

**MASSACHUSETTS
BAY
TRANSPORTATION
AUTHORITY**

**FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
BOSTON TO FITCHBURG, MASSACHUSETTS
CONTRACT NO. G67CN01**

**SOUTH ACTON STATION
CONTRACTOR PACKAGE
60% DESIGN SUBMITTAL**

HNTB The HNTB Companies
Engineers Architects Planners

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IN ASSOCIATION WITH

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DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
CAPITAL GRANT CONTRACT MA-XX-X000
PROJECT NO.: XXX

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MBTA APPROVALS:

ACTING ASSISTANT GENERAL MANAGER FOR DESIGN AND CONSTRUCTION Date:
EDMOND F. HUNTER

DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION Date:
JAMES E. JACKSON

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T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION		INDEX OF DRAWINGS	
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		APPROVED BY: _____	
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DATE: 06/14/11		SHEET G-2	

JACOBS

343 CONGRESS STREET
 BOSTON, MA 02110
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DES. BY: JPB
 CHK. BY: KMB
 APP. BY: JGA

ISSUE

GENERAL NOTES:

1. THE CONTRACTOR SHALL SET BARRIERS, BARRICADES, WARNING LIGHTS, AND OTHER PROTECTIVE DEVICES THAT ARE NECESSARY, IN THE JUDGMENT OF THE ENGINEER, FOR THE PROTECTION OF THE PUBLIC THROUGHOUT THE STATION AREA, IN ACCORDANCE WITH THE MBTA CONSTRUCTION SAFETY MANUAL AND M.U.T.C.D. LATEST EDITIONS.
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES. WHERE THE CLEAR INTENT OF THE NEW WORK IS TO MATCH EXISTING CONDITIONS, THE FIELD DATA SHALL GOVERN.
3. EXISTING GRADES SHOWN ON THESE PLANS ARE DERIVED FROM AERIAL PHOTOGRAMMETRY AND THE ACCURACY IS NOT GUARANTEED. ELEVATIONS REFER TO N.A.V.D. 88. WHERE PROPOSED WORK IS TO MEET EXISTING CONDITIONS, THE CONTRACTOR SHALL VERIFY THE INTENDED INTERFACE PRIOR TO ORDERING MATERIALS OR THE START OF CONSTRUCTION OF THAT AREA. PROPOSED GRADES SHALL NOT CREATE FLAT RUN-OFF SURFACES OR SURFACES THAT TRAP WATER. WHERE SUCH A PROBLEM MAY OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF SUCH.
4. EXISTING UTILITY LINES INDICATED OR NOTED ON THESE DRAWINGS ARE SHOWN AS OBTAINED FROM EXISTING INFORMATION AND ARE ONLY APPROXIMATE IN LOCATION. EXISTING UTILITIES OTHER THAN THOSE INDICATED ON THESE DRAWINGS MAY BE ON THE SITE. THE CONTRACTOR IS WARNED TO PROCEED WITH CAUTION WITH ALL WORK, ESPECIALLY EXCAVATION WORK. THE CONTRACTOR IS TO MAKE ALL POSSIBLE INVESTIGATIONS AS TO POTENTIAL UNMARKED UTILITY LINES BEFORE DESIGNING, EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION, OR REPAIRING OF SYSTEMS. ALL UTILITY COMPANIES PUBLIC AND PRIVATE MUST BE NOTIFIED, INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THESE DRAWINGS. RAILROAD UNDERGROUND AND OVERHEAD CABLES ARE ALSO IN THE AREA OF THE CONTRACTOR'S CONSTRUCTION ACTIVITIES. THE LOCATION, PROTECTION, REMOVAL OR RELOCATION OF THESE CABLES MUST BE COORDINATED WITH THE RAILROAD OWNERS AND MBTA OPERATING CONTRACTORS BEFORE EXCAVATION IS STARTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT AREA AND COORDINATE WITH THE AFFECTED UTILITY OWNER FOR PROTECTION OR RELOCATION OF UTILITY PRIOR TO THE START OF THEIR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL NOTIFY DIG-SAFE AT LEAST 72 BUSINESS HOURS BEFORE ANY CONSTRUCTION BEGINS AT 1-888-344-7233. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
5. ALL ITEMS DESIGNATED AS "REMOVE" AND NOT RELOCATED AS PART OF THIS PROJECT, AND DETERMINED TO BE IN SALVAGEABLE CONDITION BY THE ENGINEER, SHALL BE DELIVERED TO MBTA RAILROAD OPERATIONS MATERIAL YARD IN CHARLESTOWN, MA, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. NO DELIVERY WILL BE GREATER THAN 60 MILES, ONE WAY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEASING OR OTHERWISE OBTAINING TEMPORARY RIGHTS TO LANDS NECESSARY FOR AREAS OF CONSTRUCTION STAGING AND/OR STORING CONSTRUCTION MATERIALS AND EQUIPMENT.
7. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE AGENCIES OF THE TOWN OF ACTON, IN AN EFFORT TO AVOID CONSTRUCTION RELATED IMPACTS TO THE ADJACENT AND ADJOINING AREAS.
8. CONTRACTOR WILL NOT BE ALLOWED TO WORK WITHIN THE "FOUL" AREA OF THE RAILROAD (15 FEET FROM CENTERLINE OF TRACK) WITHOUT FLAGMEN AND/OR TRACK FOREMEN PRESENT FROM THE OPERATING RAILROAD. CONTRACTOR SHALL COORDINATE WITH MBTA RAILROAD OPERATIONS AND MRCR FOR WORK REQUIREMENTS AND RESTRICTIONS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL UTILITY COMPANIES FOR RELOCATION OF THEIR FACILITIES AS REQUIRED FOR THE CONSTRUCTION.
10. ADDITIONAL NOTES ARE INDICATED ON THE VARIOUS CIVIL, ARCHITECTURAL, STRUCTURAL, ELECTRICAL, LANDSCAPING AND STATION COMMUNICATIONS PLANS INCLUDED HEREIN.
11. FOR PROJECT-WIDE PURPOSES ON THESE CORRIDOR IMPROVEMENTS, DRAWINGS WILL BE ORIENTED WITH FITCHBURG MAIN LINE BASELINE STATIONING INCREASING FROM LEFT-TO-RIGHT AND THEREFORE IN MOST ALL CASES NORTH WILL BE DIRECTED DOWN.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY STATE AND LOCAL PERMITS (INCLUDING INSPECTIONS AND SIGN-OFFS FROM APPLICABLE TOWN DEPARTMENTS) FOR THE CONSTRUCTION OF SOUTH ACTON STATION.

UTILITY NOTES:

1. MAINTAIN AND PROTECT ELECTRIC, SIGNAL, COMMUNICATION, PHONE, SEWER AND DRAINAGE SYSTEMS THROUGHOUT CONSTRUCTION. CONTRACTOR TO SUBMIT UTILITY RELOCATION, ABANDONMENT AND PHASING PLAN THAT IS COORDINATED AND APPROVED BY THE RESPECTIVE PUBLIC AND PRIVATE UTILITY JURISDICTIONS FOR ENGINEER'S APPROVAL.
2. RELOCATE ALL MBTA-RELATED ELECTRIC, SIGNAL AND COMMUNICATION SYSTEMS TO UNDERGROUND CONDUITS AND DUCTBANKS THROUGH THE STATION SITE AS INDICATED. REMOVE AND DELIVER TO MBTA OR TOWN OF ACTON, ALL ABANDONED POLES, LINES, CABINETS, EQUIPMENT AND SUPPORTS WHEN EACH RELOCATION IS COMPLETE. CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND DISPOSE OF ALL MATERIALS NOT CLAIMED BY THE MBTA OR TOWN OF ACTON.
3. COORDINATE PUBLIC AND PRIVATE UTILITY ABANDONMENTS AND IMPROVEMENTS WITH ALL OTHER PROPOSED STATION AND TRACKWAY IMPROVEMENT WORK INDICATED IN THESE DOCUMENTS. OBTAIN THE RESPECTIVE PUBLIC AND PRIVATE UTILITY JURISDICTION APPROVALS FOR THIS WORK PRIOR TO THE STAGING PLAN SUBMITTAL AND PRIOR TO WORK. INCLUDE ALL UTILITY WORK WITH THE CONSTRUCTION STAGING PLAN SUBMITTAL. SEE CONSTRUCTION STAGING PLANS FOR ADDITIONAL NOTES.
4. THE EXISTING WATER LINE LOCATION AND PROPOSED CONNECTION POINT IN RAILROAD STREET SHALL BE VERIFIED AND APPROVED BY THE ACTON WATER DISTRICT. THE PROPOSED WATER LINE SHALL INCLUDE A METER PIT AND YARD HYDRANTS AT EACH PROPOSED PLATFORM. PROTECT AND MAINTAIN THE WATER LINE WHERE IT CROSSES THE FUTURE TRACKS WITH A DUCTILE IRON PIPE SLEEVE AS INDICATED ON THE PLANS.
5. MAINTAIN MBTA COMMUTER RAIL AND RELATED ACCESS OPERATIONS THROUGHOUT CONSTRUCTION.
6. CONTRACTOR SHALL CONTAIN ALL EXCAVATION, EROSION AND SEDIMENTS FROM FOULING TRACKWAYS, WETLANDS, PATHWAYS, PARKING LOTS, PLATFORMS, STREETS, CATCHMENT SYSTEMS AND PRIVATE PROPERTIES THROUGHOUT CONSTRUCTION. SEE SPECIFICATIONS AND EROSION & SEDIMENTATION CONTROL PLANS FOR DETAILS.
7. MAINTAIN ACCESS TO AND OPERATIONS OVER ALL TOWN AND PRIVATE WAYS THROUGHOUT CONSTRUCTION.
8. MAINTAIN SITE LIGHTING WITHIN THE LIMITS OF WORK THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH THE CONSTRUCTION STAGING PLANS AND AS SPECIFIED IN THESE DOCUMENTS. SHIELD AS APPROPRIATE, CONSTRUCTION LIGHTING FROM ADJACENT PROPERTIES THROUGHOUT CONSTRUCTION.
9. SEE COMMUNICATIONS PLANS (COM) FOR PROPOSED STATION AND TRACKWAY COMMUNICATIONS IMPROVEMENTS.
10. SEE ELECTRICAL PLANS (E) FOR ALL PROPOSED STATION AND TRACKWAY ELECTRICAL IMPROVEMENTS.

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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION NOTES - CIVIL	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
		300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000	
HORIZ: NONE VERT: NONE DATE: 06/14/11		DES. BY: JPB DR. BY: KMB CHK. BY: XXX	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PLAN NO. SHEET G-3	

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LEGEND

ABBREVIATIONS

EXISTING	PROPOSED	EXISTING	PROPOSED
CATCH BASIN	CATCH BASIN	FIRE ALARM	FIRE ALARM
CATCH BASIN w/CURB INLET	CATCH BASIN w/CURB INLET	WASTE BASKET	WASTE BASKET
DROP INLET	DROP INLET	TREE (w/ DIA)	TREE (w/ DIA)
MANHOLE DRAINAGE	MANHOLE DRAINAGE	OVERHEAD WIRES	OVERHEAD WIRES
MANHOLE ELECTRIC	MANHOLE ELECTRIC	UNDERGROUND GAS LINE	UNDERGROUND GAS LINE
MANHOLE UNKNOWN	MANHOLE UNKNOWN	UNDERGROUND WATER LINE	UNDERGROUND WATER LINE
MANHOLE SEWER	MANHOLE SEWER	HANDICAPPED RAMP	HANDICAPPED RAMP
MANHOLE TELEPHONE	MANHOLE TELEPHONE	CONCRETE SIDEWALK	CONCRETE SIDEWALK
MANHOLE CABLE	MANHOLE CABLE	BIT. CONC. SIDEWALK	BIT. CONC. SIDEWALK
HANDHOLE	HANDHOLE	BIT. CONC. CURB	BIT. CONC. CURB
MASS HIGHWAY DEPT. HANDHOLE	MASS HIGHWAY DEPT. HANDHOLE	BIT CONC. BERM	BIT CONC. BERM
DEPT. OF PUBLIC WORKS HANDHOLE	DEPT. OF PUBLIC WORKS HANDHOLE	CAPE COD BERM	CAPE COD BERM
GAS GATE	GAS GATE	GRANITE CURB	GRANITE CURB
WATER GATE	WATER GATE	EDGE OF PAVEMENT	EDGE OF PAVEMENT
GATE UNKNOWN	GATE UNKNOWN	CROSSING SIGNAL	CROSSING SIGNAL
LIGHT POLE	LIGHT POLE	CROSSING SIGNAL w/ GATE	CROSSING SIGNAL w/ GATE
UTILITY POLE	UTILITY POLE	CROSSING SIGNAL w/ PED. GATE	CROSSING SIGNAL w/ PED. GATE
UTILITY POLE w/ LIGHT POLE	UTILITY POLE w/ LIGHT POLE	CROSSING GATE ONLY (NO SIGNAL)	CROSSING GATE ONLY (NO SIGNAL)
SIGN	SIGN	STAKE (PROPERTY LINE MARKER)	STAKE (PROPERTY LINE MARKER)
WETLAND FLAG	WETLAND FLAG	BOLLARD	BOLLARD
HYDRANT	HYDRANT	RAILROAD CROSSING SIGN	RAILROAD CROSSING SIGN
FLAG POLE	FLAG POLE	CONCRETE PAD	CONCRETE PAD
GUY WIRE	GUY WIRE	SIGNAL CONTROL BOX	SIGNAL CONTROL BOX
GUY POLE	GUY POLE	ELECTRIC BOX	ELECTRIC BOX
STONE BOUND	STONE BOUND	MILEPOST	MILEPOST
STONE BOUND w/ DRILL HOLE	STONE BOUND w/ DRILL HOLE	GUARD RAIL	GUARD RAIL
DRILL HOLE	DRILL HOLE	STONE WALL	STONE WALL
GAS METER	GAS METER	PROPERTY LINE	PROPERTY LINE
MAILBOX	MAILBOX	LIMIT OF WORK	LIMIT OF WORK
TELEPHONE	TELEPHONE	RETAINING WALL	RETAINING WALL
TRAFFIC SIGNAL	TRAFFIC SIGNAL	SPOT GRADE (LOCATION OF ELEVATION)	SPOT GRADE (LOCATION OF ELEVATION)
SOIL BORING LOCATION (TYP)	SOIL BORING LOCATION (TYP)		

AHD	AHEAD
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
APPROX.	APPROXIMATE
BIT.	BITUMINOUS
BL	BASELINE
BOT.	BOTTOM
BR	BRIDGE
BK	BACK
CB	CATCH BASIN
CL	CENTER LINE
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
COMM.	COMMUNICATION
CONC.	CONCRETE
CONST.	CONSTRUCTION
CP	CONCRETE PAD
C&S	COMMUNICATION & SIGNAL
CULV.	CULVERT
DH	DRILL HOLE
DIA.	DIAMETER
DMH	DRAIN MANHOLE
EL	ELEVATION
ELEV	ELEVATION
EQN	STATION EQUATION
EXIST	EXISTING
FT	FOOT
GGR	GAS GATE GROUND
HDPE	HIGH DENSITY POLYETHYLENE
HH	HAND HOLE
HORIZ.	HORIZONTAL
INV	INVERT
LH	LEFT HAND TURNOUT
MAX	MAXIMUM
MBCR	MASSACHUSETTS BAY COMMUTER RAIL
MBTA	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
MIN	MINIMUM
M.O.W.	MAINTENANCE OF WAY
MP	MILE POST
MPH	MILES PER HOUR

N.A.V.D	NORTH AMERICAN VERTICAL DATUM
NIC	NOT IN CONTRACT
NO.	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.H./OH	OVER HEAD BRIDGE
OTM	OTHER TRACK MATERIALS
PCMP	PERFORATED CORRUGATED METAL PIPE
PK/NL	PARKER-KALON COMPANY NAIL
P.S.I.	POUNDS PER SQUARE INCH
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIP
R/W	RIGHT OF WAY
RH	RIGHT HAND TURNOUT
ROW	RIGHT OF WAY
RR SPK	RAILROAD SPIKE
RT.	RIGHT
RTE	ROUTE
SBC	STONE BOX CULVERT
SF	SQUARE FEET
SMH	SEWER MANHOLE
ST.	STREET
STA/STA.	STATION
STK/NL	STAKE NAIL
SWPPP	STORMWATER POLLUTION PREVENTION PLANS
T.C.	TRACK CENTER
T/R-T.O.R.	TOP OF RAIL
TBR	TO BE REMOVED
TYP	TYPICAL
TRK	TRACK
UD	UNDERDRAIN
WET	WETLAND

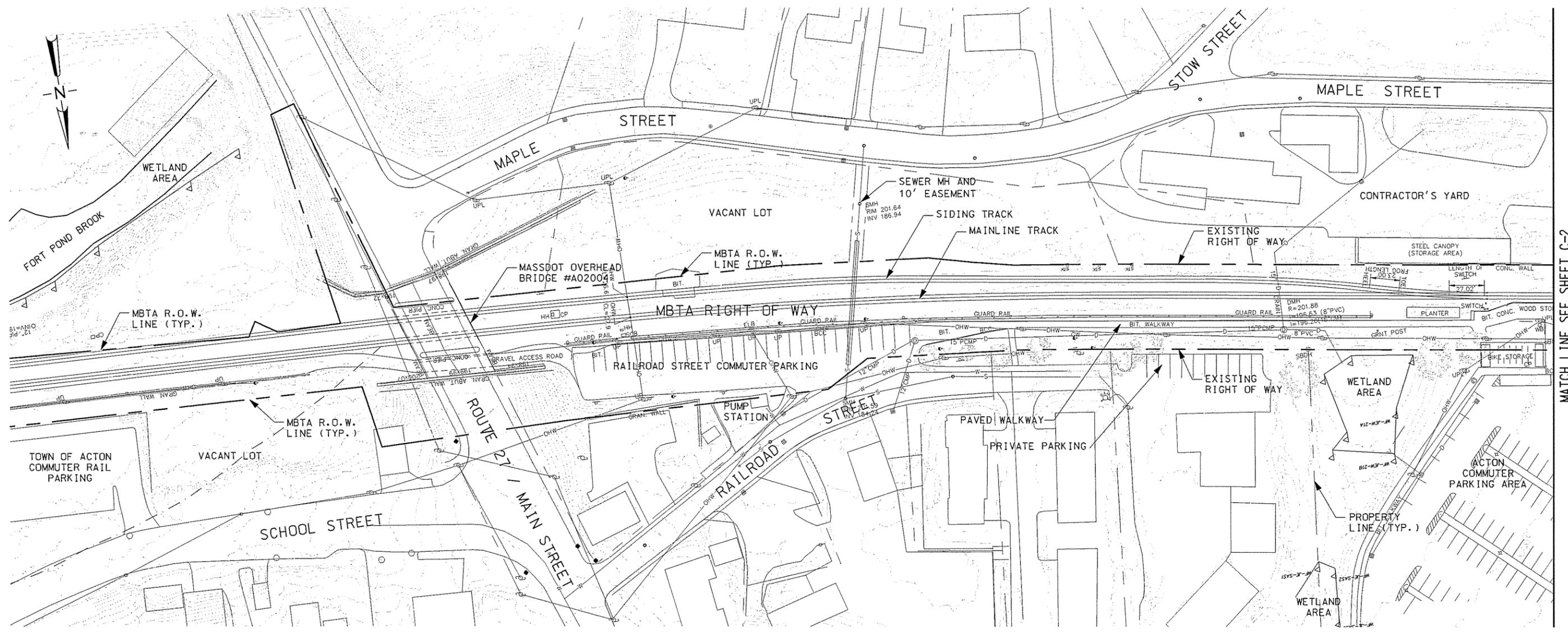
NOTE:
 THIS LEGEND PERTAINS GENERALLY TO ALL "C" (CIVIL) DRAWINGS.

60% SUBMITTAL
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MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01		SOUTH ACTON STATION LEGEND AND ABBREVIATIONS CIVIL	
PROJECT MANAGER: _____ Date: _____		PROJECT MANAGER: _____ Date: _____	
HORIZ: NONE VERT: NONE DATE: 06/14/11		DES. BY: JPB DR. BY: KMB CHK. BY: JGA	
JACOBS 345 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PLAN NO. _____ SHEET G-4	

EAST TO BOSTON

WEST TO FITCHBURG TOWN OF ACTON



PLAN

NOTES:

- TOPOGRAPHIC SURVEY:** TOPOGRAPHIC SURVEY SHOWN IS BASED ON AN AERIAL SURVEY (LIDAR) PERFORMED BY JOHN CHANCE LAND SURVEYS, INC. IN APRIL, 2008 AND SUPPLEMENTED, AS DIRECTED, WITH GROUND SURVEY PERFORMED BY ASEC CORPORATION IN 2008 AND BRYANT ASSOCIATES IN 2010.
- PROPERTY LINES:** RIGHT OF WAY AND PROPERTY LINES WERE DEVELOPED BY REFERENCE TO RAILROAD VALUATION PLAN V.36.1, SHEETS 24 AND 25, LAST REVISION DATED APRIL 1967, AND TO TOWN OF ACTON ASSESSOR'S MAP H-2A. LOCATIONS ARE APPROXIMATE.
- UTILITY LINES:** UNDERGROUND UTILITY LINE INFORMATION WAS DEVELOPED BY REFERENCE TO THE RECORDS OF THE TOWN OF ACTON WATER DISTRICT AND ENGINEERING DEPT., NATIONAL GRID, AND OTHER UTILITIES. LOCATIONS ARE APPROXIMATE.
- WETLANDS:** WETLAND AREAS WERE DELINEATED AND CHARACTERIZED IN THE GROWING SEASON OF 2008 BY JACOBS ENGINEERING. WETLANDS FLAGS WERE SURVEY LOCATED BY ASEC IN 2008.
- RAILROAD STREET COMMUTER PARKING AREA:** THE RAILROAD STREET COMMUTER PARKING AREA IS LOCATED ON MBTA PROPERTY. ACCESS IS FROM RAILROAD STREET VIA MAIN STREET/ROUTE 27. THE LOT HAS A BITUMINOUS CONCRETE PAVEMENT SURFACE AND IS MARKED FOR 26 REGULAR PARKING SPACES AND ONE ACCESSIBLE PARKING SPACE. THERE IS GENERAL OVERHEAD LIGHTING. THE TOWN OF ACTON LEASES THIS PROPERTY FROM THE MBTA FOR PARKING PURPOSES.
- ACTON COMMUTER PARKING AREA:** THE ACTON COMMUTER PARKING AREA IS LOCATED ON TOWN OF ACTON PROPERTY. ACCESS IS FROM CENTRAL STREET TO THE NORTH. IT HAS A BITUMINOUS CONCRETE PAVEMENT SURFACE WITH RAISED ISLANDS WITH PAVERS AND PLANTINGS. THE PAVED AREA IS MARKED FOR 263 REGULAR PARKING SPACES AND 6 ACCESSIBLE PARKING SPACES. THERE IS OVERHEAD LIGHTING THROUGHOUT THE PARKING AREA. SOME PARKING SPACES ARE PERMIT SPACES AND SOME ARE METERED.
- ZONING DISTRICT:** THE STATION AREA IS WITHIN THE SOUTH ACTON VILLAGE ZONING DISTRICT AS SHOWN ON THE ZONING MAP OF THE TOWN OF ACTON AMENDED THROUGH APRIL 2005.
- FLOODPLAINS:** THE AREA IS SHOWN ON THE TOWN OF ACTON FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 250176 0003C. THE EXISTING STATION IS NOT IN A FLOODPLAIN; THE WETLAND AREA TO THE WEST OF THE STATION IS IN FLOOD ZONE "AE" TO ELEVATION 199.
- BENCH MARKS:** PROJECT SURVEYORS ESTABLISHED A TEMPORARY BENCH MARK AT ELEVATION 199.49 ALONG MAIN STREET NEAR THE INTERSECTION OF MAPLE STREET. MASSDOT BENCHMARKS ARE ALSO LOCATED IN THE VICINITY OF THE MAIN STREET BRIDGE. FOR RAILROAD R.O.W. PROJECT SURVEY CONTROL SEE THE 'SC' DRAWINGS.
- HABITATS:** THE PROJECT AREA ENCOMPASSES NO PRIORITY HABITATS FOR RARE SPECIES, ESTIMATED HABITATS FOR RARE WILDLIFE, OR CERTIFIED VERNAL POOLS
- GEOTECHNICAL INFORMATION:** A GEOTECHNICAL EXPLORATION PROGRAM WAS CARRIED OUT IN 2009 WHICH INCLUDED SEVERAL BORINGS WITHIN THE RAILROAD RIGHT OF WAY THROUGH THE STATION AREA.

60% SUBMITTAL NOT FOR CONSTRUCTION



T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION EXISTING CONDITIONS PLAN SHEET 1 OF 2		

HNTB		300 APOLLO DRIVE CHILMARK, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
PROJECT MANAGER		DATE		PROJECT MANAGER	
HORIZ: AS SHOWN		DES. BY	DR. BY	CHK. BY	PLAN NO.
VERT: NONE		JPB	KMB	JM	
DATE: 06/14/11				SHEET C-1	

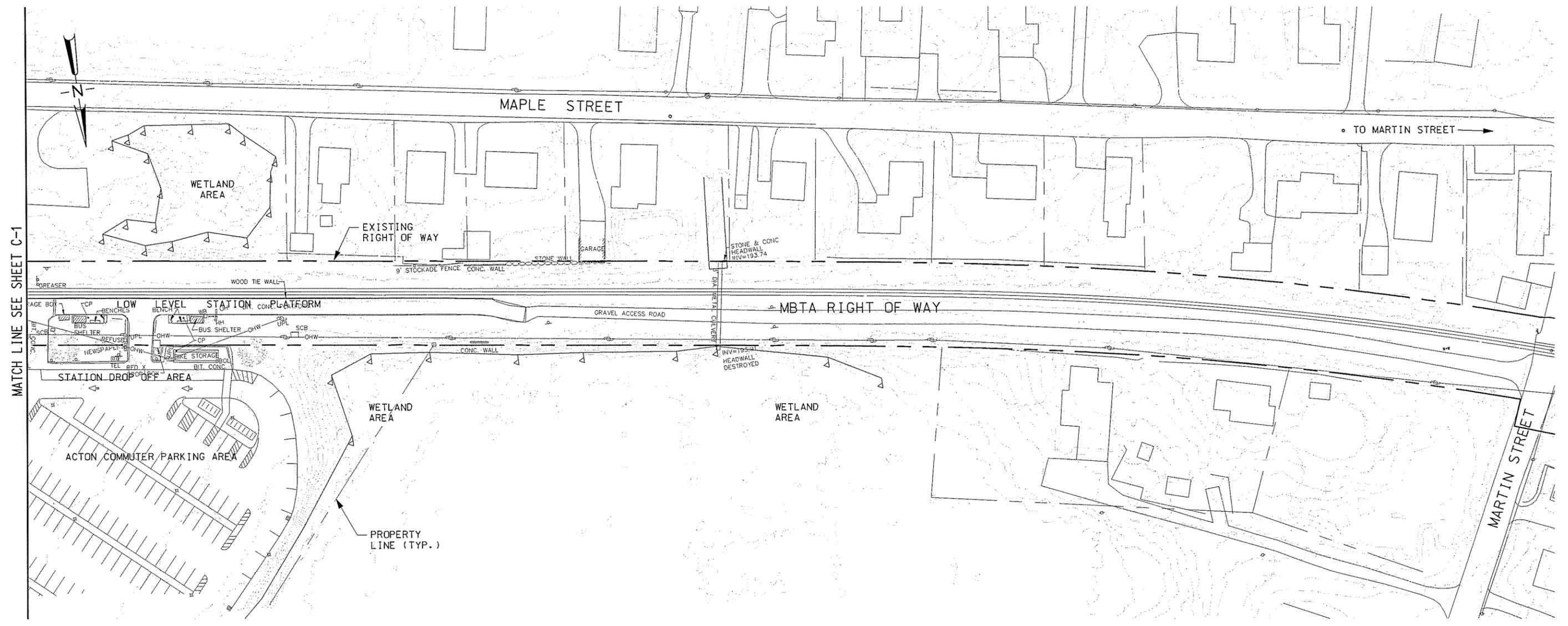
JACOBS
343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222

FILE NAME: P:\MBTA\2008\F2\37800\CAD\700CADD\702STATIONS\South Acton\Civil\60% ReDesign\C-1 & C-2 Existing Conditions Plans.dwg
PLOT DATE: Jun 09, 2011 3:45pm

MATCH LINE SEE SHEET C-2

EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON



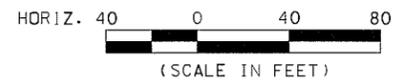
MATCH LINE SEE SHEET C-1

PLAN

NOTES:
1. FOR NOTES SEE SHEET C-1.

FILE NAME: P:\MBTA\2008\E2\37800\CAD\700CADD\702STATIONS\South Acton\Civil\60% Redesign\C-1 & C-2 Existing Conditions Plans.dwg
PLOT DATE: Jun 09, 2011 - 3:43pm

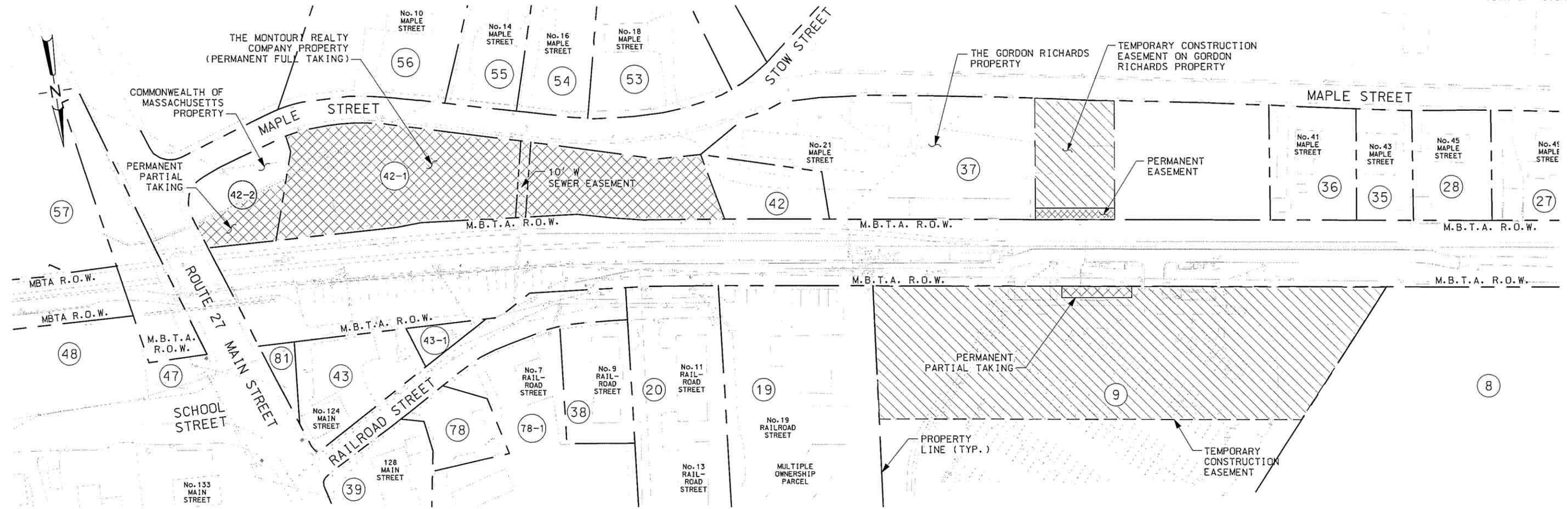
60% SUBMITTAL
NOT FOR CONSTRUCTION



		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION EXISTING CONDITIONS PLAN SHEET 2 OF 2	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		APPROVED BY:	
PROJECT MANAGER		PROJECT MANAGER	
HORIZ: AS SHOWN VERT: NONE DATE: 06/14/11		DES. BY: JPB DR. BY: KMB CHK. BY: JM	
		PLAN NO. SHEET C-2	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		ISSUE	

EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON



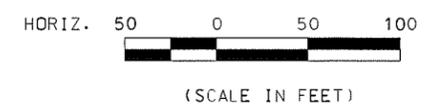
PLAN

NOTES:

1. **PROPERTY LINES:** PROPERTY LINES WERE DEVELOPED BY REFERENCE TO RAILROAD VALUATION PLAN V.36-1, SHEETS 24 AND 25 DATED DECEMBER 1975, AND TO TOWN OF ACTON ASSESSOR'S MAP H-2A. LOCATIONS ARE APPROXIMATE.

LEGEND:

- (8) PARCEL NUMBER
- PROPERTY LINE



60% SUBMITTAL
NOT FOR CONSTRUCTION

FILE NAME: P:\MBTA\2008\E2X37800\CA0\700CADD\702STATIONS\South Acton\Civil\60% ReDesign\C-3 ROW and Property Plan.dwg
PLOT DATE: Jun 09, 2011 3:43pm

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CNO1	
SOUTH ACTON STATION RIGHT OF WAY AND PROPERTY PLAN			
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY: _____ <small>PROJECT MANAGER</small>		APPROVED BY: _____ <small>PROJECT MANAGER</small>	
PROJECT MANAGER _____ <small>Date</small>		PROJECT MANAGER _____ <small>Date</small>	
HORIZ: AS SHOWN VERT: NONE DATE: 06/14/11		DES. BY: JPB DR. BY: KMB CHK. BY: JM	PLAN NO. _____ SHEET C-3
		343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222	

MBTA PROPERTY ABUTTERS OWNERSHIP INFORMATION

Map	Parcel #	Lot	#	Street Name	Owner's Name	Co Grantee's Name	Mailing Address	City	State	Zip	Book/Page	Sale Date
H2	2		14	MARTIN ST	COOPER KRISTIN		14 MARTIN ST	ACTON	MA	01720	37633/ 143	1/10/2003
H2	5		77	MAPLE ST	SCANLON JOSEPH G	SCANLON KRYSKO REBECCA	77 MAPLE ST	ACTON	MA	01720	43178/ 453	6/30/2004
H2	6		75	MAPLE ST	SENNER JOHN	SENNER FAY B	75 MAPLE STREET	ACTON	MA	01720	20889/0245	11/29/1990
H2	7		14	MARTIN ST	COOPER KRISTIN		14 MARTIN ST	ACTON	MA	01720	37633/ 143	1/10/2003
H2	8		12	MARTIN ST	TOWN OF ACTON		472 MAIN STREET	ACTON	MA	01720	TL98957	2/12/2002
H2	9		4	CENTRAL ST	TOWN OF ACTON	PARKING LOT	472 MAIN STREET	ACTON	MA	01720	12943/0038	3/5/1976
H2	13		71	MAPLE ST	MILEY MARGARET	SHANLEY HARRY T	71 MAPLE ST	ACTON	MA	01720	28642/0462	5/29/1998
H2	17		65	MAPLE ST	BUCKINGHAM FORRY	BUCKINGHAM BETH E	65 MAPLE ST	ACTON	MA	01720	30960/0520	12/15/1999
H2	18		61	MAPLE ST	CHEN JENNIFER CRACKNELL		61 MAPLE ST	ACTON	MA	01720	28630/0123	5/28/1998
H2	19		19	RAILROAD ST #A1	GURTLER MICHAEL TRUSTEE		19 RAILROAD ST #A1	ACTON	MA	01720	331/19182	7/7/1998
H2	19		19	RAILROAD ST #A2	HOLT JASON M		19 RAILROAD ST #A2	ACTON	MA	01720	331/19182	7/7/1998
H2	19		19	RAILROAD ST #A3	MCMULLON LINDA D		19 RAILROAD ST #A3	ACTON	MA	01720	331/19182	7/7/1998
H2	19		19	RAILROAD ST #B1	GURTLER MICHAEL TRUSTEE		19 RAILROAD ST #B1	ACTON	MA	01720	331/19182	7/7/1998
H2	19		19	RAILROAD ST #B2	GURTLER MICHAEL TRUSTEE	RAILROAD REALTY TRUST	65 SILVER HILL ROAD	SUDBURY	MA	01776	331/19182	7/7/1998
H2	19		19	RAILROAD ST #B3	BOTTNER RICHARD		19 RAILROAD ST #B3	ACTON	MA	01720	331/19182	7/7/1998
H2	19		19	RAILROAD ST #C1	BELL KERSTIN E		PO BOX 701	S YARMOUTH	MA	02664	321/50264	10/23/2007
H2	19		19	RAILROAD ST #C2	GURTLER MICHAEL TRUSTEE	RAILROAD REALTY TRUST	65 SILVER HILL ROAD	SUDBURY	MA	01720	331/19182	7/7/1998
H2	19		19	RAILROAD ST #C3	TSUJI YUKIE L		19 RAILROAD ST #C3	ACTON	MA	01720	490/50402	11/28/2007
H2	19		19	RAILROAD ST #D1	ROBINS ELIZABETH A		19 RAILROAD ST #D1	ACTON	MA	01720	226/49036	2/25/2007
H2	19		19	RAILROAD ST #D2	JOHNSON LINDA M		19 RAILROAD ST #D2	ACTON	MA	01720	331/19182	7/7/1998
H2	19		19	RAILROAD ST #E1	GURTLER MICHAEL TRUSTEE	RAILROAD REALTY TRUST	65 SILVER HILL RD	SUDBURY	MA	01720	331/19182	7/7/1998
H2	19		19	RAILROAD ST #E2	GURTLER MICHAEL TRUSTEE		19 RAILROAD ST #E2	ACTON	MA	01720	331/19182	7/7/1998
H2	19		19	RAILROAD ST #E3	ZHANG MENG	WANG MAOMIAO	19 RAILROAD ST #E3	ACTON	MA	01720	331/19182	7/7/1998
H2	19		19	RAILROAD ST #E4	LAMANQUE MICHELLE M		19 RAILROAD ST #E4	ACTON	MA	01720	564/48786	1/3/2007
H2	20		13	RAILROAD ST	RAILROAD STREET DEV LLC		PO BOX 985	ACTON	MA	01720	34320/ 423	12/14/2001
H2	25		57	MAPLE ST	TERAN GREGORY P	TAYLOR-TERAN LAURA K	57 MAPLE ST	ACTON	MA	01720	40690/ 551	8/29/2003
H2	26		55	MAPLE ST	ECKHARDT MARGARETHA M		55 MAPLE ST	ACTON	MA	01720	40171/ 214	7/28/2003
H2	27		49	MAPLE ST	GREGORY JILL S		49 MAPLE ST	ACTON	MA	01720	25853/0377	11/29/1995
H2	28		45	MAPLE ST	GLENN HENRY J	DIANA F	45 MAPLE ST	ACTON	MA	01720	13432/0201	5/2/1978
H2	35		43	MAPLE ST	MINKIN MAYA MARCELLA	MAXWELL GREGORY	43 MAPLE ST	ACTON	MA	01720	38332/ 060	3/14/2003
H2	36		41	MAPLE ST	HAYWARD ERNESTINE		41 MAPLE STREET	ACTON	MA	01720	06931/0469	1/22/1946
H2	37		21	MAPLE ST	RICHARDS GORDON D		60 CHARTER ROAD	ACTON	MA	01720	11658/0673	3/31/1969
H2	38		9	RAILROAD ST	RAILROAD STREET DEVELOPMENT, LLC		PO BOX 985	ACTON	MA	01720	34320/ 422	12/14/2001
H2	39		128	MAIN ST	IRON WORK FARM IN ACTON INC	C/O ANNE FORBES	PO BOX 1111	W ACTON	MA	01720	10725/0285	12/31/1964
H2	42		19	MAPLE ST	RICHARDS GORDON D		60 CHARTER ROAD	ACTON	MA	01720	37337/ 382	
H2	42	1	1	MAPLE ST	MONTOURI REALTY CO		5419 VISTA LEJANA NE	ALBUQUERQUE	NM	87111	37337/ 382	12/11/2002
H2	42	2	1	MAPLE STREET	COMMONWEALTH OF MASSACHUSETTS		DEPARTMENT OF HIGHWAYS	BOSTON	MA	02108	26620/ 363	8/29/1996
H2	43		124	MAIN ST	CHEN FRANK	ZHANG XIAO FAN	124 MAIN ST	ACTON	MA	01720	43559/ 297	8/20/2004
H2	43	1	6	RAILROAD ST	ACTON TOWN OF		472 MAIN ST	ACTON	MA	01720	31318/0060	3/28/2000
H2	47		3	SCHOOL ST	TOWN OF ACTON	TREE DEPARTMENT	472 MAIN STREET	ACTON	MA	01720	03247/0263	8/25/1906
H2	48		9	SCHOOL ST	PORRAZZO DANIEL		43 KINSLEY ROAD	ACTON	MA	01720	28252/0596	3/3/1998
H2	49		13	SCHOOL ST	TOWN OF ACTON		472 MAIN STREET	ACTON	MA	01720	20893/ END	11/30/1990
H2	57		113	MAIN ST	ERIKSON GRAIN MILL		PO BOX 2263	ACTON	MA	01720	12958/0265	4/9/1976
H2	78		3	RAILROAD ST	KINGSWOOD CORP		PO BOX 1327	LITTLETON	MA	01460	45122/ 135	5/4/2005
H2	78	1	7	RAILROAD ST	NUTTING THOMAS E		130 MAIN ST	ACTON	MA	01720	15544/ 55	4/30/1984
H2	79		16	MARTIN ST	SWEENEY JOHN P	SWEENEY ANN-MARIE MANNA	16 MARTIN STREET	ACTON	MA	01720	25240/0592	3/24/1995
H2	81		120	MAIN ST	TOWN OF ACTON		472 MAIN STREET	ACTON	MA	01720	03247/0263	8/24/1906
H2	56		10	MAPLE ST	KOZEL PETER D	YOUNG KIMBERLYA	10 MAPLE ST	ACTON	MA	01720	44668/352	3/29/2005
H2	55		14	MAPLE ST	MIGUELEZ AVELINO		14 MAPLE ST	ACTON	MA	01720	50916/449	3/21/2008
H2	54		16	MAPLE ST	HANLEY SEAN P	HANLEY CHRISTINE L	16 MAPLE ST	ACTON	MA	01720	36150/609	8/16/2002
H2	53		18	MAPLE ST	MANNING STEVEN T		18 MAPLE ST	ACTON	MA	01720	32111/0208	12/7/2000
H2	62		2	STOW ST	CAOQUETTE FRANCES + MARY ANN TRUSTEE SIMONE JOHN E TRUSTEE	THE SIMON IRRECOVABLE TRUST	90 MARTIN ST	ACTON	MA	01720	31063/229	1/19/2000

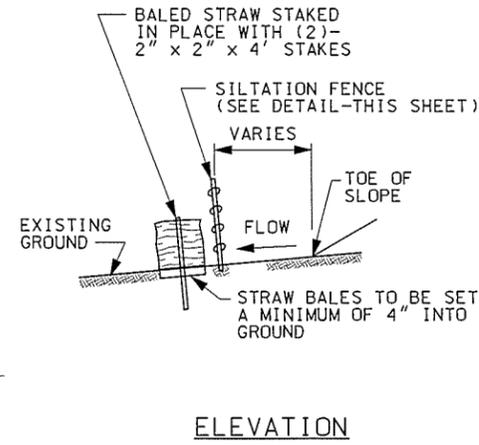
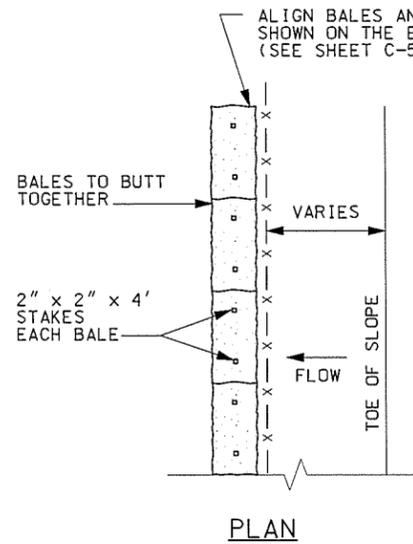
NOTES:

1. PROPERTY OWNERSHIP INFORMATION: THE MBTA ABUTTER INFORMATION CONTAINED IN THE TABLE AT LEFT WAS PROVIDED BY THE TOWN OF ACTON ASSESSOR'S OFFICE BETWEEN 2008 AND 2010.

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION RIGHT OF WAY AND PROPERTY OWNERSHIP DATA			
		300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000	
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY		APPROVED BY:	
PROJECT MANAGER		PROJECT MANAGER	
HORIZ: AS SHOWN		DATE: 06/14/11	
VERT: NONE		SHEET C-4	
		343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222	

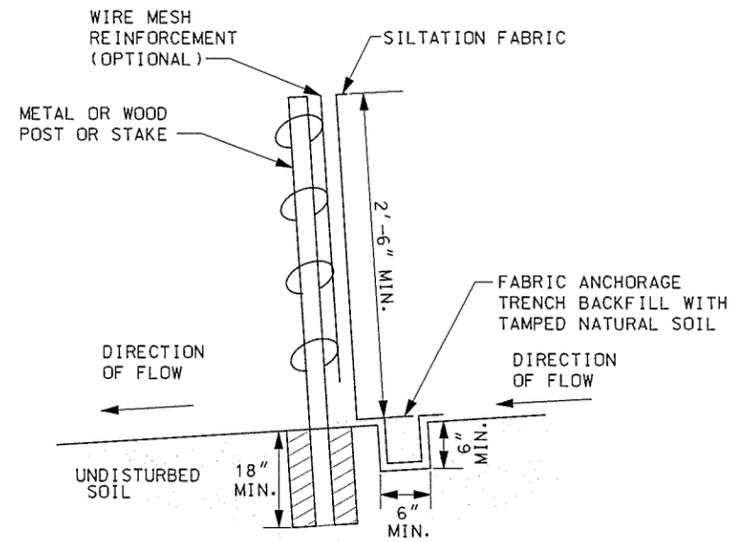
60% SUBMITTAL
NOT FOR CONSTRUCTION

FILE NAME: P:\MBTA\2008\22x37800\CAD\700CAD\702STATIONS\South Acton\Civil\60% ReDesign\C-6 Erosion Control Details.dwg
 PLOT DATE: Jun 09, 2011 - 3:43pm



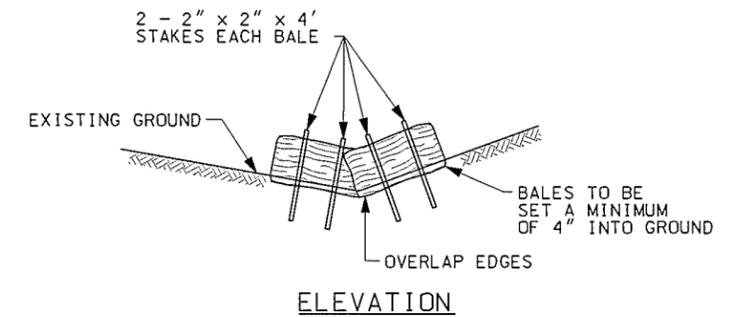
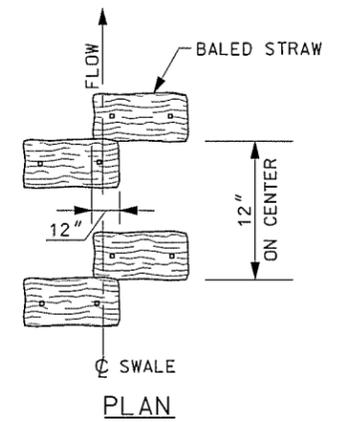
NOTE:
 1. TO BE USED WHERE THE EXISTING GROUND SLOPES AWAY FROM THE EMBANKMENT

BALED STRAW EROSION CHECKS TYPE "B"
 N.T.S.



- NOTES:
1. ATTACH FABRIC TO WIRE MESH WITH HOG RINGS, STEEL POSTS WITH TIE WIRES, OR WOOD POSTS WITH STAPLES.
 2. SPLICES SHALL BE MADE AT FENCE POSTS. FABRIC SHALL BE OVERLAPPED 6" AND SECURELY FASTENED.
 3. POST SPACING SHALL BE A MAXIMUM OF 4' O.C. WITHOUT SUPPORTING WIRE MESH, OR 10' O.C. WITH WIRE MESH.
 4. POSTS SHALL BE 4" DIAMETER WOOD OR STEEL WEIGHING NOT LESS THAN 1.3 LB/LIN. FT.

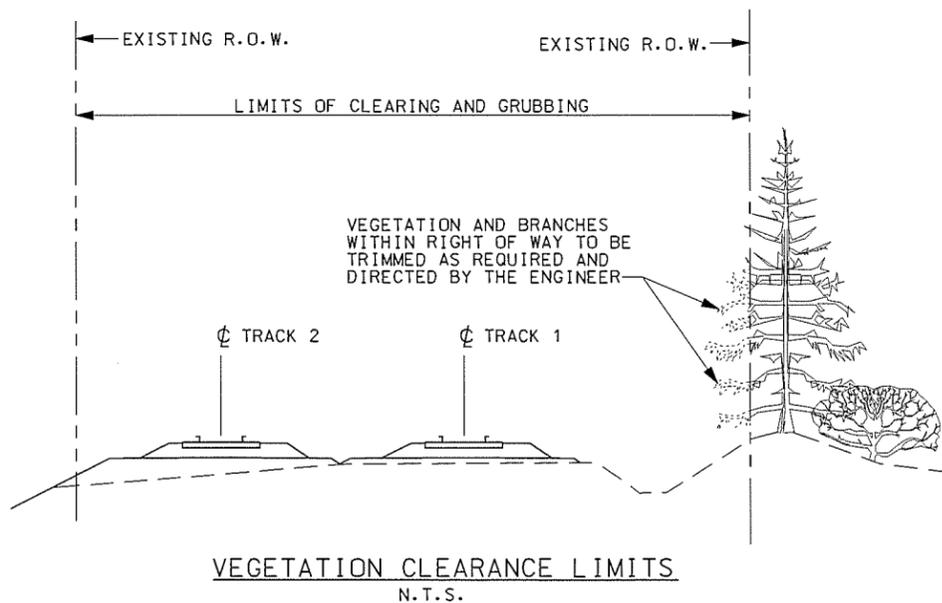
SILTATION FENCE DETAIL
 N.T.S.



- NOTES:
1. TO BE USED WHERE THE EXISTING GROUND SLOPES TOWARD THE EMBANKMENT.
 2. ALL SILTATION BARRIERS SHALL BE BALED STRAW, UNLESS OTHERWISE SHOWN ON THE PLANS.

BALED STRAW EROSION CHECKS TYPE "A"
 N.T.S.

- NOTE:
1. EROSION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). SEE SPECIFICATIONS FOR DETAILS.



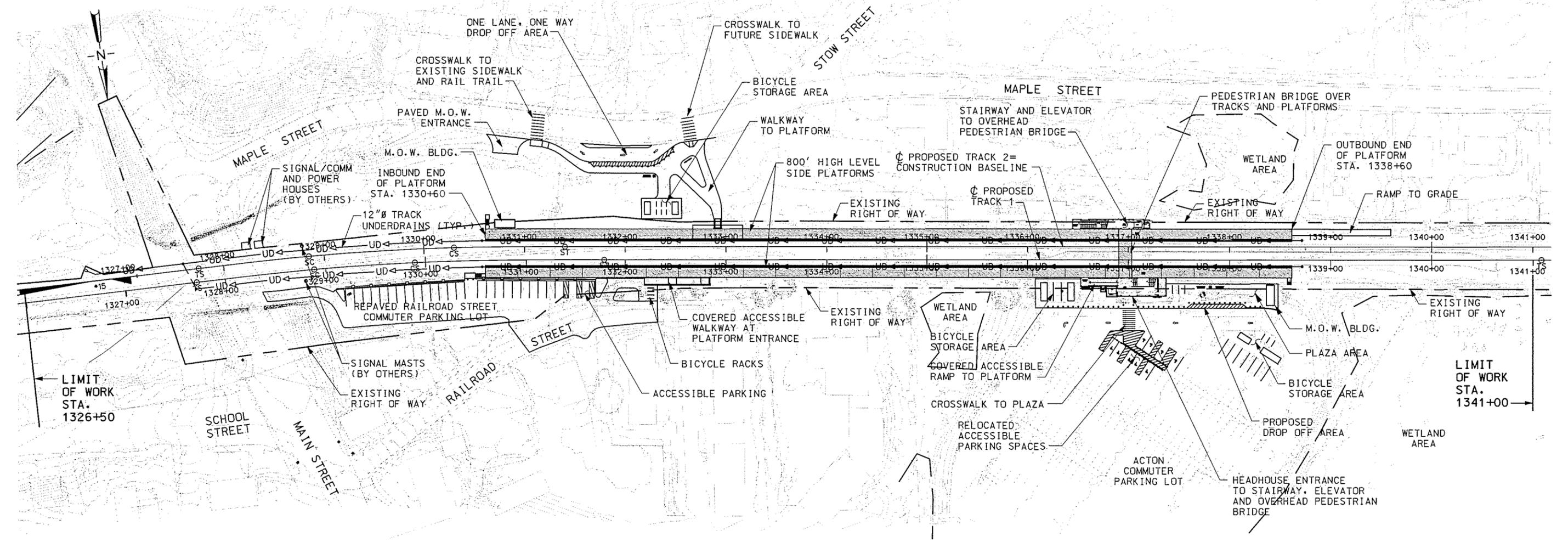
60% SUBMITTAL
 NOT FOR CONSTRUCTION

T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION EROSION CONTROL DETAILS		

HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
PROJECT MANAGER _____		PROJECT MANAGER _____	
HORIZ: AS SHOWN		DES. BY: MDeC	CHK. BY: JGA
VERT: NONE		DATE: 06/14/11	
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PLAN NO. _____	
		SHEET C-6	

EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON



PLAN

NOTES:

- 1. FOR GENERAL NOTES SEE SHEET G-3.
- 2. FOR ARCHITECTURAL DRAWINGS SEE 'A' SHEETS.
- 3. FOR STRUCTURAL DRAWINGS SEE 'S' SHEETS.

LEGEND:

 PLATFORM, STAIRS AND ELEVATORS



60% SUBMITTAL
NOT FOR CONSTRUCTION

FILE NAME: P:\MBTA\2008\2237800\CAD\700CADD\702STATIONS\South Acton\Civil\60% Redesign\C-7 General Site Plan.dwg
PLOT DATE: Jun 09, 2011 4:53pm

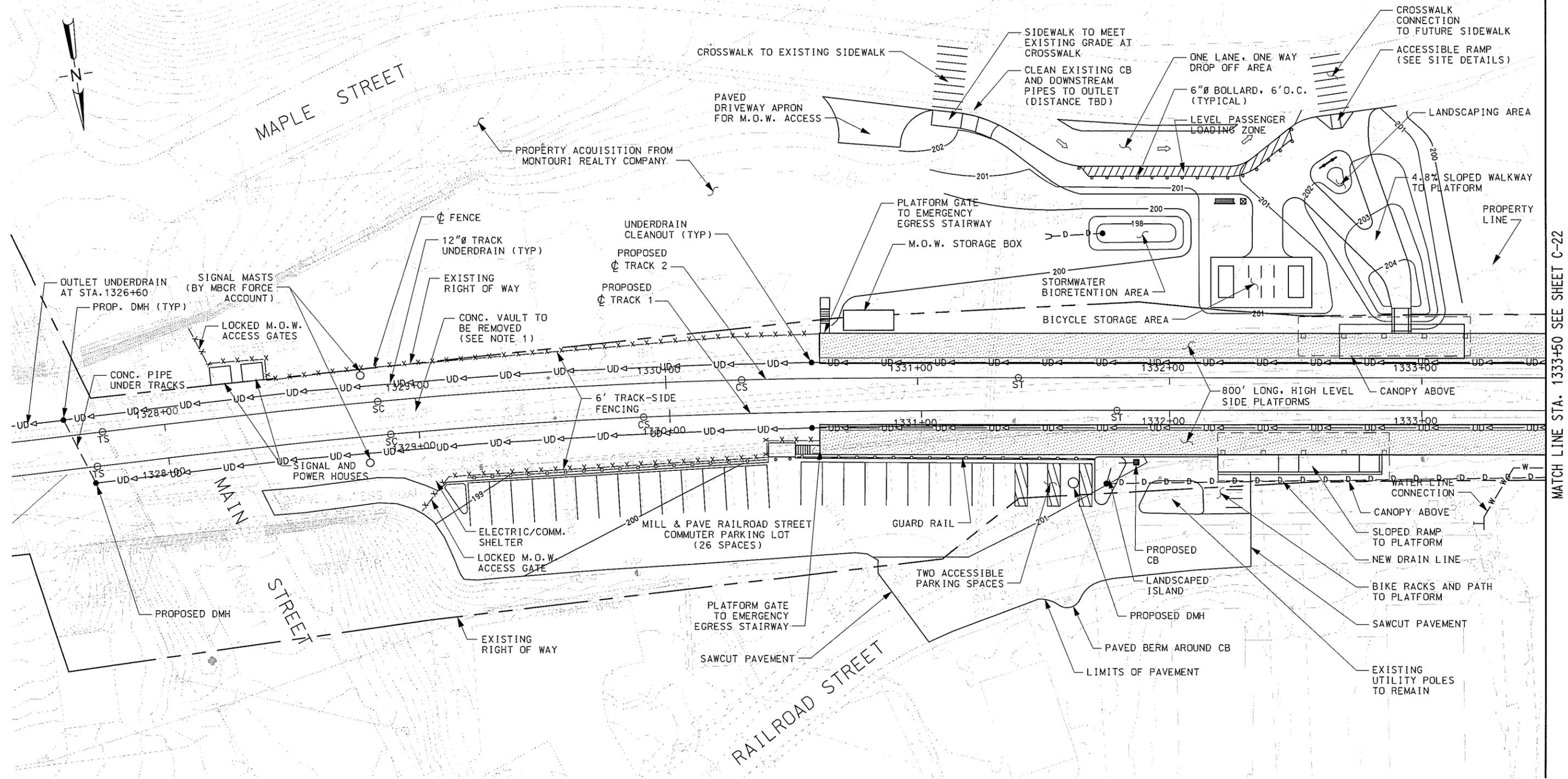
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CNO1		SOUTH ACTON STATION GENERAL SITE PLAN	
HNTB 300 APOLLO DRIVE CHELSEA, MA 02156 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY: _____		APPROVED BY: _____	
PROJECT MANAGER _____		PROJECT MANAGER _____	
DATE: 06/14/11		DATE: _____	
HORIZ: AS SHOWN		PLAN NO. _____	
VERT: NONE		SHEET C-7	
DATE: 06/14/11		DATE: _____	

JACOBS
345 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222

EAST TO BOSTON

WEST TO FITCHBURG

TOWN OF ACTON



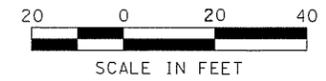
PLAN - EAST END

NOTES:

- CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE VAULT. PRIOR TO REMOVAL AND DISPOSAL ENSURE THERE ARE NO OPERATING UTILITIES BURIED BENEATH THE SAND AND DIRT WITHIN THE VAULT. IF ACTIVE UTILITIES ARE FOUND ARRANGE FOR APPROPRIATE RELOCATION AS REQUIRED.

LEGEND:

PLATFORM, STAIRS AND ELEVATORS



60% SUBMITTAL
NOT FOR CONSTRUCTION

FILE NAME: P:\MBTA\2008\EX37800\CAD\700CA00\702STATIONS\South Acton\Civil\60% ReDesign\C-8 & C-9 Detailed Site Plans.dwg
PLOT DATE: Jun 09, 2011 4:54pm

MATCH LINE STA. 1333+50 SEE SHEET C-22

T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION DETAILED SITE PLAN - EAST END SHEET 1 OF 2		
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY:		APPROVED BY:
PROJECT MANAGER		PROJECT MANAGER
DATE		DATE
HORIZ: AS SHOWN		PLAN NO.
VERT: NONE		SHEET C-8
DATE: 06/14/11		ISSUE

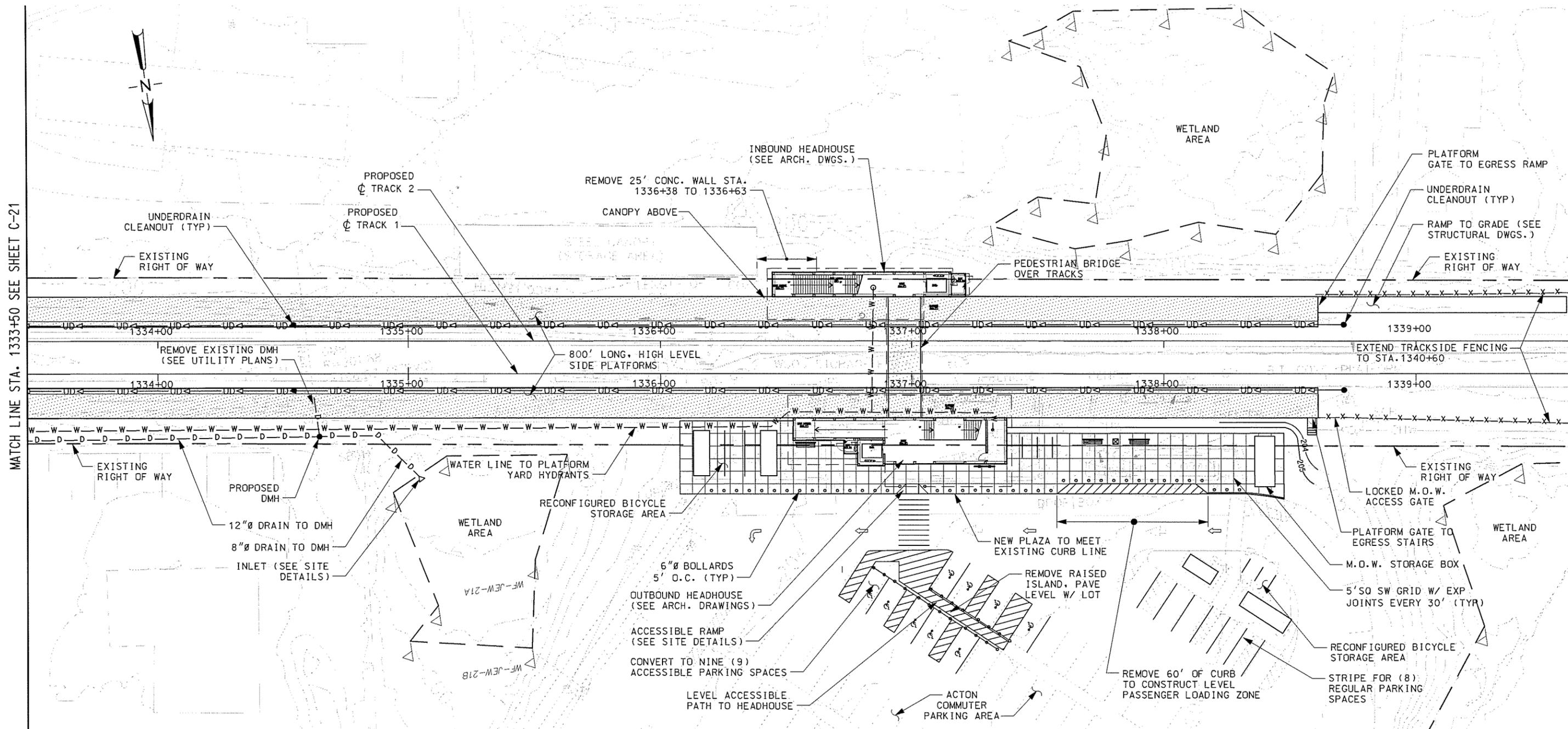
JACOBS
343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222

EAST TO BOSTON

WEST TO FITCHBURG

TOWN OF ACTON

MATCH LINE STA. 1333+50 SEE SHEET C-21



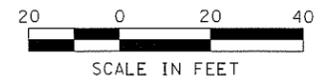
PLAN - WEST END

NOTES:

- 1. FOR HEADHOUSE PLANS AND DETAILS SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

LEGEND:

 PLATFORM, STAIRS AND ELEVATORS



60% SUBMITTAL
NOT FOR CONSTRUCTION

T MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
CONTRACT NO. G67CN01

**SOUTH ACTON STATION
DETAILED SITE PLAN - WEST END
SHEET 2 OF 2**

HNTB 300 APOLLO DRIVE
CHELMSFORD, MA 01824
(978) 905-4000

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: _____ Date: _____

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

JACOBS 343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222

PROJECT MANAGER	Date	DES. BY	DR. BY	CHK. BY	PLAN NO.	ISSUE
HORIZ: AS SHOWN		JPB	KMB	JM		
VERT: NONE						
DATE: 06/14/11					SHEET C-9	

FILE NAME: P:\MBIA\2008\E2X37800\CAD\700CAD00\702STATION\South Acton\Civil\60% ReDesign\C-8 & C-9 Detailed Site Plans.dwg
PLOT DATE: Jun 09, 2011 4:35pm

CONSTRUCTION STAGING NOTES:

1. SEE RIGHT OF WAY AND PROPERTY PLAN FOR PARCEL OWNERSHIP INFORMATION.
2. THE CONTRACTOR SHALL MINIMIZE CONSTRUCTION-RELATED NOISE AND LIGHT FROM AFFECTING ABUTTER PROPERTIES AND SHALL COMPLY WITH LOCAL AND STATE LAWS REGARDING SUCH.
3. CONSTRUCTION-RELATED VEHICULAR ACCESS TO THE STATION SITE SHALL BE TO THE GREATEST EXTENT POSSIBLE, VIA MAPLE STREET AND STOW STREET. THE PORTION OF MAPLE STREET BETWEEN STOW STREET AND MAIN STREET IS ONE WAY AND WILL REMAIN AS SUCH THROUGHOUT CONSTRUCTION.
4. THE INTERSECTION OF MAIN STREET AND MAPLE STREET HAS POOR DRIVER SITE DISTANCE TRAVELING SOUTHBOUND ON MAIN STREET. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, MASSDOT AND THE TOWN OF ACTON POLICE AND HIGHWAY DEPARTMENTS TO OBTAIN AN APPROVED TRAFFIC CONTROL PLAN DURING CONSTRUCTION. THE PLAN SHALL INCLUDE CONSTRUCTION SIGNAGE OR A TEMPORARY SIGNAL TO PROVIDE ACCESS TO THE SITE FOR ALL CONSTRUCTION RELATED TRAFFIC. SUCH PLAN MAY REQUIRE TRAFFIC OFFICERS AT THE MAPLE AND MAIN STREET INTERSECTION.
5. THE CONTRACTOR SHALL USE, TO THE GREATEST EXTENT POSSIBLE, STATE ROUTE 2 AND 27 AS A HAUL ROUTE TO AND FROM THE STATION SITE AND SHALL GET PRIOR APPROVAL FROM THE TOWN OF ACTON FOR ACCESS ROUTES IN THE STATION AREA, OTHER THAN THOSE MENTIONED ABOVE.
6. THE CONSTRUCTION STAGING PLAN HEREIN IS SUGGESTED FOR BIDDING PURPOSES ONLY. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION STAGING PLAN FOR PRIOR APPROVAL BY THE ENGINEER. SUCH PLAN SHALL BE COMPLIANT WITH MBTA, TOWN AND STATE REQUIREMENTS AND ADDRESS ALL PROVISIONS OF THE STAGING PLAN. SUCH PLAN SHALL PROVIDE FOR A SAFE AND SECURE SITE AT ALL TIMES THROUGHOUT CONSTRUCTION INCLUDING CONSTRUCTION FENCING, GATES AND SNOW AND ICE MAINTENANCE. THE CONTRACTOR'S PLAN SHALL ALSO ADDRESS TEMPORARY SIGNAGE AND HOW TOWN PARKING, DROP OFF AREAS AND COMMUTER RAIL OPERATIONS AS WELL AS ACCESS TO ABUTTING RESIDENTIAL AND BUSINESS PROPERTIES WILL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
7. CONTRACTOR SHALL MAINTAIN ACCESS TO OR RELOCATE AS NECESSARY TOWN OWNED BIKE LOCKERS FROM MAIN PARKING LOT PLATFORM AREA AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL PROVIDE TEMPORARY BIKE RACKS DURING CONSTRUCTION CAPABLE OF HOLDING UP TO 30 BIKES. COORDINATE BIKE LOCKER REMOVAL/RELOCATION WITH TOWN ENGINEERING DEPARTMENT.
8. AS REQUIRED THE CONTRACTOR SHALL PROVIDE A SAFE, FREQUENT, CONVENIENT AND CLEAN STATION SHUTTLE SERVICE TO AND FROM A TEMPORARY REMOTE REPLACEMENT PARKING LOT THROUGHOUT CONSTRUCTION. REDUCTION OF STATION PARKING CAPACITY SHALL DETERMINE REMOTE PARKING LOT AND SHUTTLE BUS SIZING AND FREQUENCY. THE CONTRACTOR SHALL PROVIDE AT THE REMOTE REPLACEMENT PARKING LOT A MINIMUM OF A ONE-FOR-ONE PARKING CAPACITY REPLACEMENT FOR EACH SPACE REMOVED FROM OPERATIONS AT THE SOUTH ACTON STATION AND SHALL PROVIDE SUFFICIENT SHUTTLE CAPACITY TO TRANSPORT THE COMMUTER RAIL PATRONS WITHOUT DELAY TO MEET THE SCHEDULED TRAIN ARRIVALS AND DEPARTURES. THE SHUTTLE SERVICE WILL DELIVER THESE REMOTE PARKERS TO THE DROP OFF AREA NEAREST THE OPERATIONAL PLATFORM.
9. CONTRACTOR SHALL COVER OR REMOVE AND STORE ALL PLATFORM AREA SIGNS AFFECTED OR DISTURBED BY THE CONSTRUCTION AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR SHALL REUSE (REMOVE & RESET) EXISTING SITE SIGNS AS NECESSARY TO STAGE THE WORK AS APPROVED BY THE ENGINEER. SUCH REUSE SHALL BE DEFINED IN THE CONTRACTORS CONSTRUCTION STAGING PLAN AND APPROVED BY THE ENGINEER.
11. ALL SIGNS AND SITE AMENITIES THAT ARE REMOVED FOR CONSTRUCTION ACTIVITIES AND ARE NOT UTILIZED TO STAGE CONSTRUCTION SHALL BE REMOVED AND SECURELY STORED IN A WEATHER-PROOF FACILITY, IF POSSIBLE. UPON CONSTRUCTION COMPLETION, SIGNS AND AMENITIES NOT REUSED AT THE SITE SHALL BE DELIVERED EITHER TO THE TOWN, TO THE MBTA OR DISCARDED AS APPROVED BY THE ENGINEER.
12. PRIOR TO ANY CLEARING AND GRUBBING OPERATIONS AT AND AROUND THE CONSTRUCTION STAGING AREAS, THE CONTRACTOR SHALL BE GRANTED APPROVAL OF SPECIFIC LIMITS BY THE ENGINEER.
13. REMOVE AND STOCKPILE LOAM FROM AREA OF WORK ONLY AS NEEDED FOR CONSTRUCTION ACTIVITIES AND AS APPROVED BY THE ENGINEER.
14. COORDINATE ALL WORK BY OTHERS (TRACK, SIGNAL AND COMMUNICATIONS IMPROVEMENTS) ADJACENT TO OPERATING TRACKS WITH MBTA RAILROAD OPERATIONS AND MBCR OPERATIONS DEPARTMENTS.

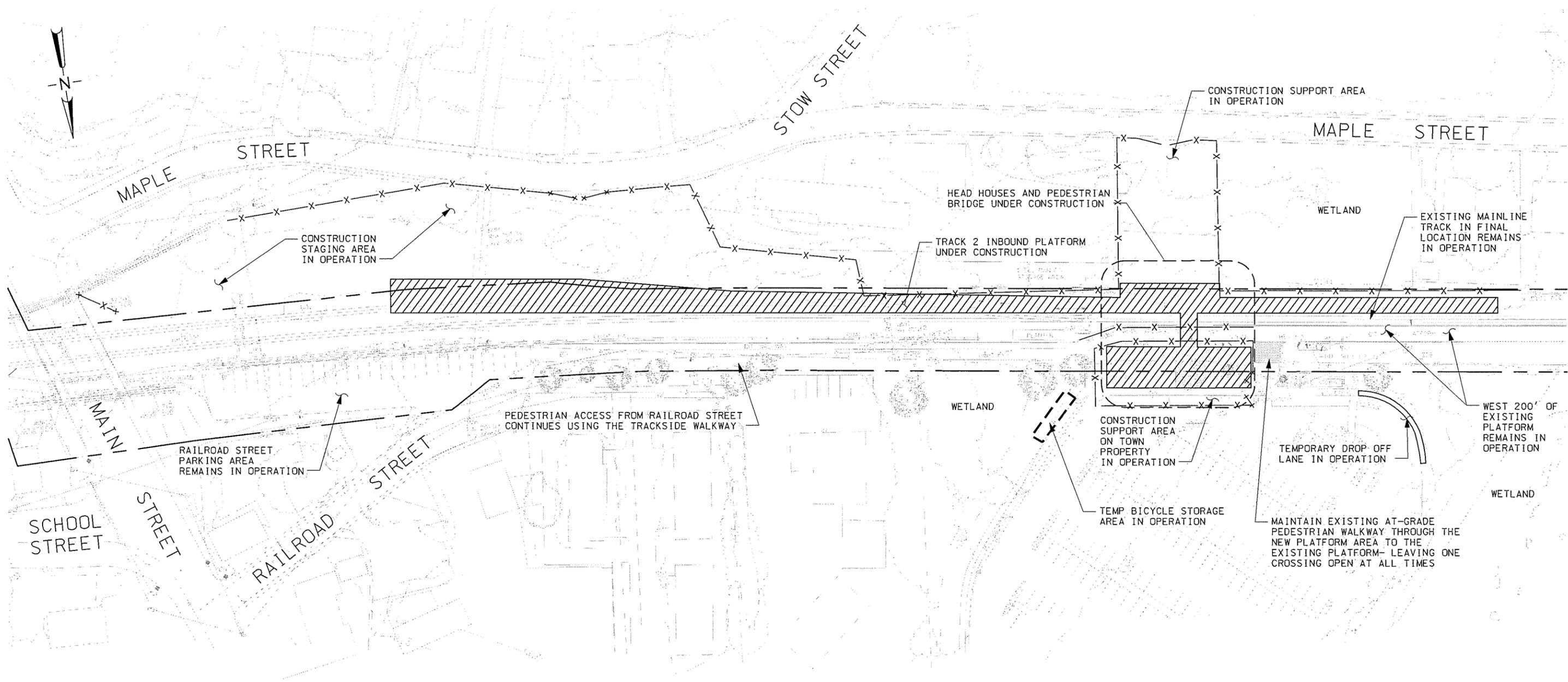
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PLOT DATE: Jun 09, 2011 3:44pm

60% SUBMITTAL
NOT FOR CONSTRUCTION

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION CONSTRUCTION STAGING NOTES			
HNTB <small>300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000</small>		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date: _____	
JACOBS <small>343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222</small>		PROJECT MANAGER Date: _____ HORIZ: NONE VERT: NONE DATE: 06/14/11	
DES. BY: JPB DR. BY: KMB CHK. BY: JM		PLAN NO. SHEET C-14	

EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON



PLAN - PHASE 2

CONSTRUCT THE INBOUND PLATFORM, BOTH ELEVATOR AND STAIR HEADHOUSES, AND OVERHEAD BRIDGE WHILE EXISTING PLATFORM REMAINS IN OPERATION.

NOTES:

1. FOR CONSTRUCTION STAGING NOTES SEE SHEET C-14.
2. THERE IS NO PEDESTRIAN ACCESS FROM MAPLE STREET. STATION USERS MUST CROSS OVER THE MAIN STREET BRIDGE TO ACCESS THE EXISTING PLATFORM FROM RAILROAD STREET.

LEGEND:

 WORK UNDER CONSTRUCTION



60% SUBMITTAL
NOT FOR CONSTRUCTION

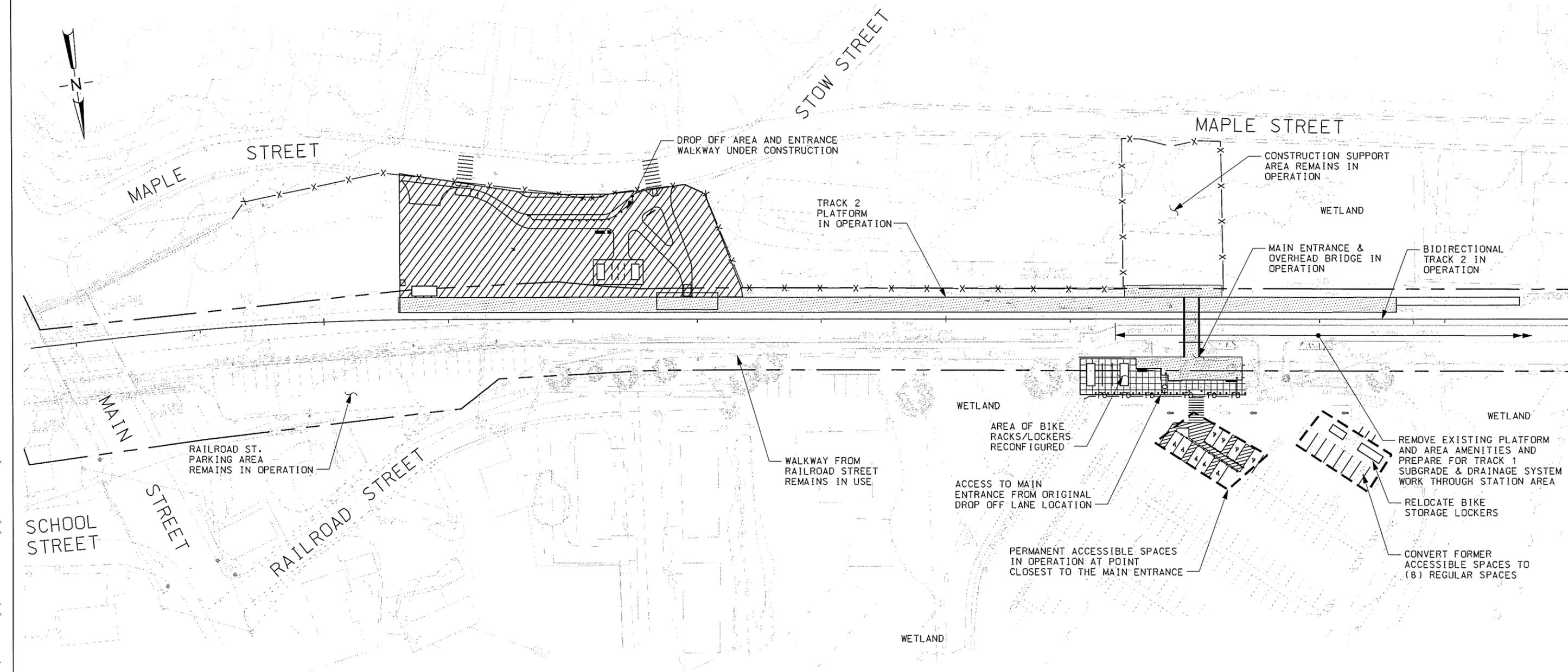
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SOUTH ACTON STATION CONSTRUCTION STAGING PLAN PHASE 2		
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: _____		APPROVED BY: _____
PROJECT MANAGER _____		PROJECT MANAGER _____
DATE: 06/14/11		DATE: _____
HORIZ: AS SHOWN		PLAN NO. _____
VERT: NONE		ISSUE _____
DATE: 06/14/11		SHEET C-16

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PLOT DATE: Jun 09, 2011 - 3:44pm

EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON



PLAN - PHASE 3

COMPLETE AND OPEN MAIN ENTRANCE TO NEW INBOUND PLATFORM VIA OVERHEAD BRIDGE, STAIRS, AND ELEVATORS. COMPLETE ACCESS FROM MAPLE STREET.

NOTES:

1. FOR CONSTRUCTION STAGING NOTES SEE SHEET C-14.
2. THERE IS NO PEDESTRIAN ACCESS FROM MAPLE STREET. STATION USERS MUST CROSS OVER THE MAIN STREET BRIDGE TO ACCESS THE EXISTING PLATFORM FROM RAILROAD STREET.
3. A MINIMUM OF 5 ACCESSIBLE SPACES SHALL REMAIN IN OPERATION AT ALL TIMES.

LEGEND:

WORK UNDER CONSTRUCTION

60% SUBMITTAL
NOT FOR CONSTRUCTION



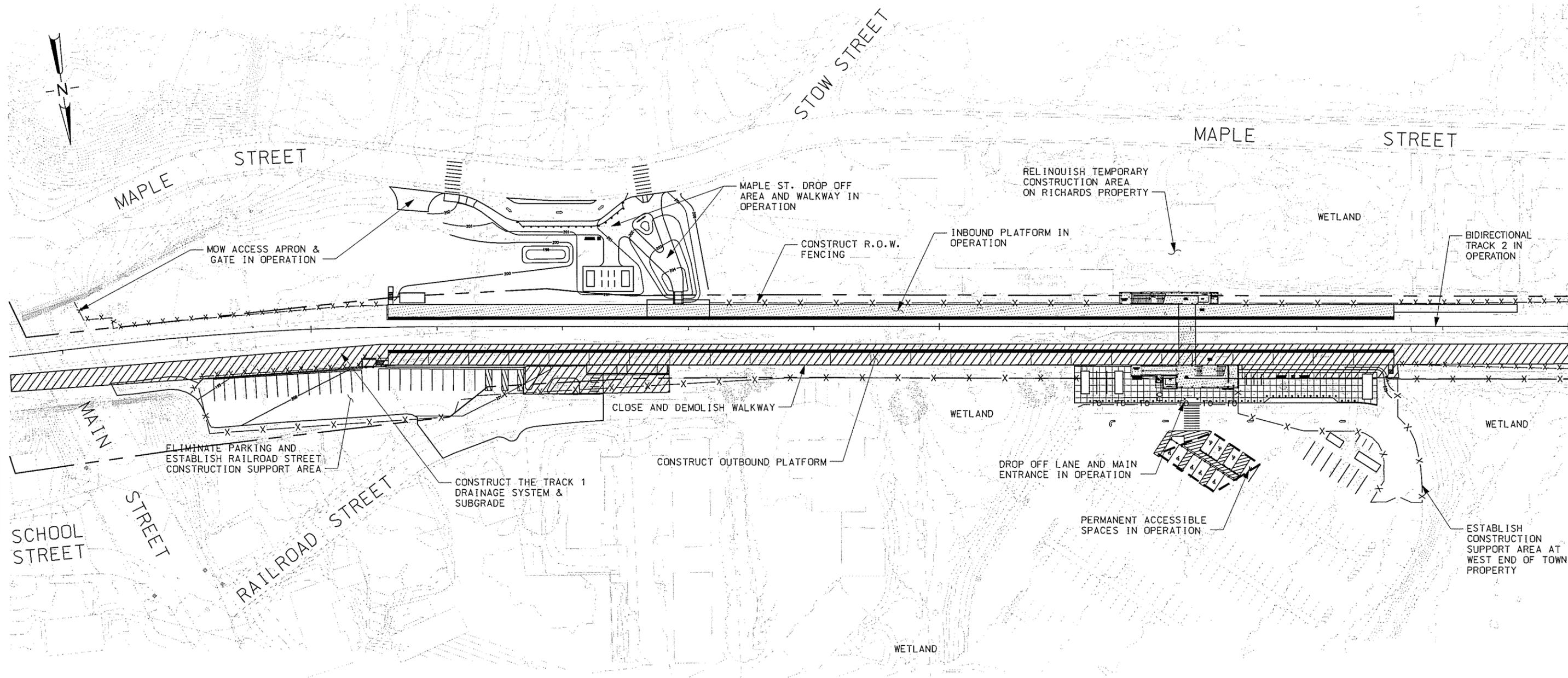
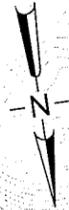
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HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		APPROVED BY:	
PROJECT MANAGER		PROJECT MANAGER	
DATE		DATE	
HORIZ: AS SHOWN		DES. BY: JPB	DR. BY: KMB
VERT: NONE		CHK. BY: JM	PLAN NO.
DATE: 06/14/11		SHEET C-17	

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PLOT DATE: Jun 09, 2011 - 3:44pm

EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON



PLAN - PHASE 4

OPEN MAPLE ST. ENTRANCE. CLOSE RAILROAD STREET LOT AND CONNECTOR WALKWAY AND CONSTRUCT TRACK 1 SUBGRADE, OUTBOUND PLATFORM, WALKWAYS, AND RAMPS.

NOTES:

- 1. FOR CONSTRUCTION STAGING NOTES SEE SHEET C-14.
- 2. THERE IS NO PEDESTRIAN ACCESS FROM RAILROAD STREET DURING THIS PHASE. STATION USERS MUST USE THE MAPLE ST. ENTRANCE OR THE PEDESTRIAN BRIDGE AT THE MAIN ENTRANCE VIA THE CENTRAL STREET PARKING LOT TO ACCESS THE NEW INBOUND PLATFORM.

LEGEND:

 WORK UNDER CONSTRUCTION



60% SUBMITTAL
NOT FOR CONSTRUCTION

T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION CONSTRUCTION STAGING PLAN PHASE 4		
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY:		APPROVED BY:
PROJECT MANAGER	Date	PROJECT MANAGER
HORIZ: AS SHOWN	DES. BY: JPB	DR. BY: KMB
VERT: NONE	CHK. BY: JM	DATE: 06/14/11
PLAN NO.		ISSUE
SHEET C-18		

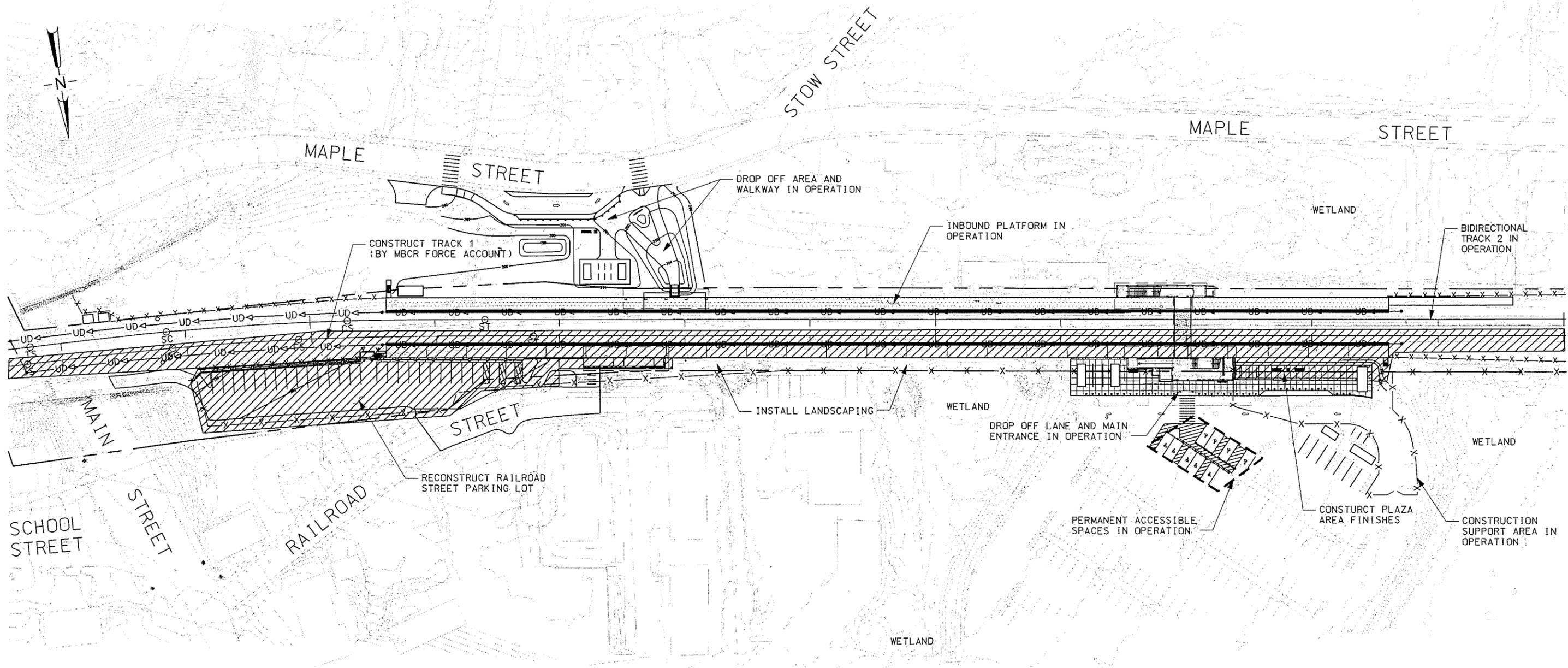
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PLOT DATE: Jun 09, 2011 3:45pm

EAST TO BOSTON

WEST TO FITCHBURG

TOWN OF ACTON



PLAN - PHASE 5

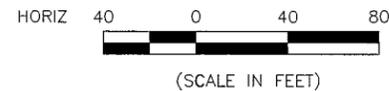
COMPLETE CONSTRUCTION OF RAILROAD STREET PARKING AREA, TRACK 1 CONSTRUCTION (BY MBCR FORCE ACCOUNT) & PERFORM ALL SYSTEMS TESTING.

NOTES:

- 1. FOR CONSTRUCTION STAGING NOTES SEE SHEET C-14.
- 2. PEDESTRIAN ACCESS IS AVAILABLE FROM MAPLE STREET AND THE MAIN PARKING LOT.

LEGEND:

 WORK UNDER CONSTRUCTION



60% SUBMITTAL
NOT FOR CONSTRUCTION

T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION CONSTRUCTION STAGING PLAN PHASE 5		
HNTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY:		APPROVED BY:
PROJECT MANAGER		PROJECT MANAGER
DATE		DATE
HORIZ: AS SHOWN		PLAN NO.
VERT: NONE		SHEET C-19
DATE: 06/14/11		ISSUE

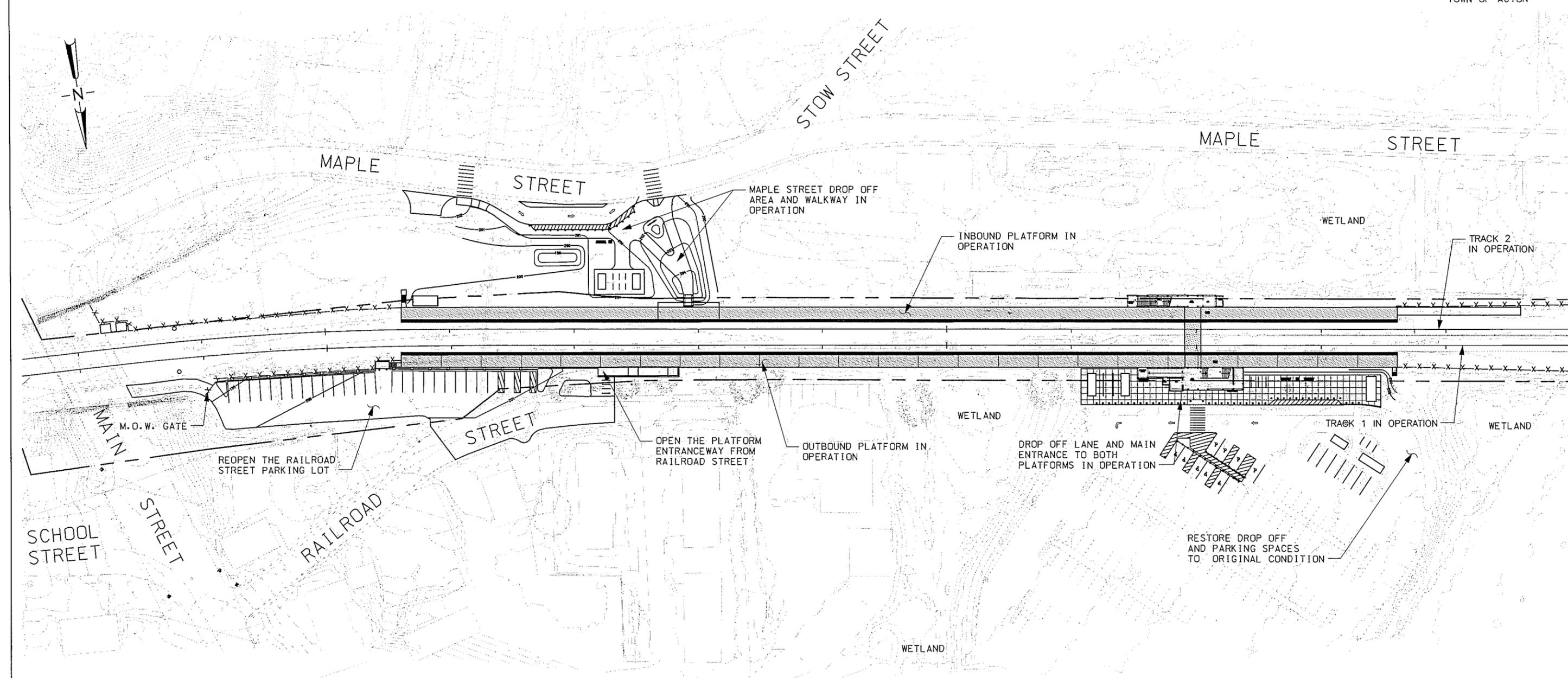
JACOBS 343 CONGRESS STREET
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ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

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PLOT DATE: Jun 09, 2011 - 3:45pm

EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON



PLAN - PHASE 6

REMOVE ALL CONSTRUCTION RELATED MEASURES AND RESTORE ALL STAGING AND OTHER DISTURBED AREAS TO THEIR ORIGINAL CONDITION.

NOTES:

- 1. FOR CONSTRUCTION STAGING NOTES SEE SHEET C-14.

