

TRANSPORTATION IMPROVEMENT

BOSTON ROAD

IN THE TOWN OF

SUTTON

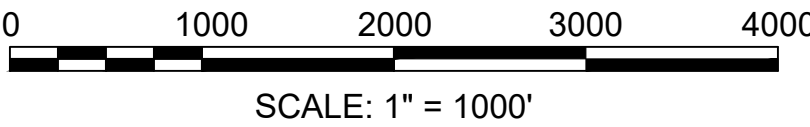
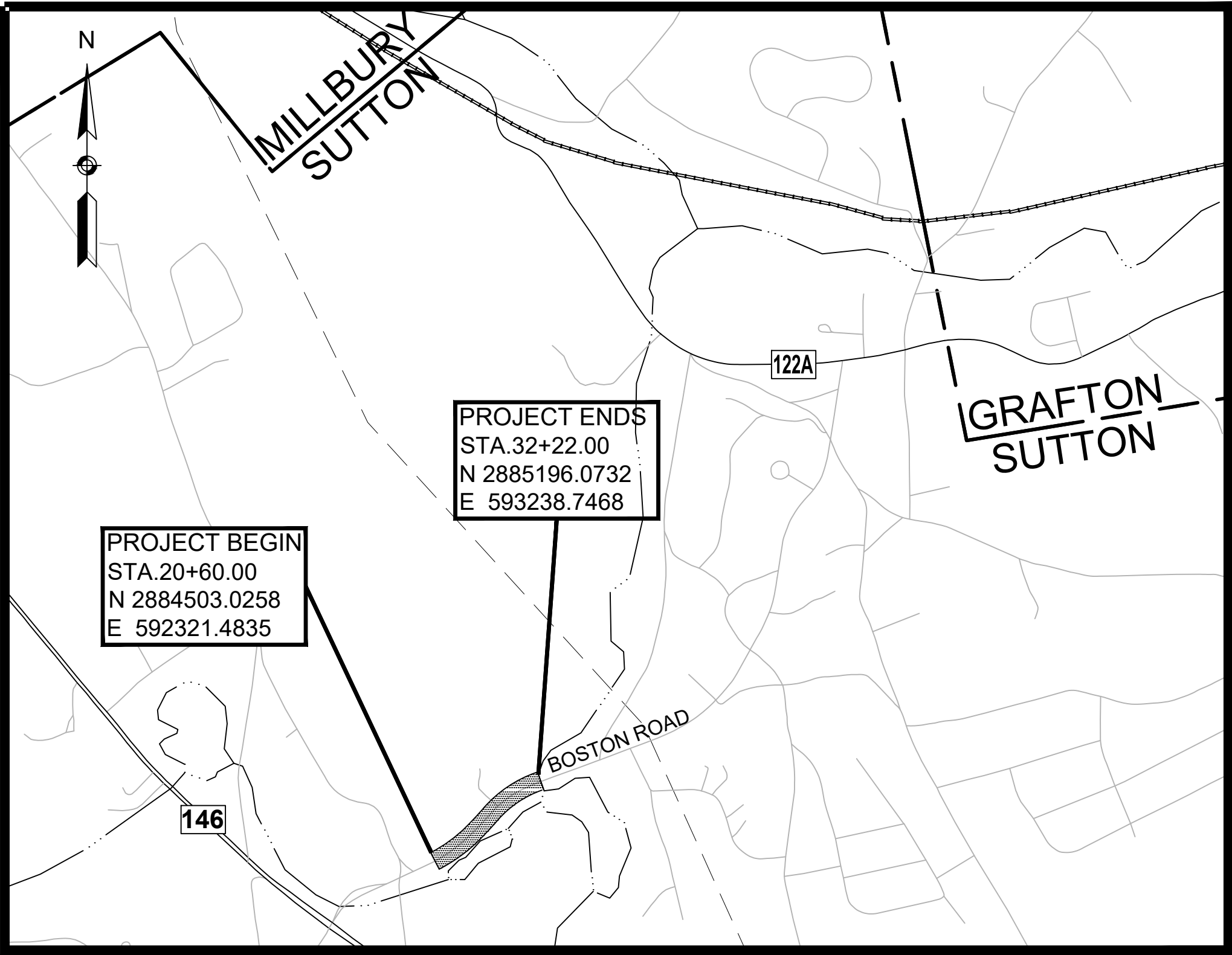
WORCESTER COUNTY

SUTTON
BOSTON ROAD
TITLE SHEET
SHEET 1 OF 19

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

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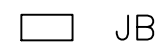
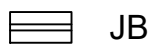


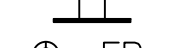
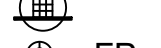
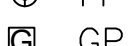
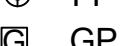









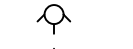
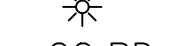

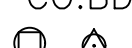







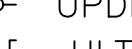


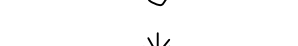



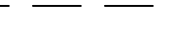
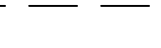
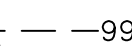
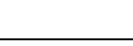
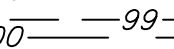
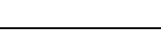
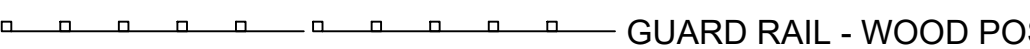
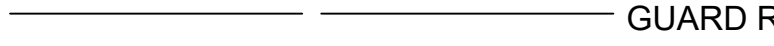









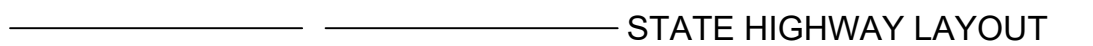
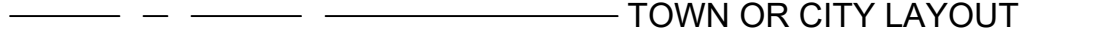



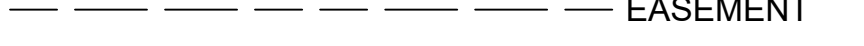








LENGTH OF PROJECT = 1,162 FEET = 0.220 MILES

DESIGN DESIGNATION (BOSTON ROAD)



















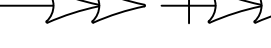





















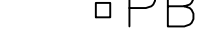

DESIGN SPEED	45 MPH (POSTED 40 MPH)
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL

MARCH 28 2022	DRAFT PRELIMINARY DESIGN	0
DATE	DESCRIPTION	REV #
<div>ENGINEER</div> <div>DATE</div> <div><div>Vanasse Hangen Brustlin, Inc. 101 Walnut St., PO Box 9151 Watertown, MA 02472 617.924.1770 FAX 617.924.2286</div></div>		
DESIGNED BY CAC/ELT	APPROVED BY GR	SHEET 1 OF 19
DRAWN BY CAC	DFTG CHECKED BY SHK	VHB CAD FILE NAME 15047-COVER.DWG
CHECKED BY SHK	DATE MARCH 28 2022	JOB NO. 15047



















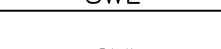
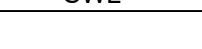
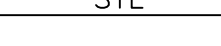
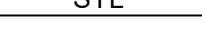





