

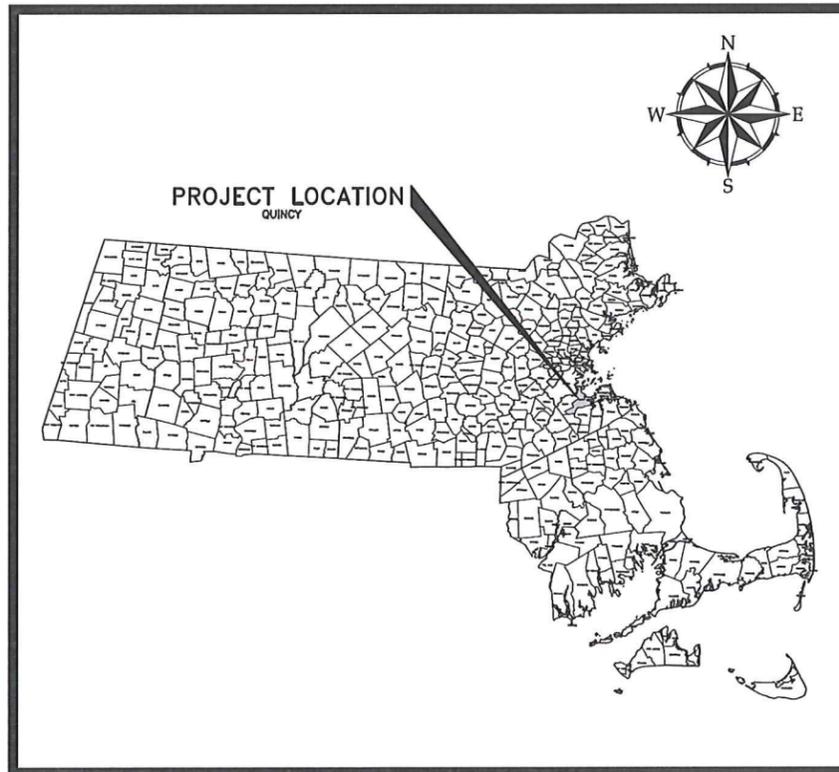
CITY OF QUINCY, MASSACHUSETTS

DEPARTMENT OF PUBLIC WORKS

PHASE IIA - COASTAL STRUCTURES

I/I REDUCTION PROJECT

W&C PROJECT NO. 210970.01



PROJECT LOCATION MAP

50 0 50 100
scale mile

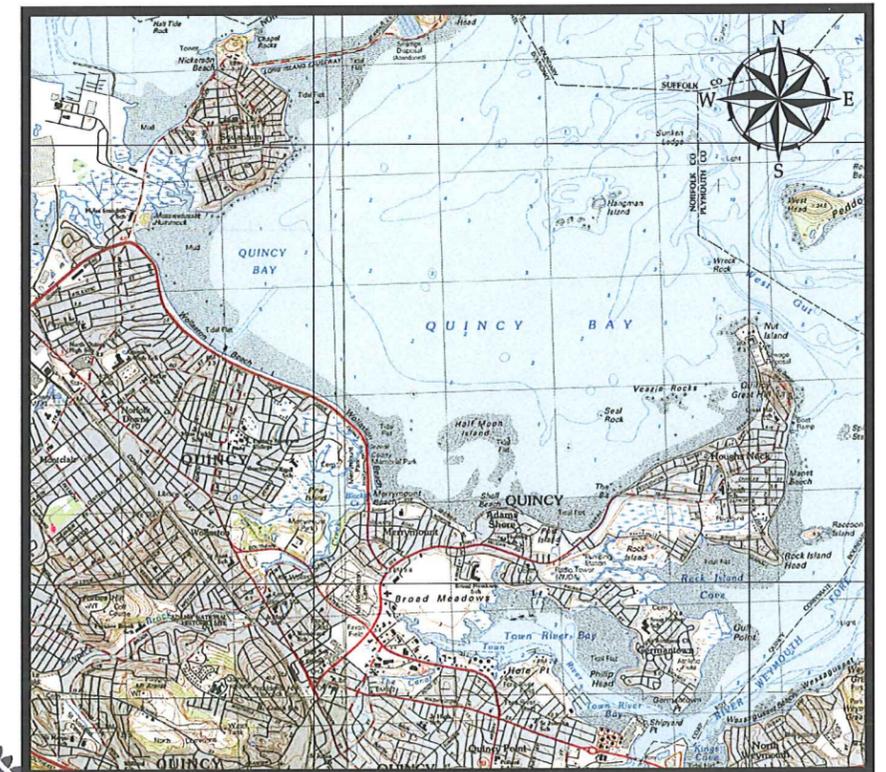
Mayor: Thomas P. Koch
Commissioner of Public Works: Daniel G. Raymond
Purchasing Agent: Kathryn R. Hobin

JULY 2011

BID SET NO. _____



980 WASHINGTON STREET, SUITE 325
DEDHAM, MASSACHUSETTS 02026
781-251-0200 | www.woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS



SOURCE: USGS TOPOGRAPHIC MAP
SITE LOCATION MAP

NOT TO SCALE

GENERAL NOTES

GENERAL

- CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
- AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE 6" INCHES LOAM AND SEED, EXCEPT IN WETLAND AREAS. AREAS DISTURBED WITHIN WETLAND/SALT MARSH SHALL BE REPLANTED WITH NATIVE NON-INVASIVE SPECIES.
- WORK WITHIN THE LOCAL RIGHTS-OF-WAY AND WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. CONTRACTOR SHALL NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND/OR FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS OR PERMISSIONS.
- TRAFFIC SIGNAGE (TEMPORARY AND PERMANENT) SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR ALL LOCAL RIGHTS OF WAY AND IN ACCORDANCE WITH TRAFFIC MANAGEMENT PLANS.
- AREAS OUTSIDE THE 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.
- IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN. CONTRACTOR SHALL COMPLY WITH THE HEALTH AND SAFETY PLAN PROVIDED BY THE ENGINEER.
- CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
- DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF-SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
- CONTRACTOR IS REQUIRED TO BACKFILL TRENCHES OR SECURE WITH METAL PLATES DAILY AND PAVE ALL TRENCHES BY END OF DAY FRIDAY. NO OPEN TRENCHES SHALL BE LEFT UNATTENDED.
- CITY SEWER PLANS OF LOCATIONS FOR SEWER MANHOLE REPLACEMENT, OPEN CUTS, AND RAISE FRAME IN COVER ARE INCLUDED IN THE CONTRACT SPECIFICATIONS APPENDICES.
- HOUSE NUMBERS SHOWN ON GIS PLANS ARE NOT GUARANTEED AND SHOULD BE VERIFIED BY CONTRACTOR FOR USE OF REFERENCE.

UTILITIES

- THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION SHALL BE FURNISHED IN WRITING BY THE CONTRACTOR TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT. THE CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
- SET MANHOLE RIMS, INVERTS OF SEWERS, DRAINS, AND DITCHES TO MATCH EXISTING UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- VERTICAL HEIGHT OF MANHOLES AS SHOWN IN THE TABLES ON THE CONTRACT DRAWING SHEETS WERE APPROXIMATED DURING MANHOLE INSPECTIONS. CONTRACTOR SHALL VERIFY VERTICAL HEIGHT OF EACH MANHOLE.
- RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
 - PAVEMENTS AND CONCRETE SURFACES: FLUSH
 - ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
 - LANDSCAPE OR LOAM AND SEED AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
 - FOR SEWER MANHOLE REPLACEMENT IN MARSH/WETLAND AREAS: AT EXISTING RIM ELEVATION, OR AS DIRECTED BY THE ENGINEER.
- UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
 - SANITARY SEWER PIPES AND SERVICE CONNECTIONS SHALL BE (SDR 35) POLYVINYL CHLORIDE (PVC) SEWER PIPE.
 - STORM DRAINAGE PIPES SHALL BE REINFORCED CONCRETE PIPE CLASS III (RCP) OR HIGH DENSITY POLYETHYLENE (HDPE) UNLESS OTHERWISE NOTED.
- WATERTIGHT MANHOLES IN WETLAND AREAS SHALL BE FRP MANHOLES. EACH FRP MANHOLE SHALL INCLUDE AN ANTI-FLOATATION SLAB, INDIVIDUALLY DESIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER. FRP MANHOLES SHALL BE GRAY WITH UV INHIBITOR EXTERIOR COATING.
- CONTRACTOR IS ADVISED THAT SEWER STRUCTURES IN MARSH/WETLAND AREAS MAYBE SUPPORTED BY PILES. EXISTING PILES AND PILE CAPS SHALL BE LEFT INTACT, TO THE EXTENT POSSIBLE.

LAYOUT AND MATERIALS

- PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
- PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO MANHOLES AND DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
- SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
- CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL FIELD VERIFY LOCATION OF PROJECT FEATURES.
- TEST PITS CONDUCTED AT THE CONTRACTORS CONVENIENCE TO VERIFY EXISTING CONDITIONS SHALL BE AT THE CONTRACTORS EXPENSE.

