT THE CENTER OF COVER.

SOIL EROSION & SEDIMENTATION CONTROL NOTES

- 1. CONTRACTOR SHALL PLACE ALL SOIL EROSION & SEDIMENTATION CONTROL MEASURES AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE MICHIGAN UNIFIED KEYING SYSTEM.
- 2. CONSTRUCTION OPERATIONS SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING AND/OR GRADING OPERATIONS.
- 3. SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
- 4. CLEANUP WILL BE DONE IN A MANNER TO ENSURE THAT EROSION CONTROL MEASURES ARE NOT DISTURBED.
- 5. THE PROJECT WILL CONTINUALLY BE INSPECTED FOR SOIL EROSION AND SEDIMENTATION CONTROL COMPLIANCE. DEFICIENCIES WILL BE CORRECTED BY THE CONTRACTOR WITHIN 24 HOURS.
- 6. TEMPORARY EROSION CONTROL MEASURES SHALL BE COMPLETELY REMOVED BY THE CONTRACTOR UPON ESTABLISHMENT OF PERMANENT CONTROL MEASURES AND AFTER APPROVAL FROM AGENCY HAVING JURISDICTION HAS BEEN OBTAINED..

CONSTRUCTION SEQUENCE

1. FIVE (5) WORKING DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT IN WRITING A CONSTRUCTION SEQUENCING PLAN FOR ENGINEER APPROVAL. SEQUENCING PLAN SHALL INCLUDE COORDINATION OF PROPOSED UTILITIES WITH ABANDONING OR REMOVAL OF EXISTING UTILITIES. CONSTRUCTION SEQUENCING SHALL ALSO INCLUDE ROAD REMOVAL AND RECONSTRUCTION IN RELATION TO UTILITY PLACEMENT, ROAD CLOSURES AND DETOURING.

SIGNING NOTES

- 1. ALL SIGNS SHALL BE INSTALLED, REMOVED, AND/OR SALVAGED ACCORDING TO THE 2011 EDITION OF "MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE 2012 EDITION OF MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) "STANDARD SPECIFICATIONS FOR CONSTRUCTION." ALL SIGNS ON THE PLANS OR IN THE LOG THAT DO NOT HAVE A RECOMMENDATION ARE TO BE RETAINED.
- 2. THE SIGNING SHEETS SUBMITTED WITH THE PROPOSAL ARE NOT TO SCALE. WHERE PROPOSED ON PLAN SHEETS, THE SIGNS AND STRUCTURES SHALL BE FABRICATED IN ACCORDANCE TO TYPICAL PLANS, STANDARDS, AND/OR DETAILS AT LOCATIONS DESCRIBED.
- 3. HANDLING AND INSTALLATION OF ALL SIGNS SHALL CONFORM WITH THE SHEETING MANUFACTURER'S SPECIFICATIONS AND GUIDELINES. SPLICE SHEETING USED FOR TYPE 1 SIGNS WITH A 3" OVERLAP. SIGNS THAT HAVE WRINKLED OR TWISTED SHEETING MAY BE REJECTED.

SIGNALS

1. MAINTAINING AGENCY CONTACT INFORMATION CITY OF FLINT SIGNAL SHOP: 810.766.7350

RESPONSIBLE FOR LOCATING.

- 2. NOTIFICATIONS TO MAINTAINING AGENCIES
 CONTACT THE CITY OF FLINT SEVEN WORKING DAYS PRIOR TO START OF CONSTRUCTION AND SEVEN
 WORKING DAYS PRIOR TO SIGNAL ACTIVATION.
- 3. CABINET SETUP AND CONTROLLER TIMING
 CONTRACTOR SHALL DELIVER THE PROPOSED T.S. CABINET AND CONTROLLER TO SHERRY TOLBERT
 AT THE CITY OF FLINT SIGNAL SHOP (702 W TWELFTH ST) FOR SET UP AND TIMING. CONTRACTOR
 SHALL PICKUP CABINET FROM THE CITY OF FLINT SIGNAL SHOP WHEN READY FOR INSTALLATION.
- 4. ELECTRICAL SERVICE INSPECTION FEES
 SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND WILL NOT BE PAID FOR SEPARATELY.
- 5. FACILITIES NOT ON PLANS EXISTING O.H. & T.S. FACILITIES ARE NOT NECESSARILY SHOWN ON PLANS. CONTRACTOR IS
- 6. EXISTING STREET SIGNS
 ALL TRAFFIC STREET SIGNS SUCH AS "NO PARKING", "NO STANDING", ETC. SHALL BE TRANSFERRED
 FROM OLD STD. OR POLE TO NEW STD. OR POLE AT SAME LOCATION OR IN CLOSE PROXIMITY BY
 THE CONTRACTOR. SIGN TRANSFERS WILL NOT BE PAID FOR SEPARATELY BUT INCLUDED IN
 APPLICABLE PAY ITEMS.
- 7. CONTINUOUS TRAFFIC SIGNAL OPERATION
 REMOVAL OF EXISTING T.S. SHALL NOT BEGIN UNTIL SET UP AND TIMING OF PROPOSED T.S. IS
 COMPLETED. (SEE NOTE 3 ABOVE) PROPOSED T.S. SHALL THEN BE PUT INTO OPERATION AT TIME
 OF REMOVAL OF EXISTING T.S. FACILITIES, CONTRACTOR SHALL NOTIFY THE CITY OF FLINT IF UNABLE
 TO MAINTAIN T.S. IN AN OPERABLE CONDITION AT ALL TIMES.
- 8. WOOD POLE INSTALLATION
 INSTALL WOOD POLES SO AS NOT TO INTERFERE WITH TRAFFIC OR FUTURE CONSTRUCTION STAGES.
- 9. UNDERGROUND UTILITY SEPARATION
 A MINIMUM CLEARANCE OF 3'-6" HORIZONTAL & 1'-0" VERTICAL MUST BE MAINTAINED BETWEEN PROPOSED FACILITIES & EXISTING UNDERGROUND WATER UTILITIES.
- 10. PLAN DEVIATIONS DURING CONSTRUCTION

 NO CHANGES FROM PLANS IN LOCATION OF SUPPORTING STRUCTURES SIGNAL HEAD PLACEMENT OR
 TRAFFIC SIGNAL EQUIPMENT WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE CITY OF FLINT.
- 11. INNERDUCT
 CONTRACTOR MUST INSTALL A CONTINUOUS FLEXIBLE NON—METALLIC TUBING (INNERDUCT) FOR LOW
 VOLTAGE COMMUNICATION TYPE CABLE FROM THE DEVICE TO THE CONTROLLER CABINET. INNERDUCT
 IS NOT REQUIRED IF COMMUNICATION CABLE IS 600V RATED.
- 12. SIGNAL HEAD LANDING POINT
 ENSURE EACH TRAFFIC SIGNAL HEAD ASSEMBLY HAS ITS OWN LANDING POINT WITH ALL NEUTRALS
 CONNECTED TOGETHER WITH A METAL—TYPE JUMPER.
- 13. POLE BAND CLAMP ACCEPTANCE
 THE CURRENT BASIS OF ACCEPTANCE FOR THIS MATERIAL IS NOW PART OF THE QPL (QUALIFIED PRODUCTS LIST) THIS CAN BE FOUND IN THE MATERIALS ACCEPTANCE REQUIREMENTS TABLE,
 PUBLISHED IN THE MANUFACTURER QUALITY ASSURANCE PROGRAM AND REPEATED FOR CONVENIENCE
- 14. SIGNAL EQUIPMENT DISPOSAL
 DISPOSAL OF ALL TRAFFIC SIGNAL EQUIPMENT IS INCLUDED IN THE REMOVAL
 PAY ITEMS AND SHALL ALSO INCLUDE THE FOLLOWING:
- -NOTIFICATION TO THE CITY OF FLINT THAT TRAFFIC SIGNAL EQUIPMENT IS BEING REMOVED.

 -ALLOW THE CITY OF FLINT 48 HOURS TO SALVAGE ANY EQUIPMENT.

 -PROPER DISPOSAL OF ANY EQUIPMENT CONTAINING ENVIRONMENTALLY SENSITIVE MATERIALS (MERCURY RELAY SWITCHES FOR EXAMPLE).

 -DISABLING OR DESTRUCTION OF ALL REMAINING EQUIPMENT TO THE SATISFACTION OF THE ENGINEER SUCH THAT IT CANNOT BE REUSED
- OR RESOLD.

 -PROPER DISPOSAL OF ALL REMAINING EQUIPMENT.

IN THE MATERIALS SOURCE GUIDE.

BRIDGE GENERAL NOTES

- 1. THE DESIGN OF THIS STRUCTURE IS BASED ON 1.2 TIMES THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATION HL-93 LOADING WITH THE EXCEPTION THAT THE DESIGN TANDEM PORTION OF THE HL-93 LOAD DEFINITION SHALL BE REPLACED BY A SINGLE 60 KIP AXLE LOAD BEFORE APPLICATION OF THIS 1.2 FACTOR. THE RESULTING LOAD IS DESIGNATED HL-93 MOD. LIVE LOAD PLUS DYNAMIC LOAD ALLOWANCE DEFLECTION DOES NOT EXCEED 1/800 OF SPAN LENGTH.
- 2. THE DESIGN OF THE DECK SLAB IS BASED UPON THE STRIP METHOD AS DEFINED IN THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATION.
- 3. EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS, OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED HEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE ACCORDING TO THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION 2012 EDITION.
- 4. THE REGULATED WASTE ACTIVITY IDENTIFICATION NUMBERS FOR THIS PROJECT ARE AS FOLLOWS:

CONTROL SECTION NUMBER

CS 25000 MID985580430

CONCRETE, GRADE T (SUBFOOTING/TREMIE)

5. THE DESIGN OF THE STRUCTURAL MEMBERS IS BASED ON MATERIAL OF THE FOLLOWING GRADES AND STRESSES:

f'c = 3,000 psi

CONCRETE, GRADE S2 (SUBSTRUCTURE) CONCRETE, GRADE D (SUPERSTRUCTURE) STEEL REINFORCEMENT STEEL REINFORCEMENT (STIRRUPS FOR 21" BOX BEAMS)	f c = 3,000 psi f'c = 4,000 psi fy = 60,000 psi fy = 40,000 psi
STRUCTURAL STEEL: AASHTO M270 GRADE 36 (BEAM SOLE PLATES) AASHTO M270 GRADE 50 (BEAM DIAPHRAGMS)	fy = 36,000 psi fy = 50,000 psi
PRESTRESSED CONCRETE PRESTRESSED CONCRETE AT RELEASE PRESTRESSING STRANDS	f'c = 7,000 psi f'ci = 6,000 psi f's = 270,000 psi

- 6. ALL EXPOSED CONCRETE CORNERS SHOWN SQUARE ON THE PLANS SHALL BE BEVELED WITH 1/2" TRIANGULAR MOLDINGS EXCEPT AS OTHERWISE NOTED.
- 7. THE EXISTING BRIDGE MAY CONTAIN LEAD BASED PAINT (LBP). PROPER REMOVAL AND DISPOSAL OF LBP SHALL BE INCLUDED IN THE PAY ITEM STRUCTURES, REM.
- 8. UNLESS OTHERWISE SHOWN ON THE PLANS PROVIDE MINIMUM CONCRETE CLEAR COVER FOR REINFORCEMENT ACCORDING TO THE FOLLOWING:

CONCRETE CAST AGAINST EARTH: 3 in PRESTRESSED BEAMS: 1 in ALL OTHER UNLESS SHOWN ON PLANS: 2 in

9. THE DESIGN OF THE FOUNDATION PILIING IS BASED ON MATERIAL OF THE FOLLOWING GRADES AND STRESSES:

AASHTO M270 GRADE 50 fy = 50,000 psi

- 10. THE EXISTING BRIDGE DECK SURFACE HAS AN HMA OVERLAY, HMA CAP OR HMA PATCHES. REMOVAL OF HMA AS A RESULT OF REMOVAL OF OTHER SUPERSTRUCTURE ITEMS SHALL BE INCLUDED IN THE REMOVAL OF THOSE ITEMS.
- 11. THIS PROJECT HAS BEEN EVALUATED USING THE FAA NOTICE CRITERIA TOOL FOR A TEMPORARY STRUCTURE HEIGHT OF 50 FEET ABOVE A GROUND LEVEL SITE ELEVATION OF 741 FEET WITH A DETERMINATION OF NO HAZARD AND NO PERMITS ARE REQUIRED.

REV# DATE DESCRIPTION

555 S. Saginaw Street, Suitr Flint, MI 48502 810.235.2555 www.wadetrim.com



CITY OF FLINT
OUTH SAGINAW STREE
FLINT, MI 48502
FLINT TIGER GRANT

ISSUED FOR: DATE: BY
GI PLANS 10/25/18 JJS
FINAL REVIEW 2/25/19 JJS
FINAL PLANS 4/19/19 JJS

JOB NO. COF1065.01F

SHEET 4

Know what's below.
Call before you dig.

GENERAL PLAN NOTES

- 1. FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 1.800.482.7171 OR 811 OR GO TO WWW.MISSDIG.ORG A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH DRIVEN SIGN LOCATION AND 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.
- 2. IT IS THE INTENT THAT ALL GOVERNMENT CORNERS ON THIS PROJECT BE PRESERVED AND THAT, WHERE NECESSARY. MONUMENT BOXES BE PLACED OR ADJUSTED. WHETHER SHOWN OR NOT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING STAKES AND/OR FLAGS AT EACH PROPERTY IRON TO ENSURE THAT THEY ARE NOT REMOVED OR DISPLACED DURING CONSTRUCTION OPERATIONS. IF PROPERTY IRONS ARE REMOVED OR DISPLACED DUE TO THE CONTRACTORS OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THOSE IRONS, WITH AN APPROVED LICENSED SURVEYOR REGISTERED IN THE STATE OF MICHIGAN, AT HIS OWN COST.
- 3. CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO: EXISTING UTILITIES, WATERMAINS, AND EXISTING SANITARY OR STORM SEWERS; AND MARKED WATER, STORM AND SANITARY LEADS DURING CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF ANY CONFLICTS BEFORE PLACING PROPOSED UTILITIES OR OTHER EXCAVATIONS WHICH ARE FOUND TO BE IN CONFLICT. LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES IN THE PLANS ARE SHOWN BASED ON THE BEST INFORMATION MADE AVAILABLE TO THE ENGINEER. THE ENGINEER MAKES NO REPRESENTATION AS TO THE ACCURACY OF LOCATIONS SHOWN FOR UTILITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY COORDINATION WITH UTILITY OWNERS AND TO LOCATE ALL UTILITIES (HORIZONTALLY AND VERTICALLY) INCLUDING SERVICE LEADS PRIOR TO PERFORMING WORK EFFECTING THOSE UTILITIES AND SERVICE LEADS (INCLUDING SERVICE LEADS TO PUBLIC WATER, STORM AND SANITARY SYSTEMS) AND TO PERFORM THE WORK IN A MANNER THAT DOES NOT HARM OR OBSTRUCT THE UTILITIES OR SERVICE LEADS. ALL COSTS TO PROTECT, REPAIR, OR TEMPORARILY BYPASS THEN RESTORE (TO THE SATISFACTION OF UTILITY OWNERS AND THE ENGINEER) UTILITIES AND SERVICE LEADS SHALL BE BORNE SOLELY BY THE CONTRACTOR.
- 4. CONTRACTOR IS RESPONSIBLE FOR METHODS TO PERFORM THE WORK EFFECTED BY EXISTING UTILITIES INCLUDING EXISTING PHONE COMPANY DUCT BANKS, CONDUITS, GAS LINES AND ALL OTHER UNDERGROUND STRUCTURES AND UTILITIES ENCOUNTERED. THE COSTS TO PERFORM THIS WORK WHICH MAY INCLUDE SHORING, FREE BORING, TUNNELING OR JACKING PIPE AND DEWATERING SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES OF DRAINAGE AND WATERMAIN PAY ITEMS.
- 5. THE SOIL BORING AND PAVEMENT CORE LOGS REPRESENT POINT INFORMATION. PRESENTATION OF THIS INFORMATION IN NO WAY INFERS THAT SUBSURFACE AND PAVEMENT CONDITIONS ARE THE SAME OTHER THAN THE EXACT LOCATION OF THE BORINGS AND CORES. REFER TO THE PLANS OR PROPOSAL FOR LOG OF BORINGS, IF PROVIDED.

SUBMITTAL OF THEIR BID SHALL BE CONSIDERED PRIMA FACIA EVIDENCE THAT BIDDERS (AND PROSPECTIVE SUB CONTRACTORS) HAVE PERFORMED SITE INVESTIGATIONS AND OTHERWISE INVESTIGATED THE EXISTING SURFACE AND SUBSURFACE CONDITIONS, INCLUDING REVIEW OF BORING LOGS WHICH MAY BE INCLUDED IN THE PLANS OR PROPOSAL, TO THE BIDDER'S SATISFACTION, AND HAS INCLUDED ALL COSTS RELATED TO SURFACE AND SUBSURFACE CONDITIONS IN THE CONTRACT UNIT PRICES OF THE CONTRACT PAY ITEMS. ADDITIONAL COST AND TIME DUE TO SURFACE OR SUBSURFACE CONDITIONS SHALL NOT BE CONSIDERED AS A BASIS OF CLAIMS BY THE CONTRACTOR FOR ADDITIONAL COMPENSATION OR CONTRACT TIME. ALL DEWATERING OF TRENCHES OR GRADE BY ANY MEANS SHALL BE CONSIDERED TO HAVE BEEN INCLUDED IN THE CONTRACT UNIT PRICES OF EFFECTED CONTRACT PAY ITEMS.

- 6. ELEVATIONS SHOWN ON THESE PLANS ARE FROM NAVD88 DATUM.
- 7. PRE-CAST STRUCTURES MAY BE UTILIZED AS APPROVED BY THE ENGINEER. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN PROPER HOLE ORIENTATION PRIOR TO ORDERING PRE-CAST STRUCTURE COMPONENTS. ALL COSTS TO REPLACE PRE-CAST STRUCTURE COMPONENTS THAT CAN NOT BE FIELD FIT SHALL BE BORNE SOLELY BY THE CONTRACTOR.
- 8. CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS FOR ANY NECESSARY ADJUSTMENTS TO THEIR UTILITIES CONSUMERS ENERGY POWER/LIGHT POLES AND AT&T UTILITY/LIGHT POLES TO BE RELOCATED BY UTILITY OWNERS ONLY. PRIVATELY OWNED PUBLIC UTILITIES (INCLUDING AT&T & CONSUMERS ENERGY) SPECIFIED FOR RELOCATION MAY OR MAY NOT BE RELOCATED PER PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS WORK WITH THE UTILITY COMPANY AND SCHEDULE HIS WORK IN ACCORDANCE WITH THE UTILITY COMPANY'S SCHEDULE. THE CONTRACTOR SHALL BID AND PLAN THE WORK ACCORDINGLY.
- 9. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO KEEP CONSTRUCTION DEBRIS FROM ENTERING ANY UTILITY STRUCTURE. CONSTRUCTION DEBRIS WHICH ENTERS ANY UTILITY STRUCTURE OR SPILLED ON THE NEW ROAD SHALL BE CLEANED UP (INCLUDING VACUUM TRUCK STRUCTURE CLEANOUT) BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- 10. SUBGRADE UNDERCUTTING WILL BE PAID FOR SEPARATELY. SUBGRADE UNDERCUTTING QUANTITIES SHOWN ON THESE PLANS OR IN THE PROPOSAL REPRESENT QUANTITIES FOR ESTIMATING PURPOSES ONLY. ACTUAL LIMITS OF SUBGRADE UNDERCUTTING WILL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION, IF REQUIRED. REMOVAL OF HMA AND CONCRETE DRIVES, REGARDLESS OF THICKNESS OR MATERIAL COMPOSITION, INCLUDING SAWCUTTING OR MILLING AS DIRECTED BY THE ENGINEER, SHALL BE INCLUDED IN PAY ITEM PAVT, REM, MODIFIED.

ALL EXCESS EXCAVATED MATERIALS SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR AT AN APPROVED LOCATION PROVIDED BY THE CONTRACTOR, WITH WRITTEN PERMISSION OF THE PROPERTY OWNER WHEN NOT OWNED BY THE CONTRACTOR.

- 11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR COORDINATION WITH CITY GARBAGE COLLECTION (CONTACT 810.577.8095). THIS ARRANGEMENT AND COORDINATION MAY REQUIRE EFFORT, TIME AND COSTS TO THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE THESE COSTS AND INCLUDE THEM IN HIS BID AND PROGRESS SCHEDULE. COORDINATION AND COSTS TO THE CONTRACTOR FOR GARBAGE COLLECTION SHALL NOT BE CONSIDERED AS A BASIS OF CLAIMS FOR ADDITION COMPENSATION OR EXTENSION OF CONTRACT TIME.
- 12. ALL INTERSECTIONS ARE TO BE CONSIDERED AS COMPLETE UNITS AND THEIR GRADES DETERMINED BEFORE CONSTRUCTION. CLOSURES OF INTERSECTIONS AND ANY TRAFFIC CLOSURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR TRAFFIC CONTROL COORDINATION (CONTACT MR. ROD McGAHA AT 810.766.7165. A MINIMUM OF THREE FULL WORKING DAYS PRIOR TO TRAFFIC DEVICE PLACEMENT. START AND END TIMES OF CLOSURES, SIGNS AND TRAFFIC CONTROL DEVICES PROPOSED, WITH DETOUR ROUTES AND TRAFFIC SHIFTS CLEARLY DEPICTED ON DETAIL DRAWINGS, SHALL BE SUBMITTED FOR REVIEW AND APPROVAL. NO SIGNS OR TRAFFIC DEVICES FOR THIS TRAFFIC CONTROL MAY BE PLACED WITHOUT WRITTEN APPROVAL. NOTIFICATION TO POLICE, EMERGENCY VEHICLES, PUBLIC BUSING AND OTHERS WILL BE BY THE CITY. COSTS TO THE CONTRACTOR FOR TRAFFIC CONTROL COORDINATION SHALL NOT BE CONSIDERED AS A BASIS OF CLAIMS FOR ADDITIONAL COMPENSATION OR EXTENSION OF CONTRACT TIME.
- 13. WHERE TREES WITHIN THE RIGHT-OF-WAY ARE NOT SPECIFIED FOR REMOVAL, IT IS INTENDED TO PROTECT THOSE TREES AND TO PERFORM THE WORK IN A MANNER WHICH PREVENTS DAMAGE TO THE TREES AND THEIR ROOTS. THE CONTRACTOR SHALL PROTECT TREES WITHIN THE RIGHT-OF-WAY NOT SPECIFIED FOR REMOVAL AND SHALL INCLUDE ALL COSTS TO PROTECT THESE TREES IN THE CONTRACT UNIT PRICES OF EFFECTED PAY ITEMS.
- 14. ALL REMOVED SIGNS AND POSTS SHALL REMAIN PROPERTY OF THE CITY, CONTRACTOR SHALL COORDINATE PICK UP OF ALL STOCKPILED SIGNS AND POSTS WITH CITY OF FLINT TRAFFIC ENGINEERING SUPERVISOR ROD MCGAHA.

WATER MAIN NOTES

- 1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY 72 HOURS PRIOR TO BEGINNING, THE CITY OF FLINT TRANSPORTATION DEPARTMENT, BETTY WIDEMAN AT (810) 766-7343 EXT. 2801, THE CITY ENGINEER, MARK ADAS AT (810) 766-7135 EXT. 2603, AND THE DEPARTMENT OF PUBLIC WORKS DIRECTOR, ROB BINCSIK AT (810) 766-7202. THE CONTRACTOR SHALL PROVIDE ALL THE DEPARTMENTS AND PERSONS MENTIONED ABOVE WITH AN ESTIMATED SCHEDULE OF TASKS WITH ASSOCIATED DATES IN WRITTEN FORM.
- 2. ALL MATERIALS AND CONSTRUCTION PROCEDURES SHALL COMPLY WITH THE CURRENT CITY OF FLINT STANDARD DETAILS & MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2012 EDITION. SEE SPECIAL PROVISION FOR WATER MAIN SPECIFICATIONS IN BID PROPOSAL.
- 3. HDPE PIPE MAY BE USED ONLY FOR DIRECTIONAL DRILL INSTALLATION. FOR ALL OTHER INSTALLATION METHODS ALL PUBLIC WATER MAIN SHALL BE CLASS 52 ZINC COATED DUCTILE IRON, CLASS 54 ZINC COATED DUCTILE IRON PIPE, OR C-900 POLYVINYL CHLORIDE PIPE AS DEFINED IN THE BID PROPOSAL. THE PIPE SHALL BE BELL AND SPIGOT OR MECHANICAL JOINT FOR FITTINGS FITTED WITH A RUBBER GASKET.
- 4. GATE VALVES SHALL BE MANUFACTURED FROM GRAY CAST IRON MEETING OR EXCEEDING AWWA C509. VALVES OUTSIDE PAVED AREAS WILL BE PLACED IN A 3 PIECE SCREW STYLE, GRAY IRON (ASTM A48, CLASS 30A) WITH COAL TAR ASPHALTIC DIP VALVE BOX (BIBBY OR SIMILAR APPROVED). VALVES IN PAVED AREAS SHALL BE PLACED IN A GATEWELL STRUCTURE. GATEWELL STRUCTURES SHALL HAVE DIAMETER AS SPECIFIED IN THE PLANS AND DETAIL SHEET.
- 5. CHECK VALVES SHALL BE MANUFACTURED FROM GRAY CAST IRON MEETING OR EXCEEDING ASTM A126 GRADE B. VALVES SHALL COMPLY WITH AWWA C508, LATEST VERSION. VALVES SHALL ALLOW FOR CLEAR WATERWAY OPENING. CLAPPER ARM SHALL BE MADE OF DUCTILE IRON CONFORMING TO ASTM A536 GRADE 65-45-12. THE DISC SHALL NOT CONTACT THE BODY WHEN THE VALVE IS IN THE FULL OPEN POSITION. CHECK VALVE SHAFTS ARE TO BE STAINLESS STEEL WITH CORROSION RESISTANT BEARINGS. CHECK VALVES TO BE AMERICAN FLOW CONTROL 50-SC SWING CHECK VALVE OR APPROVED EQUAL.
- 6. PRIOR TO REQUESTING A FINAL PRESSURE TEST, THE CONTRACTOR SHALL BE REQUIRED TO DO THE FOLLOWING ITEMS:
 - CONDUCT A PRELIMINARY PRESSURE TEST ON THE SYSTEM.
 - OBTAIN TWO (2) CONSECUTIVE SAFE BACTERIOLOGICAL SAMPLES, OBTAINED AT LEAST 24 HOURS APART FOR EACH RUN OF PIPE, NOT OT EXCEED 1,200 FEET.
 - PROVIDE ALL RECORDS REFLECTING ACTUAL CONSTRUCTION CONDITIONS AND AS MEASURED QUANTITIES AND LOCATIONS.
 - PROVIDE PASSING DENSITY CHECKS ON COMPACTED SAND BACKFILL.
 - PROVIDE MATERIAL CERTIFICATION.
 - COMPLETE FINAL ADJUSTMENTS TO GRADE OF FIRE HYDRANT AND VALVE COVERS AND PROPER CAP COLORING CODING, USING THE TWO PART COATING SYSTEM AS DEFINED IN SPECIAL PROVISION.
- 7. WHERE SANITARY LEADS OR OTHER UTILITIES ARE ENCOUNTERED, THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO PROVIDE CONTINUOUS SERVICE TO PROPERTIES ALONG THE ROUTE OF CONSTRUCTION. UNLESS OTHERWISE PROVIDED IN THE PLANS AND SPECIFICATIONS ELSEWHERE FOR THIS PROJECT, PAYMENT FOR ALL WORK AND COSTS, INCLUDING THE RECONSTRUCTION OF SANITARY SEWER AND DRAIN LEADS TO ACCOMMODATE CONSTRUCTION OR ADJUSTING WATER MAIN CONSTRUCTION, TO CLEAR EXISTING SERVICES, SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICES OF WATER MAIN PAY ITEMS.
- 8. CONNECTIONS TO EXISTING WATER MAINS AND VALVES SHALL BE INSPECTED/SUPERVISED BY THE CITY OF FLINT STAFF, WITH ALL LABOR, MATERIAL AND EQUIPMENT PROVIDED BY THE CONTRACTOR. ALL CHLORINATION AND WATER QUALITY SAMPLING OF NEW LINES AND APPURTENANCES AND THE OPENING AND CLOSING OF EXISTING VALVES AND SERVICE LEAD CONNECTIONS SHALL BE PERFORMED BY THE CITY OF FLINT STAFF. A FULL DIAMETER TAPPING SLEEVE IS REQUIRED FOR ALL PRESSURE TAPS. A GATEWELL STRUCTURE SHALL BE REQUIRED AROUND ALL PRESSURE TAPS, WITH GATEWELL SIZE AND DETAILS SHOWN ON THE DETAIL SHEET FOUND ELSEWHERE IN THESE PLANS.
- 9. ALL WATER MAIN SHALL HAVE A MINIMUM COVER OVER THE TOP OF THE PIPE OF 5.5' FROM FINISHED GRADE. THE PIPE SHALL BE LAID ON A 4" PREPARED CLASS II SAND CUSHION WITH RECESSES TO ACCOMMODATE PIPE BELLS. REFER TO MDOT UTILITY TRENCH DETAIL R-83-C.
- 10. CONTRACTOR SHALL RESTRAIN ALL THRUST IN THE SYSTEM BY THE USE OF THRUST BLOCKS, RESTRAINED-TIE RODDED JOINTS, MEGA-LUG LOCKING RETAINING RINGS OR ENGINEER APPROVED EQUAL. ALL HYDRANTS, TEES, VERTICAL OR HORIZONTAL BENDS AND FUTURE VALVE CONNECTIONS SHALL BE RESTRAINED. CONTRACTOR SHALL SUBMIT A SCHEDULE OF RESTRAINT METHODS AND LOCATIONS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. THREADED RODDING SHALL HAVE OWNER AND ENGINEER APPROVAL PRIOR TO BEING INCORPORATED INTO PROJECT CONSTRUCTION.
- 11. EXISTING GATEWELLS SHALL BE REMOVED (MINIMUM 2 FT BELOW SUBBASE) AS NOTED ON THE PLAN SHEETS. AND PAID AS PAY ITEM WATER STRUCTURE, ABANDON. PAY ITEM WATER STRUCTURE, ABANDON SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO REMOVE CASTING FRAME, COVER, STRUCTURE, AND PLACE AND COMPACT CLASS II GRANULAR BACKFILL INSIDE OF STRUCTURE PER SPECIAL PROVISION IN BID PROPOSAL EXCEPT AS NOTED ELSEWHERE IN THESE PLANS OR BID PROPOSAL FOR REINSTALLATION OF EXISTING UNDAMAGED STRUCTURE CASTINGS: 1) EXISTING COVERS AND CASTINGS SHALL BE SALVAGED; AND 2) SALVAGED MATERIALS WILL BE DELIVERED TO THE APPROVED ON-SITE STOCKPILING LOCATION BY THE CONTRACTOR FOR CITY FORCES TO COLLECT. VALVE BOXES TO BE ABANDONED SHALL BE KNOCKED DOWN (MINIMUM 2 FT BELOW SUB BASE) AND FILLED WITH CONCRETE, PAID AS PAY ITEM WATER STRUCTURE, ABANDON.
- 12. THE PROJECT SHALL REQUIRE FINAL RESTORATION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL GROUND SURFACES SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER PRIOR TO FINAL CONTRACT APPROVAL.
- 13. WATER MAINS SHALL BE CHLORINATED IN ACCORDANCE WITH AWWA C651-05, PRESSURE TESTED IN ACCORDANCE WITH AWWA C600-05 AND DISINFECTED IN ACCORDANCE WITH AWWA C651-99. ALL MATERIAL AND EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR. WATER MAINS SHALL BE TESTED TO 150 PSI FOR TWO HOURS. ALLOWABLE LEAKAGE IS 0.092 GPH X LENGTH OF TESTED PIPING (FT) X NOMINAL PIPE DIAMETER (INCHES) / 1,000 FT. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY OF FLINT WATER SERVICE CENTER AT 810.766.7202, 72 HOURS PRIOR TO TESTING OF WATER MAIN AND SHALL NOT TEST UNTIL A REPRESENTATIVE OF THE WATER DISTRIBUTION CENTER IS ON SITE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE CITY OF FLINT WATER SERVICE CENTER, AT THE DISTRIBUTION CENTER, AND CITY OF FLINT, AT THE UTILITIES DEPARTMENT, A DETAILED DESCRIPTION OF TESTING PROCEDURES AND CHLORINATION LIMITS FOR APPROVAL. THE CONTRACTOR WILL NOT TEST MORE THAN 1,200' OF WATER MAIN AT ANY TIME. DURING TESTING, THE CONTRACTOR WILL PROVIDE A FORM INDICATING THE LENGTH OF PIPE BY STATIONS, LOCATION OF TESTING AND BLOWOFF, AND PRESSURE TEST RESULTS WHICH WILL BE SIGNED BY THE CONTRACTOR'S REPRESENTATIVE AND WATER DISTRIBUTION REPRESENTATIVE. THE CONTRACTOR IS REQUIRED TO UTILIZE A MINIMUM OF 2" BLOWOFFS AND VALVES (BRASS OR COPPER MATERIAL ONLY) FOR TESTING. ALL DISCHARGED CHLORINATED WATER MUST BE DISCHARGED INTO SANITARY SEWER SYSTEM.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL PROCEDURES AND COSTS FOR COORDINATION WITH ALL CITY DEPARTMENTS FOR WATER MAIN CONSTRUCTION AND INCLUDE ALL COSTS AND TIME IN THEIR BID AND PROGRESS SCHEDULE.
- 14. CONTRACTOR SHALL HAVE THE OPTION OF PRESSURE TESTING THE WATER MAIN AGAINST THE VALVE. IF THE VALVE LEAKS, THE CONTRACTOR SHALL MAKE REPAIRS (OR REPLACE) AND REPEAT THE PRESSURE TEST AGAINST THE VALVE OR CONSTRUCTED CAP. ALL COSTS FOR VALVE REPAIR, REPLACEMENT, OR TEMPORARY FITTINGS REQUIRED FOR PRESSURE TESTING SHALL BE CONSIDERED TO HAVE BEEN INCLUDED IN THE COST OF THE CONTRACT PAY ITEM FOR PRESSURE TESTING AND WILL NOT BE PAID FOR SEPARATELY.

WATER MAIN NOTES, CONTINUED:

- 15. THE CONTRACTOR SHALL PROVIDE CORPORATIONS (TO BE SUPERVISED BY THE CITY OF FLINT) ON THE WATER LINE FOR PRESSURE TESTING, CHLORINE ADDITION AND BLOW-OFF PURPOSES. THE CORPORATIONS SHALL HAVE COPPER PIPE EXTENDING TO THE GROUND SURFACE. THE CONTRACTOR SHALL REMOVE THE COPPER LINE UPON A SATISFACTORY TEST AND INSTALL A PLUG ON THE CORPORATION. AS A MINIMUM, CONTRACTOR SHALL PLACE A 2" CORPORATION WITH MUELLER THREADS INLET AND COPPER THREADS OUTLET ON EACH SIDE OF THE VALVES FOR TESTING AND CHLORINATION. THE CONTRACTOR IS REQUIRED TO CONFORM TO THE CURRENT MDEQ STANDARDS AND THE CITY OF FLINT REQUIREMENTS FOR WATER MAIN TESTING. HYDRANT SAMPLING IS NOT ACCEPTABLE.
- 16. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS AND MATERIAL CERTIFICATIONS, TO THE ENGINEER AND THE CITY OF FLINT WATER SERVICE CENTER VERIFYING THAT ALL WATER MAIN (AND APPURTENANCES) ITEMS USED ON THE PROJECT MEET THE REQUIREMENTS AND APPROVAL OF THE ENGINEER, CITY OF FLINT, AND MDOT STANDARDS, AS APPLICABLE.
- 17. MINIMUM HORIZONTAL DISTANCE BETWEEN SEWERS AND WATER MAIN SHALL BE 10'. VERTICAL SEPARATION SHALL BE 18".
- 18. THE CONTRACTOR SHALL ENCASE THE WATER MAIN IN CONCRETE FOR 3' BEYOND THE LIMITS WHERE VERTICAL SEPARATION BETWEEN WATER MAIN AND OTHER UTILITY IS LESS THAN 18". COST IS INCLUDED IN THE PRICES BID FOR THE WATER MAIN PAY ITEMS. DETAIL SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER PRIOR TO PLACEMENT.
- 19. NO CONNECTION TO THE EXISTING WATER MAIN WILL BE MADE UNTIL APPROVAL OF THE PROPOSED WATER MAIN IS RECEIVED. THE CONTRACTOR MUST MAINTAIN SERVICE AT ALL TIMES EXCEPT DURING SERVICE LEAD INSTALLATIONS. CONTRACTOR SHALL NOTIFY RESIDENTS OF TEMPORARY SERVICE DISRUPTION A MINIMUM OF 24 HOURS IN ADVANCE.
- 20. ALL IN LINE BENDS, FITTINGS, TEES, SOLID SLEEVES, REDUCERS, AND FIRE HYDRANTS SHALL BE CONSTRUCTED WITH MECHANICAL JOINTS, AND ENCASED IN 8 MIL POLYETHYLENE. THE POLYETHYLENE FILM TUBE SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C 105/A21.5, METHOD A AND SHALL INCLUDE TAPING THE ENDS FULL CIRCUMFERENCE. METHOD A CONSISTS OF CUTTING THE POLYETHYLENE TUBE 2 FEET LONGER THAN THE PIPE TO PROVIDE AN OVERLAP AT THE JOINTS. THE COST OF THE POLYETHYLENE ENCASEMENT SHALL BE INCLUDED IN THE PRICES BID FOR THE WATER MAIN PAY ITEMS. RESTRAINING METHODS SHALL CONFORM TO STANDARD WATER DETAIL SHEET.
- 21. A MDEQ WATER MAIN PERMIT HAS BEEN OBTAINED BY THE CITY OF FLINT PRIOR TO CONSTRUCTION. CHLORINATION/DISINFECTION PERFORMANCE AND ACCEPTANCE ARE THE RESPONSIBILITY OF THE CITY OF FLINT, AS PROVIDED FOR AND WITH SUCH LIMITATIONS, AS DESCRIBED IN THE SPECIAL PROVISION FOR WATER MAIN WORK IN THE BID PROPOSAL.
- 22. THE CONTRACTOR SHALL SUPPLY VALVES AND SOLID MECHANICAL JOINT SLEEVES, AS NOTED ON THE PLANS, THAT WILL FIT THE EXISTING MAINS. CONTACT THE CITY OF FLINT WATER SERVICE CENTER FOR PRE-APPROVED CITY VENDORS. ALL FITTINGS SHALL BE RIGHT HAND OPEN.
- 23. HYDRANTS SHALL BE MUELLER SUPER CENTURION OR EAST JORDON BR-250 CONFORMING TO CURRENT AWWA C-502. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, LOCATE ALL HYDRANTS 2.0' CLEAR FROM THE RIGHT OF WAY, SERVICE CURB BOXES AND HYDRANT VALVE BOXES 2.0' MIN. BEHIND PROPOSED CURB AND 0.3' MIN. FROM PROPOSED SIDEWALK. SEE FIRE HYDRANT DETAIL SHEET 7 FOR MORE INFORMATION.
- 24. ALL GATEWELL STRUCTURES SHALL BE PRECAST CONCRETE.
- 25. BIDDERS ARE TO INCLUDE ALL COSTS AND TIME TO OBTAIN AND COMPLY WITH PROCEDURES, APPROVALS, CHARGES AND ALL COORDINATION WITH THE CITY OF FLINT INCLUSIVE TO THE PROJECT. ACTIVITES TO BE COORDINATED INCLUDE, BUT ARE NOT LIMITED TO, INSPECTION, TESTING, CHLORINATION, FLUSHING, PLACEMENT OF CORPORATIONS AND SERVICE LEADS, PLACEMENT OF TAPPING VALVES, AND PLACEMENT OF CONNECTIONS TO EXISTING WATERMAIN. THERE WILL BE NO CONSIDERATION GIVEN TO CLAIMS BY THE CONTRACTOR FOR ADDITIONAL COMPENSATION OR EXTENSION OF CONTRACT TIME FOR FAILURE TO INCLUDE THESE COSTS AND PROCEDURAL TIME IN THEIR BID (CONTRACT AMOUNT) AND PROGRESS SCHEDULE.
- 26. ALL WATER HYDRANTS, VALVES, FRAMES AND COVERS SALVAGED SHALL BE STOCKPILED IN AN APPROVED LOCATION FOR CITY FORCES TO COLLECT. ALL MATERIAL NOT WANTED BY CITY SHALL BE DISPOSED OF BY
- 27. CONTRACTOR TO BORE AROUND OR SUPPORT AND ENSURE STABILITY OF EXISTING UTILITY POLE DURING PLACEMENT OF PROPOSED WATERMAIN.

