2022 SEWER & DRAIN IMPROVEMENTS CONTRACT NO.



MAYOR SHAUNNA O'CONNELL

CITY ENGINEER MICHAEL PATNEAUDE

DEPARTMENT OF PUBLIC WORKS FREDERIC J. CORNAGLIA, COMMISSIONER ANTHONY ABREAU, COMMISSIONER

> CITY COUNCIL DEBORAH CARR DONALD L. CLEARY CHRIS COUTE GERALD A. CROTEAU PHILLIP DUARTE JOHN M. McCAUL JEFF POSTELL DAVID W. POTTIER BARRY SANDERS

CITY OF TAUNTON, MASSACHUSETTS **BRISTOL COUNTY, MA**

October 2021



SEWER SYSTEM SUB-AREAS MAP NOT TO SCALE

PREPARED BY:



ISSUE DATE: 10/15/2021

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ISSUED FOR SRF REVIEW NOT FOR CONSTRUCTION

DATE

LEGEND

GENERAL SYMBOLS

EXISTING

PROPOSED

GENERAL

TYP.

TYPICAL

			ABAN.	ABANDON	ACCMP
		CURB OR BERM (TYPE AS NOTED)	ADJ.	ADJUST	BH-#
EOP		EDGE OF PAVEMENT	APPROX.	APPROXIMATE	CB
		CATCH BASIN (OR GUTTER INLET)	₿	BASELINE	CBCI
			BM	BENCH MARK	CIP
		DRAIN MANHOLE	BIT.	BITUMINOUS	CIT
\bigcirc		BRADLEY HEAD CATCH BASIN	B.B.	BITUMINOUS BERM	CL.
6	6	SEWER MANHOLE	B.C.	BITUMINOUS CURB	COND.
WG			B.O.B.	BOTTOM OF BORING	CAP
cs			BOS	BOTTOM OF SLOPE	CMP
0		CURB STOP	BOW	BOTTOM OF WALL	СРР
GG		GAS VALVE	BD OK BND	BOUND	CSP
HYD		HYDRANT	BLDG.		
UP			۳ CLE	CHAIN LINK FENCE	
			CONC.	CONCRETE	DMH
<u> </u>		SIGN	C.C.	CONCRETE CURB	EL. (OR ELEV.)
\diamond		TREE	DWY.	DRIVEWAY	FM
D D		DRAIN PIPE (SIZE AS NOTED)	E.P., E.O.P.	EDGE OF PAVEMENT	F&C
		SEWED MAIN (SIZE AS NOTED)	EL.	ELEVATION	F&G
	6	SEWER MAIN (SIZE AS NOTED)	EXIST. OR EX.	EXISTING	F&I
		SEWER SERVICE	GAR.	GARAGE	GIP
——————————————————————————————————————		ELECTRIC DUCT	GRAN.	GRANITE	GG
G		GAS MAIN (SIZE AS NOTED)	G.C.	GRANITE CURB	GI
W		WATER MAIN	G.E.	GRANITE EDGING	
			GRAV.		INV
ŤŤ		TELEPHONE DUCT	HOR	HORIZONTAL	LP
EOH		OVERHEAD WIRES	НМА	HOT MIX ASPHALT	MH
x x		CHAIN LINKED FENCE	IP	IRON PIPE	PVC
		PROPERTY LINE	LP	LOW POINT	PWW
			MB	MAIL BOX	R&D
uuuu	2+00	SHRUB	MHB	MASSACHUSETTS HIGHWA	AY BOUND RCP
—		CONSTRUCTION BASELINE	MAX.	MAXIMUM	SMH
15		CONTOUR MAJOR	MIN.	MINIMUM	SD
1 4		CONTOUR MINOR	N.T.S.	NOT TO SCALE	TSV&B
			PVMT.	PAVEMENT	IS TOO
	— — — FCB — — — FCB — —	STRAW WATTLE	PEB	PERMANENT EASEMENT	BOUNDARY ISC
			P UK PRUP. LINE	PROPERTY LINE	
			PRUP.	PRUPUSED	VCF, VC
			RCD	REMOVE & DISPUSE	WG
					WIP
			REMOD.	RETAINING	••••
			ROW	RIGHT-OF-WAY	
			S.H.L.	STATE HIGHWAY LAYOUT	LINE
			TBD	TO BE DETERMINED	
			TOS	TOP OF SLOPE	
			TOW	TOP OF WALL	

