

KEY MAP

NOT TO SCALE

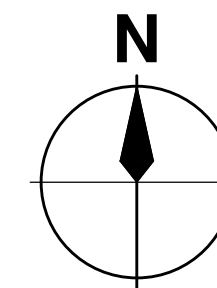
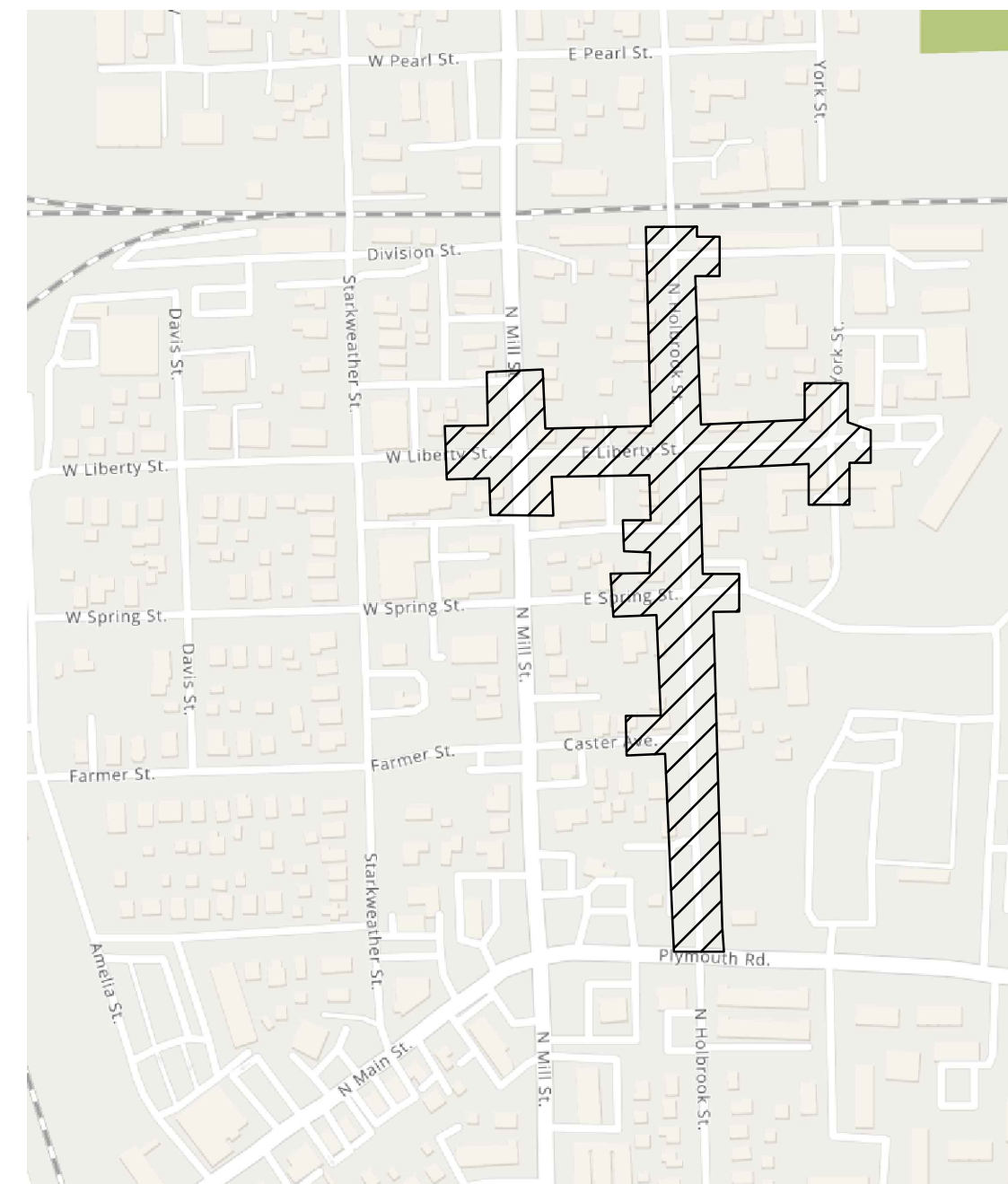
SUZI DEAL
MAYOR

MAUREEN BRODIE PAUL SINCOCK
CITY CLERK CITY MANAGER

CITY COUNCIL

KELLY O'DONNELL, MAYOR PRO TEM
LINDA FILIPCZAK, COMMISSIONER
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ALANNA MAGUIRE, COMMISSIONER
BROCK MINTON, COMMISSIONER
NICK MOROZ, COMMISSIONER

CHRIS PORMAN
DIRECTOR, DEPARTMENT OF MUNICIPAL SERVICES
ADAM GERLACH
ASSISTANT DIRECTOR, PUBLIC UTILITIES



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

REV#	DATE	DESCRIPTION						BY	

NOT FOR CONSTRUCTION



WADE
TRIM

25251 Northline Rd.
Taylor, MI 48180
734.947.9700
www.wadetrिम.com

SEAL	ISSUE FOR:	DATE:	BY:
	EGLE	3/19/25	SWK
	WC DPS	3/20/25	SWK
	BIDS	4/9/25	SWK

JOB NO. PLY2130-01T	SHEET 1
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42619

REGISTRATION NO.

SHAWN W. KEOUGH, PE

©Wade Trim Group, Inc. 2025 INFRASTRUCTURE IMPROVEMENT PROGRAM

1. ALL PROPERTY IRONS AND MONUMENTS, IF DISTURBED OR DESTROYED BY THE CONTRACTOR, SHALL BE REPLACED BY A MICHIGAN REGISTERED PROFESSIONAL SURVEYOR AT THE CONTRACTOR'S EXPENSE.
2. LOCATION OF UTILITIES OR OTHER STRUCTURES SHOWN ON THE PLANS ARE TAKEN FROM UTILITY COMPANY OR OTHER RECORDS BELIEVED TO BE RELIABLE. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR AN OMISSIONS OR VARIATIONS IN THE LOCATION OF THE UTILITIES ENCOUNTERED IN THE WORK.
3. THE CONTRACTOR SHALL NOTIFY "MISS DIG" (800) 482-7171, A MINIMUM OF THREE WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION IN THE AREA OF THE WORK.
4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, WADE TRIM AND UTILITY COMPANIES 2 WORKING DAYS IN ADVANCE OF UNCOVERING ANY EXISTING UTILITY.
5. PRIOR TO THE INSTALLATION OF ANY PROPOSED UTILITIES, THE EXISTING UTILITIES WHICH CROSS THE PROPOSED UTILITY SHALL BE EXPOSED BY THE CONTRACTOR TO DETERMINE ANY POSSIBLE CONFLICTS WITH THE PROPOSED WORK. MAINTAIN 18-INCHES MINIMUM CLEARANCE BETWEEN ALL UTILITY CROSSINGS. THIS WORK IS INCIDENTAL TO THE PROJECT.
6. ALL EXISTING TRAFFIC SIGNS IN THE WAY OF CONSTRUCTION SHALL BE REMOVED AND RESET IN A TEMPORARY LOCATION PER THE LATEST EDITION OF MICHIGAN MANUAL OF UNIFIED TRAFFIC CONTROL DEVICES. THIS WORK SHALL BE INCIDENTAL TO THE PROJECT.
7. EXISTING LOCAL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, INCLUDING VEHICLE AND PEDESTRIAN ACCESS TO RESIDENCES AND BUSINESSES, EXCEPT WHEN OTHERWISE SHOWN ON THE PLANS OR SPECIFIED.
8. ALL TRAFFIC CONTROL AND DEVICES SHALL BE IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
9. THE CONTRACTOR SHALL LIMIT HIS CONSTRUCTION TRAFFIC AND EQUIPMENT TO THE AREA DIRECTLY UNDER CONSTRUCTION TO PREVENT DAMAGE TO ANY EXISTING IMPROVEMENTS, AND SHALL PREVENT THE SPREAD OF CONSTRUCTION DEBRIS OUTSIDE OF THE CONSTRUCTION AREA.
10. THE CONTRACTOR SHALL REMOVE AND REPLACE ANY EXISTING IRRIGATION SYSTEM COMPONENTS DISTURBED BY HIS CONSTRUCTION OPERATIONS. EXISTING MATERIAL MAY BE REUSED UNLESS DAMAGED. DAMAGED MATERIAL SHALL BE REPLACED WITH NEW MATERIAL OF THE SAME TYPE. REMOVAL AND REPLACEMENT SHALL BE INCIDENTAL TO THE PROJECT.
11. THE CONTRACTOR SHALL REMOVE AND REPLACE ANY EXISTING DECORATIVE LIGHTING SYSTEM COMPONENTS DISTURBED BY HIS CONSTRUCTION OPERATIONS. EXISTING MATERIAL MAY BE REUSED UNLESS DAMAGED. DAMAGED MATERIAL SHALL BE REPLACED WITH NEW MATERIAL OF THE SAME TYPE. COST FOR DECORATIVE LIGHTING SYSTEM REMOVAL AND REPLACEMENT SHALL BE INCIDENTAL TO THE PROJECT.
12. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE INTEGRITY OF EXISTING UTILITIES AT ALL TIMES. ALL UTILITIES INCLUDING UTILITY POLES, IN THE VICINITY OF CONSTRUCTION SHALL BE PROTECTED BY BRACING, SUPPORTING, BY THE USE OF TRENCH BOXES OR OTHER ACCEPTABLE MEANS AS DETERMINED BY THE OWNER OF THE UTILITY. ALL COSTS FOR PROTECTION OF UTILITIES SHALL BE INCIDENTAL TO THE PROJECT.
13. ANY UTILITIES, MAINS, SERVICES, UNDERDRAINS, OIL LINES, OR OTHER SIMILAR ITEMS DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE UTILITY OWNER IN A MANNER ACCEPTABLE TO THE UTILITY OWNER. ALL COSTS FOR REPAIR OR REPLACEMENT SHALL BE PAID BY THE CONTRACTOR, INCIDENTAL TO THE PROJECT.
14. WORK STOPPAGE BY EMPLOYEES OF UTILITY COMPANIES WHICH RESULTS IN A DELAY OF UTILITY REVISIONS EFFECTING THE PROGRESS OF THIS PROJECT MAY BE THE BASIS FOR A CLAIM FOR AN EXTENSION OF TIME FOR COMPLETION, BUT WILL NOT BE CONSIDERED THE BASIS FOR A CLAIM FOR EXTRA COMPENSATION OR AN ADJUSTMENT IN CONTRACT UNIT PRICES.
15. THE CONTRACTOR SHALL COORDINATE ANY UTILITY RELOCATION REQUIRED TO COMPLETE THE WORK WITH THE OWNER OF THE UTILITY. THIS COORDINATION SHALL BE ACCOMPLISHED IN SUFFICIENT TIME TO ALLOW THE RELOCATION WORK TO BE COMPLETED WITHOUT INTERFERENCE OR DELAY TO THE CONSTRUCTION WORK. ALL COSTS FOR RELOCATION OF UTILITIES SHALL BE INCIDENTAL TO THE PROJECT.
16. ALL TREES, SHRUBS AND LANDSCAPING NOT DESIGNATED TO BE REMOVED SHALL BE PROTECTED DURING CONSTRUCTION. ANY TREES, SHRUBS OR LANDSCAPING DAMAGED IN ANY WAY BY THE CONTRACTOR (INCLUDING DAMAGING ROOTS), SHALL BE REPLACED WITH LIKE SPECIES AND SIZE AT THE CONTRACTOR'S EXPENSE.
17. THE CONTRACTOR SHALL HAVE AN OPERATING VACUUM SWEEPER ON THE JOB AT ALL TIMES. THE PAVEMENT SHALL BE SWEEPED A MINIMUM OF ONCE A DAY OR AS DIRECTED BY THE FIELD ENGINEER. THE CONTRACTOR SHALL ALSO COMPLY WITH LOCAL AGENCY DUST ORDINANCE.
18. THE CONTRACTOR SHALL MAINTAIN EXISTING STORM WATER DRAINAGE AT ALL TIMES DURING THE WORK. EXISTING STORM SYSTEM DRAINAGE SHALL BE MAINTAINED BY PUMPING AND BY-PASSING, REPAIR, REMOVAL AND REPLACEMENT OR OTHER MEANS WHEN APPROVED BY THE ENGINEER. ALL COSTS FOR MAINTAINING DRAINAGE SHALL BE INCLUDED IN THE PROJECT PAY ITEMS EXCEPT AS MAY BE OTHERWISE PROVIDED FOR IN THE PROPOSAL.

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

PEDESTAL FOUNDATION	SIG-070-A*
COLOR CODE WIRING/EQUIPMENT GROUNDING	SIG-230-A*
CONDUIT (DIRECT BURIAL/ENCASED)	SIG-250-A*
RECTANGULAR RAPID FLASHING BEACON	SIG-321-A*
PEDESTRIAN PUSH BUTTON DETAILS	SIG-400-A*

*INCLUDED IN PROPOSAL

1. ALL SOIL EROSION AND SEDIMENTATION CONTROL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WAYNE COUNTY DEPARTMENT OF ENVIRONMENT. THE CITY HAS PAID ALL FEES REQUIRED TO OBTAIN A PERMIT FROM WAYNE COUNTY.
2. CLEAN ALL ACCUMULATED SEDIMENT FROM CATCH BASINS, SEWERS AND PAVEMENT AREAS AS REQUIRED FOLLOWING COMPLETION OF CONSTRUCTION.
3. ALL SOIL EROSION MEASURES SHALL BE CHECKED A MINIMUM OF ONCE A DAY.
4. INLET PROTECTION FOR STORM SEWER CATCH BASINS SHALL BE REPLACED IMMEDIATELY IF THE FOLLOWING HAS OCCURRED: ANY TEARS OR HOLES IN THE FILTER FABRIC, AND/OR DRAIN SILT HAS COLLECTED ON FABRIC CAUSING SAGGING OF FILTER IN THE CATCH BASIN.
5. ALL TRUCKS SHALL CLEAN TIRES OF DIRT BEFORE EXITING CONSTRUCTION SITE.
6. ANY AND ALL ACCUMULATED SEDIMENT ON STREETS AND ROADS IN THE PROJECT VICINITY SHALL BE SWEEP CLEAN AT LEAST ONCE PER DAY OR AS DIRECTED BY THE ENGINEER.

1. INSTALL ALL TEMPORARY SOIL EROSION CONTROL MEASURES ON EXISTING STORM STRUCTURES PRIOR TO DISTURBING ANY EARTH ON THE SITE.
2. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT DRIVE PRIOR TO DISTURBING ANY EARTH ON SITE. ALL TRUCKS LEAVING THE CONSTRUCTION SITE SHALL PASS THROUGH A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT DRIVE TO REMOVE DIRT AND SEDIMENT. ANY DIRT AND ACCUMULATED SEDIMENT ON ROADS AND STREETS IN THE VICINITY OF THE PROJECT SHALL BE SWEEPED CLEAN AT LEAST DAILY WITH A VACUUM TYPE PICKUP BROOM.
3. INSTALL INLET FILTERS ON ALL STORM CATCH BASINS UPON COMPLETING CONSTRUCTION OF EACH ONE.
4. REMOVE EXISTING PAVEMENT.
5. CONSTRUCT PROPOSED UTILITIES.
6. PREPARE SUBGRADE, CONSTRUCT CONCRETE CURB, PLACE PROPOSED ASPHALT PAVEMENT.
7. INSTALL TOPSOIL AND NURSERY SOD ON DISTURBED RIGHT-OF-WAY WITHIN 5 DAYS OF COMPLETING PAVEMENT INSTALLATION.
8. CLEAN ALL ACCUMULATED SEDIMENT FROM CATCH BASINS, SEWERS AND PAVEMENT AREAS AS REQUIRED FOLLOWING COMPLETION OF CONSTRUCTION.
9. THE EXACT SCHEDULE OF SOIL EROSION AND SEDIMENTATION CONTROL EVENTS (WITH DAYS AND/OR DATES OF THE VARIOUS ACTIVITIES) SHALL BE SUBMITTED TO WAYNE COUNTY BY THE CONTRACTOR, FOR REVIEW AND APPROVAL, PRIOR TO OBTAINING A PERMIT.

1. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON, PC350 WITH PUSH-ON JOINTS; FITTINGS SHALL BE MECHANICAL JOINT, DUCTILE IRON, COMPACT FITTINGS; AS SPECIFIED IN SECTION 33 1100, WATER UTILITY DISTRIBUTION PIPING. WATER MAIN BEDDING SHALL BE CLASS F-III.
2. WATER MAIN TRENCH BACKFILL UNDER ROAD SURFACES, PAVEMENTS, CURB, DRIVEWAY, SIDEWALK AND WHERE THE TRENCH IS WITHIN 5-FEET OF THE PAVEMENT SHALL BE TRENCH B, (SAND) PER SPECIFICATION SECTION 31 2333, TRENCHING AND BACKFILLING.
3. WHENEVER THE CONTRACTOR NEEDS TO SHUT OFF A WATER MAIN, THE CONTRACTOR SHALL NOTIFY THE CITY OF PLYMOUTH. ALL VALVES SHALL BE OPENED AND CLOSED ONLY BY THE CITY OF PLYMOUTH WATER DEPARTMENT PERSONNEL. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED WATER CONSUMERS IN WRITING A MINIMUM OF 48 HOURS BEFORE SHUTTING OFF ANY WATER MAIN.
4. THE EXISTING WATER MAIN SHALL NOT BE ABANDONED UNTIL AFTER THE PROPOSED WATER MAIN HAS BEEN TESTED AND ACCEPTED FOR USE, AND ALL FIRE HYDRANTS AND SERVICES ARE CONNECTED TO THE NEW WATER MAIN.
5. ALL EXISTING WATER SERVICES SHALL BE REPLACED FROM THE NEW WATER MAIN TO THE PROPERTY LINE WITH 1-INCH K COPPER AND A NEW CURB STOP AND BOX (UNLESS OTHERWISE NOTED).
6. WHILE BOTH EXISTING AND NEW FIRE HYDRANTS ARE IN PLACE ON THE PROJECT, THE FIRE HYDRANTS WHICH ARE NOT LIVE AND AVAILABLE FOR USE SHALL BE CONSPICUOUSLY COVERED OR BAGGED TO PREVENT BEING MISTAKEN FOR A LIVE HYDRANT.
7. RIM ELEVATIONS FOR NEW WATER MAIN STRUCTURES THAT ARE WITHIN PAVEMENT MAY REQUIRE ADJUSTMENT DURING CONSTRUCTION OF PAVEMENT. RIM ELEVATIONS OF NEW WATER MAIN STRUCTURES OUTSIDE OF THE PAVEMENT WILL BE SET TO GRADE AFTER FINAL GRADING HAS BEEN COMPLETED IN THE AREA. THIS WORK SHALL BE INCIDENTAL TO THE PROJECT.
8. REMOVE AND SALVAGE EXISTING GATE WELL FRAMES AND COVERS, FIRE HYDRANTS, GATE VALVES AND VALVE BOXES AND DELIVER TO THE CITY OF PLYMOUTH. PAYMENT FOR THIS WORK SHALL BE INCIDENTAL TO PROJECT.
9. SEE SPECIFICATIONS FOR THE WORK REQUIRED FOR ABANDONMENT OF GATE WELLS, FIRE HYDRANTS, STOP BOXES AND WATER MAINS.

1. ALL WORK WITHIN THE WAYNE COUNTY ROAD RIGHT-OF-WAY (ROW) AND DRAIN EASEMENT SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS, INCLUDING SOIL EROSION AND SEDIMENTATION CONTROL OF THE WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, AND MDOT 2012 SPECIFICATIONS FOR CONSTRUCTION.
2. THESE PLANS ARE NOT VALID WITHOUT ATTACHMENT OF THE WAYNE COUNTY PERMIT SPECIFICATIONS FOR CONSTRUCTION WITHIN THE ROAD ROW, PARKS, DRAIN EASEMENT OR SANITARY SEWER UNDER JURISDICTION OF THE WAYNE COUNTY (07/01/93) REVISED 12/15/2004
3. CONTRACTOR SHALL CONTACT MISS DIG AT 811 TO IDENTIFY AND FLAG / MARK THE LOCATIONS OF ALL UNDERGROUND UTILITIES AT THE PROPOSED CONSTRUCTION AREAS PRIOR TO START OF CONSTRUCTION, AND SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES, AND RESOLVE ANY CONFLICT BETWEEN THE PROPOSED WORK AND THE EXISTING UNDERGROUND OR ABOVEGROUND UTILITIES.
4. CONTRACTOR SHALL MAINTAIN 18" MINIMUM VERTICAL CLEARANCE AND 3 FEET MINIMUM HORIZONTAL CLEARANCE BETWEEN THE PROPOSED AND EXISTING UTILITIES. ANY PROPOSED UTILITY PERMITTED TO CROSS UNDER THE ROAD OR DRAIN, MUST BE PLACED A MINIMUM OF 7 FEET BELOW THE LOWEST POINT OF THE ROAD, OR 6 FEET BELOW THE DRAIN BOTTOM. OVERHEAD WIRES/CABLES MUST BE INSTALLED 18 FEET MINIMUM ABOVE THE ROAD CENTERLINE. TO RELOCATE ANY UTILITY WITHIN THE ROAD ROW, THE CONTRACTOR SHALL COORDINATE THE RELOCATION WITH THE UTILITY COMPANY AND AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
5. ALL SURVEY MONUMENTS / CORNERS AND BENCH MARKS LOCATED WITHIN THE CONSTRUCTION AREA MUST BE PRESERVED IN ACCORDANCE WITH PUBLIC ACT 74 AS AMENDED (INCLUDING ACT 34, P.A. 2000) AND AS PER WAYNE COUNTY PERMIT RULE 1.5. THE PERMIT HOLDER AND CONTRACTOR SHALL COORDINATE THE WORK WITH A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF MICHIGAN DURING CONSTRUCTION ACTIVITIES FOR THE PURPOSE OF WITNESSING, PRESERVING OR REPLACING SURVEY MONUMENTS AND MONUMENT BOXES.
6. EXPOSURE OF ANY UTILITIES UNDER THE PAVEMENT WILL NOT BE PERMITTED, UNLESS APPROVED BY THE WAYNE COUNTY ENGINEER. PAVEMENT REMOVAL AND REPLACEMENT SHALL BE PERFORMED PER APPLICABLE WAYNE COUNTY STANDARD DETAILS AN AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
7. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS WITHIN THE WAYNE COUNTY ROAD ROW AND DRAIN EASEMENT WITH 3" TOPSOIL, THM SEED MIX AND MULCH. SLOPES STEEPER THAN 1 ON 3 SHALL BE RESTORED BY PLACING SOD ON 2" TOPSOIL.
8. ALL BACKFILLS UNDER OR WITHIN 3 FEET OF THE PROPOSED OR EXISTING PAVEMENT, CURB OR SIDEWALK SHALL CONFORM TO THE WAYNE COUNTY TRENCH "B" BACKFILL REQUIREMENTS. TRENCH "A" BACKFILL MAY BE USED WITHIN THE ROAD ROW AREAS UNDER CONDITIONS OTHER THAN THOSE SPECIFIED FOR TRENCH "B".
9. CONTRACTOR IS RESPONSIBLE FOR RESTORING OR REPLACING ALL DISTURBED LANDSCAPED AREAS, SPRINKLER SYSTEMS, FENCES, SIGNS, MAIL BOXES, ETC. WITHIN THE WAYNE COUNTY ROAD ROW AND / OR AS DIRECTED BY THE COUNTY ENGINEER.
10. CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES. OTHERWISE, DETOURING TRAFFIC MUST BE PER APPROVED PLANS. ALL SIGNING AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF M.M.U.T.C.D.
11. MAINTAIN A SAFE AND ADEQUATE TRAVEL ROUTE FOR PEDESTRIANS AT ALL TIMES THROUGHOUT THE PROJECT DURATION.
12. TUNNELING, BORING AND JACKING OPERATIONS SHALL BE IN ACCORDANCE WITH THE WAYNE COUNTY SPECIFICATIONS AND DETAILS. BORE PITS SHALL BE PLACED AT MINIMUM 10 FEET FROM THE BACK OF CURB OR EDGE OF PAVEMENT.
13. REMOVE ALL ABANDONED CONDUITS FROM THE COUNTY ROADS ROW OR AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
14. CONTRACTOR SHALL PROVIDE COLD WEATHER PROTECTION FOR ALL PROPOSED CONCRETE WORK (PAVEMENTS, SIDEWALKS, DRIVE APPROACHES, ETC.) AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
15. OVERNIGHT VEHICLE PARKING AND STORAGE OF CONSTRUCTION MATERIALS AND EQUIPMENT'S ARE NOT PERMITTED WITHIN THE WAYNE COUNTY ROADS RIGHTS-OF-WAY.
16. CONTRACTOR SHOULD OBTAIN SOIL EROSION AND SEDIMENTATION CONTROL PERMIT FROM THE WAYNE COUNTY DPS. CONTACT THE WAYNE COUNTY SOIL EROSION OFFICE AT (734) 326-5565, OR THE COMMUNITY HAVING JURISDICTION OVER THE SOIL EROSION PERMIT.
17. CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY TRAFFIC SIGNAL SHOP AT (734) 955-2161 AT LEAST 72 HOURS PRIOR TO START OF WORK AT OR NEAR ANY SIGNALIZED INTERSECTIONS.
18. CONTRACTOR SHALL NOTIFY WAYNE COUNTY 72 HOURS PRIOR TO START OF CONSTRUCTION. CONTACT THE PERMIT OFFICE AT (734) 858-2761.

