

# MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

WORCESTER CHANDLER STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	1	100
PROJECT FILE NO. 608961			
TITLE SHEET & INDEX			

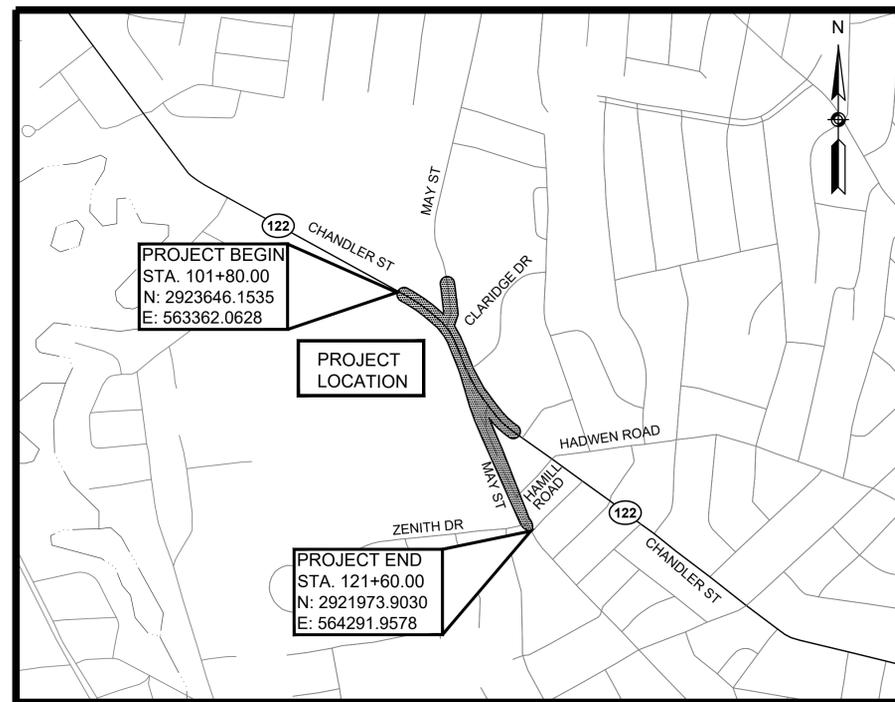
PLAN AND PROFILE OF  
**CHANDLER STREET**  
(ROUTE 122)  
IN THE CITY OF  
**WORCESTER**  
**WORCESTER COUNTY**

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.

FEDERAL AID PROJECT NO.

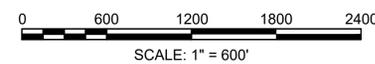
## 75% SUBMITTAL

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### 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



LENGTH OF PROJECT = 1,980.00 FEET = 0.375 MILES



APPROVED		
DATE	DESCRIPTION	REV #
2/14/2025	75% DESIGN SUBMISSION	2
9/13/2021	25% DESIGN SUBMISSION	1
1/21/2021	10% DESIGN SUBMISSION	0
____	CHIEF ENGINEER	____
____	DATE	____

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	2	100
PROJECT FILE NO. 608961			

LEGEND & ABBREVIATIONS

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		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)

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE - 12" WIDTH
		CROSSWALK - WIDTH AS NOTED
		SOLID WHITE LINE - 6" WIDTH
		SOLID YELLOW LINE - 6" WIDTH
		BROKEN WHITE LINE - 6" WIDTH
		BROKEN YELLOW LINE - 6" WIDTH
		DOTTED WHITE LINE - 6" WIDTH
		WIDE DOTTED WHITE LINE - 12" WIDTH (DWREL)
		DOTTED YELLOW LINE - 6" WIDTH
		DOTTED WHITE LINE EXTENSION - 6" WIDTH
		DOTTED YELLOW LINE EXTENSION - 6" WIDTH
		DOUBLE WHITE LINE - 6" WIDTH
		DOUBLE YELLOW LINE - 6" WIDTH
		BIKE LANE

## ABBREVIATIONS

### GENERAL

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
B-B	BACK-TO-BACK
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
MTD	MOUNTED
MW	MONITORING WELL
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PED	PEDESTRIAN
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

## ABBREVIATIONS (cont.)

### GENERAL

PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
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&D	REMOVE AND DISCARD
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
TSV	TAPPING SLEEVE AND VALVE
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

## WORCESTER CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	3	100
PROJECT FILE NO. 608961			

## LEGEND & ABBREVIATIONS

### GENERAL NOTES:

- EXISTING CONDITIONS AND TOPOGRAPHICAL INFORMATION FROM AN ACTUAL FIELD SURVEY CONDUCTED BY VANASSE HANGEN BRUSTLIN, INC. IN FEBRUARY, 2019.
- THE HORIZONTAL CONTROL IS BASED ON THE MASSACHUSETTS MAINLAND STATE PLANE COORDINATE SYSTEM AND THE NATIONAL GEODETIC SURVEY (NAD83). ALL ELEVATION IS US FEET, REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88).
- THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTIBILITY 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.
- THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH PROPOSED CONDUIT AND SIGNAL EQUIPMENT. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
- EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS IF REQUIRED.
- TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
- THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
- JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT SEALER AND BACKSANDED.
- 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.
- IF SUITABLE, EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
- ALL PROPOSED HOT MIX ASPHALT CURB SHALL BE MASSDOT TYPE 3.
- EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
- PROPOSED BOUNDS SHALL BE PLACED BY A LICENSED PROFESSIONAL SURVEYOR. THE CONTRACTOR SHALL EXERCISE DUE CARE WHEN WORKING AROUND ALL PROPERTY BOUNDS WHICH ARE TO REMAIN. SHOULD ANY DAMAGE TO A BOUND RESULT FROM THE ACTIONS OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE THE BOUND REPLACED AND/OR REALIGNED BY A LICENSED PROFESSIONAL SURVEYOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.
- DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER.
- LATERAL DRAIN PIPES SHALL BE INSTALLED WITH A PITCH OF 0.01 FOOT PER FOOT (MINIMUM) UNLESS NOTED OTHERWISE ON THE PLANS.

WORCESTER  
CHANDLER STREET

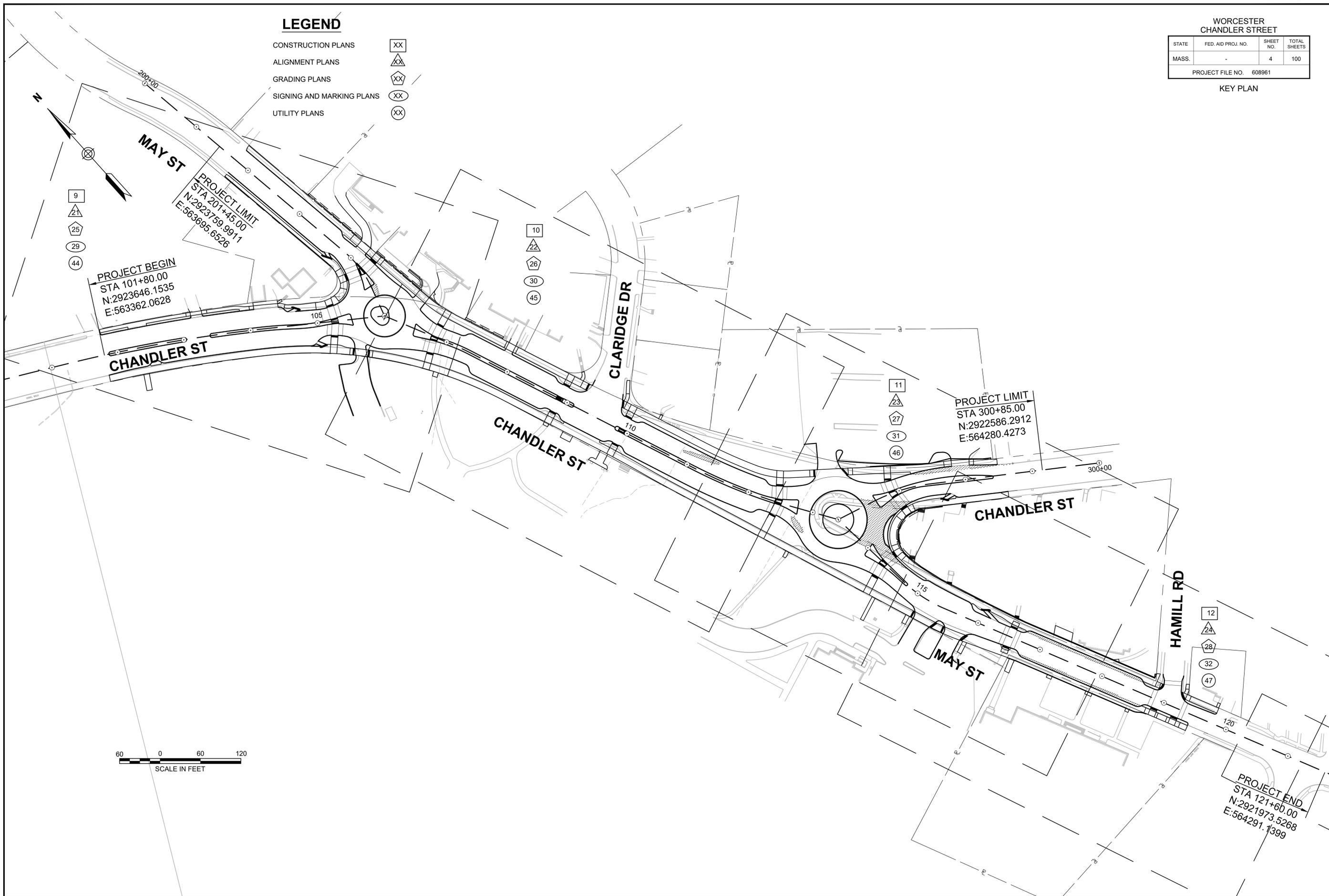
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	4	100

PROJECT FILE NO. 608961

KEY PLAN

**LEGEND**

- CONSTRUCTION PLANS      XX
- ALIGNMENT PLANS          △
- GRADING PLANS            XX
- SIGNING AND MARKING PLANS   XX
- UTILITY PLANS              XX



WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	5	100
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**PAVEMENT NOTES**

TYPICAL SECTIONS

**PROPOSED MILL & OVERLAY WITH LEVELING**

- SURFACE:** 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)  
2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)
- LEVELING:** DEPTH VARIES 0-6" SUPERPAVE LEVELING COURSE 12.5 (SLC-12.5) SHALL BE PLACED IN 2.25" MAX LIFT
- MILLING:** 2" PAVEMENT FINE MILLING

**PROPOSED 2" MILL & OVERLAY**

- SURFACE:** 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)
- MILLING:** 2" PAVEMENT FINE MILLING

**PROPOSED FULL DEPTH PAVEMENT - WIDENING (GREATER THAN 4.00' WIDE)**

- 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 FULL DEPTH PAVEMENT - WIDENING (LESS THAN 4.00' WIDE)**

- SURFACE:** 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)  
2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)
- BASE:** 6" CEMENT CONCRETE BASE COURSE
- SUBBASE:** 8" GRAVEL BORROW, TYPE b\*\*\*

**PROPOSED HOT MIX ASPHALT DRIVEWAY / SHARED USE PATH**

- SURFACE:** 1.5" SUPERPAVE SURFACE COURSE (SSC-9.5)
- INTERMEDIATE:** 2.5" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-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**

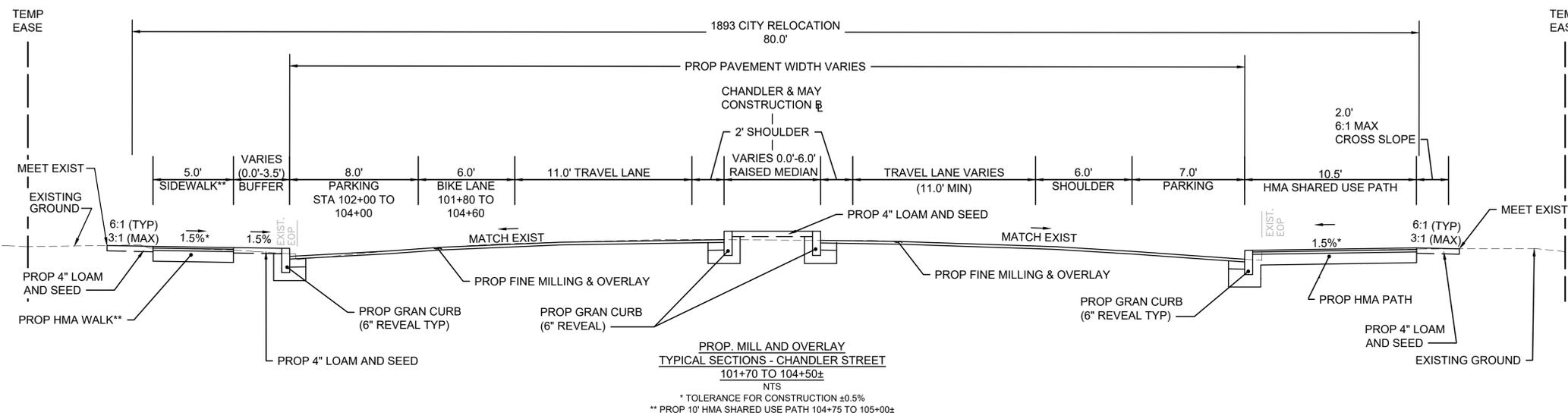
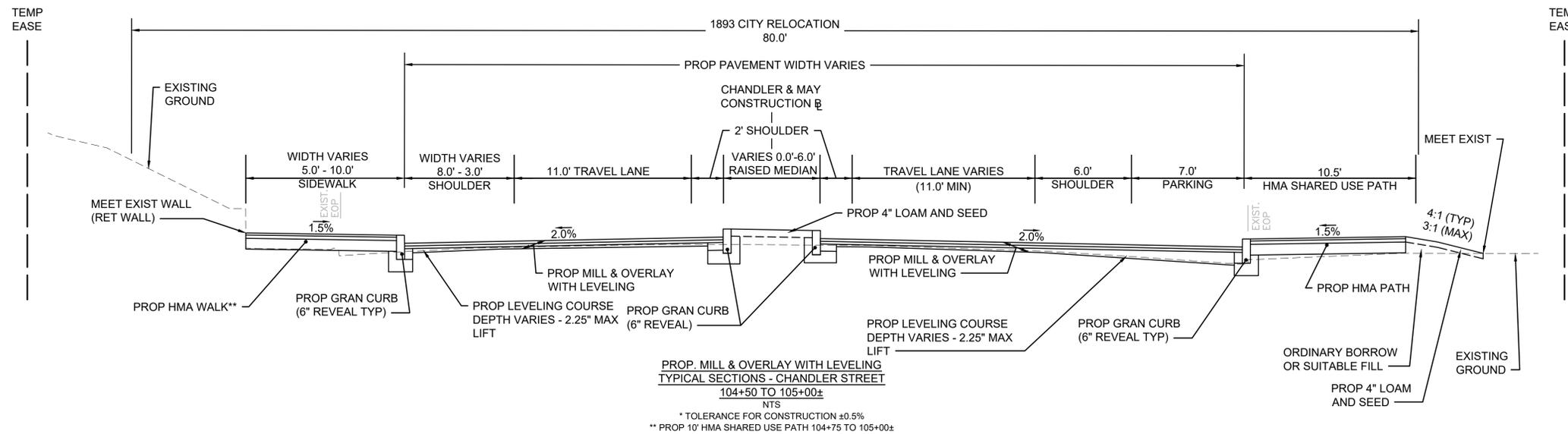
- SURFACE:** 8" CEMENT CONCRETE AIR ENTRAINED 4000 PSI, 3/4", 610 (COLORED/STAMPED/REINFORCED)
- FOUNDATION:** 8" GRAVEL BORROW, TYPE b\*\*\*

**PROPOSED CEMENT CONCRETE WALK/ PED CURB RAMP**

- SURFACE:** 4" CEMENT CONCRETE AIR ENTRAINED 4000 PSI, 3/4", 610
- FOUNDATION:** 8" GRAVEL BORROW, TYPE b\*\*\*

\*\*\* WHERE GRAVEL BORROW, TYPE b IS PROPOSED WITHIN 10' OF THE 24", 30" OR 48" WATER MAINS, 8" OF CONTROLLED LOW-STRENGTH MATERIAL - MANUAL EXCAVATABLE (<= 100 PSI) SHALL BE USED IN PLACE OF GRAVEL BORROW, TYPE b

WHERE EXISTING GRAVEL IS FOUND SUITABLE, EXISTING GROUND BASE SHALL BE USED AS DIRECTED BY THE ENGINEER



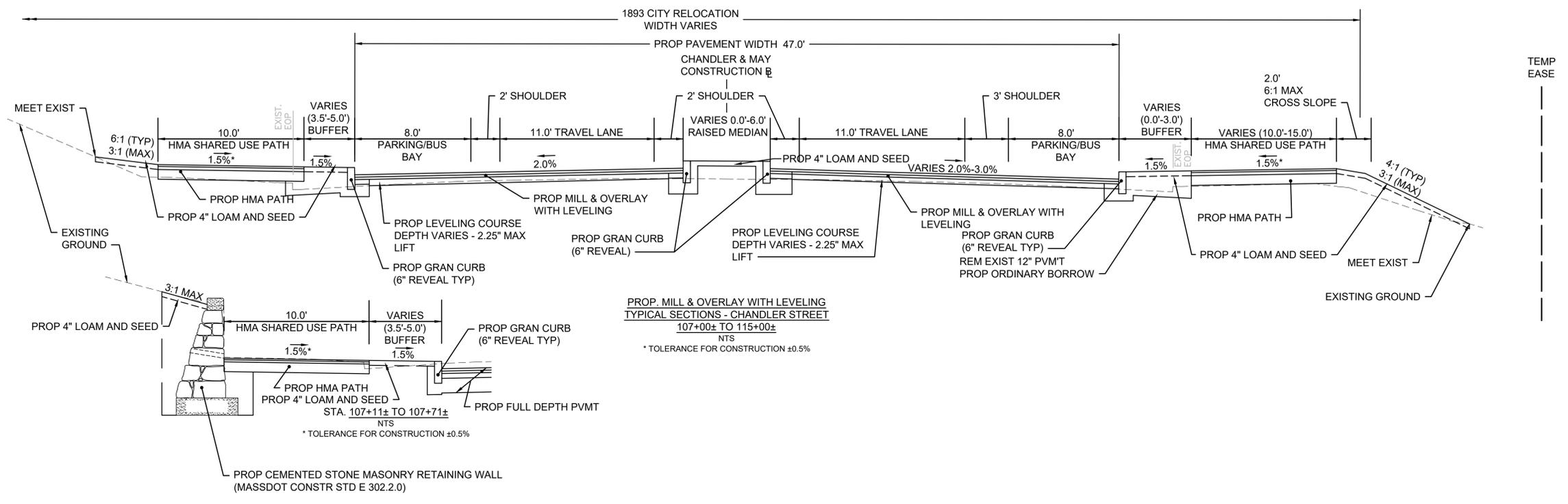
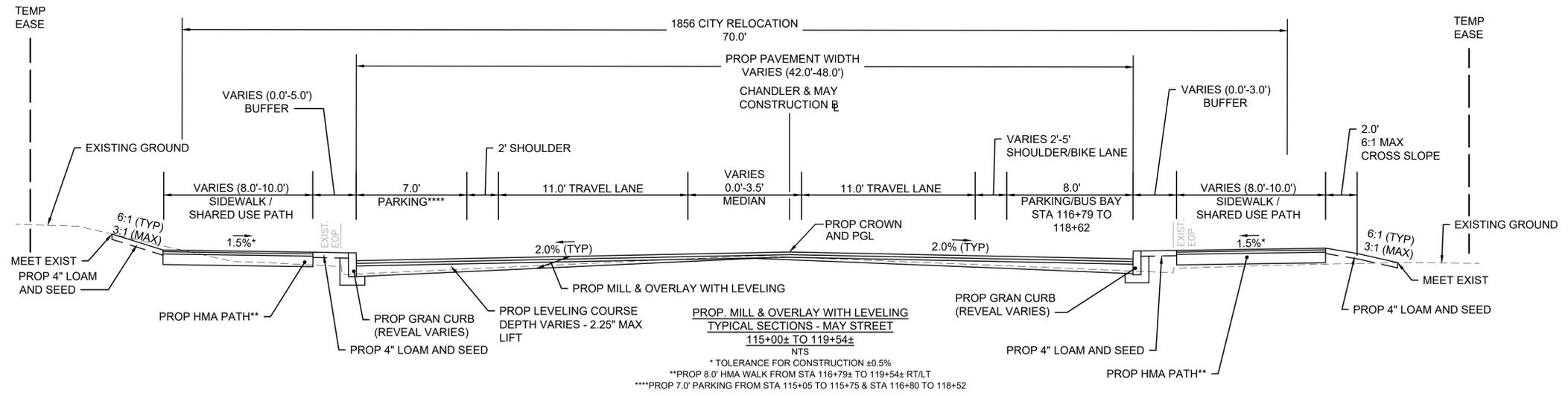
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WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	6	100
PROJECT FILE NO. 608961			

TYPICAL SECTIONS

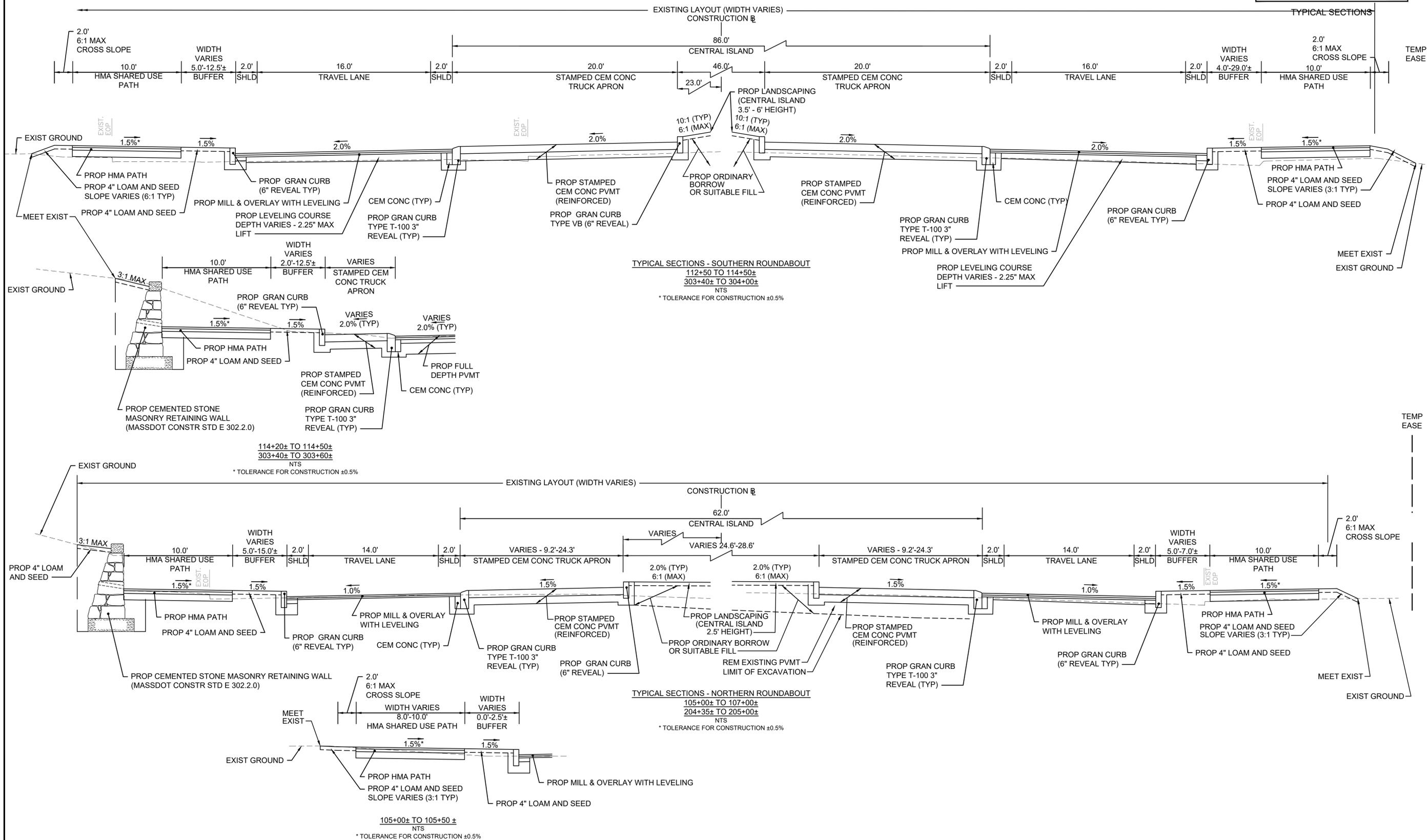
NOTE: SEE SHEET 5 FOR PAVEMENT NOTES.



WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	7	100
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NOTE: SEE SHEET 5 FOR PAVEMENT NOTES.





HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

WATER SUPPLY ALTERATIONS

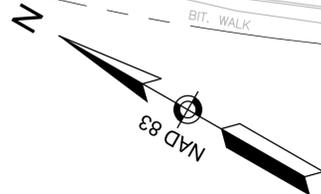
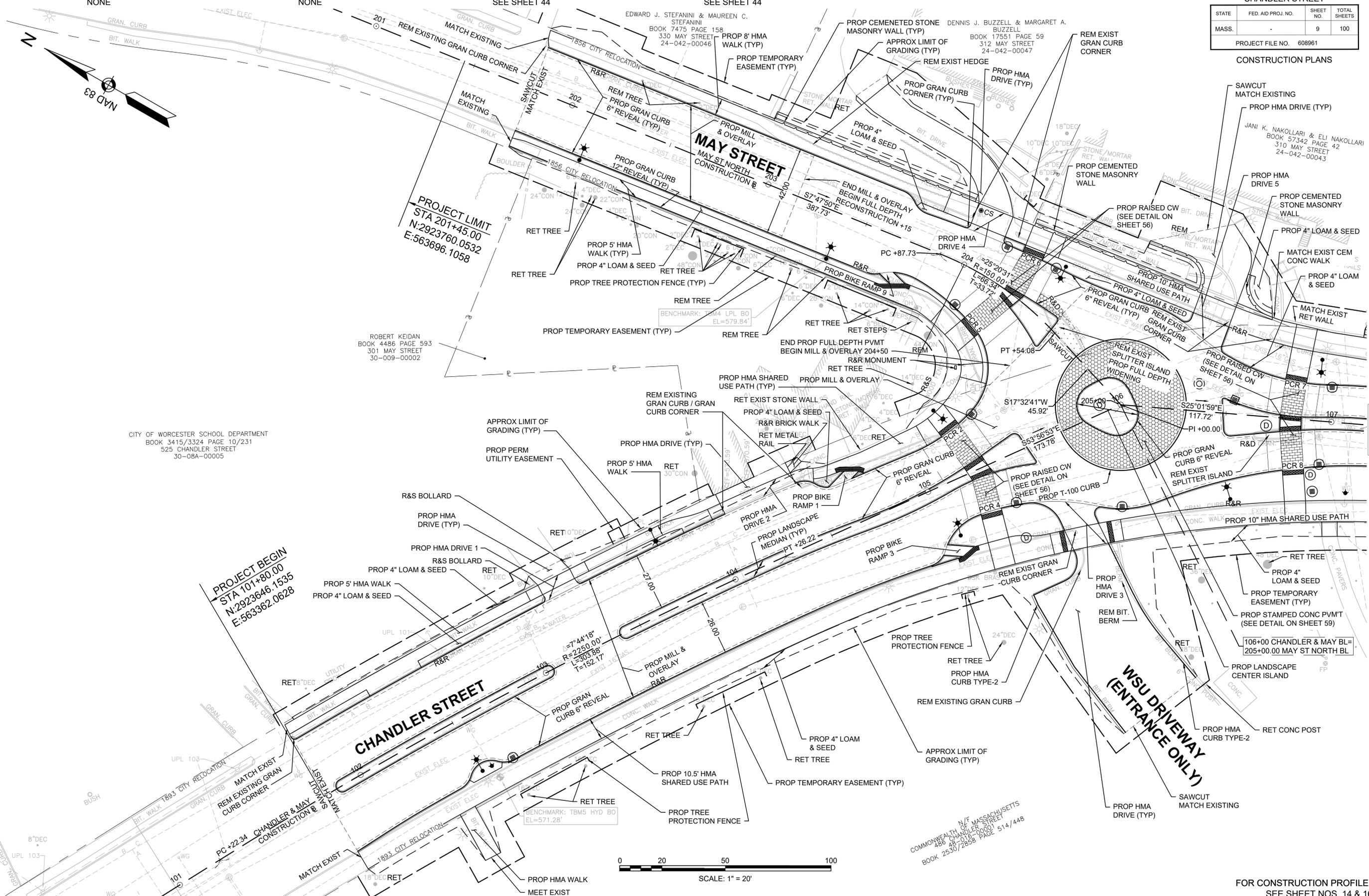
DRAINAGE DETAILS

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	9	100

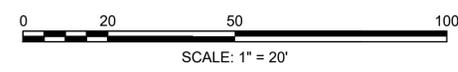
PROJECT FILE NO. 608961

CONSTRUCTION PLANS



CITY OF WORCESTER SCHOOL DEPARTMENT  
 BOOK 3415/3324 PAGE 10/231  
 525 CHANDLER STREET  
 30-08A-00005

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



PROJECT BEGIN  
 STA 101+80.00  
 N:2923646.1535  
 E:563362.0628

PROJECT LIMIT  
 STA 201+45.00  
 N:2923760.0532  
 E:563696.1058

FOR CONSTRUCTION PROFILE:  
 SEE SHEET NOS. 14 & 16

CONTINUED ON  
 SHEET NO. 10

13294.01\_HD(GEN)DWG  
 Plotted on 14-Feb-2025 2:45 PM

HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

WATER SUPPLY ALTERATIONS

DRAINAGE DETAILS

NONE

NONE

SEE SHEET 45

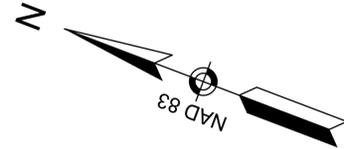
SEE SHEET 45

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	10	100

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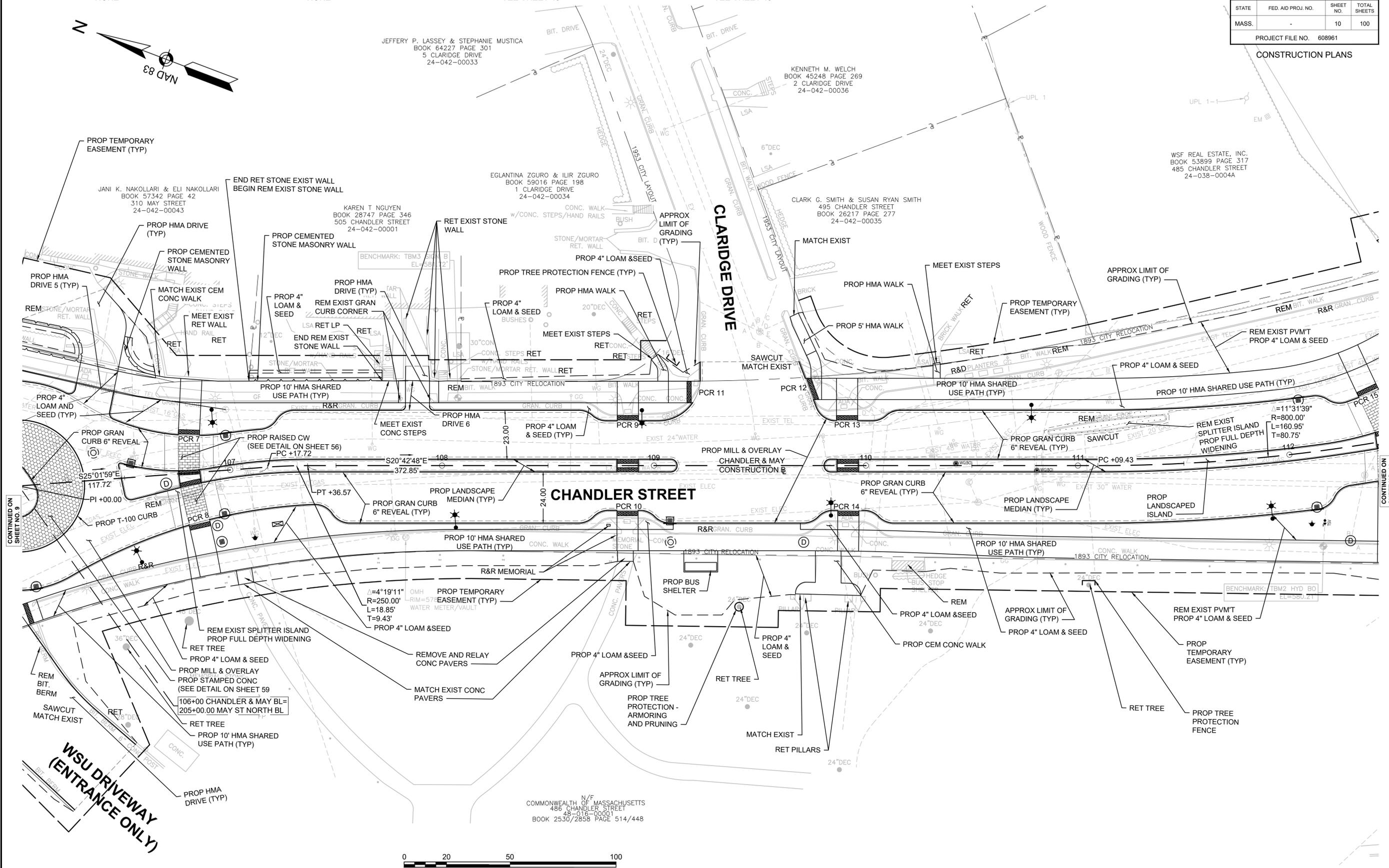
CONSTRUCTION PLANS



JEFFERY P. LASSEY & STEPHANIE MUSTICA  
BOOK 64227 PAGE 301  
5 CLARIDGE DRIVE  
24-042-00033

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

WSF REAL ESTATE, INC.  
BOOK 53899 PAGE 317  
485 CHANDLER STREET  
24-038-0004A

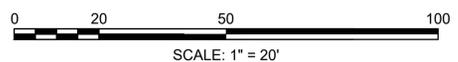


CONTINUED ON SHEET NO. 9

CONTINUED ON SHEET NO. 11

**WSU DRIVEWAY  
(ENTRANCE ONLY)**

N/F  
COMMONWEALTH OF MASSACHUSETTS  
486 CHANDLER STREET  
48-016-00001  
BOOK 2530/2858 PAGE 514/448



FOR CONSTRUCTION PROFILE:  
SEE SHEET NOS. 14 & 15

13294.01\_HD(GEN)DWG Plotted on 13-Feb-2025 8:34 PM

HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

WATER SUPPLY ALTERATIONS

DRAINAGE DETAILS

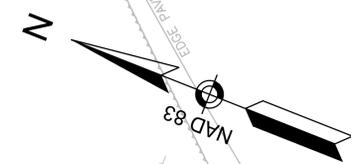
WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	11	100

