MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

PLAN AND PROFILE OF

CHANDLER STREET

(ROUTE 122)

IN THE CITY OF

WORCESTER

WORCESTER COUNTY

FEDERAL AID PROJECT NO.

25% SUBMITTAL

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	1	34
PROJECT FILE NO. 608961			

TITLE SHEET & INDEX

DRAFT
9/13/2021

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, 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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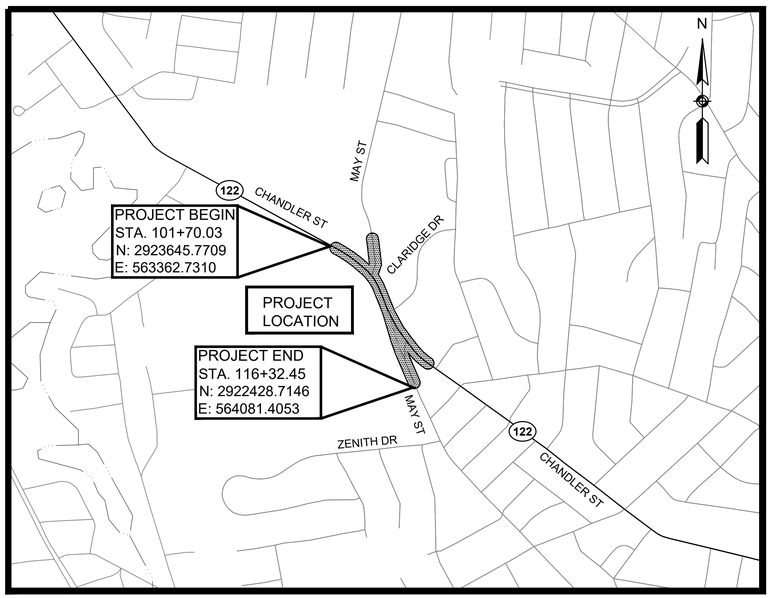

0 600 1200 1800 2400

SCALE: 1" = 600'

LENGTH OF PROJECT = 1,462.42 FEET = 0.277 MILES

DESIGN DESIGNATION (CHANDLER STREET)

DESIGN SPEED	35 MPH
ADT (2019)	16,055 VPD
ADT (2029)	17,735 VPD
K	0.09
D	61.6% NB
T (PEAK HOUR)	3.0%
T (AVERAGE DAY)	3.8%
DHV	1,595 VPH
DDHV	985 VPH
FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL

DATE	DESCRIPTION	REV #
9/13/2021	25% DESIGN SUBMISSION	1
1/21/2021	10% DESIGN SUBMISSION	0

vhb

massDOT Massachusetts Department of Transportation Highway Division

APPROVED

CHIEF ENGINEER _____ DATE _____

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	2	34
PROJECT FILE NO. 608961			

LEGEND & ABBREVIATIONS

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9/13/2021

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER
CB	CB	CATCH BASIN
		CATCH BASIN CURB INLET
FP	FP	FLAG POLE
GP	GP	GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	HH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
C	C	CABLE MANHOLE
D	D	DRAINAGE MANHOLE
E	E	ELECTRIC MANHOLE
G	G	GAS MANHOLE
M	M	MISC MANHOLE
S	S	SEWER MANHOLE
T	T	TELEPHONE MANHOLE
W	W	WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
SB		STONE BOUND
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
100 99		CONTOURS (ON-THE-GROUND SURVEY DATA)
100 99		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
x	x	CHAIN LINK OR METAL FENCE
		WOOD FENCE
		EROSION 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
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		RECTANGULAR RAPID FLASHING BEACON (RRFB) ASEMBLY

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
ONLY	ONLY	LEGEND "ONLY" - WHITE
	SL	STOP LINE -12" WIDTH
	CW	CROSSWALK - WIDTH AS NOTED
	SWL	SOLID WHITE LINE - 4" WIDTH
	SYL	SOLID YELLOW LINE - 4" WIDTH
	BWL	BROKEN WHITE LINE- 4" WIDTH
	BYL	BROKEN YELLOW LINE- 4" WIDTH
	DWL	DOTTED WHITE LINE - 4" WIDTH
	WDWL	WIDE DOTTED WHITE LINE - 12" WIDTH (2' LINE W/2' GAP)
	DYL	DOTTED YELLOW LINE - 4" WIDTH
	DWLEx	DOTTED WHITE LINE EXTENSION - 4" WIDTH
	DYLEx	DOTTED YELLOW LINE EXTENSION - 4" WIDTH
	DBWL	DOUBLE WHITE LINE - 4" WIDTH
	DBYL	DOUBLE YELLOW LINE - 4" WIDTH
		BIKE LANE
		SHARE THE ROAD (SHARROW)

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
HH	HANDHOLE
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LSA	LANDSCAPED AREA
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
MW	MONITORING WELL
NIC	NOT IN CONTRACT
NO.	NUMBER
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

ABBREVIATIONS (cont.)

GENERAL

PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
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
TCB	TRAFFIC CONTROL BOX
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

DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	3	34
PROJECT FILE NO. 608961			

LEGEND & ABBREVIATIONS

GENERAL NOTES:

1. EXISTING CONDITIONS AND TOPOGRAPHICAL INFORMATION FROM AN ACTUAL FIELD SURVEY CONDUCTED BY VANASSE HANGEN BRUSTLIN, INC. IN FEBRUARY, 2019.
2. 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).
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
4. 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.
5. 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. ANY FIELD ADJUSTMENTS TO LINE & GRADE UP TO A DEPTH OF 5' SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5' WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.
6. 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.
7. 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.
8. 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.
9. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
10. EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS IF REQUIRED.
11. TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
12. 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.
13. 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).
14. JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT SEALER AND BACKSANDED.
15. 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.
16. IF SUITABLE, EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
17. ALL PROPOSED HOT MIX ASPHALT CURB SHALL BE MASSDOT TYPE 3.
18. 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.
19. 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.
20. DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER.
21. LATERAL DRAIN PIPES SHALL BE INSTALLED WITH A PITCH OF 0.01 FOOT PER FOOT (MINIMUM) UNLESS NOTED OTHERWISE ON THE PLANS.

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WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	4	34
PROJECT FILE NO. 608961			

KEY PLAN

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9/13/2021

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LEGEND

CONSTRUCTION PLANS XX

SIGNING AND MARKING PLANS (XX)

N

8
14

9
15

10
16

MAY ST

CHANDLER ST

CLARIDGE DR

PROJECT LIMIT
STA 101+70.03
N: 2923645.7709
E: 563362.7310

PROJECT LIMIT
STA 201+54.34
N: 2923725.8499
E: 563700.3276

PROJECT LIMIT
STA 301+67.50
N: 2922622.1227
E: 564220.6856

PROJECT LIMIT
STA 116+32.45
N: 2922428.7146
E: 564081.4053

100+00

200+00

300+00

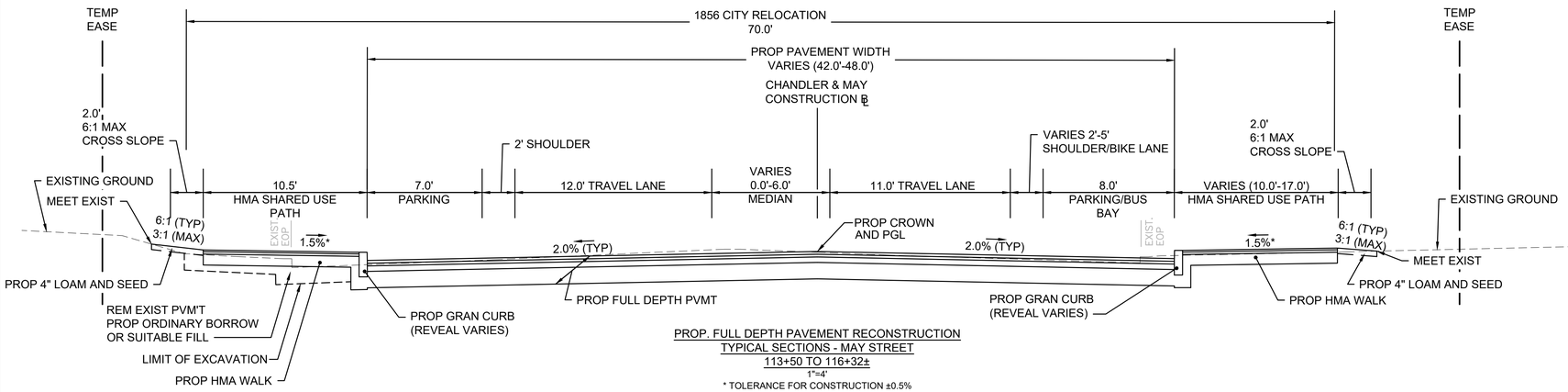
105

205

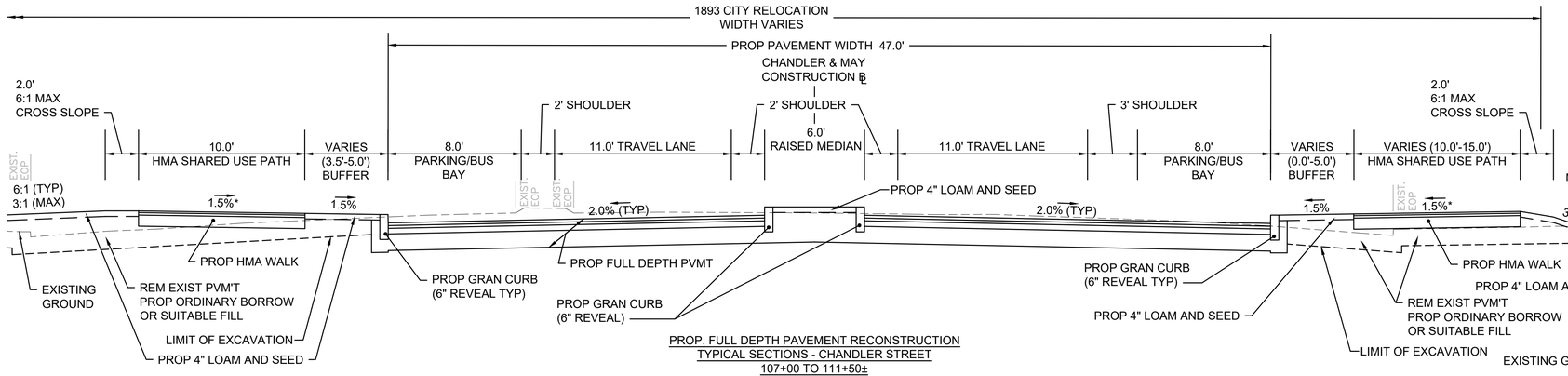
110

115

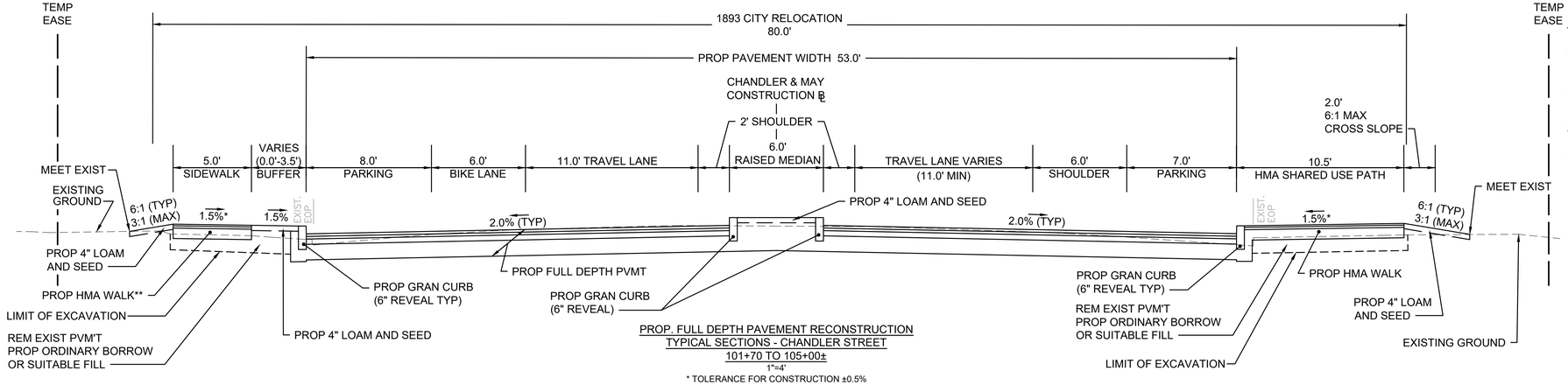
60 0 60 120
SCALE IN FEET



PROP. FULL DEPTH PAVEMENT RECONSTRUCTION
TYPICAL SECTIONS - MAY STREET
113+50 TO 116+32±
1"=4'
* TOLERANCE FOR CONSTRUCTION ±0.5%



PROP. FULL DEPTH PAVEMENT RECONSTRUCTION
TYPICAL SECTIONS - CHANDLER STREET
107+00 TO 111+50±
1"=4'
* TOLERANCE FOR CONSTRUCTION ±0.5%



PROP. FULL DEPTH PAVEMENT RECONSTRUCTION
TYPICAL SECTIONS - CHANDLER STREET
101+70 TO 105+00±
1"=4'
* TOLERANCE FOR CONSTRUCTION ±0.5%
** PROP 10' HMA SHARED USE PATH 104+00 TO 105+00±

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WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	5	34
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TYPICAL SECTIONS

PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT RECONSTRUCTION

SURFACE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)
2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)

BASE: 4" SUPERPAVE BASE COURSE 25.0 (SBC-25.0)

SUBBASE: 4" DENSE GRADED CRUSHED STONE
8" GRAVEL BORROW, TYPE b

PROPOSED MILL & OVERLAY

SURFACE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)

LEVELING: 0.5" SUPERPAVE LEVELING COURSE 4.75 (SLC-4.75)

MILLING: 2.5" PAVEMENT FINE MILLING

PROPOSED HOT MIX ASPHALT DRIVEWAY / SHARED USE PATH

SURFACE: 1.5" SUPERPAVE SURFACE COURSE (SSC-9.5)

INTERMEDIATE: 2.5" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)

SUBBASE: 8" GRAVEL BORROW, TYPE b

PROPOSED HMA SIDEWALK

SURFACE: 1.25" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5)

BASE: 1.75" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)

FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROPOSED STAMPED CEMENT CONCRETE TRUCK APRON

SURFACE: 8" CEMENT CONCRETE AIR ENTRAINED 4000 PSI, 3/4", 610 (COLORED/STAMPED/REINFORCED)

FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROPOSED CEMENT CONCRETE WALK/ PED CURB RAMP

SURFACE: 4" CEMENT CONCRETE AIR ENTRAINED 4000 PSI, 3/4", 610

FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROPOSED CEMENT CONCRETE DRIVEWAY

SURFACE: 6" CEMENT CONCRETE AIR ENTRAINED 4000 PSI, 3/4", 610

FOUNDATION: 8" GRAVEL BORROW, TYPE b

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CHANDLER STREET

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MASS.	-	6	34
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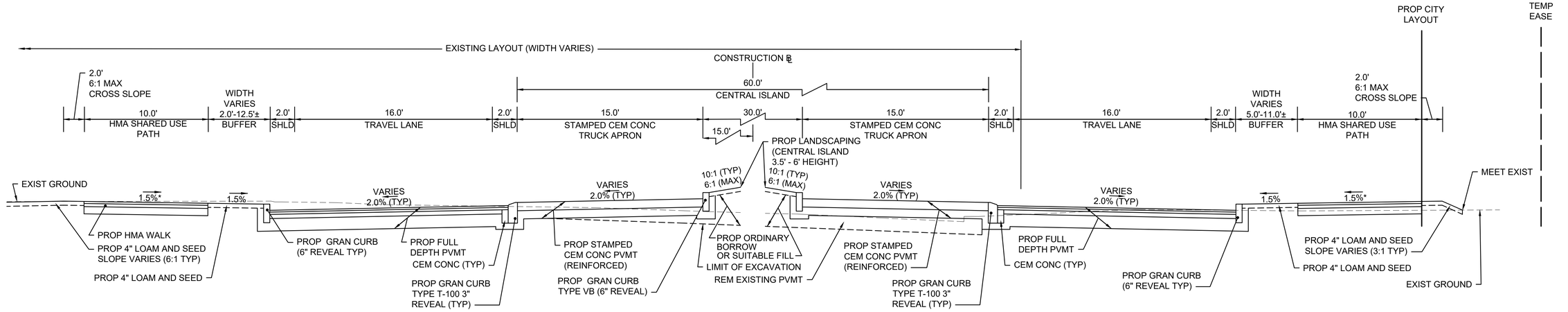
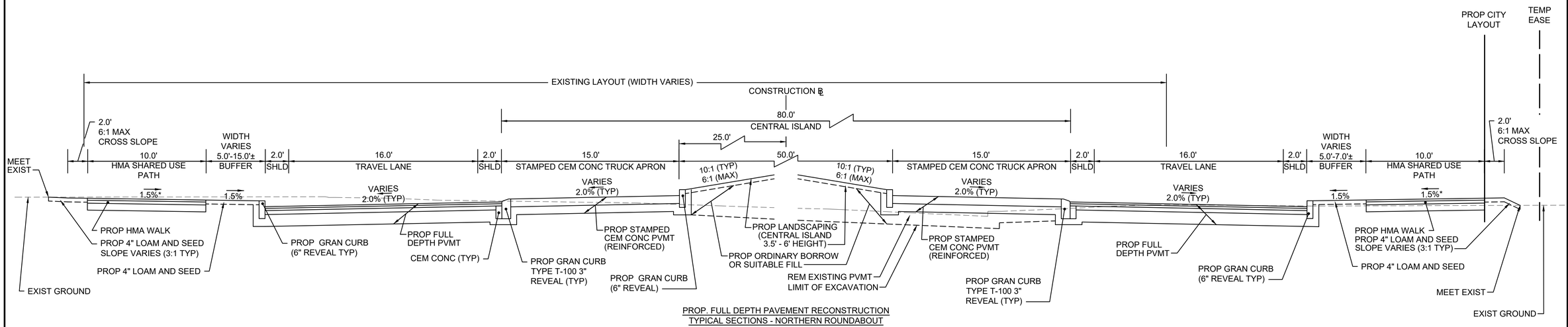
TYPICAL SECTIONS

NOTE: SEE SHEET 5 FOR PAVEMENT NOTES.



PROP. FULL DEPTH PAVEMENT RECONSTRUCTION
TYPICAL SECTIONS - SOUTHERN ROUNDABOUT
111+50 TO 113+50±
304+50 TO 305+00
1"=4'
* TOLERANCE FOR CONSTRUCTION ±0.5%



PROP. FULL DEPTH PAVEMENT RECONSTRUCTION
TYPICAL SECTIONS - NORTHERN ROUNDABOUT
105+00 TO 107+00±
204+35 TO 205+00
1"=4'
* TOLERANCE FOR CONSTRUCTION ±0.5%

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WORCESTER
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MASS.	-	7	34
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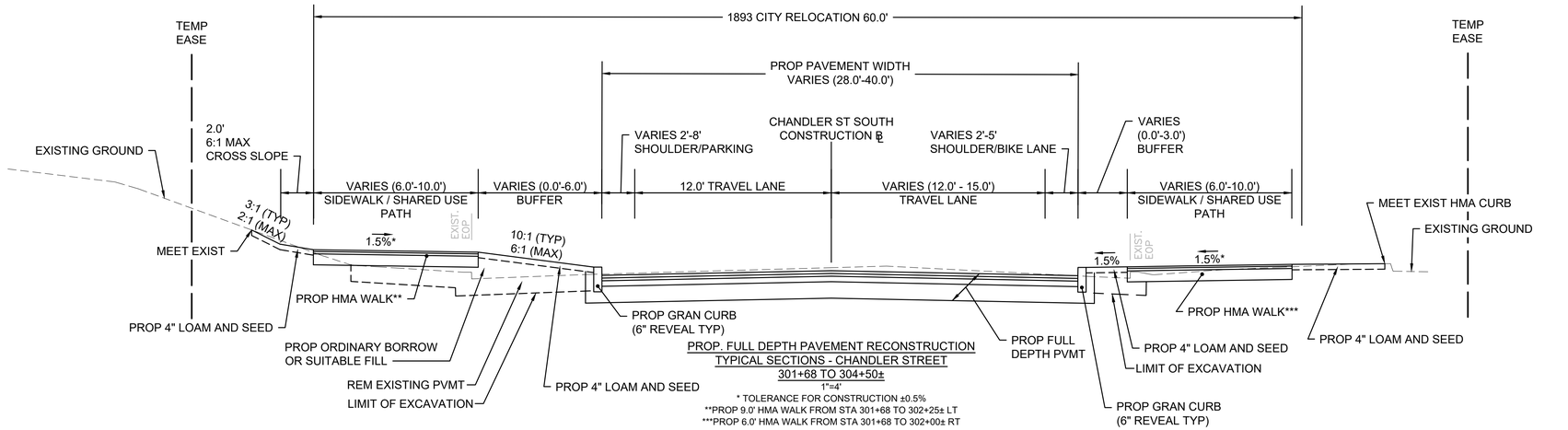
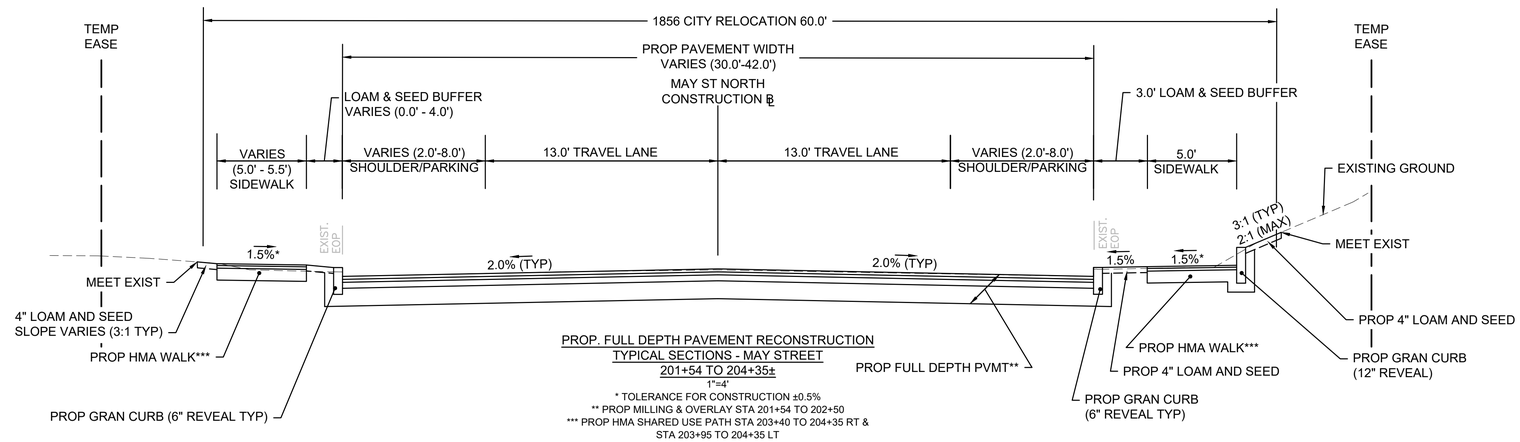
TYPICAL SECTIONS

NOTE: SEE SHEET 5 FOR PAVEMENT NOTES.