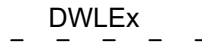














GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		SEDIMENT CONTROL BARRIER
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CONTROLLER PHASE
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		QUADRUPOLE WIRE LOOP DETECTOR
		BICYCLE WIRE LOOP DETECTOR, TYPE B-2
		VIDEO DETECTION CAMERA
		PEDESTRIAN PUSH BUTTON, SIGN AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD, WITH/WITHOUT BACKPLATE
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED, WITH/WITHOUT BACKPLATE
		FLASHING BEACON, WITH/WITHOUT BACKPLATE
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
		SIGNAL POST AND BASE
		MAST ARM, SHAFT AND BASE
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		OVERHEAD SIGN
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE - SD2.022 (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		BICYCLE LANE WORD, SYMBOL AND/OR ARROW - WHITE
		BICYCLE DETECTOR - WHITE
		SHARED LANE - WHITE
		BICYCLE BOX - WHITE
		STOP LINE -WHITE, 12" WIDTH UNLESS OTHERWISE NOTED
		CROSSWALK-WHITE, 12" WIDTH UNLESS OTHERWISE NOTED
		SOLID WHITE LINE, 6" WIDTH
		SOLID YELLOW LINE, 6" WIDTH
		BROKEN WHITE LINE, 10' LINE W/30' SPACING, 6" WIDTH
		BROKEN YELLOW LINE, 10' LINE W/30' SPACING, 6" WIDTH
		DOTTED WHITE LINE, 2' LINE W/6' SPACING, 6" WIDTH
		DOTTED YELLOW LINE, 2' LINE W/6' SPACING, 6" WIDTH
		LONG DASHED WHITE LINE EXTENSION, 3' LINE W/9' SPACING, 6" WIDTH
		DOUBLE YELLOW LINE, 6" WIDTH
		SOLID WHITE CHANNELIZATION LINE, 12" WIDTH UNLESS OTHERWISE NOTED
		SOLID YELLOW CHANNELIZATION LINE, 12" WIDTH UNLESS OTHERWISE NOTED
		SLOTTED PAVEMENT MARKER ONE-WAY WHITE
		SLOTTED PAVEMENT MARKER TWO-WAY WHITE/RED
		SLOTTED PAVEMENT MARKER TWO-WAY YELLOW

ABBREVIATIONS

GENERAL	
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER

ABBREVIATIONS

GENERAL	
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY

ABBREVIATIONS (cont.)

GENERAL	
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

GENERAL NOTES:

- EXISTING CONDITIONS AND TOPOGRAPHICAL INFORMATION FROM A COMBINATION OF GROUND AND AERIAL SURVEY CONDUCTED BY WSP IN JUNE, 2021. THE SITE SURVEY HAS BEEN PREPARED BY WSP.
- THE HORIZONTAL CONTROL IS BASED ON THE MASSACHUSETTS MAINLAND STATE PLANE COORDINATE SYSTEM AND THE NATIONAL GEODETIC SURVEY (NAD83). ALL ELEVATION IS US FEET, REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88).
- THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED.
- THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH PROPOSED CONDUIT AND SIGNAL EQUIPMENT. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
- EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS IF REQUIRED.
- TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
- THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
- JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT SEALER IN ACCORDANCE WITH SUBSECTION 450 OF THE MASSDOT STANDARD SPECIFICATIONS.
- AFTER MILLING OPERATIONS AND PRIOR TO PAVING THE SUPERPAVE INTERMEDIATE OR SURFACES COURSES THE ENGINEER SHALL EVALUATE THE MILLED SURFACE AND SHALL APPLY THE APPROPRIATE REPAIR METHOD IF REQUIRED.
- EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE ADDRESSED AS INDICATED ON THE DRAWINGS.
- EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
- PROPOSED BOUNDS SHALL BE PLACED BY A LICENSED PROFESSIONAL SURVEYOR. THE CONTRACTOR SHALL EXERCISE DUE CARE WHEN WORKING AROUND ALL PROPERTY BOUNDS WHICH ARE TO REMAIN. SHOULD ANY DAMAGE TO A BOUND RESULT FROM THE ACTIONS OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE THE BOUND REPLACED AND/OR REALIGNED BY A LICENSED PROFESSIONAL SURVEYOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.
- DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER.
- LATERAL DRAIN PIPES SHALL BE INSTALLED WITH A PITCH OF 0.01 FOOT PER FOOT (MINIMUM) UNLESS NOTED OTHERWISE ON THE PLANS.

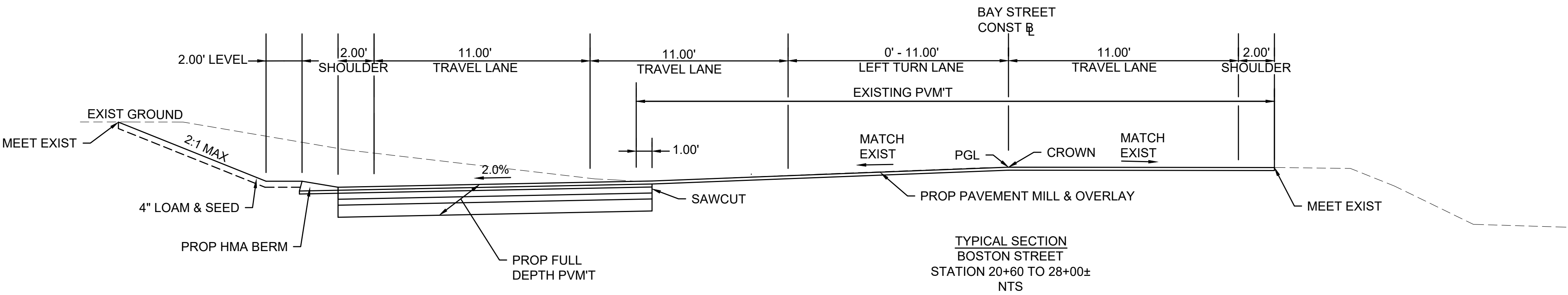
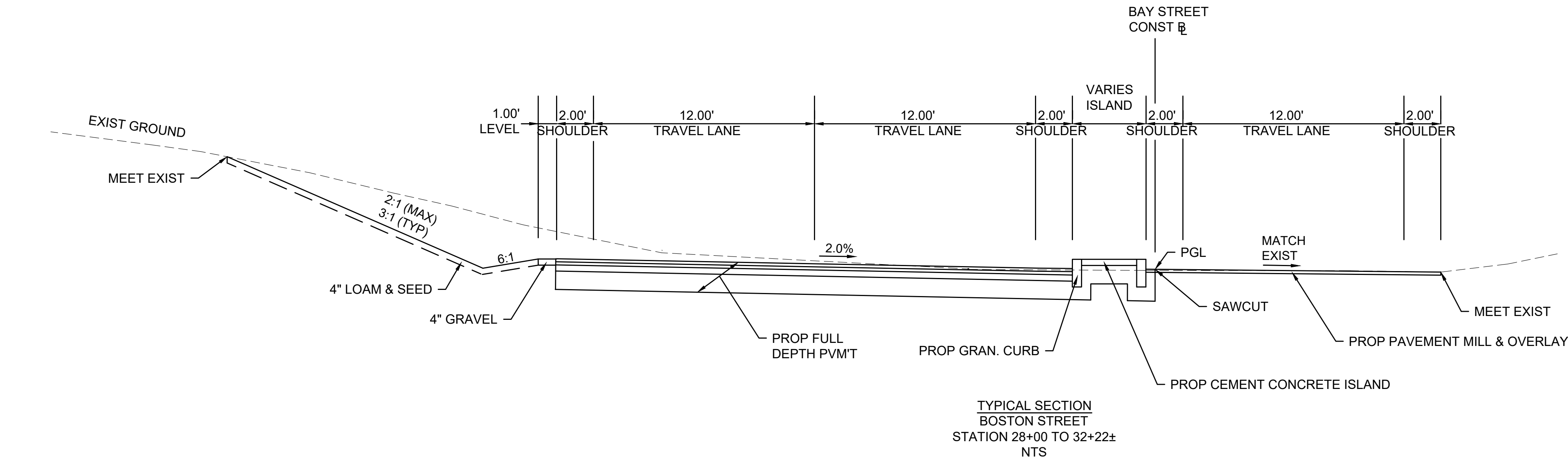
PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT		
SURFACE:	2"	SUPERPAVE SURFACE COURSE POLYMER - 12.5 (SSC-12.5-P)
INTERMEDIATE:	2 "	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0)
BASE COURSE:	4 "	SUPERPAVE BASE COURSE - 37.5 (SBC-37.5)
SUBBASE:	4" 8"	DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER GRAVEL BORROW (TYPE b)