GENERAL CIVIL NOTES

ABBREVIATIONS

UTILITIES

ASPHALT COATED CORRUGATED METAL PIPE

BRADLEY HEAD STYLE DRAIN STRUCTURE
CATCH BASIN
CATCH BASIN WITH CURB INLET
CAST IRON PIPE
CHANGE IN TYPE
CLASS (PIPE, CONCRETE, EXCAVATION, ETC.)
CONDUIT
CORRUGATED ALUMINUM PIPE
CORRUGATED METAL PIPE
CORRUGATED PLASTIC PIPE
CORRUGATED STEEL PIPE
CULVERT
CURB INLET OR CAST IRON
DUCTILE IRON
DRAIN MANHOLE
ELEVATION
FORCE MAIN
FRAME AND COVER
FRAME AND GRATE
FURNISH AND INSTALL
GALVANIZED IRON PIPE
GAS GATE
GUTTER INLET
HEADWALL
HYDRANT
INVERT ELEVATION
LIGHT POLE
MANHOLE
POLY-VINYL-CHLORIDE PIPE
PAVED WATER WAY
REMOVE & DISPOSE
REINFORCED CONCRETE PIPE
SEWER MANHOLE
SUBDRAIN
TAPPING SLEEVE, VALVE AND BOX
TRAFFIC SIGNAL
TRAFFIC SIGNAL CONDUIT
UTILITY POLE
VITRIFIED CLAY PIPE
WATER GATE
WATER METER/WATER MAIN
WROUGHT IRON PIPE

- SYSTEMS.
- NOR IS IT WARRANTED THAT ALL UNDERGROUND PIPES. UTILITIES, AND STRUCTURES ARE SHOWN.
- UTILITY COMPANIES (PUBLIC AND PRIVATE). IN ADDITION, "DIG SAFE" MUST BE CONTACTED AT 1(800)-322-4844.

A) ALL DIMENSIONS AND JOB RELATED CONDITIONS ARE TO BE VERIFIED BY THE CONTRACTOR. ANY DISCREPANCIES FOUND ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER/ENGINEER AND PROPERLY RESOLVED BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. CONTINUATION WITH OTHER ASPECTS OF THE WORK SHALL PROCEED WITHOUT DELAY OR CAUSE FOR CLAIM.

- PERMITS NOT ALREADY PROVIDED BY THE CITY.
- ASPECTS OF THIS PROJECT, AS INDICATED ON THE DRAWINGS.
- SECTION 02140 AND DETAIL SHEETS FOR CATCH-BASIN FILTER FABRIC INSTALLATION/USAGE.
- REASON OF DELAY AND/OR INCONVENIENCE IN ADAPTING OPERATIONS ACCORDINGLY.
- CABLE TV, FIRE ALARM AND ANY OTHER PRIVATE UTILITIES BY THE RESPECTIVE UTILITY COMPANIES.
- APPROPRIATE BID ITEMS.
- ADVANCE.
- MASONRY, AS REQUIRED, SHALL BE CLAY BRICK CONFORMING TO SPECIFICATION SECTION 02607.
- COMPLETION TO CONFIRM FULLY OPERATIONAL SERVICE CONNECTIONS.
- THE GRADE OF THE ROADWAY.
- OUTLETS OF STRUCTURES THAT ARE TO REMAIN SHALL BE PLUGGED.
- BACKSANDED AS SHOWN ON PAVEMENT DETAILS.
- PAVING LIMITS ARE DEPICTED ON THE DRAWINGS. SEE CONSTRUCTION DETAILS.
- APPLICABLE FINAL PAVING PAY ITEMS.
- LINEAR-FOOT PAY ITEM FOR THE PIPE BEING INSTALLED OR REPLACED, AS SHOWN ON THE PLANS.
- OF THE AMERICANS WITH DISABILITIES ACT (ADA).

1. BASE PLANS FOR EXISTING SEWER & DRAIN UTILITIES WAS DEVELOPED FROM AVAILABLE RECORD INFORMATION AND GEOGRAPHICAL INFORMATION

2. CONTRACTOR IS REFERRED TO THE RECORD DRAWING SCANS, APPENDED TO THE SPECIFICATIONS, PROVIDED BY THE CITY OF TAUNTON FOR SYSTEM INFORMATION, (I.E. MANHOLE DEPTHS, SEWER AND DRAIN MAIN DEPTHS, PROFILES, AND OTHER GENERAL SEWER AND DRAIN INFORMATION). THIS INFORMATION IS FROM THE BEST AVAILABLE SOURCES AND IS NOT GUARANTEED OR WARRANTED TO BE EXACT OR ACCURATE.

