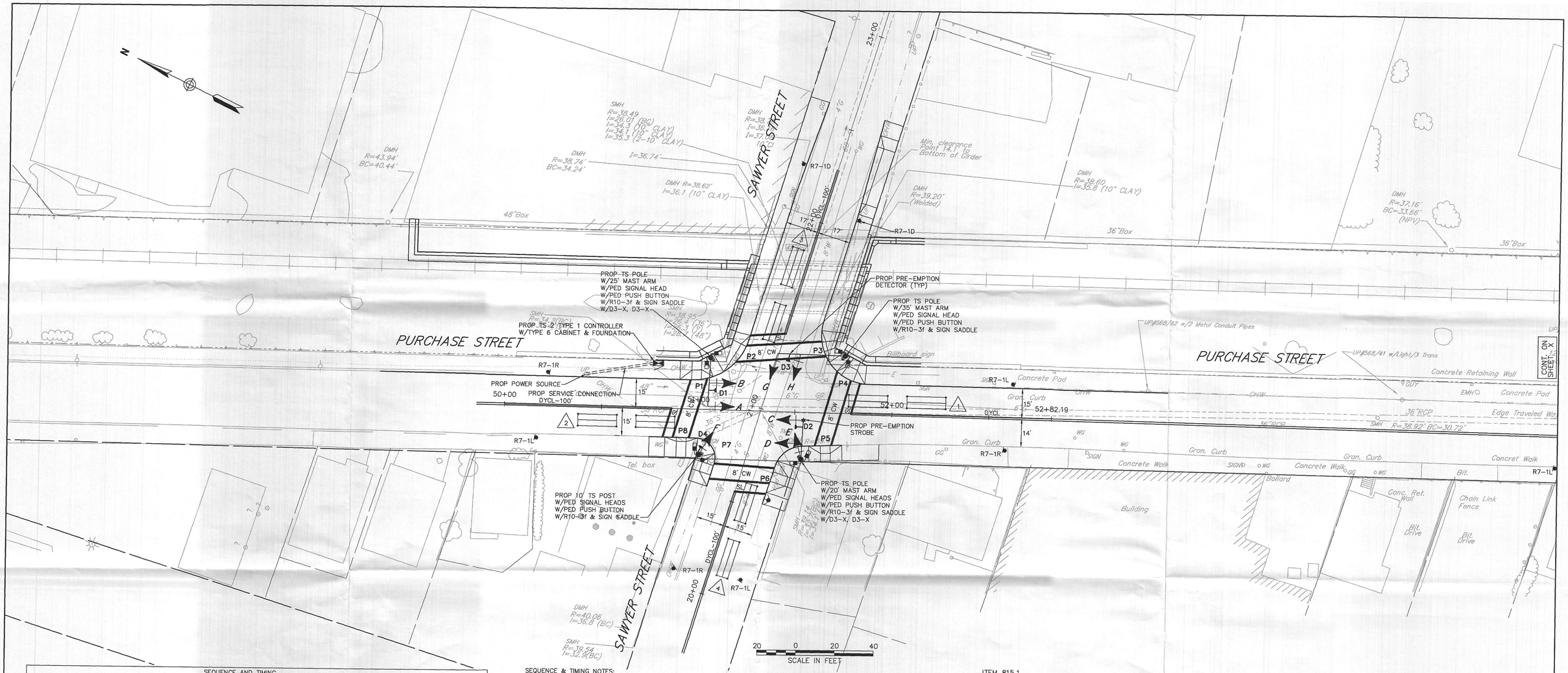


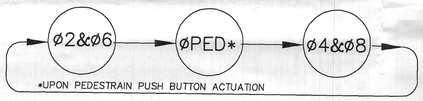
SEQUENCE AND TIMING																		
APPROACH	DIRECTION	HOUSING	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	FLASHING OPERATION
MINIMUM INTERVAL			10			6			10			6						
VEHICLE EXTENSION			2			2			2			2						
MAXIMUM 1			X			X			X			X						
MAXIMUM 2			–			–			–			–						
YELLOW CLEARANCE				4			4			4			4					
RED CLEARANCE					1			1			1			1			1	
PED INTERVAL															7	10		
PURCHASE STREET	NB	A,B	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
PURCHASE STREET	SB	C,D	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
SAWYER STREET	WB	E,F	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	FR
SAWYER STREET	EB	G,H	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
PED X-ING	ALL	P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OUT
DETECTOR			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			–			
RECALL			SOFT			OFF			SOFT			OFF			–			

ø2	ø4	ø6	ø8	øPED*	ø1,ø3,ø5&ø7
					NOT USED

NOTES:
1. AUTOMATIC FLASHING OPERATION PER M.U.T.C.D. SECTION 4D-12.
2. PERM = PERMISSIVE
3. *UPON PED PUSH BUTTON ACTUATION
4. ø4 & ø8 DUAL ENTRY
5. MAXIMUM 1 = NORMAL OPERATION
6. MAXIMUM 2 = NOT USED
7. STOP AND GO OPERATION FOR 24 HOURS PER DAY. FLASHING OPERATION FOR EMERGENCY ONLY.

SEQUENCE & TIMING NOTES:
1. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE DURING THE CLEARANCE INTERVAL.
2. THE RIGHT OF WAY MAY BE ASSIGNED TO ANY PHASE, OR ANY COMBINATION OF NON-CONFLICTING PHASES.
3. IF CALLS EXIST ON ALL PHASES, THE ASSIGNMENT OF RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE PREFERENTIAL PHASE SEQUENCE.
4. IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO CHANGE DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATION FOR THAT MOVEMENT WILL DISPLAY THE APPROPRIATE CLEARANCE INTERVALS.

PREFERENTIAL PHASE SEQUENCE



ITEM 815.1
TRAFFIC CONTROL SIGNAL
PURCHASE STREET AT SAWYER STREET
LIST OF MAJOR ITEMS REQUIRED

QUANTITY	DESCRIPTION
1	8ø TS 2 TYPE 1 CONTROLLER IN A TYPE 6 BASE MOUNTED CABINET INCL. FOUNDATION AND CONCRETE PAD
1	TS 20' MAST ARM TYPE 2, STEEL, INCL. FOUNDATION
1	TS 25' MAST ARM TYPE 2, STEEL, INCL. FOUNDATION
1	TS 35' MAST ARM TYPE 2, STEEL, INCL. FOUNDATION
1	TS POST 10' STANDARD INCL. FOUNDATION
8	SIGNAL HEAD, 3-SECTION, 12" LENSES
8	PEDESTRIAN SIGNAL HEAD (L.E.D.)
4	PEDESTRIAN PUSHBUTTON W/R10-3f AND SIGN SADDLE
X	PULL BOXES-12"x12"
8	TYPE C, 2-CHANNEL CARD RACK LOOP DETECTOR AMPLIFIER
8	WIRE LOOP DETECTOR
4	EMERGENCY PRE-EMPTION OPTICAL DETECTORS & DETECTOR CABLE
1	EMERGENCY PRE-EMPTION 4 CHANNEL PHASE SELECTOR
1	EMERGENCY PRE-EMPTION SYSTEM CHASSIS
1	EMERGENCY PRE-EMPTION STROBE (WHITE LENS)
1	SERVICE CONNECTION (OVERHEAD)

PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING TRAFFIC CONTROL SIGNAL.

CONSTRUCTION NOTES:
1. EACH LOOP GROUP SHALL BE SPLICED IN SINGLE PULL BOX AND WIRED TO SEPARATE CONTROLLER INPUT.
2. PULL BOXES SHALL BE ADJACENT TO CURB UNLESS OTHERWISE NOTED AND SHALL NOT BE LOCATED IN WHEELCHAIR RAMPS.
3. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
4. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY APPROVED METHOD.
5. TRAFFIC SIGNAL FOUNDATIONS TO BE LOCATED BY STATION AND OFFSET.
6. THE TOP OF ALL MAST ARM FOUNDATIONS IN SIDEWALK AREAS SHALL BE LOCATED 3"± BELOW FINISH GRADE. THE TOP OF THE FOUNDATION SHALL NOT BE EXPOSED TO THE SIDEWALK.
7. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.

EMERGENCY VEHICLE PRE-EMPTION OPERATION.
1. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS LOCATED AT EACH INTERSECTION.
2. PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH DETECTORS D1, D2, D3 OR D4 ASSIGNED DESCENDING PRIORITIES AS FOLLOWS: (D1 HIGHEST AND D4 LOWEST)
3. IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY OPTICAL DETECTOR D1 (OR D2, D3, D4) THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PRE-EMPTION PHASE #1 (OR #2, #3, #4) GREEN FOR A MINIMUM OF TEN (10) SECONDS OR UNTIL PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCES FOR THE ASSOCIATED PHASE(S) AS SHOWN IN THE SEQUENCE AND TIMING CHART AND SERVICE SUBSEQUENT EMERGENCY VEHICLE PRE-EMPTION PHASES AS NECESSARY.
4. MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
5. PRE-EMPTION STROBE SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PRE-EMPTION GREEN IS ON.
6. EMERGENCY VEHICLE PRE-EMPTION SHALL OVERRIDE COORDINATION.

PRE-EMPTION PHASING & PRIORITY			
DETECTOR & PRIORITY	PRE-EMPT PHASE ASSIGNMENT	MOVEMENT	VEHICLE PHASE ASSIGNMENT
D1	1		ø2
D2	2		ø6
D3	3		ø4
D4	4		ø8

DETECTOR DATA						
DETECTOR NO.	NO. SECTION/ SIZE	NO. OF TURNS	OPERATIONS	DELAY /EXT	CALL PHASE	LOOP CONNECTION
1	2-6'X20' QUADRUPOLE	2-4-2	PRESENCE	0	ø2	SERIES
2	2-6'X20' QUADRUPOLE	2-4-2	PRESENCE	0	ø6	SERIES
3	2-6'X20' QUADRUPOLE	2-4-2	PRESENCE	0	ø4	SERIES
4	2-6'X20' QUADRUPOLE	2-4-2	PRESENCE	0	ø8	SERIES

NOTE: DELAY AND EXTENSION TIMINGS SHALL BE PROGRAMMED IN THE CONTROLLER

SIGNAL HEAD DATA

A,B,C,D,E,F,G,H	P1-P8
R Y G	(L.E.D.)
ALL 12" LENS	

NOTES: 1. ALL SIGNAL HEADS SHALL BE RIGID MOUNTED AND EQUIPPED WITH 5" ± LOUVERED BACKPLATES.
2. ALL SIGNAL DISPLAYS SHALL BE EQUIPPED W/L.E.D. MODULES AND TUNNEL VISORS.

ISSUE	DATE	DESCRIPTION	BY	CHK'D	APP.

SUPERCEDED

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
SOUTH COAST RAIL
COMMUTER RAIL EXTENSION PROJECT
SOUTH COAST BRIDGES – NEW BEDFORD
MBTA CONTRACT NO. XXXXXX

PURCHASE STREET AT SAWYER STREET TRAFFIC PLAN

VHB Vanasse Hangen Brustlin, Inc.
99 High Street 10th Floor
Boston, MA 02110-2354

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY

PROJECT MANAGER _____ PROJECT MANAGER

SCALE: 1" = 20'	DRAWN BY	DESIGN BY	CHECK BY	PLAN NO..	ISSUE
DATE: 11/13/09	AEB	AEB	PTN	SHEET: C-	

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