PROPOSED FULL DEPTH PAVEMENT LESS THAN 4.0' WIDE		
SURFACE:	2"	SUPERPAVE SURFACE COURSE POLYMER - 12.5 (SSC-12.5-P)
INTERMEDIATE:	2 "	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0)
BASE COURSE:	6"	CEMENT CONCRETE BASE COURSE
SUBBASE:	12"	GRAVEL BORROW (TYPE b)

PROPOSED MILL AND OVERLAY		
SURFACE:	2"	SUPERPAVE SURFACE COURSE POLYMER - 12.5 (SSC-12.5-P)
MILLING:	2"	PAVEMENT MICROMILLING

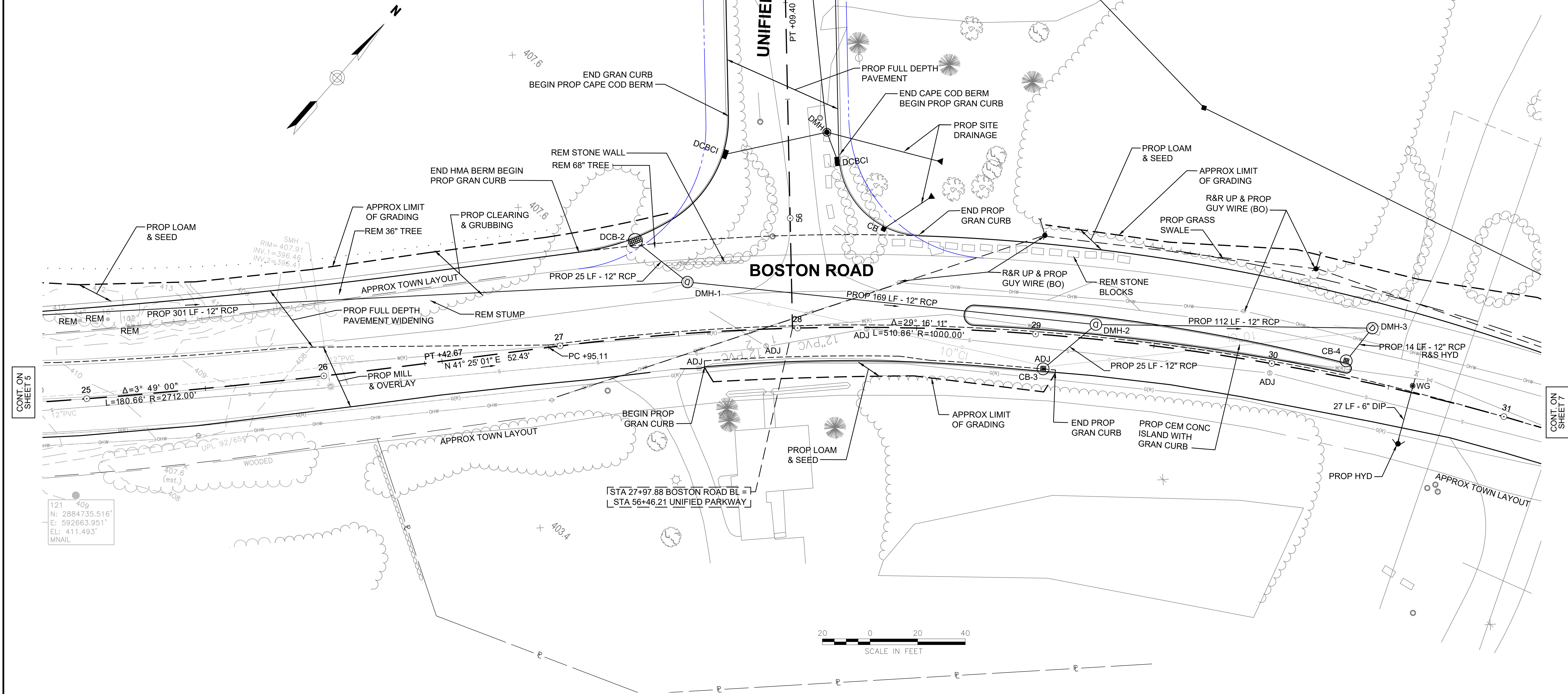
PROPOSED HOT MIX ASPHALT DRIVEWAY		
SURFACE:	1 ½"	SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5)
INTERMEDIATE:	2"	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)
SUBBASE:	8"	GRAVEL BORROW (TYPE b)



5047-CON.DWG Plotted on 29-Mar-2022 4:43 PM



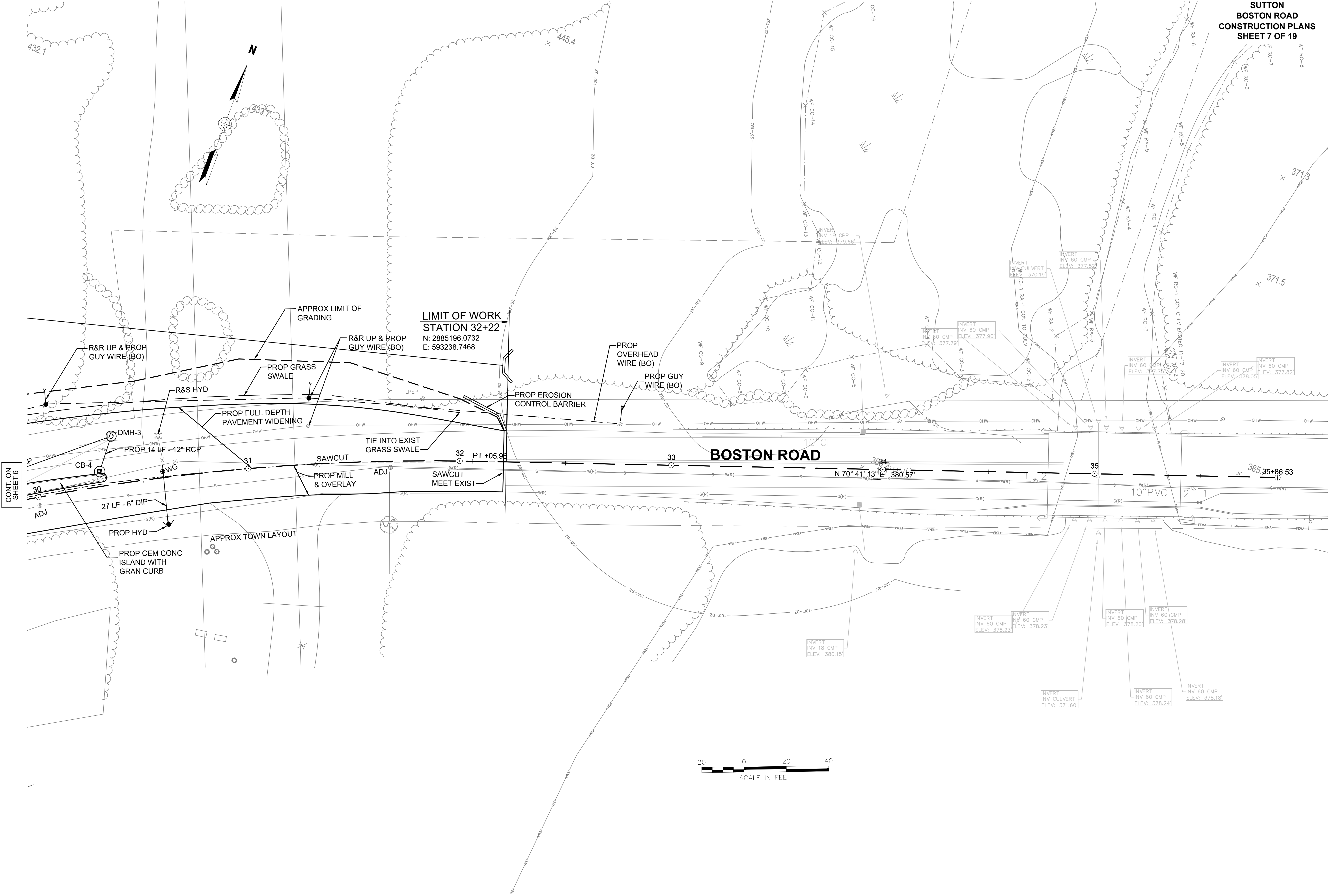
DRAINAGE STRUCTURE TABLE					
NO.	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CB-1	24+49.9 -37.0' LT	410.84		I=406.50' (DMH-1)	
CB-3	29+04.3 14.4' RT	396.33		I=389.80' (DMH-2)	
CB-4	30+30.4 -7.0' LT	392.46		I=388.10' (DMH-3)	
DCB-2	27+35.4 -40.5' LT	404.76		I=401.10 (DMH-1)	DOUBLE CATCH BASIN - PROP CI
DMH-1	27+55.2 -21.5' LT	404.42	I=401.10 (CB-1) I=401.00 (DCB-2)	I=400.90 (DMH-2)	CIT from CB to DMH
DMH-2	29+24.8 -6.1' LT	397.30	I=393.00' (DMH-1) I=389.40' (CB-3)	I=389.30' (DMH-3)	
DMH-3	30+38.1 -22.7' LT	392.50	I=387.50' (DMH-2) I=387.90' (CB-4)		REM EXIST DROP INLET