3. THE LOCATION, SIZE, AND MATERIAL OF EXISTING PIPES, DUCTS, CONDUITS AND OTHER UNDERGROUND STRUCTURES AND/OR UTILITIES SHOWN ON THESE PLANS ARE FROM THE BEST SOURCES AVAILABLE AT PRESENT AND ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL UNDERGROUND PIPES, UTILITIES OR STRUCTURES ARE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXACT LOCATIONS, DEPTHS AND SIZES IN THE FIELD. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND NOTIFY ALL

4. ALL WORK DONE WITHIN ROADWAYS SHALL BE IN ACCORDANCE WITH THE CITY OF TAUNTON STREET OPENING PERMIT. A COPY OF THE PERMIT IS ATTACHED TO THE CONTRACT SPECIFICATIONS FOR THIS PROJECT, IN APPENDIX __. THE CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED

5. THE 1988 STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES (ENGLISH EDITION), THE SUPPLEMENTAL SPECIFICATIONS DATED JUNE 6, 2006, THE 1977 CONSTRUCTION AND TRAFFIC STANDARD DETAILS, THE ENGLISH EDITION OF SUPPLEMENTAL DRAWINGS, APRIL 2003, THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z-60.1-1986) AND ALL AMENDMENTS ARE APPLICABLE FOR ROADWAY AND DRAINAGE RECONSTRUCTION

6. TRENCH DE-WATERING IS ANTICIPATED FOR THIS WORK AND DISCHARGE OF FINES AND/OR SEDIMENTS IS NOT PERMITTED. SEE SPECIFICATION

7. EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION SHALL BE PROTECTED AND SUPPORTED AT ALL TIMES BY THE CONTRACTOR. THE CONTRACTOR SHALL CONDUCT OPERATIONS TO INTERFERE AS LITTLE AS POSSIBLE WITH EXISTING UTILITIES. PAYMENT FOR PROVIDING SAID PROTECTION AND SUPPORTS SHALL BE CONSIDERED A PART OF AND PAID FOR UNDER THE APPROPRIATE PIPE OR STRUCTURE ITEMS UNLESS OTHERWISE INDICATED AND/OR DIRECTED BY THE OWNER/ENGINEER. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION BY

8. CONTRACTOR SHALL VERIFY EXISTING GRADE ELEVATIONS. IF ANY ADJUSTMENT IS REQUIRED DUE TO DIFFERENT EXISTING GRADES FOUND IN THE FIELD, THE CONTRACTOR SHALL NOTIFY AND SEEK GUIDANCE AND APPROVAL OF THE ENGINEER PRIOR TO PERFORMING THE WORK.

9. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION, ADJUSTMENT AND DOCUMENTATION OF GAS, ELECTRIC, TELEPHONE,

10. WHERE EXISTING MATERIALS ARE ENCOUNTERED WHICH, IN THE OPINION OF THE OWNER/ENGINEER ARE UNSUITABLE FOR BEDDING, BACK FILLING OR OTHER INTENDED USE, SUCH MATERIALS SHALL BE REMOVED AS DIRECTED AND REPLACED WITH SUITABLE BANK-RUN GRAVEL, CRUSHED STONE AND/OR GRAVEL BORROW, OR CONTROLLED DENSITY FILL, AS DIRECTED BY THE OWNER/ENGINEER AND PAID FOR UNDER THE

11. AREAS OUTSIDE THE ESTABLISHED APPROVED LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER IN

12. EXCEPT WHERE NOTED BY PROPOSED CONTOUR LINES, ALL FINAL CONTOUR ELEVATIONS SHALL BE THE SAME AS EXISTING CONTOUR ELEVATIONS.

13. THE CONTRACTOR SHALL ALTER THE MASONRY GRADING RING OF THE TOP SECTION OF EXISTING DRAINAGE AND SANITARY STRUCTURES FOR CHANGES IN GRADE, AND RESET ALL WATER, AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. NEW

14. CONTRACTOR RESPONSIBLE FOR LOCATING, REPLACING, AND RE-ESTABLISHING ALL SEWER SERVICE CONNECTIONS, SHOWN TO BE REPLACED ON THE PLANS. TO THE LIMITS SHOWN ON PLANS TO THE LIMITS OF PROPOSED SEWER MAIN, INCLUDING CONDUCTING DYE TESTS UPON

