

# CITY OF BOSTON PUBLIC WORKS DEPARTMENT

HON. MARTIN J. WALSH - MAYOR

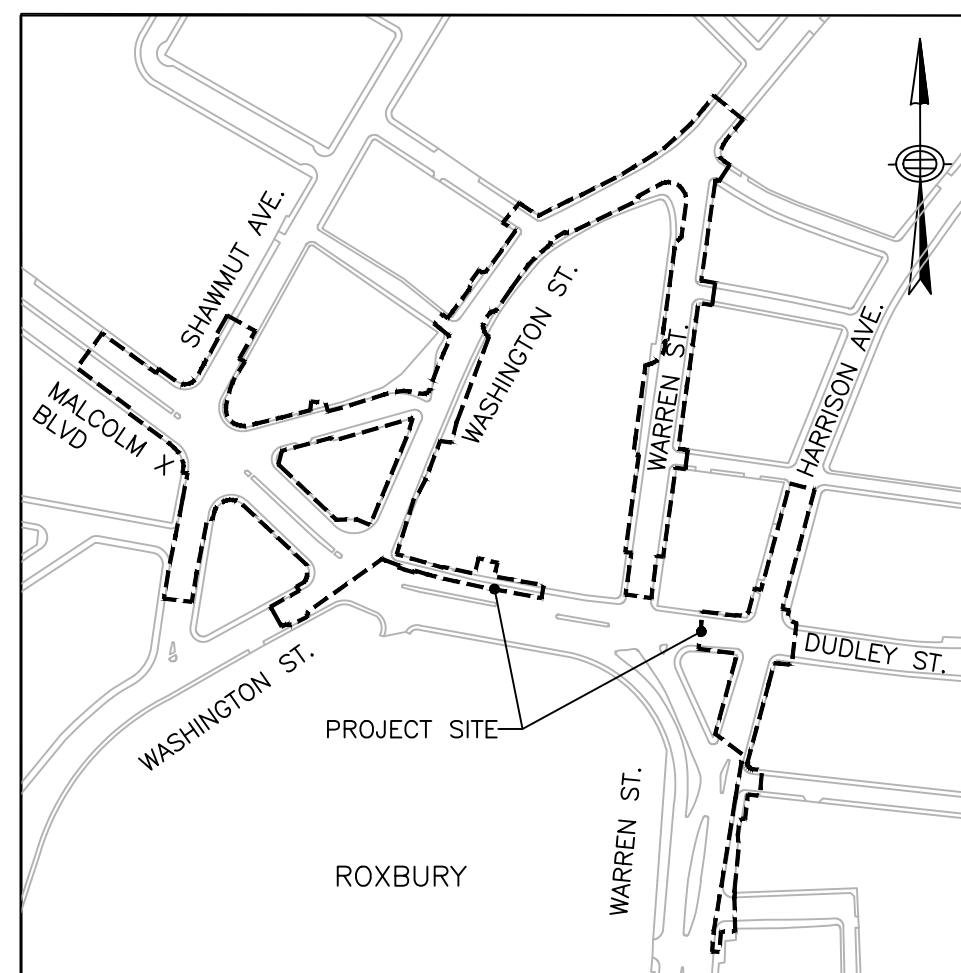
CHRIS OSGOOD - CHIEF OF STREETS, TRANSPORTATION, AND SANITATION

## CAPITAL IMPROVEMENT PROJECT XX-XX

### DUDLEY SQUARE COMPLETE STREETS IMPROVEMENTS - PHASE 2

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LOCUS MAP  
1" = 300'



100% SUBMISSION

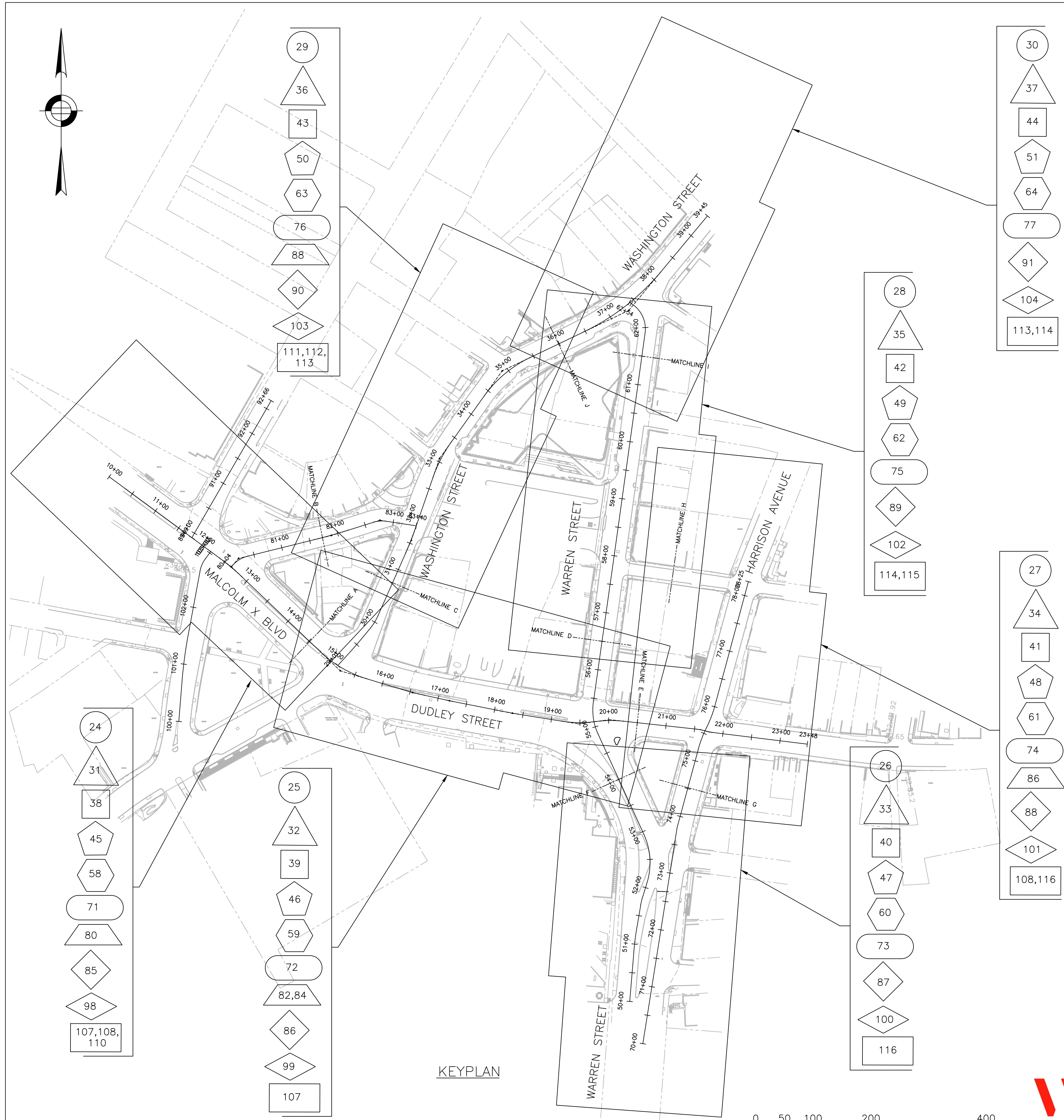
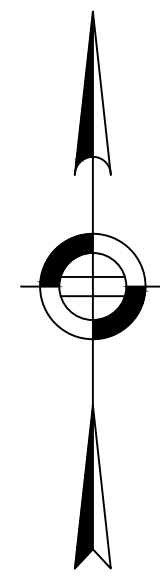
PLANS PREPARED BY:  
WSP USA

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APPROVED:

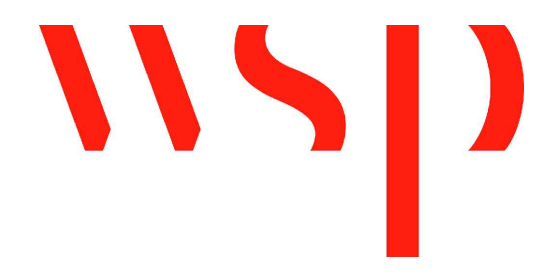
CHIEF OF STREETS, TRANSPORTATION, & SANITATION

DATE



- # CONSTRUCTION PLANS
- # CURB TIE PLANS
- # DRAINAGE & UTILITIES PLANS
- # GRADING PLANS
- # GREEN INFRASTRUCTURE PLANS
- # PAVEMENT MARKINGS & SIGNAGE PLANS
- # TRAFFIC SIGNAL PLANS
- # LANDSCAPE PLANS – PLANTING PLANS
- # STREET LIGHTING PLANS
- # CMP PLANS

KEYPLAN



SURVEY BY BRYANT ASSOCIATES

DRAWN BY N. BELLONE

CHECKED BY R. BUSCKARDT

APPROVED BY R. SANCIORO

CIP XX-XX SHEET 2 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**KEY PLAN**  
ROXBURY

SCALE: 1" = 100'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

\_\_\_\_\_  
CITY ENGINEER

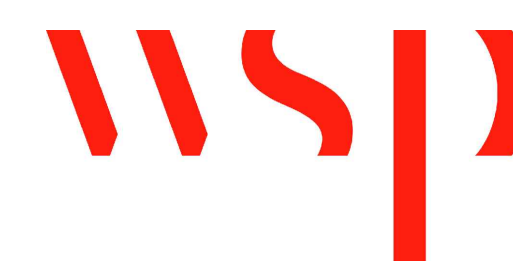
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GENERAL NOTES

1. THE CONTRACTOR WILL BE REQUIRED TO SET SURVEY CONTROL USING A PROFESSIONAL LAND SURVEYOR (PLS) AND COORDINATE THE SURVEY WORK WITH BOSTON PUBLIC WORKS DEPARTMENT'S CONSTRUCTION MANAGEMENT TEAM. SURVEY CONTROL SHALL BE APPROVED BY THE BOSTON PUBLIC WORKS DEPARTMENT PRIOR TO THE START OF CONSTRUCTION. THE SURVEY LAYOUT FOR THE PROJECT SHOULD BE INCLUDED IN THE BID PRICE FOR THIS PROJECT.
2. TOPOGRAPHIC INFORMATION IS BASED ON GROUND SURVEY BY BRYANT ASSOCIATES, INC. IN FALL 2012.
3. FOR BENCHMARK INFORMATION, REFER TO THE CONSTRUCTION BASELINE TIES PLANS: SHEETS 16 THRU 23.
4. ALL UNDERGROUND UTILITIES AS SHOWN WERE COMPILED FROM RECORD INFORMATION AND FIELD MARKINGS AS PROVIDED BY THE INDIVIDUAL UTILITY OWNERS. THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY DRAINAGE OR UTILITY WORK IS PERFORMED. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES RELATIVE TO THE LOCATIONS AND ELEVATIONS OF THEIR LINES. THE CONTRACTOR SHALL KEEP A RECORD OF ANY DISCREPANCIES OR CHANGES IN THE LOCATIONS OF ANY UTILITIES SHOWN OR ENCOUNTERED DURING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
5. TEST PITS SHALL BE EXCAVATED AT THOSE LOCATIONS INDICATED ON SHEETS 42. ALL TEST PIT EXCAVATIONS SHALL BE MADE TO DETERMINE THE LOCATIONS OF EXISTING UTILITIES OR STRUCTURES AND PERFORMED 30 DAYS IN ADVANCE OF CONSTRUCTION OPERATIONS SO THAT ANY CHANGES IN ALIGNMENT AND/OR GRADE OF THE PROPOSED WORK OR UTILITY LOCATIONS MAY BE DETERMINED. ALL TEST PIT INFORMATION SHALL BE REPORTED TO THE ENGINEER.
6. ALL CITY-OWNED UTILITY STRUCTURES WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED TO NEW LINE AND GRADE AS DIRECTED BY THE ENGINEER.
7. ALTERATIONS TO UTILITIES NOT OWNED BY THE CITY SHALL BE MADE BY THE RESPECTIVE UTILITY OWNERS. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF ELECTRIC, TELEPHONE, AND CABLE MANHOLES AND OTHER FACILITIES. THERE WILL BE NO ADDITIONAL COMPENSATION PROVIDED IF THE CONTRACTOR ADJUSTS UTILITY COVERS OR PERFORMS OTHER WORK ASSOCIATED WITH ADJUSTING AND ALTERING UTILITY STRUCTURES TO MEET FINISH GRADE.
8. THE CONTRACTOR SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER B2, SECTION 4D AS AMENDED, WHICH STATES THAT NO ONE MAY EXCAVATE IN THE COMMONWEALTH OF MASSACHUSETTS EXCEPT IN AN EMERGENCY WITHOUT 72 HOURS NOTICE, EXCLUSIVE OF SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS, TO ALL UTILITY COMPANIES THAT HAVE FACILITIES IN THE CITY OF BOSTON AND ALSO TO ALL MUNICIPAL UTILITY DEPARTMENTS. THE CONTRACTOR SHALL ALSO CALL "DIG SAFE" AT 1-888-DIG-SAFE.
9. THE CONTRACTOR SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER 82A, ALSO REFERRED TO AS JACKIE'S LAW, AS DETAILED IN SECTION 520 CMR 14.00 OF THE CODE OF MASSACHUSETTS REGULATIONS.
10. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, REGULATIONS AND SAFETY CODES IN THE CONSTRUCTION OF ALL IMPROVEMENTS.
11. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PROTECT ALL WALKS, GRADING, SIDEWALKS AND FEATURES OUTSIDE OF THE LIMITS OF WORK AND SHALL REPAIR AND REPLACE OR OTHERWISE MAKE GOOD AS DIRECTED BY THE ENGINEER. AND SUCH OR OTHER DAMAGE SO CAUSED, AT NO ADDITIONAL COST TO THE CITY.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK SUCH THAT THERE WILL BE NO CONFLICTS AT ANY TIME BETWEEN TRAFFIC PATTERNS AND TRAFFIC CONTROL DEVICES (NEW OR TEMPORARY) WITHIN THE LIMITS OF CONSTRUCTION. NEW SIGNS SHALL BE FULLY INSTALLED AT THE SAME TIME OR PRIOR TO THE INSTALLATION OF NEW PAVEMENT MARKINGS. SIGNS CONFLICTING WITH EXISTING PAVEMENT MARKINGS SHALL BE COVERED UNTIL THE FINAL PAVEMENT MARKINGS ARE INSTALLED. ONCE THE NEW PAVEMENT MARKINGS ARE INSTALLED, SIGNS SHALL BE PROMPTLY UNCOVERED.
13. ELEVATIONS REFER TO BOSTON CITY BASE.
14. THE COORDINATE INFORMATION SHOWN ON THE PLANS REFERS TO THE NORTH AMERICAN DATUM OF 1983, NAD 83.
15. ALL DRAIN WORK SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS AND STANDARD DETAILS OF THE BOSTON WATER AND SEWER COMMISSION.
16. GAS, TELEPHONE, CABLE, AND ELECTRIC SERVICES ARE TO BE INSTALLED BY EACH UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH GAS, ELECTRIC, CABLE TELEVISION AND TELECOMMUNICATION COMPANIES. THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS OPERATIONS AND SCHEDULE TO ENABLE THE OWNING UTILITY TO INSTALL THEIR FACILITIES.
17. UTILITY STRUCTURES TO BE ABANDONED SHALL BE REMOVED TO A DEPTH OF NO LESS THAN 3 FEET BELOW FINISHED GRADE, THE BOTTOMS OF THE STRUCTURES SHALL BE BROKEN AND THE STRUCTURES SHALL BE BACKFILLED WITH GRAVEL AND COMPACTED.
18. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES EXCEPT THOSE NOTED TO BE ABANDONED OR REMOVED AND DISPOSED.
19. PROTECT CATCH BASINS, INLETS AND MANHOLES FROM INFLOW OF SEDIMENT OR OTHER CONSTRUCTION DEBRIS.
20. GROUND WATER DEWATERING SHALL PASS THROUGH AN APPROVED SEDIMENTATION BASIN PRIOR TO DISCHARGE TO ANY CB, INLET, MANHOLE, OR BASIN.
21. THE CONTRACTOR SHALL SUPPORT-IN-PLACE ALL UTILITIES CROSSING TRENCH EXCAVATIONS. THE CONTRACTOR SHALL SELECT AND DESIGN THE TEMPORARY UTILITY SUPPORTS AND SHALL SUBMIT TO THE RESPECTIVE UTILITY OWNER FOR REVIEW AND APPROVAL. ALL COSTS ASSOCIATED WITH SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.
22. THE CONTRACTOR SHALL MAINTAIN CONTINUOUS UTILITY SERVICES FOR ALL UTILITIES TO ALL ABUTTERS AND TO ALL CITY-OWNED UTILITY SYSTEMS. THE CONTRACTOR SHALL PREVENT DAMAGE TO ALL UTILITIES.
23. THE CONTRACTOR SHALL NOTE THAT BURIED FOUNDATIONS FOR THE BOSTON ELEVATED RAILWAY REMAIN WITHIN THE SIDEWALKS OF WASHINGTON, WARREN AND DUDLEY STREETS.
24. THE CONTRACTOR SHALL NOTE THAT BURIED STREETCAR TRACKS WERE COMPILED FROM HISTORIC RECORD PLANS. THE EXISTENCE AND EXTENTS OF THE BURIED STREETCAR TRACKS SHOWN ON PLAN IS UNKNOWN. ANY TRACK (INCLUDING COBBLES, SPECIAL TRACKWORK, RAILS, TIES, TIE PLATES, SPIKES, GAUGE BARS, OTHER TRACK MATERIALS, ETC. AS DESCRIBED IN ITEM 120.1) ENCOUNTERED SHALL BE EXCAVATED AND PAID FOR UNDER ITEM 120.1 AS DIRECTED BY ENGINEER. THERE WILL BE NO ADDITIONAL COMPENSATION (OUTSIDE OF ITEM 120.1) FOR THE EXCAVATION OF THE TRACKS.
19. UNLESS OTHERWISE NOTED, ALL EXISTING TREES SHALL BE PRESERVED AND PROTECTED. REFER TO THE LANDSCAPING PLANS FOR TREE PROTECTION METHODS.
20. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS, INCLUDING STAGING AREAS, SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
21. THE CONTRACTOR IS HEREBY NOTIFIED AND REQUIRED TO COORDINATE WITH ADDITIONAL WORK WITHIN THE PROJECT LIMITS PERFORMED BY OTHERS, SPECIFICALLY THE FOLLOWING PROJECTS:
  - a. RECONSTRUCTION WORK AT THE DUDLEY BRANCH LIBRARY.
  - b. BOSTON PUBLIC WORKS CIP 19-21.
  - c. RIO GRANDE DEVELOPMENT PROJECT
  - d. 10 TABER ST DEVELOPMENT PROJECT
27. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH MBTA BUS OPERATIONS AND TRANSIT POLICE.
28. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS AND DIMENSIONS PRIOR TO THE START OF CONSTRUCTION.
29. EXISTING PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY PROPERTY LIMITS PRIOR TO CONSTRUCTION AND PLACE ALL NEW EQUIPMENT ONLY WITHIN THE CITY OF BOSTON'S RIGHT OF WAY.
30. JOINTS BETWEEN NEW HOT MIX ASPHALT ROADWAY PAVEMENT AND THE LOCATIONS OF SAW CUT OF EXISTING PAVEMENT SHALL BE SEALED WITH HOT Poured RUBBER ASPHALT AND BACK SANDED.
31. ALL GRADING SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG), LATEST EDITION. IN CASE OF CONFLICT BETWEEN REGULATIONS, THE GUIDELINE PROVIDING GREATER ACCESS SHALL APPLY. PEDESTRIAN RAMP INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE BOSTON PUBLIC WORKS DEPARTMENT PEDESTRIAN RAMP STANDARDS.
32. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR TRAFFIC MANAGEMENT AND SHALL COMPLY WITH CONDITIONS OUTLINED WITHIN THE SPECIFICATIONS AND CITY OF BOSTON STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TRAFFIC MANAGEMENT PLANS.
33. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT FOR REVIEW A SCHEDULE OF OPERATIONS IN ADDITION TO OTHER CONTRACT REQUIREMENTS TO THE CITY OF BOSTON.
34. WHERE THE NEW CONSTRUCTION IS WITHIN THE EXISTING TRAVELED WAY, CONTRACTOR SHALL COORDINATE WITH PROPERTY/BUSINESS OWNERS FOR PROPER ACCESS/EGRESS AND DELIVERIES.
35. THE CONTRACTOR WILL NOT BE ALLOWED TO PARK EQUIPMENT OR STOCKPILE MATERIAL ON THE TRAVELED WAYS OVERNIGHT OR WHEN NOT IN USE. THE CONTRACTOR SHALL MAINTAIN SAFE AND REASONABLE ACCESS TO AND FROM ABUTTING PROPERTIES AT ALL TIMES AT NO ADDITIONAL COST TO THE CITY.
36. NO EXISTING PUBLIC UTILITY STRUCTURES SHALL BE ABANDONED AND/OR DISMANTLED WITHOUT AUTHORIZATION FROM THE ENGINEER.
37. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL OUTSIDE OF THE PROJECT LIMITS IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS AND AT THE CONTRACTOR'S EXPENSE.
38. THE CONTRACTOR SHALL INVESTIGATE AND CONFIRM THAT ALL ITEMS TO BE REUSED ARE IN SERVICEABLE CONDITION. IF IT IS DEEMED THAT ANY ITEM IS NOT ABLE TO BE REUSED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING AND INCLUDE ESTIMATED COSTS TO INSTALL NEW.
39. THE CONTRACTOR SHALL ADJUST EXISTING STREET LIGHTING PULLBOXES AS REQUIRED TO ACCOMMODATE NEW SIDEWALK MATERIALS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION AND BACKFILLING. THE CONTRACTOR SHALL PROVIDE NEW CONDUIT OPENINGS, RELOCATE GROUNDING RODS, EXTEND EXISTING CONDUITS, AND PROVIDE WIRING REQUIRED. THE CONTRACTOR SHALL ENSURE THAT STREET LIGHTING SERVICE WILL NOT BE INTERRUPTED AND THAT STREET LIGHTING WILL BE OPERATIONAL AT END OF EACH WORKDAY.
40. CENTERLINE OF ALL MAST ARM FOUNDATIONS SHALL BE 36" FROM FACE OF CURB, UNLESS OTHERWISE NOTED. MAINTAIN ADA ACCESSIBLE PATH OF TRAVEL (5' PREFERRED, 4' MINIMUM).
41. VACUUM EXCAVATION SHALL BE UTILIZED DURING ALL MAST ARM & STRAIN POLE FOUNDATION INSTALLATIONS. VACUUM EXCAVATION SHALL BE COMPLETED TO THE FULL DEPTH OF THE PROPOSED FOUNDATION TO ENSURE EXISTING UTILITIES ARE NOT DAMAGED.
42. CENTERLINE OF ALL TRAFFIC SIGNAL POST FOUNDATIONS SHALL BE 33" FROM FACE OF CURB, UNLESS OTHERWISE NOTED. MAINTAIN ADA ACCESSIBLE PATH OF TRAVEL (5' PREFERRED, 4' MINIMUM).
43. CENTERLINE OF CONCRETE CONTROL BOX FOUNDATIONS SHALL BE 36" FROM FACE OF CURB FOR TYPE CA AND CB CABINETS AND 48" FROM FACE OF CURB FOR CC AND CD CABINETS, UNLESS OTHERWISE NOTED. MAINTAIN ADA ACCESSIBLE PATH OF TRAVEL (5' PREFERRED, 4' MINIMUM).
44. ALL TRAFFIC SIGNAL EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BE RETURNED TO BTD SIGNAL MAINTENANCE FACILITY AT 12 CHANNEL STREET, SOUTH BOSTON. THE CONTRACTOR SHALL PRESENT A RECEIPT FOR ALL RETURNED EQUIPMENT TO BTD ENGINEERING DIVISION.
45. ALL WORK REQUIRED TO COMPLETE TRAFFIC SIGNAL MODIFICATIONS SHALL BE IN CONFORMANCE WITH BTD STANDARDS AND SPECIFICATIONS. ALL WORK ON EXISTING TRAFFIC CONTROL AND CAMERA SYSTEMS SHALL BE PERFORMED BY A CONTRACTOR OR CONTRACTORS PRE-APPROVED BY THE BOSTON TRANSPORTATION DEPARTMENT FOR THE SPECIFIC WORK.
46. ALL EXISTING STREET LIGHTING PULL BOXES WITHIN THE LIMIT OF CONSTRUCTION THAT ARE TO REMAIN SHALL BE FITTED WITH FIBERGLASS REINFORCED CONCRETE FRAMES AND COVERS AND WILL BE PAID FOR UNDER ITEM 811.363, PULL BOX FRAME AND COVER - SIDEWALK REMOVE AND REPLACE.
47. MAINTAIN EXIST. STREET LIGHTING UNTIL NEW STREET LIGHTING IS IN OPERATION.
48. WHERE EXISTING LIGHT POLES ARE REMOVED AND NO NEW LIGHT POLE IS BEING INSTALLED, REMOVE EXISTING FOUNDATION TO MIN. 3' BELOW FINISH GRADE.

R-XXXX-3



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 3 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**GENERAL NOTES**  
ROXBURY

SCALE: N.T.S.	AREA: 1
DISTRICT: 10	100% SUBMISSION
	DATE: APR. 15, 2019

\_\_\_\_\_  
CITY ENGINEER



### LEGEND

	35.5	EXISTING CONTOUR
	STM	STEAM LINE
	OHW	OVERHEAD WIRES
	D	SURFACE DRAIN
	S	SANITARY SEWER
	C	CABLE TELEVISION
	T&F	TELEPHONE AND FIRE ALARM
	G	GAS
	E	ELECTRIC
	M	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
	CS	COMBINED SEWER
	T	TELEPHONE
	W	WATER MAIN
	SL/FA/TC	STREET LIGHTING, FIRE AND TRAFFIC CONTROL
	MF	METAL FENCE
	IFE	IRON FENCE
	CLF	CHAIN LINK FENCE
		BUILDING
		ABANDONED MBTA RAIL LINES
	BOL	BOLLARD
	BWW	BOSTON WATER WORKS
	CATV	CABLE TV
	CB	CATCH BASIN
	DMH	DRAIN MANHOLE
	EHH	ELECTRIC HAND HOLE
	EHH	ELECTRIC HANDHOLE FOR OTHERS
	EMH	ELECTRIC MANHOLE
	FA	FIRE ALARM
	PHONE	TELEPHONE
	FLP	FLAG POLE
	FLGT	FLOOD LIGHT
	FL	FOOT LIGHT
	GM	GAS METER
	GG	GAS GATE
	GP	GATE POST
	HC	HANDICAP PARKING
	GW	GUY WIRE
	HH	HANDHOLE
	HYD	HYDRANT
	ICV	IRRIGATION WATER VALVE
	LP	LIGHT POLE
	LPG	LIGHT POLE GAS
	MH	MANHOLE
	MBTAMH	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
	OBWL	OBSERVATION WELL
	PB	PULL BOX
	SMH	SANITARY SEWER MANHOLE
	SIGN	SIGN
	SPKLR	SPRINKLER
	SLCB	STREET LIGHT CONTROL BOX
	STMH	STEAM MANHOLE
	SP	STEEL POST
	SLP	STREET LIGHT POLE
	TMH	TELEPHONE MANHOLE
	TRFC	TRAFFIC POLE (COMBINED)
	TRFP	TRAFFIC POLE (PEDESTRIAN)
	TRFV	TRAFFIC POLE (VEHICULAR)
	TRCB	TRAFFIC CONTROL BOX
	UP	UTILITY POLE
	WG	WATER GATE
	B	TREE (BIRCH)
	DCID	TREE (GENERIC)
	M	TREE (MAPLE)
	MA	TREE (MOUNTAIN ASH)
	SUMAC	TREE (SUMAC)
	SYC	TREE (SYCAMORE)
		GRANITE BOUND

### ABBREVIATIONS

ABND	ABANDONED
B	BOTTOM
BSW	BACK OF SIDEWALK
BC	BOTTOM CURB
BW	BOTTOM WALL
(BO)	BASE ONLY
B-RACK	BIKE RACK
BIT	BITUMINOUS CONCRETE
BP	BITUMINOUS PATCH
BW	BOTTOM WALL
BRK	BRICK
BWL	BROKEN WHITE LINE
(C)	CLOGGED
CI	CAST IRON PIPE
CONC	CONCRETE
CCS	CONCRETE CURB STOP
CP	CONCRETE PAD
CU	CONNECTION UNKNOWN
CWS	COVERED WOOD STOOP
DC	DOOR CENTERLINE
DBL	DOUBLE
DICL	DUCTILE IRON CEMENT LINED PIPE
DYL	DOUBLE YELLOW LINE
EP	EDGE OF PAVEMENT
(F)	FILLED
FF	FINISHED FLOOR
FD	FLOOR DRAIN
GP	GATE POST
GRAN	GRANITE
H.R.	HANDRAIL
I	INVERT
(M)	FIELD MEASUREMENT
MP	METAL PLATE
MET	METAL
NPV	NO PIPES VISIBLE
O.H.	OVERHANG
PGL	PAINTED GAS LINE
PEL	PAINTED ELECTRIC LINE
PTL	PAINTED TELEPHONE LINE
PWL	PAINTED WATER LINE
PCI	PIT CAST IRON PIPE
PLNTR	PLANTER
PL	PLASTIC PIPE
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE
(R)	RECORD
R	RIM
R.R	RAILROAD TIE WALL
RCD	RECESSED
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
RD	ROOF DRAIN
S	SUMP
SH	SHELF
STY	STORY
SWL	SOLID WHITE LINE
SYL	SOLID YELLOW LINE
TS	TACTILE STRIP
TC	TOP CURB
TD	TOP DEBRIS
TT	TOP TRAP
TW	TOP WALL
TOW	TOP OF WATER
T-BIN	TRASH BIN
TYP	TYPICAL
UPSR	UTILITY POLE SERVICE RISER
VERT	VERTICAL
VCG	VERTICAL CONCRETE CURB
VGC	VERTICAL GRANITE CURB
WCR	WHEELCHAIR RAMP
WD	WOOD
X-WALK	CROSSWALK
ADJ	ADJUST
ABAN.	ABANDON
RET.	RETAIN
REM.	REMOVE
R&D	REMOVE & DISCARD
R&S	REMOVE & STACK
R&R	REMOVE & RESET
R&T	REMOVE & TRANSPORT
N.I.C.	NOT IN CONTRACT
B.O.	BY OTHERS
F & C	FRAME AND COVER
F & G	FRAME AND GRATE
R.C.P.	REINFORCED CONCRETE PIPE
D.I.P.	DUCTILE IRON PIPE
PBS	PLANTABLE SOIL BORROW
TS	TRAFFIC SIGNAL
C.I.T.	CHANGE IN TYPE

### STREET FURNITURE LEGEND

PROPOSED	EXISTING	DESCRIPTION
		SIGN POST
		BOLLARD
		HYDRANT
		MAILBOX
		FIRE ALARM BOX
		WHEELCHAIR RAMP

### STREET LIGHTING LEGEND

	A●	PROPOSED STREET LIGHTING TWIN ACORN FIXTURE WITH SUBBASE
	B1●	PROPOSED STREET LIGHTING STANDARD TWIN PENDANT FIXTURE WITH SUBBASE
	B2●	PROPOSED STREET LIGHTING HIGH LOW TWIN PENDANT FIXTURE WITH SUBBASE
	C●	PROPOSED STREET LIGHTING STANDARD SINGLE PENDANT FIXTURE WITH SUBBASE
	□	PROPOSED STREET LIGHTING PULL BOX
	⊕	EXISTING POLE/STREET LIGHT
	■	EXISTING STREET LIGHTING PULL BOX
	- 2" or 3" -	PROPOSED 2" OR 3" STREET LIGHTING CONDUIT
	//// 3" ////	PROPOSED 3" CONCRETE ENCASED CONDUIT
	▣	PROPOSED LIGHTING CONTROL CABINET
	— SL —	EXISTING STREET LIGHT CONDUIT
	▣	EXISTING LIGHTING CONTROL CABINET

### TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING (TO REMAIN)	REMOVE/ABANDON	DESCRIPTION
			CONTROLLER CABINET
			SIGNAL POST
			MAST ARM
			VEHICULAR SIGNAL
			PEDESTRIAN SIGNAL
			PAN TILT ZOOM CAMERA
			PEDESTRIAN PUSH BUTTON
			AUDIBLE PEDESTRIAN PUSH BUTTON
			PULL BOX
			CONDUIT
			LOOP DETECTOR

### PAVEMENT MARKING LEGEND

	SWEL	4" SOLID WHITE EDGE LINE
	SYEL	4" SOLID YELLOW EDGE LINE
	SWLL	4" SOLID WHITE LANE LINE
	BWLL	4" BROKEN WHITE LANE LINE 10' MARK - 20' SKIP
	DWLL	4" DOTTED WHITE LANE LINE 2' MARK - 4' SKIP
	SWCHL	8" SOLID WHITE CHANNELIZATION LINE
	SYCHL	8" SOLID YELLOW CHANNELIZATION LINE
	DYCL	2-4" YELLOW CENTER LINES, 4" GAP
	SL	WHITE STOP LINE (24" UNLESS OTHERWISE SPECIFIED)
	CW	WHITE - CROSS WALK (12" LINES, 10' O.C.; 12" LONGITUDINAL LINES, 4' O.C.) (UNLESS OTHERWISE SHOWN)
	SWCHL	8" SOLID WHITE CHANNELIZATION (5' O.C. @45').
	DDYCL	4" DOTTED YELLOW CENTER LINES, 4" GAP 2' MARK - 4' SKIP

CIP XX-XX SHEET 4 OF 130

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BUSCKARDT

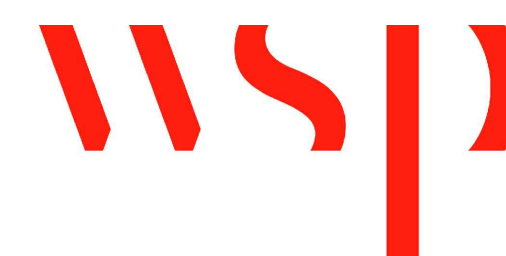
APPROVED BY R. SANSTORO

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**ABBREVIATIONS AND LEGEND**  
ROXBURY

SCALE: N.T.S.  
DISTRICT: 10

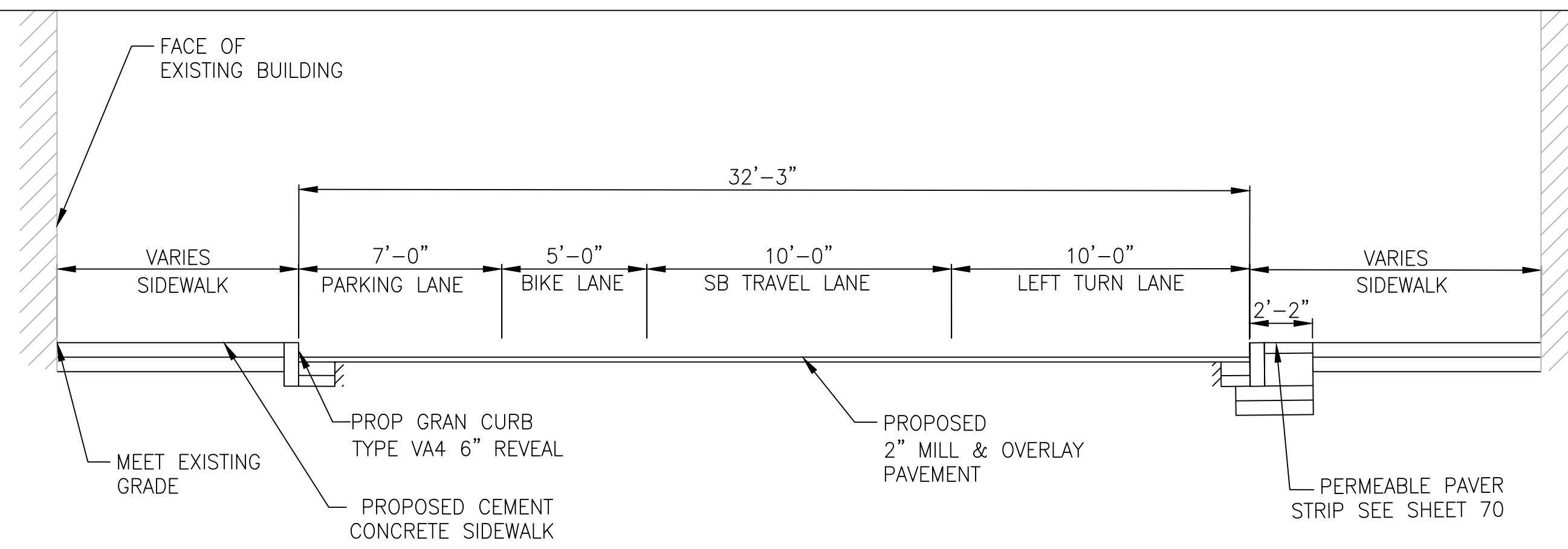
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

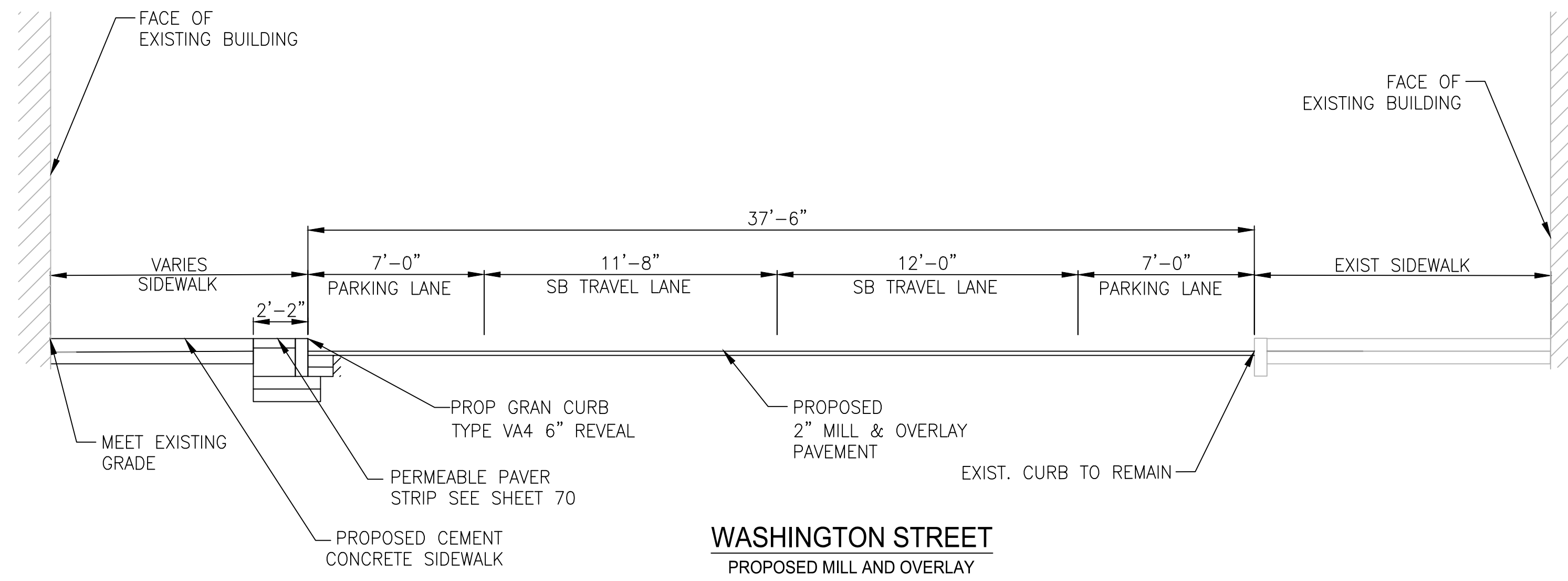


R-XXXX-4

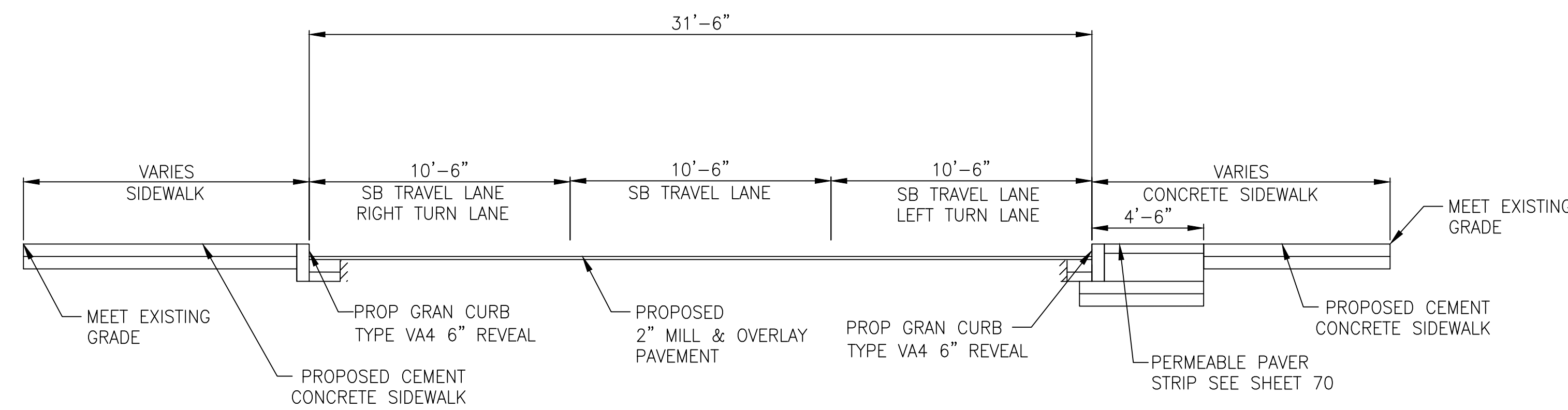




**WASHINGTON STREET**  
 PROPOSED MILL AND OVERLAY  
 STA: 30+72 TO 31+34  
 SCALE: 1"=4'-0"



**WASHINGTON STREET**  
 PROPOSED MILL AND OVERLAY  
 STA: 35+71 TO 36+73  
 SCALE: 1"=4'-0"



**SHAWMUT AVENUE**  
 PROPOSED MILL AND OVERLAY  
 STA: 90+51 TO 91+17  
 SCALE: 1"=4'-0"

PROPOSED CEMENT CONCRETE SIDEWALK

SIDEWALK: 6" CEMENT CONCRETE

BASE: 6" GRAVEL

MILL AND OVERLAY

ROADWAY: 2" SUPERPAVE SURFACE COURSE 12.5

ROADWAY FULL DEPTH PAVEMENT NOTES:

- 2" SUPERPAVE SURFACE COURSE 12.5
- 5.5" SUPERPAVE INTERMEDIATE COURSE 19.0\*
- 3" DENSE GRADED CRUSHED STONE
- 9" GRAVEL

\*DEPTH OF INTERMEDIATE COURSE MAY VARY TO MATCH ADJACENT PAVEMENT THICKNESS, AS DIRECTED BY THE ENGINEER.

POROUS ASPHALT NOTES:

- 2" POROUS ASPHALT SURFACE COURSE
- 2" POROUS ASPHALT BASE COURSE
- 6" CHOKER COURSE, #57 STONE
- 9" RESERVOIR COURSE, #2 STONE

PERMEABLE PAVER NOTES:

- PERMEABLE PAVERS
- 2" BEDDING COURSE, #8 STONE
- 19.5" CRUSED STONE BASE, #57 STONE
- 6" #2 STONE

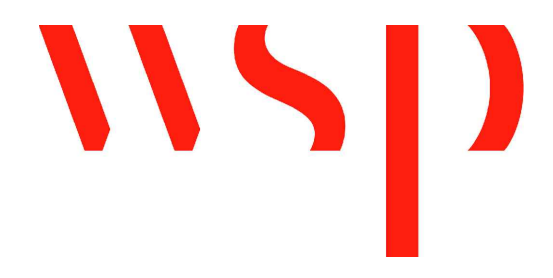
NOTE:

1. FOR LIMITS OF STRUCTURAL SOIL SEE SHEETS 90 THRU 97.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO



CIP XX-XX SHEET 5 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

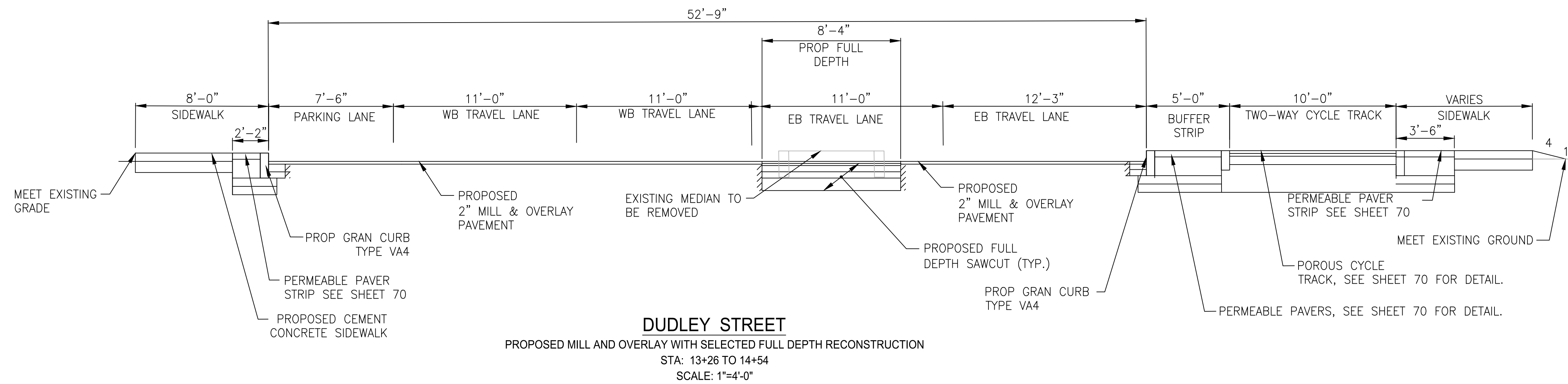
**DUDLEY SQUARE PHASE 2**  
**TYPICAL SECTIONS**  
 ROXBURY

SCALE: 1" = 4'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-5



PROPOSED CEMENT CONCRETE SIDEWALK

SIDEWALK: 6" CEMENT CONCRETE

BASE: 6" GRAVEL

MILL AND OVERLAY

ROADWAY: 2" SUPERPAVE SURFACE COURSE 12.5

ROADWAY FULL DEPTH PAVEMENT NOTES:

- 2" SUPERPAVE SURFACE COURSE 12.5
- 5.5" SUPERPAVE INTERMEDIATE COURSE 19.0\*
- 3" DENSE GRADED CRUSHED STONE
- 9" GRAVEL

\*DEPTH OF INTERMEDIATE COURSE MAY VARY TO MATCH ADJACENT PAVEMENT THICKNESS, AS DIRECTED BY THE ENGINEER.

POROUS ASPHALT NOTES:

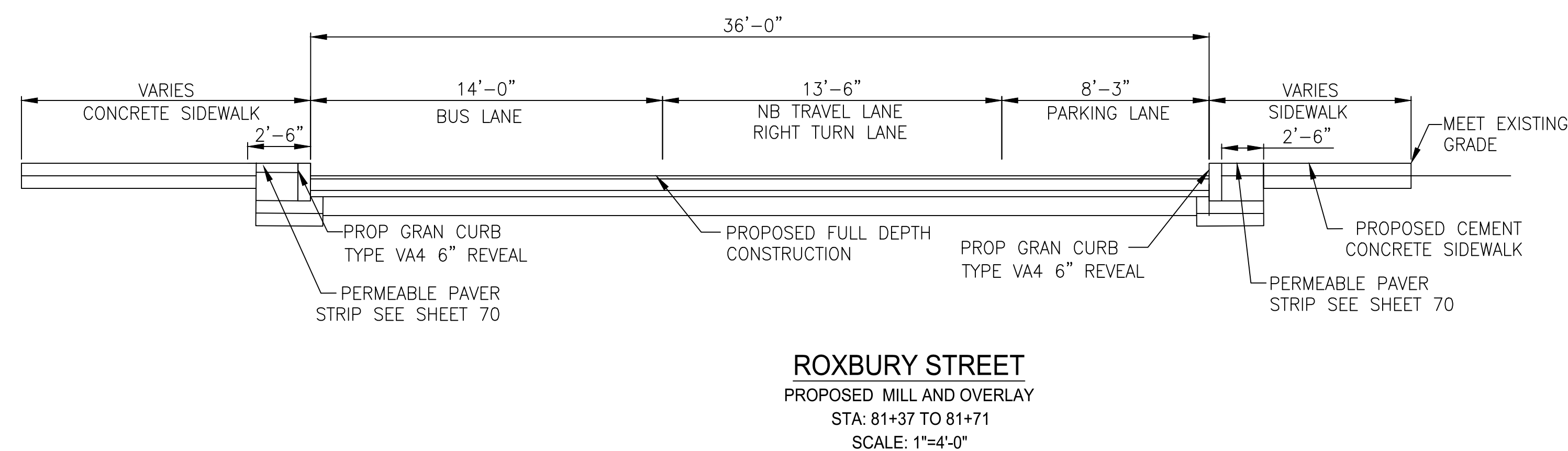
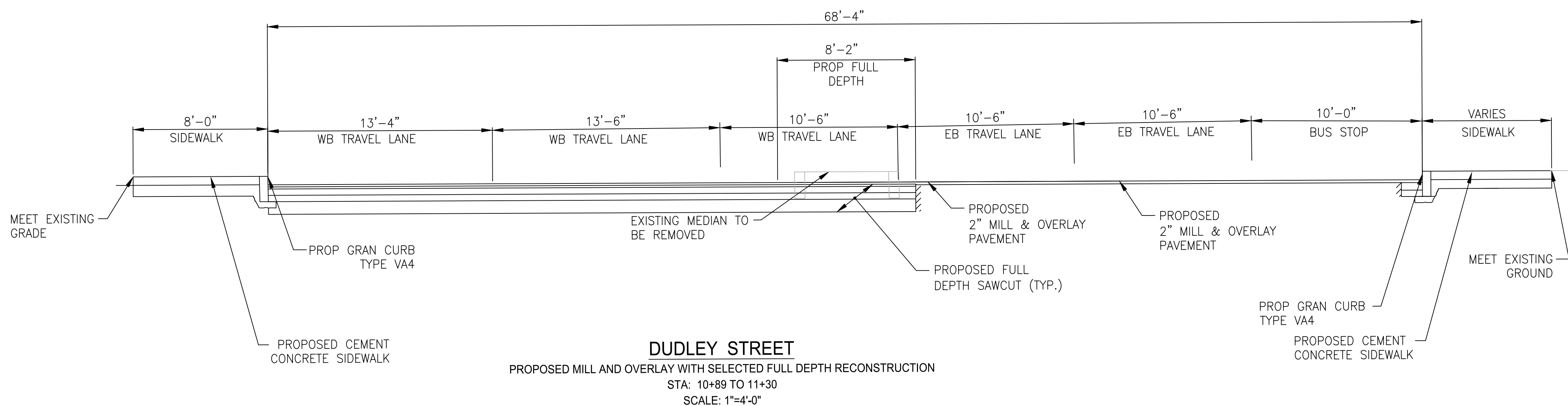
- 2" POROUS ASPHALT SURFACE COURSE
- 2" POROUS ASPHALT BASE COURSE
- 6" CHOKER COURSE, #57 STONE
- RESERVOIR COURSE, #2 STONE

PERMEABLE PAVER NOTES:

- PERMEABLE PAVERS
- 2" BEDDING COURSE, #8 STONE
- 19.5" CRUSED STONE BASE, #57 STONE
- 6" #2 STONE

NOTE:

1. FOR LIMITS OF STRUCTURAL SOIL SEE SHEETS 90 THRU 97.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

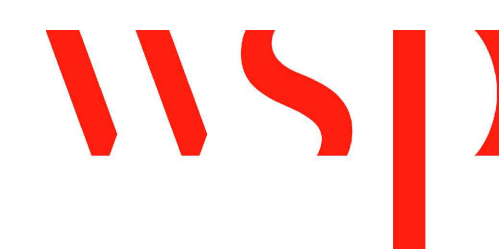
BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO



CIP XX-XX SHEET 6 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**TYPICAL SECTIONS**  
ROXBURY

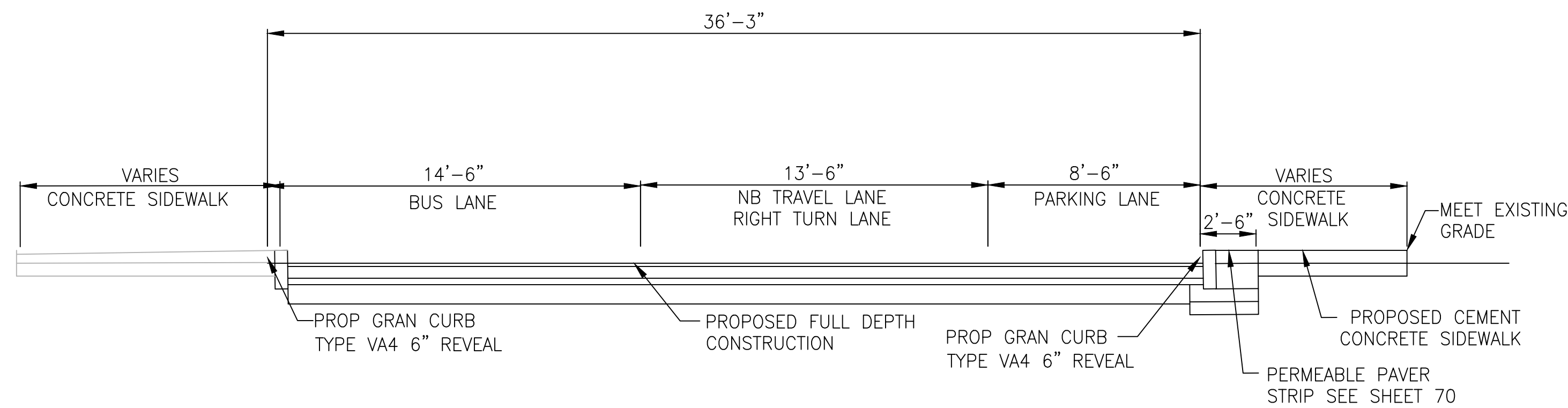
SCALE: 1" = 4'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

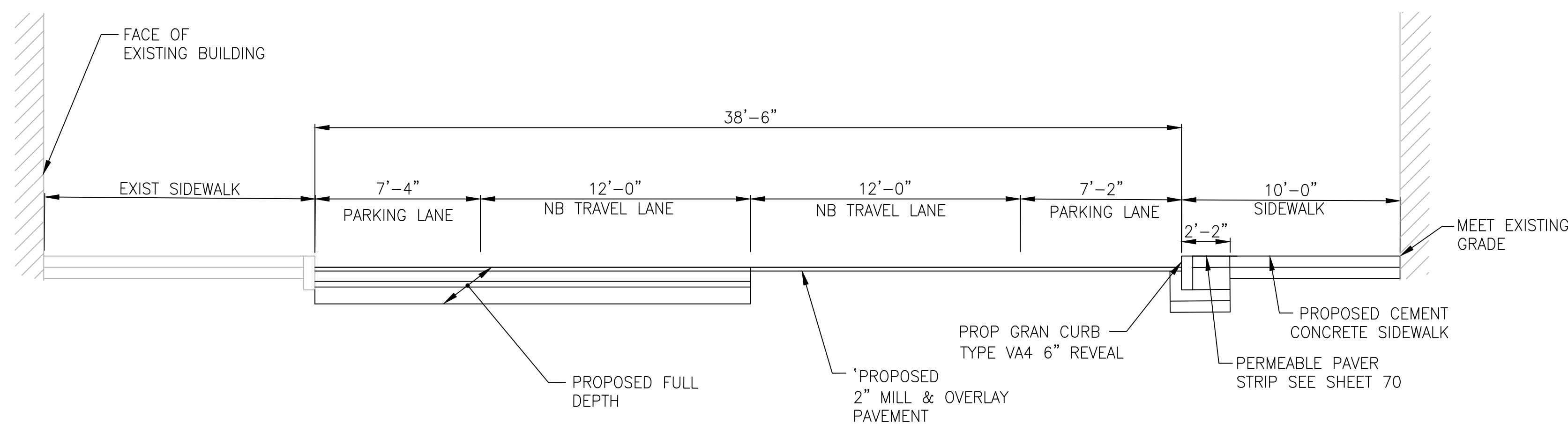
CITY ENGINEER

R-XXXX-6

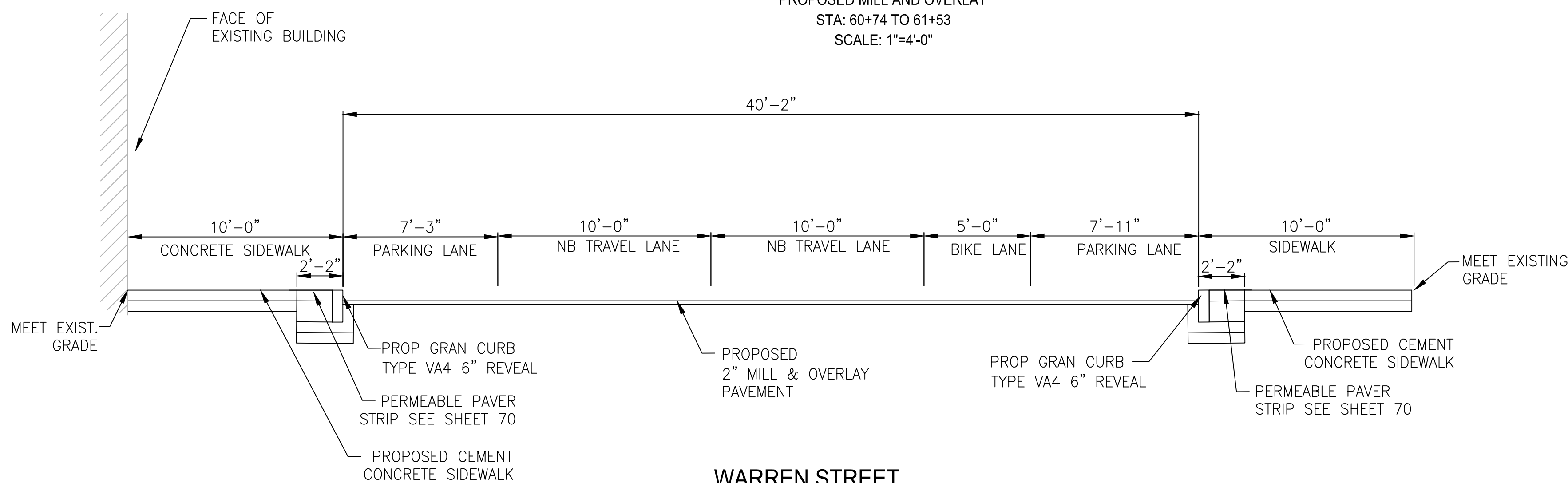




**ROXBURY STREET**  
 PROPOSED MILL AND OVERLAY  
 STA: 81+87 TO 82+65  
 SCALE: 1"=4'-0"



**WARREN STREET**  
 PROPOSED MILL AND OVERLAY  
 STA: 60+74 TO 61+53  
 SCALE: 1"=4'-0"



**WARREN STREET**  
 PROPOSED MILL AND OVERLAY  
 STA: 56+24 TO 57+29  
 SCALE: 1"=4'-0"

PROPOSED CEMENT CONCRETE SIDEWALK

SIDEWALK: 6" CEMENT CONCRETE

BASE: 6" GRAVEL

MILL AND OVERLAY PAVEMENT NOTES:

ROADWAY: 2" SUPERPAVE SURFACE COURSE 12.5

ROADWAY FULL DEPTH PAVEMENT NOTES:

- 2" SUPERPAVE SURFACE COURSE 12.5
- 5.5" SUPERPAVE INTERMEDIATE COURSE 19.0\*
- 3" DENSE GRADED CRUSHED STONE
- 9" GRAVEL

\*DEPTH OF INTERMEDIATE COURSE MAY VARY TO MATCH ADJACENT PAVEMENT THICKNESS, AS DIRECTED BY THE ENGINEER

POROUS ASPHALT NOTES:

- 2" POROUS ASPHALT SURFACE COURSE
- 2" POROUS ASPHALT BASE COURSE
- 6" CHOKER COURSE, #57 STONE
- 9" RESERVOIR COURSE, #2 STONE

PERMEABLE PAVER NOTES:

- PERMEABLE PAVERS
- 2" BEDDING COURSE, #8 STONE
- 19.5" CRUSED STONE BASE, #57 STONE
- 6" #2 STONE

NOTE:

1. FOR LIMITS OF STRUCTURAL SOIL SEE SHEETS 90 THRU 97.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

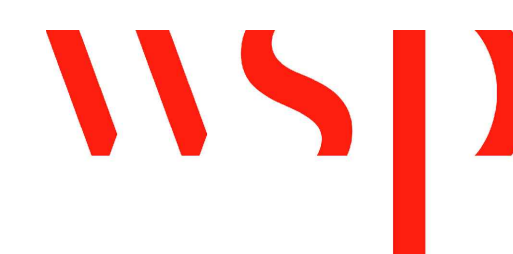
CIP XX-XX SHEET 7 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**TYPICAL SECTIONS**  
 ROXBURY

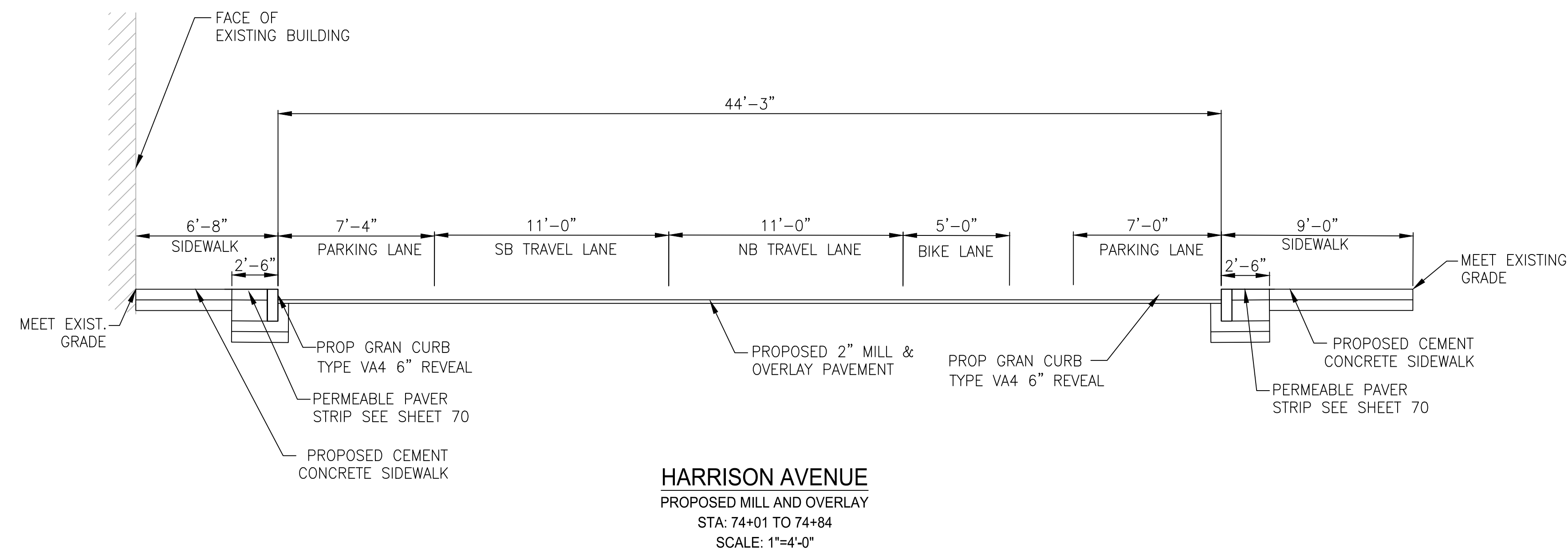
SCALE: 1" = 4'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER



R-XXXX-7



PROPOSED CEMENT CONCRETE SIDEWALK

SIDEWALK: 6" CEMENT CONCRETE

BASE: 6" GRAVEL

MILL AND OVERLAY PAVEMENT NOTES:

ROADWAY: 2" SUPERPAVE SURFACE COURSE 12.5

ROADWAY FULL DEPTH PAVEMENT NOTES:

- 2" SUPERPAVE SURFACE COURSE 12.5
- 5.5" SUPERPAVE INTERMEDIATE COURSE 19.0\*
- 3" DENSE GRADED CRUSHED STONE
- 9" GRAVEL

\*DEPTH OF INTERMEDIATE COURSE MAY VARY TO MATCH ADJACENT PAVEMENT THICKNESS, AS DIRECTED BY THE ENGINEER

POROUS ASPHALT NOTES:

- 2" POROUS ASPHALT SURFACE COURSE
- 2" POROUS ASPHALT BASE COURSE
- 6" CHOKER COURSE, #57 STONE
- 9" RESERVOIR COURSE, #2 STONE

PERMEABLE PAVER NOTES:

- PERMEABLE PAVERS
- 2" BEDDING COURSE, #8 STONE
- 19.5" CRUSED STONE BASE, #57 STONE
- 6" #2 STONE

NOTE:

1. FOR LIMITS OF STRUCTURAL SOIL SEE SHEETS 90 THRU 97.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

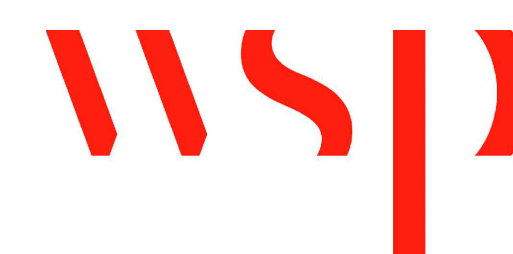
CIP XX-XX SHEET 8 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**TYPICAL SECTIONS**  
ROXBURY

SCALE: 1" = 4'  
DISTRICT: 10

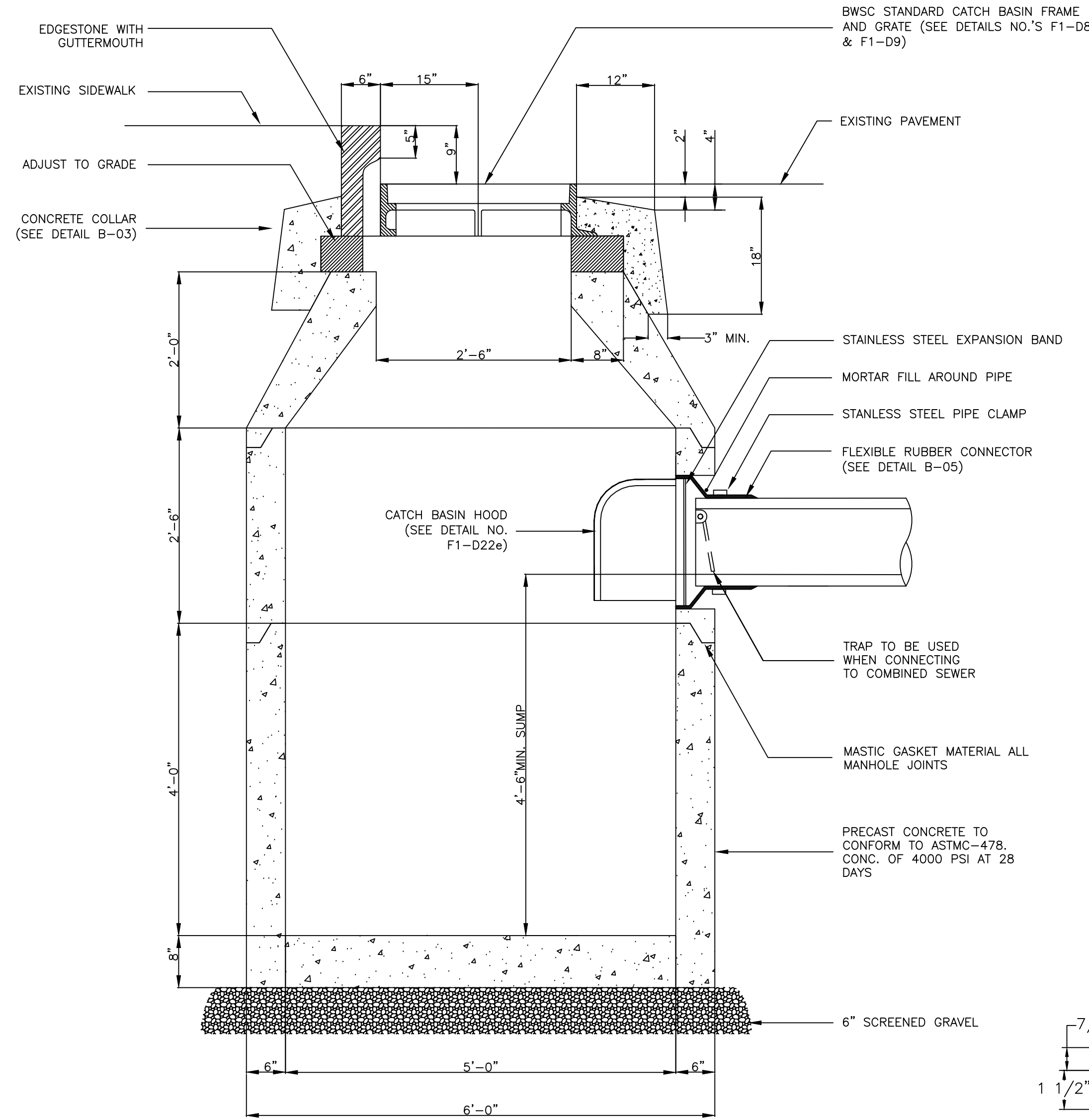
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

\_\_\_\_\_  
CITY ENGINEER

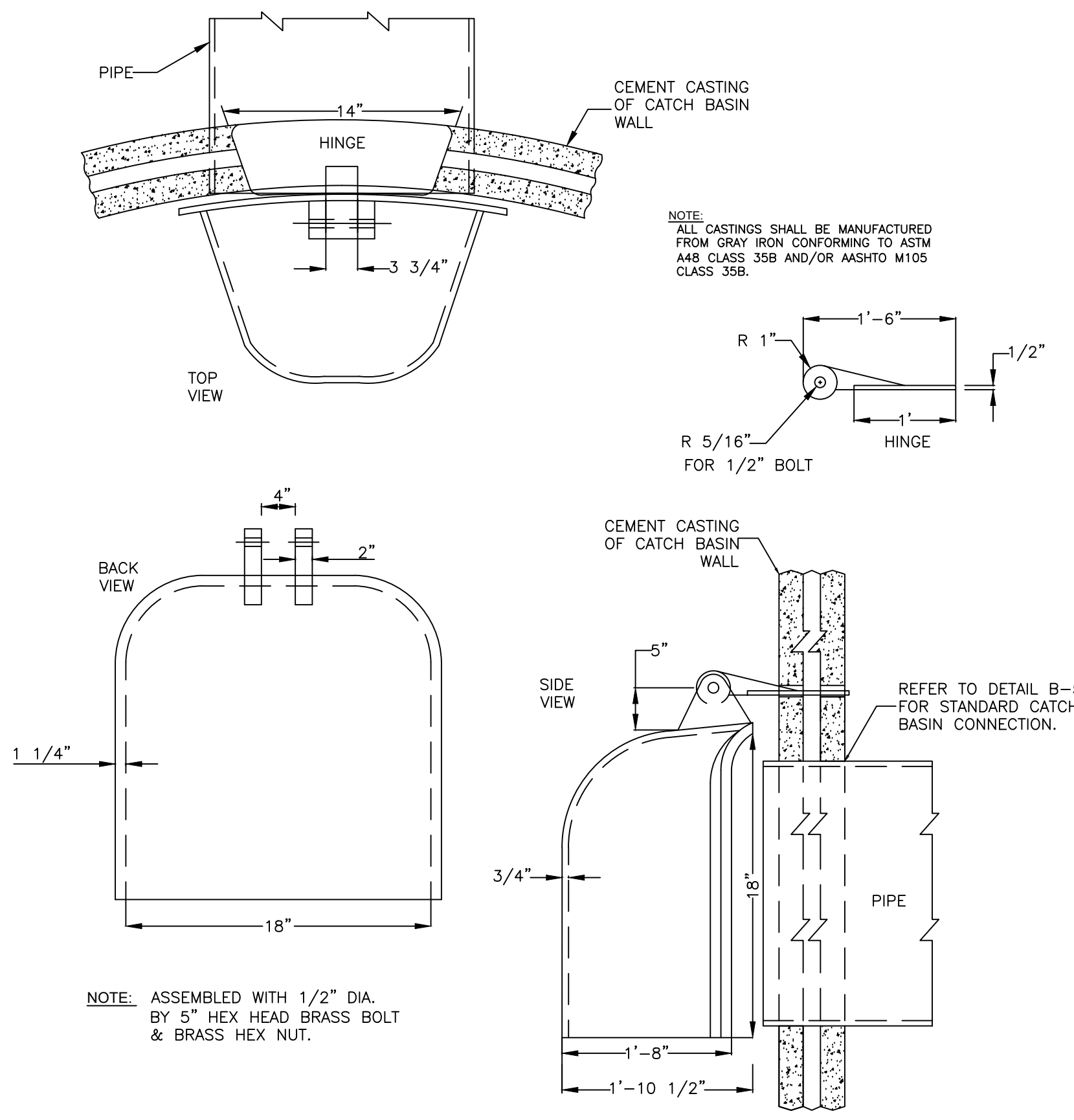


R-XXXX-8

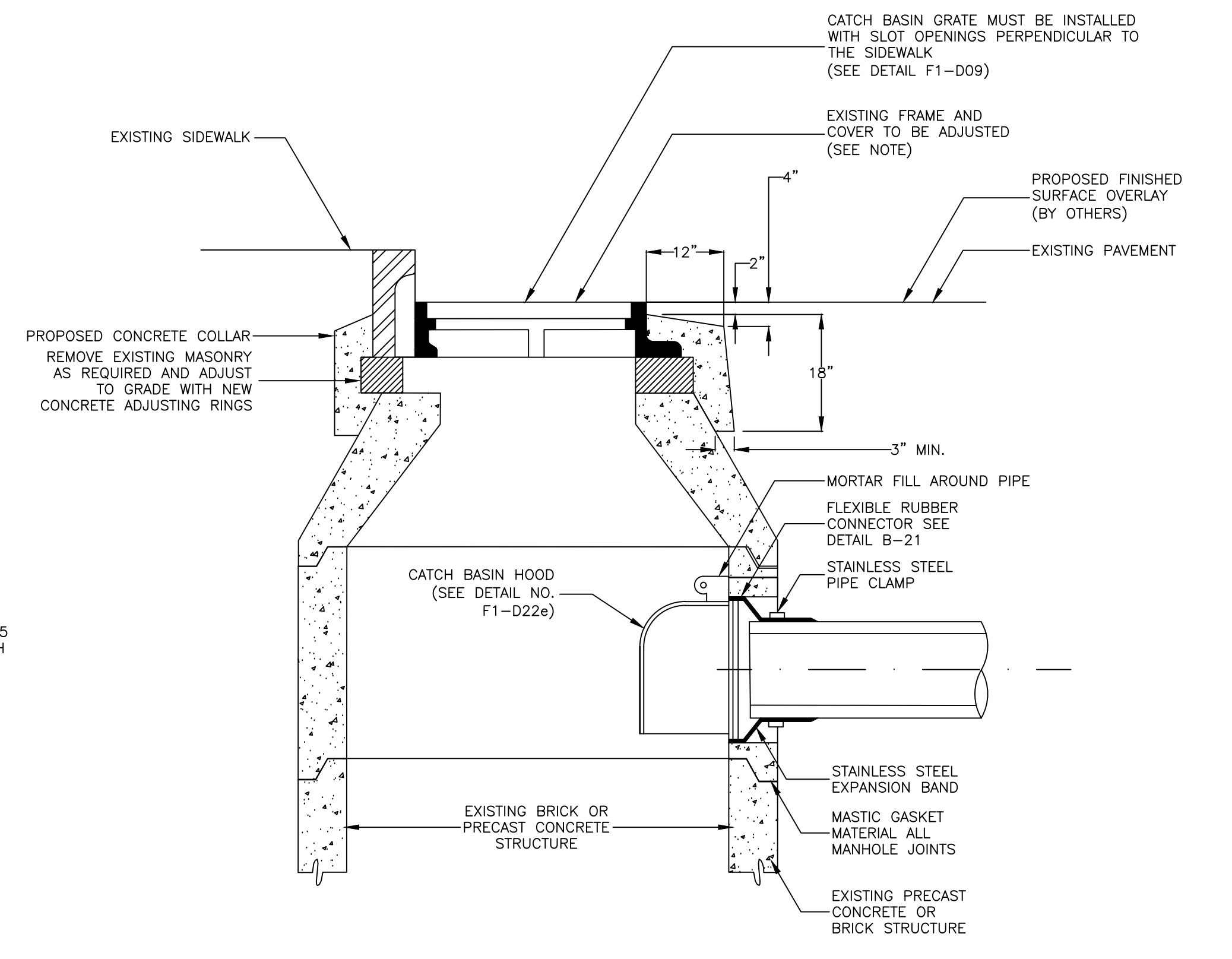




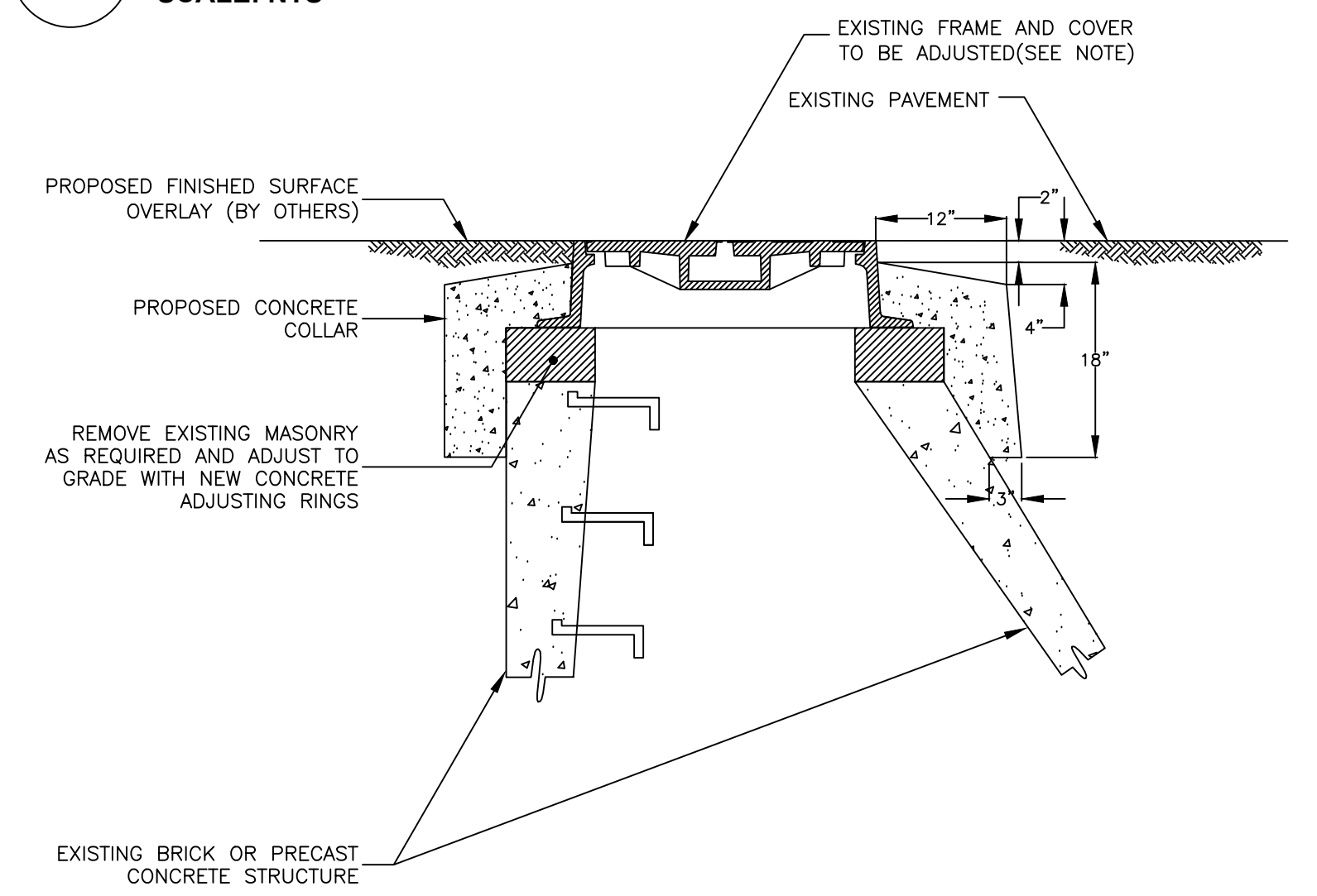
**1 STANDARD CATCH BASIN NO. 5 (B-01B)**  
SCALE: NTS



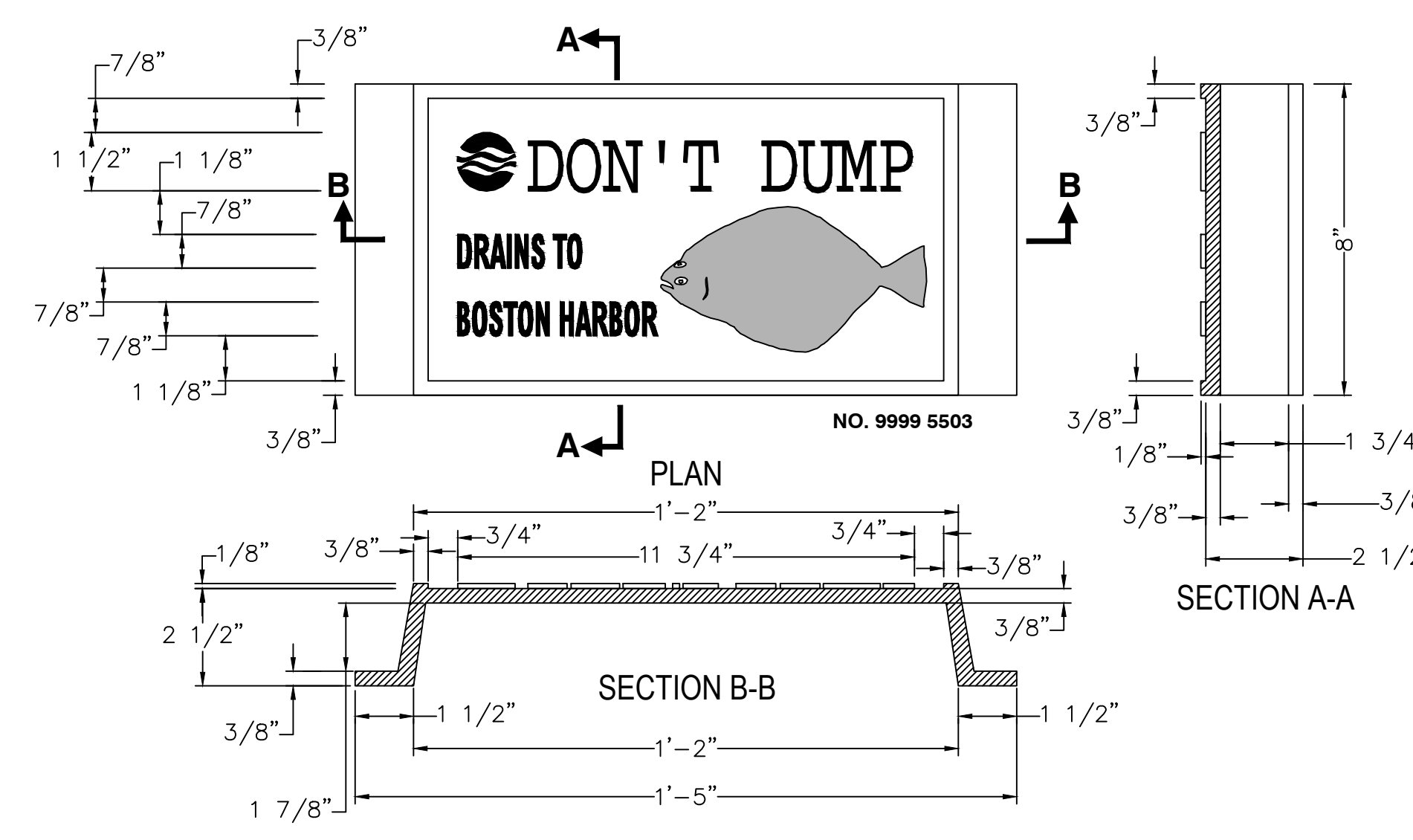
**2 CATCH BASIN HOOD (F1-D22e)**  
SCALE: NTS



**3 CATCH BASIN ADJUSTMENT TO GRADE (B-01A)**  
SCALE: NTS

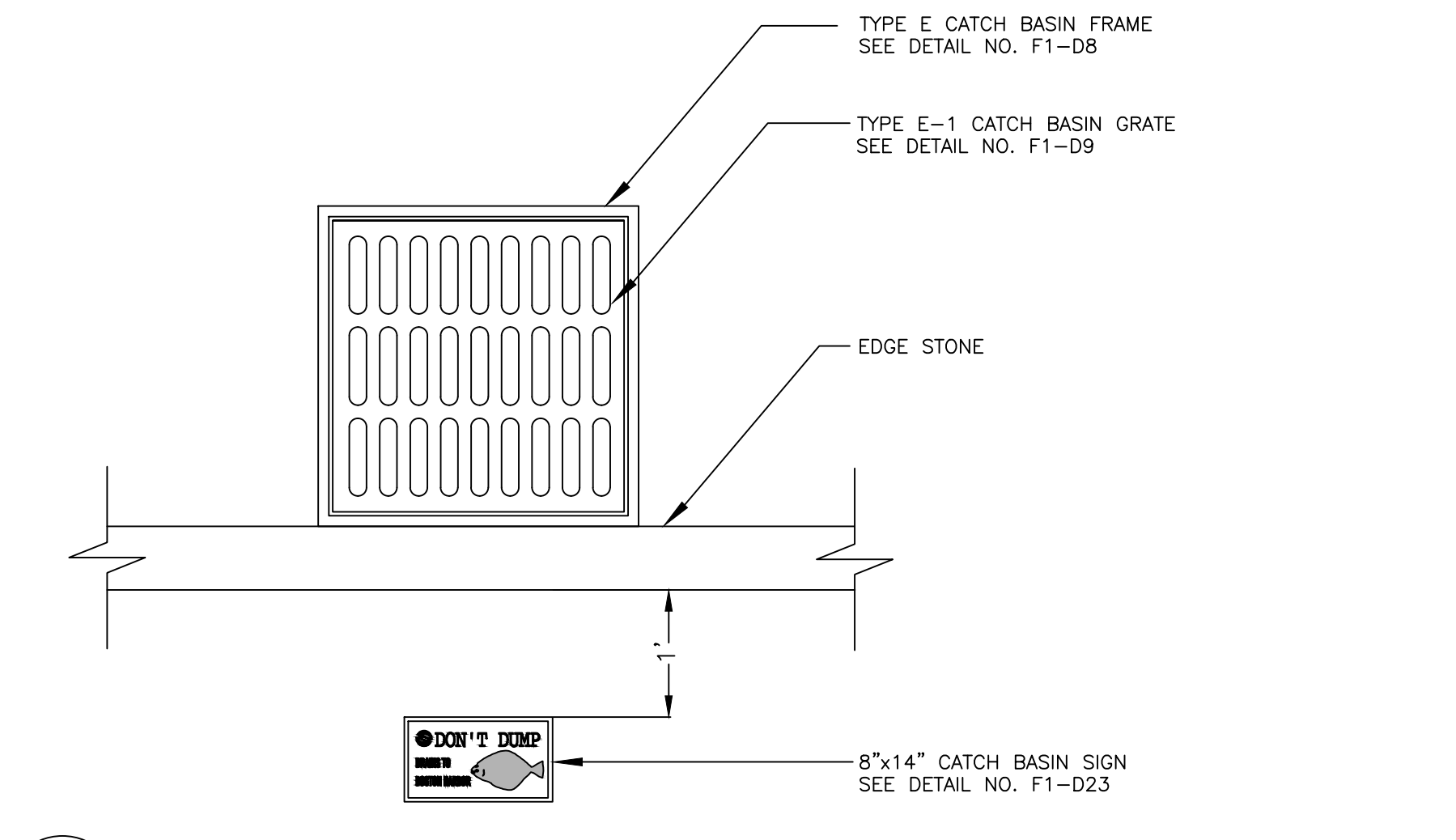


**4 CONCRETE MANHOLE ADJUSTMENT TO GRADE (B-03)**  
SCALE: NTS



**5 8"X14" CATCH BASIN SIGN (F1-D23)**  
SCALE: NTS

NOTE:  
1. ALL CASTINGS SHALL BE MANUFACTURED FROM GRAY IRON CONFORMING TO ASTM A48 CLASS 35B AND/OR AASHTO M105 CLASS 35B.



**6 STANDARD CATCH BASIN SIGN INSTALLATION**  
SCALE: NTS

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BUSCARDT
APPROVED BY	P. FUSCO

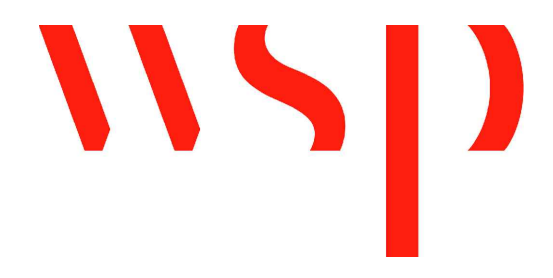
CIP XX-XX SHEET 9 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

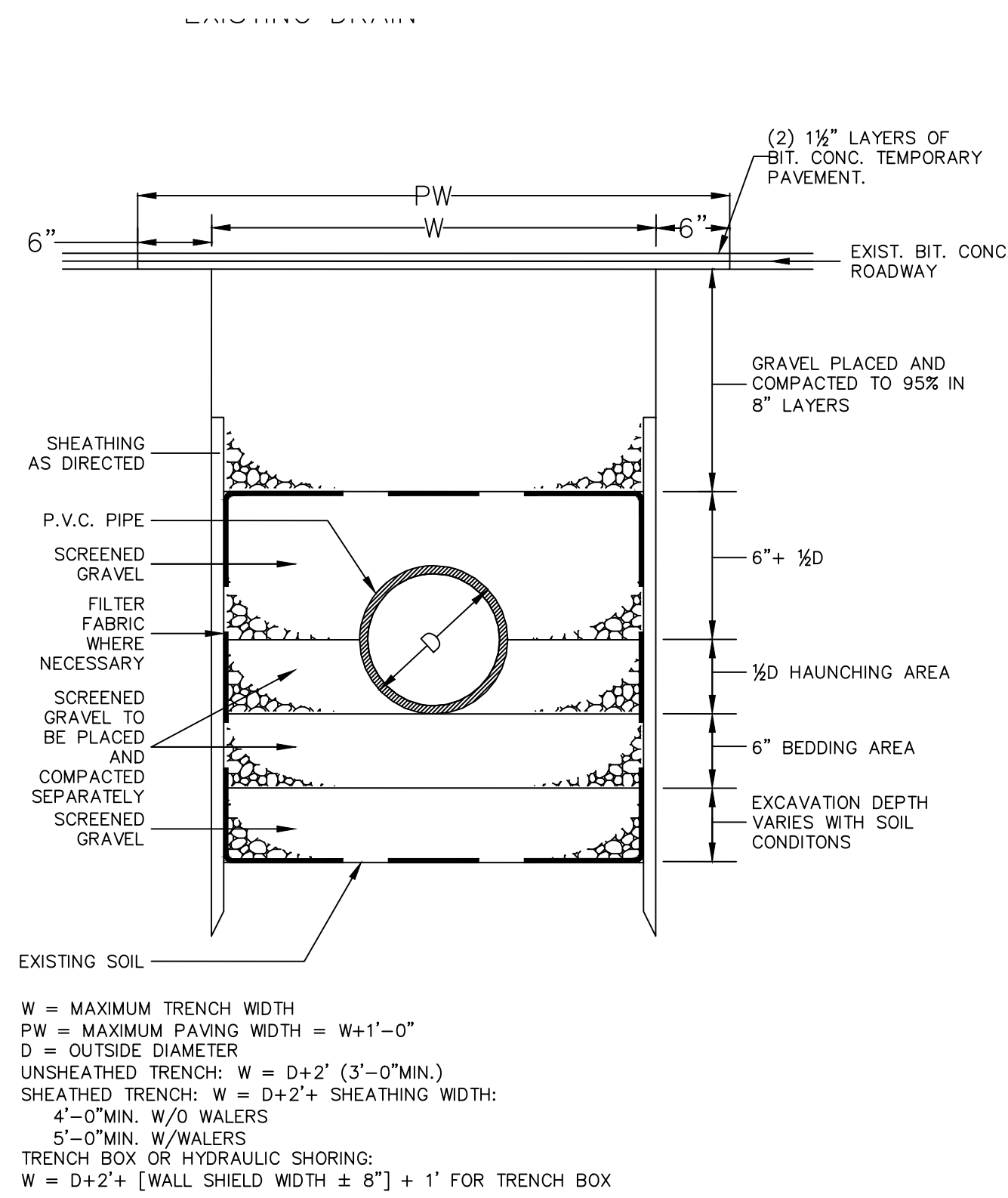
**DUDLEY SQUARE PHASE 2  
CONSTRUCTION DETAILS**  
ROXBURY

SCALE: N.T.S. AREA: 1  
DISTRICT: 10 100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

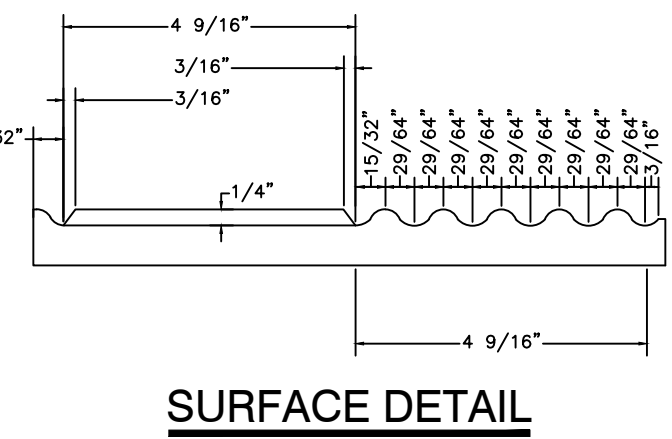
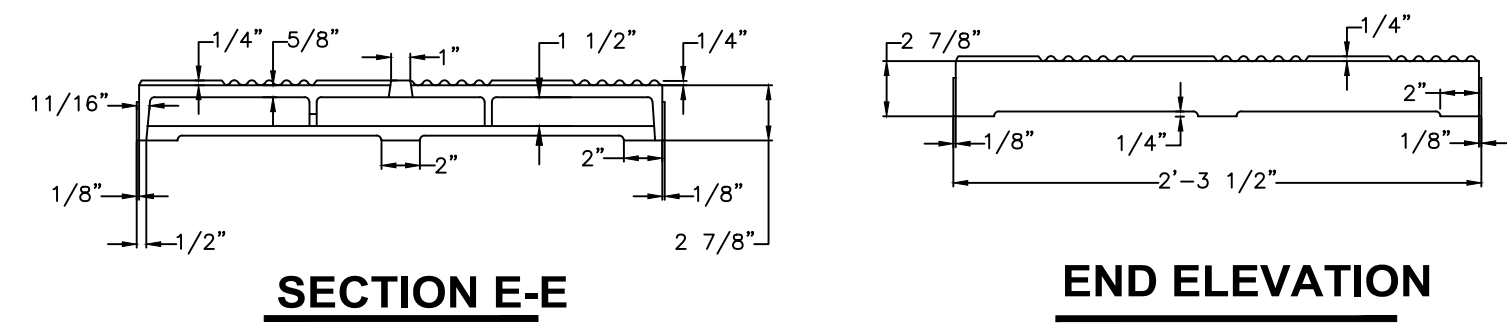
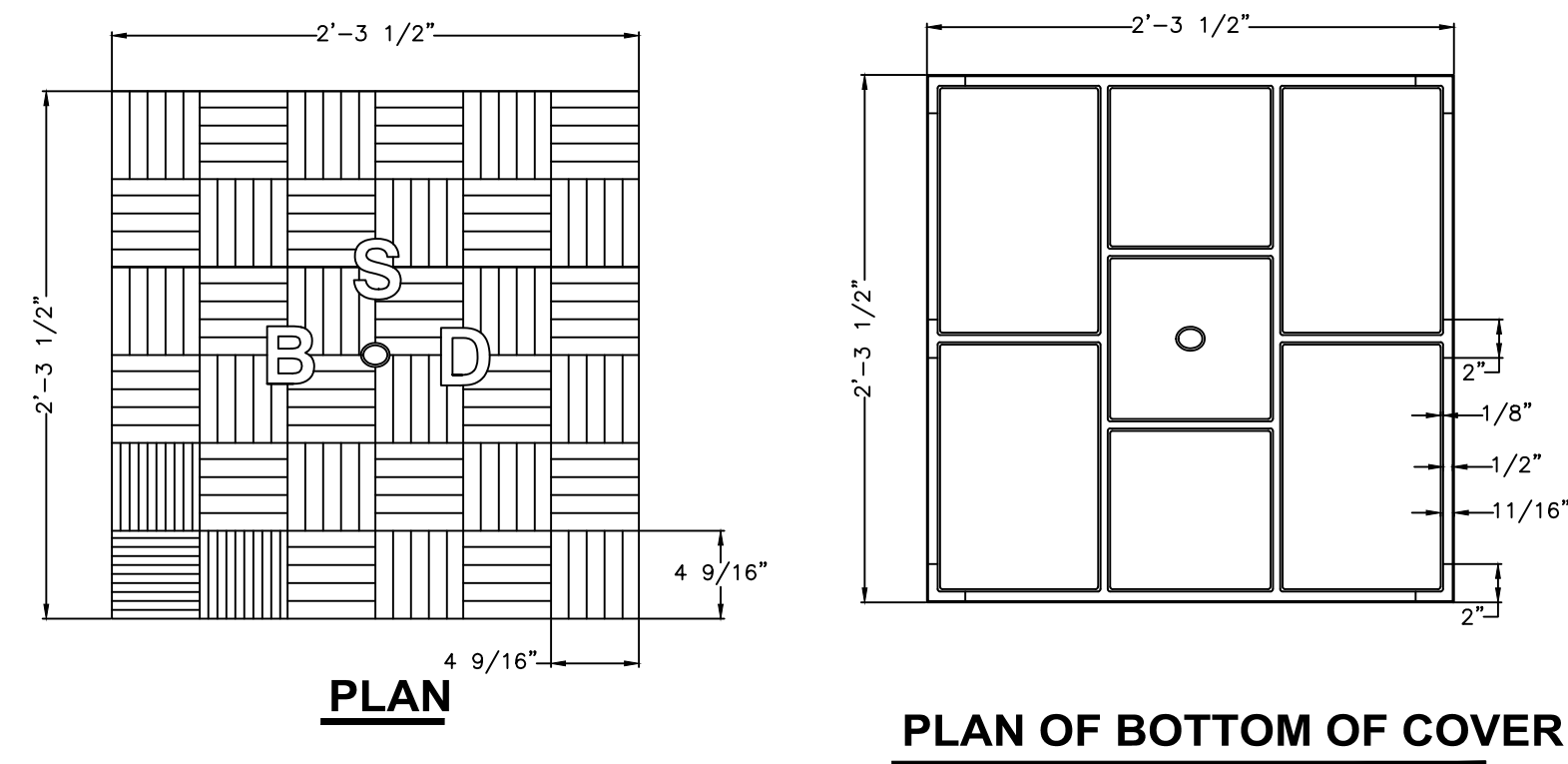


R-XXXX-9

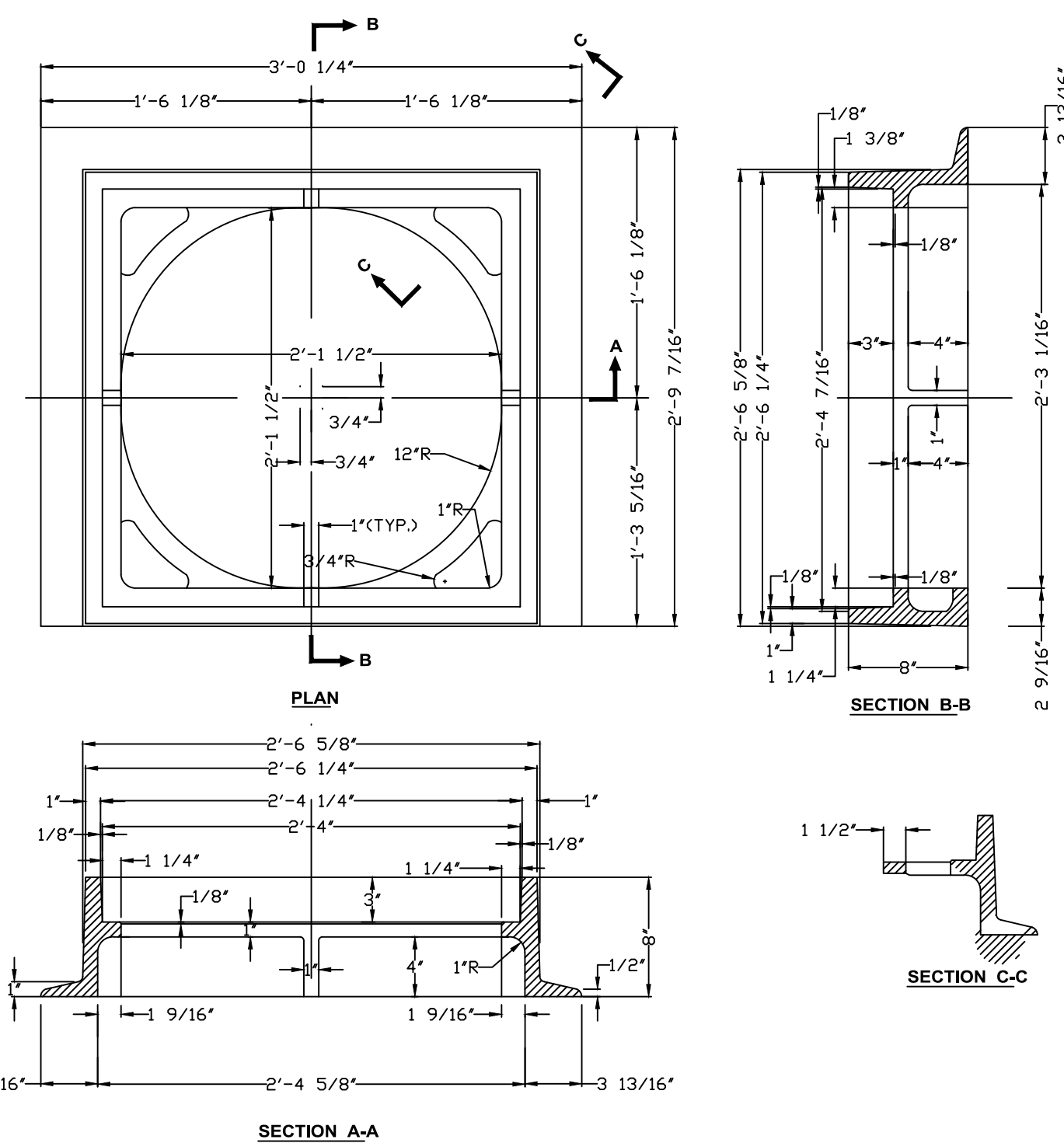


**1 TRENCH DETAIL FOR PVC PIPE**  
SCALE: NTS

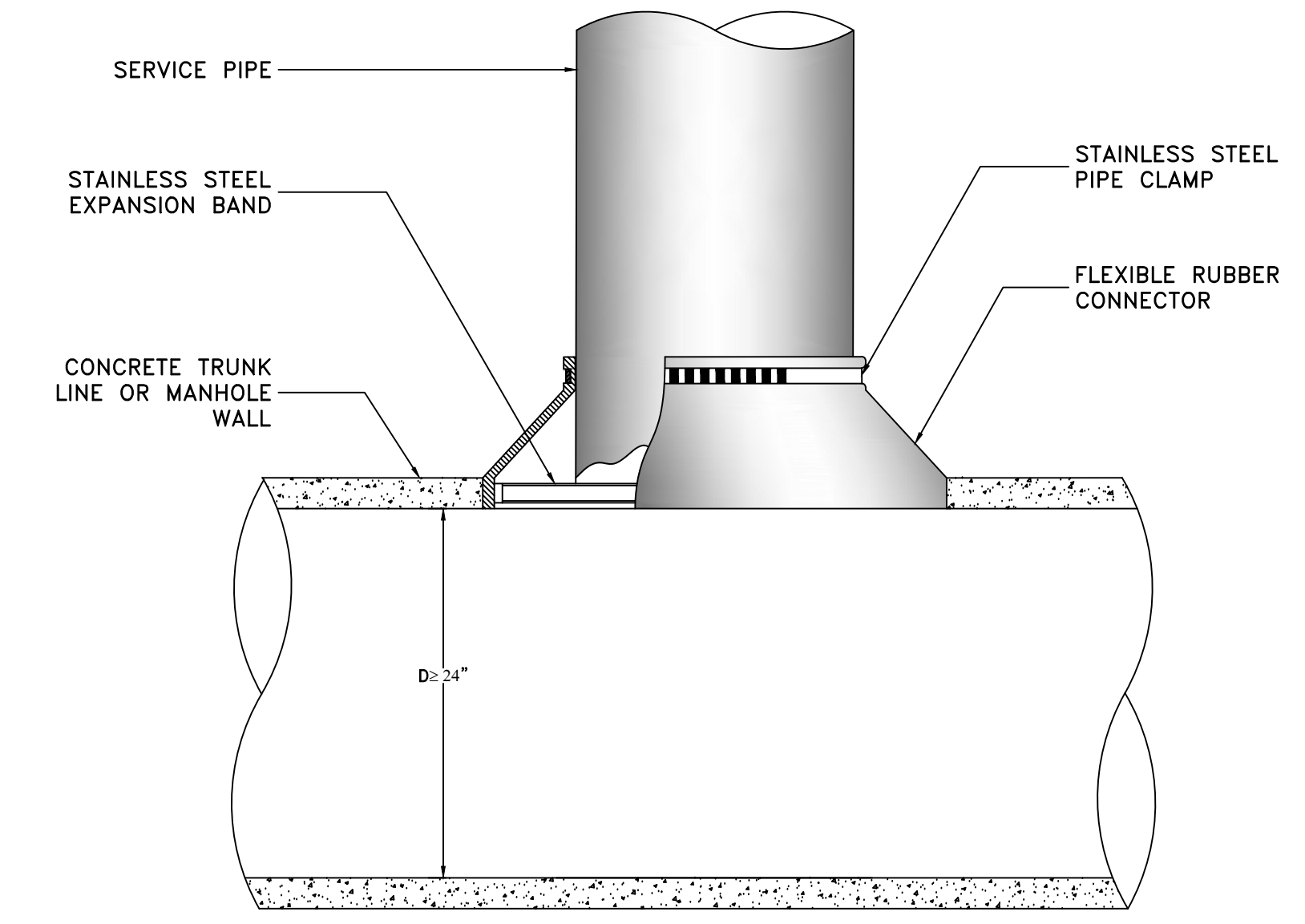
W = MAXIMUM TRENCH WIDTH  
PW = MAXIMUM PAVING WIDTH = W+1'-0"  
D = OUTSIDE DIAMETER  
UNSHAFTED TRENCH: W = D+2' (3'-0" MIN.)  
SHAFTED TRENCH: W = D+2'+ SHEATHING WIDTH:  
4'-0" MIN. W/O WALERS  
5'-0" MIN. W/WALERS  
TRENCH BOX OR HYDRAULIC SHORING:  
W = D+2'+ [WALL SHIELD WIDTH ± 8"] + 1' FOR TRENCH BOX



**2 TYPE E-6 SIDEWALK MANHOLE COVER (F1-D10)**  
SCALE: NTS

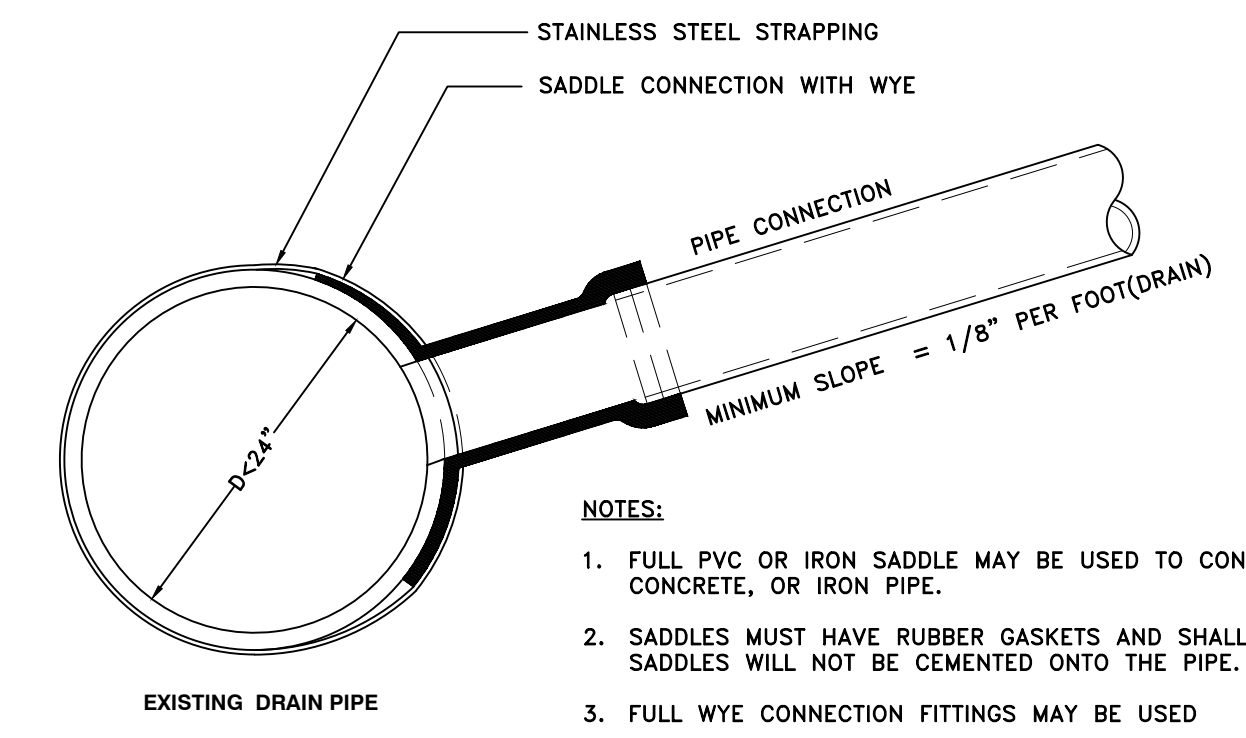


**4 TYPE E CATCH BASIN FRAME (F1-D08)**  
SCALE: NTS



- NOTES:**
1. OPENING IN CONCRETE WALL SHALL BE CORED USING HIGH SPEED DIAMOND DRILL
  2. ALL METAL FIXTURES SHALL BE OF STAINLESS STEEL
  3. SERVICE LINE SHALL BE FLUSH WITH THE INSIDE OF THE CONCRETE PIPE OR WALL
  4. IF TRUNK LINE DIAMETER IS LESS THAN 24" THEN A SADDLE TYPE CONNECTION WILL BE USED

**3 TYPICAL FIELD CONNECTION TO LARGE CONCRETE PIPES OR CONCRETE MANHOLE**  
SCALE: NTS



- NOTES:**
1. FULL PVC OR IRON SADDLE MAY BE USED TO CONNECT TO EXISTING PVC, CLAY, CONCRETE, OR IRON PIPE.
  2. SADDLES MUST HAVE RUBBER GASKETS AND SHALL BE TIGHTENED WITH STRAPS. SADDLES WILL NOT BE CEMENTED ONTO THE PIPE.
  3. FULL WYE CONNECTION FITTINGS MAY BE USED
  4. PIPE SHALL BE CUT TO CONFORM TO THE OPENING IN THE SADDLE.
  5. CONNECTIONS DIRECTLY INTO THE EXISTING PIPE WITHOUT A SADDLE OR A FULL WYE FITTING ARE NOT ALLOWED.

**5 TYPICAL SADDLE CONNECTION TO EXISTING DRAIN**  
SCALE: NTS

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BUSCARDT
APPROVED BY	P. FUSCO

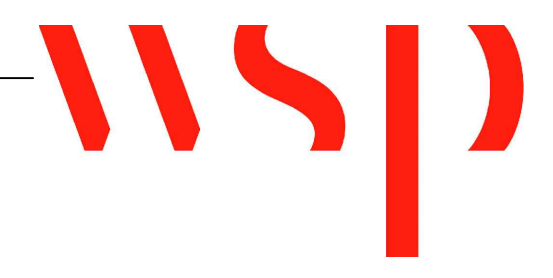
CIP XX-XX SHEET 10 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

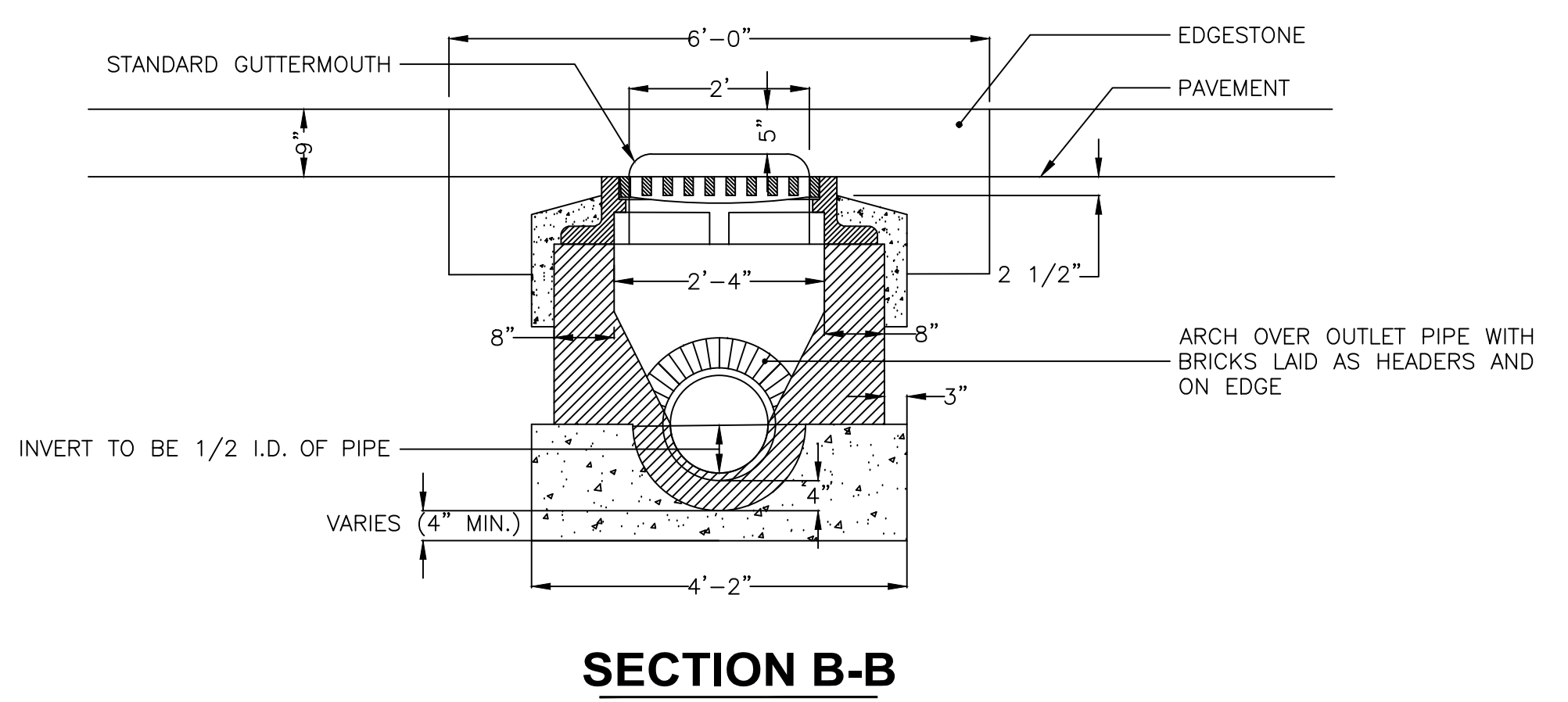
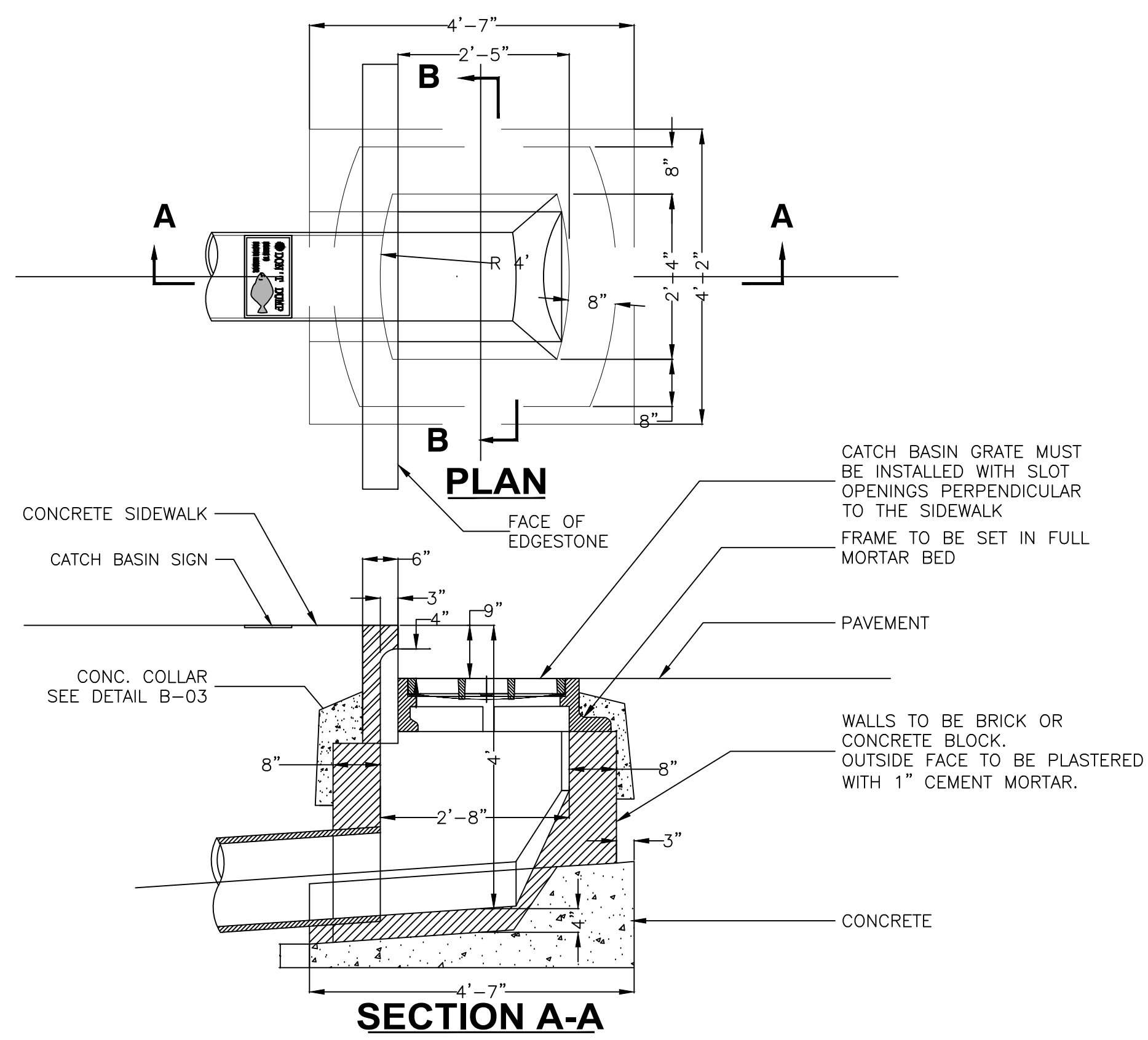
**DUDLEY SQUARE PHASE 2  
CONSTRUCTION DETAILS**  
ROXBURY

SCALE: N.T.S. AREA: 1  
DISTRICT: 10 100% SUBMISSION  
DATE: APR. 15, 2019

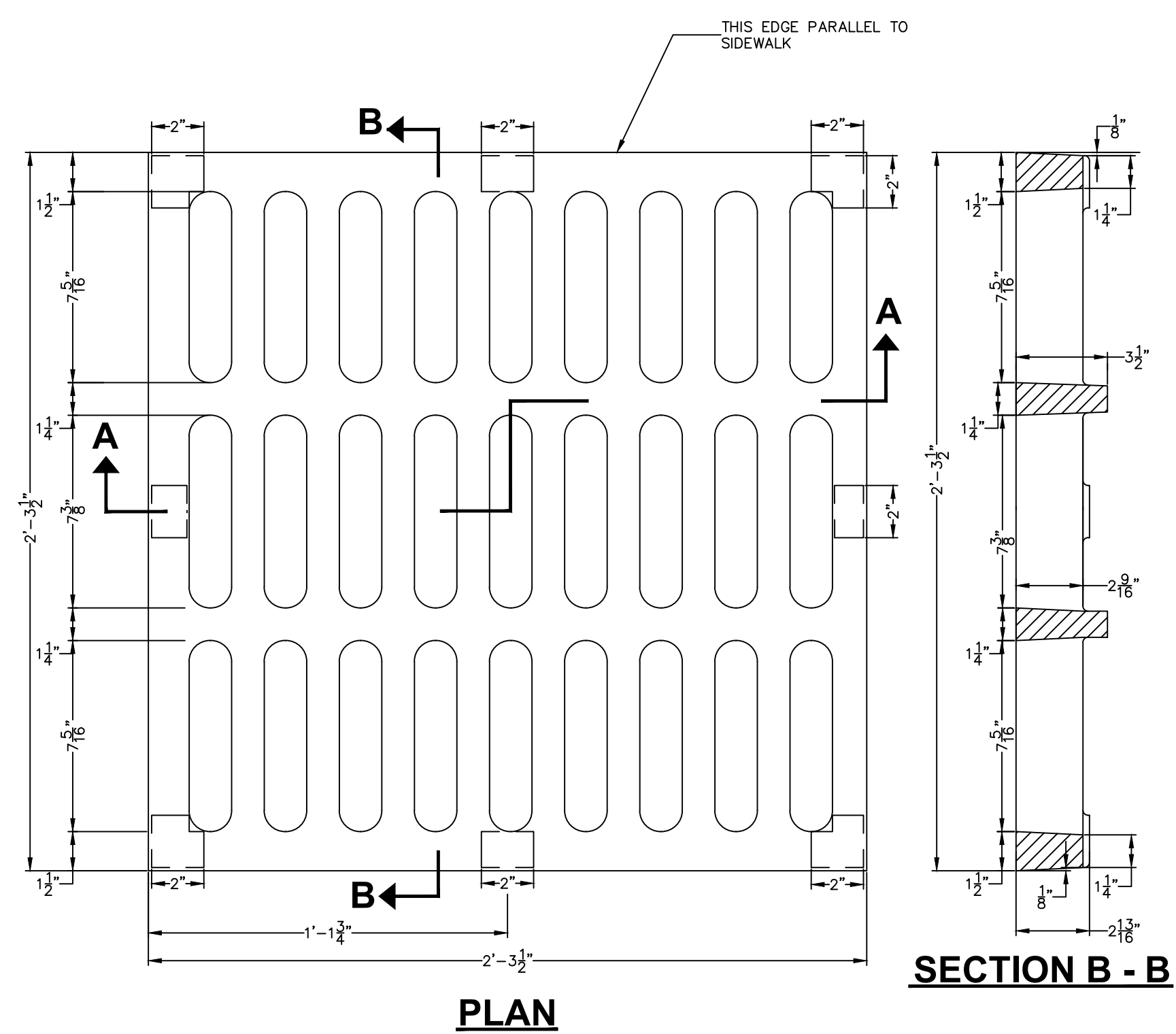
CITY ENGINEER





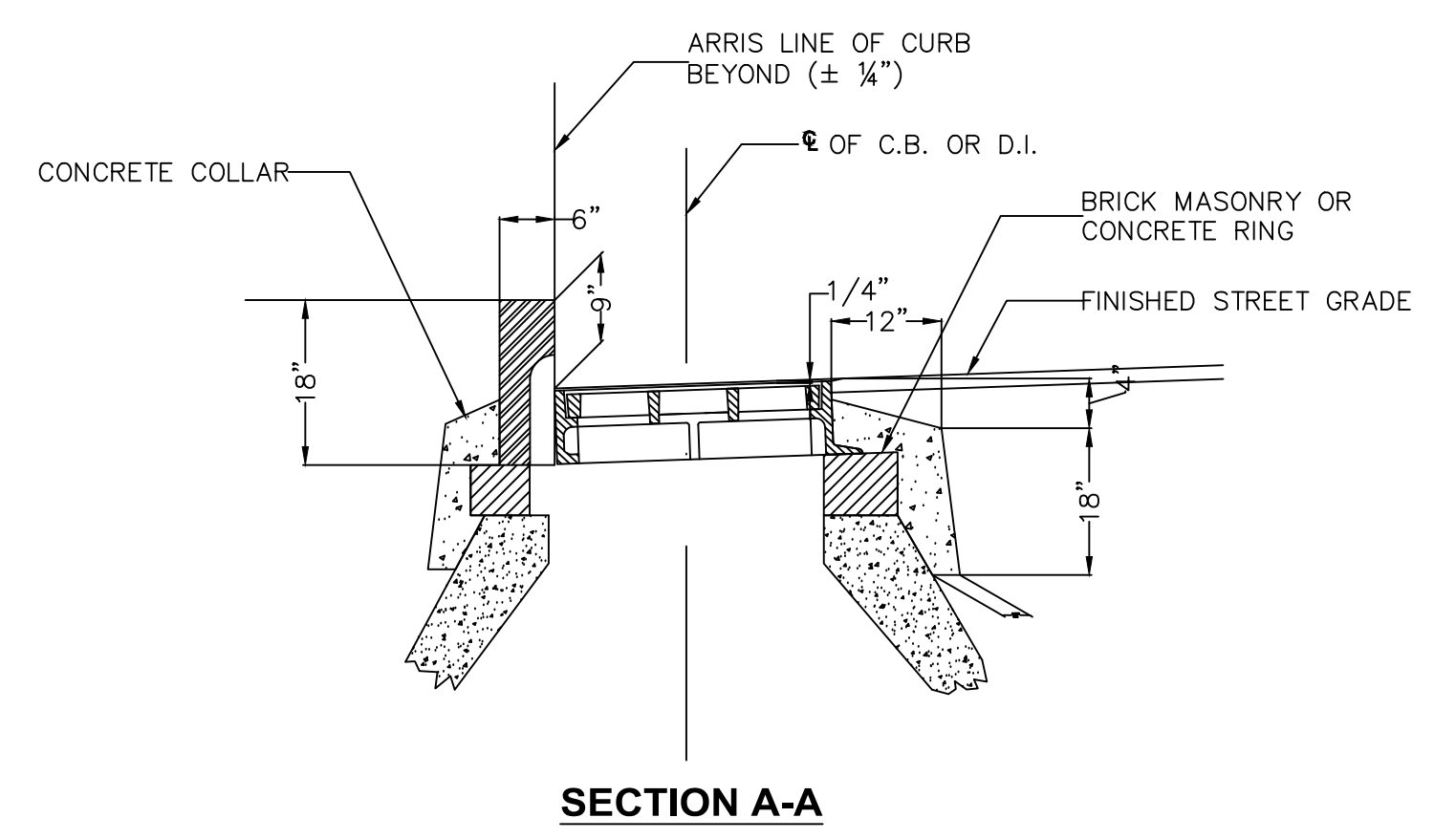
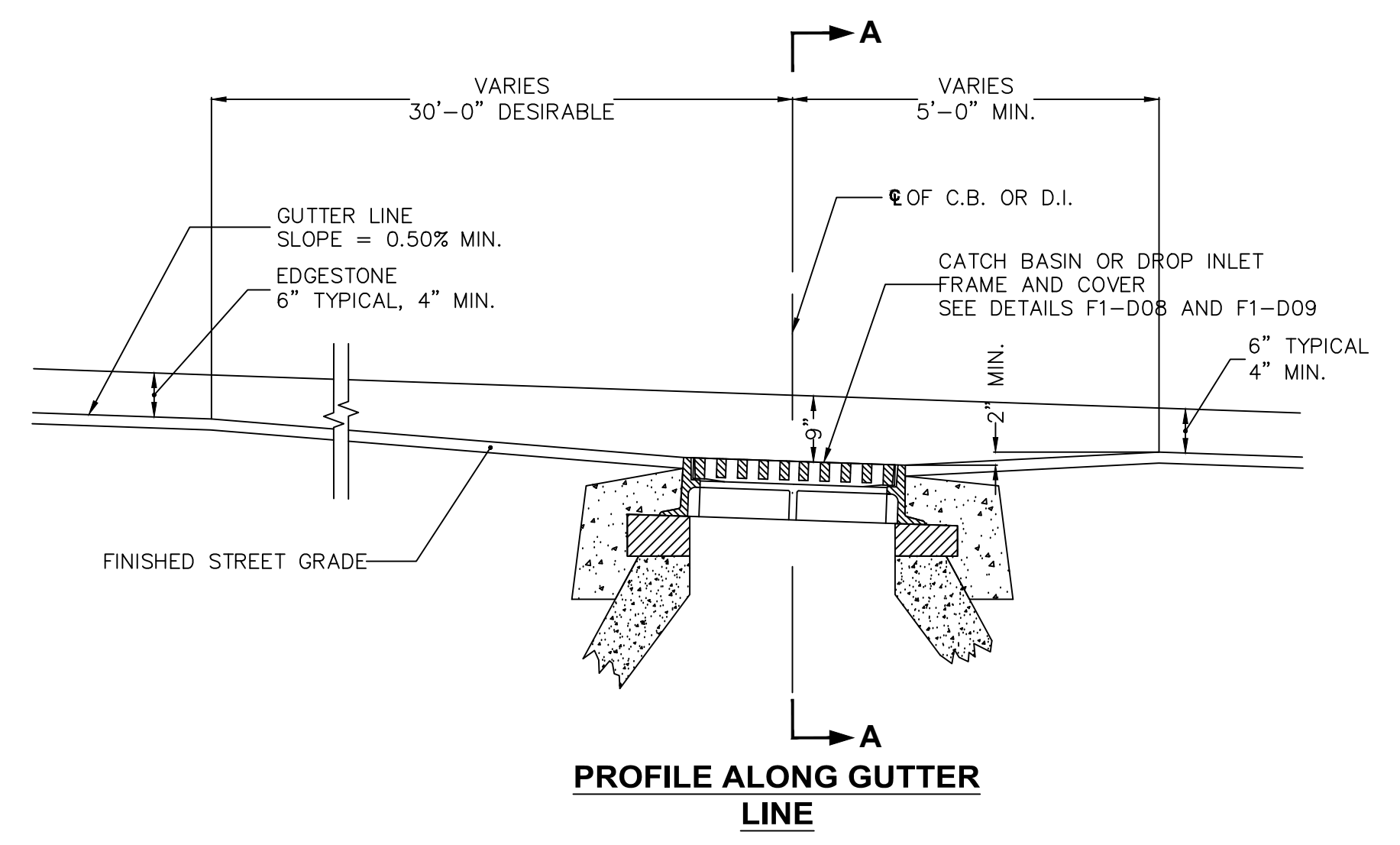


**1 DROP INLET WITH GUTTERMOUTH**  
SCALE: NTS



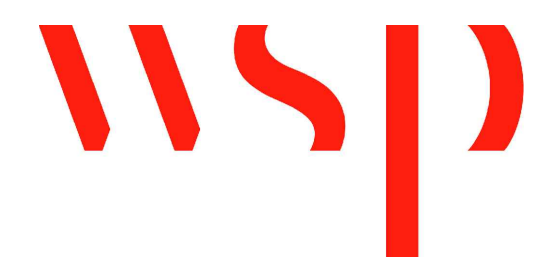
NOTE: ALL CASTINGS SHALL BE MANUFACTURED FROM GRAY IRON CONFORMING TO ASTM A48 CLASS 35B AND/OR AASHTO M105 CLASS 35B. GRATE OPENINGS ORIENTATION IS TO BE PERPENDICULAR TO FACE OF THE CURB.  
TYPE E CATCH BASIN FRAME SEE DETAIL NO. F1-D08

**2 TYPE E-1 CATCH BASIN GRATE (F1-D09)**  
SCALE: NTS



**3 DETAILS FOR SETTING CATCH BASIN AND CURB INLET FRAME**  
SCALE: NTS

R-XXXX-11



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BUSCARDT
APPROVED BY	P. FUSCO

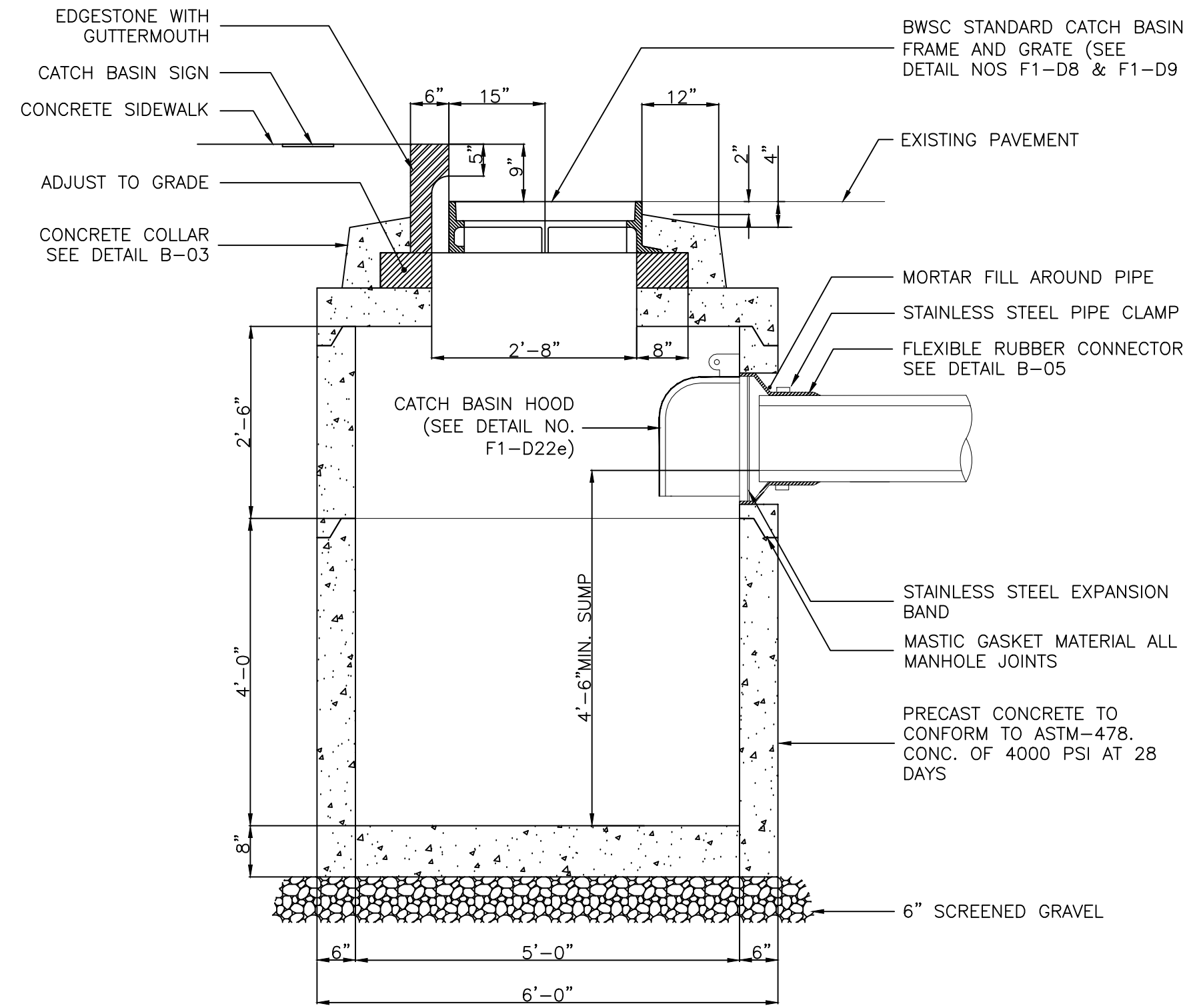
CIP XX-XX SHEET 11 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

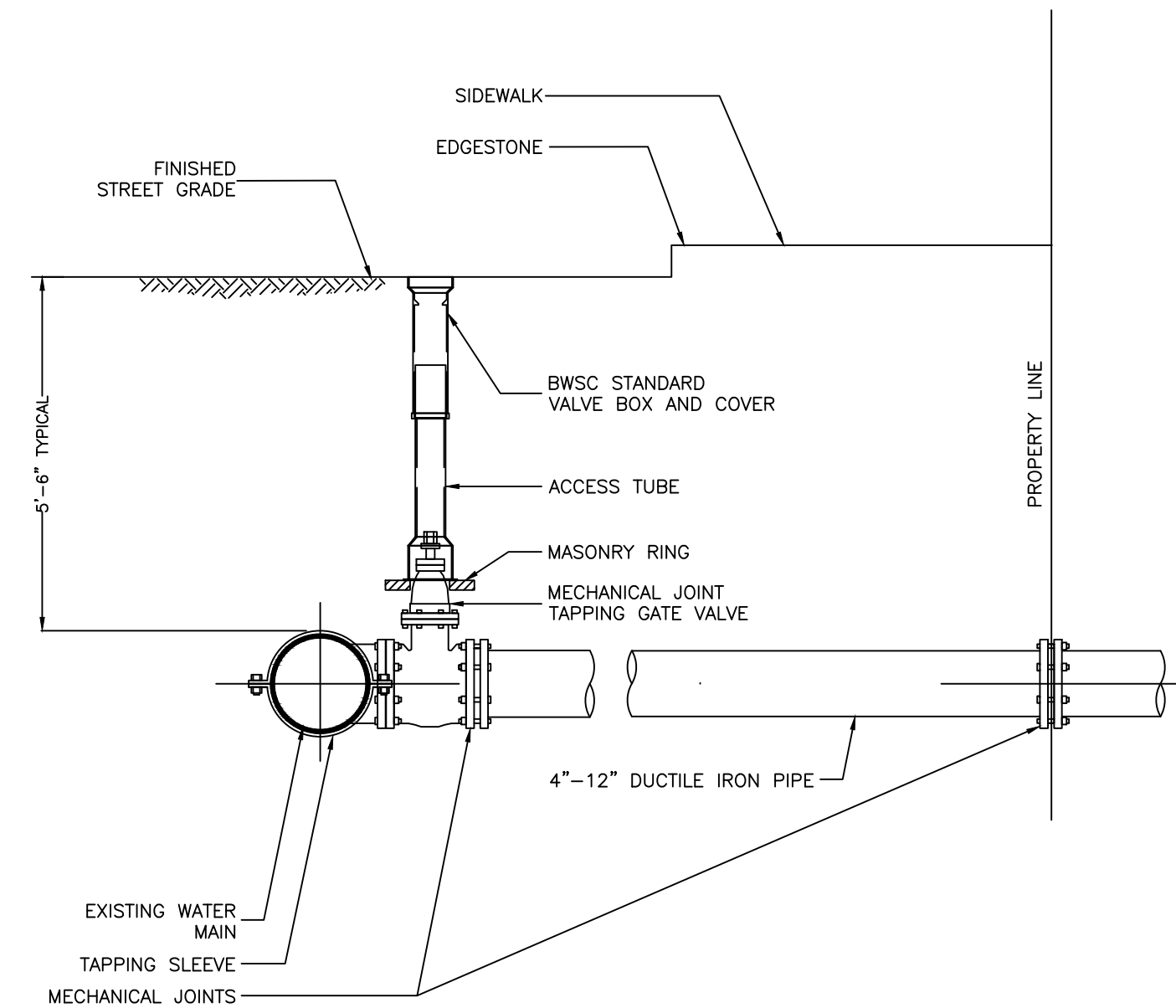
**DUDLEY SQUARE PHASE 2  
CONSTRUCTION DETAILS**  
ROXBURY

SCALE: N.T.S.      AREA: 1  
DISTRICT: 10      100% SUBMISSION  
DATE: APR. 15, 2019

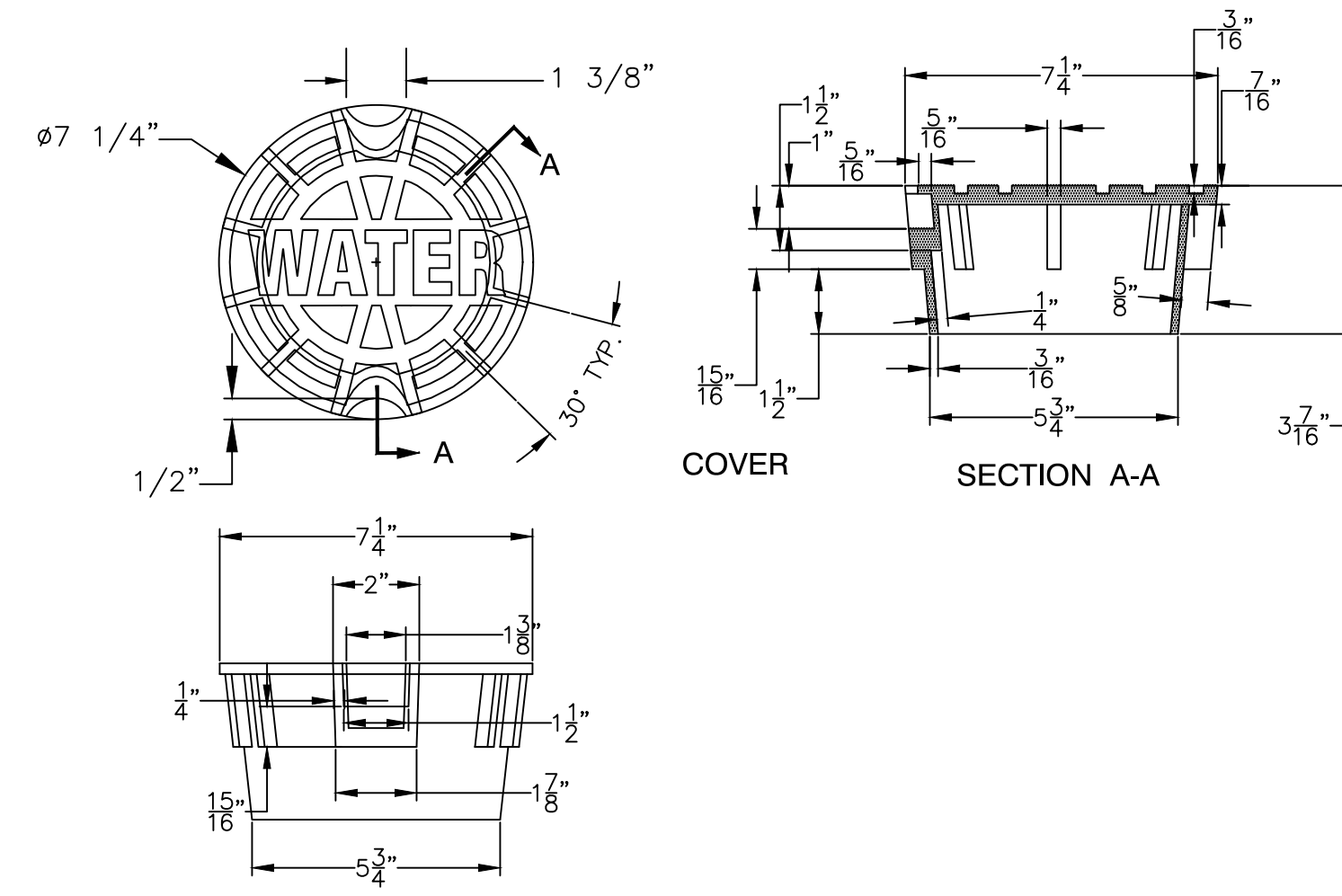
CITY ENGINEER



**1 SHALLOW CATCH BASIN (B-01d)**  
SCALE: NTS



**2 TYPICAL WATER PIPE CONNECTION WITH TAPPING SLEEVE AND GATE VALVE**  
SCALE: NTS



**5 BUFFALO TYPE VALVE BOX**  
SCALE: NTS

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

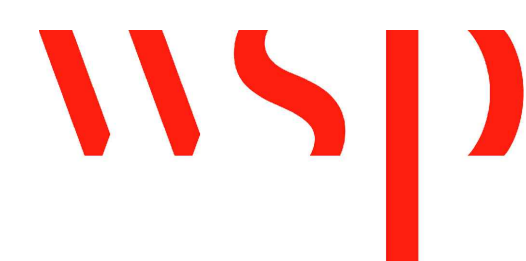
BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BUSCARDT

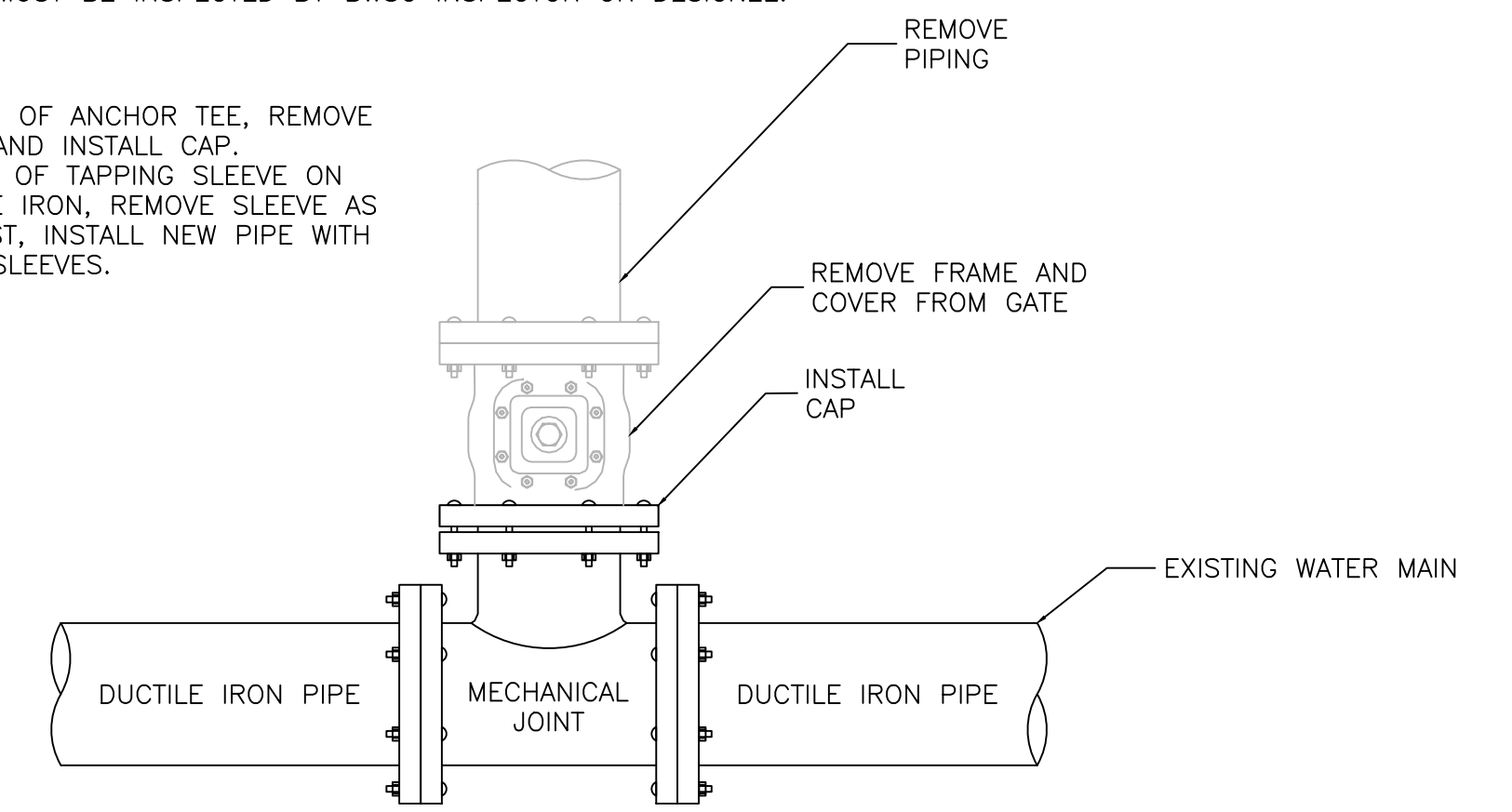
APPROVED BY P. FUSCO



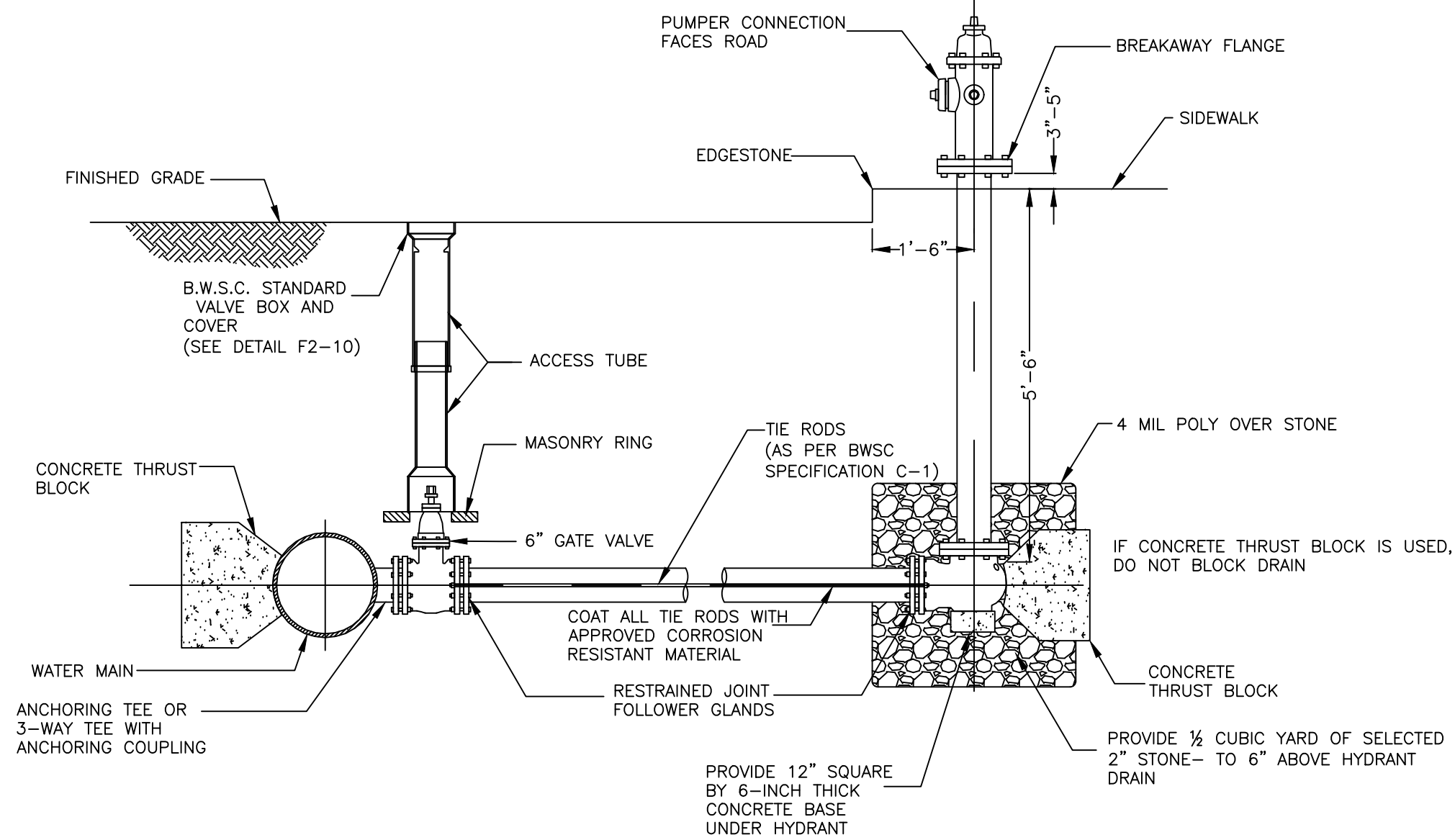
**NOTES:**

1. ALL WORK MUST BE PERFORMED BY A BWS LICENSED AND BONDED CONTRACTOR.
2. THIS PROCEDURE WILL INVOLVE A MAIN LINE SHUT DOWN THAT THE CONTRACTOR WILL COORDINATE WITH THE BWS'S OPERATIONS DIVISION.
3. WRITTEN NOTIFICATION OF ALL AFFECTED CUSTOMERS MUST BE PERFORMED BY THE CONTRACTOR.
4. ALL WORK MUST BE PERMITTED BY BWS AND ALL OTHER APPROPRIATE AGENCIES.
5. ALL WORK MUST BE INSPECTED BY BWS INSPECTOR OR DESIGNEE.