[illegible]

25251 Northline Rd.
Taylor, MI 48180
734.947.9700
www.wadetrim.com



CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM

		BY: SWK SWK SWK		NOTE
2025 INERASTRICTURE IMPROVEMENT PROGRAM				
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ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
WC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

JOB NO.
PLY2130-01T

SHEET
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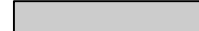
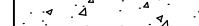
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Call before you dig

EXISTING CONDITIONS LEGEND

LINE WORK

BOUNDARY	
RIGHT OF WAY	
BUILDING SETBACK	
BUILDING	
CURB & GUTTER	
EDGE OF GRAVEL	
CHAIN LINK FENCE	
ORNAMENTAL FENCE	
WOOD FENCE	
FIELD LINE	
GUARD RAIL	
TOP OF BANK	
DITCH CENTERLINE	
FLOOD PLAIN LINE	
SHORE OR EDGE OF WATER	
WETLAND	
RETAINING/SCREEN WALL	
RAILROAD TRACKS	
EDGE OF WOODS	
EDGE OF BRUSH	
EDGE OF HEDGE ROW	
TREE ROW	
MAJOR CONTOUR	
MINOR CONTOUR	

HATCHING

HMA SURFACE	
CONCRETE SURFACE	
AGGREGATE SURFACE	
BRICK PAVERS	

TOPOGRAPHIC FEATURES

SPOT ELEVATION	+ 100.59
FOUND IRON ROD	● _{IR}
SET IRON PIPE	○ _{IP}
GOVERNMENT CORNER	● _{GC}
BENCHMARK	● _B
GPS MONUMENT	● _{BOX}
PK NAIL	● _{PK}
FOUND T IRON	● _{TRON}
FOUND PINCHED IRON	● _{PI}
FOUND SPIKE	● _{SPK}
TRAVERSE POINT	△
RIGHT-OF-WAY MARKER	○ _{ROW}
UNDERGROUND MARKER	○ _M
SOIL BORING	● _{SB}
AC UNIT	□ _{AC}
ANTENNA	□ _A
BASKETBALL POST	□ _{BP}
BILL BOARD SIGN BASE	○ _{GB}
CAMERA TOWER	□ _{CT}
FILL PORT	○ _{FP}
FLAG POLE	○ _{FP}
FOUNTAIN	▽
GAS PUMP	□ _G
LIGHT POLE BASE (NO LAMP)	○ _{LB}
MAIL BOX	□ _{MB}
MONITORING WELL	● _{MW}
NEWSPAPER BOX	□ _{NB}
OIL WELL	◇ _{OW}
PIER	○ _{PIER}
PILING	○ _{PL}
PARKING METER	○ _{PM}
ROUND POST OR BOLLARD	● _P
SQUARE POST	■ _P
ROCK	● _{ROCK}
SATELLITE DISH	● _S
SIGN POST	○ _S
TRAFFIC LIGHT SIGNAL	□ _T
WOOD STAKE	□ _{WS}
VOLLEY BALL POLE	○ _{VP}
TETHER BALL POLE	○ _{TP}
SWING SET	△
CLIMBING BARS	□ _C
MERRY-GO-ROUND	○ _M
STRAIGHT SLIDE	□ _S
SPIRAL SLIDE	○ _S
EVERGREEN TREE OR BUSH	● _E
DECIDUOUS TREE OR BUSH	○ _D
STUMP	○ _S

UTILITIES LINE WORK

WATER MAIN (UP TO 24")	_____	<i>W</i>	_____	<i>W</i>
WATER MAIN (24" AND UP)	=====		=====	
SANITARY SEWER MAIN (UP TO 24")	_____	<i>SAN</i>	_____	
SANITARY SEWER MAIN (24" AND UP)	=====		=====	
SANITARY SEWER FORCE MAIN	_____	<i>FM</i>	_____	
STORM SEWER LINE (UP TO 24")	_____	<i>ST</i>	_____	<i>ST</i>
STORM SEWER LINE (24" AND UP)	=====		=====	
OVERHEAD ELECTRIC	_____	<i>OH-E</i>	_____	
UNDERGROUND ELECTRIC	_____	<i>UG-E</i>	_____	
GAS MAIN OR SERVICE	_____	<i>G</i>	_____	<i>G</i>
UNDERGROUND TELEPHONE	_____	<i>UG-T</i>	_____	
OVERHEAD TELEPHONE	_____	<i>T</i>	_____	<i>T</i>
FIBER OPTICS	_____	<i>FO</i>	_____	
OIL PIPE LINE	_____	<i>OIL</i>	_____	

UTILITIES SYMBOLS

FIRE HYDRANT	
WATER VALVE IN BOX	
DOMESTIC WATER SHUT OFF	 OR 
SPRINKLER HEAD	 SH
SPRINKLER JUNCTION BOX	 JB
POST INDICATOR VALVE	
GATE VALVE & WELL	
METER PIT	 MP
WATER METER	 WM
WATER FAUCET	 WF
SANITARY SEWER MANHOLE	 S
SANITARY SEWER CLEAN OUT	 CO
SANITARY PUMP STATION	 PS
SANITARY SEWER VENT	 SV
SANITARY SEWER SEPTIC TANK	
STORM CATCH BASIN	 CB
STORM CURB INLET	 CI
STORM MANHOLE	 SM
DOWNSPOUT	 DS
STORM SEWER CLEAN OUT	 CS
STORM SEWER END SECTION	
STORM SEWER HEADWALL	
ELECTRIC METER	 EM
ELECTRIC MANHOLE	 E
UTILITY MANHOLE	 U
POWER PEDESTAL	 PP
ELECTRIC HAND HOLE	 HH
TRANSFORMER BOX	 T
POWER POLE	
UTILITY POLE	
POWER & LIGHT POLE	
TELEPHONE, POWER & L. P.	
POWER & TELEPHONE POLE	
GUY ANCHOR	 GA
GUY POLE	 GP
DEADMAN ANCHOR	 DA
FLOOD LIGHT	
DECORATIVE LIGHT POLE	
LIGHT POLE	
METAL LIGHT POLE	
GAS METER	 GM
GAS MANHOLE	
TELEPHONE PEDESTAL	 TP
TELEPHONE POLE	

SITE LINE WORK

CANOPY LIMITS	
BUILDING LINE	
CURB AND GUTTER	
STRAIGHT CURB	
BUILDING SETBACK	
RIGHT OF WAY LINE	
RETAINING/SCREEN WALL	
CHAIN LINK FENCE	
ORNAMENTAL FENCE	
WOOD FENCE	
GUARD RAIL	
THICKENED EDGE CONCRETE	
STOP BAR	
CURB & GUTTER REMOVAL	
STRAIGHT CURB REMOVAL	
PAINT STRIPE REMOVAL	
UTILITY REMOVAL/ABANDON	
SAWCUT FULL, FULL DEPTH	
TEMPORARY SILT FENCE	
MAJOR CONTOUR	
MINOR CONTOUR	
DRAINAGE SWALE	
TOP OF BANK	
LIMITS OF DISTURBANCE/ PROJECT LIMITS	

UTILITY LINE WORK

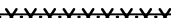
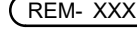
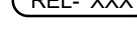
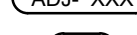
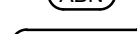
WATER MAIN (UP TO 24")	_____ W _____ W _____
WATER MAIN (24" AND UP)	===== W ===== W =====
SANITARY SEWER MAIN (UP TO 24")	_____ SAN _____ SAN _____
SANITARY SEWER MAIN (24" AND UP)	===== SAN ===== SAN =====
SANITARY SEWER FORCE MAIN	_____ FM _____ FM _____
STORM SEWER LINE (UP TO 24")	_____ ST _____ ST _____
STORM SEWER LINE (24" AND UP)	===== ST ===== ST =====
OVERHEAD ELECTRIC	_____ OH-E _____
UNDERGROUND ELECTRIC	_____ UG-E _____
GAS MAIN OR SERVICE	_____ G _____ G _____
UNDERGROUND TELEPHONE	_____ UG-T _____
OVERHEAD TELEPHONE	_____ OH-T _____

PROPOSED LEGEND

SITE SYMBOLS

FILTER BERM OR CHECK DAM	
TEMPORARY INLET PROTECTION	
EROSION CONTROL KEY (TEMPORARY)	
EROSION CONTROL KEY (PERMANENT)	
SOIL TYPE	
PARKING COUNT	
TRAFFIC FLOW ARROW	
SIGN AND SIGN POST	
BOLLARD	
ACCESSIBLE SYMBOL	
DETECTABLE WARNING SURFACE	
CURB ELEVATION WHERE: T = TOP OF CURB G = GUTTER OR P.V.M.T.	
THICKENED EDGE WALK ELEV. WHERE: T = TOP OF WALK P = PAVEMENT	
SPOT ELEV.	
WHERE XXX IS ONE OF THE FOLLOWING:	
TOP OF CONCRETE ELEV.	TOC
FINISH GRADE ELEV.	FG
DOOR ELEV.	DOOR
RIM ELEV.	RIM
BACK OF CURB ELEV.	BOC
GUTTER ELEV.	GUT
MATCH EXISTING ELEV.	MATCH
TOP OF PAVEMENT ELEV.	T/P
TOP OF WALL ELEV.	TOW
BOTTOM OF WALL ELEV.	BOW
TOP OF BANK ELEV.	TOB
TOE OF SLOPE ELEV.	TOE
FINISH FLOOR ELEV.	FFE
ADJUST RIM ELEV.	ADJUST
DRAINAGE FLOW	
DRAINAGE SLOPE	
FINISH GRADE SLOPE	
HIGH POINT	H.P.
GRADE BREAK	G.B.

REMOVAL LEGEND

CURB & GUTTER REMOVAL	
STRAIGHT CURB REMOVAL	
PAINT STRIPE REMOVAL	
UTILITY ABANDON	
SAWCUT FULL, FULL DPETH	
REMOVAL ITEM	
RELOCATE ITEM	
ADJUST STRUCTURE	
ABANDON ITEM	
RECONSTRUCT STRUCTURE	
DECIDUOUS TREE/BUSH REMOVAL	
EVERGREEN TREE/BUSH REMOVAL	
STUMP REMOVAL	
BUILDING REMOVAL	
PAVEMENT SURFACE REMOVAL	

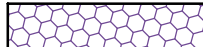
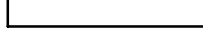
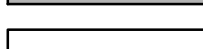
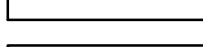
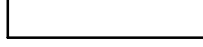
UTILITY SYMBOLS

FIRE HYDRANT
WATER VALVE IN BOX
DOMESTIC WATER SHUT OFF
FIRE DEPARTMENT CONNECTION
BACK FLOW PREVENTER
POST INDICATOR VALVE
GATE VALVE & WELL
METER PIT
SANITARY SEWER MANHOLE (UP TO 6' DIA.)
SANITARY SEWER MANHOLE (60" DIA. AND UP)
SANITARY SEWER CLEAN OUT
SANITARY PUMP STATION
STORM CATCH BASIN (UP TO 60" DIA.)
STORM CURB INLET
STORM MANHOLE (UP TO 60" DIA.)
STORM MANHOLE/CATCH BASIN (60" DIA. AND UP)
DOWNSPOUT
STORM SEWER END SECTION
STORM SEWER CLEAN OUT
TRANSFORMER BOX
POWER POLE
ELECTRIC METER
ELECTRIC MANHOLE
POWER PEDESTAL
DECORATIVE LIGHT POLE
SINGLE LIGHT POLE
PARKING LOT LIGHT POLE
GAS METER
TELEPHONE PEDESTAL

HATCHING

CONSTRUCTION ENTRANCE	
STAGING/STOCK PILE AREA	
HMA SURFACE	
HEAVY DUTY HMA SURFACE	
CONCRETE SURFACE	
HEAVY DUTY CONCRETE SURFACE	
DECORATIVE CONCRETE SURFACE	
AGGREGATE SURFACE	
PAINTED ISLAND	
BUILDING REMOVAL	

LANDSCAPE HATCH

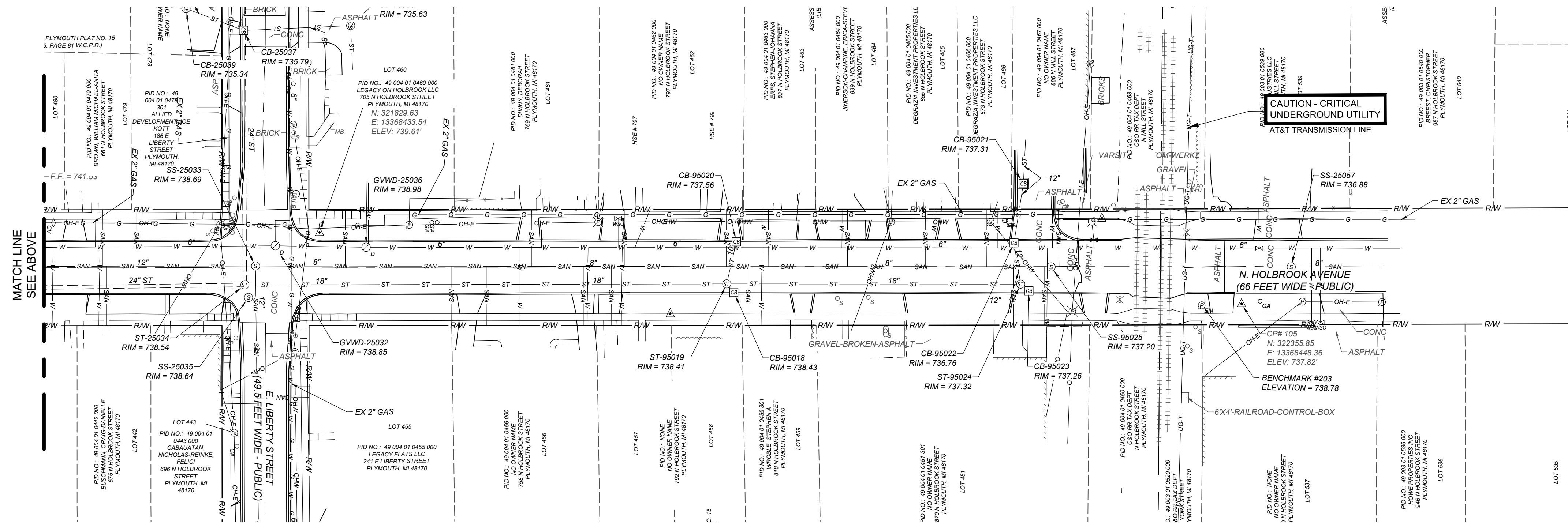
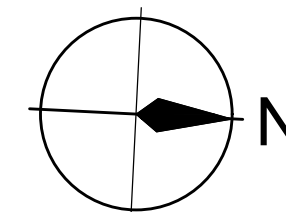
PERENNIALS-1	
PERENNIALS-2	
GROUND COVER-1	
GROUND COVER-2	
SEED MIX-1	
SEED MIX-2	
MULCH	
ROCK	
LAWN	



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

BENCHMARK #203 **ELEV. 738.78**
 SET 6 INCH NAIL IN WEST FACE OF POWER POLE IN
 WEST LAWN OF 920 N HOLBROOK STREET, NORTHEAST
 FROM TRAIN TRACKS AND N HOLBROOK STREET

BENCHMARK #203 **ELEV. 738.78**
 SET 6 INCH NAIL IN WEST FACE OF POWER POLE IN
 WEST LAWN OF 920 N HOLBROOK STREET, NORTHEAST
 FROM TRAIN TRACKS AND N HOLBROOK STREET

[illegible]

CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
HOLBROOK AVE - EXISTING CONDITIONS

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWH
WC DPS	3/20/25	SWH
BIDS	4/9/25	SWH

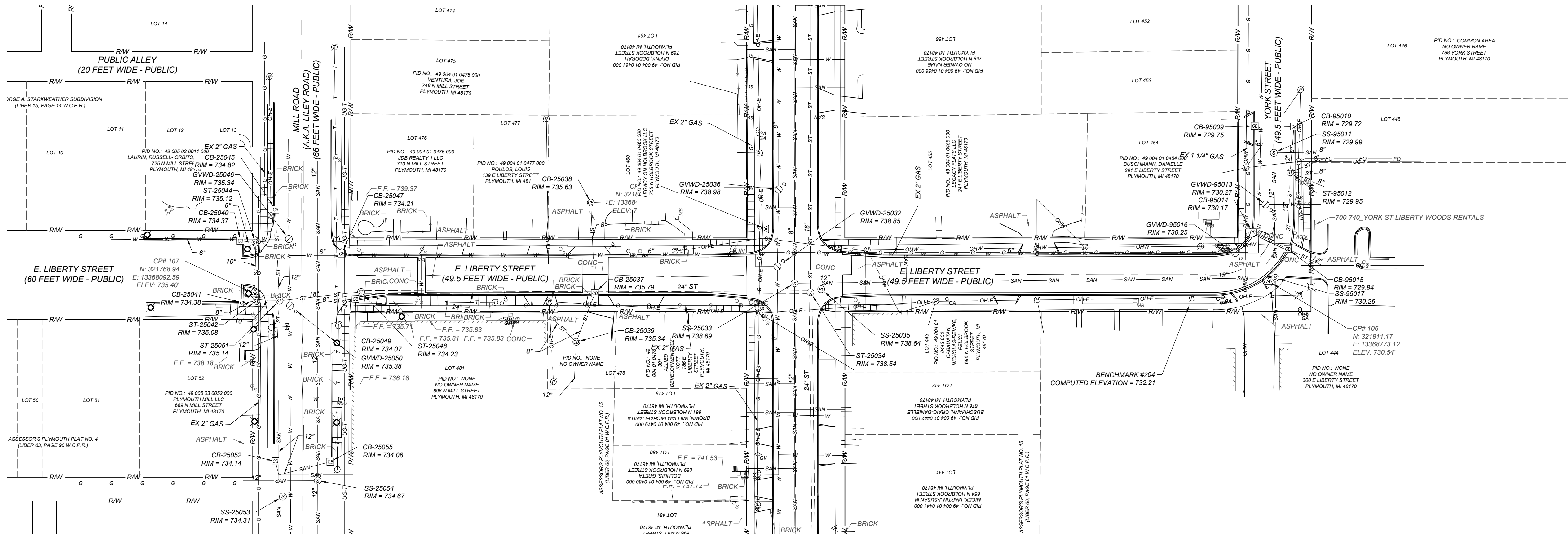
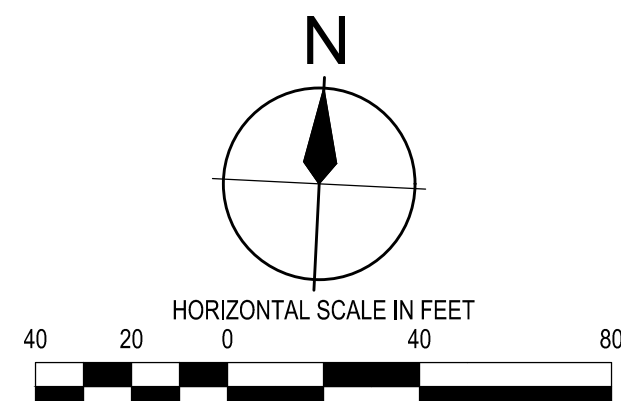
JOB NO.
PLY2130-01T

SHEET

4

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BENCHMARK #204 ELEV. 732.21
SET 6 INCH NAIL IN NORTH FACE OF POWER POLE IN
FRONT LAWN OF 300 E LIBERTY STREET

[illegible]

225251 Northline Rd.
Taylor, MI 48180
734.947.9700
www.wadetrim.com



CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
LIBERTY ST - EXISTING CONDITIONS

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
WC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

JOB NO.
PLY2130-01T

SHEET

5

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PROJECT MANAGER: SHAWN KEOUGH
IPW: WORK\MELANACANDI\588882\SH-T-VSP-EXISTING CONDITIONS.DWG PLOTTED 4/9/2025 3:16 PM BY ELANAGAN MARTIN



Know what's below.
Call before you dig



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

STRUCTURE INVENTORY

CB-25002 RIM = 720.23 12" RCP NW INV=716.38 12" RCP W INV=716.53	WMH-25023 RIM = 737.25 STEEL DIR: E/W T/PIPE=732.75	CB-25045 RIM = 734.82 12" CLAY S INV=731.32	WMH-95006 RIM = 735.64 BRICK FOD NPV TOV=3.05
ST-25003 RIM = 720.53 24" RCP SISE INV=712.59 24" RCP N INV=712.69 12" RCP NW INV=716.64 12" RCP SE INV=716.24	SMH-25024 RIM = 737.18 12" CLAY S INV=721.18 12" CLAY N INV=721.28 12" CLAY NE INV=721.28 12" CLAY W INV=721.28 8" CLAY E INV=721.58	WMH-25046 RIM = 735.34 UTO HEAVY TRAFFIC	CB-95007 RIM = 736.12 12" RCP N INV=732.52
WMH-25004 RIM = 721.46 BRICK FOD FOW NPV TOV=2.85 TOW=3.85	WMH-25025 RIM = 736.94 STEEL DIR: N/S T/PIPE=732.64	CB-25047 RIM = 734.21 BLOCK FOD NPV	CB-95008 RIM = 735.83 12" RCP E INV=731.73 12" RCP S INV=732.13
ST-25005 RIM = 721.26 12" RCP N INV=718.20 12" RCP NW INV=718.00 12" RCP SW INV=717.90 12" RCP SE INV=717.76	WMH-25026 RIM = 736.89 STEEL DIR: EW T/PIPE=732.59	ST-25048 RIM = 734.23 18" RCP W INV=726.83 24" RCP E INV=726.83 12" RCP SW INV=730.43	CB-95009 RIM = 729.75 12" RCP E INV=727.15
CB-25006 RIM = 720.93 12" RCP SE INV=717.98	WMH-25027 RIM = 736.85 STEEL DIR: N/S T/PIPE=732.70	CB-25049 RIM = 734.07 12" RCP NE INV=730.57 8" CLAY W INV=731.07	WMH-95011 RIM = 729.98 12" CLAY S INV=723.99 12" CLAY N INV=724.09 8" PVC E INV=724.09
SMH-25007 RIM = 724.77 12" RCP W INV=719.12 12" RCP S INV=718.97	CB-25028 RIM = 736.76 12" RCP E INV=732.96	ST-25051 RIM = 735.14 18" RCP E INV=727.34 10" CLAY W INV=727.94 12" CLAY S INV=729.24 10" CLAY NW INV=729.24	ST-95012 RIM = 729.95 12" RCP S INV=726.55 8" PVC E INV=724.20 8" CLAY SE INV=724.65 8" CLAY NE INV=724.65 12" RCP SE INV=726.45
SMH-25008 RIM = 721.37 UTO HEAVY TRAFFIC	CB-25029 RIM = 736.77 12" RCP W INV=731.87 12" RCP S INV=731.92	CB-25052 RIM = 734.14 12" CLAY SE INV=729.44	WMH-95013 RIM = 730.27 STEEL DIR: E/W T/PIPE=724.32
ST-25009 RIM = 722.75 12" RCP NW INV=718.60 12" RCP NE INV=718.05	CB-25030 RIM = 736.84 24" RCP S INV=725.44 24" RCP S INV=725.44 12" RCP N INV=731.74	SMH-25053 RIM = 734.31 12" CLAY N INV=728.11 12" CLAY NW INV=729.61 12" CLAY NE INV=729.31 8" CLAY W INV=729.21 12" CLAY S INV=728.11	CB-95014 RIM = 730.17 12" RCP SE INV=727.17
CB-25010 RIM = 723.13 12" RCP E INV=718.63	WMH-25032 RIM = 738.85 STEEL DIR: W T/PIPE=734.15	SMH-25054 RIM = 734.67 12" CLAY N INV=725.77 12" CLAY S INV=725.67 12" CLAY W INV=725.77	CB-95015 RIM = 729.84 12" RCP N INV=726.34 12" RCP NW INV=726.34 12" RCP SE INV=725.44
CB-25011 RIM = 723.09 12" RCP NE INV=718.29	SMH-25033 RIM = 738.69 12" CLAY E INV=723.09 12" CLAY S INV=722.99 8" CLAY N INV=723.69 8" CLAY W INV=729.79	CB-25055 RIM = 734.06 BLOCK HEAVY OFFSET NPV FOD FOW	WMH-95016 RIM = 730.25 POOR FOD FOW NPV TOW=0.8
ST-25012 RIM = 722.51 12" RCP SE INV=716.21 12" RCP NW INV=718.31	ST-25034 RIM = 738.54 24" RCP S INV=726.54 24" RCP W INV=726.54 18" RCP N INV=727.64	SMH-25057 RIM = 736.88 8" CLAY N INV=728.88	SMH-95017 RIM = 730.26 12" CLAY N INV=723.76 12" CLAY W INV=723.66 6" CLAY S INV=724.56
ST-25013 RIM = 721.77 12" RCP E INV=715.17 12" RCP NW INV=718.47	SMH-25035 RIM = 738.64 BRICK FOD NPV	WMH-25058 RIM = 720.56 BRICK FOD FOW NPV TOV=3.25 TOW=3.5	CB-95018 RIM = 738.43 12" RCP SW INV=732.73
SMH-25014 RIM = 720.56 12" CLAY E INV=710.86 12" CLAY W INV=710.96 12" PVC S INV=714.06	WMH-25036 RIM = 738.98 STEEL DIR: N/S T/PIPE=734.73	WMH-25059 RIM = 719.57 BLOCK FOD NPV TOV=3.7	ST-95019 RIM = 738.41 12" RCP N INV=729.11 12" RCP S INV=729.11 12" RCP NE INV=732.66 10" RCP NW INV=731.71
WMH-25015 RIM = 720.32 BRICK NPV FOD FOW TOW=3.5 TOV=2.85	CB-25037 RIM = 735.79 24" RCP W INV=726.49 24" RCP E INV=726.49 6" PVC SW INV=731.59 8" PVC N INV=727.69	SMH-25060 RIM = 729.33 12" RCP N INV=720.13 12" RCP S INV=720.03 6" CLAY SE INV=722.73	CB-95020 RIM = 737.56 10" RCP SE INV=732.66
SMH-25016 RIM = 720.23 12" CLAY N INV=710.33 12" CLAY N INV=710.33 12" PVC N INV=713.53 8" CLAY NW INV=715.13	CB-25038 RIM = 735.63 8" PVC SE INV=729.18 4" PVC E INV=729.78	SMH-25061 RIM = 738.45 12" RCP SW INV=730.25 12" RCP E INV=730.25	CB-95021 RIM = 737.31 12" RCP E INV=732.01 6" PVC W INV=732.31
ST-25017 RIM = 719.45 24" RCP NW INV=711.60 24" RCP E INV=711.05 24" RCP W INV=711.95 12" RCP SW INV=713.85	CB-25039 RIM = 735.34 12" RCP S INV=732.14 6" PVC NW INV=732.34 6" PVC NE INV=732.24	CB-95002 RIM = 735.68 10" RCP SE INV=730.28	CB-95022 RIM = 736.76 12" RCP E INV=731.06 12" RCP W INV=731.76
CB-25018 RIM = 732.48 12" CLAY ELBOW SE INV=727.48	CB-25040 RIM = 734.37 6" PVC E INV=732.07	CB-95003 RIM = 735.43 12" RCP SW INV=731.03	CB-95023 RIM = 737.26 12" RCP SW INV=733.16
CB-25019 RIM = 732.30 12" CLAY SW INV=726.90	ST-25042 RIM = 735.08 10" CLAY E INV=727.88 8" PVC W INV=729.88 10" CLAY N INV=731.38	ST-95004 RIM = 735.70 24" RCP N INV=724.40 24" RCP S INV=724.40 12" RCP NE INV=730.60 10" RCP NW INV=728.40 12" RCP W INV=730.40 12" CLAY SW INV=729.70	ST-95024 RIM = 737.32 12" RCP S INV=730.17 12" RCP W INV=730.97 12" RCP NE INV=733.02
SMH-25021 RIM = 712.55 12" RCP E INV=703.45 12" RCP W INV=703.55	ST-25044 RIM = 735.12 6" PVC W INV=731.72 10" CLAY S INV=731.72	SMH-95005 RIM = 735.98 12" CLAY N INV=720.58 12" CLAY S INV=720.48 6" CLAY E INV=728.38	SMH-95025 RIM = 737.20 8" CLAY S INV=732.40 8" CLAY N INV=732.45
SMH-25022 RIM = 727.14 12" CLAY SW INV=727.24 12" CLAY E INV=727.24			