CASTING AND COVER NOTES

- 1. THE COVERS OF ALL EXISTING AND PROPOSED CURB INLET CATCH BASIN DRAINAGE STRUCTURES INCORPORATED INTO THE PROPOSED WORK SHALL BE REMOVED AND REPLACED WITH: 1) FOR STRAIGHT FACE CURB, NEW 500 POUND CF-3 CASTINGS, AND: 2) FOR CURB CUTS, NEW 490 POUND CF-4 CASTINGS. SEE CITY OF FLINT CASTING DETAILS SHEET 6 AND SPECIAL PROVISION.
- 2. THE COVERS OF ALL EXISTING AND PROPOSED MUNICIPAL MANHOLE STRUCTURES (WATER, STORM AND SANITARY) INCORPORATED INTO THE PROPOSED WORK SHALL BE REMOVED AND REPLACED WITH: 1) FOR SANITARY, NEW 380 POUND CF-1 CASTINGS; 2) FOR STORM, NEW 380 POUND CF-2 CASTINGS; AND, 3) FOR WATER, NEW 380 POUND CF-6 CASTINGS. SEE CITY OF FLINT CASTING DETAILS SHEET 6 AND SPECIAL PROVISION.
- 3. THE COVERS OF ALL EXISTING AND PROPOSED NON-MUNICIPAL UTILITY MANHOLES (TELEPHONE FOR EXAMPLE) SHALL BE ADJUSTED TO FINAL SURFACE ELEVATION BY THE OWNER'S OF THOSE FACILITIES, AS COORDINATED BY THE CONTRACTOR.

ENGINEERING AND UTILITIE

Notes Sheet

DRAWN BY:

HECKED BY:

NO SCALE

DEPARTMENT OF PUBLIC WORKS

REVISIONS:

SHFFT

3-26-09

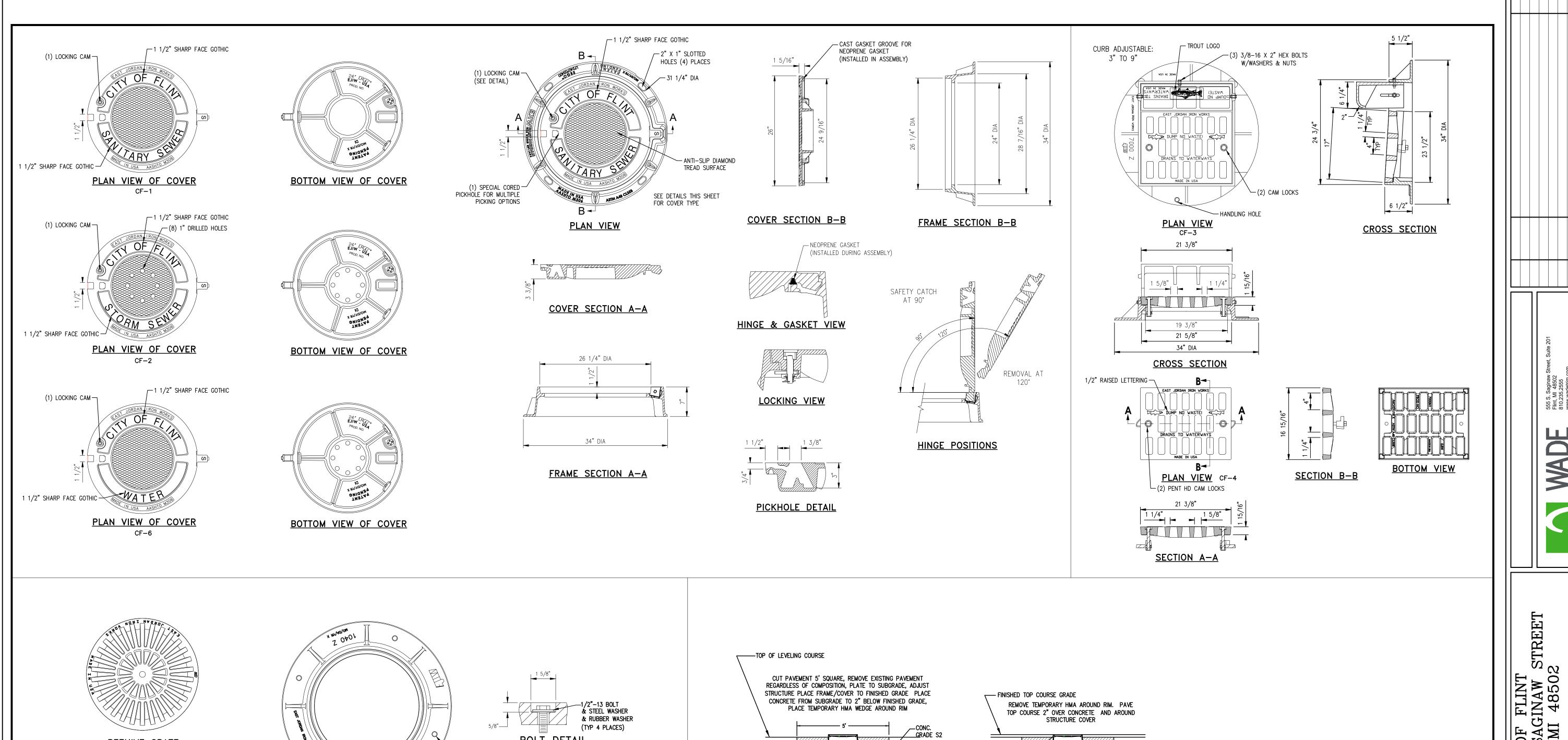
COF1065.01F

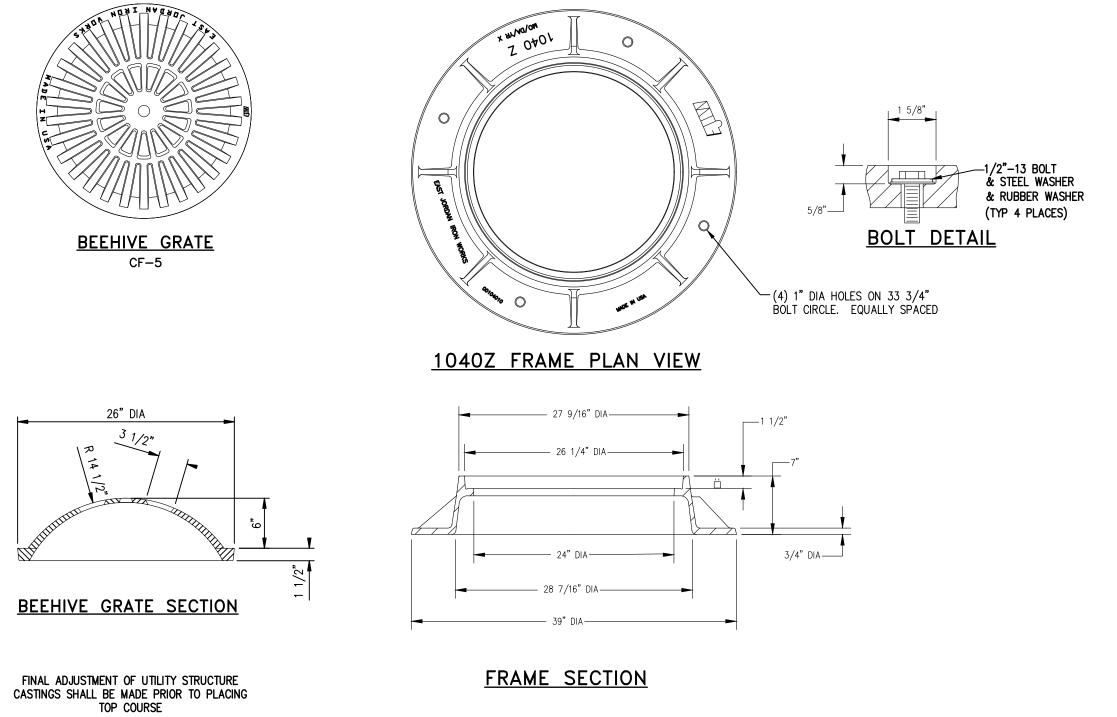
OF] O W CITY OUTH FLINT

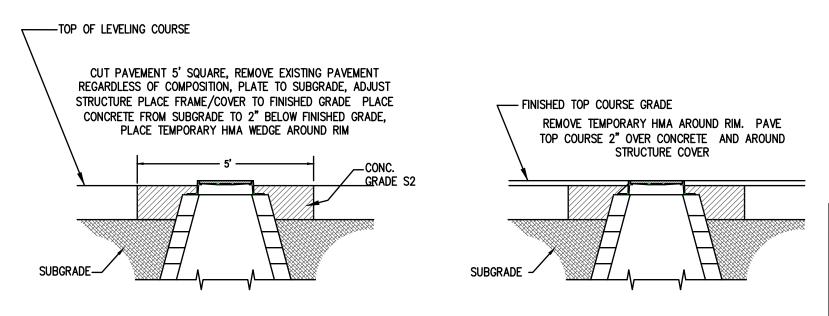
0

4 Å

GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS







STRUCTURE COVER ADJUSTMENTS

THIS DETAIL APPLIES TO: 1) WHETHER PAVEMENT IS PARTIALLY OR COMPLETELY REMOVED, AND 2) WHETHER MDOT CASE 1 OR MDOT CASE 2 IS SPECIFIED.

DRAINAGE STRUCTURE COVERS						
COVER	CF-1	CF-2	CF-3	CF-4	CF-5	CF-6
COVER TYPE	EJIW ERGO HINGED COVER W/ CAM LOCKS, STAMPED CITY OF FLINT — SANITARY" PER DETAILS ON THIS SHEET.	CITY OF FLINT -	CURB FACE EJIW 7000 Z, T1 & M1	CURB CUT EJIW 7000 M	BEE HIVE EJIW 1040 Z & O2	EJIW ERGO HINGED COVER W/ CAM LOCKS, STAMPED CITY OF FLINT — WATER" PER DETAILS ON THIS SHEET.
PRODUCT NUMBER	00104087L01	00104088L01	00700033C01	00700010 00700044	103901	00104089L01

NOTE: PARTS MAY BE OBTAINED BY EAST JORDAN IRON WORKS OR APPROVED EQUAL



TITLE:	CASTII	VG	DE	TAIL	•	· <
DRAWN BY	:			REVISIONS:		۷.
CHECKED E	BY:					
SCALE:	NO SCALE	'		SHEET		

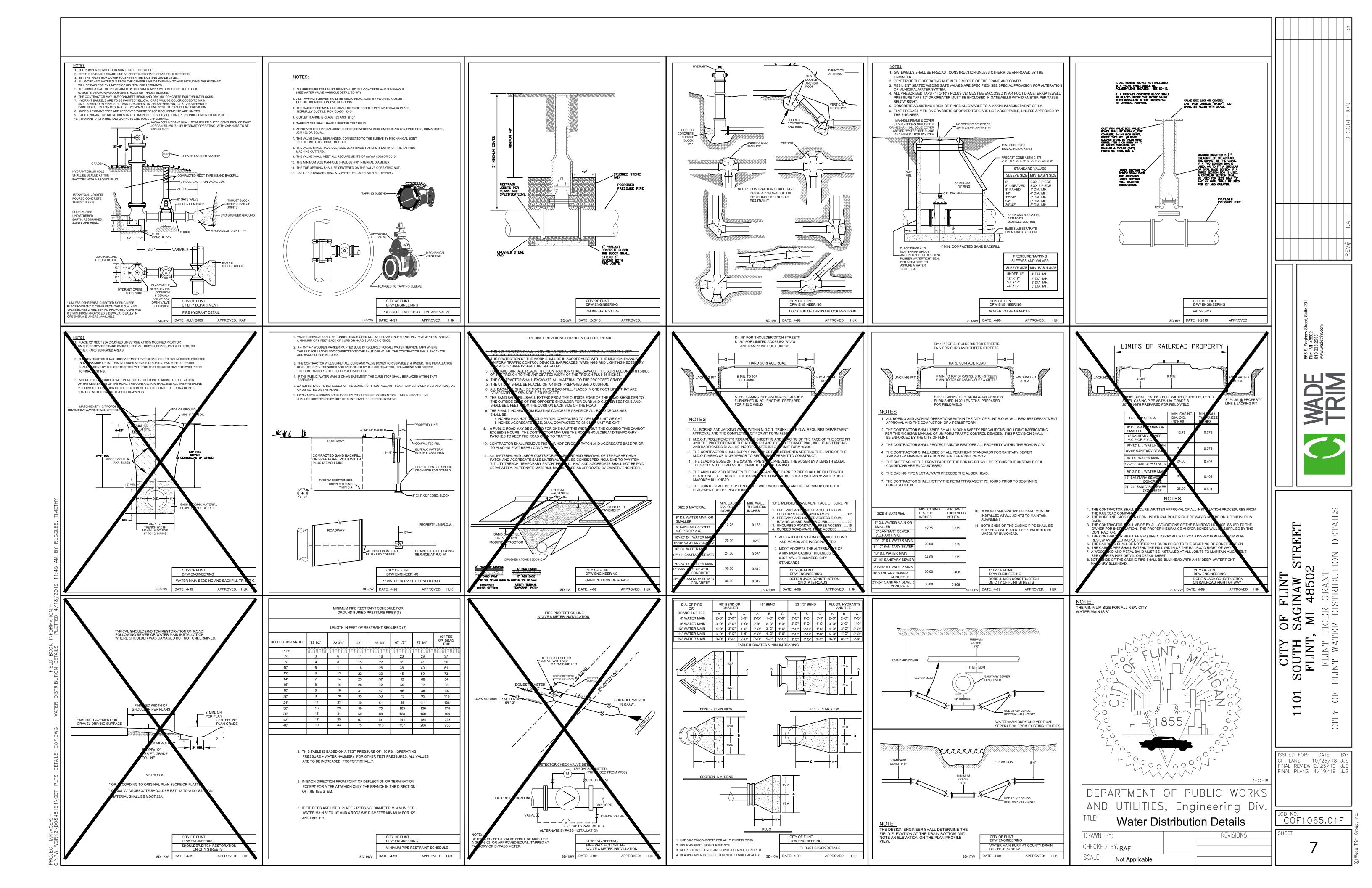


ISSUED FOR: DATE: BY:
GI PLANS 10/25/18 JJS
FINAL REVIEW 2/25/19 JJS
FINAL PLANS 4/19/19 JJS

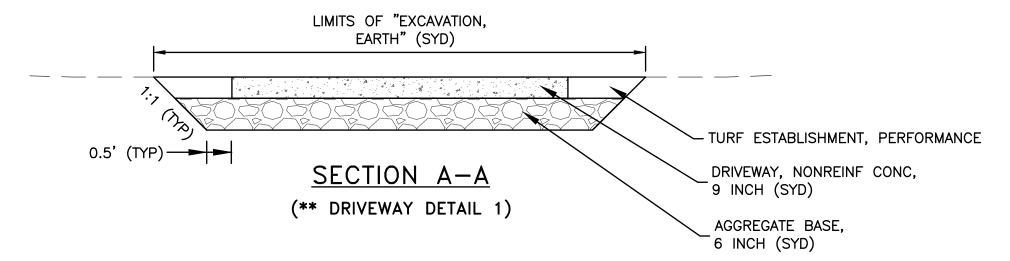
COF1065.01F

01

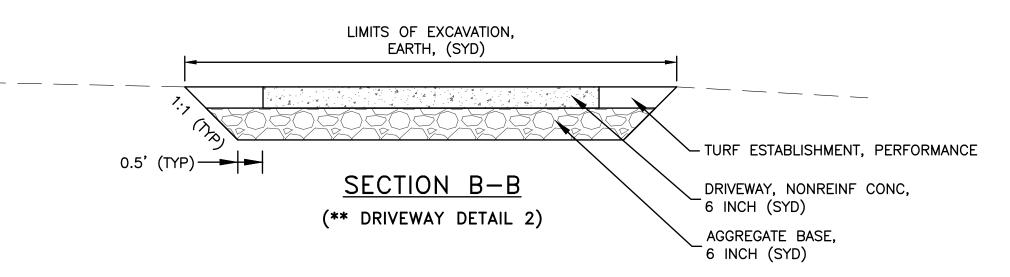
555 8 Flint, 810.2



PLAN VIEW NOT TO SCALE



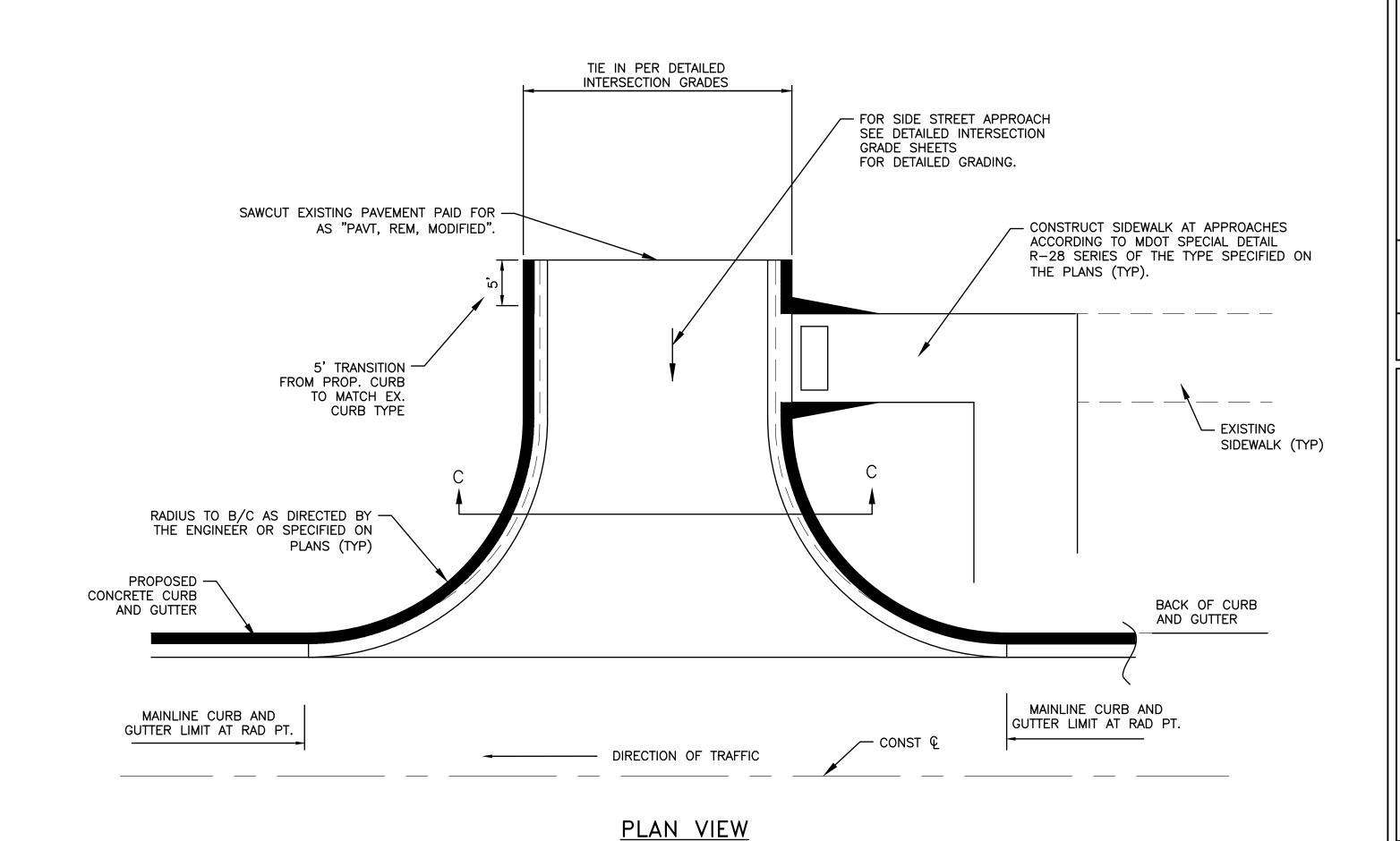
COMMERCIAL DRIVEWAY APPROACH DETAIL NOT TO SCALE

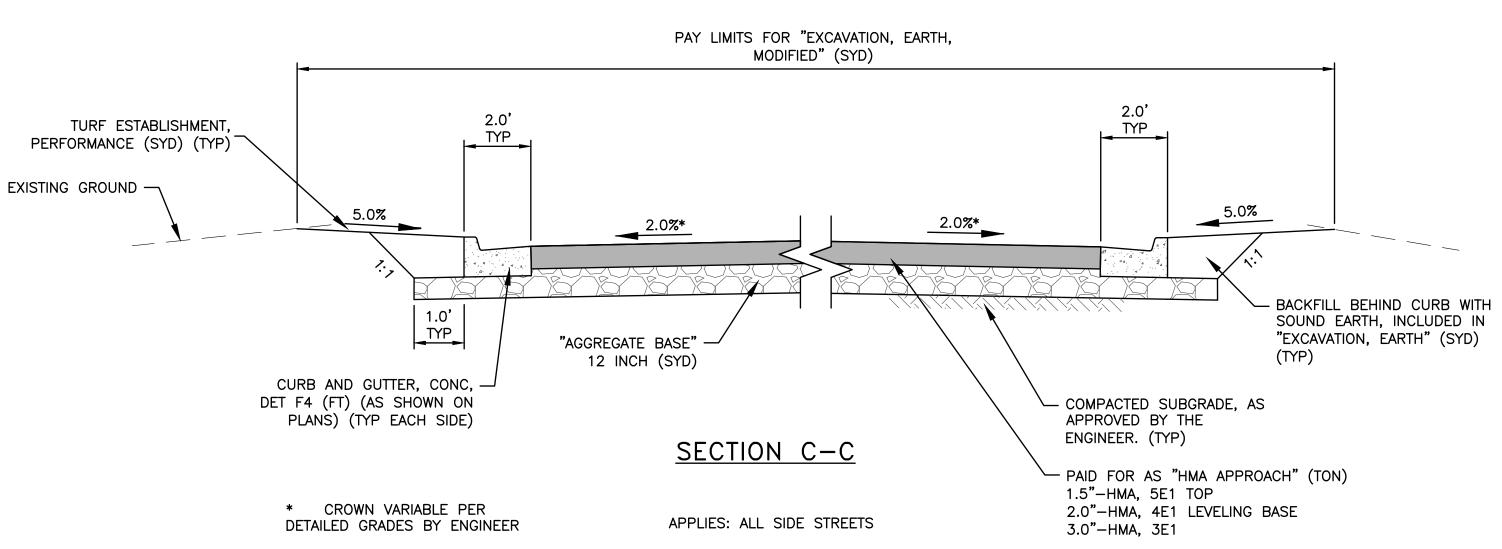


RESIDENTIAL DRIVEWAY APPROACH DETAIL NOT TO SCALE

1. ALL PREPARATION WORK, INCLUDING EDGE TRIMMING, PAVEMENT REMOVE, GRADING, EXCAVATION AND EMBANKMENT SHALL BE INCLUDED IN THE PAY ITEM "EXCAVATION, EARTH, MODIFIED" (SYD).

- CONSTRUCTION JOINTS AT EXISTING SURFACES SHALL BE BUTT JOINTS. FEATHERED JOINTS WILL NOT BE ALLOWED WHEN CONSTRUCTING DRIVE APPROACHES.
- 3. DRIVE PROFILE: PER R-29 SERIES
- 4. REMOVING EXISTING DRIVEWAY PAVEMENT SHALL BE PAID FOR AS "PAVT, REM, MODIFIED" (SYD) AS SPECIFIED IN THE PLANS.





TYPICAL HMA SIDE STREET APPROACH DETAIL

NOT TO SCALE



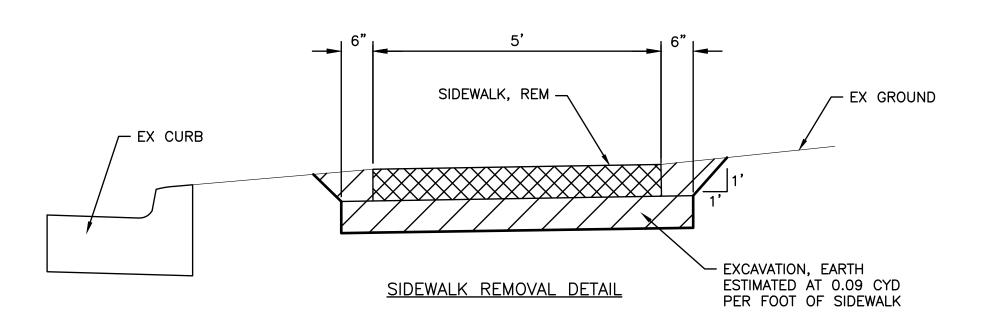
ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

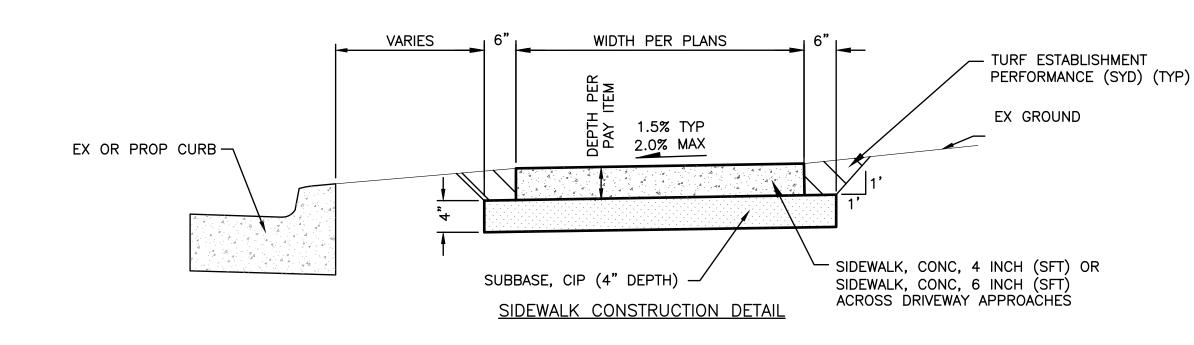
<u>COF1065.01F</u>

OF FLINT SAGINAW STREET , MI 48502

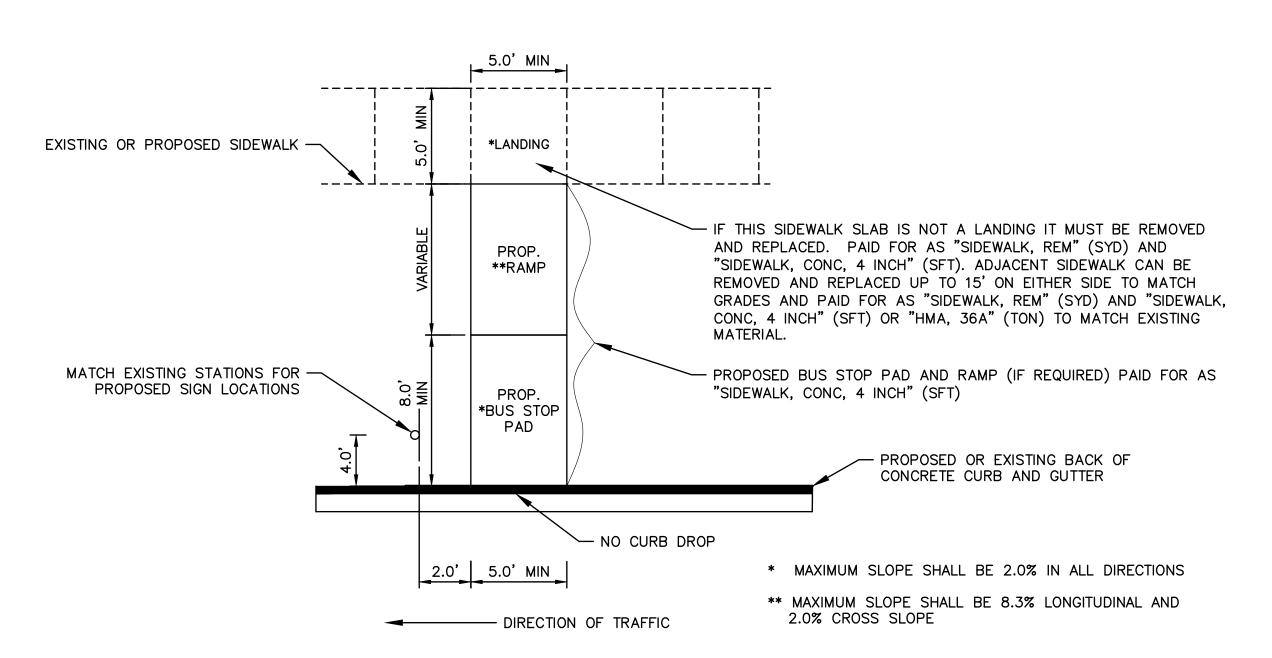
CITY OF F
SOUTH SAGE
FLINT, MI
FLINT TIGER
MISCELLANEOUS

555 S. Saginaw Flint, MI 48502 810.235.2555 www.wadetrim.c



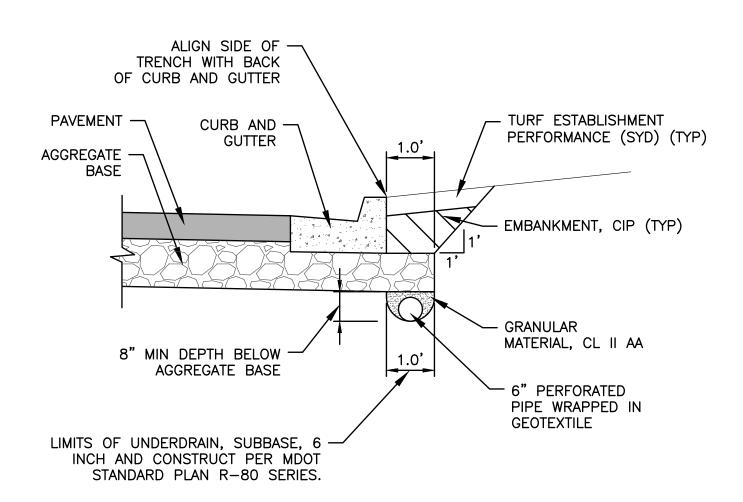


DETAIL FOR SIDEWALK REPLACEMENT
NOT TO SCALE



CONSTRUCT PER LATEST EDITION OF ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG)
NEW BUS STOP PADS SHALL HAVE A MINIMUM CLEAR LENGTH OF 96 INCHES (MEASURED FROM THE CURB OR VEHICLE
ROADWAY EDGE) AND A MINIMUM CLEAR WIDTH OF 60 INCHES (MEASURED PARALLEL TO THE VEHICLE ROADWAY)

APPLY AT LOCATIONS ON PLANS
BUS STOP PAD DETAIL
NOT TO SCALE



UNDERDRAIN DETAIL
NOT TO SCALE



CILK (CILVAL)

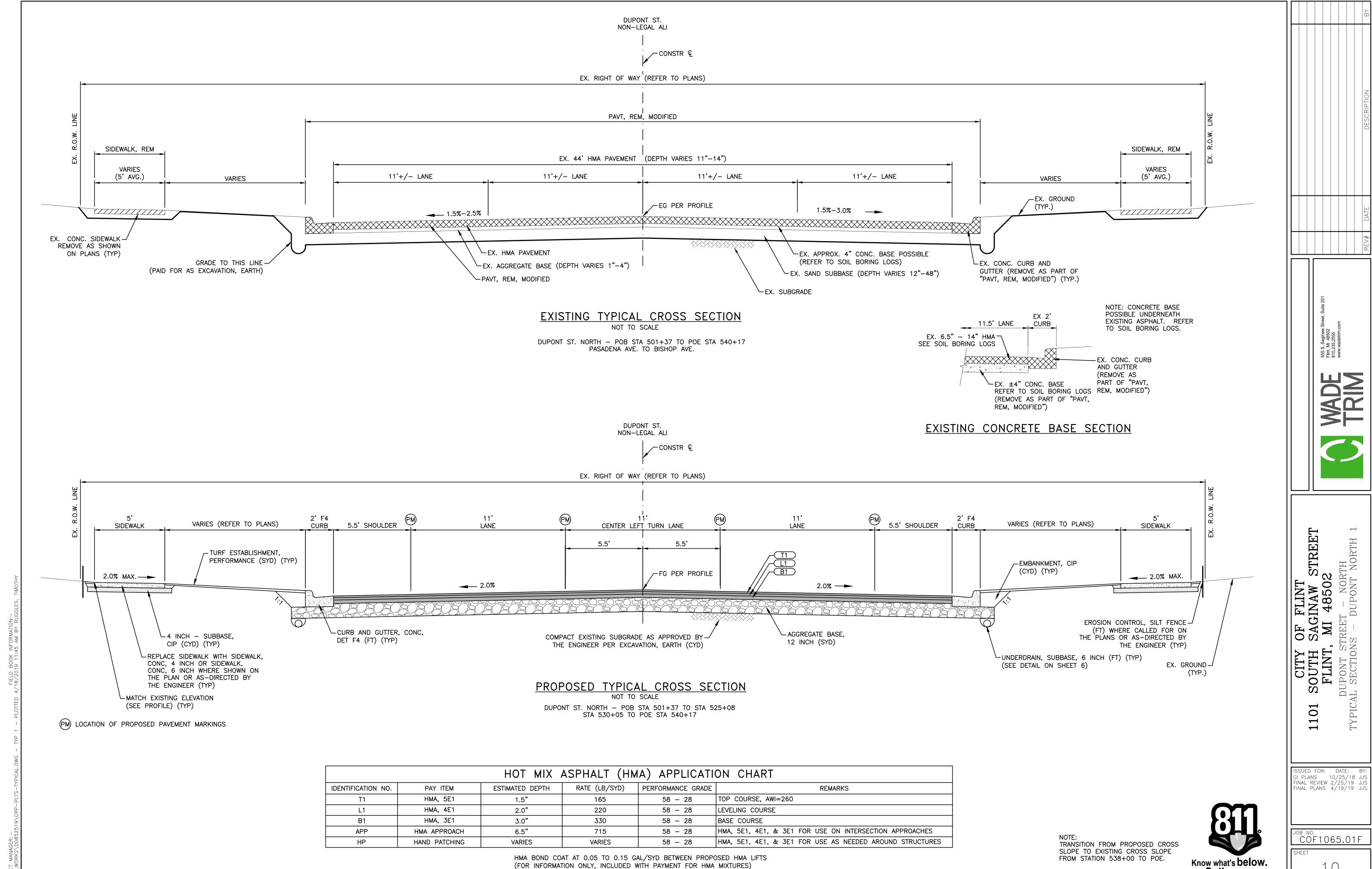
SSUED FOR: DATE: BY:
GI PLANS 10/25/18 JJS
FINAL REVIEW 2/25/19 JJS
FINAL PLANS 4/19/19 JJS

COF FLINT
SAGINAW STREET
C, MI 48502

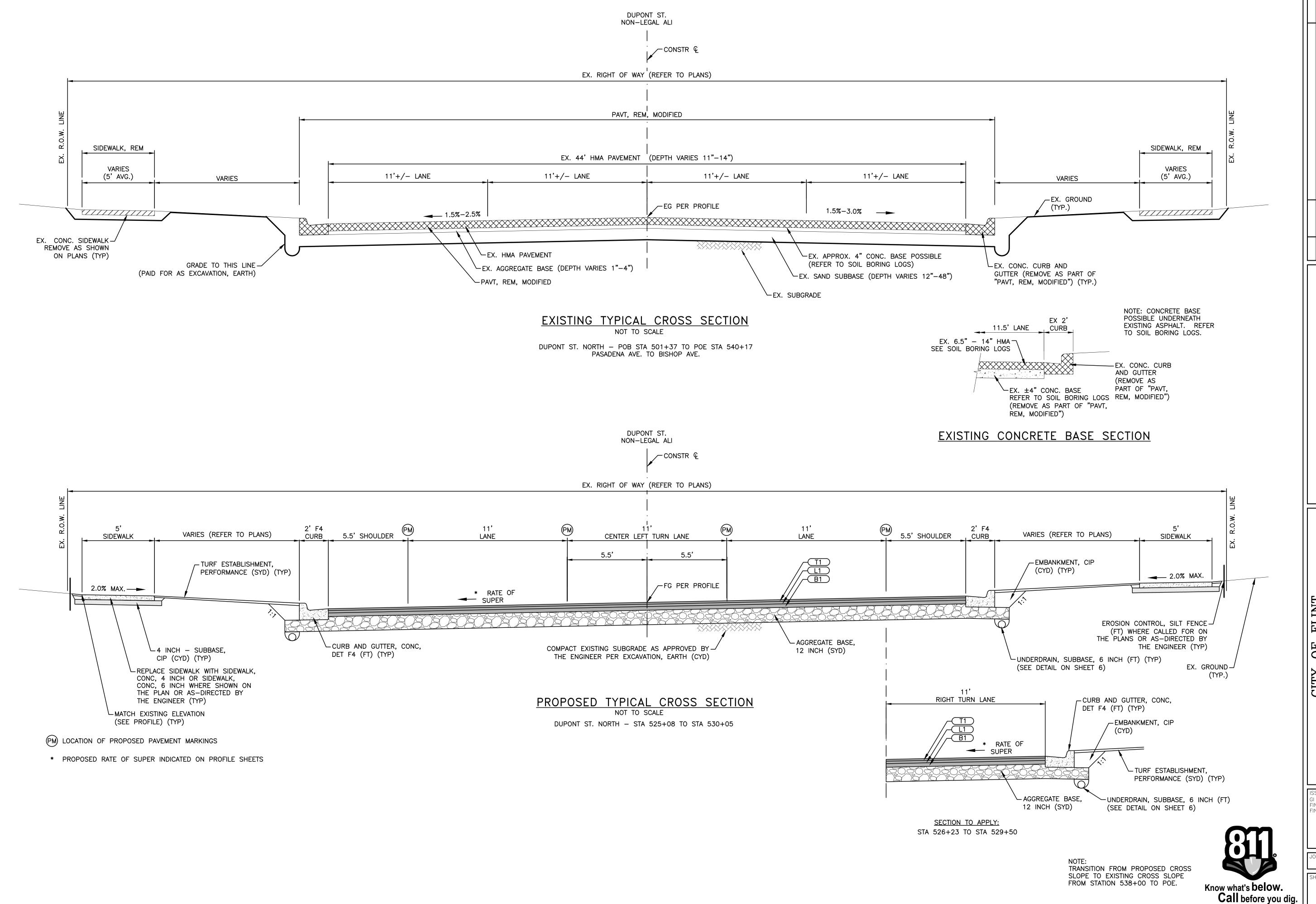
555 S. Saginaw Flint, MI 48502 810.235.2555 www.wadetrim.o

JOB NO.
COF1065.01F

SHEET



Know what's below. Call before you dig.