DEMOLITION

- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING SANITARY SEWER MANHOLES, INTERNAL CLEANINGS, PIPE, AND FITTINGS WHERE INDICATED, AND ALL DEBRIS, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- CONTRACTOR SHALL DISPOSE OF EXISTING DEBRIS IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF MATERIALS UNCOVERED DURING ANY OR PART OF THE WORK APPEAR TO BE CONTAMINATED. ALL LOCAL, STATE, AND FEDERAL LAWS SHALL PREVAIL IN THE EVENT OF CONTAMINATED MATERIALS.
- CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES, AND STATUTES.
- SEWER MANHOLE FRAME AND COVERS REMOVED SHALL BE DELIVERED TO THE QUINCY DPW YARD BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

EROSION CONTROL

- PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY THE QUINCY CONSERVATION AGENT AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
- CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES DAILY, REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT, AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
- CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
- UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ALL DRAINAGE SYSTEMS.
- CONTRACTOR SHALL NOT ALLOW DEBRIS OR SEDIMENT TO ENTER THE SEWER SYSTEM.
- ALL EROSION CONTROL MEASURES SHALL COMPLY WITH THE ORDER OF CONDITIONS, 401 WATER QUALITY CERTIFICATIONS (WQC), AND THE U.S. ARMY CORPS OF ENGINEERS (ACOE) REQUIREMENTS.
- CONTRACTOR SHALL USE WETLAND PROTECTION MATS UNDER EQUIPMENT IN WETLAND/MARSH AREAS.

EXISTING CONDITIONS INFORMATION

- BASE PLAN: THE SEWER LINES SHOWN WERE DETERMINED BY CITY OF QUINCY MAPPING. ACTUAL CONDITIONS MAY VARY.
- CONTRACTOR MAY CONDUCT TEST PITS TO VERIFY EXISTING CONDITIONS AT CONTRACTOR'S EXPENSE.

PERMITTING

- THE CONTRACTOR WILL BE REQUIRED TO MEET ALL REQUIREMENTS OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION ACCESS PERMIT CONDITIONS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING LOCAL STREET OPENING PERMITS, BUT THE FEE WILL BE WAIVED.
- THE CONTRACTOR WILL BE REQUIRED TO MEET ALL REQUIREMENTS OF THE MASSACHUSETTS WATER RESOURCE AUTHORITY (MWRRA) 8(m) PERMIT CONDITIONS.
- THE FOLLOWING PERMIT REQUIREMENTS ARE ANTICIPATED TO CONDUCT THE WORK REQUIRED IN COASTAL WETLAND RESOURCE AREAS. SEE SPECIFICATION SECTION 02215 FOR SPECIFIC REQUIREMENTS.
 - ORDER OF CONDITIONS
 - 401 WATER QUALITY CERTIFICATIONS - DREDGE & FILL
 - THE U.S. ARMY CORPS OF ENGINEERS CATEGORY 2 PERMIT

SPECIAL

- ACCESS TO ALL SIDE STREETS AND DRIVEWAYS SHALL BE MAINTAINED.
- EXCAVATION WITHIN TIDAL AREAS SHALL BE TIED TO AVOID HIGH TIDE TO THE EXTENT POSSIBLE.
- SOIL EXCAVATED FROM SALT MARSH AREAS SHALL BE SAVED AND USED AS BACKFILL AT THE SAME LOCATION.
- CONTRACTOR IS ADVISED THAT, DUE TO I/A, FLOWS WITHIN THE SYSTEM MAY INCREASE DURING HIGH TIDE. CONTRACTOR SHALL VERIFY ALL FLOWS AND PLAN WORK ACCORDINGLY.
- ALL MANHOLE REPLACEMENTS AND OPEN CUTS IN THE ROADWAY WILL REQUIRE CONTROL DENSITY FILL (CDF).

ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE	I.D.	INSIDE DIAMETER
ADJ.	ADJUSTABLE	INV.	INVERT
ALUM.	ALUMINUM	L	LENGTH
APPROX.	APPROXIMATE	LB	POUND
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS		
BLDG.	BUILDING	MAX.	MAXIMUM
BOT	BOTTOM	MECH.	MECHANICAL
		MFG.	MANUFACTURERS
		MH	MANHOLE
		MIN.	MINIMUM
		MWRA	MASSACHUSETTS WATER RESOURCE AUTHORITY
C. to C.	CENTER TO CENTER	NOM.	NOMINAL
CB	CATCH BASIN		
CDF	CONTROL DENSITY FILL		
CIP	CURED-IN-PLACE PIPE LINING		
CTS	CLEAN, INSPECT, TEST, & SEAL		
C	CENTER LINE		
CMP	CORRUGATED METAL PIPE	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
CONC.	CONCRETE	O.C.	ON CENTER
CONT.	CONTINUOUS	O.D.	OUTSIDE DIAMETER
CORR.	CORRUGATED		
CU	COPPER	PL	PROPERTY LINE
		PSI	POUNDS PER SQUARE INCH
		PVC	POLYVINYL CHLORIDE
D	DRAIN	RCP	REINFORCED CONCRETE
D.I.	DUCTILE IRON		
DIA.	DIAMETER		
#	DIAGONALLY	S	SEWER
EA.	EACH	S.S.	STAINLESS STEEL
ELECT.	ELECTRICAL	SCH.	SCHEDULE
ELEV.	ELEVATION	SECT.	SECTION
		SHLDR.	SHOULDER
		SHIT.	SHEET
		SO.	SQUARE
FM	FORCE MAIN	TBM	TEMPORARY BENCH MARK
FRP	FIBERGLASS REINFORCED PLASTIC	THK.	THICK
FT.	FOOT	THK.	TYPICAL
FTG.	FITTING	UG	UNDERGROUND
G	GAS	UGT	UNDERGROUND ELECTRIC
GALV.	GALVANIZED	UPT	UNDERGROUND TELEPHONE
H	HIGHT	VERT.	VERTICAL
HDPE	HIGH DENSITY POLYETHYLENE		
HOR.	HORIZONTAL	W	WATER
		W/	WITH

SHEET INDEX

G-101	LEGEND AND GENERAL NOTES
C-101	HOUGH'S NECK MANHOLE AND PIPE REPAIRS
C-102	SEA ST. AND POST ISLAND RD. MANHOLE AND PIPE REPAIRS
C-103	EAST SQUANTUM ST. MANHOLE AND PIPE REPAIRS
C-104	HOUGH'S NECK OPEN CUT REPAIRS
C-105	HOUGH'S NECK OPEN CUT REPAIRS INSET MAPS
C-201	MANHOLE, PIPE, AND TRENCH DETAILS
C-202	MANHOLE REPAIR/REPLACE DETAILS
C-203	ADDITIONAL PIPE AND EROSION CONTROL DETAILS
T-101	TRAFFIC MANAGEMENT PLAN

COMMITMENT & INTEGRITY DRIVE RESULTS

800 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5519 | www.woodardcurran.com

VONNIE REIS CIVIL ENGINEER
No. 46658
REGISTERED PROFESSIONAL ENGINEER

COMMITMENT & INTEGRITY DRIVE RESULTS

REV	DESCRIPTION	CHECKED BY: VMR	DATE

DESIGNED BY: APB DRAWN BY: APB 2109701 - PH II NOTES & DETAILS

LEGEND AND GENERAL NOTES

PHASE IIA
COASTAL STRUCTURES
I/I REDUCTION PROJECT

DEPARTMENT OF PUBLIC WORKS
QUINCY, MASSACHUSETTS

JOB NO.: 210970.01
DATE: JULY 2011
SCALE: NOT TO SCALE
SHEET: 2 OF 11

G-101

Legend

Manhole

- No Recommendation
- Clean
- Heavy Clean
- Replace Risers and Seal
- Replace Manhole - FRP
- Replace Manhole - Precast
- Grout
- Monolithic Spray Liner
- Replace Frame and Cover
- Uncover/Raise Frame

Sewer Pipe

- CIPP
- CITS
- Structural CIPP

MWRASewerPipes

- MWRA FORCE MAIN
- MWRA SEWERS

Other Symbols:

- Catch Basin
- Hydrant
- Light
- Water Gate
- Pole
- Sewer Pump Station
- Sewer Pipe
- City Force Main
- Drain Pipes
- Water Pipes
- Parcel Boundary
- Buildings

