

# MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

CAMBRIDGE BROADWAY			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	1	21
PROJECT FILE NO. 605684			

TITLE AND INDEX SHEET

## PLAN AND PROFILE OF INTERSECTION & SIGNAL IMPROVEMENTS ON BROADWAY, FROM THIRD STREET TO AMES STREET (KENDALL SQUARE)

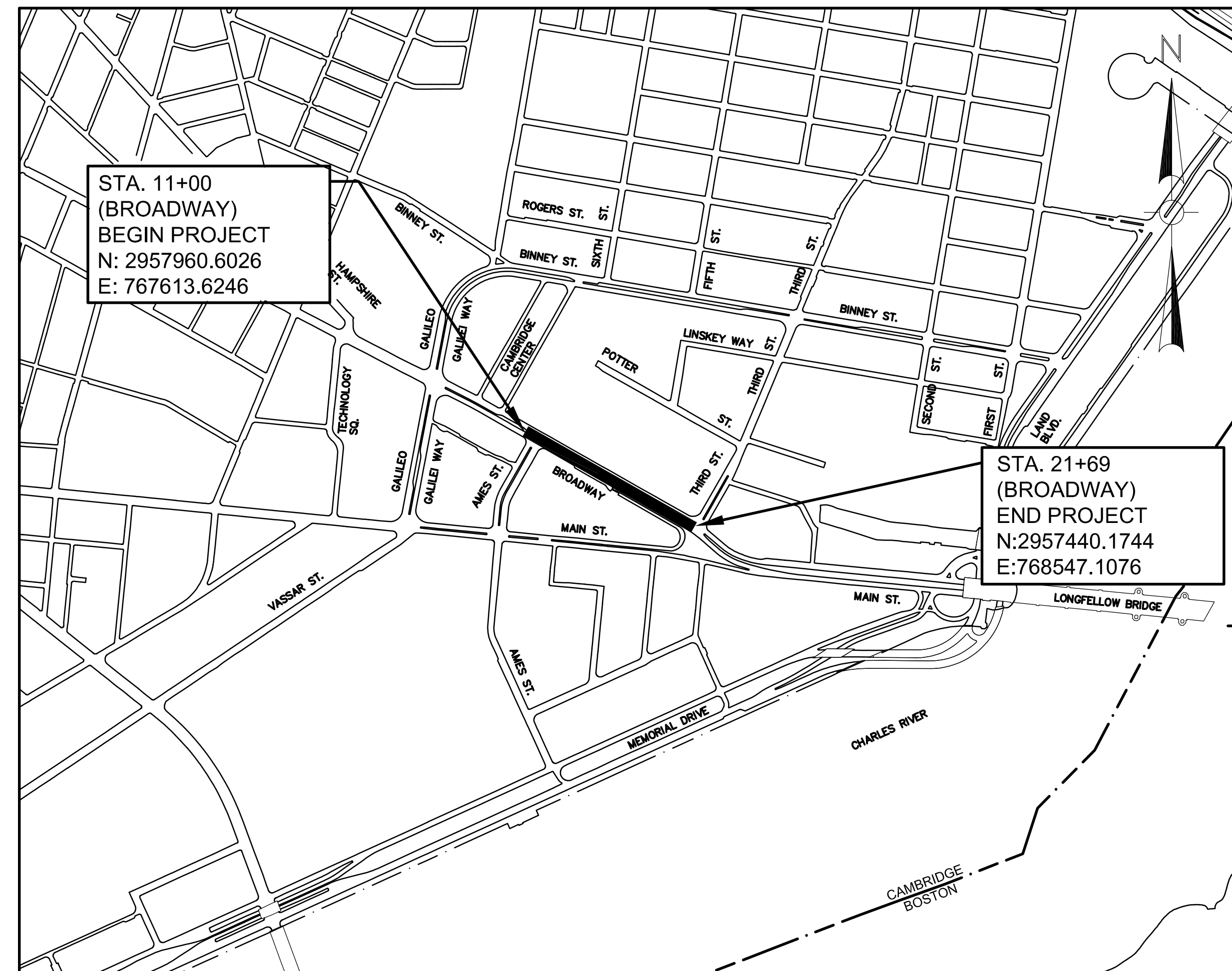
IN THE CITY OF

### CAMBRIDGE MIDDLESEX COUNTY

THE 2006 MASSACHUSETTS HIGHWAY DEPARTMENT PROJECT DEVELOPMENT AND DESIGN GUIDE, THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, THE ENGLISH SUPPLEMENTAL SPECIFICATIONS DATED FEBRUARY 25, 2010, THE STANDARD SPECIAL PROVISIONS, THE 2010 CONSTRUCTION STANDARDS AND THE SUPPLEMENTAL DRAWINGS DATED APRIL 2003, THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH MASSACHUSETTS AMENDMENTS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, THE PLANS, DETAIL SHEETS, THE SPECIAL PROVISIONS AND ALL AMENDMENTS WILL GOVERN.

#### INDEX

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STA. 11+00  
(BROADWAY)  
BEGIN PROJECT  
N: 2957960.6026  
E: 767613.6246

STA. 21+69  
(BROADWAY)  
END PROJECT  
N: 2957440.1744  
E: 768547.1076

LOCATION MAP  
N.T.S.

100% DESIGN SUBMISSION

MAY 2011

PROJECT LENGTH = 1068.75 FEET = 0.202 MILES

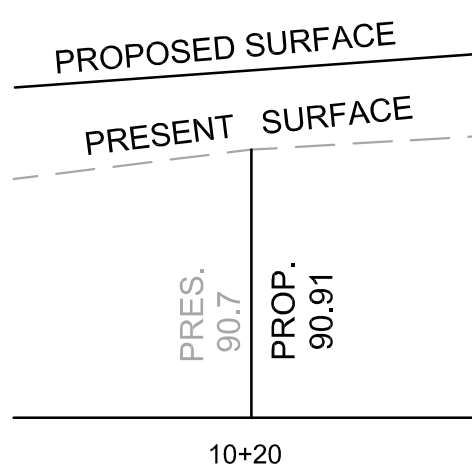
SCALES AS NOTED

#### DESIGN DESIGNATION

	BROADWAY	THIRD STREET	AMES STREET
SPEED	35 M.P.H.	35 M.P.H.	35 M.P.H.
ADT (2009)	17,676	10,096	7,378
AADT (2029)	21,564	12,317	9,001
K (AADT-PEAK HR)	7.9%	9.4%	9.5%
D (PEAK HR-HEAVY)	51%	51%	54%
T (PEAK HOUR)	3.5%	4.4%	12.9%
DHV	712	484	379
DDHV	712	484	379
FUNCTIONAL CLASS.	COLLECTOR	LOCAL	LOCAL

#### CONVENTIONAL SIGNS

COUNTY, CITY, OR TOWN BOUNDARY	-----
COUNTY, CITY, OR TOWN SIDE LINE	-----
FENCE LINE	X X X X X
BASE LINE OR SURVEY LINE	S36°04'20"W 2+00
RIGHT OF WAY LINE	-----
CULVERT	-----
RETAINING WALL	-----
GUARD RAIL	-----
STONE WALL	-----
TREE LINE	-----
POLE	○



ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DYNAMIC

**Weston & Sampson**

Weston & Sampson  
100 Foxborough Blvd., S.250, Foxborough, MA

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
APPROVED:  
\_\_\_\_\_  
DIVISION ADMINISTRATOR DATE



RECOMMENDED FOR APPROVAL

\_\_\_\_\_  
CHIEF ENGINEER DATE

APPROVED

\_\_\_\_\_  
DIVISION ADMINISTRATOR DATE

CAMBRIDGE  
BROADWAY

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	2	21

PROJECT FILE NO. 605684

LEGEND AND GENERAL NOTES

GENERAL SYMBOLS

EXISTING PROPOSED

CB □ (OR GI, LB)	CB □	CATCH BASIN (OR GUTTER INLET, OR LEACHING BASIN)
CBCI □ (OR GICI)	□ (OR GICI)	CATCH BASIN (OR GUTTER INLET) WITH CURB INLET
---	---	CURB (OR BERM)-TYPE NOTED
---	---	EDGE OF ROAD
○ EHH	○ EHH	ELECTRIC HANDHOLE (NUMBER AS NOTED)
○ EMH	○ EMH	ELECTRIC MANHOLE
○ TMH	○ TMH	TELEPHONE MANHOLE
○ WMH	○ WMH	WATER MANHOLE
○ SMH	○ SMH	SEWER MANHOLE
○ DMH	○ DMH	DRAINAGE MANHOLE
○ GG	○ GG	GAS GATE
○ WG	○ WG	WATER GATE
○ CS	○ CS	CURB STOP
⊕	⊕	HYDRANT
⊕	⊕	FIRE ALARM BOX
⊕	⊕	PARKING METER
⊕	⊕	STREET LIGHT
⊕	⊕	WOOD POLE
⊕	⊕	GUY POLE
---	---	DRAIN PIPE
---	---	SEWER MAIN
---	---	ELECTRIC DUCT
---	---	GAS MAIN
---	---	WATER MAIN
---	---	TELEPHONE DUCT
□ MB	■ MB	MAIL BOX
---	---	HIGHWAY GUARD (TYPE NOTED)
□ MHB,SB,CB	■ MHB,SB,CB	HIGHWAY / PROPERTY BOUND (TYPE NOTED)
LABEL / DATE	LABEL / DATE	CITY OR TOWN OR COUNTY LAYOUT LINE
NAME	NAME	CITY, TOWN OR COUNTY BOUNDARY
12°00'00"00"E	12°00'00"00"E	STATE BOUNDARY
+57.59	+57.59	BASE OR SURVEY LINE
PC	PC	CENTERLINE OF CONSTRUCTION
---	---	WHEELCHAIR RAMP (WCR)
---	---	FENCE (SIZE AND TYPE NOTED)
---	---	EASEMENT LINE
A	A	SIGNAL HEAD
TC 18.50	TC 18.50	GRADES
BC 17.90	BC 17.90	(TC=TOP OF CURB BC=BOTTOM OF CURB)

ABBREVIATIONS

<b>UTILITIES</b>	
CIT	CHANGE IN TYPE
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
RCP	REINFORCED CONCRETE PIPE
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
DIP	DUCTILE IRON PIPE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
HYD	HYDRANT
INV ELEV	INVERT ELEVATION
UP	UTILITY POLE
SMH	SEWER MANHOLE
WG	WATER GATE
DS	DOWN SPOUT
HDPE	HIGH DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE
<b>ALIGNMENT/GRADING</b>	
PI	POINT OF INTERSECTION
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
PRC	POINT OF REVERSE CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVC	POINT OF VERTICAL CURVATURE
PVT	POINT OF VERTICAL TANGENCY
ELEV	ELEVATION
CC	CENTER OF CURVE
HP	HIGH POINT
LP	LOW POINT
R	RADIUS OF CURVATURE
STA	STATION
SSD	STOPPING SIGHT DISTANCE
PSD	PASSING SIGHT DISTANCE
<b>GENERAL</b>	
CONSTR	CONSTRUCTION
PROP	PROPOSED
ADJ	ADJUST
HMA	HOT MIX ASPHALT
CEM CONC	CEMENT CONCRETE
ℓ	BASELINE
NTS	NOT TO SCALE
BM	BENCH MARK
ABAN	ABANDON
MB	MAIL BOX
GRAN	GRANITE
EOP	EDGE OF PAVEMENT
EXIST OR EX	EXISTING
FDN	FOUNDATION
FL OR E	FLOW LINE
ℓ	PROPERTY LINE
PVMT	PAVEMENT
PWW	PAVED WATERWAY
RC	REINFORCED CONCRETE
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
ROW	RIGHT-OF-WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
SB	STONE BOUND
SCB	SPECIAL CATCH BASIN
IS	ISLAND
FGC	FLUSH GRANITE CURB
PROT	PROTECT

GENERAL NOTES

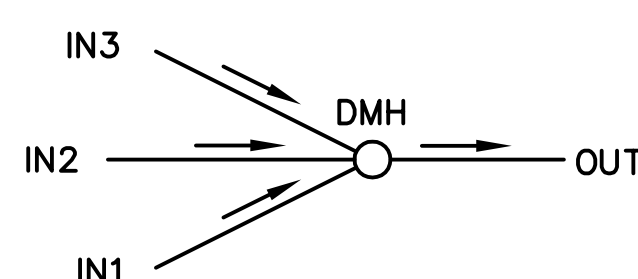
- TOPOGRAPHICAL INFORMATION BASED ON A GROUND SURVEY PERFORMED BY CHAPPELL ENGINEERING IN SEPTEMBER 2008. THIS SURVEY WAS CREATED ON THE NAD 83 HORIZONTAL DATUM AND CITY OF CAMBRIDGE VERTICAL DATUM.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO 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.
- 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 MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY OWNER.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- THE TERM "PROPOSED (PROP)" INDICATES WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET (R&R)".
- JOINTS BETWEEN NEW HOT MIX ASPHALT PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HOT MIX ASPHALT SEALER AND BACKSANDED.
- ALL EXISTING STATE, COUNTY AND CITY LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATION ARE NOT GUARANTEED.
- TREES AND SHRUBS WITHIN THE LIMITS OF WORK SHALL BE REMOVED ONLY UPON THE APPROVAL OF THE ENGINEER OR AS NOTED ON THE PLANS.
- ALL PROPOSED PAVEMENT MARKINGS SHALL BE EPOXY AND SHALL MEET EXISTING MARKINGS AT THE LIMIT OF WORK.
- ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND STACKED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- THE CONTRACTOR SHALL RESTORE THE EXISTING SURFACE PAVEMENTS AND TURF DISTURBED BY THE PROPOSED WORK AND SHALL PATCH ALL HOLES RESULTING FROM THE REMOVAL OF FOUNDATIONS WITH MATERIALS SIMILAR TO EXISTING.
- GRANITE CURB REMOVED SHALL BE RESET, STACKED OR DISCARDED AS DIRECTED BY THE ENGINEER. GRANITE CURB TO BE RESET SHALL NOT BE RANDOMLY MIXED WITH NEW CURB, BUT SHALL BE RESET SO AS TO GIVE A UNIFORM APPEARANCE TO THE CURB.
- ALL BASELINE TIES FOR CURB CORNERS AND RADII ARE TO THE PC'S OR PT'S, UNLESS OTHERWISE NOTED. WHERE PROPOSED GRANITE CURB MEETS EXISTING CURB OR EXISTING ROADWAY AND DRIVEWAY PAVEMENT EDGES, MINOR FIELD ADJUSTMENTS TO EITHER THE DESIGNATED CURB RADIUS OR STATION OF THE PC OR PT FOR THE PROPOSED CURB MAY BE REQUIRED. THESE ADJUSTMENTS SHALL BE MADE IN THE FIELD BY THE CONTRACTOR AS DIRECTED BY THE RESIDENT ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL NOTIFY "DIGSAFE" 72 HOURS PRIOR TO THE INITIATION OF WORK AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY STATE/LOCAL PERMITS AND/OR APPROVALS.  
DIG SAFE: 1-888-344-7233
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING TREES TO REMAIN WITHIN PROJECT LIMITS IN ACCORDANCE WITH THE CITY OF CAMBRIDGE TREE PROTECTION ORDINANCE.
- RETAIN ALL UTILITIES WITHIN APPROXIMATE PROPOSED WALK INCLUDING PULL BOXES, LIGHT BASES, GATES, HYDRANTS AND MANHOLES UNLESS OTHERWISE NOTED. COORDINATE WITH UTILITY OWNER FOR ANY NECESSARY ADJUSTMENT OF EXISTING UTILITY STRUCTURES IMPACTED BY THE WORK.
- RETAIN ALL EXISTING UTILITIES WITHIN PROPOSED PAVEMENT MILLING LIMITS. CONTRACTOR RESPONSIBLE FOR COORDINATING WITH UTILITY OWNER FOR ANY NECESSARY ADJUSTMENT OF EXISTING UTILITY STRUCTURES IMPACTED BY THE WORK.
- REMOVE AND STACK ALL EXISTING CURB CORNERS IMPACTED BY THE WORK.
- RETAIN AND PROTECT ALL EXISTING UTILITIES WITHIN EXISTING GRASS ISLANDS. ALL PROTECTION OF EXISTING UTILITIES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- REMOVE AND RESET ALL EXISTING GRANITE CURB (SEE SPECIAL PROVISIONS).
- THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND INSTALLATION OF HYDRANTS WITHIN THE PROJECT LIMITS WITH THE CITY OF CAMBRIDGE WATER DEPARTMENT.
- THE MINIMUM MOUNTING HEIGHT OF POST-MOUNTED SIGNS, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE CURB OR SIDEWALK, OR TO TO THE ELEVATION OF THE NEAR EDGE OF THE TRAVELED WAY, SHALL BE 7 FEET UNLESS OTHERWISE SPECIFIED.

PAVEMENT MARKINGS AND SIGNING SYMBOLS

EXISTING PROPOSED

---	---	PAVEMENT ARROW AND LEGEND
		CROSSWALK
SL	SL	STOP LINE, 12" WHITE LINE 4' BEHIND CW (TYP.)
SWLL	---	SOLID WHITE LANE LINE - 6"
BWLL	---	BROKEN WHITE LANE LINE - 6"
SWCHL	---	SOLID WHITE CHANNELIZING LINE - SIZE AS NOTED
SYCHL	---	SOLID YELLOW CHANNELIZATION LINE - SIZE AS NOTED
BYCL	---	BROKEN YELLOW CENTERLINE - 6"
DYCL	---	DOUBLE YELLOW CENTERLINE-2-6" LINES
SWEL	---	SOLID WHITE EDGE LINE - 6"
⊕	⊕	SIGN AND POST
▲▲▲	▲▲▲	DELINEATOR
▲▲▲	▲▲▲	YIELD GRAPHIC (SHARKS TEETH)
⊕	⊕	BICYCLE GRAPHIC

DRAIN STRUCTURE/INVERT ASSIGNMENT



IN CHARGE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 DWGNAME: \_\_\_\_\_

WESTON & SAMPSON

**CAMBRIDGE  
BROADWAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	3	21

PROJECT FILE NO. 605684

**TYPICAL SECTIONS  
AND PAVEMENT NOTES**

**PAVEMENT NOTES**

**PROPOSED PAVEMENT MILLING AND OVERLAY:**

**SURFACE:** 1-3/4" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER 1-3/4" PAVEMENT MICRO-MILLING.

ASPHALT EMULSION FOR TACK COAT (RS-1) AT 0.07 GAL/SY OVER MILLED SURFACES AND 0.05 GAL/SY OVER SMOOTH SURFACES PRIOR TO PAVING HMA OVERLY.

PAVEMENT MILLING VARIABLE DEPTH (2" MINIMUM) TO MEET PROPOSED GRADING MULTIPLE PASSES WITH THE PAVEMENT MILLING TO REMOVE EXISTING PAVEMENT AS SHOWN ON THE PLANS AND TO PROVIDE A STABLE SURFACE FOR PAVING OVERLAY SHALL BE INCIDENTAL TO PAVEMENT MILLING COST PER SQUARE YARD.

**PROPOSED FULL DEPTH CONSTRUCTION LESS THAN 4 FEET WIDE:**

**SURFACE:** 1-3/4" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER 1 3/4" PAVEMENT MICRO-MILLING.

**SUBBASE:** 8" CEMENT CONCRETE BASE COURSE OVER 8" GRAVEL BORROW, TYPE B

**PROPOSED HOT MIX ASPHALT DRIVEWAY:**

**SURFACE:** 1-3/4" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER 1-3/4" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)

**SUBBASE:** 8" GRAVEL BORROW, TYPE B

**PROPOSED CEMENT CONCRETE WALK:**

**SURFACE:** 4" CEMENT CONCRETE

**SUBBASE:** 8" GRAVEL BORROW, TYPE B

**PROPOSED CEMENT CONCRETE SIDEWALK AT DRIVE:**

**SURFACE:** 6" CEMENT CONCRETE

**SUBBASE:** 8" GRAVEL BORROW, TYPE B

**PROPOSED CEMENT CONCRETE WHEELCHAIR RAMP:**

**SURFACE:** 4" CEMENT CONCRETE

**SUBBASE:** 8" GRAVEL BORROW, TYPE B

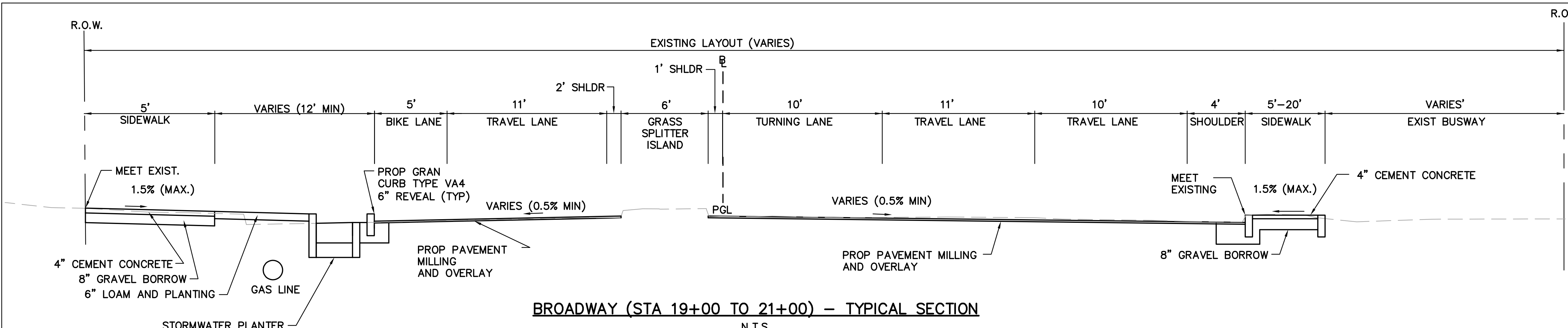
**PROPOSED GRASS SPLITTER ISLAND:**

**SURFACE:** 4" LOAM BORROW, SEEDED

**SUBBASE:** 8" GRAVEL BORROW, TYPE B

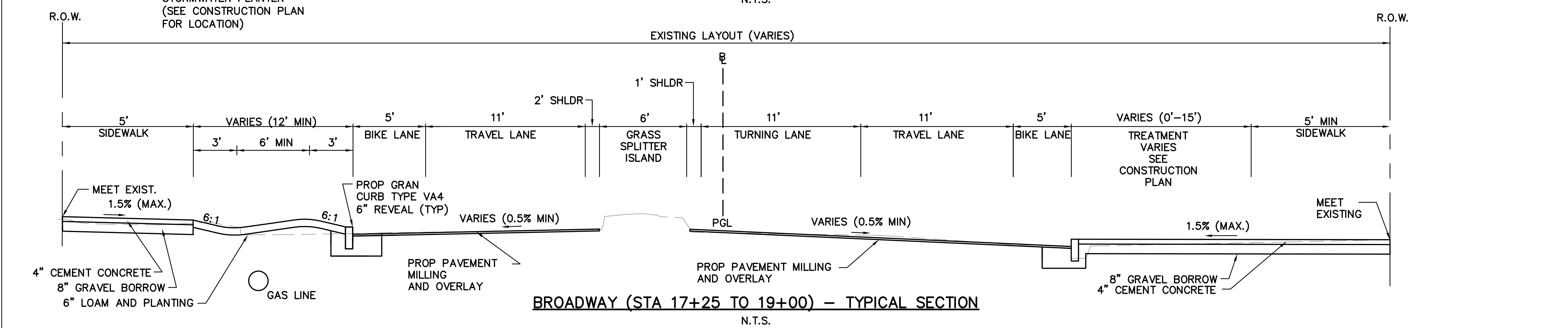
**PROPOSED LOAM:**

4" LOAM BORROW (SEE LANDSCAPING PLAN FOR COVER MATERIAL)



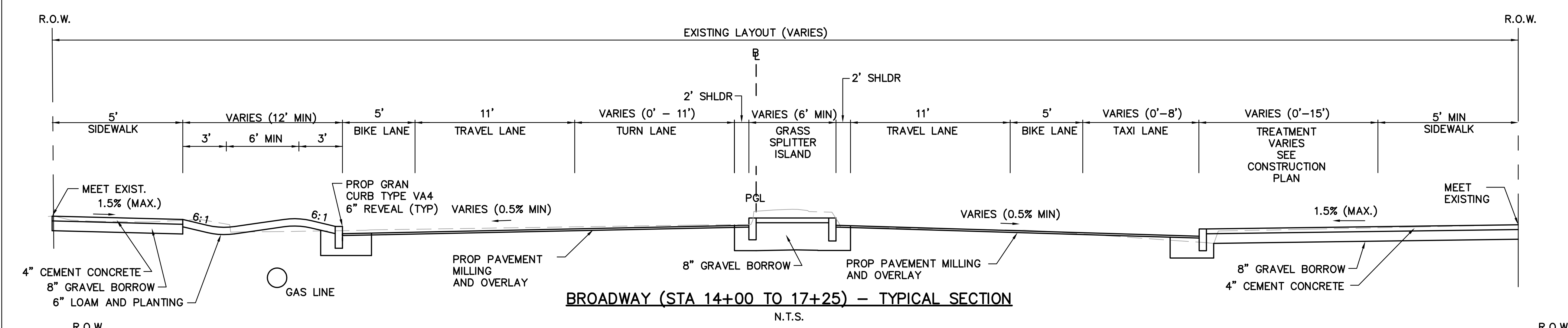
**BROADWAY (STA 19+00 TO 21+00) – TYPICAL SECTION**

N.T.S.