- \* IN CASE OF ANCHOR TEE, REMOVE VALVE AND INSTALL CAP.
- \*\* IN CASE OF TAPPING SLEEVE ON DUCTILE IRON, REMOVE SLEEVE AS ON CAST, INSTALL NEW PIPE WITH SOLID SLEEVES.



**3 CAP AT WATER MAIN**  
SCALE: NTS



**NOTES:**

1. ANY DEVIATIONS OF THIS TYPICAL CONNECTION TO MEET FIELD CONDITIONS SHALL BE APPROVED BY THE ENGINEER.
2. USE RESTRAINED JOINT FOLLOWER GLANDS, OR TIE RODS IN ACCORDANCE WITH SECTION C-1 OF BWS SPECIFICATIONS, WHERE CONCRETE THRUST BLOCK IS UNACCEPTABLE TO THE ENGINEER.
3. CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL BEAR ON UNDISTURBED EARTH AND WHERE APPROVED BY THE ENGINEER.
4. SIZE OF BLOCK OR FITTING TO BE DESIGNED FOR SPECIFIC CONDITIONS, OR ANY NECESSARY BENDS.

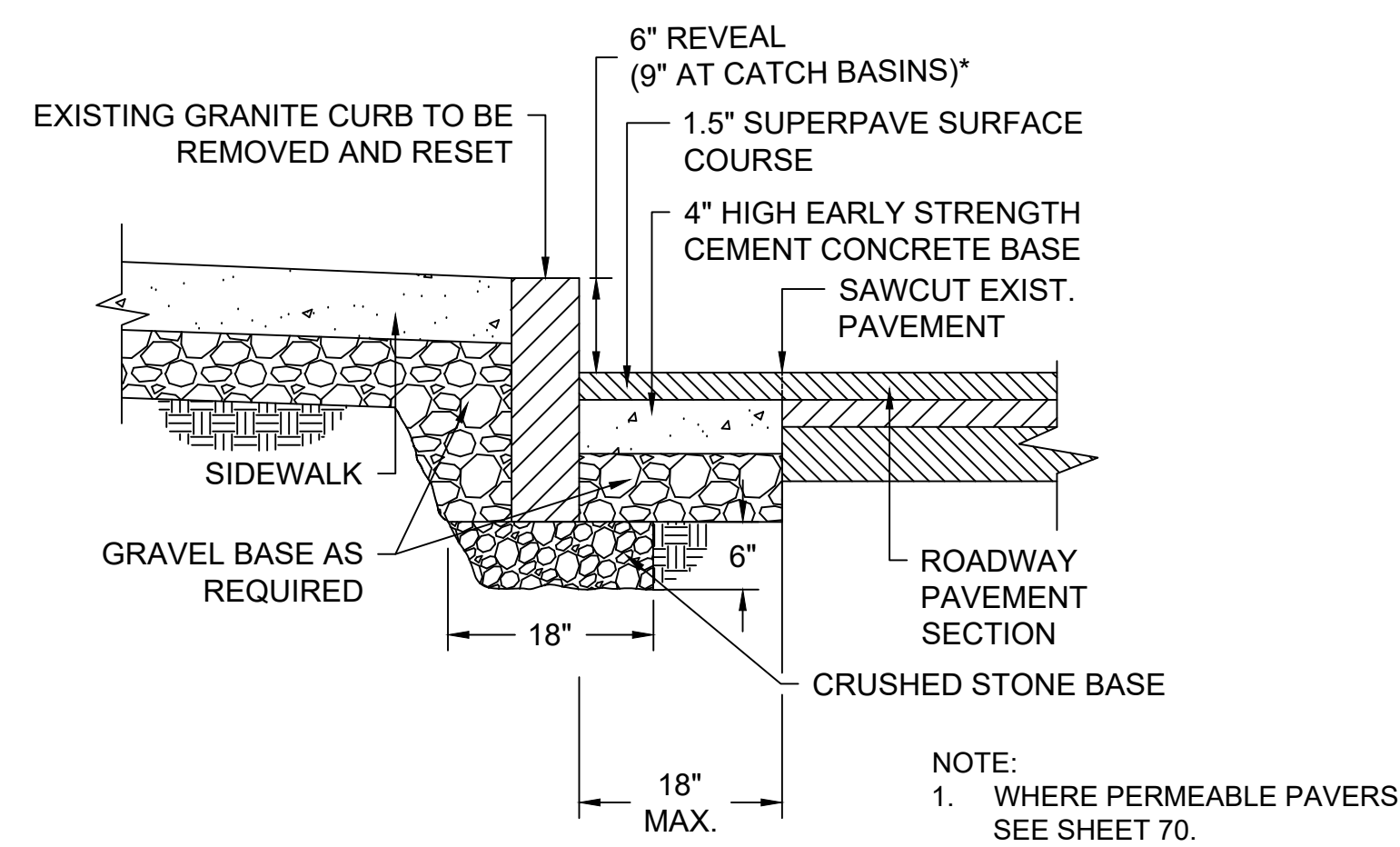
**4 TYPICAL FIRE HYDRANT CONNECTION**  
SCALE: NTS

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
CONSTRUCTION DETAILS  
ROXBURY

SCALE: N.T.S. AREA: 1  
DISTRICT: 10 100% SUBMISSION  
DATE: APR. 15, 2019

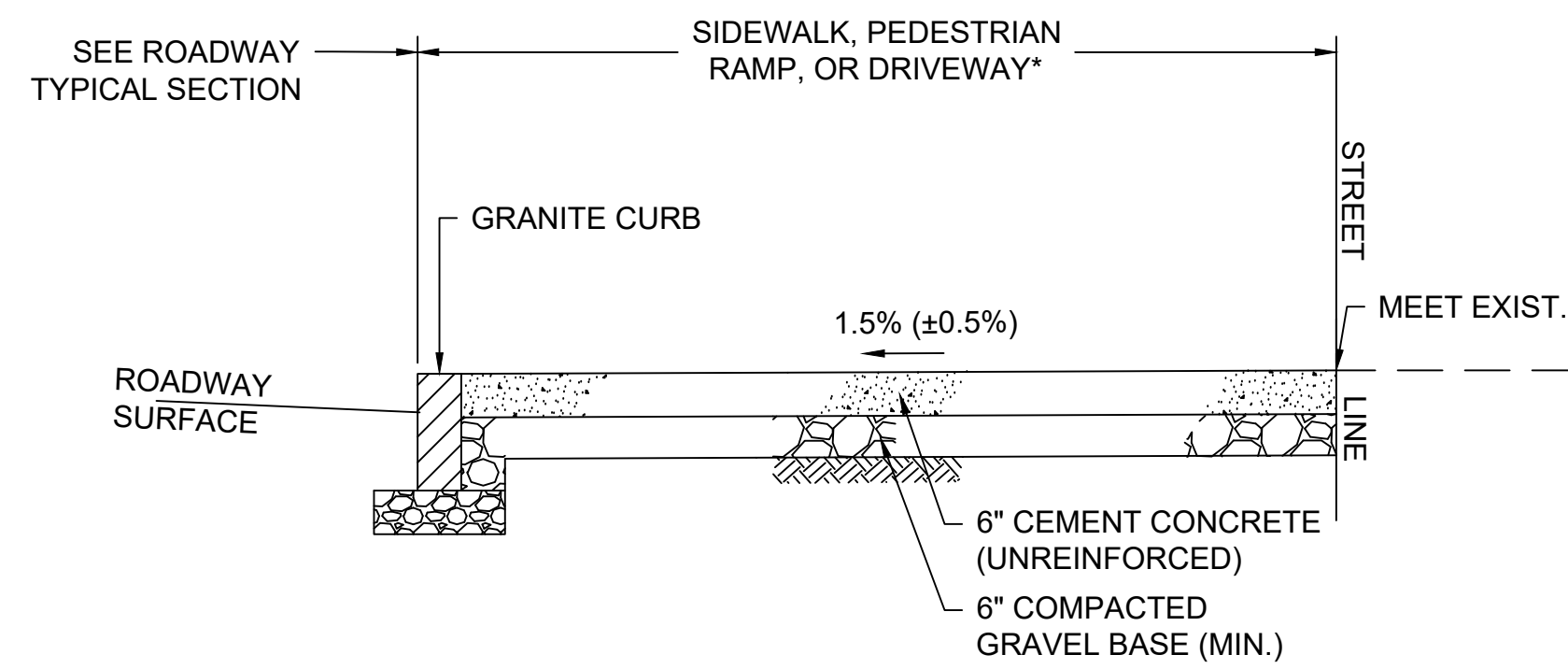
CITY ENGINEER



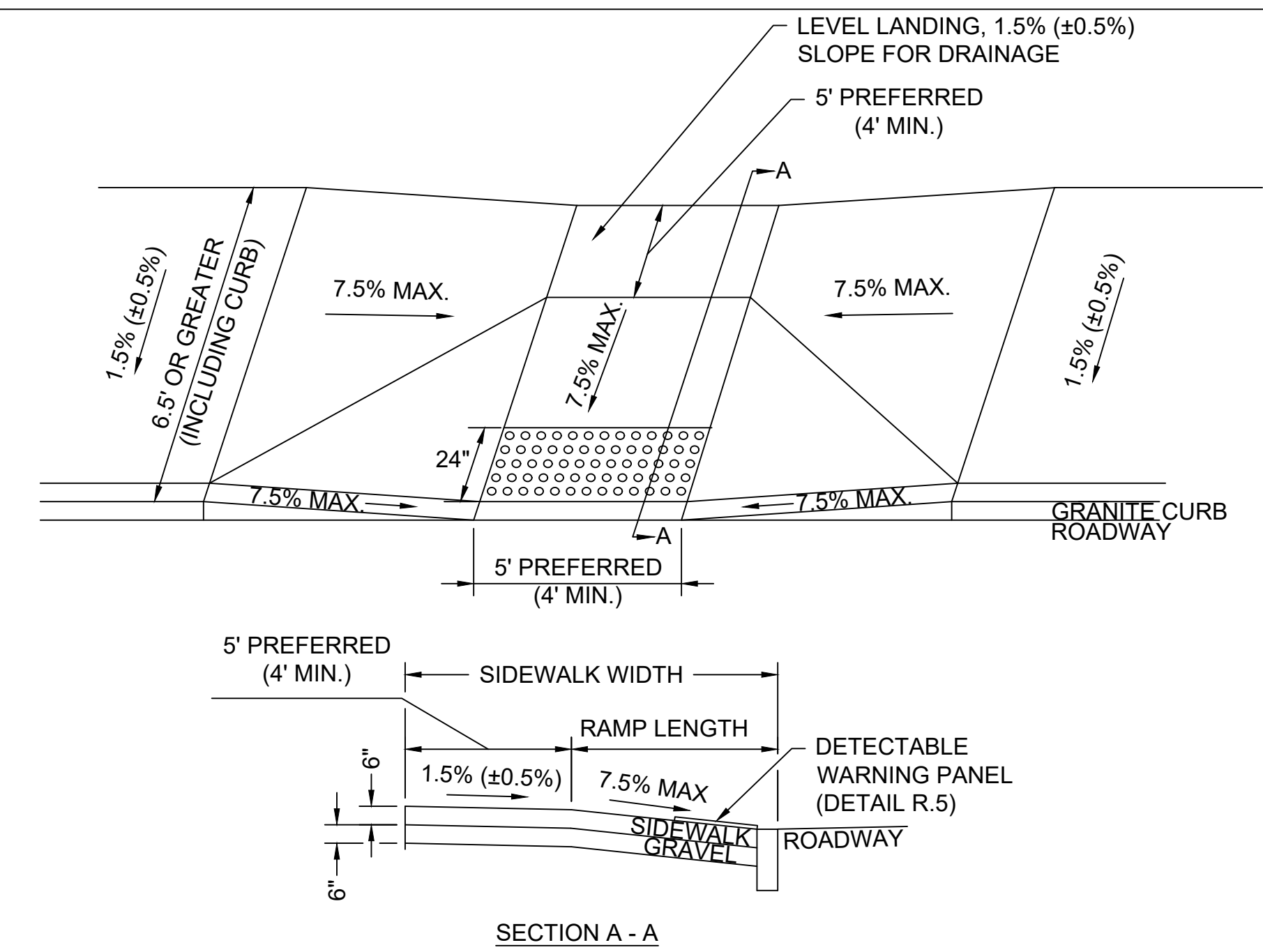


\*6" REVEAL TYPICAL. REVEAL MAY VARY FROM 3" TO 9" WITH PWD APPROVAL.

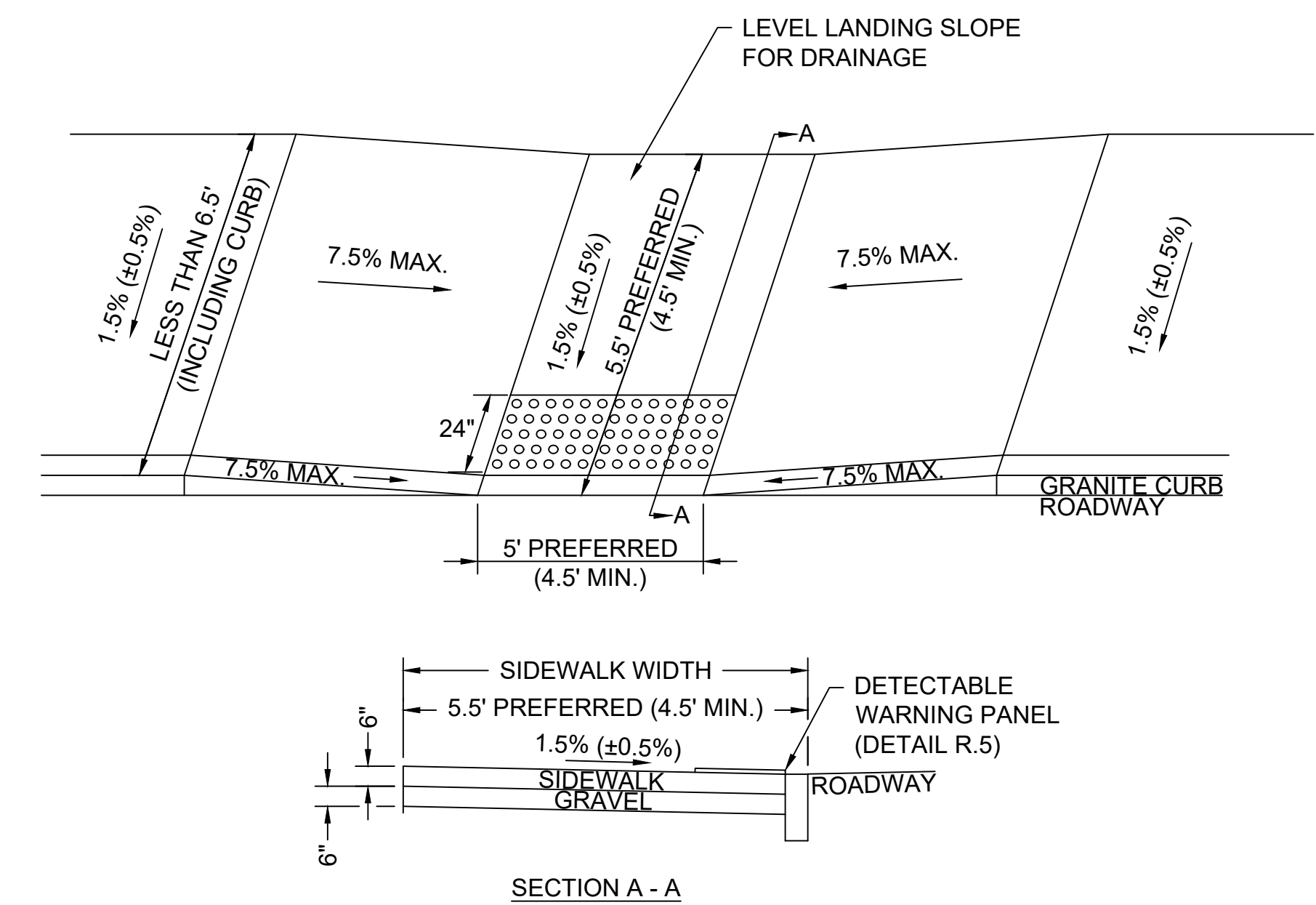
**1 CURB - GRANITE RESET**  
SCALE: NTS



**2 6" CONCRETE SIDEWALK**  
SCALE: NTS



**3 PEDESTRIAN RAMP - SIDEWALK WIDTH 6.5' & GREATER**  
SCALE: NTS



**5 PEDESTRIAN RAMP - SIDEWALK WIDTH LESS THAN 6.5'**  
SCALE: NTS

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BUSCARDT

APPROVED BY P. FUSCO

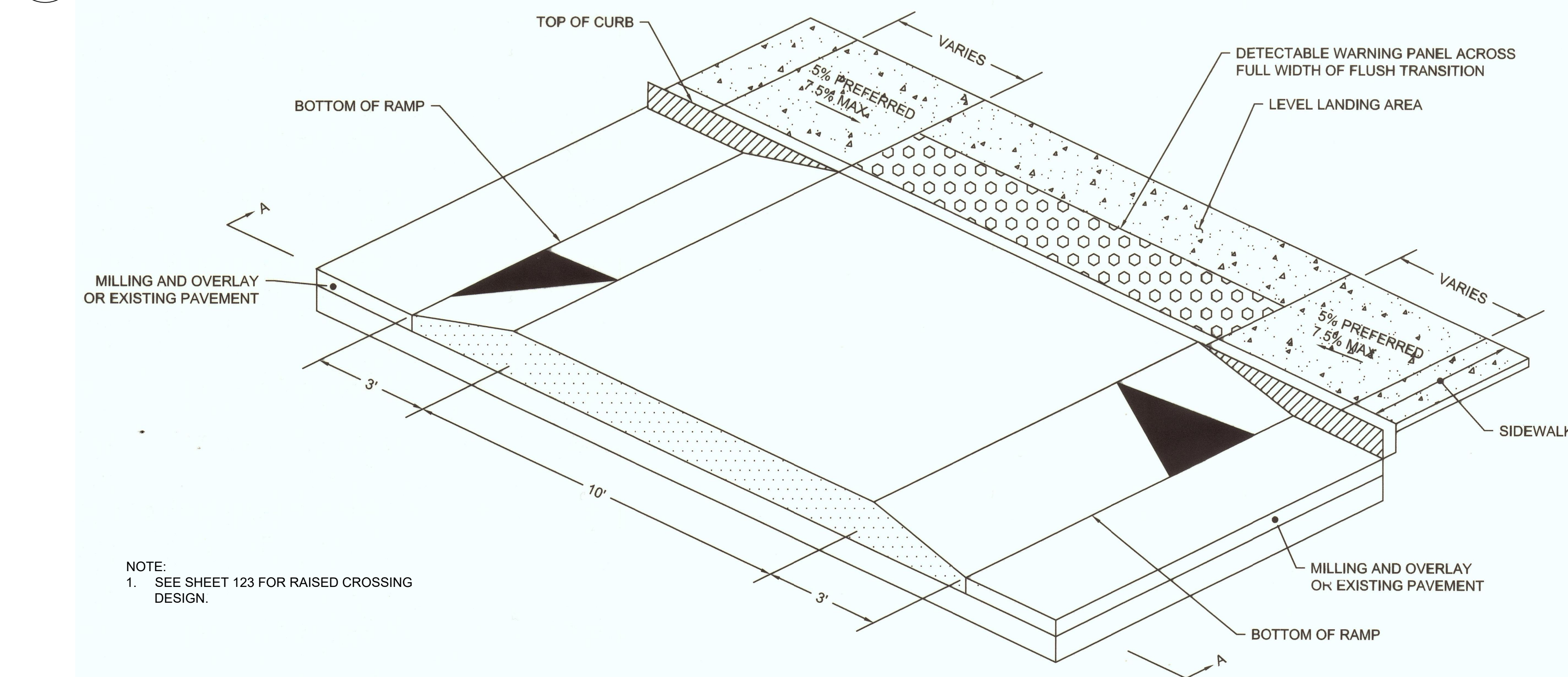
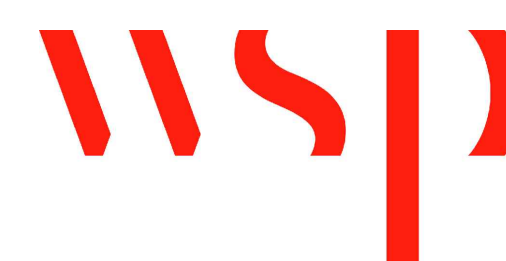
CIP XX-XX SHEET 13 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**CONSTRUCTION DETAILS**  
ROXBURY

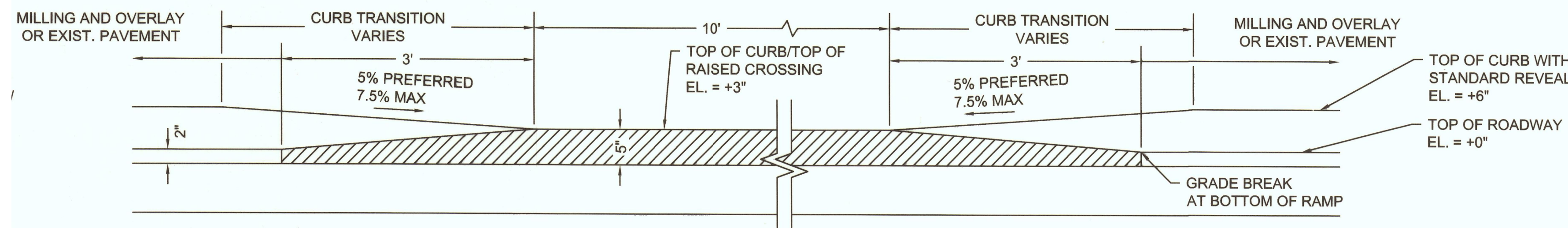
SCALE: N.T.S.  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER



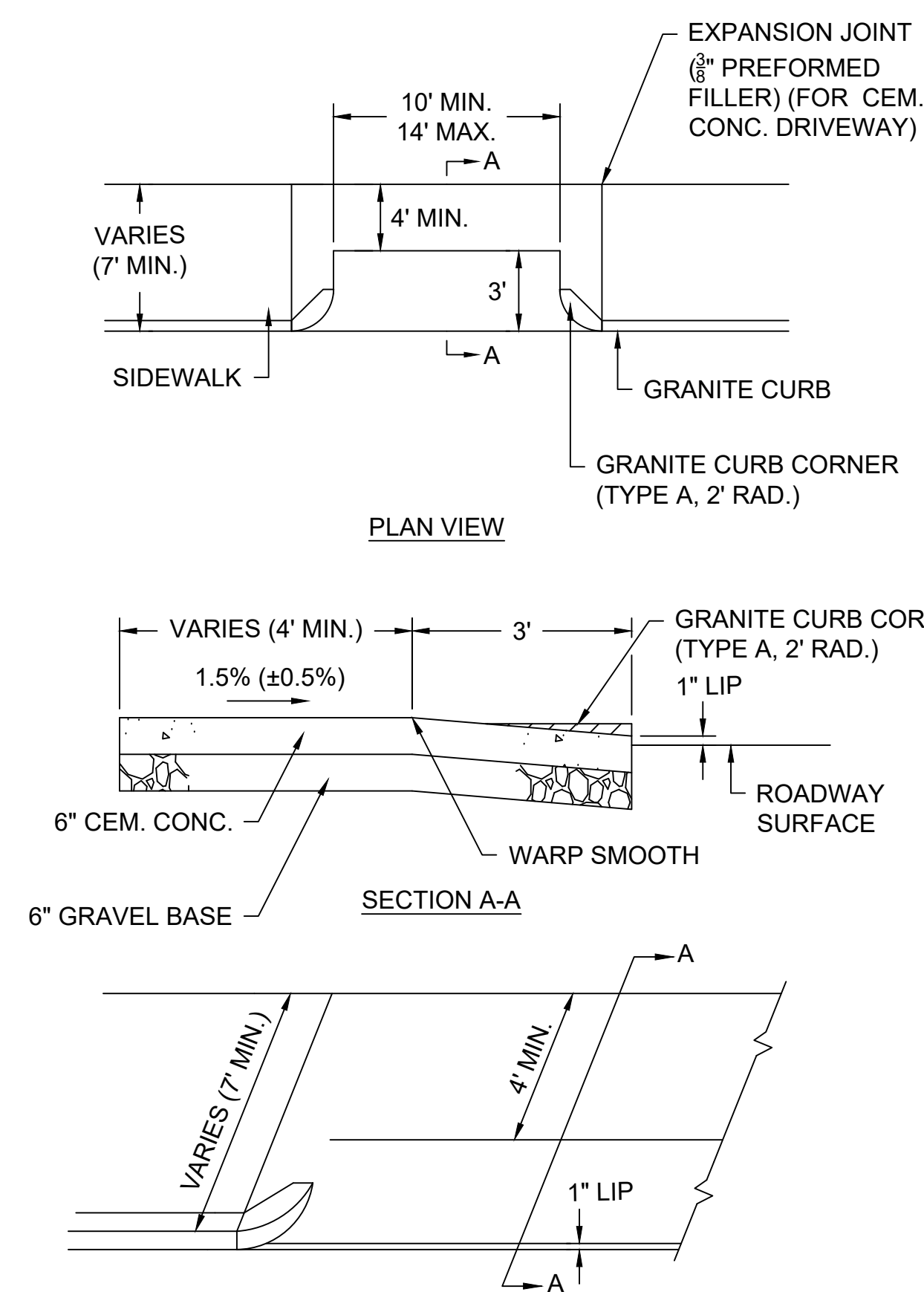
NOTE:  
1. SEE SHEET 123 FOR RAISED CROSSING DESIGN.



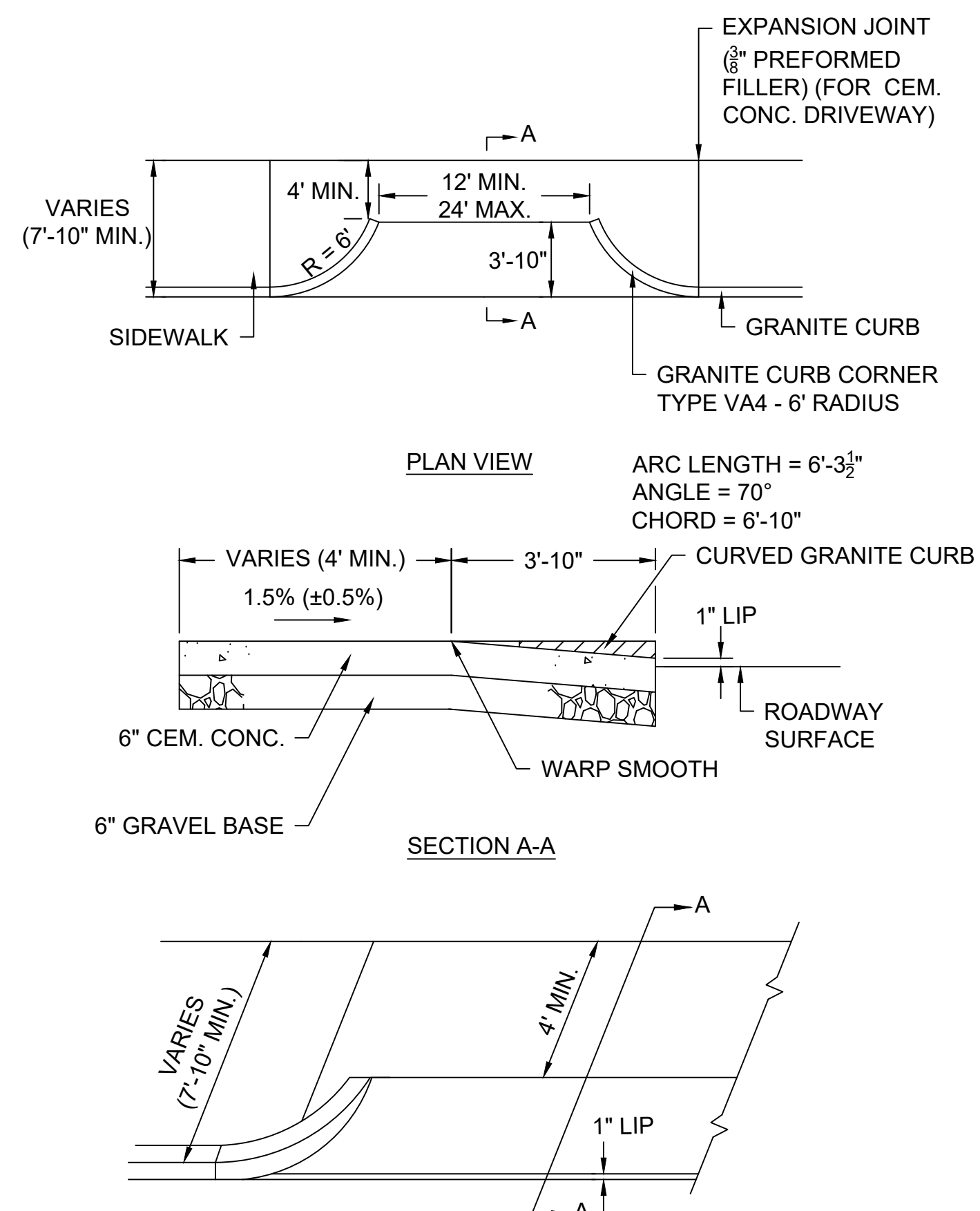
**4 RAISED CROSSING DETAIL**  
SCALE: NTS

R-XXXX-13

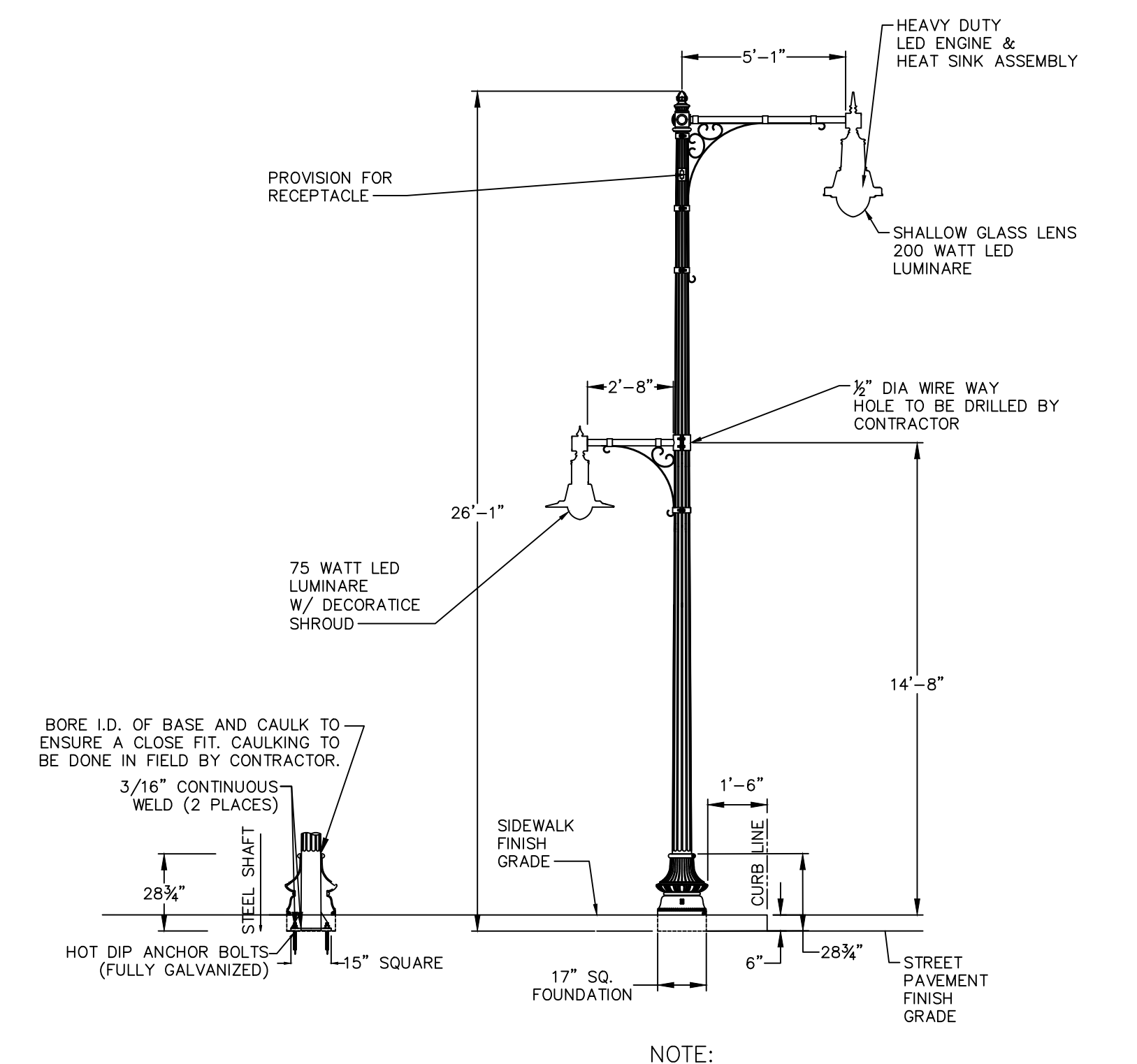




**1 DRIVEWAY DETAIL - RESIDENTIAL**  
SCALE: NTS

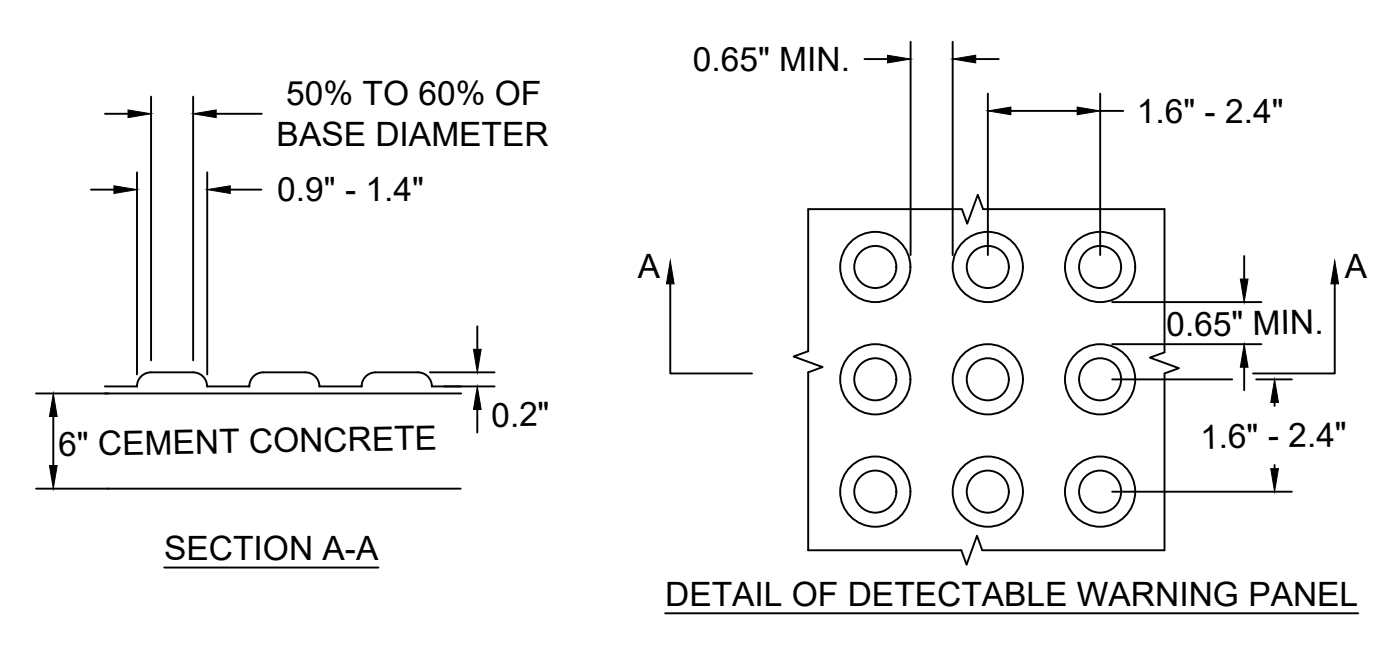


**2 DRIVEWAY DETAIL - COMMERCIAL**  
SCALE: NTS



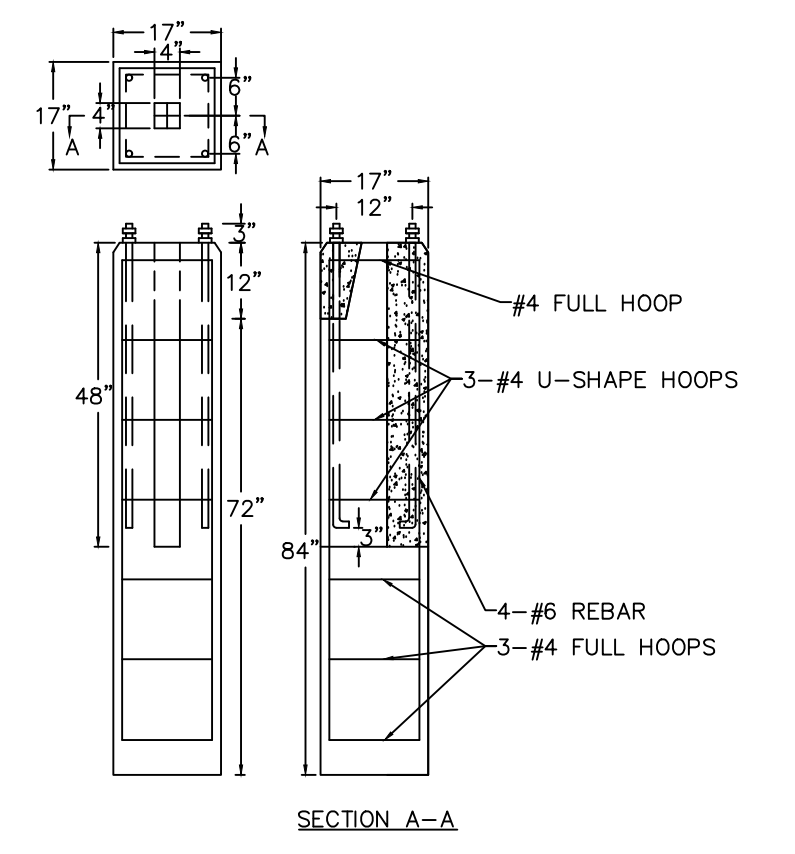
**3 HIGH LOW TWIN PENDANT FIXTURE**  
SCALE: NTS

NOTE:  
1. ADDITIONAL STREET LIGHTING DETAILS CAN BE FOUND IN STREET LIGHTING APPENDIX.



- NOTES:
1. DETECTABLE WARNING PANELS SHALL BE PERMANENTLY APPLIED TO THE CURB RAMP.
  2. DETECTABLE WARNING PANELS SHALL BE PALE YELLOW IN COLOR, CONFORMING TO FEDERAL NO. 23594, UNLESS OTHERWISE SPECIFIED BY PWD.
  3. DETECTABLE WARNING PANELS SHALL BE COMPOSITE.
  4. DETECTABLE WARNING PANELS SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

**4 DETECTABLE WARNING PANEL**  
SCALE: NTS

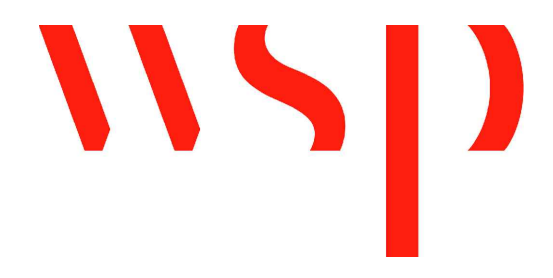


**5 LIGHT MODIFIED BASE - PRECAST**  
SCALE: NTS

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BUSCARDT
APPROVED BY	P. FUSCO



CIP XX-XX SHEET 14 OF 130

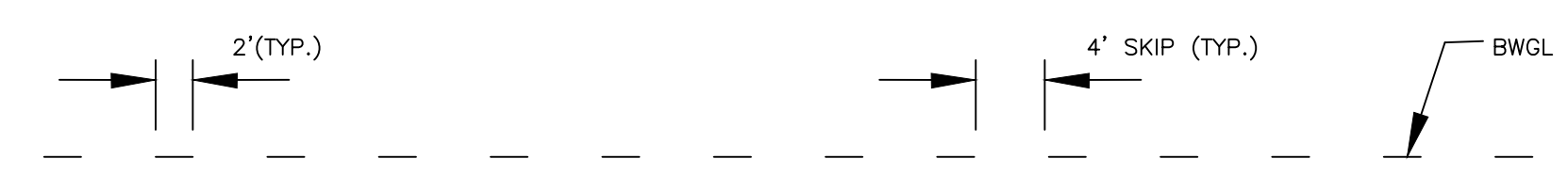
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
CONSTRUCTION DETAILS  
ROXBURY

SCALE: N.T.S. AREA: 1  
DISTRICT: 10 100% SUBMISSION  
DATE: APR. 15, 2019  
CITY ENGINEER

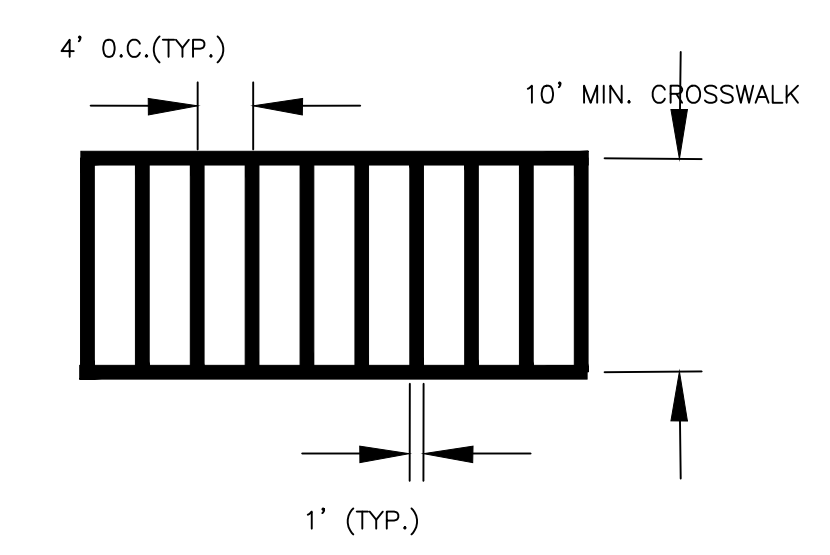




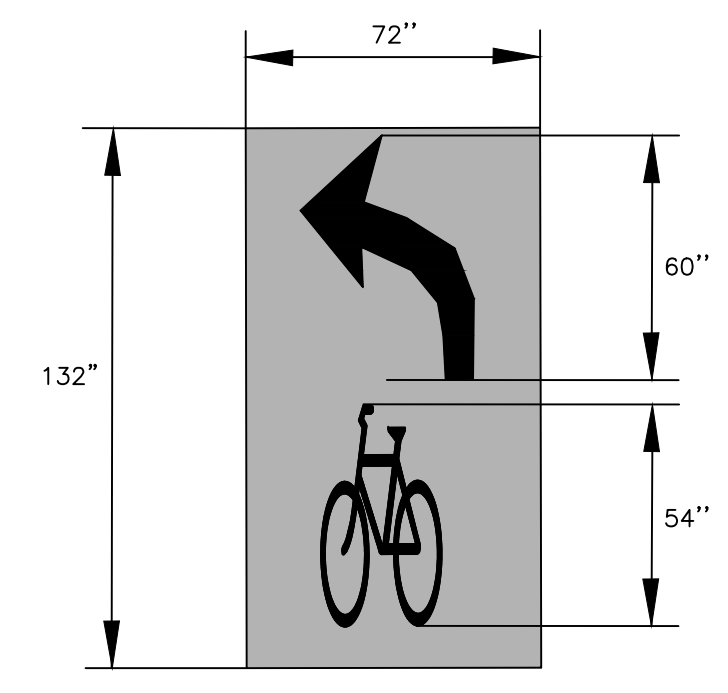
**1 LANE STRIPES**  
SCALE: NTS



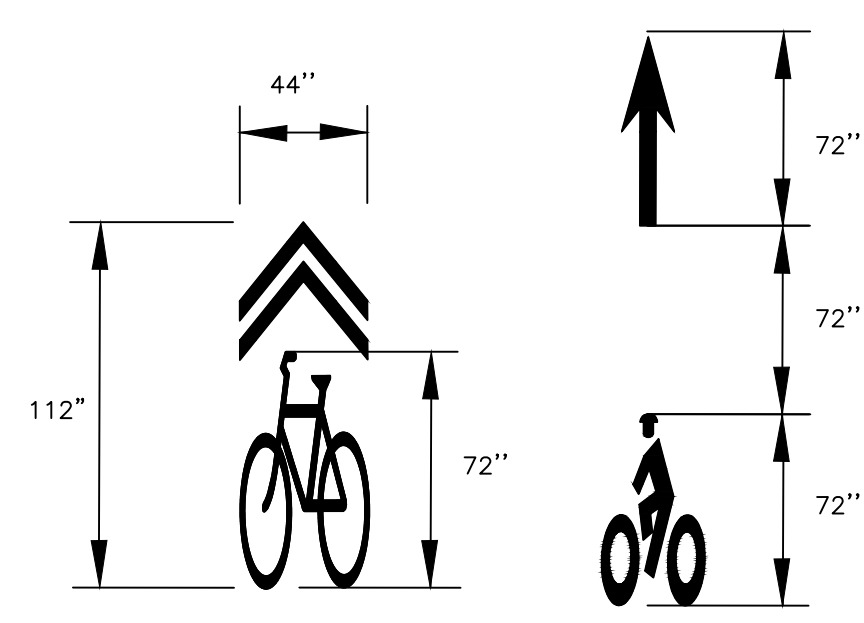
**2 GUIDE LINES**  
SCALE: NTS



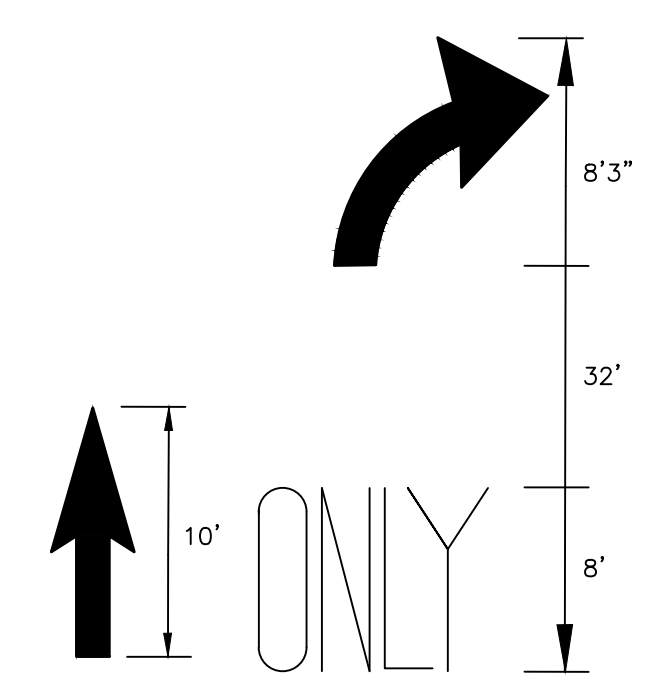
**3 CROSSWALK**  
SCALE: NTS



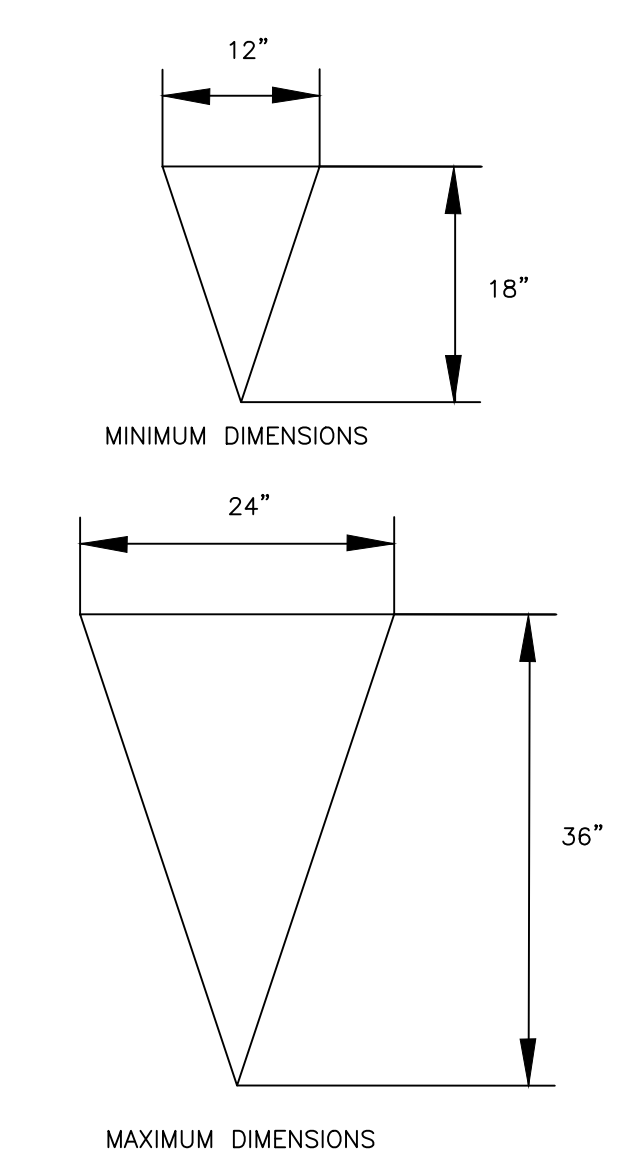
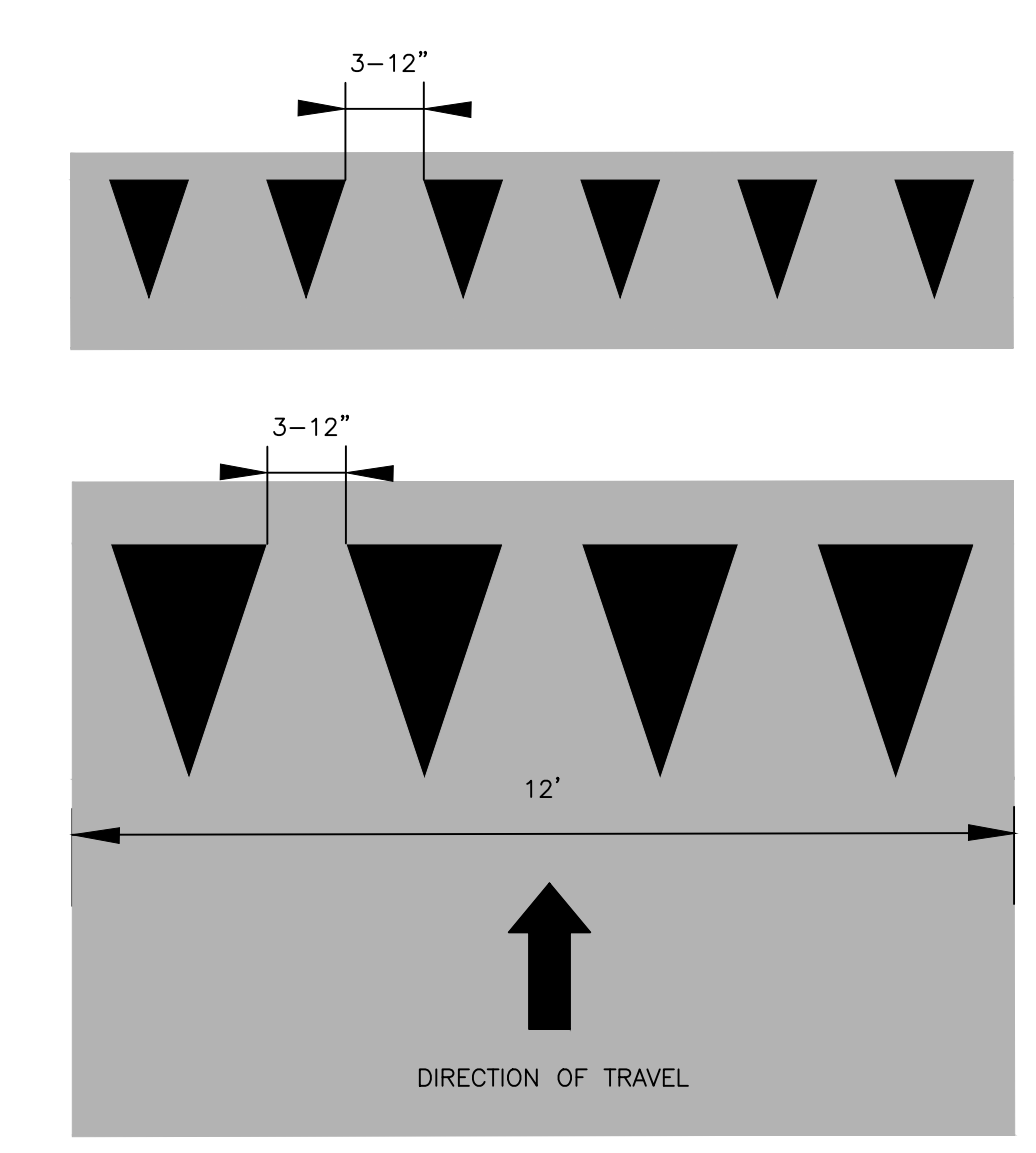
**4 LEFT TURN BIKE BOX**  
SCALE: NTS



**5 BICYCLE MARKINGS**  
SCALE: NTS



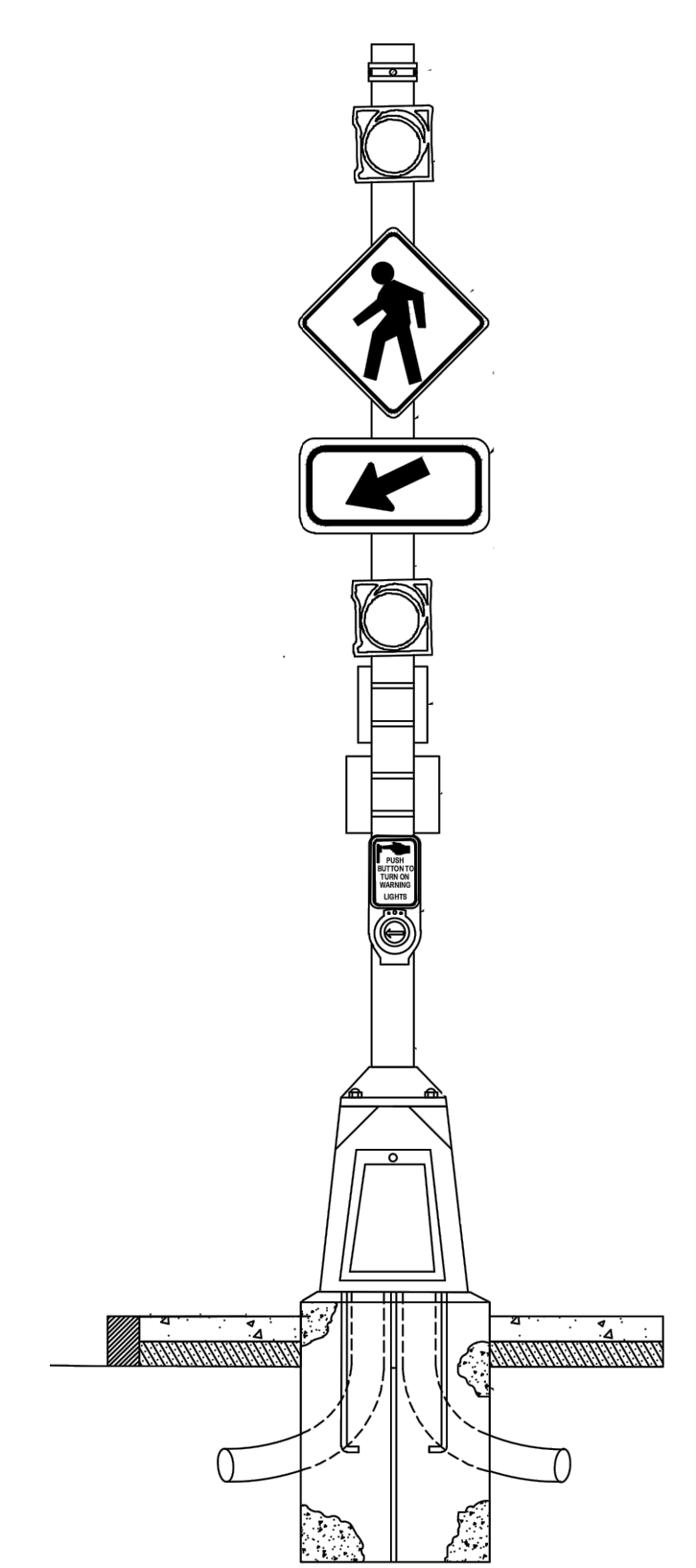
**6 TURNING MARKINGS**  
SCALE: NTS



NOTE: TRIANGLE HEIGHT IS EQUAL TO 1.5 TIMES THE BASE DIMENSION.  
YIELD LINES MAY BE SMALLER THAN SUGGESTED WHEN INSTALLED ON MUCH NARROWER, SLOW-SPEED FACILITIES SUCH AS SHARED-USE PATHS.

**YIELD LINE LAYOUTS**  
N.T.S.

**7 YIELD LINE LAYOUTS**  
SCALE: NTS



**8 PEDESTRIAN ACTUATED FLASHING BEACON**  
SCALE: NTS

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	



CIP XX-XX SHEET 15 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

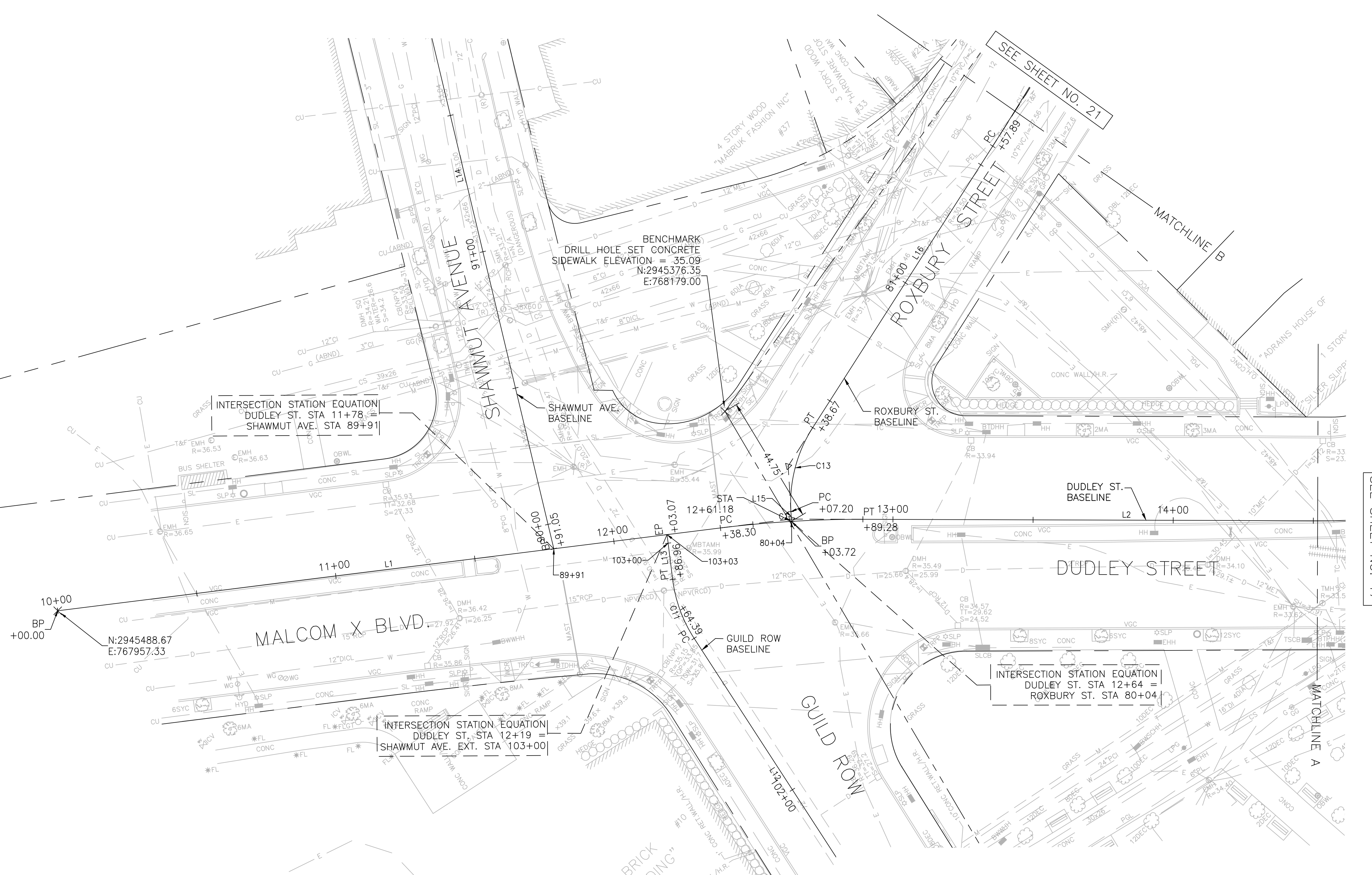
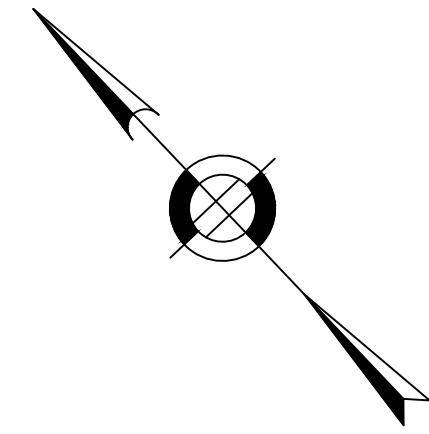
**DUDLEY SQUARE PHASE 2  
CONSTRUCTION DETAILS**  
ROXBURY

SCALE: N.T.S.  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER





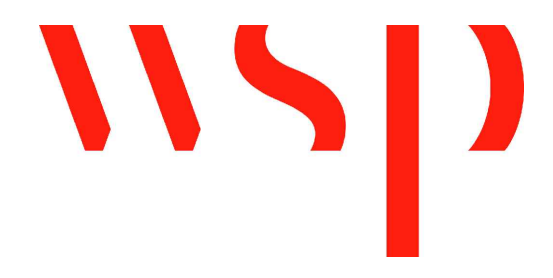
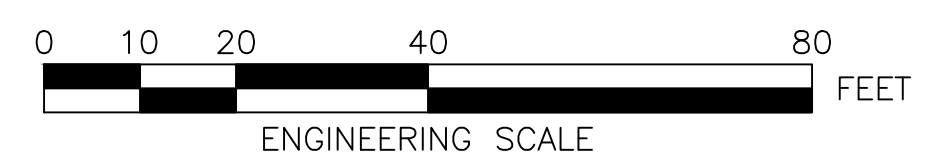
SEE SHEET NO. 17

CIP XX-XX SHEET 16 OF 130

NOTES:

1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEET 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.

R-XXXX-16



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CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

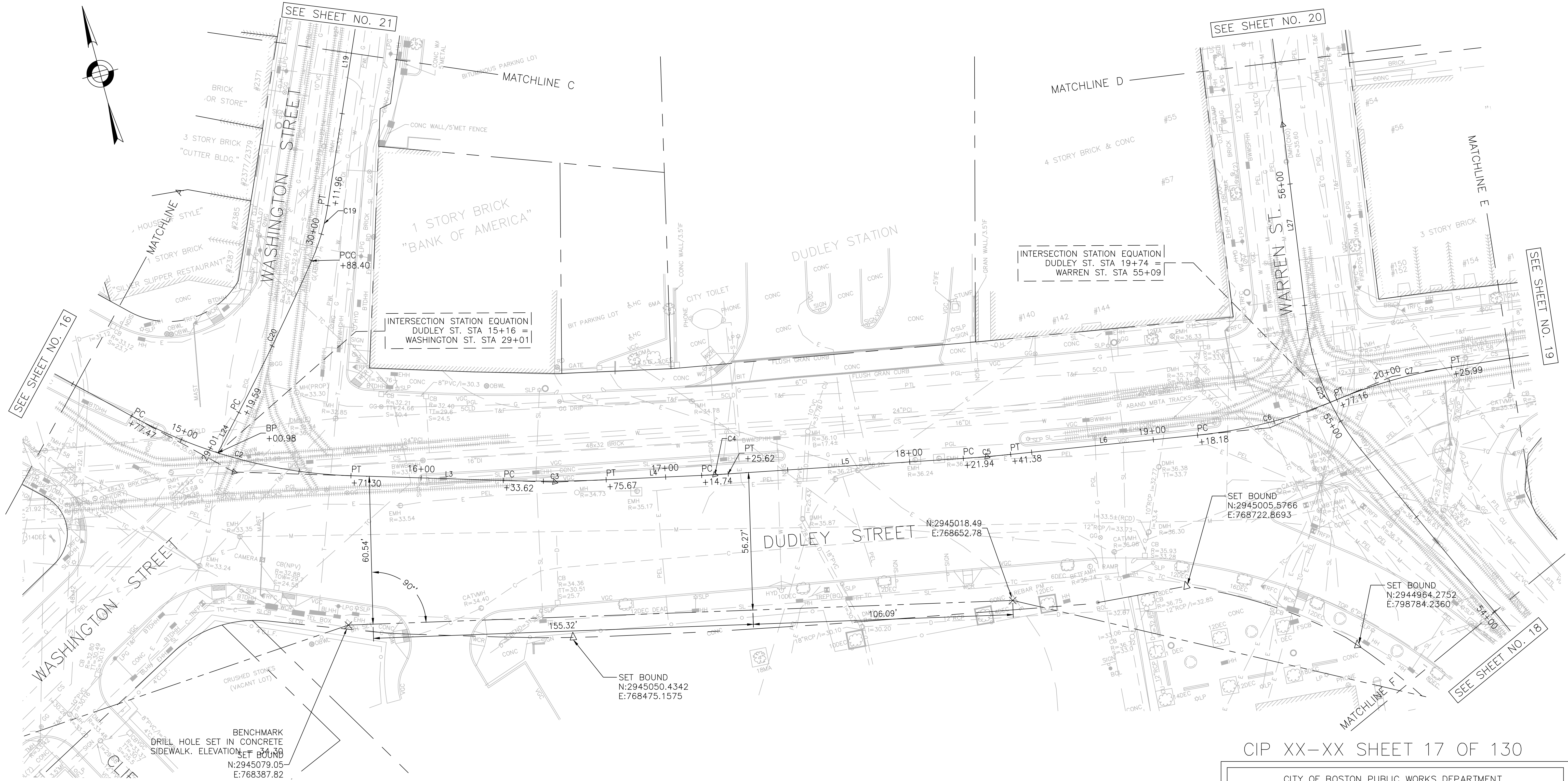
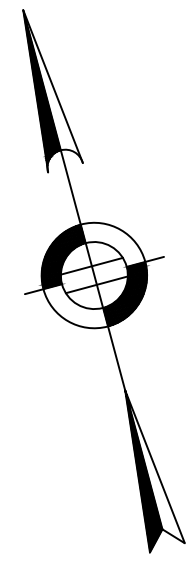
**DUDLEY SQUARE PHASE 2  
CONSTRUCTION BASELINE TIES**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

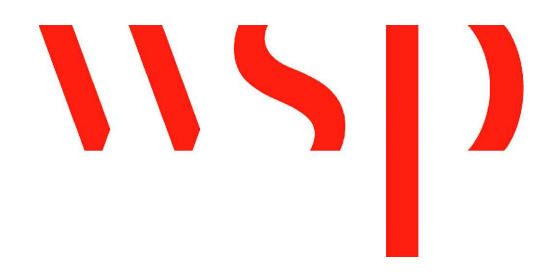
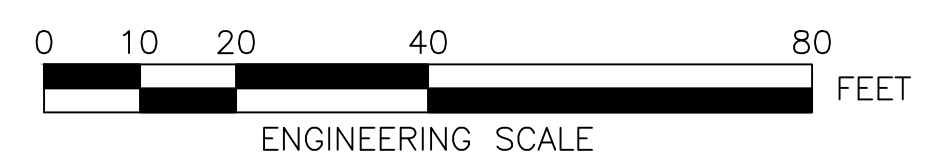
CITY ENGINEER





R-XXXX-17

- NOTES:
1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEET 2 & 4.
  2. FOR GENERAL NOTES, SEE SHEET 3.



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
CONSTRUCTION BASELINE TIES**  
ROXBURY

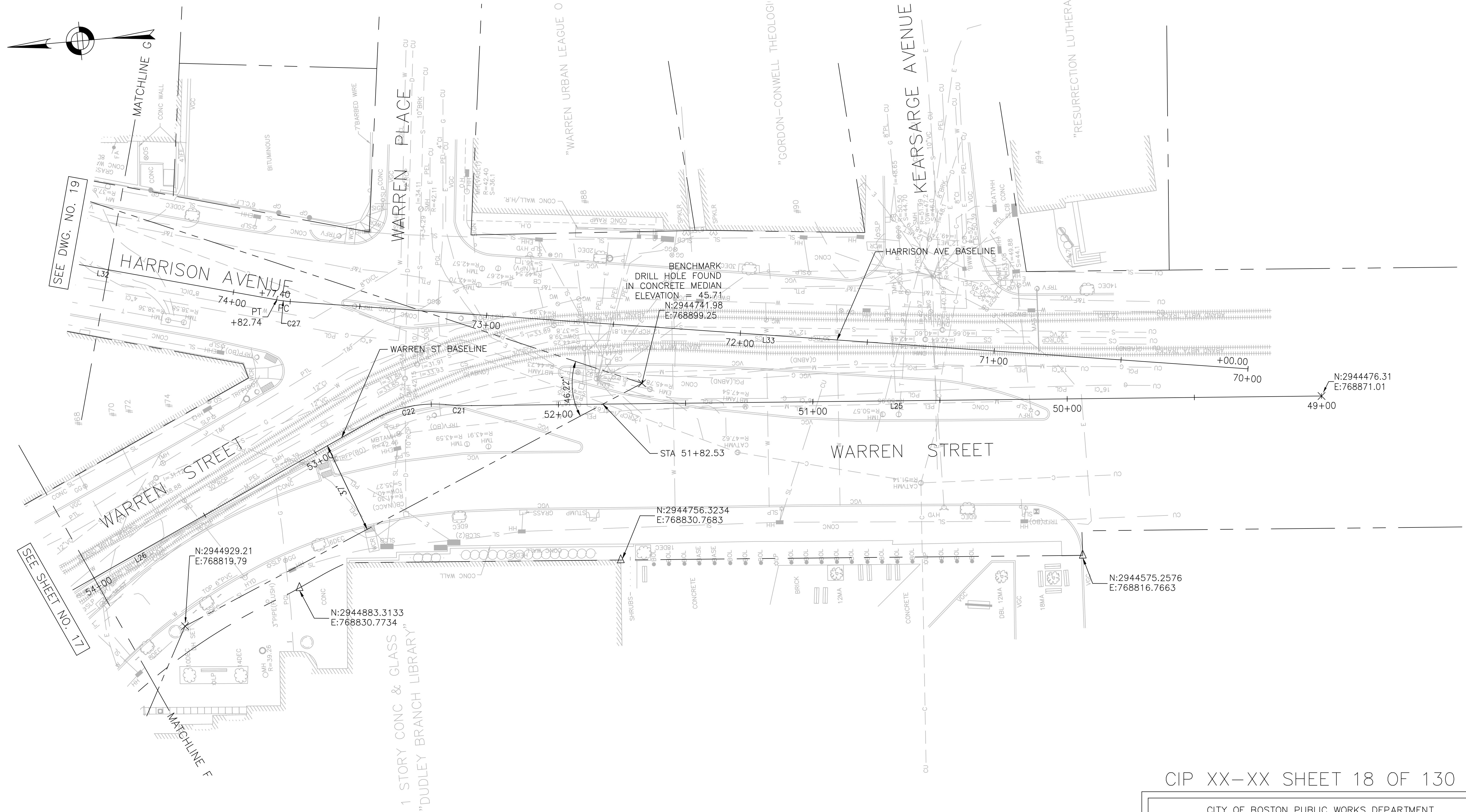
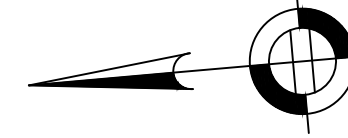
SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

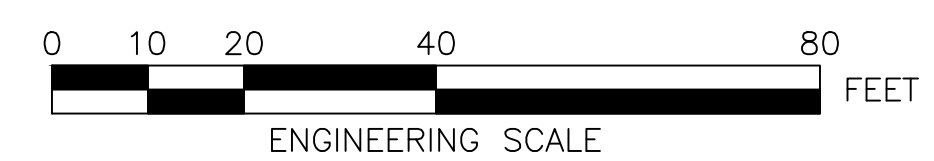
CIP XX-XX SHEET 17 OF 130





**NOTES:**

1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEET 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.



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CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 18 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

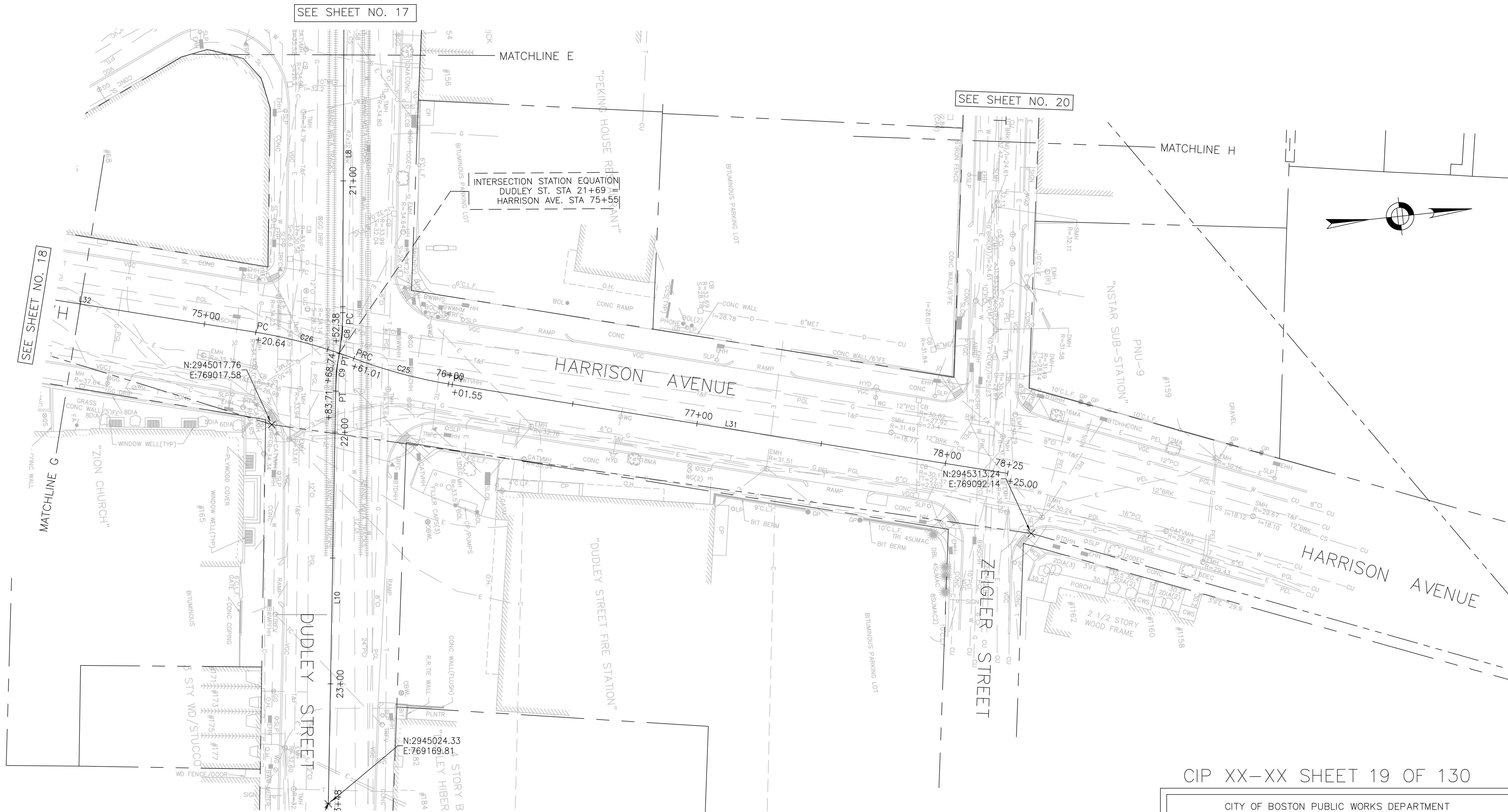
**DUDLEY SQUARE PHASE 2  
CONSTRUCTION BASELINE TIES**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

\_\_\_\_\_  
CITY ENGINEER





SEE SHEET NO. 17

SEE SHEET NO. 20

SEE SHEET NO. 18

MATCHLINE G

MATCHLINE H

INTERSECTION STATION EQUATION  
 DUDLEY ST. STA 21+69  
 HARRISON AVE. STA 75+55

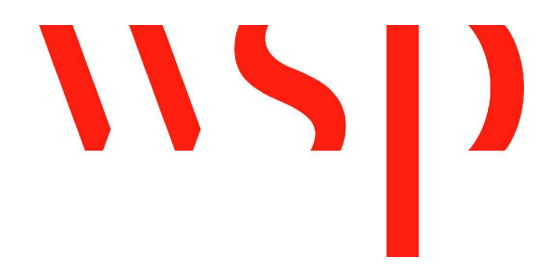
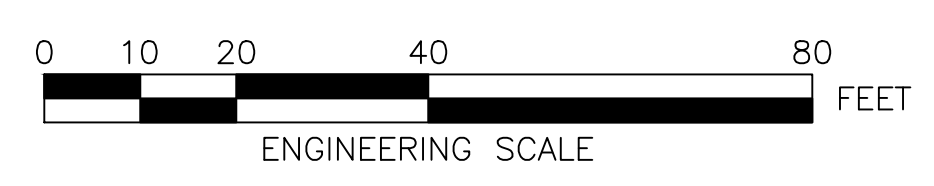
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NOTES:

- FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEET 2 & 4.
- FOR GENERAL NOTES, SEE SHEET 3.



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 19 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
 CONSTRUCTION BASELINE TIES**

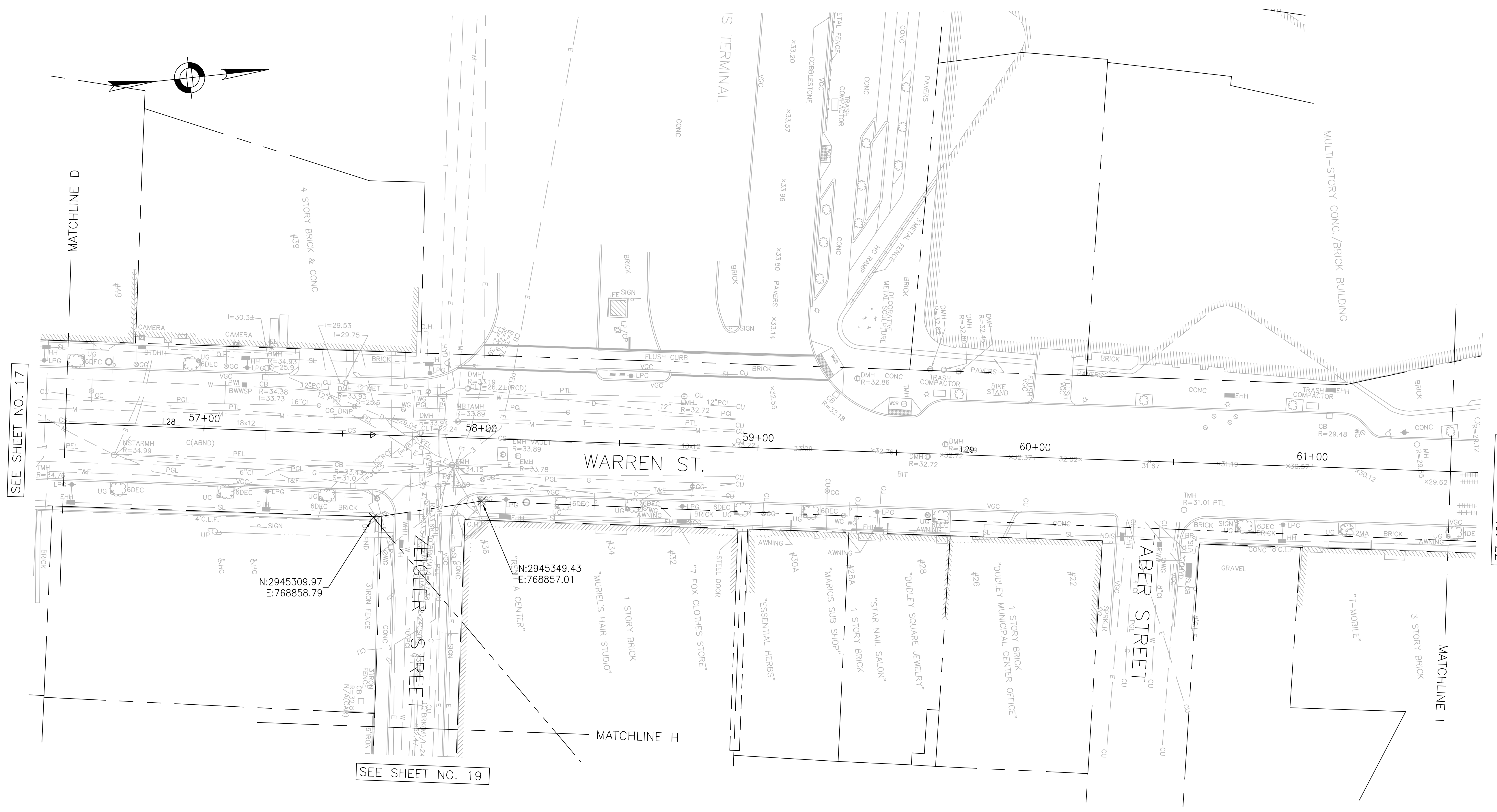
ROXBURY

SCALE: 1" = 20'	AREA: 1
DISTRICT: 10	100% SUBMISSION
	DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-19





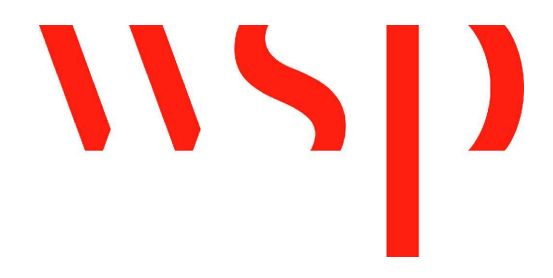
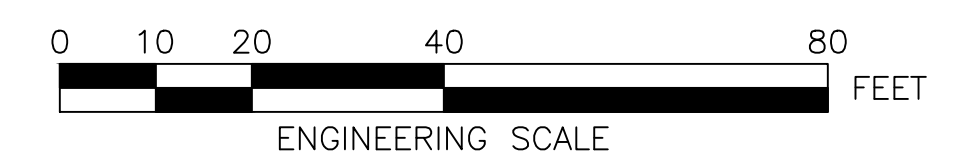
SEE SHEET NO. 17

SEE SHEET NO. 22

SEE SHEET NO. 19

NOTES:

1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEET 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 20 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
CONSTRUCTION BASELINE TIES**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

\_\_\_\_\_  
CITY ENGINEER

R-XXXX-20





SEE SHEET NO. 16

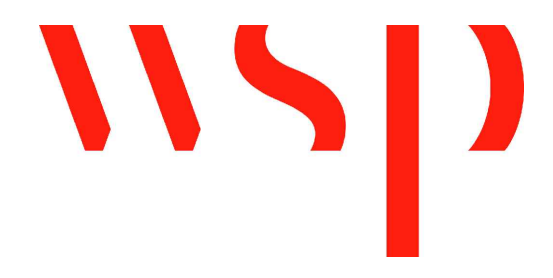
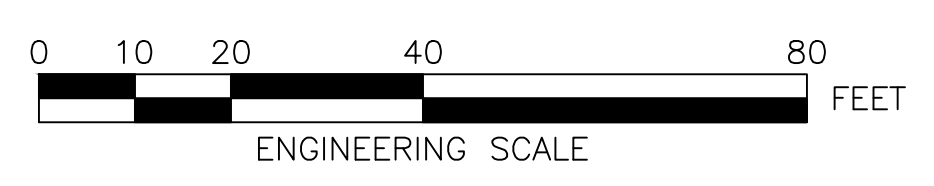
SEE SHEET NO. 17

SEE SHEET NO. 22

**NOTES:**

1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEET 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.

INTERSECTION STATION EQUATION  
 WASHINGTON ST. STA 33+16 =  
 ROXBURY ST. STA 83+54



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 21 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
 CONSTRUCTION BASELINE TIES**  
 ROXBURY

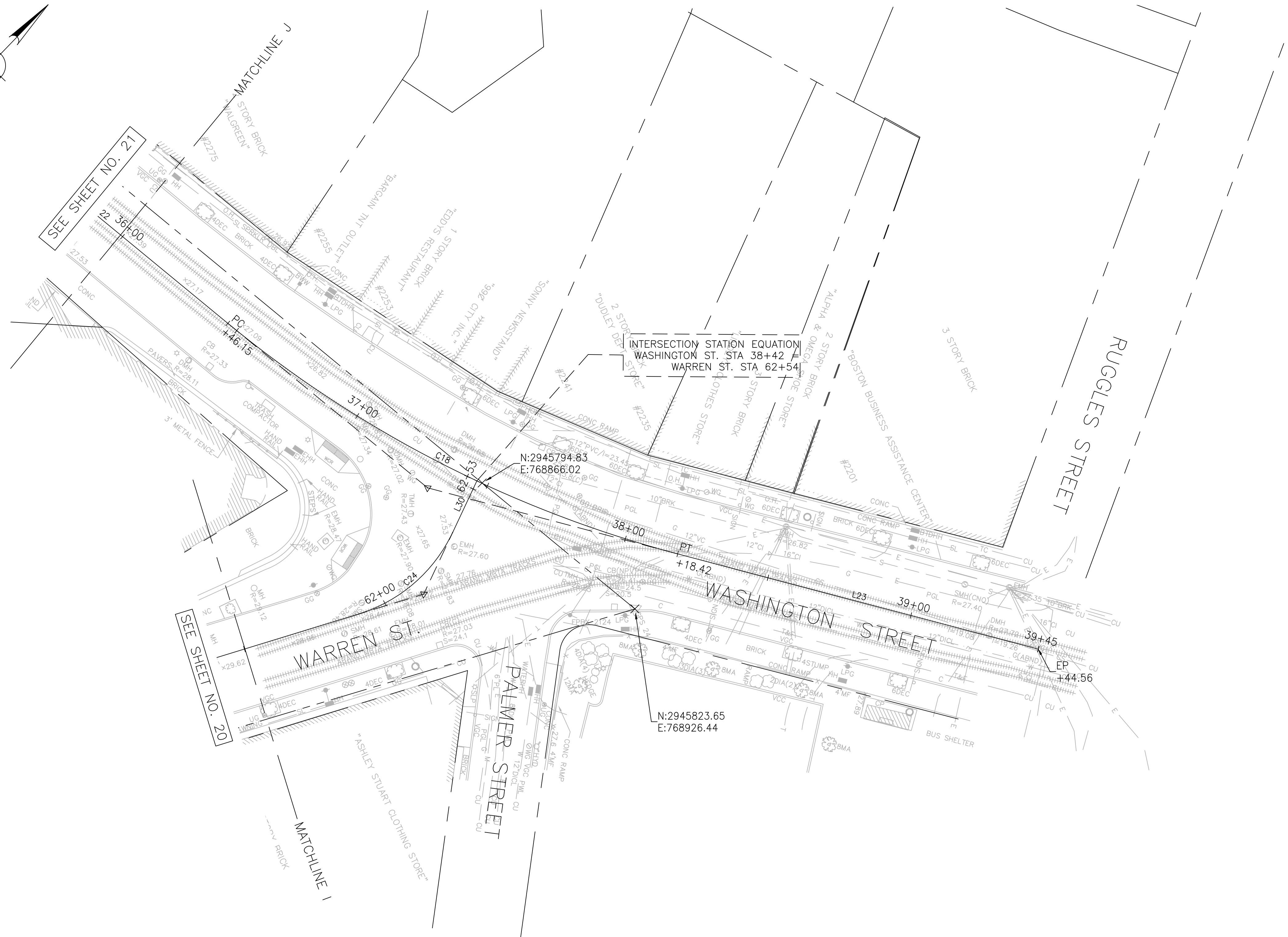
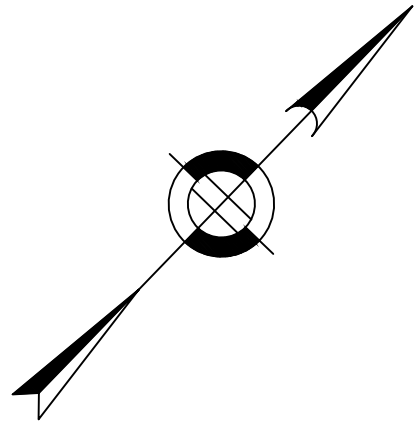
SCALE: 1" = 20'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-21

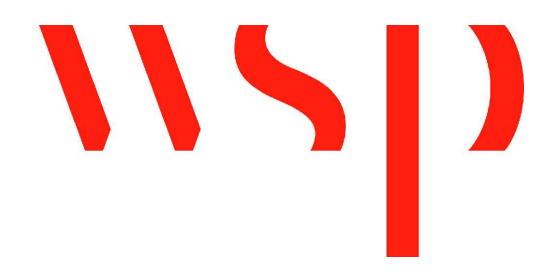
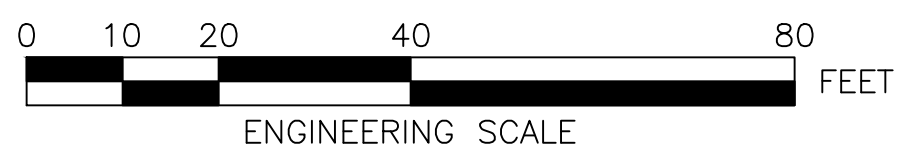




**NOTES:**

1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEET 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.

R-XXXX-22



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 22 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
CONSTRUCTION BASELINE TIES**  
ROXBURY

SCALE: 1" = 20'	AREA: 1
DISTRICT: 10	100% SUBMISSION
	DATE: APR. 15, 2019

\_\_\_\_\_  
CITY ENGINEER



**DUDLEY STREET BASELINE TANGENT TABLE**

Line #	Begin Point (N,E)	End Point (N,E)	Begin Station	End Station	Length	Direction
L31	N 2945090.715, E 769009.289	N 2945306.462, E 769067.458	76+01.549	78+25.000	223.451	N15° 05' 20.75"E
L32	N 2944882.145, E 768944.447	N 2945015.259, E 768980.461	73+82.736	75+20.636	137.899	N15° 08' 20.73"E
L33	N 2944504.195, E 768884.170	N 2944876.925, E 768943.330	70+00.000	73+77.395	377.395	N9° 01' 07.34"E
L1	N 2945488.666, E 767957.331	N 2945347.329, E 768149.194	10+00.000	12+38.301	238.301	S53° 37' 21.04"E
L2	N 2945314.563, E 768188.203	N 2945184.595, E 768324.304	12+89.280	14+77.469	188.189	S46° 19' 13.37"E
L3	N 2945137.772, E 768404.628	N 2945119.761, E 768464.290	15+71.301	16+33.623	62.322	S73° 12' 05.27"E
L4	N 2945109.174, E 768504.974	N 2945100.803, E 768543.131	16+75.672	17+14.737	39.064	S77° 37' 34.14"E
L5	N 2945098.577, E 768553.784	N 2945079.825, E 768648.261	17+25.621	18+21.940	96.319	S78° 46' 24.72"E
L6	N 2945076.388, E 768667.398	N 2945064.194, E 768743.220	18+41.385	19+18.181	76.796	S80° 51' 49.58"E
L7	N 2945063.489, E 768801.980	N 2945063.489, E 768801.980	19+77.158	19+77.158	0.000	N82° 29' 16.28"E

**DUDLEY STREET BASELINE CURVE TABLE**

Curve #	PC Station	PC (N,E)	PT Station	PT (N,E)	Radius	Curve Length	Delta	Tangent
C1	12+38.301	N 2945347.329, E 768149.194	12+89.280	N 2945314.563, E 768188.203	400.000	50.978	7.302	25.524
C2	14+77.469	N 2945184.595, E 768324.304	15+71.301	N 2945137.772, E 768404.628	200.000	93.833	26.881	47.796
C3	16+33.623	N 2945119.761, E 768464.290	16+75.672	N 2945109.174, E 768504.974	544.500	42.049	4.425	21.035
C4	17+14.737	N 2945100.803, E 768543.131	17+25.621	N 2945098.577, E 768553.784	543.500	10.884	1.147	5.442
C5	18+21.940	N 2945079.825, E 768648.261	18+41.385	N 2945076.388, E 768667.398	533.000	19.445	2.090	9.723
C6	19+18.181	N 2945064.194, E 768743.220	19+77.158	N 2945063.489, E 768801.980	200.000	58.978	16.896	29.704
C7	19+77.158	N 2945063.489, E 768801.980	20+25.994	N 2945064.138, E 768850.690	200.000	48.836	13.990	24.540
C8	21+52.381	N 2945050.421, E 768976.330	21+68.743	N 2945047.326, E 768992.378	100.000	16.362	9.375	8.200
C9	21+68.743	N 2945047.326, E 768992.378	21+83.709	N 2945044.391, E 769007.039	100.000	14.965	8.574	7.497

**WARREN STREET BASELINE TANGENT TABLE**

Line #	Begin Point (N,E)	End Point (N,E)	Begin Station	End Station	Length	Direction
L23	N 2945844.635, E 768915.704	N 2945941.558, E 768996.436	38+18.422	39+44.563	126.141	N39° 47' 33.04"E
L24	N 2945160.883, E 768354.462	N 2945174.608, E 768367.022	29+00.984	29+19.588	18.603	N42° 27' 45.74"E
L15	N 2945331.568, E 768169.221	N 2945334.231, E 768171.458	80+03.720	80+07.198	3.478	N40° 01' 42.79"E
L16	N 2945350.608, E 768197.729	N 2945379.256, E 768313.449	80+38.672	81+57.886	119.213	N76° 05' 42.44"E
L17	N 2945395.721, E 768372.210	N 2945409.575, E 768416.411	82+18.920	82+65.241	46.321	N72° 35' 53.30"E
L18	N 2945411.285, E 768438.950	N 2945403.341, E 768490.712	82+88.041	83+40.410	52.369	S81° 16' 29.99"E

**WARREN STREET BASELINE CURVE TABLE**

Curve #	PC Station	PC (N,E)	PT Station	PT (N,E)	Radius	Curve Length	Delta	Tangent
C21	52+34.117	N 2944809.465, E 768896.355	52+44.267	N 2944819.530, E 768897.637	100.000	10.151	5.816	5.080
C22	52+44.267	N 2944819.530, E 768897.637	52+74.554	N 2944849.122, E 768893.906	50.000	30.287	34.707	15.624
C23	54+85.563	N 2945041.071, E 768806.270	55+42.491	N 2945096.656, E 768798.230	100.000	56.928	32.617	29.259
C24	61+90.384	N 2945738.224, E 768888.529	62+33.764	N 2945778.736, E 768876.956	52.000	43.379	47.797	23.042

**GUILD ROW BASELINE TANGENT TABLE**

Line #	Begin Point (N,E)	End Point (N,E)	Begin Station	End Station	Length	Direction
L20	N 2945401.883, E 768490.210	N 2945486.051, E 768519.259	31+80.538	32+69.577	89.039	N19° 02' 28.50"E
L21	N 2945549.953, E 768552.256	N 2945628.409, E 768608.387	33+41.746	34+38.214	96.467	N35° 34' 52.22"E
L22	N 2945695.713, E 768688.669	N 2945739.697, E 768780.756	35+44.094	36+46.146	102.052	N64° 28' 09.15"E

**GUILD ROW EXTENSION BASELINE CURVE TABLE**

Curve #	PC Station	PC (N,E)	PT Station	PT (N,E)	Radius	Curve Length	Delta	Tangent
C10	100+69.193	N 2945132.654, E 768083.863	101+51.584	N 2945214.292, E 768094.702	800.000	82.392	5.901	41.232
C11	102+64.394	N 2945325.208, E 768115.287	102+86.964	N 2945345.740, E 768124.191	50.000	22.570	25.864	11.481

R-XXXX-23

**WASHINGTON STREET BASELINE TANGENT TABLE**

Line #	Begin Point (N,E)	End Point (N,E)	Begin Station	End Station	Length	Direction
L23	N 2945844.635, E 768915.704	N 2945941.558, E 768996.436	38+18.422	39+44.563	126.141	N39° 47' 33.04"E
L24	N 2945160.883, E 768354.462	N 2945174.608, E 768367.022	29+00.984	29+19.588	18.603	N42° 27' 45.74"E
L15	N 2945331.568, E 768169.221	N 2945334.231, E 768171.458	80+03.720	80+07.198	3.478	N40° 01' 42.79"E
L16	N 2945350.608, E 768197.729	N 2945379.256, E 768313.449	80+38.672	81+57.886	119.213	N76° 05' 42.44"E
L17	N 2945395.721, E 768372.210	N 2945409.575, E 768416.411	82+18.920	82+65.241	46.321	N72° 35' 53.30"E
L18	N 2945411.285, E 768438.950	N 2945403.341, E 768490.712	82+88.041	83+40.410	52.369	S81° 16' 29.99"E

**WASHINGTON STREET BASELINE CURVE TABLE**

Curve #	PC Station	PC (N,E)	PT Station	PT (N,E)	Radius	Curve Length	Delta	Tangent
C15	31+30.444	N 2945355.267, E 768471.910	31+80.538	N 2945401.883, E 768490.210	600.000	50.094	4.784	25.062
C16	32+69.577	N 2945486.051, E 768519.259	33+41.746	N 2945549.953, E 768552.256	250.000	72.169	16.540	36.337
C17	34+38.214	N 2945628.409, E 768608.387	35+44.094	N 2945695.713, E 768688.669	210.000	105.880	28.888	54.091
C18	36+46.146	N 2945739.697, E 768780.756	38+18.422	N 2945844.635, E 768915.704	400.000	172.276	24.677	87.495
C19	29+88.397	N 2945226.809, E 768411.833	30+11.960	N 2945246.880, E 768424.049	90.000	23.563	15.001	11.849
C20	29+19.588	N 2945174.608, E 768367.022	29+88.397	N 2945226.809, E 768411.833	1084.000	68.809	3.637	34.416

**ROXBURY STREET BASELINE TANGENT TABLE**

Line #	Begin Point (N,E)	End Point (N,E)	Begin Station	End Station	Length	Direction
L12	N 2945214.292, E 768094.702	N 2945325.208, E 768115.287	101+51.584	102+64.394	112.810	N10° 30' 49.31"E
L13	N 2945345.740, E 768124.191	N 2945358.710, E 768133.745	102+86.964	103+03.073	16.109	N36° 22' 38.96"E
L14	N 2945382.850, E 768100.975	N 2945620.748, E 768238.681	89+91.048	92+65.927	274.879	N30° 03' 51.19"E

**ROXBURY STREET BASELINE CURVE TABLE**

Curve #	PC Station	PC (N,E)	PT Station	PT (N,E)	Radius	Curve Length	Delta	Tangent
C12	81+57.886	N 2945379.256, E 768313.449	82+18.920	N 2945395.721, E 768372.210	1000.000	61.034	3.497	30.526
C13	80+07.198	N 2945334.231, E 768171.458	80+38.672	N 2945350.608, E 768197.729	50.000	31.474	36.067	16.278
C14	82+65.241	N 2945409.575, E 768416.411	82+88.041	N 2945411.285, E 768438.950	50.000	22.800	26.127	11.602

**HARRISON AVENUE BASELINE TANGENT TABLE**

Line #	Begin Point (N,E)	End Point (N,E)	Begin Station	End Station	Length	Direction
L8	N 2945064.138, E 768850.690	N 2945050.421, E 768976.330	20+25.994	21+52.381	126.387	S83° 46' 09.31"E
L9	N 2945047.326, E 768992.378	N 2945047.326, E 768992.378	21+68.743	21+68.743	0.000	S74° 20' 39.18"E
L10	N 2945044.391, E 769007.039	N 2945024.318, E 769169.791	21+83.709	23+47.694	163.985	S82° 58' 07.60"E

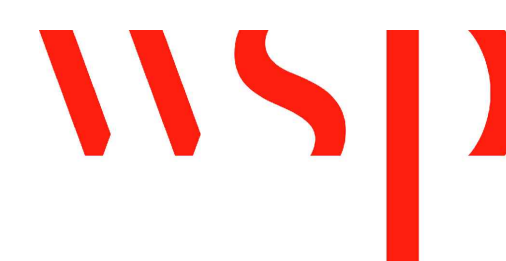
**HARRISON AVENUE BASELINE CURVE TABLE**

Curve #	PC Station	PC (N,E)	PT Station	PT (N,E)	Radius	Curve Length	Delta	Tangent
C25	75+61.005	N 2945052.903, E 768994.852	76+01.549	N 2945090.715, E 769009.289	200.000	40.544	11.615	20.342
C26	75+20.636	N 2945015.259, E 768980.461	75+61.005	N 2945052.903, E 768994.852	200.000	40.369	11.565	20.254
C27	73+77.395	N 2944876.925, E 768943.330	73+82.736	N 2944882.145, E 768944.447	50.000	5.341	6.120	2.673

**SHAWMUT AVENUE BASELINE TANGENT TABLE**

Line #	Begin Point (N,E)	End Point (N,E)	Begin Station	End Station	Length	Direction
L19	N 2945246.880, E 768424.049	N 2945355.267, E 768471.910	30+11.960	31+30.444	118.484	N23° 49' 29.62"E

CIP XX-XX SHEET 23 OF 130



SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY S. BERGMAN  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO

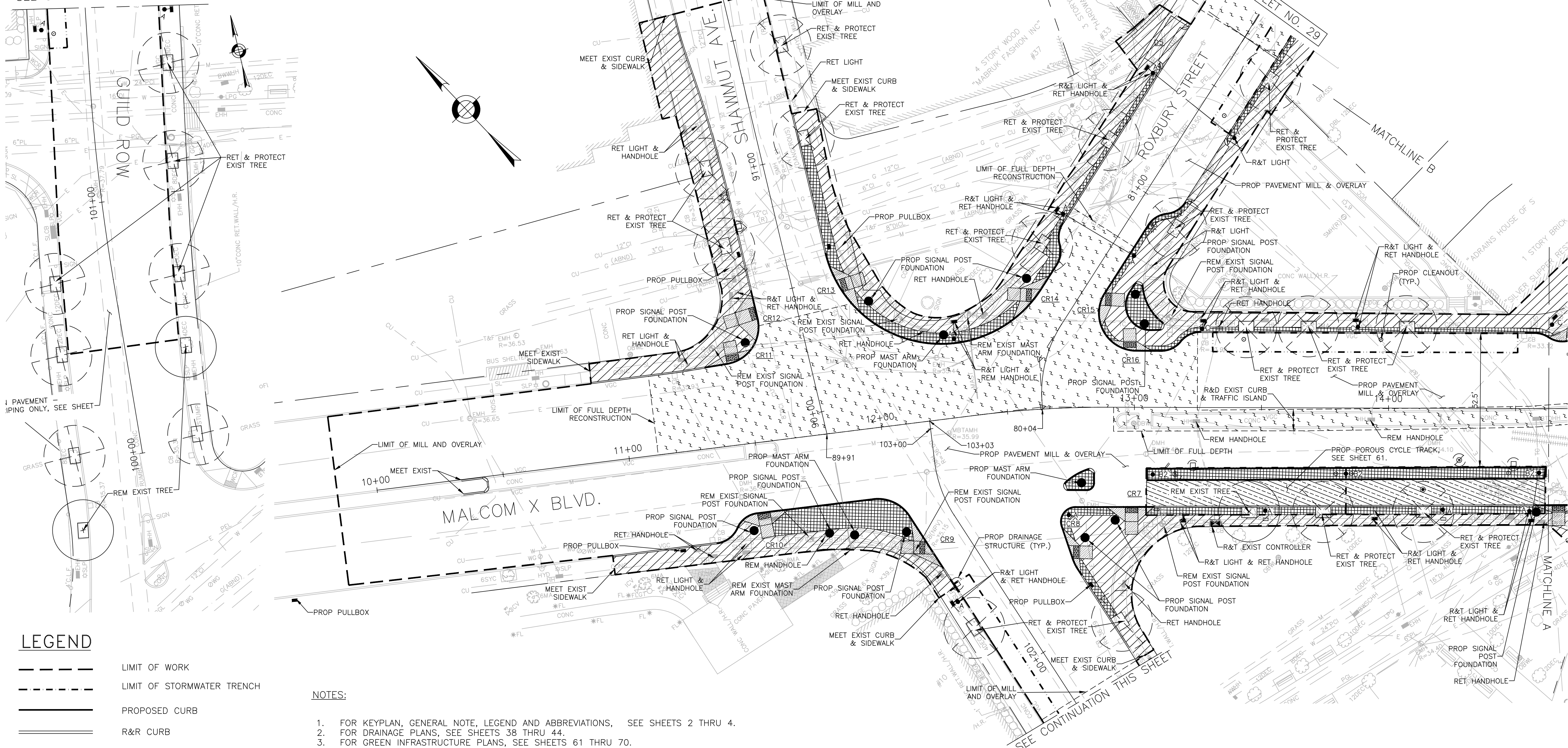
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**CONSTRUCTION BASELINE TIES**  
 ROXBURY  
 SCALE: N.T.S. AREA: 1  
 DISTRICT: 10 100% SUBMISSION  
 DATE: APR. 15, 2019  
 CITY ENGINEER



SEE CONTINUATION THIS SHEET

SEE SHEET NO. 29

SEE SHEET NO. 25

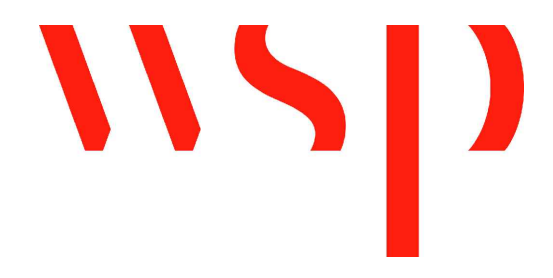
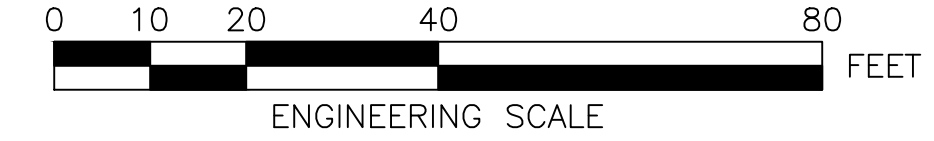


**LEGEND**

- LIMIT OF WORK
- LIMIT OF STORMWATER TRENCH
- PROPOSED CURB
- R&R CURB
- CEMENT CONCRETE SIDEWALK
- PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
- FULL DEPTH ROADWAY CONSTRUCTION
- PERMEABLE PAVERS
- POROUS CYCLE TRACK

**NOTES:**

1. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
2. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
3. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
4. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
5. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.
6. FOR TRAFFIC SIGNAL PLANS, SEE SHEETS 80 THRU 89.
7. FOR STREET LIGHTING PLANS, SEE SHEETS 98 THRU 104.
8. ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
9. ALL EXISTING GRANITE CURB IN SUITABLE CONDITION SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB, SUCH STONES SHALL BE TYPE VA4 VERTICAL GRANITE CUBE. EXISTING CURB NOT SUITABLE FOR RE-USE AS DETERMINED BY THE ENGINEER SHALL BE REMOVED AND DISCARDED AND REPLACED WITH VA4.
10. CONTRACTOR SHALL COORDINATE WITH PUBLIC WORKS CIP 19-21 AND ALL OTHER PUBLIC OR PRIVATE PROJECTS THAT ARE ONGOING WITHIN THE PROJECT LIMITS.
11. ALL TRAFFIC SIGNAL EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BE RETURNED TO BTD SIGNAL MAINTENANCE FACILITY AT 12 CHANNEL STREET, SOUTH BOSTON.
12. ALL TEMPORARY PEDESTRIAN WALKWAYS AND CROSSINGS TO BE ESTABLISHED AND SET PRIOR TO REMOVAL OF EXISTING PEDESTRIAN RAMPS.
13. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 11-309-009. SEE SHEETS 38 THRU 44 AND 124 THRU 129 FOR REFERENCE.
14. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 03-309-007. SEE SHEET 38 AND 129 FOR REFERENCE.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	N. BELLONE
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

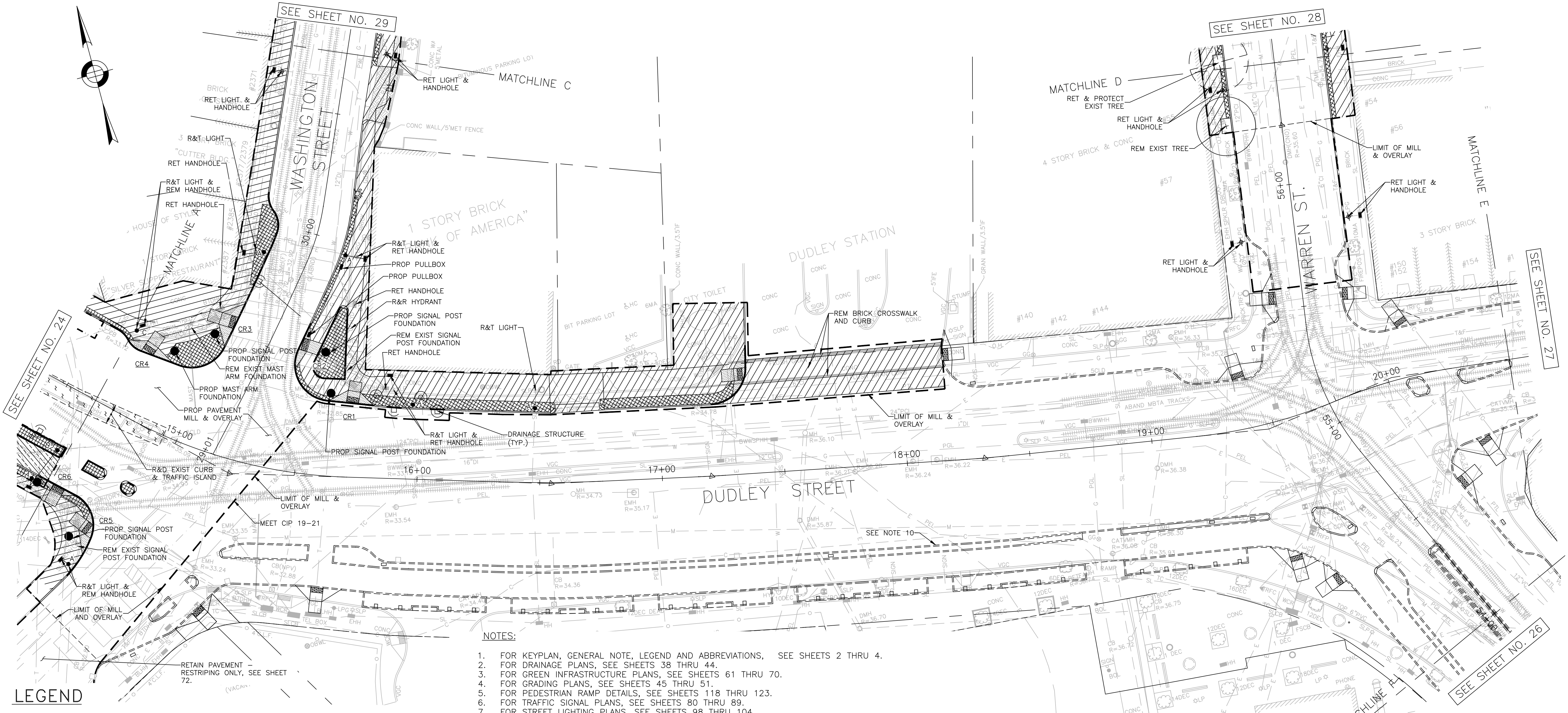
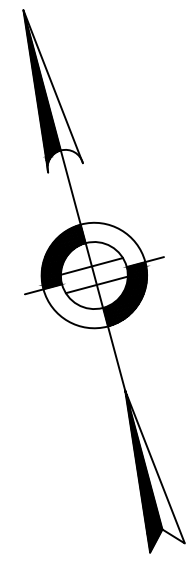
CIP XX-XX SHEET 24 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2  
CONSTRUCTION PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10  
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019  
CITY ENGINEER

R-XXXX-24





**LEGEND**

- LIMIT OF WORK
- - - - - LIMIT OF STORMWATER TRENCH
- ===== PROPOSED CURB
- ===== R&R CURB
- ////// CEMENT CONCRETE SIDEWALK
- ..... PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
- ||||| FULL DEPTH ROADWAY CONSTRUCTION
- ▨ PERMEABLE PAVERS
- ▧ POROUS ASPHALT

**NOTES:**

1. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
2. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
3. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
4. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
5. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.
6. FOR TRAFFIC SIGNAL PLANS, SEE SHEETS 80 THRU 89.
7. FOR STREET LIGHTING PLANS, SEE SHEETS 98 THRU 104.
8. ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
9. ALL EXISTING GRANITE CURB IN SUITABLE CONDITION SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB, SUCH STONES SHALL BE TYPE VA4 VERTICAL GRANITE CUBE. EXISTING CURB NOT SUITABLE FOR RE-USE AS DETERMINED BY THE ENGINEER SHALL BE REMOVED AND DISCARDED AND REPLACED WITH VA4.
10. CONTRACTOR SHALL COORDINATE WITH PUBLIC WORKS CIP 19-21 AND ALL OTHER PUBLIC OR PRIVATE PROJECTS THAT ARE ONGOING WITHIN THE PROJECT LIMITS.
11. ALL TRAFFIC SIGNAL EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BE RETURNED TO BTD SIGNAL MAINTENANCE FACILITY AT 12 CHANNEL STREET, SOUTH BOSTON.
12. ALL TEMPORARY PEDESTRIAN WALKWAYS AND CROSSINGS TO BE ESTABLISHED AND SET PRIOR TO REMOVAL OF EXISTING PEDESTRIAN RAMPS.
13. CONSTRUCTION PLANS SHOW DRAIN AND ROADWAY IMPROVEMENTS CONSTRUCTED UNDER BOSTON PUBLIC WORKS CIP 19-21.
10. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSO CONTRACT NO. 11-309-009. SEE SHEETS 38 THRU 44 AND 124 THRU 129 FOR REFERENCE.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	N. BELLONE
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 25 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

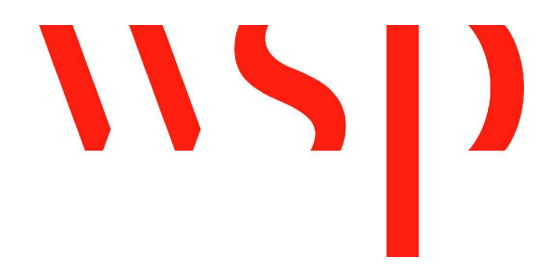
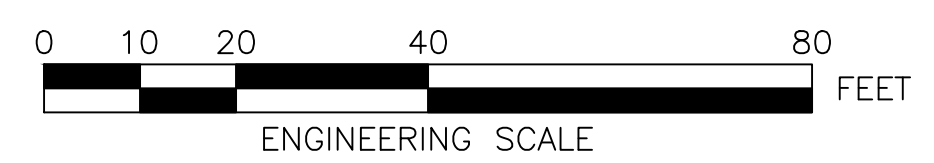
**DUDLEY SQUARE PHASE 2  
CONSTRUCTION PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

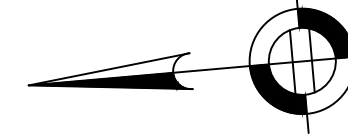
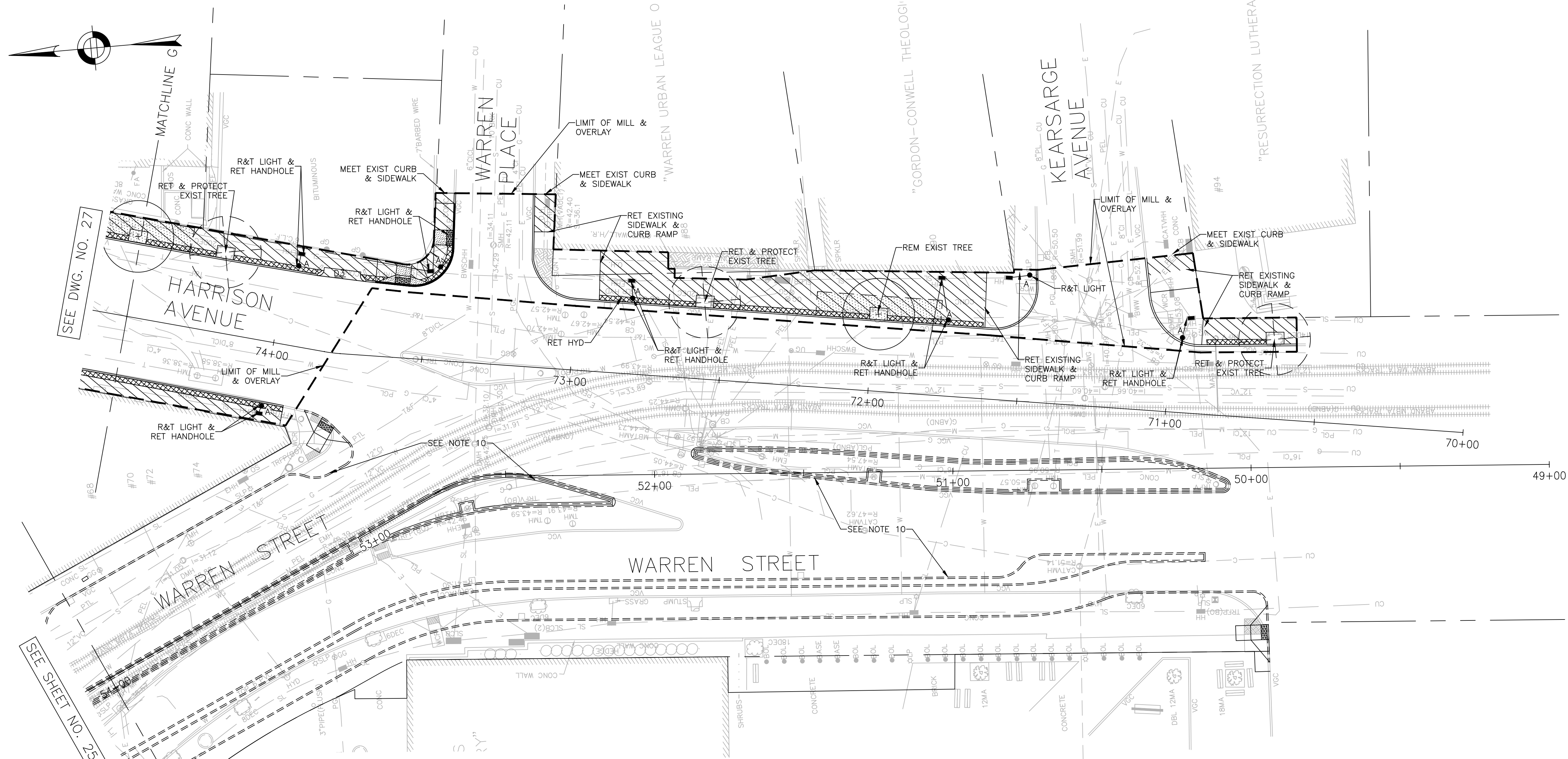
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-25







SEE DWG. NO. 27

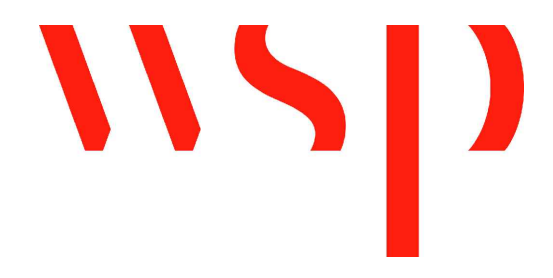
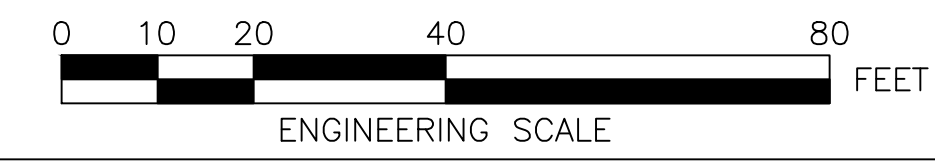
SEE SHEET NO. 25

**LEGEND**

- LIMIT OF WORK
- PROPOSED CURB
- R&R CURB
- CEMENT CONCRETE SIDEWALK
- PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
- PERMEABLE CONCRETE PAVERS
- LIMIT OF STRUCTURAL SOIL

**NOTES:**

1. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
2. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
3. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
4. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
5. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.
6. FOR TRAFFIC SIGNAL PLANS, SEE SHEETS 80 THRU 89.
7. FOR STREET LIGHTING PLANS, SEE SHEETS 98 THRU 104.
8. ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMITS, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
9. ALL EXISTING GRANITE CURB IN SUITABLE CONDITION SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB, SUCH STONES SHALL BE TYPE V44 VERTICAL GRANITE CUBE. EXISTING CURB NOT SUITABLE FOR RE-USE AS DETERMINED BY THE ENGINEER SHALL BE REMOVED AND DISCARDED AND REPLACED WITH V44.
10. CONTRACTOR SHALL COORDINATE WITH MASSDOT SIGNAL PROJECT AT KEARSARGE AVE. AND ALL OTHER PUBLIC OR PRIVATE PROJECTS THAT ARE ONGOING WITHIN THE PROJECT LIMITS.
11. ALL TRAFFIC SIGNAL EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BE RETURNED TO BTD SIGNAL MAINTENANCE FACILITY AT 12 CHANNEL STREET, SOUTH BOSTON.
12. ALL TEMPORARY PEDESTRIAN WALKWAYS AND CROSSINGS TO BE ESTABLISHED AND SET PRIOR TO REMOVAL OF EXISTING PEDESTRIAN RAMPS.
13. CONSTRUCTION PLANS SHOW DRAIN AND ROADWAY IMPROVEMENTS CONSTRUCTED UNDER BOSTON PUBLIC WORKS CIP 19-21.
10. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 11-309-009. SEE SHEETS 38 THRU 44 AND 124 THRU 129 FOR REFERENCE.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	N. BELLONE
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

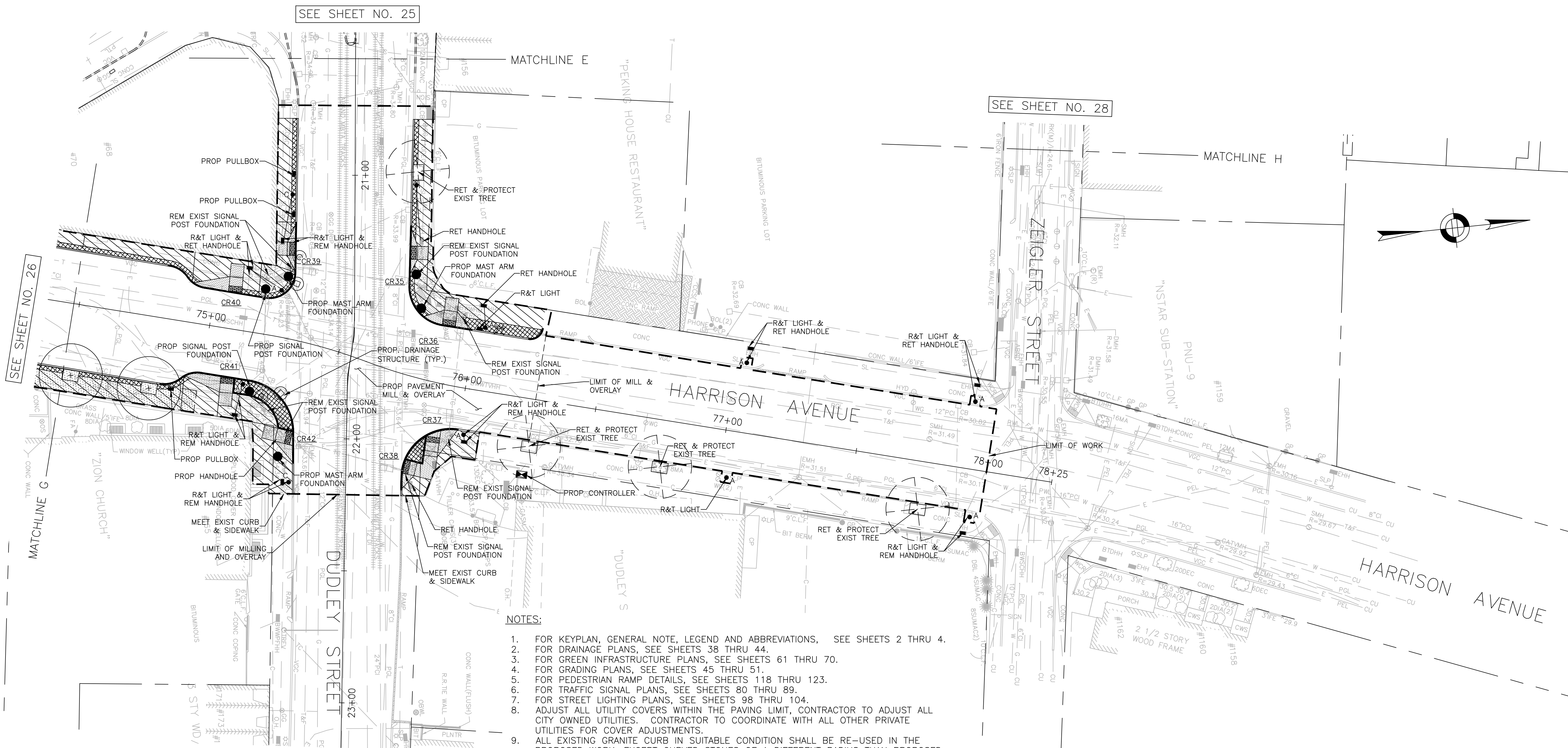
CIP XX-XX SHEET 26 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**CONSTRUCTION PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10  
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019  
CITY ENGINEER

R-XXXX-26





SEE SHEET NO. 25

SEE SHEET NO. 28

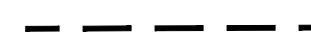

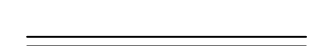
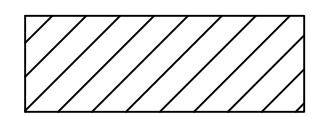
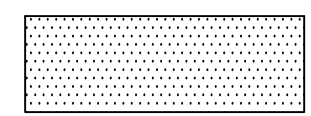
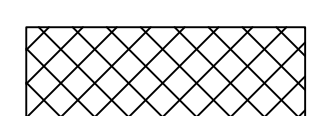
SEE SHEET NO. 26

- NOTES:**
1. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
  2. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
  3. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
  4. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
  5. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.
  6. FOR TRAFFIC SIGNAL PLANS, SEE SHEETS 80 THRU 89.
  7. FOR STREET LIGHTING PLANS, SEE SHEETS 98 THRU 104.
  8. ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
  9. ALL EXISTING GRANITE CURB IN SUITABLE CONDITION SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB, SUCH STONES SHALL BE TYPE VA4 VERTICAL GRANITE CUBE. EXISTING CURB NOT SUITABLE FOR RE-USE AS DETERMINED BY THE ENGINEER SHALL BE REMOVED AND DISCARDED AND REPLACED WITH VA4.
  10. CONTRACTOR SHALL COORDINATE WITH MASSDOT SIGNAL PROJECT AT KEARSARGE AVE. AND ALL OTHER PUBLIC OR PRIVATE PROJECTS THAT ARE ONGOING WITHIN THE PROJECT LIMITS.
  11. ALL TRAFFIC SIGNAL EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BE RETURNED TO BTD SIGNAL MAINTENANCE FACILITY AT 12 CHANNEL STREET, SOUTH BOSTON.
  12. ALL TEMPORARY PEDESTRIAN WALKWAYS AND CROSSINGS TO BE ESTABLISHED AND SET PRIOR TO REMOVAL OF EXISTING PEDESTRIAN RAMPS.
  13. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 11-309-009. SEE SHEETS 38 THRU 44 AND 124 THRU 129 FOR REFERENCE.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

CIP XX-XX SHEET 27 OF 130

**LEGEND**

-  LIMIT OF WORK
-  PROPOSED CURB
-  R&R CURB
-  CEMENT CONCRETE SIDEWALK
-  PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
-  PERMEABLE PAVERS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	N. BELLONE
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

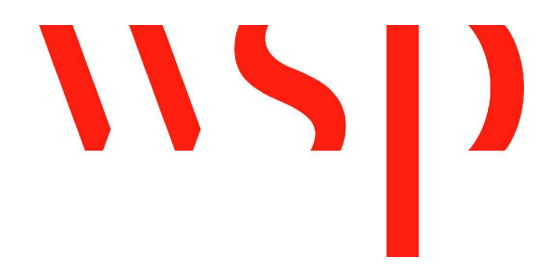
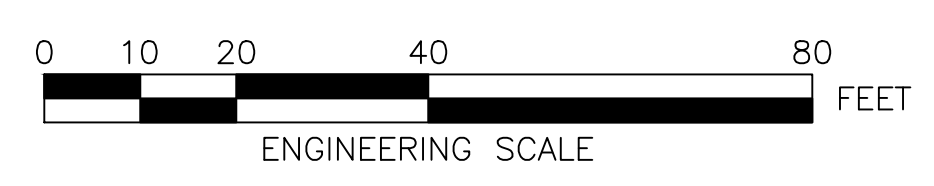
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
CONSTRUCTION PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

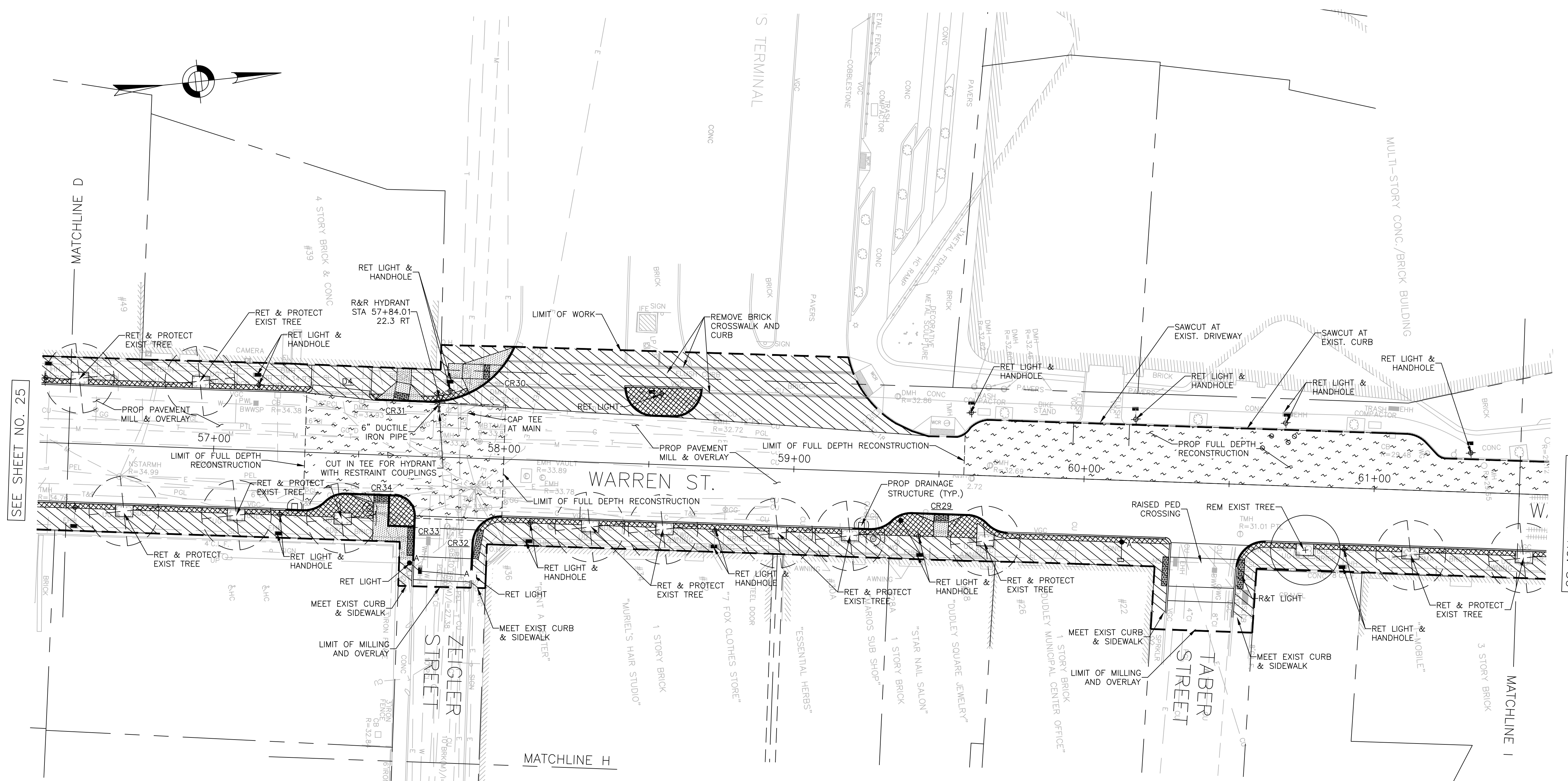
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER



R-XXXX-27





SEE SHEET NO. 25

SEE SHEET NO. 30

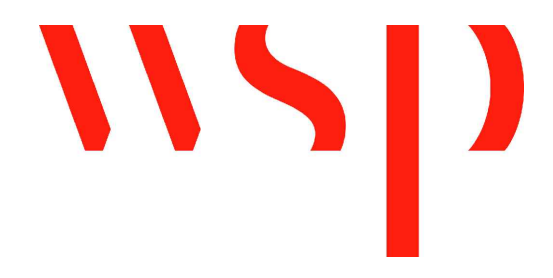
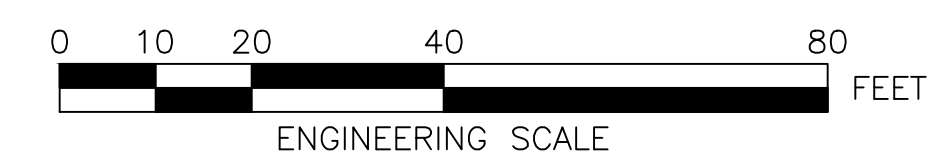
**LEGEND**

- LIMIT OF WORK
- PROPOSED CURB
- R&R CURB
- CEMENT CONCRETE SIDEWALK
- PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
- FULL DEPTH ROADWAY CONSTRUCTION
- PERMEABLE CONCRETE PAVERS

**NOTES:**

1. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
2. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
3. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
4. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
5. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.
6. FOR TRAFFIC SIGNAL PLANS, SEE SHEETS 80 THRU 89.
7. FOR STREET LIGHTING PLANS, SEE SHEETS 98 THRU 104.
8. ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
9. ALL EXISTING GRANITE CURB IN SUITABLE CONDITION SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB, SUCH STONES SHALL BE TYPE VA4 VERTICAL GRANITE CUBE. EXISTING CURB NOT SUITABLE FOR RE-USE AS DETERMINED BY THE ENGINEER SHALL BE REMOVED AND DISCARDED AND REPLACED WITH VA4.
10. CONTRACTOR SHALL COORDINATE WITH MASSDOT SIGNAL PROJECT AT KEARSARGE AVE. AND ALL OTHER PUBLIC OR PRIVATE PROJECTS THAT ARE ONGOING WITHIN THE PROJECT LIMITS.
11. ALL TRAFFIC SIGNAL EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BE RETURNED TO LTD SIGNAL MAINTENANCE FACILITY AT 12 CHANNEL STREET, SOUTH BOSTON.
12. ALL TEMPORARY PEDESTRIAN WALKWAYS AND CROSSINGS TO BE ESTABLISHED AND SET PRIOR TO REMOVAL OF EXISTING PEDESTRIAN RAMP.
13. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 11-309-009. SEE SHEETS 38 THRU 44 AND 124 THRU 129 FOR REFERENCE.