555 S. Saginaw Street, Suite 201
Flint, MI 48502
810.235.2555
www.wadetrim.com
REV# DATE

ET S H

O1 SOUTH SAGINAW STREET

PLINT, MI 48502

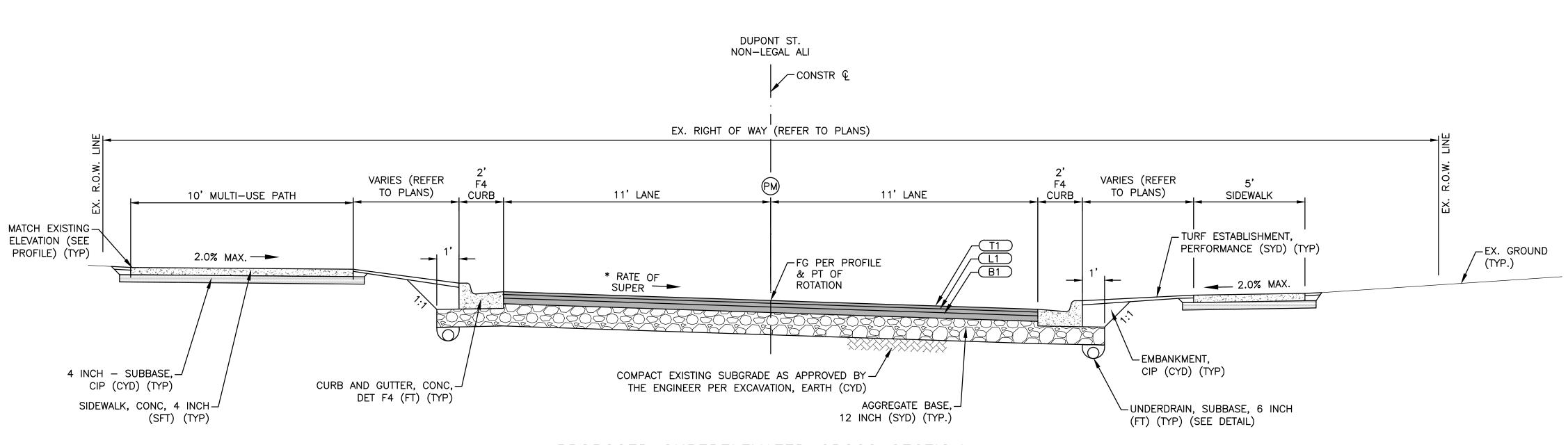
DUPONT STREET - NORTH

PICAL SECTIONS - DUPONT NORTH 2

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

COF1065.01F

DUPONT ST. SOUTH — POB STA 400+40 TO STA 404+89 UNIVERSITY AVE. TO CHEVROLET AVE.



PROPOSED SUPERELEVATED CROSS SECTION

NOT TO SCALE

DUPONT ST. SOUTH - POB STA 400+40 TO STA 404+89

PM LOCATION OF PROPOSED PAVEMENT MARKINGS

* PROPOSED RATE OF SUPER INDICATED ON PROFILE SHEETS



555 S. Saginaw Street, Suite 201 Fint, MI 48802 810.235.2555 www.wadetrim.com

| Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | Fig. | F

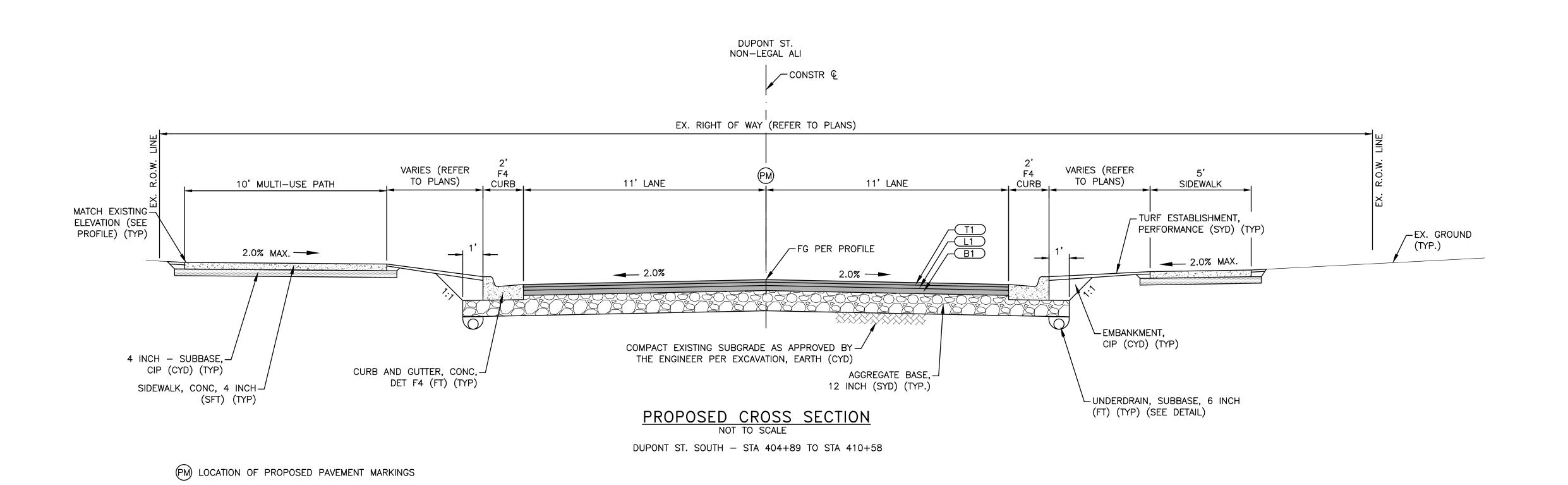
1101 SOUTH SAGINAW STREET
FLINT, MI 48502

DUPONT STREET - SOUTH
TYPICAL SECTIONS - DUPONT SOUTH 1

ISSUED FOR: DATE: BY:
GI PLANS 10/25/18 JJS
FINAL REVIEW 2/25/19 JJS
FINAL PLANS 4/19/19 JJS

COF1065.01F

SHEET



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

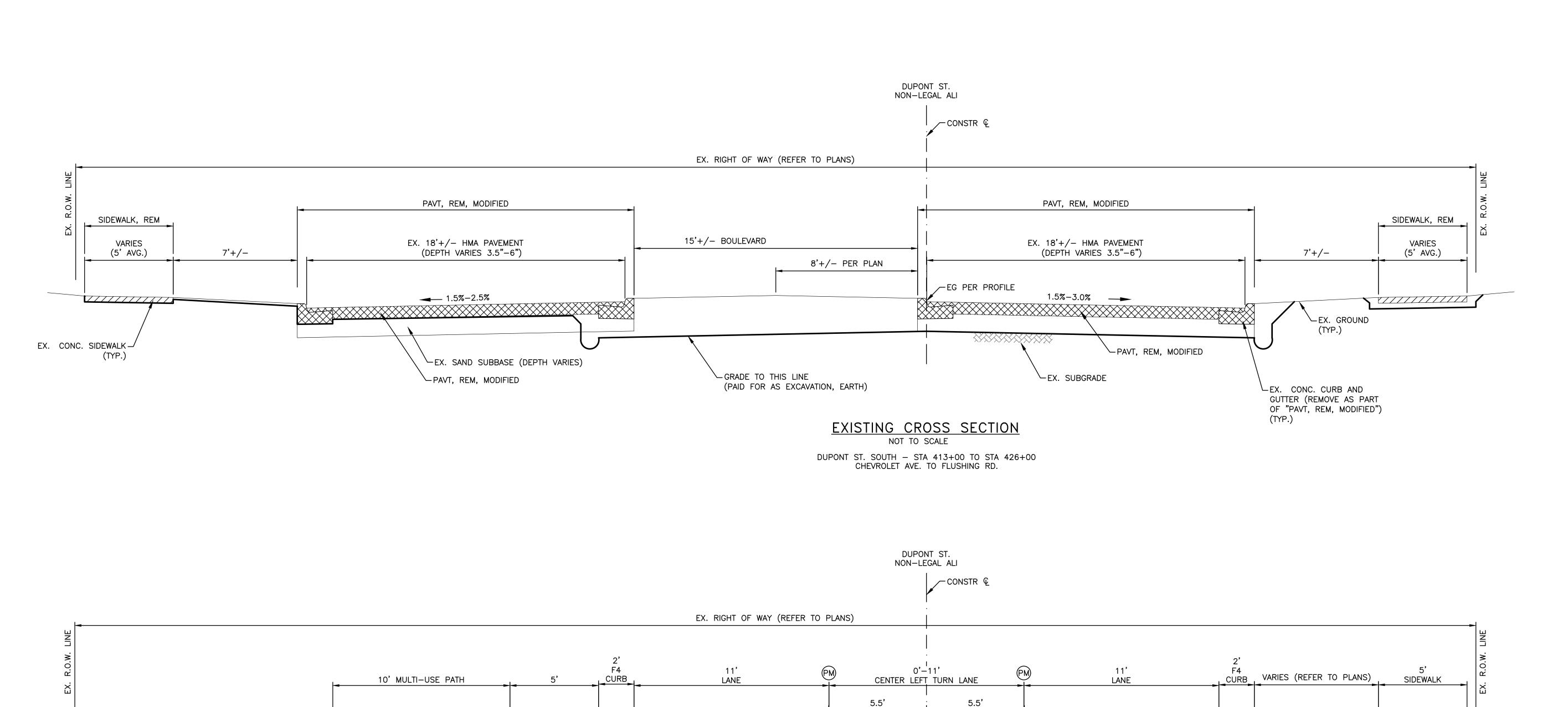
 Ω

1101 SOUTH SAGINAW STREET
FLINT, MI 48502

DUPONT STREET - SOUTH
TYPICAL SECTIONS - DUPONT SOUTH 2 CITY (SOUTH FLINT,

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

^{ЈОВ NO.} COF1065.01F



— 2.0%

FG PER PROFILE

COMPACT EXISTING SUBGRADE AS APPROVED BY —
THE ENGINEER PER EXCAVATION, EARTH PAY ITEM

PROPOSED CROSS SECTION

NOT TO SCALE

DUPONT ST. SOUTH - STA 410+58 TO STA 425+44

`—AGGREGATE BASE,

12 INCH (TYP.)

TURF ESTABLISHMENT, PERFORMANCE (SYD) (TYP)

EMBANKMENT, CIP-

-PROP. WATER MAIN

(CYD) (TYP)

CURB AND GUTTER, CONC, \mathcal{L}

DET F4 (FT) (TYP)

(REFER TO PLANS FOR LOCATION)

2.0% MAX. ─►

(PM) LOCATION OF PROPOSED PAVEMENT MARKINGS

4 INCH - SUBBASE, CIP (CYD)-

SIDEWALK, CONC, 4 INCH— (SFT) (TYP)

1101 SOUTH SAGINAW STREET
FLINT, MI 48502

DUPONT STREET - SOUTH
TYPICAL SECTIONS - DUPONT SOUTH 3 EX. GROUND (TYP.) ~4 INCH - SUBBASE, CIP (CYD) SIDEWALK, CONC, 4 INCH

→ 2.0% MAX.

(SFT) (TYP)

└UNDERDRAIN, SUBBASE, 6 INCH

(FT) (TYP) (SEE DETAIL)

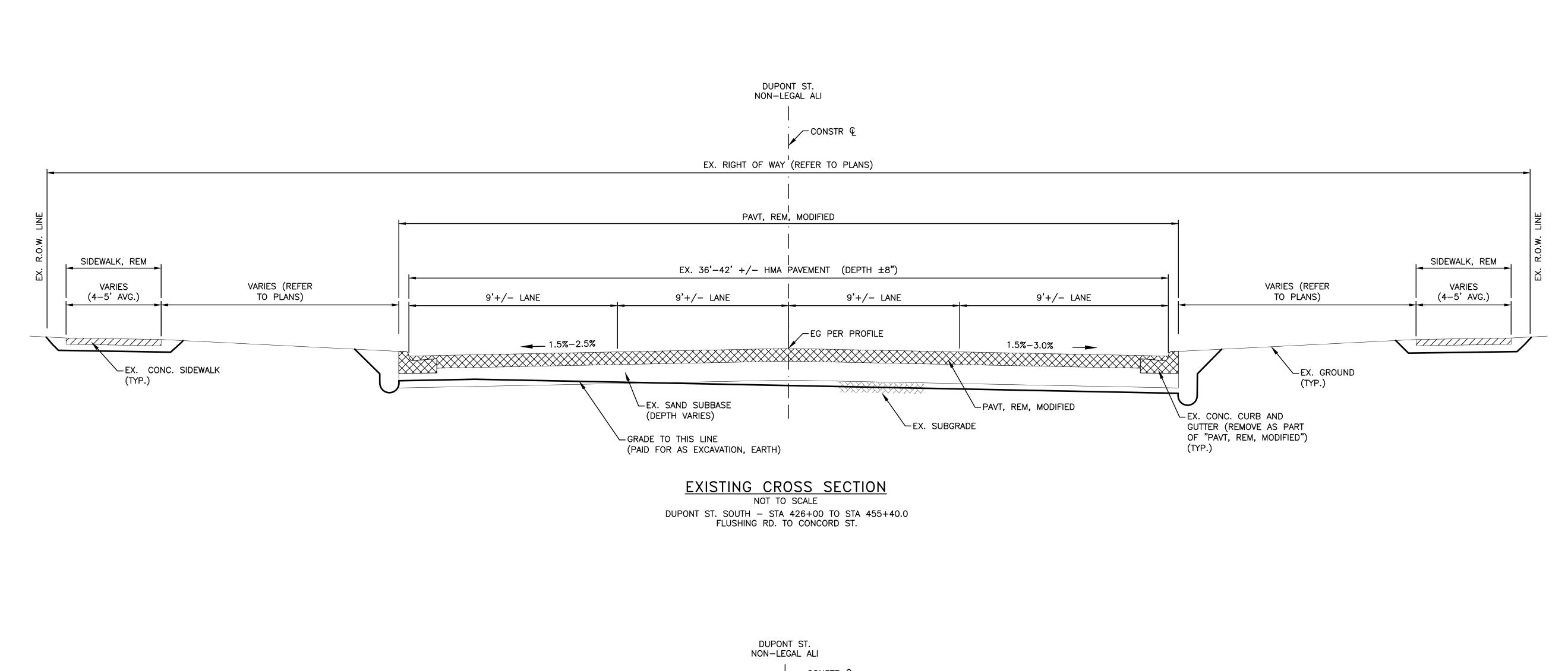
ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

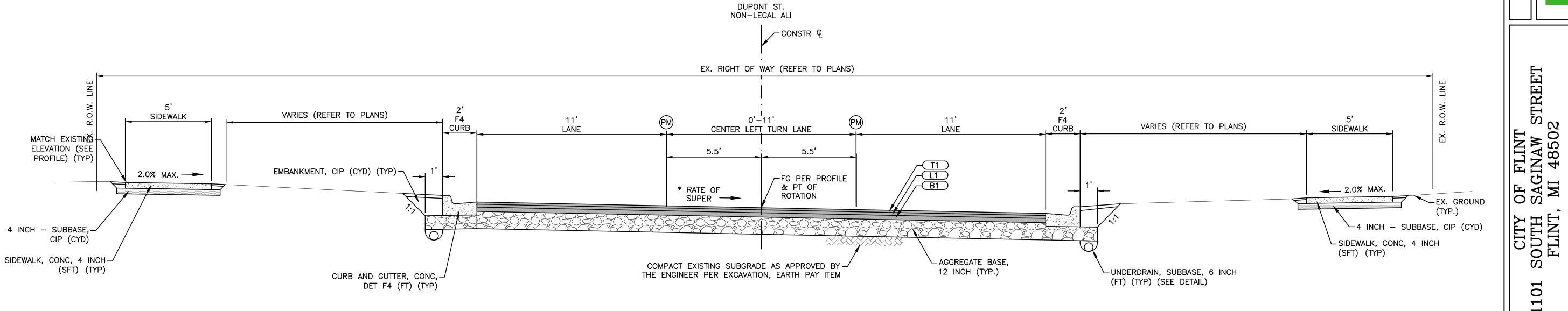
555 S. Saginaw Flint, MI 48502 810.235.2555 www.wadetrim.o

 \mathfrak{C}

^{ЈОВ NO.} COF1065.01F

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





PROPOSED CROSS SECTION NOT TO SCALE

DUPONT ST. SOUTH - STA 425+44 TO STA 427+76 STA 428+15 TO STA 431+59 (SUPER LT) STA 434+16 TO STA 437+37

(PM) LOCATION OF PROPOSED PAVEMENT MARKINGS

* PROPOSED RATE OF SUPER INDICATED ON PROFILE SHEETS

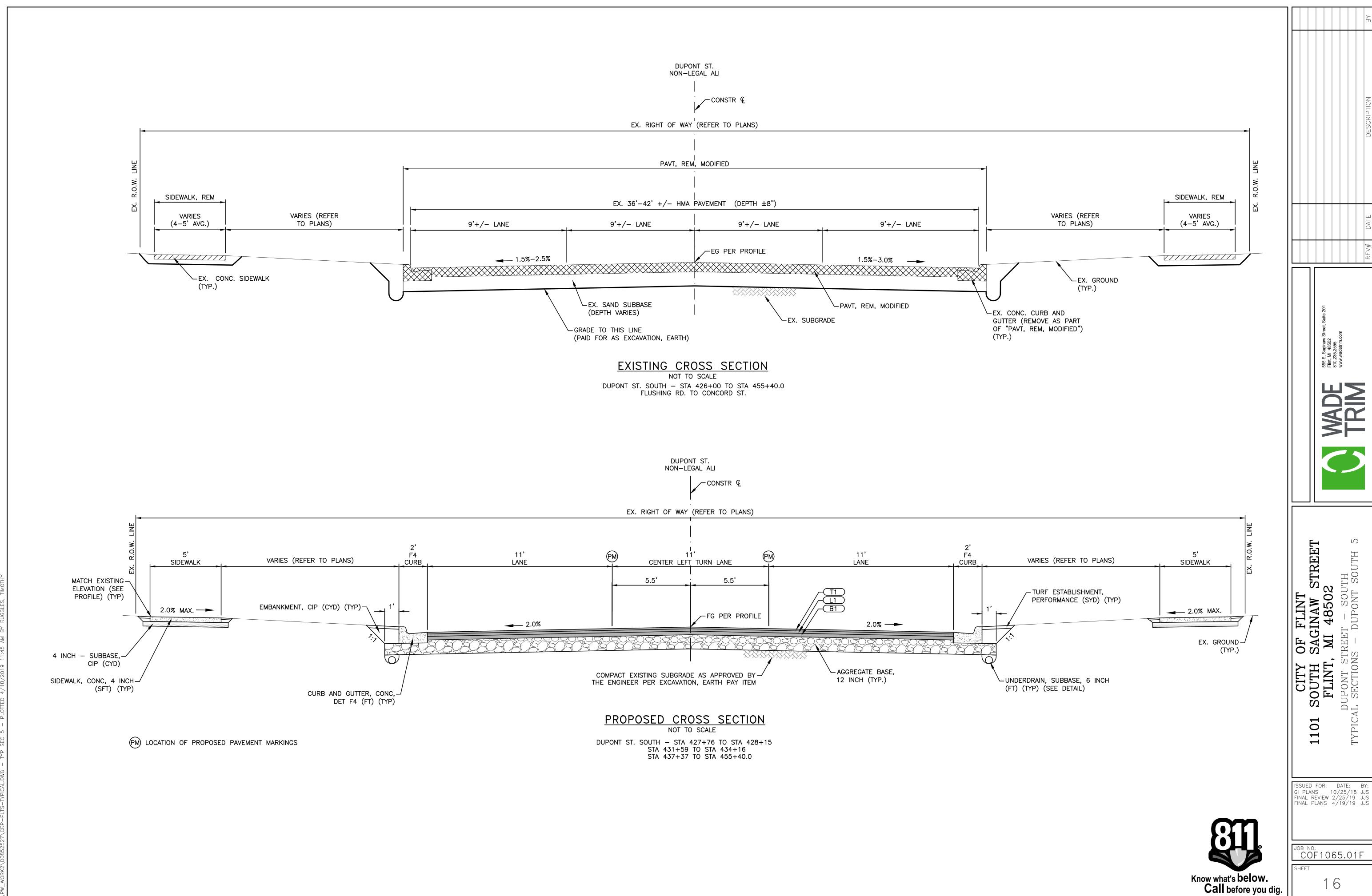
Know what's below. Call before you dig.

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

<u>COF1065.01F</u>

01

555 S. Saginaw Flint, MI 48502 810.235.2555 www.wadetrim.o

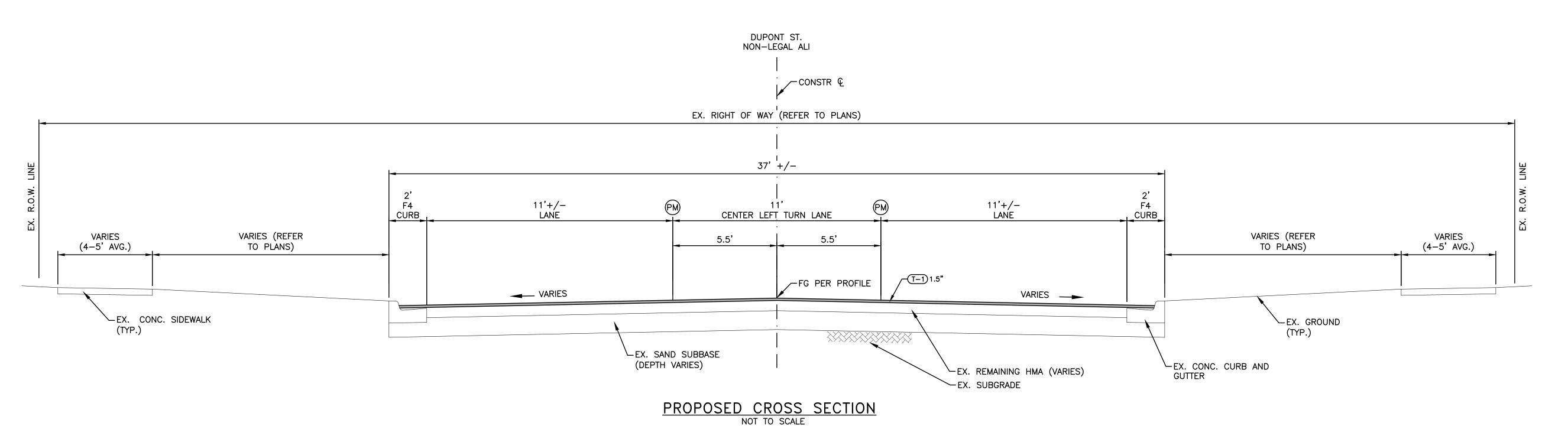


555 S. Saginaw Flint, MI 48502 810.235.2555 www.wadetrim.o Ω

<u>COF1065.01F</u>

EXISTING CROSS SECTION NOT TO SCALE

DUPONT ST. SOUTH — STA 455+40.0 TO POE STA 463+68.2 CONCORD ST. TO COPEMAN BLVD



(PM) LOCATION OF PROPOSED PAVEMENT MARKINGS

DUPONT ST. SOUTH — STA 455+40.0 TO STA 463+68.2 STA 463+68.2 TO POE STA 467+49.4 (PAVEMENT MARKINGS ONLY) CONCORD ST. TO COPEMAN BLVD

Know what's below.
Call before you dig.

555 S. Saginaw Street, Suite 201
Flint, MI 48502
810.235.2555
www.wadetrim.com

REV# DATE

DATE

DATE

DATE

DATE

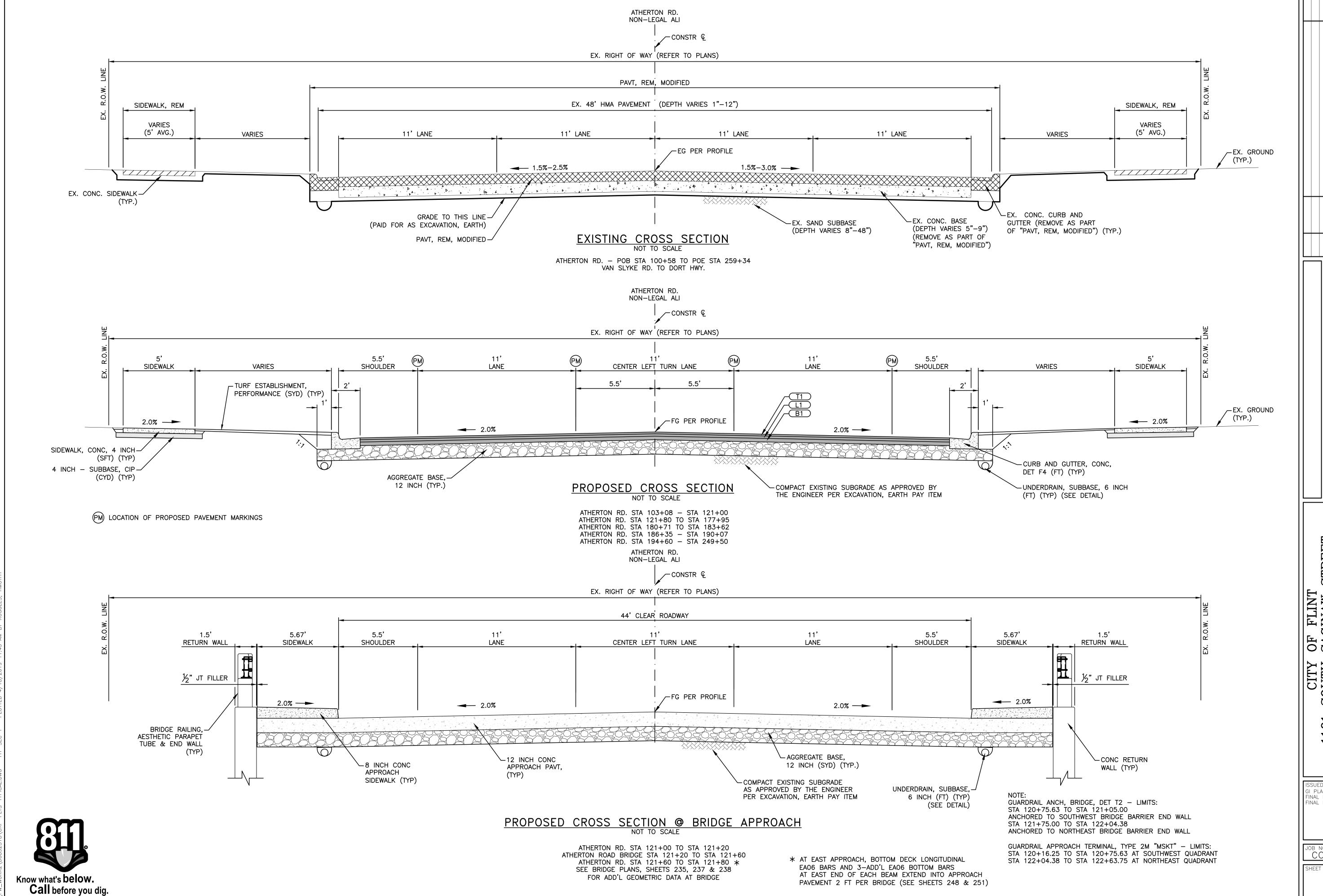
1101 SOUTH SAGINAW STREET
FLINT, MI 48502

DUPONT STREET - SOUTH
TYPICAL SECTIONS - DUPONT SOUTH 6

ISSUED FOR: DATE: BY:
GI PLANS 10/25/18 JJS
FINAL REVIEW 2/25/19 JJS
FINAL PLANS 4/19/19 JJS

JOB NO.
COF1065.01F

SHEET



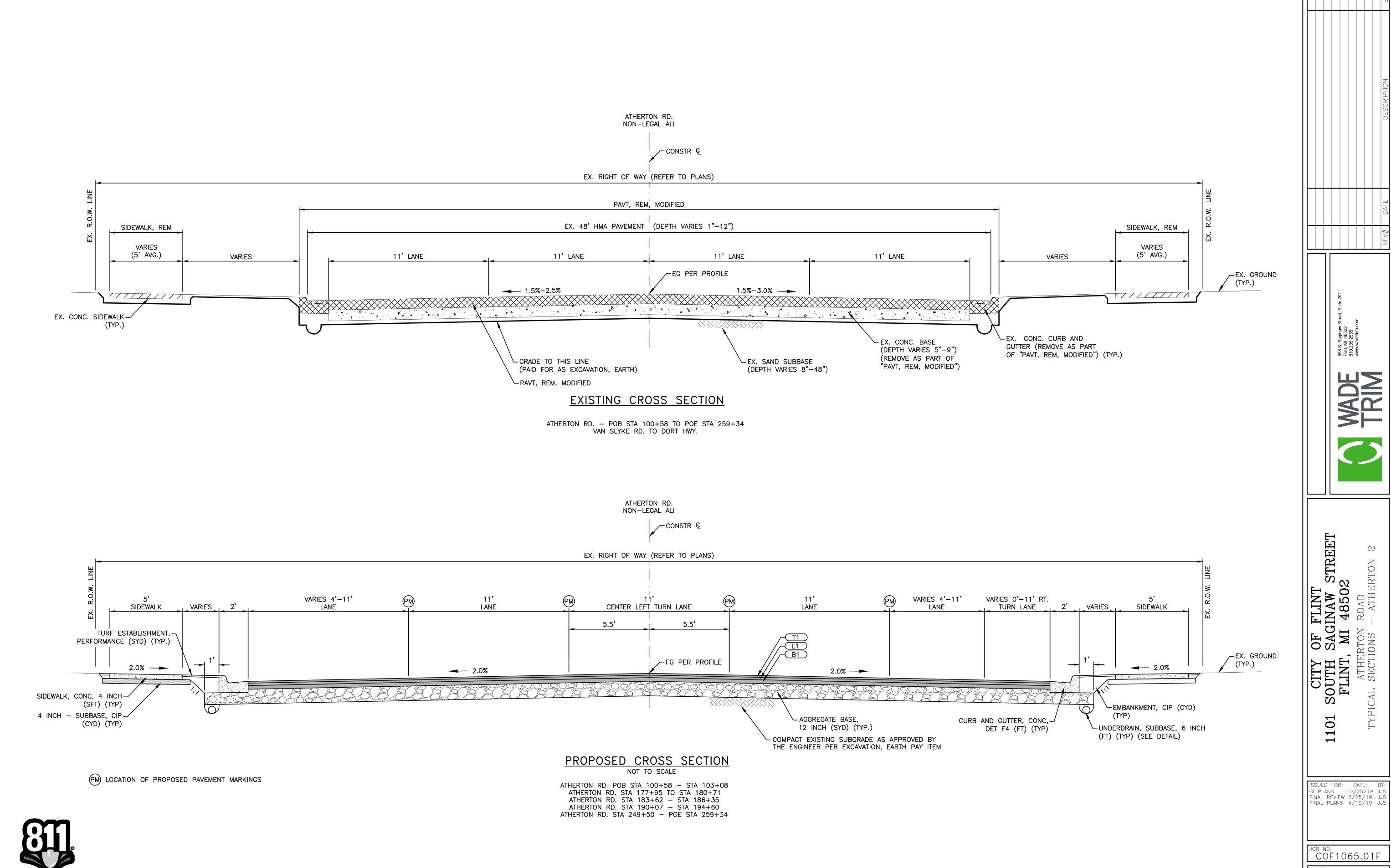
REV# DATE DESCRIPTION

555 S. Saginaw S Flint, MI 48602 810,235.2555 www.wadetrim.co

CITY OF FLINT
O1 SOUTH SAGINAW STREE
FLINT, MI 48502

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

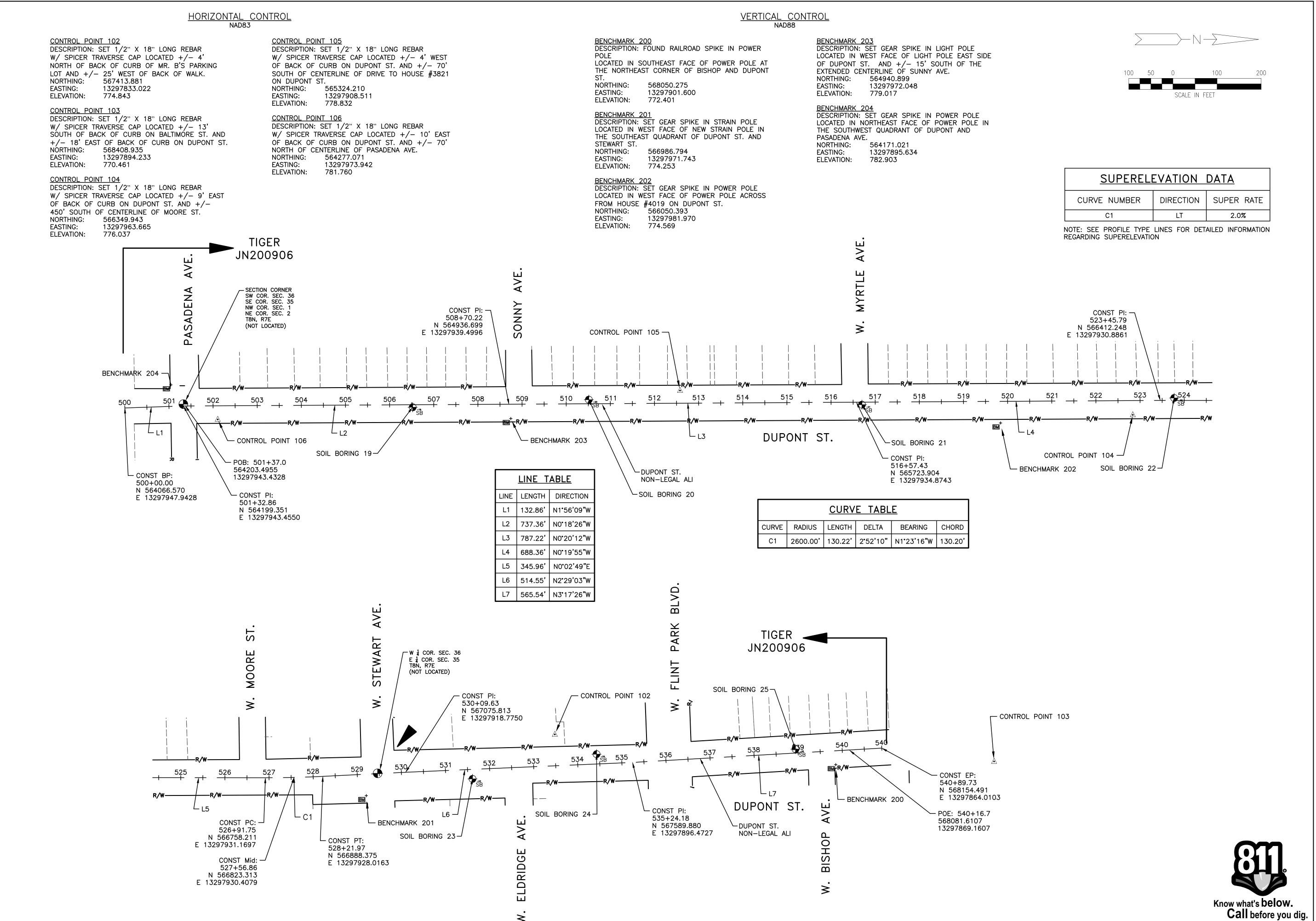
COF1065.01F



Know what's below.