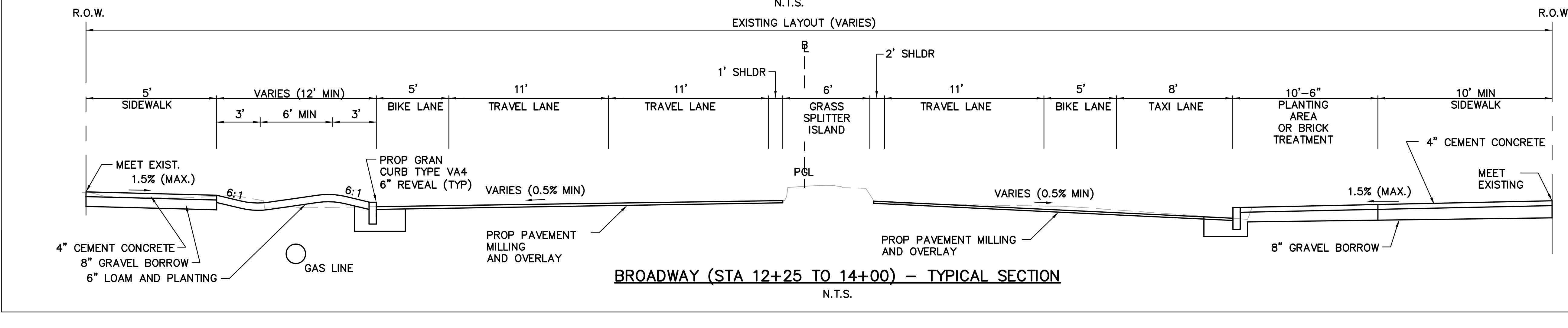
**BROADWAY (STA 17+25 TO 19+00) – TYPICAL SECTION**

N.T.S.



**BROADWAY (STA 14+00 TO 17+25) – TYPICAL SECTION**

N.T.S.



**BROADWAY (STA 12+25 TO 14+00) – TYPICAL SECTION**

N.T.S.

WESTON & SAMPSON

IN CHARGE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DIVISION: \_\_\_\_\_

**CAMBRIDGE  
BROADWAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	4	21

PROJECT FILE NO. 605684

**CONSTRUCTION PLAN**

STEEL W BEAM HIGHWAY GUARD  
NONE

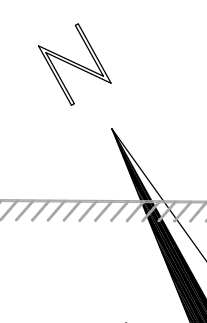
DRAINAGE DETAILS  
SEE BELOW

WATER SUPPLY ALTERATIONS  
SEE BELOW

TRAFFIC SIGNAL CONDUIT  
NONE

LANDSCAPING & PLANTING DETAILS  
SEE LANDSCAPING PLAN

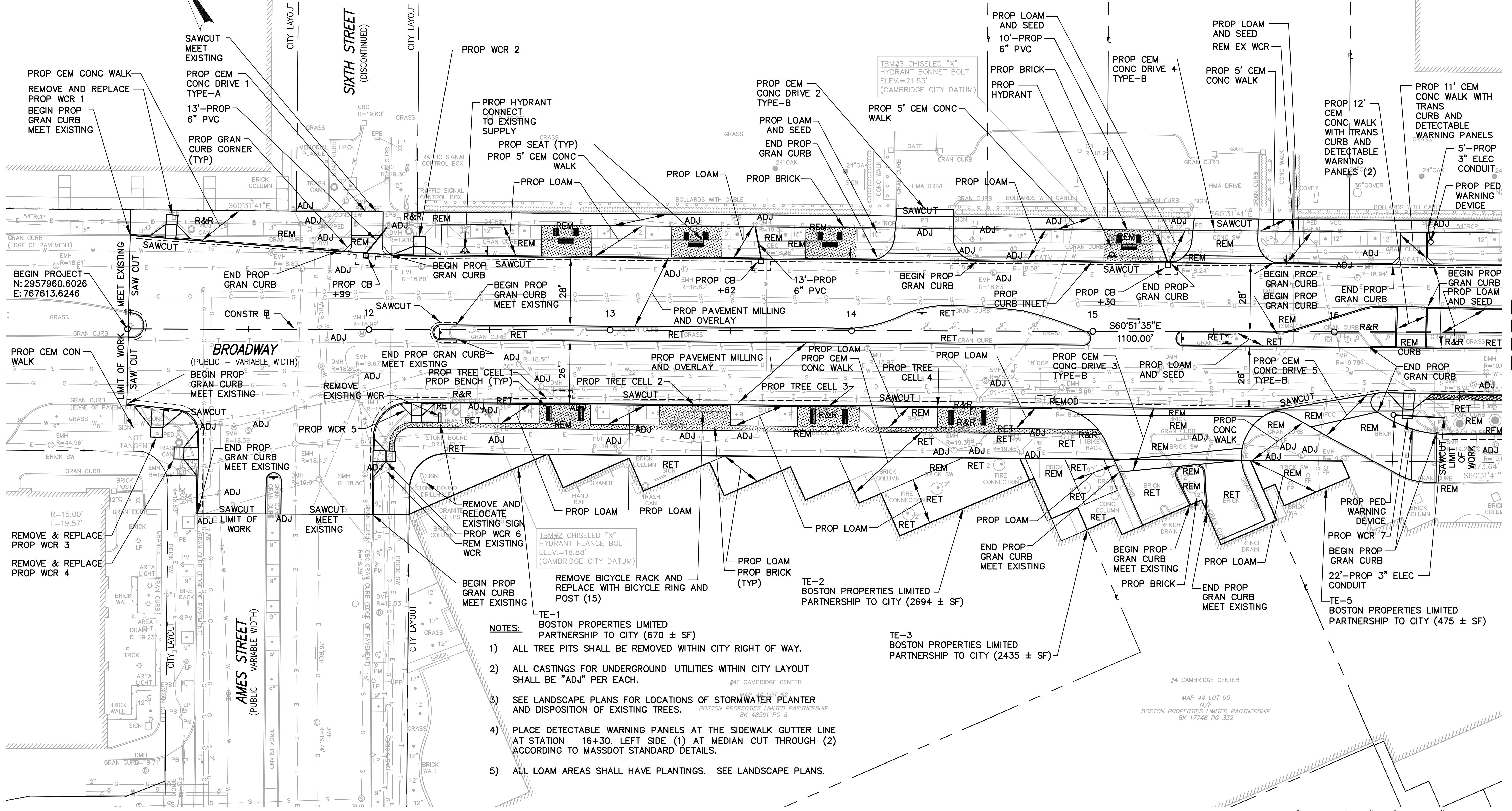
STATION 11+00  
BEGIN PROJECT



MAP 44 LOT 89  
N/A  
UNITED STATES OF AMERICA

MAP 44 LOT 87  
N/A  
UNITED STATES OF AMERICA

MAP 44 LOT 88  
N/A  
UNITED STATES OF AMERICA



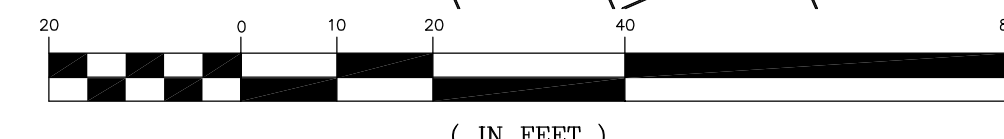
**NOTES:**

- 1) ALL TREE PITS SHALL BE REMOVED WITHIN CITY RIGHT OF WAY.
- 2) ALL CASTINGS FOR UNDERGROUND UTILITIES WITHIN CITY LAYOUT SHALL BE "ADJ" PER EACH.
- 3) SEE LANDSCAPE PLANS FOR LOCATIONS OF STORMWATER PLANTER AND DISPOSITION OF EXISTING TREES.
- 4) PLACE DETECTABLE WARNING PANELS AT THE SIDEWALK GUTTER LINE AT STATION 16+30. LEFT SIDE (1) AT MEDIAN CUT THROUGH (2) ACCORDING TO MASSDOT STANDARD DETAILS.
- 5) ALL LOAM AREAS SHALL HAVE PLANTINGS. SEE LANDSCAPE PLANS.

TE-1  
BOSTON PROPERTIES LIMITED  
PARTNERSHIP TO CITY (670 ± SF)

TE-2  
BOSTON PROPERTIES LIMITED  
PARTNERSHIP TO CITY (2694 ± SF)

TE-3  
BOSTON PROPERTIES LIMITED  
PARTNERSHIP TO CITY (2435 ± SF)



SEE SHEET 9 FOR PROFILE

( IN FEET )  
1 inch = 20 ft.

CONTINUED ON  
SHEET 5

IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_ CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DWGNAME: \_\_\_\_\_

**CAMBRIDGE BROADWAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	5	21

PROJECT FILE NO. 605684

**CONSTRUCTION PLAN**

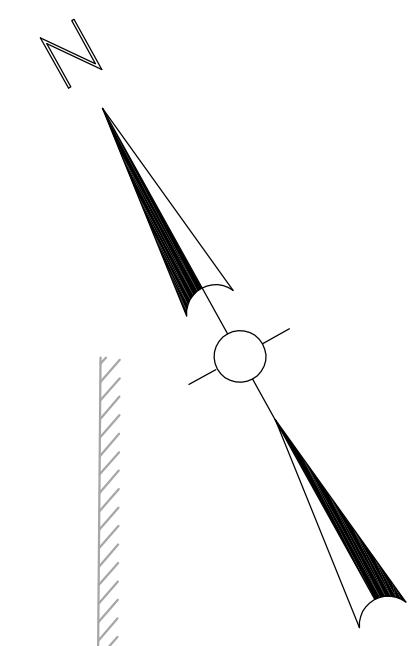
STEEL W BEAM HIGHWAY GUARD  
NONE

DRAINAGE DETAILS  
SEE BELOW

WATER SUPPLY ALTERATIONS  
SEE BELOW

TRAFFIC SIGNAL CONDUIT  
NONE

LANDSCAPING & PLANTING DETAILS  
SEE LANDSCAPING PLAN



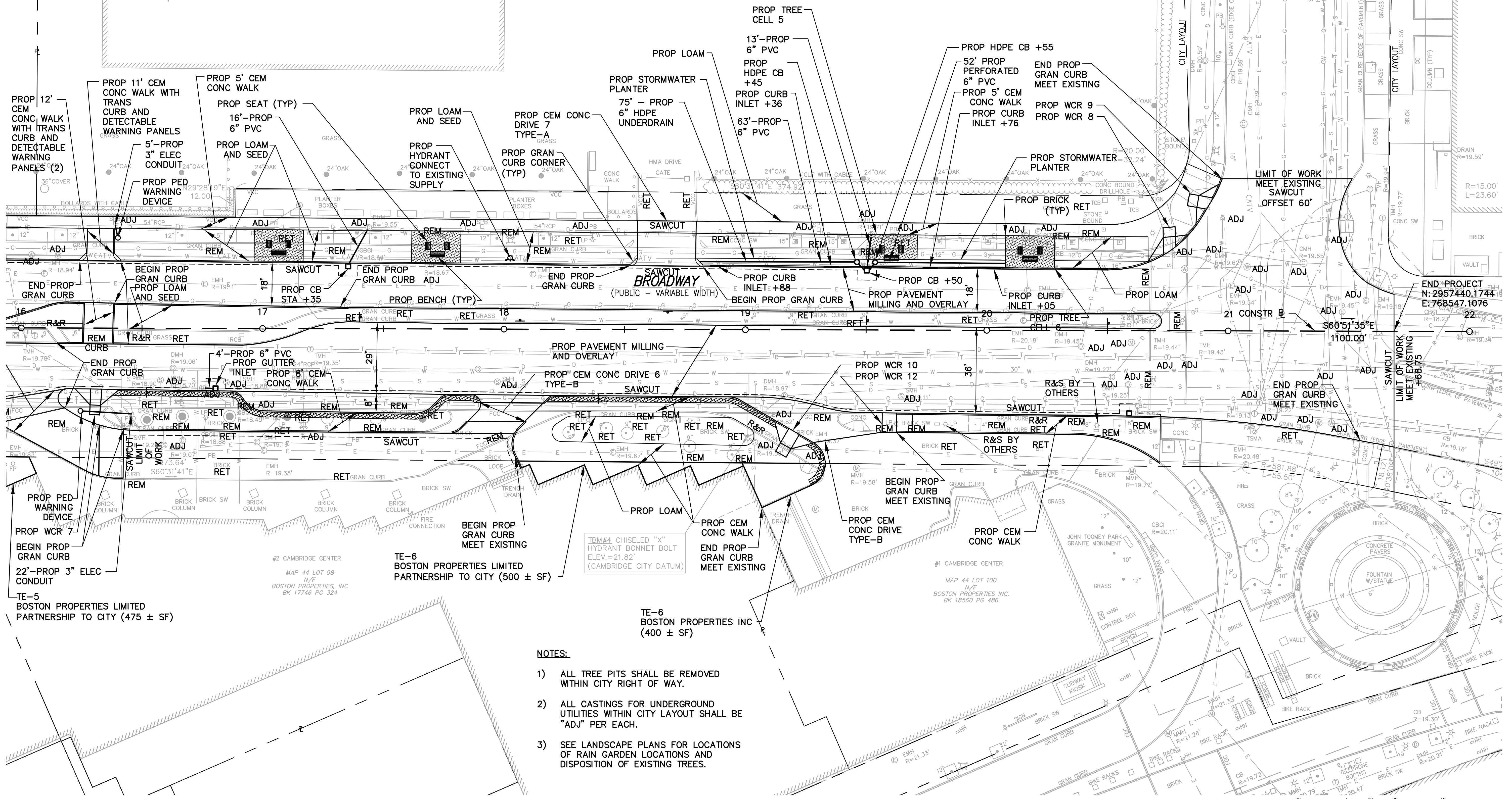
#33 BROADWAY  
MAP 44 LOT 71  
N/F  
UNITED STATES OF AMERICA  
L.C.G. 8046

THIRD STREET  
(PUBLIC - VARIABLE WIDTH)

STATION 21+68.75  
END PROJECT

CONTINUED ON  
SHEET 4

WESTON & SAMPSON



TE-5  
BOSTON PROPERTIES LIMITED  
PARTNERSHIP TO CITY (475 ± SF)

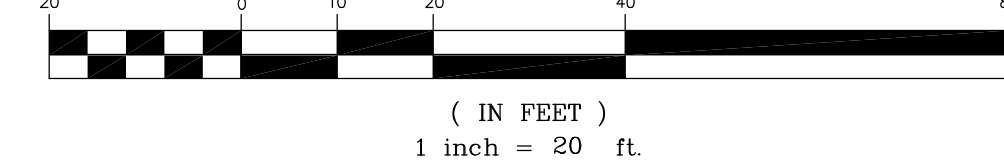
#2 CAMBRIDGE CENTER  
MAP 44 LOT 98  
N/F  
BOSTON PROPERTIES, INC  
BK 17746 PG 324

TE-6  
BOSTON PROPERTIES LIMITED  
PARTNERSHIP TO CITY (500 ± SF)

TE-6  
BOSTON PROPERTIES INC  
(400 ± SF)

- NOTES:**
- 1) ALL TREE PITS SHALL BE REMOVED WITHIN CITY RIGHT OF WAY.
  - 2) ALL CASTINGS FOR UNDERGROUND UTILITIES WITHIN CITY LAYOUT SHALL BE "ADJ" PER EACH.
  - 3) SEE LANDSCAPE PLANS FOR LOCATIONS OF RAIN GARDEN LOCATIONS AND DISPOSITION OF EXISTING TREES.

SEE SHEET 6 FOR PROFILE



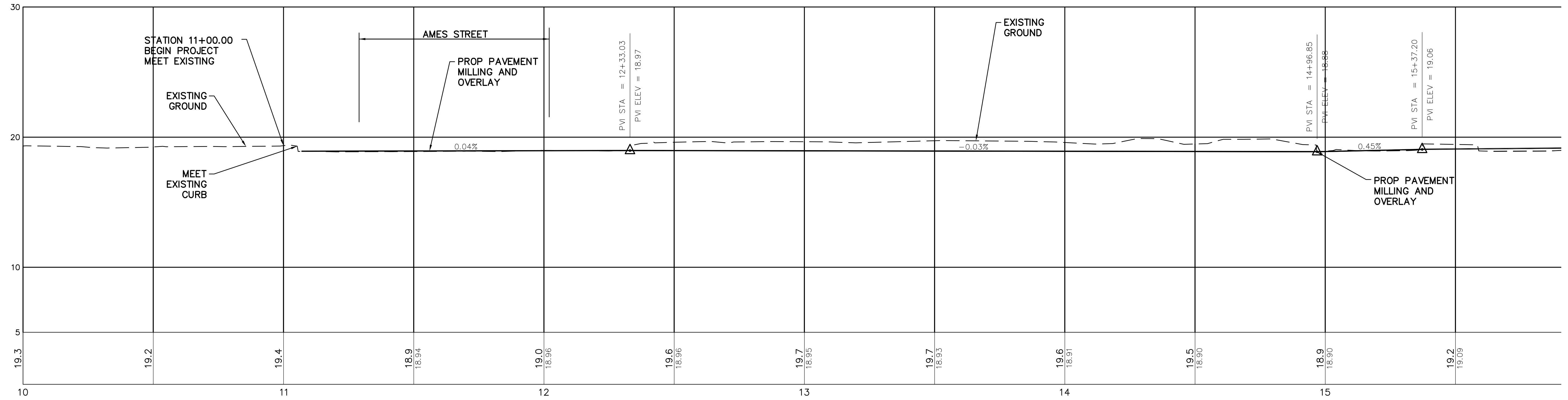
IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_ CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DIVISION: \_\_\_\_\_

CAMBRIDGE  
BROADWAY

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	6	21

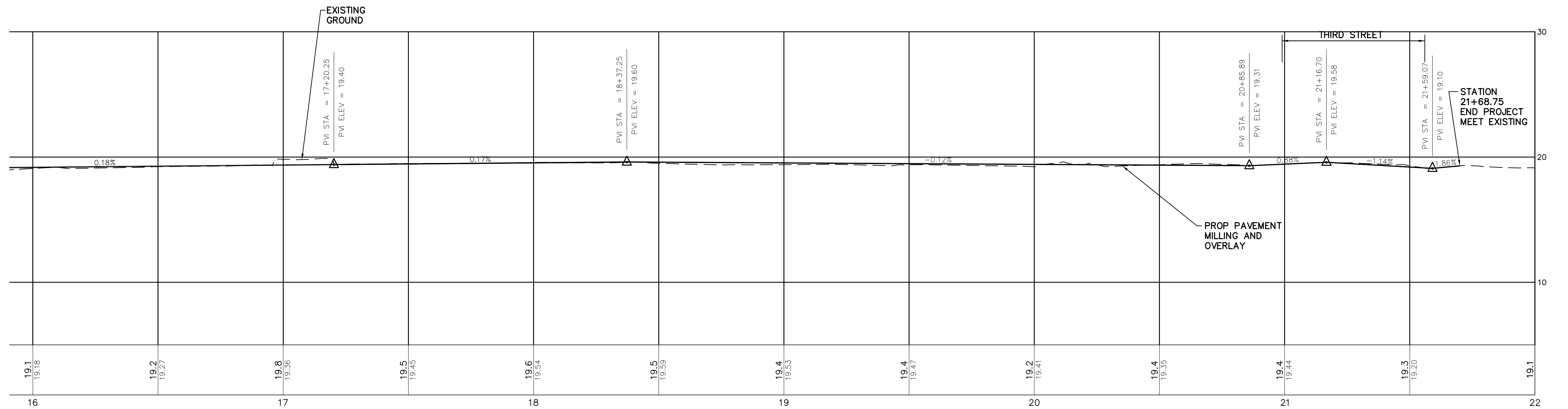
PROJECT FILE NO. 605684

PROFILE



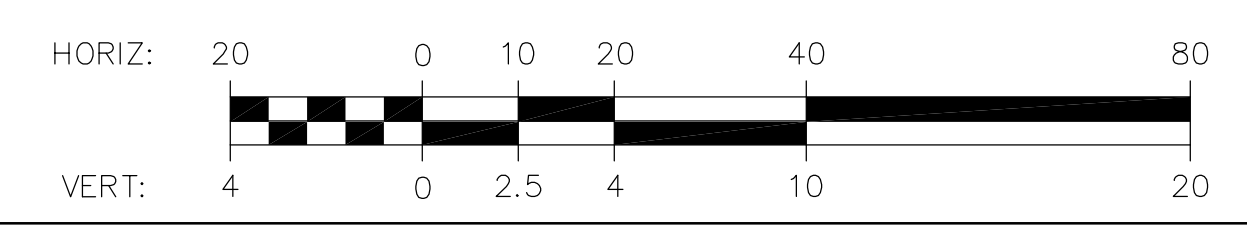
CONTINUED  
BELOW

WESTON & SAMPSON



CONTINUED  
ABOVE

IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DIVISION: \_\_\_\_\_



SEE SHEETS 4 AND 5 FOR CONSTRUCTION PLANS

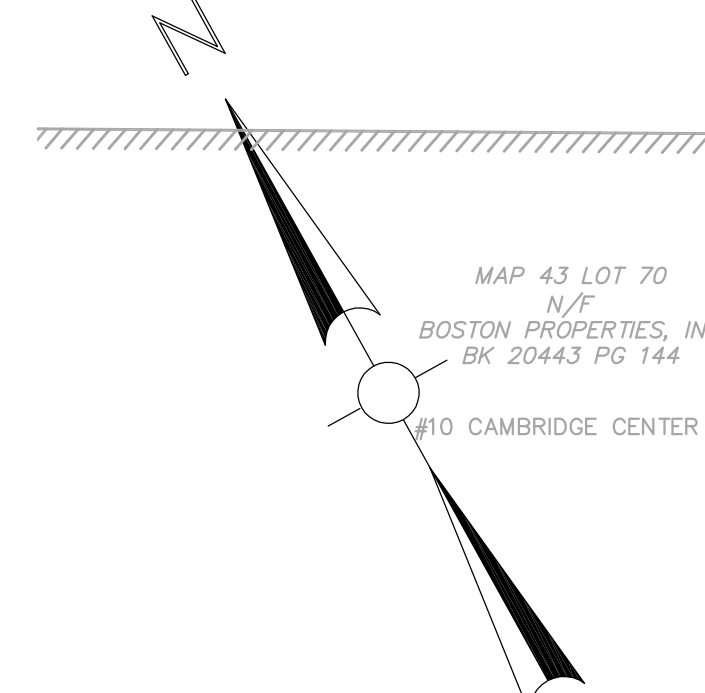
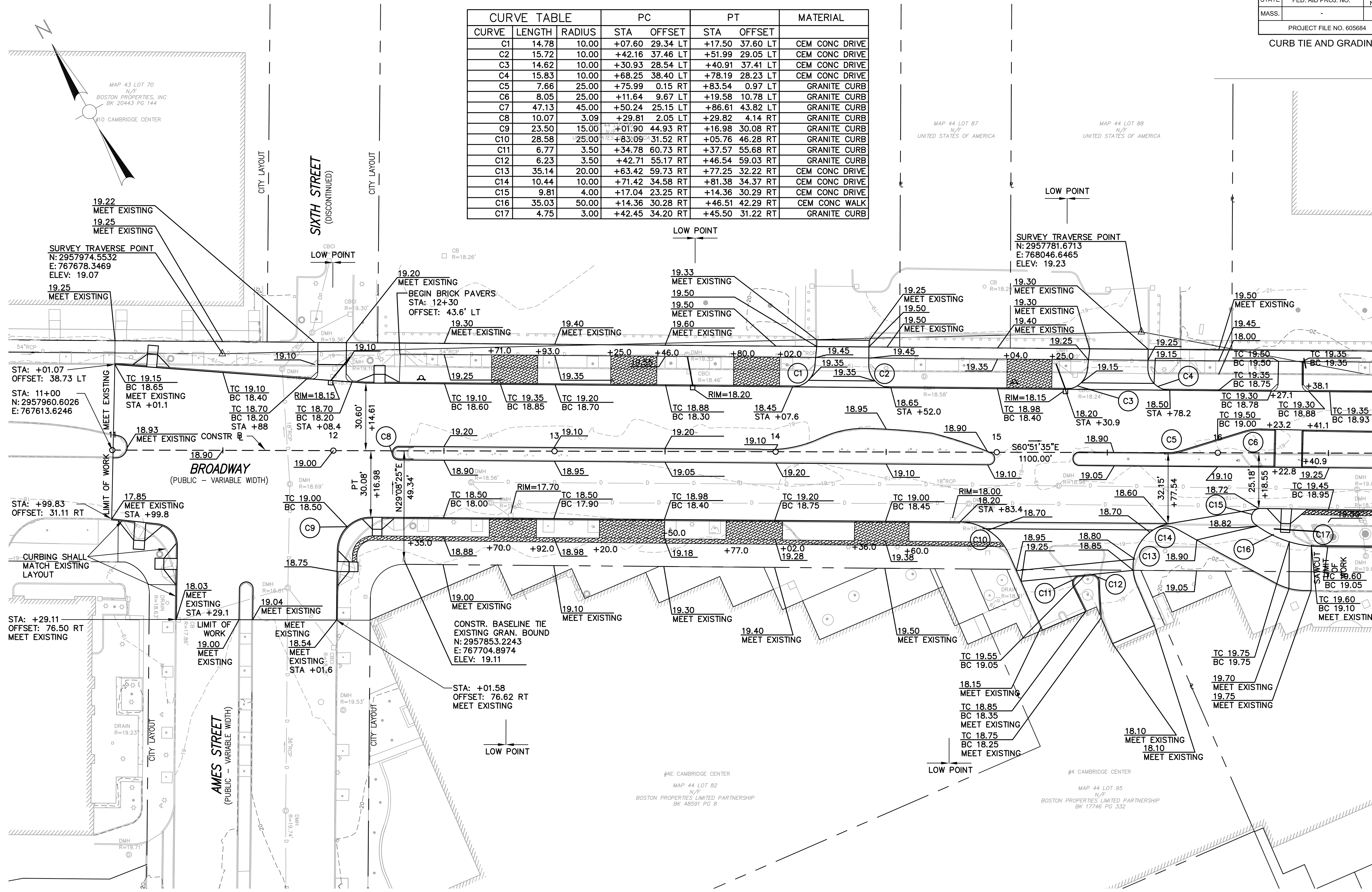
CAMBRIDGE BROADWAY