SEE SHEET NO. 27



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	N. BELLONE
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 28 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
CONSTRUCTION PLANS**  
ROXBURY

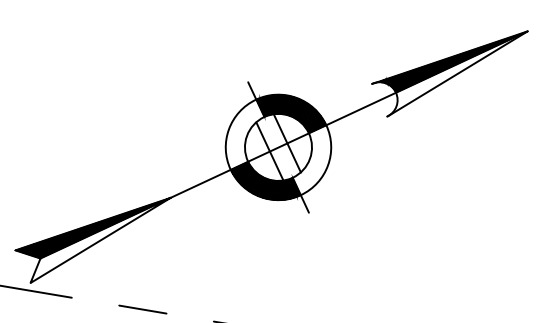
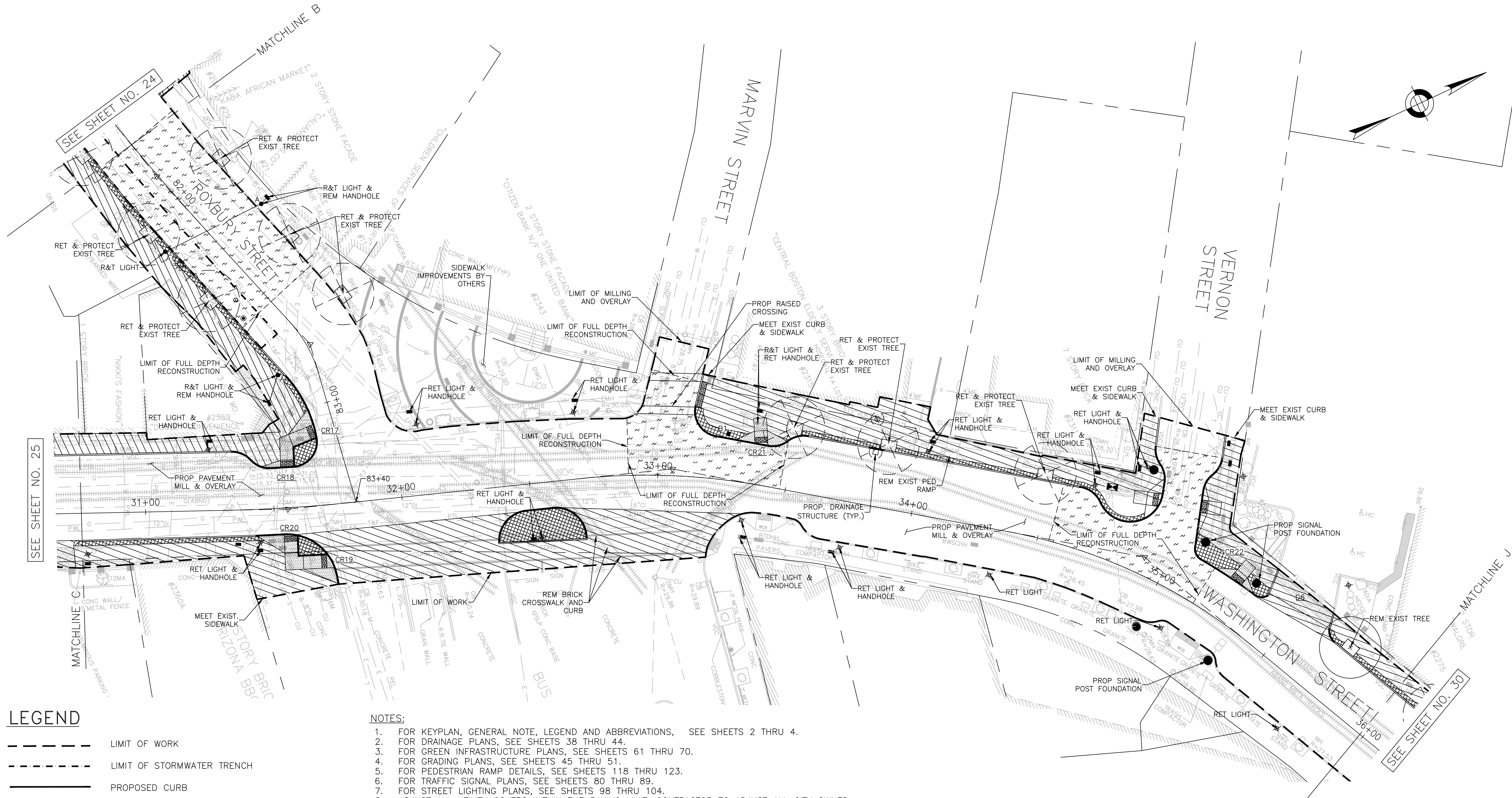
SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-28





**LEGEND**

- LIMIT OF WORK
- LIMIT OF STORMWATER TRENCH
- PROPOSED CURB
- R&R CURB
- CEMENT CONCRETE SIDEWALK
- PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
- FULL DEPTH ROADWAY CONSTRUCTION
- PERMEABLE PAVERS

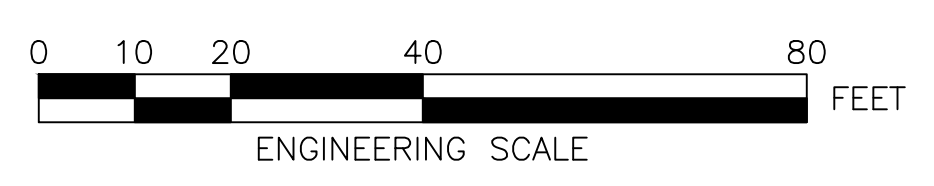
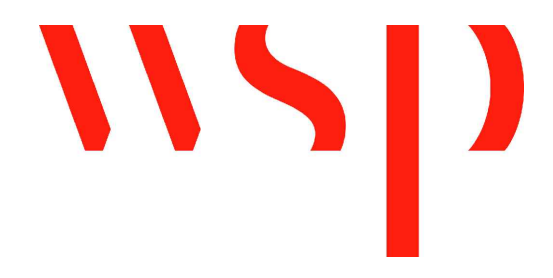
**NOTES:**

1. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
2. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
3. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
4. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
5. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.
6. FOR TRAFFIC SIGNAL PLANS, SEE SHEETS 80 THRU 89.
7. FOR STREET LIGHTING PLANS, SEE SHEETS 98 THRU 104.
8. ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
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13. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWS CONTRACT NO. 11-309-009. SEE SHEETS 38 THRU 44 AND 124 THRU 129 FOR REFERENCE.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	N. BELLONE
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

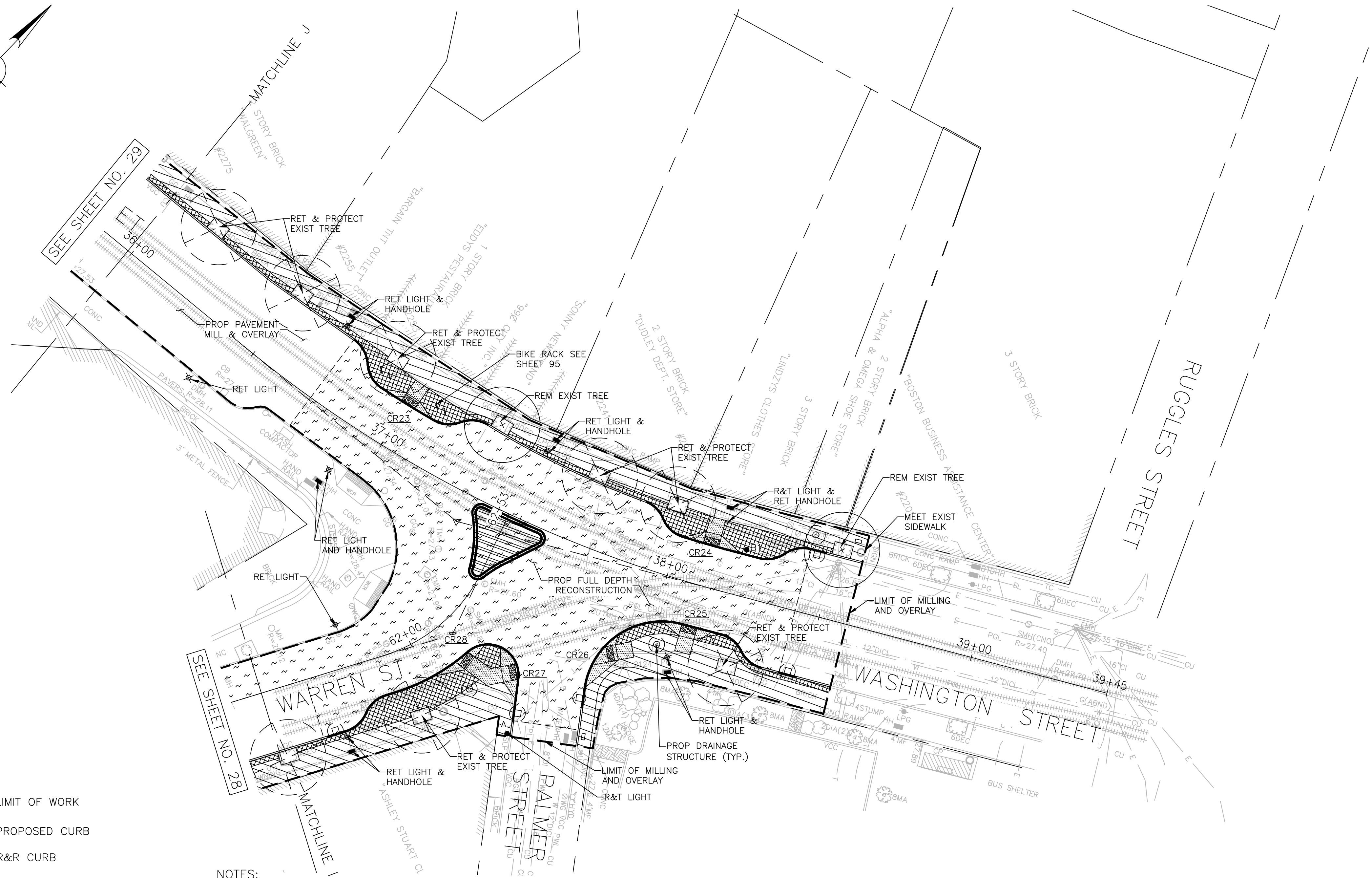
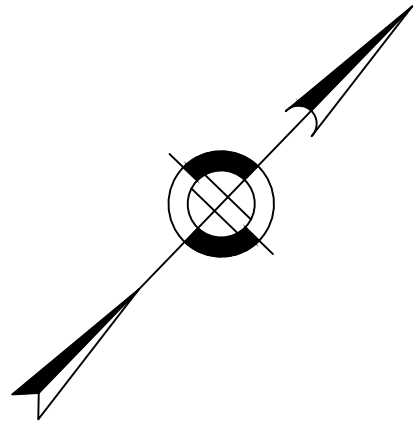


CIP XX-XX SHEET 29 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION HIGHWAY RECONSTRUCTION	
<b>DUDLEY SQUARE PHASE 2          CONSTRUCTION PLANS</b> ROXBURY	
SCALE: 1" = 20' DISTRICT: 10	AREA: 1 100% SUBMISSION DATE: APR. 15, 2019
_____ CITY ENGINEER	

R-XXXX-29



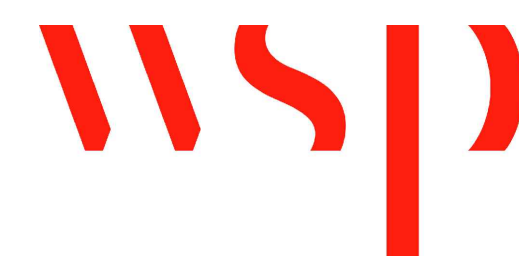
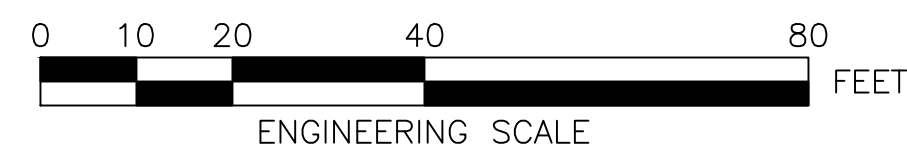


**LEGEND**

- LIMIT OF WORK
- PROPOSED CURB
- R&R CURB
- CEMENT CONCRETE SIDEWALK
- PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
- 4"x8"x4" GRANITE COBBLES WITH MORTARED JOINTS
- FULL DEPTH ROADWAY CONSTRUCTION
- PERMEABLE PAVERS

**NOTES:**

1. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
2. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
3. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
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13. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWS CONTRACT NO. 11-309-009. SEE SHEETS 38 THRU 44 AND 124 THRU 129 FOR REFERENCE.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY N. BELLONE

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

CIP XX-XX SHEET 30 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**CONSTRUCTION PLANS**  
 ROXBURY

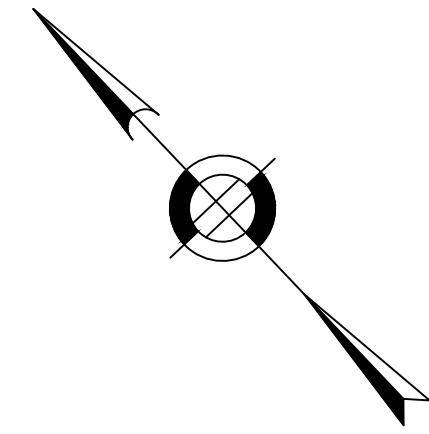
SCALE: 1" = 20'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-30





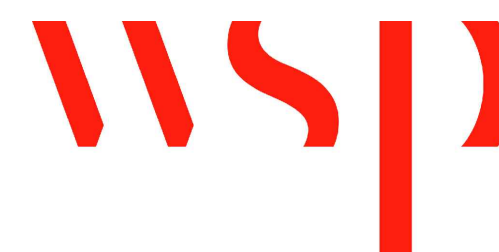
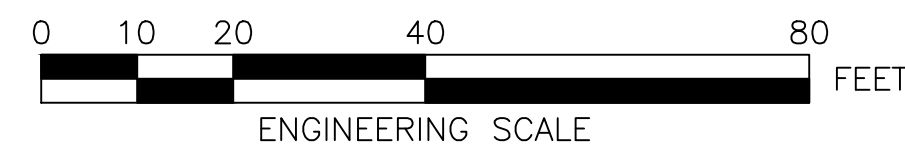
Curve Table			
Curve #	Length	Radius	Delta
C1*	10.3	10.0	059°13'51"
C2*	10.4	10.0	059°20'46"
C3	16.7	15.0	063°56'12"
C4	24.6	15.0	094°03'36"
C5	109.9	47.0	133°58'09"
C6*	8.5	10.0	048°30'33"
C7*	8.5	10.0	048°30'33"
C8*	9.0	10.0	051°19'12"
C9*	9.0	10.0	051°19'04"
C10	16.1	20.0	046°07'34"
C11	21.6	10.0	123°54'55"
C12	32.0	15.0	122°24'58"
C13*	9.0	10.0	051°19'04"
C14*	9.0	10.0	051°19'04"
C15	10.4	25.0	023°50'44"
C16	4.7	3.0	089°59'52"
C17	11.3	6.0	107°59'28"
C18	5.0	20.0	014°18'59"

\* CURB TO BE CUT AT REVERSE

**NOTES:**

1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.
3. FOR TYPICAL SECTIONS, SEE SHEETS 5 THRU 8.
4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.

R&R CURB  
 PROPOSED CURB



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY L. NEWMAN  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO

CIP XX-XX SHEET 31 OF 130

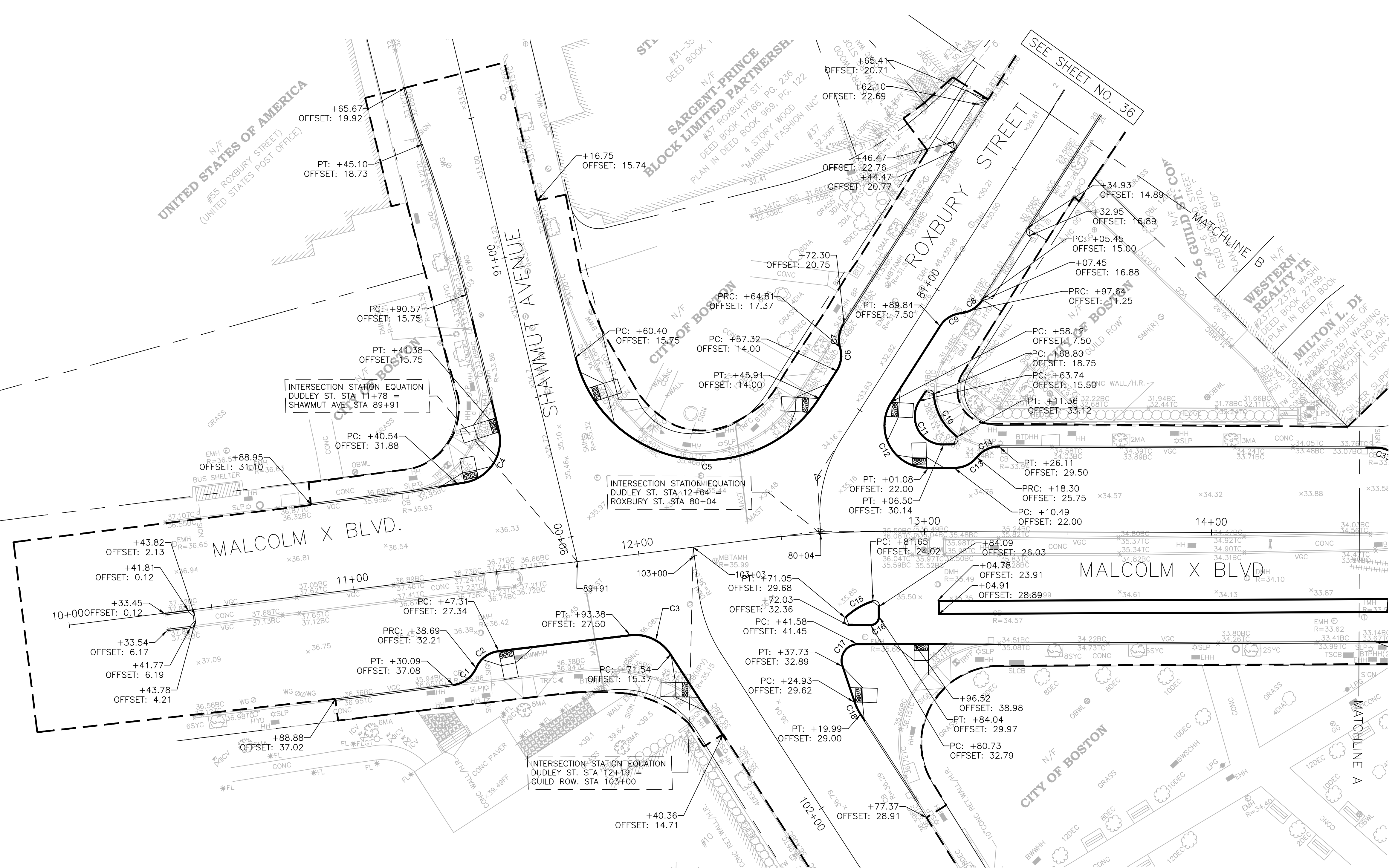
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**CURB TIE PLANS**  
 ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

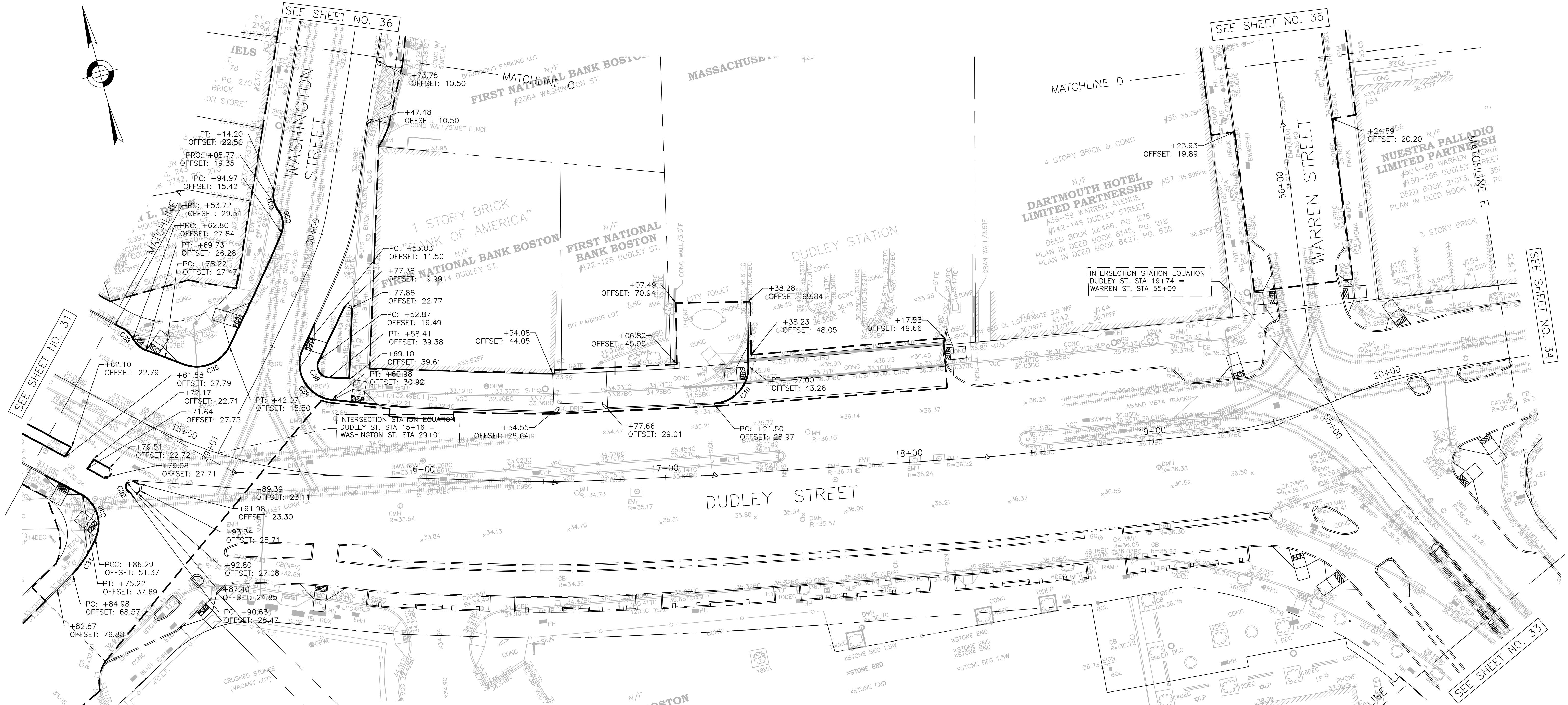
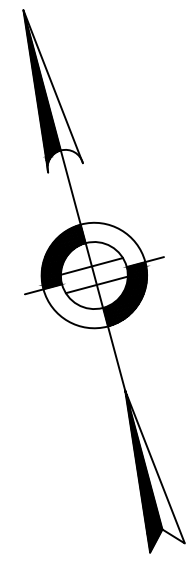
R-XXXX-31



SEE SHEET NO. 32

SEE SHEET NO. 36

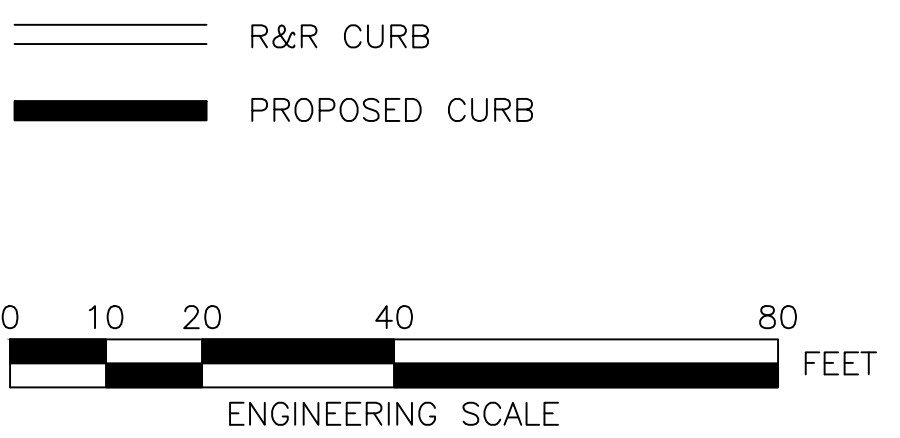




Curve #	Length	Radius	Delta
C30	20.2	14.0	082°48'02"
C31	20.8	50.0	023°47'34"
C32	4.8	3.0	092°03'02"
C33*	5.8	10.0	033°29'53"
C34*	7.3	10.0	041°36'23"
C35	22.1	15.0	084°17'50"
C36*	9.7	10.0	055°46'26"
C37*	7.9	10.0	044°58'58"
C38	9.9	5.0	113°04'23"
C39	28.7	15.0	109°30'07"
C40	23.1	15.0	088°23'18"

\* CURB TO BE CUT AT REVERSE

- NOTES:
- FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
  - FOR GENERAL NOTES, SEE SHEET 3.
  - FOR TYPICAL SECTIONS, SEE SHEETS 5 THRU 8.
  - FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
  - FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY L. NEWMAN  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO

CIP XX-XX SHEET 32 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**CURB TIE PLANS**  
 ROXBURY

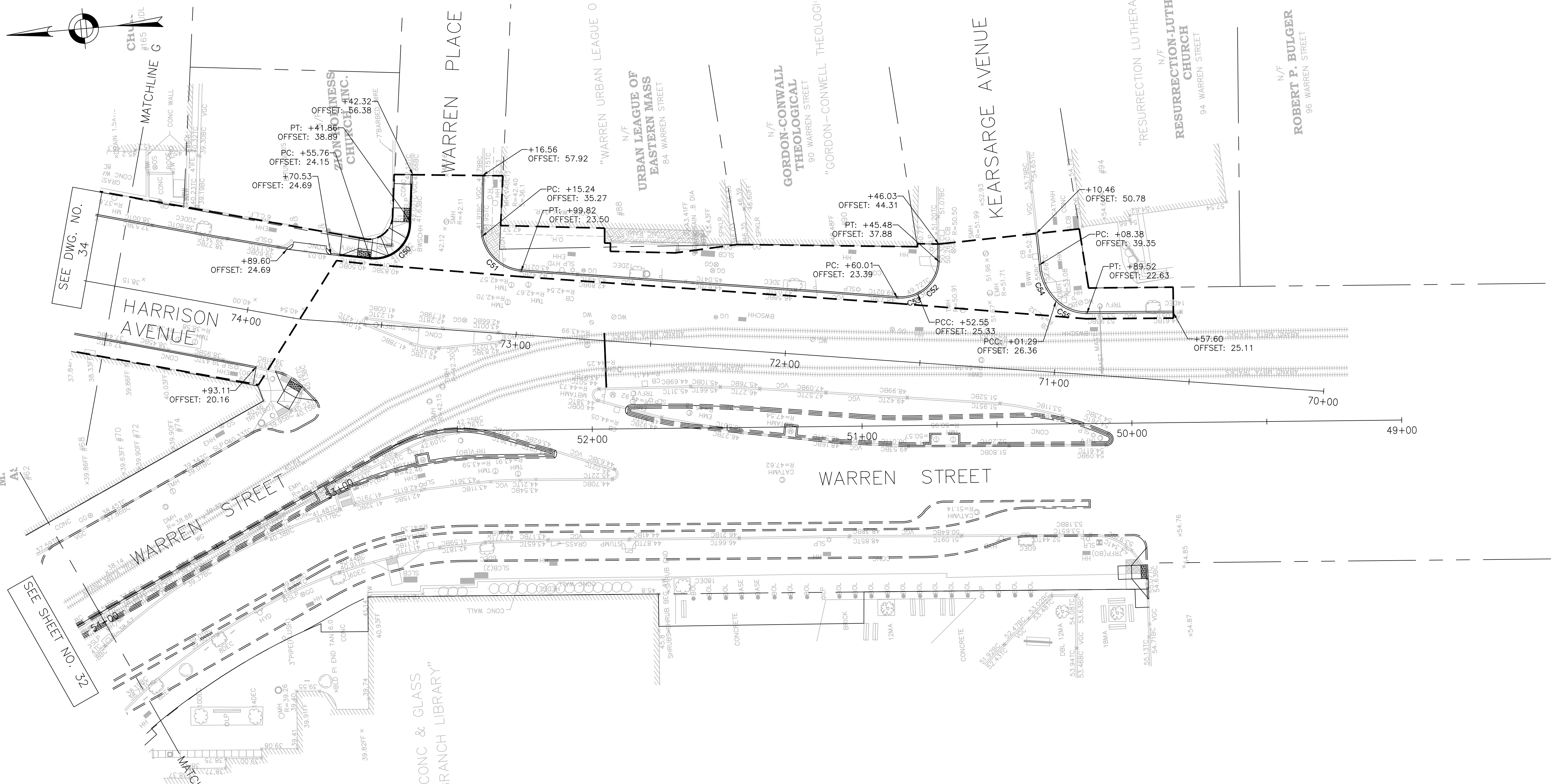
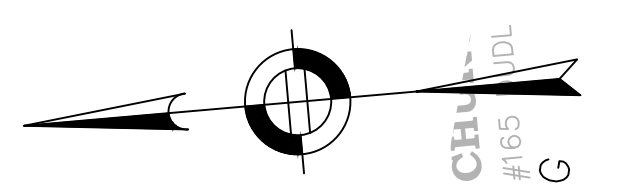
SCALE: 1" = 20'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER \_\_\_\_\_

R-XXXX-32





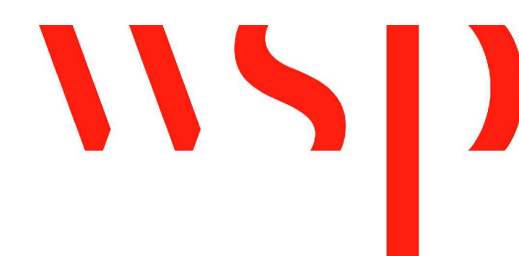
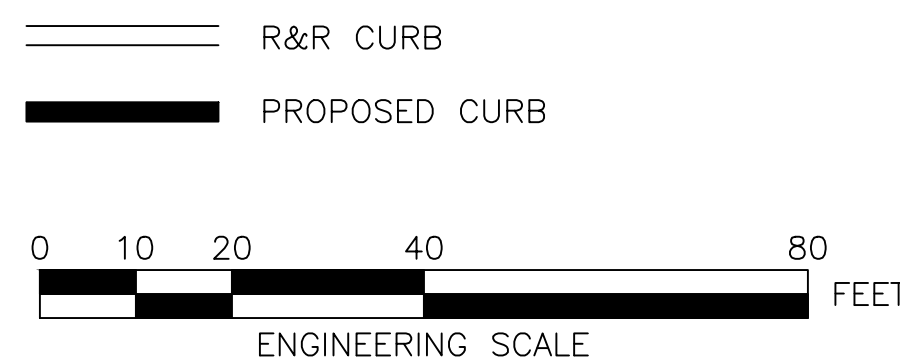
SEE DWG. NO. 34

SEE SHEET NO. 32

Curve Table			
Curve #	Length	Radius	Delta
C50	23.1	13.3	099°27'06"
C51	20.8	16.3	073°07'42"
C52	15.2	13.6	063°50'15"
C53	7.8	14.7	030°31'04"
C54	15.2	19.9	043°41'49"
C55	12.7	15.7	046°25'33"

**NOTES:**

1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.
3. FOR TYPICAL SECTIONS, SEE SHEETS 5 THRU 8.
4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY L. NEWMAN  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO

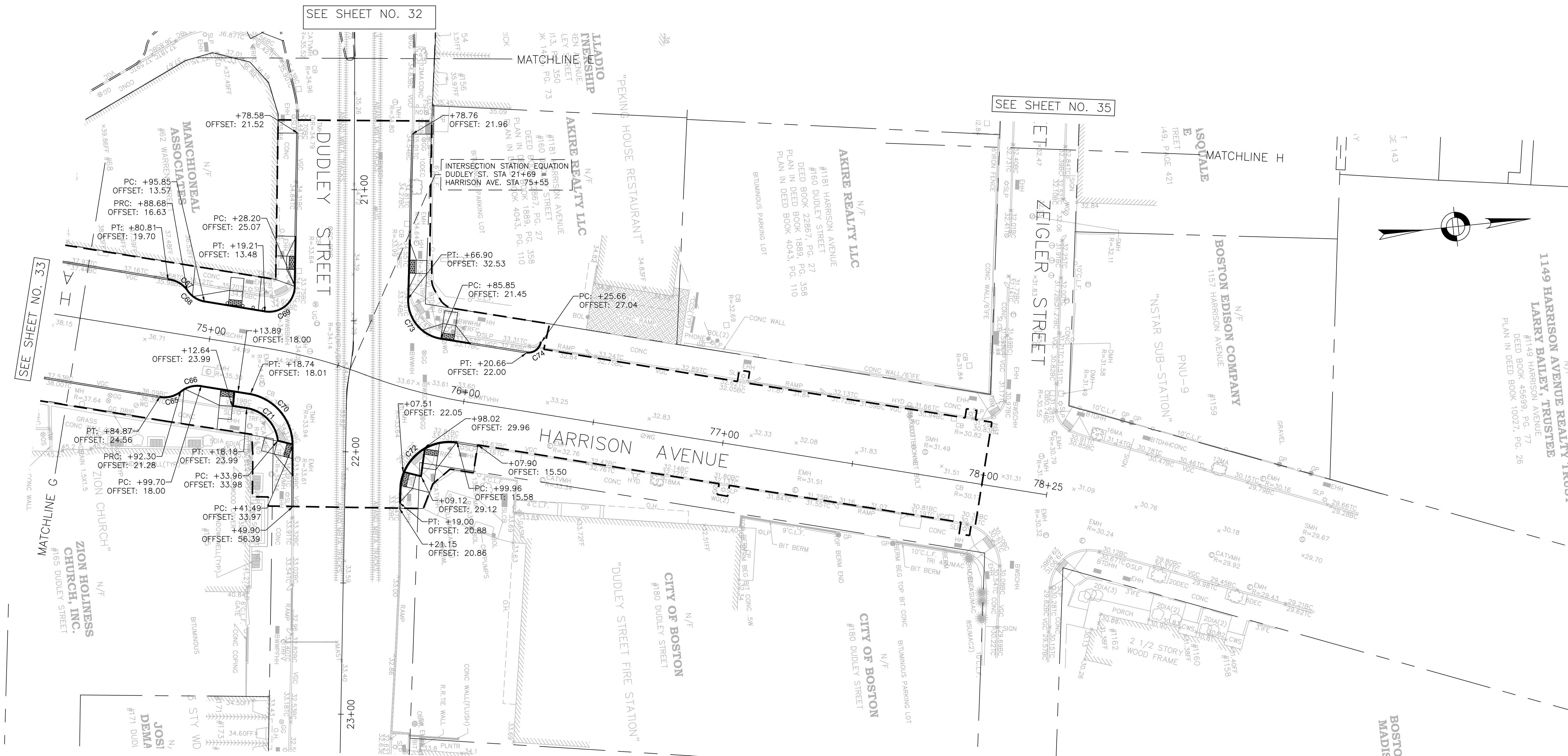
CIP XX-XX SHEET 33 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**CURB TIE PLANS**  
 ROXBURY

SCALE: 1" = 20'  
 DISTRICT: 10  
 AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER





SEE SHEET NO. 32

SEE SHEET NO. 35

SEE SHEET NO. 33

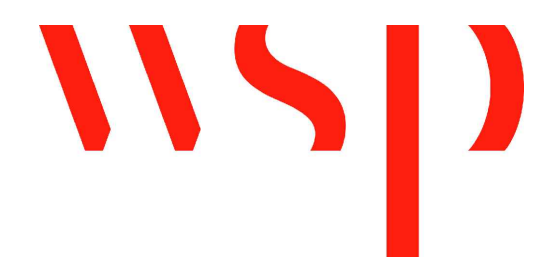
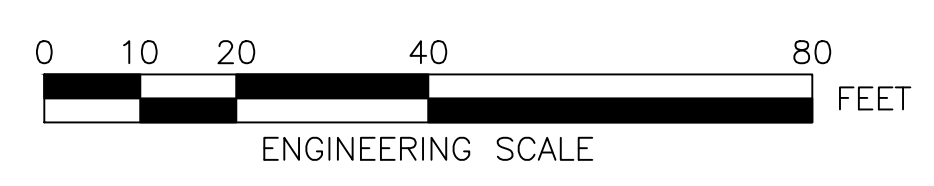
- NOTES:
1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
  2. FOR GENERAL NOTES, SEE SHEET 3.
  3. FOR TYPICAL SECTIONS, SEE SHEETS 5 THRU 8.
  4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
  5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

Curve Table			
Curve #	Length	Radius	Delta
C65*	8.4	10.0	047°55'56"
C66*	8.3	10.0	047°47'38"
C67*	8.0	10.0	045°36'32"
C68*	8.0	10.0	045°51'01"
C69	17.2	10.0	098°26'43"
C70	28.3	20.0	080°59'27"
C71	18.3	14.0	074°50'17"
C72	30.5	19.0	092°04'27"
C73	21.6	15.0	082°28'08"
C74	7.9	5.0	090°26'31"

\* CURB TO BE CUT AT REVERSE

==== R&R CURB  
 ——— PROPOSED CURB



BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY L. NEWMAN  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO

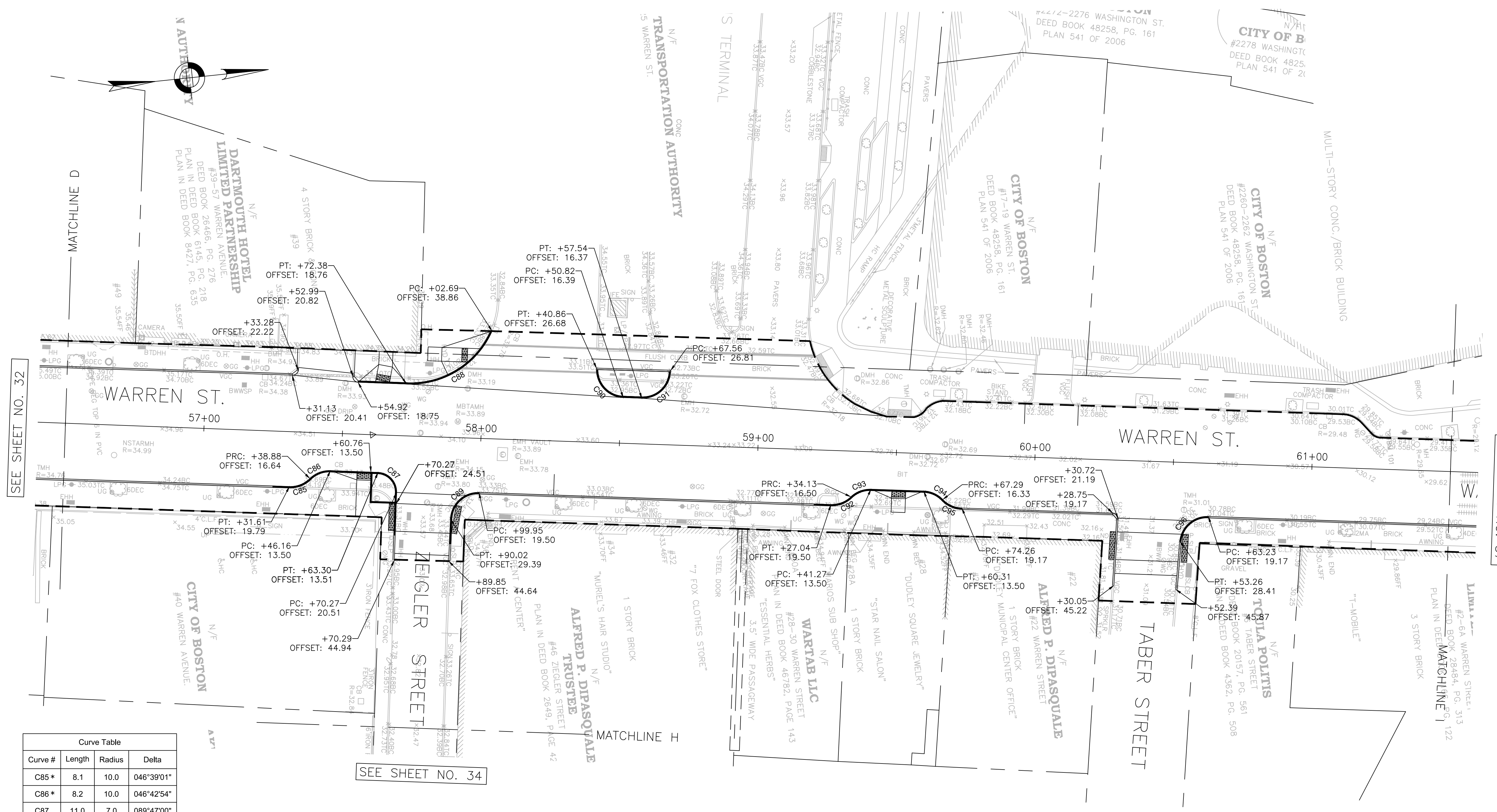
CIP XX-XX SHEET 34 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**CURB TIE PLANS**  
 ROXBURY

SCALE: 1" = 20'  
 DISTRICT: 10  
 AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019  
 \_\_\_\_\_  
 CITY ENGINEER

R-XXXX-34





SEE SHEET NO. 32

SEE SHEET NO. 37

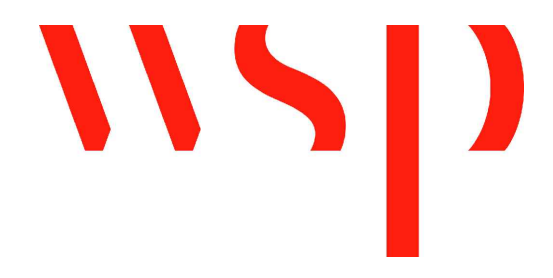
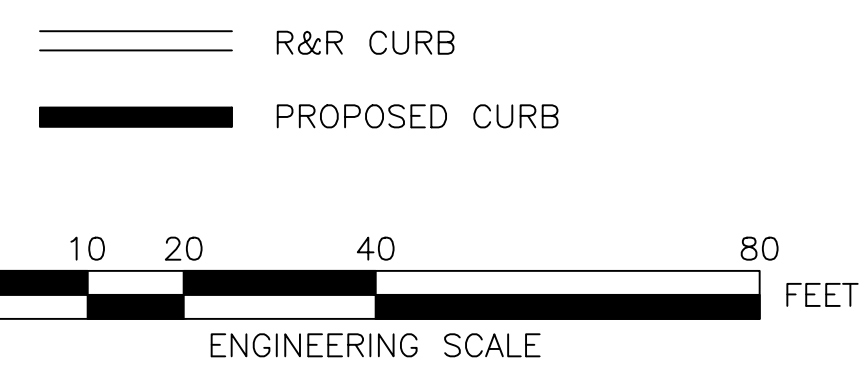
SEE SHEET NO. 34

Curve #	Length	Radius	Delta
C85*	8.1	10.0	046°39'01"
C86*	8.2	10.0	046°42'54"
C87	11.0	7.0	089°47'00"
C88	38.2	32.0	068°21'42"
C89	15.6	10.0	089°22'51"
C90	16.0	10.0	091°29'45"
C91	16.2	10.0	092°44'55"
C92*	8.0	10.0	045°34'23"
C93*	8.0	10.0	045°34'23"
C94*	7.7	10.0	044°13'02"
C95*	7.7	10.0	044°13'02"
C96	15.2	10.0	087°09'10"

\* CURB TO BE CUT AT REVERSE

NOTES:

- FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
- FOR GENERAL NOTES, SEE SHEET 3.
- FOR TYPICAL SECTIONS, SEE SHEETS 5 THRU 8.
- FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
- FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY L. NEWMAN  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO

CIP XX-XX SHEET 35 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**CURB TIE PLANS**  
 ROXBURY

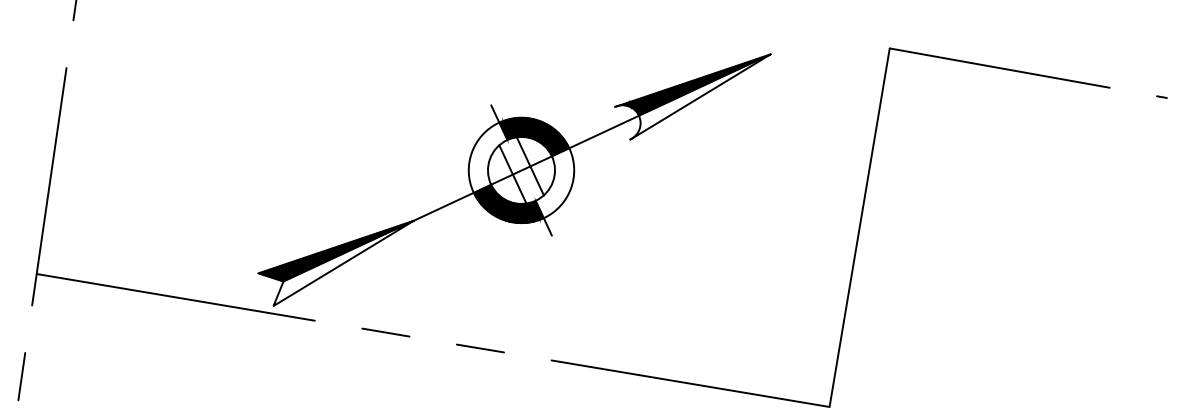
SCALE: 1" = 20'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-35





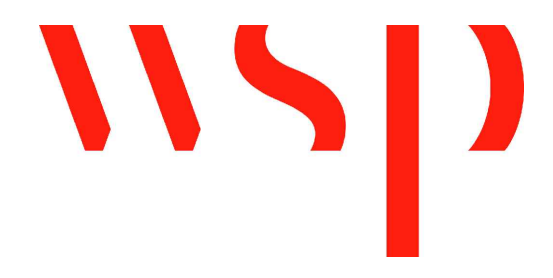
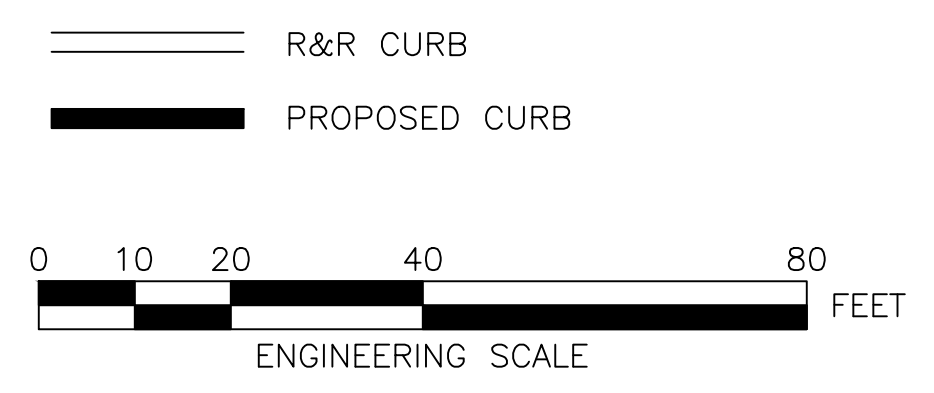
Curve Table			
Curve #	Length	Radius	Delta
C105*	8.5	10.0	048°28'38"
C106*	8.3	9.5	050°10'34"
C107	17.0	10.0	097°20'35"
C108	27.1	50.0	031°04'44"
C109	28.6	20.0	081°48'51"
C110	18.2	12.0	086°45'23"
C111	19.5	12.0	093°14'37"
C112	16.3	10.0	093°14'32"
C113*	8.3	10.0	047°38'18"
C114*	8.3	10.0	047°45'52"
C115*	9.7	10.0	055°20'53"
C116*	33.3	13.0	146°49'43"
C117*	7.7	10.0	043°55'24"

Curve Table			
Curve #	Length	Radius	Delta
C118*	7.2	10.0	041°30'51"
C119*	7.5	10.0	043°15'01"
C120*	7.6	10.0	043°28'57"
C121	5.9	5.0	068°07'18"
C122	6.0	5.0	068°15'55"
C123	6.4	6.0	061°07'55"

\* CURB TO BE CUT AT REVERSE

**NOTES:**

1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.
3. FOR TYPICAL SECTIONS, SEE SHEETS 5 THRU 8.
4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

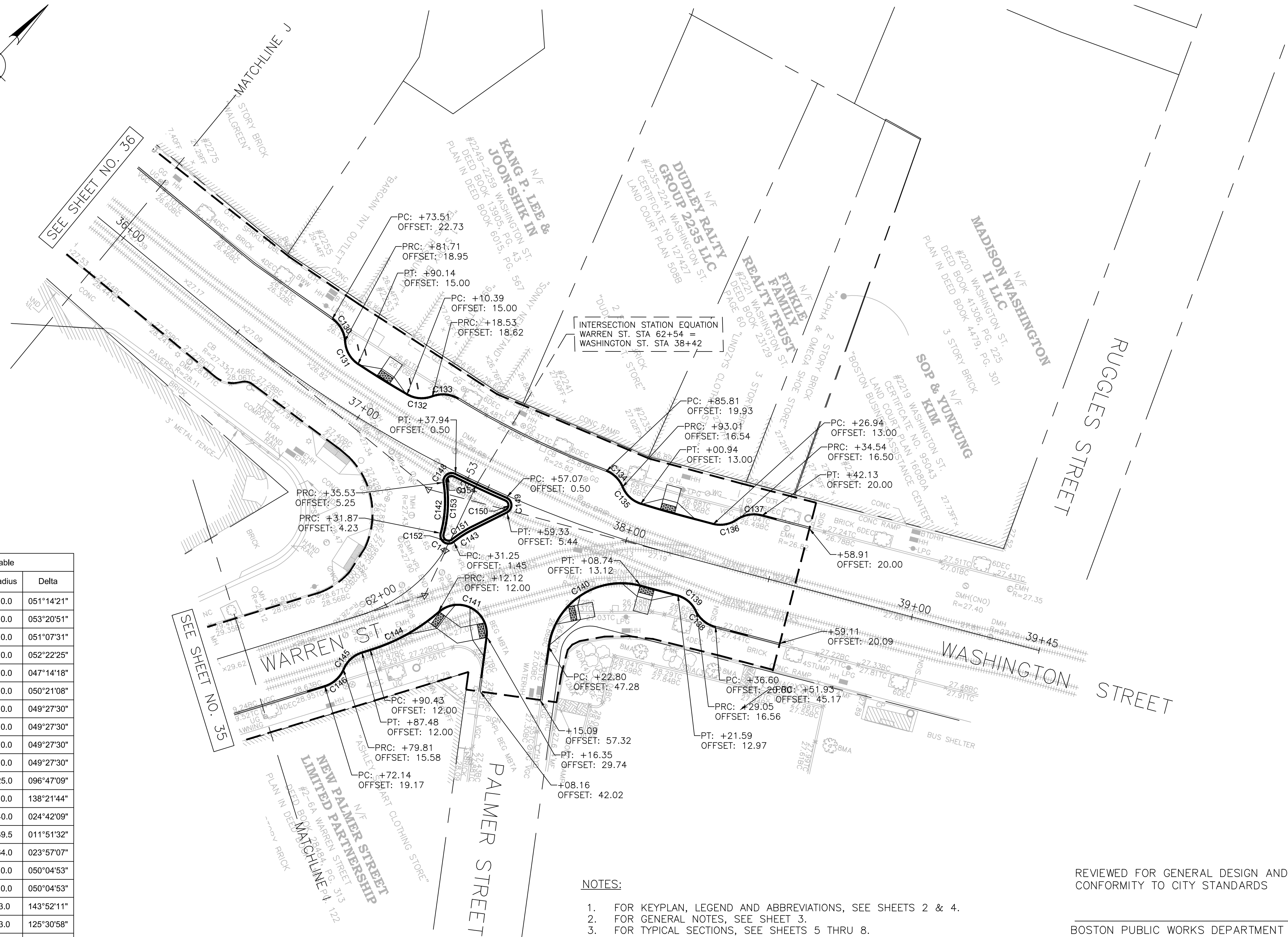
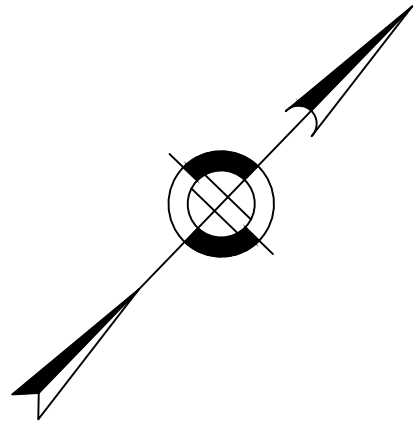
SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	L. NEWMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 36 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION HIGHWAY RECONSTRUCTION <b>DUDLEY SQUARE PHASE 2</b> <b>CURB TIE PLANS</b> ROXBURY	
SCALE: 1" = 20'	AREA: 1
DISTRICT: 10	100% SUBMISSION
	DATE: APR. 15, 2019
_____ CITY ENGINEER	

R-XXXX-36



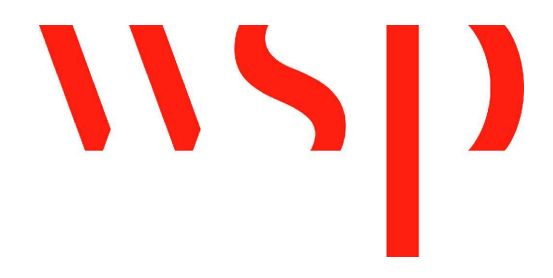
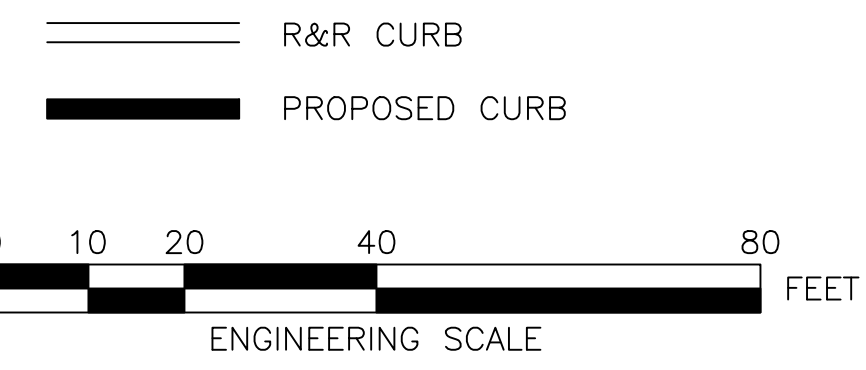


Curve Table			
Curve #	Length	Radius	Delta
C130*	8.9	10.0	051°14'21"
C131*	9.3	10.0	053°20'51"
C132*	8.9	10.0	051°07'31"
C133*	9.1	10.0	052°22'25"
C134*	8.2	10.0	047°14'18"
C135*	8.8	10.0	050°21'08"
C136*	8.6	10.0	049°27'30"
C137*	8.6	10.0	049°27'30"
C138*	8.6	10.0	049°27'30"
C139*	8.6	10.0	049°27'30"
C140	42.2	25.0	096°47'09"
C141	24.1	10.0	138°21'44"
C142	17.3	40.0	024°42'09"
C143	8.2	39.5	011°51'32"
C144	26.8	64.0	023°57'07"
C145*	8.7	10.0	050°04'53"
C146*	8.7	10.0	050°04'53"
C147	7.5	3.0	143°52'11"
C148	6.6	3.0	125°30'58"
C149	6.8	3.0	129°54'57"
C150	4.5	2.0	129°54'57"
C151	8.4	40.5	011°51'32"
C152	5.0	2.0	143°52'11"
C153	17.7	41.0	024°42'09"
C154	4.4	2.0	125°30'58"

\* CURB TO BE CUT AT REVERSE

**NOTES:**

1. FOR KEYPLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.
3. FOR TYPICAL SECTIONS, SEE SHEETS 5 THRU 8.
4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY L. NEWMAN  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO

CIP XX-XX SHEET 37 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**CURB TIE PLANS**  
 ROXBURY

SCALE: 1" = 20'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

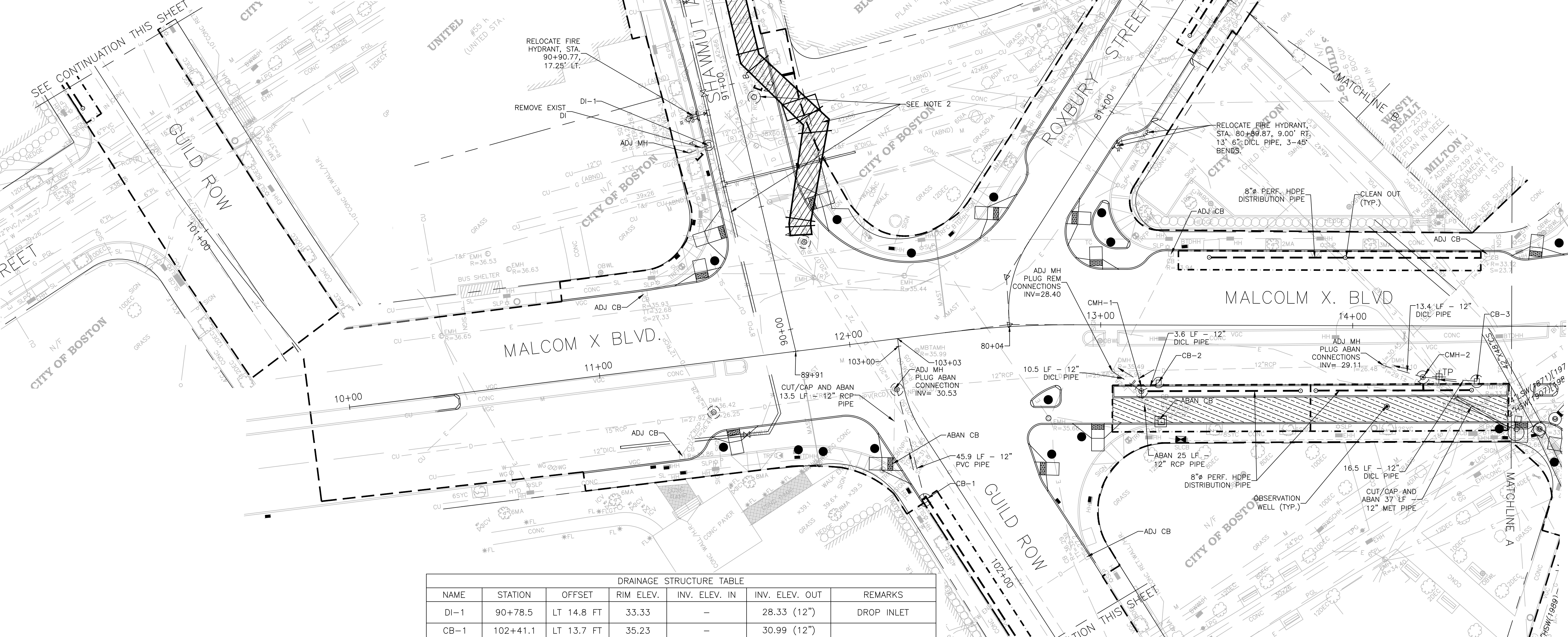
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 CITY ENGINEER

R-XXXX-37



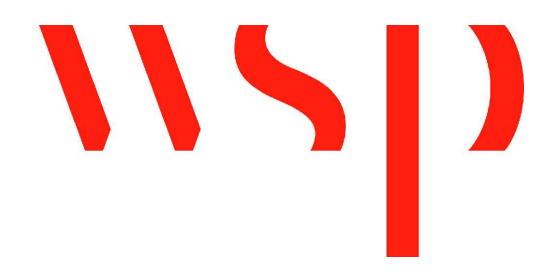
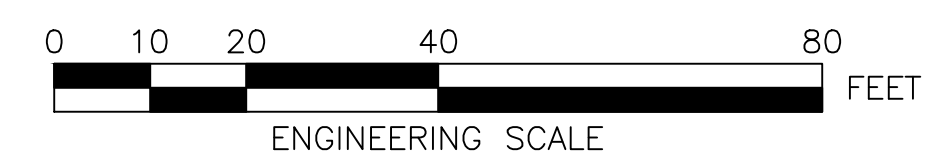
**NOTES:**

1. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 11-309-009. SEE SHEETS 124 THRU 129 FOR REFERENCE.
2. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 03-309-007. SEE SHEET 129 FOR REFERENCE.
3. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
5. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
6. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
7. ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
8. TEST PITS TO BE PERFORMED AT EACH NEW CATCH BASIN AND PIPE CONNECTION.



DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
DI-1	90+78.5	LT 14.8 FT	33.33	-	28.33 (12")	DROP INLET
CB-1	102+41.1	LT 13.7 FT	35.23	-	30.99 (12")	SHALLOW CATCHBASIN
CB-2	13+23.1	RT 22.8 FT	34.90	-	31.65 (12")	
CMH-1	13+16.2	26.3FT	35.63	31.50 (12")	30.25 (12")	WEIR=32.00
CMH-2	14+27.9	20.36 FT	38.88	30.08 (12")	28.83 (12")	WEIR=31.00
					28.83 (8")	
CB-3	14+49.3	RT 21.9 FT	33.49	-	30.24 (12")	SHALLOW CATCHBASIN

- LEGEND**
- STORMWATER PIPE
  - - - 8" PERFORATED HDPE DISTRIBUTION STORMWATER PIPE
  - 8" SOLID HDPE STORMWATER PIPE
  - - - - - LIMIT OF STORMWATER TRENCH
  - - - - - PROPERTY LINE
  - ⊘ ANTI-SEEP COLLAR
  - CLEANOUT
  - ⊙ OBSERVATION WELL
  - ⊕ CATCHBASIN (CB)
  - ⊗ CONTROL DRAINAGE MANHOLE (CMH)
  - ⊙ DRAINAGE MANHOLE (MH)
  - ⊕ TEST PIT



BOSTON WATER AND SEWER COMMISSION

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

CIP XX-XX SHEET 38 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
DRAINAGE & UTILITIES PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

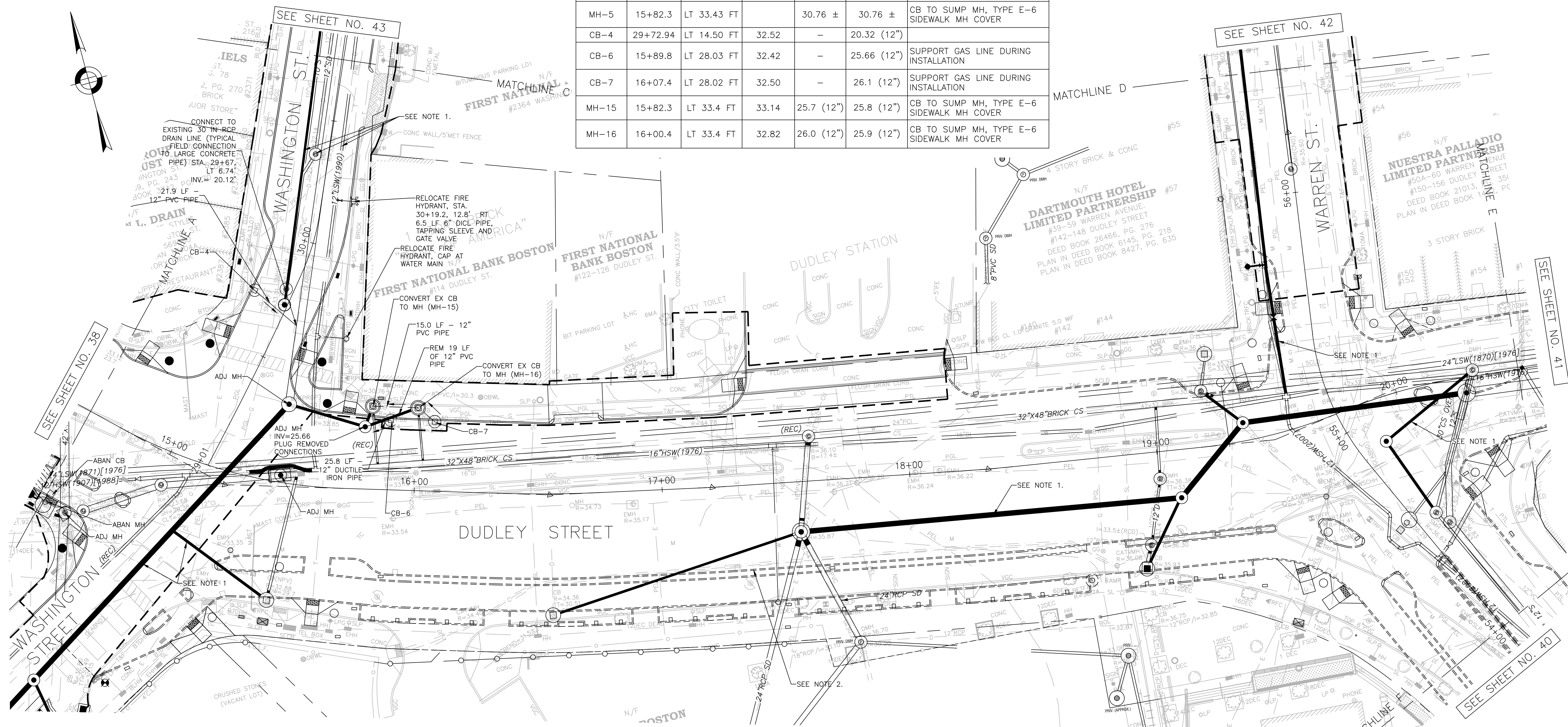
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-38



DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
MH-5	15+82.3	LT 33.43 FT		30.76 ±	30.76 ±	CB TO SUMP MH, TYPE E-6 SIDEWALK MH COVER
CB-4	29+72.94	LT 14.50 FT	32.52	-	20.32 (12")	
CB-6	15+89.8	LT 28.03 FT	32.42	-	25.66 (12")	SUPPORT GAS LINE DURING INSTALLATION
CB-7	16+07.4	LT 28.02 FT	32.50	-	26.1 (12")	SUPPORT GAS LINE DURING INSTALLATION
MH-15	15+82.3	LT 33.4 FT	33.14	25.7 (12")	25.8 (12")	CB TO SUMP MH, TYPE E-6 SIDEWALK MH COVER
MH-16	16+00.4	LT 33.4 FT	32.82	26.0 (12")	25.9 (12")	CB TO SUMP MH, TYPE E-6 SIDEWALK MH COVER



- NOTES:**
- DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 11-309-009. SEE SHEETS 124 THRU 129 FOR REFERENCE.
  - DRAINAGE PLANS SHOW DRAIN AND ROADWAY IMPROVEMENTS CONSTRUCTED UNDER BOSTON PUBLIC WORKS CIP 19-21. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
  - FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
  - FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 58 THRU 64.
  - FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
  - ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT. CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
  - TEST PITS TO BE PERFORMED AT EACH NEW CATCH BASIN AND PIPE CONNECTION.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

CIP XX-XX SHEET 39 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

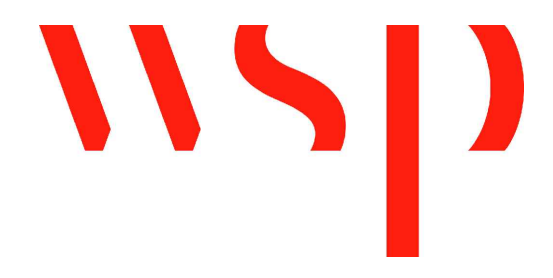
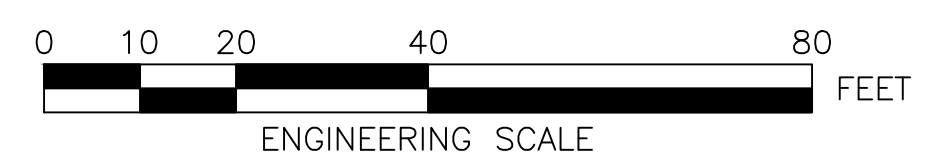
**DUDLEY SQUARE PHASE 2  
DRAINAGE & UTILITIES PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

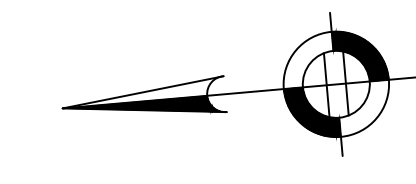
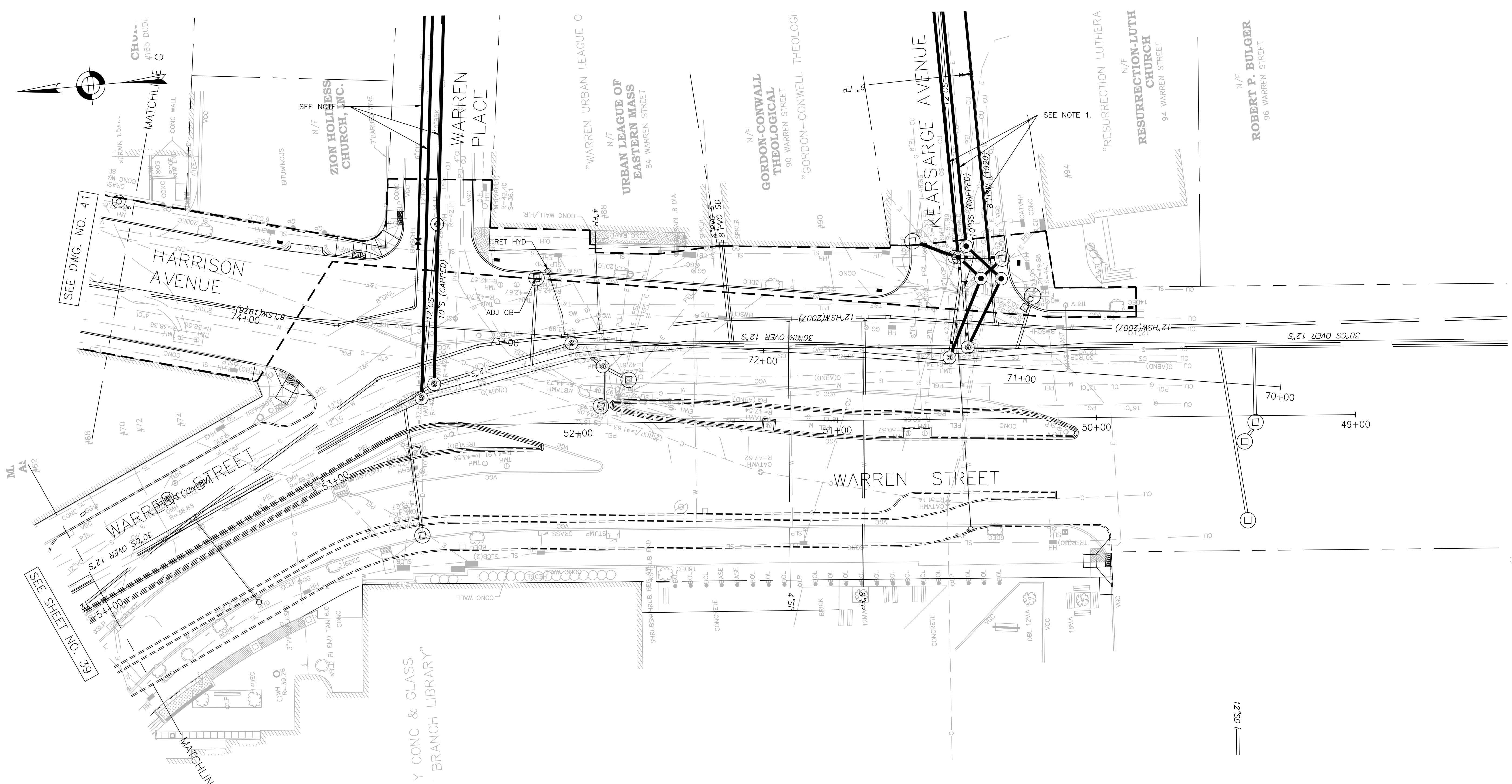
CITY ENGINEER

- LEGEND**
- STORMWATER PIPE
  - PROPERTY LINE
  - ⊕ CATCHBASIN (CB)
  - ⊙ DRAINAGE MANHOLE (MH)
  - ⊕ TP TEST PIT



R-XXXX-39





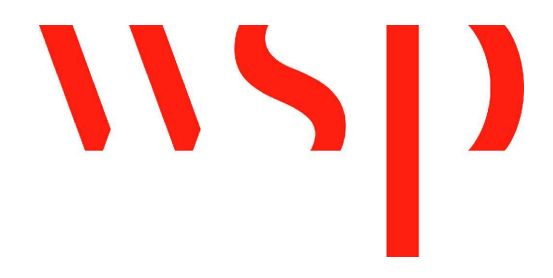
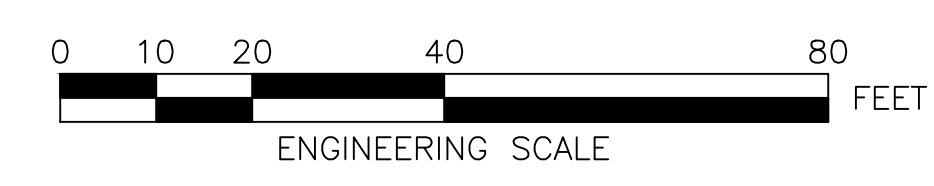
- LEGEND**
- STORMWATER PIPE
  - - - PROPERTY LINE
  - ANTI-SEEP COLLAR
  - CLEANOUT
  - OBSERVATION WELL
  - CATCHBASIN (CB)
  - CONTROL DRAINAGE MANHOLE (CMH)
  - DRAINAGE MANHOLE (MH)
  - TEST PIT

- NOTES:**
1. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 11-309-009. SEE SHEETS 124 THRU 130 FOR REFERENCE.
  2. DRAINAGE PLANS SHOW DRAIN AND ROADWAY IMPROVEMENTS CONSTRUCTED UNDER BOSTON PUBLIC WORKS CIP 19-21.
  3. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
  4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
  5. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
  6. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
  7. ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
  8. TEST PITS TO BE PERFORMED AT EACH NEW CATCH BASIN AND PIPE CONNECTION.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO



CIP XX-XX SHEET 40 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
DRAINAGE & UTILITIES PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

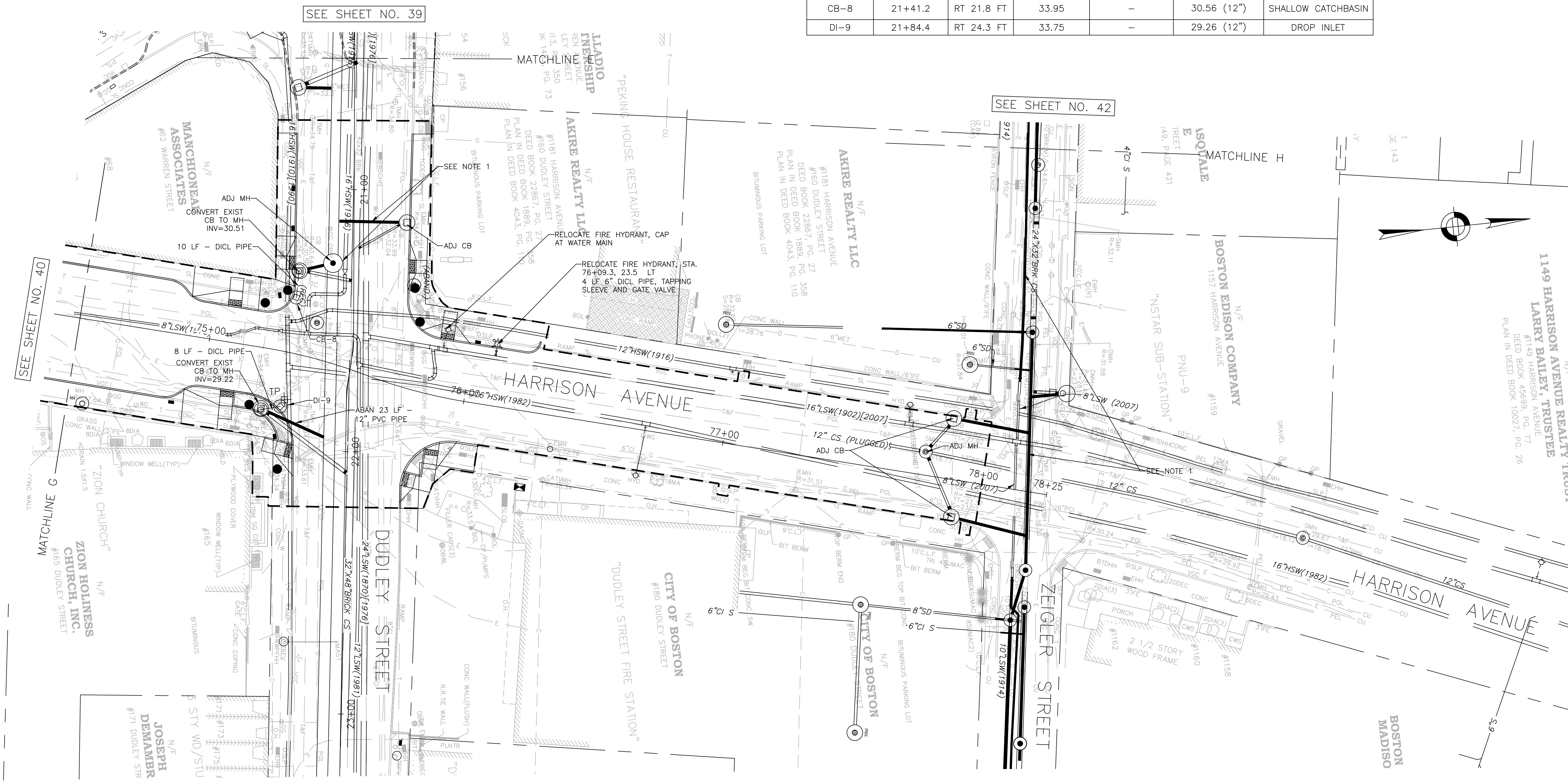
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-40

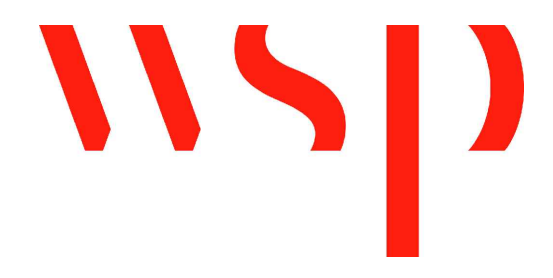
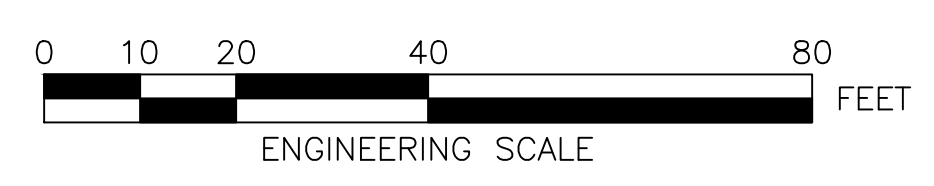


DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CB-8	21+41.2	RT 21.8 FT	33.95	-	30.56 (12")	SHALLOW CATCHBASIN
DI-9	21+84.4	RT 24.3 FT	33.75	-	29.26 (12")	DROP INLET



- LEGEND**
- STORMWATER PIPE
  - PROPERTY LINE
  - ⊕ CATCHBASIN (CB)
  - ⊙ DRAINAGE MANHOLE (MH)
  - ⊕ TP TEST PIT

- NOTES:**
1. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSO CONTRACT NO. 11-309-009. SEE SHEETS 124 THRU 129 FOR REFERENCE.
  2. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
  3. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
  4. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
  5. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
  6. ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
  7. ABANDONED PIPES SHALL BE PLUGGED OR DISCONNECTED AT MANHOLE OR CATCHBASIN STRUCTURES.
  8. TEST PITS TO BE PERFORMED AT EACH NEW CATCH BASIN AND PIPE CONNECTION.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 41 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
DRAINAGE & UTILITIES PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

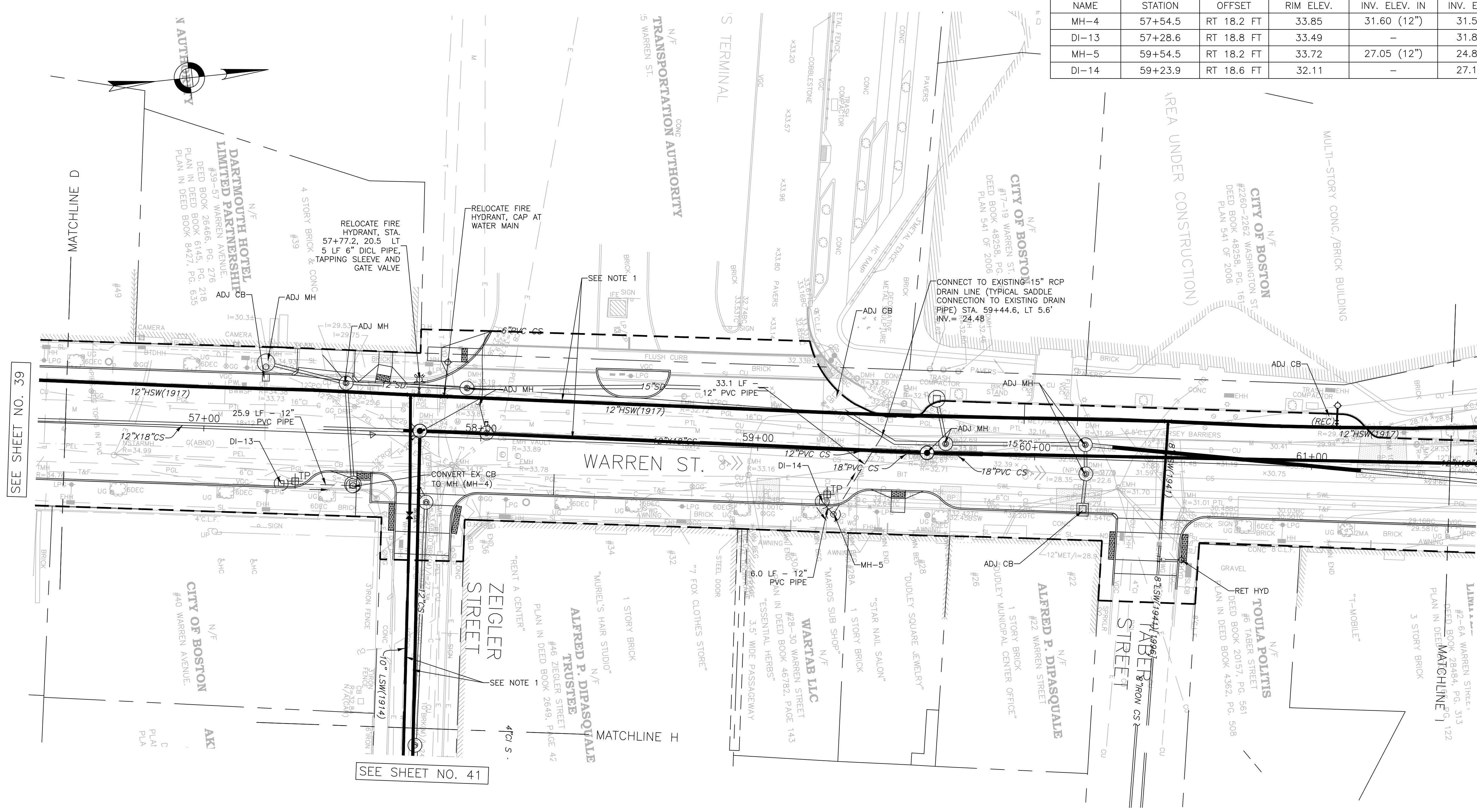
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-41



DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
MH-4	57+54.5	RT 18.2 FT	33.85	31.60 (12")	31.50 (12")	EXIST CB TO MH
DI-13	57+28.6	RT 18.8 FT	33.49	-	31.86 (12")	DROP INLET
MH-5	59+54.5	RT 18.2 FT	33.72	27.05 (12")	24.81 (12")	SUMP MH
DI-14	59+23.9	RT 18.6 FT	32.11	-	27.11 (12")	DROP INLET



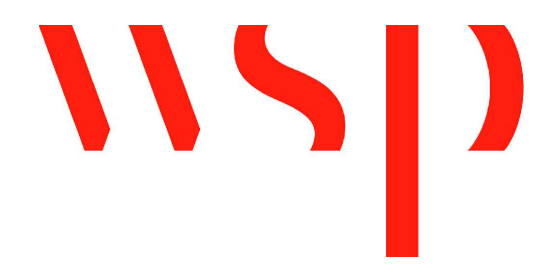
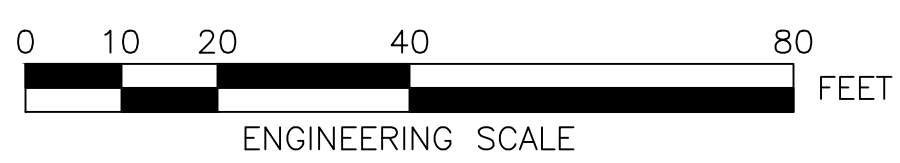
SEE SHEET NO. 39

SEE SHEET NO. 44

SEE SHEET NO. 41

- LEGEND**
- STORMWATER PIPE
  - PROPERTY LINE
  - (C) CATCHBASIN (CB)
  - (M) DRAINAGE MANHOLE (MH)
  - (TP) TEST PIT

- NOTES:**
- DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 11-309-009. SEE SHEETS 124 THRU 129 FOR REFERENCE.
  - FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
  - FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
  - FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
  - FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
  - ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
  - TEST PITS TO BE PERFORMED AT EACH NEW CATCH BASIN AND PIPE CONNECTION.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 42 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
DRAINAGE & UTILITIES PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

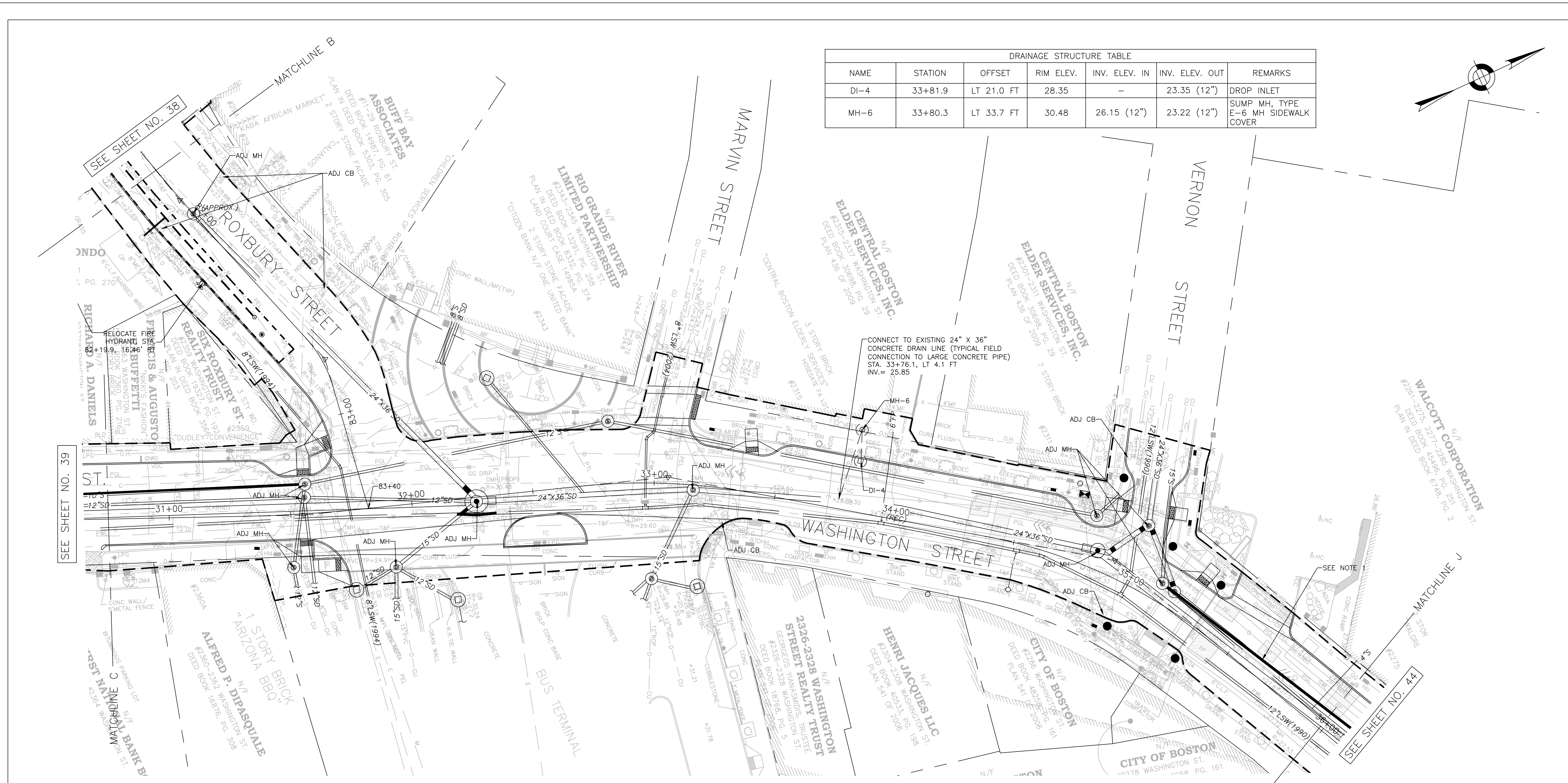
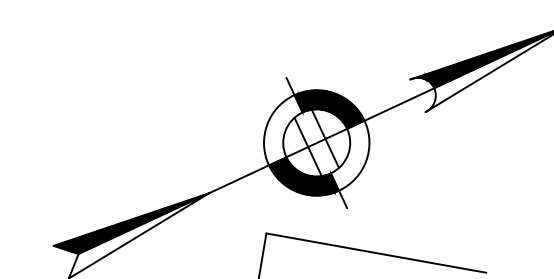
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-42



DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
DI-4	33+81.9	LT 21.0 FT	28.35	-	23.35 (12")	DROP INLET
MH-6	33+80.3	LT 33.7 FT	30.48	26.15 (12")	23.22 (12")	SUMP MH, TYPE E-6 MH SIDEWALK COVER



CONNECT TO EXISTING 24" X 36" CONCRETE DRAIN LINE (TYPICAL FIELD CONNECTION TO LARGE CONCRETE PIPE)  
 STA. 33+76.1, LT 4.1 FT  
 INV. = 25.85

- LEGEND**
- STORMWATER PIPE
  - - - 8" PERFORATED HDPE DISTRIBUTION STORMWATER PIPE
  - 8" SOLID HDPE STORMWATER PIPE
  - - - - - LIMIT OF STORMWATER TRENCH
  - - - - - PROPERTY LINE
  - ANTI-SEEP COLLAR
  - CLEANOUT
  - ⊙ OBSERVATION WELL
  - ⊕ CATCHBASIN (CB)
  - ⊙ CONTROL DRAINAGE MANHOLE (CMH)
  - ⊙ DRAINAGE MANHOLE (MH)
  - ⊕ TEST PIT

- NOTES:**
- DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWSC CONTRACT NO. 11-309-009. SEE SHEETS 124 THRU 129 FOR REFERENCE.
  - FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
  - FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
  - FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 59 THRU 65.
  - FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
  - ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
  - TEST PITS TO BE PERFORMED AT EACH NEW CATCH BASIN AND PIPE CONNECTION.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

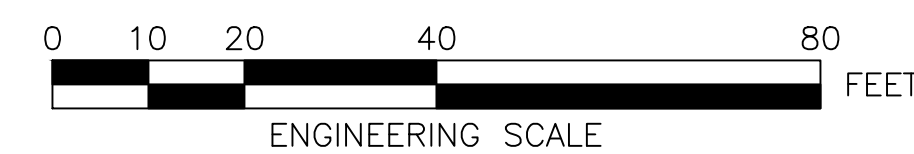
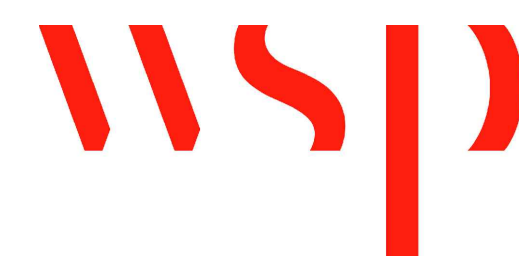
BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY S. BERGMAN  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO

CIP XX-XX SHEET 43 OF 130

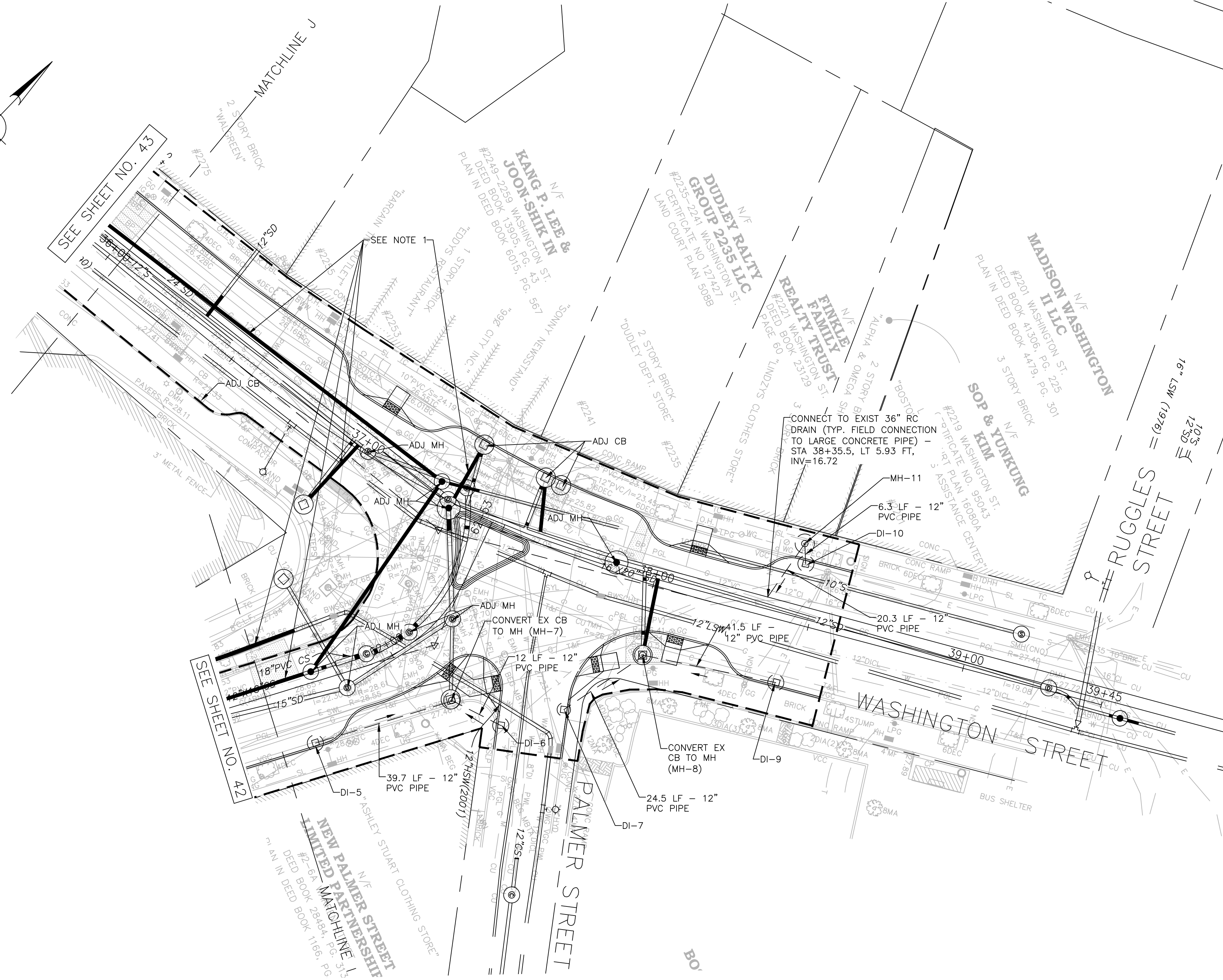
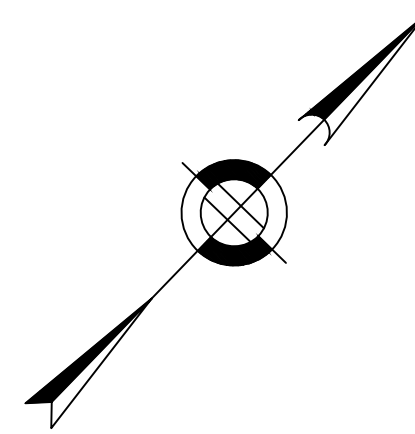
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**DRAINAGE & UTILITIES PLANS**  
 ROXBURY

SCALE: 1" = 20'  
 DISTRICT: 10  
 AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019  
 CITY ENGINEER



R-XXXX-43





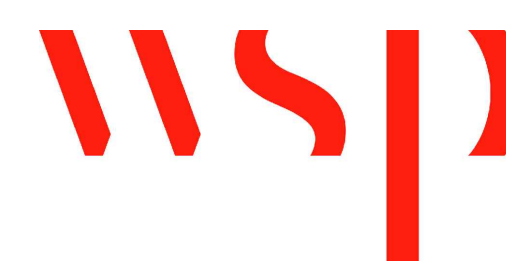
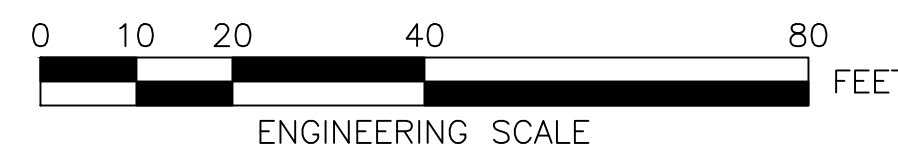
DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
DI-5	61+69.0	RT 18.30 FT	28.10	-	23.1 (12")	DROP INLET
MH-7	62+06.9	RT 21.4 FT		22.66 (12") (DI-5)	22.9± (12")	CB TO SUMP MH, TYPE E-6 SIDEWALK MH COVER
				21.83 (12") (DI-6)		
DI-6	62+11.6	RT 37.4 FT	27.00	-	22.00 (12")	DROP INLET
DI-7	37+86.6	RT 45.6 FT	26.78	-	21.78 (12")	DROP INLET
MH-8	38+03.2	RT 21.9 FT	26.60	23.54 (DI-7)	19.60 (12")	CB TO SUMP MH, TYPE E-6 SIDEWALK MH COVER
				21.42 (DI-9)		
				-	21.83	DROP INLET
DI-9	38+44.7	RT 19.2 FT	26.83	-		
DI-10	38+44.3	LT 19.0 FT	26.40	-	21.40	DROP INLET
MH-11	38+42.4	LT 25.0 FT		21.34 (12")	16.92 (12")	CB TO SUMP MH, TYPE E-6 SIDEWALK MH COVER

**LEGEND**

- STORMWATER PIPE
- PROPERTY LINE
- ⊕ CATCHBASIN (CB)
- ⊙ DRAINAGE MANHOLE (MH)
- ⊕<sub>TP</sub> TEST PIT

**NOTES:**

1. DRAINAGE PLANS SHOW WATER, SEWER & DRAIN IMPROVEMENTS CONSTRUCTED UNDER BWS CONTRACT NO. 11-309-009. SEE SHEETS 124 THRU 129 FOR REFERENCE.
2. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
3. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
4. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 58 THRU 64.
5. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
6. ADJUST ALL UTILITY COVERS WITHIN THE PAVING LIMIT, CONTRACTOR TO ADJUST ALL CITY OWNED UTILITIES. CONTRACTOR TO COORDINATE WITH ALL OTHER PRIVATE UTILITIES FOR COVER ADJUSTMENTS.
7. TEST PITS TO BE PERFORMED AT EACH NEW CATCH BASIN AND PIPE CONNECTION.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

CIP XX-XX SHEET 44 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2  
DRAINAGE & UTILITIES PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

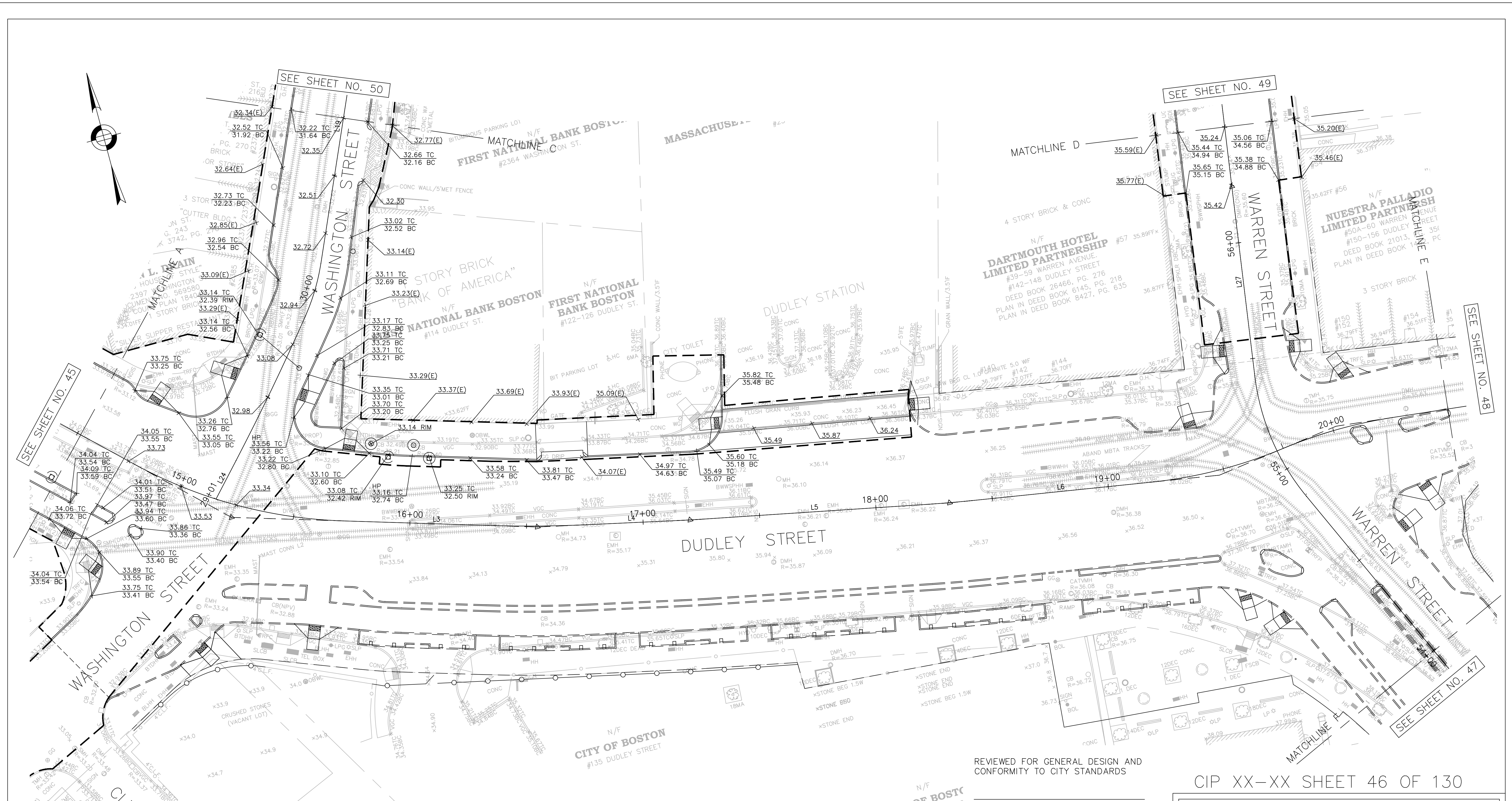
\_\_\_\_\_  
CITY ENGINEER

R-XXXX-44

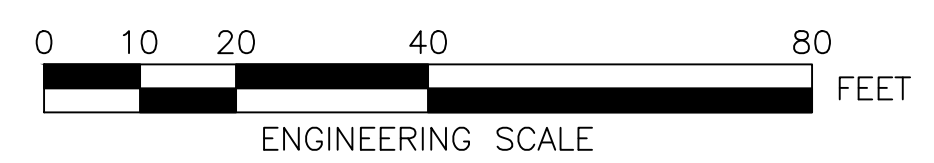








- NOTES:**
1. FOR KEY PLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
  2. FOR GENERAL NOTES, SEE SHEET 3.
  3. FOR TYPICAL SECTIONS, SEE SHEETS 5 & 8.
  4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
  5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
  6. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

CITY OF BOSTON  
#135 DUDLEY STREET

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	J. WEISS
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 46 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
GRADING PLANS**  
ROXBURY

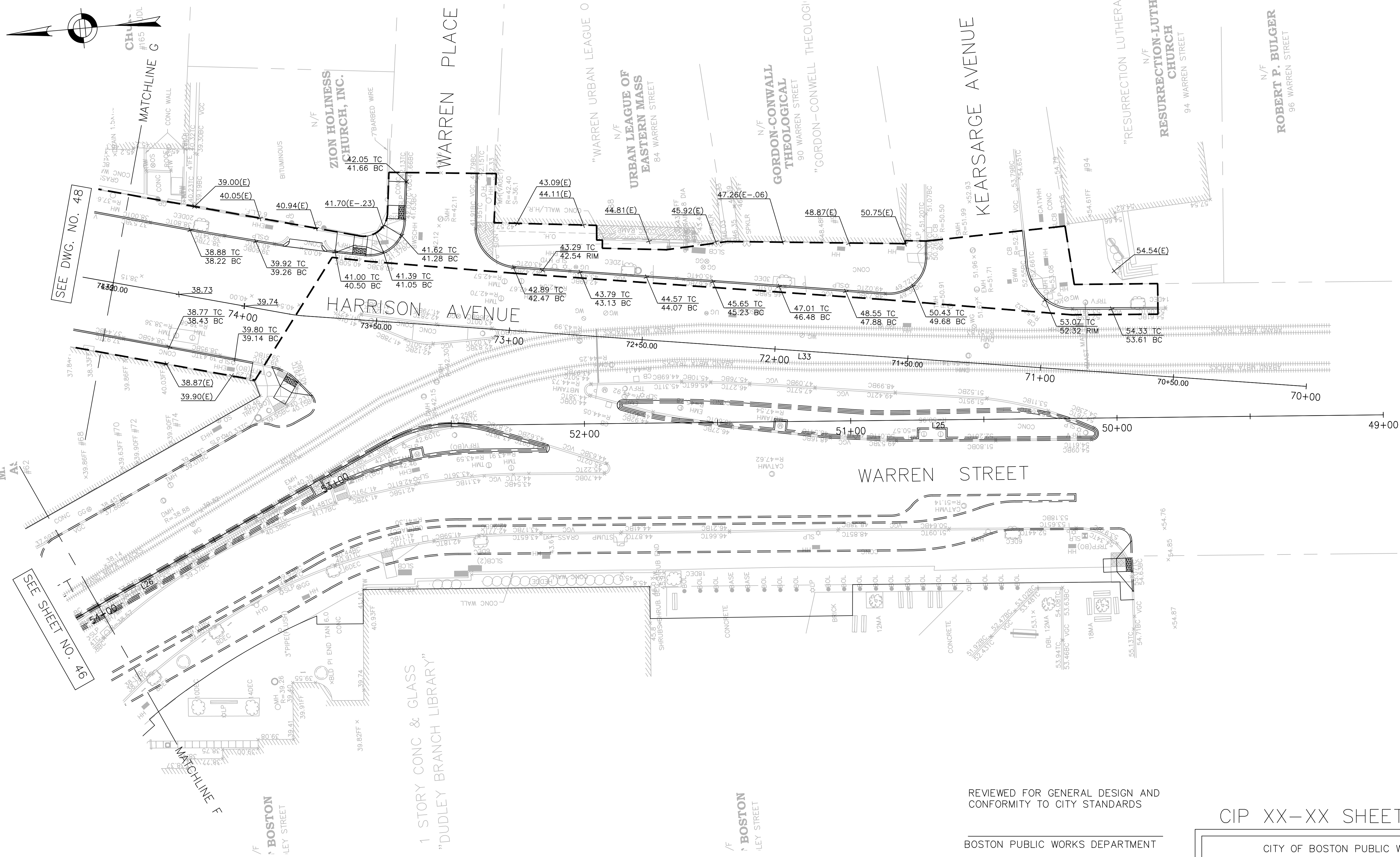
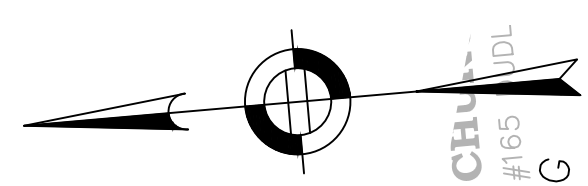
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DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

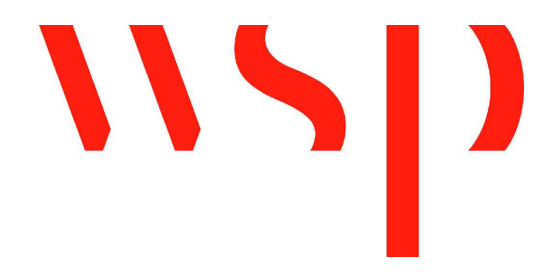
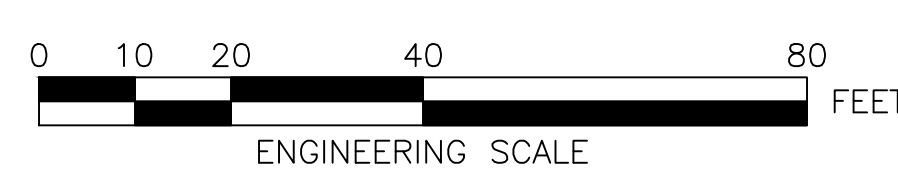
CITY ENGINEER

R-XXXX-46





- NOTES:
1. FOR KEY PLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
  2. FOR GENERAL NOTES, SEE SHEET 3.
  3. FOR TYPICAL SECTIONS, SEE SHEETS 5 & 8.
  4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
  5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
  6. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	J. WEISS
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 47 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**GRADING PLANS**  
 ROXBURY

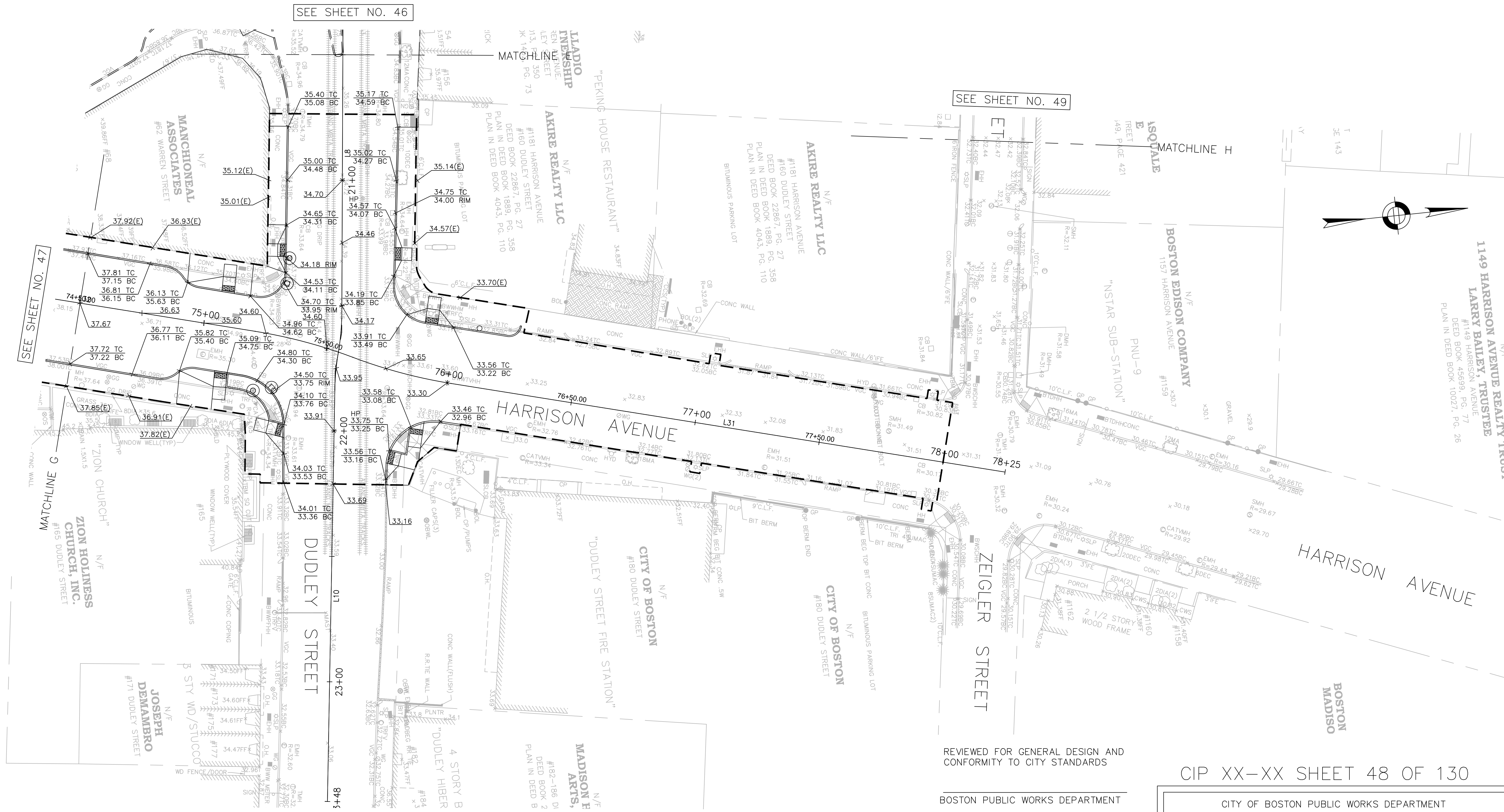
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 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-47

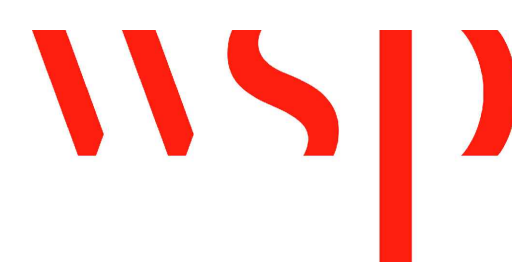
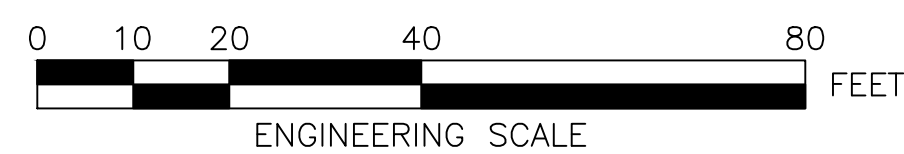




**NOTES:**

1. FOR KEY PLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.
3. FOR TYPICAL SECTIONS, SEE SHEETS 5 & 8.
4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
6. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.

R-XXXX-48



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	J. WEISS
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 48 OF 130

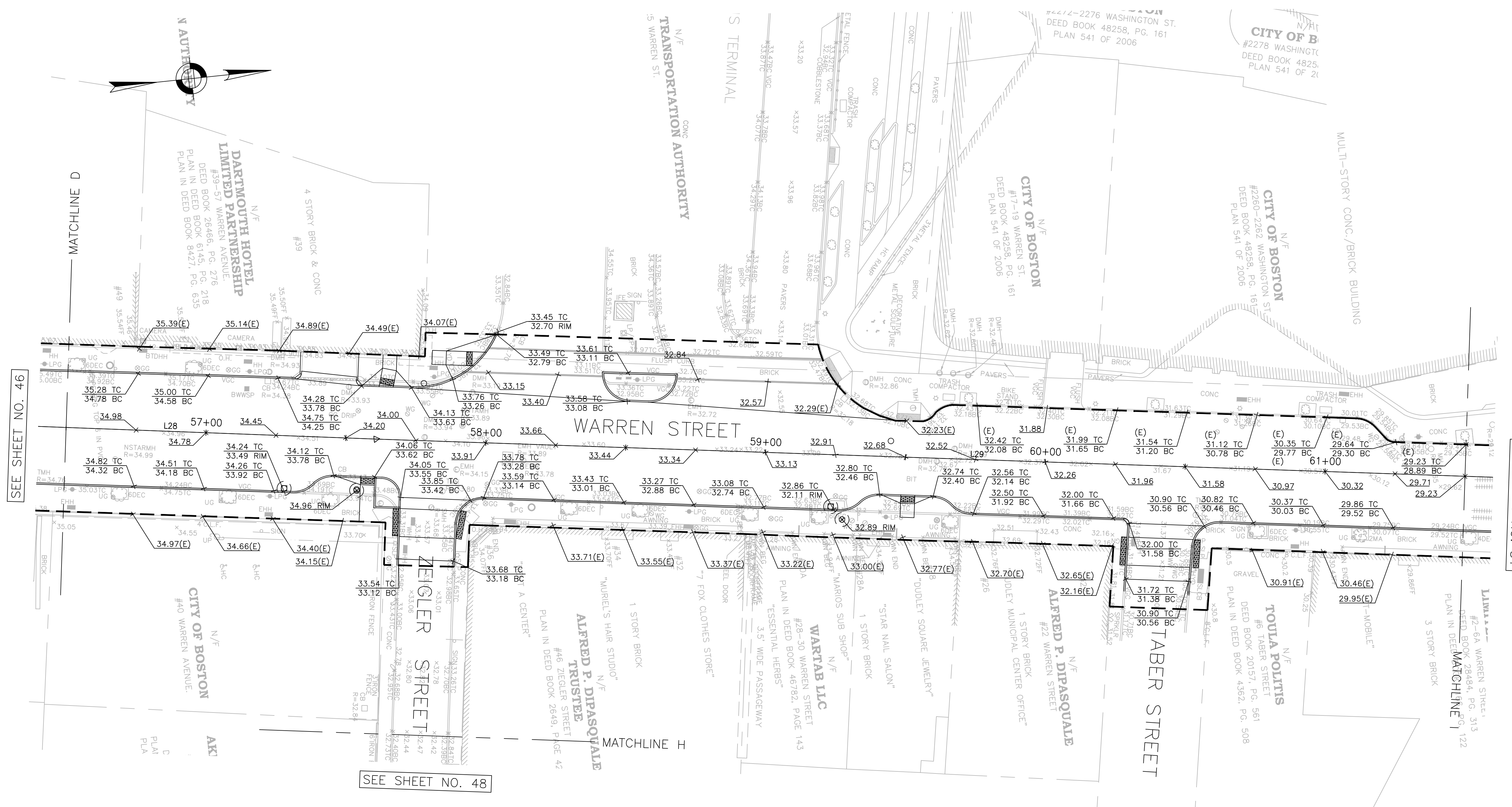
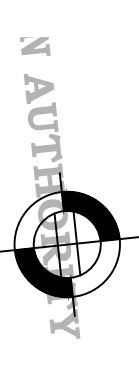
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2  
 GRADING PLANS**  
 ROXBURY

SCALE: 1" = 20'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER





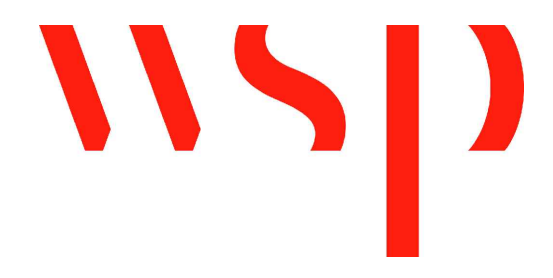
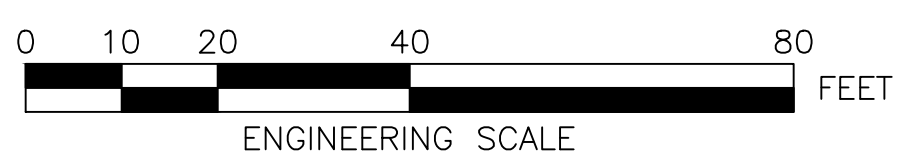
SEE SHEET NO. 46

SEE SHEET NO. 51

SEE SHEET NO. 48

**NOTES:**

1. FOR KEY PLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.
3. FOR TYPICAL SECTIONS, SEE SHEETS 5 & 8.
4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
6. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	J. WEISS
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 49 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
GRADING PLANS**  
ROXBURY

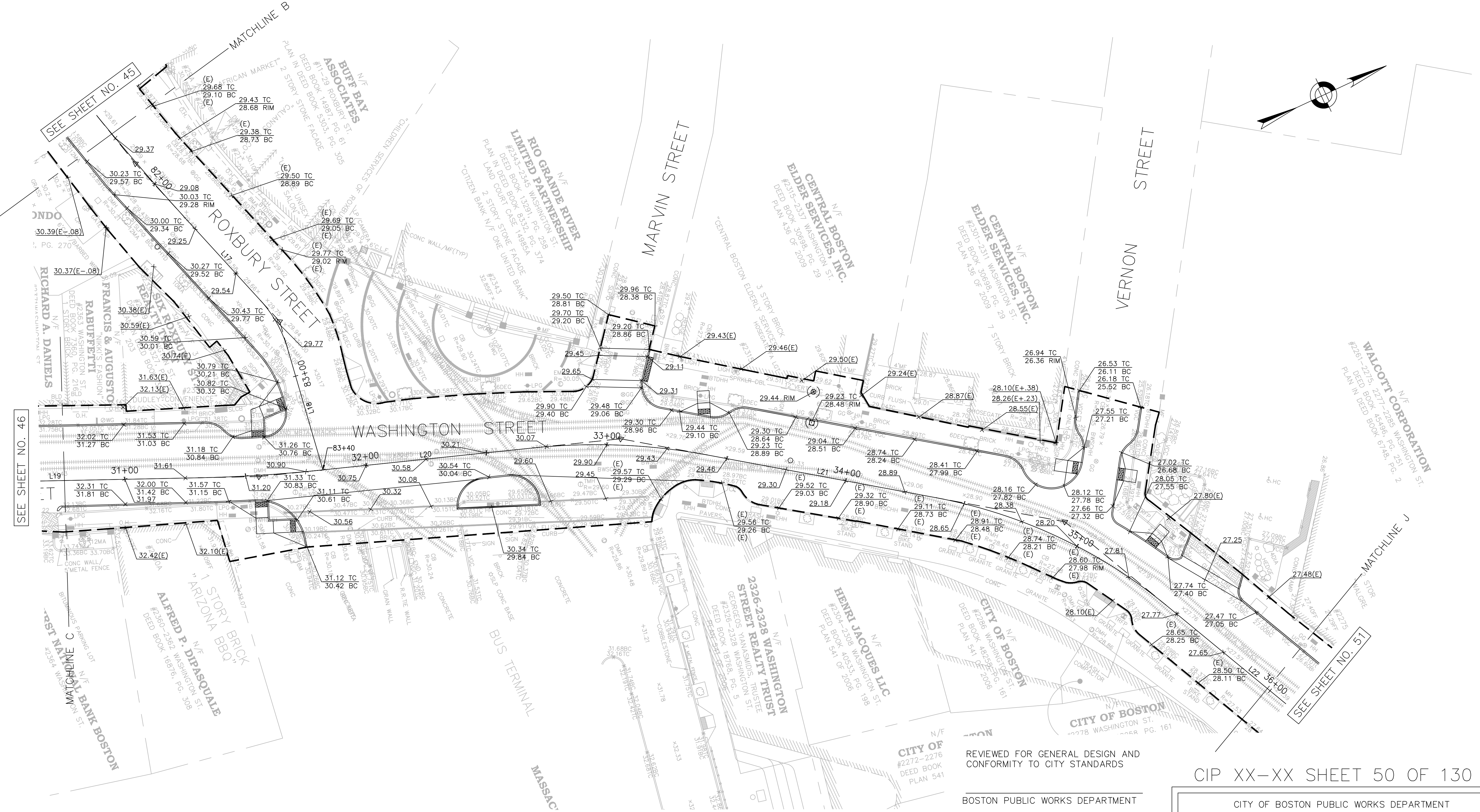
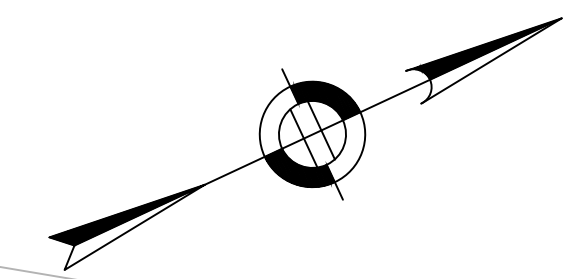
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DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-49





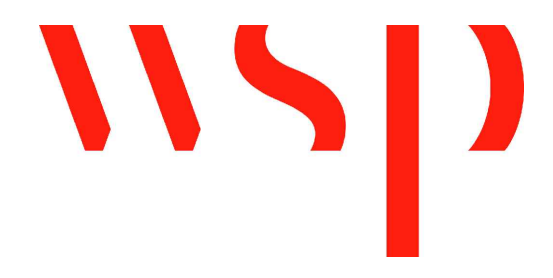
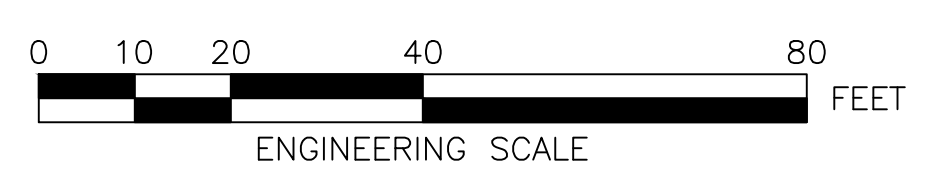
SEE SHEET NO. 45

SEE SHEET NO. 46

SEE SHEET NO. 51

NOTES:

1. FOR KEY PLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.
3. FOR TYPICAL SECTIONS, SEE SHEETS 5 & 8.
4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
6. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	J. WEISS
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 50 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
 GRADING PLANS  
 ROXBURY

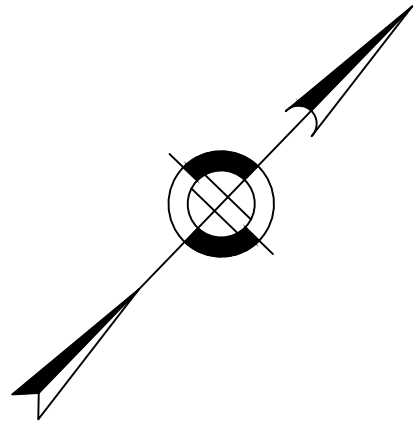
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DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-50

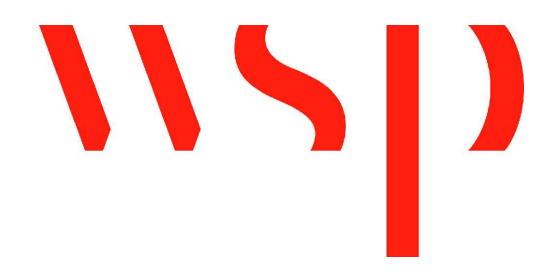
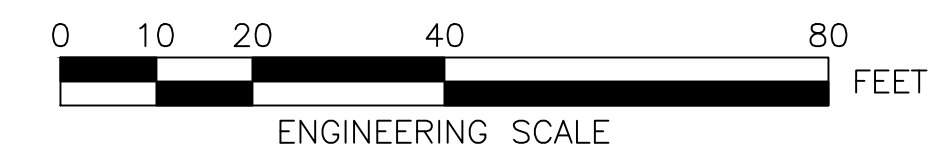




**NOTES:**

1. FOR KEY PLAN, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 & 4.
2. FOR GENERAL NOTES, SEE SHEET 3.
3. FOR TYPICAL SECTIONS, SEE SHEETS 5 & 8.
4. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
5. FOR DRAINAGE PLANS, SEE SHEETS 38 THRU 44.
6. FOR PEDESTRIAN RAMP DETAILS, SEE SHEETS 118 THRU 123.

R-XXXX-51



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

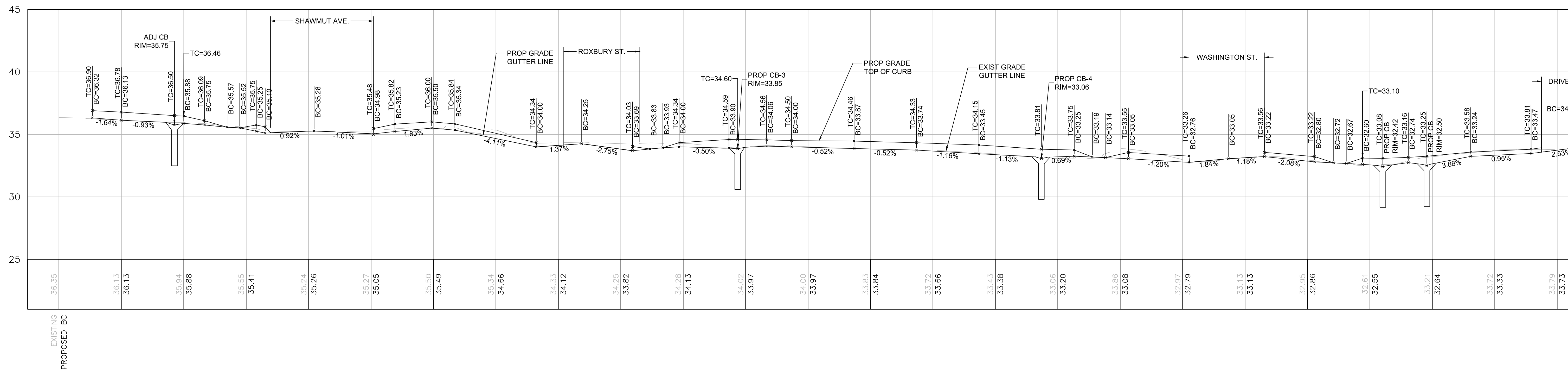
BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	J. WEISS
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

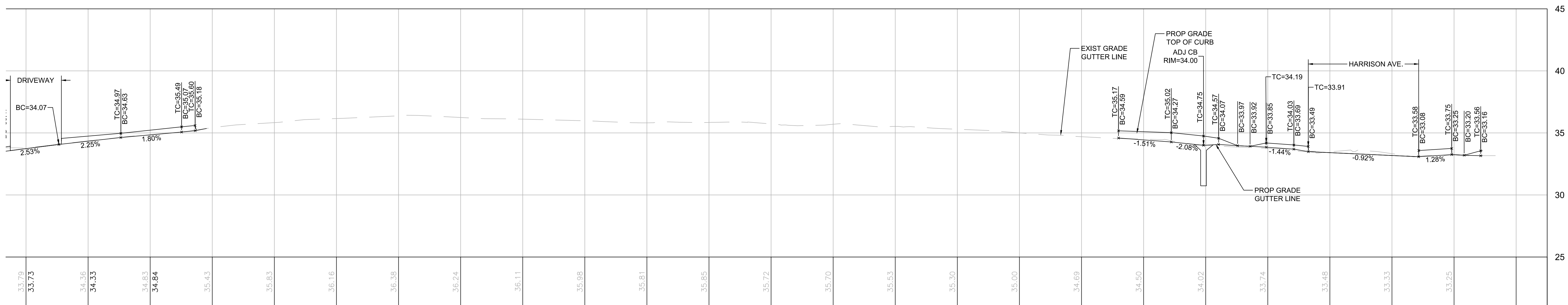
CIP XX-XX SHEET 51 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION HIGHWAY RECONSTRUCTION	
<b>DUDLEY SQUARE PHASE 2 GRADING PLANS</b> ROXBURY	
SCALE: 1" = 20'	AREA: 1
DISTRICT: 10	100% SUBMISSION
	DATE: APR. 15, 2019
_____ CITY ENGINEER	

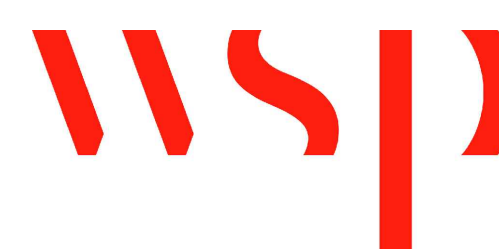
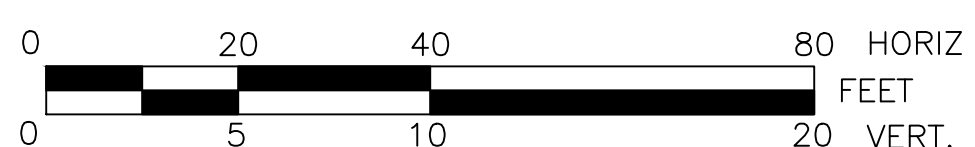




DUDLEY STREET LEFT CURB PROFILE



DUDLEY STREET LEFT CURB PROFILE



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY J. WEISS

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

CIP XX-XX SHEET 52 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

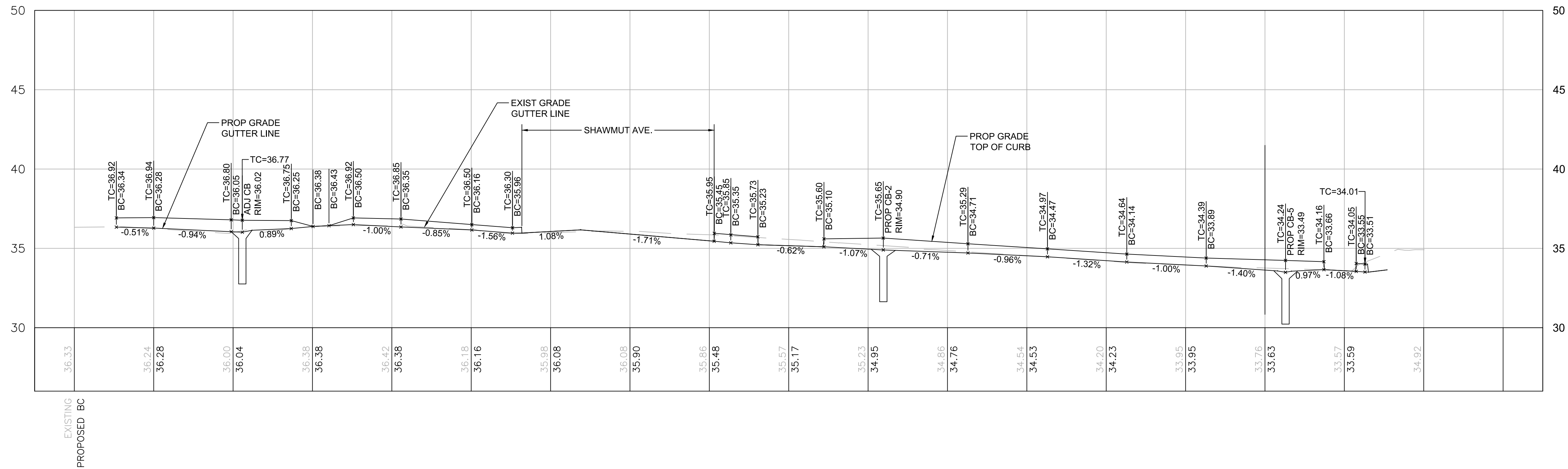
**DUDLEY SQUARE PHASE 2**  
**DUDLEY STREET LEFT CURB PROFILES**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

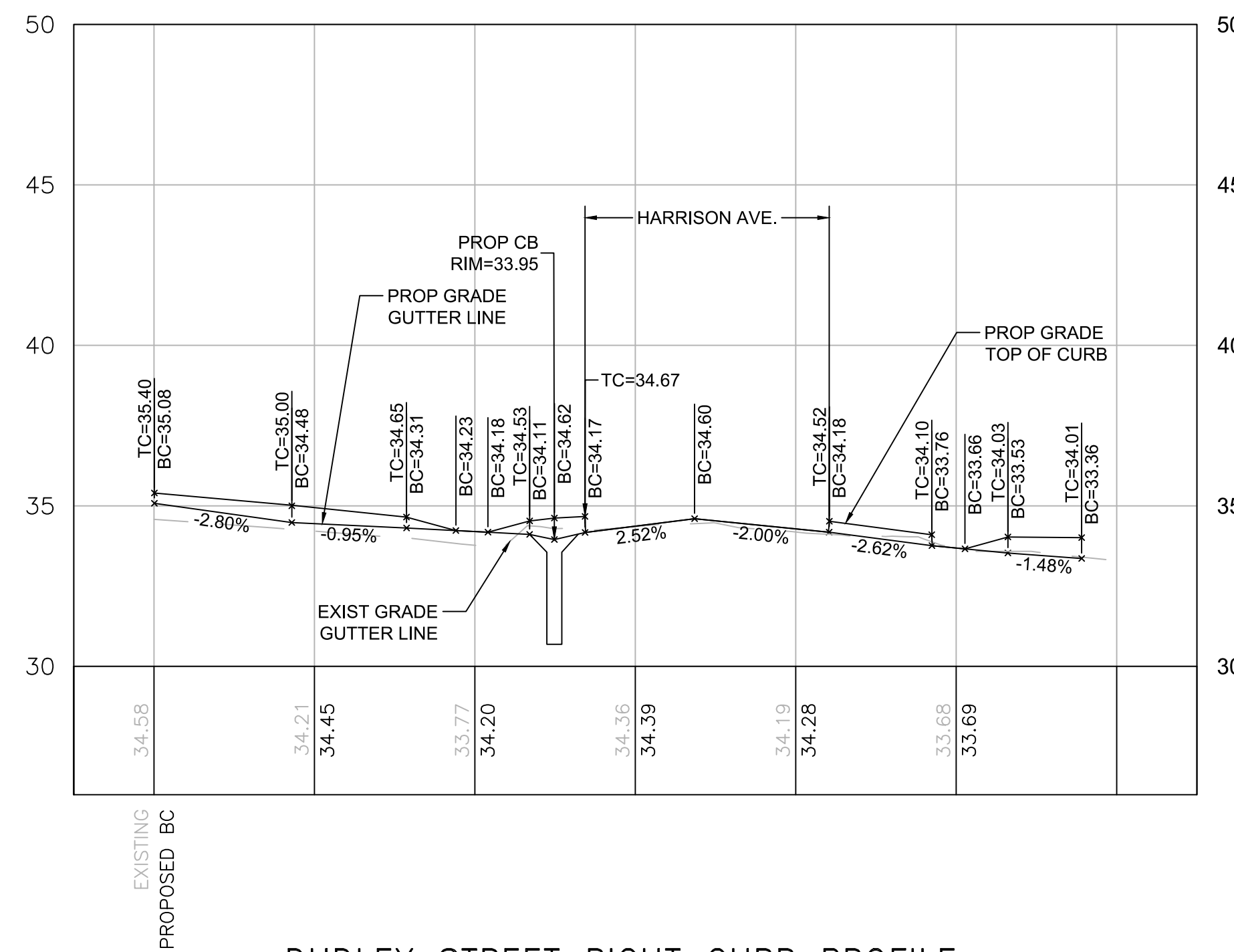
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER





DUDLEY STREET RIGHT CURB PROFILE



DUDLEY STREET RIGHT CURB PROFILE

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

CIP XX-XX SHEET 53 OF 130

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY J. WEISS

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

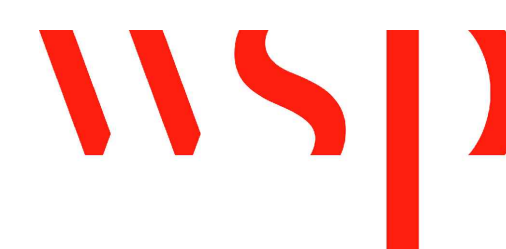
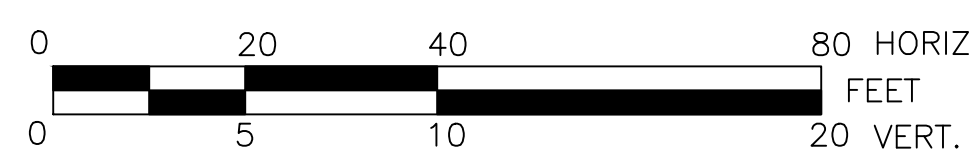
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**DUDLEY STREET RIGHT CURB PROFILES**  
ROXBURY

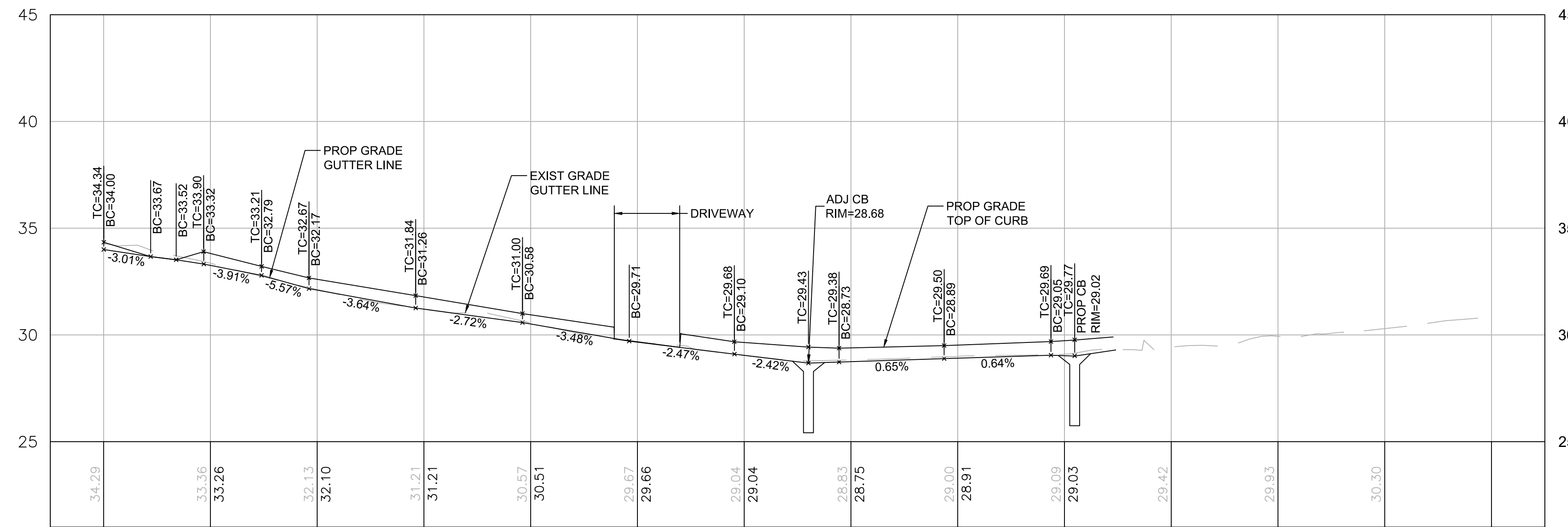
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DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

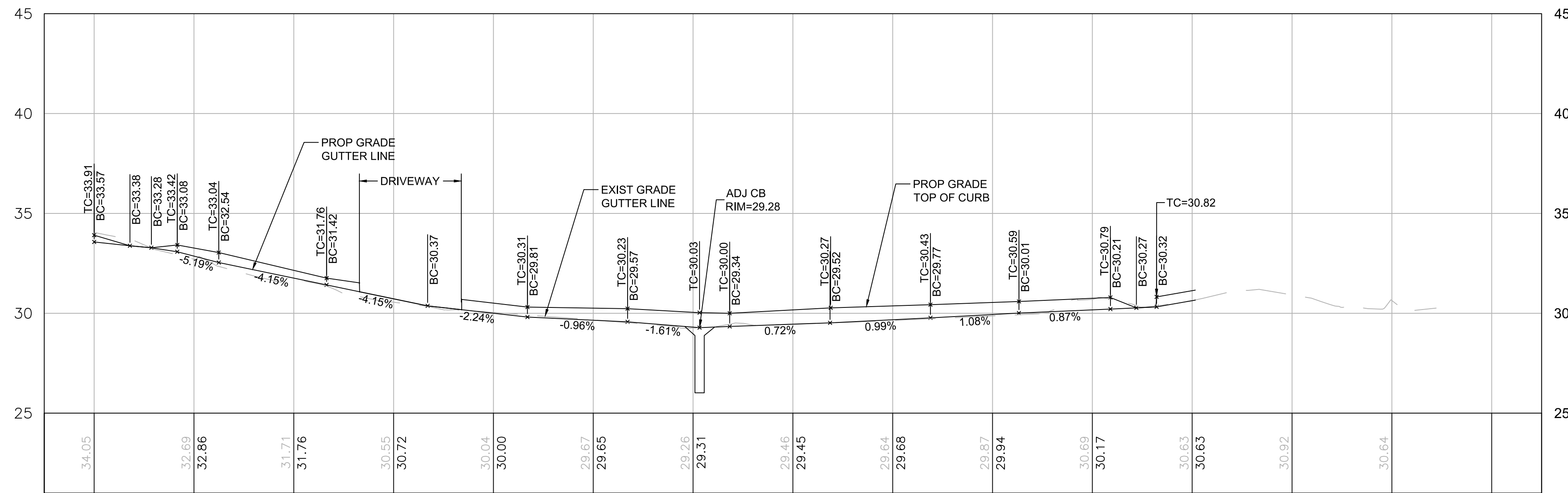
CITY ENGINEER







ROXBURY STREET LEFT CURB PROFILE



ROXBURY STREET RIGHT CURB PROFILE

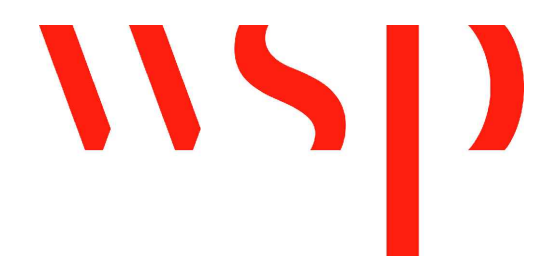
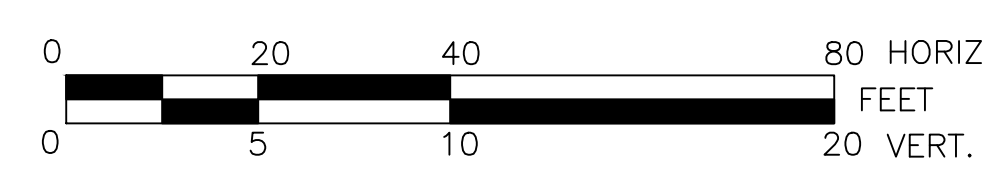
REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

CIP XX-XX SHEET 54 OF 130

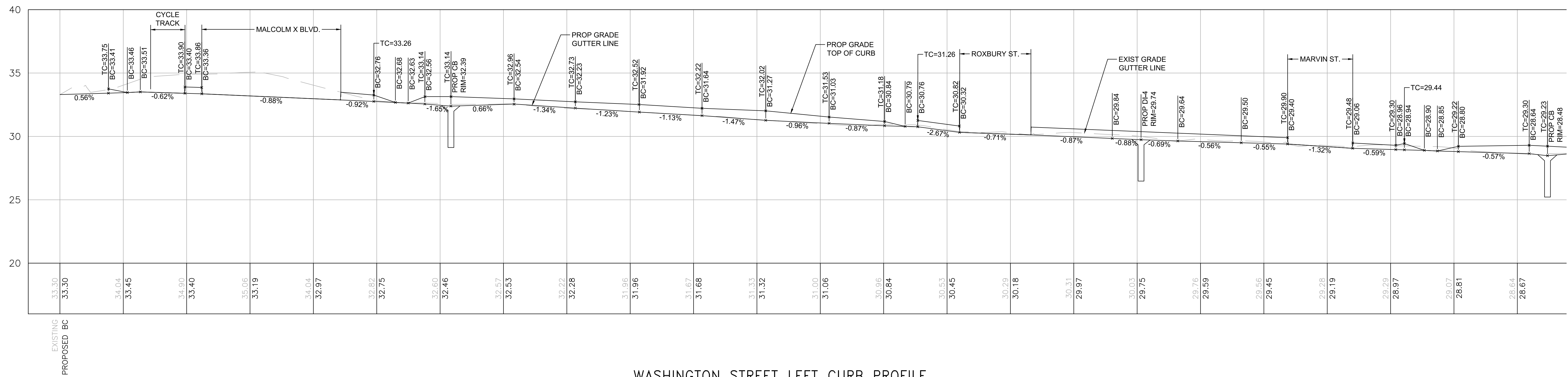
BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY J. WEISS  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO

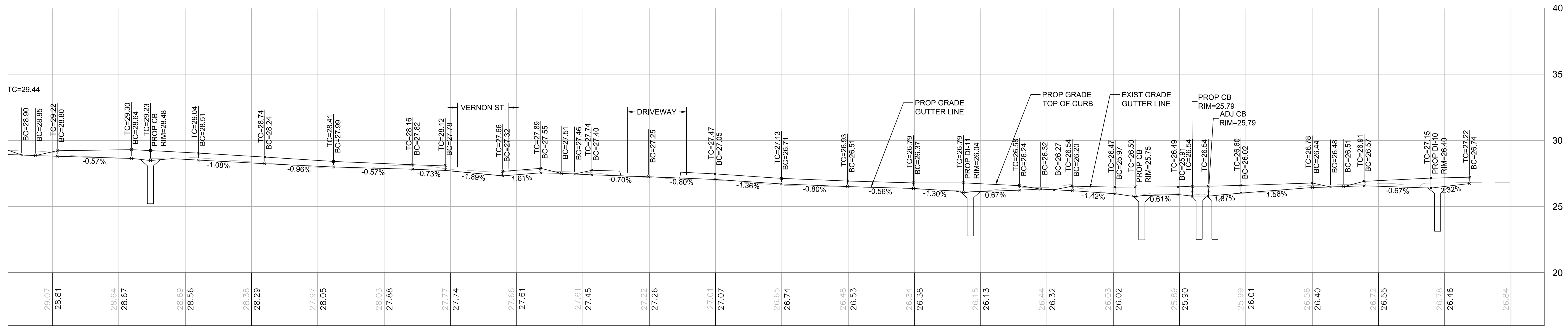
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**ROXBURY STREET CURB PROFILES**  
 ROXBURY  
 SCALE: 1" = 20'  
 DISTRICT: 10  
 AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019  
 CITY ENGINEER







WASHINGTON STREET LEFT CURB PROFILE



WASHINGTON STREET LEFT CURB PROFILE

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

CIP XX-XX SHEET 55 OF 130

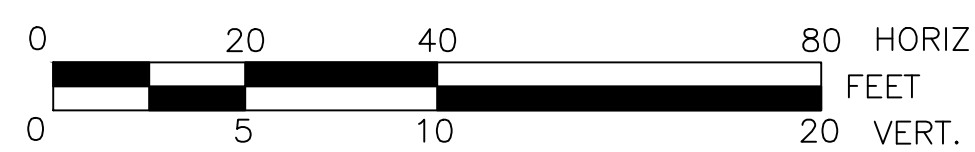
BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY J. WEISS

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO



CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**WASHINGTON STREET LEFT CURB PROFILES**  
 ROXBURY

SCALE: 1" = 20'  
 DISTRICT: 10

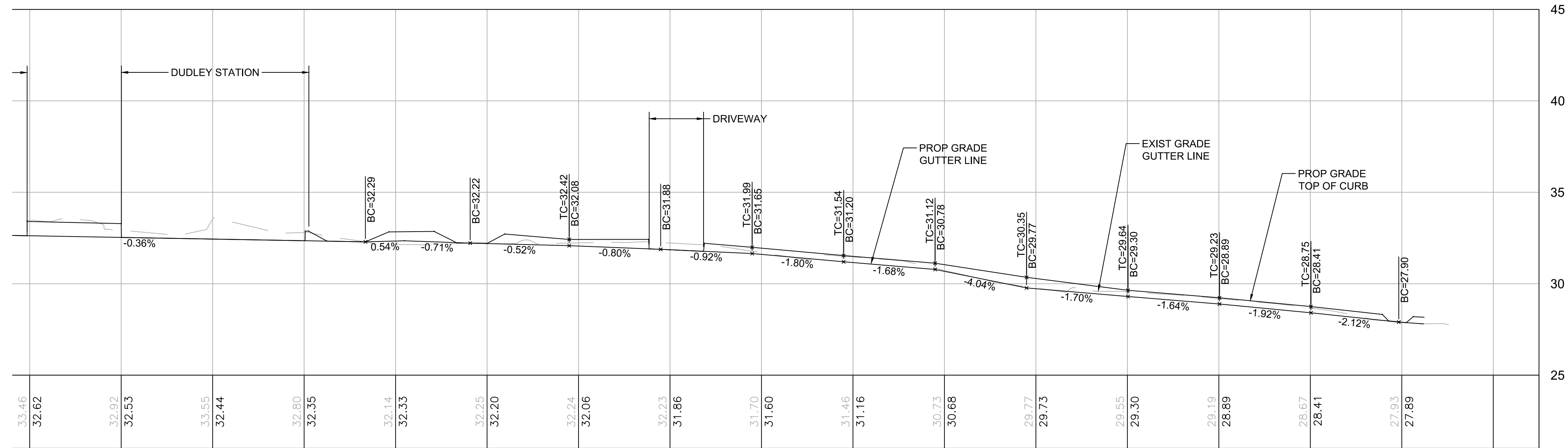
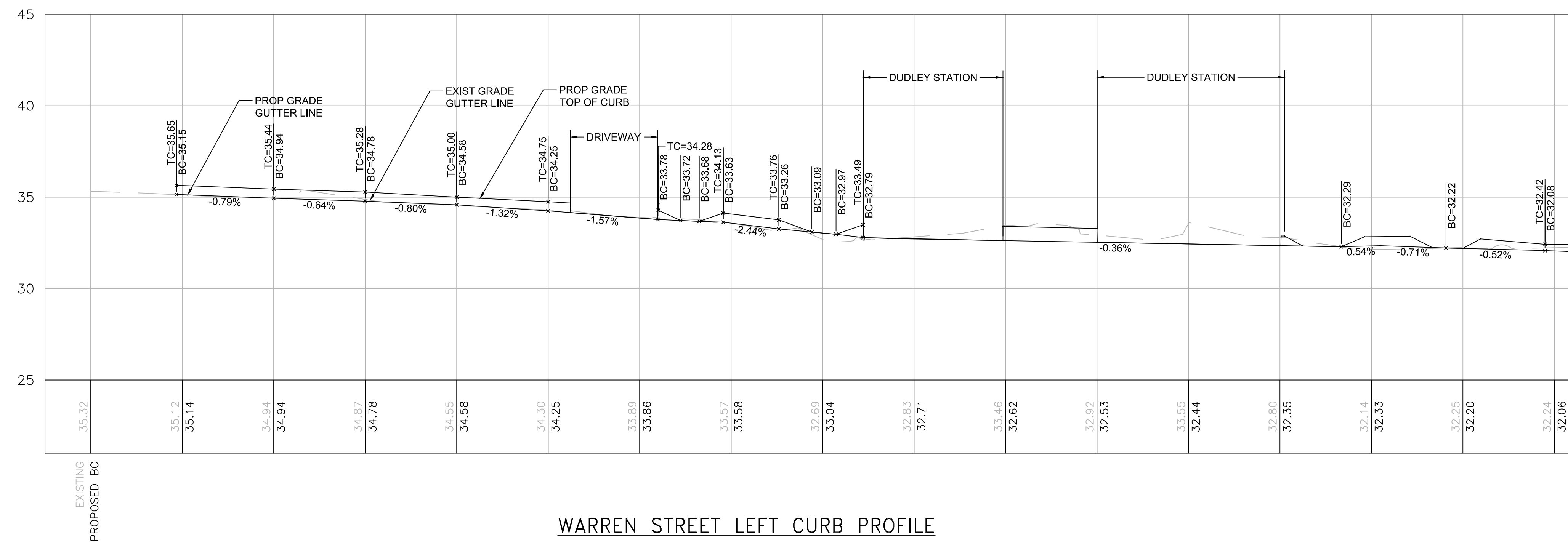
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER









**WARREN STREET LEFT CURB PROFILE**

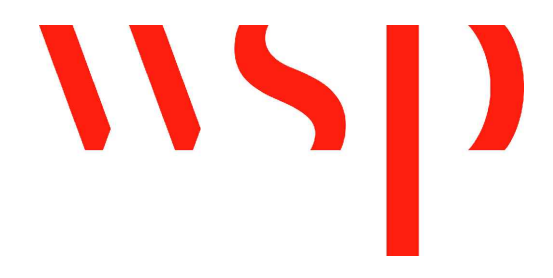
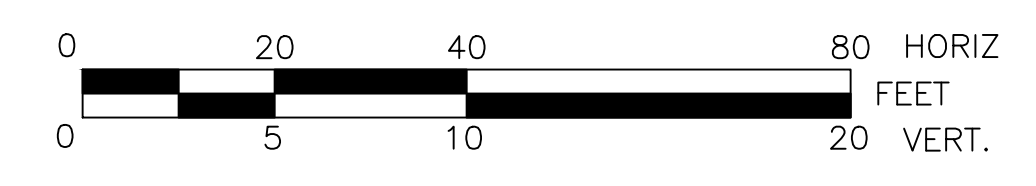
REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

CIP XX-XX SHEET 57 OF 130

BOSTON PUBLIC WORKS DEPARTMENT

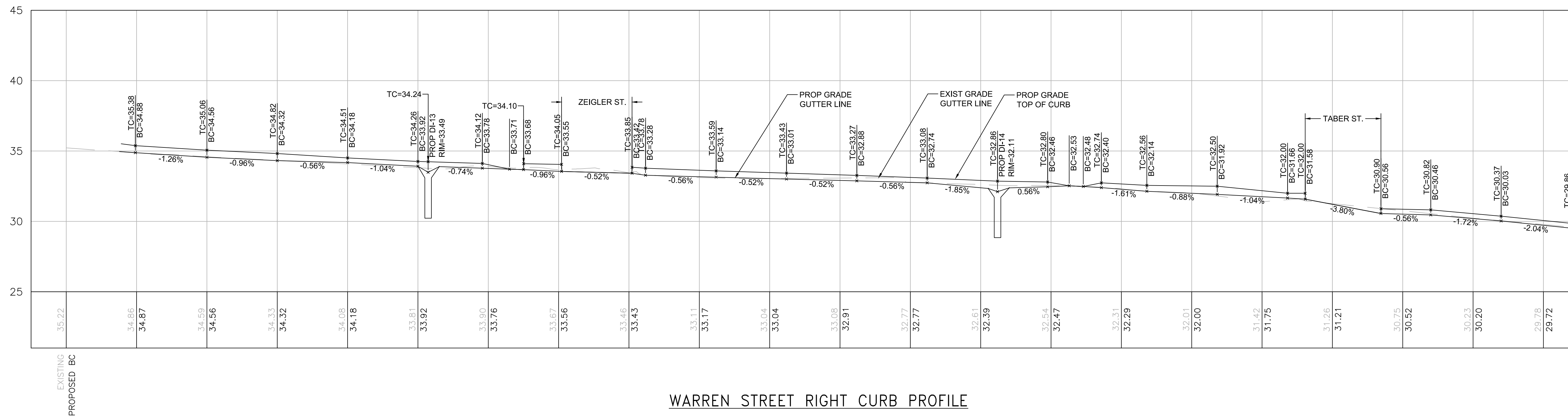
SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY J. WEISS  
 CHECKED BY R. BURCKARDT  
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CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**WARREN STREET LEFT CURB PROFILES**  
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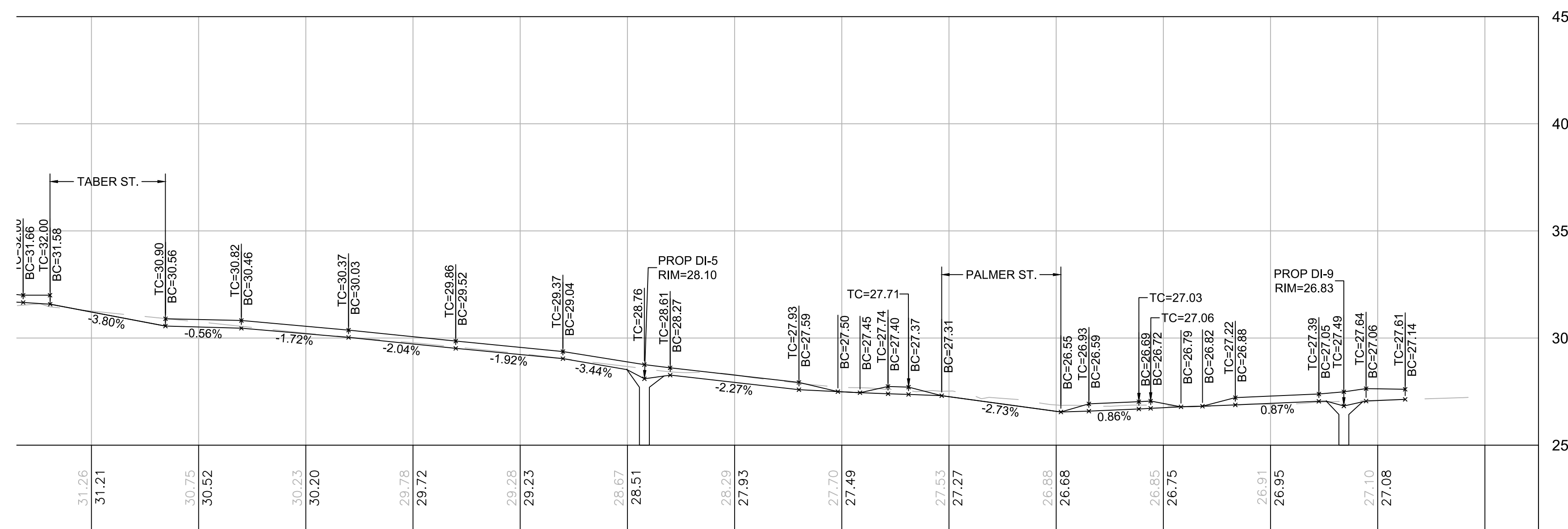


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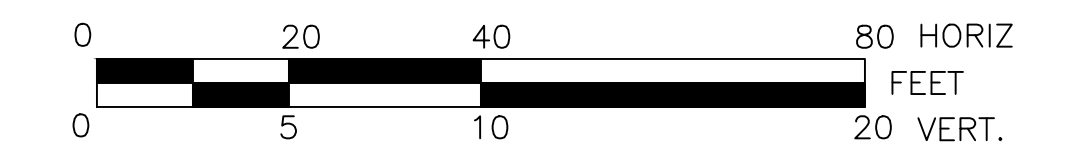




WARREN STREET RIGHT CURB PROFILE



WARREN STREET RIGHT CURB PROFILE



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

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CIP XX-XX SHEET 58 OF 130

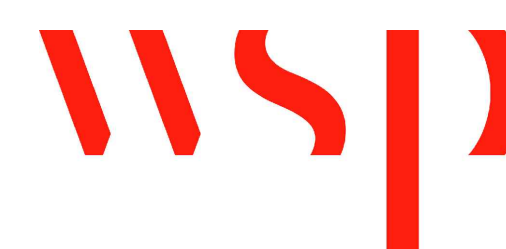
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
 WARREN STREET RIGHT CURB PROFILES**  
 ROXBURY

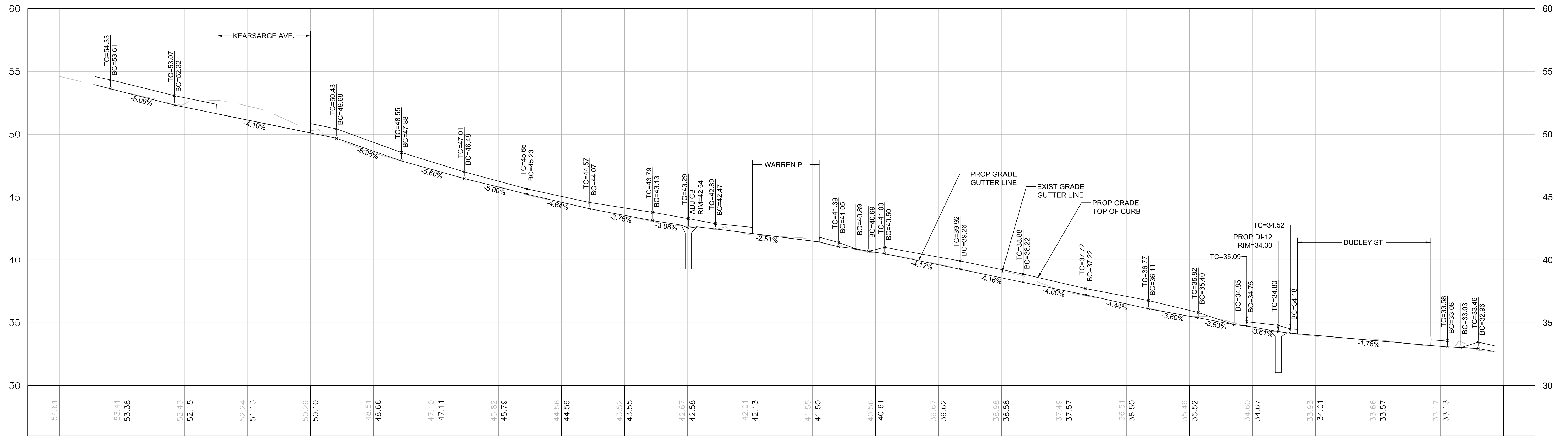
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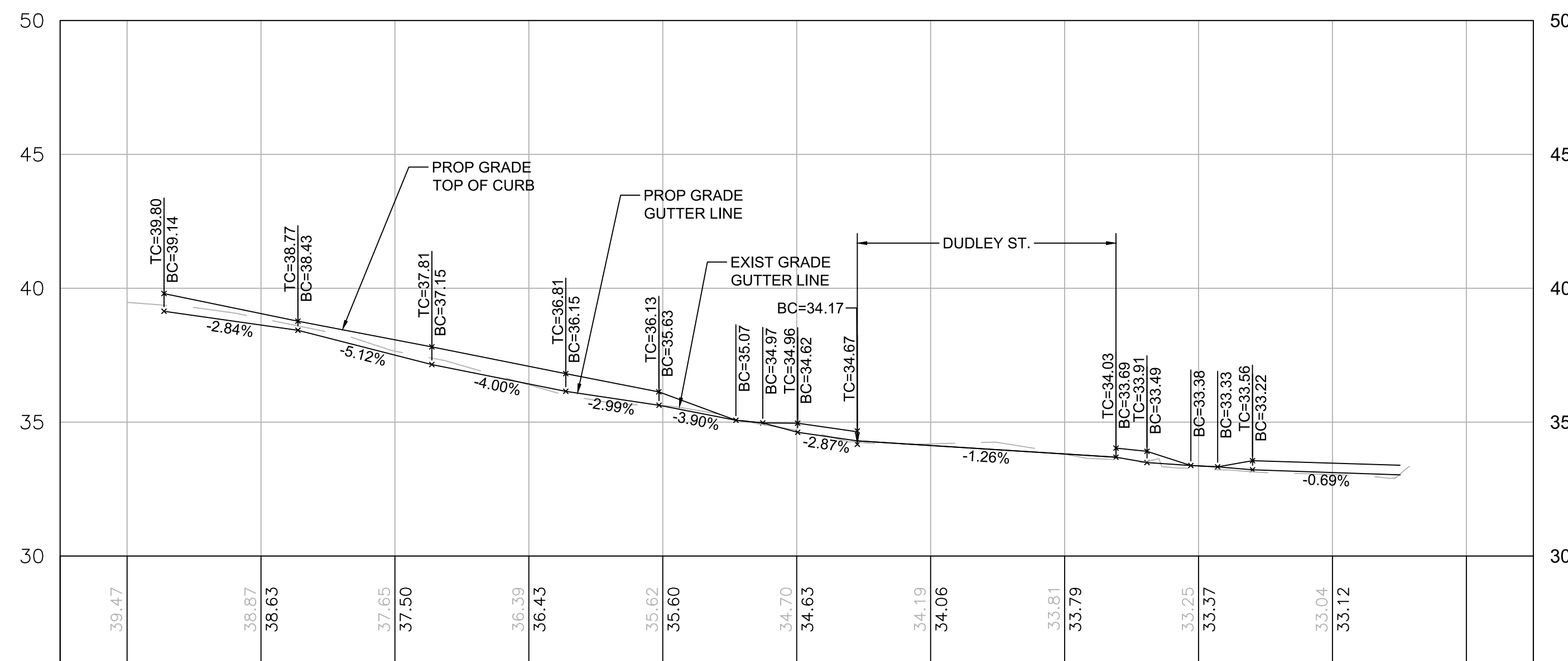
CITY ENGINEER



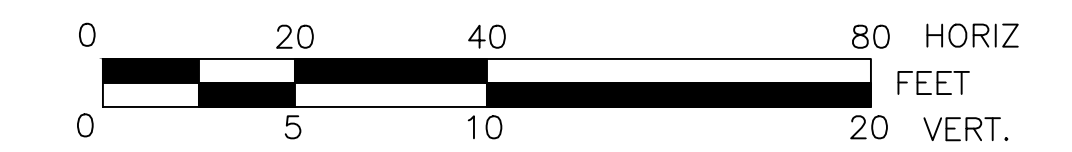




HARRISON AVENUE RIGHT CURB PROFILE



HARRISON AVENUE LEFT CURB PROFILE



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BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY J. WEISS

CHECKED BY R. BURCKARDT

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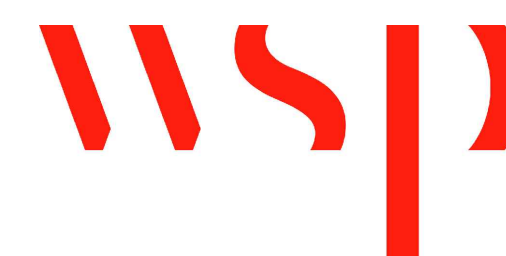
CIP XX-XX SHEET 59 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**HARRISON AVENUE CURB PROFILES**  
 ROXBURY

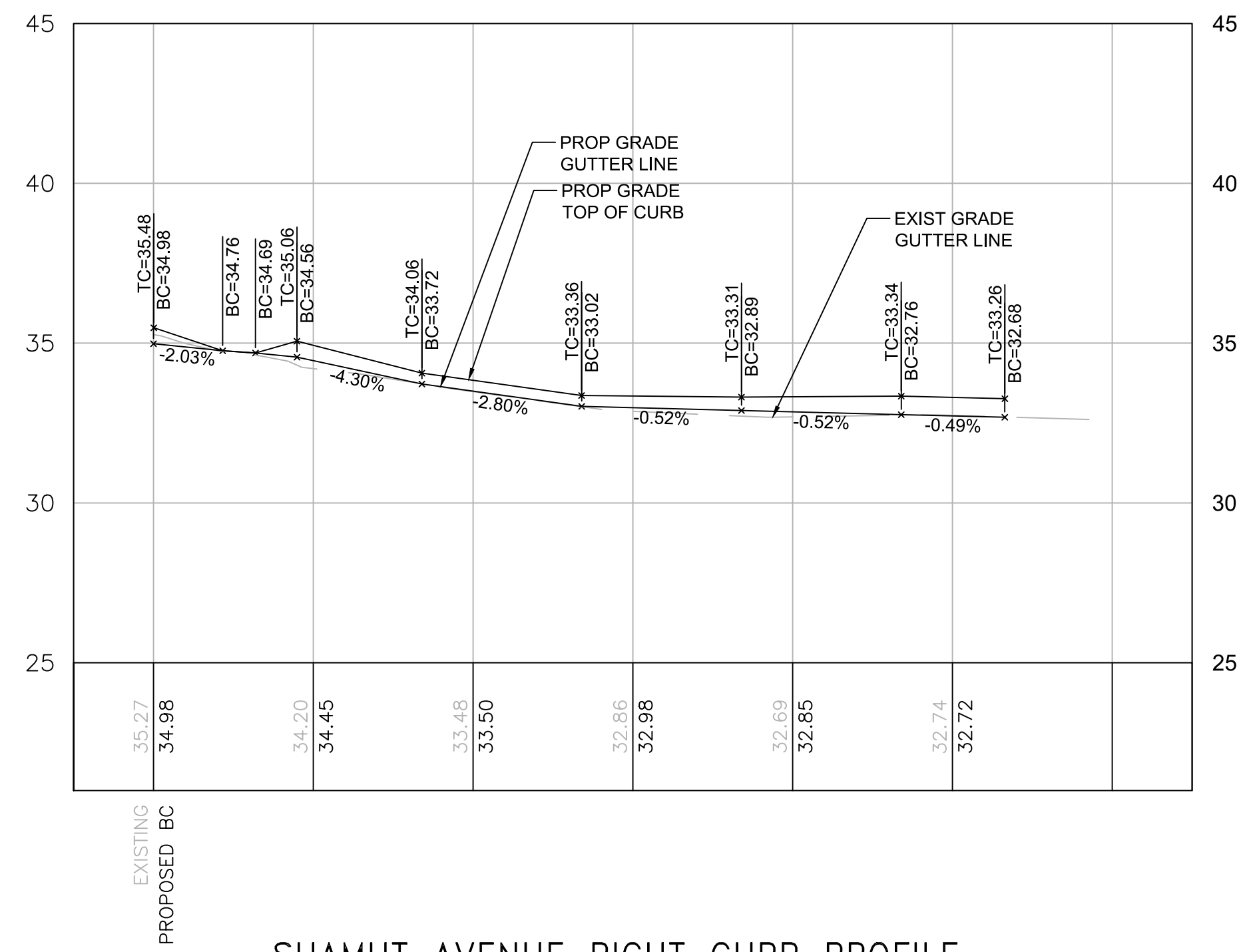
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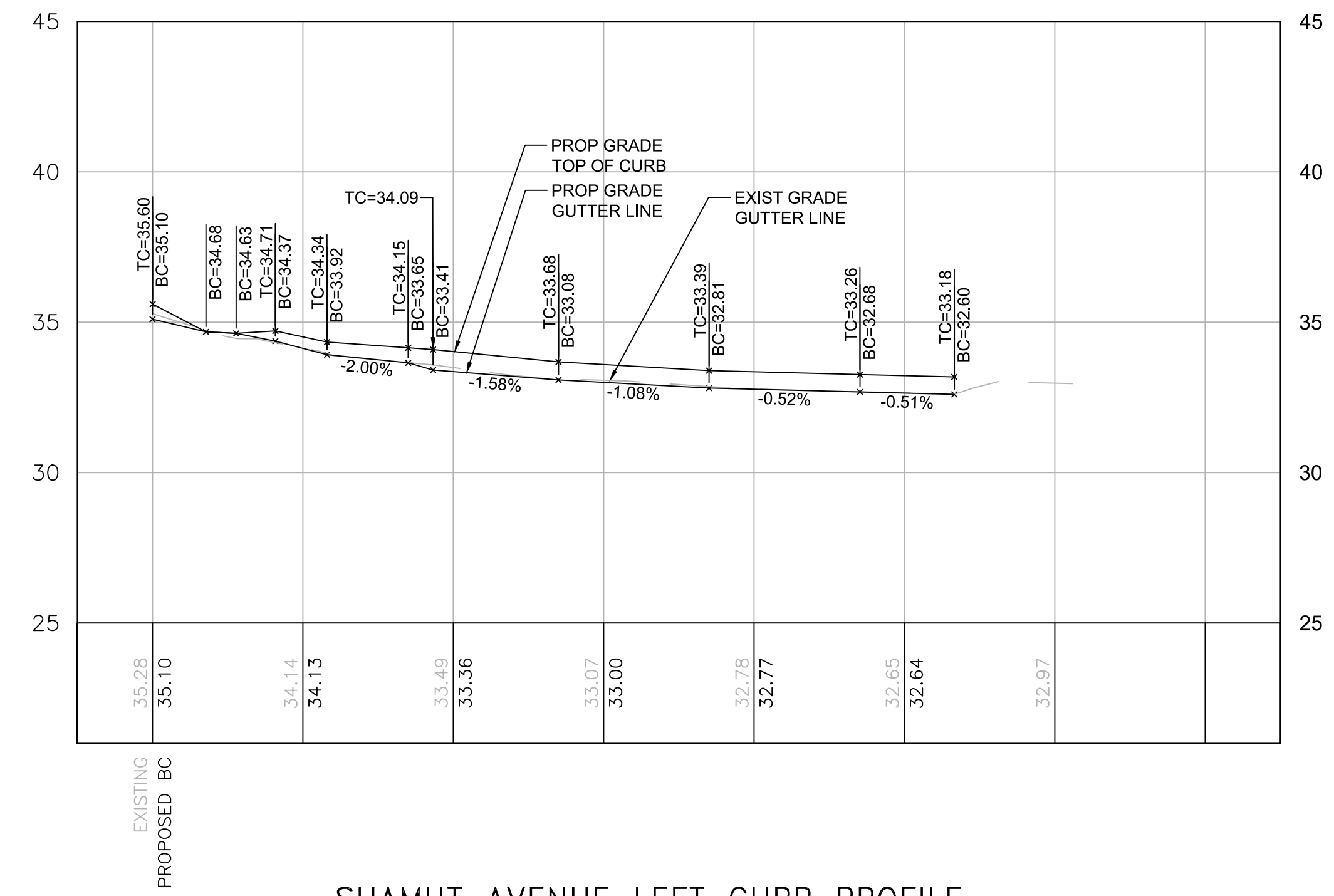
CITY ENGINEER



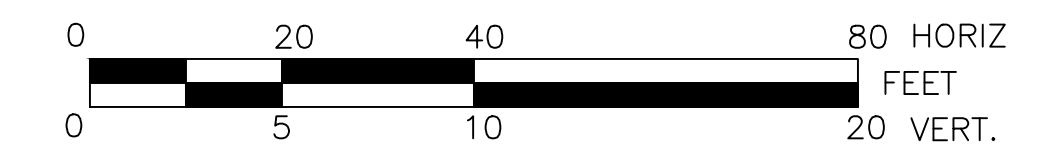




SHAMUT AVENUE RIGHT CURB PROFILE



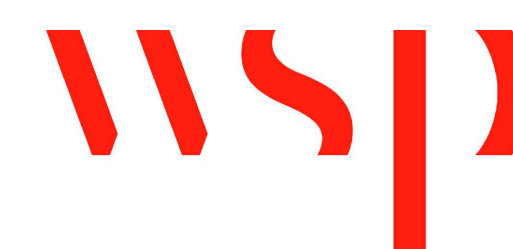
SHAMUT AVENUE LEFT CURB PROFILE



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BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY J. WEISS  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO



CIP XX-XX SHEET 60 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
 SHAWMUT AVENUE CURB PROFILES**  
 ROXBURY

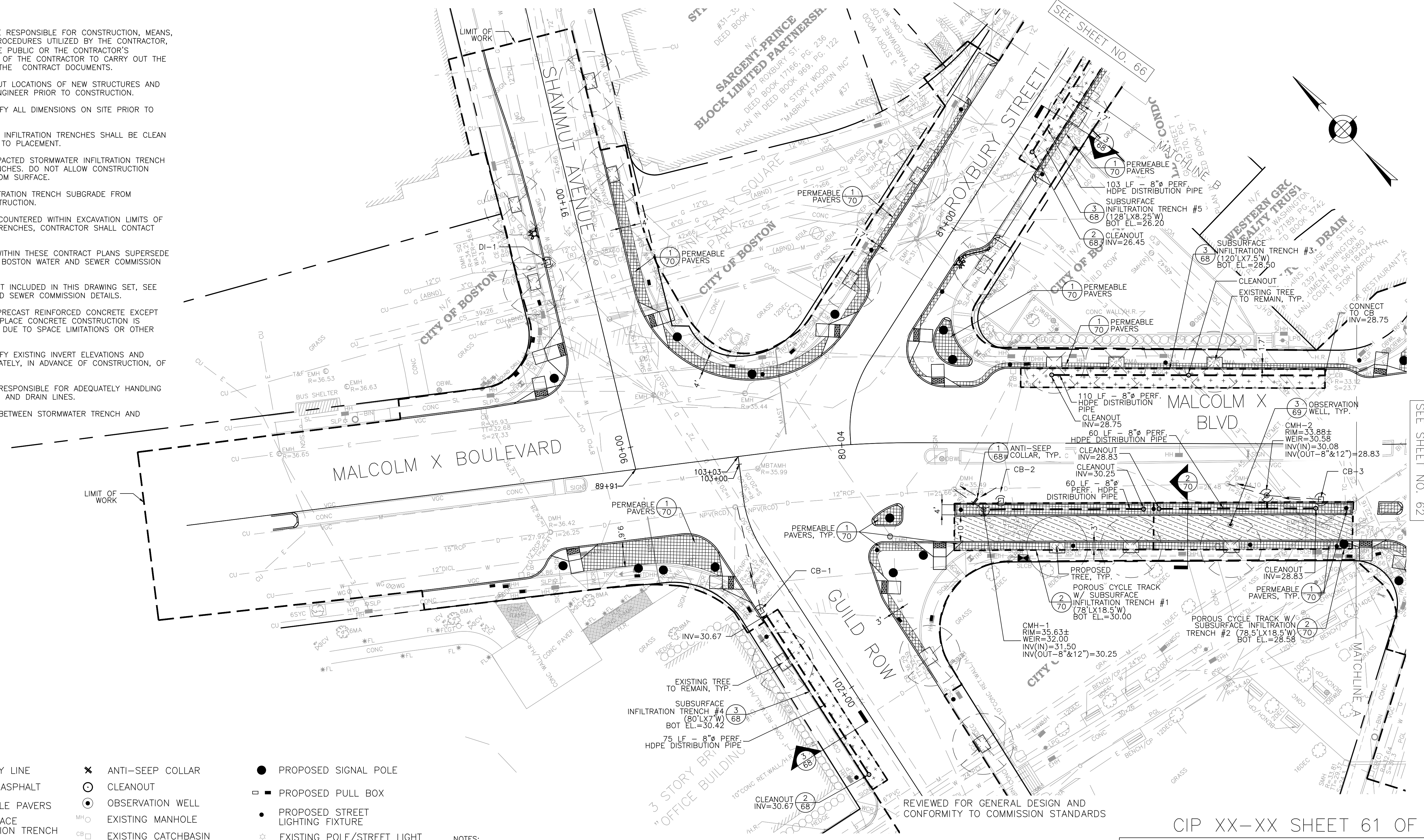
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CITY ENGINEER

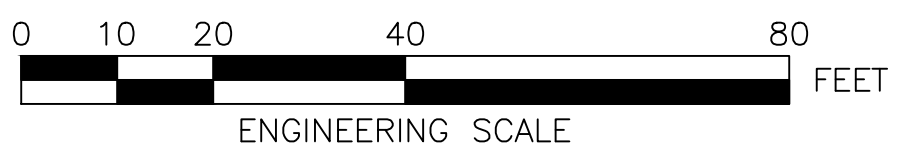


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  2. CONTRACTOR SHALL STAKE OUT LOCATIONS OF NEW STRUCTURES AND GAIN APPROVAL FROM THE ENGINEER PRIOR TO CONSTRUCTION.
  3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
  4. AGGREGATE FOR STORMWATER INFILTRATION TRENCHES SHALL BE CLEAN AND DOUBLE-WASHED PRIOR TO PLACEMENT.
  5. MAINTAIN LOOSE AND UNCOMPACTED STORMWATER INFILTRATION TRENCH SUBGRADE, SCARIFY TOP 3 INCHES. DO NOT ALLOW CONSTRUCTION EQUIPMENT ON TRENCH BOTTOM SURFACE.
  6. PROTECT STORMWATER INFILTRATION TRENCH SUBGRADE FROM SEDIMENTATION DURING CONSTRUCTION.
  7. IF EXISTING UTILITIES ARE ENCOUNTERED WITHIN EXCAVATION LIMITS OF STORMWATER INFILTRATION TRENCHES, CONTRACTOR SHALL CONTACT ENGINEER.
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  9. FOR REFERENCED DETAILS NOT INCLUDED IN THIS DRAWING SET, SEE STANDARD BOSTON WATER AND SEWER COMMISSION DETAILS.
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  12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY HANDLING ALL FLOW IN EXISTING SEWER AND DRAIN LINES.
  13. INSTALL IMPERMEABLE LINER BETWEEN STORMWATER TRENCH AND BUILDINGS.



- LEGEND**
- |  |   |  |   |  |                                   |
|--|---|--|---|--|-----------------------------------|
|  | PROPERTY LINE                                   |  | ANTI-SEEP COLLAR                          |  | PROPOSED SIGNAL POLE              |
|  | POROUS ASPHALT                                  |  | CLEANOUT                                  |  | PROPOSED PULL BOX                 |
|  | PERMEABLE PAVERS                                |  | OBSERVATION WELL                          |  | PROPOSED STREET LIGHTING FIXTURE  |
|  | SUBSURFACE INFILTRATION TRENCH                  |  | EXISTING MANHOLE                          |  | EXISTING POLE/STREET LIGHT        |
|  | STORMWATER PIPE                                 |  | EXISTING CATCHBASIN                       |  | EXISTING STREET LIGHTING PULL BOX |
|  | 8" PERFORATED HDPE DISTRIBUTION STORMWATER PIPE |  | CATCHBASIN                                |  | PROPOSED LIGHTING CONTROL CABINET |
|  | 8" SOLID HDPE STORMWATER PIPE                   |  | CONTROL DRAINAGE MANHOLE (CMH)            |  | EXISTING LIGHTING CONTROL CABINET |
|  | LIMIT OF STORMWATER TRENCH                      |  | DRAINAGE MANHOLE (MH)                     |  | EXISTING STREET LIGHT CONDUIT     |
|  |   |  | PROPOSED 2" OR 3" STREET LIGHTING CONDUIT |  |                                   |

- NOTES:**
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  2. FOR TYPICAL SECTIONS, SEE SHEETS 5 THRU 7.
  3. FOR CONSTRUCTION PLANS, SEE SHEETS 23 THRU 29.
  4. FOR DRAINAGE AND UTILITIES PLANS, SEE SHEETS 37 THRU 43.
  5. FOR GRADING PLANS, SEE SHEETS 44 THRU 50.
  6. FOR LANDSCAPE PLANS, SEE SHEETS 89 THRU 96.
  7. FOR STREET LIGHTING PLANS, SEE SHEETS 96 THRU 102.



DRAWING PREPARED BY HATCH

BOSTON WATER AND SEWER COMMISSION

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A.KEEL
CHECKED BY	H.HOLMES
APPROVED BY	E.ADAMOWICZ/ D.BITSKO

CIP XX-XX SHEET 61 OF 130

BOSTON WATER AND SEWER COMMISSION  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
GREEN INFRASTRUCTURE PLAN**  
ROXBURY

SCALE: 1" = 20'-0"  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

SEE SHEET NO. 62

SEE SHEET NO. 66

SARGENT-PRINCE  
BLOCK LIMITED PARTNERSHIP  
#37 ROXBURY ST.  
DEED BOOK 17166, PG. 236  
PLAN IN DEED BOOK 969, PG. 122  
"MABRUK FASHION INC" #37

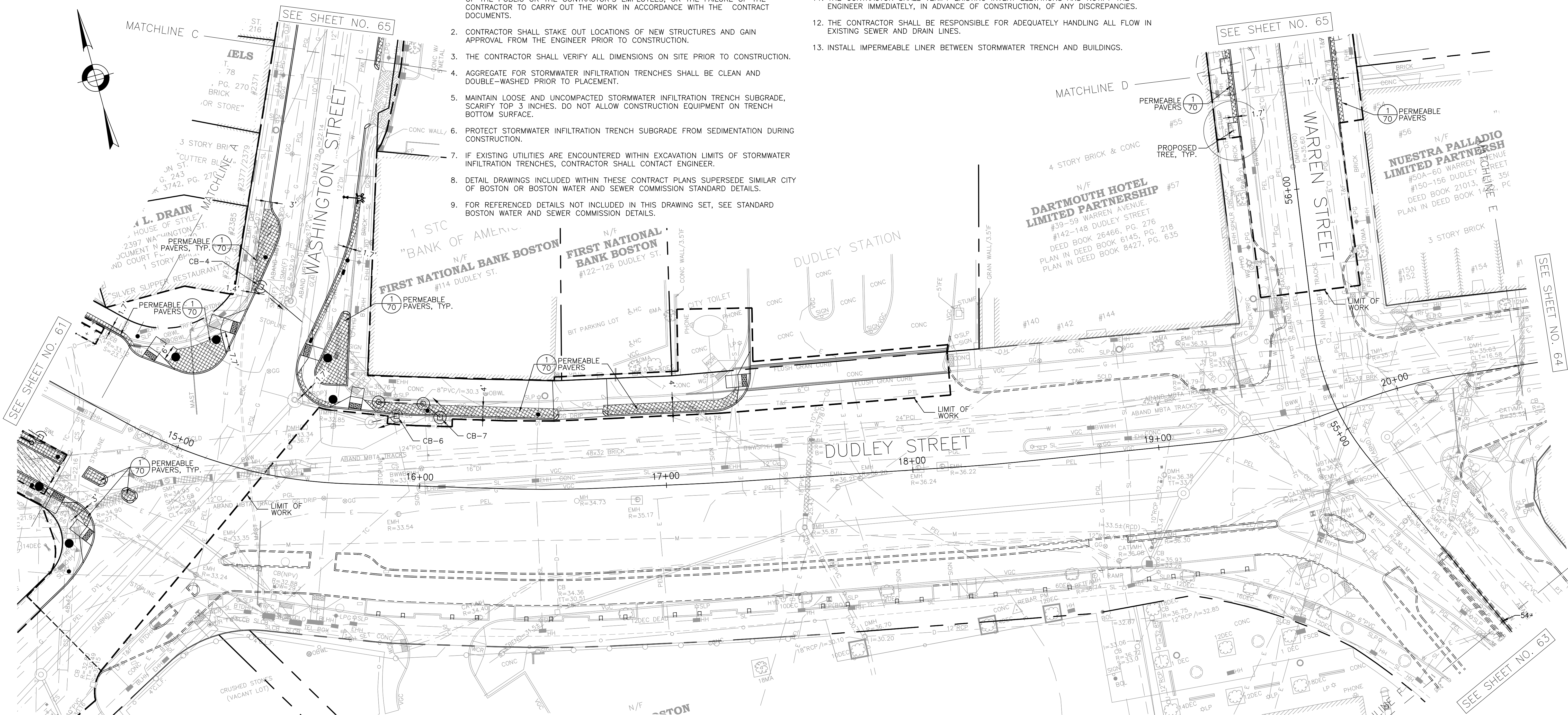
WESTERN TRUSS  
2189 WASHINGTON ST  
DEED BOOK 3742  
"DRAIN"

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS



**GENERAL NOTES:**

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13. INSTALL IMPERMEABLE LINER BETWEEN STORMWATER TRENCH AND BUILDINGS.



<b>LEGEND</b>	— — — — — PROPERTY LINE	○ CLEANOUT	● PROPOSED SIGNAL POLE
	POROUS ASPHALT	MHO EXISTING MANHOLE	□ PROPOSED PULL BOX
	PERMEABLE PAVERS	CB □ EXISTING CATCHBASIN	● PROPOSED STREET LIGHTING FIXTURE
	SUBSURFACE INFILTRATION TRENCH	⊕ CATCHBASIN	☆ EXISTING POLE/STREET LIGHT
	STORMWATER PIPE	⊕ CONTROL DRAINAGE MANHOLE (CMH)	■ EXISTING STREET LIGHTING PULL BOX
	8" PERFORATED HDPE DISTRIBUTION STORMWATER PIPE	⊕ DRAINAGE MANHOLE (MH)	□ PROPOSED LIGHTING CONTROL CABINET
	LIMIT OF STORMWATER TRENCH		□ EXISTING LIGHTING CONTROL CABINET

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  6. FOR LANDSCAPE PLANS, SEE SHEETS 90 THRU 97.
  7. FOR STREET LIGHTING PLANS, SEE SHEETS 98 THRU 104.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION	
SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A.KEEL
CHECKED BY	H.HOLMES
APPROVED BY	E.ADAMOWICZ/ D.BITSKO

CIP XX-XX SHEET 62 OF 130

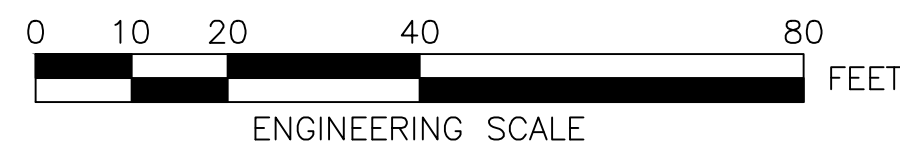
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
GREEN INFRASTRUCTURE PLAN**  
ROXBURY

SCALE: 1" = 20'-0"  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

\_\_\_\_\_  
CITY ENGINEER

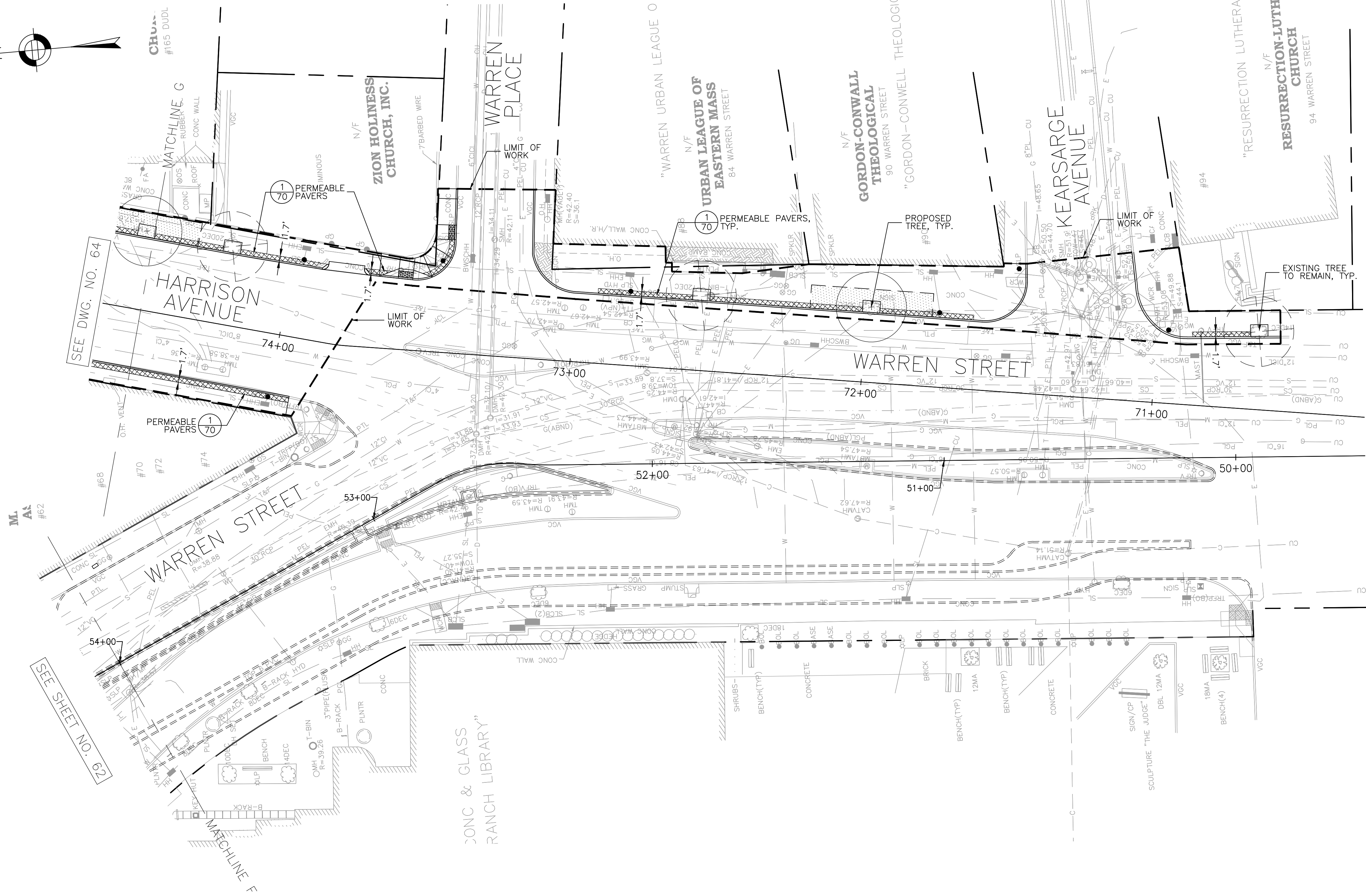
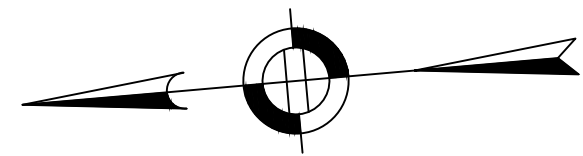


**HATCH** **WSP**

27 Congress Street, Salem, MA 01970  
tel. 978-740-0096 www.hatch.com

DRAWING PREPARED BY HATCH

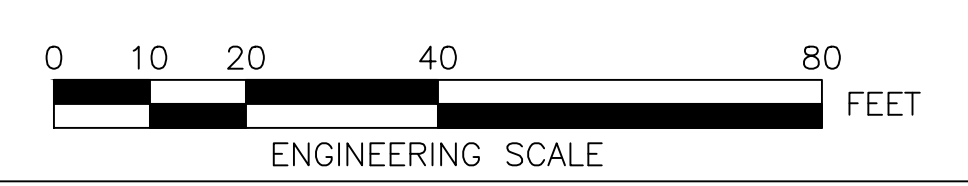




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- LEGEND**
- PROPERTY LINE
  - ▨ PERMEABLE PAVERS
  - ▤ STRUCTURAL SOIL
  - PROPOSED STREET LIGHTING FIXTURE
  - MH ○ EXISTING MANHOLE
  - CB □ EXISTING CATCHBASIN

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DRAWING PREPARED BY HATCH

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

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DRAWN BY	A.KEEL
CHECKED BY	H.HOLMES
APPROVED BY	E.ADAMOWICZ/ D.BITSKO

CIP XX-XX SHEET 63 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

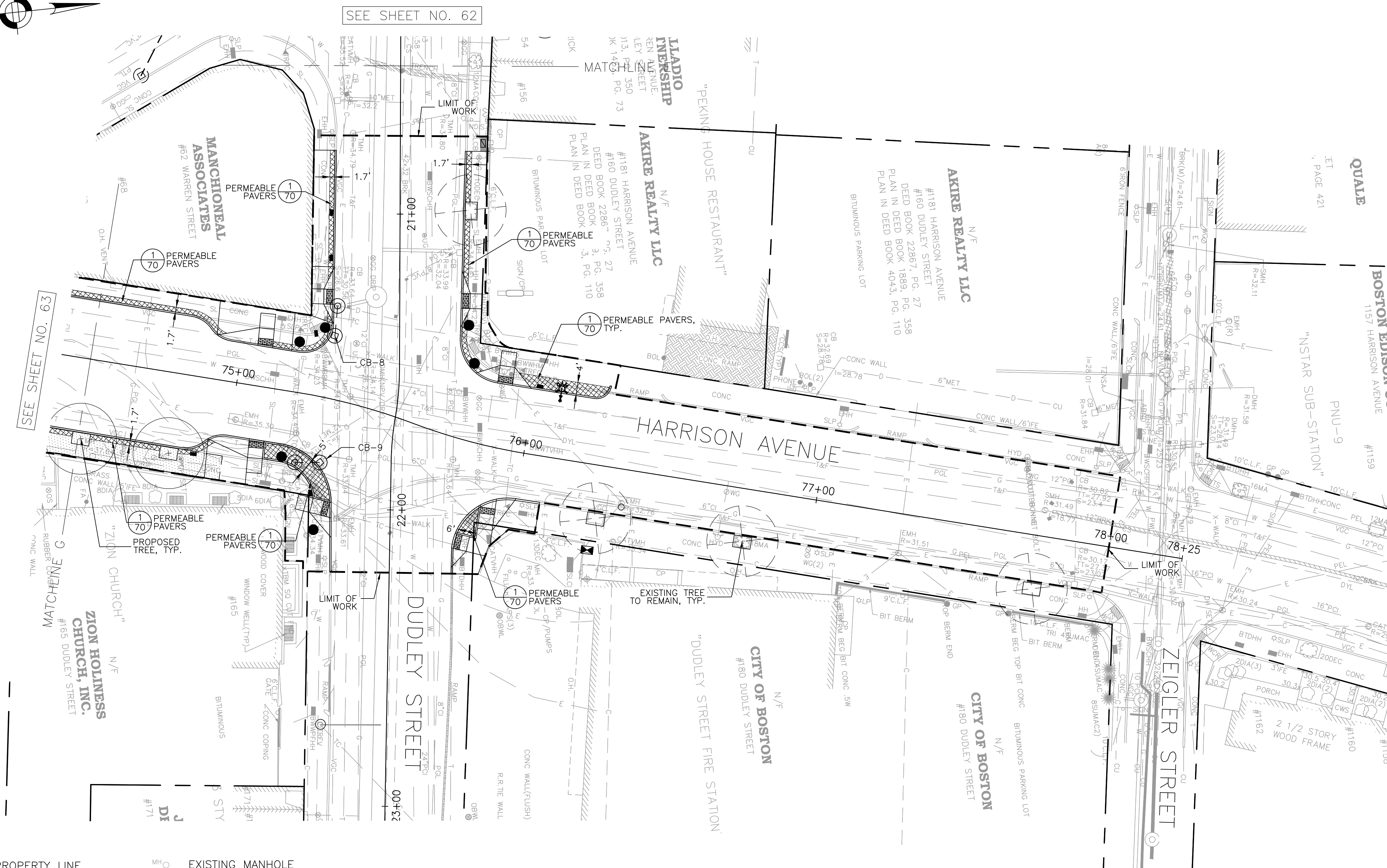
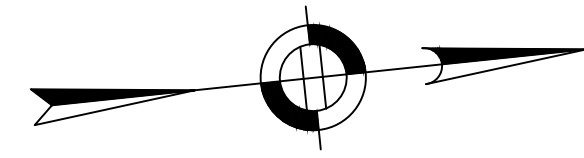
**DUDLEY SQUARE PHASE 2  
GREEN INFRASTRUCTURE PLAN**  
ROXBURY

SCALE: 1" = 20'-0"  
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100% SUBMISSION  
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\_\_\_\_\_  
CITY ENGINEER





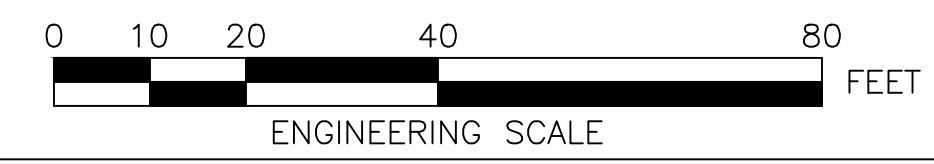
SEE SHEET NO. 62

SEE SHEET NO. 63

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  12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY HANDLING ALL FLOW IN EXISTING SEWER AND DRAIN LINES.
  13. INSTALL IMPERMEABLE LINER BETWEEN STORMWATER TRENCH AND BUILDINGS.

- LEGEND**
- PROPERTY LINE
  - ▨ PERMEABLE PAVERS
  - ▩ STRUCTURAL SOIL
  - MH EXISTING MANHOLE
  - CB EXISTING CATCHBASIN
  - ⊕ CATCHBASIN
  - ⊙ DRAINAGE MANHOLE (MH)
  - PROPOSED SIGNAL POLE
  - PROPOSED PULL BOX

- NOTES:**
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  2. FOR TYPICAL SECTIONS, SEE SHEETS 5 THRU 7.
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  5. FOR GRADING PLANS, SEE SHEETS 44 THRU 50.
  6. FOR LANDSCAPE PLANS, SEE SHEETS 88 THRU 95.
  7. FOR STREET LIGHTING PLANS, SEE SHEETS 96 THRU 102.



DRAWING PREPARED BY HATCH

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A.KEEL
CHECKED BY	H.HOLMES
APPROVED BY	E.ADAMOWICZ/ D.BITSKO

CIP XX-XX SHEET 64 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
GREEN INFRASTRUCTURE PLAN**  
ROXBURY

SCALE: 1" = 20'-0"  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

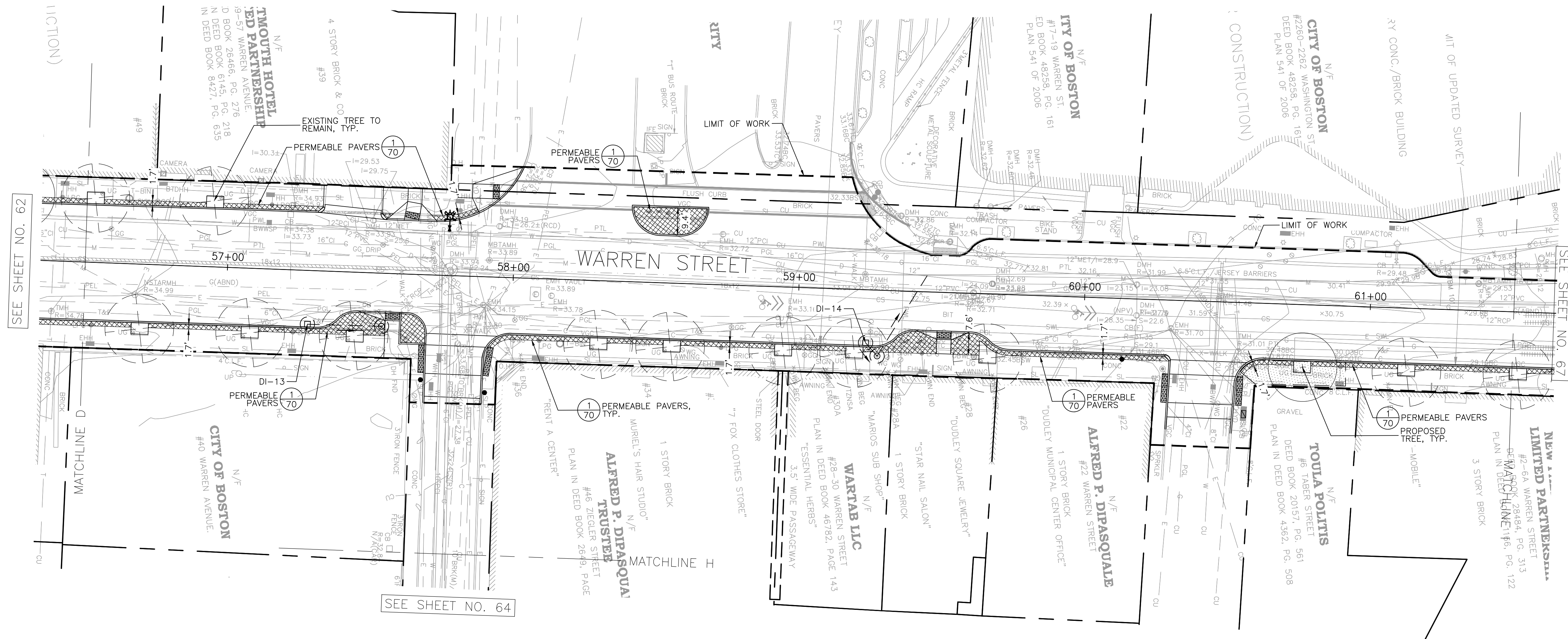
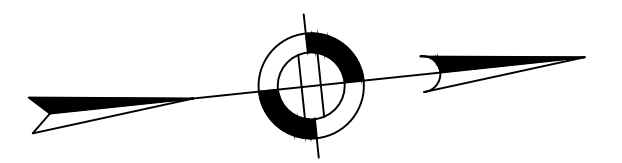
\_\_\_\_\_  
CITY ENGINEER



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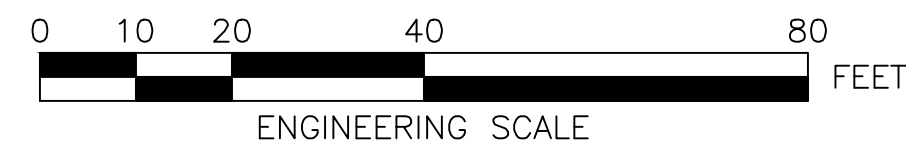


**LEGEND**

- |     |                  |    |                       |   |                                   |
|-----|------------------|----|-----------------------|---|-----------------------------------|
| --- | PROPERTY LINE    | MH | EXISTING MANHOLE      | ● | PROPOSED STREET LIGHTING FIXTURE  |
| ▨   | PERMEABLE PAVERS | CB | EXISTING CATCHBASIN   | ☆ | EXISTING POLE/STREET LIGHT        |
| --- | STORMWATER PIPE  | ⊕  | CATCHBASIN            | ■ | EXISTING STREET LIGHTING PULL BOX |
|     |                  | ⊙  | DRAINAGE MANHOLE (MH) |   |                                   |

**NOTES:**

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DRAWING PREPARED BY HATCH

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A.KEEL

CHECKED BY H.HOLMES

APPROVED BY E.ADAMOWICZ/ D.BITSKO

CIP XX-XX SHEET 65 OF 130

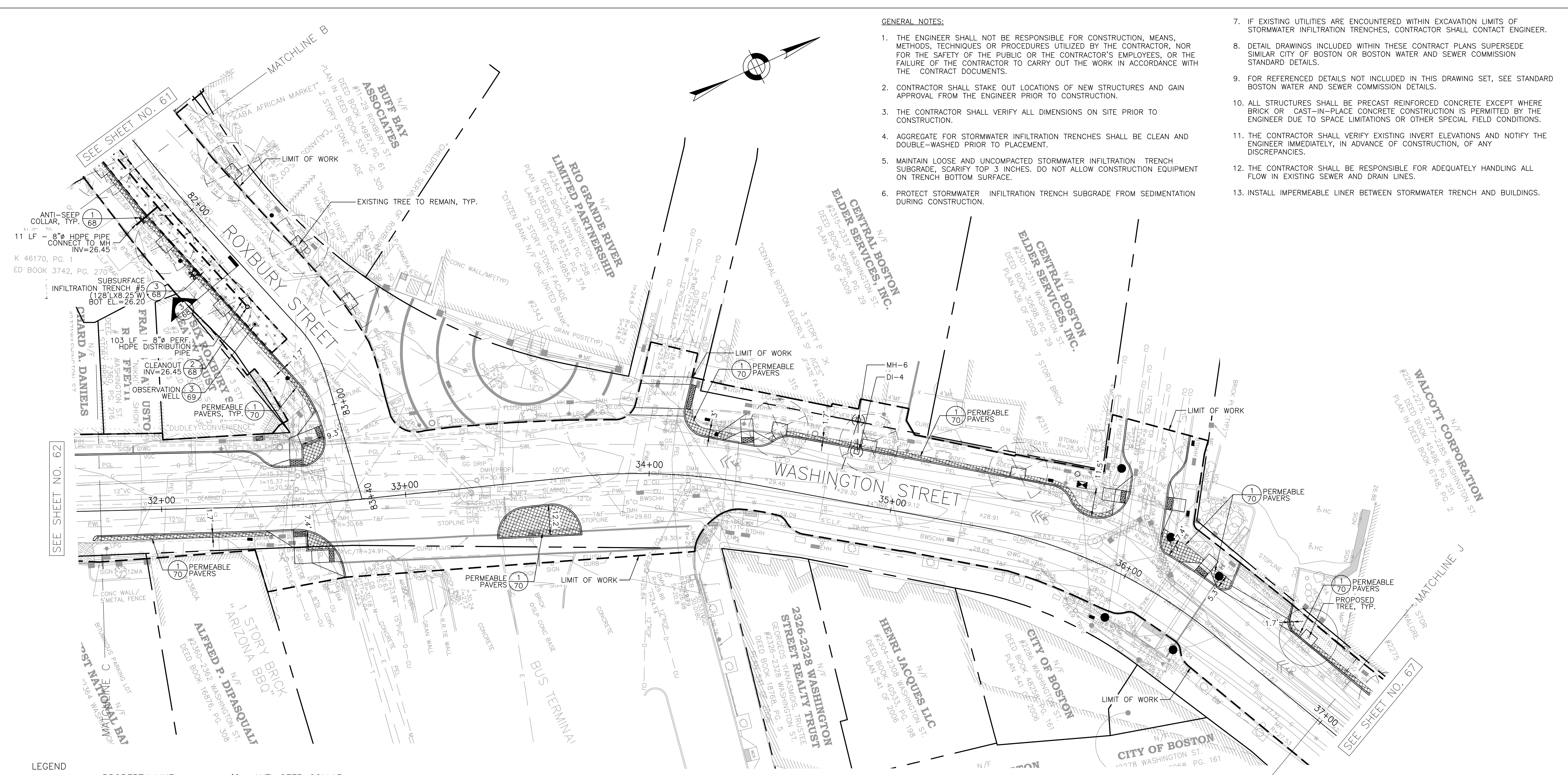
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2  
GREEN INFRASTRUCTURE PLAN**  
ROXBURY

SCALE: 1" = 20'-0"  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

\_\_\_\_\_  
CITY ENGINEER





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ANTI-SEEP COLLAR, TYP.  
11 LF - 8" HDPE PIPE CONNECT TO MH INV=26.45  
K 46170, PG. 1  
ED BOOK 3742, PG. 270

SUBSURFACE INFILTRATION TRENCH #5 (128' X 8.25' W) BOT EL.=26.20  
SEE SHEET NO. 61

103 LF 8" PERF. HDPE DISTRIBUTION PIPE  
CLEANOUT INV=26.45  
OBSERVATION WELL  
PERMEABLE PAVERS, TYP.  
SEE SHEET NO. 62

PERMEABLE PAVERS  
LIMIT OF WORK  
SEE SHEET NO. 61

PERMEABLE PAVERS  
LIMIT OF WORK  
SEE SHEET NO. 61

- LEGEND**
- |   |                          |                                     |
|---|--------------------------|-------------------------------------|
| --- PROPERTY LINE                                   | ✕ ANTI-SEEP COLLAR       | ● PROPOSED SIGNAL POLE              |
| ▨ PERMEABLE PAVERS                                  | ○ CLEANOUT               | □ PROPOSED PULL BOX                 |
| ⊕ SUBSURFACE INFILTRATION TRENCH                    | ⊙ OBSERVATION WELL       | ● PROPOSED STREET LIGHTING FIXTURE  |
| --- STORMWATER PIPE                                 | MH ○ EXISTING MANHOLE    | ☆ EXISTING POLE/STREET LIGHT        |
| --- 8" PERFORATED HDPE DISTRIBUTION STORMWATER PIPE | CB □ EXISTING CATCHBASIN | ■ EXISTING STREET LIGHTING PULL BOX |
| --- 8" SOLID HDPE STORMWATER PIPE                   | ⊕ CATCHBASIN             | ☑ PROPOSED LIGHTING CONTROL CABINET |
| --- LIMIT OF TRENCH                                 | ⊙ DRAINAGE MANHOLE (MH)  |                                     |

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BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES

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CHECKED BY H.HOLMES

APPROVED BY E.ADAMOWICZ/ D.BITSKO

CIP XX-XX SHEET 66 OF 130

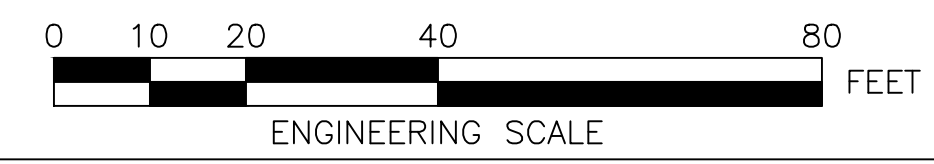
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
GREEN INFRASTRUCTURE PLAN**  
ROXBURY

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100% SUBMISSION  
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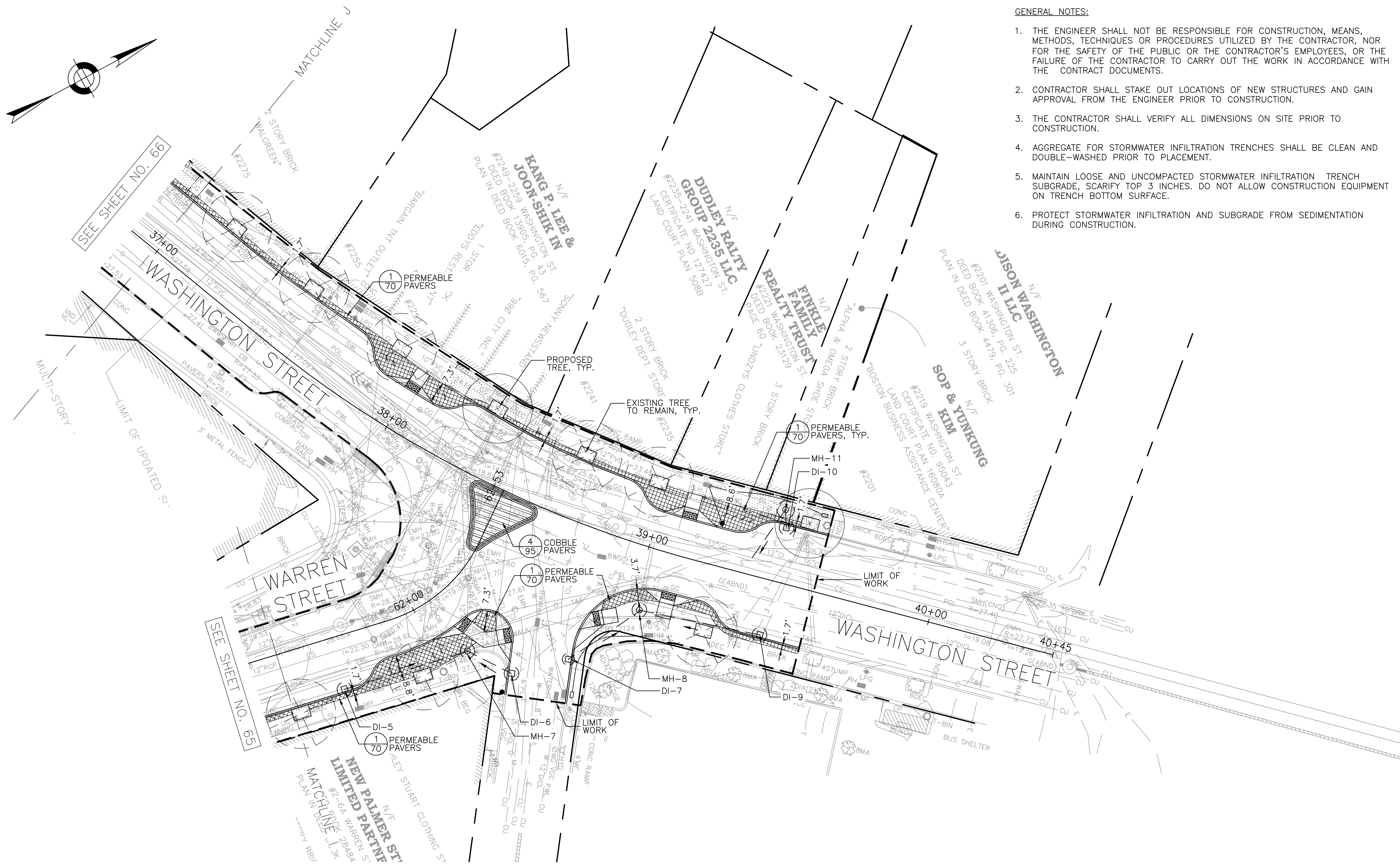
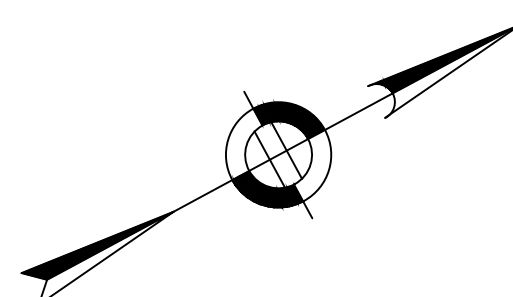
CITY ENGINEER



27 Congress Street, Salem, MA 01970  
tel. 978-740-0096 www.hatch.com

DRAWING PREPARED BY HATCH





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- LEGEND**
- PROPERTY LINE
  - ▨ PERMEABLE PAVERS
  - ▩ COBBLE PAVERS
  - >--- STORMWATER PIPE
  - MH ○ EXISTING MANHOLE
  - CB □ EXISTING CATCHBASIN
  - ⊕ CATCHBASIN
  - ⊙ DRAINAGE MANHOLE (MH)
  - PROPOSED PULL BOX
  - PROPOSED STREET LIGHTING FIXTURE
  - ⊛ EXISTING POLE/STREET LIGHT
  - EXISTING STREET LIGHTING PULL BOX
  - ▣ PROPOSED LIGHTING CONTROL CABINET
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BOSTON WATER AND SEWER COMMISSION

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A.KEEL
CHECKED BY	H.HOLMES
APPROVED BY	E.ADAMOWICZ/ D.BITSKO

CIP XX-XX SHEET 67 OF 130

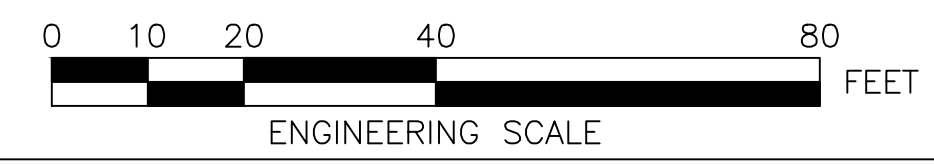
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
GREEN INFRASTRUCTURE PLAN**  
ROXBURY

SCALE: 1" = 20'-0"  
DISTRICT: 10

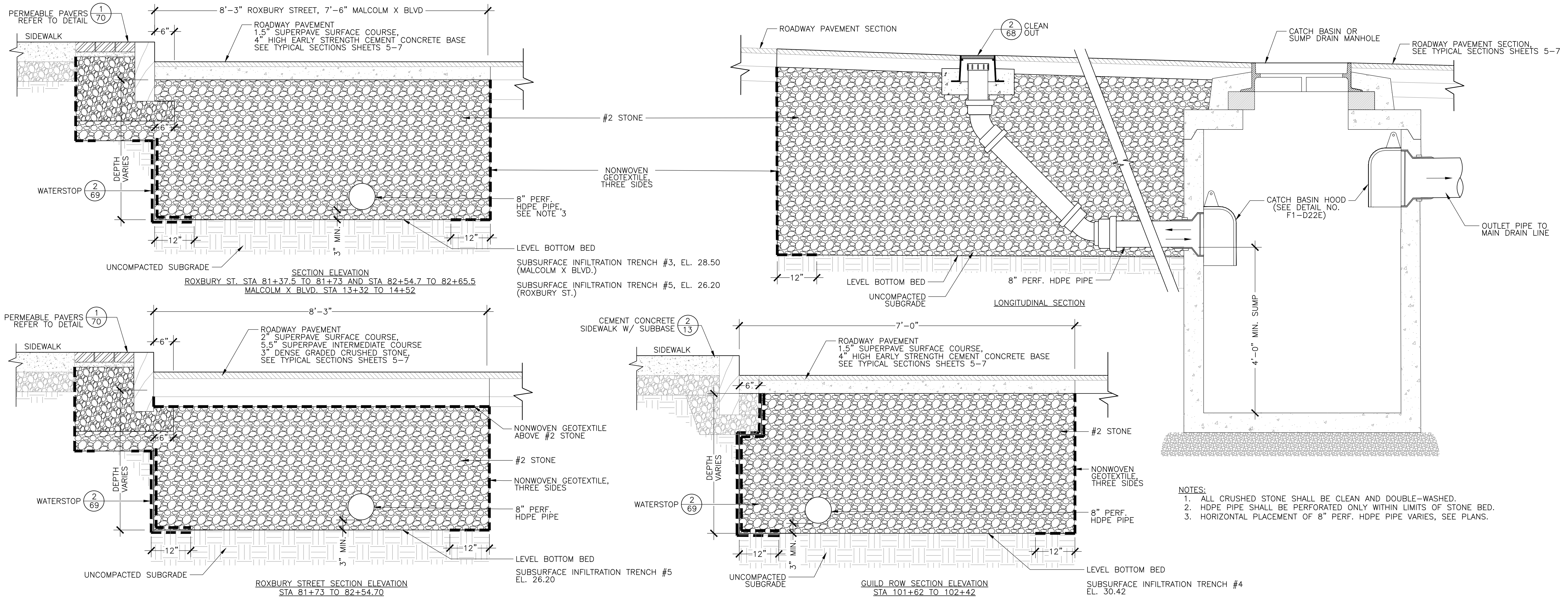
AREA: 1  
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\_\_\_\_\_  
CITY ENGINEER



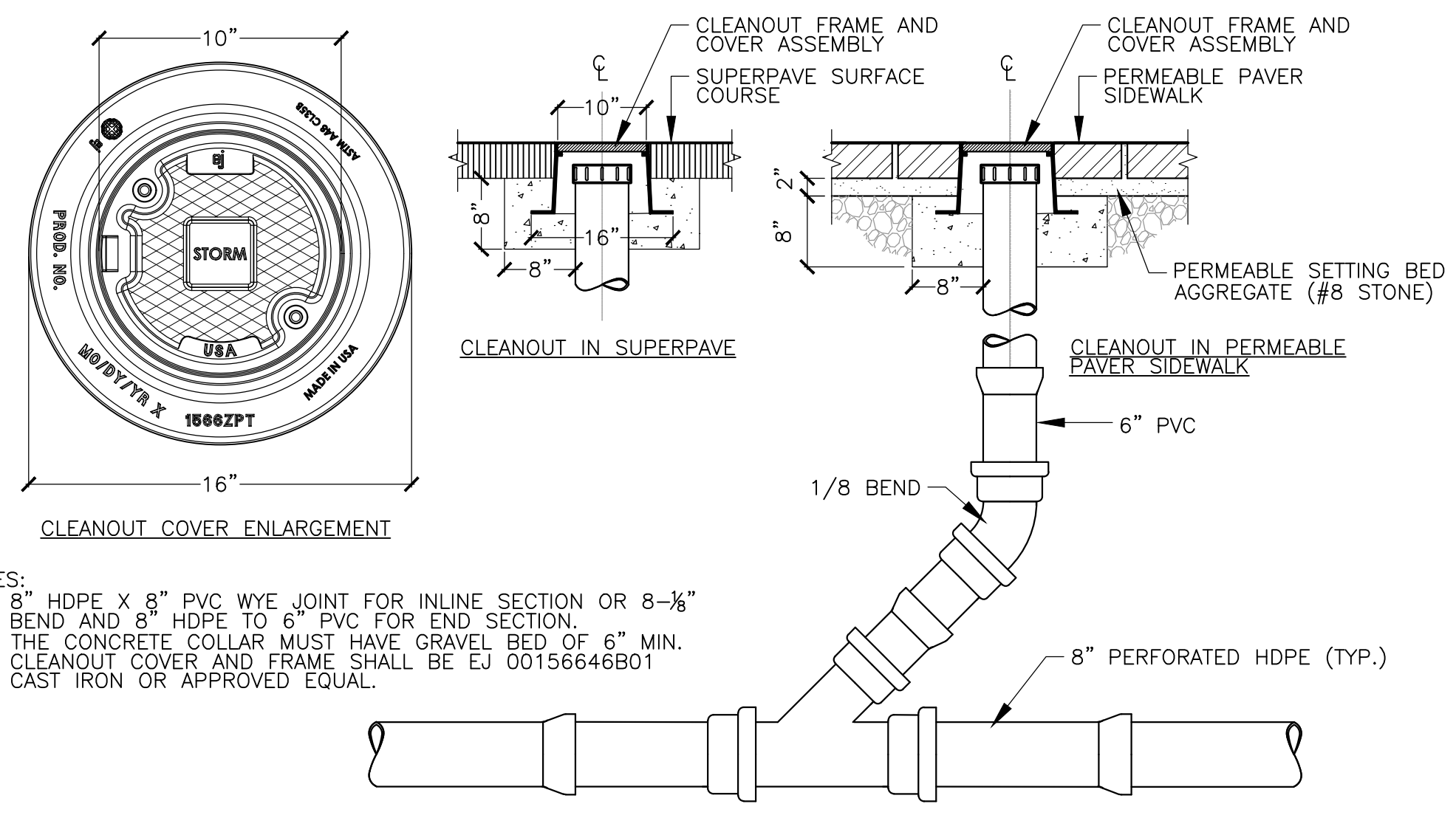
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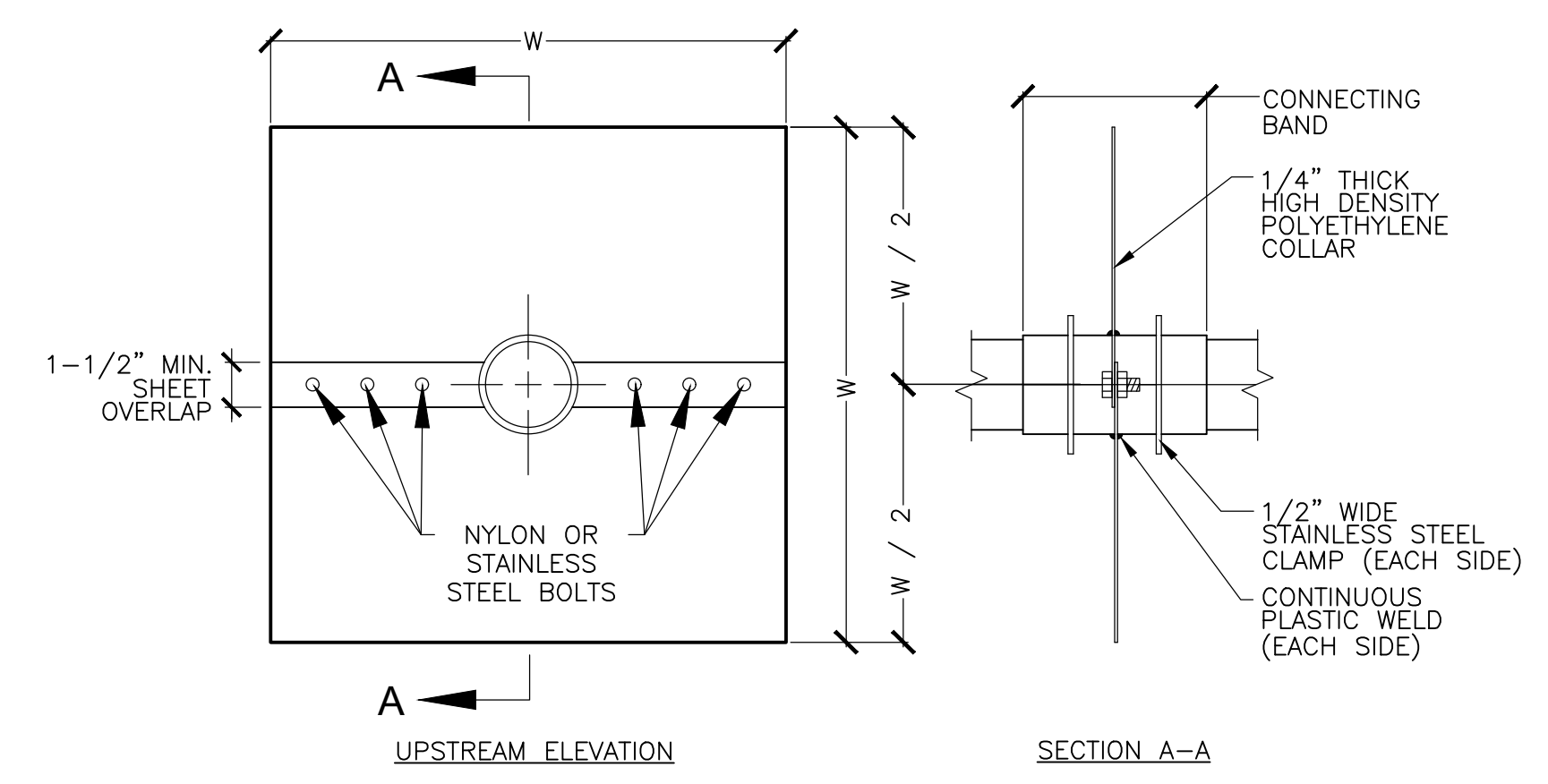
- NOTES:
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  2. HDPE PIPE SHALL BE PERFORATED ONLY WITHIN LIMITS OF STONE BED.
  3. HORIZONTAL PLACEMENT OF 8" PERF. HDPE PIPE VARIES, SEE PLANS.

**3 SUBSURFACE INFILTRATION TRENCH (UNDER SUPERPAVE ROADWAY)**  
SCALE: NTS



- NOTES:
1. 8" HDPE X 8" PVC WYE JOINT FOR INLINE SECTION OR 8-<sup>1</sup>/<sub>8</sub>" BEND AND 8" HDPE TO 6" PVC FOR END SECTION.
  2. THE CONCRETE COLLAR MUST HAVE GRAVEL BED OF 6" MIN.
  3. CLEANOUT COVER AND FRAME SHALL BE EJ 00156646B01 CAST IRON OR APPROVED EQUAL.

**2 CLEANOUT**  
SCALE: NTS



- NOTES:
1. CONNECTING BAND SHALL BE SEALED AT BOTH ENDS WITH EPOXY.
  2. COLLAR MATERIAL SHALL BE RIGID POLYETHYLENE SHEET.
  3. STAINLESS STEEL SHALL BE GRADE 304 OR BETTER.
  4. DIMENSION "W" SHALL BE 3 TIMES THE DIAMETER OF THE INTERSECTING PIPE.

**1 ANTI-SEEP COLLAR**  
SCALE: NTS

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A.KEEL, C.PORANSKI
CHECKED BY	H.HOLMES
APPROVED BY	E.ADAMOWICZ/ D.BITSKO

CIP XX-XX SHEET 68 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
GREEN INFRASTRUCTURE DETAILS**  
ROXBURY

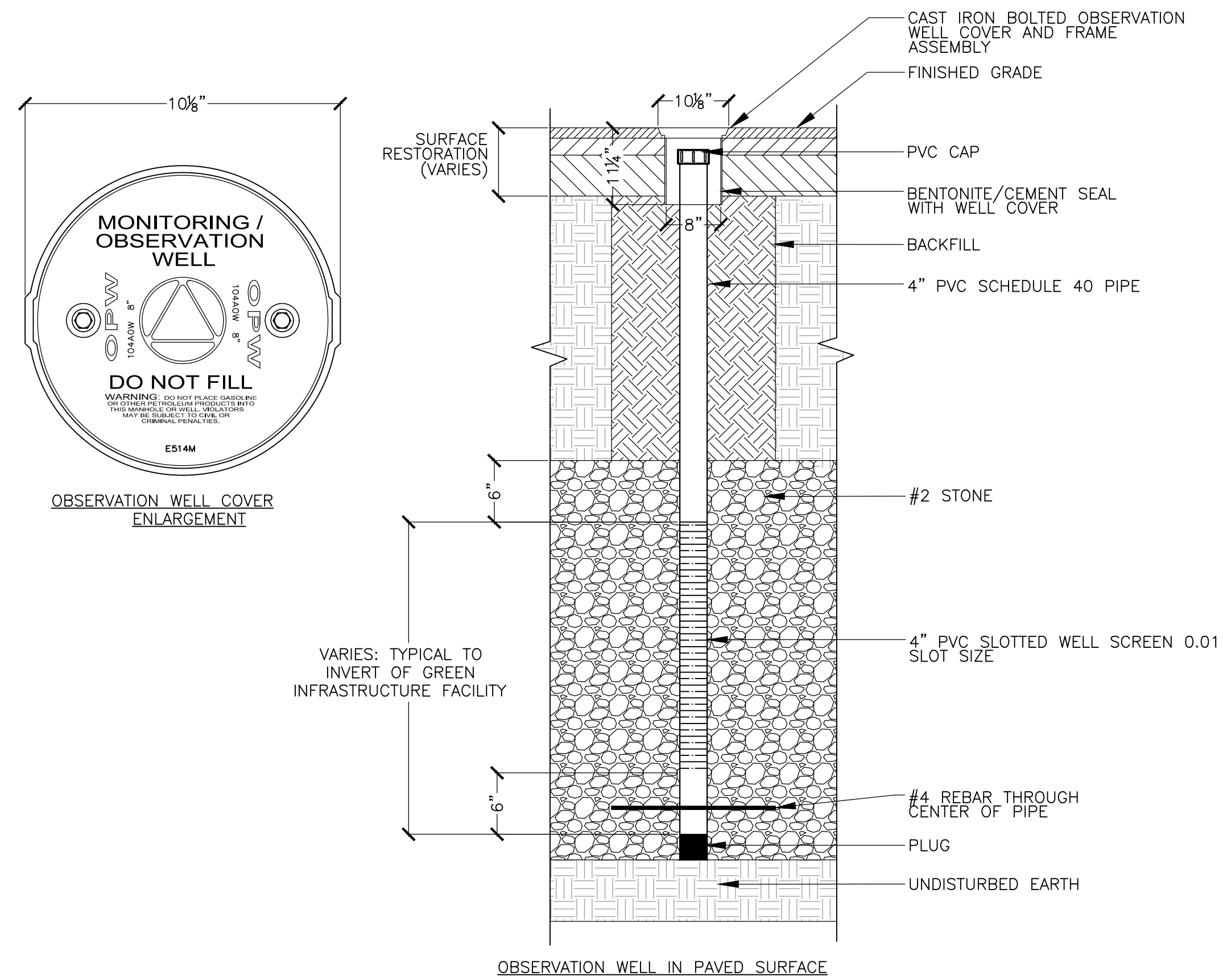
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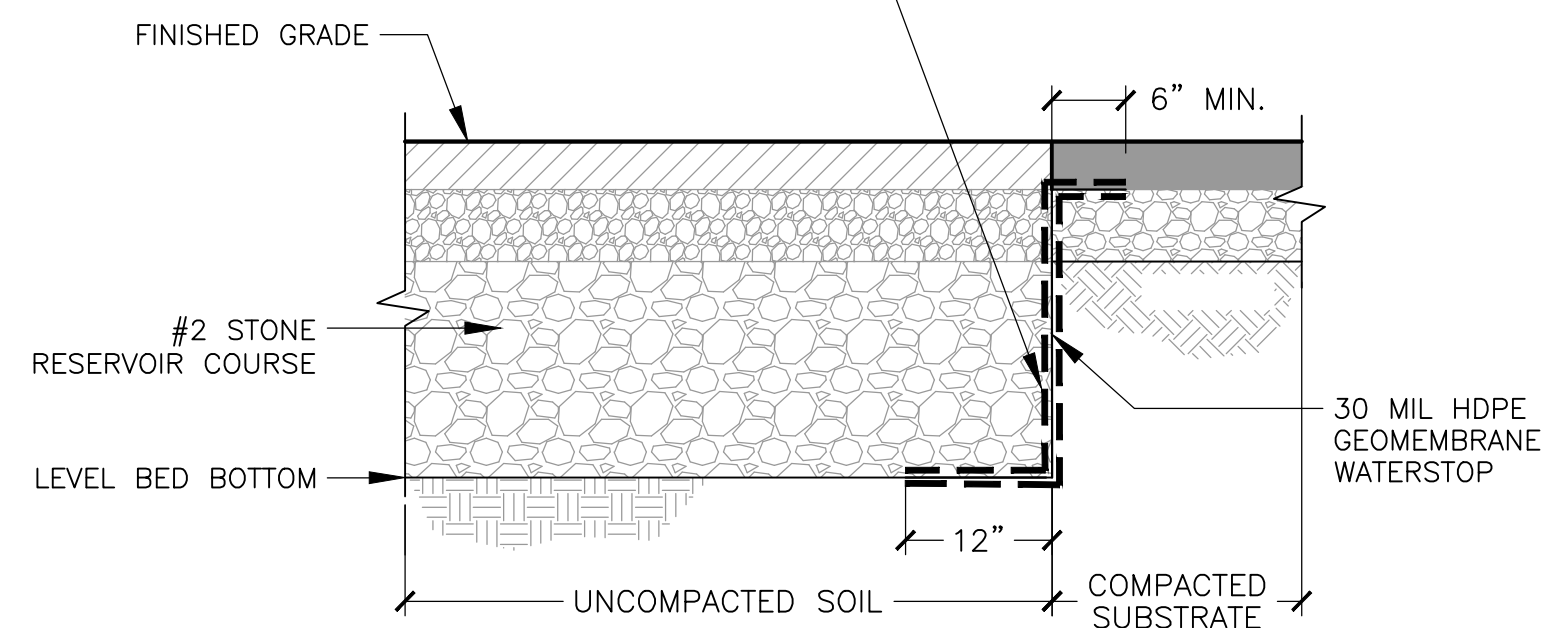


- NOTES:
1. WELL COVER SHALL BE SECURED IN CONCRETE SURROUND (1'-4" TOTAL DIAMETER) IF WELL IS NOT OTHERWISE SECURED BY SURFACE RESTORATION.
  2. THE UNSLOTTED DEPTH IS LOCATED ENTIRELY IN THE SUMP.
  3. THE #4 REBAR SHOULD BE 16" IN LENGTH.
  4. CRUSHED STONE SHALL BE CLEAN AND DOUBLE-WASHED.
  5. OBSERVATION WELL COVER AND FRAME ASSEMBLY SHALL BE OPW 104AOW-0800 CAST IRON COVER AND RING WITH STEEL SKIRT AND NEOPRENE GASKET OR APPROVED EQUAL.

### 3 OBSERVATION WELL

SCALE: NTS

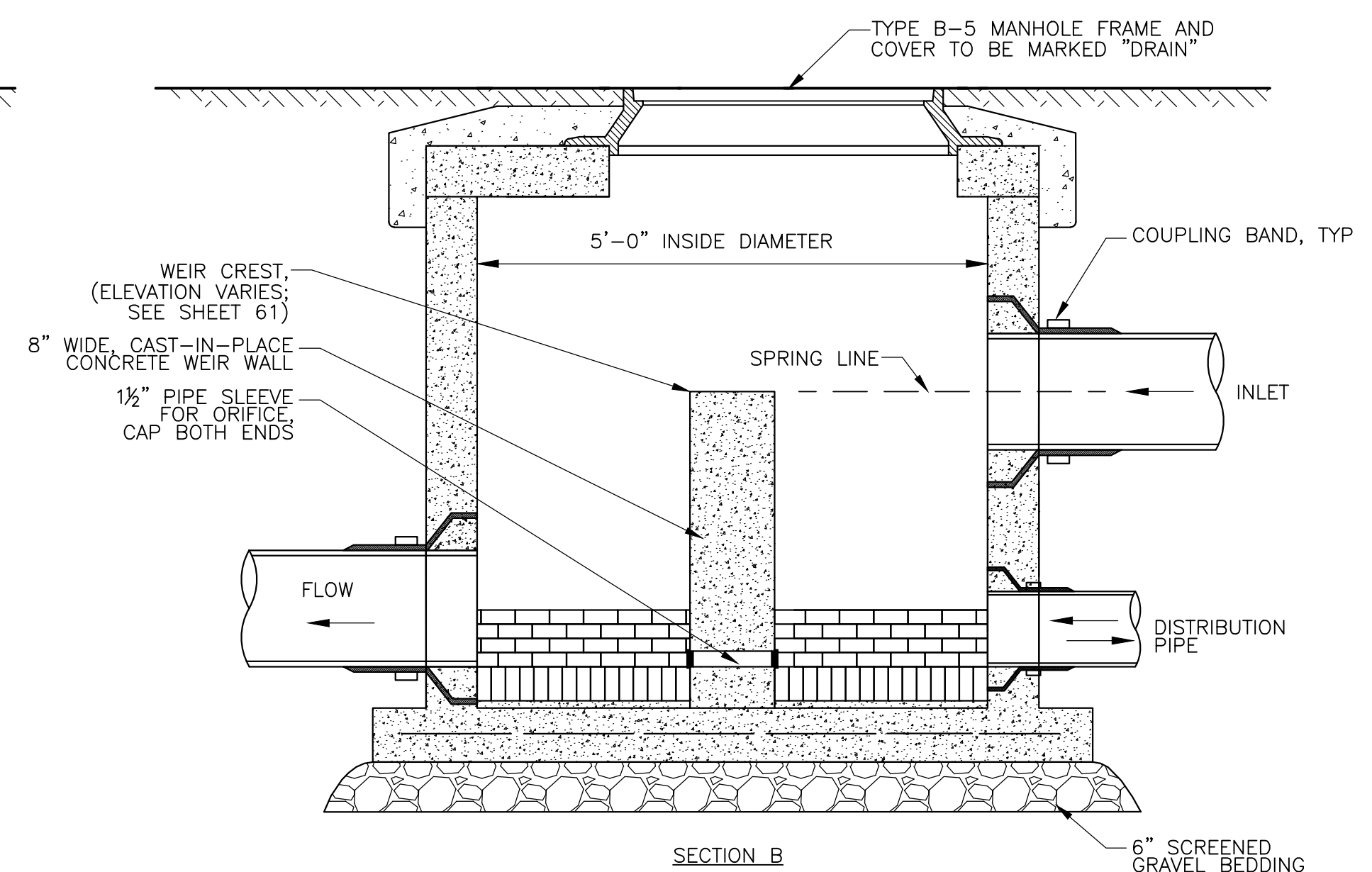
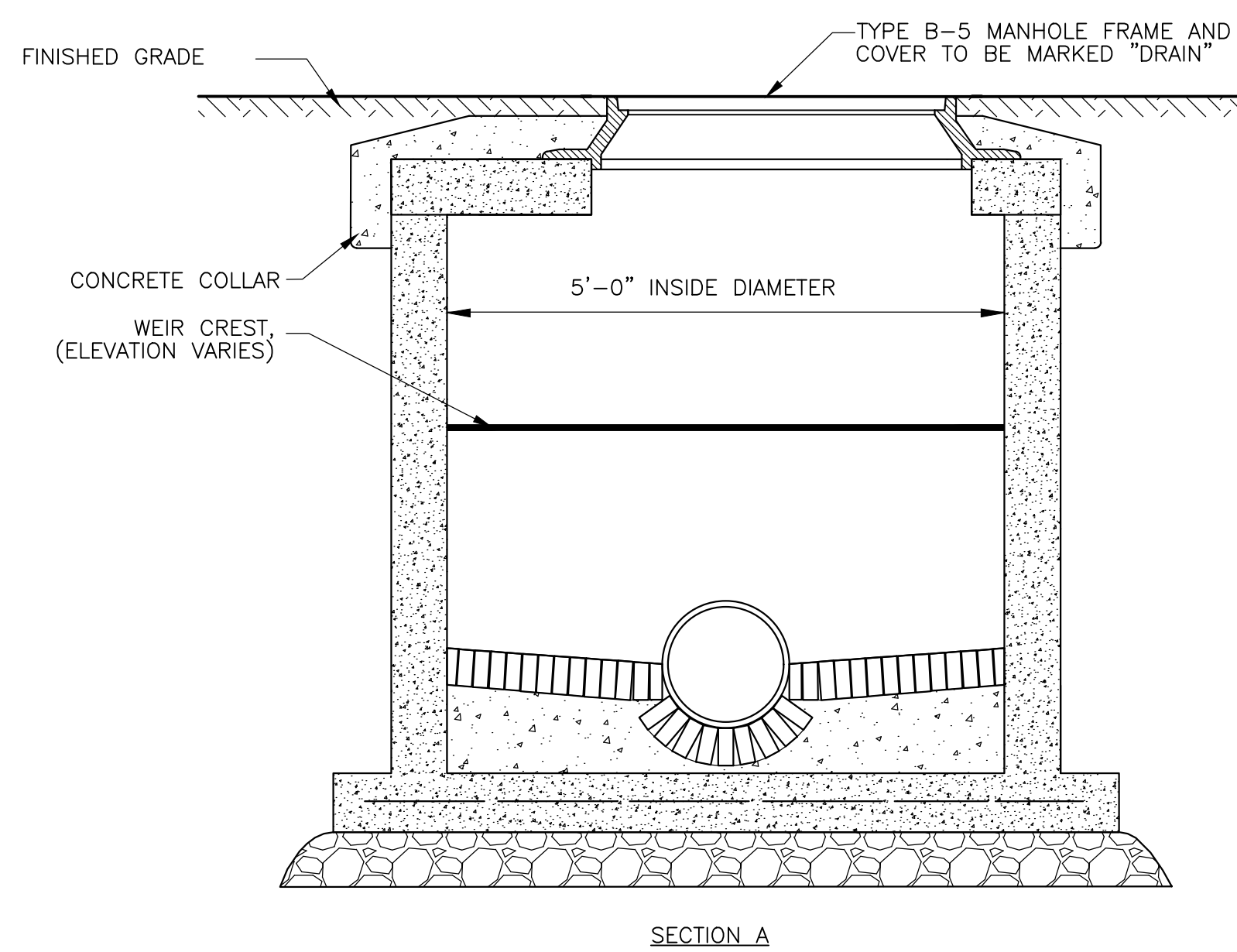
6 OZ. NON-WOVEN GEOTEXTILE ON EACH SIDE OF GEOMEMBRANE (ON SIDES, FOLD OVER EDGE DURING CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING BED)



- NOTE:
1. INSTALL 30 MIL HDPE GEOMEMBRANE BETWEEN STORMWATER INFILTRATION SYSTEM SUBBASE AND ADJACENT SUBSTRATE ALONG BUILDING SIDE ONLY. EXTEND MIN. 12" ALONG BOTTOM OF TRENCH, 12" WRAPPING AROUND THE SIDES OF TRENCH, AND MIN. 6" AT THE TOP.

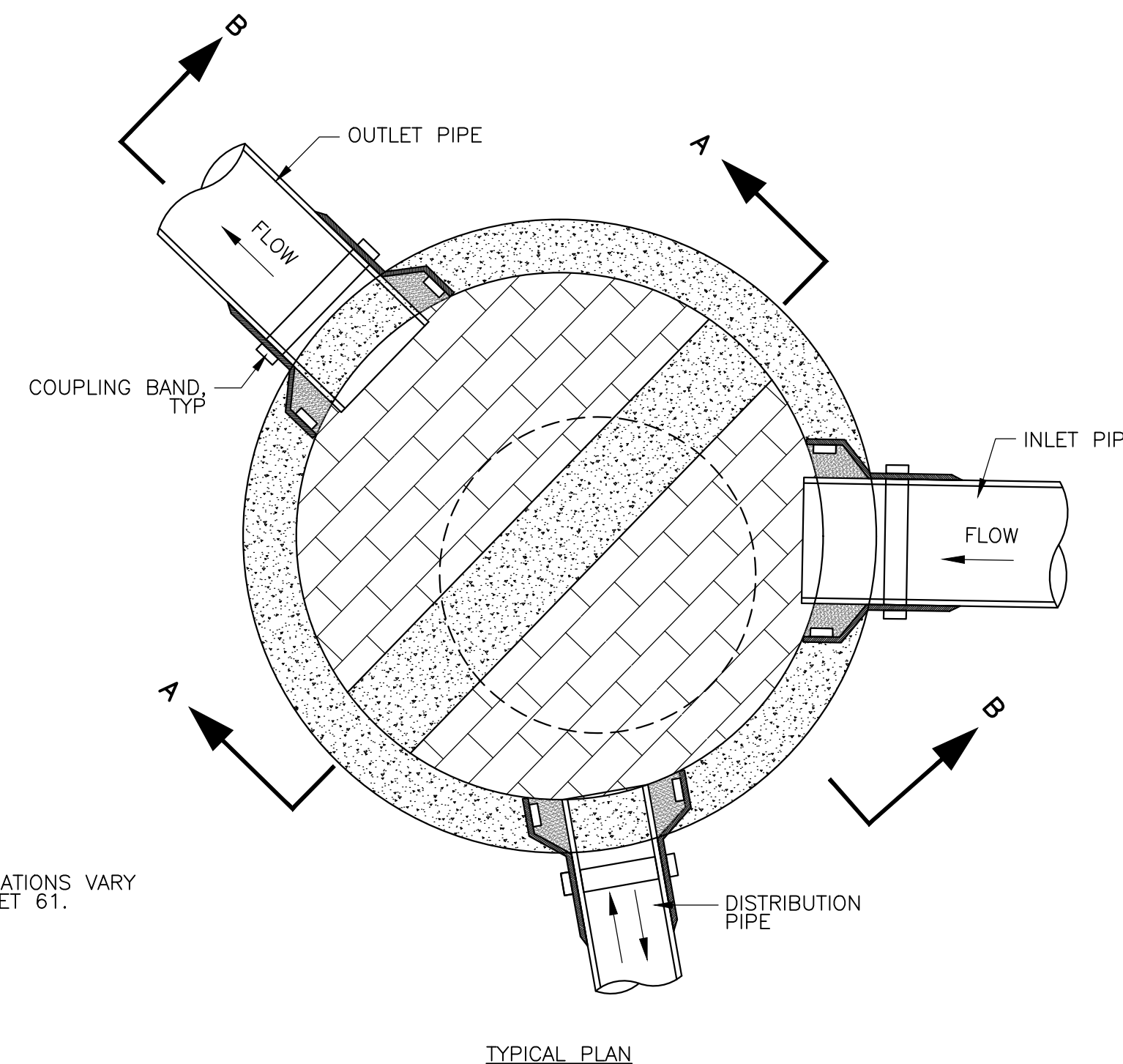
### 2 WATERSTOP

SCALE: NTS



SECTION A

SECTION B



NOTE: PIPE CONFIGURATIONS VARY SEE PLAN SHEET 61.

TYPICAL PLAN

### 1 CONTROL DRAINAGE MANHOLE

SCALE: NTS

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BOSTON WATER AND SEWER COMMISSION

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CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
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**GREEN INFRASTRUCTURE DETAILS**  
ROXBURY

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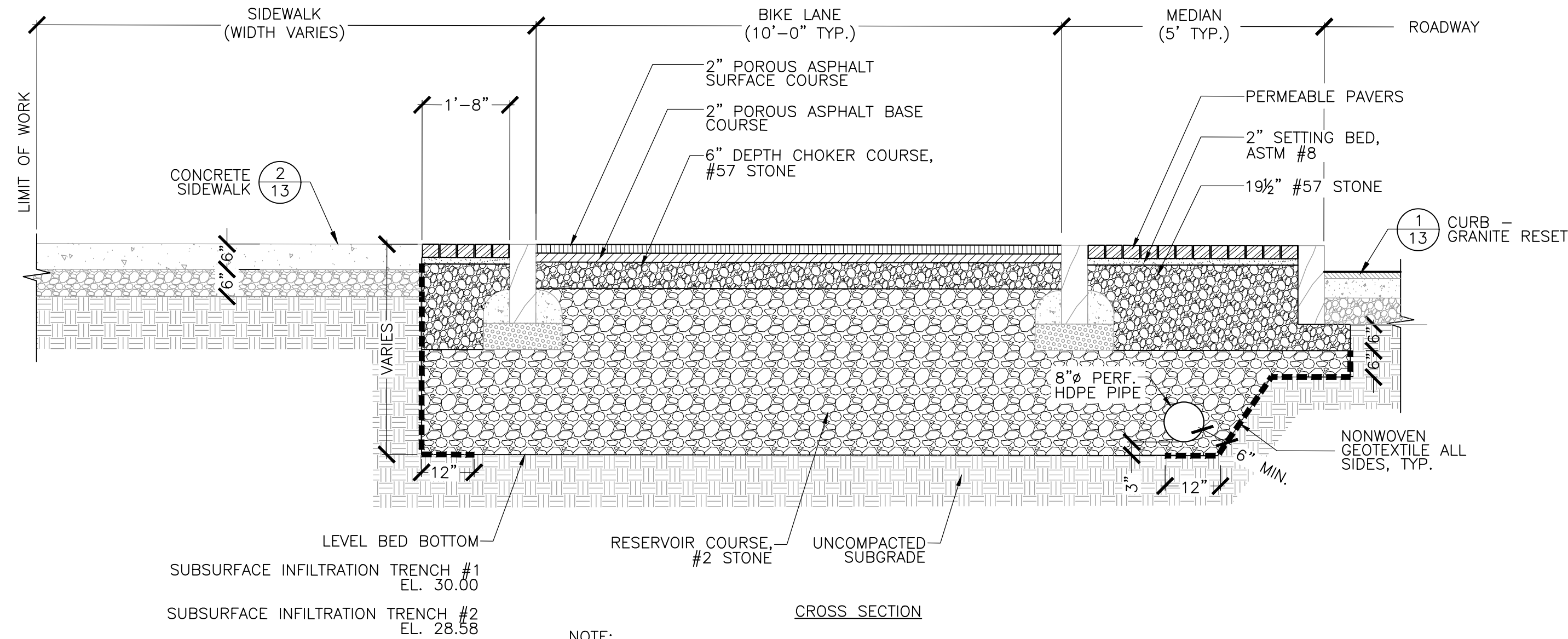
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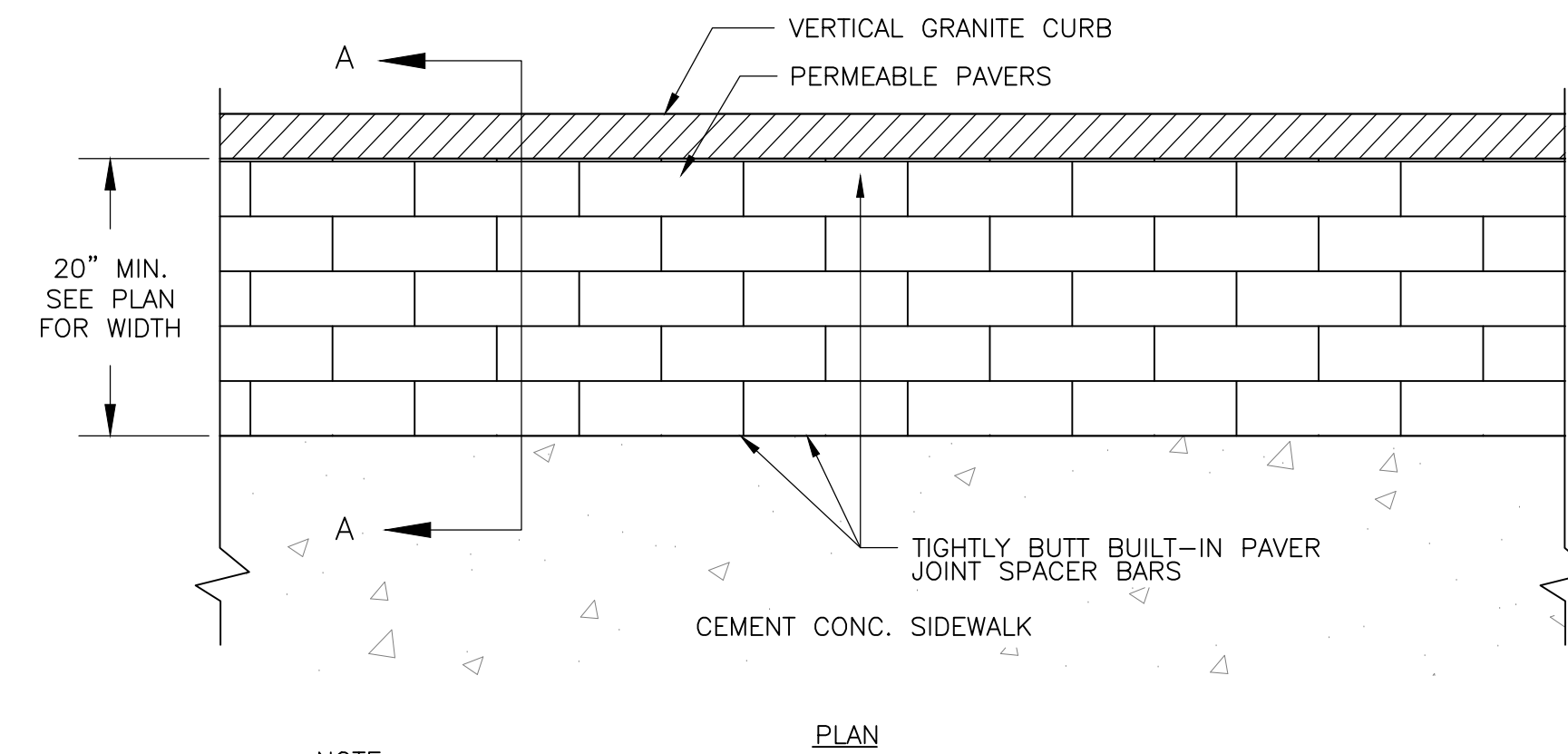
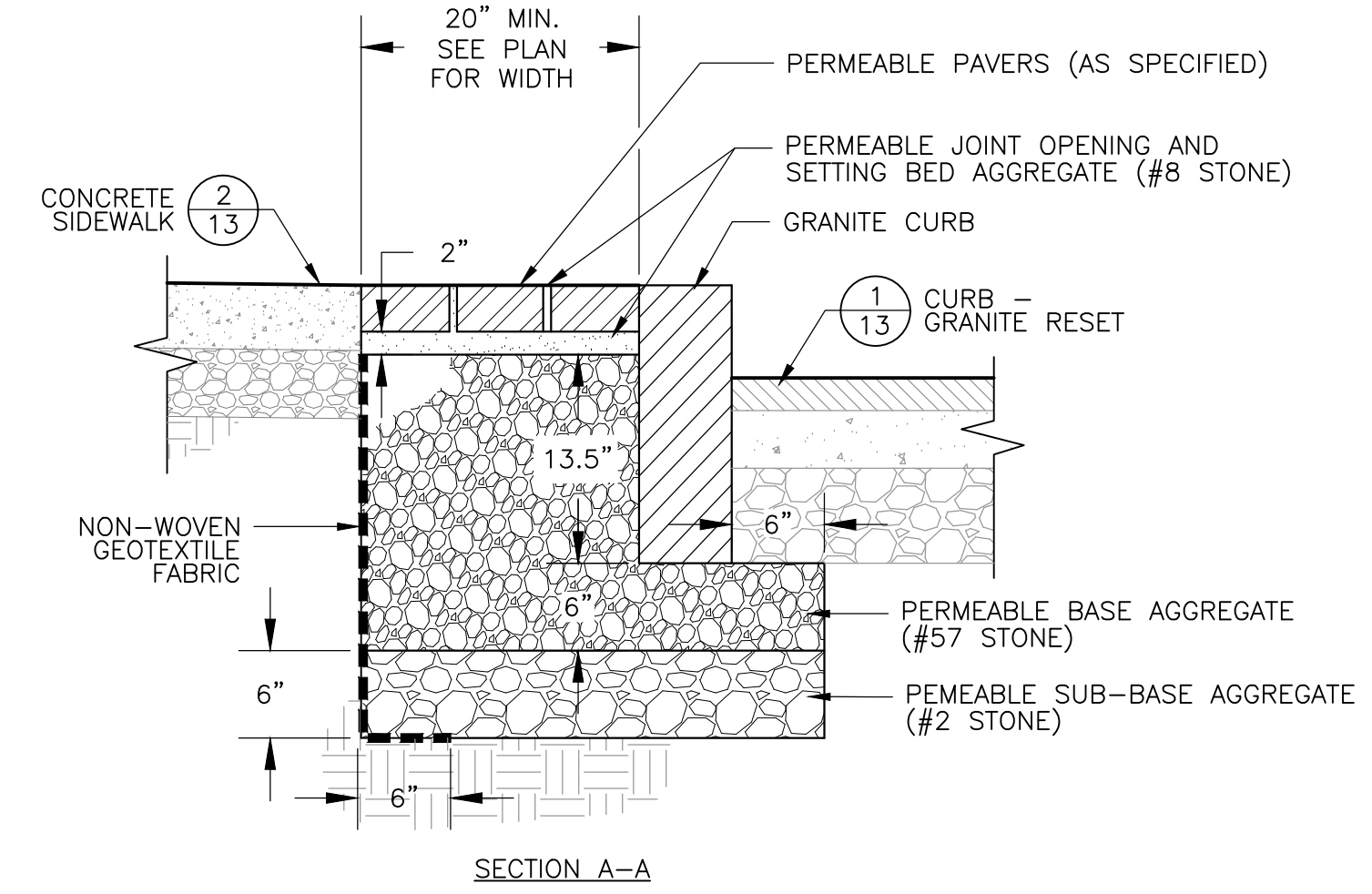
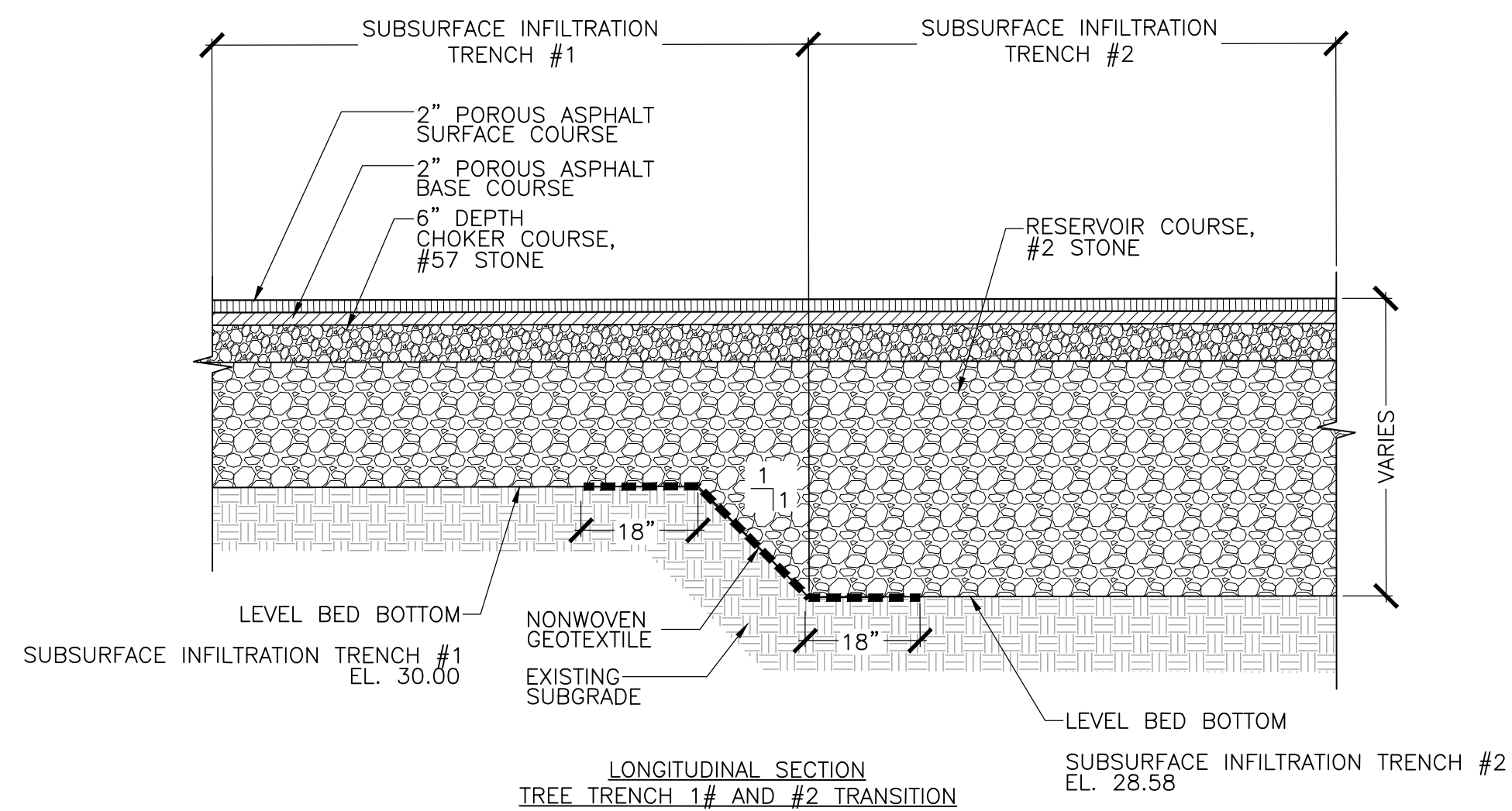


DRAWING PREPARED BY HATCH





NOTE:  
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 2. HDPE PIPE SHALL BE PERFORATED ONLY WITHIN LIMITS OF STONE BED.



NOTE:  
 1. ALL CRUSHED STONE SHALL BE CLEAN AND DOUBLE-WASHED.

2 POROUS CYCLE TRACK  
 SCALE: NTS

1 PERMEABLE PAVERS  
 SCALE: NTS

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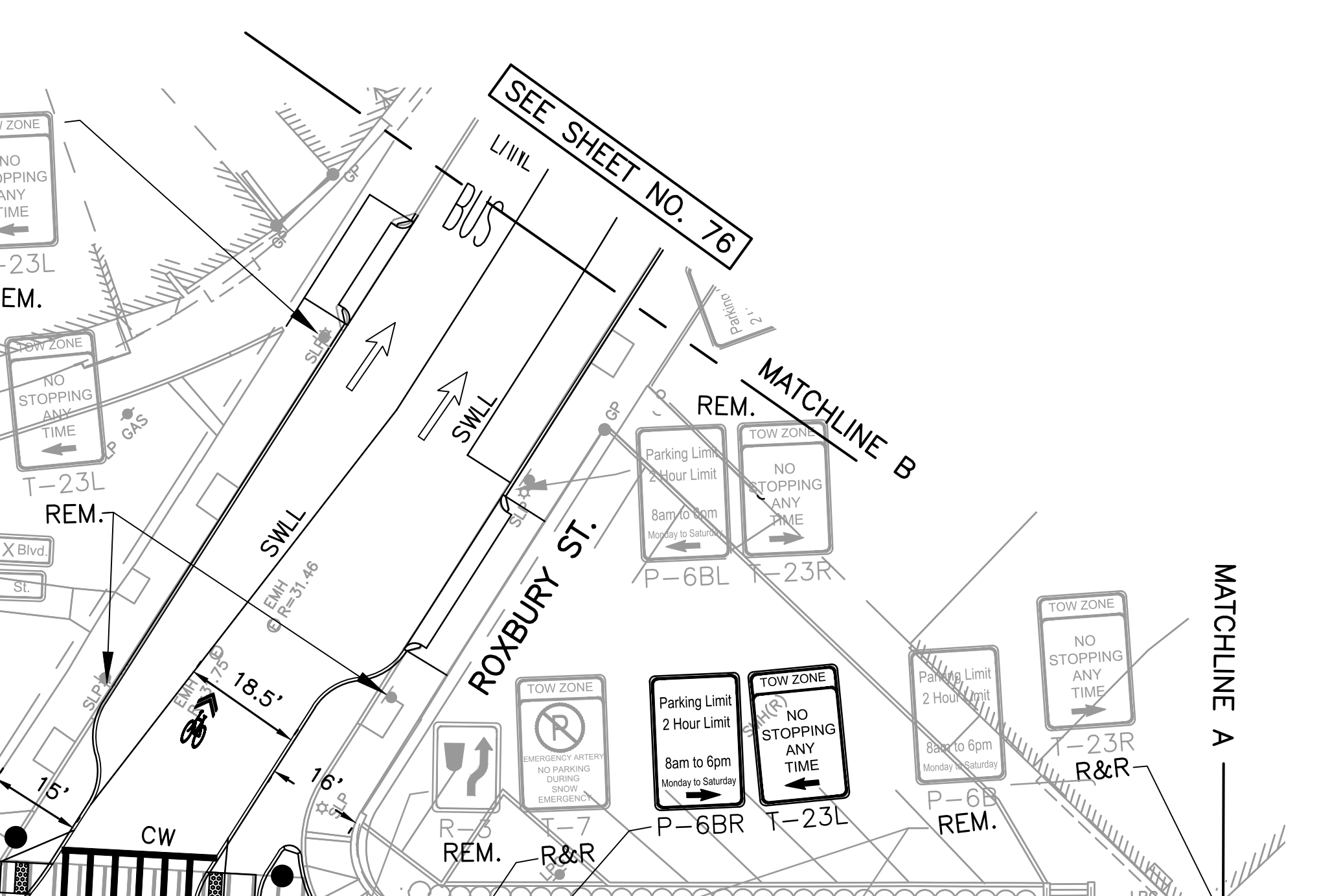
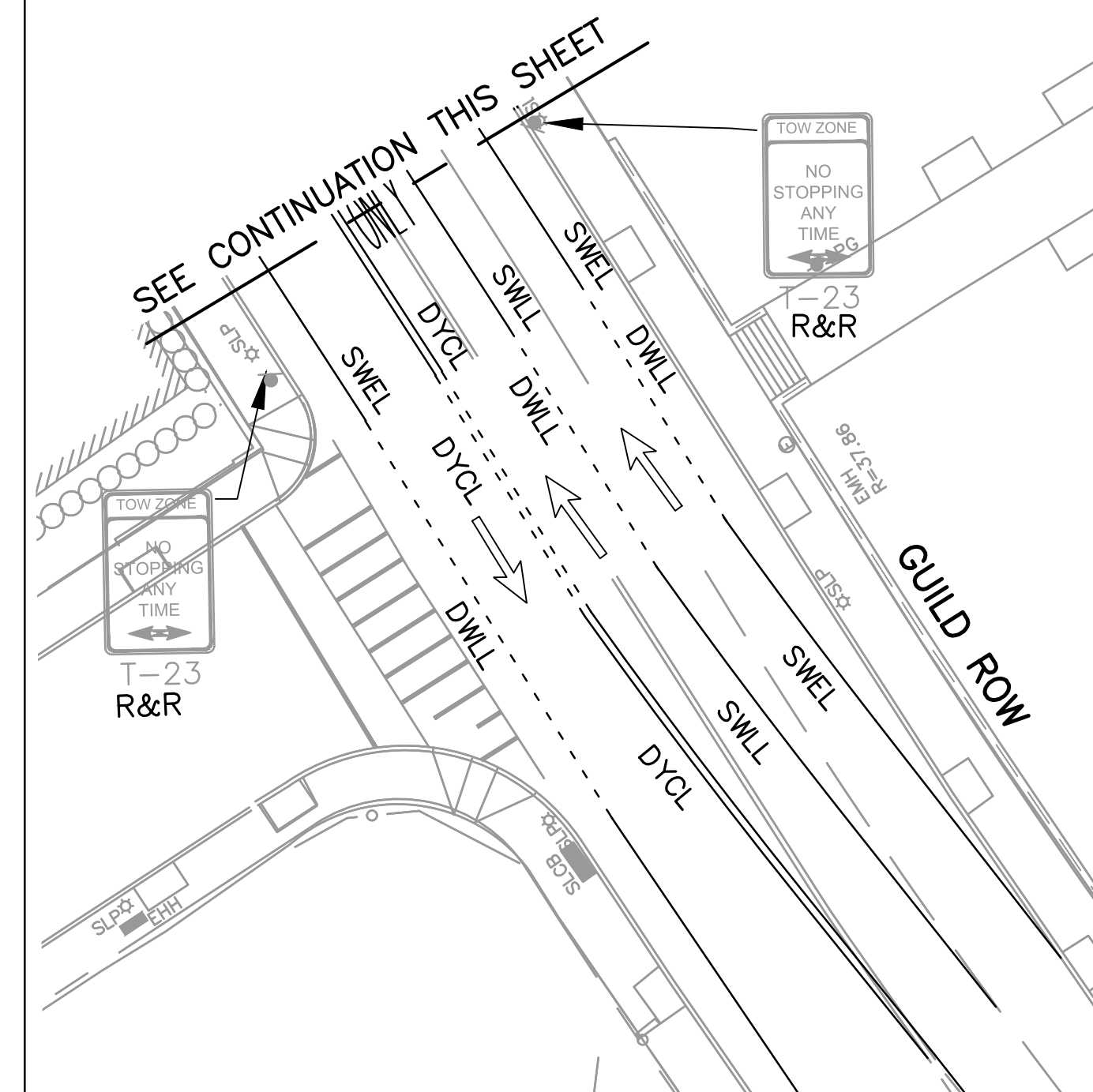
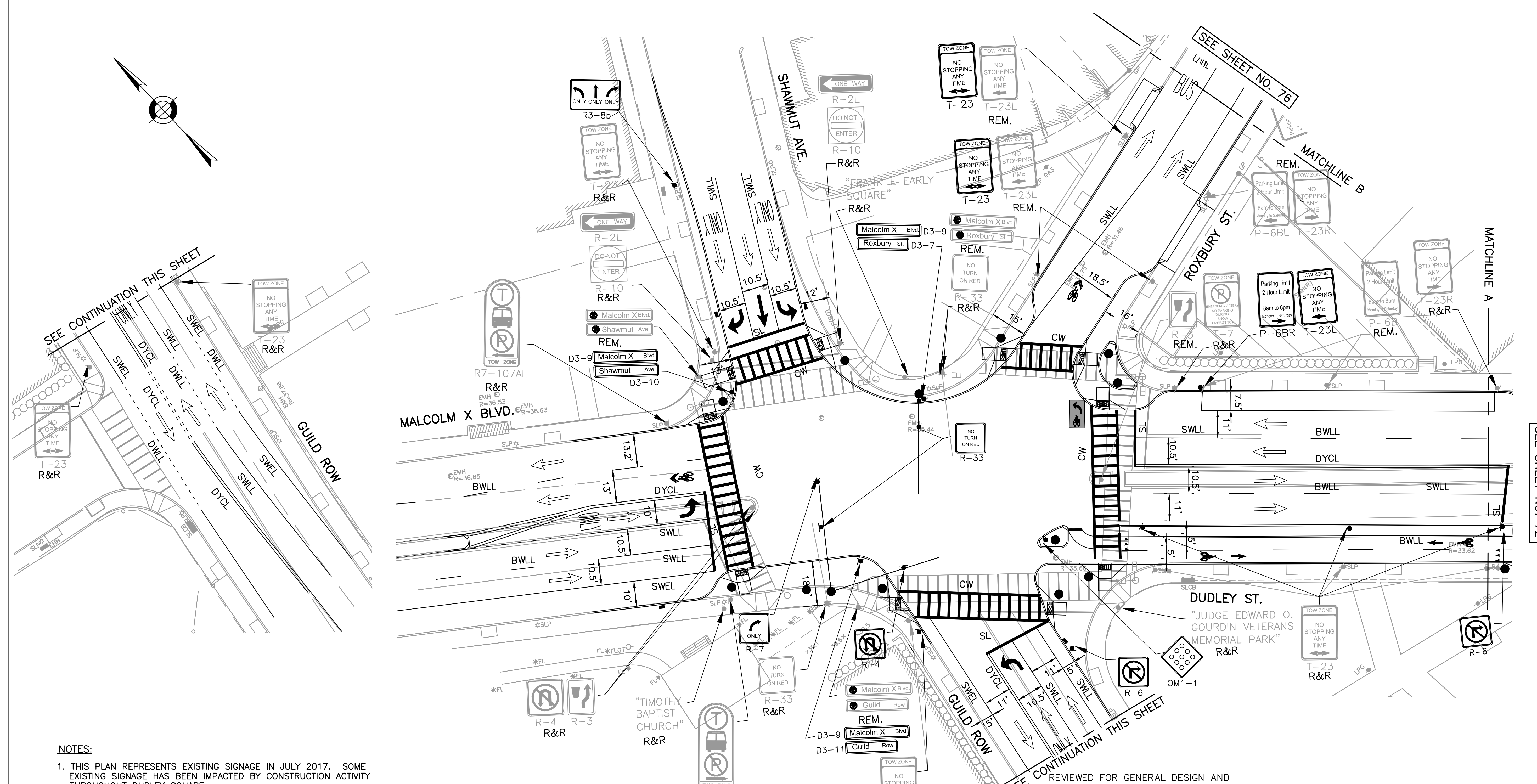
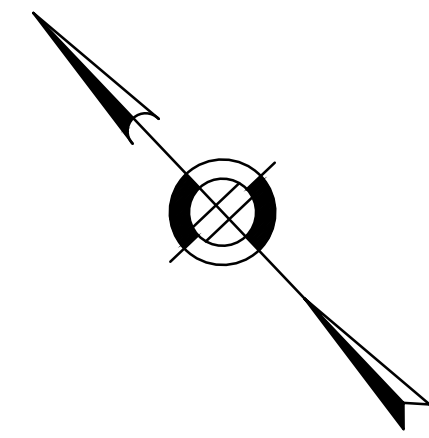
SCALE: N/A  
 DISTRICT: 10  
 AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

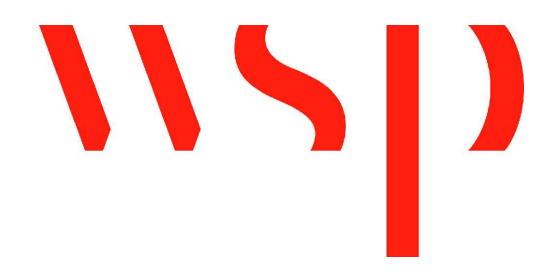
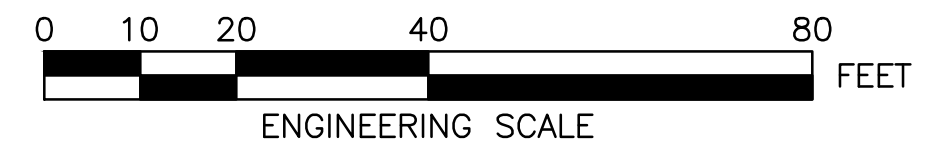


DRAWING PREPARED BY HATCH





- NOTES:**
1. THIS PLAN REPRESENTS EXISTING SIGNAGE IN JULY 2017. SOME EXISTING SIGNAGE HAS BEEN IMPACTED BY CONSTRUCTION ACTIVITY THROUGHOUT DUDLEY SQUARE.
  2. ALL PAVEMENT MARKINGS WILL BE THERMOPLASTIC UNLESS OTHERWISE INDICATED.
  3. REFURBISH EXISTING LANE MARKINGS AS DIRECTED BY PROJECT ENGINEER.
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  7. ALL SIGNS LABELED R&R SHALL BE RESET TO ITS ORIGINAL LOCATION UNLESS OTHERWISE INDICATED.



BOSTON TRANSPORTATION DEPARTMENT

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A. DALLY
CHECKED BY	P. FUSCO
APPROVED BY	J. CONLEY

CIP XX-XX SHEET 71 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
PAVEMENT MARKINGS & SIGNAGE PLANS**  
ROXBURY

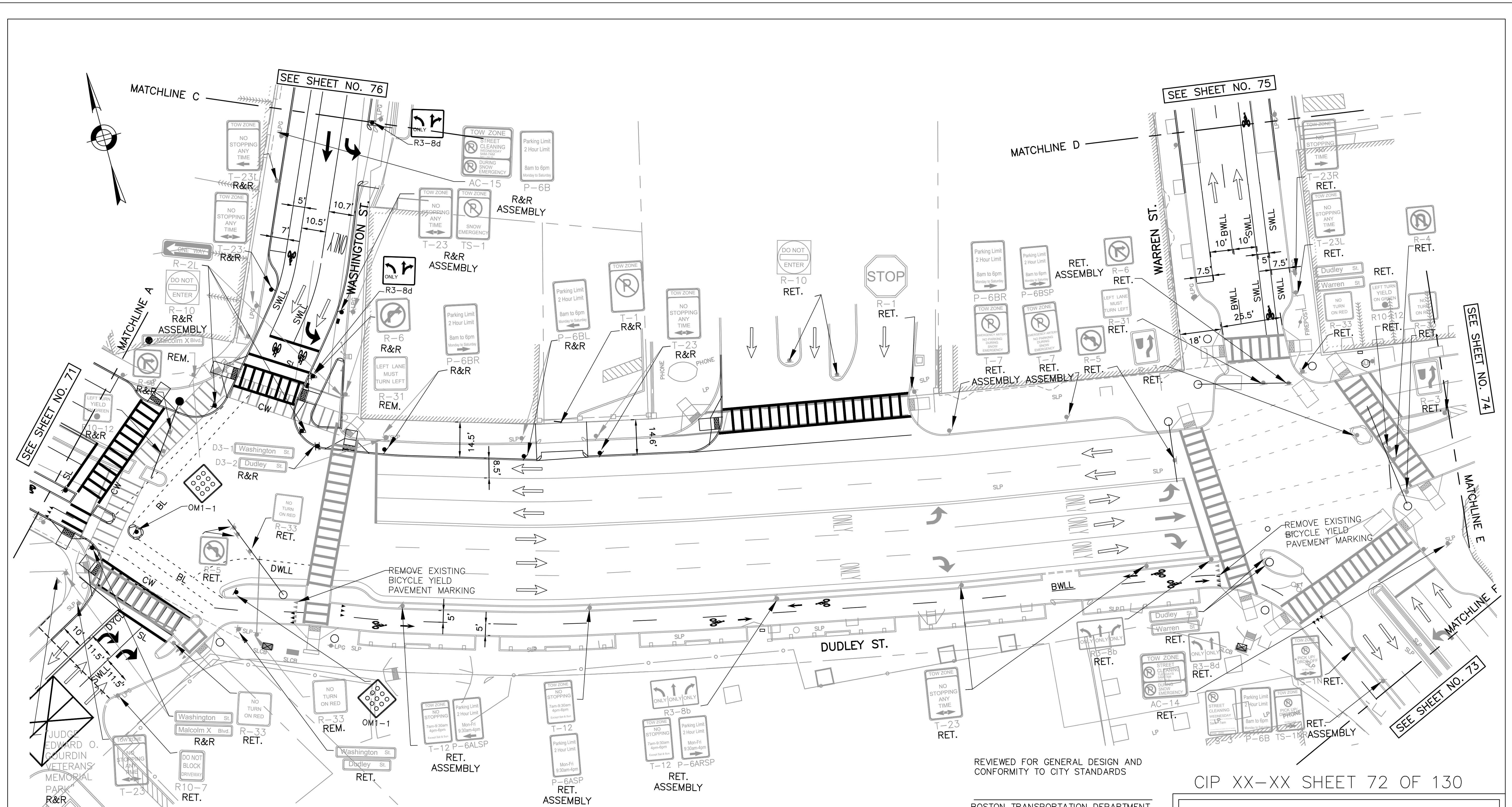
SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

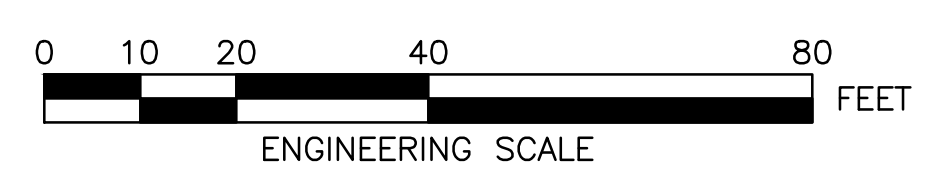
CITY ENGINEER

R-XXXX-71





- NOTES:**
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REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

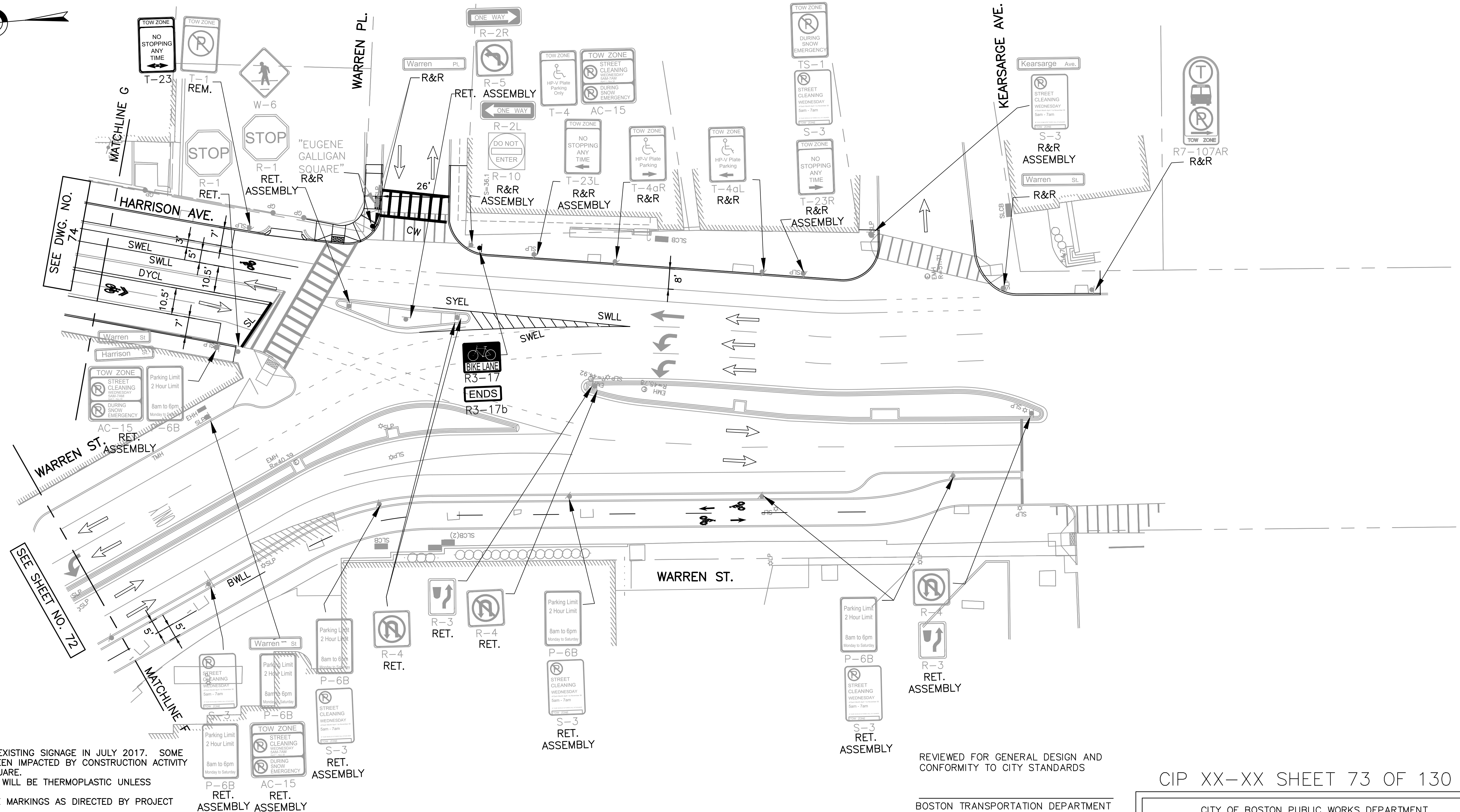
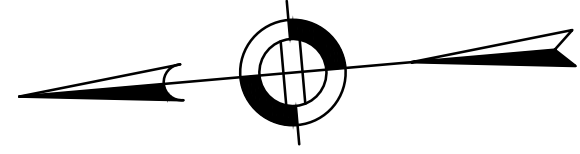
SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A. DALLY
CHECKED BY	P. FUSCO
APPROVED BY	J. CONLEY

CIP XX-XX SHEET 72 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION HIGHWAY RECONSTRUCTION	
<b>DUDLEY SQUARE PHASE 2 PAVEMENT MARKINGS &amp; SIGNAGE PLANS</b>	
ROXBURY	
SCALE: 1" = 20'	AREA: 1
DISTRICT: 10	100% SUBMISSION
	DATE: APR. 15, 2019
CITY ENGINEER	

R-XXXX-72





**NOTES:**

1. THIS PLAN REPRESENTS EXISTING SIGNAGE IN JULY 2017. SOME EXISTING SIGNAGE HAS BEEN IMPACTED BY CONSTRUCTION ACTIVITY THROUGHOUT DUDLEY SQUARE.
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REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

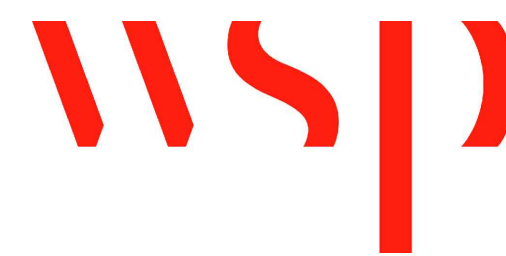
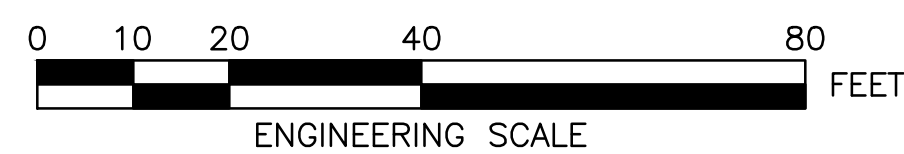
BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A. DALLY
CHECKED BY	P. FUSCO
APPROVED BY	J. CONLEY

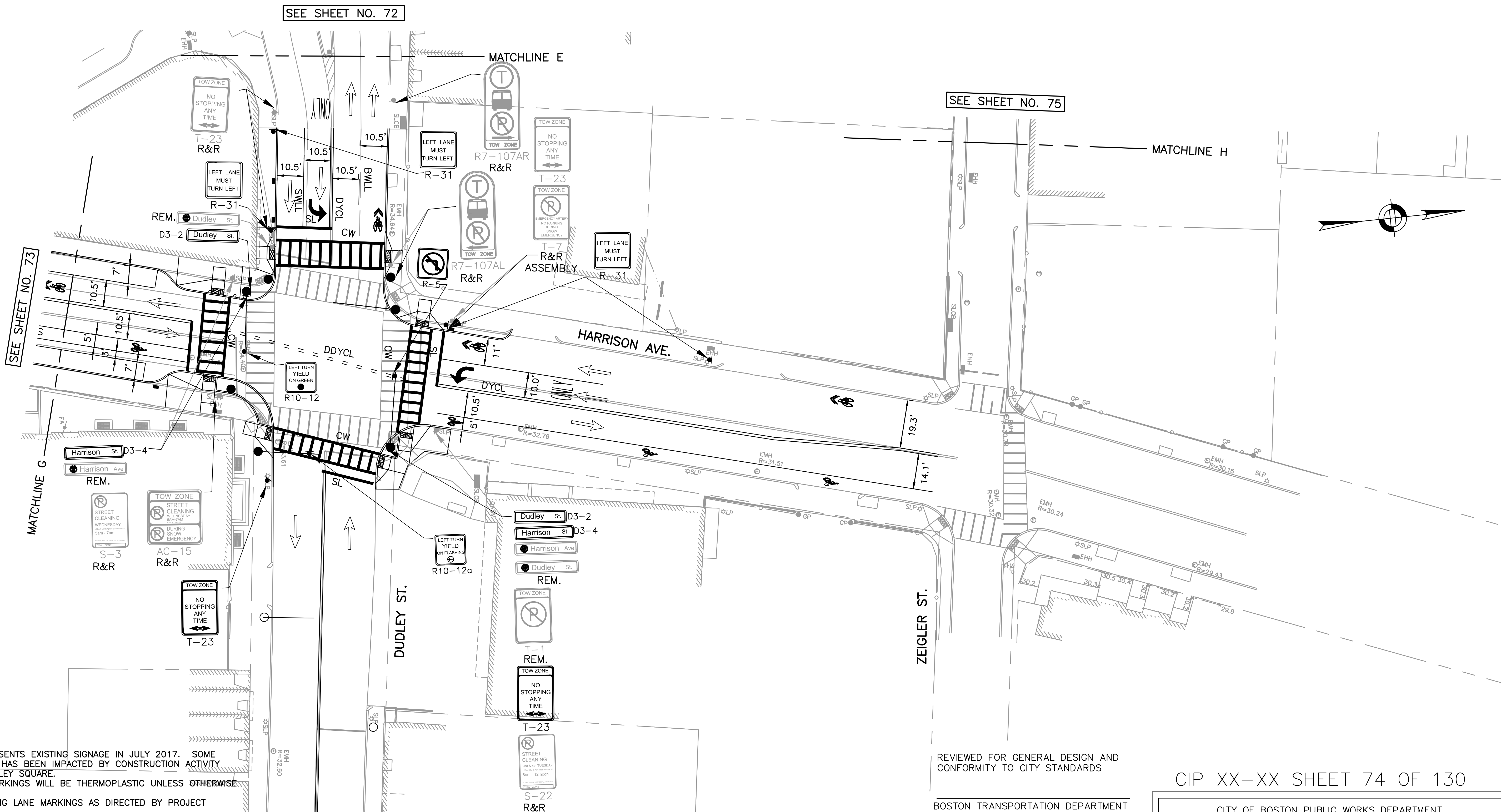
CIP XX-XX SHEET 73 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION HIGHWAY RECONSTRUCTION	
<b>DUDLEY SQUARE PHASE 2 PAVEMENT MARKINGS &amp; SIGNAGE PLANS</b> ROXBURY	
SCALE: 1" = 20'	AREA: 1
DISTRICT: 10	100% SUBMISSION
	DATE: APR. 15, 2019
CITY ENGINEER	

R-XXXX-73







SEE SHEET NO. 72

SEE SHEET NO. 75

SEE SHEET NO. 73

- NOTES:**
1. THIS PLAN REPRESENTS EXISTING SIGNAGE IN JULY 2017. SOME EXISTING SIGNAGE HAS BEEN IMPACTED BY CONSTRUCTION ACTIVITY THROUGHOUT DUDLEY SQUARE.
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REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A. DALLY
CHECKED BY	P. FUSCO
APPROVED BY	J. CONLEY

CIP XX-XX SHEET 74 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

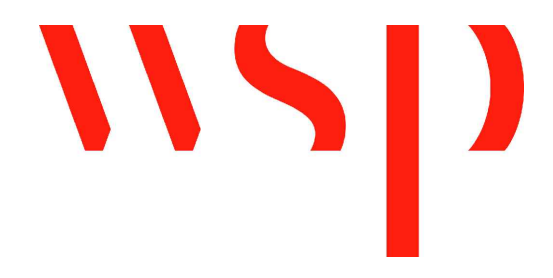
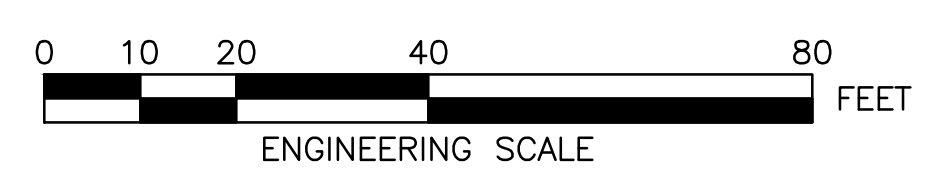
**DUDLEY SQUARE PHASE 2  
 PAVEMENT MARKINGS & SIGNAGE PLANS**  
 ROXBURY

SCALE: 1" = 20'  
 DISTRICT: 10

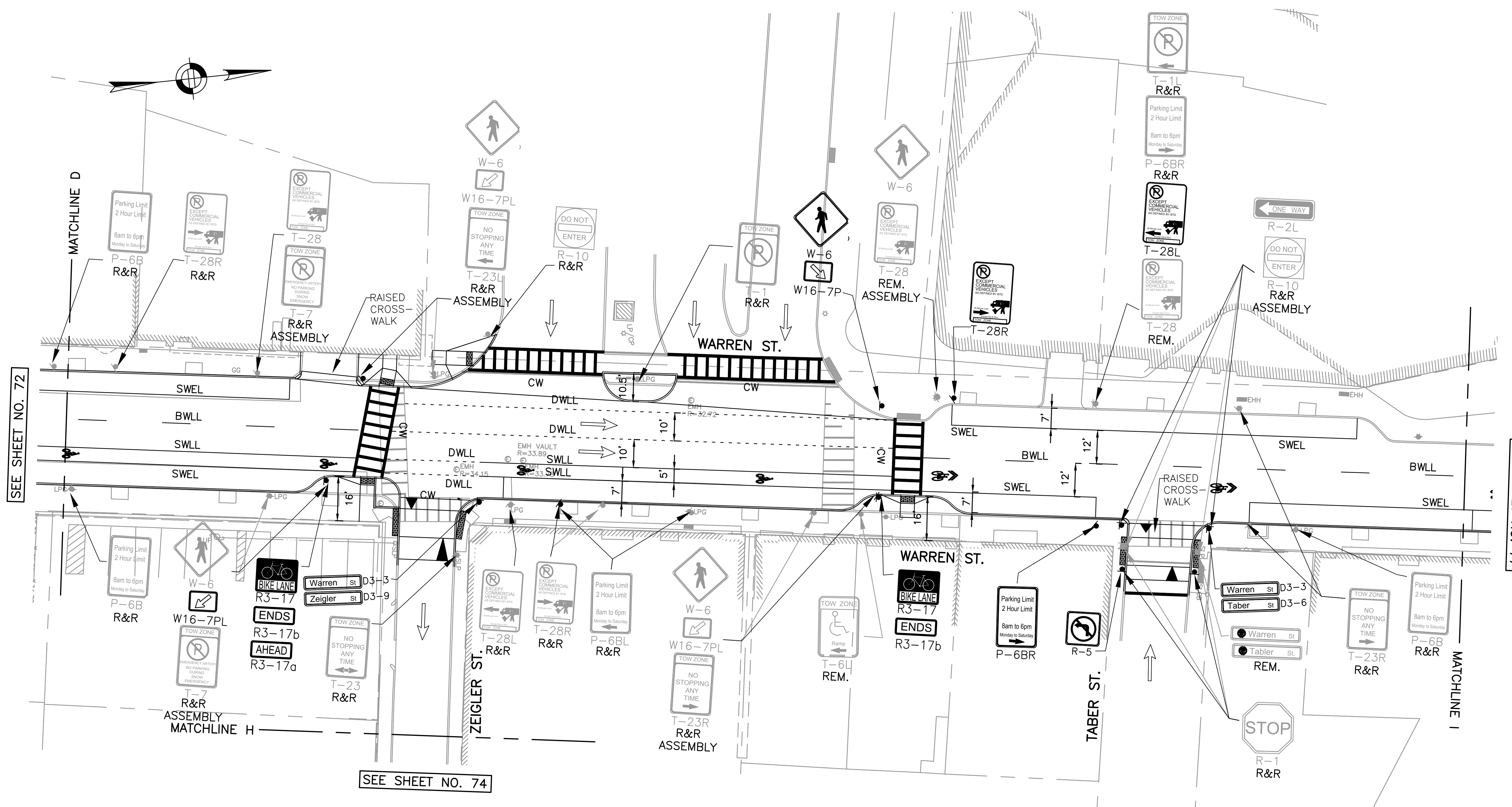
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-74





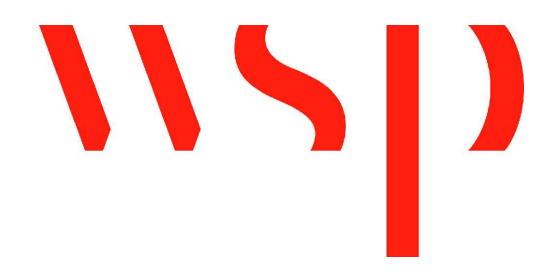
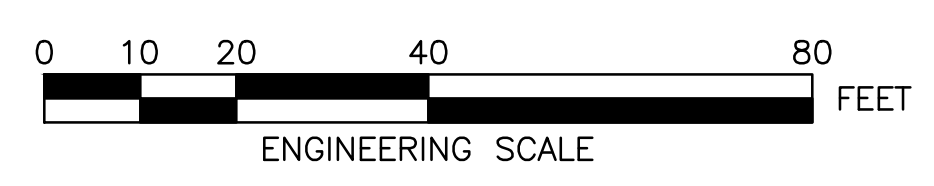


SEE SHEET NO. 72

SEE SHEET NO. 77

SEE SHEET NO. 74

- NOTES:**
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REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A. DALLY
CHECKED BY	P. FUSCO
APPROVED BY	J. CONLEY

CIP XX-XX SHEET 75 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
PAVEMENT MARKINGS & SIGNAGE PLANS**  
ROXBURY

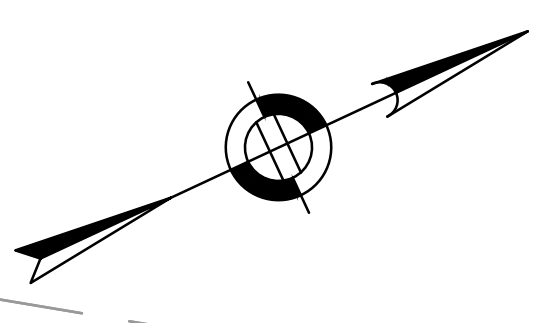
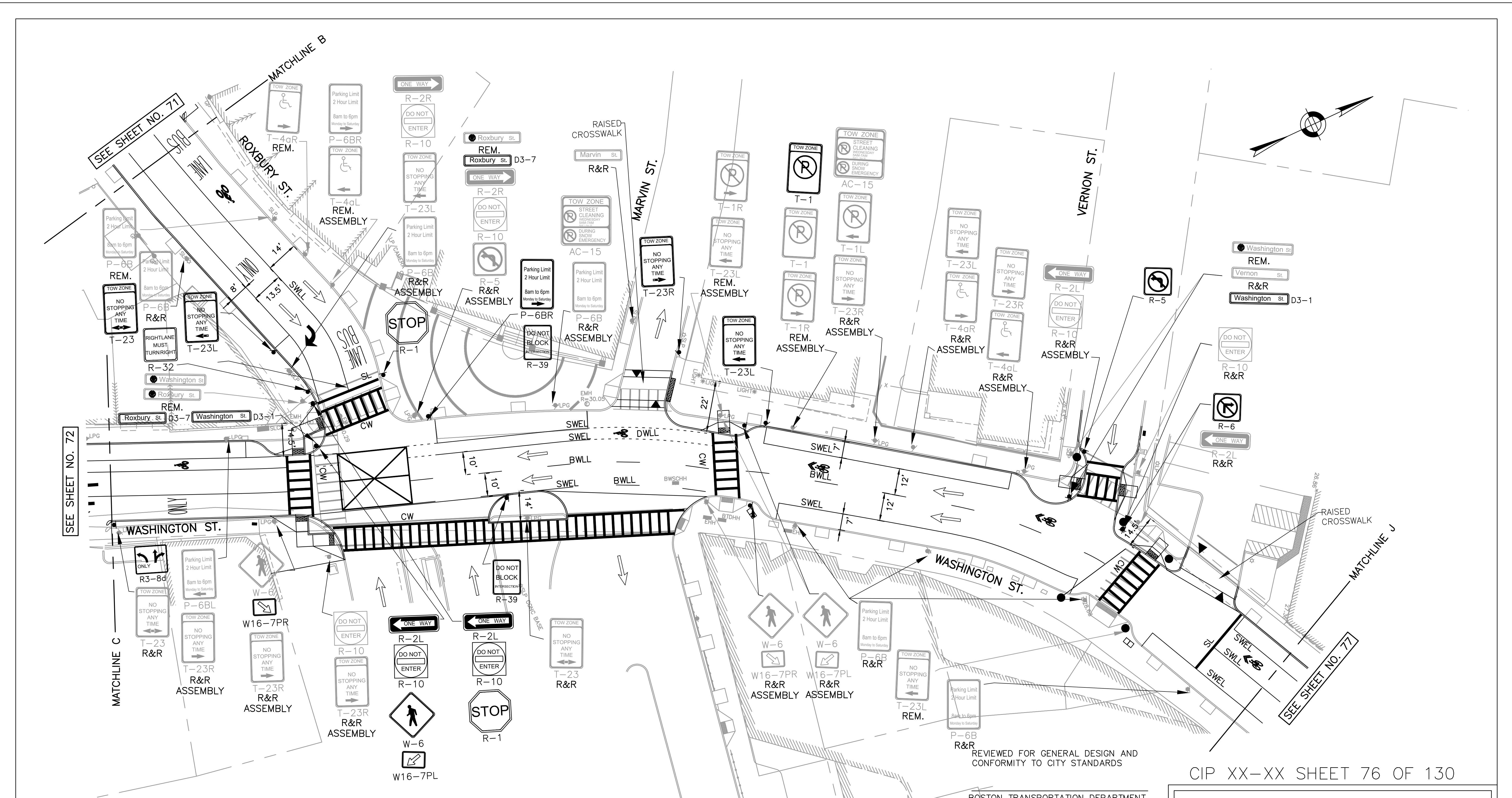
SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

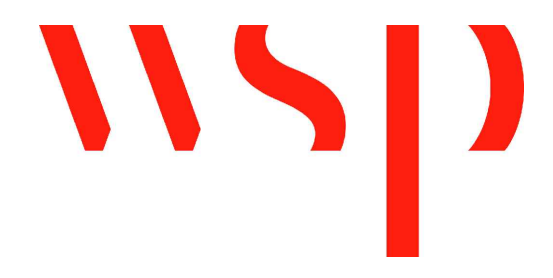
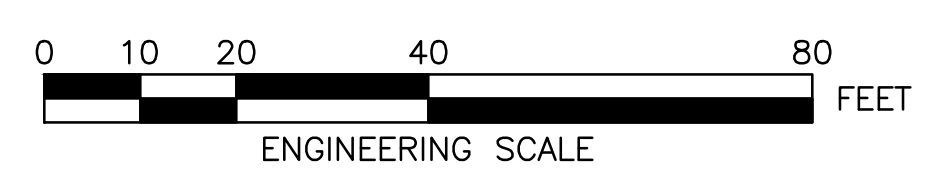
R-XXXX-75





**NOTES:**

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BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A. DALLY
CHECKED BY	P. FUSCO
APPROVED BY	J. CONLEY

CIP XX-XX SHEET 76 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
PAVEMENT MARKINGS & SIGNAGE PLANS**  
ROXBURY

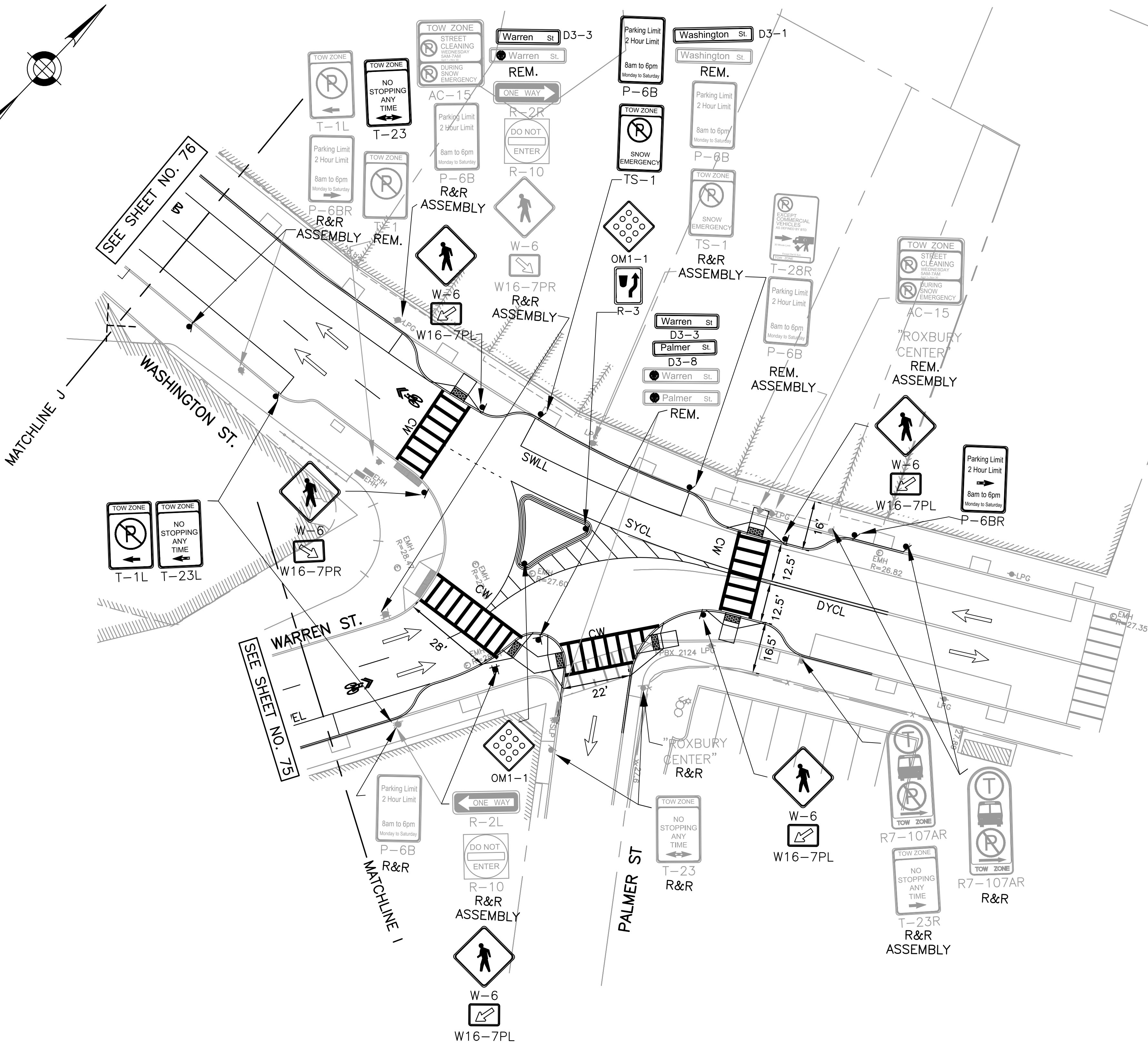
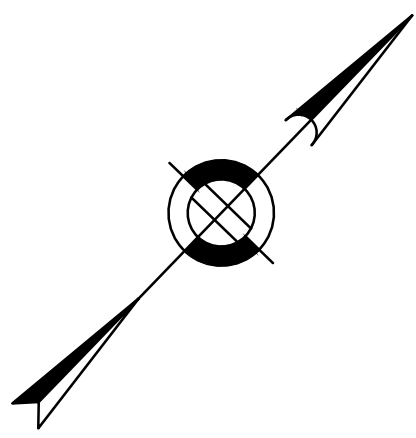
SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-76





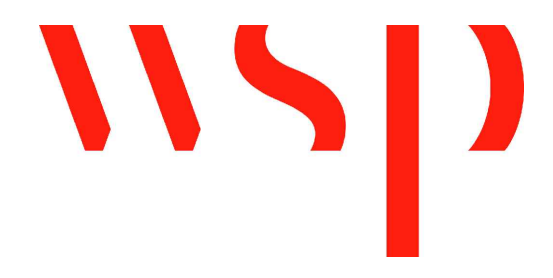
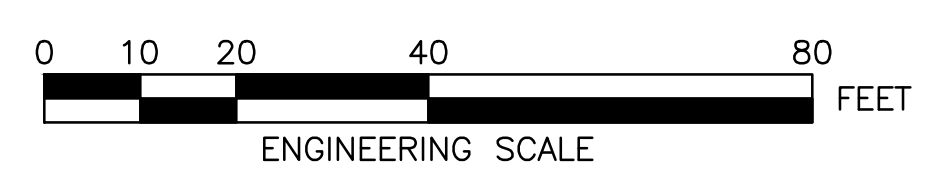
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REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A. DALLY
CHECKED BY	P. FUSCO
APPROVED BY	J. CONLEY



CIP XX-XX SHEET 77 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION HIGHWAY RECONSTRUCTION	
<b>DUDLEY SQUARE PHASE 2 PAVEMENT MARKINGS &amp; SIGNAGE PLANS</b> ROXBURY	
SCALE: 1" = 20'	AREA: 1
DISTRICT: 10	100% SUBMISSION
	DATE: APR. 15, 2019
CITY ENGINEER	

R-XXXX-77



IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		UNIT AREA SF	TEXT	TEXT DIMENSIONS	NUMBER OF SIGNS REQUIRED	COLOR	POST SIZE AND NUMBER REQUIRED PER SIGN	AREA IN SQUARE FEET
	WIDTH	HEIGHT							
R-1	30"	30"	5.2		SEE BOSTON TRANSPORTATION DEPARTMENT STANDARD DETAIL	2	SEE BOSTON TRANSPORTATION DEPARTMENT STANDARD DETAIL	BTD SPEC. MOUNT ON MAST ARM/POST	10.4
R-2L	36"	12"	3			2			6
R-3	18"	24"	3			1			3
R-4	24"	24"	4			1			4
R-5	24"	24"	4			3			12
R-6	24"	24"	4			3			12
R-7	30"	36"	7.5			1			7.5
R-31	30"	30"	6.25			4			25
R-32	30"	30"	6.25			1			6.25
R-33	24"	24"	4			2			8
R-39	24"	30"	5			2			10
R3-8b	36"	30"	7.5			1			7.5
R3-8d	30"	30"	6.25			2			12.5
R3-17	24"	18"	3			3			9
R3-17a	24"	8"	1.33			1			1.33
R3-17b	24"	8"	1.33			3			4
R10-12	24"	30"	5			1			5
R10-12a	24"	30"	5			1			5

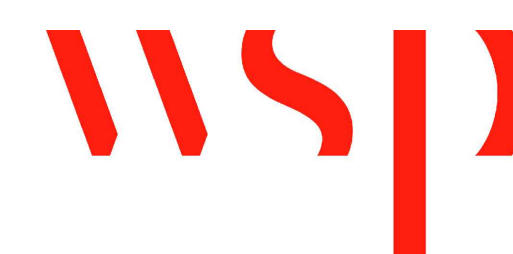
IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		UNIT AREA SF	TEXT	TEXT DIMENSIONS	NUMBER OF SIGNS REQUIRED	COLOR	POST SIZE AND NUMBER REQUIRED PER SIGN	AREA IN SQUARE FEET
	WIDTH	HEIGHT							
P-6B	12"	18"	1.5		SEE BOSTON TRANSPORTATION DEPARTMENT STANDARD DETAIL	3	SEE BOSTON TRANSPORTATION DEPARTMENT STANDARD DETAIL	BTD SPEC. MOUNT ON MAST ARM/POST	4.5
P-6BR	12"	18"	1.5			1			1.5
TS-1	12"	18"	1.5			1			1.5
T-23	12"	18"	1.5			7			10.5
T-23L	12"	18"	1.5			4			6
T-23R	12"	18"	1.5			1			1.5
T-28L	12"	18"	1.5			1			1.5
T-28R	12"	18"	1.5			1			1.5
T-1L	12"	18"	1.5			1			1.5
D3-1	9"	VARIES	VARIES	Washington St		3			VARIES

R-XXXX-78

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY A. DALLY  
 CHECKED BY P. FUSCO  
 APPROVED BY J. CONLEY



CIP XX-XX SHEET 78 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**TRAFFIC SIGN SUMMARY**  
 ROXBURY

SCALE: N.T.S. AREA: 1  
 DISTRICT: 10 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER



IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		UNIT AREA SF	TEXT	TEXT DIMENSIONS	NUMBER OF SIGNS REQUIRED	COLOR	POST SIZE AND NUMBER REQUIRED PER SIGN	AREA IN SQUARE FEET
	WIDTH	HEIGHT							
D3-2	9"	VARIES	VARIES	Dudley St.	SEE BOSTON TRANSPORTATION DEPARTMENT STANDARD DETAIL	2	SEE BOSTON TRANSPORTATION DEPARTMENT STANDARD DETAIL	BTD SPEC. MOUNT ON MAST ARM/POST	VARIES
D3-3	9"	VARIES	VARIES	Warren St.		4			VARIES
D3-4	9"	VARIES	VARIES	Harrison St.		2			VARIES
D3-6	9"	VARIES	VARIES	Taber St.		1			VARIES
D3-7	9"	VARIES	VARIES	Roxbury St.		3			VARIES
D3-8	9"	VARIES	VARIES	Palmer St.		1			VARIES
D3-9	9"	VARIES	VARIES	Malcolm X Blvd.		4			VARIES
D3-10	9"	VARIES	VARIES	Shawmut Ave.		1			VARIES
D3-11	9"	VARIES	VARIES	Guild Row		1			VARIES
OM1-1	24"	24"	4			5			20
W-6	24"	24"	4			6			24
W16-7PR	24"	12"	2			3			6
W16-7PL	24"	12"	2			6			12

R-XXXX-79



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A. DALLY

CHECKED BY P. FUSCO

APPROVED BY J. CONLEY

CIP XX-XX SHEET 79 OF 130

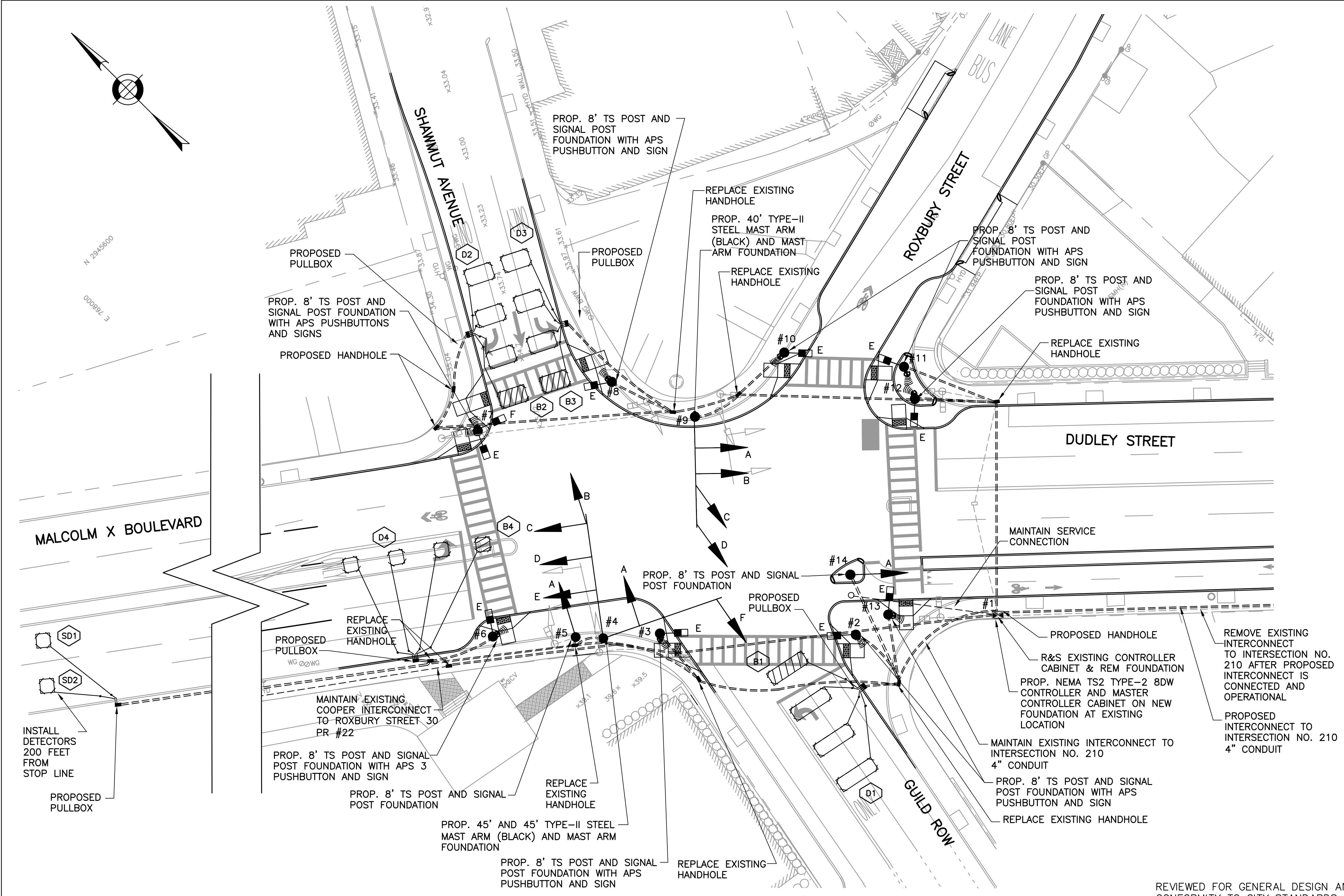
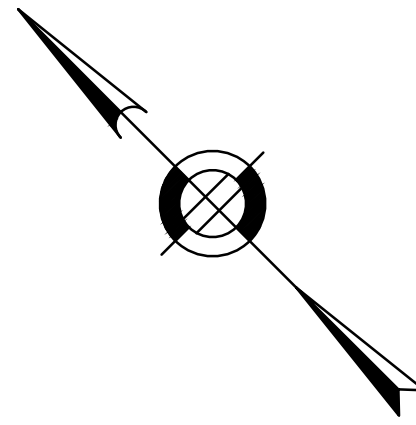
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**TRAFFIC SIGN SUMMARY**  
ROXBURY

SCALE: N.T.S.  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

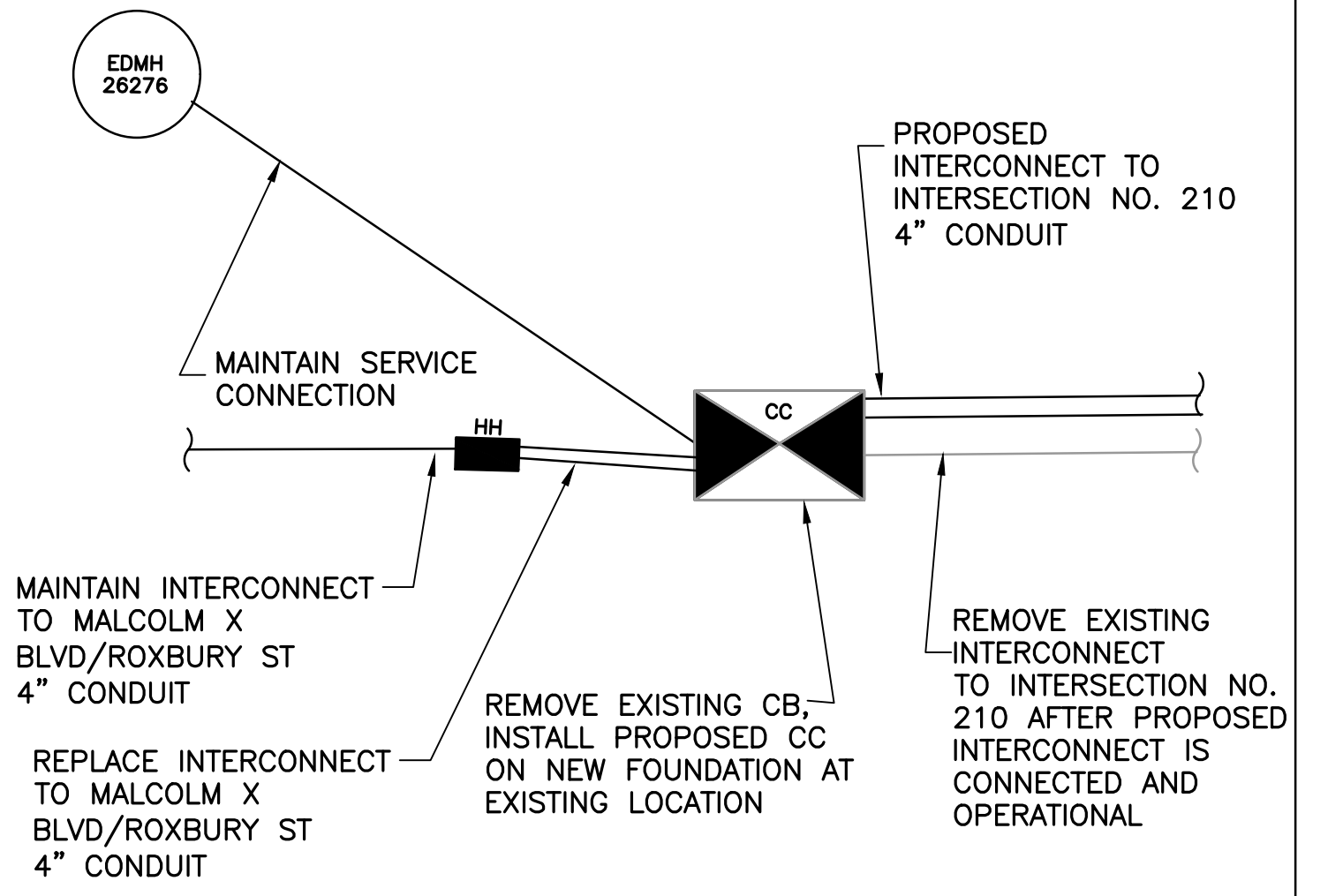
\_\_\_\_\_  
CITY ENGINEER





- NOTES:**
1. REMOVE AND TRANSPORT ALL EXISTING TRAFFIC SIGNAL EQUIPMENT AS DIRECTED ON PLAN
  2. REMOVE AND DESTROY ALL EXISTING TRAFFIC SIGNAL FOUNDATIONS AS DIRECTED ON PLAN
  3. SEE SHEETS 71 TO 77 FOR PAVEMENT MARKING AND SIGNAGE PLANS
  4. TRAFFIC SIGNAL CABINET AND CONTROLLER TO BE INSTALLED DURING PHASE 2
  5. INSTALL AND TEST INTERFACE OF NEW CONTROLLER AND EQUIPMENT PRIOR TO DEACTIVATION AND REMOVAL OF EXISTING EQUIPMENT
  6. THIS PLAN REPRESENTS INTERCONNECT FROM JUNE 2013 PLANS WITH A 2018 REVISION FROM THE BOSTON TRANSPORTATION DEPARTMENT.
  7. MAINTAIN EXISTING INTERCONNECT TO ADJACENT INTERSECTIONS THROUGHOUT CONSTRUCTION
  8. INSTALL AND TEST PROPOSED INTERCONNECT PRIOR TO DEACTIVATION AND REMOVAL OF EXISTING INTERCONNECT
  9. ALL VEHICULAR INDICATIONS MOUNTED ON MASTARMS FACING EAST-WEST SHALL BE RIGID MOUNTED AND BE EQUIPPED WITH 5" NON-LOUVERED BACKPLATES WITH BORDERS.
  10. ALL CONDUIT WITHIN ROADWAY SHALL BE 3" PVC SCHEDULE 80 ENCASED IN CONCRETE UNLESS OTHERWISE NOTED.

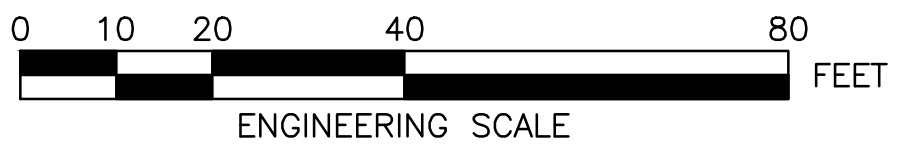
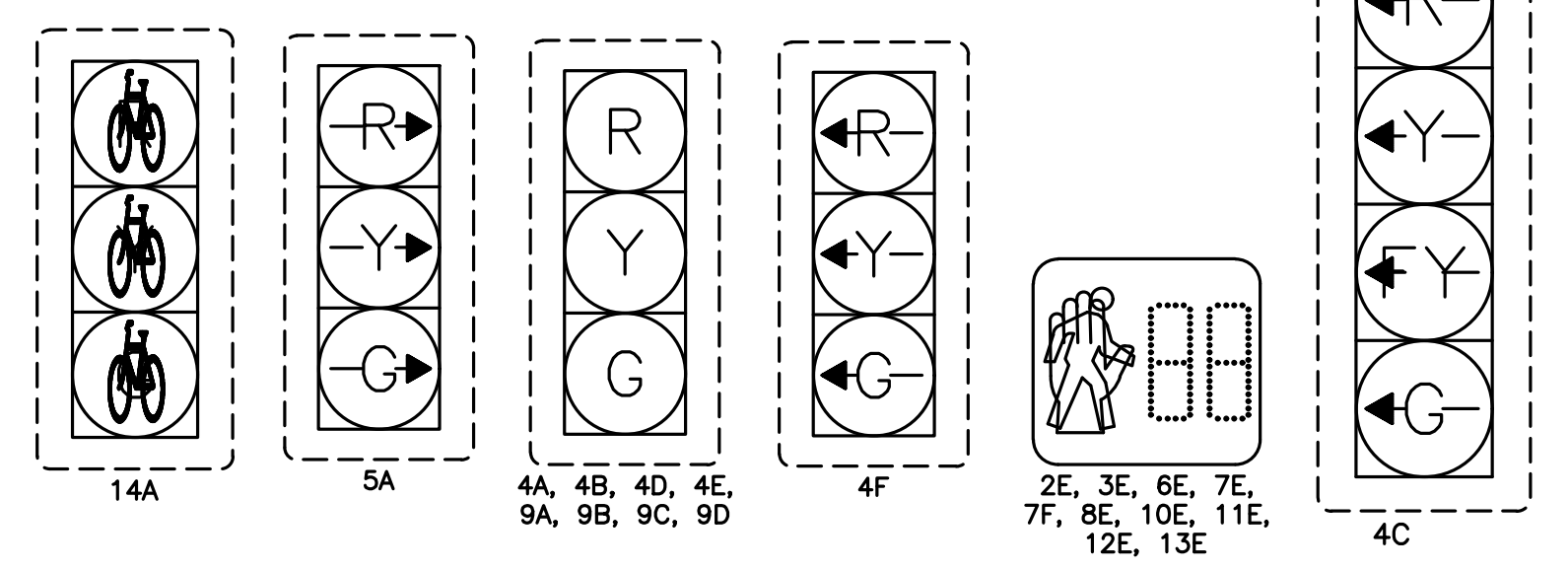
**INTERCONNECT DIAGRAM**  
N.T.S.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

CIP XX-XX SHEET 80 OF 130

**SIGNAL FACES**



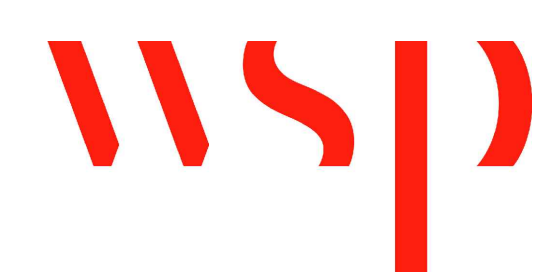
BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A. DALLY

CHECKED BY V. KARIMI

APPROVED BY J. CONLEY



CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
TRAFFIC SIGNAL PLAN**  
MALCOLM X BLVD & ROXBURY STREET  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10

INTERSECTION #2346  
AREA: 1  
DATE: FEB. 7, 2019

CITY ENGINEER

R-XXXX-80



### TIMING AND SEQUENCE CHART

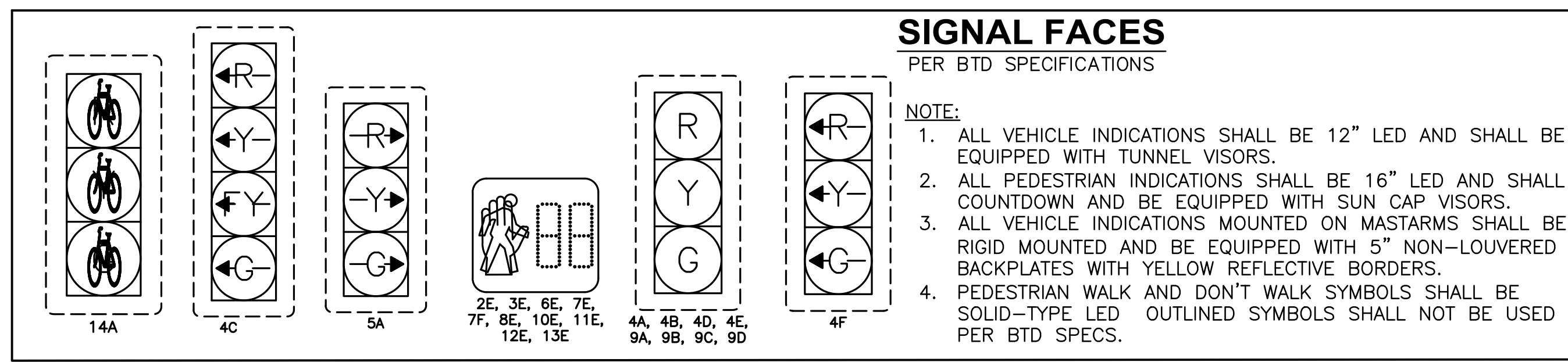
STREET DIRECTION/FACE	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	OPERATION
MALCOLM X EB/4D,4E	G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	FY
MALCOLM X LT/EB/4C	FYL	YL	R	R	R	R	R	R	R	R	R	R	GL	YL	R	FR
MALCOLM X WB/9A,9B	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
SHAWMUT ST SB/4A,4B	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
GUILD ROW LT/NB/4F	RL	RL	RL	RL	RL	RL	GL	YL	RL	RL	RL	RL	RL	RL	RL	FR
GUILD ROW NB/9C,9D,14A	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FR
SHAWMUT ST RT/SB/5A	RR	RR	RR	RR	RR	RR	RR	RR	RR	GR	YR	RR	GR	YR	RR	FR
C.W./N-S/6E-7E (W)	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF
C.W./N-S/13E-12E (E)	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF
C.W./E-W/7F-8E (NW)	W	FDW	DW	W	FDW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	OFF
C.W./E-W/10E-11E (NE)	DW	DW	DW	W	FDW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	OFF
C.W./E-W/3E-2E (S)	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OFF

### PROGRAM/COORDINATION

CYCLE NO.	CYCLE LENGTH	OFFSET (SEC.)	PHASE SPLITS IN SECONDS					HOURS OF OPERATION
			ø1	ø2	ø3	ø4	ø5	
1	110	0	25	25	24	23	10	ALL OTHER TIMES
2	110	42	26	25	26	23	10	6:00 A.M. TO 10:00 A.M. MON-FRI
3	110	18	25	25	22	24	14	3:00 P.M. TO 7:00 P.M. MON-FRI

LOOP DETECTOR DATA									CLEARANCES								TECHNICAL NOTES	
IDENT.	QTY.	SIZE	SPLICE	TURNS	MODE	øCALL	øEXT.	CHNL.	FROM	TO								1. PEDESTRIAN WALK DURING COORDINATED PHASE SHALL REST IN WALK FOR THE FULLEST TIME AVAILABLE IN THE PHASE
									G	G	G-GL	R	R	-	W	DW		
D1	3	15'x5'	S/P	3	PRES	3	3	1	G	G	-	Y	-	-	-	-		
B1	1	15'x5'	S/P	4	PRES	3	3	1	GL	-	-	YL	-	-	-	-		
D2	3	10'x6'	S/P	3	PRES	4	4	2	FYL	-	-	YL	-	-	-	-		
D3	3	10'x6'	S/P	3	PRES	4	4	3	GR	-	-	YR	-	-	-	-		
B2	1	10'x6'	S/P	4	PRES	4	4	2	-	-	-	-	-	-	-	-		
B3	1	10'x6'	S/P	4	PRES	4	4	3	-	-	-	-	-	-	-	-		
B4	1	10'x6'	S/P	4	PRES	4	4	3	W	-	-	-	-	W	FDW	-		
D4	3	5'x5'	S/P	3	PRES	5	5	4	-	-	-	-	-	-	-	-		
SD1	1	5'x5'	S/P	3	PRES	SYSTEM	E	9	-	-	-	-	-	-	-	-		
SD2	1	5'x5'	S/P	3	PRES	SYSTEM	E	10	-	-	-	-	-	-	-	-		

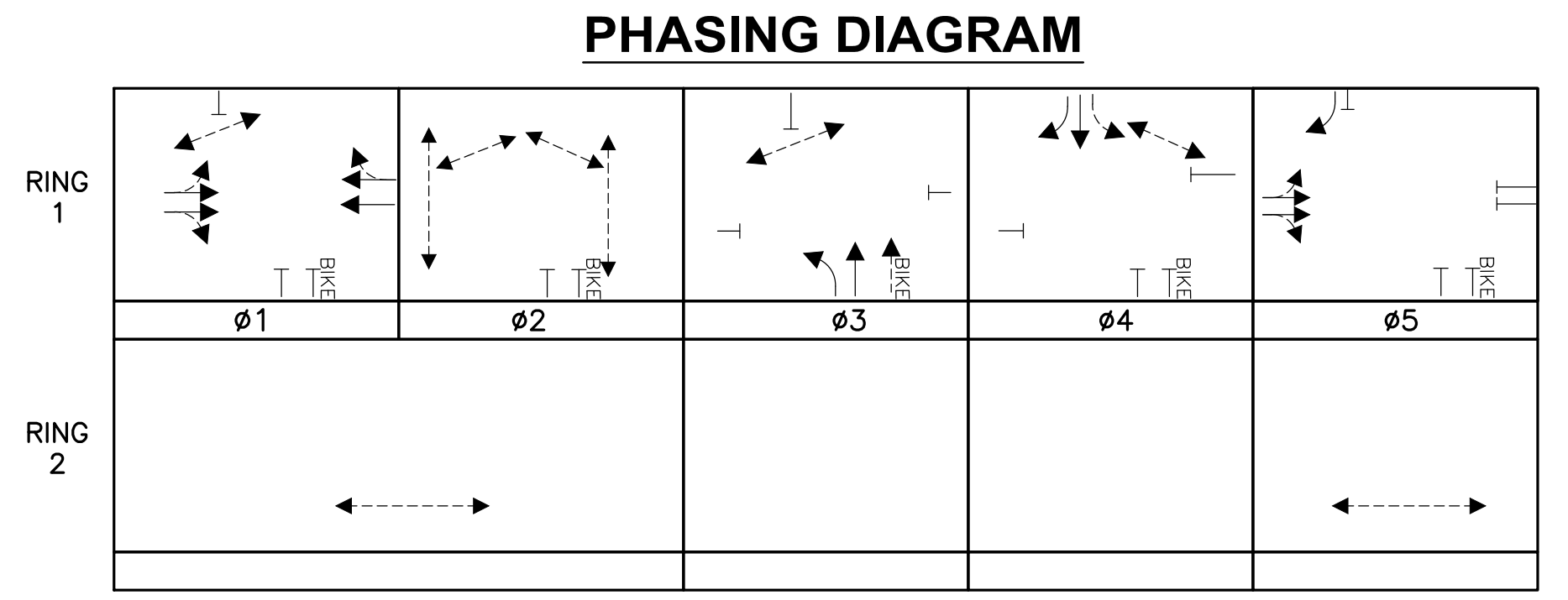
S/P = SERIES/PARALLEL  
 \*\* DENOTE BICYCLE DETECTION



### MAJOR ITEMS REQUIRED

QUANTITY	MAJOR ITEMS REQUIRED
1	8DW CONTROLLER TS-2 TYPE 2 WITH INTERNAL RCU IN TYPE 'CC' CABINET ON NEW FOUNDATION
10	8' TYPE 3C SIGNAL POST, BASE, PEDESTAL & FOUNDATION
1	40' TYPE 2 STEEL MAST ARM & FOUNDATION (BLACK)
2	45' TYPE 2 STEEL MAST ARM & FOUNDATION (BLACK)
8	12"- 3 SECTION (R,Y,G) LED VEHICLE SIGNAL INDICATION
1	12"- 3 SECTION (R,Y,G LEFT) LED VEHICLE SIGNAL INDICATION
10	16"- PEDESTRIAN L.E.D. SIGNAL COUNTDOWN INDICATION
10	PEDESTRIAN PUSHBUTTON, SIGN & SADDLE, APS 3 WIRE TYPE
5	NON-LOUVERED BACKPLATE WITH BORDER
1	12"- 4 SECTION (R,Y,FY,G LEFT) LED VEHICLE SIGNAL INDICATION
1	12"- 3 SECTION (R,Y,G RIGHT) LED VEHICLE SIGNAL INDICATION

NOTE: ALL UNDERGROUND TO BE SUBJECT TO RESPECTIVE ITEMS.  
 PLUS ALL MISCELLANEOUS EQUIPMENT, WIRING, CABLE AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL PER BOSTON TRANSPORTATION DEPARTMENT STANDARDS AND LATEST SPECIFICATIONS.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

CIP XX-XX SHEET 81 OF 130

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY E.TAMMELLEO

CHECKED BY J.CONLEY

APPROVED BY V.KARIMI

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

### DUDLEY SQUARE PHASE 2 TRAFFIC SIGNAL OPERATIONS SCHEDULE

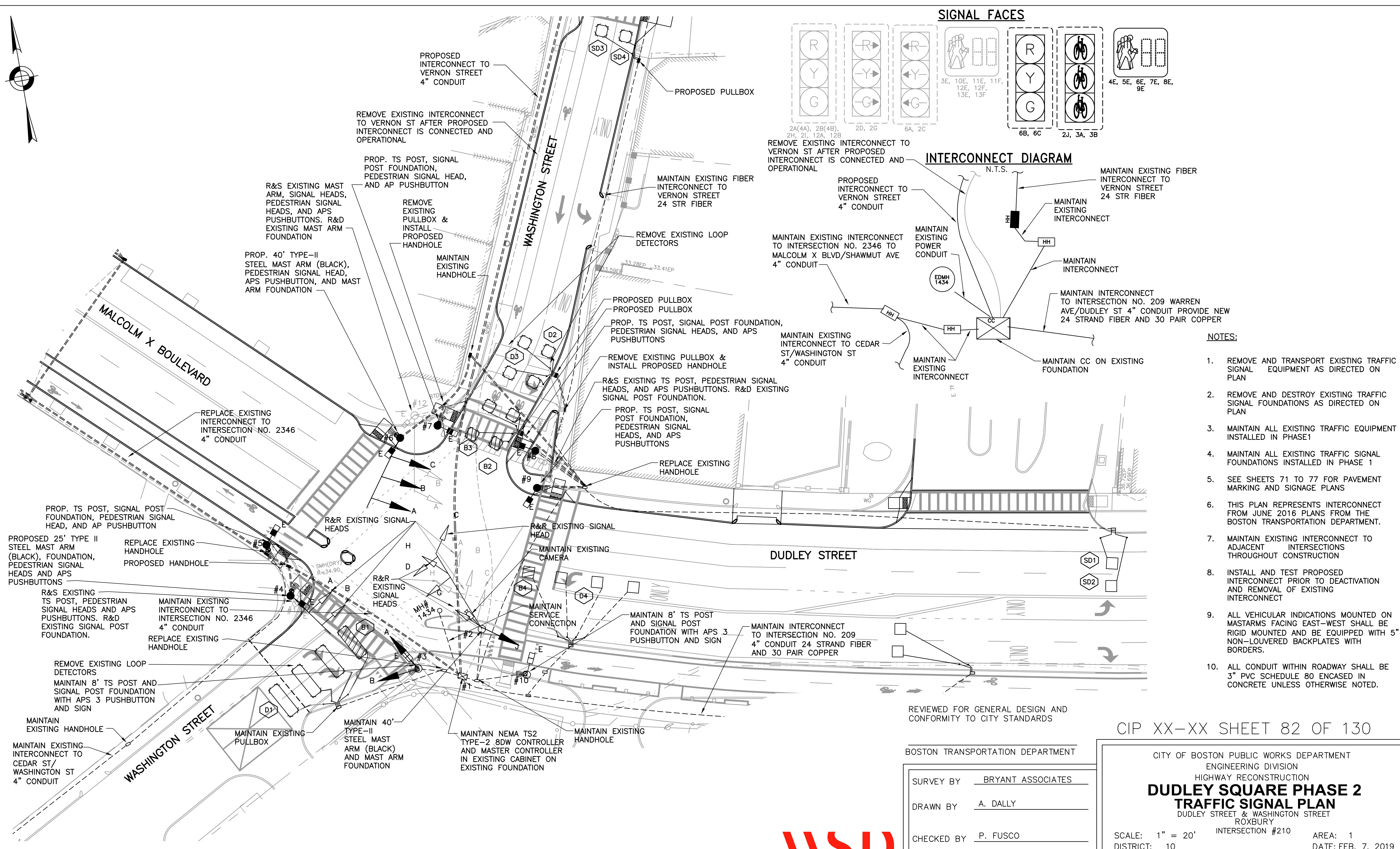
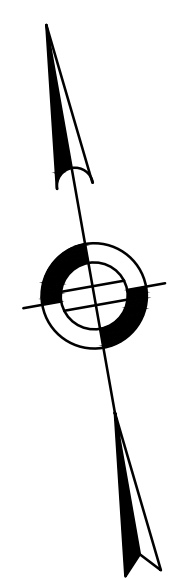
MALCOLM X BLVD & ROXBURY STREET  
 ROXBURY  
 INTERSECTION #2346

SCALE: N.T.S. AREA: 1  
 DISTRICT: 10 DATE: FEB. 7, 2019

CITY ENGINEER

R-XXXX-81





- NOTES:**
1. REMOVE AND TRANSPORT EXISTING TRAFFIC SIGNAL EQUIPMENT AS DIRECTED ON PLAN
  2. REMOVE AND DESTROY EXISTING TRAFFIC SIGNAL FOUNDATIONS AS DIRECTED ON PLAN
  3. MAINTAIN ALL EXISTING TRAFFIC EQUIPMENT INSTALLED IN PHASE 1
  4. MAINTAIN ALL EXISTING TRAFFIC SIGNAL FOUNDATIONS INSTALLED IN PHASE 1
  5. SEE SHEETS 71 TO 77 FOR PAVEMENT MARKING AND SIGNAGE PLANS
  6. THIS PLAN REPRESENTS INTERCONNECT FROM JUNE 2016 PLANS FROM THE BOSTON TRANSPORTATION DEPARTMENT.
  7. MAINTAIN EXISTING INTERCONNECT TO ADJACENT INTERSECTIONS THROUGHOUT CONSTRUCTION
  8. INSTALL AND TEST PROPOSED INTERCONNECT PRIOR TO DEACTIVATION AND REMOVAL OF EXISTING INTERCONNECT
  9. ALL VEHICULAR INDICATIONS MOUNTED ON MASTARMS FACING EAST-WEST SHALL BE RIGID MOUNTED AND BE EQUIPPED WITH 5" NON-LOUVERED BACKPLATES WITH BORDERS.
  10. ALL CONDUIT WITHIN ROADWAY SHALL BE 3" PVC SCHEDULE 80 ENCASED IN CONCRETE UNLESS OTHERWISE NOTED.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A. DALLY
CHECKED BY	P. FUSCO
APPROVED BY	J. CONLEY

CIP XX-XX SHEET 82 OF 130

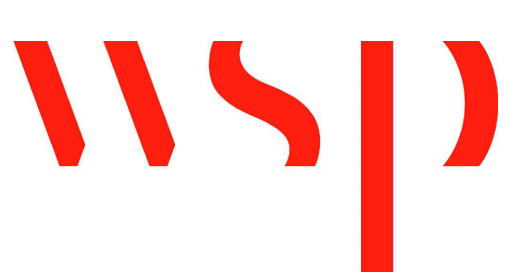
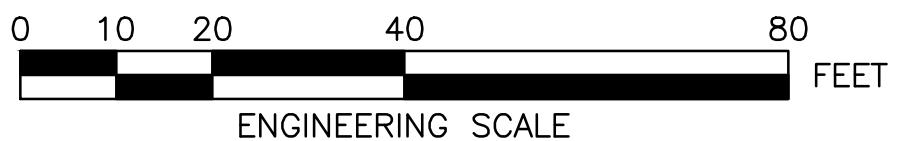
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
TRAFFIC SIGNAL PLAN**  
DUDLEY STREET & WASHINGTON STREET  
ROXBURY  
INTERSECTION #210

SCALE: 1" = 20'  
DISTRICT: 10

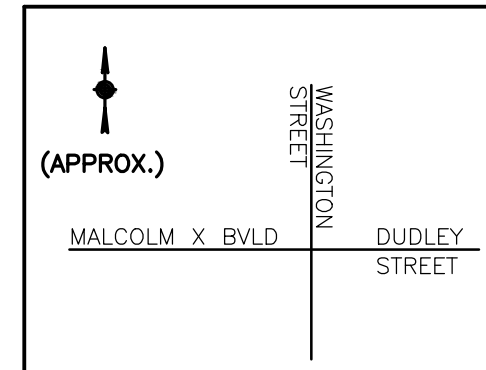
AREA: 1  
DATE: FEB. 7, 2019

CITY ENGINEER



R-XXXX-82





**TIMING AND SEQUENCE CHART**

STREET DIRECTION/FACE	ø1		ø2		ø3		ø4		FLASHING
	GRN	CL	GRN	CL	GRN	CL	GRN	CL	
MALCOLM X EB/2H,2I	G	Y	R	R	R	R	R	R	FY
DUDLEY ST WB/6A	R	R	R	R	R	R	GL	YL	FR
DUDLEY ST WB/6B,6C	G	Y	R	R	R	R	R	R	FY
WASH ST NB/2D,2G	RR	RR	RR	RR	RR	RR	GR	YR	FRR
WASH ST SB/2A(4A),2B(4B)	R	R	R	R	R	G	Y	R	FR
WASH ST SB LT/2C	RL	RL	RL	RL	RL	GL	YL	RL	FRL
BIKE MALCOMX BLVD EB/3A	G	Y	R	R	R	R	R	R	
BIKE DUDLEY ST WB/2J	G	Y	R	R	R	R	R	R	
BIKE WASH ST ST NB/3B	R	R	R	R	R	R	G	Y	
BIKE WASH ST ST SB/7A	R	R	R	R	R	R	G	Y	
C.W./N-S/5E-6E (W)	DW	DW	DW	W	FDW	DW	DW	DW	OFF
C.W./N-S/9E-10E (E)	DW	DW	DW	W	FDW	DW	DW	DW	OFF
C.W./E-W/7E-8E (N)	W/FDW	DW	DW	W	FDW	DW	DW	W/FDW	OFF
C.W./E-W/3E-4E (S)	W/FDW	DW	DW	W	FDW	DW	DW	DW	OFF

I N T E R V A L	ø1		ø2		ø3		ø4	
	MINIMUM GREEN	8			6	8		
VEHICLE EXTENSION	2			2	2			
MAXIMUM 1 GREEN	14			24	21			
MAXIMUM 2 GREEN	11			17	20			
YELLOW CLEARANCE	4			3	3			
RED CLEARANCE		3			3		3	
WALK INTERVAL	7		7			7		
PED. CLEARANCE		15		23			13	
MEMORY								
RECALL		MAX/PED						

**PROGRAM/COORDINATION**

CYCLE NO.	PATTERN	CYCLE LENGTH	OFFSET (SEC.)	PHASE SPLITS IN SECONDS				HOURS OF OPERATION
				ø1	ø2	ø3	ø4	
1	10	110	0	23	30	30	27	ALL OTHER TIMES
2	3	110	40	28	30	23	29	6:00 A.M. TO 10:00 A.M. MON-FRI
3	12	110	27	18	30	36	26	3:00 P.M. TO 7:00 P.M. MON-FRI

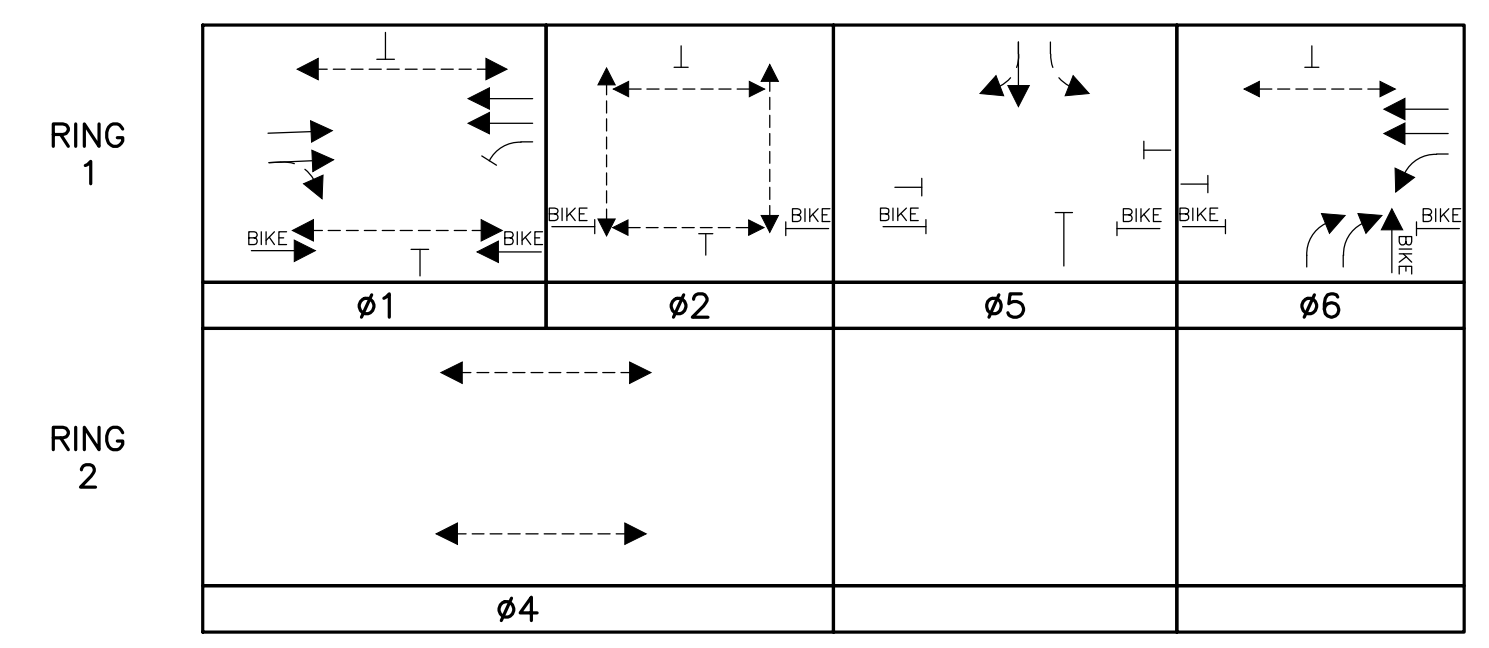
LOOP DETECTOR DATA									CLEARANCES									TECHNICAL NOTES
IDENT.	QTY.	SIZE	SPLICE	TURNS	MODE	øCALL	øEXT.	CHNL.	FROM	TO								1. MAXIMUM 1 GREEN SHALL BE USED FOR "ALL OTHER TIMES"
									G	G-GL	R	Y	W	DW	2. ALL DETECTOR LOOPS TO BE SERIES PARALLEL			
D2	3	5'x5'	S/P	3	PRES	3	3	1	G	G	Y				3. PEDESTRIAN WALK DURING COORDINATED PHASE SHALL REST IN WALK FOR THE FULLEST TIME AVAILABLE IN THE PHASE			
B2	1	5'x5'	S/P	4	PRES	3	3	1	GL		YL							
D3	3	5'x5'	S/P	3	PRES	3	3	2	GR		YR							
B3	1	5'x5'	S/P	4	PRES	3	3	2										
D1	3	15.5'x6'	S/P	3	PRES	4	2	4										
B1	1	15.5'x6'	S/P	3	PRES	4	2	4										
D4	3	5'x5'	S/P	3	PRES	4	2	4	W				W	FDW				
B4	1	5'x5'	S/P	3	PRES	4	2	4										
SD1	1	5'x5'	S/P	3	PRES	SYSTEM	E	9										
SD2	1	5'x5'	S/P	3	PRES	SYSTEM	E	10										
SD3	1	5'x5'	S/P	3	PRES	SYSTEM	E	11										
SD4	1	5'x5'	S/P	3	PRES	SYSTEM	E	12										

**MAJOR ITEMS REQUIRED**

QUANTITY	MAJOR ITEMS REQUIRED
1	8DW CONTROLLER TS2 TYPE 2 IN TYPE CC CABINET ON EXISTING FOUNDATION
2	8' TYPE 3C SIGNAL POST, BASE, PEDESTAL & FOUNDATION
6	8' TYPE 3C SIGNAL POST, BASE, PEDESTAL & FOUNDATION
1	25' TYPE 2 STEEL MAST ARM & FOUNDATION (BLACK)
1	40' TYPE 2 STEEL MAST ARM & FOUNDATION (BLACK)
2	12"- 3 SECTION (R,Y,G) LED VEHICLE SIGNAL INDICATION
6	12"- 3 SECTION (R,Y,G) LED VEHICLE SIGNAL INDICATION
2	12"- 3 SECTION (RR,YR,GR RIGHT) LED VEHICLE SIGNAL INDICATION
2	12"- 3 SECTION (RL,YL,GL LEFT) LED VEHICLE SIGNAL INDICATION
6	16"- PEDESTRIAN L.E.D. SIGNAL COUNTDOWN INDICATION
6	PEDESTRIAN PUSHBUTTON, SIGN & SADDLE, APS 3 WIRE TYPE
8	16"- PEDESTRIAN L.E.D. SIGNAL COUNTDOWN INDICATION
8	PEDESTRIAN PUSHBUTTON, SIGN & SADDLE, APS 3 WIRE TYPE
5	NON-LOUVERED BACKPLATE WITH BORDERS
10	NON-LOUVERED BACKPLATE WITH BORDERS
1	25' TYPE 2 STEEL MAST ARM & FOUNDATION (BLACK)
3	12"- 3 SECTION (R,Y,G) LED BICYCLE SIGNAL INDICATION

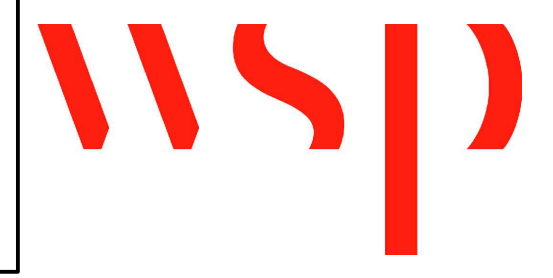
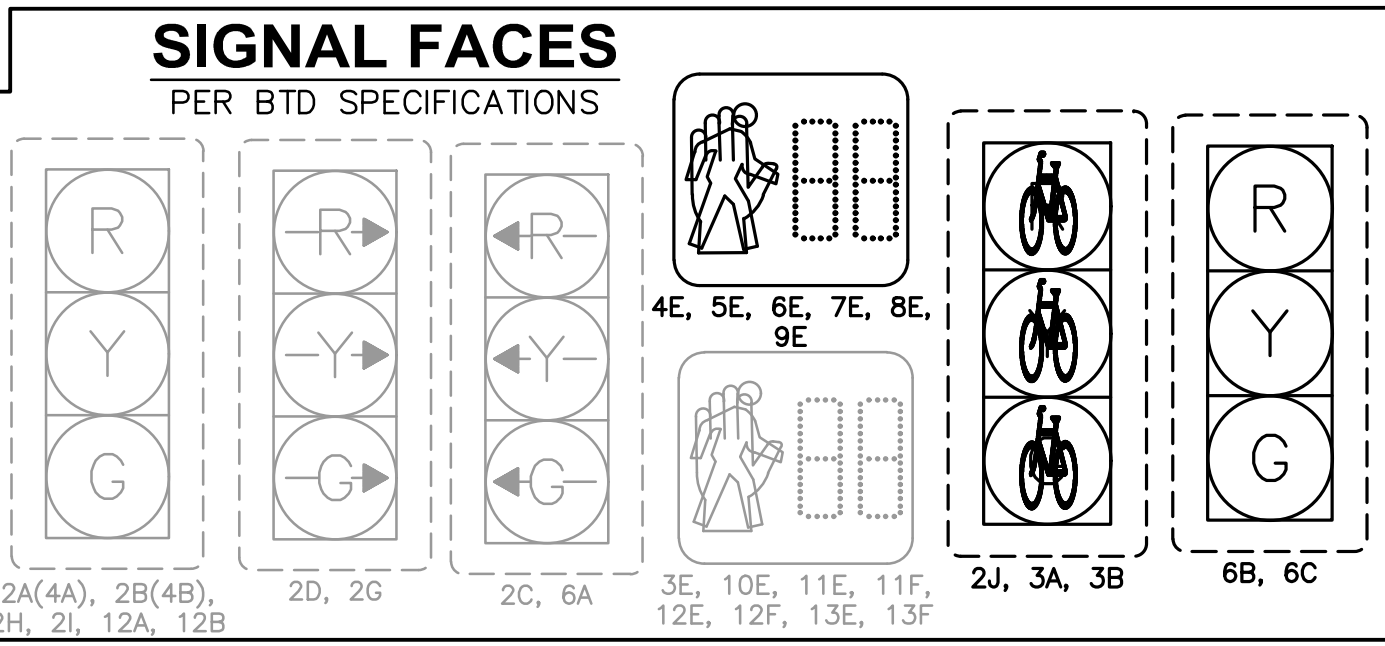
NOTE: ALL UNDERGROUND TO BE SUBJECT TO RESPECTIVE ITEMS.  
PLUS ALL MISCELLANEOUS EQUIPMENT, WIRING, CABLE AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL PER BOSTON TRANSPORTATION DEPARTMENT STANDARDS AND LATEST SPECIFICATIONS.

**PHASING DIAGRAM**



S/P = SERIES/PARALLEL  
\*\* DENOTE BICYCLE DETECTION

- NOTE:**
- ALL VEHICLE INDICATIONS SHALL BE 12" LED AND SHALL BE EQUIPPED WITH TUNNEL VISORS.
  - ALL PEDESTRIAN INDICATIONS SHALL BE 16" LED AND SHALL COUNTDOWN AND BE EQUIPPED WITH SUN CAP VISORS.
  - ALL VEHICLE INDICATIONS MOUNTED ON MASTARMS SHALL BE RIGID MOUNTED AND BE EQUIPPED WITH 5" NON-LOUVERED BACKPLATES WITH YELLOW REFLECTIVE BORDERS.
  - PEDESTRIAN WALK AND DON'T WALK SYMBOLS SHALL BE SOLID-TYPE LED OUTLINED SYMBOLS SHALL NOT BE USED PER LTD SPECS.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY E.TAMMELLEO

CHECKED BY J.CONLEY

APPROVED BY V.KARIMI

CIP XX-XX SHEET 83 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

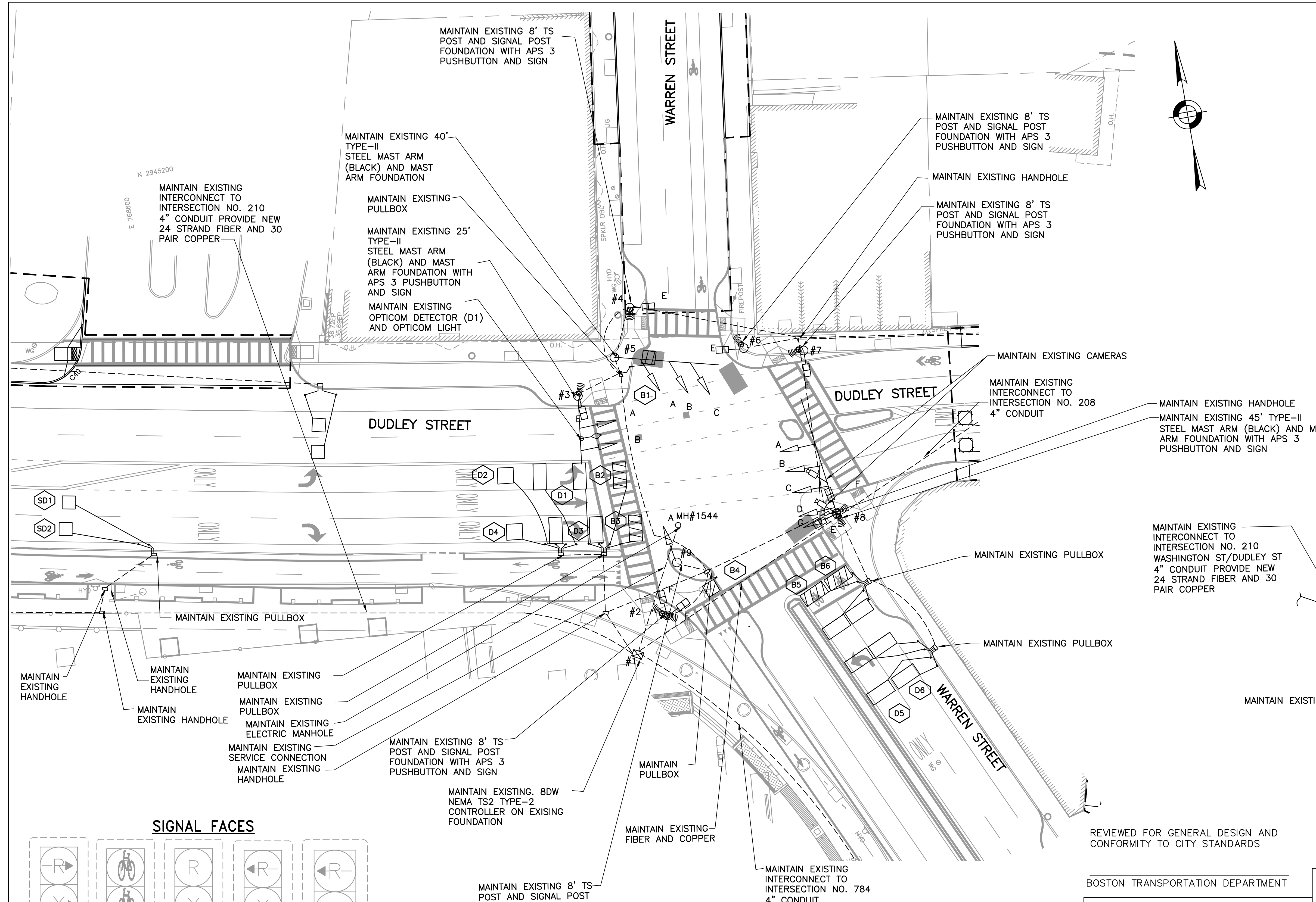
**DUDLEY SQUARE PHASE 2  
TRAFFIC SIGNAL OPERATIONS SCHEDULE**

DUDLEY STREET & WASHINGTON STREET  
ROXBURY  
INTERSECTION #210

SCALE: N.T.S. AREA: 1  
DISTRICT: 10 DATE: FEB. 7, 2019

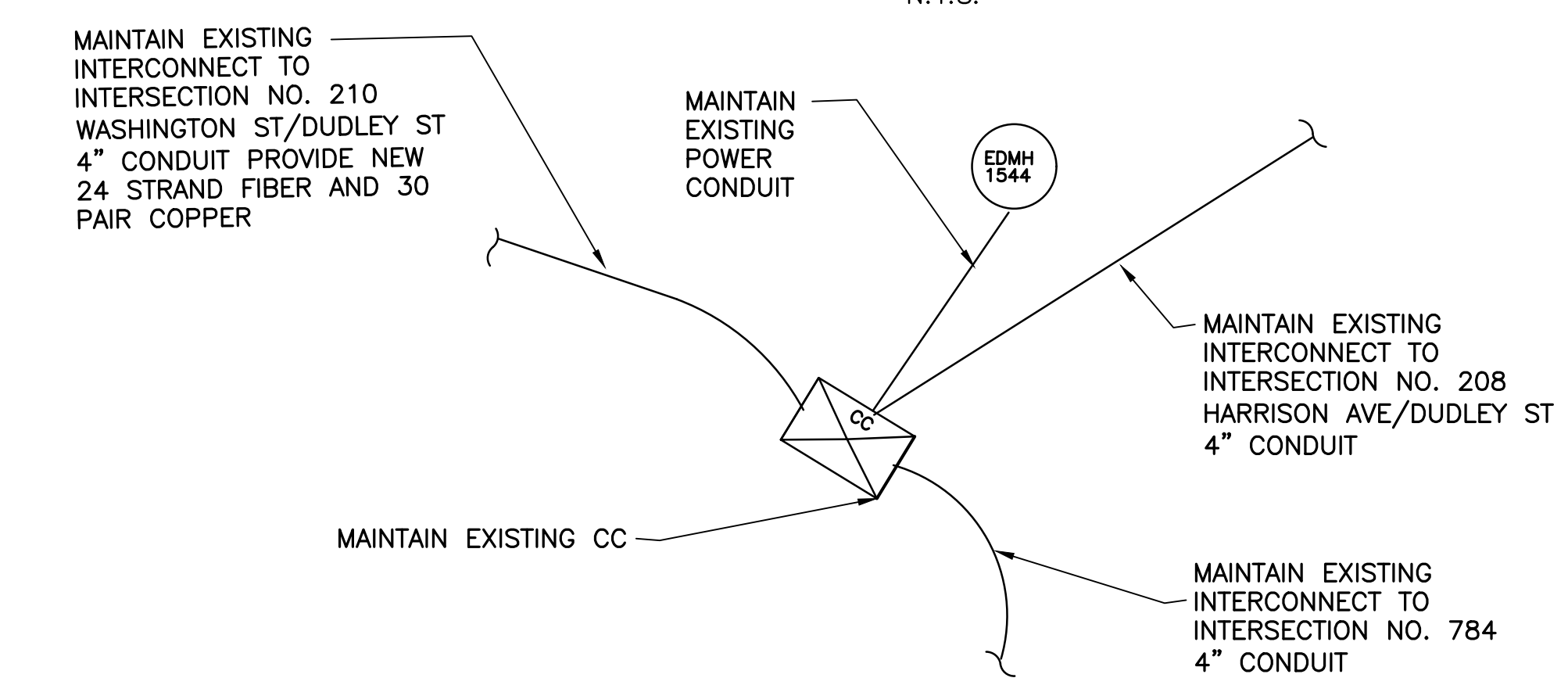
CITY ENGINEER



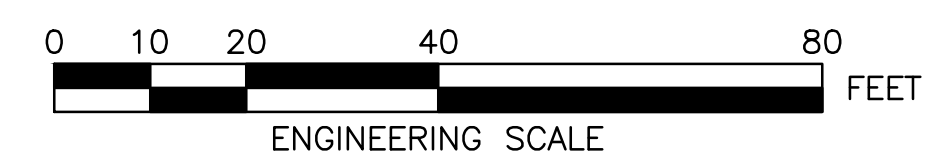
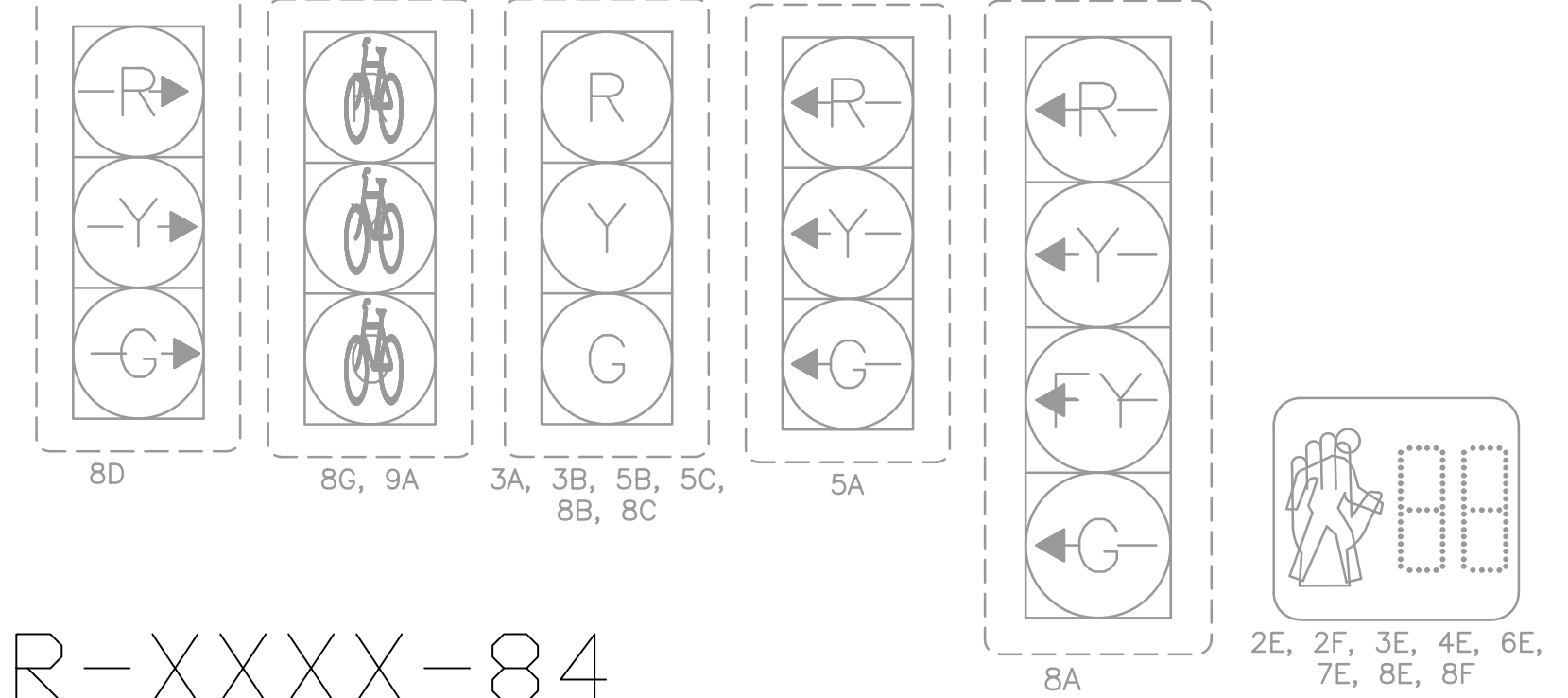


- NOTES:**
1. MAINTAIN AT ALL EXISTING TRAFFIC SIGNAL EQUIPMENT INSTALLED IN PHASE 1
  2. MAINTAIN ALL EXISTING TRAFFIC SIGNAL FOUNDATIONS INSTALLED IN PHASE 1
  3. SEE SHEETS 71 TO 77 FOR PAVEMENT MARKING AND SIGNAGE PLANS
  4. THIS PLAN REPRESENTS INTERCONNECT FROM JULY 2013 PLANS WITH A 2016 REVISION FROM THE BOSTON TRANSPORTATION DEPARTMENT
  5. MAINTAIN EXISTING INTERCONNECT TO ADJACENT INTERSECTIONS THROUGHOUT CONSTRUCTION
  6. INSTALL AND TEST PROPOSED INTERCONNECT PRIOR TO DEACTIVATION AND REMOVAL OF EXISTING INTERCONNECT
  7. ALL CONDUIT WITHIN ROADWAY SHALL BE 3" PVC SCHEDULE 80 ENCASED IN CONCRETE UNLESS OTHERWISE NOTED.

**INTERCONNECT DIAGRAM**  
N.T.S.



**SIGNAL FACES**



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

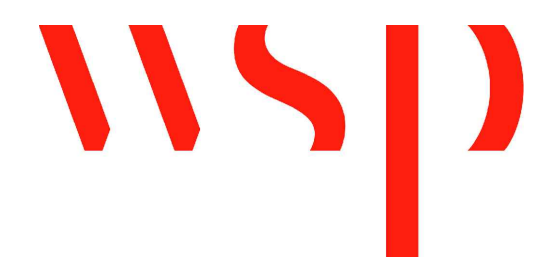
BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A. DALLY

CHECKED BY P. FUSCO

APPROVED BY J. CONLEY



CIP XX-XX SHEET 84 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
TRAFFIC SIGNAL PLAN**  
DUDLEY STREET & WARREN STREET  
ROXBURY  
INTERSECTION #209

SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
DATE: FEB. 7, 2019

CITY ENGINEER

R-XXXX-84



### TIMING AND SEQUENCE CHART

(APPROX.)

OPERATION FLASHING

STREET DIRECTION/FACE		ø1			ø5			ø6			ø7			PRE-EMPTION			OPERATION FLASHING
		GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	
DUDLEY ST EB LT/8A		FYL	YL	RL	GRN	RL	RL	GRN	RL	RL	GRN	YL	RL	RL	RL	FYL	
DUDLEY ST EB/8B,8C		G	Y	R	R	R	R	R	R	R	G	Y	R	R	R	FY	
DUDLEY ST EB RT/8D		RR	RR	RR	RR	RR	RR	GR	YR	RR	GR	YR	RR	RR	RR	FYR	
DUDLEY ST WB/3A,3B		G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	
WARREN ST NB LT/5A		RL	RL	RL	RL	RL	RL	GL	YL	RL	RL	RL	RL	RL	RL	FRL	
WARREN ST NB/5B,5C		R	R	R	G	Y	R	G	Y	R	R	R	R	R	R	FR	
BIKE SIGNAL EB/8G		GB	YB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	FYB	
BIKE SIGNAL SB/9A		RB	RB	RB	GB	YB	RB	RB	RB	RB	RB	RB	RB	RB	RB	FRB	
C.W./N-S/2F-3E (W)	DW	DW	DW	W/FDW	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF	
C.W./N-S/7E-8F (E)	DW	DW	DW	W/FDW	FDW	DW	DW	FDW	DW	DW	DW	DW	DW	DW	DW	OFF	
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C.W./E-W/2E-8E (S)	W/FDW	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	FDW	DW	OFF	

INTERVAL	ø1		ø5		ø6		ø7		PRE-EMPTION	
	MINIMUM GREEN	VEHICLE EXTENSION	MAXIMUM 1 GREEN	MAXIMUM 2 GREEN	YELLOW CLEARANCE	RED CLEARANCE	WALK INTERVAL	PED. CLEARANCE	MEMORY	RECALL
MINIMUM GREEN	8		8		8		8		30	
VEHICLE EXTENSION	2		2		2		2		-	
MAXIMUM 1 GREEN	24		22		15		26		30	
MAXIMUM 2 GREEN	23		22		15		26		30	
YELLOW CLEARANCE		3		3		3		3		3
RED CLEARANCE			3		2		3			1
WALK INTERVAL	7		7		-		-		-	-
PED. CLEARANCE		18		21		-		-		-
MEMORY									LOCKING	
RECALL		MAX/PED		OFF		OFF		OFF		OFF

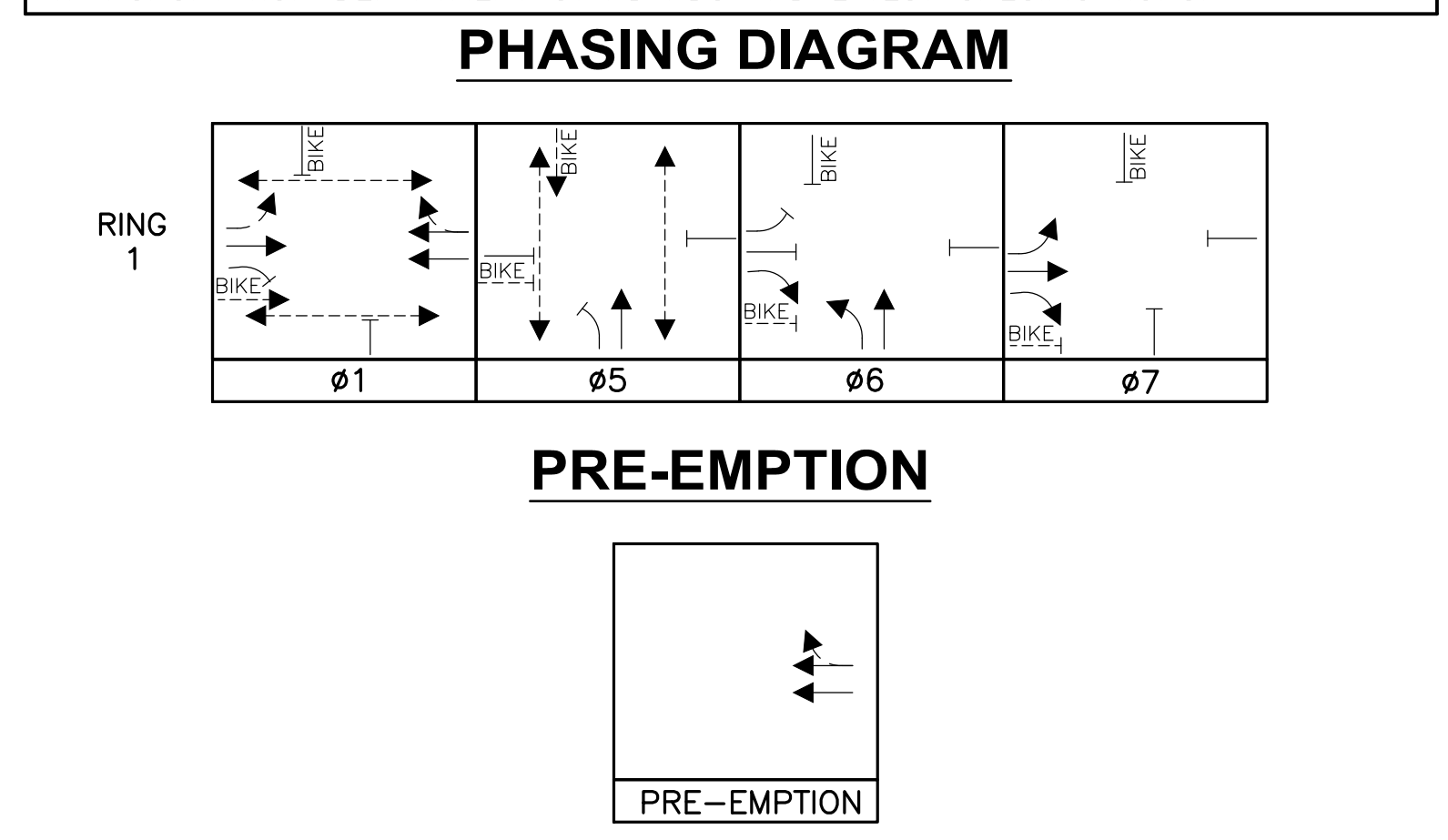
  

CYCLE NO.		PATTERN	CYCLE LENGTH	OFFSET (SEC.)	PHASE SPLITS IN SECONDS				HOURS OF OPERATION	
					ø1	ø5	ø6	ø7		
1	10	110	0		30	27	21	32	ALL OTHER TIMES	
2	3	110	96		29	27	21	33	6:00 A.M. TO 10:00 A.M. MON-FRI	
3	12	110	25		30	27	21	32	3:00 P.M. TO 7:00 P.M. MON-FRI	
COORDINATED OPERATION					EVERYDAY					
PROGRAMMED FLASH					EMERGENCY ONLY					

### MAJOR ITEMS REQUIRED

QUANTITY	MAJOR ITEMS REQUIRED
1	8DW CONTROLLER TS-2 TYPE 2 WITH INTERNAL RCU IN TYPE 'CC' CABINET ON NEW FOUNDATION
5	8' TYPE 3C SIGNAL POST, BASE, PEDESTAL & FOUNDATION
1	25' TYPE 2 STEEL MAST ARM & FOUNDATION (BLACK)
1	40' TYPE 2 STEEL MAST ARM & FOUNDATION (BLACK)
1	45' TYPE 2 STEEL MAST ARM & FOUNDATION (BLACK)
6	12"- 3 SECTION (R,Y,G) LED VEHICLE SIGNAL INDICATION
1	12"- 4 SECTION (R,Y,FY,G LEFT) LED VEHICLE SIGNAL INDICATION
1	12"- 3 SECTION (RL,YL,GL LEFT) LED VEHICLE SIGNAL INDICATION
2	12"- 3 SECTION (RB,YB,GB BIKE) LED VEHICLE SIGNAL INDICATION
1	12"- 3 SECTION (RR,YR,GR RIGHT) LED VEHICLE SIGNAL INDICATION
8	16"- PEDESTRIAN L.E.D. SIGNAL COUNTDOWN INDICATION
8	PEDESTRIAN PUSHBUTTON, SIGN & SADDLE, APS 3 WIRE TYPE
3	NON-LOUVERED BACKPLATE WITH BORDERS

NOTE: ALL UNDERGROUND TO BE SUBJECT TO RESPECTIVE ITEMS. PLUS ALL MISCELLANEOUS EQUIPMENT, WIRING, CABLE AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL PER BOSTON TRANSPORTATION DEPARTMENT STANDARDS AND LATEST SPECIFICATIONS.



LOOP DETECTOR DATA									CLEARANCES								TECHNICAL NOTES	
IDENT.	QTY.	SIZE	SPLICE	TURNS	MODE	øCALL	øEXT.	CHNL.	TO								1. ø1 IS COORDINATED PHASE 2. ø1 CHECK CALLS ø7 3. PEDESTRIAN WALK DURING COORDINATED PHASE SHALL REST IN WALK FOR THE FULLEST TIME AVAILABLE IN THE PHASE	
									FROM	G	G-GL	R	-	-	W	DW		
B1	1	5'x5'	S/P	4	PRES	5	5	1	G	G	-	Y	-	-	-	-		
D1	2	10'x5'	S/P	3	PRES	7	7	2	GL	GL	-	YL	-	-	-	-		
D2	1	6'x6'	S/P	3	PRES	7	7	2	FYL	-	-	YL	-	-	-	-		
D3	2	10'x5'	S/P	3	PRES	7	7	3	GR	-	-	YR	-	-	-	-		
D4	1	6'x6'	S/P	3	PRES	7	7	3	R	-	-	-	-	-	-	-		
B4	1	5'x5'	S/P	4	PRES	1	1	4	W	-	-	-	-	-	W	FDW		
B5	1	10'x5'	S/P	4	PRES	6	6	5	DW	-	-	-	-	-	-	DW		
B6	1	10'x5'	S/P	4	PRES	5,6	5/6	6										
D5	3	10'x5'	S/P	3	PRES	6	5/6	5										
D6	3	10'x5'	S/P	3	PRES	5,6	5/6	6										
SD1	1	5'x5'	S/P	3	PRES	SYSTEM	E	9										
SD2	1	5'x5'	S/P	3	PRES	SYSTEM	E	10										
B2	1	10'x5'	S/P	4	PRES	7	7	2										
B3	1	10'x5'	S/P	4	PRES	7	7	3										

### SIGNAL FACES

PER BTD SPECIFICATIONS

8G, 9A

5A

8D

3A, 3B, 5B, 5C, 5D, 5E, 5F, 5G

2E, 2F, 3E, 4E, 6E, 7E, 8E, 8F

**NOTE:**

- ALL VEHICLE INDICATIONS SHALL BE 12" LED AND SHALL BE EQUIPPED WITH TUNNEL VISORS.
- ALL PEDESTRIAN INDICATIONS SHALL BE 16" LED AND SHALL COUNTDOWN AND BE EQUIPPED WITH SUN CAP VISORS.
- ALL VEHICLE INDICATIONS MOUNTED ON MASTARMS SHALL BE RIGID MOUNTED AND BE EQUIPPED WITH 5" NON-LOUVERED BACKPLATES WITH YELLOW REFLECTIVE BORDERS.
- PEDESTRIAN WALK AND DON'T WALK SYMBOLS SHALL BE SOLID-TYPE LED OUTLINED SYMBOLS SHALL NOT BE USED PER BTD SPECS.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A.DALLY

CHECKED BY P.FUSCO

APPROVED BY J.CONLEY

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

### DUDLEY SQUARE PHASE 2

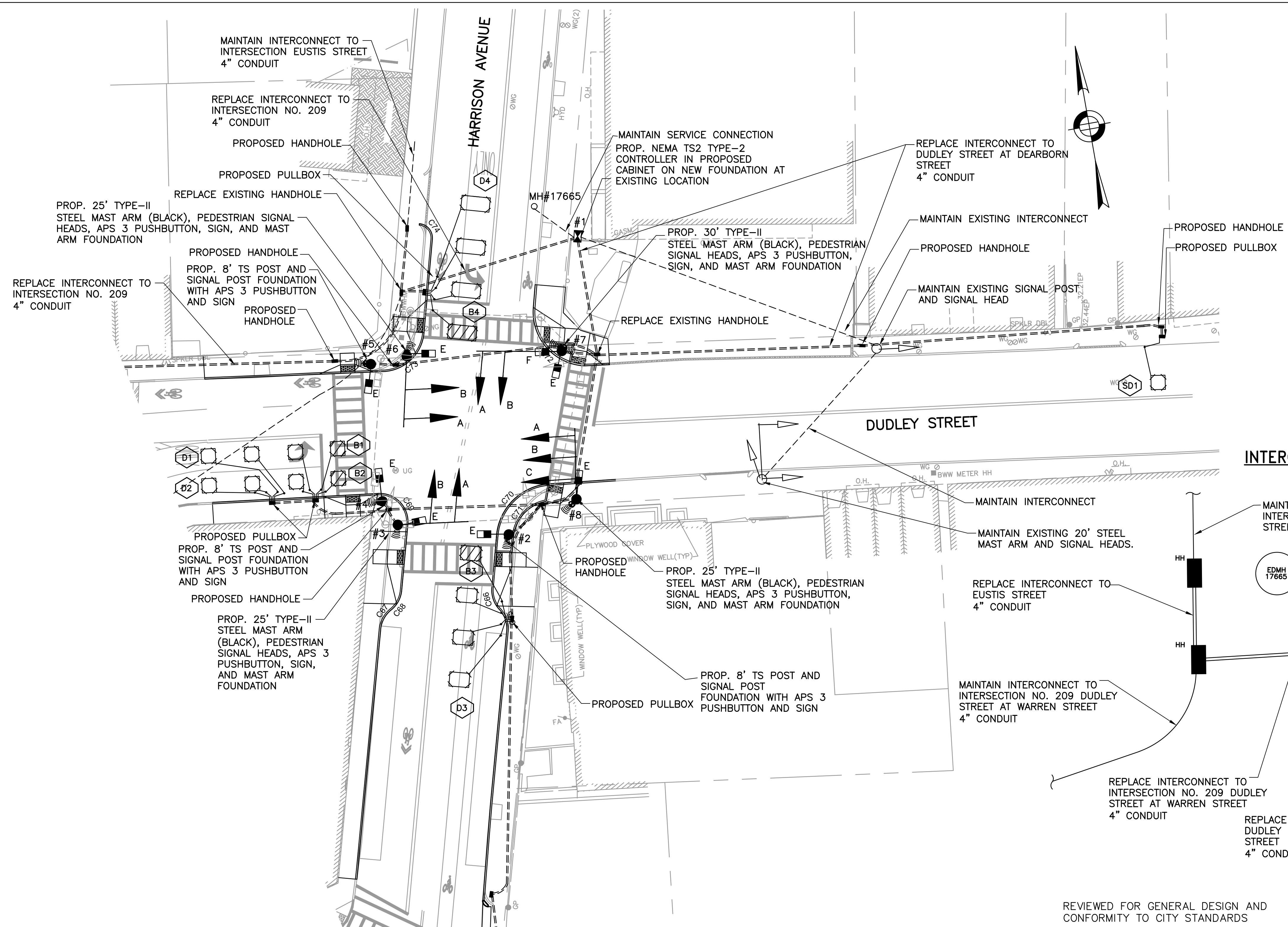
#### TRAFFIC SIGNAL OPERATIONS SCHEDULE

DUDLEY STREET & WARREN STREET  
ROXBURY  
INTERSECTION #209

SCALE: N.T.S.      AREA: 1  
DISTRICT: 10      DATE: FEB. 7, 2019

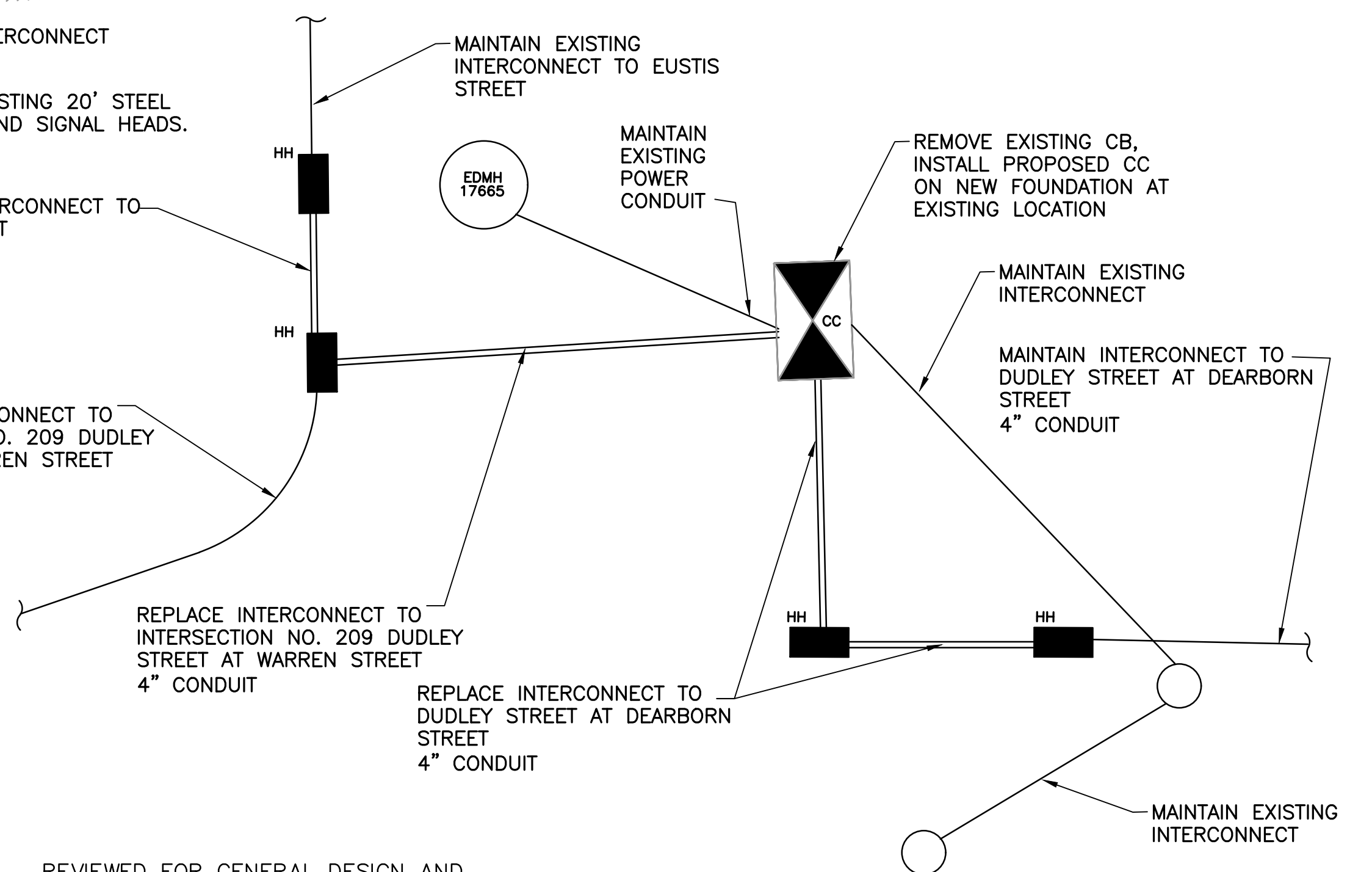
\_\_\_\_\_  
CITY ENGINEER





- NOTES:**
1. REMOVE AND TRANSPORT AT ALL EXISTING TRAFFIC SIGNAL EQUIPMENT
  2. REMOVE AND DESTROY ALL EXISTING TRAFFIC SIGNAL FOUNDATIONS
  3. SEE SHEETS 71 TO 77 FOR PAVEMENT MARKING AND SIGNAGE PLANS
  4. REMOVE AND TRANSPORT ALL EXISTING MAST ARMS, SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, APS PUSHBUTTONS, TS POSTS, AND FOUNDATIONS AT THE INTERSECTION OF WARREN STREET AT DUDLEY STREET
  5. THIS PLAN REPRESENTS INTERCONNECT FROM JULY 2017 PLANS FROM THE BOSTON TRANSPORTATION DEPARTMENT
  6. MAINTAIN EXISTING INTERCONNECT TO ADJACENT INTERSECTIONS THROUGHOUT CONSTRUCTION
  7. INSTALL AND TEST PROPOSED INTERCONNECT PRIOR TO DEACTIVATION AND REMOVAL OF EXISTING INTERCONNECT
  8. ALL VEHICULAR INDICATIONS MOUNTED ON MASTARMS FACING EAST-WEST SHALL BE RIGID MOUNTED AND BE EQUIPPED WITH 5" NON-LOUVERED BACKPLATES WITH BORDERS
  9. ALL CONDUIT WITHIN ROADWAY SHALL BE 3" PVC SCHEDULE 80 ENCASED IN CONCRETE UNLESS OTHERWISE NOTED.

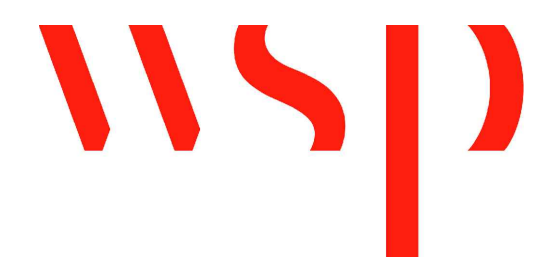
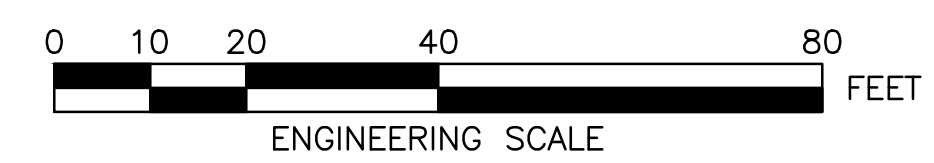
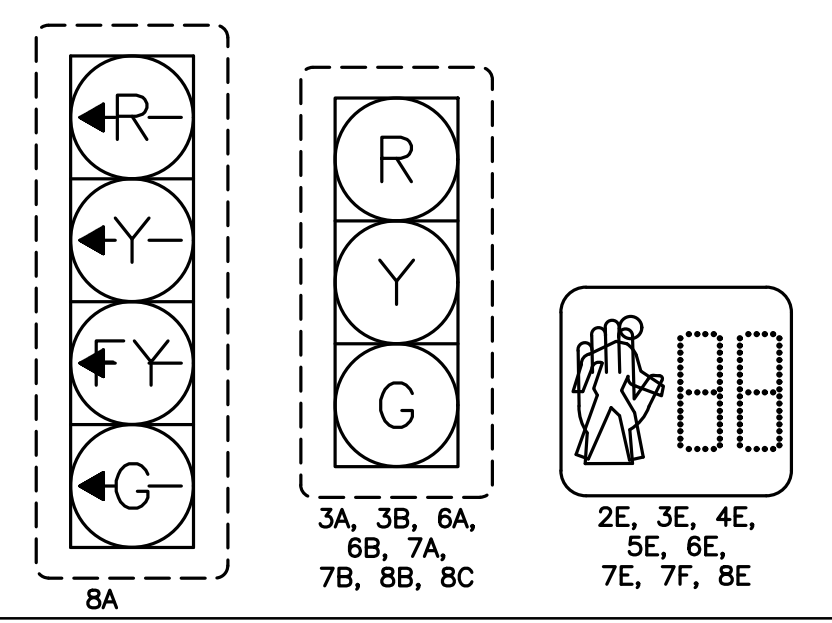
**INTERCONNECT DIAGRAM**  
N.T.S.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

CIP XX-XX SHEET 86 OF 130

**SIGNAL FACES**



BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A. DALLY
CHECKED BY	P. FUSCO
APPROVED BY	J. CONLEY

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
TRAFFIC SIGNAL PLAN**  
DUDLEY STREET & HARRISON AVENUE  
ROXBURY  
INTERSECTION #206

SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
DATE: FEB. 7, 2019

CITY ENGINEER

R-XXXX-86



### TIMING AND SEQUENCE CHART

(APPROX.)  
DUDLEY STREET  
HARRISON AVENUE

OPERATION

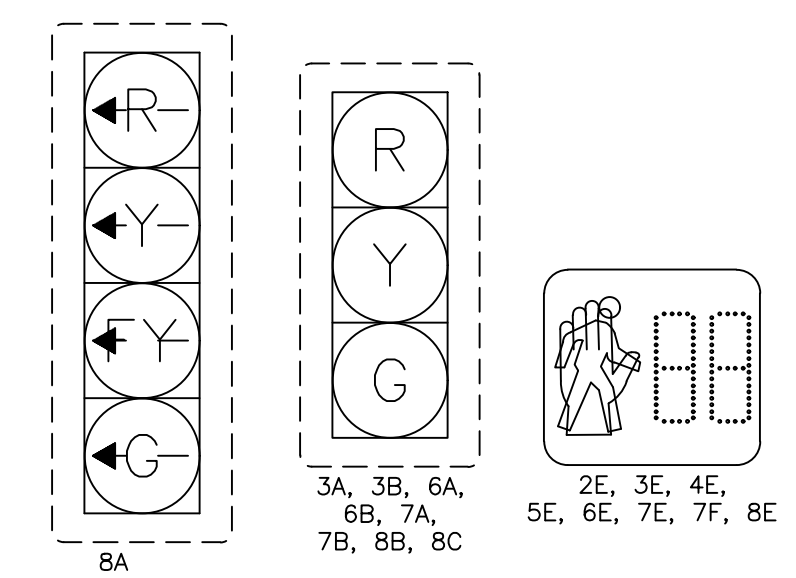
STREET DIRECTION/FACE		ø1			ø2			ø3			ø4			ø5			PRE-EMPTION			OPERATION
		GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	
DUDLEY ST EB LT/8A	R	R	R	R	GL	YL	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
DUDLEY ST EB/8B,8C	R	G	Y	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
DUDLEY ST WB/6A,6B	R	G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R				FY
HARRISON ST NB/7A,7B	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R				FR
HARRISON ST SB/3A,3B	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R				FR
C.W./N-S/4E-5E (W)	DW	DW	DW	DW	DW	DW	DW	W	W	FDW	DW	DW	DW	DW	DW	DW				OFF
C.W./N-S/7E-8E (E)	DW	DW	DW	DW	DW	DW	DW	W	W	FDW	DW	DW	DW	DW	DW	DW				OFF
C.W./E-W/6E-7F (N)	W	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				OFF
C.W./E-W/2E-3E (S)	W	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				OFF

I N T E R V A L S	MINIMUM GREEN	ø1			ø2			ø3			ø4			ø5			PRE-EMPTION
		GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	
VEHICLE EXTENSION	2																
MAXIMUM 1 GREEN	30																
MAXIMUM 2 GREEN	29																
YELLOW CLEARANCE		4			3						3			3			
RED CLEARANCE			3			2						3			1		
WALK INTERVAL	5	2						5	2								
PED. CLEARANCE			11									13					
MEMORY																	
RECALL																	

CYCLE NO.	CYCLE LENGTH	OFFSET (SEC.)	PHASE SPLITS IN SECONDS					HOURS OF OPERATION
			ø1	ø2	ø3	ø4	ø5	
1	110	0	5	37	16	5	47	ALL OTHER TIMES
2	110	7	5	38	13	5	49	6:00 A.M. TO 10:00 A.M. MON-FRI
3	110	10	5	36	18	5	46	3:00 P.M. TO 7:00 P.M. MON-FRI
COORDINATED OPERATION								EVERYDAY
PROGRAMMED FLASH								EMERGENCY ONLY

LOOP DETECTOR DATA									CLEARANCES							TECHNICAL NOTES
IDENT.	QTY.	SIZE	SPLICE	TURNS	MODE	øCALL	øEXT.	CHNL.	FROM		TO					1. PEDESTRIAN WALK DURING COORDINATED PHASE SHALL REST IN WALK FOR THE FULLEST TIME AVAILABLE IN THE PHASE
D1	3	5'x5'	S/P	3	PRES	3	3	1	G	G	G-GL	R	-	-	W	
B1	1	5'x5'	S/P	4	PRES	3	3	1	GL	-	-	YL	-	-	-	-
D2	3	5'x5'	S/P	3	PRES	2,3	2,3	2	FYL	-	-	YL	-	-	-	-
D3	3	7'x5'	S/P	3	PRES	5	5	3	R	-	-	-	-	-	-	-
B3	1	7'x5'	S/P	4	PRES	5	5	3	W	-	-	-	-	-	W	FDW
D4	3	10'x5'	S/P	3	PRES	5	5	4	-	-	-	-	-	-	-	-
B4	1	10'x5'	S/P	4	PRES	5	5	4	-	-	-	-	-	-	-	-
SD1	1	5'x5'	S/P	3	PRES	SYSTEM	E	9	-	-	-	-	-	-	-	-

S/P = SERIES/PARALLEL  
 \*\* DENOTE BICYCLE DETECTION



#### SIGNAL FACES

PER LTD SPECIFICATIONS

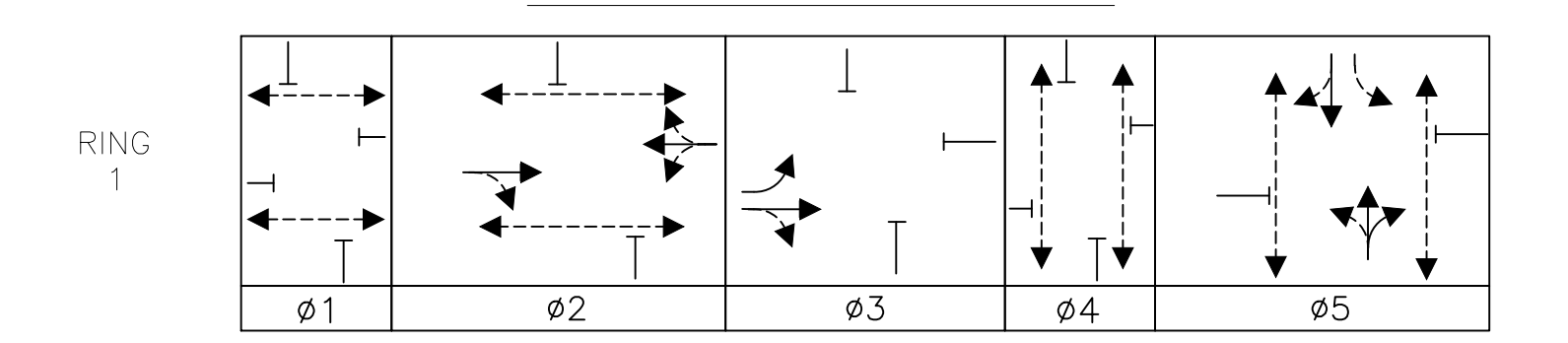
- NOTE:
- ALL VEHICLE INDICATIONS SHALL BE 12" LED AND SHALL BE EQUIPPED WITH TUNNEL VISORS.
  - ALL PEDESTRIAN INDICATIONS SHALL BE 16" LED AND SHALL COUNTDOWN AND BE EQUIPPED WITH SUN CAP VISORS.
  - ALL VEHICLE INDICATIONS MOUNTED ON MASTARMS SHALL BE RIGID MOUNTED AND BE EQUIPPED WITH 5" NON-LOUVERED BACKPLATES WITH YELLOW REFLECTIVE BORDERS.
  - PEDESTRIAN WALK AND DON'T WALK SYMBOLS SHALL BE SOLID-TYPE LED OUTLINED SYMBOLS SHALL NOT BE USED PER LTD SPECS.
  - FLASHING YELLOW ARROW PROPOSED PER MASSDOT DIRECTIVES, BUT OTHER PROTECTED/PERMISSIVE SIGNAL HEADS CAN BE UTILIZED

#### MAJOR ITEMS REQUIRED

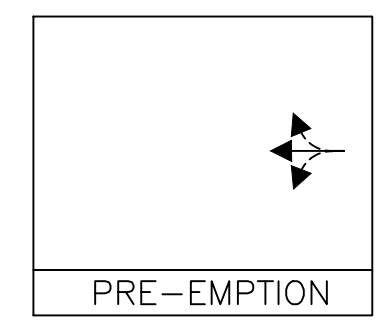
QUANTITY	MAJOR ITEMS REQUIRED
1	8DW CONTROLLER TS-2 TYPE 2 WITH INTERNAL RCU IN TYPE 'CC' CABINET ON NEW FOUNDATION
2	8' TYPE 3C SIGNAL POST, BASE, PEDESTAL & FOUNDATION
3	25' TYPE 2 STEEL MAST ARM & FOUNDATION
1	30' TYPE 2 STEEL MAST ARM & FOUNDATION
8	12"- 3 SECTION (R,Y,G) LED VEHICLE SIGNAL INDICATION
1	12"- 4 SECTION (RL,YL,FYL,G) LED VEHICLE SIGNAL INDICATION
8	16"- PEDESTRIAN LED SIGNAL COUNTDOWN INDICATION
8	PEDESTRIAN PUSHBUTTON, SIGN & SADDLE, APS 3 WIRE TYPE
5	NON-LOUVERED BACKPLATES WITH BORDERS

NOTE: ALL UNDERGROUND TO BE SUBJECT TO RESPECTIVE ITEMS. PLUS ALL MISCELLANEOUS EQUIPMENT, WIRING, CABLE AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL PER BOSTON TRANSPORTATION DEPARTMENT STANDARDS AND LATEST SPECIFICATIONS.

#### PHASING DIAGRAM



#### PRE-EMPTION



R-XXXX-87

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A.DALLY

CHECKED BY P.FUSCO

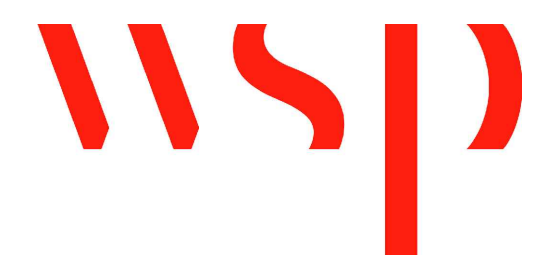
APPROVED BY J.CONLEY

CIP XX-XX SHEET 87 OF 130

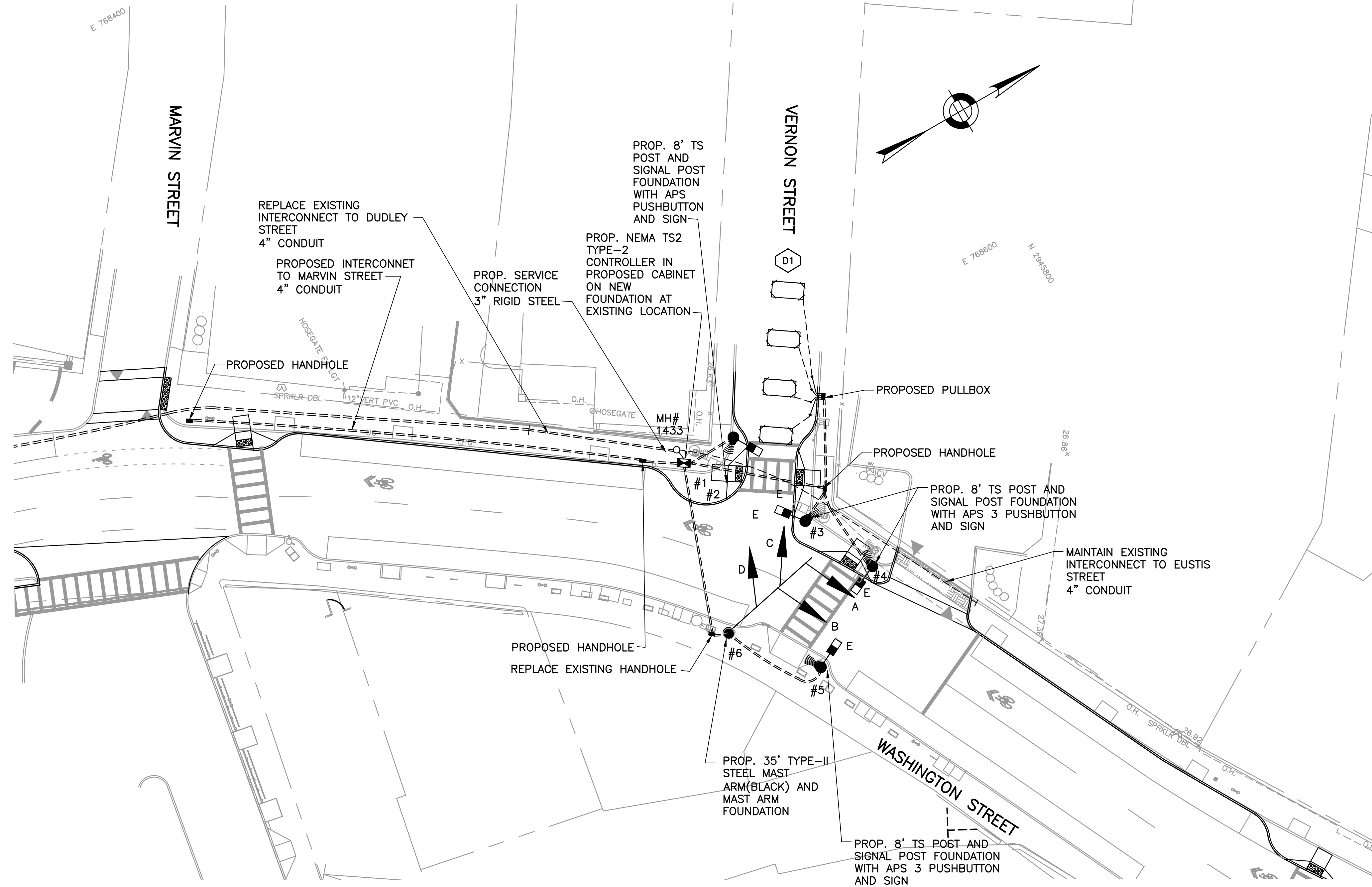
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**TRAFFIC SIGNAL OPERATIONS SCHEDULE**  
 DUDLEY STREET & HARRISON AVENUE  
 ROXBURY  
 INTERSECTION #206

SCALE: N.T.S. AREA: 1  
 DISTRICT: 10 DATE: FEB. 7, 2019

CITY ENGINEER





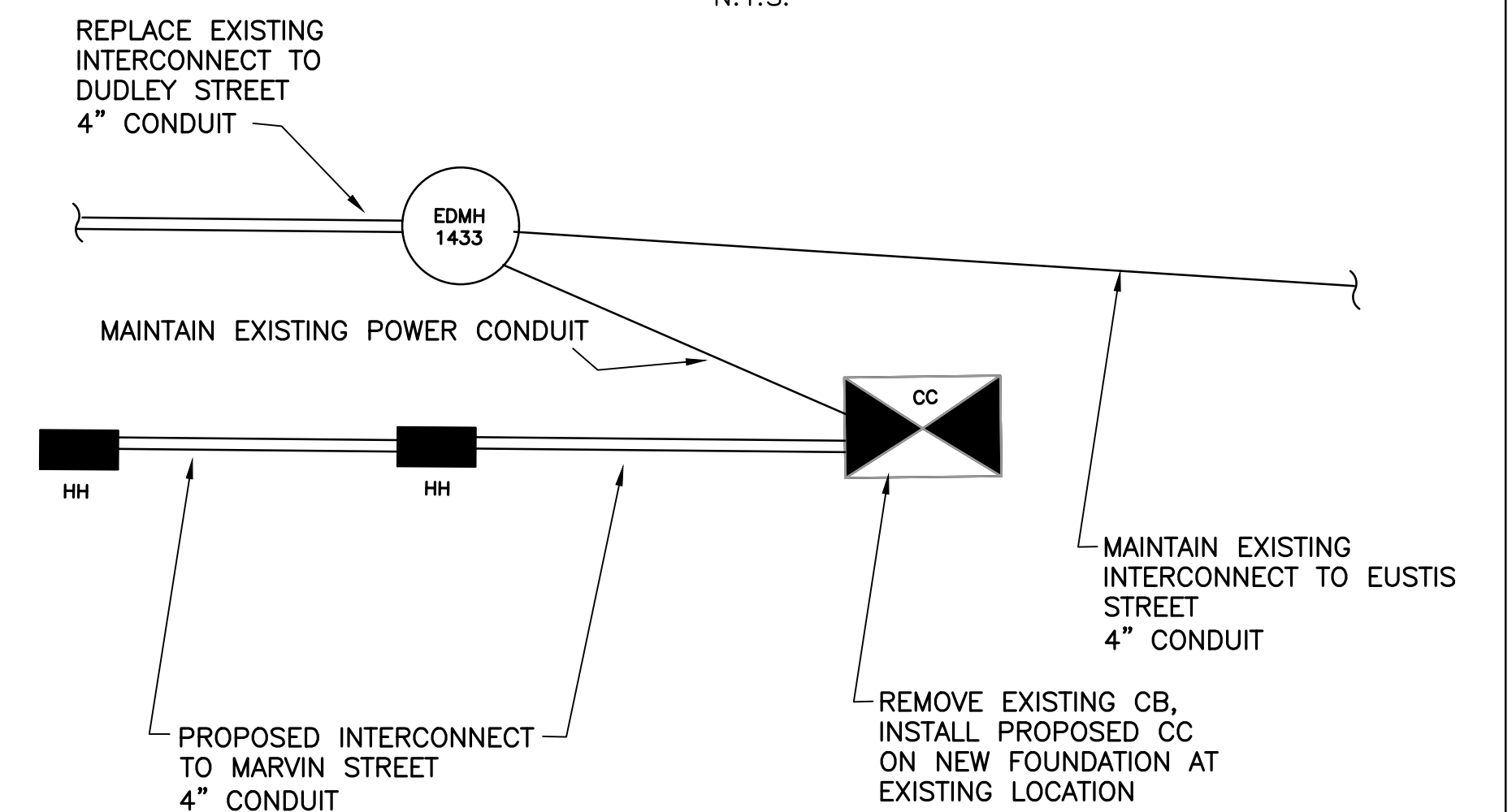


**NOTES:**

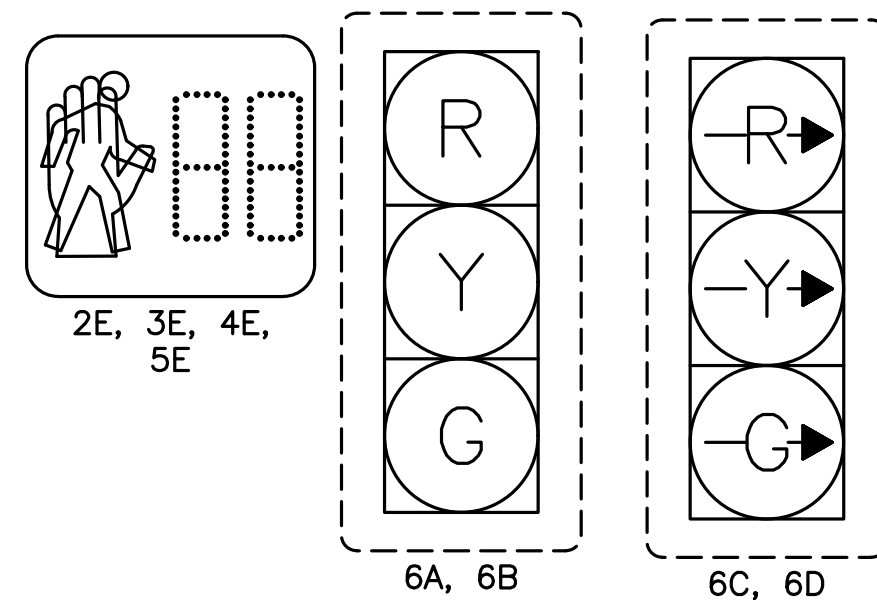
1. REMOVE AND TRANSPORT AT ALL EXISTING TRAFFIC SIGNAL EQUIPMENT
2. REMOVE AND DESTROY ALL EXISTING TRAFFIC SIGNAL FOUNDATIONS
3. SEE SHEETS 71 TO 77 FOR PAVEMENT MARKING AND SIGNAGE PLANS
4. REMOVE AND TRANSPORT ALL EXISTING MAST ARMS, SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, APS PUSHBUTTONS, TS POSTS, AND FOUNDATIONS AT THE INTERSECTION OF WARREN STREET AT DUDLEY STREET
5. THIS PLAN REPRESENTS INTERCONNECT FROM JUNE 2013 PLANS FROM THE BOSTON TRANSPORTATION DEPARTMENT
6. MAINTAIN EXISTING INTERCONNECT TO ADJACENT INTERSECTIONS THROUGHOUT CONSTRUCTION
7. INSTALL AND TEST PROPOSED INTERCONNECT PRIOR TO DEACTIVATION AND REMOVAL OF EXISTING INTERCONNECT
8. ALL VEHICULAR INDICATIONS MOUNTED ON MASTARMS FACING EAST-WEST SHALL BE RIGID MOUNTED AND BE EQUIPPED WITH 5" NON-LOUVERED BACKPLATES WITH BORDERS
9. ALL CONDUIT WITHIN ROADWAY SHALL BE 3" PVC SCHEDULE 80 ENCASED IN CONCRETE UNLESS OTHERWISE NOTED.

**INTERCONNECT DIAGRAM**

N.T.S.



**SIGNAL FACES**



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A. DALLY

CHECKED BY P. FUSCO

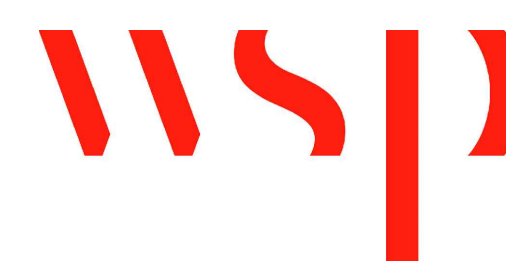
APPROVED BY J. CONLEY

CIP XX-XX SHEET 88 OF 130

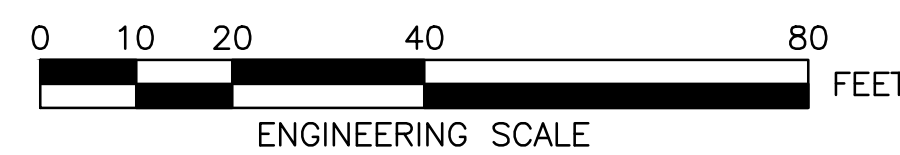
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**TRAFFIC SIGNAL PLAN**  
WASHINGTON STREET & VERNON STREET  
ROXBURY  
INTERSECTION #1970

SCALE: 1" = 20'  
DISTRICT: 10  
AREA: 1  
DATE: FEB. 7, 2019

CITY ENGINEER



R-XXXX-88



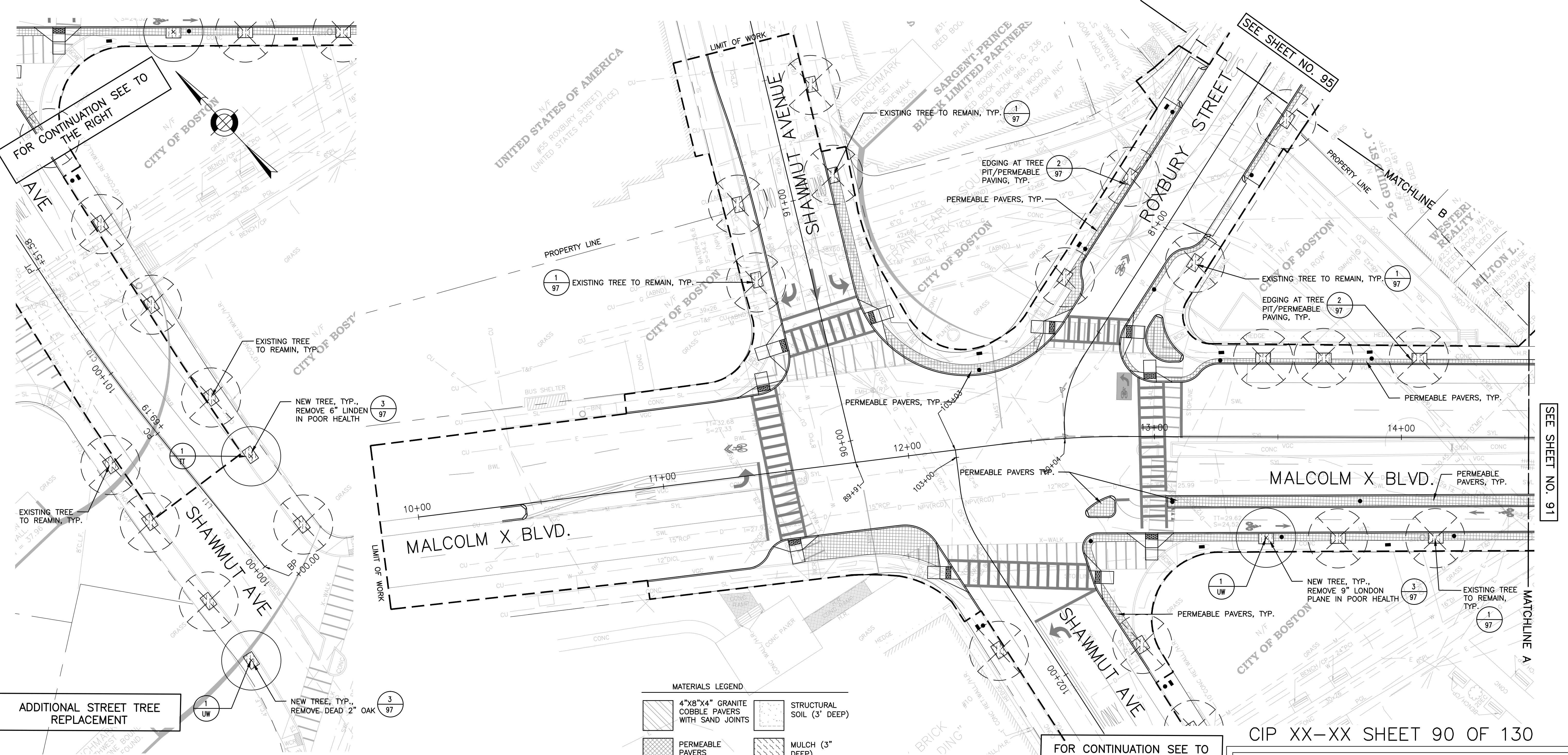






**PLANT LIST**

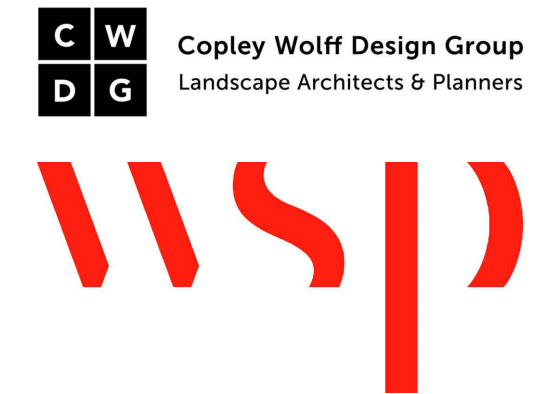
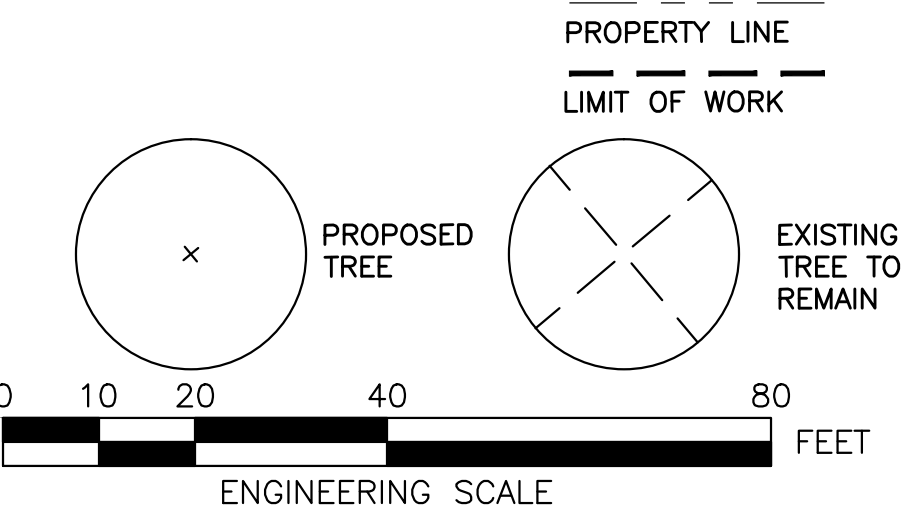
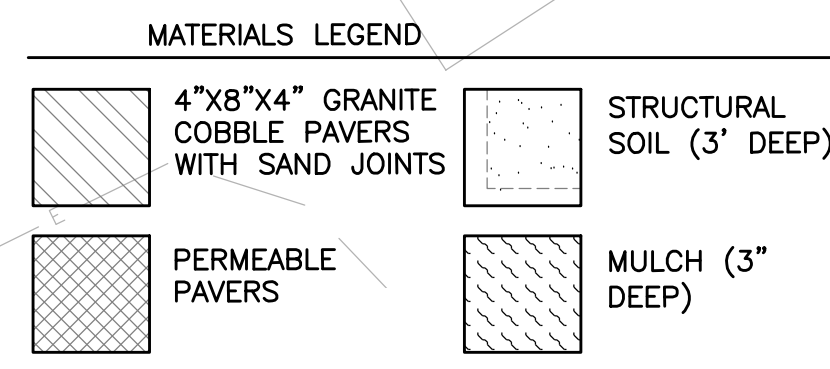
QTY	SYM	BOTANICAL NAME	COMMON NAME	COMMENTS
TREES				
1	TT	TILIA TOMENTOSA 'GREEN MOUNTAIN'	GREEN MOUNTAIN SILVER LINDEN	3"-3 1/2" CAL., B&B, SPECIMEN, CENTRAL LEADER, MATCHED, 6' CLEAR TRUNK
2	UW	ULMUS WILSONIANA	PROSPECTOR ELM	3"-3 1/2" CAL., B&B, SPECIMEN, CENTRAL LEADER, MATCHED, 6' CLEAR TRUNK



**ADDITIONAL STREET TREE REPLACEMENT**

**PLANTING NOTES**

- ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY "THE AMERICAN STANDARD FOR NURSERY STOCK," PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
- FOR TREE PLANTINGS, THE DEPTH OF PLANT MIX SHALL BE EQUAL TO THE DEPTH OF THE PLANT MATERIAL'S ROOTBALL. ROOTBALL DEPTHS SHALL MEET THE ANSI Z60.1 GUIDELINES (CURRENT RELEASE) FOR NURSERY STOCK.
- ALL PLANTS TO BE APPROVED BY THE PROJECT ENGINEER PRIOR TO ARRIVAL AT THE SITE.
- STAKE LOCATION OF ALL PROPOSED PLANT MATERIAL FOR THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO THE BEGINNING OF PLANTING.
- PROPOSED STREET TREE BRANCHES ADJACENT TO THE CYCLE TRACK SHALL BE TRIMMED TO PROVIDE A MINIMUM OF 8' OF VERTICAL CLEARANCE ABOVE THE CYCLE TRACK.



**FOR CONTINUATION SEE TO THE LEFT**

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY M. CANTU  
 CHECKED BY S. SANGER  
 APPROVED BY J. COPLEY

CIP XX-XX SHEET 90 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
 LANDSCAPE PLAN**  
 ROXBURY

SCALE: AS NOTED  
 DISTRICT: 10

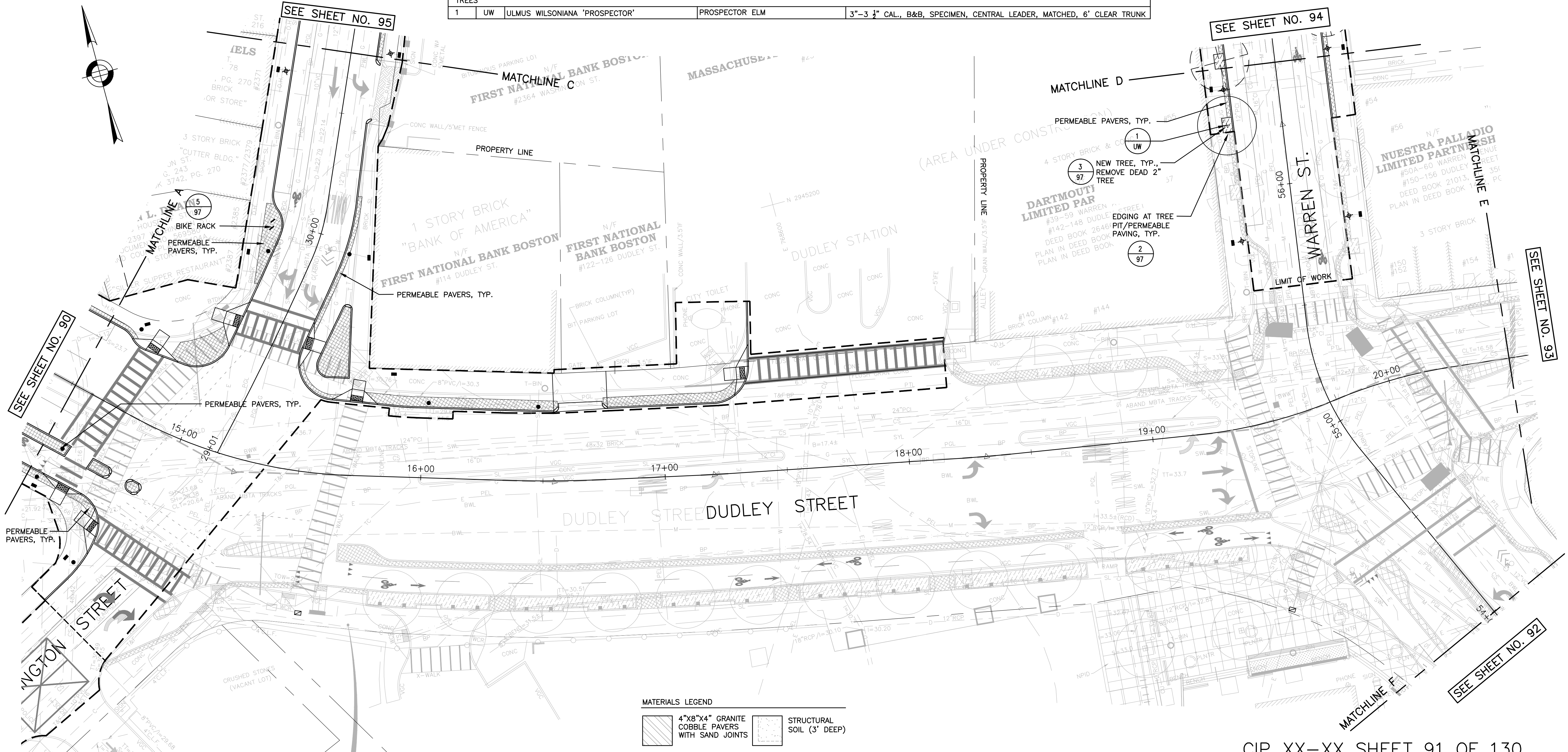
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER



**PLANT LIST**

QTY	SYM	BOTANICAL NAME	COMMON NAME	COMMENTS
<b>TREES</b>				
1	UW	ULMUS WILSONIANA 'PROSPECTOR'	PROSPECTOR ELM	3"-3 1/4" CAL., B&B, SPECIMEN, CENTRAL LEADER, MATCHED, 6' CLEAR TRUNK



- PLANTING NOTES**
- ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY "THE AMERICAN STANDARD FOR NURSERY STOCK," PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
  - FOR TREE PLANTINGS, THE DEPTH OF PLANT MIX SHALL BE EQUAL TO THE DEPTH OF THE PLANT MATERIAL'S ROOTBALL. ROOTBALL DEPTHS SHALL MEET THE ANSI Z60.1 GUIDELINES (CURRENT RELEASE) FOR NURSERY STOCK.
  - ALL PLANTS TO BE APPROVED BY THE PROJECT ENGINEER PRIOR TO ARRIVAL AT THE SITE.
  - STAKE LOCATION OF ALL PROPOSED PLANT MATERIAL FOR THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO THE BEGINNING OF PLANTING.
  - PROPOSED STREET TREE BRANCHES ADJACENT TO THE CYCLE TRACK SHALL BE TRIMMED TO PROVIDE A MINIMUM OF 8' OF VERTICAL CLEARANCE ABOVE THE CYCLE TRACK.

**MATERIALS LEGEND**

	4"x8"x4" GRANITE COBBLE PAVERS WITH SAND JOINTS		STRUCTURAL SOIL (3' DEEP)
	PERMEABLE PAVERS		MULCH (3' DEEP)

**PROPERTY LINE**  
**LIMIT OF WORK**

0 10 20 40 80 FEET  
ENGINEERING SCALE



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	M. CANTU
CHECKED BY	S. SANGER
APPROVED BY	J. COPLEY

CIP XX-XX SHEET 91 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
LANDSCAPE PLAN**  
ROXBURY

SCALE: AS NOTED  
DISTRICT: 10

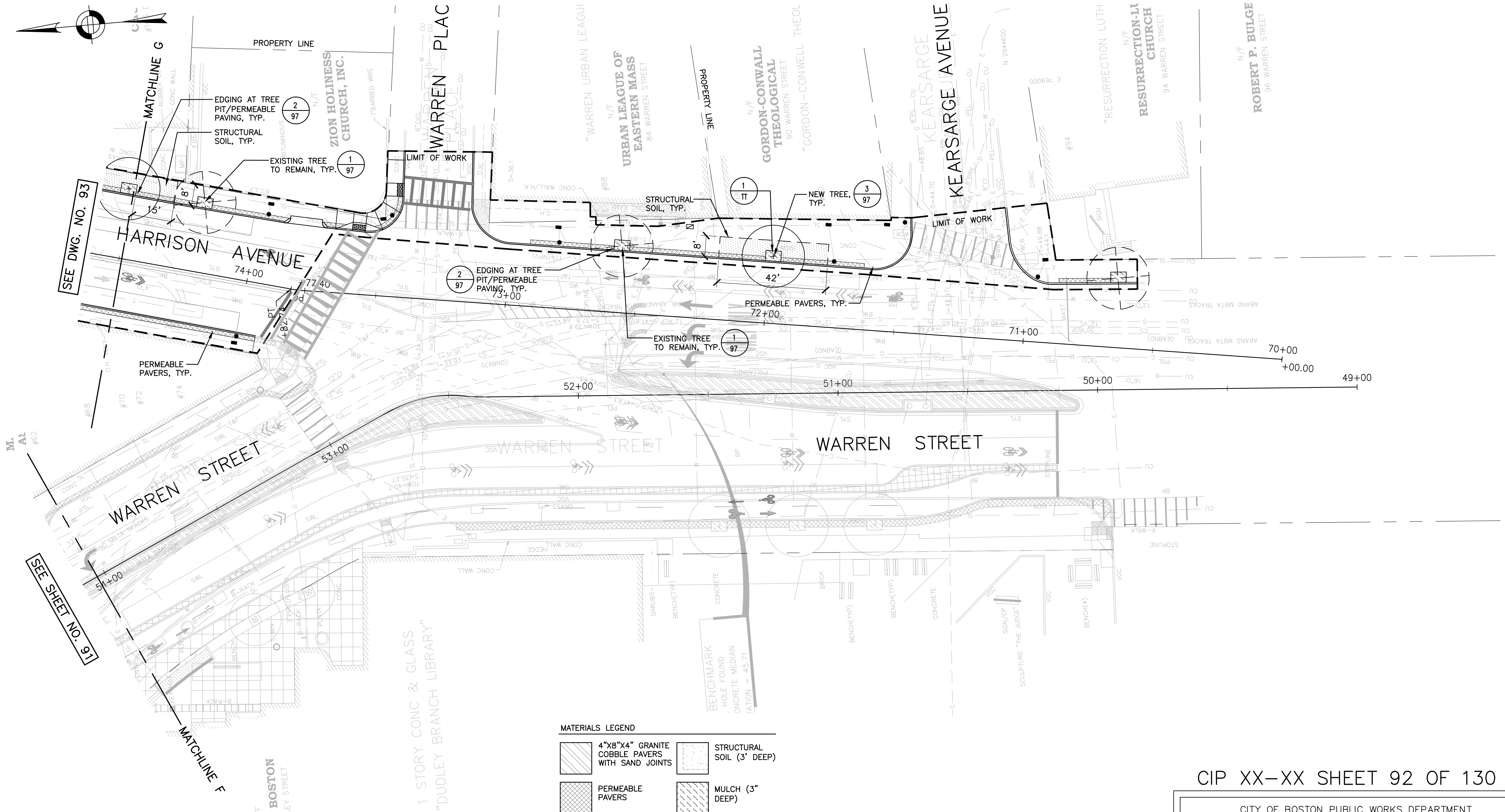
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER



**PLANT LIST**

QTY	SYM	BOTANICAL NAME	COMMON NAME	COMMENTS
<b>TREES</b>				
1	TT	TILIA TOMENTOSA 'GREEN MOUNTAIN'	GREEN MOUNTAIN SILVER LINDEN	3"-3 1/2" CAL., B&B, SPECIMEN, CENTRAL LEADER, MATCHED, 6' CLEAR TRUNK

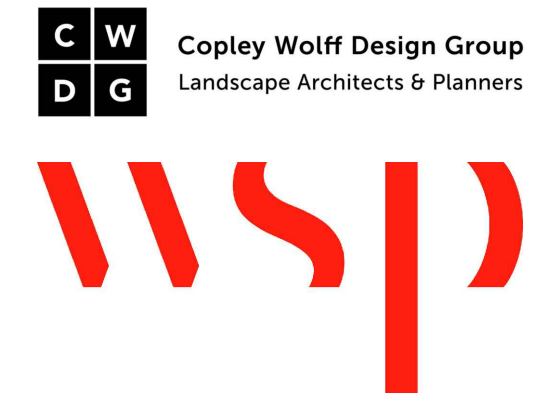
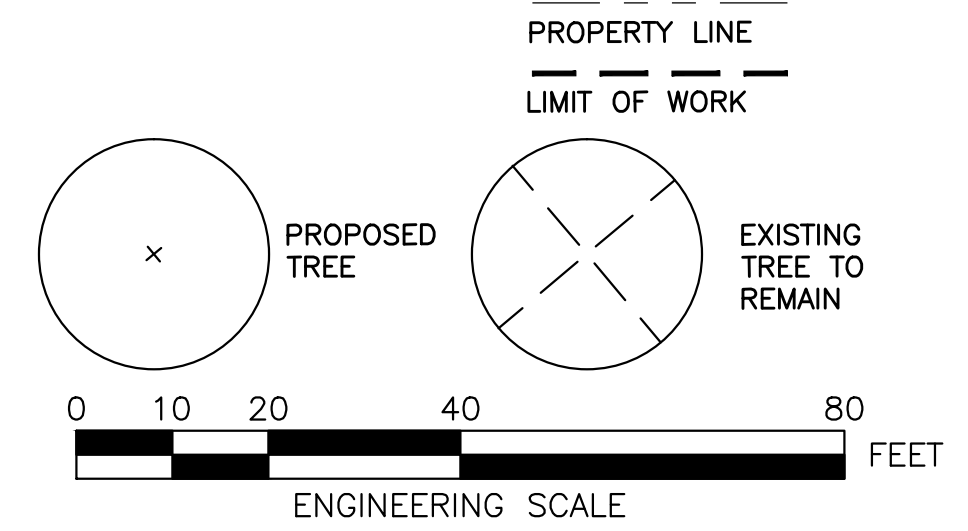


SEE DWG. NO. 93

SEE SHEET NO. 91

**MATERIALS LEGEND**

	4"x8"x4" GRANITE COBBLE PAVERS WITH SAND JOINTS		STRUCTURAL SOIL (3' DEEP)
	PERMEABLE PAVERS		MULCH (3" DEEP)



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	M. CANTU
CHECKED BY	S. SANGER
APPROVED BY	J. COPLEY

**PLANTING NOTES**

- ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY "THE AMERICAN STANDARD FOR NURSERY STOCK," PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
- FOR TREE PLANTINGS, THE DEPTH OF PLANT MIX SHALL BE EQUAL TO THE DEPTH OF THE PLANT MATERIAL'S ROOTBALL. ROOTBALL DEPTHS SHALL MEET THE ANSI Z60.1 GUIDELINES (CURRENT RELEASE) FOR NURSERY STOCK.
- ALL PLANTS TO BE APPROVED BY THE PROJECT ENGINEER PRIOR TO ARRIVAL AT THE SITE.
- STAKE LOCATION OF ALL PROPOSED PLANT MATERIAL FOR THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO THE BEGINNING OF PLANTING.
- PROPOSED STREET TREE BRANCHES ADJACENT TO THE CYCLE TRACK SHALL BE TRIMMED TO PROVIDE A MINIMUM OF 8' OF VERTICAL CLEARANCE ABOVE THE CYCLE TRACK.

CIP XX-XX SHEET 92 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
 LANDSCAPE PLAN**  
 ROXBURY

SCALE: AS NOTED  
 DISTRICT: 10

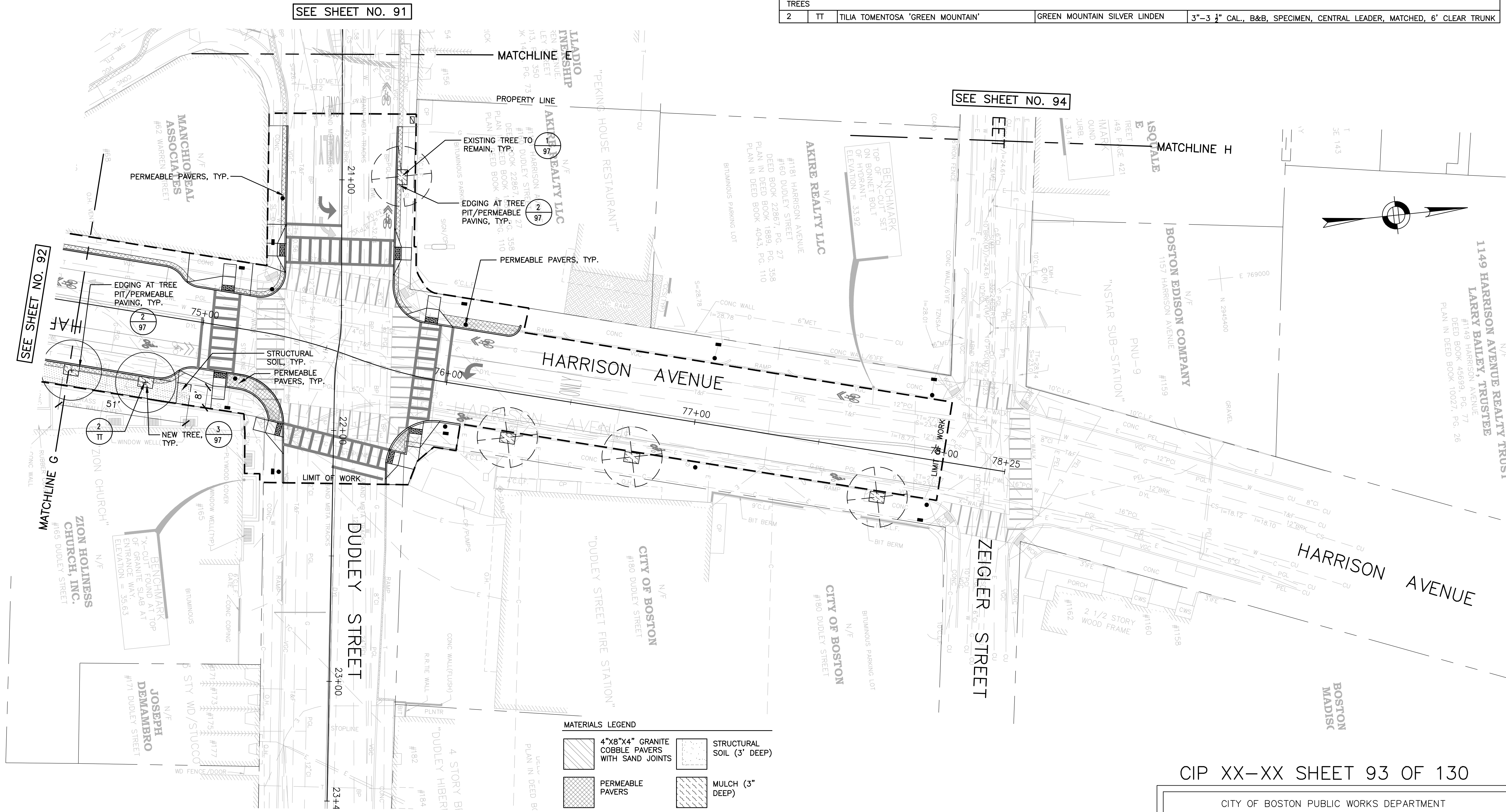
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

\_\_\_\_\_  
 CITY ENGINEER



**PLANT LIST**

QTY	SYM	BOTANICAL NAME	COMMON NAME	COMMENTS
<b>TREES</b>				
2	TT	TILIA TOMENTOSA 'GREEN MOUNTAIN'	GREEN MOUNTAIN SILVER LINDEN	3"-3 1/2" CAL., B&B, SPECIMEN, CENTRAL LEADER, MATCHED, 6' CLEAR TRUNK



**MATERIALS LEGEND**

	4"x8"x4" GRANITE COBBLE PAVERS WITH SAND JOINTS		STRUCTURAL SOIL (3' DEEP)
	PERMEABLE PAVERS		MULCH (3' DEEP)

**PROPERTY LINE**  
**LIMIT OF WORK**

**ENGINEERING SCALE**

0 10 20 40 80 FEET

PROPOSED TREE (circle with 'x')

EXISTING TREE TO REMAIN (circle with 'x' and lines)



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	M. CANTU
CHECKED BY	S. SANGER
APPROVED BY	J. COPLEY

CIP XX-XX SHEET 93 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
LANDSCAPE PLAN**  
ROXBURY

SCALE: AS NOTED  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

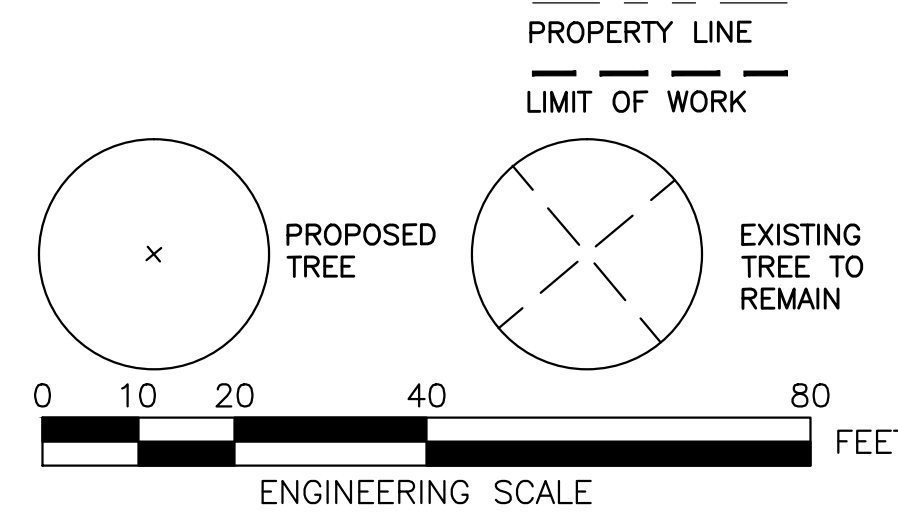
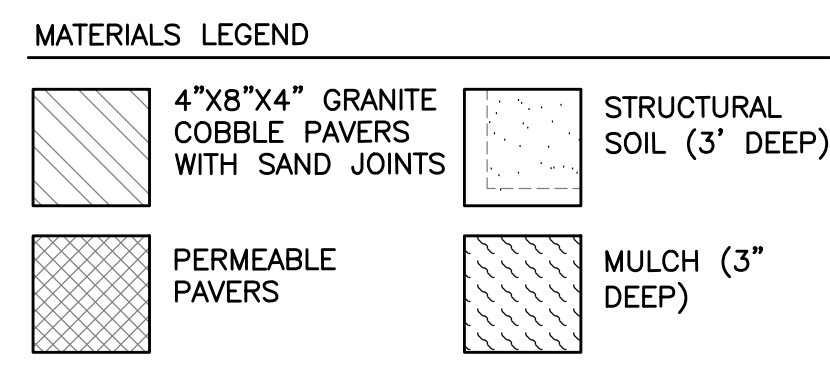
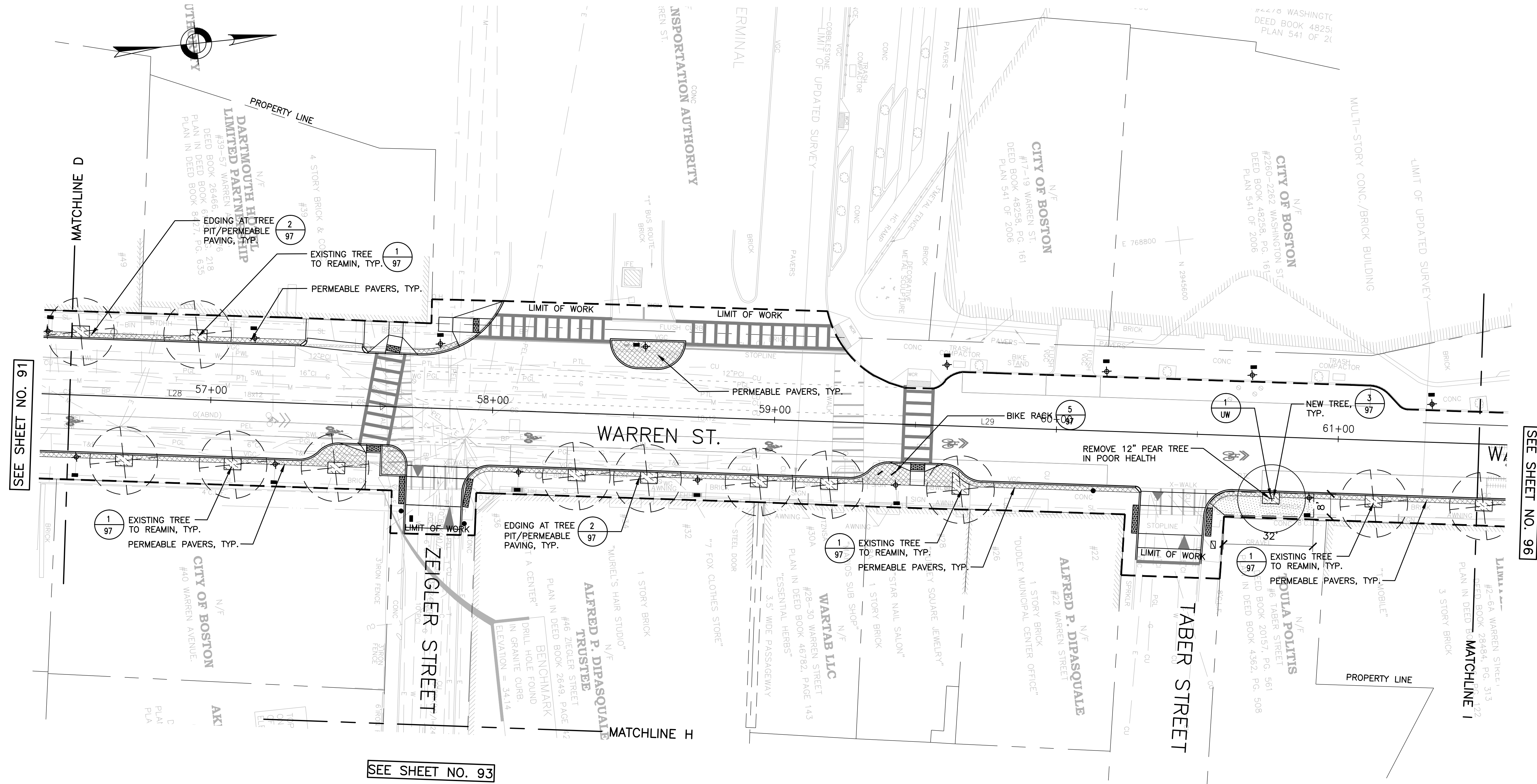
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**PLANT LIST**

QTY	SYM	BOTANICAL NAME	COMMON NAME	COMMENTS
<b>TREES</b>				
1	UW	ULMUS WILSONIANA 'PROSPECTOR'	PROSPECTOR ELM	3"-3 1/2" CAL., B&B, SPECIMEN, CENTRAL LEADER, MATCHED, 6' CLEAR TRUNK



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	M. CANTU
CHECKED BY	S. SANGER
APPROVED BY	J. COPLEY

**PLANTING NOTES**

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CIP XX-XX SHEET 94 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
LANDSCAPE PLAN**  
ROXBURY

SCALE: AS NOTED  
DISTRICT: 10

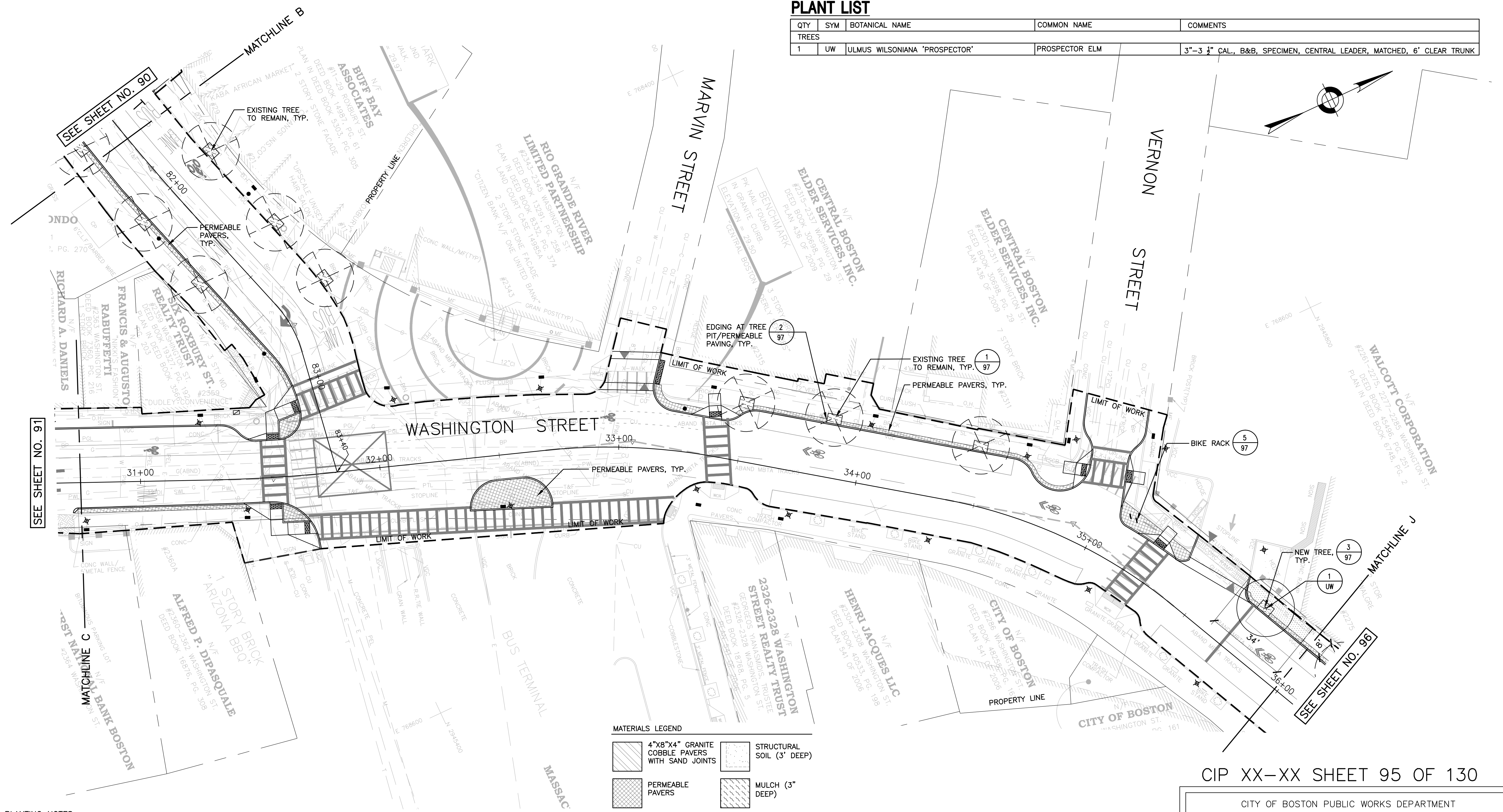
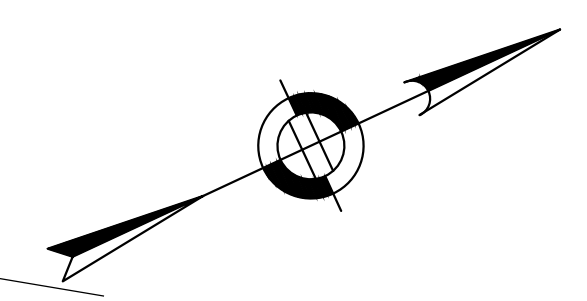
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER



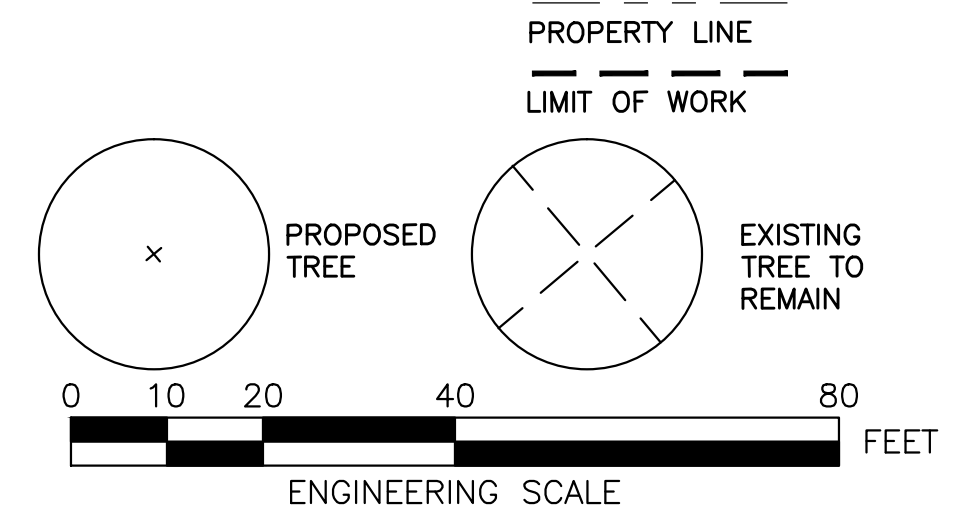
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QTY	SYM	BOTANICAL NAME	COMMON NAME	COMMENTS
<b>TREES</b>				
1	UW	ULMUS WILSONIANA 'PROSPECTOR'	PROSPECTOR ELM	3"-3 1/2" CAL., B&B, SPECIMEN, CENTRAL LEADER, MATCHED, 6' CLEAR TRUNK



**MATERIALS LEGEND**

	4"x8"x4" GRANITE COBBLE PAVERS WITH SAND JOINTS		STRUCTURAL SOIL (3' DEEP)
	PERMEABLE PAVERS		MULCH (3" DEEP)



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SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	M. CANTU
CHECKED BY	S. SANGER
APPROVED BY	J. COPLEY



CIP XX-XX SHEET 95 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

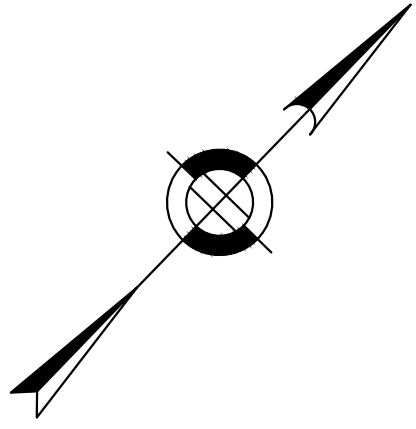
**DUDLEY SQUARE PHASE 2  
LANDSCAPE PLAN**  
ROXBURY

SCALE: AS NOTED  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

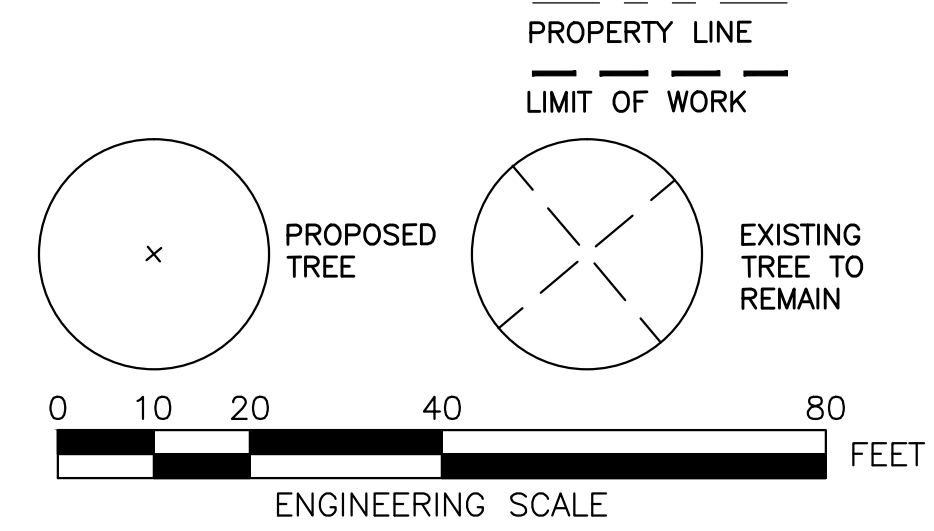
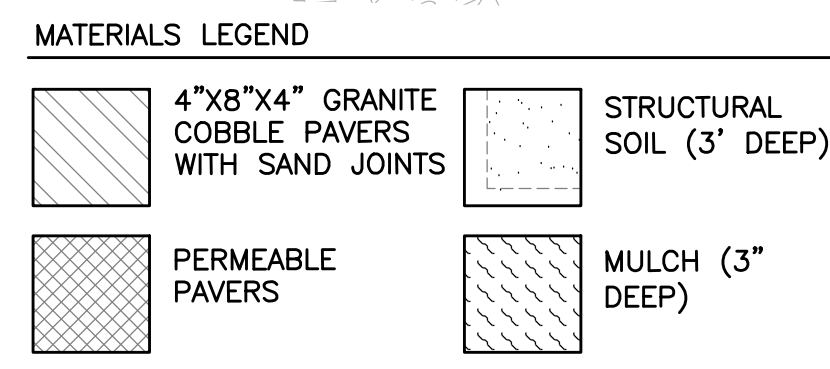
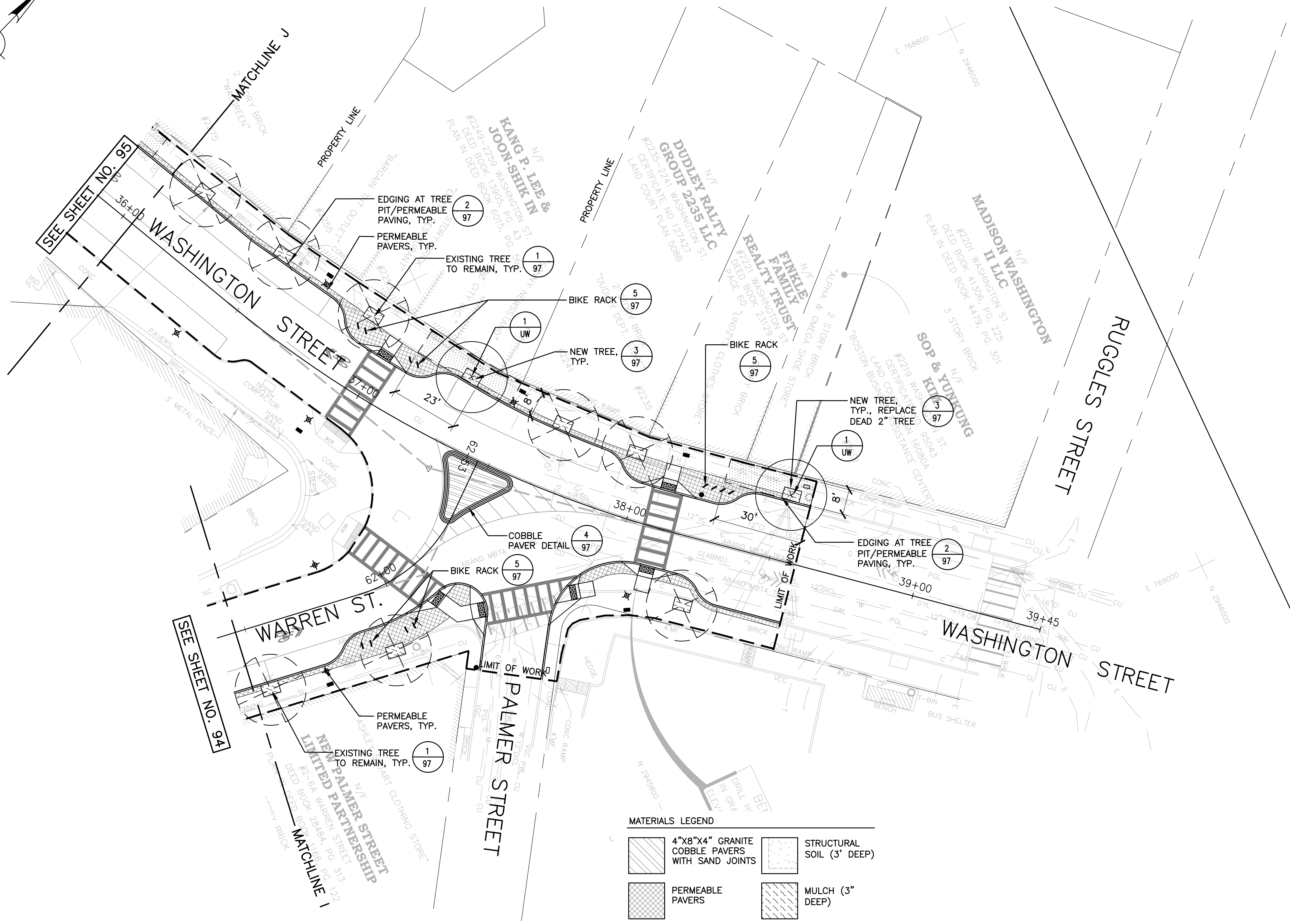
CITY ENGINEER





**PLANT LIST**

QTY	SYM	BOTANICAL NAME	COMMON NAME	COMMENTS
TREES				
2	UW	ULMUS WILSONIANA 'PROSPECTOR'	PROSPECTOR ELM	3"-3 1/2" CAL., B&B, SPECIMEN, CENTRAL LEADER, MATCHED, 6' CLEAR TRUNK



**PLANTING NOTES**

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CIP XX-XX SHEET 96 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
LANDSCAPE PLAN**  
ROXBURY

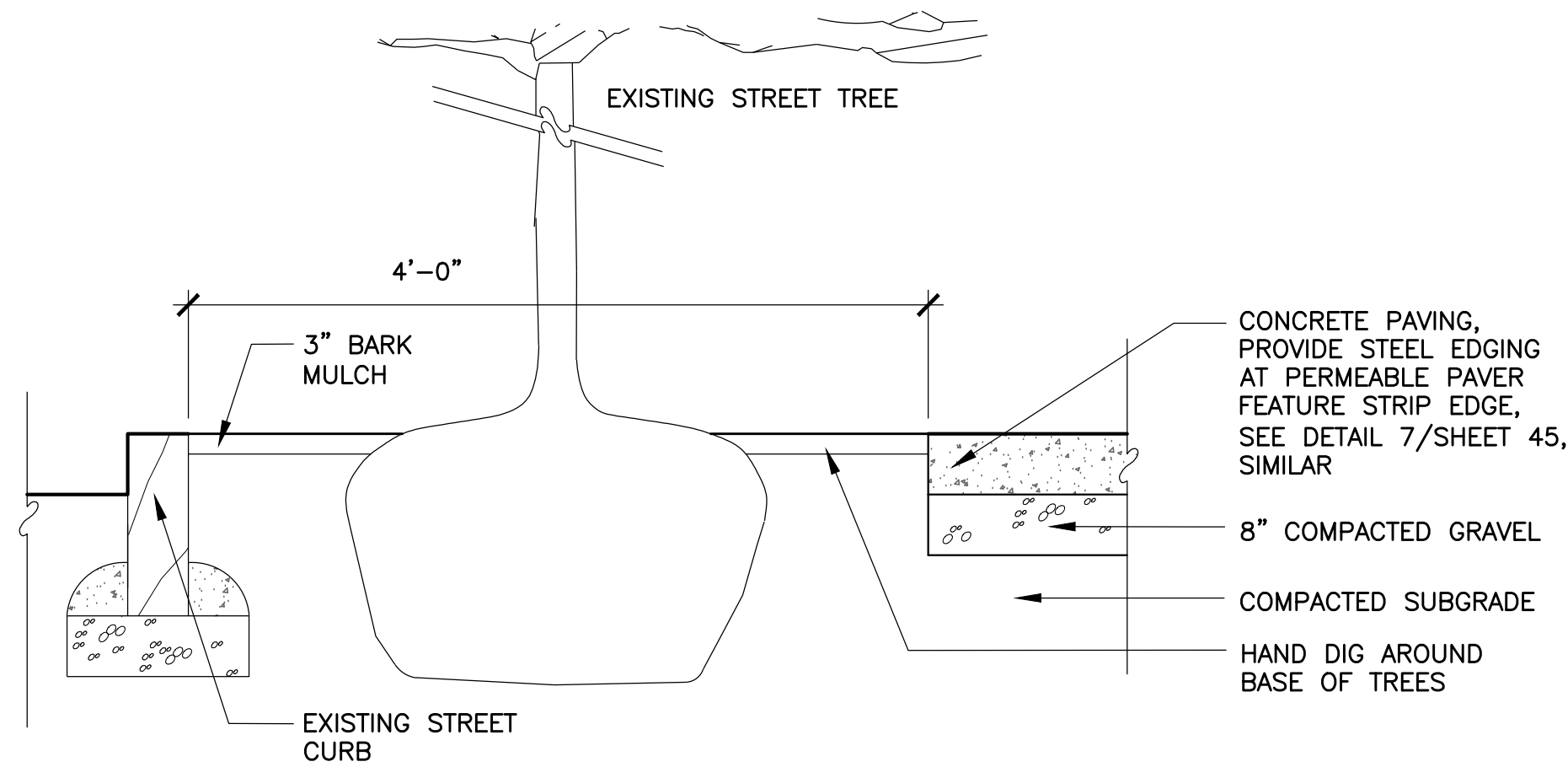
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DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

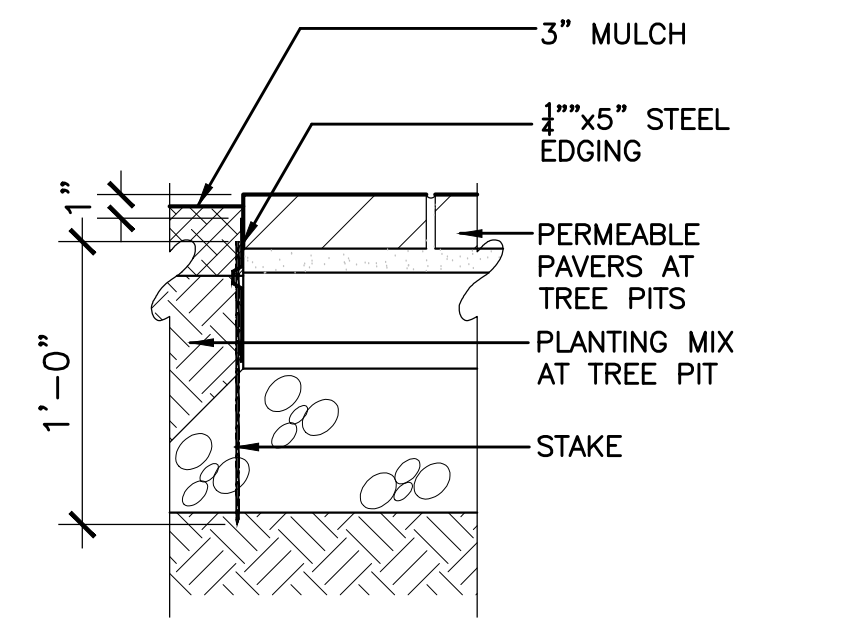
SURVEY BY BRYANT ASSOCIATES  
DRAWN BY M. CANTU  
CHECKED BY S. SANGER  
APPROVED BY J. COPLEY

CITY ENGINEER

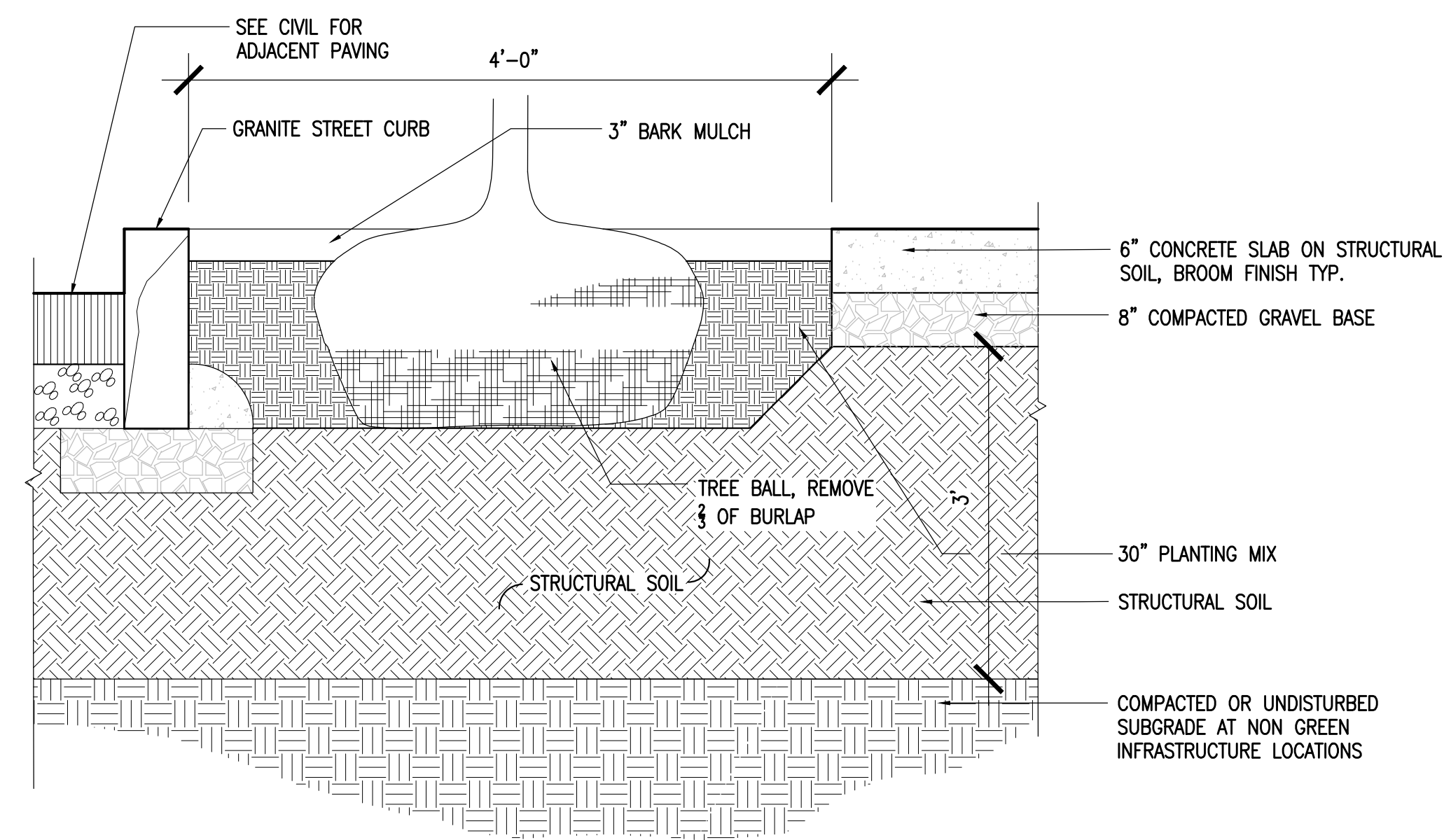




**1** EXISTING STREET TREE PAVING EDGE DETAIL  
SCALE: 3/4" = 1'-0"

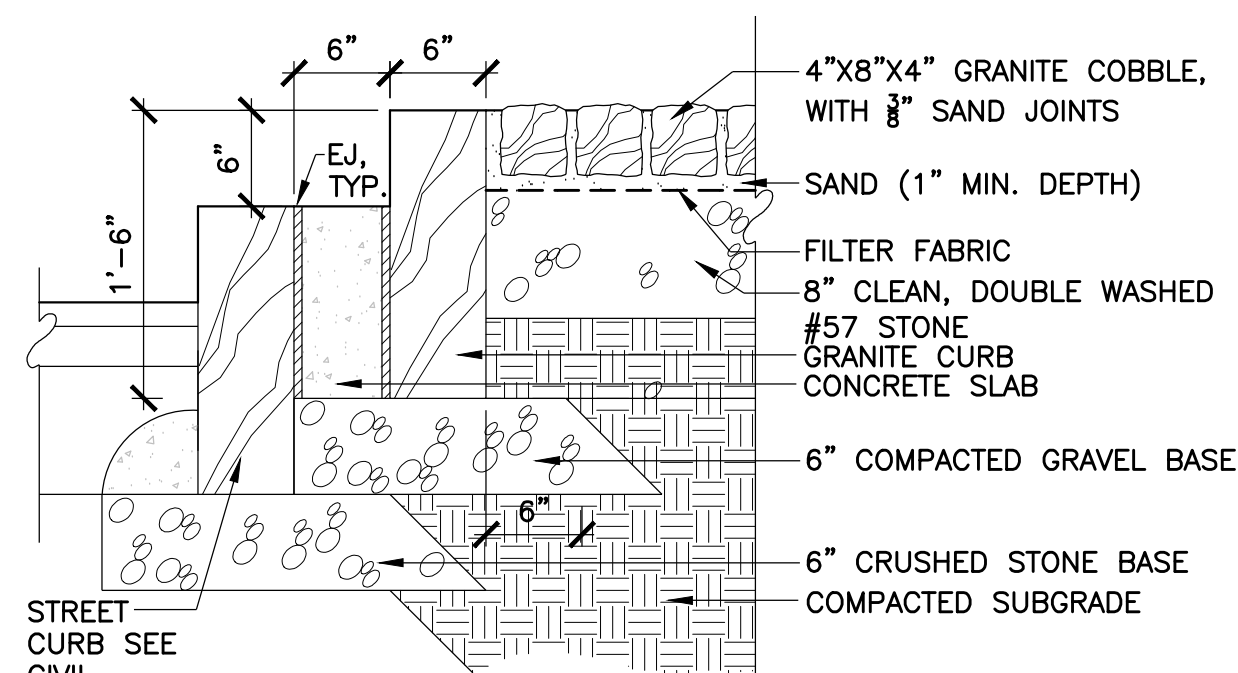


**2** EDGE DETAIL AT TREE PIT/PERMEABLE PAVING  
SCALE: 1-1/2" = 1'-0"

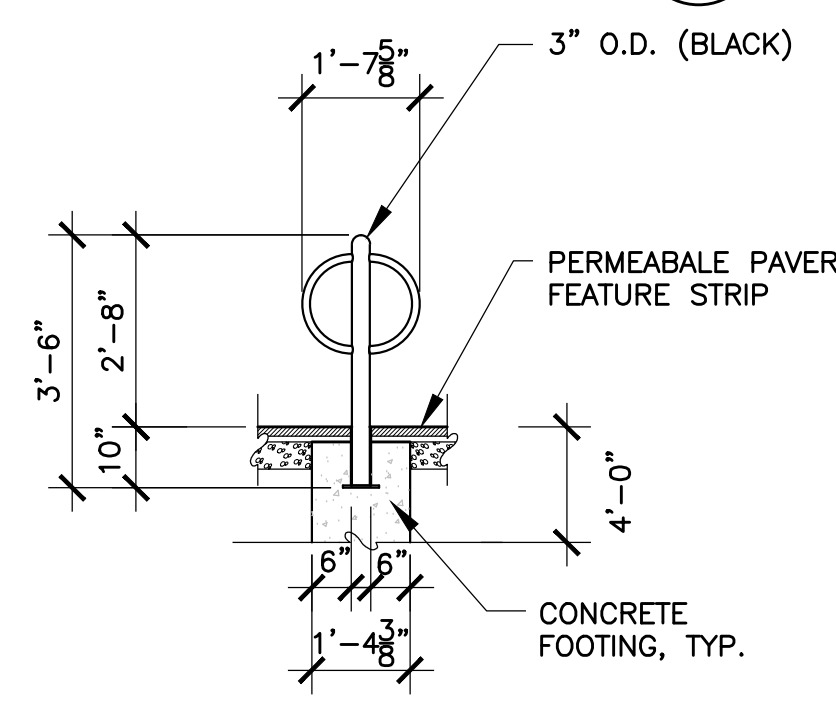


**3** TREE PIT DETAIL  
SCALE: 3/32" = 1'-0"

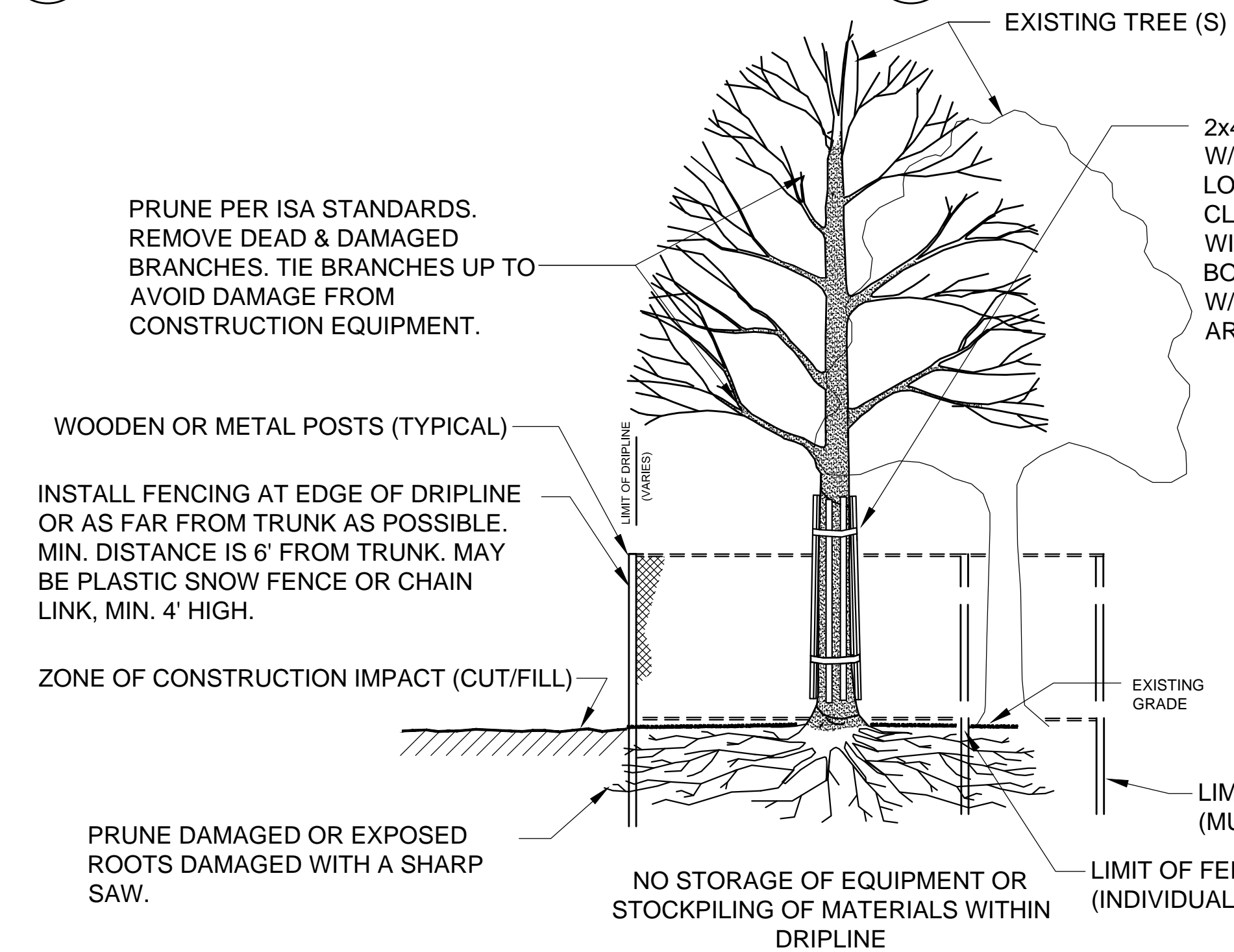
PROVIDE SHOP DRAWINGS PRIOR TO FABRICATION



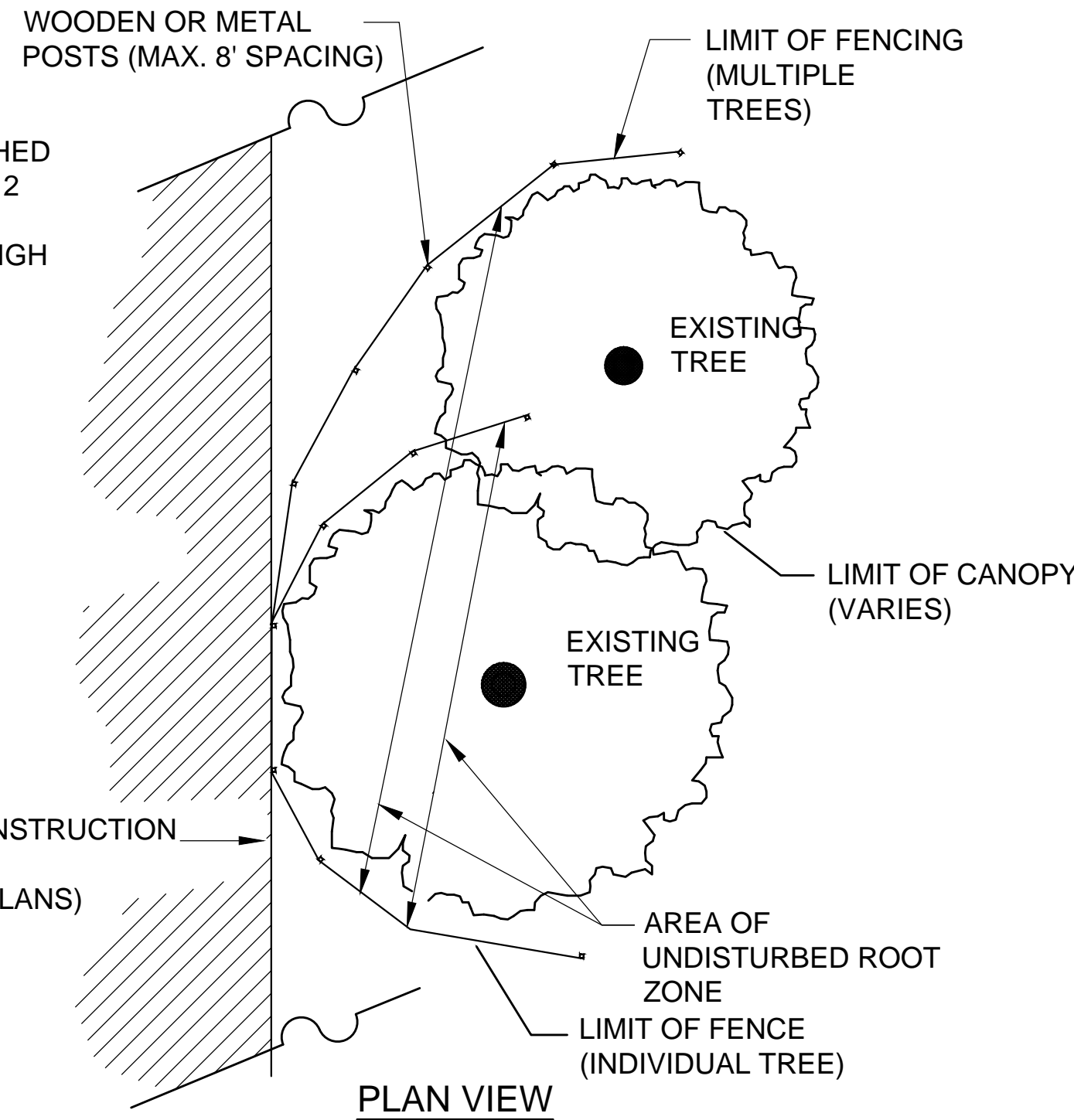
**4** GRANITE COBBLE ISLAND  
SCALE: 1" = 1'-0"



**5** BICYCLE RACK  
SCALE: 3/8" = 1'-0"

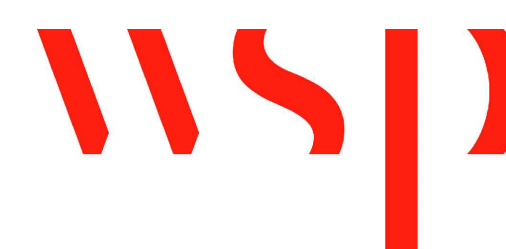


**6** TREE PROTECTION - EXISTING TREE(S)  
SCALE: 1/2" = 1'-0"



PLAN VIEW

C W Copley Wolff Design Group  
D G Landscape Architects & Planners



SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	M. CANTU
CHECKED BY	S. SANGER
APPROVED BY	J. COPLEY

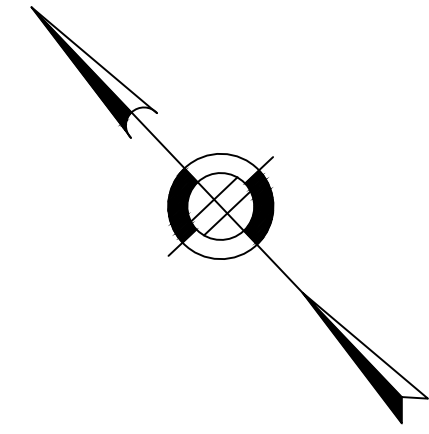
CIP XX-XX SHEET 97 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
LANDSCAPE DETAILS  
ROXBURY

SCALE: AS NOTED  
DISTRICT: 10  
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER



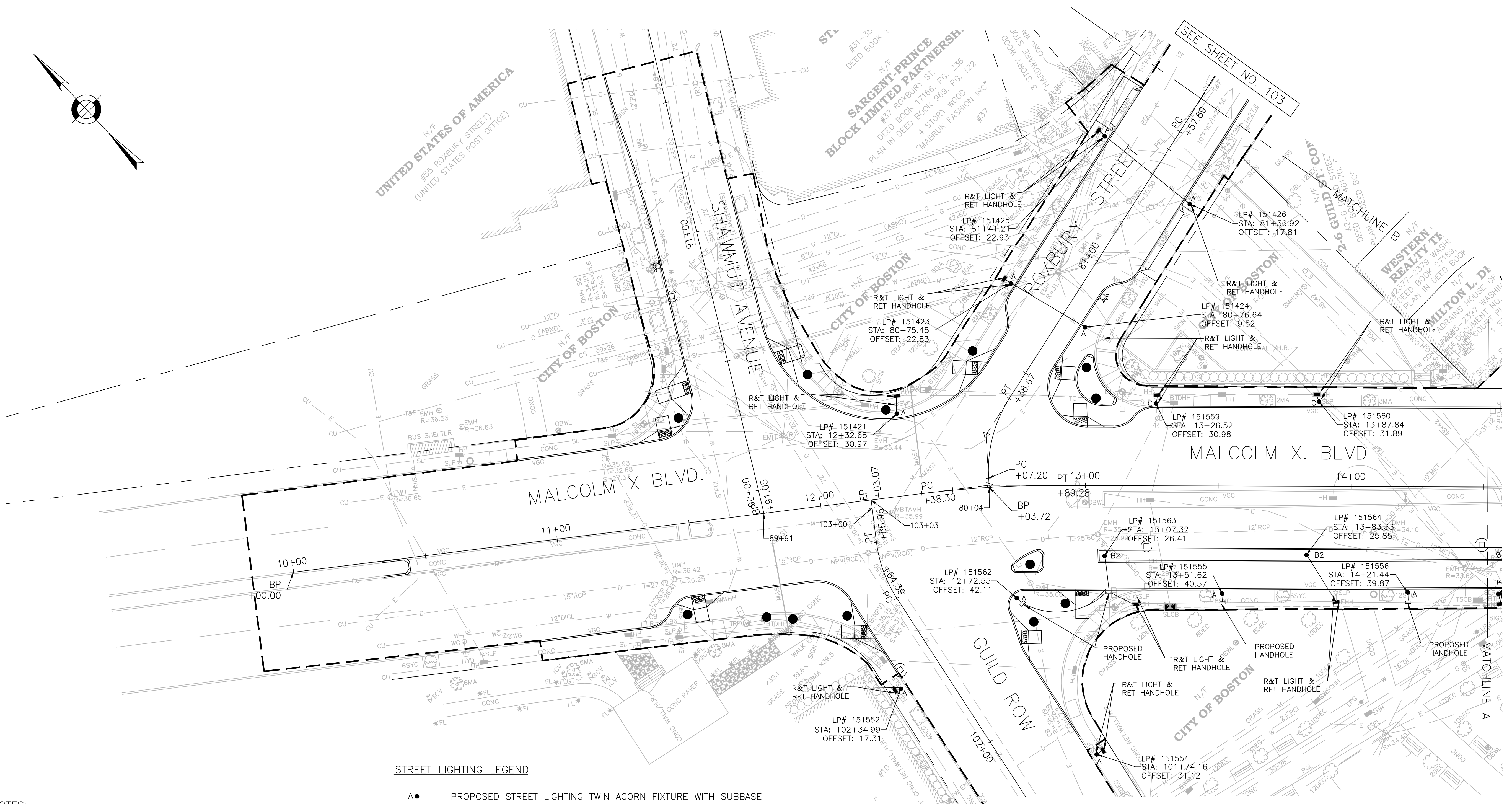


N/F  
UNITED STATES OF AMERICA  
#55 ROXBURY STREET  
(UNITED STATES POST OFFICE)

N/F  
BLOCK LIMITED PARTNERSHIP  
#37 ROXBURY ST.  
DEED BOOK 17186, PG. 236  
PLAN IN DEED BOOK 969, PG. 122  
4 STORY WOOD  
"MABRUK FASHION INC" #37

SEE SHEET NO. 103

SEE SHEET NO. 99

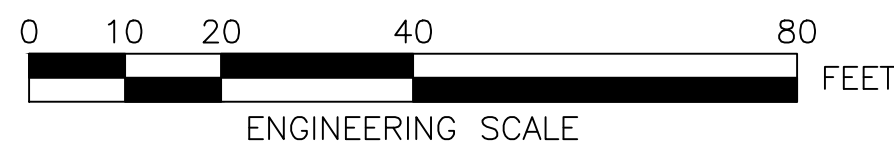


**STREET LIGHTING LEGEND**

- A ● PROPOSED STREET LIGHTING TWIN ACORN FIXTURE WITH SUBBASE
- B1 ● PROPOSED STREET LIGHTING STANDARD TWIN PENDANT FIXTURE WITH MODIFIED SUBBASE
- B2 ● PROPOSED STREET LIGHTING HIGH LOW TWIN PENDANT FIXTURE WITH MODIFIED SUBBASE
- C ● PROPOSED STREET LIGHTING STANDARD SINGLE PENDANT FIXTURE WITH SUBBASE
- PROPOSED STREET LIGHTING PULL BOX
- ⊕ EXISTING POLE/STREET LIGHT
- EXISTING STREET LIGHTING PULL BOX
- 2" or 3" - PROPOSED 2" OR 3" STREET LIGHTING CONDUIT
- ▨ 3" PROPOSED 3" CONCRETE ENCASED CONDUIT
- ▩ PROPOSED LIGHTING CONTROL CABINET
- SL — EXISTING STREET LIGHT CONDUIT
- ▩ EXISTING LIGHTING CONTROL CABINET

**NOTES:**

1. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
2. FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
3. FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
4. FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
5. ALL PULL BOXES SHALL BE ABANDONED IN PLACE & FILLED WITH CONTROLLED DENSITY FILL.
6. ALL EXISTING METAL PULL BOX COVERS SHALL BE REMOVED AND REPLACED WITH NEW COMPOSITE COVERS.
7. FOR HIGH LOW TWIN PENDANT FIXTURE DETAIL, SEE SHEET 14.



REVIEWED FOR STREET LIGHTING

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

CIP XX-XX SHEET 98 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**STREET LIGHTING PLANS**  
ROXBURY

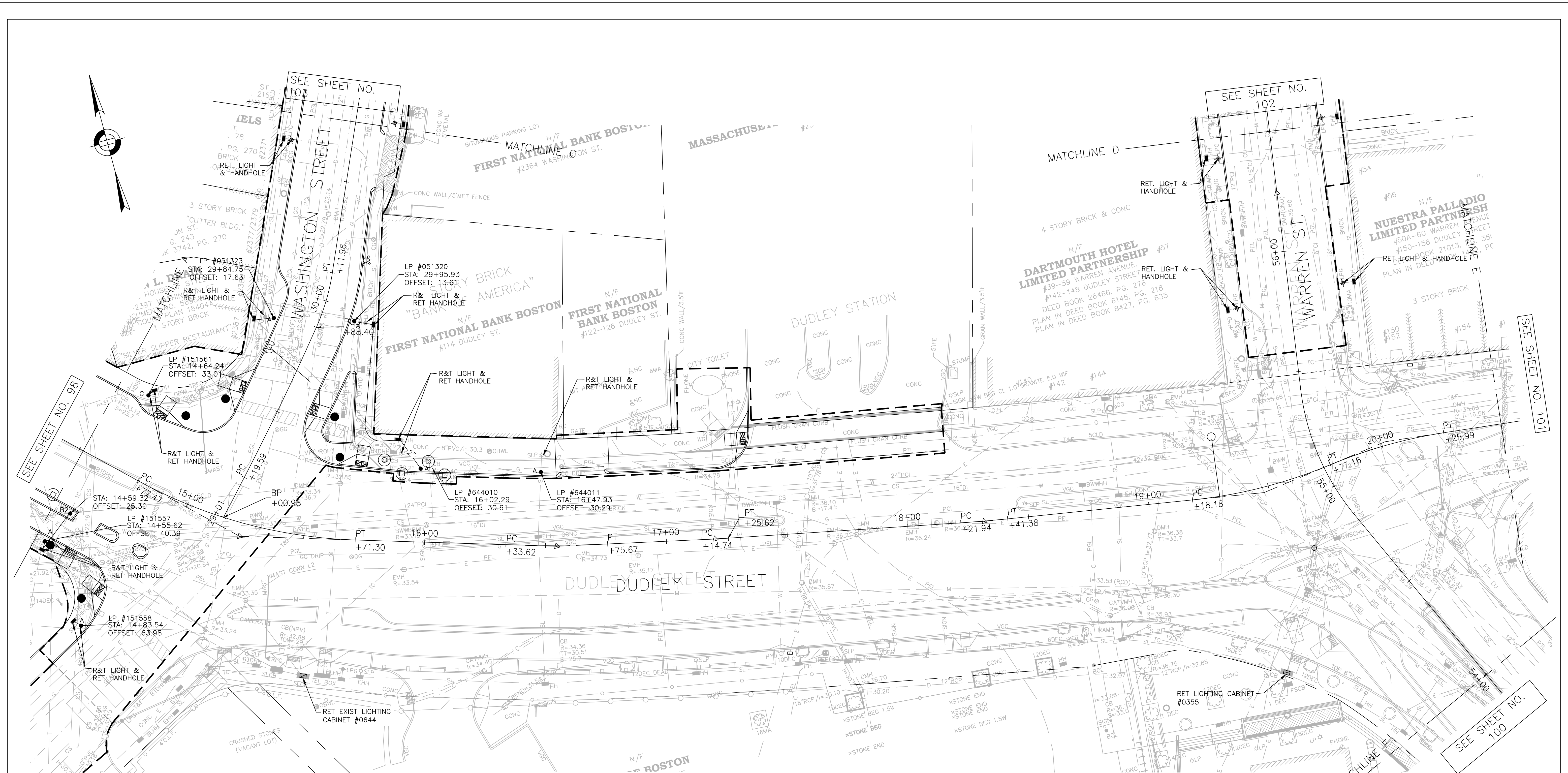
SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 12, 2019

\_\_\_\_\_  
CITY ENGINEER

R-XXXX-98

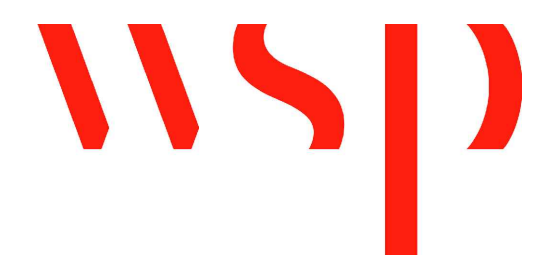
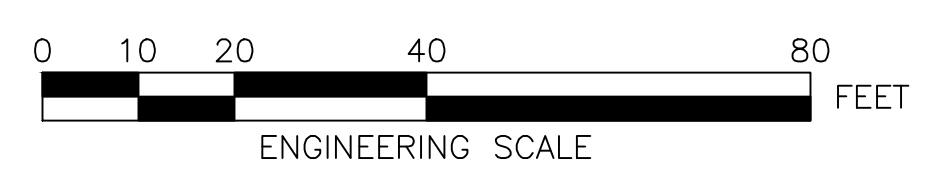




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B●	PROPOSED STREET LIGHTING STANDARD TWIN PENDANT FIXTURE WITH MODIFIED SUBBASE
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C●	PROPOSED STREET LIGHTING STANDARD SINGLE PENDANT FIXTURE WITH SUBBASE
□	PROPOSED STREET LIGHTING PULL BOX
⊕	EXISTING POLE/STREET LIGHT
■	EXISTING STREET LIGHTING PULL BOX
- 2" or 3" -	PROPOSED 2" OR 3" STREET LIGHTING CONDUIT
▨	PROPOSED 3" CONCRETE ENCASED CONDUIT
■	PROPOSED LIGHTING CONTROL CABINET
— SL —	EXISTING STREET LIGHT CONDUIT
■	EXISTING LIGHTING CONTROL CABINET



REVIEWED FOR STREET LIGHTING

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 99 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
 STREET LIGHTING PLANS**  
 ROXBURY

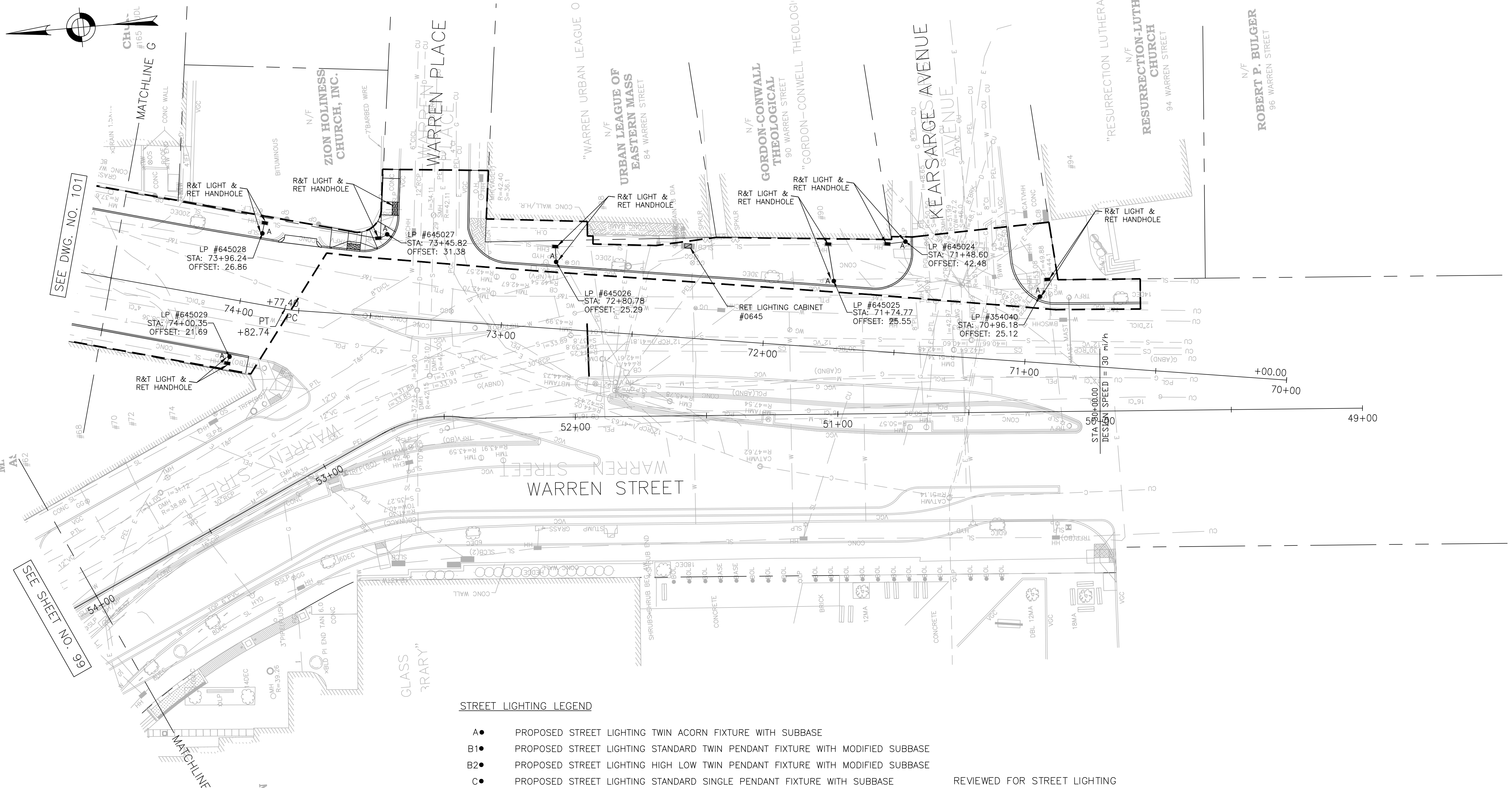
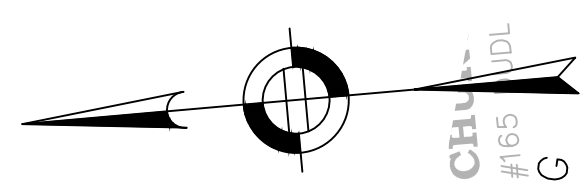
SCALE: 1" = 20'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 12, 2019

CITY ENGINEER

R-XXXX-99





SEE DWG. NO. 101

SEE SHEET NO. 99

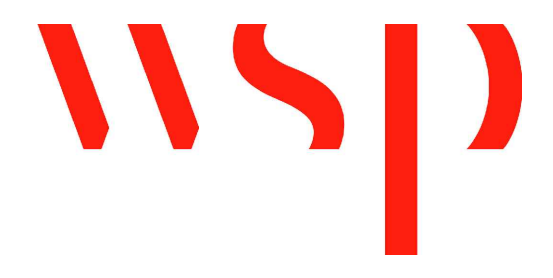
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REVIEWED FOR STREET LIGHTING

BOSTON PUBLIC WORKS DEPARTMENT

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- NOTES:**
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  - FOR CONSTRUCTION PLANS, SEE SHEETS 24 THRU 30.
  - FOR GREEN INFRASTRUCTURE PLANS, SEE SHEETS 61 THRU 70.
  - FOR GRADING PLANS, SEE SHEETS 45 THRU 51.
  - ALL PULL BOXES SHALL BE ABANDONED IN PLACE & FILLED WITH CONTROLLED DENSITY FILL.
  - ALL EXISTING METAL PULL BOX COVERS SHALL BE REMOVED AND REPLACED WITH NEW COMPOSITE COVERS.
  - FOR HIGH LOW TWIN PENDANT FIXTURE DETAIL, SEE SHEET 14.

CIP XX-XX SHEET 100 OF 130

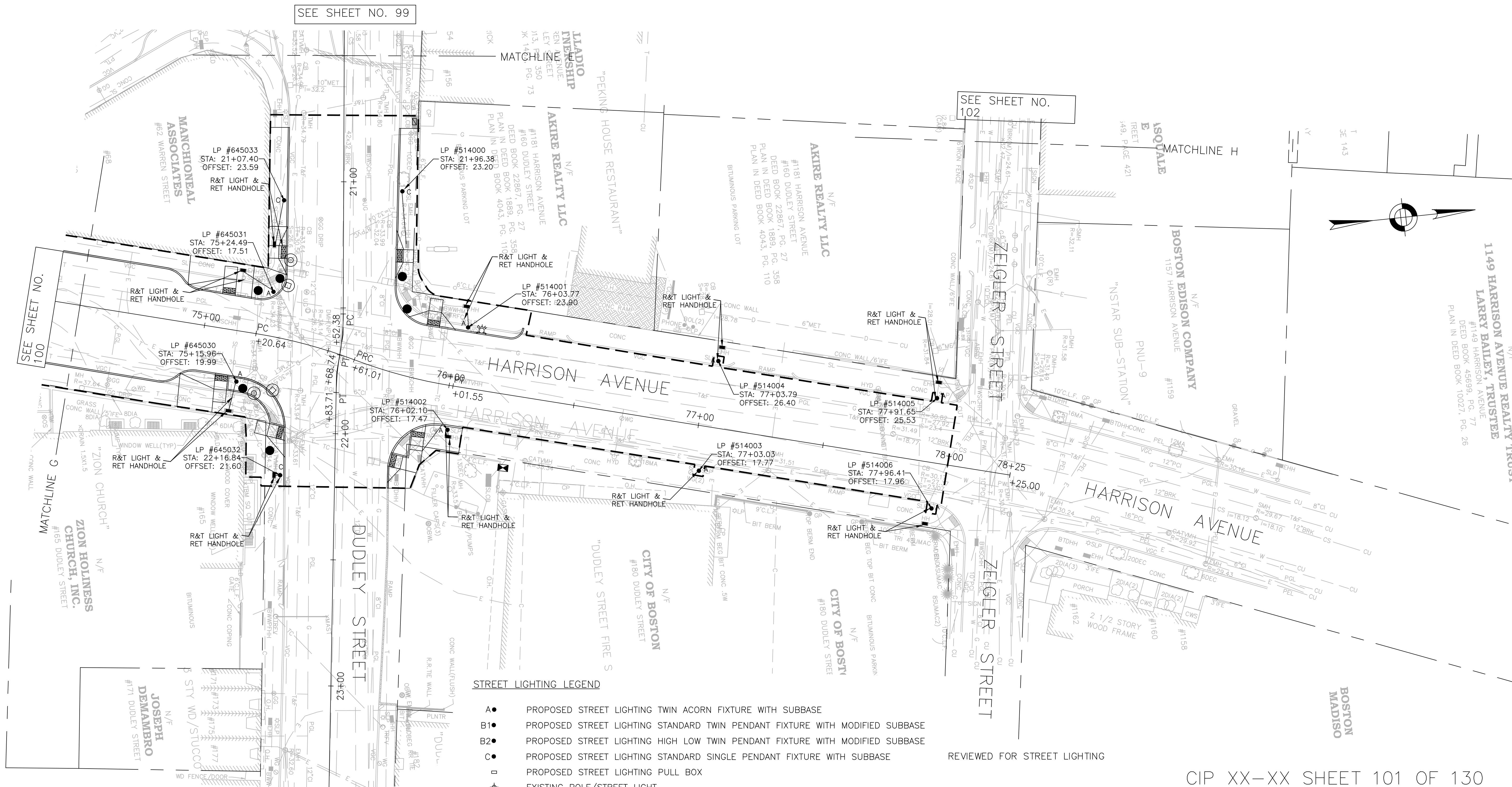
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
STREET LIGHTING PLANS**  
ROXBURY

SCALE: 1" = 20'  
DISTRICT: 10  
AREA: 1  
100% SUBMISSION  
DATE: APR. 12, 2019  
CITY ENGINEER

R-XXXX-100

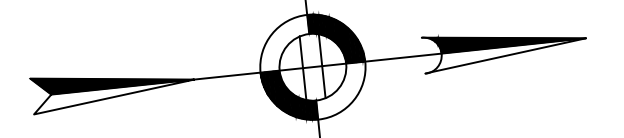




SEE SHEET NO. 99

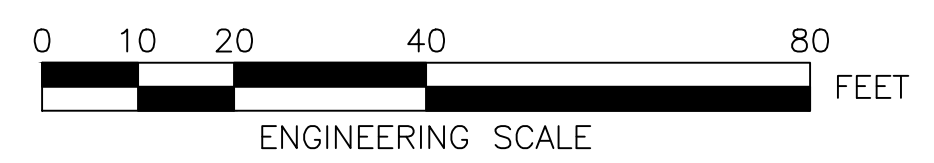
SEE SHEET NO. 102

SEE SHEET NO. 100



**STREET LIGHTING LEGEND**

- A ● PROPOSED STREET LIGHTING TWIN ACORN FIXTURE WITH SUBBASE
- B1 ● PROPOSED STREET LIGHTING STANDARD TWIN PENDANT FIXTURE WITH MODIFIED SUBBASE
- B2 ● PROPOSED STREET LIGHTING HIGH LOW TWIN PENDANT FIXTURE WITH MODIFIED SUBBASE
- C ● PROPOSED STREET LIGHTING STANDARD SINGLE PENDANT FIXTURE WITH SUBBASE
- PROPOSED STREET LIGHTING PULL BOX
- ⊕ EXISTING POLE/STREET LIGHT
- EXISTING STREET LIGHTING PULL BOX
- 2" or 3" PROPOSED 2" OR 3" STREET LIGHTING CONDUIT
- ▨ PROPOSED 3" CONCRETE ENCASED CONDUIT
- PROPOSED LIGHTING CONTROL CABINET
- SL EXISTING STREET LIGHT CONDUIT
- EXISTING LIGHTING CONTROL CABINET



- NOTES:**
- FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
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  - FOR HIGH LOW TWIN PENDANT FIXTURE DETAIL, SEE SHEET 14.

R-XXXX-101

REVIEWED FOR STREET LIGHTING

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 101 OF 130

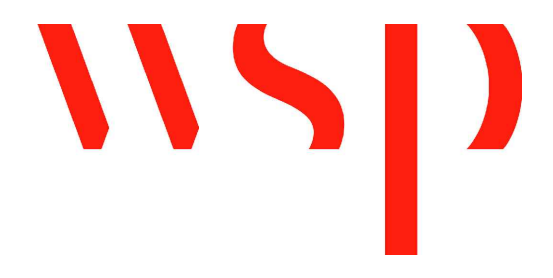
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
 STREET LIGHTING PLANS**  
 ROXBURY

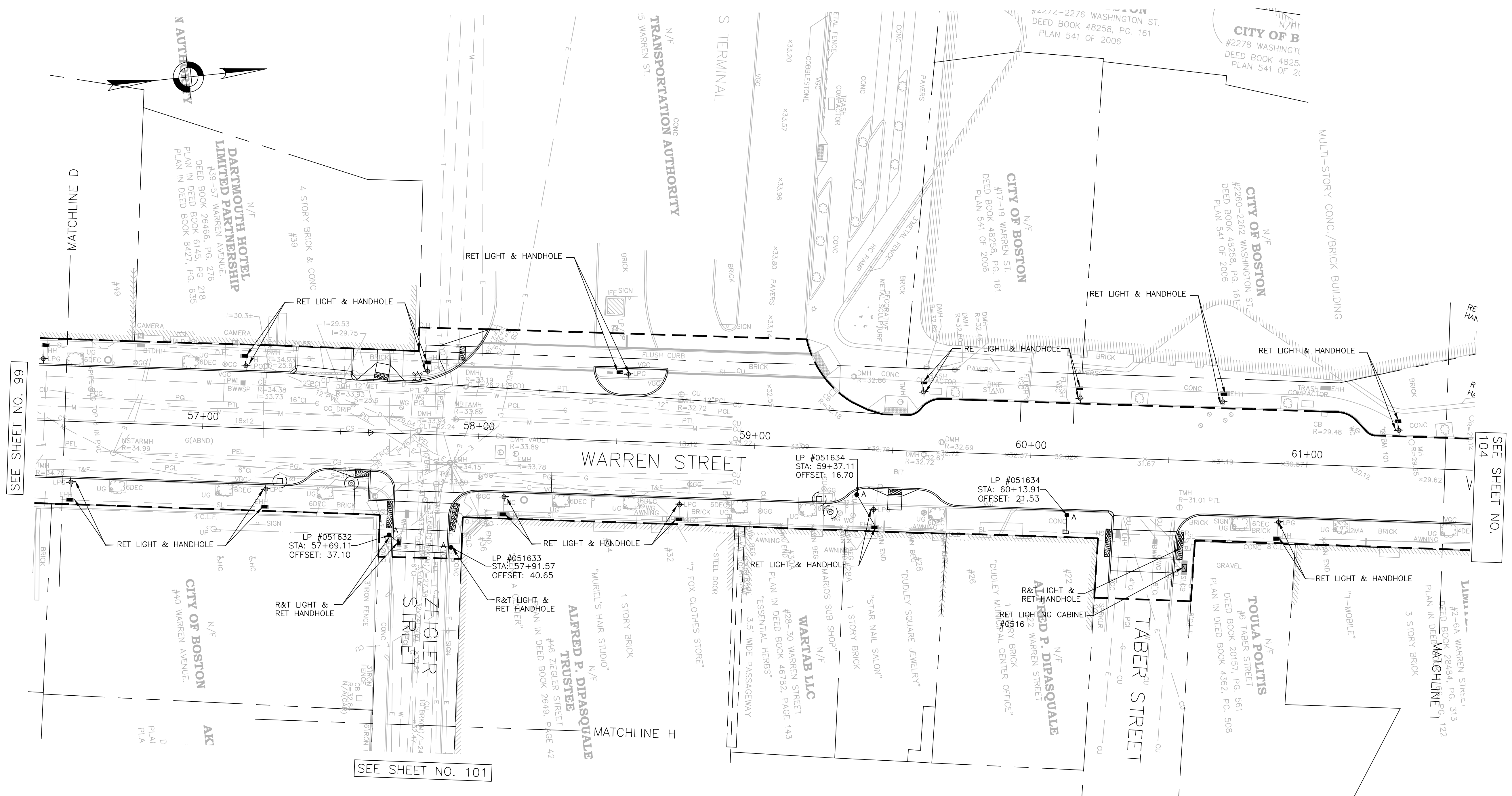
SCALE: 1" = 20'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 12, 2019

CITY ENGINEER



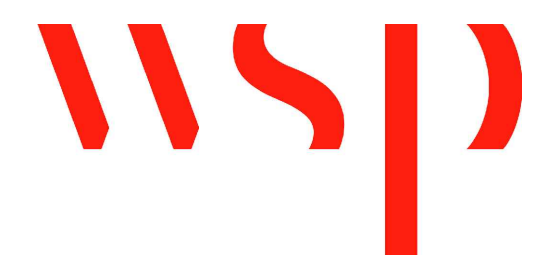




- NOTES:**
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■	EXISTING STREET LIGHTING PULL BOX
- 2" or 3" -	PROPOSED 2" OR 3" STREET LIGHTING CONDUIT
▨	PROPOSED 3" CONCRETE ENCASED CONDUIT
■	PROPOSED LIGHTING CONTROL CABINET
— SL —	EXISTING STREET LIGHT CONDUIT
□	EXISTING LIGHTING CONTROL CABINET



REVIEWED FOR STREET LIGHTING

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 102 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
STREET LIGHTING PLANS**  
ROXBURY

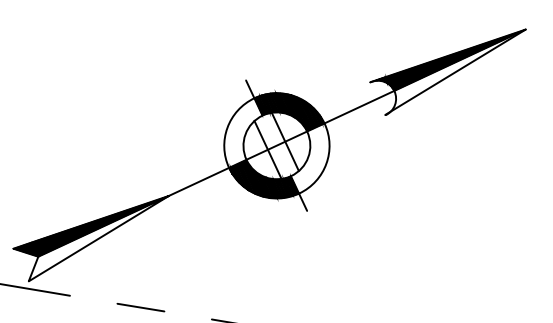
SCALE: 1" = 20'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 12, 2019

CITY ENGINEER

R-XXXX-102

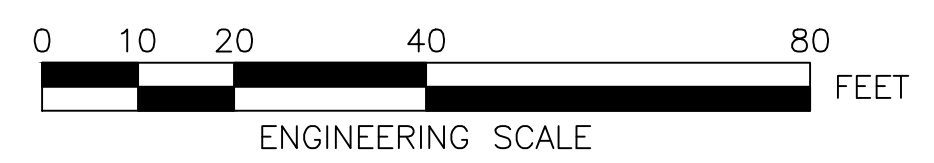




**NOTES:**

1. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
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STREET LIGHTING LEGEND	
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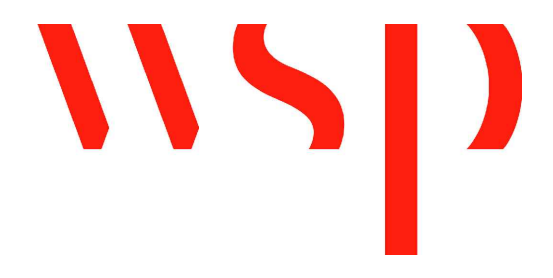
REVIEWED FOR STREET LIGHTING

BOSTON PUBLIC WORKS DEPARTMENT	
SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	S. BERGMAN
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

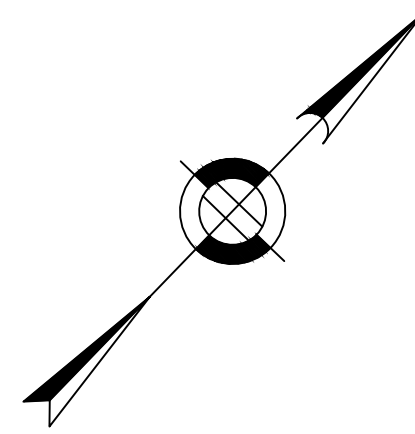
CIP XX-XX SHEET 103 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION HIGHWAY RECONSTRUCTION	
<b>DUDLEY SQUARE PHASE 2 STREET LIGHTING PLANS</b> ROXBURY	
SCALE: 1" = 20'	AREA: 1
DISTRICT: 10	100% SUBMISSION
	DATE: APR. 12, 2019
CITY ENGINEER	

R-XXXX-103







**NOTES:**

1. FOR KEYPLAN, GENERAL NOTE, LEGEND AND ABBREVIATIONS, SEE SHEETS 2 THRU 4.
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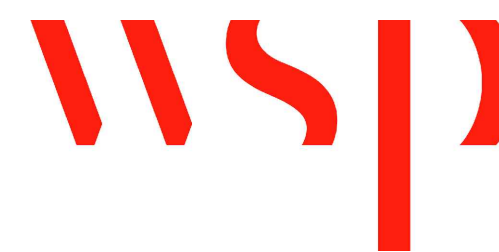
**STREET LIGHTING LEGEND**

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- EXISTING LIGHTING CONTROL CABINET

REVIEWED FOR STREET LIGHTING

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY S. BERGMAN  
 CHECKED BY R. BURCKARDT  
 APPROVED BY P. FUSCO



CIP XX-XX SHEET 104 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
 STREET LIGHTING PLANS**

ROXBURY

SCALE: 1" = 20'  
 DISTRICT: 10

AREA: 1  
 100% SUBMISSION  
 DATE: APR. 12, 2019

CITY ENGINEER

R-XXXX-104

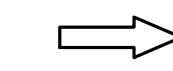



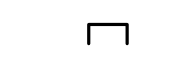

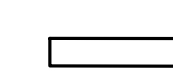


**CMP NOTES**

1. THESE PLANS ARE NOT INTENDED TO LIMIT THE CONTRACTOR'S RIGHT TO SCHEDULE THE WORK, BUT TO OUTLINE ONE WAY OF PROGRESSING. THE CONTRACTOR IS EXPECTED TO USE KNOWLEDGE AND EXPERIENCE TO PERFORM THE WORK IN THE MOST SAFE AND EFFICIENT MANNER IN COMPLIANCE WITH THE DRAWINGS AND SPECIFICATIONS AND MEETING THE REQUIREMENTS OF THE CITY OF BOSTON.
2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT PLANS FOR APPROVAL BY AND OBTAIN PROPER PERMITS FROM THE BOSTON TRANSPORTATION DEPARTMENT.
3. CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE CITY, CONSTRUCTION MANAGEMENT PLANS FOR ANY WORK OUTSIDE OF THE WORK ZONES INDICATED IN THESE DRAWINGS.
4. ALTERNATIVE PHASING OR MODIFICATIONS TO ANY ASPECT OF THE CONSTRUCTION MANAGEMENT PLANS AND THE CONSTRUCTION STAGING PLANS WILL BE SUBJECT TO REVIEW FOR ACCEPTANCE BY THE CITY PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH THE SUBMISSION AND REVIEW OF ALTERNATIVE CONSTRUCTION MANAGEMENT PLANS AND CONSTRUCTION STAGING PLANS, INCLUDING PRESENTATION TO THE CITY AND THE NEIGHBORHOOD IF NEEDED, VEHICULAR AND PEDESTRIAN TRAFFIC MODELING, LEVEL OF SERVICE (LOS) ANALYSES, AND OTHER ASSOCIATED EFFORTS. ALTERNATIVE CONSTRUCTION MANAGEMENT AND CONSTRUCTION STAGING PLANS SHALL NOT CAUSE AN INTERFERENCE WITH ADJACENT CONTRACTS OR DELAY THE SCHEDULE OR INCREASE THE COST OF THIS OR ANY ADJACENT CONTRACTS. LEVEL OF SERVICE ANALYSIS SHALL BE DEFINED BY THE "HIGHWAY CAPACITY MANUAL."
  - A. CONTRACTOR SHALL PROVIDE AND MAINTAIN A TEMPORARY PEDESTRIAN ROUTE ACCESSIBLE TO DISABLED PERSONS AROUND BLOCKAGES TO AN EXISTING PEDESTRIAN ROUTE (E.G., SIDEWALKS, CROSSWALKS, PEDESTRIAN CURB RAMPS, ETC.). BLOCKAGES INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION WORK, EXCAVATIONS, EQUIPMENT AND VEHICLES, TEMPORARY WATER AND UTILITY LINES. TEMPORARY PEDESTRIAN ROUTES SHALL BE IN COMPLIANCE WITH THE REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT AND THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD.
  - B. SIDEWALK AREAS SHALL REMAIN OPEN AND FREE FROM SAFETY CONTROL DEVICES AND CONSTRUCTION DEBRIS THROUGHOUT THE DURATION OF THE CONSTRUCTION. PEDESTRIAN DETOURING SHALL NOT OCCUR UNLESS APPROVED BY THE CITY.
6. CONTRACTOR SHALL SECURE WORK AREAS TO ENSURE PUBLIC SAFETY AND CONVENIENCE. THIS SHALL INCLUDE ENSURING THAT ALL EXCAVATIONS ARE PROTECTED AT ALL TIMES.
7. ALL CONSTRUCTION SIGNAGE, DRUMS, BARRICADES AND OTHER DEVICES SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED AND BTD SIGN STANDARDS.
8. CHANNELIZATION WILL BE ACCOMPLISHED THROUGH THE USE OF REFLECTORIZED PLASTIC DRUMS OR APPROVED EQUAL IN ACCORDANCE WITH THE MUTCD.
9. CONTRACTOR SHALL COORDINATE WITH THE CITY TO ACCOMMODATE ACCESS NEEDS OF ABUTTING PROPERTIES NOT SPECIFIED IN THE PLANS.
10. CONTRACTOR SHALL MAINTAIN EMERGENCY PASSAGE AT ALL TIMES TO BUILDINGS WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL MAINTAIN 24-HOUR EMERGENCY VEHICLE ACCESS TO AND THROUGH CONSTRUCTION AREAS.
11. CONTRACTOR SHALL PROVIDE POLICE DETAILS DURING WORK HOURS FOR TRAFFIC CONTROL AS STIPULATED IN THE CITY OF BOSTON MUNICIPAL CODE (CHAPTER 11, SECTION 6.9).
12. POLICE DETAIL WILL BE PROVIDED TO DIRECT TRAFFIC DURING CONSTRUCTION ACTIVITIES AT THE INTERSECTION OF WARREN AND DUDLEY STREETS DURING ALL PHASES AND INTERSECTION OF WASHINGTON AND DUDLEY STREETS DURING PHASES 1 AND 2. BOSTON POLICE DETAIL REQUIREMENTS SHALL BE PER THE BTD PERMIT.

13. SAFETY SIGNS PROPOSED FOR LOCATIONS OTHER THAN ERECTED ON TEMPORARY BARRICADES MAY BE ERECTED ON EXISTING LIGHT POLES, SIGN POSTS AND OTHER EXISTING FEATURES AS APPROVED BY THE CITY.
14. LOCATIONS OF SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. THE CONTRACTOR SHALL ENSURE THAT SIGNS ARE PLACED SO MAXIMUM VISIBILITY IS OBTAINED.
15. EXISTING SIGNAGE WHICH CONFLICTS WITH PROPOSED SIGNAGE SHALL BE REMOVED AND STACKED OR COVERED AS DETERMINED BY THE CITY. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL RESTORE THE SIGNAGE TO ITS EXISTING LAYOUT WHERE NECESSARY.
16. WHEN CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION SIGNAGE AND TEMPORARY PAVEMENT MARKINGS.
17. THE BOSTON POLICE, FIRE AND TRANSPORTATION DEPARTMENTS SHALL BE ADVISED OF THE SCHEDULE OF CONSTRUCTION, AS WELL AS OF ANY DETOURS, LANE CLOSURES, OR ALTERNATE ROUTES.
18. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR CONSTRUCTION MANAGEMENT EFFORTS OUTSIDE OF THE SITE PLANS AND SHALL COMPLY WITH CONDITIONS OUTLINED WITHIN THE PLANS AND SPECIFICATIONS USING APPROVED METHODS.
19. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS, INCLUDING STAGING AREA, SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
20. THE CONTRACTOR IS HEREBY NOTIFIED THAT ADDITIONAL WORK WITHIN THE PROJECT LIMITS MAY BE PERFORMED BY OTHERS. SEE GENERAL NOTE 25 ON SHEET 3.
21. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.
22. THE CONTRACTOR SHALL VERIFY PROPERTY LIMITS PRIOR TO CONSTRUCTION AND PLACE ANY TEMPORARY OR NEW EQUIPMENT WITHIN THE CITY OF BOSTON'S RIGHT OF WAY.
23. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT FOR REVIEW A DETAILED SCHEDULE OF OPERATIONS IN ADDITION TO OTHER CONTRACT REQUIREMENTS TO THE BOSTON TRANSPORTATION DEPARTMENT AND PUBLIC WORKS DEPARTMENT.
24. ANY WORK ASSOCIATED WITH THIS CONSTRUCTION MANAGEMENT PLAN SHALL BE PERFORMED IN ACCORDANCE WITH THE BOSTON PUBLIC WORKS DEPARTMENT STANDARD SPECIFICATIONS AND DRAWINGS, AS WELL AS BOSTON TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS AND DRAWINGS. WHERE CONFLICTS EXIST, THE BOSTON TRANSPORTATION DEPARTMENT AND BOSTON PUBLIC WORKS DEPARTMENT SPECIFICATIONS SHALL GOVERN.
25. NO EXISTING PUBLIC UTILITY STRUCTURES SHALL BE ABANDONED AND/OR DISMANTLED WITHOUT AUTHORIZATION FROM THE CITY.
26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE STREET LIGHTING ADJACENT TO THE PROJECT, FOR THE DURATION OF THE PROJECT, AS APPROVED BY THE CITY. CONTRACTOR SHALL ENSURE THAT STREET LIGHTING SERVICE WILL NOT BE INTERRUPTED AN THAT STREET LIGHTING WILL BE OPERATIONAL AT THE END OF EACH WORKDAY.
27. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL BFD FIRE HYDRANTS DURING CONSTRUCTION OR PROVIDE AN ALTERNATIVE ACCEPTABLE TO BFD.
28. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC, OR APPROVED EQUAL, AND MEET BOSTON TRANSPORTATION DEPARTMENT SPECIFICATIONS.
29. THE CONTRACTOR SHALL ERADICATE EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS.
30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY TRAFFIC SIGNAL EQUIPMENT, LOOP DETECTORS, PAVEMENT MARKINGS, AND SIGNAGE DAMAGED OR TEMPORARILY REMOVED DURING CONSTRUCTION.
31. ALL WORK SHALL OCCUR DURING 7:00AM – 4:00PM. NO LANE CLOSURES SHALL OCCUR BETWEEN 7:00AM – 9:30AM AND 3:30PM – 6:00PM. WEEKEND WORK SHALL BE ALLOWED AND IS ENCOURAGED. ALL WORK SHALL BE FULLY COORDINATED WITH MBTA BUS OPERATIONS AT DUDLEY TERMINAL.
32. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.

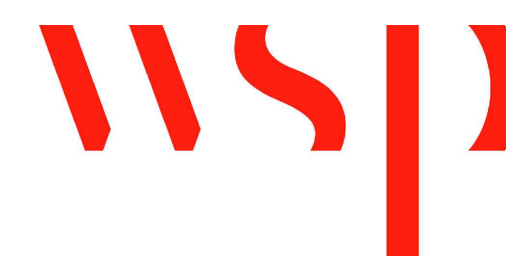
**CMP LEGEND**

-  TRAFFIC FLOW ARROW
-  SIGN POST
-  HANDICAP RAMP
-  DRUM
-  TYPE III BARRICADE
-  POLICE DETAIL SYMBOL
-  TEMPORARY CONCRETE BARRIER

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY D. YOUNG  
 CHECKED BY P. FUSCO  
 APPROVED BY J. CONLEY



CIP XX-XX SHEET 105 OF 130

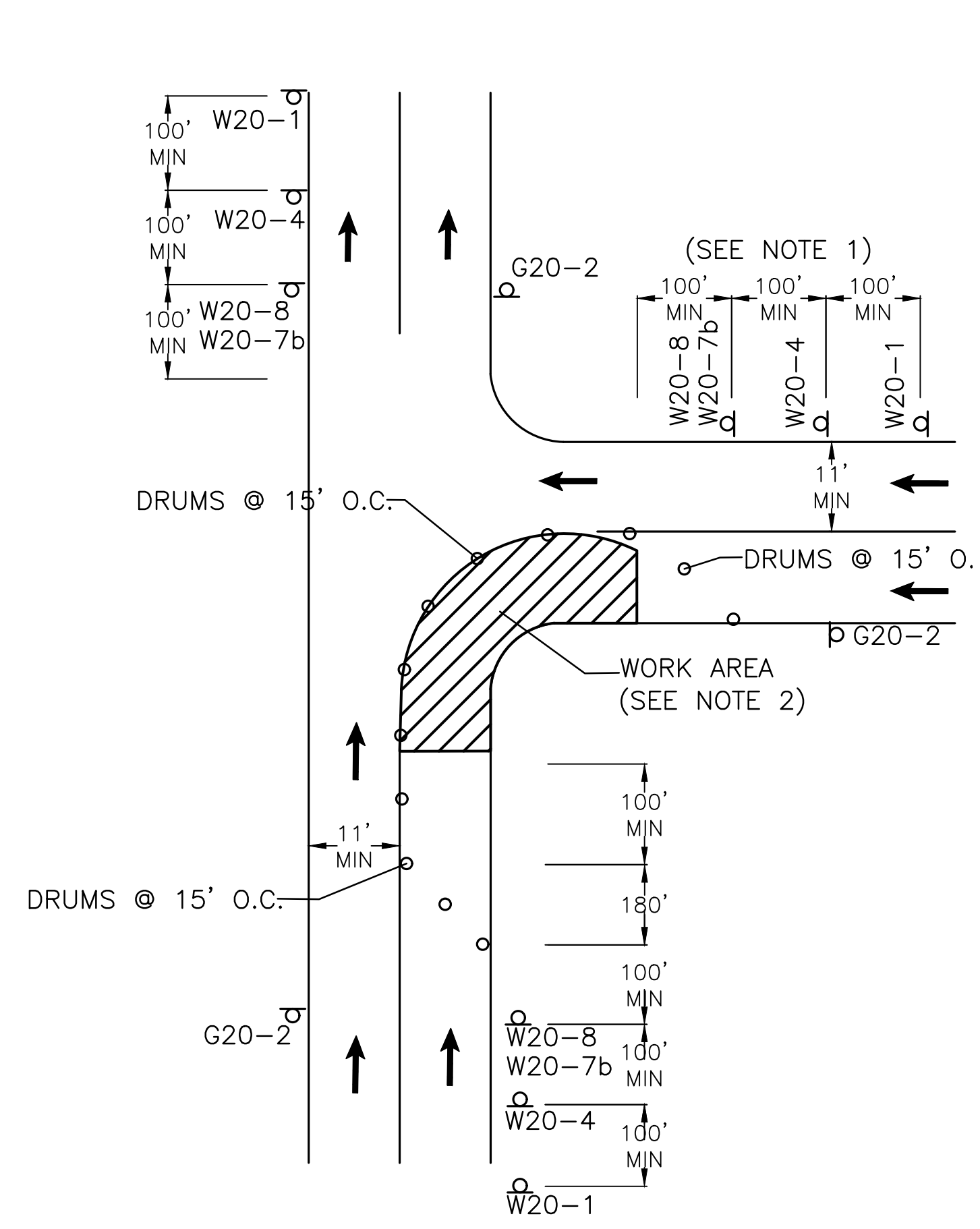
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**CMP NOTES AND LEGEND**  
 ROXBURY

SCALE: N.T.S. AREA: 1  
 DISTRICT: 10 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

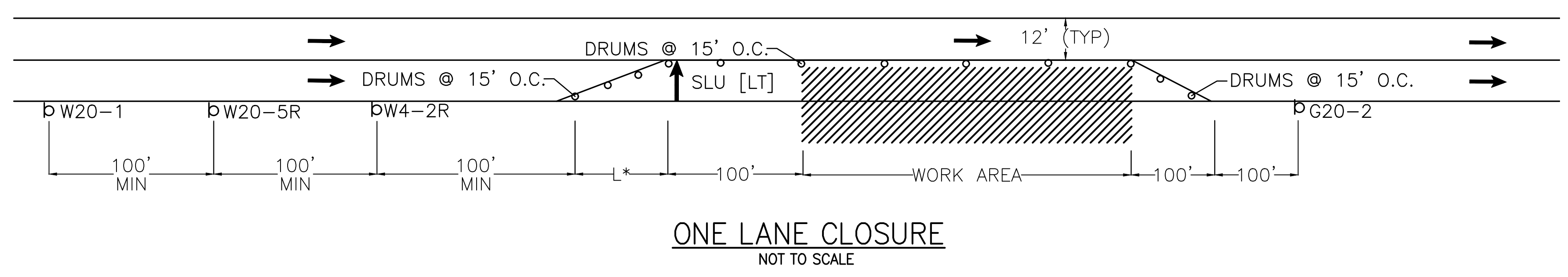
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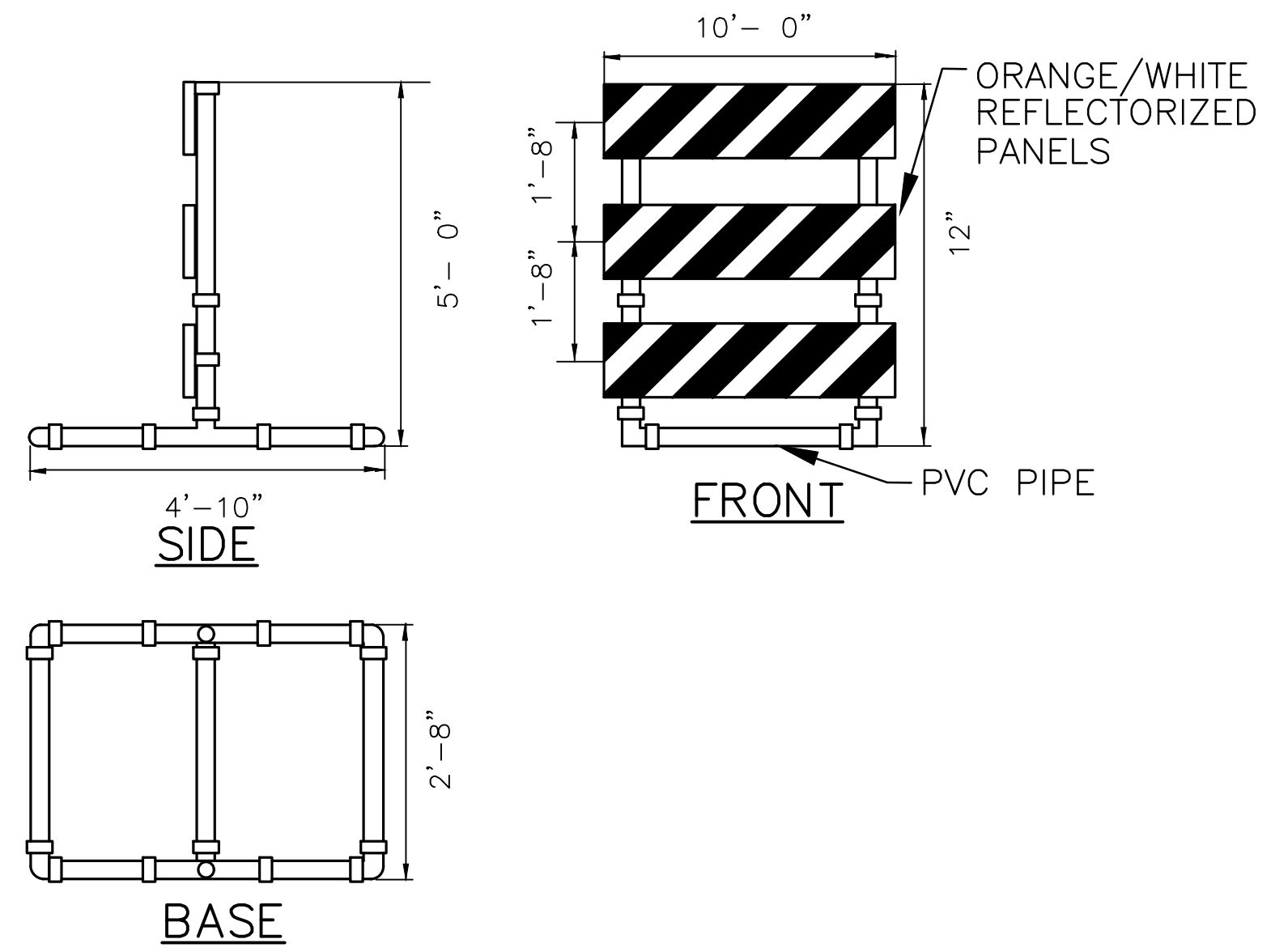


**ONE LANE ONE-DIRECTIONAL TRAFFIC AT INTERSECTIONS**  
NOT TO SCALE

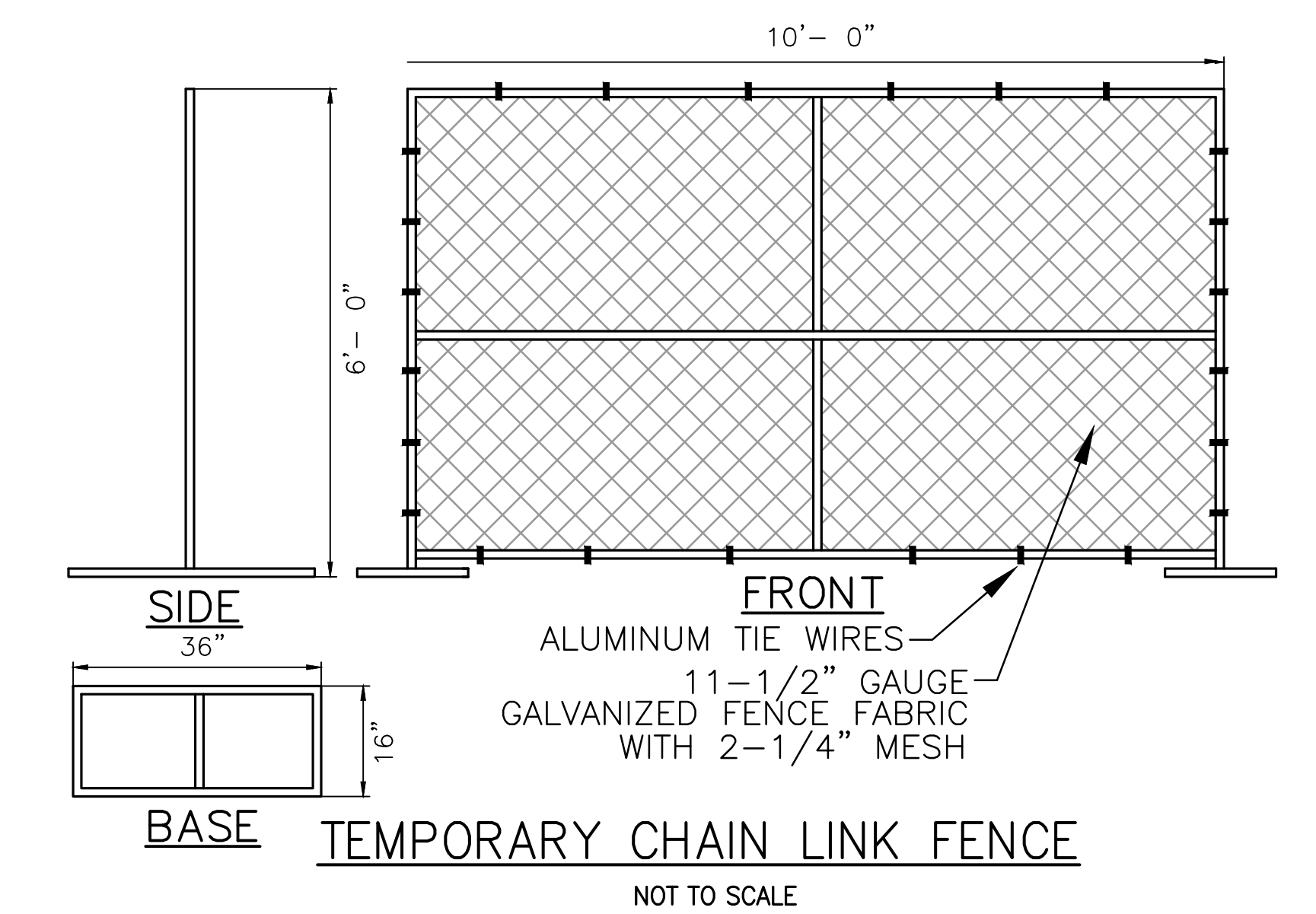
- NOTE:**
1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY AS DETERMINED BY THE ENGINEER.
  2. ANY EXCAVATION GREATER THAN 3' DEEP ADJACENT TO TRAFFIC SHALL BE PROTECTED BY TEMPORARY CONCRETE BARRIER.



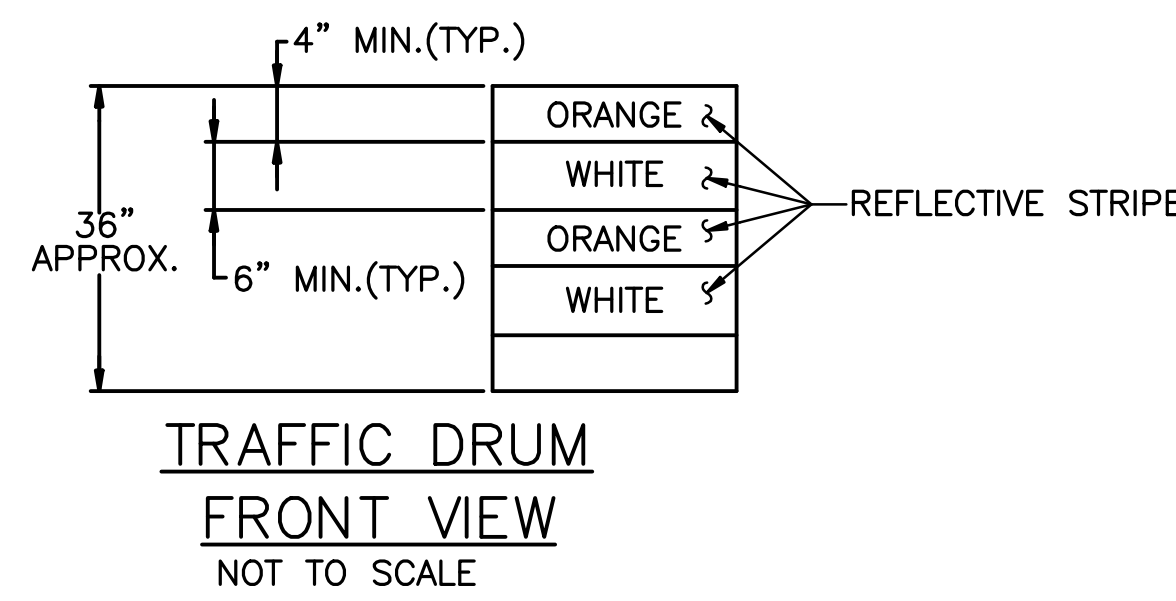
**ONE LANE CLOSURE**  
NOT TO SCALE



**TYPE III BARRICADE**  
NOT TO SCALE

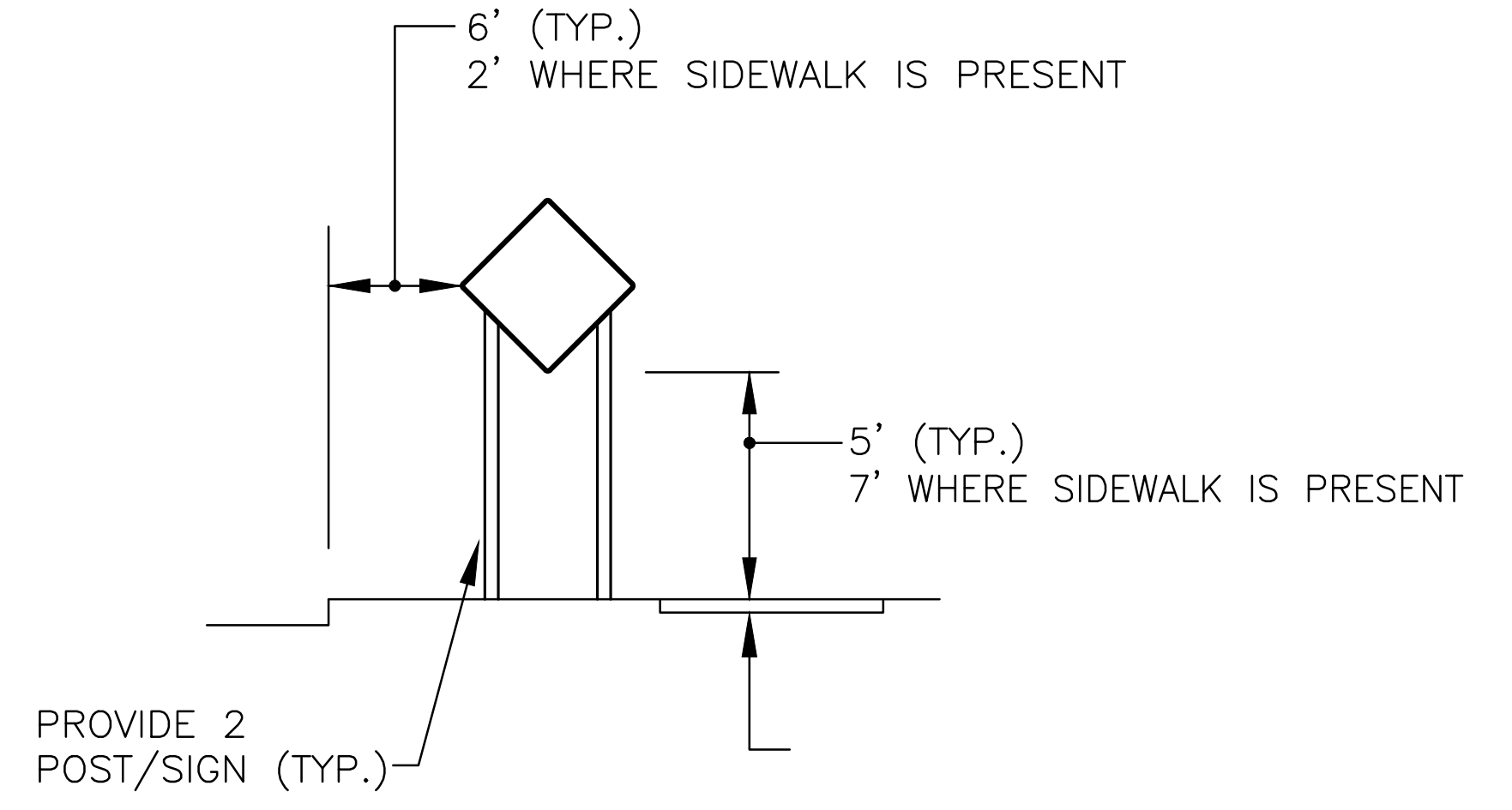


**TEMPORARY CHAIN LINK FENCE**  
NOT TO SCALE

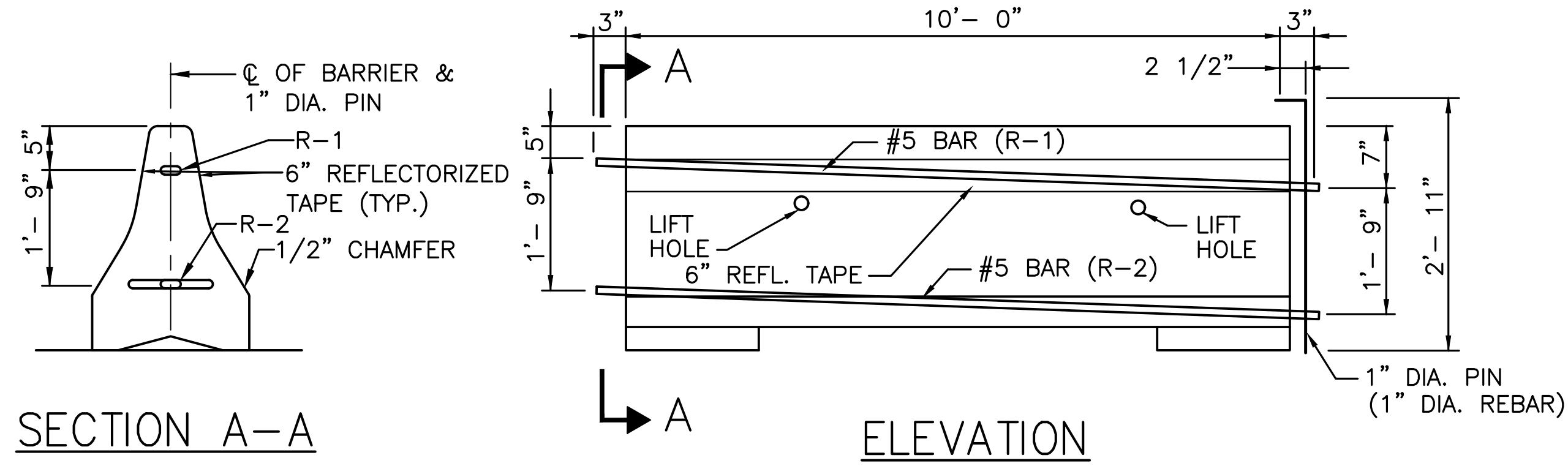


**TRAFFIC DRUM FRONT VIEW**  
NOT TO SCALE

- NOTES:**
1. TRAFFIC DRUM SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION M.U.T.C.D.
  2. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY DRUM DEEMED NOT SUITABLE FOR THE PURPOSE INTENDED.
  3. THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE FLEXIBLE ENCAPSULATED LENS REFLECTIVE SHEETING.
  4. REFLECTORIZED STRIPES SHOULD NOT BE PLACED OVER THE PROTRUDING CIRCUMFERENCIAL RIBS OF THE DRUM.
  5. THE SECTIONS OF DRUMS NOT COVERED WITH REFLECTORIZED STRIPES SHALL BE ORANGE.



**TEMPORARY TRAFFIC SIGN INSTALLATION**  
NOT TO SCALE



**SECTION A-A**

**ELEVATION**

**TEMPORARY CONCRETE BARRIER**  
NOT TO SCALE

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	D. YOUNG
CHECKED BY	P. FUSCO
APPROVED BY	J. CONLEY

CIP XX-XX SHEET 106 OF 130

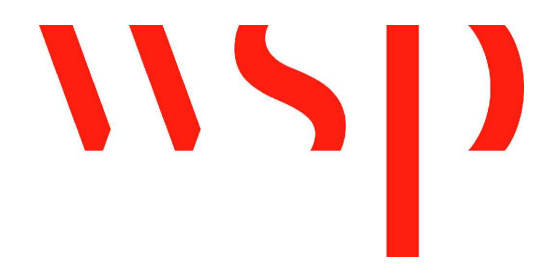
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**CMP DETAILS**  
ROXBURY

SCALE: N.T.S.  
DISTRICT: 10

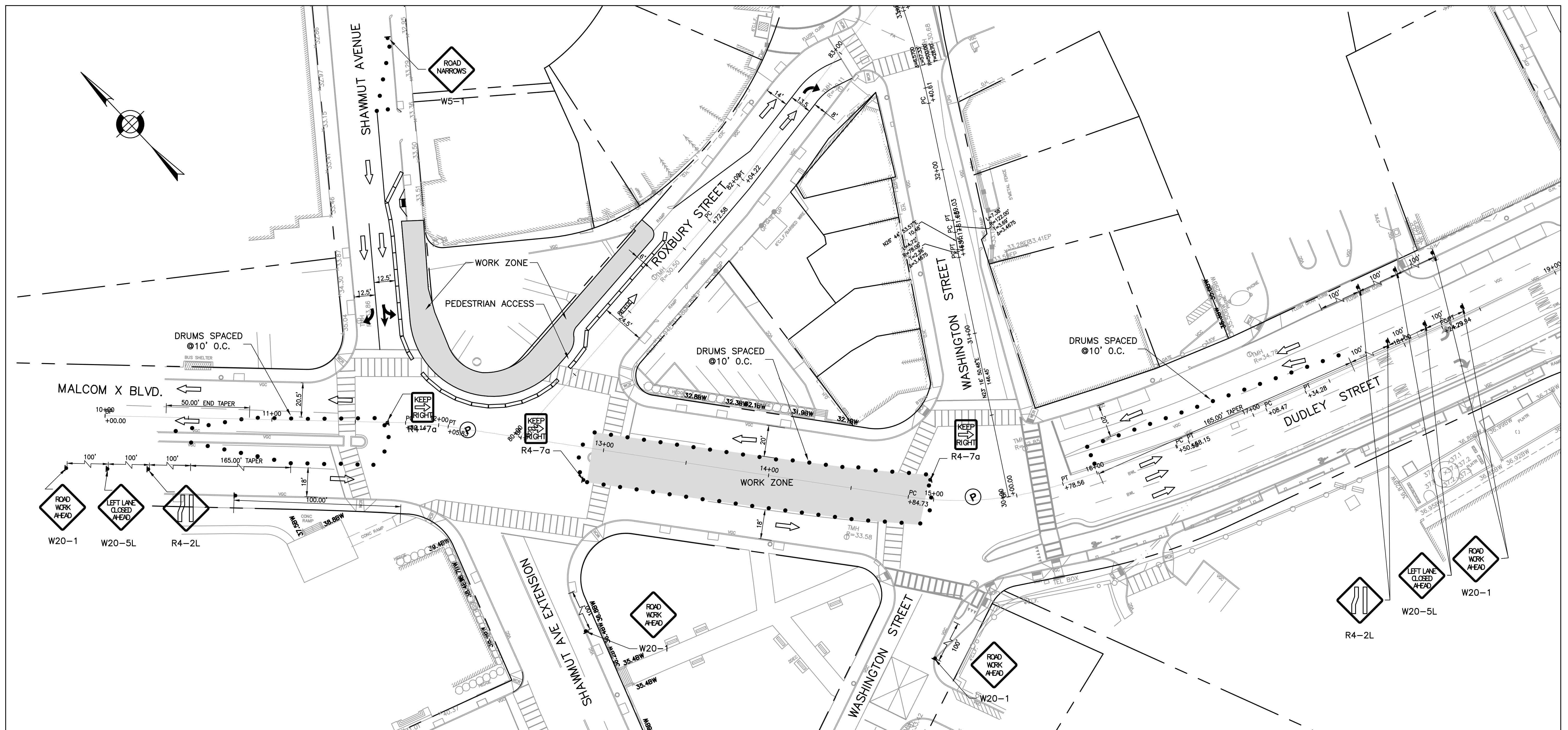
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER



R-XXXX-106





**MALCOLM X BLVD/DUDLEY STREET MEDIAN & MALCOLM X BLVD NORTH SIDEWALK CONSTRUCTION STAGING**

**NOTES:**

1. CLOSURE FOR MALCOLM X BOULEVARD/DUDLEY STREET CENTER MEDIAN REMOVAL.
2. CLOSURE FOR DUDLEY STREET NORTH SIDEWALK RECONSTRUCTION.
3. ACCESS TO ADJACENT BUSINESSES AND DUDLEY LIBRARY MUST BE MAINTAINED AT ALL TIMES.
4. PEDESTRIAN PASSAGE SHALL BE A 5' MINIMUM.
5. TRAVEL LANES SHALL BE A 10' MINIMUM EXCEPT AS NOTED.
6. CONSTRUCTION SCHEDULE WILL BE COORDINATED WITH DUDLEY LIBRARY CONSTRUCTION.
7. CONTRACTOR SHALL MAINTAIN ACCESS TO LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.

CMP LEGEND	
	TRAFFIC FLOW ARROW
	SIGN POST
	HANDICAP RAMP
	DRUM
	TYPE III BARRICADE
	POLICE DETAIL SYMBOL
	TEMPORARY CONCRETE BARRIER

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY A.DALLY  
 CHECKED BY P.FUSCO  
 APPROVED BY J.CONLEY

CIP XX-XX SHEET 107 OF 130

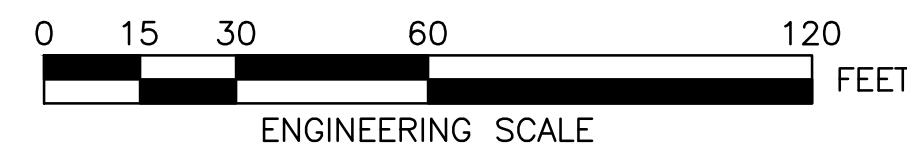
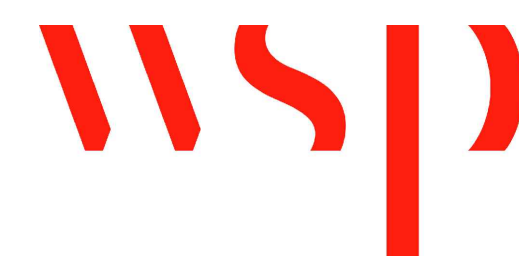
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**DUDLEY STREET CMP MEDIAN AND NORTH SIDEWALK**  
 ROXBURY

SCALE: 1" = 30'  
 DISTRICT: 10

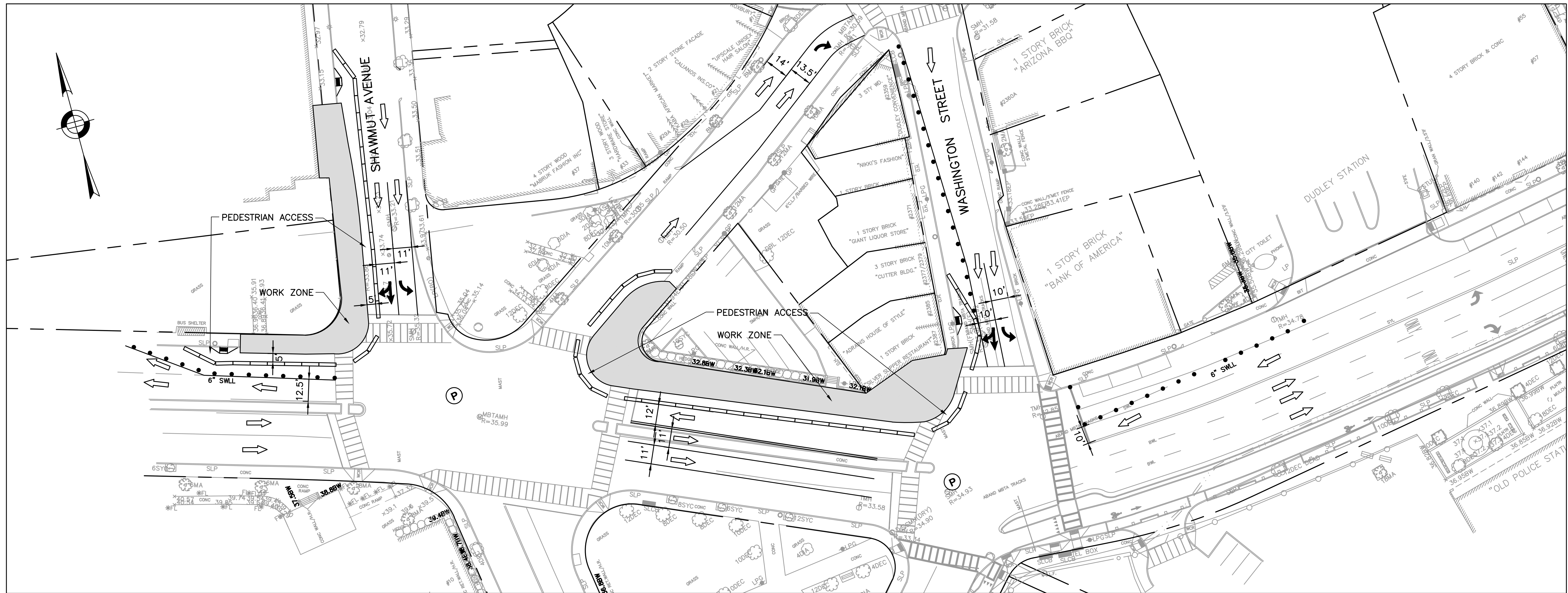
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 100% SUBMISSION  
 DATE: APR. 15, 2019

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 CITY ENGINEER

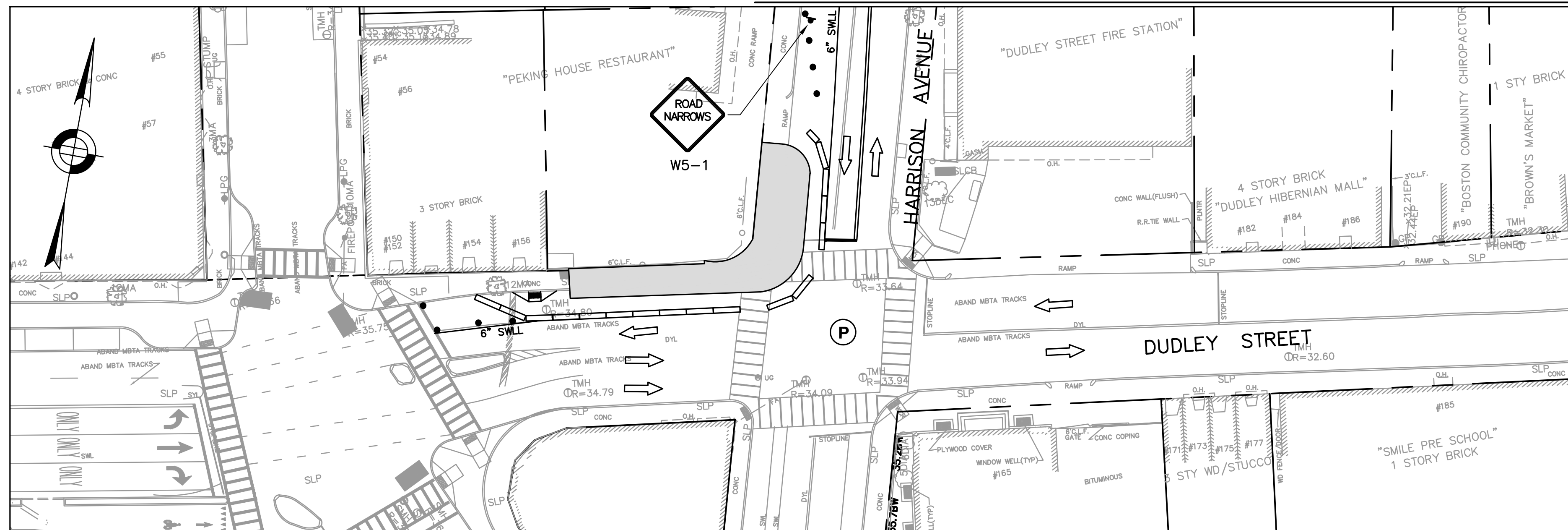


R-XXXX-107





**MALCOLM X BLVD/DUDLEY STREET NORTH SIDEWALK CONSTRUCTION STAGING A**



**DUDLEY STREET NORTH SIDEWALK CONSTRUCTION STAGING B**

**NOTES:**

1. CLOSURE FOR DUDLEY STREET NORTH SIDEWALK RECONSTRUCTION.
2. ACCESS TO ADJACENT BUSINESSES AND DUDLEY LIBRARY MUST BE MAINTAINED AT ALL TIMES.
3. PEDESTRIAN PASSAGE SHALL BE A 5' MINIMUM.
4. TRAVEL LANES SHALL BE A 10' MINIMUM EXCEPT AS NOTED.
5. CONSTRUCTION SCHEDULE WILL BE COORDINATED WITH DUDLEY LIBRARY CONSTRUCTION.
6. CONTRACTOR SHALL MAINTAIN ACCESS TO LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A.DALLY

CHECKED BY P.FUSCO

APPROVED BY J.CONLEY

**CMP LEGEND**

- TRAFFIC FLOW ARROW
- SIGN POST
- HANDICAP RAMP
- DRUM
- TYPE III BARRICADE
- POLICE DETAIL SYMBOL
- TEMPORARY CONCRETE BARRIER

CIP XX-XX SHEET 108 OF 130

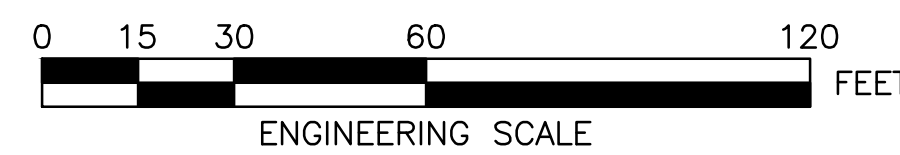
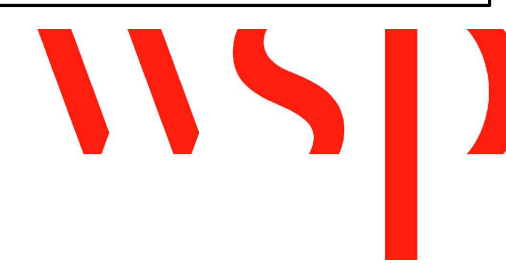
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
DUDLEY STREET CMP NORTH SIDEWALK  
ROXBURY**

SCALE: 1" = 30'  
DISTRICT: 10

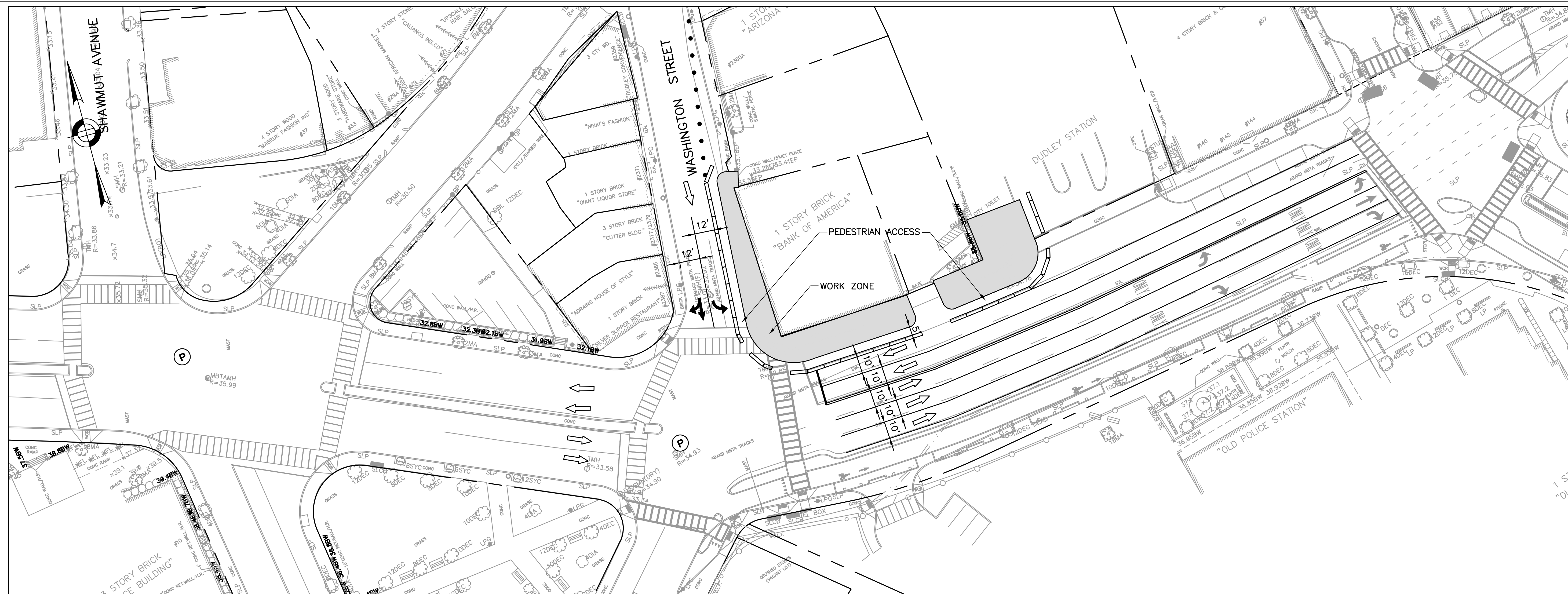
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100% SUBMISSION  
DATE: APR. 15, 2019

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CITY ENGINEER

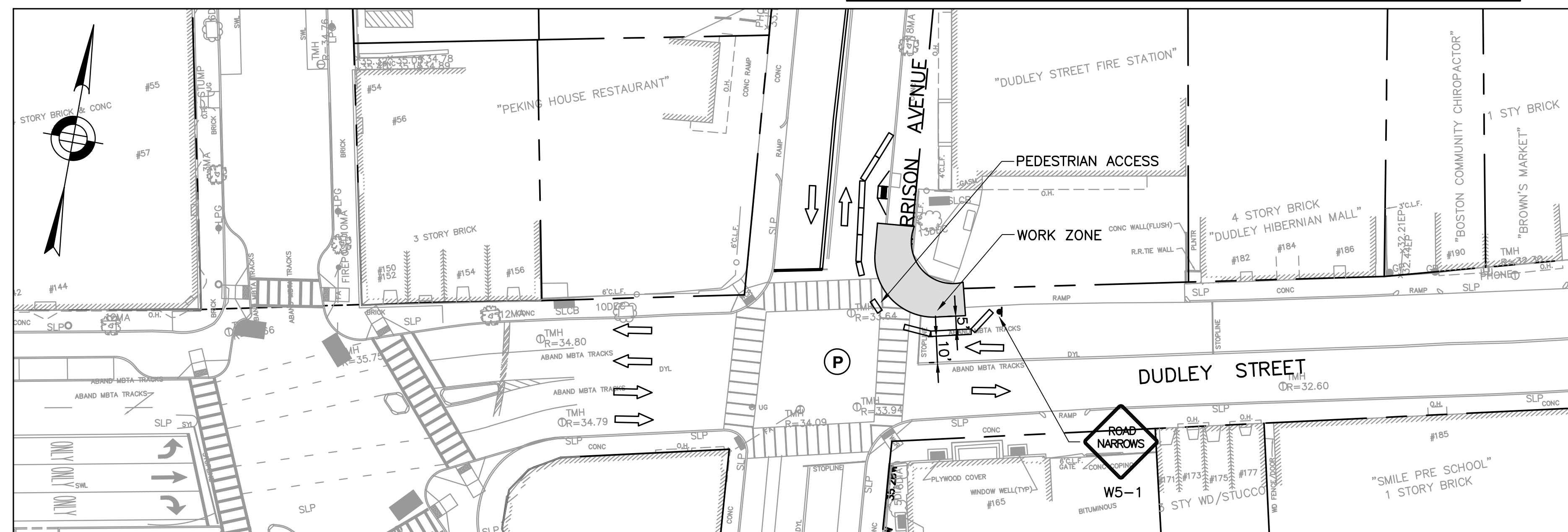


R-XXXX-108





**DUDLEY STREET NORTH SIDEWALK CONSTRUCTION STAGING C**



**DUDLEY STREET NORTH SIDEWALK CONSTRUCTION STAGING D**

**NOTES:**

1. CLOSURE FOR DUDLEY STREET NORTH SIDEWALK RECONSTRUCTION.
  2. ACCESS TO ADJACENT BUSINESSES AND DUDLEY LIBRARY MUST BE MAINTAINED AT ALL TIMES.
  3. PEDESTRIAN PASSAGE SHALL BE A 5' MINIMUM.
  4. TRAVEL LANES SHALL BE A 10' MINIMUM EXCEPT AS NOTED.
  5. CONSTRUCTION SCHEDULE WILL BE COORDINATED WITH DUDLEY LIBRARY CONSTRUCTION.
  6. CONTRACTOR SHALL MAINTAIN ACCESS TO LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.
- REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

CMP LEGEND	
	TRAFFIC FLOW ARROW
	SIGN POST
	HANDICAP RAMP
	DRUM
	TYPE III BARRICADE
	POLICE DETAIL SYMBOL
	TEMPORARY CONCRETE BARRIER

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY A.DALLY  
 CHECKED BY P.FUSCO  
 APPROVED BY J.CONLEY

CIP XX-XX SHEET 109 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

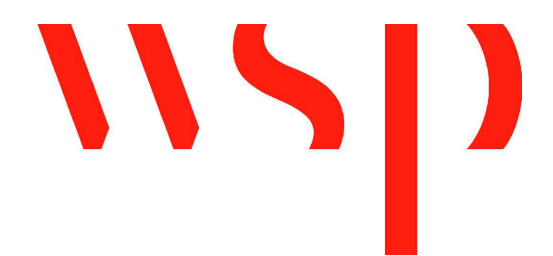
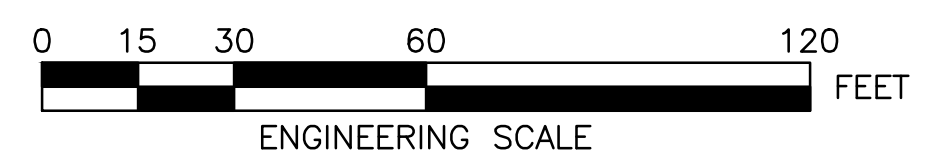
**DUDLEY SQUARE PHASE 2**  
**DUDLEY STREET CMP NORTH SIDEWALK**  
 ROXBURY

SCALE: 1" = 30'  
 DISTRICT: 10

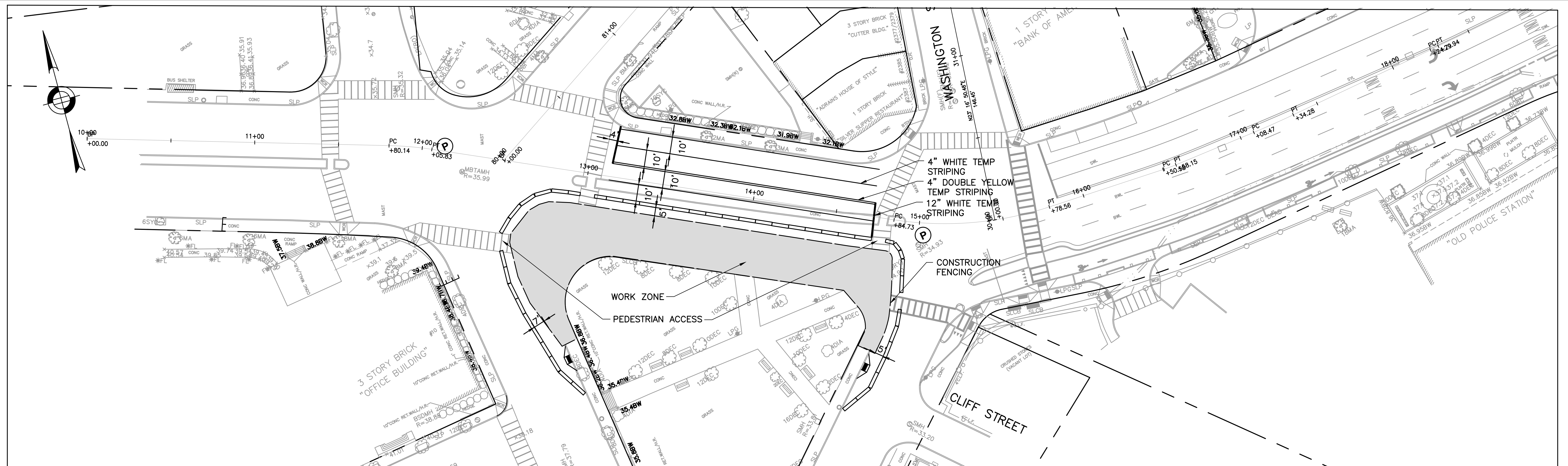
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

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 CITY ENGINEER

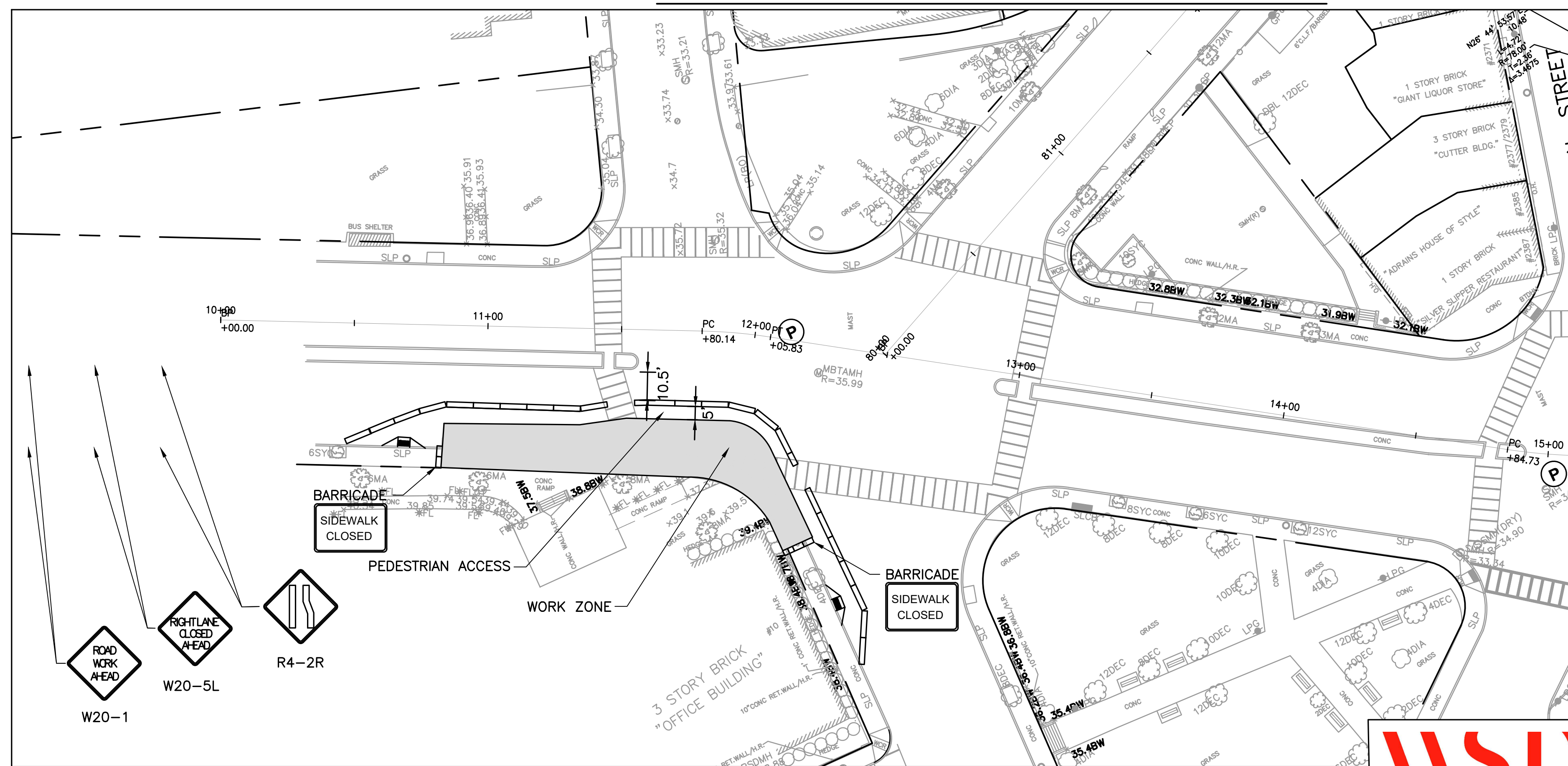
R-XXXX-109







**DUDLEY STREET SOUTH SIDEWALK CONSTRUCTION STAGING A**



**DUDLEY STREET SOUTH SIDEWALK CONSTRUCTION STAGING B**

**NOTES:**

1. CLOSURE FOR DUDLEY STREET SOUTH SIDEWALK RECONSTRUCTION.
2. ACCESS TO ADJACENT BUSINESSES AND DUDLEY LIBRARY MUST BE MAINTAINED AT ALL TIMES.
3. PEDESTRIAN PASSAGE SHALL BE A 5' MINIMUM.
4. TRAVEL LANES SHALL BE A 10' MINIMUM EXCEPT AS NOTED.
5. CONSTRUCTION SCHEDULE WILL BE COORDINATED WITH DUDLEY LIBRARY CONSTRUCTION.
6. CONTRACTOR SHALL MAINTAIN ACCESS TO LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.

CMP LEGEND	
	TRAFFIC FLOW ARROW
	SIGN POST
	HANDICAP RAMP
	DRUM
	TYPE III BARRICADE
	POLICE DETAIL SYMBOL
	TEMPORARY CONCRETE BARRIER

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY A.DALLY  
 CHECKED BY P.FUSCO  
 APPROVED BY J.CONLEY

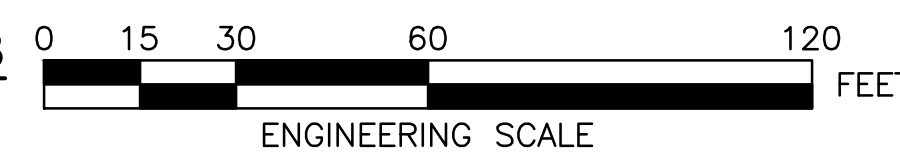
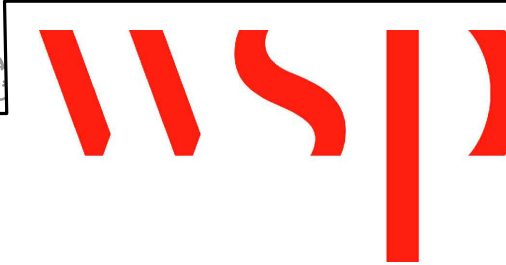
CIP XX-XX SHEET 110 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**DUDLEY STREET CMP SOUTH SIDEWALK**  
 ROXBURY

SCALE: 1" = 30'  
 DISTRICT: 10

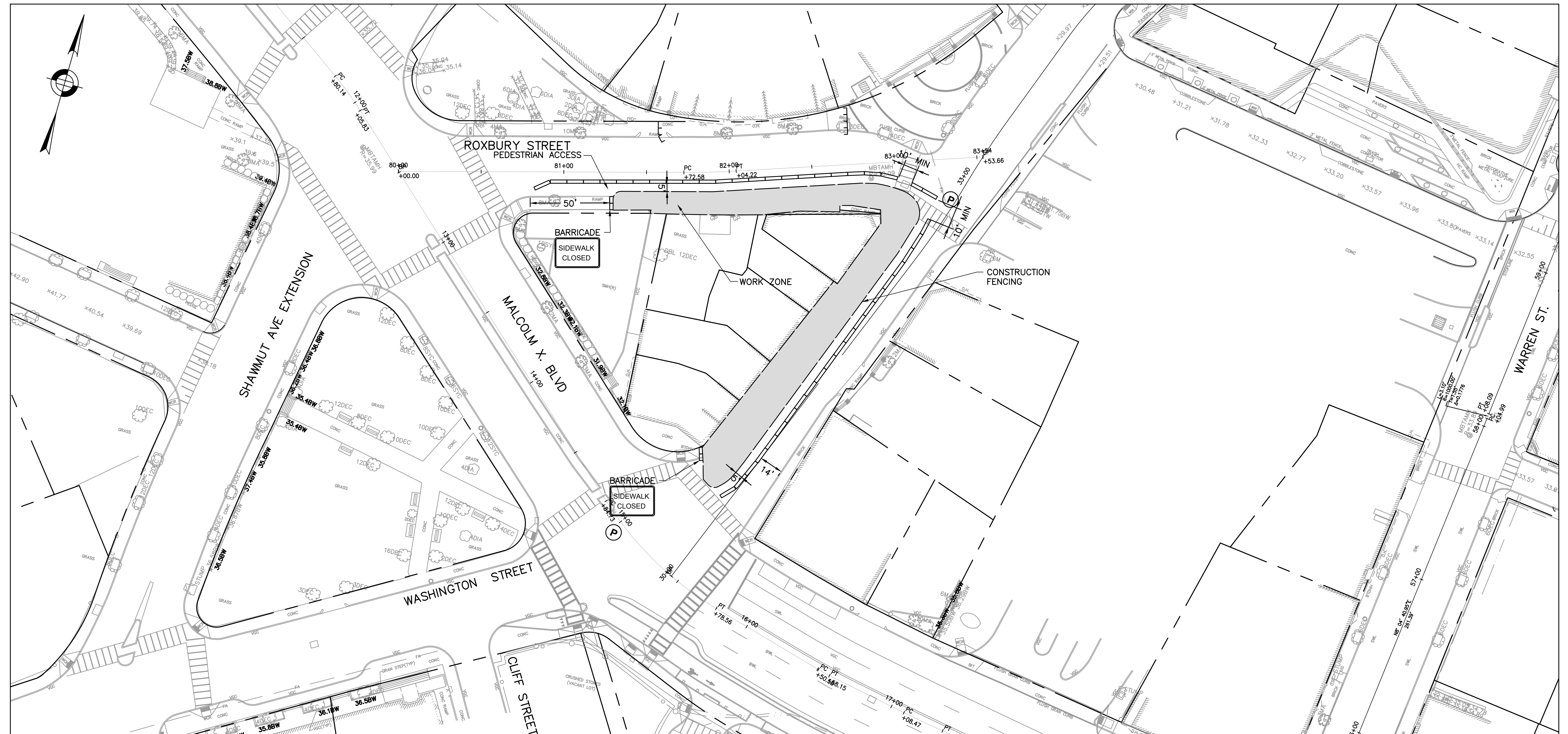
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER



R-XXXX-110



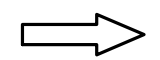








**ROXBURY STREET EAST SIDEWALK & WASHINGTON STREET WEST SIDEWALK CONSTRUCTION STAGING**

**NOTES:**

1. CLOSURE FOR ROXBURY STREET EAST SIDEWALK & WASHINGTON STREET WEST SIDEWALK RECONSTRUCTION.
2. ACCESS TO ADJACENT BUSINESSES AND DUDLEY LIBRARY MUST BE MAINTAINED AT ALL TIMES.
3. PEDESTRIAN PASSAGE SHALL BE A 5' MINIMUM.
4. TRAVEL LANES SHALL BE A 10' MINIMUM EXCEPT AS NOTED.
5. CONSTRUCTION SCHEDULE WILL BE COORDINATED WITH DUDLEY LIBRARY CONSTRUCTION.
6. CONTRACTOR SHALL MAINTAIN ACCESS TO LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.

**CMP LEGEND**

	TRAFFIC FLOW ARROW
	SIGN POST
	HANDICAP RAMP
	DRUM
	TYPE III BARRICADE
	POLICE DETAIL SYMBOL
	TEMPORARY CONCRETE BARRIER

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A.DALLY

CHECKED BY P.FUSCO

APPROVED BY J.CONLEY

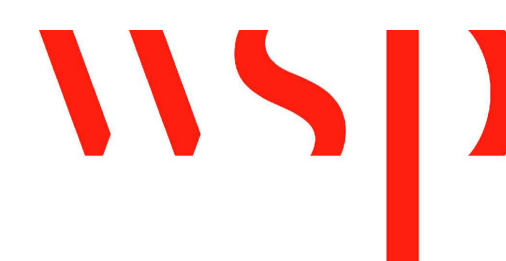
CIP XX-XX SHEET 111 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**ROXBURY ST & WASHINGTON ST CMP SIDEWALK**  
 ROXBURY

SCALE: 1" = 30'  
 DISTRICT: 10

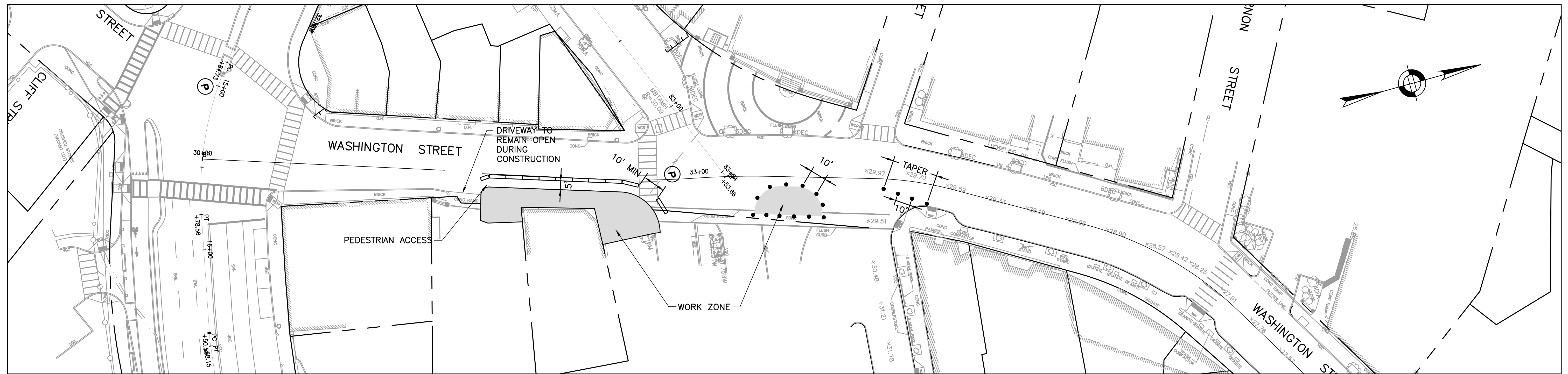
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

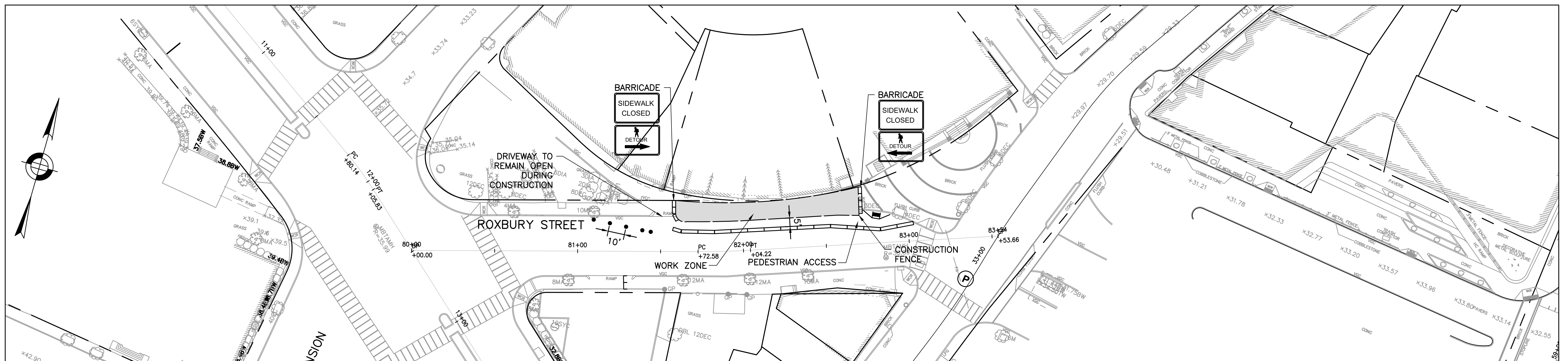


R-XXXX-111





**WASHINGTON STREET EAST SIDEWALK CONSTRUCTION STAGING**

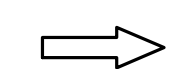





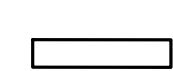


**ROXBURY STREET WEST SIDEWALK CONSTRUCTION STAGING**

**NOTES:**

1. CLOSURE FOR ROXBURY STREET WEST SIDEWALK & WASHINGTON STREET EAST SIDEWALK RECONSTRUCTION.
2. ACCESS TO ADJACENT BUSINESSES AND DUDLEY LIBRARY MUST BE MAINTAINED AT ALL TIMES.
3. PEDESTRIAN PASSAGE SHALL BE A 5' MINIMUM.
4. TRAVEL LANES SHALL BE A 10' MINIMUM EXCEPT AS NOTED.
5. CONSTRUCTION SCHEDULE WILL BE COORDINATED WITH DUDLEY LIBRARY CONSTRUCTION.
6. CONTRACTOR SHALL MAINTAIN ACCESS TO LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.

**CMP LEGEND**

	TRAFFIC FLOW ARROW
	SIGN POST
	HANDICAP RAMP
	DRUM
	TYPE III BARRICADE
	POLICE DETAIL SYMBOL
	TEMPORARY CONCRETE BARRIER

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A.DALLY

CHECKED BY P.FUSCO

APPROVED BY J.CONLEY

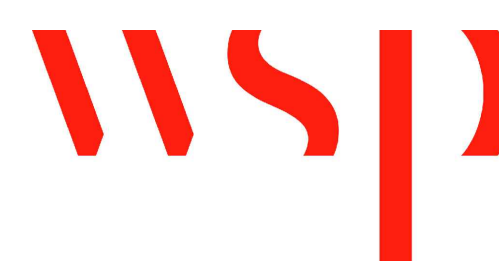
CIP XX-XX SHEET 112 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**ROXBURY ST & WASHINGTON ST CMP SIDEWALK**  
 ROXBURY

SCALE: 1" = 30'  
 DISTRICT: 10

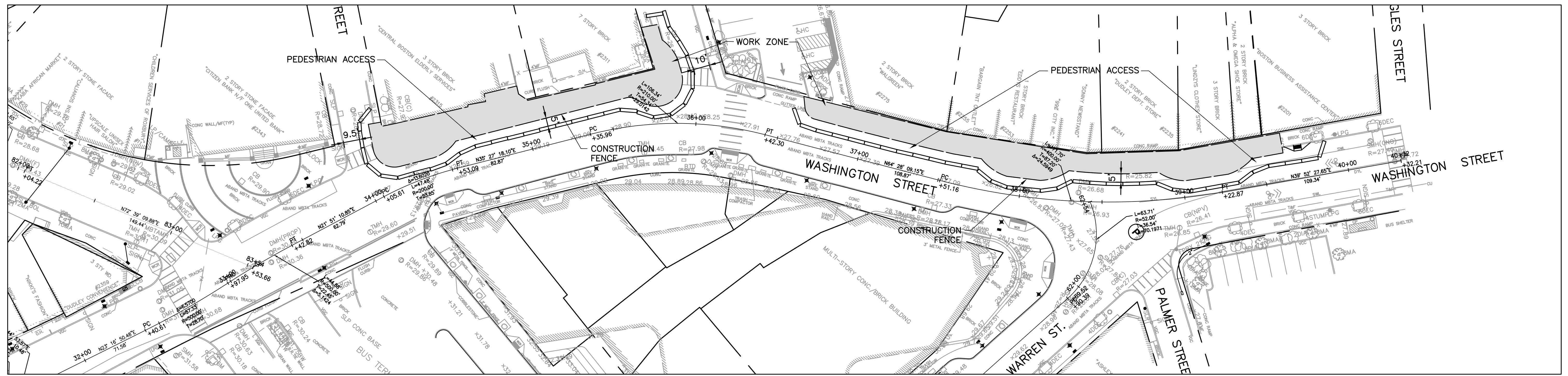
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

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 CITY ENGINEER

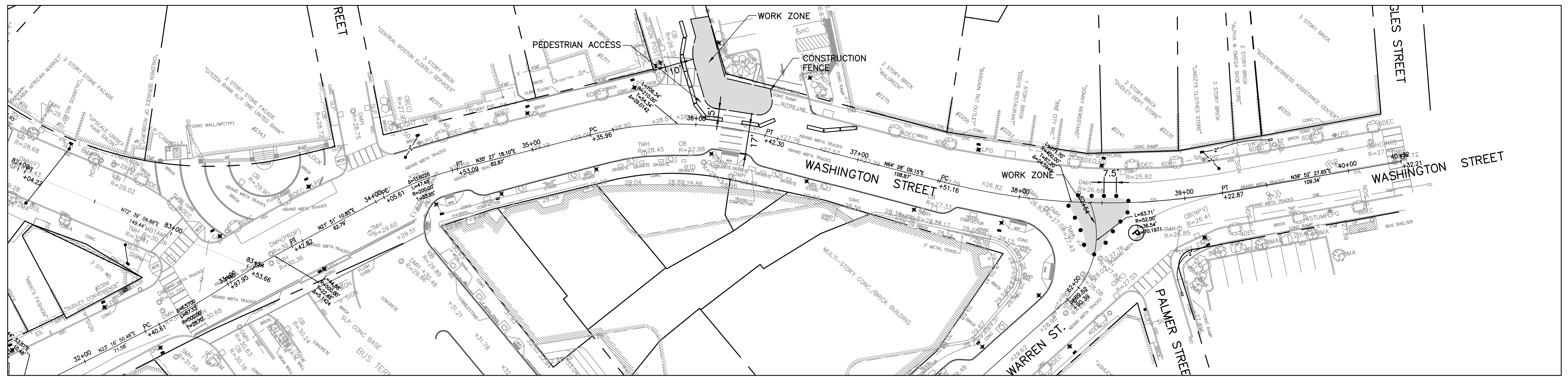


R-XXXX-112





**WASHINGTON STREET WEST SIDEWALK CONSTRUCTION STAGING A**



**WASHINGTON STREET WEST SIDEWALK CONSTRUCTION STAGING B**

- NOTES:**
1. CLOSURE FOR WASHINGTON STREET WEST SIDEWALK RECONSTRUCTION.
  2. ACCESS TO ADJACENT BUSINESSES AND DUDLEY LIBRARY MUST BE MAINTAINED AT ALL TIMES.
  3. PEDESTRIAN PASSAGE SHALL BE A 5' MINIMUM.
  4. TRAVEL LANES SHALL BE A 10' MINIMUM EXCEPT AS NOTED.
  5. CONSTRUCTION SCHEDULE WILL BE COORDINATED WITH DUDLEY LIBRARY CONSTRUCTION.
  6. CONTRACTOR SHALL MAINTAIN ACCESS TO LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.

CMP LEGEND	
	TRAFFIC FLOW ARROW
	SIGN POST
	HANDICAP RAMP
	DRUM
	TYPE III BARRICADE
	POLICE DETAIL SYMBOL
	TEMPORARY CONCRETE BARRIER

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A.DALLY
CHECKED BY	P.FUSCO
APPROVED BY	J.CONLEY

CIP XX-XX SHEET 113 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

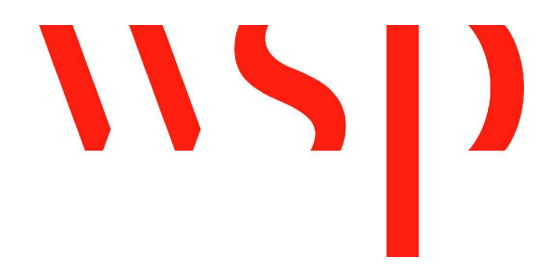
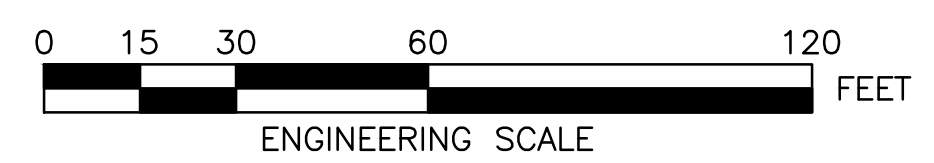
**DUDLEY SQUARE PHASE 2**  
**WASHINGTON STREET CMP WEST SIDEWALK**  
 ROXBURY

SCALE: 1" = 30'  
 DISTRICT: 10

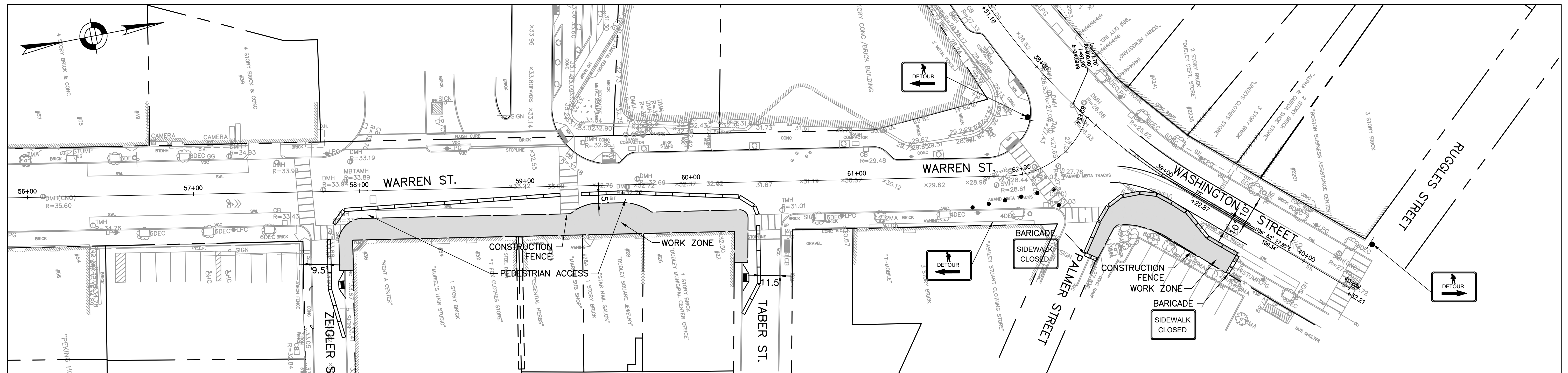
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 DATE: APR. 15, 2019

CITY ENGINEER

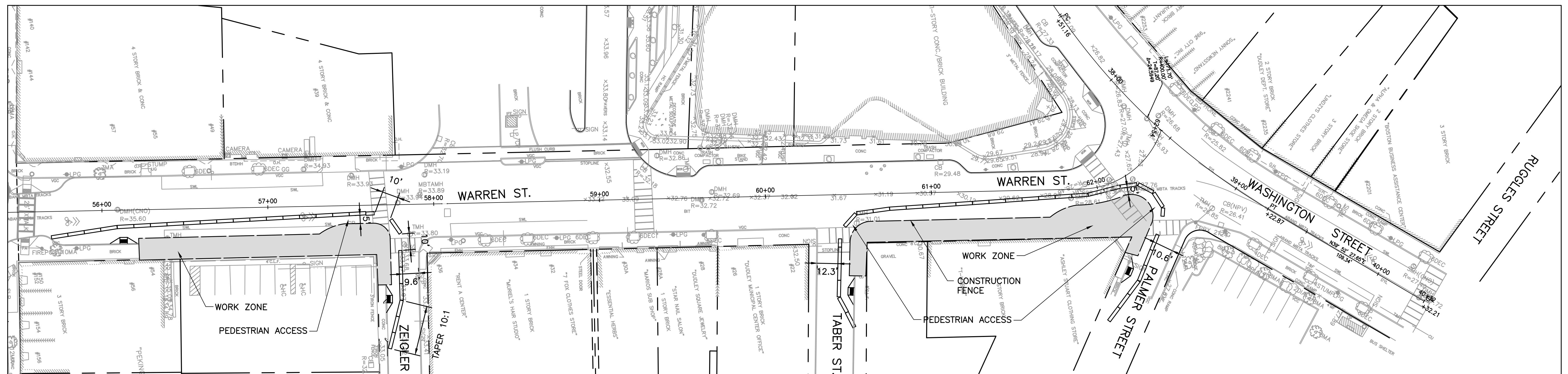
R-XXXX-113







**WARREN STREET EAST SIDEWALK CONSTRUCTION STAGING A**



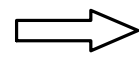






**WARREN STREET EAST SIDEWALK CONSTRUCTION STAGING B**

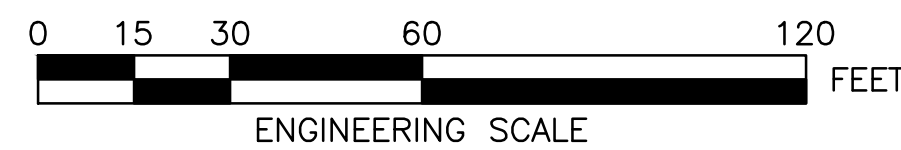
**NOTES:**

1. CLOSURE FOR WARREN STREET EAST SIDEWALK RECONSTRUCTION.
2. ACCESS TO ADJACENT BUSINESSES AND DUDLEY LIBRARY MUST BE MAINTAINED AT ALL TIMES.
3. PEDESTRIAN PASSAGE SHALL BE A 5' MINIMUM.
4. TRAVEL LANES SHALL BE A 10' MINIMUM EXCEPT AS NOTED.
5. CONSTRUCTION SCHEDULE WILL BE COORDINATED WITH DUDLEY LIBRARY CONSTRUCTION.
6. CONTRACTOR SHALL MAINTAIN ACCESS TO LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.

R-XXXX-###

**CMP LEGEND**

-  TRAFFIC FLOW ARROW
-  SIGN POST
-  HANDICAP RAMP
-  DRUM
-  TYPE III BARRICADE
-  POLICE DETAIL SYMBOL
-  TEMPORARY CONCRETE BARRIER



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A.DALLY

CHECKED BY P.FUSCO

APPROVED BY J.CONLEY

CIP XX-XX SHEET 114 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

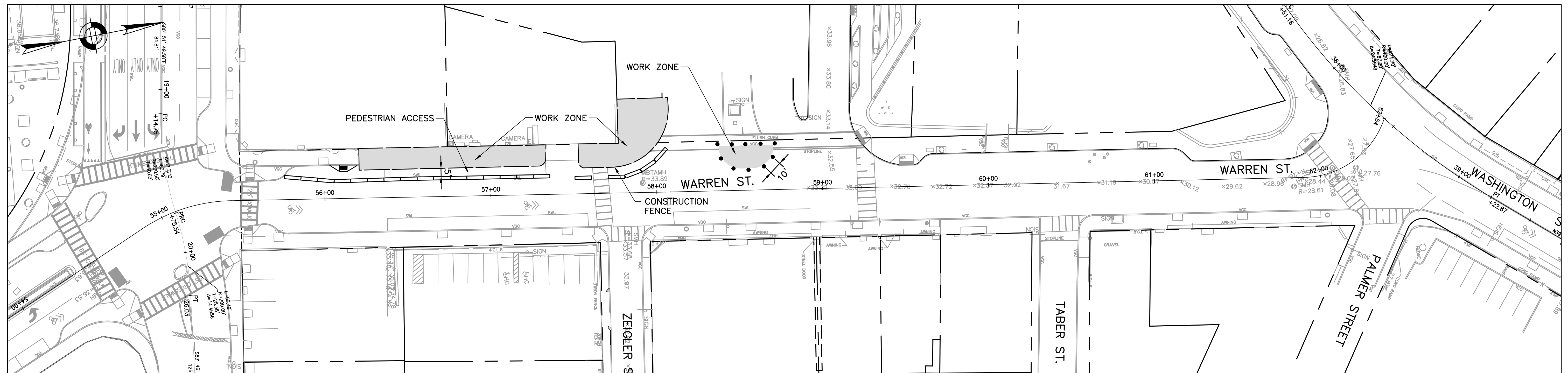
**DUDLEY SQUARE PHASE 2**  
**WARREN STREET CMP EAST SIDEWALK**  
ROXBURY

SCALE: 1" = 30'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER





**WARREN STREET WEST SIDEWALK CONSTRUCTION STAGING**

**NOTES:**

1. CLOSURE FOR WARREN STREET WEST SIDEWALK RECONSTRUCTION.
2. ACCESS TO ADJACENT BUSINESSES AND DUDLEY LIBRARY MUST BE MAINTAINED AT ALL TIMES.
3. PEDESTRIAN PASSAGE SHALL BE A 5' MINIMUM.
4. TRAVEL LANES SHALL BE A 10' MINIMUM EXCEPT AS NOTED.
5. CONSTRUCTION SCHEDULE WILL BE COORDINATED WITH DUDLEY LIBRARY CONSTRUCTION.
6. CONTRACTOR SHALL MAINTAIN ACCESS TO LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.

CMP LEGEND	
	TRAFFIC FLOW ARROW
	SIGN POST
	HANDICAP RAMP
	DRUM
	TYPE III BARRICADE
	POLICE DETAIL SYMBOL
	TEMPORARY CONCRETE BARRIER

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY A.DALLY  
 CHECKED BY P.FUSCO  
 APPROVED BY J.CONLEY

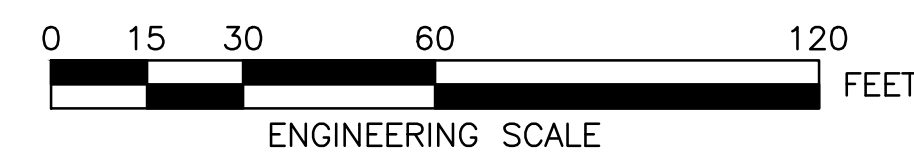
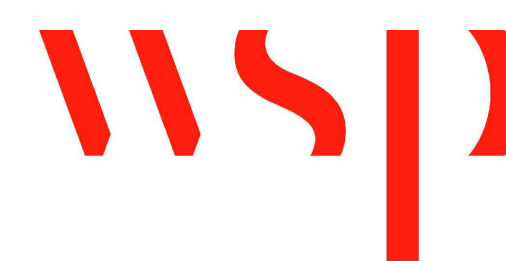
CIP XX-XX SHEET 115 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**WARREN STREET CMP WEST SIDEWALK**  
 ROXBURY

SCALE: 1" = 30'  
 DISTRICT: 10

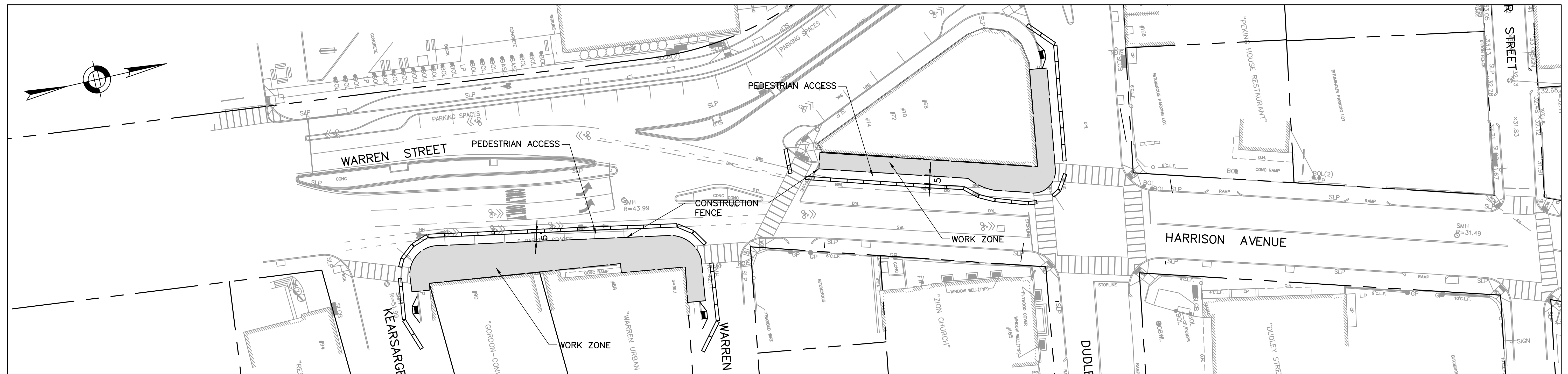
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

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 CITY ENGINEER

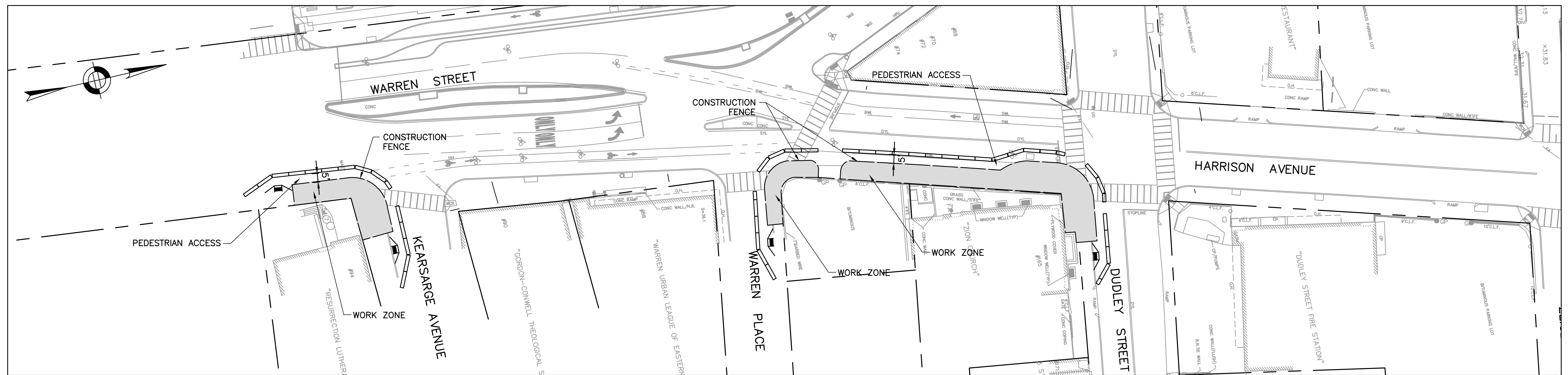


R-XXXX-115





**HARRISON AVENUE WEST & WARREN STREET EAST SIDEWALK CONSTRUCTION STAGING**

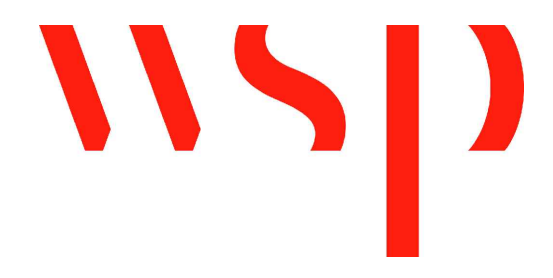
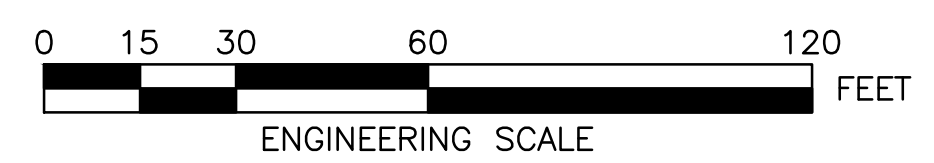


**HARRISON AVENUE & WARREN STREET EAST SIDEWALK CONSTRUCTION STAGING**

**NOTES:**

1. CLOSURE FOR HARRISON AVENUE & WARREN STREET SIDEWALK RECONSTRUCTION.
2. ACCESS TO ADJACENT BUSINESSES AND DUDLEY LIBRARY MUST BE MAINTAINED AT ALL TIMES.
3. PEDESTRIAN PASSAGE SHALL BE A 5' MINIMUM.
4. TRAVEL LANES SHALL BE A 10' MINIMUM.
5. CONSTRUCTION SCHEDULE WILL BE COORDINATED WITH DUDLEY LIBRARY CONSTRUCTION.
6. CONTRACTOR SHALL MAINTAIN ACCESS TO LIBRARY CONSTRUCTION GATES DURING ALL PHASES OF STREET WORK.

CMP LEGEND	
	TRAFFIC FLOW ARROW
	SIGN POST
	HANDICAP RAMP
	DRUM
	TYPE III BARRICADE
	POLICE DETAIL SYMBOL
	TEMPORARY CONCRETE BARRIER



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT	
SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	A.DALLY
CHECKED BY	P.FUSCO
APPROVED BY	J.CONLEY

CIP XX-XX SHEET 116 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION HIGHWAY RECONSTRUCTION	
<b>DUDLEY SQUARE PHASE 2</b> <b>HARRISON AVE &amp; WARREN ST CMP SIDEWALK</b> ROXBURY	
SCALE: 1" = 30'	AREA: 1
DISTRICT: 10	100% SUBMISSION
	DATE: APR. 15, 2019
CITY ENGINEER	

R-XXXX-116



IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		UNIT AREA SF	TEXT	TEXT DIMENSIONS	NUMBER OF SIGNS REQUIRED	COLOR	POST SIZE AND NUMBER REQUIRED PER SIGN	AREA IN SQUARE FEET
	WIDTH	HEIGHT							
M4-9bL	30"	24"	5		SEE BOSTON TRANSPORTATION DEPARTMENT STANDARD DETAIL	5	SEE BOSTON TRANSPORTATION DEPARTMENT STANDARD DETAIL	BTD SPEC. MOUNT ON MAST ARM/POST	25
M4-9	30"	24"	5			2			10
M4-9bR	30"	24"	5			5			25
R-1	30"	30"	5.2			1			5.2
R4-2L	36"	36"	9			1			9
R4-7a	24"	30"	5			3			15
R4-7aL	24"	30"	5			1			5
R1-19	30"	30"	6.25			2			12.5
R9-9	12"	24"	2			5			10
R9-11a	12"	30"	2.5			1			2.5
T-23	12"	18"	1.5			12			18
W1-4L	36"	36"	9			1			9
W1-4R	36"	36"	9			1			9
W20-1	36"	36"	9			8			72
W20-5L	36"	36"	9			2			18
W20-5R	36"	36"	9			2			18

**NOTES-- SIGN SUMMARY**

- SIGN SUMMARY APPLIES TO TYPICAL APPLICATIONS DESCRIBED IN CMP PHASE 1 THROUGH CMP PHASE 3.
- SIGN SUMMARY IS CUMULATIVE OF REQUIRED SIGNAGE FOR CMP PHASE 1 THROUGH CMP PHASE 3; CONTRACTOR TO DETERMINE IF SIGNS CAN BE REUSED.

IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		UNIT AREA SF	TEXT	TEXT DIMENSIONS	NUMBER OF SIGNS REQUIRED	COLOR	POST SIZE AND NUMBER REQUIRED PER SIGN	AREA IN SQUARE FEET
	WIDTH	HEIGHT							
SP-1	36"	36"	9			2			18
SP-1	36"	36"	9			2			18
SP-2	48"	36"	12			1			12

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON TRANSPORTATION DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY A.DALLY

CHECKED BY P.FUSCO

APPROVED BY J.CONLEY

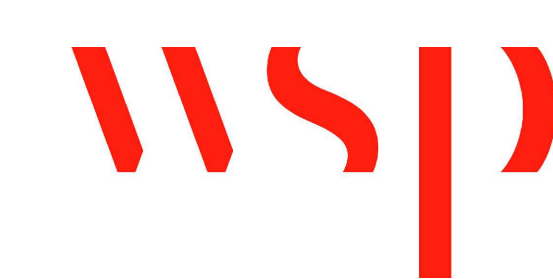
CIP XX-XX SHEET 117 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2  
CMP TRAFFIC SIGN SUMMARY**  
ROXBURY

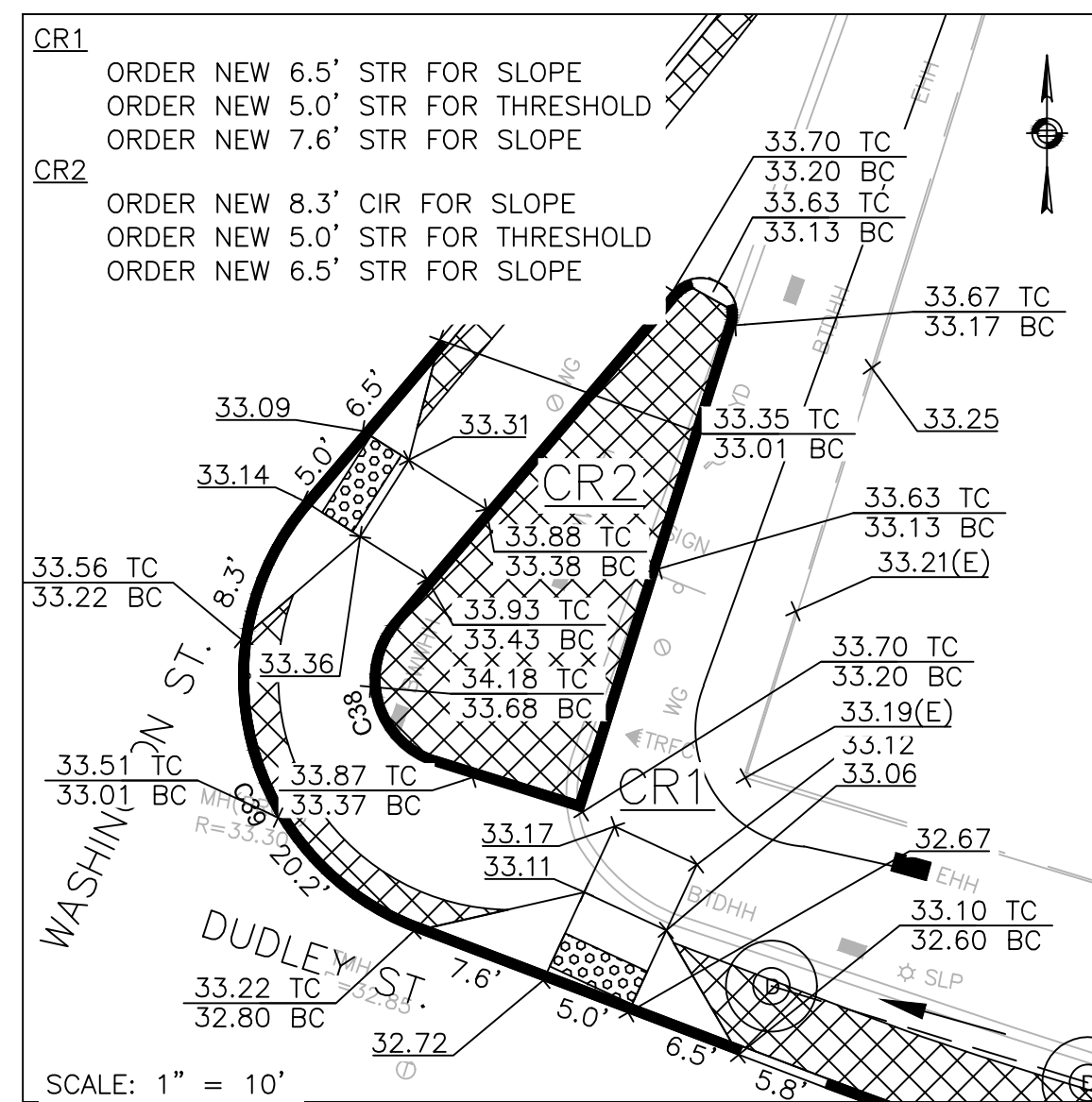
SCALE: N.T.S.  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

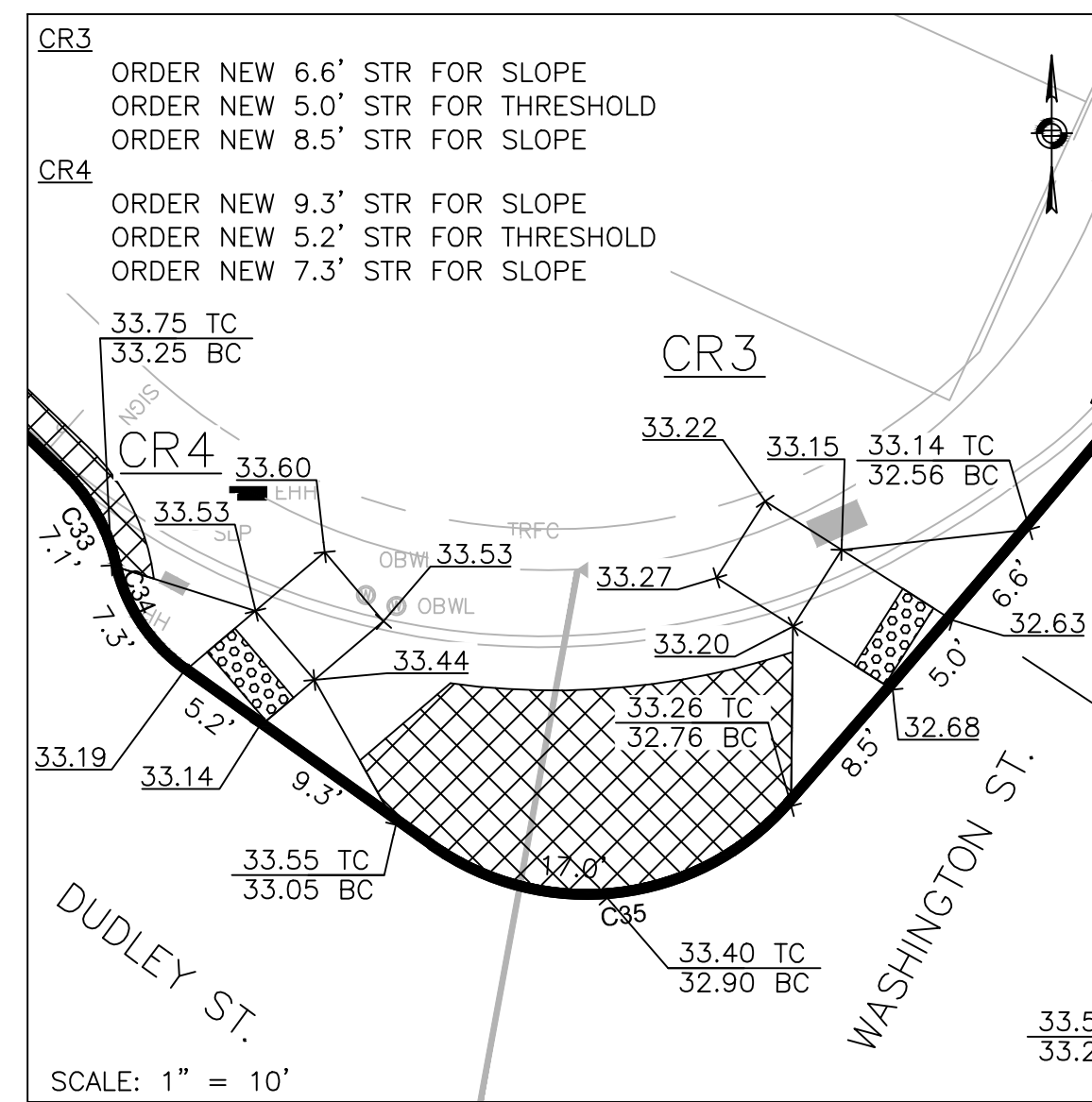
\_\_\_\_\_  
CITY ENGINEER



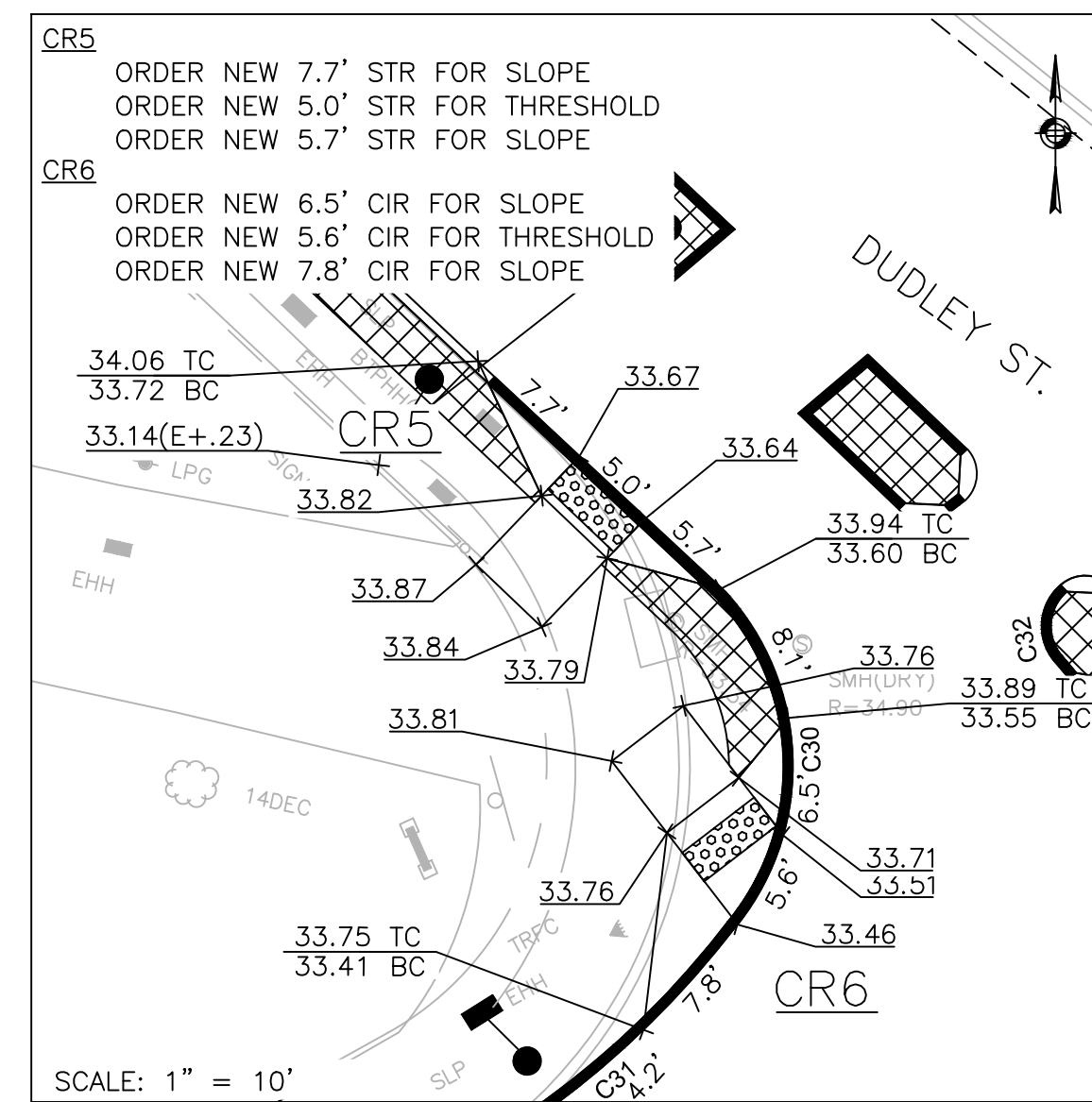




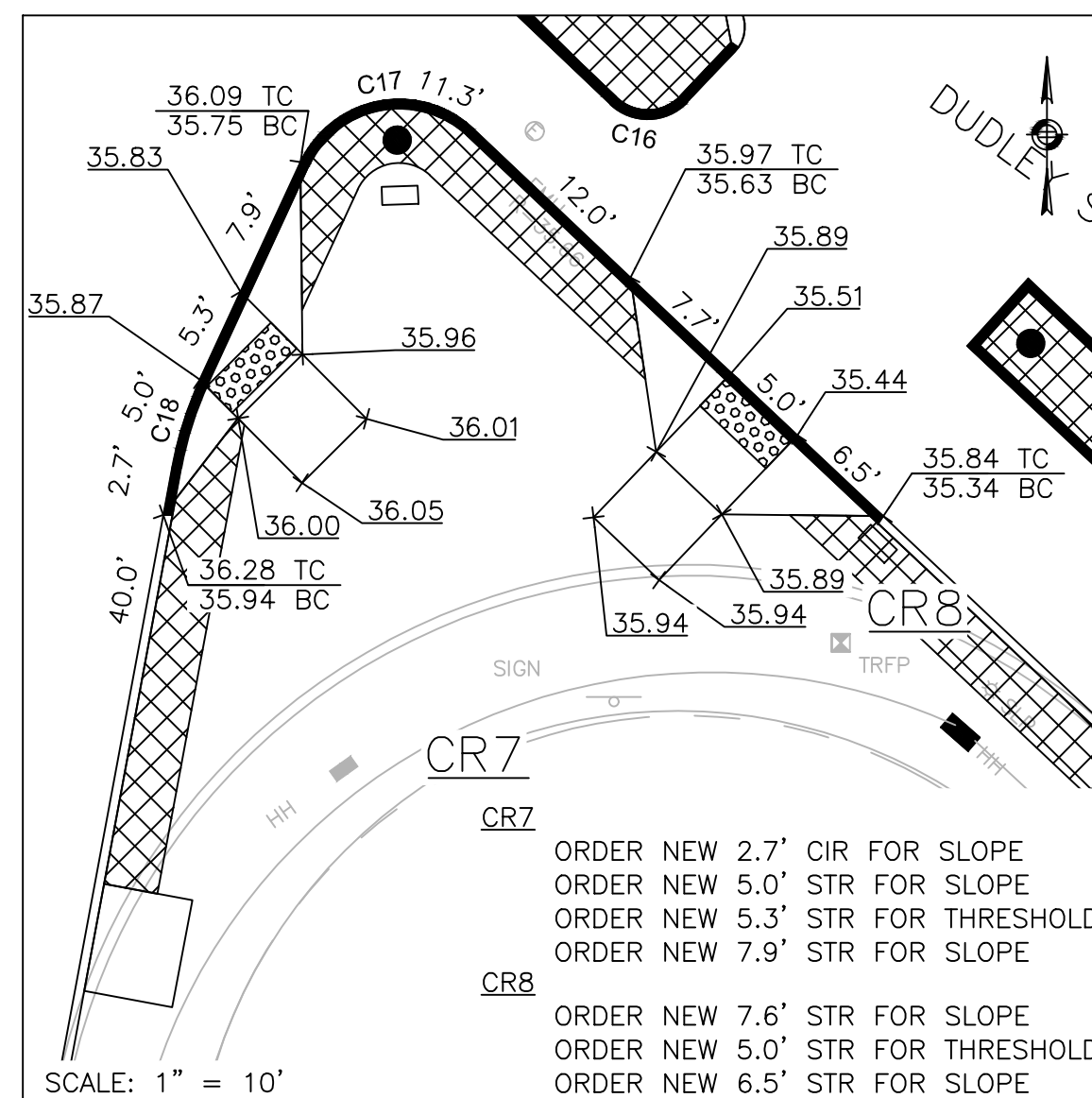
SCALE: 1" = 10'  
PROP. CONC RAMP #1 (CR1)  
& #2 (CR2)



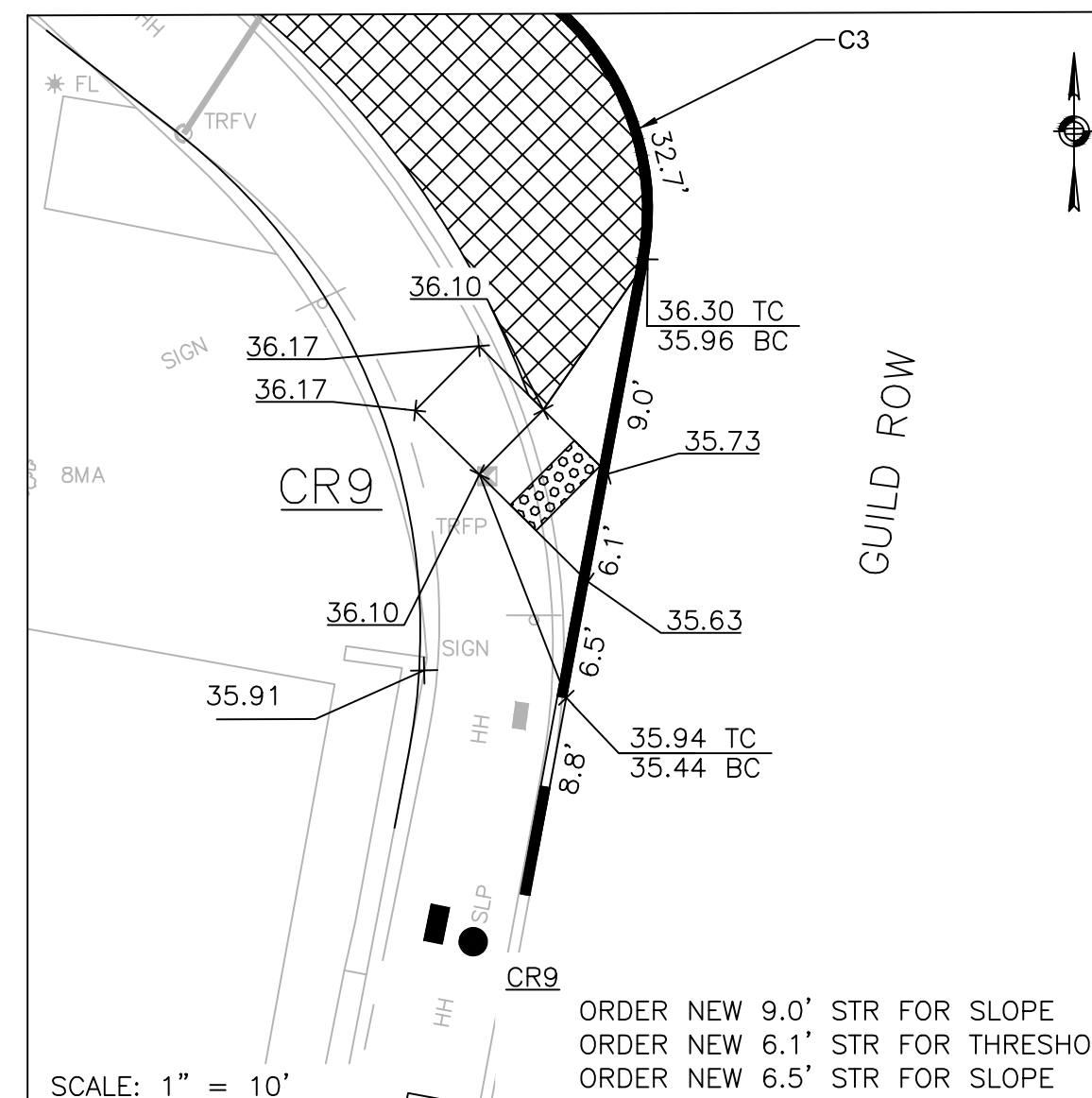
SCALE: 1" = 10'  
PROP. CONC RAMP #3 (CR3)  
& #4 (CR4)



SCALE: 1" = 10'  
PROP. CONC RAMP #5 (CR5)  
& #6 (CR6)



SCALE: 1" = 10'  
PROP. CONC RAMP #7 (CR7)  
& #8 (CR8)



SCALE: 1" = 10'  
PROP. CONC RAMP #9 (CR9)

LEGEND	
	PROPOSED CURB
	R&R CURB
	PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
	PERMEABLE CONCRETE PAVERS

### GENERAL NOTES

- ALL SIDEWALKS AND PEDESTRIAN RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE ARCHITECTURAL ACCESS BOARD (AAB) AND THE AMERICAN WITH DISABILITIES ACT (ADA). SIDEWALK CROSS SLOPES, AS INDICATED INT EH STANDARD SPECIFICATIONS, WILL BE 1.5% ( $\pm 0.5\%$  CONSTRUCTION TOLERANCE), CEMENT CONCRETE. LEVEL LANDINGS SHALL NOT EXCEED A SLOPE OF 1.5% ( $\pm 0.5\%$  CONSTRUCTION TOLERANCE) IN ANY DIRECTION.
- THE LENGTHS OF NEW AND EXISTING STRAIGHT AND CIRCULAR EDGESTONE USED TO CONSTRUCT PROPOSED PEDESTRIAN RAMPS ARE LISTED IN A CLOCKWISE MANNER.
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CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C3	16.7	15.0	63°56'12"
C16	4.7	3.0	89°59'24"
C17	10.8	6.0	102°57'41"
C18	5.0	20.0	14°18'58"
C30	21.8	15.0	83°22'50"
C31	20.9	50.0	23°57'25"
C32	4.8	3.0	92°03'03"
C33	5.8	10.0	33°29'53"
C34	7.3	10.0	41°36'00"
C35	22.1	15.0	84°17'24"
C38	9.9	5.0	113°04'12"
C39	29.8	15.0	113°53'49"

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY J. WEISS

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

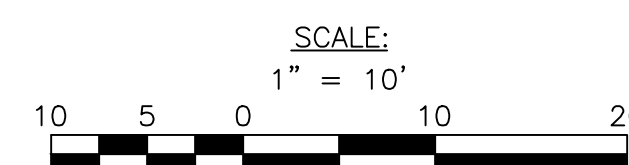
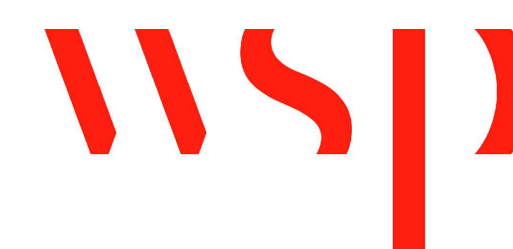
CIP XX-XX SHEET 118 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**PEDESTRIAN RAMP DETAILS**  
ROXBURY

SCALE: 1" = 10'  
DISTRICT: 10

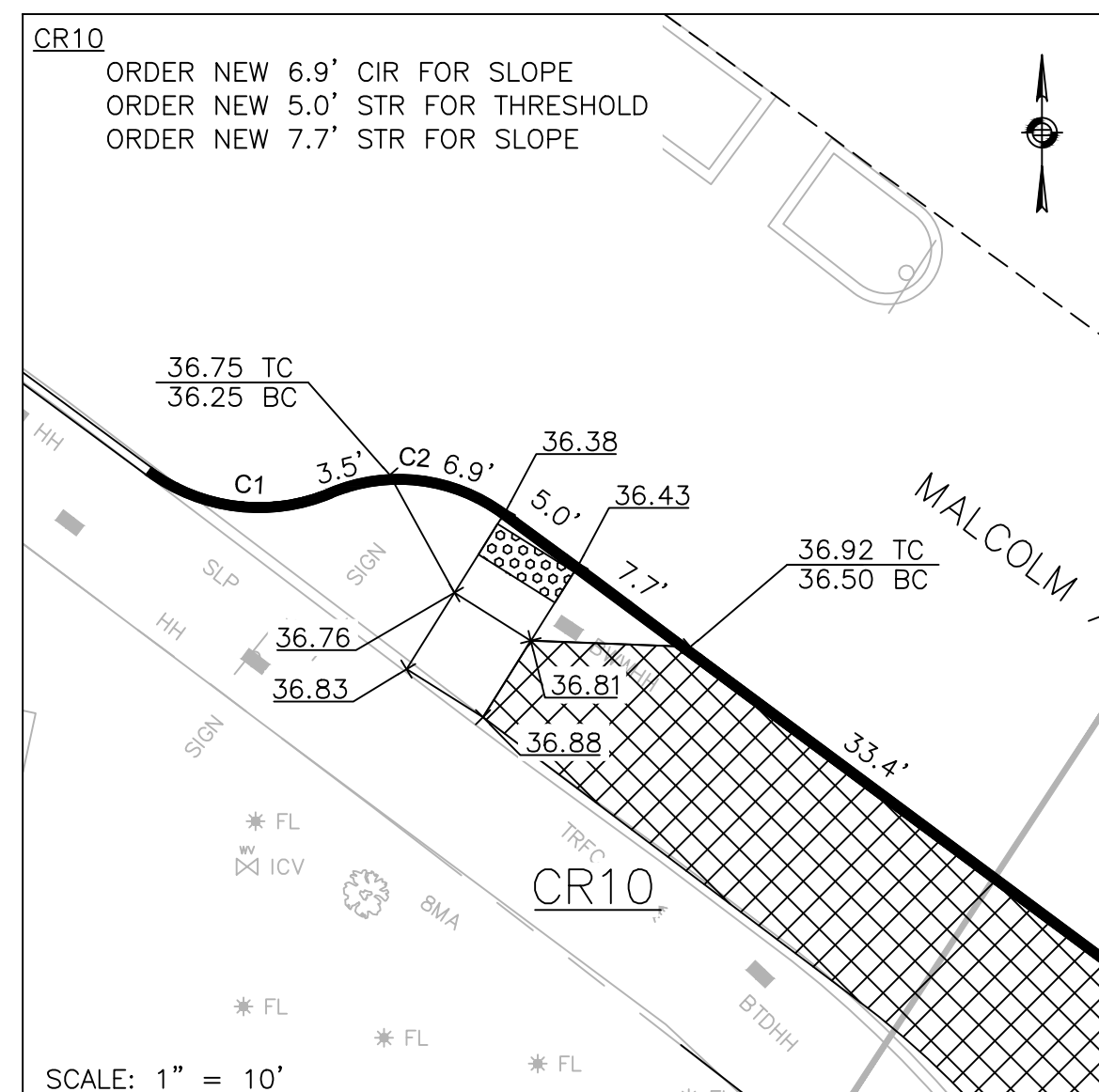
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

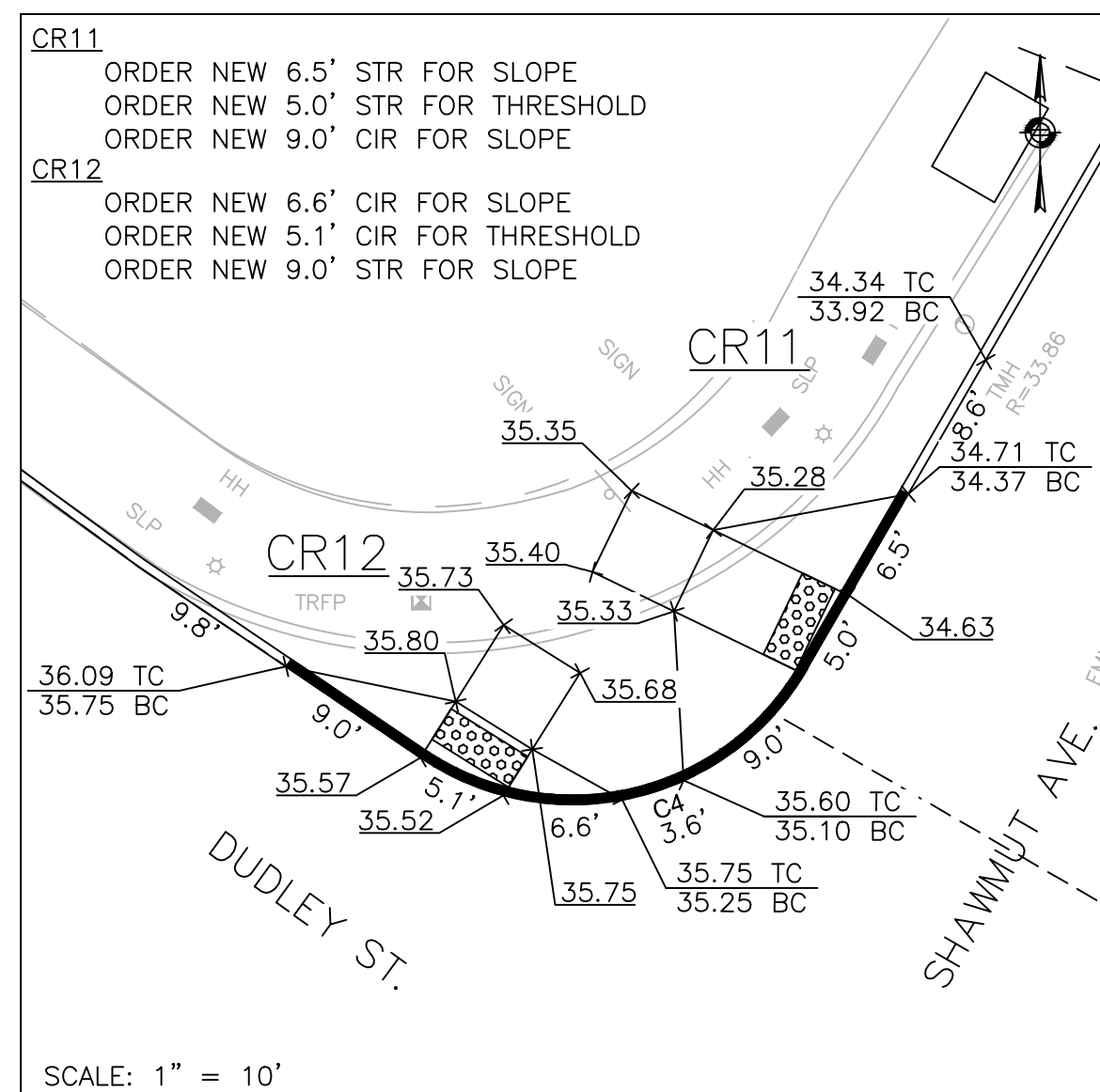


R-XXXX-118

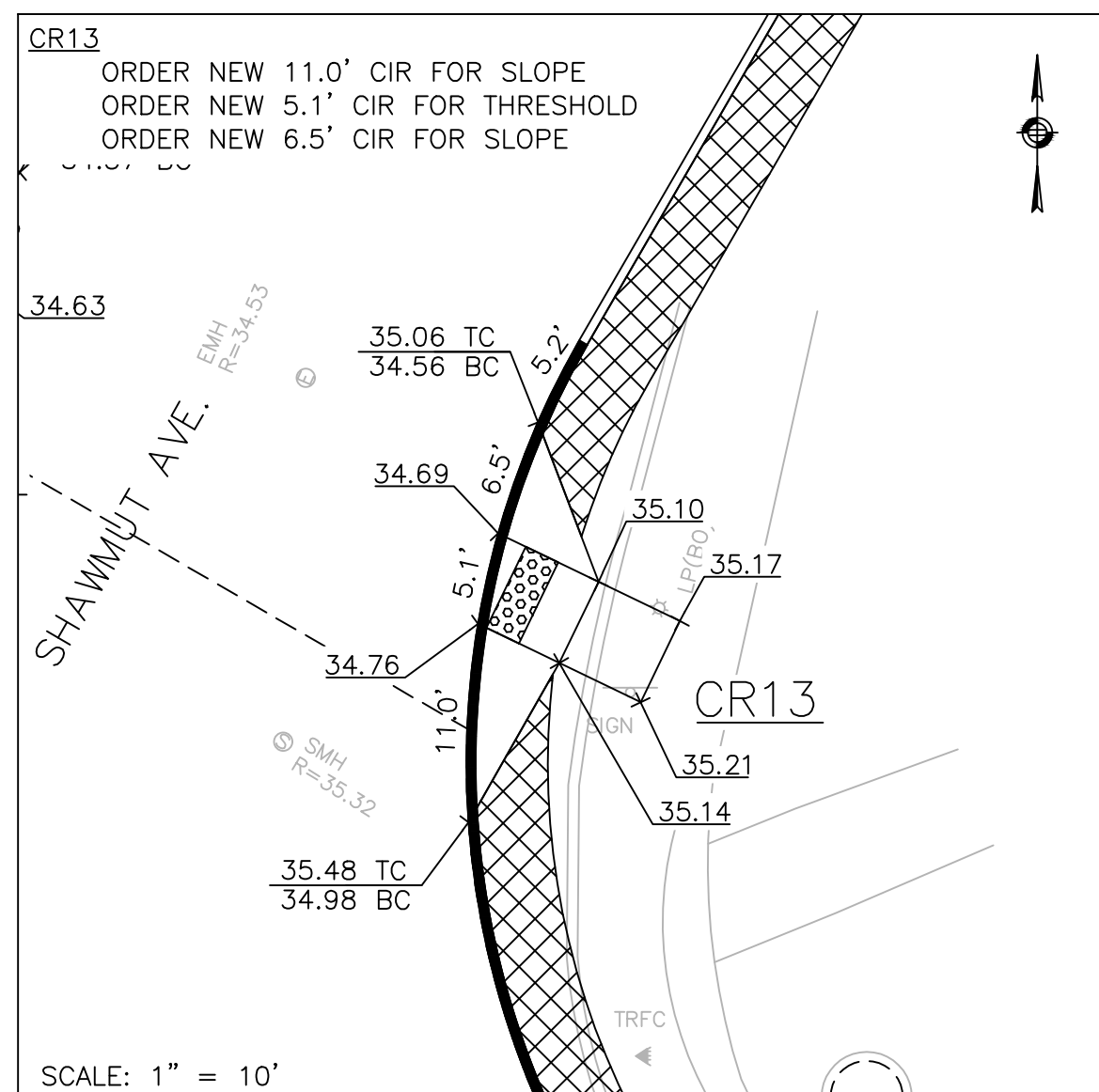




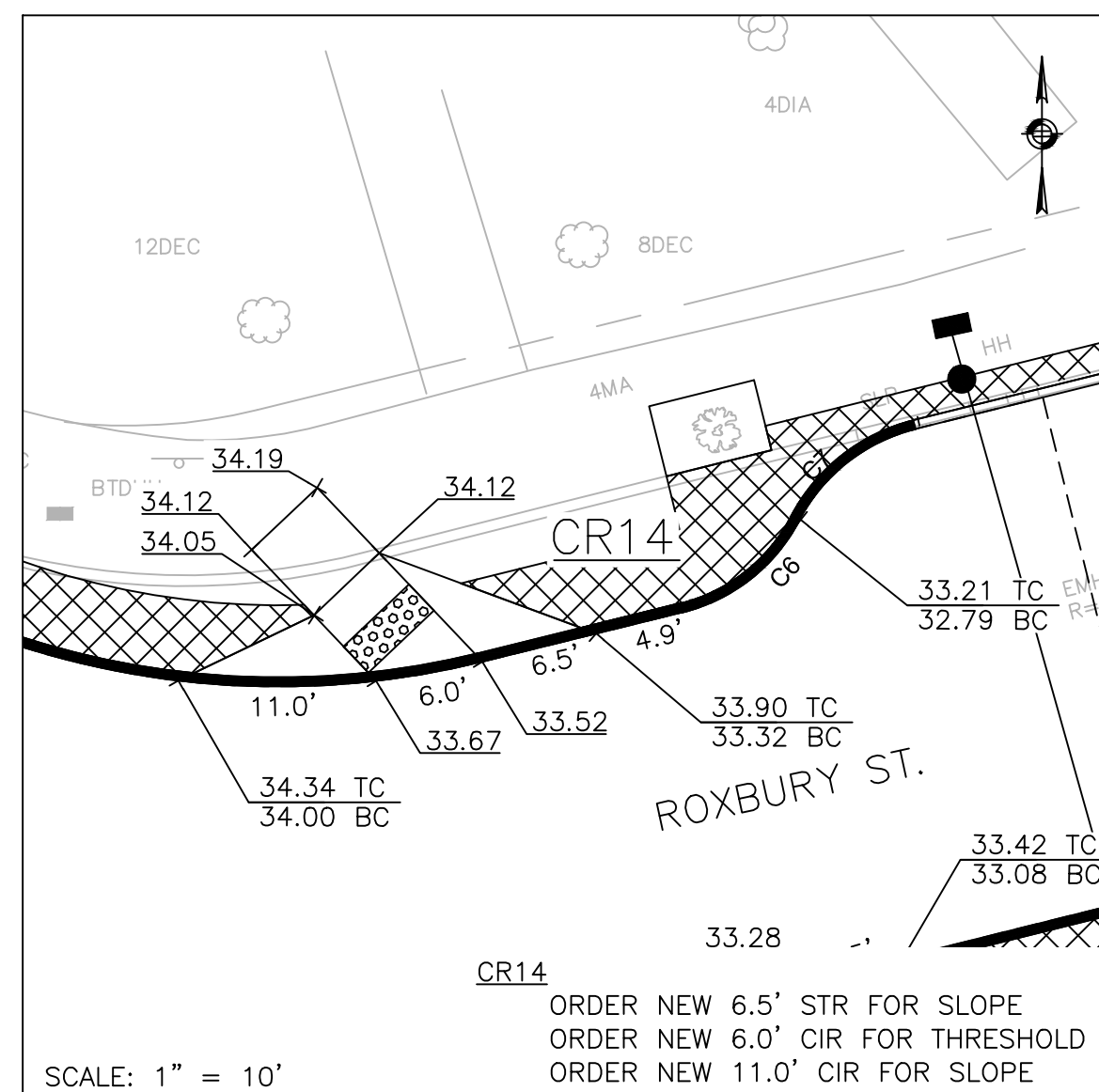
PROP. CONC RAMP #10 (CR10)



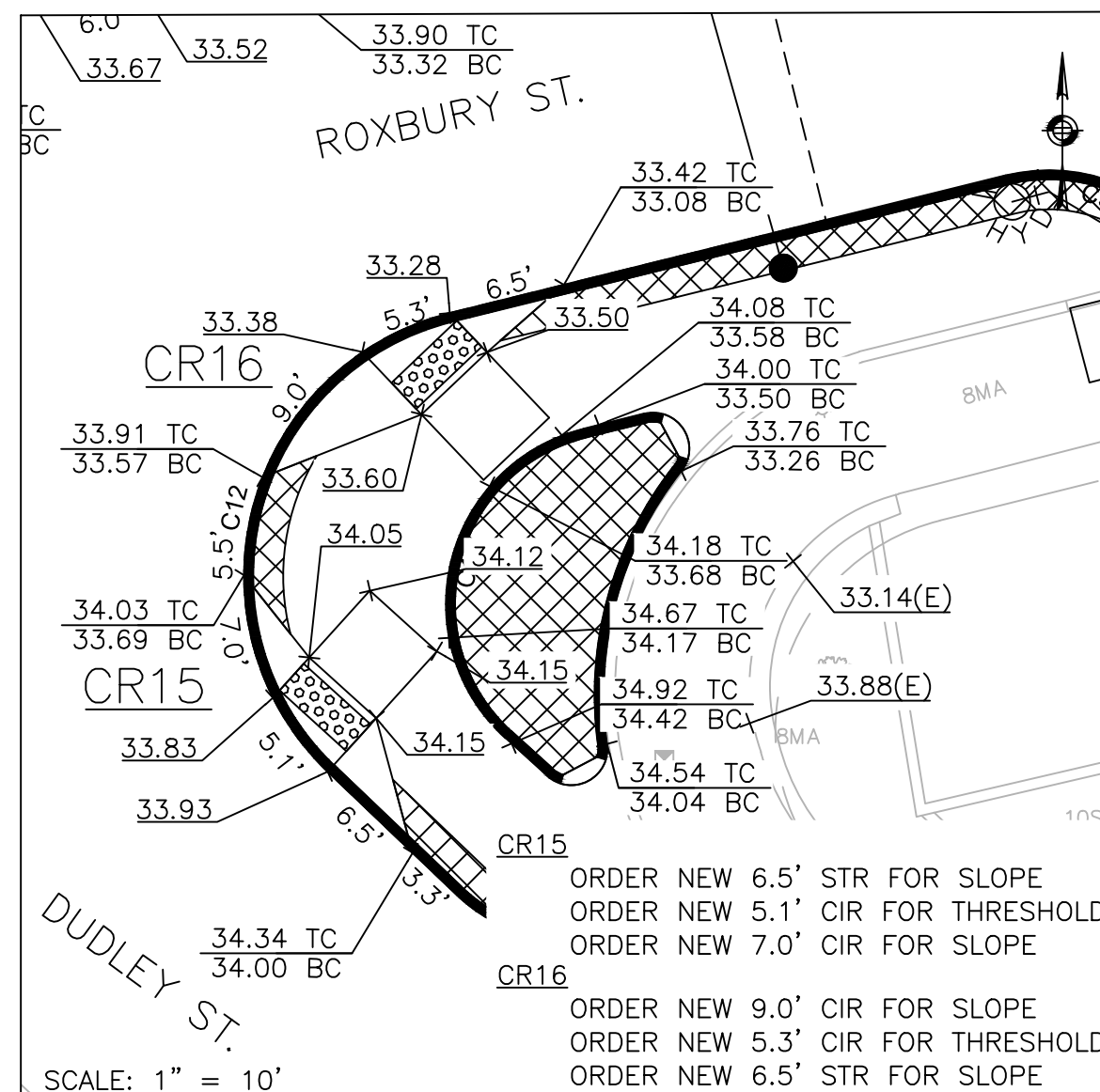
PROP. CONC RAMP #11 (CR11)  
 & #12 (CR12)



PROP. CONC RAMP #13 (CR13)



PROP. CONC RAMP #14 (CR14)



PROP. CONC RAMP #15 (CR15)  
 & #16 (CR16)

**LEGEND**

- PROPOSED CURB
- R&R CURB
- PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
- PERMEABLE CONCRETE PAVERS

**GENERAL NOTES**

1. ALL SIDEWALKS AND PEDESTRIAN RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE ARCHITECTURAL ACCESS BOARD (AAB) AND THE AMERICAN WITH DISABILITIES ACT (ADA). SIDEWALK CROSS SLOPES, AS INDICATED INT EH STANDARD SPECIFICATIONS, WILL BE 1.5% (±0.5% CONSTRUCTION TOLERANCE), CEMENT CONCRETE. LEVEL LANDINGS SHALL NOT EXCEED A SLOPE OF 1.5% (±0.5% CONSTRUCTION TOLERANCE) IN ANY DIRECTION.
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CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	10.8	10.0	59°13'48"
C2	10.3	10.0	59°17'01"
C3	16.7	15.0	63°56'12"
C4	24.6	15.0	94°03'36"
C5	109.8	47.0	133°54'30"
C6	8.5	10.0	48°30'32"
C7	8.5	10.0	48°30'32"
C9	8.5	9.5	51°19'01"
C10	23.1	20.0	66°17'24"
C11	21.4	10.0	122°25'12"
C12	32.0	15.0	122°24'36"

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY	BRYANT ASSOCIATES
DRAWN BY	J. WEISS
CHECKED BY	R. BURCKARDT
APPROVED BY	P. FUSCO

CIP XX-XX SHEET 119 OF 130

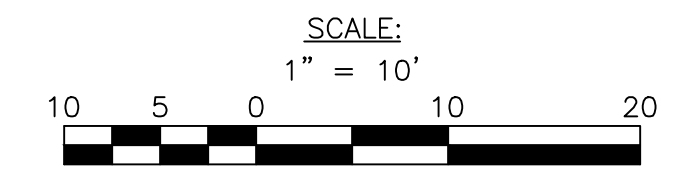
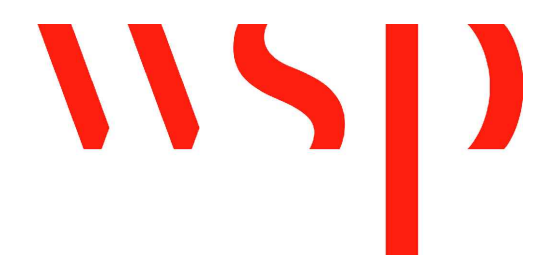
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2  
 PEDESTRIAN RAMP DETAILS**  
 ROXBURY

SCALE: 1" = 10'  
 DISTRICT: 10

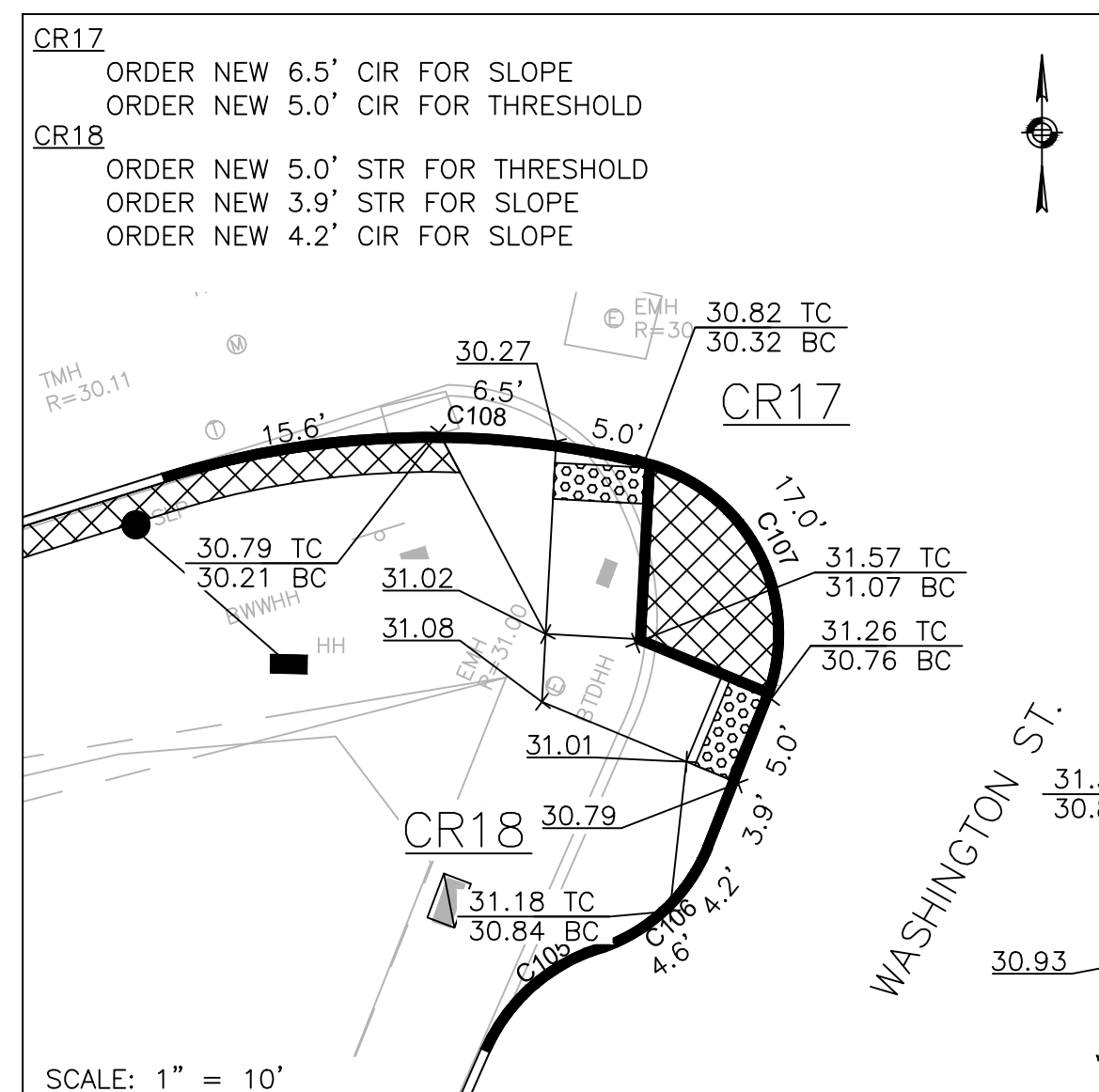
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

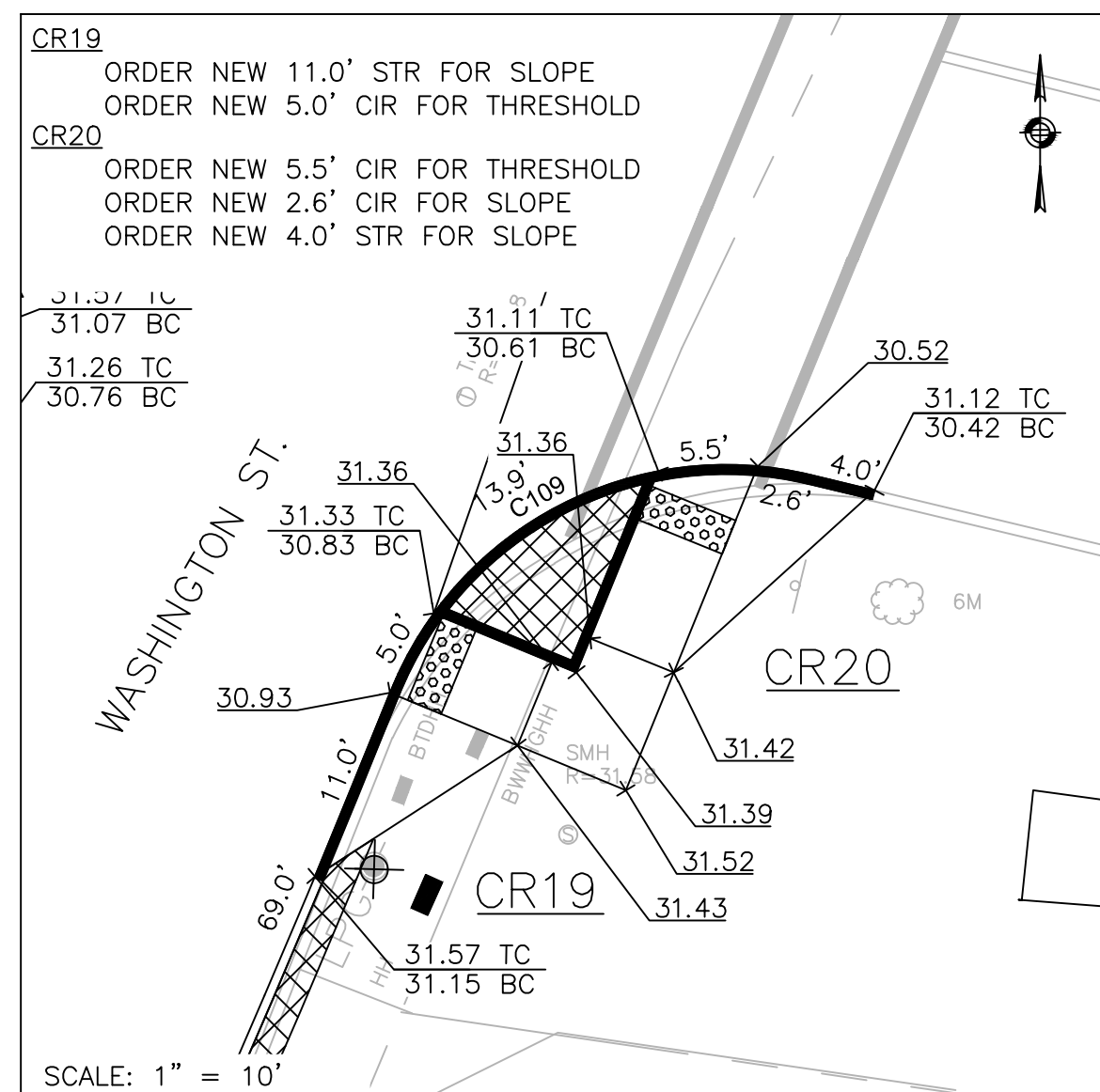


R-XXXX-119

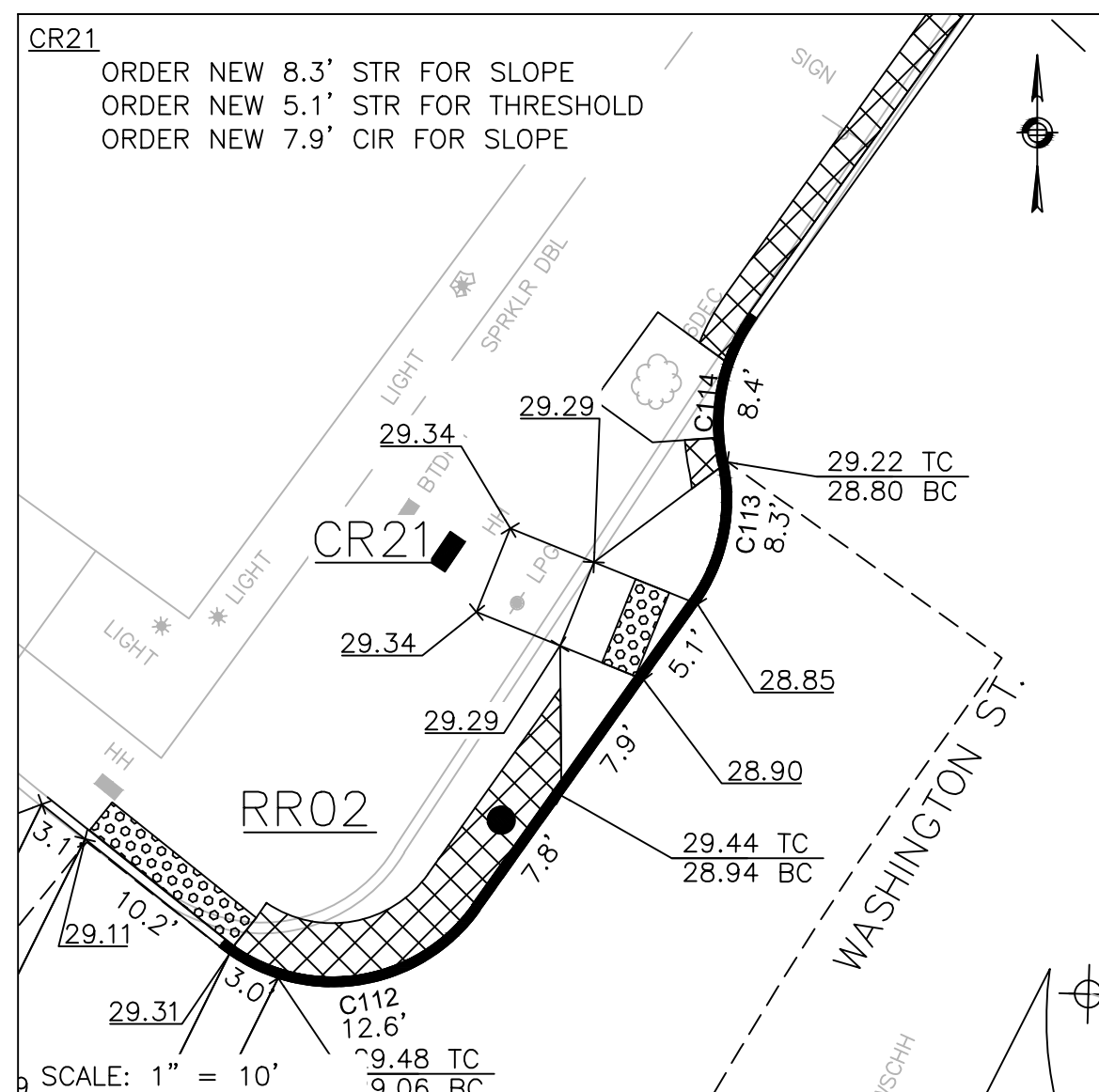




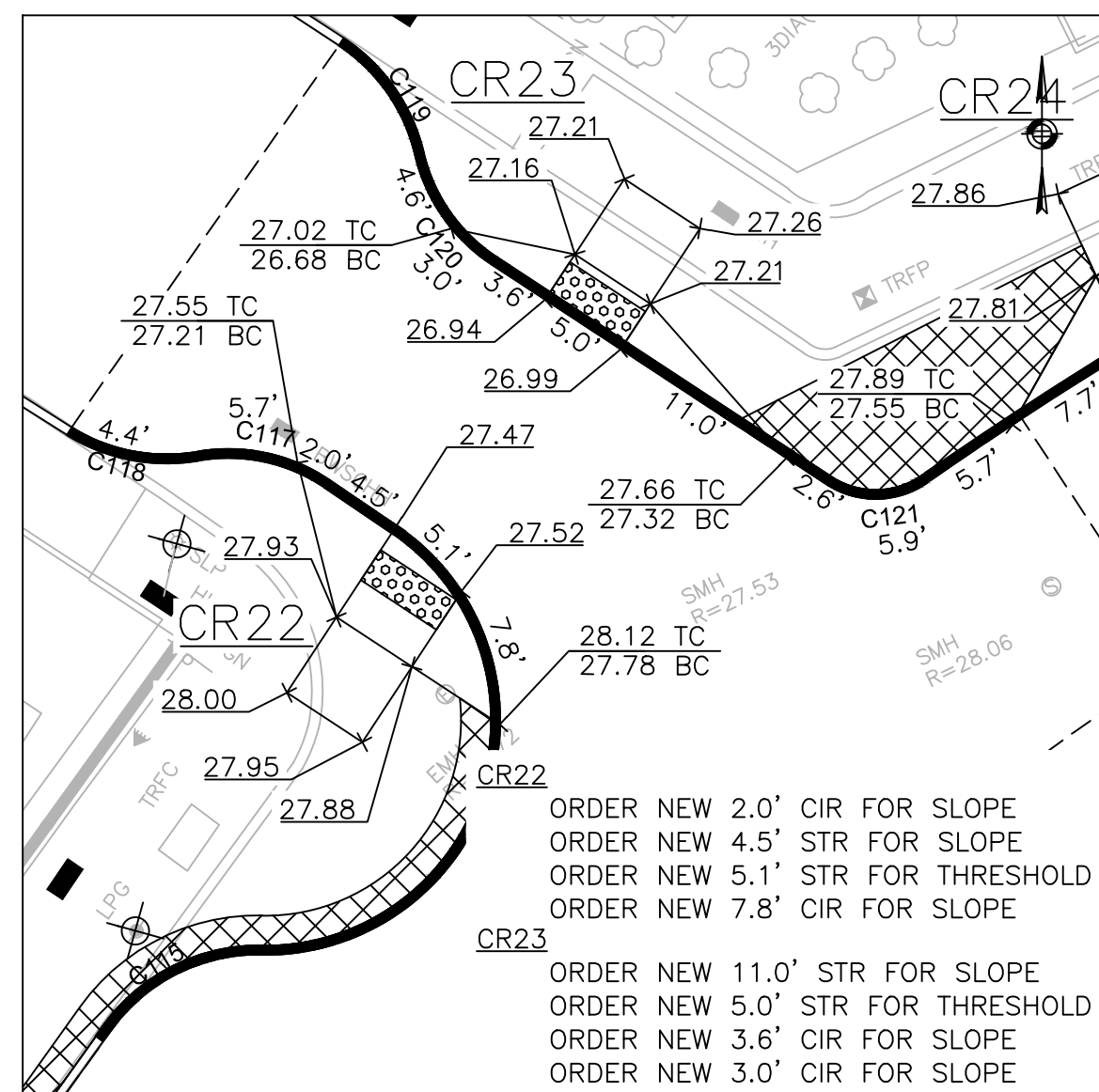
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PROP. CONC RAMP #17 (CR17)  
& #18 (CR18)



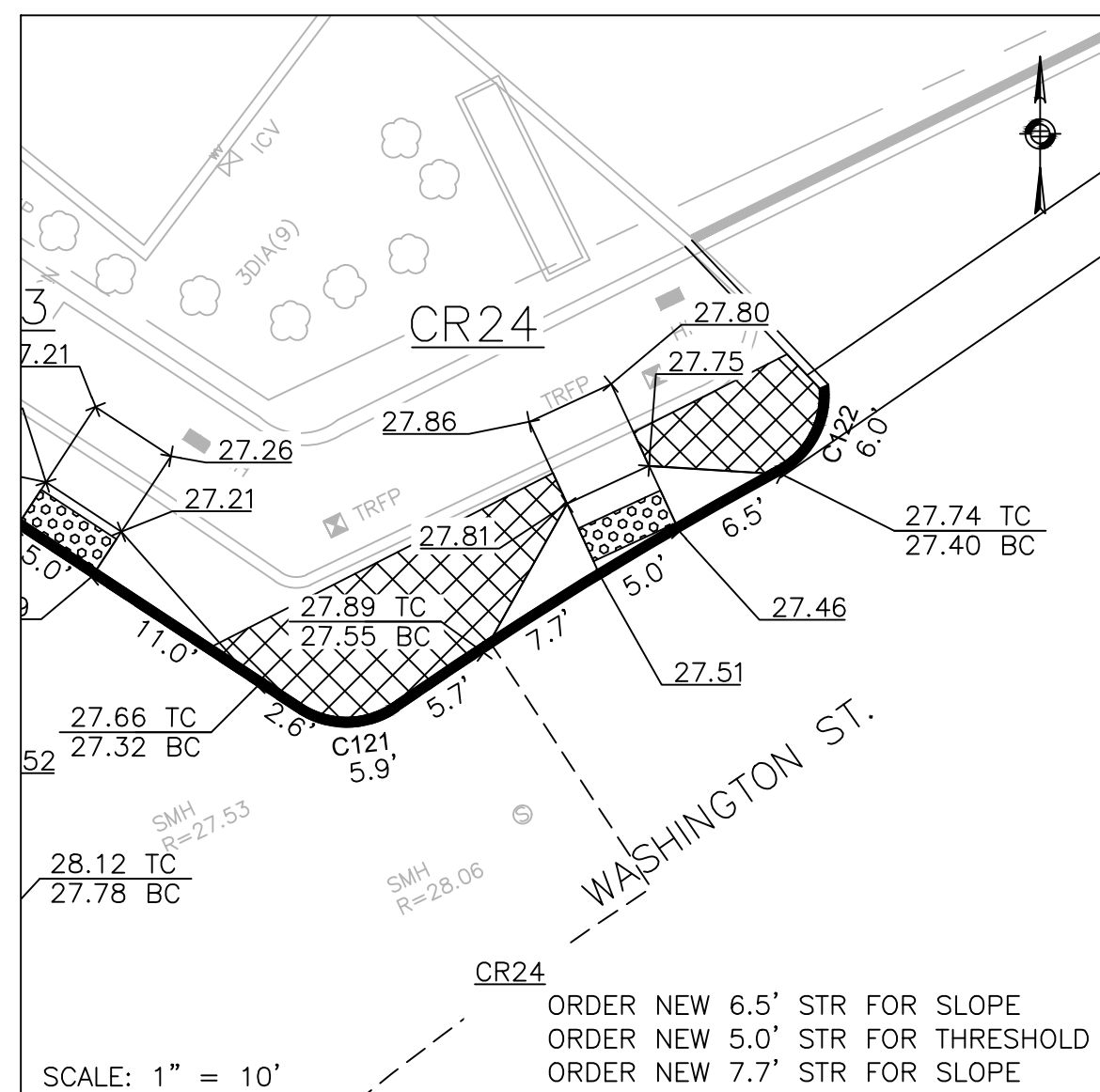
SCALE: 1" = 10'  
PROP. CONC RAMP #19 (CR19)  
& #20 (CR20)



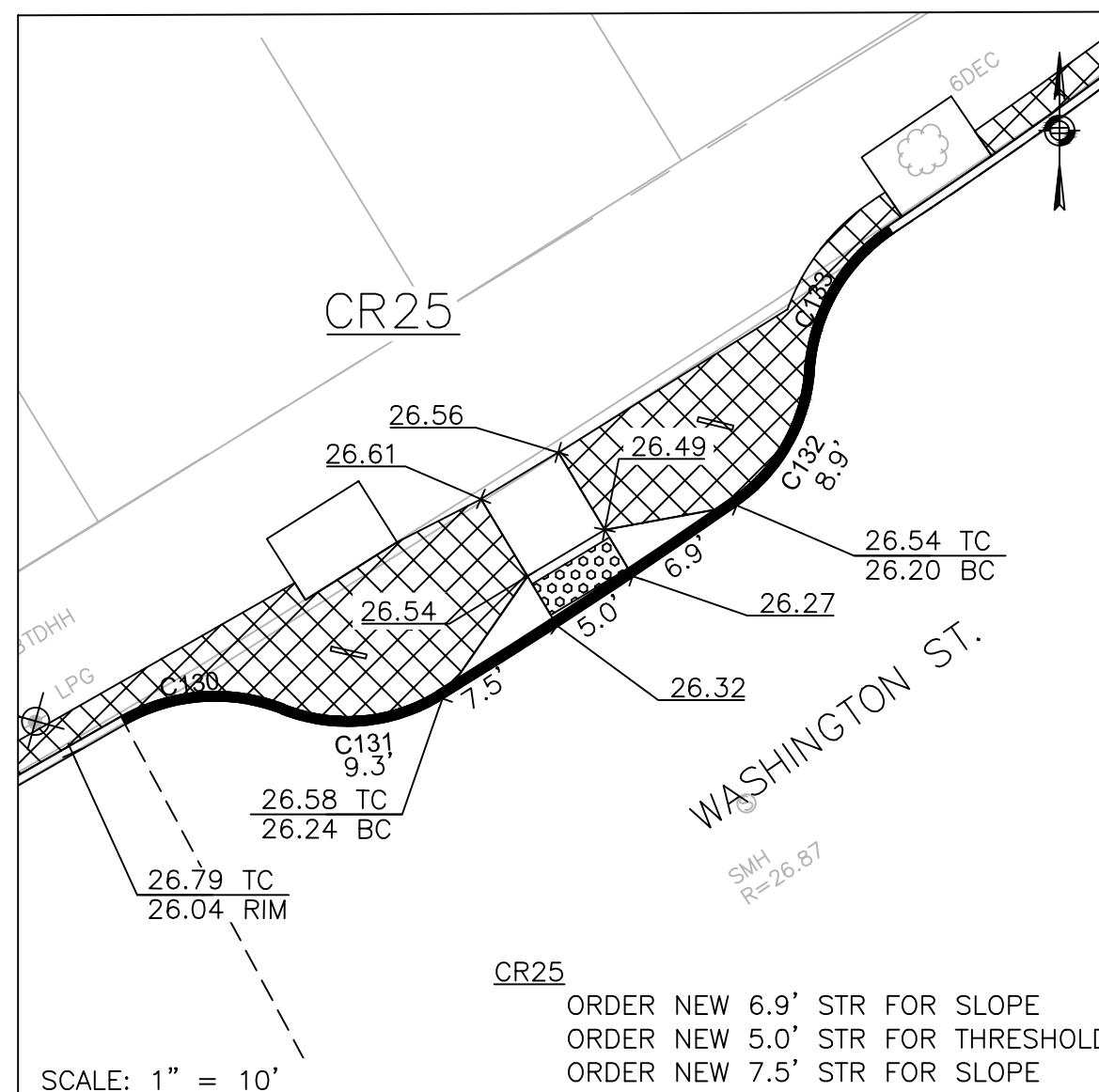
SCALE: 1" = 10'  
PROP. CONC RAMP #21 (CR21)



SCALE: 1" = 10'  
PROP. CONC RAMP #22 (CR22)  
& #23 (CR23)



SCALE: 1" = 10'  
PROP. CONC RAMP #24 (CR24)



SCALE: 1" = 10'  
PROP. CONC RAMP #25 (CR25)

LEGEND	
	PROPOSED CURB
	R&R CURB
	PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
	PERMEABLE CONCRETE PAVERS

### GENERAL NOTES

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CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C105	8.5	10.0	48°28'12"
C106	8.8	10.0	50°10'33"
C107	17.0	10.0	97°20'35"
C108	27.1	50.0	31°04'41"
C109	28.6	20.0	81°48'36"
C112	16.3	10.0	93°14'32"
C113	8.3	10.0	47°38'17"
C114	8.8	10.0	47°45'36"
C121	5.9	5.0	66°40'12"
C122	6.0	5.0	68°15'54"
C130	8.9	10.0	51°14'20"
C131	9.3	10.0	53°20'24"
C132	8.9	10.0	51°07'30"
C133	9.1	10.0	52°22'25"

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY J. WEISS

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

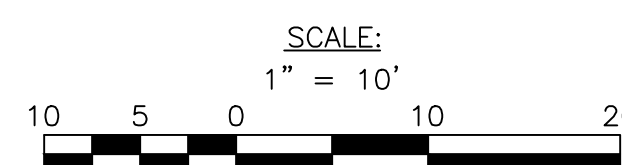
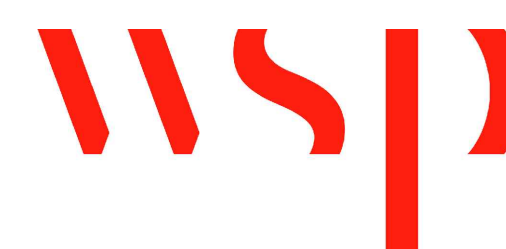
CIP XX-XX SHEET 120 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**PEDESTRIAN RAMP DETAILS**  
ROXBURY

SCALE: 1" = 10'  
DISTRICT: 10

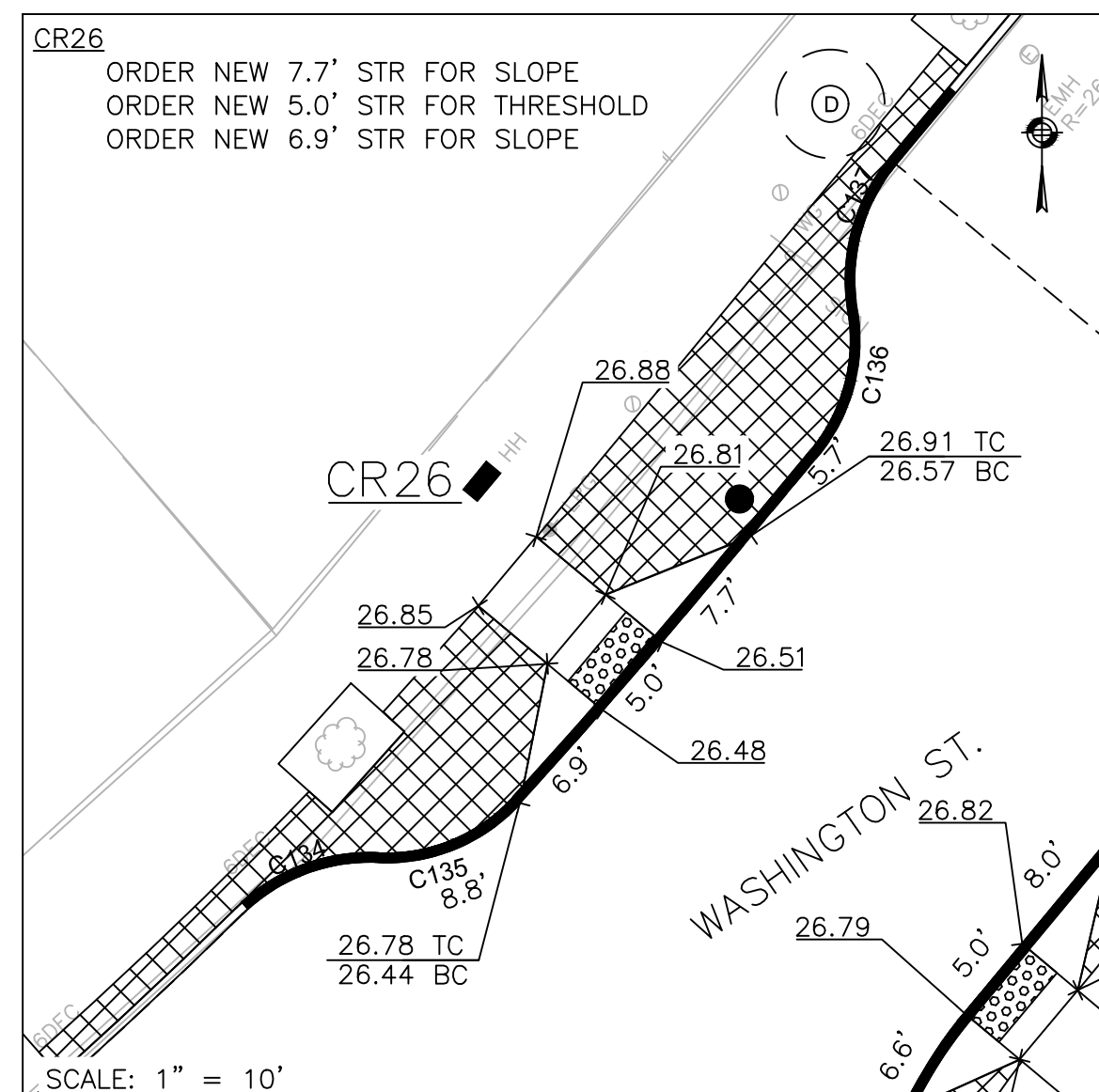
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

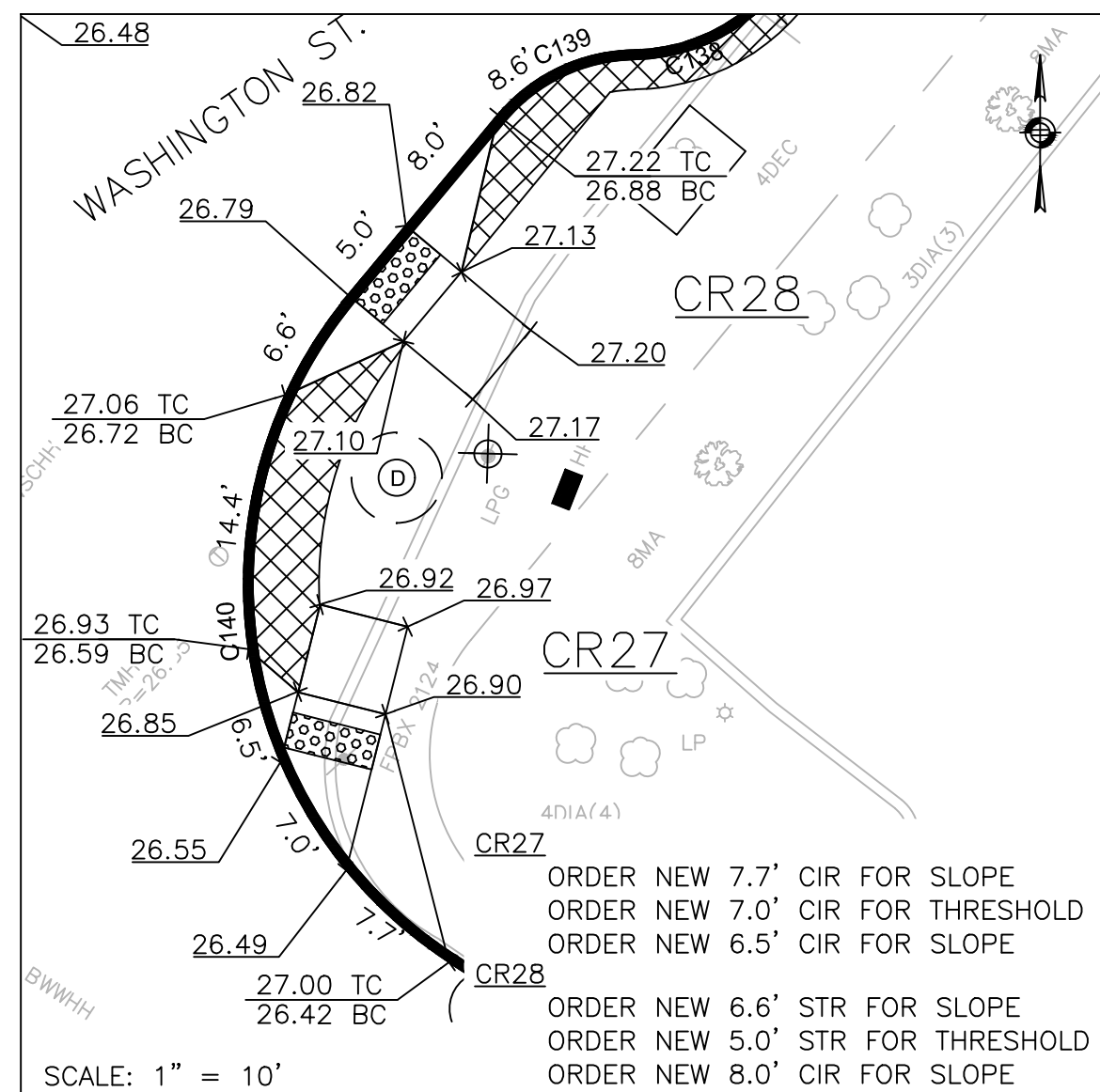


R-XXXX-120

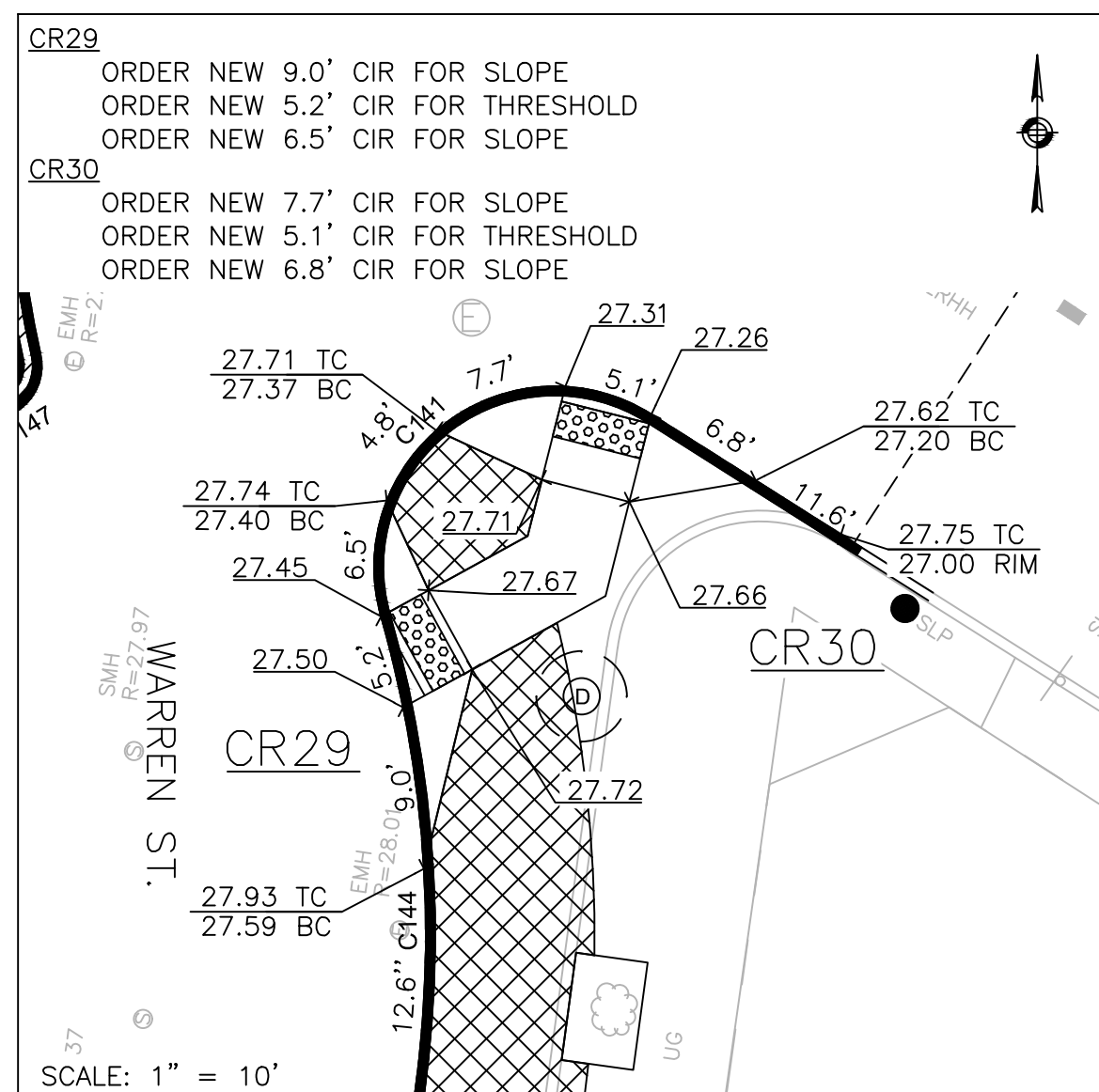




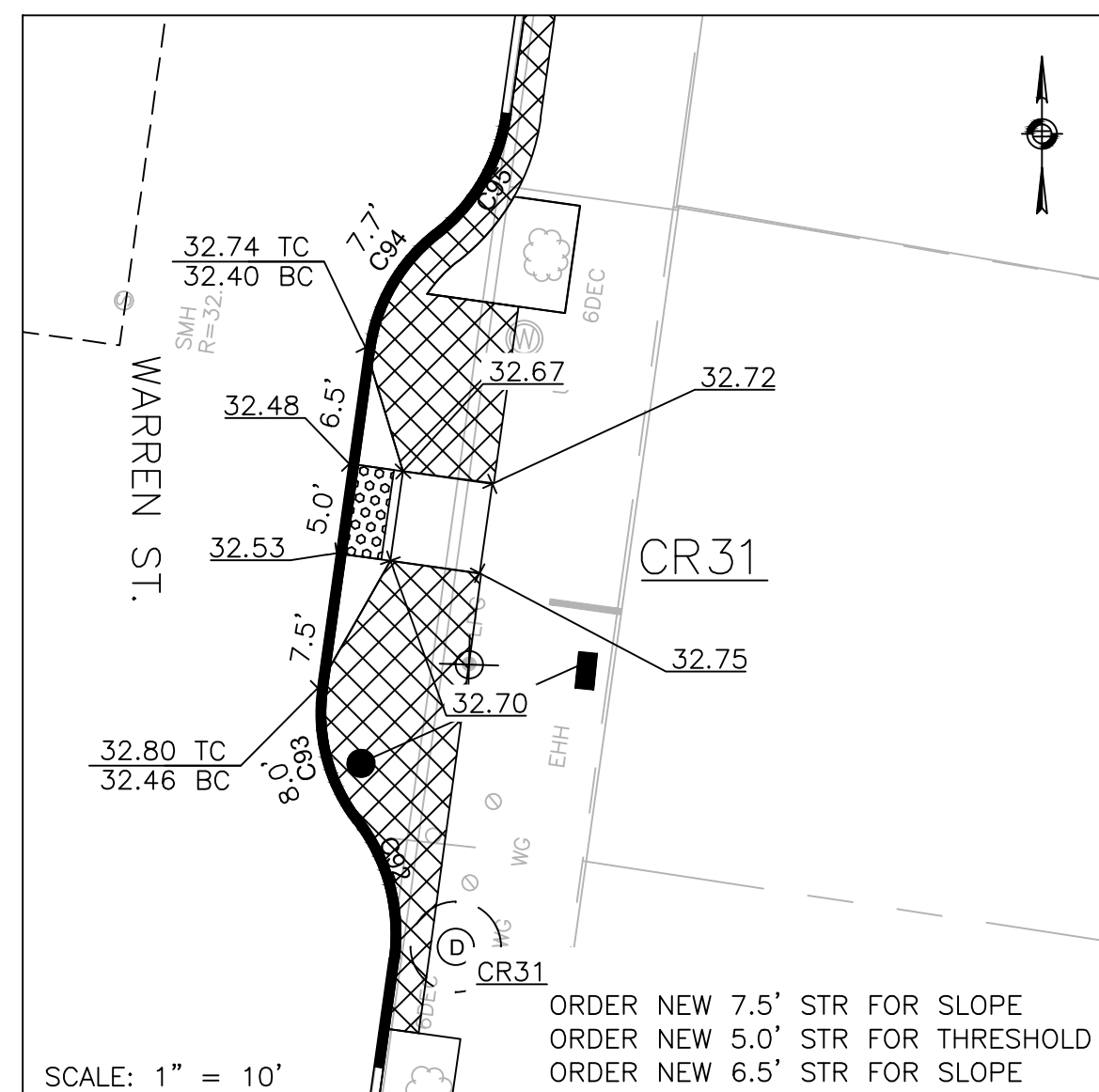
PROP. CONC RAMP #26 (CR26)



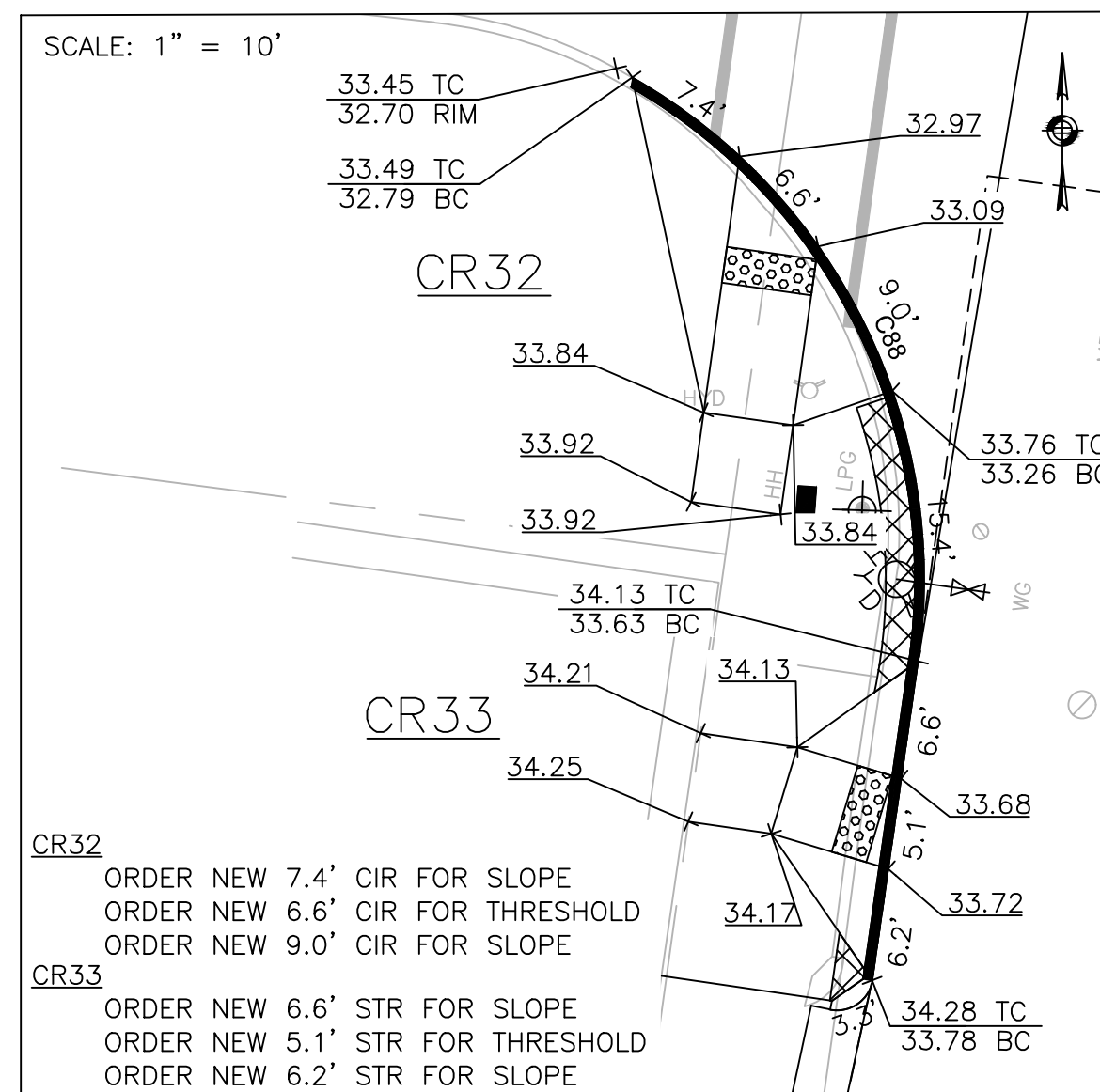
PROP. CONC RAMP #27 (CR27)  
& #28 (CR28)



PROP. CONC RAMP #29 (CR29)  
& #30 (CR30)



PROP. CONC RAMP #31 (CR31)



PROP. CONC RAMP #32 (CR32)  
& #33 (CR33)

**LEGEND**

	PROPOSED CURB
	R&R CURB
	PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
	PERMEABLE CONCRETE PAVERS

**GENERAL NOTES**

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**CURVE TABLE**

CURVE #	LENGTH	RADIUS	DELTA
C88	38.2	32.0	68°21'36"
C89	15.6	10.0	89°22'51"
C92	7.9	10.0	45°34'23"
C93	8.0	10.0	45°34'12"
C94	7.7	10.0	44°13'02"
C95	8.1	10.5	44°13'01"
C134	8.7	10.5	47°14'17"
C135	8.8	10.0	50°21'00"
C136	8.6	10.0	49°27'29"
C137	9.1	10.5	49°27'29"
C138	9.1	10.5	49°27'29"
C139	8.2	9.5	49°27'29"
C140	42.2	25.0	96°46'48"
C141	24.2	10.0	138°21'36"
C144	27.0	64.5	23°57'00"

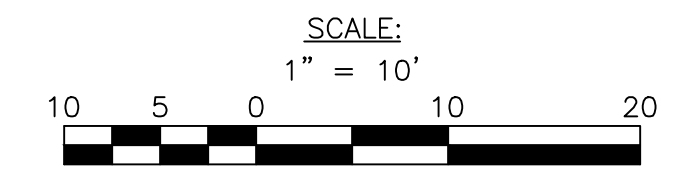
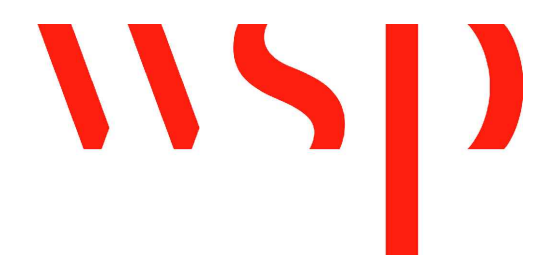
REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY J. WEISS  
 CHECKED BY R. BURCKARDT  
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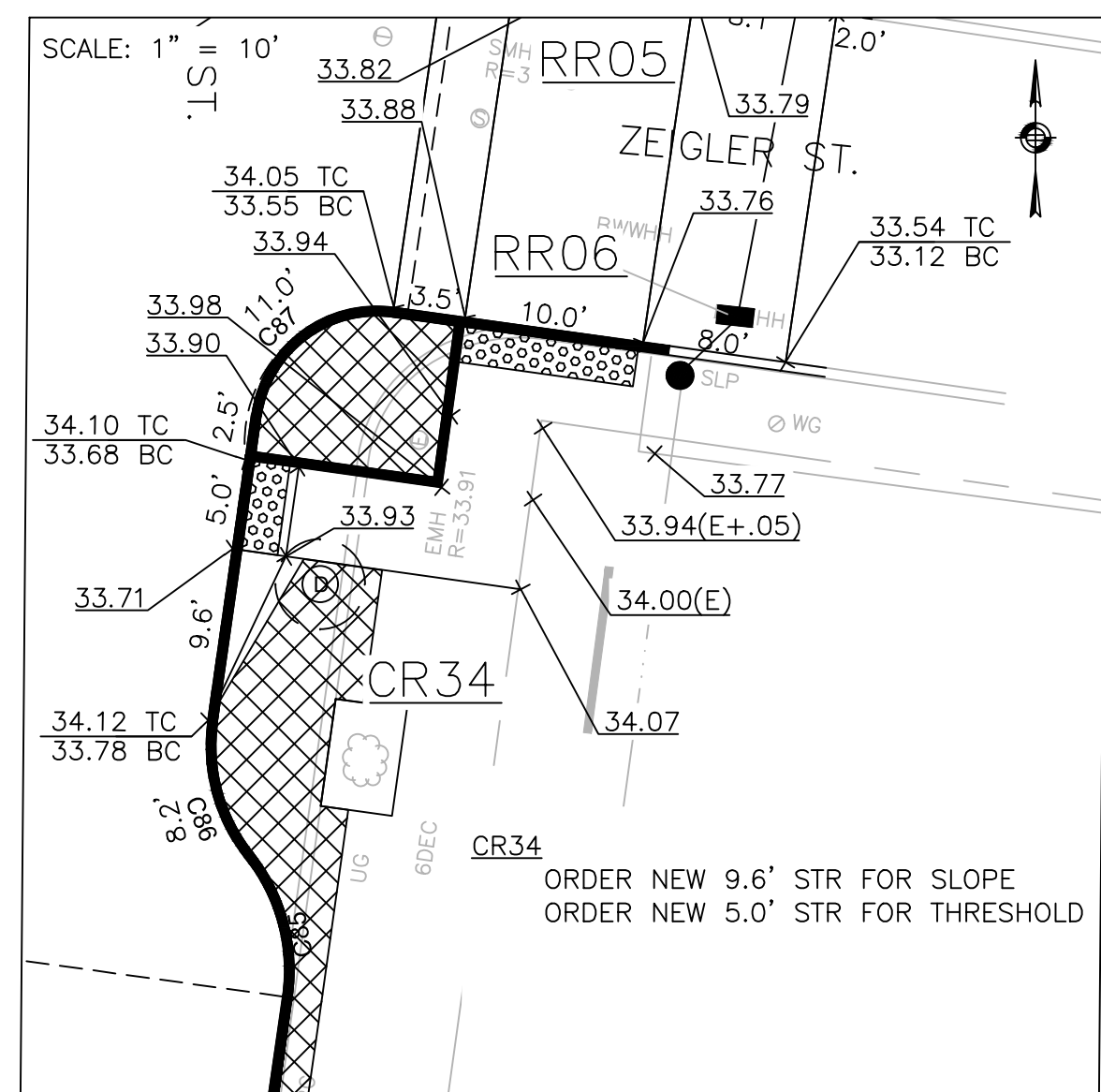
CIP XX-XX SHEET 121 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**PEDESTRIAN RAMP DETAILS**  
 ROXBURY  
 SCALE: 1" = 10'  
 DISTRICT: 10  
 AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019  
 CITY ENGINEER

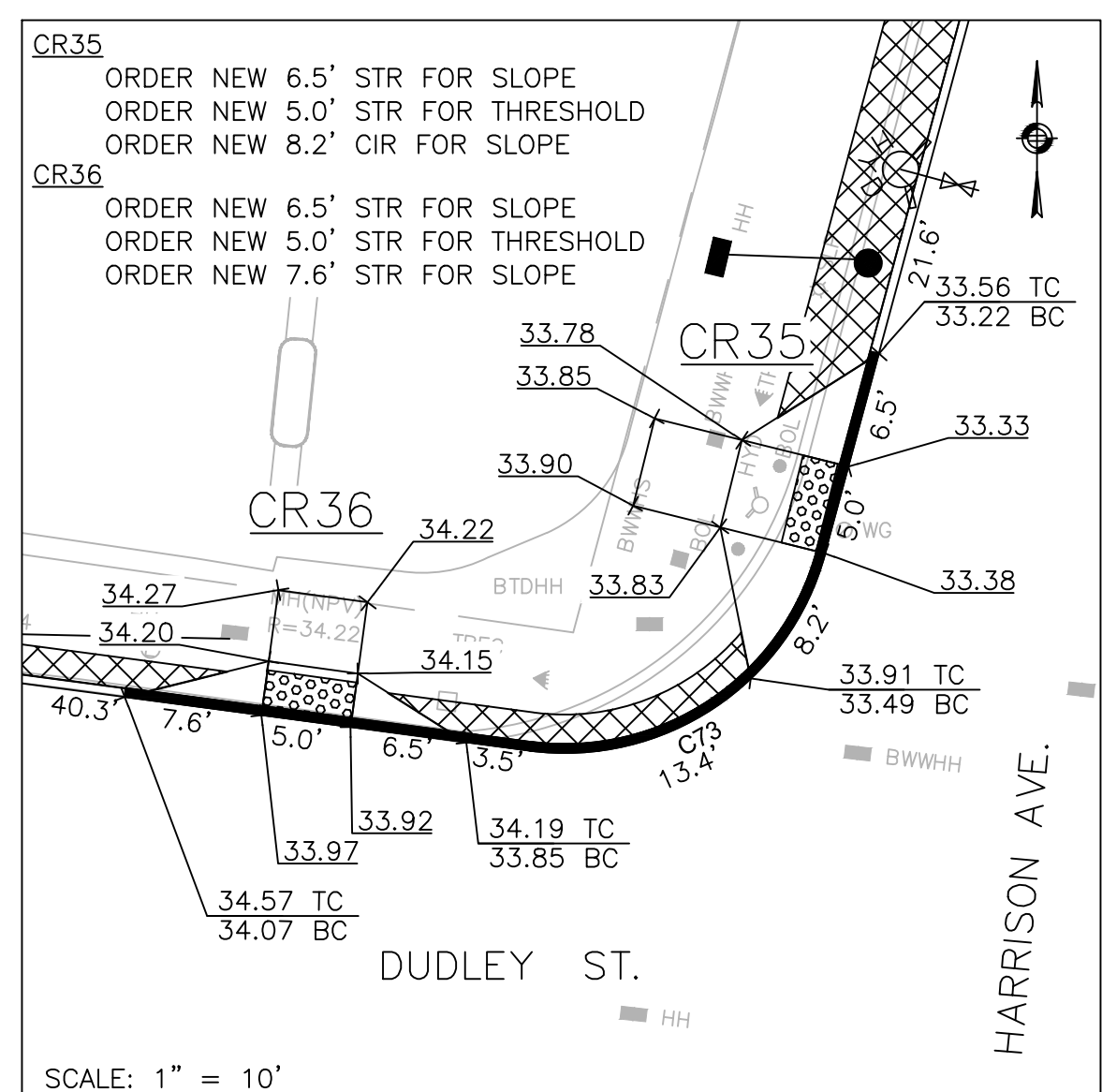


R-XXXX-121

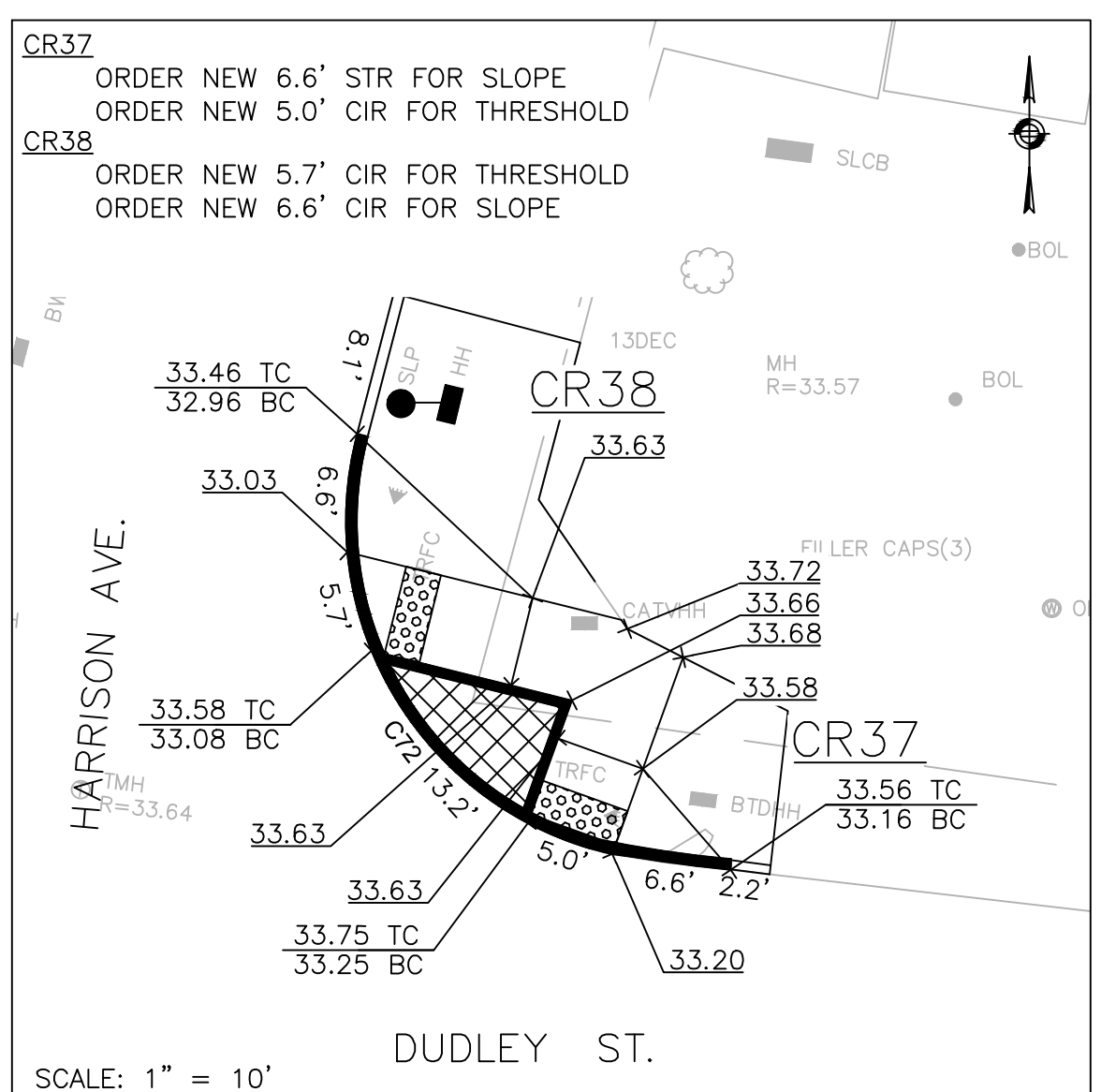




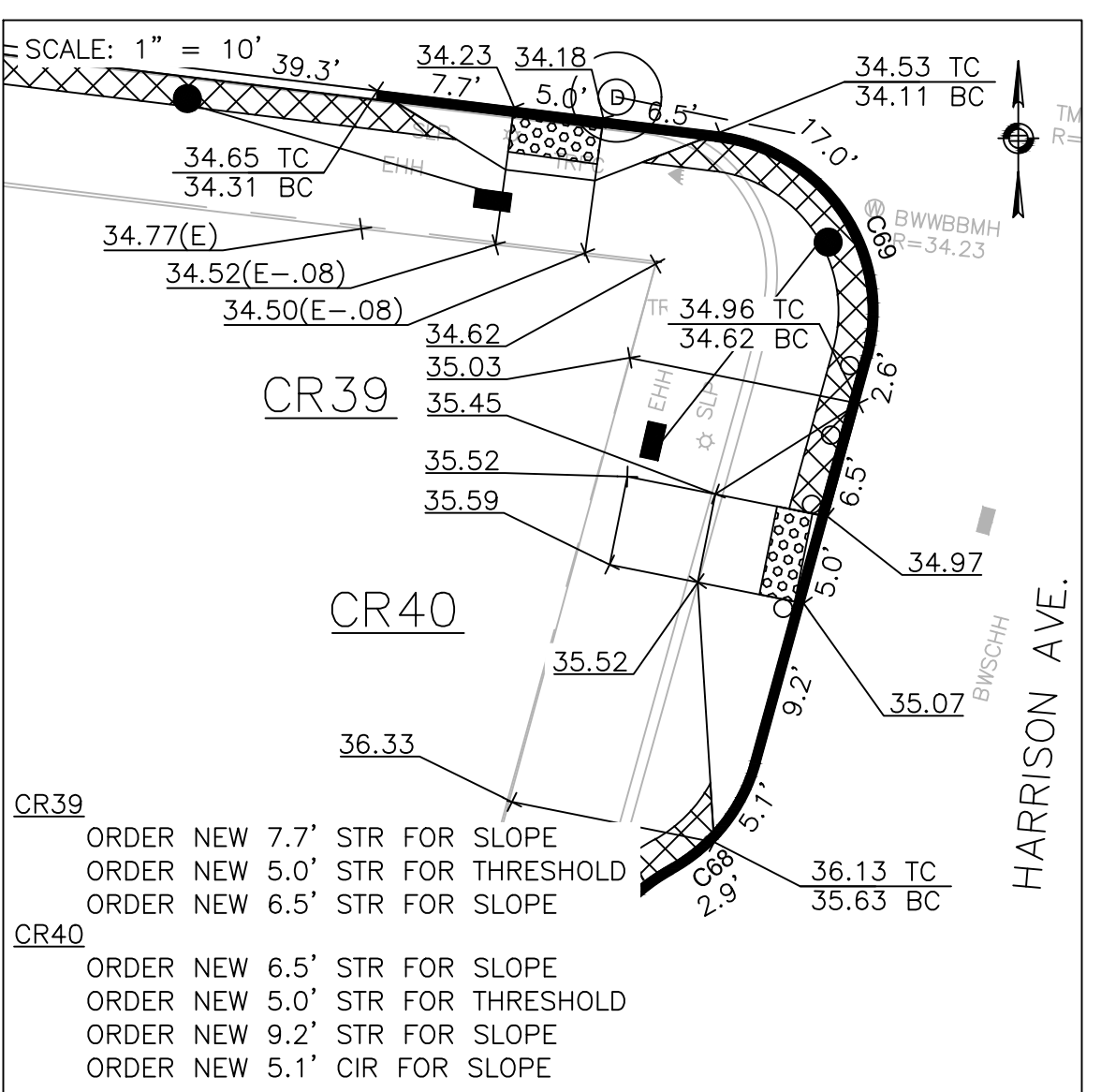
PROP. CONC RAMP #34 (CR34)



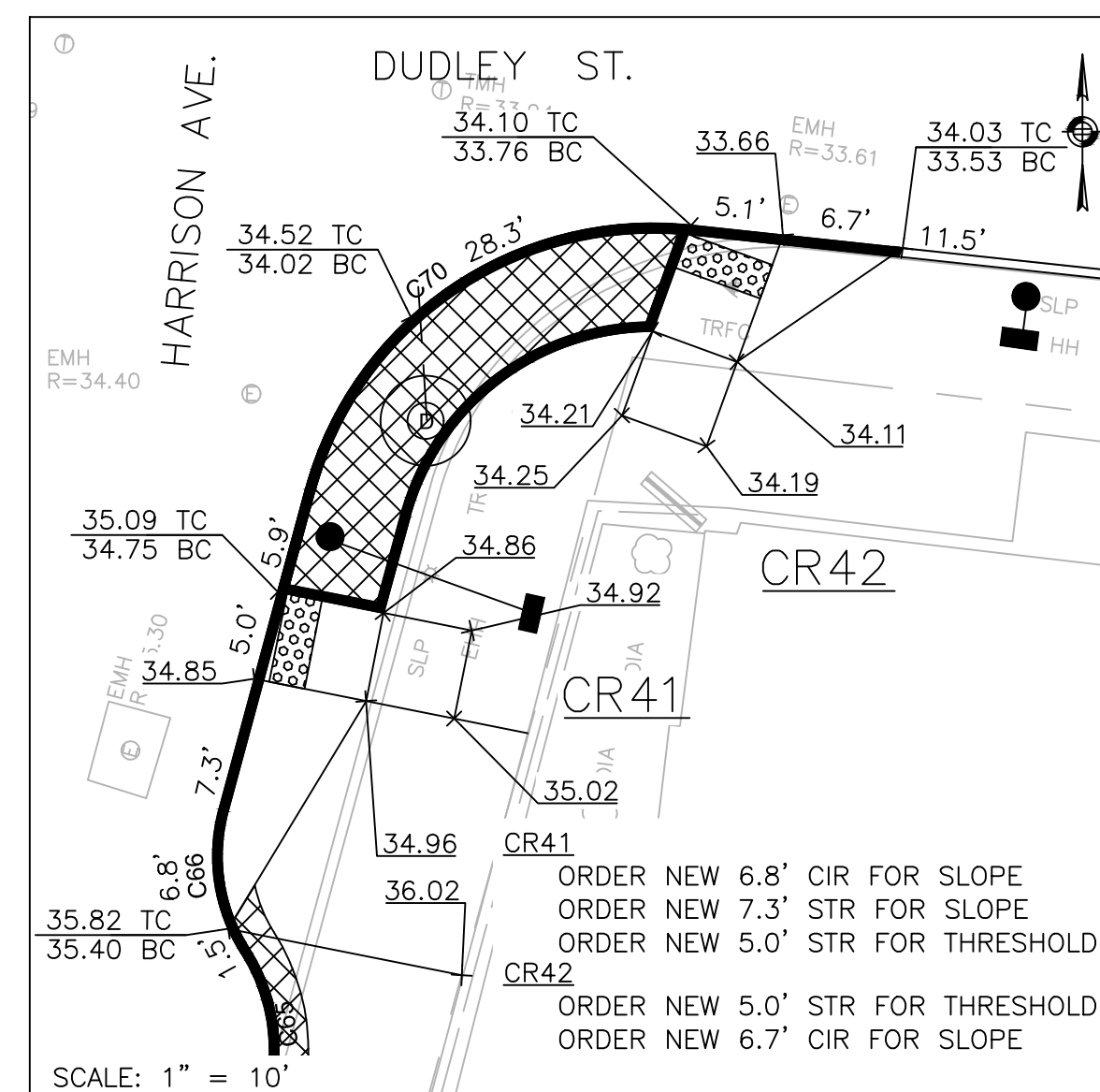
PROP. CONC RAMP #35 (CR35) & #36 (CR36)



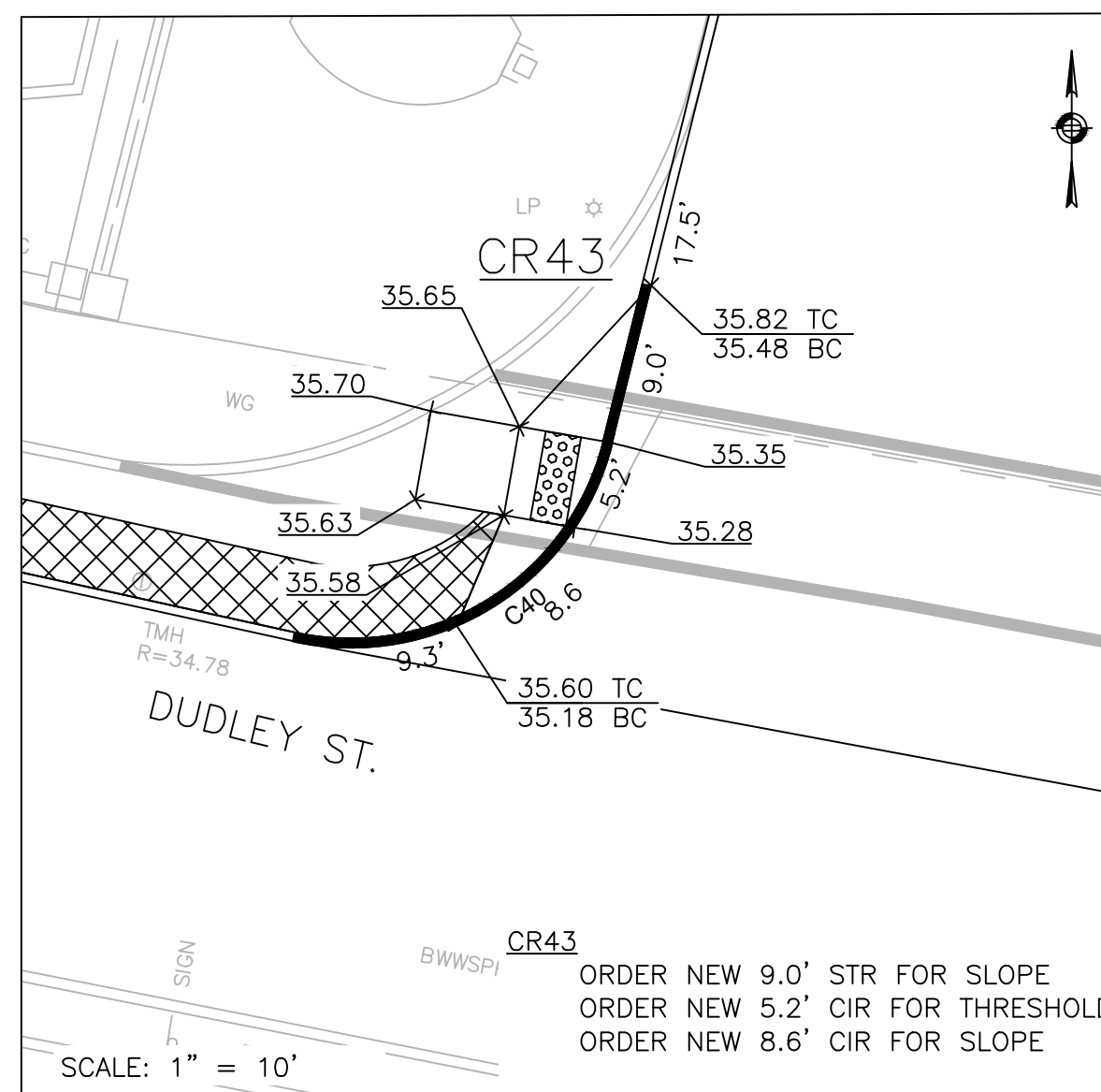
PROP. CONC RAMP #37 (CR37) & #38 (CR38)



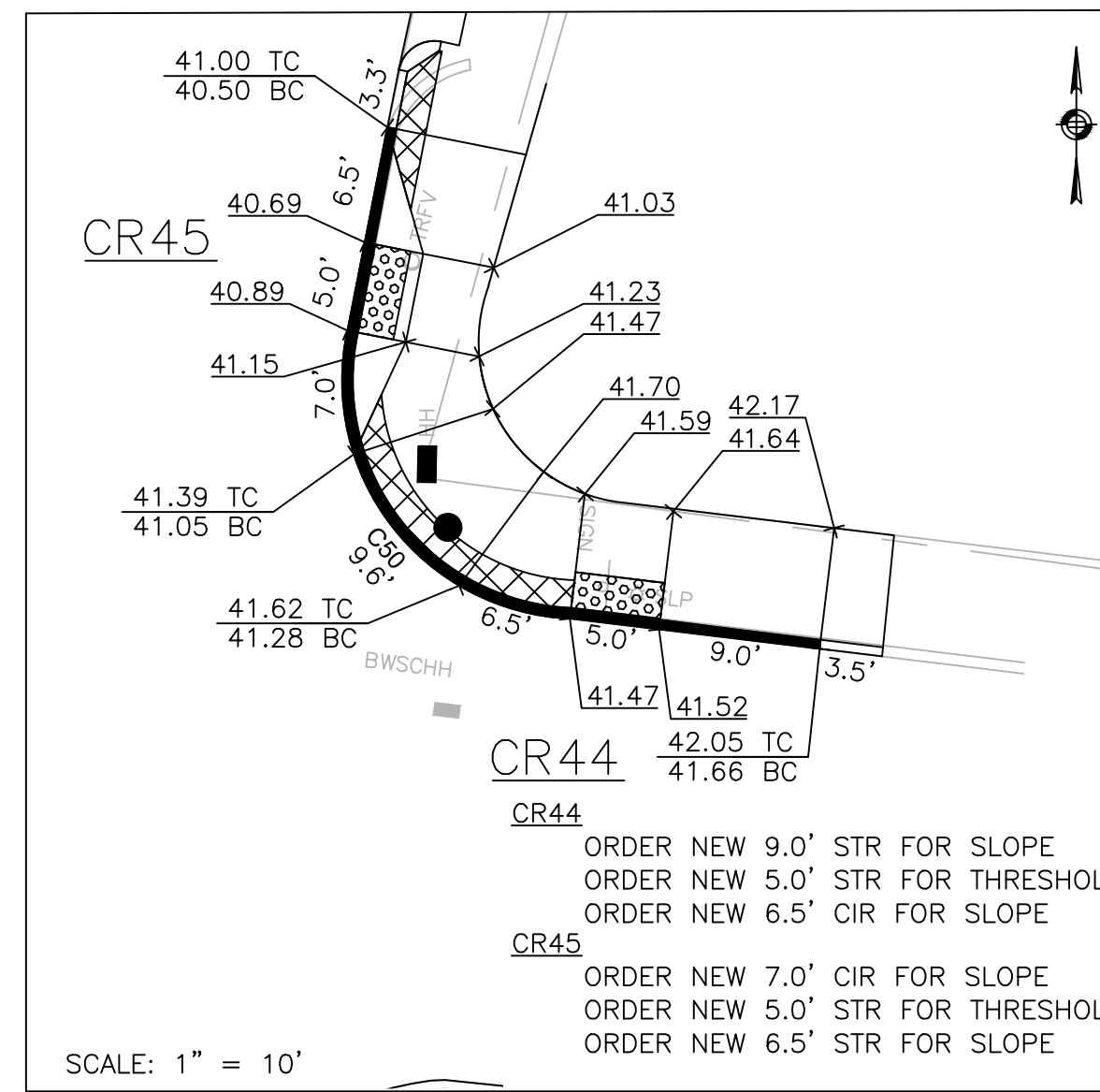
PROP. CONC RAMP #39 (CR39) & #40 (CR40)



PROP. CONC RAMP #41 (CR41) & #42 (CR42)



PROP. CONC RAMP #43 (CR43)



PROP. CONC RAMP #44 (CR44) & #45 (CR45)

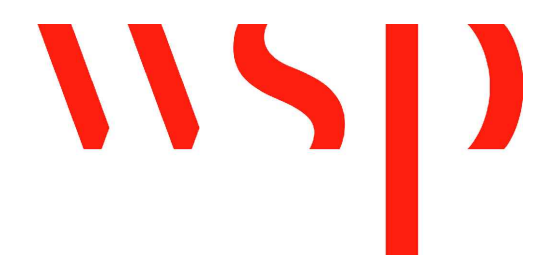
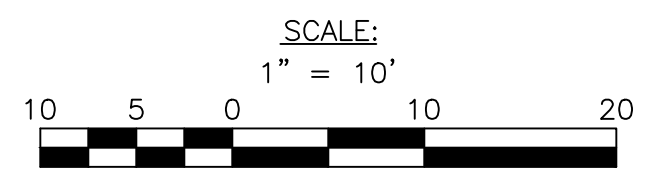
CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C40	23.1	15.0	88°23'18"
C50	23.1	13.3	99°27'00"
C65	8.8	10.5	47°55'48"
C66	8.3	10.0	47°47'24"
C69	17.2	10.0	98°26'24"
C70	28.2	20.0	80°54'36"
C72	30.5	19.0	92°04'12"
C73	21.6	15.0	82°28'04"
C85	8.6	10.5	46°39'00"
C86	8.2	10.0	46°42'50"
C87	11.0	7.0	89°46'59"

**LEGEND**

- PROPOSED CURB
- R&R CURB
- PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
- PERMEABLE CONCRETE PAVERS

**GENERAL NOTES**

- ALL SIDEWALKS AND PEDESTRIAN RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE ARCHITECTURAL ACCESS BOARD (AAB) AND THE AMERICAN WITH DISABILITIES ACT (ADA). SIDEWALK CROSS SLOPES, AS INDICATED INT EH STANDARD SPECIFICATIONS, WILL BE 1.5% (±0.5% CONSTRUCTION TOLERANCE), CEMENT CONCRETE. LEVEL LANDINGS SHALL NOT EXCEED A SLOPE OF 1.5% (±0.5% CONSTRUCTION TOLERANCE) IN ANY DIRECTION.
- THE LENGTHS OF NEW AND EXISTING STRAIGHT AND CIRCULAR EDGESTONE USED TO CONSTRUCT PROPOSED PEDESTRIAN RAMPS ARE LISTED IN A CLOCKWISE MANNER.
- A DETECTABLE WARNING PANEL SHALL BE INSTALLED IN ALL PROPOSED PEDESTRIAN RAMPS. THE COLOR SHALL BE PALE YELLOW, CONFORMING TO FEDERAL NO. 23594. FURNISHING AND INSTALLING THE DETECTABLE WARNING PANELS SHALL BE CONSIDERED INCIDENTAL TO ITEM 701.2, CEMENT CONCRETE PEDESTRIAN RAMP, IN THE SPECIAL PROVISIONS SECTION FOR SPECIFICATIONS AND DETAILS.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY J. WEISS

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

CIP XX-XX SHEET 122 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

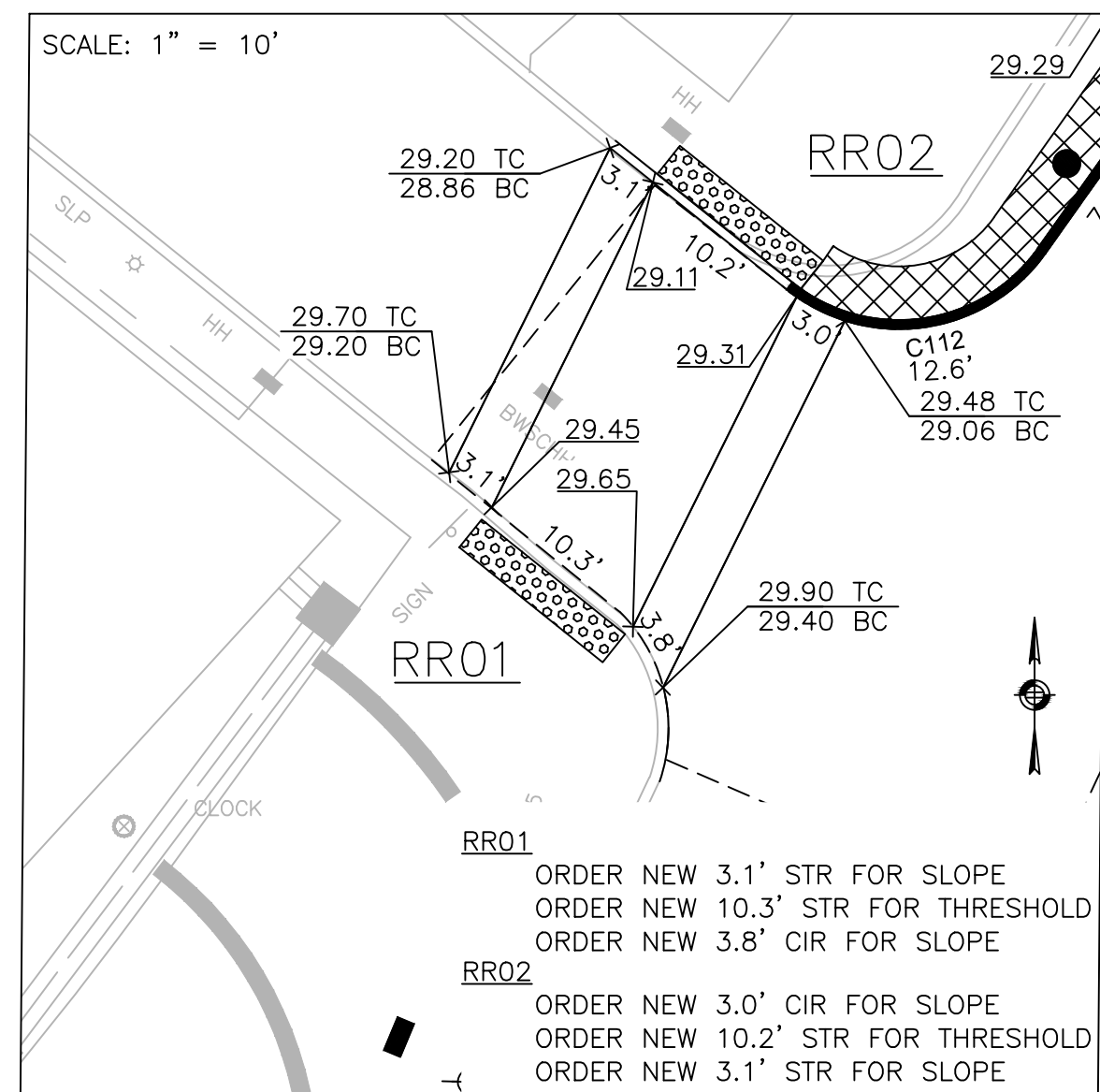
**DUDLEY SQUARE PHASE 2  
 PEDESTRIAN RAMP DETAILS**  
 ROXBURY

SCALE: 1" = 10'  
 DISTRICT: 10

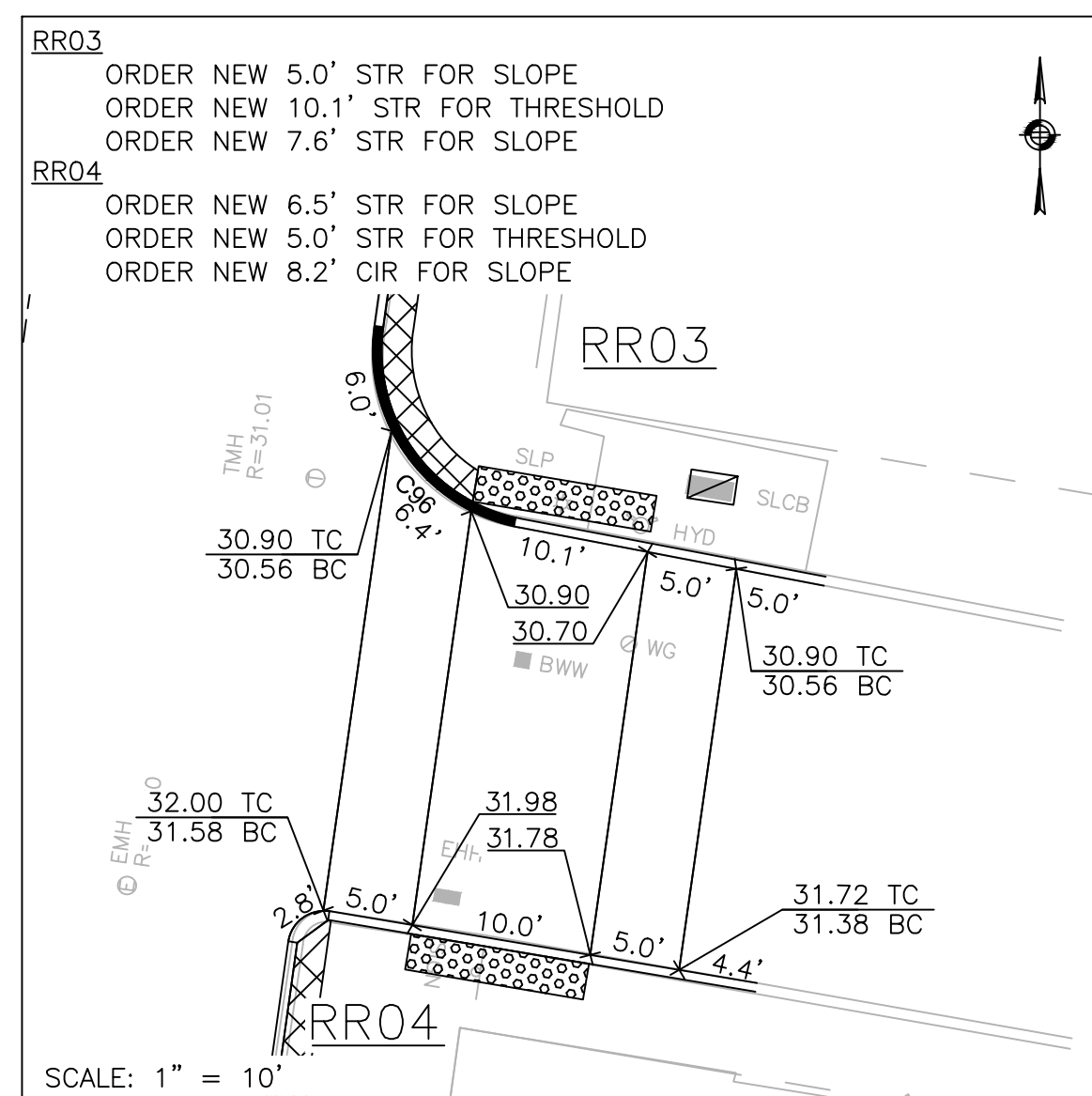
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

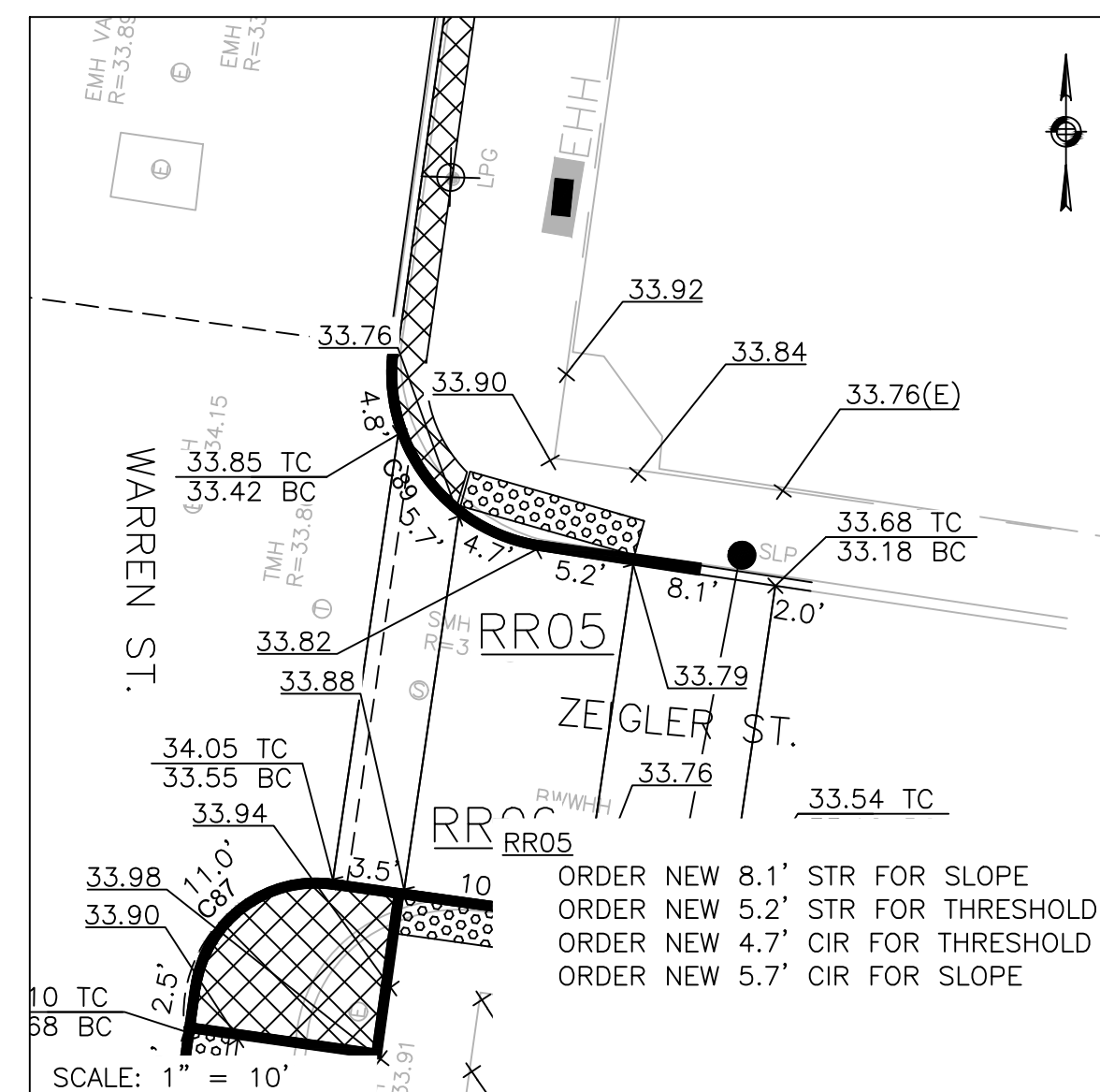




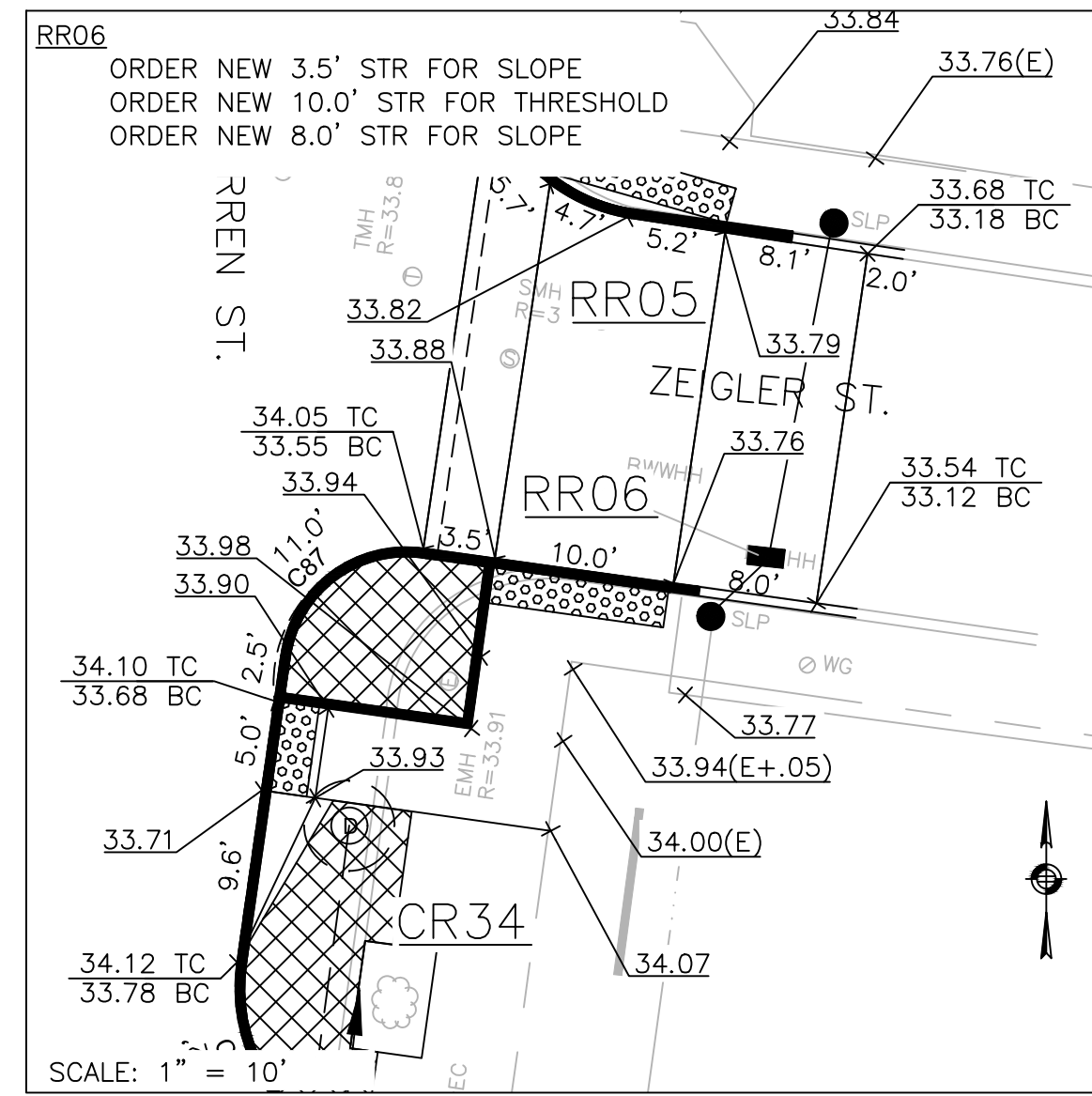
PROP. RAISED RAMP #01 (RR01) & #02 (RR02)



PROP. RAISED RAMP #03 (RR03) & #04 (RR04)



PROP. RAISED RAMP #05 (RR05)



PROP. RAISED RAMP #06 (RR06)

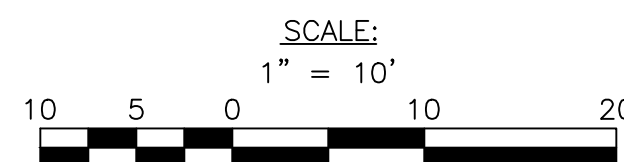
CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C87	11.0	7.0	89°47'00"
C89	15.6	10.0	89°22'51"
C96	15.2	10.0	87°09'10"
C112	16.3	10.0	93°47'00"

**LEGEND**

- PROPOSED CURB
- R&R CURB
- PROPOSED CEMENT CONCRETE PEDESTRIAN RAMP WITH DETECTABLE WARNING PANEL
- PERMEABLE CONCRETE PAVERS

**GENERAL NOTES**

- ALL SIDEWALKS AND PEDESTRIAN RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE ARCHITECTURAL ACCESS BOARD (AAB) AND THE AMERICAN WITH DISABILITIES ACT (ADA). SIDEWALK CROSS SLOPES, AS INDICATED INT EH STANDARD SPECIFICATIONS, WILL BE 1.5% (±0.5% CONSTRUCTION TOLERANCE), CEMENT CONCRETE. LEVEL LANDINGS SHALL NOT EXCEED A SLOPE OF 1.5% (±0.5% CONSTRUCTION TOLERANCE) IN ANY DIRECTION.
- THE LENGTHS OF NEW AND EXISTING STRAIGHT AND CIRCULAR EDGESTONE USED TO CONSTRUCT PROPOSED PEDESTRIAN RAMPS ARE LISTED IN A CLOCKWISE MANNER.
- A DETECTABLE WARNING PANEL SHALL BE INSTALLED IN ALL PROPOSED PEDESTRIAN RAMPS. THE COLOR SHALL BE PALE YELLOW, CONFORMING TO FEDERAL NO. 23594. FURNISHING AND INSTALLING THE DETECTABLE WARNING PANELS SHALL BE CONSIDERED INCIDENTAL TO ITEM 701.2, CEMENT CONCRETE PEDESTRIAN RAMP. REFER TO ITEM 701.2, CEMENT CONCRETE PEDESTRIAN RAMP, IN THE SPECIAL PROVISIONS SECTION FOR SPECIFICATIONS AND DETAILS.



REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO CITY STANDARDS

BOSTON PUBLIC WORKS DEPARTMENT

SURVEY BY BRYANT ASSOCIATES

DRAWN BY J. WEISS

CHECKED BY R. BURCKARDT

APPROVED BY P. FUSCO

CIP XX-XX SHEET 123 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**RAISED CROSSING DETAILS**  
ROXBURY

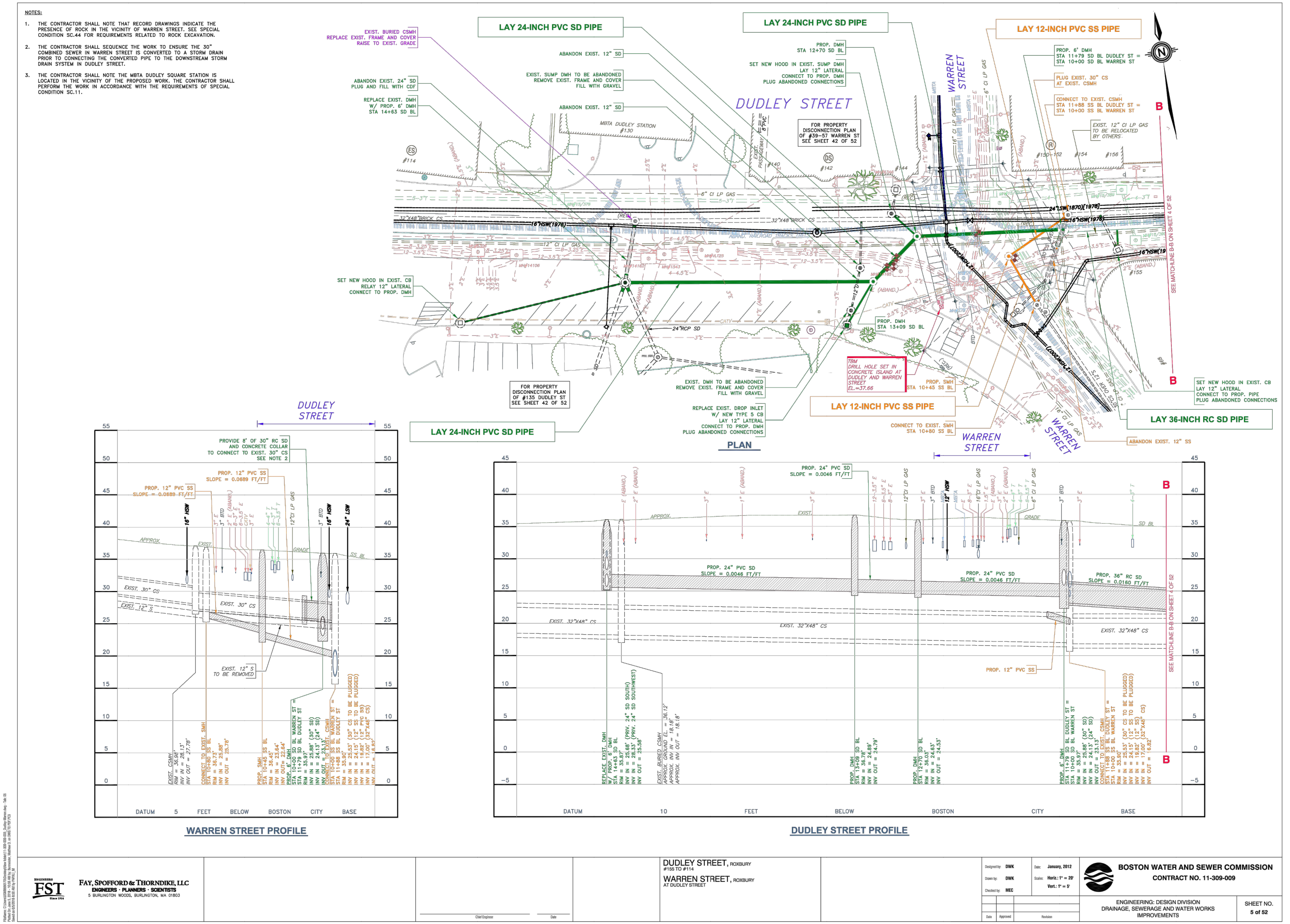
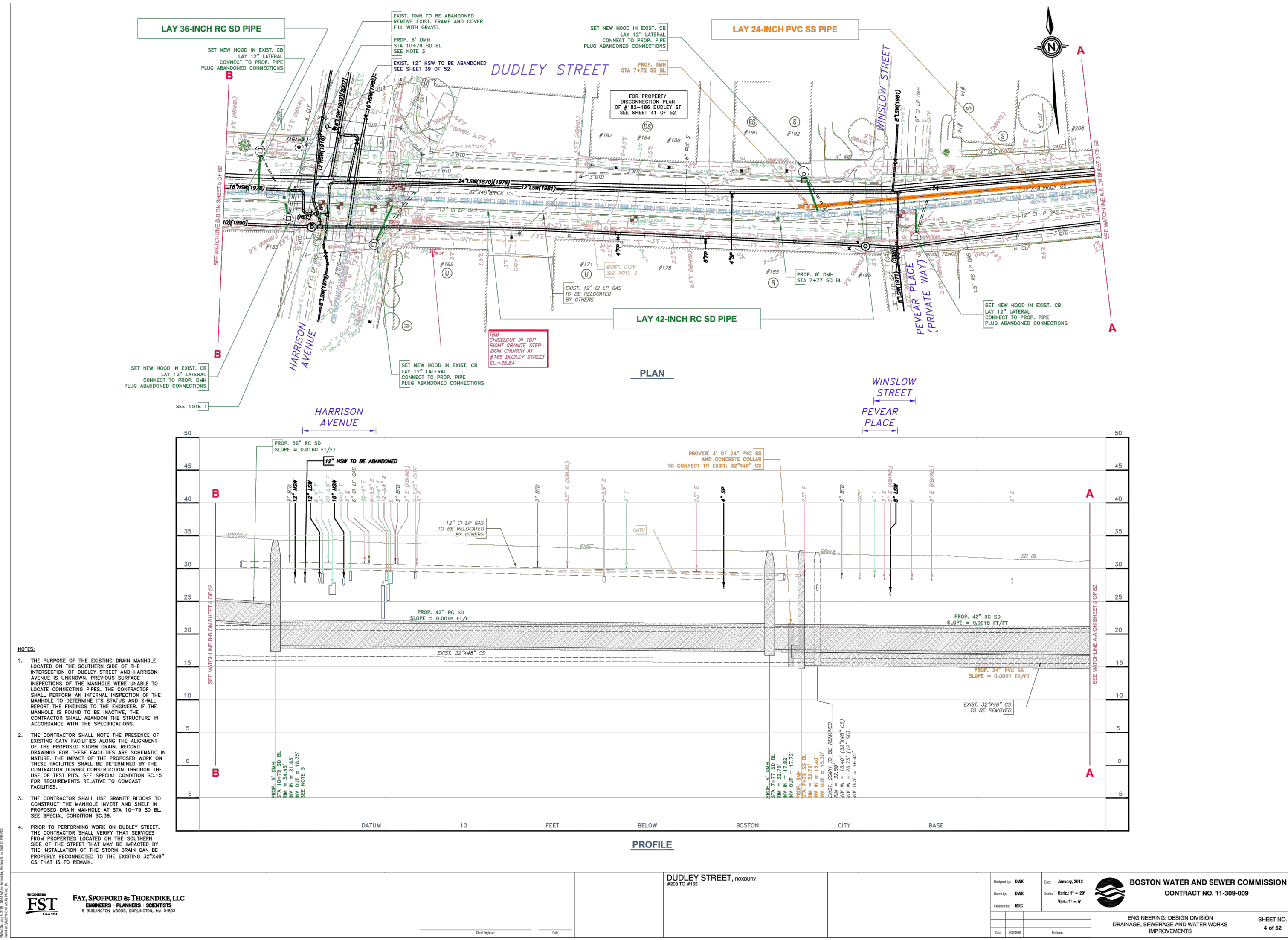
SCALE: 1" = 10'  
DISTRICT: 10

AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-123





	<b>FAY, SPOFFORD &amp; THORNDIKE, LLC</b> ENGINEERING PLANNERS ARCHITECTS 5 BALEFORD WOOD, BURLINGTON, MA 01803	<b>DUDLEY STREET, ROXBURY</b> FROM 10 FEET		Title: DWS Date: JAN 2012 Drawn: DWS Scale: 1" = 20' Checked: MBE Date: 11-1-12	 <b>BOSTON WATER AND SEWER COMMISSION</b> CONTRACT NO. 11-309-009 ENGINEERING DESIGN DIVISION DRAINAGE, SEWERAGE AND WATER WORKS IMPROVEMENTS	SHEET NO. <b>4 of 52</b>
		SHEET NO. <b>124 of 130</b>				

	<b>FAY, SPOFFORD &amp; THORNDIKE, LLC</b> ENGINEERING PLANNERS ARCHITECTS 5 BALEFORD WOOD, BURLINGTON, MA 01803	<b>DUDLEY STREET, ROXBURY</b> FROM 10 FEET		Title: DWS Date: JAN 2012 Drawn: DWS Scale: 1" = 20' Checked: MBE Date: 11-1-12	 <b>BOSTON WATER AND SEWER COMMISSION</b> CONTRACT NO. 11-309-009 ENGINEERING DESIGN DIVISION DRAINAGE, SEWERAGE AND WATER WORKS IMPROVEMENTS	SHEET NO. <b>4 of 52</b>
		SHEET NO. <b>124 of 130</b>				

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BUSCARDT

APPROVED BY P. FUSCO

CIP XX-XX SHEET 124 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

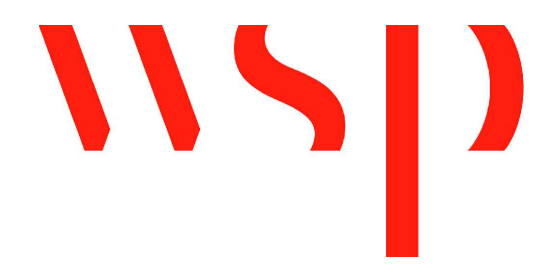
**DUDLEY SQUARE PHASE 2**  
**BWSC AS-BUILTS FOR REFERENCE**  
 ROXBURY

SCALE: N.T.S.  
 DISTRICT: 10

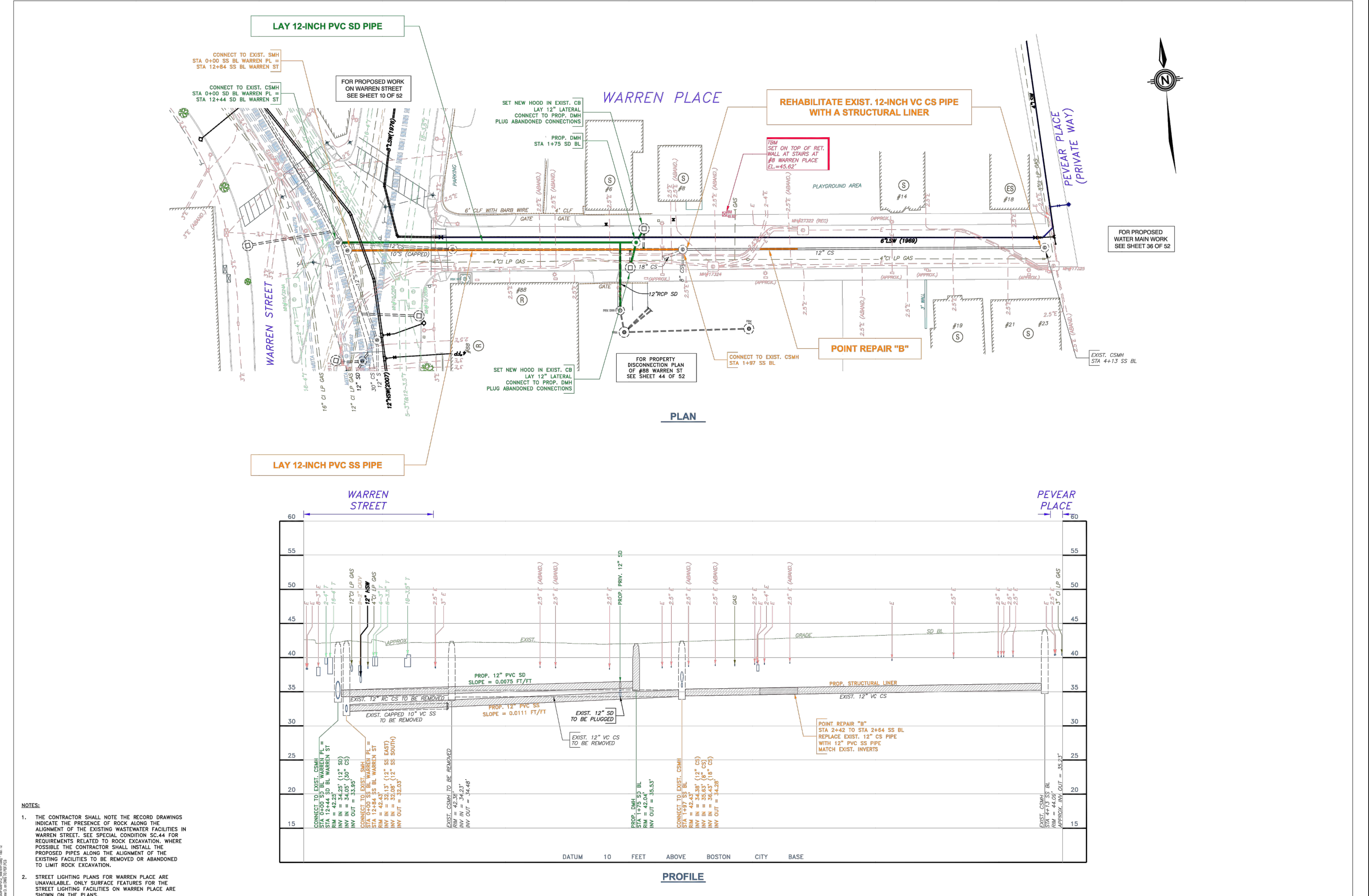
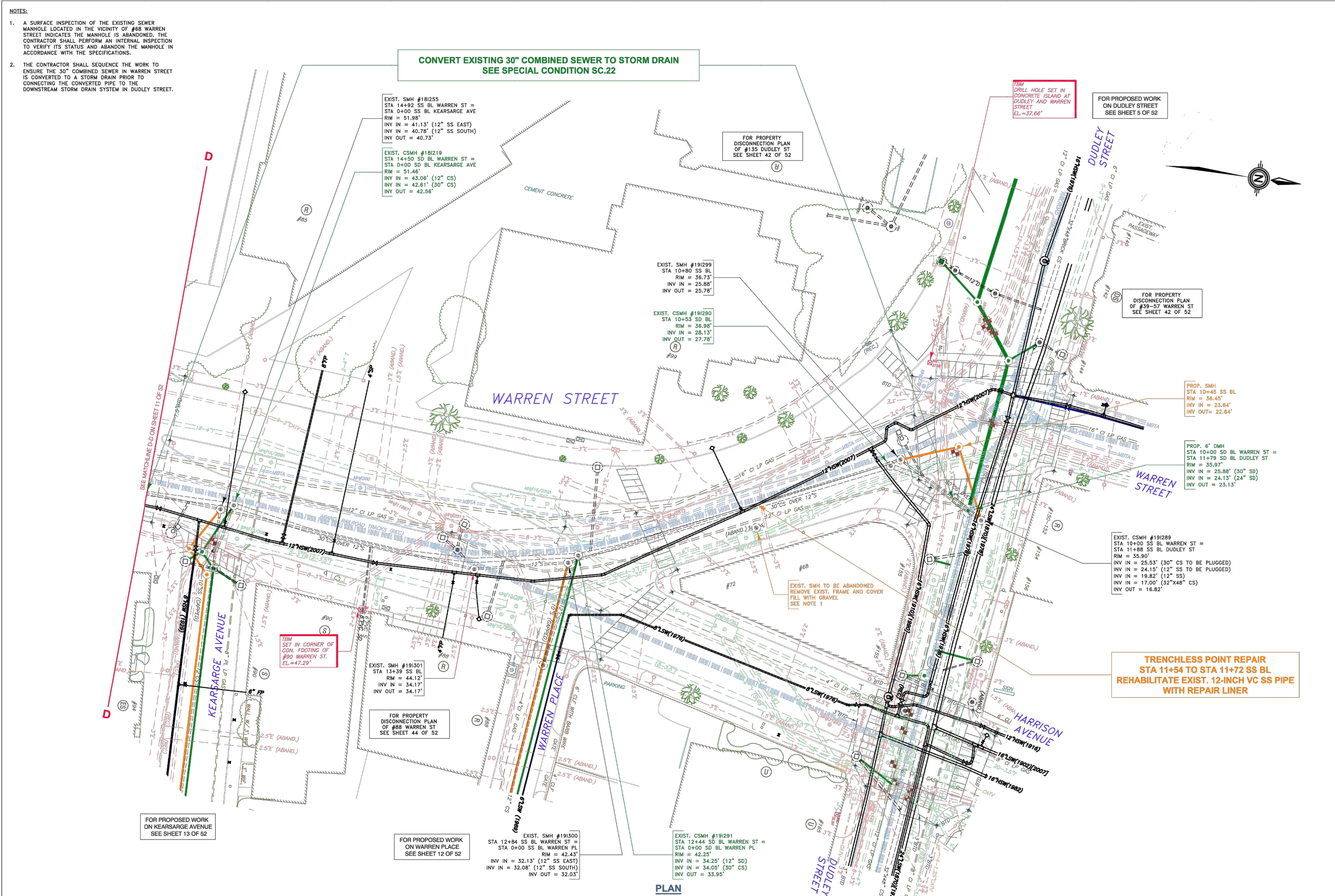
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-124







**WARREN STREET**  
DUDLEY STREET TURN

DATE: 04/15/19  
SCALE: 1" = 40'

**BOSTON WATER AND SEWER COMMISSION**  
CONTRACT NO. 11-309-009

ENGINEERING DESIGN DIVISION  
DRAINAGE, SEWERAGE AND WATER WORKS  
IMPROVEMENTS

SHEET NO. 12 OF 22

**WARREN PLACE**  
WARREN STREET TO PEVEAR PLACE

DATE: 04/15/19  
SCALE: 1" = 40'

**BOSTON WATER AND SEWER COMMISSION**  
CONTRACT NO. 11-309-009

ENGINEERING DESIGN DIVISION  
DRAINAGE, SEWERAGE AND WATER WORKS  
IMPROVEMENTS

SHEET NO. 12 OF 22

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

CIP XX-XX SHEET 125 OF 130

BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BUSCARDT

APPROVED BY P. FUSCO

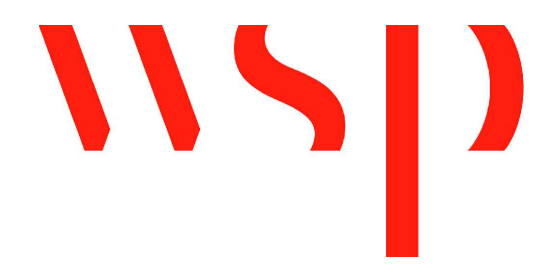
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**BWSC AS-BUILTS FOR REFERENCE**  
ROXBURY

SCALE: N.T.S.  
DISTRICT: 10

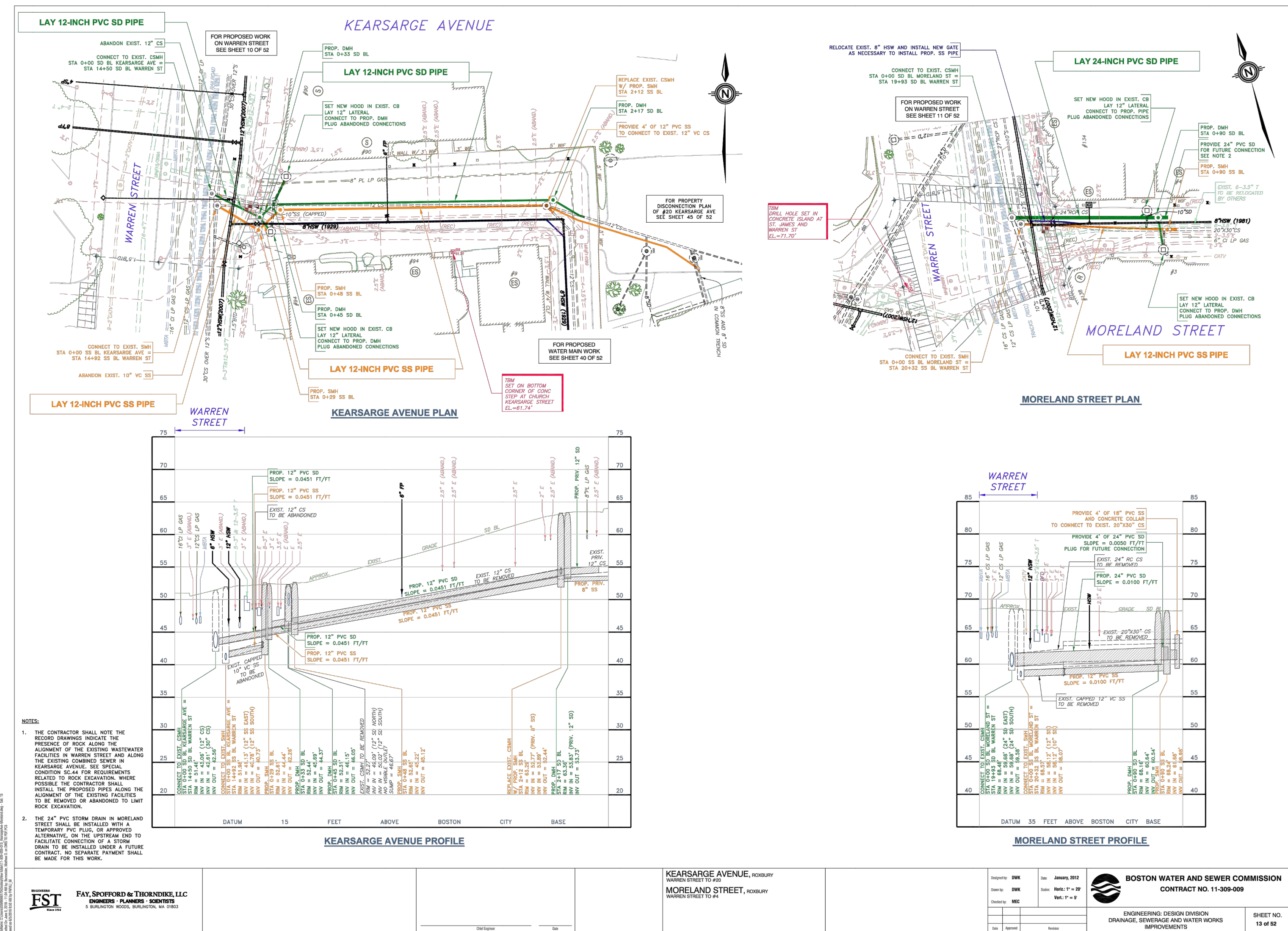
AREA: 1  
100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER



R-XXXX-125





**EST**  
**FAY, SPENCER & THORNDIKE, LLC**  
 ENGINEERS, PLANNERS, ARCHITECTS  
 3 BOSTON WHEEL BUILDING, BOSTON, MA 02108

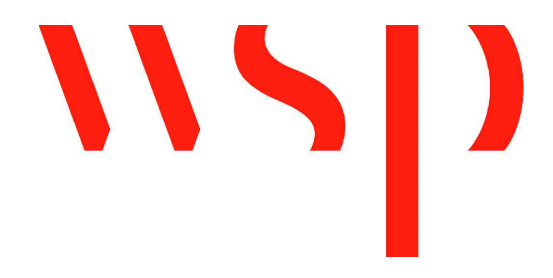
KEYSARGE AVENUE, ROXBURY  
 MORELAND STREET, ROXBURY

**BOSTON WATER AND SEWER COMMISSION**  
 CONTRACT NO. 11-309-009

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY S. BERGMAN  
 CHECKED BY R. BUSCARDT  
 APPROVED BY P. FUSCO



CIP XX-XX SHEET 126 OF 130

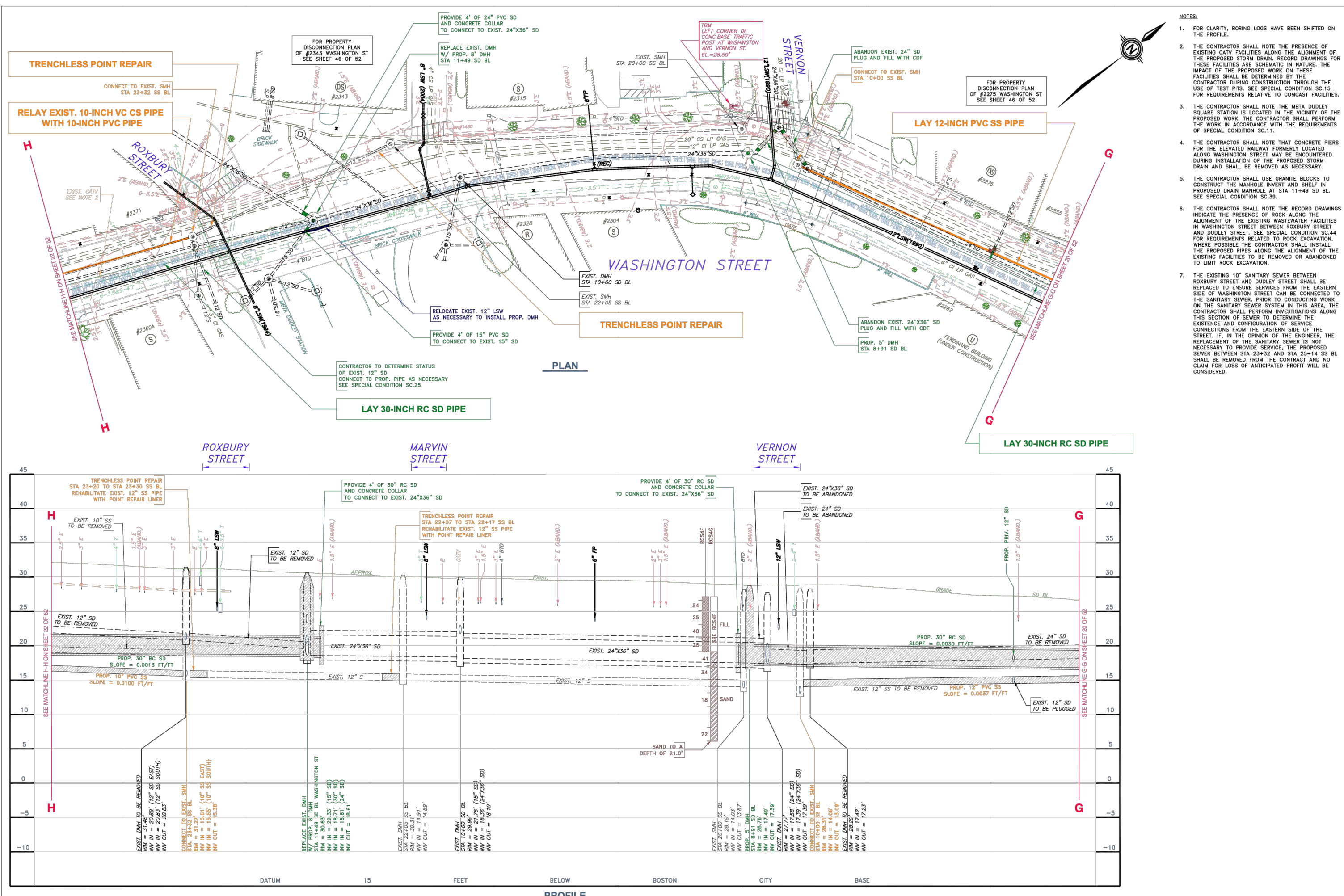
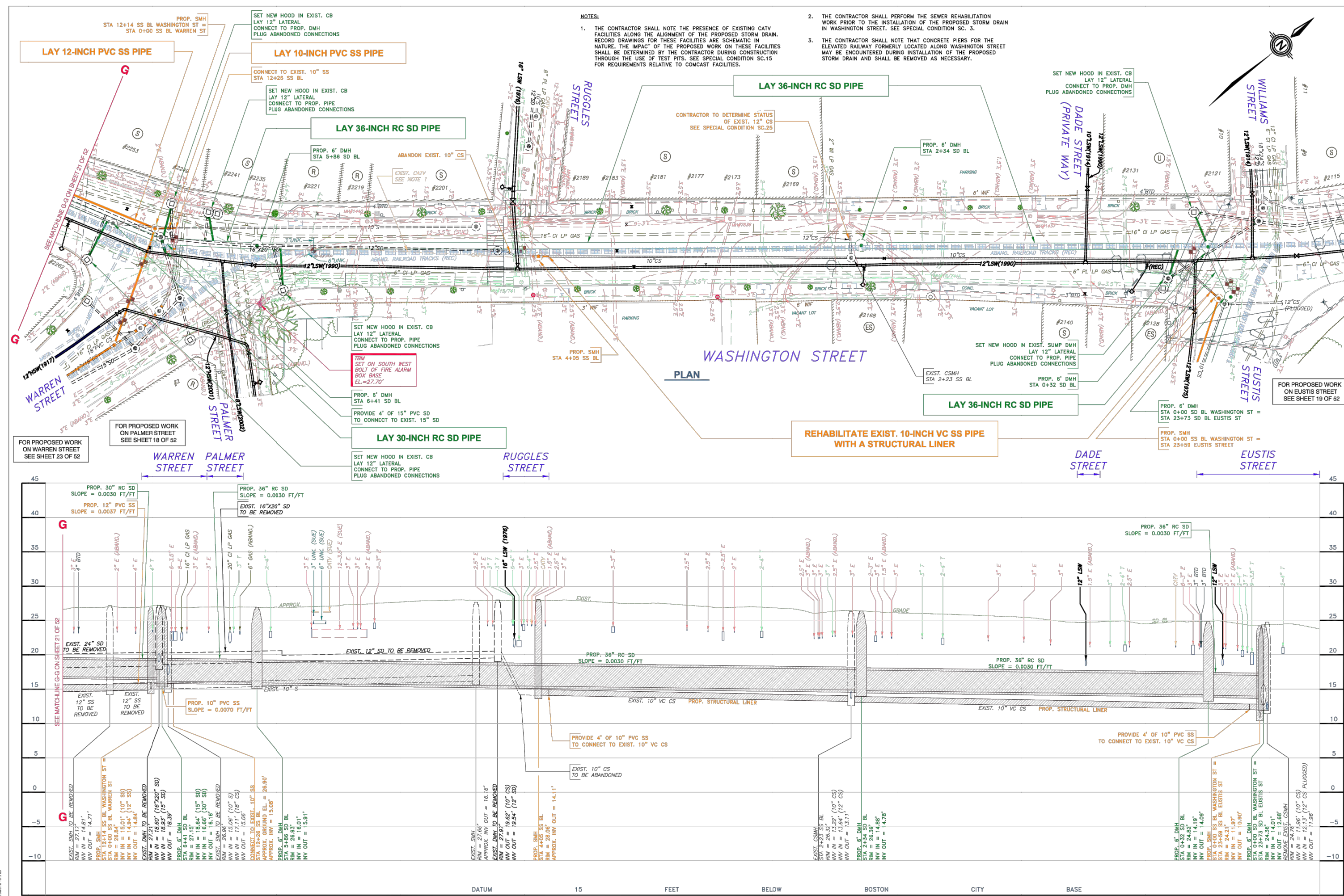
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**BWSC AS-BUILTS FOR REFERENCE**  
 ROXBURY

SCALE: N.T.S. AREA: 1  
 DISTRICT: 10 100% SUBMISSION  
 DATE: APR. 15, 2019

\_\_\_\_\_  
 CITY ENGINEER





WASHINGTON STREET, ROXBURY  
 CONTRACT NO. 11-309-009

DESIGNED BY: FAY, SPORFORD & THORNDIKE, LLC  
 DATE: JANUARY 2013  
 DRAWN BY: S. BERGMAN  
 CHECKED BY: R. BUSCARDT  
 APPROVED BY: P. FUSCO

BOSTON WATER AND SEWER COMMISSION  
 CONTRACT NO. 11-309-009  
 SHEET NO. 20 OF 22

WASHINGTON STREET, ROXBURY  
 CONTRACT NO. 11-309-009

DESIGNED BY: FAY, SPORFORD & THORNDIKE, LLC  
 DATE: JANUARY 2013  
 DRAWN BY: S. BERGMAN  
 CHECKED BY: R. BUSCARDT  
 APPROVED BY: P. FUSCO

BOSTON WATER AND SEWER COMMISSION  
 CONTRACT NO. 11-309-009  
 SHEET NO. 21 OF 22

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

CIP XX-XX SHEET 127 OF 130

BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BUSCARDT

APPROVED BY P. FUSCO

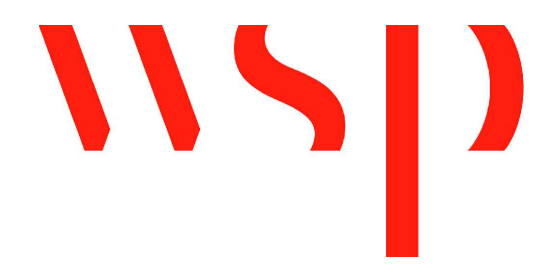
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**BWSC AS-BUILTS FOR REFERENCE**  
 ROXBURY

SCALE: N.T.S.  
 DISTRICT: 10

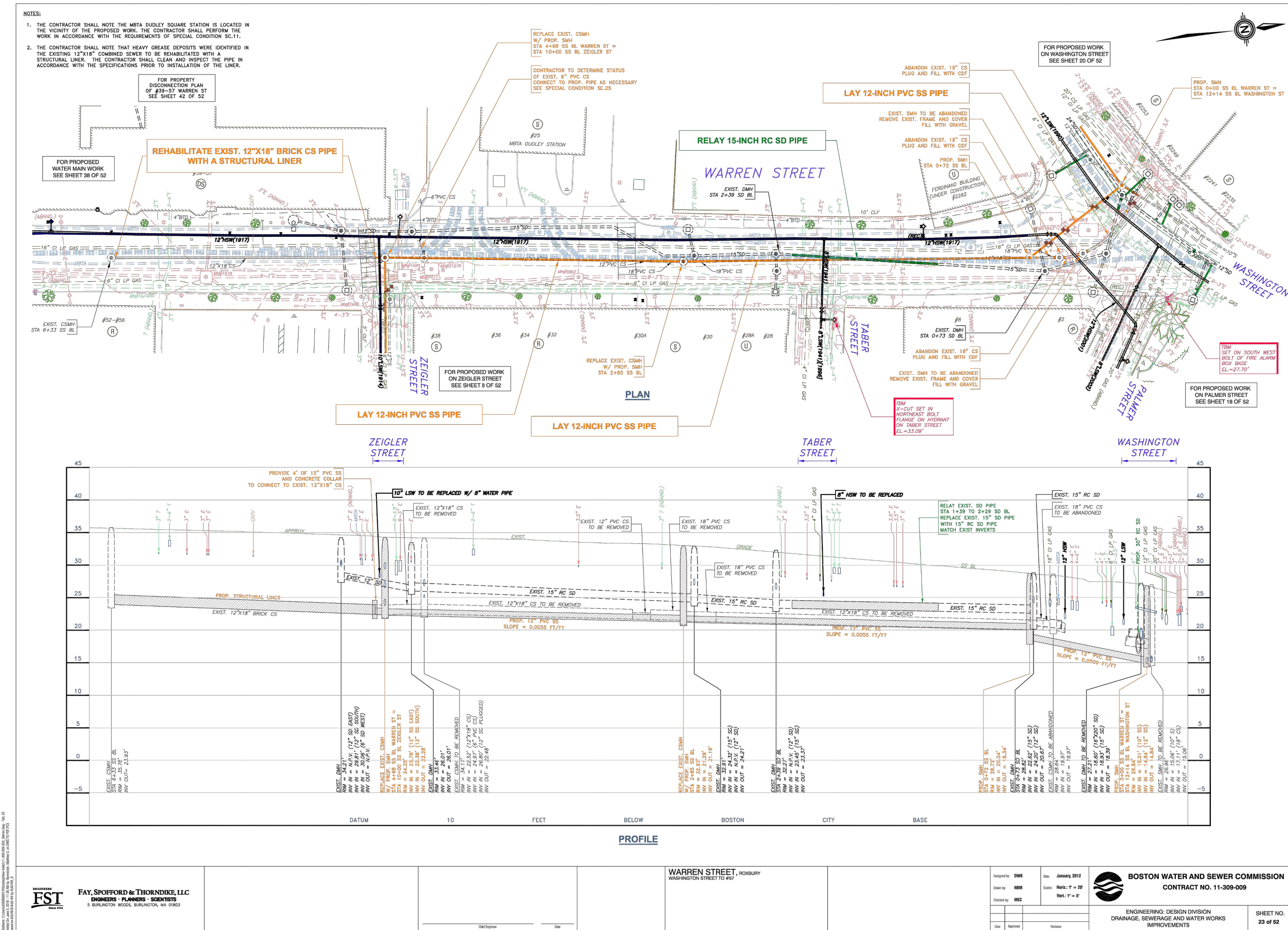
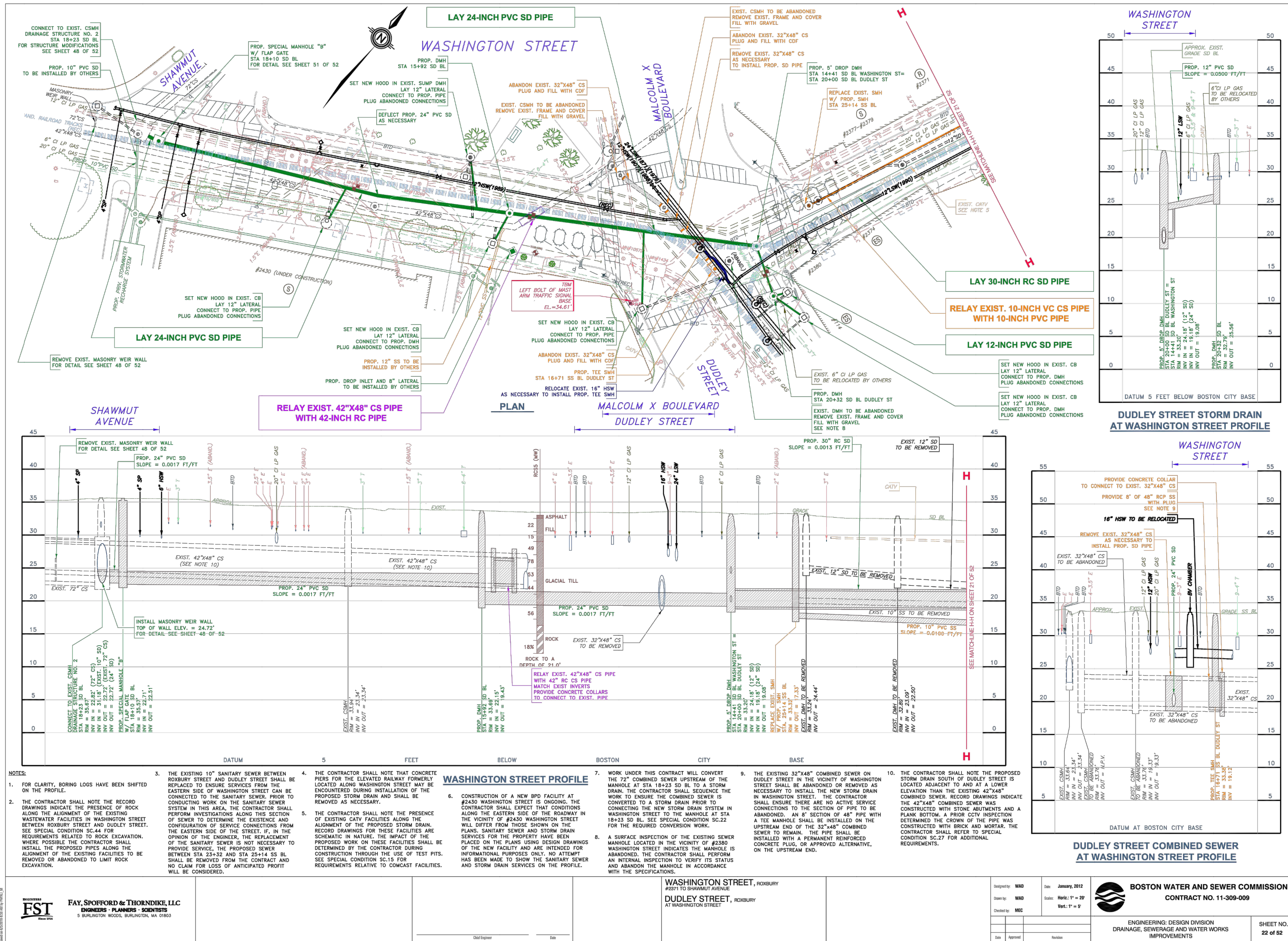
AREA: 1  
 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER



R-XXXX-127





ESI  
FAY SPENCER & THORNDIKE, LLC  
ENGINEERS PLANNERS ARCHITECTS  
A SHAWMUT HOLDINGS COMPANY

WASHINGTON STREET, ROXBURY  
DUDLEY STREET, ROXBURY

BOSTON WATER AND SEWER COMMISSION  
CONTRACT NO. 11-309-009  
ENGINEERING DESIGN DIVISION  
CHANGE, SEWERAGE AND WATER WORKS  
IMPROVEMENTS

ESI  
FAY SPENCER & THORNDIKE, LLC  
ENGINEERS PLANNERS ARCHITECTS  
A SHAWMUT HOLDINGS COMPANY

WARREN STREET, ROXBURY  
WASHINGTON STREET TO #17

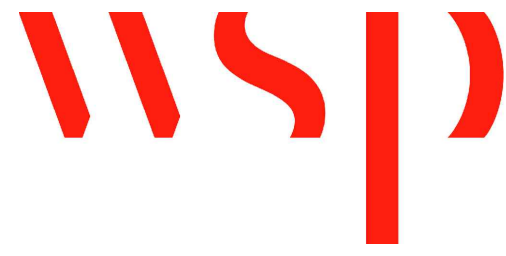
BOSTON WATER AND SEWER COMMISSION  
CONTRACT NO. 11-309-009  
ENGINEERING DESIGN DIVISION  
CHANGE, SEWERAGE AND WATER WORKS  
IMPROVEMENTS

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION  
SURVEY BY BRYANT ASSOCIATES  
DRAWN BY S. BERGMAN  
CHECKED BY R. BUSCARDT  
APPROVED BY P. FUSCO

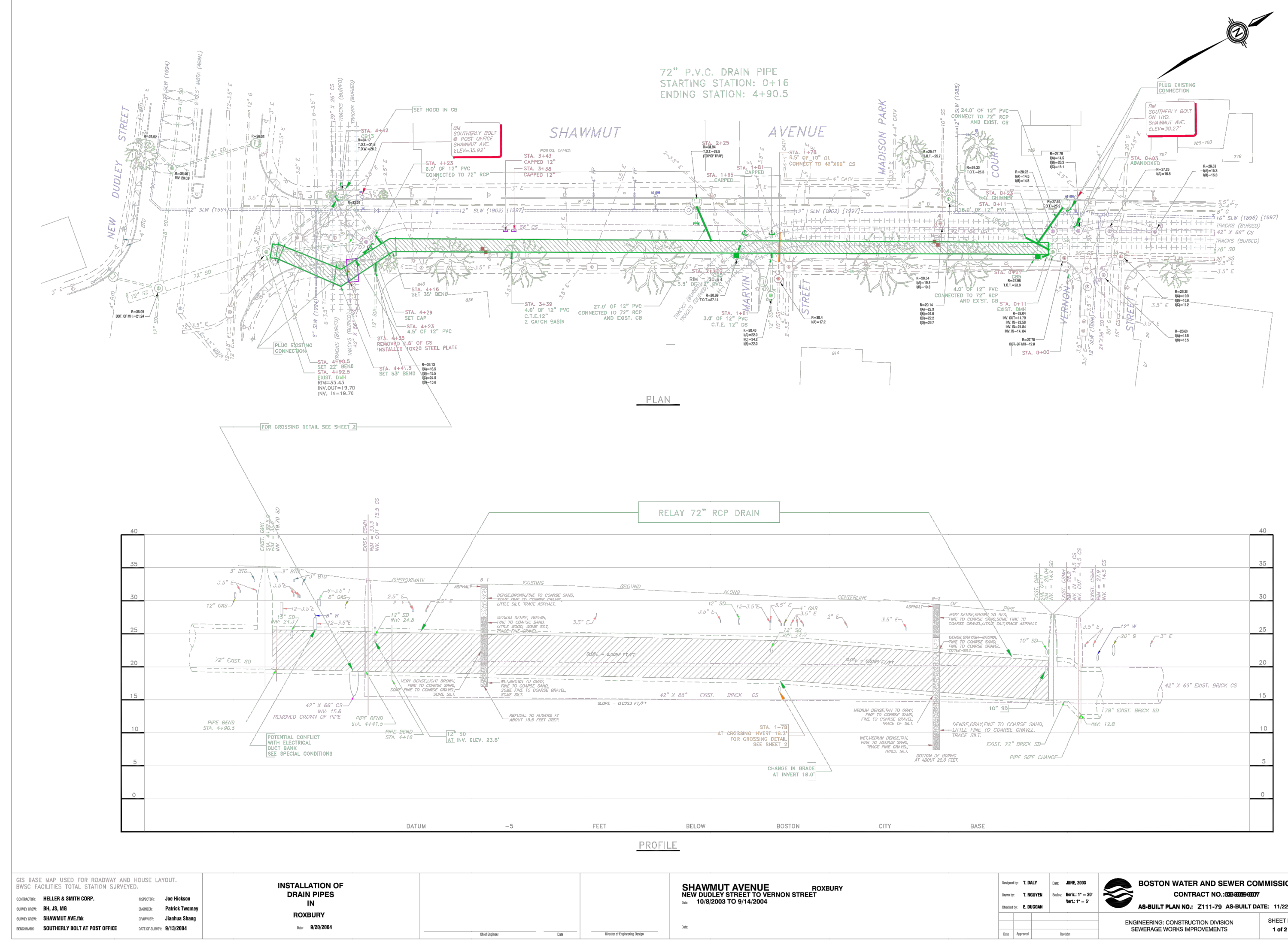
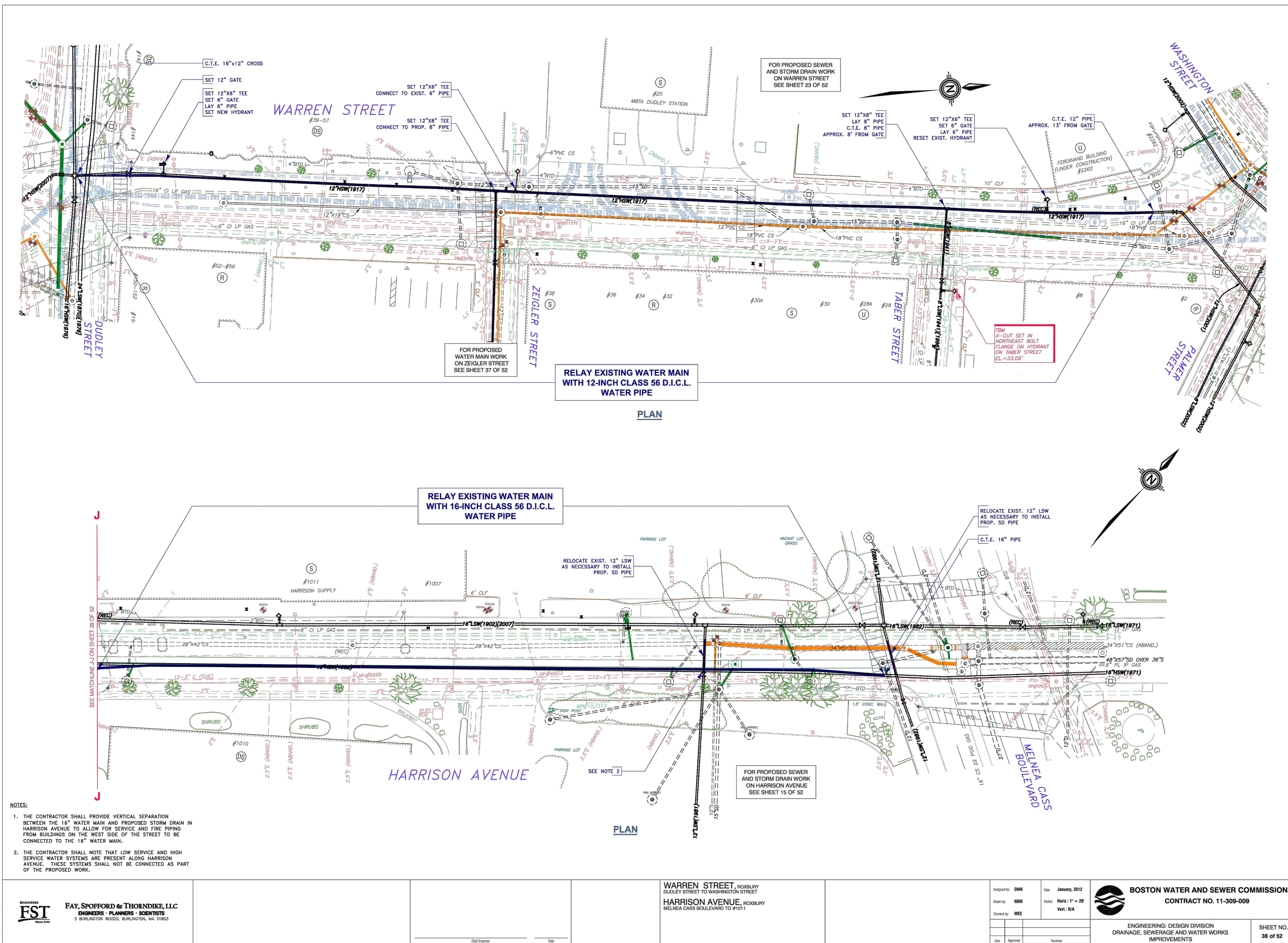
CIP XX-XX SHEET 128 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**BWSC AS-BUILTS FOR REFERENCE**  
ROXBURY  
SCALE: N.T.S. AREA: 1  
DISTRICT: 10 100% SUBMISSION  
DATE: APR. 15, 2019  
CITY ENGINEER



R-XXXX-128





R-XXXX-129

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES

DRAWN BY S. BERGMAN

CHECKED BY R. BUSCARDT

APPROVED BY P. FUSCO



CIP XX-XX SHEET 129 OF 130

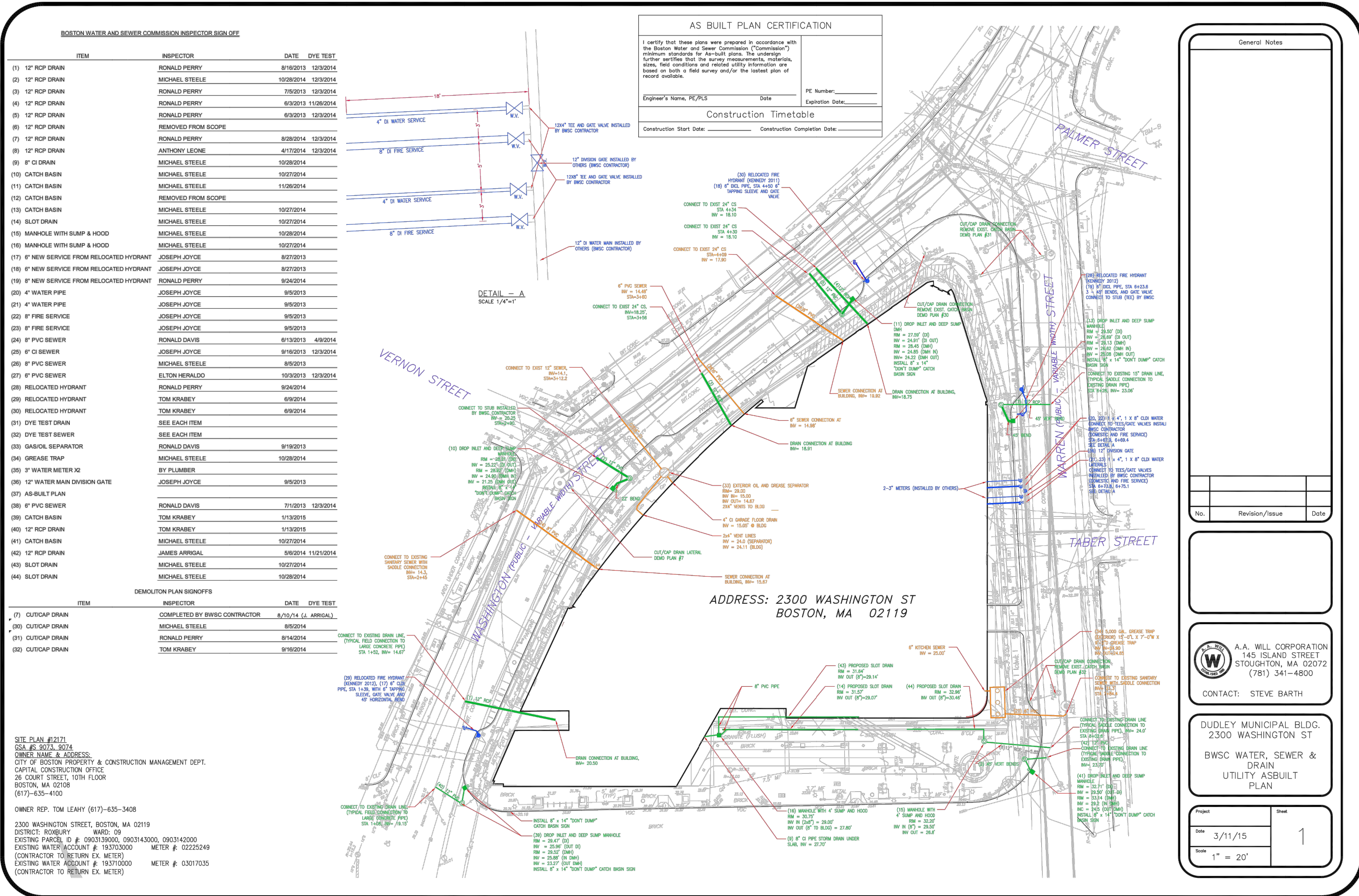
CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
HIGHWAY RECONSTRUCTION  
**DUDLEY SQUARE PHASE 2**  
**BWSC AS-BUILTS FOR REFERENCE**  
ROXBURY

SCALE: N.T.S. AREA: 1  
DISTRICT: 10 100% SUBMISSION  
DATE: APR. 15, 2019

CITY ENGINEER

BOSTON WATER AND SEWER COMMISSION  
CONTRACT NO. 11-009-009  
AS-BUILT PLAN NO. 2111-79 AS-BUILT DATE: 11/20/14  
ENGINEERING CONSTRUCTION DIVISION  
SEWERAGE WORKS IMPROVEMENTS  
SHEET NO. 1 of 2





BOSTON WATER AND SEWER COMMISSION INSPECTOR SIGN-OFF

ITEM	INSPECTOR	DATE	DYE TEST
(1) 12" RCP DRAIN	RONALD PERRY	8/18/2013	10/30/2014
(2) 12" RCP DRAIN	MICHAEL STEELE	10/28/2014	10/30/2014
(3) 12" RCP DRAIN	RONALD PERRY	7/10/2013	10/30/2014
(4) 12" RCP DRAIN	RONALD PERRY	8/20/2013	10/30/2014
(5) 12" RCP DRAIN	RONALD PERRY	8/20/2013	10/30/2014
(6) 12" RCP DRAIN	RONALD PERRY	8/20/2013	10/30/2014
(7) 12" RCP DRAIN	RONALD PERRY	8/20/2014	10/30/2014
(8) 12" RCP DRAIN	ANTHONY LEONE	4/17/2014	10/30/2014
(9) 8" C DRAIN	MICHAEL STEELE	10/28/2014	
(10) CATCH BASIN	MICHAEL STEELE	10/27/2014	
(11) CATCH BASIN	MICHAEL STEELE	11/28/2014	
(12) CATCH BASIN	REMOVED FROM SCOPE		
(13) CATCH BASIN	MICHAEL STEELE	10/27/2014	
(14) CATCH BASIN	MICHAEL STEELE	10/27/2014	
(15) MANHOLE WITH BUMP & HOOD	MICHAEL STEELE	10/28/2014	
(16) MANHOLE WITH BUMP & HOOD	MICHAEL STEELE	10/27/2014	
(17) 8" NEW SERVICE FROM RELOCATED HYDRANT	JOSEPH JOYCE	8/27/2013	
(18) 8" NEW SERVICE FROM RELOCATED HYDRANT	JOSEPH JOYCE	8/27/2013	
(19) 8" NEW SERVICE FROM RELOCATED HYDRANT	RONALD PERRY	8/24/2014	
(20) 4" WATER PIPE	JOSEPH JOYCE	8/20/2013	
(21) 4" WATER PIPE	JOSEPH JOYCE	8/20/2013	
(22) 8" FIRE SERVICE	JOSEPH JOYCE	8/20/2013	
(23) 8" FIRE SERVICE	JOSEPH JOYCE	8/20/2013	
(24) 8" PVC SEWER	RONALD DAVIS	8/13/2013	4/8/2014
(25) 8" C SEWER	JOSEPH JOYCE	8/18/2013	10/30/2014
(26) 8" PVC SEWER	MICHAEL STEELE	8/20/2013	
(27) 8" PVC SEWER	ELTON HERALDO	10/30/2013	10/30/2014
(28) RELOCATED HYDRANT	RONALD PERRY	8/24/2014	
(29) RELOCATED HYDRANT	TOM KRABEY	8/20/2014	
(30) RELOCATED HYDRANT	TOM KRABEY	8/20/2014	
(31) DYE TEST SEWER	SEE EACH ITEM		
(32) DYE TEST SEWER	SEE EACH ITEM		
(33) GASOL SEPARATOR	RONALD DAVIS	8/18/2013	
(34) GREASE TRAP	MICHAEL STEELE	10/28/2014	
(35) 12" WATER MAIN DIVISION GATE	BY PLUMBER		
(36) 12" WATER MAIN DIVISION GATE	JOSEPH JOYCE	8/20/2013	
(37) AS-BUILT PLAN			
(38) 8" PVC SEWER	RONALD DAVIS	7/10/2013	10/30/2014
(39) CATCH BASIN	TOM KRABEY	11/30/2013	
(40) 12" RCP DRAIN	MICHAEL STEELE	11/30/2013	
(41) CATCH BASIN	MICHAEL STEELE	10/27/2014	
(42) 12" RCP DRAIN	JAMES ARRIGAL	8/20/2014	11/21/2014
(43) BLOT DRAIN	MICHAEL STEELE	10/27/2014	
(44) BLOT DRAIN	MICHAEL STEELE	10/28/2014	

DEMOLITION PLAN SIGN-OFFS

ITEM	INSPECTOR	DATE	DYE TEST
(1) OUTCROP DRAIN	COMPLETED BY BWSO CONTRACTOR	8/13/14 (J. ARRIGAL)	
(2) OUTCROP DRAIN	MICHAEL STEELE	8/20/2014	
(3) OUTCROP DRAIN	RONALD PERRY	8/14/2014	
(4) OUTCROP DRAIN	TOM KRABEY	8/16/2014	

SIT PLAN #2171  
 2300 WASHINGTON STREET, BOSTON, MA 02119  
 DISTRICT: ROXBURY  
 EXISTING PARCEL # 030330000, 030340000, 030340000  
 EXISTING WATER ACCOUNT # 19370000 METER # 0225249  
 CONTRACTOR TO RETURN EX. METERS  
 EXISTING WATER ACCOUNT # 19370000 METER # 03077000  
 CONTRACTOR TO RETURN EX. METERS

AS-BUILT PLAN CERTIFICATION  
 I certify that these plans were prepared in accordance with the Boston Water and Sewer Commission's "Construction" minimum standards for AS-BUILT plans. The undersigned further certifies that the actual construction, materials, work, and conditions and related utility information are based on both a field survey and/or the latest plan of record available.  
 Engineer's Name: PE/PLS Date  
 Construction Start Date Construction Completion Date

General Notes

No.	Revision/Issue	Date

A.A. WILL CORPORATION  
 145 ISLAND STREET  
 STOUGHTON, MA 02072  
 (781) 341-4800  
 CONTACT: STEVE BARTH

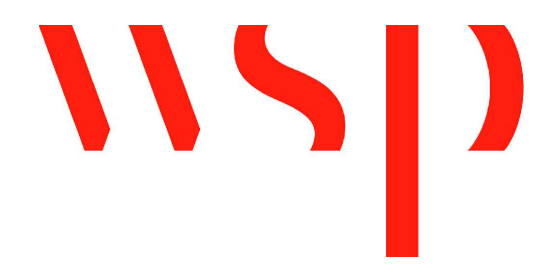
DUDLEY MUNICIPAL BLDG.  
 2300 WASHINGTON ST  
 BWSO WATER, SEWER & DRAIN  
 UTILITY AS-BUILT PLAN

Project Sheet  
 Date: 3/11/15  
 Issue: 1  
 Scale: 1" = 20'

REVIEWED FOR GENERAL DESIGN AND CONFORMITY TO COMMISSION STANDARDS

BOSTON WATER AND SEWER COMMISSION

SURVEY BY BRYANT ASSOCIATES  
 DRAWN BY S. BERGMAN  
 CHECKED BY R. BUSCARDT  
 APPROVED BY P. FUSCO



CIP XX-XX SHEET 130 OF 130

CITY OF BOSTON PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 HIGHWAY RECONSTRUCTION

**DUDLEY SQUARE PHASE 2**  
**BWSO AS-BUILTS FOR REFERENCE**  
 ROXBURY

SCALE: N.T.S. AREA: 1  
 DISTRICT: 10 100% SUBMISSION  
 DATE: APR. 15, 2019

CITY ENGINEER

R-XXXX-130