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Taylor, MI 48180
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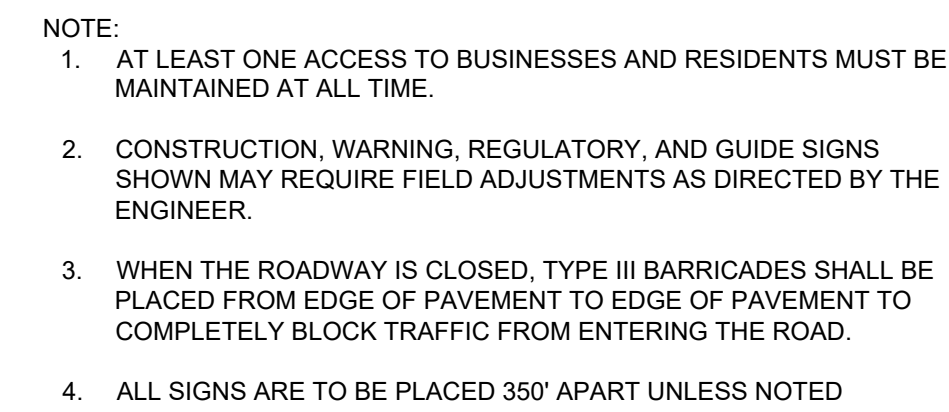
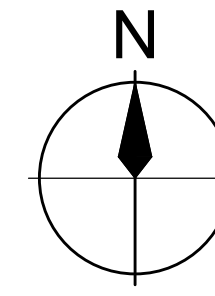
CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
EXISTING STRUCTURE TABLE

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWH
WC DPS	3/20/25	SWH
BIDS	4/8/25	SWH

JOB NO.
PLY2130-01T

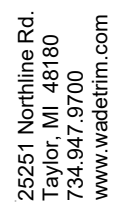
SHEET

6



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[illegible]

CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
HOLBROOK AVE -
MAINTENANCE OF TRAFFIC

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
NC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

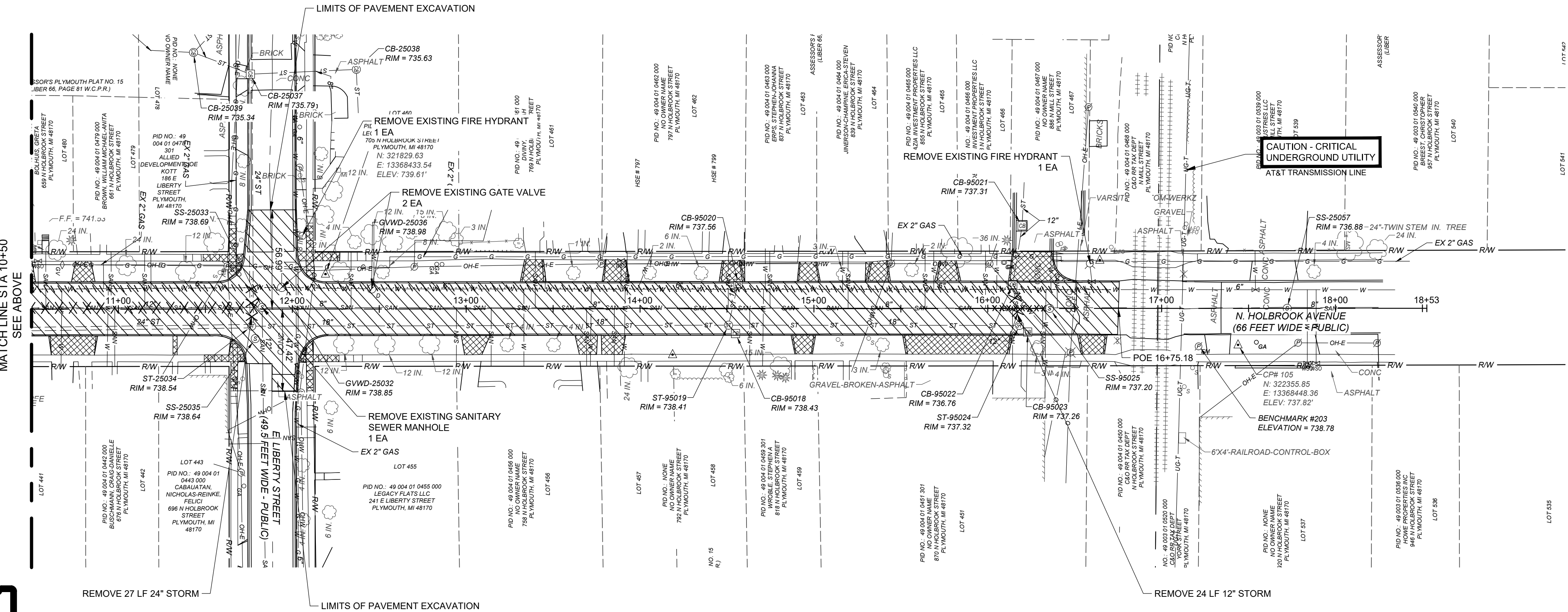
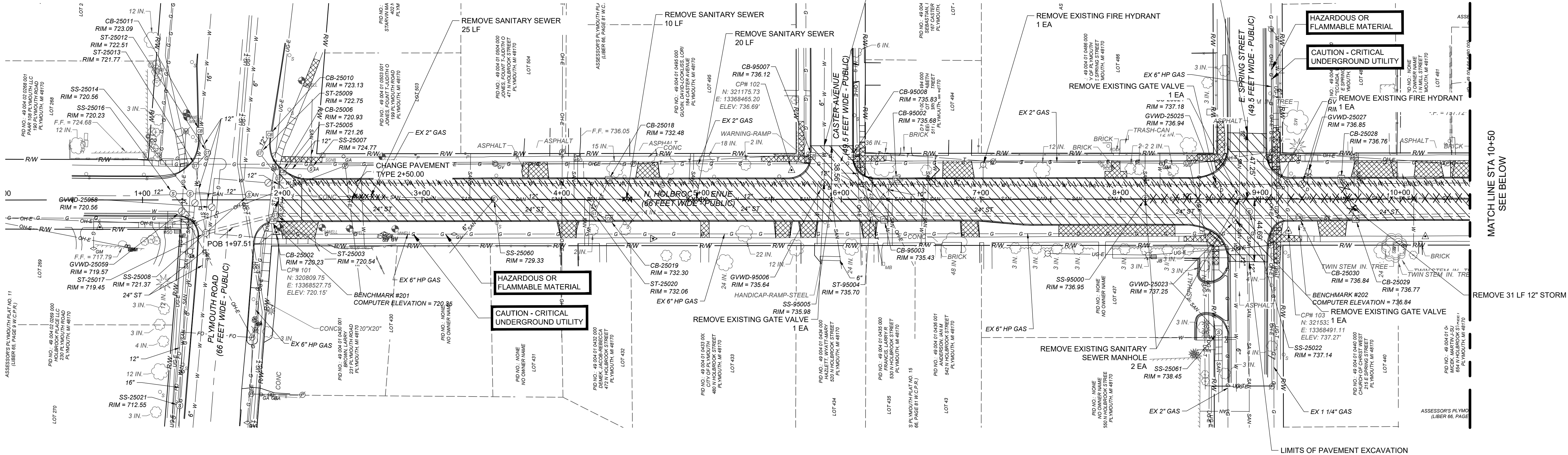
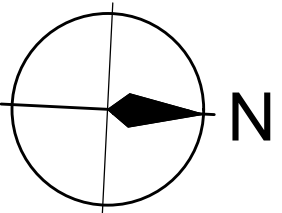
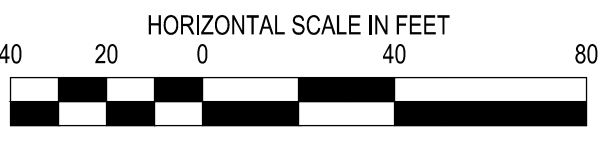
JOB NO.
PLY2130-01T

SHEET

7

BENCHMARK #201 ELEV. 732.21
CHISELED X IN SOUTHEAST CORNER OF CATCH BASIN
SQUARE IN NORTHEAST QUADRANT OF PLYMOUTH ROAD
AND N HOLBROOK STREET

BENCHMARK #202 ELEV. 736.86
CHISELED X IN SOUTH RIM OF CATCH BASIN ROUND
IN NORTHEAST QUADRANT OF N HOLBROOK STREET
AND E SPRING STREET



LEGEND

- PAVEMENT EXCAVATION
- CONCRETE DRIVE AND SIDEWALK, REMOVE
- ABANDON UTILITY
- REMOVE UTILITY
- REMOVE CURB

SUMMARY OF QUANTITIES THIS SHEET

3000	CY	PAVEMENT EXCAVATION
10000	SF	CONCRETE DRIVES AND SIDEWALK, REMOVE
150	SF	BRICK PAVER REMOVAL
456	LF	REMOVE EXISTING SANITARY SEWER (PAID FOR AS REMOVE AND REPLACE 12-INCH SANITARY SEWER, TRENCH B (SAND))
85	LF	STORM SEWER, REMOVE
40	SY	PAVEMENT FOR BUTT JOINT REMOVE

CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
HOLBROOK AVE - REMOVAL PLAN

ISSUED FOR: DATE: BY:
EGL: 3/19/25 SWK
WV OPS 3/20/25 SWK
BIDS 4/9/25 SWK

JOB NO.
PLY2130-01T

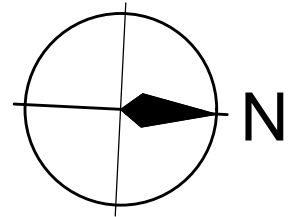
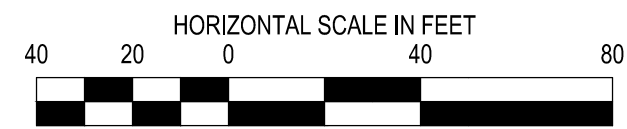
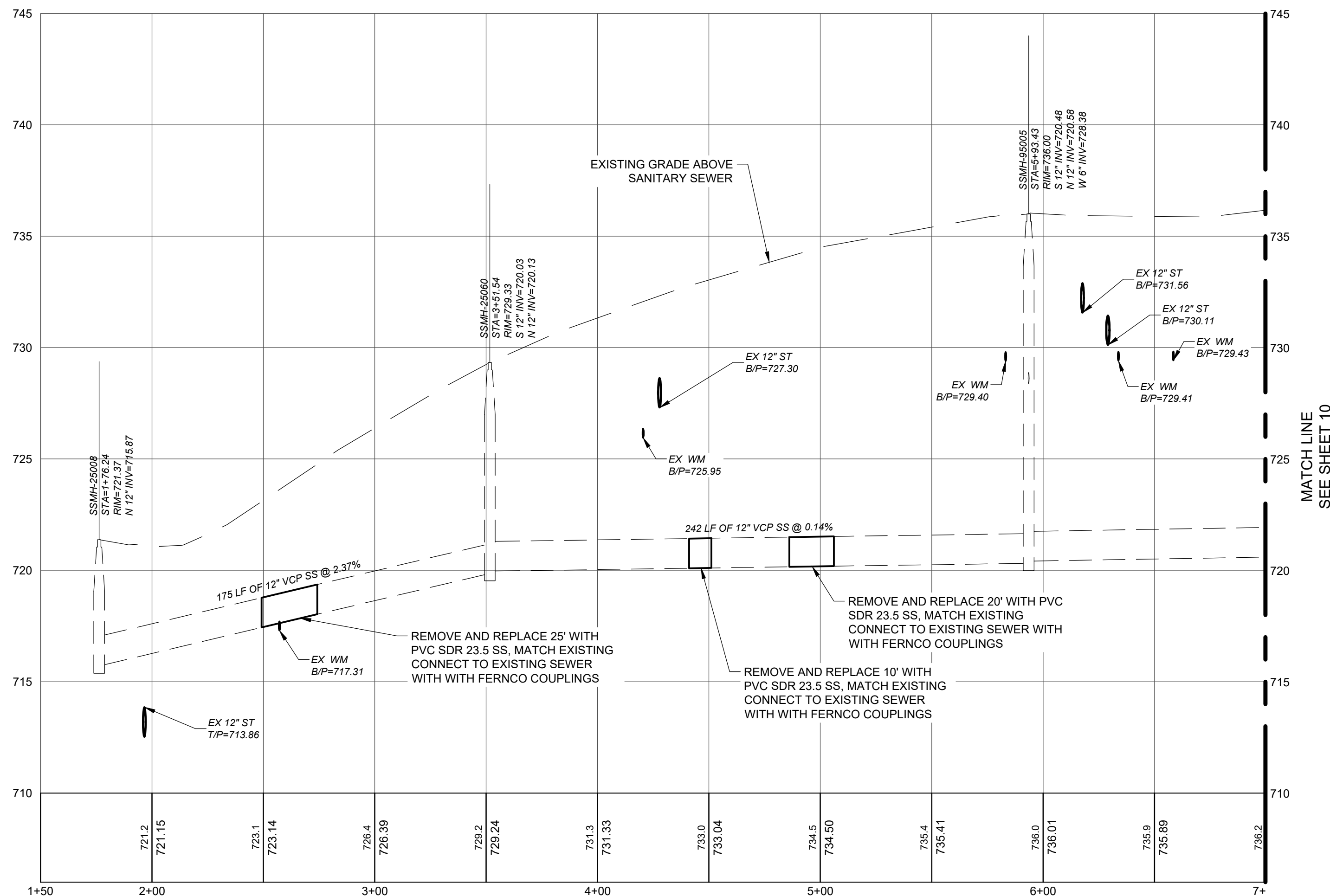
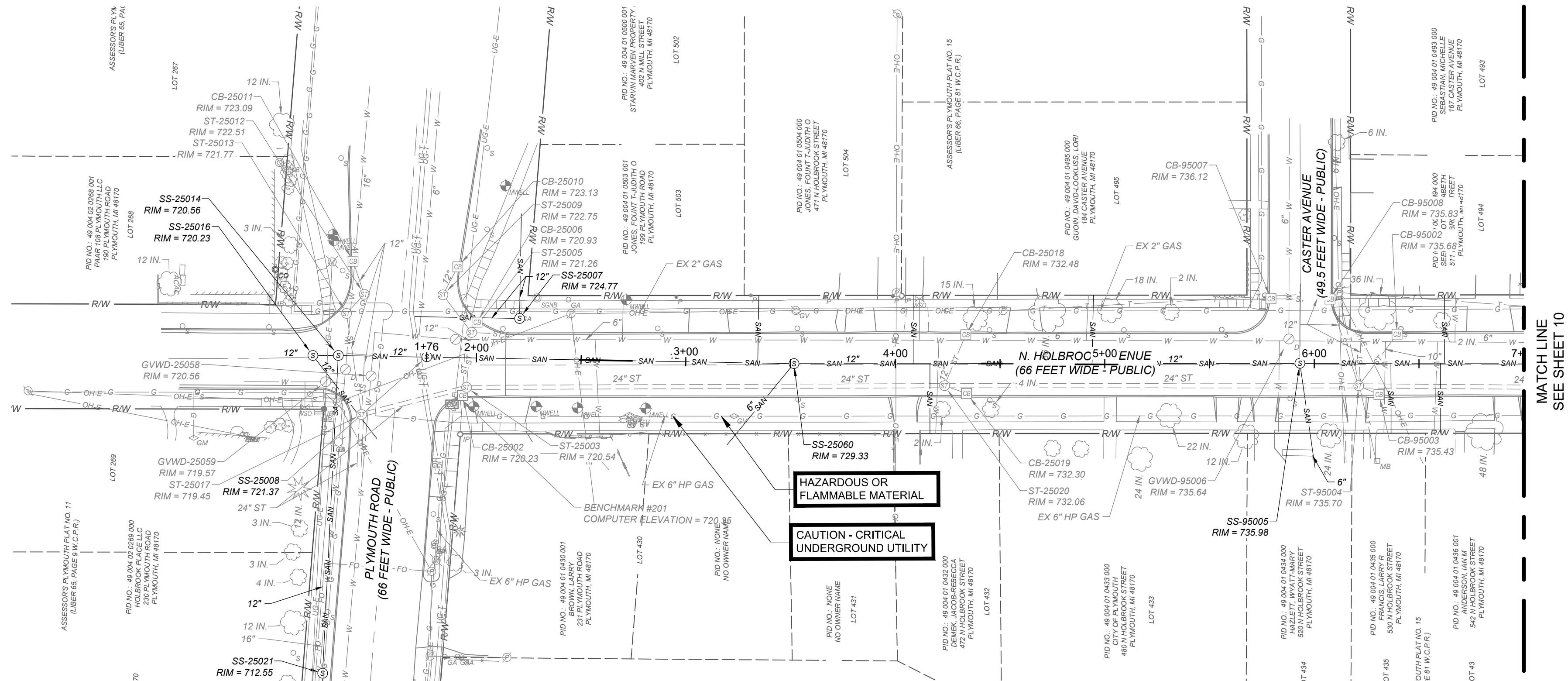
SHEET



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Taylor, MI 48180
734.947.3700
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BENCHMARK #203 **ELEV. 738.78**
SET 6 INCH NAIL IN WEST FACE OF POWER POLE IN
WEST LAWN OF 920 N HOLBROOK STREET, NORTHEAST
FROM TRAIN TRACKS AND N HOLBROOK STREET



DEWATERING: ALL GROUNDWATER
ENCOUNTERED FROM THE
EXCAVATION/INSTALLATION OF THE
SANITARY SEWER SHALL BE PUMPED
DIRECTLY INTO THE CITY OF PLYMOUTH
DOWNSTREAM STORM SEWER.
(CONTRACTOR WILL COORDINATE
LOCATION WITH CITY PRIOR TO
DEWATERING). THE COST FOR
DEWATERING WILL BE INCLUDED IN THE
COST OF THE SANITARY SEWER AND
SANITARY MANHOLE PAY ITEMS.

CONTRACTOR WILL DESIGN AND INSTALL A TEMPORARY EARTH RETENTION SYSTEM ALONG BOTH SIDES OF THE PROPOSED UTILITY TRENCH. THE CONTRACTOR WILL BE RESPONSIBLE FOR EXAMINING THE PROPOSED TRENCH WIDTH AND DEPTH OF THEIR RETENTION SYSTEM AS PART OF THE DESIGN. THE INTENT OF THE TEMPORARY RETENTION SYSTEM IS TO PROTECT THE EXISTING UTILITIES ADJACENT TO THE PROPOSED SANITARY SEWER. (PLEASE SEE SMC GEOTECHNICAL REPORT AND UTILITY PLAN). THE DESIGN WILL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER (MICHIGAN) AND WILL BE SUBMITTED TO THE OWNER/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO USE. ALL COSTS FOR THE TEMPORARY EARTH RETENTION SYSTEM WILL BE PAID FOR AS PART OF THE PAY ITEM "TEMPORARY EARTH RETENTION SYSTEM" (LS).

55 LF REMOVE AND REPLACE
12-INCH, PVC SOLID WALL
SDR 23.5, SANITARY SEWER,
TRENCH B (SAND)

[illegible]

25251 Northline Rd.
Taylor, MI 48180
734.947.9700
www.wadetrim.com



CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
HOLBROOK AVE - PROP SANITARY
PLAN & PROFILE STA 1+76 TO 7+00

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
WC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

JOB NO.
PLY2130-01T

SHEET

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Know what's **below**.
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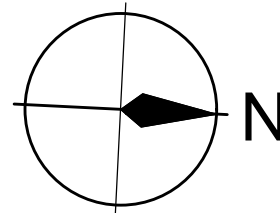
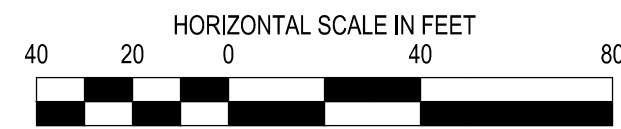
PROJECT MANAGER: SHAWN KEOUGH
C:\P\WORK\MFLANAGAN\1589882\ISHT-CSS-SAN DWG PLOTTED 4/8/2025 3:16 PM BY FLANAGAN, MARTIN

BENCHMARK #203 **ELEV. 738.78**
SET 6 INCH NAIL IN WEST FACE OF POWER POLE IN
WEST LAWN OF 920 N HOLBROOK STREET, NORTHEAST
FROM TRAIN TRACKS AND N HOLBROOK STREET

35	LF	REMOVE AND REPLACE 10-INCH, PVC SOLID WALL, SDR 23.5, SANITARY SEWER, TRENCH B (SAND)
366	LF	REMOVE AND REPLACE 12-INCH, PVC SOLID WALL, SDR 23.5, SANITARY SEWER, TRENCH B (SAND)
68	LF	REMOVE EXISTING SANITARY SEWER
3	EA	STANDARD 4-FOOT SANITARY MANHOLE, 0 TO 8 FEET DEEP
26	VF	ADDITIONAL DEPTH SANITARY MANHOLE, 48-INCH DIAMETER
6	EA	SANITARY SEWER LEAD, 6-INCH

DEWATERING: ALL GROUNDWATER
ENCOUNTERED FROM THE
EXCAVATION/INSTALLATION OF THE
SANITARY SEWER SHALL BE PUMPED
DIRECTLY INTO THE CITY OF PLYMOUTH
DOWNSTREAM STORM SEWER.
(CONTRACTOR WILL COORDINATE
LOCATION WITH CITY PRIOR TO
DEWATERING). THE COST FOR
DEWATERING WILL BE INCLUDED IN THE
COST OF THE SANITARY SEWER AND
SANITARY MANHOLE PAY ITEMS.

CONTRACTOR WILL DESIGN AND INSTALL A TEMPORARY EARTH RETENTION SYSTEM ALONG BOTH SIDES OF THE PROPOSED UTILITY TRENCH. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING THE REQUIRED WIDTH AND DEPTH OF THEIR RETENTION SYSTEM AS PART OF THE DESIGN. THE INTENT OF THE TEMPORARY RETENTION SYSTEM IS TO PROTECT THE EXISTING UTILITIES ADJACENT TO THE PROPOSED SANITARY SEWER. (PLEASE SEE SMC ORDINANCE 15.01 FOR THE EXISTING UTILITY PLAN). THE DESIGN WILL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER (MICHIGAN) AND WILL BE SUBMITTED TO THE OWNER/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO USE. ALL COSTS OF THE TEMPORARY EARTH RETENTION SYSTEM WILL BE PAID FOR AS PART OF THE PAY ITEM "TEMPORARY EARTH RETENTION SYSTEM" (LS).

[illegible]

CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
HOLBROOK AVE - PROP SANITARY
PLAN & PROFILE STA 7+00 TO 16+35.6

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
WC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

JOB NO. **PLY2130-01T**

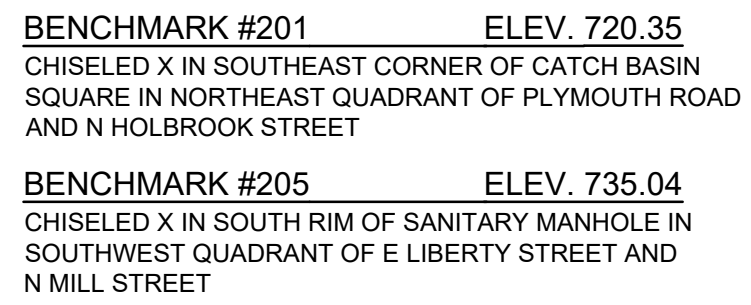
SHEET

10

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



NOTE:
IF WATER SERVICE CURB BOX WAS NOT FOUND IN THE
FIELD, THE LOCATION SHOWN IN THE PLANS IS BASED
OFF INFORMATION PROVIDED BY PLYMOUTH

QUANTITIES THIS SHEET		
1	EA	CONNECTION TO EX 6 INCH WM W/ 8X6-INCH REDUCER AND CUTTING-IN SLEEVE
630	LF	WATER MAIN, 8-INCH, PC 350 D.I., TRENCH 'B'
2	EA	FIRE HYDRANT ASSEMBLY
2	EA	GATE VALVE AND WELL, 8-INCH
5	EA	WATER SERVICE, K COPPER, 1-INCH, LONG
1	EA	WATER SERVICE, K COPPER, 1.5-INCH, SHORT
4	EA	WATER SERVICE, K COPPER, 1-INCH, SHORT
123	CY	ABANDON WATER MAIN WITH FLOWABLE FILL

CONNECTION NOTE:
CONNECT TO EXISTING WATER MAIN AFTER
HYDROSTATIC AND BACTERIOLOGICAL TESTS HAVE
BEEN SUCCESSFULLY COMPLETED AND REVIEWED BY
THE ENGINEER.

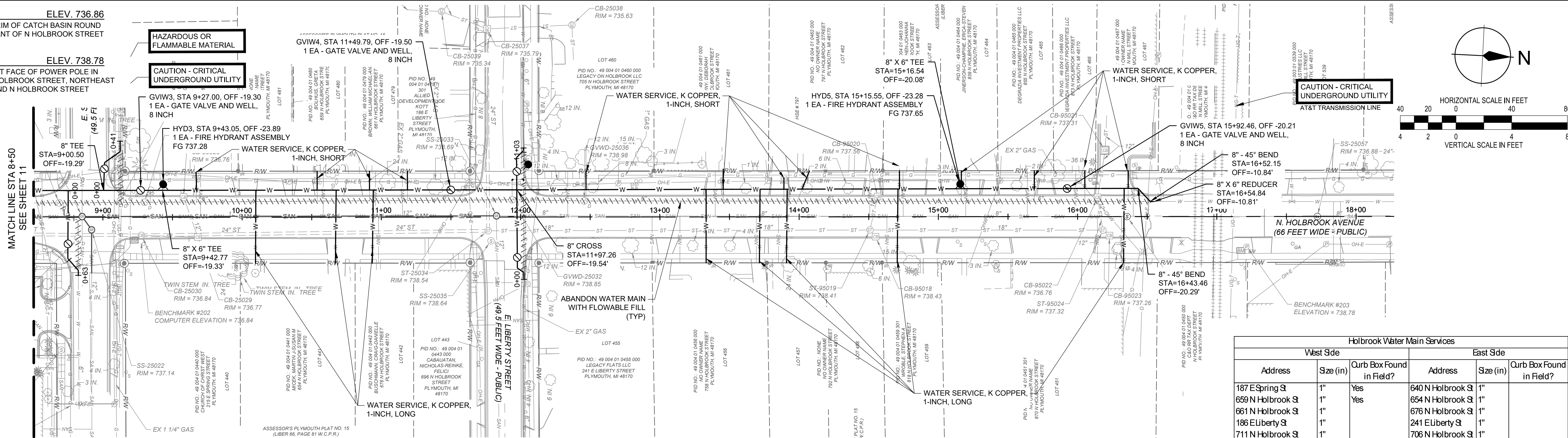
CONTRACTOR SHALL SEND COPY OF ALL
BACTERIOLOGICAL TESTS TO THE CITY OF PLYMOUTH
FAX# 734.455.1666

GENERAL UTILITY NOTES:

3. CONTRACTOR SHALL PROTECT THE EXISTING WATER SERVICE LEADS DURING CONSTRUCTION. ANY DAMAGE TO EXISTING LEADS DUE TO THE CONTRACTOR'S CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
4. MANY OF THE EXISTING CURBSTOP LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD LOCATED WITH DIRECTION FROM CITY OF PLYMOUTH.
5. ALL PROPOSED 8-INCH WATER MAIN SHALL MAINTAIN 18-INCH VERTICAL SEPARATION BETWEEN UTILITIES AT ALL CROSSINGS.
6. GAS MAIN - ASSUME ALL PLASTIC GAS MAIN IS LIVE.
7. CONTRACTOR SHALL BE AWARE THAT STEEL/CAST IRON MAY BE LIVE (BUT MAY ALSO BE ABANDONED IN-PLACE).
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE CITY IN LOCATING, VERIFYING AND RECONNECTING ALL EXISTING ACTIVE SERVICES.
9. EXISTING SANITARY SERVICE LEADS HAVE BEEN SHOWN BASED ON AN ASSUMPTION OF 6" COVER AT THE PROPERTY LINE. CONTRACTOR TO FIELD VERIFY SERVICE DEPTH.
10. DEWATERING: ALL GROUNDWATER ENCOUNTERED FROM THE EXCAVATION/INSTALLATION OF THE SANITARY SEWER SHALL BE PUMPED DIRECTLY INTO THE CITY OF PLYMOUTH DOWNSTREAM STORM SEWER. (CONTRACTOR WILL COORDINATE LOCATION WITH CITY PRIOR TO DEWATERING). THE COST FOR DEWATERING WILL BE INCLUDED IN THE COST OF THE WATER MAIN AND GATE VALVE PAIP ITEMS.



BENCHMARK #203 **ELEV. 738.78**
SET 6 INCH NAIL IN WEST FACE OF POWER POLE IN
WEST LAWN OF 920 N HOLBROOK STREET, NORTHEAST
FROM TRAIN TRACKS AND N HOLBROOK STREET



Holbrook Water Main Services					
West Side			East Side		
Address	Size (in)	Urb Box Found in Field?	Address	Size (in)	Urb Box Found in Field?
187 E Spring St	1"	Yes	640 N Holbrook St	1"	Yes
659 N Holbrook St	1"	Yes	654 N Holbrook St	1"	
661 N Holbrook St	1"		676 N Holbrook St	1"	
186 E Liberty St	1"		241 E Liberty St	1"	
711 N Holbrook St	1"		706 N Holbrook St	1"	
769 N Holbrook St	1"		758 N Holbrook St	1"	
797 N Holbrook St	1"	Yes	764 N Holbrook St	1"	
799 N Holbrook St	1"		784 N Holbrook St	1"	
837 N Holbrook St	1"		818 N Holbrook St	1"	
839 N Holbrook St	1"		870 N Holbrook St	1"	
855/857 N Holbrook St	1"		920 N Holbrook St	1"	
873 N Holbrook St	1"		920 N Holbrook St	1"	
886 N Mill St	1"		946 N Holbrook St	1"	
885 N Holbrook St	1"				
927 N Holbrook St	1"				
900 N Mill St	1"				
957 N Holbrook St	1"				

NOTE:
IF WATER SERVICE CURB BOX WAS NOT FOUND IN THE
FIELD, THE LOCATION SHOWN IN THE PLANS IS BASED
OFF INFORMATION PROVIDED BY PLYMOUTH

QUANTITIES THIS SHEET

- | | | |
|-----|----|---|
| 1 | EA | CONNECTION TO EX 6 INCH WM W/ 8X6-INCH
REDUCER AND CUTTING-IN SLEEVE |
| 808 | LF | WATER MAIN, 8-INCH, PC 350 D.I., TRENCH 'B' |
| 2 | EA | FIRE HYDRANT ASSEMBLY |
| 3 | EA | GATE VALVE AND WELL, 8-INCH |
| 8 | EA | WATER SERVICE, K COPPER, 1-INCH, LONG |
| 13 | EA | WATER SERVICE, K COPPER, 1-INCH, SHORT |
| 158 | CY | ABANDON WATER MAIN WITH FLOWABLE FILL |

CONNECTION NOTE:

CONNECT TO EXISTING WATER MAIN AFTER
HYDROSTATIC AND BACTERIOLOGICAL TESTS HAVE
BEEN SUCCESSFULLY COMPLETED AND REVIEWED BY
THE ENGINEER.

CONTRACTOR SHALL SEND COPY OF ALL
BACTERIOLOGICAL TESTS TO THE CITY OF PLYMOUTH
FAX# 734.455.1666

GENERAL UTILITY NOTES:

1. CONTRACTOR SHALL PROTECT THE EXISTING WATER SERVICE LEADS DURING CONSTRUCTION. ANY DAMAGE TO EXISTING LEADS DUE TO THE CONTRACTOR'S CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
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CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
HOLBROOK AVE - PROP WATER MAIN PLAN
& PROFILE STA 8+50-14+88

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
WC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

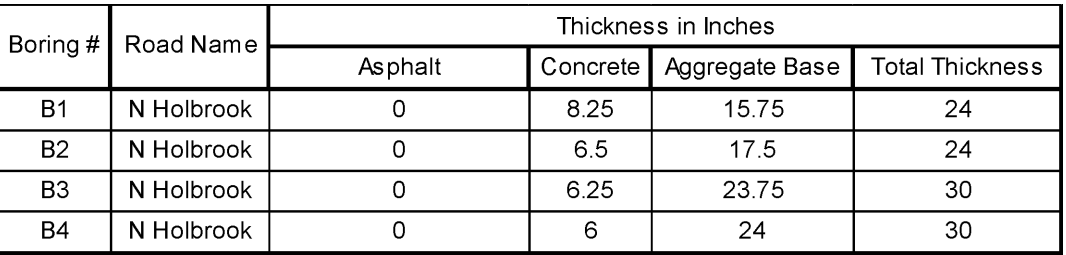
JOB NO.
PLY2130-01T

12

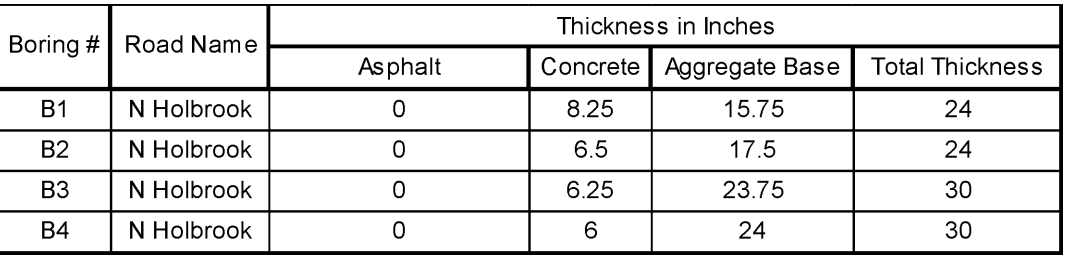
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STATION RANGE	LEFT LANE SLOPE	RIGHT LANE SLOPE
POB - 5+25	3%	-3%
5+25 - 13+00	-2%	-2%
13+00 - POE	-3%	3%

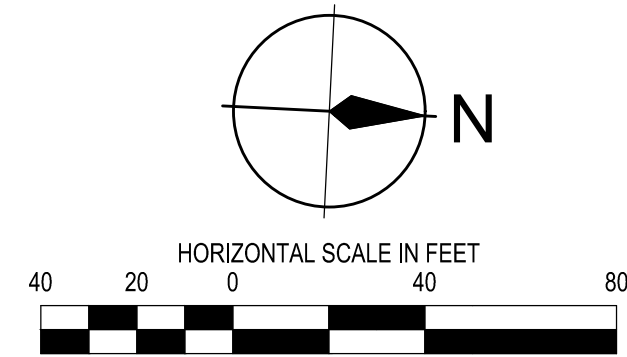


STATION RANGE	LEFT LANE SLOPE	RIGHT LANE SLOPE
POB - 5+25	3%	-3%
5+25 - 13+00	-2%	-2%
13+00 - POE	-3%	3%

HMA APPLICATION ESTIMATE			
IDENTIFICATION NO.	RATE PER SYD	PERFORMANCE GRADE	REMARKS
1300T	220*	64-22	WEARING
3C	550*	64-22	LEVELING
* BOND COAT 0-0.10 GAL/SYD		FOR INFORMATION ONLY	



BENCHMARK #202 **ELEV. 736.86**
CHISELED X IN SOUTH RIM OF CATCH BASIN ROUND
IN NORTHEAST QUADRANT OF N HOLBROOK STREET
AND E SPRING STREET



CONTRACTOR SHALL PROTECT EXISTING STORM SEWER AT ALL TIMES DURING CONSTRUCTION BY ANY MEANS NECESSARY. COST FOR PROTECTING STORM SEWER IS INCIDENTAL TO THE PROJECT.

	PROPOSED ASPHALT PAVEMENT
	PROPOSED CONCRETE PAVEMENT
	PROPOSED INLET FILTER
	ADJUST STRUCTURE

50	CY	SUBGRADE UNDERCUT AND 21AA AGGREGATE BACKFILL
28	VF	RECONSTRUCT STRUCTURE
1100	TON	AGGREGATE BASE COURSE, 21AA
250	TON	BITUMINOUS PAVEMENT, WEARING COURSE, 1300T
625	TON	BITUMINOUS PAVEMENT, LEVELING COURSE, 3C
200	SY	7-INCH PLAIN CONCRETE
1300	LF	CURB AND GUTTER, CONCRETE, DET F4
1000	SF	SIDEWALK CONCRETE 4-INCH
250	SF	SIDEWALK RAMP CONCRETE 6-INCH
14	EA	ADJUST STRUCTURE
4920	LB	REMOVE AND REPLACE FRAME AND COVER
1300	LF	UNDERDRAIN, 6-INCH W/ GEOTEXTILE FABRIC WRAP
8	EA	INLET FILTER
5000	SF	6-INCH CONCRETE, DRIVES AND SIDEWALK
2000	SY	RESTORATION WITH 3-INCHES TOPSOIL AND NURSERY SOD

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CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
HOLBROOK AVE - PROP PAVING PLAN
STA 0+00 TO STA 8+00

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
WC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

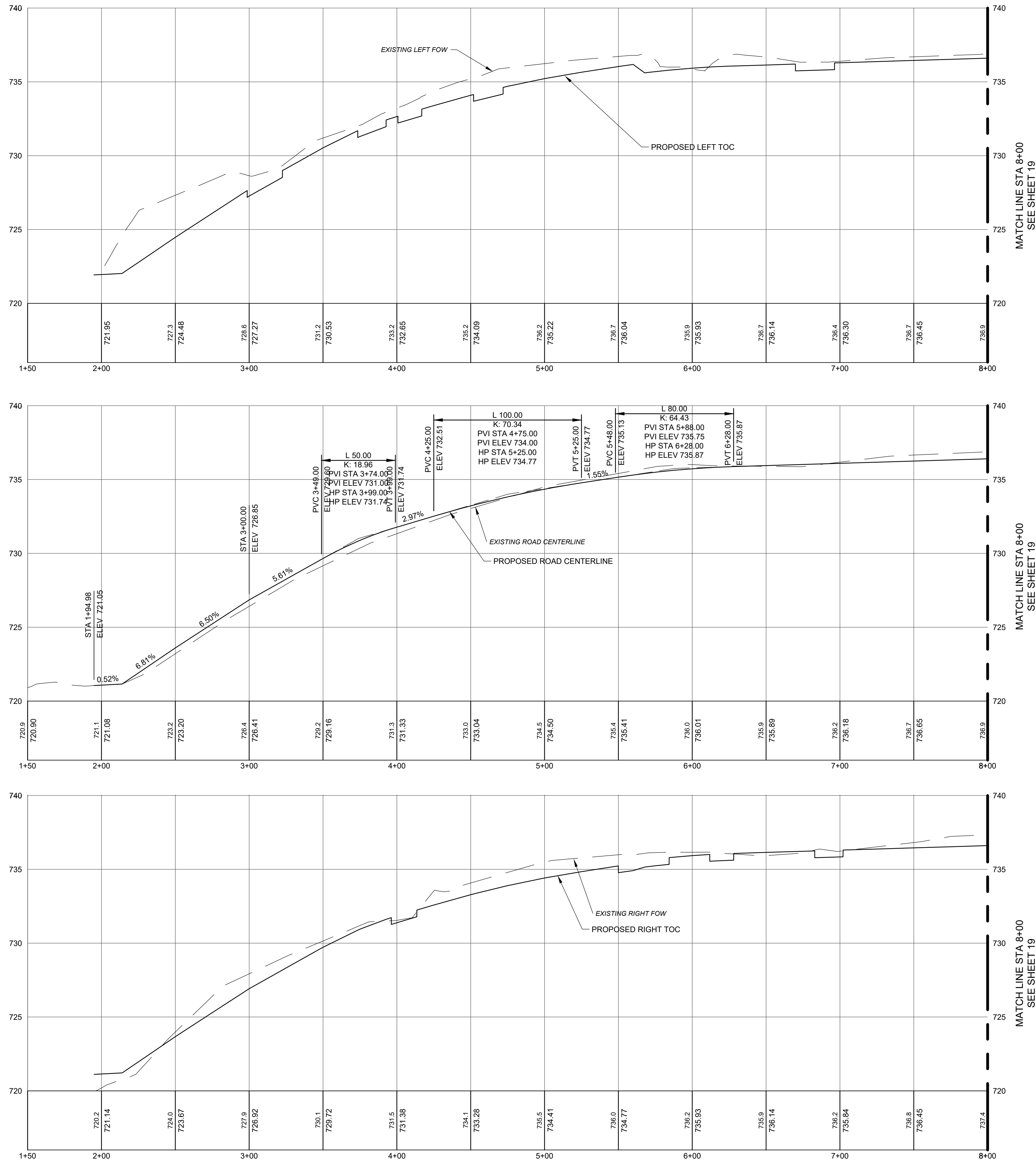
JOB NO.
PLY2130-01T

SHEET

16

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RIGHT

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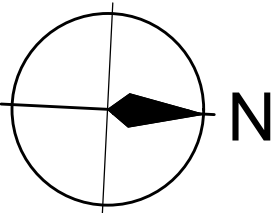
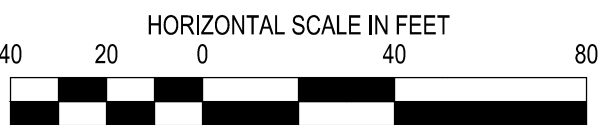
CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
HOLBROOK AVE - PROP PAVING PROFILE
STA 0+00 TO STA 8+00

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
WC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

JOB NO.
PLY2130-01T

SHEET

BENCHMARK #203 **ELEV. 738.78**
SET 6 INCH NAIL IN WEST FACE OF POWER POLE IN
WEST LAWN OF 920 N HOLBROOK STREET, NORTHEAST
FROM TRAIN TRACKS AND N HOLBROOK STREET



MATCH LINE STA 8+00
SEE SHEET 16

LEGEND

PROPOSED ASPHALT PAVEMENT

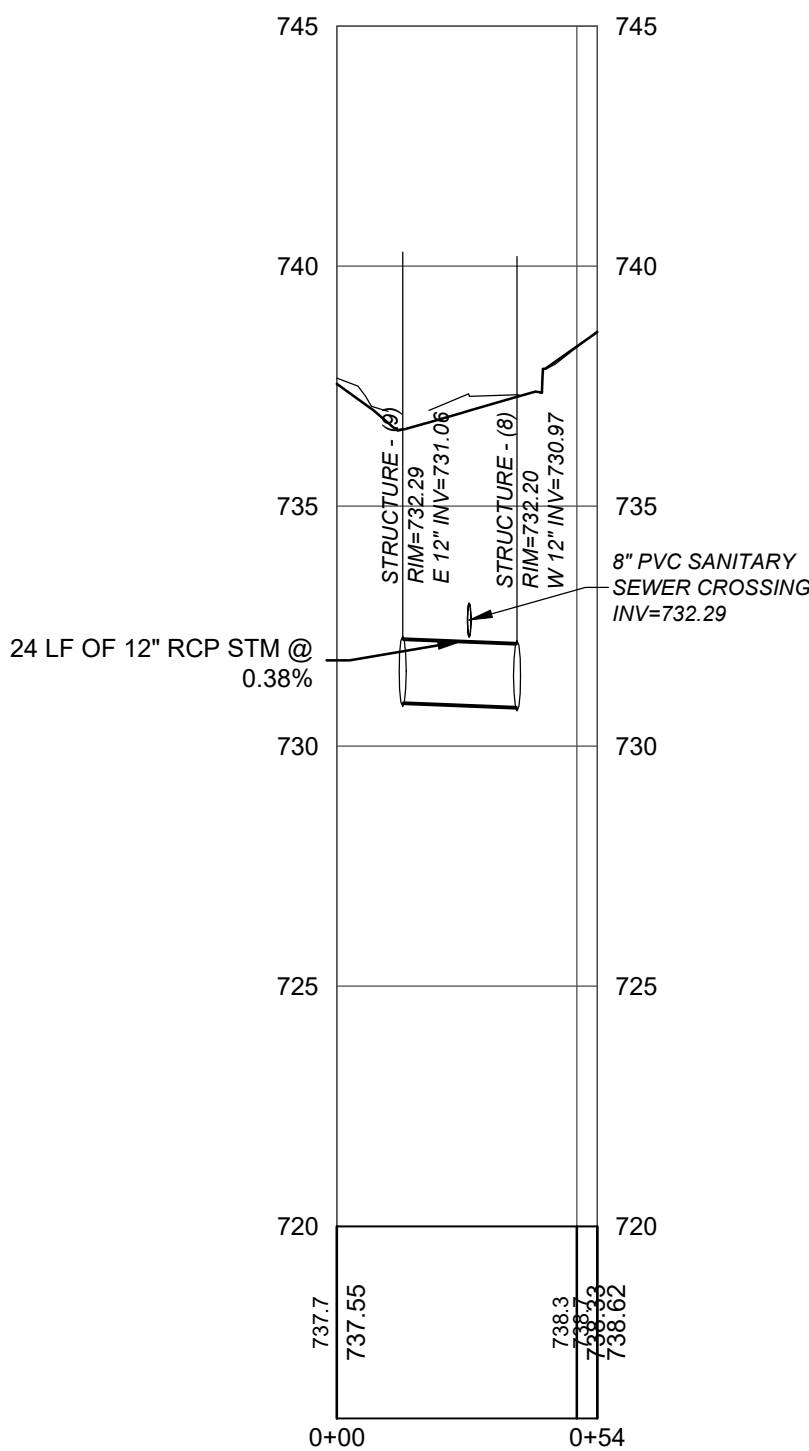
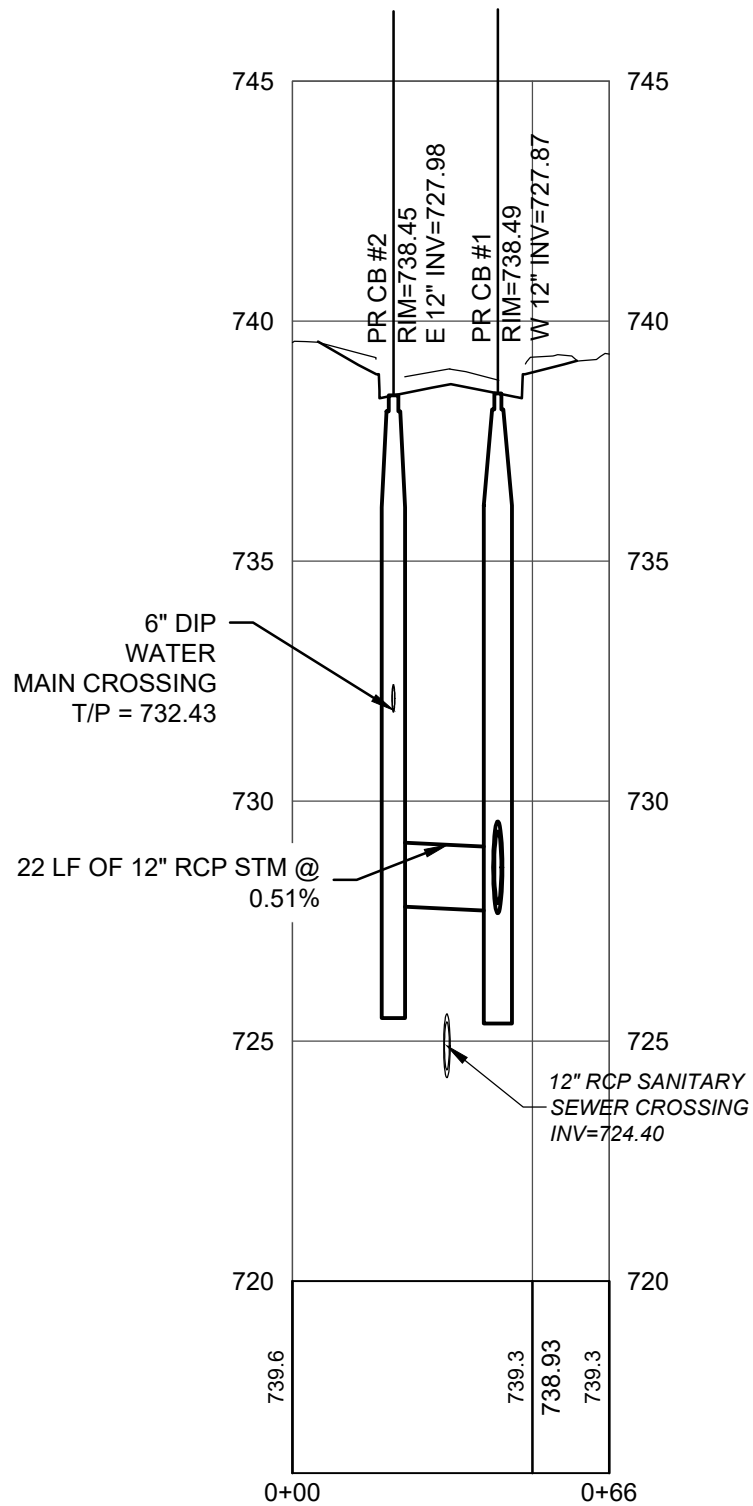
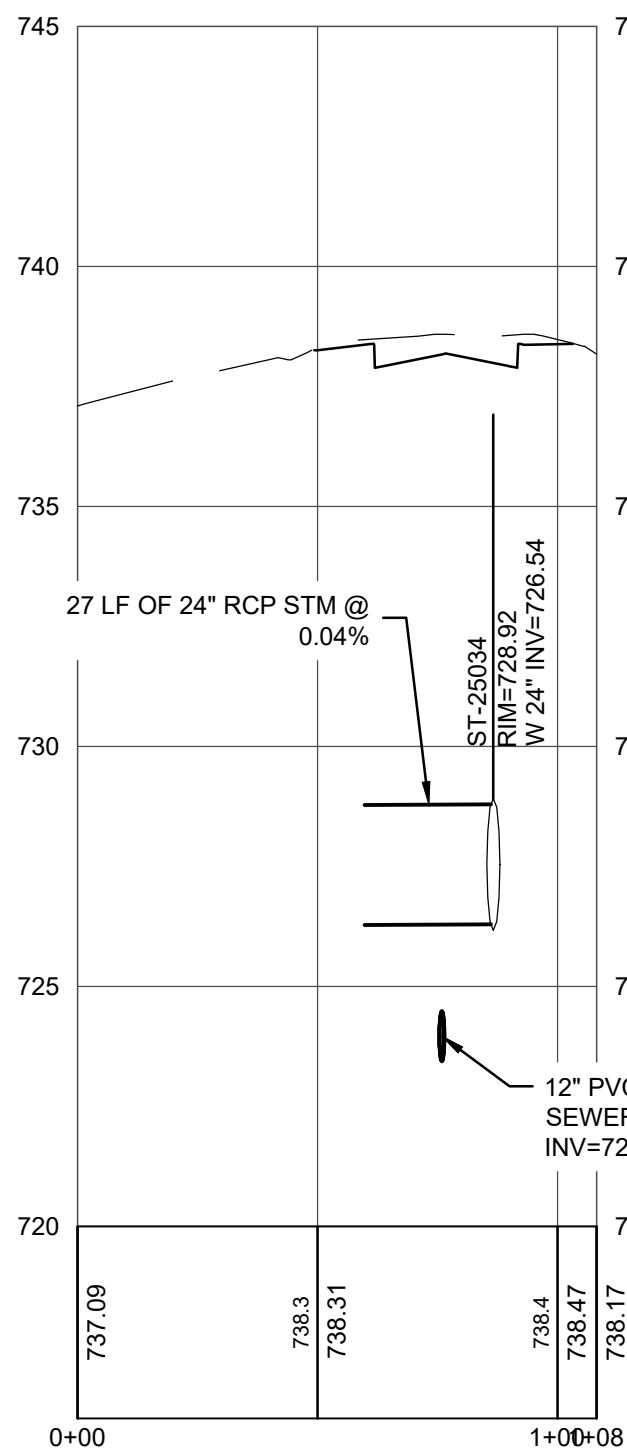
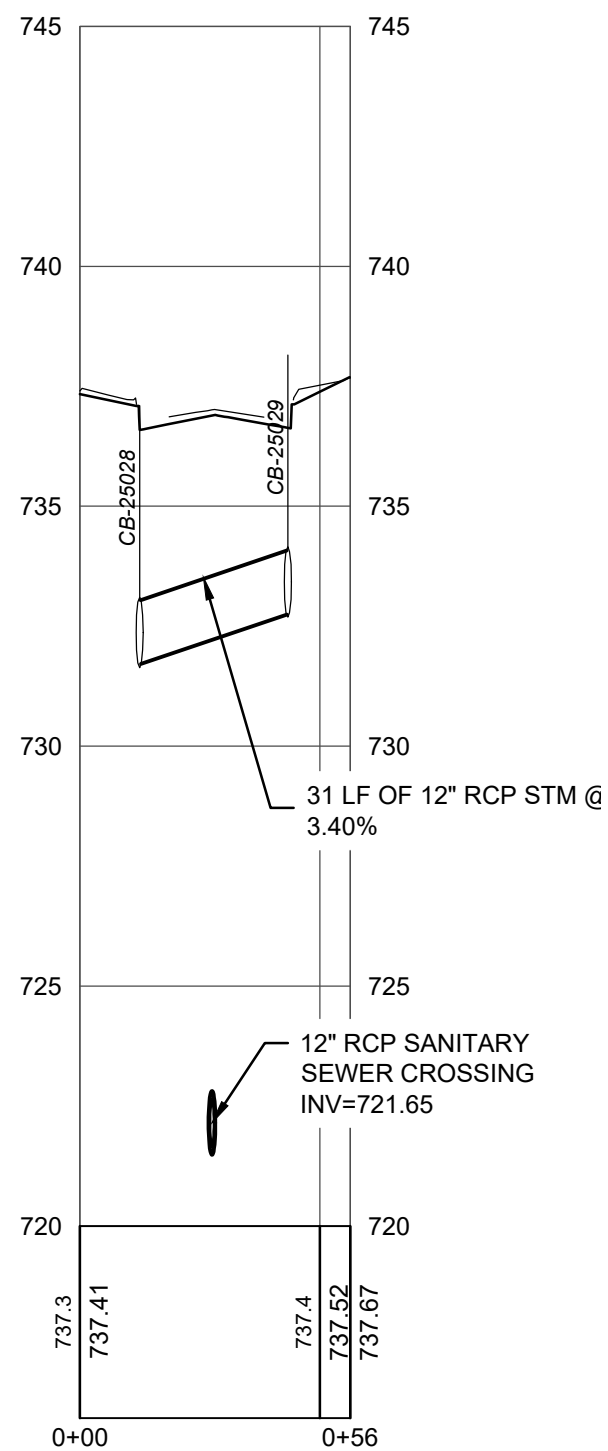
PROPOSED CONCRETE PAVEMENT

PROPOSED INLET FILTER

ADJ ADJUST STRUCTURE

SUMMARY OF QUANTITIES THIS SHEET

50	CY	SUBGRADE UNDERCUT AND 21AA AGGREGATE BACKFILL
30	VF	RECONSTRUCT STRUCTURE
2000	TON	AGGREGATE BASE COURSE, 21AA
450	TON	BITUMINOUS PAVEMENT, WEARING COURSE, 1300T
1050	TON	BITUMINOUS PAVEMENT, TRAVELING COURSE, 3C
2100	LF	CURB AND GUTTER, CONCRETE, DET F4
1500	SF	SIDEWALK CONCRETE 4-INCH
1400	SF	SIDEWALK RAMP, CONCRETE 6-INCH
15	EA	ADJUST STRUCTURE
4605	LB	REMOVE AND REPLACE FRAME AND COVER
2100	LB	UNDERDRAIN, 6-INCH W/ GEOTEXTILE FABRIC WRAP
55	LF	12-INCH STORM SEWER, C76 CLIV, TRENCH B
27	EA	24-INCH STORM SEWER, C76 CLIV, TRENCH B
1	EA	6' DIA STANDARD STORM CATCH BASIN
1	EA	REMOVE EX MANHOLE COVER AND REPLACE WITH CB COVER
8	EA	INLET FILTER
50	FT	PAVEMENT MARKING, THERMOPLASTIC, 24-INCH STOPBAR
275	FT	PAVEMENT MARKING, THERMOPLASTIC, 12-INCH CROSSWALK
1	EA	PAVEMENT MARKING, THERMOPLASTIC, RAILROAD CROSSING SYMBOL
3000	YD	6-INCH CONCRETE, 21AA
2000	SY	RESTORATION WITH 3-INCHES TOPSOIL AND NURSERY SO
400	LF	24-INCH STORM SEWER, C76 CLIV, TRENCH B (PROVISIONAL)
2	EA	6' DIA STANDARD STORM CATCH BASIN (PROVISIONAL)



PROJECT MANAGER: SHAWN KEOUGH
C:\PW\WORK\MELANAC\DWG\1588R2\1588R2\1588R2.DWG PLOTTED 4/9/2025 3:17 PM BY FLANAGAN, MARTIN



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WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
HOLBROOK AVE - PROP PAVING &
STORM PLAN STA 8+00 TO STA 16+75.20

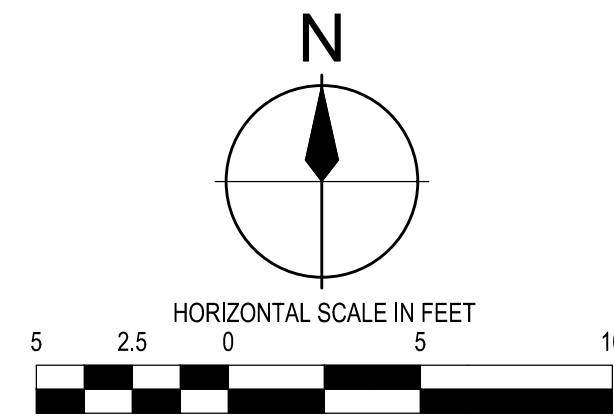
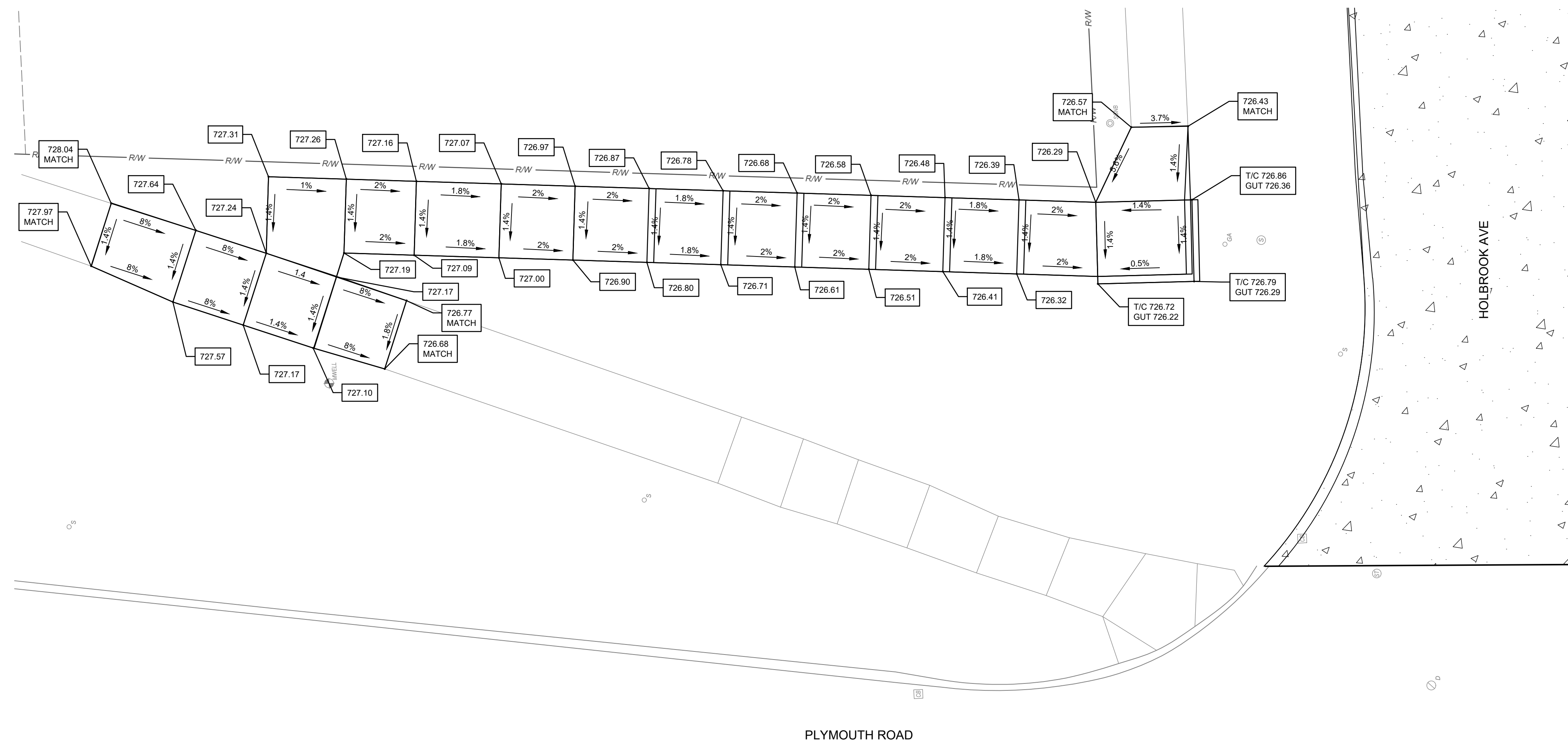
ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
WC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

JOB NO.
PLY2130-01T

SHEET

18

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PROJECT MANAGER: SHAWN KEOUGH
C:\PW\WORK\MFLANAGAN\DT1589882\T-SHT-CSW-ADA RAMPS.DWG PLOTTED 4/8/2025 3:18 PM BY FLANAGAN, MARTIN

CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
HOLBROOK AVE - PROP ADA RAMPS AT
PLYMOUTH ROAD

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
WC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

JOB NO.
PLY2130-01T

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WADE TRIM

DESCRIPTION

DATE _____

REV#

ROAD

PLUNC

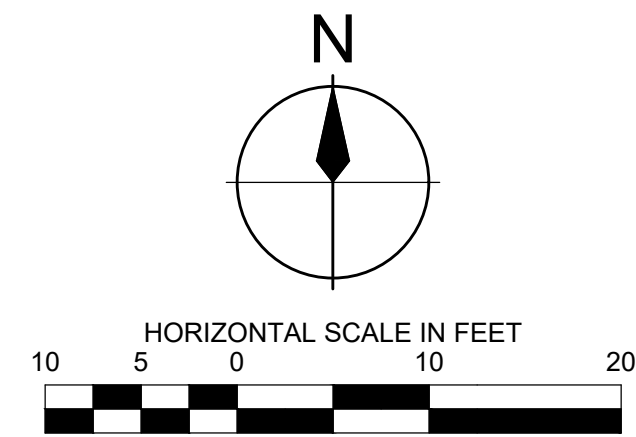
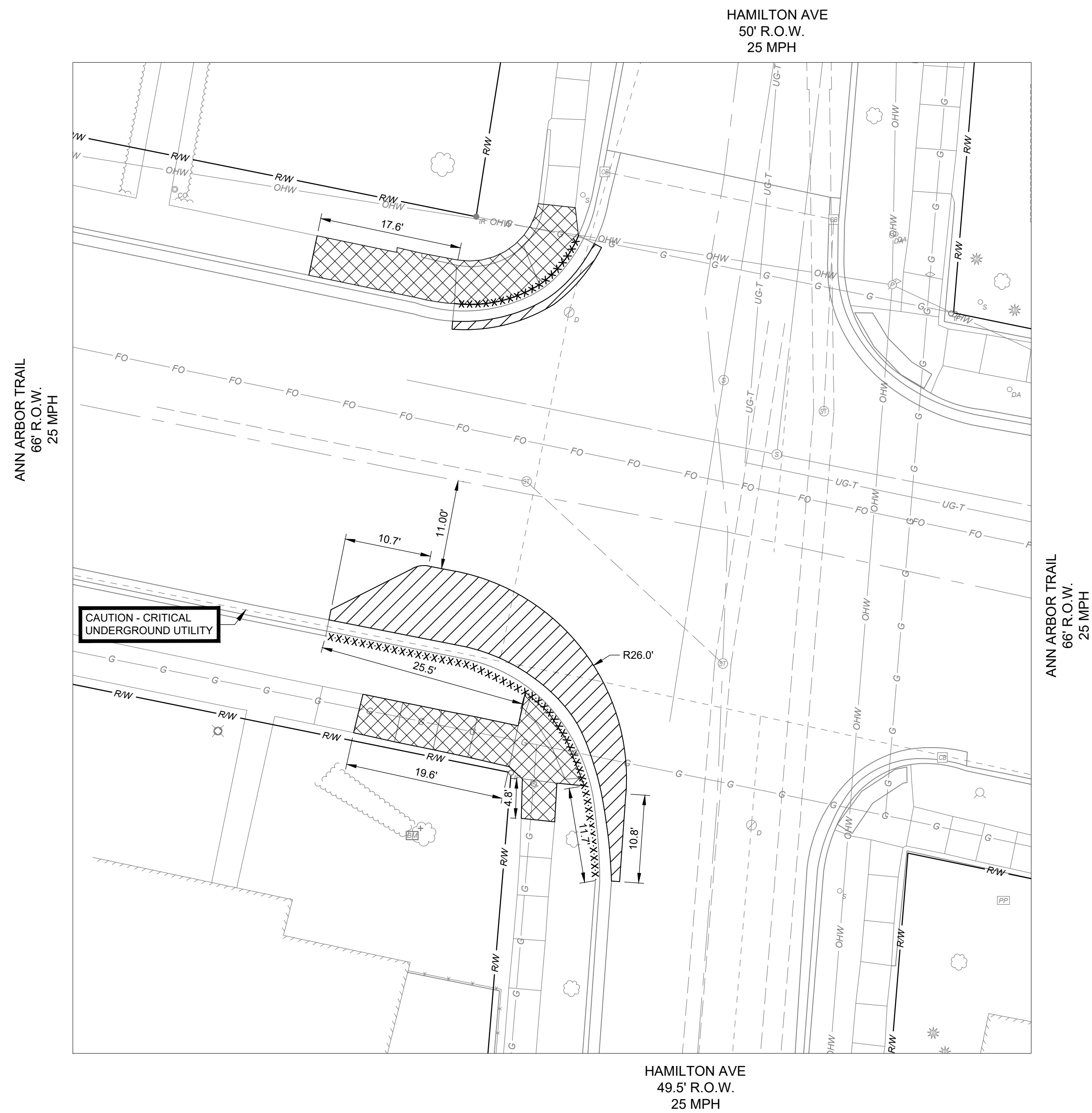
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BY:
SWK

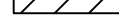
559K



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LEGEND

- | | |
|---|----------------------|
| -XXXXXXXXXXXXX- | CURB AND GUTTER, REM |
|  | PAVT, REM |
|  | SIDEWALK, REMOVE |

SUMMARY OF QUANTITIES THIS SHEET

CONCRETE DRIVE AND SIDEWALK, REM	50	SYD
PAVT, REM	50	SYD
CURB AND GUTTER, REM	100	FT
EXCAVATION, EARTH	5	CYD

[illegible]

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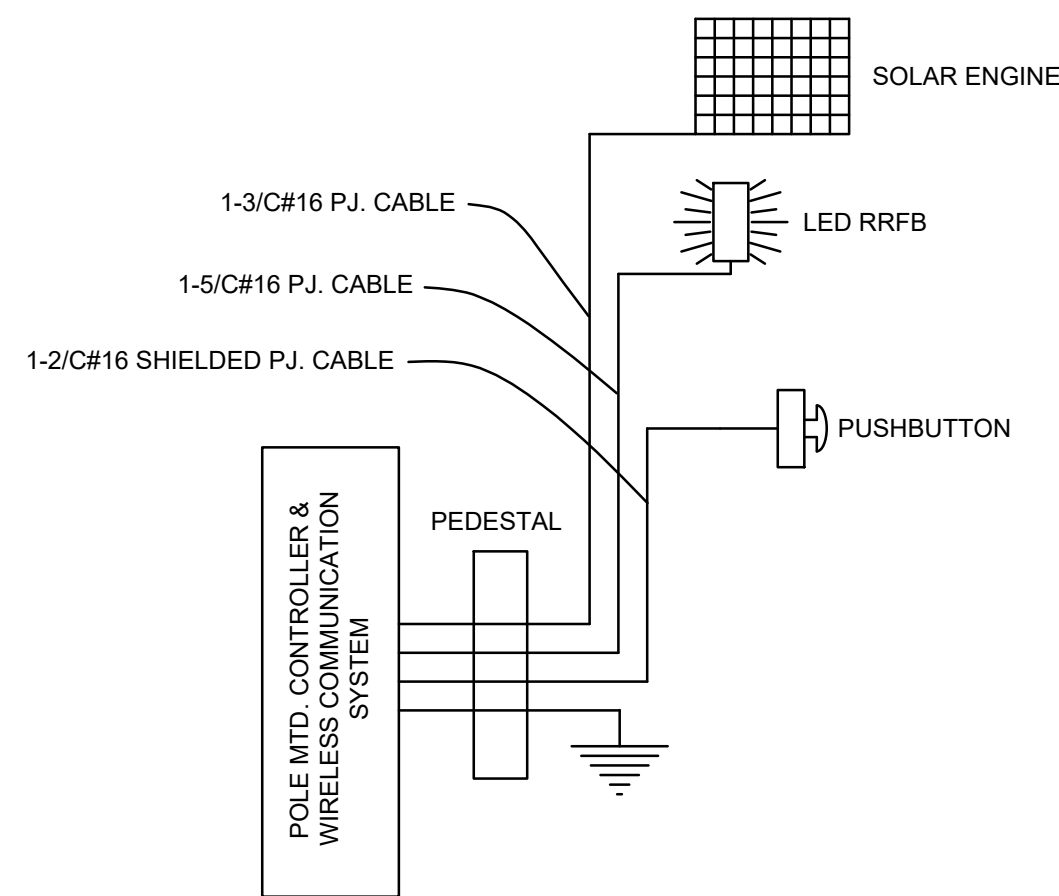
CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
ANN ARBOR TRAIL - HAMILTON TRAFFIC SIGNALS
REMOVAL PLAN

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWK
WC DPS	3/20/25	SWK
BIDS	4/9/25	SWK

JOB NO.
PLY2130-01T

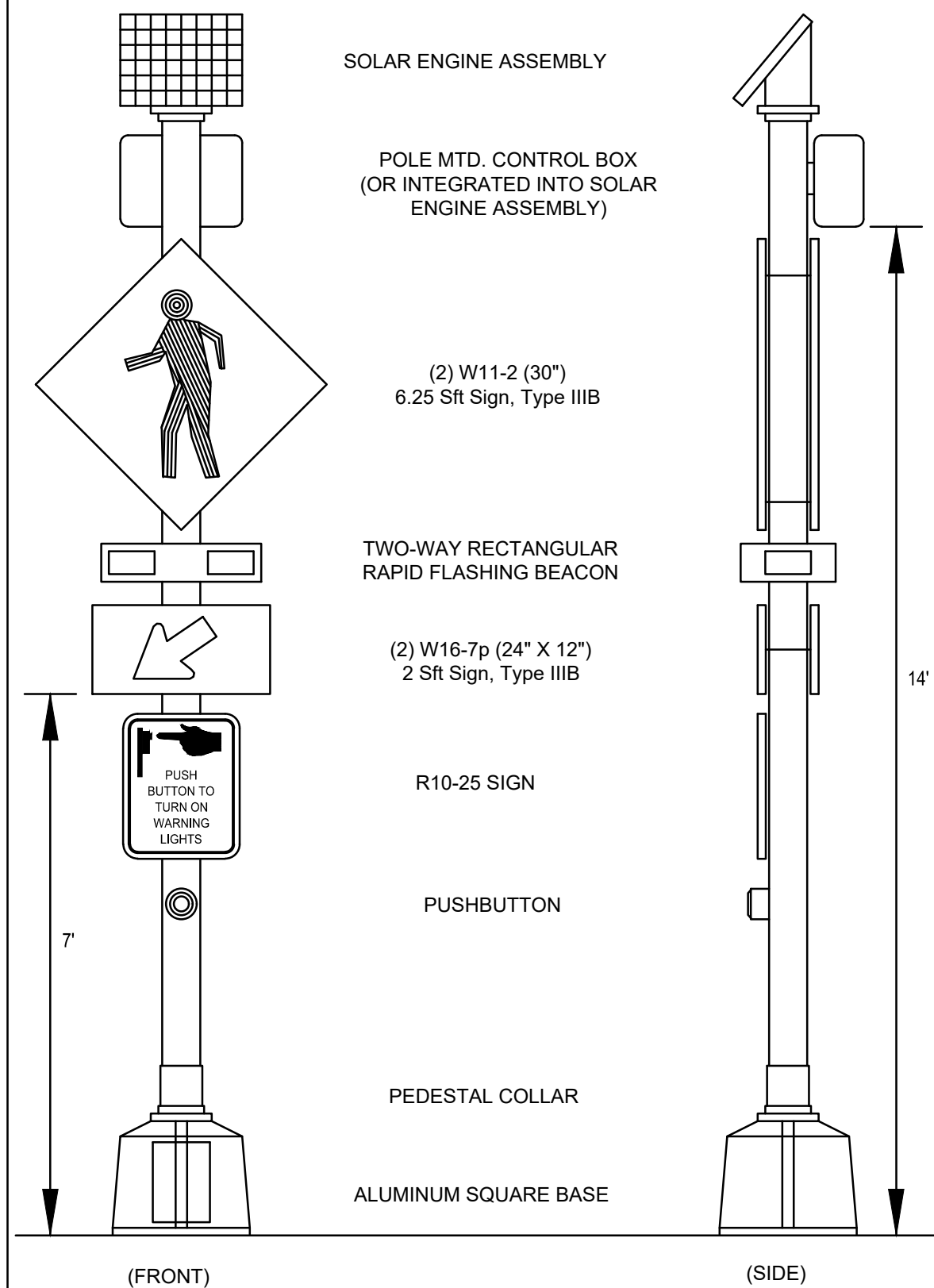
SHEET
24

BENCHMARK #104 **ELEV. 718.07**
TOP OF ARROW ON HYDRANT ON EAST SIDE OF HAMILTON STREET, ±75 FEET NORTH OF ANN ARBOR TRAIL, NORTH OF DRIVEWAY FOR CARRIAGE COURT CONDOMINIUMS.



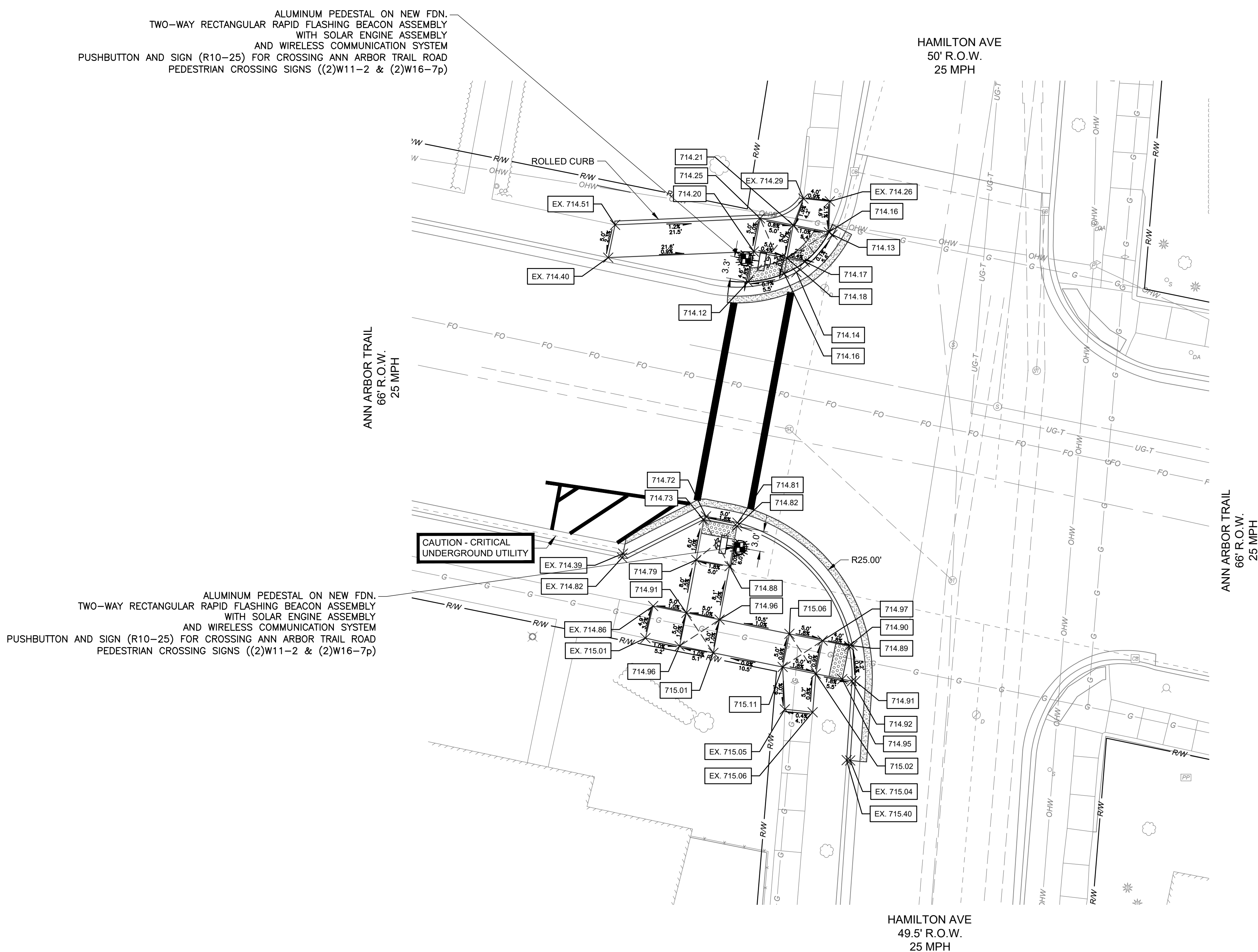
CABLING INSTALLATION DIAGRAM (TYP)
NOT TO SCALE

RRFB NOTES: THE SOLAR ENGINE SHALL BE ORIENTED TOWARD THE SOUTH WITH A TILT ANGLE (FROM HORIZONTAL) OF 45 TO 60 DEGREES. THE TWO-WAY RECTANGULAR RAPID FLASHING BEACON SHALL INCLUDE AN LED INDICATION FACING TOWARD THE ROADWAY TO INFORM PEDESTRIANS WHEN THE DEVICE IS ACTIVATED.



RRFB & SIGN DETAIL (TYP)

ALUMINUM PEDESTAL ON NEW FDN.
TWO-WAY RECTANGULAR RAPID FLASHING BEACON ASSEMBLY
WITH SOLAR ENGINE ASSEMBLY
AND WIRELESS COMMUNICATION SYSTEM
PUSHBUTTON AND SIGN (R10-25) FOR CROSSING ANN ARBOR TRAIL ROAD
PEDESTRIAN CROSSING SIGNS ((2)W11-2 & (2)W16-7p)



INTERSECTION SPECIFIC NOTES:

INSTALLATION OF PEDESTALS WITH PUSHBUTTONS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE SIDEWALK RAMPS AND CROSSWALK PAVEMENT MARKINGS. LOCATIONS SHALL MEET CURRENT ADA REQUIREMENTS.

THE SOLAR ENGINE SHALL BE CAPABLE OF ACCOMMODATING AT LEAST 200
ACTIVATIONS PER DAY FOR A DURATION OF
20 SECONDS WITH 10 DAYS OF AUTONOMY.

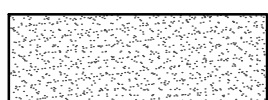
THE NEW ALUMINUM PEDESTALS SHALL BE INSTALLED WITH SQUARE BASES AND SUPPORT COLLARS. THE SUPPORT COLLARS SHALL BE INCLUDED IN THE PAY ITEM "PEDESTAL, ALUM" AND WILL NOT BE PAID FOR SEPARATELY.

THE PAY ITEM "FLSH BEACON, RECTANGULAR RAPID, SOLAR POWER" INCLUDES A TWO-WAY LED RECTANGULAR RAPID FLASHING BEACON (WITH AN LED PEDESTRIAN INDICATION), A POLE MOUNTED CONTROLLER, A WIRELESS COMMUNICATION SYSTEM WITH ANTENNA, AND A SOLAR ENGINE ASSEMBLY WITH BATTERY.

CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WIRING AND PROGRAMMING OF RRFB CONTROLLERS AND CABINETS. THIS WORK SHALL BE CONSIDERED TO BE INCLUDED IN OTHER PAY ITEMS AND WILL NOT BE PAID FOR SEPARATELY.



LEGEND



HAND PATCHING

SUMMARY OF QUANTITIES THIS SHEET

SIDEWALK, CONC, 4 INCH	310	SFT
SIDEWALK RAMP, CONC, 6 INCH	152	SFT
CURB AND GUTTER, CONC, DET F4	45	FT
AGGREGATE BASE COURSE, 21AA	20	TON
HAND PATCHING	2	TON
PEDESTAL, ALUM	2	EA
PEDESTAL, FDN	2	EA
PUSHBUTTON AND SIGN	2	EA
FLASH BEACON, RECTANGULAR RAPID, SOLAR POWER	2	EA
SIGN, TYPE IIB	33	SFT
BITUMINOUS PAVEMENT, WEARING COURSE, 1300T	5	TON
BITUMINOUS PAVEMENT, LEVELING COURSE, 3C	10	TON
RESTORATION W/ 3-INCHES TOPSOIL AND NURSERY SOD	60	SYD
PAVEMENT MARKING, THERMOPLASTIC, 4 INCH, WHITE	55	FT
PAVEMENT MARKINGS, THERMOPLASTIC, 12 INCH, CROSSWALK	65	FT

PROJECT MANAGER: SHAWN KEOUGH
C:\PW\WORK\MELANAGAN\DI588882\THT-CTS-AA TRAIL SIGNALS.DWG PLOTTED 4/9/2025 3:18 PM BY ELANAGAN, MARTIN



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TRIM

CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
2025 INFRASTRUCTURE IMPROVEMENT PROGRAM
ANN ARBOR TRAIL - HAMILTON TRAFFIC SIGNALS
CONSTRUCTION PLAN

ISSUED FOR:	DATE:	BY:
EGLE	3/19/25	SWH
WC DPS	3/20/25	SWH
BIDS	4/8/25	SWH

JOB NO. PLY2130-01T

SHEET

25

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MECHANICALLY COMPACTED

BANK RUN SAND MEETING REQUIREMENTS OF MDOT GRANULAR MATERIAL CLASS II OR FLOWABLE FILL, OR AS DIRECTED BY THE ENGINEER

COMPACTED SAND OR FLOWABLE FILL SHALL EXTEND FOR 9" EACH SIDE OF EXISTING PIPE & SHALL SLOPE OUT AT 1:1 (45°) SLOPE TO THE BOTTOM OF THE TRENCH

EX UTILITY OR DRAIN TILE

18" MIN

12" MIN OR AS OTHERWISE SPECIFIED

PIPE BEDDING MATERIAL

9"

6"

9"

18"

12" MIN OR AS OTHERWISE SPECIFIED

PIPE BEDDING MATERIAL

SECTION A

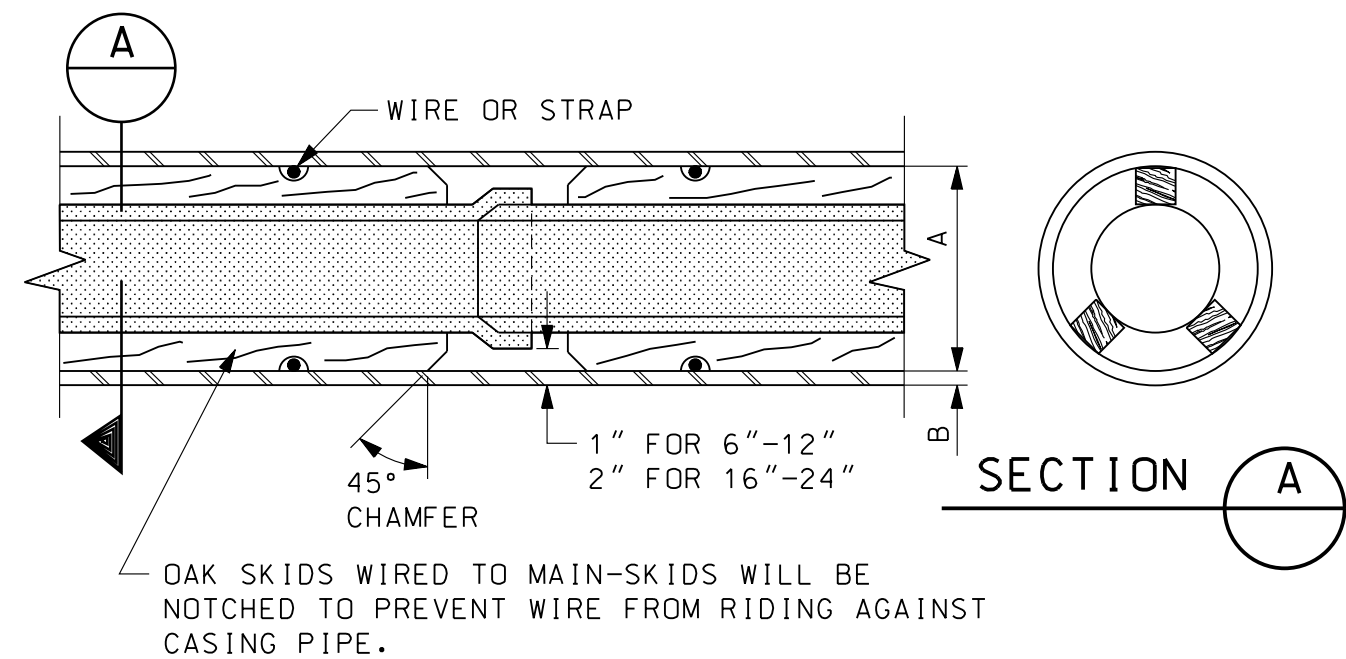
SCALE: NONE

GENERAL NOTES

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL ATTEND A RECONSTRUCTION MEETING, AT A TIME AND PLACE AS ARRANGED BY THE COMMUNITY, IN WHICH VARIOUS UTILITY COMPANIES AND GOVERNMENTAL AGENCY REPRESENTATIVES WILL BE PRESENT.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST HAVE IN HIS POSSESSION A COPY OF ALL PERMITS NECESSARY TO CONSTRUCT A CONNECTION TO, OR AN EXTENSION OF, THE WATER SUPPLY, SANITARY SEWER, OR STORM SEWER SYSTEMS.
3. THE CONTRACTOR SHALL MAINTAIN HIS CONSTRUCTION OPERATIONS WITHIN THE PRESENTLY EXISTING ROAD RIGHTS-OF-WAY AND EASEMENTS AS NOTED ON THE PLANS THROUGHOUT THE PROJECT. IN THE EVENT THAT THE CONTRACTOR DEEMS IT NECESSARY OR ADVISABLE TO OPERATE BEYOND THE LIMITS OF THE EXISTING RIGHTS-OF-WAY OR EASEMENTS, HE SHALL BE RESPONSIBLE FOR MAKING SPECIAL WRITTEN AGREEMENTS WITH THE PROPERTY OWNERS AND SHALL FURNISH SUCH COPIES OF AGREEMENTS TO THE COMMUNITY AND ENGINEER.
4. THE CONTRACTOR SHALL NOTIFY "MISS DIG" (800-482-7171) 3 DAYS (NOT INCLUDING HOLIDAYS OR WEEKENDS) BEFORE STARTING CONSTRUCTION. HE SHALL MAKE ANY NECESSARY ARRANGEMENTS WITH UTILITY COMPANIES FOR RELOCATION OF EXISTING UTILITIES. THESE ARRANGEMENTS SHALL BE MADE IN SUFFICIENT TIME TO ALLOW THE RELOCATION WORK TO BE COMPLETED WITHOUT INTERFERING WITH OR DELAYING THE SEWER CONSTRUCTION.
5. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND THE ENGINEER 48 HOURS PRIOR TO UNCOVERING ANY EXISTING UTILITIES.
6. ON ALL WORK WITHIN THE WAYNE COUNTY RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE COUNTY ENGINEER AND THE COMMUNITY 72 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.
7. THE CONTRACTOR SHALL MAINTAIN ALL TRAFFIC AT ALL TIMES AS PER THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
8. THE CONTRACTOR SHALL AT ALL TIMES PROVIDE EMERGENCY ACCESS TO PROPERTY IN THE VICINITY OF THE CONSTRUCTION FOR POLICE AND FIRE EQUIPMENT, AMBULANCES OR OTHER EMERGENCY VEHICLES TO PROTECT LIFE, HEALTH AND PROPERTY.
9. THE CONTRACTOR SHALL MAINTAIN PUBLIC ROADS AFFECTED BY THE CONSTRUCTION OPERATIONS IN A PASSABLE CONDITION UNTIL SUCH TIME AS FINAL RESTORATION OF THESE IMPROVEMENTS CAN BE MADE. IF THE PUBLIC SAFETY IS IN DANGER OR THE NECESSITY EXISTS FOR MAINTAINING TRAFFIC, BACKFILLING MUST BE COMPLETED IMMEDIATELY. IN THE EVENT THAT THE NECESSARY BACKFILL MATERIAL AND EQUIPMENT ARE NOT AVAILABLE WHEN DIRECTION IS GIVEN FOR IMMEDIATE BACKFILL, THE TRENCH SHALL BE BACKFILLED WITH NATIVE MATERIAL TO PROVIDE FOR THE NECESSARY MAINTENANCE OF TRAFFIC AND SAFETY; HOWEVER,
THE NATIVE MATERIAL SHALL BE REMOVED WITHIN 48 HOURS AND THE TRENCH PROPERLY BACKFILLED.

GENERAL NOTES CONTINUED

- | | |
|--|---|
| <p>NO STREET, ROAD OR SECTION THEREOF SHALL BE CLOSED TO THROUGH TRAFFIC UNLESS AUTHORIZED BY THE AGENCY WITH JURISDICTION OVER THE ROADS. PRIOR TO CLOSING A STREET, ROAD, OR SECTION THEREOF, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A COPY OF A DETOUR PLAN APPROVED BY THE AGENCY HAVING JURISDICTION OVER THE ROADS.</p> <p>11. IN THE EVENT ROADS ARE TO BE CLOSED, THE CONTRACTOR SHALL NOTIFY THE LOCAL FIRE DEPARTMENT, POLICE DEPARTMENT, LOCAL ROAD AUTHORITY, AMBULANCE AND EMERGENCY SERVICES, DEPARTMENT OF PUBLIC WORKS, PUBLIC TRANSIT AUTHORITY, PUBLIC SCHOOL SYSTEM, LOCAL TRASH PICKUP AUTHORITY, AND PUBLIC AND PRIVATE UTILITIES DAILY AS TO WHAT STREETS WILL BE PARTLY BLOCKED OR CLOSED, THE LENGTH OF TIME THE STREETS WILL BE BLOCKED OR CLOSED AND WHEN THE STREETS WILL BE REOPENED TO TRAFFIC.</p> <p>12. PAVED STREETS AND DRIVEWAYS SHALL BE MAINTAINED IN A REASONABLE STATE OF CLEANLINESS AND THE CONTRACTOR SHALL REMOVE ACCUMULATIONS OF DEBRIS CAUSED BY HIS OPERATIONS. THE CONTRACTOR SHALL HAVE, AS A MINIMUM, AN OPERATING SWEEPER BROOM ON THE SITE AT ALL TIMES. THE PAVEMENT SHALL BE CLEANED AT THE CLOSE OF EACH DAYS OPERATION AND AS OFTEN AS NECESSARY BEFORE THAT TIME. FAILURE TO COMPLY SHALL BE CAUSE TO STOP CONSTRUCTION. CONTRACTOR SHALL ALSO COMPLY WITH THE LOCAL AIR POLLUTION CONTROL ORDINANCE.</p> <p>13. ALL GRAVEL AND DIRT ROADS, STREETS OR DRIVEWAYS USED SHALL BE MAINTAINED BY GRADING, PLACING DUST PALLIATIVES, AND MAINTENANCE GRAVEL IN SUFFICIENT QUANTITIES TO ELIMINATE DUST AND MAINTAIN TRAFFIC AS DIRECTED BY THE AGENCY.</p> <p>14. CONTRACTOR SHALL PROVIDE ALL NECESSARY SHEETING, SHORING, DEWATERING, BRACING, TRENCH BOXES, ETC., TO PERFORM WORK SAFELY AND PROTECT EXISTING UTILITIES AND IMPROVEMENTS.</p> <p>15. THE FLOW IN THE EXISTING SEWERS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. 16. CULVERTS, DITCHES, DRAIN TILES, TILE FIELD, DRAINAGE STRUCTURES, ETC., THAT ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE IMMEDIATELY RESTORED.</p> <p>16. CULVERT, DITCHES, DRAIN TILES, TILE FIELDS, DRAINAGE STRUCTURES, ETC. THAT ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE IMMEDIATELY RESTORED.</p> <p>17. ALL PROPERTY IRONS AND MONUMENTS, IF DISTURBED OR DESTROYED BY THE CONTRACTOR'S OPERATION, SHALL BE REPLACED BY A LICENSED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.</p> <p>18. AFTER ALL THE PIPE, STRUCTURES, ETC., HAVE BEEN LAID, CONSTRUCTED, AND BACKFILLED, THE SYSTEM SHALL BE TESTED AND FINAL INSPECTED. THE INSPECTION AND TESTING SHALL CONSIST OF A FIRST INSPECTION, TELEVISION INSPECTION (IF APPLICABLE) TESTING, AND FINAL INSPECTION AND MEASUREMENT. THE CONTRACTOR SHALL PROVIDE THE NECESSARY SUPERVISION, LABOR, TOOLS, EQUIPMENT, AND THE MATERIALS NECESSARY FOR THE TESTS WHICH SHALL BE CONDUCTED IN THE PRESENCE OF THE ENGINEER. HE ENGINEER SHALL BE NOTIFIED TWO (2) WORKING DAYS IN ADVANCE OF ALL TESTING.</p> | <p>19. THE FIRST INSPECTION SHALL BE COMPLETED AND ALL REPAIRS MADE IN AMPLE TIME SO THAT THE TELEVISION INSPECTION OF THE UNDERGROUND PORTION OF THE SYSTEM CAN BE COMPLETED WITHIN FOUR (4) WEEKS OF THE COMPLETION OF THE CONSTRUCTION. WHEN RE-TELEVISION IS NECESSARY, AN ADDITIONAL TWO (2) WEEKS WILL BE ALLOWED FOR COMPLETION. TESTING OF THE SYSTEM AS HEREIN DESCRIBED SHALL IMMEDIATELY FOLLOW THE TELEVISION INSPECTION AND SHALL BE COMPLETED WITHIN A TWO (2) WEEK PERIOD.</p> <p>20. FAILURE TO MAINTAIN A SCHEDULE IN COMPLIANCE WITH THESE TERMS WILL AUTOMATICALLY CAUSE THE STOPPAGE OF OTHER WORK AT THE PARTICULAR SITE IN QUESTION UNTIL SUCH TIME AS THE FINAL INSPECTION OF THE COMPLETED UNDERGROUND PORTION OF THE SYSTEM HAS PROGRESSED TO ACCEPTABLE LIMITS.</p> <p>21. THE CONTRACTOR SHALL HAVE THE UNDERGROUND PORTION OF THE SEWER SYSTEM READY FOR THE FIRST INSPECTION WITHIN TWO (2) WEEKS AFTER THE COMPLETION OF UTILITY.</p> <p>22. THE FIRST INSPECTION SHALL CONSIST OF A VISIBLE AND AUDIBLE CHECK OF SEWERS, MANHOLES, GATE WELLS, AND OTHER STRUCTURES TO ASCERTAIN THAT THE STRUCTURE STEPS HAVE BEEN PLACED, ALL LIFT HOLES PLUGGED, THE CHANNELING OF THE MANHOLE BOTTOMS COMPLETED, ALL VISIBLE OR AUDIBLE LEAKS STOPPED, ALL PIPE HAS BEEN PLACED STRAIGHT AND TRUE TO THE PROPER GRADES AND ELEVATION, THE REQUIRED ADJUSTING RINGS AND FRAME AND COVER PROPERTY INSTALLED, ALL TRENCHES AND STRUCTURES BACKFILLED IN AN ACCEPTABLE MANNER AND THAT THE SYSTEM HAS BEEN THOROUGHLY CLEANED.</p> <p>23. THE FIRST INSPECTION SHALL BE CONSIDERED COMPLETED WHEN ALL TREE PAIRS HAVE BEEN MADE AND THE SYSTEM IS READY FOR A TELEVISION INSPECTION AND SUBSEQUENT TESTING.</p> <p>24. TRENCH BACKFILL UNDER ROAD SURFACES, PAVEMENTS, CURBS, DRIVEWAY, SIDEWALK AND WHERE THE TRENCH EDGE IS WITHIN 3-FOOT OF THE PAVEMENT SHALL BE TRENCH B (SAND) PER SPECIFICATIONS SECTION 312333, TRENCHING AND BACKFILLING.</p> <p>25. AFTER ALL TESTING, TELEVISION INSPECTION, FINAL RESTORATION AND CLEAN-UP HAS BEEN COMPLETED, A FINAL INSPECTION AND MEASUREMENT WILL BE DONE. THE FINAL INSPECTION SHALL BE REQUESTED BY THE CONTRACTOR AND CONSIST OF, BUT IS NOT LIMITED TO, CHECKING FOR PROPER ALIGNMENT, PROPER GRADE, CLEANLINESS, LEAKS, CONFORMANCE TO THE PLANS AND SPECIFICATION, PROPER STRUCTURAL AND MECHANICAL ADJUSTMENTS, AND RESTORATION. FINAL MEASUREMENT INCLUDES STRUCTURE ELEVATIONS, DISTANCES BETWEEN STRUCTURES, AND CONFIRMATION UTILITIES ARE LOCATED WITHIN EASEMENT AND RIGHT-OF-WAY AREAS.</p> <p>26. SUCCESSFUL COMPLETION OF ANY TEST OR INSPECTION SHALL NOT RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITY TO CORRECT ANY DEFICIENCY OR NONCONFORMANCE TO THE PLANS OR SPECIFICATIONS WHICH MAY THEREAFTER BECOME KNOWN.</p> |
|--|---|



DIA OF SEWER	DIA OF MAIN	MIN "A"	ROAD CROSSING MIN "B"	RAILROAD CROSSING MIN "B"
	6"	16"	.375	.375
	8"	16"	.375	.375
	12"	20"	.375	.438
10"	16"	24"	.375	.500
12" & 15"	20"	30"	.375	.500
18"	24"	36"	.375	.500

NOTES:

1. NO WATER SHALL BE USED IN BORING UNDER RAILROADS.
2. MAINTAIN MINIMUM OF 5'-6" OF COVER BETWEEN BASE OF RAIL AND TOP OF CASING.
3. THE ENDS OF THE CASING SHALL BE SUITABLY PROTECTED AGAINST THE ENTRANCE OF FOREIGN MATERIAL, BUT SHALL NOT BE TIGHTLY SEALED.
4. WHEN BORING ALL VOIDS OUTSIDE OF CASING PIPE SHALL BE FILLED BY MEANS OF PRESSURE GROUTING WITH 1:3 CEMENT-SAND MORTAR. THIS WORK MUST BE ACCOMPLISHED WITHIN 24 HOURS AFTER THE CROSSING HAS BEEN COMPLETED. BORING SHALL EXTEND A MINIMUM OF 10 FEET OUTSIDE THE EDGES OF THE PAVEMENT.
5. SKIDS ARE TO BE MINIMUM OF 80% OF PIPE LENGTH.
6. CASING SPACERS AS ALLOWED BY THE ENGINEER.

CLASS "R-A"

LOAD FACTOR: 1.9

CLASS "R-B"

LOAD FACTOR: 1.9

CLASS "R-C"

LOAD FACTOR: 1.9

MAX WIDTH OF TRENCH AT
12" ABOVE TOP OF PIPE
6" THRU 12" PIPE - 30" WIDE
15" THRU 36" PIPE - O.D. +16"
42" THRU 60" PIPE - O.D. +20"

TRENCH A OR B
BACKFILL PER
SPECIFICATIONS

12" MIN

O.D.

CRUSHED ANGULAR
NATURAL STONE
BEDDING MDOT 21AA

O.D. / 8
4" MIN

CLASS "F-I"

TRENCH A OR B
BACKFILL PER
SPECIFICATIONS

12" MIN

O.D.

CRUSHED ANGULAR
NATURAL STONE
BEDDING MDOT 21AA

O.D. / 8
4" MIN

CLASS "F-II"

TRENCH A OR B
BACKFILL PER
SPECIFICATIONS

12" MIN

O.D.

NATURAL BANK RUN
SAND MEETING THE
REQUIREMENT OF
MDOT CLASS II
GRANULAR MATERIAL.
COMPACT TO 95% OF
MAXIMUM UNIT WEIGHT

O.D. / 8
4" MIN

CLASS "F-III"

MINIMUM WIDTH OF TRENCH AT 12" ABOVE TOP OF PIPE	
PIPE O.D.	MINIMUM TRENCH WIDTH
UP TO 16"	O.D. + 16"
GREATER THAN 16"	O.D. x 1.25 PLUS 12"

FLEXIBLE PIPE BEDDING DETAILS

[illegible]

NOT VALID FOR CONSTRUCTION
UNLESS SIGNED AND DATED:

 **WADE
TRIM**

26051 Northline Rd.
PO Box 100
Troyer, MI 48180
734.947.9700
www.waade-trim.com

CITY OF PLYMOUTH
201 SOUTH MAIN STREET
PLYMOUTH, MICHIGAN 48170
MISCELLANEOUS DETAILS (MD-1)

MISCELLANEOUS DETAILS (MD-1)

ISSUED FOR: DATE: BY:

JOB NO.

SHEET

MD-1

© Wode Trim Group, Inc. MISCELLANEOUS DETAILS (MD-10F 1)

SANITARY SEWER NOTES

3. ALL SEWER SYSTEM CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND GENERAL SPECIFICATION OF THE COMMUNITY SEWER DEPARTMENT AND ANY OTHER AGENCY HAVING JURISDICTION OF THE CONSTRUCTION AREA.
2. DETAILS ARE FOR STRUCTURES WITH NO MORE THAN TWO PIPES ENTERING, 180° APART. LARGER DIAMETER STRUCTURES MAY BE REQUIRED FOR DIFFERENT CONFIGURATIONS.
3. THE MANHOLE STRUCTURE REQUIRES A MINIMUM OF 8 INCHES OF CONCRETE WALL BETWEEN PIPE OPENINGS. LARGER DIAMETER STRUCTURES MAY BE REQUIRED WHERE PIPE ENTERING THE STRUCTURE ARE LESS THAN 90° APART IN ANY DIRECTION.
4. CONSTRUCTION SHALL NOT COMMENCE WITHOUT A REPRESENTATIVE OF THE OWNER PRESENT.
5. ALL MANHOLES SHALL USE ECCENTRIC CONES PLACED WITH STEPS AWAY FROM THE ROAD UNLESS DIRECTED OTHERWISE.
6. ALL MANHOLES SHALL BE PROVIDED WITH WATER TIGHT MANHOLE COVERS AND RIMS SHALL BE SET TO GRADE OR AS INDICATED ON THE PLANS.
7. ALL PRECAST PRODUCTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
8. DIFFERENTIAL OF EXCAVATION AROUND EXISTING MANHOLES SHALL NOT EXCEED SIX FEET.
9. EXTERIOR DROP CONNECTIONS ARE REQUIRED WHENEVER A SEWER INVERT IS 2.0 FEET OR GREATER ABOVE THE MANHOLE FLOW CHANNEL INVERT. INTERIOR DROP CONNECTIONS ARE NOT ALLOWED.
10. NO SEWERS SHALL BE CONSTRUCTED LESS THAN 10-INCH DIAMETER WITHOUT SPECIFIC APPROVAL OF THE COMMUNITY SEWER DEPARTMENT.
11. ALL RIGID SANITARY SEWER PIPE SHALL BE CLASS "R-B" BEDDING, ALL FLEXIBLE PIPE SHALL BE CLASS "F-1" BEDDING, UNLESS OTHERWISE NOTED ON THE PLANS. SEE SHEET MD1.
12. PLACE ONE 6-INCH WYE FOR EACH LOT OR PARCEL 100 FEET OR LESS IN WIDTH OR EVERY 100 FEET FOR LOTS OR PARCELS IN EXCESS OF 100 FEET ON SANITARY SEWERS UNLESS OTHERWISE NOTED.
13. NO CONNECTION RECEIVING STORM WATER, SURFACE WATER, OR GROUND WATER SHALL BE MADE TO SANITARY SEWERS.
14. NO FOOTING DRAINS SHALL BE CONNECTED TO THE BUILDINGS SANITARY SEWER.
15. RISERS ON SANITARY SEWERS SHALL BE INSTALLED TO A DEPTH OF 10 FEET WHERE SEWER IS OVER 12 FEET.
16. PRIOR TO THE BACKFILLING OF A SERVICE LEAD, A 2" BY 2" PIECE OF WOOD SHALL BE PLACED FROM A POINT IMMEDIATELY IN FRONT OF THE SERVICE CONNECTION TO 2-FOOT BELOW THE FINISH GROUND SURFACE. DO NOT REST THE MARKER ON ANY PORTION OF THE SERVICE CONNECTION OR STOPPER.

SANITARY SEWER NOTES

CONTINUED

17. ALL STUBS SHALL HAVE A WATER TIGHT BULKHEAD.
18. INFILTRATION FOR ANY SECTION OF SEWERS BETWEEN MANHOLES SHALL NOT EXCEED 100 GALLONS PER INCH DIAMETER PER MILE OF SEWER PER 24 HOURS AND SHALL INCLUDE THE INFILTRATION FROM ALL MANHOLES AND OTHER APPURTENANCES.
19. ALL SEWERS SHALL BE SUBJECTED TO AIR, INFILTRATION OR EXFILTRATION TESTS, OR A COMBINATION OF SAME, PRIOR TO ACCEPTANCE. ALL SEWERS OVER 24-INCH DIAMETER SHALL BE SUBJECTED TO INFILTRATION TESTS. ALL SEWERS OF 24-INCH DIAMETER OR SMALLER, WHERE THE GROUND WATER LEVEL ABOVE THE TOP OF THE SEWER IS OVER SEVEN FEET, SHALL BE SUBJECTED TO INFILTRATION TESTS. ALL SEWERS OF 24-INCH DIAMETER OR LESS, WHERE THE GROUND WATER LEVEL ABOVE THE TOP OF THE SEWER IS SEVEN FEET OR LESS, SHALL BE SUBJECTED TO AIR TESTS OR EXFILTRATION TESTS.
20. THE PROCEDURE FOR AIR TESTING OF SEWERS SHALL BE IN ACCORDANCE WITH ASTM C828, ASTM C924, OR ASTM F1417 AS APPLICABLE.
21. NINE POINT MANDREL TEST IS REQUIRED FOR ALL FLEXIBLE PIPES AND MAY NOT BE PERFORMED UNTIL 30 DAYS AFTER INSTALLATION.
22. IF A SEWER FAILS TO PASS ANY OF THE PREVIOUSLY DESCRIBED TESTS, THE CONTRACTOR SHALL DETERMINE THE LOCATION OF THE LEAKS, REPAIR THEM, AND RETEST THE SEWER. THE TEST SHALL BE REPEATED UNTIL SATISFACTORY RESULTS ARE OBTAINED. TELEVISION INSPECTION SHALL BE CONSIDERED COMPLETED WHEN THE NECESSARY CONSTRUCTION REPAIRS HAVE BEEN MADE AND THE INSTALLATION RETELED AND THE SYSTEM IS ACCEPTABLE FOR THE TESTING PHASE.
23. THE CONTRACTOR SHALL PROVIDE FOR TELEVISION INSPECTION OF THE SANITARY SEWER LINES. ALL SANITARY LEADS FOR COMMERCIAL AND INDUSTRIAL SITES OVER 100 FEET IN LENGTH MUST BE AIR TESTED AND TELEVISION INSPECTION COMPLETED.
24. ALL SEWER SHALL BE TELEVIEWED, WITH RESULTS APPROVED BY THE COMMUNITY PRIOR TO PLACING THE SEWER IN SERVICE. COPIES OF THE TELEVISION RECORDING (DVD FORMAT) NEED TO GO TO THE COMMUNITY AND THE ENGINEER PRIOR TO THE CONTRACTOR LEAVING THE SITE. THE TELEVISION INSPECTION MUST BE WITNESSED BY THE OWNERS REPRESENTATIVE.
25. THE CONTRACTOR SHOULD ARRANGE FOR, ENGAGE, AND PLAY ALL EXPENSES INVOLVED FOR THE SERVICES OF A COMPETENT COMPANY TO PERFORM THIS TELEVISION INSPECTION.
26. THE TELEVISION INSPECTION SHALL BE OBSERVED BY REPRESENTATIVES OF THE OWNER, ENGINEER, AND THE CONTRACTOR. ANY TELEVISION VIEWING PERFORMED IN THE ABSENCE OF THE ENGINEER WILL NOT BE CONSIDERED AS A PART OF THE FINAL INSPECTION.

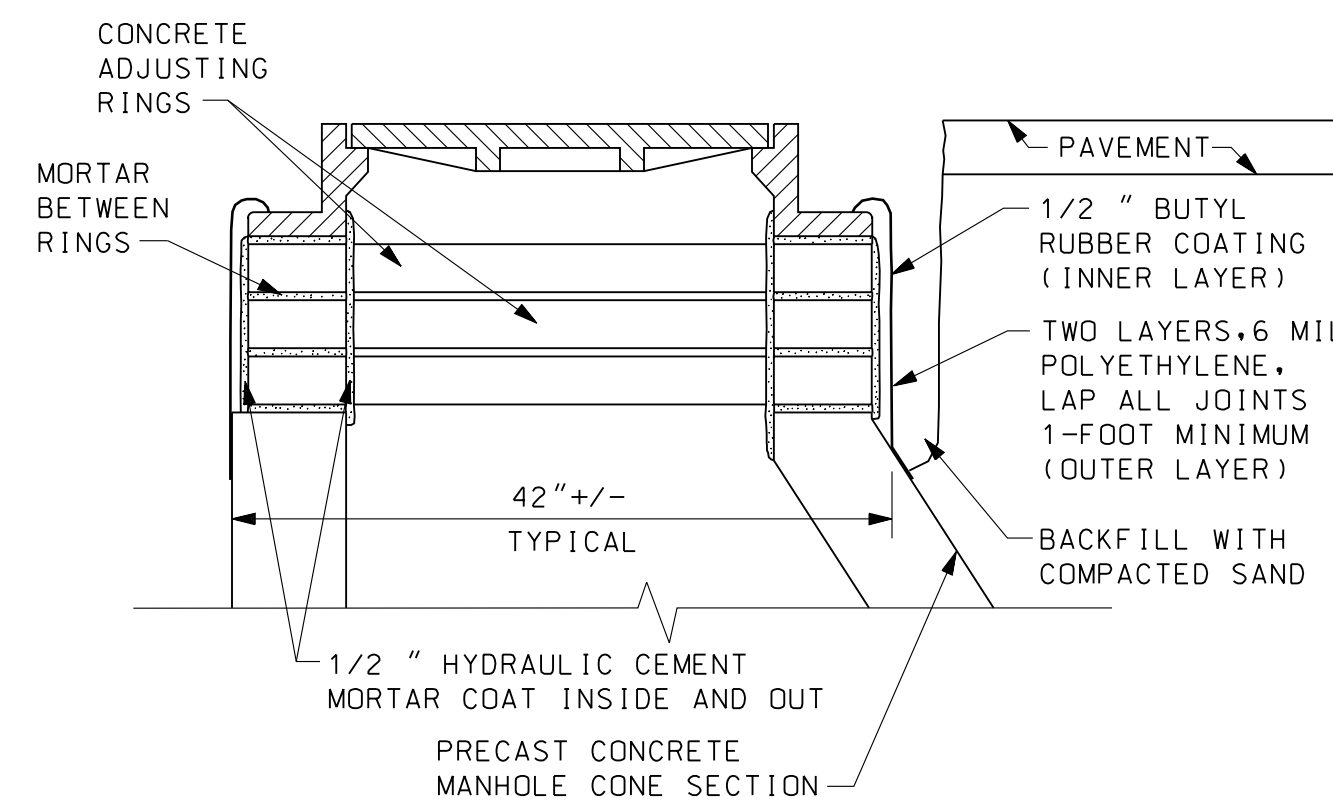
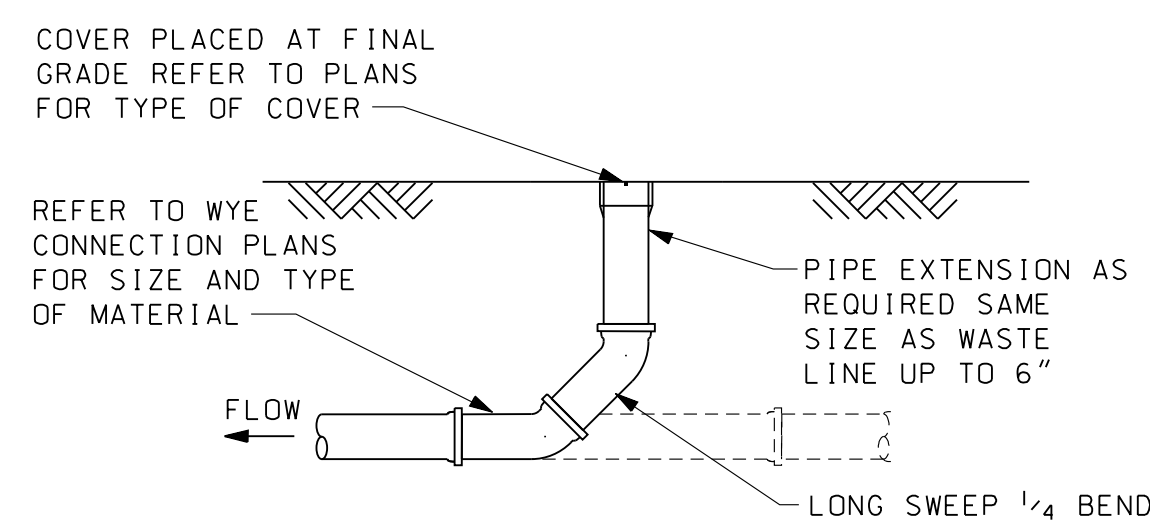
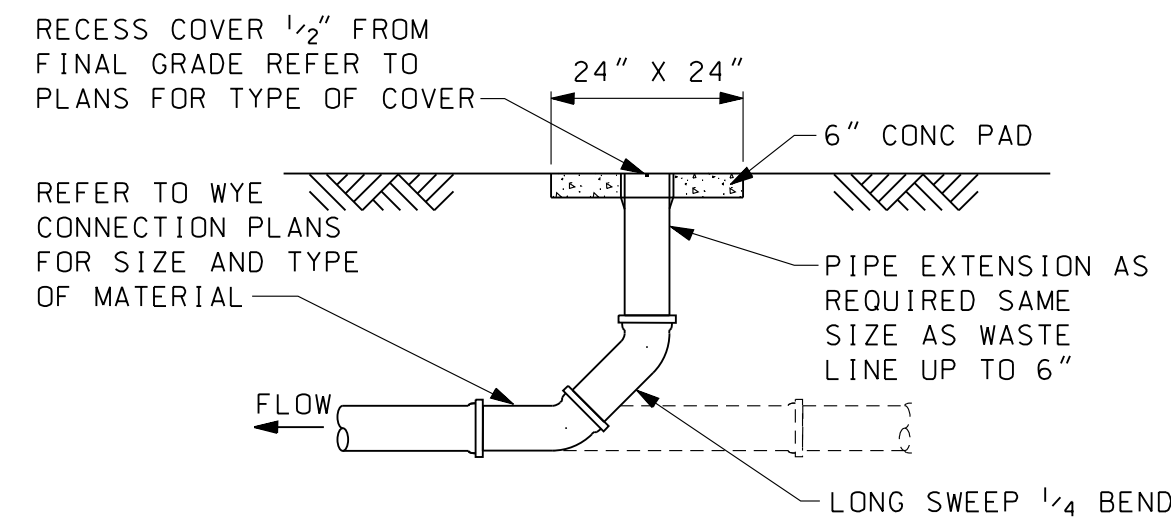
SANITARY SEWER NOTES

CONTINUED

27. THE INSPECTION SHALL INVOLVE THE VISUAL OBSERVATION BY CLOSED CIRCUIT TELEVISION OF ALL SANITARY SEWER INSTALLED AS PART OF THIS CONTRACT. THE INSPECTION SHALL BE PERFORMED AT A RATE OF SPEED WHICH WILL ALLOW EXAMINATION OF ALL POINTS OF INFILTRATION, CRACKED OR CRUSHED PIPE, DEFECTIVE JOINTS, MISALIGNMENT IN LINE OR GRADE, LOCATION OF ALL WYE OPENINGS AND ANY DEFECTS OR ITEMS OF POOR WORKMANSHIP WHICH MAY APPEAR. ANY ITEMS WHICH, IN THE OPINION OF THE ENGINEER, REQUIRE REPAIR SHALL BE PRECISELY LOCATED AND PHOTOGRAPHED ALONG WITH A DETAILED STATEMENT OF THE CONDITION. THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO REPAIR ALL SUCH DEFECTS INCLUDING EXCESSIVE INFILTRATION AT ANY SPECIFIC LOCATION. EVEN THOUGH THE INFILTRATION LIMITS AS HEREIN SPECIFIED HAVE NOT BEEN EXCEEDED FOR THE ENTIRE LENGTH OF SEWER BEING INSPECTED. FOLLOWING COMPLETION OF THE REPAIR, THE ENGINEER AT THEIR DISCRETION, MAY REQUIRE A SECOND TELEVISION INSPECTION OF ANY REPAIRED AREAS. THE CONTRACTOR SHALL ARRANGE FOR AND PAY ALL COSTS INVOLVED IN PERFORMING THIS RE-INSPECTION.
28. THERE SHALL BE NO DISCHARGE OF UNTREATED SANITARY SEWAGE TO THE SURFACE WATERS OF THE STATE DUE TO CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT.
29. CONTRACTOR SHALL NOTIFY WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION, PERMIT OFFICE, 48 HOURS PRIOR TO START OF CONSTRUCTION [(734) 595-6504 x 2009], IF THE CONSTRUCTION IS WITHIN A WAYNE COUNTY RIGHT-OF-WAY.

PLYMOUTH NOTES

1. THE SANITARY SEWER PIPE IS TO BE ASTM C-76 CL-IV R.C.P. OR C-700 E.S. V.C.P. OR FOR INDUSTRIAL USE AND PVC TRUSS WITH RUBBER GASKET JOINTS OR ABS TRUSS MEETING ASTM D2680 FOR RESIDENTIAL/COMMERCIAL USE.
2. THE 6-INCH SANITARY LEAD WILL BE C-700 E.S. V.C.P. FOR INDUSTRIAL USE OR SDR 23.5 FOR RESIDENTIAL/COMMERCIAL USE.
3. BULKHEADS ARE TO BE PLACED IN THE EXISTING SEWERS AND WHERE THE NEW SEWER WILL CONNECT TO IT. THE BULKHEADS ARE NOT TO BE REMOVED UNTIL THE SEWERS HAVE BEEN ACCEPTED BY THE CITY OF PLYMOUTH.



* OUTSIDE DIAMETER OF
FRAME SHALL NOT EXCEED
OUTSIDE DIAMETER OF RINGS

NOTE:
THIS DETAIL TO BE USED IN CONCRETE OR
BITUMINOUS PAVED AREAS. ALL OTHER AREAS
SHALL USE BOLT DOWN FRAMES WITH RUBBER
O-RINGS AS SHOWN ON MANHOLE DETAILS.

EXTERNAL FRAME SEAL DETAIL

FOR PAVED AREAS ONLY

[illegible]

NOT VALID FOR CONSTRUCTION
UNLESS SIGNED AND DATED:



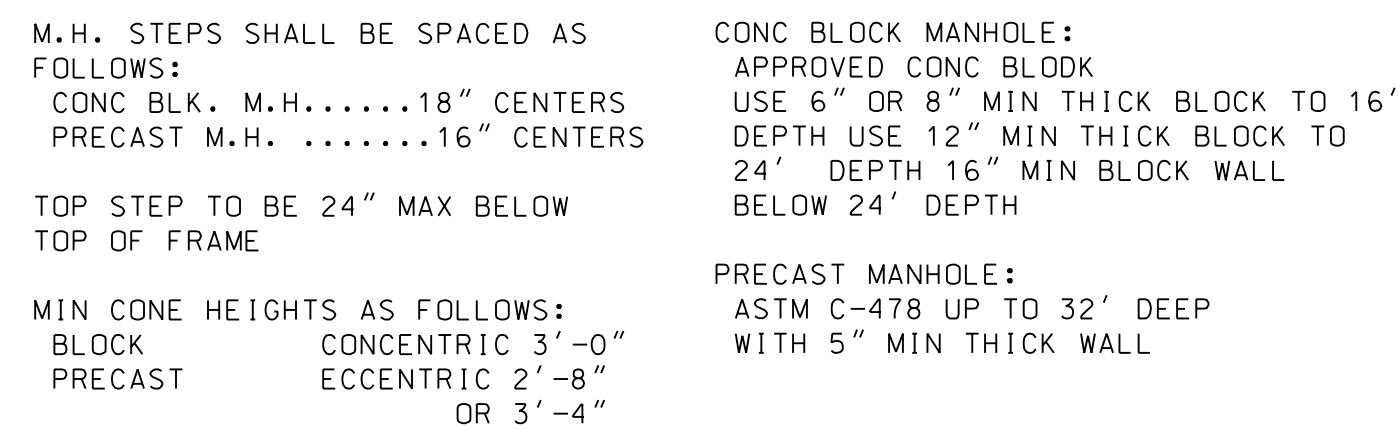
CITY OF PLYMOUTH
201 SOUTH MAIN STREET
PLYMOUTH, MICHIGAN 48170
STANDARD SANITARY SEWER DETAILS (SS-2)

ISSUED FOR: DATE: BY:

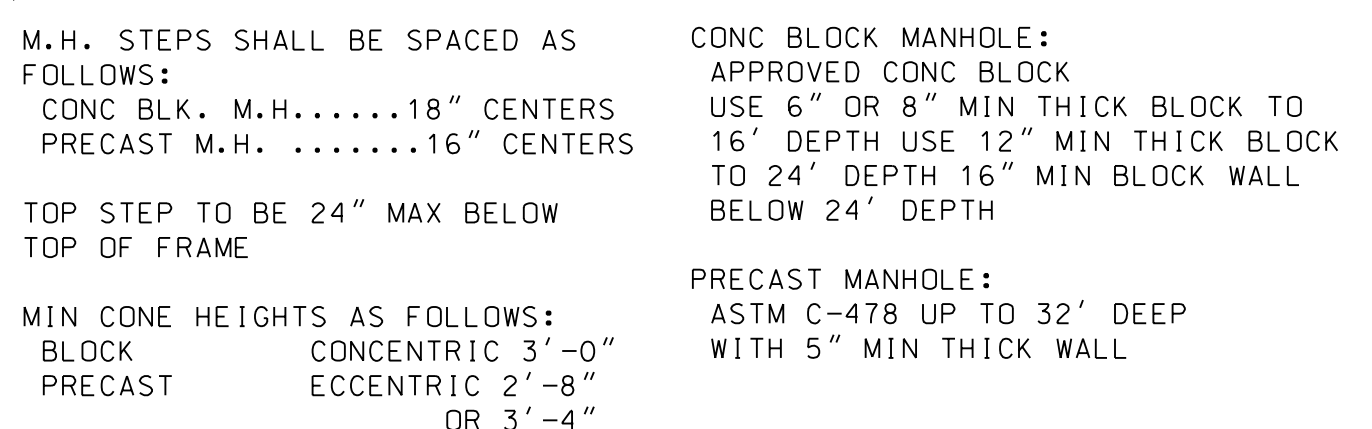
JOB NO.

SHEET

SS-2



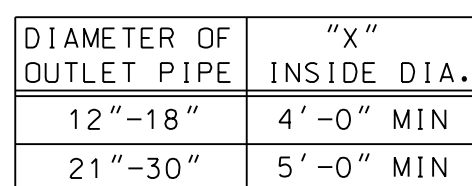
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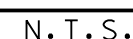
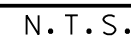
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N.T.S.



NOTE:
MINIMUM OF TWO-10' LONG 6"DIA.
PERFORATED UNDERDRAIN PIPE WITH
GEOTEXTILE MATERIAL WRAP TO BE
INSTALLED WITH EACH CATCH BASIN
SEE UNDERDRAIN DETAIL FOR
INSTALLATION AND MATERIAL
REQUIREMENTS.



1. ALL STORM SEWER CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND GENERAL SPECIFICATION OF THE AGENCY OR AGENCIES HAVING JURISDICTION OF THE STORM SEWER AND CONSTRUCTION AREA.
2. DETAILS ARE FOR STRUCTURES WITH NO MORE THAN TWO PIPES, 180° APART. LARGER DIAMETER STRUCTURES MAY BE REQUIRED FOR DIFFERENT CONFIGURATIONS.
3. ALL STRUCTURES REQUIRE A MINIMUM OF 8-INCHES OF WALL BETWEEN PIPE OPENINGS. LARGER DIAMETER STRUCTURES MAY BE REQUIRED WHERE PIPE ENTERING THE STRUCTURE ARE LESS THAN 90° APART IN ANY DIRECTION.
4. ALL CASTING RIMS SHALL BE SET TO GRADE OR AS SHOWN ON THE PLANS.
5. NO MANHOLES OR OTHER STRUCTURES MAY BE INSTALLED WITHIN DRIVEWAYS, DRIVE APPROACHES, OR SIDEWALKS.
6. ALL CATCH BASIN STORM PIPE SHALL BE 12-INCH DIAMETER C76, CL-IV CONCRETE UNLESS OTHERWISE NOTED.
7. MANHOLE STEPS TO BE GRAY IRON OR STEEL REINFORCED POLYPROPYLENE ASTM 2146, TYPE II, GRADE 49108.
8. CATCH BASIN AND INLET FRAME AND COVERS SHALL BE SPECIFIED AS FOLLOWS:
 - A. WHEN LOCATED IN PAVEMENT GUTTER LINE, FRAME AND COVER SHALL BE E.J.I.W. NO. 5080, NEENAH R-3448-C TYPE "A" (RECTANGULAR), OR EQUIV.
 - B. WHEN LOCATED IN PAVED AREAS OTHER THAN GUTTER LINE, FRAME SHALL BE E.J.I.W. NO. 1040 WITH TYPE "M1" COVER, NEENAH R-2370 TYPE "G" COVER, OR EQUIV.
 - C. WHEN LOCATED IN YARD AREAS, FRAMES SHALL BE E.J.I.W. NO. 1000 WITH TYPE "N" OR "M" COVER, NEENAH R-2370 TYPE "D" OR "B" COVER, OR EQUIV.
9. MANHOLE FRAME AND COVER SHALL BE E.J.I.W. NO. 1040 OR NEENAH R-1642 WITH SOLID COVER OR EQUAL.
10. DIFFERENTIAL OF EXCAVATION AROUND EXISTING MANHOLES SHALL NOT EXCEED SIX FEET.
11. PLACE SAND BACKFILL WITHIN THREE FEET OF ALL STRUCTURES.
12. ALL STORM SEWER PIPE SHALL HAVE CLASS "R-B" BEDDING UNLESS OTHERWISE NOTED ON THE PLANS. SEE SHEET MD1 FOR BEDDING DETAILS.
13. ALL PRECAST PRODUCTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
14. ALL DRAINAGE STRUCTURES LOCATED WITHIN PAVEMENT MUST HAVE UNDER DRAIN AS SHOWN.

1. STORM SEWER THAT IS 12 INCHES AND LARGER SHALL BE C-76 R.C.P. WITH PREMIUM JOINTS.
2. THE REAR YARD STORM PIPE WHICH DOES NOT TRAVERSE PAVED AREAS MAY BE 8-INCH DIAMETER SOLID WALL, PVC OR ABS TRUSS OR PVC TRUSS PIPE.
3. BACKFILL FOR ALL REAR YARD STORM IS TO BE NATURAL BANK RUN SAND MDOT CL-11 GRANULAR MATERIAL OR 3/4 INCH CRUSHED STONE TO A MINIMUM OF 12 INCHES OVER PIPE.
4. EVERY LOT IS TO HAVE DIRECT ACCESS TO A DRAINAGE STRUCTURE.
5. THE STORM SEWER WILL NOT BE CONSIDERED SUBSTANTIALLY COMPLETE UNTIL THE DETENTION POND HAS BEEN COMPLETED. THIS INCLUDES FINAL GRADING OF THE POND AND STABILIZATION OF THE SIDE SLOPES. THE SIDE SLOPES MUST BE STABILIZED BY SODDING OR BY PLACING A MULCH BLANKET PEGGED IN PLACE OVER SEED.
6. COVER FOR ON-LINE CATCH BASIN SHALL BE EJIW 1000 SERIES WITH TYPE N COVER OR NEENAN 2077-B WITH TYPE B COVER.
7. SUMP PUMP LEADS ARE TO BE A MINIMUM OF 3-INCH SCHEDULE 30 PVC.

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CITY OF PLYMOUTH
201 SOUTH MAIN STREET
PLYMOUTH, MICHIGAN 48170
STANDARD STORM SEWER DETAILS (ST-1)

ISSUED FOR: DATE: BY:

JOB NO.

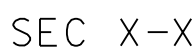
SHEET

ST-1

© Wode Trim Group, Inc. STANDARD STORM SEWER DETAILS (ST-10F 2)

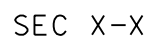


THRUST BLOCK AT 22 1/2° BEND
N.T.S.



THRUST BLOCK AT 60° & 90° BEND
N. T. S.

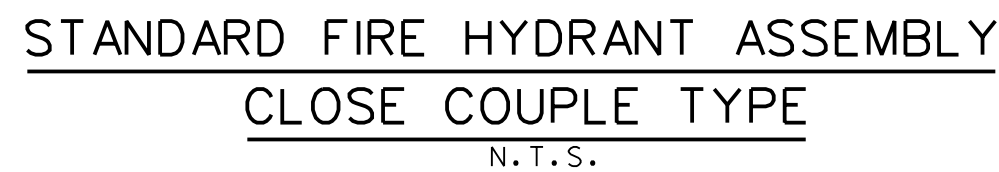
THRUST BLOCK AT TEE
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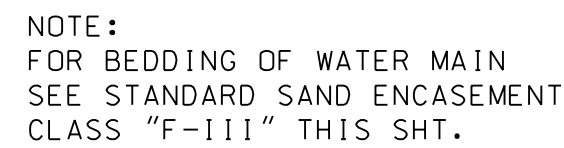
1. INSTALL ADDITIONAL FITTINGS, BENDS & SPIGOT PIPE AS NECESSARY BETWEEN WATER MAIN & VALVE BOX TO ADJUST FOR PROPER LOCATION AND GRADE OF HYDRANT.
2. VERTICAL ANCHORAGES WILL BE REQUIRED ON ALL VERTICAL HYDRANT BENDS IN EXISTING 12" & 14" HYDRANT.
3. WHERE HYDRANTS ARE INSTALLED ON EXISTING MAINS THAT ARE TO BE PLACED BACK INTO SERVICE IMMEDIATELY, PLACE CONCRETE BRICK OR BLOCK TO UNDISTURBED EARTH AND ENCASE WITH CONCRETE OR USE RESTRAINING GLANDS.



1. INSTALL ADDITIONAL FITTINGS & SPIGOT PIPE AS NECESSARY BETWEEN WATER MAIN & VALVE BOX TO ADJUST FOR PROPER LOCATION AND GRADE OF HYDRANT.
2. VERTICAL ANCHORAGES WILL BE REQUIRED ON ALL VERTICAL HYDRANT MAINS TO EXCEED 4'.
3. WHERE HYDRANTS ARE INSTALLED ON EXISTING MAINS THAT ARE TO BE PLACED BACK INTO SERVICE IMMEDIATELY, PLACE CONCRETE BRICK OR BLOCK TO UNDISTURBED EARTH AND ENCASE WITH CONCRETE OR USE RESTRAINING GLANDS.



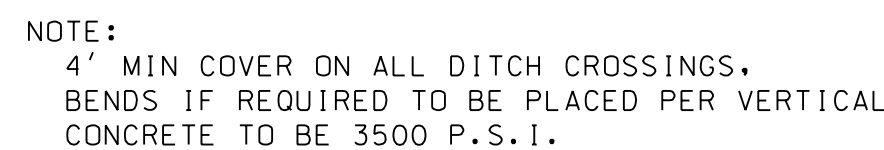
NOTE:
FOR ANCHORAGE DETAILS
AT BENDS SEE WATER
DETAIL SHT-WM 2



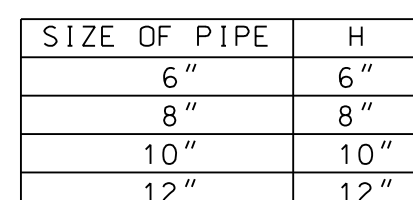
RELOCATION OF WATER MAIN
N.T.S.

1. ALL WATER SYSTEM CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND GENERAL SPECIFICATION OF THE AGENCY OR AGENCIES HAVING JURISDICTION OF THE WATER SUPPLY SYSTEM AND CONSTRUCTION AREA.
2. WATER MAINS SHALL NOT BE CONSTRUCTED UNDER SIDEWALKS OR ROAD PAVEMENT AREAS.
3. ALL SURFACE STRUCTURES, SUCH AS HYDRANTS, GATE WELLS AND VALVE BOXES SHALL BE SET TO GRADE OR AS INDICATED ON THE PLANS.
4. FIRE HYDRANTS ARE TO BE INSTALLED PLUMB AND HAVE THEIR NOZZLES AS DETERMINED BY THE ENGINEER.
5. ALL FITTINGS SHALL BE DUCTILE IRON, PRESSURE RATING 350 P.S.I., CONFORMING TO ANSI/AWWA C 153/A21.53 COMPACT FITTINGS WITH DOUBLE THICKNESS CEMENT MORTAR LINING AND COAL TAR ENAMEL COATING INSIDE AND OUTSIDE.
6. GATE WELLS AND OTHER WATER MAIN STRUCTURES SHALL NOT BE CONSTRUCTED IN DRIVEWAYS, DRIVE APPROACHES, OR SIDEWALKS.
7. PROVIDE 7-FOOT MINIMUM COVER BELOW EXISTING PAVEMENT CENTERLINE OR GROUND AT WATER MAIN LOCATION, WHICHEVER IS LOWEST, WHEN PROPOSED WATER MAIN IS WITHIN 32 FEET OF CENTERLINE ON SECTION LINE ROADS, OR WITHIN 19 FEET OF CENTERLINE ON 1/4 LINE ROADS. SEVEN FEET COVER SHALL ALSO BE REQUIRED AT OTHER LOCATIONS AS NOTED ON THE PLAN. PROVIDE 6-FOOT MINIMUM COVER BELOW EXISTING ROAD CENTERLINE OR GROUND AT WATER MAIN LOCATION, WHICHEVER IS LOWEST, AT ALL OTHER LOCATIONS UNLESS OTHERWISE NOTED.
8. PLACE NATURAL BANK RUN SAND BACKFILL WITHIN THREE FEET OF ALL STRUCTURES, INCLUDING VALVE WELLS, FIRE HYDRANTS, ETC.
9. ALL WATER MAIN PIPE SHALL HAVE CLASS III BEDDING UNLESS OTHERWISE NOTED ON THE PLANS. SEE SHEET MD-1.
10. ALL PRECAST PRODUCTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
11. CONTRACTOR SHALL BAG ALL NEW FIRE HYDRANTS UNTIL THE WATER MAIN IS ACCEPTED FOR SERVICE.
12. WHEN THE FIRE HYDRANT IS BEING INSTALLED. THE 6-INCH DIAMETER FIRE HYDRANT VALVE SHALL BE INSTALLED IN THE FULL OPEN POSITION.
13. WATER MAIN TO BE PLACED LEVEL THROUGH ALL GATE WELLS.
14. ALL WATER SYSTEM BOLTS ARE TO BE COR-BLUE, MASTIC COATED, OR SPRAY PAINTED WITH UNDER COATING.
15. A FIRE HYDRANT SHOULD BE PLACED AT THE END OF ALL DEAD END WATER MAIN.

1. THE TYPE OF PIPE FOR WATER MAIN THREE (3) INCHES IN DIAMETER AND LARGER IS TO BE CLASS 54 DUCTILE IRON PIPE. ONE (1) AND TWO (2) INCH SERVICE LEADS SHALL BE TYPE "K" COPPER.
2. ALL HORIZONTAL FITTINGS SHALL BE PUSH ON TYPE O-RING JOINTS. VERTICAL FITTINGS ARE TO BE MECHANICAL JOINT. BOLTS ARE TO BE COR-BLUE T-BOLT TYPE.
3. ALL VALVES ARE TO ROTATE CLOCKWISE TO OPEN. SIX (6) INCH THROUGH TWELVE (12) INCH DIAMETER GATE VALVES SHALL BE EAST JORDAN - RESILIENT SEAT WEDGE.
4. HYDRANTS SHALL BE EAST JORDAN IRON WORKS 5BR250 TRAFFIC MODEL, DRY BARREL COMPRESSION TYPE CONFORMING TO AWWA C502. UNIT SHALL HAVE A SEAT VALVE AND DOUBLE OPERATING STEM "O" RING SEALS. HYDRANTS SHALL BE 6-FOOT BURY, HAVE A 5-1/4 INCH DIAMETER VALVE OPENING AND 6-INCH MECHANICAL JOINT CONNECTION. TWO, 4-INCH DIAMETER PUMPER NOZZLES SHALL BE PROVIDED. NOZZLE THREADS SHALL BE TO CITY OF DETROIT FIRE DEPARTMENT STANDARDS. HYDRANT SHALL HAVE A 1-1/8-INCH PENTAGON OPERATING NUT AND BE DESIGNED TO OPEN IN A COUNTERCLOCKWISE DIRECTION WITH AN ARROW CAST INTO THE TOP OF THE HYDRANT IN A CLEARLY VISIBLE LOCATION INDICATING THE OPENING DIRECTION.
5. THE CITY'S WATER DEPARTMENT WILL BE THE ONLY AUTHORIZED PERSONNEL TO OPERATE THE VALVES ON THE MAIN LINE.
6. ANY ANGLE POINTS OR BENDS ARE TO BE MARKED AT GRADE LEVEL WITH A 2"x2" BOARD FOR LOCATION PURPOSES.
7. ALL WATER MAIN IS TO BE PLACED LEVEL THROUGH ALL GATE VALVES.
8. WHEN JACKING OR BORING ALL VOIDS SHALL BE FILLED BY MEANS OF PRESSURE GROUTING WITH 1:3 CEMENT SAND MORTAR. WATER MAIN JACKING OR BORING SHALL EXTEND A MINIMUM OF 10-FEET OUTSIDE THE EDGES OF PAVEMENT.
9. HYDRANT LEADS GREATER THAN 10-FEET IN LENGTH FROM THE TRANSMISSION LINE SHALL BE CONSTRUCTED WITH 8-INCH DIAMETER PIPE.
10. NO HYDRANTS SHALL BE LOCATED WITHIN 10-FEET OF ANY ROADWAY OR DRIVEWAY.
11. WATER MAIN SHOWN TAPPING ANY EXISTING LINE UTILIZING AN EQUIVALENT PIPE DIAMETER SHALL BE DONE BY USING A TAPPING SLEEVE WITH THE NEXT SMALLEST DIAMETER AND THEN ENLARGED TO THE REQUIRED SIZE.



VERTICAL REACTION BLOCKING
N.T.S.



VALVE BLOCK AND BOX DETAIL

PROJECT MANAGER: - FIELD BOOK INFORMATION: -
[www.vtwpwintf6.wadnetrim.com/projectwise/Documents/Standards\WadeTrim\Standard Details\Plymouth\CDT-PL-FS-OWTDEdgs\25/2024_11%1%08_AM_mflnagon](http://www.vtwpwintf6.wadnetrim.com/projectwise/Documents/Standards\WadeTrim\Standard%20Details\Plymouth\CDT-PL-FS-OWTDEdgs\25/2024_11%1%08_AM_mflnagon)

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NOT VALID FOR CONSTRUCTION
UNLESS SIGNED AND DATED:

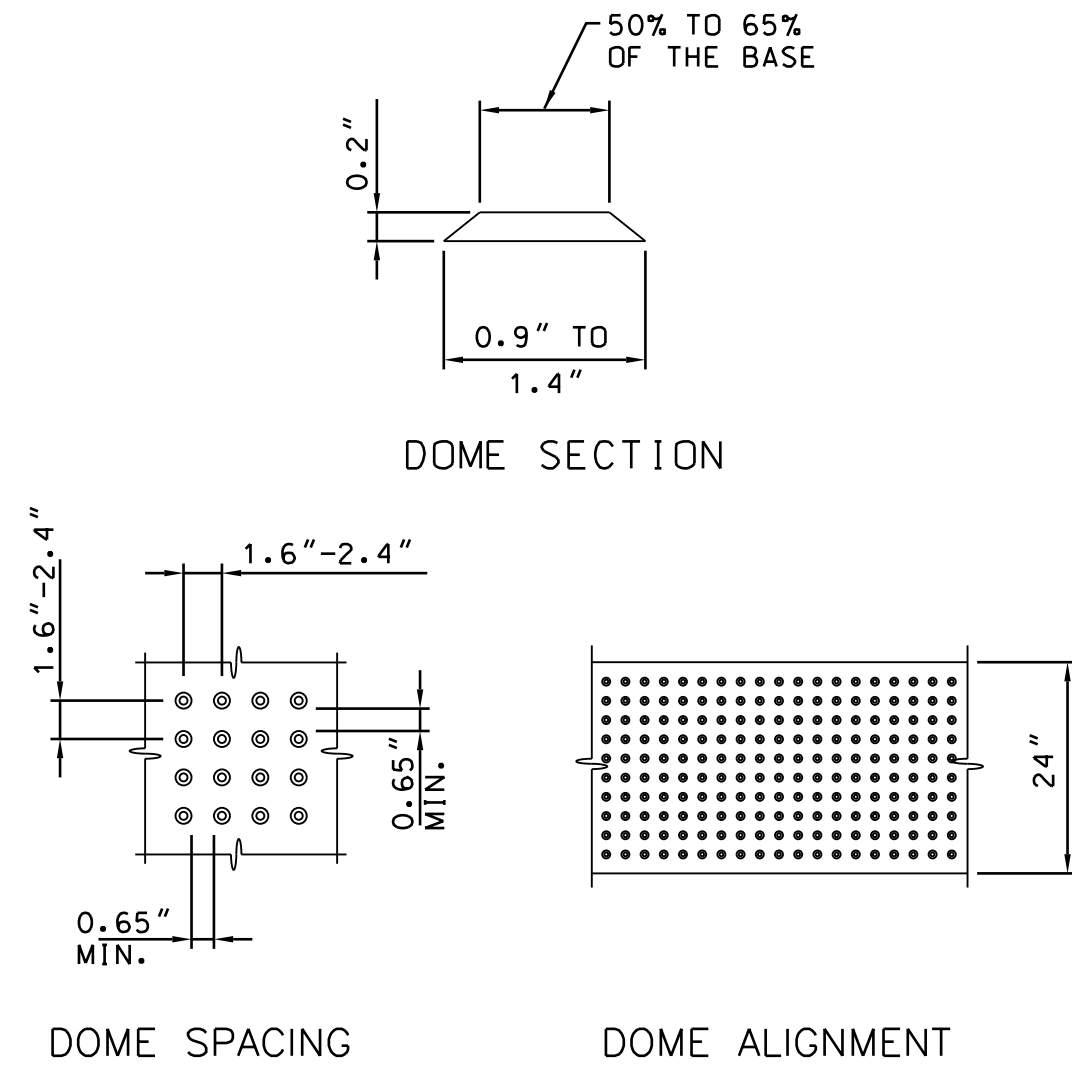
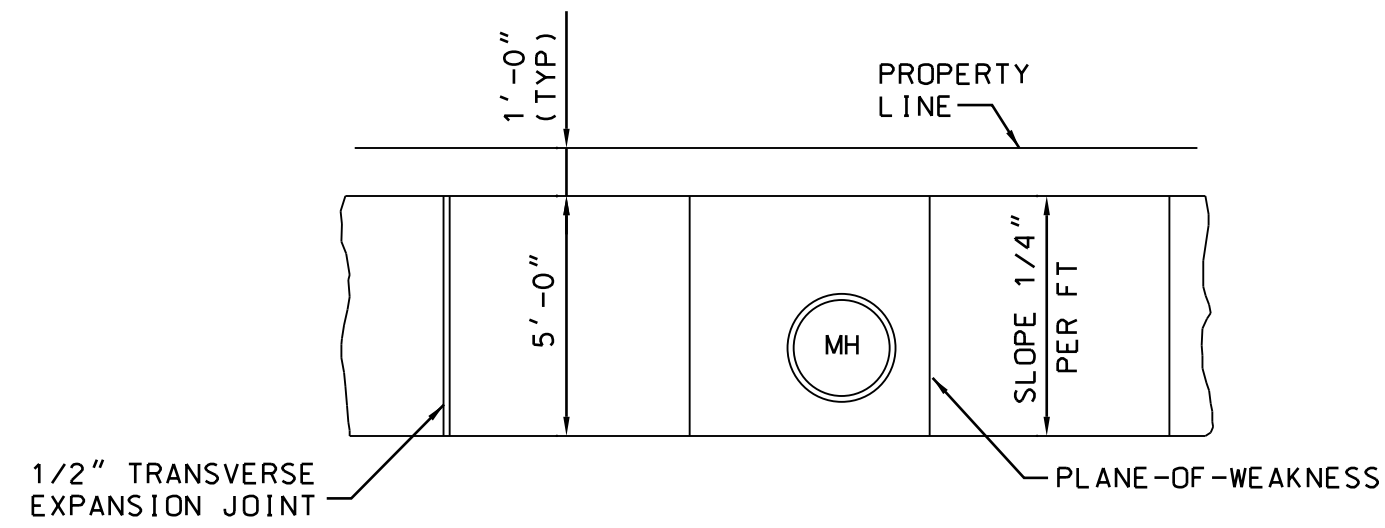
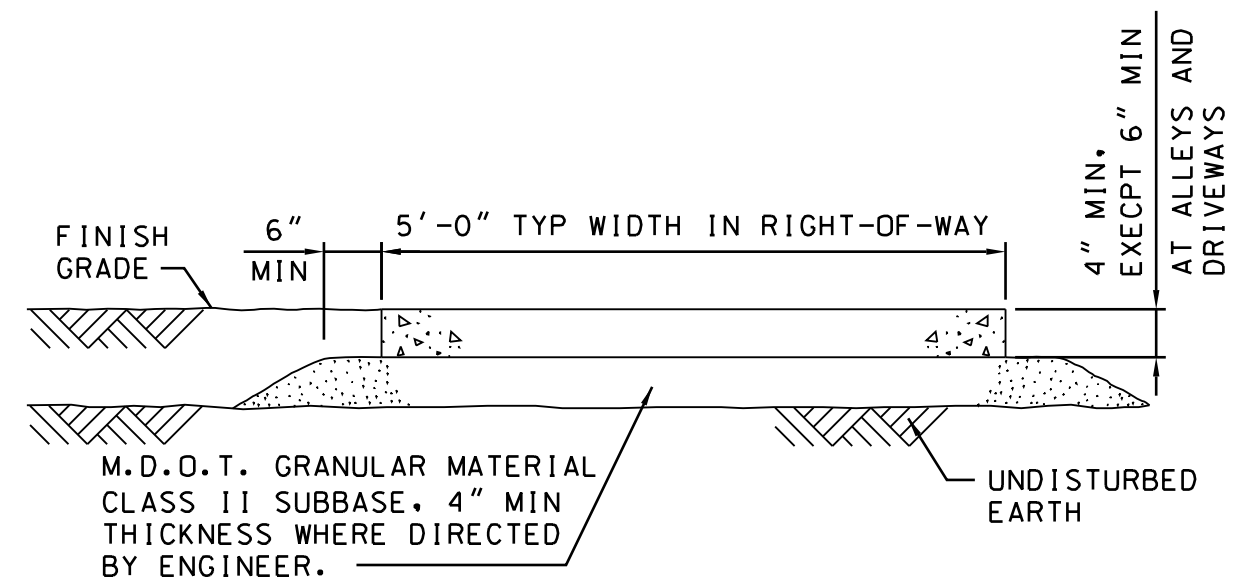
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CITY OF PLYMOUTH
201 SOUTH MAIN STREET
PLYMOUTH, MICHIGAN 48170
STANDARD WATER MAIN DETAILS (WM-2)

ISSUED FOR:	DATE:	BY:
JOB NO.		
-		
SHEET		
WM-2		

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NOTES:

1. ONE-HALF INCH TRANSVERSE EXPANSION JOINTS SHALL BE PLACED THROUGH THE SIDEWALK AT UNIFORM INTERVALS OF NOT MORE THAN 50 FEET. ONE-HALF INCH EXPANSION JOINT SHALL ALSO BE PLACED BETWEEN THE SIDEWALK AND ABUTTING PARALLEL CURB, BUILDINGS, RIGID STRUCTURES, CONCRETE DRIVES AND CONCRETE DRIVE APPROACHES. ONE INCH EXPANSION JOINTS SHALL BE PLACED BETWEEN SIDEWALK RAMPS AND BACK OF CURB.

2. PLANE-OF-WEAKNESS JOINTS SHALL BE PLACED EVERY 5 FEET AND BE PRODUCED BY USE OF SLAB DIVISION FORMS EXTENDING TO THE FULL DEPTH OF CONCRETE OR BY CUTTING JOINTS IN THE CONCRETE, AFTER FLOATING, TO A DEPTH OF NOT LESS THAN ONE-FOURTH THE THICKNESS OF THE SIDEWALK. THE CUT JOINTS SHALL BE NOT LESS THAN 1/8 INCH NOR MORE THAN 1/4 INCH IN WIDTH AND SHALL BE FINISHED SMOOTH AND TRUE TO LINE.

SIGN NOTES:

1. SIGN PANEL SHALL BE 0.080 INCH THICK, ALUMINUM SHEET, TYPE 6061-T6 (MDOT TYPE III).

2. HOLES IN SIGN POSTS SHALL BE CONTINUOUS 7/8" DIA HOLES ON 1-INCH CENTERS.

3. POSTS, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED STEEL.

4.SIGN FACE SHALL BE PER THE FOLLOWING TYPE:

TYPE	BACKGROUND	LEGEND
A.	Reflectorized	Reflectorized
B.	Reflectorized	Non-Reflectorized
C.	Non-Reflectorized	Reflectorized

1. ALL SIDEWALK RAMPS AS CALLED FOR ON THE PLANS SHALL HAVE DETECTABLE WARNINGS.

2.DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE.

3. DETECTABLE WARNING SHALL BE MODULAR PLASTIC TILE, POLYMER CONCRETE TILE OR OTHER SIMILAR TILE EMBEDDED INTO THE FRESH CONCRETE, AS APPROVED BY THE ENGINEER; OR A STAMPED PATTERN IN THE FRESH CONCRETE WITH INTEGRAL COLOR (NOT SHAKE-ON COLOR). ADHESIVE APPLIED DETECTABLE WARNINGS ARE NOT ACCEPTABLE.

4. ALL DETECTABLE WARNINGS SHALL HAVE SKID RESISTANT SURFACE.

5. SYSTEM AND COLOR SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEGINNING WORK.