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	7	21

PROJECT FILE NO. 605684

CURB TIE AND GRADING PLAN

CURVE	LENGTH	RADIUS	PC		PT		MATERIAL
			STA	OFFSET	STA	OFFSET	
C1	14.78	10.00	+07.60	29.34 LT	+17.50	37.60 LT	CEM CONC DRIVE
C2	15.72	10.00	+42.16	37.46 LT	+51.99	29.05 LT	CEM CONC DRIVE
C3	14.62	10.00	+30.93	28.54 LT	+40.91	37.41 LT	CEM CONC DRIVE
C4	15.83	10.00	+68.25	38.40 LT	+78.19	28.23 LT	CEM CONC DRIVE
C5	7.66	25.00	+75.99	0.15 RT	+83.54	0.97 LT	GRANITE CURB
C6	8.05	25.00	+11.64	9.67 LT	+19.58	10.78 LT	GRANITE CURB
C7	47.13	45.00	+50.24	25.15 LT	+86.61	43.82 LT	GRANITE CURB
C8	10.07	3.09	+29.81	2.05 LT	+29.82	4.14 RT	GRANITE CURB
C9	23.50	15.00	+01.90	44.93 RT	+16.98	30.08 RT	GRANITE CURB
C10	28.58	25.00	+83.09	31.52 RT	+05.76	46.28 RT	GRANITE CURB
C11	6.77	3.50	+34.78	60.73 RT	+37.57	55.68 RT	GRANITE CURB
C12	6.23	3.50	+42.71	55.17 RT	+46.54	59.03 RT	GRANITE CURB
C13	35.14	20.00	+63.42	59.73 RT	+77.25	32.22 RT	CEM CONC DRIVE
C14	10.44	10.00	+71.42	34.58 RT	+81.38	34.37 RT	CEM CONC DRIVE
C15	9.81	4.00	+17.04	23.25 RT	+14.36	30.29 RT	CEM CONC DRIVE
C16	35.03	50.00	+14.36	30.28 RT	+46.51	42.29 RT	CEM CONC WALK
C17	4.75	3.00	+42.45	34.20 RT	+45.50	31.22 RT	GRANITE CURB



MAP 43 LOT 70  
N/F  
BOSTON PROPERTIES, INC  
BK 20443 PG 144

#10 CAMBRIDGE CENTER

MAP 44 LOT 87  
N/F  
UNITED STATES OF AMERICA

MAP 44 LOT 88  
N/F  
UNITED STATES OF AMERICA

STA: +01.07  
OFFSET: 38.73 LT

STA: 11+00  
N: 2957960.6026  
E: 767613.6246

STA: +99.83  
OFFSET: 31.11 RT

STA: +29.11  
OFFSET: 76.50 RT  
MEET EXISTING

19.20  
MEET EXISTING  
BEGIN BRICK PAVERS  
STA: 12+30  
OFFSET: 43.6' LT

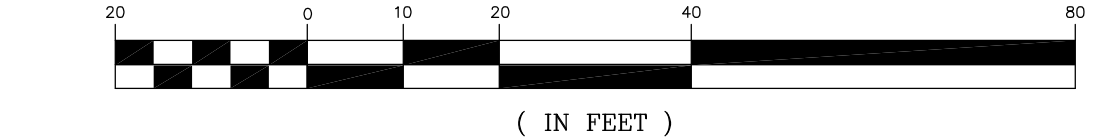
CONSTR. BASELINE TIE  
EXISTING GRAN. BOUND  
N: 2957853.2243  
E: 767704.8974  
ELEV: 19.11

STA: +01.58  
OFFSET: 76.62 RT  
MEET EXISTING

SURVEY TRAVERSE POINT  
N: 2957781.6713  
E: 768046.6465  
ELEV: 19.23

STA: 19+00  
N: 2957853.2243  
E: 767704.8974  
ELEV: 19.11

IN CHARGE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
DATE: \_\_\_\_\_  
DIVISION: \_\_\_\_\_



CONTINUED ON SHEET 8

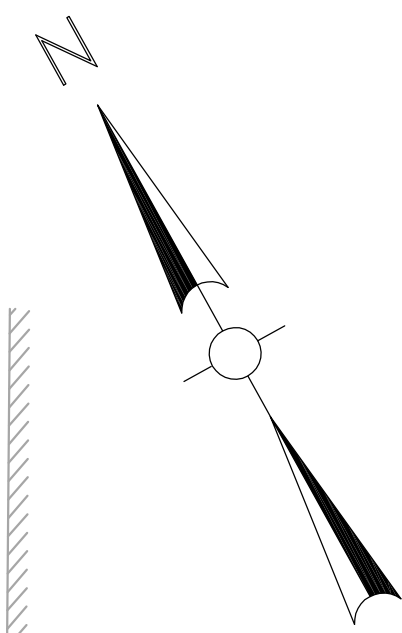
CAMBRIDGE  
BROADWAY

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.		8	21

PROJECT FILE NO. 605684

CURB TIE AND GRADING PLAN

CURVE	LENGTH	RADIUS	PC		PT		MATERIAL
			STA	OFFSET	STA	OFFSET	
C18							
C19	5.65	2.56	+74.82	33.26 RT	+77.15	37.18 RT	GRANITE CURB
C20	9.33	4.00	+88.09	25.46 RT	+90.94	32.24 RT	GRANITE CURB
C21	12.19	10.00	+04.34	51.90 RT	+06.29	40.62 RT	GRANITE CURB
C22	3.98	5.00	+19.71	27.16 RT	+23.29	25.26 RT	GRANITE CURB
C23	5.18	10.00	+89.98	26.09 RT	+94.92	27.44 RT	GRANITE CURB
C24	31.68	100.00	+99.03	26.14 RT	+30.16	31.31 RT	GRANITE CURB
C25	17.50	56.00	+30.16	31.31 RT	+47.33	34.20 RT	GRANITE CURB
C26	21.89	10.00	+28.23	46.68 RT	+27.38	64.43 RT	GRANITE CURB
C27	50.17	59.82	+36.25	43.05 RT	+80.62	63.15 RT	GRANITE CURB
C28	94.00	490.00	+61.61	35.41 RT	+54.83	45.37 RT	GRANITE CURB
C29	6.00	6.00	+86.77	25.95 RT	+91.62	28.51 RT	GRANITE CURB
C30	10.00	9.00	+92.63	29.93 RT	+00.65	34.13 RT	GRANITE CURB
C31							

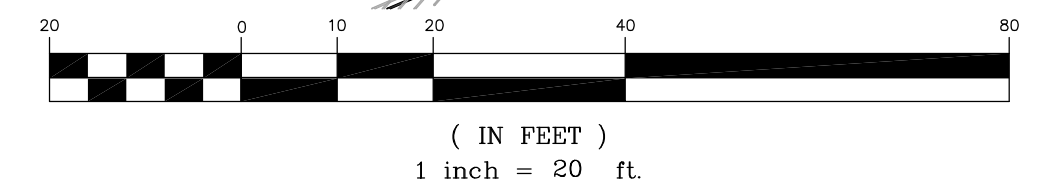
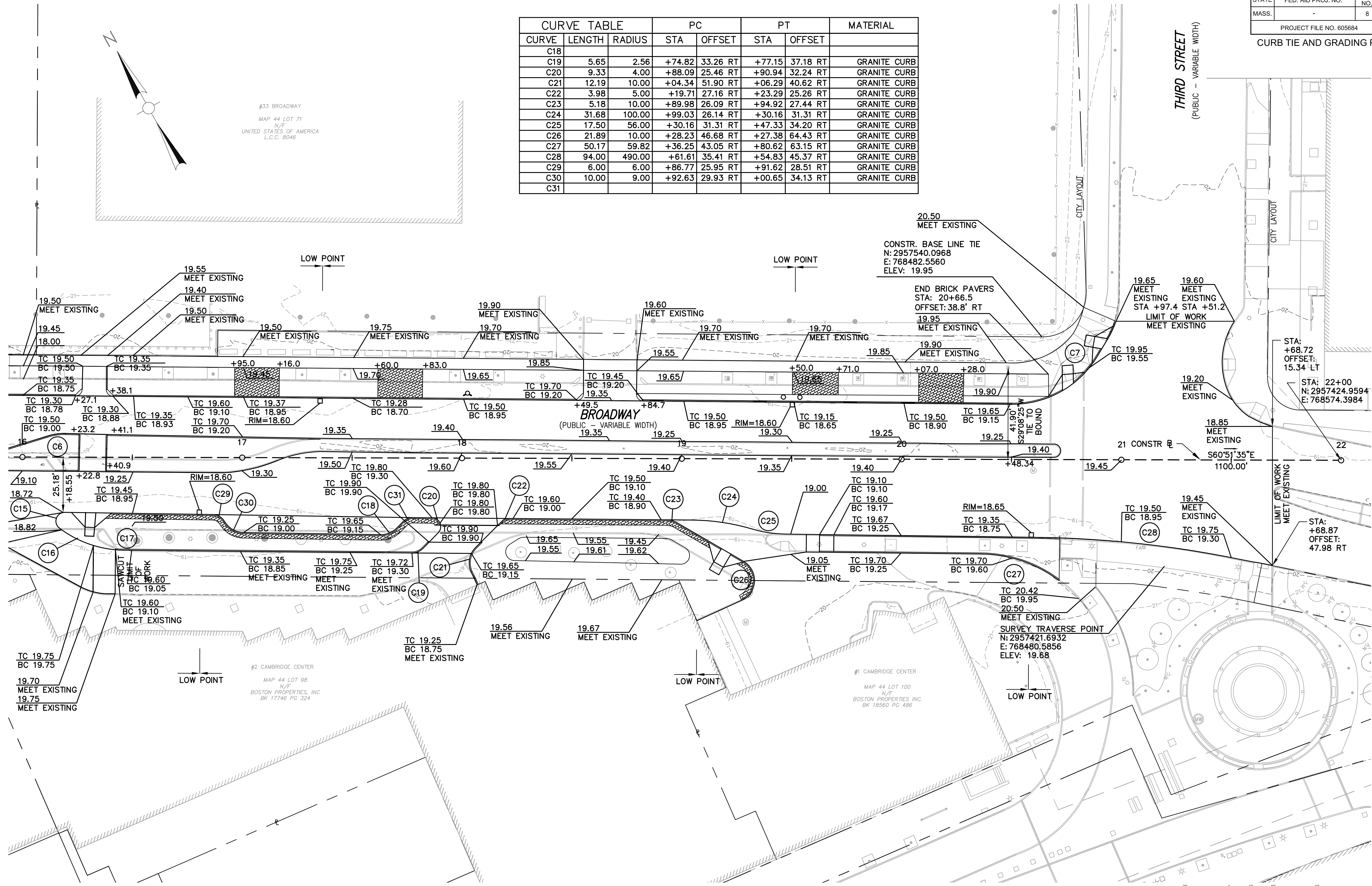


#33 BROADWAY  
MAP 44 LOT 71  
N/F  
UNITED STATES OF AMERICA  
L.C.G. 6046

THIRD STREET  
(PUBLIC - VARIABLE WIDTH)

CONTINUED ON  
SHEET 7

IN CHARGE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
DATE: \_\_\_\_\_  
DIVISION: \_\_\_\_\_




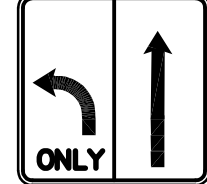





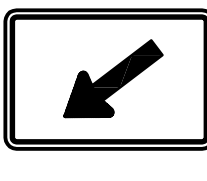


**CAMBRIDGE  
BROADWAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	9	21

PROJECT FILE NO. 605684

**TRAFFIC SIGN SUMMARY**

IDENTIFI- CATION NUMBER	TEXT	PANEL SIZE			NUMERALS & LETTERS						COLOR COMB.	NUMBER OF SIGNS REQUIRED	TOTAL AREA SQ. FT.	POST SIZE AND NUMBER REQUIRED	
		WIDTH	HEIGHT	CORNER RADII	BORDER WIDTH	MARGIN WIDTH	NUM. IN.	UPPER CASE	LOWER CASE	SERIES					
R3-2		24"	24"									RED, BLACK ON WHITE	4	16	P5-1
R3-8A		36"	30"									BLACK ON WHITE	3	23	P5-3
R3-8		30"	30"									BLACK ON WHITE	3	23	P5-3
R3-7L		30"	30"									BLACK ON WHITE	3	23	P5-3
R6-1R		36"	12"									BLACK ON WHITE	4	12	MOUNT WITH R3-2
R10-11a		30"	36"									BLACK ON WHITE	1	5	MOUNT ON EXISTING POLE (SEE PLAN)
W11-2		36"	36"									BLACK ON FLSNT YELLOW	2	18	MOUNT ON PED WARNING DEVICE
W16-7p (L & R)		24"	12"									BLACK ON FLSNT YELLOW	2 TOTAL (1 LEFT, 1 RIGHT)	4	MOUNT ON PED WARNING DEVICE

SEE STANDARD HIGHWAY SIGNS  
MANUAL, LATEST EDITION

**NOTES:**

1. SEE PAVEMENT MARKING AND SIGN PLAN FOR SIGN LOCATIONS
2. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS
3. CONSTRUCT AND ERECT ALL SIGNS IN ACCORDANCE WITH THE LATEST "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", AND "MASSHIGHWAY'S STANDARD DRAWINGS FOR SIGNS AND SUPPORTS", DATED 1990

WESTON & SAMPSON

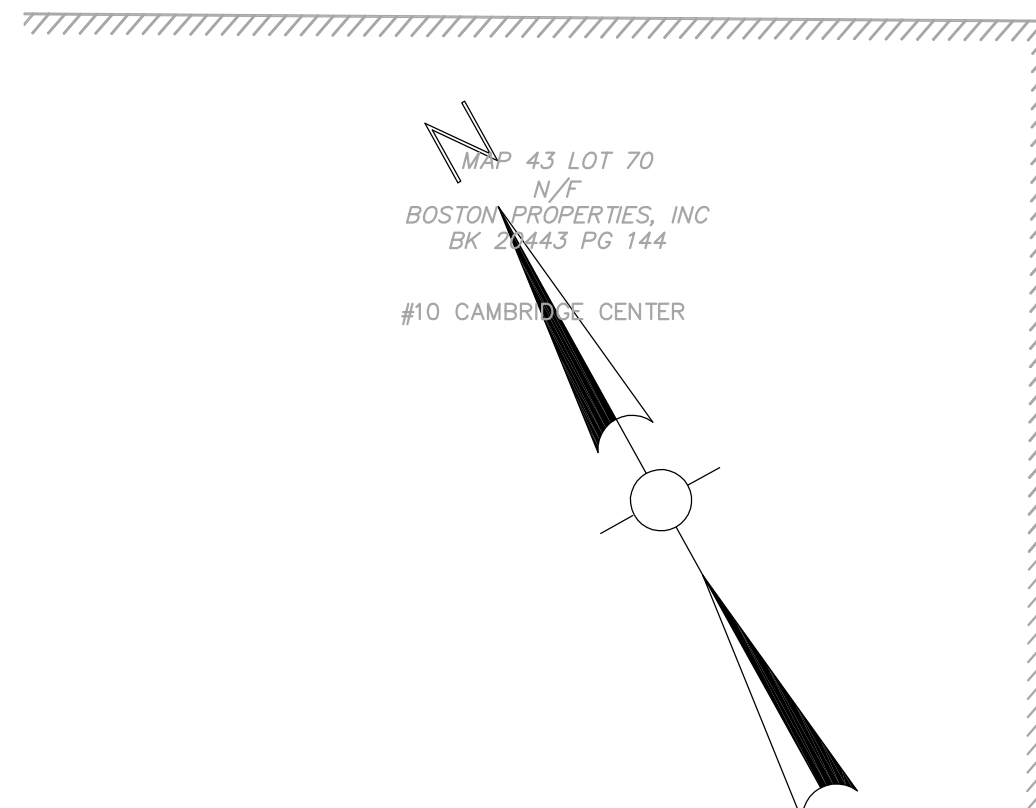
IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DIVISION: \_\_\_\_\_

**CAMBRIDGE  
BROADWAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	10	21

PROJECT FILE NO. 605684

**PAVEMENT MARKING AND  
SIGNPLAN**

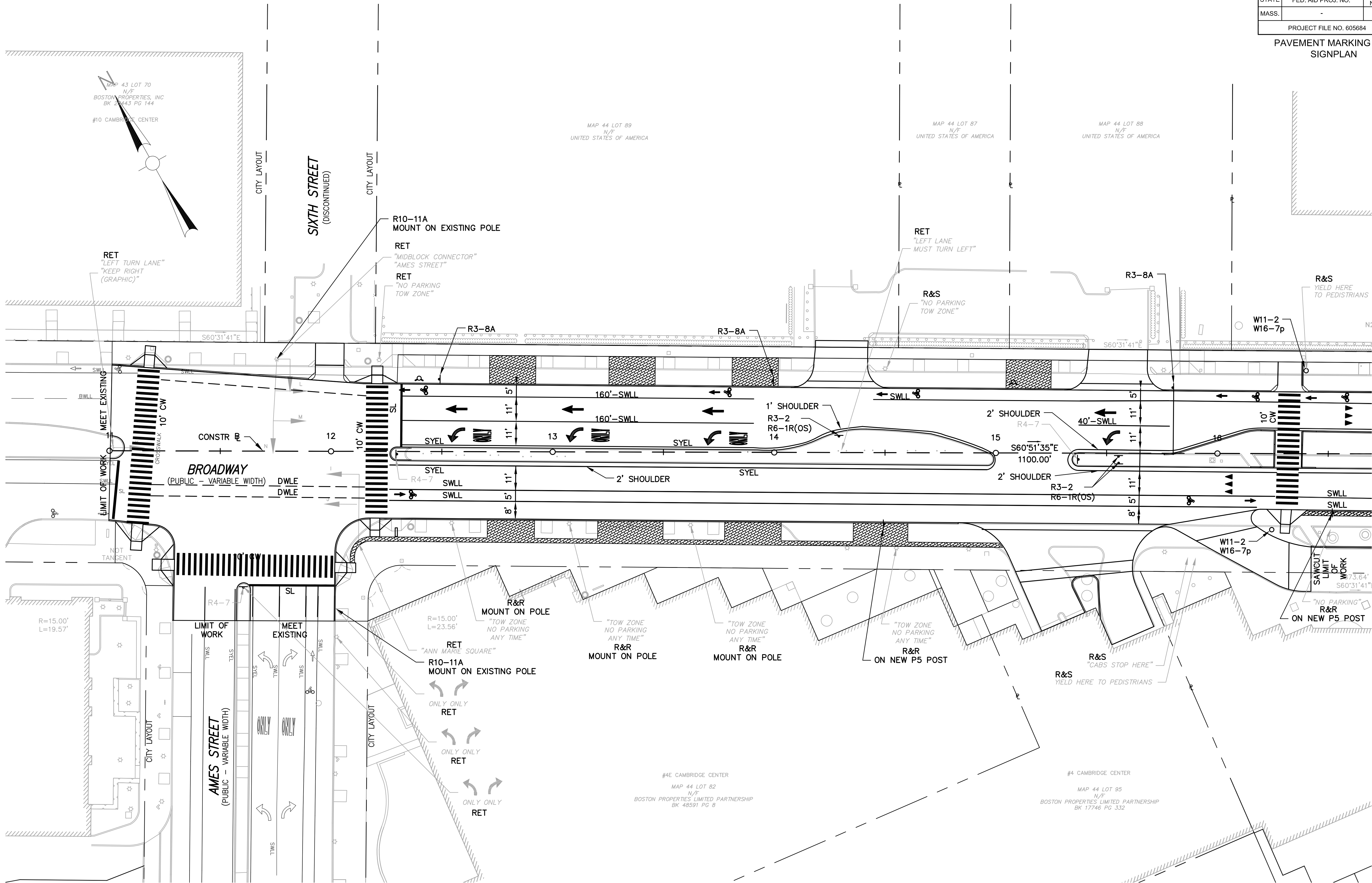


MAP 43 LOT 70  
N/F  
BOSTON PROPERTIES, INC  
BK 2443 PG 144  
#10 CAMBRIDGE CENTER

MAP 44 LOT 89  
N/F  
UNITED STATES OF AMERICA

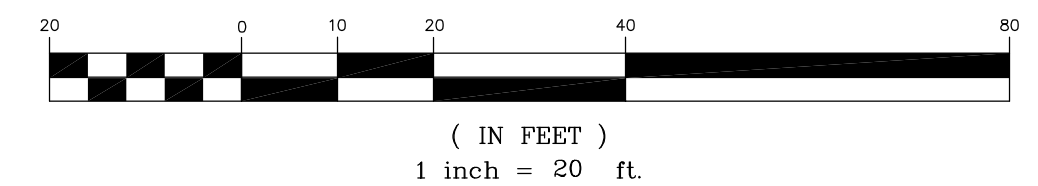
MAP 44 LOT 87  
N/F  
UNITED STATES OF AMERICA

MAP 44 LOT 88  
N/F  
UNITED STATES OF AMERICA



CONTINUED ON  
SHEET 11

IN CHARGE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
DATE: \_\_\_\_\_  
DIVISION: \_\_\_\_\_



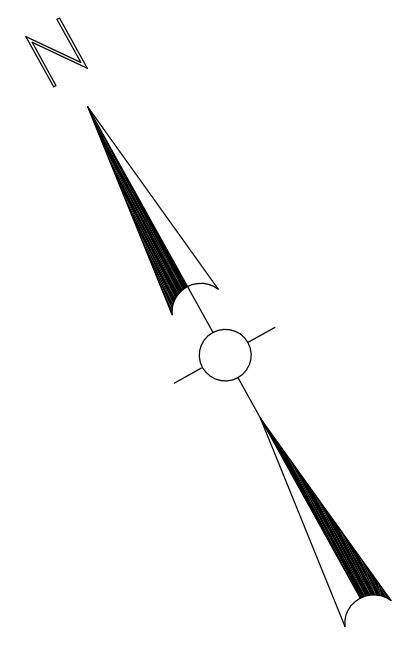
WESTON & SAMPSON

**CAMBRIDGE  
BROADWAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.		11	21

PROJECT FILE NO. 605684

**PAVEMENT MARKING AND  
SIGN PLAN**

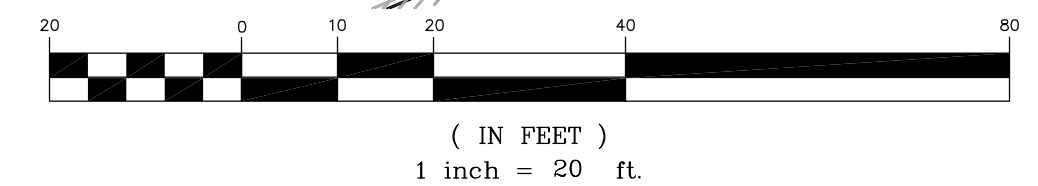
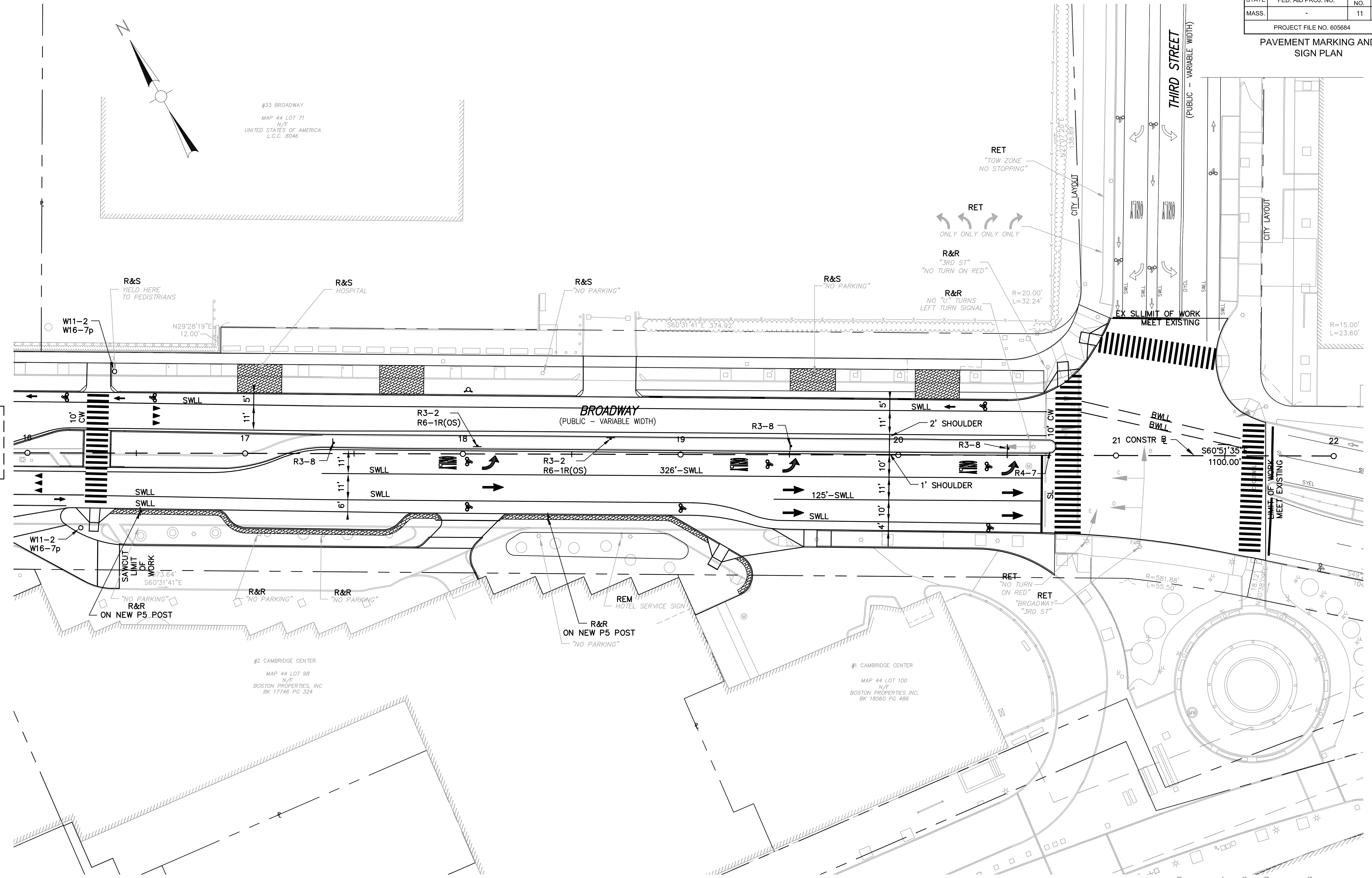


#33 BROADWAY  
MAP 44 LOT 71  
N/F  
UNITED STATES OF AMERICA  
L.C.G. 8046

**THIRD STREET**  
(PUBLIC - VARIABLE WIDTH)

CONTINUED ON  
SHEET 12

WESTON & SAMPSON



IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DWGNAME: \_\_\_\_\_

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	12	21
PROJECT FILE NO. 605684			

TRAFFIC MANAGEMENT DETAILS

NOTES:

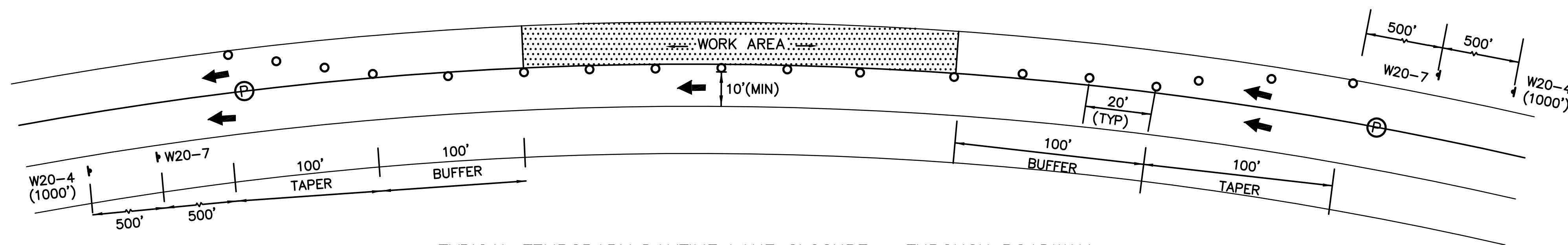
1. PLACEMENT OF ALL CONSTRUCTION SIGNS, DRUMS, BARRICADES, TRAFFIC DEVICES AND THE SHAPE, SIZE & COLOR OF ALL TEMPORARY TRAFFIC SIGNS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND REVISIONS.
2. ADVANCE WARNING SIGN PLACEMENT AND TAPER LENGTH SHALL BE ADJUSTED ACCORDING TO STREET CONDITIONS AND DRIVEWAY OPENINGS.
3. ALL DRUMS SHALL BE APPROXIMATELY PLACED AS PER THE PLANS AND RELOCATED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES.
4. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
5. NONESSENTIAL TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS.
6. PEDESTRIANS SHALL BE PROVIDED WITH ACCESS AND SAFE PASSAGE THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE AT ALL TIMES.
7. ADVISORY SPEED PLATES (W13-1) SHALL BE USED IF APPLICABLE AND AS DIRECTED BY THE ENGINEER.
8. R2-10a SIGN TO BE ERECTED BETWEEN W20-1 AND W20-4 SIGN.
9. MAINTAIN ONE LANE (MIN. 10' WIDTH) AT ALL TIMES DURING CONSTRUCTION.

LEGEND

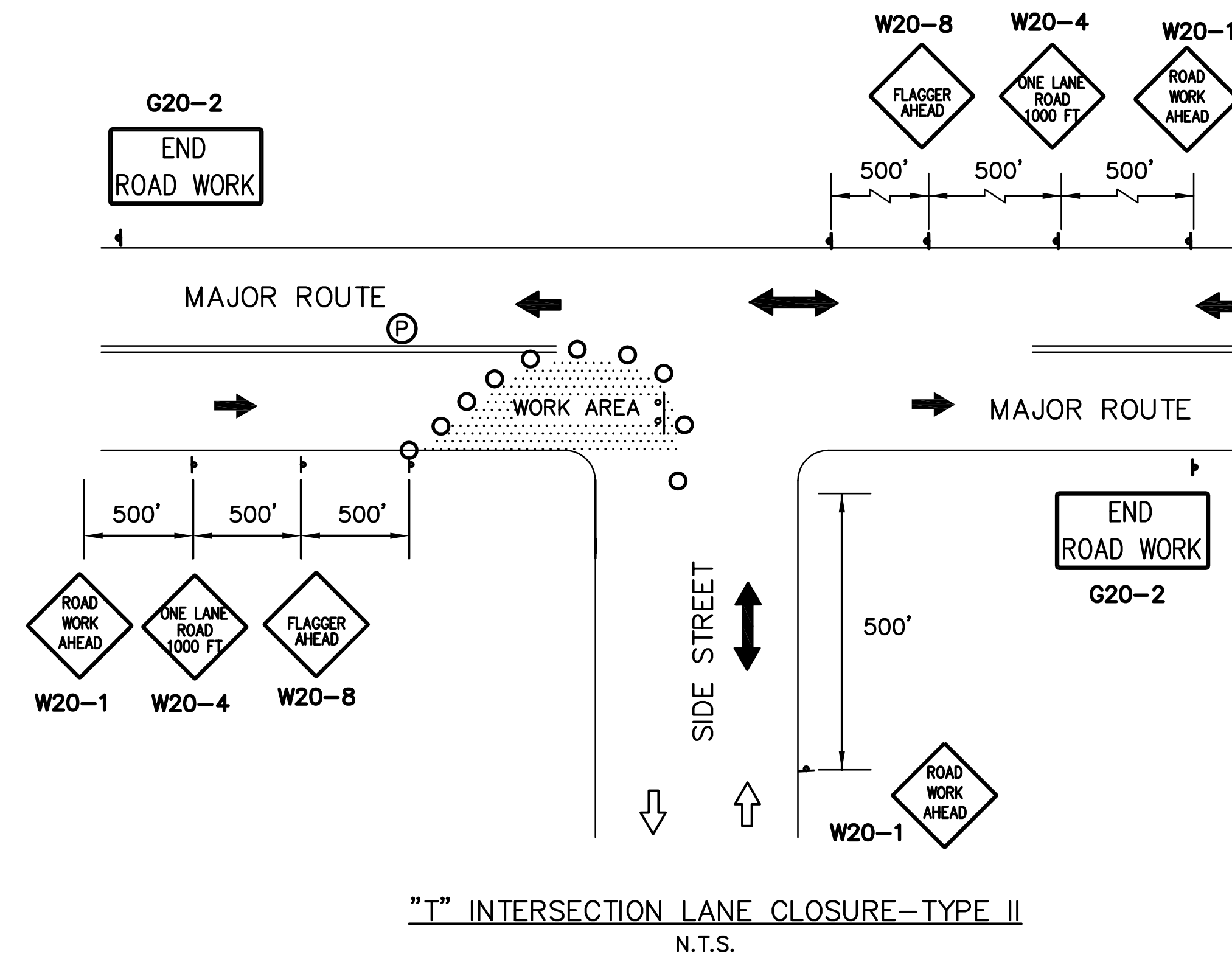
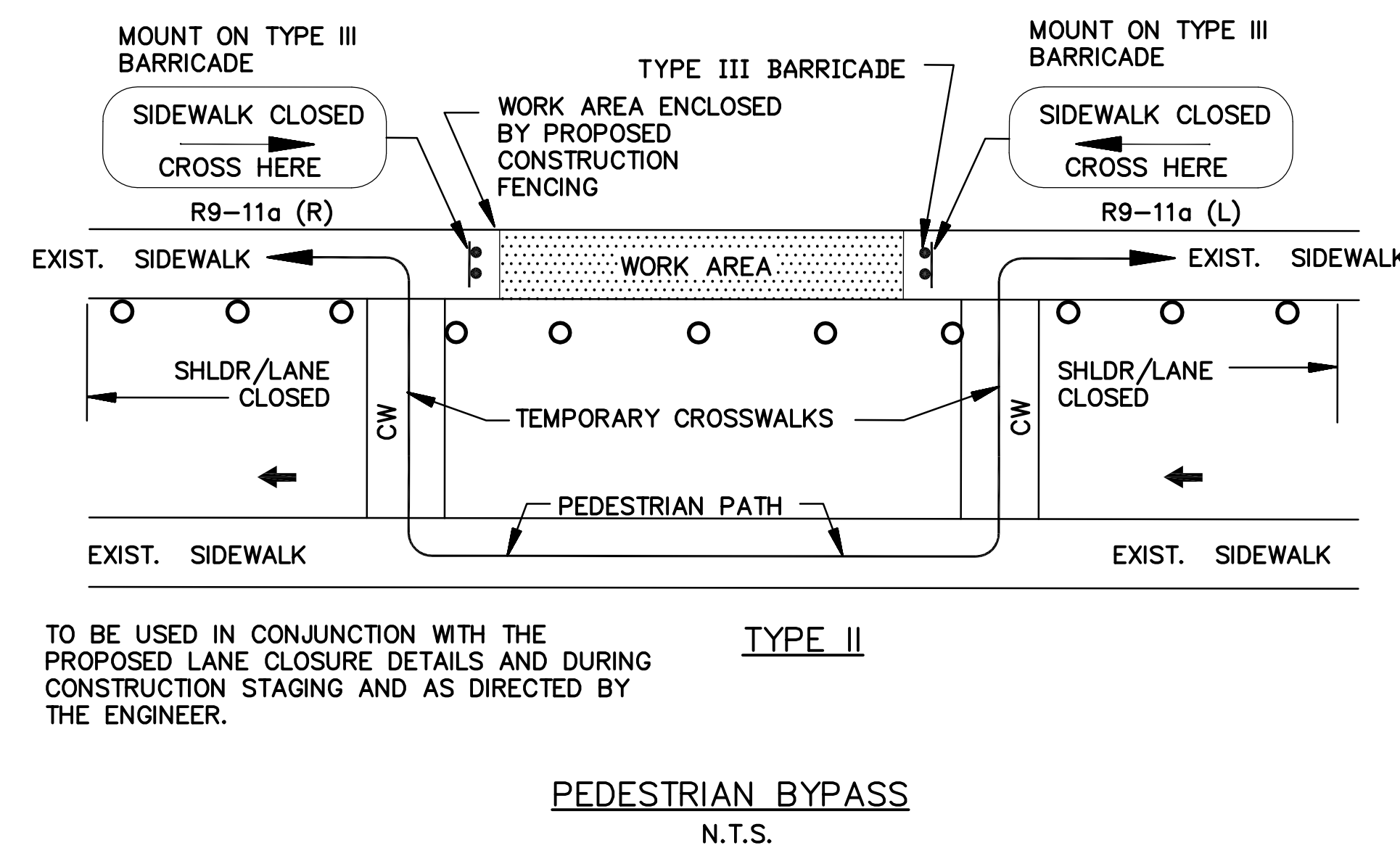
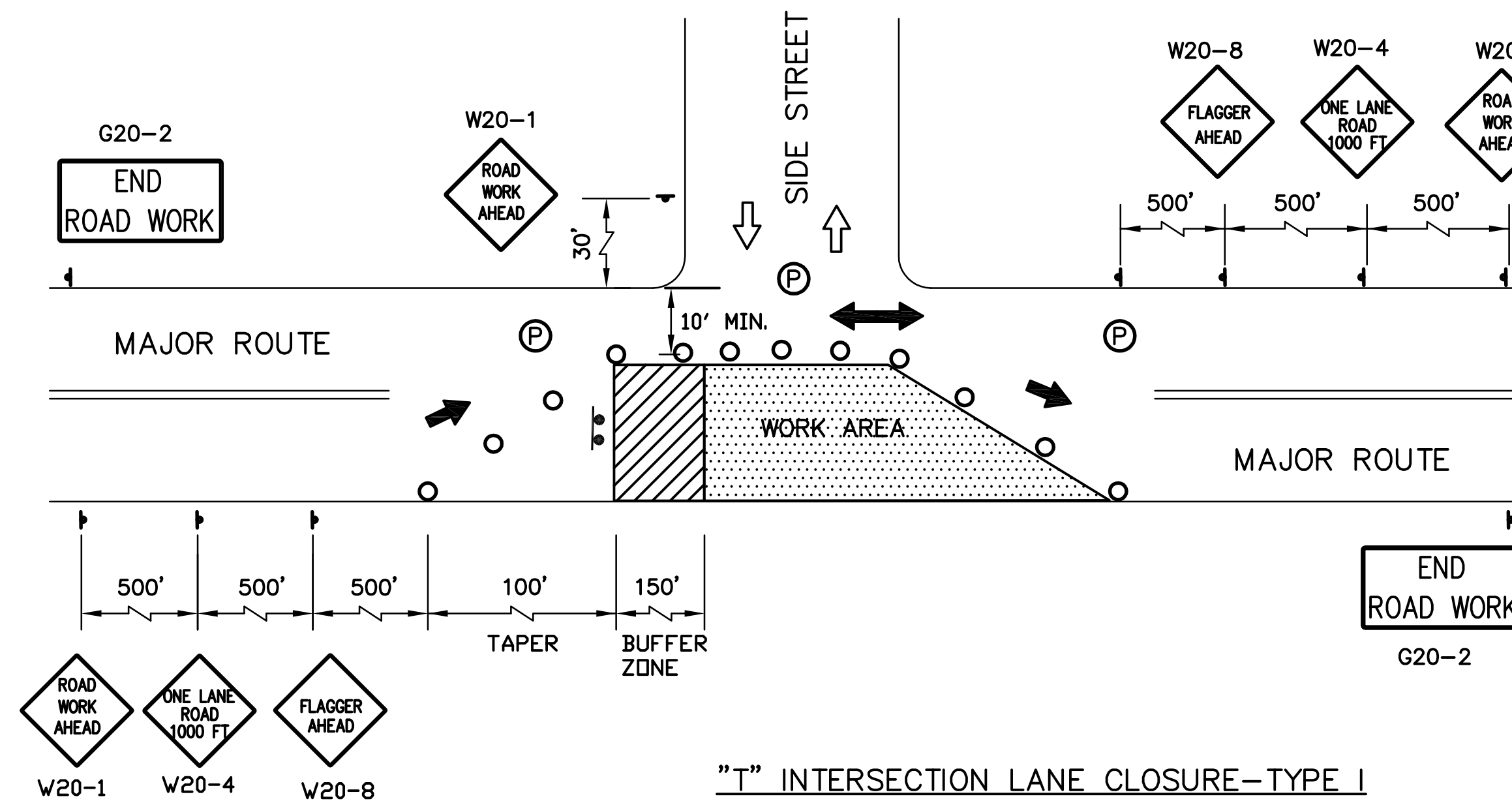
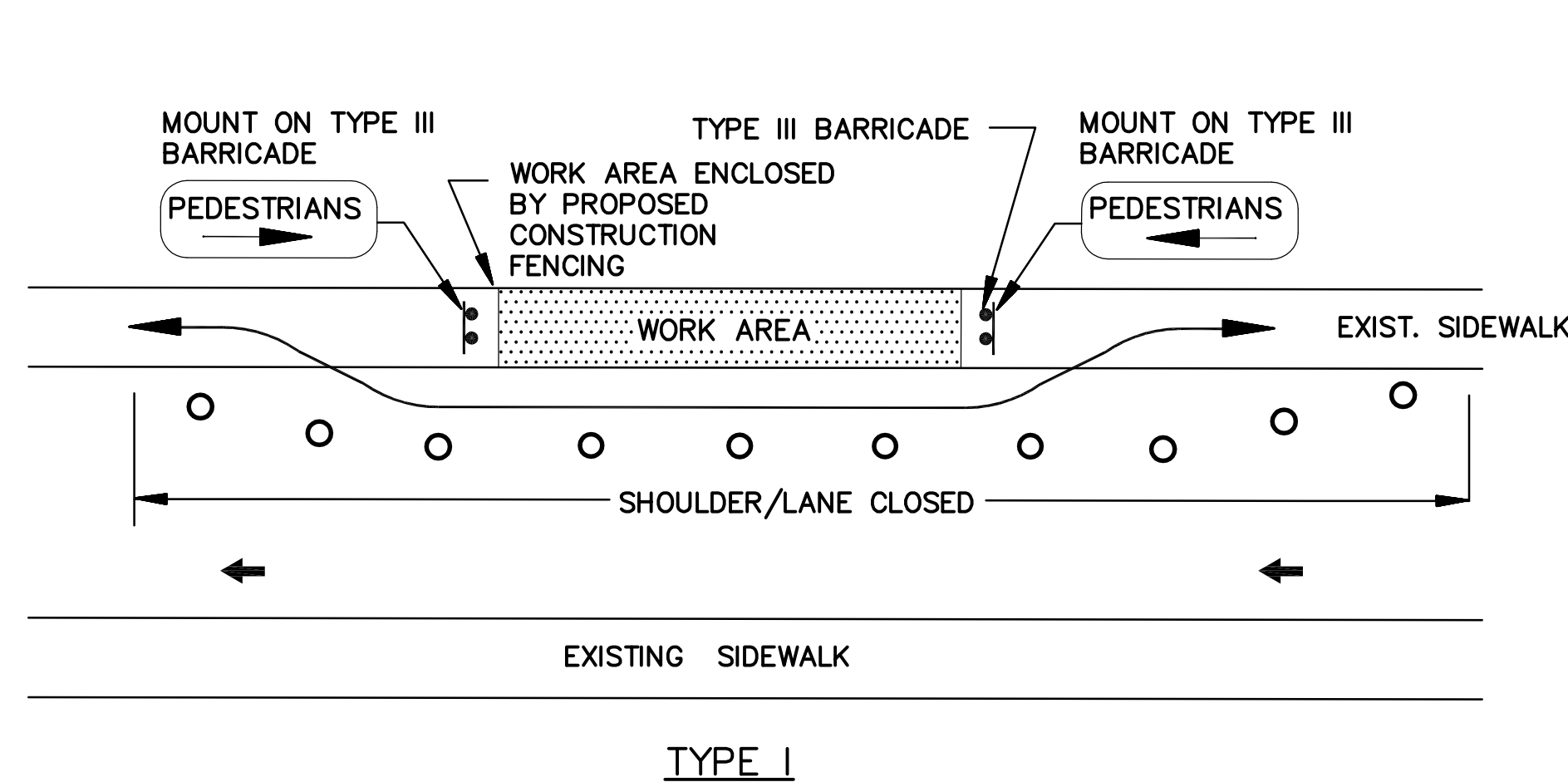
- |   |                                       |        |  |
|---|---------------------------------------|--------|--|
| □ | REFLECTORIZED CHANNELIZING DEVICE     | ⬇      | CONSTRUCTION SIGN  |
| ○ | REFLECTORIZED DRUM WITH LIGHT         | ▨      | WORK AREA  |
| ← | TRAFFIC FLOW DURING CONSTRUCTION      | N.T.S. | NOT TO SCALE   |
| ↔ | NORMAL TRAFFIC FLOW                   | →      | ARROW BOARD  |
| Ⓟ | POLICE DETAIL OFFICER OR FLAGGER      | ▬      | TEMPORARY PRECAST PORTABLE CONCRETE BARRIER W/WARNING LIGHTS |
| Ⓜ | PORTABLE BREAKAWAY BARRICADE TYPE III |        |  |
| ⊙ | TEMPORARY IMPACT ATTENUATOR           |        |  |

TEMPORARY TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	NOTES
	WIDTH	HEIGHT		
G20-2	36"	18"	END ROAD WORK	
R2-10a	48"	36"	WORK ZONE SPEEDING FINES DOUBLED	
W5-1	36"	36"	ROAD NARROWS	
W13-1P	24"	24"	15 M.P.H.	
W20-1	36"	36"	ROAD WORK AHEAD	
W20-4	36"	36"	ONE LANE ROAD 1000 FT	
W20-7a	36"	36"	FLAGGER AHEAD	



TYPICAL TEMPORARY DAYTIME LANE CLOSURE - THROUGH ROADWAY  
(SEPERATED HIGHWAY TWO LANE - ONE-DIRECTIONAL)  
N.T.S.



TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING AND AS DIRECTED BY THE ENGINEER.

WESTON & SAMPSON

IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DIVISION: \_\_\_\_\_

**CAMBRIDGE BROADWAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.		13	21

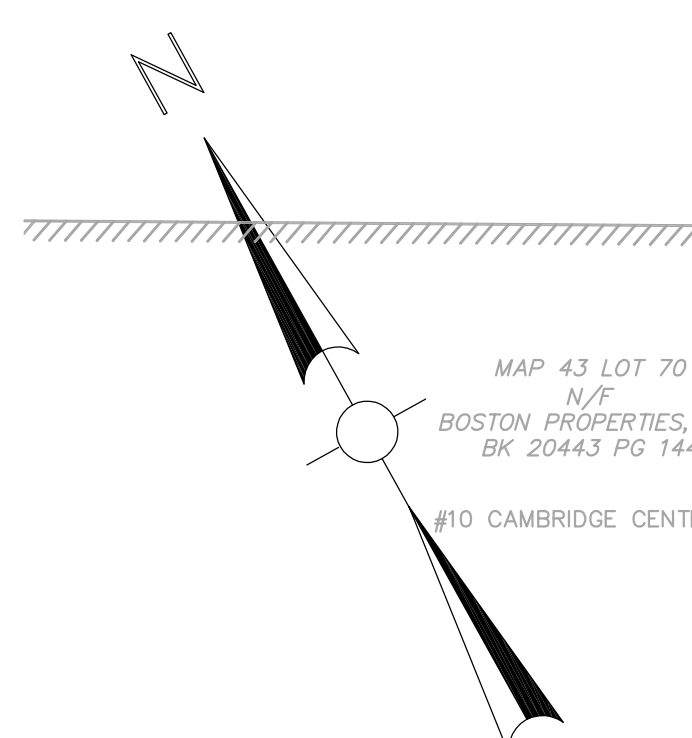
PROJECT FILE NO. 605684

**LANDSCAPING PLAN**

**PLANTING NOTES:**

- COORDINATE ALL PLANTING ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY THE CONSTRUCTION PLANS AS ENCOMPASSED BY THIS CONTRACT. SET, PROTECT AND REPLACE REFERENCE STAKES AS NECESSARY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- ALL LAYOUT LINES, OFFSETS, OR REFERENCES TO LOCATING OBJECTS ARE EITHER PARALLEL OR PERPENDICULAR UNLESS OTHERWISE DESIGNATED WITH ANGLE OFFSETS NOTED. VINES AND GROUNDCOVER ARE TO BE EQUALLY SPACED WITHIN BED AREA.
- STAKE ALL PROPOSED TREE AND PERENNIAL PLANTINGS FOR REVIEW AND POTENTIAL ADJUSTMENT BY THE CITY OF CAMBRIDGE.
- ALL EXISTING TREES ARE TO BE PROTECTED AND SHALL BE PRUNED AS PER SPECIFICATIONS.
- ALL PLANT MATERIAL SHALL BE APPROVED BY RESIDENT ENGINEER PRIOR TO INSTALLATION.

PLANT LIST			
<b>Trees</b>			
GB	Ginkgo biloba (male)	Ginkgo	
GT	Gelditsia tricanthos var inermis	Thornless Honey Locust	
QR	Quercus rubra	Northern Red Oak	
<b>Stormwater Planters</b>			
SS	Salvia sylvestris 'Snowhill'	Snowhill Sage	
LSW	Liatris spicata 'Floristan White'	White Gayfeather	
PV	Panicum virgatum	Switch grass	
SA	Sedum 'Autumn Joy'	Sedum	
BL	Baptisia lactea	White False Indigo	
SSC	Schizachyrium scoparium	Little blue stem	
<b>Ground Covers</b>			
[Pattern]	Loam & Seed	Allegheny Pachysandra	
[Pattern]	Pachysandra procumbens	Periwinkle	
[Pattern]	Vinca minor	English Ivy	
[Pattern]	Hedera helix	Lilyturf 'Okina'	
[Pattern]	Liriope muscari 'Okina'	Rock Cotoneaster 'Tom Thumb'	
[Pattern]	Cotoneaster horizontalis 'Tom Thumb'	Blue Pacific Shore Juniper	
[Pattern]	Juniperus conferta 'Blue Pacific'		



MAP 43 LOT 70  
N/F  
BOSTON PROPERTIES, INC  
BK 20443 PG 144  
#10 CAMBRIDGE CENTER

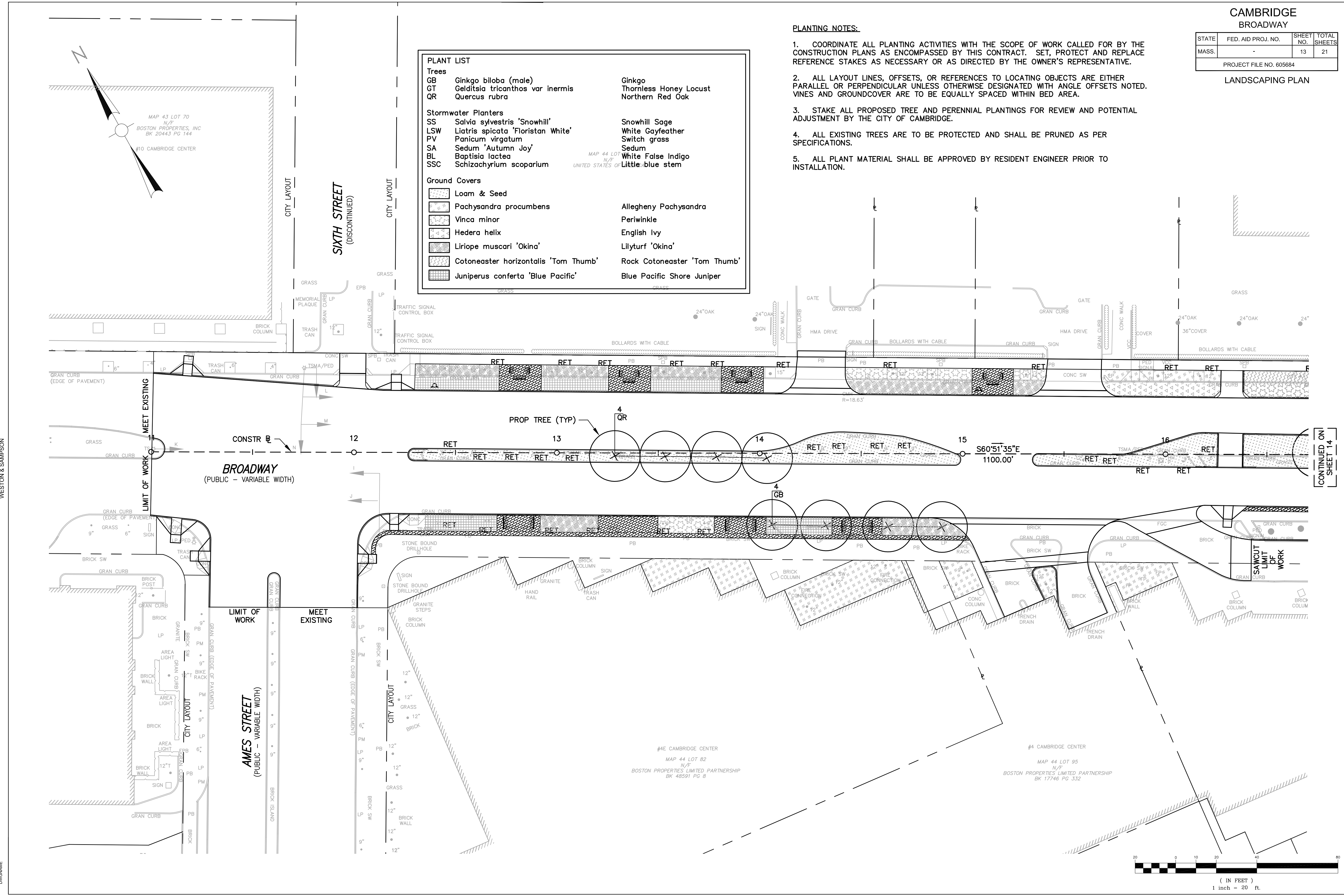
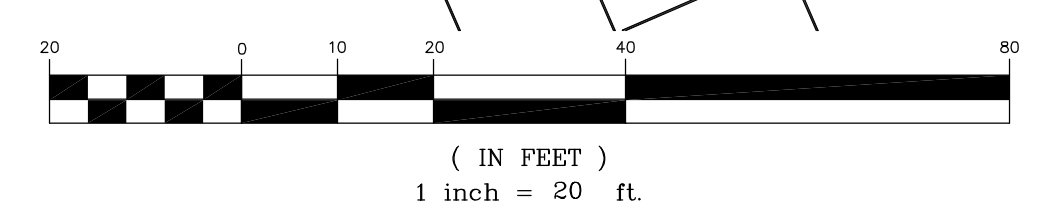
MAP 44 LOT 82  
N/F  
BOSTON PROPERTIES LIMITED PARTNERSHIP  
BK 48391 PG 8

MAP 44 LOT 95  
N/F  
BOSTON PROPERTIES LIMITED PARTNERSHIP  
BK 17746 PG 332

WESTON & SAMPSON

CONTINUED ON SHEET 14

IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DWGNAME: \_\_\_\_\_



**CAMBRIDGE  
BROADWAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	14	21

PROJECT FILE NO. 605684

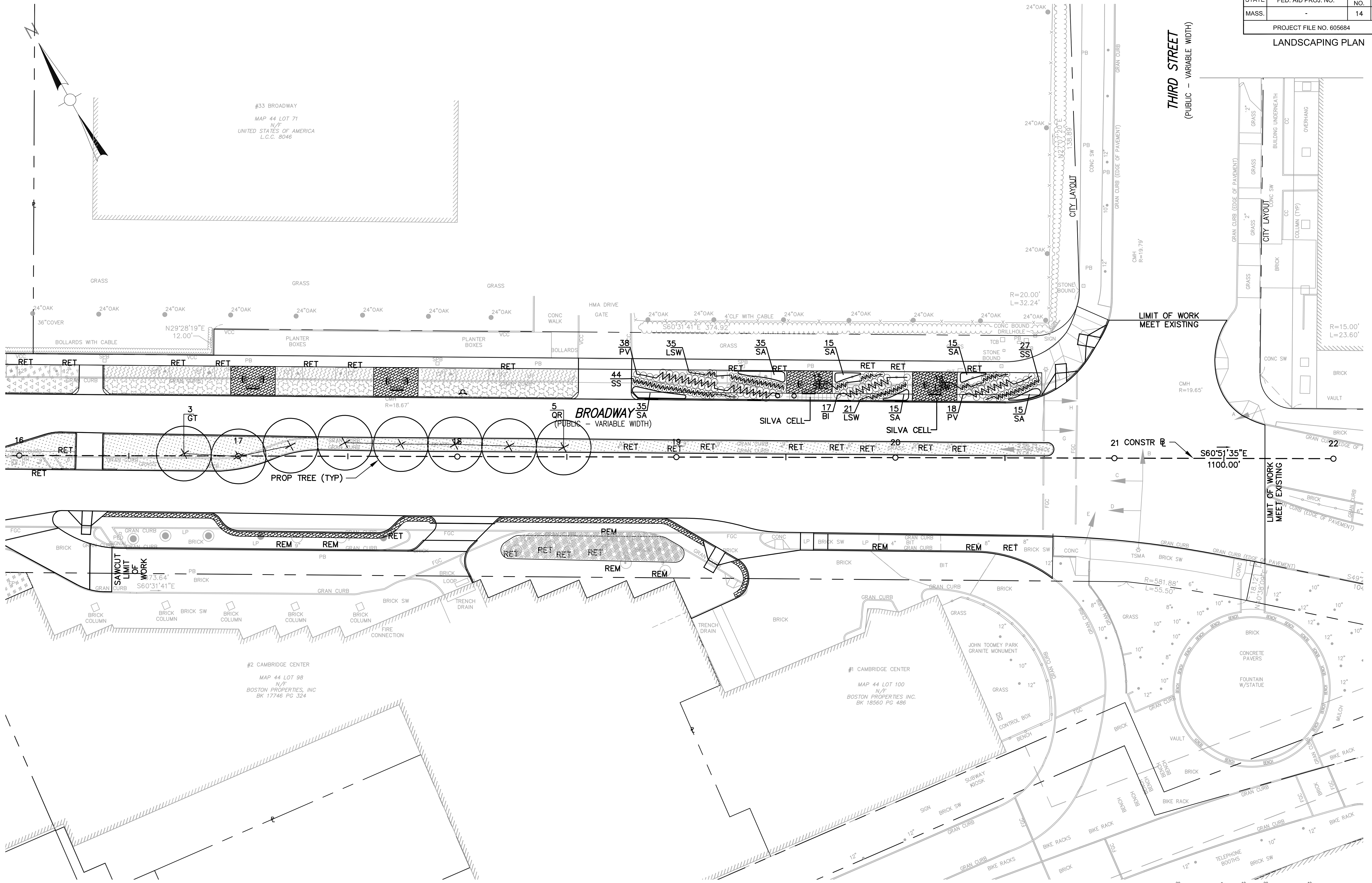
**LANDSCAPING PLAN**

**THIRD STREET**  
(PUBLIC - VARIABLE WIDTH)

#33 BROADWAY  
MAP 44 LOT 71  
N/F  
UNITED STATES OF AMERICA  
L.C.G. 8046

#2 CAMBRIDGE CENTER  
MAP 44 LOT 98  
N/F  
BOSTON PROPERTIES, INC.  
BK 17746 PG 324

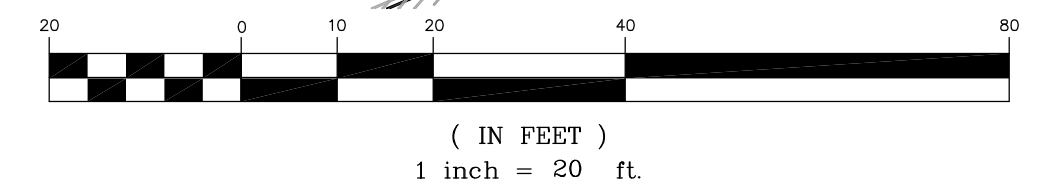
#1 CAMBRIDGE CENTER  
MAP 44 LOT 100  
N/F  
BOSTON PROPERTIES, INC.  
BK 18560 PG 486



CONTINUED ON  
SHEET 13

WESTON & SAMPSON

IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DWGNAME: \_\_\_\_\_



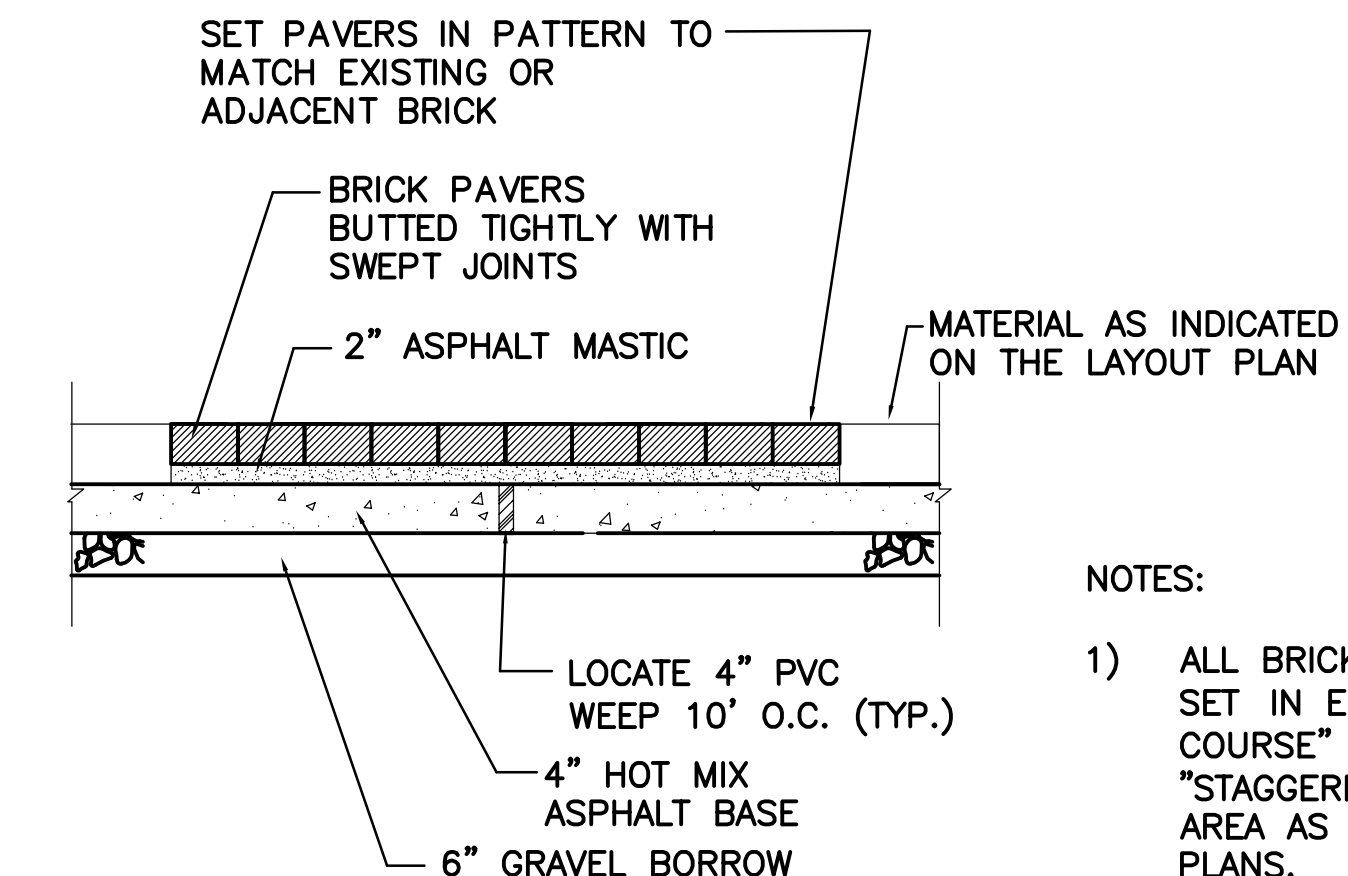
DRIVEWAY NO.	DRIVEWAY TYPE	DRIVEWAY REFERENCE POINT BASELINE - BROADWAY		LENGTH OF PRIMARY RAMP (W1)	LENGTH OF TRAVEL WALKWAY (W2)	LENGTH OF DRIVEWAY FROM GUTTER LINE TO BACK OF WALK	DRIVEWAY WIDTH	ROADWAY GUTTER SLOPE	TRANSITION LENGTH (FT.)	
		STATION	OFFSET						HIGH SIDE	LOW SIDE
1	A	11+99 LT	32' ±	7'-0"	10'-0"	17'-0"	20'-0"	0.5%	N/A	N/A
2	B	14+30 LT	30' ±	3'-0"	5'-0"	18'-0"	44'-0"	0.5%	9'-0"	6'-6"
3	B	15+33 RT	32' ±	3'-0"	5'-0"	19'-0"	95'-0"	0.5%	9'-0"	6'-6"
4	B	15+54 LT	28' ±	3'-0"	5'-0"	18'-0"	47'-0"	1.0%	7'-8"	6'-6"
5	B	15+97 RT	29' ±	8'-0"	5'-0"	40'-0"	41'-0"	1.0%	7'-8"	6'-6"
6	B	18+03 RT	27' ±	3'-0"	5'-0"	20'-0"	35'-0"	1.0%	7'-8"	6'-6"
7	A	18+67 LT	26' ±	13'-6"	5'-0"	18'-0"	30'-0"	1.0%	N/A	N/A

**CAMBRIDGE BROADWAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.		15	21

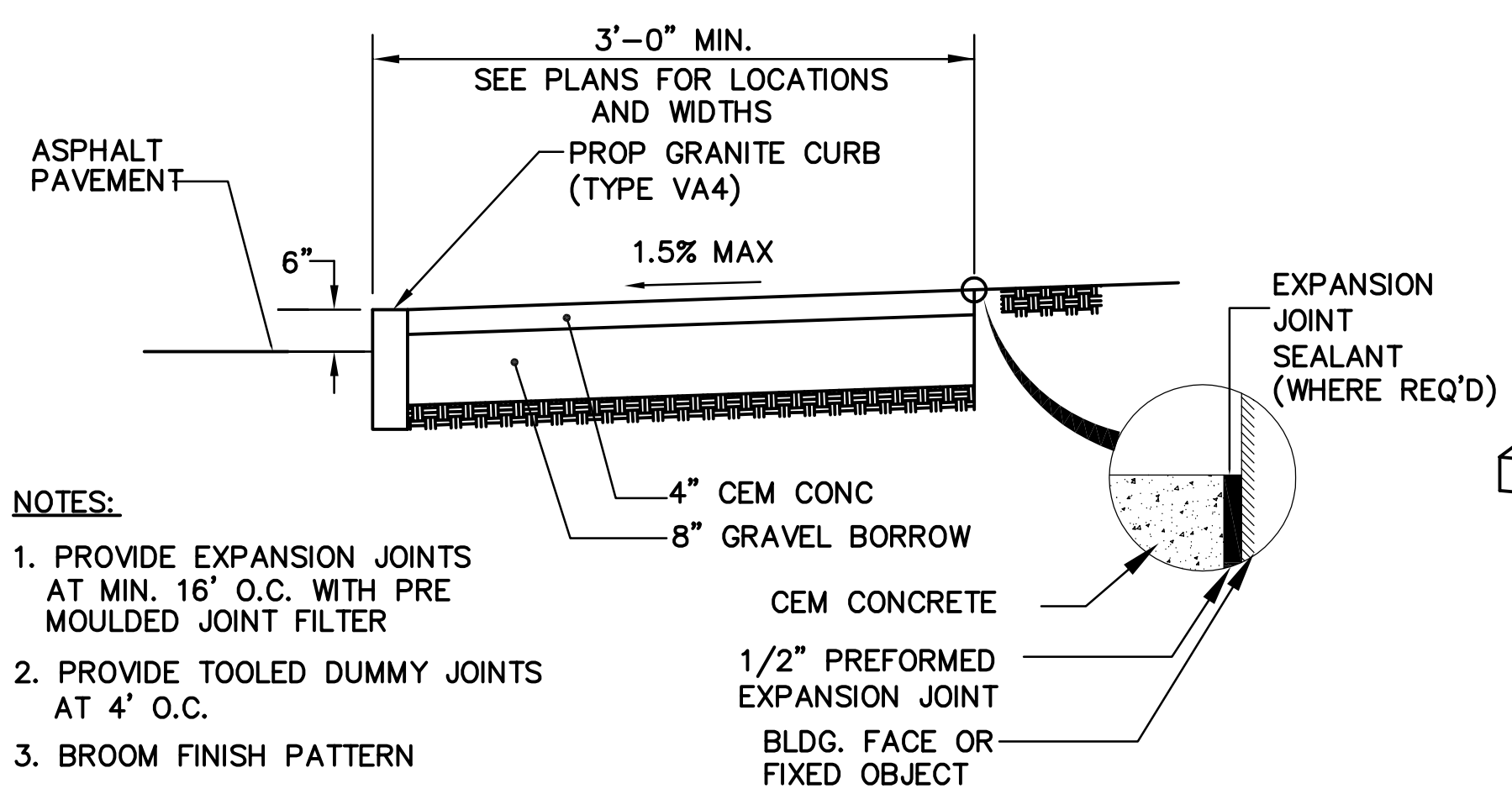
PROJECT FILE NO. 605684

**CONSTRUCTION DETAILS**

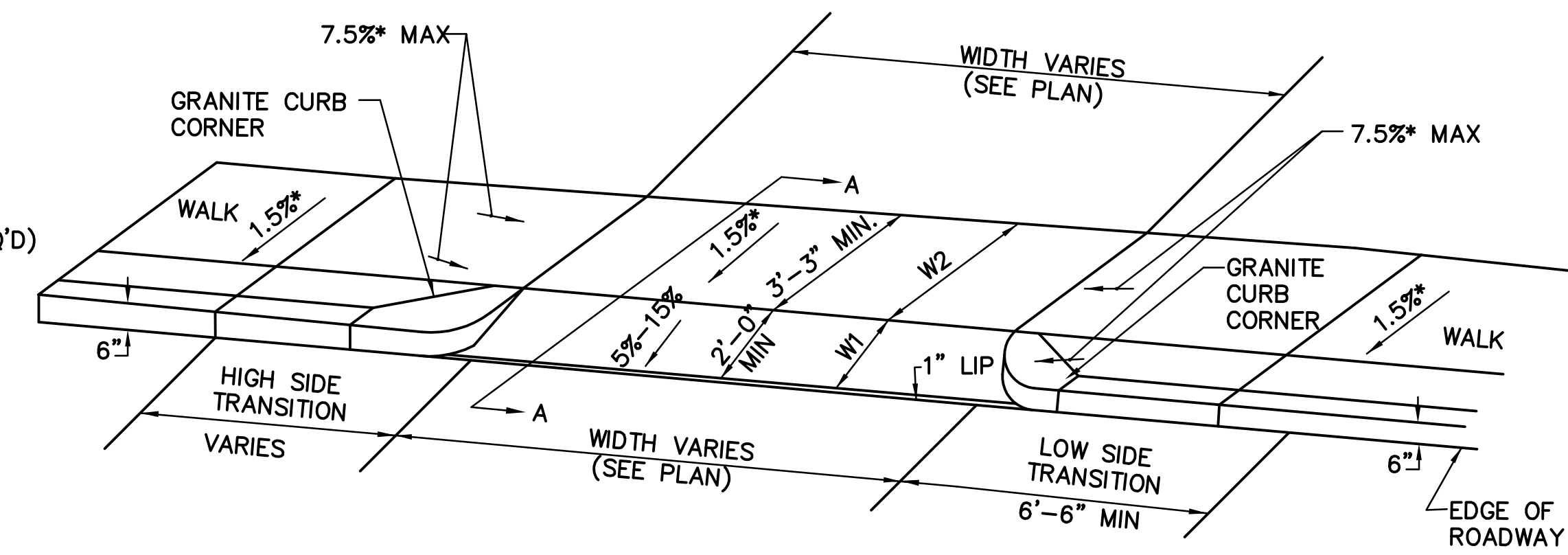


**BRICK EDGING DETAIL**  
N.T.S.

- NOTES:
- 1) ALL BRICK PAVERS SHALL BE SET IN EITHER A "STAGGERED COURSE" 2' WIDE STRIP OR A "STAGGERED COURSE" SEATING AREA AS SHOWN ON THE PLANS.



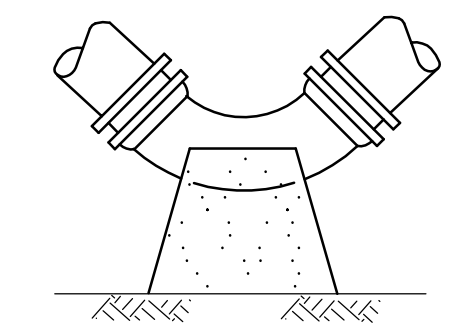
**CEMENT CONCRETE WALK**  
N.T.S.



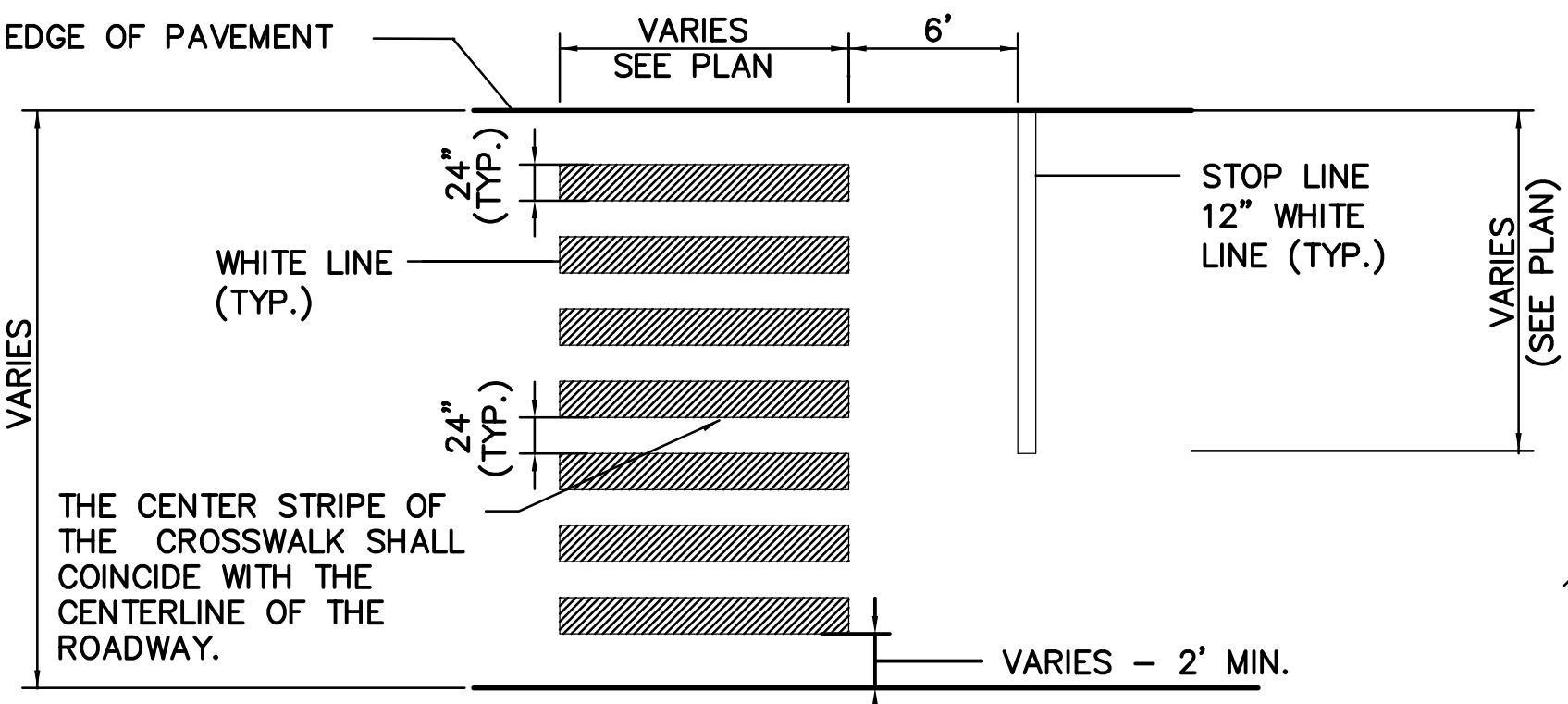
**CEMENT CONCRETE DRIVE - TYPE - A**  
N.T.S.

SIZE OF MAIN	90° BENDS, TEES, CAPS AND PLUGS	45° BENDS AND WYES	22-1/2° BENDS	11-1/4° BENDS
6-Inch, 8-Inch	5	4	2	2

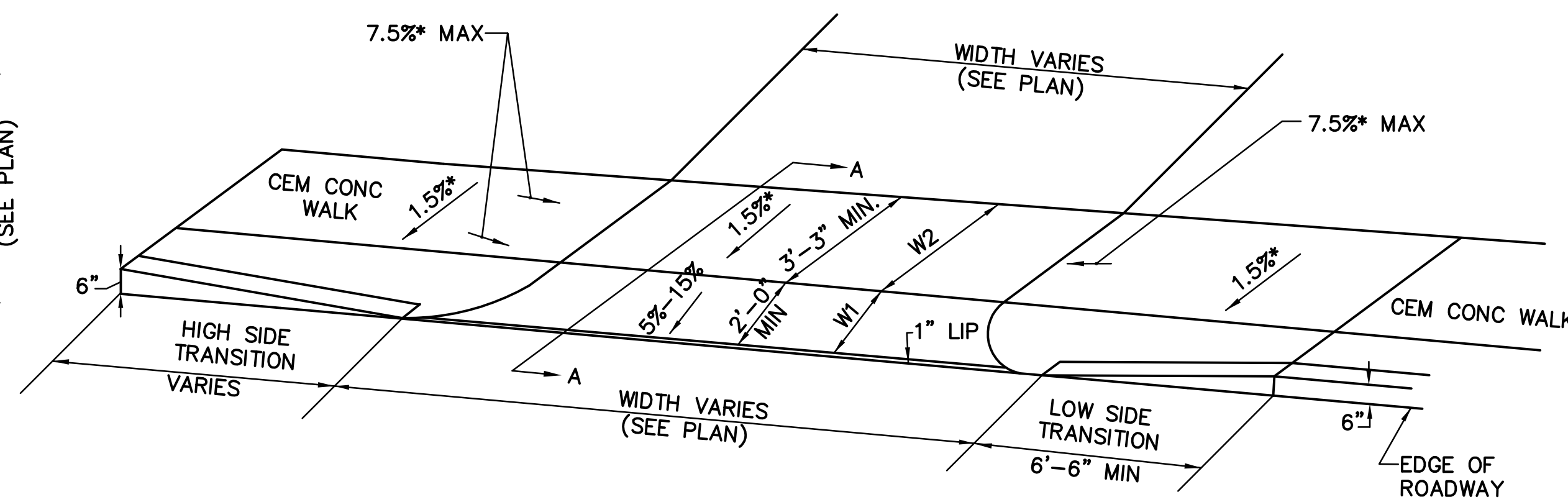
- NOTES:
1. ALL WATER MAIN FITTINGS SHALL HAVE CONCRETE BACKING FOR THRUST RESTRAINT UNLESS OTHERWISE SPECIFIED.
  2. CONTRACTOR SHALL USE CARE TO AVOID PLACEMENT OF CONCRETE ON THE FITTING JOINTS



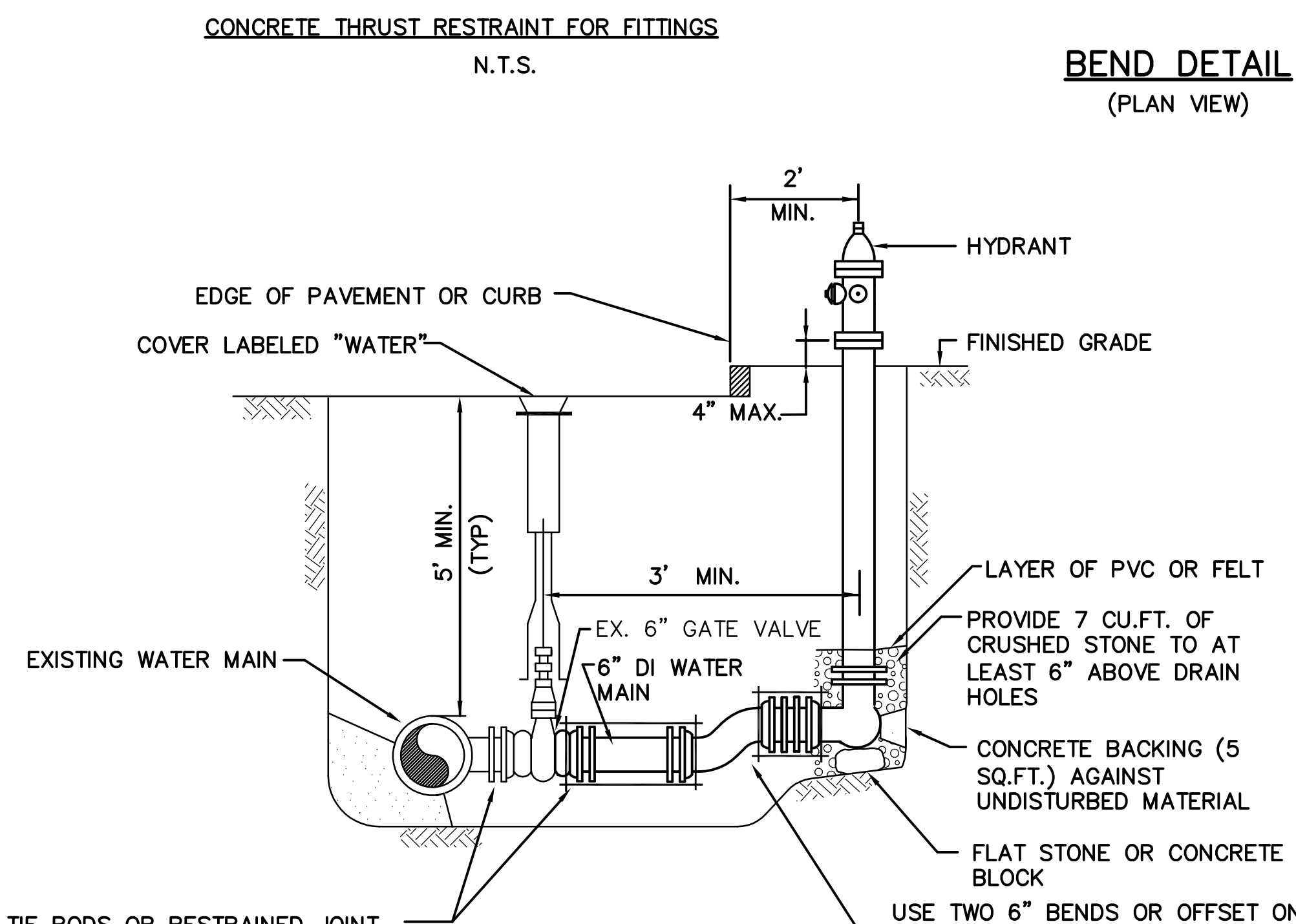
**BEND DETAIL**  
(PLAN VIEW)



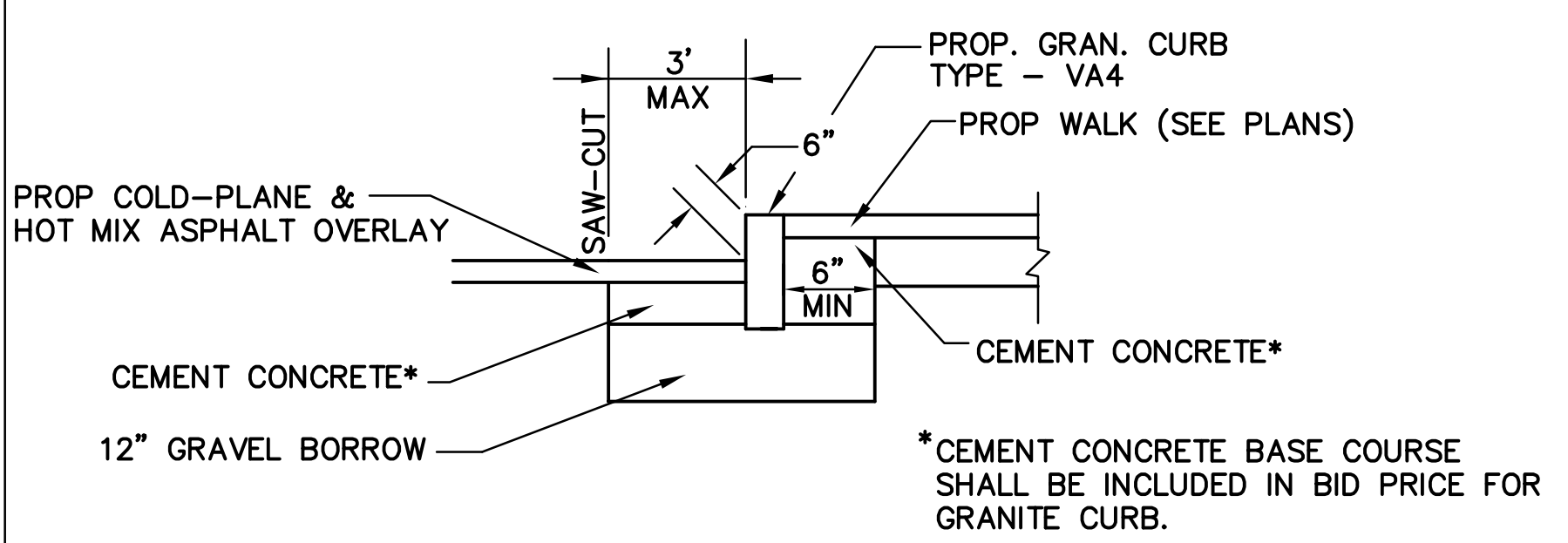
**CROSSWALK MARKING DETAIL**  
N.T.S.



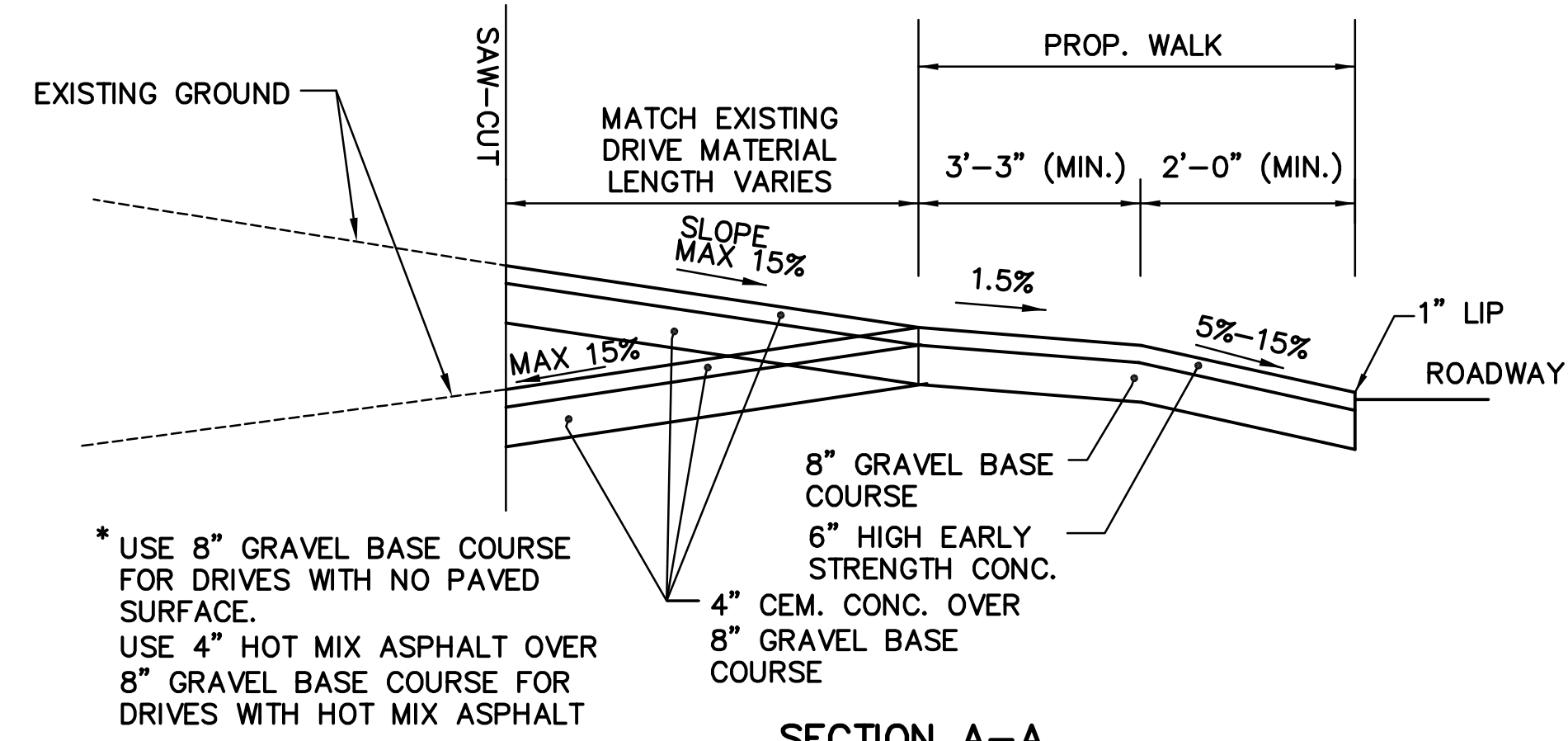
**CEMENT CONCRETE DRIVE - TYPE - B**  
N.T.S.



**HYDRANT AND VALVE DETAIL**  
N.T.S.



**CURB INSTALLATION IN FULL DEPTH PAVEMENT LESS THAN 3' WIDE**  
N.T.S.



**SECTION A-A**

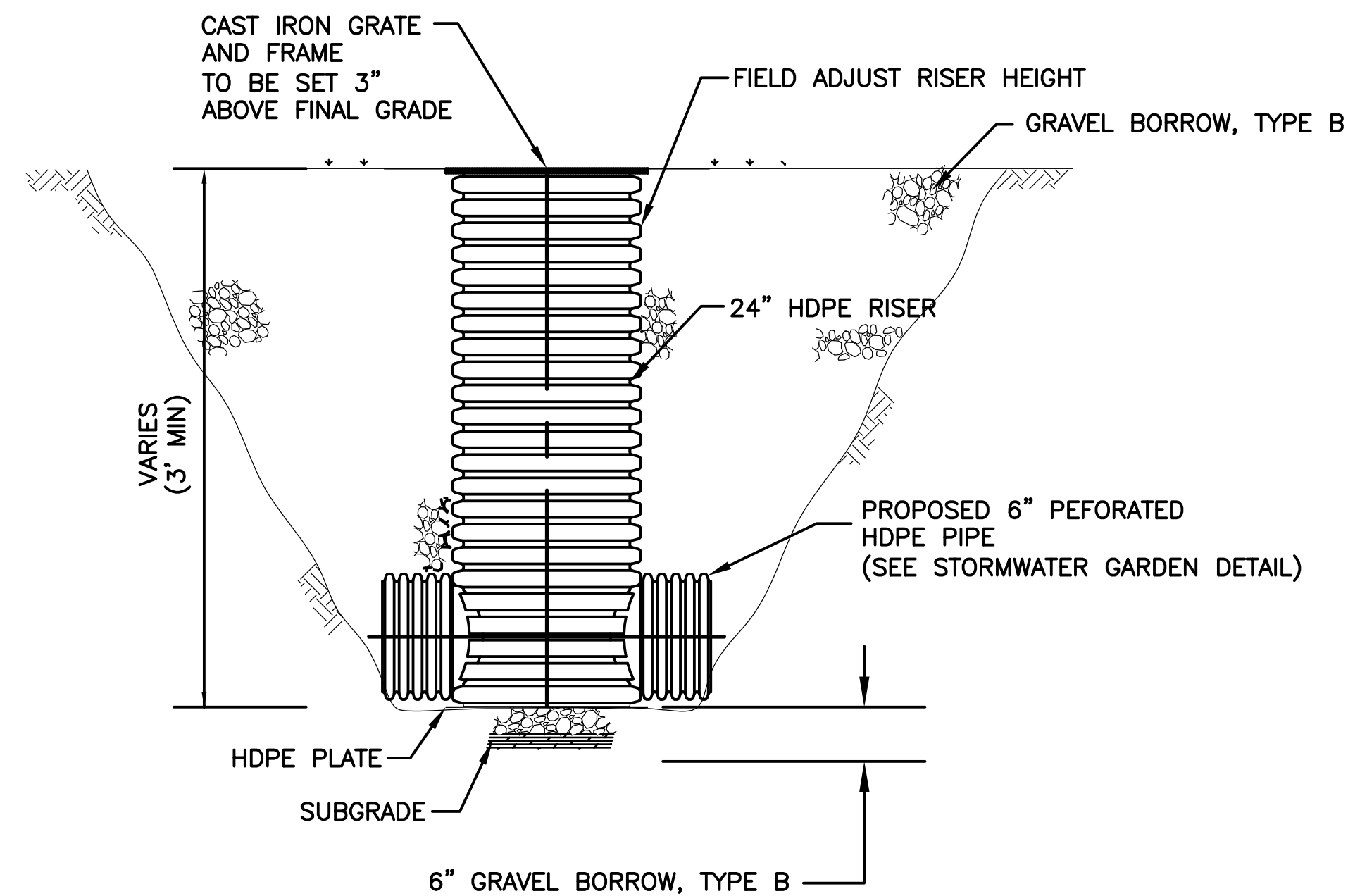
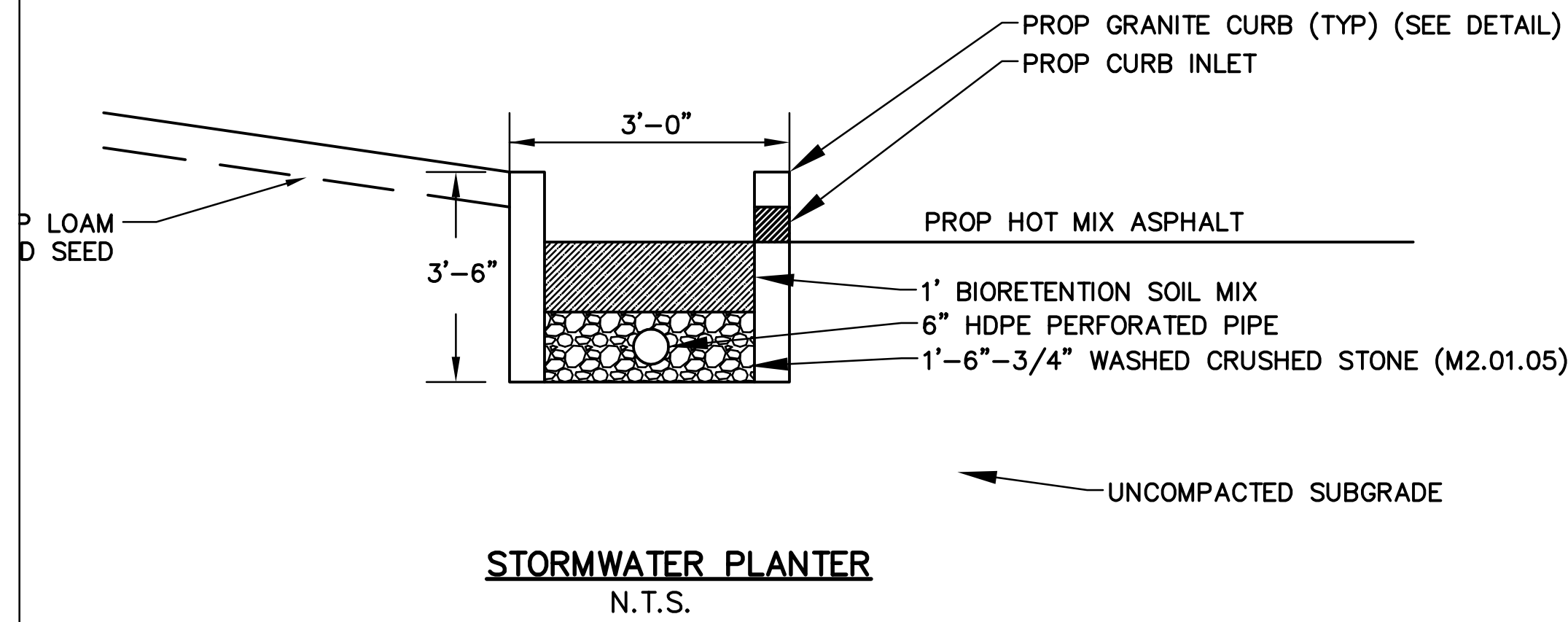
IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_ CHECKED BY: \_\_\_\_\_  
 WESTON & SAMPSON DIVISION

CAMBRIDGE  
BROADWAY

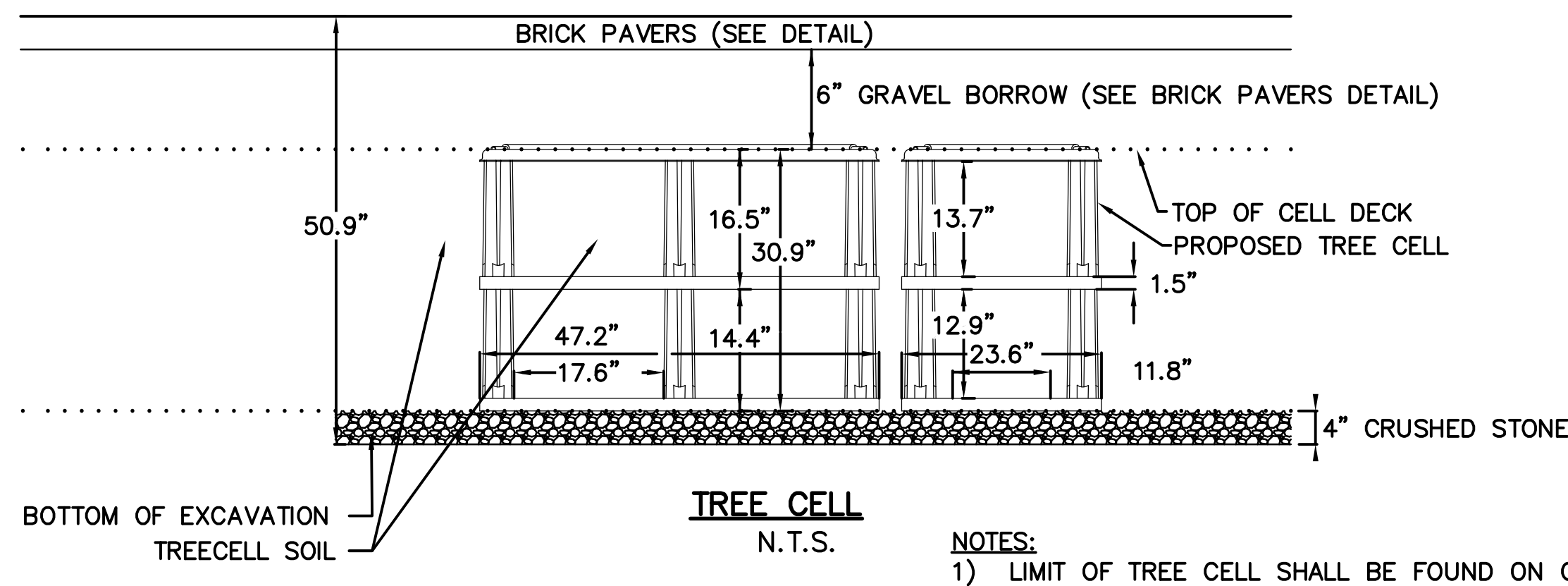
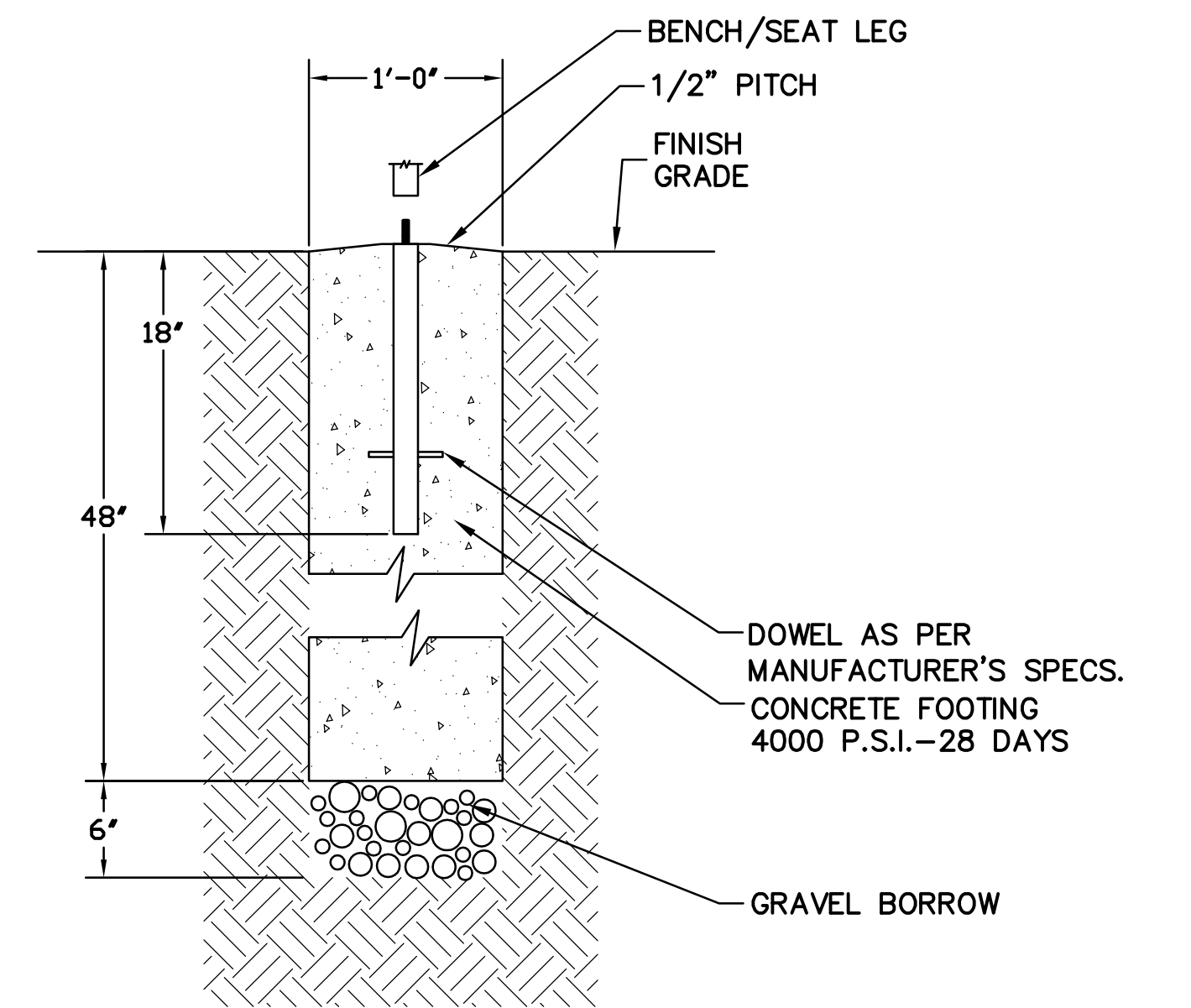
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	16	21

PROJECT FILE NO. 605684

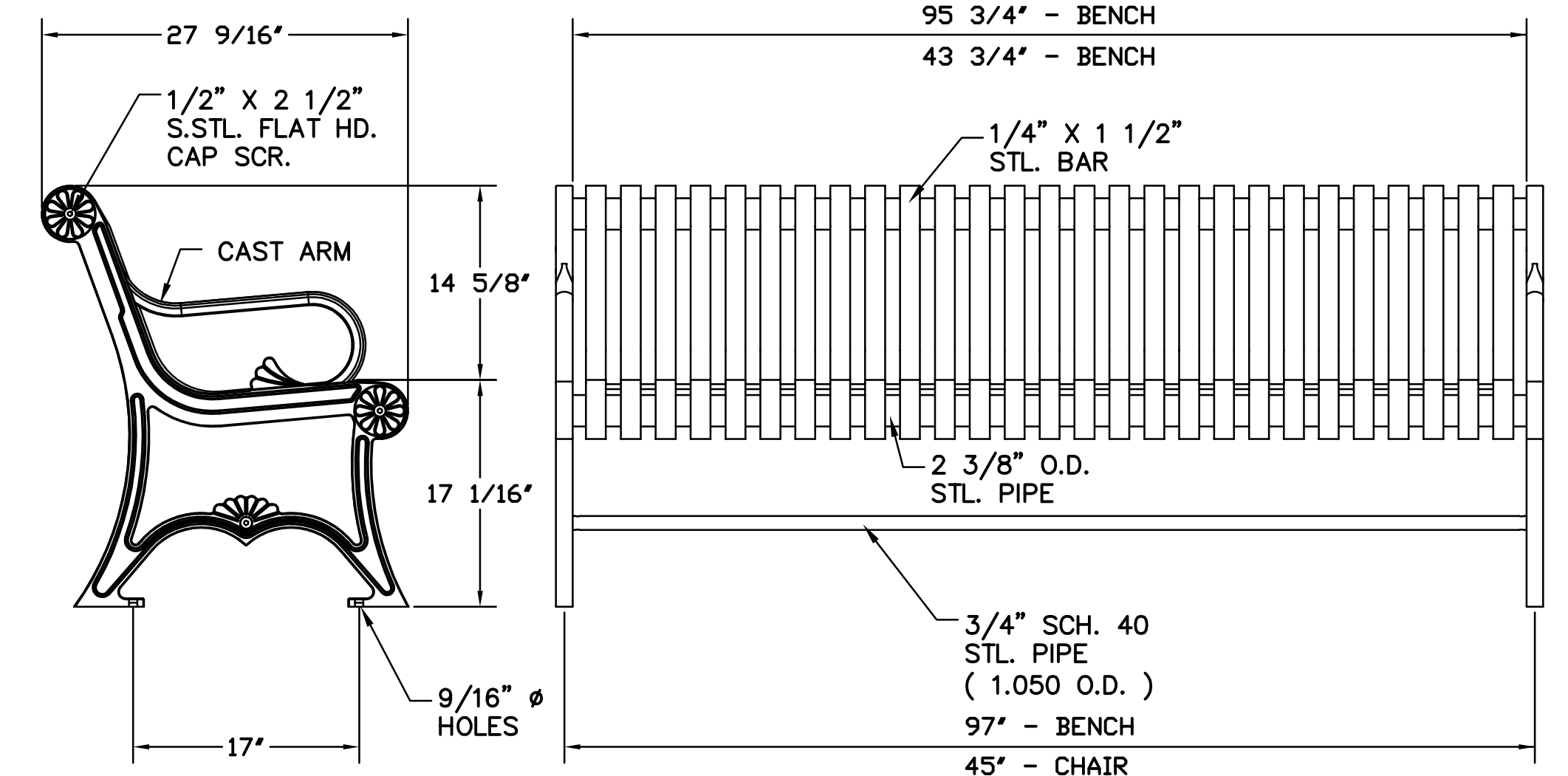
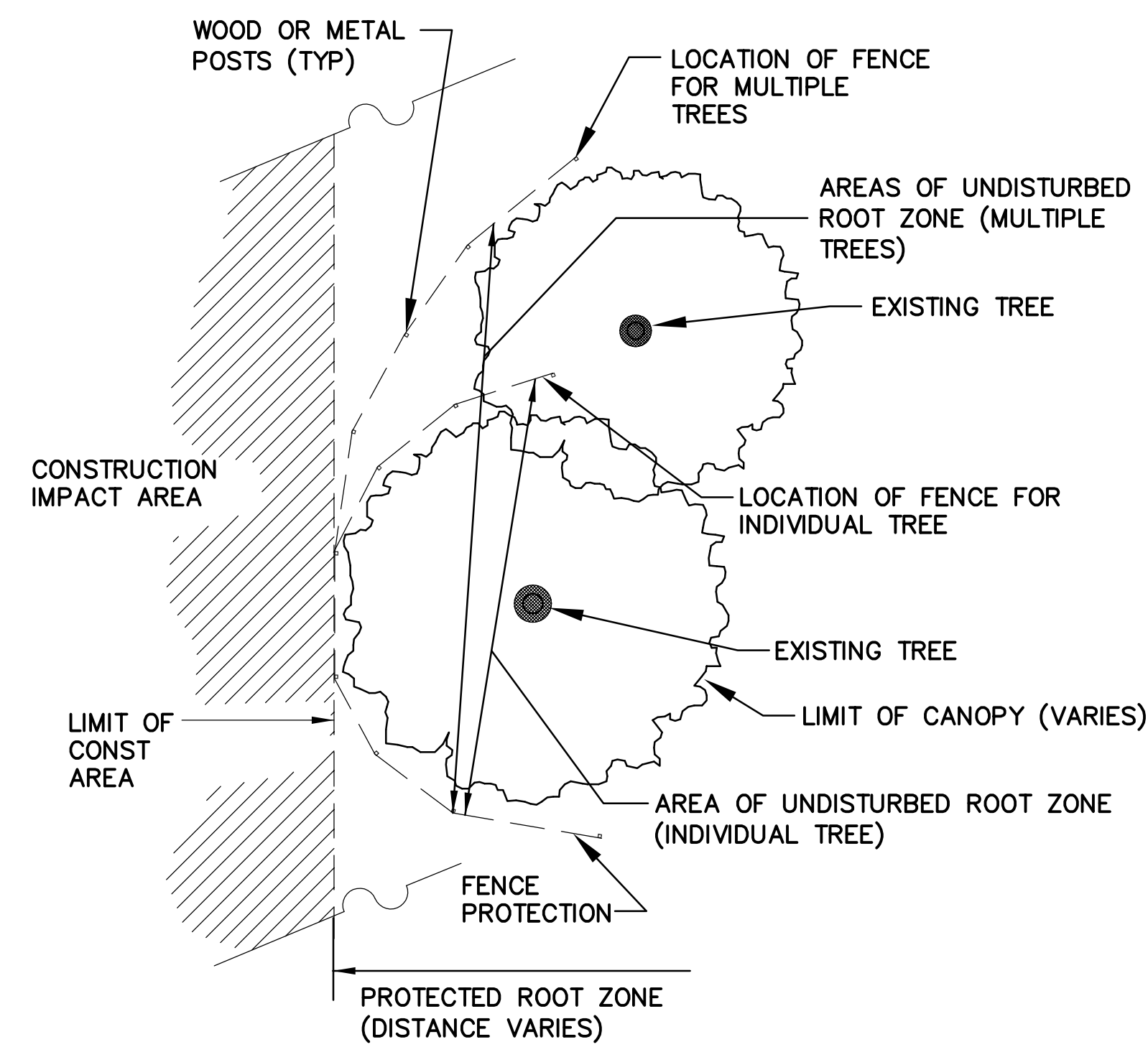
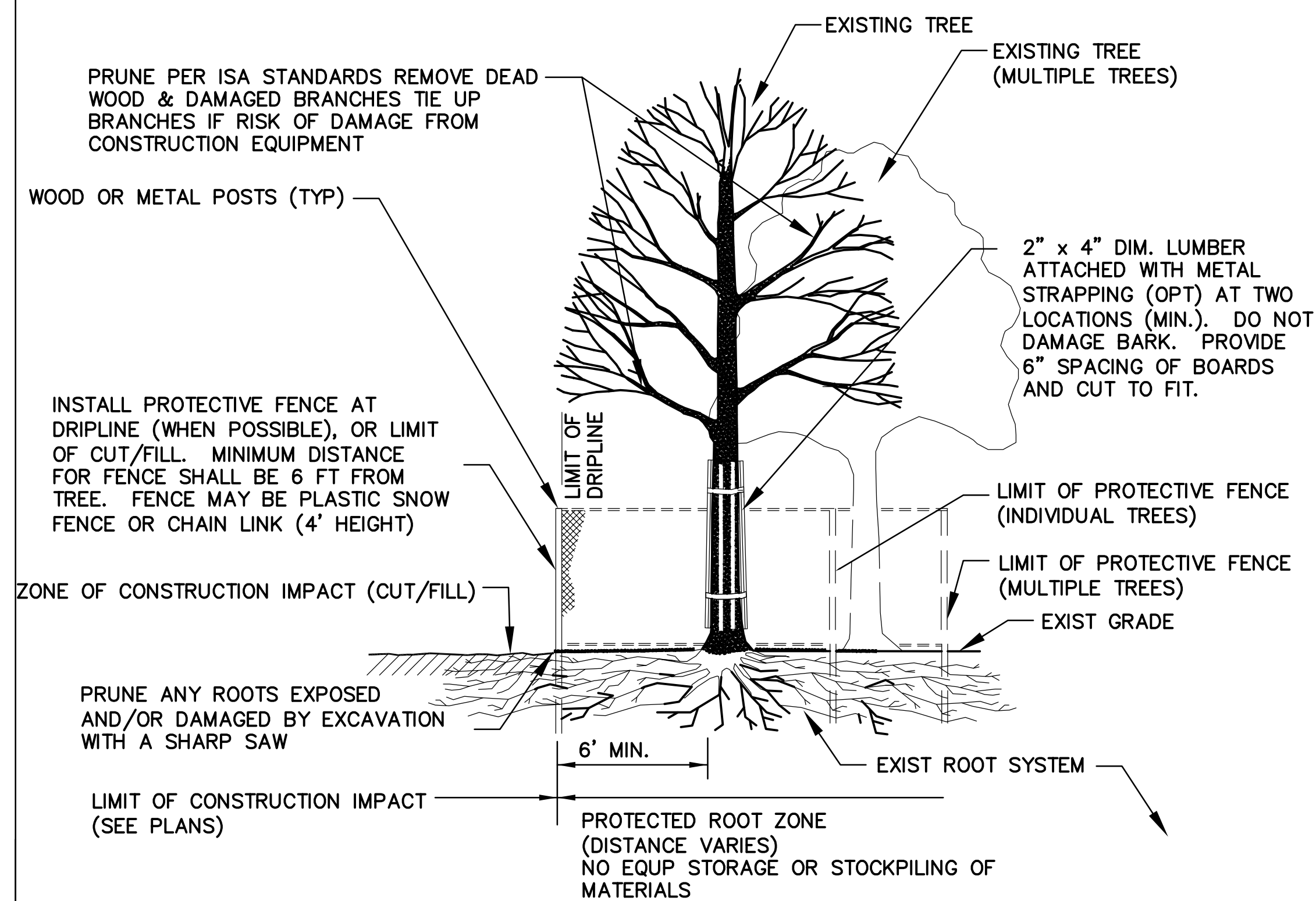
CONSTRUCTION DETAILS



- NOTES:**
- 1) MAXIMUM HEIGHT OF RISER NOT TO EXCEED 10'
  - 2) RISERS ARE TO BE ORDERED IN 2' INCREMENTS AND FIELD CUT TO DESIRED LENGTH



- NOTES:**
- 1) LIMIT OF TREE CELL SHALL BE FOUND ON CONSTRUCTION PLANS.



- NOTES:**
1. ALL STEEL MEMBERS SHALL BE COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
  2. 1/2" x 3 3/4" EXPANSION ANCHOR BOLTS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
  3. ALL BENCHES/SEATS SHALL BE SET IN A CONCRETE BASE.
  4. ALL BENCHES SHALL COME EQUIPPED WITH A CENTER ARM REST TO MATCH END ARM RESTS.

WESTON & SAMPSON

IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DWGNAME: \_\_\_\_\_



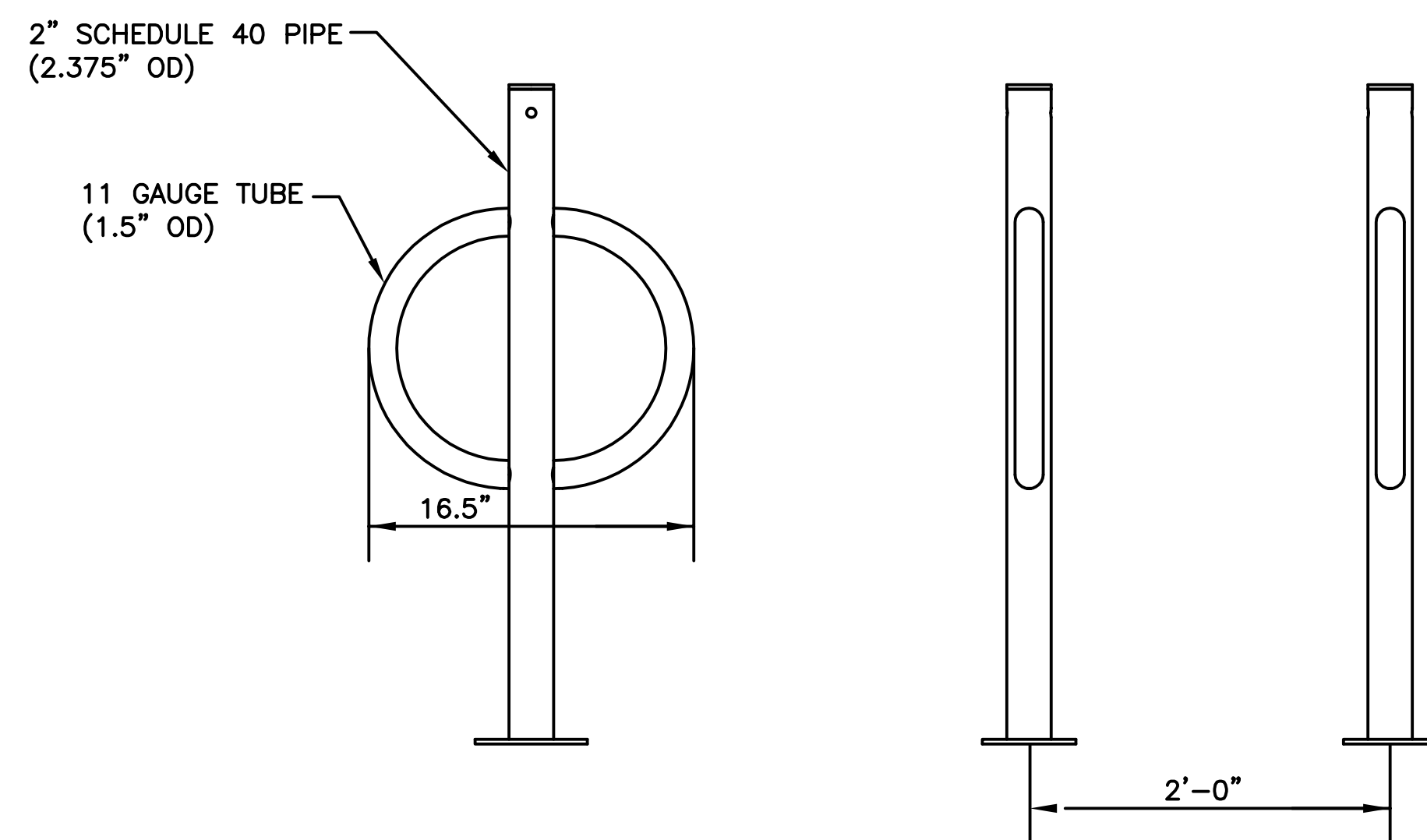
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	17	21

PROJECT FILE NO. 605684

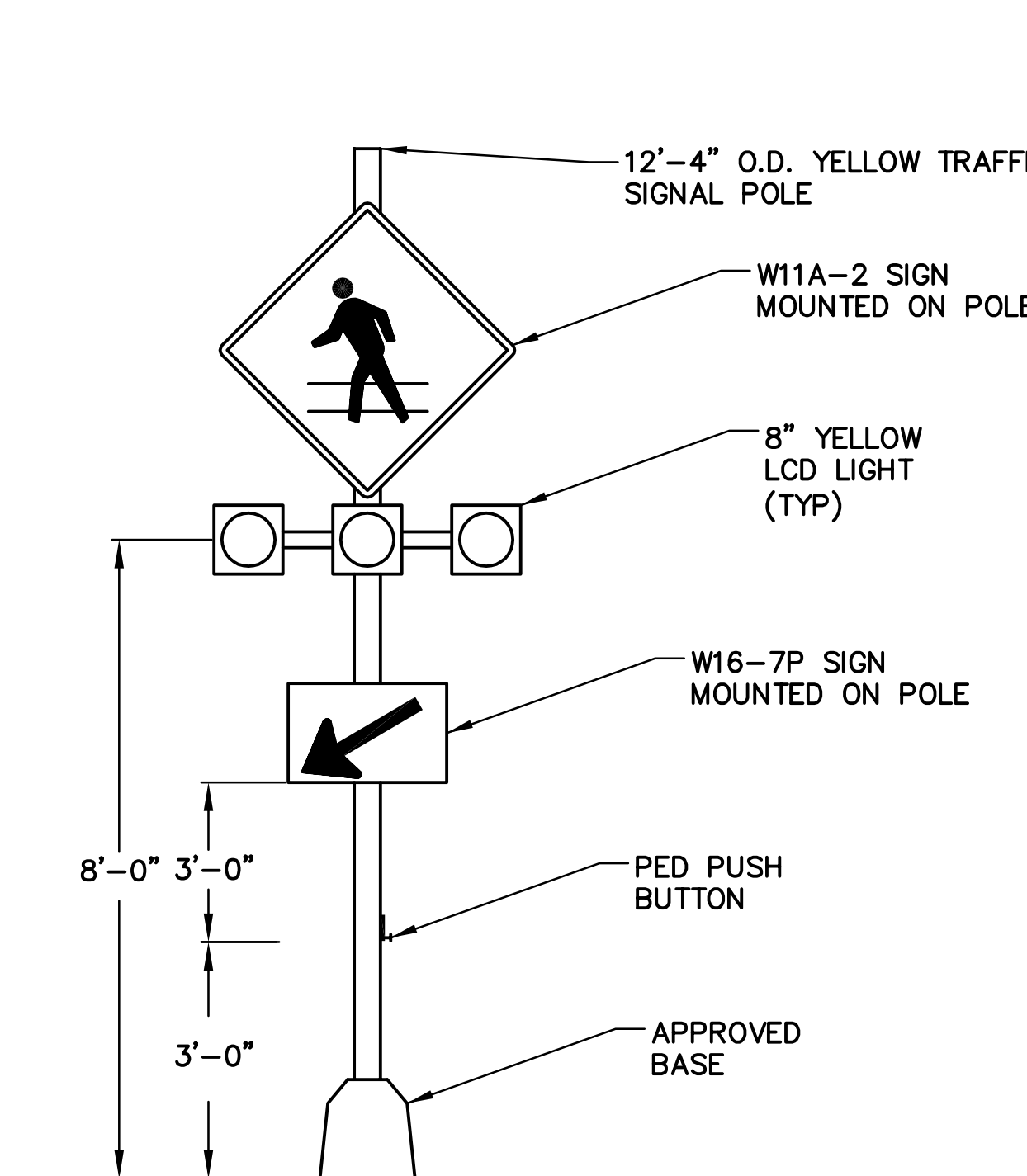
CONSTRUCTION DETAILS

WHEELCHAIR RAMP TABLE

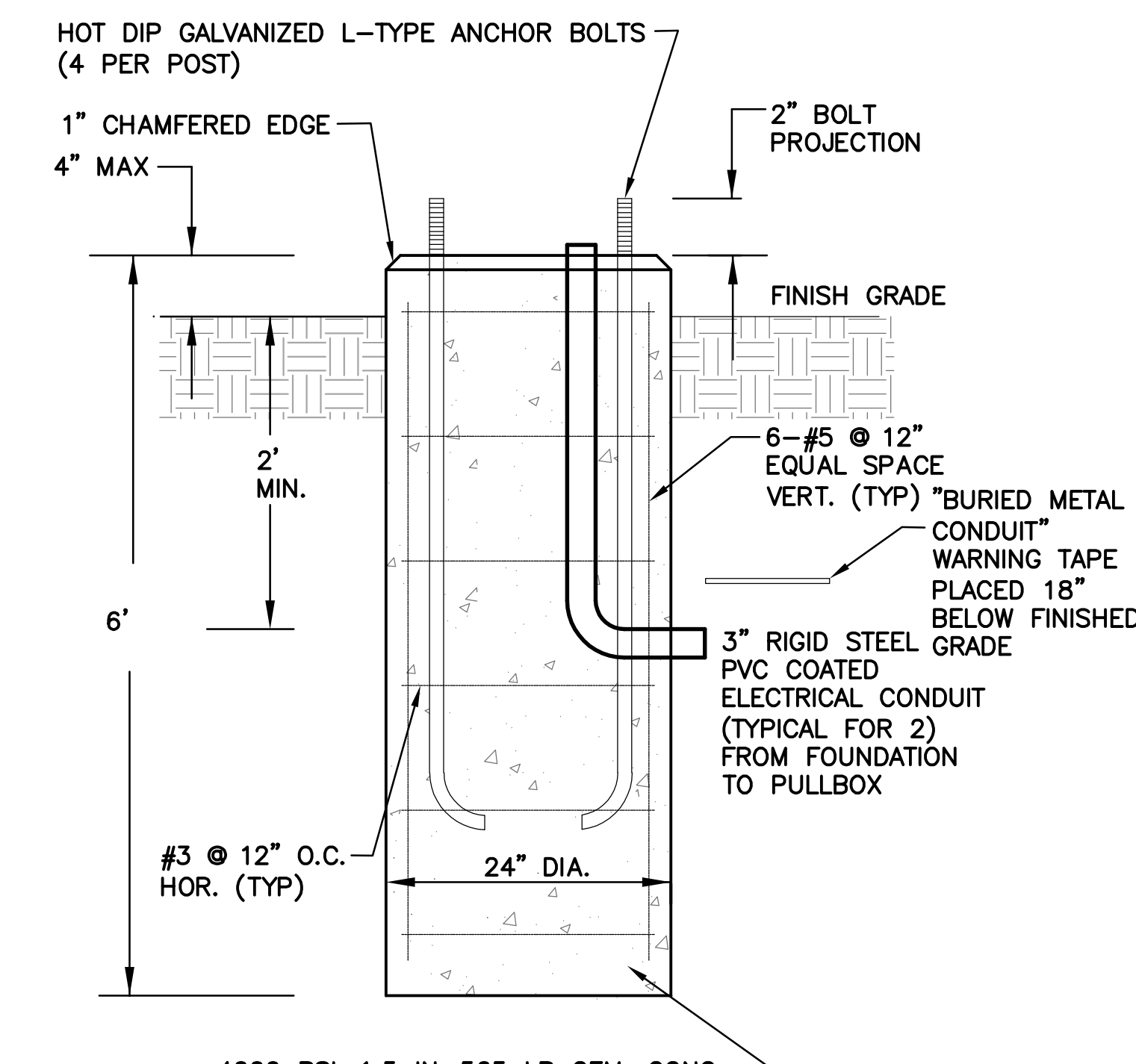
WHEELCHAIR RAMP NO.	WHEELCHAIR RAMP TYPE	RAMP REFERENCE POINT BASELINE - BROADWAY		LENGTH OF PRIMARY RAMP (W1)	WIDTH OF SIDEWALK	WIDTH OF RAMP	DEPTH OF LEVEL LANDING (4'-0" MIN)	ROADWAY GUTTER SLOPE	TRANSITION LENGTH (FT.)	
		STATION	OFFSET						HIGH SIDE	LOW SIDE
1	1	11+17 LT	37' ±	2'-0"	10' ±	5'-0"	4'-0"	0.5%	7'-8"	6'-6"
2	1	12+20 LT	30' ±	2'-0"	12' ±	5'-0"	4'-0"	0.5%	7'-8"	6'-6"
3	1	11+13 RT	34' ±	2'-0"	20' ±	5'-0"	4'-0"	0.5%	7'-8"	6'-6"
4	1	11+24 RT	50' ±	2'-0"	15' ±	5'-0"	4'-0"	1.0%	7'-8"	6'-6"
5	1	12+18 RT	30' ±	2'-0"	15' ±	5'-0"	4'-0"	1.0%	7'-8"	6'-6"
6	1	12+00 RT	50' ±	2'-0"	5' ±	5'-0"	4'-0"	1.0%	7'-8"	6'-6"
7	1	16+30 RT	25' ±	6'-6"	3' ±	5'-0"	4'-0"	1.0%	7'-8"	6'-6"
8	1	20+75 LT	32' ±	2'-0"	9' ±	5'-0"	4'-0"	1.0%	7'-8"	6'-6"
9	1	20+95 LT	52' ±	2'-0"	5' ±	5'-0"	4'-0"	1.0%	7'-8"	6'-6"
10	1	19+20 RT	42' ±	2'-0"	20' ±	5'-0"	4'-0"	1.0%	7'-8"	6'-6"
12	2	19+65 RT	35' ±	7'-8"	5' ±	5'-0"	4'-0"	1.0%	7'-8"	7'-8"



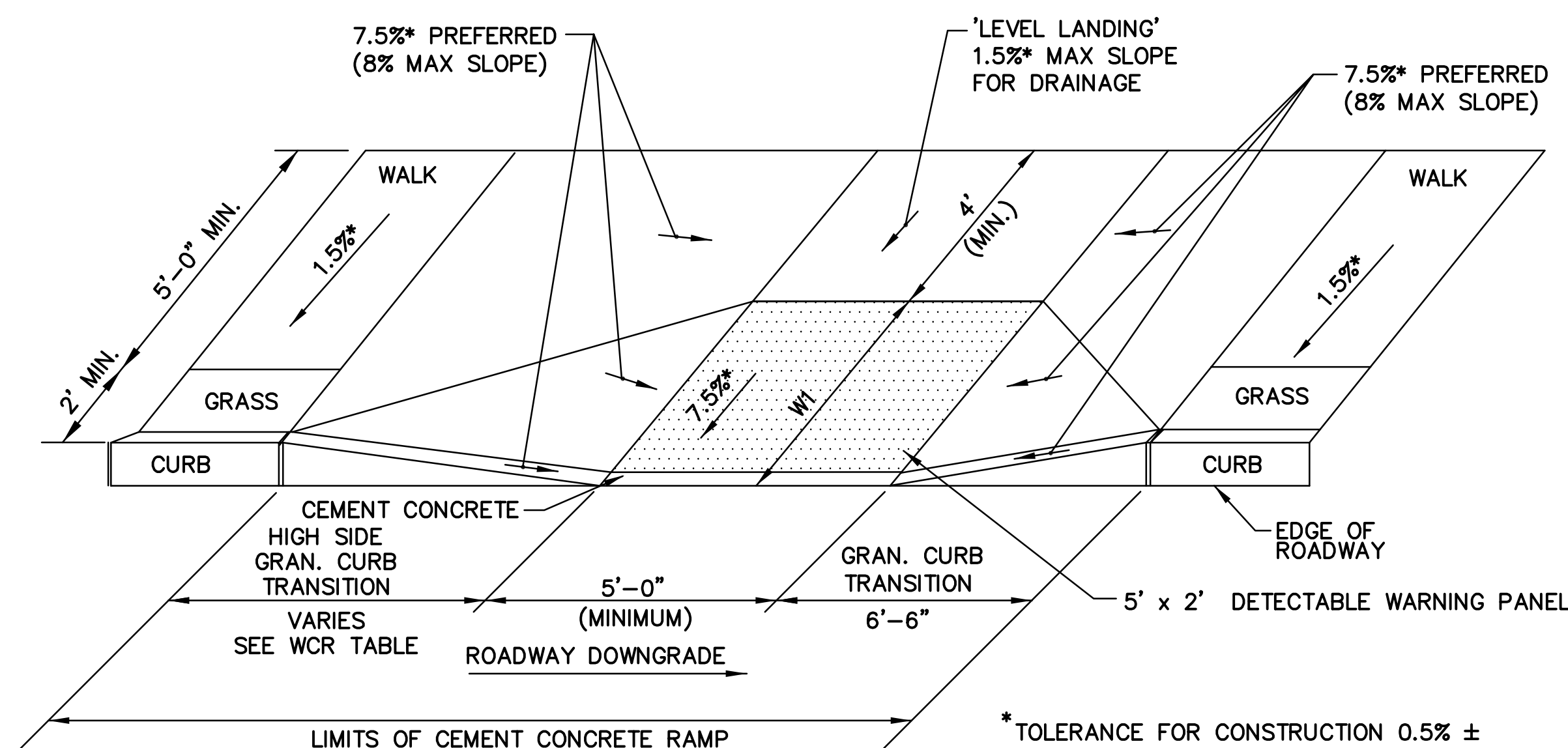
BICYCLE RING AND POST  
N.T.S.



PEDESTRIAN WARNING DEVICE  
N.T.S.



PEDESTRIAN WARNING DEVICE FOUNDATION DETAIL  
N.T.S.

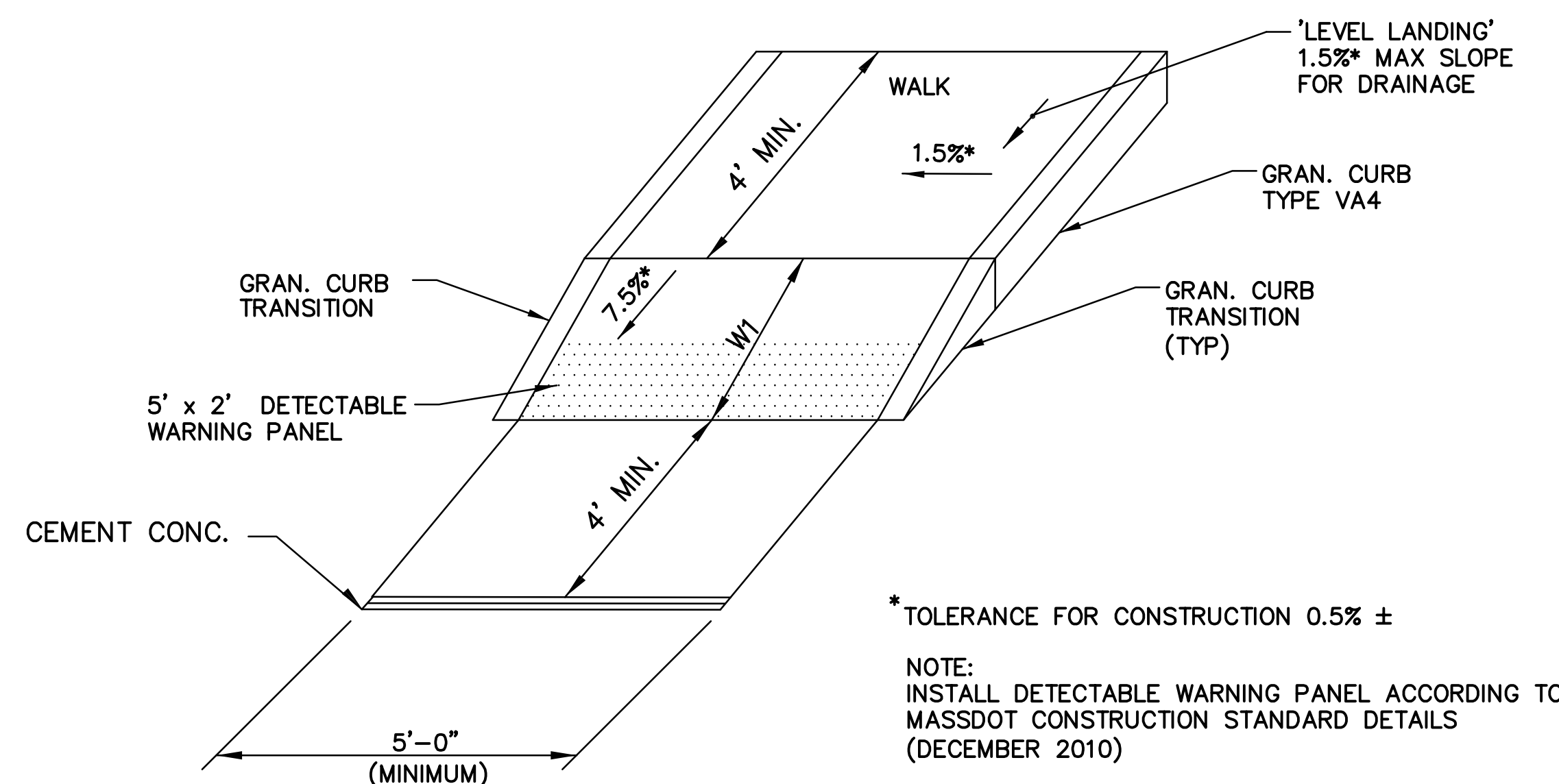


CEMENT CONCRETE WHEELCHAIR RAMP - TYPE 1

N.T.S.

NOTES:

- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF RAMPS WITHIN TOLERANCES GIVEN UNLESS OTHERWISE NOTED. FAILURE TO MEET TOLERANCES, OR PRIOR NOTICE TO ENGINEER THAT TOLERANCES CANNOT BE MET, WILL REQUIRE RECONSTRUCTION TO PROPER TOLERANCES AT NO EXPENSE TO THE OWNER.



CEMENT CONCRETE WHEELCHAIR RAMP - TYPE 2

N.T.S.

\*TOLERANCE FOR CONSTRUCTION 0.5% ±

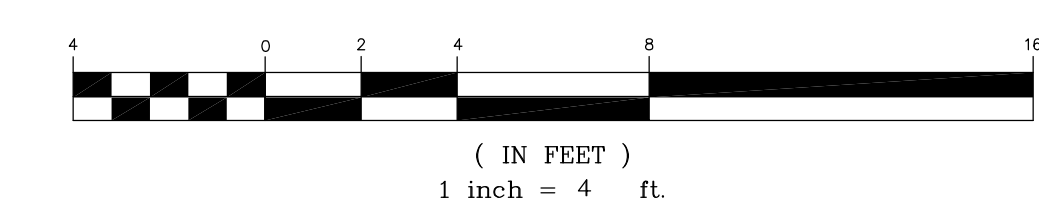
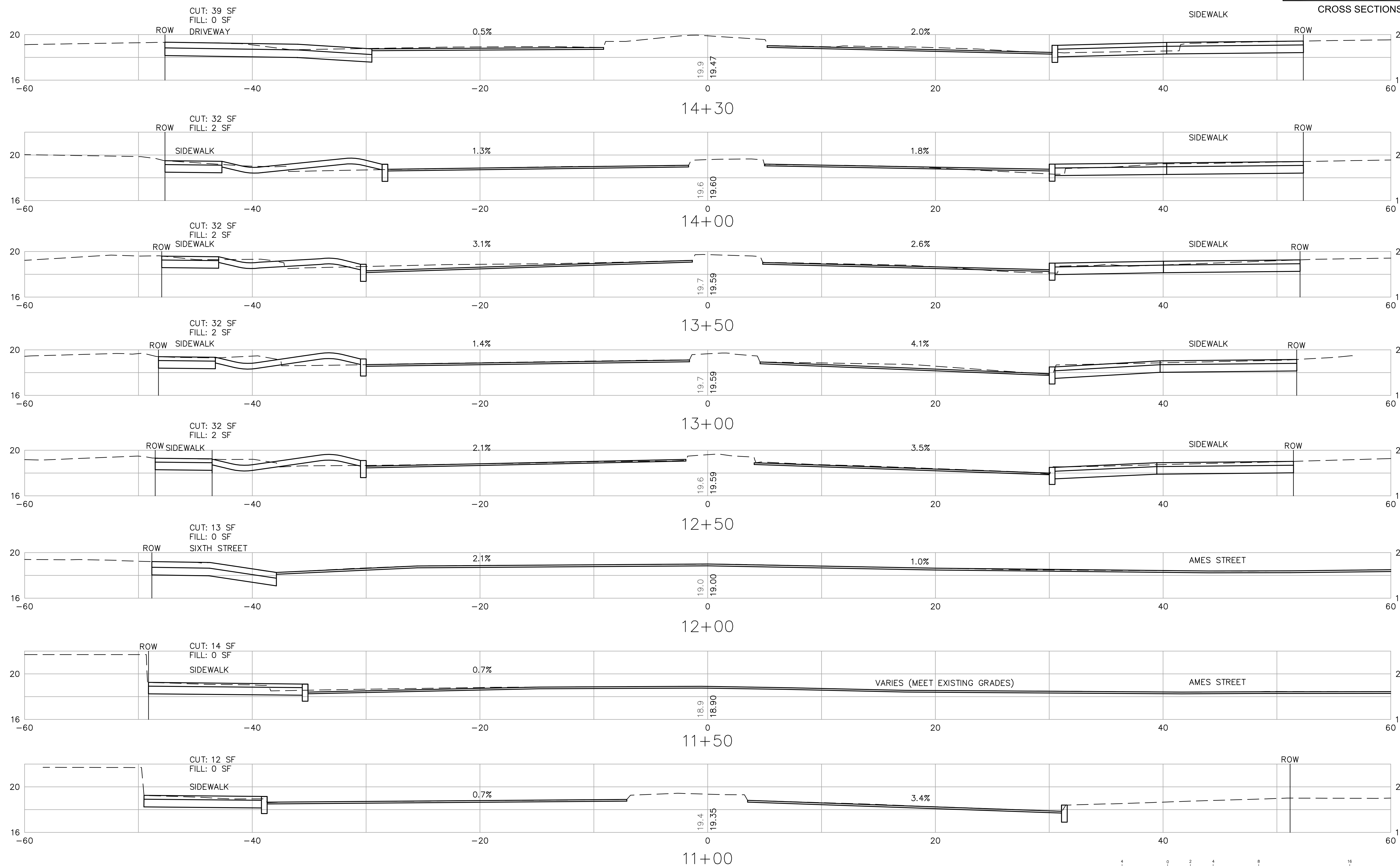
NOTE:  
INSTALL DETECTABLE WARNING PANEL ACCORDING TO MASSDOT CONSTRUCTION STANDARD DETAILS (DECEMBER 2010)

**CAMBRIDGE  
BROADWAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	18	21

PROJECT FILE NO. 605684

**CROSS SECTIONS**



WESTON & SAMPSON

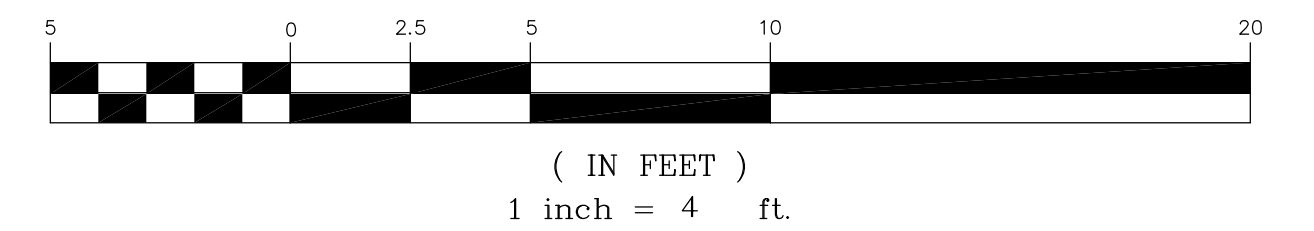
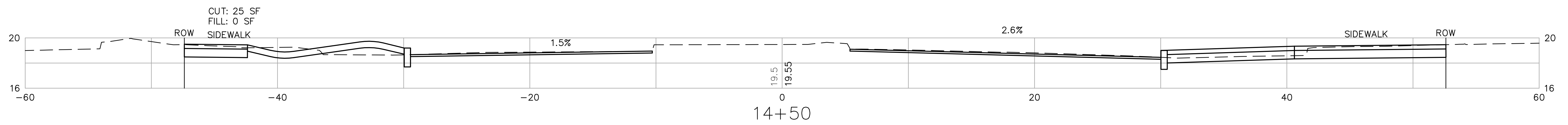
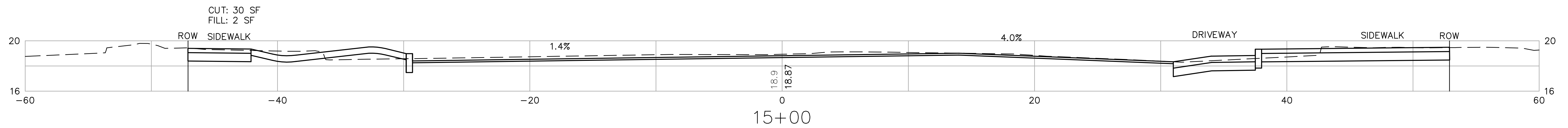
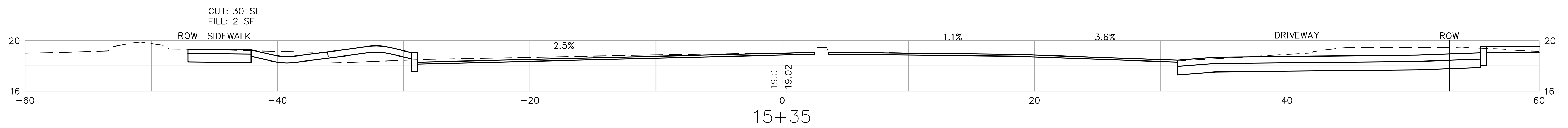
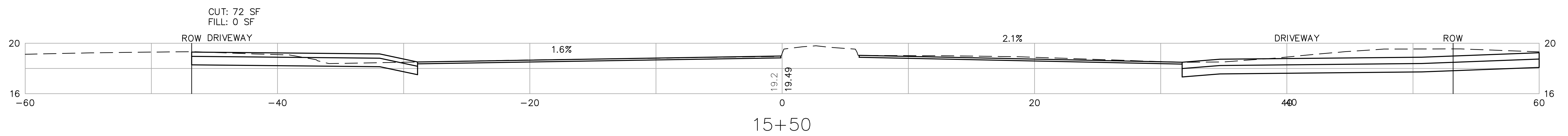
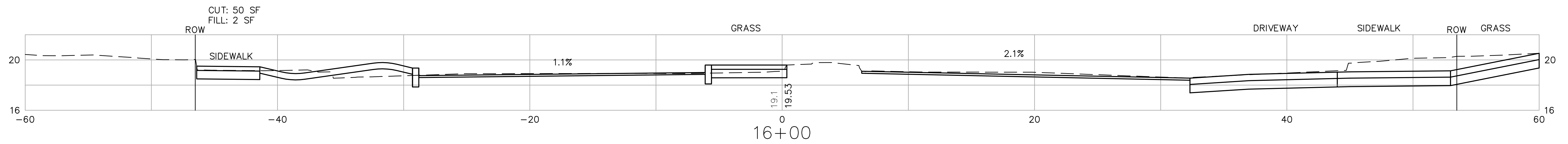
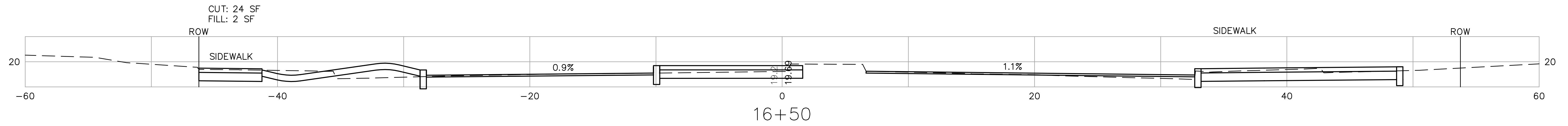
IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DWGNAME: \_\_\_\_\_

CAMBRIDGE  
BROADWAY

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	19	21

PROJECT FILE NO. 605684

CROSS SECTIONS



WESTON & SAMPSON

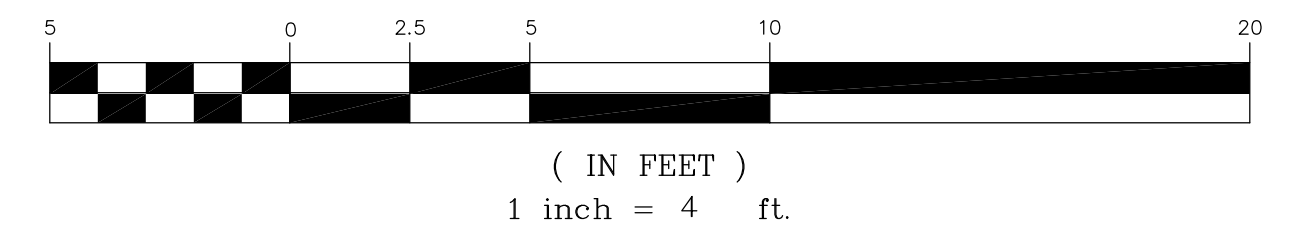
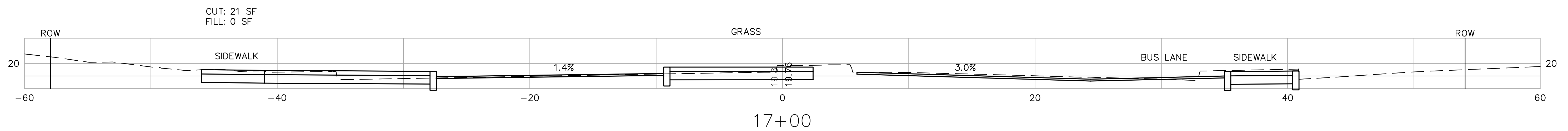
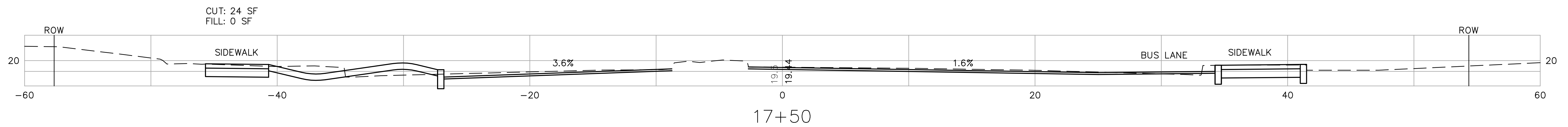
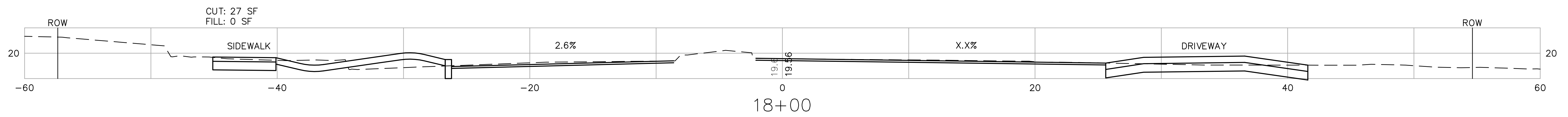
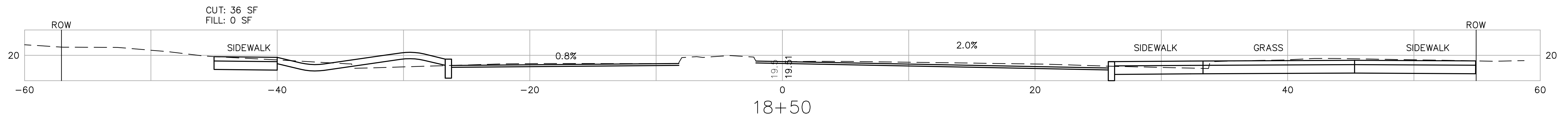
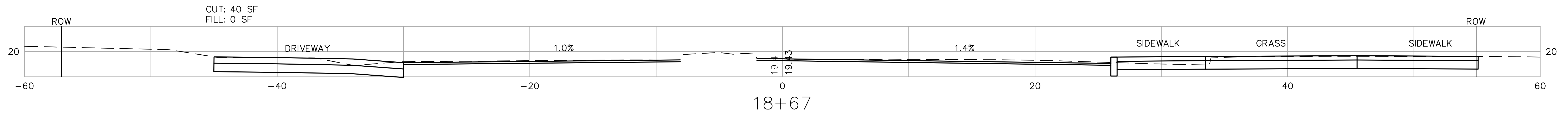
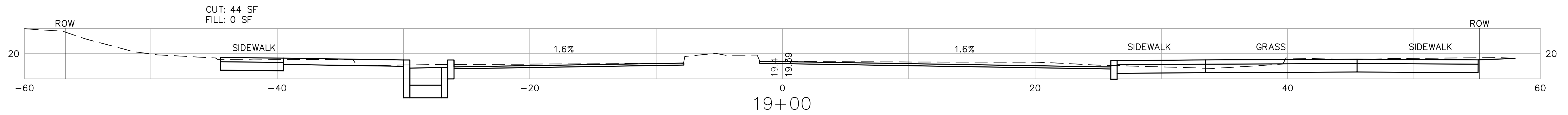
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 DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 DIVISION: \_\_\_\_\_

CAMBRIDGE  
BROADWAY

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	20	21

PROJECT FILE NO. 605684

CROSS SECTIONS



WESTON & SAMPSON

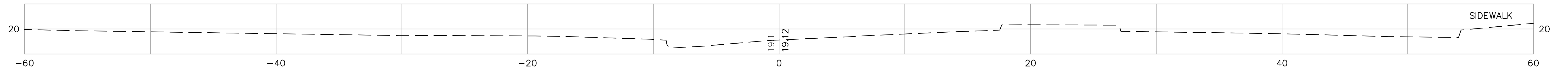
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 DWGNAME: \_\_\_\_\_

CAMBRIDGE  
BROADWAY

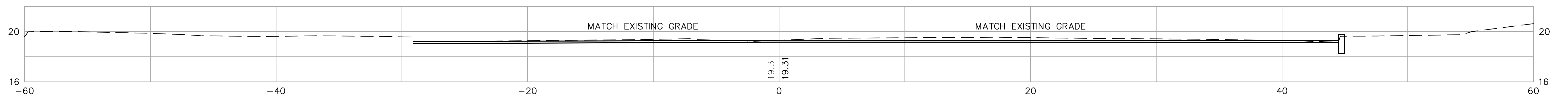
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	21	21

PROJECT FILE NO. 605684

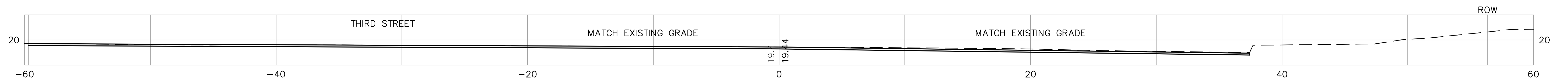
CROSS SECTIONS



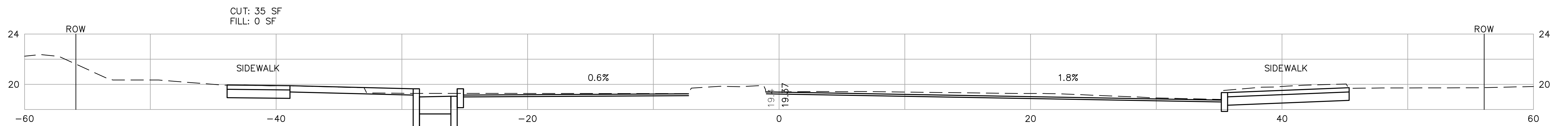
22+00



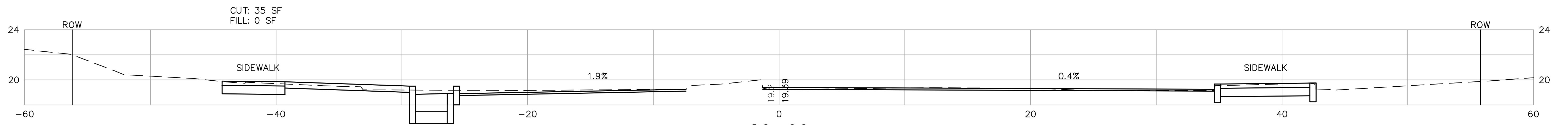
21+50



21+00



20+50



20+00



( IN FEET )  
1 inch = 4 ft.

WESTON & SAMPSON

IN CHARGE: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DWGNAME: \_\_\_\_\_