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9/13/2021

WORCESTER
CHANDLER STREET

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MASS.	-	8	34
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CONSTRUCTION PLANS

13294.01_HD(GEN).DWG Plotted on 14-Sep-2021 9:15 AM

MAY ST NORTH BL CONSTRUCTION BASELINE DATA							
STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
200+00.00	2923878.763	563679.389		S7°47'50"E 336.80'	203+36.80	2923545.079	563725.081
203+36.80	2923545.079	563725.081	R=250.00' Δ=23°23'57" L=102.10' T=51.77'		204+38.90	2923443.924	563718.181
204+38.90	2923443.924	563718.181		S15°36'08"W 61.10'	205+00.00	2923385.071	563701.746

CHANDLER & MAY BL CONSTRUCTION BASELINE DATA							
STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
100+00.00	2923727.080	563213.409		S61°41'11"E 111.60'	101+11.60	2923674.149	563311.656
101+11.60	2923674.149	563311.656	R=2250.00' Δ=7°25'26" L=291.54' T=145.97'		104+03.14	2923519.655	563558.653
104+03.14	2923519.655	563558.653	R=670.00' Δ=11°17'40" L=132.07' T=66.25'		105+35.21	2923432.481	563657.585
105+35.21	2923432.481	563657.585		S42°58'05"E 64.79'	106+00.00	2923385.071	563701.746
106+00.00	2923385.071	563701.746		S31°55'16"E 64.78'	106+64.79	2923330.084	563736.001
106+64.79	2923330.084	563736.001	R=670.00' Δ=11°07'40" L=130.12' T=65.27'		107+94.91	2923213.670	563793.681

PROJECT LIMIT
STA 201+54.34
N:2923725.8499
E:563700.3276

PROJECT BEGIN
STA 101+70.03
N:2923645.7709
E:563362.7310

MAY STREET

CHANDLER STREET

WSU DRIVEWAY (ENTRANCE ONLY)

CONTINUED ON SHEET NO. 9

106+00 CHANDLER & MAY BL=
205+00.00 MAY ST NORTH BL

OWNER UNKNOWN
486 CHANDLER STREET
48-016-00001

CITY OF WORCESTER SCHOOL DEPARTMENT
BOOK 3415 PAGE 10
525 CHANDLER STREET
30-08A-00005

EDWARD J. & MAUREEN C STEFANINI
BOOK 7475 PAGE 158
330 MAY STREET
24-042-00046

DENNIS J & MARGARET A BUZZELL
BOOK 17551 PAGE 59
312 MAY STREET
24-042-00047

JANI K & ELI NAKOLLARI
BOOK 57342 PAGE 42
310 MAY STREET
24-042-00043

ROBERT & DOROTHY J KEIDAN
BOOK 4486 PAGE 593
301 MAY STREET
30-009-00002

BENCHMARK: TBM4 LPL BO
EL=579.84'

BENCHMARK: TBM5 HYD BO
EL=571.08'

SCALE: 1" = 20'

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	9	34
PROJECT FILE NO. 608961			

CONSTRUCTION PLANS

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N
NAD 83

JEFFERY P & LYNNE K LASSEY
BOOK 56433 PAGE 93
5 CLARIDGE DRIVE
24-042-00033

KENNETH M. WELCH
BOOK 45248 PAGE 269
2 CLARIDGE DRIVE
24-042-00036

JANI K & ELI NAKOLLARI
BOOK 57342 PAGE 42
310 MAY STREET
24-042-00043

KAREN T NGUYEN
BOOK 28747 PAGE 346
505 CHANDLER STREET
24-042-00001

EGLANTINA & ILIR ZGURO
BOOK 59016 PAGE 198
1 CLARIDGE DRIVE
24-042-00034

CLARK G. & SUSAN RYAN SMITH
495 CHANDLER STREET
BOOK 26217 PAGE 277
24-042-00035

WSF REAL ESTATE INC
BOOK 53899 PAGE 317
486 CHANDLER STREET
24-038-0004A

OWNER UNKNOWN
486 CHANDLER STREET
48-016-00001

CLARIDGE DRIVE

CHANDLER STREET

WSU DRIVEWAY
(ENTRANCE ONLY)

1953 CITY LAYOUT

1893 CITY RELOCATION

BENCHMARK: TBM3 SIGN B
EL=581.72'

BENCHMARK: TBM2 HYD BO
EL=578.21'

106+00 CHANDLER & MAY BL=
205+00.00 MAY ST NORTH BL

CONTINUED ON SHEET NO. 8

CONTINUED ON SHEET NO. 10

CHANDLER & MAY BL CONSTRUCTION BASELINE DATA							
STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
106+64.79	2923330.084	563736.001	R=670.00' Δ=11°07'40" L=130.12' T=65.27'		107+94.91	2923213.670	563793.681
107+94.91	2923213.670	563793.681		S20°47'36"E 350.53'	111+45.44	2922885.971	563918.119
111+45.44	2922885.971	563918.119	R=1000.00' Δ=2°37'50" L=45.91' T=22.96'		111+91.35	2922842.692	563933.427
111+91.35	2922842.692	563933.427		S18°09'47"E 42.11'	112+33.46	2922802.676	563946.555
112+33.46	2922802.676	563946.555		S10°54'59"E 56.43'	112+89.90	2922747.265	563957.241
112+89.90	2922747.265	563957.241	R=500.00' Δ=11°37'57" L=101.51' T=50.93'		113+91.41	2922650.216	563986.417

0 20 50 100
SCALE: 1" = 20'

CHANDLER ST SOUTH BL CONSTRUCTION BASELINE DATA							
STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
300+00.00	2922525.783	564357.698		N54°53'14"W 217.58'	302+17.58	2922650.930	564179.717
302+17.58	2922650.930	564179.717	R=700.00' Δ=11°43'19" L=143.21' T=71.86'		303+60.78	2922744.670	564071.781
303+60.78	2922744.670	564071.781	R=100.00' Δ=26°16'26" L=45.86' T=23.34'		304+06.64	2922769.890	564033.963
304+06.64	2922769.890	564033.963		N69°26'21"W 93.36'	305+00.00	2922802.676	563946.555

CHANDLER & MAY BL CONSTRUCTION BASELINE DATA							
STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
111+45.44	2922885.971	563918.119	R=1000.00' Δ=2°37'50" L=45.91' T=22.96'		111+91.35	2922842.692	563933.427
111+91.35	2922842.692	563933.427		S18°09'47"E 42.11'	112+33.46	2922802.676	563946.555
112+33.46	2922802.676	563946.555		S10°54'59"E 56.43'	112+89.90	2922747.265	563957.241
112+89.90	2922747.265	563957.241	R=500.00' Δ=11°37'57" L=101.51' T=50.93'		113+91.41	2922650.216	563986.417
113+91.41	2922650.216	563986.417		S22°32'56"E 153.28'	115+44.69	2922508.655	564045.196
115+44.69	2922508.655	564045.196	R=800.00' Δ=2°12'27" L=30.82' T=15.41'		115+75.51	2922480.425	564057.560
115+75.51	2922480.425	564057.560		S24°45'23"E 180.66'	117+56.17	2922316.370	564133.212

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	10	34
PROJECT FILE NO. 608961			

CONSTRUCTION PLANS

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9/13/2021

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PROJECT LIMIT
STA 301+67.50
N:2922622.1227
E:564220.6856

PROJECT END
STA 116+32.45
N:2922428.7146
E:564081.4053

112+33.46 CHANDLER & MAY BL=
305+00.00 CHANDLER ST SOUTH BL

CONTINUED ON SHEET NO. 9

SCALE: 1" = 20'

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9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	11	34
PROJECT FILE NO. 608961			

PROFILES

13294.01_HD(PROF).DWG Plotted on 14-Sep-2021 9:16 AM

CHANDLER/MAY ST PROPOSED

PROJECT LIMIT
STA 101+70.03
N:2923645.7709
E:563362.7310

GRADE BREAK STA = 101+70.03
ELEV = 569.13

PVI STA = 104+30.00
PVI ELEV = 570.82
A.D. = 2.35%
K = 89.36
210' VC

PVC: 103+25
ELEV: 570.14

PROP LANDSCAPE
MEDIAN 6" REVEAL (TYP)

0.65%

EXIST GROUND

PROP GROUND

PVT: 105+35
ELEV: 573.97

3.00%

2.00%

GRADE BREAK STA = 105+75.00
ELEV = 574.82

16.67%

GRADE BREAK STA = 106+00.00
ELEV = 579.74

-5.16%

GRADE BREAK STA = 106+25.00
ELEV = 577.70

-2.00%

PVC: 106+60
ELEV: 577.00

PVI STA = 107+05.00
PVI ELEV = 577.23
A.D. = 1.75%
K = 51.32
90' VC

GRADE BREAK STA = 106+60.00
ELEV = 577.00

PROP
ROUNDABOUT

GRADE BREAK STA = 105+40.00
ELEV = 574.12

CENTRAL ISLAND
(6" REVEAL)

TRUCK
APRON
(3" REVEAL)

TRUCK
APRON
(3" REVEAL)

PROP
ROUNDABOUT

PROP FULL DEPTH PVM'T

NAVD 88
BASE ELEV
560.00

	102+00	103+00	104+00	105+00	106+00
EXISTING ELEV	569.1	569.3 / 569.33	569.6 / 569.65	570.1 / 569.98	570.5 / 570.34	571.1 / 570.94	571.9 / 571.83	572.7 / 572.99	573.9 / 574.32	575.1 / 578.99	576.3 / 577.20	577.5 / 577.40
PROPOSED ELEV												

580 / 570 / 560

TEMP BENCHMARK #5
STA 102+46.75, 33.18' RT
HYD BOTTOM
ELEV = 571.28'

HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 8-9

106+00 CHANDLER & MAY BL=
205+00.00 MAY ST NORTH BL

CONTINUED BELOW

HIGH POINT ELEV = 580.08
HIGH POINT STA = 109+13.39
PVI STA = 108+50.00
PVI ELEV = 580.49
A.D. = -2.76%
K = 72.50
200' VC
491.2' SSD

CHANDLER/MAY ST PROPOSED

CONTINUED ABOVE

PROP
ROUNDABOUT

TRUCK
APRON
(3" REVEAL)

CENTRAL
ISLAND
(6" REVEAL)

PVC: 106+60
ELEV: 577.00

PVRC: 107+50
ELEV: 578.24

PVT: 109+50
ELEV: 579.99

PROP LANDSCAPE
MEDIAN 6" REVEAL (TYP)

-5.16%

-2.00%

GRADE BREAK STA = 106+60.00
ELEV = 577.00

-0.50%

GRADE BREAK STA = 106+25.00
ELEV = 577.70

GRADE BREAK STA = 106+00.00
ELEV = 579.74

EXIST GROUND

PROP GROUND

CLARIDGE DRIVE

GRADE BREAK STA = 111+83.52
ELEV = 578.81

PROP FULL DEPTH PVM'T

NAVD 88
BASE ELEV
570.00

	107+00	108+00	109+00	110+00	111+00
EXISTING ELEV	575.1 / 575.06	576.3 / 577.20	577.5 / 577.36	578.4 / 578.24	579.1 / 579.19	579.6 / 579.80	579.7 / 580.07	579.9 / 579.99	579.9 / 579.74	579.6 / 579.48	579.4 / 579.23	579.1 / 578.98	578.8 / 578.73
PROPOSED ELEV													

590 / 580 / 570

106+00 CHANDLER & MAY BL=
205+00.00 MAY ST NORTH BL

TEMP BENCHMARK #3
STA 107+88.72, 31.84' LT
SIGN BOTTOM
ELEV = 581.72'

TEMP BENCHMARK #2
STA 111+98.35, 37.14' RT
HYDRANT BOTTOM
ELEV = 580.21'

CONTINUED ON SHEET NO. 12

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9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	12	34
PROJECT FILE NO. 608961			

PROFILES

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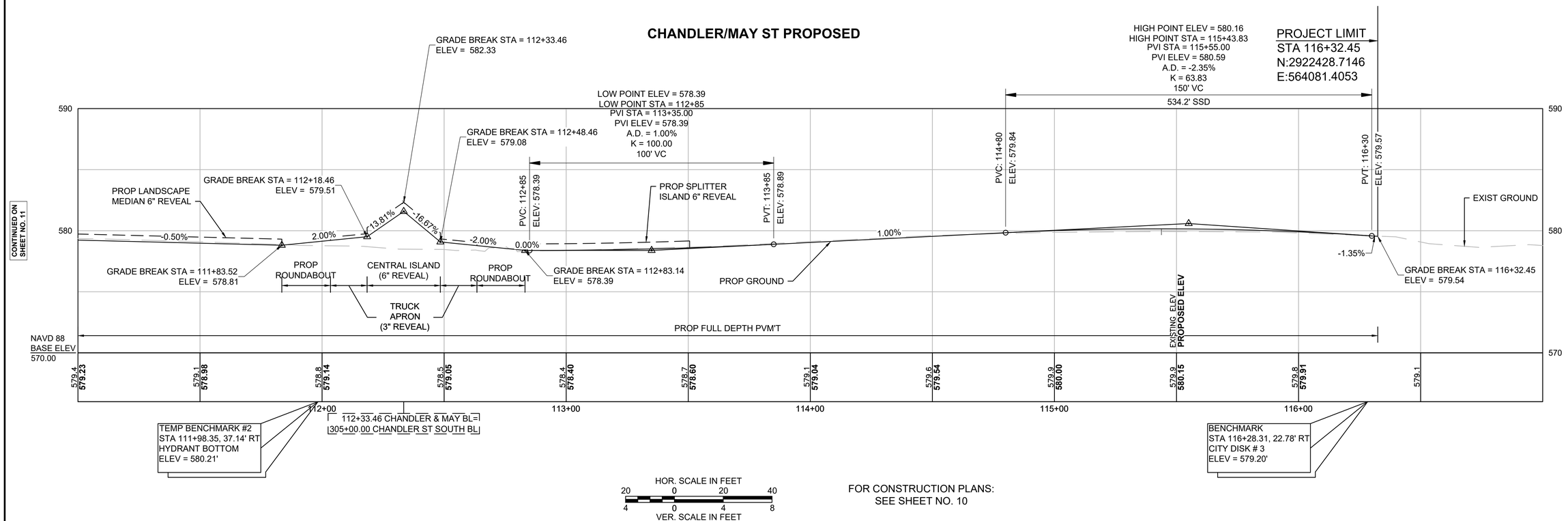
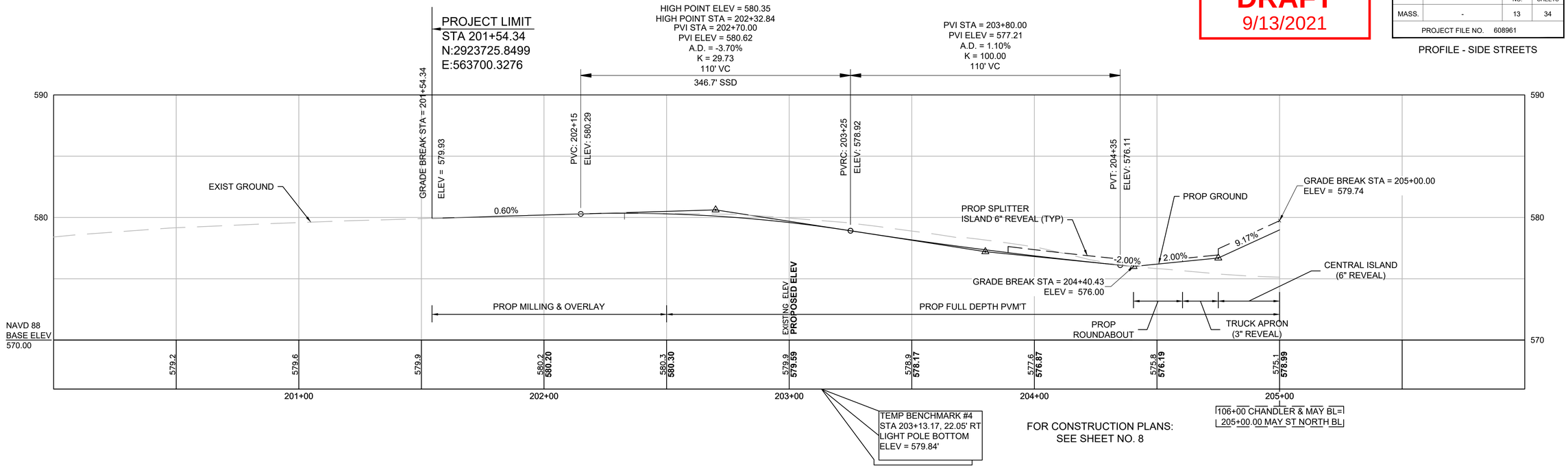
CHANDLER/MAY ST PROPOSED



HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

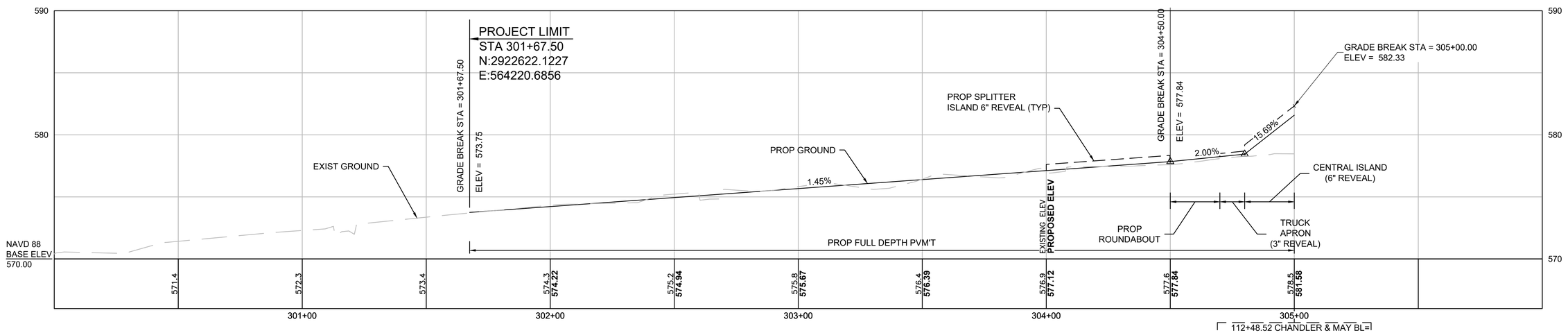
FOR CONSTRUCTION PLANS:
SEE SHEET NO. 10

MAY ST NORTH PROPOSED



FOR CONSTRUCTION PLANS:
SEE SHEET NO. 8

CHANDLER ST SOUTH PROPOSED



FOR CONSTRUCTION PLANS:
SEE SHEET NO. 10

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9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	13	34
PROJECT FILE NO. 608961			

PROFILE - SIDE STREETS

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WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	14	34
PROJECT FILE NO. 608961			

SIGNING AND STRIPING PLANS

13294.01_HD(PVMK).DWG Plotted on 14-Sep-2021 9:16 AM

CONSTRUCTION NOTES

1. BIKE MARKINGS (SHARROW, RIDER ,AND ARROW) SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC. ALL OTHER 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
   R&R = REMOVE AND RESET
   R&S = REMOVE AND STACK

NAD 83

MAY STREET
CHANDLER STREET (RTE 122)
WSU DRIVEWAY (ENTRANCE ONLY)