Manhole Rehabilitation

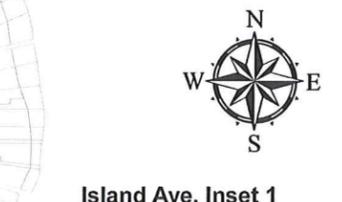
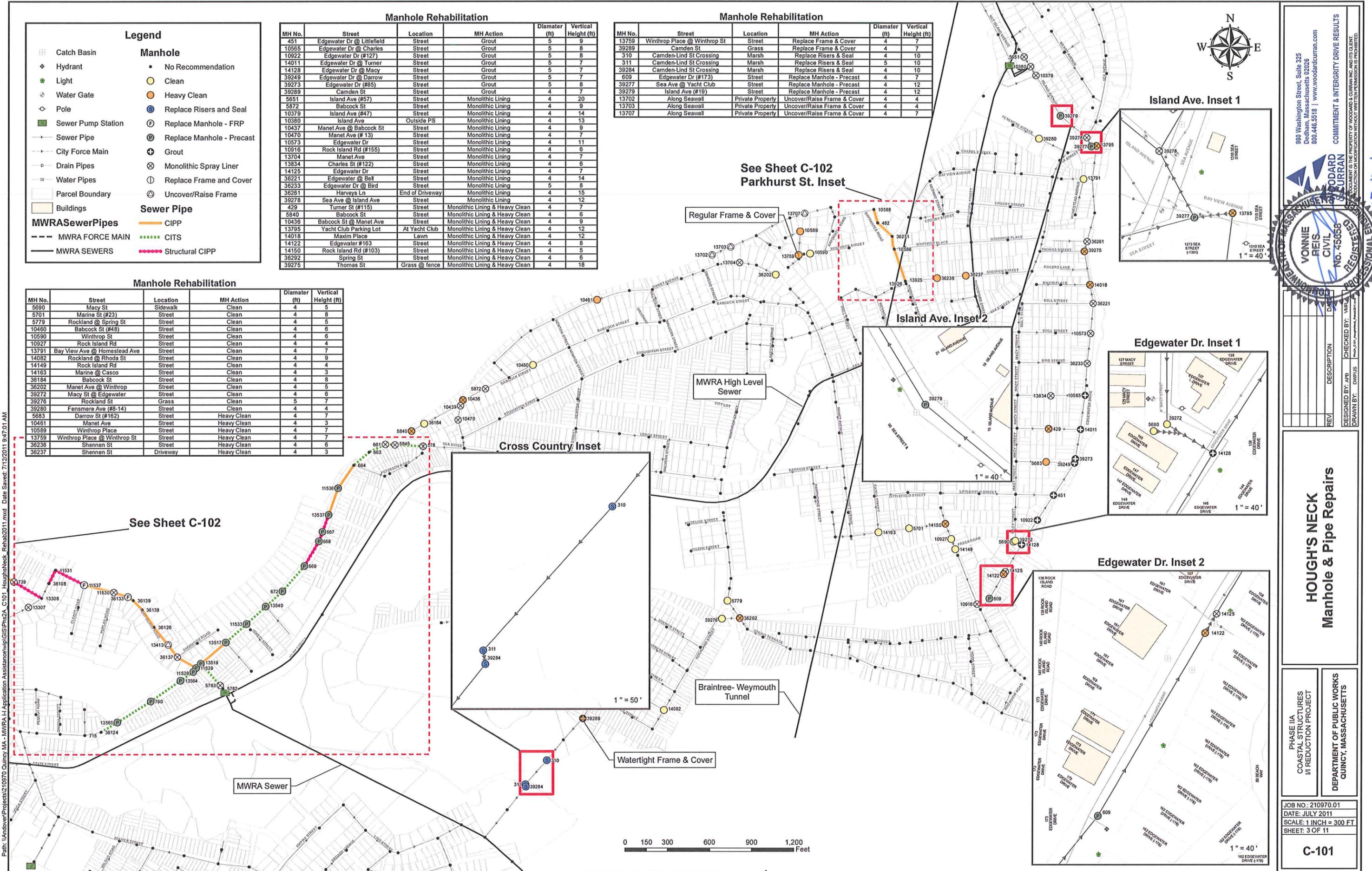
MH No.	Street	Location	MH Action	Diameter (ft)	Vertical Height (ft)
451	Edgewater Dr @ Littlefield	Street	Grout	5	9
10565	Edgewater Dr @ Charles	Street	Grout	5	8
10922	Edgewater Dr (#127)	Street	Grout	5	8
14011	Edgewater Dr @ Turner	Street	Grout	5	7
14128	Edgewater Dr @ Macy	Street	Grout	5	7
39249	Edgewater Dr @ Darrow	Street	Grout	5	7
39273	Edgewater Dr (#85)	Street	Grout	5	8
39289	Camden St	Street	Grout	4	7
5651	Island Ave (#57)	Street	Monolithic Lining	4	20
5872	Babcock St	Street	Monolithic Lining	4	9
10379	Island Ave (#47)	Street	Monolithic Lining	4	14
10380	Island Ave	Outside PS	Monolithic Lining	4	13
10437	Manet Ave @ Babcock St	Street	Monolithic Lining	4	9
10470	Manet Ave (#13)	Street	Monolithic Lining	4	7
10573	Edgewater Dr	Street	Monolithic Lining	4	11
10916	Rock Island Rd (#155)	Street	Monolithic Lining	4	6
13704	Manet Ave	Street	Monolithic Lining	4	7
13834	Charles St (#122)	Street	Monolithic Lining	4	6
14125	Edgewater Dr	Street	Monolithic Lining	4	7
36221	Edgewater @ Bell	Street	Monolithic Lining	4	14
36233	Edgewater Dr @ Bird	Street	Monolithic Lining	5	8
36261	Harveys Ln	End of Driveway	Monolithic Lining	4	15
39278	Sea Ave @ Island Ave	Street	Monolithic Lining	4	12
429	Turner St (#115)	Street	Monolithic Lining & Heavy Clean	4	7
5840	Babcock St	Street	Monolithic Lining & Heavy Clean	4	6
10436	Babcock St @ Manet Ave	Street	Monolithic Lining & Heavy Clean	4	9
13795	Yacht Club Parking Lot	At Yacht Club	Monolithic Lining & Heavy Clean	4	12
14018	Maxim Place	Lawn	Monolithic Lining & Heavy Clean	4	12
14122	Edgewater #163	Street	Monolithic Lining & Heavy Clean	4	8
14150	Rock Island Rd (#103)	Street	Monolithic Lining & Heavy Clean	4	5
36292	Spring St	Street	Monolithic Lining & Heavy Clean	4	6
39275	Thomas St	Grass @ fence	Monolithic Lining & Heavy Clean	4	18

Manhole Rehabilitation

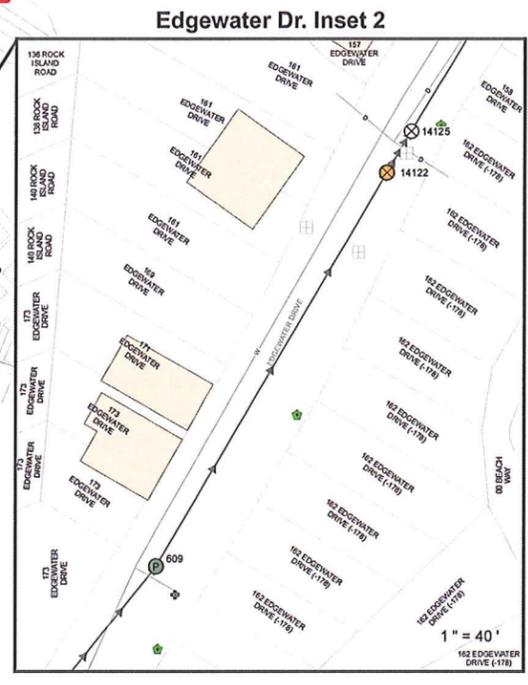
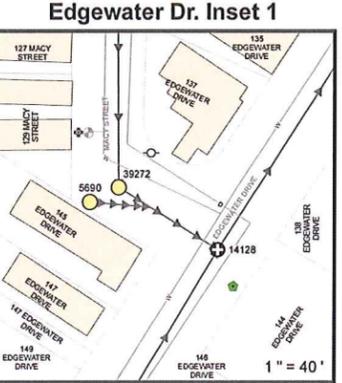
MH No.	Street	Location	MH Action	Diameter (ft)	Vertical Height (ft)
13759	Winthrop Place @ Winthrop St	Street	Replace Frame & Cover	4	7
39289	Camden St	Grass	Replace Frame & Cover	4	7
310	Camden-Lind St Crossing	Marsh	Replace Risers & Seal	4	10
311	Camden-Lind St Crossing	Marsh	Replace Risers & Seal	5	10
39284	Camden-Lind St Crossing	Marsh	Replace Risers & Seal	4	10
609	Edgewater Dr (#173)	Street	Replace Manhole - Precast	4	7
39277	Sea Ave @ Yacht Club	Street	Replace Manhole - Precast	4	12
39279	Island Ave (#19)	Street	Replace Manhole - Precast	4	12
13702	Along Seawall	Private Property	Uncover/Raise Frame & Cover	4	4
13703	Along Seawall	Private Property	Uncover/Raise Frame & Cover	4	4
13707	Along Seawall	Private Property	Uncover/Raise Frame & Cover	4	7

Manhole Rehabilitation

MH No.	Street	Location	MH Action	Diameter (ft)	Vertical Height (ft)
5690	Macy St	Sidewalk	Clean	4	5
5701	Marine St (#23)	Street	Clean	4	8
5779	Rockland @ Spring St	Street	Clean	4	5
10460	Babcock St (#48)	Street	Clean	4	6
10590	Winthrop St	Street	Clean	4	6
10927	Rock Island Rd	Street	Clean	4	4
13791	Bay View Ave @ Homestead Ave	Street	Clean	4	7
14082	Rockland @ Rhoda St	Street	Clean	4	9
14149	Rock Island Rd	Street	Clean	4	4
14163	Marine @ Casco	Street	Clean	4	3
36184	Babcock St	Street	Clean	4	8
36202	Manet Ave @ Winthrop	Street	Clean	4	5
39272	Macy St @ Edgewater	Street	Clean	4	6
39276	Rockland St	Grass	Clean	5	7
39280	Fensmore Ave (#8-14)	Street	Clean	4	4
5683	Darrow St (#162)	Street	Heavy Clean	4	7
10461	Manet Ave	Street	Heavy Clean	4	3
10589	Winthrop Place	Street	Heavy Clean	4	7
13759	Winthrop Place @ Winthrop St	Street	Heavy Clean	4	7
36238	Shennen St	Street	Heavy Clean	4	6
36237	Shennen St	Driveway	Heavy Clean	4	3



See Sheet C-102
Parkhurst St. Inset



980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5518 | www.woodardcurran.com

WOODARD CURRAN
REGISTERED PROFESSIONAL ENGINEER
NO. 45668

DESIGNED BY: APB
CHECKED BY: VMR
DRAWN BY: DWP/JS

HOUGH'S NECK
Manhole & Pipe Repairs

PHASE IIA
COASTAL STRUCTURES
I/I REDUCTION PROJECT
DEPARTMENT OF PUBLIC WORKS
QUINCY, MASSACHUSETTS

JOB NO.: 210970.01
DATE: JULY 2011
SCALE: 1 INCH = 300 FT
SHEET: 3 OF 11

C-101

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Legend

- Catch Basin
- Hydrant
- Light
- Water Gate
- Pole
- Sewer Pump Station
- Sewer Pipe
- City Force Main
- Drain Pipes
- Water Pipes
- Parcel Boundary
- Buildings