15. WHENEVER POSSIBLE, SEWER SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN, SERVICES OR OTHER WATER FACILITIES. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN 10-FOOT SEPARATION, THE SEWER SHALL BE LAID SUCH THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER LINE. WHEN THE HORIZONTAL ALIGNMENT OR VERTICAL ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIREMENT AS DETERMINED BY THE OWNER/ENGINEER, THE SEWER SHALL BE ENCASED IN CONCRETE (MIN. 6-INCH THICKNESS) FOR AT LEAST 10-FEET EITHER SIDE OF THE AREA NOT COMPLYING WITH THE MINIMUM HORIZONTAL AND VERTICAL SEPARATION AS DIRECTED BY THE OWNER/ENGINEER. WHERE SEWERS OR SEWER SERVICES CROSS ANY EXISTING OR PROPOSED WATER MAINS OR SERVICES, THE SEWER SHALL CROSS BENEATH THE WATER LINES AND LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18-INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE CROWN OF THE SEWER. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIREMENT. THE SEWER AND/OR WATER LINE SHALL BE SLEEVED FOR A DISTANCE OF 10-FEET ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER LINE, OR AS DETERMINED AND DIRECTED BY THE OWNER/ENGINEER, OR THE WATER LINE SHALL BE RELOCATED TO COMPLY WITH THE REQUIRED MINIMUM DIMENSIONS FOR AN ACCEPTABLE SEPARATION AS STIPULATED ABOVE. RELOCATED WATER LINES SHALL BE APPROVED BY OWNER/ENGINEER AND THE TAUNTON WATER DEPARTMENT. AND CONSTRUCTED OF AWWA APPROVED MATERIALS FOR POTABLE WATER CONVEYANCE AND DESIGNED FOR THE REQUIRED WATER SERVICE PRESSURE FOR A DISTANCE OF 10-FEET ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE JOINTS. SEE DETAIL SHEET.

16. CATCH BASIN AND MANHOLE FRAMES AND GRATES/COVERS SHALL CLEARLY ALIGN WITH THE OPENINGS IN THE MANHOLE/CB STRUCTURES AND

17. WHERE DRAINAGE PIPES OR STRUCTURES ARE ABANDONED IN PLACE THE CONTRACTOR SHALL MAKE SURE THAT ALL EXISTING FITTINGS, FRAMES AND COVER ARE REMOVED. THE CONTRACTOR SHALL MAKE SURE THAT ALL ABANDONED STRUCTURES ARE BACKFILLED. INLETS AND

18. JOINTS BETWEEN NEW BITUMINOUS CONCRETE ROADWAY PAVEMENT AND SAW-CUT EXISTING PAVEMENT SHALL BE SEALED WITH EMULSION AND

19. PAVING NOTE: FURNISH & INSTALL TRENCH-WIDTH PAVEMENT RESTORATION IN ALL PIPE INSTALLATION LOCATIONS, UNLESS OTHERWISE SPECIFIED

20. ALL PAVING MARKINGS AND TRAFFIC CONTROL LOOPS AND DEVICES DISTURBED SHALL BE REPLACED IN KIND, AND PAID FOR UNDER THE

21. CONTRACTOR RESPONSIBLE TO SUBMIT POST INSTALLATION CCTV INSPECTION OF ALL NEW SEWER AND DRAIN MAINS AND DRAIN LATERAL PIPES INSTALLED AND/OR REPLACED UNDER THIS CONTRACT. PAYMENT FOR POST-CCTV WORK SHALL BE PAID FOR UNDER THE ASSOCIATED

22. DURING CONSTRUCTION, ROADS AND SIDEWALKS SHALL BE MAINTAINED TO ALLOW PEDESTRIAN ACCESS IN ACCORDANCE WITH THE REQUIREMENTS

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SBETA-Inc.com				
REGISTERED PROFESSIONAL				
SUBCONSULTANT				
PROJECT				
2022 Sewer & Drain				
Improvements				
Taunton MA				
TITLE				
LEGEND, ABBREVIATIONS & GENERAL NOTES				
NO. REVISIONS DATE				
DRAWN BY: BM				
CHECKED BY:				
ISSUE DATE: 10/15/2021				
BETA JOB NO.: ####				
SCALE				
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION				
For Review Only				
SHEET NO. G-1				





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PROJECT				
2022 Sewer & Drain Improvements				
Taunton MA				
CIPP IMPROVEMENTS I				
NO. REVISIONS DATE				
CHECKED BY:				
ISSUE DATE: 10/15/2021				
BETA JOB NO.: ####				
SCALE				
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SCALE IN FEET: 1"=40'				
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION				
Not for Construction				
SHEET NO. C-2				



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PROJECT				
2022 Sewer & Drain Improvements				
_				
Taunton, MA				
CIPP IMPROVEMENTS II				
NO. REVISIONS DATE				
DRAWN BY: BM				
DESIGNED BY: MA				
ISSUE DATE: 10/15/2021				
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Not for Construction				
SHEET NO.				