PROJECT FILE NO. 608961

CONSTRUCTION PLANS

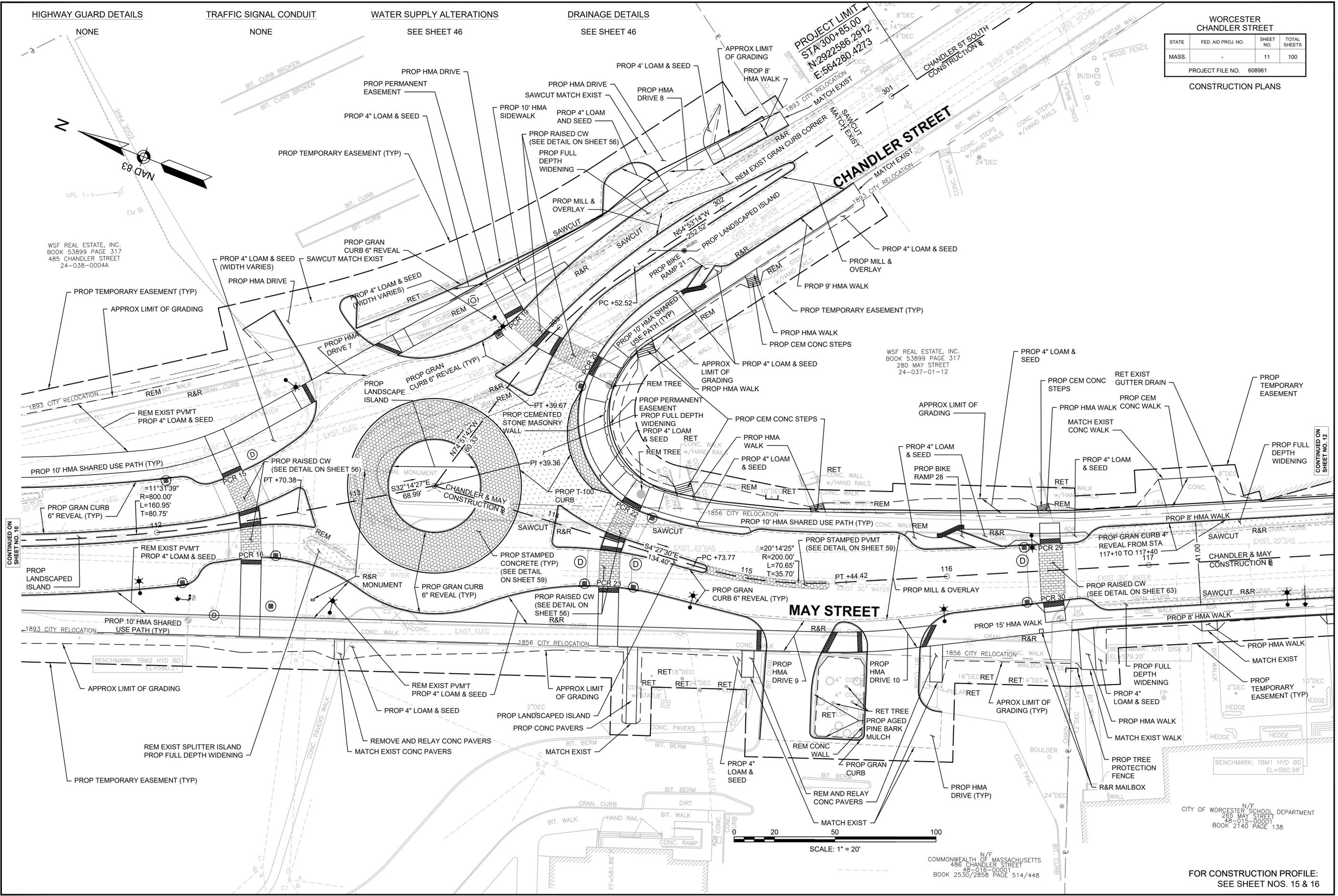
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WSF REAL ESTATE, INC.  
BOOK 53899 PAGE 317  
485 CHANDLER STREET  
24-036-0004A

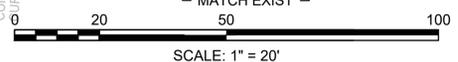
WSF REAL ESTATE, INC.  
BOOK 53899 PAGE 317  
280 MAY STREET  
24-037-01-12

CITY OF WORCESTER SCHOOL DEPARTMENT  
N/F  
265 MAY STREET  
48-016-00001  
BOOK 2140 PAGE 138



CONTINUED ON SHEET NO. 10

CONTINUED ON SHEET NO. 12



SCALE: 1" = 20'

COMMONWEALTH OF MASSACHUSETTS  
485 CHANDLER STREET  
48-016-00001  
BOOK 2530/2858 PAGE 514/448

FOR CONSTRUCTION PROFILE:  
SEE SHEET NOS. 15 & 16

13294.01\_HDGEN/DWG Plotted on 13-Feb-2025 8:34 PM

HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

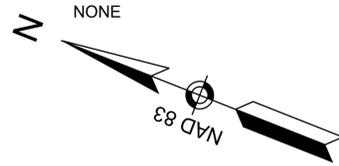
WATER SUPPLY ALTERATIONS

DRAINAGE DETAILS

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	12	100

PROJECT FILE NO. 608961  
CONSTRUCTION PLANS

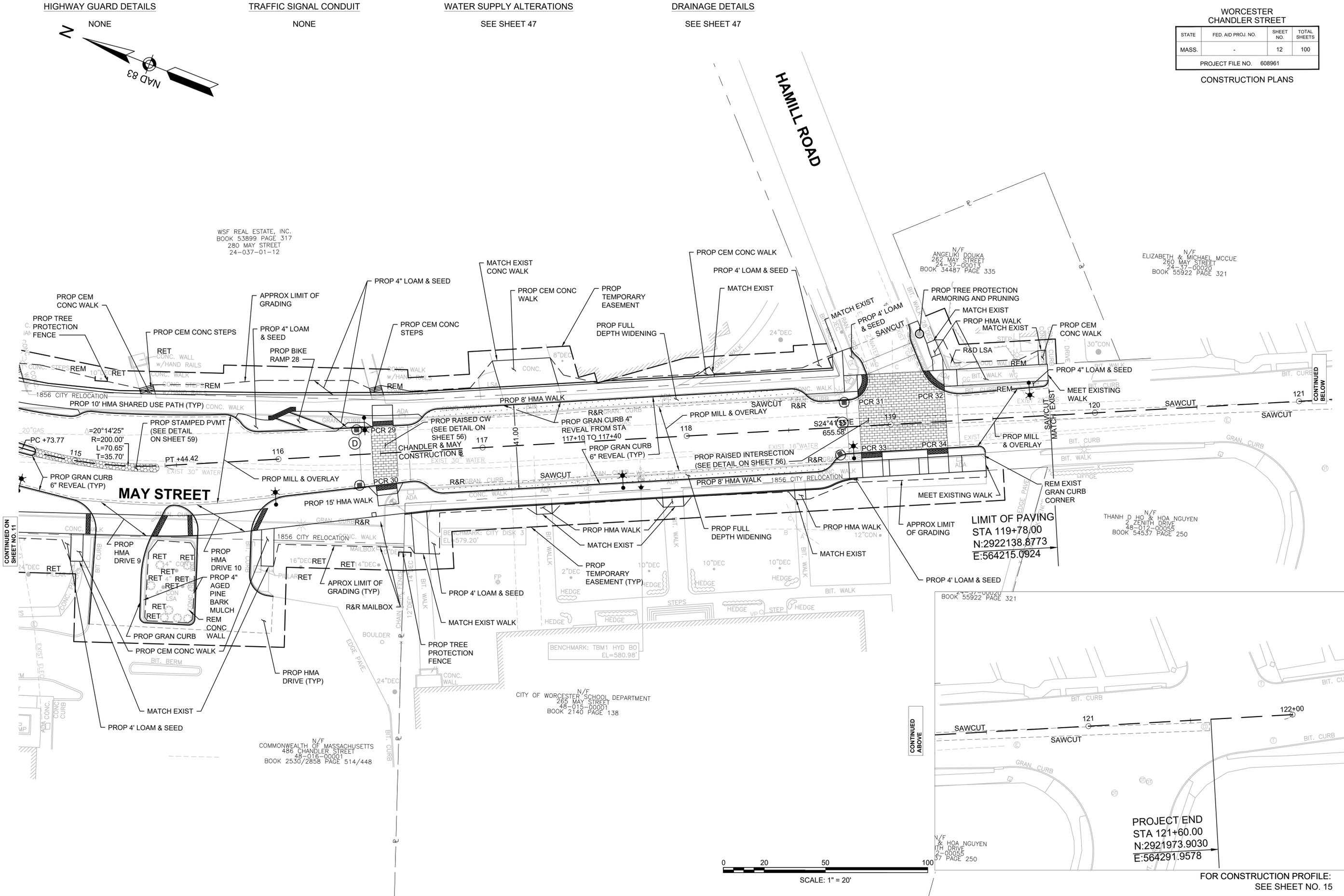


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NONE

SEE SHEET 47

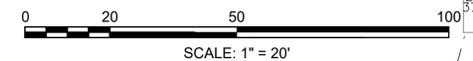
SEE SHEET 47



CONTINUED ON  
SHEET NO. 11

CONTINUED  
ABOVE

CONTINUED  
BELOW



PROJECT END  
STA 121+60.00  
N:2921973.9030  
E:564291.9578

FOR CONSTRUCTION PROFILE:  
SEE SHEET NO. 15

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	13	100

PROJECT FILE NO. 608961

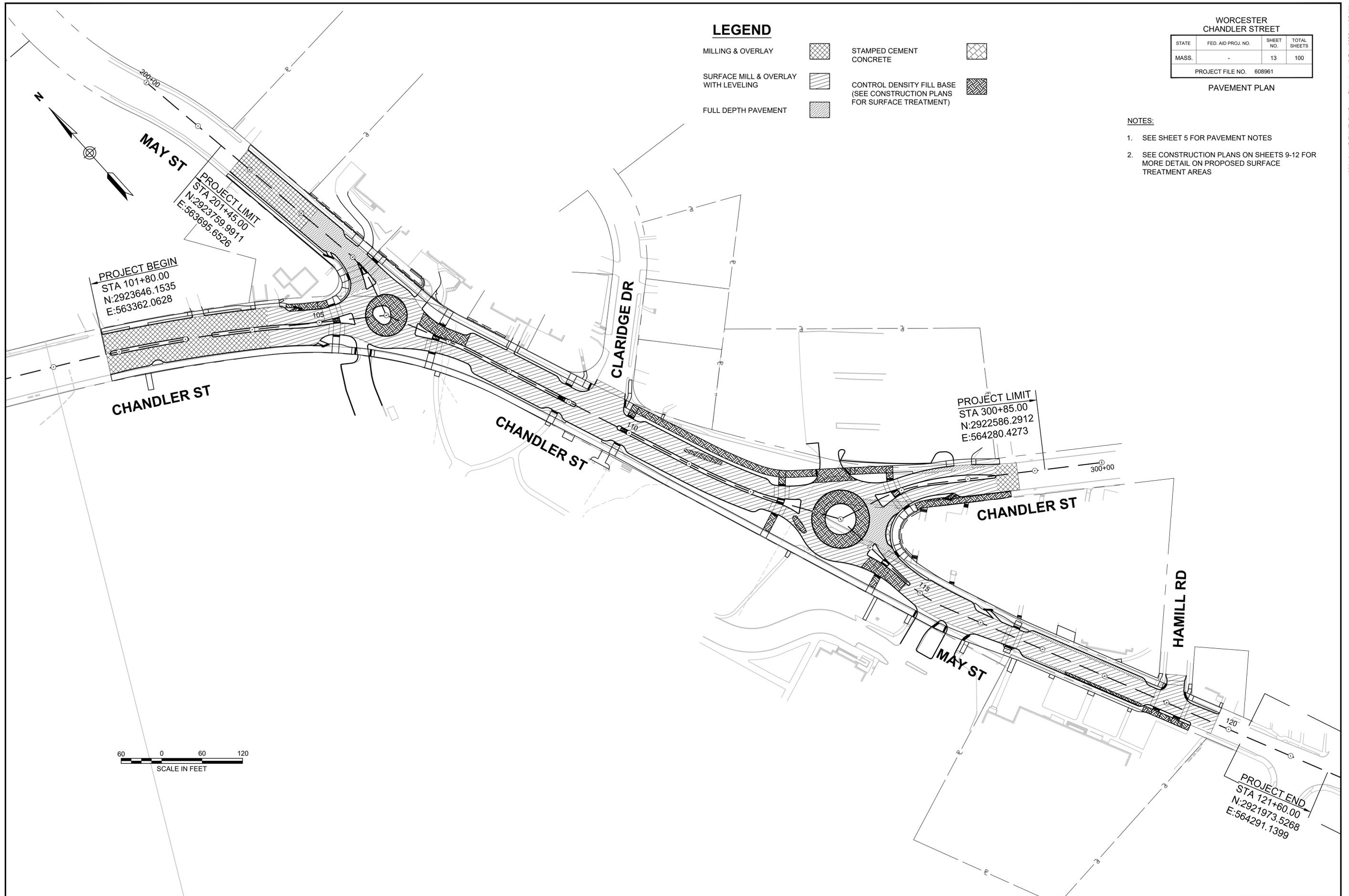
PAVEMENT PLAN

**LEGEND**

MILLING & OVERLAY		STAMPED CEMENT CONCRETE	
SURFACE MILL & OVERLAY WITH LEVELING		CONTROL DENSITY FILL BASE (SEE CONSTRUCTION PLANS FOR SURFACE TREATMENT)	
FULL DEPTH PAVEMENT			

NOTES:

- SEE SHEET 5 FOR PAVEMENT NOTES
- SEE CONSTRUCTION PLANS ON SHEETS 9-12 FOR MORE DETAIL ON PROPOSED SURFACE TREATMENT AREAS



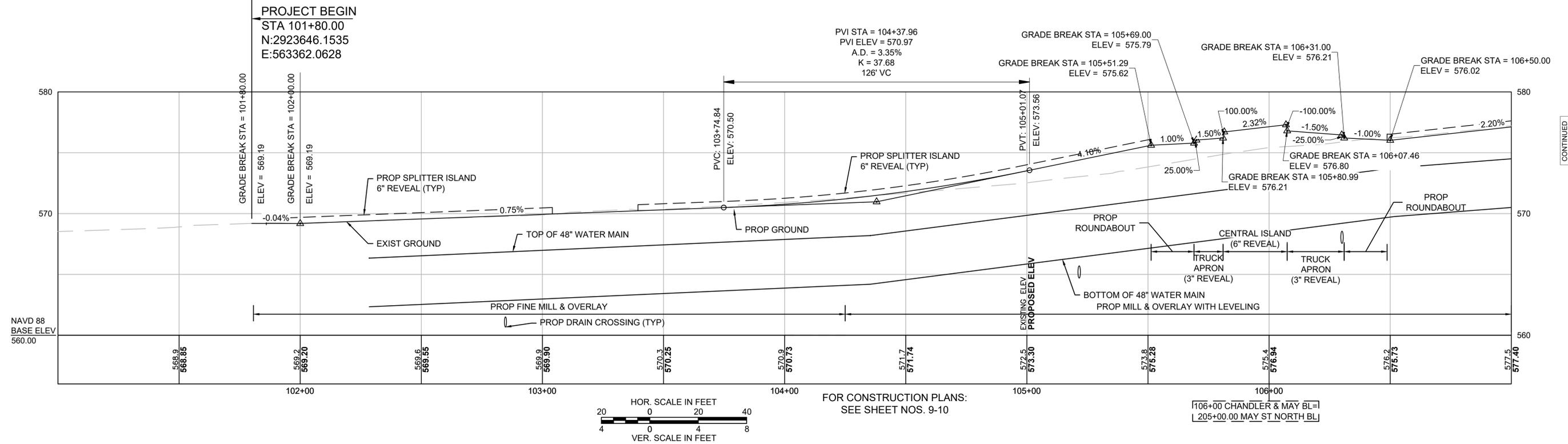
WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	14	100

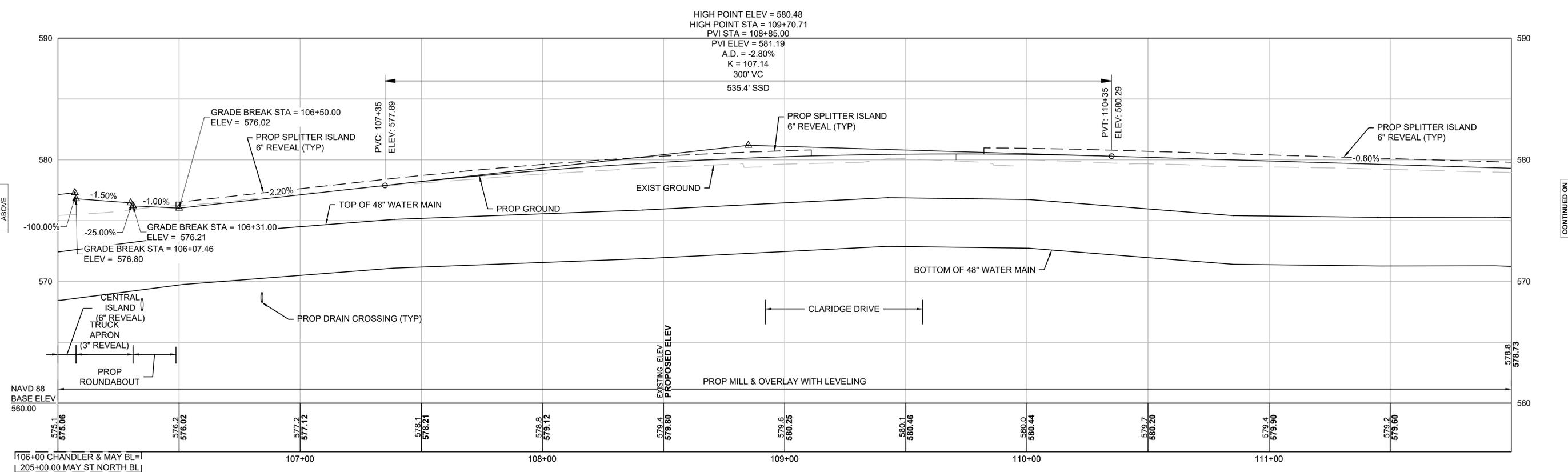
PROJECT FILE NO. 608961

PROFILES

CHANDLER/MAY ST PROPOSED



CHANDLER/MAY ST PROPOSED



CONTINUED BELOW

CONTINUED ON SHEET NO. 15



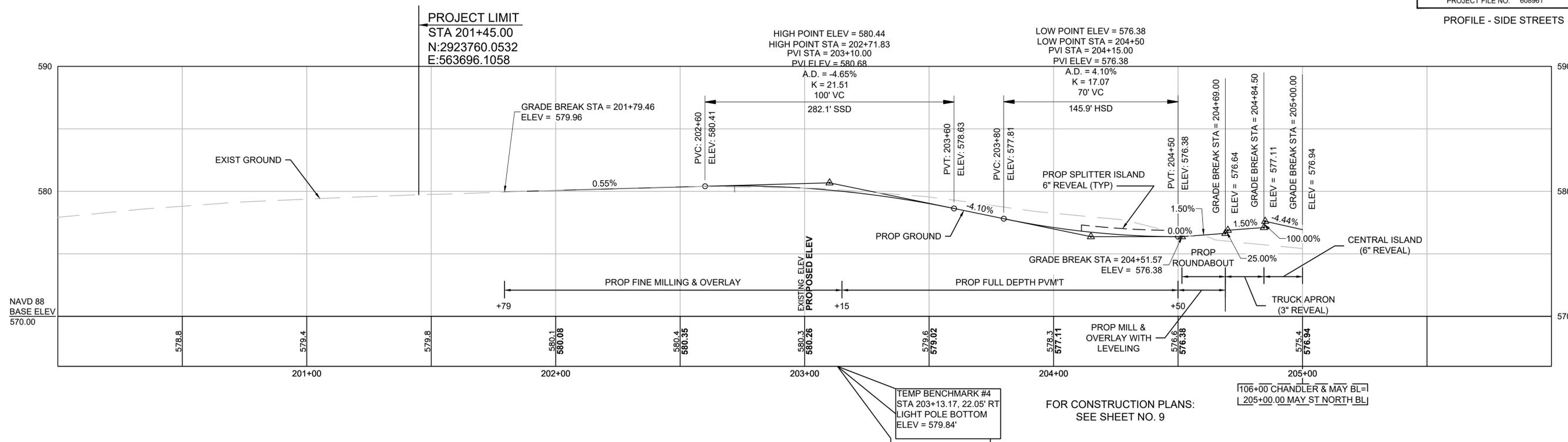
### MAY ST NORTH PROPOSED

### WORCESTER CHANDLER STREET

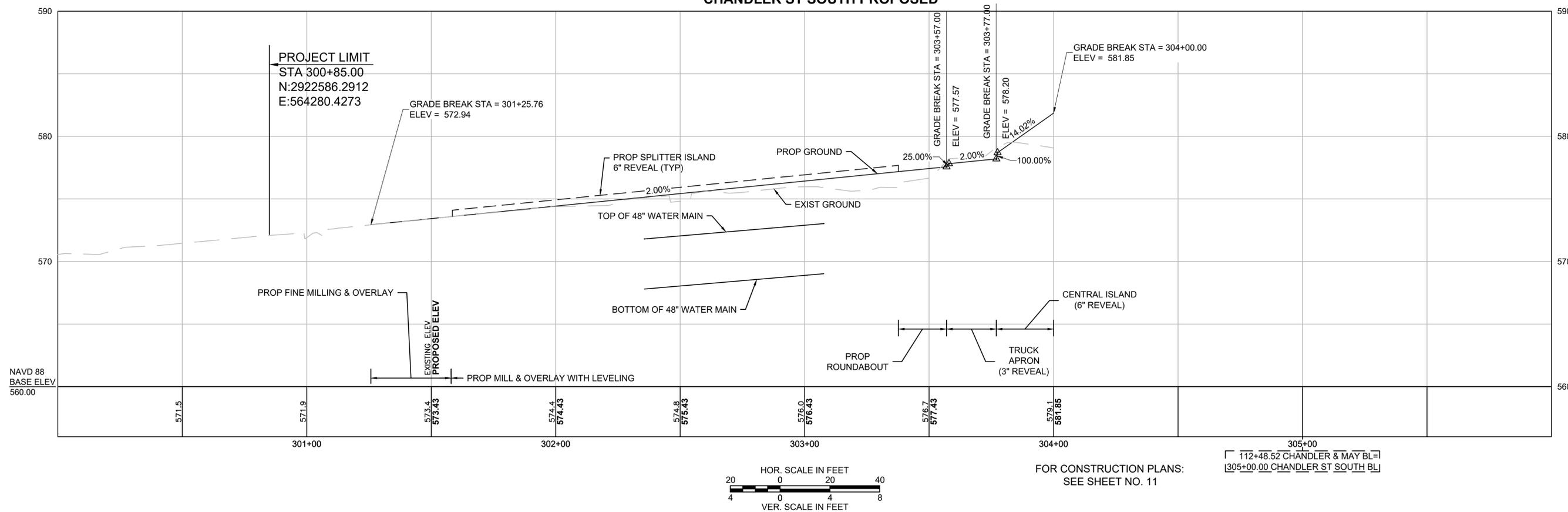
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MASS.	-	16	100

PROJECT FILE NO. 608961

PROFILE - SIDE STREETS



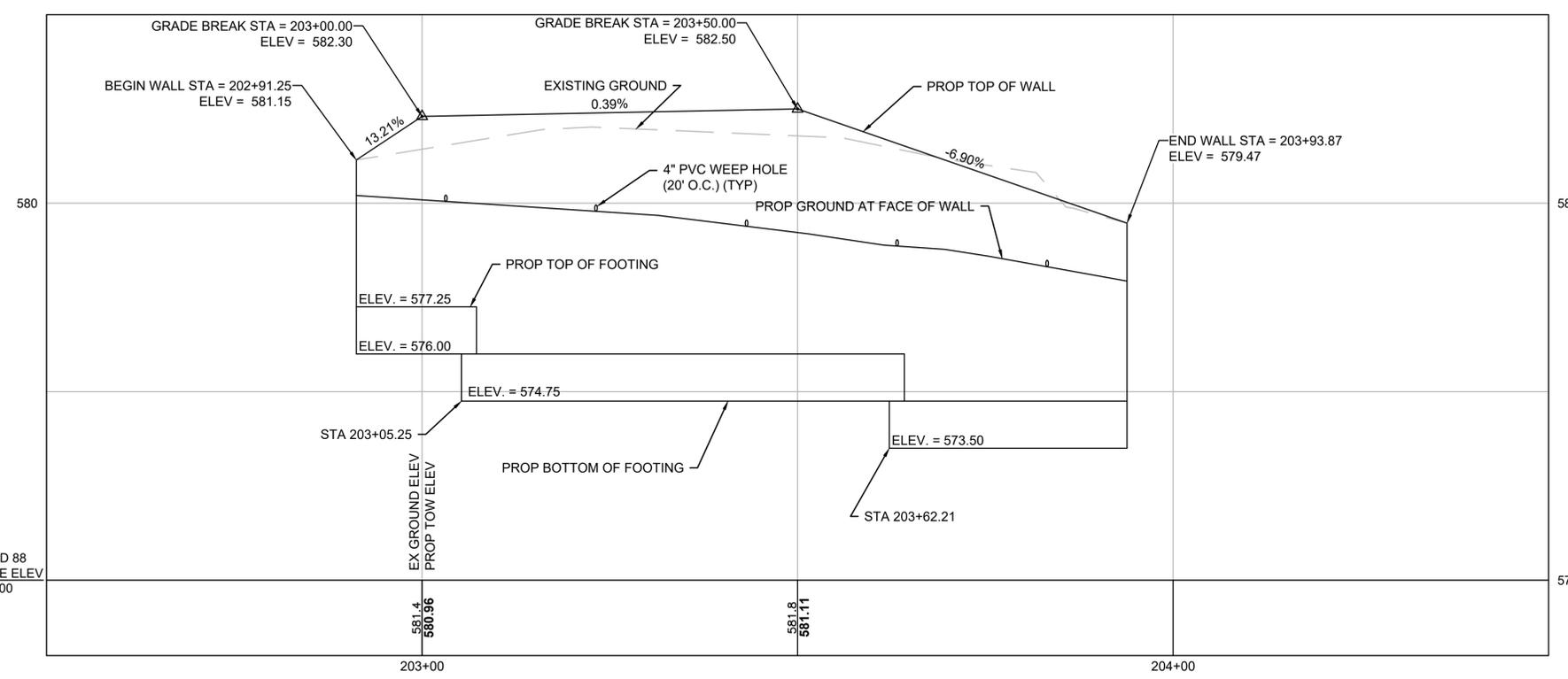
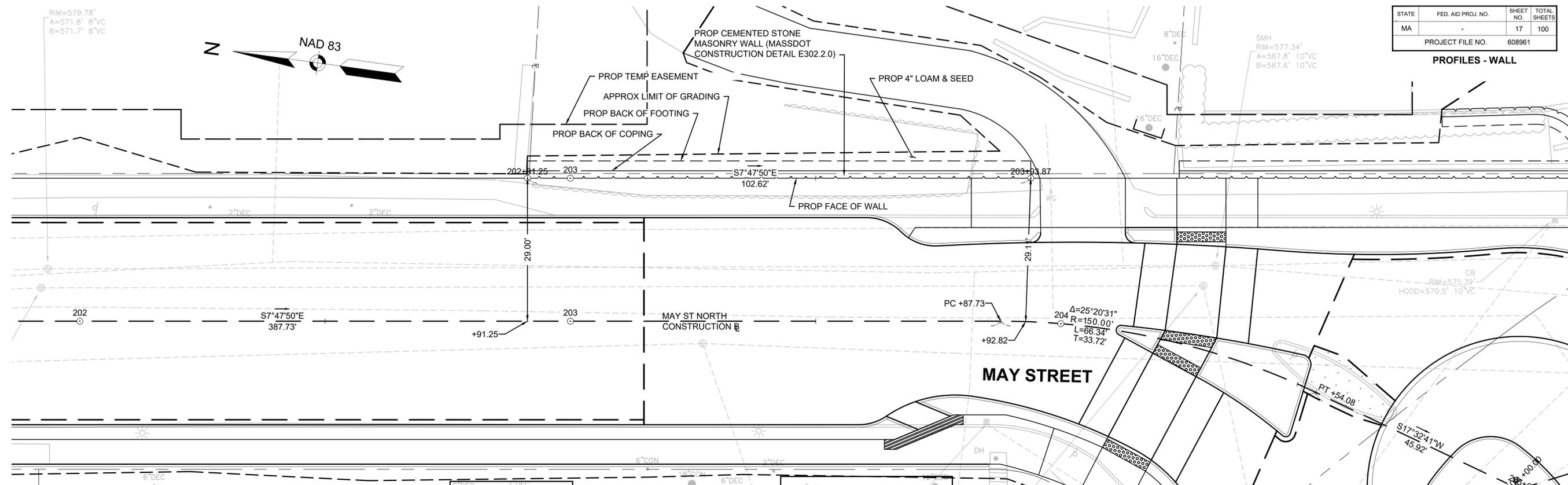
### CHANDLER ST SOUTH PROPOSED



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	17	100
PROJECT FILE NO.		608961	

**PROFILES - WALL**

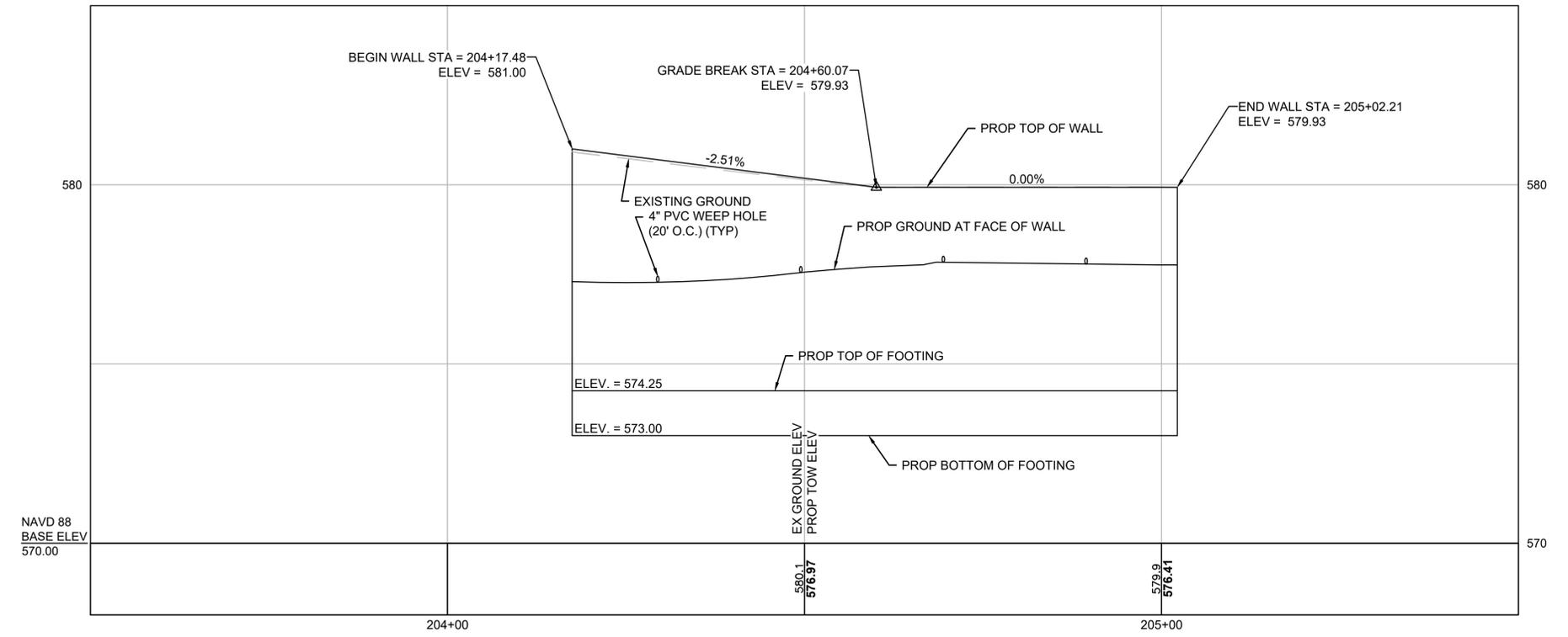
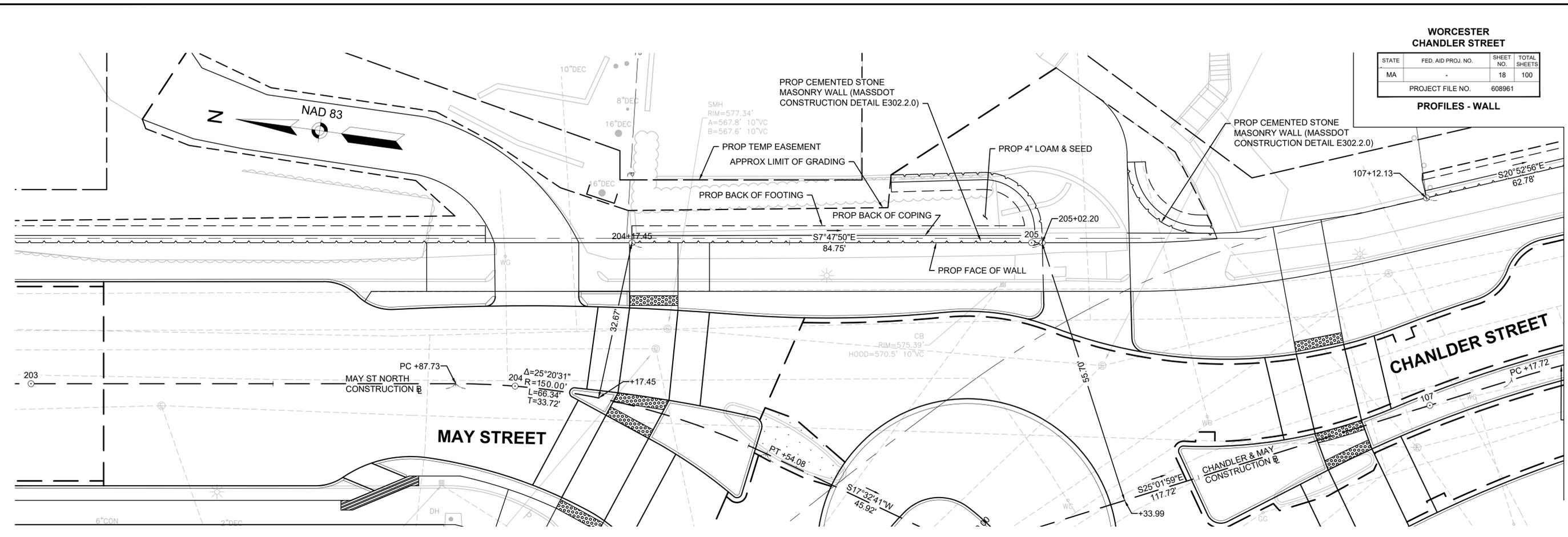


NAVD 88  
BASE ELEV  
570.00

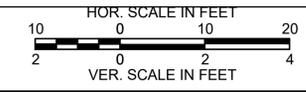
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	18	100
PROJECT FILE NO.		608961	