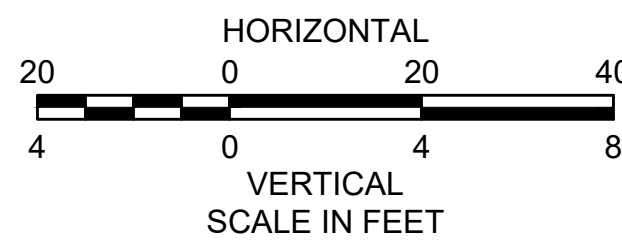
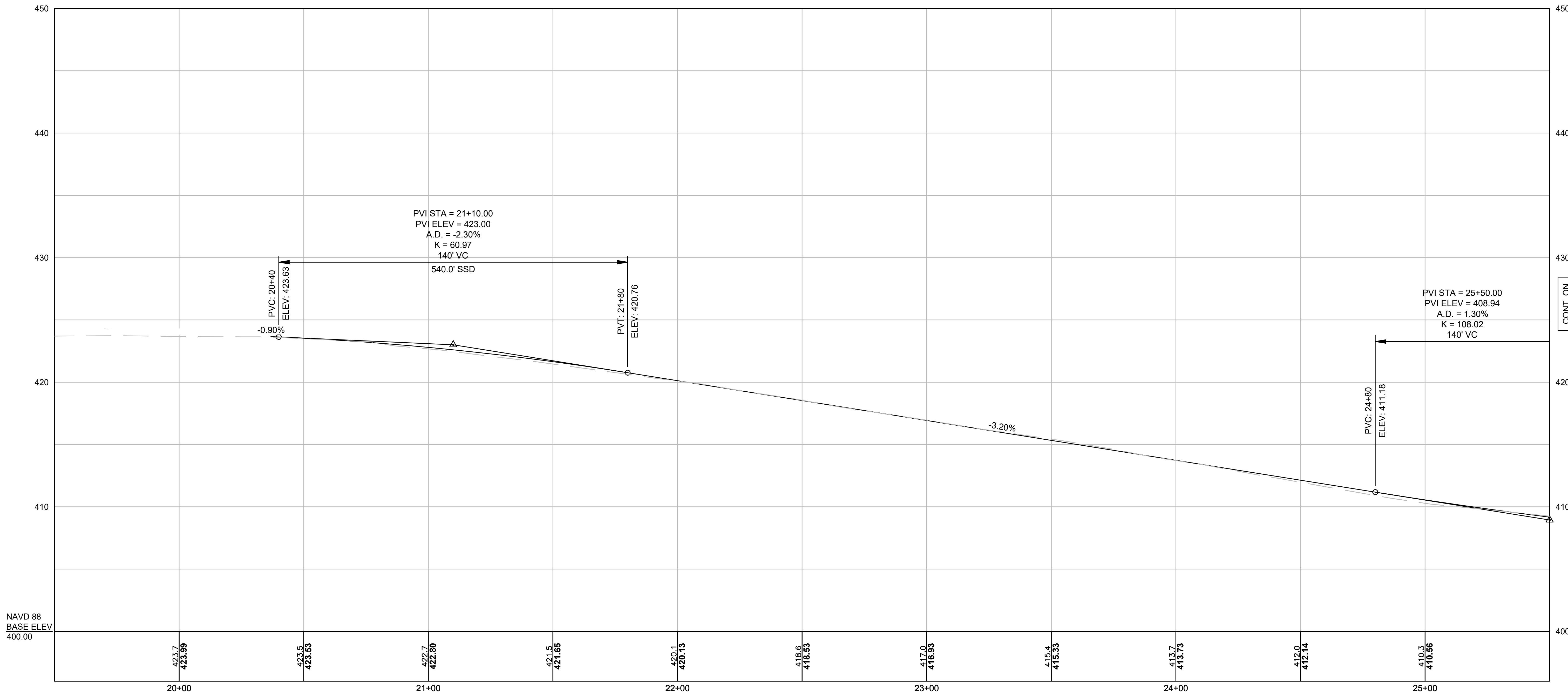
CONT. ON
SHEET 5