MWRASewerPipes

- MWRA FORCE MAIN
- MWRA SEWERS

Manhole

- No Recommendation
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- Replace Risers and Seal
- Replace Manhole - FRP
- Replace Manhole - Precast
- Grout
- Monolithic Spray Liner
- Replace Frame and Cover
- Uncover/Raise Frame
- Drain Manhole (Parkhurst St. Inset Only)

Sewer Pipe

- CIPP
- CITS
- Structural CIPP

Clean, Inspect, Test & Seal - Sea Street

From MH	To MH	Street / Cover	Diameter (in)	Pipe Length (ft)	Pipe Rehabilitation	Material
36124	13565	Sea St - Roadway	10	135	CITS	VC
13565	790	Sea St - Roadway	10	282	CITS	VC
790	13564	Sea St - Roadway	10	249	CITS	VC
13564	11528	Sea St - Roadway	10	115	CITS	VC
11528	11529	Sea St - Roadway	10	36	CITS	VC
11529	13519	Sea St - Roadway	10	48	CITS	VC
13519	5763	Sea St - Roadway	30	224	CITS	VC
13519	11533	Sea St - Roadway	18	196	CITS	VC
11533	13540	Sea St - Roadway	18	183	CITS	VC
13540	672	Sea St - Roadway	18	159	CITS	VC
672	669	Sea St - Roadway	18	235	CITS	VC
11536	663	Sea St - Roadway	18	144	CITS	VC
663	661	Sea St - Roadway	18	124	CITS	VC
661	5845	Sea St - Roadway	18	113	CITS	VC
5845	578	Sea St - Roadway	18	157	CITS	VC

Cured-In-Place Pipe Liner (CIPP) and Structural CIPP - Post Island Road

From MH	To MH	Street / Cover	Diameter (in)	Pipe Length (ft)	Pipe Rehabilitation	Material	Service Connections (STA)
740	739	Seagull Rd - Roadway	12	233	CIPP	VC	0+98, 1+27, 1+77, 2+09
739	13308	Easement - Marsh	12	247	Structural CIPP	VC	Note Below, 0 estimated
36108	11531	Easement - Sand/Brush	24	104	Structural CIPP	VC	Note Below, 0 estimated
11531	11537	Post Island Rd - Roadway	24	228	Structural CIPP	VC	Note Below, 5 estimated
11537	11530	Post Island Rd - Roadway	24	215	CIPP	VC	0+50, 0+91, 1+23, 1+62
11530	36133	Post Island Rd - Roadway	24	107	CIPP	VC	0+41, 0+98
36133	36139	Post Island Rd - Roadway	24	45	CIPP	VC	0+36
36139	36138	Post Island Rd - Roadway	24	93	CIPP	VC	0+32, 0+88
36138	36126	Post Island Rd - Roadway	24	151	CIPP	VC	0+38
36126	13413	Post Island Rd - Roadway	24	158	CIPP	VC	0+07, 0+10, 0+42, 0+81
13413	36137	Post Island Rd - Roadway	24	109	CIPP	VC	Note Below, 3 estimated
36137	11529	Post Island Rd - Roadway	24	155	CIPP	VC	0+34, 0+36, 0+67

Cured-In-Place Pipe Liner (CIPP) and Structural CIPP - Sea Street

From MH	To MH	Street / Cover	Diameter (in)	Pipe Length (ft)	Pipe Rehabilitation	Material	Service Connections (STA)
13517	13519	Sea St - Roadway	18	229	CIPP	VC	0+38, 0+54, 0+72, 1+06, 1+35, 1+61, 1+70, 2+16
668	669	Sea St - Roadway	18	203	Structural CIPP	VC	0+37, 0+51, 0+64, 0+75, 0+92, 1+19, 1+41, 1+95
667	668	Sea St - Roadway	18	200	Structural CIPP	VC	0+23, 0+31, 0+55, 0+91, 1+19, 1+43, 1+63
13537	667	Sea St - Roadway	18	200	Structural CIPP	VC	0+39, 0+47, 0+85, 1+07, 1+67, 1+75
11536	13537	Sea St - Roadway	18	91	CIPP	VC	0+54, 0+85
664	11536	Sea St - Roadway	18	106	CIPP	VC	0+19, 0+39, 0+78, 0+98

NOTE: Sewer pipe CCTV inspections not fully completed in these sections. Contractor to verify service connection locations.

Manhole Rehabilitation

MH No.	Street	Location	MH Action	Diameter (ft)	Vertical Height (ft)
578	Sea St @ Peterson Out	Street	Monolithic Lining	4	14
661	Sea St	Street	Monolithic Lining	4	14
739	Seagull Road	Street	Monolithic Lining	4	8
5763	Lee St	Street	Monolithic Lining	4	10
5845	Sea St @ Babcock	Street	Monolithic Lining	4	14
11530	Post Island Rd	Street	Monolithic Lining	4	8
13307	Mallard Road	Street	Monolithic Lining	4	12
36137	Post Island Rd	Street	Monolithic Lining	4	13
578	Sea St @ Peterson Out	Street	Replace Frame & Cover	4	14
11537	Post Island Rd	Street	Replace Manhole - FRP	4	8
36133	Post Island Rd	Street	Replace Manhole - FRP	4	8
667	Sea St	Street	Replace Manhole - Precast	4	12
668	Sea St (# 735)	Street	Replace Manhole - Precast	4	12
669	Sea St (# 716)	Street	Replace Manhole - Precast	4	12
672	Sea St @ Hibbard St	Street	Replace Manhole - Precast	4	13
790	Sea St (# 605)	Street	Replace Manhole - Precast	4	9
578	Sea St (# 628)	Street	Replace Manhole - Precast	4	7
11529	Sea St (# 633)	Street	Replace Manhole - Precast	4	13
11533	Sea St @ Jewett St	Street	Replace Manhole - Precast	4	14
11536	Sea St	Street	Replace Manhole - Precast	4	12
13517	Sea St @ Kirby Rd	Street	Replace Manhole - Precast	4	14
13519	Sea St @ Lee St	Street	Replace Manhole - Precast	4	14
13537	Sea St	Street	Replace Manhole - Precast	4	12
13540	Sea St @ Ingram St	Street	Replace Manhole - Precast	4	13
13564	Sea St @ Mead St	Street	Replace Manhole - Precast	4	11
13565	Sea St (# 585)	Street	Replace Manhole - Precast	4	8
13413	Post Island Rd	Street	Uncover/Raise Frame & Cover	4	9

* Flow Fill required for MH replacements on Post Island Rd and Sea Street

NOTE: Maintain a minimum of two lanes of traffic in each direction on Sea St. during construction.

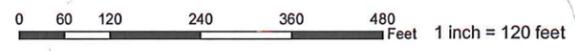
Cured-In-Place Pipe Liner - Parkhurst Street

From MH	To MH	Street / Cover	Diameter	Pipe Length (ft)	Pipe Material	Service Connections (STA)
10588	482	Parkhurst St - Roadway	12	99	CIPP	VC
482	36271	Parkhurst St - Roadway	12	140	CIPP	VC
36271	10586	Parkhurst St - Roadway	12	92	CIPP	VC
10586	13925	Parkhurst St - Roadway	12	240	CIPP	VC
13925	13926	Parkhurst St - Roadway	12	19	CIPP	VC

Parkhurst St. Inset (from C-101)



NOTE: Sea Street Pipe Rehabilitation Work Included Under Alternate 2.