**PROFILES - WALL**



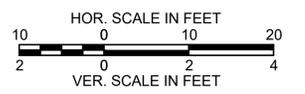
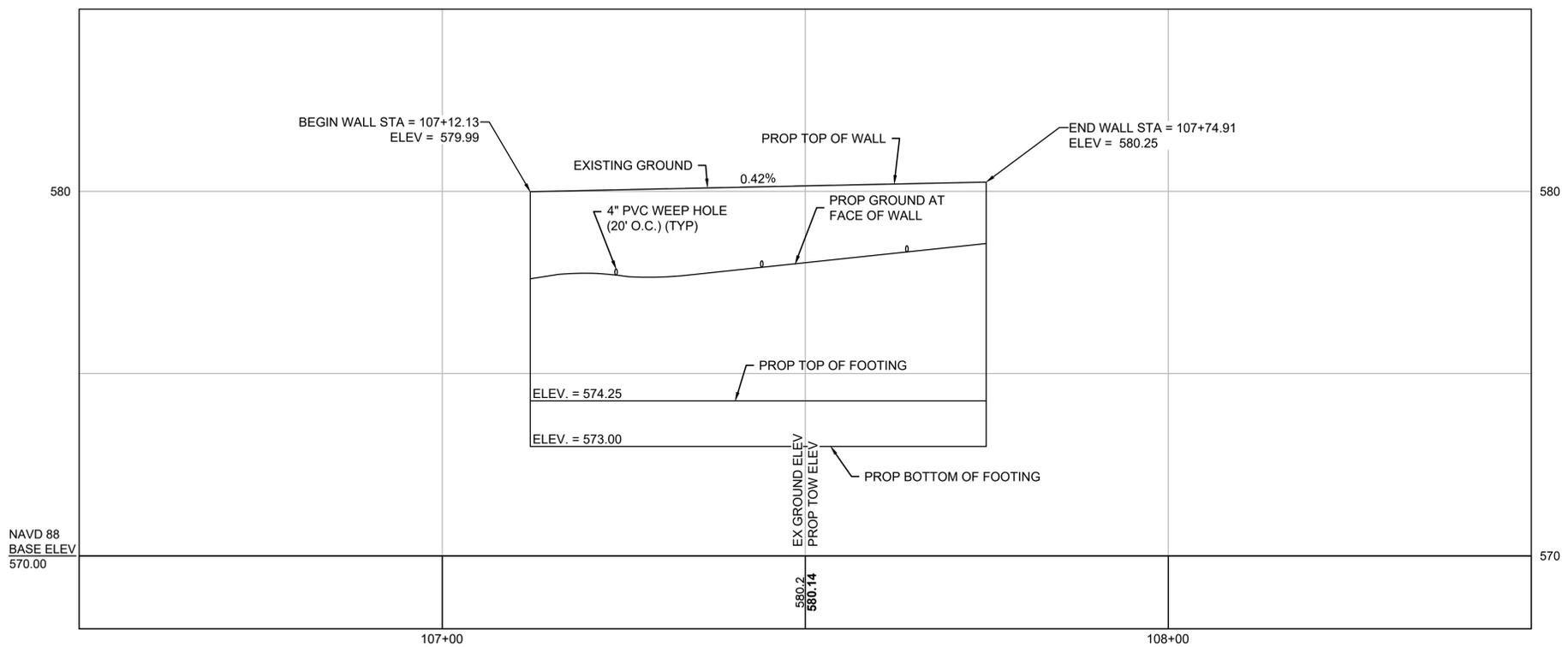
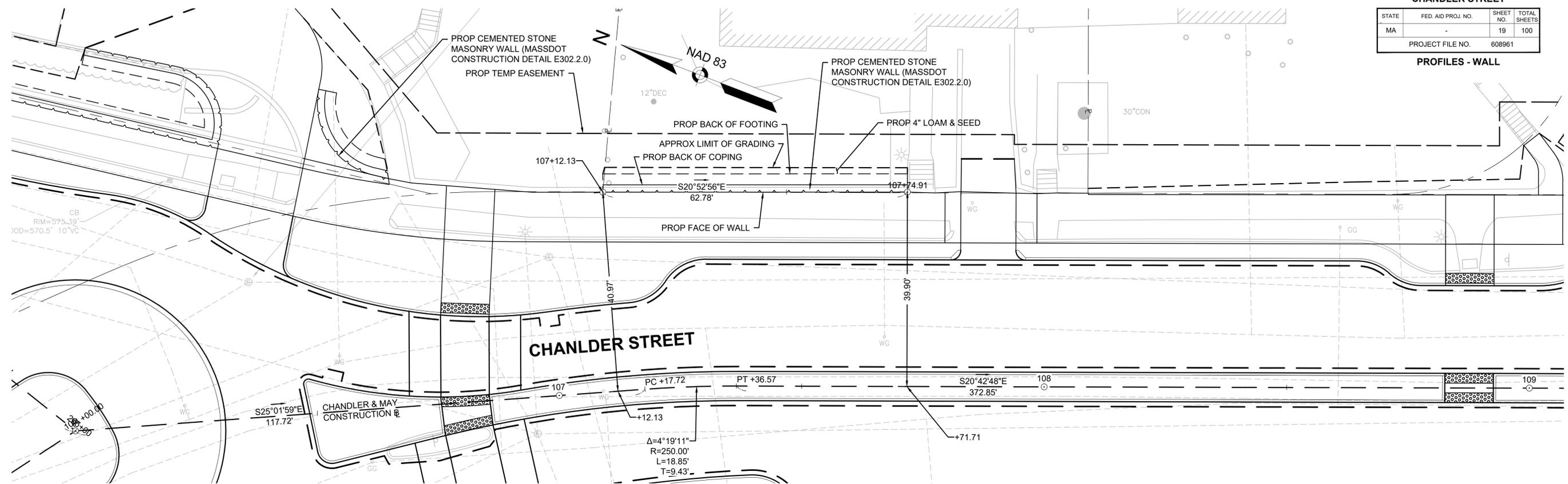
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BASE ELEV  
570.00

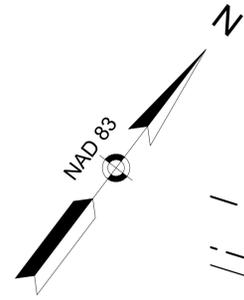


**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	19	100
PROJECT FILE NO.		608961	

**PROFILES - WALL**





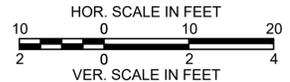
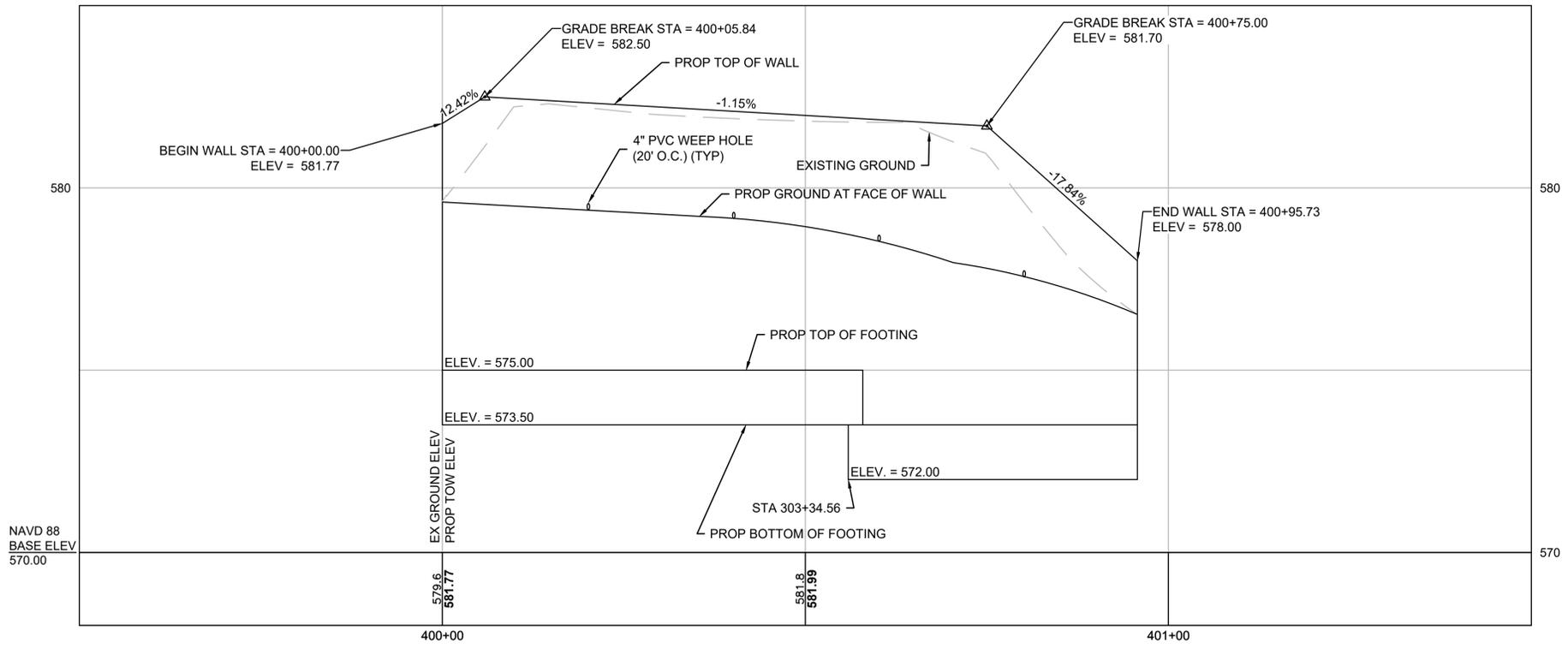
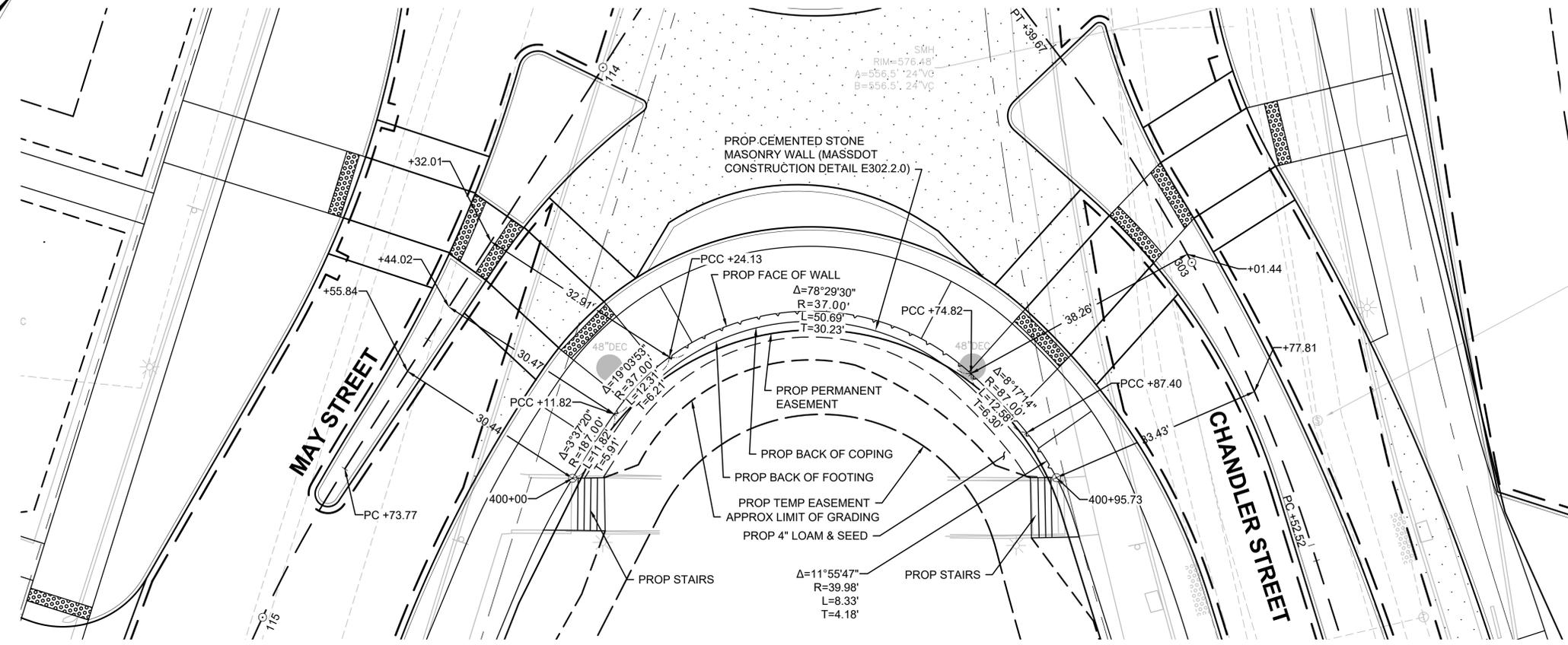
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		20	100

PROJECT FILE NO. 608961

**PROFILES - WALL**

MSF REAL ESTATE INC.  
485 CHANDLER STREET  
00104-0580  
53899 PAGE 317



WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	21	100

PROJECT FILE NO. 608961

ALIGNMENT PLANS

SURVEY TRAVERSE TABLE

POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	STATION	OFFSET
5	2923446.022	563723.719	576.690	MTRV	204+61.40	3.08' LT
6	2923597.529	563374.743	568.650	MTRV	102+15.72	35.63' RT
7	2923812.882	563657.038	579.150	MTRV	200+87.36	31.08' RT

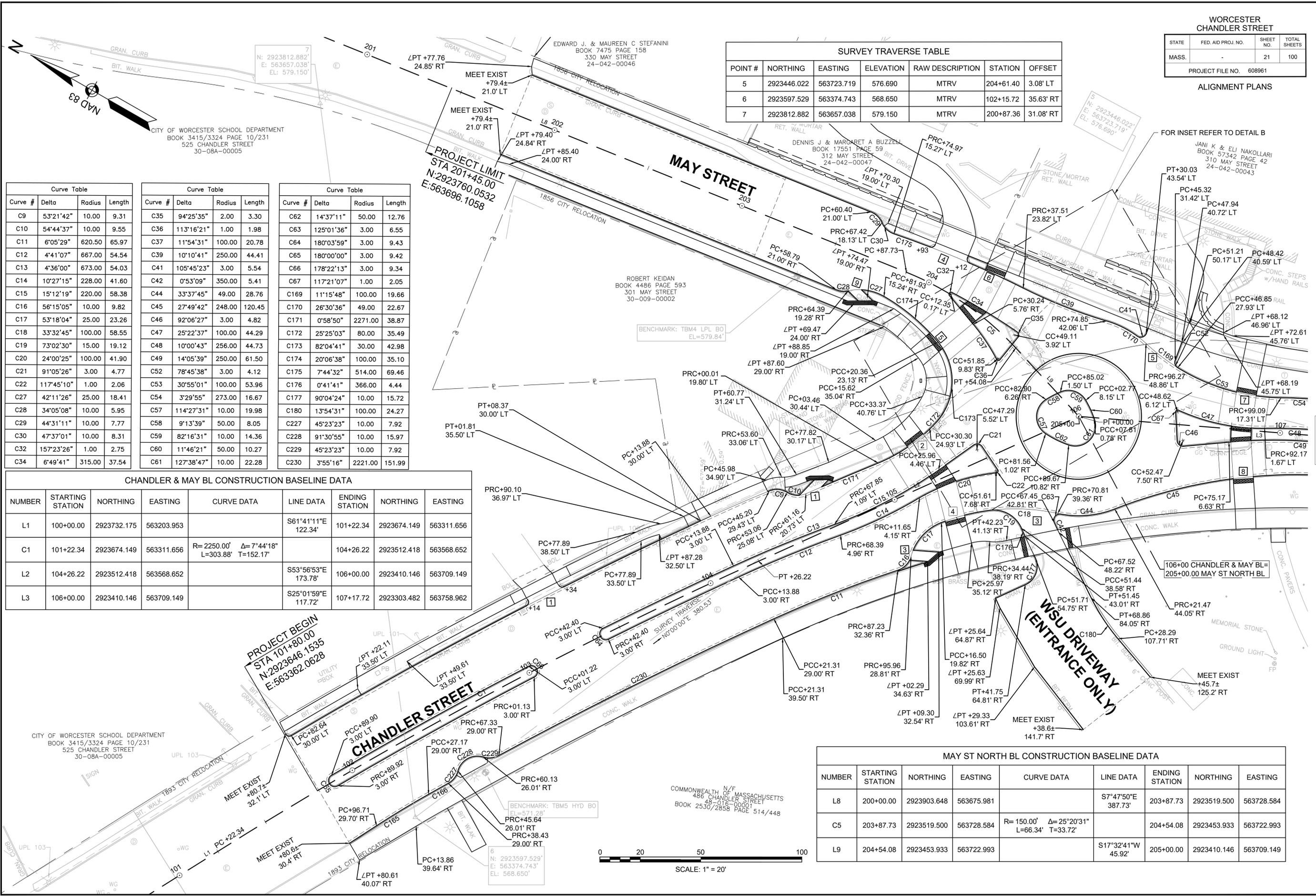
Curve Table				Curve Table				Curve Table			
Curve #	Delta	Radius	Length	Curve #	Delta	Radius	Length	Curve #	Delta	Radius	Length
C9	53°21'42"	10.00	9.31	C35	94°25'35"	2.00	3.30	C62	14°37'11"	50.00	12.76
C10	54°44'37"	10.00	9.55	C36	113°16'21"	1.00	1.98	C63	125°01'36"	3.00	6.55
C11	6°05'29"	620.50	65.97	C37	11°54'31"	100.00	20.78	C64	180°03'59"	3.00	9.43
C12	4°41'07"	667.00	54.54	C39	10°10'41"	250.00	44.41	C65	180°00'00"	3.00	9.42
C13	4°36'00"	673.00	54.03	C41	105°45'23"	3.00	5.54	C66	178°22'13"	3.00	9.34
C14	10°27'15"	228.00	41.60	C42	0°53'09"	350.00	5.41	C67	117°21'07"	1.00	2.05
C15	15°12'19"	220.00	58.38	C44	33°37'45"	49.00	28.76	C69	11°15'48"	100.00	19.66
C16	56°15'05"	10.00	9.82	C45	27°49'42"	248.00	120.45	C170	26°30'36"	49.00	22.67
C17	53°18'04"	25.00	23.26	C46	92°06'27"	3.00	4.82	C171	0°58'50"	2271.00	38.87
C18	33°32'45"	100.00	58.55	C47	25°22'37"	100.00	44.29	C172	25°25'03"	80.00	35.49
C19	73°02'30"	15.00	19.12	C48	10°00'43"	256.00	44.73	C173	82°04'41"	30.00	42.98
C20	24°00'25"	100.00	41.90	C49	14°05'39"	250.00	61.50	C174	20°06'38"	100.00	35.10
C21	9°105'26"	3.00	4.77	C52	78°45'38"	3.00	4.12	C175	7°44'32"	514.00	69.46
C22	117°45'10"	1.00	2.06	C53	30°55'01"	100.00	53.96	C176	0°41'41"	366.00	4.44
C27	42°11'26"	25.00	18.41	C54	3°29'55"	273.00	16.67	C177	90°04'24"	10.00	15.72
C28	34°05'08"	10.00	5.95	C57	114°27'31"	10.00	19.98	C180	13°54'31"	100.00	24.27
C29	44°31'11"	10.00	7.77	C58	9°13'39"	50.00	8.05	C227	45°23'23"	10.00	7.92
C30	47°37'01"	10.00	8.31	C59	82°16'31"	10.00	14.36	C228	91°30'55"	10.00	15.97
C32	157°23'26"	1.00	2.75	C60	11°46'21"	50.00	10.27	C229	45°23'23"	10.00	7.92
C34	6°49'41"	315.00	37.54	C61	127°38'47"	10.00	22.28	C230	3°55'16"	2221.00	151.99

CHANDLER & MAY BL CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	100+00.00	2923732.175	563203.953		S61°41'11"E 122.34'	101+22.34	2923674.149	563311.656
C1	101+22.34	2923674.149	563311.656	R=2250.00' Δ=7°44'18" L=303.88' T=152.17'		104+26.22	2923512.418	563568.652
L2	104+26.22	2923512.418	563568.652		S53°56'53"E 173.78'	106+00.00	2923410.146	563709.149
L3	106+00.00	2923410.146	563709.149		S25°01'59"E 117.72'	107+17.72	2923303.482	563758.962

MAY ST NORTH BL CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L8	200+00.00	2923903.648	563675.981		S7°47'50"E 387.73'	203+87.73	2923519.500	563728.584
C5	203+87.73	2923519.500	563728.584	R=150.00' Δ=25°20'31" L=66.34' T=33.72'		204+54.08	2923453.933	563722.993
L9	204+54.08	2923453.933	563722.993		S17°32'41"W 45.92'	205+00.00	2923410.146	563709.149



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CONTINUED ON  
SHEET NO. 22

JEFFERY P & LYNNE K LASSEY  
 BOOK 56453 PAGE 93  
 5 CLARIDGE DRIVE  
 24-042-00033

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

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

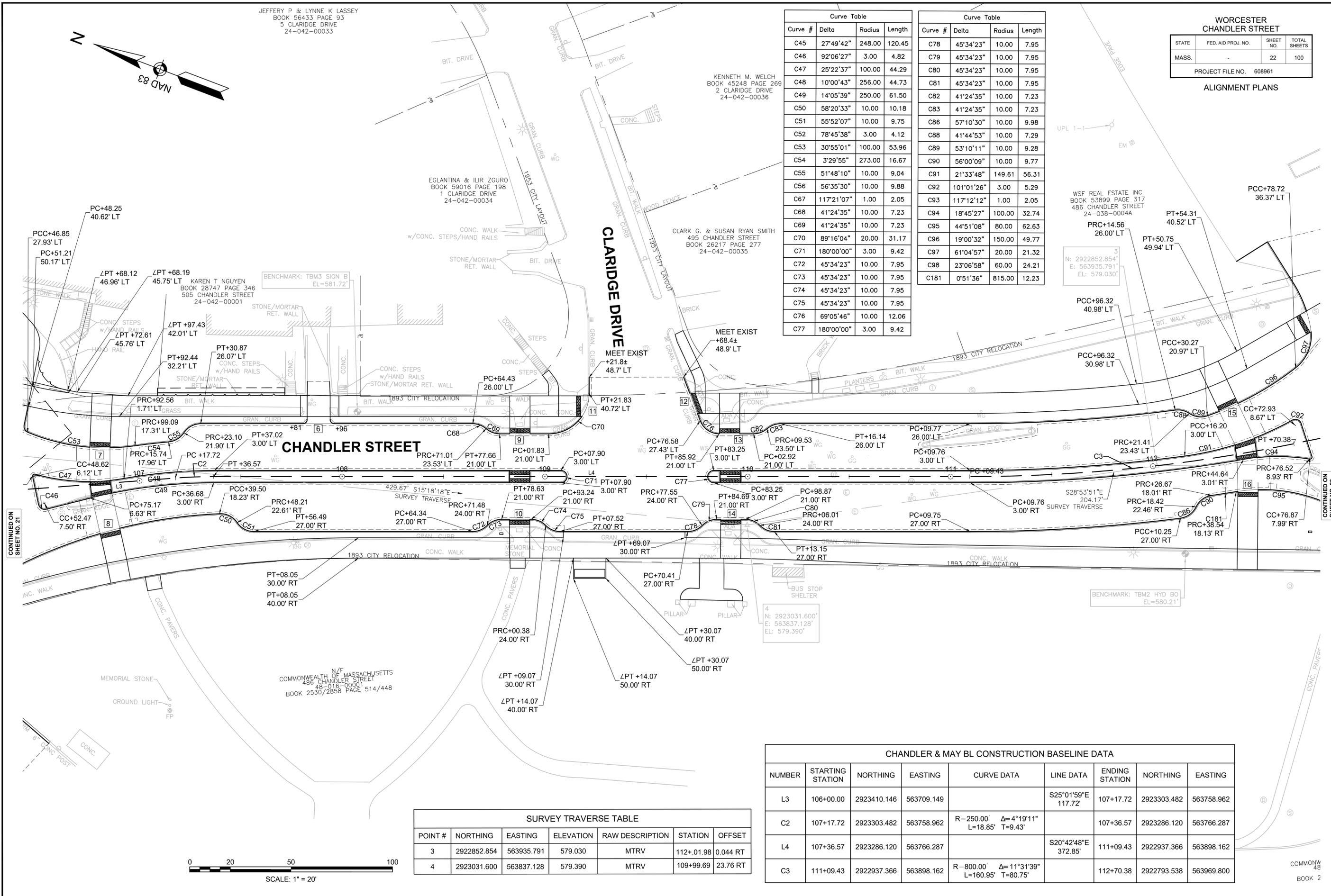
WSF REAL ESTATE INC  
 BOOK 53899 PAGE 317  
 486 CHANDLER STREET  
 24-038-0004A

N: 2922852.854'  
 E: 563935.791'  
 EL: 579.030'

WORCESTER CHANDLER STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	22	100
PROJECT FILE NO. 608961			
ALIGNMENT PLANS			

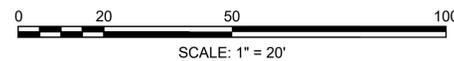
Curve Table			
Curve #	Delta	Radius	Length
C45	27°49'42"	248.00	120.45
C46	92°06'27"	3.00	4.82
C47	25°22'37"	100.00	44.29
C48	10°00'43"	256.00	44.73
C49	14°05'39"	250.00	61.50
C50	58°20'33"	10.00	10.18
C51	55°52'07"	10.00	9.75
C52	78°45'38"	3.00	4.12
C53	30°55'01"	100.00	53.96
C54	3°29'55"	273.00	16.67
C55	51°48'10"	10.00	9.04
C56	56°35'30"	10.00	9.88
C67	117°21'07"	1.00	2.05
C68	41°24'35"	10.00	7.23
C69	41°24'35"	10.00	7.23
C70	89°16'04"	20.00	31.17
C71	180°00'00"	3.00	9.42
C72	45°34'23"	10.00	7.95
C73	45°34'23"	10.00	7.95
C74	45°34'23"	10.00	7.95
C75	45°34'23"	10.00	7.95
C76	69°05'46"	10.00	12.06
C77	180°00'00"	3.00	9.42

Curve Table			
Curve #	Delta	Radius	Length
C78	45°34'23"	10.00	7.95
C79	45°34'23"	10.00	7.95
C80	45°34'23"	10.00	7.95
C81	45°34'23"	10.00	7.95
C82	41°24'35"	10.00	7.23
C83	41°24'35"	10.00	7.23
C86	57°10'30"	10.00	9.98
C88	41°44'53"	10.00	7.29
C89	53°10'11"	10.00	9.28
C90	56°00'09"	10.00	9.77
C91	21°33'48"	149.61	56.31
C92	101°01'26"	3.00	5.29
C93	117°12'12"	1.00	2.05
C94	18°45'27"	100.00	32.74
C95	44°51'08"	80.00	62.63
C96	19°00'32"	150.00	49.77
C97	61°04'57"	20.00	21.32
C98	23°06'58"	60.00	24.21
C181	0°51'36"	815.00	12.23



SURVEY TRAVERSE TABLE						
POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	STATION	OFFSET
3	2922852.854	563935.791	579.030	MTRV	112+01.98	0.044 RT
4	2923031.600	563837.128	579.390	MTRV	109+99.69	23.76 RT

CHANDLER & MAY BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L3	106+00.00	2923410.146	563709.149		S25°01'59"E 117.72'	107+17.72	2923303.482	563758.962
C2	107+17.72	2923303.482	563758.962	R=250.00' Δ=4°19'11" L=18.85' T=9.43'		107+36.57	2923286.120	563766.287
L4	107+36.57	2923286.120	563766.287		S20°42'48"E 372.85'	111+09.43	2922937.366	563898.162
C3	111+09.43	2922937.366	563898.162	R=800.00' Δ=11°31'39" L=160.95' T=80.75'		112+70.38	2922793.538	563969.800



13294.01\_HD(ALGN) DWG Plotted on 13-Feb-2025 12:35 PM

CONTINUED ON SHEET NO. 23

CONTINUED ON SHEET NO. 21

COMMONW 48  
BOOK 2

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	23	100

PROJECT FILE NO. 608961

ALIGNMENT PLANS

CHANDLER ST SOUTH BL CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	300+00.00	2922537.371	564349.911		N54°53'14"W 252.52'	302+52.52	2922682.615	564143.347
C6	302+52.52	2922682.615	564143.347	R=250.00' Δ=19°58'29" L=87.16' T=44.02'		303+39.67	2922719.435	564064.837
L11	303+39.67	2922719.435	564064.837		N74°51'42"W 60.33'	304+00.00	2922735.189	564006.603

SURVEY TRAVERSE TABLE

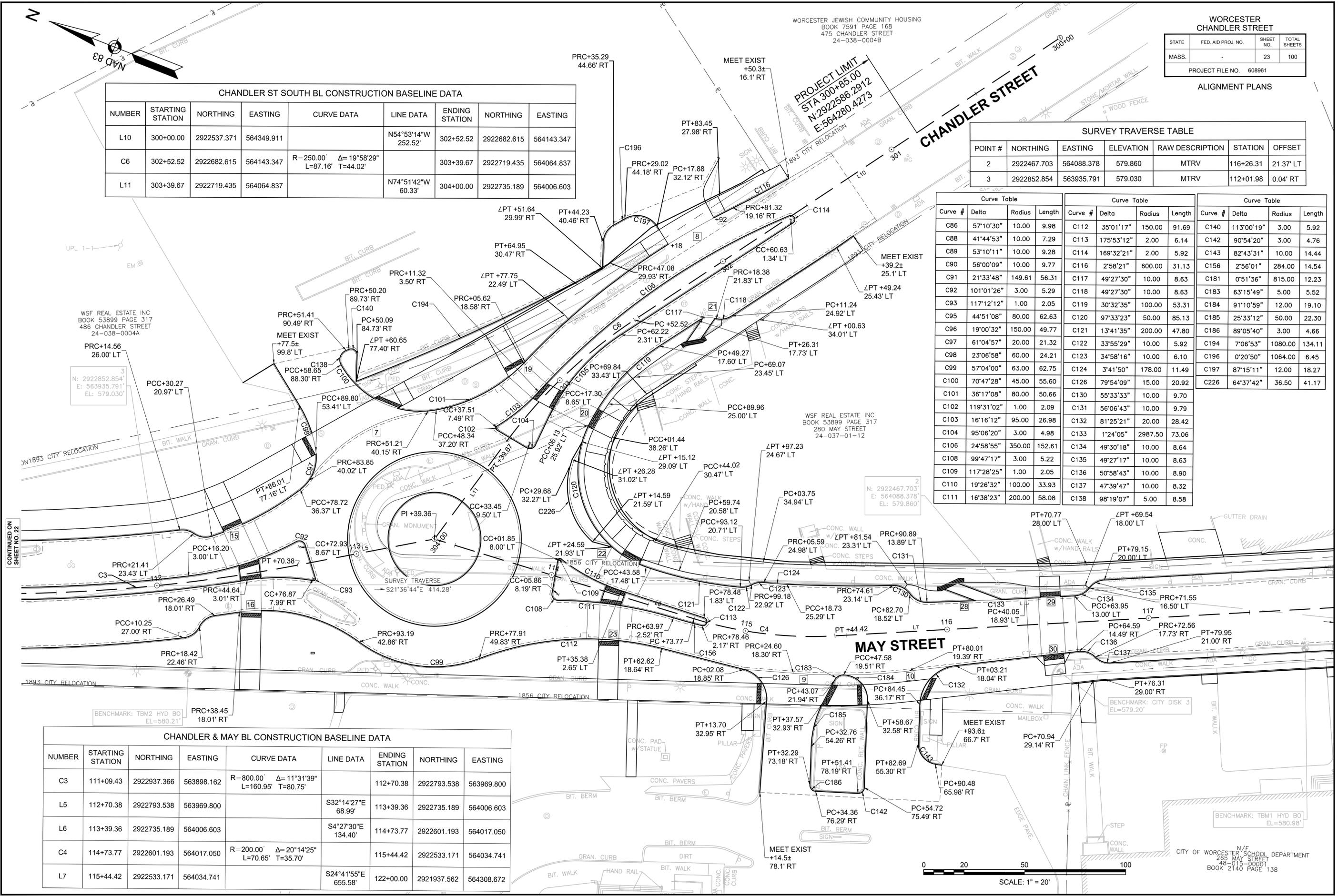
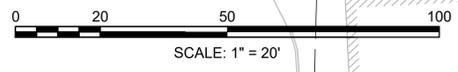
POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	STATION	OFFSET
2	2922467.703	564088.378	579.860	MTRV	116+26.31	21.37' LT
3	2922852.854	563935.791	579.030	MTRV	112+01.98	0.04' RT

Curve Table

Curve #	Delta	Radius	Length	Curve #	Delta	Radius	Length	Curve #	Delta	Radius	Length
C86	57°10'30"	10.00	9.98	C112	35°01'17"	150.00	91.69	C140	113°00'19"	3.00	5.92
C88	41°44'53"	10.00	7.29	C113	175°53'12"	2.00	6.14	C142	90°54'20"	3.00	4.76
C89	53°10'11"	10.00	9.28	C114	169°32'21"	2.00	5.92	C143	82°43'31"	10.00	14.44
C90	56°00'09"	10.00	9.77	C116	2°58'21"	600.00	31.13	C156	2°56'01"	284.00	14.54
C91	21°33'48"	149.61	56.31	C117	49°27'30"	10.00	8.63	C181	0°51'36"	815.00	12.23
C92	101°01'26"	3.00	5.29	C118	49°27'30"	10.00	8.63	C183	63°15'49"	5.00	5.52
C93	117°12'12"	1.00	2.05	C119	30°32'35"	100.00	53.31	C184	91°10'59"	12.00	19.10
C95	44°51'08"	80.00	62.63	C120	97°33'23"	50.00	85.13	C185	25°33'12"	50.00	22.30
C96	19°00'32"	150.00	49.77	C121	13°41'35"	200.00	47.80	C186	89°05'40"	3.00	4.66
C97	61°04'57"	20.00	21.32	C122	33°55'29"	10.00	5.92	C194	7°06'53"	1080.00	134.11
C98	23°06'58"	60.00	24.21	C123	34°58'16"	10.00	6.10	C196	0°20'50"	1064.00	6.45
C99	57°04'00"	63.00	62.75	C124	3°41'50"	178.00	11.49	C197	87°15'11"	12.00	18.27
C100	70°47'28"	45.00	55.60	C126	79°54'09"	15.00	20.92	C226	64°37'42"	36.50	41.17
C101	36°17'08"	80.00	50.66	C130	55°33'33"	10.00	9.70				
C102	119°31'02"	1.00	2.09	C131	56°06'43"	10.00	9.79				
C103	16°16'12"	95.00	26.98	C132	81°25'21"	20.00	28.42				
C104	95°06'20"	3.00	4.98	C133	1°24'05"	2987.50	73.06				
C106	24°58'55"	350.00	152.61	C134	49°30'18"	10.00	8.64				
C108	99°47'17"	3.00	5.22	C135	49°27'17"	10.00	8.63				
C109	117°28'25"	1.00	2.05	C136	50°58'43"	10.00	8.90				
C110	19°26'32"	100.00	33.93	C137	47°39'47"	10.00	8.32				
C111	16°38'23"	200.00	58.08	C138	98°19'07"	5.00	8.58				

CHANDLER & MAY BL CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C3	111+09.43	2922937.366	563898.162	R=800.00' Δ=11°31'39" L=160.95' T=80.75'		112+70.38	2922793.538	563969.800
L5	112+70.38	2922793.538	563969.800		S32°14'27"E 68.99'	113+39.36	2922735.189	564006.603
L6	113+39.36	2922735.189	564006.603		S4°27'30"E 134.40'	114+73.77	2922601.193	564017.050
C4	114+73.77	2922601.193	564017.050	R=200.00' Δ=20°14'25" L=70.65' T=35.70'		115+44.42	2922533.171	564034.741
L7	115+44.42	2922533.171	564034.741		S24°41'55"E 65.58'	122+00.00	2921937.562	564308.672



CONTINUED ON  
SHEET NO. 22

13294.01\_HD(ALGN)DWG Plotted on 13-Feb-2025 12:36 PM

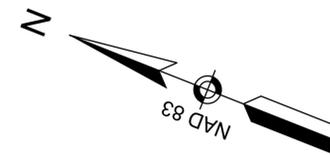
CITY OF WORCESTER SCHOOL DEPARTMENT  
265 MAY STREET  
48-015-00001  
BOOK 2140 PAGE 138

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	24	100

PROJECT FILE NO. 608961

ALIGNMENT PLANS



CHANDLER & MAY BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C4	114+73.77	2922601.193	564017.050	R=200.00' Δ=20°14'25" L=70.65' T=35.70'		115+44.42	2922533.171	564034.741
L7	115+44.42	2922533.171	564034.741		S24°41'55"E 655.58'	122+00.00	2921937.562	564308.672

WSF REAL ESTATE INC  
BOOK 53899 PAGE 317  
280 MAY STREET  
24-037-01-12

2  
N: 2922467.703'  
E: 564088.378'  
EL: 579.860'

MEET EXIST  
+11.3±  
48.0' LT

ANGELIKI DOUKA  
262 MAY STREET  
24-37-00013  
BOOK 34487 PAGE 335

ELIZABETH & MICHAEL MCCUE  
260 MAY STREET  
24-37-00020  
BOOK 55922 PAGE 321

LIMIT OF PAVING  
STA 119+78.00  
N:2922138.8773  
E:564215.0924

THANH D HO & HOA NGUYEN  
2 ZENITH DRIVE  
48-012-00055  
BOOK 54537 PAGE 250

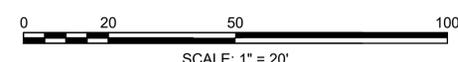
CITY OF WORCESTER SCHOOL DEPARTMENT  
265 MAY STREET  
48-015-00001  
BOOK 2140 PAGE 138

Curve Table			
Curve #	Delta	Radius	Length
C122	33°55'29"	10.00	5.92
C123	34°58'16"	10.00	6.10
C124	3°41'50"	178.00	11.49
C126	79°54'09"	15.00	20.92
C130	55°33'33"	10.00	9.70
C131	56°06'43"	10.00	9.79
C132	81°25'21"	20.00	28.42
C133	1°24'05"	2987.50	73.06
C134	49°30'18"	10.00	8.64
C135	49°27'17"	10.00	8.63
C136	50°58'43"	10.00	8.90
C137	47°39'47"	10.00	8.32
C142	90°54'20"	3.00	4.76
C143	82°43'31"	10.00	14.44
C144	49°27'30"	10.00	8.63
C145	49°27'30"	10.00	8.63