Call before you dig.

555 S. Saginaw Flint, MI 48502 810.235.2555 www.wadetrim.o OF FLINT SAGINAW STREET , MI 48502



REV# DATE DESCRIPTION

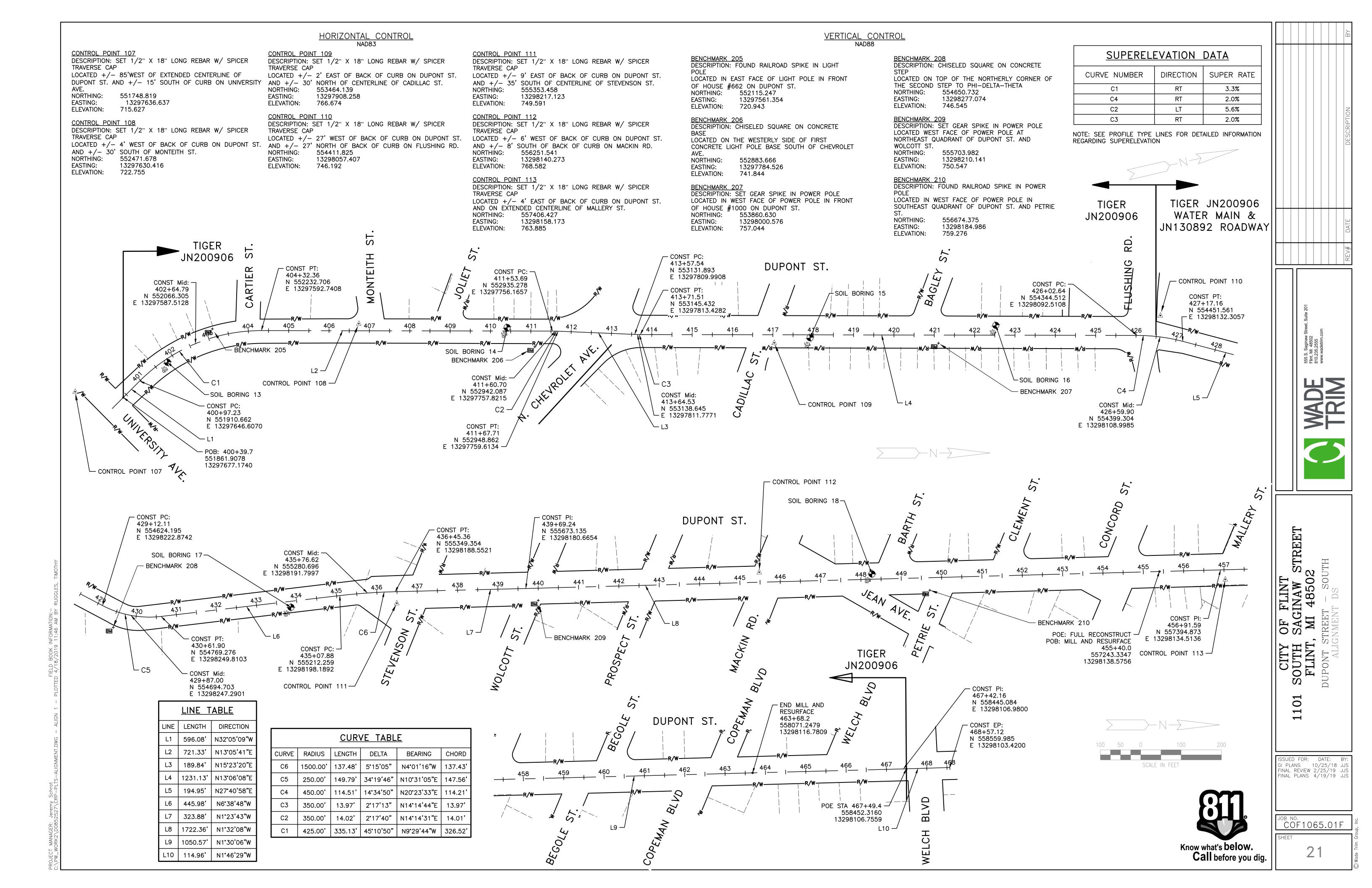
WADE TRIM

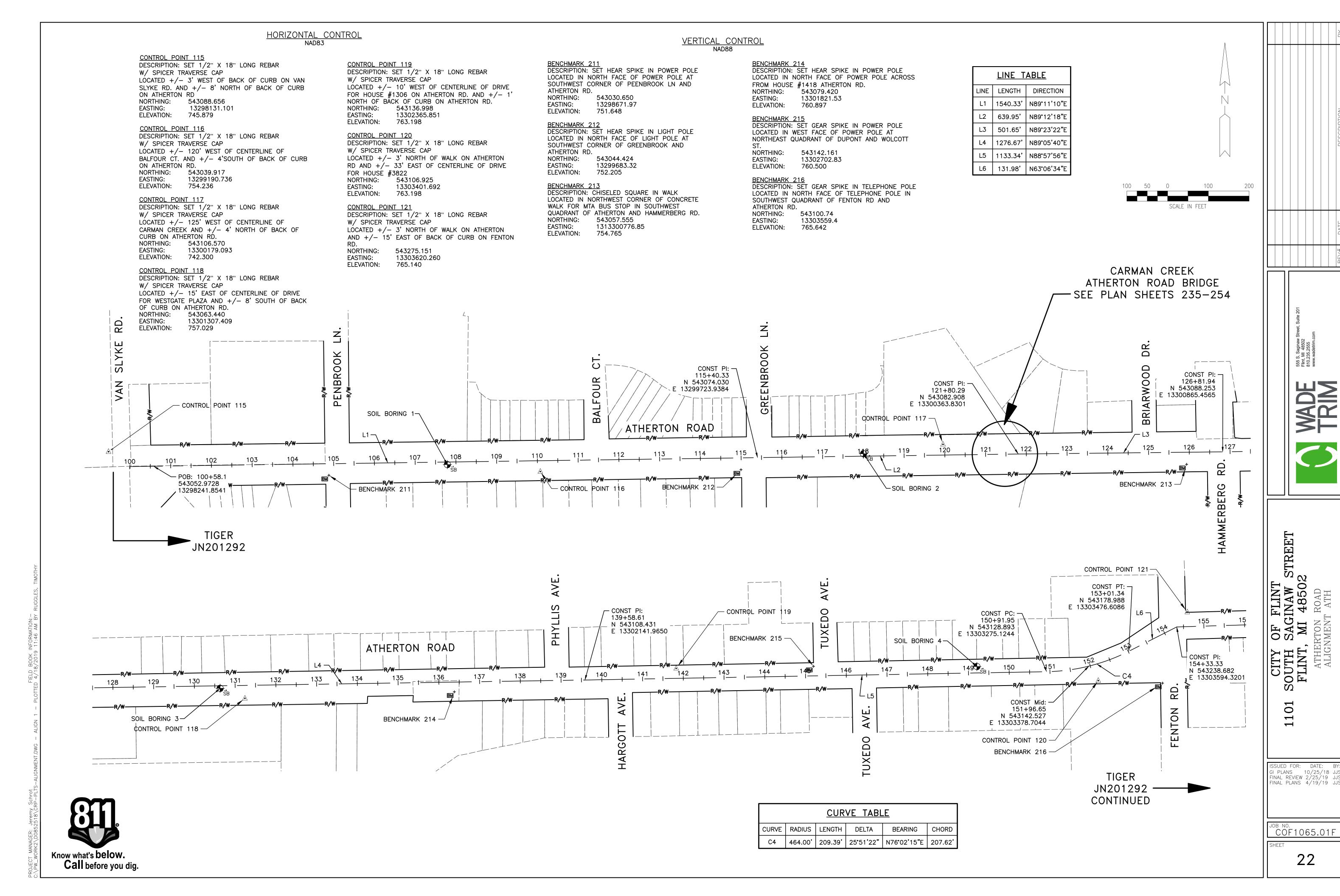
S ≥ S

O1 SOUTH SAGINAW STREET FLINT, MI 48502

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

JOB NO. COF1065.01F SHEET 20





CONTROL POINT 125 DESCRIPTION: SET 1/2" X 18" LONG REBAR W/ SPICER TRAVERSE CAP LOCATED IN SOUTHWEST QUADRANT OF SAGINAW ST AND ATHERTON RD. +/- 2' SOUTH OF CURB ON ATHERTON AND +/-33' WEST OF SAGINAW ST EXTENDED CURB. 543334.592 13308056.494 762.033

CONTROL POINT 126 DESCRIPTION: SET 1/2" X 18" LONG REBAR W/ SPICER TRAVERSE CAP LOCATED ON NORTH SIDE OF ATHERTON RD +/- 2' NORTH OF CURB AND +/- 15' EAST OF EAST FACE OF FIRE STATION #8 EXTENDED. NORTHING: 543419.073 13309212.818

BENCHMARK 217 DESCRIPTION: SET GEAR SPIKE IN POWER POLE LOCATED IN NORTH FACE OF POWER POLE NEAR THE NORTHEAST PROPERTY CORNER OF HOUSE #925. NORTHING: 543229.964

VERTICAL CONTROL

NAD88

BENCHMARK 218
DESCRIPTION: FOUND RAILROAD SPIKE IN POWER LOCATED IN WEST FACE OF POWER POLE IN SOUTHEAST QUADRANT OF DUPONT ST AND PETRIE

13304106.200

766.419

NORTHING: 543244.114 13304859.700 EASTING: ELEVATION: 768.549

EASTING:

ELEVATION:

BENCHMARK 219
DESCRIPTION: SET GEAR SPIKE IN LIGHT POLE LOCATED IN SOUTH FACE OF LIGHT POLE ON NORTH SIDE OF ATHERTON RD AT HOUSE #622 NORTHING: 543340.664 13305927.400 **EASTING:** ELEVATION: 770.859

BENCHMARK 220
DESCRIPTION: SET GEAR SPIKE IN POWER POLE LOCATED IN NORTH FACE OF POWER POLE IN THE SOUTHEAST QUADRANT OF CUTHBERTSON AND ATHERTON RD. NORTHING: 543305.288 **EASTING:** 13306956.680

BENCHMARK 221 DESCRIPTION: SET GEAR SPIKE IN POWER POLE LOCATED IN NORTH FACE OF POWER POLE, SOUTH SIDE OF ATHERTON, ±380' WEST OF SAGINAW ST. 543320.552 13307735.47 NORTHING: EASTING:

762.351

759.179

763.574

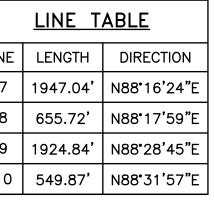
ELEVATION:

ELEVATION:

ELEVATION:

BENCHMARK 222 DESCRIPTION: SET GEAR SPIKE IN LIGHT POLE LOCATED IN SOUTH FACE OF LIGHT POLE IN THE NORTHWEST QUADRANT OF ATHERTON AND RED ARROW RD. NORTHING: 543416.913 13308565.03 EASTING:

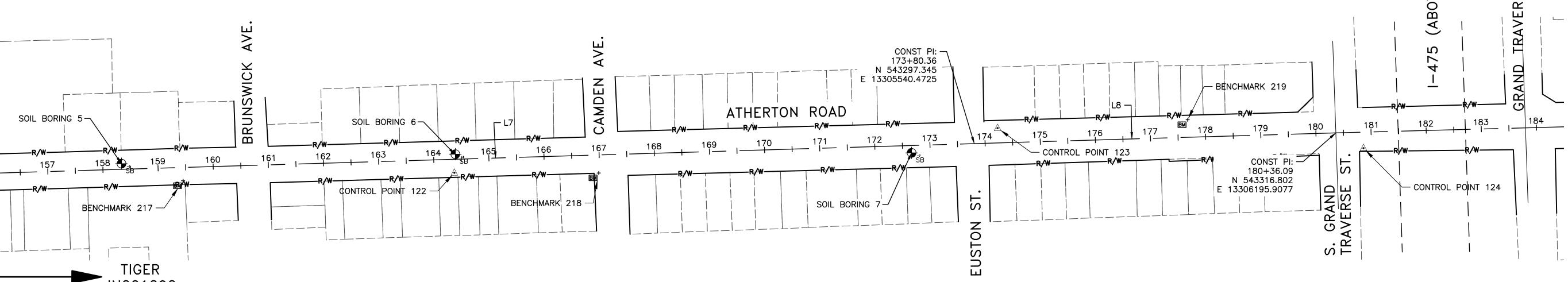
	LINE T	ABLE
LINE	LENGTH	DIRECTION
L7	1947.04	N88°16'24"E
L8	655.72'	N88°17'59"E
L9	1924.84	N88°28'45"E
L10	549.87	N88°31'57"E

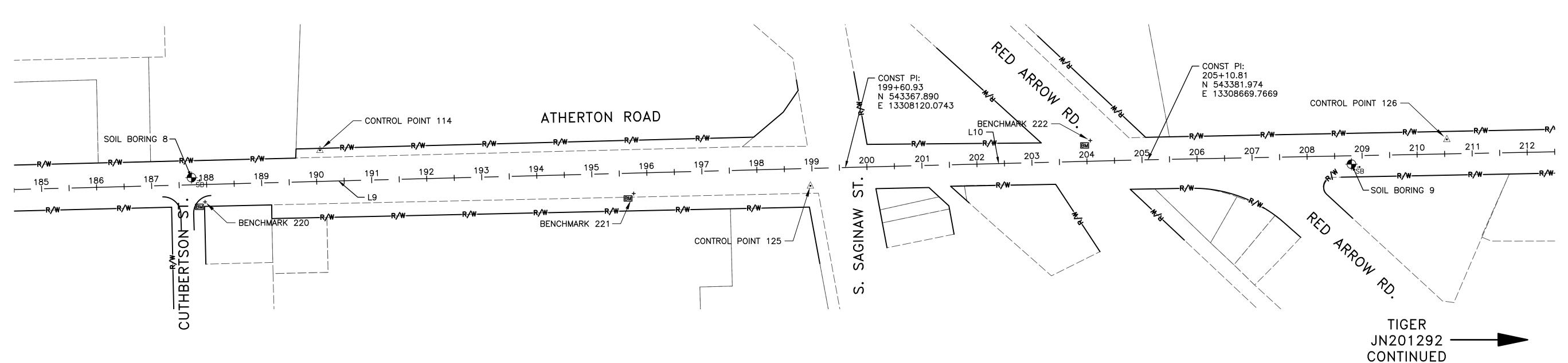




S

S



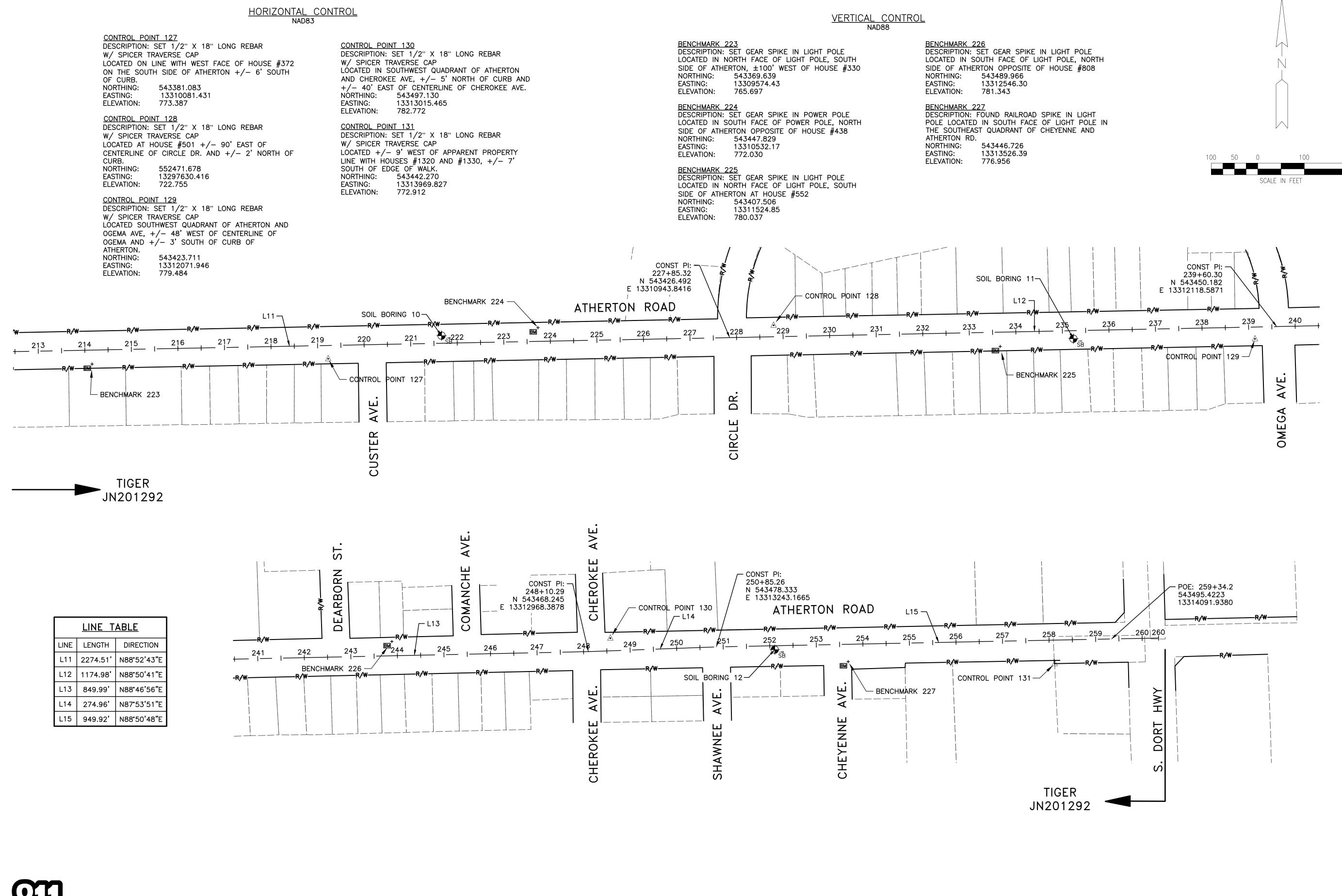


Know what's below. Call before you dig. OF FLINT SAGINAW STREET , MI 48502 01

S ≥ S

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

COF1065.01F



Know what's below.
Call before you dig.

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

OF FLINT
SAGINAW STREET

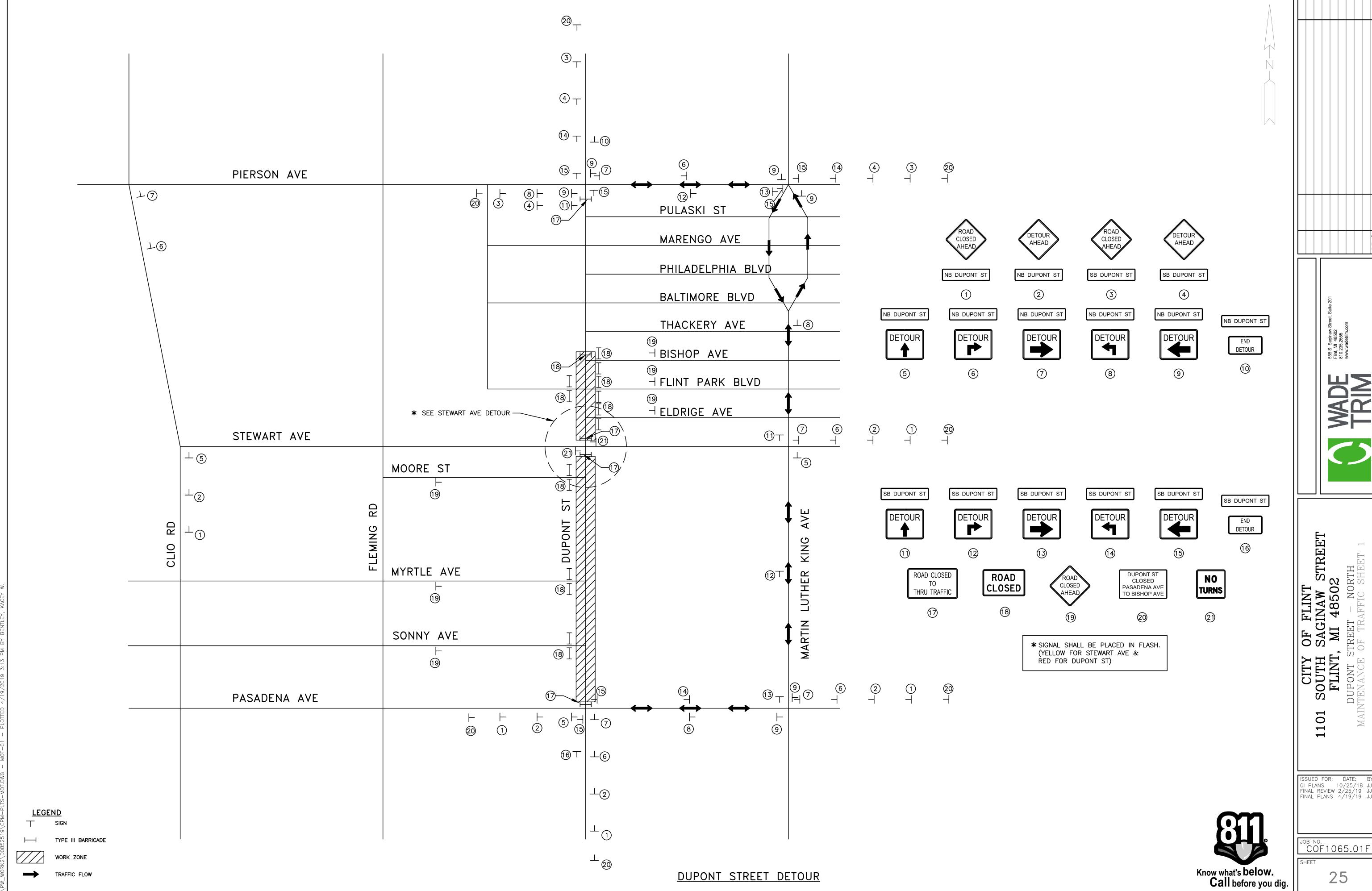
C, MI 48502

CITY (SOUTH FLINT,

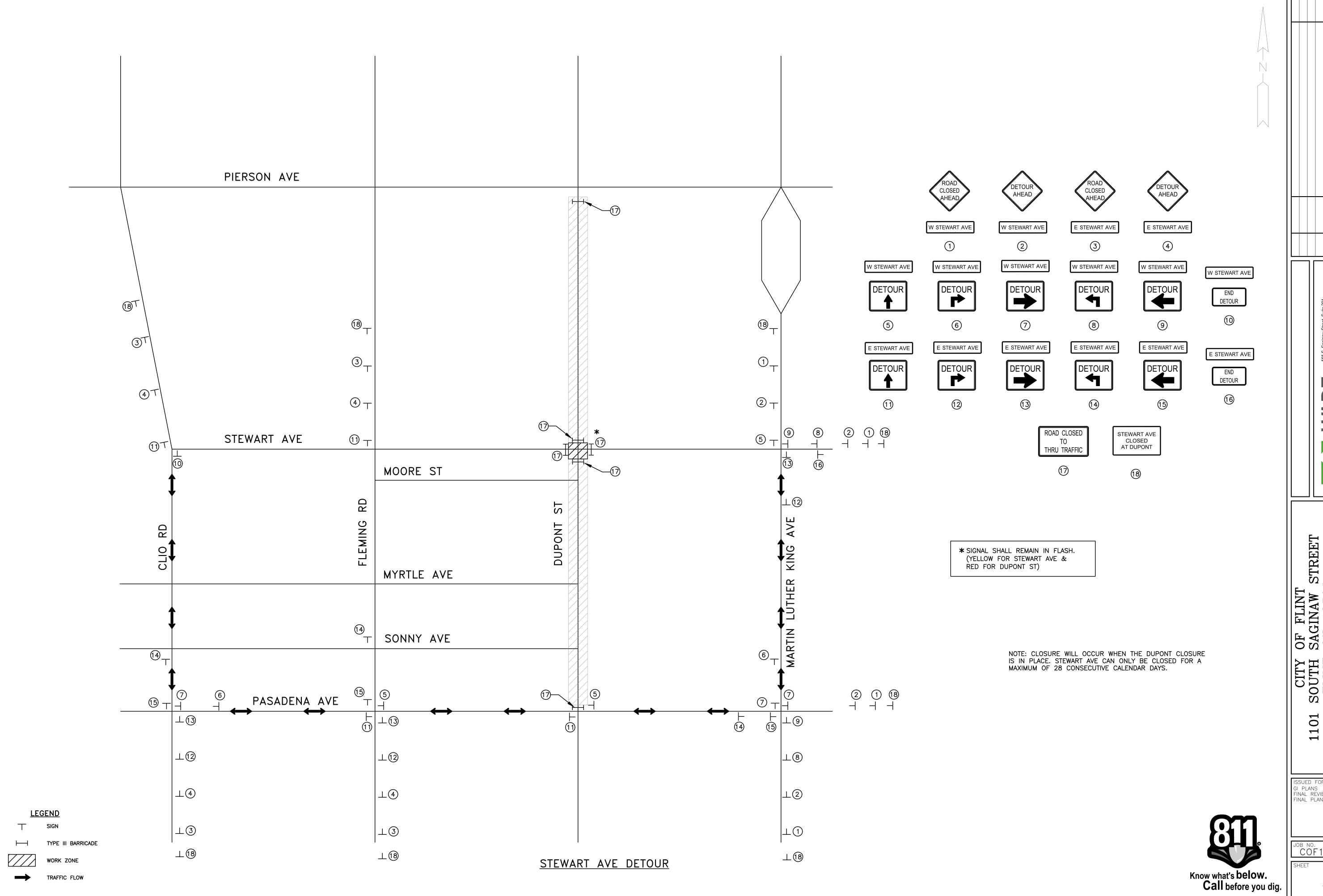
01

S Si , MI 235.

COF1065.01F



ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

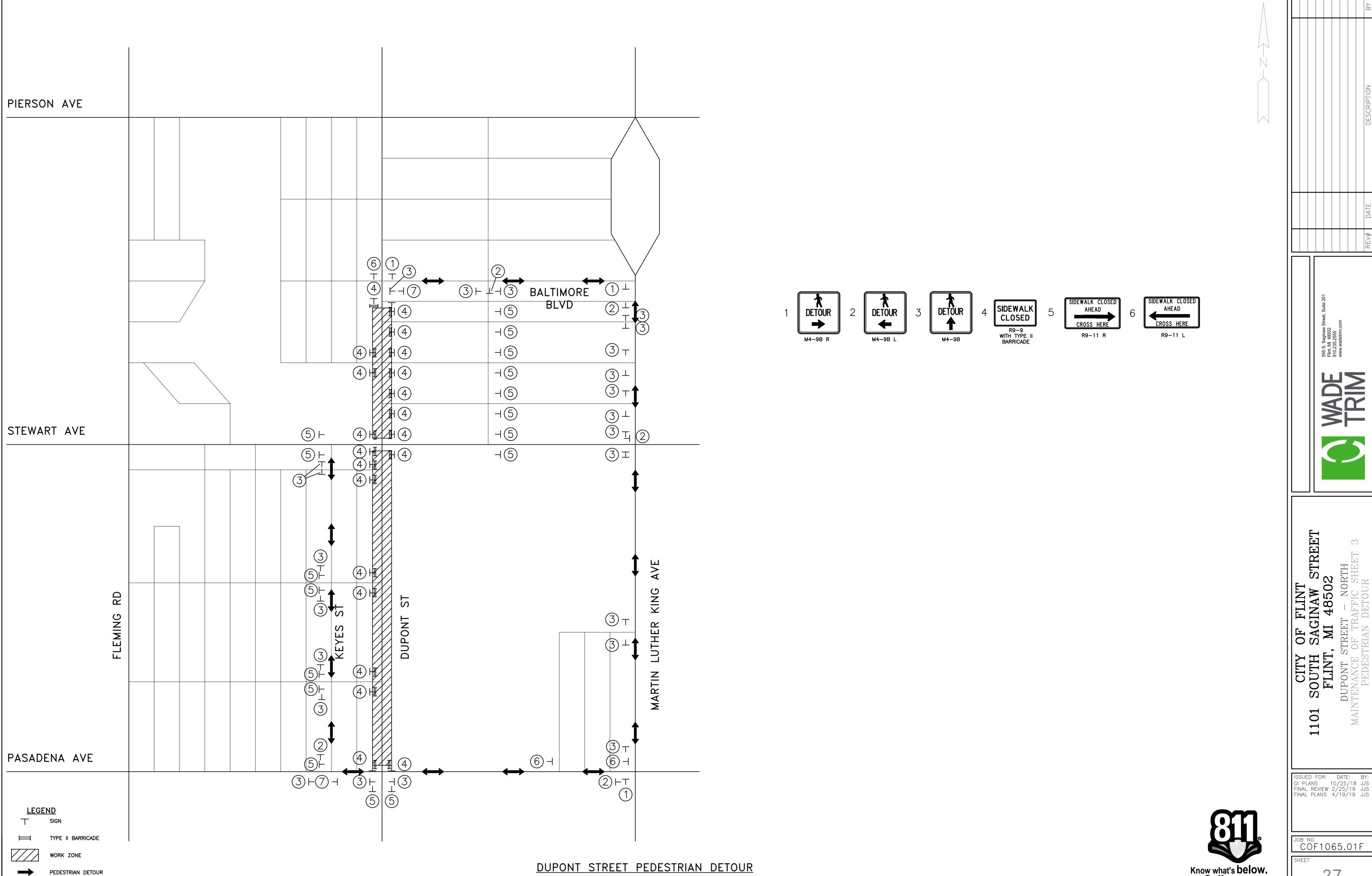


555 S. Saginaw (Flint, MI 48502 810.235.2555 www.wadetrim.co COF FLINT
I SAGINAW STREET
I, MI 48502

CITY (SOUTH SFLINT,

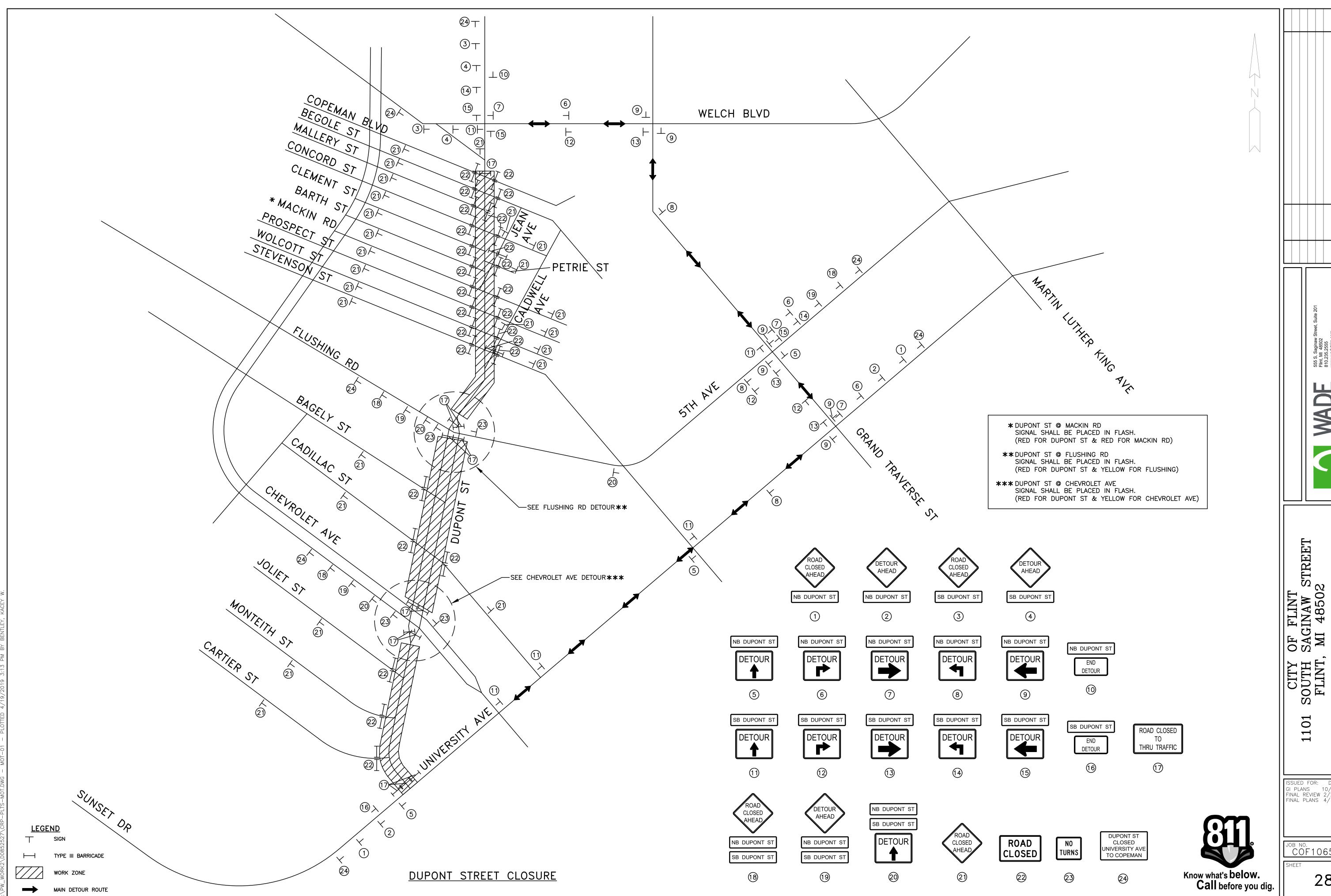
ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

JOB NO. COF1065.01F



Know what's below.

Call before you dig.