CONT. ON
SHEET 7

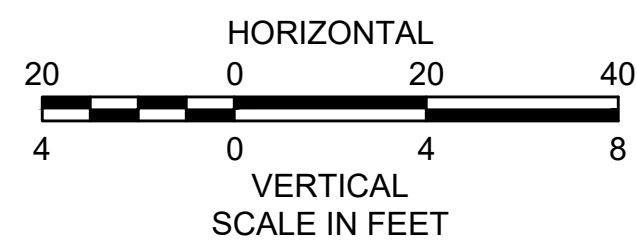
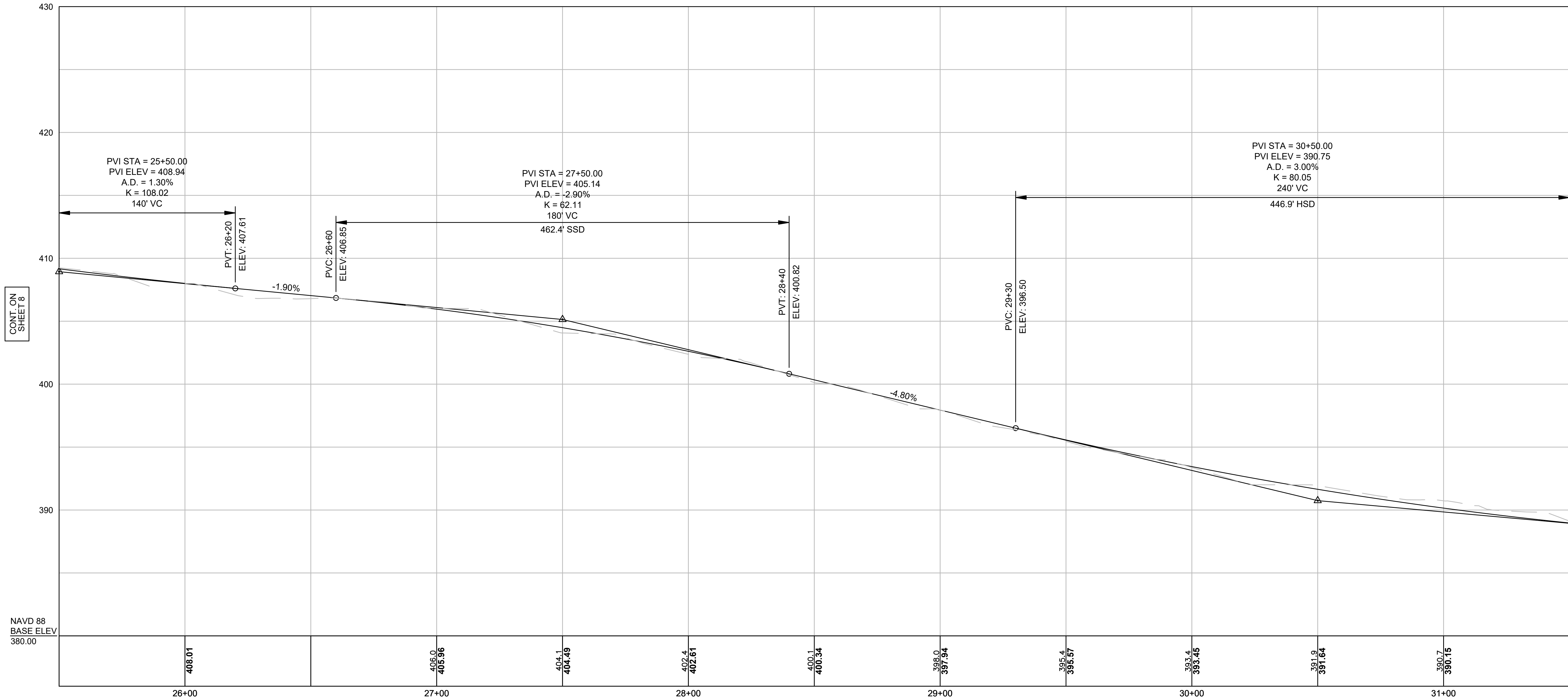
SUTTON
BOSTON ROAD
CONSTRUCTION PLANS
SHEET 7 OF 19



BOSTON ROAD



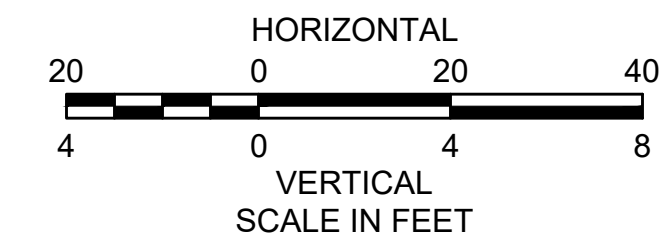
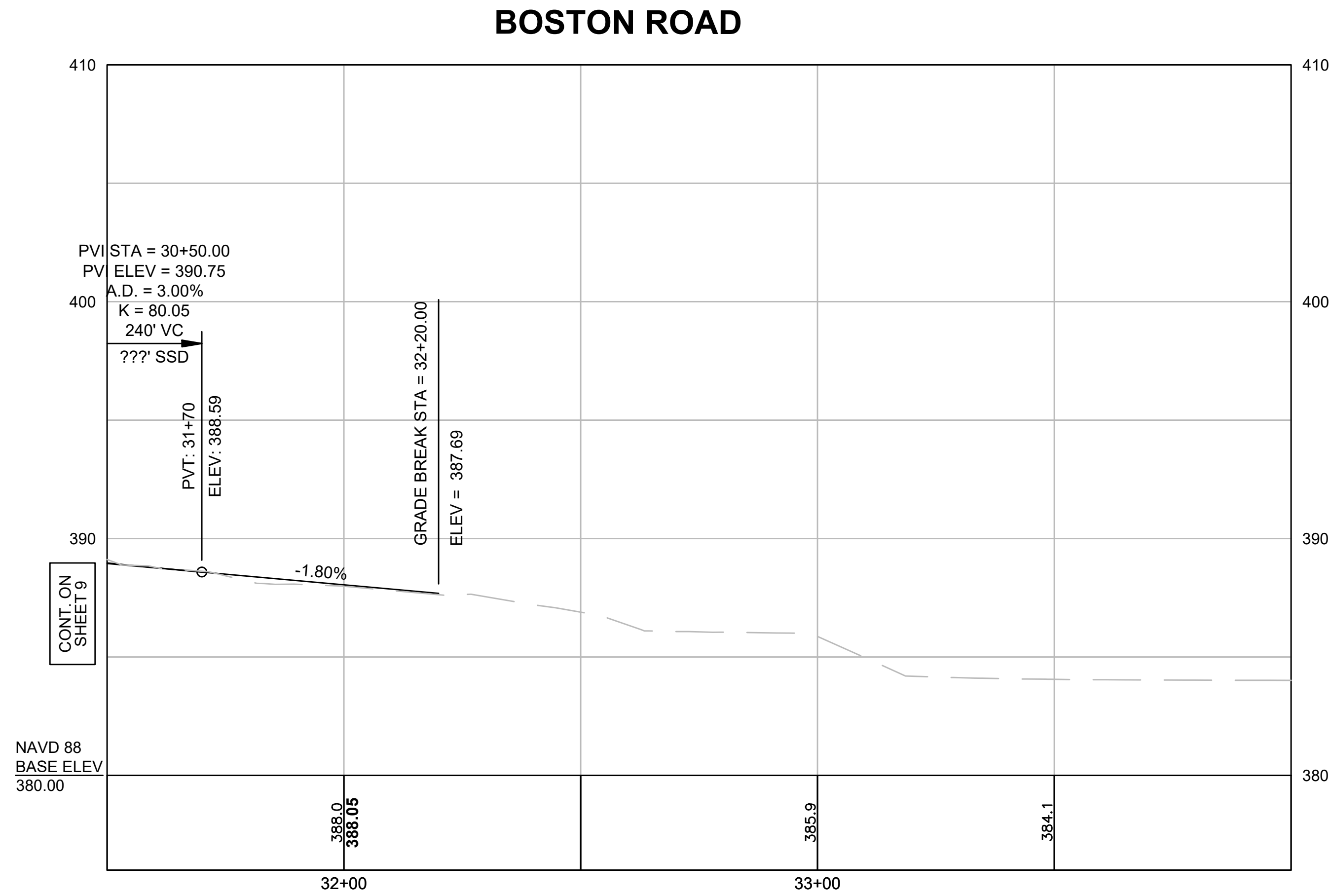
BOSTON ROAD