Curve Table			
Curve #	Delta	Radius	Length
C146	53°07'48"	10.00	9.27
C147	53°07'48"	10.00	9.27
C148	109°04'27"	10.00	19.04
C149	28°47'08"	10.00	5.02
C150	29°47'50"	10.00	5.20
C151	25°50'31"	10.00	4.51
C152	25°50'31"	10.00	4.51
C153	70°55'33"	20.00	24.76
C154	90°25'11"	3.00	4.73
C155	87°46'49"	3.00	4.60
C183	63°15'49"	5.00	5.52
C184	91°10'59"	12.00	19.10
C185	25°33'12"	50.00	22.30
C186	89°05'40"	3.00	4.66

SURVEY TRAVERSE TABLE

POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	STATION	OFFSET
1	2922204.347	564161.846	576.850	MTRV	119+96.27	24.92 RT



PROJECT END  
STA 121+60.00  
N:2921973.9030  
E:564291.9578

CONTINUED ON  
SHEET NO. 23

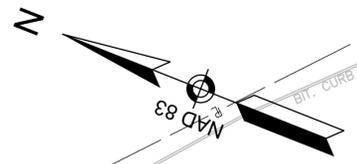
CONTINUED  
BELOW

CONTINUED  
BELOW

CONTINUED  
ABOVE



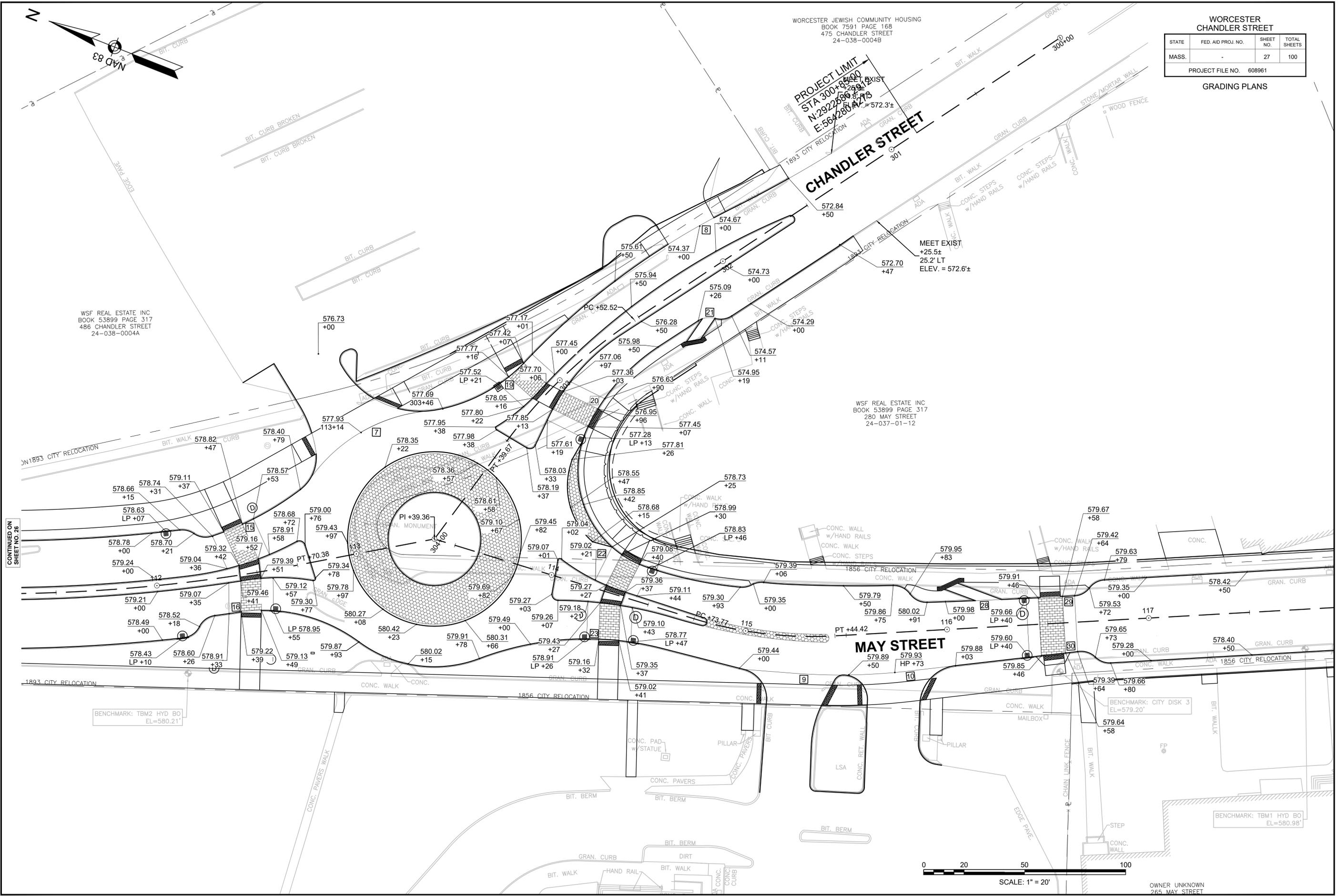




WORCESTER JEWISH COMMUNITY HOUSING  
BOOK 7591 PAGE 168  
475 CHANDLER STREET  
24-038-0004B

WORCESTER CHANDLER STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	27	100
PROJECT FILE NO. 608961			

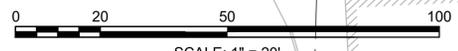
GRADING PLANS



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

WSF REAL ESTATE INC  
BOOK 53899 PAGE 317  
280 MAY STREET  
24-037-01-12

CONTINUED ON  
SHEET NO. 26



SCALE: 1" = 20'

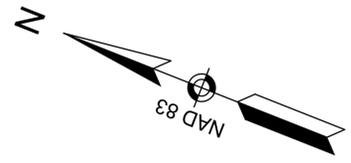
OWNER UNKNOWN  
265 MAY STREET

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	28	100

PROJECT FILE NO. 608961

GRADING PLANS



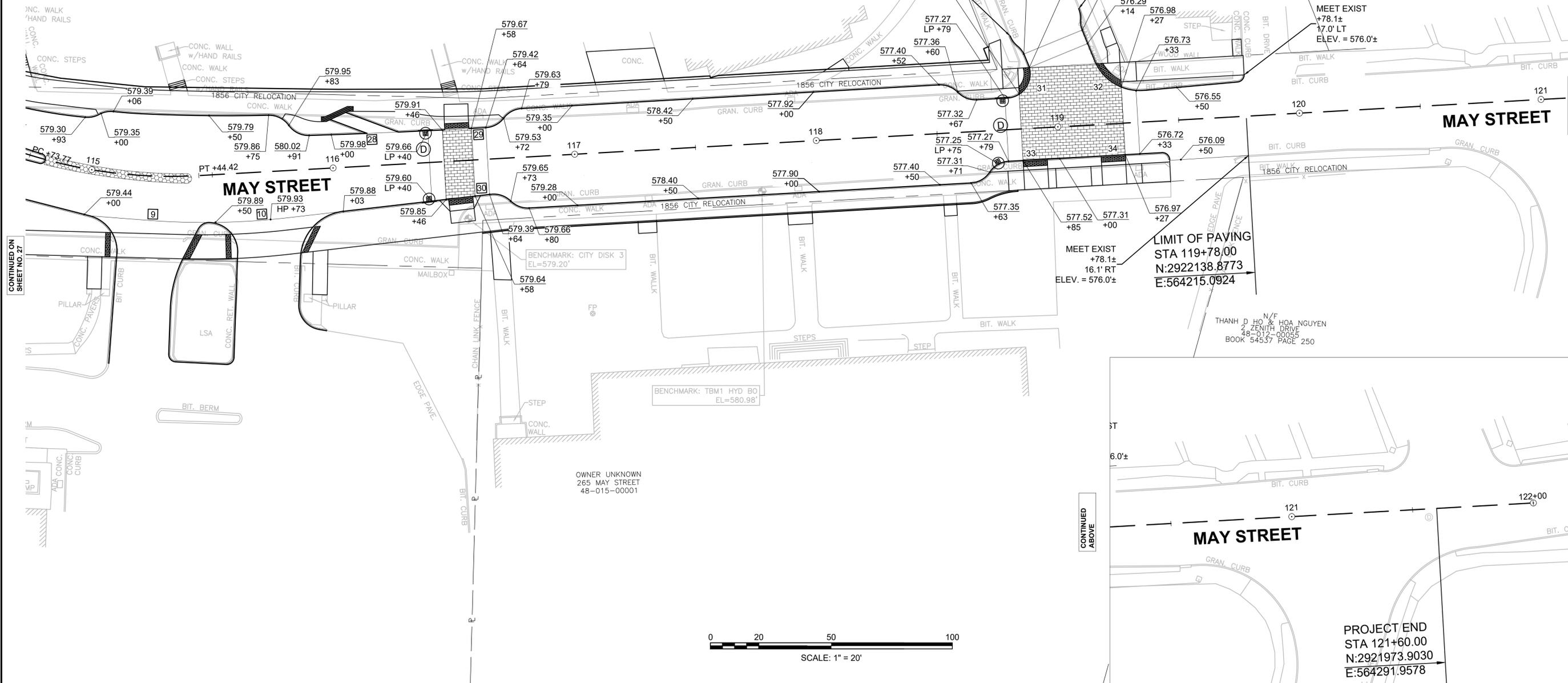
WSF REAL ESTATE INC  
BOOK 53899 PAGE 317  
280 MAY STREET  
24-037-01-12

N/F  
ANGELIKI DOUKA  
262 MAY STREET  
24-37-00013  
BOOK 34487 PAGE 335

N/F  
ELIZABETH & MICHAEL MCCUE  
260 MAY STREET  
24-37-00020  
BOOK 55922 PAGE 321

N/F  
THANH D HO & HOA NGUYEN  
2 ZENITH DRIVE  
48-012-00055  
BOOK 54537 PAGE 250

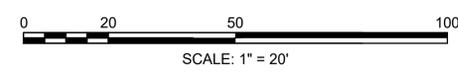
OWNER UNKNOWN  
265 MAY STREET  
48-015-00001



CONTINUED ON  
SHEET NO. 27

CONTINUED  
BELOW

CONTINUED  
ABOVE



PROJECT END  
STA 121+60.00  
N:2921973.9030  
E:564291.9578

WORCESTER  
CHANDLER STREET

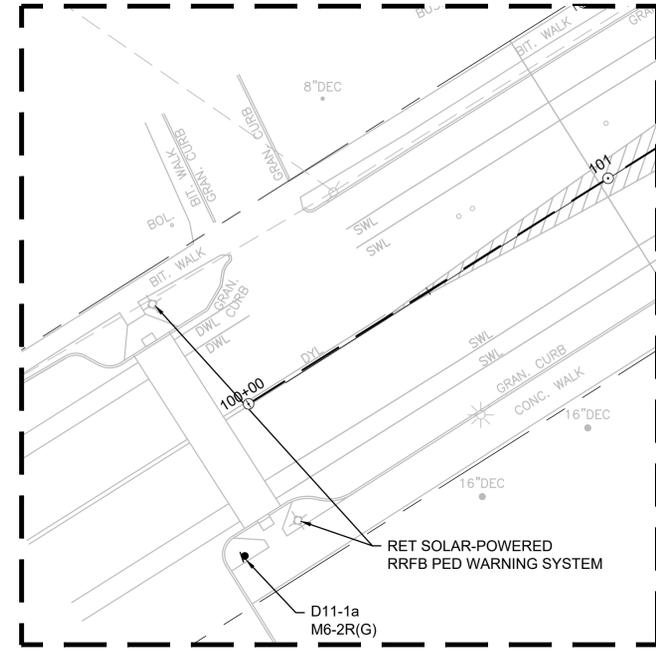
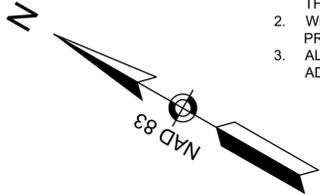
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	29	100

PROJECT FILE NO. 608961

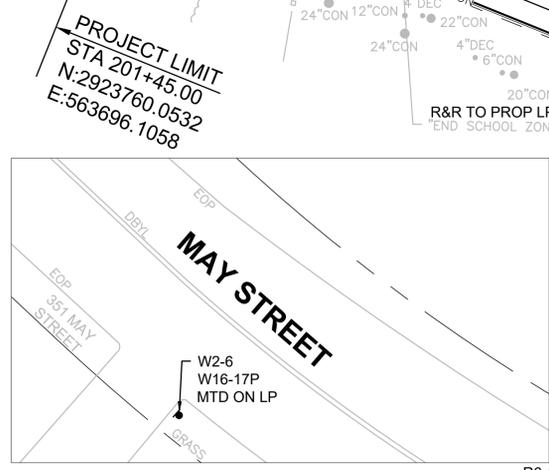
SIGNING AND PAVEMENT MARKINGS PLANS

CONSTRUCTION NOTES

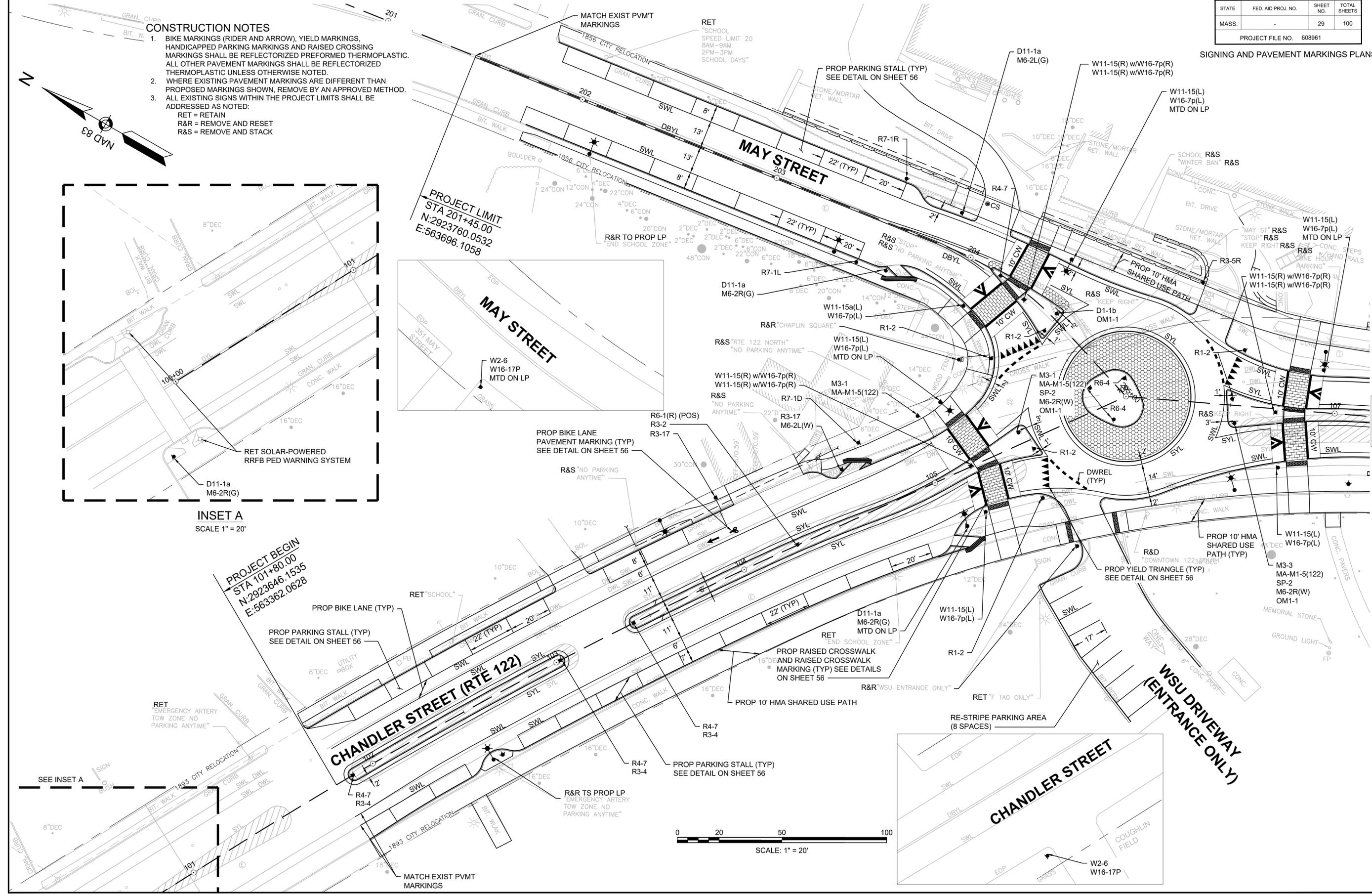
- BIKE MARKINGS (RIDER AND ARROW), YIELD MARKINGS, HANDICAPPED PARKING MARKINGS AND RAISED CROSSING MARKINGS SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC. ALL OTHER PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC UNLESS OTHERWISE NOTED.
- WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
- ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE ADDRESSED AS NOTED:  
RET = RETAIN  
R&R = REMOVE AND RESET  
R&S = REMOVE AND STACK



INSET A  
SCALE 1" = 20'



PROJECT LIMIT  
STA 201+45.00  
N:2923760.0532  
E:563696.1058



0 20 50 100  
SCALE: 1" = 20'

CONTINUED ON  
SHEET NO. 30

WORCESTER  
CHANDLER STREET

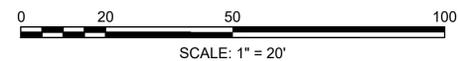
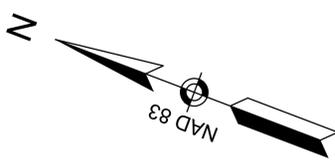
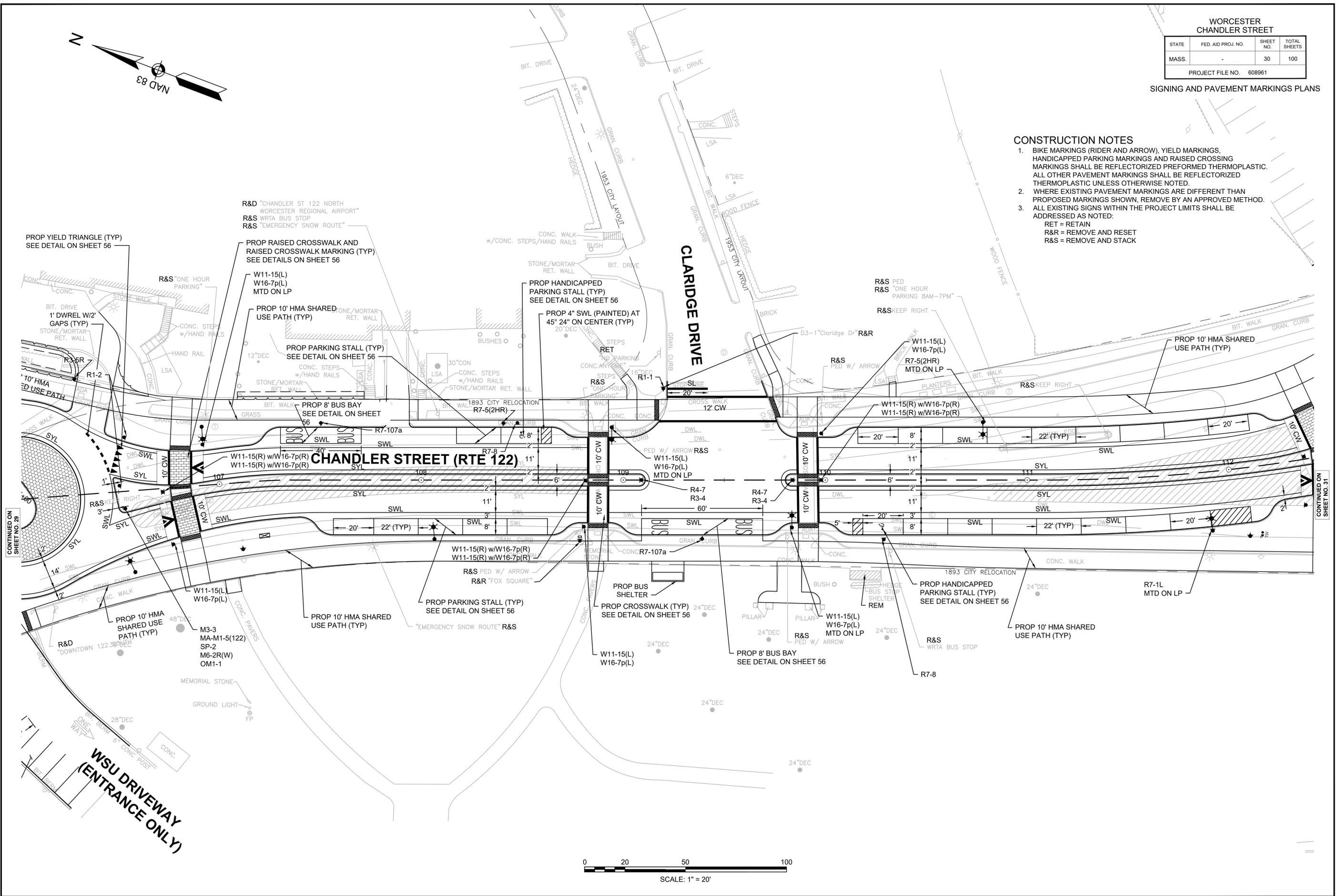
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	30	100

PROJECT FILE NO. 608961

SIGNING AND PAVEMENT MARKINGS PLANS

CONSTRUCTION NOTES

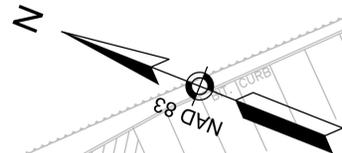
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RET = RETAIN  
R&R = REMOVE AND RESET  
R&S = REMOVE AND STACK



CONTINUED ON SHEET NO. 29

CONTINUED ON SHEET NO. 31

13294-01\_HD(PV)MK.DWG Plotted on 12-Feb-2025 7:06 PM



RRFB SYSTEM LOCATION 2  
 SEE DETAIL ON SHEET 58  
 TS POST AND FOUNDATION STA 300+98.6, 17.3' RT  
 TS POST AND FOUNDATION STA 301+08.3, 27.9' LT  
 PROP (2) SIDE-OF-POST NEMA CONTROL CABINET  
 PROP (2) RADIO ANTENNA  
 PROP (2) SOLAR PANEL & BATTERY  
 PROP (2) RRFB (ONE SIDED)  
 PROP (1) W11-15(L)  
 PROP (1) W16-7p(L)  
 PROP (1) W11-15(R)  
 PROP (1) W16-7p(R)  
 PROP (2) APS PEDESTRIAN PUSHBUTTONS W/  
 PROP (2) R10-25

PROJECT LIMIT  
 STA 300+85.00  
 N:2922581.3837  
 E:564276.9406

WORCESTER  
 CHANDLER STREET

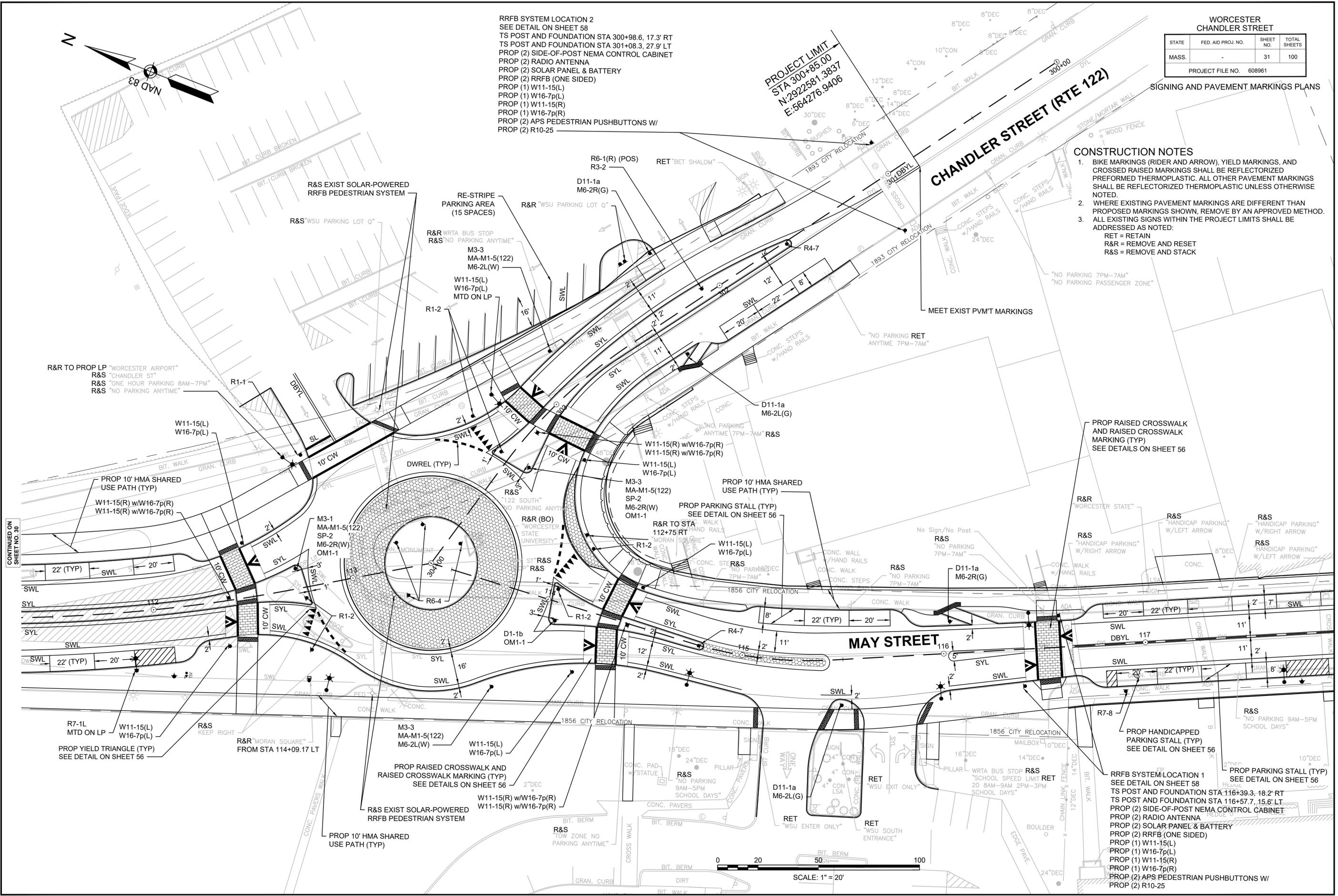
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.		31	100

PROJECT FILE NO. 608961

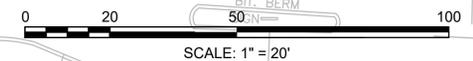
SIGNING AND PAVEMENT MARKINGS PLANS

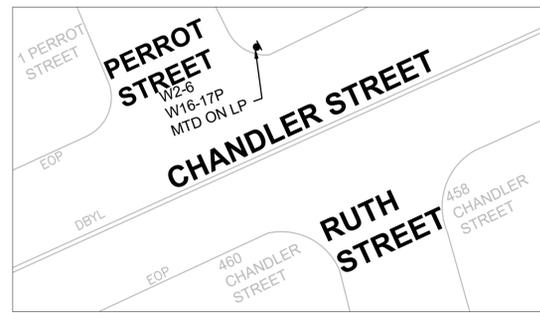
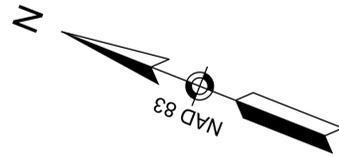
CONSTRUCTION NOTES

- BIKE MARKINGS (RIDER AND ARROW), YIELD MARKINGS, AND CROSSED RAISED MARKINGS SHALL BE REFLECTORIZED PERFORMED THERMOPLASTIC. ALL OTHER PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC UNLESS OTHERWISE NOTED.
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 RET = RETAIN  
 R&R = REMOVE AND RESET  
 R&S = REMOVE AND STACK



CONTINUED ON  
 SHEET NO. 30





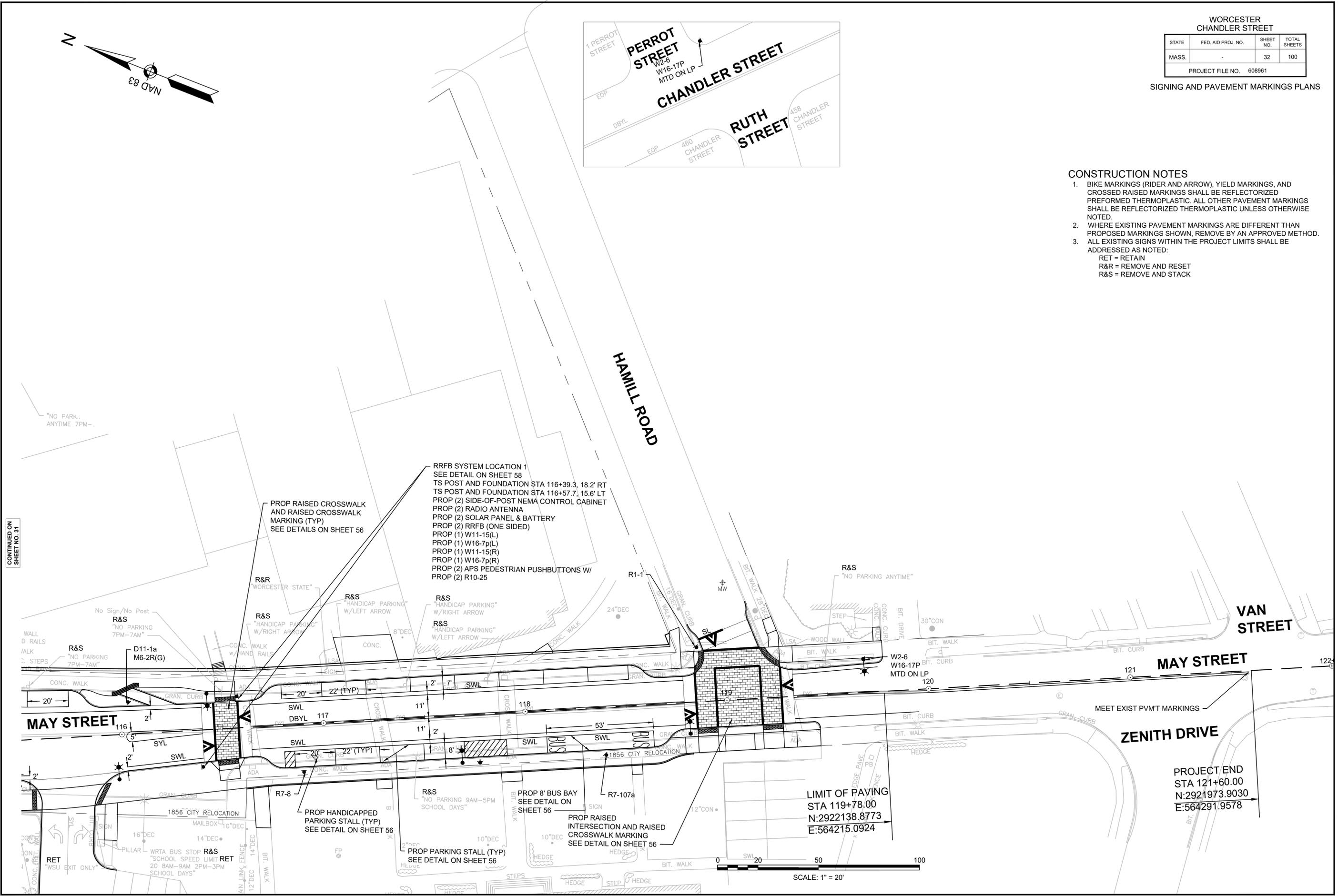
WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	32	100

PROJECT FILE NO. 608961  
SIGNING AND PAVEMENT MARKINGS PLANS

CONSTRUCTION NOTES

- BIKE MARKINGS (RIDER AND ARROW), YIELD MARKINGS, AND CROSSED RAISED MARKINGS SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC. ALL OTHER PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC UNLESS OTHERWISE NOTED.
- WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
- ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE ADDRESSED AS NOTED:  
RET = RETAIN  
R&R = REMOVE AND RESET  
R&S = REMOVE AND STACK



CONTINUED ON  
SHEET NO. 31

PROJECT END  
STA 121+60.00  
N:2921973.9030  
E:564291.9578

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	33	100

PROJECT FILE NO. 608961

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
R1-1	30"	30"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			3	RED	WHITE	WHITE	2	6.25	18.75
R1-2	36"X36"X36"						12	WHITE	RED	WHITE	12	3.90	46.80
R3-2	24"	24"					2	WHITE	RED/BLACK	WHITE	2 MTD W/ R6-1(R)	4.00	8.00
R3-4	24"	24"					5	WHITE	RED/BLACK	WHITE	5	4.00	20.00
R3-5R	30"	36"					1	WHITE	BLACK	BLACK	1	7.50	7.50
R3-17	24"	18"					2	BLACK --- WHITE	WHITE --- BLACK	WHITE --- BLACK	2	3.00	6.00
R4-7	24"	30"		MOUNTED WITH BOTTOM OF PANEL 5- FEET ABOVE ROADWAY GRADE			8	WHITE	BLACK	BLACK	3 5 MTD B-B W/ R3-4	5.00	40.0
R6-1R (POS)	36"	12"					2	BLACK --- WHITE	WHITE --- BLACK	WHITE --- BLACK	2	3.00	6.00
R6-4	30"	24"		MOUNTED WITH BOTTOM OF PANEL 5- FEET ABOVE CIRCULATORY ROADWAY			7	WHITE	BLACK	BLACK	7	3.00	21.00
R7-1d	12"	18"					1	WHITE	RED	RED	1	1.50	1.50
R7-1R	12"	18"					1	WHITE	RED	RED	1	1.50	1.50
R7-1L	12"	18"					1	WHITE	RED	RED	1 MTD ON LP	1.50	1.50
R7-5(2HR)	12"	18"					2	WHITE	GREEN	GREEN	1 1 MTD ON LP	1.50	3.00
R7-8	12"	18"					3	WHITE	GREEN	GREEN	3	1.50	4.50
R7-107A (SEE NOTE 4)	18"	24"		AS PER WORCESTER REGIONAL TRANSIT AUTHORITY STANDARDS			3	WHITE	RED/ BLUE	RED	3	(SEE NOTE 4)	
R10-25	9"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			4	WHITE	BLACK	BLACK	4 MTD ON TS POST	PAID FOR UNDER ITEM 825.2	
W2-6	30"	30"					4	YELLOW	BLACK	BLACK	1 3 MTD ON LP	6.25	25.00

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
W16-17P	24"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			4	YELLOW	BLACK	BLACK	4 MTD W/ W2-6	2.00	8.00
W11-15(L)	30"	30"					15	FLOUR-ESCENT YELLOW/ GREEN	BLACK	BLACK	9 6 MTD ON LP	6.25	93.75
W11-15(R)	30"	30"					16	FLOUR-ESCENT YELLOW/ GREEN	BLACK	BLACK	8 8 MTD BACK-TO-BACK	6.25	100.00
W16-7p(L)	24"	12"					15	FLOUR-ESCENT YELLOW/ GREEN	BLACK	BLACK	9 MTD W/ W11-15(L) 6 MTD ON LP W/ W11-15(L)	2.00	30.00
W16-7p(R)	24"	12"					16	FLOUR-ESCENT YELLOW/ GREEN	BLACK	BLACK	16 MTD W/ W11-15(R)	2.00	32.00
OM1-1	24"	24"		MOUNTED WITH BOTTOM OF PANEL 4- FEET ABOVE ROADWAY GRADE			6	YELLOW	YELLOW CLUSTER	---	4 MTD W/ MA-MA-5(122) 2 MTD W/ D1-1b	4.00	24.00
MA-M1-5(122)	30"	24"		AS PER MASSDOT STANDARDS			4	WHITE	BLACK	BLACK	4	5.00	20.00
M3-1	24"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			2	WHITE	BLACK	BLACK	2 MTD W/ MA-MA-5(122)	2.00	4.00
M3-3	24"	12"					2	WHITE	BLACK	BLACK	2 MTD W/ MA-MA-5(122)	2.00	4.00
M6-2L(G)	21"	15"					3	GREEN	WHITE	WHITE	3 MTD W/ D11-1a	2.19	6.57
M6-2L(W)	21"	15"					4	WHITE	BLACK	BLACK	4 MTD W/ R3-17	2.19	8.76
M6-2R(G)	21"	15"					4	GREEN	WHITE	WHITE	3 MTD W/ D11-1a 1 MTD ON LP W/ D11-1a	2.19	8.76
M6-2R(W)	21"	15"					4	WHITE	BLACK	BLACK	4 MTD W/ MA-MA-5(122)	2.19	8.76

TRAFFIC SIGN SUMMARY (CONTINUED NEXT SHEET)

- NOTES:
- 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.
  - ALL PROPOSED REGULATORY AND WARNING SIGNS SHALL BE 0.08" ALUMINUM WITH HIGH INTENSITY PRISMATIC REFLECTIVE SHEETING.
  - PARKING SIGNS SHALL BE ENGINEERING-GRADE RETRO-REFLECTIVE SHEETING ON 0.08" ALUMINUM.
  - WRTA BUS SIGNS WILL BE PROVIDED TO THE CONTRACTOR BY THE CITY OF WORCESTER.
  - 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.
  - (POS) = PRINTED ONE SIDE

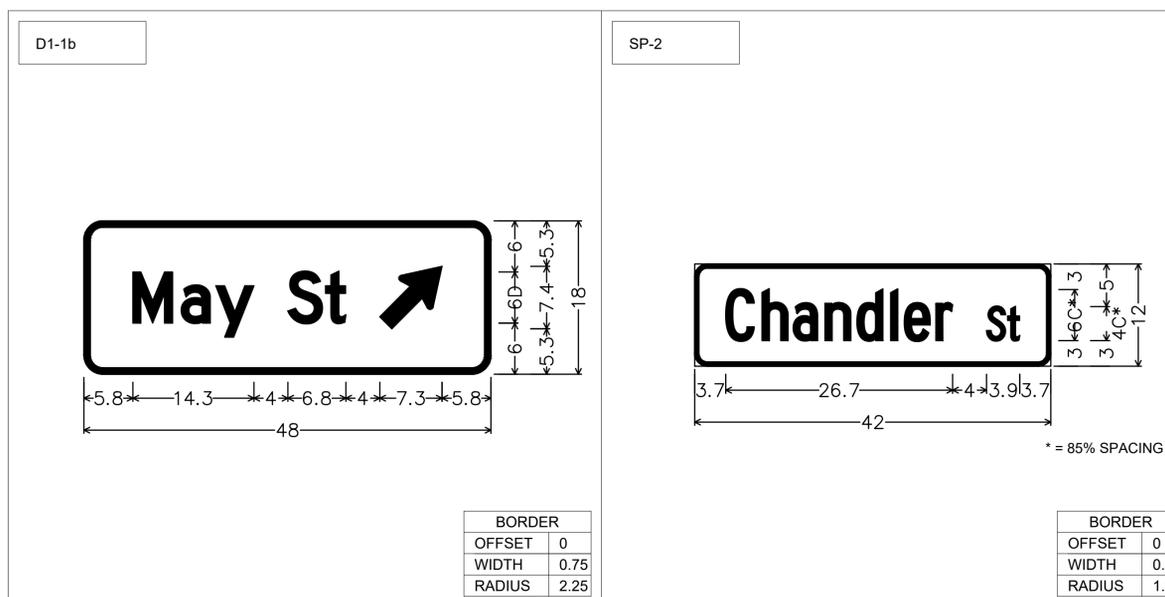
WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	34	100
PROJECT FILE NO. 608961			

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
	D1-1b	48"		18"		6"D		6" 6"	9"x6" @45°	2			
D11-1a	24"	18"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			6	GREEN	WHITE	WHITE	5 1 MTD ON LP	3	18.00
SP-2	42"	12"		6"1/4"C	3" 3"	N/A	4	GREEN	WHITE	WHITE	4 MTD W/MA-M1-5(122)	3.50	14.00

- NOTES:
- 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.
  - ALL PROPOSED REGULATORY AND WARNING SIGNS SHALL BE 0.08" ALUMINUM WITH HIGH INTENSITY PRISMATIC REFLECTIVE SHEETING.
  - PARKING SIGNS SHALL BE ENGINEERING-GRADE RETRO-REFLECTIVE SHEETING ON 0.08" ALUMINUM.
  - WRTA BUS SIGNS WILL BE PROVIDED TO THE CONTRACTOR BY THE CITY OF WORCESTER.
  - 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.



