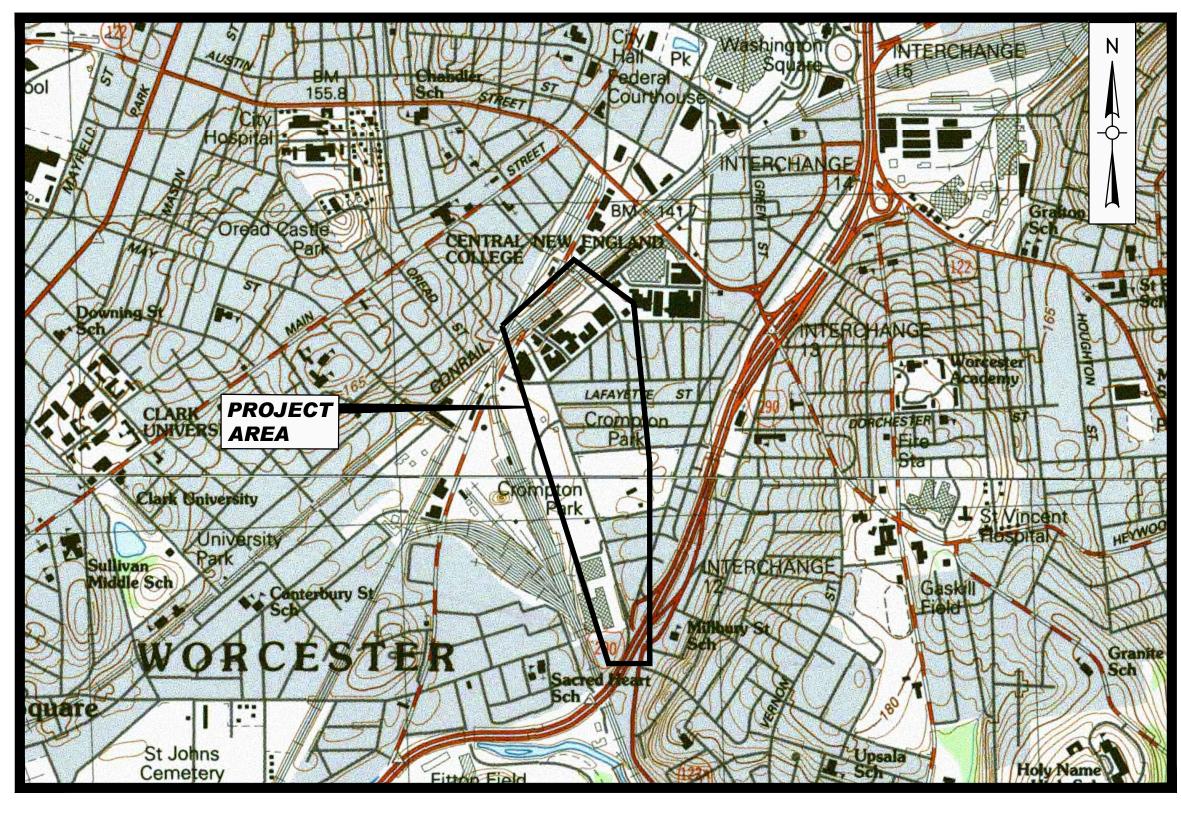
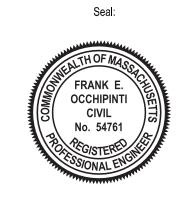
## CITY OF WORCESTER, MASSACHUSETTS

# DEPARTMENT OF PUBLIC WORKS & PARKS WESTERN INTERCEPTOR (QUINSIGAMOND AVE) SEWER REHABILITATION PROJECT



	DRAWING INDEX
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C101	PLANS AND TABLES
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C502	WORCESTER STANDARD CONSTRUCTION DETAILS
C503	CONSTRUCTION ZONE SAFETY PLAN



Weston & Sampson

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427 Main Street, Suite 400
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Issued Date

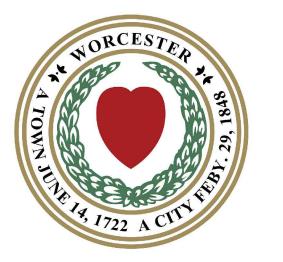
**JUNE 2025** 



RELEASED FOR CONSTRUCTION

LOCUS MAP SCALE: 1"=1,000'

> CONTRACT NO. S25-3 BID # 8454-M6



ERIC D. BATISTA, CITY MANAGER
JOHN WESTERLING, COMMISSIONER OF PUBLIC WORKS AND PARKS

EADING, MA | BOSTON, MA | FOXBOROUGH, MA | WORCESTER, MA | WILMINGTON, MA | CATAUMET, MA | CHATHAM, MA | SOUTH YARMOUTH, MA | PORTSMOUTH, NH | MANCHESTER, NH | RAYMOND, NH | WATERBURY, VT | ROCKY HILL, CT | ALBANY, NY | MOUNT KISCO, NY | PHILADELPHIA, PA | McLEAN, VA | NORTH CHARLESTON, SC | COLUMBIA, SC | GREENVILLE, SC | FORT MYERS, FOR THE STANDARD AND AND ADDRESS OF THE STANDARD AND ADDR

	LEGEND	
DESCRIPTION	EXISTING	PROPOSED REHABILITATIONS
SANITARY/COMBINED SEWER		$\circ$
SANITARY/COMBINED SEWER MANHOLE	SS01234 (	SS01234 <b>A</b>
SURFACE DRAIN		
COMBINED SEWER OVERFLOW COLLECTOR		
SANITARY/SURFACE/COMBINED SEWER MANHOLE OUTSIDE PROJECT AREA	0	
CATCH BASIN		
BUILDING		
RAILROAD	<del></del>	
HOUSE NUMBER	#35	