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SUBCONSULTANT					
PROJECT					
2022 Sewer & Drain Improvements	n				
Taunton, MA					
CIPP IMPROVEMENTS III					
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DESIGNED BY: MA					
ISSUE DATE: 10/15/2021					
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SUBCONSULTANT				
PROJECT				
2022 Sewer & Dra Improvements	in			
Taunton, MA				
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SUBCONSULTANT				
PROJECT				
2022 Sewer & Drain Improvements				
Taunton, MA				
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DRAWN BY: BM DESIGNED BY: MA				
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ISSUE DATE: 10/15/2021				
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SUALE				
40 0 40 80 SCALE IN FEET: 1"=40'				
Not for Construction				
SHEET NO. C-5				





SPACE INTENTIONALLY LEFT BLANK FOR SEWER PROFILES

	1	PR	EPARED BY	
			BETA-Inc.com	A
			GISTERED PROFESSIONAL	•
		SU	BCONSULTANT	
Ш N				
)				
I I		PR	OJECT	
			2022 Sewer & Dra	in
#43		Improvements		
GRANITE STREET				
			Taunton, MA	
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		ISSUE DATE: 10/15/2021		
		BETA JOB NO.: ####		
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		UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION		
		SHEET NO.		
			C-8	



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PROJECT
2022 Sewer & Drain Improvements
Taunton MA
TITLE
PLAIN STREET & BERKLEY STREET SEWER REPLACEMENT
NO. REVISIONS DATE
DRAWN BY: BM
DESIGNED BY: MA
CHECKED BY:
BETA JOB NO · ####
SCALE
40 0 40 80 SCALE IN FEET: 1"=40'
Not for Construction
SHEET NO.



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PROJECT				
2022 Sewer & Drain				
improvements				
Taunton, MA				
HOWARD STREET SEWER REPLACEMENT				
NO. <u>REVISIONS</u> DATE				
DRAWN BY: BM				
DESIGNED BY: MA				
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Not for Construction				
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	PRE	EPARED BY	
		BETA-Inc.com	A
	REC	GISTERED PROFESSIONAL	
STREET			
C-66	SUE	BCONSULTANT	
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		Taunton, MA	
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	DES	BIGNED BY: BM	
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PROJECT					
2022 Sewer & Drain Improvements					
Taunton, MA					
COTTAGE STREET & HOPEWELL STREET SEWER MANHOLE IMPROVEMENTS					
NO. REVISIONS DATE					
ISSUE DATE: 10/15/2021					
BETA JOB NO.: ####					
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Not for Construction					
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MAXIMUM PAYMENT LIMITS DIAMETER DIAMETER OF PIPE D IN INCHES TRENCH WDTH IN FEET TRENCH DEPTH TRENCH DEPTH TRENCH DEPTH TRENCH DEPTH TRENCH DEPTH TRENCH DEPTH TRENCH DEPTH TRENCH DEPTH Sold Sold Sold Sold Sold Sold Sold Sold									REGISTER
DIAMETER OF PIPE D IN INCHES TRENCH WDTH IN FEET TRENCH DEPTH TRENCH DEPTH TRENCH DEPTH TR				MAXIMUM F	PAYMENT LI	MITS			
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IN INCHES < OR = 10' > 10' TO 20' < OR = 10' > 10' TO 20' < OR = 10' > 10' TO 20' 12 AND SMALLER 5.00 6.00 6.00 7.00 8.00 9.00 15 5.25 6.25 7.25 8.25 9.25 18 5.50 6.50 7.50 8.50 9.50 21 5.75 6.75 7.75 8.75 9.75 24 6.00 7.00 7.00 8.00 9.00 10.00 27 6.25 7.25 7.25 8.25 9.25 10.25 30 6.50 7.50 8.50 9.50 10.50 11.50 48 8.00 9.00 10.00 11.00 12.00 13.00 66 9.50 10.50 11.50 12.50 13.50 14.00 72 10.00 11.00 11.00 12.00 13.00 14.00 NOTES: 1 PERMANENT ALONG EACH SIDE OF THE TRENCH. CUT BACK OF TEMPORARY		OF PIPE D	TRENCH	I DEPTH	TRENCH	DEPTH	TRENCH	I DEPTH	
12 AND SMALLER 5.00 6.00 7.00 8.00 9.00 15 5.25 6.25 7.25 8.25 9.25 18 5.50 6.50 6.50 7.50 8.50 9.50 21 5.75 6.75 6.75 7.75 8.75 9.75 24 6.00 7.00 7.00 8.00 9.00 10.00 27 6.25 7.25 8.25 9.25 10.25 30 6.50 7.50 8.50 9.50 10.50 11.50 48 8.00 9.00 10.00 11.00 12.00 13.00 448 8.00 9.00 10.50 11.50 12.50 13.50 66 9.50 10.50 11.00 12.00 13.00 14.00 NOTES: 1 PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. 20 . UAUNTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WOTHS, WHICHEVE		IN INCHES	< OR = 10'	> 10' TO 20'	< OR = 10'	> 10' TO 20'	< OR = 10'	> 10' TO 20'	
15 5.25 6.25 7.25 8.25 9.25 18 5.50 6.50 6.50 7.50 8.50 9.50 21 5.75 6.75 6.75 7.75 8.75 9.75 24 6.00 7.00 7.00 8.00 9.00 10.00 27 6.25 7.25 7.25 8.25 9.25 10.25 30 6.50 7.50 8.50 9.50 10.50 36 7.00 8.00 8.00 9.00 11.00 42 7.50 8.50 9.50 10.50 11.50 48 8.00 9.00 10.00 11.00 12.00 13.00 66 9.50 10.50 11.50 12.50 13.50 72 10.00 11.00 12.00 13.00 14.00 NOTES: 1 PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. 20 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE	12	2 AND SMALLER	5.00	6.00	6.00	7.00	8.00	9.00	
18 5.50 6.50 7.50 8.50 9.50 21 5.75 6.75 6.75 7.75 8.75 9.75 24 6.00 7.00 7.00 8.00 9.00 10.00 27 6.25 7.25 7.25 8.25 9.25 10.25 30 6.50 7.50 8.50 9.50 10.50 11.50 42 7.50 8.50 9.50 10.50 11.50 48 8.00 9.00 10.00 11.00 12.00 54 8.50 9.50 10.50 11.50 12.05 66 9.50 10.50 11.50 12.00 13.00 66 9.50 10.50 11.50 12.00 13.00 72 10.00 11.00 12.00 13.00 14.00 NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. PROJET 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL		15	5.25	6.25	6.25	7.25	8.25	9.25	
21 5.75 6.75 6.75 7.75 8.75 9.75 24 6.00 7.00 7.00 8.00 9.00 10.00 27 6.25 7.25 7.25 8.25 9.25 10.25 30 6.50 7.50 7.50 8.50 9.50 10.50 36 7.00 8.00 9.00 10.00 11.00 11.00 42 7.50 8.50 9.50 10.50 11.50 48 8.00 9.00 10.00 11.00 12.00 54 8.50 9.50 10.50 11.50 12.50 60 9.00 10.00 11.00 12.00 13.00 66 9.50 10.50 11.50 12.50 13.50 72 10.00 11.00 12.00 13.00 14.00 NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SUBE OF THE TRENCH. 2. TRENCH DEPTH MEASURED FROM THE EXIS		18	5.50	6.50	6.50	7.50	8.50	9.50	SUBCONS
24 6.00 7.00 7.00 8.00 9.00 10.00 27 6.25 7.25 7.25 8.25 9.25 10.25 30 6.50 7.50 7.50 8.50 9.50 10.50 36 7.00 8.00 8.00 9.00 10.00 11.00 42 7.50 8.50 9.50 10.50 11.50 12.00 48 8.00 9.00 10.00 11.00 12.00 13.00 54 8.50 9.50 10.50 11.50 12.50 13.50 72 10.00 11.00 11.00 12.00 13.00 14.00 NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. PROJE 2. TRENCH DEPTH MEASURED FROM THE EXISTING GROUND SURFACE TO 6''' BELOW THE BOTTOM OF THE CONSTRUCTED PIPE. PROJE 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. PROJE 20 NORMAL DEPTH) SCALE: NONE<		21	5.75	6.75	6.75	7.75	8.75	9.75	
27 6.25 7.25 7.25 8.25 9.25 10.25 30 6.50 7.50 7.50 8.50 9.50 10.50 36 7.00 8.00 8.00 9.00 10.00 11.00 42 7.50 8.50 9.50 10.50 11.50 48 8.00 9.00 9.00 10.00 11.00 12.00 54 8.50 9.50 10.50 11.50 12.50 13.00 66 9.50 10.50 11.50 12.50 13.50 72 10.00 11.00 12.00 13.00 14.00 NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. 20 NOTES: 1. PERMANENT TRENCH PAVEMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 RD TRENCH SECTION TABLE MATERIAL EXISTS V NORMAL DEPTH SCALE: NONE TITLE		24	6.00	7.00	7.00	8.00	9.00	10.00	
30 6.50 7.50 7.50 8.50 9.50 10.50 36 7.00 8.00 8.00 9.00 10.00 11.00 42 7.50 8.50 8.50 9.50 10.50 11.50 48 8.00 9.00 9.00 10.00 11.00 12.00 54 8.50 9.50 9.50 10.50 11.50 12.50 60 9.00 10.00 11.00 12.00 13.00 66 9.50 10.50 11.50 12.50 13.50 72 10.00 11.00 12.00 13.00 14.00 NOTES: 1 PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. 20 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 RD TRENCH SECTION TRENCH SECTION TABLE MATERIAL EXISTS V NORMAL DEPTH) SCALE: NONE TITLE		27	6.25	7.25	7.25	8.25	9.25	10.25	
36 7.00 8.00 8.00 9.00 10.00 11.00 42 7.50 8.50 8.50 9.50 10.50 11.50 48 8.00 9.00 9.00 10.00 11.00 12.00 54 8.50 9.50 9.50 10.50 11.50 12.50 60 9.00 10.00 11.00 12.00 13.00 66 9.50 10.50 11.50 12.50 13.50 72 10.00 11.00 12.00 13.00 14.00 NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. PAVEMENT ALONG EACH SIDE OF THE TRENCH. 20 NOTES: 1. PERMANENT TRENCH PAVEMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 RD TRENCH SECTION TABLE MATERIAL EXISTS V NORMAL DEPTH XOLE: NONE		30	6.50	7.50	7.50	8.50	9.50	10.50	
42 7.50 8.50 8.50 9.50 10.50 11.50 48 8.00 9.00 9.00 10.00 11.00 12.00 54 8.50 9.50 9.50 10.50 11.50 12.50 60 9.00 10.00 11.00 12.00 13.00 66 9.50 10.50 11.50 12.50 13.50 72 10.00 11.00 12.00 13.00 14.00 NOTES: NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. PROJE 2. TRENCH DEPTH MEASURED FROM THE EXISTING GROUND SURFACE TO 6" BELOW THE BOTTOM OF THE CONSTRUCTED PIPE. 20 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 RD TRENCH SECTION TABLE MATERIAL EXISTS Image: Time of the construction of the construc		36	7.00	8.00	8.00	9.00	10.00	11.00	
48 8.00 9.00 9.00 10.00 11.00 12.00 54 8.50 9.50 9.50 10.50 11.50 12.50 60 9.00 10.00 10.00 11.00 12.00 13.00 66 9.50 10.50 11.50 12.50 13.50 72 10.00 11.00 12.00 13.00 14.00 NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. PROJE 2. TRENCH DEPTH MEASURED FROM THE EXISTING GROUND SURFACE TO 6" BELOW THE BOTTOM OF THE CONSTRUCTED PIPE. 20 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 XD TRENCH SECTION TABLE MATERIAL EXISTS / NORMAL DEPTH) SCALE: NONE TITLE		42	7.50	8.50	8.50	9.50	10.50	11.50	
54 8.50 9.50 10.50 11.50 12.50 60 9.00 10.00 10.00 11.00 12.00 13.00 66 9.50 10.50 10.50 11.50 12.50 13.50 72 10.00 11.00 11.00 12.00 13.00 14.00 NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. PROJECTION 2. TRENCH DEPTH MEASURED FROM THE EXISTING GROUND SURFACE TO 6" BELOW THE BOTTOM OF THE CONSTRUCTED PIPE. 20 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 RENCH SECTION TABLE MATERIAL EXISTS / NORMAL DEPTH) SCALE: NONE TITLE		48	8.00	9.00	9.00	10.00	11.00	12.00	
60 9.00 10.00 11.00 12.00 13.00 66 9.50 10.50 10.50 11.50 12.50 13.50 72 10.00 11.00 12.00 13.00 14.00 NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. PROJECTION 2. TRENCH DEPTH MEASURED FROM THE EXISTING GROUND SURFACE TO 6" BELOW THE BOTTOM OF THE CONSTRUCTED PIPE. 20 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 RD TRENCH SECTION TABLE MATERIAL EXISTS / NORMAL DEPTH) SCALE: NONE TITLE		54	8.50	9.50	9.50	10.50	11.50	12.50	
66 9.50 10.50 11.50 12.50 13.50 72 10.00 11.00 12.00 13.00 14.00 NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. 20 2. TRENCH DEPTH MEASURED FROM THE EXISTING GROUND SURFACE TO 6" BELOW THE BOTTOM OF THE CONSTRUCTED PIPE. 20 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 2D TRENCH SECTION TABLE MATERIAL EXISTS / NORMAL DEPTH) SCALE: NONE TITLE		60	9.00	10.00	10.00	11.00	12.00	13.00	
72 10.00 11.00 12.00 13.00 14.00 NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. 20 2. TRENCH DEPTH MEASURED FROM THE EXISTING GROUND SURFACE TO 6" BELOW THE BOTTOM OF THE CONSTRUCTED PIPE. 20 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 XD TRENCH SECTION TABLE MATERIAL EXISTS / NORMAL DEPTH) SCALE: NONE TITLE		66	9.50	10.50	10.50	11.50	12.50	13.50	
NOTES: 1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH. 2. TRENCH DEPTH MEASURED FROM THE EXISTING GROUND SURFACE TO 6" BELOW THE BOTTOM OF THE CONSTRUCTED PIPE. 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS. 20 20 20 20 20 20 20 20 20 20 20 20 20		72	10.00	11.00	11.00	12.00	13.00	14.00	PROJECT
	1. 2. 3. RE IT V S	PERMANENT TR PAVEMENT ALO TRENCH DEPTH BELOW THE BO QUANTITIES FOI OR THE ACTUA	ENCH PAV NG EACH MEASURE TTOM OF R PAYMEN R PAYMEN L WIDTHS, I SECT ATERIA DEPT	EMENT INCL SIDE OF TH D FROM TH THE CONSTR T SHALL BE WHICHEVER	LUDES 1' C IE TRENCH. E EXISTING RUCTED PIP E IN ACCOR IS LESS.	UT BACK C GROUND S E.	F TEMPORA	ARY D 6" DVE LIMITS	2022 In

UPPORTS FOR UTILITIES
SCALE: NONE

	PREPARED BY		
	SBETA-Inc.com	A	
	REGISTERED PROFESSIONAL	I	
	SUBCONSULTANT		
EXISTING MANHOLE WALL			
RUBBER RING WATER STOP			
	PROJECT		
NON-SHRINK MORTAR	2022 Sewer & Dra	in	
	Improvements		
NON-SHRINK MORTAR JOINTS FOR			
CONNECTING PIPES TO EXISTING BRICK MANHOLE			
SCALE: NONE	Taunton, MA		
	TITLE		
CITY OF TAUNTON - STANDARDS			
24" 24" 24" 24" 24" 24" 24" 24" 24" 24"			
24"24"			
SHALL BE EJIW 00552060 AND FRAME SHALL BE D552011 OR APPROVED EQUAL. When the gutter grade is less than or equal	NO. REVISIONS	DATE	
and cover shall be set in full bed of mortar minimum of two courses of brick. STANDARD CATCH RASIN FRAME & GRATE	DRAWN BY: BM DESIGNED BY: MA		
(not to scale)	CHECKED BY:		
NOTE: 1) GRATE SHALL BE EJIW 00552000076 (RIGHT OR LEFT) AND FRAME SHALL BE EJIW 00552011 OR APPROVED EQUAL.	ISSUE DATE: 10/15/2021 BETA JOB NO.: #####		
2) For use when the gutter grade <u>exceeds 3.00%</u> . 3) Frame and cover shall be set in full bed of mortar on a minimum of two courses of brick.	SCALE		
CADE FRAME & GRATE	AS SHOWN		
		CTION	
NTON STANDARD COVERS AND GRATES	Not for Construc	tion	
SCALE: NONE	SHEET NO.		
	CD-3		

	PF	PREPARED BY		
-SAW CUT EXIST. PAVEMENT (MATCH		BETA-Inc.com	A	
(MATCH GRADE)	RE	EGISTERED PROFESSIONAL	4	
	SU	JBCONSULTANT		
<u>HING</u>				
	PF	ROJECT		
		2022 Sewer & Dra	ain	
		improvements		
		Taunton, MA		
	וד	TLE		
		CIVIL DETAILS V		
	NO	REVISIONS	DATE	
	DR	RAWN BY: BM		
	DE	SIGNED BY: MA		
	CH	CHECKED BY:		
	ISS	ISSUE DATE: 10/15/2021		
	BE	BETA JOB NO.: ####		
	so	SCALE		
		AS SHOWN		
	N	Not for Construction		
	SH	CD-5		