PROJECT LIMIT
STA 201+54.34
N:2923725.8499
E:563700.3276

PROJECT BEGIN
STA 101+70.03
N:2923645.7709
E:563362.7310

RET "SCHOOL SPEED LIMIT 20 8AM–9AM 2PM–3PM SCHOOL DAYS"
PROP PARKING STALL (TYP) SEE DETAIL ON SHEET 27
PROP BIKE SHARROW PAVEMENT MARKING (TYP) SEE DETAIL ON SHEET 27
R&R TO PROP LP "END SCHOOL ZONE"
R&R TO PROP LP "CHAPLIN SQUARE"
R&S "RTE 122 NORTH" "NO PARKING ANYTIME"
R&S "NO PARKING ANYTIME"
R&S "STOP" "NO PARKING ANYTIME"
R&S "KEEP RIGHT"
R&S "ONE HOUR PARKING"
R&S "WINTER BAN"
R&S "MAY ST" "STOP" KEEP RIGHT
PROP BIKE LANE PAVEMENT MARKING (TYP) SEE DETAIL ON SHEET 27
PROP BIKE LANE (TYP)
PROP PARKING STALL (TYP) SEE DETAIL ON SHEET 27
RET "SCHOOL"
RET "EMERGENCY ARTERY TOW ZONE NO PARKING ANYTIME"
R&R TS PROP LP "EMERGENCY ARTERY TOW ZONE NO PARKING ANYTIME"
PROP CROSSWALK (TYP) SEE DETAIL ON SHEET 27
R&R "WSU ENTRANCE ONLY"
RET "END SCHOOL ZONE"
RET "F TAG ONLY"
PROP YIELD TRIANGLE (TYP) SEE DETAIL ON SHEET 27
MATCH EXIST PVM'T MARKINGS
SEE INSET A
CONTINUED ON SHEET NO. 15

R7-1R, R4-7, R3-5R, R1-2, R6-1(R), R3-2, R7-1D, R3-17, R4-7, R3-4, R7-1L, SP-1L, SP-1R
W11-15a(L), W16-7p(L), MTD ON LP
W11-15a(R), W16-7p(R)
MA-D1-1b, OM1-1
M3-1, MA-M1-5(122), SP-2, M6-2R, OM1-1
M3-3, MA-M1-5(122), SP-2, M6-2R, OM1-1
PC +36.80
PT +38.90
PT +35.21
PC +64.79
PI +00.00
PCC +03.14
PC +11.60
R6-4

RET SOLAR-POWERED RRFB PED WARNING SYSTEM

INSET A
SCALE 1" = 20'

0 20 50 100
SCALE: 1" = 20'

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9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	15	34
PROJECT FILE NO. 608961			

SIGNING AND STRIPING PLANS

CONSTRUCTION NOTES

1. BIKE MARKINGS (SHARROW, RIDER, AND ARROW) SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC. ALL OTHER 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
   R&R = REMOVE AND RESET
   R&S = REMOVE AND STACK

N
NAD 83

CHANDLER STREET (RTE 122)
CLARIDGE DRIVE
WSU DRIVEWAY (ENTRANCE ONLY)

PROP YIELD TRIANGLE (TYP) SEE DETAIL ON SHEET 27
R&S "ONE HOUR PARKING"
R1-2
W11-15a(L) W16-7p(L) MTD ON LP
W11-15a(R) W16-7p(R)
R3-5R
PROP 8' BUS BAY SEE DETAIL ON SHEET 27
PROP PARKING STALL (TYP) SEE DETAIL ON SHEET 27
R7-107a
R7-5(2HR) W11-15a(L) W16-7p(L) MTD ON LP
R1-1
R&R ON NEW FOUNDATION "CHANDLER ST 122 NORTH WORCESTER REGIONAL AIRPORT"
R&S WRTA BUS STOP
R&S "EMERGENCY SNOW ROUTE"
RET "NO PARKING ANYTIME"
R&S PED W/ ARROW
R&S "ONE HOUR PARKING 8AM–7PM"
R&S KEEP RIGHT
D3-1"Claridge Dr" R&R
M3-1 MA-M1-5(122) SP-2 M6-2R OM1-1
M3-3 MA-M1-5(122) SP-2 M6-2R OM1-1
R6-4
PI +00.00
PC +64.79
PT +94.91
PC +45.44
PT +91.35
R&R ON NEW FOUNDATION "DOWNTOWN 122 SOUTH"
"EMERGENCY SNOW ROUTE" RET
R&R "FOX SQUARE"
PROP CROSSWALK (TYP) SEE DETAIL ON SHEET 27
PROP BUS SHELTER
R4-7 R3-4
R7-107a
PROP 8' BUS BAY SEE DETAIL ON SHEET 27
W11-15a(L) W16-7p(L)
W11-15a(L) W16-7p(L) MTD ON LP
R&S WRTA BUS STOP
REM
R1-2
PROP YIELD TRIANGLE (TYP) SEE DETAIL ON SHEET 27
2' WDWL W/2' GAPS (TYP)
12' CW
10' CW
22' (TYP)
20'
8'
11'
6'
2'
3'
1'
16'
CONTINUED ON SHEET NO. 14
CONTINUED ON SHEET NO. 16

0 20 50 100
SCALE: 1" = 20'

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WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	16	34
PROJECT FILE NO. 608961			

SIGNING AND STRIPING PLANS

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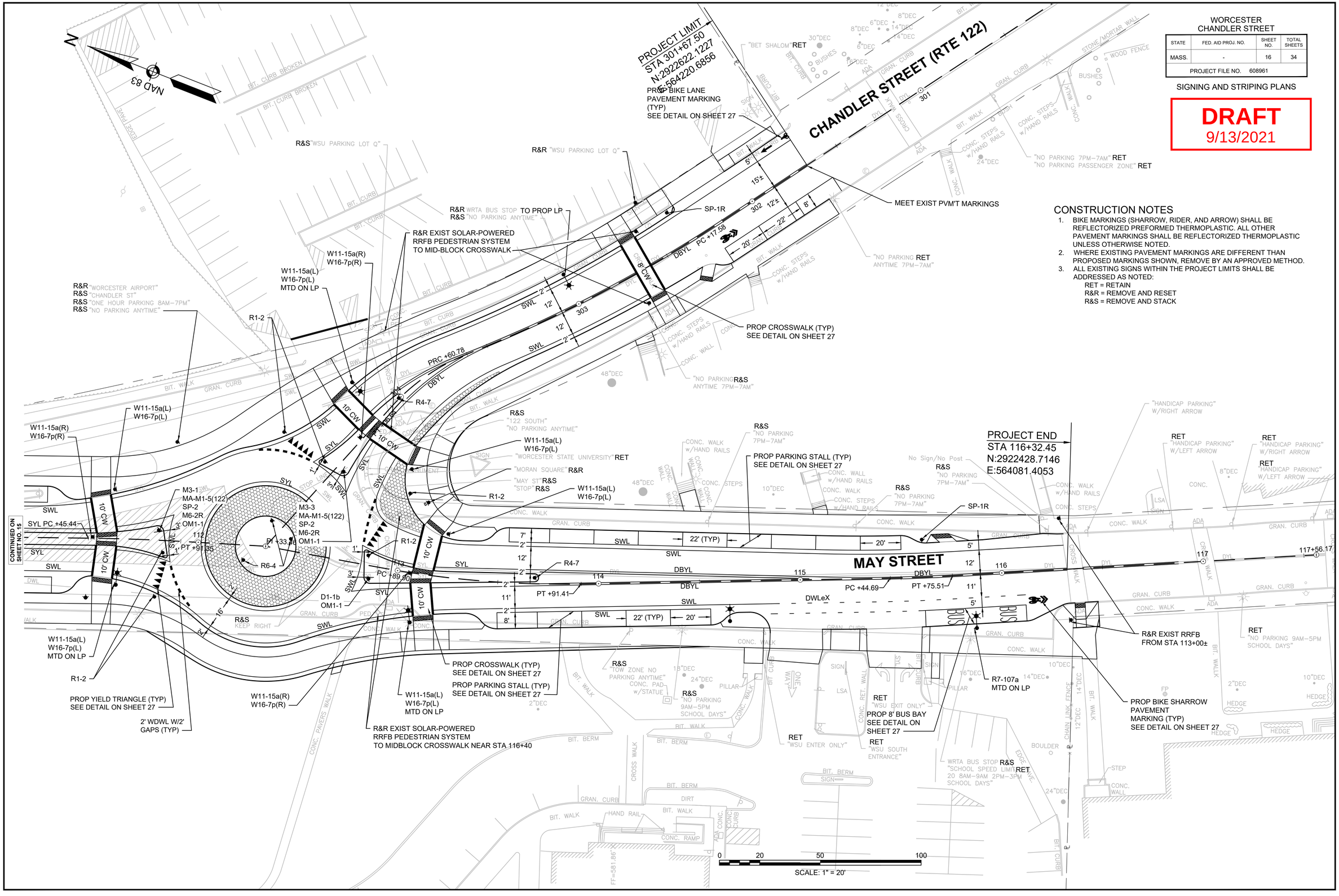
9/13/2021

13294.01_HD(PVMK).DWG Plotted on 14-Sep-2021 9:16 AM

CONSTRUCTION NOTES

1. BIKE MARKINGS (SHARROW, RIDER, AND ARROW) SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC. ALL OTHER 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
   R&R = REMOVE AND RESET
   R&S = REMOVE AND STACK



DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	17	34
PROJECT FILE NO. 608961			

TRAFFIC SIGN SUMMARY

TRAFFIC SIGN SUMMARY

IDENTIFI–CATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE. MKR.	NUMBER OF SIGNS REQUIRED	COLOR BACK–GROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
R1-1	30"	30"	STOP	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED				RED	WHITE	WHITE		6.25	
R1-2	30"X30"X30"		YIELD					WHITE	RED	WHITE		3.13	
R3-5R	30"	36"	ONLY					WHITE	BLACK	BLACK		7.50	
R3-17	30"	24"	BIKE LANE					BLACK --- WHITE	WHITE --- BLACK	WHITE --- BLACK		5.00	
R4-7	24"	30"						WHITE	BLACK	BLACK		5.00	
R7-1d	12"	18"	NO PARKING ANY TIME					WHITE	RED	RED		1.50	
R7-1L	12"	18"	NO PARKING ANY TIME					WHITE	RED	RED		1.50	
R7-1R	12"	18"	NO PARKING ANY TIME					WHITE	RED	RED		1.50	
R7-5(2HR)	12"	18"	TWO HOUR PARKING 8AM–9PM					WHITE	RED	RED		1.50	
R7-107A (SEE NOTE 4)	18"	24"	WRTA	AS PER WORCESTER REGIONAL TRANSIT AUTHORITY STANDARDS				WHITE	RED/ BLUE	RED		(SEE NOTE 4)	
MA-M1-5(122)	30"	24"	122	AS PER MASSDOT STANDARDS				WHITE	BLACK	BLACK		5.00	
M3-1	24"	12"	NORTH	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED				WHITE	BLACK	BLACK		2.00	
M3-3	24"	12"	SOUTH					WHITE	BLACK	BLACK		2.00	
M6-2R	21"	15"						WHITE	BLACK	BLACK		2.19	
OM1-1	24"	24"						YELLOW	YELLOW CLUSTER	- - -		4.00	

TRAFFIC SIGN SUMMARY (CONTINUED)

IDENTIFI–CATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE. MKR.	NUMBER OF SIGNS REQUIRED	COLOR BACK–GROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
W11-15a(L)	30"	30"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED				FLOUR-ESCENT YELLOW/ GREEN	BLACK	BLACK		6.25	
W11-15a(R)	30"	30"						FLOUR-ESCENT YELLOW/ GREEN	BLACK	BLACK		6.25	
W16-7p(L)	24"	12"						FLOUR-ESCENT YELLOW/ GREEN	BLACK	BLACK		2.00	
W16-7p(R)	24"	12"						FLOUR-ESCENT YELLOW/ GREEN	BLACK	BLACK		2.00	
D1-1b	48"	18"	May St	6"D	6" 6"	9"x6" @45°		GREEN	WHITE	WHITE		6.00	
SP-1L	30"	30"	USE RAMP	8.5"x15" 4"C	3" 2" 2" 3"	9"x6.1" @255°		GREEN	WHITE	WHITE		6.25	
SP-1R	30"	30"	USE RAMP	8.5"x15" 4"C	3" 2" 2" 3"	9"x6.1" @135°		GREEN	WHITE	WHITE		6.25	
SP-2	42"	12"	Chandler St	6/4.5"C	3" 3"	N/A		GREEN	WHITE	WHITE		3.50	

NOTES:
1. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; AND THE CITY OF WORCESTER STANDARD SPECIFICATIONS AND DETAILS.
2. ALL PROPOSED REGULATORY AND WARNING SIGNS SHALL BE 0.08" ALUMINUM WITH HIGH INTENSITY PRISMATIC REFLECTIVE SHEETING.
3. PARKING SIGNS SHALL BE ENGINEERING-GRADE RETRO-REFLECTIVE SHEETING ON 0.08" ALUMINUM.
4. WRTA BUS SIGNS WILL BE PROVIDED TO THE CONTRACTOR BY THE CITY OF WORCESTER.
5. ALL TRAFFIC SIGN POLES SHALL BE SCHEDULE 40 BLACK (WITH ALUMINUM INDUSTRIAL COATING). THE SIZE OF THE PIPE SHALL BE 12' LONG X 2" I.D. ROUND. ALL POLES SHALL BE PAINTED WITH GLOSS BLACK RUST INHIBITIVE ENAMEL UNLESS OTHERWISE NOTED.

GENERAL NOTES

1. ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED, THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. WORK HOURS SHALL BE 7AM TO 3PM UNLESS OTHERWISE APPROVED BY MASSDOT AND THE CITY. NO WORK WILL BE ALLOWED DURING PEAK PERIODS (MONDAY THRU FRIDAY, 7AM-9AM AND 3PM-6PM) WITHIN THE PUBLIC WAY UNLESS OTHERWISE APPROVED BY MASSDOT AND THE CITY.
3. NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY THE DAY BEFORE, AFTER OR ON A STATE RECOGNIZED HOLIDAY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS AND PUBLIC RIGHTS-OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. ALL DRUMS OUTSIDE TAPERS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
6. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
7. THE FIRST 10 DRUMS ON TAPERS SHALL BE REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS AND SHALL BE OPERATING, AT A MINIMUM, BETWEEN DUSK AND DAWN, WHEN TAPER IS DEPLOYED.
8. REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
9. CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
10. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 48 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OR RESTRICTION OF ACCESS.
11. FOR RESTORATIVE WORK ON LOCAL ROADWAYS, A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON TWO WAY STREETS SHALL BE MAINTAINED AT ALL TIMES, EXCEPT THAT DURING WORKING HOURS, TRAFFIC MAY BE REDUCED TO ONE LANE UNDER POLICE CONTROL FOR SHORT TIME PERIODS WHEN REQUIRED FOR THE WORK, AS SHOWN UNLESS OTHERWISE APPROVED BY THE ENGINEER.
12. FOR DROP-OFFS 4" OR LESS WITHIN THE CLEAR ZONE, CONDITION MAY BE MITIGATED WITH W8-9 (LOW SHOULDER) SIGN OR TEMPORARY CANALIZATION DEVICES.
13. CONTRACTOR SHALL STAGE WORK SUCH THAT A DROP-OFF OF NO MORE THAN 4" AT THE END OF EACH WORK DAY EXISTS WITHIN THE CLEAR ZONE AT ANY TIME AND ENSURE DROP-OFF IS MITIGATED WITHOUT BARRIER PER NOTE 12.
14. CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:
    4' IF POSTED SPEED IS LESS THAN 35 MPH
15. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
16. NON-ESSENTIAL TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
17. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
18. SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
19. SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN.
20. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN NCHRP 350 AND/OR MASH CRASH TESTED SIGN SUPPORTS AND INSTALLED IN ACCORDANCE WITH THE MUTCD.
21. MA-W20-7b SIGNS SHALL BE REPLACED BY W20-7 SIGNS WHEN FLAGGERS ARE USED IN LIEU OF POLICE OFFICER DETAILS.
22. W21-7 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF AREAS WHERE UTILITY CASTINGS HAVE BEEN RAISED IN ADVANCE OF PAVING OPERATIONS OR AS REQUESTED BY THE ENGINEER.
23. W8-15 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF PAVEMENT MILLING AREAS OR AS REQUESTED BY THE ENGINEER.
24. TEMPORARY MARKINGS SHALL BE WATER-BORNE PAINT OR SURFACE-APPLIED REMOVEBLE TAPE, AS APPROVED BY THE ENGINEER.
25. ALL TEMPORARY CROSSWALKS AND STOP LINES SHALL BE 12 INCHES WIDE.
26. W8-15 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF PAVEMENT MILLING AREAS OR AS REQUESTED BY THE ENGINEER.
27. ALL TEMPORARY DOUBLE YELLOW LINES (DBYL) SHALL BE 6 INCHES WIDE.
28. W20-1c OR MA-R2-10a SIGNS SHOWN ON ADVANCE SIGN SCHEMATIC MAY BE USED IN LIEU OF THOSE SIGNS SHOWN ON TYPICAL DETAILS ON THE TEMPORARY TRAFFIC CONTROL PLANS IF MINIMUM SIGN SPACING IS MET.
29. CONTRACTOR SHALL SECURE WORK AREAS, BY AN APPROPRIATE METHOD, TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
30. BICYCLES ARE EXPECTED TO SHARE THE ROAD WITH GENERAL VEHICULAR TRAFFIC.
31. NIGHTTIME WORK SHALL REQUIRE PRIOR APPROVAL FROM MASSDOT AND THE CITY.
32. ILLUMINATION REQUIRED FOR NIGHTTIME WORK APPROVED BY THE ENGINEER SHALL BE DIFFUSED OR ANTI-GLARE LIGHTING AND IN ACCORDANCE WITH MASSDOT STANDARDS.
33. CONTRACTOR SHALL PROVIDE 4 PORTABLE CHANGE MESSAGE SIGN (PCMS) A MINIMUM OF 7 DAYS PRIOR TO AND POST START OF CONSTRUCTION.
34. THE CONTRACTOR SHALL COORDINATE ALL WORK ACTIVITIES, INCLUDING DETOURS, WITH THE WORCESTER REGIONAL TRANSIT AUTHROIRTY (WRTA) A MINIMUM OF 30 DAYS PRIOR TO IMPLEMENTING ANY WORK ACTIVITY OR DETOUR AS THEY MAY IMPACT EXISTING BUS ROUTE AND BUS STOP LOCATIONS.
35. TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE TRANSVERSELY PLACES RUMBLE STRIPS EVENLY SPACED. SPACING SHALL BE 10 FEET ON CENTER AS DIRECTED BY ENGINEER.

MAJOR WORK ACTIVITY NOTES

PROPOSED UTILITIES (WATER, SEWER, AND DRAINAGE)

1. CONTRACTOR SHALL CONSTRUCT ALL UTILITIES PRIOR TO THE CONSTRUCTION OF FULL DEPTH PAVEMENT. CONTRACTOR SHALL PATCH PAVEMENT AND SIDEWALKS AND PROVIDE TEMPORARY PAVEMENT MARKINGS TO MATCH EXISTING CONDITIONS.
2. CONTRACTOR SHALL MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS AT ALL TIMES.
3. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND THE CITY OF WORCESTER TO STAGE WORK IN ORDER TO PROVIDE PEDESTRIAN ACCESS AT ALL TIMES. TO REDUCE PEDESTRIAN CONNECTIVITY IMPACTS SIDEWALK WORK MAY BE LIMITED TO PREVENT WORKING ON ADJACENT BLOCKS AT THE SAME TIME.

FULL DEPTH PAVEMENT AND SIDEWALK CONSTRUCTION ALONG CHANDLER STREET

1. CONTRACTOR SHALL LIMIT FULL DEPTH PAVEMENT CONSTRUCTION TO ONE SEGMENT AT A TIME. CHANDLER STREET SHALL BE DIVIDED INTO 2 SEGMENTS: 1) STA. 101+70 TO CLARIDGE DR. AND 2) CLARIDGE DR. TO STA. 116+32.
2. CONTRACTOR SHALL MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS AT ALL TIMES.
3. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND THE CITY OF WORCESTER TO STAGE WORK IN ORDER TO PROVIDE PEDESTRIAN ACCESS AT ALL TIMES. TO REDUCE PEDESTRIAN CONNECTIVITY IMPACTS SIDEWALK WORK MAY BE LIMITED TO PREVENT WORKING ON ADJACENT BLOCKS AT THE SAME TIME.