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WOODARD CLARK
REGISTERED PROFESSIONAL ENGINEER
No. 45658

DESIGNED BY: APB
CHECKED BY: VWR
DRAWN BY: DW/PLS

REVISIONS

DATE: _____
DESCRIPTION: _____

**SEA ST. AND POST ISLAND RD.
Manhole & Pipe Repairs**

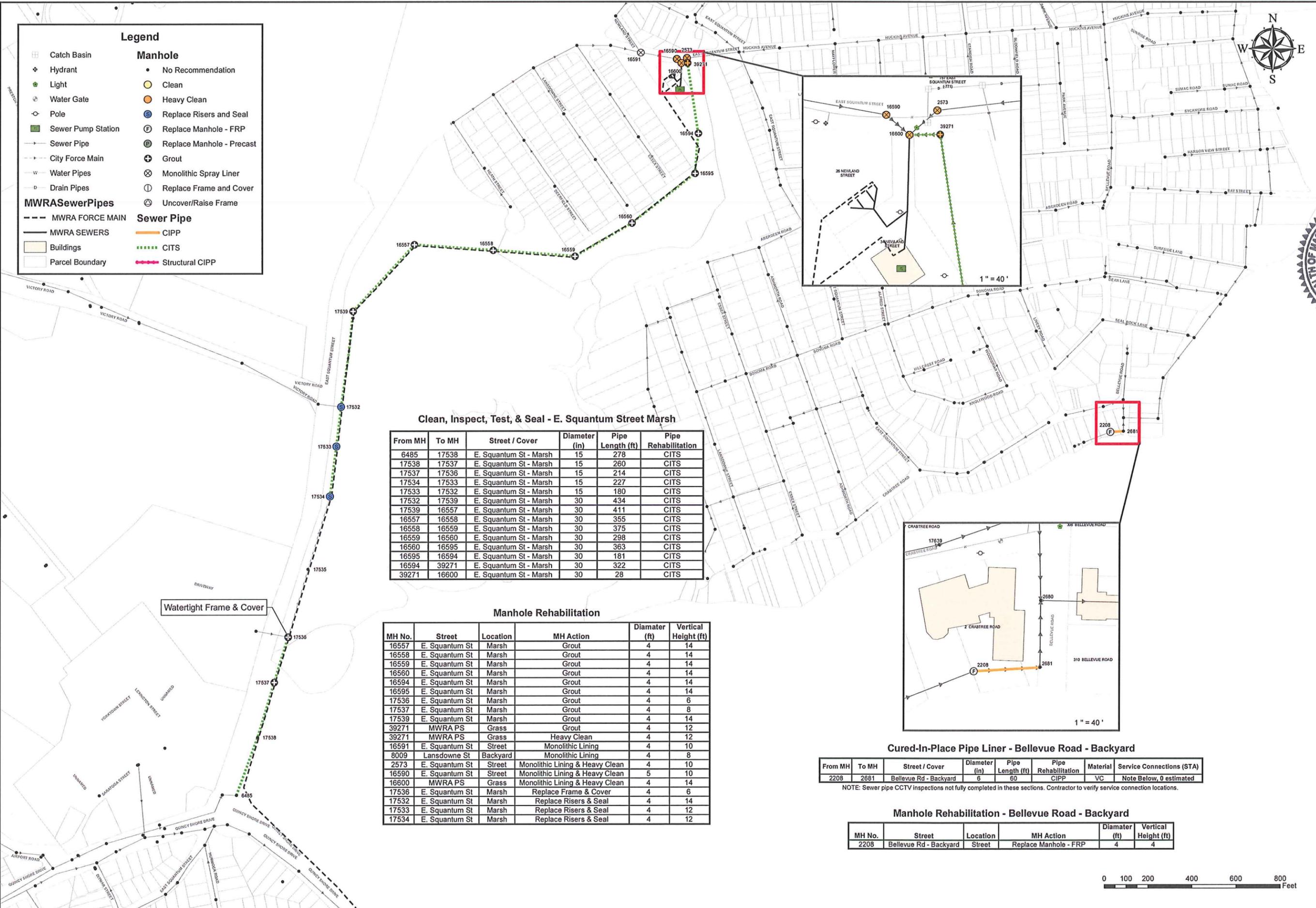
PHASE IIA
COASTAL STRUCTURES
III REDUCTION PROJECT

DEPARTMENT OF PUBLIC WORKS
QUINCY, MASSACHUSETTS

JOB NO.: 210970.01
DATE: JULY 2011
SCALE: 1 INCH = 120 FT
SHEET: 4 OF 11

C-102

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Legend

Manhole

- No Recommendation
- Clean
- Heavy Clean
- Replace Risers and Seal
- Replace Manhole - FRP
- Replace Manhole - Precast
- Grout
- Monolithic Spray Liner
- Replace Frame and Cover
- Uncover/Raise Frame

MWRASewerPipes

- MWRA FORCE MAIN
- MWRA SEWERS
- Buildings
- Parcel Boundary

Sewer Pipe

- CIPP
- CITS
- Structural CIPP

Clean, Inspect, Test, & Seal - E. Squantum Street Marsh

From MH	To MH	Street / Cover	Diameter (in)	Pipe Length (ft)	Pipe Rehabilitation
6485	17538	E. Squantum St - Marsh	15	278	CITS
17538	17537	E. Squantum St - Marsh	15	260	CITS
17537	17536	E. Squantum St - Marsh	15	214	CITS
17534	17533	E. Squantum St - Marsh	15	227	CITS
17533	17532	E. Squantum St - Marsh	15	180	CITS
17532	17539	E. Squantum St - Marsh	30	434	CITS
17539	16557	E. Squantum St - Marsh	30	411	CITS
16557	16558	E. Squantum St - Marsh	30	355	CITS
16558	16559	E. Squantum St - Marsh	30	375	CITS
16559	16560	E. Squantum St - Marsh	30	298	CITS
16560	16595	E. Squantum St - Marsh	30	363	CITS
16595	16594	E. Squantum St - Marsh	30	181	CITS
16594	39271	E. Squantum St - Marsh	30	322	CITS
39271	16600	E. Squantum St - Marsh	30	28	CITS

Manhole Rehabilitation

MH No.	Street	Location	MH Action	Diameter (ft)	Vertical Height (ft)
16557	E. Squantum St	Marsh	Grout	4	14
16558	E. Squantum St	Marsh	Grout	4	14
16559	E. Squantum St	Marsh	Grout	4	14
16560	E. Squantum St	Marsh	Grout	4	14
16594	E. Squantum St	Marsh	Grout	4	14
16595	E. Squantum St	Marsh	Grout	4	14
17536	E. Squantum St	Marsh	Grout	4	6
17537	E. Squantum St	Marsh	Grout	4	8
17539	E. Squantum St	Marsh	Grout	4	14
39271	MWRA PS	Grass	Grout	4	12
39271	MWRA PS	Grass	Heavy Clean	4	12
16591	E. Squantum St	Street	Monolithic Lining	4	10
8009	Lansdowne St	Backyard	Monolithic Lining	4	8
2573	E. Squantum St	Street	Monolithic Lining & Heavy Clean	4	10
16590	E. Squantum St	Street	Monolithic Lining & Heavy Clean	5	10
16600	MWRA PS	Grass	Monolithic Lining & Heavy Clean	4	14
17536	E. Squantum St	Marsh	Replace Frame & Cover	4	6
17532	E. Squantum St	Marsh	Replace Risers & Seal	4	14
17533	E. Squantum St	Marsh	Replace Risers & Seal	4	12
17534	E. Squantum St	Marsh	Replace Risers & Seal	4	12

Cured-In-Place Pipe Liner - Bellevue Road - Backyard

From MH	To MH	Street / Cover	Diameter (in)	Pipe Length (ft)	Pipe Rehabilitation	Material	Service Connections (STA)
2208	2681	Bellevue Rd - Backyard	6	60	CIPP	VC	Note Below, 0 estimated

NOTE: Sewer pipe CCTV inspections not fully completed in these sections. Contractor to verify service connection locations.

Manhole Rehabilitation - Bellevue Road - Backyard

MH No.	Street	Location	MH Action	Diameter (ft)	Vertical Height (ft)
2208	Bellevue Rd - Backyard	Street	Replace Manhole - FRP	4	4



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WOODARD CURRAN
REGISTERED PROFESSIONAL ENGINEER
No. 45658

VONNIE FELS CIVIL
No. 45658

DESIGNED BY: VWR
CHECKED BY: VWR
DRAWN BY: DWP/JS

DATE: 7/12/2011

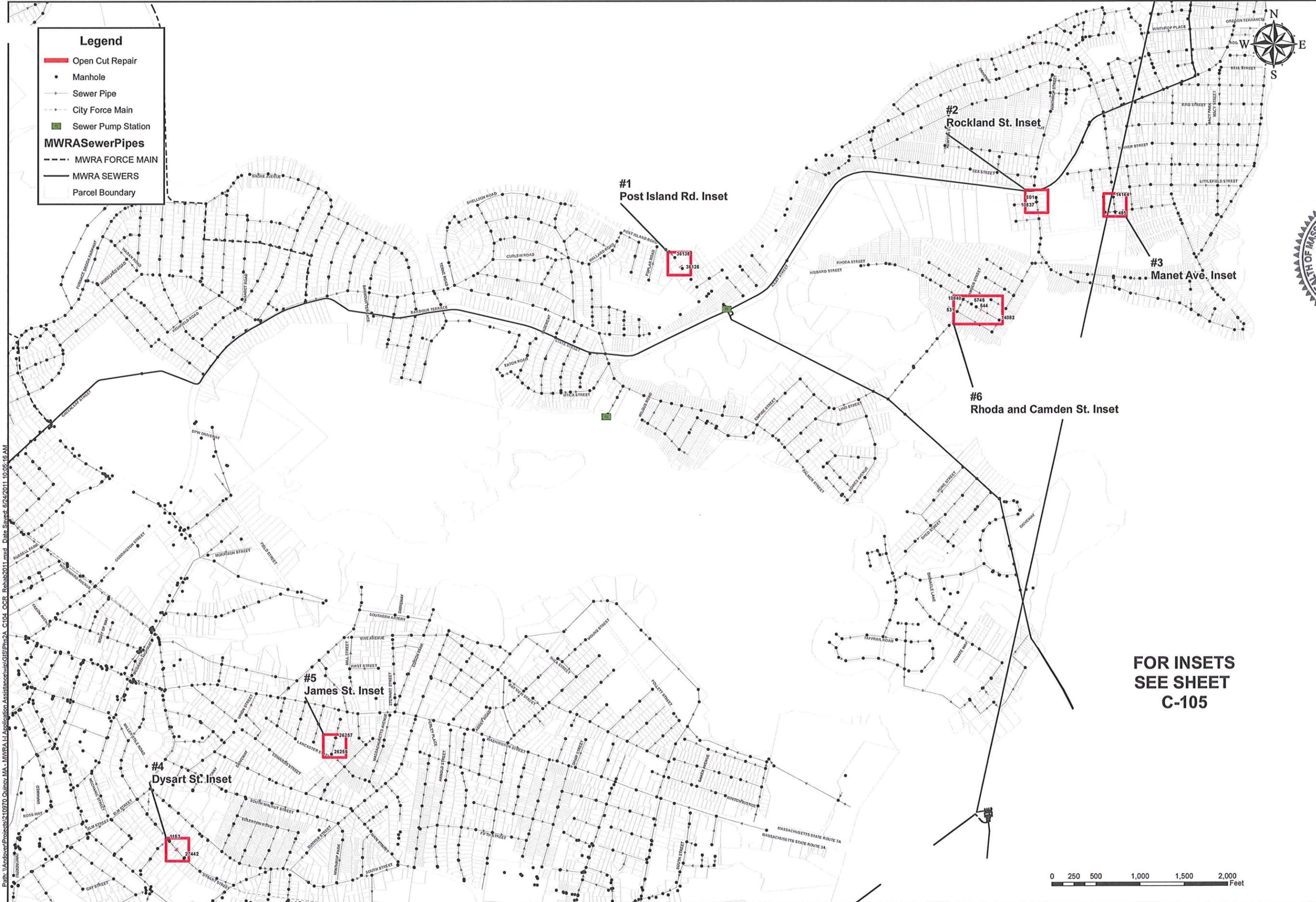
REVISIONS

COMMITMENT & INTEGRITY DRIVE RESULTS
REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