- NOTES:
- ALL MEASUREMENTS ARE IN INCHES.

**GENERAL NOTES**

- 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).
- 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.
- NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY THE DAY BEFORE, AFTER OR ON A STATE RECOGNIZED HOLIDAY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 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).
- ALL DRUMS OUTSIDE TAPERS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
- 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.
- 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.
- REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
- CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
- 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.
- 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.
- FOR DROP-OFFS 4" OR LESS WITHIN THE CLEAR ZONE, CONDITION MAY BE MITIGATED WITH W8-9 (LOW SHOULDER) SIGN OR TEMPORARY CANALIZATION DEVICES.
- 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.
- CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:  
4' IF POSTED SPEED IS LESS THAN 35 MPH
- 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
- NON-ESSENTIAL TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
- SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
- 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.
- SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN. CONTRACTOR SHALL MAINTAIN A MINIMUM SIDEWALK HORIZONTAL CLEAR WIDTH OF 36" AT ALL TIMES
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN NCHRP 350 AND/OR MASH CRASH TESTED SIGN SUPPORTS AND INSTALLED IN ACCORDANCE WITH THE MUTCD.
- MA-W20-7b SIGNS SHALL BE REPLACED BY W20-7 SIGNS WHEN FLAGGERS ARE USED IN LIEU OF POLICE OFFICER DETAILS.
- 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.
- W8-15 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF PAVEMENT MILLING AREAS OR AS REQUESTED BY THE ENGINEER.
- TEMPORARY MARKINGS SHALL BE WATER-BORNE PAINT OR SURFACE-APPLIED REMOVABLE TAPE, AS APPROVED BY THE ENGINEER.
- ALL TEMPORARY CROSSWALKS AND STOP LINES SHALL BE 12 INCHES WIDE.
- W8-15 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF PAVEMENT MILLING AREAS OR AS REQUESTED BY THE ENGINEER.
- ALL TEMPORARY DOUBLE YELLOW LINES (DBYL) SHALL BE 6 INCHES WIDE.
- 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.
- CONTRACTOR SHALL SECURE WORK AREAS, BY AN APPROPRIATE METHOD, TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
- BICYCLES ARE EXPECTED TO SHARE THE ROAD WITH GENERAL VEHICULAR TRAFFIC.
- NIGHTTIME WORK SHALL REQUIRE PRIOR APPROVAL FROM MASSDOT AND THE CITY.
- ILLUMINATION REQUIRED FOR NIGHTTIME WORK APPROVED BY THE ENGINEER SHALL BE DIFFUSED OR ANTI-GLARE LIGHTING AND IN ACCORDANCE WITH MASSDOT STANDARDS.
- CONTRACTOR SHALL PROVIDE 4 PORTABLE CHANGE MESSAGE SIGN (PCMS) A MINIMUM OF 7 DAYS PRIOR TO AND FOR THE DURATION OF CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE ALL WORK ACTIVITIES, INCLUDING DETOURS, WITH THE WORCESTER REGIONAL TRANSIT AUTHORITY (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.
- 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
- CONTRACTOR SHALL RETAIL AT LEAST ONE ENTRANCE & EXIST TO WORCESTER STATE UNIVERSITY (WSU) AT ALL TIMES UNLESS OTHERWISE COORDINATED WITH THE UNIVERSITY. CONTRACTOR SHOULD ATTEMPT TO LIMIT SIGNIFICANT IMPACTS TO DRIVEWAYS TO SUMMER AND OTHER NON-SCHOOL DAYS.
- VEHICULAR DETOURS ARE NOT ANTICIPATED AND THE ROADWAYS SHALL REMAIN OPEN TO PASSENGER CARS, LIGHT GOOD TRUCKS, EMERGENCY VEHICLES, AND BUSES (TRANSIT AND SCHOOL) AT ALL TIMES. DETOURING LARGE VEHICLES & TRACTOR-TRAILERS FOR ACTIVITIES SUCH AS ROUNDABOUT APRON CONSTRUCTION REQUIRES COORDINATION WITH AND APPROVAL FROM THE CITY OF WORCESTER

**MAJOR WORK ACTIVITY NOTES**

**PROPOSED UTILITIES (WATER, SEWER, AND DRAINAGE)**

- 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.
- CONTRACTOR SHALL MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS AT ALL TIMES.
- 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**

- 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.
- CONTRACTOR SHALL MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS AT ALL TIMES.
- 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.

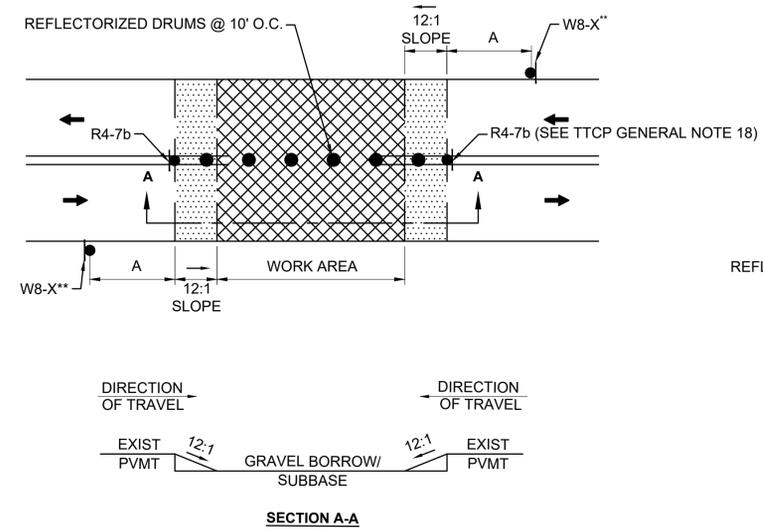
WORCESTER CHANDLER STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	35	100
PROJECT FILE NO. 608961			

**TEMPORARY TRAFFIC CONTROL PLANS  
GENERAL NOTES & LEGEND**

LEGEND	
	POLICE OFFICER
	TRAFFIC SIGNAL
	REFLECTORIZED DRUM
	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS (SEE NOTE 7)
	TEMPORARY CONSTRUCTION SIGN
	TRAFFIC CONE
	TYPE III BARRICADE
	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
TTCP	TEMPORARY TRAFFIC CONTROL PLAN

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

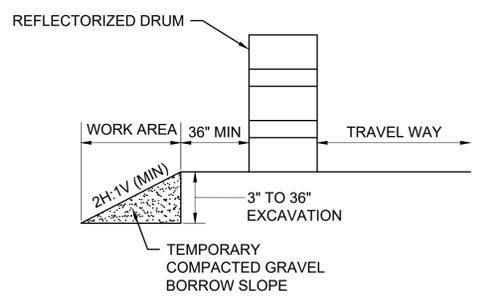
LANE TAPER LENGTH FORMULAS	
L=	TAPER LENGTH IN FEET
W=	WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED IN FEET
S=	POSTED SPEED LIMIT IN MPH
POSTED SPEED	
40 MPH OR LESS	
$L = \frac{WS^2}{60}$	



- NOTES:**
- SQUARE OFF THE FULL WIDTH OF THE ROADWAY AT THE END OF WORK DAY.
  - \*\* 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.

**TEMPORARY PAVEMENT TRANSITION**  
SCALE: NTS

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



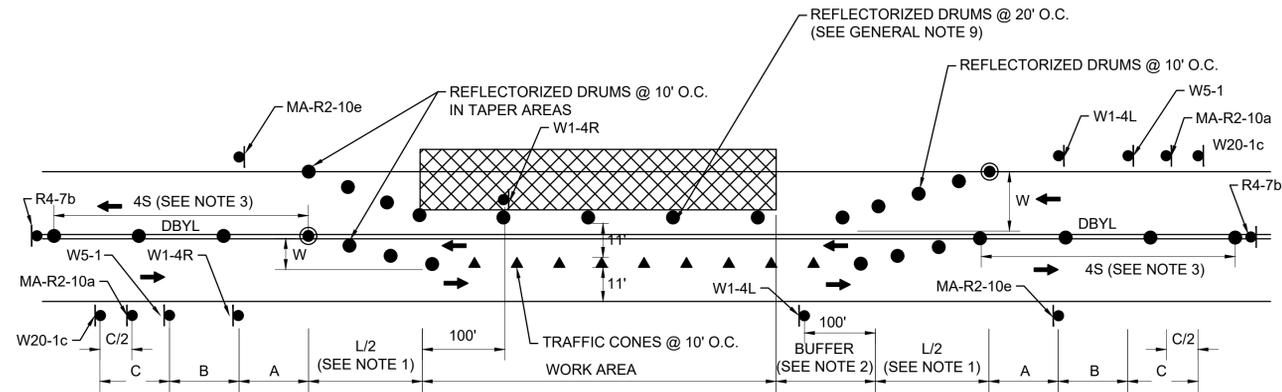
- NOTE:**
- CONTRACTOR SHALL INSTALL W8-9 SIGN ON ALL ROADWAYS 350 FT IN ADVANCE OF THE START OF DROP-OFF CONDITION.

**TYPICAL ROADWAY DROP-OFF PROTECTION**  
SCALE: NTS

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	36	100
PROJECT FILE NO. 608961			

TEMPORARY TRAFFIC CONTROL PLANS  
TYPICAL DETAILS

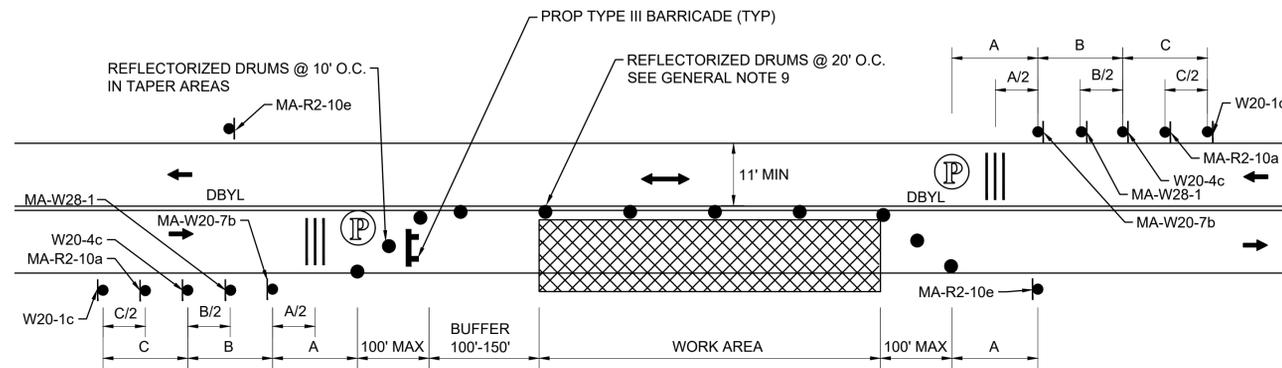


NOTES:

1. SEE TAPER LENGTH FORMULA ON TTCP GENERAL NOTES & LEGEND SHEET.
2. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
3. S = POSTED SPEED OF ROADWAY IN MPH. DRUMS CAN BE OMITTED AT THE DISCRETION OF THE RESIDENT ENGINEER.
4. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.
5. REFER TO TTCP GENERAL NOTE 28 REGARDING ADVANCED SIGNAGE.

**TYPICAL TWO-WAY STREET LANE SHIFT**

SCALE: NTS

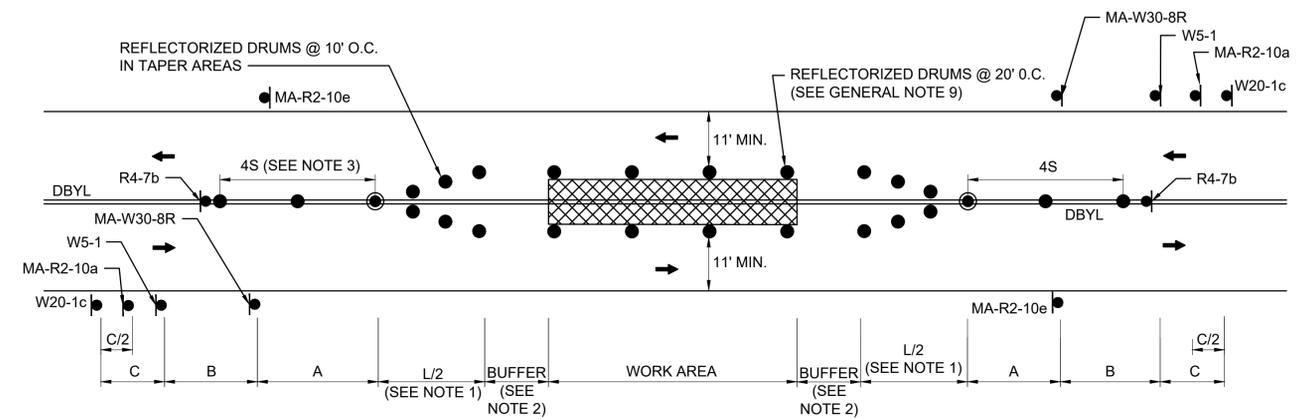


NOTES:

1. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
2. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.
3. REFER TO TTCP GENERAL NOTE 28 REGARDING ADVANCED SIGNAGE.

**TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC**

SCALE: NTS



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. DRUMS CAN BE OMITTED AT THE DISCRETION OF THE RESIDENT ENGINEER.
4. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.
5. REFER TO TTCP GENERAL NOTE 28 REGARDING ADVANCED SIGNAGE.

**TYPICAL TWO-WAY STREET CENTER WORK AREA**

SCALE: NTS

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	37	100

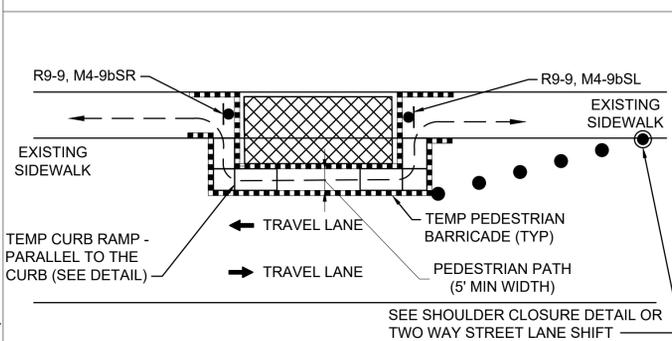
PROJECT FILE NO. 608961

TEMPORARY TRAFFIC CONTROL PLANS  
TYPICAL DETAILS

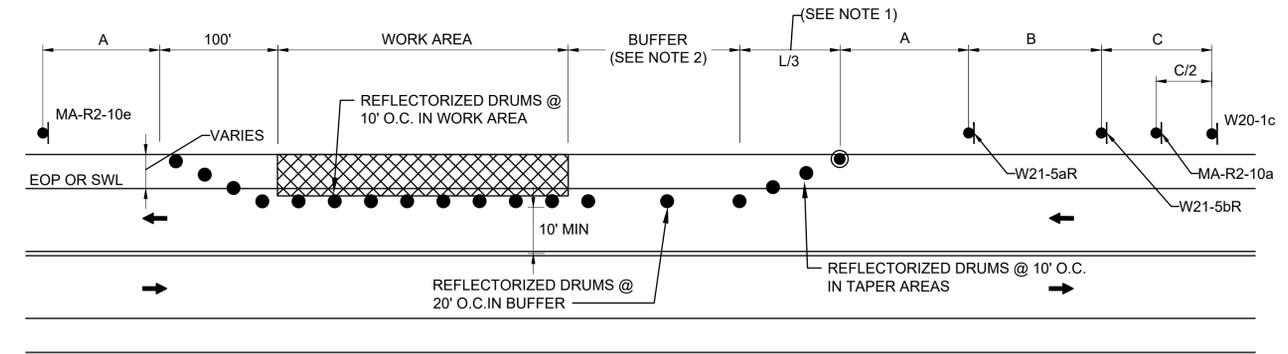
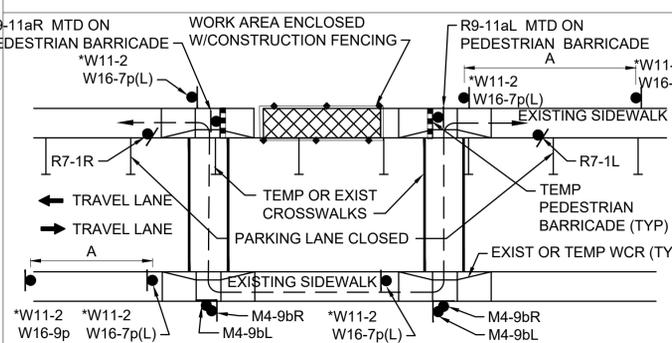
NOTES:

- ADDITIONAL ADVANCE WARNING SIGNS MAY BE NECESSARY AS DETERMINED BY THE ENGINEER.
- CONTROLS FOR PEDESTRIAN TRAFFIC ONLY, ARE SHOWN. VEHICULAR TRAFFIC SHALL BE MAINTAINED AS SHOWN ELSEWHERE.
- STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
- → → INDICATES DIRECTION OF PEDESTRIAN TRAVEL.
- 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.
- PROPOSED TEMPORARY CROSSWALKS SHALL BE 12" WIDE SURFACE APPLIED TAPE OR REFLECTORIZED PAINT AS DIRECTED BY THE ENGINEER.
- 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.
- 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.
- TEMPORARY WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT, MAAB, AND ADAAG REQUIREMENTS.
- TEMPORARY PEDESTRIAN BARRICADE SHALL BE PAID FOR UNDER ITEM 852.11 TEMPORARY PEDESTRIAN BARRICADE.
- TEMPORARY PEDESTRIAN CURB RAMPS SHALL BE PAID FOR UNDER ITEM 852.12 TEMPORARY PEDESTRIAN CURB RAMP.
- \* INDICATES SIGNS ARE NOT REQUIRED IF EXISTING CROSSWALKS ARE USED.

PEDESTRIAN BYPASS TYPE I



PEDESTRIAN BYPASS TYPE II



NOTES:

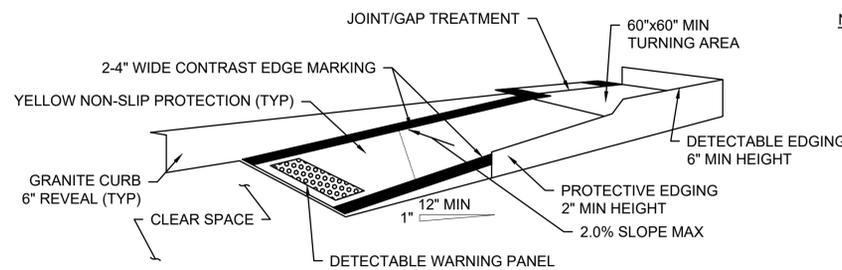
- SEE TAPER LENGTH FORMULA ON TTCP GENERAL NOTES & LEGEND SHEET.
- SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
- SEE ADVANCE SIGN SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
- ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED BEYOND MINIMUM SPACING SHOWN AS NECESSARY.
- REFER TO TTCP GENERAL NOTE 28 REGARDING ADVANCED SIGNAGE.

SHOULDER/PARKING LANE WORK WITH MINOR ENCROACHMENT

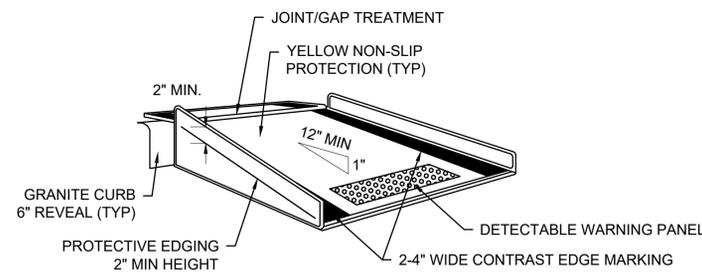
SCALE: NTS

PEDESTRIAN BYPASS DETAIL

SCALE: NTS



TEMPORARY CURB RAMP-PARALLEL TO CURB



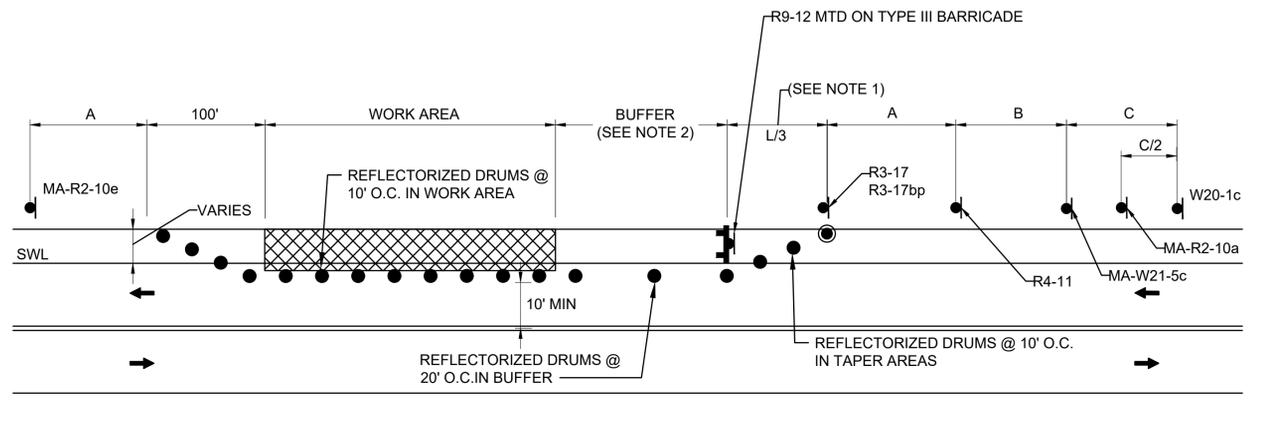
TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

TEMPORARY CURB RAMPS

SCALE: NTS

NOTES:

- CURB RAMPS SHALL BE 60" MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
- 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.
- DETECTABLE EDGING WITH 6" MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
- CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
- CLEAR SPACE OF 48"x48" MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
- LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5" WIDTH.
- 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.
- 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.



NOTES:

- SEE TAPER LENGTH FORMULA ON TTCP GENERAL NOTES & LEGEND SHEET.
- SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
- SEE ADVANCE SIGN SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
- ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED BEYOND MINIMUM SPACING SHOWN AS NECESSARY.
- REFER TO TTCP GENERAL NOTE 28 REGARDING ADVANCED SIGNAGE.

BICYCLE LANE WORK WITH MINOR ENCROACHMENT

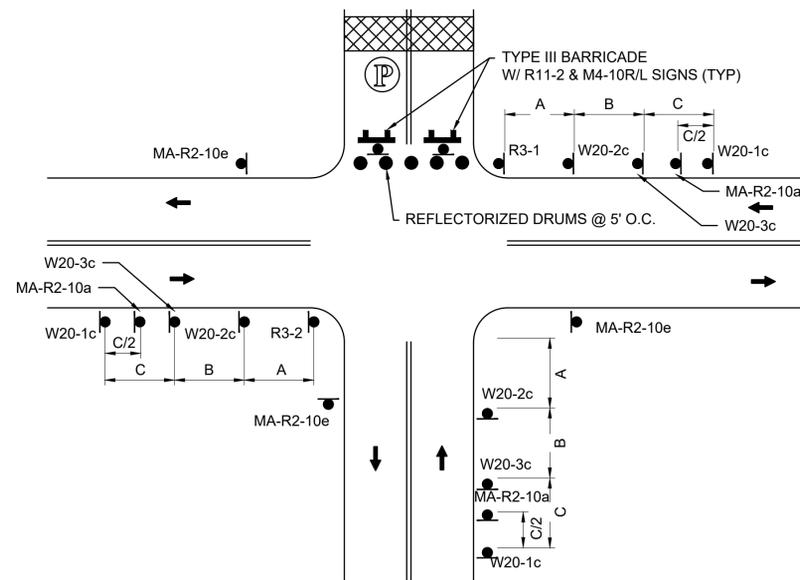
SCALE: NTS

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	38	100

PROJECT FILE NO. 608961

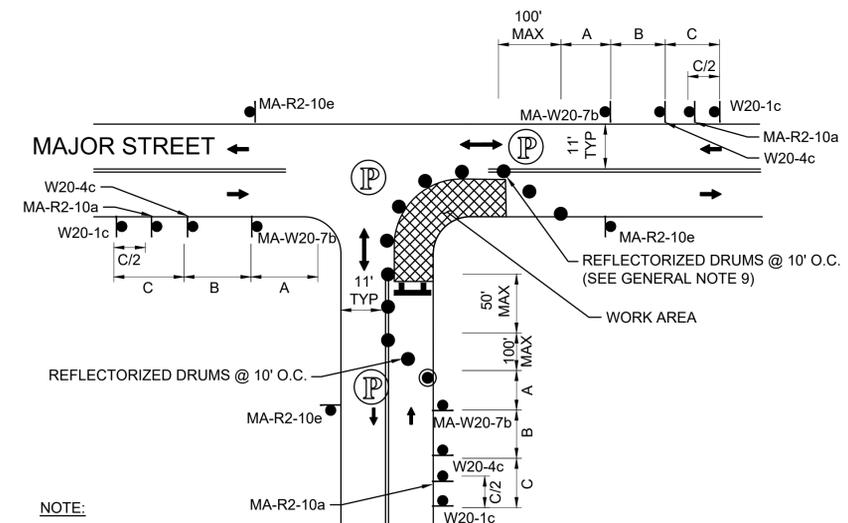
TEMPORARY TRAFFIC CONTROL PLANS  
TYPICAL DETAILS



- NOTE:
1. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.
  2. REFER TO TTCP GENERAL NOTE 28 REGARDING ADVANCED SIGNAGE.

**TYPICAL LOCAL ROAD CLOSURE**

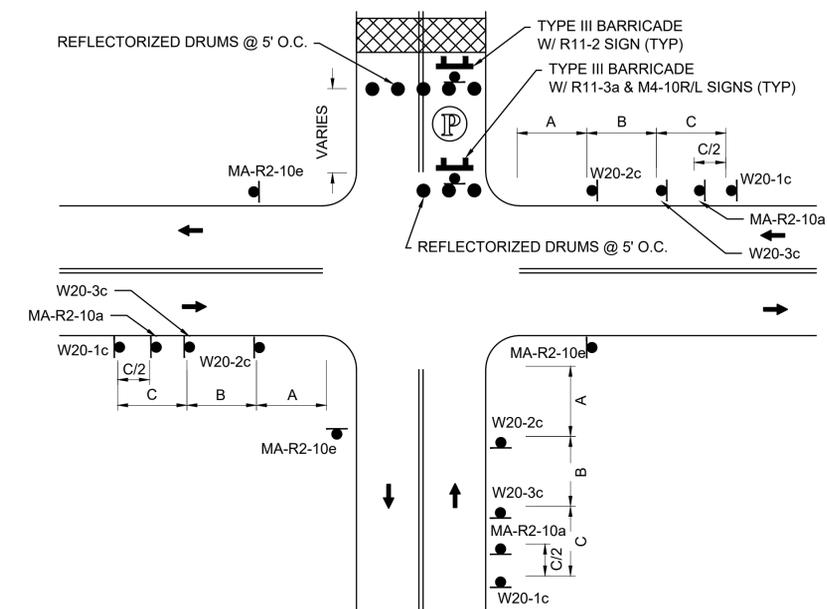
SCALE: NTS DWG: TTCP5a DATE: NOVEMBER 2020



- NOTE:
1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
  2. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.
  3. REFER TO TTCP GENERAL NOTE 28 REGARDING ADVANCED SIGNAGE.

**ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTIONS - FAR SIDE**

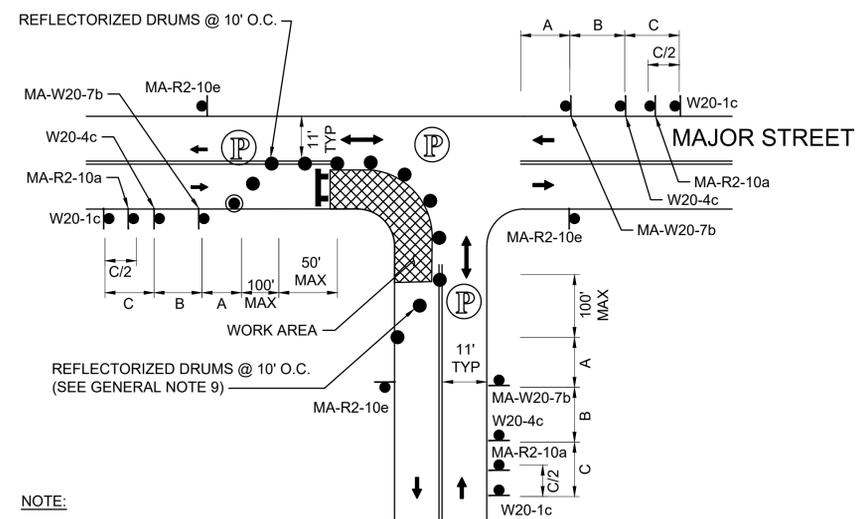
SCALE: NTS DWG: TTCP4c DATE: NOVEMBER 2020



- NOTE:
1. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.
  2. REFER TO TTCP GENERAL NOTE 28 REGARDING ADVANCED SIGNAGE.

**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.
  3. REFER TO TTCP GENERAL NOTE 28 REGARDING ADVANCED SIGNAGE.

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

SCALE: NTS DWG: TTCP4d DATE: NOVEMBER 2020

WORCESTER  
CHANDLER STREET

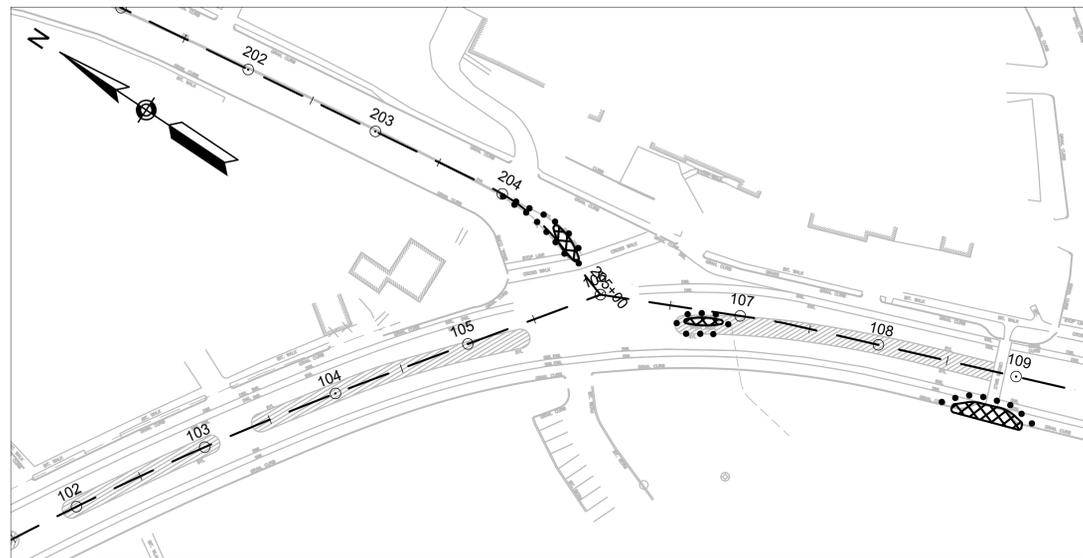
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	39	100
PROJECT FILE NO. 608961			

TEMPORARY TRAFFIC CONTROL PLANS  
SUGGESTED SEQUENCING - NORTH ROUNDABOUT

**SEQUENCING NOTES**

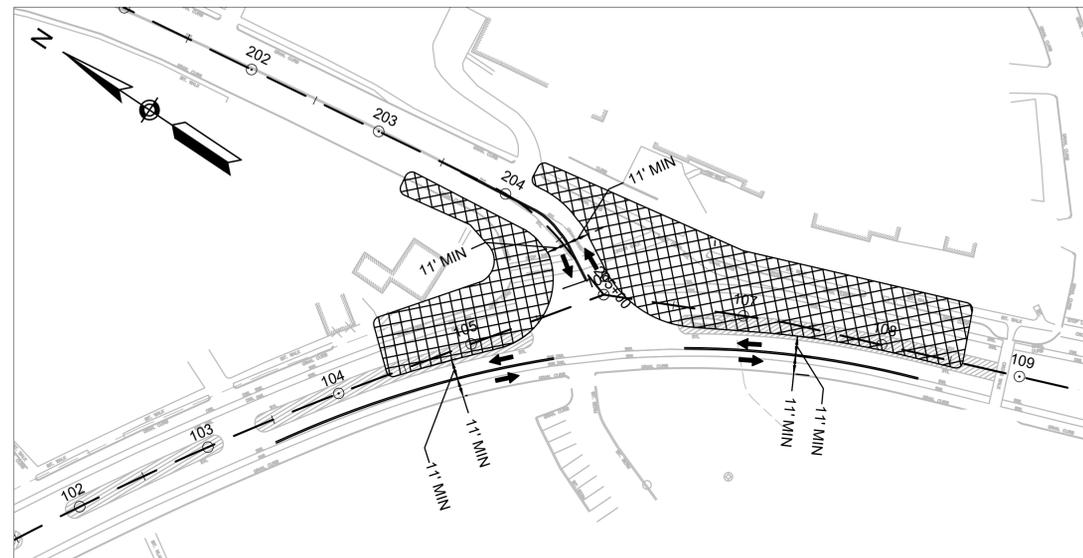
MAINTAIN PEDESTRIAN ACCESS ALONG WESTERLY SIDEWALK OF CHANDLER STREET. BICYCLES TO SHARE THE ROAD DURING CONSTRUCTION, PARKING WITHIN THE WORK AREAS WILL BE ELIMINATED DURING CONSTRUCTION. SUGGESTED SEQUENCE IS AS FOLLOWS:

1. REMOVE EXISTING ISLANDS AND BUMP OUT WITHIN CHANDLER AND MAY STREETS. REPLACE WITH TEMP PAVEMENT.
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.
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. COORDINATE WITH WORCESTER STATE UNIVERSITY FOR ANY WORK THAT IMPACTS DRIVEWAY ACCESS.
4. CONSTRUCT CENTER ISLAND.
5. CONSTRUCT SPLITTER ISLANDS AND TRUCK APRON ADJACENT TO ISLAND. MAINTAIN ONE PEDESTRIAN CROSSING OF CHANDLER STREET AT ALL TIMES.
6. CONSTRUCT RAISED CROSSWALKS USING ALTERNATING TRAFFIC DETAIL.
7. PERFORM FINAL PAVING AND PAVEMENT MARKING INSTALLATION.