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9/13/2021

WORCESTER
CHANDLER STREET

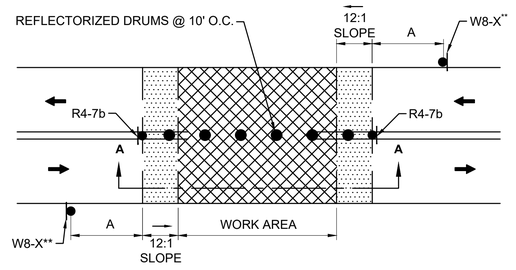
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	18	34
PROJECT FILE NO. 608961			

TEMPORARY TRAFFIC CONTROL PLANS
GENERAL NOTES & LEGEND

BUFFER SPACING	
SPEED (MPH)	DISTANCE (FEET)
15	80
20	115
25	155
30	200

LANE TAPER LENGTH FORMULAS
L= TAPER LENGTH IN FEET
W= WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED IN FEET
S= POSTED SPEED LIMIT IN MPH
POSTED SPEED
40 MPH OR LESS
$L=\frac{WS^2}{60}$

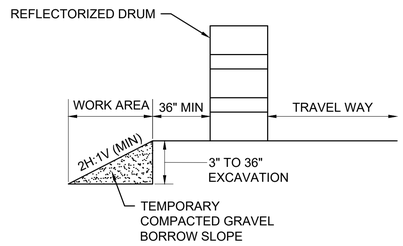
LEGEND	
P	POLICE OFFICER
S	TRAFFIC SIGNAL
●	REFLECTORIZED DRUM
◉	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS (SEE NOTE 7)
	TEMPORARY CONSTRUCTION SIGN
▲	TRAFFIC CONE
	TYPE III BARRICADE
	TEMPORARY PORTABLE RUMBLE STRIPS
	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRANSITION/BUFFER AREAS
	TRAFFIC FLOW
	PEDESTRIAN ROUTE
	CONSTRUCTION FENCE
	TEMPORARY PORTABLE PEDESTRIAN BARRICADE
NTS	NOT TO SCALE



SECTION A-A

NOTES:
1. SQUARE OFF THE FULL WIDTH OF THE ROADWAY AT THE END OF WORK DAY.
2. ** CONTRACTOR SHALL INSTALL W8-1 AT LIMIT OF EXCAVATION OR W8-3, W8-8, W8-15, OR W8-24 SIGN, AS APPROPRIATE, ON ALL ROADWAYS IN ADVANCE OF THE TRANSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

ADVANCE SIGN SPACING			
	DISTANCE BETWEEN SIGNS (FEET)		
ROADWAY	A	B	C
CHANDLER STREET, MAY STREET	350	350	350
ALL OTHER ROADWAYS	100	100	100

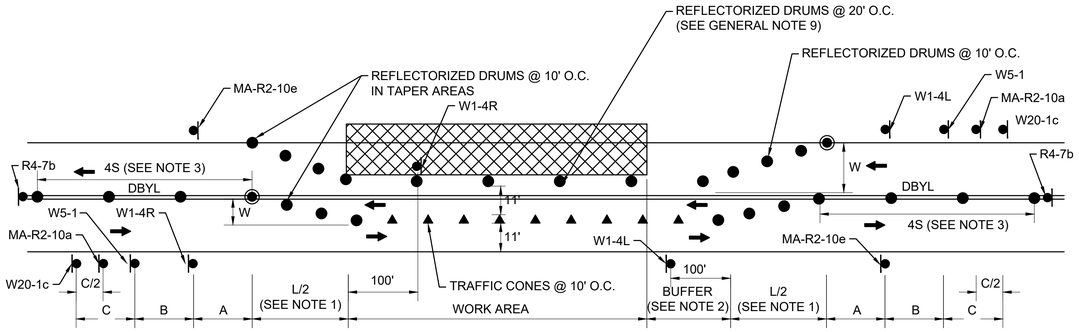


NOTE:
1. CONTRACTOR SHALL INSTALL W8-9 SIGN ON ALL ROADWAYS 350 FT IN ADVANCE OF THE START OF DROP-OFF CONDITION.

TEMPORARY PAVEMENT TRANSITION
SCALE: NTS DWG: TTCP1g DATE: NOV 2020

TYPICAL ROADWAY DROP-OFF PROTECTION
SCALE: NTS DWG: TTCP1f DATE: NOVEMBER 2020

DRAFT
9/13/2021

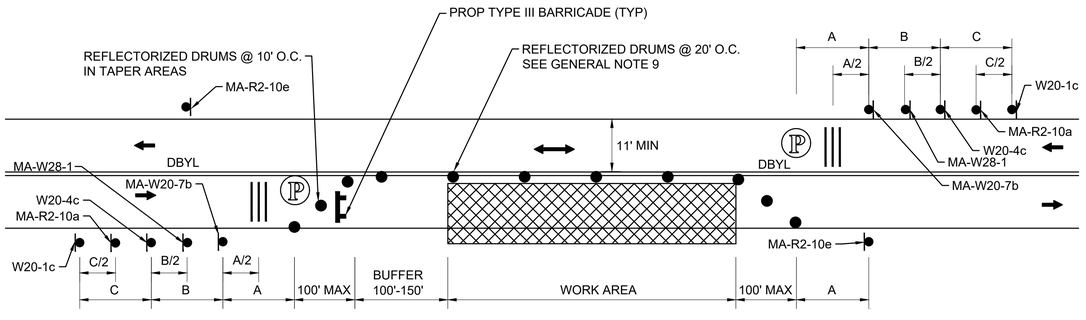


NOTES:

1. SEE TAPER LENGTH FORMULA ON TTCP GENERAL NOTES & LEGEND SHEET.
2. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
3. S = POSTED SPEED OF ROADWAY IN MPH.
4. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

TYPICAL TWO-WAY STREET LANE SHIFT

SCALE: NTS DWG: TTCP2a DATE: NOVEMBER 2020

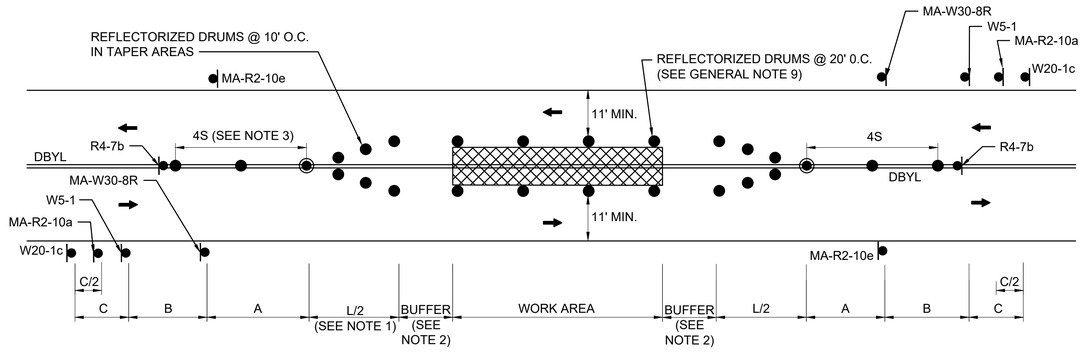


NOTES:

1. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
2. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC

SCALE: NTS



NOTES:

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2. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
3. S = POSTED SPEED OF ROADWAY IN MPH.
4. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

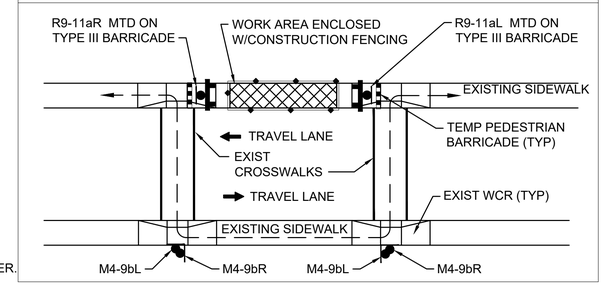
TYPICAL TWO-WAY STREET CENTER WORK AREA

SCALE: NTS DWG: TTCP2c DATE: NOVEMBER 2020

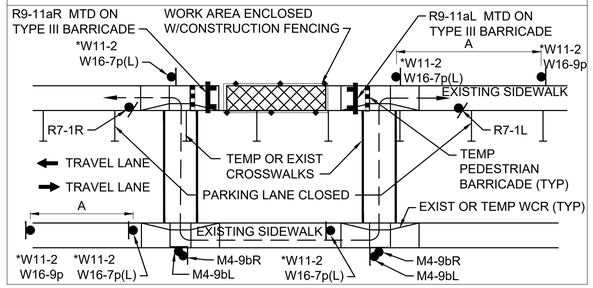
NOTES:

1. ADDITIONAL ADVANCE WARNING SIGNS MAY BE NECESSARY AS DETERMINED BY THE ENGINEER.
2. CONTROLS FOR PEDESTRIAN TRAFFIC ONLY, ARE SHOWN. VEHICULAR TRAFFIC SHALL BE MAINTAINED AS SHOWN ELSEWHERE.
3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4. → — → INDICATES DIRECTION OF PEDESTRIAN TRAVEL.
5. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, THE APPROPRIATE SIGNS SHALL BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AT EXISTING OR TEMPORARY CROSSWALKS AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER.
6. PROPOSED TEMPORARY CROSSWALKS SHALL BE 12" WIDE SURFACE APPLIED TAPE OR REFLECTORIZED PAINT AS DIRECTED BY THE ENGINEER.
7. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MAAB AND ADAAG REQUIREMENTS AND INCLUDE THE USE OF A COMPLIANT TEMPORARY PEDESTRIAN MANAGEMENT GUIDANCE SYSTEM AT ALL TIMES.
8. CONTRACTOR SHALL MAINTAIN AS WIDE OF A PEDESTRIAN ACCESS AS POSSIBLE AT ALL TIMES. EXCEPT WHERE NECESSARY, THE CONTRACTOR MAY TEMPORARILY REDUCE PEDESTRIAN PATHWAYS TO 4 FEET IN WIDTH (EXCLUDING CURB) FOR NO MORE THAN 200 LINEAR FEET AT A TIME IN ACCORDANCE WITH ALL STANDARDS. A 5' x 5' PASSING AREA SHALL BE PROVIDED IN INTERVALS NOT EXCEEDING 200 FEET.
9. TEMPORARY WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT, MAAB, AND ADAAG REQUIREMENTS.
10. TEMPORARY PEDESTRIAN BARRICADE SHALL BE PAID FOR UNDER ITEM 852.11 TEMPORARY PEDESTRIAN BARRICADE.
11. TEMPORARY PEDESTRIAN CURB RAMPS SHALL BE PAID FOR UNDER ITEM 852.12 TEMPORARY PEDESTRIAN CURB RAMP.
12. * INDICATES SIGNS ARE NOT REQUIRED IF EXISTING CROSSWALKS ARE USED.

PEDESTRIAN BYPASS TYPE I

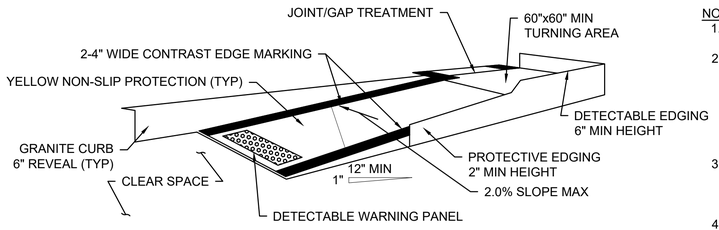


PEDESTRIAN BYPASS TYPE II

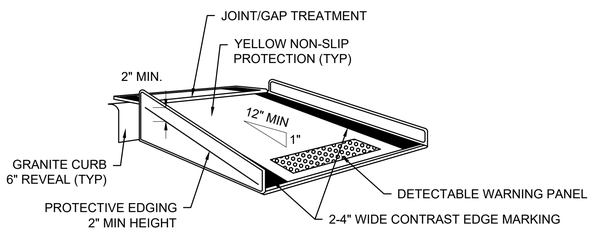


PEDESTRIAN BYPASS DETAIL

SCALE: NTS DWG: TTCP3a DATE: NOVEMBER 2020



TEMPORARY CURB RAMP-PARALLEL TO CURB



TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

NOTES:

1. CURB RAMPS SHALL BE 60" MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2" MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
5. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
6. CLEAR SPACE OF 48"x48" MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5" LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25" HIGH, AND BEVELED AT 1:2 BETWEEN 0.25" AND 0.5" HEIGHT.
10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.

TEMPORARY CURB RAMPS

SCALE: NTS DWG: TTCP3b DATE: NOVEMBER 2020

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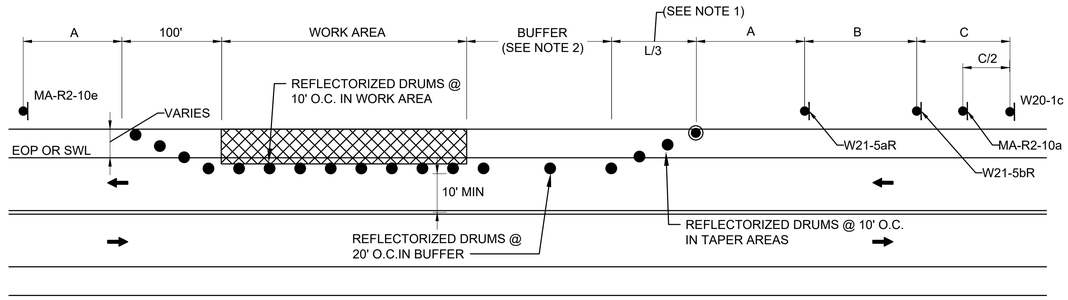
9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	20	34
PROJECT FILE NO. 608961			

TEMPORARY TRAFFIC CONTROL PLANS
TYPICAL DETAILS

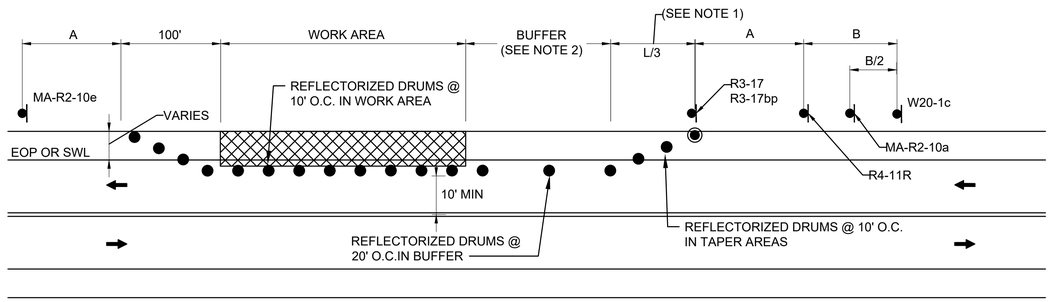


NOTES:

1. SEE TAPER LENGTH FORMULA ON TTCP GENERAL NOTES & LEGEND SHEET.
2. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
3. SEE ADVANCE SIGN SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
4. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED BEYOND MINIMUM SPACING SHOWN AS NECESSARY.

SHOULDER/PARKING LANE WORK WITH MINOR ENCROACHMENT

SCALE: NTS DWG: TTCP2g DATE: NOVEMBER 2020



NOTES:

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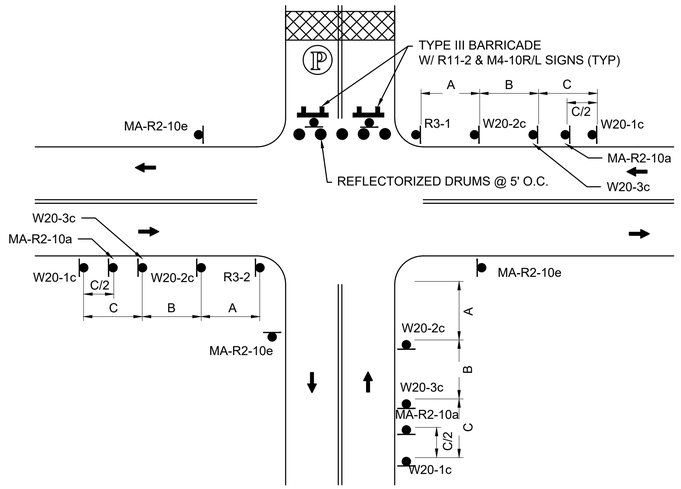
2. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
3. SEE ADVANCE SIGN SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
4. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED BEYOND MINIMUM SPACING SHOWN AS NECESSARY.

BICYCLE LANE WORK WITH MINOR ENCROACHMENT

SCALE: NTS DWG: TTCP2g DATE: NOVEMBER 2020

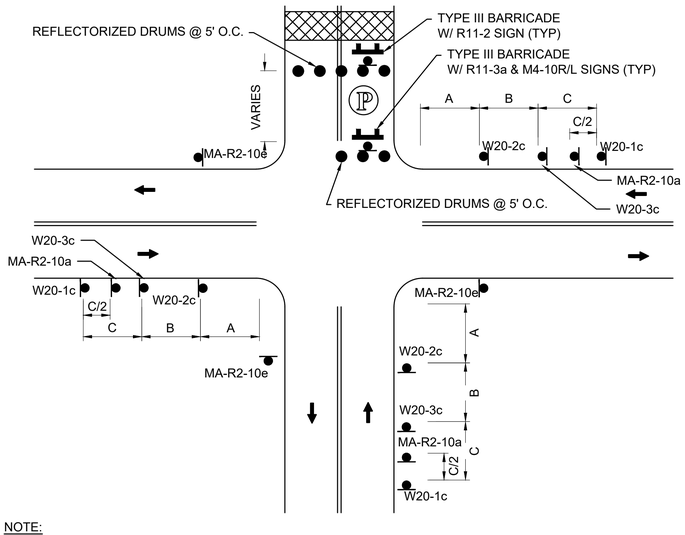
DRAFT
9/13/2021



NOTE:
1. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

TYPICAL LOCAL ROAD CLOSURE

SCALE: NTS DWG: TTCP5a DATE: NOVEMBER 2020



NOTE:
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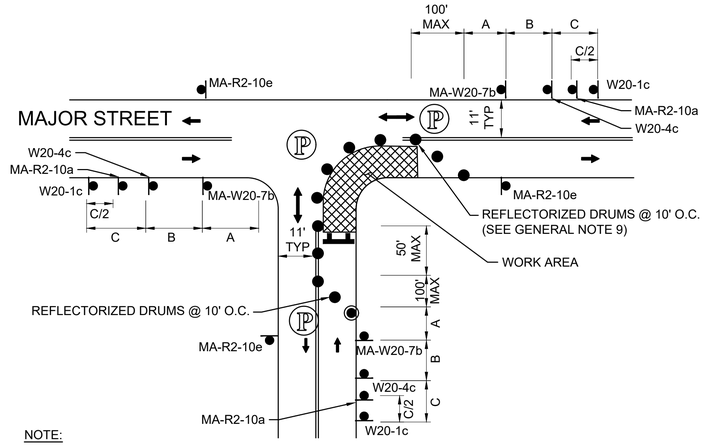
TYPICAL LOCAL ROAD CLOSURE WITH LOCAL ACCESS

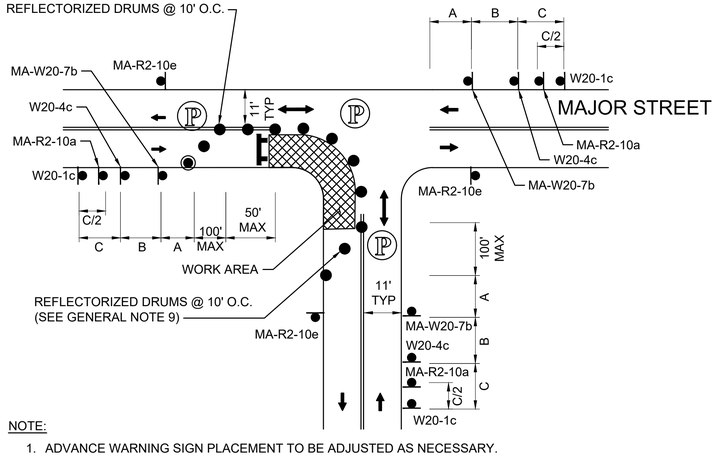
SCALE: NTS DWG: TTCP5b DATE: NOVEMBER 2020



NOTE:
1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTIONS - FAR SIDE

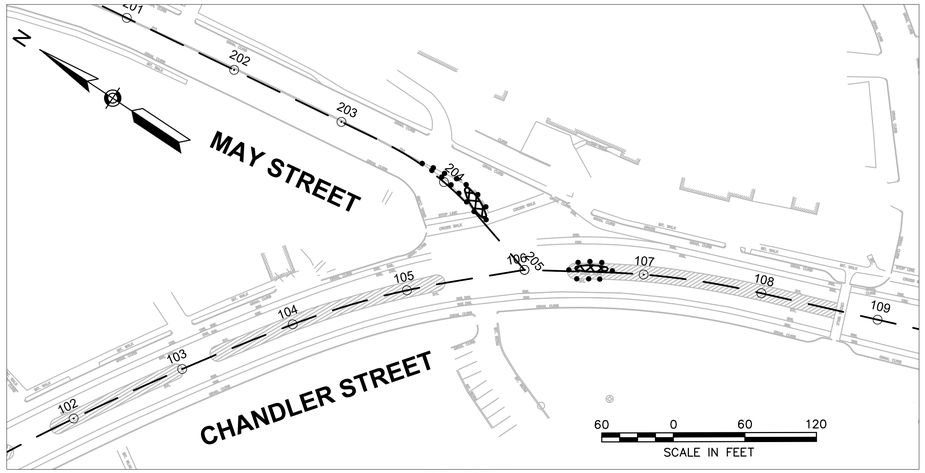
SCALE: NTS DWG: TTCP4c DATE: NOVEMBER 2020



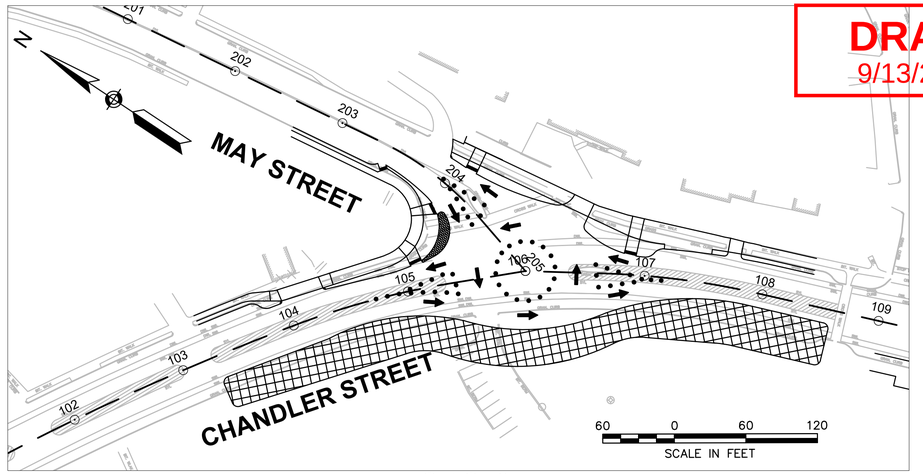
NOTE:
1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