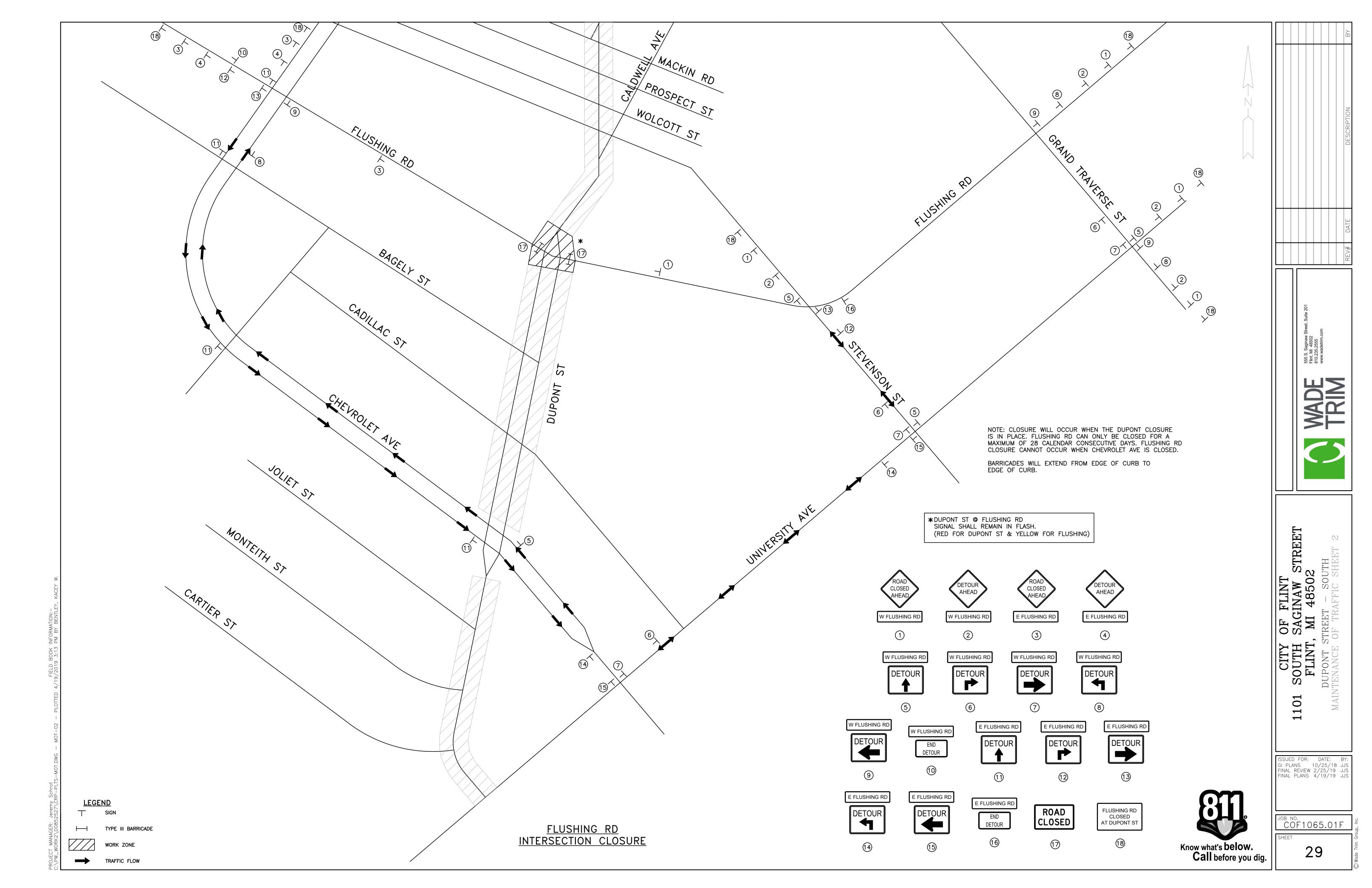


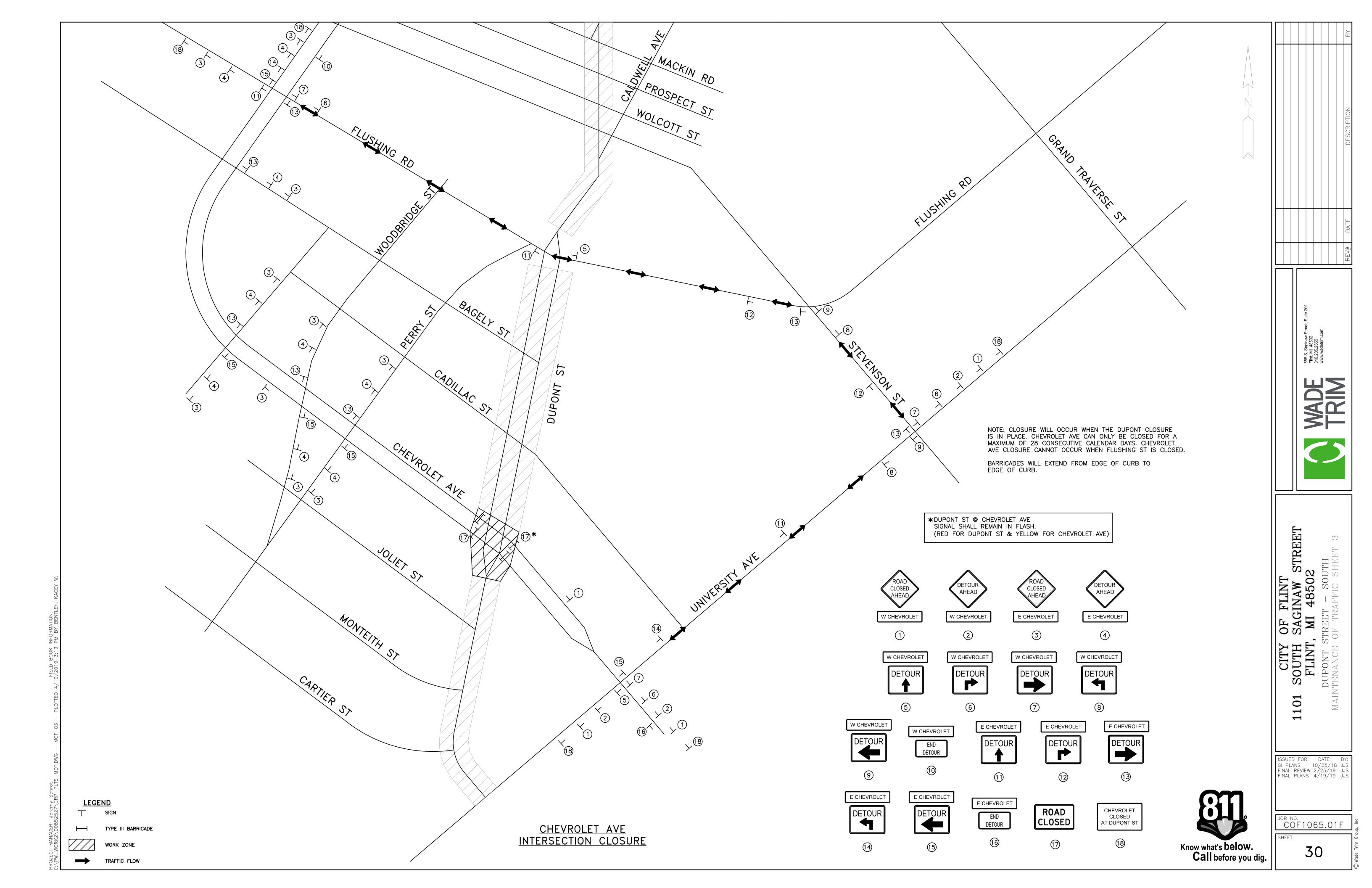
555 S. Saginaw Flint, MI 48502 810.235.2555 www.wadetrim.c

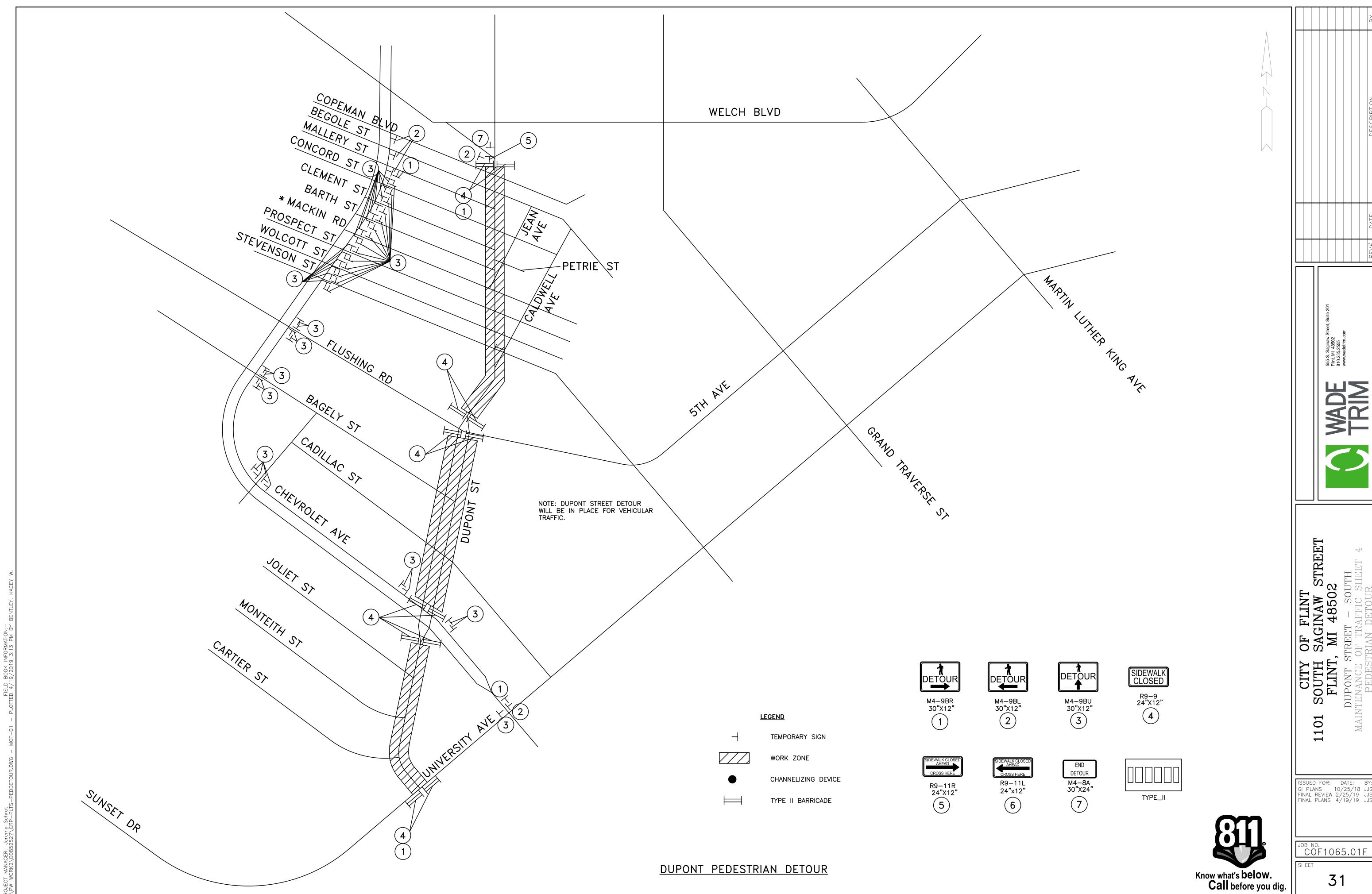
SOUTH S SOUTH S FLINT, DUPONT ST

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

<u>COF1065.01F</u>

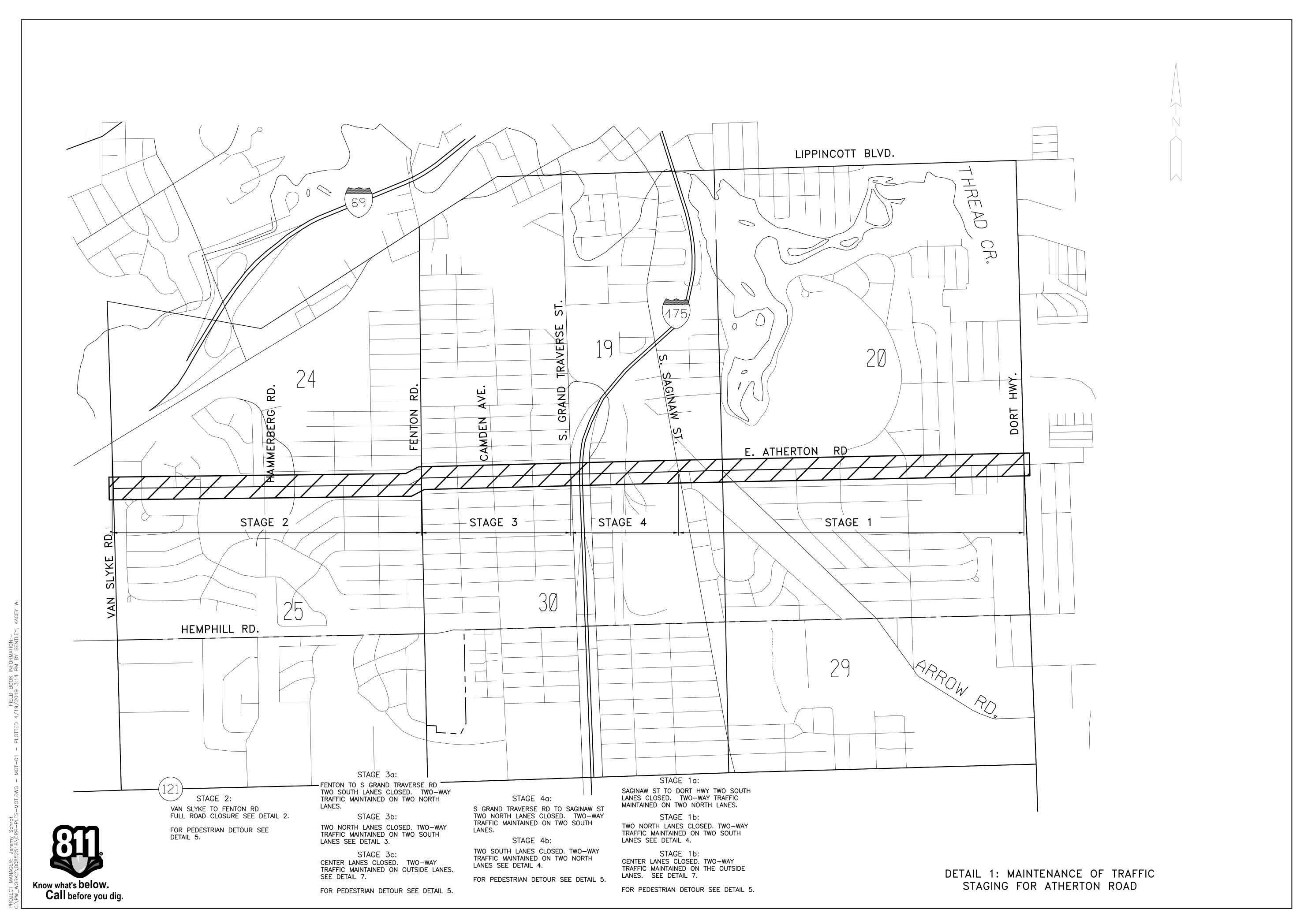






ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

COF1065.01F

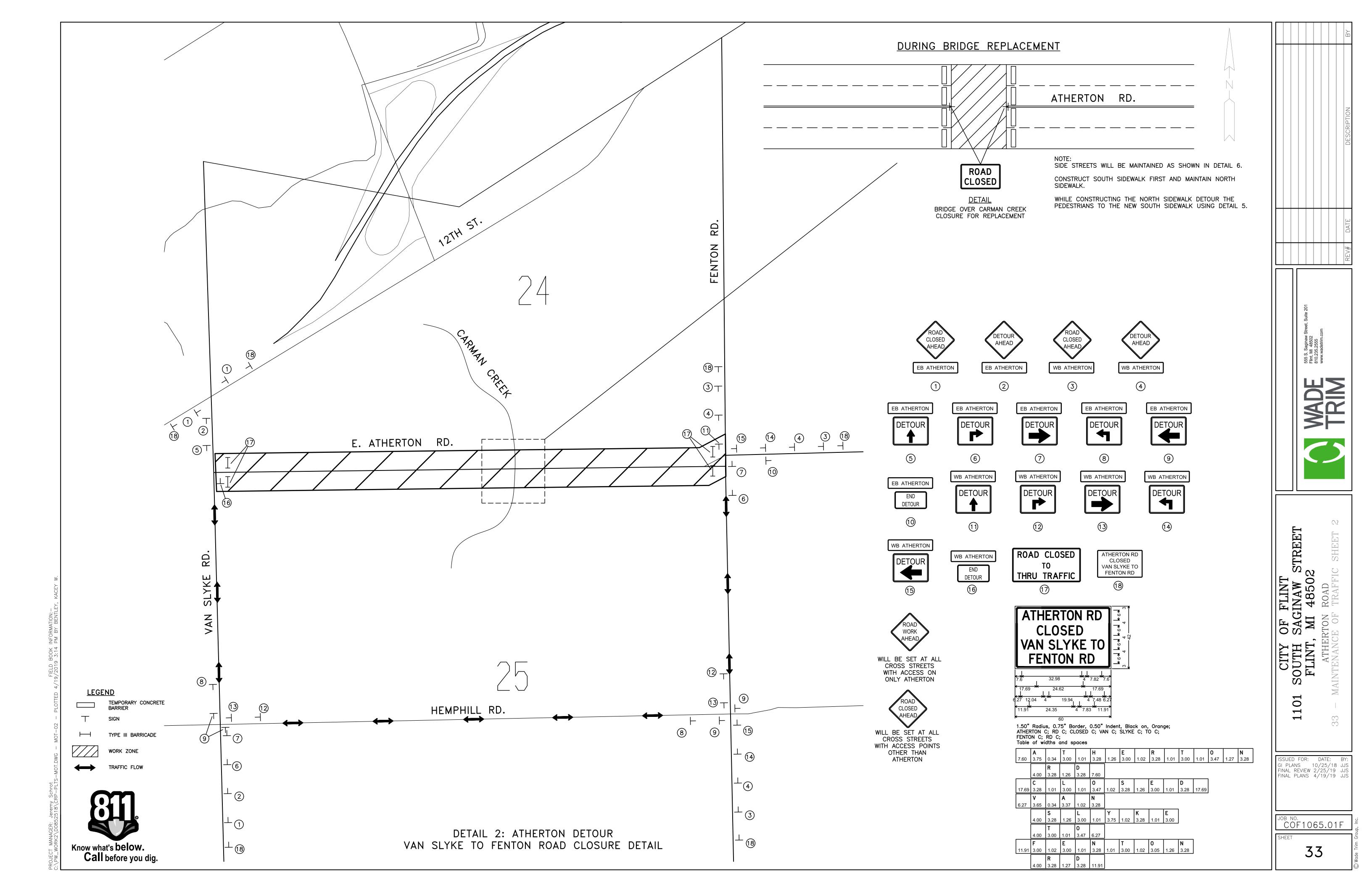


555 S. Saginaw Street, Suite 201
Flint, MI 48502
810.235.2555
www.wadetrim.com

1 SOUTH SAGINAW STR FLINT, MI 48502 ATHERTON ROAD

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

JOB NO. COF1065.01F



ATHERTON

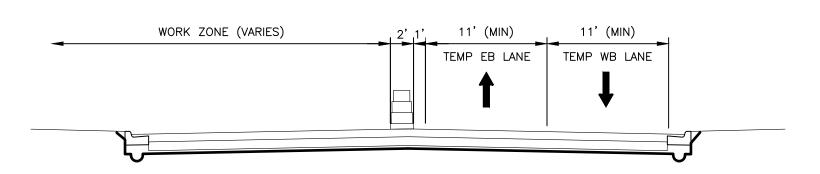
<u>KEY</u>

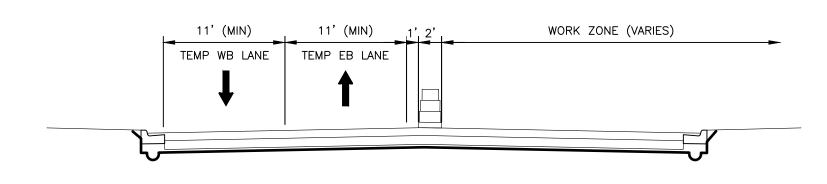
• • CHANNELIZING DEVICES

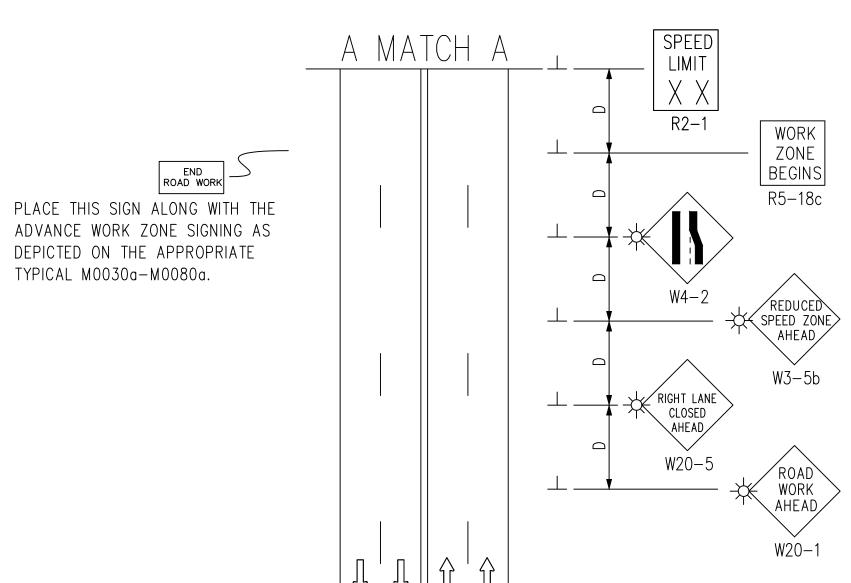
LIGHTED ARROW PANEL

TYPE A WARNING FLASHER (REQUIRED)

TRAFFIC FLOW







STAGE 3a:

TWO SOUTH LANES CLOSED. TWO—WAY TRAFFIC MAINTAINED ON TWO NORTH LANES.

STAGE 3b:
TWO NORTH LANES CLOSED. TWO—WAY TRAFFIC MAINTAINED ON TWO SOUTH LANES.

SEE DETAIL 6 FOR MAINTAINING SIDE STREET ACCESS. SEE DETAIL 5 FOR MAINTAINING PEDESTRIAN ACCESS.



WILL BE PLACED ON THE SB OFF RAMP (EXIT 5) OF I-475



STAGE 3 DETAIL 3: FENTON TO S. GRAND TRAVERSE RD



ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

OF FLINT SAGINAW STREET , MI 48502

555 S. Saginaw \$ Flint, MI 48502 810.235.2555 www.wadetrim.cc

<u>°COF1065.01F</u>

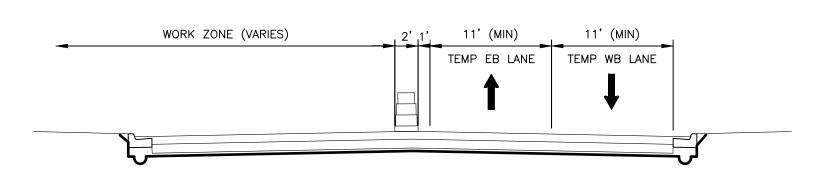


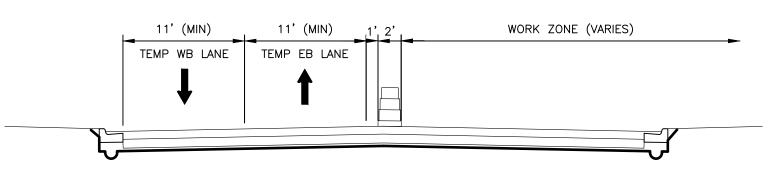
• • • CHANNELIZING DEVICES

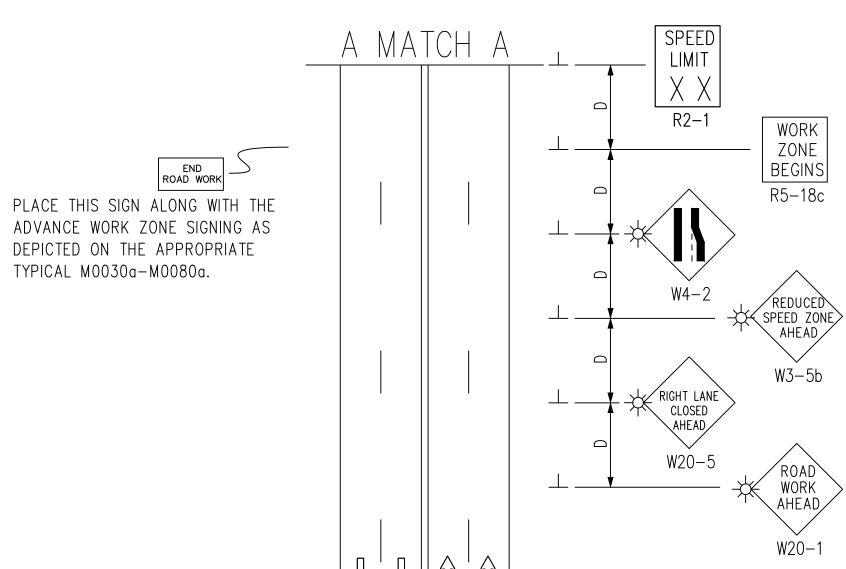
LIGHTED ARROW PANEL

TYPE A WARNING FLASHER

(REQUIRED)







STAGE 4: FOR USE ON EB APPROACH. STAGE 1: FOR USE ON WB APPROACH



WILL BE PLACED ON DORT HWY 500 FT IN ADVANCE OF THE ATHERTON ROAD INTERSECTION ON THE NORTH AND SOUTH APPROACHES.



SEE DETAIL 6 FOR MAINTAINING SIDE STREET ACCESS. SEE DETAIL 5 FOR MAINTAINING PEDESTRIAN ACCESS.

DETAIL 4: S. GRAND TRAVERSE RD TO SAGINAW ST. (STAGE 4)
SAGINAW ST TO DORT HWY (STAGE 1)

___COF1065.01F

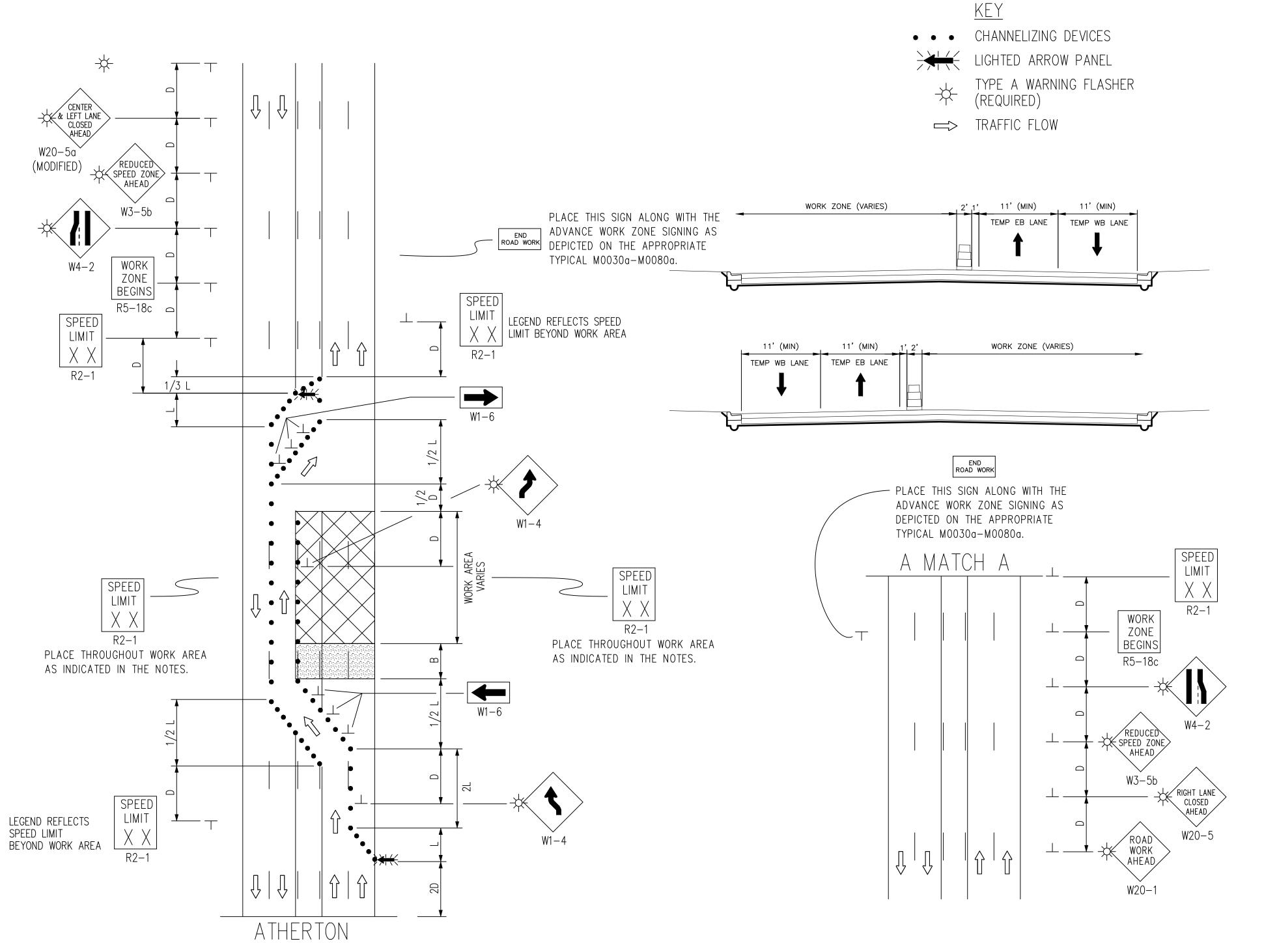
35

555 S. Saginaw \$ Flint, MI 48502 810.235.2555 www.wadetrim.cc

COF FLINT
I SAGINAW STREET
I, MI 48502 CITY SOUTH FLINT,

1101

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS





WILL BE PLACED ON DORT HWY 500 FT IN ADVANCE OF THE ATHERTON ROAD INTERSECTION ON THE NORTH AND SOUTH APPROACHES.

STAGE 4: FOR USE ON WB APPROACH.

STAGE 1: FOR USE ON EB APPROACH

WHEN WORKING IN THE INTERSECTION, SAGINAW STREET WILL BE MAINTAINED USING THIS DETAIL. WORK IN THIS INTERSECTION MUST TAKE PLACE IN QUADRANTS TO MAINTAIN TWO WAY TRAFFIC ON ATHERTON AND SAGINAW.

STAGE 4a:

TWO NORTH LANES CLOSED. MAINTAIN TWO-WAY TRAFFIC TWO SOUTH LANES.

STAGE 4b:
TWO SOUTH LANES CLOSED. MAINTAIN
TWO—WAY TRAFFIC ON TWO NORTH
LANES.

STAGE 1a: TWO SOUTH LANES CLOSED. MAINTAIN TWO—WAY TRAFFIC ON TWO NORTH LANES.

STAGE 1b: TWO NORTH LANES CLOSED. MAINTAIN TWO-WAY TRAFFIC TWO SOUTH LANES.

Know what's below.
Call before you dig.

DETAIL 4: S. GRAND TRAVERSE RD TO SAGINAW ST. (STAGE 4) SAGINAW ST TO DORT HWY (STAGE 1)

SEE DETAIL 6 FOR MAINTAINING SIDE STREET ACCESS. SEE DETAIL 5 FOR MAINTAINING PEDESTRIAN ACCESS.

COF1065.01F

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

555 S. Saginaw Flint, MI 48502 810.235.2555 www.wadetrim.co

OF FLINT SAGINAW STREET ', MI 48502

CITY SOUTH FLINT,

11' (MIN)

TEMP WB LANE

TEMP EB LANE

TEMP EB LANE

ROAD WORK AHEAD ATHERTON

PLUS ADDITIONAL R2-1's

THROUGHOUT WORK AREA

WILL BE PLACED ON DORT HWY 500 FT IN ADVANCE OF THE ATHERTON ROAD INTERSECTION ON THE NORTH AND SOUTH APPROACHES.

STAGE 1c: CENTER LANES CLOSED. TWO-WAY TRAFFIC MAINTAINED ON OUTSIDE LANES STAGE 3c:
CENTER LANES CLOSED. TWO-WAY
TRAFFIC MAINTAINED ON OUTSIDE LANES.

Know what's below.
Call before you dig.

DETAIL 7: FENTON RD TO S. GRAND TRAVERSE RD (STAGE 3) SAGINAW ST TO DORT HWY (STAGE 1)

201
REV# DATE DESCRIPTION

555 S. Saginaw Street, Suite : Flint, MI 48502 810.235.2555 www.wadetrim.com



SOUTH SAGINAW STREET
FLINT, MI 48502
ATHERTON ROAD

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

1101

COF1065.01F

36A



Know what's below.
Call before you dig.

TYPE II BARRICADE

WORK ZONE

DETAIL 5: PEDESTRIAN DETOURS

NOTE: MAINTENANCE OF VEHICLE TRAFFIC ON ATHERTON AND SIDE STREETS ARE SHOWN ON SEPARATE DETAILS. ISSUED FOR: DATE: BY:
GI PLANS 10/25/18 JJS
FINAL REVIEW 2/25/19 JJS
FINAL PLANS 4/19/19 JJS

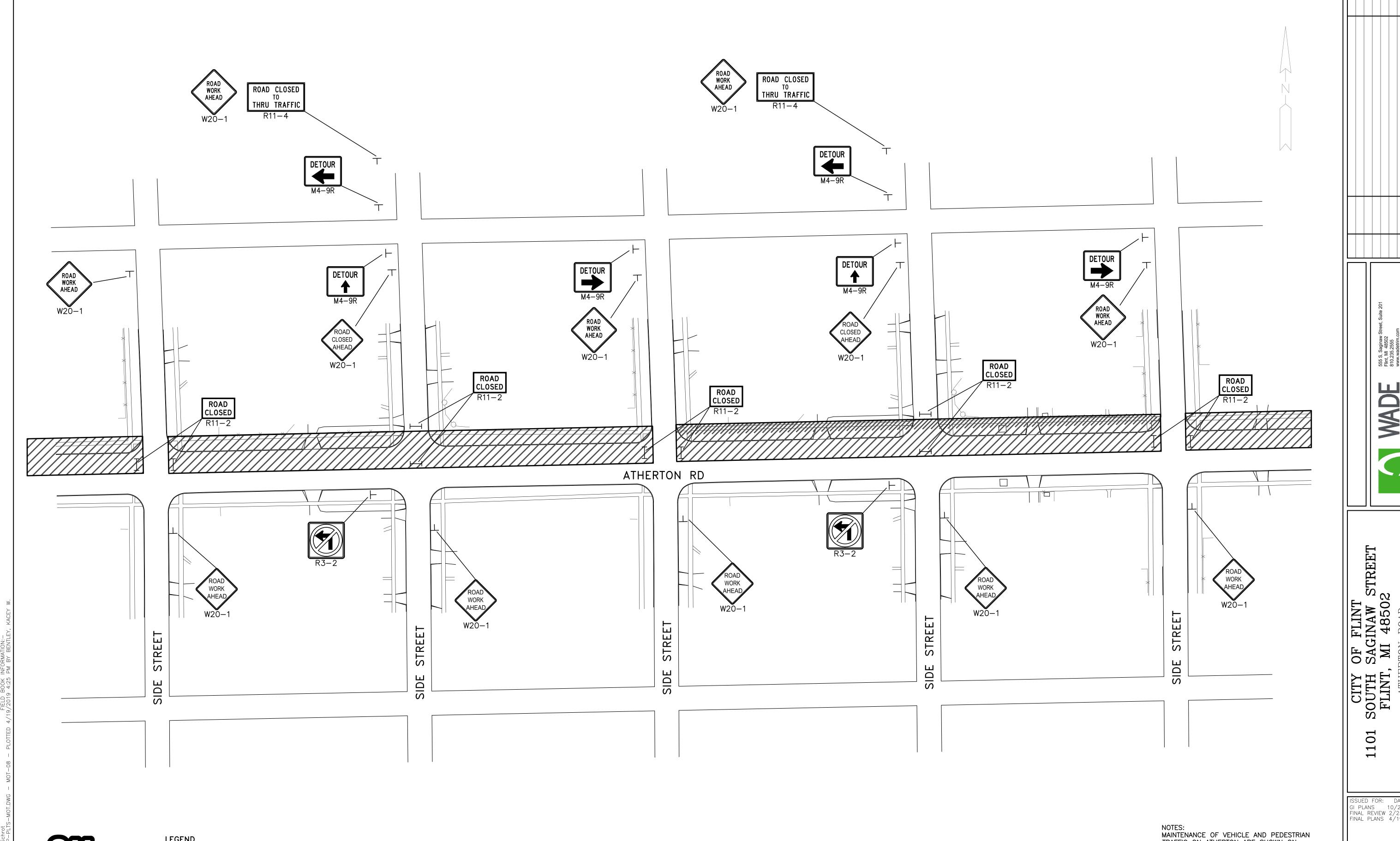
COF FLINT
I SAGINAW STREET
I, MI 48502

CITY (SOUTH FLINT,

01

555 S. Saginaw \$ Flint, MI 48502 810.235.2555 www.wadetrim.cc

JOB NO. COF1065.01F



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

WORK ZONE

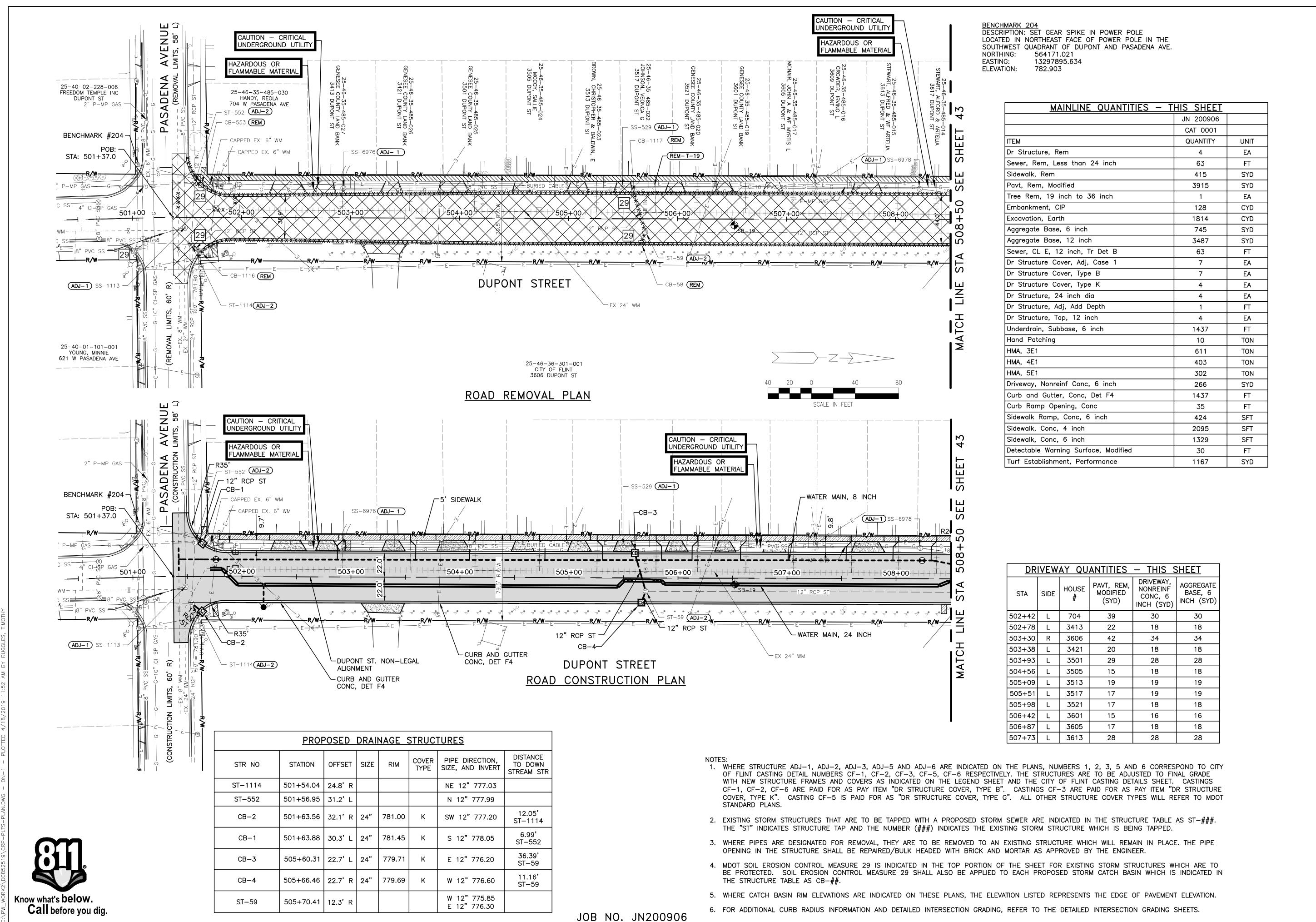
DETAIL 6: SIDE STREET ACCESS

NOTES: MAINTENANCE OF VEHICLE AND PEDESTRIAN TRAFFIC ON ATHERTON ARE SHOWN ON SEPARATE DETAILS.