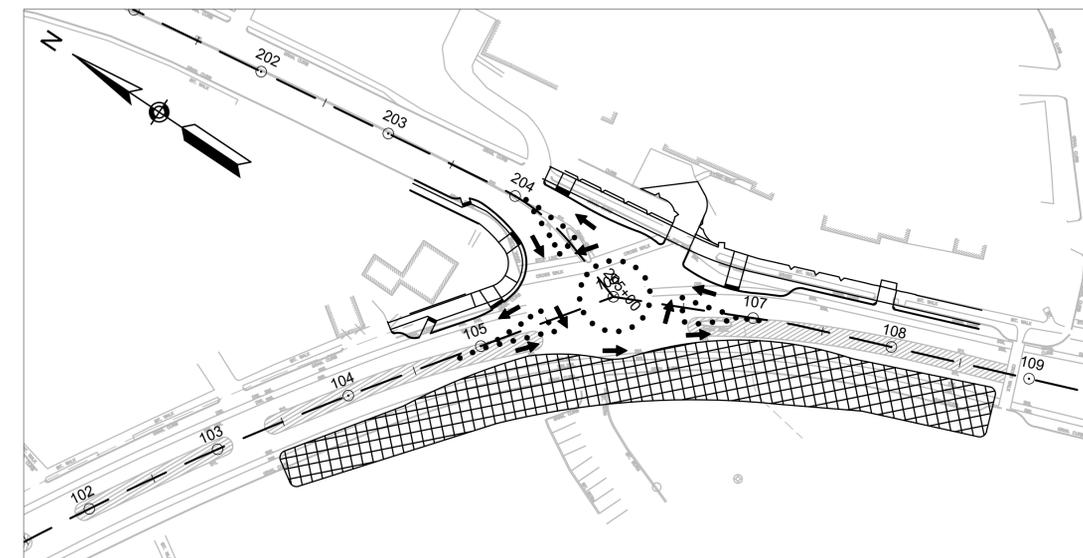
SCALE: 1"=60'

**STAGE 1**



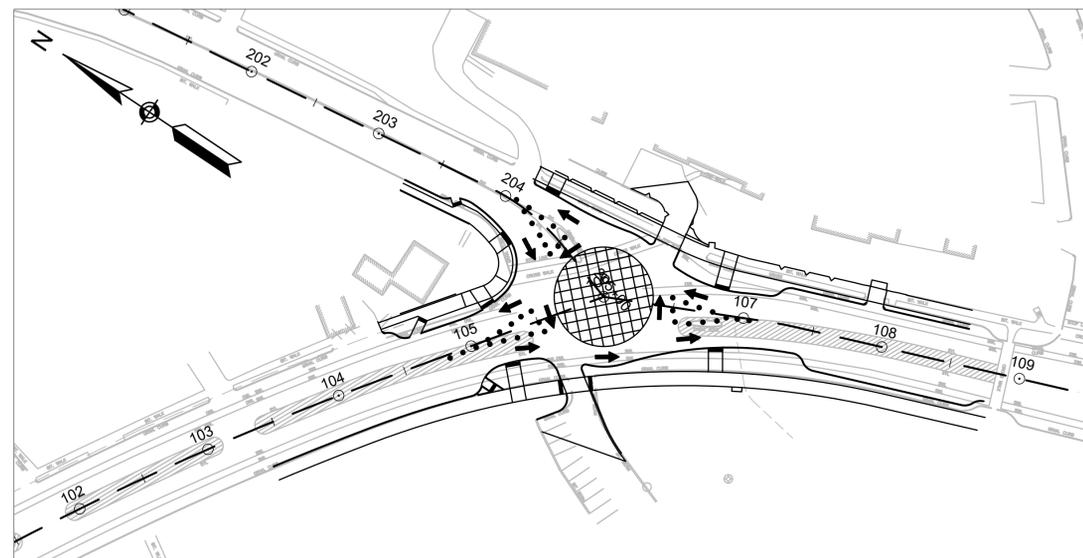
SCALE: 1"=60'

**STAGE 2**



SCALE: 1"=60'

**STAGE 3**

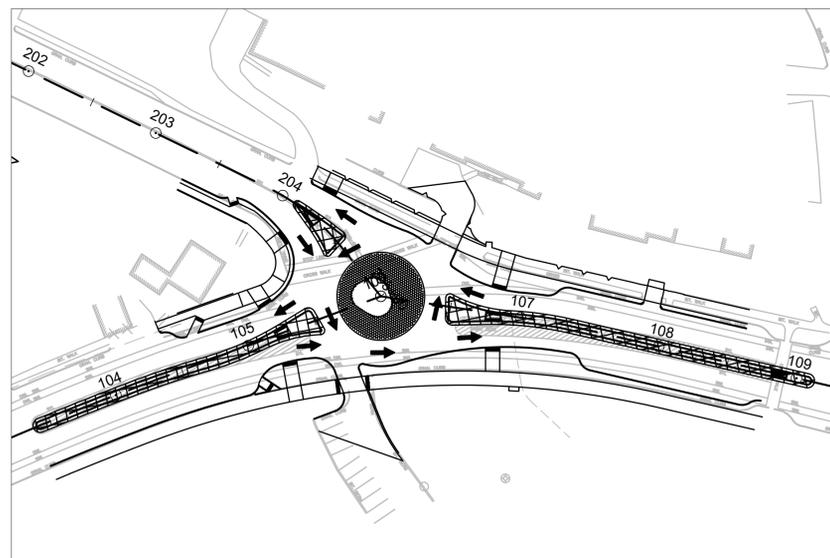


SCALE: 1"=60'

**STAGE 4**

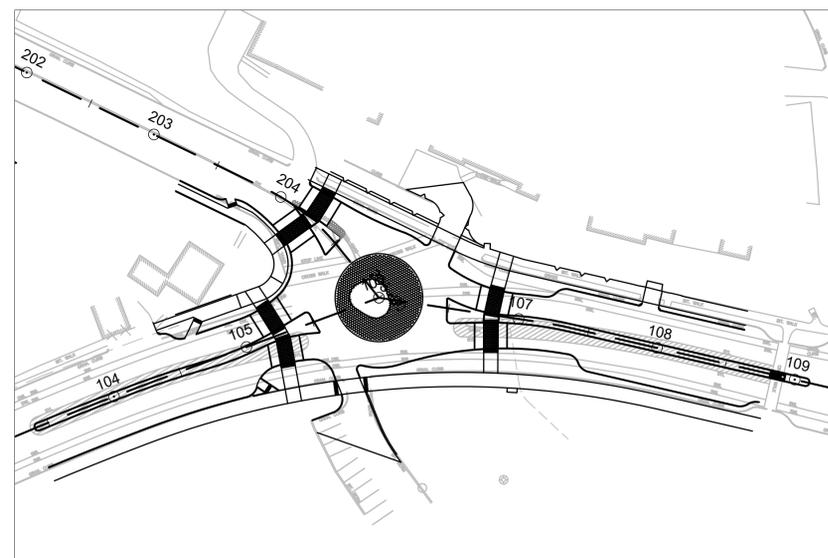
**LEGEND**

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



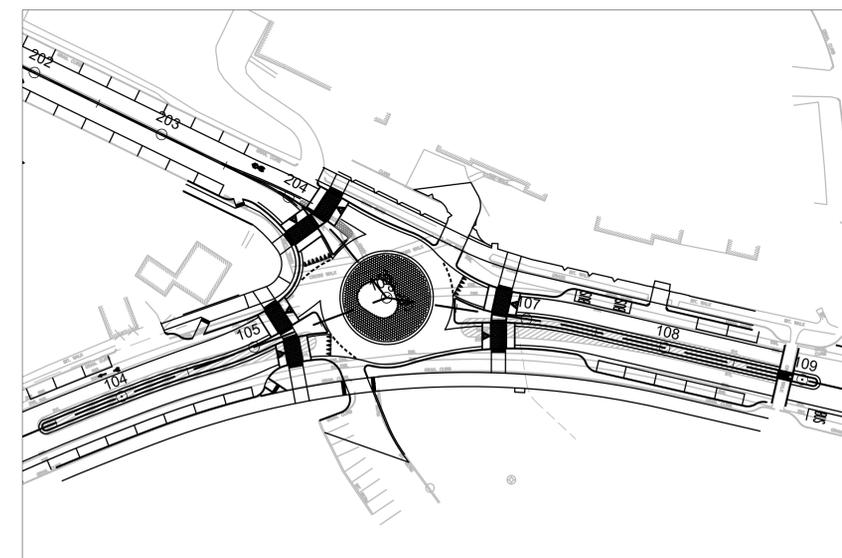
SCALE: 1"=60'

**STAGE 5**



SCALE: 1"=60'

**STAGE 6**



SCALE: 1"=60'

**STAGE 7**

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	40	100

PROJECT FILE NO. 608961

TEMPORARY TRAFFIC CONTROL PLANS  
SUGGESTED SEQUENCING - SOUTH ROUNDABOUT

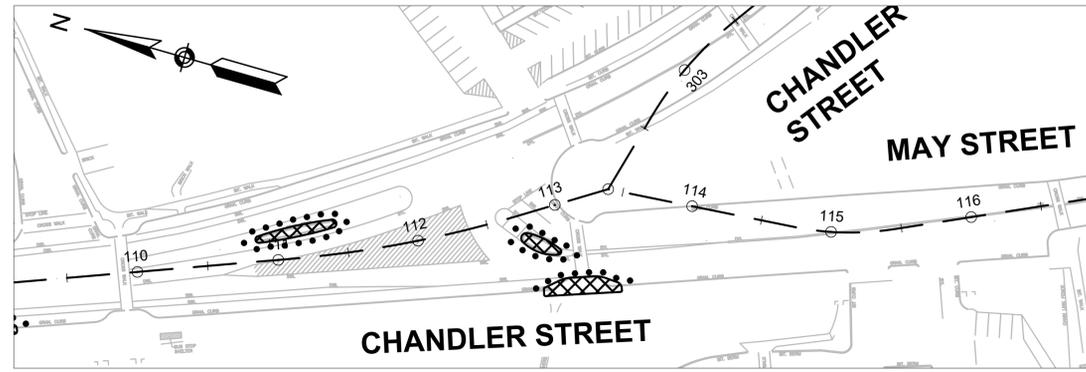
**SEQUENCING NOTES**

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. SUGGESTED SEQUENCE IS AS FOLLOWS:

1. REMOVE EXISTING ISLANDS AND BUMP OUT WITHIN CHANDLER STREET.
2. SHIFT CHANDLER STREET TRAFFIC TO THE EAST. WIDEN SOUTHERN CORNER OF INTERSECTION. INSTALL CURB AND PAVEMENT TO BINDER AND PORTIONS OF SPLITTER ISLAND CURB.
3. SHIFT CHANDLER STREET TRAFFIC THE WEST. WIDEN EASTERN CORNER OF INTERSECTION. INSTALL CURB AND PAVEMENT TO BINDER.
4. IMPLEMENT ROUNDABOUT PATTERN USING DRUMS. SHIFT NORTHBOUND AND SOUTHBOUND TRAFFIC TO NEW ALIGNMENT. INSTALL WESTERLY CURB AND PAVEMENT. MAINTAIN PEDESTRIAN ACCESS AND/OR DETOUR PEDESTRIANS TO WESTERLY ADA-COMPLIANT SIDEWALK.
5. CONSTRUCT CENTER ISLAND.
6. CONSTRUCT SPLITTER ISLANDS. MAINTAIN ONE PEDESTRIAN CROSSING OF CHANDLER STREET AT ALL TIMES.
7. CONSTRUCT RAISED CROSSWALKS USING ALTERNATING TRAFFIC DETAIL.
8. PERFORM FINAL PAVING AND PAVEMENT MARKING INSTALLATION.

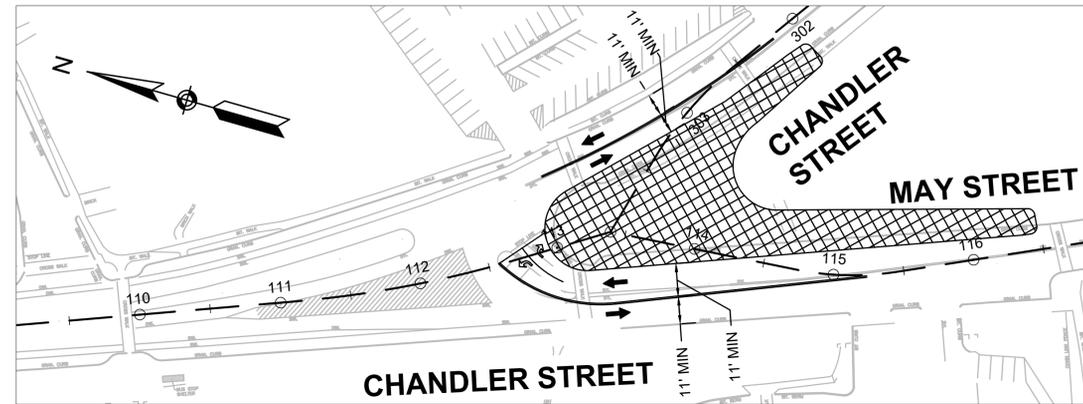
**LEGEND**

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



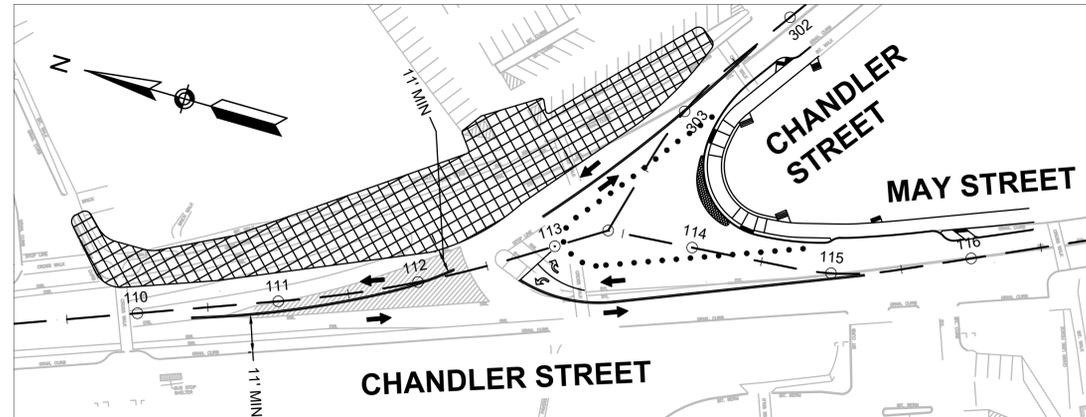
SCALE: 1"=60'

**STAGE 1**



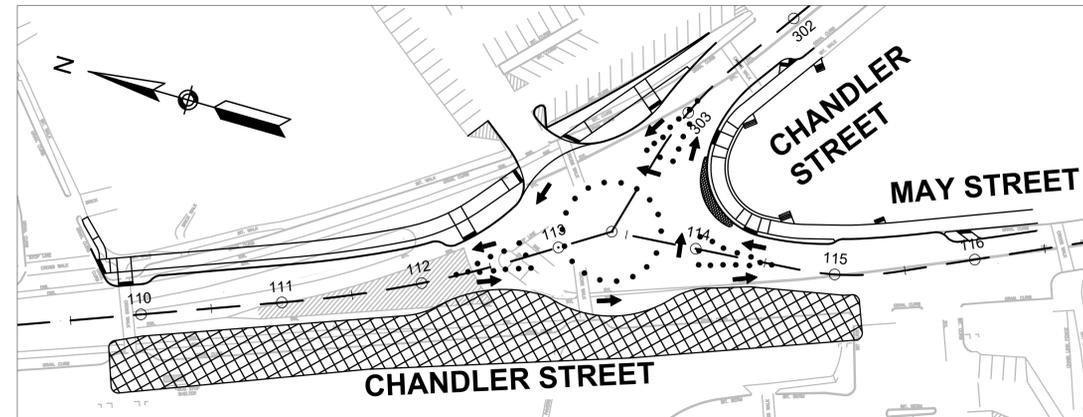
SCALE: 1"=60'

**STAGE 2**



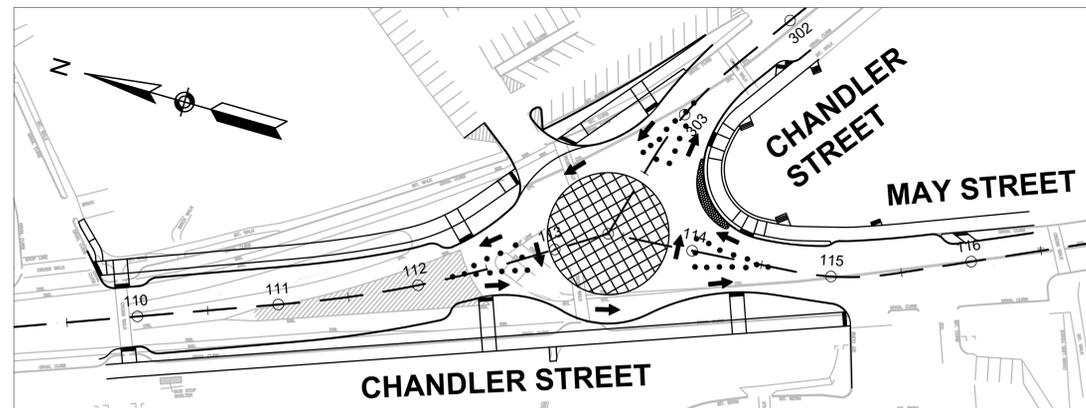
SCALE: 1"=60'

**STAGE 3**



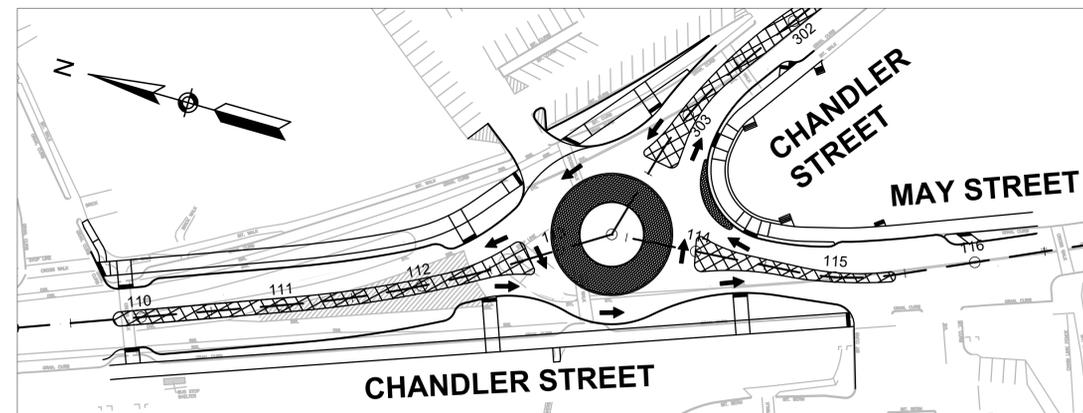
SCALE: 1"=60'

**STAGE 4**



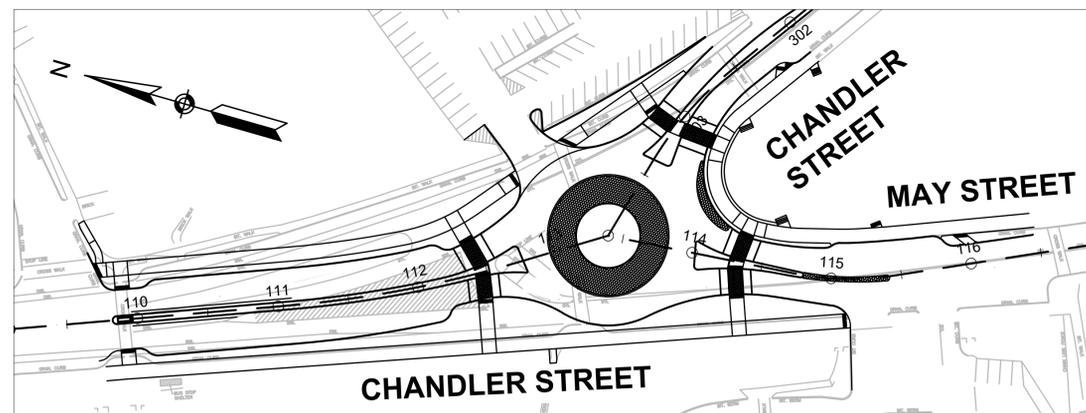
SCALE: 1"=60'

**STAGE 5**



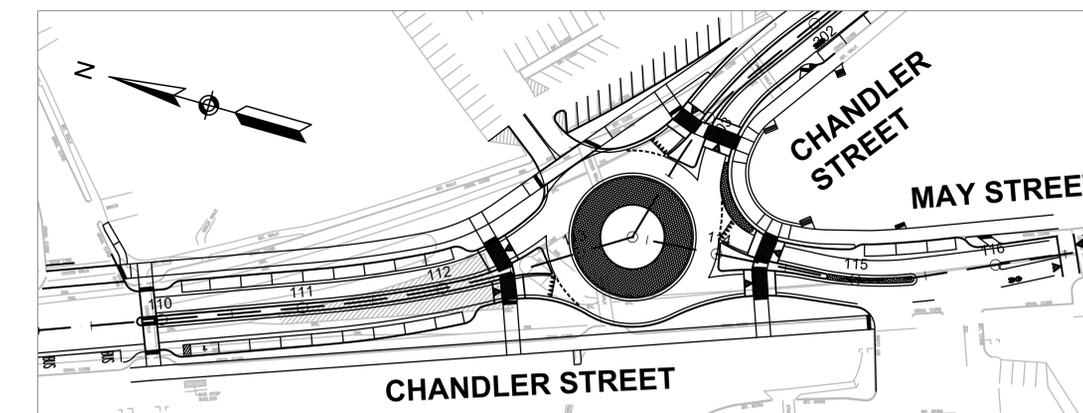
SCALE: 1"=60'

**STAGE 6**



SCALE: 1"=60'

**STAGE 7**



SCALE: 1"=60'

**STAGE 8**

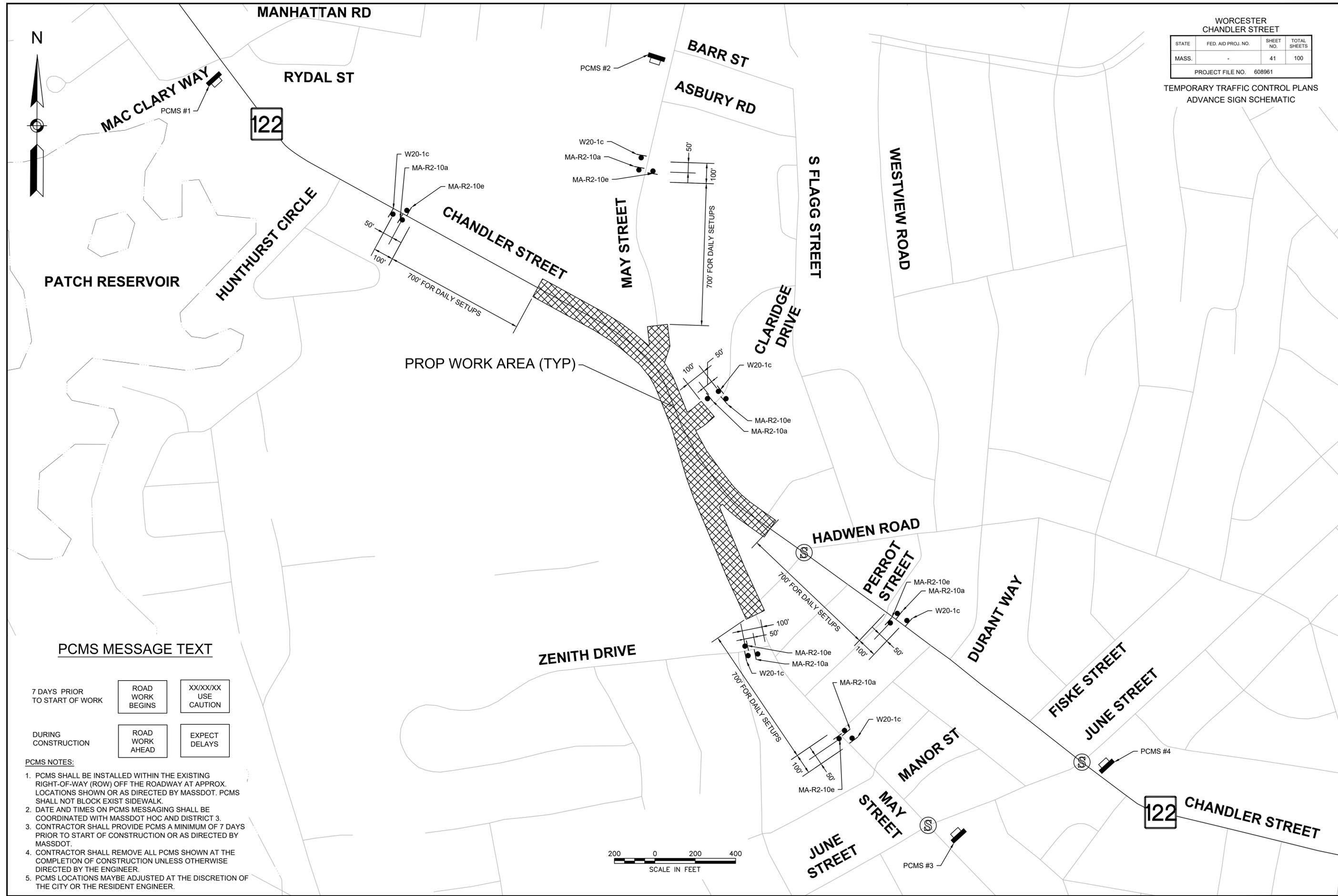
WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	41	100

PROJECT FILE NO. 608961

TEMPORARY TRAFFIC CONTROL PLANS  
ADVANCE SIGN SCHEMATIC

13294.01\_HDT(TCP).DWG Plotted on 12-Feb-2025 7:08 PM



PCMS MESSAGE TEXT

7 DAYS PRIOR  
TO START OF WORK

ROAD WORK BEGINS	XX/XX/XX USE CAUTION
------------------------	----------------------------

DURING  
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.
5. PCMS LOCATIONS MAYBE ADJUSTED AT THE DISCRETION OF THE CITY OR THE RESIDENT ENGINEER.



TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR			UNIT AREA (S.F.)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER	
MA-R2-10a	48"	36"		AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK	12.00
MA-R2-10e	36"	48"		AS PER MASSDOT STANDARD			WHITE 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"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	RED/BLACK	BLACK	4.00
R4-7b	24"	30"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	5.00
R4-11	30"	30"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	6.25
R7-1d	12"	18"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	RED	RED	1.50
R7-1L	12"	18"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	RED	RED	1.50
R7-1R	12"	18"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	RED	RED	1.50
R9-9	24"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	2.00
R9-11aL	24"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	2.00
R9-11aR	24"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	2.00
R9-11L	24"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	3.00
R9-11R	24"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	3.00
R11-2	48"	30"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	10.00
R11-3a	60"	30"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	12.50
R4-11	30"	30"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	6.25
M4-9bL/R	30"	24"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-9bSL/R	30"	24"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-10L/R	48"	18"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	---	6.00

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY (CONTINUED)

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR			UNIT AREA (S.F.)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER	
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"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-1	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-3	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-8	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-9	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-15	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W11-2	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W16-7p(L)	24"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	2.00
W16-9p	24"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	2.00
W20-1c	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-2c	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-3c	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-4	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-7	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
MA-W20-7b	36"	36"		AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W21-7	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
R9-12	24"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	2.00
MA-W30-8R	36"	36"		AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY CONTINUED ON NEXT SHEET

WORCESTER CHANDLER STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	42	100
PROJECT FILE NO. 608961			

TEMPORARY TRAFFIC CONTROL PLANS  
TEMPORARY SIGN SUMMARY

- NOTES:
- 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.
  - ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY (CONTINUED)

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR			UNIT AREA (S.F.)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER	
R3-17	24"	18"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			BLACK ----- WHITE	BLACK	BLACK	3.00
R3-17bp	24"	8"					WHITE	BLACK	BLACK	1.33
W21-5aR	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W21-5bR	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
MA-W28-1	36"	36"		AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00

NOTES:

- 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.
- 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.	-	43	100

PROJECT FILE NO. 608961

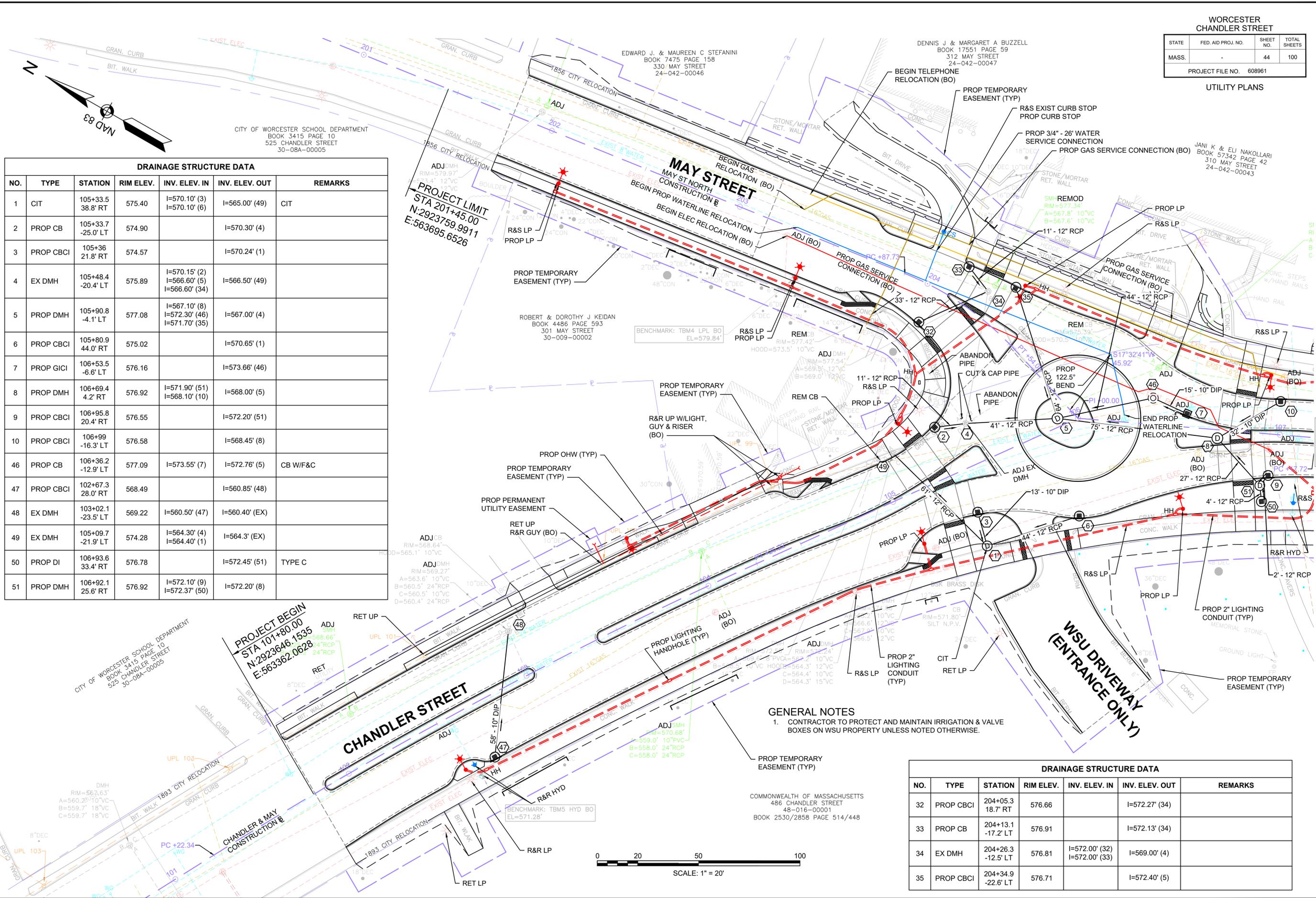
TEMPORARY TRAFFIC CONTROL PLANS  
TEMPORARY SIGN SUMMARY

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	44	100

PROJECT FILE NO. 608961

UTILITY PLANS



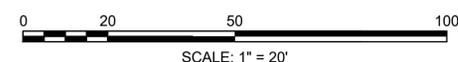
DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
1	CIT	105+33.5 38.8' RT	575.40	I=570.10' (3) I=570.10' (6)	I=565.00' (49)	CIT
2	PROP CB	105+33.7 -25.0' LT	574.90		I=570.30' (4)	
3	PROP CBCI	105+36 21.8' RT	574.57		I=570.24' (1)	
4	EX DMH	105+48.4 -20.4' LT	575.89	I=570.15' (2) I=566.60' (5) I=566.60' (34)	I=566.50' (49)	
5	PROP DMH	105+90.8 -4.1' LT	577.08	I=567.10' (8) I=572.30' (46) I=571.70' (35)	I=567.00' (4)	
6	PROP CBCI	105+80.9 44.0' RT	575.02		I=570.65' (1)	
7	PROP GICI	106+53.5 -6.6' LT	576.16		I=573.66' (46)	
8	PROP DMH	106+69.4 4.2' RT	576.92	I=571.90' (51) I=568.10' (10)	I=568.00' (5)	
9	PROP CBCI	106+95.8 20.4' RT	576.55		I=572.20' (51)	
10	PROP CBCI	106+99 -16.3' LT	576.58		I=568.45' (8)	
46	PROP CB	106+36.2 -12.9' LT	577.09	I=573.55' (7)	I=572.76' (5)	CB W/F&C
47	PROP CBCI	102+67.3 28.0' RT	568.49		I=560.85' (48)	
48	EX DMH	103+02.1 -23.5' LT	569.22	I=560.50' (47) I=560.40' (EX)	I=560.40' (EX)	
49	EX DMH	105+09.7 -21.9' LT	574.28	I=564.30' (4) I=564.40' (1)	I=564.3' (EX)	
50	PROP DI	106+93.6 33.4' RT	576.78		I=572.45' (51)	TYPE C
51	PROP DMH	106+92.1 25.6' RT	576.92	I=572.10' (9) I=572.37' (50)	I=572.20' (8)	

GENERAL NOTES

- CONTRACTOR TO PROTECT AND MAINTAIN IRRIGATION & VALVE BOXES ON WSU PROPERTY UNLESS NOTED OTHERWISE.

COMMONWEALTH OF MASSACHUSETTS  
486 CHANDLER STREET  
48-016-00001  
BOOK 2530/2858 PAGE 514/448



DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
32	PROP CBCI	204+05.3 18.7' RT	576.66		I=572.27' (34)	
33	PROP CB	204+13.1 -17.2' LT	576.91		I=572.13' (34)	
34	EX DMH	204+26.3 -12.5' LT	576.81	I=572.00' (32) I=572.00' (33)	I=569.00' (4)	
35	PROP CBCI	204+34.9 -22.6' LT	576.71		I=572.40' (5)	

CONTINUED ON  
SHEET NO. 45

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	45	100

PROJECT FILE NO. 608961

UTILITY PLANS

13294.01\_HD(UTIL).DWG  
Plotted on 13-Feb-2025 8:43 PM

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

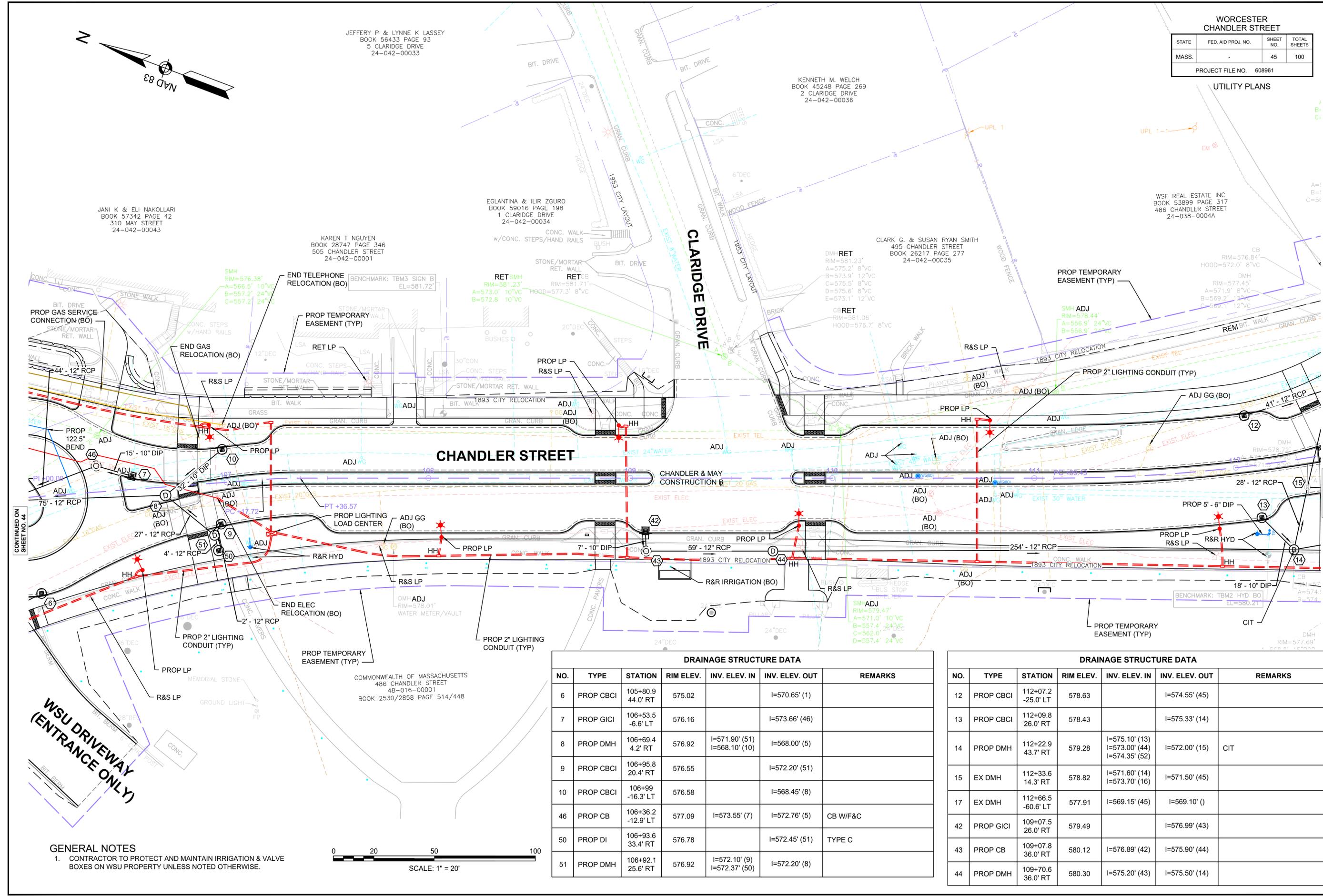
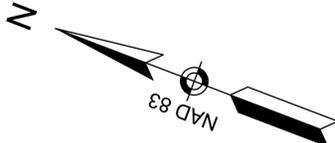
KAREN T NGUYEN  
BOOK 28747 PAGE 346  
505 CHANDLER STREET  
24-042-00001

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

COMMONWEALTH OF MASSACHUSETTS  
486 CHANDLER STREET  
48-016-00001  
BOOK 2530/2858 PAGE 514/448



CHANDLER STREET

CLARIDGE DRIVE

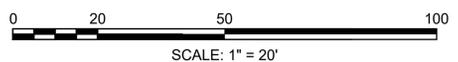
CONTINUED ON  
SHEET NO. 44

CONTINUED ON  
SHEET NO. 46

WSU DRIVEWAY  
(ENTRANCE ONLY)

GENERAL NOTES

- CONTRACTOR TO PROTECT AND MAINTAIN IRRIGATION & VALVE BOXES ON WSU PROPERTY UNLESS NOTED OTHERWISE.



DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
6	PROP CBCI	105+80.9 44.0' RT	575.02		I=570.65' (1)	
7	PROP GICI	106+53.5 -6.6' LT	576.16		I=573.66' (46)	
8	PROP DMH	106+69.4 4.2' RT	576.92	I=571.90' (51) I=568.10' (10)	I=568.00' (5)	
9	PROP CBCI	106+95.8 20.4' RT	576.55		I=572.20' (51)	
10	PROP CBCI	106+99 -16.3' LT	576.58		I=568.45' (8)	
46	PROP CB	106+36.2 -12.9' LT	577.09	I=573.55' (7)	I=572.76' (5)	CB W/F&C
50	PROP DI	106+93.6 33.4' RT	576.78		I=572.45' (51)	TYPE C
51	PROP DMH	106+92.1 25.6' RT	576.92	I=572.10' (9) I=572.37' (50)	I=572.20' (8)	

DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
12	PROP CBCI	112+07.2 -25.0' LT	578.63		I=574.55' (45)	
13	PROP CBCI	112+09.8 26.0' RT	578.43		I=575.33' (14)	
14	PROP DMH	112+22.9 43.7' RT	579.28	I=575.10' (13) I=573.00' (44) I=574.35' (52)	I=572.00' (15)	CIT
15	EX DMH	112+33.6 14.3' RT	578.82	I=571.60' (14) I=573.70' (16)	I=571.50' (45)	
17	EX DMH	112+66.5 -60.6' LT	577.91	I=569.15' (45)	I=569.10' ( )	
42	PROP GICI	109+07.5 26.0' RT	579.49		I=576.99' (43)	
43	PROP CB	109+07.8 36.0' RT	580.12	I=576.89' (42)	I=575.90' (44)	
44	PROP DMH	109+70.6 36.0' RT	580.30	I=575.20' (43)	I=575.50' (14)	

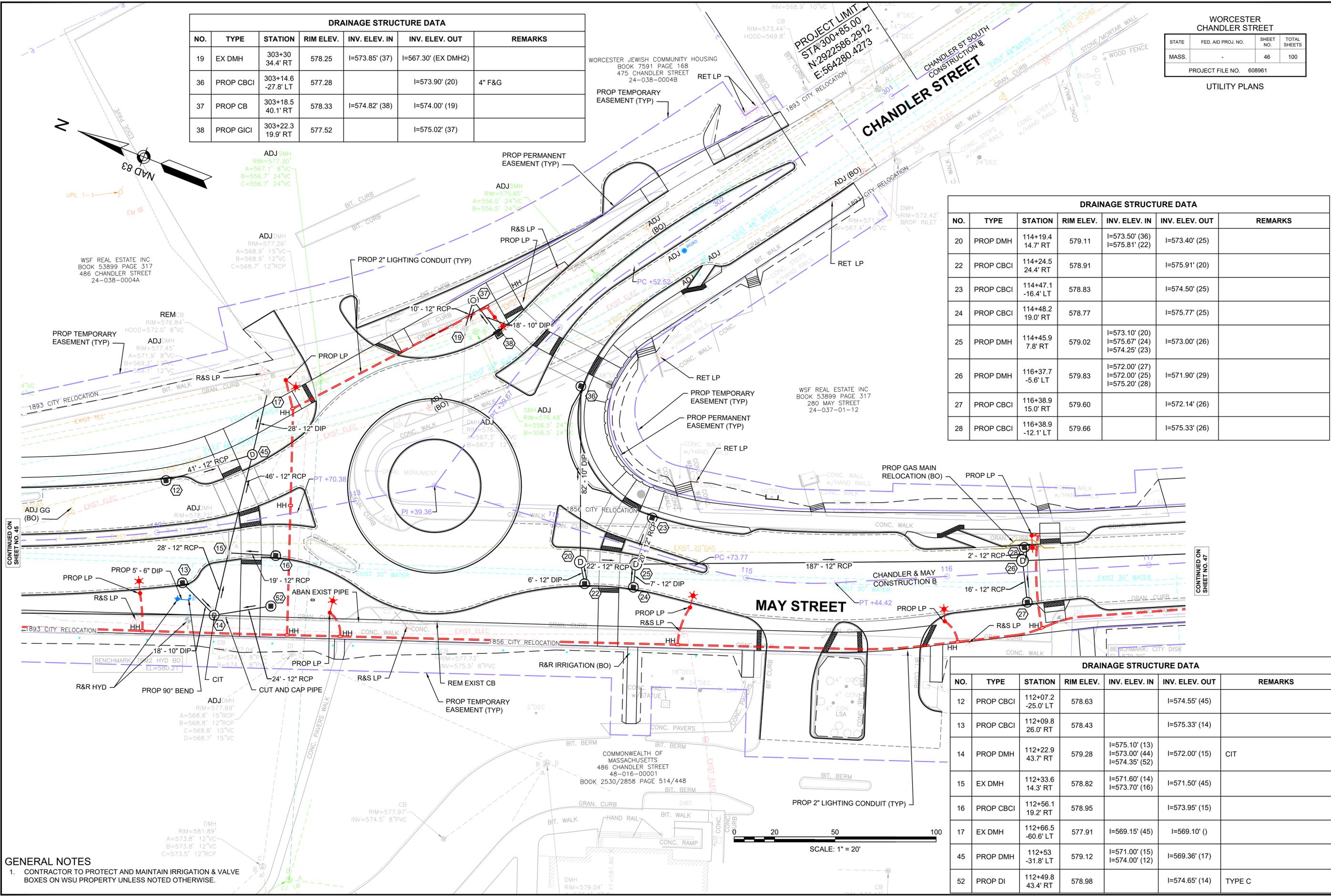
DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
19	EX DMH	303+30 34.4' RT	578.25	I=573.85' (37)	I=567.30' (EX DMH2)	
36	PROP CBCI	303+14.6 -27.8' LT	577.28		I=573.90' (20)	4" F&G
37	PROP CB	303+18.5 40.1' RT	578.33	I=574.82' (38)	I=574.00' (19)	
38	PROP GICI	303+22.3 19.9' RT	577.52		I=575.02' (37)	

WORCESTER CHANDLER STREET				
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
MASS.	-	46	100	
PROJECT FILE NO. 608961				
UTILITY PLANS				

DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
20	PROP DMH	114+19.4 14.7' RT	579.11	I=573.50' (36) I=575.81' (22)	I=573.40' (25)	
22	PROP CBCI	114+24.5 24.4' RT	578.91		I=575.91' (20)	
23	PROP CBCI	114+47.1 -16.4' LT	578.83		I=574.50' (25)	
24	PROP CBCI	114+48.2 19.0' RT	578.77		I=575.77' (25)	
25	PROP DMH	114+45.9 7.8' RT	579.02	I=573.10' (20) I=575.67' (24) I=574.25' (23)	I=573.00' (26)	
26	PROP DMH	116+37.7 -5.6' LT	579.83	I=572.00' (27) I=572.00' (25) I=575.20' (28)	I=571.90' (29)	
27	PROP CBCI	116+38.9 15.0' RT	579.60		I=572.14' (26)	
28	PROP CBCI	116+38.9 -12.1' LT	579.66		I=575.33' (26)	

DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
12	PROP CBCI	112+07.2 -25.0' LT	578.63		I=574.55' (45)	
13	PROP CBCI	112+09.8 26.0' RT	578.43		I=575.33' (14)	
14	PROP DMH	112+22.9 43.7' RT	579.28	I=575.10' (13) I=573.00' (44) I=574.35' (52)	I=572.00' (15)	CIT
15	EX DMH	112+33.6 14.3' RT	578.82	I=571.60' (14) I=573.70' (16)	I=571.50' (45)	
16	PROP CBCI	112+56.1 19.2' RT	578.95		I=573.95' (15)	
17	EX DMH	112+66.5 -60.6' LT	577.91	I=569.15' (45)	I=569.10' ( )	
45	PROP DMH	112+53 -31.8' LT	579.12	I=571.00' (15) I=574.00' (12)	I=569.36' (17)	
52	PROP DI	112+49.8 43.4' RT	578.98		I=574.65' (14)	TYPE C

**GENERAL NOTES**  
 1. CONTRACTOR TO PROTECT AND MAINTAIN IRRIGATION & VALVE BOXES ON WSU PROPERTY UNLESS NOTED OTHERWISE.



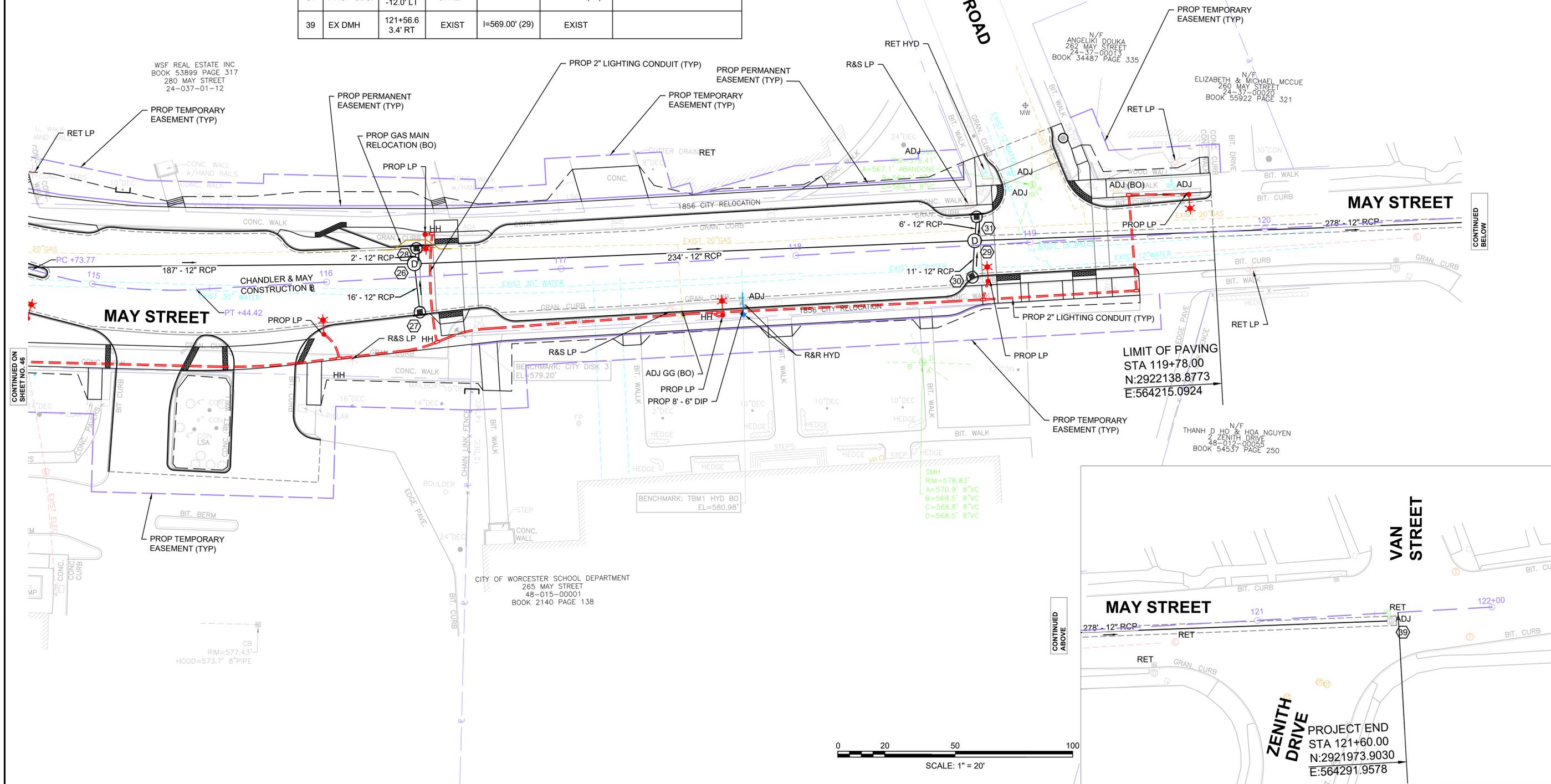
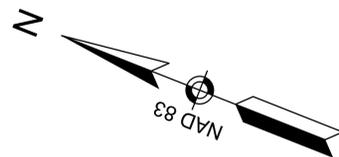
WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	47	100

PROJECT FILE NO. 608961

UTILITY PLANS

DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
26	PROP DMH	116+37.7 -5.6' LT	579.83	I=572.00' (27) I=572.00' (25) I=575.20' (28)	I=571.90' (29)	
27	PROP CBCI	116+38.9 15.0' RT	579.60		I=572.14' (26)	
28	PROP CBCI	116+38.9 -12.1' LT	579.66		I=575.33' (26)	
29	PROP DMH	118+76.4 -2.0' LT	577.51	I=570.60' (26) I=570.60' (30) I=572.84' (31)	I=570.50' (39)	
30	PROP CBCI	118+74.6 13.5' RT	577.25		I=570.75' (29)	ECC
31	PROP CBCI	118+77.8 -12.0' LT	577.27		I=572.94' (29)	
39	EX DMH	121+56.6 3.4' RT	EXIST	I=569.00' (29)	EXIST	



CONTINUED ON  
SHEET NO. 46

CONTINUED  
BELOW

CONTINUED  
ABOVE

WSF REAL ESTATE INC  
BOOK 53899 PAGE 317  
280 MAY STREET  
24-037-01-12

N/F  
ANGELIKI DOUKA  
262 MAY STREET  
24-37-00013  
BOOK 34487 PAGE 335

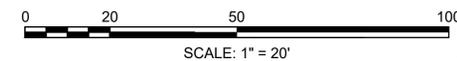
N/F  
ELIZABETH & MICHAEL MCCUE  
260 MAY STREET  
24-37-00020  
BOOK 55922 PAGE 321

LIMIT OF PAVING  
STA 119+78.00  
N:2922138.8773  
E:564215.0924

N/F  
THANH D HO & HOA NGUYEN  
2 ZENITH DRIVE  
48-012-00055  
BOOK 54537 PAGE 250

CITY OF WORCESTER SCHOOL DEPARTMENT  
265 MAY STREET  
48-015-00001  
BOOK 2140 PAGE 138

CB  
RIM=577.43'  
HOOD=573.7' 8" PIPE



PROJECT END  
STA 121+60.00  
N:2921973.9030  
E:564291.9578

**OVERALL PLANT SCHEDULE**

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
<b>DECIDUOUS TREES</b>				
CO	3	Celtis occidentalis	Common Hackberry	2 1/2 - 3" CAL.
LS	3	Liquidambar styraciflua	Sweet Gum	2 1/2 - 3" CAL.
NS	9	Nyssa sylvatica	Tupelo	2 1/2 - 3" CAL.
QC	6	Quercus coccinea	Scarlet Oak	2 1/2 - 3" CAL.

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
<b>FLOWERING TREES</b>				
AS	5	Amelanchier laevis 'Snowcloud'	Snowcloud Allegheny Serviceberry	2 - 2 1/2" CAL.
MM	5	Malus x 'Marlee'	Crab Apple - Marlee	2 - 2 1/2" CAL.

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
<b>SHRUBS</b>					
AM	4	Aronia melanocarpa	Black Chokeberry	42" HT.	36" o.c.
IG	21	Ilex glabra 'Compacta'	Inkberry - Compact	18 - 24" HT.	36" o.c.
JR	36	Juniperus communis 'Repanda'	Repanda Common Juniper	18 - 24" SPD	36" o.c.
MP	7	Myrica pensylvanica	Northern Bayberry	18 - 24" HT.	48" o.c.

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
<b>GROUND COVERS</b>					
HH	40	Hemerocallis x 'Happy Returns'	Daylily - 'Happy Returns'	1 GAL.	24" o.c.

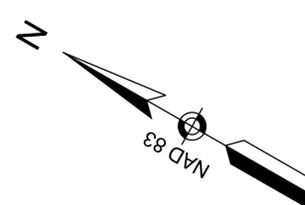
**PLANT SCHEDULE SHEET 1**

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
<b>DECIDUOUS TREES</b>				
NS	3	Nyssa sylvatica	Tupelo	2 1/2 - 3" CAL.
QC	1	Quercus coccinea	Scarlet Oak	2 1/2 - 3" CAL.

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
<b>FLOWERING TREES</b>				
AS	1	Amelanchier laevis 'Snowcloud'	Snowcloud Allegheny Serviceberry	2 - 2 1/2" CAL.

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
<b>SHRUBS</b>					
AM	4	Aronia melanocarpa	Black Chokeberry	42" HT.	36" o.c.
JR	6	Juniperus communis 'Repanda'	Repanda Common Juniper	18 - 24" SPD	36" o.c.

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
<b>GROUND COVERS</b>					
HH	10	Hemerocallis x 'Happy Returns'	Daylily - 'Happy Returns'	1 GAL.	24" o.c.



WORCESTER SCHOOL DEPARTMENT  
BOOK 34157/5324 PAGE 10/231  
525 CHANDLER STREET  
30-08A-00005

**CHANDLER STREET**

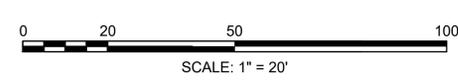
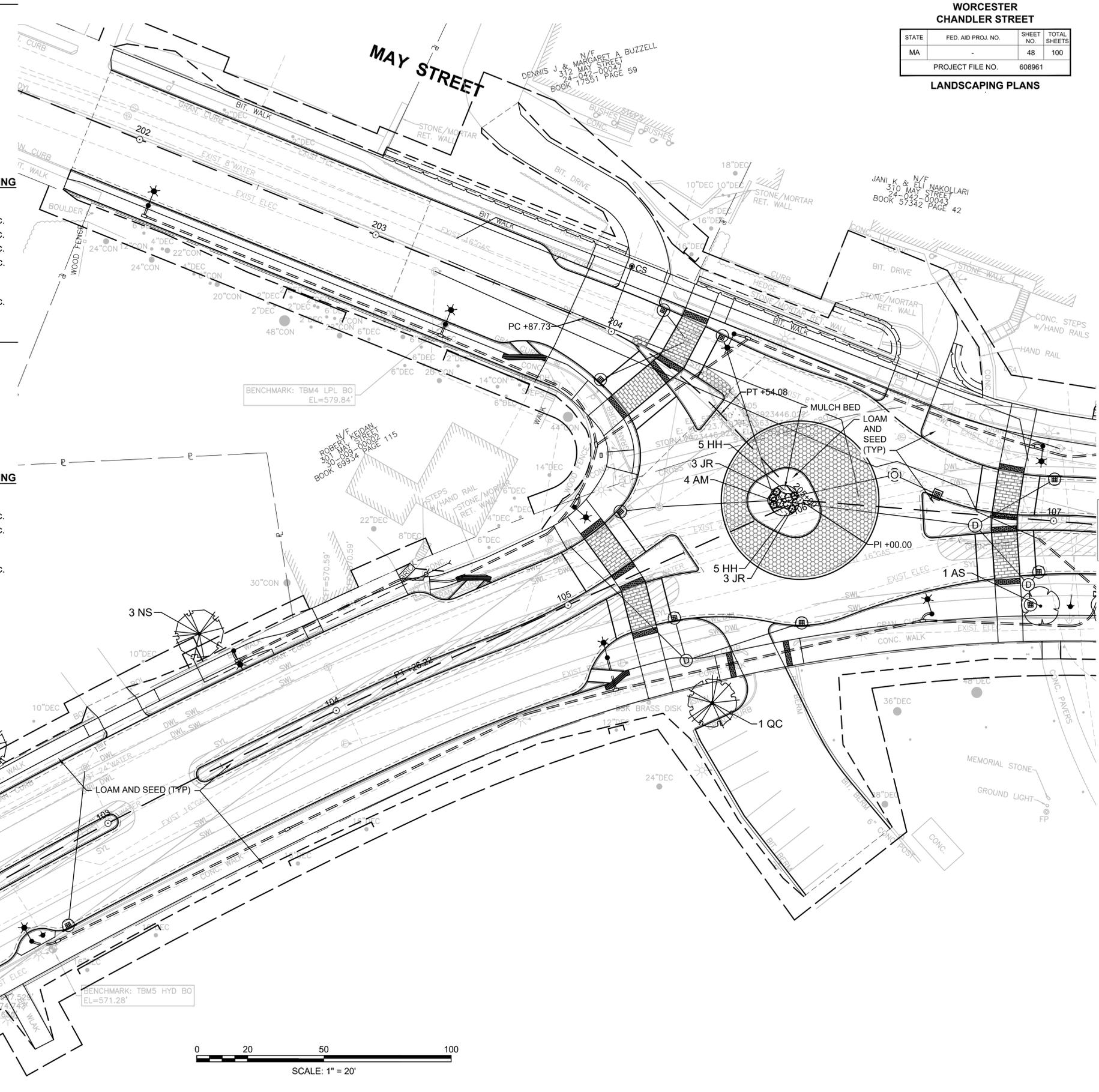
**MAY STREET**

**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		48	100

PROJECT FILE NO. 608961

**LANDSCAPING PLANS**



CONTINUED ON  
SHEET NO. 49

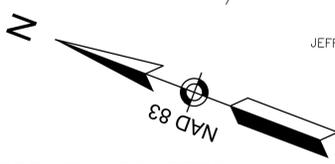
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		49	100

PROJECT FILE NO. 608961

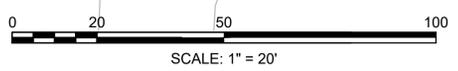
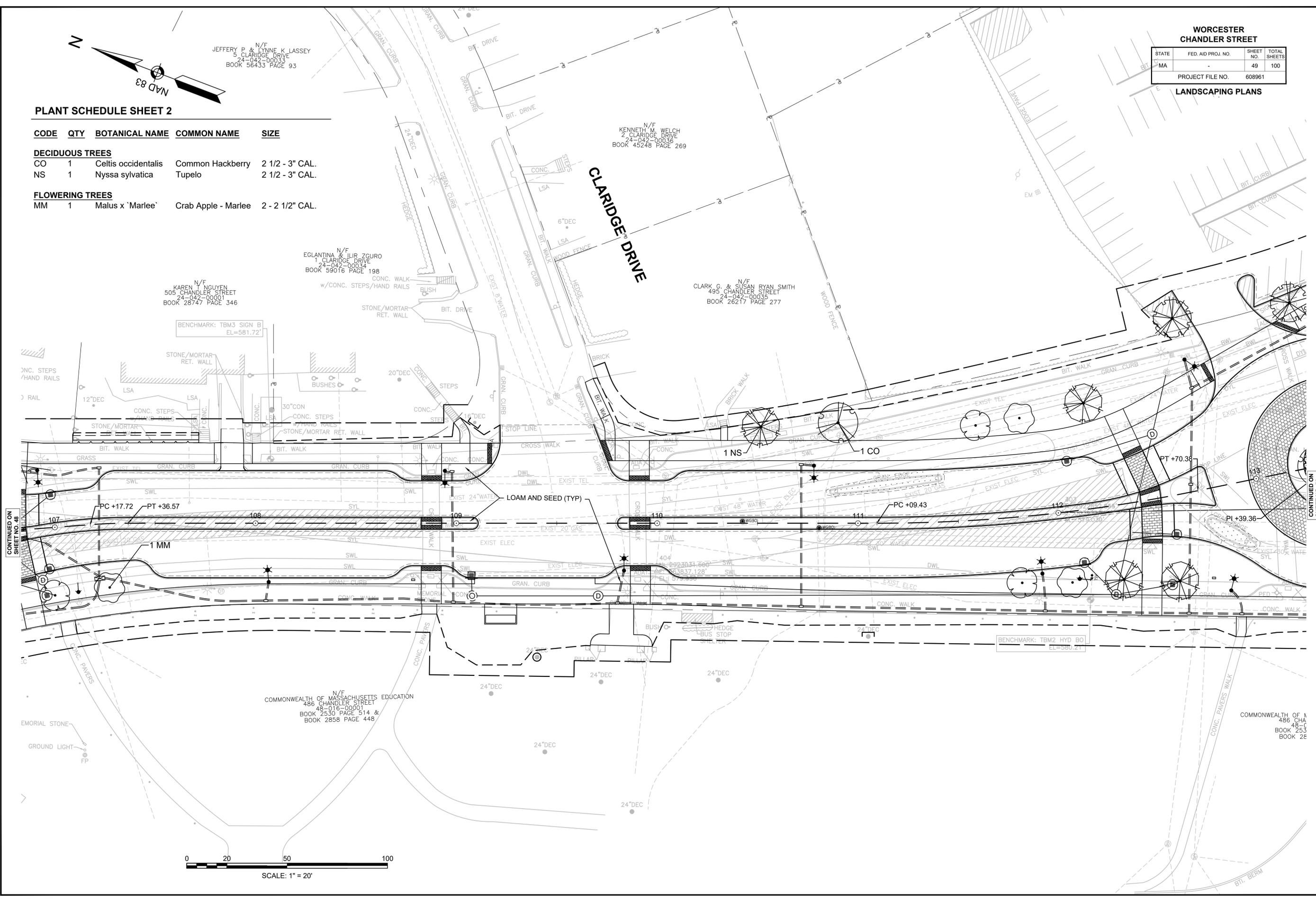
**LANDSCAPING PLANS**

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**PLANT SCHEDULE SHEET 2**

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
<b>DECIDUOUS TREES</b>				
CO	1	Celtis occidentalis	Common Hackberry	2 1/2 - 3" CAL.
NS	1	Nyssa sylvatica	Tupelo	2 1/2 - 3" CAL.
<b>FLOWERING TREES</b>				
MM	1	Malus x 'Marlee'	Crab Apple - Marlee	2 - 2 1/2" CAL.



CONTINUED ON SHEET NO. 48

CONTINUED ON SHEET NO. 50

N/F  
JEFFERY P & LYANNE K LASSEY  
5 CLARIDGE DRIVE  
24-042-00033  
BOOK 56433 PAGE 93

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

N/F  
EGLANTINA & ILIR ZCURO  
1 CLARIDGE DRIVE  
24-042-00034  
BOOK 59016 PAGE 198

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

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

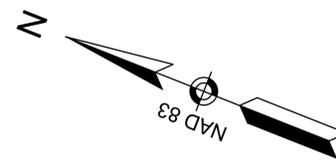
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COMMONWEALTH OF MASSACHUSETTS EDUCATION  
486 CHANDLER STREET  
48-016-00001  
BOOK 2530 PAGE 514 &  
BOOK 2858 PAGE 448

COMMONWEALTH OF MA  
486 CHA  
48-016-00001  
BOOK 2530  
BOOK 2858

**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		50	100
PROJECT FILE NO.		608961	

**LANDSCAPING PLANS**



N/E  
WSF REAL ESTATE INC.  
485 CHANDLER STREET  
24-038-0004A  
BOOK 53899 PAGE 317

**CHANDLER STREET**

**PLANT SCHEDULE SHEET 3**

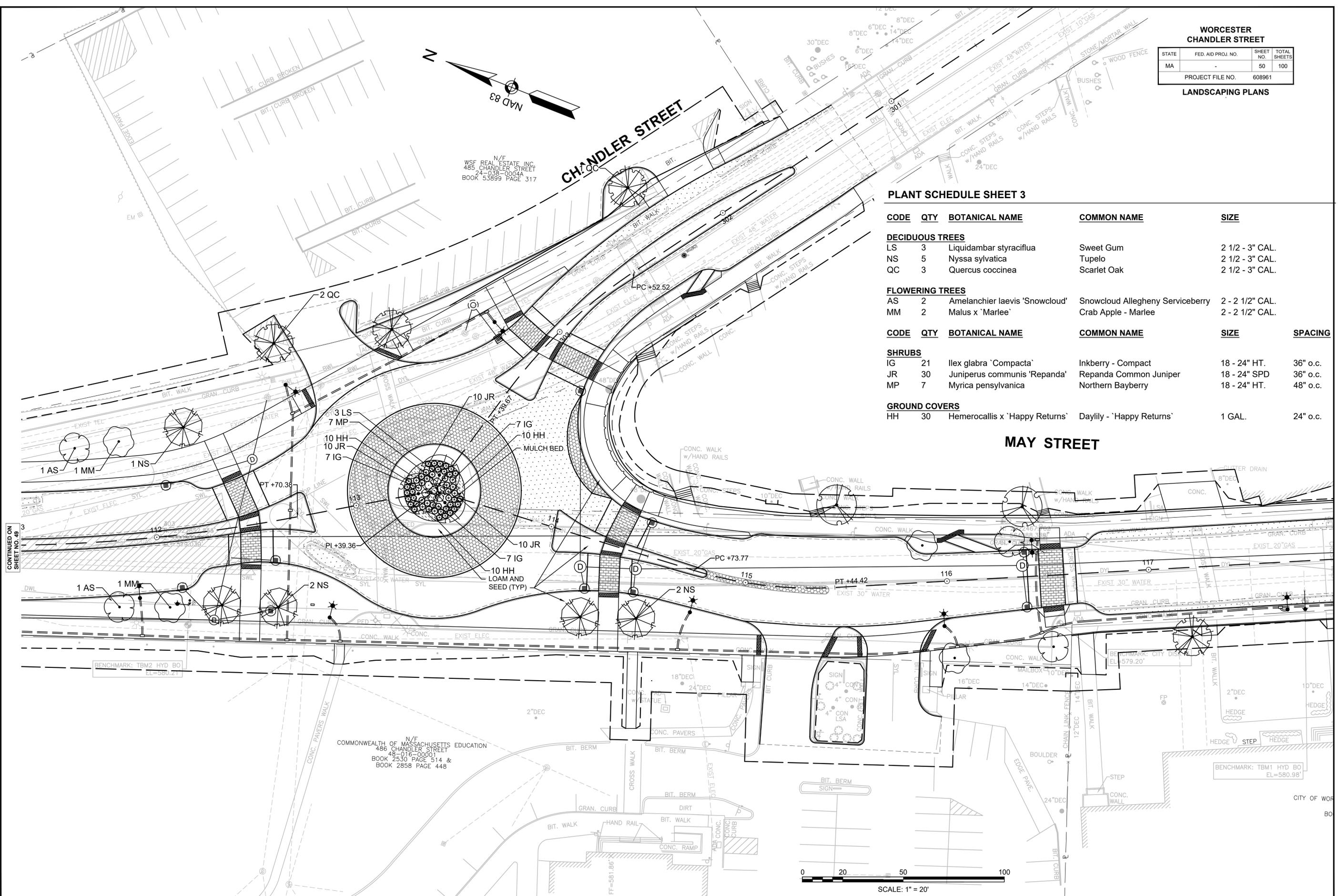
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
<b>DECIDUOUS TREES</b>				
LS	3	Liquidambar styraciflua	Sweet Gum	2 1/2 - 3" CAL.
NS	5	Nyssa sylvatica	Tupelo	2 1/2 - 3" CAL.
QC	3	Quercus coccinea	Scarlet Oak	2 1/2 - 3" CAL.