ONE LANE BI-DIRECTIONAL TRAFFIC AT-INTERSECTIONS - NEAR SIDE

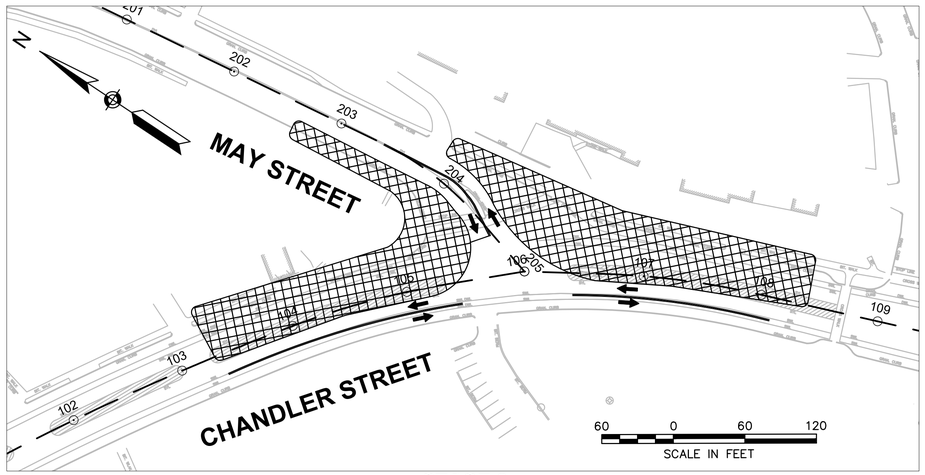
SCALE: NTS DWG: TTCP4d DATE: NOVEMBER 2020



STAGE 1



STAGE 3



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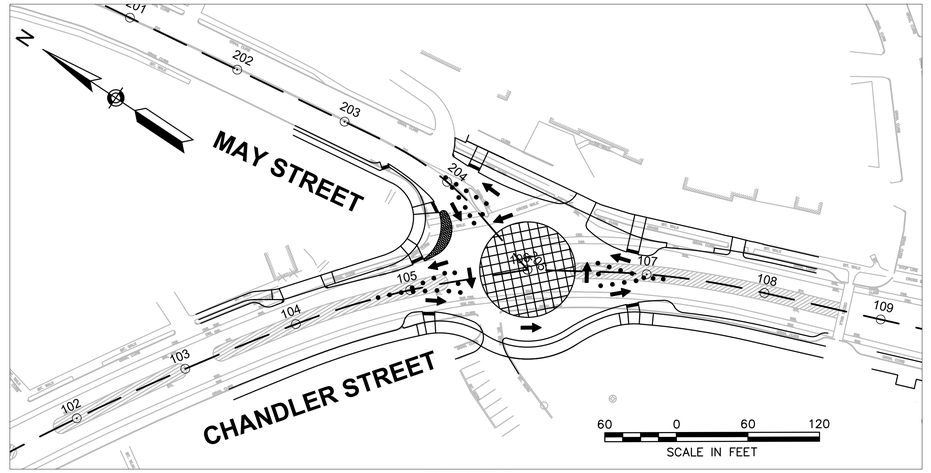

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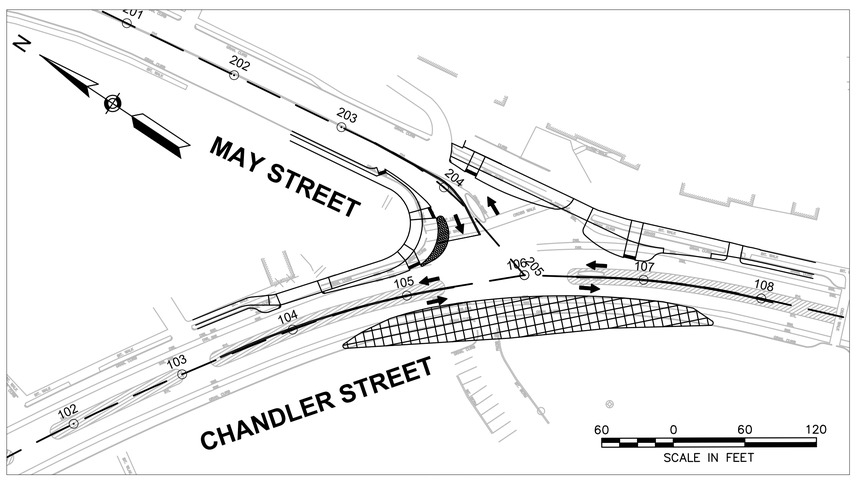

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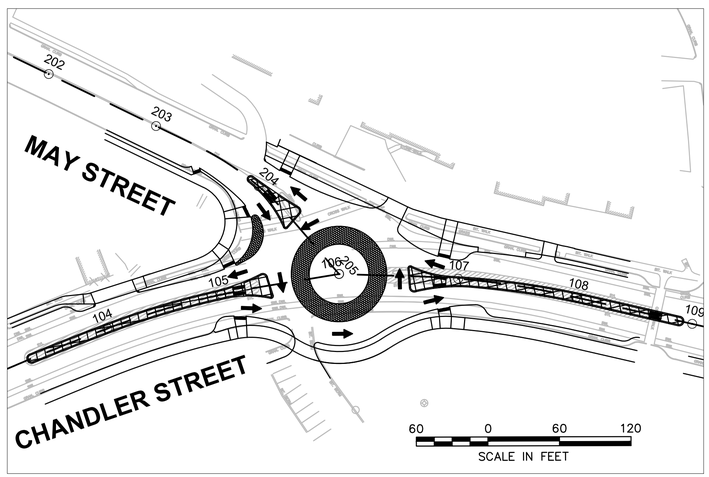

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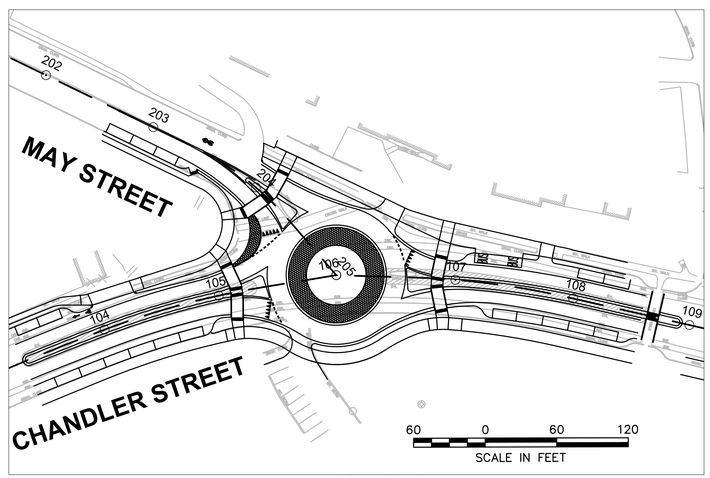


STAGE 6

DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	22	34
PROJECT FILE NO. 608961			

TEMPORARY TRAFFIC CONTROL PLANS
SUGGESTED SEQUENCING - NORTH ROUNDABOUT

SEQUENCING NOTES

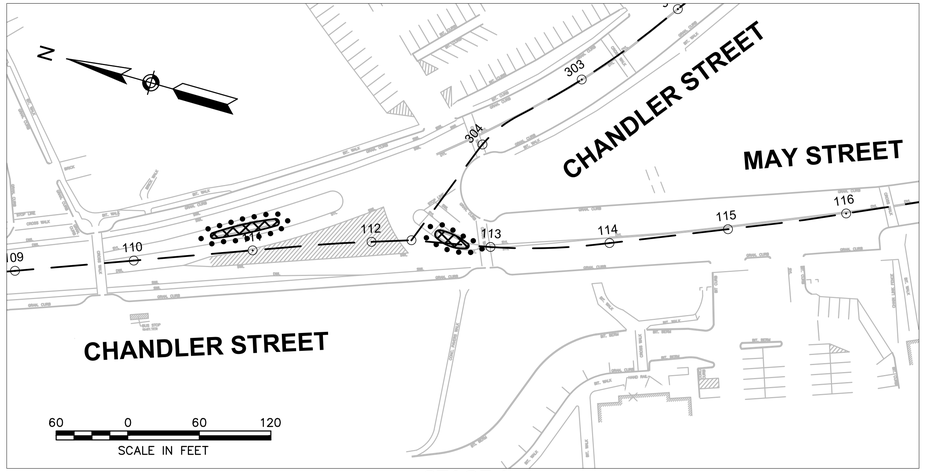
0. MAINTAIN PEDESTRIAN ACCESS ALONG WESTERLY SIDEWALK OF CHANDLER STREET. BICYCLES TO SHARE THE ROAD DURING CONSTRUCTION, PARKING WITHIN THE WORK AREAS WILL BE ELIMINATED DURING CONSTRUCTION.
1. REMOVE EXISTING ISLANDS WITHIN CHANDLER AND MAY STREETS.
2. SHIFT CHANDLER STREET TRAFFIC TO THE WEST. WIDEN EASTERN CORNERS OF INTERSECTION. INSTALL CURB AND PAVEMENT TO BINDER AND PORTIONS OF SPLITTER ISLAND CURB.

2A. SHIFT CHANDLER STREET TRAFFIC TO THE EAST. INSTALL CURB AND PAVEMENT BINDER OPPOSITE THE MAY STREET LEG ON THE WESTERN SIDE.

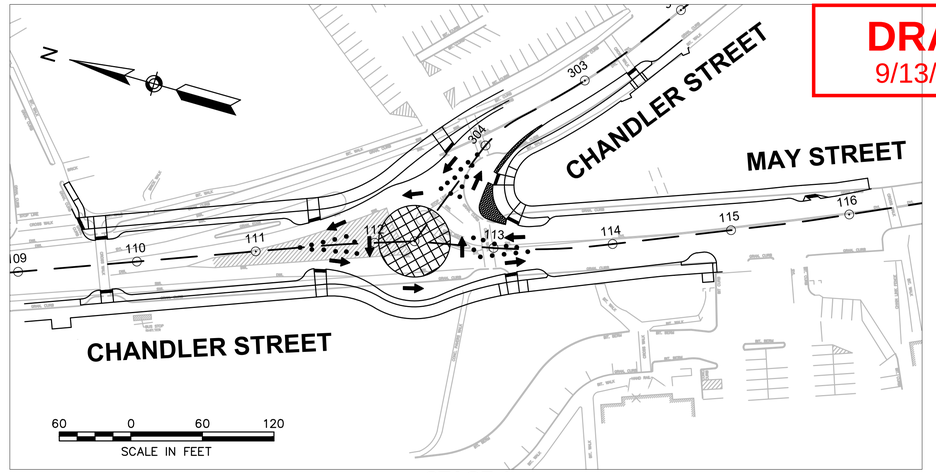
3. IMPLEMENT ROUNDABOUT PATTERN USING DRUMS. SHIFT NORTHBOUND AND SOUTHBOUND TRAFFIC TO NEW ALIGNMENT. INSTALL WESTERLY CURB. MAINTAIN PEDESTRIAN ACCESS AND/OR DETOUR PEDESTRIANS TO EASTERLY ADA-COMPLIANT SIDEWALK.
4. CONSTRUCT CENTER ISLAND AND TRUCK APRON.
5. CONSTRUCT SPLITTER ISLANDS. MAINTAIN ONE PEDESTRIAN CROSSING OF CHANDLER STREET AT ALL TIMES.
6. PERFORM FINAL PAVING AND PAVEMENT MARKING INSTALLATION.

LEGEND	
●	REFLECTORIZED DRUM
▨	WORK AREA (PUBLIC ACCESS RESTRICTED)
←	TRAFFIC FLOW

13294.01_HD\TTCP-STG\.DWG Plotted on 14-Sep-2021 9:17 AM



STAGE 1



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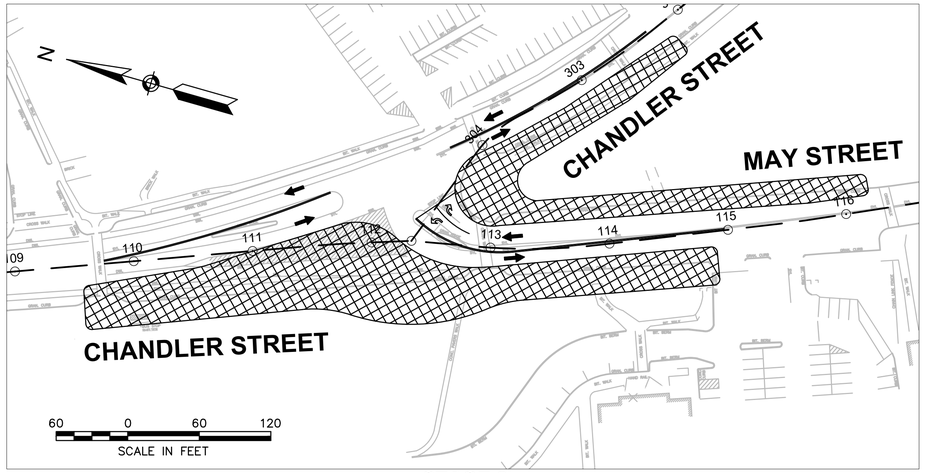
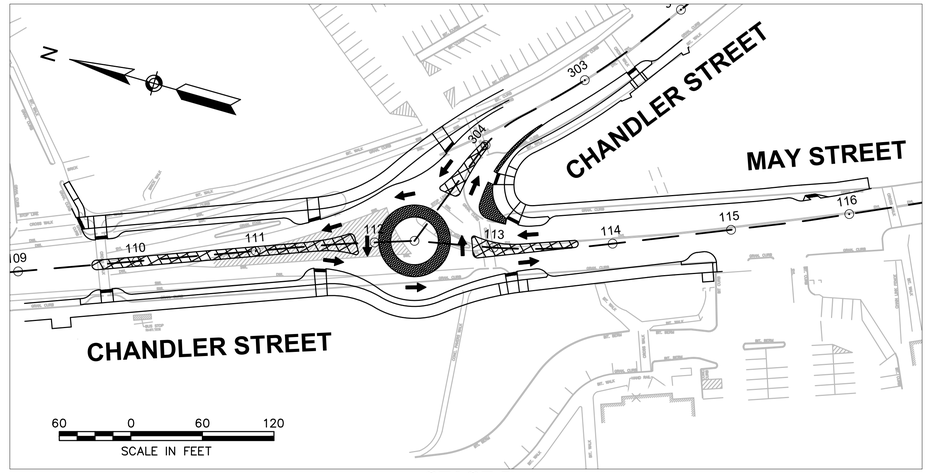
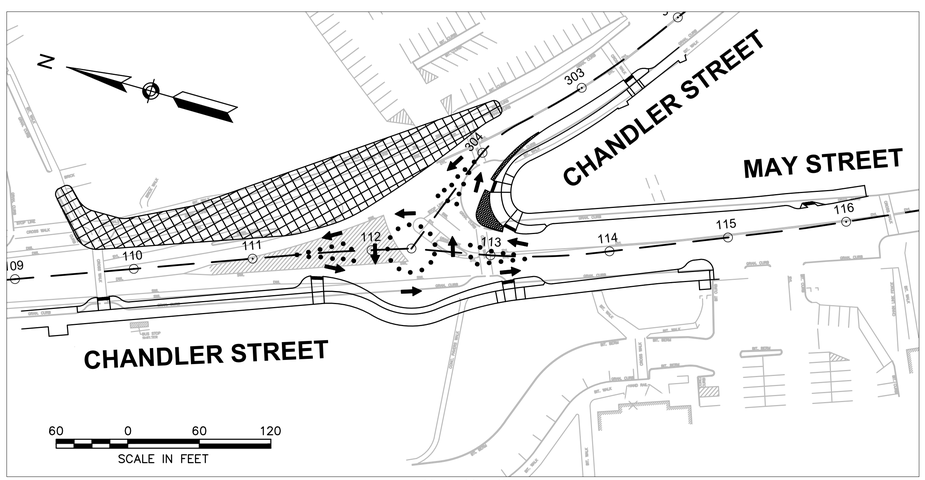


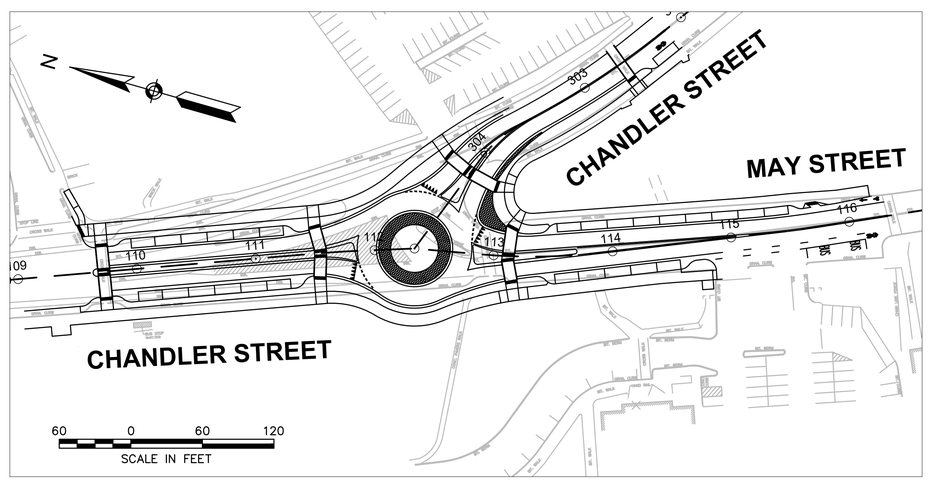
STAGE 2



STAGE 5



STAGE 3



STAGE 6

DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	23	34
PROJECT FILE NO. 608961			

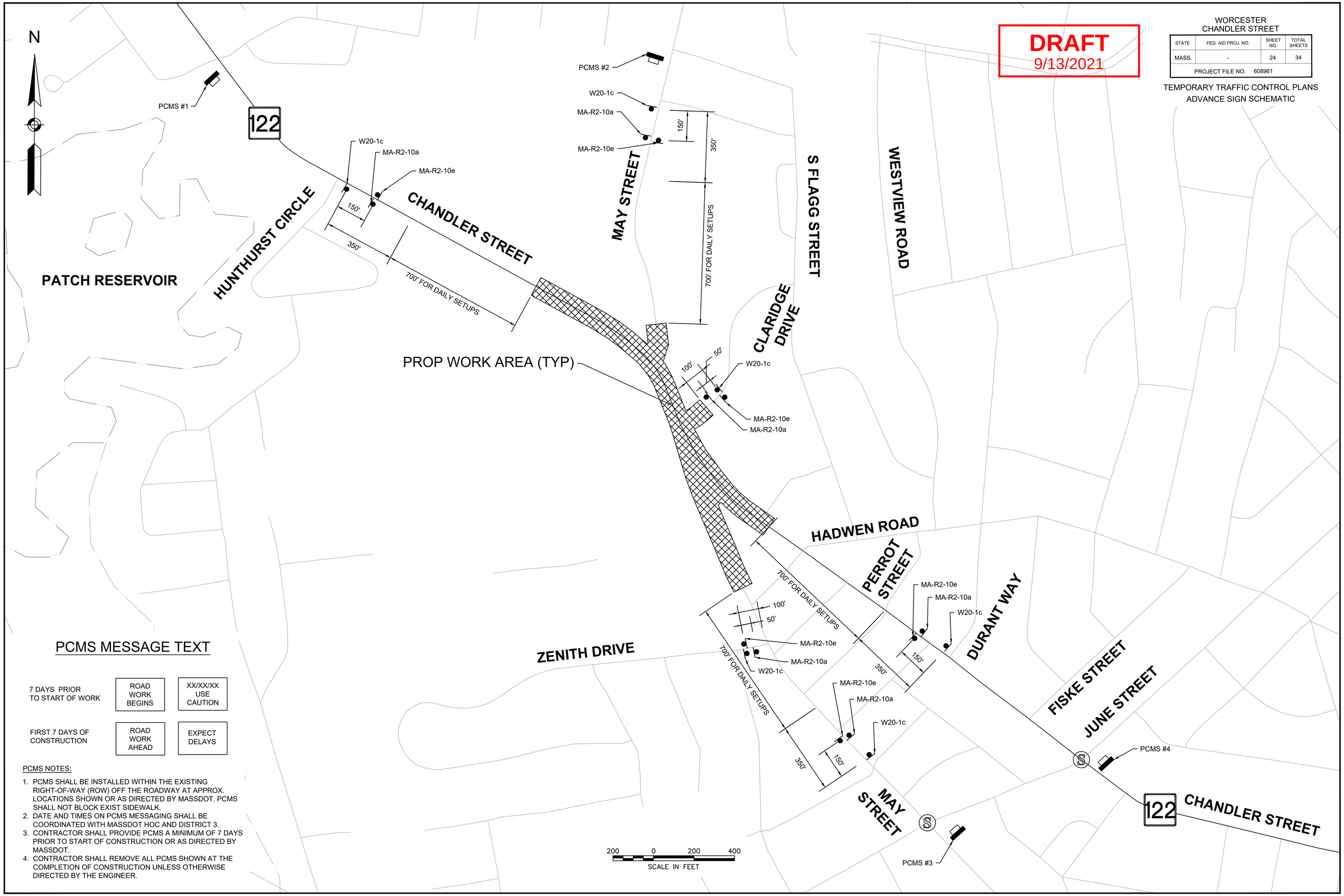
TEMPORARY TRAFFIC CONTROL PLANS
SUGGESTED SEQUENCING - SOUTH ROUNDABOUT

SEQUENCING NOTES

0. MAINTAIN PEDESTRIAN ACCESS ALONG EASTERLY SIDEWALK OF CHANDLER STREET. BICYCLES TO SHARE THE ROAD DURING CONSTRUCTION, PARKING WITHIN THE WORK AREAS WILL BE ELIMINATED DURING CONSTRUCTION.
1. REMOVE EXISTING ISLANDS WITHIN CHANDLER STREET.
2. SHIFT CHANDLER STREET TRAFFIC TO THE EAST. WIDEN WESTERN CORNERS OF INTERSECTION. INSTALL CURB AND PAVEMENT TO BINDER AND PORTIONS OF SPLITTER ISLAND CURB.
3. IMPLEMENT ROUNDABOUT PATTERN USING DRUMS. SHIFT NORTHBOUND AND SOUTHBOUND TRAFFIC TO NEW ALIGNMENT. INSTALL EASTERLY CURB. MAINTAIN PEDESTRIAN ACCESS AND/OR DETOUR PEDESTRIANS TO WESTERLY ADA-COMPLIANT SIDEWALK.
4. CONSTRUCT CENTER ISLAND AND TRUCK APRON.
5. CONSTRUCT SPLITTER ISLANDS. MAINTAIN ONE PEDESTRIAN CROSSING OF CHANDLER STREET AT ALL TIMES.
6. PERFORM FINAL PAVING AND PAVEMENT MARKING INSTALLATION.