ALWAYS MAINTAIN ACCESS TO SIDE STREETS WITH NO OTHER ACCESS POINTS.
MAINTAIN EVERY OTHER SIDE STREET WHERE APPLICABLE.

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

<u>COF1065.01F</u>



WADE TRIM

S ≥ S

SOUTH SAGINAW STREET
FLINT, MI 48502

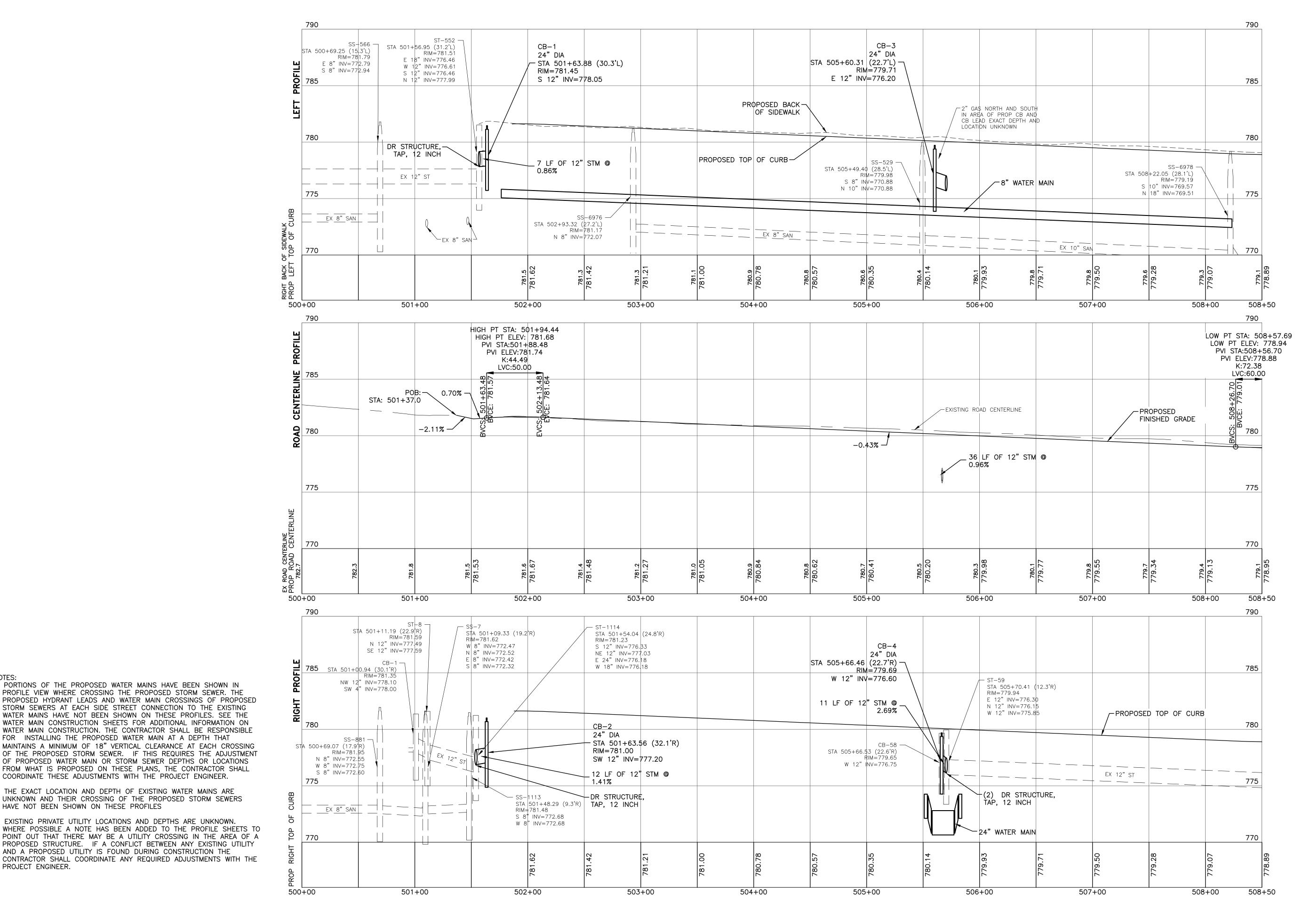
DUPONT STREET - NORTH

0

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

 \circ

JOB NO. COF1065.01F



1. PORTIONS OF THE PROPOSED WATER MAINS HAVE BEEN SHOWN IN

FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT

COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.

2. THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE

3. EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN.

AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE

HAVE NOT BEEN SHOWN ON THESE PROFILES

PROJECT ENGINEER.

PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE

STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING

WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE

WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON

WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE

MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING

OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS

FROM WHAT IS PROPOSED ON THESE PLANS, THE CONTRACTOR SHALL

UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS

PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY

COF1065.01F

I PLANS 10/25/18 JJS

FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

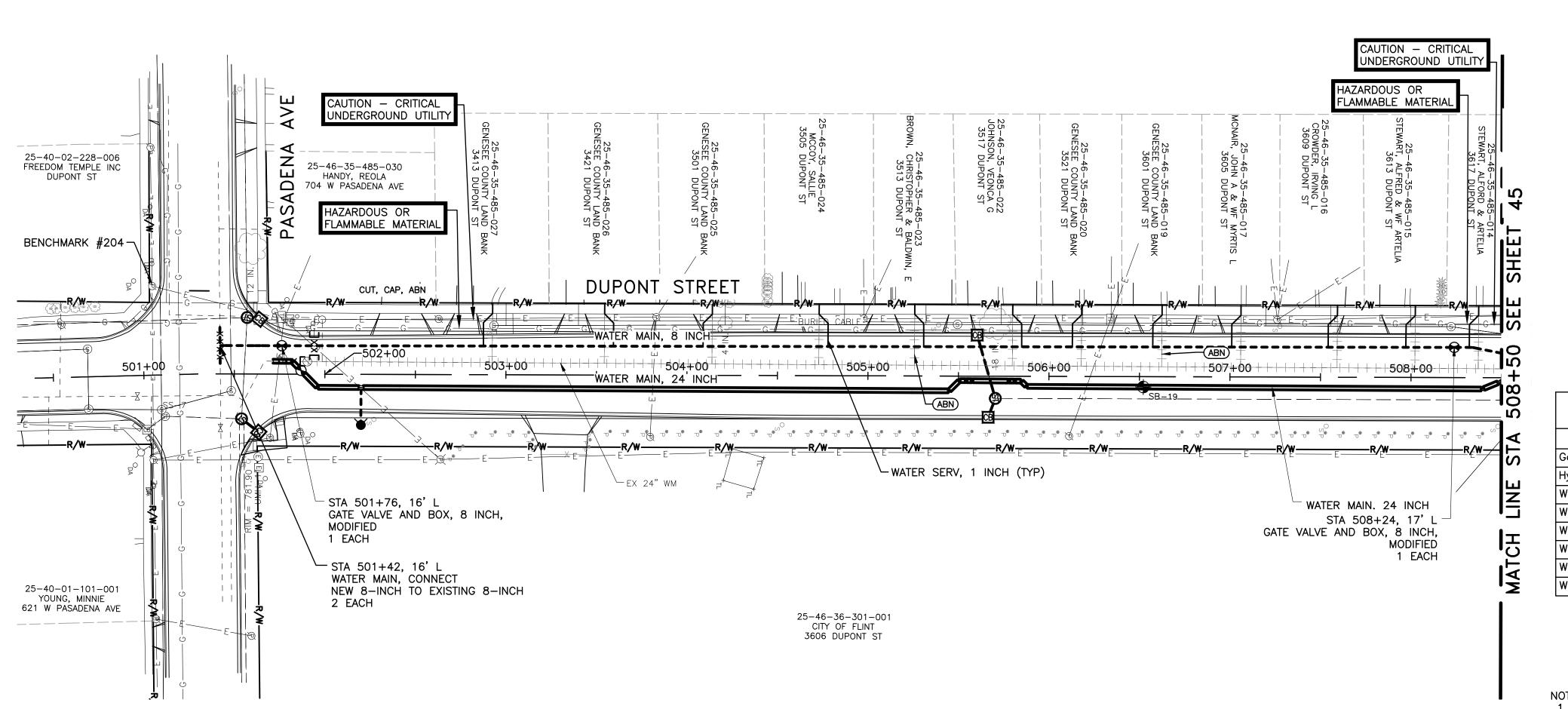
OF FLINT SAGINAW ST , MI 48502

CITY SOUTH FLINT,

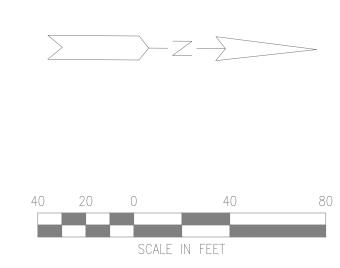
DUPONT DUPONT

S. S.

555 8 Flint, 810.2 www



BENCHMARK 204
DESCRIPTION: SET GEAR SPIKE IN POWER POLE
LOCATED IN NORTHEAST FACE OF POWER POLE IN THE
SOUTHWEST QUADRANT OF DUPONT AND PASADENA AVE.
NORTHING: 564171.021
EASTING: 13297895.634
ELEVATION: 782.903



QUANTITIES THIS	SHEET	
ITEM	QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified	2	EA
Hydrant, Rem, Modified	1	EA
Water Main, 6 inch, Cut and Plug, Modified	2	EA
Water Main, 8 inch, Open Cut	728	FT
Water Main Bedding and Backfill, SD-7W	728	FT
Water Main, Connect New 8 inch to Existing 8 inch	1	EA
Water Main, Rem	20	FT
Water Serv, 1 inch	12	EA

NOTES:

785

- 1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
- 2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW—OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
- 3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
- 4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
- 5. A MINIMUM OF 5.5—FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
- 6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.

 7. ALL BACKELL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD—7W.
- ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD—7W.
 REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
- 9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE—HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, _INCH, OPEN CUT.

SEE NEXT SHEET FOR 24" WATER MAIN INFORMATION



ISSUED FOR: DATE: BY:
GI PLANS 10/25/18 JJS
FINAL REVIEW 2/25/19 JJS
FINAL PLANS 4/19/19 JJS

OF FLINT SAGINAW STREET , MI 48502

CITY SOUTH FLINT,

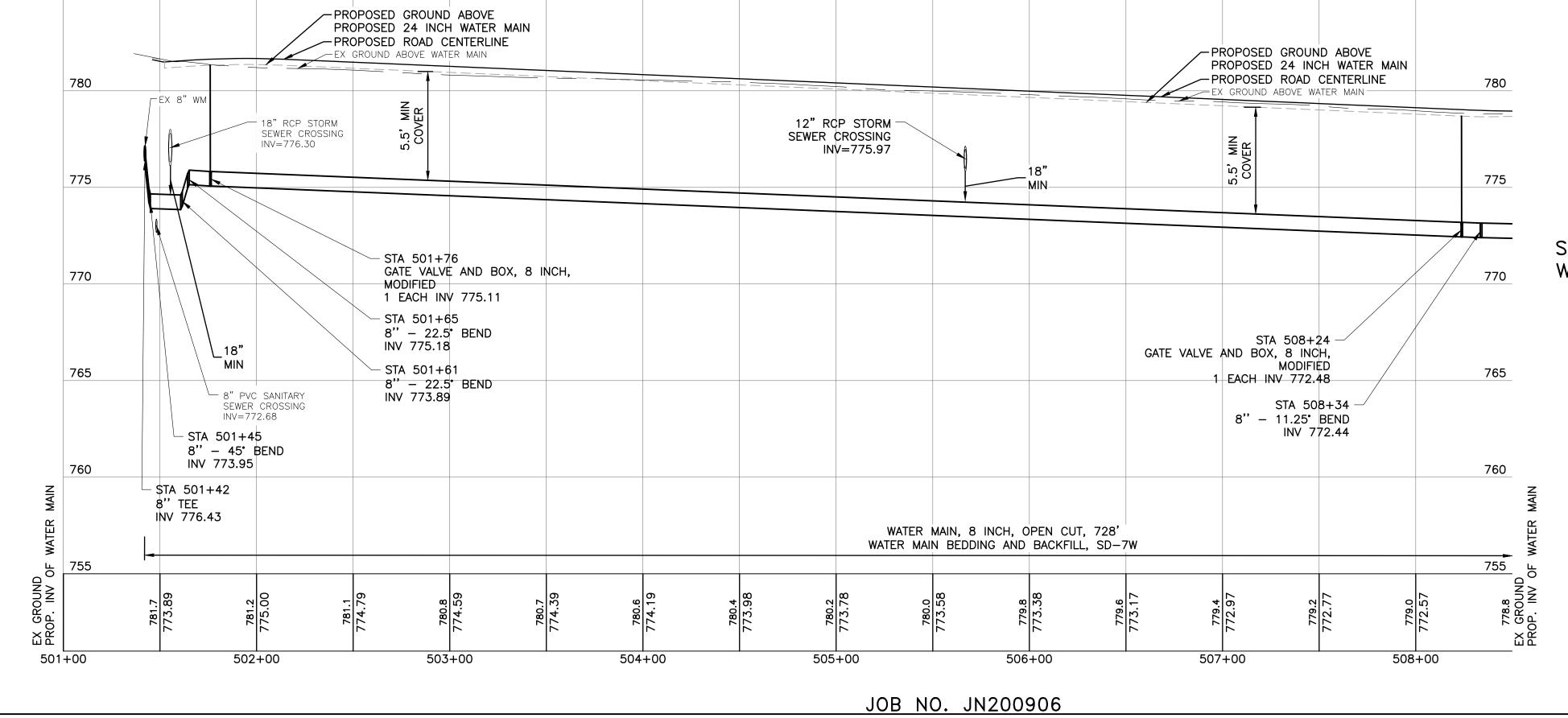
0

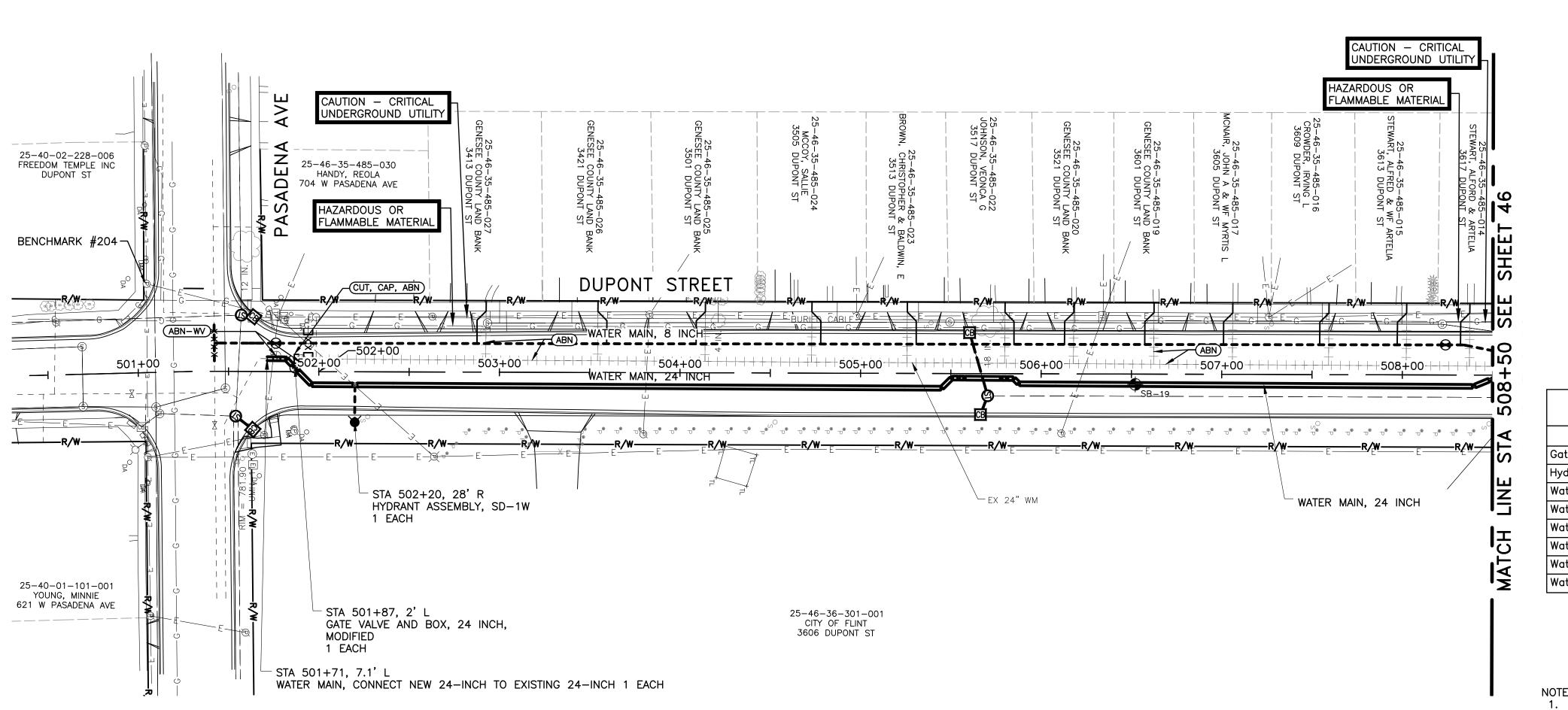
 $\overline{}$

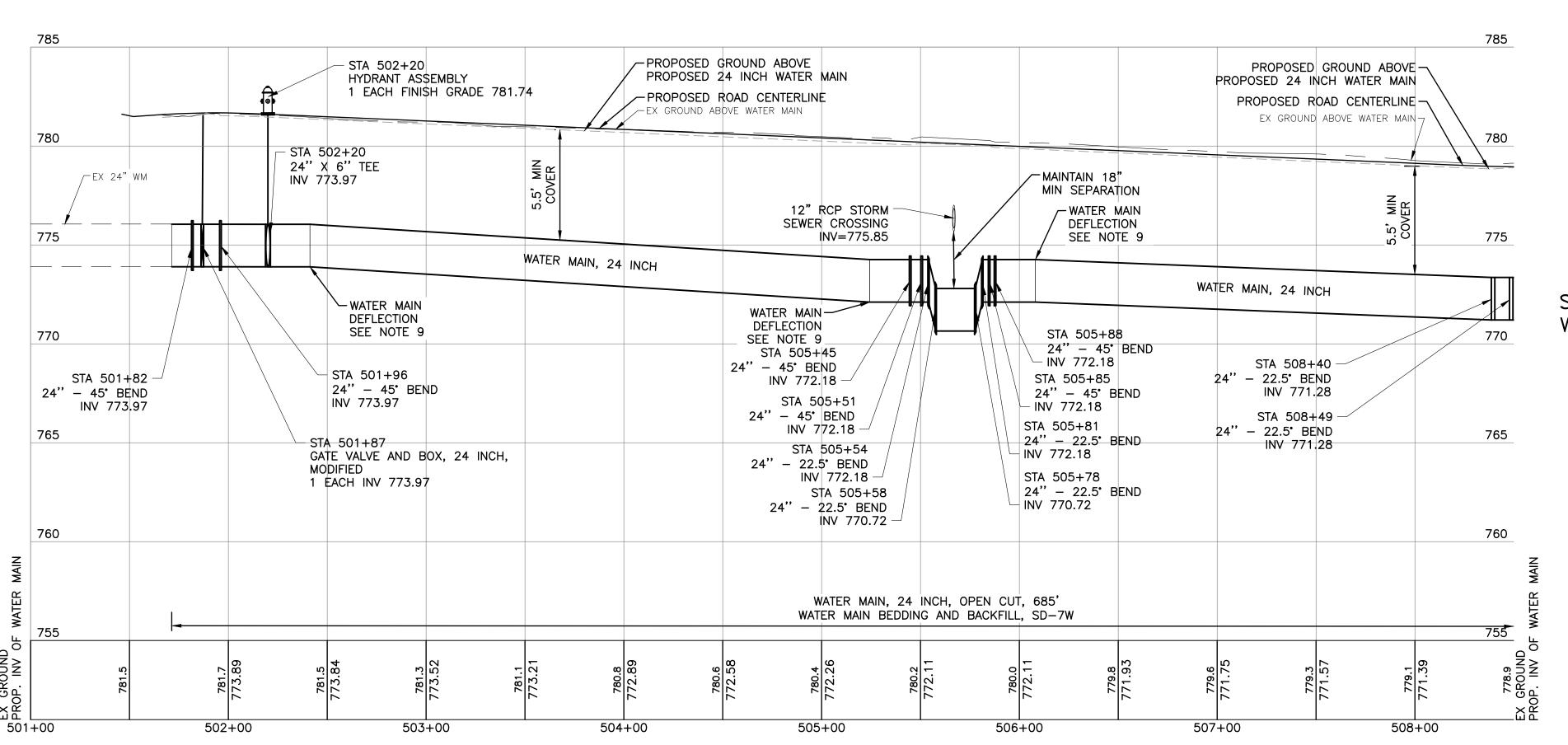
S S M 235.

555 8 Flint, 810.2

JOB NO. COF1065.01F

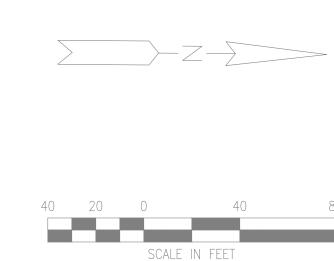






BENCHMARK 204
DESCRIPTION: SET GEAR SPIKE IN POWER POLE LOCATED IN NORTHEAST FACE OF POWER POLE IN THE SOUTHWEST QUADRANT OF DUPONT AND PASADENA AVE. NORTHING: 564171.021

13297895.634 EASTING: **ELEVATION:** 782.903



QUANTITIES THIS	SHEET	
ITEM	QUANTITY	UNIT
ate Valve and Box, 24 inch, Modified	1	EA
ydrant Assembly, SD—1W	1	EA
ater Main, 24 inch, Cut and Plug, Modified	1	EA
ater Main, 24 inch, Open Cut	654	FT
ater Main Bedding and Backfill, SD—7W	664	FT
ater Main, Connect New 24 inch to Existing 24 inch	1	EA
ater Main, Rem	15	FT
ater Structure, Abandon	2	EA

- 1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
- 2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
- 3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
- 4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
- 5. A MINIMUM OF 5.5-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL
- 6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR
- 7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W. 8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY
- DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE. 9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, _INCH, OPEN CUT.

SEE PREVIOUS SHEET FOR 8" WATER MAIN INFORMATION



GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

OF FLINT SAGINAW STREET , MI 48502

CITY SOUTH FLINT,

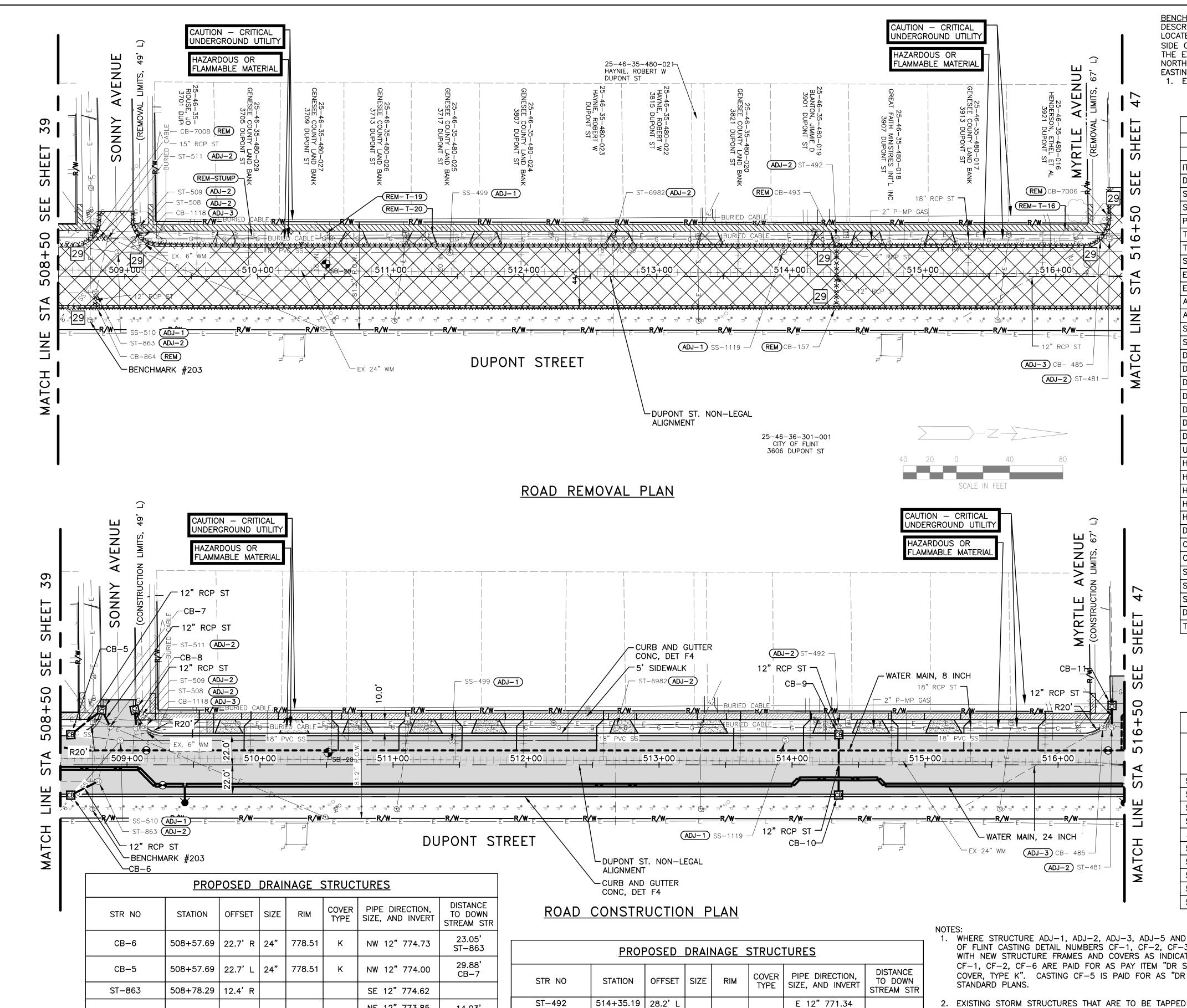
0

 $\overline{}$

S S M 235

COF1065.01F

Call before you dig.



E 12" 771.40

W 12" 771.40

W 12" 770.54

E 12" 770.64

W 12" 770.64

48"

22.7' L

776.65

JOB NO. JN200906

48" | 774.64

5.48'

ST-492

16.08

ST-481

NE 12" 773.85

SE 12" 773.85

SW 12" 773.72

E 12" 774.00

W 12" 773.80

W 12" 772.60

14.03

ST-511

ST-508

45.36' CB-9

CB-9

ST-481

CB-11

514+35.21

516+40.51 | 28.7' |

516+40.60 | 44.7' L

BENCHMARK 203
DESCRIPTION: SET GEAR SPIKE IN LIGHT POLE LOCATED IN WEST FACE OF LIGHT POLE EAST SIDE OF DUPONT ST. AND +/- 15' SOUTH OF THE EXTENDED CENTERLINE OF SUNNY AVE. NORTHING: 564940.899 13297972.048 EASTING: 1. ELEVATION: 779.017

<u>MAINLINE QUANTITIES —</u>		_
	JN 200906	
	CAT 0001	
ITEM	QUANTITY	UNIT
Dr Structure, Rem	5	EA
Sewer, Rem, Less than 24 inch	70	FT
Sidewalk, Rem	443	SYD
Pavt, Rem, Modified	4598	SYD
Tree Rem, 6 inch to 18 inch	1	EA
Tree Rem, 19 inch to 36 inch	2	EA
Stump, Rem, 6 inch to 18 inch	1	EA
Embankment, CIP	137	CYD
Excavation, Earth	1651	CYD
Aggregate Base, 6 inch	725	SYD
Aggregate Base, 12 inch	3911	SYD
Sewer, CL E, 12 inch, tr Det B	79	FT
Sewer Bulkhead, 15 inch	1	EA
Dr Structure Cover, Adj, Case 1	12	EA
Dr Structure Cover, Type B	10	EA
Dr Structure Cover, Type K	9	EA
Dr Structure, 24 inch dia	4	EA
Dr Structure, 48 inch dia	3	EA
Dr Structure, Adj, Add Depth	1	FT
Dr Structure, Tap, 12 inch	5	EA
Underdrain, Subbase, 6 inch	1555	FT
Hand Patching	10	TON
HMA, 3E1	678	TON
HMA, 4E1	452	TON
HMA, 5E1	339	TON
HMA Approach	24	TON
Driveway, Nonreinf Conc, 6 inch	207	SYD
Curb and Gutter, Conc, Det F4	1555	FT
Curb Ramp Opening, Conc	30	FT
Sidewalk Ramp, Conc, 6 inch	235	SFT
Sidewalk, Conc, 4 inch	2514	SFT
Sidewalk, Conc, 6 inch	1179	SFT
Detectable Warning Surface, Modified	30	FT
Turf Establishment, Performance	1333	SYD

<u>DRI</u>	DRIVEWAY QUANTITIES - THIS SHEET					
STA	SIDE	HOUSE #	PAVT, REM, MODIFIED (SYD)	DRIVEWAY, NONREINF CONC, 6 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)	
509+76	L	3705	16	18	18	
510+25	L	3709	19	19	19	
510+73	L	3713	19	20	20	
511+24	L	3717	21	22	22	
511+71	L	3807	22	24	24	
512+73	L	3815	19	18	18	
513+40	L	3821	17	19	19	
514+25	L	3901	16	18	18	
514+58	L	3907	24	26	26	
515+13	L	3913	24	25	25	

Know what's below. Call before you dig.

WHERE STRUCTURE ADJ-1, ADJ-2, ADJ-3, ADJ-5 AND ADJ-6 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, 3, 5 AND 6 CORRESPOND TO CITY OF FLINT CASTING DETAIL NUMBERS CF-1, CF-2, CF-3, CF-5, CF-6 RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1, CF-2, CF-6 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-3 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". CASTING CF-5 IS PAID FOR AS "DR STRUCTURE COVER, TYPE G". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT

- 2. EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
- 3. WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULK HEADED WITH BRICK AND MORTAR AS APPROVED BY THE ENGINEER.
- 4. MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
- 5. WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
- 6. FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

OF FLINT SAGINAW MI 4850 0 GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS COF1065.01F

S ≥ S

CB-7

ST-511

CB-8

ST-508

CB-10

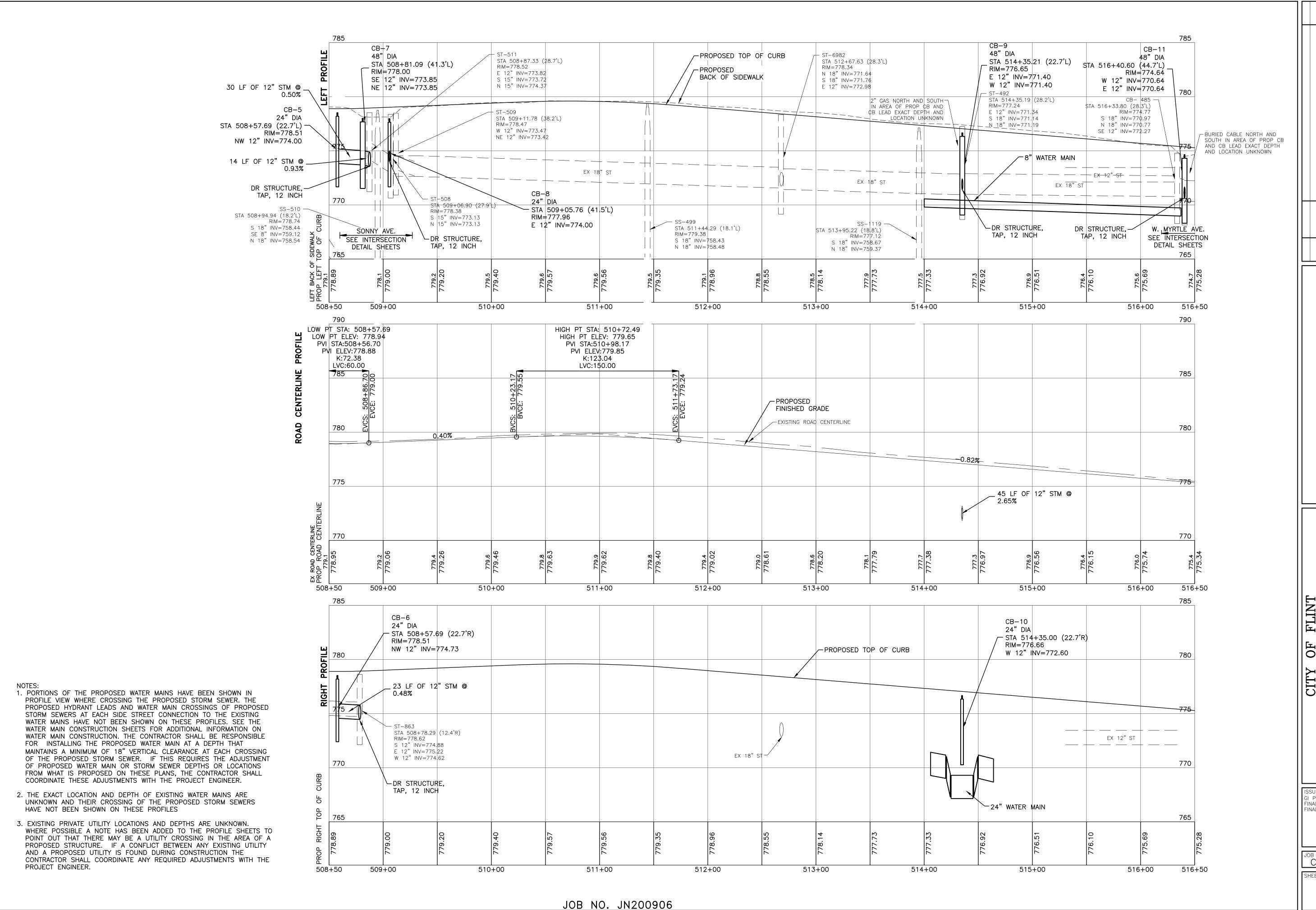
508+81.09 | 41.3' L | 48" | 778.00

509+05.76 | 41.5' L | 24" | 777.96

514+35.00 | 22.7' R | 24" | 776.66

508+87.33 | 28.7' L

509+06.90 | 27.9'L



201
REV# DATE DESCRIPTION

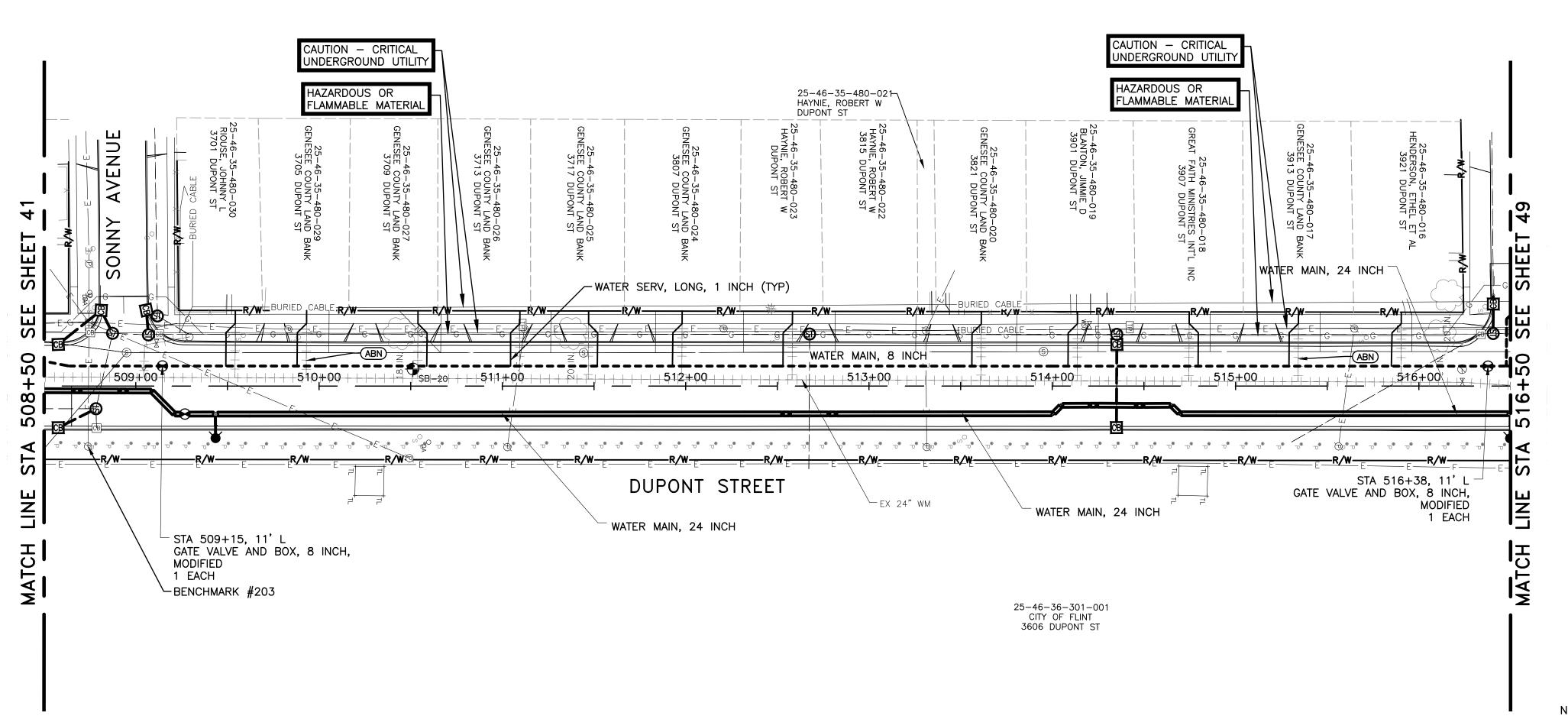
Y OF FLINT
I SAGINAW STREET
T, MI 48502
STREET - NODERT

FLINT, MI 485
DUPONT STREET - DUPONT NORTH PROJ

CITY 1101 SOUTH FLINT,

ISSUED FOR: DATE: BY: GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

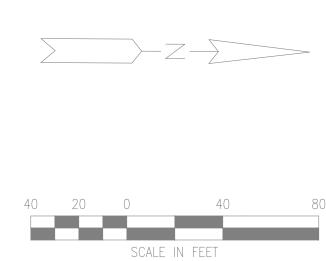
JOB NO. COF1065.01F



-PROPOSED GROUND ABOVE

PROPOSED 24 INCH WATER MAIN

BENCHMARK 203
DESCRIPTION: SET GEAR SPIKE IN LIGHT POLE
LOCATED IN WEST FACE OF LIGHT POLE EAST
SIDE OF DUPONT ST. AND +/- 15' SOUTH OF
THE EXTENDED CENTERLINE OF SUNNY AVE.
NORTHING: 564940.899
EASTING: 13297972.048
1. ELEVATION: 779.017



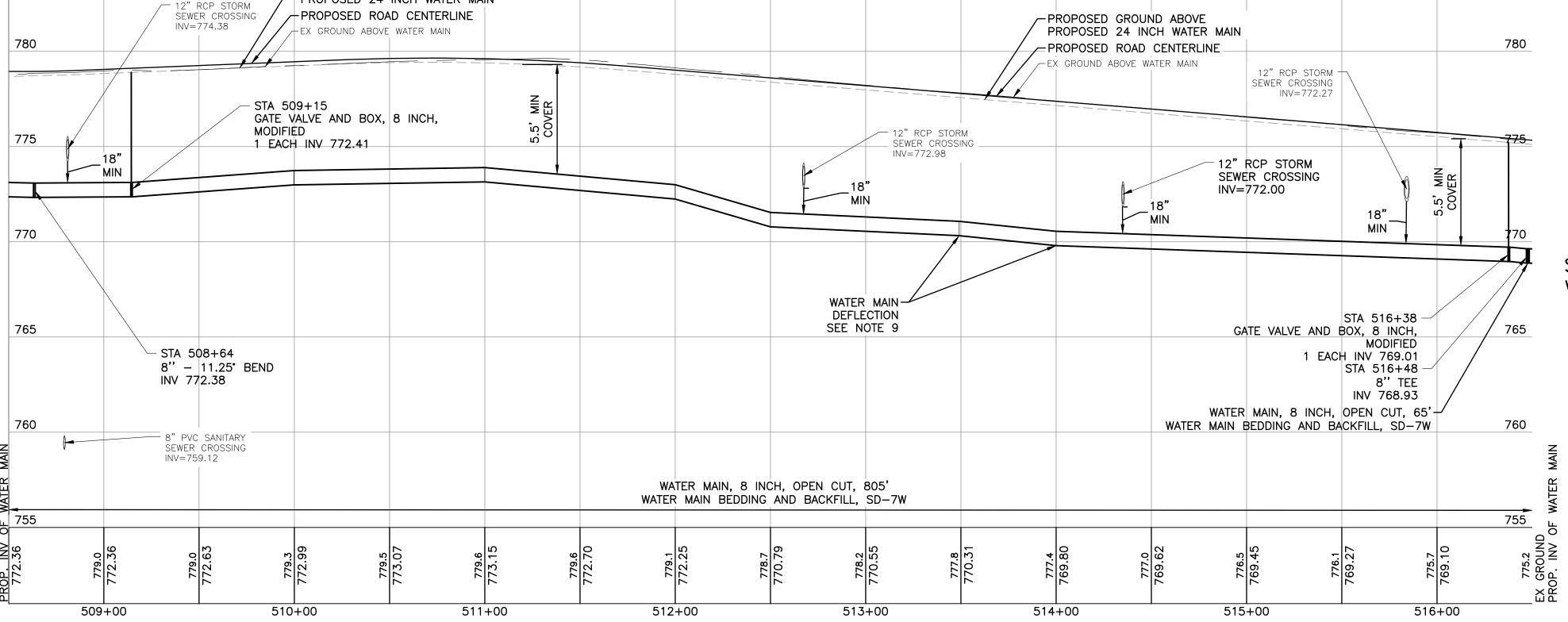
QUANTITIES THIS	SHEET	
ITEM	QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified	2	EA
Hydrant, Rem, Modified	1	EA
Water Main, 8 inch, Open Cut	805	FT
Water Main Bedding and Backfill, SD-7W	805	FT
Water Serv, Long, 1 inch	12	EA
Water Structure, Abandon	1	EA

NOTES:

785

- 1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600—10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
- 2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW—OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
- 3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
- 4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
- 5. A MINIMUM OF 5.5—FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL TIMES.
- 6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR TO CONNECTION.
- ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
 REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
- 9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE—HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, _INCH, OPEN CUT.