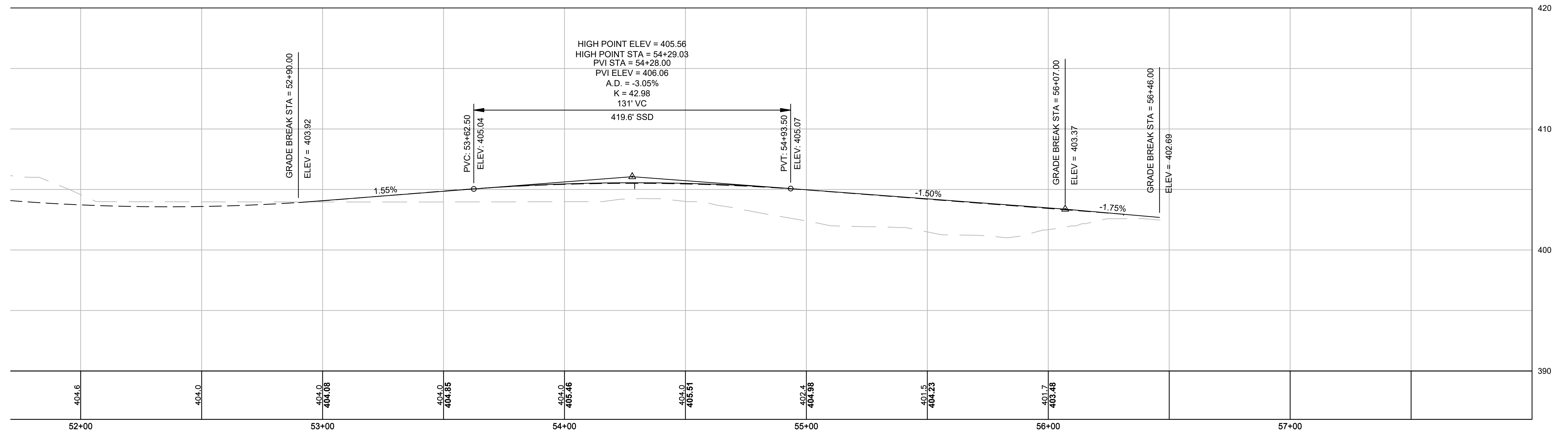
CONT. ON
SHEET 8

NAVD 88
BASE ELEV
380.00

CONT. ON
SHEET 10

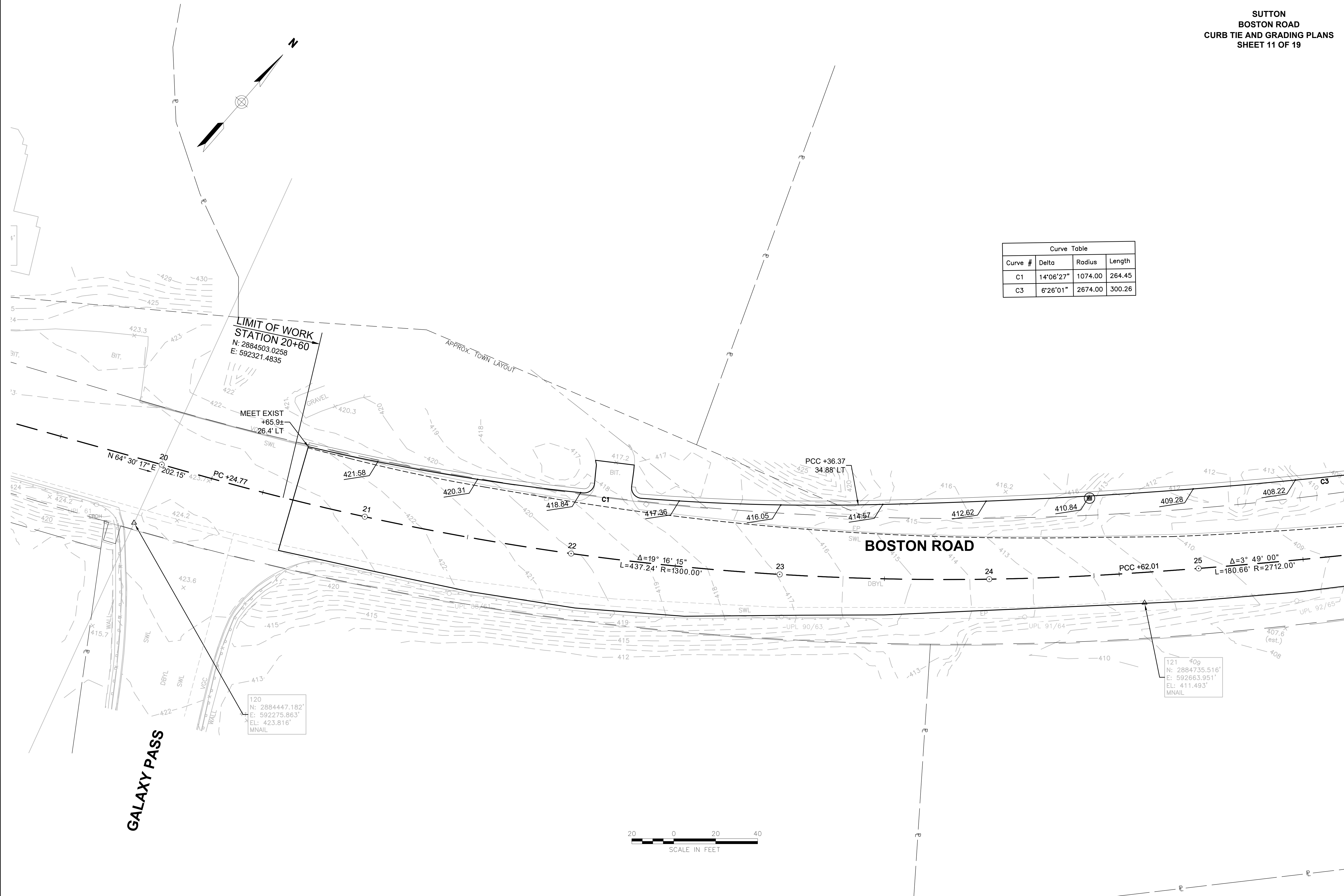


UNIFIED PARKWAY



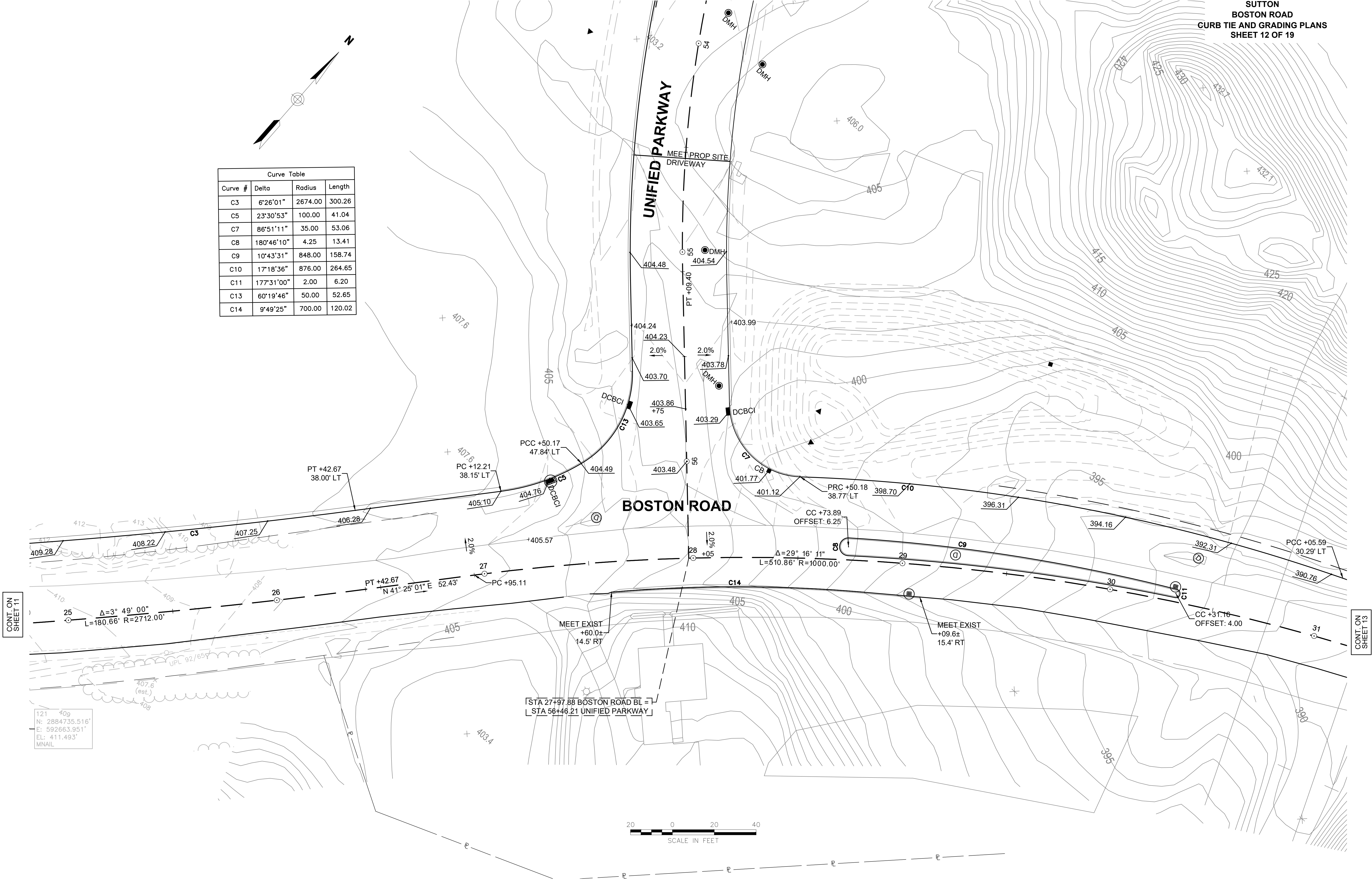
SUTTON
BOSTON ROAD
CURB TIE AND GRADING PLANS
SHEET 11 OF 19

Curve Table			
Curve #	Delta	Radius	Length
C1	14°06'27"	1074.00	264.45
C3	6°26'01"	2674.00	300.26



CONT. ON
SHEET 12

Curve Table			
Curve #	Delta	Radius	Length
C3	6°26'01"	2674.00	300.26
C5	23°30'53"	100.00	41.04
C7	86°51'11"	35.00	53.06
C8	180°46'10"	4.25	13.41
C9	10°43'31"	848.00	158.74
C10	17°18'36"	876.00	264.65
C11	177°31'00"	2.00	6.20
C13	60°19'46"	50.00	52.65
C14	9°49'25"	700.00	120.02



SUTTON
BOSTON ROAD
CURB TIE AND GRADING PLANS
SHEET 13 OF 19

Curve Table			
Curve #	Delta	Radius	Length
C11	177°31'00"	2.00	6.20
C12	11°35'53"	400.00	80.97

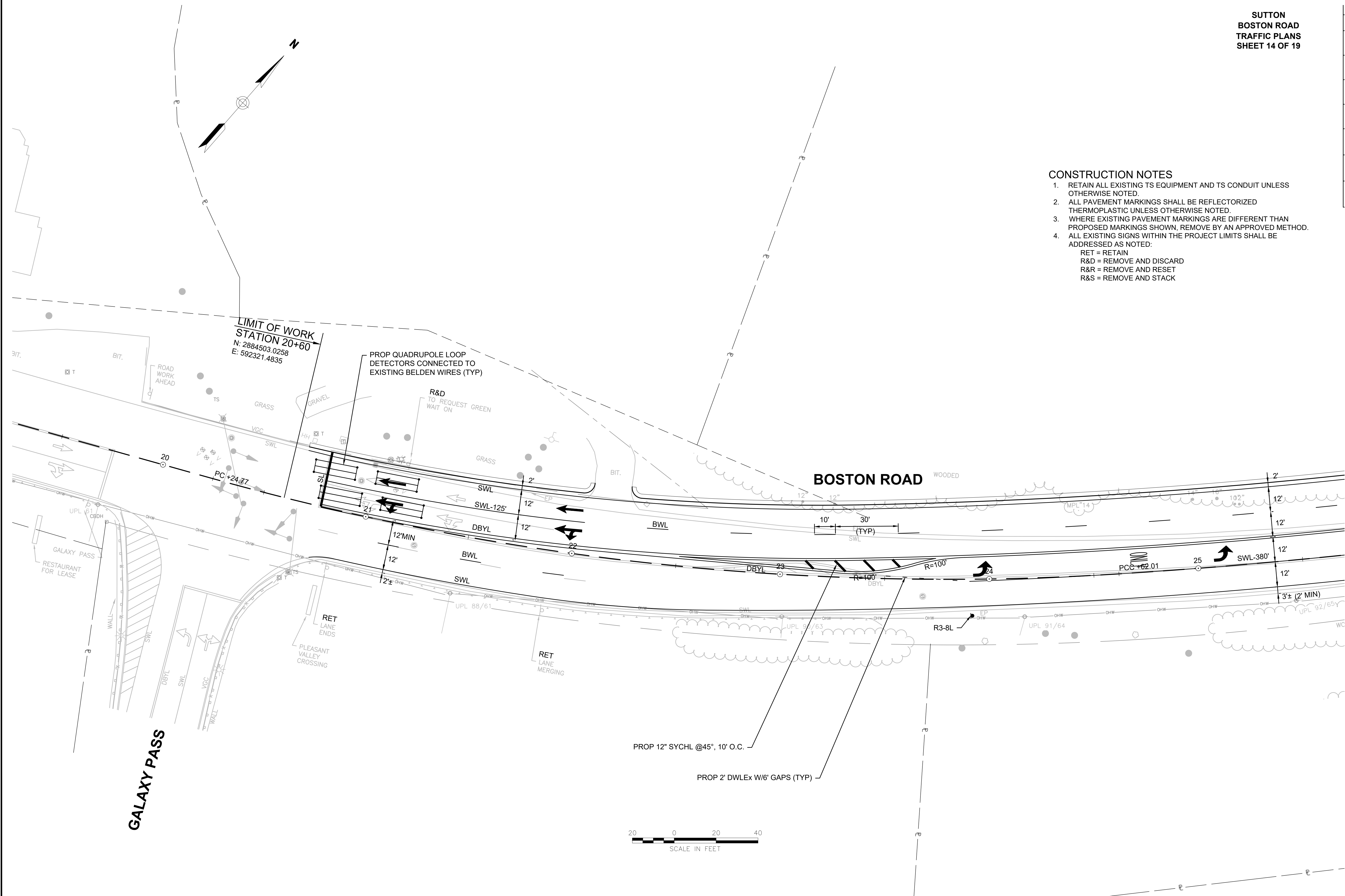
LIMIT OF WORK
STATION 32+22
N: 2885196.0732
E: 593238.7468

BOSTON ROAD



CONSTRUCTION NOTES

1. RETAIN ALL EXISTING TS EQUIPMENT AND TS CONDUIT UNLESS OTHERWISE NOTED.
2. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC UNLESS OTHERWISE NOTED.
3. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
4. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE ADDRESSED AS NOTED:
RET = RETAIN
R&D = REMOVE AND DISCARD
R&R = REMOVE AND RESET
R&S = REMOVE AND STACK



CONT. ON
SHEET 15

CONSTRUCTION NOTES

1. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC UNLESS OTHERWISE NOTED.
2. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
3. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE ADDRESSED AS NOTED:
RET = RETAIN
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R&R = REMOVE AND RESET
R&S = REMOVE AND STACK

ROADWAY CONTRACTOR TO COORDINATE WITH SITE CONTRACTOR TO MARK A SINGLE, WIDE LANE UNTIL SUCH TIME THE INTERSECTION IS SIGNALIZED