**EAST SQUANTUM ST.
Manhole & Pipe Repairs**

PHASE IIA
COASTAL STRUCTURES
I/I REDUCTION PROJECT
DEPARTMENT OF PUBLIC WORKS
QUINCY, MASSACHUSETTS

JOB NO.: 210970.01
DATE: JULY 2011
SCALE: 1 INCH = 200 FT
SHEET: 5 OF 11

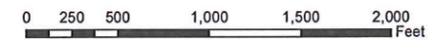


Legend

- Open Cut Repair
- Manhole
- Sewer Pipe
- City Force Main
- Sewer Pump Station

MWRASewerPipes

- MWRA FORCE MAIN
- MWRA SEWERS
- ▭ Parcel Boundary



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WOODARD CURRAN
 REGISTERED PROFESSIONAL ENGINEER
 No. 45668

DESIGNED BY: VWR
 CHECKED BY: VWR
 DRAWN BY: DW/PLS

DATE: 7/11/11

REVISIONS:

REV	DESCRIPTION



HOUGH'S NECK
Open Cut Repairs

PHASE IIA
 COASTAL STRUCTURES
 I/I REDUCTION PROJECT

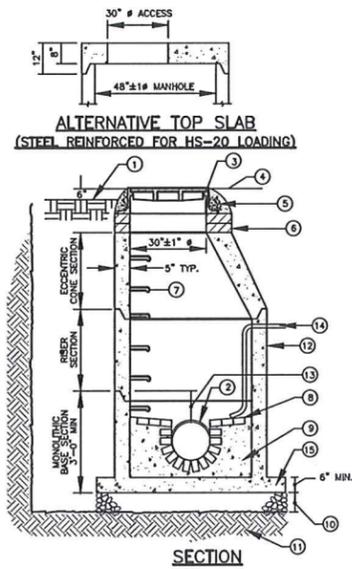
DEPARTMENT OF PUBLIC WORKS
 QUINCY, MASSACHUSETTS

JOB NO.: 210970.01
 DATE: JULY 2011
 SCALE: 1 INCH = 500 FT
 SHEET: 6 OF 11

C-104

**FOR INSETS
 SEE SHEET
 C-105**

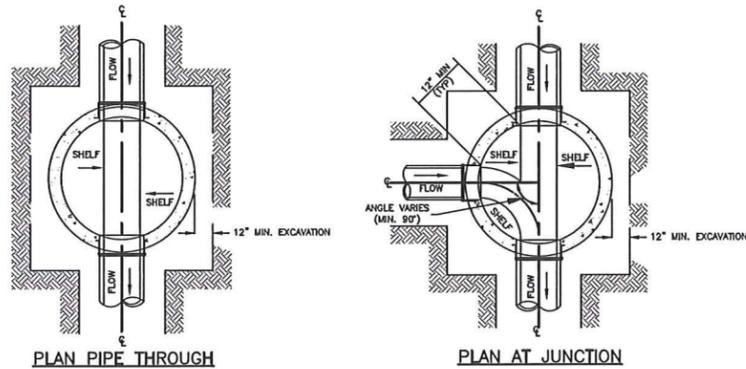
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ALTERNATIVE TOP SLAB
(STEEL REINFORCED FOR HS-20 LOADING)

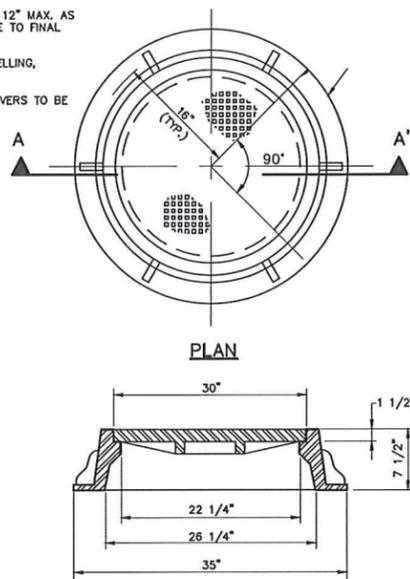
- 1 UNPAVED SURFACE
- 2 PIPE CONNECTION W/KOR-N-SEAL FLEXIBLE BOOT JOINT OR APPROVED EQUAL
- 3 WATERTIGHT CAST IRON MANHOLE FRAME & COVER TO BE SET IN FULL BED OF MORTAR WITH 30% CLEAR OPENING (SEE SPECIFICATION FOR TYPE)
- 4 PAVED SURFACE
- 5 FRAME TO BE SET IN FULL MORTAR BED
- 6 ADJUST TO GRADE WITH BRICK OR PRECAST CONCRETE RINGS: MAX. 8" ADJUSTMENT
- 7 STEEL REINFORCED POLYPROPYLENE MANHOLE STEP AT 12" O.C. (TYP) MINIMUM 5 1/8" STEP WIDTH FROM MANHOLE WALL
- 8 BRICK SHELF ELEVATION SAME AS CROWN OF HIGHEST PIPE (SHELF SLOPE 1/4"/FT)
- 9 INVERT FORMED FROM BRICK OR 4000 PSI CONCRETE
- 10 12" OF 3/4" CRUSHED STONE BEDDING
- 11 COMPACTED SUBGRADE OR COMPACTED SUITABLE BACKFILL MATERIAL, AS NEEDED, IN ACCORDANCE WITH THE SPECIFICATIONS
- 12 ALL EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER PROOFING MATERIAL
- 13 12" (MINIMUM) OF MONOLITHIC BASE ABOVE HIGHEST CROWN
- 14 LOW PRESSURE SERVICE, LOW PRESSURE FORCE MAIN, GRAVITY MAIN, OR GRAVITY SERVICE. PROVIDE INSIDE DROP INLET TO DISCHARGE DIRECTLY TO BRICK SHELF.
- 15 PROVIDE PRECAST ANTI-FLOATATION SLAB, AS NECESSARY, ON ALL MANHOLES TO BE REPLACED.

- NOTES:**
1. PRECAST CONCRETE STRUCTURES AND CASTINGS SHALL BE SUITABLE FOR HS20 LOADINGS AND 4000 PSI CONCRETE.
 2. PRECAST CONCRETE STRUCTURES SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM-C-478.
 3. WATERTIGHT BUTYL RUBBER SEAL TO BE USED AT ALL JOINTS BETWEEN PRECAST SECTIONS. WATERPROOF CEMENT SHALL BE APPLIED TO EXTERIOR OF ALL JOINTS TO ENSURE SEAL.

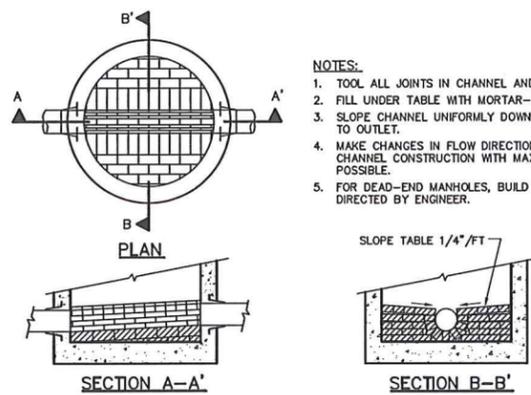


TYPICAL PRECAST SEWER MANHOLE
NOT TO SCALE

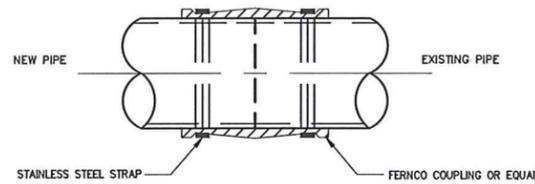
- NOTES:**
- PROVIDE H OF 4" MIN. TO 12" MAX. AS REQUIRED TO BRING FRAME TO FINAL GRADE.
 - BRICK USED FOR TOP LEVELLING.
 - MANHOLE FRAMES AND COVERS TO BE SUPPLIED BY CONTRACTOR