LEGEND	
●	REFLECTORIZED DRUM
▨	WORK AREA (PUBLIC ACCESS RESTRICTED)
←	TRAFFIC FLOW

13294.01_HD(TTCP-STG).DWG Plotted on 14-Sep-2021 9:17 AM



PCMS MESSAGE TEXT

7 DAYS PRIOR TO START OF WORK	ROAD WORK BEGINS	XX/XX/XX USE CAUTION
FIRST 7 DAYS OF CONSTRUCTION	ROAD WORK AHEAD	EXPECT DELAYS

PCMS NOTES:

1. PCMS SHALL BE INSTALLED WITHIN THE EXISTING RIGHT-OF-WAY (ROW) OFF THE ROADWAY AT APPROX. LOCATIONS SHOWN OR AS DIRECTED BY MASSDOT. PCMS SHALL NOT BLOCK EXIST SIDEWALK.
2. DATE AND TIMES ON PCMS MESSAGING SHALL BE COORDINATED WITH MASSDOT HOC AND DISTRICT 3.
3. CONTRACTOR SHALL PROVIDE PCMS A MINIMUM OF 7 DAYS PRIOR TO START OF CONSTRUCTION OR AS DIRECTED BY MASSDOT.
4. CONTRACTOR SHALL REMOVE ALL PCMS SHOWN AT THE COMPLETION OF CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	24	34
PROJECT FILE NO. 608961			

TEMPORARY TRAFFIC CONTROL PLANS
ADVANCE SIGN SCHEMATIC

13294.01_HD(TTCP).DWG Plotted on 14-Sep-2021 9:17 AM

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFI–CATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE. MKR.	COLOR BACK–GROUND	COLOR LEGEND	COLOR BORDER	UNIT AREA (S.F.)
MA-R2-10a	48"	36"	WORK ZONE SPEEDING FINES DOUBLED	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK	12.00
MA-R2-10e	36"	48"	END ROAD WORK / DOUBLE FINES END				FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK	12.00
R3-1	24"	24"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	RED/ BLACK	BLACK	4.00
R3-2	24"	24"					WHITE	RED/ BLACK	BLACK	4.00
R4-7b	24"	30"	KEEP RIGHT				WHITE	BLACK	BLACK	5.00
R7-1d	12"	18"	NO PARKING ANY TIME				WHITE	RED	RED	1.50
R7-1L	12"	18"	NO PARKING ANY TIME				WHITE	RED	RED	1.50
R7-1R	12"	18"	NO PARKING ANY TIME				WHITE	RED	RED	1.50
R9-9	24"	12"	SIDEWALK CLOSED				WHITE	BLACK	BLACK	2.00
R9-11aL	24"	12"	SIDEWALK CLOSED CROSS HERE				WHITE	BLACK	BLACK	2.00
R9-11aR	24"	12"	SIDEWALK CLOSED CROSS HERE				WHITE	BLACK	BLACK	2.00
R9-11L	24"	12"	SIDEWALK CLOSED AHEAD CROSS HERE				WHITE	BLACK	BLACK	3.00
R9-11R	24"	12"	SIDEWALK CLOSED AHEAD CROSS HERE				WHITE	BLACK	BLACK	3.00
R11-2	48"	30"	ROAD CLOSED				WHITE	BLACK	BLACK	10.00
R11-3a	60"	30"	ROAD CLOSED AHEAD LOCAL TRAFFIC ONLY				WHITE	BLACK	BLACK	12.50
M4-9bL/R	30"	24"	DETOUR / DETOUR				FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-9bSL/R	30"	24"	DETOUR / DETOUR				FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-10L	48"	18"	DETOUR				FLUOR-ESCENT ORANGE	BLACK	---	6.00
M4-10R	48"	18"	DETOUR				FLUOR-ESCENT ORANGE	BLACK	---	6.00

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY (CONTINUED)

IDENTIFI–CATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE. MKR.	COLOR BACK–GROUND	COLOR LEGEND	COLOR BORDER	UNIT AREA (S.F.)
W1-4L/R	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W5-1	36"	36"	ROAD NARROWS				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-1	36"	36"	BUMP				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-3	36"	36"	PAVEMENT ENDS				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-8	36"	36"	ROUGH ROAD				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-9	36"	36"	LOW SHOULDER				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-15	36"	36"	GROOVED PAVEMENT				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-1c	36"	36"	ROAD WORK AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-2c	36"	36"	DETOUR AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-3c	36"	36"	ROAD CLOSED AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-4	36"	36"	ONE LANE ROAD AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-7	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W21-7	36"	36"	UTILITY WORK AHEAD	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
MA-W24-2	36"	36"	LANES SHIFT AHEAD	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00

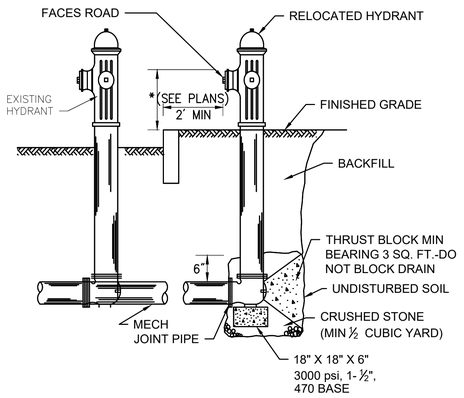
NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.
2. ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	25	34
PROJECT FILE NO. 608961			

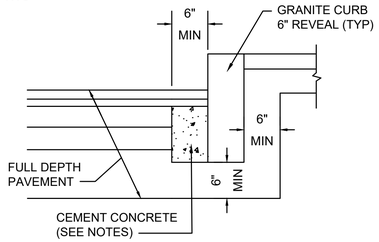
TEMPORARY TRAFFIC CONTROL PLANS
TEMPORARY SIGN SUMMARY

DRAFT
9/13/2021



HYDRANT RELOCATION

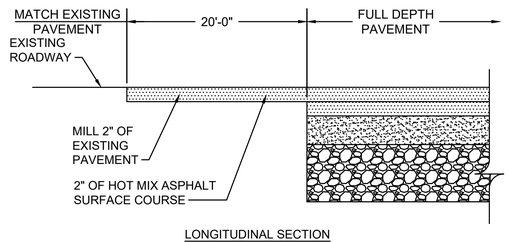
SCALE: NTS



NOTES:
1. TO BE PLACED IF CURB IS INSTALLED AFTER HOT MIX ASPHALT
2. CONCRETE SHALL BE INCLUDED IN PRICE BID FOR GRANITE CURB
3. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED. ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.

GRANITE CURB IN FULL DEPTH PAVEMENT

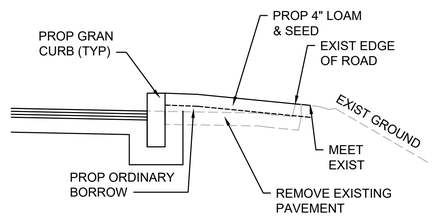
SCALE: N.T.S. DWG: CURB-05 DATE: MARCH 2013



LONGITUDINAL SECTION

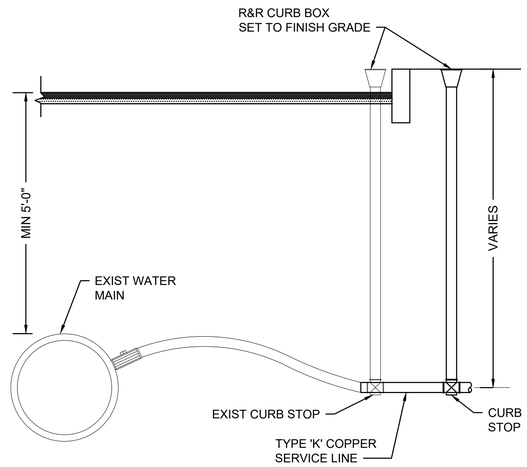
FULL DEPTH PAVEMENT TRANSITION

SCALE: N.T.S. DWG: PVMT-03 DATE: OCT. 2012



REMOVAL OF EXIST ROADWAY

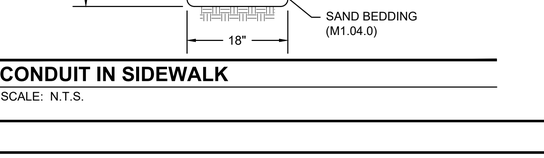
SCALE: N.T.S. DWG: PVMT-08 DATE: FEB. 2012



NOTES:
1. INSTALATIONS SHALL CONFORM WITH MUNICIPAL WATER WORKS SPECIFICATIONS AND STANDARDS.

REMOVE & RESET CURB STOP

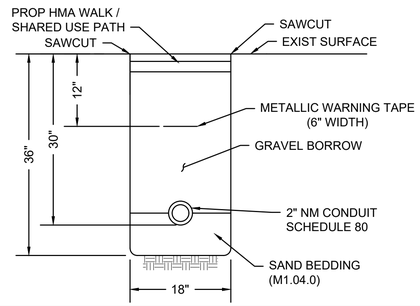
SCALE: NTS



NOTES:
1. CONCRETE SHALL BE INCLUDED IN PRICE BID FOR GRANITE CURB.
2. SAWCUT 6" FROM CURB LINE AND REMOVE EXISTING PAVEMENT AND GRAVEL. REPLACE WITH CEMENT CONCRETE.
3. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED. ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.

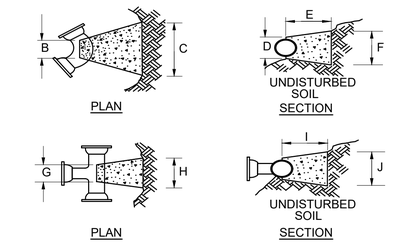
GRANITE CURB IN PAVEMENT MILLING AND OVERLAY

SCALE: N.T.S. DWG: CURB-04 DATE: APRIL 2003



CONDUIT IN SIDEWALK

SCALE: N.T.S.

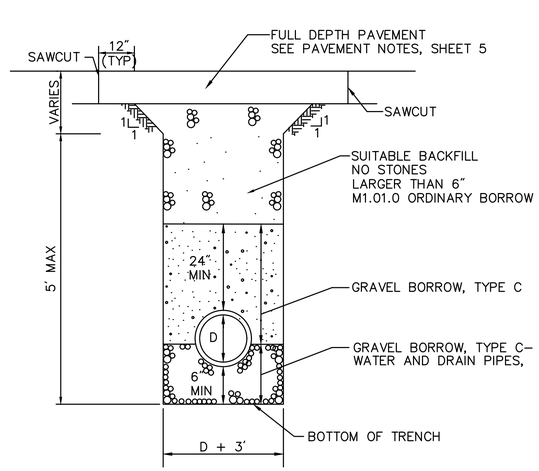


BENDS		B	C	D	E	F	BENDS		B	C	D	E	F
6"	11-1/4°	8"	15"	12"	24"	12"	6"	45°	8"	30"	12"	24"	14"
6"	22-1/2°	"	19"	"	"	13"	6"	90°	"	30"	"	"	27"
8"	11-1/4°	"	20"	"	"	12"	8"	45°	"	30"	"	"	24"
8"	22-1/2°	"	22"	"	"	17"	8"	90°	"	38"	"	"	36"
12"	11-1/4°	"	30"	"	"	15"	12"	45°	"	40"	"	"	40"
12"	22-1/2°	"	35"	"	"	25"	12"	90°	"	60"	"	"	52"
TEES		G	H	I	J		TEES		G	H	I	J	
6"x 6"x 6"		12"	24"	24"	18"		12"x12"x6"		12"	24"	24"	12"	
8"x 8"x 6"		"	"	"	"		12"x12"x8"		"	"	"	24"	
8"x 8"x 8"		"	"	"	24"		12"x12"x12"		"	36"	"	36"	

NOTES:
1. PROVIDE BLOCKS FOR TAPPING SLEEVES, DEAD ENDS, GATE VALVES AND VERTICAL BENDS, SAME SIZE AS REQUIRED FOR TEES.
2. PROVIDE ANCHOR RODS AT VERTICAL BENDS AND GATE VALVES
3. CONCRETE SHALL NOT BE PLACED AGAINST PIPE BEYOND FITTING.

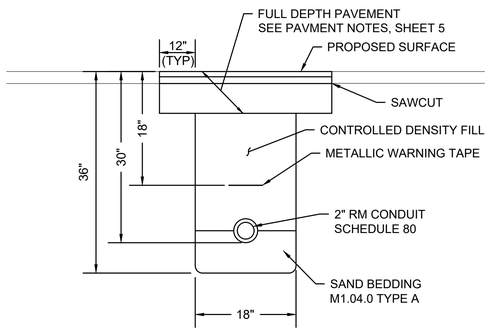
CONCRETE THRUST BLOCK

SCALE: NTS



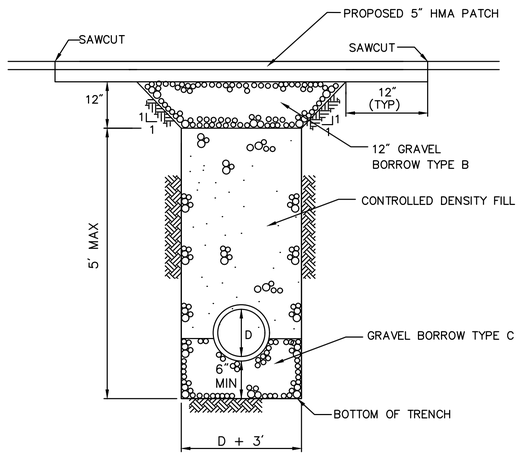
DRAINAGE TRENCH DETAIL - FULL DEPTH PAVEMENT

SCALE: N.T.S.



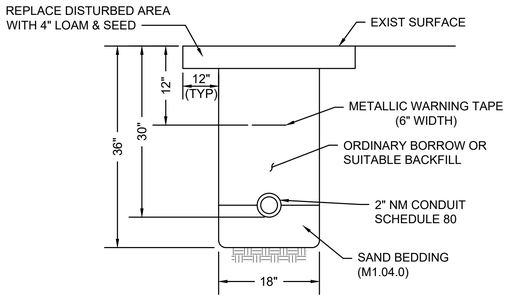
CONDUIT CROSSING ROADWAY

SCALE: N.T.S. DWG: TRENCH-01 DATE: MARCH 2013



TRENCH IN MICROMILL & PVM'T OVERLAY AREA

SCALE: N.T.S. DWG: TRENCH-04 DATE: OCT. 2012



CONDUIT IN GRASS

SCALE: N.T.S.

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	26	34
PROJECT FILE NO. 608961			

CONSTRUCTION DETAILS

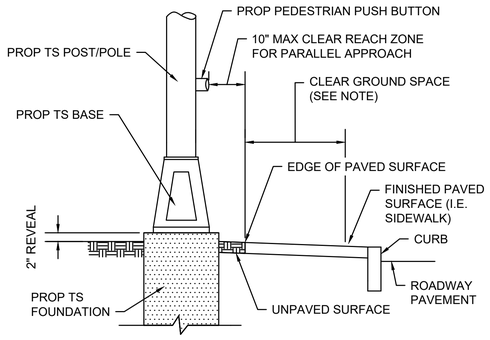
DRAFT
9/13/2021

DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	27	34
PROJECT FILE NO. 608961			

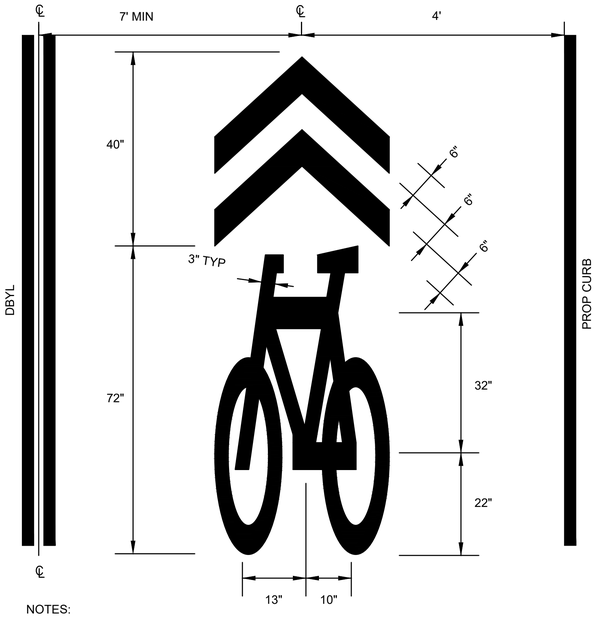
CONSTRUCTION DETAILS



NOTE:
A CLEAR GROUND SPACE SHALL CONSIST OF A STABLE AND FIRM AREA, COMPLYING WITH 521 CMR 6.5 (FORWARD REACH) OR 521 CMR 6.6 (SIDE REACH) AND SHALL BE PROVIDED AT EACH OF THE PEDESTRIAN PUSH BUTTONS. WHERE A PARALLEL APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL BE WITHIN TEN INCHES (10") HORIZONTALLY OF AND CENTERED ON THE CLEAR GROUND SPACE. WHERE A FORWARD APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL ABUT AND BE CENTERED ON THE CLEAR GROUND SPACE.

PEDESTRIAN PUSH BUTTON CLEAR ZONE

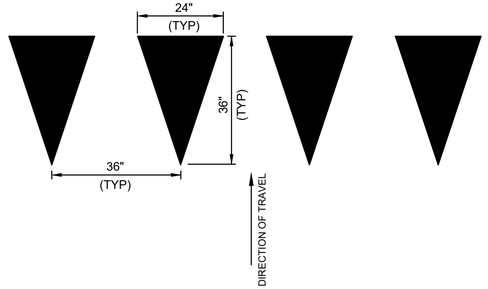
SCALE: N.T.S. DWG: PM-09 DATE: APRIL 2013



NOTES:
1. SEE MUTCD FIGURE 9C-9 FOR MORE INFORMATION.
2. SHARED LANE MARKINGS SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC.

SHARROW PAVEMENT MARKING LAYOUT

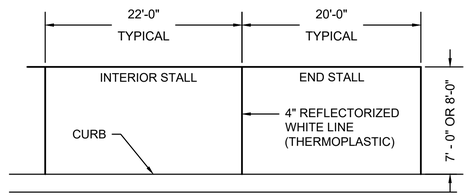
SCALE: N.T.S. DWG: PM-14 DATE: MARCH 2015



NOTES:
1. YIELD LINES SHALL CONSIST OF A ROW OF SOLID WHITE TRIANGLES.
2. IF APPLICABLE, YIELD LINES SHALL BE PLACED 4-FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE.
3. IN THE ABSENCE OF A MARKED CROSSWALK, YIELD LINES SHALL BE PLACED AS SHOWN ON THE PLANS.

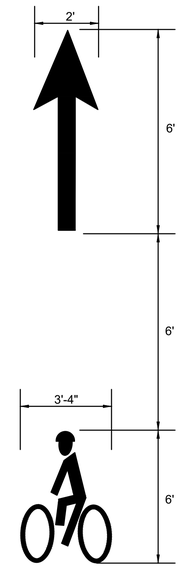
YIELD LINE TRIANGLES

SCALE: NTS



PARKING STALL MARKINGS

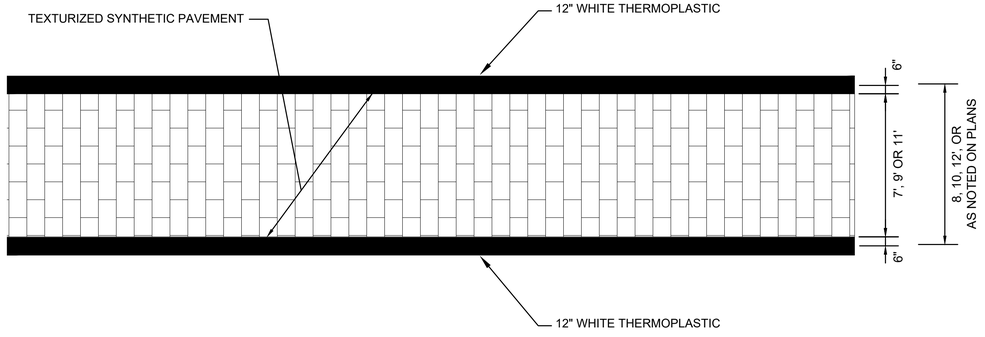
SCALE: N.T.S. DWG: PM-01 DATE: MARCH 2013



NOTES:
1. SEE MUTCD FIGURE 9C-6 FOR MORE INFORMATION.
2. BIKE LANE MARKINGS SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC.