UNIFIED PARKWAY

BOSTON ROAD

BOSTON ROAD

PROP MONUMENT SIGN

R1-1

R4-7

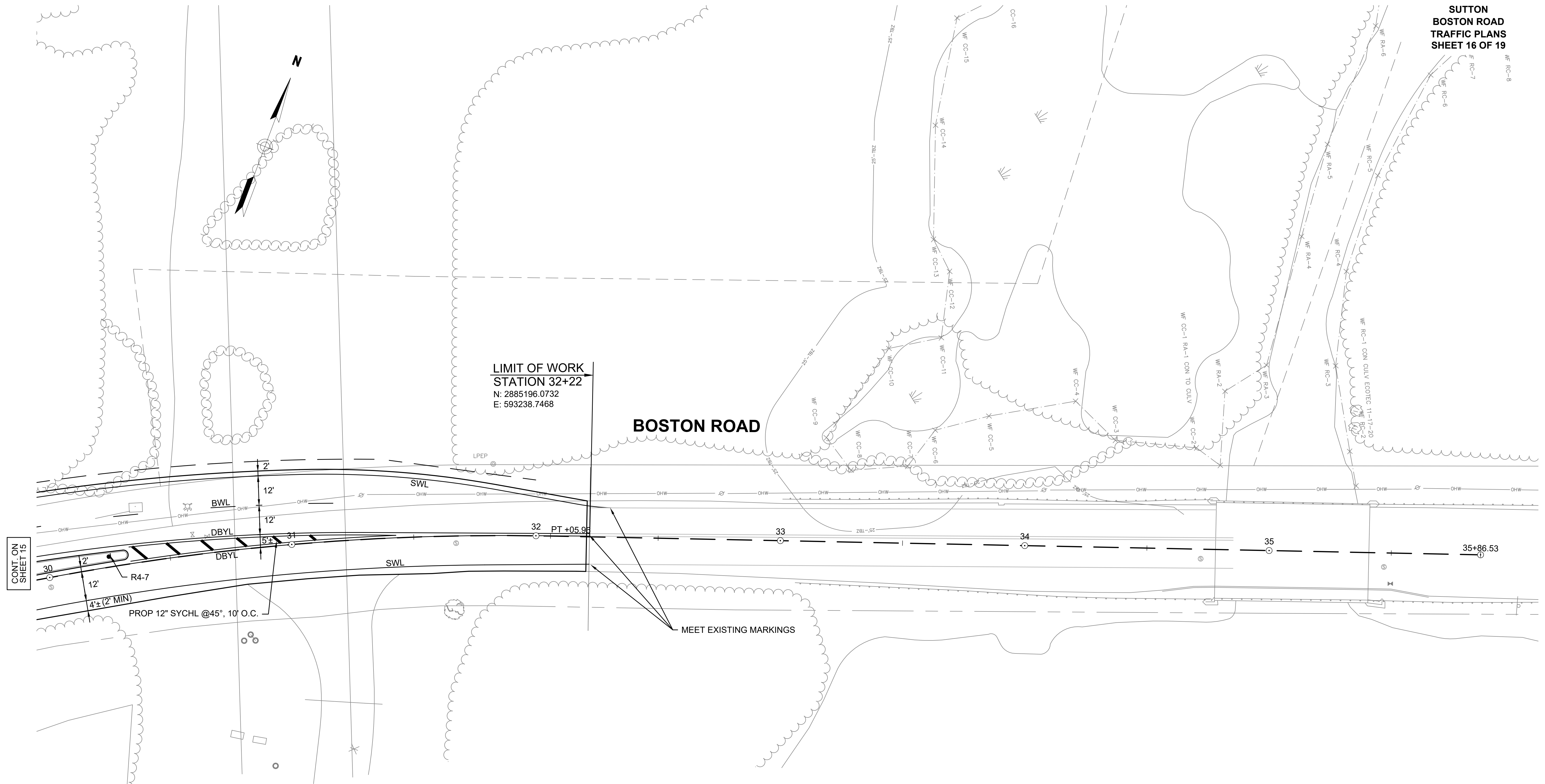
R4-7

PROP 12" SYCHL @45°, 10' O.C.







CONT. ON
SHEET 14

CONT. ON
SHEET 16

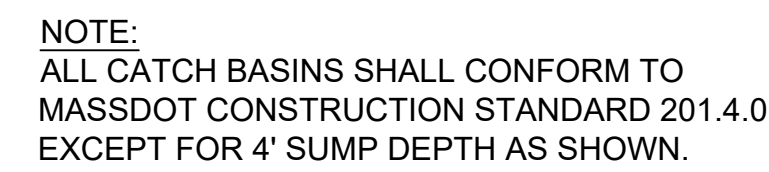


CONSTRUCTION NOTES

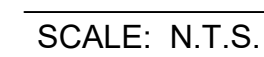
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 - R&S = REMOVE AND STACK

TRAFFIC SIGN SUMMARY													
IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND	BORDER			
R1-1	30"	30"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			1	RED	WHITE	WHITE	P5-1	6.25	6.25
R3-8L	30"	30"					1	WHITE	BLACK	BLACK	P5-1	6.25	6.25
R4-7	24"	30"					2	WHITE	BLACK	BLACK	P5-2	5.00	10.00

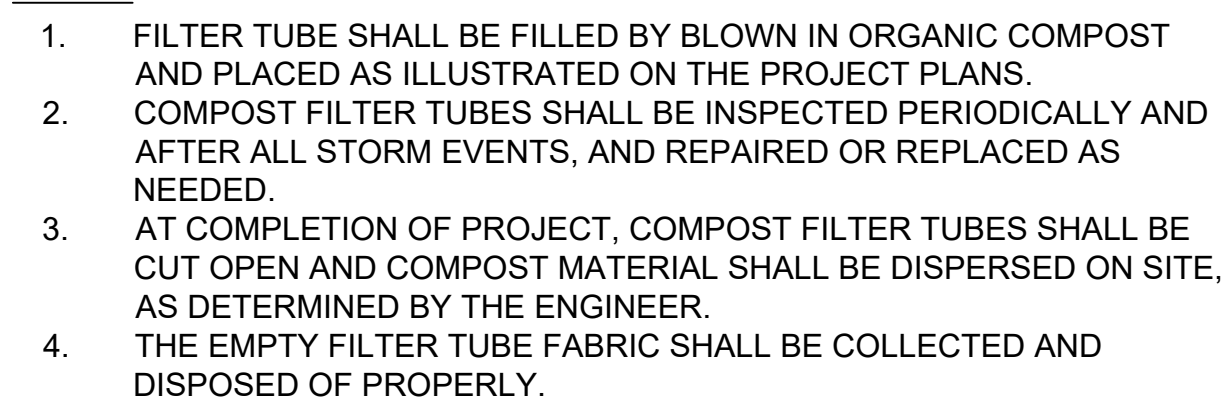
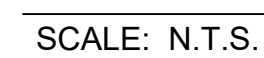
NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; AND THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED.



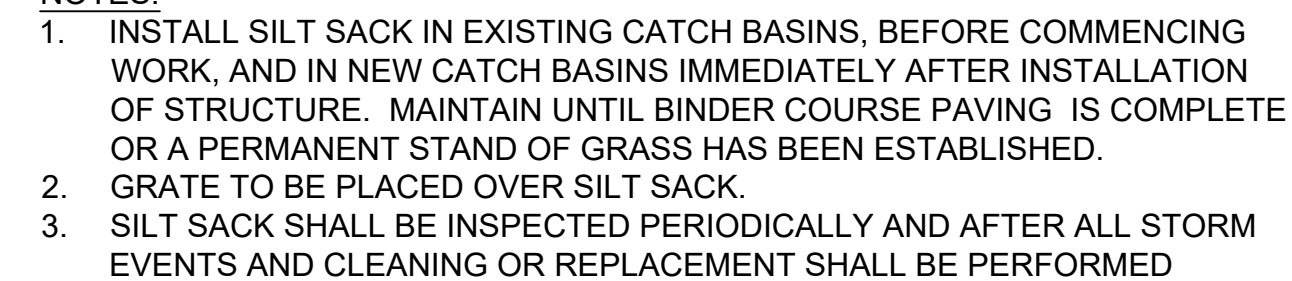
SCALE: N.T.S.



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