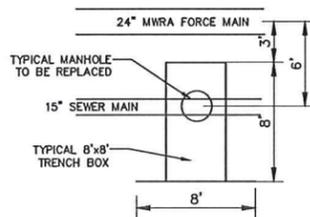
SECTION A-A'
MANHOLE FRAME & COVER
NOT TO SCALE



BRICK INVERT
NOT TO SCALE

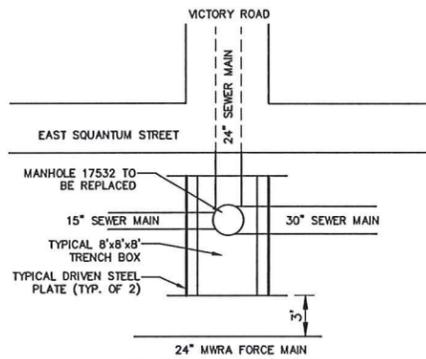


NEW PIPE TO EXISTING PIPE CONNECTION
NOT TO SCALE



MH 17533 AND 17534

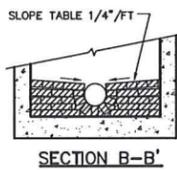
TRENCH SUPPORT ADJACENT TO MWRA SQUANTUM FORCE MAIN
NOT TO SCALE



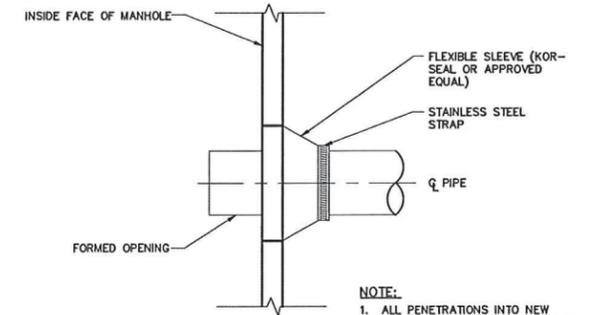
MH 17532

TRENCH SUPPORT ADJACENT TO MWRA SQUANTUM FORCE MAIN
NOT TO SCALE

- NOTES:**
1. TOOL ALL JOINTS IN CHANNEL AND ON TABLES.
 2. FILL UNDER TABLE WITH MORTAR-BEDDED BRICK.
 3. SLOPE CHANNEL UNIFORMLY DOWN FROM INLET TO OUTLET.
 4. MAKE CHANGES IN FLOW DIRECTION BY CIRCULAR CHANNEL CONSTRUCTION WITH MAXIMUM RADIUS POSSIBLE.
 5. FOR DEAD-END MANHOLES, BUILD CHANNEL AS DIRECTED BY ENGINEER.

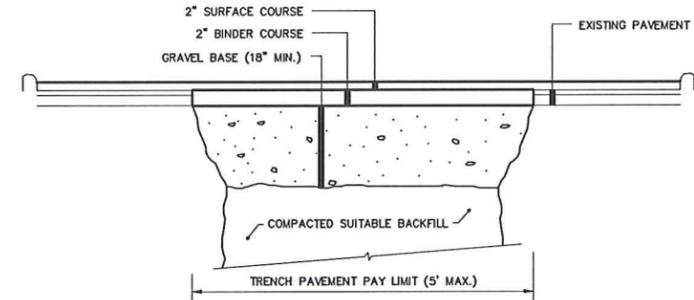


SECTION B-B'



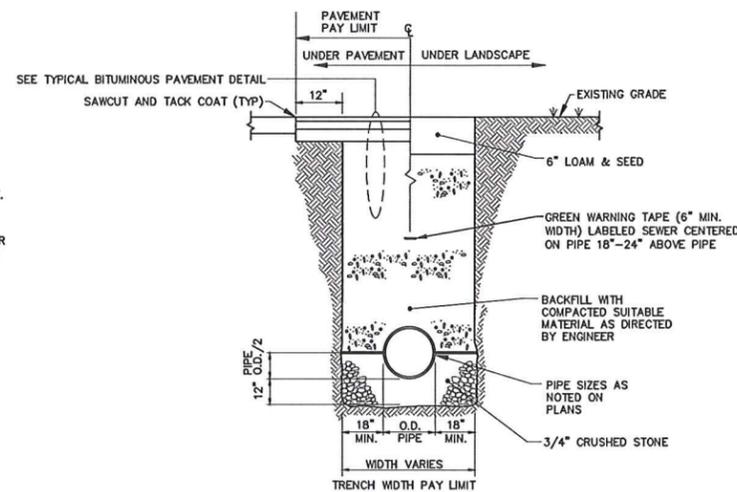
PIPE TO MANHOLE CONNECTION
NOT TO SCALE

- NOTE:**
1. ALL PENETRATIONS INTO NEW MANHOLES SHALL BE FACTORY CAST. NO PIPE CONNECTION HOLES INTO NEW MANHOLES SHALL BE FIELD CUT.



- NOTES:**
1. MAX. TRENCH PAVEMENT WIDTH PAY LIMIT IS 7 FEET.
 2. MAX. MANHOLE REPLACEMENT PAVEMENT PAY LIMIT IS 10' X 10'.
 3. DEPTH OF PAVEMENT COURSES TO BE ADJUSTED TO MEET EXISTING. LEVELING COURSE TO BE PROVIDED, AS DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST.

TYPICAL BITUMINOUS PAVEMENT REPAIR
NOT TO SCALE



TRENCH WIDTHS (a)	
PIPE SIZE	MAX (ONE PIPE) (b)
24" OR LESS	5'-0"
30"	5'-6"
36"	6'-0"
42"	6'-6"
48"	7'-0"
MANHOLES	10' X 10'

- a. REPRESENTS TRENCH WIDTH PAY LIMIT
b. FOR ROCK EXCAVATION SUBTRACT 1'-0"

- NOTES:**
1. MAINTAIN UNIFORM TRENCH WIDTH TO 6" OVER PIPE.
 2. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE O.S.H.A. SAFETY REGULATIONS. ALL SUCH TRENCH PROTECTION TO BE RESPONSIBILITY OF CONTRACTOR.
 3. CONTRACTOR SHALL OBTAIN TRENCHING PERMIT AND SATISFY ALL PERMITTING REQUIREMENTS.

TYPICAL TRENCH
NOT TO SCALE

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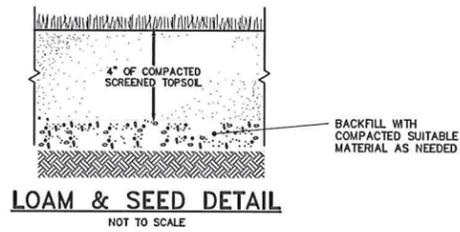
WOODARD CURRAN
REGISTERED PROFESSIONAL ENGINEER
No. 45658

COMMITMENT & INTEGRITY DRIVE RESULTS

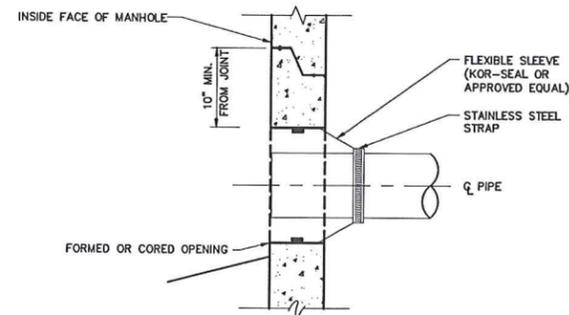
PHASE IIIA
COASTAL STRUCTURES
1/1 REDUCTION PROJECT
DEPARTMENT OF PUBLIC WORKS
QUINCY, MASSACHUSETTS

JOB NO.: 210970.01
DATE: JULY 2011
SCALE: NOT TO SCALE
SHEET: 8 OF 11

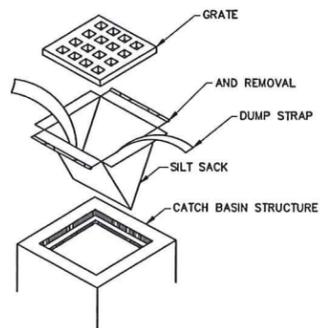
C-201



LOAM & SEED DETAIL
NOT TO SCALE



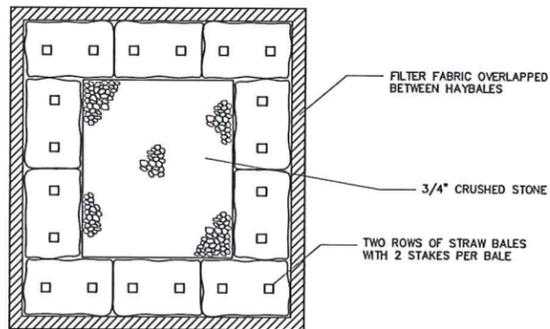
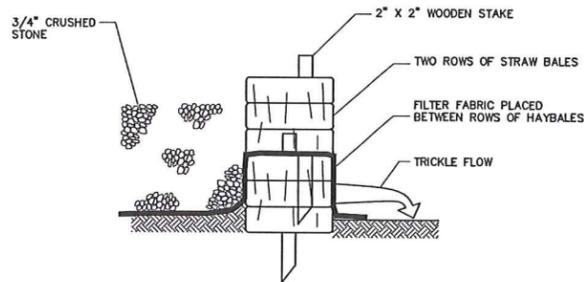
NEW PIPE TO EXISTING MANHOLE/CATCH BASIN
NOT TO SCALE



NOTE:

1. INSTALL SILTSACK PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. EMPTY OR REMOVE SEDIMENT FROM SILTSACK WHEN RESTRAINT CORD IS NO LONGER VISIBLE. CLEAN, RINSE, AND REPLACE AS NEEDED.
2. SILT SACKS TO BE INSTALLED PRIOR TO CONSTRUCTION OPERATIONS.