SEE NEXT SHEET FOR 24" WATER MAIN INFORMATION



Know what's below.
Call before you dig.

ISSUED FOR: DATE: BY:
GI PLANS 10/25/18 JJS
FINAL REVIEW 2/25/19 JJS
FINAL PLANS 4/19/19 JJS

OF FLINT SAGINAW STREET , MI 48502

CITY SOUTH FLINT,

0

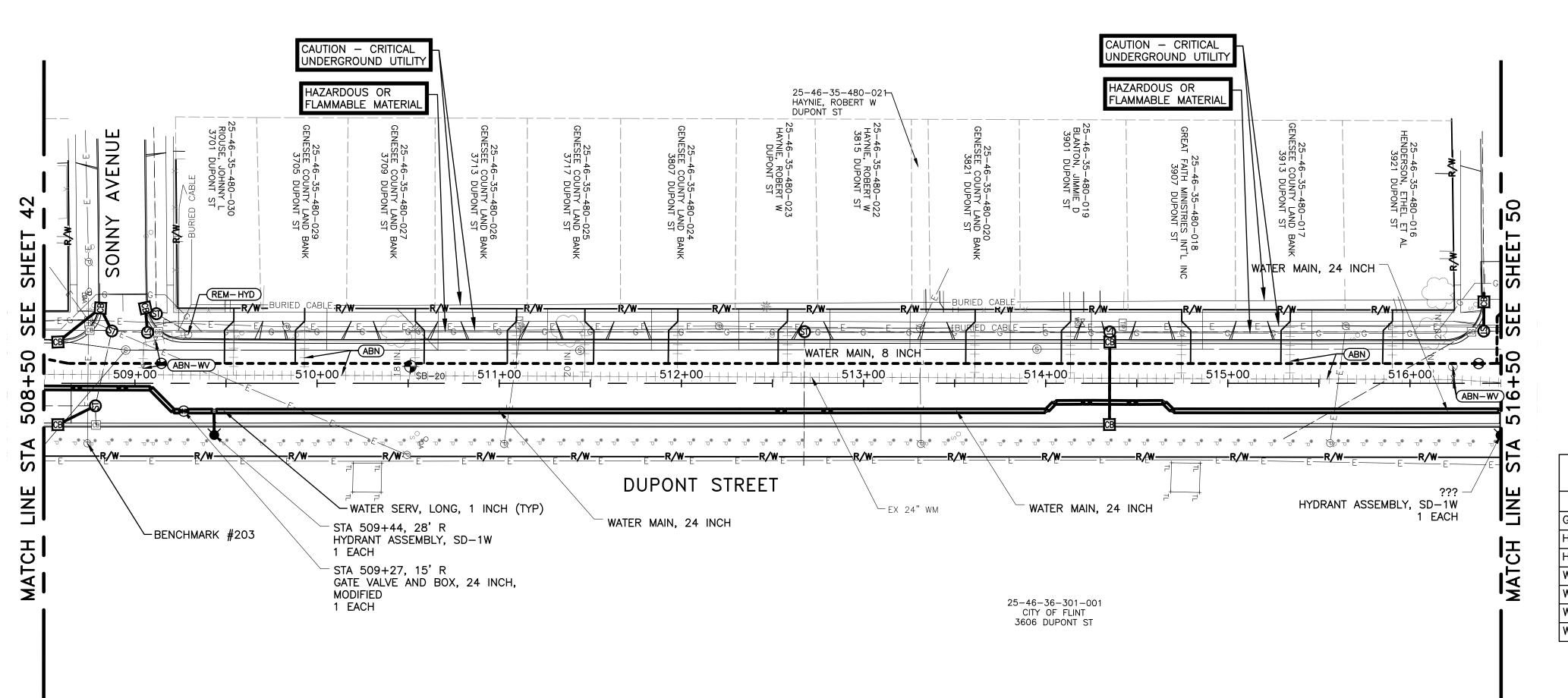
 $\overline{}$

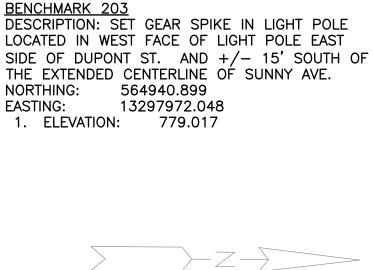
S. Saginaw , MI 48502 235.2555

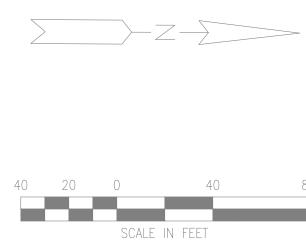
555 9 Flint, 810.2

JOB NO. COF1065.01F

45







QUANTITIES THIS	<u>SHEET</u>	
ITEM	QUANTITY	UNIT
Gate Valve and Box, 24 inch, Modified	1	EA
Hydrant, Rem, Modified	1	EA
Hydrant Assembly, SD-1W	2	EA
Water Main, 24 inch, Open Cut	802	FT
Water Main Bedding and Backfill, SD-7W	802	FT
Water Serv, Long, 1 inch	12	EA
Water Structure, Abandon	4	EA

- 1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
- 2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
- WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
- 4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
- 5. A MINIMUM OF 5.5-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL 6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR
- 7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
- 8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
- 9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, _INCH, OPEN CUT.

SEE PREVIOUS SHEET FOR 8"

WATER MAIN INFORMATION



 $\overline{}$ GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

OF FLINT SAGINAW STREET , MI 48502

CITY OUTH FLINT,

0

S S M 235

555 Flint, 810.3

COF1065.01F

46

STA 516+50 -INV 771.28 HYDRANT ASSEMBLY -PROPOSED ROAD CENTERLINE HYDRANT ASSEMBLY 780 1 EACH FINISH GRADE 779.40 1 EACH FINISH GRADE 775.12 -EX GROUND ABOVE WATER MAIN STA 514+50 24" - 22.5° BEND 12" RCP STORM INV 769.09 - SEWER | CROSSING 12" RCF - WATER MAIN INV=772.27 12" RCP STORM SEWER CROSSING DEFLECTION SEWER CROSSING INV=774.38 SEE NOTE 9 12" RCP STORM STA 509+43 INV=772.98 775 SEWER CROSSING MAINTAIN 24" X 6" TEE - STA 514+65 INV=772.23 MIN SEPARATION INV 771.28 MAINTAIN 18" 24" - 45° BEND MAINTAIN 18" MIN SEPARATION 5.5' MIN COVER INV 768.74 MIN SEPARATION WATER MAIN, 24 INCH MAINTAIN 18" WATER MAIN, 24 INCH MIN SEPARATION 770 - WATER MAIN WATER MAIN **DEFLECTION** DEFLECTION SEE NOTE 9 SEE NOTE 9 - WATER MAIN STA 509+27 DEFLECTION GATE VALVE AND BOX, 24 INCH, SEE NOTE 9 MODIFIED STA 512+53 1 EACH INV 771.28 24" - 22.5° BEND 765 \$TA 509+21 INV 770.60 24" - 45° BEND └ WATER MAIN - STA 514+70 STA 514+00 -- INV 771.28 STA 512+57 DEFLECTION 24" - 45° BEND 24" - 45 BEND 24" - 22.5 BEND SEE NOTE 9 INV 768.62 STA 509+09 INV 769.39 INV 768.83 24" - 45° BEND STA 516+50 -- STA 514+45 - INV 771.28 24" X 6" TEE 24" - 22.5° BEND 760 STA 514+05 STA 512+78 INV 767.08 INV 767.22 STA 508+95 8" PVC SANITARY 24" - 45° BEND 24" - 22.5° BEND 24" - 22.5° BEND SEWER CROSSING INV 769.35 − STA 514+24 INV 768.83 STA 512+82 -INV=759.12 - WATER MAIN - INV 771.28 24" - 22.5° BEND DEFLECTION 24" - 22.5° BEND INV 767.22 - STA 514+20 STA 508+70 STA 508+91 SEE NOTE 9 INV 770.60 24" - 22.5° BEND 24" - 22.5° BEND 24" - 22.5° BEND - INV 769.51 INV 769.09 - INV 769.51 755 GROUNI OP. INV 771.21 779.6 779 509+00 510+00 511+00 512+00 513+00 514+00 515+00 516+00

WATER MAIN, 24 INCH, OPEN CUT, 802'

WATER MAIN BEDDING AND BACKFILL, SD-7W

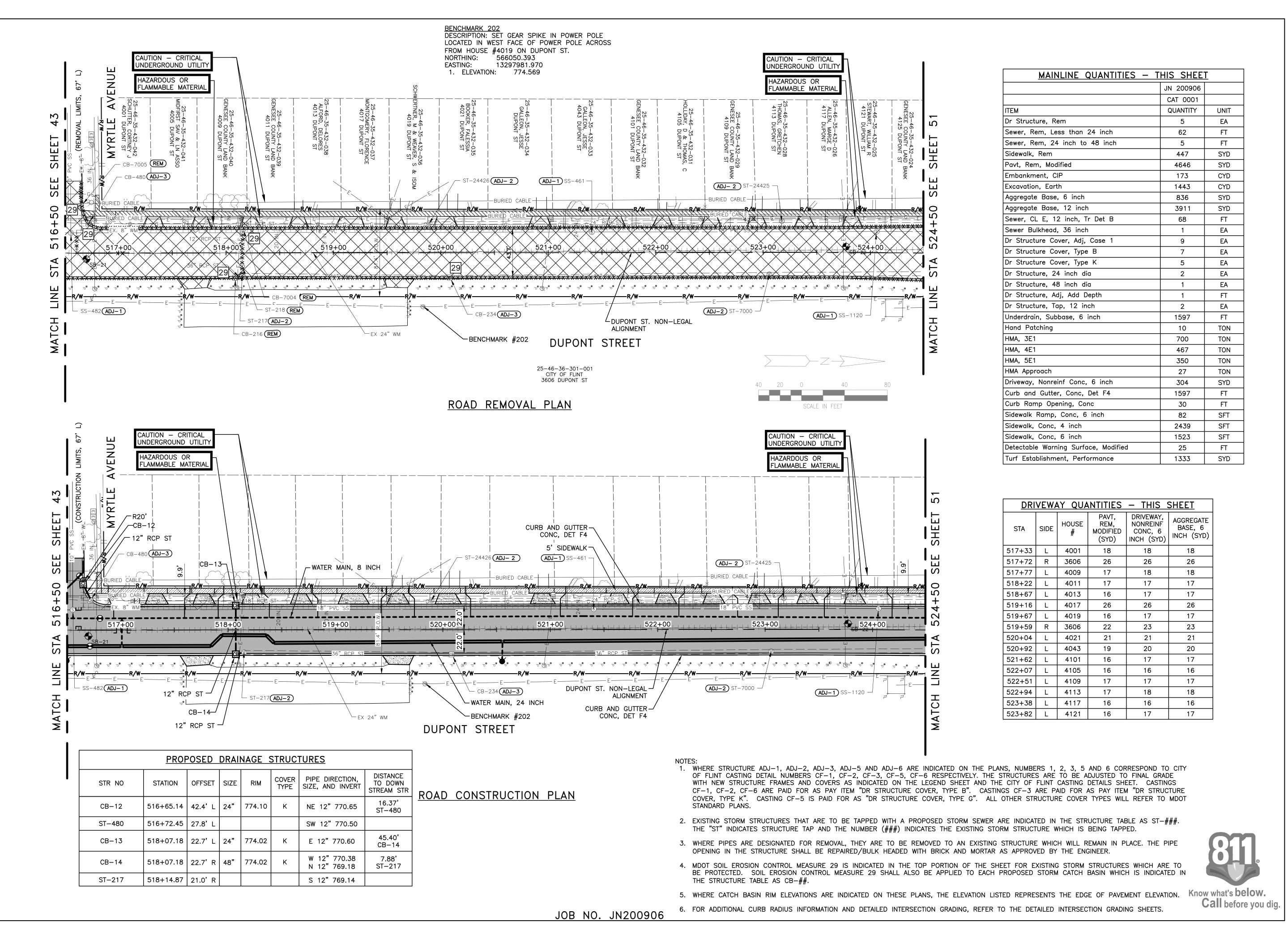
PROPOSED GROUND ABOVE

PROPOSED 24 INCH WATER MAIN

785

STA 508+66

24" - 22.5° BEND ___ STA 509+44



S. Saginaw , MI 48502 235.2555

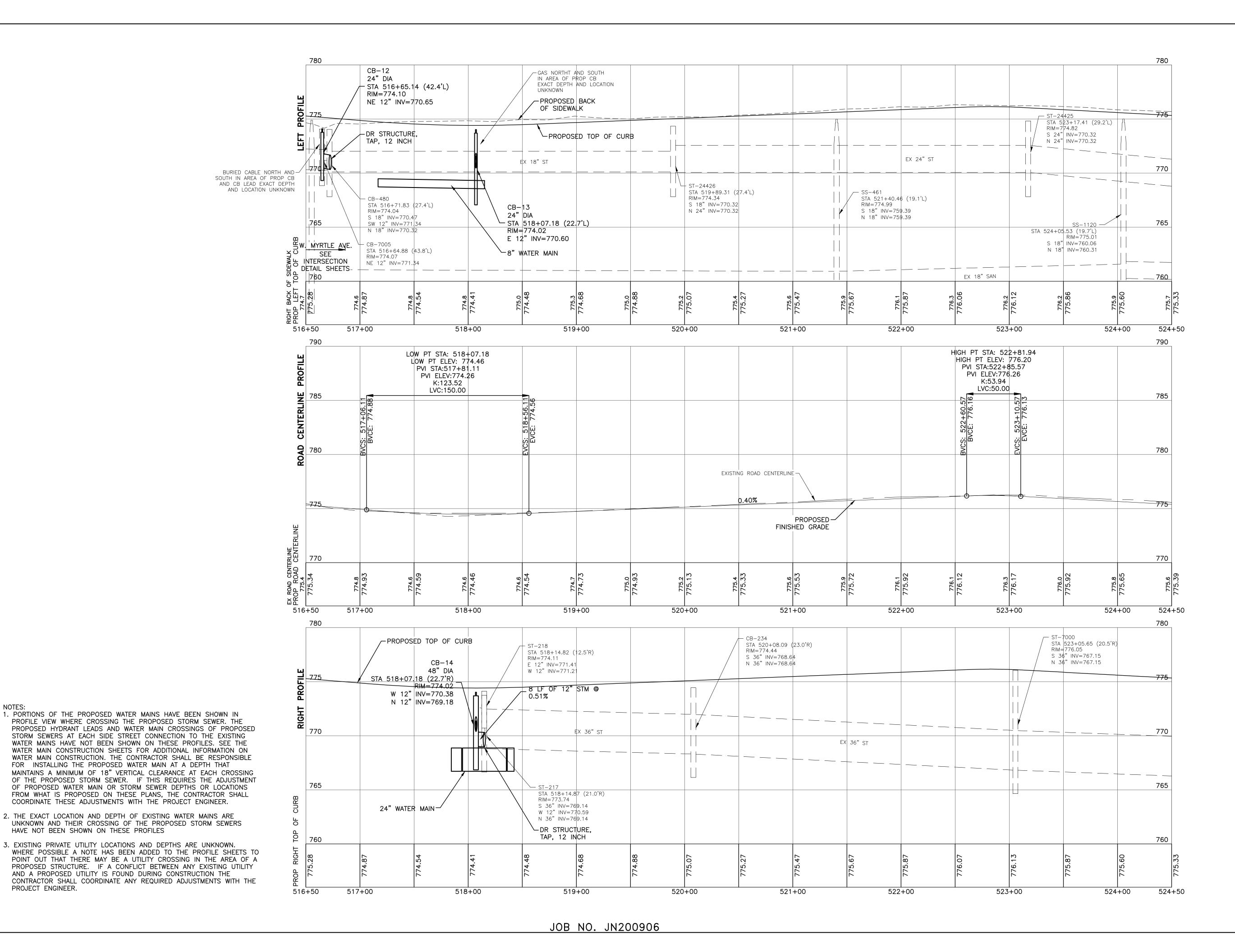
STREET)2 OF FLING SAGINAW MI 4850 S/S

CITY OUTH FLINT,

0

GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

COF1065.01F



S S S

V S' 02

OF FLINT SAGINAW S MI 48502

CITY SOUTH FLINT,

DUPO] DUPO]

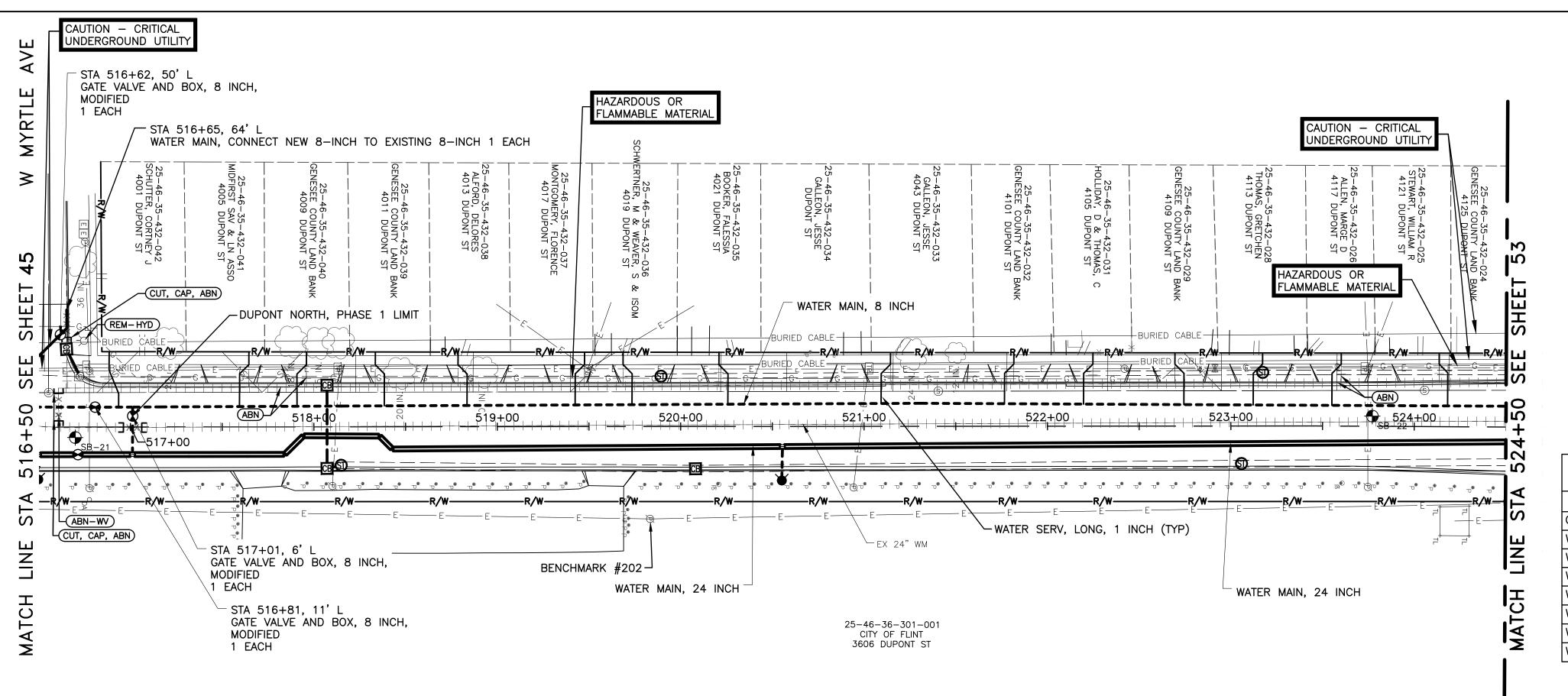
I PLANS 10/25/18 JJS

FINAL REVIEW 2/25/19 JJS

FINAL PLANS 4/19/19 JJS

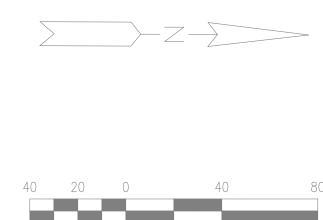
COF1065.01F

PROJECT ENGINEER.



BENCHMARK 202
DESCRIPTION: SET GEAR SPIKE IN POWER POLE LOCATED IN WEST FACE OF POWER POLE ACROSS FROM HOUSE #4019 ON DUPONT ST. NORTHING:

"566050.393 13297981.970 **EASTING:** 1. ELEVATION: 774.569



SCALE IN FEET

QUANTITIES THIS	SHEET	
ITEM	QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified	3	EA
Water Main, 8 inch, Open Cut	805	FT
Water Main Bedding and Backfill, SD-7W	805	FT
Water Main, Connect New 8 inch to Existing 8 inch	1	EA
Water Main, 8 inch, Cut and Plug, Modified	3	EA
Water Main, Rem	30	FT
Water Serv, Long, 1 inch	15	EA
Water Structure, Abandon	1	EA

1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.

- 2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
- WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER. 4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO
- ENDING WITH A HYDRANT. 5. A MINIMUM OF 5.5-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL
- 6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR
- 7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W. 8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY
- DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE. 9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, _INCH, OPEN CUT.

SEE NEXT SHEET FOR 24" WATER MAIN INFORMATION



GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

OF FLINT SAGINAW STREET MI 48502

CITY SOUTH FLINT,

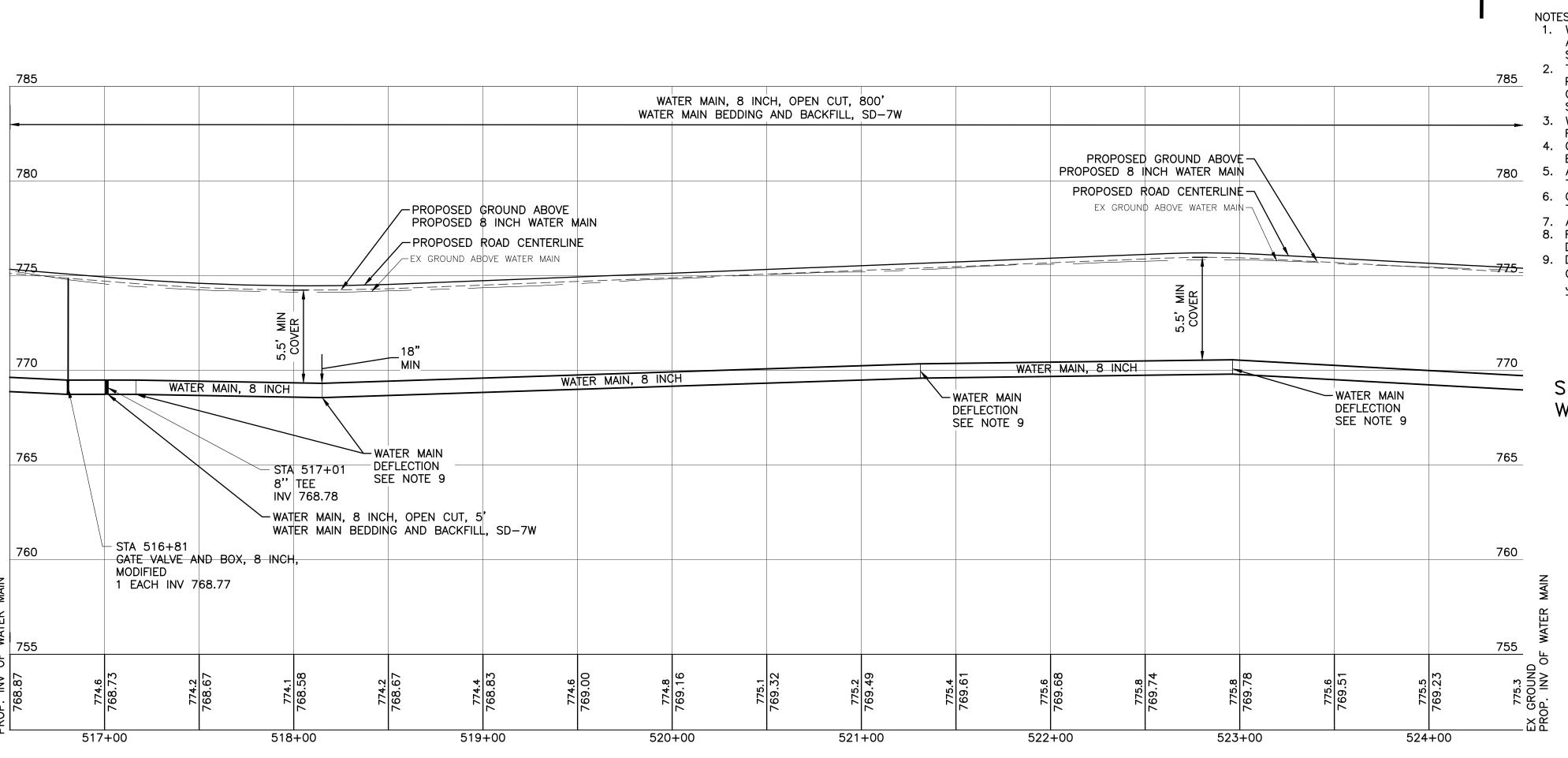
0

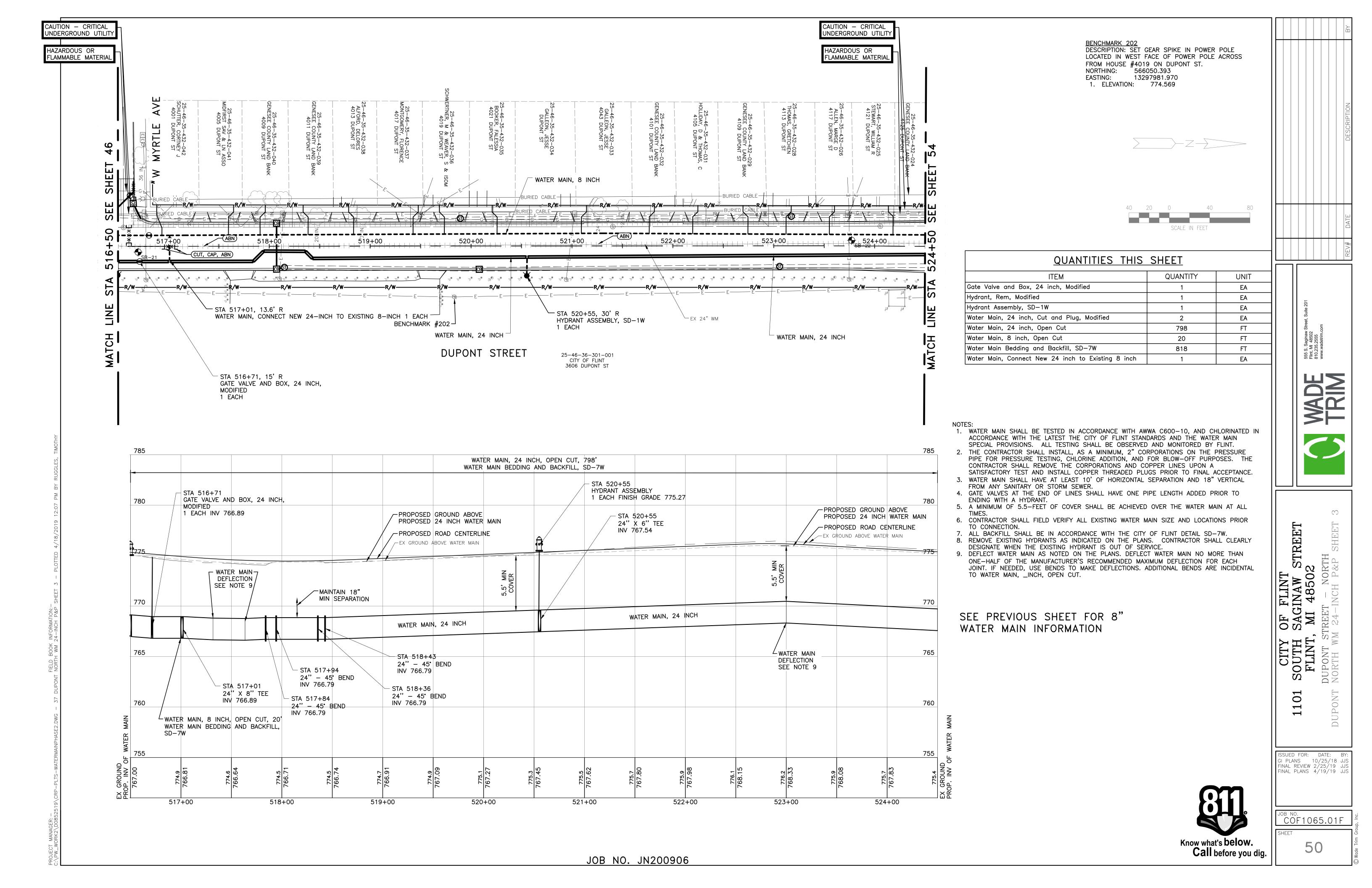
S S M 235.