#### **CONSTRUCTION NOTES:**

- 1. THE CONTRACTOR SHALL CALL DIG SAFE AT 811 OR 1-888-344-7233 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. 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.
- 4. ALL PAVEMENT DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.
- 5. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND PAYMENT LIMITS SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
- 6. THE CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS, SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES OR WITHIN 100 FEET OF WETLANDS.
- 7. 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 OWNER.
- 8. EXCAVATION SHALL BE COMPLETED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND PERMIT REQUIREMENTS.
- 9. EXISTING UTILITY INFORMATION WAS TAKEN FROM CITY RECORD DRAWINGS. THE CONTRACTOR SHALL VISIT THE PREMISES TO FAMILIARIZE THEMSELF THOROUGHLY WITH ALL THE DETAILS OF THE WORK AND OF WORKING CONDITIONS, TO VERIFY ALL DIMENSIONS IN THE FIELD, AND TO ADVISE THE ENGINEER IN WRITING OF ANY DISCREPANCY BEFORE PERFORMING ANY WORK. THE CONTRACTOR SHALL CONSULT OFFICIAL RECORDS OF EXISTING UTILITIES, BOTH SURFACE AND SUBSURFACE, AND THEIR CONNECTIONS, AND SHALL FULLY INFORM ITSELF OF ALL EXISTING CONDITIONS AND LIMITATIONS AS THEY APPLY TO THE WORK.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF SEWER SERVICES AS NECESSARY TO PERFORM THE WORK.
- 11. THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC TO ALL STREETS THROUGHOUT THE DURATION OF THE PROJECT.
- 12. 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.
- 13. CONTRACTOR SHALL MAINTAIN EXISTING FLOWS IN THE SYSTEM, BYPASSING AS NECESSARY TO PREVENT SURCHARGING, PER SECTION 01535 TEMPORARY BYPASS PUMPING SYSTEM AND SECTION 01575 HANDLING EXISTING FLOWS.
- 14. PLANS ONLY ILLUSTRATE APPROXIMATE LOCATIONS OF MANHOLES AND PIPE SEGMENTS. REFER TO THE TABLES ON EACH SHEET FOR THE APPROXIMATE LENGTH OF EACH PIPE SEGMENT AND THE APPROXIMATE STATION NUMBER OF REHABILITATIONS. SEE TELEVISION INSPECTION LOGS, WHICH ARE PROVIDED IN THE APPENDIX OF THE SPECIFICATIONS, FOR MORE INFORMATION. THE LOCATIONS OF MANHOLES AND PIPE SEGMENTS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
- 15. IN SITUATIONS WHERE WORK IS LOCATED OFF A PUBLIC STREET, THE 'STREET/LOCATION' FIELD OF THE TABLE INDICATES THE CLOSEST STREET.
- 16. MANHOLES AND LINE SEGMENTS WITH WORK TO BE PERFORMED ARE INDICATED ON PLANS ACCORDING TO LEGEND. WHERE THERE IS A DISCREPANCY BETWEEN THE PLANS AND THE WORK TABLES, THE WORK TABLES SHALL CONTROL.
- 17. NO CONSTRUCTION WORK SHALL BE ALLOWED ON SATURDAYS, SUNDAYS, OR HOLIDAYS WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER AND APPROVAL FROM THE ENGINEER.
- 18. 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 WITH NOTIFICATION TO THE ENGINEER AND OWNER. NO NEW WORK SHALL BE STARTED AFTER 4:00 PM UNLESS AUTHORIZED BY THE OWNER AND APPROVED BY THE ENGINEER IN ADVANCE.
- 19. GEOPOLYMER LINING OF MANHOLES SHALL BE COMPLETED FOLLOWING THE INSTALLATION OF GEOPOLYMER LINING OF SEWERS.
- 20. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH TWO WEEKS NOTICE PRIOR TO GEOPOLYMER LINING INSTALLATION. THE CONTRACTOR SHALL NOTIFY HOMEOWNERS AND BUSINESSES IN ADVANCE PER SPECIFICATION SECTION 02431 GEOPOLYMER LINING OF SEWERS.
- 21. SHOULD THE CONTRACTOR DETERMINE THAT DUE TO WEATHER OR CONDITIONS BEYOND THEIR CONTROL WORK WOULD NEED TO BE CANCELED, THE CONTRACTOR SHALL PROVIDE THE TRAFFIC CONTROL OFFICER AND ENGINEER A MINIMUM OF 4-HOUR NOTICE. IF THE 4-HOUR CANCELLATION NOTICE IS NOT PROVIDED THE CONTRACTOR SHALL PAY FOR POLICE DETAIL TIME AT THE PREVAILING RATE ESTABLISHED BY THE WORCESTER POLICE DEPARTMENT.
- 22. SILT SACKS SHALL BE INSTALLED IN ALL CATCH BASINS LOCATED WITHIN 300 FEET DOWNGRADIENT OF WORK AREAS REQUIRING TRENCH CONSTRUCTION. SILT SACKS SHALL BE INSTALLED IN ACCORDANCE WITH SPEC SECTION 01570 ENVIRONMENTAL PROTECTION.

#### **ABBREVIATIONS**

APPROXIMATE AVENUE BLDG. BUILDING BRK BRICK CENTERLINE CONCRETE (NON-REINFORCED) CONTROLLED DENSITY FILL

DIAMETER

DIAMETER OF PIPE DEPARTMENT OF PUBLIC WORKS AND PARKS DPW&P

EXISTING FOOT/FEET

NTS

LENGTH LINEAR FEET LANE MANHOLE MINIMUM NOT APPLICABLE

INCH

PARKWAY PKWY PROP PROPOSED PUMP STATION

NUMBER

NOT TO SCALE

POLYVINYL CHLORIDE REINFORCED CONCRETE PIPE RCP REQUIRED

SPEC SPECIFICATIONS STA STATION SERVICE CONNECTION

TEMPORARY TYPICAL VERTICAL FEET

CITY OF WORCESTER. MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS AND PARKS



WESTERN INTERCEPTOR (QUINSIGAMOND AVE) SEWER REHABILITATION PROJECT



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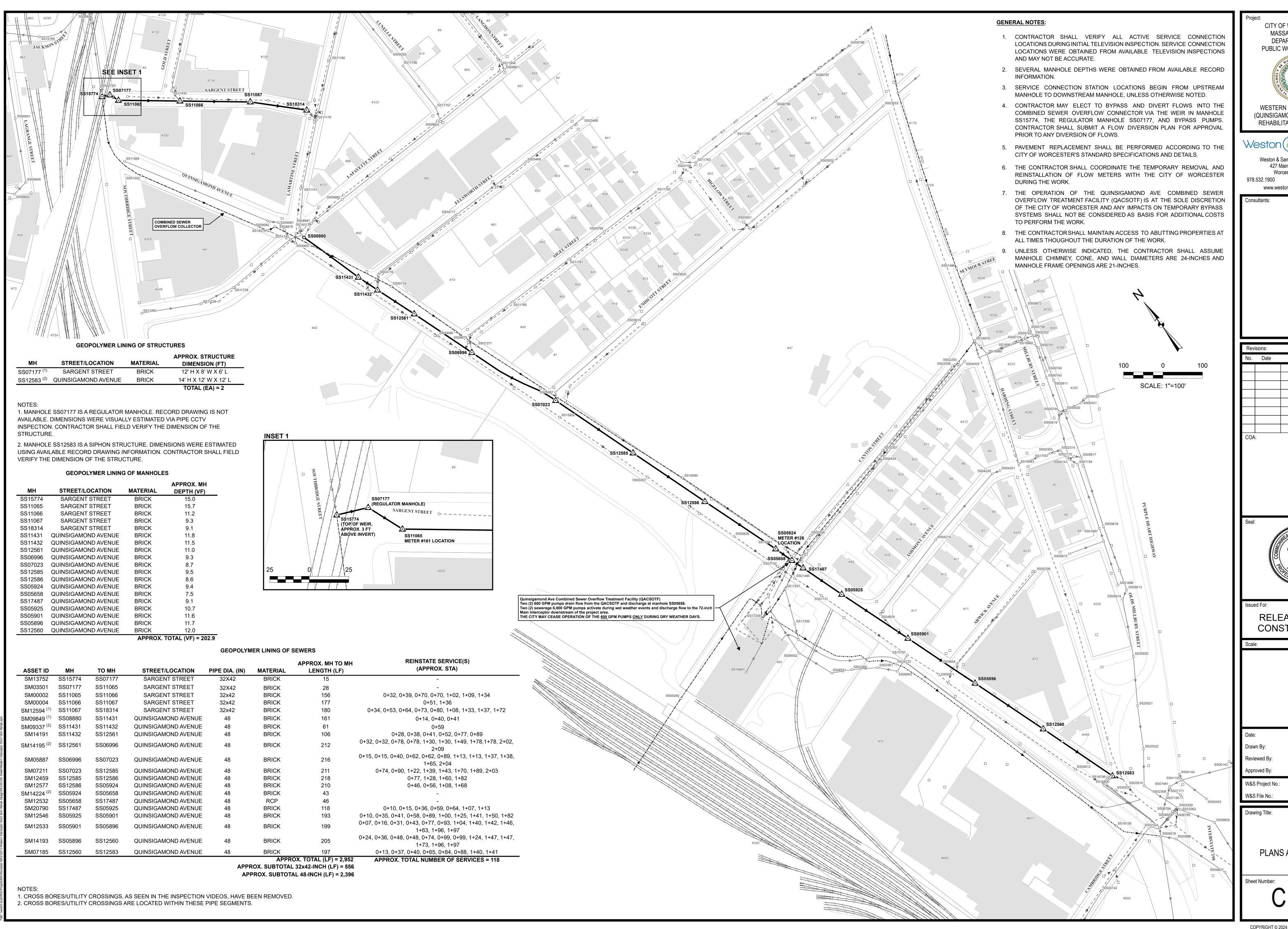
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NO SCALE

Date:	JUNE 2025
Drawn By:	LSD
Reviewed By:	KDK
Approved By:	FFO

ABBREVIATIONS, NOTES, AND LEGEND

W&S Project No.: ENG23-3212



CITY OF WORCESTER, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS & PARKS



WESTERN INTERCEPTOR (QUINSIGAMOND AVE) SEWER REHABILITATION PROJECT

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Description



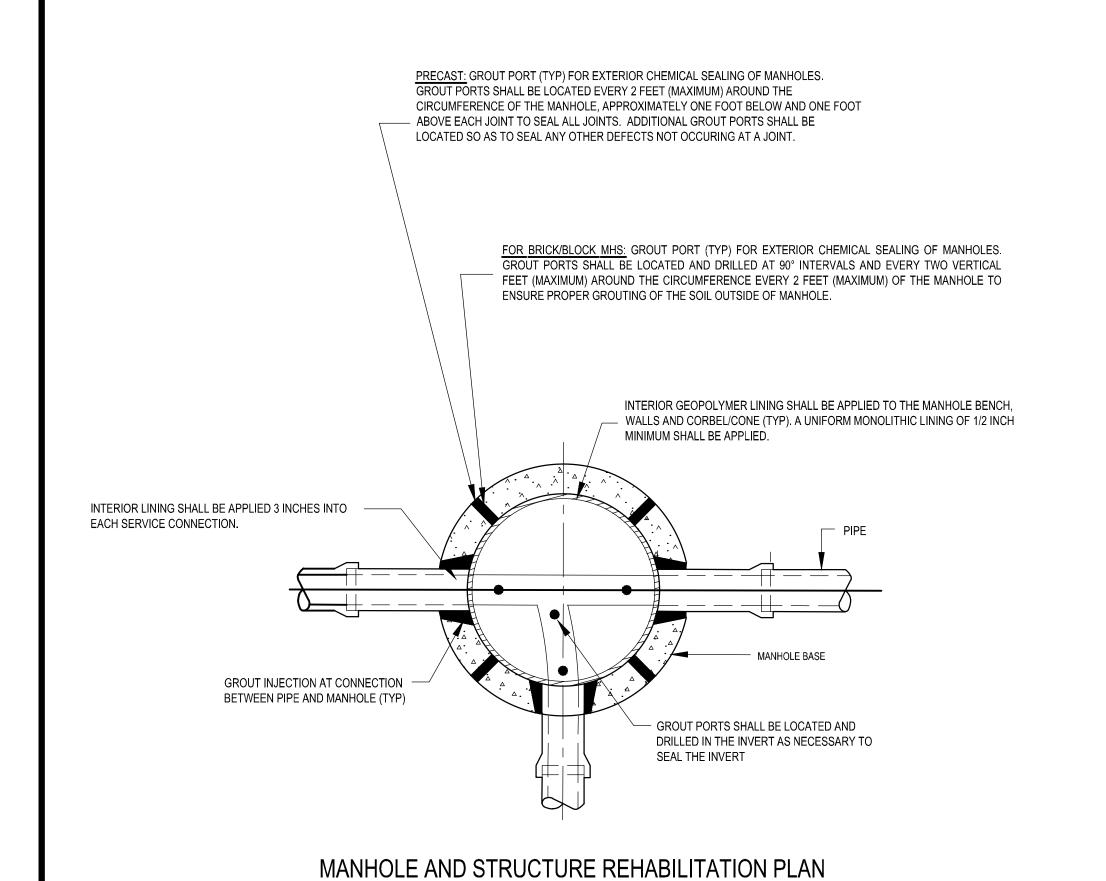
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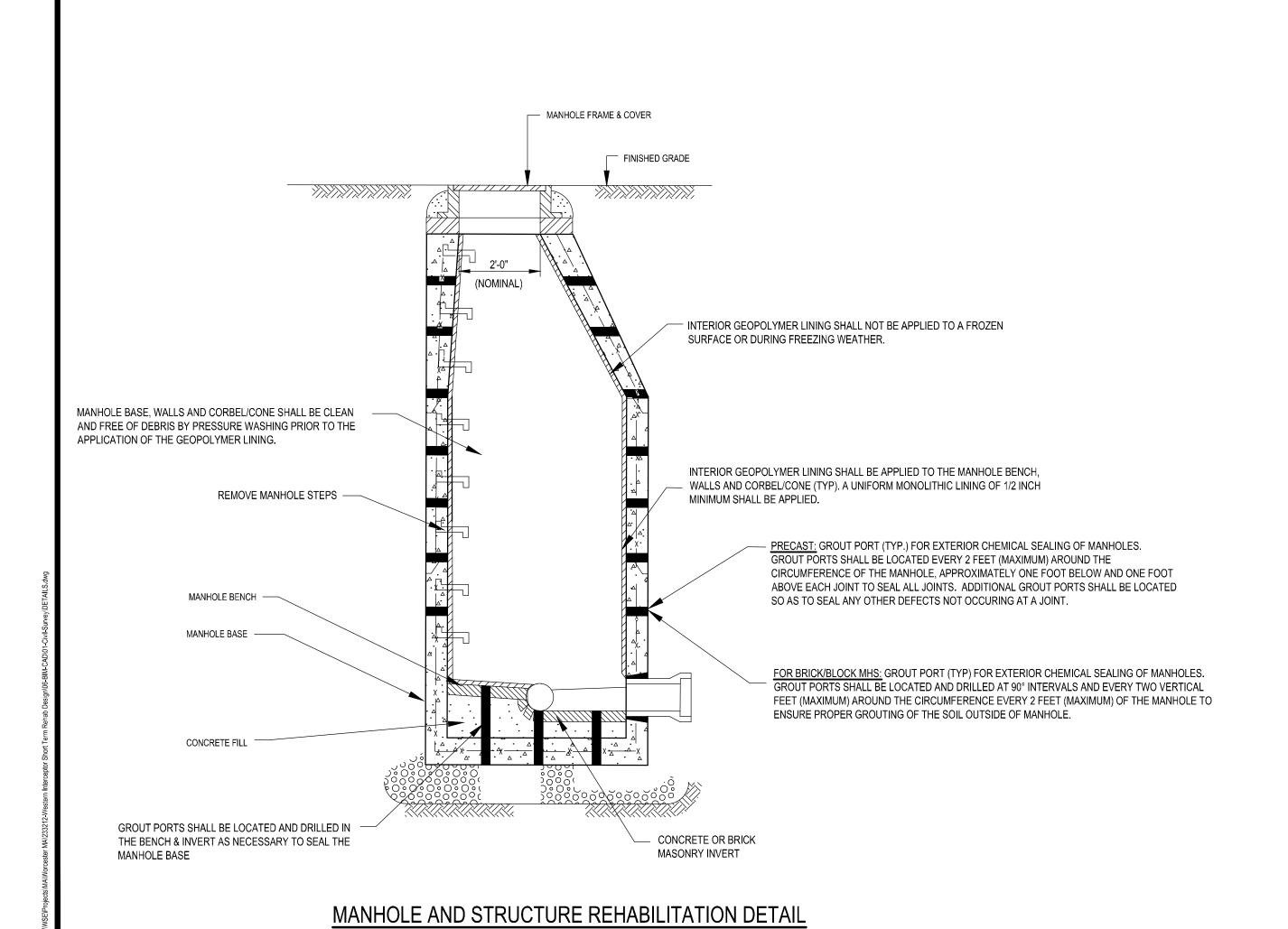
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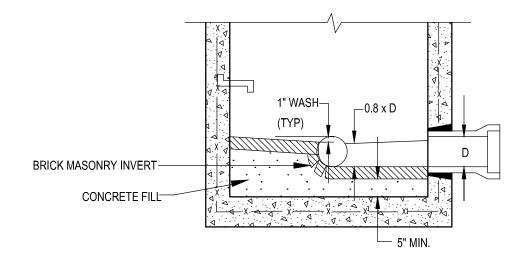
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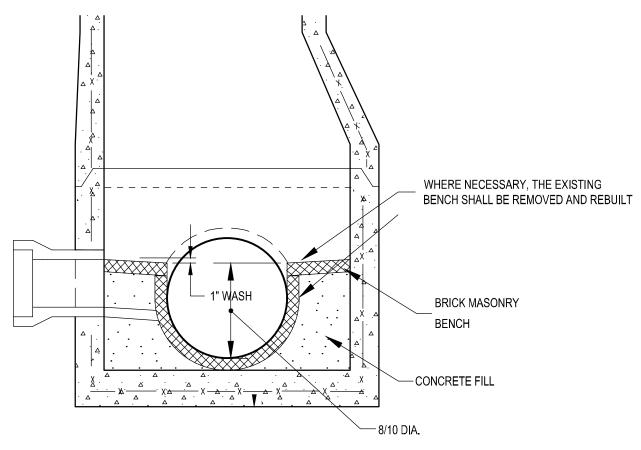
PLANS AND TABLES



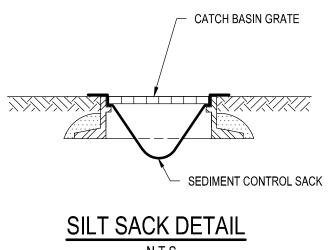


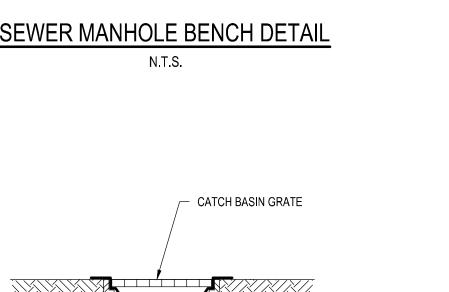


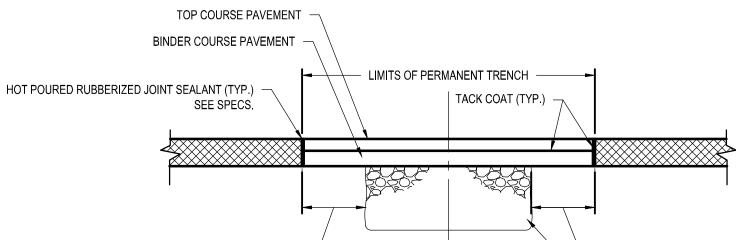
#### **SEWER MANHOLE** BENCH AND INVERT DETAIL N.T.S.



SEWER MANHOLE BENCH DETAIL



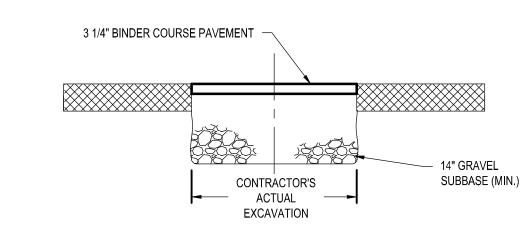




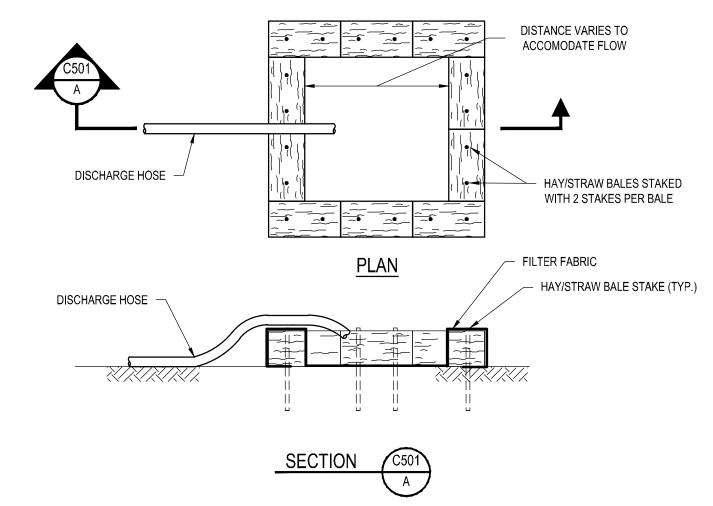
## CONTRACTOR'S 12" MIN PAVEMENT CUTBACK 12" MIN PAVEMENT CUTBACK → ACTUAL - 12" GRAVEL SUBBASE (MIN.)

- 1. 31/4-INCH TEMPORARY TRENCH PATCH SHALL BE INSTALLED AS SOON AS SOON AS PRACTICABLE AFTER INSTALLATION OF INDIVIDUAL PIPELINE SEGMENTS. PERMANENT TRENCH PAVEMENT SHALL BE INSTALLED NOT LESS THAN 90 DAYS BUT NOT MORE THAN 120 DAYS FROM THE DATE OF TEMPORARY PATCH. SEE WORCESTER STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS FOR THE SCHEDULE FOR PERMANENT PATCHING TRENCHES. PERMANENT TRENCH PAVEMENT SHALL BE INSTALLED ONLY WITH THE APPROVAL OF THE OWNER/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.
- 3. PERMANENT PATCH FOR ROADS HAVING A PAVING BLOCK OR CONCRETE BASE SHALL INCLUDE A LAYER OF CONCRETE EQUAL TO THE DEPTH OF THE EXISTING CONCRETE OR PAVING BLOCK. IN SUCH CASES THE DEPTH OF THE GRAVEL BACKFILL SHALL NOT BE LESS THAN 12-INCHES.
- 4. WHERE EXISTING PAVEMENT THICKNESS IS GREATER THAN THAT INDICATED ON THE CHART, THE CONTRACTOR SHALL MATCH EXIST PAVEMENT OR AS DIRECTED BY THE OWNER/ENGINEER. HOWEVER, THE BINDER WILL BE PLACED IN COURSES NOT EXCEEDING 2.5-INCHES. MULTIPLE BINDER COURSES WILL BE LAID IF THE EXIST THICKNESS CONDITIONS WARRANT.

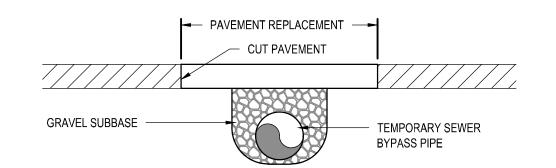
### PERMANENT TRENCH PAVEMENT REPLACEMENT DETAIL



## TEMPORARY PAVEMENT DETAIL



## DEWATERING DISCHARGE DISPOSAL DETAIL



TEMPORARY SEWER BYPASS PIPE ROAD AND DRIVEWAY CROSSING DETAIL

BITUMINOUS CONCRETE PAVEMENT COURSE THICKNESS CHART				
ROADWAY	BINDER COURSE	TOP COURSE		
ROADWAY UP TO 12% GRADE	2"	1.5" OR AS DIRECTED		
ROADWAY FROM 12% TO 16% GRADE	2.25"	2" OR AS DIRECTED		
ROADWAY 16% AND OVER	2.75"	2" OR AS DIRECTED		
DRIVEWAY	1.5"	1"		
OIDEMALK		411		

Drawn By: Reviewed By:

W&S File No.:

Approved By:

CONSTRUCTION **DETAILS I** 

W&S Project No.: ENG23-3212

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JUNE 2025

LSD

KDK

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CITY OF WORCESTER, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS AND PARKS

WESTERN INTERCEPTOR

(QUINSIGAMOND AVE) SEWER

REHABILITATION PROJECT

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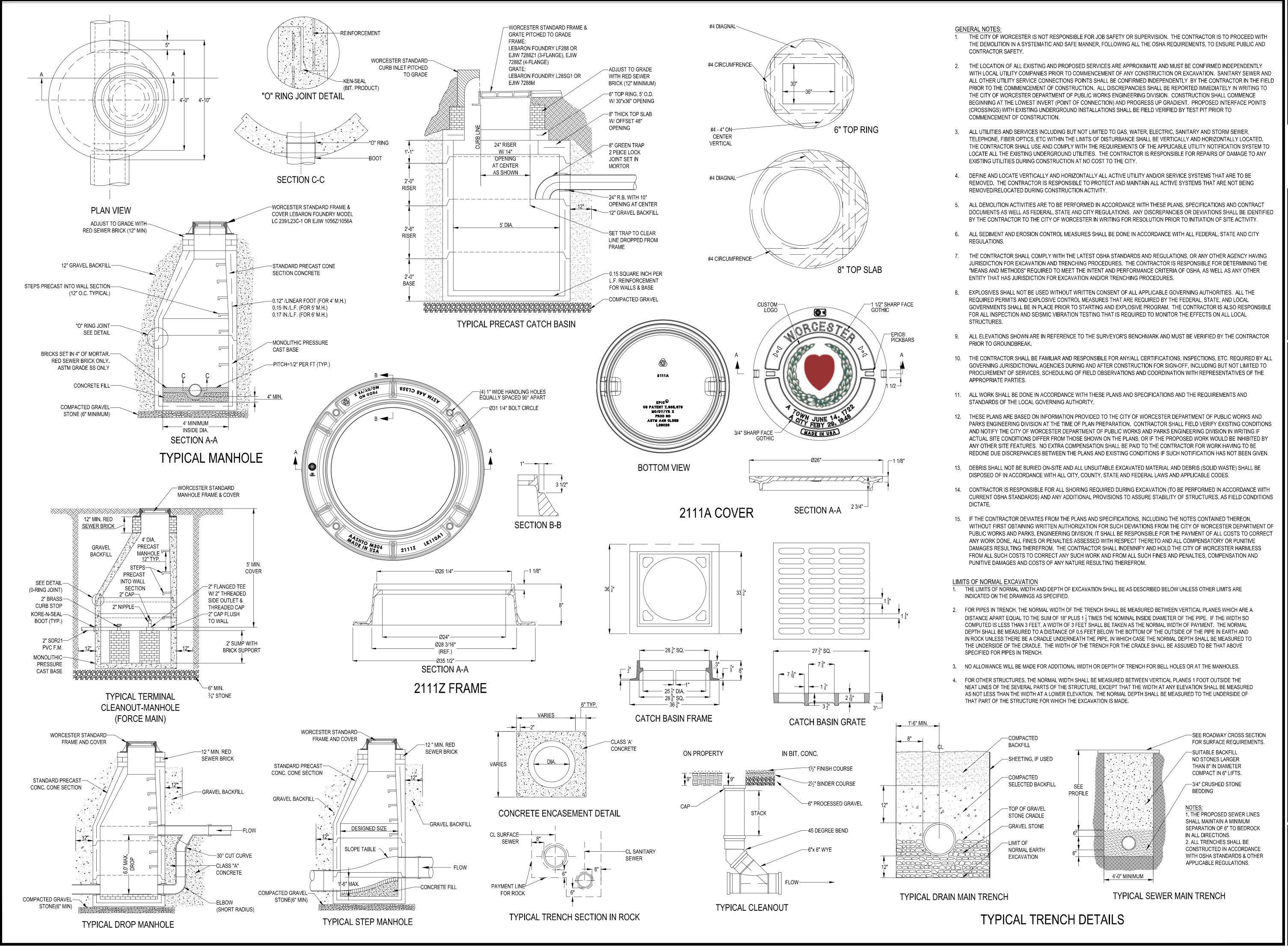
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MASSACHUSETTS
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Date: JUNE 2025

Drawn By: LSD

Reviewed By: KDK

Approved By: FEO

W&S Project No.: ENG23-3212

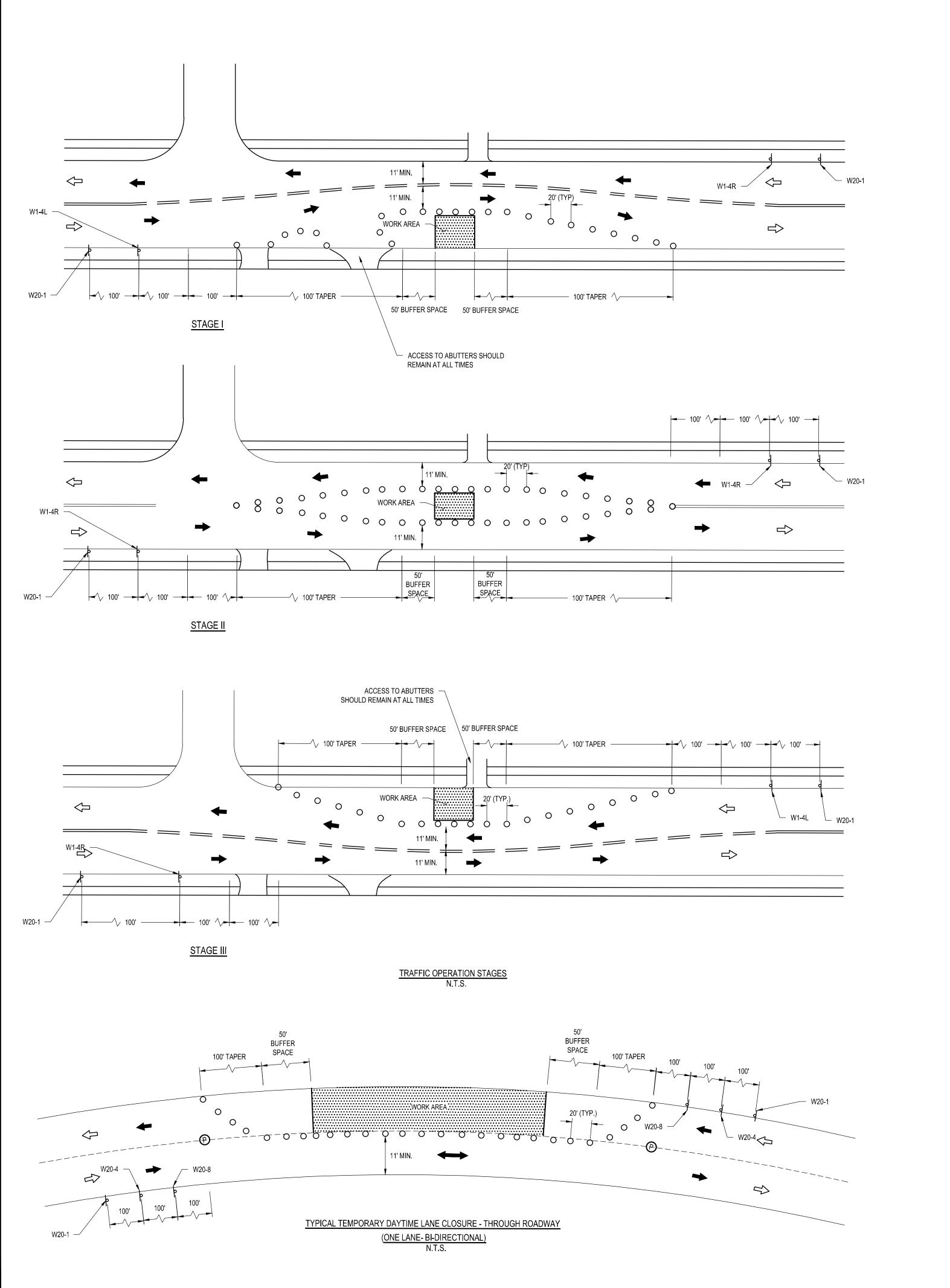
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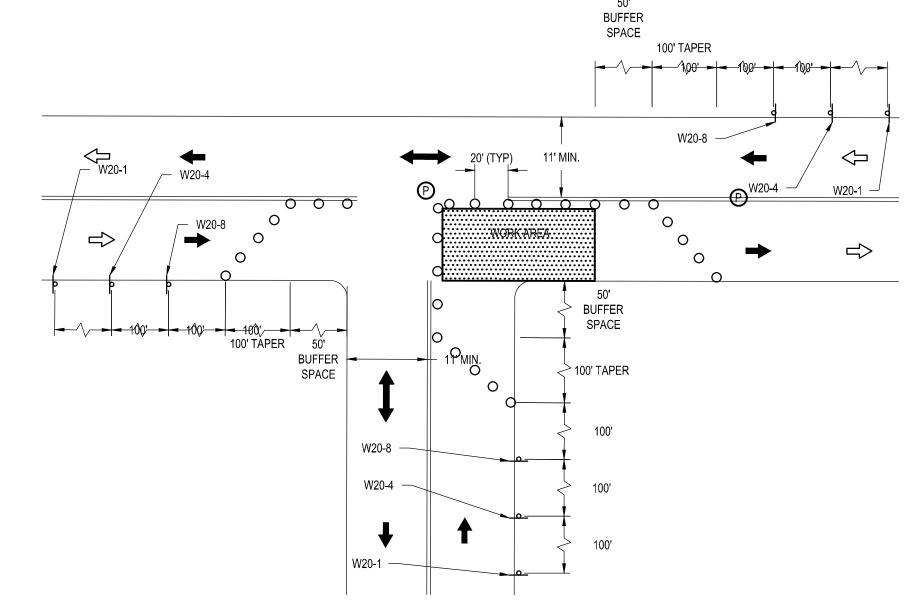
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CONSTRUCTION
DETAILS

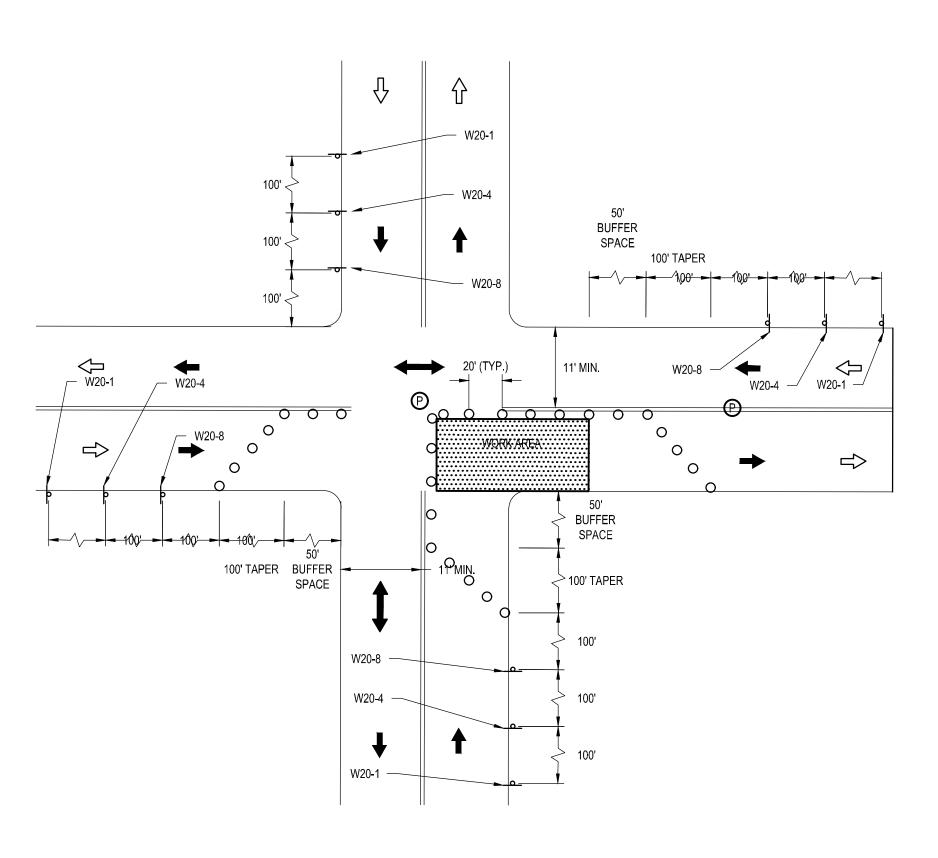
Sheet Number

C502





"T" INTERSECTION LANE CLOSURE



CLOSURE AT SIDE OF INTERSECTION

TEMPORARY TRAFFIC SIGN SUMMARY

		<b>O</b> 1 <b>U</b> 11 1 1		101100111111111111111111111111111111111
	MUTCD CODE	SIZE OF SIGN		SIGN
		WIDTH	HEIGHT	
	W1-4L	30"	30"	<b>\$</b>
	W1-4R	30"	30"	
	W20-1	36"	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

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

◆ TRAFFIC FLOW DURING CONSTRUCTION

✓ NORMAL TRAFFIC FLOW

#### **GENERAL NOTES:**

- 1. PLACEMENT OF ALL CONSTRUCTION SIGNS, DRUMS, BARRICADES, TRAFFIC DEVICES AND THE SHAPE, SIZE, AND COLOR OF ALL TEMPORARY TRAFFIC SIGNS SHALL CONFORM WITH
- 2. ADVANCE WARNING SIGN PLACEMENT AND TAPER LENGTH TO BE ADJUSTED ACCORDING
- 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
- NONESSENTIAL TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING
- 6. PEDESTRIANS SHALL BE PROVIDED WITH ACCESS AND SAFE PASSAGE THROUGH THE
- 7. W20-8 SHALL BE TAKEN DOWN OR COVERED AFTER EACH WORKING DAY OR WHEN
- 8. ADVISORY SPEED PLATES (W13-1 SEE CURRENT EDITION OF MUTCD) SHALL BE USED IF
- 9. NO DIFFERENCE IN ROADWAY LANE ELEVATION WILL BE ALLOWED AT THE END OF THE
- 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
- 12. THE CONTRACTOR SHALL SUBMIT ANY REVISIONS TO THE CONSTRUCTION ZONE SAFETY
- 13. THIS CONSTRUCTION ZONE SAFETY PLAN SHALL NOT RELIEVE THE CONTRACTOR OF ITS SOLE RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.

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CITY OF WORCESTER, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS AND PARKS

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#### LEGEND:

O REFLECTORIZED DRUM

POLICE DETAIL OFFICER

CONSTRUCTION SIGN

WORK AREA

- THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 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.
- AS EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
- NON-WORKING HOURS.
- TEMPORARY TRAFFIC CONTROL ZONE AT ALL TIMES.
- OTHERWISE NOT APPLICABLE, OR WHEN POLICE OFFICERS ARE NOT PRESENT TO DIRECT
- APPLICABLE AND AS REQUIRED BY THE ENGINEER.
- CONTROL DEVICES.
- 11. DASHED LINES SHOW LANE DESIGNATIONS TO BE USED DURING CONSTRUCTION.
- PLAN TO THE ENGINEER FOR APPROVAL.

Date:	JUNE 2025
Drawn By:	LSD
Reviewed By:	KDK
Approved By:	FEO
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CONSTRUCTION **ZONE SAFETY PLAN**