LEGEND:

 WORK UNDER CONSTRUCTION



60% SUBMITTAL
NOT FOR CONSTRUCTION

T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION CONSTRUCTION STAGING PLAN PHASE 6		
HNTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-6000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: _____ Date: _____		APPROVED BY: _____ Date: _____
PROJECT MANAGER: _____		PROJECT MANAGER: _____
HORIZ: AS SHOWN	DES. BY: JPB	DR. BY: KMB
VERT: NONE	CHK. BY: JPB	CHK. BY: JM
DATE: 06/14/11	PLAN NO. SHEET C-20	
ISSUE		ISSUE

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PLOT DATE: Jun 09, 2011 3:46pm

EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON



MAPLE STREET

CLEAN EXISTING CB AND DOWNSTREAM PIPE TO OUTLET (DISTANCE TBD)

MAINTAIN AND PROTECT EXISTING SEWER MANHOLE THROUGHOUT CONSTRUCTION

PROTECT OVERHEAD UTILITY WIRES DURING CONSTRUCTION

SIGNAL SYSTEM HOUSES (BY MBCR FORCE ACCOUNT)

SIGNAL MASTS (BY MBCR FORCE ACCOUNT)

PROPOSED INTERDUCT WITH RELOCATED SIGNAL, POWER AND NEW FIBER OPTIC (BY OTHERS)

PROPOSED TRACK 2

RIGHT OF WAY

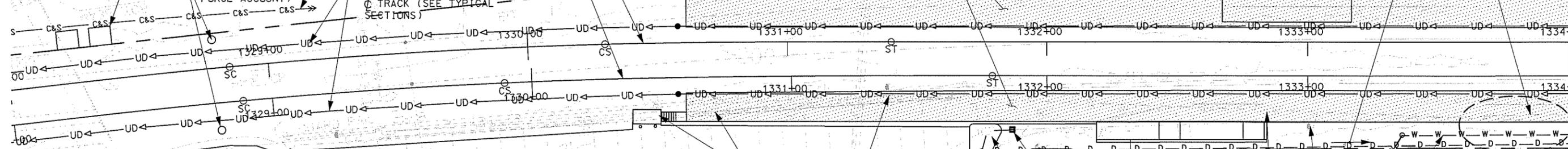
PROPOSED 800' HIGH LEVEL PLATFORMS

PROPOSED 280' -15" Ø PERFORATED DRAIN PIPE STA. 1331+73 TO STA. 1334+63

REMOVE AND DISCARD 282' EXISTING 15" Ø PCMP

12" Ø TRACK UNDERDRAIN, INSTALL 6'-6" OUTSIDE TRACK (SEE TYPICAL SECTIONS)

PROPOSED TRACK 1



ELECTRIC POWER SUPPLY CABINET (SEE ELECTRICAL PLANS)

REMOVE UTILITY POLES AND GUY WIRES (TYP.)

REPLACE GUY WIRE WITH CANTILEVER TYPE SUPPORT GUY
PROPOSED CB, STA. 1331+87, 20' RT. RIM EL.=201.00 CONNECT TO DMH WITH 12" Ø PIPE
EXISTING DMH TO REMAIN
PROPOSED DMH STA. 1331+75, 29' RT. RIM ELEV.=201.00

SEE DETAIL BELOW

PROPOSED 2" WATER LINE CONNECTION WITH METER PIT, RUN LINE BEHIND PLATFORM TO STATION 1336+80 (SEE UTILITY NOTES #4 SHEET G-3)

REPLACE GUY WIRE WITH CANTILEVER TYPE SUPPORT GUY

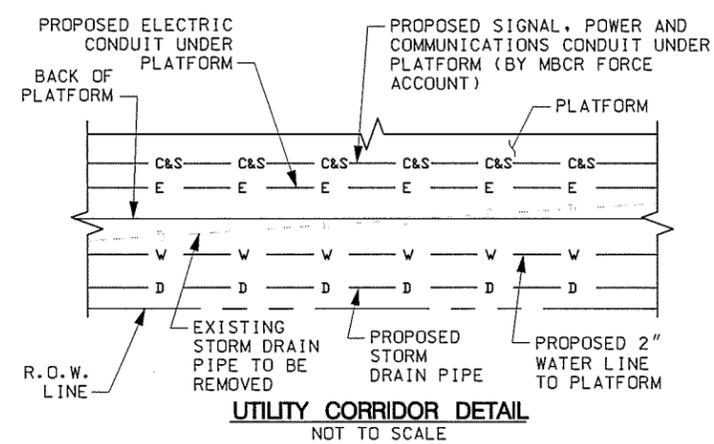
REMOVE ALL MBTA UTILITY POLES AND OVERHEAD SIGNAL AND POWER LINES ONCE INTERDUCT IS COMPLETE (BY OTHERS)

RT. 27/MAIN STREET

RIGHT OF WAY LINE

RAILROAD STREET

PROPOSED UTILITY PLAN



NOTES:

- FOR UTILITY NOTES SEE SHEET G-3.
- SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAILS.
- INTERDUCT WORK WILL BE PERFORMED UNDER A SEPARATE CONTRACT.



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T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION UTILITY PLAN SHEET 1 OF 2		
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY:		PROJECT MANAGER
PROJECT MANAGER		DATE
HORIZ: AS SHOWN		DES. BY: JPB
VERT: NONE		DR. BY: KMB
DATE: 06/14/11		CHK. BY: JM
PLAN NO.		ISSUE
SHEET C-26		

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PLOT DATE: Jun 09, 2011 3:46pm

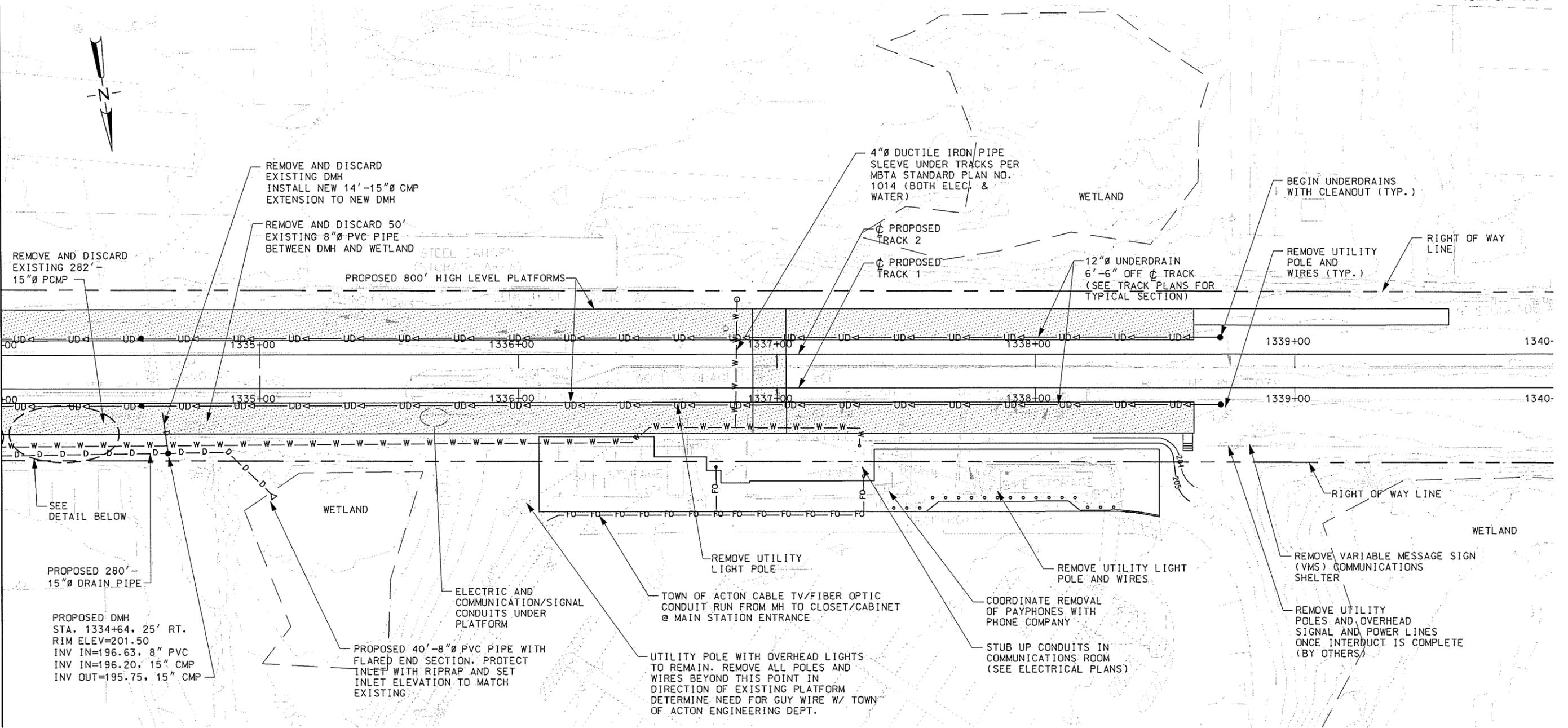
MATCH LINE STA. 1334+00 SEE SHEET C-27

EAST TO BOSTON

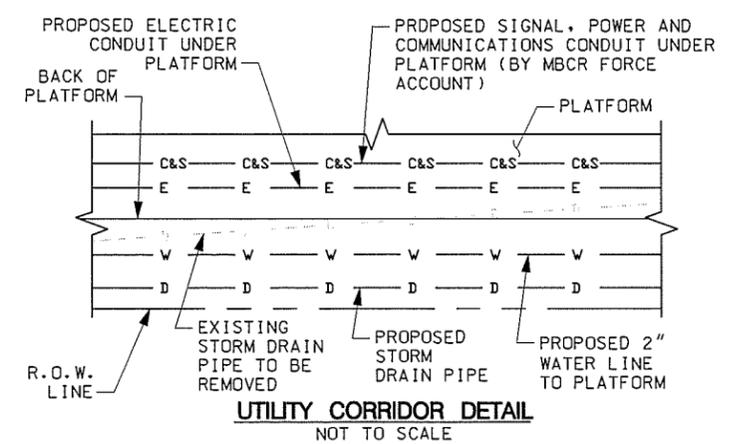
WEST TO FITCHBURG
TOWN OF ACTON



MATCH LINE STA. 1334+00 SEE SHEET C-26

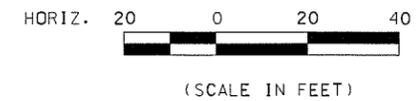


PROPOSED UTILITY PLAN



NOTES:

- 1. FOR UTILITY NOTES SEE SHEET G-3.
- 2. SEE ELECTRICAL AND COMMUNICATIONS PLANS FOR ADDITIONAL DETAILS.
- 3. INTERDUCT WORK WILL BE PERFORMED UNDER A SEPARATE CONTRACT.



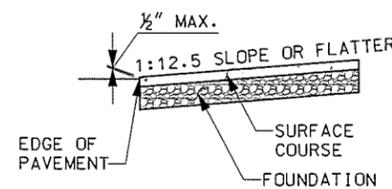
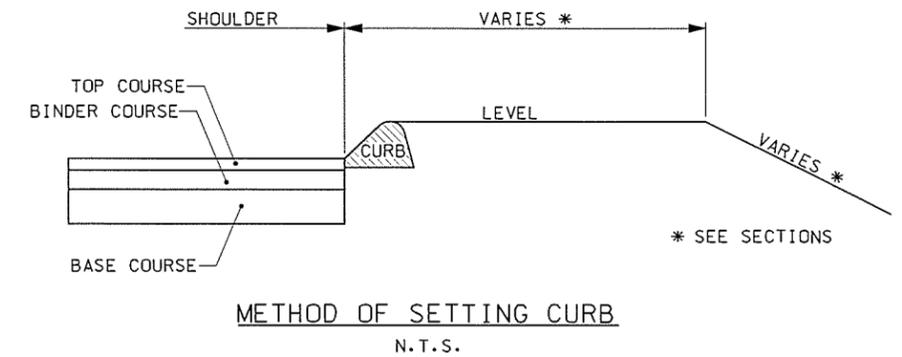
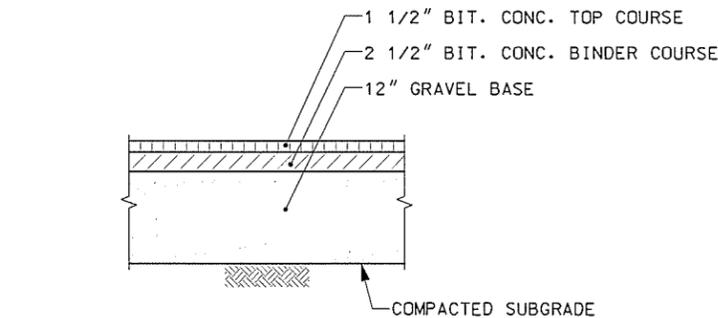
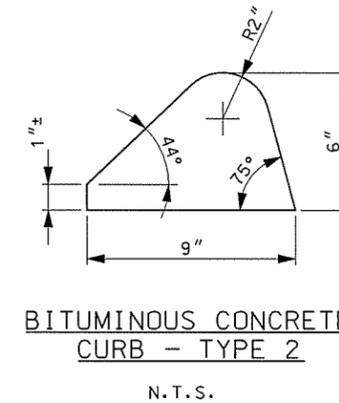
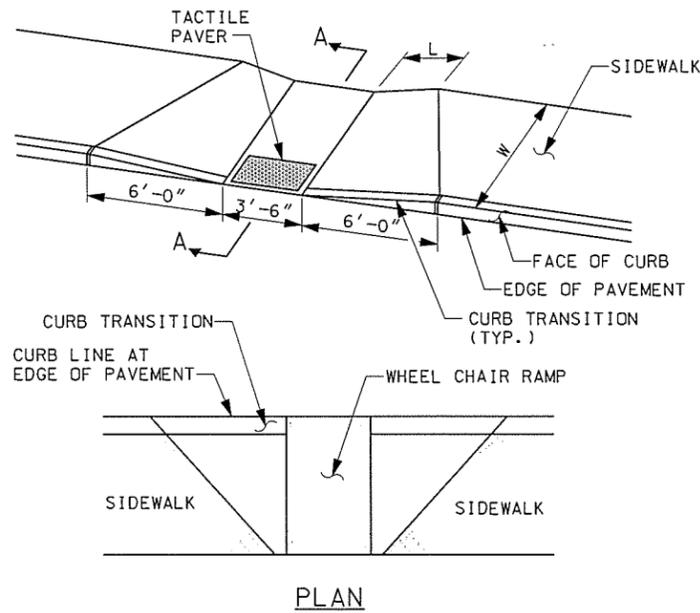
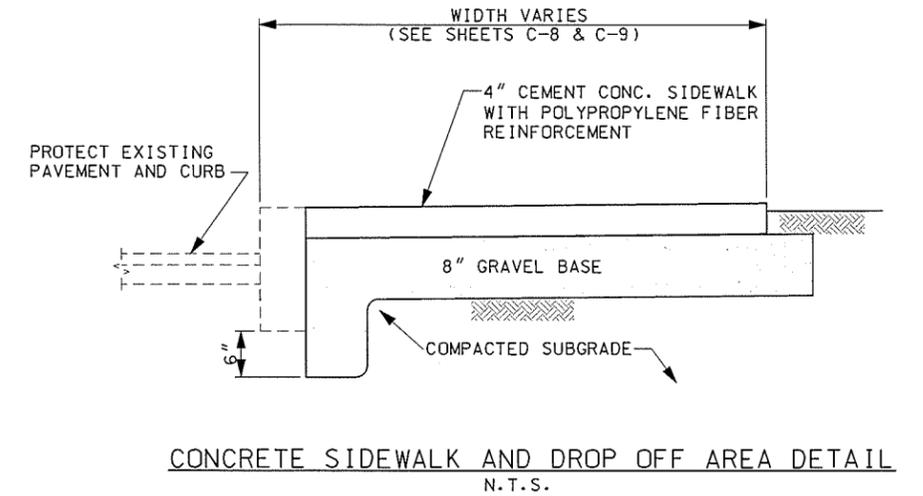
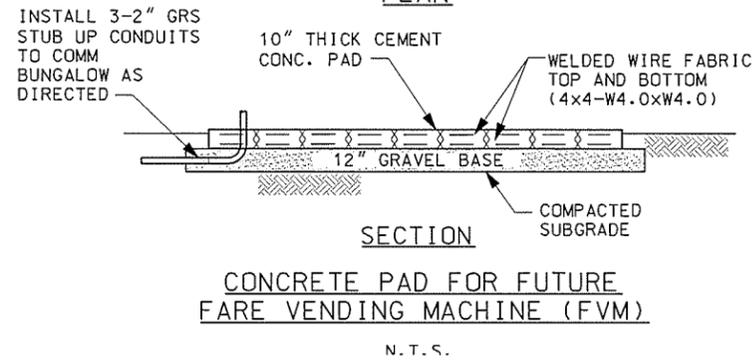
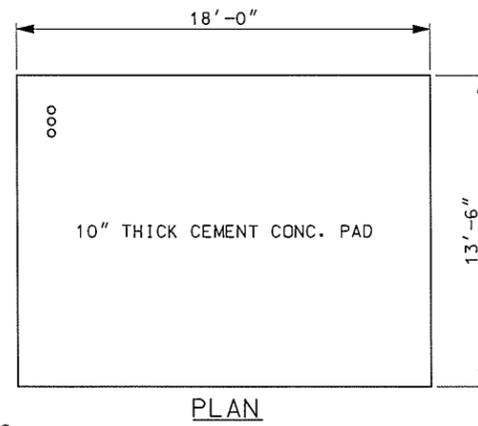
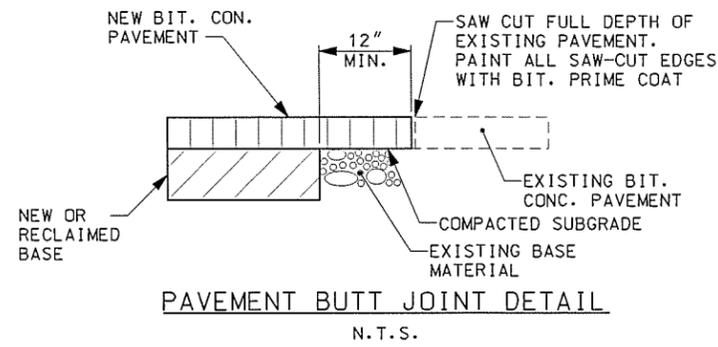
60% SUBMITTAL
NOT FOR CONSTRUCTION

T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION UTILITY PLAN SHEET 2 OF 2		
HNTB 300 APOLLO DRIVE CHELSEA, MA 02110 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: _____		PROJECT MANAGER: _____
PROJECT MANAGER: _____	DATE: 06/14/11	DATE: _____
HORIZ: AS SHOWN	DES. BY: JPB	DR. BY: KMB
VERT: NONE	CHK. BY: JM	DATE: _____
DATE: 06/14/11	PLAN NO. SHEET C-27	ISSUE

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PLOT DATE: Jun 09, 2011 - 3:46pm

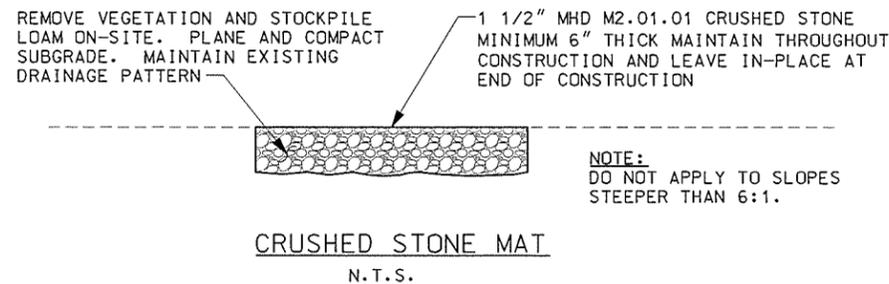
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 PLOT DATE: Jun 09, 2011 3:46pm



W	L	S.Y.
4'-0"	3'-6"±	5.2
5'-0"	2'-9"±	6.3
6'-0"	2'-0"±	7.2
7'-0"	1'-3"±	8.0
8'-0"	0'-0"	8.1

ACCESSIBLE RAMP DETAIL
N.T.S.

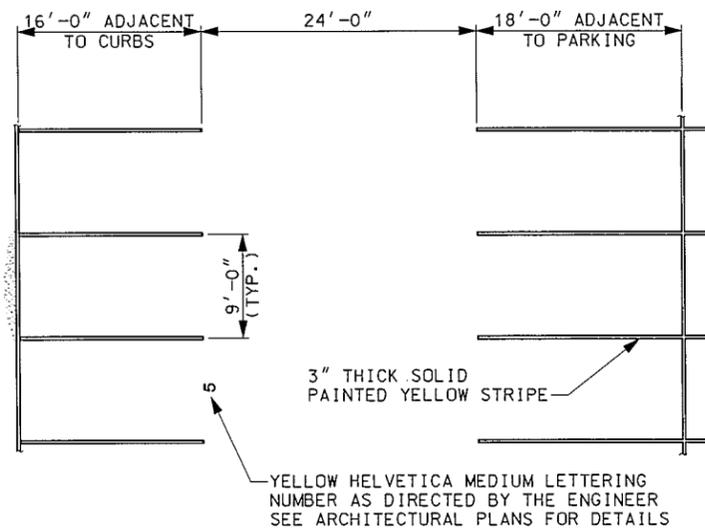
NOTE:
ALL RAMP TO BE CONSTRUCTED
PER THE LATEST AMERICANS
WITH DISABILITIES ACT
REQUIREMENTS



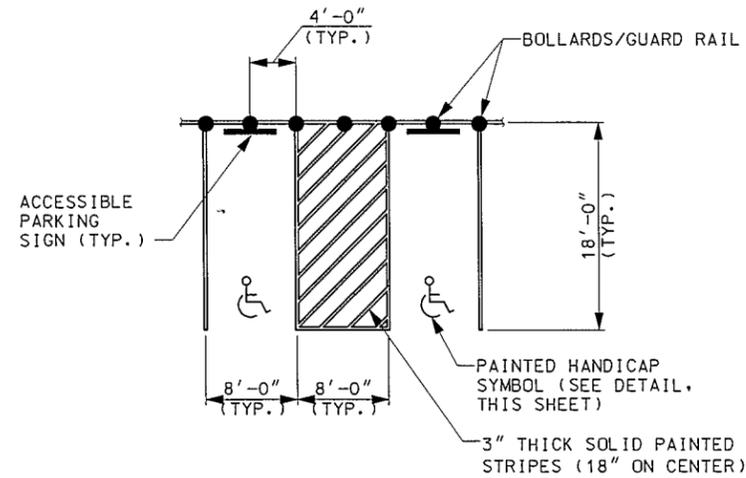
NOTE:
DO NOT APPLY TO SLOPES
STEEPER THAN 6:1.

60% SUBMITTAL
NOT FOR CONSTRUCTION

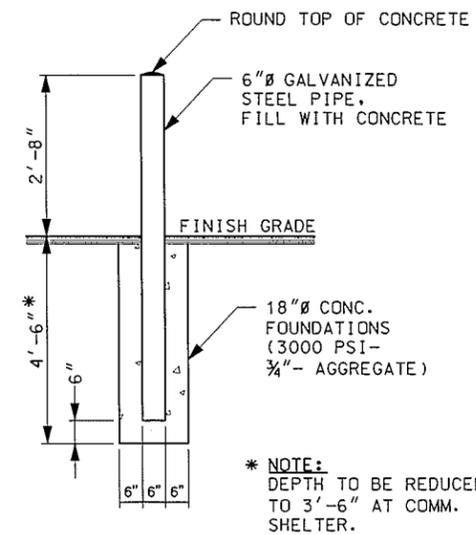
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		SOUTH ACTON STATION SITE DETAILS SHEET 1 OF 4	
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PROJECT MANAGER Date HORIZ: N/A VERT: NONE DATE: 06/14/11	
DR. BY: JGA CHK. BY: CWB DATE: 06/14/11		PROJECT MANAGER Date PLAN NO. SHEET C-60	
ISSUE		ISSUE	



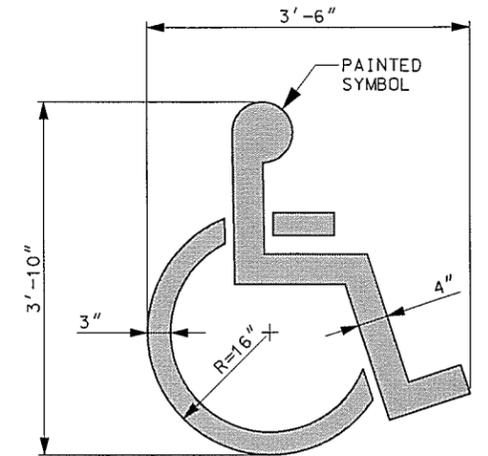
TYPICAL PARKING DETAIL
N.T.S.



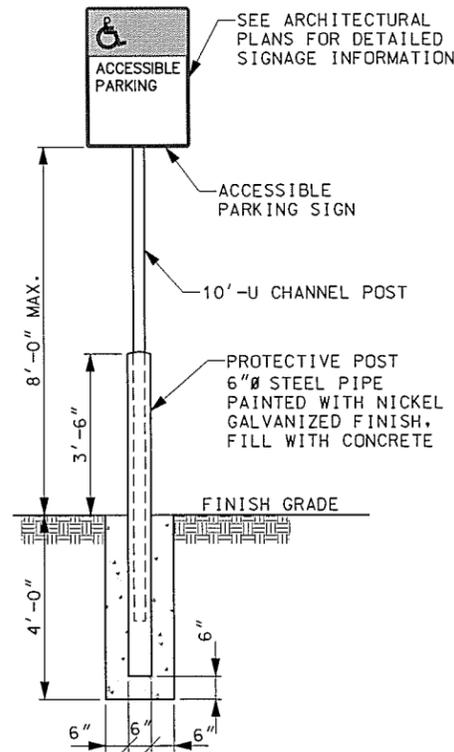
TYPICAL HANDICAP VAN PARKING STALL DETAIL
N.T.S.



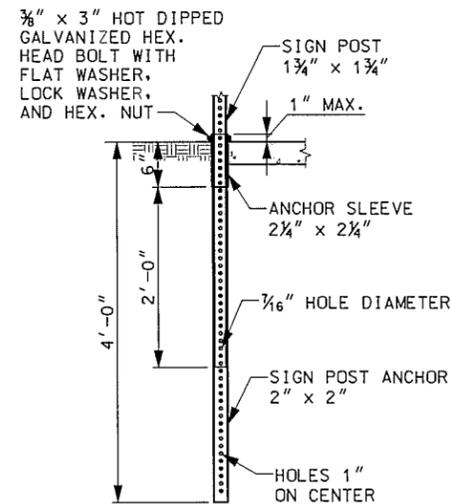
BOLLARD DETAIL
N.T.S.



PAINTED ACCESSIBLE SYMBOL DETAIL
N.T.S.



TYPICAL CHANNEL MOUNTING FOR ACCESSIBLE SIGNS



SIGN SIZE	TELESCOPIC POST SIZE
5 S.F. AND UNDER	1 - 1 3/4" x 1 3/4"
OVER 5 S.F. UP TO 10 S.F.	1 - 2" x 2"
OVER 10 S.F. UP TO 20 S.F.*	2 - 2" x 2"

* SIGNS WITH A WIDTH OF 4' AND OVER SHALL REQUIRE 2 POSTS

P-5 TELESCOPIC POST DETAIL
N.T.S.

P-5 POST GENERAL NOTES:

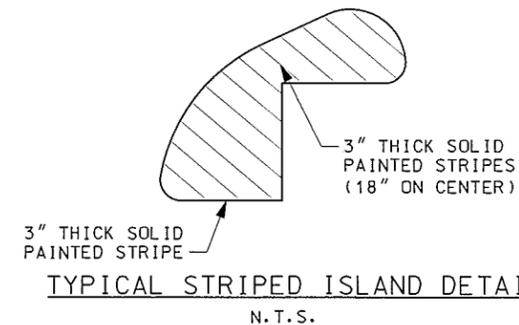
- BREAKAWAY SIGN SUPPORTS SHALL BE FABRICATED FROM STEEL AND SHALL CONFORM TO MASSACHUSETTS DEPT. OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, AND STANDARD DRAWINGS FOR SIGNS AND SUPPORTS (CURRENT EDITIONS).
- THE STEEL POSTS SHALL CONFORM TO ASTM-A366. THE CROSS SECTION OF THE POST SHALL BE SQUARE TUBE FORMED OF 12 GAUGE (.105" U.S.S. GRADE) COLD-ROLLED CARBON STEEL SHEETS WHICH HAVE BEEN ZINC COATED (1.25 OZ.) CONFORMING TO ASTM-A525. CAREFULLY ROLLED TO SIZE AND WELDED DIRECTLY IN THE CORNER BY HIGH FREQUENCY RESISTANCE WELDING OR EQUAL AND EXTERNALLY SCARFED TO AGREE WITH CORNER RADII. STANDARD OUTSIDE CORNER RADIUS SHALL BE 5/32" ± 1/64". ALL BOLTS SHALL CONFORM TO ASTM-A307, CLASS A. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AS PER ASTM-A153.

METHOD OF INSTALLATION:

(CONCRETE, BITUMINOUS CONCRETE, OR GROUND SURFACES)

- SIGN POST ANCHOR CAN BE DRIVEN THROUGH BLACK TOP SURFACES WITHOUT FIRST MAKING A HOLE. HOWEVER, IN CONCRETE, BREAKING A HOLE WILL BE NECESSARY. DRIVE SIGN POST ANCHOR TO WITHIN THREE OR FOUR INCHES OF SURFACE.
- PRE-CUT ANCHOR SLEEVE SO THAT THE HOLES WILL MATCH AND STILL BE FLUSH WITH TOP OF SIGN POST ANCHOR. DRIVE ANCHOR SLEEVE UNTIL HOLES MATCH AS NOTED ABOVE, THEN DRIVE BOTH THE SIGN POST ANCHOR AND ANCHOR AND ANCHOR SLEEVE UNTIL ONE HOLE IS EXPOSED ABOVE GROUND FOR BOLT CONNECTION.
- INSERT SIGN POST AND BOLT IN PLACE.

NOTE: DRIVING CAPS MUST BE USED TO DRIVE POSTS.

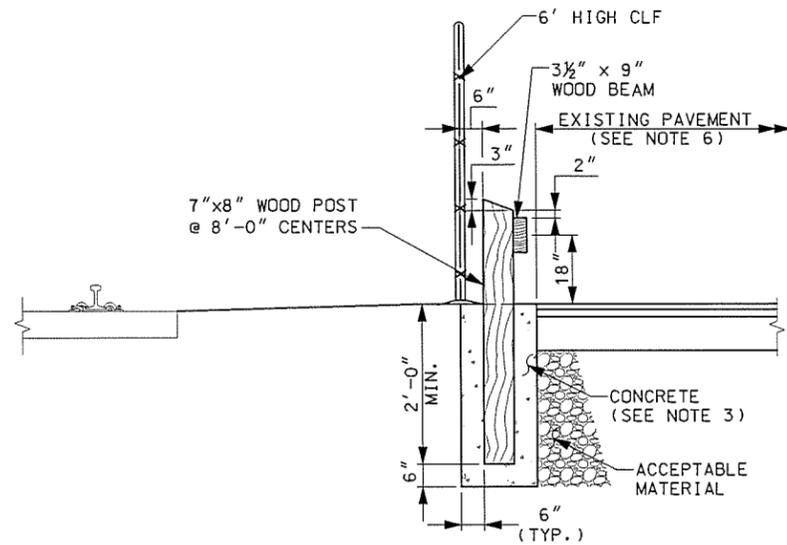


TYPICAL STRIPED ISLAND DETAIL
N.T.S.

60% SUBMITTAL
NOT FOR CONSTRUCTION

FILE NAME: P:\MBIA\2008\EZ37800\CAD\700CAD\702STATIONS\South Acton\Civil\60% ReDesign\C-32 Site Details Sheet 2 of 4.dwg
PLOT DATE: Jun 09, 2011 3:46pm

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION SITE DETAILS SHEET 2 OF 4	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER _____ DATE: 06/14/11	
		343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222	
HORIZ: N/A VERT: NONE DATE: 06/14/11	DES. BY: JPB CHK. BY: CWB DATE: 06/14/11	PLAN NO. SHEET C-32	ISSUE



PLACEMENT

NOTES:

1. BACKUP PLATE, BOLTS, NUTS, & WASHERS TO BE GALVANIZED.
2. WOOD POSTS AND BEAMS SHALL BE STANDARD ROUGH SAWN AND TO THE SIZE AND LENGTHS SHOWN. POST AND RAILS SHALL BE SOUTHERN YELLOW PINE. ALL WOOD SHALL BE PRESSURE-TREATED WITH PENTACHLOROPHENOL WITH A MINIMUM RETENTION OF 0.60 POUNDS PER CU. FT. OF WOOD OR TREATED IN ACCORDANCE WITH AWDA SPECIFICATION C2.
3. POSTS SHALL BE SET IN 2500 P.S.I. BACKFILL CONCRETE.
4. CONTRACTOR SHALL COORDINATE GUARDRAIL INSTALLATION WITH ENGINEER TO MAINTAIN SUFFICIENT COMMUTER PARKING AT ALL TIMES.
5. SEE SITE PLANS FOR GUARDRAIL LIMITS.
6. CONTRACTOR TO PROTECT EXISTING PAVEMENT DURING INSTALLATION.

WOOD GUARDRAIL

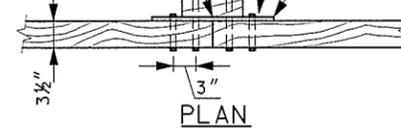
N.T.S.

CONTRACTOR SHALL BEND BACK-UP PLATE AND LEVEL FACE OF WOOD POST TO FIT CURVATURE OF ROADWAY

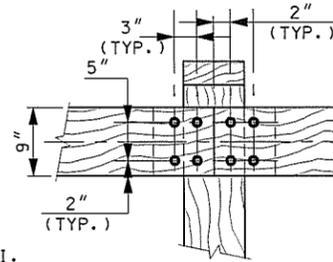
$\frac{3}{4}$ " \emptyset ROUND HEAD BOLTS WITH HEX NUTS AND ROUND WASHERS. BOLT LENGTH AS REQUIRED (TYP.)

7"x8" WOODPOST

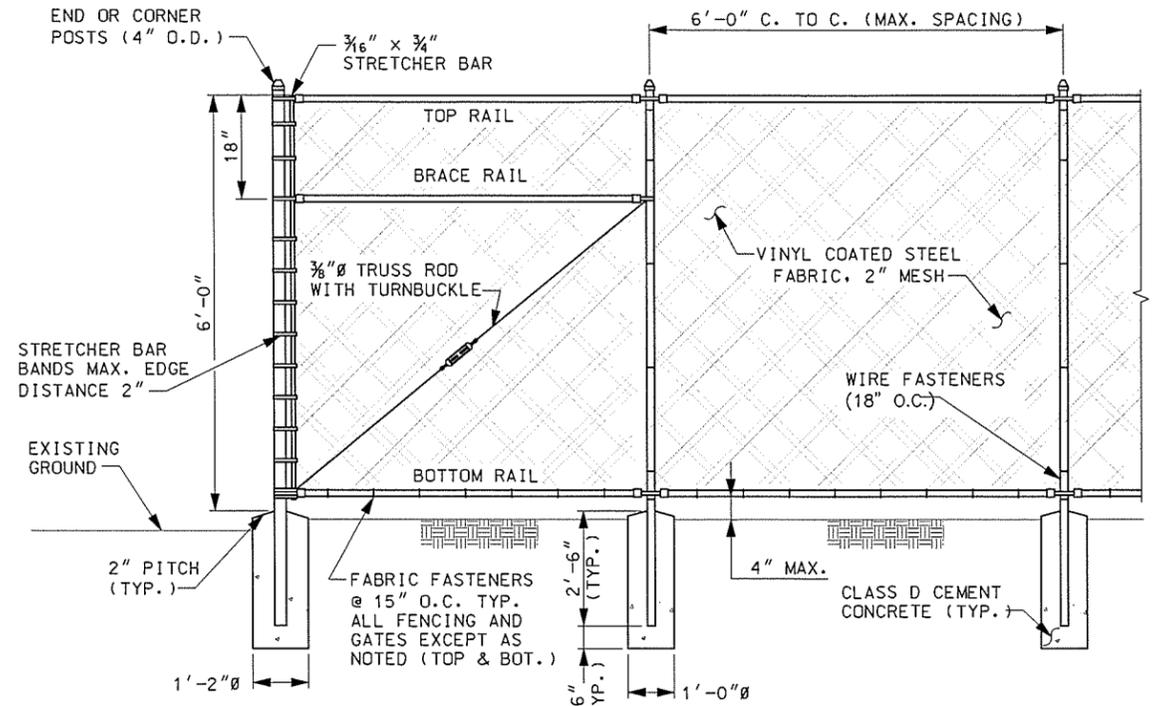
$\frac{1}{2}$ "x9"x16" STEEL BACK-UP PLATE



PLAN



ELEVATION

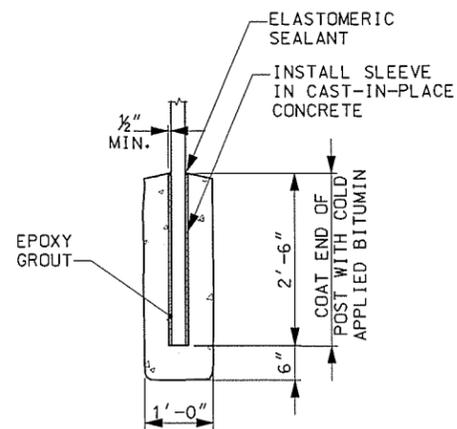


TYPICAL END, CORNER OR BRACE PANEL

TYPICAL INTERMEDIATE PANEL

6' HIGH CHAIN LINK FENCE DETAIL

N.T.S.



FENCE POST ANCHORED IN CONCRETE

N.T.S.

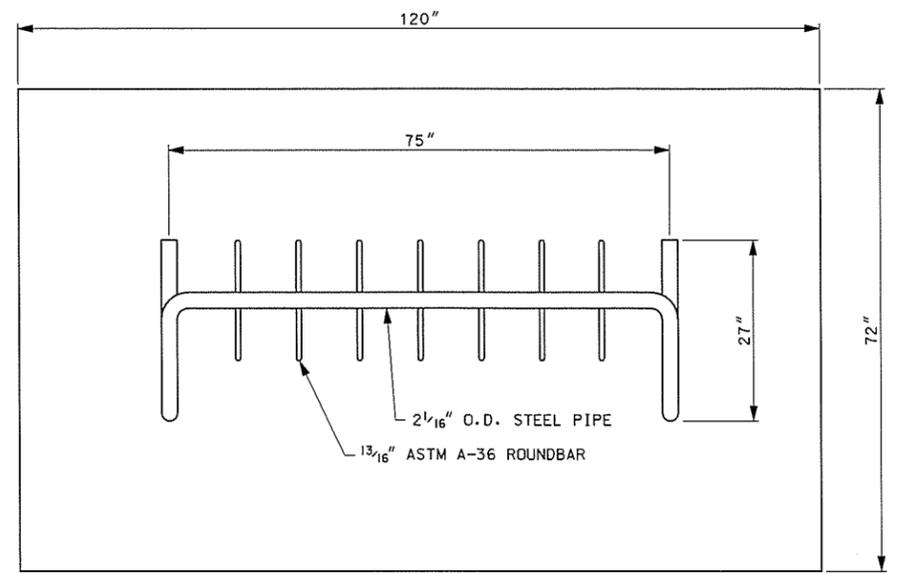
60% SUBMITTAL
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FILE NAME: P:\MBTA\2008\22X37800\CAD\700CAD\702STATIONS\South Acton\Civil\60% Redesign\ 0-33 Site Details Sheet 3 of 4.dwg
PLOT DATE: Jun 09 2011 3:46pm

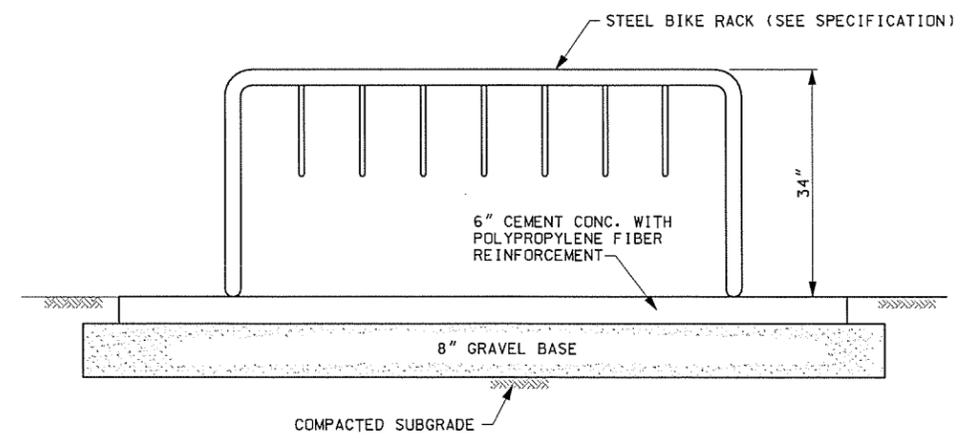
T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		SOUTH ACTON STATION SITE DETAILS SHEET 3 OF 4	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		APPROVED BY:	
PROJECT MANAGER		PROJECT MANAGER	
DATE		DATE	
HORIZ: N/A		DES. BY: JGA	CHK. BY: JPB
VERT: NONE		PLAN NO.	
DATE: 06/14/11		SHEET C-62	

JACOBS
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(617) 242-9222

FILE NAME: P:\MBTA\2008\22\37800\CAD\700CADD\702STATIONS\South Acton\Civil\60% ReDesign\C-34 Site Details Sheet 4 of 4.dwg
 PLOT DATE: Jun 09, 2011 3:46pm

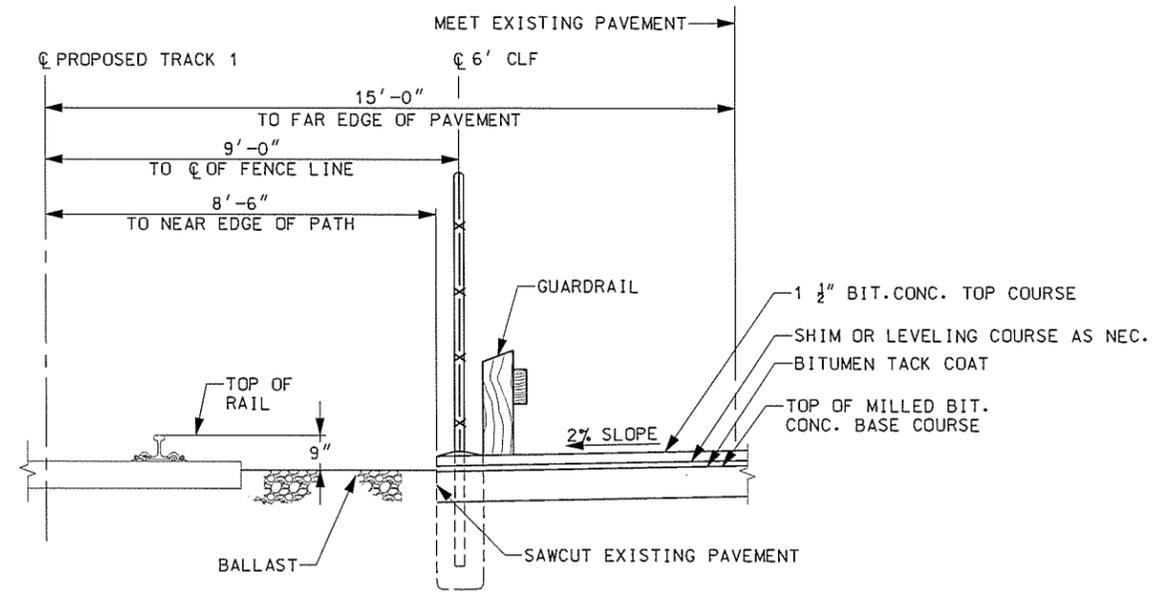


PLAN



SECTION

STEEL BIKE RACK
N.T.S.

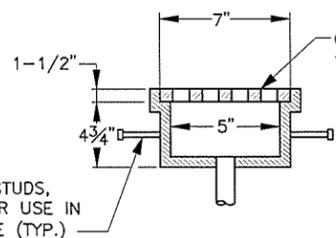
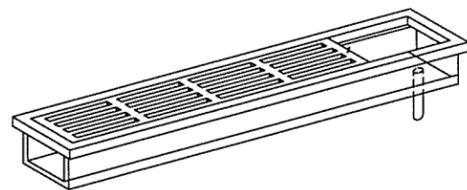


TYPICAL SECTION AT RAILROAD STREET LOT

N.T.S.

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NOT FOR CONSTRUCTION

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION SITE DETAILS SHEET 4 OF 4	
300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
		PROJECT MANAGER _____ Date _____ DES. BY: JGA DR. BY: CWB CHK. BY: JPB	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		HORIZ: N/A VERT: NONE DATE: 06/14/11	
PLAN NO. _____ SHEET C-63		ISSUE NO. _____	



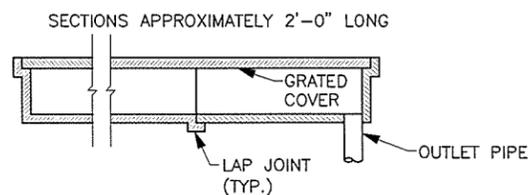
CROSS SECTION

4"x 1/2" HEADED STUDS, SPACE AT 12" FOR USE IN CEMENT CONCRETE (TYP.)

GRATE TO BE "HEEL PROOF" WITH 1/2" MAXIMUM OPENINGS

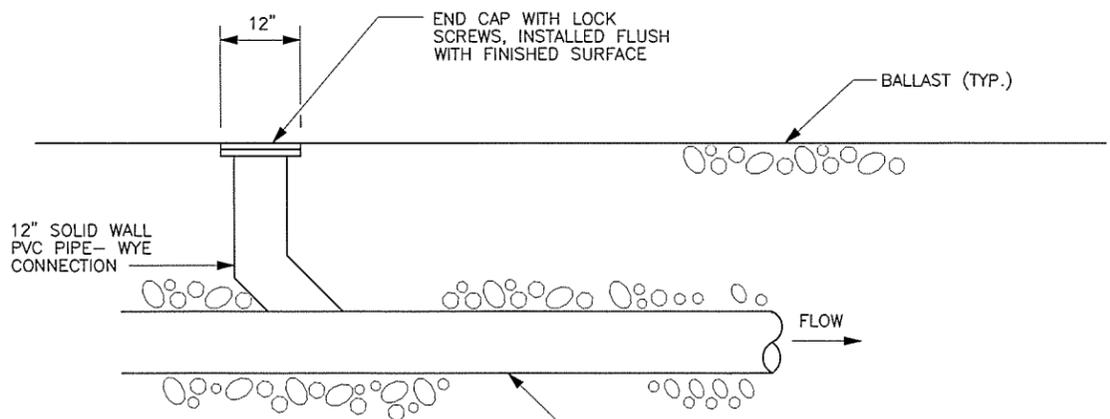
NOTES:

1. USE HEAVY DUTY NEENAH FOUNDRY COMPANY R-4995-Ax SERIES TYPE M TRENCH WITH GRATED COVER, OR APPROVED EQUAL.
2. SEE ARCHITECTURAL PLANS FOR LOCATIONS.



LONGITUDINAL SECTION

TRENCH DRAIN WITH GRATED COVER
N.T.S.

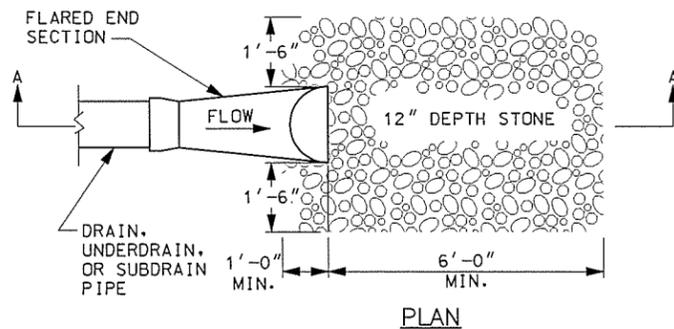


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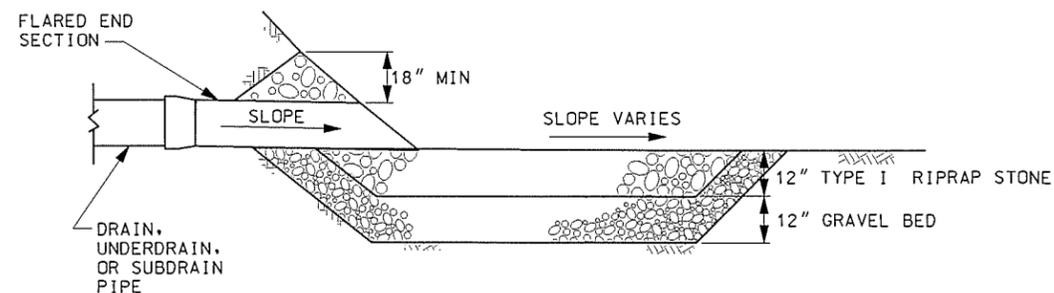
1. CLEAN OUT LOCATIONS SHOWN ON SITE PLANS AND DRAINAGE & GRADING PLANS.

12" PERFORATED PVC PIPE PERFORATIONS AROUND CIRCUMFERENCE. FOR INVERT ELEVATIONS SEE DRAINAGE & GRADING PLANS.

UNDERDRAIN CLEAN OUT DETAIL
N.T.S.

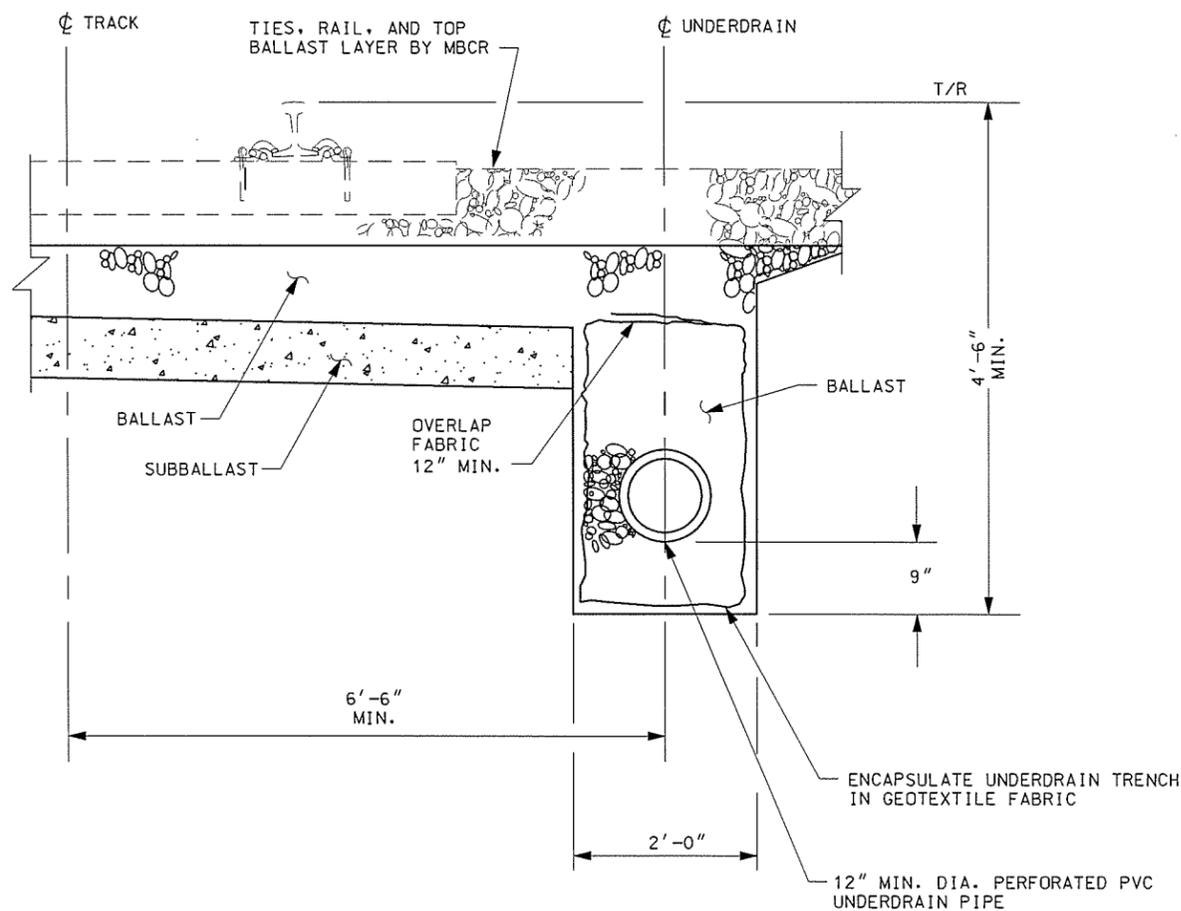


PLAN



SECTION A-A

FLARED END PIPE RIPRAP DETAIL
N.T.S.



TYPICAL UNDERDRAIN DETAIL
N.T.S.

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MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
CONTRACT NO. G67CN01

SOUTH ACTON STATION
DRAINAGE DETAILS
SHEET 1 OF 3

HNTB 300 APOLLO DRIVE
CHELSEA, MA 02156
(978) 905-4000

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

APPROVED BY:

PROJECT MANAGER Date

PLAN NO.

SHEET C-35

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

JACOBS

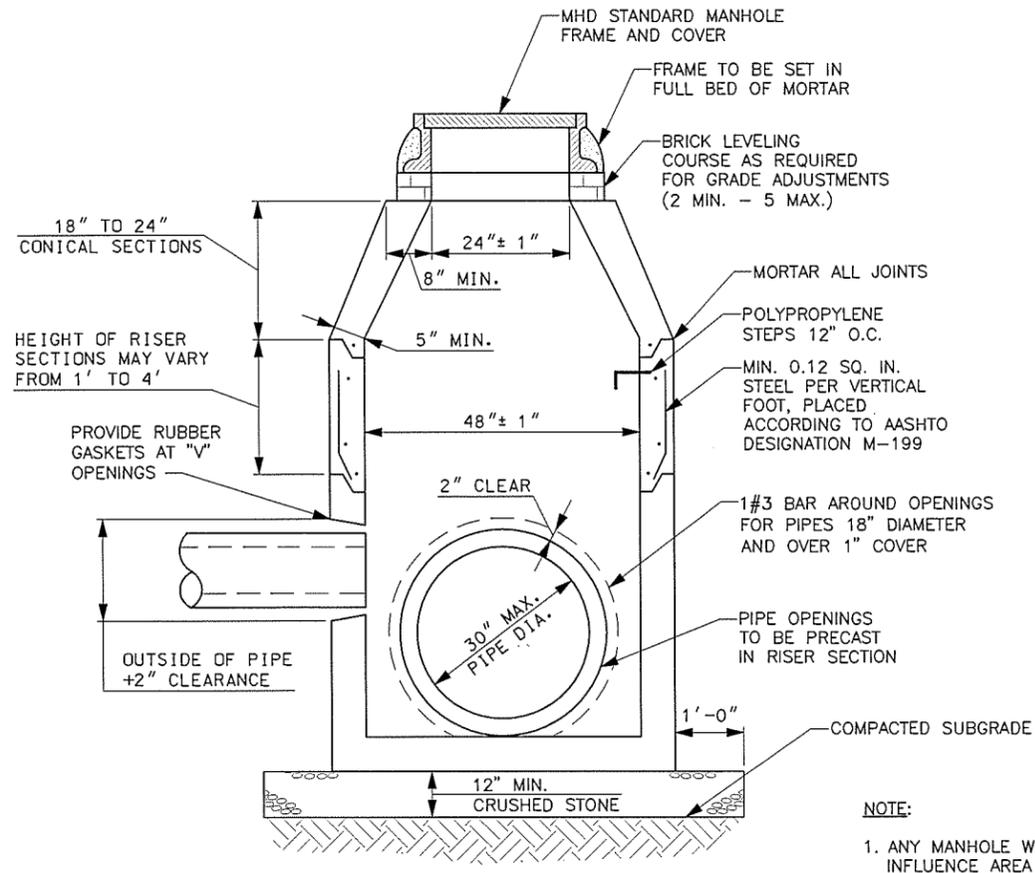
343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222

HORIZ: N/A
VERT: NONE
DATE: 06/14/11

DES. BY: JGA
DR. BY: CWB
CHK. BY: JPB

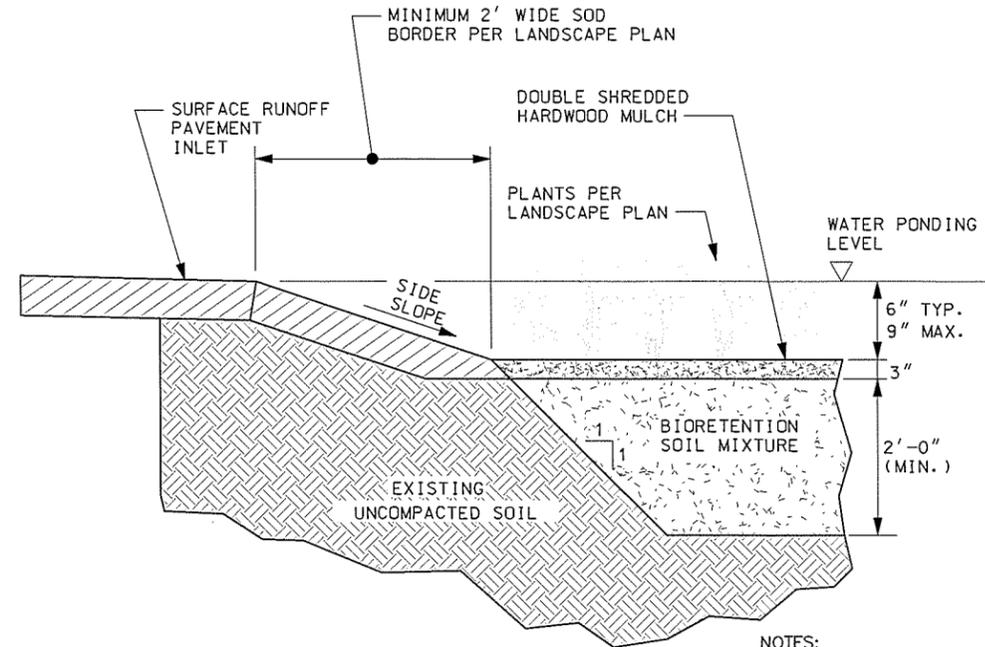
PROJECT MANAGER Date
ISSUE

FILE NAME: P:\MBTA\2008\22337800\CAD\700CADDD\702STATIONS\South Acton\Civil\60% Redesign\C-35 thru C-37 Drainage Details Sheet.dwg
 PLOT DATE: Jun 03, 2011 - 3:46pm



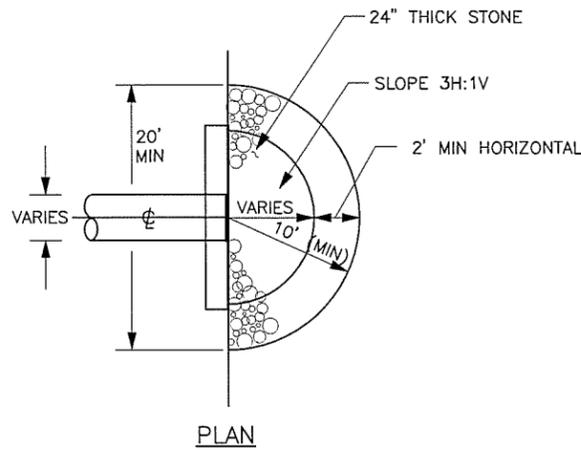
PRECAST CONCRETE DRAIN MANHOLE
 9 FEET OR LESS IN DEPTH
 N.T.S.

NOTE:
 1. ANY MANHOLE WITHIN TRACK INFLUENCE AREA SHALL BE DESIGNED FOR E-80 LOADING.

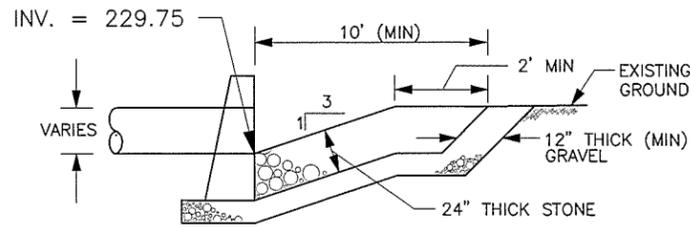


BIORETENTION BASIN
 N.T.S.

NOTES:
 1. 12" PIPES FROM CB'S @ DROP OFF AREA DRAIN INTO BIORETENTION BASIN, SEE SITE PLANS.



PLAN



SIDE ELEVATION

RIPRAP INLET PROTECTION
 N.T.S.

60% SUBMITTAL
 NOT FOR CONSTRUCTION

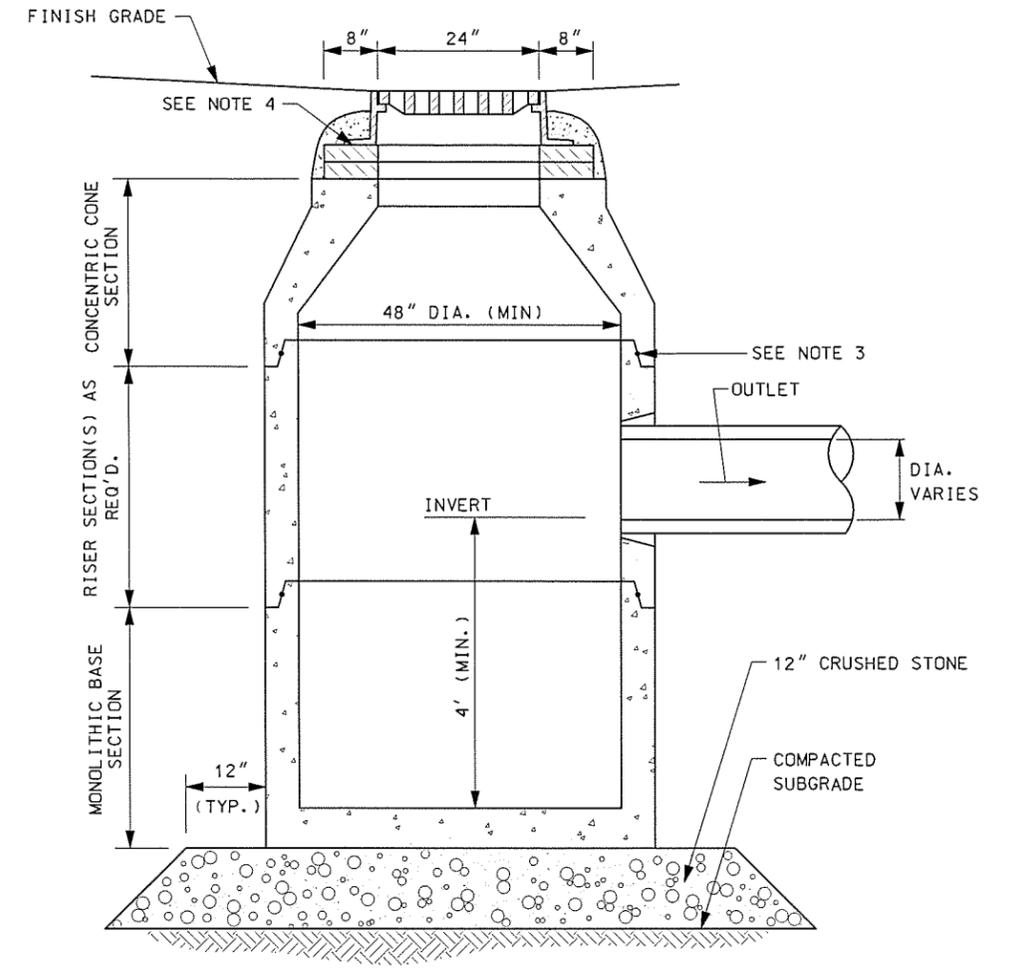
T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CNO1	
SOUTH ACTON STATION DRAINAGE DETAILS SHEET 2 OF 3			
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		APPROVED BY:	
PROJECT MANAGER		PROJECT MANAGER	
DATE		DATE	
HORIZ: N/A		PLAN NO.	
VERT: NONE		SHEET C-36	
DATE: 06/14/11		ISSUE	

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 BOSTON, MA 02110
 (617) 242-9222

FILE NAME: P:\MBTA\2008\E2X37800\CAD\700CADD\702STATIONS\South Acton\Civil\60% Redesign\C-35 thru C-37 Drainage Details Sheet.dwg
 PLOT DATE: Jun 09, 2011 - 3:46pm

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 NOT FOR CONSTRUCTION



CATCH BASIN (CB)
 N.T.S

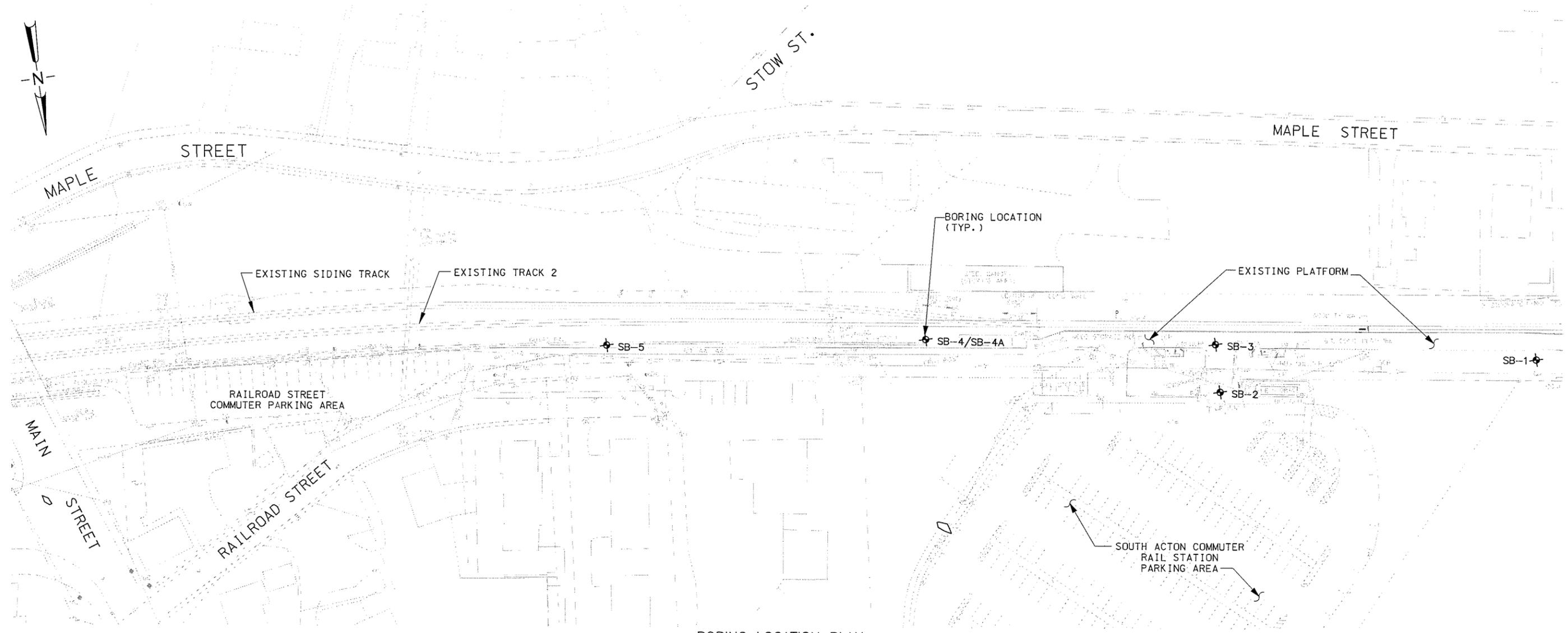
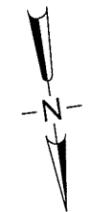
NOTES:

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS OR PROVIDE RUBBER GASKETS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION DRAINAGE DETAILS SHEET 3 OF 3	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER _____ Date _____	
		300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		HORIZ: N/A VERT: NONE DATE: 06/14/11	
DES. BY: JGA DR. BY: CWB CHK. BY: JPB		PLAN NO. _____ SHEET C-37	
ISSUE _____ DATE _____		ISSUE _____ DATE _____	

EAST TO
BOSTON

WEST TO
FITCHBURG
TOWN OF ACTON

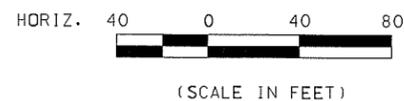


BORING LOCATION PLAN

NOTES:

- 1. FOR SPECIFIC BORING DATA SEE SHEETS GT-2 AND GT-3.
- 2. THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OR HER OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGES THERE TO.

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NOT FOR CONSTRUCTION



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
CONTRACT NO. G67CN01

**SOUTH ACTON STATION
BORING LOCATION PLAN**



300 APOLLO DRIVE
CHELMSFORD, MA 01824
(978) 905-4000

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

APPROVED BY:

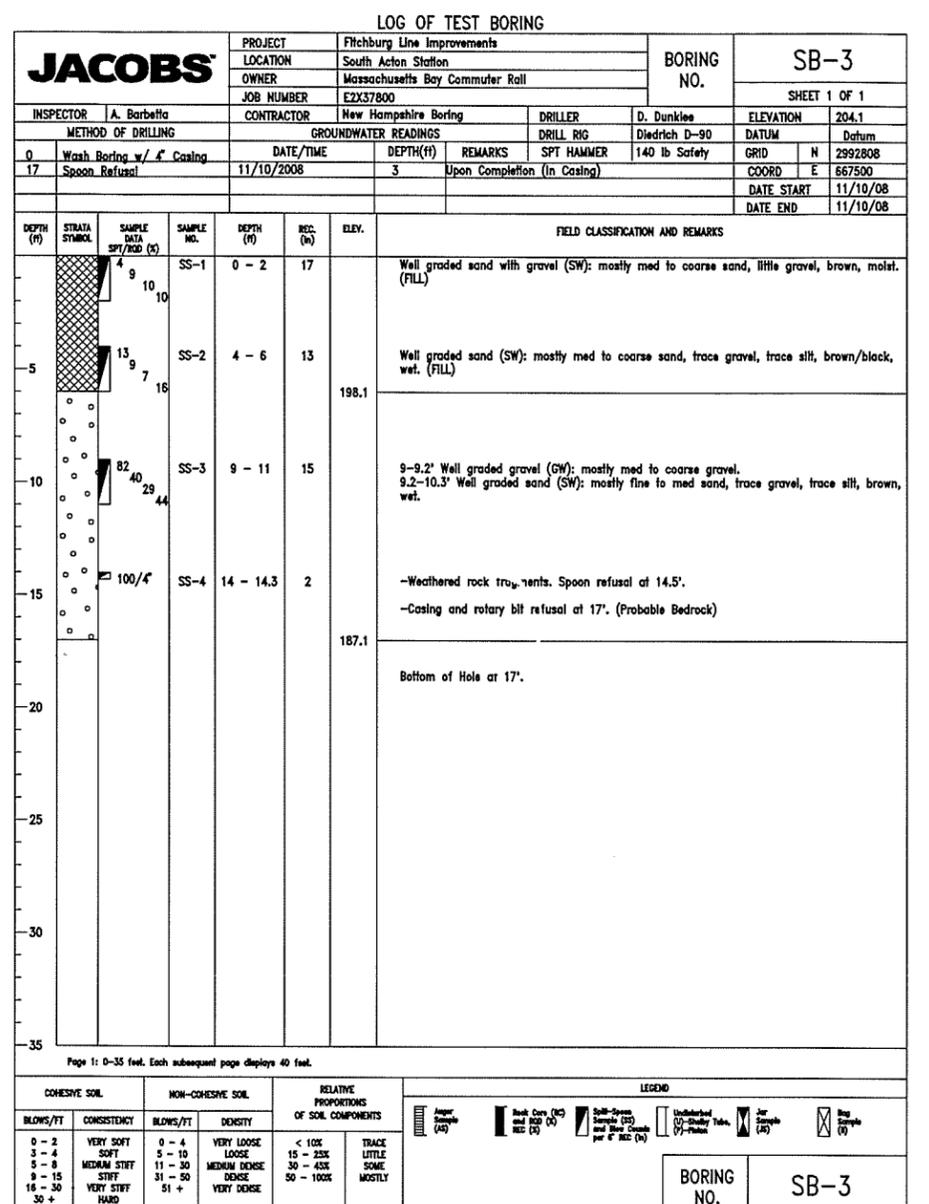
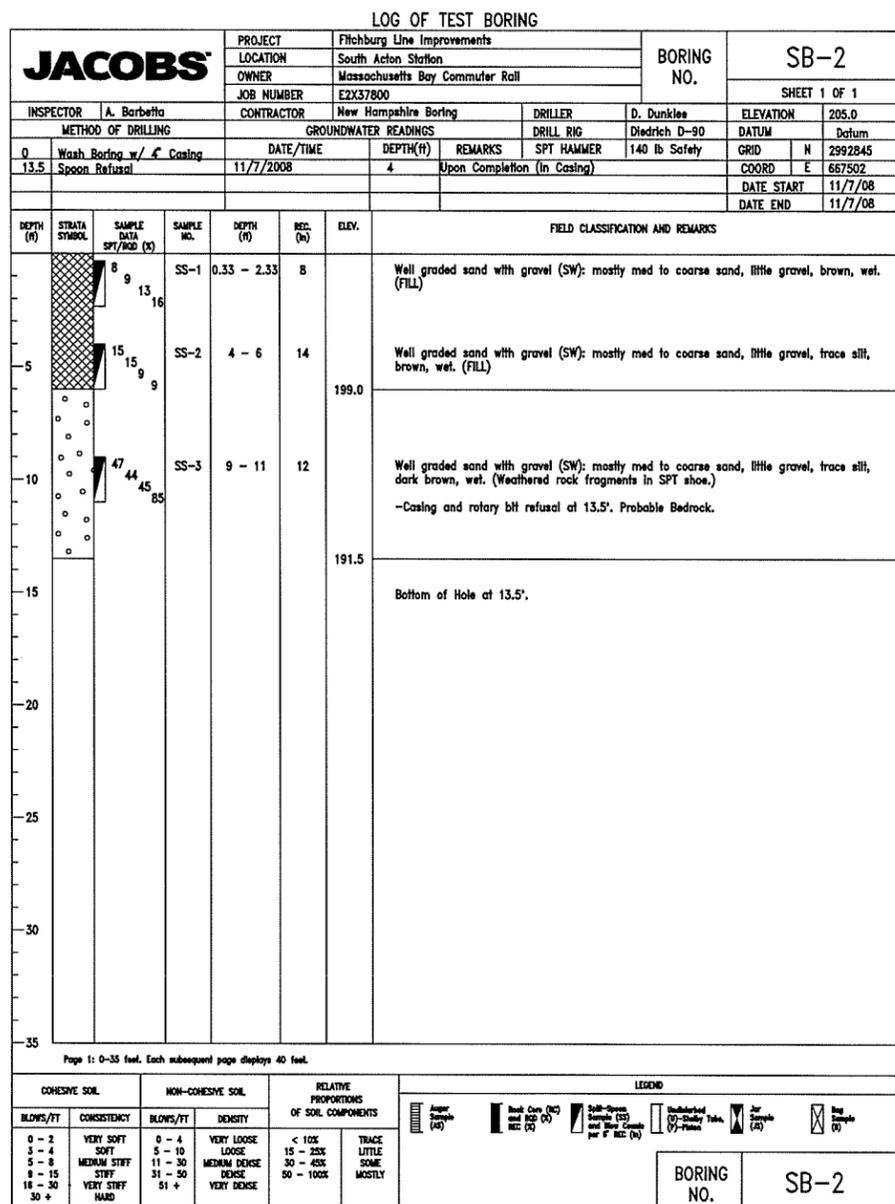
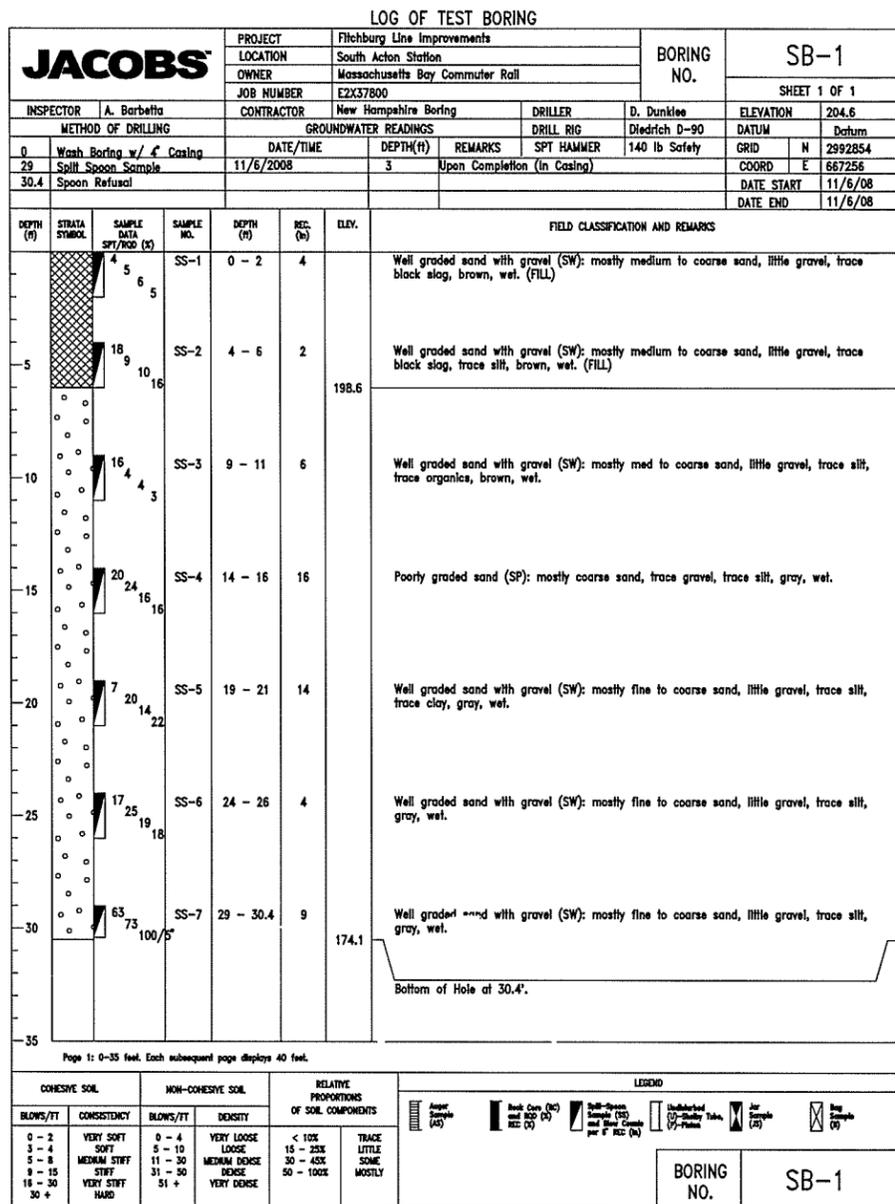
ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

JACOBS 343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222

PROJECT MANAGER	DATE	DES. BY	DR. BY	CHK. BY	PLAN NO.	ISSUE
HORIZ: 1" = 40'	DATE: 06/14/11	AMB	CWB	NAJ	SHEET GT-1	
VERT: NONE						

FILE NAME: P:\MBTA\2008\F2\37800\CAD\700CADD\702STATIONS\South Acton\Geotech\GT-1 Boring Location Plan.dwg
PLOT DATE: May 25, 2011 - 6:31am

FILE NAME: P:\MBA\2008\E2X37800\CAD\700CAD\7025STATIONS\South Acton\Geotech\GT-2 Boring Logs.dwg
 PLOT DATE: May 23, 2011 8:33am



NOTES:

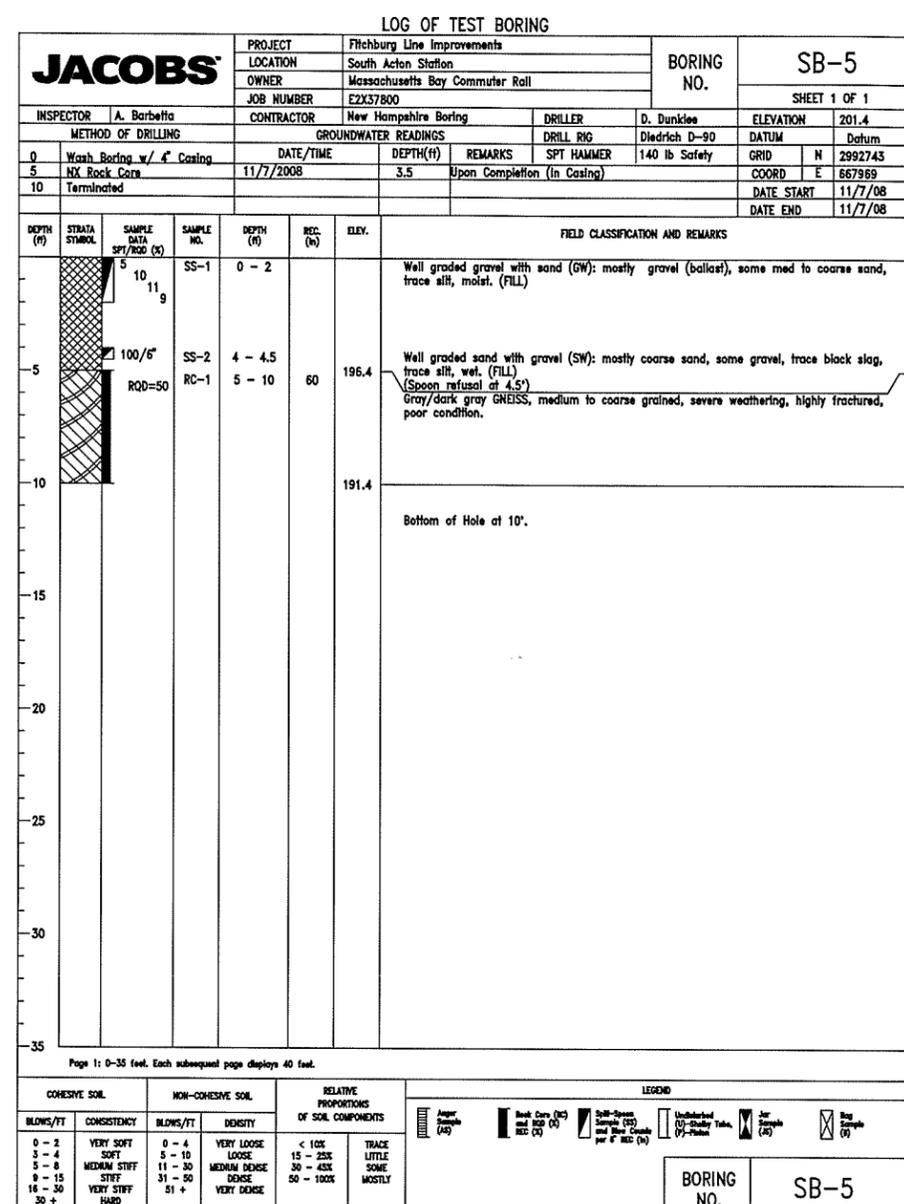
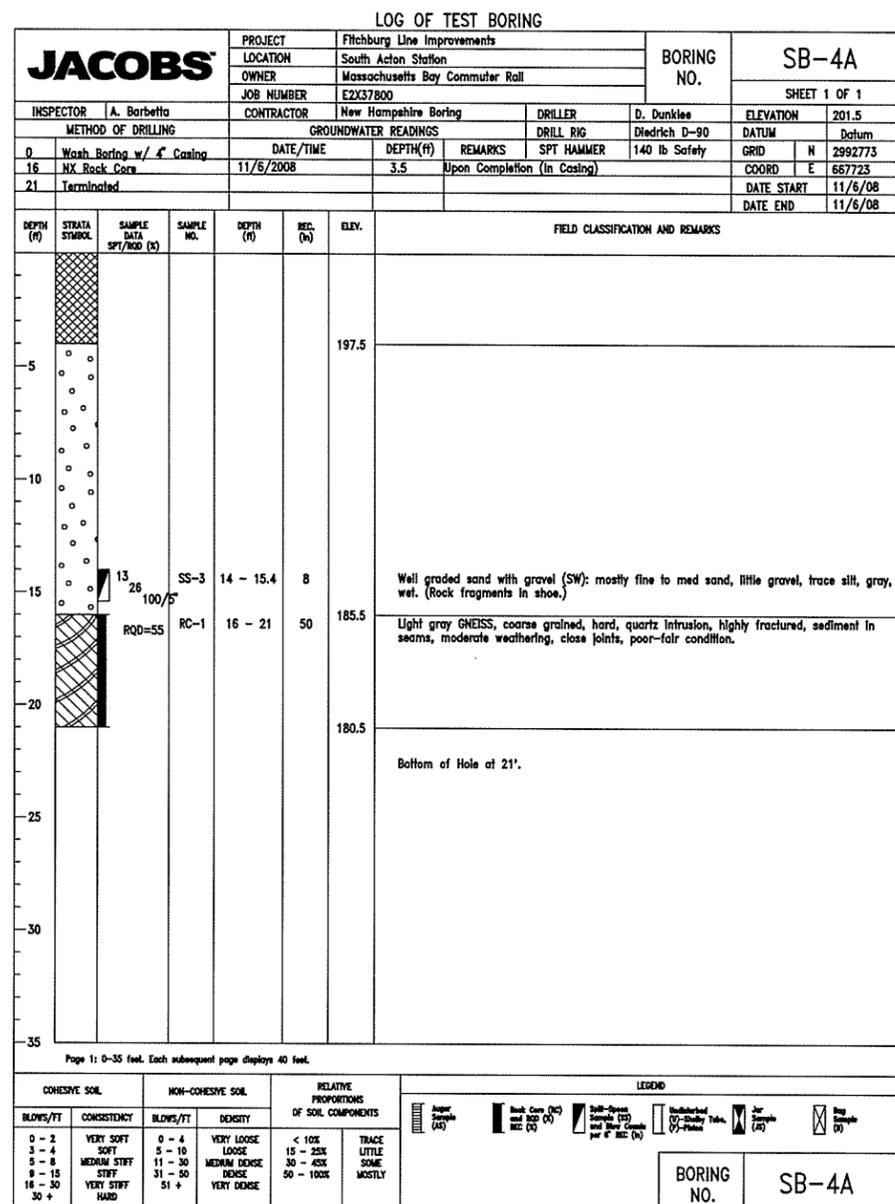
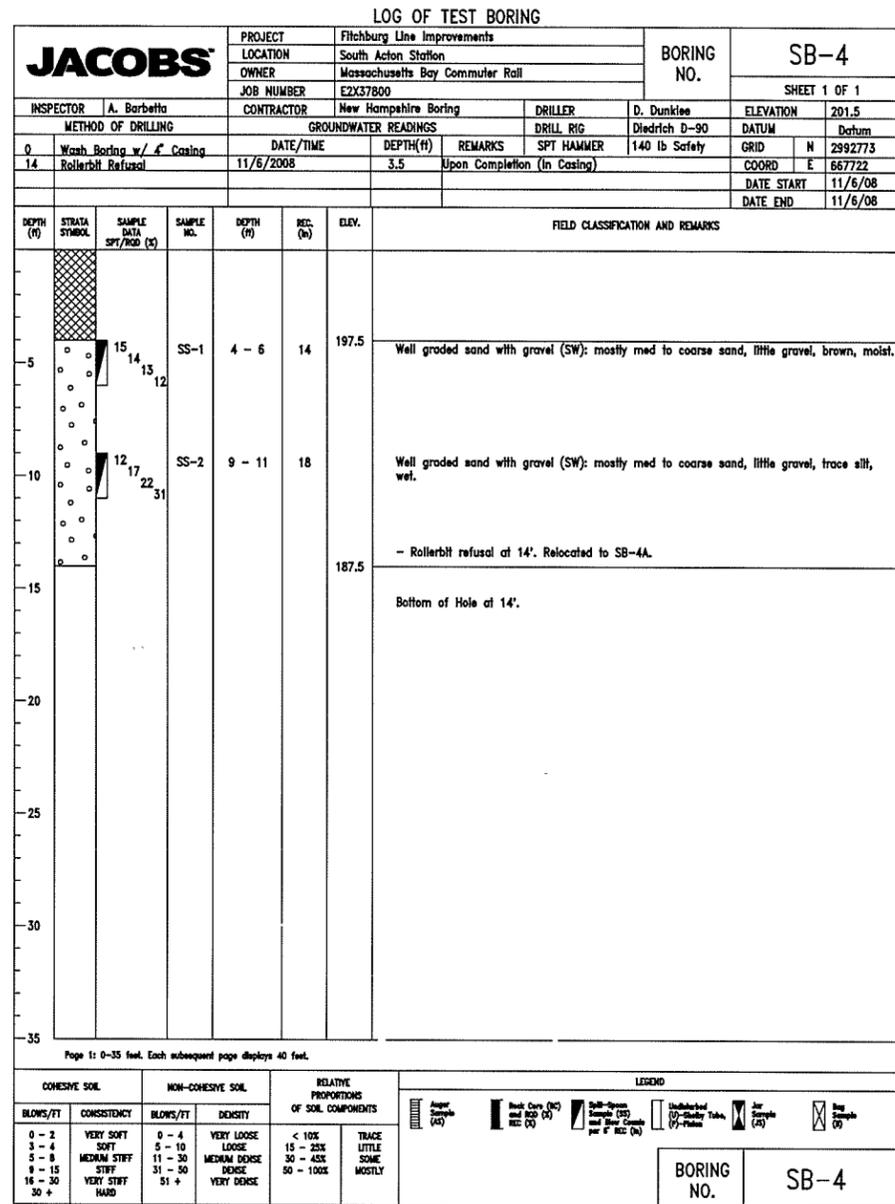
- BORINGS WERE DRILLED BY NEW HAMPSHIRE BORING INC. IN NOVEMBER 2008.
- INFORMATION ON EACH BORING LOG IS A COMPILATION OF SUBSURFACE CONDITIONS AND SOIL CLASSIFICATIONS OBTAINED FROM SAMPLES RECOVERED DURING THE FIELD EXPLORATION PROGRAM. SOIL LAYERS HAVE BEEN INTERPRETED BY COMMONLY ACCEPTED GEOTECHNICAL PROCEDURES.
- REFER TO BORING LOCATION PLAN FOR LOCATIONS OF BORINGS.
- GROUND SURFACE ELEVATIONS AND LOCATIONS OF BORINGS WERE SURVEYED BY ASEC CORPORATION. ALL VERTICAL CONTROL AND ELEVATIONS ARE BASED ON N.A.V.D. 88.
- GROUNDWATER LEVELS WERE MEASURED IN THE TEST BORINGS USING A WEIGHTED TAPE AT THE COMPLETION OF DRILLING. THE DATA INDICATED THAT GROUNDWATER LEVELS RANGED FROM APPROXIMATE EL. 201.5 FT TO 198.0 FT. WATER LEVELS RECORDED DURING DRILLING OR AFTER COMPLETION OF THE BORING SHOULD BE CONSIDERED APPROXIMATE AND REFER ONLY TO THE TIMES AND PLACES INDICATED. WATER LEVELS MAY VARY WITH THE CHANGE IN SEASONAL CONDITIONS OR CONSTRUCTION ACTIVITY.
- THE STANDARD PENETRATION TEST WAS PERFORMED BY DRIVING A 2.0-INCH OUTSIDE DIAMETER, 1.375-INCH INSIDE DIAMETER SPLIT BARREL SAMPLER INTO UNDISTURBED SOIL BY MEANS OF A 140-POUND WEIGHT FALLING FREELY THROUGH A VERTICAL DISTANCE OF 30 INCHES. THE SAMPLER IS NORMALLY DRIVEN THREE OR FOUR SUCCESSIVE 6-INCH INCREMENTS. THE NUMBER OF BLOWS FOR EACH 6-INCH INCREMENT IS NOTED. THE PENETRATION IS NOTED WHENEVER THE PENETRATION INCREMENT VARIES FROM THE STANDARD 6-INCH INCREMENT. THE TOTAL NUMBER OF BLOWS REQUIRED FOR THE FINAL OR MIDDLE 12 INCHES OF PENETRATION IS THE STANDARD PENETRATION RESISTANCE (N) (ASTM D1586).
- THE SUBSURFACE INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FOR DESIGN PURPOSES AND MAY NOT BE AN ADEQUATE REPRESENTATION OF ACTUAL CONDITIONS FOR PROJECT CONSTRUCTION. INFORMATION SHOWN, INCLUDING WATER LEVELS, REPRESENTS EXISTING CONDITIONS AT THE SPECIFIC BORING LOCATIONS AT THE TIME THE BORINGS WERE MADE. ALL RISKS RESULTING FROM USE OR INTERPRETATION OF THE SUBSURFACE DATA SHOWN SHALL BE BORNE BY THE CONTRACTOR.
- SEE SHEET GT-3 FOR BORING LOGS SHEET 2 OF 2.