BIKE LANE PAVEMENT MARKINGS

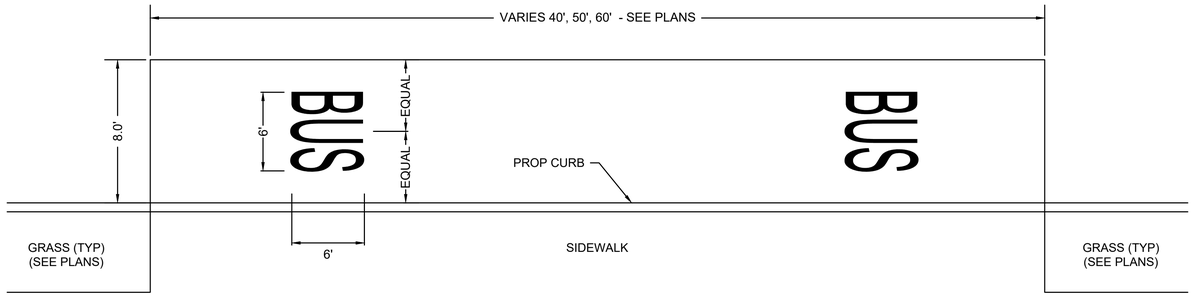
SCALE: N.T.S. DWG: PM-11 DATE: NOV 2015



NOTE: THIS DETAIL APPLIES TO ALL CROSSWALKS

TEXTURIZED CROSSWALK

SCALE: N.T.S.



NOTES:
1. PAVEMENT MARKINGS AS PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
2. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC.

BUS BAY DETAIL

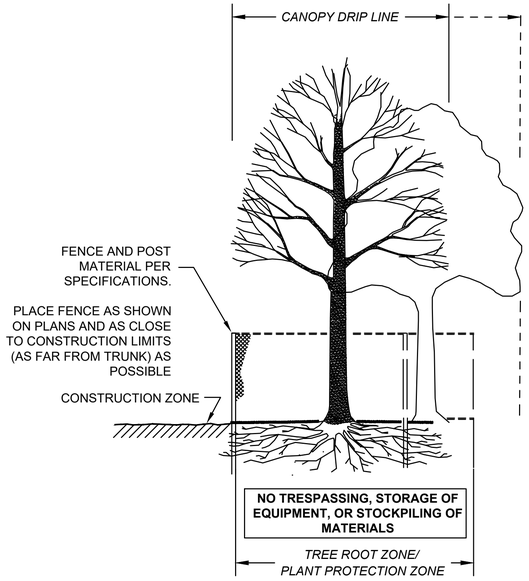
SCALE: N.T.S.

DRAFT
9/13/2021

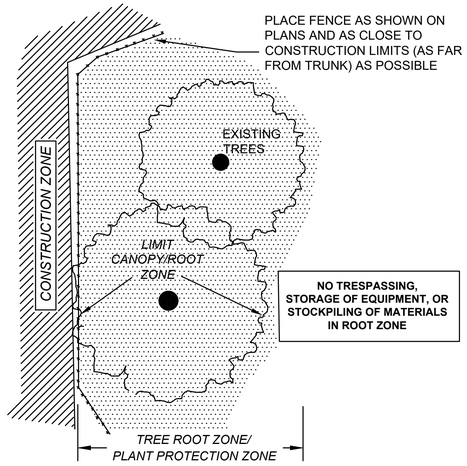
WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	28	34
PROJECT FILE NO. 608961			

CONSTRUCTION DETAILS



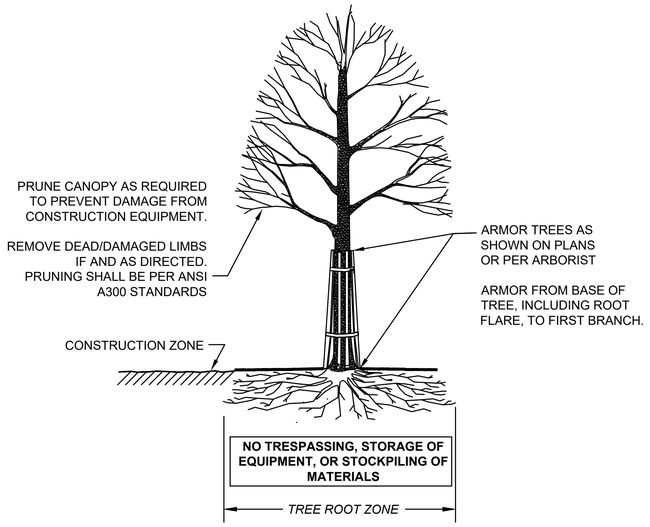
SECTION - FENCE PROTECTION OF ROOT ZONE



PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

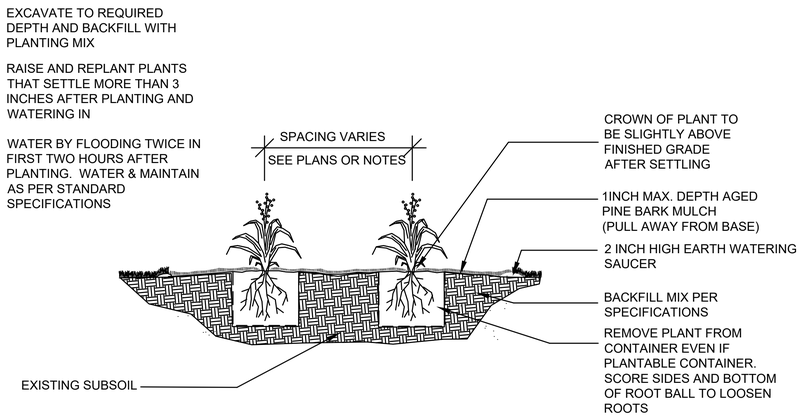
TREE PROTECTION - ROOT ZONE

NOT TO SCALE



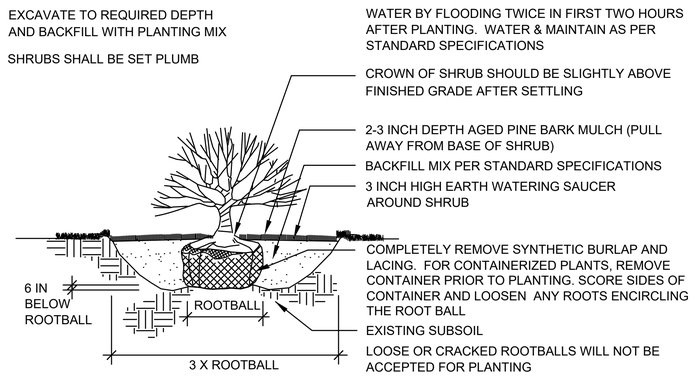
SECTION - TRUNK ARMORING & PRUNING

TREE PROTECTION - TRUNK



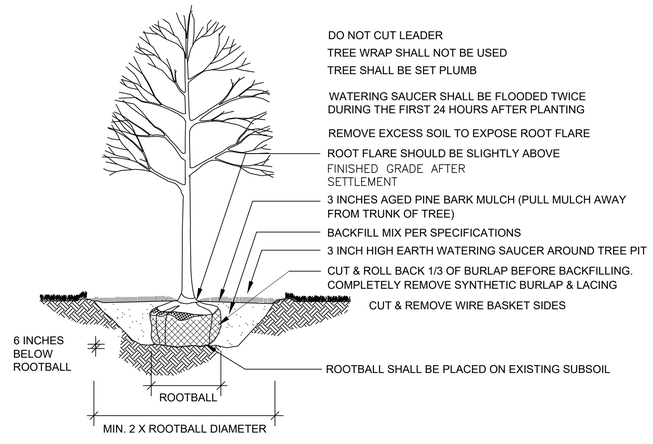
PERENNIAL PLANTING

NOT TO SCALE



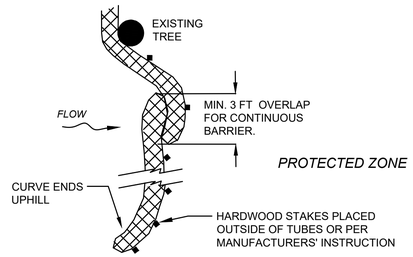
SHRUB PLANTING

NOT TO SCALE



DECIDUOUS TREE PLANTING

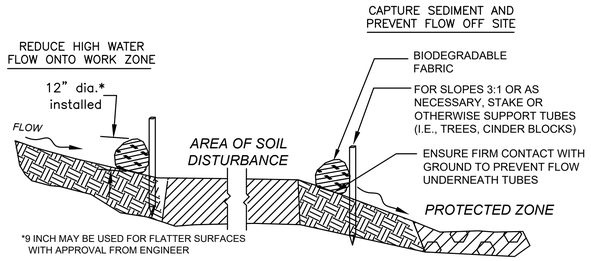
NOT TO SCALE



PLACE TUBE AS CLOSE TO LIMIT OF SOIL DISTURBANCE AS POSSIBLE, ALONG CONTOURS, AND PERPENDICULAR TO FLOW.

ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.

PLAN VIEW

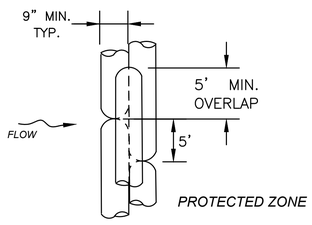


SECTION

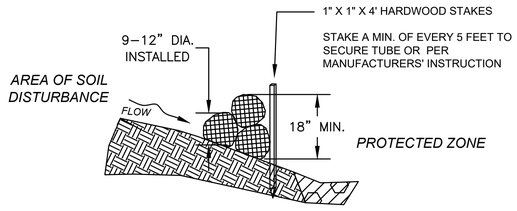
SEDIMENT BARRIER - COMPOST FILTER TUBE

NOT TO SCALE

WHERE SPECIFIED ON CONSTRUCTION PLANS OR AS REQUIRED



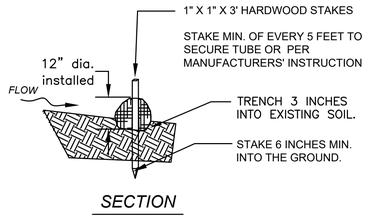
PLAN VIEW



SECTION

COMPOST FILTER TUBES STACKED

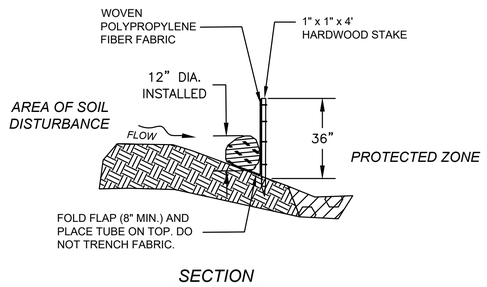
NOT TO SCALE



SECTION

12 INCH STRAW WATTLE

NOT TO SCALE



SECTION

COMPOST FILTER TUBE & SILT FENCE

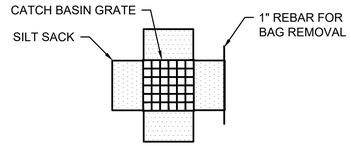
NOT TO SCALE

DRAFT
9/13/2021

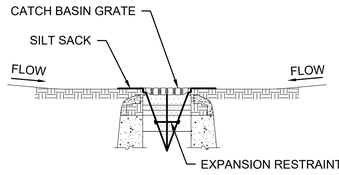
WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	29	34
PROJECT FILE NO. 608961			

CONSTRUCTION DETAILS



PLAN VIEW

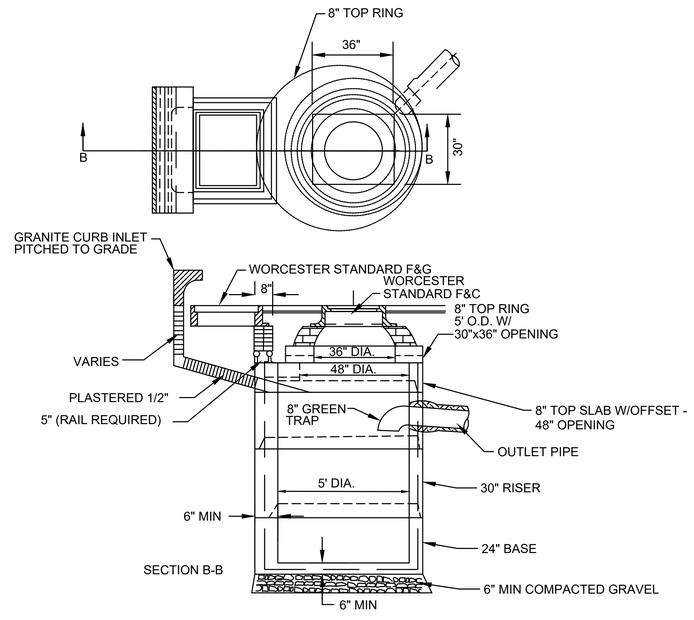


SECTION VIEW

NOTES:
1. INSTALL SILT SACK IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. GRATE TO BE PLACED OVER SILT SACK.
3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED

INLET PROTECTION - SILT SACK IN CATCH BASIN

SCALE: N.T.S.



CATCH BASIN ALTERNATIVE

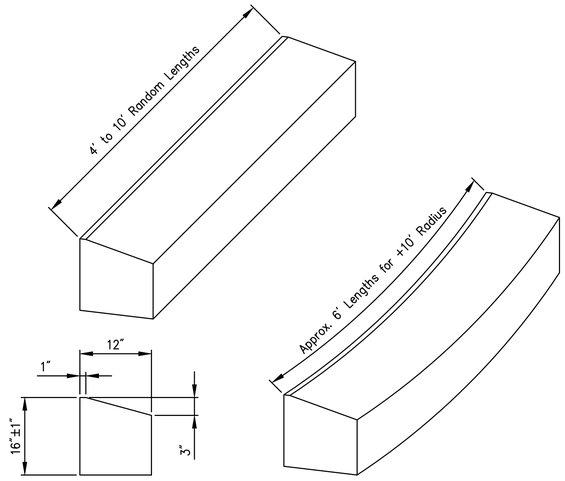
SCALE: N.T.S.

DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

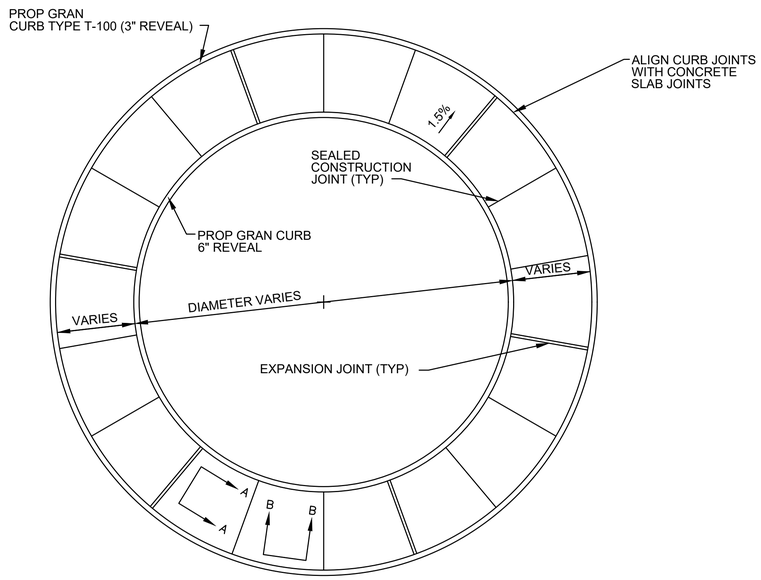
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	30	34
PROJECT FILE NO. 608961			

CONSTRUCTION DETAILS



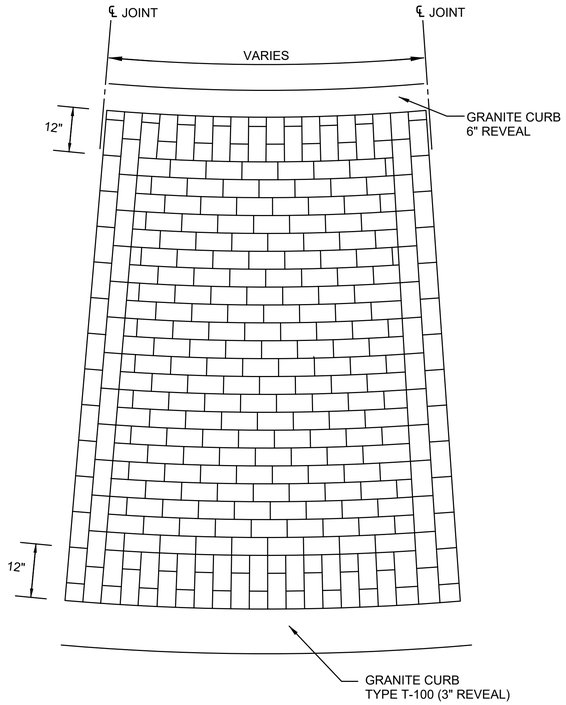
TYPE T-100 TRAVERSABLE GRANITE CURBING

SCALE: N.T.S. DWG: -- DATE:



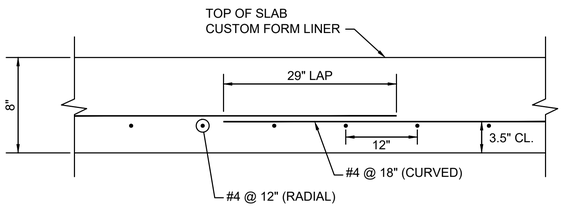
JOINT LAYOUT

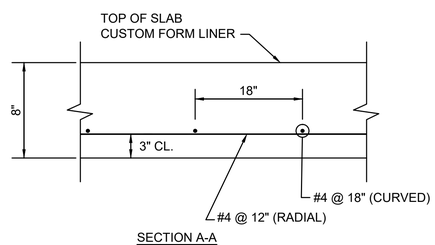
SCALE: N.T.S. DWG: -- DATE: APR. 2014



STAMPED CEMENT CONCRETE PAVEMENT

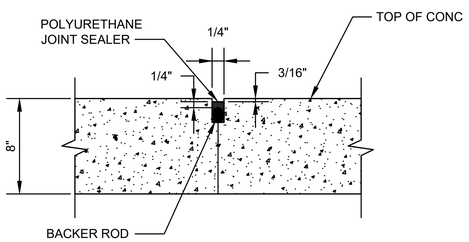
SCALE: N.T.S. DWG: -- DATE: APR. 2014





CONCRETE PAVEMENT REINFORCING DETAILS

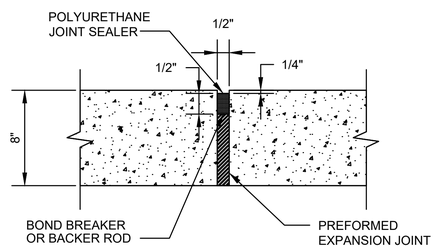
SCALE: N.T.S. DWG: -- DATE: OCT. 2012



NOTE: REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.

SEALED CONSTRUCTION JOINT DETAILS

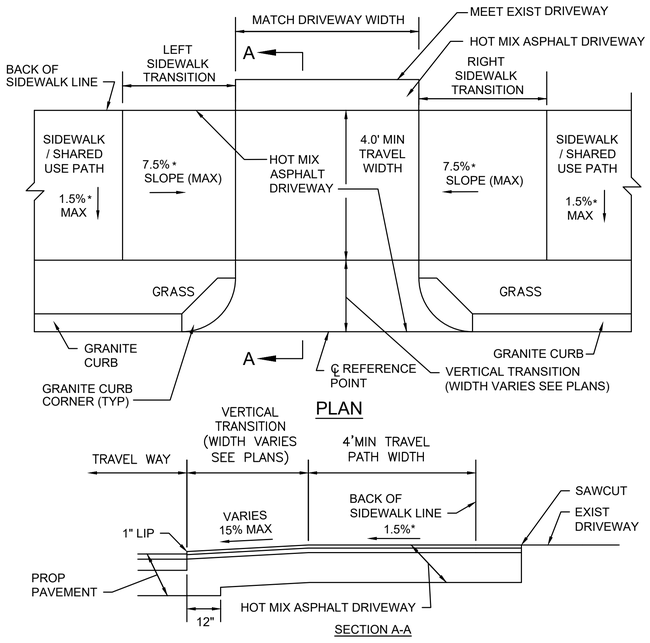
SCALE: N.T.S. DWG: -- DATE: OCT. 2012



NOTE: REINFORCEMENT SHALL END 2" CLEAR OF EXPANSION JOINT.

EXPANSION CONTROL JOINT

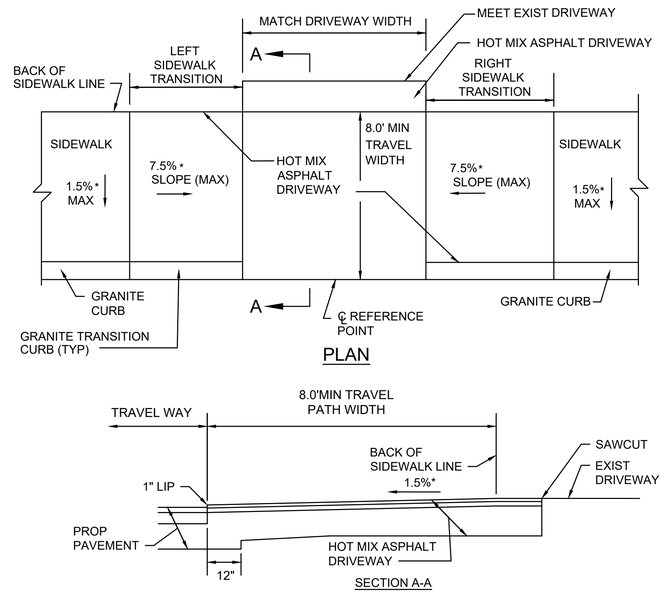
SCALE: N.T.S. DWG: DATE: APR. 2014



* TOLERANCE FOR CONSTRUCTION ±0.5%

DRIVEWAY WITH SIDEWALK AND CURB CORNER WITH GRASS STRIP

SCALE: N.T.S.