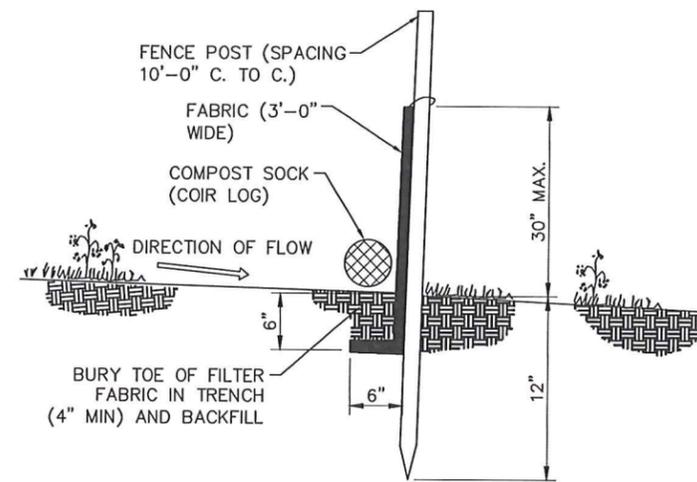
SILTSACK INLET
NOT TO SCALE



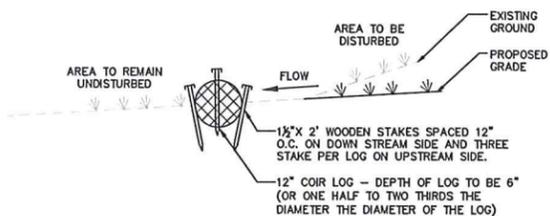
NOTES:

1. ALL BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER.
2. SHOULD THE BARRIER DECOMPOSE OR BECOME INEFFECTIVE BEFORE THE END OF THE EXPECTED LIFE AND THE BARRIER IS STILL NECESSARY, IT SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR WHEN THE DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIER IS NO LONGER REQUIRED SHALL BE REMOVED AND DISPOSED.
5. BASINS SHALL NOT BE LOCATED WITHIN ANY RESOURCE AREA.

DETENTION BASIN DETAIL
NOT TO SCALE



TYPICAL SILTATION FENCE DETAIL
NOT TO SCALE



COIR LOG EROSION CONTROL DETAIL
NOT TO SCALE

EROSION CONTROL NOTES:

1. ALL EROSION CONTROL AND RESTORATION SHALL COMPLY WITH SPECIFICATIONS SECTION 02210.
2. STORMWATER MANAGEMENT DURING CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE REGULATIONS.
3. RESTORATION IN ALL DISTURBED AREAS SHALL RESULT IN EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS.
4. RESTORATION IN WETLAND/MARSH AREAS TO INCLUDE RE-USE OF NATIVE MATERIALS FOR BACKFILL AND REPLANTING OF EXISTING VEGETATION UPON COMPLETION OF WORK.
5. HAY BALES SHALL NOT BE USED FOR EROSION CONTROL. USE OF COIR LOGS, COMPOST SOCKS, OR STRAW WATTLES IS ACCEPTABLE.

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STATE OF MASSACHUSETTS
VONNIE REIS CIVIL ENGINEER
No. 45666
REGISTRATION NO. 45666

REV	DESCRIPTION	DATE

CHECKED BY: VWR
DESIGNED BY: APB
DRAWN BY: APB
2109701 - PH I NOTES & DETAILS

ADDITIONAL PIPE AND EROSION CONTROL DETAILS

PHASE IIA
COASTAL STRUCTURES
1/1 REDUCTION PROJECT
DEPARTMENT OF PUBLIC WORKS
QUINCY, MASSACHUSETTS

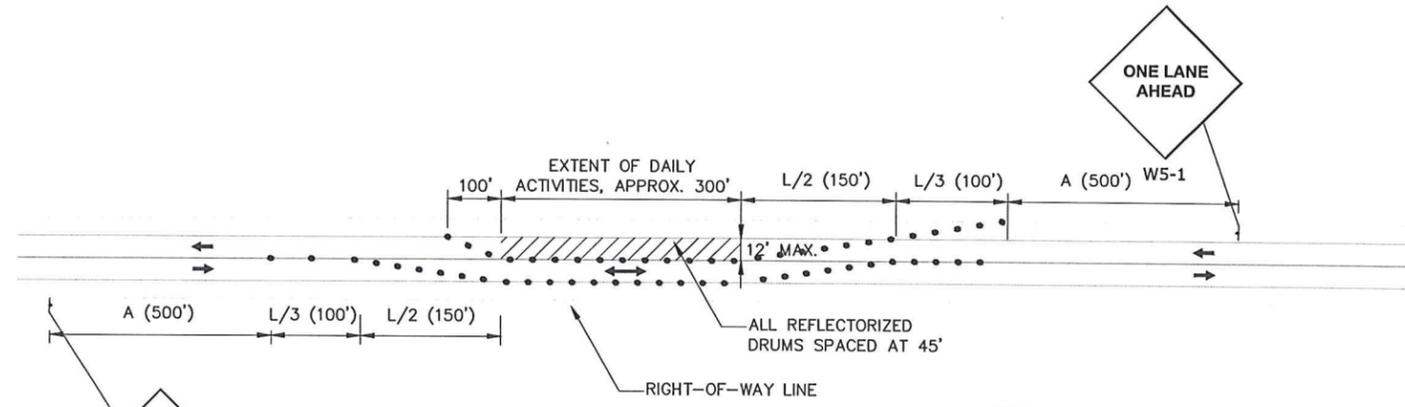
JOB NO: 210970.01
DATE: JULY 2011
SCALE: NOT TO SCALE
SHEET: 10 OF 11

C-203

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 g:\210970 Quincy MA - MWRA - I - Application Assistance\wp\CAD Drawings\210970.01 - PH I NOTES & DETAILS.dwg, Jun 24, 2011, 6:42am

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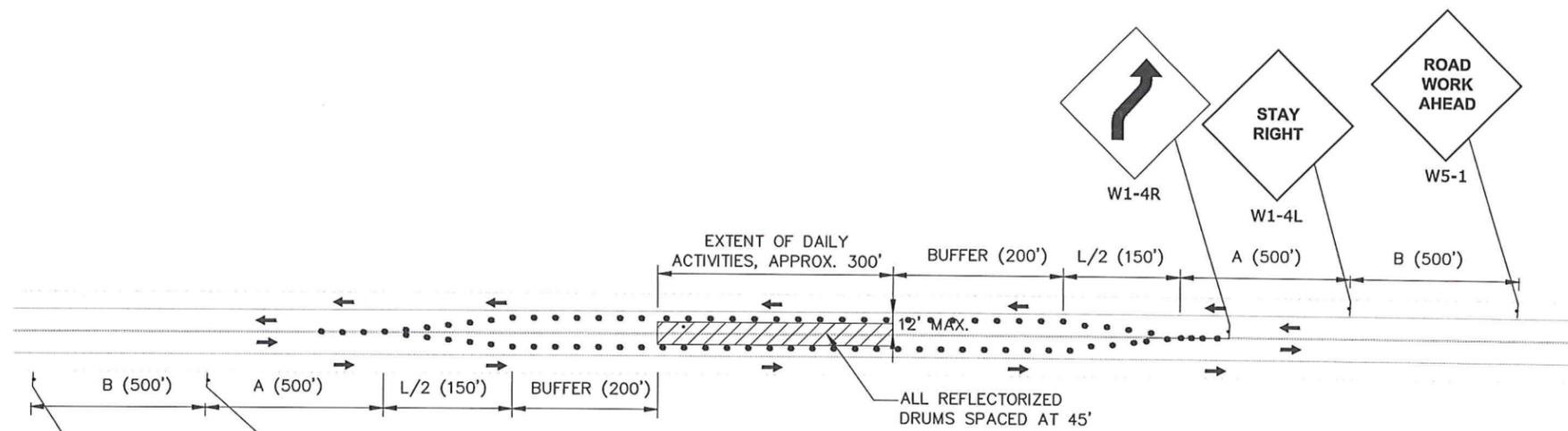
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ONE LANE TRAFFIC MANAGEMENT PLAN (TYP.)
NOT TO SCALE

- NOTES:
1. SETUP WILL BE REPEATED DAILY AS NECESSARY UNTIL SEWER CONSTRUCTION IS COMPLETE.
 2. A, L AND END TAPER DISTANCES WILL REMAIN THE SAME FOR EACH SETUP.
 3. WORK IS PLANNED FROM 7 AM TO 3:30 PM EACH DAY.
 4. CONTRACTOR IS REQUIRED TO MAINTAIN AT LEAST ONE TRAVEL LANE IN EACH DIRECTION.
 5. POLICE DETAILS WILL BE REQUIRED AS DETERMINED BY THE CITY OF QUINCY POLICE DEPARTMENT.

B



TWO LANE TRAFFIC MANAGEMENT PLAN (TYP.)
NOT TO SCALE

- NOTES:
1. SETUP WILL BE REPEATED DAILY ALONG ROAD AS NECESSARY UNTIL SEWER CONSTRUCTION IS COMPLETE.
 2. A, B, L AND END TAPER DISTANCES WILL REMAIN THE SAME FOR EACH SETUP.
 3. WORK IS PLANNED FROM 7 AM TO 3:30 PM EACH DAY.
 4. CONTRACTOR IS REQUIRED TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION.
 5. POLICE DETAILS WILL BE REQUIRED AS DETERMINED BY THE CITY OF QUINCY POLICE DEPARTMENT.

\\vander\Projects\210970 Quincy MA - MWRA - I-1 Application Assistance\Map\CAD Drawings\210970.01 - PH II NOTES & DETAILS.dwg, Jun 23, 2011 - 2:51pm

800 Washington Street, Suite 325
Dedham, Massachusetts 02028
800.446.5518 | www.woodardcurran.com

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VONNIE REIS CIVIL ENGINEER REG. NO. 45658

REV	DESCRIPTION	DATE
DESIGNED BY: APB	CHECKED BY: VMR	
DRAWN BY: APB	20870.01 - PH II NOTES & DETAILS	

TRAFFIC MANAGEMENT PLAN

PHASE IIA
COASTAL STRUCTURES
1/1 REDUCTION PROJECT

DEPARTMENT OF PUBLIC WORKS
QUINCY, MASSACHUSETTS

JOB NO.: 210970.01

DATE: JULY 2011

SCALE: NOT TO SCALE

SHEET: 11 OF 11

T-101

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