60% SUBMITTAL
NOT FOR CONSTRUCTION

T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION BORING LOGS SHEET 1 OF 2		HNTB 300 APOLLO DRIVE CHELSEA, MA 02124 (978) 905-4000	
APPROVED BY:		APPROVED BY:	
PROJECT MANAGER	DATE	PROJECT MANAGER	DATE
HORIZ: NONE	06/14/11	AMB	CWB
VERT: NONE		JAJ	
DATE: 06/14/11		DATE: 06/14/11	

JACOBS
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BOSTON, MA 02110
(617) 242-9222

FILE NAME: P:\MBTA\2008\E2X37800\CAD\700CADD\702STATIONS\South Acton\Geotech\GT-3 Boring Logs.dwg
 PLOT DATE: May 25, 2011 6:31am



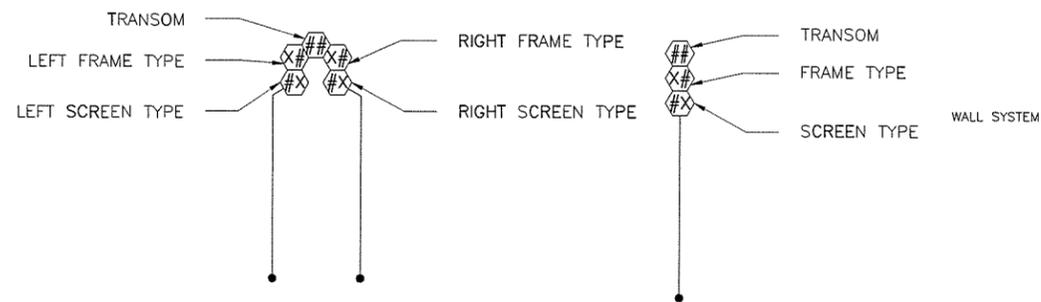
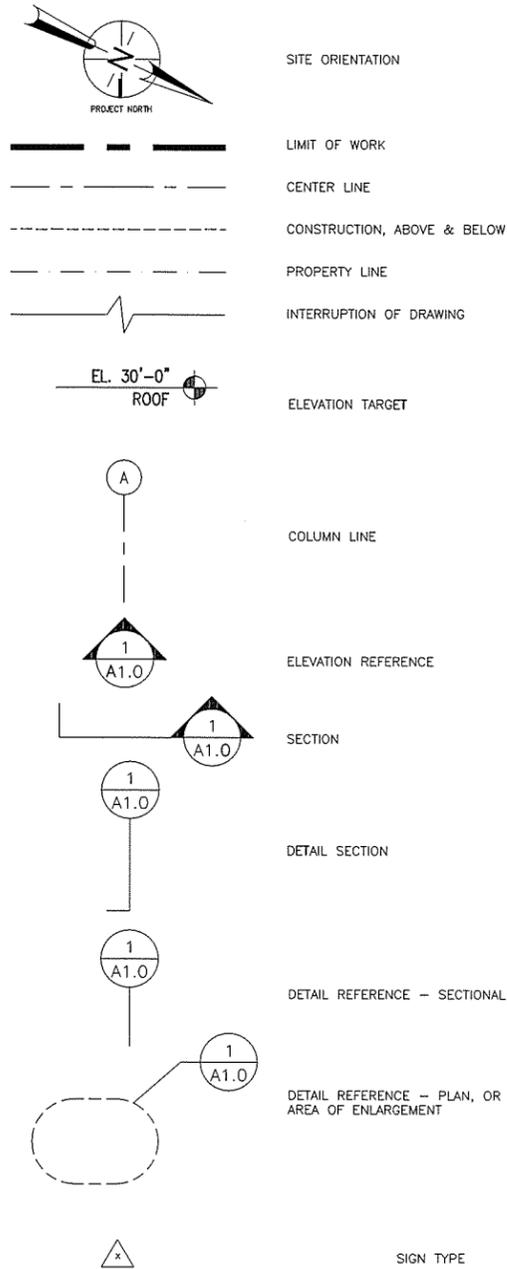
NOTE:

1. SEE SHEET GT-2 FOR DETAILED NOTES.

60% SUBMITTAL
NOT FOR CONSTRUCTION

	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CNO1	
	SOUTH ACTON STATION BORING LOGS SHEET 2 OF 2	
HNTB	300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY:		APPROVED BY:
PROJECT MANAGER	Date	PROJECT MANAGER
HORIZ: NONE	DR BY: JAJ	DATE: 06/14/11
VERT: NONE	AMB CWB	DATE: 06/14/11
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PLANNING NO. JAJ
DATE: 06/14/11		ISSUE
SHEET GT-3		

SYMBOLS



ARCHITECTURAL STEEL NOTES

- ALL EXTERIOR EXPOSED STEEL TO BE FABRICATED AS "ARCHITECTURALLY" EXPOSED STRUCTURAL STEEL CONFORMING TO ALL REQUIREMENTS OF THAT SPECIFICATION IN THE AISC MANUAL OF STEEL CONSTRUCTION. SECTION 10 CODE OF STANDARD PRACTICE (INCLUDING STRUCTURAL STEEL).
- ALL EXTERIOR EXPOSED STEEL SHALL BE HOT DIP NICKEL GALVANIZED PER SPECIFICATION SECTION 05041.
- ALL ARCHITECTURAL STEEL CONNECTIONS SHALL BE DESIGNED WITH THE FIELD ADJUSTABILITY TO ALLOW SPECIFIED TOLERANCES TO BE ACHIEVED.
- ALL WELDS IN ARCHITECTURAL STEEL SHALL BE SMOOTH AND CONTINUOUS.
- THE INTENTION OF THESE DOCUMENTS IS TO ELIMINATE ANY AND ALL FIELD WELDING AFFECTING FINISHED, EXPOSED SURFACES. NO BURNING OF ARCHITECTURAL STEEL SHALL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- ALL ARCHITECTURAL STEEL SHALL BE FABRICATED WATER TIGHT AND ALL STEEL TO STEEL JOINTS SHALL BE SEALED AS INDICATED.
- ALL REQUIRED VENT AND DRAIN HOLES FOR GALVANIZING SHALL BE SHOWN ON SHOP DRAWINGS FOR APPROVAL.
- GUARDRAIL IS 2" OD SCHEDULE 40 STEEL PIPE.
- HANDRAIL IS 1-1/2" OD SCHEDULE 40 STEEL PIPE.
- ALL GUARDRAILS WITH STEEL SUPPORT BOLTED TO VERTICAL F.B. POSTS INCLUDE 2" X 1/2" F.B. FRAME WITH 1/2" PICKETS, EXCEPT WHERE SPECIFICALLY EXCLUDED. HANDRAILS ARE REQUIRED CONTINUOUSLY ALONG BOTH SIDES OF RAMPS AND STAIRS.
- OTHER THAN HANDRAILS AND EGRESS STAIR ELEMENTS (INCLUDING TREADS, RISERS, STRINGERS, LANDINGS AND RELATED DETAILS, BUT NOT GUARD FENCE) SHALL BE SHOP PAINTED UNLESS SPECIFICALLY NOTED OTHERWISE.
- REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL DETAILS.
- UNO ALL ARCHITECTURAL STEEL SHALL BE GALVANIZED AFTER FABRICATION AND SHOP PAINTED.

GENERAL NOTES

- CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS AND IMMEDIATELY REPORT DISCREPANCIES TO THE ENGINEER.
- LIMIT OF WORK LINES MAY BE LOCATED ON PRIVATE OR MUNICIPAL PROPERTY. CONTRACTOR SHALL OBTAIN NECESSARY CONSTRUCTION EASEMENTS TO PERFORM WORK IN THOSE AREAS AND SHALL RESTORE THOSE AREAS TO THEIR ORIGINAL CONDITION.
- PAVED AREAS SHALL BE PITCHED A MINIMUM 1/8" PER FOOT TO PROVIDE POSITIVE DRAINAGE WITHOUT PUDDLING.
- THE CONTRACTOR SHALL MINIMIZE THE REMOVAL OF PAVEMENT IN AREAS NOT INTENDED TO BE REMOVED, BUT ADJACENT TO NEW CONSTRUCTION, SUCH AS EXISTING PARKING AREAS OR ROADWAYS. EXISTING PAVEMENT TO REMAIN SHALL BE SAWCUT AT THE EDGE WHERE NEW MATERIAL IS TO MEET TO FORM A CLEAN STRAIGHT JOINT.
- EXISTING OR NEW PAVEMENT STRIPES WILL BE REPAINTED WHERE DAMAGED BY CONSTRUCTION AS DIRECTED BY THE ENGINEER.
- ALL EXTERIOR EXPOSED VERTICAL AND NEAR VERTICAL CONCRETE SURFACES SHALL RECEIVE A CLEAR ANTI-GRAFFITI AND PROTECTIVE SEALER, AS SPECIFIED.
- ALL EXTERIOR EXPOSED TO VIEW HORIZONTAL, VERTICAL AND SLOPED CONCRETE SURFACES SHALL RECEIVE PENETRATING CONCRETE SEALER AS SPECIFIED.
- ALL PRECAST CONCRETE IS ARCHITECTURAL PRECAST. REFER TO STRUCTURAL DRAWINGS FOR REINFORCING, CONNECTIONS, AND BEARING.
- ALL STEEL IS ARCHITECTURAL EXPOSED STEEL AS DEFINED BY AISC. REFER TO STRUCTURAL DRAWINGS FOR WELDS, BOLTS, CONNECTIONS, AND SIZES.
- THE CONTRACTOR SHALL EXAMINE THE DOCUMENTS TO VERIFY DIMENSIONS AND LOCATIONS OF STRUCTURAL, ELECTRICAL, LANDSCAPE AND CIVIL DISCIPLINES WHICH MAY NOT BE SHOWN ON ARCHITECTURAL DRAWINGS.
- THE CONTRACTOR SHALL COORDINATE THE PLANS AND SPECIFICATIONS OF ALL DISCIPLINES AND WORKING DRAWINGS OF EACH TRADE TO DETERMINE THE CORRECT LOCATIONS OF ALL EMBEDDED ITEMS: CONDUITS, SLEEVES, ANCHOR BOLTS, INSERTS, REGLET RECESSES, AND OPENINGS.
- DESIGN AND CONSTRUCTION OF ALL WORK SHALL CONFORM TO CURRENT EDITION OF THE FOLLOWING:
 MBTA STANDARD SPECIFICATIONS INCLUDING SPECIAL PROVISIONS
 MASSACHUSETTS BUILDING CODE, 780 C.M.R EIGHTH EDITION
 AMERICANS WITH DISABILITIES ACT (A.D.A.)
 UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS)
 MASSACHUSETTS ARCHITECTURAL ACCESS BOARD RULES AND REGULATIONS
 IN CASE OF CONFLICT BETWEEN THE CODES, STANDARDS, REGULATIONS, SPECIFICATIONS, GENERAL NOTES AND/OR MANUFACTURER'S REQUIREMENTS, USE THE MOST STRINGENT PROVISIONS.
- ALL EXPOSED CAST IN PLACE CONCRETE TO HAVE ARCHITECTURAL FINISH.

FILE NAME: W:\DwgFiles\0814_Fitchburg Main Line\0814.01_So. Acton Station\7.0 Design Development\60% Submission\7.1 Dwg\00 A-ABREV.dwg
 PLOT DATE: Jun 08, 2011 - 2:49pm

60% SUBMITTAL
 NOT FOR CONSTRUCTION

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
		SOUTH ACTON STATION GENERAL NOTES SYMBOLS	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
PROJECT MANAGER _____ Date: _____		PROJECT MANAGER _____ Date: _____	
HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		PLAN NO. 169481 SHEET A-0.1	

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ABBREVIATIONS

A	ALGEBRAIC DIFFERENCE OF GRADES	DN	DOWN	L	LENGTH	QTY	QUANTITY	T	PERCENTAGE OF TRUCKS, TON, TANGENT
AB	ANCHOR BOLT	DO	DITTO	LAT	LATERAL			TAN	TANGENT
ABAN	ABANDON, ABANDONED	DWG	DRAWING	LB(S)	POUND(S)	RAD, R	RADIUS	T&B	TOP & BOTTOM
ABUT	ABUTMENT	DW	DRIVEWAY	LDSCP	LANDSCAPING	RC	REINFORCED CONCRETE	TBR	TO BE RELOCATED
AC	ASPHALTIC CONCRETE	E	EAST	LF	LINEAR FEET	RCB	REINFORCED CONCRETE BOX CULVERT	TCB	TRAFFIC CONTROL BOX
ADD	ADDENDUM	EA	EACH	LL	LIVE LOAD	RCP	REINFORCED CONCRETE PIPE	TEL	TELEPHONE
ADDL	ADDITIONAL	EB	ELECTRIC BOX	LOC	LOCATION, LOCAL	RD	ROAD	TEMP	TEMPERATURE, TEMPORARY
ADT	AVERAGE DAILY TRAFFIC	EF	EACH FACE	LP	LOW POINT, LIGHT POLE	RDWY	ROADWAY	THRU	THROUGH
ALUM	ALUMINUM	EGL	ENERGY GRADE LINE	LS	LOW SERVICE WATER	REC	RECORD	TMH	TELEPHONE MANHOLE
ALT	ALTERNATE, ALTERNATIVE	EHH	ELECTRIC HANDHOLE	LT	LEFT	REINF	REINFORCE, REINFORCING, REINFORCEMENT	TOC	TOP OF CONCRETE, TOP OF CURB
APP	APPROVED	EJ	EXPANSION JOINT					TOF	TOP OF FOOTING
APPROX	APPROXIMATE	EL	ELEVATION	MASS	MASSACHUSETTS	REL	RELOCATE, RELOCATED	TOG	TOP OF GRATE
ARCH	ARCHITECTURAL	ELBR	ELDERBERRY	MAX	MAXIMUM	REM	REMOVE	TOP	TOP OF PIPE
ARMJT	ARMORED JOINT	ELEC	ELECTRICAL	MBTA	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	REQD	REQUIRED	TOPO	TOPOGRAPHY
AUX	AUXILIARY	EMH	ELECTRIC MANHOLE	MC	METAL COVER	RET	RETAIN, RETAINING	TOR	TOP OF RAIL
AVE	AVENUE	ENGR	ENGINEER	M/E	MECHANICAL AND ELECTRICAL	REV	REVISION, REVISED	TOS	TOP OF STEEL
AVG	AVERAGE	ENT	ENTRANCE	MECH	MECHANICAL	RGS	RIGID GALVANIZED STEEL	TOW	TOP OF WALL
AWG	AMERICAN WIRE GAUGE	EP	EDGE OF PAVEMENT	MG	METAL GRATE, MEGA GRAM	RMDL	REMODEL	TP	TURNING POINT
B&B	BALLED AND BURLAPPED	EQ	EQUAL	MH	MANHOLE	ROW	RIGHT-OF-WAY	TR SIG COND	TRAFFIC SIGNAL CONDUIT
BIT	BITUMINOUS	ES	EACH SIDE	MHB	MASSACHUSETTS HIGHWAY BOUND	RRP	RIPRAP	TRANS	TRANSITION
BIT CONC	BITUMINOUS CONCRETE	EST	ESTIMATE	MHD	MASSACHUSETTS HIGHWAY DEPARTMENT	R&R	REMOVE AND RESET	TRD	TREAD
BL OR R	BASE LINE	EXC	EXCAVATION			R&S	REMOVE AND STACK	TRWY	TRAVELED WAY
BLDG	BUILDING	EXIST	EXISTING	MHW	MEAN HIGH WATER	RT	RIGHT	TS	TRAFFIC SIGNAL, TUBE STEEL
BMA	BITUMINOUS MACADAM	EXP	EXPANSION	MIN	MINIMUM	RTE	ROUTE	TSC	TRAFFIC SURVEILLANCE AND CONTROL
BO	BY OTHERS	EXT	EXTERIOR, EXTERNAL	MISC	MISCELLANEOUS			TTY	TEXT TELEPHONE
BOC	BOTTOM OF CURB	EW	EACH WAY	MKG	MARKING	S	SOUTH, SLOPE, SIGN SANITARY	TV	TELEVISION (CABLE)
BOD	BOTTOM OF DITCH	F	FAHRENHEIT (DEGREE)	MLW	MEAN LOW WATER	SB	SPECIAL BORROW, STONE BOUND	TVM	TICKET VENDING MACHINE
BOF	BOTTOM OF FOOTING	FA	FIRE ALARM, FEDERAL AID	MPH	MILES PER HOUR	SBC	STONE BOX CULVERT	TVMH	TELEVISION MANHOLE (CABLE)
BOS	BOTTOM OF STEEL	FB	FLOORBEAM	MSE	MECHANICALLY STABILIZED EARTH	SBD	SOUTHBOUND	TVP	TOP OF VERTICAL PIPE
BOT	BOTTOM BEARING	FC	FIBER CONDUIT	MSL	MEAN SEA LEVEL	SCPR	SCUPPER	TYP	TYPICAL
BRG	BEARING	FCM	FRACTURE CRITICAL MEMBER	N	NORTH	SD	STANDARD DRAWING, STORM DRAIN	UD	UNDERDRAIN
C	CELSIUS (DEGREE), STEEL CHANNEL	F&C	FRAME AND COVER	NA	NOT ACCESSIBLE	SE	SUPER ELEVATION	UP	UTILITY POLE
CAT	CATENARY	FD	FIBER DUCT	N/A	NOT APPLICABLE	SF	SQUARE FEET	ULT	ULTIMATE
CB	CATCH BASIN	FDN	FOUNDATION	NAD	NORTH AMERICAN DATUM	SH	SHEET	UNO	UNLESS NOTED OTHERWISE
CBCI	CATCH BASIN WITH CURB INLET	FDR	FLOOR DRAIN	NBD	NORTHBOUND	SHLD	SHOULDER	UTIL	UTILITIES
CEM	CEMENT	FF	FAR FACE	NF	NEAR FACE	SHLL	STATE HIGHWAY LAYOUT LINE	VAR	VARIABLE MESSAGE SIGN
CF	CUBIC FEET	FG	FIBERGLASS	N/F	NOW OR FORMERLY	SHLO	STATE HIGHWAY LAYOUT	VCP	VITRIFIED CLAY PIPE
CFM	CUBIC FEET PER MINUTE	F&G	FRAME AND GRATE	NGVD	NATIONAL GEODETIC VERTICAL DATUM	SI	SQUARE INCH	VERT	VERTICAL
CFS	CUBIC FEET PER SECOND	FIN	FINISH	NIC	NOT IN CONTRACT	SIM	SIMILAR	VG	VARIABLE GRAVEL
CG	CONTAINER GROWN	FL	FLOW LINE	NJB	NEW JERSEY BARRIER	SIP	STAY-IN-PLACE FORMS	VM	VALVE METER
CI	CAST IRON	FLR	FLOOR	NO OR #	NUMBER	SK	SKETCH, SKEW, SHEAR KEY	VMS	VARIABLE MESSAGE SIGN
CIP	CAST IRON PIPE	FM	FORCE MAIN	NPT	NATIONAL PIPE THREAD	SL	SURVEY LINE	VOL	VOLUME
CIP CONC	CAST-IN-PLACE CONCRETE	FS	FIRE SIGNAL, FEDERAL SPECIFICATIONS	NPV	NO PIPES VISIBLE	SMH	SEWER MANHOLE	W	WEST, WATER, WIDE FLANGE STEEL
CIT	CHANGE IN TYPE	FSP	FIRE STANDPIPE	NS	NEAR SIDE	SP	STEEL PIPE OR STATIC PRESSURE	w/	WITH
CIV	CIVIL	FT	FOOT, FEET	NTS	NOT TO SCALE	SPEC(S)	SPECIFICATION(S)	WBD	WESTBOUND
CJ	CONTROL JOINT	FTG	FOOTING	OC	ON CENTER	SPT	STANDARD PENETRATION TEST	WE	WATER ELEVATION
CL	CLASS	FVT	FIELD SHEAR VANE TEST	OD	OUTSIDE DIAMETER	SQ	SQUARE	WG	WATER GATE
C	CENTERLINE	GA	GAUGE	OG	ORIGINAL GROUND	SS	SANITARY SEWER, STAINLESS STEEL	WIP	WROUGHT IRON PIPE
CLD	CEMENT LINED DUCT, CONCRETE LOADING DOCK	GALV	GALVANIZED	OHW	OVERHEAD WIRES	SSMH	SANITARY SEWER MANHOLE	WM	WATER METER, WATER MAIN
CLDIP	CEMENT LINED DUCTILE IRON PIPE	GEN	GENERAL	OPP	OPPOSITE	SST	STAINLESS STEEL	WMH	WATER MANHOLE
CLF	CHAIN LINK FENCE	GEOTECH	GEOTECHNICAL	OW	OBSERVATION WELL	ST	STEAM, STREET	w/o	WITHOUT
CMP	CORRUGATED METAL PIPE	GG	GAS GATE	PB	PULL BOX	STA	STATION	WP	WOOD POST, WORKING POINT, WATERPROOF(ING)
CMU	CONCRETE MASONRY UNIT	GI	GUTTER INLET	PC	POINT OF CURVATURE	STD	STANDARD	WPM	WATERPROOFING MEMBRANE
CO	CLEAN-OUT, COUNTY	GICI	GUTTER INLET WITH CURB INLET	PCC	POINT OF COMPOUND CURVATURE	STL	STEEL	WS	WATERSTOP
COL	COLUMN	GM	GAS METER	PCCP	PRESTRESSED CONCRETE CYLINDER PIPE	SUB	SUBMITTED, SUBSTRUCTURE	WT	WIDE FLANGE STEEL CUT
COMM	COMMUNICATIONS	GP	GUARD POST	PCF	POUNDS PER CUBIC FOOT	SURF	SURFACE, SURFACING	WSP	WELDED STEEL PIPE
COMM/SIH	COMMUNICATION CENTER/SIGNAL INSTALLATION HOUSE	GRAN	GRANITE	PE	POLYETHYLENE, PROFESSIONAL ENGINEER	SW	SIDEWALK	WV	WATER VALVE
CONC	CONCRETE	GV	GAS VALVE	PERF	PERFORATED	SWR	SIDEWALK RAMP	WWF	WELDED WIRE FABRIC
COND	CONDUIT	HC	ACCESSIBLE	PERM	PERMANENT	SY	SQUARE YARD	WCR	WHEELCHAIR RAMP
CONN	CONNECTOR, CONNECTION	HDWL	HEADWALL	PGL	PROFILE GRADE LINE	SYM	SYMMETRICAL	WQS	WATER QUALITY STRUCTURE
CONST	CONSTRUCT, CONSTRUCTION	HGL	HYDRAULIC GRADE LINE	PI	POINT OF INTERSECTION OF TANGENTS			X-SECT	CROSS-SECTION
CONT	CONTINUE(D), CONTINUATION	HH	HANDHOLE	PIV	POST INDICATOR VALVE			YD	YARD
CSO	COMBINED SEWER OVERFLOW	HI	HEIGHT OF INSTRUMENT	PJT	PARAFFIN JOINT			YR	YEAR
CSP	CORRUGATED STEEL PIPE	HMA	HOT MIX ASPHALT	PKG	PARKING				
C TO C	CENTER TO CENTER	HORIZ	HORIZONTAL	PL	PLATE				
CTE	CONNECT TO EXISTING	HP	HIGH POINT, HORSEPOWER, H-PILE	PL	PLATE				
CTR	CENTER	HSB	HIGH STRENGTH BOLT	PL	PLATE				
CULV	CULVERT	HSS	HOLLOW STEEL SECTION	PL	PLATE				
CY	CUBIC YARD	HT	HIGH TENSION, HEIGHT	PL	PLATE				
DCBCI	DOUBLE CATCH BASIN WITH CURB INLET	HYD	HYDRANT	PL	PLATE				
D	DIRECTIONAL PERCENTAGE OF DESIGN HOURLY VOLUME, DEGREE OF CURVE, DRAIN	ID	INSIDE DIAMETER, IDENTIFICATION	PM	PARKING METER				
DC	DIRECT CURRENT	IN	INCH	PPC	PRECAST PRESTRESSED CONCRETE				
DCB	DOUBLE CATCH BASIN	INT	INTERIOR, INTERNAL	PPM	PARTS PER MILLION				
DDHV	DIRECTIONAL DESIGN HOURLY VOLUME	INV	INVERT	PRC	POINT OF REVERSE CURVATURE				
DELTA	DEGREE OF CURVE	IP	IRON PIPE	PREL	PRELIMINARY				
DEMO	DEMOLITION	IR	IRON ROD	PRIV	PRIVATE				
DEPT	DEPARTMENT	IT	INTERSECTION OF SLOPES OR PROFILE GRADE LINES	PROJ	PROJECT				
DHV	DESIGN HOURLY VOLUME	JCT	JUNCTION	PROP	PROPOSED				
DI	DROP INLET	JT	JOINT	PS	POLICE SIGNAL, PUMPING STATION (w/SYMBOL)				
DIA OR Ø	DIAMETER			PSF	POUNDS PER SQUARE FOOT				
DIAG	DIAGONAL, DIAGRAM			PSI	POUNDS PER SQUARE INCH				
DIAPH	DIAPHRAGM			PT	POINT, POINT OF TANGENCY				
DIM	DIMENSION			PVC	POLYVINYL CHLORIDE, POINT OF VERTICAL CURVATURE				
DIP	DUCTILE IRON PIPE			PVI	POINT OF VERTICAL INTERSECTION				
DL	DEAD LOAD			PVMT	PAVEMENT				
DMH	DRAIN MANHOLE			PVT	POINT OF VERTICAL TANGENCY				
				PWW	PAVED WATER WAY				

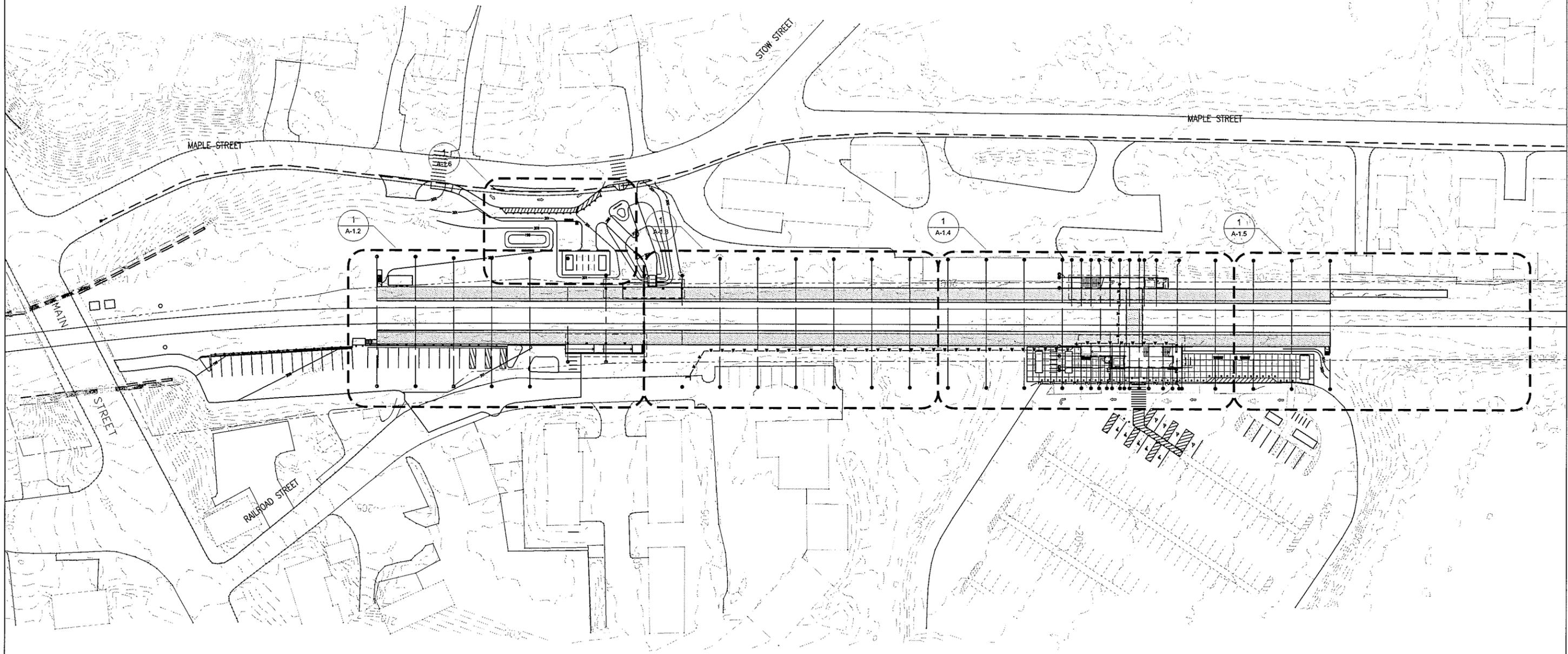
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	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
SOUTH ACTON STATION ABBREVIATIONS		
HNTB	300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
	APPROVED BY: _____	
PROJECT MANAGER	DATE	DATE
HORIZ: AS NOTED	DES. BY	CHK. BY
VERT: N/A	MB	MB
DATE: 06/14/11	DW	MB
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169482		DATE
SHEET A-0.2		DATE

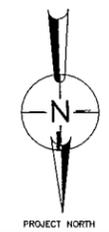
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EAST TO
BOSTON

WEST TO
FITCHBURG
TOWN OF ACTON



1 SITE PLAN
1:500



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T MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
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 IMPROVEMENT PROJECT
 CONTRACT NO. G67PS01
**SOUTH ACTON STATION
 SITE PLAN**

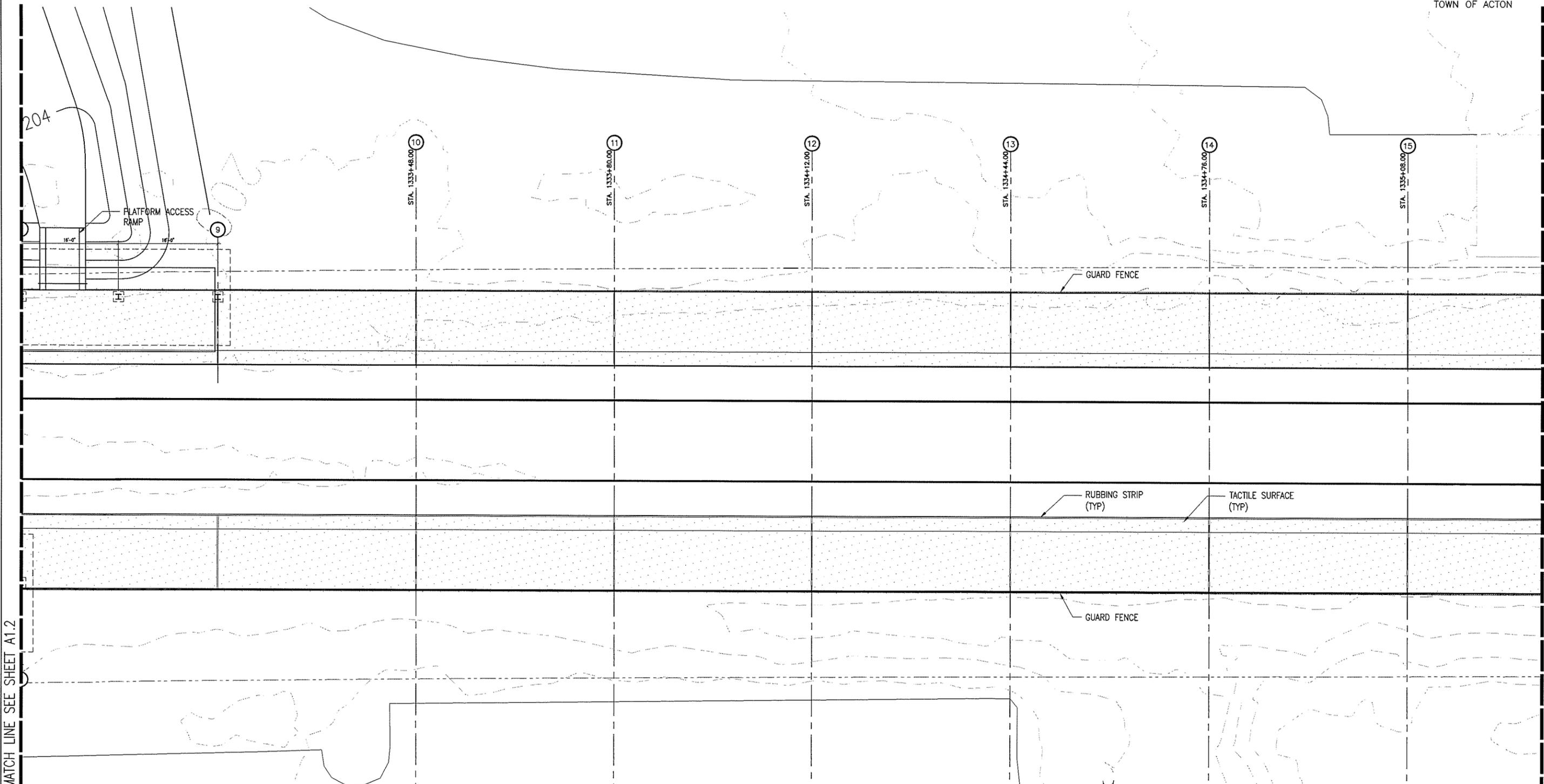
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<small>PROJECT MANAGER</small>		<small>DATE:</small>		<small>PROJECT MANAGER</small>	
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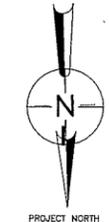
WEST TO FITCHBURG
TOWN OF ACTON



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1 ENLARGED SITE PLAN
1/8"=1'-0"

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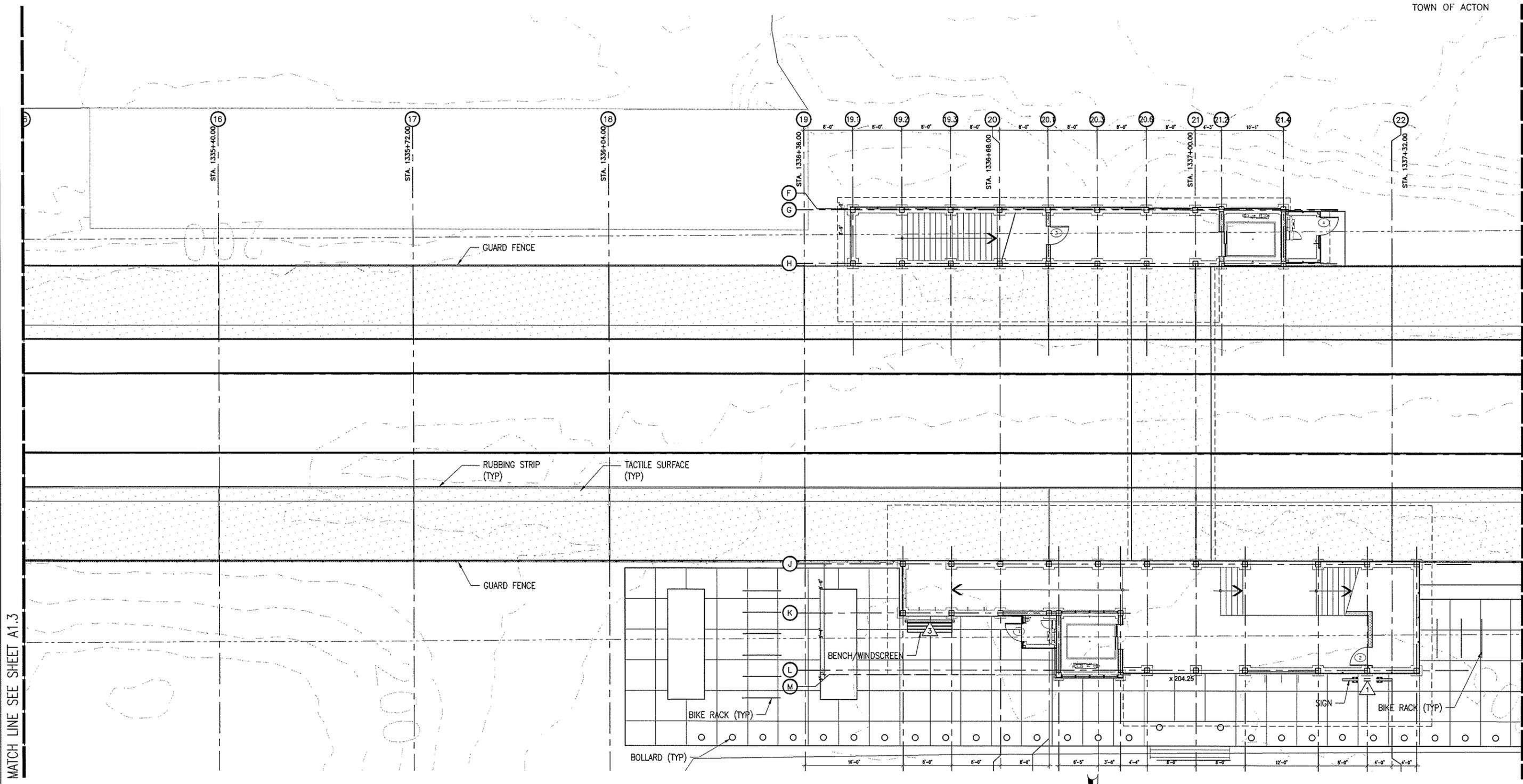
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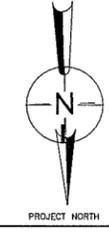
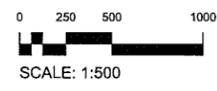
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	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
SOUTH ACTON STATION ENLARGED SITE PLAN		
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-6000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY:		DATE:
PROJECT MANAGER	DATE	PROJECT MANAGER
HORIZ: AS NOTED	DES. BY	DR. BY
VERT: N/A	MB	DW
DATE: 06/14/11	DW	MB
PLAN NO.	ISSUE	
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EAST TO
BOSTON

WEST TO
FITCHBURG
TOWN OF ACTON



1 ENLARGED SITE PLAN
1/8" = 1'-0"



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HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
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PROJECT MANAGER _____ Date: _____		PROJECT MANAGER _____ Date: _____
HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		DES. BY: MB DW: DW CHK. BY: MB
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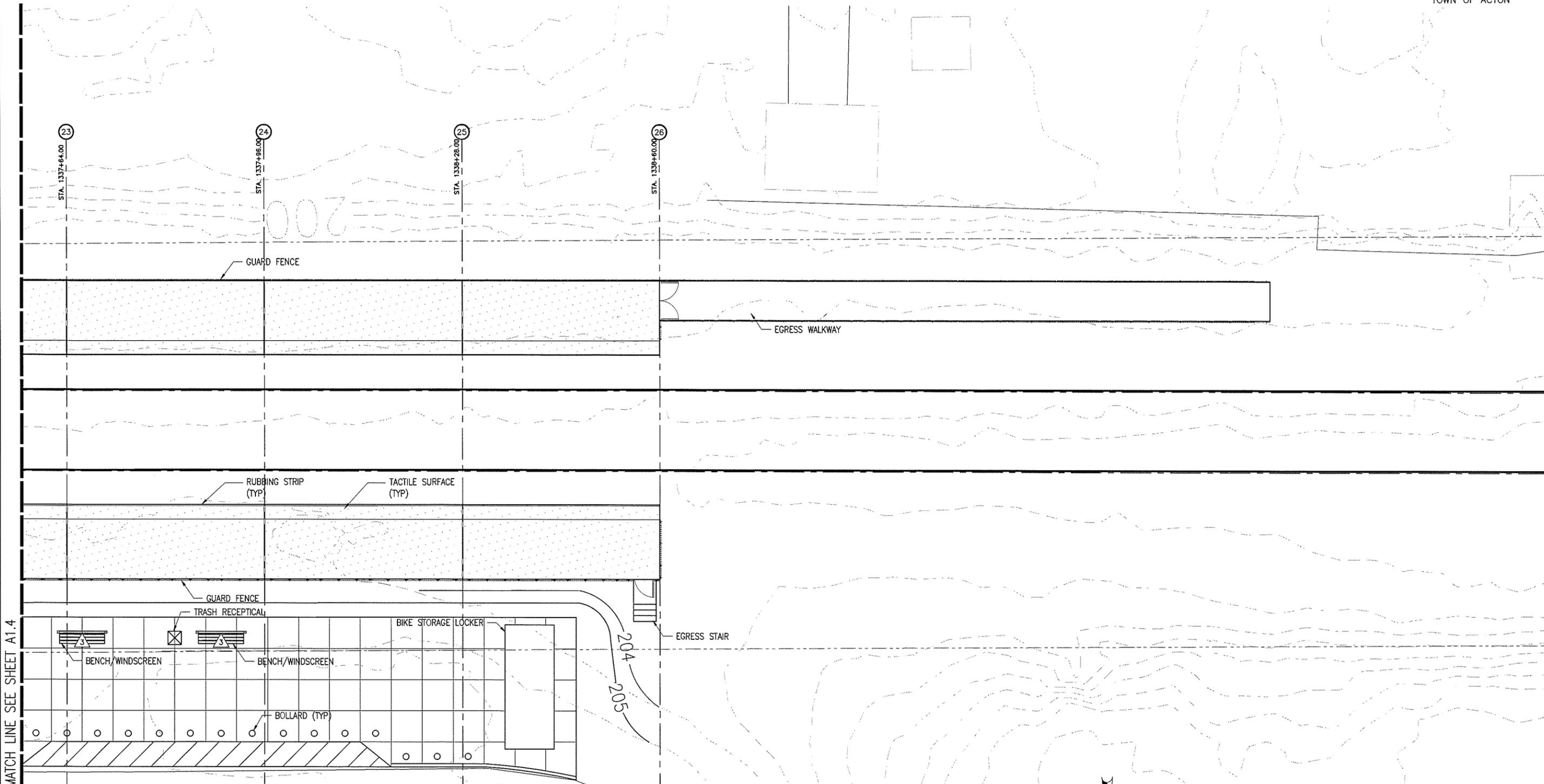
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MATCH LINE SEE SHEET A1.3

MATCH LINE SEE SHEET A1.5

EAST TO
BOSTON

WEST TO
FITCHBURG
TOWN OF ACTON

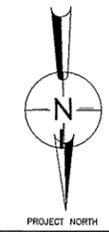
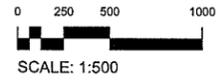


1 ENLARGED SITE PLAN
1/8"=1'-0"

MATCH LINE SEE SHEET A1.4

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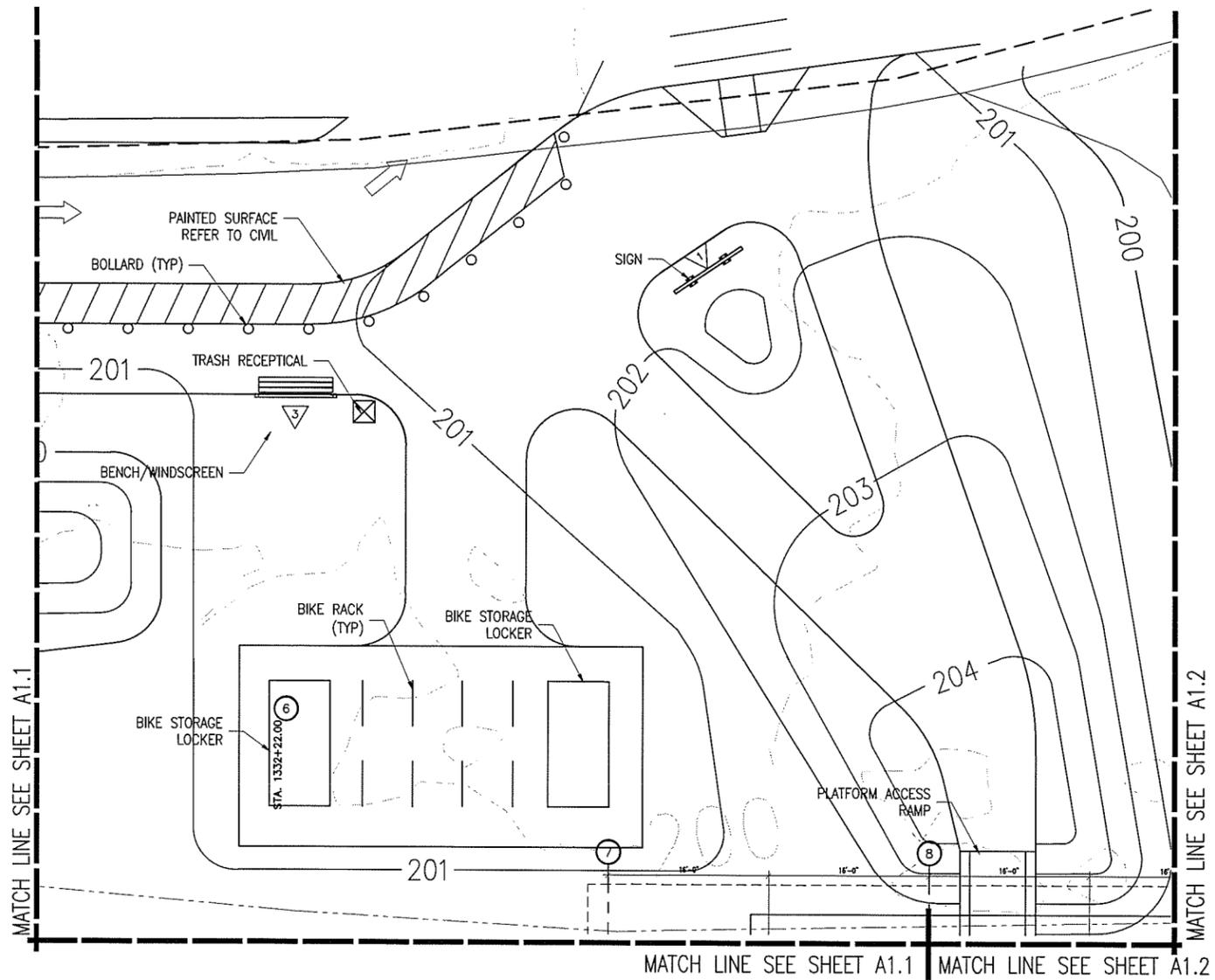
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	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
SOUTH ACTON STATION ENLARGED SITE PLAN		
HNTB	300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
	APPROVED BY: _____ PROJECT MANAGER	
PROJECT MANAGER	DES. BY	DATE
DATE: 06/14/11	MB DW	MB
HORIZ: AS NOTED	VERT: N/A	DATE: 06/14/11
PLAN NO.	SHEET A-1.5	
ISSUE		

EAST TO
BOSTON

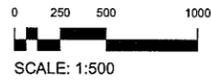
WEST TO
FITCHBURG
TOWN OF ACTON



1 ENLARGED SITE PLAN
1/8" = 1'-0"

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PLOT DATE: Jun 08, 2011 - 2:51pm

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NOT FOR CONSTRUCTION



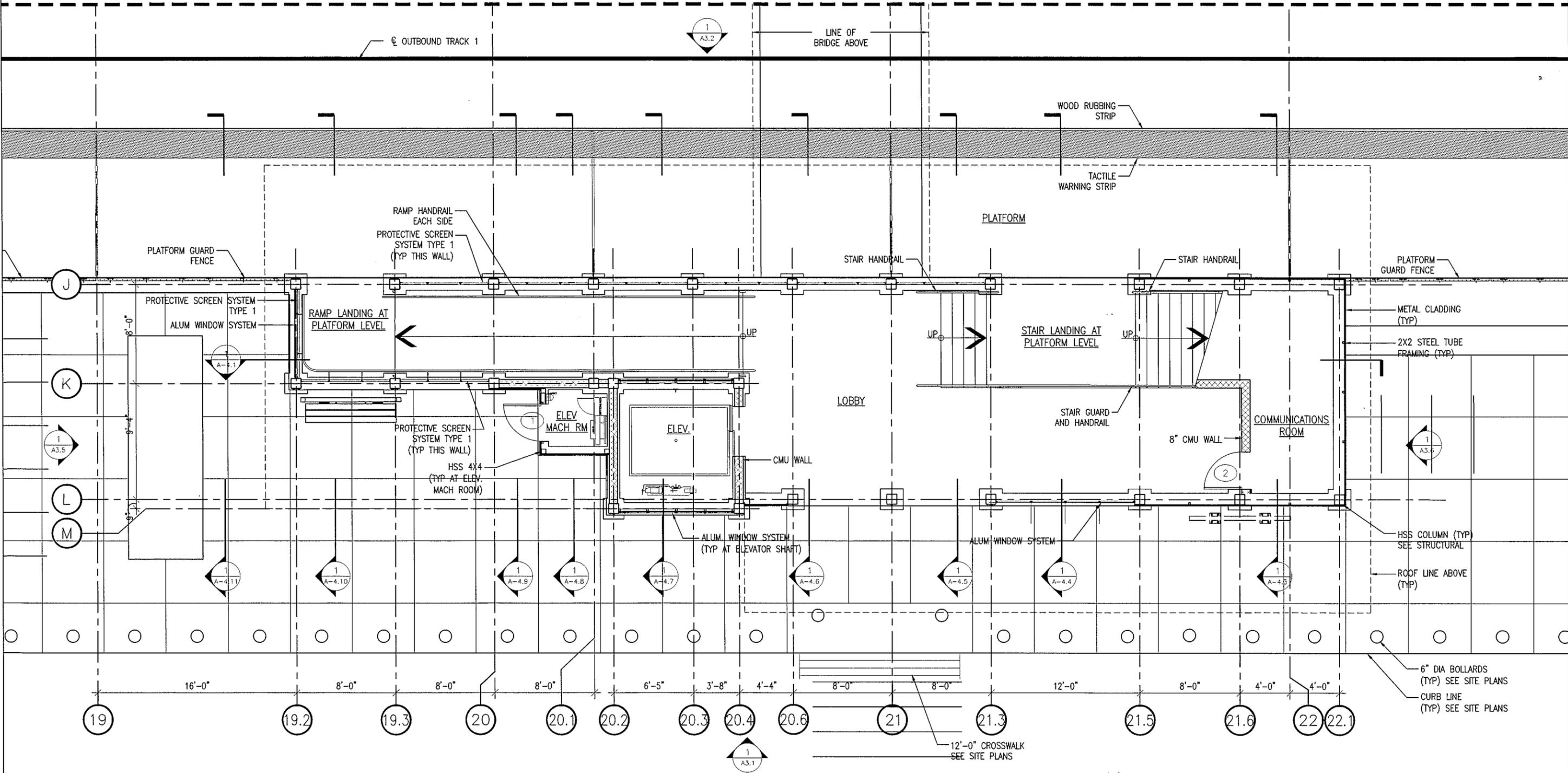
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T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
SOUTH ACTON STATION ENLARGED SITE PLAN		
HNTB	300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
	APPROVED BY: _____ Date _____	
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HORIZ: AS NOTED	DES. BY MB	CHK. BY MB
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DATE: 06/14/11	PLAN NO. _____ ISSUE NO. _____	
SHEET A-1.2		○

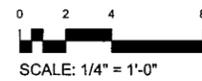
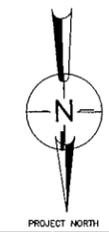
Lozano, Baskin, and Associates, Inc.
Architecture • Urban Design • City Planning
205 Mt. Auburn St. Watertown, MA 02472

EAST TO BOSTON
MATCH LINE SEE SHEET A2.2

WEST TO FITCHBURG
TOWN OF ACTON



1 PLAN DETAIL
1/4" = 1'-0"



60% SUBMITTAL
NOT FOR CONSTRUCTION

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
CONTRACT NO. G67PS01

**SOUTH ACTON STATION
FIRST FLOOR PLAN
OUTBOUND HEAD HOUSE**



300 APOLLO DRIVE
CHELMSFORD, MA 01824
(978) 905-4000

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: _____
PROJECT MANAGER Date

Lozano, Baskin, and Associates, Inc.
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205 Mt. Auburn St. Watertown, MA 02472

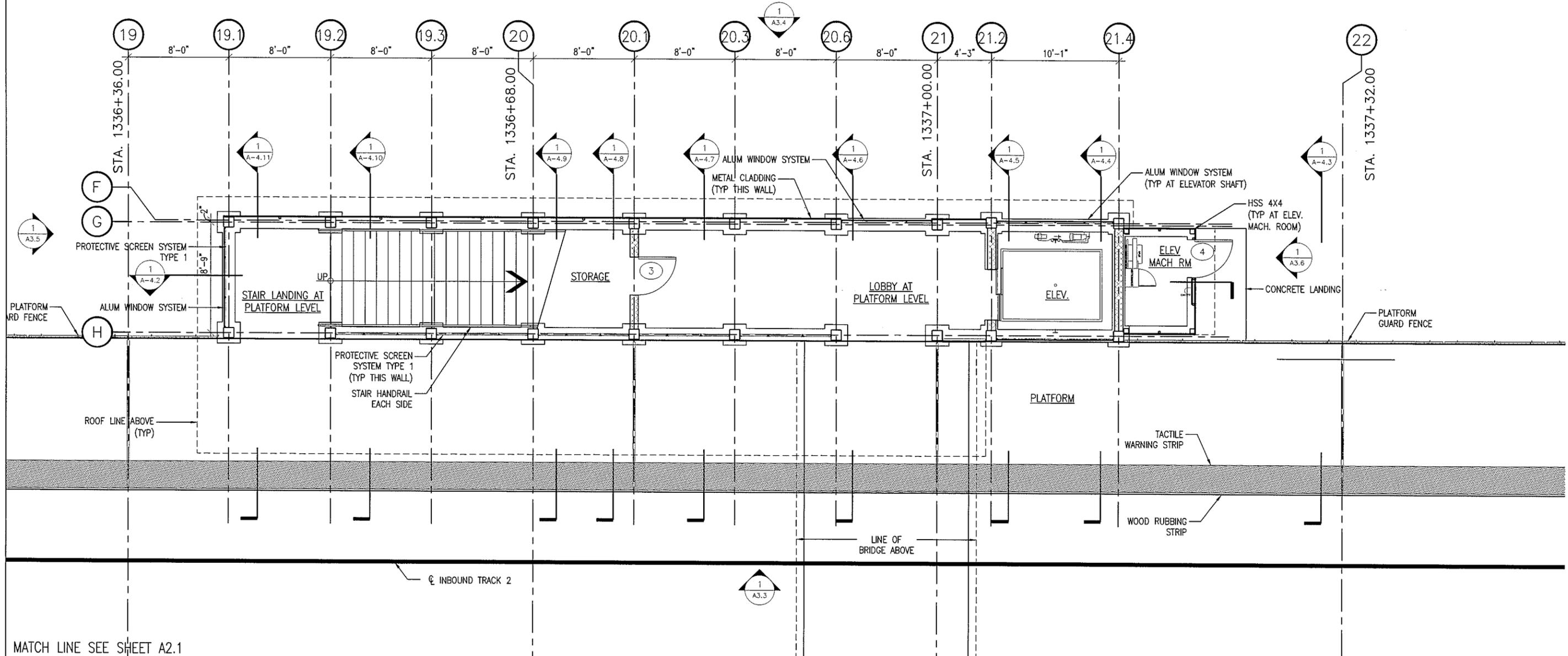
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DATE: 06/14/11

DATE
PLAN NO.
SHEET A-2.1

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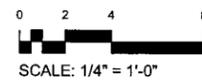
EAST TO
BOSTON

WEST TO
FITCHBURG
TOWN OF ACTON



MATCH LINE SEE SHEET A2.1

1 PLAN DETAIL
1/4" = 1'-0"



60% SUBMITTAL
NOT FOR CONSTRUCTION

T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
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SOUTH ACTON STATION FIRST FLOOR PLAN INBOUND HEAD HOUSE		
HNTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY:		APPROVED BY:
PROJECT MANAGER		PROJECT MANAGER
DATE		DATE
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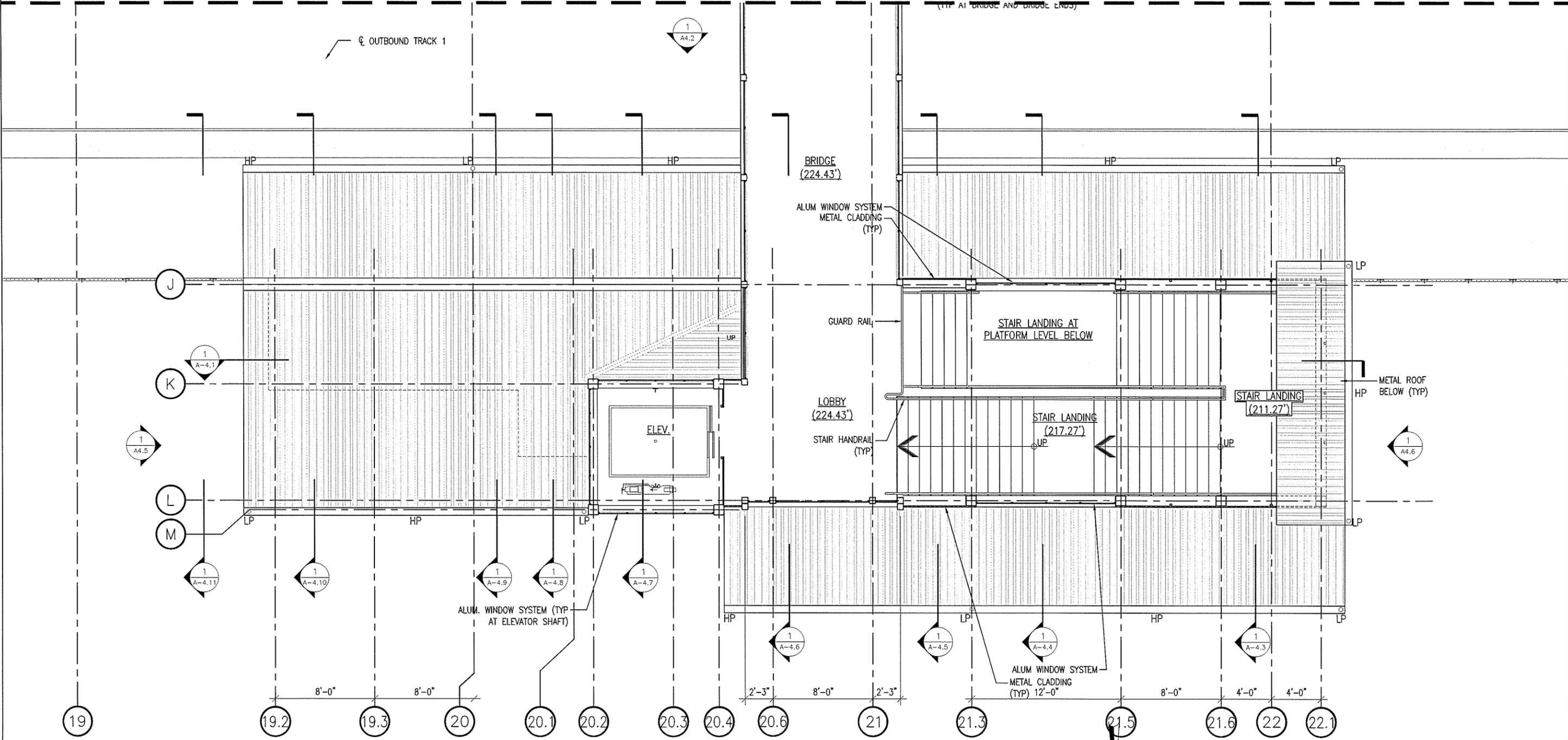
Lozano, Baskin, and Associates, Inc.		
Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		
ISSUE	DATE	DESCRIPTION

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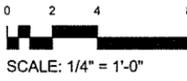
EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON

MATCH LINE SEE SHEET A2.4



1 PLAN DETAIL
1/4" = 1'-0"



T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01
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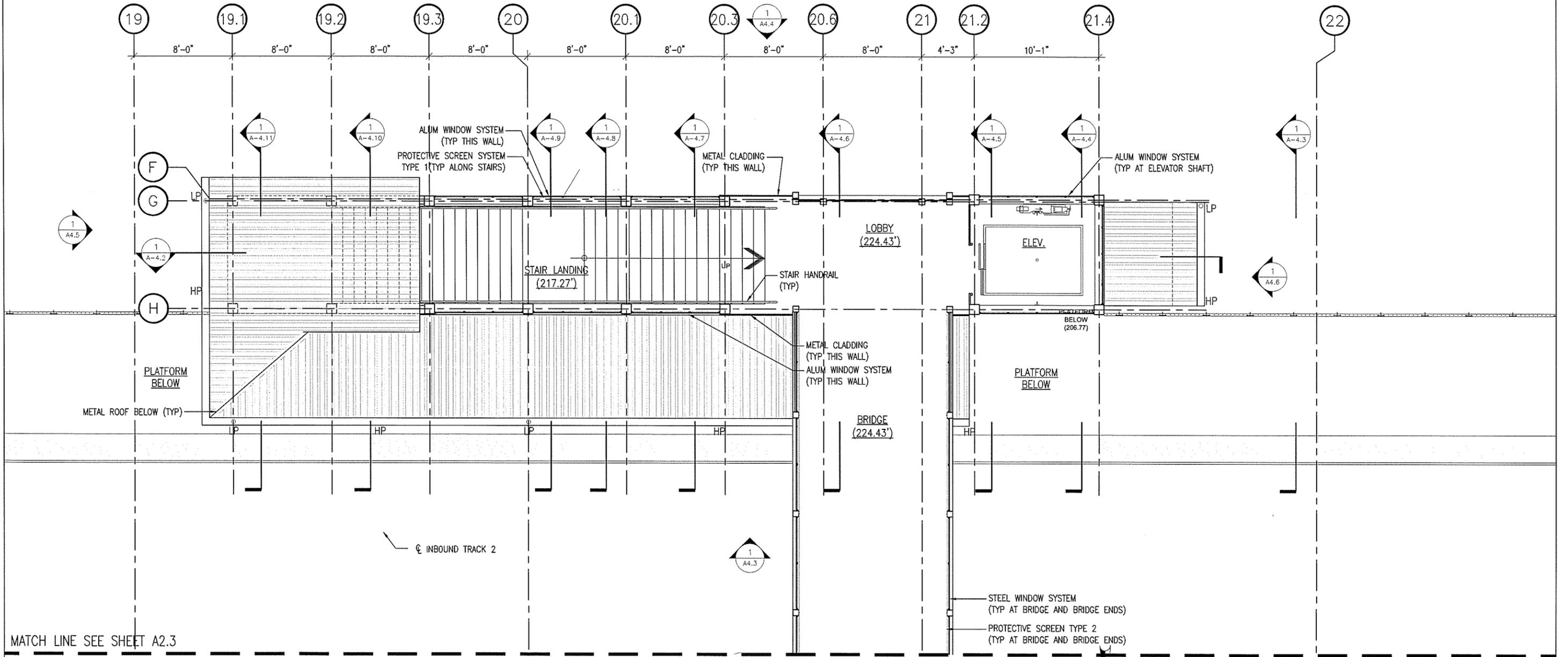
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ISSUE	DATE	DESCRIPTION	BY	CHK.	APP.																	
PROJECT MANAGER	Date																					
DES. BY	Date																					
DR. BY	Date																					
CHK. BY	Date																					
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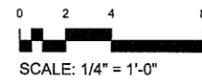
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EAST TO
BOSTON

WEST TO
FITCHBURG
TOWN OF ACTON



1 PLAN DETAIL
1/4" = 1'-0"



60% SUBMITTAL
NOT FOR CONSTRUCTION

T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
SOUTH ACTON STATION SECOND FLOOR PLAN INBOUND HEAD HOUSE		
HNTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: _____		PROJECT MANAGER _____
DATE: 06/14/11		DATE: _____

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

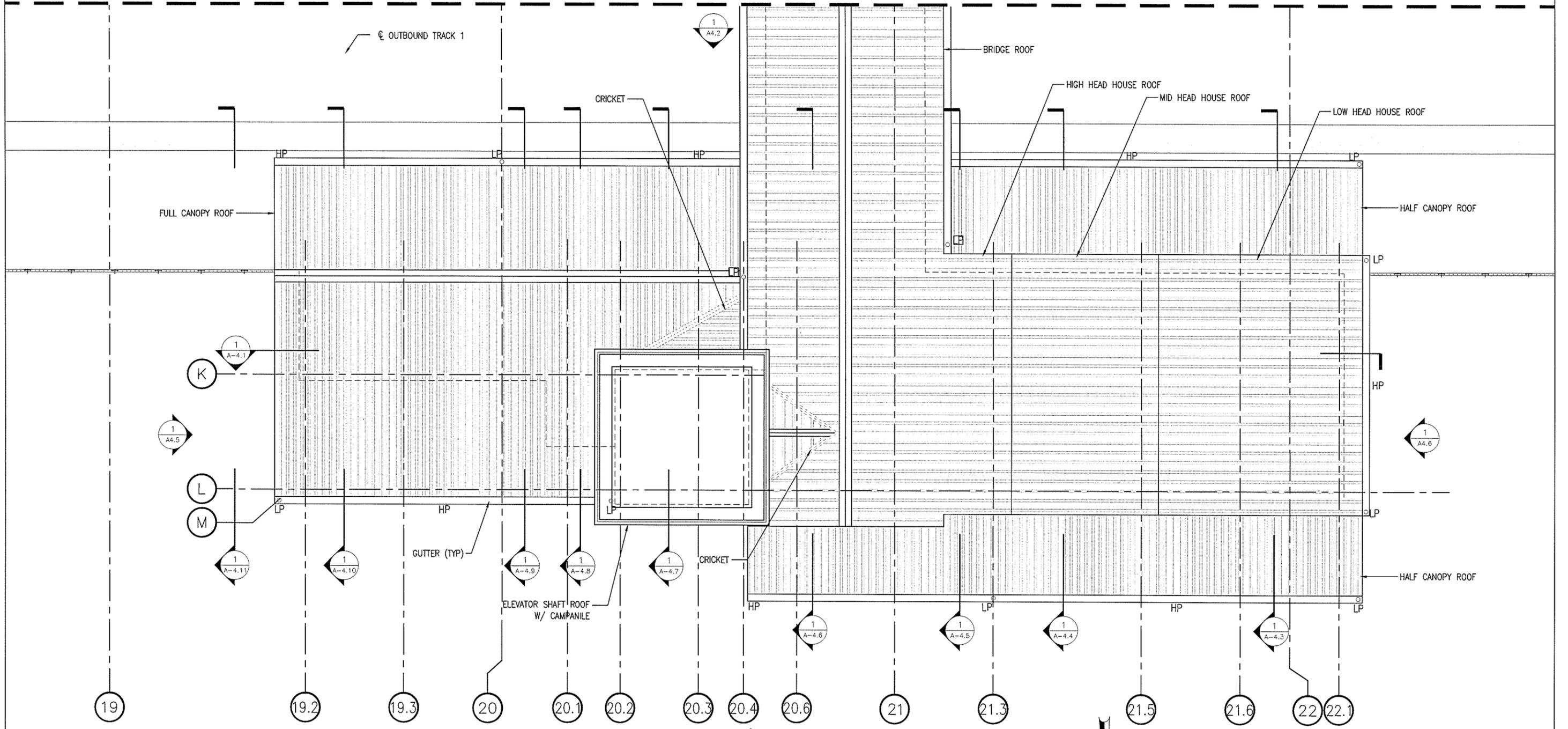
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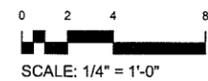
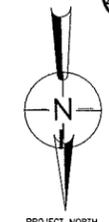
EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON

MATCH LINE SEE SHEET A2.6



1 ROOF PLAN
1/4" = 1'-0"



T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
	SOUTH ACTON STATION ROOF PLAN OUTBOUND HEAD HOUSE	
HNTB	300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-6000	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
	APPROVED BY: _____	
PROJECT MANAGER _____		DATE _____
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DATE: 06/14/11	PLAN NO. _____	
ISSUE _____		DATE _____

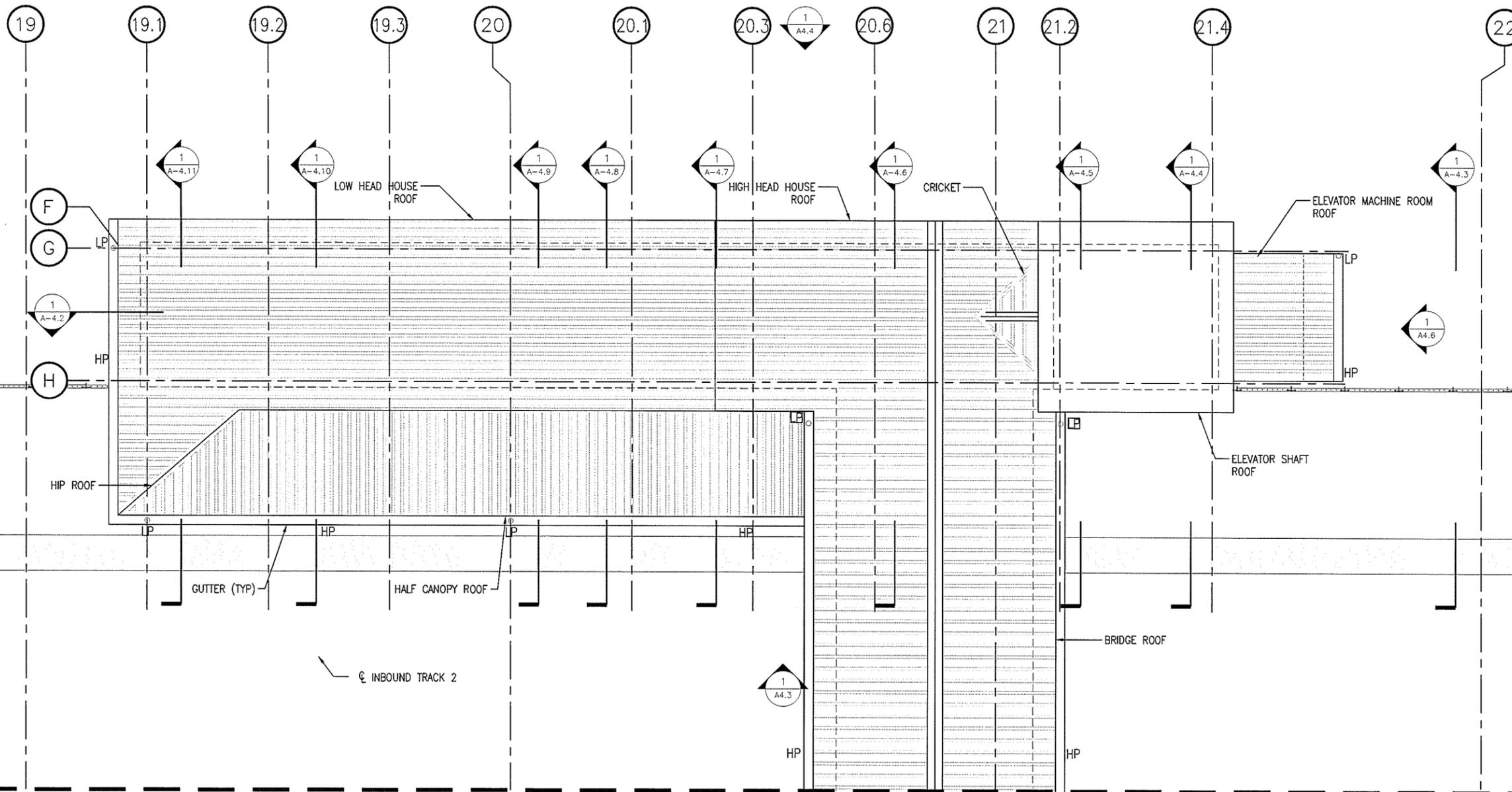
Lozano, Baskin, and Associates, Inc.	
Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472	

60% SUBMITTAL
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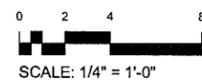
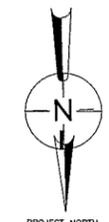
EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON



MATCH LINE SEE SHEET A2.5

1 ROOF PLAN
1/4" = 1'-0"



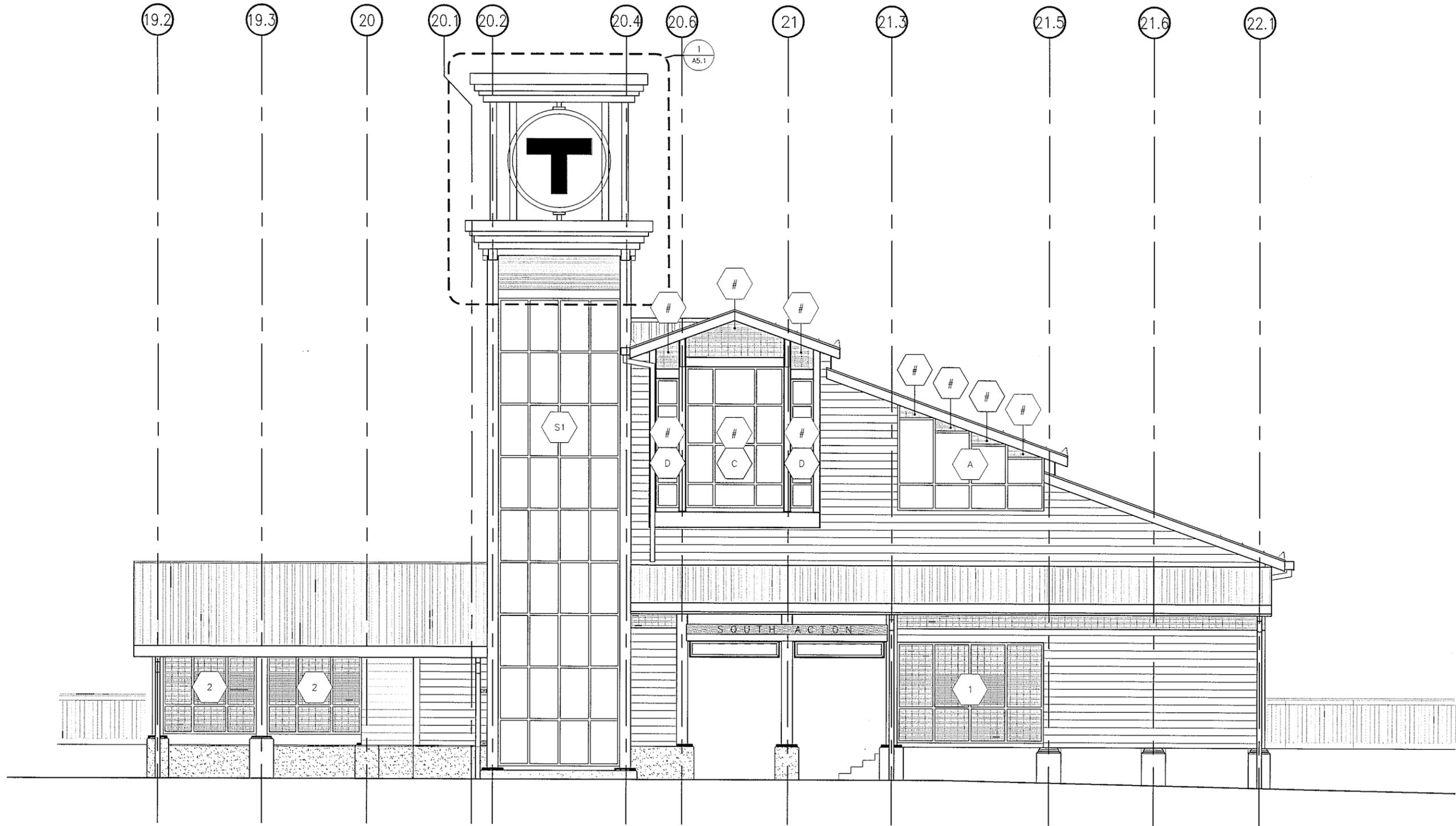
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	SOUTH ACTON STATION ROOF PLAN INBOUND HEAD HOUSE	
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	APPROVED BY: _____	
PROJECT MANAGER _____ Date _____		PROJECT MANAGER _____ Date _____
DES. BY: _____ DR. BY: _____		PLAN NO. _____
DATE: 06/14/11		ISSUE _____

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ISSUE	DATE	DESCRIPTION

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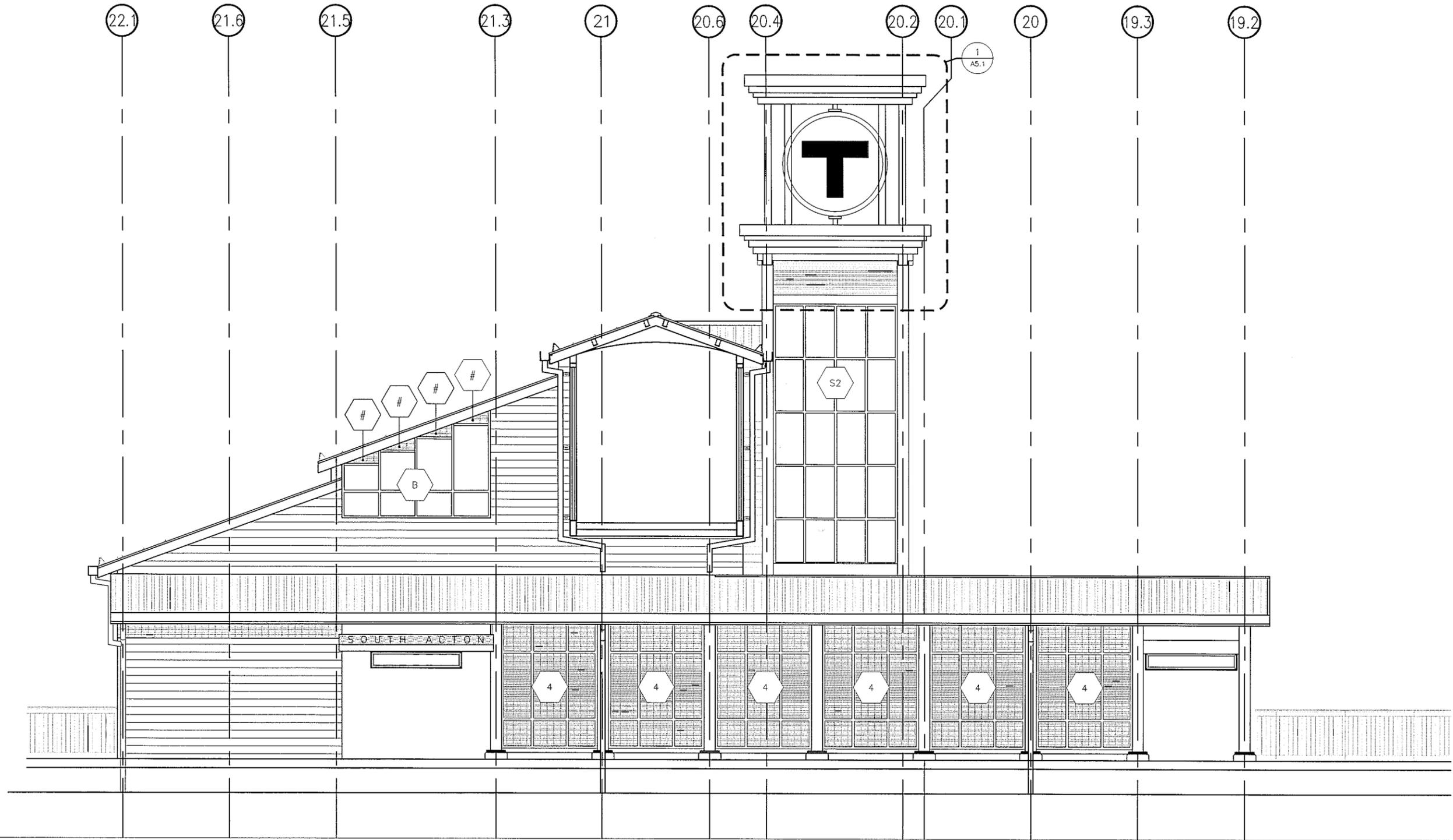


1 ELEVATION

60% SUBMITTAL
 NOT FOR CONSTRUCTION

T MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
 FITCHBURG COMMUTER RAIL LINE
 IMPROVEMENT PROJECT
 CONTRACT NO. G67PS01
 SOUTH ACTON STATION
 NORTH ELEVATION
 OUTBOUND HEAD HOUSE

HNTB <small>300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000</small>		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date			
Lozano, Baskin, and Associates, Inc. <small>Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472</small>		HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	DES. BY: MB DR. BY: DW CHK. BY: MB	PLAN NO. SHEET A-3.1	ISSUE



1 ELEVATION

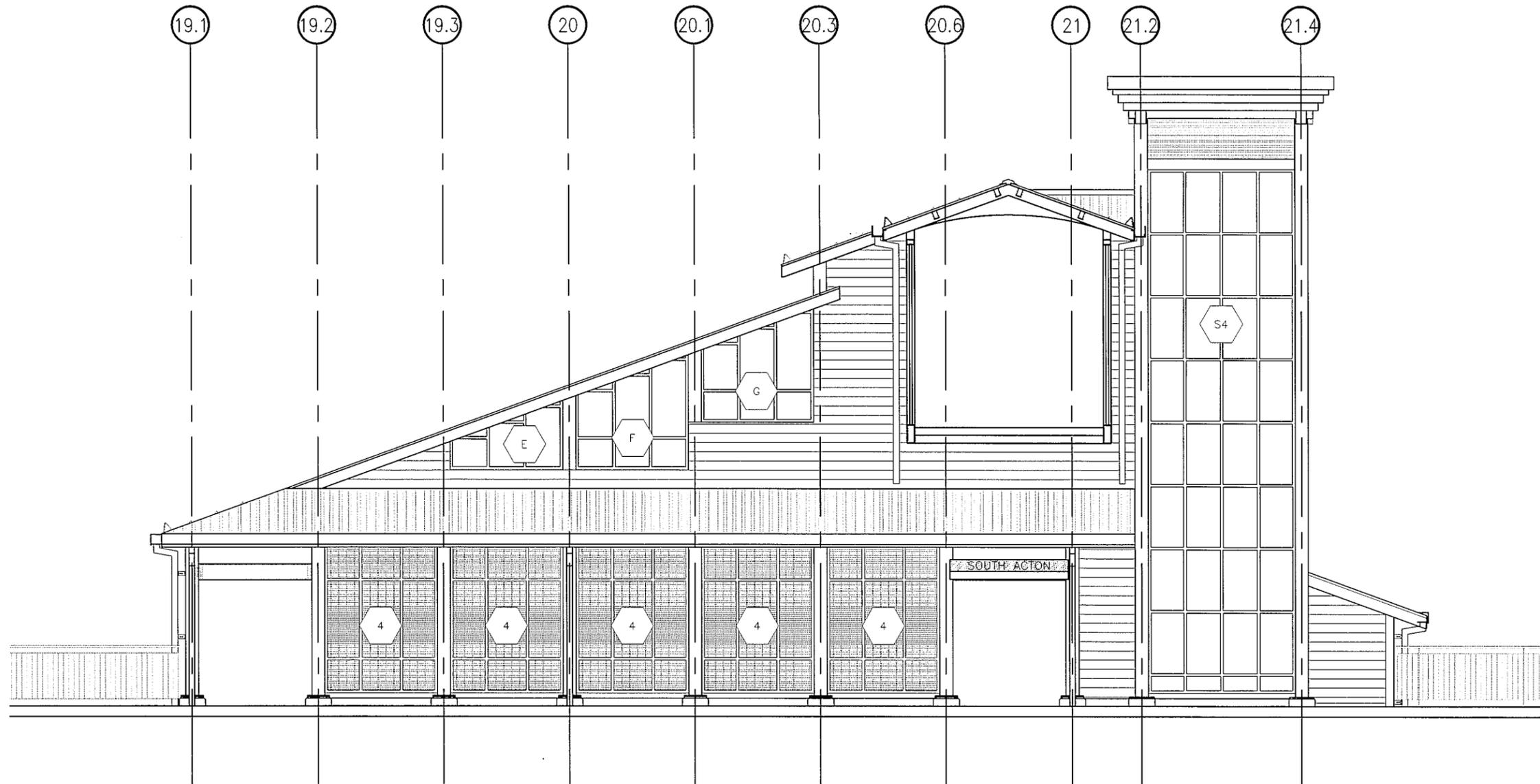
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NOT FOR CONSTRUCTION

T MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
 FITCHBURG COMMUTER RAIL LINE
 IMPROVEMENT PROJECT
 CONTRACT NO. G67PS01
SOUTH ACTON STATION
 SOUTH ELEVATION
 OUTBOUND HEAD HOUSE

HNTB <small>300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000</small>		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
Lozano, Baskin, and Associates, Inc. <small>Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472</small>		PROJECT MANAGER: _____ Date: _____ PLAN NO. _____ SHEET A-3.2	
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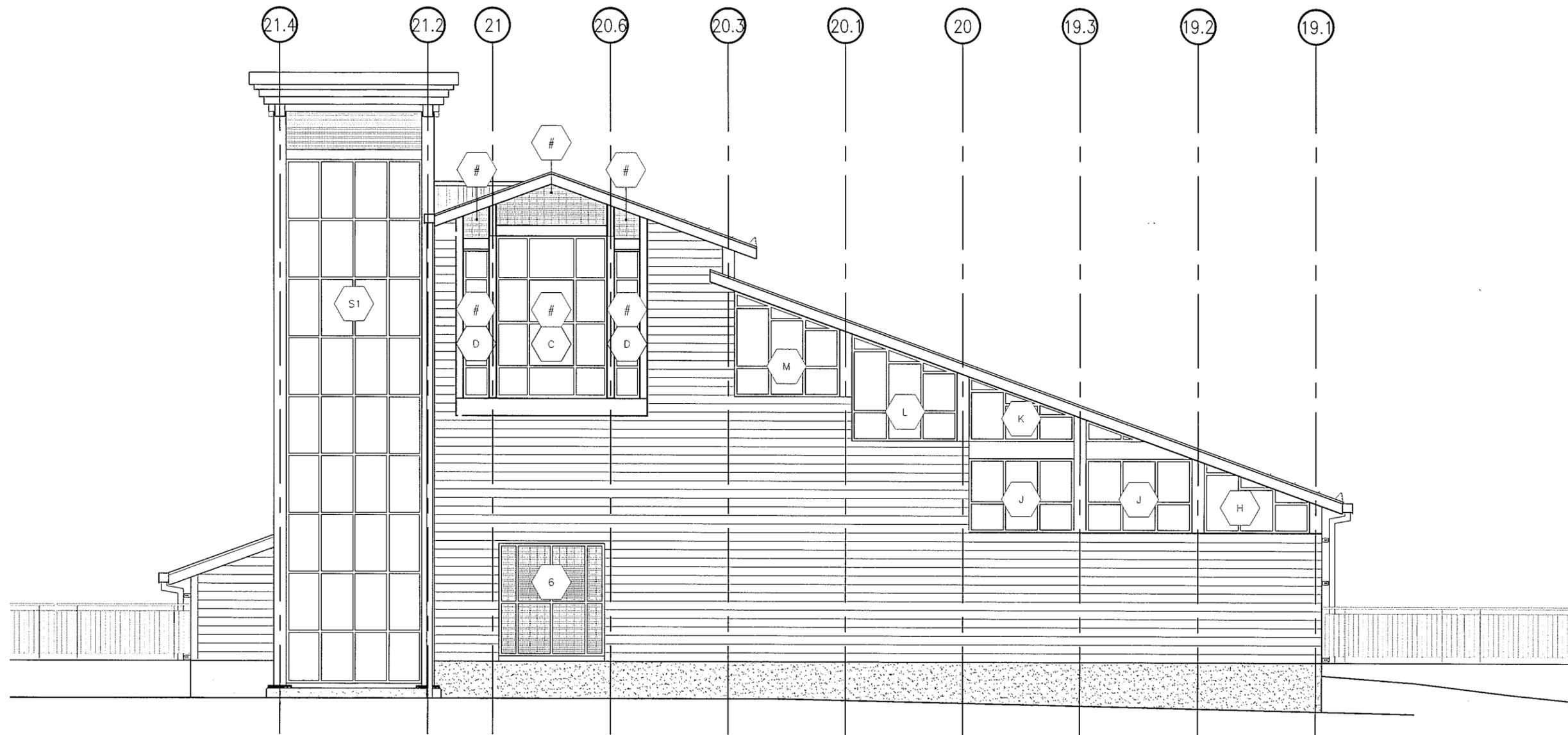


1 ELEVATION

60% SUBMITTAL
 NOT FOR CONSTRUCTION

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		SOUTH ACTON STATION NORTH ELEVATION INBOUND HEAD HOUSE	
 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
		PROJECT MANAGER _____ Date: _____ PROJECT MANAGER _____ Date: _____	
 Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	
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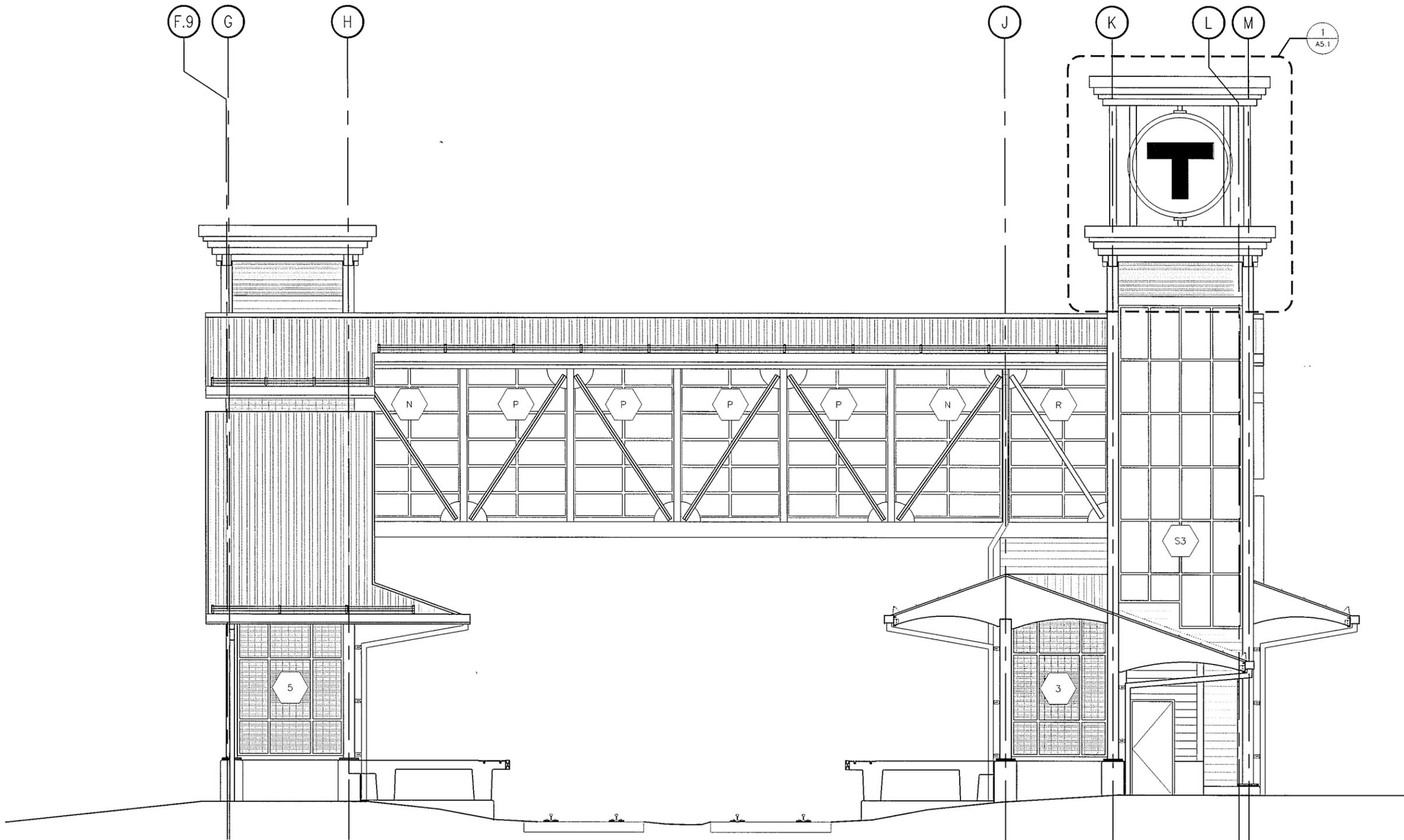


1 ELEVATION

60% SUBMITTAL
 NOT FOR CONSTRUCTION

 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
		SOUTH ACTON STATION SOUTH ELEVATION INBOUND HEAD HOUSE	
PROJECT MANAGER _____ Date _____		PROJECT MANAGER _____ Date _____	
HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		DES. BY MB	CHK. BY DW
Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		PLAN NO. SHEET A-3.4	ISSUE 

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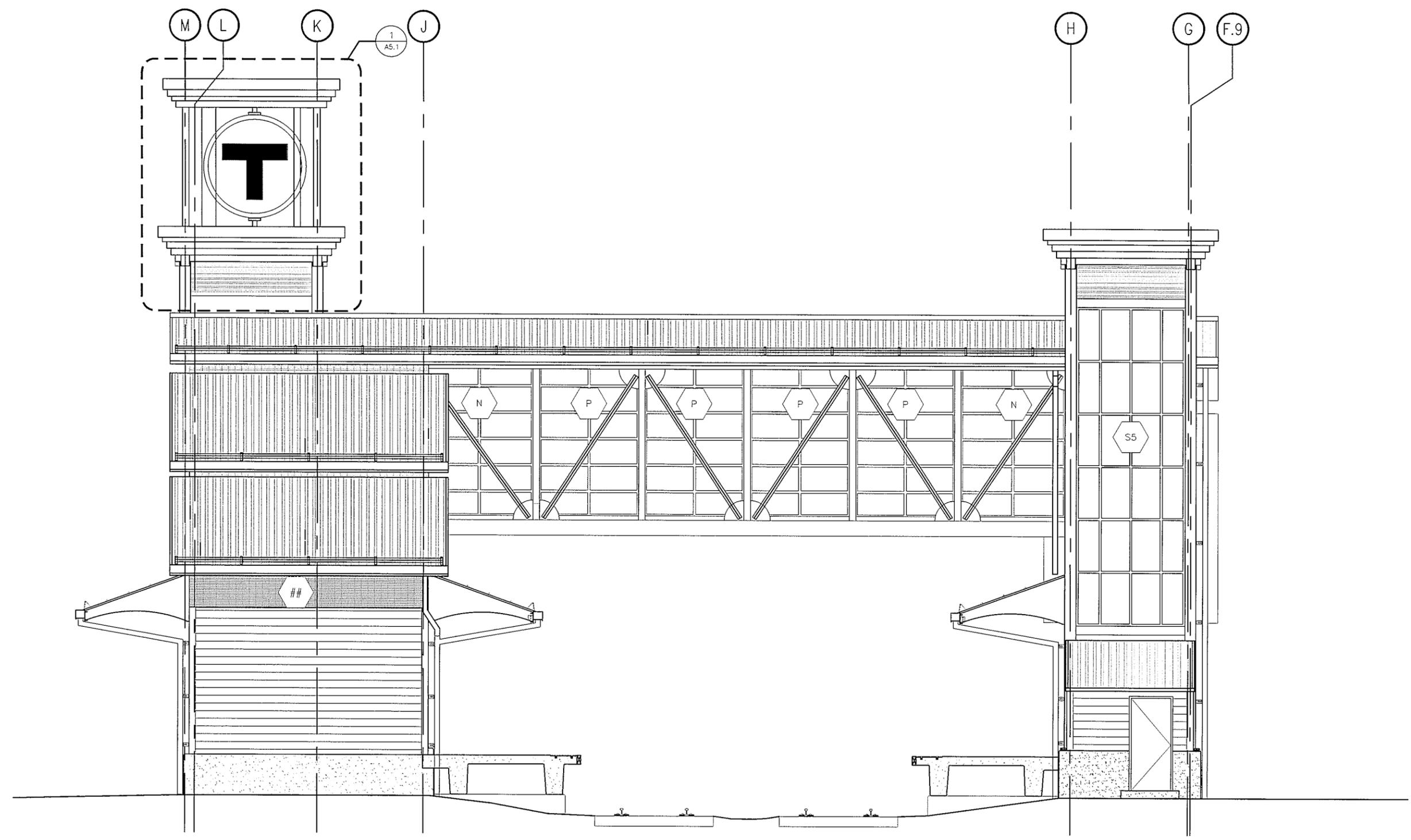


1 ELEVATION

60% SUBMITTAL
 NOT FOR CONSTRUCTION

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SOUTH ACTON STATION EAST ELEVATION		
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY:		APPROVED BY:
PROJECT MANAGER		PROJECT MANAGER
DATE: 06/14/11		DATE:
Lozano, Baskin, and Associates, Inc. Architecture+Urban Design+City Planning 205 Mt. Auburn St. Watertown, MA 02472		HORIZ: AS NOTED VERT: N/A DATE: 06/14/11
DES. BY: MB	DR. BY: DW	CHK. BY: MB
PLAN NO.	SHEET A-3.5	
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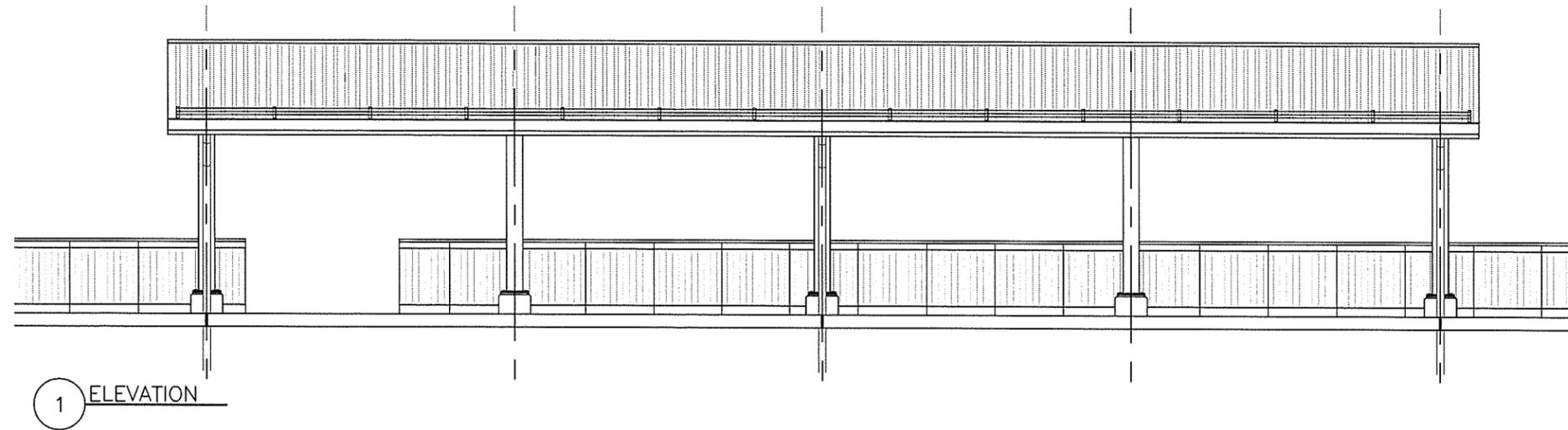
1 ELEVATION

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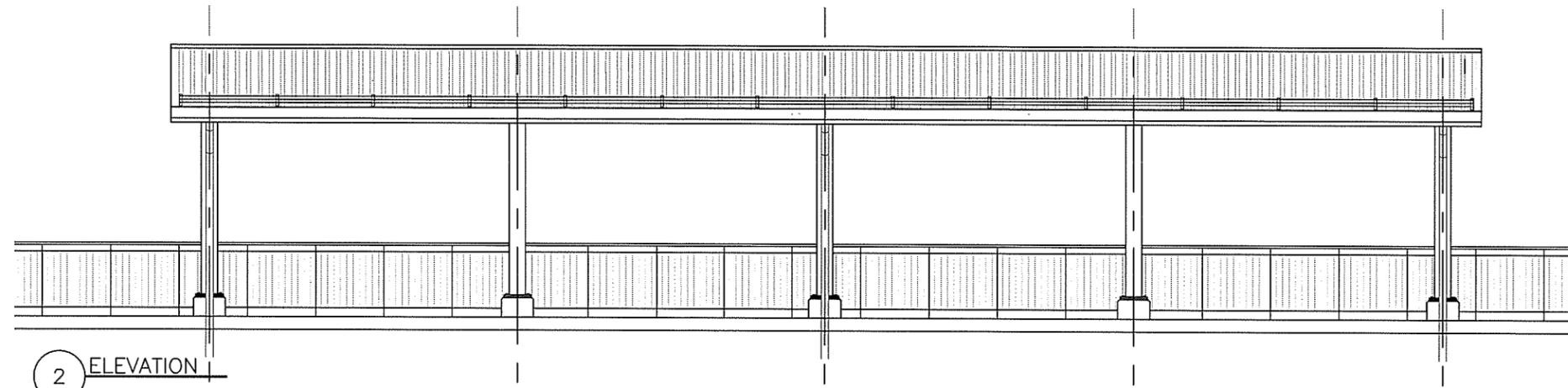
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 FITCHBURG COMMUTER RAIL LINE
 IMPROVEMENT PROJECT
 CONTRACT NO. G67PS01
 SOUTH ACTON STATION
 WEST ELEVATION

HNTB <small>300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000</small>		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
Lozano, Baskin, and Associates, Inc. <small>Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472</small>		PROJECT MANAGER HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	DES. BY: MB DW: DW CHK. BY: MB PLAN NO. SHEET A-3.6

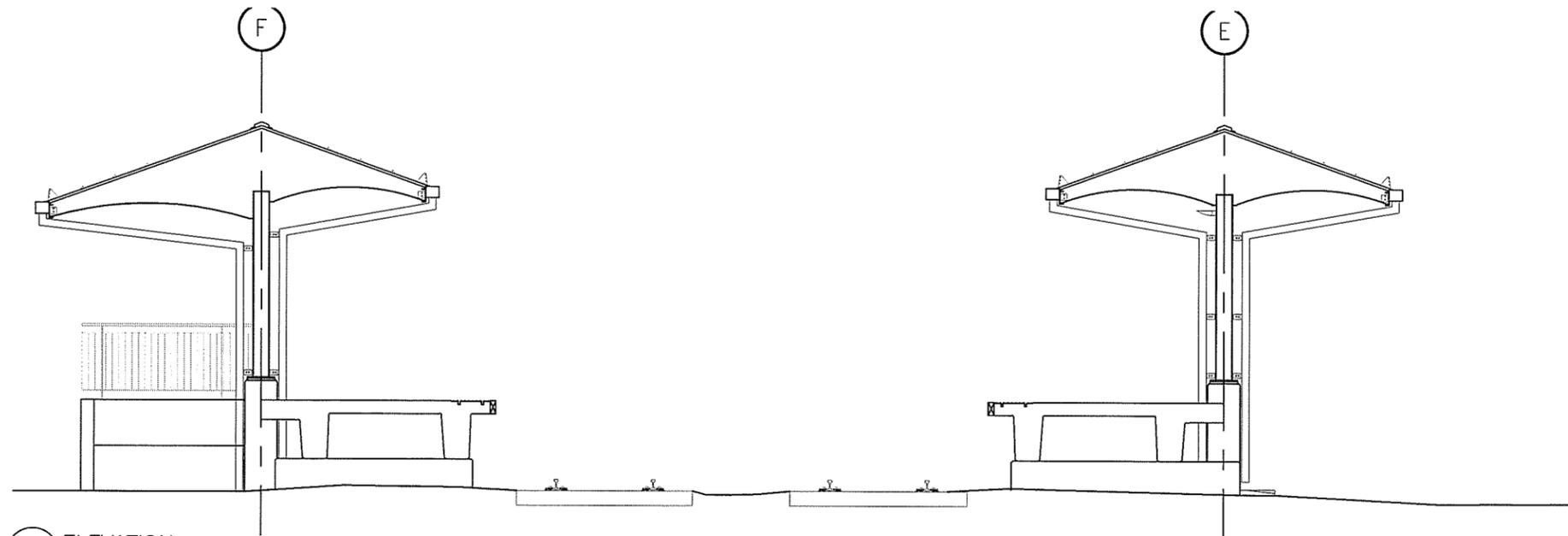
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1 ELEVATION



2 ELEVATION



3 ELEVATION

60% SUBMITTAL
 NOT FOR CONSTRUCTION

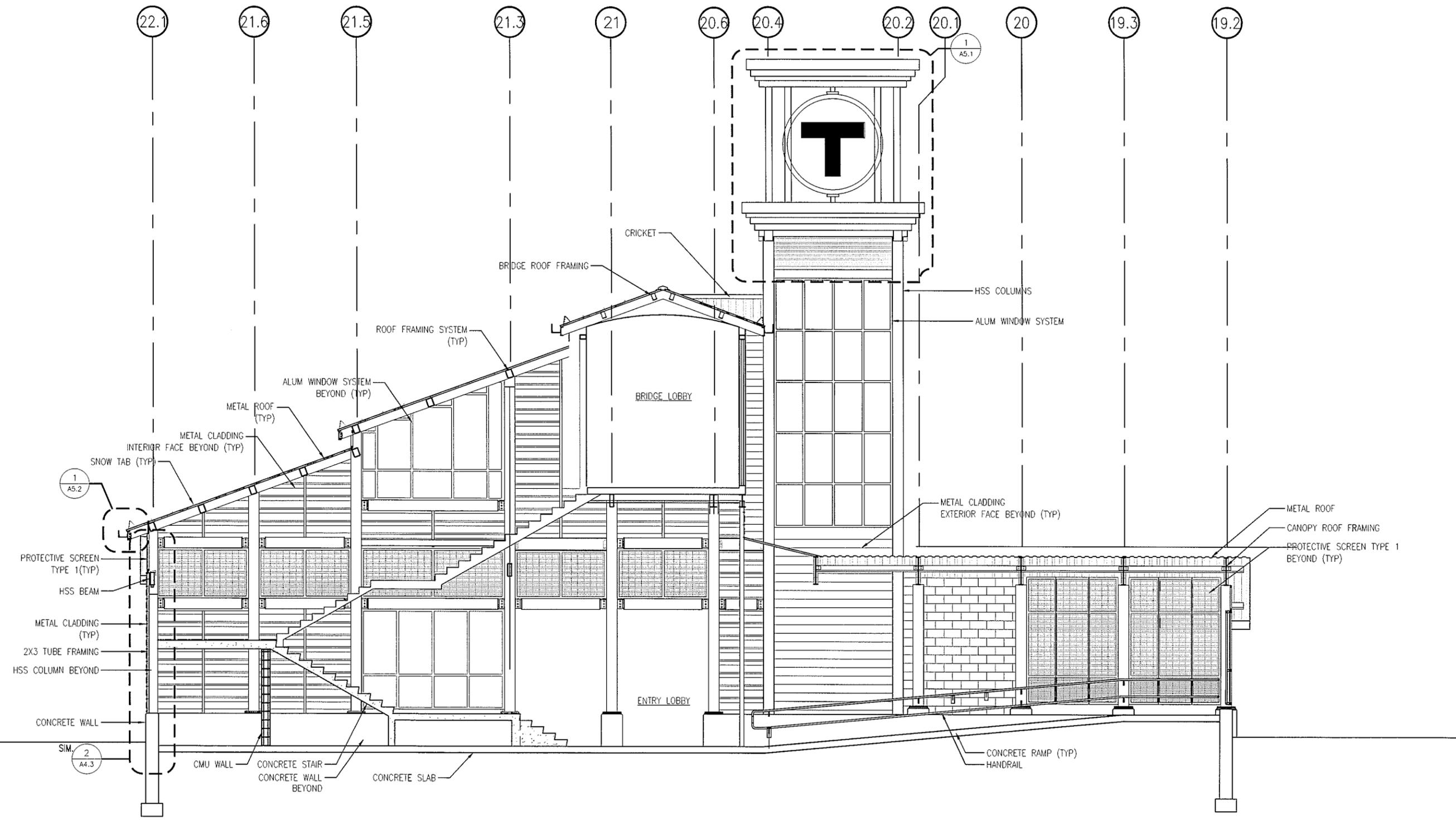
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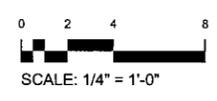
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SOUTH ACTON STATION ELEVATION PLATFORM CANOPY		
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 1/4" = 1'-0"

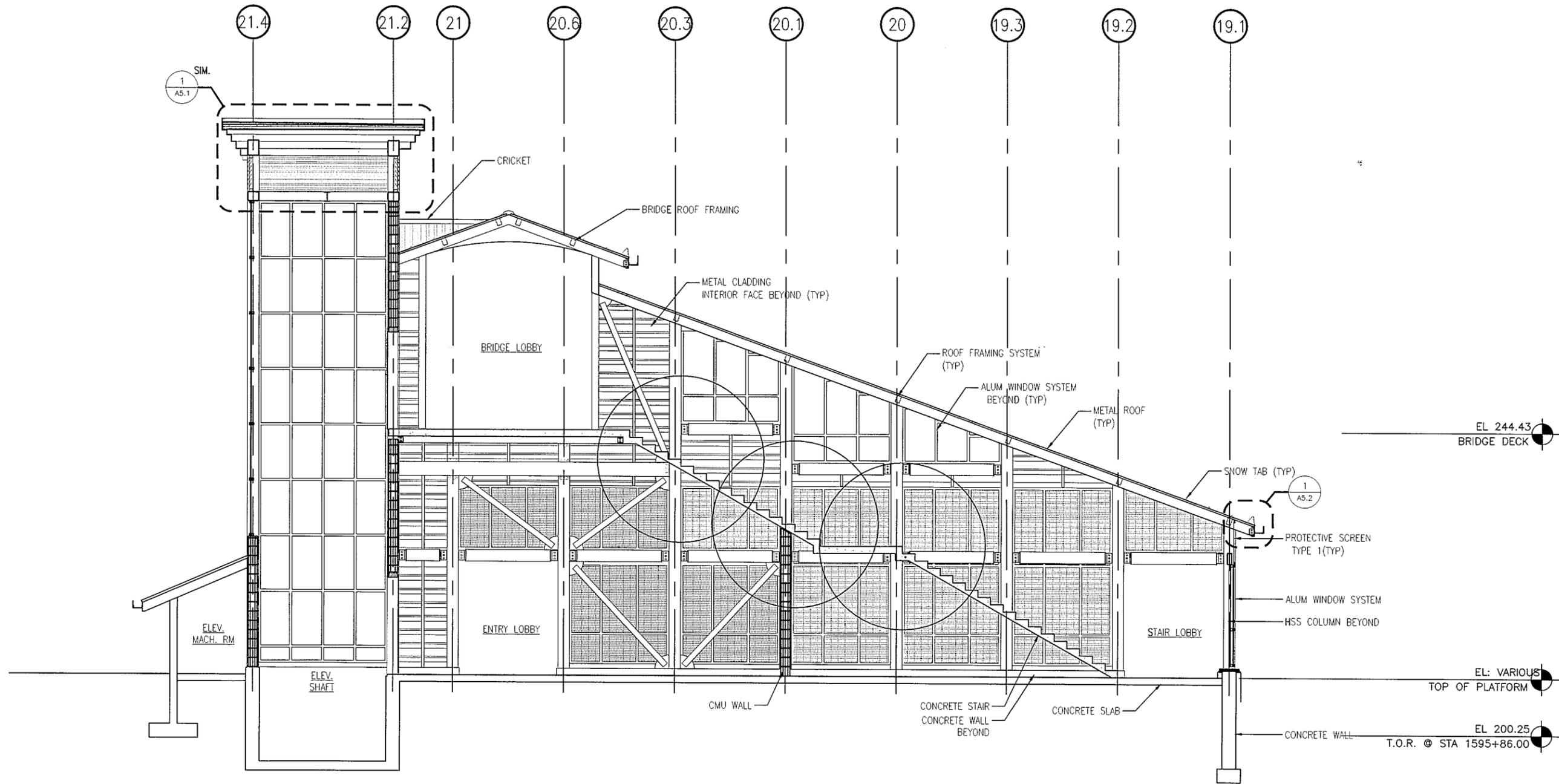


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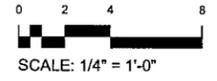
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SOUTH ACTON STATION BUILDING SECTIONS OUTBOUND HEAD HOUSE		
HNTB	300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY:		
PROJECT MANAGER		DATE
HORIZ: AS NOTED	DES. BY	CHK. BY
VERT: N/A	MB	DW
DATE: 06/14/11	MB	MB
PROJECT MANAGER		DATE
PLAN NO.		ISSUE
SHEET A-4.1		

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1 SECTION
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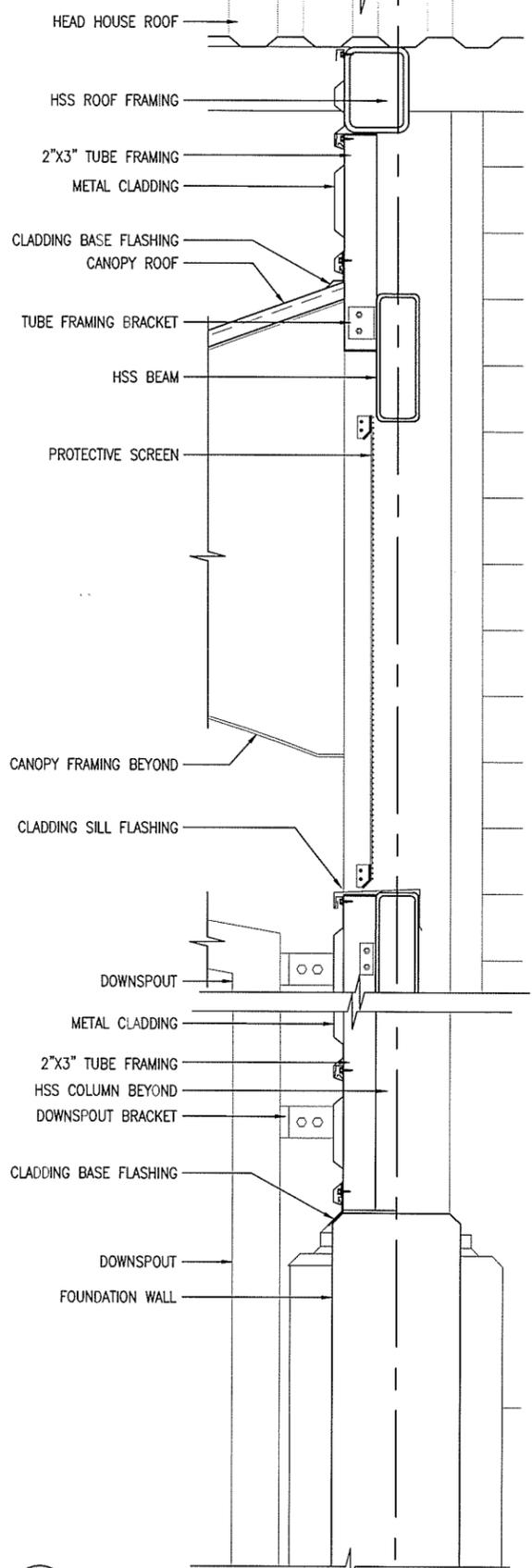


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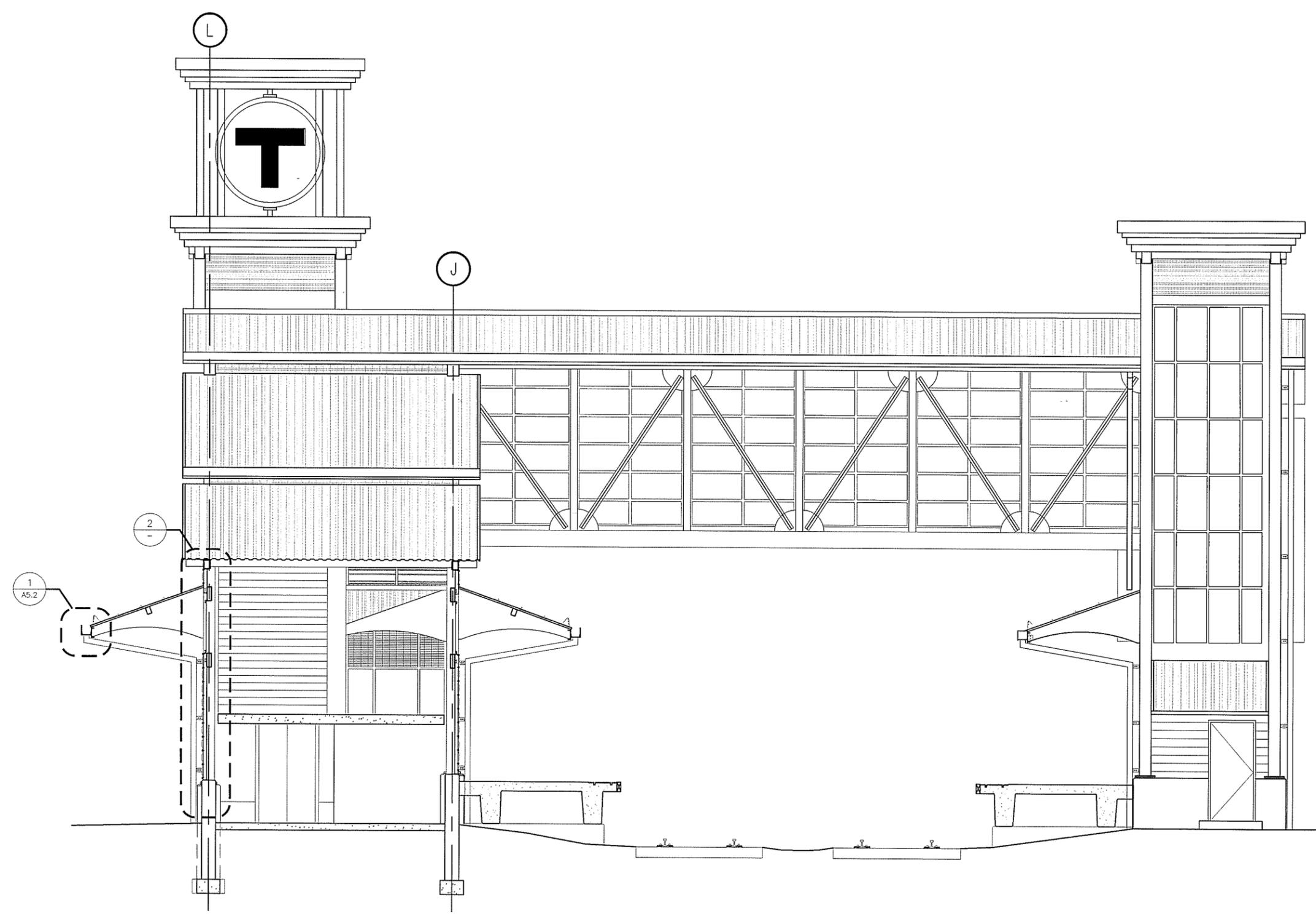
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 PLOT DATE: Jun 08, 2011 - 2:53pm

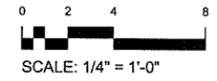


2 WALL SECTION
 1-1/2" = 1'-0"



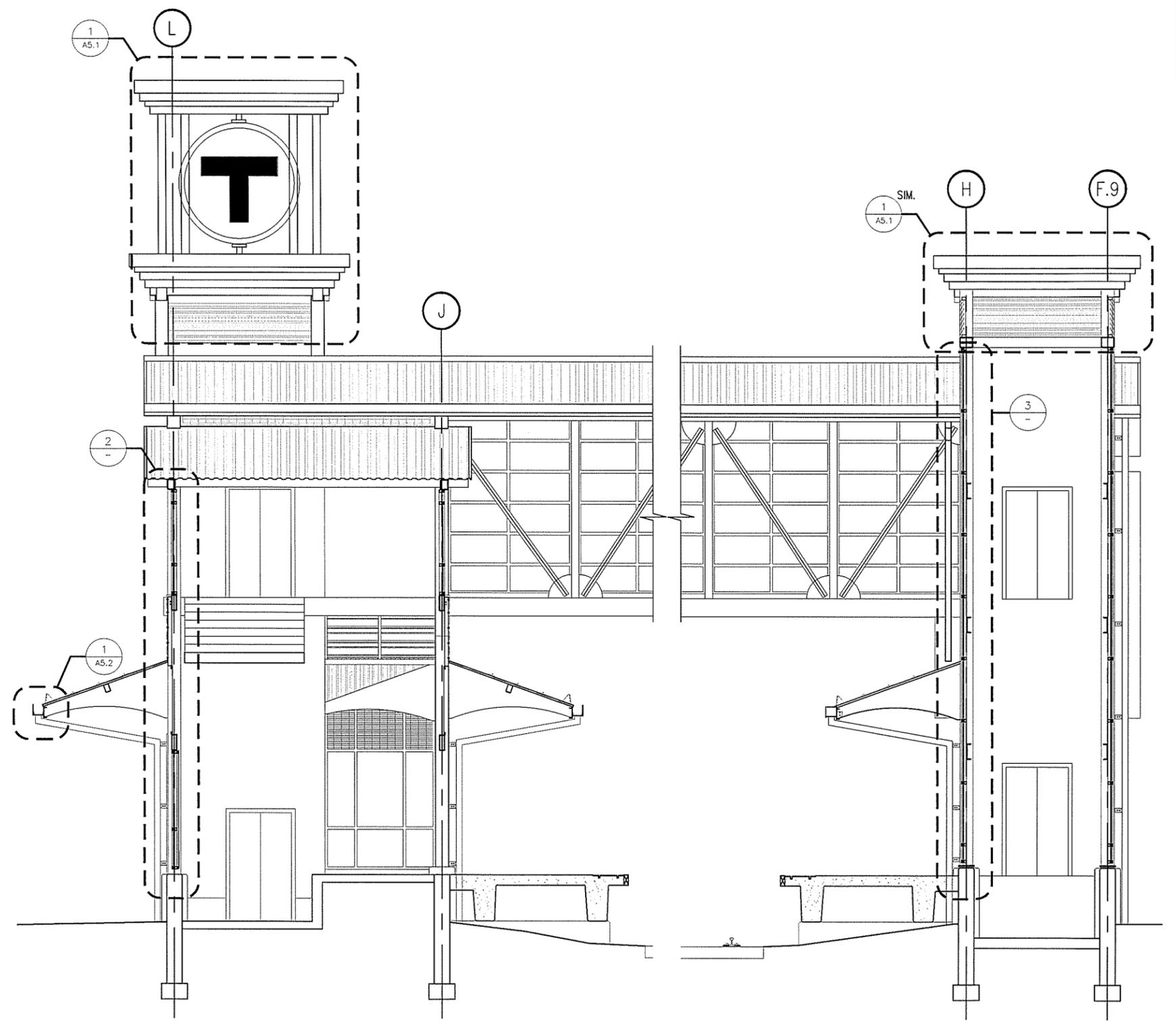
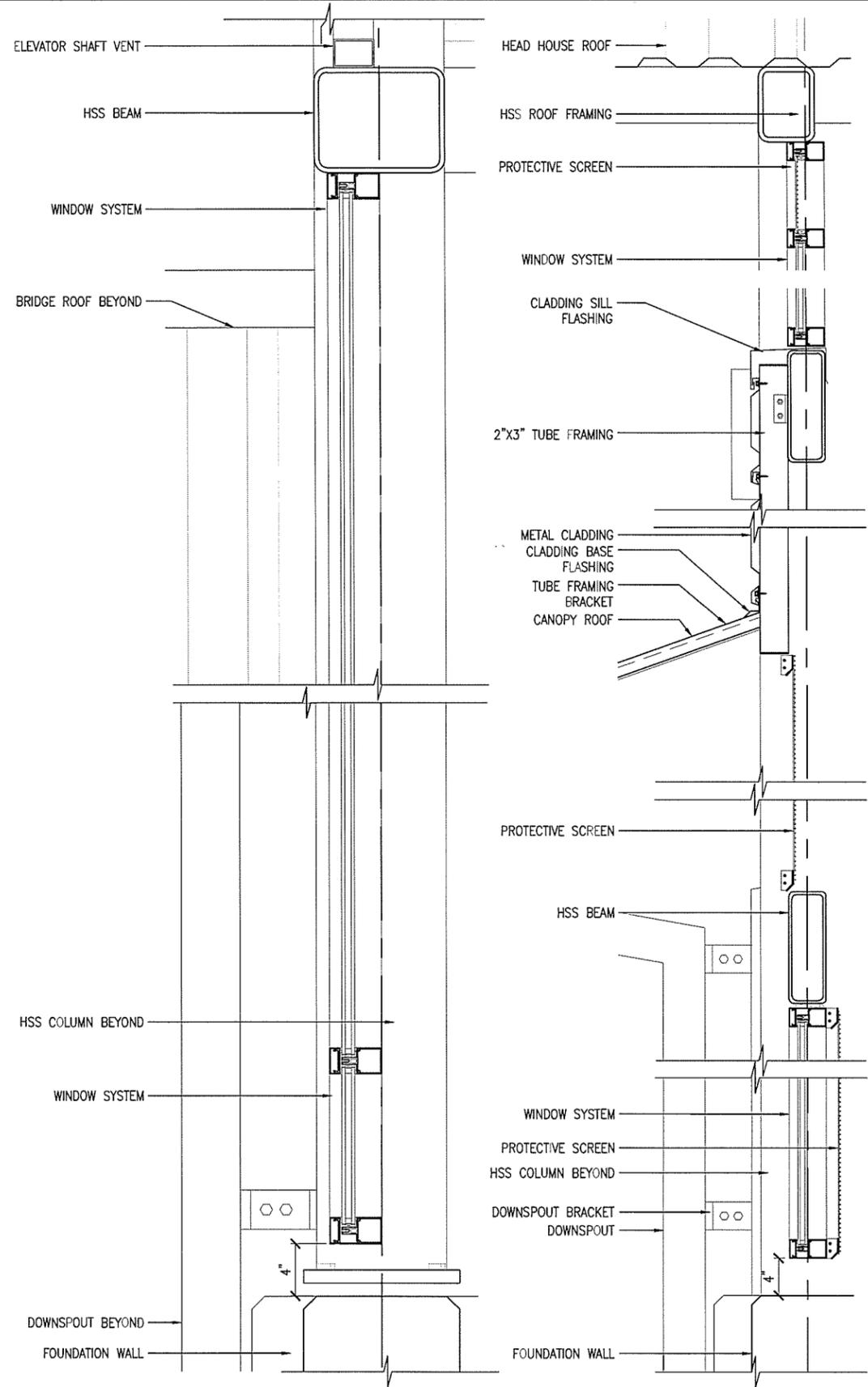
1 SECTION
 1/4" = 1'-0"

60% SUBMITTAL
 NOT FOR CONSTRUCTION



		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		PROJECT MANAGER Date HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	
PROJECT MANAGER Date DES. BY: MB DR. BY: DW CHK. BY: MB		PROJECT MANAGER Date PLAN NO. SHEET A-4.3	

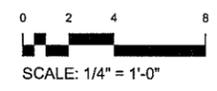
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 PLOT DATE: Jun 08, 2011 - 2:54pm



1 SECTION
 1/4" = 1'-0"

3 WALL SECTION
 1-1/2" = 1'-0"

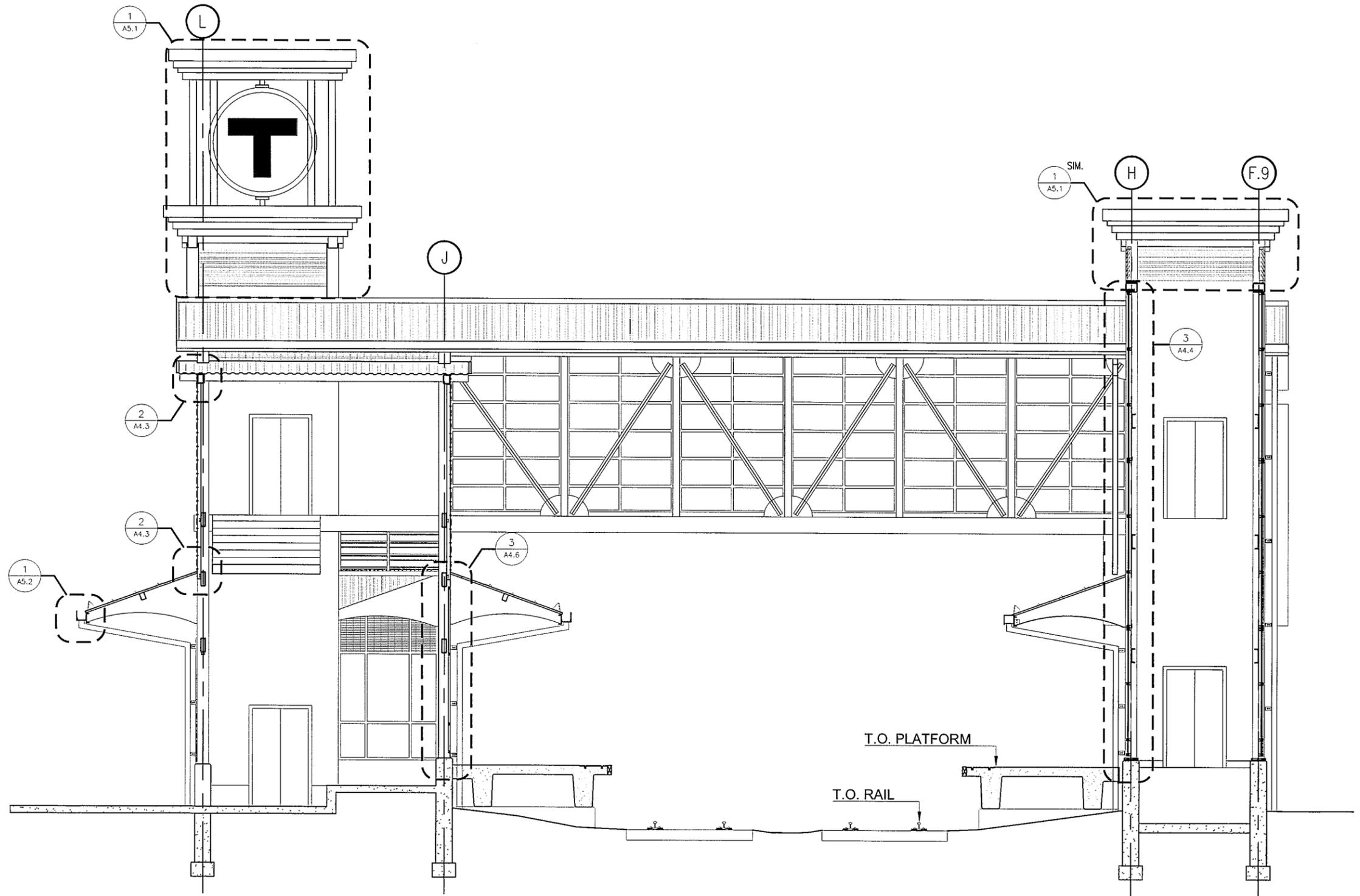
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60% SUBMITTAL
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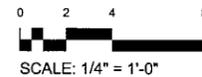
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		SOUTH ACTON STATION BUILDING SECTIONS HEAD HOUSES	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
		PROJECT MANAGER: _____ Date: _____	
Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	
DES. BY: MB DW: DW		CHK. BY: MB PLAN NO.: SHEET A-4.4	
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 PLOT DATE: Jun 08, 2011 - 2:55pm



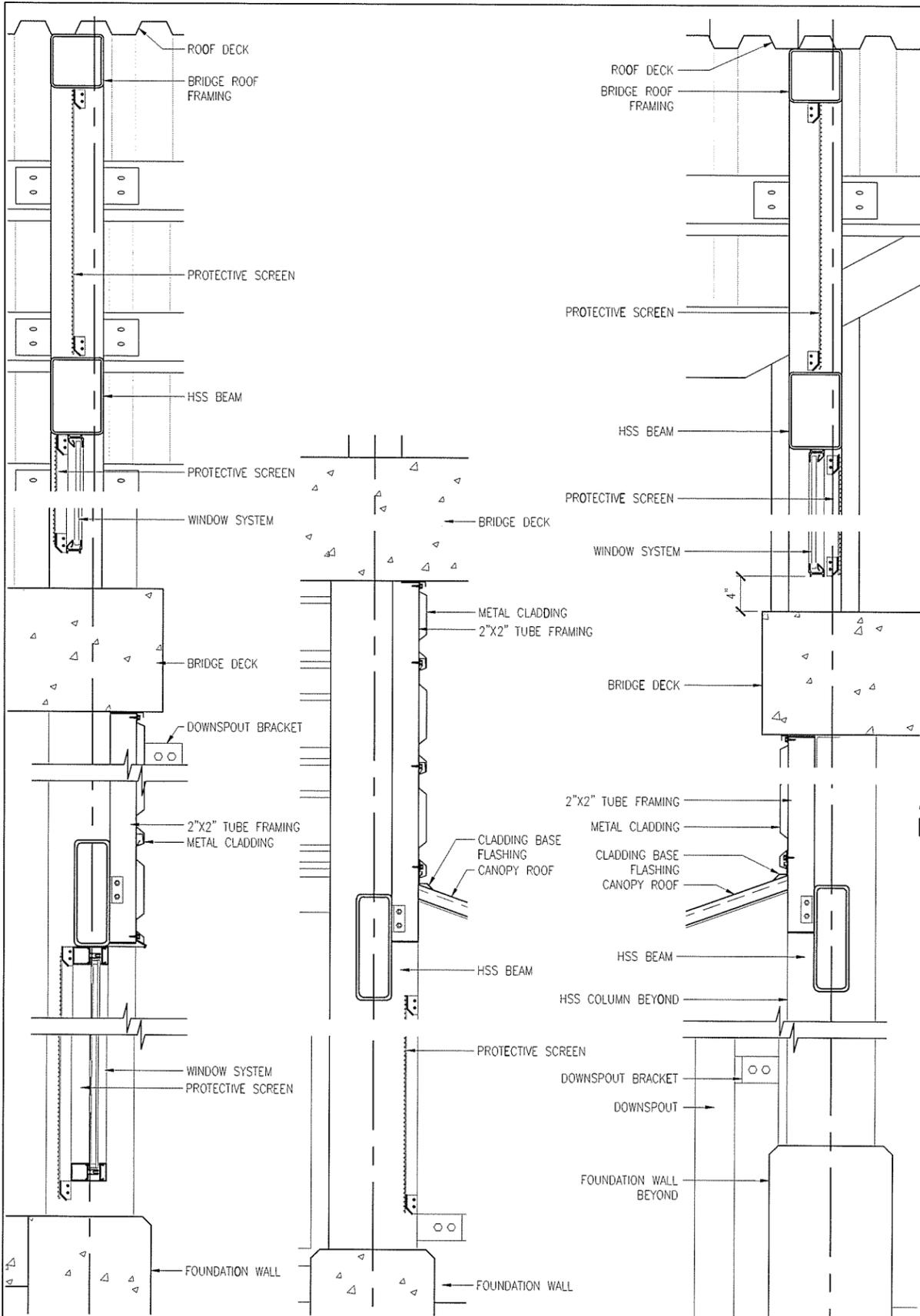
1 SECTION
 1/4" = 1'-0"

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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
		SOUTH ACTON STATION BUILDING SECTIONS HEAD HOUSES	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	
PROJECT MANAGER DES. BY: MB DW. BY: DW		DATE: 06/14/11 PLAN NO. SHEET A-4.5	

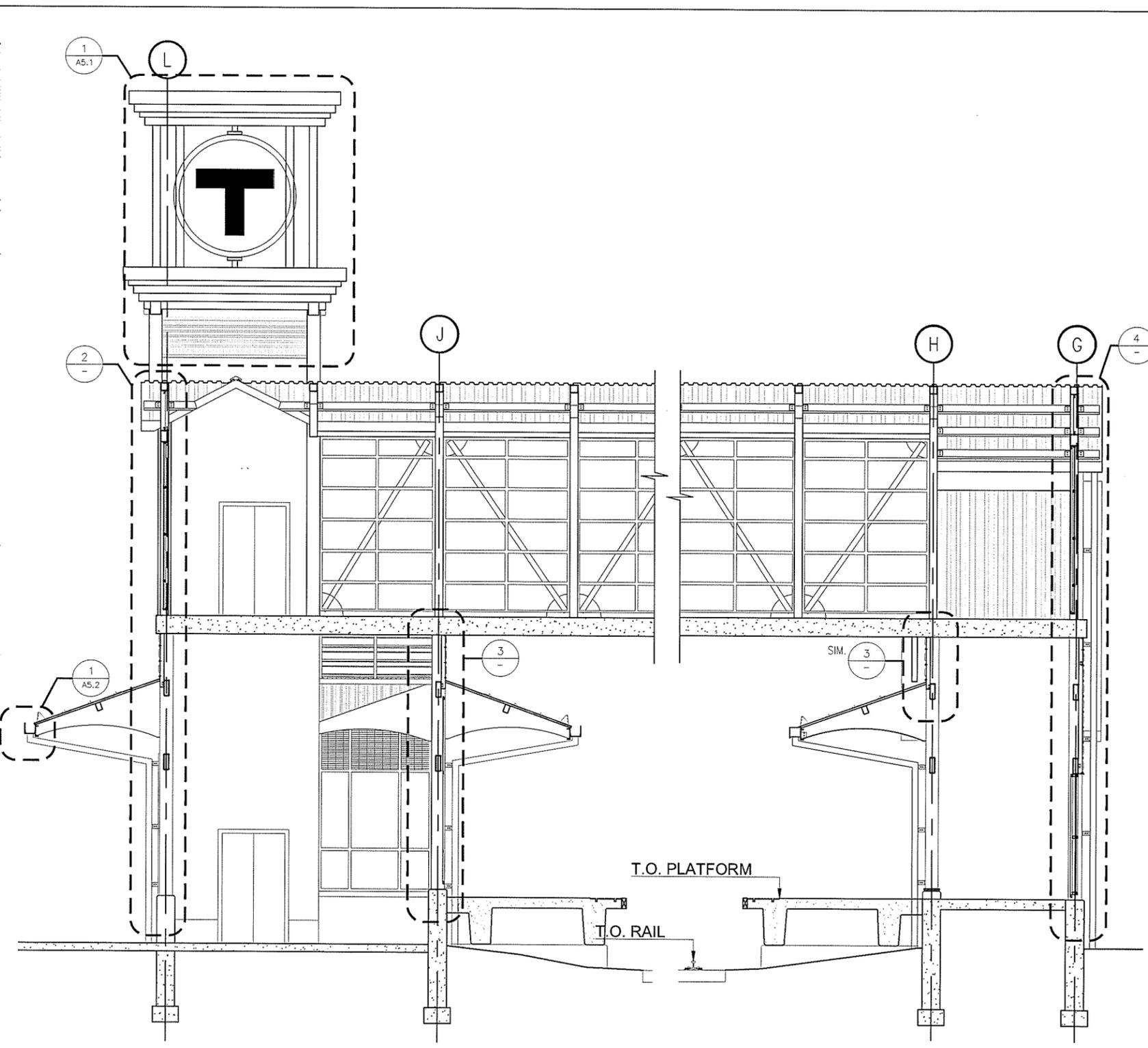
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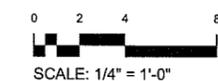
1 WALL SECTION
1-1/2" = 1'-0"

3 WALL SECTION
1-1/2" = 1'-0"

2 WALL SECTION
1-1/2" = 1'-0"



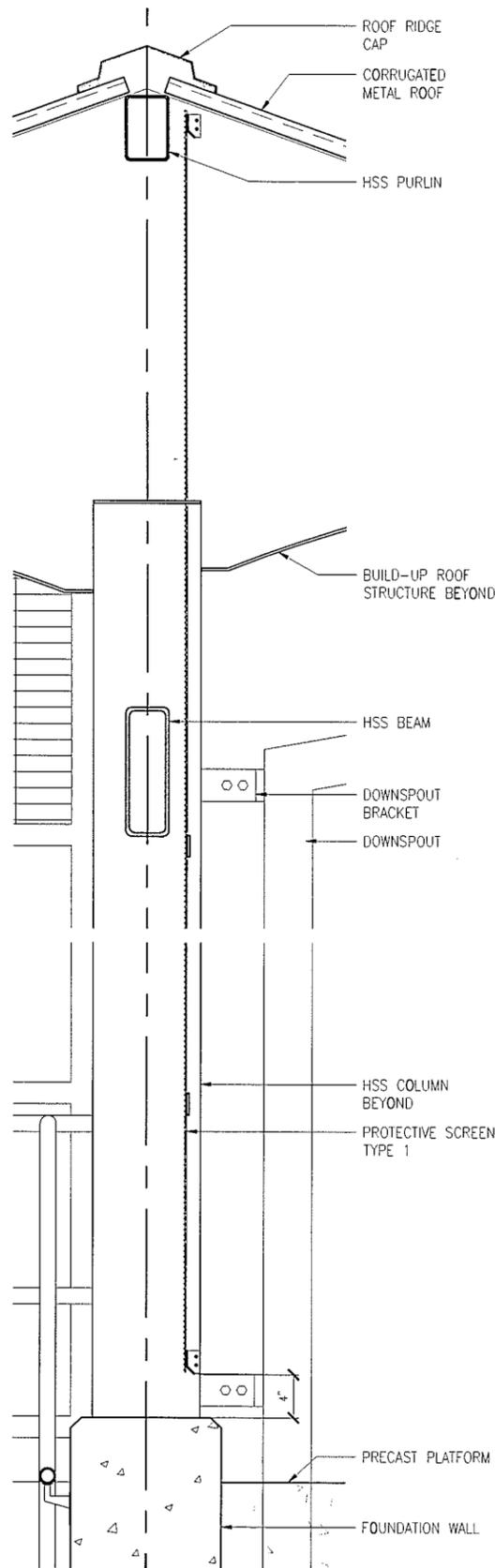
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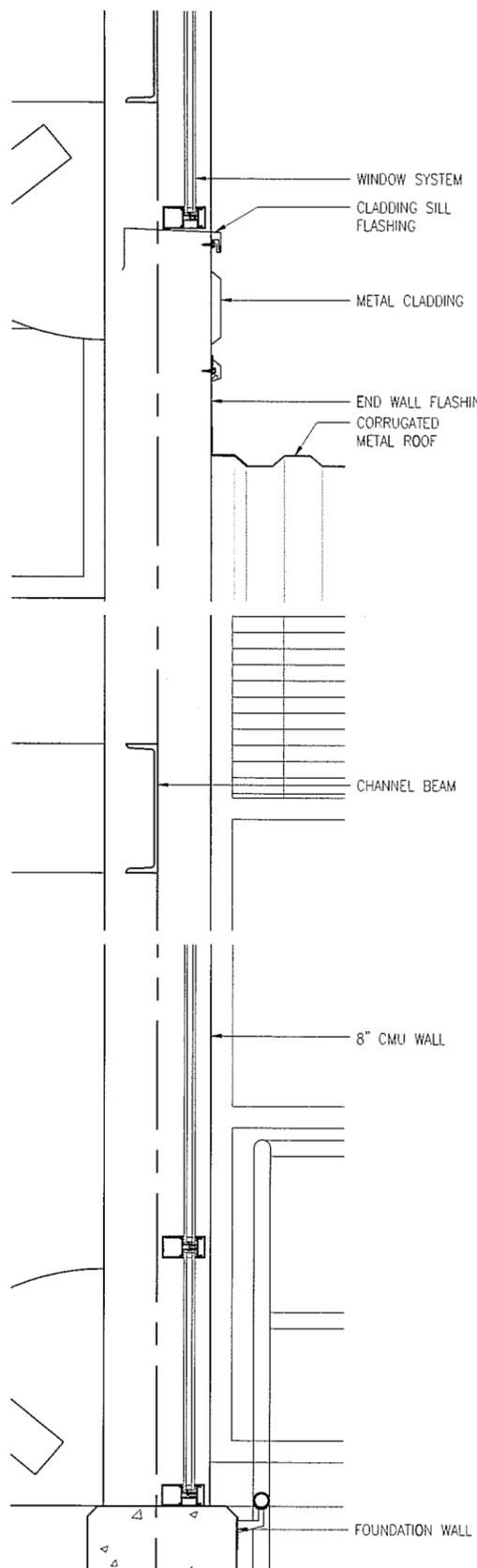
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T		SOUTH ACTON STATION BUILDING SECTIONS HEAD HOUSES	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
HNTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		APPROVED BY: _____ PROJECT MANAGER Date	
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Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		PROJECT MANAGER Date	
		PROJECT MANAGER Date	
DATE: 06/14/11		HORIZ: AS NOTED	
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DATE: 06/14/11		PLAN NO.	
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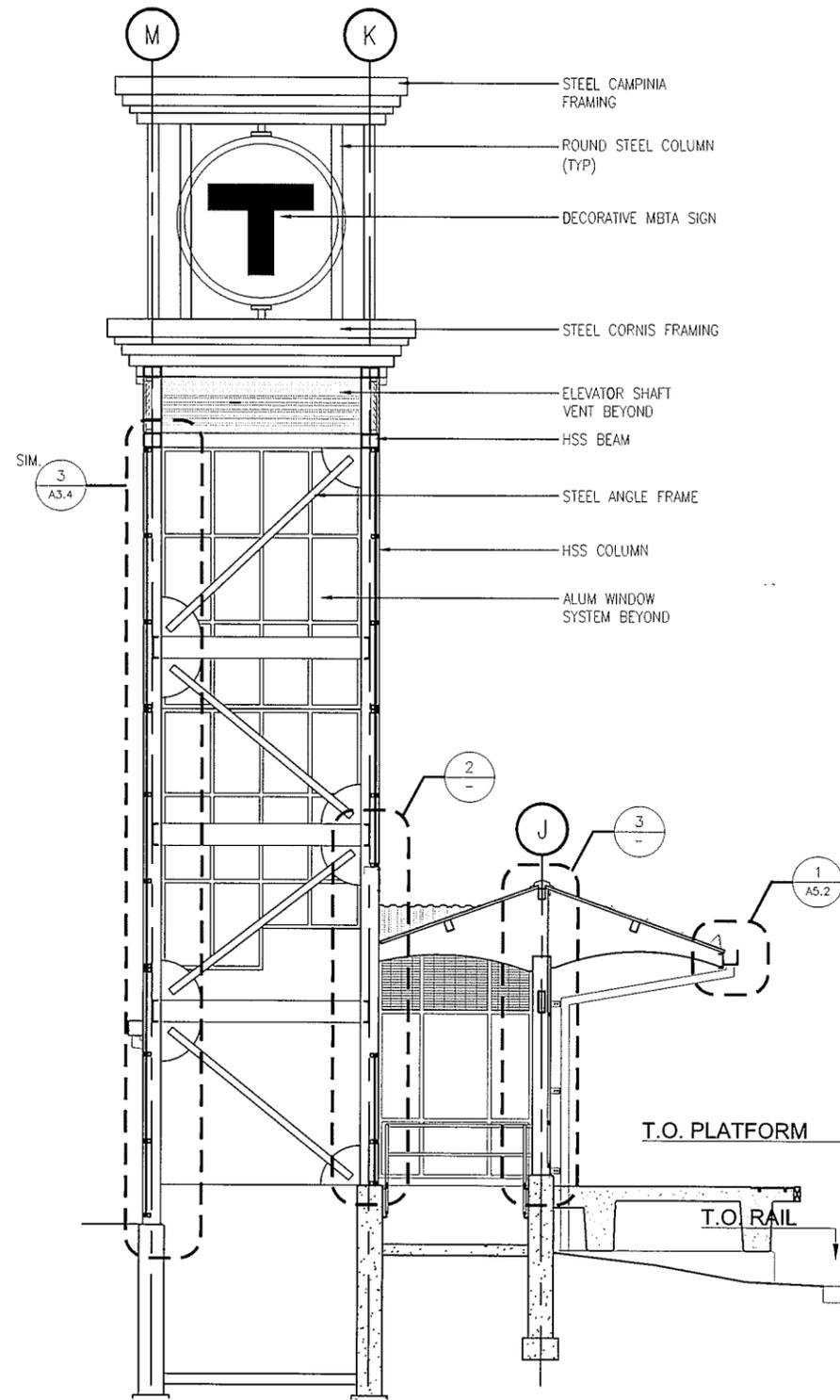
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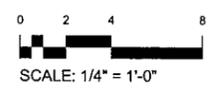
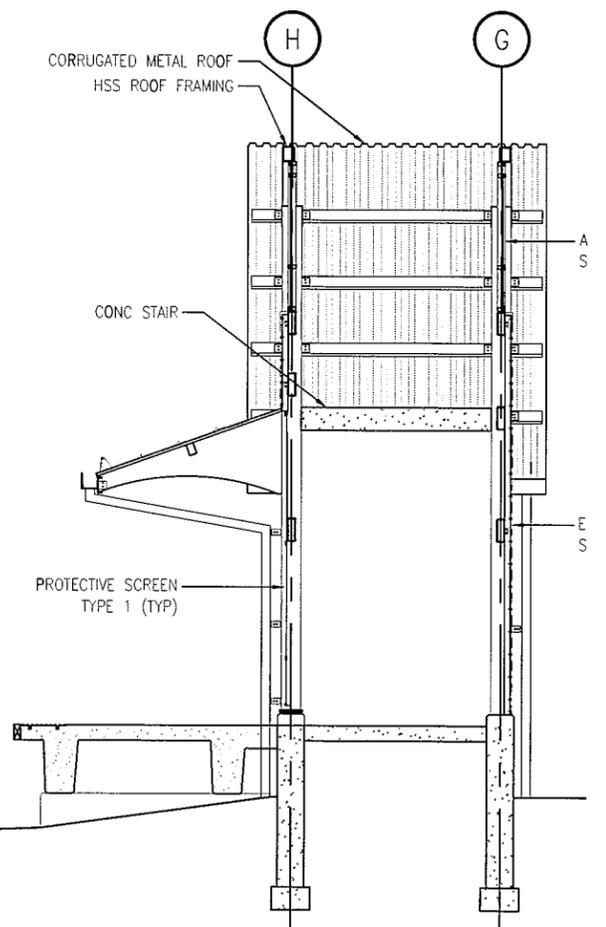
3 WALL SECTION
 1-1/2" = 1'-0"



3 WALL SECTION
 1-1/2" = 1'-0"



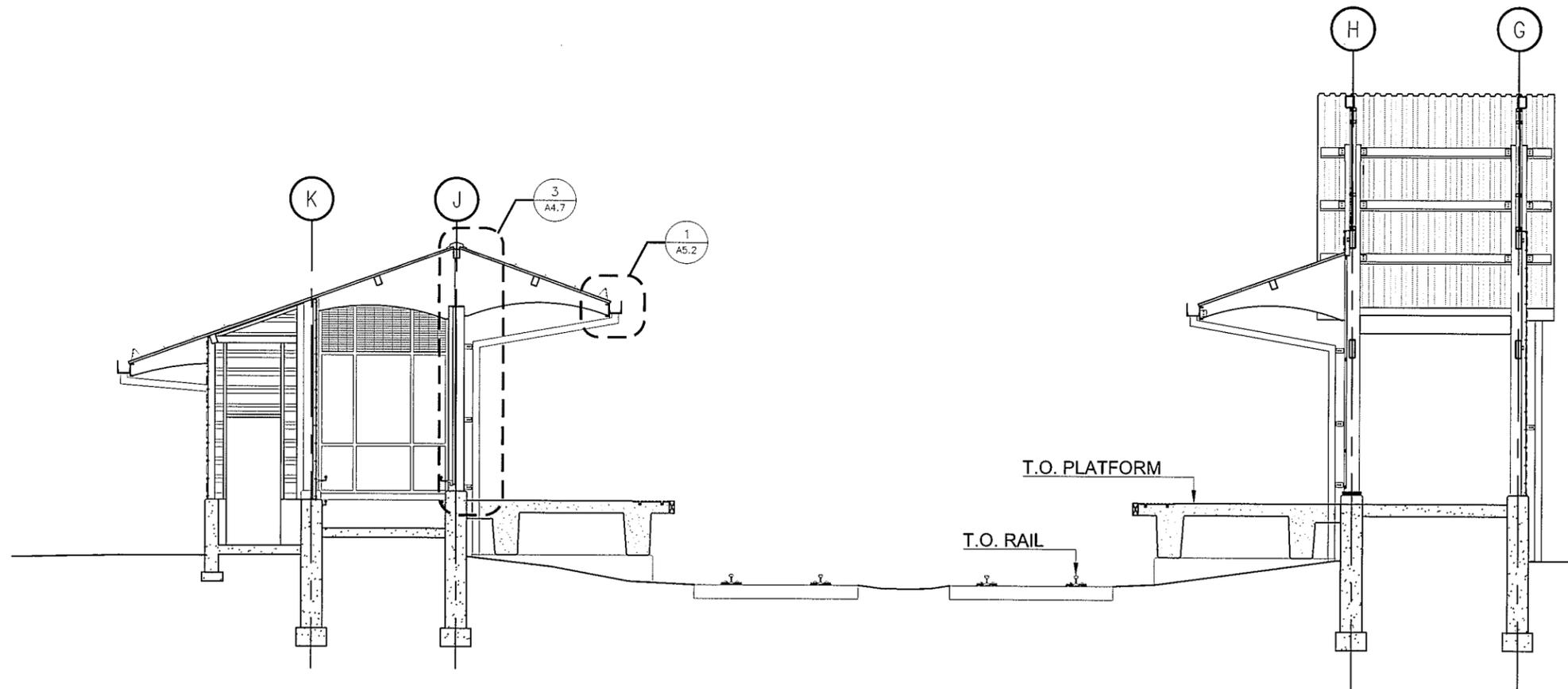
1 SECTION
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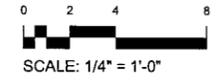
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MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01 SOUTH ACTON STATION BUILDING SECTIONS HEAD HOUSES		HNTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		PROJECT MANAGER Date HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		DES. BY: MB DW: DW CHK. BY: MB DATE: 06/14/11	
SHEET A-4.7				ISSUE NO. _____	

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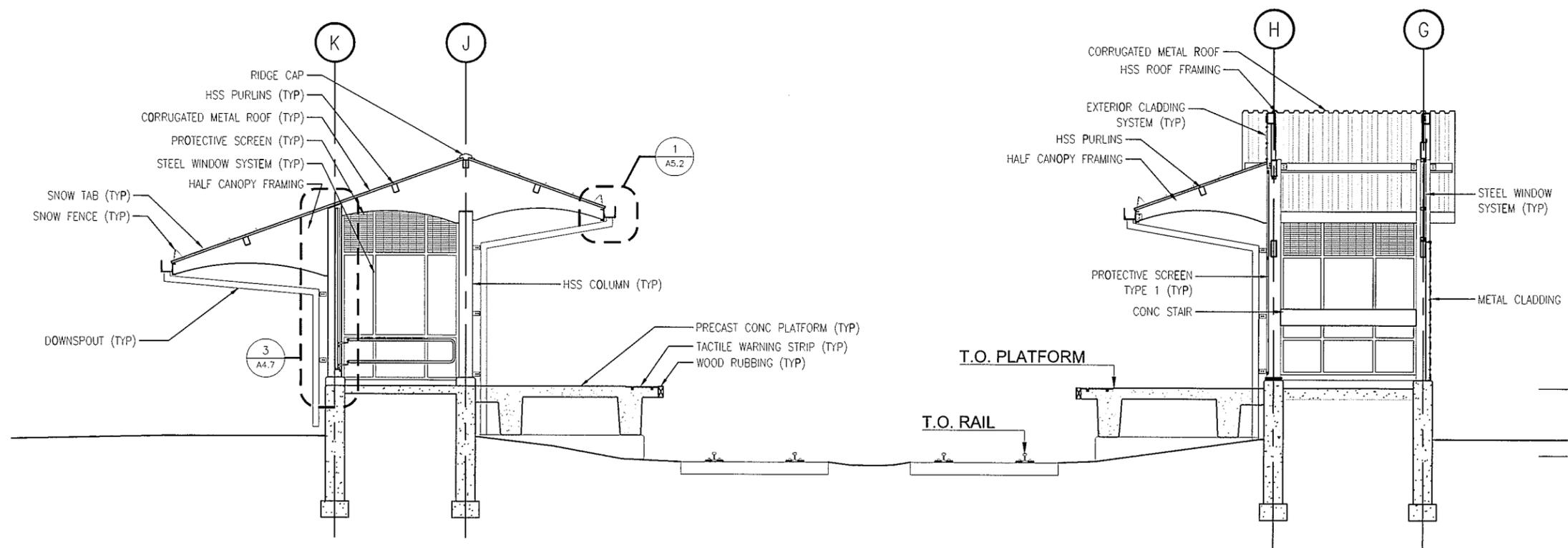


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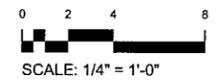
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		APPROVED BY:		APPROVED BY:	
		PROJECT MANAGER		PROJECT MANAGER	
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		VERT: N/A		SHEET A-4.8	
		DATE: 06/14/11		ISSUE	

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1 SECTION
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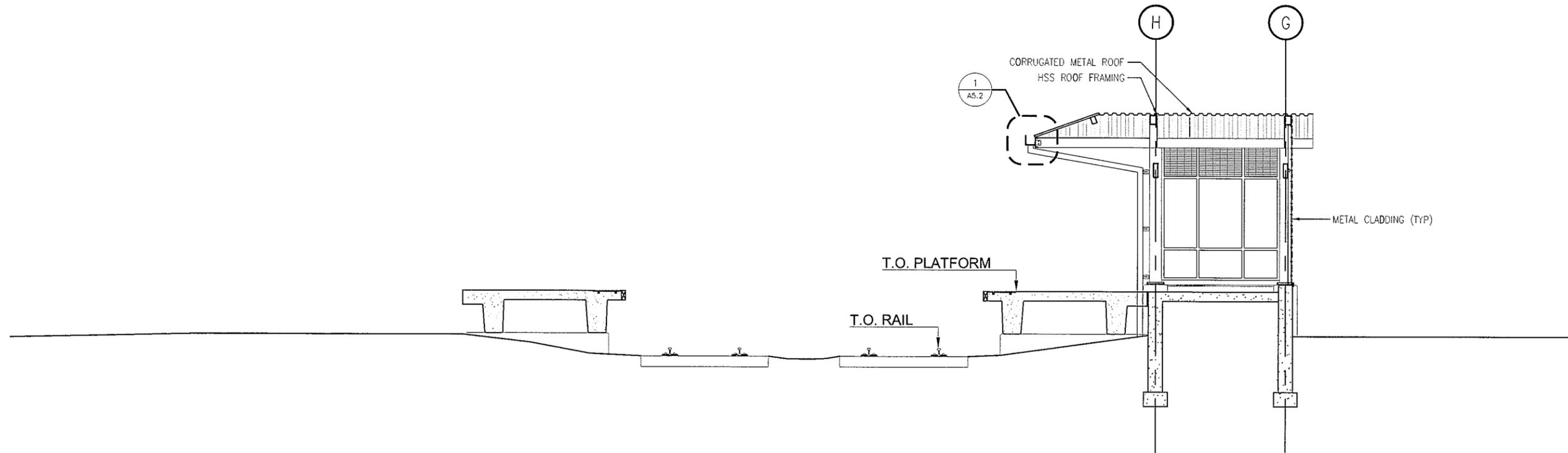
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T MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
 FITCHBURG COMMUTER RAIL LINE
 IMPROVEMENT PROJECT
 CONTRACT NO. G67PS01
**SOUTH ACTON STATION
 BUILDING SECTIONS
 HEAD HOUSES**

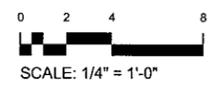
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PROJECT MANAGER HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		PLAN NO. SHEET A-4.10	

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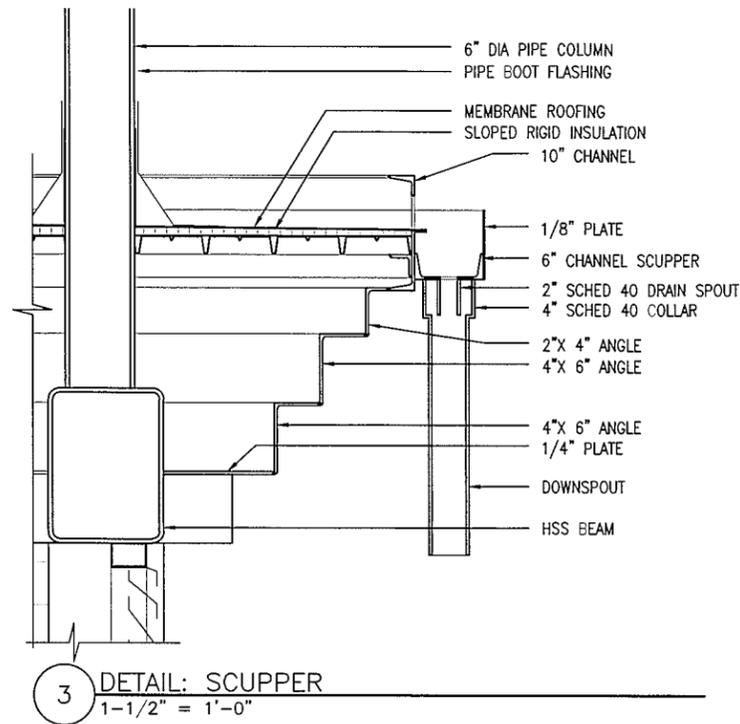
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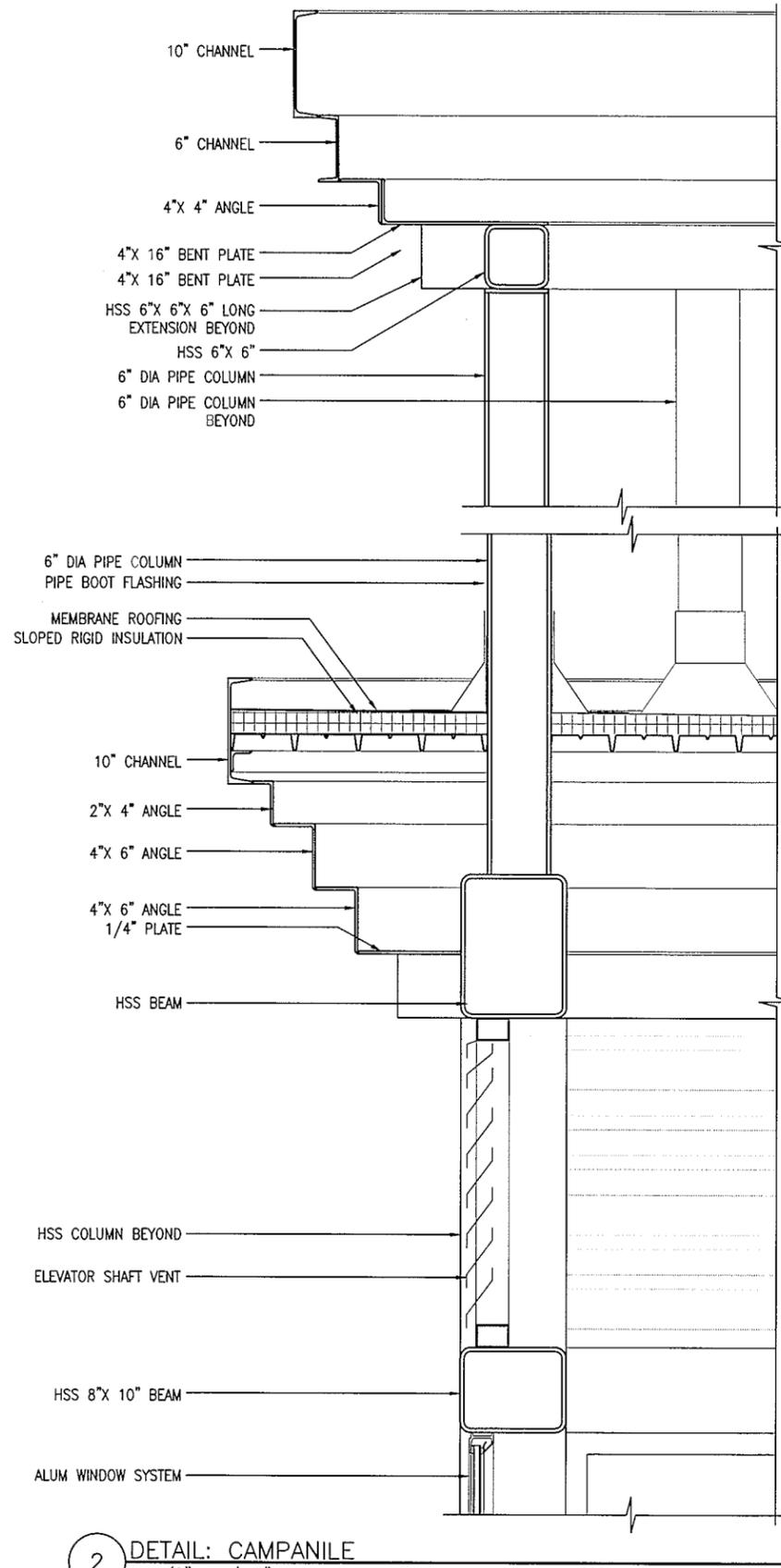
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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01																							
		SOUTH ACTON STATION BUILDING SECTIONS HEAD HOUSES																							
HNTB <small>300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000</small>		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date																							
Lozano, Baskin, and Associates, Inc. <small>Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472</small>		PROJECT MANAGER Date HORIZ: AS NOTED VERT: N/A DATE: 06/14/11																							
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ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.																				
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MB	DW	MB																							
SHEET A-4.11		DATE: 06/14/11																							

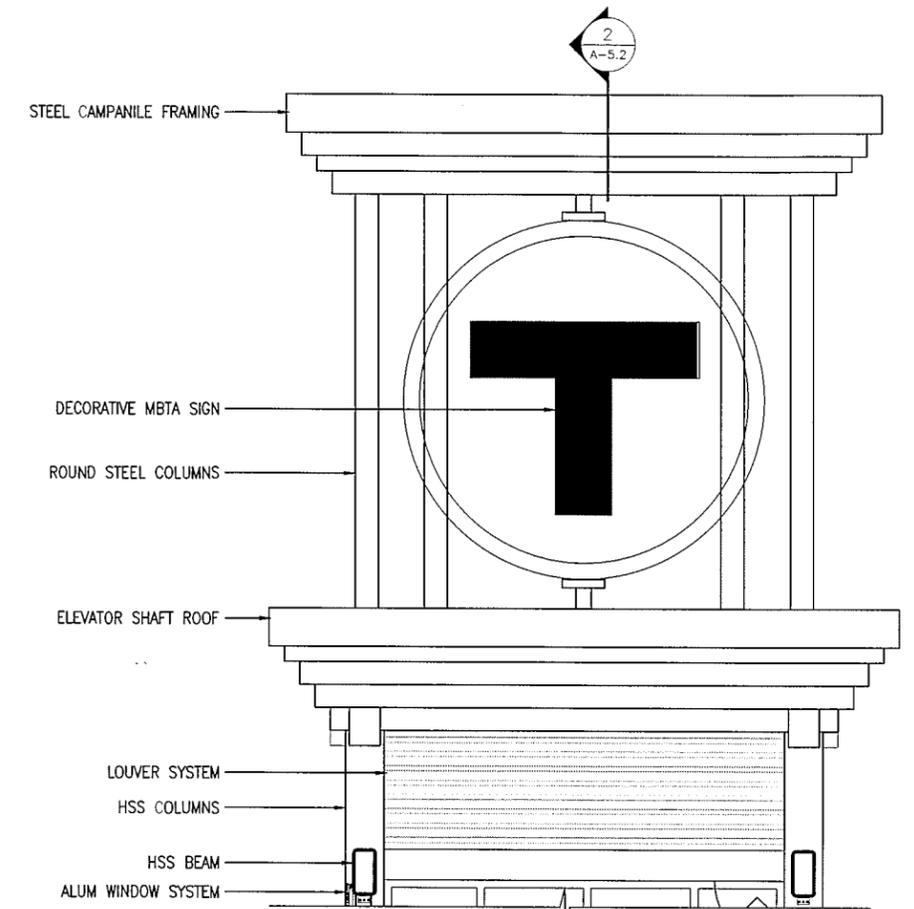
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 PLOT DATE: Jun 09, 2011 7:02am



3 DETAIL: SCUPPER
 1-1/2" = 1'-0"

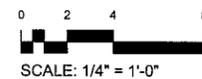


2 DETAIL: CAMPANILE
 1-1/2" = 1'-0"

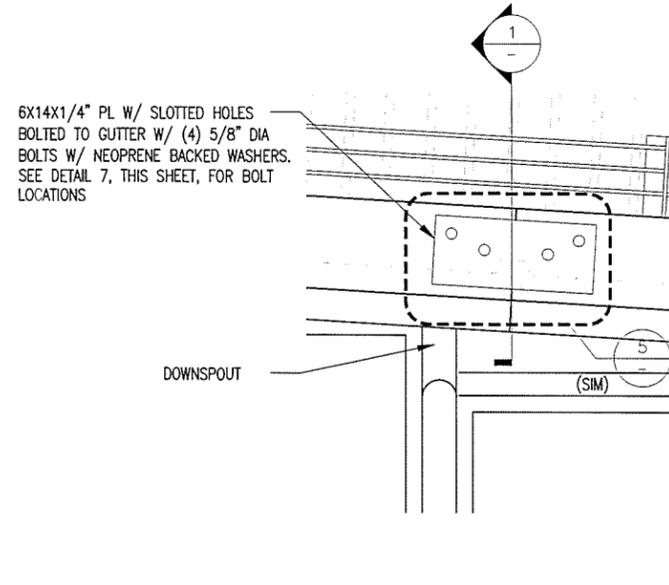


1 PARTIAL ELEVATION: CAMPANILE
 1/2" = 1'-0"

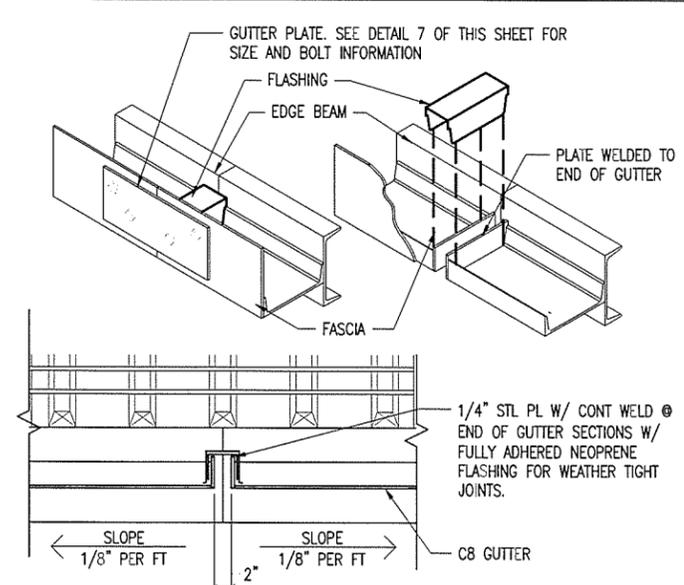
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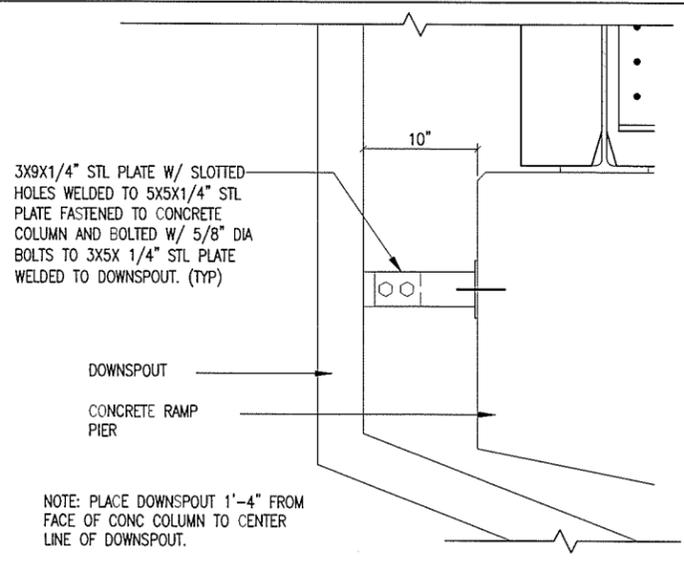
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HNTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
PROJECT MANAGER Date		PROJECT MANAGER Date	
HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		DES. BY: MB DW: DW CHK. BY: MB PLAN NO.: SHEET A-5.1	
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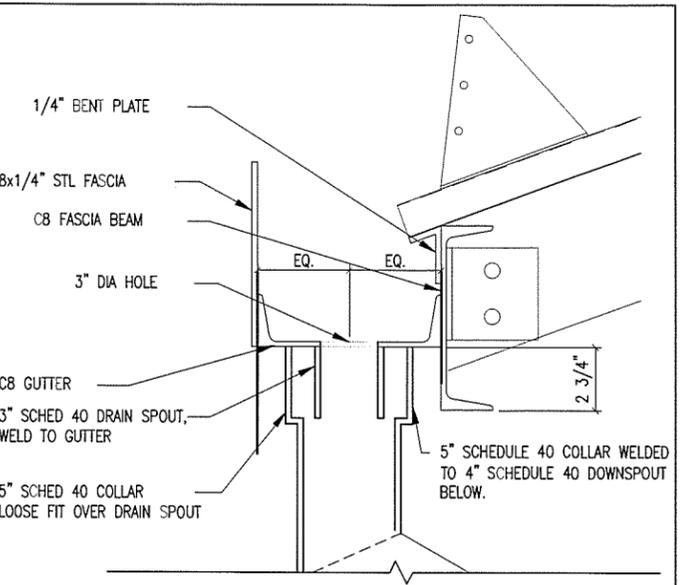
8 ELEVATION: RAMP GUTTER AT JOINT
1 1/2" = 1'-0"



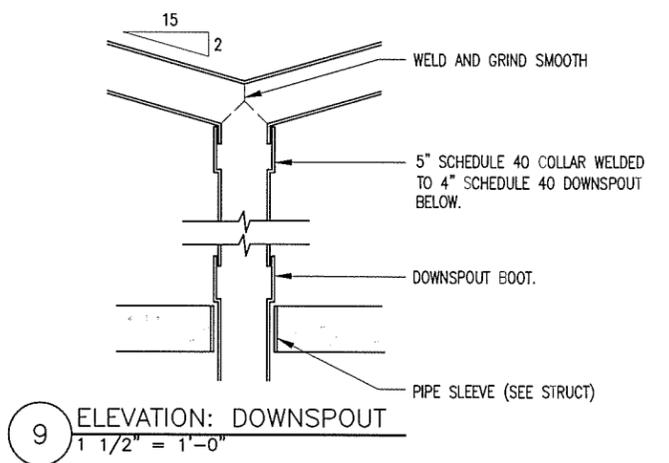
5 SECTION: CANOPY GUTTER AT HIGH POINT
3" = 1'-0"



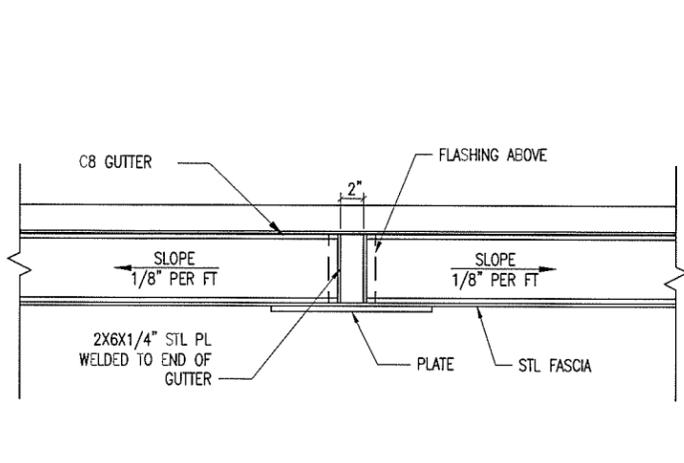
3 DETAIL: DOWNSPOUT AT CONCRETE PIER
1 1/2" = 1'-0"



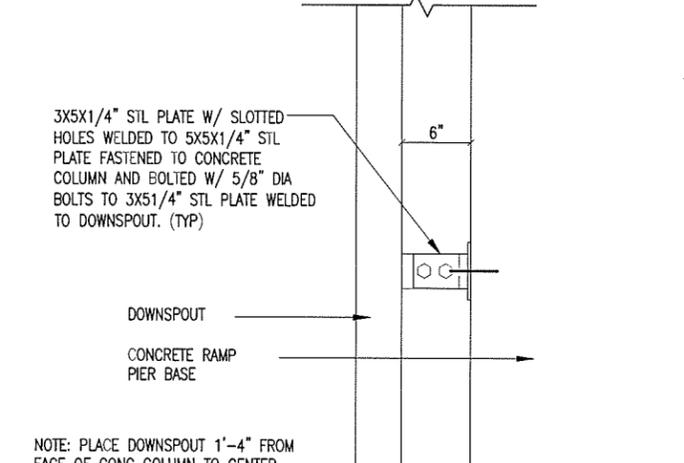
1 DETAIL: GUTTER/DOWNSPOUT
3" = 1'-0"



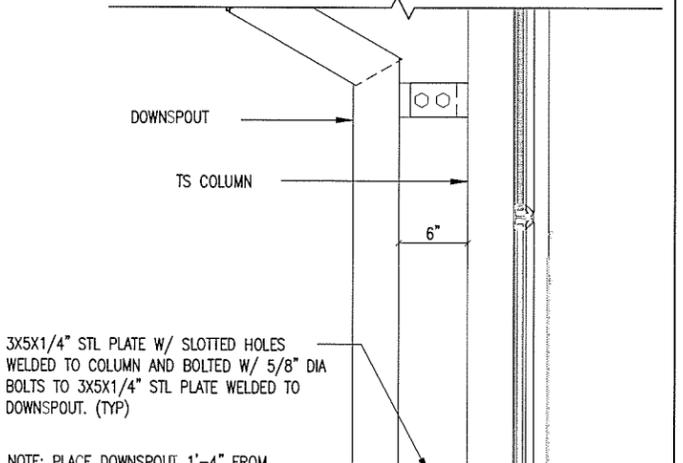
9 ELEVATION: DOWNSPOUT
1 1/2" = 1'-0"



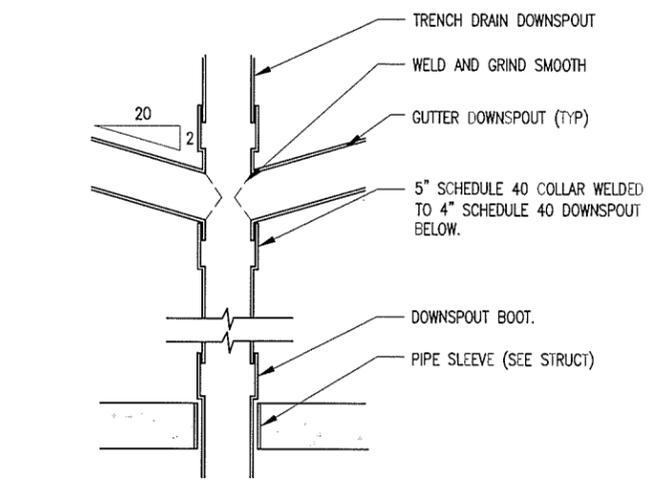
6 PLAN: CANOPY GUTTER AT HIGH POINT
NTS



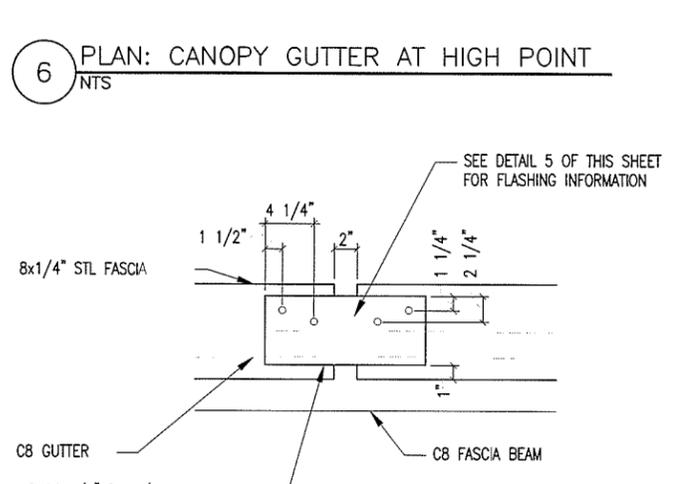
4 DETAIL: DOWNSPOUT AT CONCRETE PIER
1 1/2" = 1'-0"



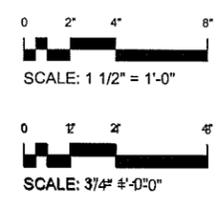
2 DETAIL: DOWNSPOUT AT HSS COLUMN
1 1/2" = 1'-0"



10 ELEVATION: DOWNSPOUT
1 1/2" = 1'-0"



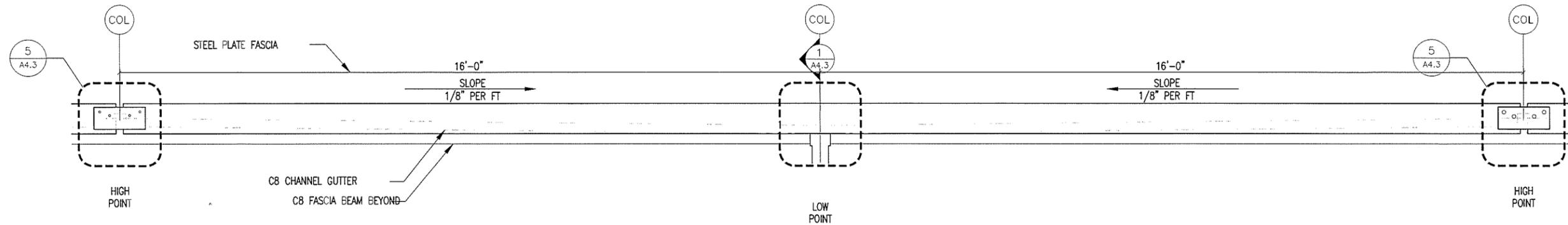
7 ELEVATION: CANOPY GUTTER AT HIGH POINT
1 1/2" = 1'-0"



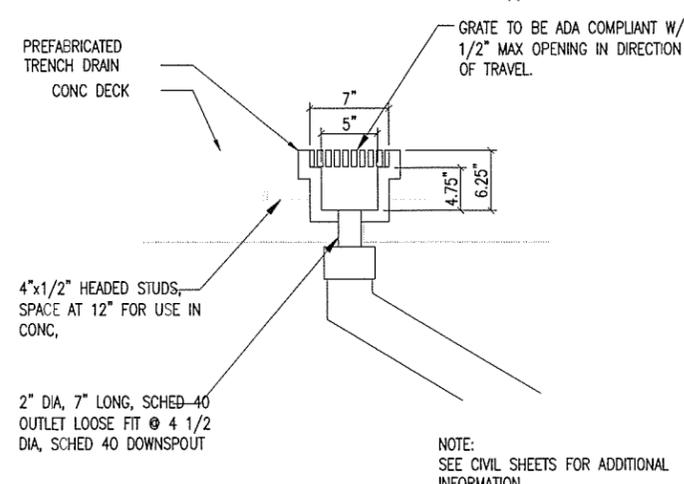
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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
PROJECT MANAGER HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		DES. BY: MB DW: DW CHK. BY: MB PLAN NO. SHEET A-5.2	
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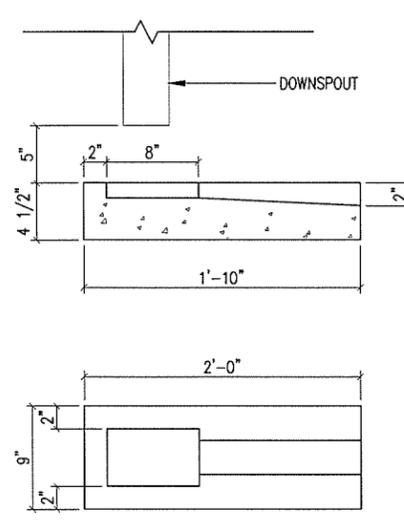
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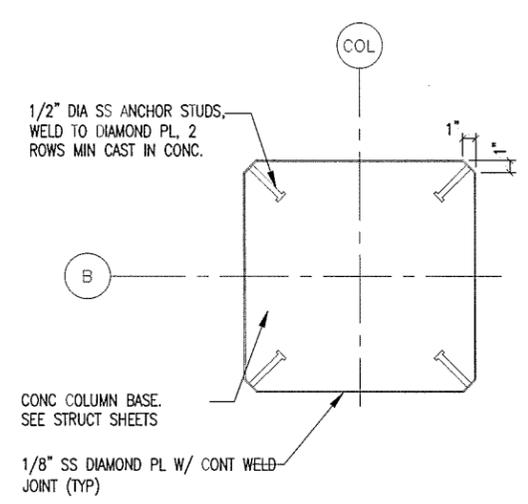
1 DETAIL: TYPICAL CANOPY GUTTER MODULE
3/4" = 1'-0"



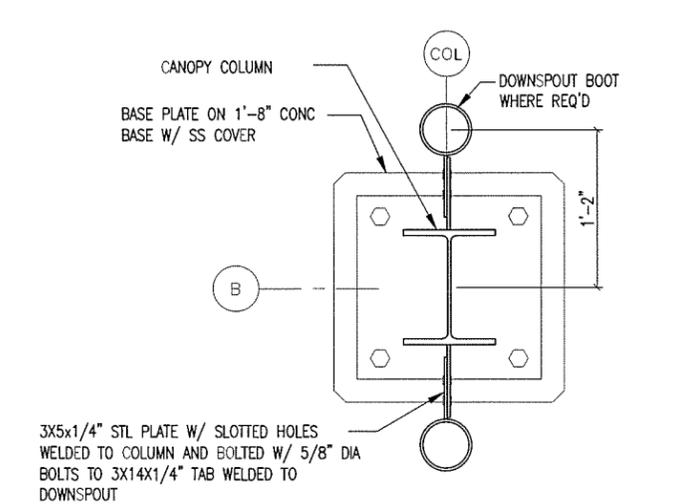
6 TRENCH DRAIN
1 1/2" = 1'-0"



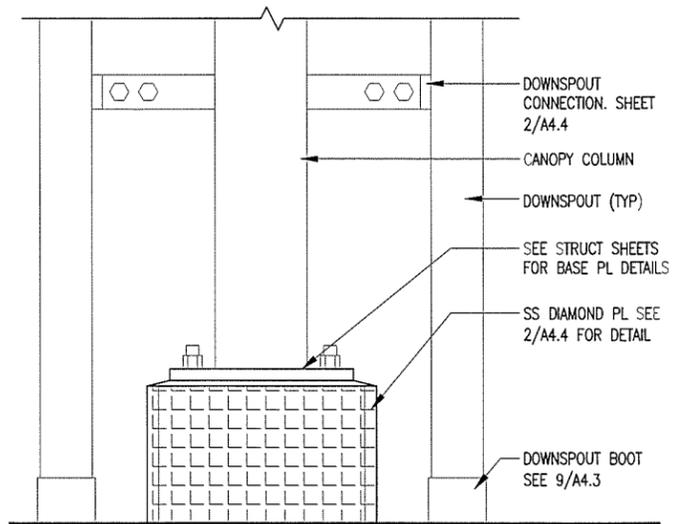
4 DETAIL: SPLASH BLOCK
1 1/2" = 1'-0"



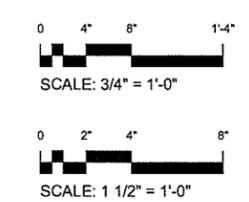
3 DETAIL: COLUMN BASE
1 1/2" = 1'-0"



2 DETAIL: DOWNSPOUT CONNECTION AT CANOPY
1 1/2" = 1'-0"



5 DETAIL: COLUMN/DOWNSPOUTS AT CANOPY
1 1/2" = 1'-0"



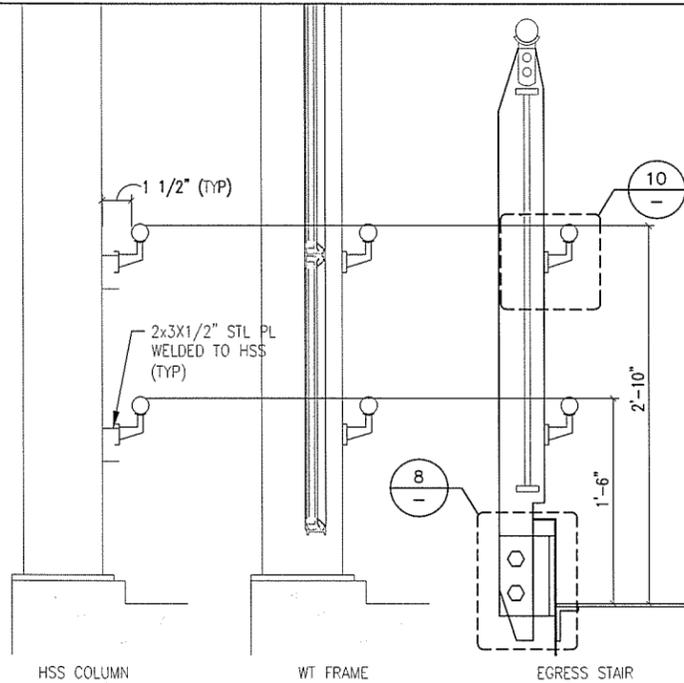
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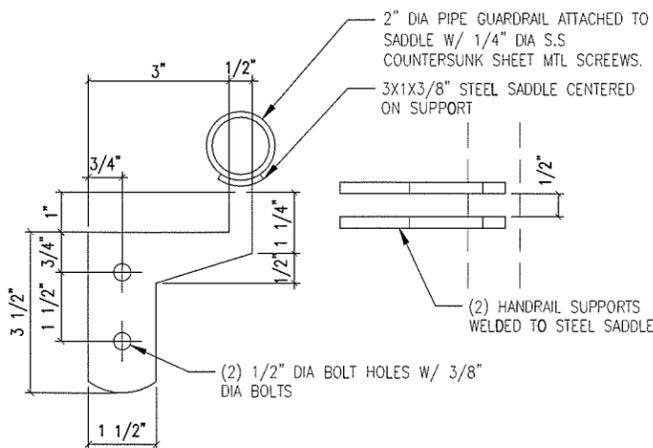
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SOUTH ACTON STATION DETAILS MISCELLANEOUS		HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000	
APPROVED BY:		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
PROJECT MANAGER		APPROVED BY:	
DATE		DATE	
HORIZ: AS NOTED		PLAN NO.	
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DATE: 06/14/11		SHEET A-5.3	

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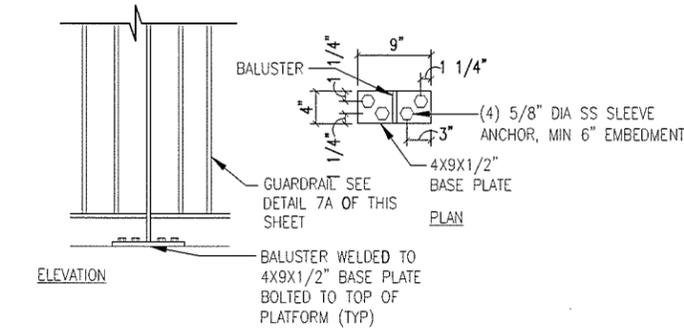
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9 **DETAIL: HANDRAIL HEIGHTS**
 3" = 1'-0"

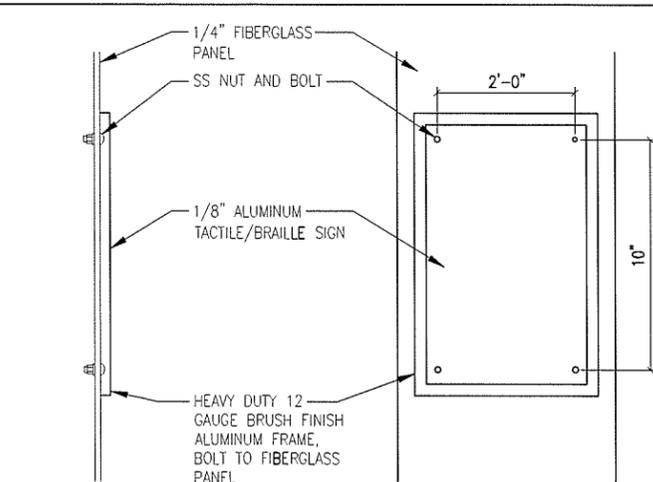


10 **DETAIL: HANDRAIL**
 3" = 1'-0"

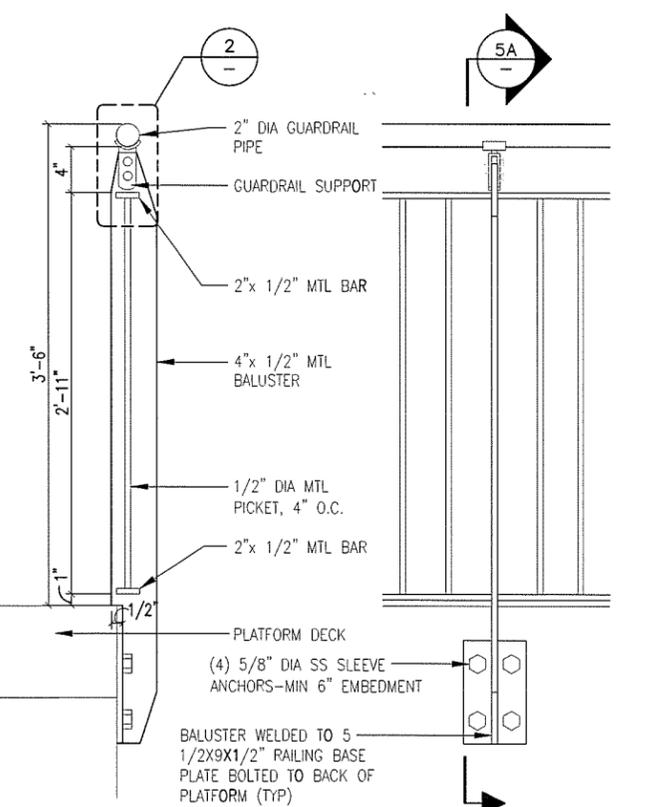


11 **DETAIL: GUARDRAIL BASE PLATE FOR WALKWAY**
 3" = 1'-0"

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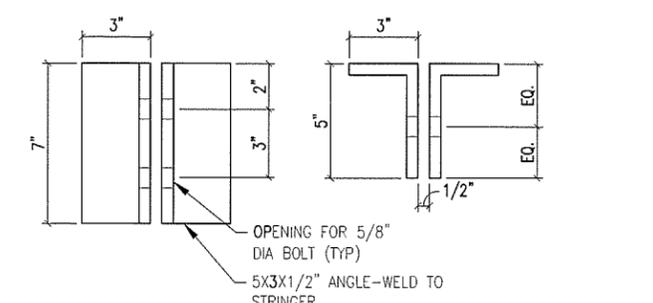


6 **DETAIL: TACTILE/BRAILLE**
 3" = 1'-0"

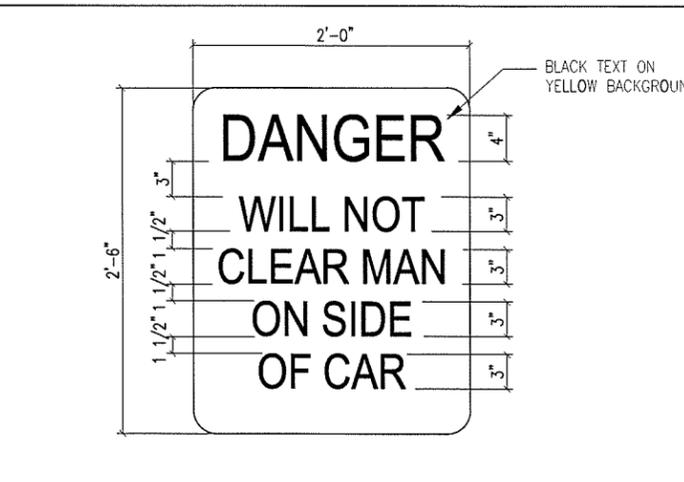


7A **DETAIL-GUARD**
 1 1/2" = 1'-0"

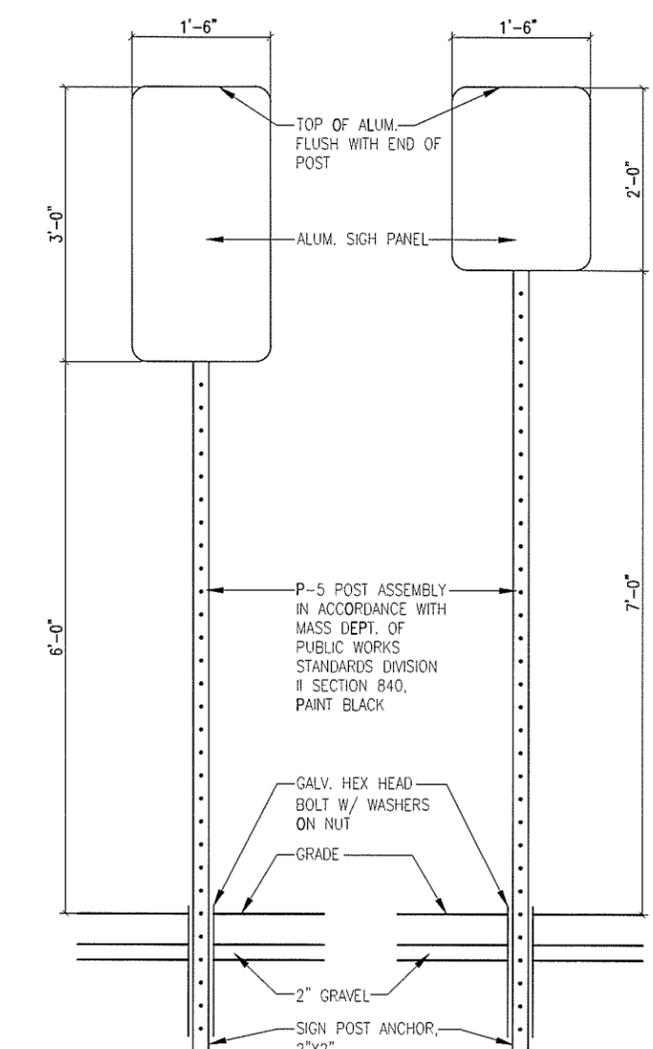
7 **DETAIL-GUARD**
 1 1/2" = 1'-0"



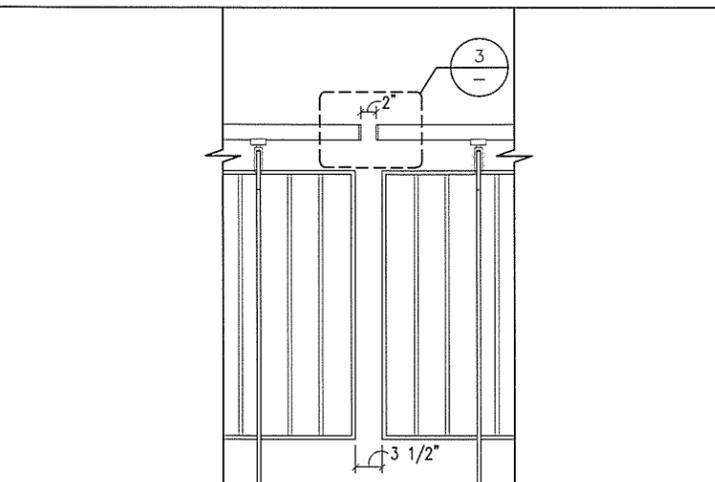
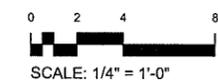
8 **DETAIL: EGRESS STAIR RAILING BASE PLATE**
 3" = 1'-0"



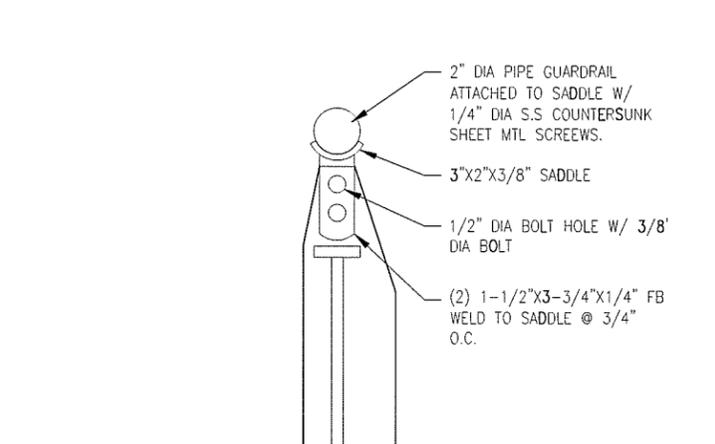
4 **DETAIL: DANGER SIGN**
 1 1/2" = 1'-0"



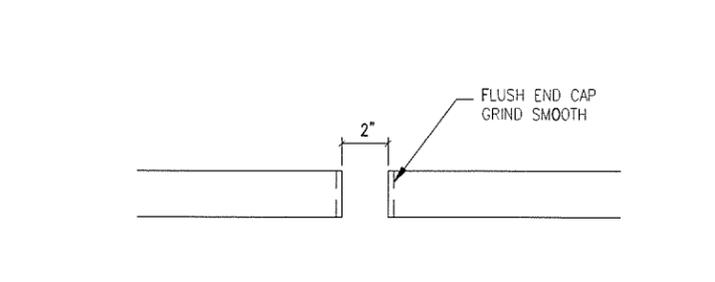
5 **DETAIL: POST MOUNTED SIGNS**
 1" = 1'-0"



1 **PIPE RAIL JOINT AT GUARD RAIL**
 1" = 1'-0"



2 **DETAIL: GUARDRAIL SUPPORT**
 3" = 1'-0"



3 **DETAIL: PIPE RAIL JOINT**
 3" = 1'-0"

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
		SOUTH ACTON STATION DETAILS GUARD FENCE	
300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		PROJECT MANAGER Date HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	
ISSUE DATE DESCRIPTION BY CHG. APP.		PLAN NO. SHEET A-5.4	

FILE NAME: W:\DwgFiles\0814_Fitchburg Main Line\0814_01_So. Acton Station\7.0 Design Development\60% Submission\7.1 Dwg\ 05 A-SN0001.dwg
 PLOT DATE: Jun 09 2011 - 7:03am

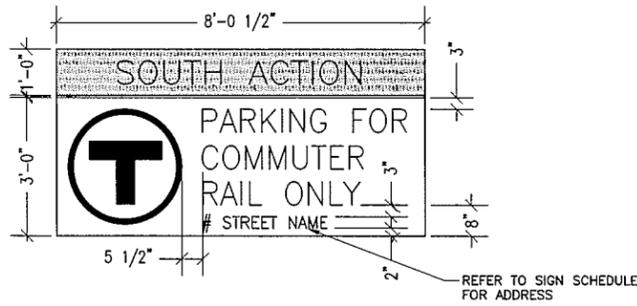
SIGN/BENCH SCHEDULE							
SIGN #	QTY.	GRAPHIC		FRAME	MOUNTING	BASE PLATE	REMARKS
		NORTH/EAST	SOUTH/WEST	TYPE	DETAIL	DETAIL	
02	01	GRAPH 01	GRAPH 01	TYPE A	FOOTING	A/A5.8	ENTRY SIGN
03	01	GRAPH 04	--	TYPE C	FOOTING	C/A5.8	2 BAY BENCH W/WINDSCREEN
04	01	GRAPH 07	--	TYPE B	FOOTING	A/A5.8	2 BAY SIGN W/SCHEDULE CASE
05	03	--	--	TYPE H	FOOTING	A/A5.8	BENCH
06	01	--	--	TYPE H'	FOOTING	A/A5.8	6FT BENCH
07	02	GRAPH 02	GRAPH 03	TYPE D	FOOTING	A/A5.8	2 BAY DOUBLE BENCH W/ WINDSCREEN
09	01	--	--	TYPE G	FOOTING	B/A5.8	VMS-DOUBLE SIDED
10	02	GRAPH 02	GRAPH 03	TYPE B	FOOTING	A/A5.8	2 BAY SIGN W/SCHEDULE CASE
11	02	GRAPH 02	GRAPH 03	TYPE E	FOOTING	A/A5.8	4 BAY DOUBLE BENCH W/ WINDSCREEN-DOUBLE SIDED
40	01	GRAPH M/11			ANCHOR	5/A-4.8	ACCESSIBLE PARKING VAN ACCESSIBLE
41	05	GRAPH Q/11			ANCHOR	5/A-4.8	ACCESSIBLE PARKING
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							

NOTE:

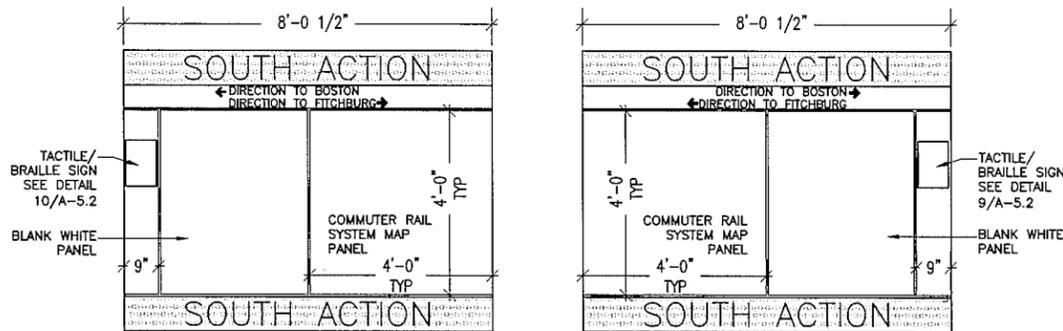
1. REFER TO PLAN SHEETS [A-1.1 - A-1.12] FOR SIGN LOCATIONS EXCEPT AS NOTED OTHERWISE.
2. REFER TO SHEET A-5.2 FOR SIGN GRAPHICS.
3. REFER TO SHEETS [A-5.3 - A-5.9] FOR FRAME TYPES AND DETAILS.

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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY				
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01				
		SOUTH ACTON STATION SIGN SCHEDULE				
		HNTB 300 APOLLO DRIVE CHELSEA, MA 02124 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY		
		APPROVED BY:		APPROVED BY:		
		PROJECT MANAGER		PROJECT MANAGER		
		DATE		DATE		
		Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472				
		HORIZ: AS NOTED		DES. BY: MB	DR. BY: DW	CHK. BY: MB
		VERT: N/A		PLAN NO. 169524		ISSUE
		DATE: 06/14/11		SHEET A-6.1		○

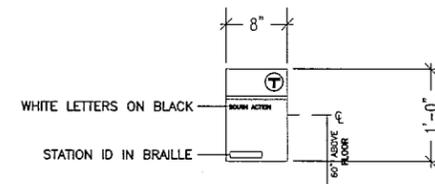


1 GRAPH 01
 SCALE : 1/2" = 1'-0"

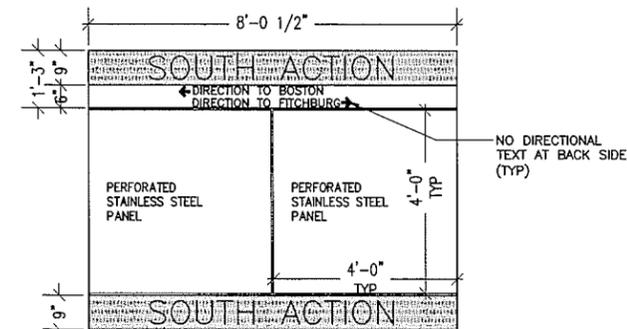


5 GRAPH 05
 SCALE : 1/2" = 1'-0"

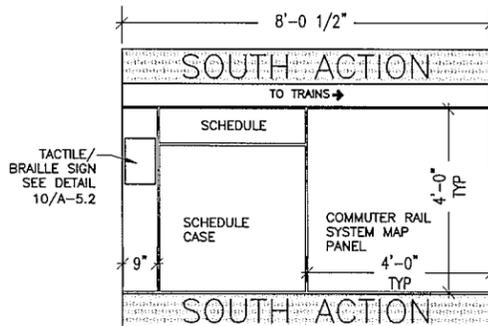
6 GRAPH 06
 SCALE : 1/2" = 1'-0"



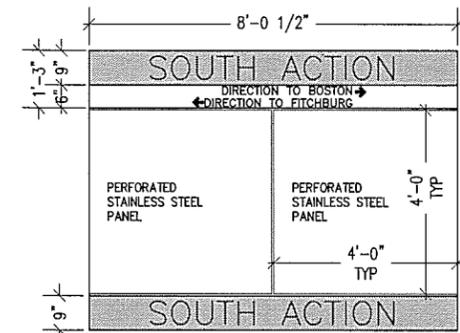
10 TACTILE/BRAILLE SIGN
 SCALE : 1" = 1'-0"



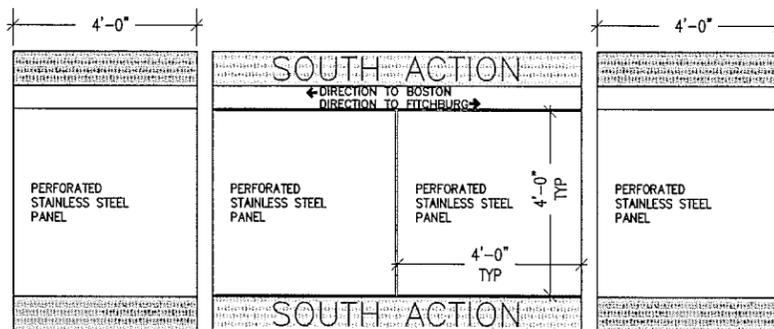
2 GRAPH 02
 SCALE : 1/2" = 1'-0"



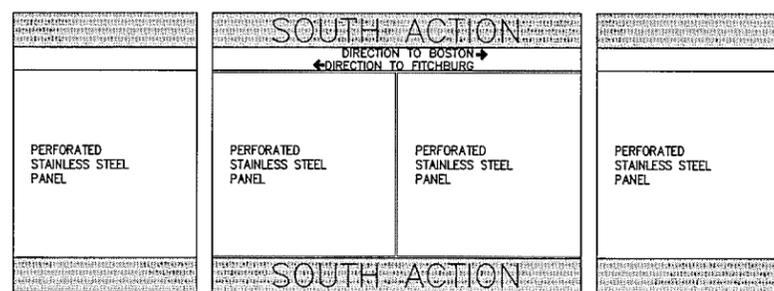
7 GRAPH 07
 SCALE : 1/2" = 1'-0"



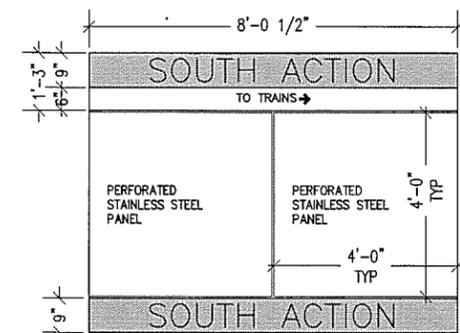
3 GRAPH 03
 SCALE : 1/2" = 1'-0"



8 GRAPH 08
 SCALE : 1/2" = 1'-0"

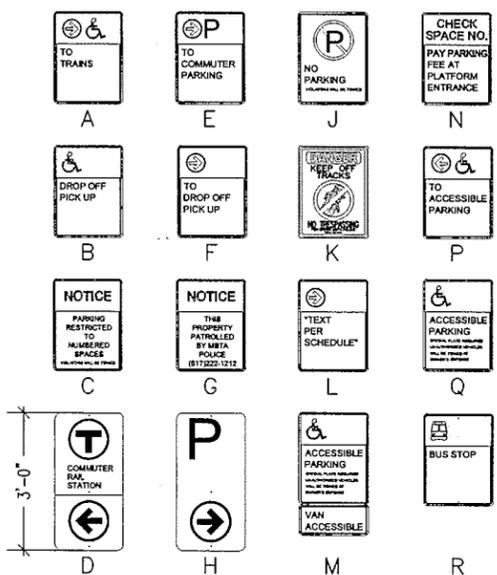


9 GRAPH 09
 SCALE : 1/2" = 1'-0"



4 GRAPH 04
 SCALE : 1/2" = 1'-0"

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11 TRAFFIC SIGNS
 SCALE : 1/2" = 1'-0"



"T" LOGO PROPORTIONS FOR DIAMETER LARGER THAN 4" NTS

NOTES:

1. ALL TEXT TO BE IN MBTA STANDARD, HELVETICA MEDIUM.
2. ALL TACTILE/BRAILLE LETTERING SHALL BE MINIMUM 5/8" HIGH.
3. TACTILE/BRAILLE SIGNS SHALL BE MOUNTED CENTERLINE OF SIGN 60" ABOVE PLATFORM/ SIDEWALK SURFACE.
4. GRAPHICS SHOWN ARE FOR CONTENT ONLY. REFER TO CURRENT MBTA GRAPHIC STANDARDS FOR COMPLETE DESIGN GUIDELINES.
5. REFER TO SCHEDULE FOR SIGN MOUNTING AND FRAMING DETAILS.

COLOR KEY:

- MBTA STANDARD COMMUTER RAIL PURPLE COLOR W/ WHITE LETTERS
- MBTA APPROVED WHITE W/ BLACK LETTERS

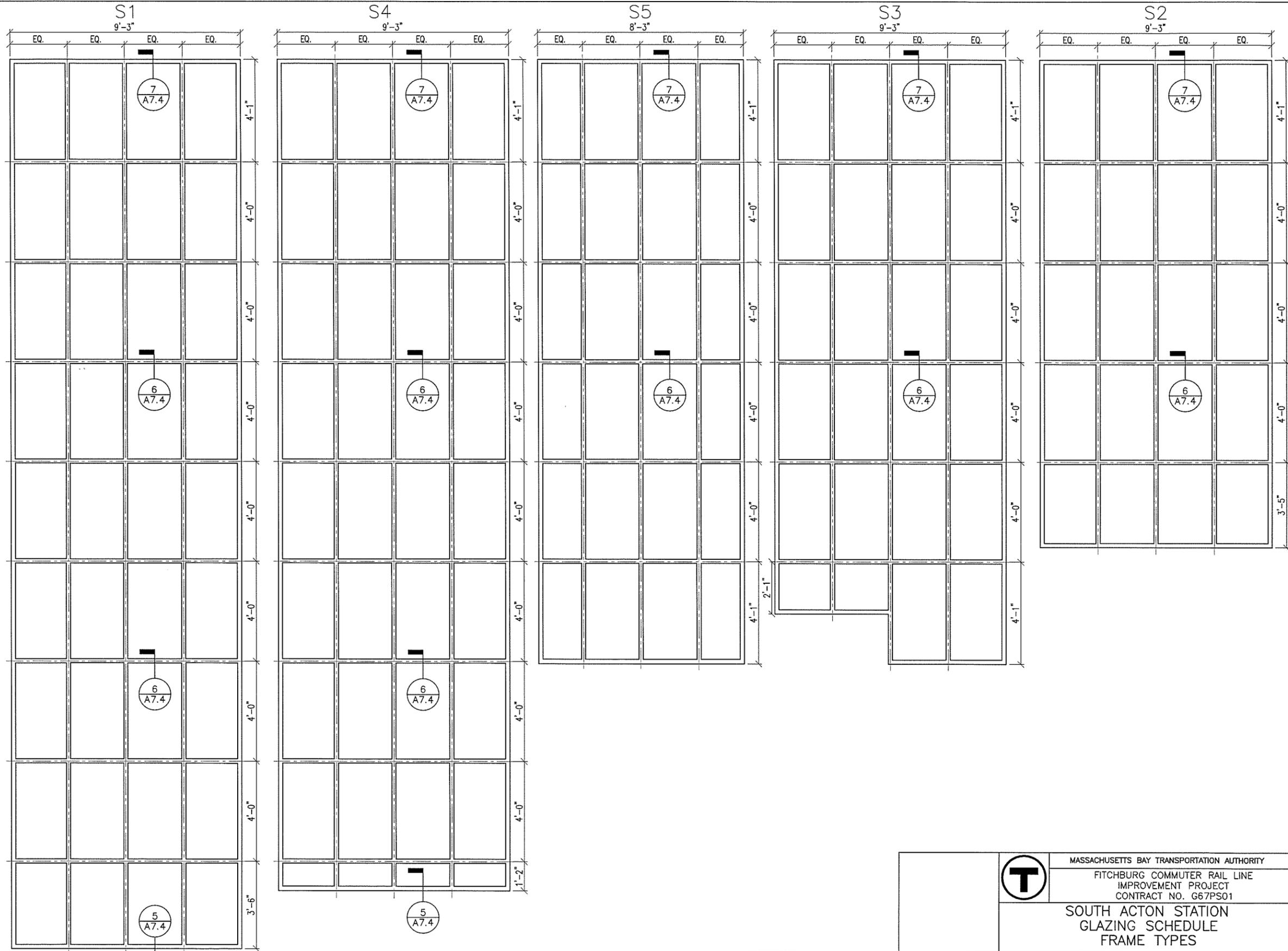
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
		SOUTH ACTON STATION SIGN GRAPHICS	
HNTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		PROJECT MANAGER:	
ISSUE DATE DESCRIPTION	BY CHD. APP.	PROJECT MANAGER:	DATE:
PROJECT MANAGER:		HORIZ: AS NOTED	PLAN NO. 169525
PROJECT MANAGER:		VERT: N/A	SHEET A-6.2
PROJECT MANAGER:		DATE: 06/14/11	ISSUE



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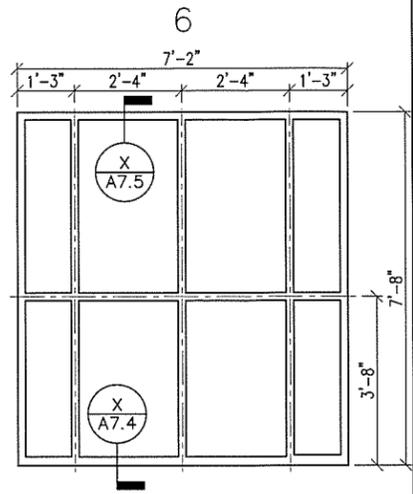
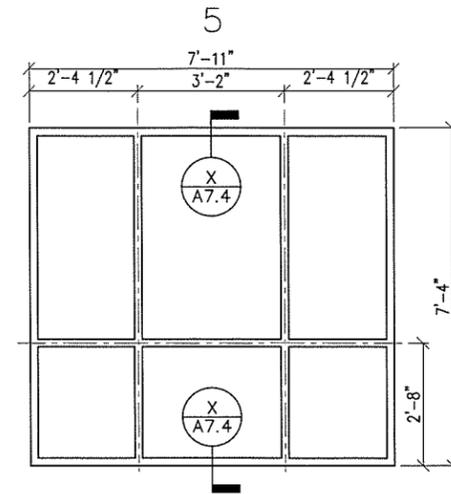
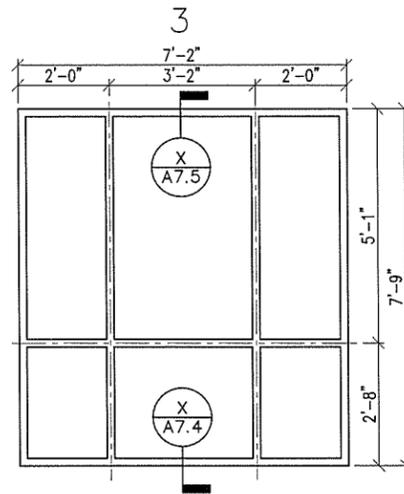
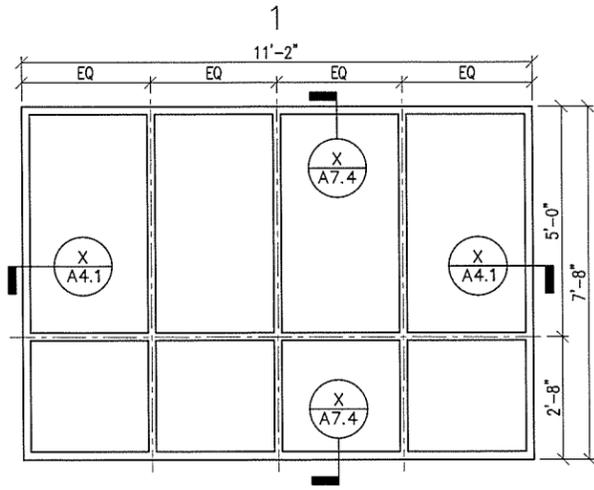
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 PLOT DATE: Jun 09, 2011 - 7:03am

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T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
SOUTH ACTON STATION GLAZING SCHEDULE FRAME TYPES		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		APPROVED BY:	
PROJECT MANAGER		PROJECT MANAGER	
DATE: 06/14/11		DATE: 06/14/11	
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000	
Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472	
HORIZ: AS NOTED		HORIZ: AS NOTED	
VERT: N/A		VERT: N/A	
DATE: 06/14/11		DATE: 06/14/11	
PLAN NO. 169533		PLAN NO. 169533	
SHEET A-7.2		SHEET A-7.2	

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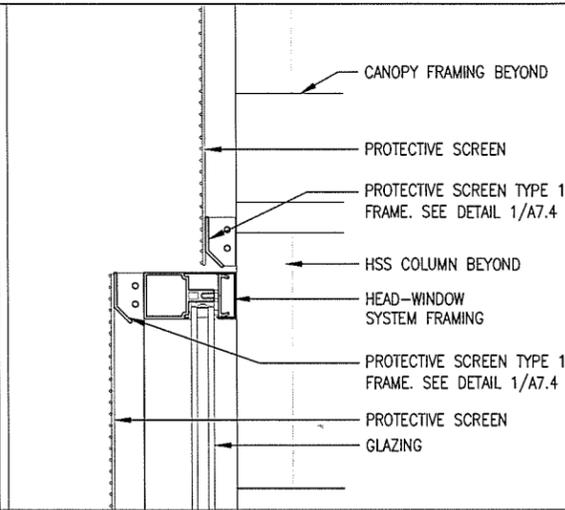
60% SUBMITTAL
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		SOUTH ACTON STATION PROTECTIVE SCREEN FRAME TYPES	
 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
		PROJECT MANAGER Date	
HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		DES. BY: MB DR. BY: DW CHK. BY: MB	PLAN NO. 169533 SHEET A-7.3

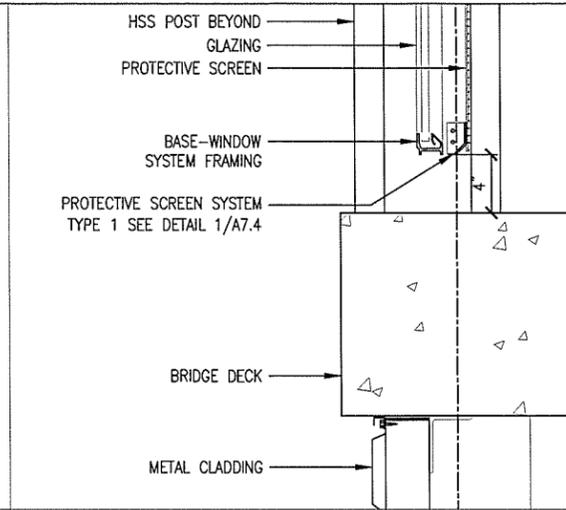


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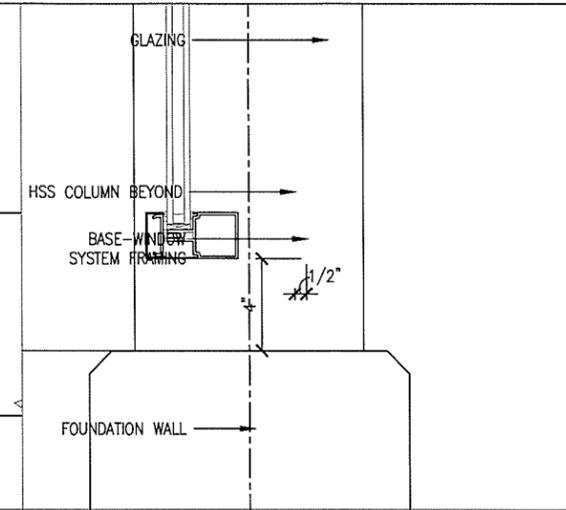
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 PLOT DATE: Jun 09, 2011 - 7:04am



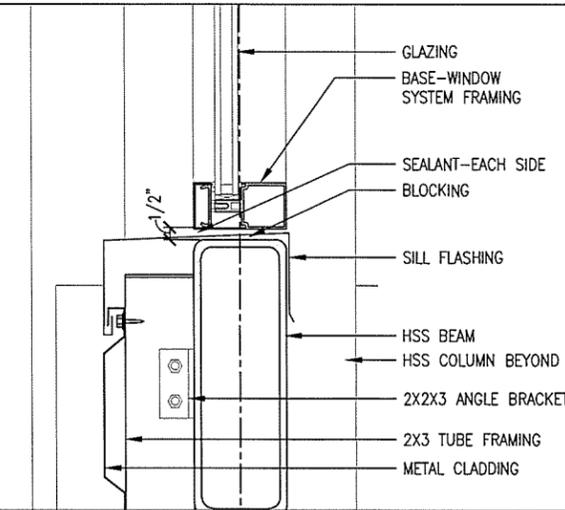
11 DETAIL: WINDOW HEAD CANOPY END
 3" = 1'-0"



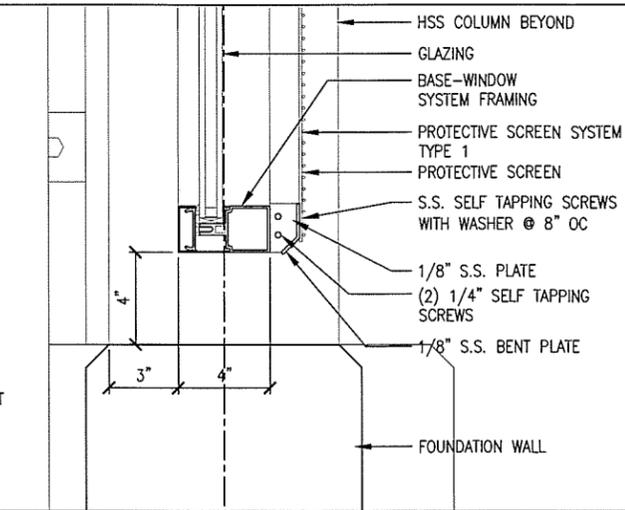
8 DETAIL: WINDOW BASE-BRIDGE END
 3" = 1'-0"



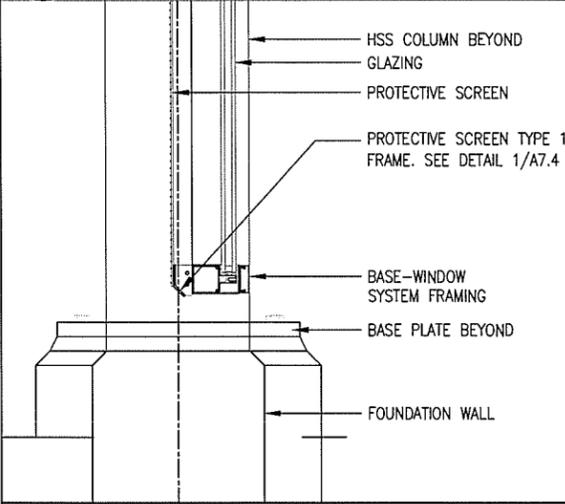
5 DETAIL: WINDOW BASE-ELEVATOR
 3" = 1'-0"



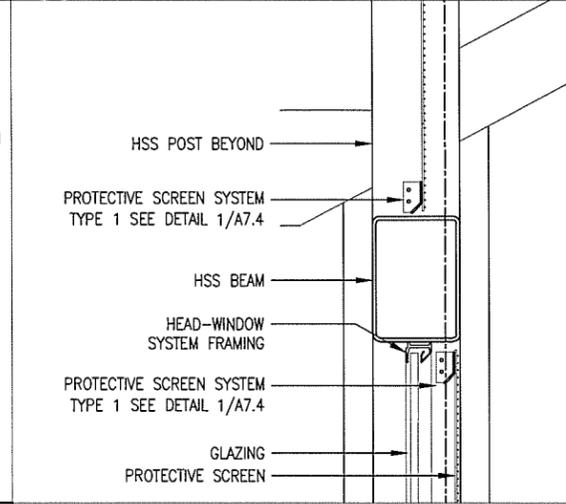
3 DETAIL: WINDOW BASE
 3" = 1'-0"



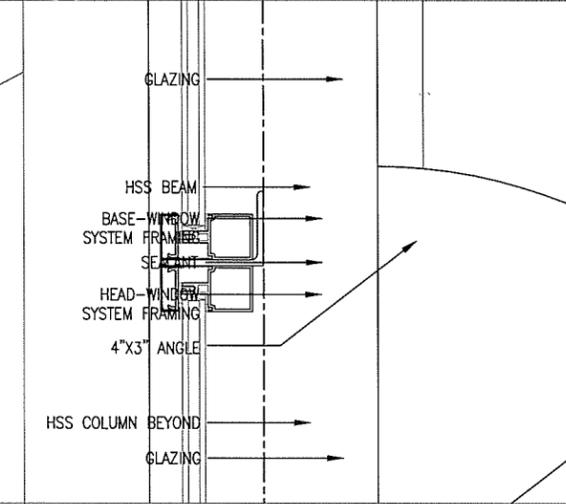
1 DETAIL: WINDOW BASE
 3" = 1'-0"



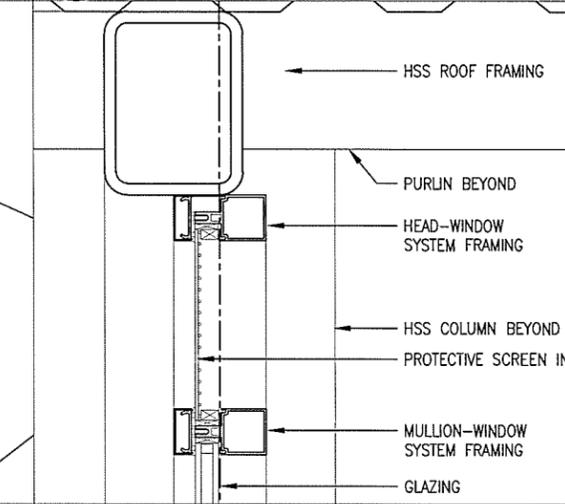
12 DETAIL: WINDOW BASE CANOPY END
 3" = 1'-0"



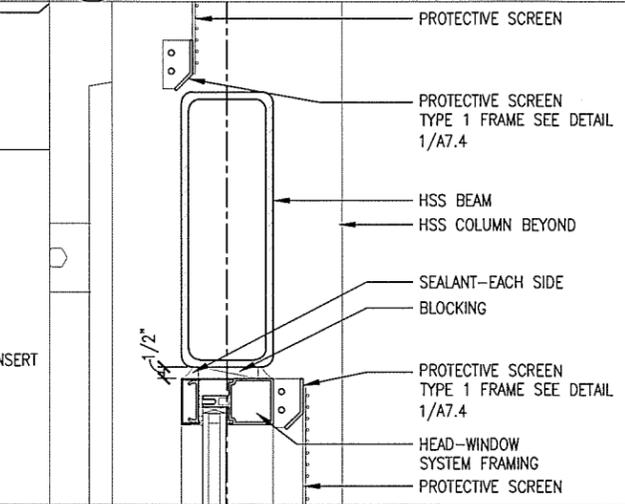
9 DETAIL: WINDOW HEAD-BRIDGE END
 3" = 1'-0"



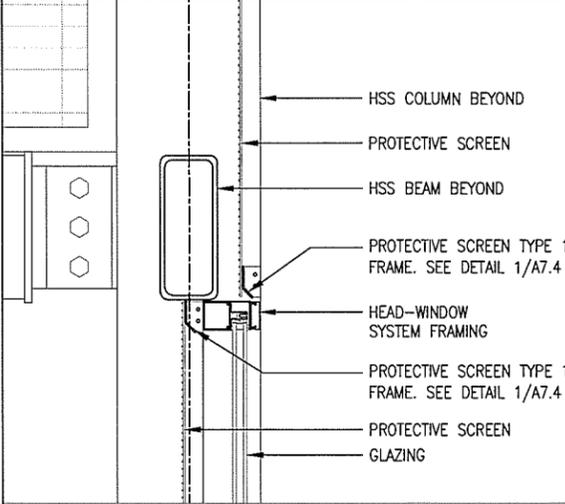
6 DETAIL: WINDOW-ELEVATOR
 3" = 1'-0"



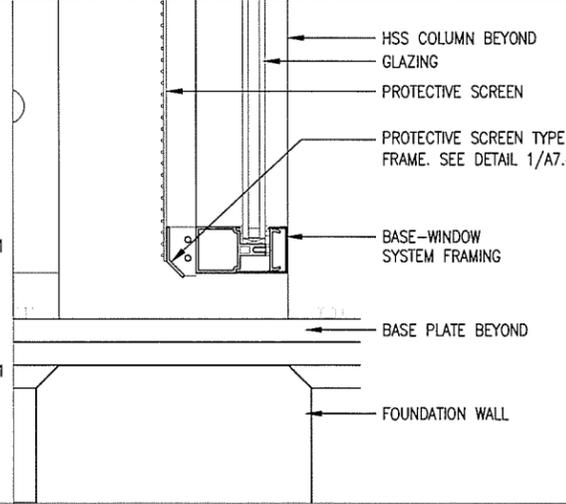
4 DETAIL: WINDOW HEAD
 3" = 1'-0"



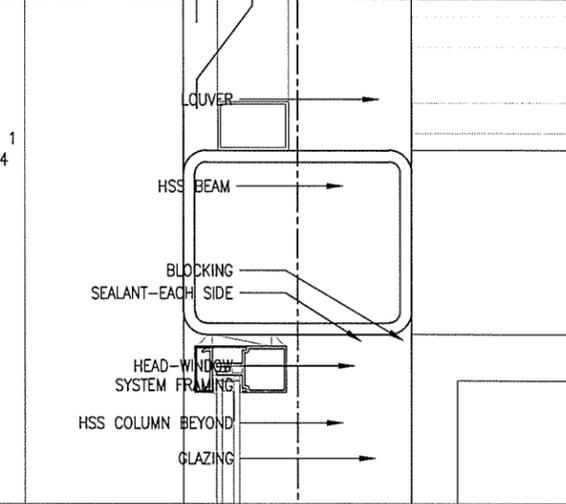
2 DETAIL: WINDOW HEAD
 3" = 1'-0"



13 DETAIL: WINDOW HEAD CANOPY END
 3" = 1'-0"

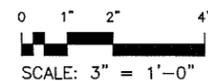


10 DETAIL: WINDOW BASE CANOPY END
 3" = 1'-0"



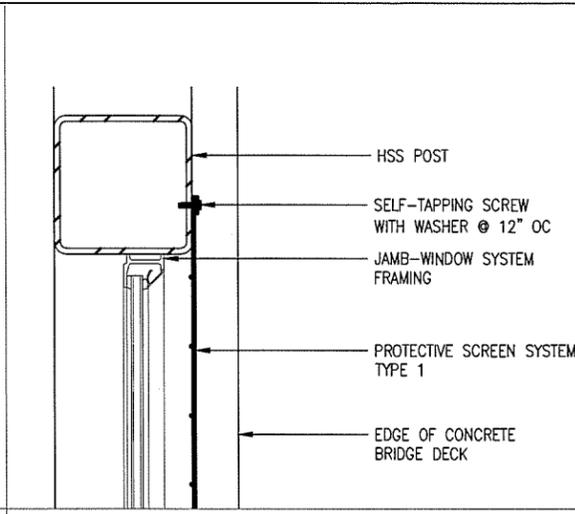
7 DETAIL: WINDOW HEAD-ELEVATOR
 3" = 1'-0"

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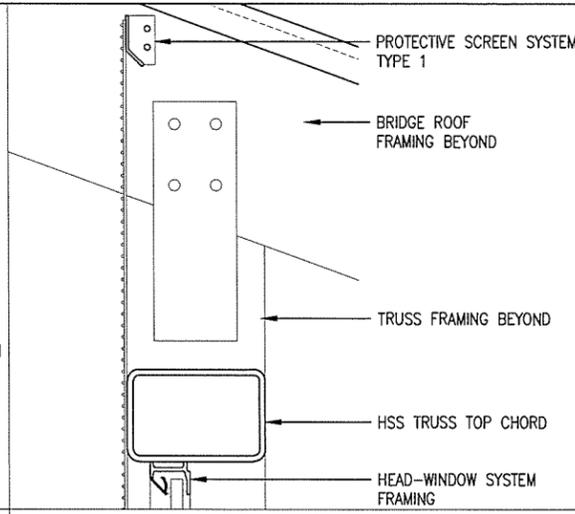


		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
		SOUTH ACTON STATION DETAILS FRAMES	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
		PROJECT MANAGER: _____ Date: _____ HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	
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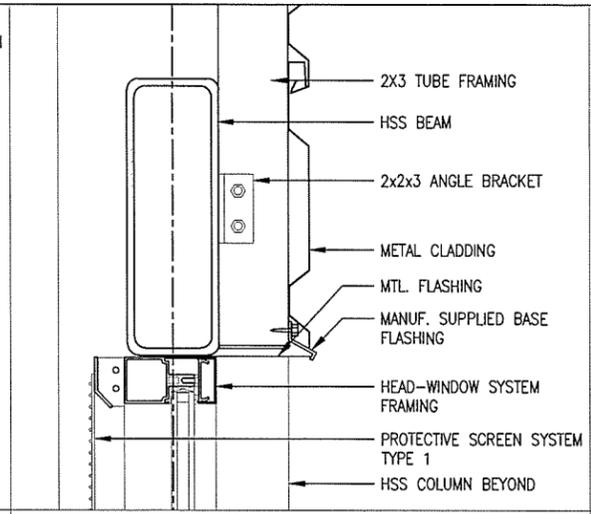
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 PLOT DATE: Jun 09, 2011 7:04am



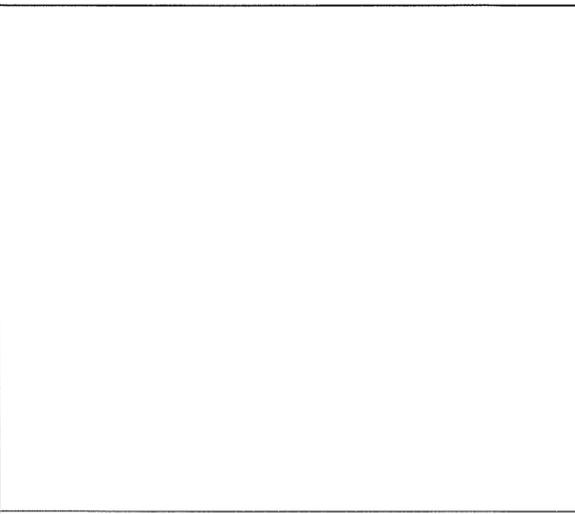
8 DETAIL: WINDOW JAMB-BRIDGE
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



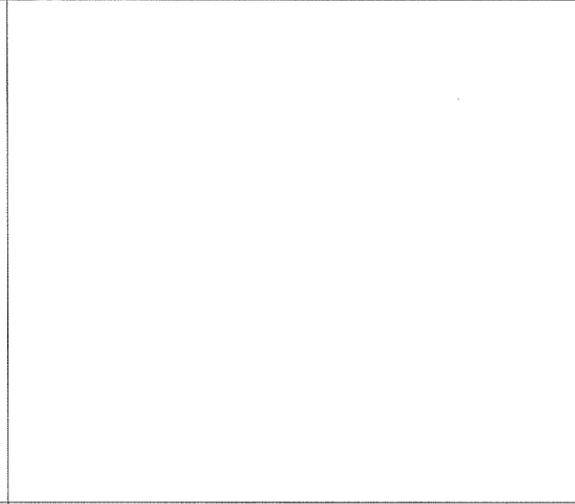
5 DETAIL: WINDOW HEAD-BRIDGE
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



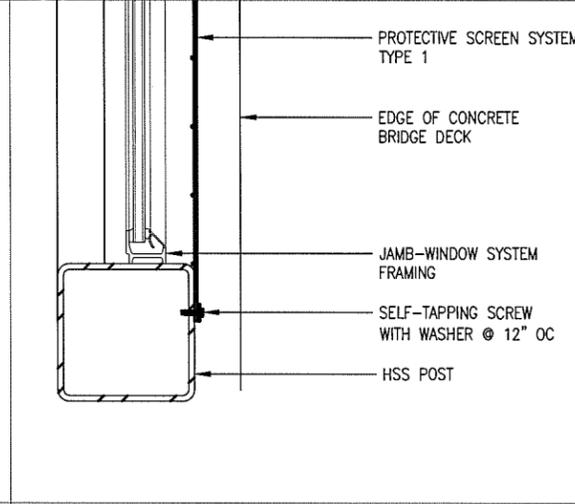
3 DETAIL: WINDOW HEAD
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



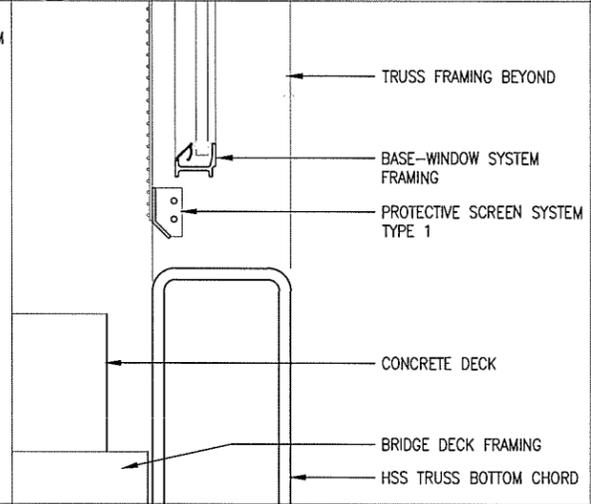
1 DETAIL: WINDOW BASE-ELEVATOR
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



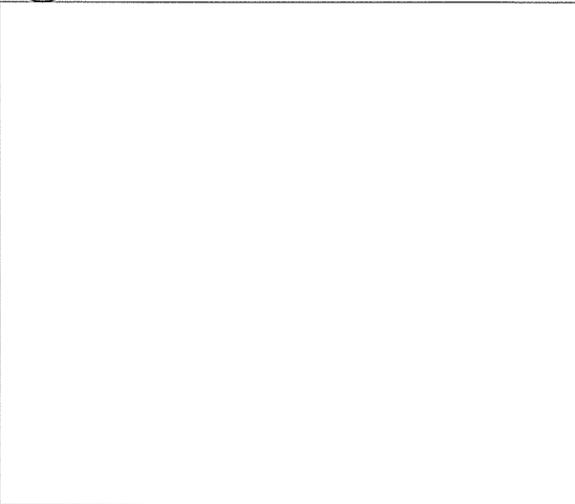
9 DETAIL: WINDOW JAMB-BRIDGE
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



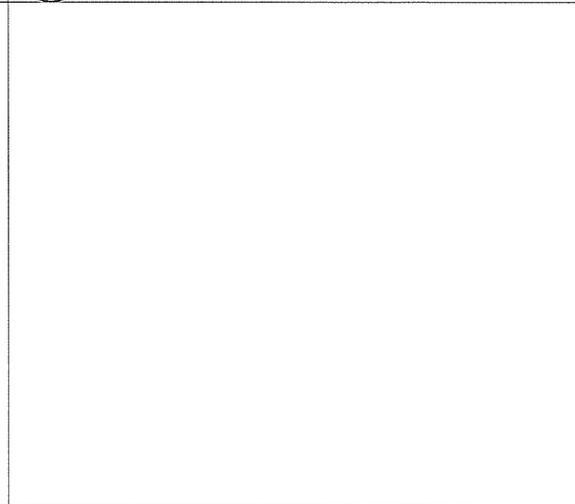
6 DETAIL: WINDOW JAMB-BRIDGE
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



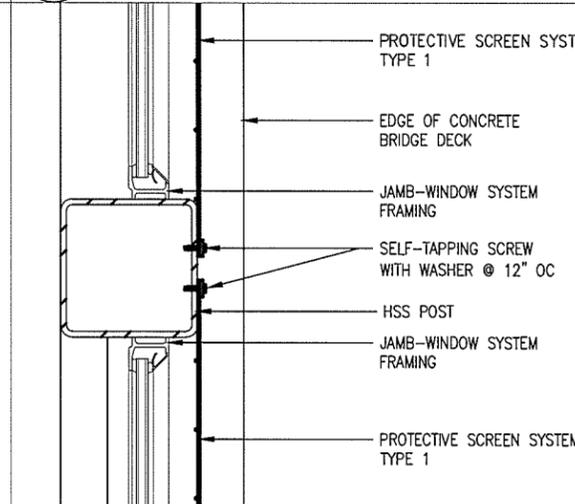
4 DETAIL: WINDOW BASE-BRIDGE
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



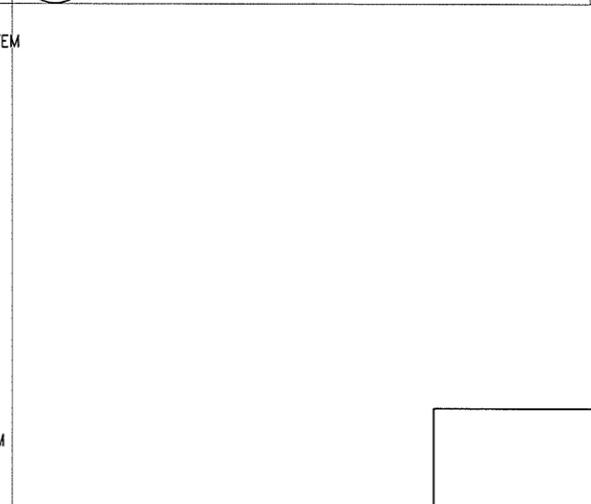
2 DETAIL: WINDOW BASE-ELEVATOR
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



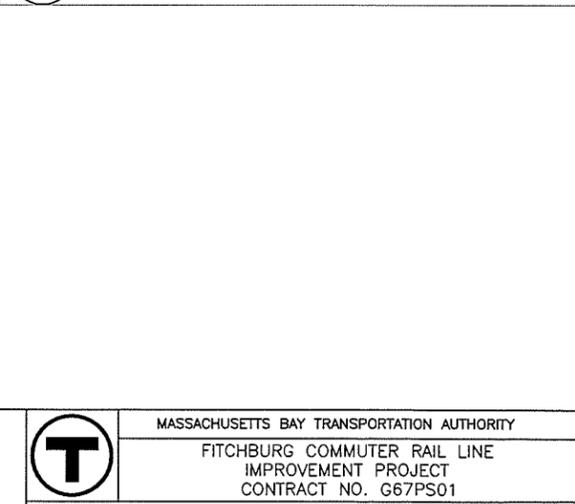
10 DETAIL: WINDOW JAMB-BRIDGE
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



7 DETAIL: WINDOW JAMB-BRIDGE
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



12 DETAIL: WINDOW JAMB-BRIDGE
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$



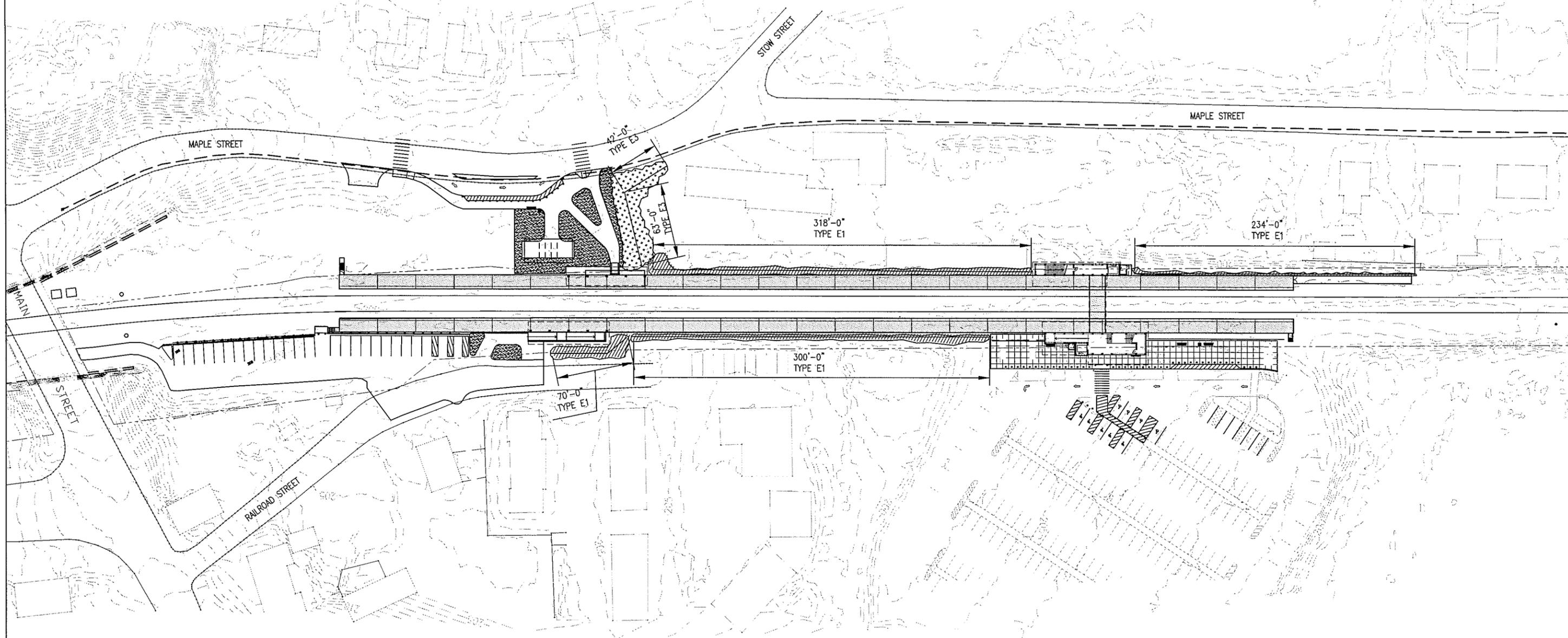
13 DETAIL: WINDOW JAMB-BRIDGE
 $\frac{3"}{1'} = \frac{1"}{1'-0"}$

60% SUBMITTAL
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T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY													
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01													
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		SOUTH ACTON STATION DETAILS FRAMES													
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY													
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Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472		PROJECT MANAGER: _____ Date: _____													
		HORIZ: AS NOTED VERT: N/A DATE: 06/14/11													
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EAST TO
BOSTON

WEST TO
FITCHBURG
TOWN OF ACTON

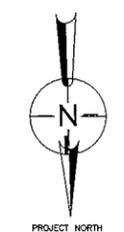
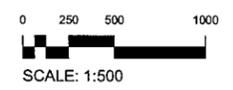


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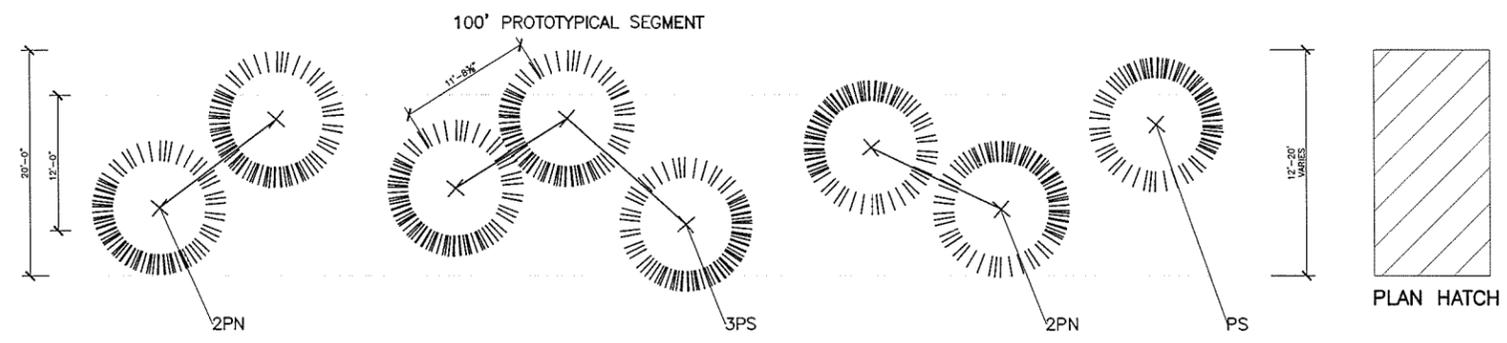
- LEGEND:**
- MODULE E1 PERIPHERAL TYPE E1
 - MODULE E2 CIRCULATION TYPE E2
 - MODULE E3 ENTRY ZONE TYPE E3
 - MODULE E4 SHRUB TYPE E4
 - LOAM AND SEED



T MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
 FITCHBURG COMMUTER RAIL LINE
 IMPROVEMENT PROJECT
 CONTRACT NO. G67PS01
**SOUTH ACTON STATION
 LANDSCAPE PLAN**

300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000			MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date		
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Lozano, Baskin, and Associates, Inc. Architecture • Urban Design • City Planning 205 Mt. Auburn St. Watertown, MA 02472			ISSUE DATE DESCRIPTION BY: CHG. APP.		

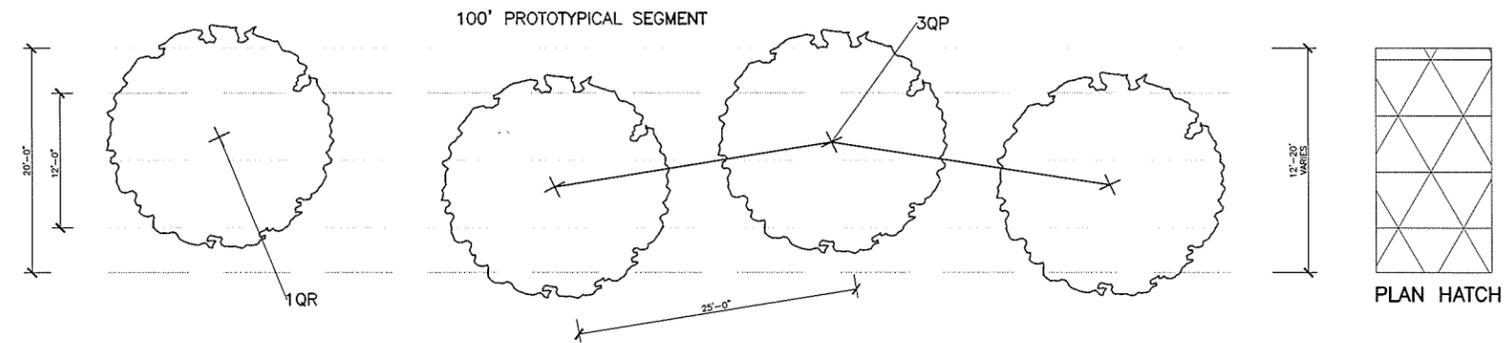
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MODULE E1:
 PERIPHERAL AREA TREES
 NTS A-11.2

LEGEND

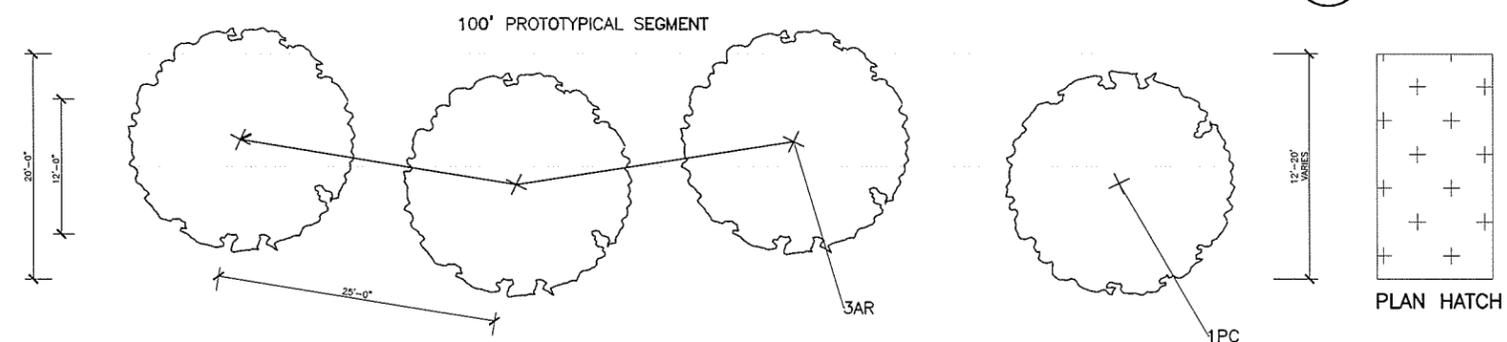
	PROPOSED DECIDUOUS TREE	A/B L-2
	PROPOSED EVERGREEN TREE	C/D L-2
	PROPOSED SHRUB	E/F L-2
	PROPOSED DECIDUOUS OR EVERGREEN SHRUB	E/F L-2



MODULE E2:
 GENERAL CIRCULATION TREES
 NTS B-11.2

PLANT SCHEDULE

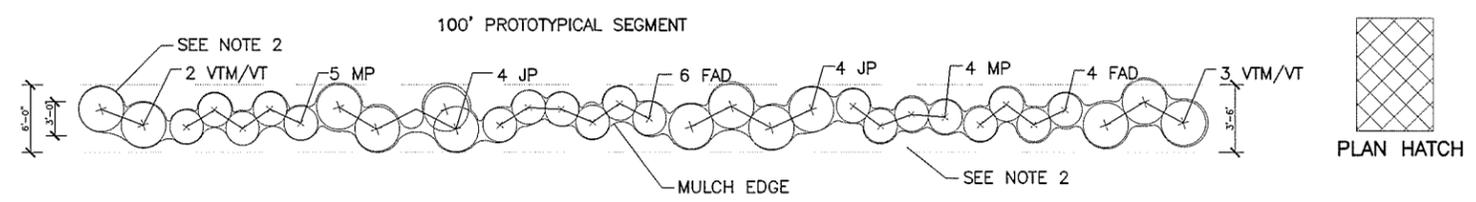
Trees	SYMBOL	QTY	SCIENTIFIC NAME	COMMON NAME	BASE BID SIZE	COMMENTS
AR			<i>Acer rubrum</i>	Red Maple	4" cal.	B&B
PC			<i>Pyrus calleryana</i>	Bradford Pear	4" cal.	B&B
PS			<i>Pinus strobus</i>	White Pine	3"-3 1/2" cal.	B&B
PN			<i>Pinus nigra</i>	Austrian Pine	6' ht.	B&B
TD			<i>Taxus media densiformis</i>	Densiform Yew	2 1/2'-3' Sprd	B&B
QP			<i>Quercus palustris</i>	Pin Oak	1 1/2"-2" cal.	B&B
QR			<i>Quercus rubra</i>	Red Oak	1 1/2"-2" cal.	B&B



MODULE E3:
 STATION ENTRY ZONE TREES
 NTS C-11.2

PLANT SCHEDULE

Shrubs	SYMBOL	QTY	SCIENTIFIC NAME	COMMON NAME	BASE BID SIZE	SPACING	COMMENTS
FAD			<i>Forsythia x 'Arnold Dwarf'</i>	Arnold Dwarf Forsythia	2' ht.	3' O.C.	CG
JP			<i>Juniperus chinensis 'Pfitzeriana'</i>	Pfitzer Juniper	2' ht.	4' O.C.	CG
MP			<i>Myrica pensylvanica</i>	Northern Bayberry	2' ht.	3' O.C.	CG
VTM			<i>Viburnum plicatum tomentosum 'Mariesi'</i>	Doublefile Viburnum	2' ht.	4' O.C.	CG
VT			<i>Viburnum trilobum</i>	American Cranberrybush	2' ht.	4' O.C.	CG
VC			<i>Vaccinium corymbosum 'Northland'</i>	Highbush Blueberry	2' ht.	3' O.C.	CG



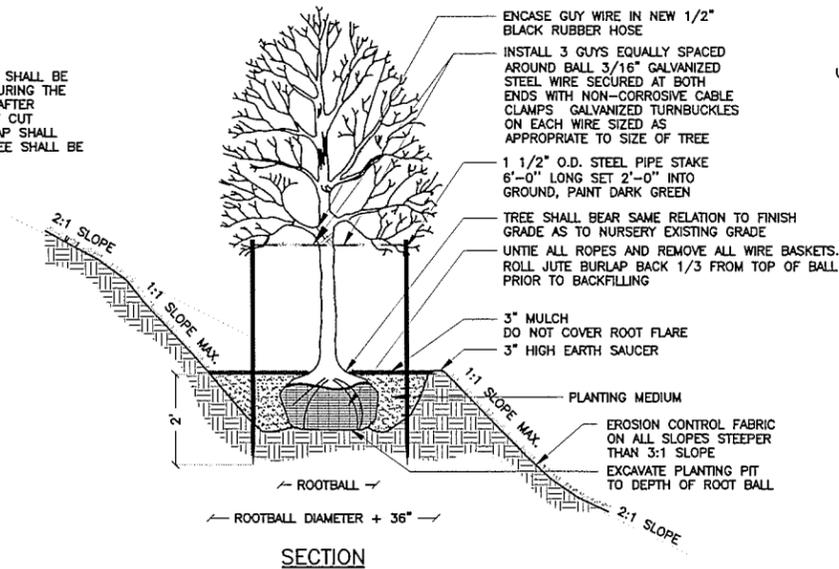
MODULE E4:
 SHRUB PLANTING
 NTS D-11.2

- NOTES:**
1. PROVIDE 3" OF AGED PINE BARK MULCH AROUND THE BASE OF THE TREE/SHRUB AND LOAM AND SEED DISTURBED AREAS PER MBTA STANDARD SPECIFICATIONS - SECTION 02485.
 2. UNDISTURBED AREAS OUTSIDE OF THE MULCH AREA SHALL BE LEFT NATURALLY VEGETATED.
 3. PROVIDE LOAM AND SEED AS INDICATED ON DRAWING AND AS REQUIRED BY MBTA STANDARD SPECIFICATIONS - SECTION 02485.
 4. AREAS DISTURBED BY CONSTRUCTION SHALL BE LOAMED AND SEEDED AS REQUIRED FOR FINISHED GRADE SLOPES IN ACCORDANCE WITH MBTA STANDARD SPECIFICATIONS - SECTION 02485.
 5. SEE A-11.3 FOR PLANTING DETAILS.

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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67PS01	
		SOUTH ACTON STATION LANDSCAPE MODULES	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ DIRECTOR OF OPERATIONS SUPPORT	
300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		DATE: 06/14/2011	
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ISSUE DATE DESCRIPTION BY DWG. APP.		PROJECT MANAGER Date MES. BY DR. BY CW. BY XX MB MB PLAN NO. SHEET A-8.2 OF ISSUE	

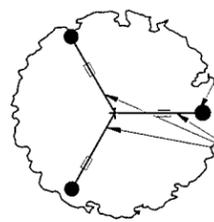
NOTE:
WATERING SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING. DO NOT CUT LEADER. TREE WRAP SHALL NOT BE USED. TREE SHALL BE SET PLUMB.



SECTION

UPHILL

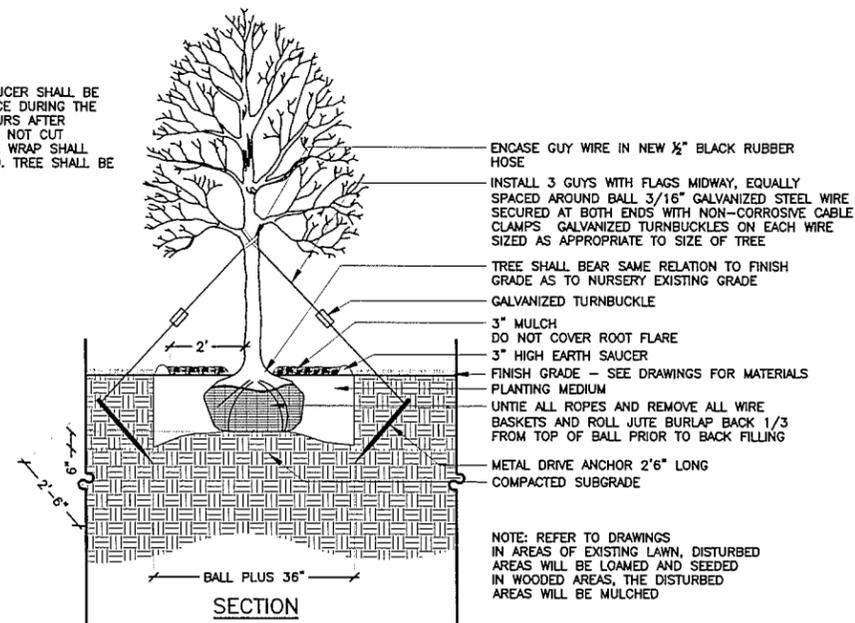
DOWNHILL



PLAN

INSTALL 3 GUYS EQUALLY SPACED AROUND BALL 3/16" GALVANIZED STEEL WIRE SECURED AT BOTH ENDS WITH NON-CORROSIVE CABLE CLAMPS. ENCASE GUY WIRE IN NEW 1/2" BLACK RUBBER HOSE. GALVANIZED TURNBUCKLES ON EACH WIRE SIZED AS APPROPRIATE TO SIZE OF TREE

NOTE:
WATERING SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING. DO NOT CUT LEADER. TREE WRAP SHALL NOT BE USED. TREE SHALL BE SET PLUMB.



SECTION

ENCASE GUY WIRE IN NEW 1/2" BLACK RUBBER HOSE
INSTALL 3 GUYS WITH FLAGS MIDWAY, EQUALLY SPACED AROUND BALL 3/16" GALVANIZED STEEL WIRE SECURED AT BOTH ENDS WITH NON-CORROSIVE CABLE CLAMPS GALVANIZED TURNBUCKLES ON EACH WIRE SIZED AS APPROPRIATE TO SIZE OF TREE
TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS TO NURSERY EXISTING GRADE
GALVANIZED TURNBUCKLE
3" MULCH
DO NOT COVER ROOT FLARE
3" HIGH EARTH SAUCER
FINISH GRADE - SEE DRAWINGS FOR MATERIALS
PLANTING MEDIUM
UNTIE ALL ROPES AND REMOVE ALL WIRE BASKETS AND ROLL JUTE BURLAP BACK 1/3 FROM TOP OF BALL PRIOR TO BACK FILLING
METAL DRIVE ANCHOR 2'6" LONG
COMPACTED SUBGRADE

NOTE: REFER TO DRAWINGS IN AREAS OF EXISTING LAWN, DISTURBED AREAS WILL BE LOAMED AND SEEDED IN WOODED AREAS, THE DISTURBED AREAS WILL BE MULCHED

DECIDUOUS TREE PLANTING ON A SLOPE

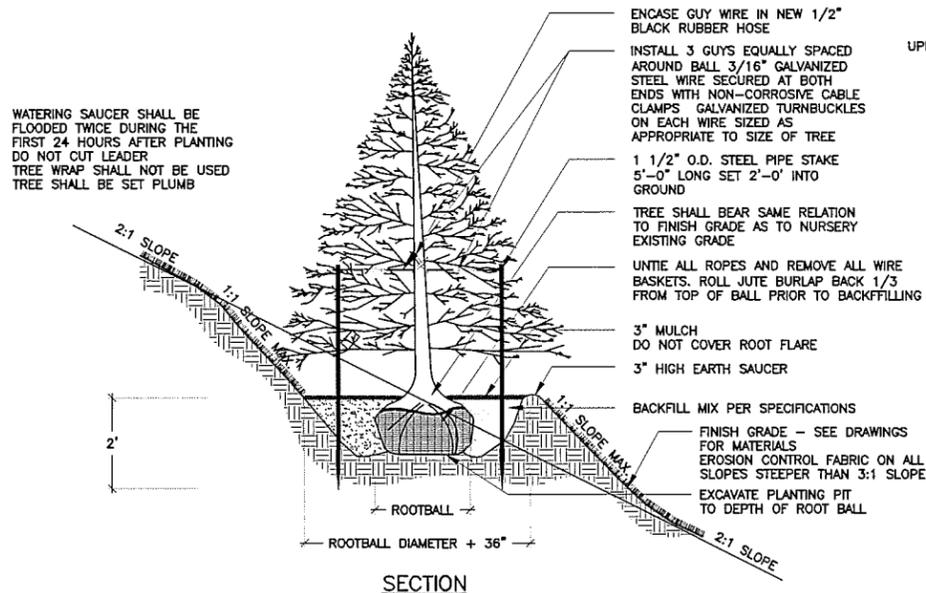
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A-11.3

DECIDUOUS TREE PLANTING

NTS

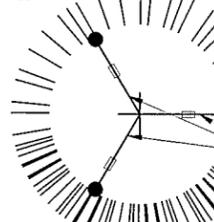
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SECTION

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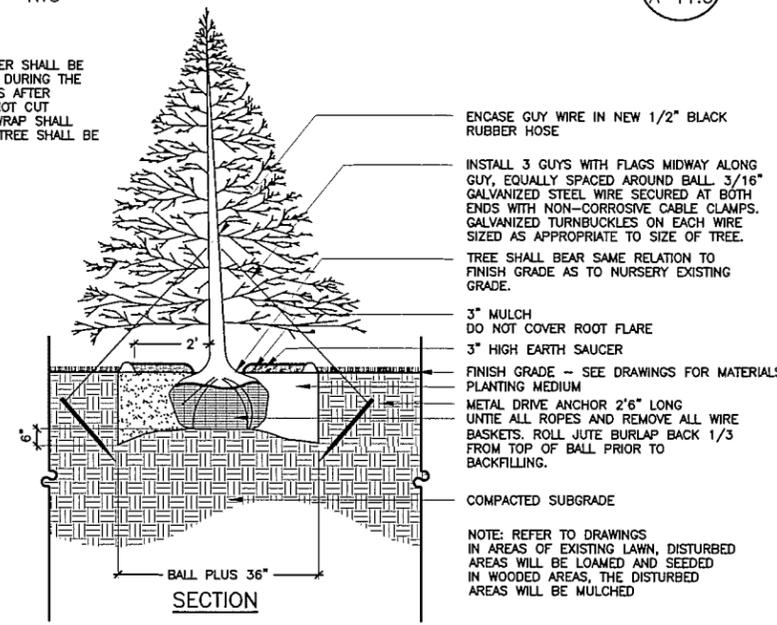
DOWNHILL



PLAN

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NOTE:
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SECTION

ENCASE GUY WIRE IN NEW 1/2" BLACK RUBBER HOSE
INSTALL 3 GUYS WITH FLAGS MIDWAY ALONG GUY, EQUALLY SPACED AROUND BALL 3/16" GALVANIZED STEEL WIRE SECURED AT BOTH ENDS WITH NON-CORROSIVE CABLE CLAMPS. GALVANIZED TURNBUCKLES ON EACH WIRE SIZED AS APPROPRIATE TO SIZE OF TREE.
TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS TO NURSERY EXISTING GRADE.
3" MULCH
DO NOT COVER ROOT FLARE
3" HIGH EARTH SAUCER
FINISH GRADE - SEE DRAWINGS FOR MATERIALS
PLANTING MEDIUM
METAL DRIVE ANCHOR 2'6" LONG
UNTIE ALL ROPES AND REMOVE ALL WIRE BASKETS. ROLL JUTE BURLAP BACK 1/3 FROM TOP OF BALL PRIOR TO BACKFILLING.
COMPACTED SUBGRADE

NOTE: REFER TO DRAWINGS IN AREAS OF EXISTING LAWN, DISTURBED AREAS WILL BE LOAMED AND SEEDED IN WOODED AREAS, THE DISTURBED AREAS WILL BE MULCHED

EVERGREEN TREE PLANTING ON A SLOPE

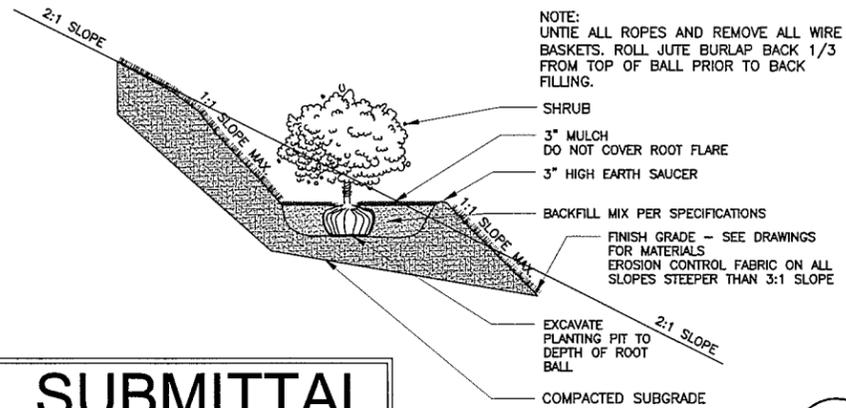
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EVERGREEN TREE PLANTING

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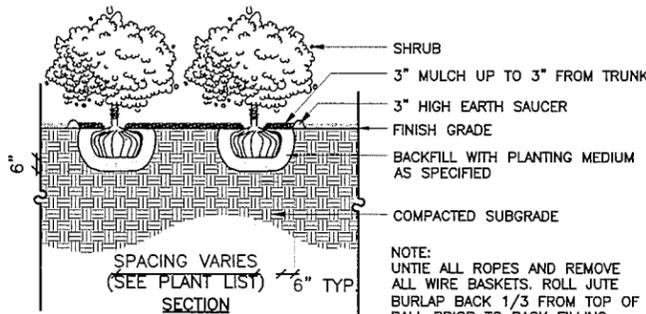
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A-11.3



SHRUB PLANTING

NTS

F
A-11.3



SHRUB PLANTING

NTS

E
A-11.3

NOTE:
UNTIE ALL ROPES AND REMOVE ALL WIRE BASKETS. ROLL JUTE BURLAP BACK 1/3 FROM TOP OF BALL PRIOR TO BACK FILLING.

60% SUBMITTAL
NOT FOR CONSTRUCTION

T

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
CONTRACT NO. G67PS01
SOUTH ACTON STATION
LANDSCAPE
DETAILS

HNTB 300 APOLLO DRIVE
CHELSEA, MA 01824
(978) 905-4000

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

APPROVED BY:

DIRECTOR OF OPERATIONS SUPPORT

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

Lozano, Baskin, and Associates, Inc.
Architecture • Urban Design • City Planning
6 Bennett Street Cambridge, MA 02138

PROJECT MANAGER
HORIZ: NTS
VERT: XX MB MB
DATE: 06/14/2011

DATE: 06/14/2011
PLAN NO.
SHEET A-8.3 OF

GENERAL STATION STRUCTURAL NOTES:

1.0 GENERAL CONDITIONS:

- 1.1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS, ELEVATIONS, AND GENERAL CONDITIONS WITH REGARD TO EXISTING AND PROPOSED STRUCTURES AND UTILITIES.
- 1.2 THE CONTRACTOR SHALL EXAMINE THE CONTRACT DOCUMENTS TO VERIFY AND COORDINATE DIMENSIONS AND LOCATIONS OF ITEMS OF ARCHITECTURAL, ELECTRICAL, MECHANICAL AND CIVIL DISCIPLINES WHICH MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCING WORK.
- 1.3 PROPOSED ELEVATIONS SHOWN ON PLATFORM PLANS ARE FOR REFERENCE ONLY. EXISTING FIELD CONDITIONS SHALL GOVERN IN DETERMINING PROPOSED ELEVATIONS. PLATFORM EDGES ALONG TRACK 2 SHALL BE SET AT 4'-0" ABOVE EXISTING TRACK 2 TOP OF RAIL. PLATFORMS ALONG TRACK 1 SHALL MATCH PLATFORMS ALONG TRACK 2. PLATFORM EDGE (FACE OF TIMBER RUBBING STRIP) SHALL BE SET AT 5'-7" (TANGENT TRACK SECTIONS ONLY) FROM CENTERLINE OF ALL OTHER OFFSETS. IF EXISTING FIELD CONDITIONS VARY FROM THOSE SHOWN ON THE PLANS.

1.4 DESIGN AND CONSTRUCTION OF ALL WORK SHALL CONFORM TO THE MOST CURRENT EDITIONS OF THE FOLLOWING:

- MBTA STANDARD SPECIFICATIONS INCLUDING SPECIAL PROVISIONS
- MASSACHUSETTS STATE BUILDING CODE
- ACI-318 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- AISC STEEL CONSTRUCTION MANUAL
- PCI DESIGN HANDBOOK
- ASCE 7 - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- STRUCTURAL WELDING CODE AWS D1.1
- AREMA - MANUAL FOR RAILWAY ENGINEERING

IN CASE OF CONFLICT BETWEEN THE CODES, STANDARD REGULATIONS, SPECIFICATIONS, GENERAL NOTES AND/OR MANUFACTURERS' REQUIREMENTS, USE THE MOST STRINGENT PROVISIONS.

1.5 FOR ANY CONSTRUCTION CONDITION OR CONSTRUCTION LOADS WHICH EXCEED THE INDICATED DESIGN LOADS, THE CONTRACTOR SHALL ENGAGE A LICENSED STRUCTURAL ENGINEER REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS TO VERIFY STRUCTURAL CAPACITY.

1.6 FOR SIGNAGE, COMMUNICATIONS, AND LIGHTING DETAILS, REFER TO ARCHITECTURAL AND ELECTRICAL DRAWINGS.

1.7 ENGINEER'S REVIEW OF SHOP DRAWINGS IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND DOES NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

2.0 DESIGN REQUIREMENTS:

2.1 DEAD LOADS:

THE DESIGN IS BASED UPON THE FOLLOWING UNIT WEIGHT OF THE MATERIALS:

REGULAR WEIGHT CONCRETE	150 PCF
COMPACTED SAND AND GRAVEL OR EARTH FILL	125 PCF
BALLAST	120 PCF

2.2 GROUND SNOW LOAD OF 55 PSF BASED ON MASSACHUSETTS BUILDING CODE FOR SOUTH ACTON (TABLE 1604.1).

2.3 BASIC WIND SPEED OF 100 MPH BASED ON REQUIREMENTS OF MASSACHUSETTS BUILDING CODE FOR DESIGN OF STATION ELEMENTS.

2.4 STATION PLATFORMS, HEAD HOUSES, AND PEDESTRIAN BRIDGE ARE DESIGNED FOR A LIVE LOAD OF 100 PSF. STATION STAIRS ARE DESIGNED FOR A LIVE LOAD OF 100 PSF OR A CONCENTRATED LOAD OF 300 LBS. OVER TWO SQUARE INCHES OF TREAD, WHICHEVER PRODUCES GREATER STRESSES.

2.5 EARTHQUAKE DESIGN: (780 CMR 1614.0)
EARTHQUAKE SPECTRAL RESPONSE ACCELERATION AT ONE SECOND, $S_1 = 0.071$
EARTHQUAKE SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS, $S_0 = 0.29$

2.6 METAL DECK AND ROOF MEMBERS SHALL BE DESIGNED USING A SNOW LOAD DEFLECTION LIMIT OF $L/240$. FLOOR MEMBERS SHALL BE DESIGNED USING A LIVE LOAD DEFLECTION LIMIT OF $L/360$.

3.0 SITEWORK / FOUNDATION:

- 3.1 CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION SURVEY FOR THE ADJACENT TRACK AND STATION STRUCTURES PRIOR TO MINIPILE AND DRILLED SHAFT INSTALLATION.
- 3.2 DRILLED MINIPILES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE SPECIFICATIONS, THE MASSACHUSETTS STATE BUILDING CODE, AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REQUIREMENTS.
- 3.3 THE CONTRACTOR SHALL PERFORM ADDITIONAL SUBSURFACE INVESTIGATIONS CONSIDERED NECESSARY TO COMPLETE ALL FOUNDATION WORK. SEE GEOTECHNICAL SHEETS FOR EXISTING BORING LOGS.
- 3.4 THE ENGINEER SHALL INSPECT THE PROPOSED BOTTOM OF FOOTING ELEVATION AND WHERE UNSUITABLE MATERIALS ARE PRESENT SHALL DIRECT THE CONTRACTOR TO OVER EXCAVATE IN ORDER TO EXPOSE SUITABLE BEARING MATERIAL. CONTRACTOR SHALL BACKFILL TO PROPOSED BOTTOM OF FOOTING WITH GRAVEL BORROW.

4.0 CAST-IN-PLACE CONCRETE:

- 4.1 CONCRETE CLASS: HP 4000 PSI AT 28 DAYS WITH $3/4"$ AGGREGATE.
- 4.2 ALL REINFORCING STEEL TO BE ASTM A615 GRADE 60 EPOXY COATED.
- 4.3 MINIMUM CLEAR CONCRETE PROTECTION FOR REINFORCING UNLESS OTHERWISE NOTED:

CONCRETE CAST AGAINST EARTH:	3"
CONCRETE BACKFILLED WITH EARTH:	2"
CONCRETE EXPOSED TO WEATHER:	2"

4.4 REINFORCING STEEL SPLICE AND EMBEDMENT LENGTHS, UNLESS OTHERWISE INDICATED:

BAR SIZE	MIN. EMBEDMENT LENGTH, IN.		MIN. LAP SPLICE, IN.	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
4	25	22	32	28
5	31	27	40	35
6	37	33	48	42
7	43	38	56	49
8	49	43	63	56
9	55	49	71	63
10	66	58	86	76
11	81	72	105	93

4.5 CONCRETE WORK SHALL BE COORDINATED WITH ALL UTILITIES, STRUCTURAL STEEL AND ELECTRICAL WORK. THE CONTRACTOR SHALL VERIFY INSTALLATION AND LOCATIONS OF ALL INSERTS, ANCHOR BOLTS, DOWELS, BLOCKOUTS, SLEEVES, AND EMBEDDED CONDUIT PRIOR TO CONCRETE PLACEMENT.

4.6 PROVIDE $3/4" \times 3/4"$ CHAMFER ON ALL EXPOSED VERTICAL AND HORIZONTAL CORNERS, UNLESS OTHERWISE NOTED.

4.7 WELDED WIRE REINFORCEMENT SHALL BE GRADE 60 AND CONFORM TO ASTM A 185 ("STANDARD SPECIFICATION FOR STEEL WELDED WIRE REINFORCEMENT, PLAIN, FOR CONCRETE").

5.0 PRECAST CONCRETE PLATFORMS:

5.1 CONCRETE SHALL BE SILICA FUME MODIFIED WITH 5000 PSI AT 28 DAYS WITH $3/4"$ MAX. AGGREGATE.

5.2 ALL REINFORCING STEEL TO BE ASTM A615 GRADE 60 EPOXY COATED.

5.3 PROVIDE $1 1/2"$ MINIMUM CLEAR CONCRETE PROTECTION FOR REINFORCING UNLESS OTHERWISE NOTED.

5.4 AFTER INSTALLATION, JOINTS BETWEEN PANELS SHALL BE FILLED WITH SEALANT AND POLYURETHANE FOAM.

5.5 PLATFORM GEOMETRY TOLERANCES:

THE MAXIMUM DEVIATION BETWEEN LONGITUDINAL TOP EDGES OF ADJACENT PLATFORM PANELS MEASURED FROM THE WORKING POINT LINE SHALL NOT BE MORE THAN $1/8"$ MAXIMUM IN ANY DIRECTION.

ADJACENT TOP SURFACE EDGES OF THE PLATFORM PANELS ARE TO BE BUILT FLUSH. THE MAXIMUM ALLOWABLE VERTICAL DIFFERENCE IN ELEVATION BETWEEN THE TOP EDGE SURFACES OF ADJACENT PLATFORM PANELS SHALL NOT EXCEED $1/8"$.

ADJACENT PLATFORM PANEL EDGES FACING THE TRACK ARE TO BE BUILT FLUSH. MAXIMUM ALLOWABLE HORIZONTAL DIFFERENCE BETWEEN THE FACES OF ANY TWO ADJACENT PLATFORM PANELS SHALL NOT EXCEED $1/8"$.

6.0 STRUCTURAL STEEL:

6.1 STRUCTURAL STEEL MATERIAL AND WELDING REQUIREMENTS:

A. W SHAPES	ASTM A992, GRADE 50
CHANNELS AND ANGLES	ASTM A572, GRADE 50
PLATES	ASTM A572, GRADE 50
ANCHOR BOLTS AND RODS	ASTM F1554
HIGH STRENGTH BOLTS	ASTM A325
NUTS	ASTM A563
WASHERS	ASTM F436
STRUCTURAL TUBES (SQUARE OR RECTANGULAR HSS)	ASTM A500, GRADE B, $F_y=46$ KSI
B. WELDING	AWS D1.1, E-70XX ELECTRODES.

6.2 ALL STRUCTURAL STEEL SHALL BE ARCHITECTURAL EXPOSED STRUCTURAL STEEL (AESS) AS DEFINED BY AISC, STEEL CONSTRUCTION MANUAL, LATEST EDITION.

6.3 SHOP CONNECTIONS SHALL BE WELDED, UNLESS OTHERWISE NOTED.

6.4 FIELD CONNECTIONS SHALL BE BOLTED USING MINIMUM $5/8"$ DIAMETER BOLTS, UNLESS NOTED OTHERWISE.

6.5 ALL STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED THEN PAINTED UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE PERFORMED AFTER COMPLETION OF SHOP FABRICATION.

6.6 NO FIELD WELDING OF RAILINGS, CANOPY OR OTHER MISCELLANEOUS METALS SHALL BE PERMITTED EXCEPT AT STEEL GUTTER CHANNEL SPLICES (SEE STEEL DETAIL SHEETS).

6.7 DRILLED-IN ANCHOR BOLTS SHALL BE DROP-IN EXPANSION TYPE AND SHALL BE TYPE 316 STAINLESS STEEL. BOLTS SHALL BE INSTALLED IN PREDRILLED HOLES AND SHALL NOT BE PLACED WITHIN 3" OF CONSTRUCTION JOINTS.

6.8 ALL SHOP AND FIELD CONNECTIONS SHALL DEVELOP THE FULL STRENGTH OF THE MEMBERS TO BE CONNECTED UNLESS SPECIFICALLY SHOWN OTHERWISE ON THE DRAWINGS. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS APPROVED BY THE STATE OF MASSACHUSETTS AND SHALL CONFORM TO AWS D1.1.

6.9 ALL BOLTED CONNECTIONS SHALL CONFORM TO AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, 2004 EDITION. BOLTS SHALL BE INSTALLED USING THE "SNUG TIGHT" METHOD AS PRESCRIBED IN SECTION 8 OF THE SPECIFICATION FOR BEARING TYPE CONNECTIONS.

7.0 METAL DECK:

7.1 STEEL ROOF DECK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A653.

7.2 ROOF DECK FOR PEDESTRIAN BRIDGE AND RAMPS SHALL BE 18 GAGE, $1 1/2"$ DEEP WIDE RIB (TYPE WR) METAL DECK WITH A MINIMUM ADJUSTED SECTION MODULUS OF 0.318 IN PER FOOT. ROOF DECK PANELS SHALL BE FORMED FROM FLAT ROLLED CARBON STEEL SHEETS OF STRUCTURAL QUALITY WITH A MINIMUM YIELD POINT OF 33,000 PSI. INTERLOCKING OR OVERLAPPING SIDE LAP REQUIRED.

7.3 RIDGE AND VALLEY PLATE, CANT STRIPS, WHICH MUST BE ATTACHED DIRECTLY TO THE STEEL PLATES IN ORDER TO PROVIDE A FINISHED SURFACE FOR THE APPLICATION OF ROOFING, SHALL BE FURNISHED BY THE ROOF DECK MANUFACTURER.

8.0 COATING:

8.1 ALL STRUCTURAL STEEL, CONNECTIONS, BOLTS, ANCHOR BOLTS AND HARDWARE SHALL BE HOT DIP GALVANIZED UNLESS OTHERWISE NOTED.

8.2 DO NOT COAT:
A. FAYING SURFACES OF CONNECTIONS USING A325 BOLTS
B. SURFACES TO BE WELDED

8.3 SEE ARCHITECTURAL DRAWINGS AND SPECIFICATION FOR OTHER COATING REQUIREMENTS.

8.4 ALL EXPOSED STRUCTURAL STEEL SHALL BE PAINTED BLACK. COMPLY WITH THE REQUIREMENTS OF SECTION 09910-SHOP PAINTING OF GALVANIZED STEEL.

FILE NAME: \\BOSFIL11\Doc\proj\MBTA\2008\2237800\CAD\700CAD0\702STATIONS\South Acton\Structural\60% Submittal\100-101_Struct_Notes.dwg
PLOT DATE: May 25, 2011 7:35am

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T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION GENERAL STRUCTURAL NOTES SHEET 1			
HNTB 300 APOLLO DRIVE CHILMARK, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		APPROVED BY: _____	
PROJECT MANAGER		PROJECT MANAGER	
DATE		DATE	
HORIZ: AS NOTED		PLAN NO.	
VERT: N/A		DATE: 05/14/11	
DATE: 05/14/11		SHEET S-100	

JACOBS
343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222

9.0 COMPOSITE CONSTRUCTION:

1. COMPOSITE STEEL FORM DECK SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF S.D.I. SPECIFICATIONS AND COMMENTARY FOR STEEL FLOOR DECK.
2. ALL WELDING SHALL COMPLY WITH THE REQUIREMENTS OF AWS D1.3.
3. COMPOSITE DECK PROPERTIES:
 - A. 3 INCH DEEP, 18 GAUGE
 - B. GALVANIZED
 - C. MINIMUM I = 1.251 IN4/FT.
 - D. MINIMUM Sp = 0.795 IN3/FT.
 - E. MINIMUM Sn = 0.803 IN3/FT.
4. DECK SHALL BE CONTINUOUS OVER THREE OR MORE SPANS, FOR CONDITIONS WITH LESS THAN THREE SPANS, SHORE THE DECK IN ACCORDANCE WITH MANUFACTURER'S AND S.D.I. MAXIMUM SPAN REQUIREMENTS.
5. MINIMUM DECK BEARING ON SUPPORTS SHALL BE 2 INCHES.
6. DECK FASTENING LAYOUT:
 - A. INTERMEDIATE SUPPORTS: 36/7 PATTERN.
 - B. END SUPPORTS: 36/7 PATTERN.
 - C. PERIMETER AND SIDE SUPPORTS: 18 INCH MAXIMUM SPACING.
 - D. INTERMEDIATE SIDE LAP CONNECTORS: #10 SELF-DRILLING SCREWS OR BUTTON/CRIMP PUNCHED AT A MAXIMUM SPACING OF 30 INCHES.
 - E. SUPPORT FASTENERS SHALL BE MINIMUM VISIBLE 5/8 INCH PUDDLE WELDS OR HEADED SHEAR STUDS WELDED THROUGH THE COMPOSITE DECK WITH A MINIMUM CLEARANCE OF 1 INCH FROM EDGE OF DECK TO STUD CENTERLINE.
7. STEEL FLOOR DECK UNITS SHALL BE FORMED WITH INTEGRAL LOCKING LUGS OR EMBOSSEMENTS TO PROVIDE A MECHANICAL LOCK BETWEEN THE STEEL DECK AND CONCRETE SLAB.
8. A COMPLETE LAYOUT OF ALL SHEAR CONNECTORS SHALL APPEAR ON THE STEEL DECK SHOP DRAWINGS.

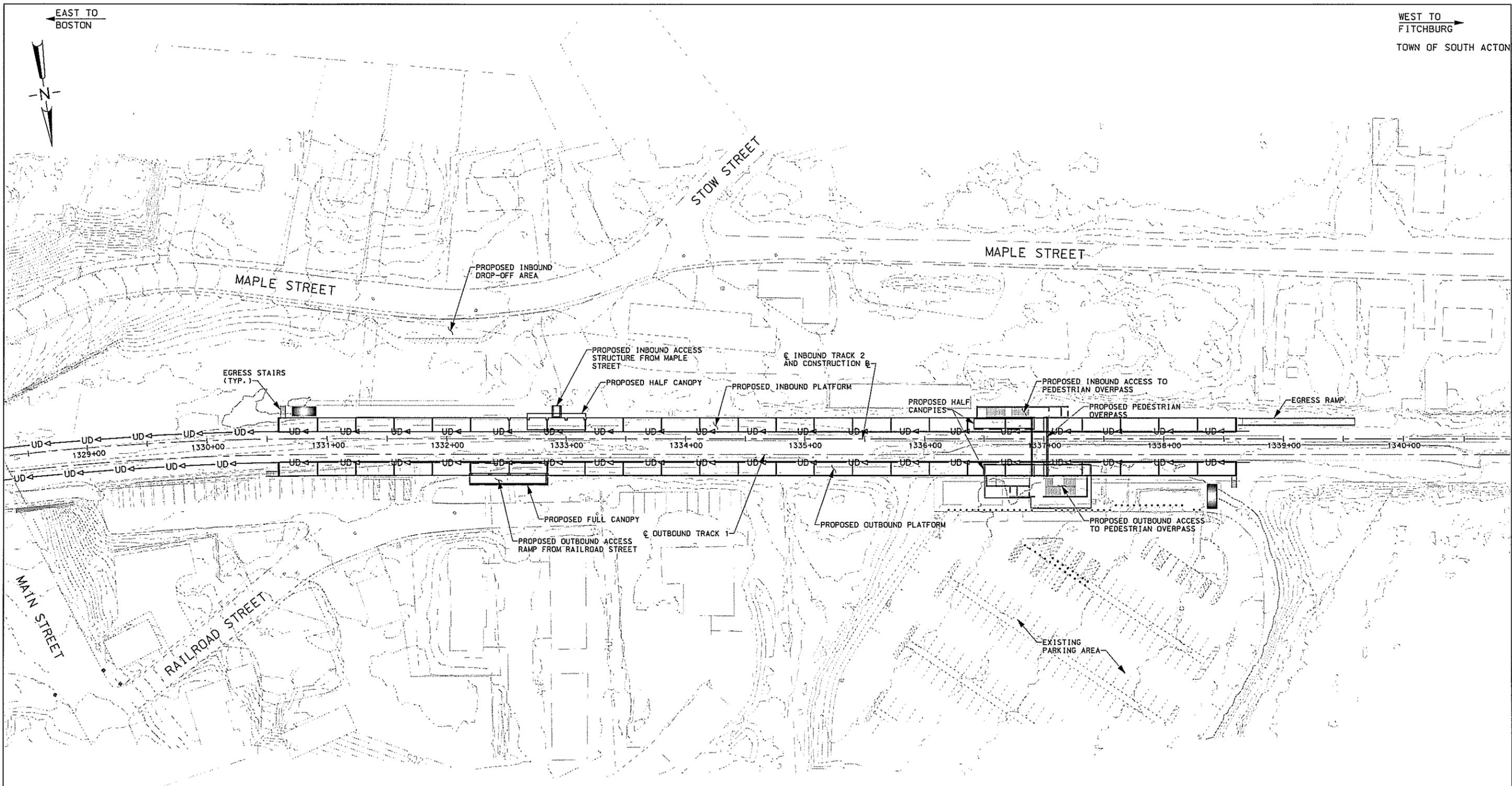
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 PLOT DATE: May 25, 2011 - 7:35am

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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01			
		SOUTH ACTON STATION GENERAL STRUCTURAL NOTES SHEET 2			
		300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		APPROVED BY: _____ Date: _____		PROJECT MANAGER _____ Date: _____	
		343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PROJECT MANAGER _____ Date: _____	
HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		DES. BY: JAG/JAG/ DJM DJM CHK. BY: MWT DATE: 06/14/11		PLAN NO. SHEET S-101	

EAST TO
BOSTON

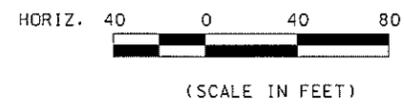
WEST TO
FITCHBURG
TOWN OF SOUTH ACTON



PLAN

NOTES:
1. FOR GENERAL NOTES, SEE SHEET S-100.

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NOT FOR CONSTRUCTION



FILE NAME: \\BOSFEL1\1\Draw2\MBTA\2008\MBTA\2008\22\37800\CAD\700CADD\702STATIONS\South Acton\Structural\60% Submission\102_Key_Plan.dwg
PLOT DATE: May 25, 2011 7:35am

T MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
CONTRACT NO. G67CN01

**SOUTH ACTON STATION
KEY PLAN**

HNTB 300 APOLLO DRIVE
CHELSEA, MA 01824
(978) 905-4000
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: _____
PROJECT MANAGER _____
DATE: 06/14/11

ISSUE	DATE	DESCRIPTION	BY	ENCD.	APP.

JACOBS 343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222

HORIZ: 1" = 40'
VERT: N/A
DATE: 06/14/11
DES. BY: JAG
CHK. BY: JAG
DATE: 06/14/11
PLAN NO.:
SHEET S-102

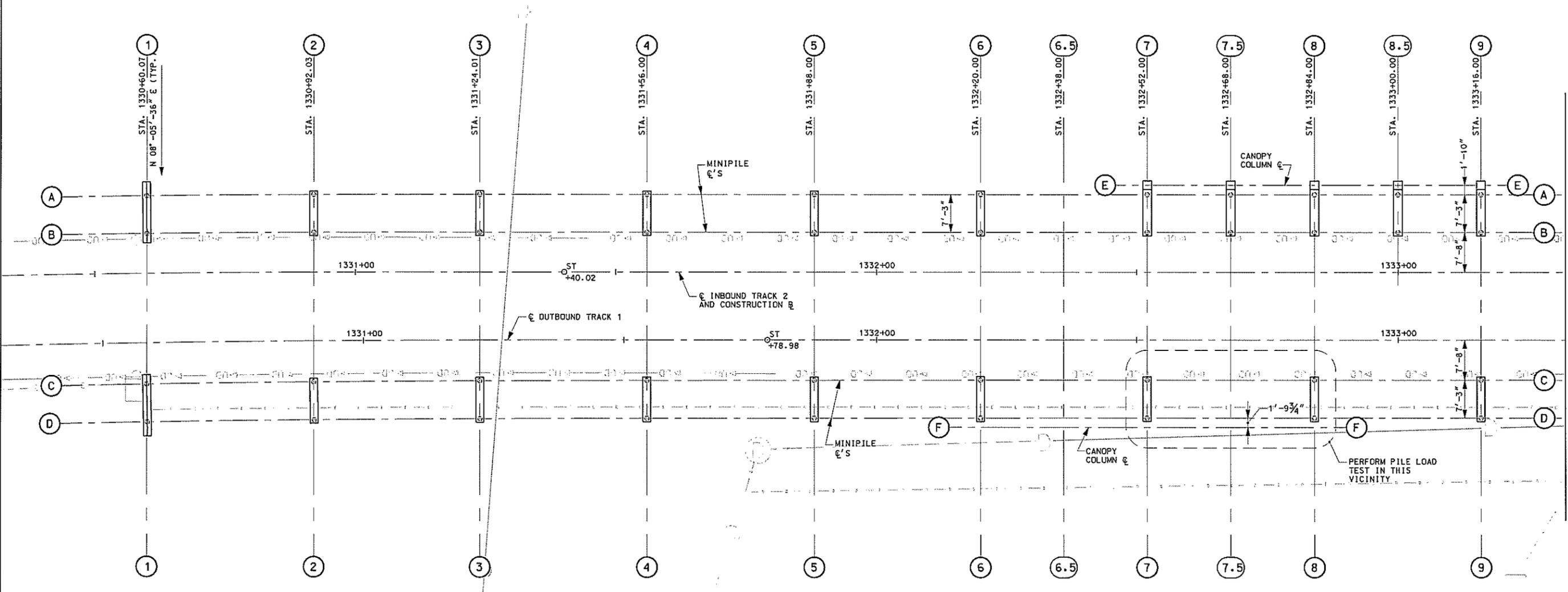
EAST TO
BOSTON

WEST TO
FITCHBURG

TOWN OF SOUTH ACTON

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEETS S-100 AND S-101.
2. FOR PLATFORM LAYOUT PLANS, SEE SHEETS S-106 THROUGH S-108.
3. FOR MINIPILE AND PIER CAP DETAILS, SEE SHEETS S-109 THROUGH S-111.
4. FOR PRECAST PANEL DETAILS, SEE SHEETS S-112 THROUGH S-114.
5. FOR SITE UTILITIES SEE UTILITY AND ELECTRICAL SHEETS.



MINIPILE LOCATION TABLE

NOTE: THE FOLLOWING MINIPILES DO NOT LIE ON COLUMN LINE INTERSECTIONS.

MINIPILE	NORTHING	EASTING
1-A	668186.1555	2992681.0533
2-A	668154.4007	2992685.2874
1-D	668192.0524	2992724.0732
2-D	668160.3321	2992728.1089
3-D	668128.6689	2992732.3647

FOUNDATION PLAN

SCALE: 1" = 10'-0"

MATCH LINE: FOR CONTINUATION SEE SHEET S-104

FILE NAME: \\BOSFIL11\Datag2\MAL_proj\MBA\2008\E2\37800\CAD\700CADD\702STATIONS\South Acton\Structural\60% Submission\103-105_Found_Layout.dwg
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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY			
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CNO1			
		SOUTH ACTON STATION FOUNDATION PLAN SHEET 1			
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____ PROJECT MANAGER			
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	DES. BY: JAG DR. BY: JAG CHK. BY: MWT	PLAN NO.: SHEET S-103	ISSUE: <input type="radio"/>

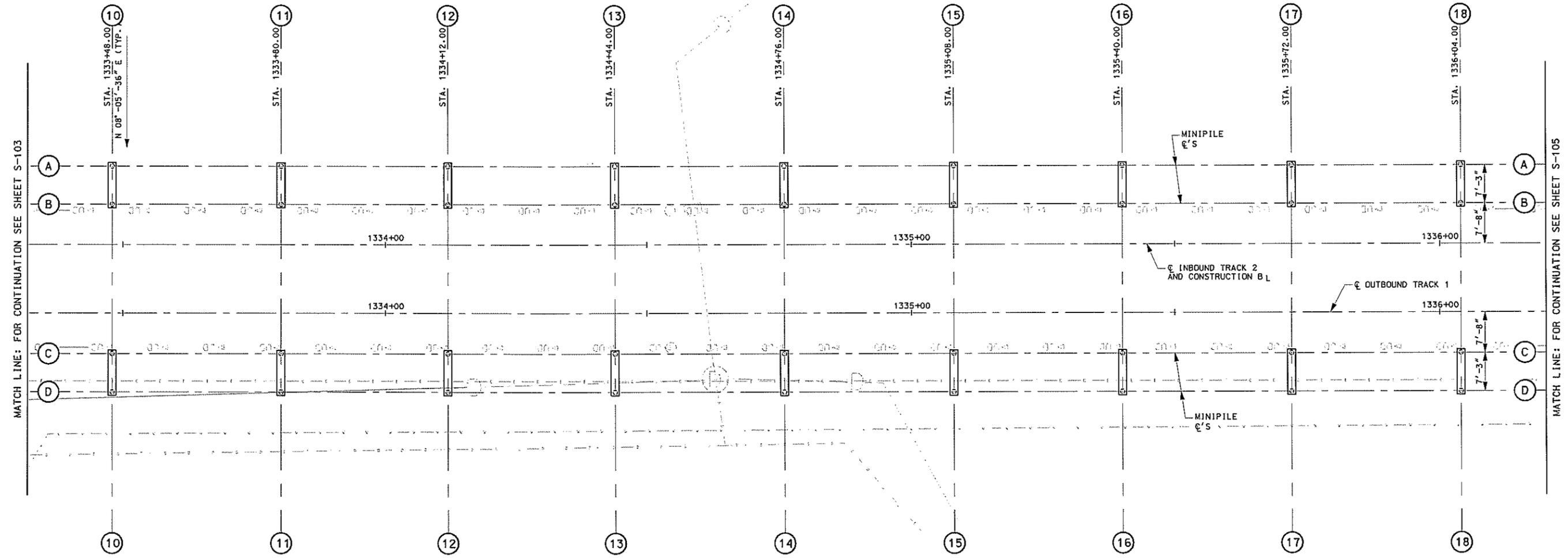
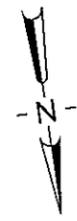
EAST TO BOSTON

WEST TO FITCHBURG

TOWN OF SOUTH ACTON

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEETS S-100 AND S-101.
2. FOR PLATFORM LAYOUT PLANS, SEE SHEETS S-106 THROUGH S-108.
3. FOR MINIPILE AND PIER CAP DETAILS, SEE SHEETS S-109 THROUGH S-111.
4. FOR PRECAST PANEL DETAILS, SEE SHEETS S-112 THROUGH S-114.
5. FOR SITE UTILITIES SEE UTILITY AND ELECTRICAL SHEETS.



FOUNDATION PLAN
SCALE: 1" = 10'-0"

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PLOT DATE: May 25, 2011 - 7:36am

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T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION FOUNDATION PLAN SHEET 2		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
HNTB 300 APOLLO DRIVE CHELSEA, MA 02134 (978) 905-4000		APPROVED BY: PROJECT MANAGER	
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		DATE: 06/14/11	
HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		PLAN NO. SHEET S-104	

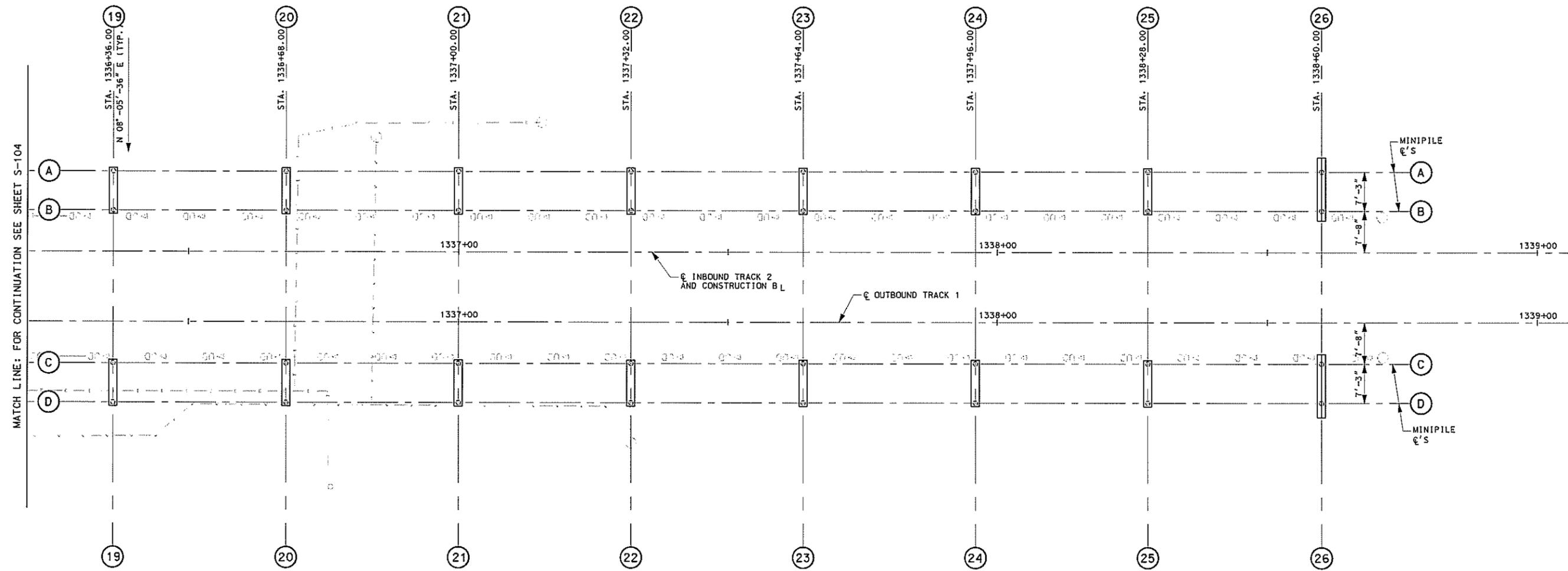
EAST TO
BOSTON

WEST TO
FITCHBURG

TOWN OF SOUTH ACTON

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEETS S-100 AND S-101.
2. FOR PLATFORM LAYOUT PLANS, SEE SHEETS S-106 THROUGH S-108.
3. FOR MINIPILE AND PIER CAP DETAILS, SEE SHEETS S-109 THROUGH S-111.
4. FOR PRECAST PANEL DETAILS, SEE SHEETS S-112 THROUGH S-114.
5. FOR SITE UTILITIES SEE UTILITY AND ELECTRICAL SHEETS.



FOUNDATION PLAN
SCALE: 1" = 10'-0"

MATCH LINE: FOR CONTINUATION SEE SHEET S-104

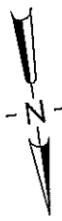
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PLOT DATE: May 25, 2011 - 7:36am

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		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION FOUNDATION PLAN SHEET 3	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		APPROVED BY:	
PROJECT MANAGER		PROJECT MANAGER	
DATE		DATE	
HORIZ: AS NOTED		DES. BY	CHK. BY
VERT: N/A		JAG	JAG MWT
DATE: 06/14/11		PLAN NO.	
JACOBS		SHEET 5-105	

EAST TO
BOSTON

WEST TO
FITCHBURG
TOWN OF SOUTH ACTON

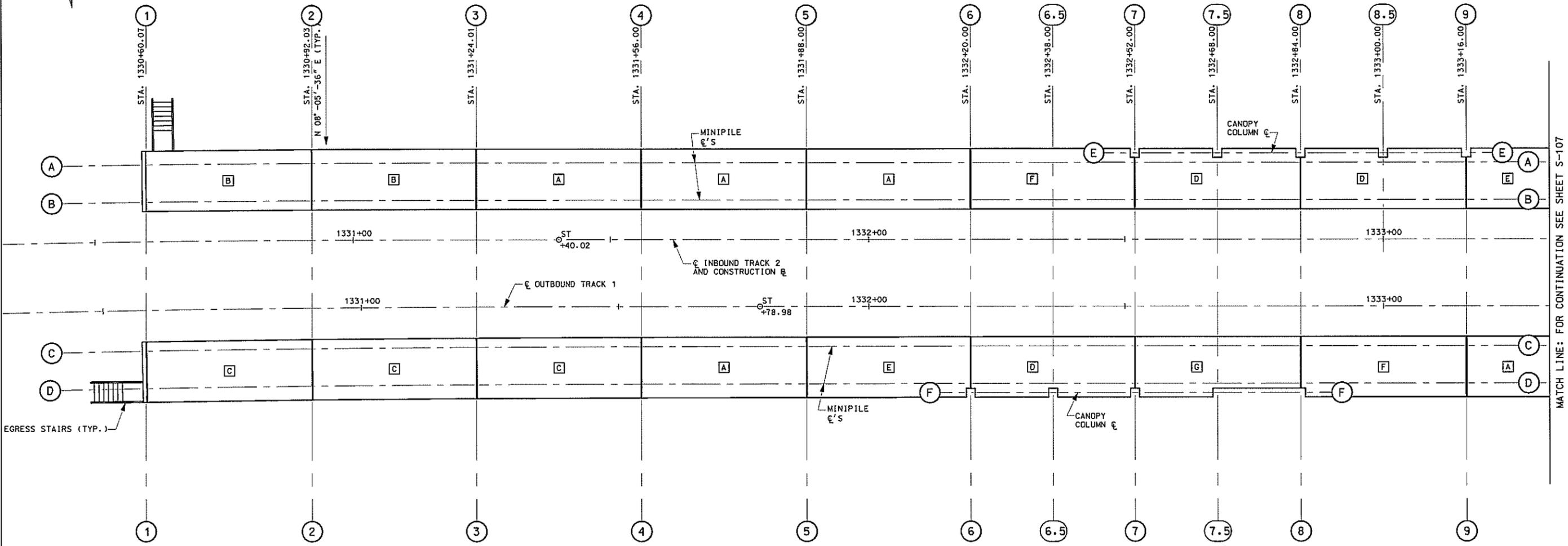


NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEETS S-100 AND S-101.
2. FOR FOUNDATION LAYOUT PLANS, SEE SHEETS S-103 THROUGH S-105.
3. FOR MINIPILE AND PIER CAP DETAILS, SEE SHEETS S-109 THROUGH S-111.
4. FOR PRECAST PANEL DETAILS, SEE SHEETS S-112 THROUGH S-114.

LEGEND:

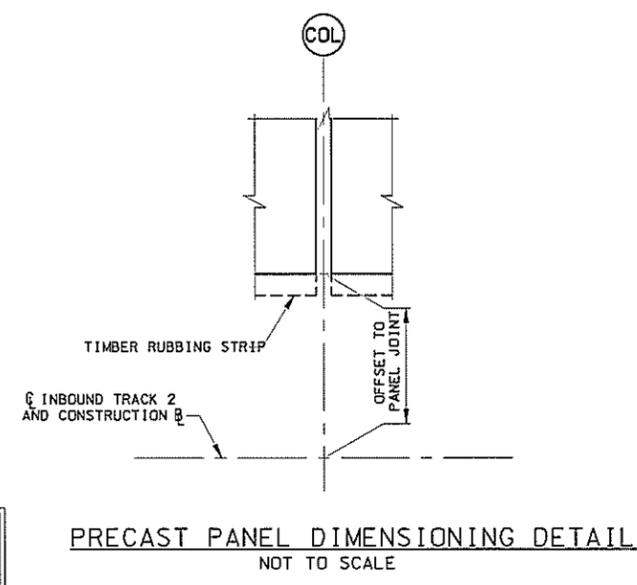
A - PANEL TYPE LABEL



PLATFORM LAYOUT PLAN
SCALE: 1" = 10'-0"

PRECAST PANEL OFFSET TABLE

COLUMN LINE	STATION	CL TRACK TO EDGE OF INBOUND PANEL	CL TRACK TO EDGE OF OUTBOUND PANEL
1	1330+60.07	5'-10 1/2" LT.	19'-5 5/8" RT.
2	1330+92.03	5'-10 1/2" LT.	19'-3 3/4" RT.
3	1331+24.01	5'-10 1/2" LT.	19'-1 1/4" RT.
4	1331+56.00	5'-10 1/2" LT.	18'-11 1/8" RT.
5	1331+88.00	5'-10 1/2" LT.	18'-11 3/8" RT.
6	1332+20.00	5'-10 1/2" LT.	18'-10 3/8" RT.
7	1332+52.00	5'-10 1/2" LT.	18'-10 1/2" RT.
8	1332+84.00	5'-10 1/2" LT.	18'-10 1/2" RT.
9	1333+16.00	5'-10 1/2" LT.	18'-10 1/2" RT.



PRECAST PANEL DIMENSIONING DETAIL
NOT TO SCALE

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PLOT DATE: May 25, 2011 7:36am

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION PLATFORM LAYOUT PLAN SHEET 1	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
		PROJECT MANAGER: _____ Date: _____ HORIZ: AS NOTED VERT: N/A DATE: 05/14/11	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PROJECT MANAGER: _____ Date: _____ PLAN NO. _____ SHEET S-106	

EAST TO
BOSTON

WEST TO
FITCHBURG

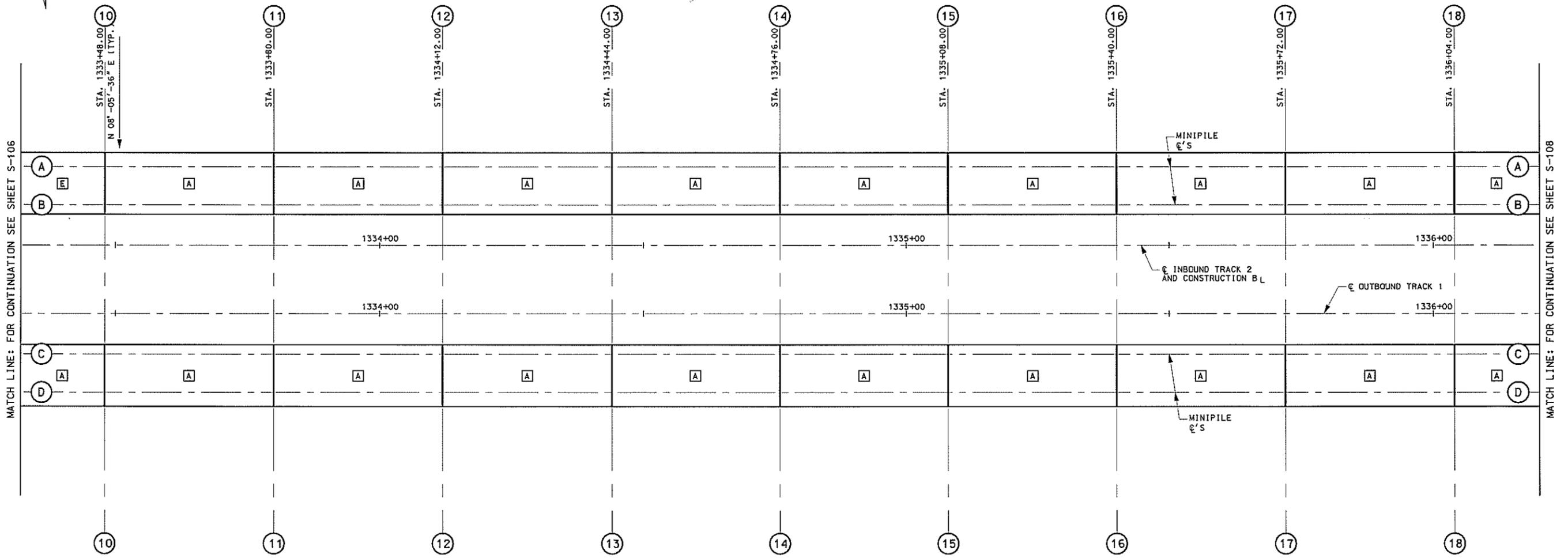
TOWN OF SOUTH ACTON

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEETS S-100 AND S-101.
2. FOR FOUNDATION LAYOUT PLANS, SEE SHEETS S-103 THROUGH S-105.
3. FOR MINIPILE AND PIER CAP DETAILS, SEE SHEETS S-109 THROUGH S-111.
4. FOR PRECAST PANEL DETAILS, SEE SHEETS S-112 THROUGH S-114.

LEGEND:

A - PANEL TYPE LABEL



PRECAST PANEL OFFSET TABLE

COLUMN LINE	STATION	☉ TRACK TO EDGE OF INBOUND PANEL	☉ TRACK TO EDGE OF OUTBOUND PANEL
10	1333+48.00	5' - 10 1/2" LT.	18' - 10 1/2" RT.
11	1333+80.00	5' - 10 1/2" LT.	18' - 10 1/2" RT.
12	1334+12.00	5' - 10 1/2" LT.	18' - 10 1/2" RT.
13	1334+44.00	5' - 10 1/2" LT.	18' - 10 1/2" RT.
14	1337+76.00	5' - 10 1/2" LT.	18' - 10 1/2" RT.
15	1335+08.00	5' - 10 1/2" LT.	18' - 10 1/2" RT.
16	1335+40.00	5' - 10 1/2" LT.	18' - 10 1/2" RT.
17	1335+72.00	5' - 10 1/2" LT.	18' - 10 1/2" RT.
18	1336+04.00	5' - 10 1/2" LT.	18' - 10 1/2" RT.

PLATFORM LAYOUT PLAN

SCALE: 1" = 10'-0"

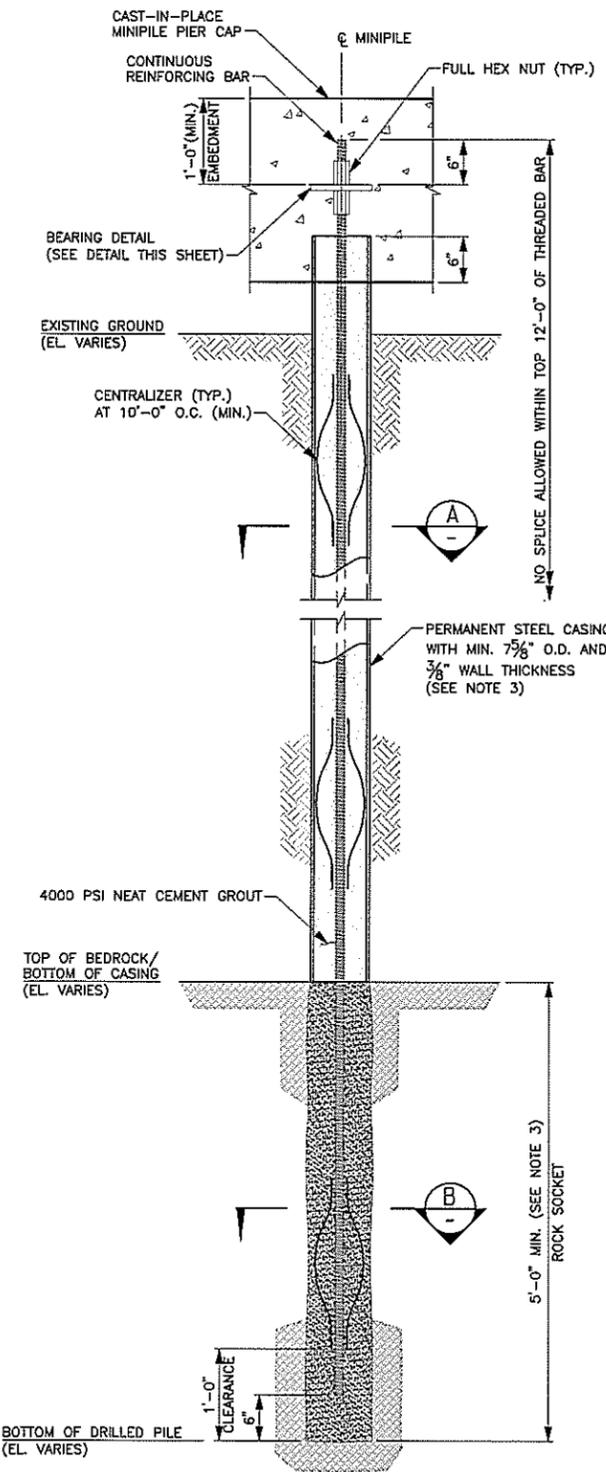
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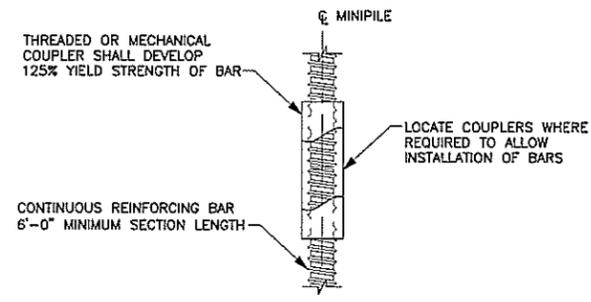
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		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION PLATFORM LAYOUT PLAN SHEET 2	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
PROJECT MANAGER: _____ Date: _____		PROJECT MANAGER: _____ Date: _____	
HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		PLAN NO. _____ SHEET S-107	

		343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222	
ISSUE	DATE	DESCRIPTION	BY

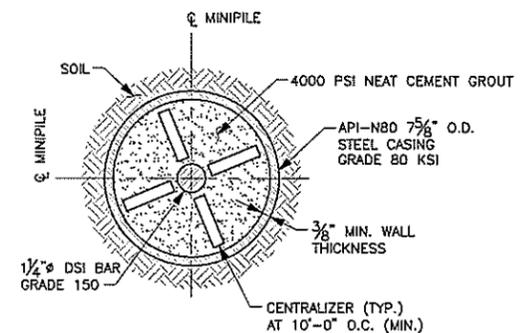
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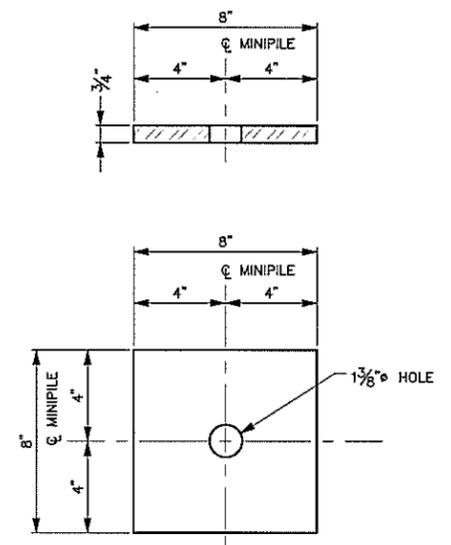
DRILLED MINIPILE ELEVATION DETAIL
 SCALE: 1" = 1'-0"



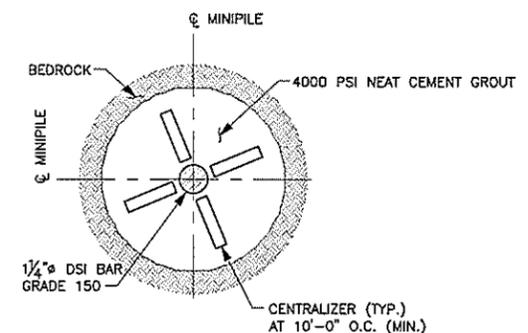
SPLICE DETAIL
 SCALE: 3" = 1'-0"



SECTION A
 SCALE: 3" = 1'-0"



BEARING PLATE DETAIL
 SCALE: 3" = 1'-0"



SECTION B
 SCALE: 3" = 1'-0"

- NOTES:**
- FOR GENERAL STRUCTURAL NOTES, SEE SHEETS S-100 AND S-101.
 - FOR COMPLETE PILE LOAD TEST PROCEDURE, SEE DESIGN SPECIFICATIONS.
 - A MINIMUM OF 10'-0" LONG STEEL CASING IS REQUIRED. FOR MINIPILES WITH LENGTH LESS THAN 10'-0" FROM GROUND SURFACE TO BEDROCK SURFACE, PERMANENT STEEL CASING SHALL BE EXTENDED INTO BEDROCK A MINIMUM OF 2'-0" AND ROCK SOCKET SHALL BE INCREASED ACCORDINGLY.

SACRIFICIAL TEST LOADING SCHEDULE (TEST PILE)

LOAD	HOLD TIME
0.05 DL MAX. (AL)	UNTIL MOVEMENT STABILIZES
0.25 DL	UNTIL MOVEMENT STABILIZES
0.50 DL	UNTIL MOVEMENT STABILIZES
0.75 DL	UNTIL MOVEMENT STABILIZES
1.00 DL	UNTIL MOVEMENT STABILIZES
1.25 DL	UNTIL MOVEMENT STABILIZES
1.50 DL	UNTIL MOVEMENT STABILIZES
1.75 DL	UNTIL MOVEMENT STABILIZES
2.00 DL (MAX. TEST LOAD)	CREEP TEST (SEE NOTE 2)
1.75 DL	15 MINUTES
1.50 DL	15 MINUTES
1.25 DL	15 MINUTES
1.00 DL	15 MINUTES
0.75 DL	15 MINUTES
0.50 DL	15 MINUTES
0.25 DL	15 MINUTES
0	UNTIL MOVEMENT STABILIZES

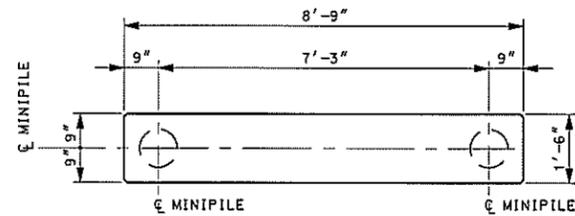
PROOF TEST LOADING SCHEDULE (PRODUCTION PILE)

LOAD	HOLD TIME
0.05 DL MAX. (AL)	UNTIL MOVEMENT STABILIZES
0.25 DL	UNTIL MOVEMENT STABILIZES
0.50 DL	UNTIL MOVEMENT STABILIZES
0.75 DL	UNTIL MOVEMENT STABILIZES
1.00 DL	UNTIL MOVEMENT STABILIZES
1.25 DL	UNTIL MOVEMENT STABILIZES
1.33 DL (MAX. TEST LOAD)	CREEP TEST (SEE NOTE 2)
1.25 DL	15 MINUTES
1.00 DL	15 MINUTES
0.75 DL	15 MINUTES
0.50 DL	15 MINUTES
0.25 DL	15 MINUTES
0	UNTIL MOVEMENT STABILIZES

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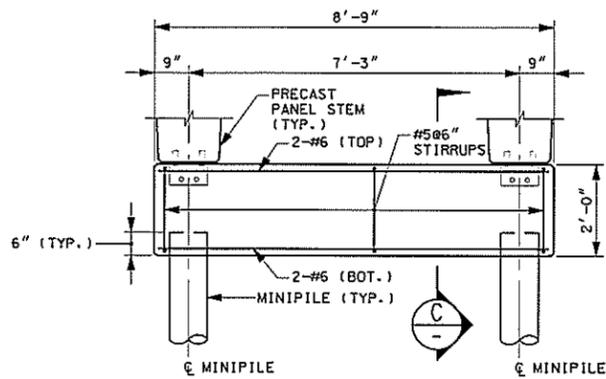
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		SOUTH ACTON STATION MINIPILE DETAILS	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER _____ Date _____	
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		HORIZ: AS NOTED VERT: AS NOTED DATE: 06/14/11	
JAG JAG MWT		PLAN NO. _____ SHEET S-109	

FILE NAME: \\BOSFIL11\DATA\2\MAL_proj\MBT\2008\E2x37800\CAD\700CADD\702STATIONS\South Acton\Structural\702STATIONS\702CADD\700CADD\702STATIONS\South Acton\Structural\60% Submission\109-111_MiniPiles_PierCap_Details.dwg
 PLOT DATE: May 25, 2011 7:36am



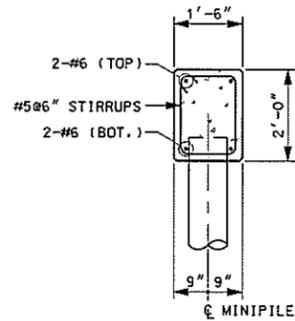
NOTE:
 PRECAST CONCRETE PLATFORM NOT SHOWN FOR CLARITY.

PLAN



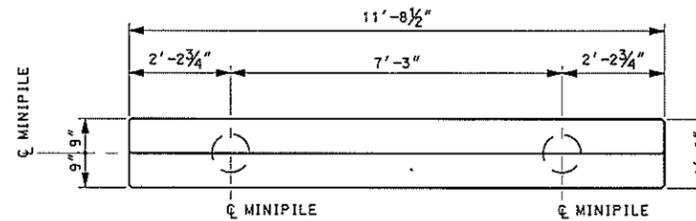
ELEVATION

TYPICAL PIER CAP
 SCALE: 1/2" = 1'-0"



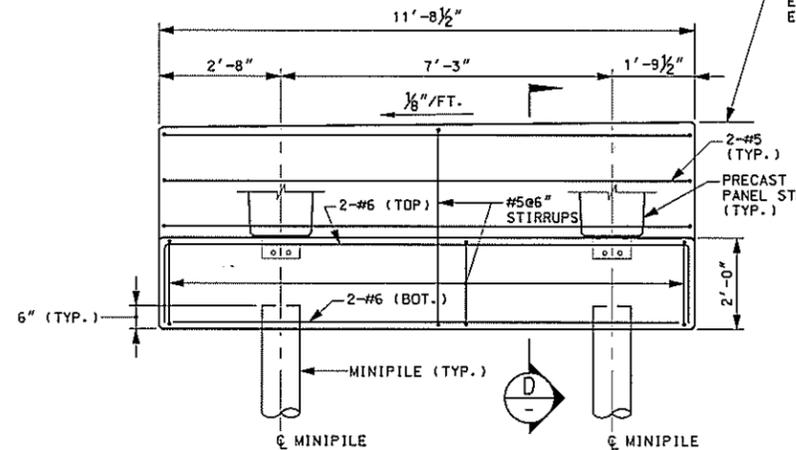
SECTION C

SCALE: 1/2" = 1'-0"



NOTE:
 PRECAST CONCRETE PLATFORM NOT SHOWN FOR CLARITY.

PLAN



ELEVATION

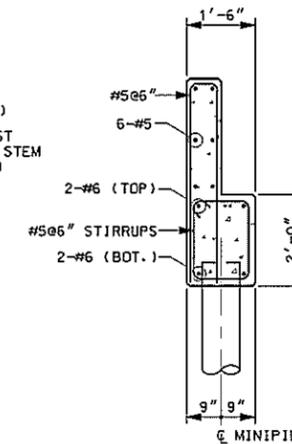
TYPICAL END PIER CAP

NOTE:
 INBOUND COLUMN LINE 26 AND OUTBOUND COLUMN LINE 1 SHOWN.
 SCALE: 1/2" = 1'-0"

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEETS S-100 AND S-101.
2. FOR MINIPILE DETAILS, SEE SHEET S-109.
3. FOR PLATFORM ANCHORAGE DETAILS, SEE SHEET S-114.

EL. 204.37 COL. LINE 1 INBOUND)
 EL. 204.38 COL. LINE 1 OUTBOUND)
 EL. 207.33 COL. LINE 26 INBOUND)
 EL. 207.33 COL. LINE 26 OUTBOUND)



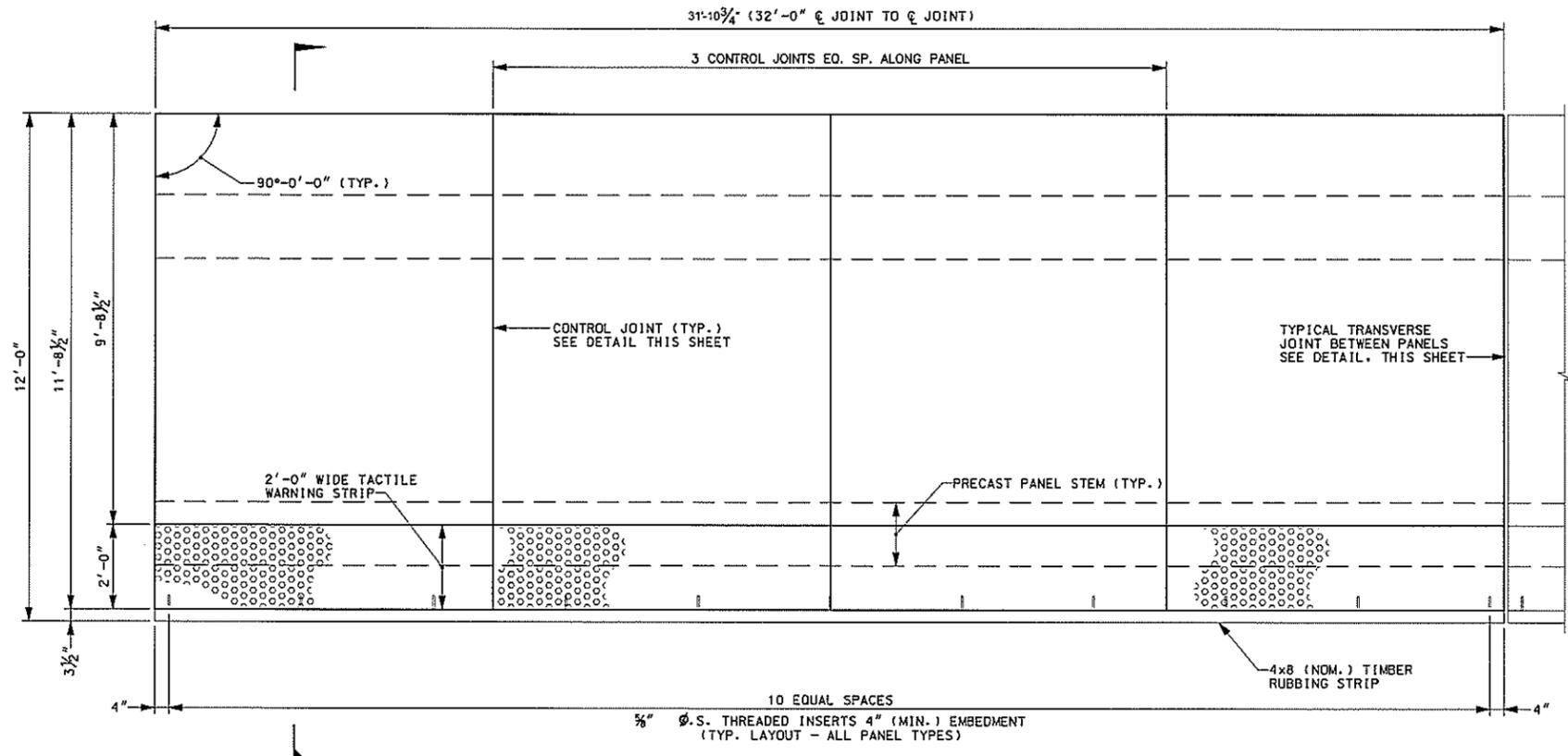
SECTION D

SCALE: 1/2" = 1'-0"

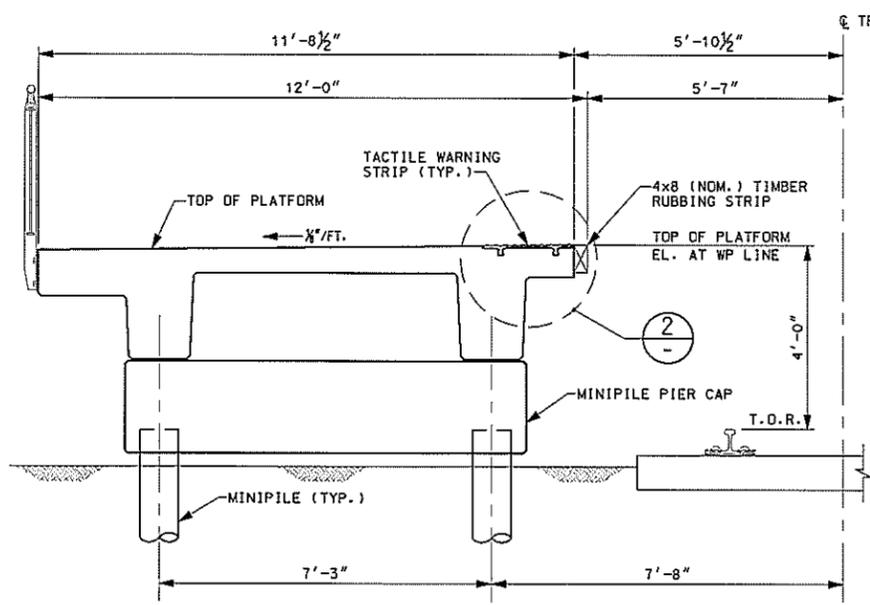
60% SUBMITTAL
 NOT FOR CONSTRUCTION

T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY																											
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01																											
SOUTH ACTON STATION PIER CAP DETAILS SHEET 1		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY																											
HNTB 300 APOLLO DRIVE CHILMARK, MA 01824 (978) 905-4000		APPROVED BY: _____ PROJECT MANAGER																											
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		APPROVED BY: _____ PROJECT MANAGER																											
<table border="1"> <thead> <tr> <th>FILE</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> <th>CHKD.</th> <th>APP.</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		FILE	DATE	DESCRIPTION	BY	CHKD.	APP.							<table border="1"> <tr> <td>HORIZ: AS NOTED</td> <td>DES. BY</td> <td>DR. BY</td> <td>CHK. BY</td> <td rowspan="3">PLAN NO.</td> <td rowspan="3">ISSUE</td> </tr> <tr> <td>VERT: AS NOTED</td> <td>JAG</td> <td>JAG</td> <td>MWT</td> </tr> <tr> <td>DATE: 08/14/11</td> <td colspan="3">PROJECT MANAGER</td> </tr> </table>		HORIZ: AS NOTED	DES. BY	DR. BY	CHK. BY	PLAN NO.	ISSUE	VERT: AS NOTED	JAG	JAG	MWT	DATE: 08/14/11	PROJECT MANAGER		
FILE	DATE	DESCRIPTION	BY	CHKD.	APP.																								
HORIZ: AS NOTED	DES. BY	DR. BY	CHK. BY	PLAN NO.	ISSUE																								
VERT: AS NOTED	JAG	JAG	MWT																										
DATE: 08/14/11	PROJECT MANAGER																												
DATE: 08/14/11		SHEET S-110																											

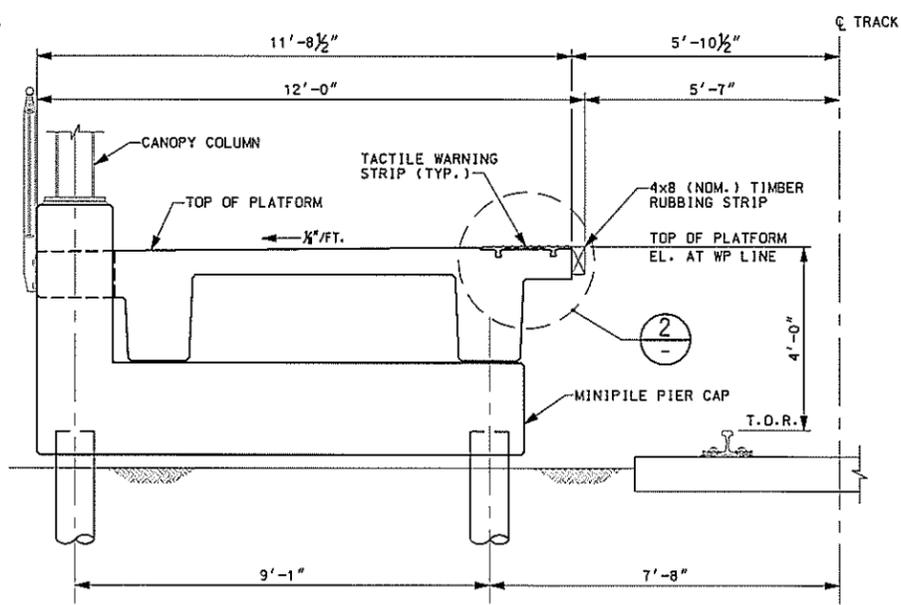
FILE NAME: \\BOSFIL1\1\Drawings\MAI_proj\MBTA_2008\E2\37800\CAD\700CAD00\702STATIONS\South Acton\Structural\60% Submission\112-113_Pla_Dets.dwg
 PLOT DATE: May 25, 2011 - 7:36am



TYPICAL PRECAST PLATFORM PANEL PLAN (PANEL TYPE A)
 SCALE: 1/2" = 1'-0"



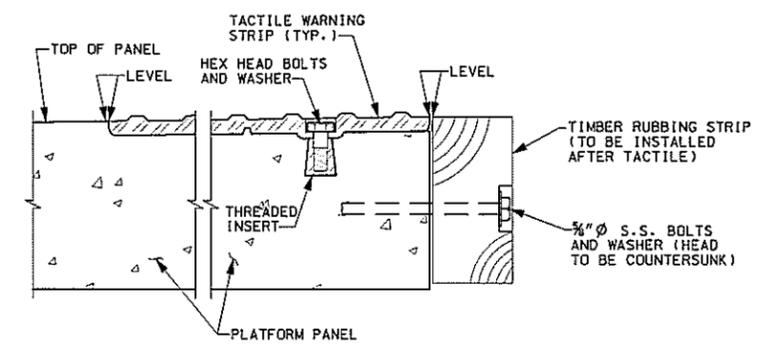
TYPICAL PLATFORM SECTION
 SCALE: 1/2" = 1'-0"



PLATFORM SECTION AT INBOUND CANOPY
 SCALE: 1/2" = 1'-0"

PLATFORM PANEL QUANTITY TABLE

PANEL TYPE	NUMBER REQUIRED
A	37
B	2
C	3
D	3
E	2
F	2
G	1



DETAIL (2)
 SCALE: 3" = 1'-0"

CONTROL JOINT DETAIL
 SCALE: 2" = 1'-0"

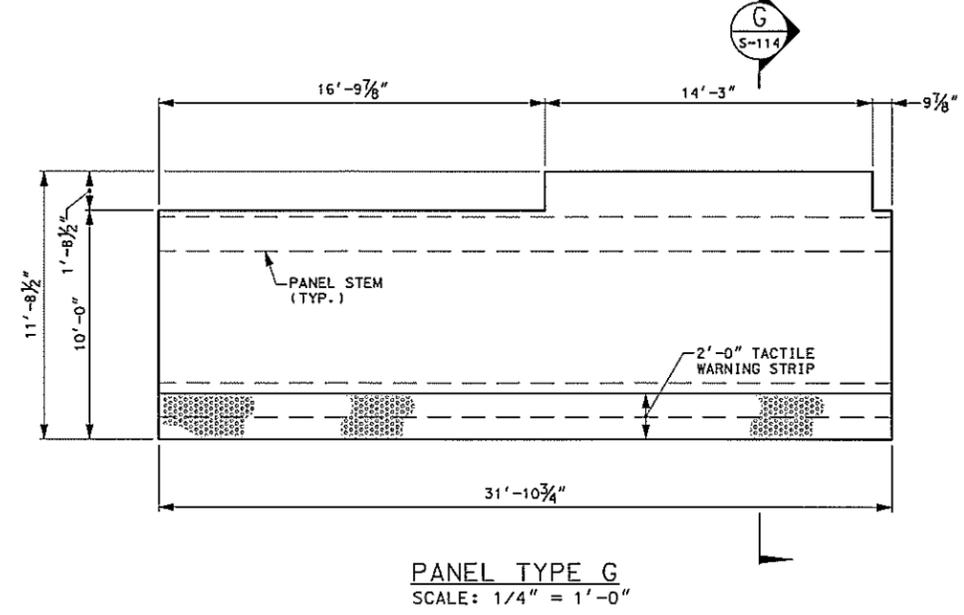
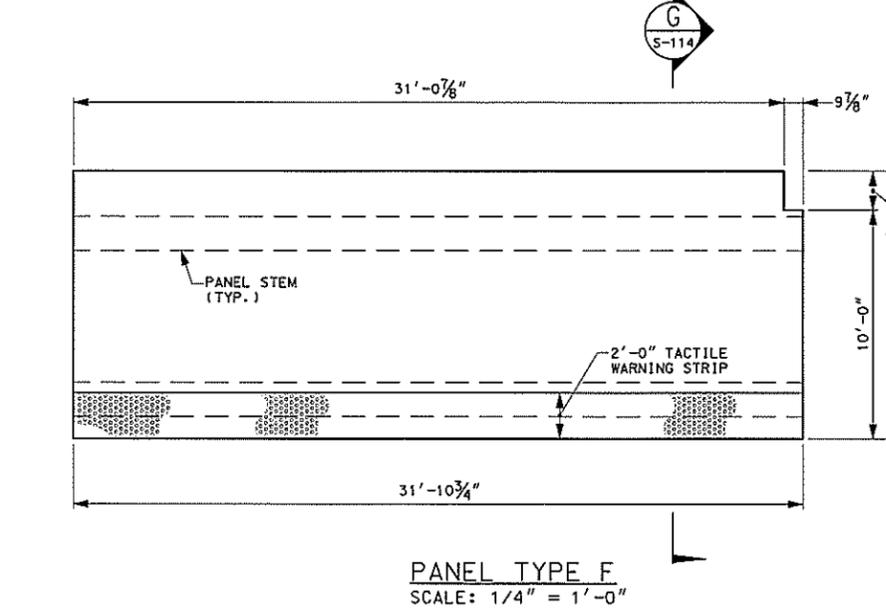
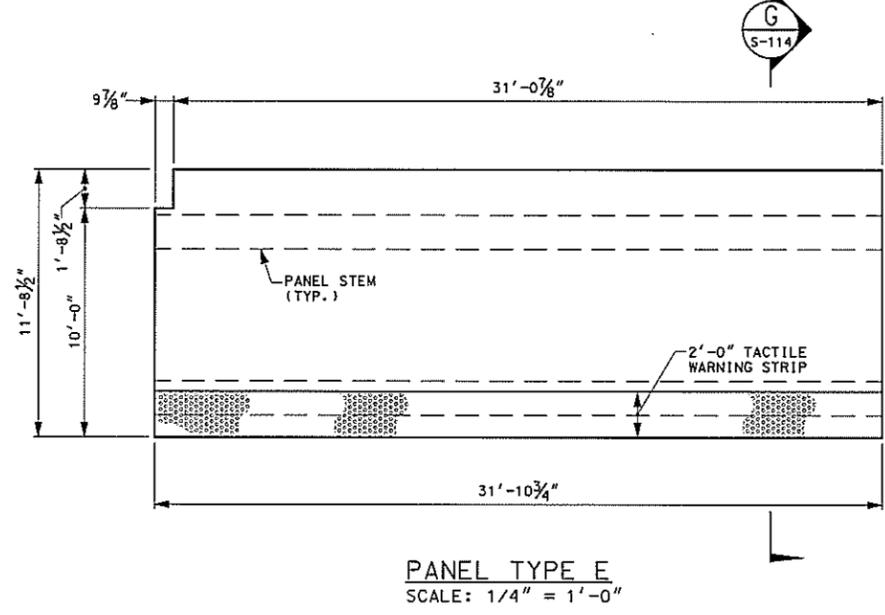
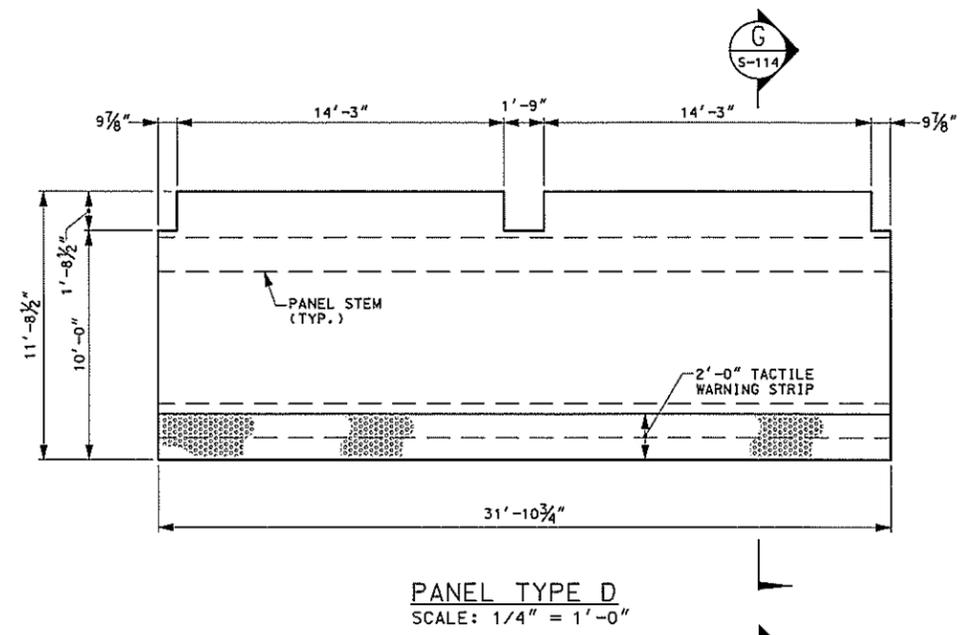
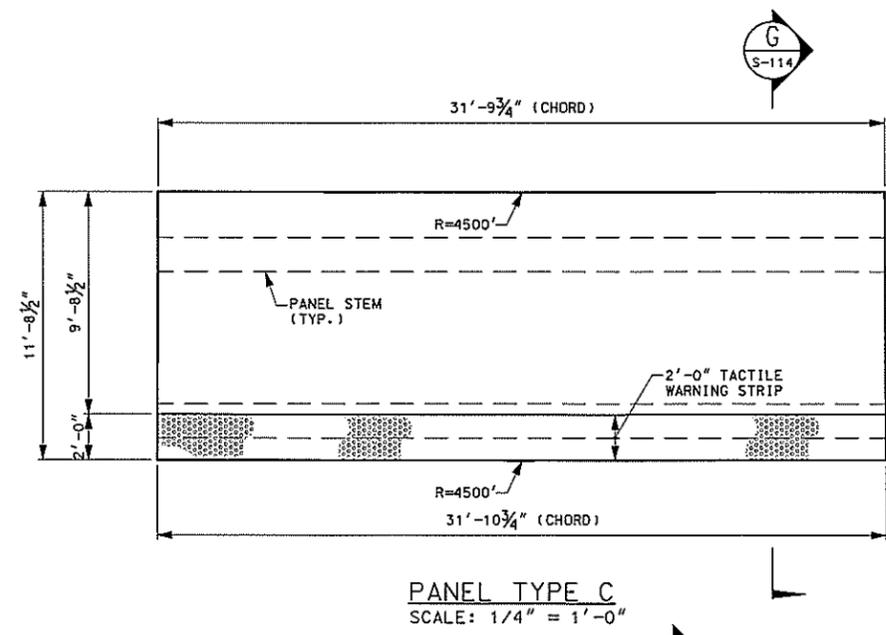
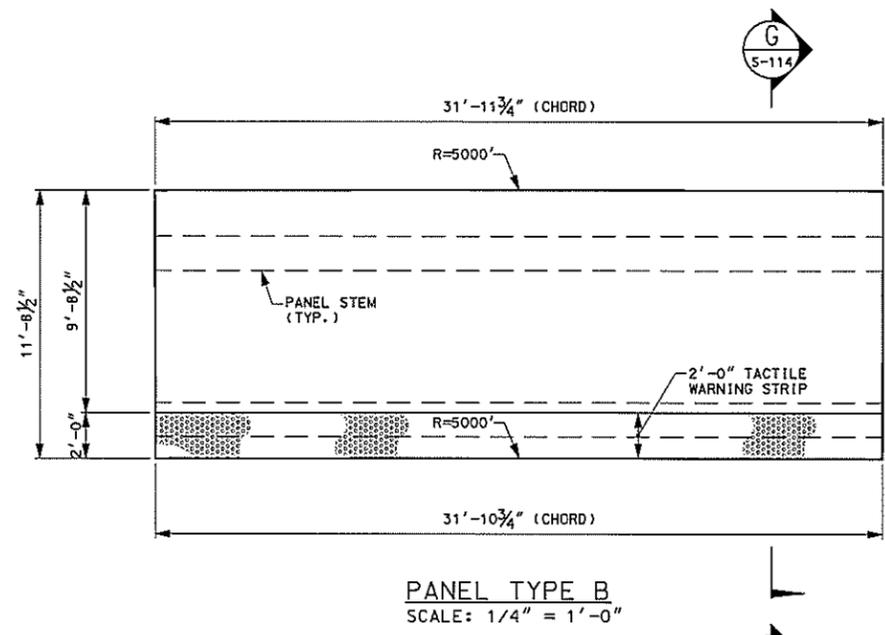
TYPICAL TRANSVERSE JOINT DETAIL
 SCALE: 2" = 1'-0"

- NOTES:
1. FOR GENERAL STRUCTURAL NOTES, SEE SHEETS S-100 AND S-101.
 2. FOR UTILITY LOCATIONS SEE CIVIL AND ELECTRICAL PLANS.
 3. FOR MINIPILE AND PIER CAP DETAILS, SEE SHEETS S-109 THROUGH S-111.
 4. FOR ADDITIONAL PRECAST PANEL DETAILS, SEE SHEETS S-113 AND S-114.
 5. PLATFORM PANELS SHALL BE CAMBERED FOR SELFWEIGHT.

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 NOT FOR CONSTRUCTION

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION PRECAST PLATFORM PANEL DETAILS SHEET 1	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
		PROJECT MANAGER: _____ Date: _____ APPROVED BY: _____ Date: _____	
HORIZ: AS NOTED VERT: AS NOTED DATE: 06/14/11	DES. BY: JAG CHK. BY: JAG DATE: 06/14/11	PLAN NO.: _____ SHEET S-112	ISSUE: _____

FILE NAME: \\BOSFIL11\Drawings\2\1\proj\MBTA\2008\E2\37800\CAD\700CAD00\702STATIONS\South Acton\Structural\60% Submittal\112-113_PlaL_Details.dwg
 PLOT DATE: May 25, 2011 7:36am



- NOTES:**
1. FOR GENERAL STRUCTURAL NOTES, SEE SHEETS S-100 AND S-101.
 2. FOR UTILITY LOCATIONS SEE CIVIL AND ELECTRICAL PLANS.
 3. FOR MINIPILE AND PIER CAP DETAILS, SEE SHEETS S-109 THROUGH S-111.
 4. FOR ADDITIONAL PRECAST PANEL DETAILS, SEE SHEETS S-112 AND S-114.
 5. PLATFORM PANELS SHALL BE CAMBERED FOR SELFWEIGHT.

60% SUBMITTAL
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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION PRECAST PLATFORM PANEL DETAILS SHEET 2	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
		PROJECT MANAGER Date HORIZ: AS NOTED VERT: AS NOTED DATE: 06/14/11	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		DES. BY: JAG DR. BY: JAG CHK. BY: MWT	
PLAN NO.		PROJECT MANAGER Date SHEET S-113	
ISSUE		_____	

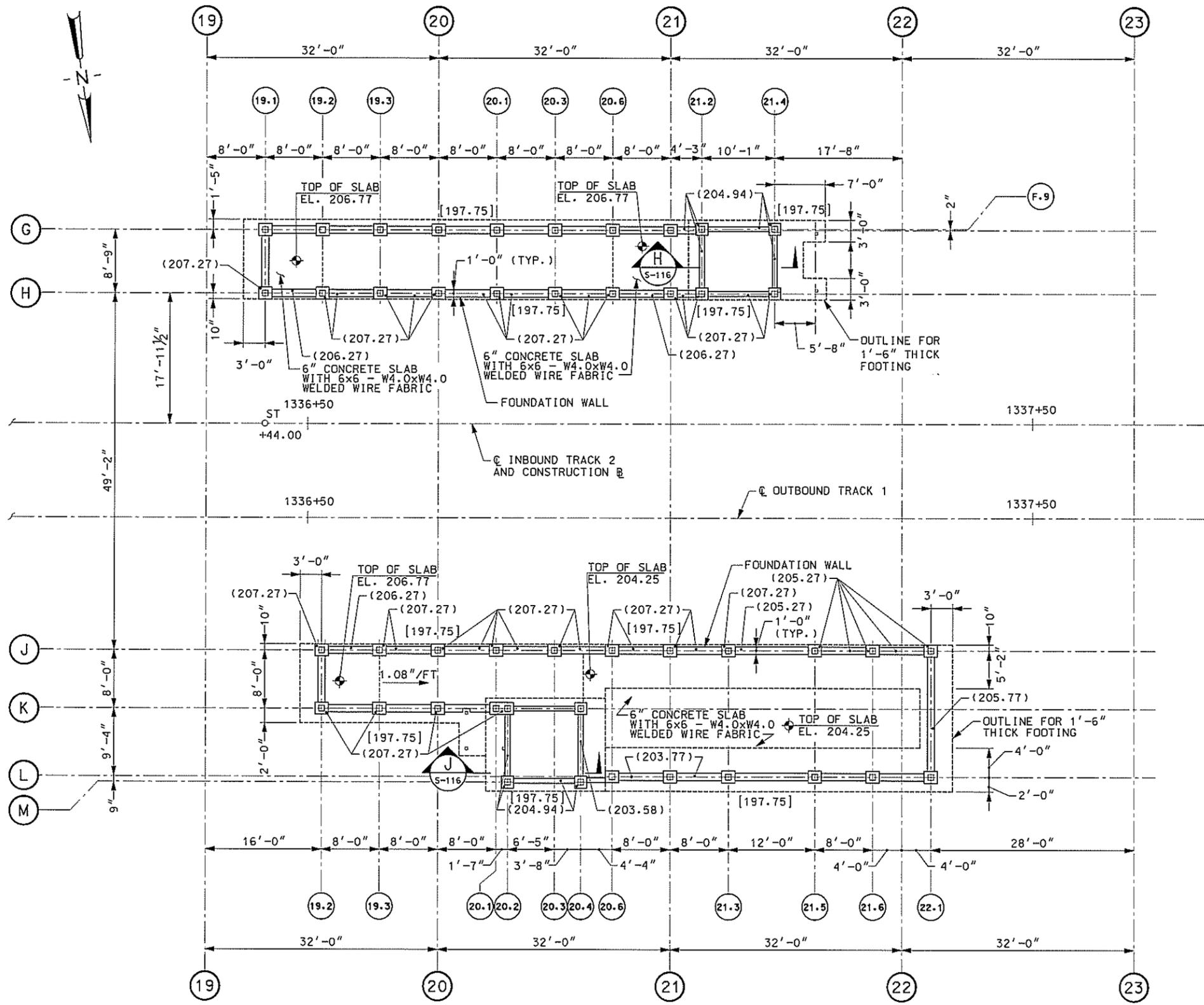
EAST TO
BOSTON

WEST TO
FITCHBURG

TOWN OF SOUTH ACTON

NOTES:

- FOR GENERAL NOTES, SEE SHEET S-100.
- FOR PILASTER DETAILS AND FOOTING REINFORCEMENT, SEE FOUNDATION DETAIL SHEETS.
- (XXX.XX) INDICATES ELEVATION AT TOP OF FOUNDATION WALL AND/OR PILASTER. TOP OF FOUNDATION WALL AND PILASTER ELEVATION SHALL BE 206.77 AT INBOUND AND OUTBOUND HEAD HOUSES UNLESS NOTED OTHERWISE.
- [XXX.XX] INDICATES ELEVATION AT BOTTOM OF FOOTING.
- CONTRACTOR SHALL COORDINATE ALL DIMENSIONS, DOOR AND WINDOW SIZES AND LOCATIONS WITH ARCHITECTURAL DRAWINGS.



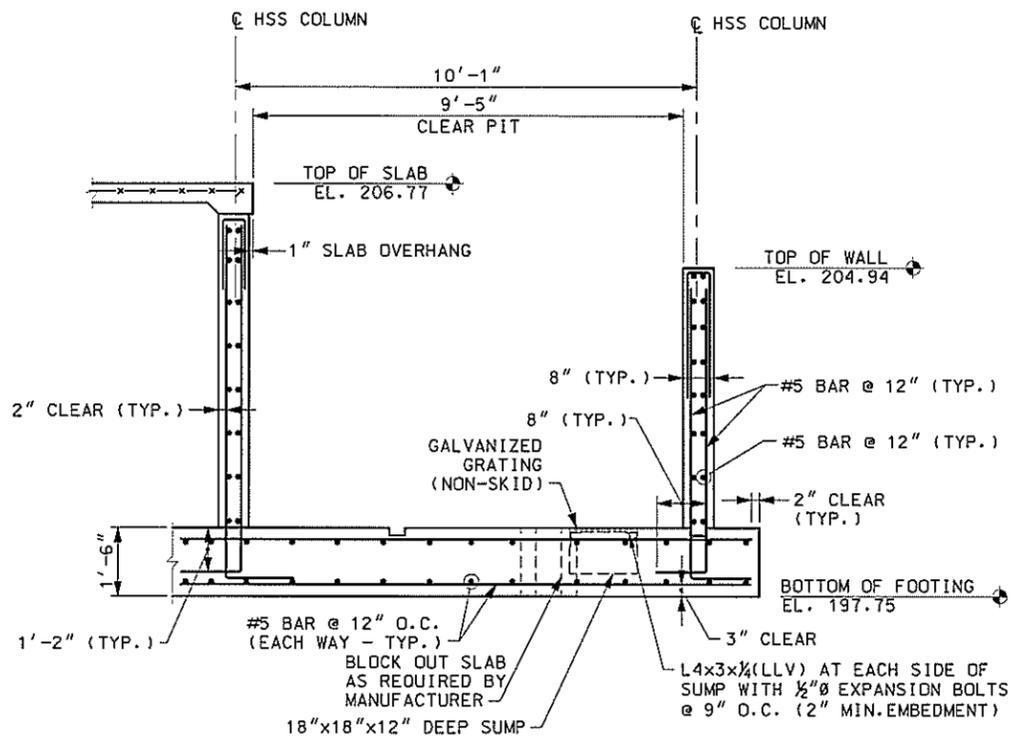
FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

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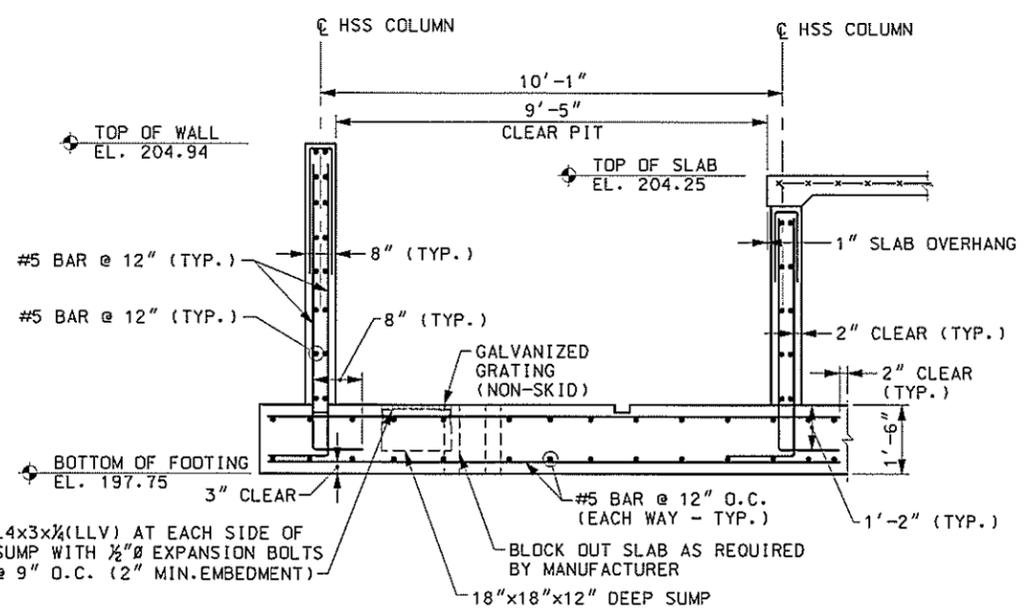
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PLOT DATE: May 25, 2011 7:37am

T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
HNTB		SOUTH ACTON STATION HEAD HOUSES FOUNDATION PLAN	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		APPROVED BY:	
PROJECT MANAGER		PROJECT MANAGER	
DATE: 06/14/11		DATE: 06/14/11	
HORIZ: AS NOTED		HORIZ: AS NOTED	
VERT: N/A		VERT: N/A	
DATE: 06/14/11		DATE: 06/14/11	
JACOBS		JACOBS	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000	
PLAN NO.		PLAN NO.	
SHEET S-115		SHEET S-115	

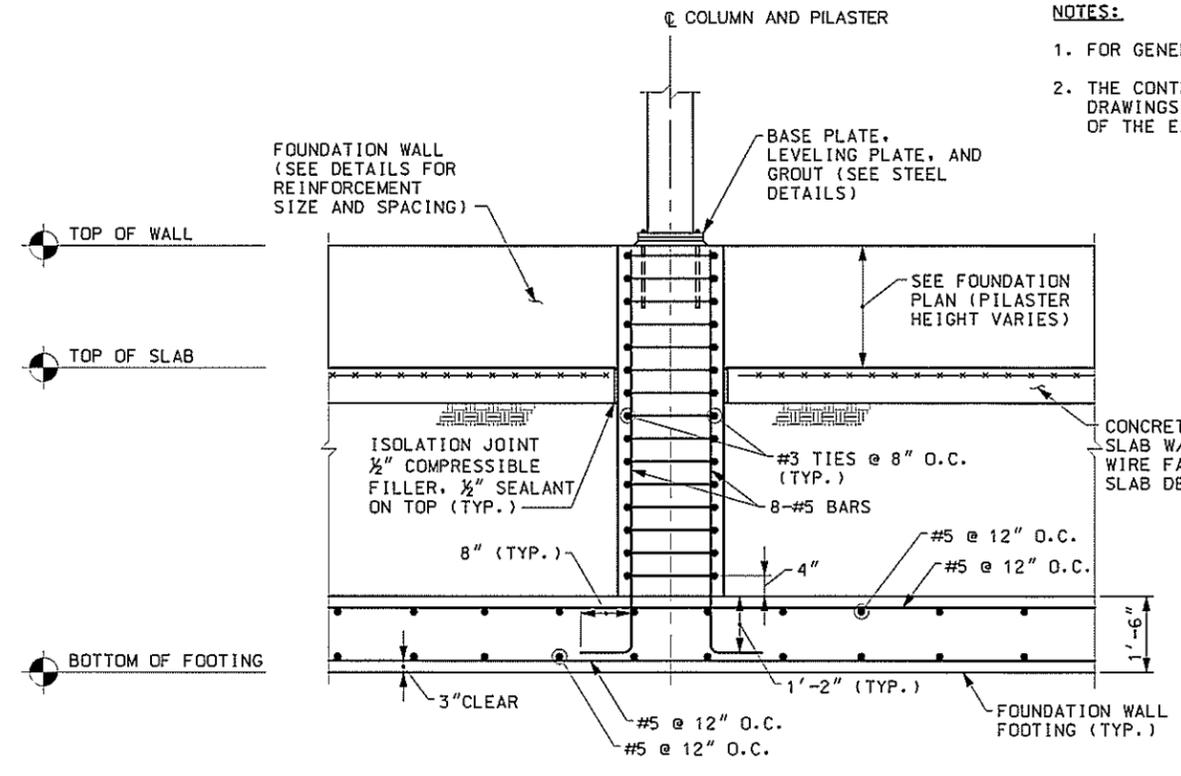
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 PLOT DATE: May 25, 2011 - 7:37am



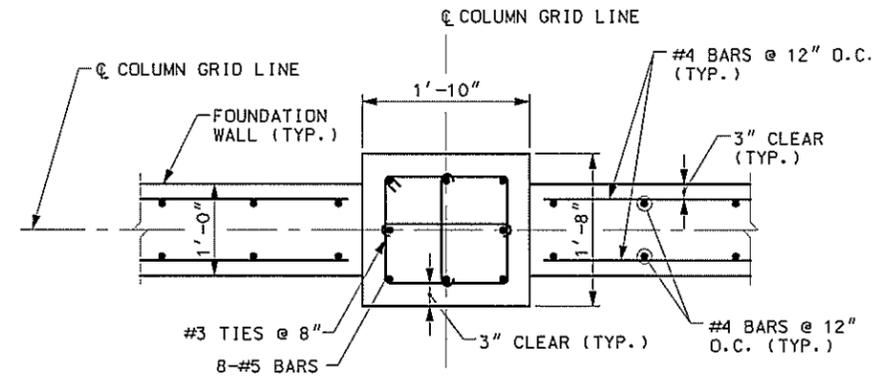
SECTION **H**
 SCALE: 1 1/2" = 1'-0" S-115



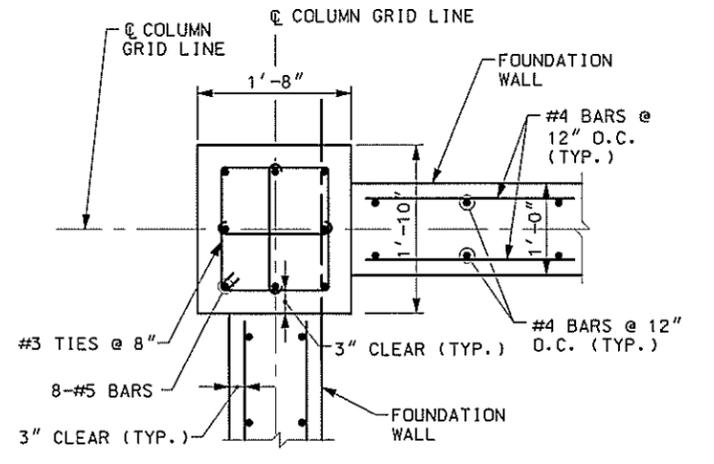
SECTION **J**
 SCALE: 1 1/2" = 1'-0" S-115



TYPICAL PILASTER AND FOOTING REINFORCEMENT DETAIL
 SCALE: N.T.S.



TYPICAL PILASTER AND WALL DETAIL
 SCALE: 1" = 1'-0"



PILASTER AND WALL DETAIL AT CORNERS
 SCALE: 1" = 1'-0"

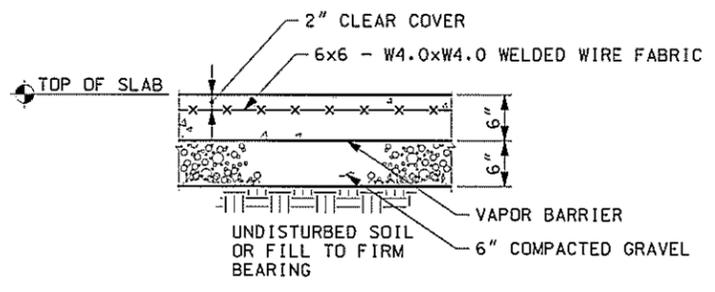
NOTES:

1. FOR GENERAL NOTES, SEE SHEET S-100.
2. THE CONTRACTOR SHALL COORDINATE STRUCTURAL AND ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

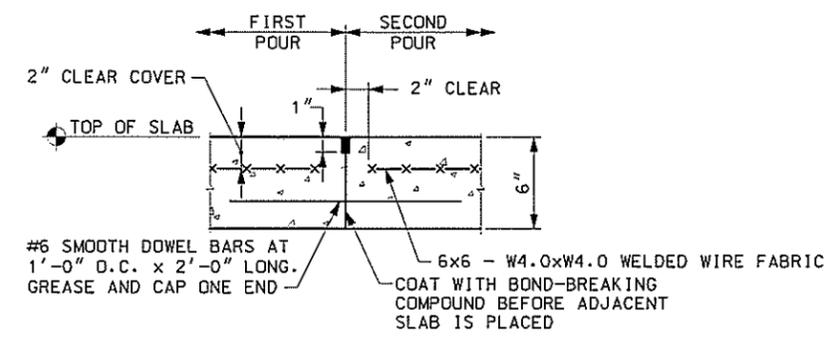
60% SUBMITTAL
 NOT FOR CONSTRUCTION

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION HEAD HOUSES FOUNDATION DETAILS SHEET 1	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ PROJECT MANAGER Date	
		HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PLAN NO. _____ SHEET S-116	

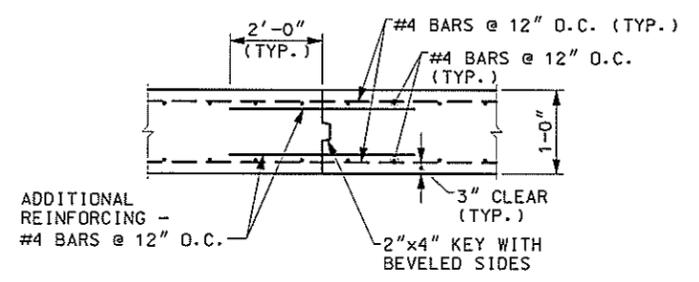
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 PLOT DATE: May 25, 2011 - 7:37am



TYPICAL SLAB REINFORCEMENT
 SCALE: 1" = 1'-0"



SLAB CONSTRUCTION JOINT DETAIL
 SCALE: N.T.S.



FOUNDATION WALL CONSTRUCTION JOINT DETAIL
 SCALE: N.T.S.

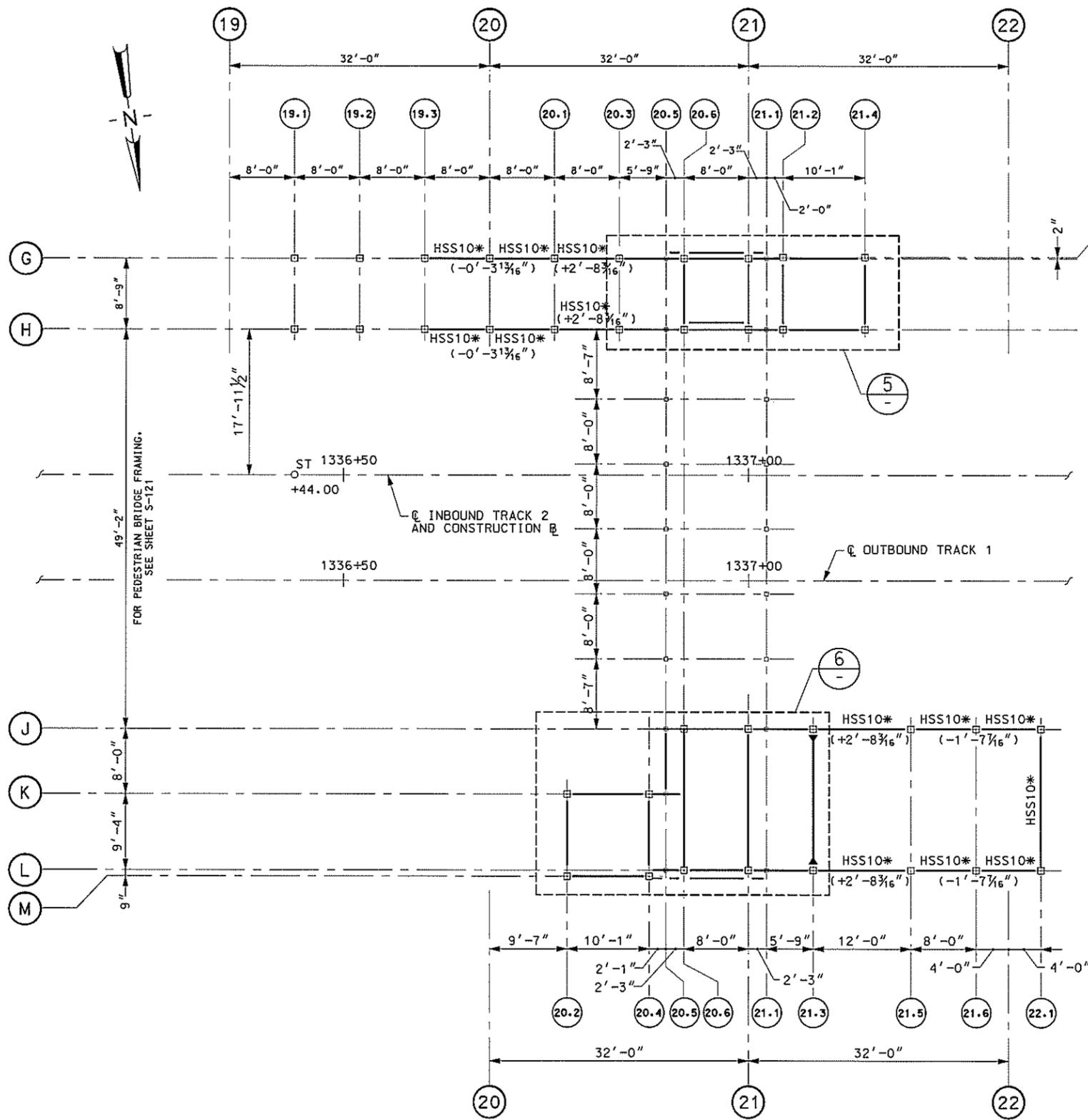
NOTES:

- FOR GENERAL NOTES, SEE SHEET S-100.
- THE CONTRACTOR SHALL COORDINATE STRUCTURAL AND ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- CONSTRUCTION JOINTS SHALL OCCUR AT BUILDING GRID LINES.
- FOR TOP OF SLAB AND TOP OF PILASTER ELEVATIONS, SEE FOUNDATION PLAN.

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 NOT FOR CONSTRUCTION

T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION HEAD HOUSES FOUNDATION DETAILS SHEET 2		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
HNTB		APPROVED BY: _____	
300 APOLLO DRIVE CHELSEA, MA 02124 (978) 905-4000		PROJECT MANAGER _____ Date _____	
JACOBS		PROJECT MANAGER _____ Date _____	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		APPROVED BY: _____	
HORIZ: AS NOTED		DATE: 05/14/11	
VERT: N/A		PLAN NO. _____	
DATE: 05/14/11		SHEET S-117	

FILE NAME: \\BOSFIL11\Dat02\NAL\proj\MBTA\2008\E2X37800\CAO\700CAD\702STATIONS\South Acton\Structura\60% Submission\118-121_Head_Houses_Framing_Plans.dwg
 PLOT DATE: May 25, 2011 7:37am



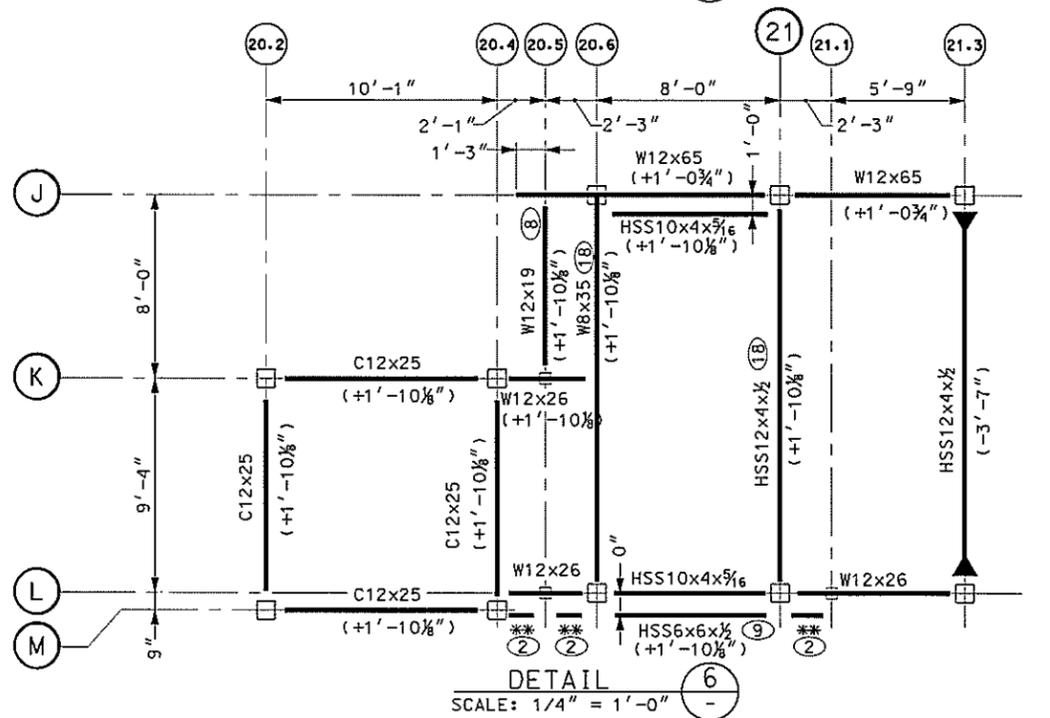
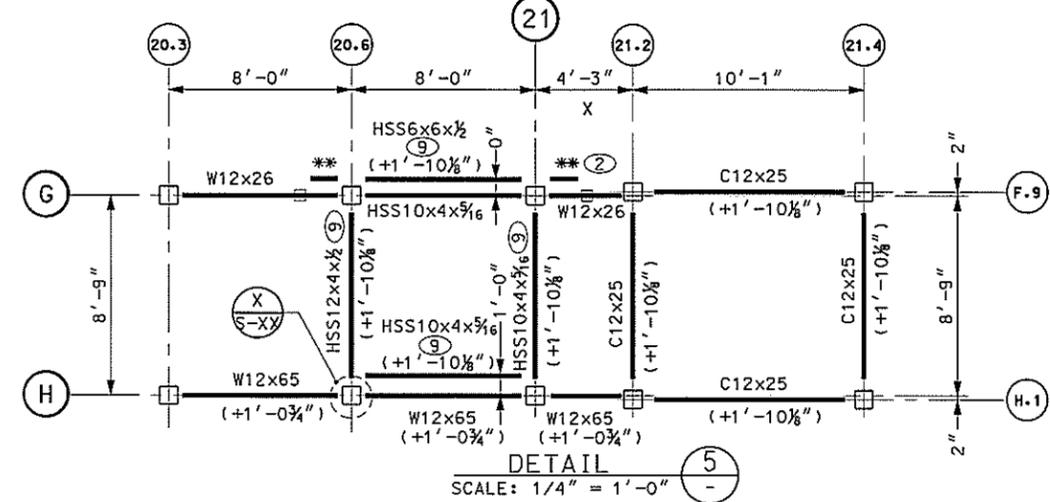
SECOND FLOOR FRAMING PLAN
 SCALE: 1/8" = 1'-0"

NOTES:

- TOP OF STEEL ELEVATION IS 222.09 UNLESS OTHERWISE NOTED THUS (+/-0'-0").
- FOR GENERAL NOTES, SEE SHEET S-100.
- FLOOR CONSTRUCTION SHALL BE 3" DEEP, 18 GAGE GALVANIZED COMPOSITE STEEL FLOOR DECK SUPPORTED BY STEEL BEAMS.
- FOR STEEL DETAILS, SEE SHEETS S-122 THRU S-123.
- FOR FRAME ELEVATIONS, SEE SHEETS S-119 THRU S-120.

LEGEND

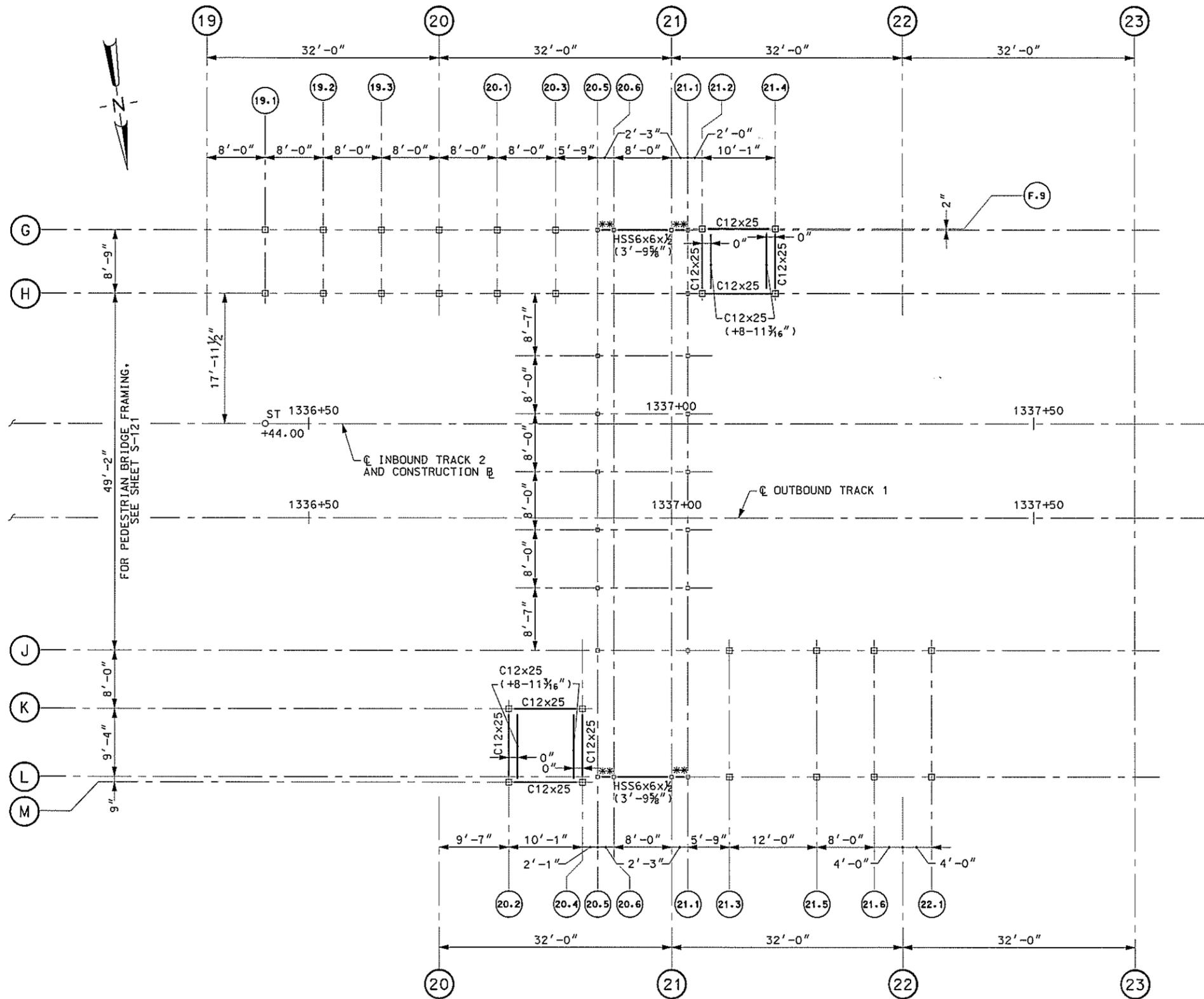
- ** INDICATES HSS6x6x1/2 BEAM
- HSS10* INDICATES HSS10x4x5/16 BEAM (+1'-10 1/8")
- ▶ INDICATES MOMENT CONNECTION
- RD INDICATES ROOF DECK DIRECTION
- ⑤ INDICATES NUMBER OF SHEAR STUDS



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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CNO1	
		SOUTH ACTON STATION HEAD HOUSES SECOND FLOOR FRAMING PLAN	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
		PROJECT MANAGER _____ Date: _____	
		HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	
		PLAN NO. _____ SHEET S-119	

FILE NAME: \\BOSFIL11\Dotoc2\WAL_proj\MBFA\2008\E2\37800\CAD\700C400\7025STATIONS\South Acton\Structure\60% Submission\118-121_Head_Houses_Framing_Plans.dwg
 PLOT DATE: May 25, 2011 - 7:37am



- NOTES:**
1. TOP OF STEEL ELEVATION IS 232.59 UNLESS OTHERWISE NOTED THUS (+/-0'-0").
 2. FOR GENERAL NOTES, SEE SHEET S-100.
 3. FOR STEEL DETAILS, SEE SHEET S-122 THRU S-123.
 4. FOR FRAME ELEVATIONS, SEE SHEETS S-119 THRU S-120.
 5. * INDICATES HSS6x6x1/2 BEAM (+2'-10 13/16").

- LEGEND**
- ** INDICATES HSS6x6x1/2 BEAM
 - ▶ INDICATES MOMENT CONNECTION
 - RD INDICATES ROOF DECK DIRECTION

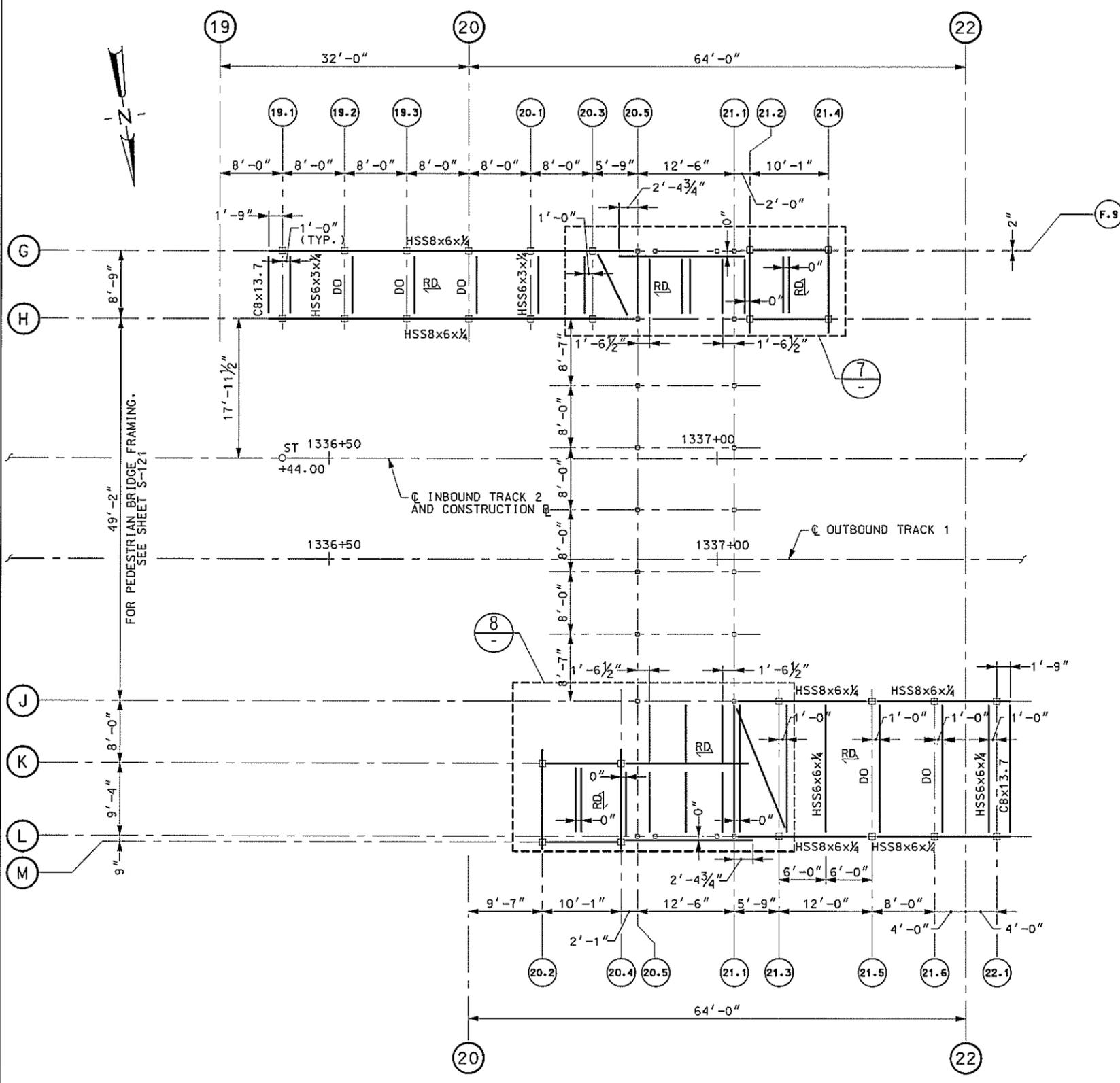
UPPER LEVEL FRAMING PLAN
 SCALE: 1/8" = 1'-0"

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T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
	SOUTH ACTON STATION HEAD HOUSES UPPER LEVEL FRAMING PLAN	
HNTB 300 APOLLO DRIVE CHILMARK, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: _____		APPROVED BY: _____
PROJECT MANAGER _____		PROJECT MANAGER _____
DATE: 06/14/11		DATE: _____
HORIZ: AS NOTED		PLAN NO. _____
VERT: N/A		ISSUE _____
DATE: 06/14/11		SHEET S-120

JACOBS
 343 CONGRESS STREET
 BOSTON, MA 02110
 (617) 242-9222

FILE NAME: \\BOSFIL11\DATA2\MAL\proj\MBTA\2008\E2437800\CAD\700CADD\702STATION\South Acton\Structural\60% Submission\118-121_Head_Houses_Framing_Plans.dwg
 PLOT DATE: May 25, 2011 7:37am



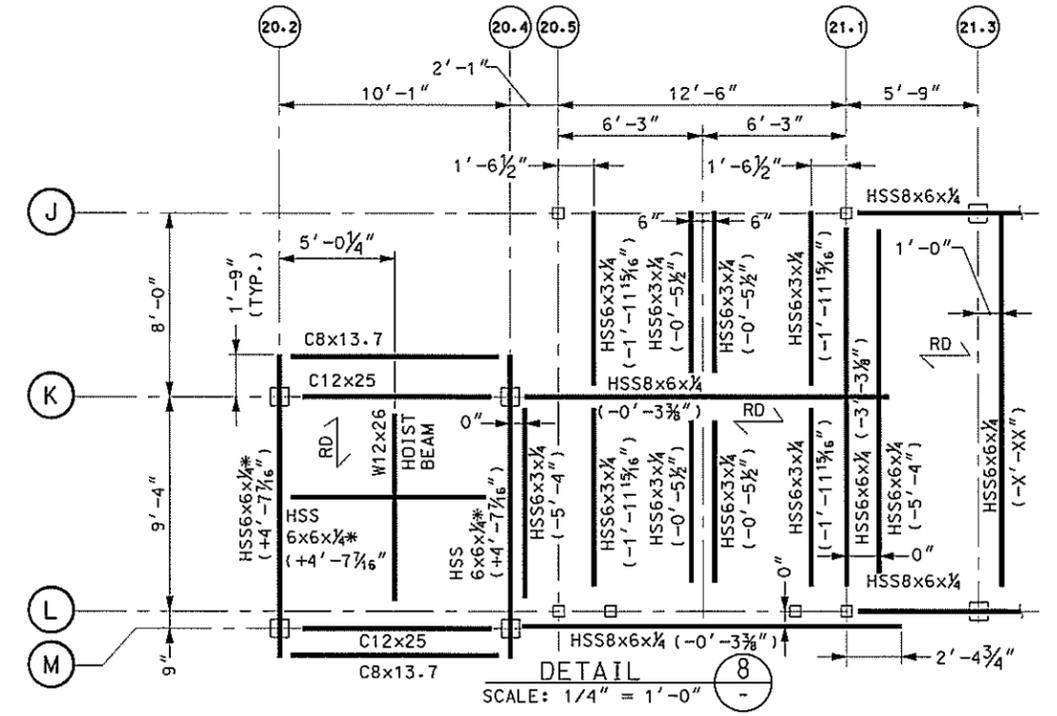
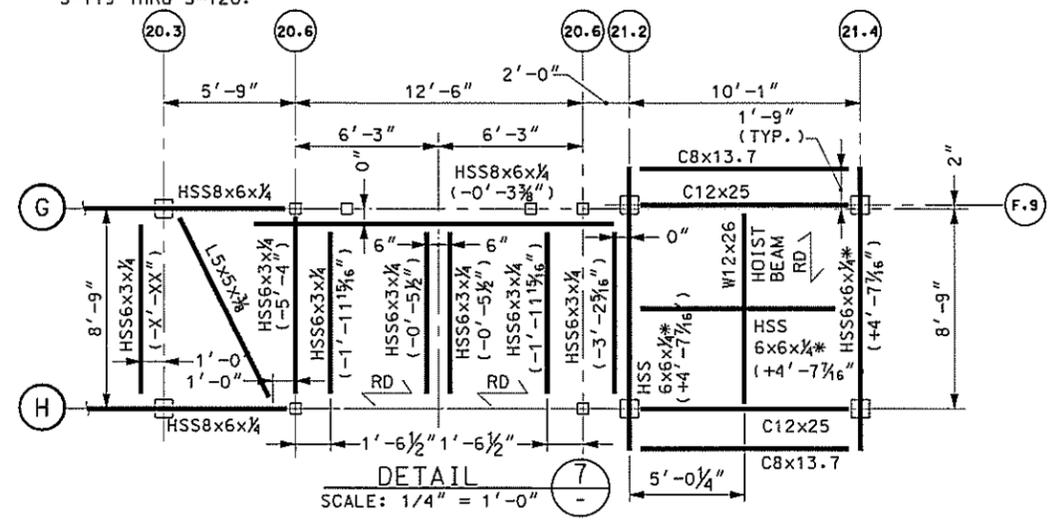
HIGH ROOF FRAMING PLAN
 SCALE: 1/8" = 1'-0"

NOTES:

- TOP OF STEEL ELEVATION IS 240.19 UNLESS OTHERWISE NOTED THUS (+/-0'-0").
- FOR GENERAL NOTES, SEE SHEET S-100.
- GUTTER STEEL CHANNEL BEAMS NOT SHOWN FOR CLARITY.
- FOR STEEL DETAILS, SEE SHEET S-122 THRU S-123.
- FOR FRAME ELEVATIONS, SEE SHEETS S-119 THRU S-120.
- ROOF CONSTRUCTION SHALL BE 1 1/2" INCH DEEP, 18 GAUGE GALVANIZED STEEL DECK.

LEGEND

RD INDICATES ROOF DECK DIRECTION



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T MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
 FITCHBURG COMMUTER RAIL LINE
 IMPROVEMENT PROJECT
 CONTRACT NO. G67CN01

**SOUTH ACTON STATION
 HEAD HOUSES HIGH ROOF
 FRAMING PLAN**

		300 APOLLO DRIVE CHELSEA, MA 02124 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		PROJECT MANAGER:		DATE:	
PROJECT MANAGER:	DATE:	PROJECT MANAGER:	DATE:	PLAN NO.	SHEET S-121
PROJECT MANAGER:	DATE:	PROJECT MANAGER:	DATE:	PLAN NO.	SHEET S-121

JACOBS

343 CONGRESS STREET
 BOSTON, MA 02110
 (617) 242-9222

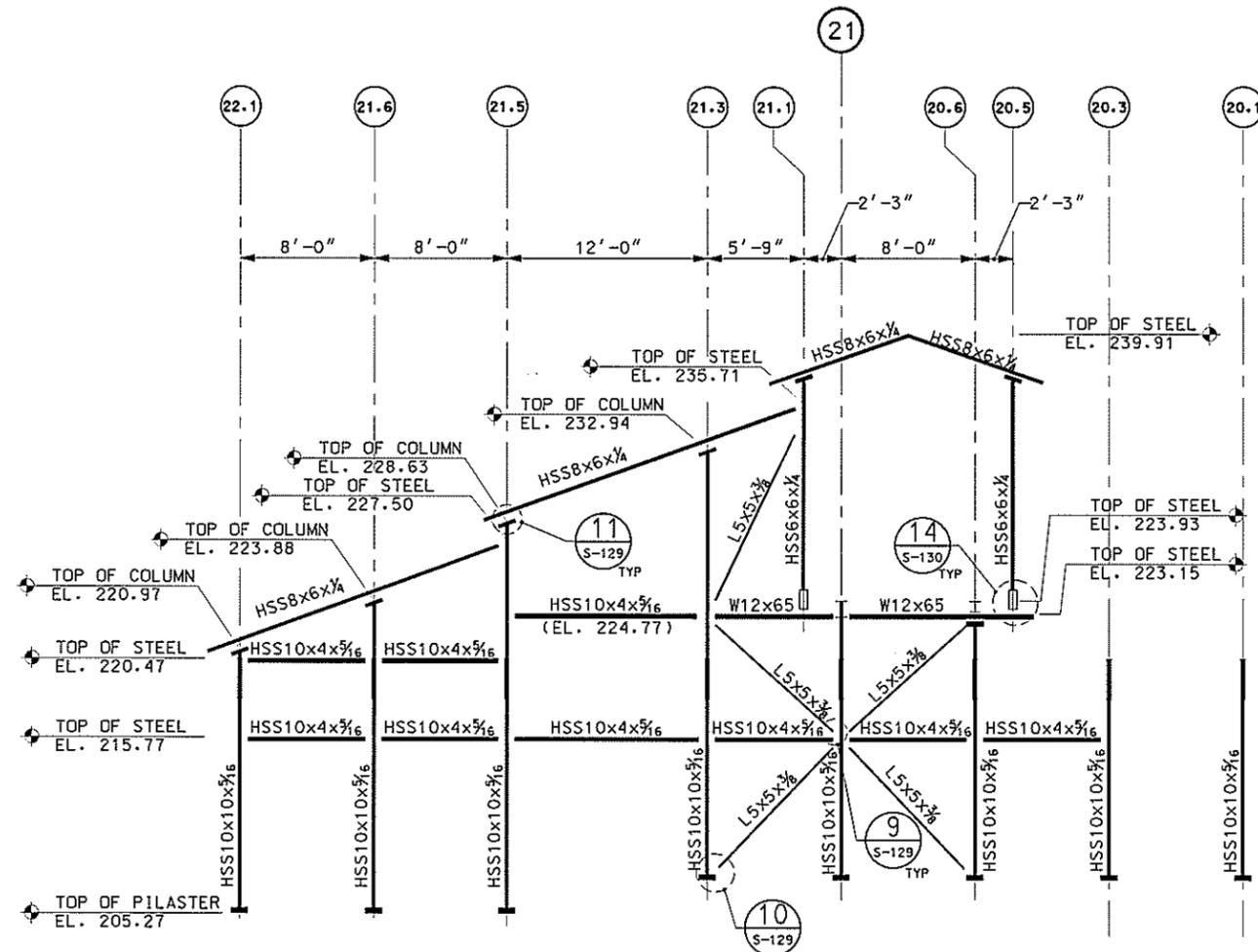
HORIZ: AS NOTED
 VERT: N/A
 DATE: 06/14/11

DES BY: DJM
 DR BY: DJM
 CHK BY: MWT

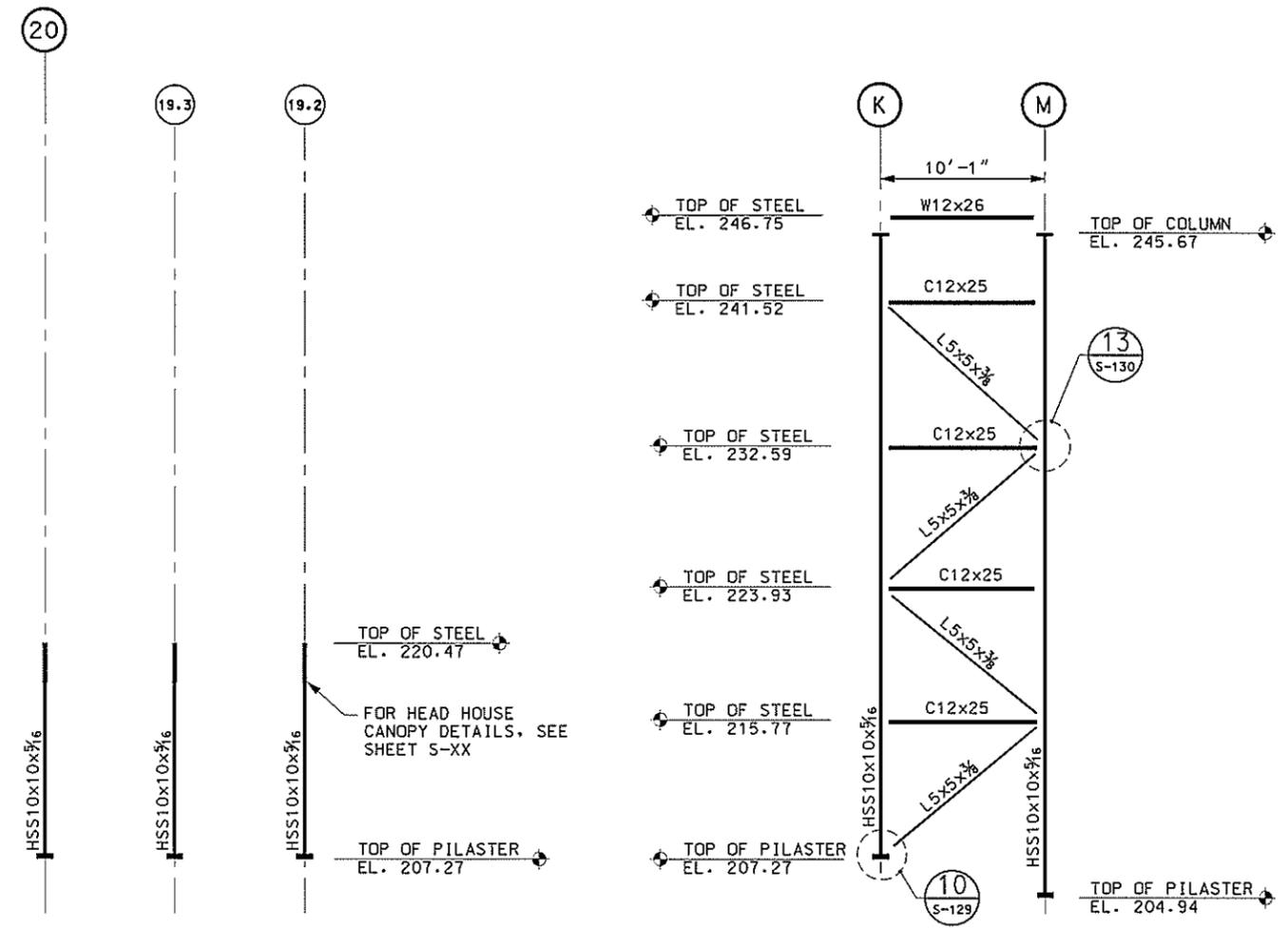
PROJECT MANAGER: []
 DATE: []
 PLAN NO. []
 SHEET S-121

NOTES:

1. FOR GENERAL NOTES, SEE SHEET S-100.
2. FOR STEEL DETAILS, SEE SHEETS S-122 THRU S-123.



FRAME ELEVATION AT COLUMN LINE J
SCALE: 3/16" = 1'-0"



FRAME ELEVATION AT COLUMN LINE 20.2
SCALE: 3/16" = 1'-0"

FILE NAME: \\BOSFIL11\Doc\2\MBTA\2008\22X37800\CAD\700CADD\702STATIONS\South Acton\Structural\60% Submission\122-126_Head_Houses_Frame_Elevations.dwg
PLOT DATE: May 25, 2011 7:37am

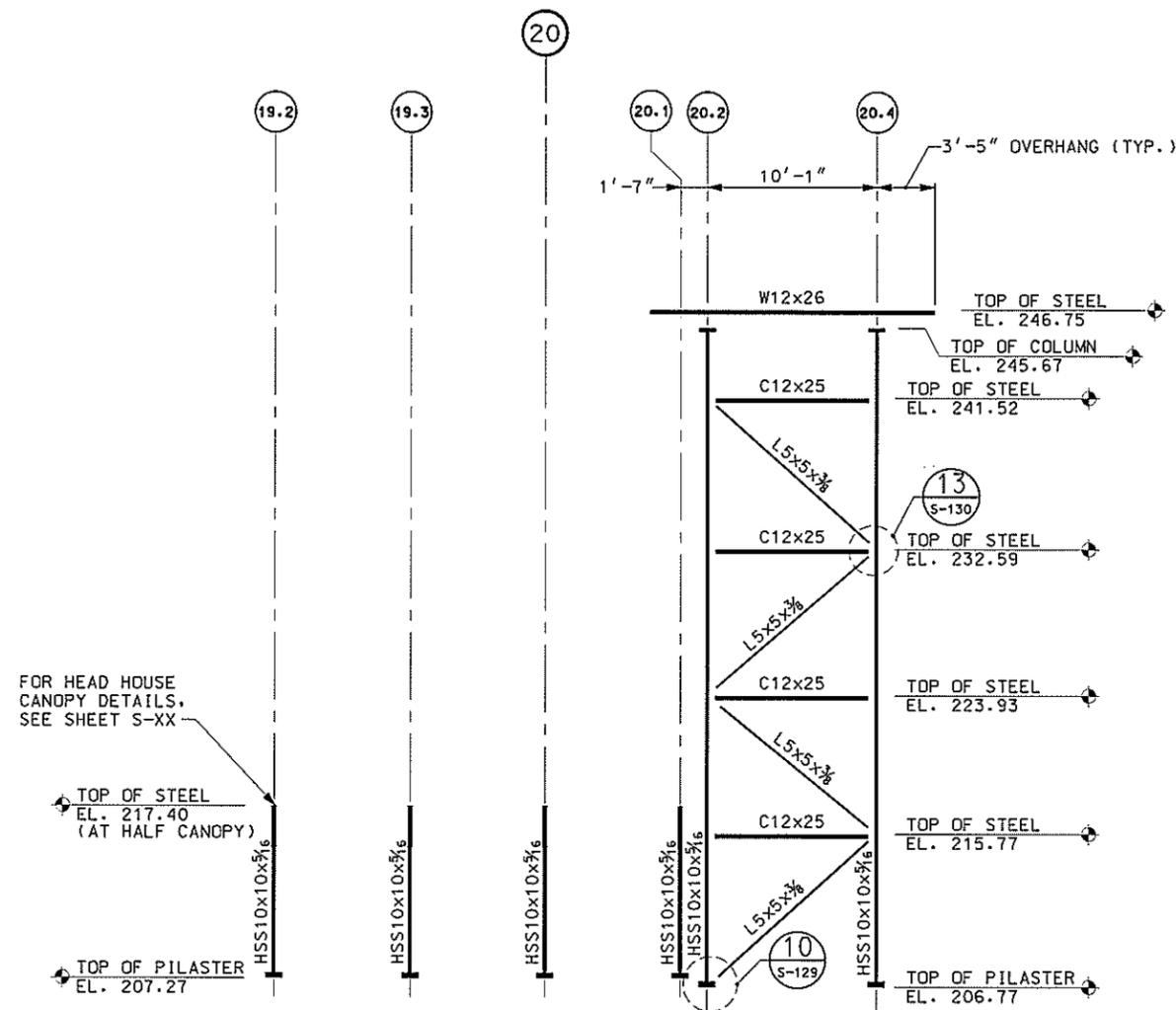
60% SUBMITTAL
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T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
HNTB 300 APOLLO DRIVE CHELSEA, MA 02134 (978) 905-4000		SOUTH ACTON STATION HEAD HOUSES FRAME ELEVATIONS SHEET 2	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY: _____		APPROVED BY: _____	
DATE: 06/14/11		DATE: _____	
PROJECT MANAGER: _____		PROJECT MANAGER: _____	
HORIZ: AS NOTED		PLAN NO. _____	
VERT: N/A		SHEET S-123	
DATE: 06/14/11		DATE: _____	

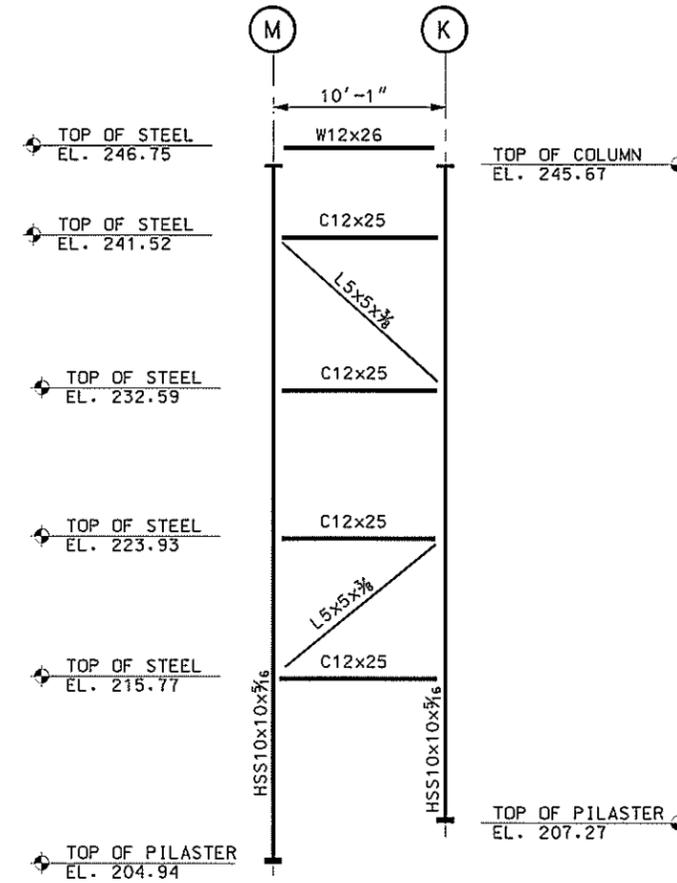
JACOBS
343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222

NOTES:

1. FOR GENERAL NOTES, SEE SHEET S-100.
2. FOR STEEL DETAILS, SEE SHEETS S-122 THRU S-123.



FRAME ELEVATION AT COLUMN LINE K
SCALE: 3/16" = 1'-0"



FRAME ELEVATION AT COLUMN LINE 20.4
SCALE: 3/16" = 1'-0"

FILE NAME: \\BOSFIL11\Dat02\NAL_proj\MBTA\2008\22X37800\CAD\700CAD0\702STATIONS\South Acton\Structural\CAD\700CAD0\CAD\700CAD0\122-126_Head_Houses_Frames_Elevations.dwg
PLOT DATE: May 25, 2011 - 7:37am

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T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION HEAD HOUSES FRAME ELEVATIONS SHEET 3		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		APPROVED BY:	
PROJECT MANAGER		PROJECT MANAGER	
DATE		DATE	
HORIZ: AS NOTED		PLAN NO.	
VERT: N/A		SHEET S-124	
DATE: 06/14/11		ISSUE	

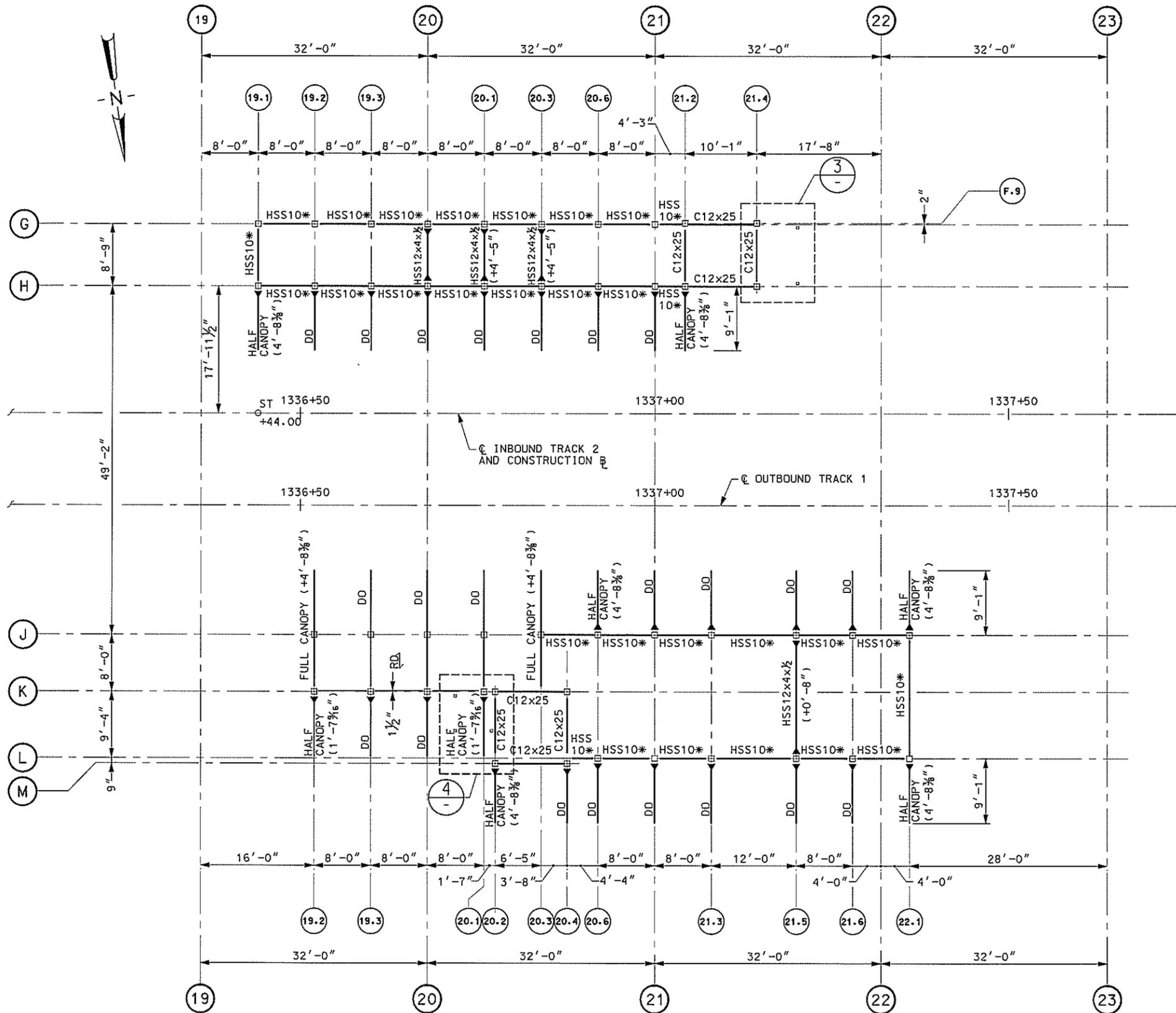
JACOBS

343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222

MNTB

300 APOLLO DRIVE
CHELSEA, MA 01824
(978) 905-4000

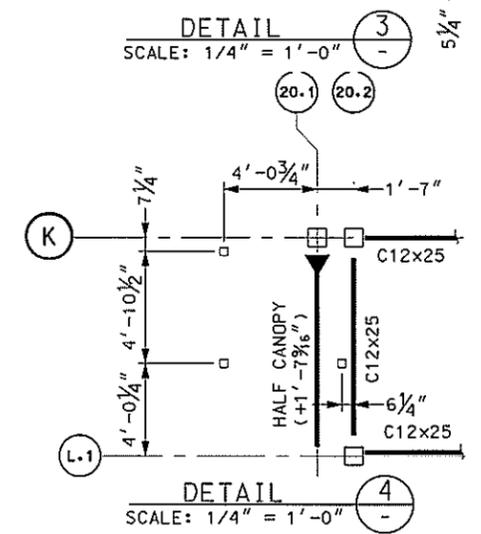
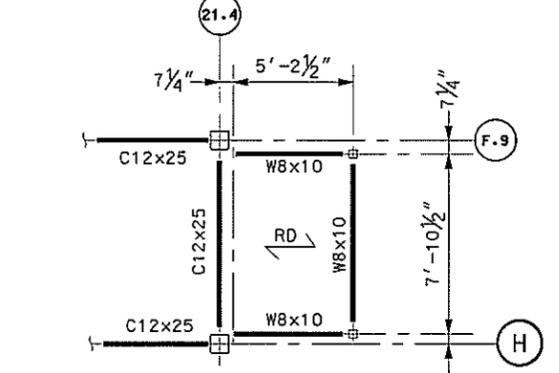
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 PLOT DATE: May 25, 2011 - 7:37am



LOWER LEVEL AND LOW ROOF FRAMING PLAN
 SCALE: 1/8" = 1'-0"

- NOTES:**
1. TOP OF STEEL ELEVATION IS 215.77 UNLESS OTHERWISE NOTED THUS (+/-0'-0").
 2. FOR GENERAL NOTES, SEE SHEET S-100.
 3. FOR STEEL DETAILS, SEE SHEET S-122 THRU S-123.
 4. FOR FRAME ELEVATIONS, SEE SHEETS S-119 THRU S-120.
 5. FOR HALF CANOPY FRAMING AND DETAILS, SEE SHEETS S-128 THRU S-130.
 6. ROOF CONSTRUCTION SHALL BE 1 1/2 INCH DEEP, 18 GAUGE GALVANIZED STEEL DECK.
 7. FOR ELEVATOR ROOM FRAMING, SEE SHEET S-XX.

- LEGEND**
- HSS10* INDICATES HSS10x4x5/16 BEAM (+X'-XX")
 - ┐ INDICATES MOMENT CONNECTION
 - RD INDICATES ROOF DECK DIRECTION



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		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION HEAD HOUSES LOWER LEVEL AND LOW ROOF FRAMING PLAN		300 APOLLO DRIVE CHELSEA, MA 02110 (978) 905-4000	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY: _____ Date: _____		PROJECT MANAGER: _____ Date: _____	
PROJECT MANAGER: _____ Date: _____		PLAN NO. _____ ISSUE _____	
DATE: 06/14/11		SHEET S-118	

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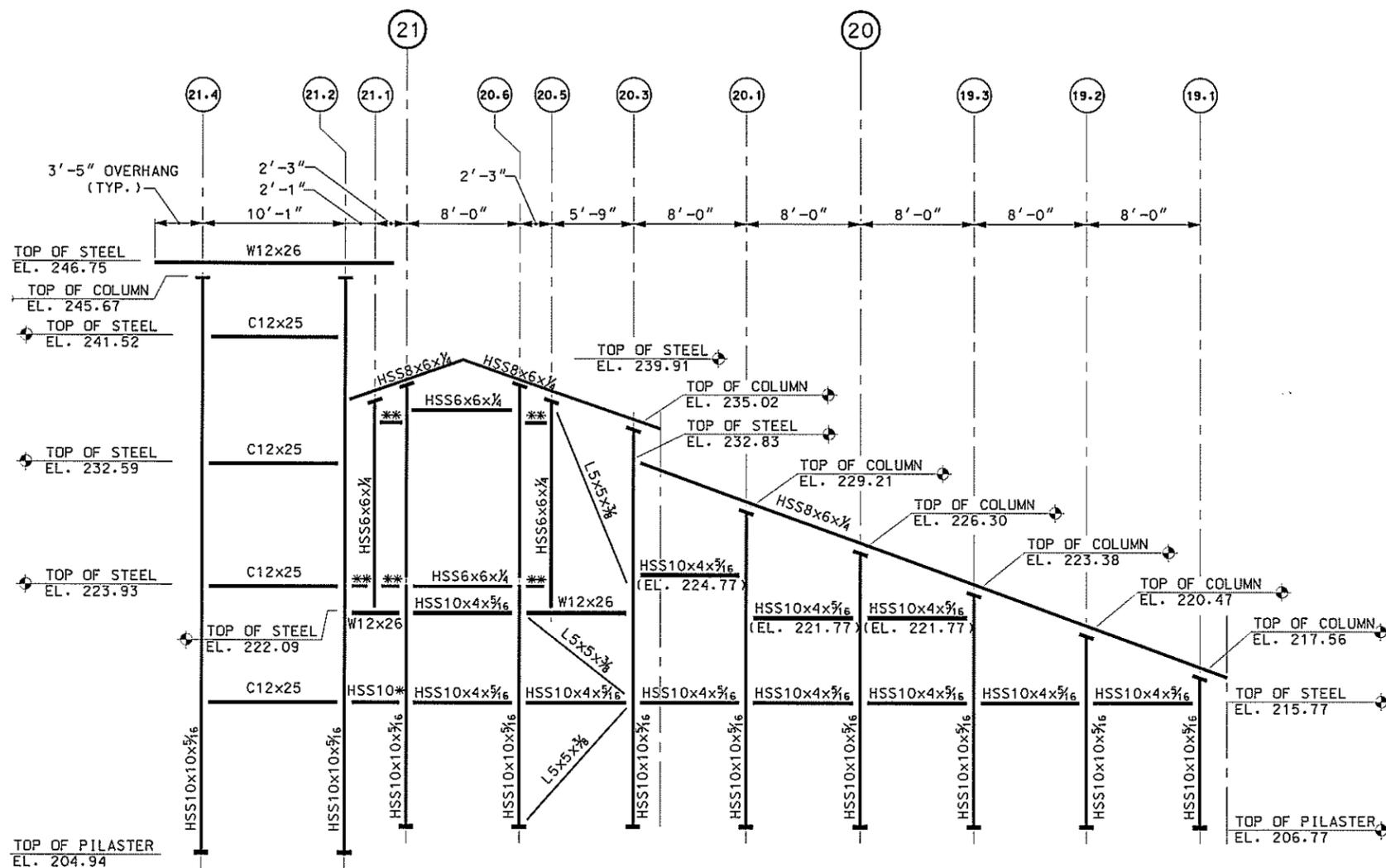
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 PLOT DATE: May 25, 2011 7:37am

NOTES:

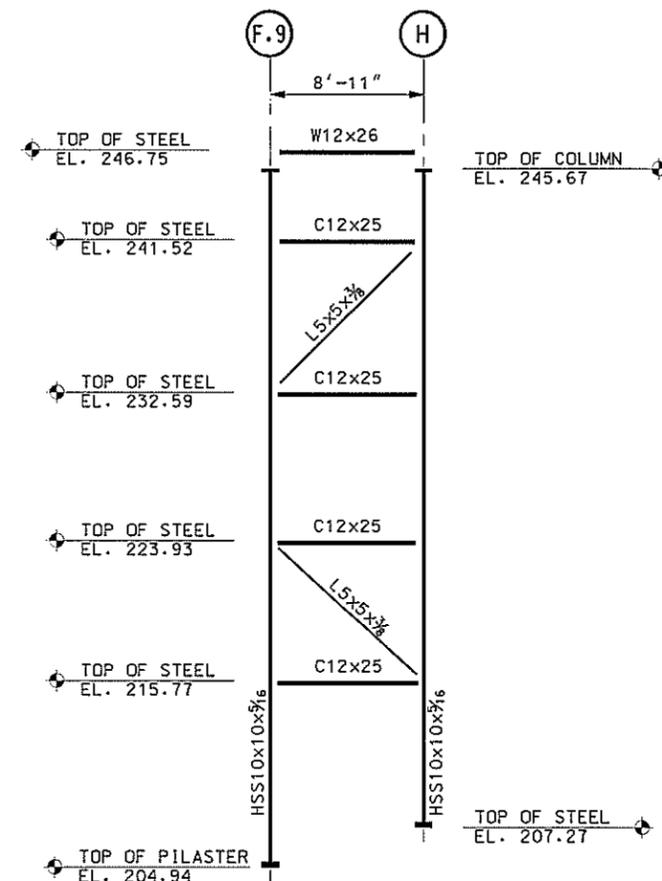
- FOR GENERAL NOTES, SEE SHEET S-100.
- FOR STEEL DETAILS, SEE SHEETS S-122 THRU S-123.

LEGEND

- ** INDICATES HSS6x6x $\frac{1}{4}$ BEAM
- HSS10* INDICATES HSS10x4x $\frac{5}{16}$ BEAM



FRAME ELEVATION AT COLUMN LINES F.9 AND G
 SCALE: 3/16" = 1'-0"

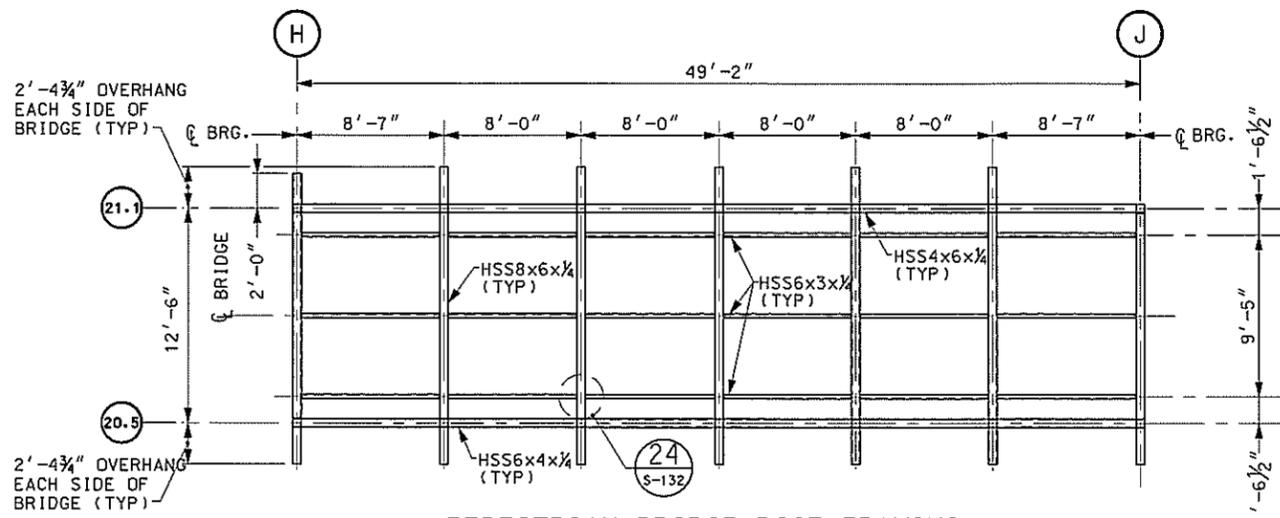


FRAME ELEVATION AT COLUMN LINE 21.2
 SCALE: 3/16" = 1'-0"

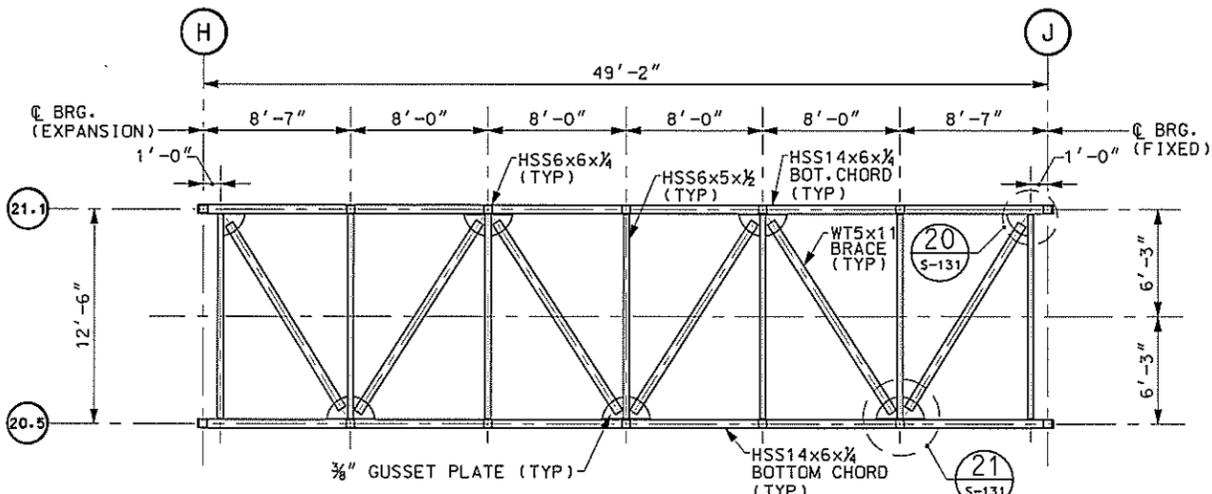
60% SUBMITTAL
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T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
NTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		APPROVED BY: _____ Date: _____	
PROJECT MANAGER		PROJECT MANAGER	
DATE: 05/14/11		DATE: _____	
HORIZ: AS NOTED		PLAN NO.	
VERT: N/A		SHEET S-125	
DATE: 05/14/11		DATE: _____	

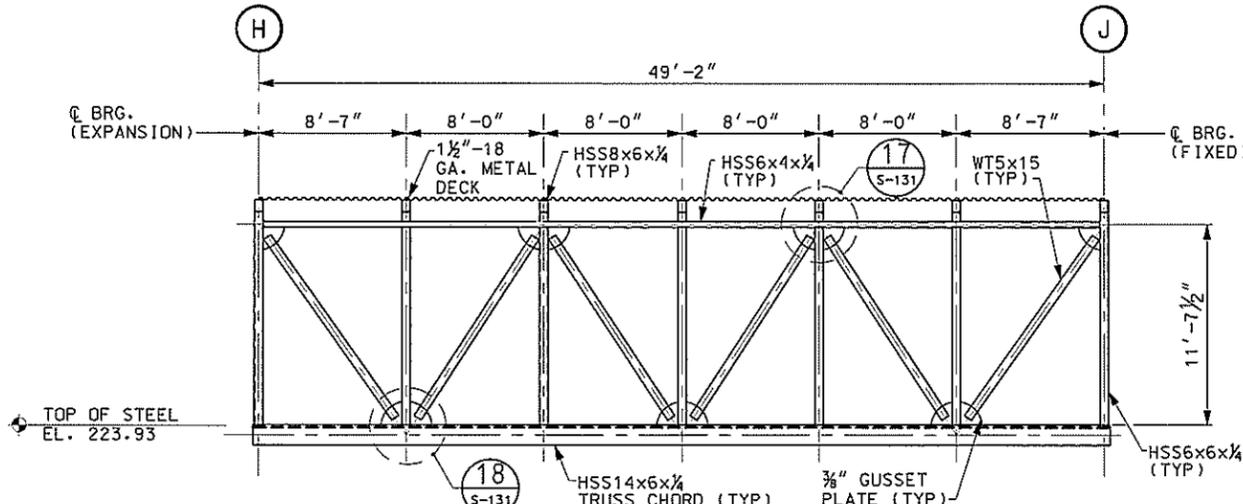
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 BOSTON, MA 02110
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PEDESTRIAN BRIDGE ROOF FRAMING
SCALE: 3/16" = 1'-0"



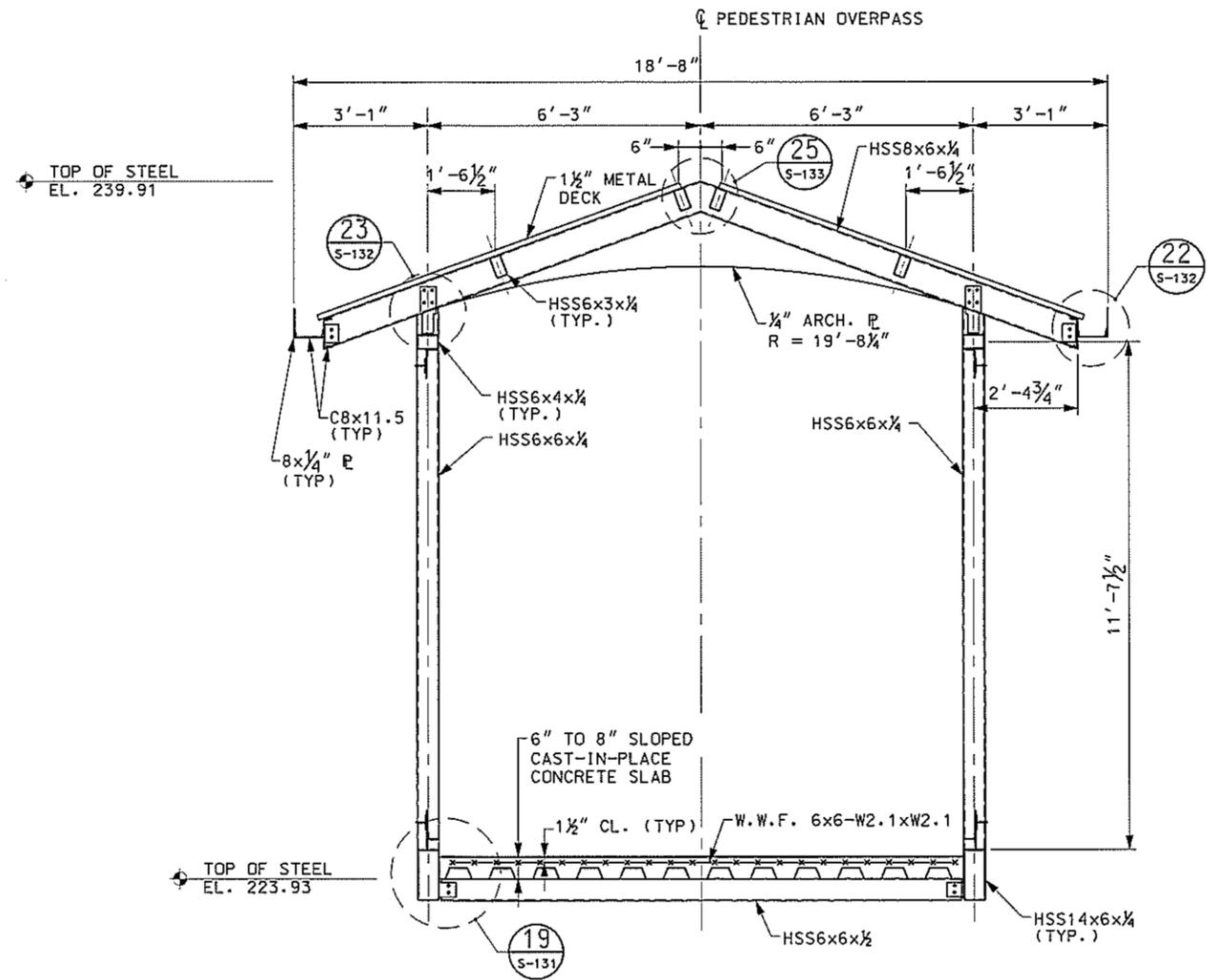
PEDESTRIAN BRIDGE DECK FRAMING
SCALE: 3/16" = 1'-0"



TYPICAL PEDESTRIAN BRIDGE SECTION AT TRUSS FRAME
SCALE: 3/16" = 1'-0"

NOTES:

- FOR GENERAL NOTES, SEE SHEET S-100.
- FOR TRUSS BEARING DETAILS, SEE SHEET S-XX.
- FOR STEEL DETAILS, SEE SHEETS S-122 THRU S-123.
- ALL STEEL ELEMENTS SHALL BE HOT-DIP GALVANIZED UNLESS OTHERWISE NOTED.
- FLOOR CONSTRUCTION SHALL BE 3 INCH DEEP, 18 GAUGE GALVANIZED STEEL FLOOR DECK. ROOF CONSTRUCTION SHALL BE 1 1/2 INCH DEEP, 18 GAUGE GALVANIZED STEEL DECK AND SHALL BE 2 SPAN CONTINUOUS.



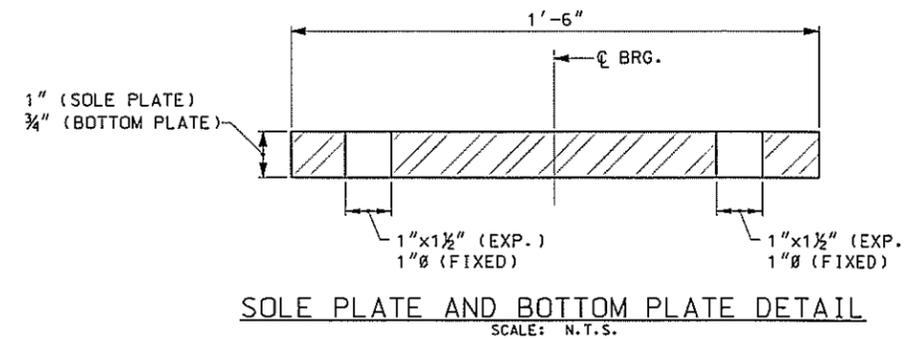
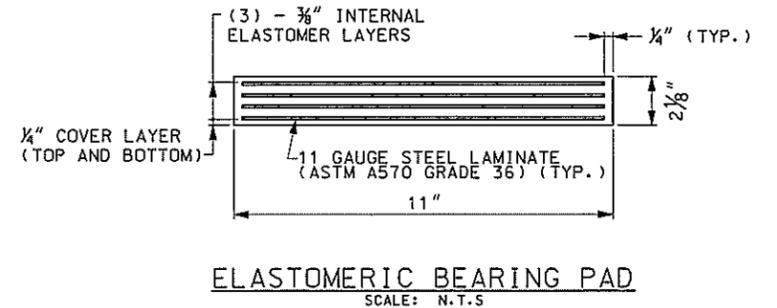
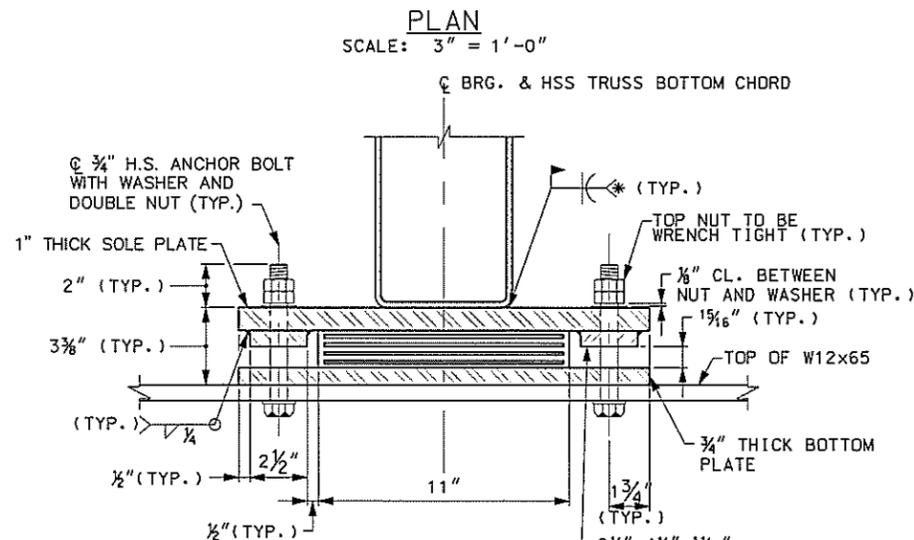
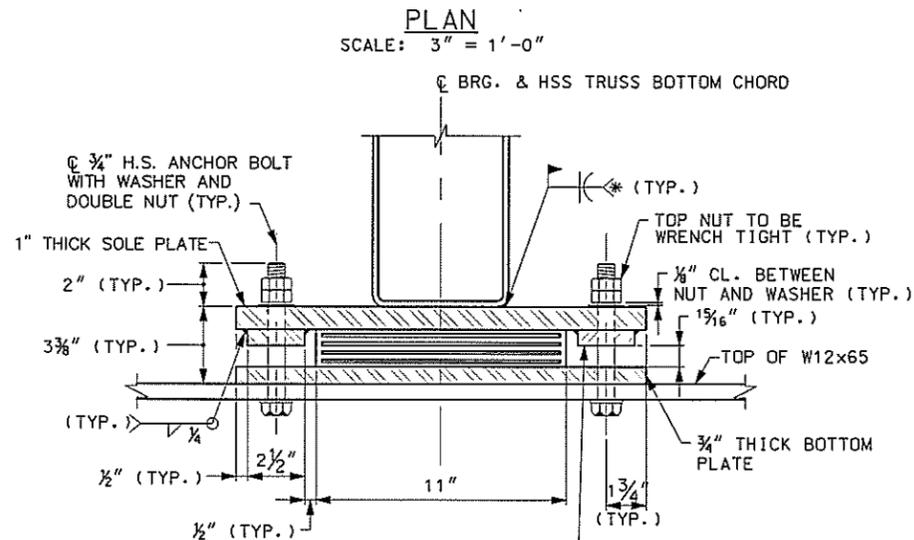
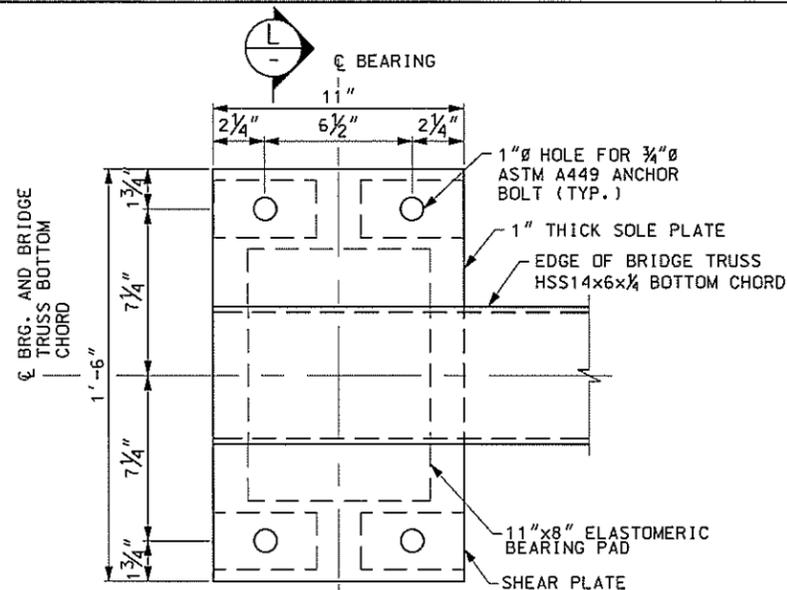
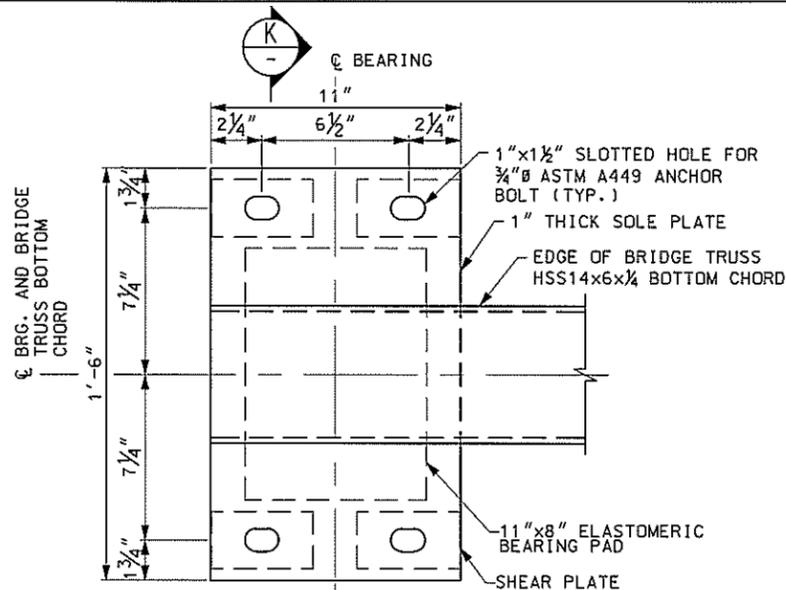
TYPICAL PEDESTRIAN BRIDGE SECTION
SCALE: 1/2" = 1'-0"

FILE NAME: \\bosfil11\Donor\proj\MBTA\2008\22x37800\CAD\700CAD\7025\STATI0NS\South Acton\Structural\CAD\700CAD\7025\STATI0NS\South Acton\Structural\Plans_Secs.dwg
PLOT DATE: May 25, 2011 7:58am

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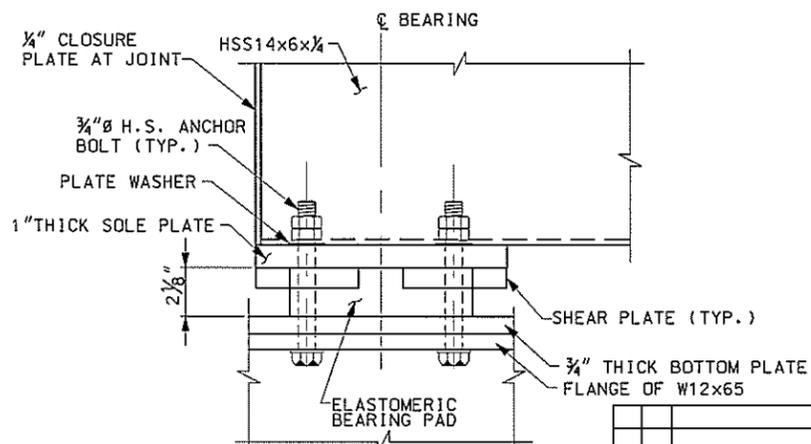
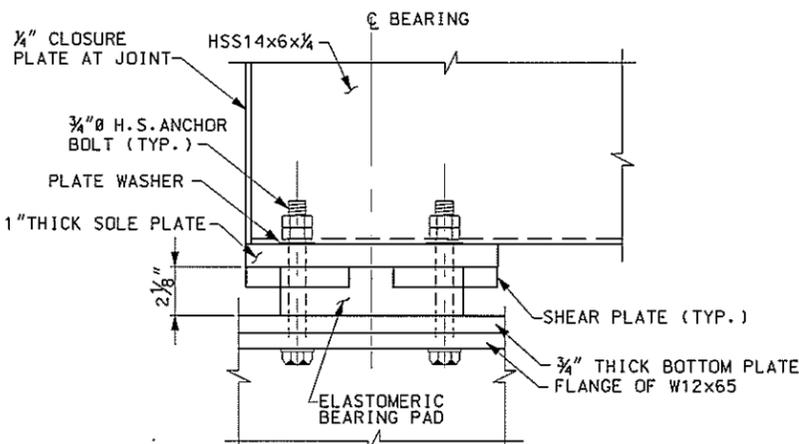
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION PEDESTRIAN BRIDGE FRAMING AND SECTIONS	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
		PROJECT MANAGER: _____ Date: _____ HORIZ: AS NOTED VERT: N/A DATE: 06/14/11	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PROJECT MANAGER: _____ Date: _____ PLAN NO. _____ SHEET S-127	

FILE NAME: \\BOSFIL11\Dot\2\NAL\proj\MBTA\2008\E2x37800\CAD\700CADD\702STATIONS\South Acton\Structural\128_Ped_Bridge_Bearing_Details.dwg
 PLOT DATE: May 25, 2011 - 7:38am



(* - WELDS SHALL TERMINATE 1/4" FROM EDGE OF PLATE.

(* - WELDS SHALL TERMINATE 1/4" FROM EDGE OF PLATE.



NOTES:

1. STEEL SOLE PLATE AND SHEAR PLATES SHALL CONFORM TO AASHTO M270 GRADE 36 AND SHALL BE HOT-DIP GALVANIZED.
2. STEEL LAMINATES SHALL CONFORM TO ASTM A 1011 GRADE 36.
3. PLACE SOLE PLATE ASSEMBLY SO THAT IT IS CENTERED AROUND ANCHOR BOLTS. CENTER THE ELASTOMERIC PAD UNDER THE SOLE PLATE.
4. ELASTOMER IN ALL BEARINGS SHALL HAVE GRADE 60 DUROMETER HARDNESS.
5. PAD SHALL BE VULCANIZED TO THE BOTTOM AND SOLE PLATES IN THE SHOP.
6. TRUSS SHALL BE ERECTED WHEN AMBIENT TEMPERATURE IS BETWEEN 50°F AND 77°F. IF THE TRUSS IS ERECTED AT A TEMPERATURE OUTSIDE OF THIS RANGE, THE BRIDGE SHALL BE JACKED TO ALLOW FOR RE-CENTERING OF THE SOLE PLATE ASSEMBLY AND ELASTOMERIC BEARINGS WHEN THE TEMPERATURE RETURNS TO THAT RANGE.
7. AFTER THE SOLE PLATE ASSEMBLY IS IN ITS FINAL POSITION, WELD TRUSS CHORD (HSS14x6) BOTTOM FLANGE TO SOLE PLATE.
8. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554. ANCHOR BOLTS, NUTS AND WASHERS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.
9. GALVANIZED SURFACES DAMAGED BY WELDING OR ERECTION OPERATIONS SHALL BE REPAIRED BY APPLICATION OF AN ORGANIC ZINC RICH PRIMER.
10. FOR SUBSTRUCTURE DETAILS, SEE SHEET S-32.

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EXPANSION BEARING

FIXED BEARING

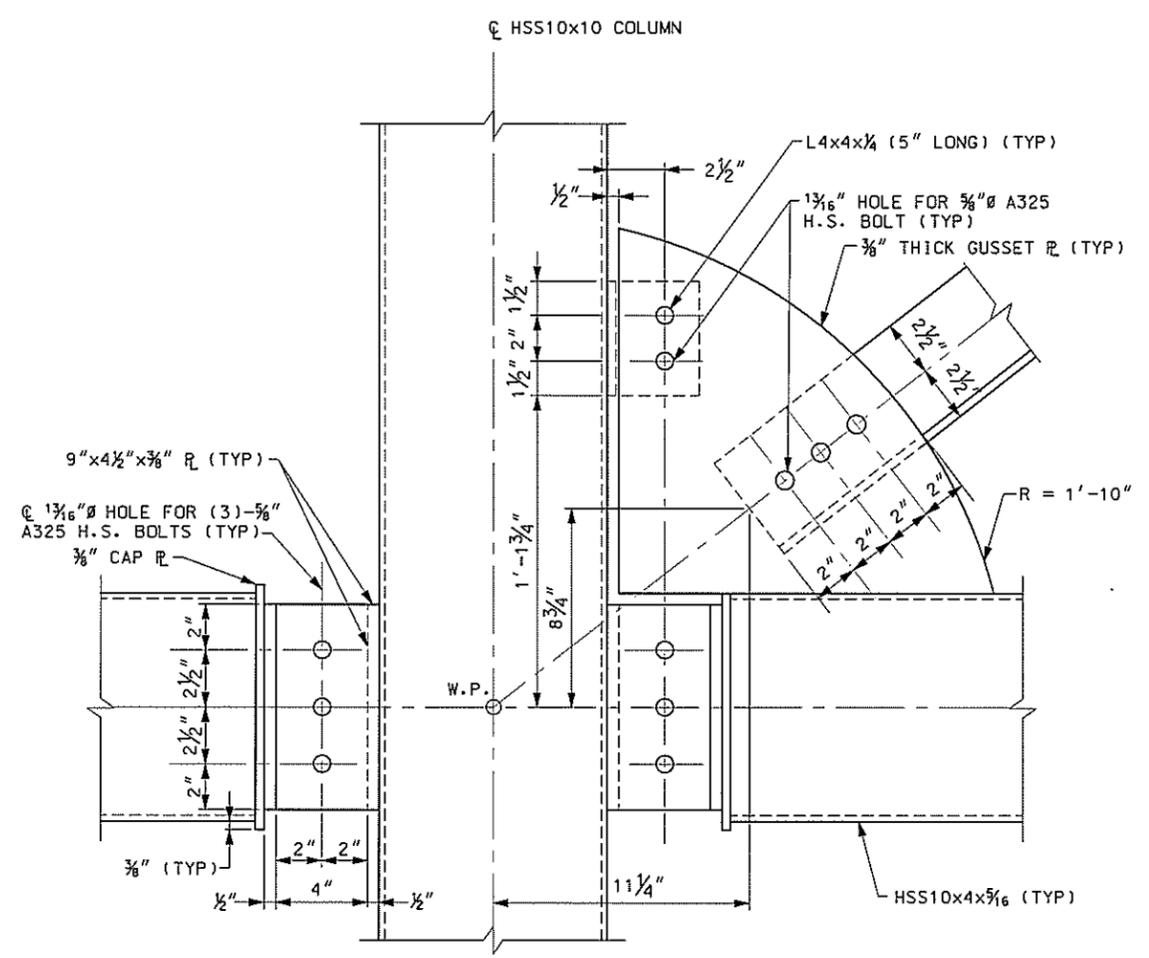
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION PEDESTRIAN BRIDGE BEARING DETAILS	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		PROJECT MANAGER:	
DATE: 06/14/11		PLAN NO. XXX SHEET S-128	

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BOSTON, MA 02110
(617) 242-9222

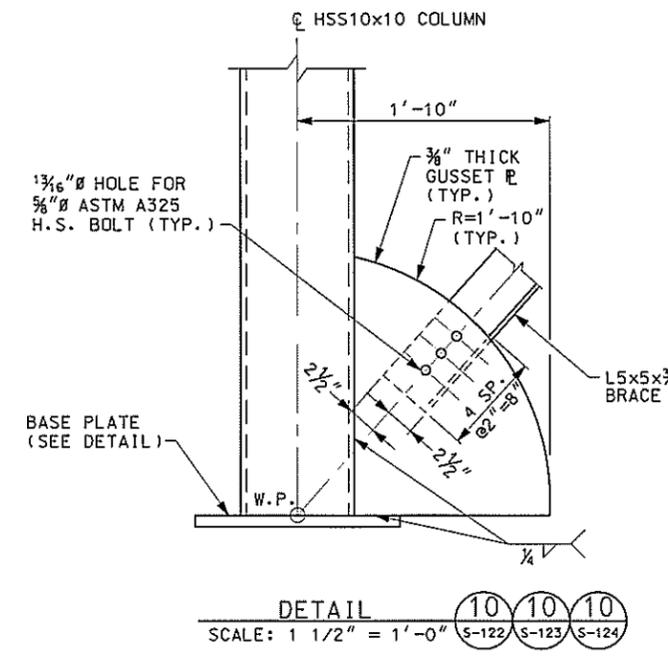
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 PLOT DATE: May 25, 2011 7:38am

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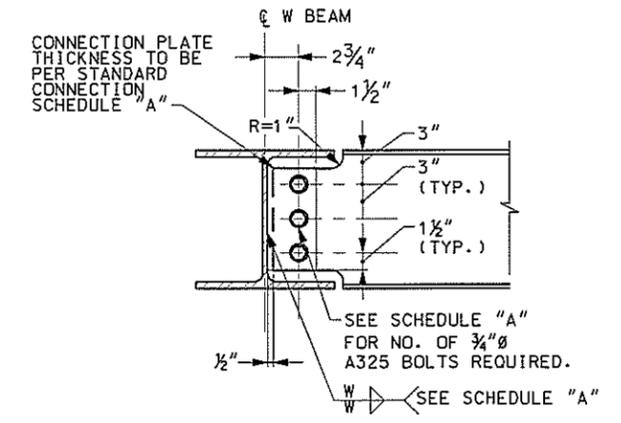
- FOR GENERAL NOTES, SEE SHEET S-100.
- THE CONTRACTOR SHALL COORDINATE STRUCTURAL AND ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO STEEL FABRICATION.
- ALL STEEL ELEMENTS SHALL BE HOT-DIP GALVANIZED UNLESS OTHERWISE NOTED.



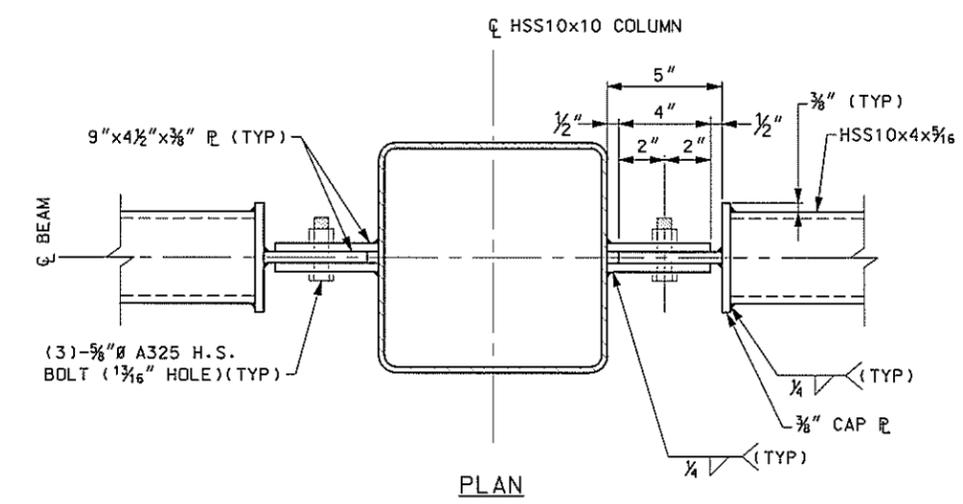
DETAIL 9 9
 SCALE: 3" = 1'-0" (S-122, S-123)



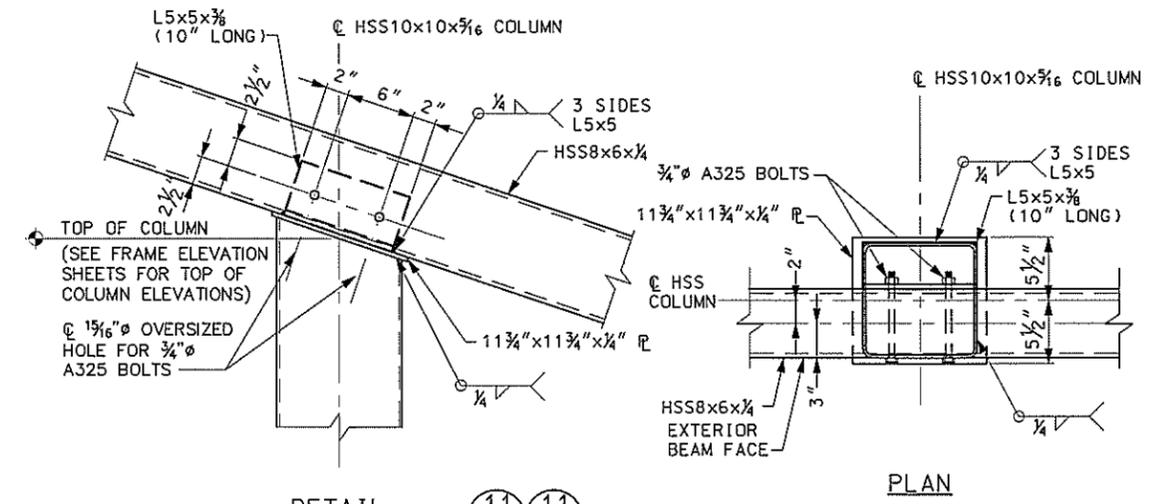
DETAIL 10 10 10
 SCALE: 1 1/2" = 1'-0" (S-122, S-123, S-124)



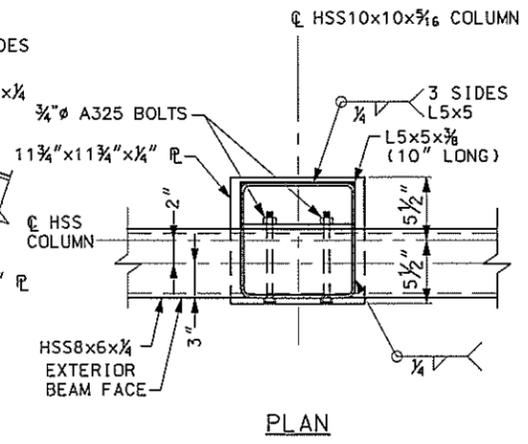
TYPICAL BEAM-BEAM CONNECTION DETAIL 12
 SCALE: N.T.S.



PLAN



DETAIL 11 11
 SCALE: 1 1/2" = 1'-0" (S-122, S-123)



PLAN

SCHEDULE "A" STANDARD BOLTED CONNECTION			
BEAM SIZE	NO. AND SIZE OF BOLTS REQUIRED	PLATE THICKNESS	WELD SIZE (W)
W8	(2) 3/4" DIA.	3/8	1/4
W10	(2) 3/4" DIA.	3/8	1/4
W12	(3) 3/4" DIA.	3/8	1/4
W18	(5) 3/4" DIA.	1/2	5/16

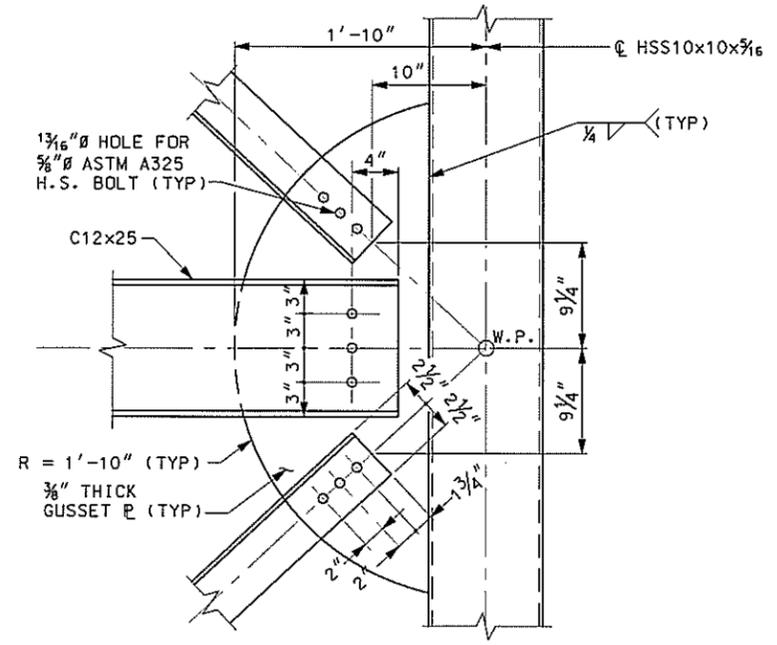
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 NOT FOR CONSTRUCTION

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION STEEL DETAILS SHEET 1	
300 APOLLO DRIVE CHELSEA, MA 02124 (978) 905-6000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PROJECT MANAGER: _____ Date: _____ HORIZ: AS NOTED VERT: N/A DATE: 05/14/11	
ISSUE DATE DESCRIPTION BY CHD. APP.		PROJECT MANAGER: _____ Date: _____ PLAN NO. _____ SHEET S-129	

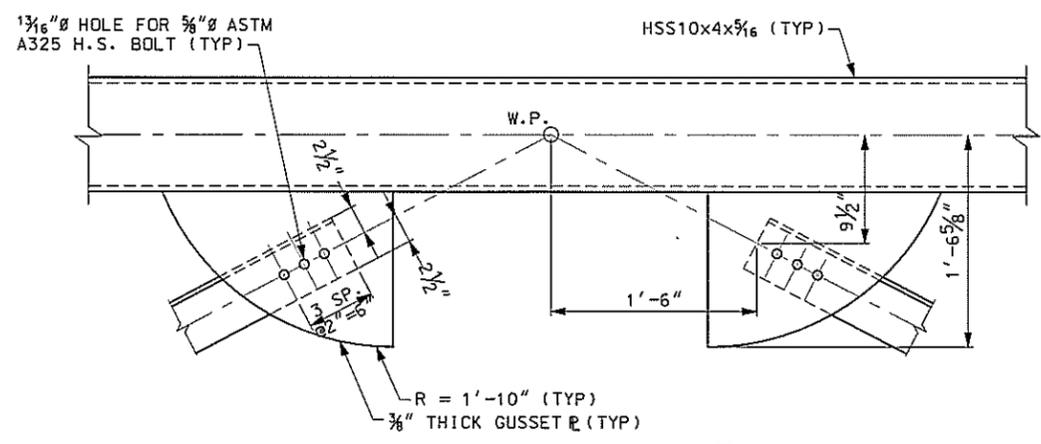
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 PLOT DATE: May 25, 2011 7:38am

NOTES:

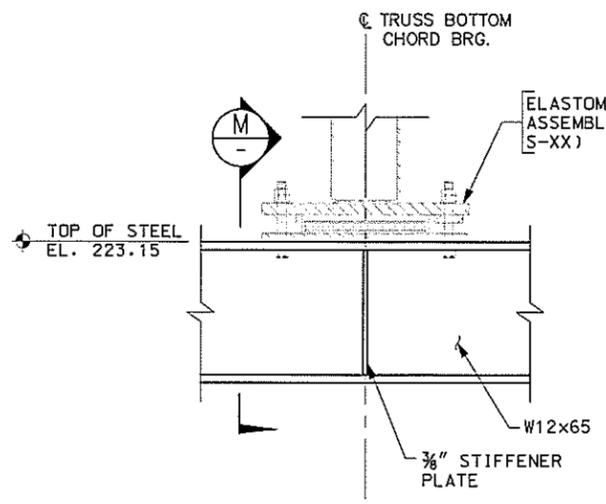
- FOR GENERAL NOTES, SEE SHEET S-100.
- THE CONTRACTOR SHALL COORDINATE STRUCTURAL AND ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO STEEL FABRICATION.
- ALL STEEL ELEMENTS SHALL BE HOT-DIP GALVANIZED UNLESS OTHERWISE NOTED.



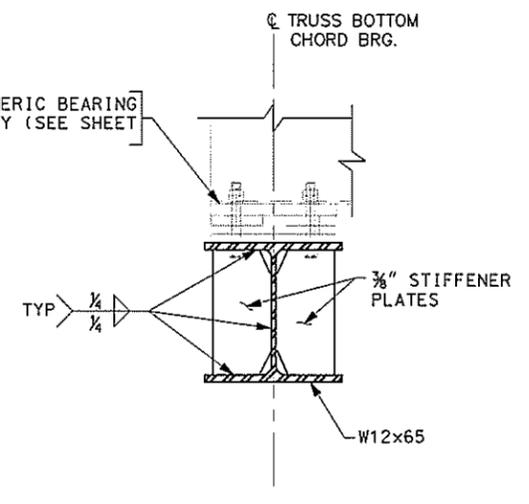
DETAIL 13
 SCALE: 1 1/2" = 1'-0" (S-122, S-123, S-124)



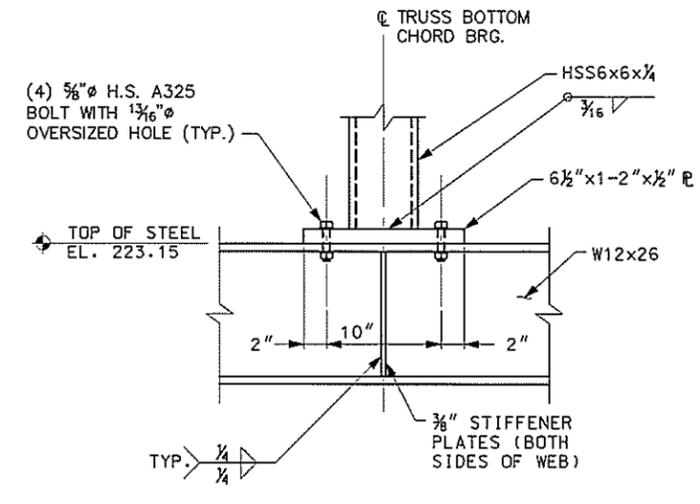
DETAIL 15
 SCALE: 1 1/2" = 1'-0" (S-122)



DETAIL 14
 SCALE: 1 1/2" = 1'-0" (S-123)



SECTION M



DETAIL 16
 SCALE: 1 1/2" = 1'-0" (S-123)

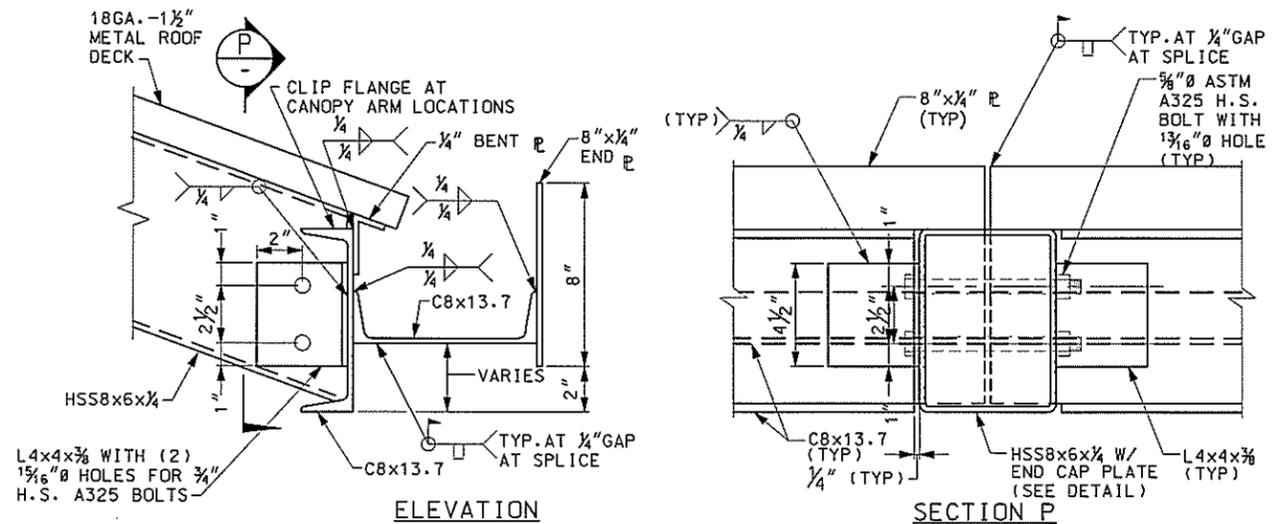
60% SUBMITTAL
 NOT FOR CONSTRUCTION

T	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
	FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
	SOUTH ACTON STATION STEEL DETAILS SHEET 2	
HNTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY:		APPROVED BY:
PROJECT MANAGER		PROJECT MANAGER
DATE: 06/14/11		DATE:
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		DATE: 06/14/11
HORIZ: AS NOTED	DES. BY: DJM	DR. BY: DJM
VERT: N/A	CHK. BY: DJM	APP. BY: MWT
PLAN NO.	SHEET S-130	
ISSUE		

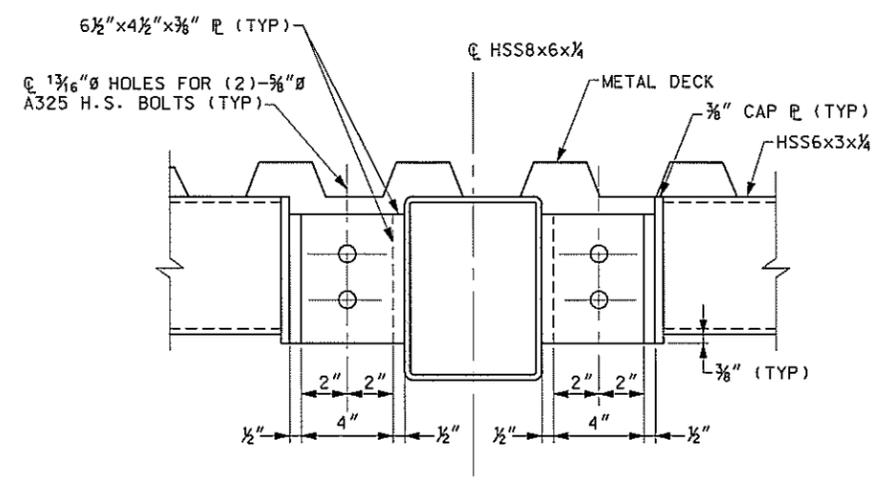
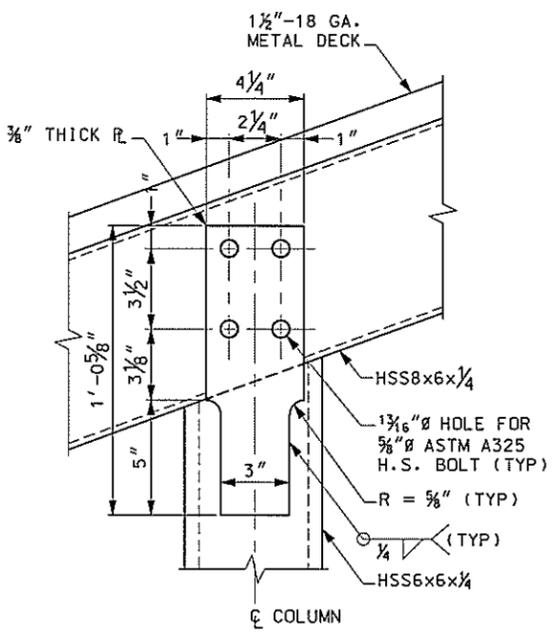
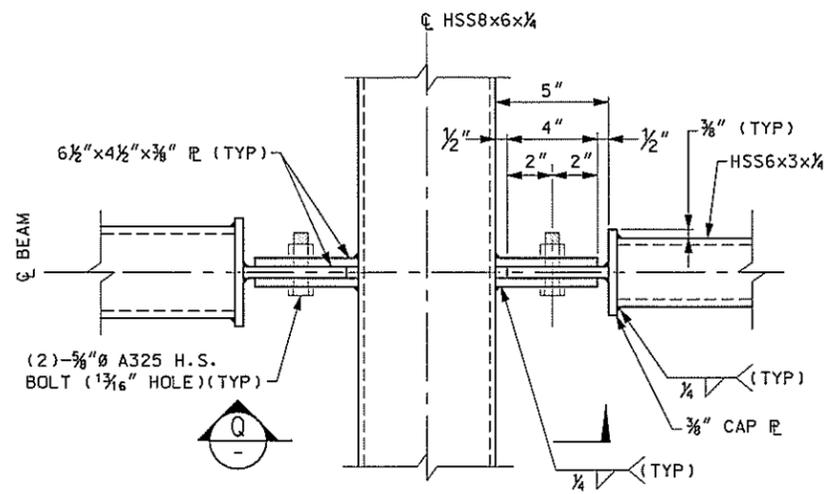
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 PLOT DATE: May 25, 2011 7:38am

NOTES:

- FOR GENERAL NOTES, SEE SHEET S-100.
- THE CONTRACTOR SHALL COORDINATE STRUCTURAL AND ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO STEEL FABRICATION.
- ALL STEEL ELEMENTS SHALL BE HOT-DIP GALVANIZED UNLESS OTHERWISE NOTED.



GUTTER DETAIL 22
 SCALE: 3" = 1'-0"
 S-127

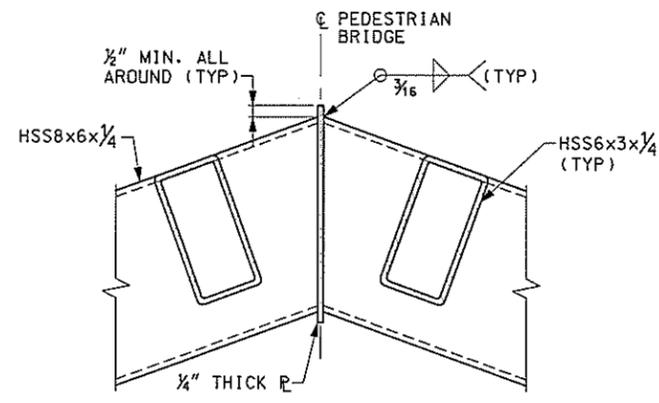


SECTION Q
 SCALE: 3" = 1'-0"
 S-127

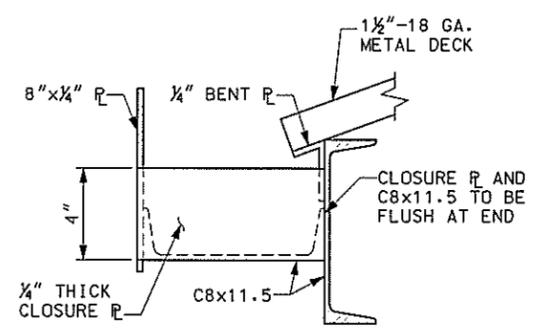
60% SUBMITTAL
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T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION STEEL DETAILS SHEET 4		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
HNTB		APPROVED BY: _____	
300 APOLLO DRIVE CHELSEA, MA 02184 (978) 905-6000		DATE: 06/14/11	
JACOBS		DATE: 06/14/11	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		DATE: 06/14/11	
PROJECT MANAGER		PROJECT MANAGER	
HORIZ: AS NOTED		PLAN NO.	
VERT: N/A		SHEET S-132	
DATE: 06/14/11		ISSUE	

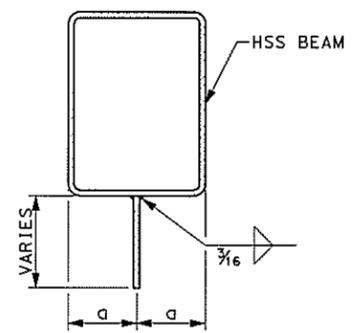
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 PLOT DATE: May 25, 2011 7:38am



RIDGE PLATE DETAIL (25)
 SCALE: 3" = 1'-0"

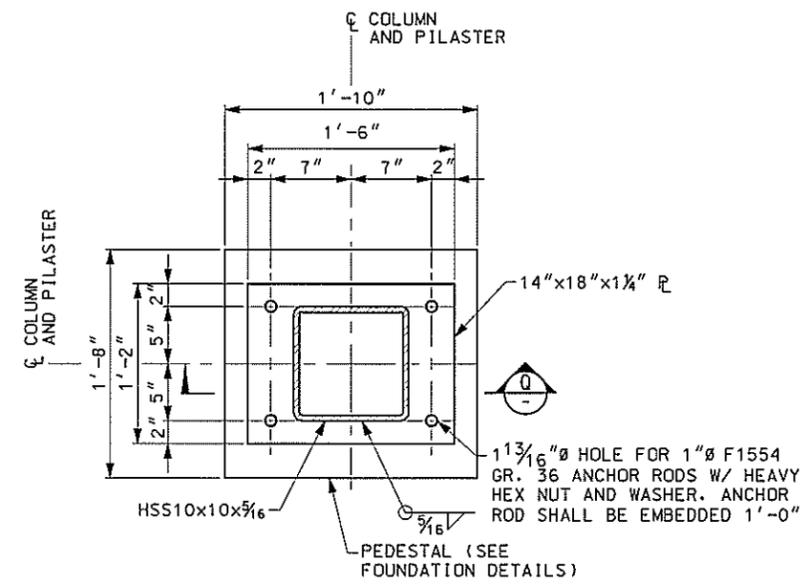


TYPICAL GUTTER CLOSURE PLATE DETAIL
 SCALE: NOT TO SCALE

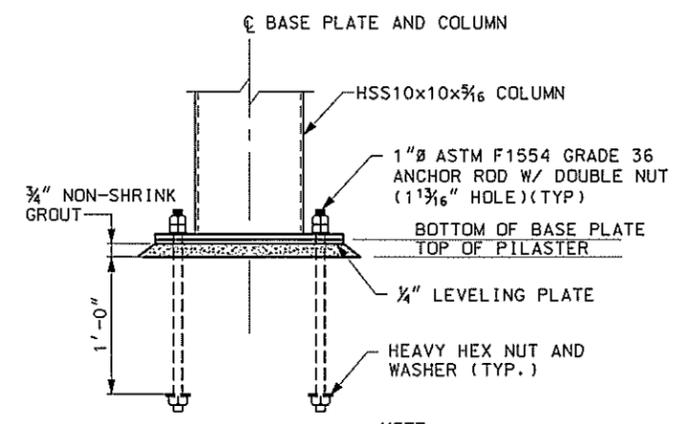


NOTE:
 ARCHITECTURAL PLATE TO BE NOTCHED AT PEAK TO MAINTAIN A MINIMUM CLEAR OF 1/16" FROM RIDGE PLATE.

TYPICAL ARCHITECTURAL PLATE SECTION
 SCALE: NOT TO SCALE



TYPICAL HSS10x10 COLUMN BASE PLATE DETAIL
 SCALE: 1 1/2" = 1'-0"



NOTE:
 FOR TOP OF PILASTER ELEVATIONS, SEE FOUNDATION PLAN.

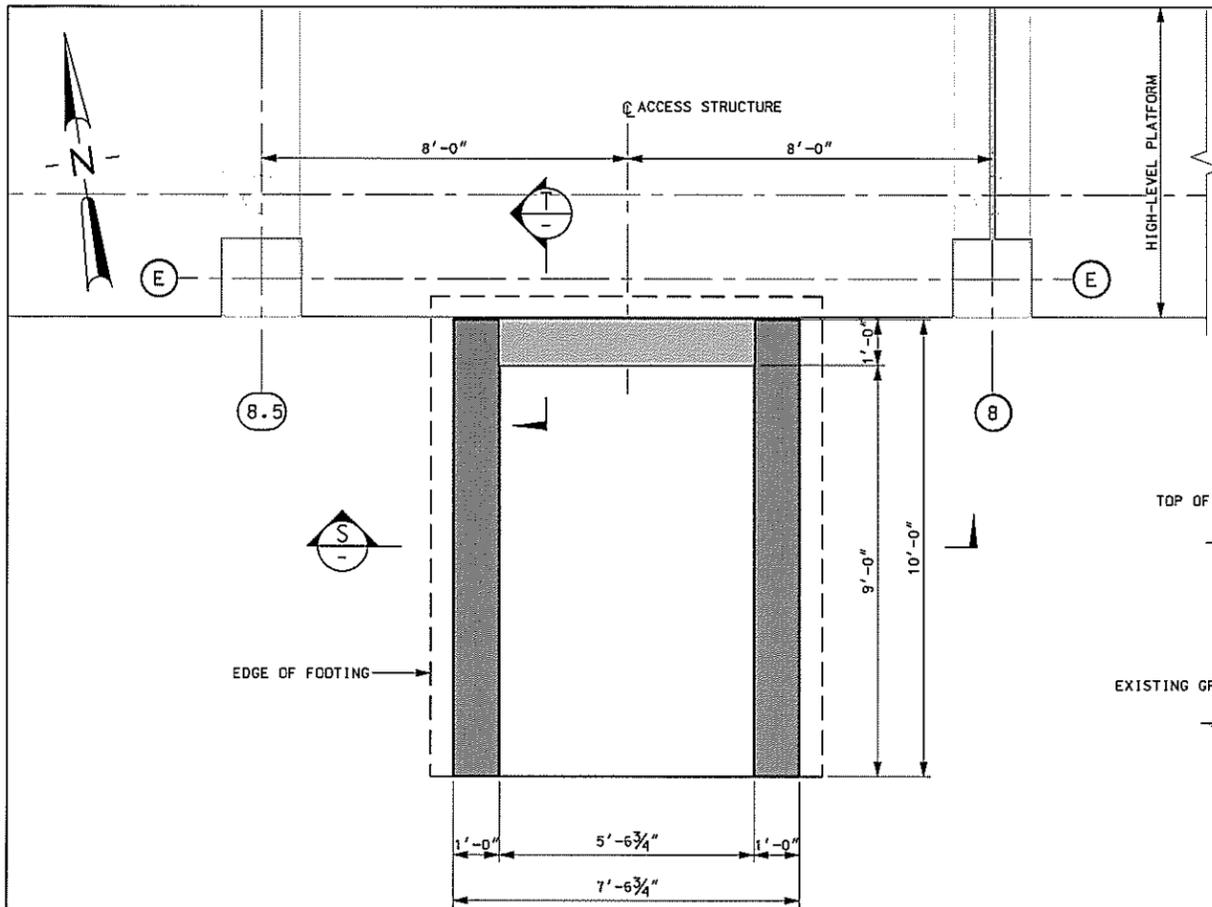
SECTION R
 SCALE: 1 1/2" = 1'-0"

- NOTES:**
- FOR GENERAL NOTES, SEE SHEET S-100.
 - THE CONTRACTOR SHALL COORDINATE STRUCTURAL AND ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO STEEL FABRICATION.
 - ALL STEEL ELEMENTS SHALL BE HOT-DIP GALVANIZED UNLESS OTHERWISE NOTED.

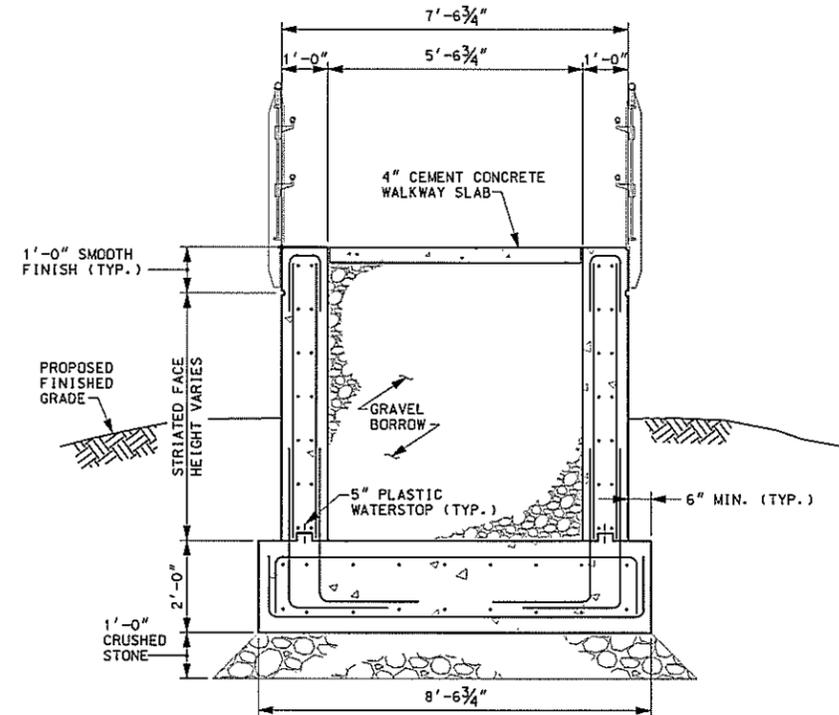
60% SUBMITTAL
 NOT FOR CONSTRUCTION

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION STEEL DETAILS SHEET 5	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____	
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PROJECT MANAGER: _____ DATE: 06/14/11	
HORIZ: AS NOTED VERT: N/A DATE: 06/14/11		PLAN NO. _____ SHEET S-133	

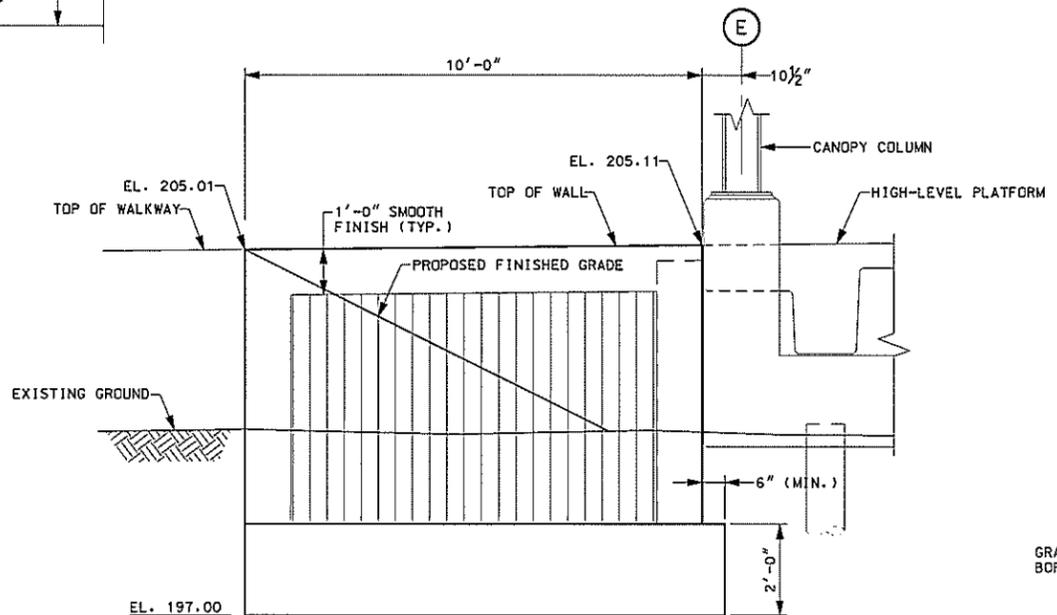
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 PLOT DATE: May 25, 2011 - 7:58am



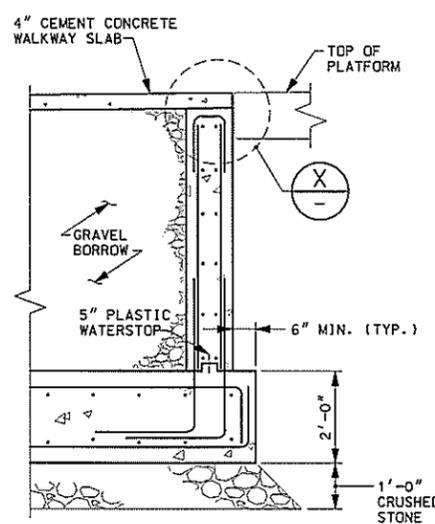
PLAN
 SCALE: 1/2" = 1'-0"



SECTION S-S
 SCALE: 1/2" = 1'-0"

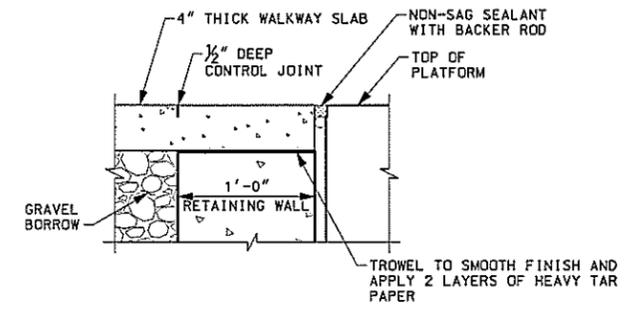


ELEVATION
 SCALE: 1/2" = 1'-0"



SECTION T-T
 SCALE: 1/2" = 1'-0"

- NOTES:**
1. FOR GENERAL NOTES, SEE SHEET S-100.
 2. FOR TOP OF WALKWAY ELEVATIONS, SEE CIVIL PLANS.
 3. FOR ADDITIONAL DETAILS, SEE ARCHITECTURAL PLANS.
 4. LIMITS OF CANOPY NOT SHOWN FOR CLARITY.

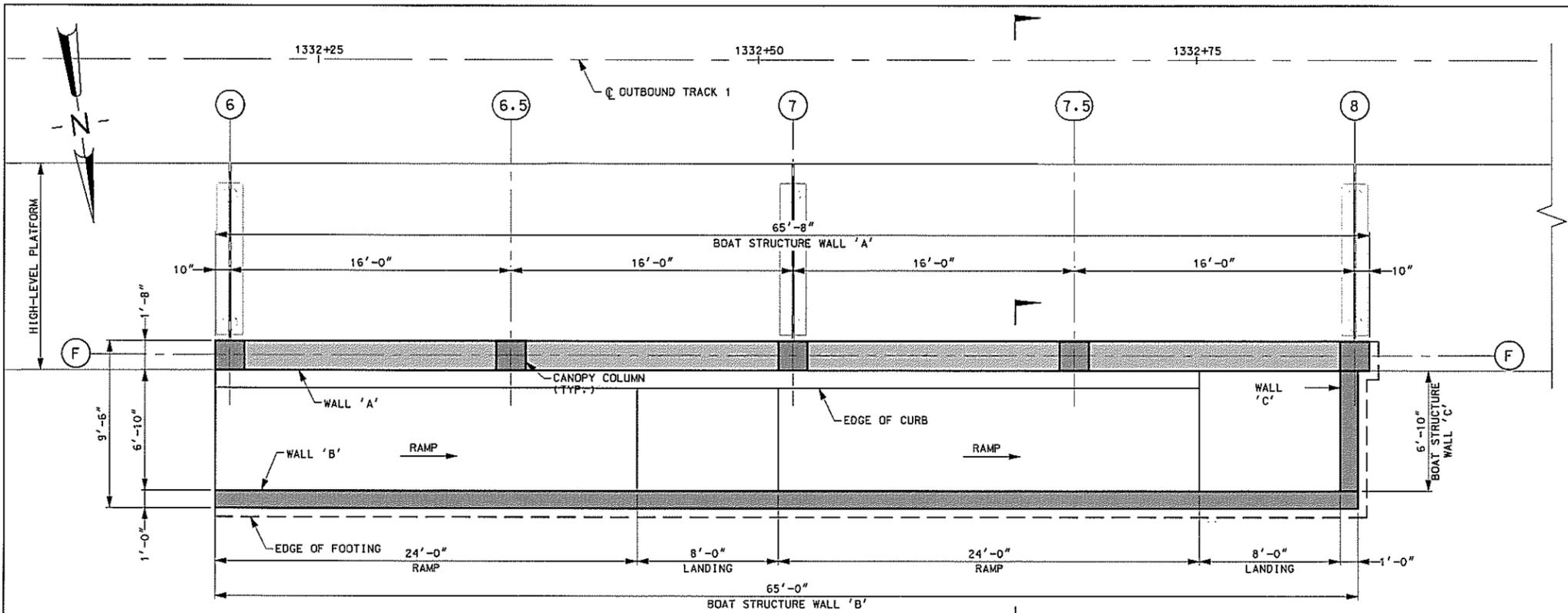


DETAIL
 SCALE: 1 1/2" = 1'-0" (26)

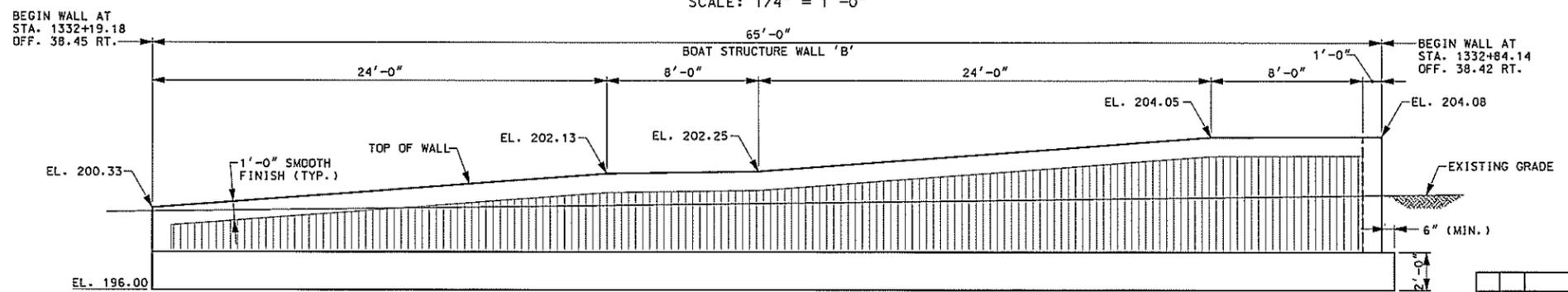
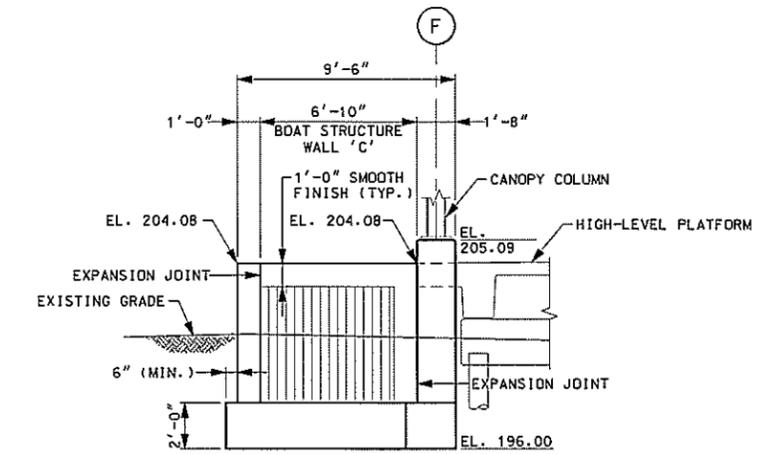
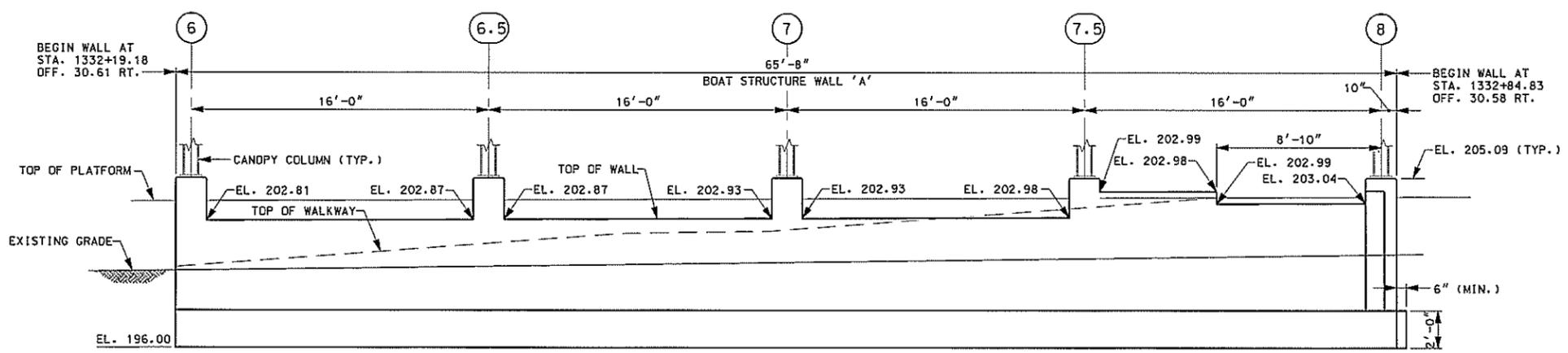
60% SUBMITTAL
 NOT FOR CONSTRUCTION

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION INBOUND ACCESS STRUCTURE FROM MAPLE STREET	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
		PROJECT MANAGER: _____ Date: _____ HORIZ: AS NOTED VERT: AS NOTED DATE: 05/14/11	
343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PROJECT MANAGER: _____ Date: _____ PLAN NO. _____ SHEET S-134	

FILE NAME: \\BOSFIL11\DATA2\MAL\proj\MBTA\2008\E2\37800\CAO\700CADD\702STATIONS\South Acton\Structural\60% Submission\135_Out_RailroadSI.dwg
 PLOT DATE: May 25, 2011 7:38am



- NOTES:**
- FOR GENERAL NOTES, SEE SHEET S-100.
 - LIMITS OF CANOPY NOT SHOWN FOR CLARITY.
 - SEE CIVIL PLANS FOR WALKWAY ELEVATIONS.
 - STATION AND OFFSET DATA TAKEN ALONG FRONT FACE OF WALL.
 - WALL DIMENSIONS ARE TAKEN ALONG FRONT FACE OF WALL.
- LEGEND:**
- [Hatched Box] - STRIATED CONCRETE SURFACE



60% SUBMITTAL
 NOT FOR CONSTRUCTION

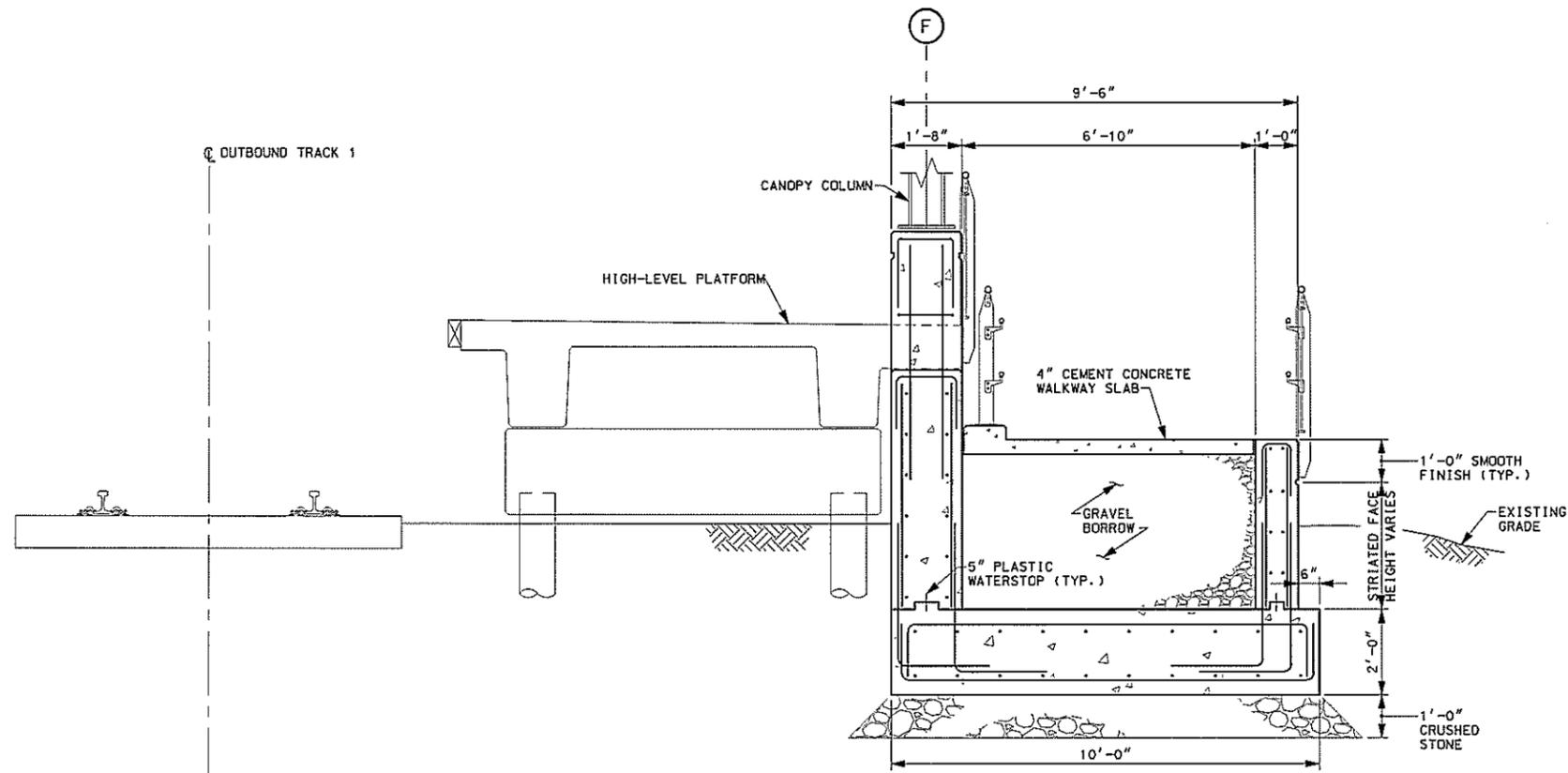
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION OUTBOUND ACCESS RAMP FROM RAILROAD STREET	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY: _____ Date: _____		APPROVED BY: _____ Date: _____	
PROJECT MANAGER: _____ Date: _____		PROJECT MANAGER: _____ Date: _____	
HORIZ: AS NOTED VERT: AS NOTED DATE: 05/14/11		PLAN NO. _____ SHEET S-135	

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FILE NAME: \\BOSFIL11\Doc\proj\MBTA\2008\7025\STATIONS\South Acton\Structural\CAD\700CAD\7025\STATIONS\South Acton\Structural\60% Submission\136_Out_Sections.dwg
 PLOT DATE: May 25, 2011 - 7:38am

NOTES:

1. FOR GENERAL NOTES, SEE SHEET S-100.
2. FOR TOP OF WALKWAY ELEVATIONS, SEE CIVIL PLANS.
3. FOR ADDITIONAL DETAILS, SEE ARCHITECTURAL PLANS.
4. LIMITS OF CANOPY NOT SHOWN FOR CLARITY.

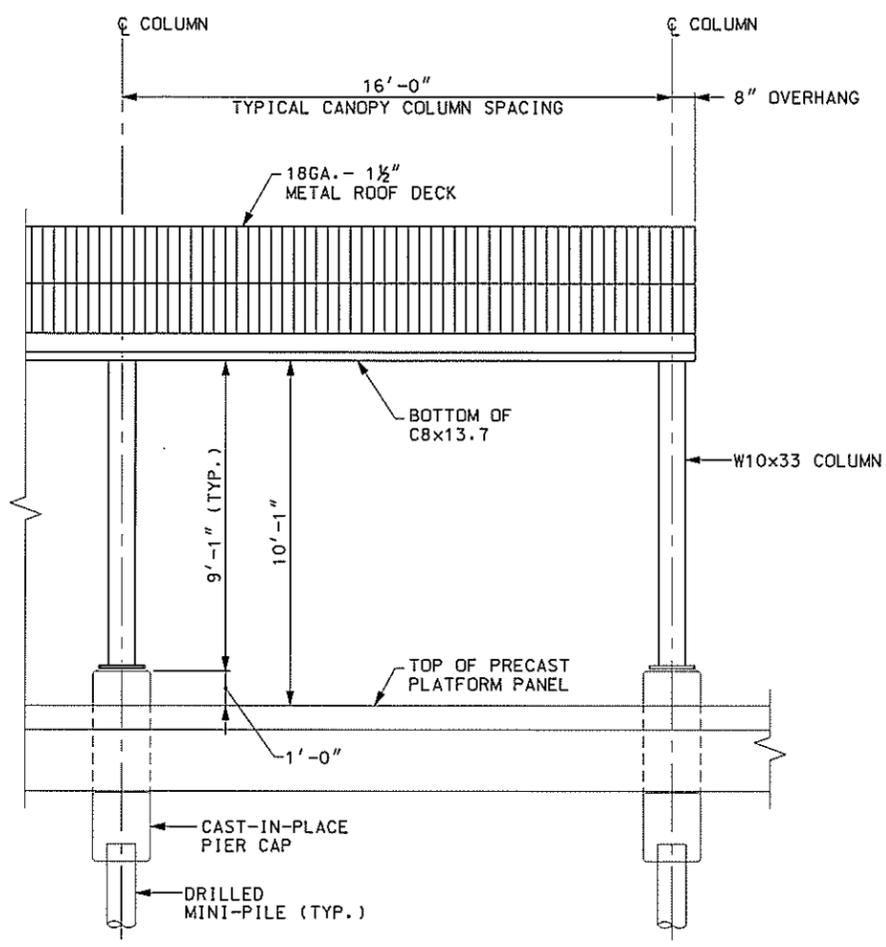


SECTION **U**
 SCALE: 1/2" = 1'-0"

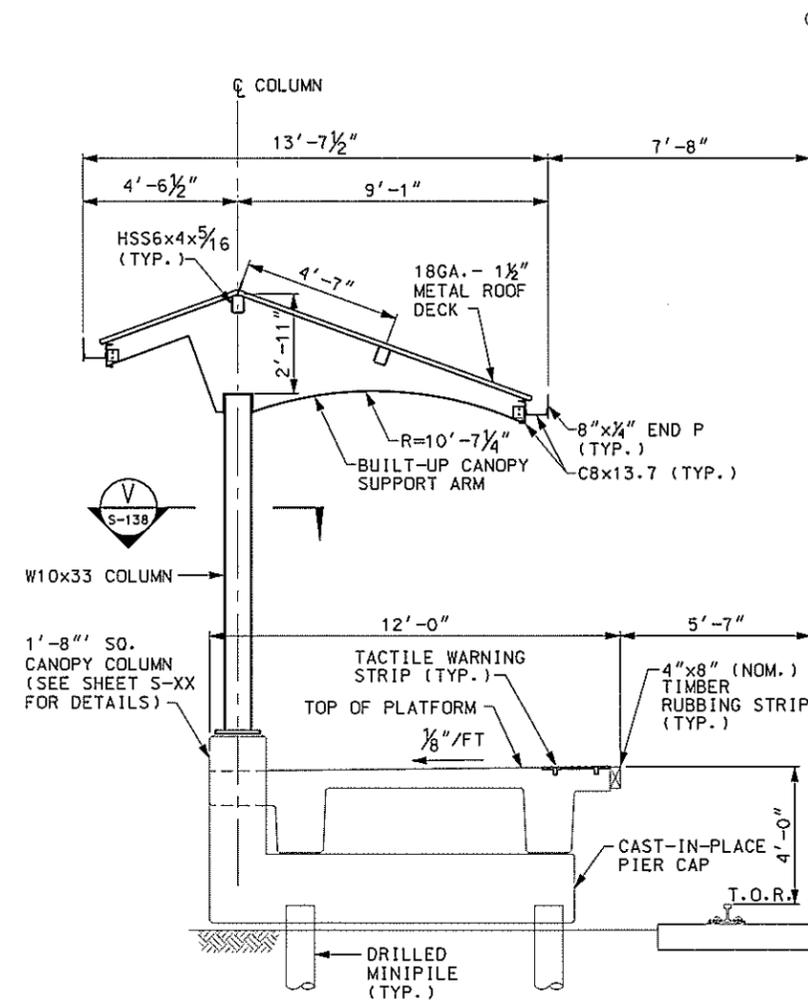
60% SUBMITTAL
 NOT FOR CONSTRUCTION

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		SOUTH ACTON STATION OUTBOUND RAMP STRUCTURE FROM RAILROAD STREET — SECTION	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
		PROJECT MANAGER: _____ Date: _____ PROJECT MANAGER: _____ Date: _____	
HORIZ: AS NOTED VERT: AS NOTED DATE: 06/14/11		PLAN NO. SHEET S-136	

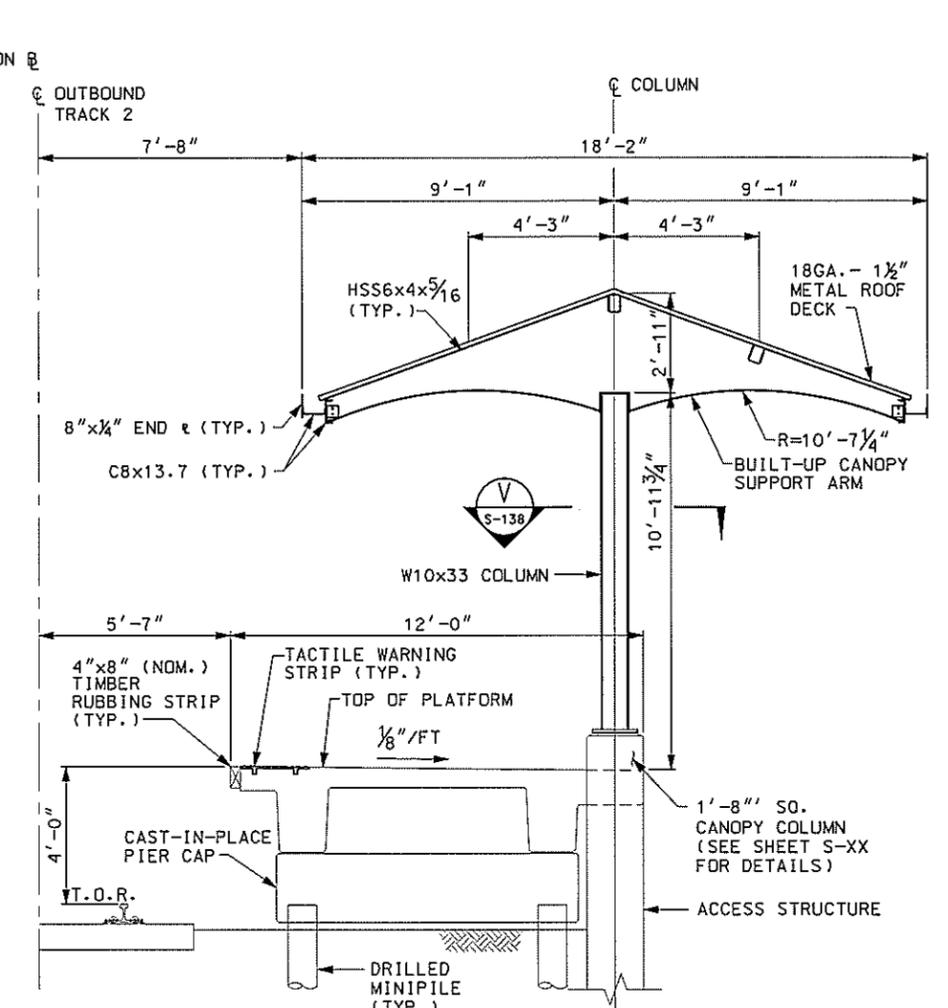
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 PLOT DATE: May 25, 2011 7:36am



PLATFORM CANOPY ELEVATION
 SCALE: 3/8" = 1'-0"



HALF/NARROW PLATFORM CANOPY CROSS SECTION
 SCALE: 3/8" = 1'-0"



PLATFORM FULL CANOPY CROSS SECTION
 SCALE: 3/8" = 1'-0"

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEETS S-100 AND S-101.
2. THE CONTRACTOR SHALL COORDINATE STRUCTURAL AND ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE STEEL FABRICATION BEGINS.
3. FOR SIGN, COMMUNICATIONS AND LIGHTING DETAILS REFER TO ARCHITECTURAL AND ELECTRICAL PLANS.
4. ALL STEEL ELEMENTS SHALL BE HOT-DIP GALVANIZED UNLESS OTHERWISE NOTED.
5. FOR ADDITIONAL CANOPY DETAILS AND CANOPY LAYOUT REFER TO THE ARCHITECTURAL, CIVIL AND ELECTRICAL PLANS.
6. FOR PLATFORM LAYOUT AND DETAILS SEE SHEETS S-106 THROUGH S-108 AND S-112 THROUGH S-114.
7. FOR CANOPY FOUNDATION DETAILS, SEE SHEET S-111.

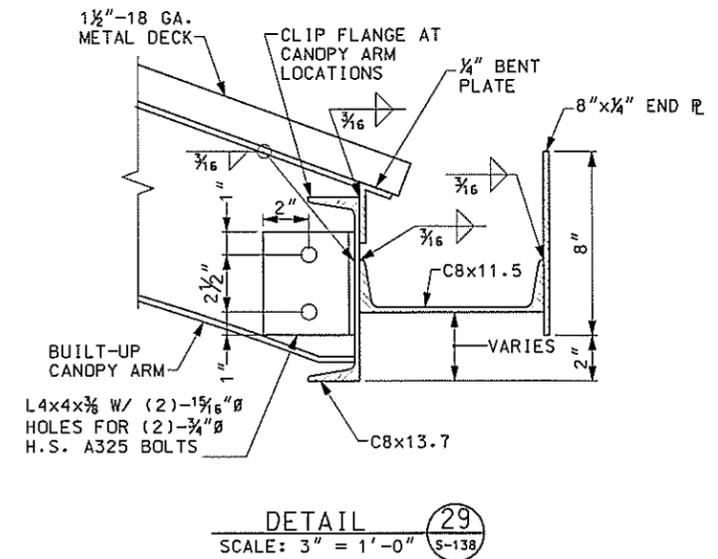
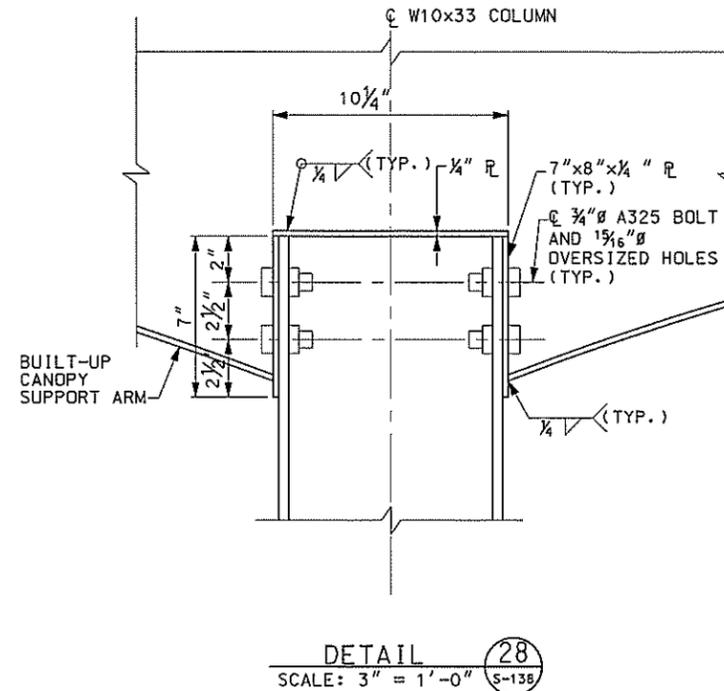
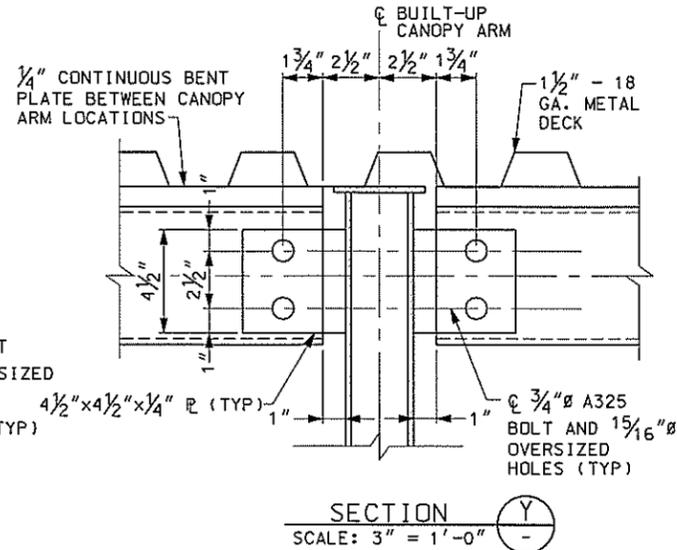
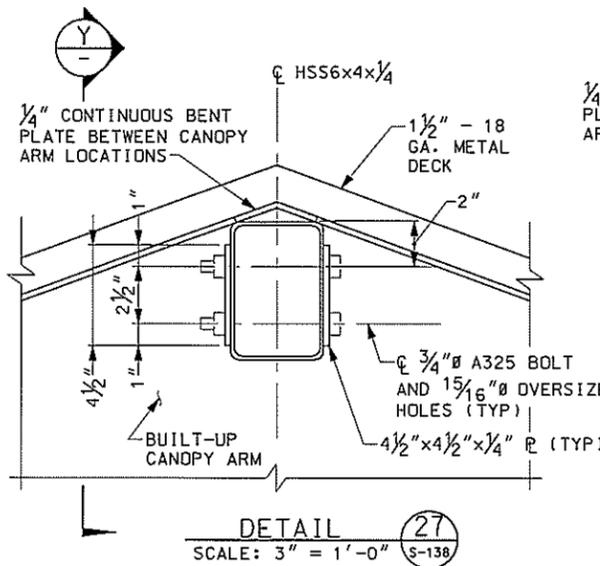
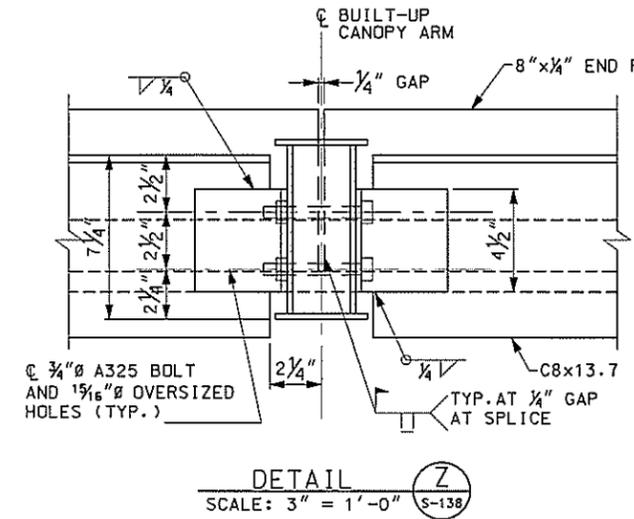
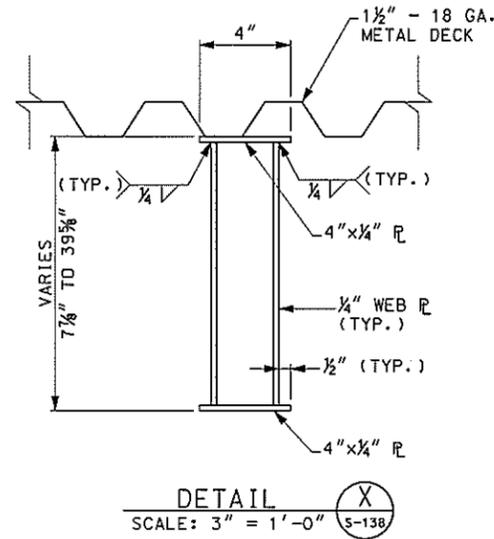
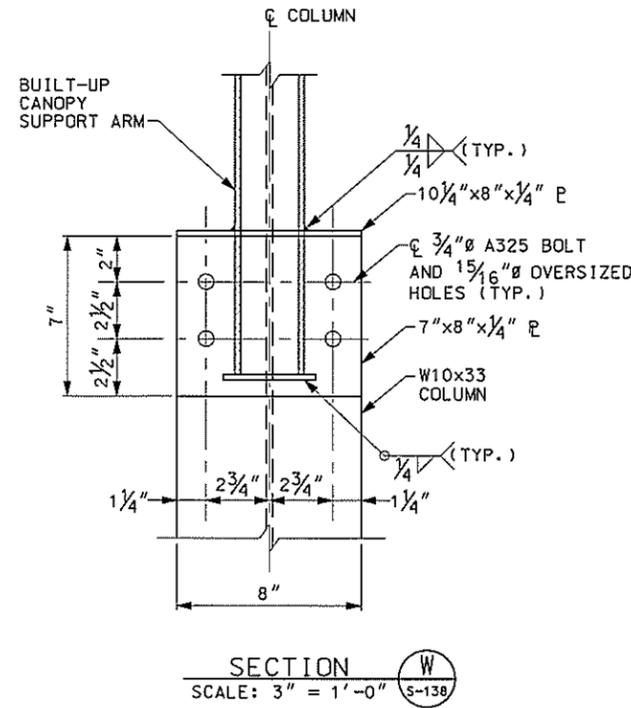
60% SUBMITTAL
 NOT FOR CONSTRUCTION

T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION PLATFORM CANOPY DETAILS SHEET 1		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		APPROVED BY:	
DATE:		DATE:	
PROJECT MANAGER		PROJECT MANAGER	
HORIZ: AS NOTED		PLAN NO.	
VERT: AS NOTED		SHEET S-137	
DATE: 05/14/11		ISSUE	

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 (617) 242-9222

NOTES:

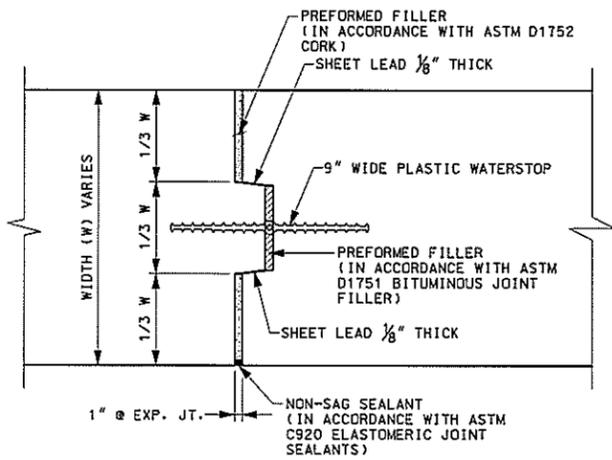
1. FOR GENERAL STRUCTURAL NOTES SEE SHEET S-01.
2. FOR ADDITIONAL DETAILS SEE ARCHITECTURAL DRAWINGS.



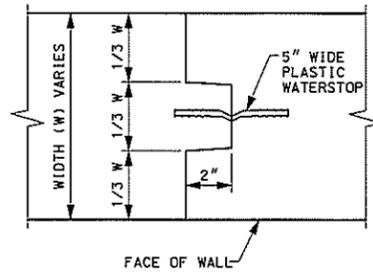
FILE NAME: \\BOSFIL1\Doc2\NAL_proj\MTA\2008\E2X37800\CAD\700CADD\702STATIONS\South Acton\Structural\60% Submission\137-139_Canopy_Details.dwg
PLOT DATE: May 25, 2011 7:39am

60% SUBMITTAL
NOT FOR CONSTRUCTION

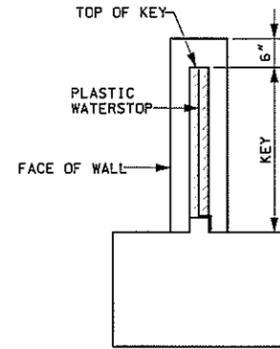
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION PLATFORM CANOPY DETAILS SHEET 3	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY APPROVED BY: _____ Date: _____	
300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		PROJECT MANAGER: _____ Date: _____ HORIZ: AS NOTED VERT: AS NOTED DATE: 06/14/11	
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PROJECT MANAGER: _____ Date: _____ PLAN NO. _____ SHEET S-139	



EXPANSION JOINT DETAIL
NOT TO SCALE



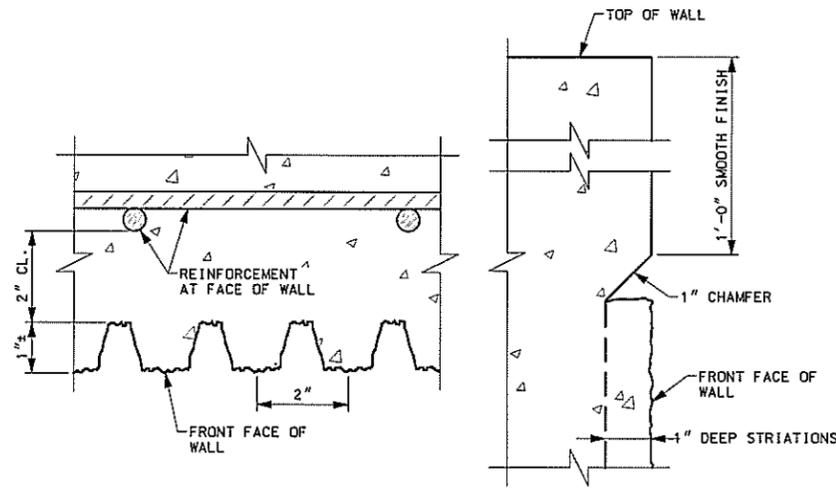
CONSTRUCTION JOINT KEY DETAIL
NOT TO SCALE



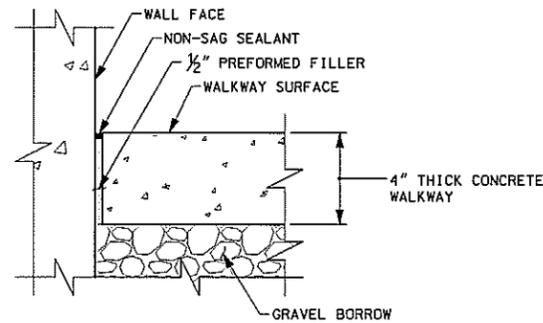
TYPICAL WALL SECTION AT CONSTRUCTION JOINT
NOT TO SCALE

NOTES:

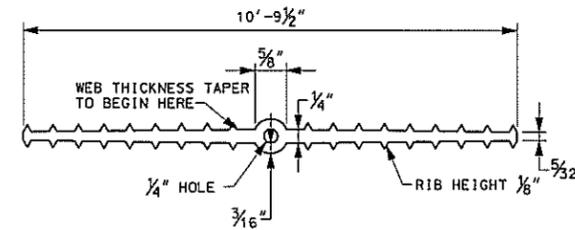
- FOR GENERAL NOTES, SEE SHEET S-100.
- EXPANSION JOINTS IN WALLS SHALL BE SPACED AT 72' MAXIMUM UNLESS OTHERWISE NOTED AND SHALL BE LEVEL AND PLUMB.
- CONSTRUCTION JOINTS IN WALLS SHALL BE SPACED AT 24' MAXIMUM UNLESS OTHERWISE NOTED AND SHALL BE LEVEL AND PLUMB.
- REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS AND END 2" CLEAR AT EXPANSION JOINTS.
- FILLER MATERIAL SHALL BE FASTENED SECURELY TO ONE SIDE OF JOINT.



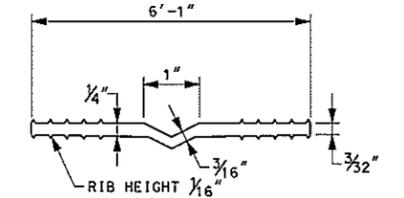
TYPICAL STRIATION DETAIL
NOT TO SCALE



TYPICAL WALKWAY JOINT AT WALL
NOT TO SCALE



9" PLASTIC WATERSTOP
NOT TO SCALE



5" PLASTIC WATERSTOP
NOT TO SCALE

FILE NAME: \\BOSFIL11\DATA2\VAL_proj\MBTA\2008\E2\378600\CAD\700CAD\702STATIONS\South Acton\Structural\60% Submittal\140_Gen_Details.dwg
PLOT DATE: May 25, 2011 7:39am

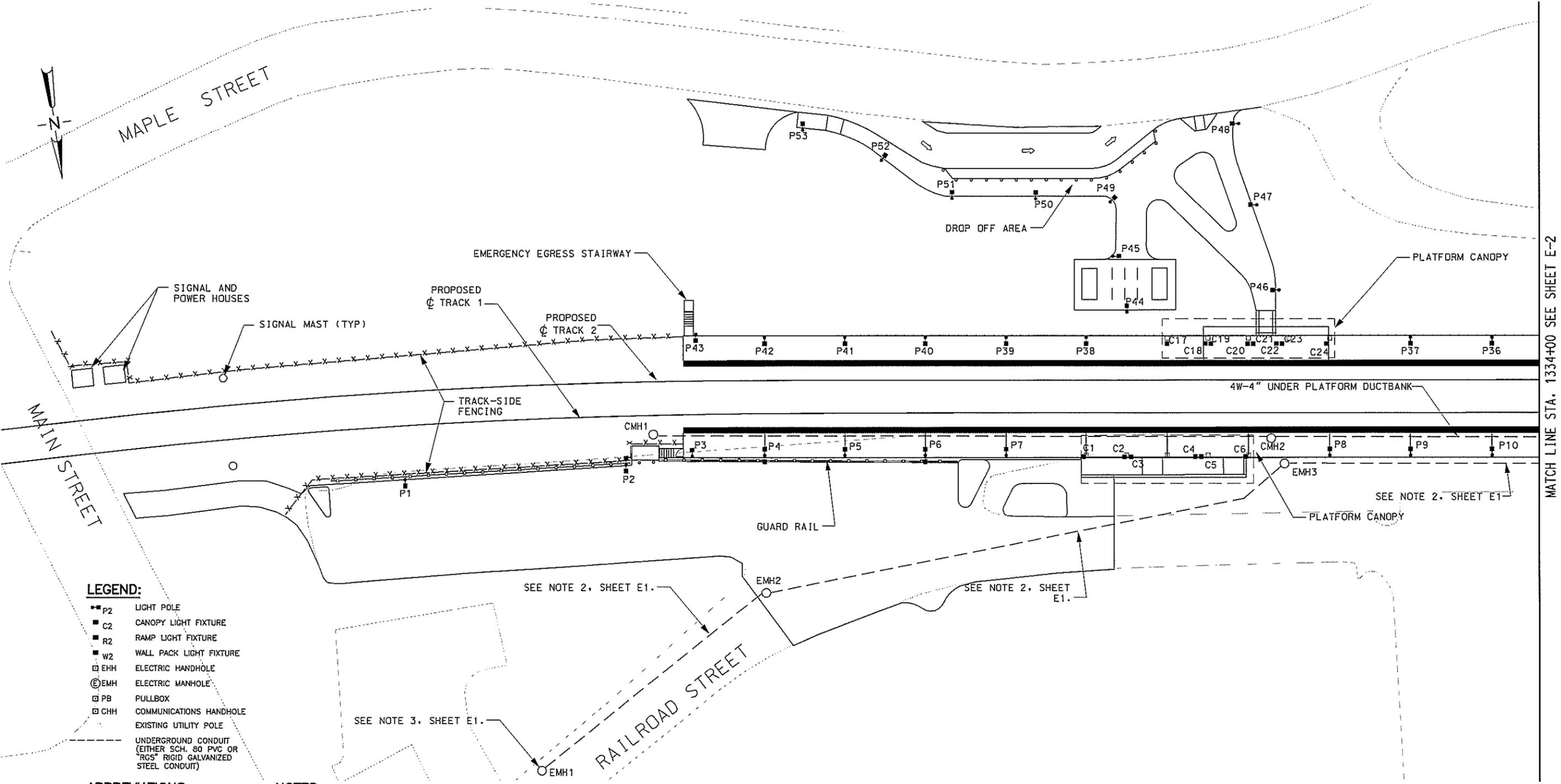
60% SUBMITTAL
NOT FOR CONSTRUCTION

T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION GENERAL STRUCTURAL DETAILS			
HNTB 308 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-4000		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		APPROVED BY: _____ Date _____	
PROJECT MANAGER _____ Date _____		PROJECT MANAGER _____ Date _____	
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		HORIZ: AS NOTED	DATE: 06/14/11
		VERT: AS NOTED	
		DATE: 06/14/11	
		PLAN NO.	ISSUE
		SHEET S-140	

EAST TO BOSTON

WEST TO FITCHBURG

TOWN OF ACTON



LEGEND:

- P2 LIGHT POLE
- C2 CANOPY LIGHT FIXTURE
- R2 RAMP LIGHT FIXTURE
- W2 WALL PACK LIGHT FIXTURE
- EHH ELECTRIC HANDHOLE
- ⊙ EMH ELECTRIC MANHOLE
- PB PULLBOX
- CHH COMMUNICATIONS HANDHOLE
- EXISTING UTILITY POLE
- - - UNDERGROUND CONDUIT (EITHER SCH. 80 PVC OR "RGS" RIGID GALVANIZED STEEL CONDUIT)

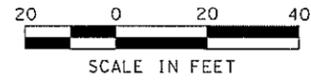
ABBREVIATIONS:

- AFG ABOVE FINISH GRADE
- AFF ABOVE FINISH FLOOR
- AWG AMERICAN WIRE GAUGE
- FVM FARE VENDING MACHINE
- GW GROUND WIRE
- RGS RIGID GALVANIZED STEEL

NOTES:

1. FROM THIS MANHOLE EXTEND 2 - 4" RGS CONDUITS INTO COMM ROOM (ADJACENT ENTRANCE AREA). STUB UP 3" AFF.
2. 2 WAY 4" CONCRETE ENCASED PVC DUCTBANK. ELECTRICAL SERVICE, DISTRIBUTION AS FOLLOWS:
CONDUIT#1: SPARE
CONDUIT#2: 4#500KCMIL (600V INSL) & 1#2 AWG GW
3. EXTEND DUCTBANK (OF NOTE #2) TO RISER POLE LOCATION ON MAIN STREET.

PLAN - EAST END



60% SUBMITTAL
NOT FOR CONSTRUCTION

FILE NAME: P:\MBA\2008\237800\CAD\700CAD\702STATIONS\South Acton\Electrical\E-1 & E-2 Electrical Site Plans.dwg
PLOT DATE: Jun 09, 2011 1:55pm

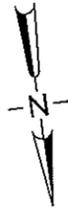
MATCH LINE STA. 1334+00 SEE SHEET E-2

T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
HNTB 300 APOLLO DRIVE CHELSEA, MA 01824 (978) 905-4000		SOUTH ACTON STATION ELECTRICAL SITE PLAN - EAST END SHEET 1 OF 2	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		APPROVED BY:	
PROJECT MANAGER		PROJECT MANAGER	
DATE: 06/14/11		DATE:	
HORIZ: AS SHOWN		HORIZ: AS SHOWN	
VERT: NONE		VERT: NONE	
DATE: 06/14/11		DATE:	
BY: RJW		BY: RJW	
CHK. BY: JPH		CHK. BY: JPH	
DATE: 06/14/11		DATE:	
PLAN NO.		PLAN NO.	
SHEET E1		SHEET E1	

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(617) 242-9222

EAST TO BOSTON

WEST TO FITCHBURG
TOWN OF ACTON



MATCH LINE STA. 1334+00 SEE SHEET E1

PROPOSED TRACK 2
PROPOSED TRACK 1

STAIRWAY AND ELEVATOR TO OVERHEAD PEDESTRIAN BRIDGE

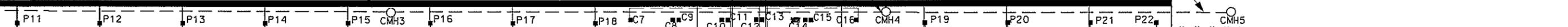
PLATFORM CANOPY



800' LONG, HIGH LEVEL SIDE PLATFORMS

SEE NOTE 1, SHEET E1

4W-4" UNDER PLATFORM DUCTBANK



SEE NOTE 2, SHEET E1

PLATFORM CANOPY

ELEVATOR TO PEDESTRIAN BRIDGE

ELECTRICAL/COMMUNICATIONS ROOM

STAIRS TO PLATFORM AND PEDESTRIAN BRIDGE

MAIN STATION ENTRANCE

SEE NOTE 2, SHEET E1.

SEE NOTE 2, SHEET E1.

LEGEND:

- P2 LIGHT POLE
- C2 CANOPY LIGHT FIXTURE
- R2 RAMP LIGHT FIXTURE
- W2 WALL PACK LIGHT FIXTURE
- EHH ELECTRIC HANDHOLE
- ⊙ EMH ELECTRIC MANHOLE
- PB PULLBOX
- CHH COMMUNICATIONS HANDHOLE
- EXISTING UTILITY POLE
- - - UNDERGROUND CONDUIT (EITHER SCH. 80 PVC OR "RGS" RIGID GALVANIZED STEEL CONDUIT)

ABBREVIATIONS:

- AFG ABOVE FINISH GRADE
- AFF ABOVE FINISH FLOOR
- AWG AMERICAN WIRE GAUGE
- FVM FARE VENDING MACHINE
- GW GROUND WIRE
- LELD LITTLETON ELECTRIC LIGHT DEPARTMENT
- RGS RIGID GALVANIZED STEEL

PLAN - WEST END



60% SUBMITTAL
NOT FOR CONSTRUCTION

FILE NAME: P:\MFTA\2008\EA\37800\CAD\700CAD\702STATIONS\South Acton\Electrical\E-1 & E-2 Electrical Site Plans.dwg
PLOT DATE: Jun 09, 2011 - 1:59pm



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
CONTRACT NO. G67CN01

SOUTH ACTON STATION
ELECTRICAL SITE PLAN - WEST END
SHEET 2 OF 2



300 APOLLO DRIVE
CHELSEA, MA 01824
(978) 905-4000

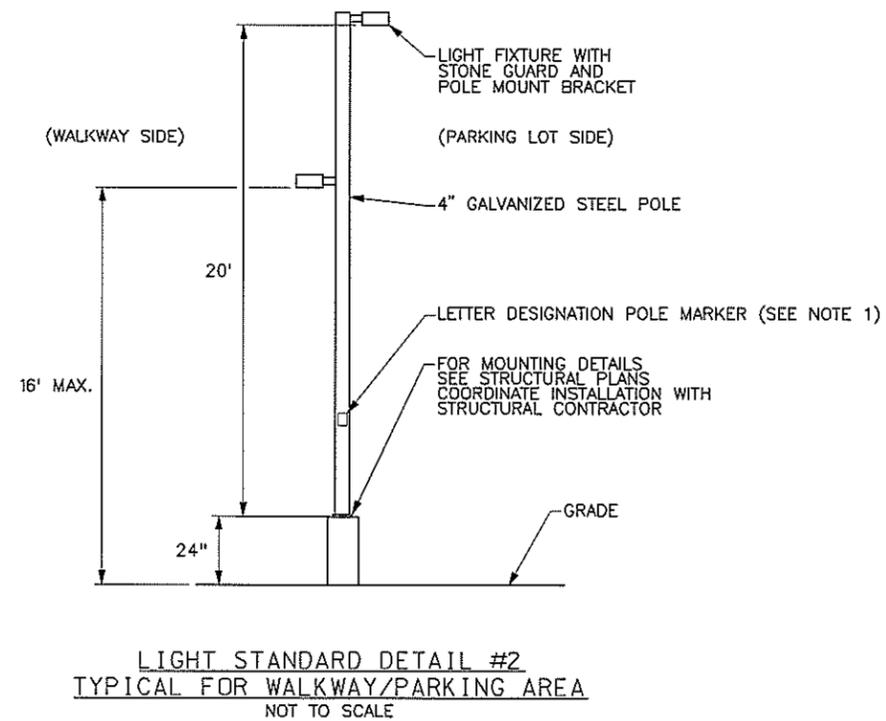
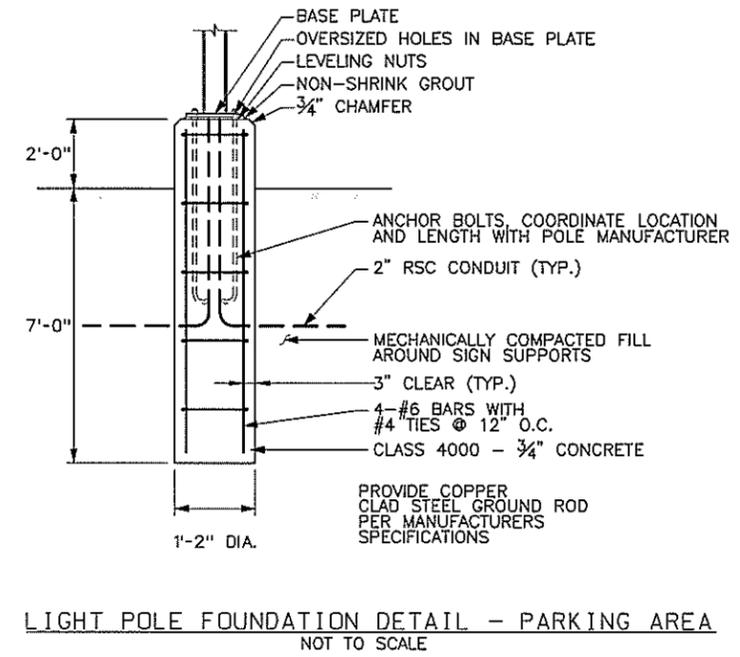
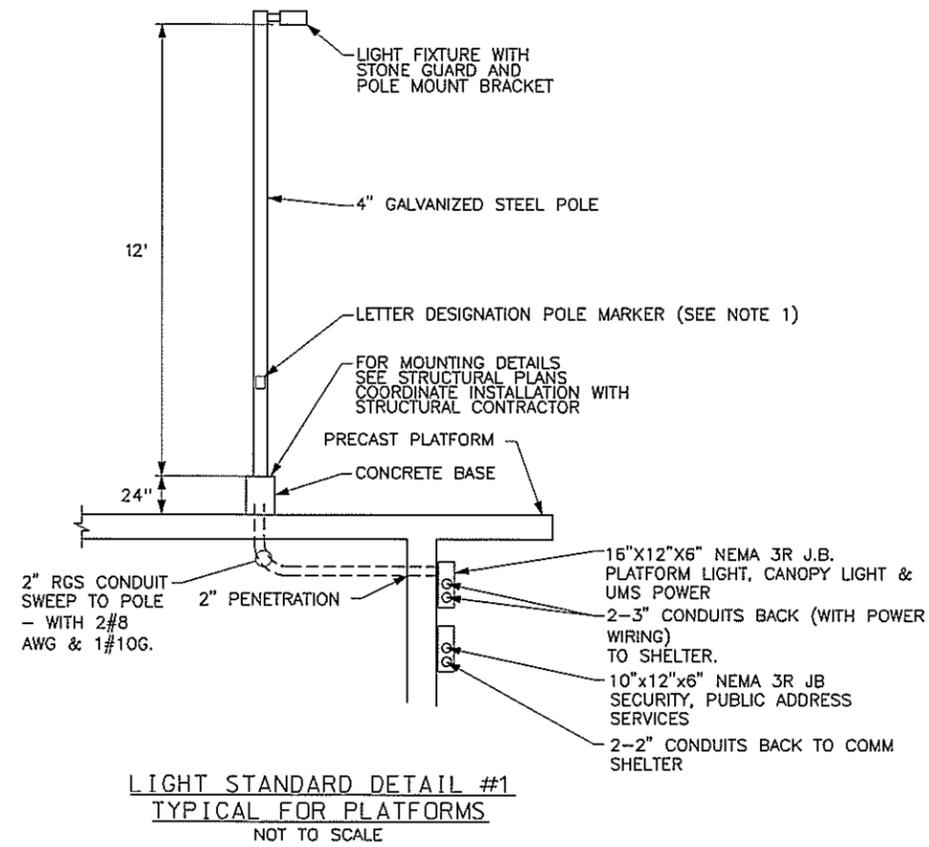
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

APPROVED BY:

DATE		DESCRIPTION		BY	CHKD.	APP.	PROJECT MANAGER	Date	PROJECT MANAGER	Date
HORIZ: AS SHOWN		VERT: NONE		DATE: 06/14/11	SEC. BY: RJW	DR. BY: JPH	CHK. BY: WTG	PLAN NO.	SHEET E2	ISSUE

JACOBS

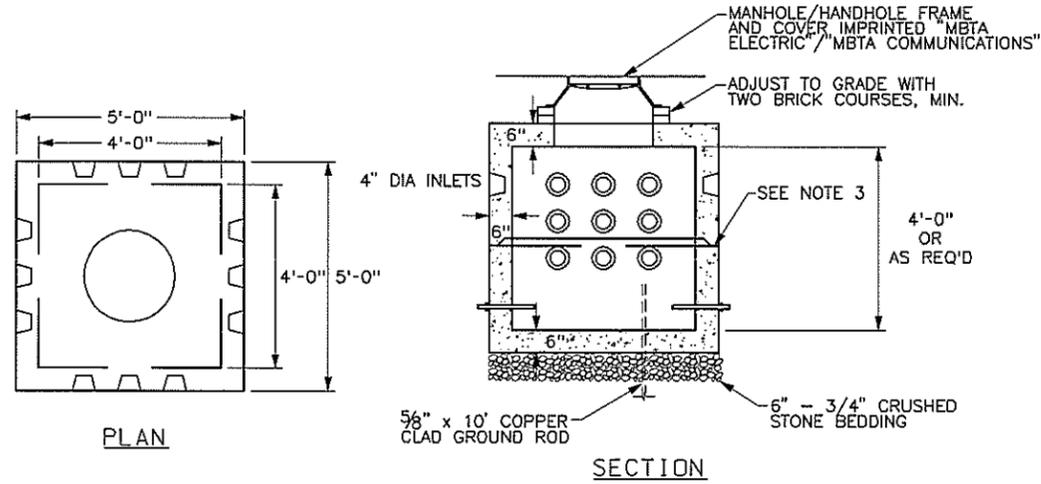
343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9232



FILE NAME: P:\METAL\2008\2008\2008\CAD\700CADD\702STATIONS\South Acton\Electrical\E-4.dwg
PLOT DATE: Jun 09, 2011 12:59pm

60% SUBMITTAL
NOT FOR CONSTRUCTION

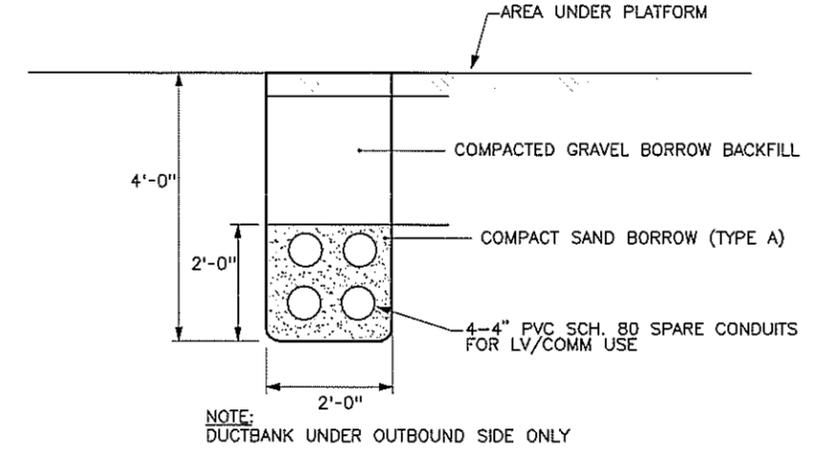
T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
		FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
SOUTH ACTON STATION ELECTRICAL DETAILS SHEET 2		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
HNTB 300 APOLLO DRIVE CHELSEA, MA 02124 (978) 905-4000		APPROVED BY: _____ Date _____	
PROJECT MANAGER _____ Date _____		PROJECT MANAGER _____ Date _____	
HORIZ: _____ VERT: _____ DATE: 06/14/11		DES. BY: R/JW DR. BY: JPH CHK. BY: WTG	
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PLAN NO. _____ SHEET E4	



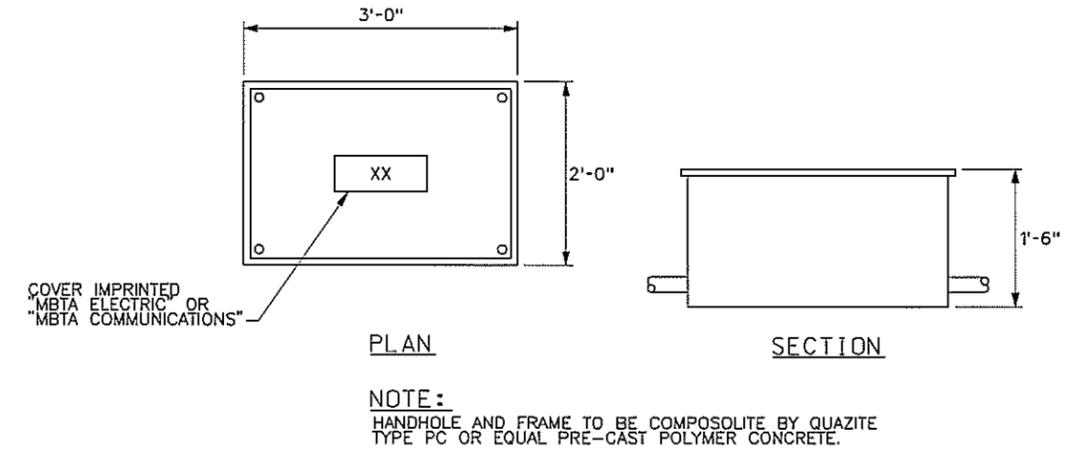
POWER/COMMUNICATIONS/CONTROL MANHOLE DETAIL
NOT TO SCALE

DETAIL NOTES:

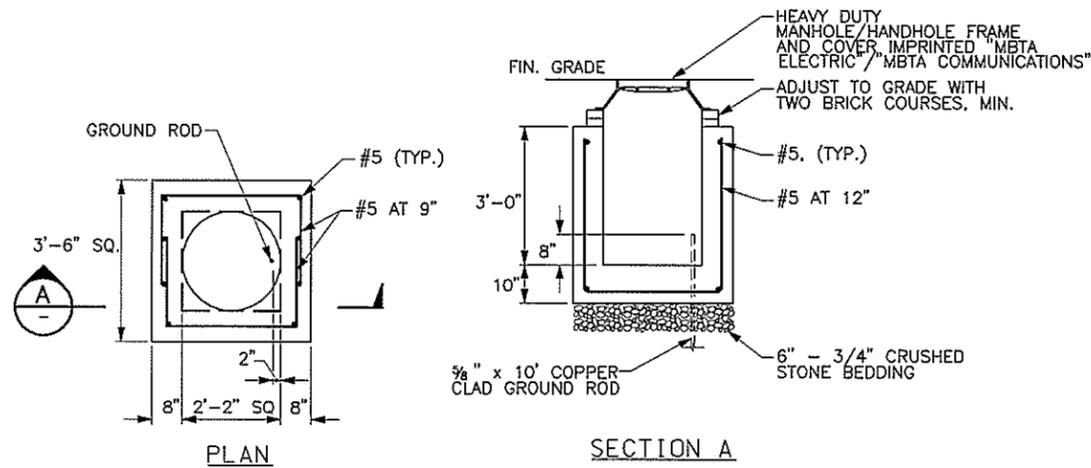
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR H-20 LOADING.
3. BUTYLE RESIN JOINT CONFORMS TO LATEST ASTM C443 SPEC.
4. TOP CAN BE POURED SEPARATE OR MONOLITHICALLY.
5. AVAILABLE WITH OR WITHOUT PULLING EYES.
6. 16 PLASTIC PIPE SEAL INLETS PER SECTION.
7. OTHER HEIGHTS ALSO AVAILABLE.
8. OPTIONAL 30" OPENING AVAILABLE.
9. DETAIL TYPICAL FOR STRUCTURES SHH1, 1A AND 2.



COMMUNICATION AND LOW VOLTAGE DUCTBANK DETAIL UNDER PLATFORM
NOT TO SCALE



PULLBOX (PB) AND SIGNAL/COMMUNICATION HANDHOLE DETAIL
NOT TO SCALE



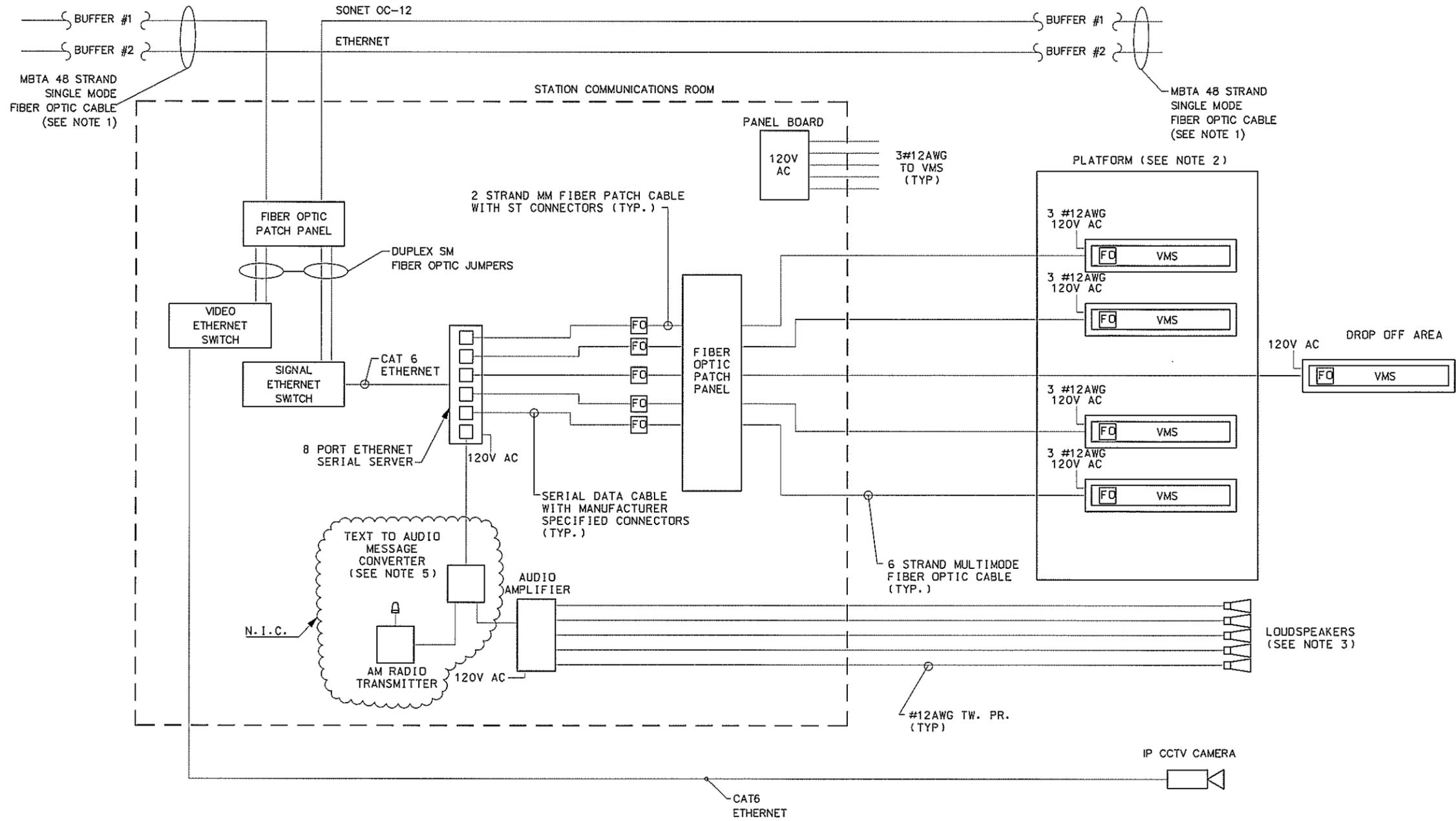
TYPICAL ELECTRIC HANDHOLE DETAIL
NOT TO SCALE

60% SUBMITTAL
NOT FOR CONSTRUCTION

FILE NAME: P:\MBTA\2008\237800\CAD\700\CADD\702\STATIONS\South Acton\Electrical\E-5.dwg
PLOT DATE: Jun 09, 2011 1:02pm

		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
		SOUTH ACTON STATION ELECTRICAL DETAILS SHEET 3	
		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
APPROVED BY:		PROJECT MANAGER:	
DATE: 06/14/11		DATE:	
HORIZ: AS NOTED		PLAN NO.	
VERT: N/A		SHEET E-5	
DATE: 06/14/11		ISSUE	

JACOBS 343 CONGRESS STREET
BOSTON, MA 02110
(617) 242-9222



NOTES:

1. REFER TO NETWORK DIAGRAMS FOR FIBER OPTIC STRAND ASSIGNMENTS AND TERMINATIONS.
2. EACH PAIR OF SIGNS ARE TO BE INSTALLED BACK-TO-BACK. FINAL LOCATION OF VMS SIGNS IS TO BE APPROVED BY THE ENGINEER.
3. ONE LOUDSPEAKER TO BE LOCATED AT EACH VMS SIGN LOCATION.
4. EACH VARIABLE MESSAGE SIGN (VMS) SHALL INCLUDE A SMALL PATCH PANEL FOR TERMINATING AND PATCHING THE 6 STRAND MM FIBER OPTIC CABLE.
5. TEXT TO AUDIO MESSAGE CONVERTER AND AM RADIO TRANSMITTER EQUIPMENT AND ALL ASSOCIATED CABLES, CONNECTORS, ADAPTERS, AND TESTING OF ASSOCIATED EQUIPMENT TO BE PROVIDED BY THE OPERATING RAILROAD (MBCR).
6. LOUDSPEAKER CABLING SHOWN DIAGRAMMATICALLY, ACTUAL AUDIO DISTRIBUTION CONFIGURATION MAY VARY.
7. ALL EXTERNAL CABLES SHALL BE IN 3/4" GRS CONDUIT.

60% SUBMITTAL
NOT FOR CONSTRUCTION

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PLOT DATE: May 25, 2011 11:07am

T		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
SOUTH ACTON STATION STATION COMMUNICATIONS SYSTEM DIAGRAM			
HNTB 300 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-6000		APPROVED BY: Date	
JACOBS 343 CONGRESS STREET BOSTON, MA 02110 (617) 242-9222		PROJECT MANAGER Date	
HORIZ: AS SHOWN VERT: NONE DATE: 06/14/11		PROJECT MANAGER Date	
ISSUE DATE DESCRIPTION		PLAN NO. XXXX SHEET COM-05	