* TOLERANCE FOR CONSTRUCTION ±0.5%

DRIVEWAY WITH SIDEWALK AND STRAIGHT TRANSITION CURB

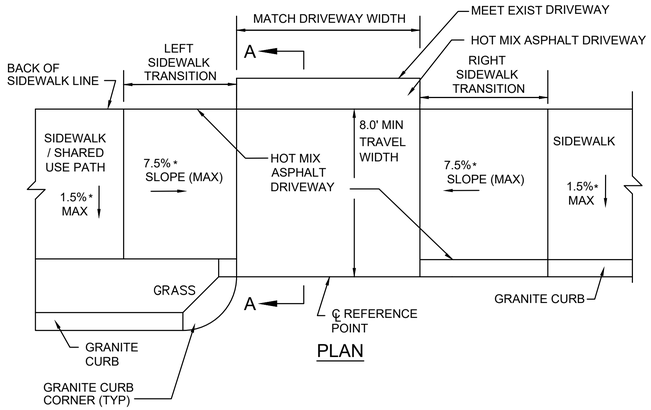
SCALE: N.T.S. DWG: DRIVE-09 DATE: JUNE 2013

DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	31	34
PROJECT FILE NO. 608961			

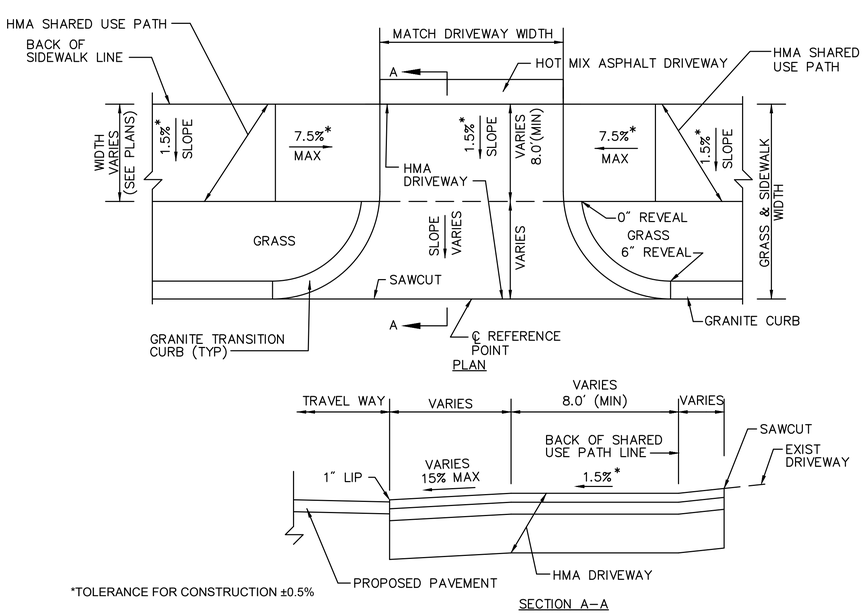
CONSTRUCTION DETAILS



* TOLERANCE FOR CONSTRUCTION ±0.5%

DRIVEWAY WITH SIDEWALK AND STRAIGHT TRANSITION CURB WITH GRASS STRIP ON ONE SIDE

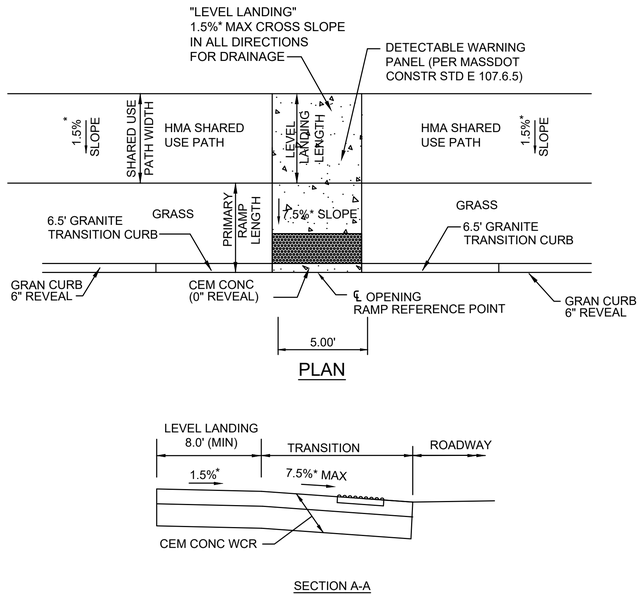
SCALE: N.T.S.



*TOLERANCE FOR CONSTRUCTION ±0.5%

TYPICAL DRIVEWAY WITH SHARED USE PATH AND CURVED TRANSITION CURB AND GRASS STRIP

SCALE: N.T.S.



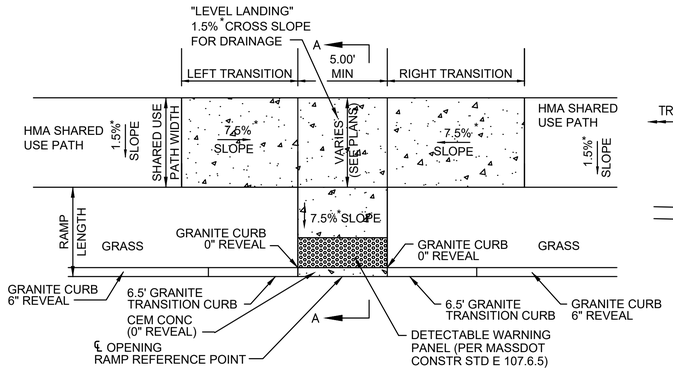
*TOLERANCE FOR CONSTRUCTION ±0.5%

CURB RAMP - WITH GRASS STRIP AND NO SIDE TRANSITIONS

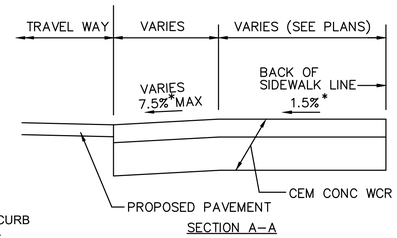
SCALE: N.T.S. DWG: DRIVE-09 DATE: JUNE 2013

LEGEND

- LIMITS OF CEMENT CONCRETE WHEELCHAIR RAMP
- LIMITS OF DETECTABLE WARNING PANEL (SEE SPECIFICATIONS FOR COLOR)



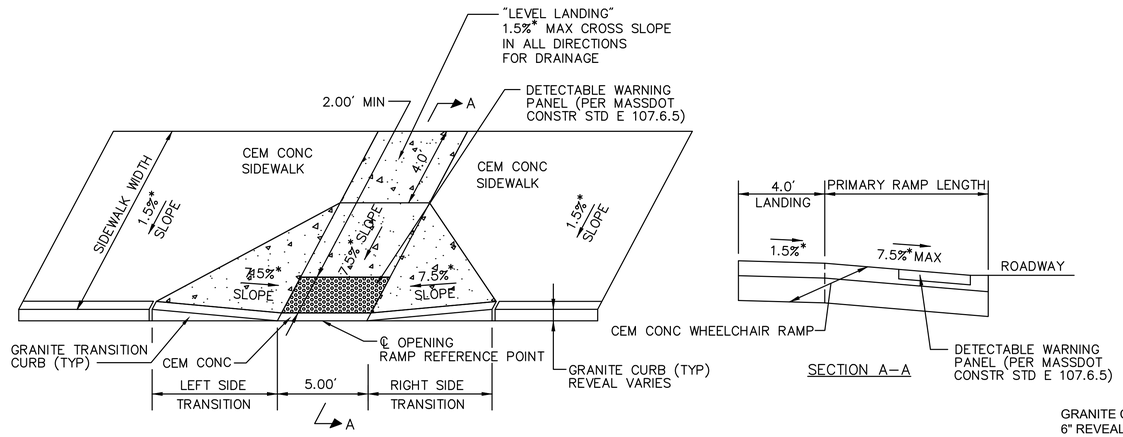
*TOLERANCE FOR CONSTRUCTION ±0.5%



SECTION A–A

CURB RAMP - WITH GRASS STRIP AND SIDE TRANSITIONS

SCALE: N.T.S.



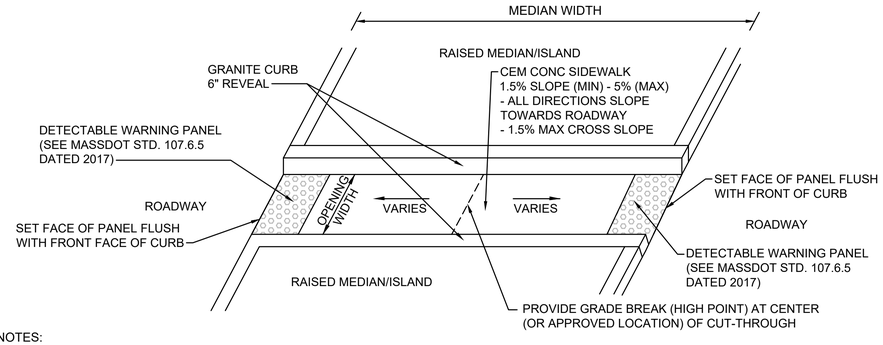
OBLIQUE VIEW

SECTION A–A

* TOLERANCE FOR CONSTRUCTION ±0.5%

CURB RAMP WITH SIDEWALK GREATER THAN 12.0 FT

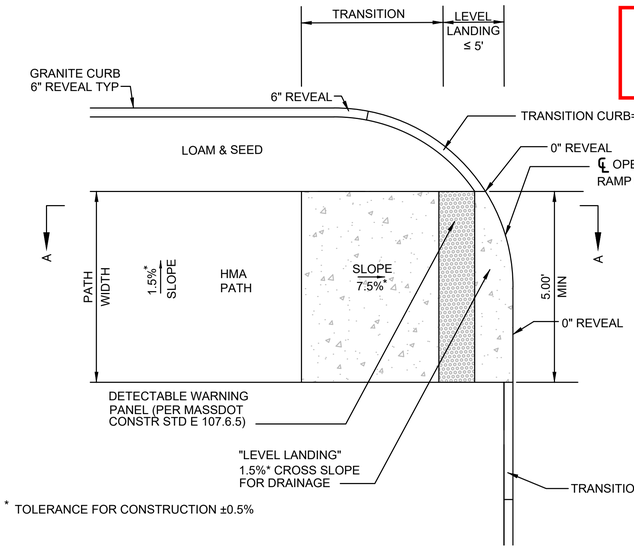
SCALE: N.T.S.



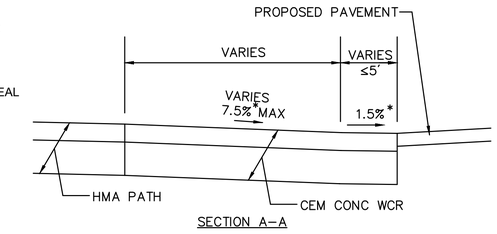
NOTES:
1. DETECTABLE WARNING PANELS TO BE PLACED WHEN MEDIAN OPENING IS 6' OR GREATER IN WIDTH.

MEDIAN CUT-THROUGH

SCALE: N.T.S.



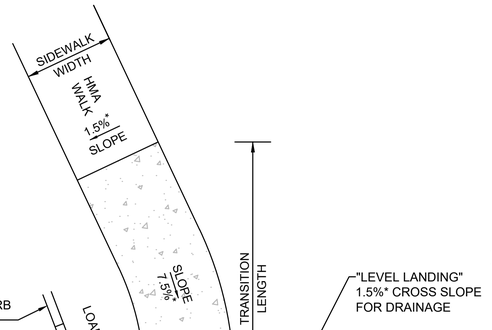
* TOLERANCE FOR CONSTRUCTION ±0.5%

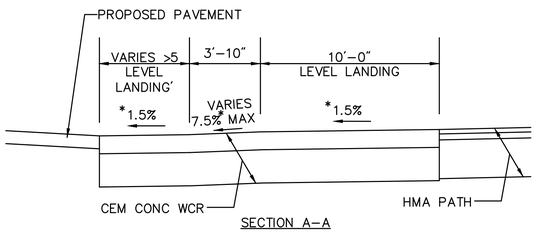


SECTION A–A

CURB RAMP - "T" INTERSECTION GRASS ADJACENT ONE SIDE - LEVEL LANDING ≤ 5'

SCALE: N.T.S.





SECTION A–A

CURB RAMP AT SOUTHERN CORNER OF CLARIDGE DRIVE AND CHANDLER STREET

SCALE: N.T.S.

DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	32	34
PROJECT FILE NO. 608961			

CONSTRUCTION DETAILS

13294.01_HD(DET).DWG Plotted on 14-Sep-2021 9:18 AM

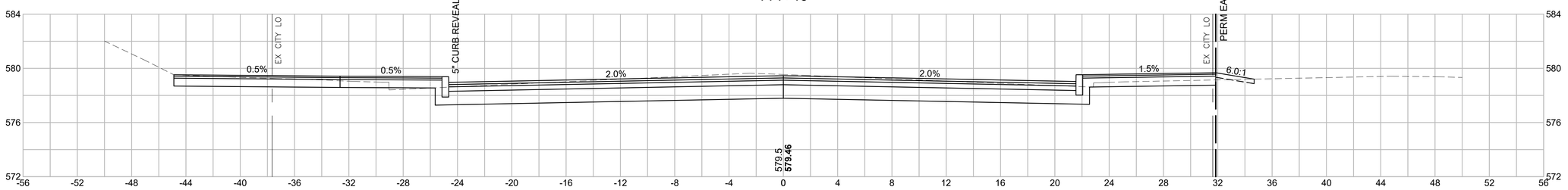
DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

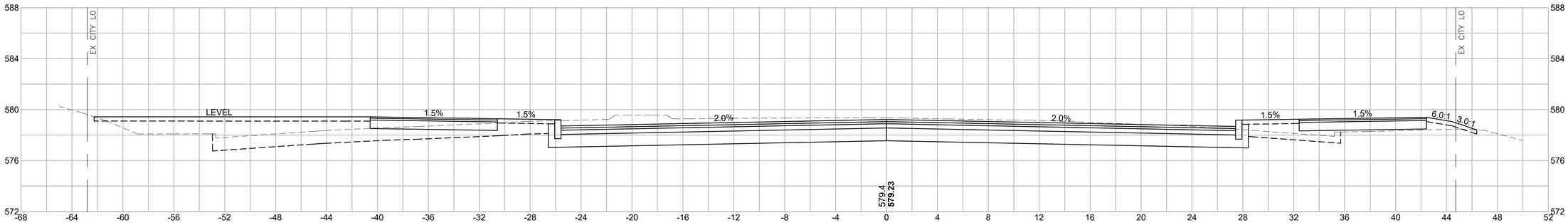
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	33	34
PROJECT FILE NO. 608961			

CRITICAL CROSS SECTIONS

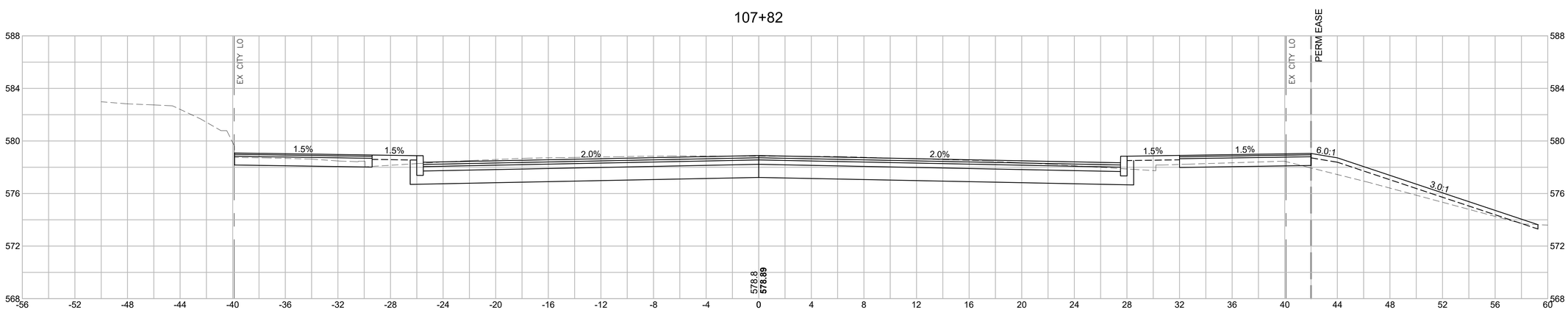
114+45



111+00



107+82



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

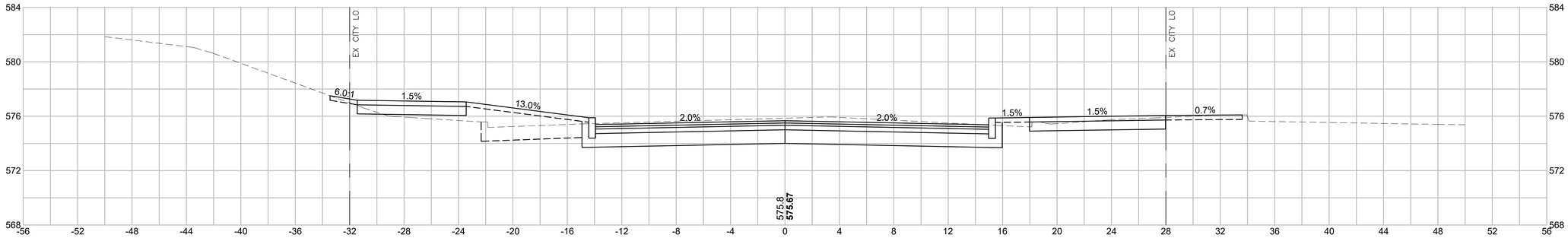
DRAFT
9/13/2021

WORCESTER
CHANDLER STREET

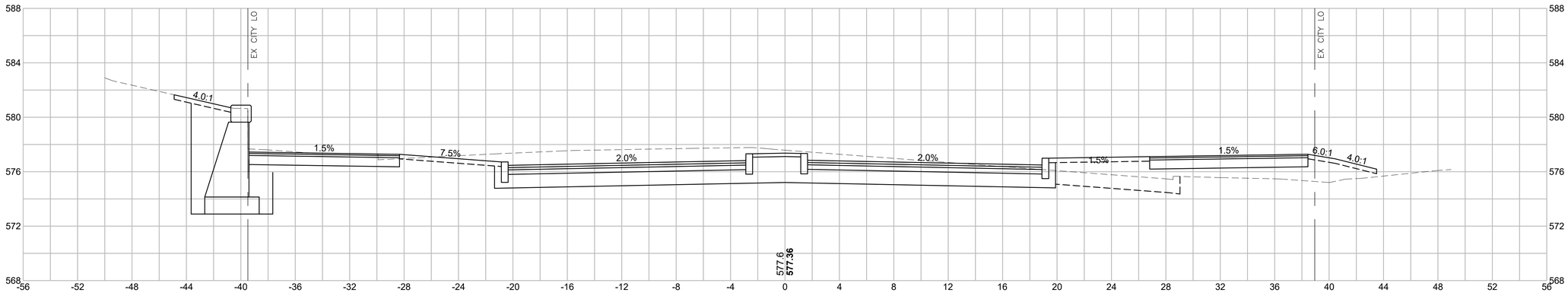
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	34	34
PROJECT FILE NO. 608961			

CRITICAL CROSS SECTIONS

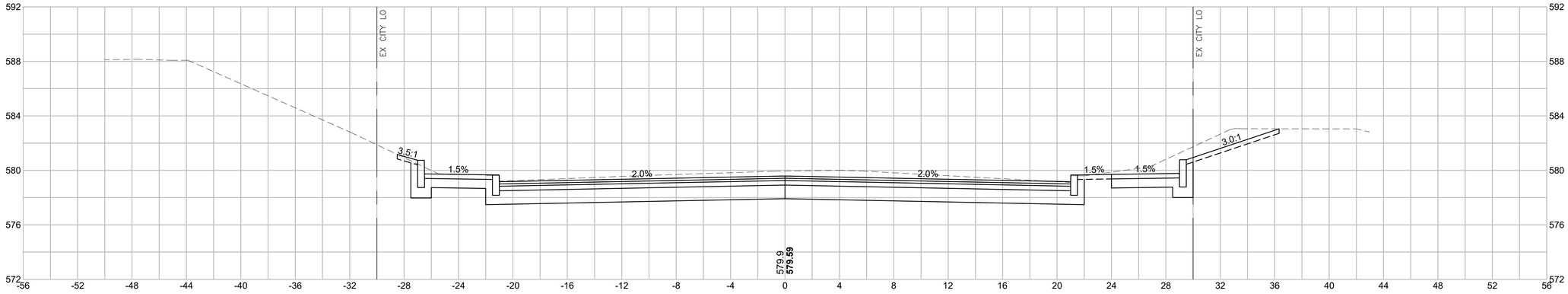
303+00



204+00



203+00



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET