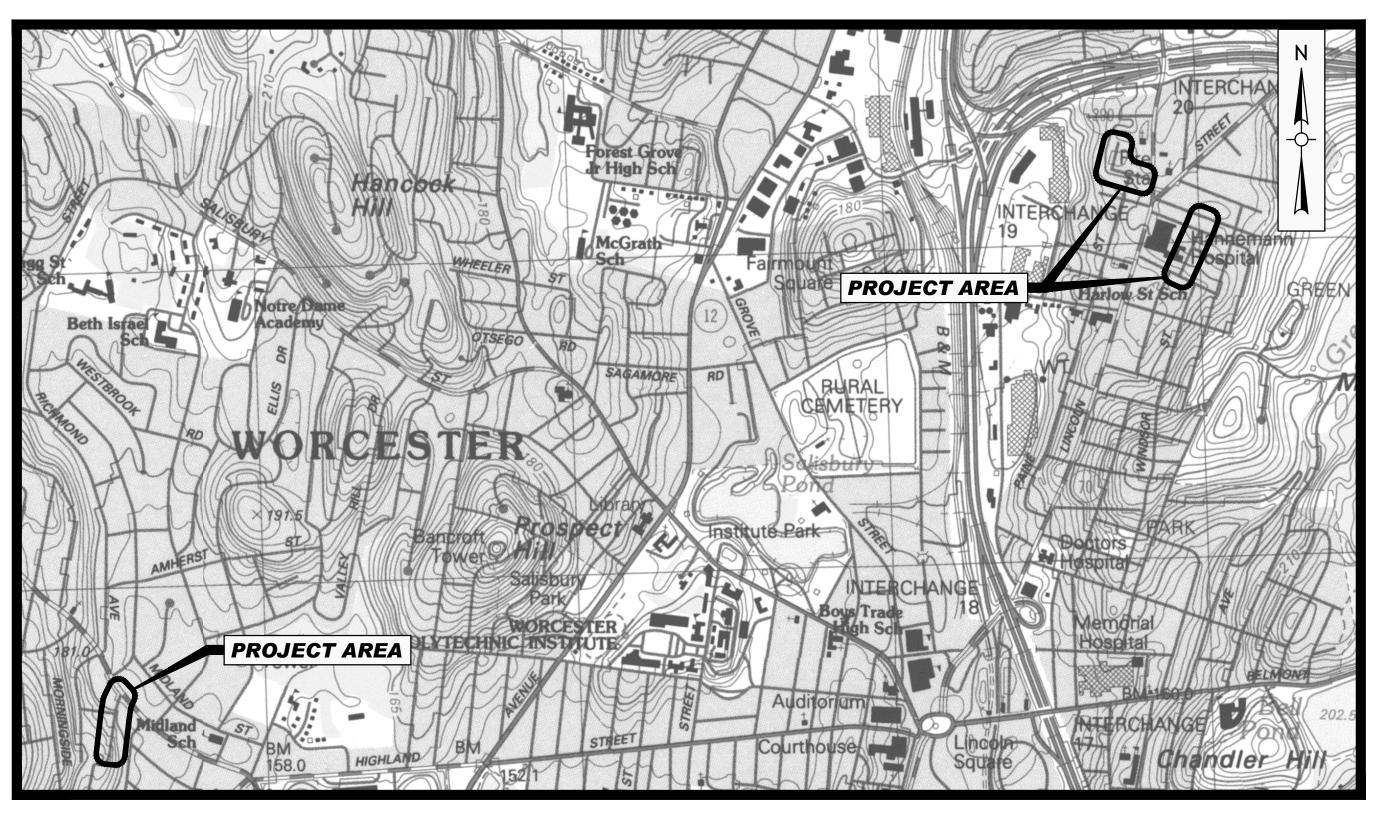
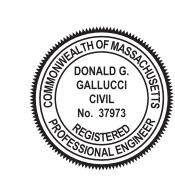
# CITY OF WORCESTER, MASSACHUSETTS

# DEPARTMENT OF PUBLIC WORKS AND PARKS VARIOUS STREETS CONSTRUCTION AND RECONSTRUCTION OF SANITARY AND SURFACE SEWERS AND WATERMAIN REPLACEMENT PROJECT

HADWEN LANE, IVANHOE ROAD, ROCKPORT ROAD, MELVILLE STREET AND ROCK AVENUE



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**LOCUS MAP** SCALE: 1"=1000'

> CONTRACT NO. S23-4 - ARPA BID # 7982-M3



JAY J. FINK, PE, COMMISSIONER OF PUBLIC WORKS AND PARKS

ERIC D. BATISTA, CITY MANAGER



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**MAY 2023** 



RELEASED FOR CONSTRUCTION

LEGE	ND	
DESCRIPTION	EXISTING	PROPOSED
SANITARY SEWER	S	
COMBINED SEWER	CS	
WATER MAIN	W	
STORM DRAIN	D	
GAS	G	
ELECTRIC	Е	
OVERHEAD WIRE	OHW	
TELEPHONE	T	
CABLE TELEVISION	CATV	
SANITARY SEWER MANHOLE	<u> </u>	O SMH
STORM DRAIN MANHOLE		O DMH
ELECTRICAL MANHOLE	E	
TELEPHONE MANHOLE	<b>D</b>	
FORCE MAIN CLEANOUT MANHOLE	0	
CLEANOUT	0	
CATCH BASIN		<b>©</b> СВ
CATCH BASIN (CURB INLET)		© CBCI
HYDRANT	— <u> </u>	-
GATE VALVE	wv W	<b>™</b>
BALL VALVE	<u> </u>	¥.
REDUCER	4	4
CURB STOP	# <u>\$</u>	,
CAP OR PLUG		
GAS GATE VALVE	GV S	
UTILITY POLE		
LIGHT POST	<u> </u>	
EDGE OF PAVEMENT	T-	
CURB		
SIDEWALK		
STONE WALL		
RETAINING WALL		
FENCE	RET WALL xx	
INDIVIDUAL DECIDUOUS TREE		
INDIVIDUAL EVERGREEN TREE	*	
TREE LINE	· · · · · · · · · · · · · · · · · · ·	
SURVEY MARKER		
PROPERTY LINE		
HOUSE NUMBER	#35	
FLOOR ELEVATION	FL=56.7	
SILL ELEVATION	S=56.7	
BOLLARD		
	o <sup>B</sup>	
TEST PIT		<b>■</b> TP-1

NOTE: ITEMS SHOWN IN THE LEGEND MAY NOT BE PRESENT IN THESE PLANS

## ABBREVIATIONS

MAXIMUM

AC	ASBESTOS CEMENT PIPE	.45	MAII DOV
B&B	BALLED AND BURLAP	MB	MAIL BOX
BC	BITUMINOUS CONCRETE	MECH	MECHANICAL
BIT	BITUMINOUS	MH	MANHOLE
BLDG	BUILDING	MIN	MINIMUM
BM	BENCH MARK	MISC	MISCELLANEOUS
BO	BLOW OFF	MJ	MECHANICAL JOINT
CATV	CABLE TELEVISION	N	NORTH
СВ	CATCH BASIN	NE	NORTH EAST
CBCI	CATCH BASIN CURB INLET	NW	NORTH WEST
CC	CONCRETE CURB	NO OR #	NUMBER
CI	CAST IRON	OD	OUTSIDE DIAMETER
<b>E</b>	CENTERLINE	PCCP	PRESTRESSED CONCRETE
CL	CEMENT LINED		CYLINDER PIPE
CMP	CORRUGATED METAL PIPE	PE	PLAIN END, POLYETHYLENE
CONC	CONCRETE	<u> የ</u>	PROPERTY LINE
CU FT	CUBIC FEET	PL	PLATE
CY	CUBIC YARD	PROP.	PROPOSED
D	STORM DRAIN, DEPTH FROM	PVC	POLYVINYL CHLORIDE
	RIM TO INVERT	PVMT	PAVEMENT
DI	DROP INLET, DUCTILE IRON	RCP	REINFORCED CONCRETE PIPI
DIA	DIAMETER	REM.	REMOVE
DMH	DRAIN MANHOLE	R&R	REMOVE AND REPLACE
DWG	DRAWING	ROW	RIGHT-OF-WAY
E	EAST, ELECTRIC	S	SEWER, SOUTH
EA	EACH	SE	SOUTH EAST
ELEV	ELEVATION	SECT	SECTION
EOP	EDGE OF PAVEMENT	SF	SQUARE FEET
EW	EACH WAY	SHT	SHEET
EXIST	EXISTING	SPEC	SPECIFICATIONS
FLG	FLANGE	SQ FT	SQUARE FEET
	FEET, FOOT	SS	SEWER SERVICE
FT	•	STA	STATION
G	NATURAL GAS	STL	STEEL
GALV	GALVANIZED	SW	SOUTH WEST
GC	GRANITE CURB	T	TELEPHONE
GR	GRANITE	TBM	TELEPHONE TEMPORARY BENCH MARK
HC	HOUSE CONNECTION	TYP	TYPICAL
HORIZ	HORIZONTAL		
HYD	FIRE HYDRANT	UP	UTILITY POLE
INV	INVERT	VC	VITRIFIED CLAY
ID	INSIDE DIAMETER	VERT	VERTICAL
IP	IRON PIPE	W	WATER, WEST
LF	LINEAR FEET	W/	WITH
LS	LUMP SUM	W/O	WITHOUT

#### **GENERAL NOTES:**

- THE CONTRACTOR SHALL CALL DIGSAFE AT 1-888-344-7233 OR 811 AT LEAST 72 HOURS, SATURDAYS, SUNDAYS, AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY LOCATION. A COPY OF THE DIGSAFE PROJECT REFERENCE NUMBER(S) SHALL BE GIVEN TO THE OWNER PRIOR TO EXCAVATION.
- 2. LOCATIONS OF EXISTING PIPES, CONDUITS, UTILITIES, FOUNDATIONS AND OTHER UNDERGROUND OBJECTS ARE NOT WARRANTED TO BE CORRECT AND THE CONTRACTOR SHALL HAVE NO CLAIM ON THAT ACCOUNT SHOULD THEY BE OTHER THAN SHOWN.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF SEWER, GAS, AND WATER SERVICES ALONG WITH ALL OTHER UTILITIES AS NECESSARY TO PERFORM THE WORK.
- 4. TEST PITS TO LOCATE EXISTING UTILITIES MAY BE ORDERED BY THE ENGINEER.
- 5. ALL LATERAL RELOCATIONS THAT REQUIRE A HORIZONTAL BEND GREATER THAN 23 DEGREES SHALL HAVE A CLEANOUT INSTALLED. CLEANOUTS FOR SEWER AND DRAIN LATERALS SHALL BE INSTALLED AT THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, AND BE CONSTRUCTED ACCORDING TO SPEC SECTION 02530 BUILDING CONNECTIONS.
- 6. PRIOR TO INSTALLATION OF THE PROPOSED SEWER AND DRAINS, THE CONTRACTOR SHALL VERIFY ALL ACTIVE LATERALS AND ACTIVE SERVICE CONNECTIONS THROUGH TELEVISION INSPECTION AND DYE TESTING. ALL SERVICES AND LATERALS CONFIRMED TO BE ACTIVE SHALL BE REINSTATED DURING CONSTRUCTION. DYE TESTING AND TELEVISION INSPECTION SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER
- 7. THE CONTRACTOR SHALL SEPARATE ANY ILLICIT CONNECTIONS AND REINSTATE ALL ACTIVE SERVICE LATERALS DURING CONSTRUCTION. SEWER LATERALS SHALL BE CONNECTED TO THE PROPOSED SEWER PIPE. DRAIN LATERALS SHALL BE CONNECTED TO THE PROPOSED DRAIN PIPE. ALL LATERALS SHALL BE INSTALLED FROM THE PROPOSED SEWER/DRAIN PIPE TO THE PROPERTY LINE.
- INACTIVE SERVICES AND ABANDONED SERVICES AFTER RELOCATION SHALL BE ABANDONED IN ACCORDANCE WITH THE SPECIFICATIONS.
- 9. TEST PITS SHALL BE PERFORMED PRIOR TO ORDERING MANHOLE STRUCTURES.
- 10. WHEN THE INVERT OF A SEWER PIPE ENTERING A MANHOLE IS 3 FEET OR MORE ABOVE THE INVERT OF THE LOWEST PIPE LEAVING THE MANHOLE, IT SHALL BE CONNECTED TO THE MANHOLE WITH AN OUTSIDE DROP CONNECTION. SEE SHEET C501 AND CITY OF WORCESTER STANDARD SPECIFICATIONS AND DETAILS.
- 11. STONE WALLS, FENCES, MAIL BOXES, SIGNS, CURBS, LIGHT POLES, ETC. SHALL BE REMOVED AND REPLACED AS NECESSARY TO PERFORM THE WORK. UNLESS OTHERWISE INDICATED, ALL SUCH WORK SHALL BE INCIDENTAL TO CONSTRUCTION OF THE PROJECT.
- 12. ALL PAVEMENT DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.
- 13. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND PAYMENT LIMITS SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
- 14. CONCRETE CRADLES OR ARCHES SHALL BE CONSTRUCTED WHERE SHOWN ON THE DRAWINGS OR WHERE REQUIRED BY THE ENGINEER. UNLESS OTHERWISE INDICATED, CONCRETE USED FOR PIPE ANCHOR BLOCKS, BACKING, PIPE CRADLES, ARCHES, AND FILL SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT
- 15. SEWER TRENCHES MAY BE EXCAVATED WIDER THAN THE `LIMIT OF EXCAVATION AND PAYMENT FOR EARTH EXCAVATION' ABOVE THE 'LINE OF NARROW TRENCH LIMIT.' ANY SUCH ADDITIONAL EXCAVATION SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL NOT BE MEASURED FOR PAYMENT.
- 16. BELOW THE `LINE OF NARROW TRENCH LIMIT' THE TRENCH SHOULD NOT BE EXCAVATED BEYOND THE TRENCH WIDTH 'W', IF MATERIAL IS LOOSENED OR REMOVED BEYOND THE ABOVE MENTIONED LIMITS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE CRUSHED STONE FOR THE FULL WIDTH OF THE TRENCH AT NO ADDITIONAL COST TO THE OWNER.
- 17. FOUR FOOT INSIDE DIAMETER MANHOLES SHALL BE USED WITH SEWERS LESS THAN 24 INCHES IN DIAMETER, AND FIVE FOOT INSIDE DIAMETER MANHOLES SHALL BE USED WITH SEWERS EQUAL TO OR GREATER THAN 24 INCHES IN DIAMETER, UNLESS OTHERWISE SPECIFIED. EFFECTIVE PIPE DIAMETER FOR COMBINATION MANHOLES SHALL BE MEASURED AS THE DISTANCE FROM THE OUTER EDGE OF THE SEWER TO THE OUTER EDGE OF THE DRAIN.
- OPENINGS FOR PIPE IN PRECAST MANHOLE BASES SHALL BE CAST IN THE REQUIRED LOCATIONS DURING MANHOLE MANUFACTURE. FIELD CUT OPENINGS WILL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL INSTALL A MANUFACTURED BOOT OR LINK SEAL FOR PIPE CONNECTIONS THAT ARE FIELD CUT.
- 19. THE CONTRACTOR SHALL FORM BRICK INVERTS IN MANHOLES WITH BRICK ON EDGE TO A DEPTH OF 0.8 INSIDE DIAMETER OF PIPE AND FORM A 1 INCH SLOPED BENCH WITH BRICK FLAT. INVERT SHALL BE SLOPED UNIFORMLY BETWEEN INLET AND OUTLET PIPE AND SHALL BE FORMED AND FILLED AS REQUIRED TO DIRECT THE FLOW AS INDICATED AND TO PREVENT DEPOSITION OF SOLIDS.
- 20. IN PAVED AREAS THE TOP OF THE MANHOLE COVER SHALL BE SET FLUSH WITH THE PAVED SURFACE. IN OTHER AREAS THE TOP OF THE COVER SHALL EXTEND 6 INCHES ABOVE FINISHED GRADE, OR AS SHOWN ON THE DRAWINGS, OR AS REQUIRED BY THE ENGINEER.
- 21. NEW BUILDING CONNECTIONS SHALL BE INSTALLED TO THE PROPERTY LINE.
- 22. EXISTING BUILDING CONNECTIONS TO COMBINED SEWER ARE NOT SHOWN ON THE DRAWINGS. EXACT LOCATIONS AND USAGE (SEWER AND/OR DRAIN) WILL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. THE CITY WILL PROVIDE AVAILABLE TIE CARDS TO ASSIST IN DETERMINING THE LOCATION UPON REQUEST.
- 23. PROTECTION OF WATER SUPPLIES WHENEVER A SEWER MUST CROSS UNDER A WATER MAIN, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIRMENT, THE WATER MAIN SHALL BE RELOCATED BY THE CONTRACTOR AS REQUIRED BY THE ENGINEER TO PROVIDE THIS SEPARATION OR THE CONTRACTOR SHALL CONSTRUCT NEW SEWER OF PRESSURE PIPE.
- 24. CALCULATION OF PIPE SLOPES IS BASED ON ELEVATION CHANGES DIVIDED BY THE DISTANCE BETWEEN THE INNER EDGES OF THE MANHOLE WALLS. FOR FOUR FOOT DIAMETER MANHOLES, THIS DISTANCE WAS CALCULATED AS THE CENTERLINE STATIONING MINUS FOUR FEET, FOR FIVE FOOT DIAMETER MANHOLES. THIS DISTANCE WAS CALCULATED AS THE CENTERLINE STATIONING MINUS FIVE FEET. 'IN' INDICATES UPSTREAM END OF MANHOLE, 'OUT' INDICATES DOWNSTREAM END OF MANHOLE.
- 25. ALL STREET EXCAVATIONS SHALL BE COMPLETELY CLOSED AT THE END OF EACH WORKING DAY BY BACKFILLING OR COVERING WITH STEEL PLATES. THE METHOD OF CLOSURE SHALL BE APPROVED BY THE ENGINEER AND THE CITY.
- 26. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF MASSACHUSETTS GENERAL LAW CHAPTER 82A, TRENCH EXCAVATION AND SAFETY REQUIREMENTS, TO PREVENT THE GENERAL PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES.

- 27. ASSESSORS INFORMATION REPRESENTED ON THESE DRAWINGS IS TAKEN FROM THE CITY'S GIS AND IS INCLUDED FOR ILLUSTRATIVE PURPOSES ONLY, ASSESSORS INFORMATION IS NOT INTENDED TO BE AN AUTHORITATIVE RECORD OF PROPERTY BOUNDARIES OR A SOURCE OF INFORMATION FOR AN ACTUAL SURVEY OR LEGAL DESCRIPTION OF THE PROPERTY. NO WORK HAS BEEN PERFORMED TO DETERMINE THE DEPICTED PROPERTY LINES AND THEREFORE, THESE DRAWINGS ARE NOT INTENDED BE USED TO DELINEATE ANY EXISTING OR PROPOSED STRUCTURES, FEATURES OR BOUNDARIES RELATIVE TO PROPERTY LINES. AUTHORITATIVE RECORDS OF PROPERTY LINES MAY BE LOCATED AT THE STATE OR MUNICIPAL AGENCY RESPONSIBLE FOR MAINTAINING PUBLIC RECORDS IN WHICH THE PARCEL IS LOCATED. LEGALLY AUTHORITATIVE MAPS OF PROPERTY LINES MAY ONLY BE PRODUCED BY A PROFESSIONAL LAND SURVEYOR.
- 28. EXCAVATION SHALL BE COMPLETED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND PERMIT REQUIREMENTS.
- 29. CONSTRUCTION ACTIVITY SHALL BE RESTRICTED TO A NORMAL, 8-HOUR, 5-DAY WEEK BETWEEN THE HOURS OF 7:00 AM AND 5:00 PM, MONDAY THROUGH FRIDAY. CONTINUOUS WORK MAY EXTEND BEYOND NORMAL WORK HOURS. NO NEW WORK SHALL BE STARTED AFTER 4:00 PM UNLESS AUTHORIZED BY THE OWNER AND APPROVED BY THE ENGINEER IN ADVANCE. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND THE CITY A SCHEDULE UPDATE EACH WEDNESDAY.
- 30. CONSTRUCTION SHALL NOT BE ALLOWED ON SATURDAYS, SUNDAYS, OR HOLIDAYS WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER AND APPROVAL BY THE ENGINEER.
- 31. THE CONTRACTOR SHALL MAINTAIN EXISTING FLOWS IN THE SYSTEM, BYPASSING AS NECESSARY TO PREVENT SURCHARGING, AS REQUIRED BY THE ENGINEER.
- 32. THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC TO ALL STREETS THROUGHOUT THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF MGL CHAPTER 82A, TRENCH EXCAVATION AND SAFETY REQUIREMENTS. THERE SHALL BE NO ROAD CLOSURES WITHOUT APPROVAL FROM THE OWNER AND THE CITY OF WORCESTER POLICE AND FIRE DEPARTMENTS. SEE SPEC SECTION 01570 AND APPENDIX D OF THE SPECIFICATIONS.
- 33. SILT SACKS SHALL BE INSTALLED IN ALL CATCH BASINS LOCATED WITHIN 300 FEET DOWNGRADIENT OF WORK AREAS. SILT SACKS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 01570, ENVIRONMENTAL PROTECTION.
- 34. THE CONTRACTOR MAY USE CITY WATER HYDRANTS WITH A BACKFLOW PREVENTER AND WATER METER. BACKFLOW PREVENTER MUST BE APPROVED BY THE WORCESTER WATER DEPARTMENT PRIOR TO WATER USE BY THE CONTRACTOR. THE CONTRACTOR SHALL RECORD AND SUBMIT ALL WATER USAGE TO THE ENGINEER DAILY. IF NO WATER IS AVAILABLE, THE CONTRACTOR SHALL SUPPLY WATER AT NO ADDITIONAL COST. THE CONTRACTOR SHALL NOT USE A HYDRANT WITHOUT HAVING BACKFLOW PREVENTER APPROVED BY THE CITY.
- 35. SHOULD THE CONTRACTOR DETERMINE THAT DUE TO WEATHER OR CONDITIONS BEYOND HIS CONTROL, WORK WOULD NEED TO BE CANCELED, THE CONTRACTOR SHALL PROVIDE THE TRAFFIC CONTROL OFFICER AND ENGINEER A MINIMUM OF 1-HOUR NOTICE. IF THE 1-HOUR CANCELLATION NOTICE IS NOT PROVIDED THE CONTRACTOR SHALL PAY FOR 4-HOURS OF POLICE DETAIL TIME AT THE PREVAILING RATE ESTABLISHED BY THE WORCESTER POLICE DEPARTMENT. THE CONTRACTOR SHALL ORDER DETAILS ON EACH THURSDAY FOR THE FOLLOWING WEEK THROUGH THE OFFICER IN CHARGE AT 508-799-8685.
- 36. THE ENGINEER IS DEFINED AS A REPRESENTATIVE OF WESTON & SAMPSON ENGINEERS OR CITY OF WORCESTER ENGINEERING DEPARTMENT.
- 37. IF ANY GAS MAIN RELOCATION IS REQUIRED, THE CONTRACTOR SHALL PLAN, SUPPORT AND COORDINATE WORK WITH THE EXISTING UTILITY OWNER PRIOR TO CONSTRUCTION.
- 38. ALL ABANDONED GAS PIPES SHALL BE CAPPED ON BOTH SIDES BY THE CONTRACTOR IF REMOVED FROM THE
- 39. ELEVATIONS REFERENCED ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 40. EXISTING UTILITY INFORMATION, TOPOGRAPHIC INFORMATION, EDGE OF PAVEMENT, UTILITY POLE LOCATIONS, AND LOCATIONS OF EXISTING ABOVE GROUND STRUCTURES WERE GATHERED FROM THE CITY'S GIS AND THE CITY'S AVAILABLE RECORD DRAWINGS.
- 41. THE CONTRACTOR SHALL RESTORE ALL PAINT AND THERMOPLASTIC PAVEMENT MARKINGS TO ORIGINAL CONDITION FOLLOWING TRENCH CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. PAVEMENT MARKING S SHALL BE IN ACCORDANCE WITH THE CITY OF WORCESTER STANDARD SPECIFICATIONS AND DETAILS.
- 42. ALL BIDDERS ARE REQUIRED TO INSPECT THE PROJECT SITE IN ITS ENTIRETY PRIOR TO SUBMITTING THEIR BID, AND BECOME FAMILIAR WITH ALL CONDITIONS AS THEY MAY AFFECT THEIR BID. CONTRACTOR AND SUB-CONTRACTOR SHALL BE FAMILIAR WITH ALL DRAWINGS AND SPECIFICATIONS PRIOR TO COMMENCING THE
- 43. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- 44. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY OWNER AT NO ADDITIONAL COST TO THE OWNER.
- 45. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF EXCAVATION AND DEMOLITION REQUIRED TO RECEIVE SITE IMPROVEMENTS.
- 46. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS ON THE GROUND PRIOR TO START OF WORK. ANY DISCREPANCIES OR CONFLICTS BETWEEN THE DRAWINGS AND EXISTING CONDITIONS, EXISTING CONDITIONS TO REMAIN, TEMPORARY CONSTRUCTION, PERMANENT CONSTRUCTION, AND WORK OF ADJACENT CONTRACTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING, ITEMS ENCOUNTERED IN AREAS OF EXCAVATION THAT ARE NOT INDICATED ON THE DRAWINGS, BUT ARE VISIBLE ON SURFACE, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.
- 47. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS OUTSIDE THE PROJECT LIMITS, SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST AND TO THE SATISFACTION OF THE OWNER.
- 48. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT HIS EMPLOYEES, AS WELL AS PUBLIC USERS FROM INJURY DURING THE ENTIRE CONSTRUCTION PERIOD USING ALL NECESSARY SAFEGUARDS, INCLUDING BUT NOT LIMITED TO, THE ERECTION OF TEMPORARY WALKS, STRUCTURES, PROTECTIVE BARRIERS, COVERING, OR FENCES AS NEEDED.
- 49. EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. NO STOCKPILING OF MATERIAL, EQUIPMENT OR VEHICULAR TRAFFIC SHALL BE ALLOWED WITHIN THE DRIP LINE OF TREES TO REMAIN. NO GUYS SHALL BE ATTACHED TO ANY TREE TO REMAIN. WHEN NECESSARY OR AS REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL ERECT TEMPORARY BARRIERS FOR THE PROTECTION OF EXISTING TREES DURING CONSTRUCTION.
- 50. TREES AND SHRUBS WITHIN THE LIMITS OF WORK SHALL BE REMOVED ONLY UPON THE APPROVAL OF THE ENGINEER OR AS NOTED ON THE PLANS.

- 51. NO FILLING SHALL OCCUR AROUND EXISTING TREES TO REMAIN WITHOUT THE APPROVAL OF THE OWNER OR THE OWNER'S REPRESENTATIVE.
- 52. ALL UNSUITABLE SOIL GENERATED BY CONSTRUCTION ACTIVITIES SHALL BE STOCKPILED IN ACCORDACNE WITH THE CITY OF WORCESTER STANDARD SPECIFICATIONS AND DETAILS. SOIL REMOVAL ACTIVITIES SHALL BE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. IF THE CONTRACTOR PROPOSES TO REUSE EXCAVATED MATERIAL, THE CONTRACTOR MUST DEMONSTRATE THAT THE FILL MEETS ALL REQUIREMENTS OF THE CITY OF WORCESTER STANDARD SPECIFICATIONS AND DETAILS.
- 53. ALL EXISTING DRAINAGE FACILITIES TO REMAIN SHALL BE MAINTAINED FREE OF DEBRIS, SOIL, SEDIMENT, AND FOREIGN MATERIAL AND OPERATIONAL THROUGHOUT THE LIFE OF THE CONTRACT. REMOVE ALL SOIL, SEDIMENT, DEBRIS AND FOREIGN MATERIAL FROM ALL DRAINAGE STRUCTURES, INCLUDING BUT NOT LIMITED TO, DRAINAGE INLETS, MANHOLES AND CATCH BASINS WITHIN THE LIMIT OF WORK AND DRAINAGE STRUCTURES OUTSIDE THE LIMIT OF WORK THAT ARE IMPACTED BY THE WORK FOR THE ENTIRE DURATION OF CONSTRUCTION.
- 54. THE CONTRACTOR SHALL KEEP ALL STREETS, PARKING LOTS AND WALKS THAT ARE NOT RESTRICTED FROM PUBLIC USE DURING CONSTRUCTION BROOM CLEAN AT ALL TIMES. THE CONTRACTOR SHALL USE ACCEPTABLE METHODS AND MATERIALS TO MAINTAIN ADEQUATE DUST CONTROL THROUGHOUT CONSTRUCTION.
- 55. THE LIMIT OF WORK SHALL BE DELINEATED IN THE FIELD PRIOR TO THE START OF SITE CLEARING OR CONSTRUCTION.
- 56. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE BY CONTRACTOR PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION. REFER TO PLAN FOR APPROXIMATE LOCATION OF EROSION AND SEDIMENT CONTROL. REFER TO SPECS AND DETAILS FOR TYPE OF EROSION AND SEDIMENT CONTROL.
- 57. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
- 58. CONTRACTOR SHALL MEET ALL OF THE STATE OF MASSACHUSETTS DEP WETLAND ORDINANCE REGULATIONS FOR SEDIMENT AND EROSION CONTROL.
- 59. EROSION CONTROL BARRIERS TO BE INSTALLED AT THE TOE OF SLOPES. SEE CONSTRUCTION PLANS, DETAILS, AND SPEICIFCATIONS.
- 60. THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY THE
- 61. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ON TO PUBLIC/PRIVATE ROADS.
- 62. THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION, DEMOLITION AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.
- 63. THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL THE CONTRACTOR SHALL ALLOW ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS REMOVED OFF SITE AT NO ADDITIONAL COST
- 64. ALL SITE FEATURES CALLED FOR REMOVAL SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC, TRANSPORTED FROM THE SITE TO BE DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO COST TO THE OWNER.
- 65. ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
- 66. DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
- 67. ALL ITEMS CALLED FOR REMOVAL SHALL BE REMOVED TO FULL DEPTH INCLUDING ALL FOOTINGS, FOUNDATIONS, AND OTHER APPURTENANCES, EXCEPT AS SPECIFICALLY NOTED OTHERWISE.
- 68. CONTRACTOR SHALL ENSURE ALL AREAS ARE PROPERLY PITCHED TO DRAIN, WITH NO SURFACE WATER PONDING OR PUDDLING.
- 69. EXCAVATION REQUIRED WITHIN PROXIMITY OF KNOWN EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- 70. WHERE NEW EARTHWORK MEETS EXISTING EARTHWORK, CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR ROUNDS AT ALL TOP AND BOTTOM OF SLOPES.
- 71. ALL FILL SHALL BE PLACED IN LIFTS & COMPACTED IN ACCORDANCE WITH THE CITY OF WORCESTER STANDARD SPECIFICATIONS AND DETAILS.
- 72. WHERE A SPECIFIC LIMIT OF WORK LINE IS NOT OBVIOUS OR IMPLIED, BLEND GRADES TO EXISTING CONDITIONS WITHIN 5 FEET OF PROPOSED CONTOURS.
- 73. RESTORE ALL DISTURBED AREAS AND LIMITS OF ALL REMOVALS TO LOAM AND SEED (L&S) UNLESS OTHERWISE
- 74. THE CONTRACTOR SHALL COORDINATE ALL LAYOUT ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY DEMOLITION, GRADING, AND UTILITIES OPERATIONS ENCOMPASSED BY THIS CONTRACT. THE CONTRACTOR

SHALL SET, PROTECT AND REPLACE REFERENCE STAKES AS NECESSARY OR AS REQUIRED BY THE ENGINEER.

- 75. ALL PROPOSED SITE FEATURES SHALL BE LAID OUT AND STAKED FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF INSTALLATION. ANY REQUIRED ADJUSTMENTS TO THE LAYOUT SHALL BE UNDERTAKEN AS REQUIRED, AT NO ADDITIONAL COST TO THE OWNER.
- 76. ALL REFERENCES TO LOAM AND SEED (L&S) REFER TO HYDROMULCH SEEDED LAWN, UNLESS NOTED
- 77. STRUCTURES TO BE REMODELED SHALL INCLUDE REQUIRED MASONRY TO REMOVED EXISTING PIPE(S) NOT TO REMAIN AND CONNECT PROPOSED PIPES TO THE EXISTING STRUCTURE.
- 78. CONTRACTOR SHALL INSTALL NEW GREEN TRAPS IN BOTH PROPOSED AND REBUILT CATCH BASINS AND CURB INLETS.



VARIOUS STREETS SEWER

CITY OF WORCESTER,

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REPLACEMENT PROJECT

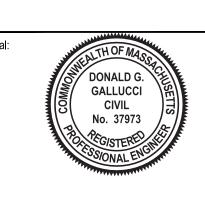
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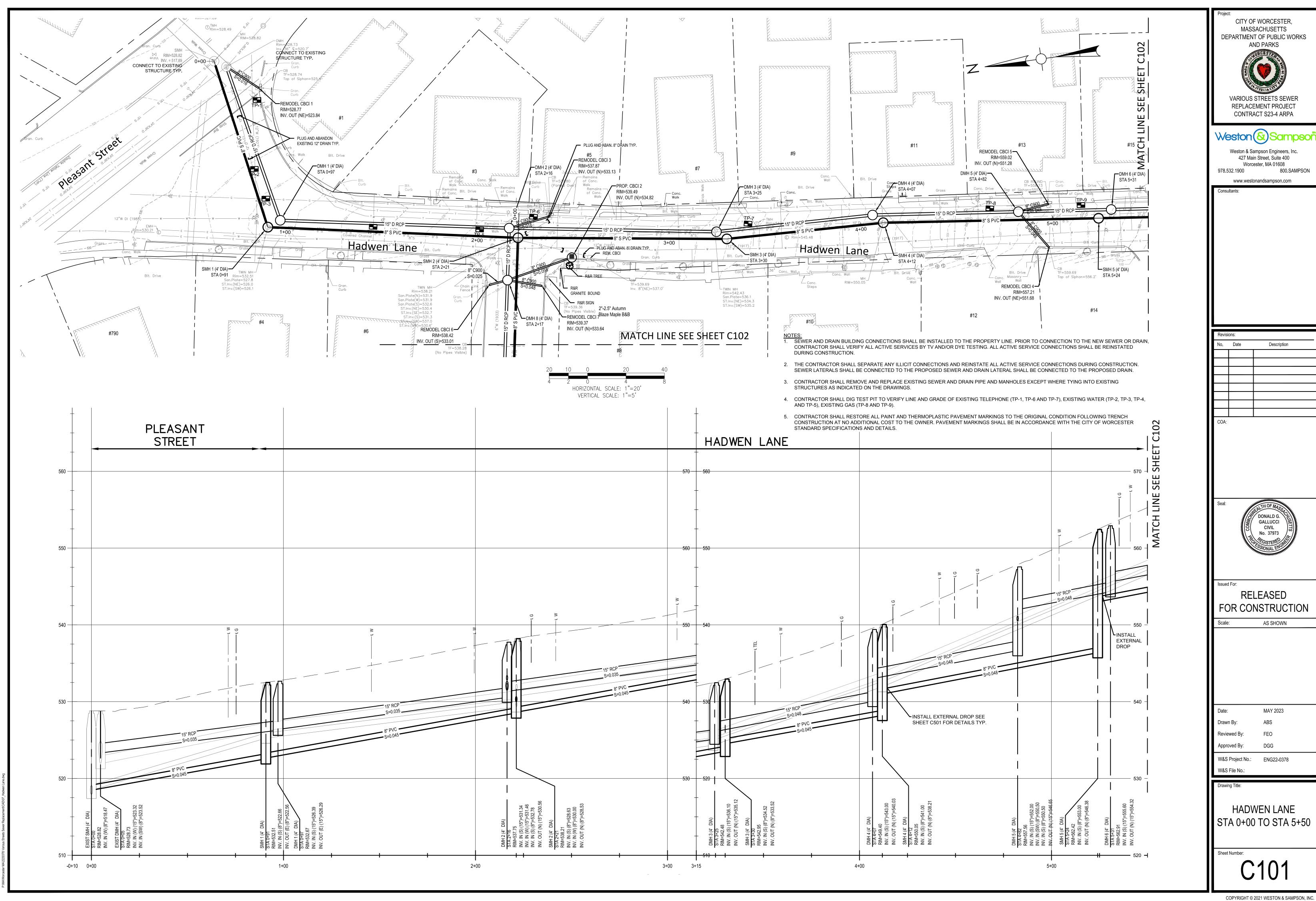
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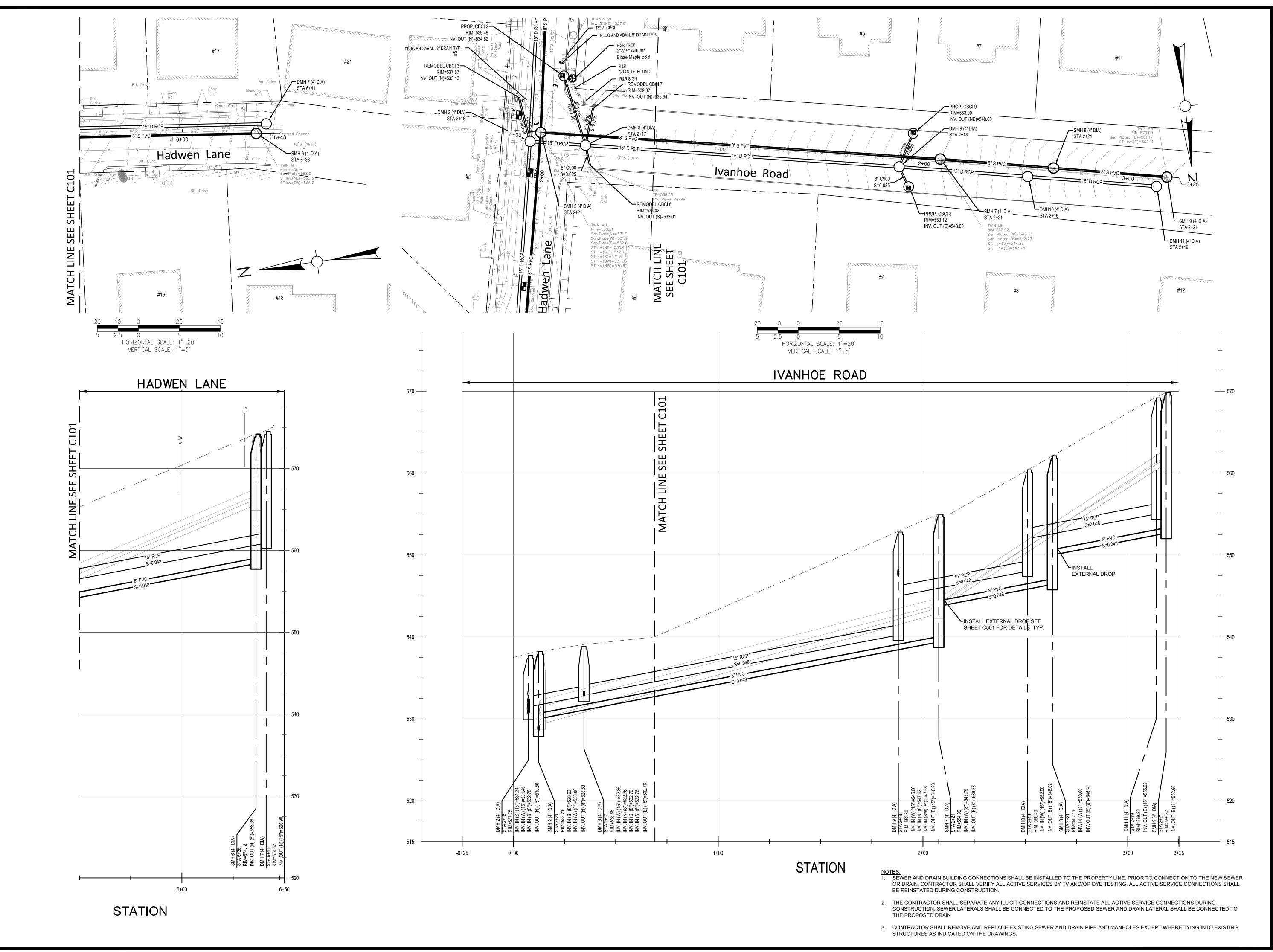
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NOTES, AND LEGEND







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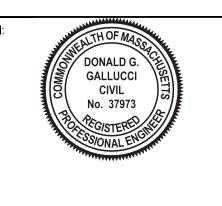
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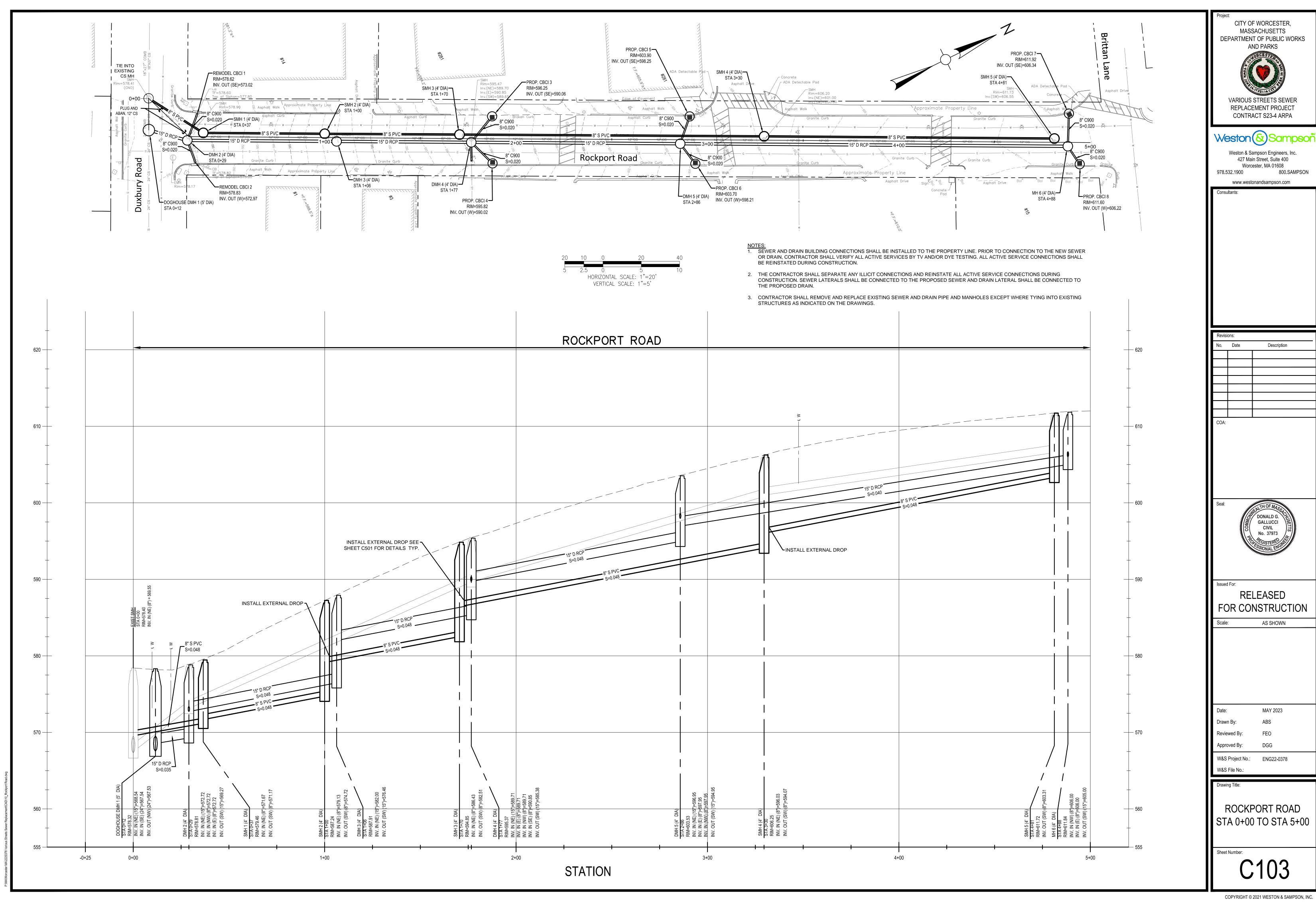
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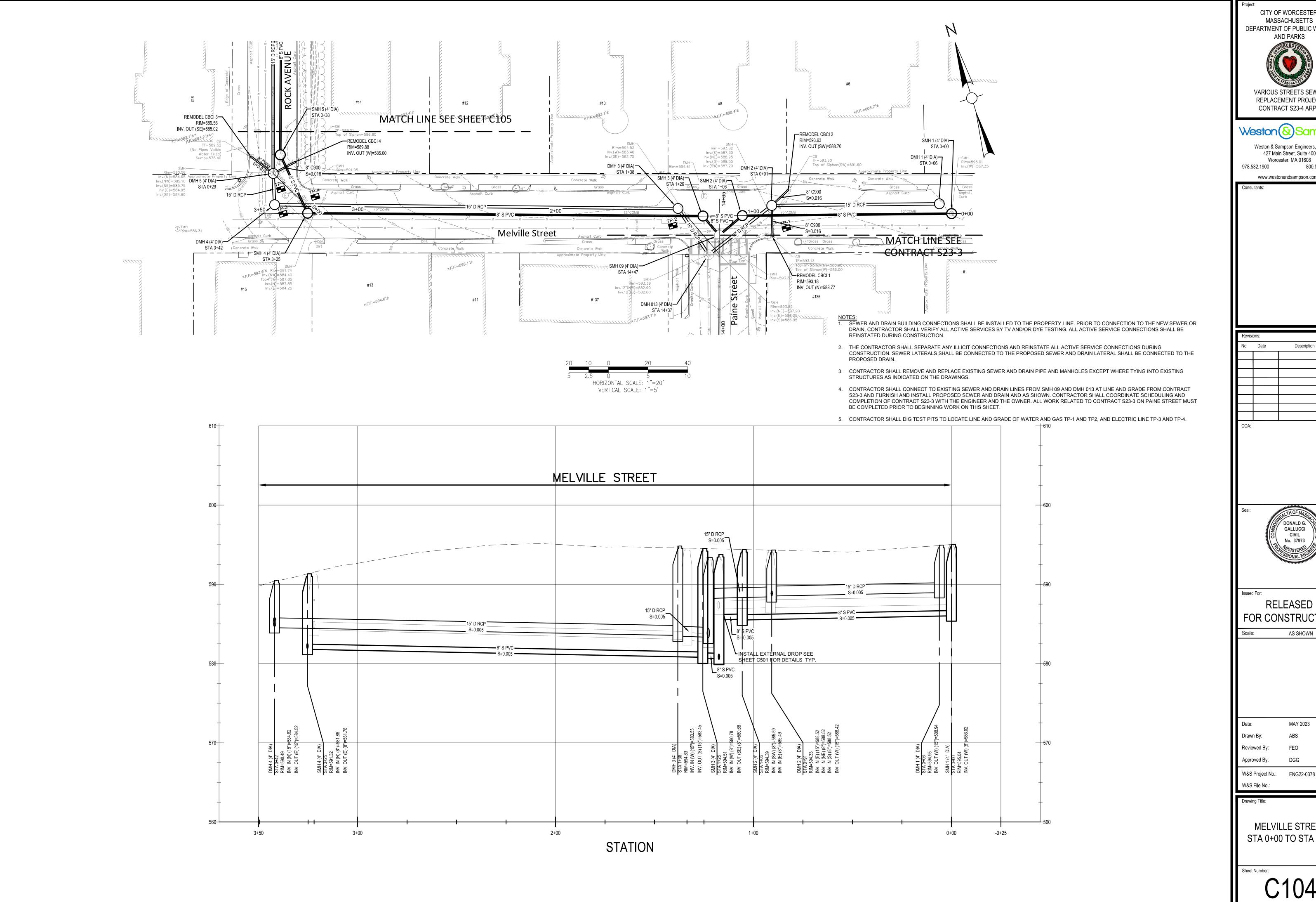
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W&S File No.:

HADWEN LANE
STA 5+50 TO STA 6+50
IVANHOE ROAD
STA 0+00 TO 3+25

Sheet Number: C102







VARIOUS STREETS SEWER REPLACEMENT PROJECT CONTRACT S23-4 ARPA

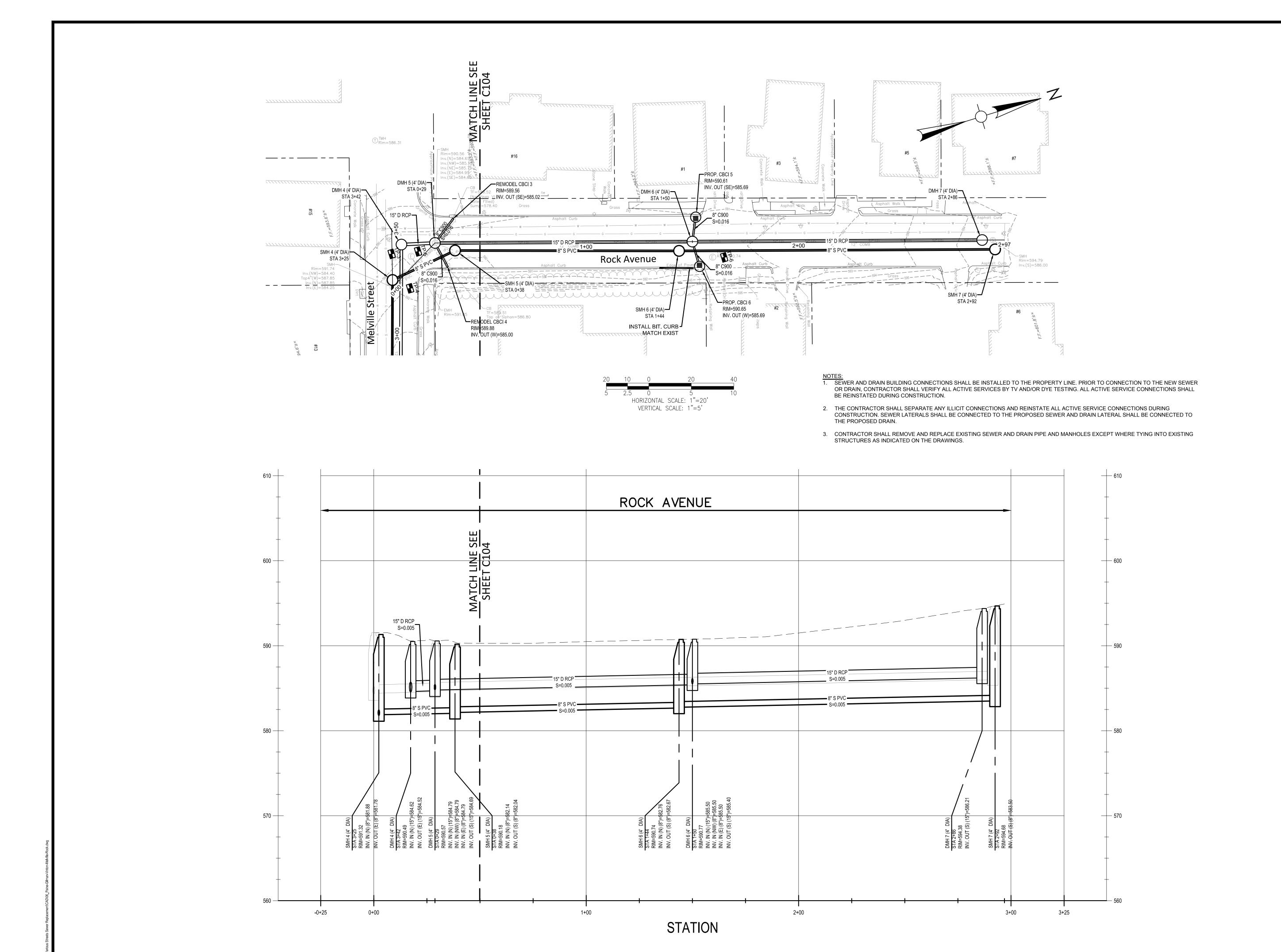
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W&S Project No.: ENG22-0378

MELVILLE STREET STA 0+00 TO STA 3+42



CITY OF WORCESTER,
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AND PARKS

VARIOUS STREETS SEWER

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REPLACEMENT PROJECT CONTRACT S23-4 ARPA

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Reviewed By: FEO

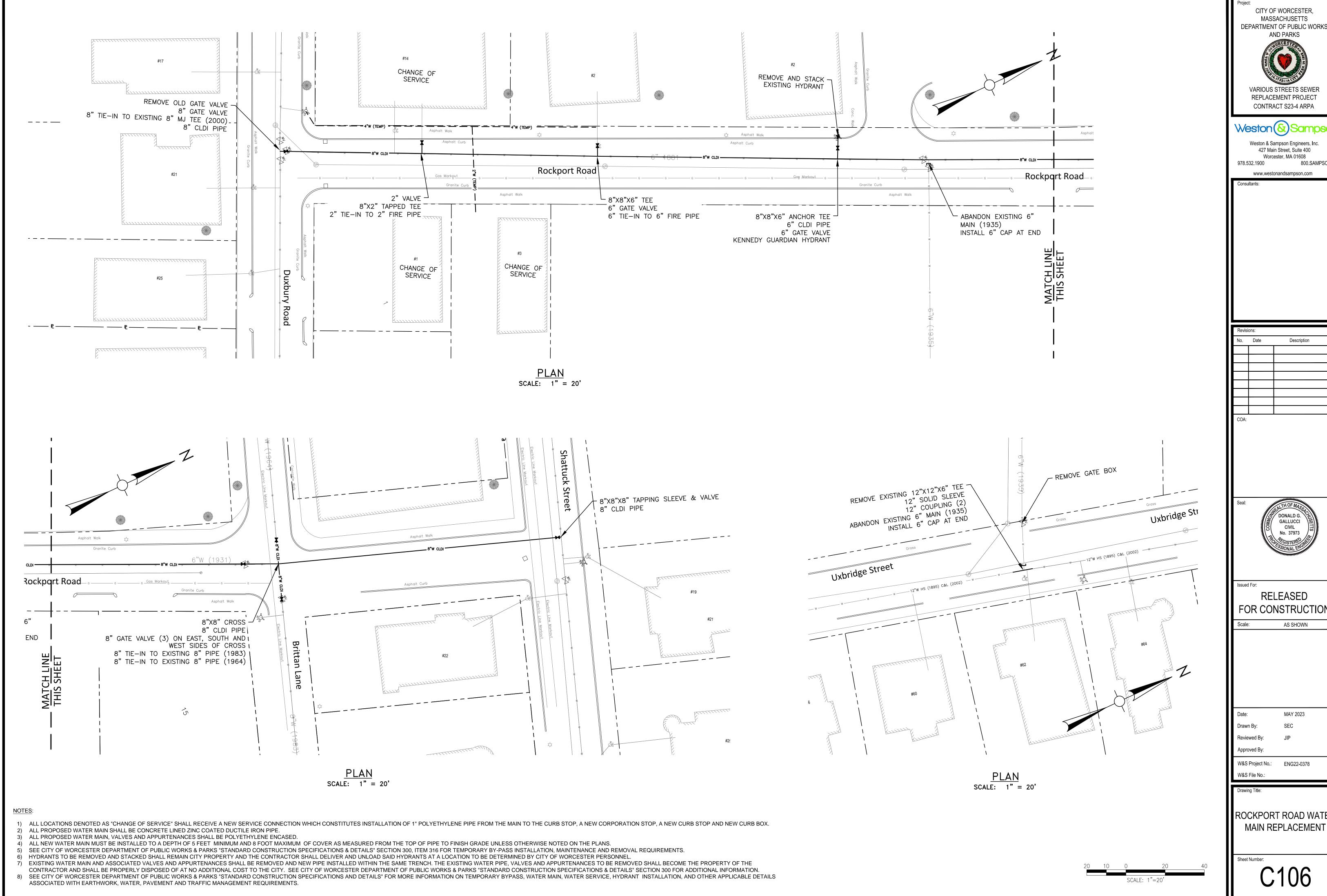
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W&S Project No.: ENG22-0378
W&S File No.:

Drawing Title:

ROCK AVENUE STA 0+00 TO STA 2+92

C105





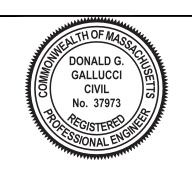
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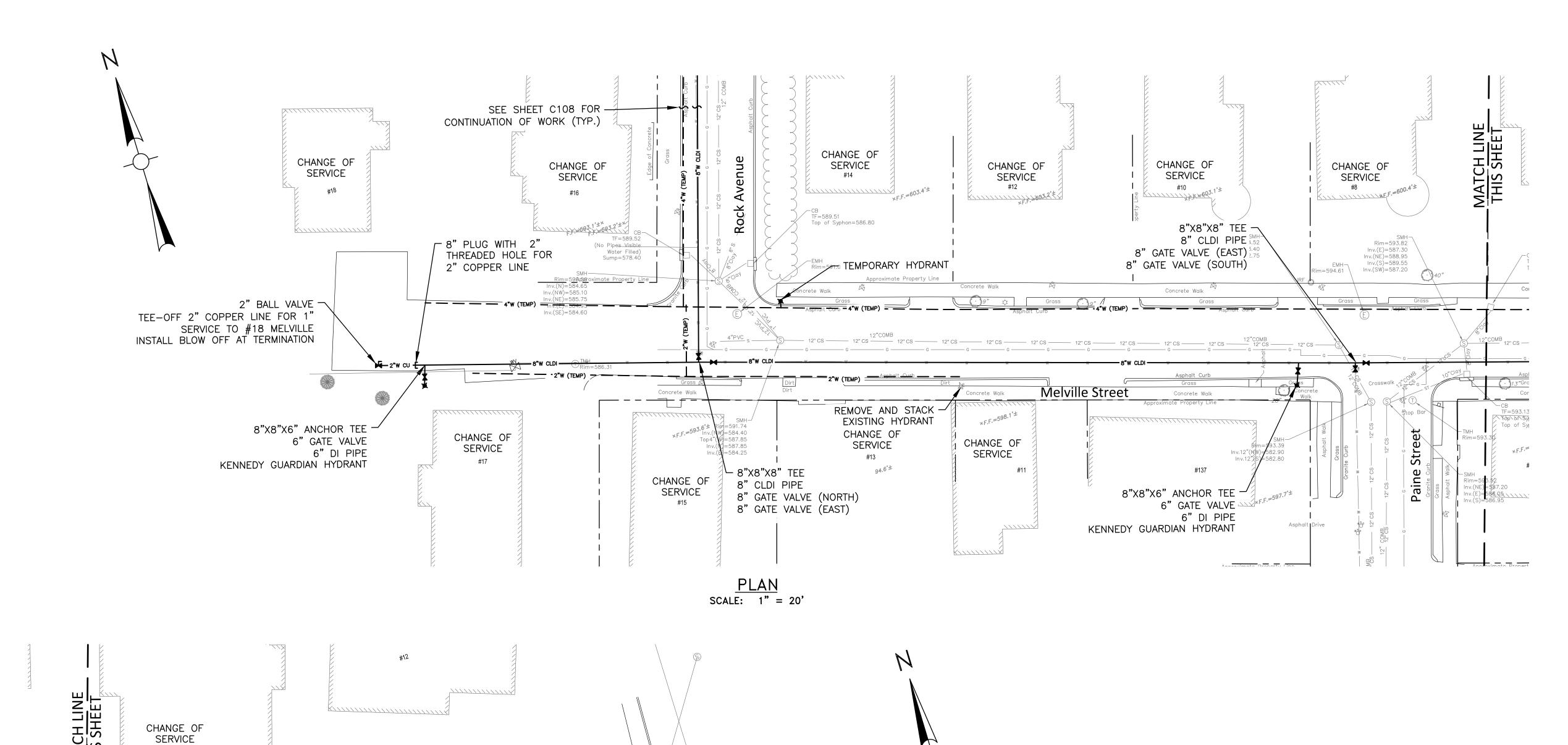


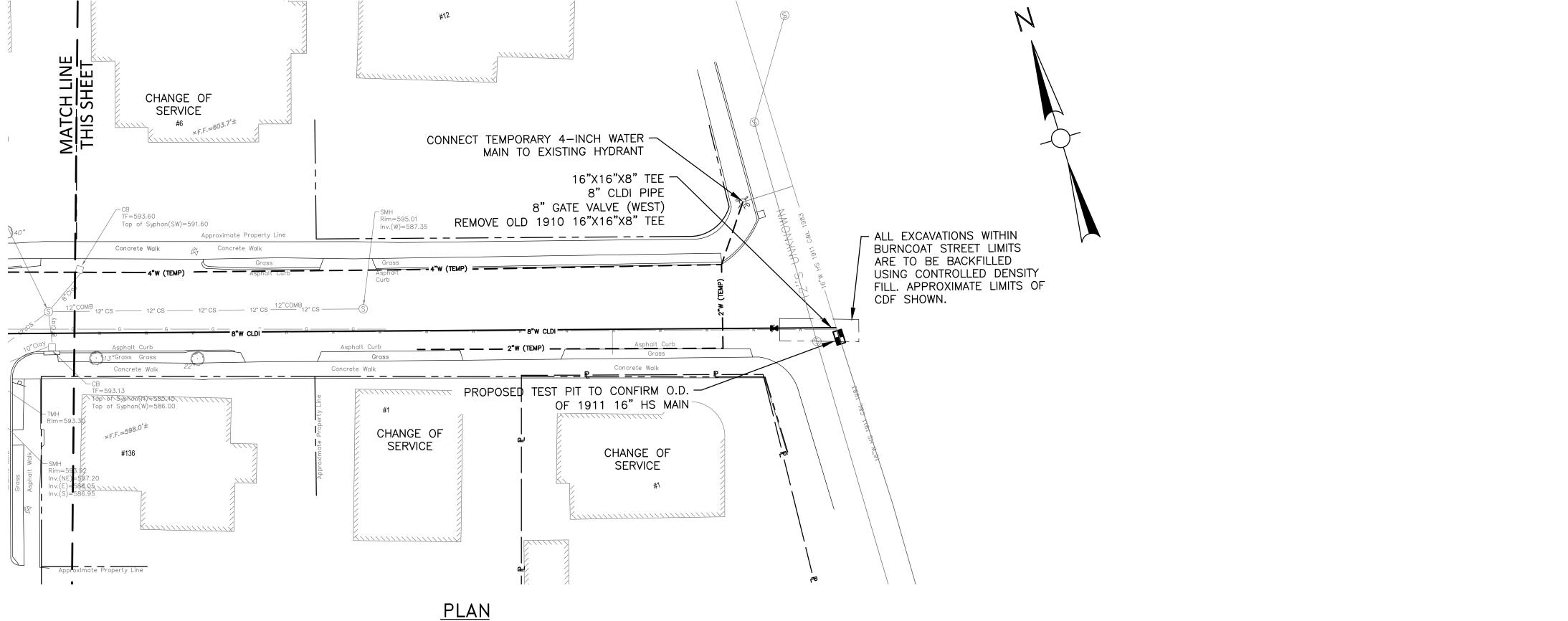
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ROCKPORT ROAD WATER





- 1) ALL LOCATIONS DENOTED AS "CHANGE OF SERVICE" SHALL RECEIVE A NEW SERVICE CONNECTION WHICH CONSTITUTES INSTALLATION OF 1" POLYETHYLENE PIPE FROM THE MAIN TO THE CURB STOP, A NEW CORPORATION STOP, A NEW CURB STOP AND NEW CURB BOX.
- 2) ALL PROPOSED WATER MAIN SHALL BE CONCRETE LINED ZINC COATED DUCTILE IRON PIPE.
- 3) ALL PROPOSED WATER MAIN, VALVES AND APPURTENANCES SHALL BE POLYETHYLENE ENCASED.

SCALE: 1" = 20

- 4) ALL NEW WATER MAIN MUST BE INSTALLED TO A DEPTH OF 5 FEET MINIMUM AND 8 FOOT MAXIMUM OF COVER AS MEASURED FROM THE TOP OF PIPE TO FINISH GRADE UNLESS OTHERWISE NOTED ON THE PLANS.
- 5) SEE CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS & PARKS "STANDARD CONSTRUCTION SPECIFICATIONS & DETAILS" SECTION 300, ITEM 316 FOR TEMPORARY BY-PASS INSTALLATION, MAINTENANCE AND REMOVAL REQUIREMENTS. 6) HYDRANTS TO BE REMOVED AND STACKED SHALL REMAIN CITY PROPERTY AND THE CONTRACTOR SHALL DELIVER AND UNLOAD SAID HYDRANTS AT A LOCATION TO BE DETERMINED BY CITY OF WORCESTER PERSONNEL.
- 7) EXISTING WATER MAIN AND ASSOCIATED VALVES AND APPURTENANCES SHALL BE REMOVED AND NEW PIPE INSTALLED WITHIN THE SAME TRENCH. THE EXISTING WATER PIPE, VALVES AND APPURTENANCES TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF AT NO ADDITIONAL COST TO THE CITY. SEE CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS & PARKS "STANDARD CONSTRUCTION SPECIFICATIONS & DETAILS" SECTION 300 FOR ADDITIONAL INFORMATION.
- 8) SEE CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS & PARKS "STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS" FOR MORE INFORMATION ON TEMPORARY BYPASS, WATER MAIN, WATER SERVICE, HYDRANT INSTALLATION, AND OTHER APPLICABLE DETAILS ASSOCIATED WITH EARTHWORK, WATER, PAVEMENT AND TRAFFIC MANAGEMENT REQUIREMENTS.

CITY OF WORCESTER, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS AND PARKS



**VARIOUS STREETS SEWER** REPLACEMENT PROJECT CONTRACT S23-4 ARPA

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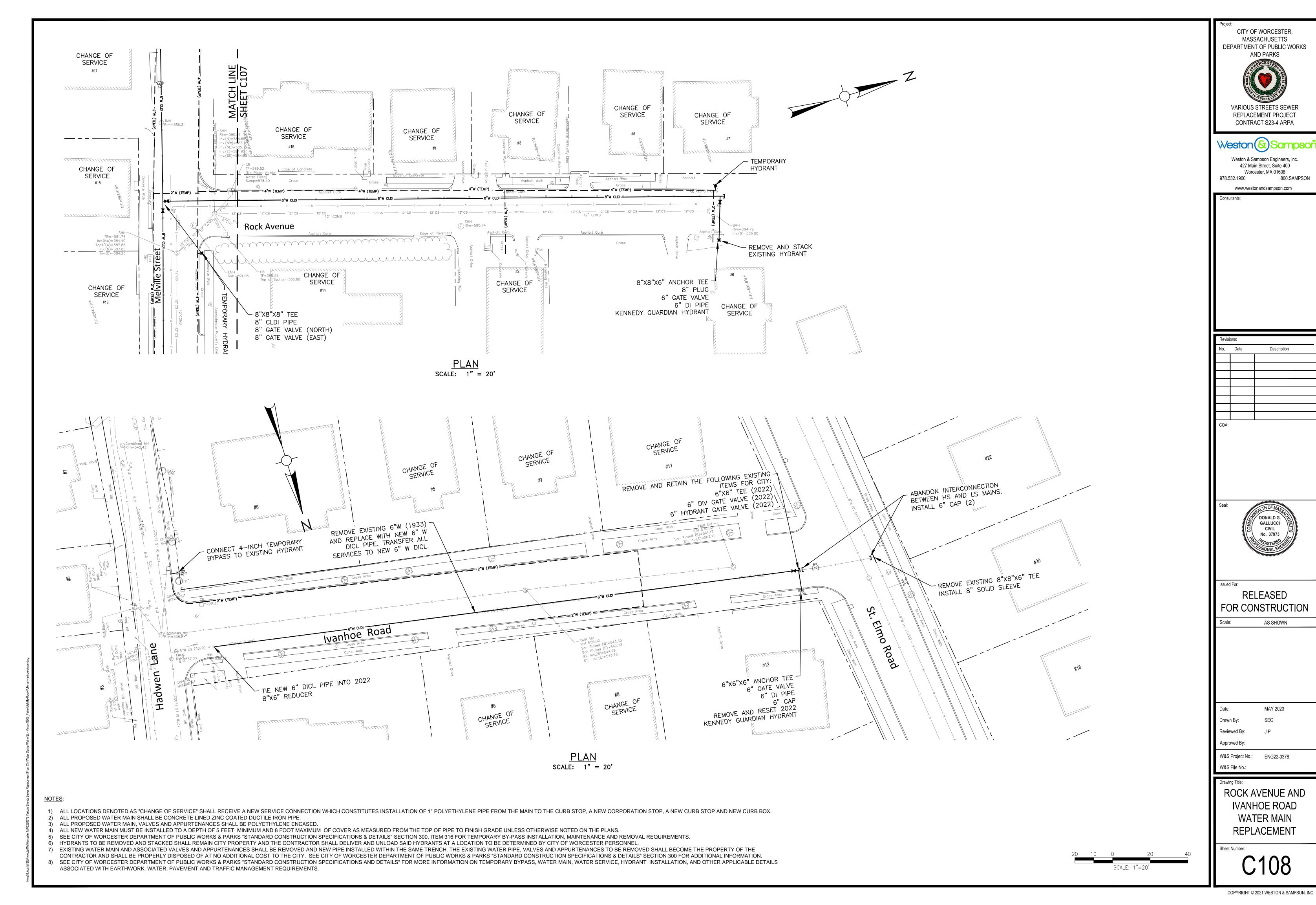
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MELVILLE STREET WATER MAIN REPLACEMENT



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WATER MAIN

CITY OF WORCESTER, MASSACHUSETTS

AND PARKS

REPLACEMENT PROJECT

CONTRACT S23-4 ARPA

Worcester, MA 01608

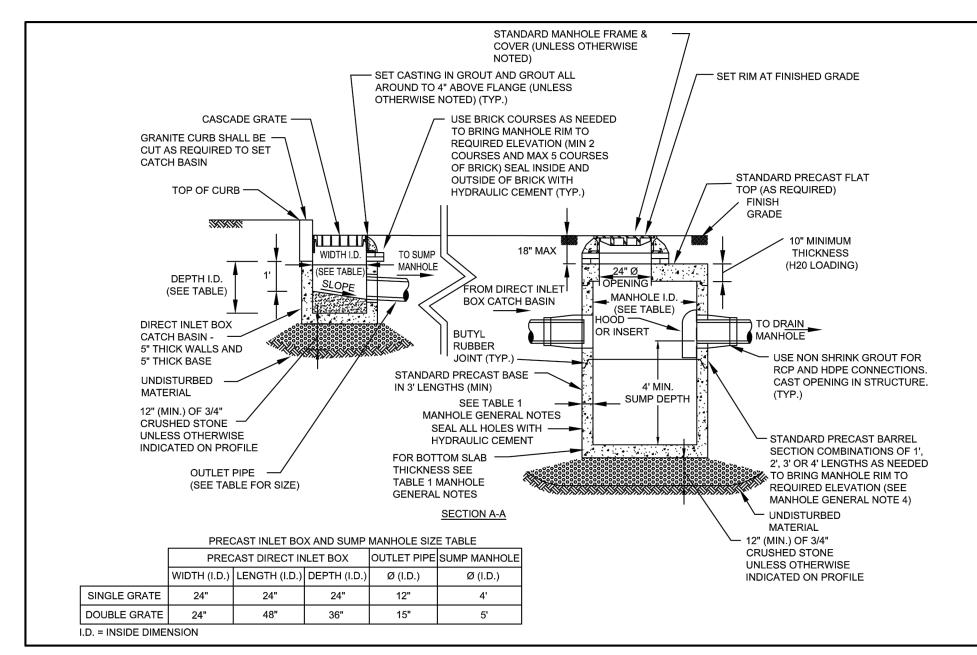
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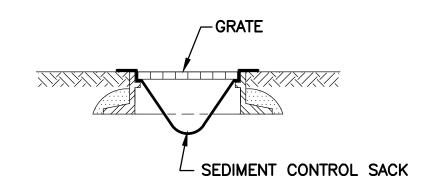
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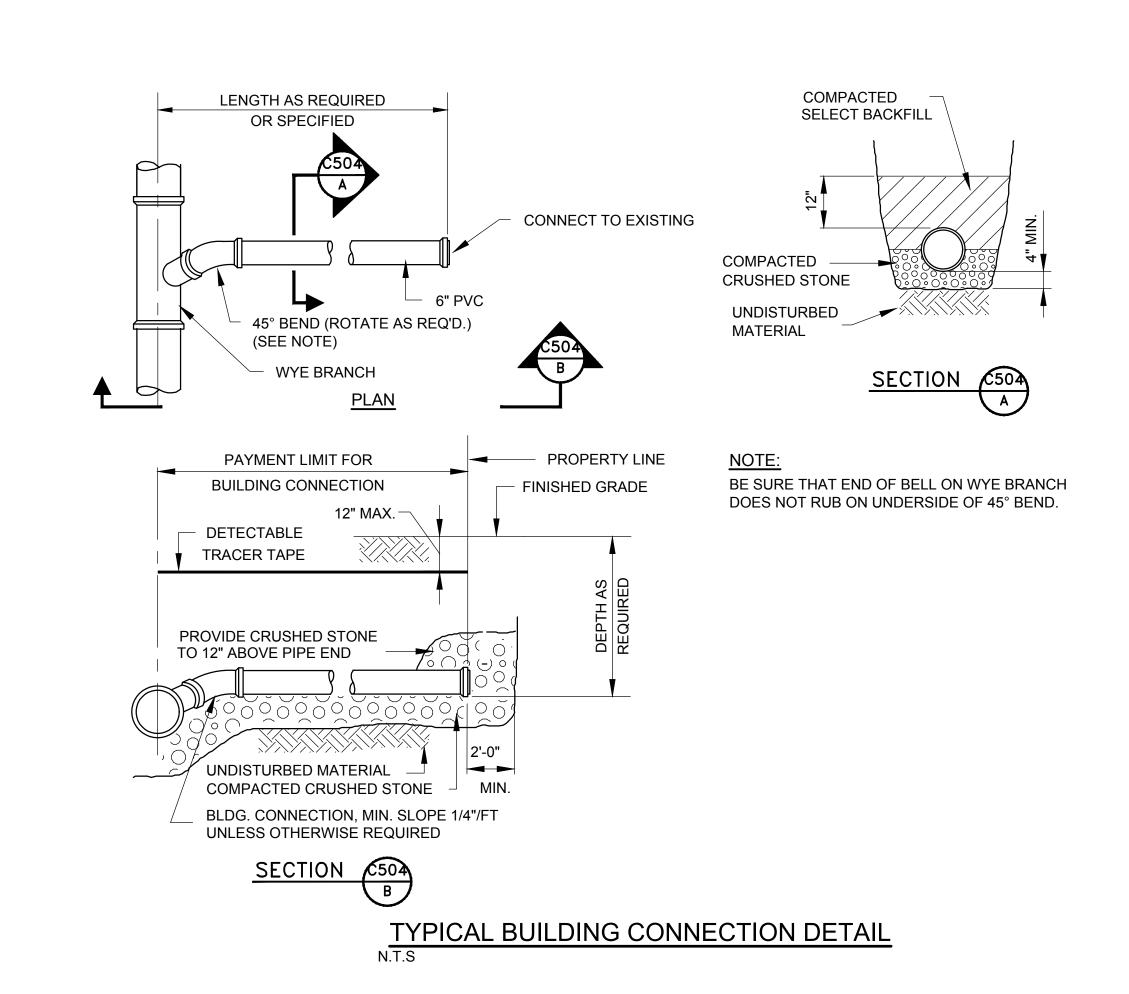
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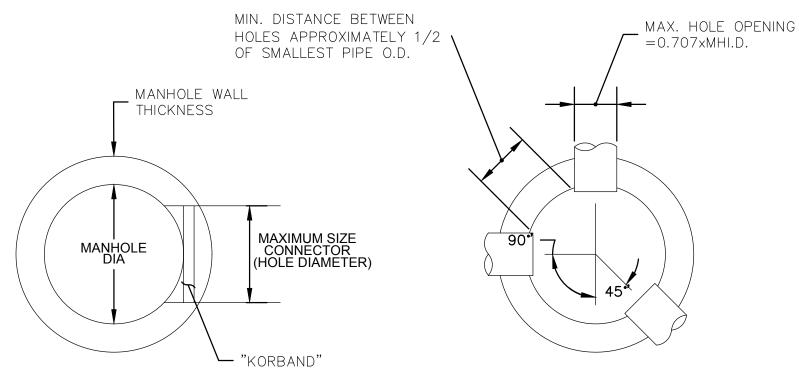


# GUTTER INLET DETAIL N.T.S.



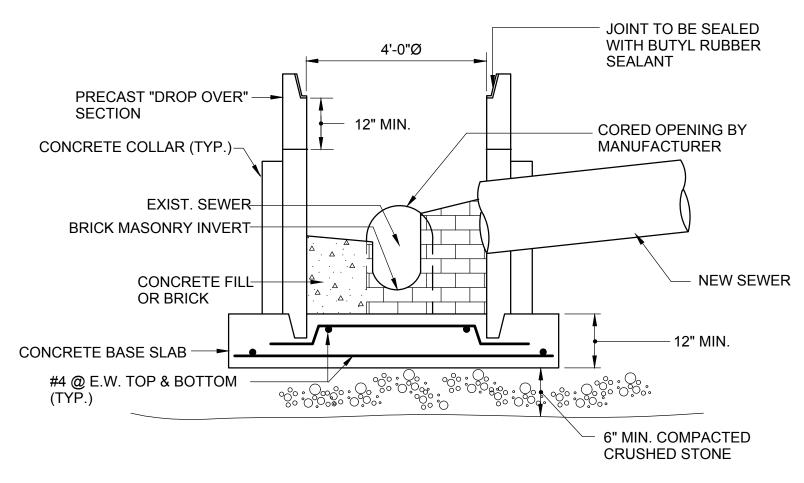
CATCH BASIN PROTECTION DETAIL





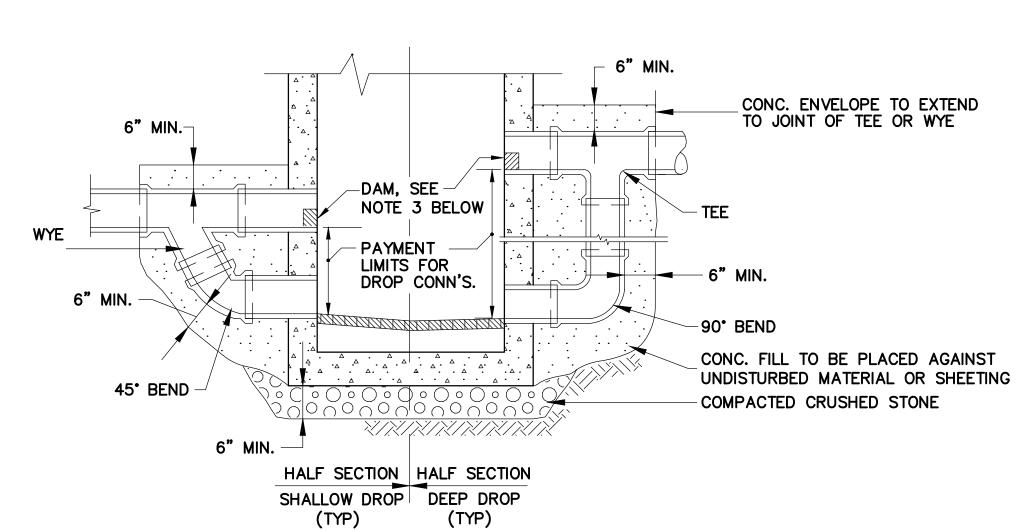
#### RECOMMENDED MAXIMUM CONNECTOR HOLE DIAMETERS

			FOR CORED CONN	IECTIONS	CAST-IN-PLACE CO	NNECTIONS
	MH DIA.	MINIMUM WALL THICKNESS	STRAIGHT OR 45 DEG DEFL.	90 DEGREE DEFLECTION	STRAIGHT OR 45 DEG DEFL.	90 DEGREE DEFLECTION
	4 FOOT	5 INCH	28 INCH	25 INCH	31.5 INCH	25 INCH
	5 FOOT	6 INCH	34 INCH	32 INCH	42 INCH	32 INCH
	6 FOOT	7 INCH	42 INCH	38 INCH	51 INCH	38 INCH
	7 FOOT	8 INCH	48 INCH	44 INCH	59 INCH	44 INCH
	8 FOOT	9 INCH	56 INCH	50 INCH	73.5 INCH	50 INCH



THE "DROP OVER" SECTION SHALL BE INDEPENDENTLY SUPPORTED TO ALLOW FOR PROPER CURING OF THE BASE SLAB

# DROPOVER MANHOLE BASE

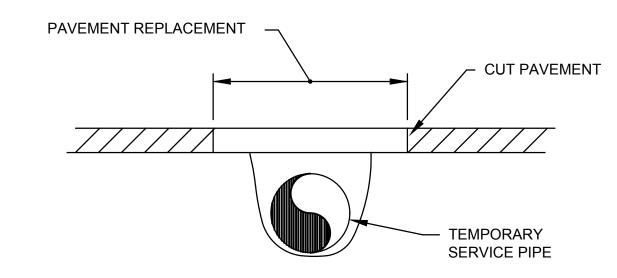


NOTES:
1. DROP PIPE TO BE SAME DIAMETER AS SEWER DISCHARGE INTO MANHOLE

UNLESS OTHERWISE SHOWN ON DRAWINGS. 2. DIMENSIONS & CONSTRUCTION OF DROP MANHOLE TO BE SIMILAR TO TYPICAL MANHOLE EXCEPT AS SHOWN.

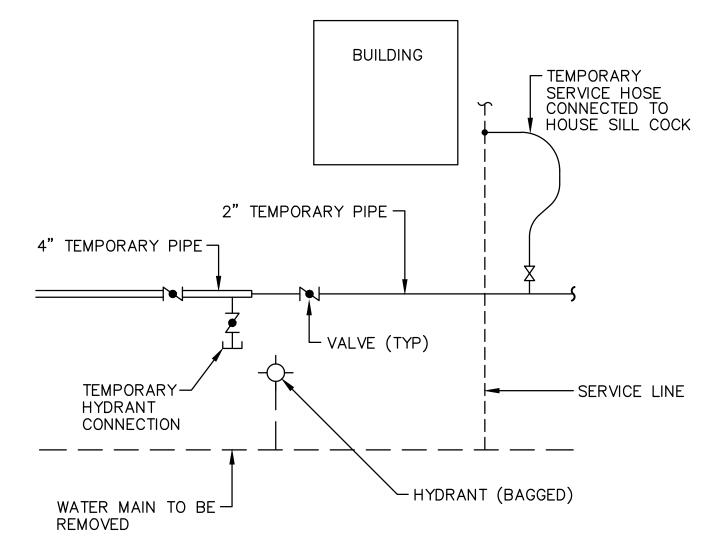
3. FOR PVC PIPE, EPOXY HALF PLUG TO PIPE. FOR DI, VC AND RC PIPE, MORTAR AND BRICK IN PIPE.

## DROP CONNECTION DETAIL N.T.S.

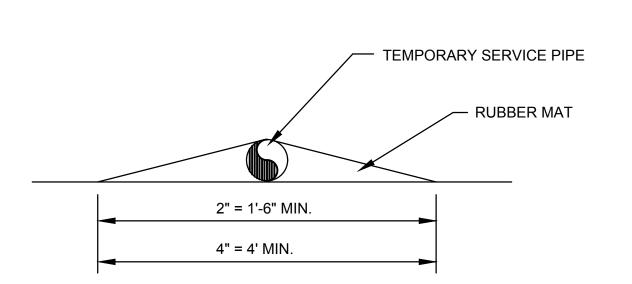


ALL TEMPORARY SERVICE PIPE SHALL BE BURIED AT ALL ROADWAY AND DRIVEWAY CROSSINGS.

> TEMPORARY SERVICE PIPE **ROADWAY CROSSING DETAIL**



TEMPORARY WATER SERVICE DETAIL



2" AND 4" TEMPORARY SERVICE PIPE DRIVEWAY CROSSING DETAIL

CITY OF WORCESTER, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS AND PARKS VARIOUS STREETS SEWER

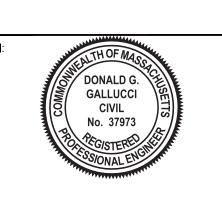
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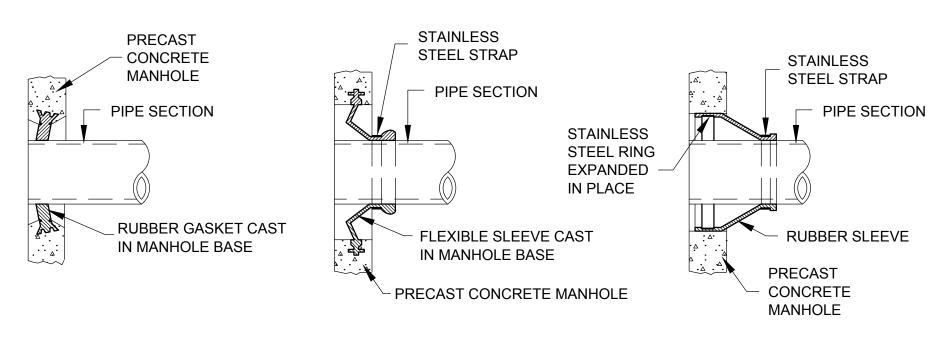
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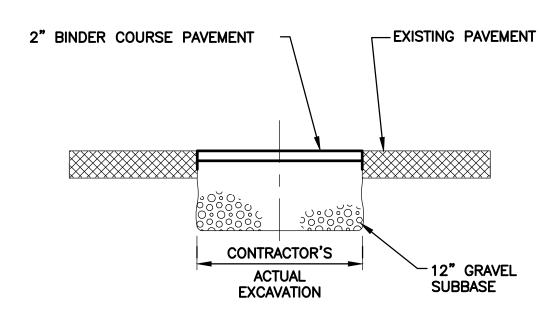
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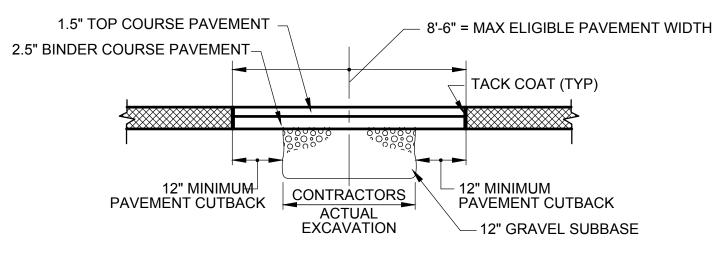
**DETAILS I** 



# MANHOLE SEAL DETAILS



TEMPORARY PAVEMENT DETAIL



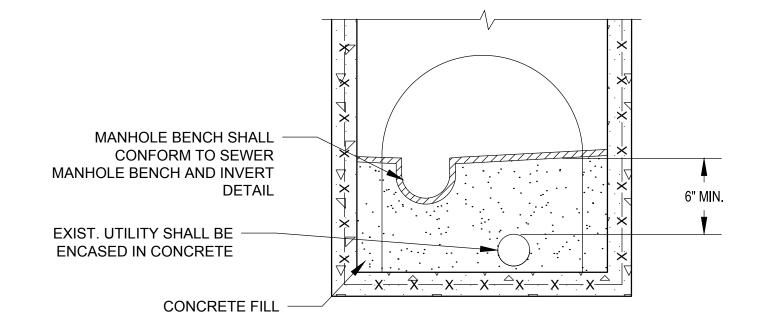
# PERM. TRENCH WIDTH PAVEMENT FULL SECTION

### NOTES:

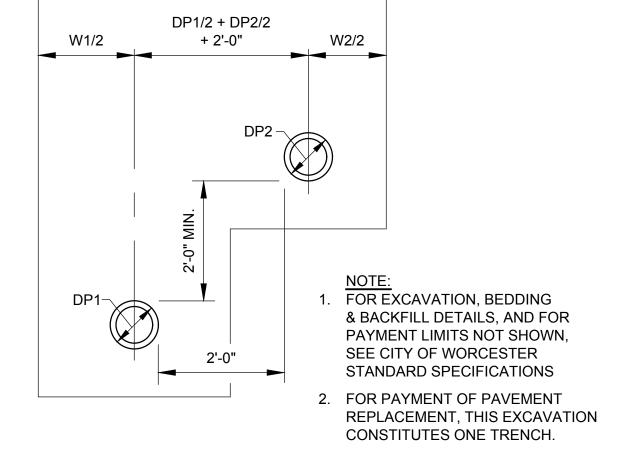
- 1. 2-INCH TEMPORARY TRENCH PATCH SHALL BE INSTALLED AS SOON AS SOON AS PRACTICABLE AFTER INSTALLATION OF INDIVIDUAL PIPELINE SEGMENTS. TEMPORARY TRENCH PAVEMENT SHALL BE MAINTAINED A MINIMUM OF 90-DAYS OR UNTIL THE FOLLOWING YEAR, AT WHICH TIME PERMANENT TRENCH PAVEMENT SHALL BE INSTALLED. PERMANENT TRENCH PAVEMENT SHALL BE INSTALLED ONLY WITH THE APPROVAL OF THE ENGINEER. NO UNPAVED TRENCHES SHALL BE LEFT UNPAVED OVER THE WEEKEND.
- 2. PRIOR TO INSTALLATION OF PERMANENT TRENCH PAVEMENT, THE ROADWAY SHALL BE SAW CUT A MINIMUM OF 12-INCHES BEYOND THE LIMITS OF THE TRENCH WIDTH. AFTER PERMANENT TRENCH PAVEMENT IS INSTALLED, ALL SEAMS SHALL BE TREATED USING HOT POURED RUBBERIZED EMULSIFIED ASPHALT SEALANT.

## PAVEMENT REPLACEMENT DETAILS

N.T.S.



# BENCH AND INVERT OVER EXISTING UTILITY DETAIL N.T.S.



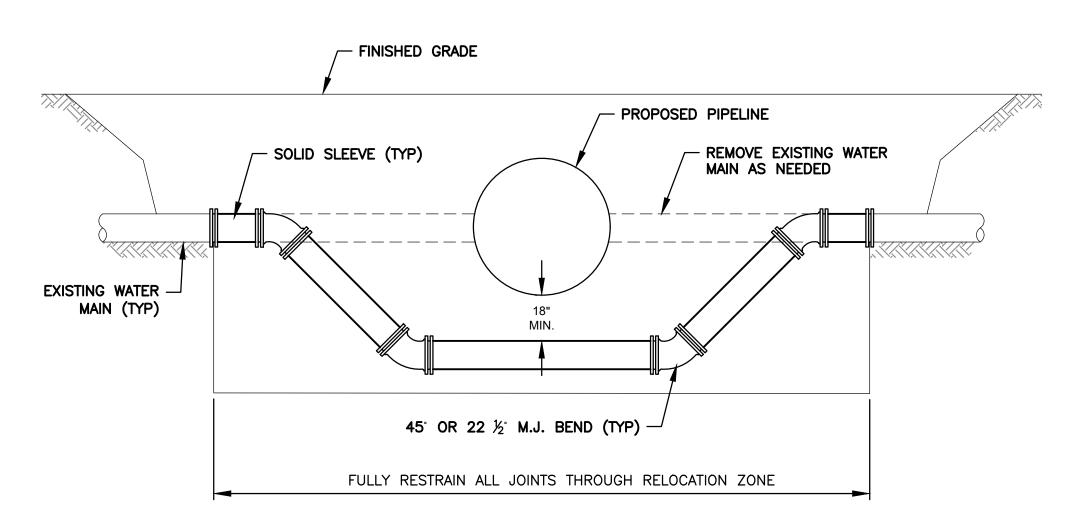
NOTE 2

SEWER AND DRAIN

IN SAME TRENCH

EXCAVATION & PAYMENT LIMITS

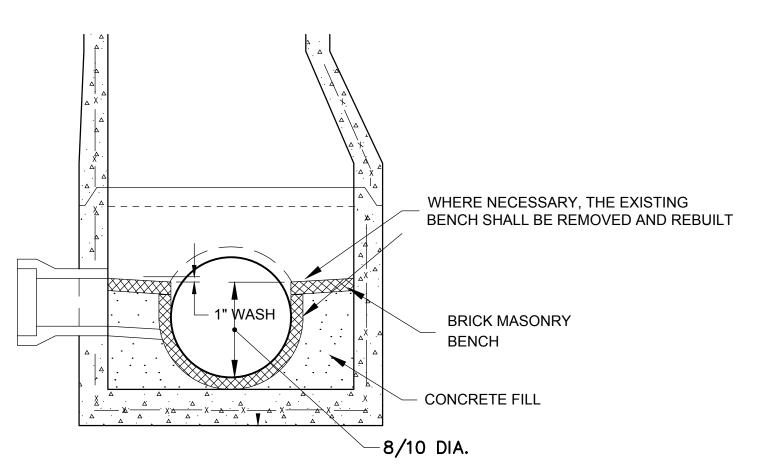
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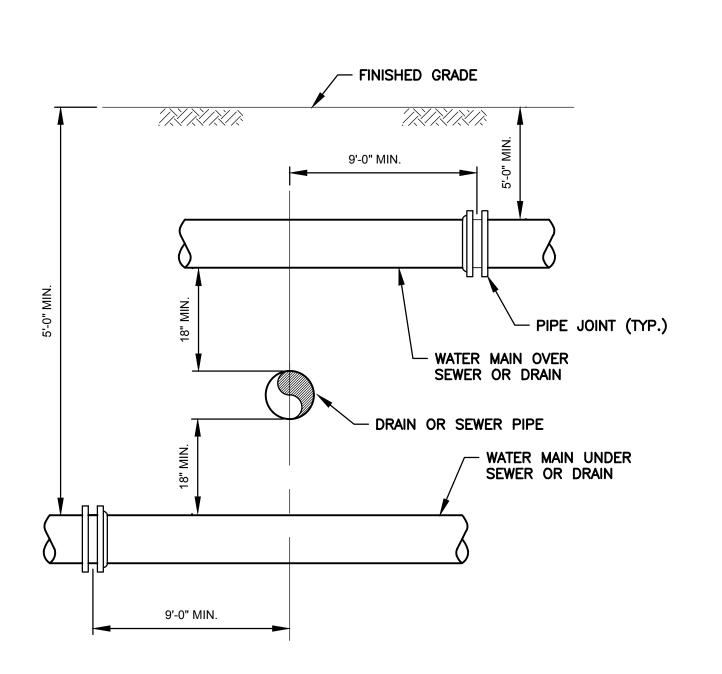
# EXISTING WATER MAIN RELOCATION N.T.S.

# BRICK MASONRY INVERT CONCRETE FILL 5" MIN.

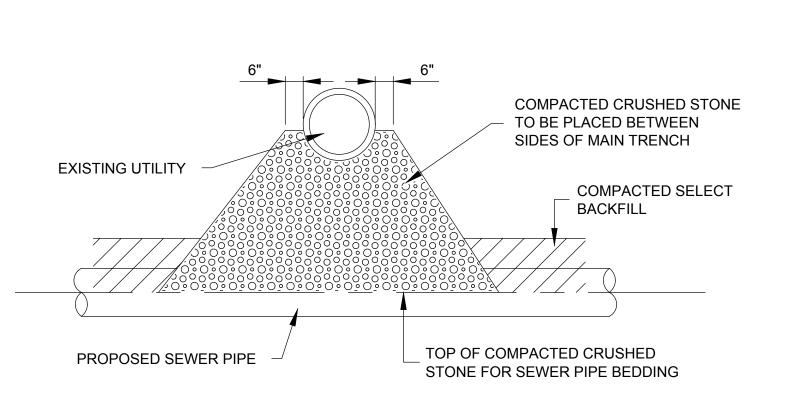
SEWER MANHOLE
BENCH AND INVERT DETAIL
N.T.S.



SEWER MANHOLE BENCH DETAIL



SEWER OR DRAIN CROSSING DETAIL
N.T.S.



UTILITY CROSSING DETAIL

MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
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VARIOUS STREETS SEWER
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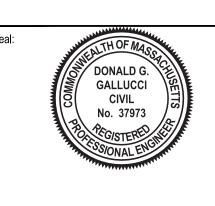
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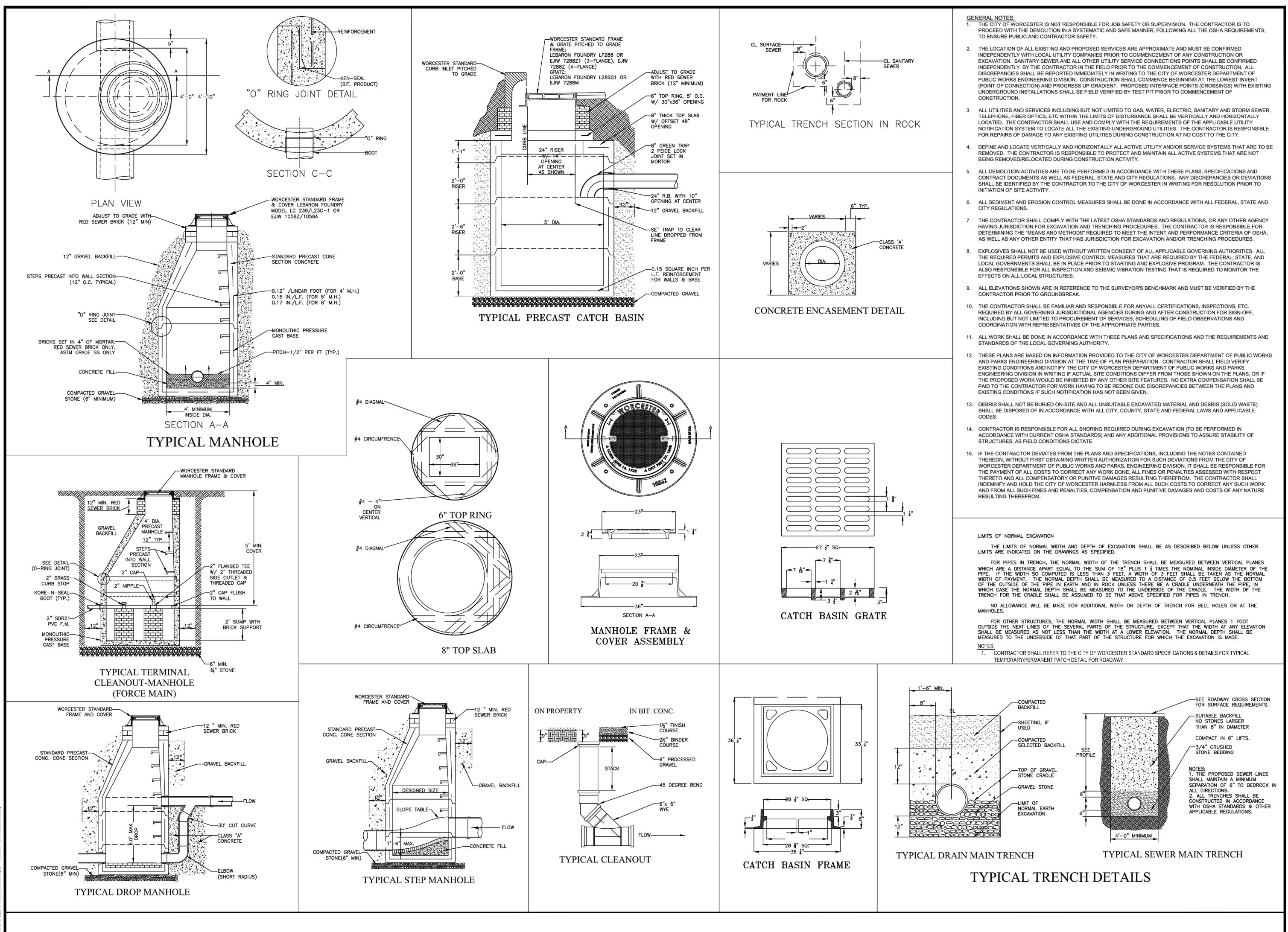
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DETAILS II

C502



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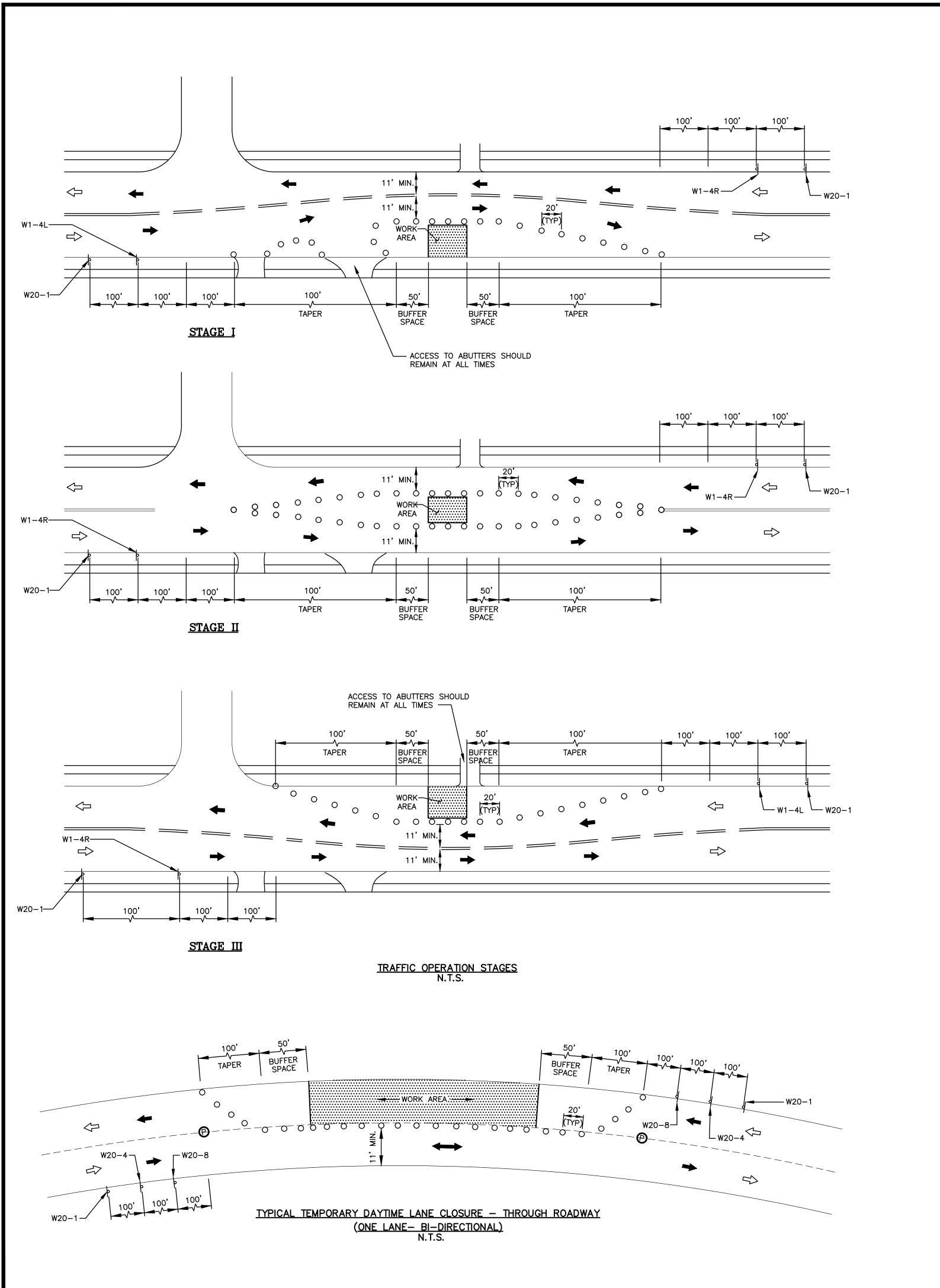
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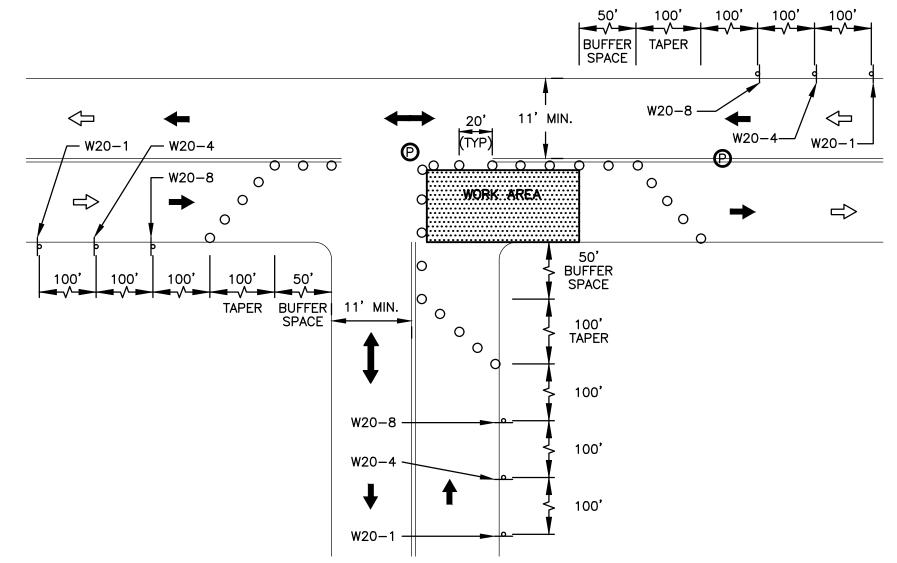
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WORCESTER STANDARD DETAILS

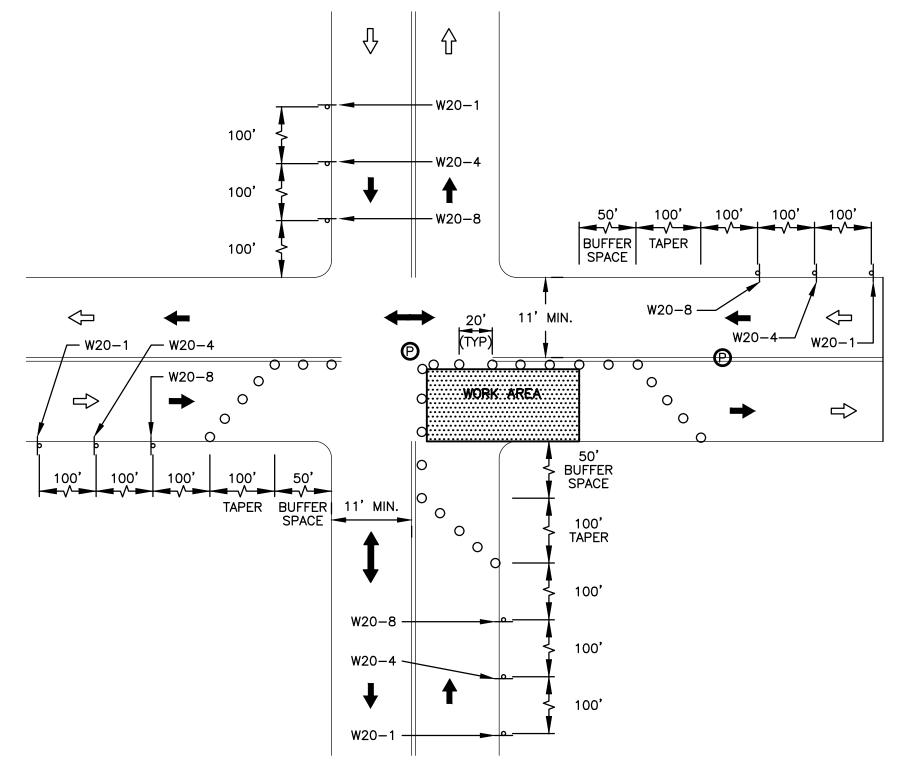
Sheet Number

C503





"T" INTERSECTION LANE CLOSURE



CLOSURE AT SIDE OF INTERSECTION N.T.S.

TEMPORARY TRAFFIC SIGN SUMMARY

	MUTCD CODE	SIZE OF SIGN		SIGN
		WIDTH	HEIGHT	31014
	W1-4L	30"	30"	<b>(</b>
	W1-4R	30"	30 <b>"</b>	
	W20-1	36 <b>"</b>	36"	ROAD WORK AHEAD
	W20-4	36"	36"	ONE LANE ROAD AHEAD
	W20-8	36"	36"	POLICE OFFICER AHEAD
	G20-2	36"	18"	END CONSTRUCTION

#### NOTE:

1. FOR THE LATEST SPECIFICATION ON TEXT DIMENSIONS AND COLOR, CONTRACTOR SHALL REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION).

#### **LEGEND:**

- O REFLECTORIZED DRUM
- ← TRAFFIC FLOW DURING CONSTRUCTION
- ✓ NORMAL TRAFFIC FLOW
- POLICE DETAIL OFFICER
- CONSTRUCTION SIGN
- WORK AREA

#### **GENERAL NOTES:**

- 1. PLACEMENT OF ALL CONSTRUCTION SIGNS, DRUMS, BARRICADES, TRAFFIC DEVICES AND THE SHAPE, SIZE & COLOR OF ALL TEMPORARY TRAFFIC SIGNS SHALL CONFORM WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 2. ADVANCE WARNING SIGN PLACEMENT AND TAPER LENGTH TO BE ADJUSTED ACCORDING TO STREET CONDITIONS AND DRIVEWAY OPENINGS.
- 3. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES.
- 4. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
- 5. NONESSENTIAL TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS.
- 6. PEDESTRIANS SHALL BE PROVIDED WITH ACCESS AND SAFE PASSAGE THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE AT ALL TIMES.
- 7. W20-8 SHALL BE TAKEN DOWN OR COVERED AFTER EACH WORKING DAY OR WHEN OTHERWISE NOT APPLICABLE. OR WHEN POLICE OFFICERS ARE NOT PRESENT TO DIRECT TRAFFIC.
- 8. ADVISORY SPEED PLATES (W13-1 SEE CURRENT EDITION OF MUTCD) SHALL BE USED IF APPLICABLE AND AS REQUIRED BY THE ENGINEER.
- 9. NO DIFFERENCE IN ROADWAY LANE ELEVATION WILL BE ALLOWED AT THE END OF THE WORK DAY.
- 10. SAMPLE TRAFFIC PLANS INCLUDED ON THIS PLAN SHEET ARE BASED ON AN URBAN (LOW SPEED) ROAD TYPE FROM THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 11. DASHED LINES SHOW LANE DESIGNATIONS TO BE USED DURING CONSTRUCTION.
- 12. THE CONTRACTOR SHALL SUBMIT ANY REVISIONS TO THE CONSTRUCTION ZONE SAFETY PLAN TO THE ENGINEER FOR APPROVAL.
- 13. THIS CONSTRUCTION ZONE SAFETY PLAN SHALL NOT RELIEVE THE CONTRACTOR OF HIS SOLE RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.

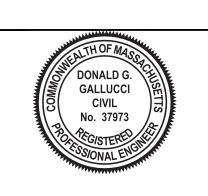
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CONSTRUCTION ZONE

SAFETY PLAN