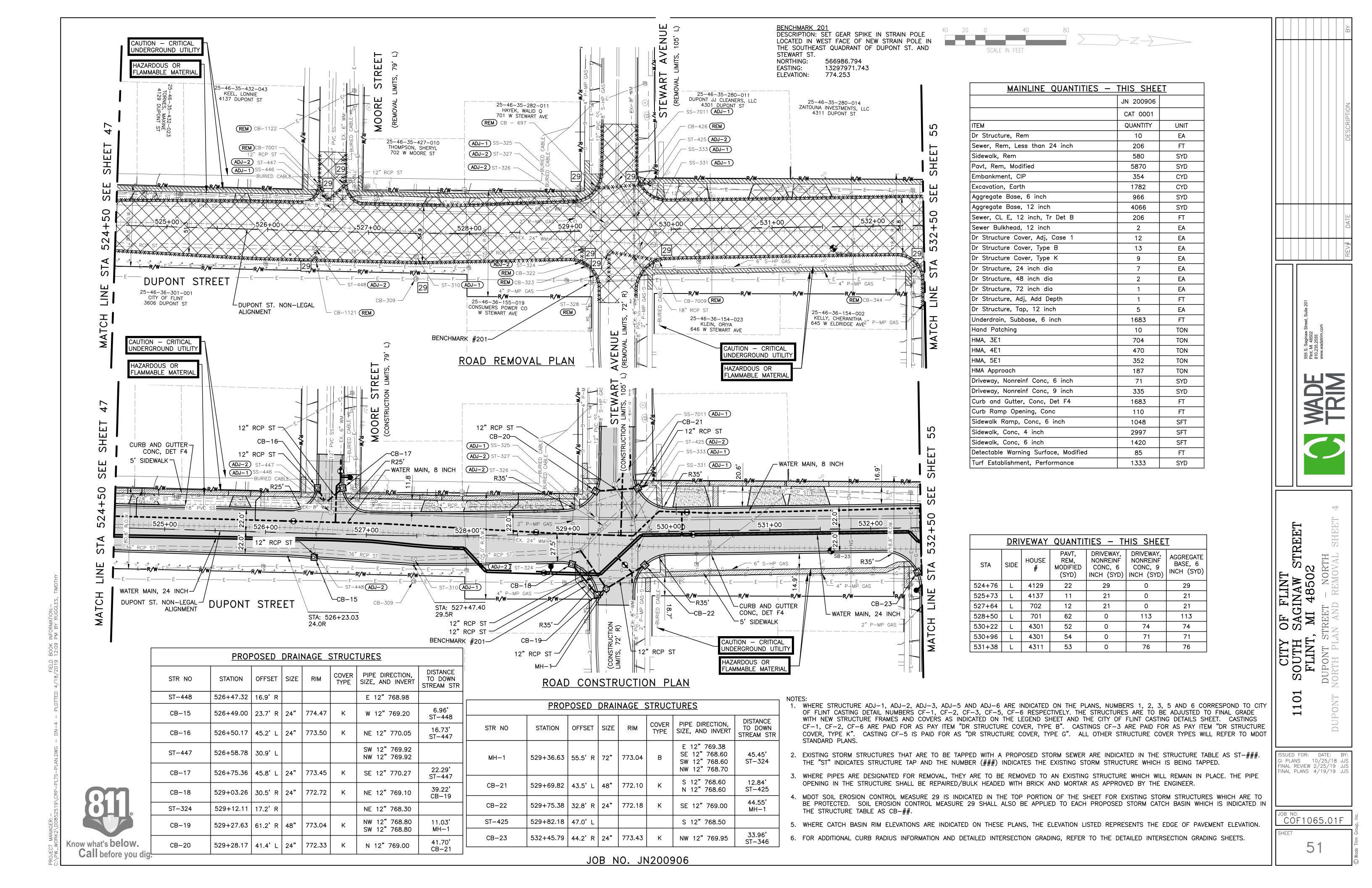
555 9 Flint, 810.2

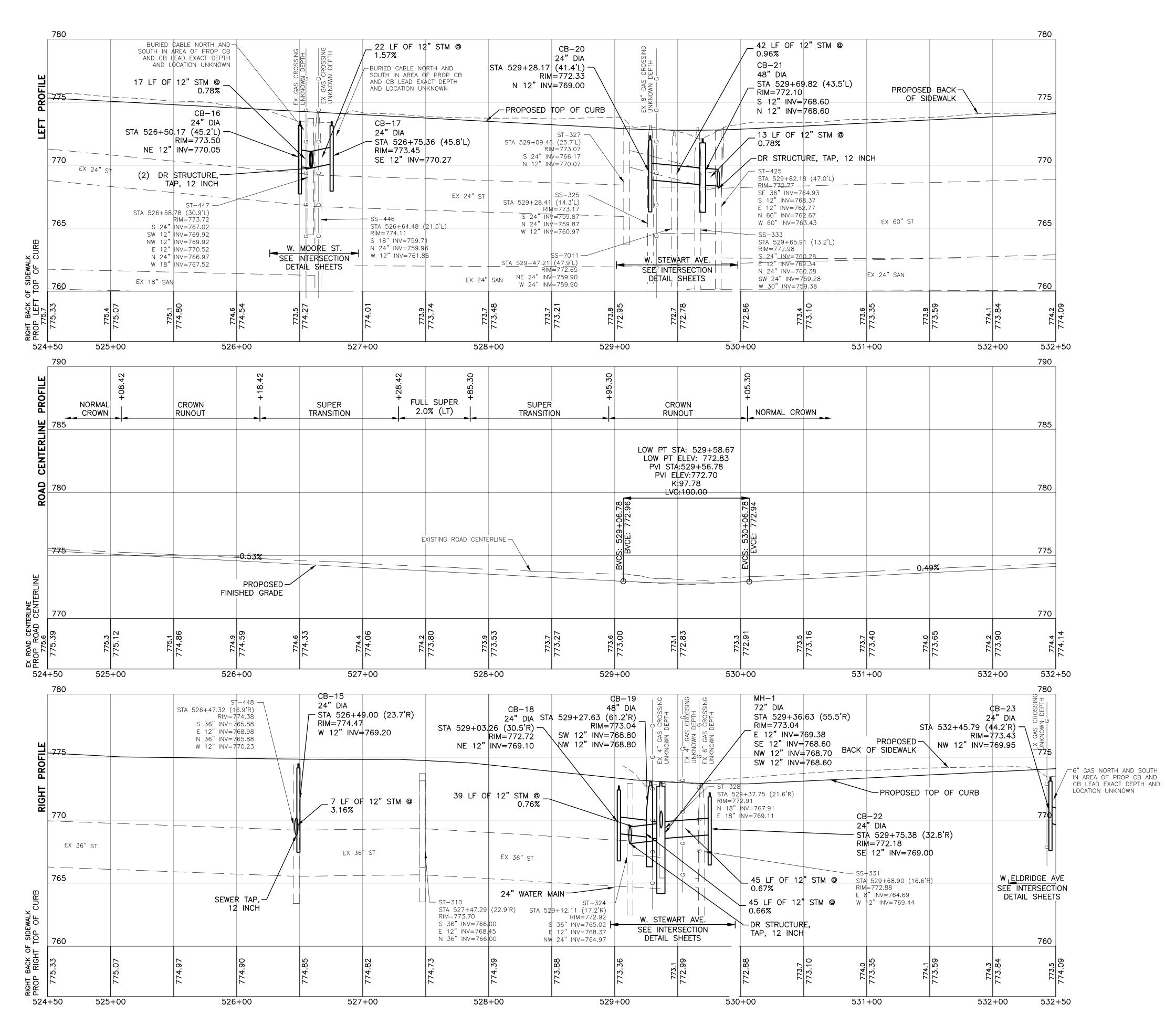
COF1065.01F

Call before you dig.









1. PORTIONS OF THE PROPOSED WATER MAINS HAVE BEEN SHOWN IN PROFILE VIEW WHERE CROSSING THE PROPOSED STORM SEWER. THE PROPOSED HYDRANT LEADS AND WATER MAIN CROSSINGS OF PROPOSED STORM SEWERS AT EACH SIDE STREET CONNECTION TO THE EXISTING WATER MAINS HAVE NOT BEEN SHOWN ON THESE PROFILES. SEE THE WATER MAIN CONSTRUCTION SHEETS FOR ADDITIONAL INFORMATION ON WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PROPOSED WATER MAIN AT A DEPTH THAT MAINTAINS A MINIMUM OF 18" VERTICAL CLEARANCE AT EACH CROSSING OF THE PROPOSED STORM SEWER. IF THIS REQUIRES THE ADJUSTMENT OF PROPOSED WATER MAIN OR STORM SEWER DEPTHS OR LOCATIONS FROM WHAT IS PROPOSED ON THESE PLANS, THE CONTRACTOR SHALL COORDINATE THESE ADJUSTMENTS WITH THE PROJECT ENGINEER.

- 2. THE EXACT LOCATION AND DEPTH OF EXISTING WATER MAINS ARE UNKNOWN AND THEIR CROSSING OF THE PROPOSED STORM SEWERS HAVE NOT BEEN SHOWN ON THESE PROFILES
- 3. EXISTING PRIVATE UTILITY LOCATIONS AND DEPTHS ARE UNKNOWN. WHERE POSSIBLE A NOTE HAS BEEN ADDED TO THE PROFILE SHEETS TO POINT OUT THAT THERE MAY BE A UTILITY CROSSING IN THE AREA OF A PROPOSED STRUCTURE. IF A CONFLICT BETWEEN ANY EXISTING UTILITY AND A PROPOSED UTILITY IS FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PROJECT ENGINEER.

S.S ≥ 35 555 Flint, 810...

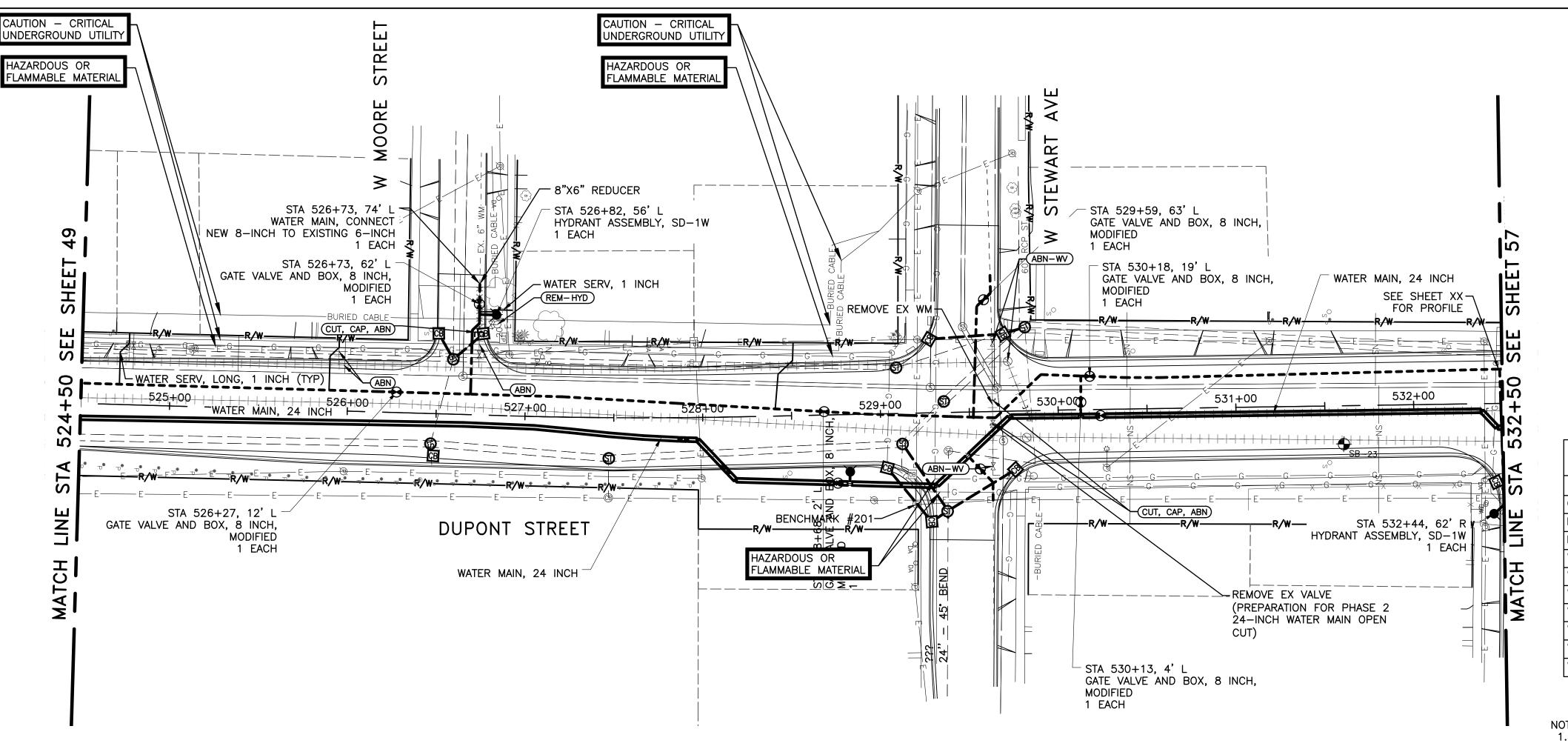
T V S OS NORT

OF FLINT SAGINAW MI 48502

SOUTH FLINT, DUPONT S DUPONT N

PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JUS

COF1065.01F

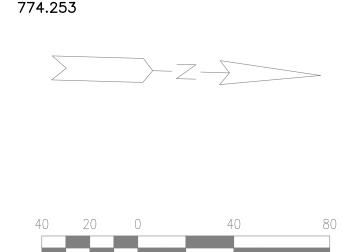


WATER MAIN, 8 INCH, OPEN CUT, 803 WATER MAIN BEDDING AND BACKFILL, SD-7W STA 529+65 8" - 45° BEND 780 780 INV 766.36 STA 528+68 -PROPOSED GROUND ABOVE -PROPOSED GROUND ABOVE STA 529+52 GATE VALVE AND BOX, 8 INCH, PROPOSED 8 INCH WATER MAIN PROPOSED 8 INCH WATER MAIN MODIFIED 8" TEE 1 EACH INV 766.89 INV 766.38 PROPOSED ROAD CENTERLINE -PROPOSED ROAD CENTERLINE EX GROUND ABOVE WATER MAIN EX GROUND ABOVE WATER MAIN 12" RCP SANITARY ENCASE WATER MAIN WITH CONCRETE 775 775 STA 529+43-_ AT THIS UTILITY CROSSING. 8" - 45° BEND THIS WORK IS INCLUDED IN WATER MAIN, _ INCH, OPEN CUT INV 766.34 12" RCP STORM SEWER CROSSING 2" P-MP GAS¬ INV=770.33 12" RCP STORM STA 526+69 4" P-MP GAS-SEWER CROSSING 8" TEE INV=768.36 MAINTAIN 18"— INV 767.86 MIN SEPARATION WATER MAIN, 8 INCH MIN MIN WATER MAIN, 8 INCH WATER MAIN-DEFLECTION SEE NOTE 9 STA 532+49 STA 529+13 765 8" - 45° BEND 8" TEE STA 530+18 INV 767.28 INV 766.23 GATE VALVE AND BOX, 8 INCH, 24" RCP STORM MODIFIED SEWER CROSSING STA 526+27 INV=764.85 1 EACH INV 766.42 GATE VALVE AND BOX, 8 INCH, - STA 530 + 13MAINTAIN 18" MODIFIED 8" TEE MIN SEPARATION WATER MAIN, 8 INCH, OPEN CUT, 89'-1 EACH INV 767.96 INV 766.39 760 WATER MAIN BEDDING AND BACKFILL, 760 STA 529+17-STA 529+38 SD+7W 8" - 45 BEND WATER MAIN -8" - 45° BEND STA 529+91 INV 762.28 DEFLECTION INV 762.28 8" - 45° BEND SEE NOTE 9 INV 766.34 WATER MAIN, 8 INCH, OPEN COI, 30
WATER MAIN BEDDING AND BACKFILL,
SD-7W
SEWER CROSSING
INV=760.37 WATER MAIN, 8 INCH, OPEN CUT, 90'-WATER MAIN, 8 INCH, OPEN CUT, 611-WATER MAIN BEDDING AND BACKFILL, SD-7W 755 755 GROUNI DP. INV 768.96 527+00 525+00 526+00 528+00 529+00 530+00 531+00 532+00

JOB NO. JN200906

BENCHMARK 201 DESCRIPTION: SET GEAR SPIKE IN STRAIN POLE LOCATED IN WEST FACE OF NEW STRAIN POLE IN THE SOUTHEAST QUADRANT OF DUPONT ST. AND STEWART ST. NORTHING: 566986.794 EASTING: 13297971.743

ELEVATION:



SCALE IN FEET

QUANTITIES THIS	SHEET	
ITEM	QUANTITY	UNIT
Gate Valve and Box, 8 inch, Modified	3	EA
Hydrant, Rem, Modified	1	EA
Hydrant Assembly, SD-1W	1	EA
Water Main, 8 inch, Cut and Plug, Modified	3	EA
Water Main, 8 inch, Open Cut	864	FT
Water Main Bedding and Backfill, SD-7W	864	FT
Water Main, Connect New 8 inch to Existing 8 inch	1	EA
Water Serv, 1 inch	1	EA
Water Serv, Long, 1 inch	3	EA
Water Structure, Abandon	1	EA

- 1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
- 2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
- 3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
- 4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
- 5. A MINIMUM OF 5.5-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL
- 6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR
- 7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
- REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.

9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, _INCH, OPEN CUT.

SEE NEXT SHEET FOR 24" WATER MAIN INFORMATION



GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

OF FLINT SAGINAW STREET MI 48502

S/S

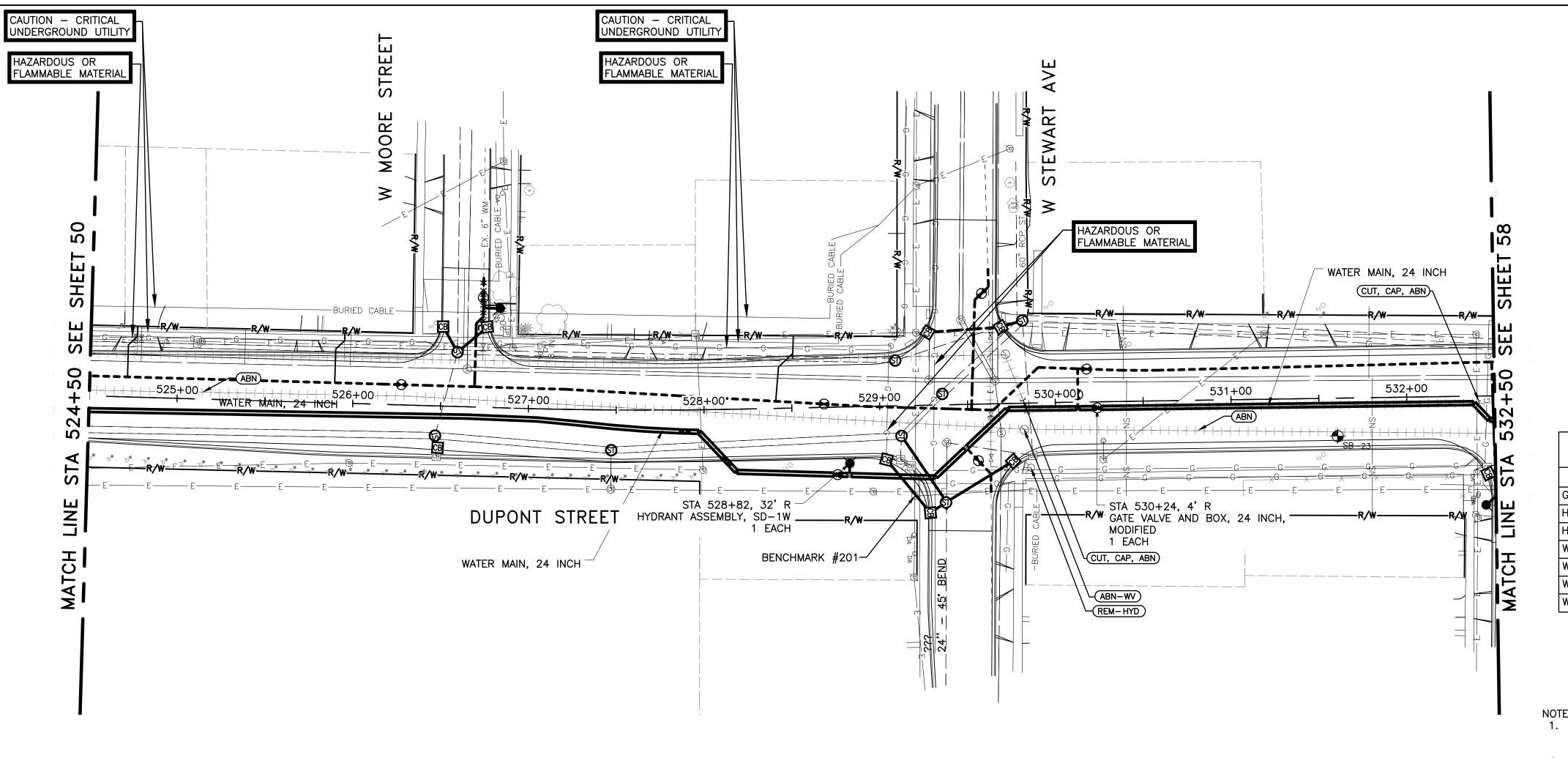
CITY SOUTH FLINT,

0

 $\overline{}$

COF1065.01F

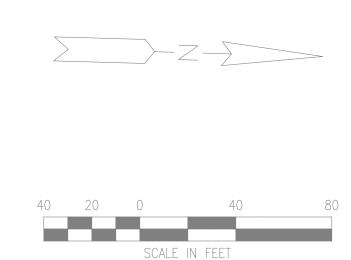
Call before you dig.



DESCRIPTION: SET GEAR SPIKE IN STRAIN POLE LOCATED IN WEST FACE OF NEW STRAIN POLE IN THE SOUTHEAST QUADRANT OF DUPONT ST. AND STEWART ST. NORTHING: 566986.794 EASTING: 13297971.743

774.253

ELEVATION:



QUANTITIES THIS	SHEET	
ITEM	QUANTITY	UNIT
Gate Valve and Box, 24 inch, Modified	2	EA
Hydrant, Rem, Modified	1	EA
Hydrant Assembly, SD-1W	1	EA
Water Main, 24 inch, Cut and Plug, Modified	2	EA
Water Main, 24 inch, Open Cut	819	FT
Water Main Bedding and Backfill, SD-7W	819	FT
Water Structure, Abandon	1	EA

- 1. WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600-10, AND CHLORINATED IN ACCORDANCE WITH THE LATEST THE CITY OF FLINT STANDARDS AND THE WATER MAIN SPECIAL PROVISIONS. ALL TESTING SHALL BE OBSERVED AND MONITORED BY FLINT.
- 2. THE CONTRACTOR SHALL INSTALL, AS A MINIMUM, 2" CORPORATIONS ON THE PRESSURE PIPE FOR PRESSURE TESTING, CHLORINE ADDITION, AND FOR BLOW-OFF PURPOSES. THE CONTRACTOR SHALL REMOVE THE CORPORATIONS AND COPPER LINES UPON A SATISFACTORY TEST AND INSTALL COPPER THREADED PLUGS PRIOR TO FINAL ACCEPTANCE.
- 3. WATER MAIN SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION AND 18" VERTICAL FROM ANY SANITARY OR STORM SEWER.
- 4. GATE VALVES AT THE END OF LINES SHALL HAVE ONE PIPE LENGTH ADDED PRIOR TO ENDING WITH A HYDRANT.
- 5. A MINIMUM OF 5.5-FEET OF COVER SHALL BE ACHIEVED OVER THE WATER MAIN AT ALL
- 6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER MAIN SIZE AND LOCATIONS PRIOR
- 7. ALL BACKFILL SHALL BE IN ACCORDANCE WITH THE CITY OF FLINT DETAIL SD-7W.
- 8. REMOVE EXISTING HYDRANTS AS INDICATED ON THE PLANS. CONTRACTOR SHALL CLEARLY DESIGNATE WHEN THE EXISTING HYDRANT IS OUT OF SERVICE.
- 9. DEFLECT WATER MAIN AS NOTED ON THE PLANS. DEFLECT WATER MAIN NO MORE THAN ONE-HALF OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION FOR EACH JOINT. IF NEEDED, USE BENDS TO MAKE DEFLECTIONS. ADDITIONAL BENDS ARE INCIDENTAL TO WATER MAIN, _INCH, OPEN CUT.

SEE PREVIOUS SHEET FOR 8" WATER MAIN INFORMATION



GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

OF FLINT SAGINAW STREET , MI 48502

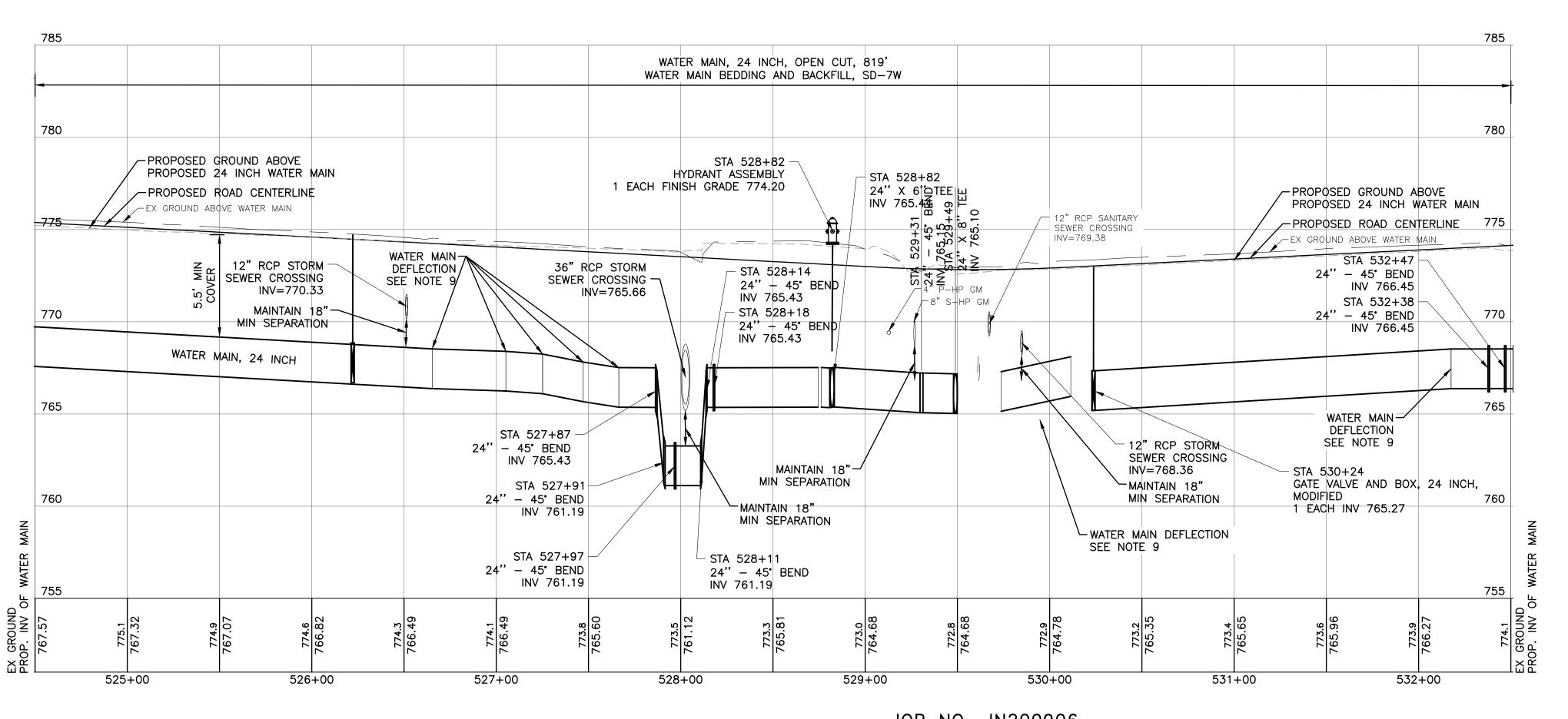
CITY SOUTH FLINT,

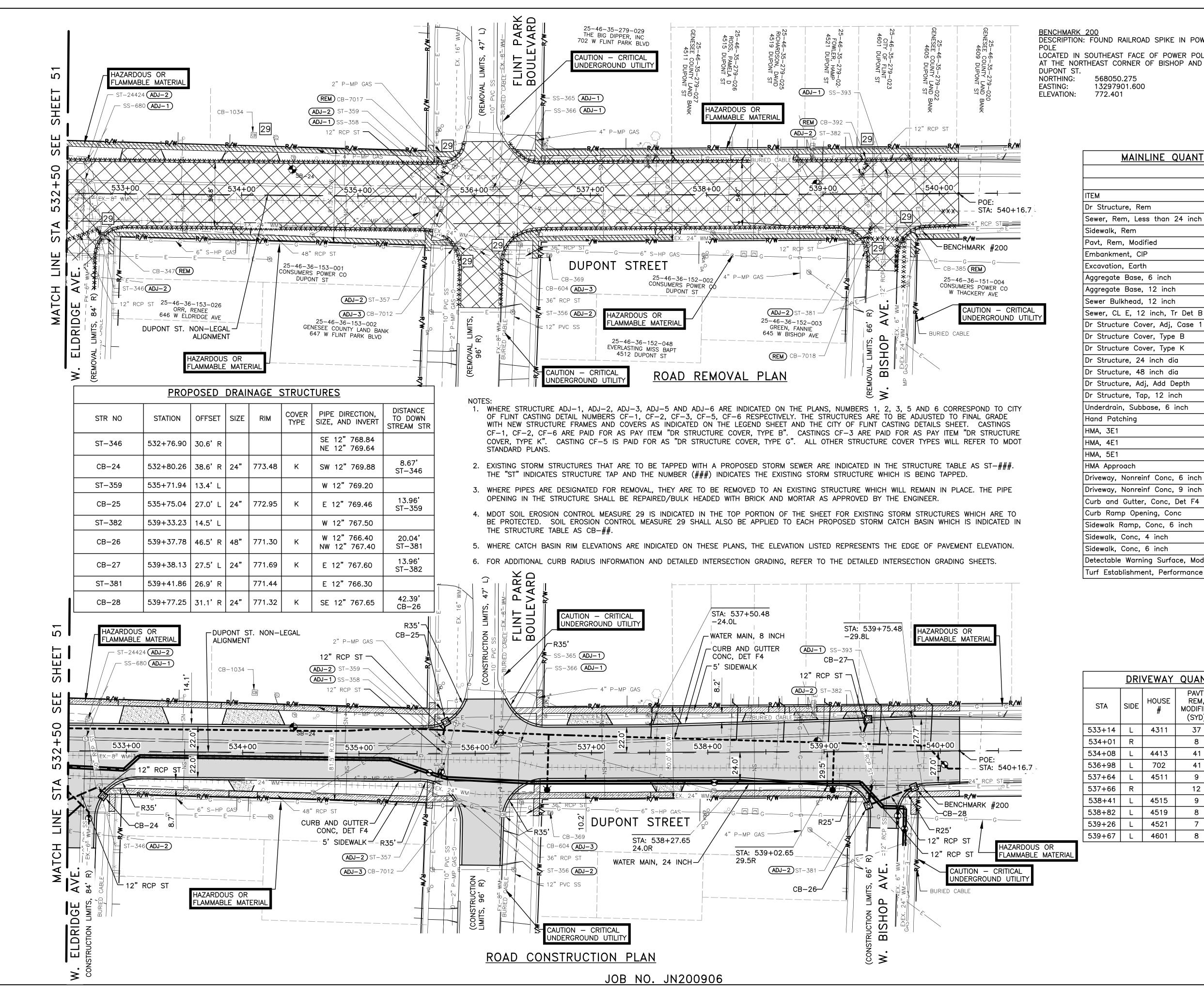
0

 $\overline{}$

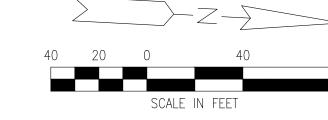
COF1065.01F

54





DESCRIPTION: FOUND RAILROAD SPIKE IN POWER LOCATED IN SOUTHEAST FACE OF POWER POLE



<u>MAINLINE QUANTITIES -</u>	JN 200906	=
	CAT 0001	
 ITEM	QUANTITY	UNIT
Dr Structure, Rem	4	EA
Sewer, Rem, Less than 24 inch	100	FT
Sidewalk, Rem	781	SYD
Pavt, Rem, Modified	5699	SYD
Embankment, CIP	351	CYD
Excavation, Earth	1804	CYD
Aggregate Base, 6 inch	789	SYD
Aggregate Base, 12 inch	3932	SYD
Sewer Bulkhead, 12 inch	1	EA
Sewer, CL E, 12 inch, Tr Det B	99	FT
Dr Structure Cover, Adj, Case 1	14	EA
Dr Structure Cover, Type B	12	EA
Dr Structure Cover, Type K	7	EA
Dr Structure, 24 inch dia	4	EA
Dr Structure, 48 inch dia	1	EA
Dr Structure, Adj, Add Depth	1	FT
Dr Structure, Tap, 12 inch	5	EA
Underdrain, Subbase, 6 inch	1495	FT
Hand Patching	10	TON
HMA, 3E1	681	TON
HMA, 4E1	454	TON
HMA, 5E1	341	TON
HMA Approach	231	TON
Driveway, Nonreinf Conc, 6 inch	90	SYD
Driveway, Nonreinf Conc, 9 inch	200	SYD
Curb and Gutter, Conc, Det F4	1495	FT
Curb Ramp Opening, Conc	85	FT
Sidewalk Ramp, Conc, 6 inch	931	SFT
Sidewalk, Conc, 4 inch	4643	SFT
Sidewalk, Conc, 6 inch	1543	SFT
Detectable Warning Surface, Modified	75	FT
Turf Establishment, Performance	1333	SYD

	<u>DRI</u>	VEWAY	QUANTI	ΓIES – TI	HIS SHEE	<u> </u>
STA	SIDE	HOUSE #	PAVT, REM, MODIFIED (SYD)	DRIVEWAY, NONREINF CONC, 6 INCH (SYD)	DRIVEWAY, NONREINF CONC, 9 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
533+14	L	4311	37	0	62	62
534+01	R		8	20	0	20
534+08	L	4413	41	0	71	71
536+98	L	702	41	0	38	38
537+64	L	4511	9	21	0	21
537+66	R		12	0	29	29
538+41	L	4515	9	16	0	16
538+82	L	4519	8	13	0	13
539+26	L	4521	7	11	0	11
539+67	L	4601	8	9	0	9



GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

S ≥ S

 Ω

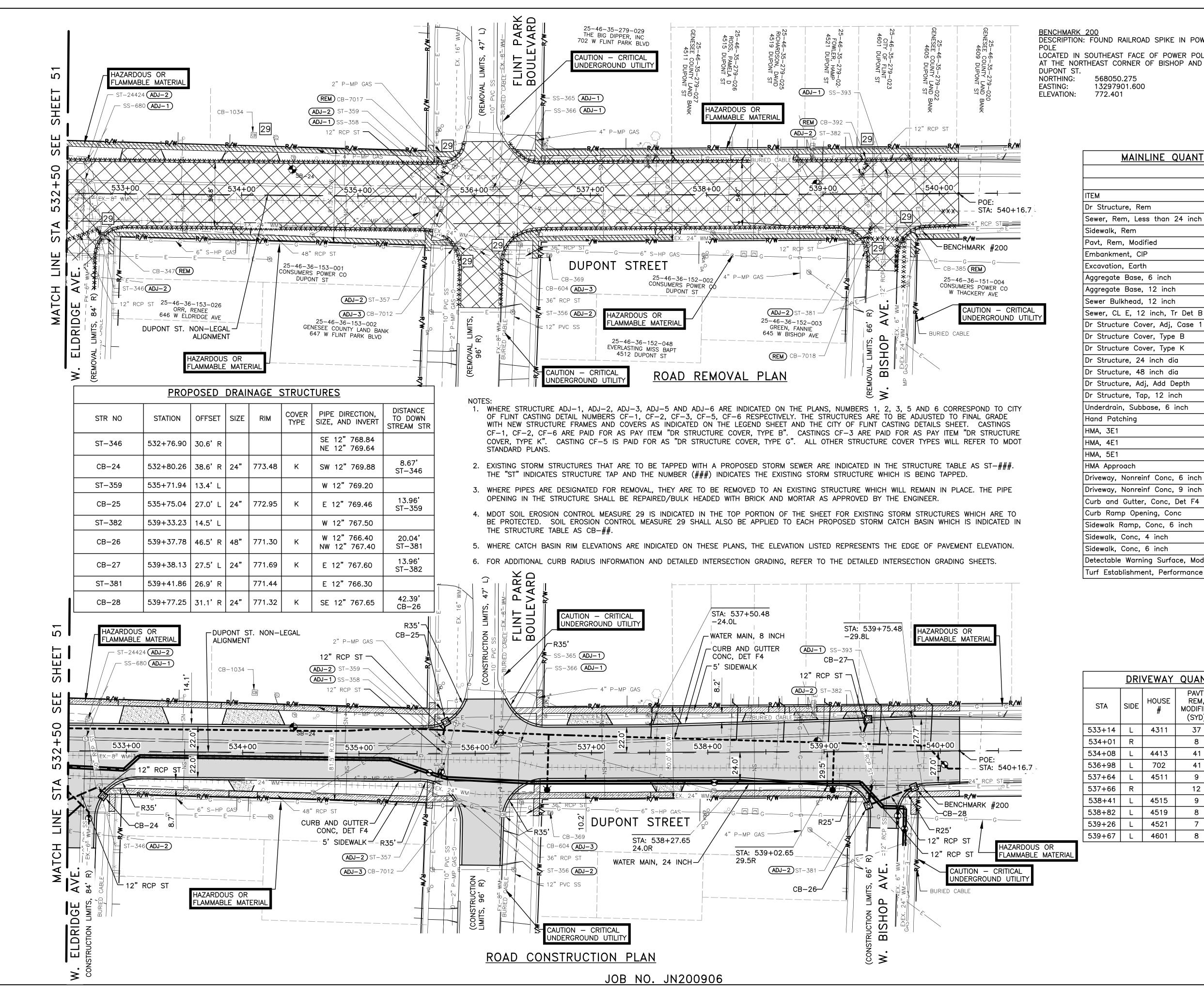
SHEET

OF FLINT SAGINAW STREET , MI 48502

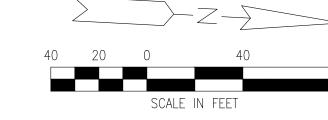
CITY SOUTH FLINT,

0

COF1065.01F



DESCRIPTION: FOUND RAILROAD SPIKE IN POWER LOCATED IN SOUTHEAST FACE OF POWER POLE



<u>MAINLINE QUANTITIES -</u>	JN 200906	=
	CAT 0001	
 ITEM	QUANTITY	UNIT
Dr Structure, Rem	4	EA
Sewer, Rem, Less than 24 inch	100	FT
Sidewalk, Rem	781	SYD
Pavt, Rem, Modified	5699	SYD
Embankment, CIP	351	CYD
Excavation, Earth	1804	CYD
Aggregate Base, 6 inch	789	SYD
Aggregate Base, 12 inch	3932	SYD
Sewer Bulkhead, 12 inch	1	EA
Sewer, CL E, 12 inch, Tr Det B	99	FT
Dr Structure Cover, Adj, Case 1	14	EA
Dr Structure Cover, Type B	12	EA
Dr Structure Cover, Type K	7	EA
Dr Structure, 24 inch dia	4	EA
Dr Structure, 48 inch dia	1	EA
Dr Structure, Adj, Add Depth	1	FT
Dr Structure, Tap, 12 inch	5	EA
Underdrain, Subbase, 6 inch	1495	FT
Hand Patching	10	TON
HMA, 3E1	681	TON
HMA, 4E1	454	TON
HMA, 5E1	341	TON
HMA Approach	231	TON
Driveway, Nonreinf Conc, 6 inch	90	SYD
Driveway, Nonreinf Conc, 9 inch	200	SYD
Curb and Gutter, Conc, Det F4	1495	FT
Curb Ramp Opening, Conc	85	FT
Sidewalk Ramp, Conc, 6 inch	931	SFT
Sidewalk, Conc, 4 inch	4643	SFT
Sidewalk, Conc, 6 inch	1543	SFT
Detectable Warning Surface, Modified	75	FT
Turf Establishment, Performance	1333	SYD

<u>DRIVEWAY QUANTITIES - THIS SHEET</u>						
STA	SIDE	HOUSE #	PAVT, REM, MODIFIED (SYD)	DRIVEWAY, NONREINF CONC, 6 INCH (SYD)	DRIVEWAY, NONREINF CONC, 9 INCH (SYD)	AGGREGATE BASE, 6 INCH (SYD)
533+14	L	4311	37	0	62	62
534+01	R		8	20	0	20
534+08	L	4413	41	0	71	71
536+98	L	702	41	0	38	38
537+64	L	4511	9	21	0	21
537+66	R		12	0	29	29
538+41	L	4515	9	16	0	16
538+82	L	4519	8	13	0	13
539+26	L	4521	7	11	0	11
539+67	L	4601	8	9	0	9



GI PLANS 10/25/18 JJS FINAL REVIEW 2/25/19 JJS FINAL PLANS 4/19/19 JJS

S ≥ S

 Ω

SHEET

OF FLINT SAGINAW STREET , MI 48502

CITY SOUTH FLINT,

0

COF1065.01F