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
<b>FLOWERING TREES</b>				
AS	2	Amelanchier laevis 'Snowcloud'	Snowcloud Allegheny Serviceberry	2 - 2 1/2" CAL.
MM	2	Malus x 'Marlee'	Crab Apple - Marlee	2 - 2 1/2" CAL.

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
<b>SHRUBS</b>					
IG	21	Ilex glabra 'Compacta'	Inkberry - Compact	18 - 24" HT.	36" o.c.
JR	30	Juniperus communis 'Repanda'	Repanda Common Juniper	18 - 24" SPD	36" o.c.
MP	7	Myrica pensylvanica	Northern Bayberry	18 - 24" HT.	48" o.c.

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
<b>GROUND COVERS</b>					
HH	30	Hemerocallis x 'Happy Returns'	Daylily - 'Happy Returns'	1 GAL.	24" o.c.

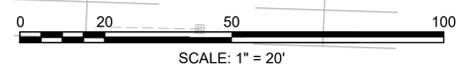
**MAY STREET**

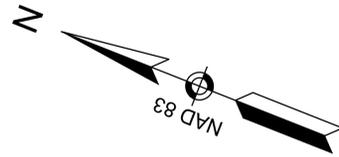


CONTINUED ON  
SHEET NO. 49

BENCHMARK: TBM2 HYD BO  
EL=580.21

N/E  
COMMONWEALTH OF MASSACHUSETTS EDUCATION  
486 CHANDLER STREET  
48-016-00001  
BOOK 2530 PAGE 514 &  
BOOK 2858 PAGE 448





**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	51	100

PROJECT FILE NO. 608961  
**LANDSCAPING PLANS**

**PLANT SCHEDULE SHEET 4**

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
<b>DECIDUOUS TREES</b>				
CO	2	Celtis occidentalis	Common Hackberry	2 1/2 - 3" CAL.
QC	2	Quercus coccinea	Scarlet Oak	2 1/2 - 3" CAL.
<b>FLOWERING TREES</b>				
AS	2	Amelanchier laevis 'Snowcloud'	Snowcloud Allegheny Serviceberry	2 - 2 1/2" CAL.
MM	2	Malus x 'Marlee'	Crab Apple - Marlee	2 - 2 1/2" CAL.

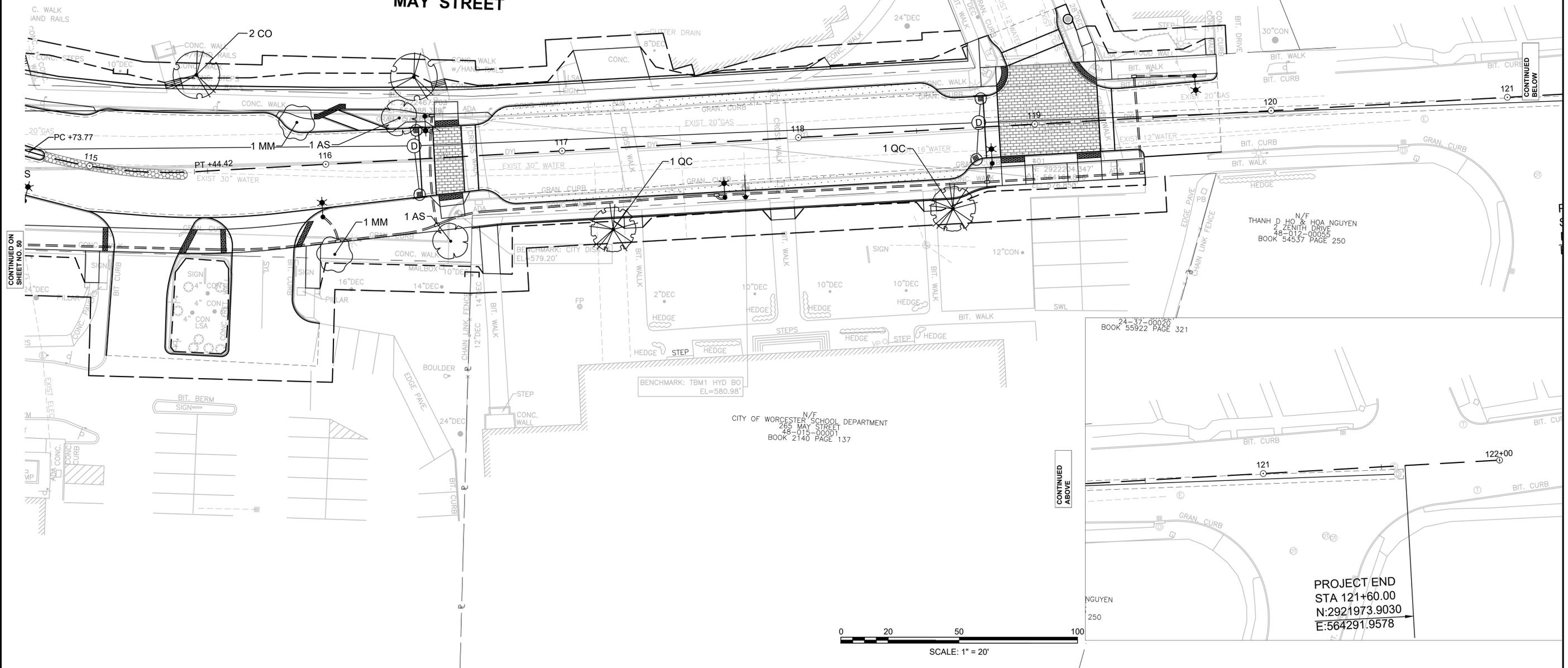
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WSF REAL ESTATE INC  
280 MAY STREET  
24-037-01-12  
BOOK 53899 PAGE 317

N/F  
ANGELIKI DOUKA  
262 MAY STREET  
24-37-00013  
BOOK 34487 PAGE 335

N/F  
ELIZABETH & MICHAEL MCCUE  
260 MAY STREET  
24-37-00020  
BOOK 55922 PAGE 321

**MAY STREET**

**HAMILL ROAD**

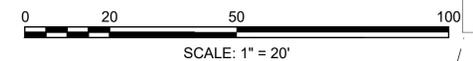


CONTINUED ON  
SHEET NO. 50

CONTINUED  
BELOW

CONTINUED  
ABOVE

PROJECT END  
STA 121+60.00  
N:2921973.9030  
E:564291.9578



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	52	100
PROJECT FILE NO.		608961	

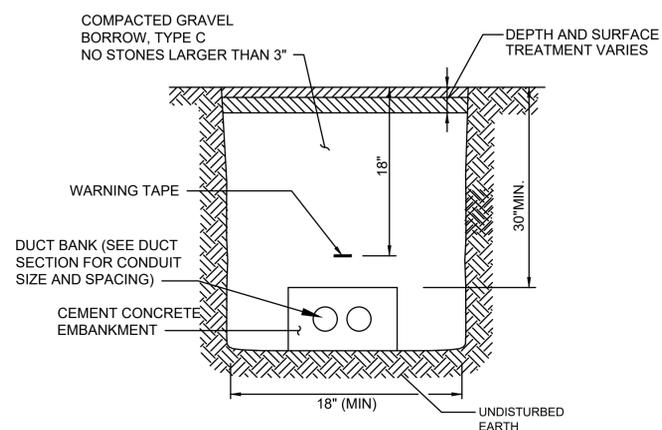
**LIGHTING DETAILS**

**GENERAL NOTES**

- ALL WORK SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE ELECTRICAL CODE 12.00 CMR, CITY OF WORCESTER INSPECTIONAL STANDARDS AND LOCAL CODES. PAY FOR AND OBTAIN ALL PERMITS.
- ALL MATERIALS AND INSTALLATION FOR ELECTRICAL SERVICE SHALL CONFORM TO THE REQUIREMENTS OF THE SERVING UTILITY. PAY FOR AND OBTAIN ALL PERMITS/FEEES.
- ALL MATERIAL SHALL BE NEW. ALL LIGHTING WORK SHALL CONFORM WITH SECTION 800 OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, MASSACHUSETTS HIGHWAY DEPARTMENT, EXCEPT WHERE OTHERWISE INDICATED
- LIGHT POLE FOUNDATIONS SHALL CONFORM TO THE RELEVANT PROVISIONS OF SECTION 800 OF THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES EXCEPT AS INDICATED. PROVIDE 1/2" BOND BREAKER BETWEEN FOUNDATION AND CONCRETE WALK. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
- HANDHOLES SHALL CONFORM TO THE RELEVANT PROVISIONS OF SECTION 800 OF THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES EXCEPT COVER SHALL READ "WORCESTER D.P.W. STREET LIGHTING". CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
- UNDERGROUND RACEWAY INSTALLATION SHALL CONFORM TO SECTION 800. ROADWAY CROSSING SHALL BE GALVANIZED RIGID STEEL (RM) BURIED 36" BELOW TOP OF ROADWAY AND TERMINATE IN A HANDHOLE ON EACH SIDE OF CROSSING. ALL OTHER RACEWAYS SHALL BE NON-METALLIC (NM) AND BURIED A MINIMUM OF 30" BELOW TOP OF SIDEWALK.
- ALL LIGHT POLES SHALL BE ANCHOR TYPE WITHOUT BREAKAWAY COUPLINGS.
- ALL SPARE RACEWAYS SHALL BE FURNISHED WITH A PULL ROPE.
- LIGHT POLE BRACKET ARM AND BANNER ARM SHALL BE ORIENTED 90 DEGREES TO THE BASELINE OF ROADWAY. THE CONTRACTOR SHALL COORDINATE POLE BASE PLATE, ANCHOR BOLT PATTERN CONDUIT ENTRY AND FOUNDATION PLACEMENT TO OBTAIN THE REQUIRED ORIENTATION.
- SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL FOR ALL ELECTRICAL AND LIGHTING MATERIALS, EQUIPMENT, COMPONENTS AND TEST RESULTS AND SHALL INCLUDE MANUFACTURER'S PRODUCT CATALOG DATA.
- FINAL POSITION OF LIGHT POLES AND HANDHOLES SHALL NOT BE LOCATED WITHIN THE SIDEWALK TRIM BAND OR TREE PLANTING AREAS. HANDHOLES SHALL NOT BE PLACED IN ROADWAYS, SIDEWALK ACCESSIBILITY RAMPS OR DRIVEWAYS.
- WHERE REQUIRED TO AVOID EXISTING UTILITIES, THE CONTRACTOR SHALL BE PERMITTED IN THE FIELD TO ADJUST THE LOCATION OF LIGHT POLES UP TO 1'-6" IN ANY DIRECTION EXCEPT TOWARD THE CURB. ADJUSTMENTS BEYOND THESE LIMITS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- WHERE REQUIRED TO AVOID EXISTING UTILITIES, THE CONTRACTOR SHALL BE PERMITTED IN THE FIELD TO ADJUST THE LOCATION OF HANDHOLES UP TO 5'-0" IN ANY DIRECTION FROM THAT INDICATED. ADJUSTMENTS BEYOND THESE LIMITS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- WHERE CONDUIT INSTALLATION, ADJUSTED FOR EXISTING UTILITIES CANNOT BE SO INSTALLED TO MAINTAIN A MAXIMUM OF 270 DEGREES OF BENDS BETWEEN PULL POINTS (HANDHOLES OR POLE BASES), THE CONTRACTOR SHALL INSTALL AN INTERMEDIATE HANDHOLE.
- USE OF RECEPTACLES MOUNTED ON LIGHT POLES IS RESTRICTED TO CONNECTION OF BANNER ARM FESTIVAL TYPE LIGHTING WITH A MAXIMUM LOAD OF 25 WATTS PER POLE OR 250 WATTS PER CIRCUIT.
- SPLICES IN HANDHOLES SHALL BE AVOIDED AND ARE PERMITTED ONLY WHERE REQUIRED TO MAKE TAPS.
- FURNISH SMART 7-PIN WIRELESS PHOTOCCELL CONTROLLER FOR EACH LUMINAIRE. CONTROLLER SHALL BE AS MANUFACTURED BY CIMCON MODEL# ISLC-3100-7P-240-A-G-10-CATB-20 OR EQUIVALENT.

**ABBREVIATIONS (LIGHTING PLANS)**

C	CONDUIT
CU	COPPER
EX	EXISTING
HH	HANDHOLE
LED	LIGHT EMITTING DIODE
LP	LIGHT POLE
MH	MOUNTING HEIGHT
PB	PULLBOX
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED

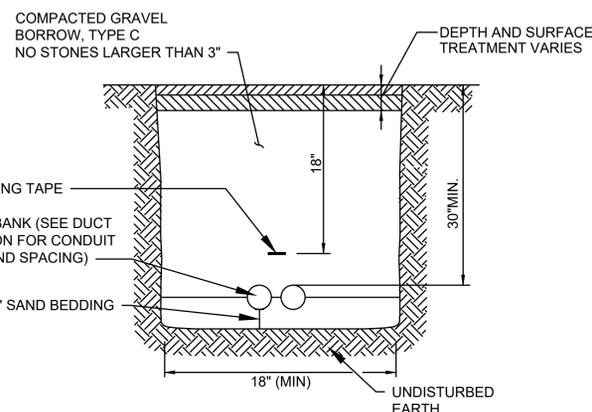
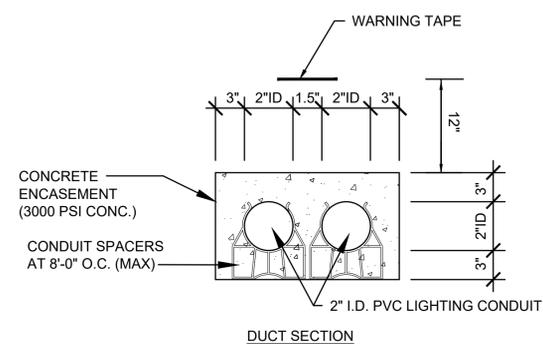


**NOTES:**

- BURIAL DEPTHS FOR CONDUIT SHALL BE MAINTAINED NOT LESS THAN 30" FROM THE TOP OF THE CONCRETE ENCASEMENT TO GRADE DURING ALL PHASES OF CONSTRUCTION.
- USE METALLIC TRACING/WARNING TAPE OVER ALL DUCTS.
- MULTIPLE DUCT BANKS LAID WITHIN THE SAME TRENCH SHALL BE SEPARATED BY AT LEAST A SHEET OF PLYWOOD.

**TYPICAL LIGHTING DUCT BANK TRENCH SECTION**

SCALE: NTS



**NOTES:**

- BURIAL DEPTHS FOR CONDUIT SHALL BE MAINTAINED NOT LESS THAN 30" FROM THE TOP OF THE CONCRETE ENCASEMENT TO GRADE DURING ALL PHASES OF CONSTRUCTION.
- USE METALLIC TRACING/WARNING TAPE OVER ALL DUCTS.
- MULTIPLE DUCT BANKS LAID WITHIN THE SAME TRENCH SHALL BE SEPARATED BY AT LEAST A SHEET OF PLYWOOD.

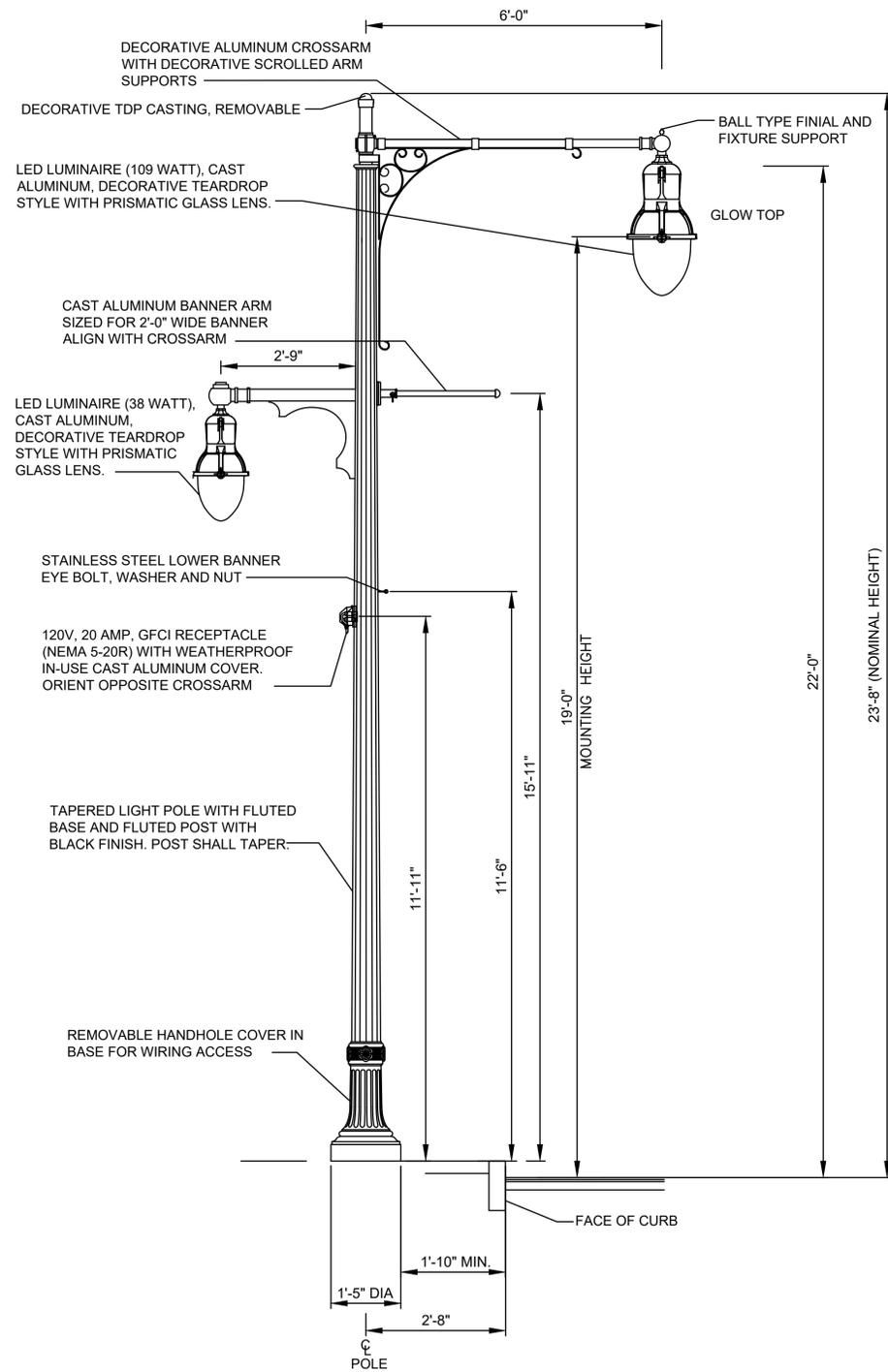
**TYPICAL CONCRETE ENCASED LIGHTING DUCT BANK TRENCH SECTION**

SCALE: NTS

**WORCESTER  
CHANDLER STREET**

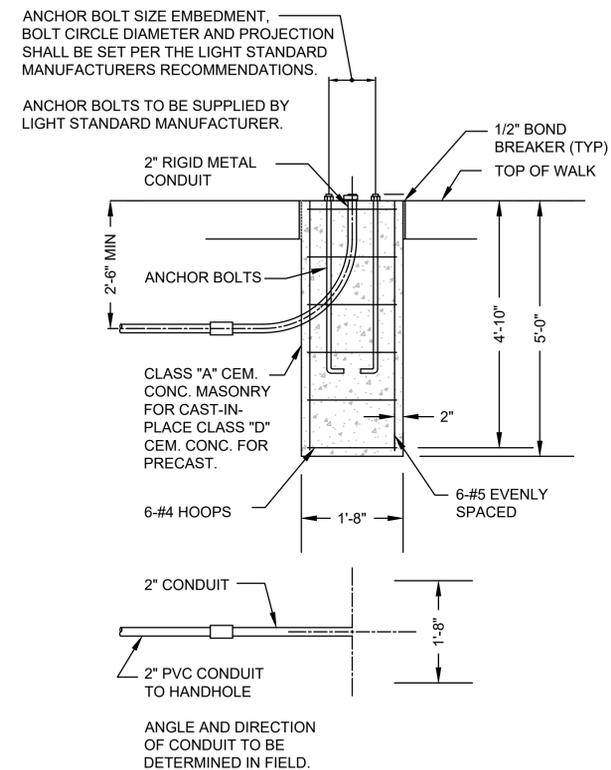
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	53	100
PROJECT FILE NO.		608961	

**LIGHTING DETAILS**



**DECORATIVE LIGHT POLE AND TWIN LUMINAIRE (TYPE A)**

SCALE: N.T.S.



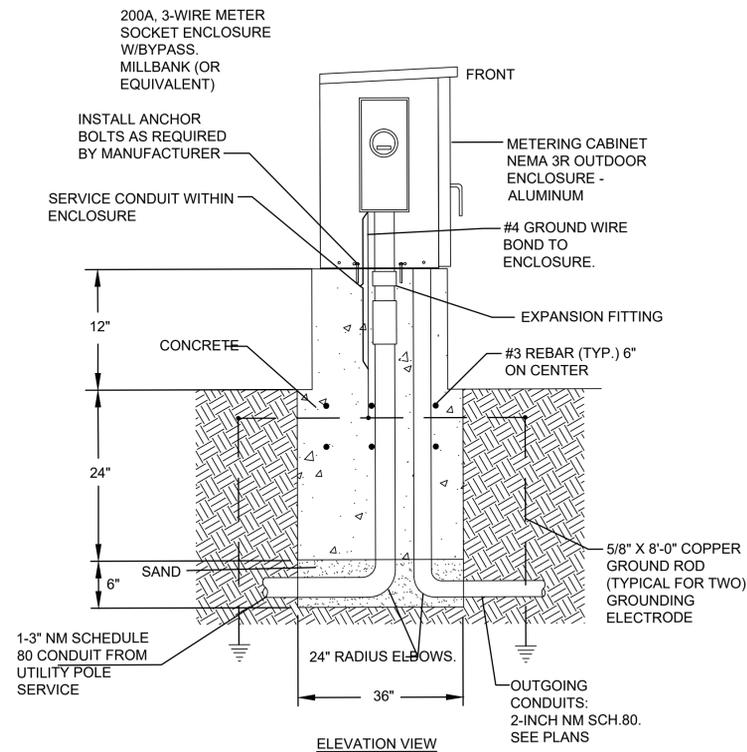
**STREET LIGHT STANDARD FOUNDATION**

SCALE: N.T.S.

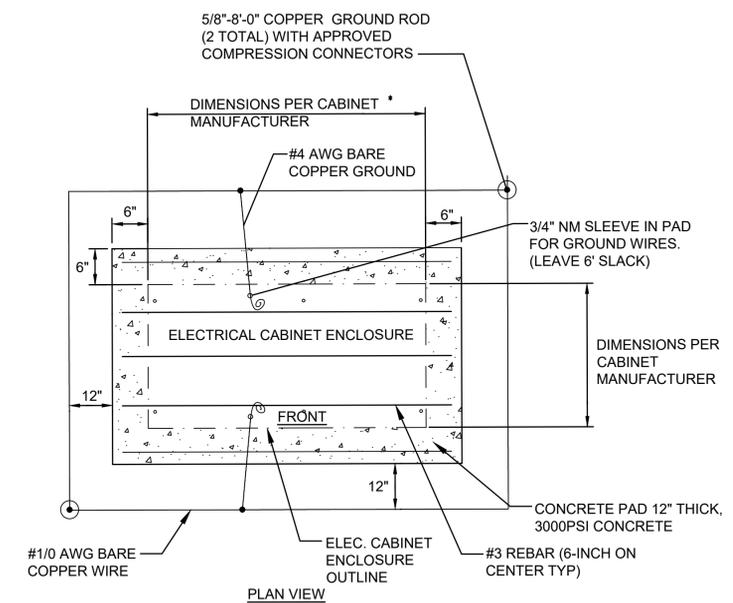
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	54	100
PROJECT FILE NO.		608961	

**LIGHTING DETAILS**



**ELEVATION VIEW**



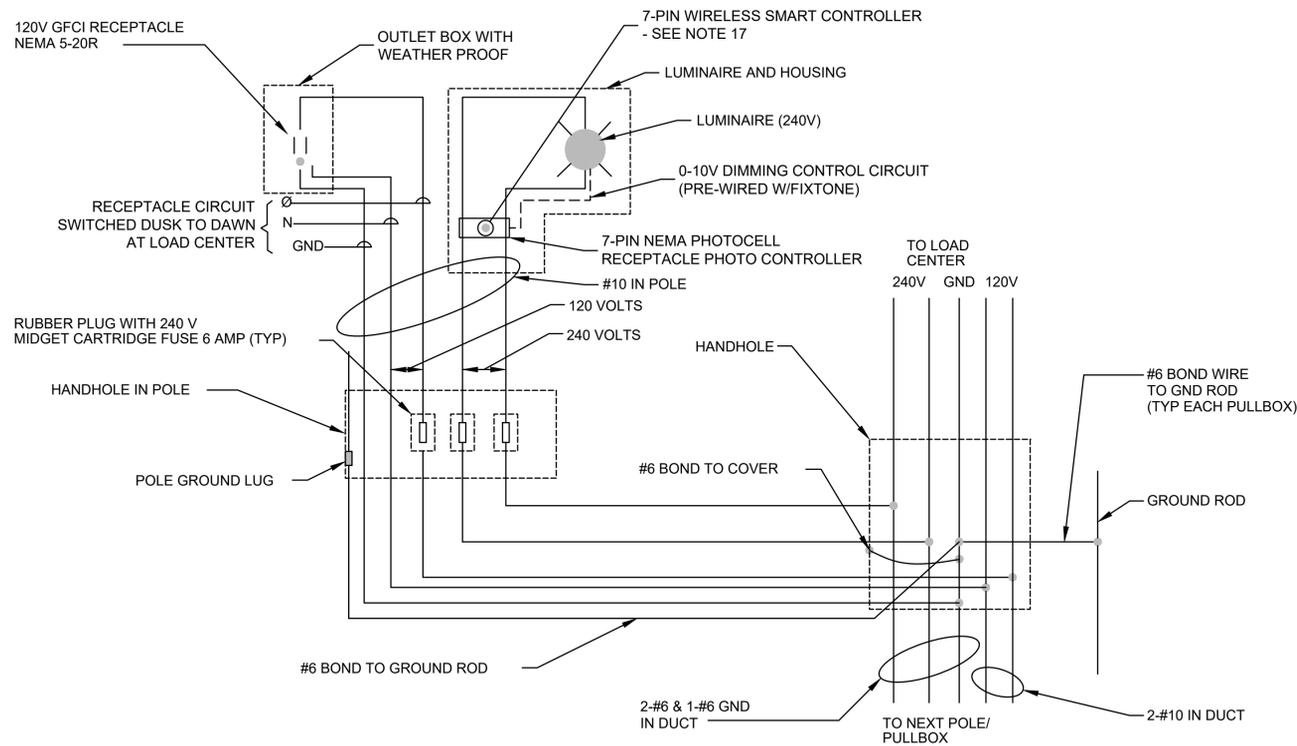
**PLAN VIEW**

**STREET LIGHT CONTROLLER DETAIL**

SCALE: N.T.S.

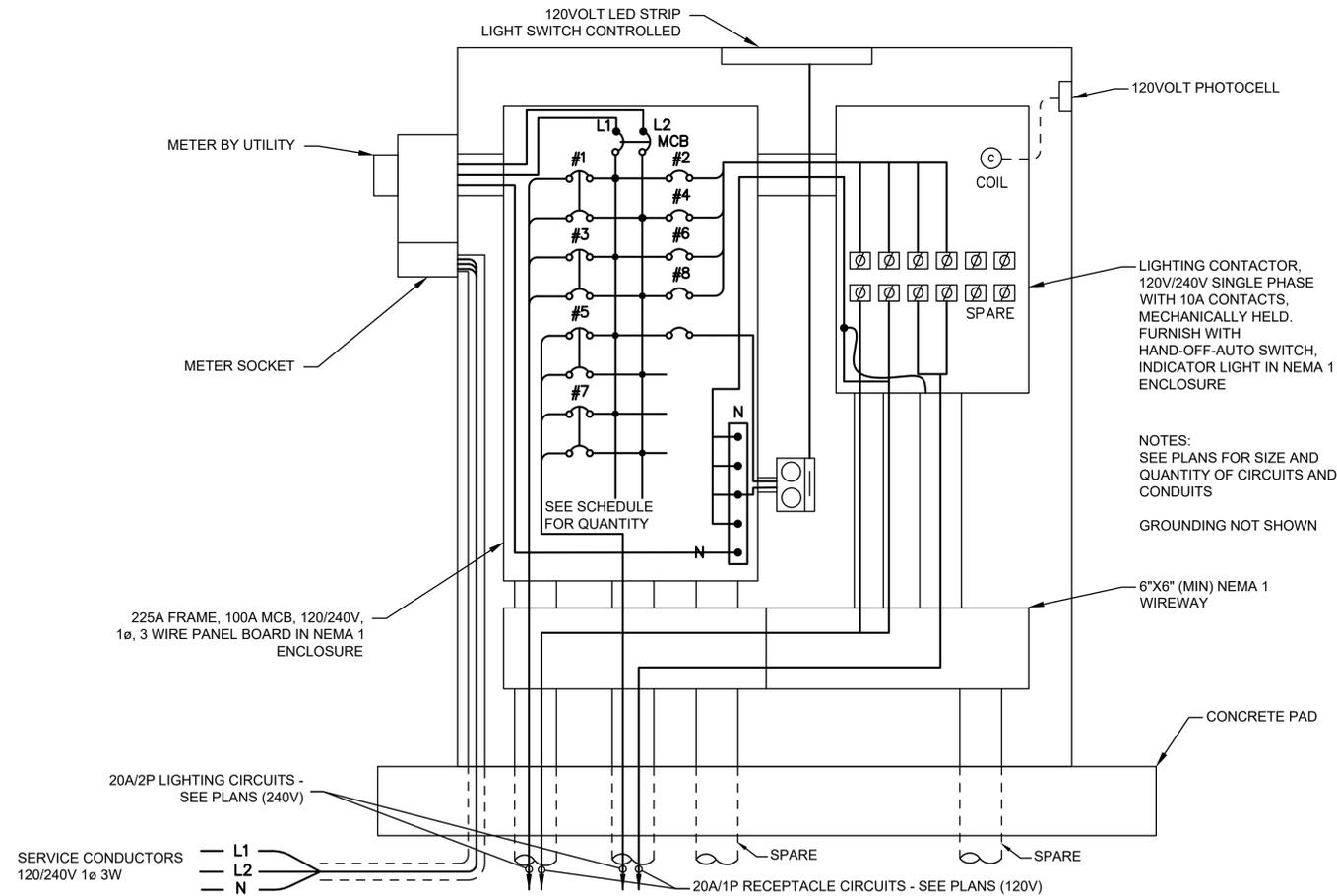
**STREET LIGHT CONTROLLER INSTALLATION DETAIL**

SCALE: N.T.S.



**LIGHT POLE WIRING DIAGRAM**

SCALE: N.T.S.



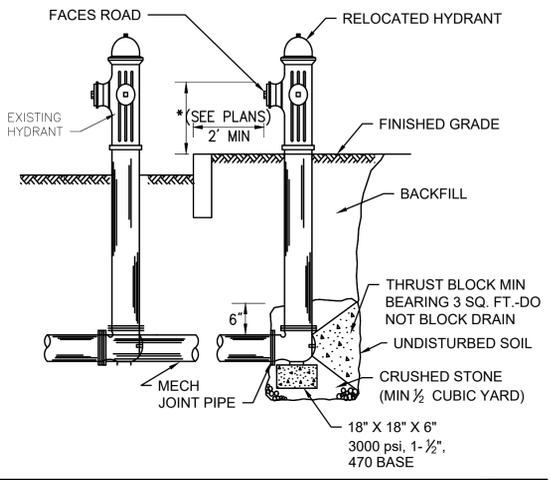
**TYPICAL LOAD CENTER WIRING DIAGRAM (120/240V UTILITY SERVICE)**

SCALE: N.T.S.

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	55	100

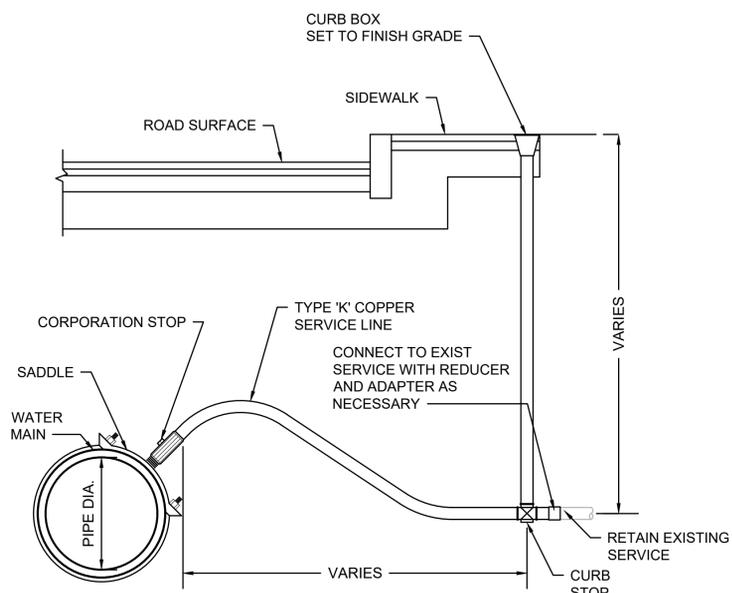
PROJECT FILE NO. 608961

CONSTRUCTION DETAILS



**HYDRANT RELOCATION**

SCALE: N.T.S.

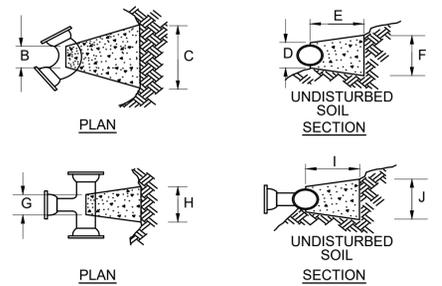


**NOTES**

- INSTALLATIONS SHALL CONFORM WITH CITY OF WORCESTER SPECIFICATIONS AND STANDARDS.

**CORPORATION/CURB STOP WITH SERVICE BOX**

SCALE: N.T.S.



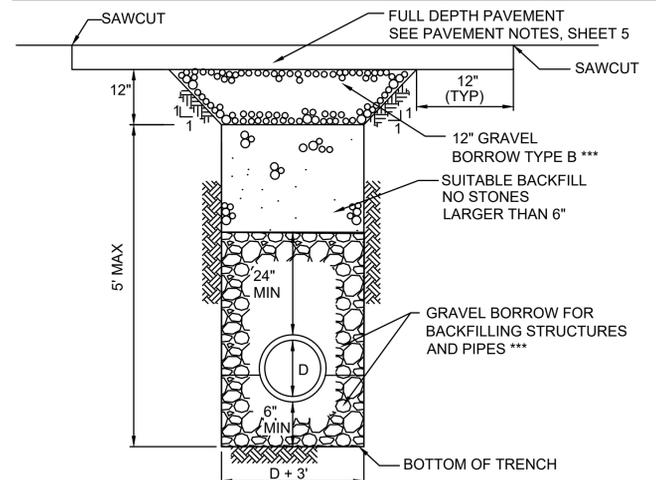
BENDS						BENDS					
	B	C	D	E	F		B	C	D	E	F
6"	11-1/4"	8"	15"	12"	24"	6"	45°	8"	30"	12"	24"
8"	22-1/2"	"	19"	"	13"	6"	90°	"	30"	"	27"
8"	11-1/4"	"	20"	"	12"	8"	45°	"	30"	"	24"
8"	22-1/2"	"	22"	"	17"	8"	90°	"	38"	"	36"
12"	11-1/4"	"	30"	"	15"	12"	45°	"	40"	"	40"
12"	22-1/2"	"	35"	"	25"	12"	90°	"	60"	"	52"

TEES						TEES								
	G	H	I	J		G	H	I	J		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:**
- PROVIDE BLOCKS FOR TAPPING SLEEVES, DEAD ENDS, GATE VALVES AND VERTICAL BENDS, SAME SIZE AS REQUIRED FOR TEES.
  - PROVIDE ANCHOR RODS AT VERTICAL BENDS AND GATE VALVES
  - CONCRETE SHALL NOT BE PLACED AGAINST PIPE BEYOND FITTING.

**CONCRETE THRUST BLOCK**

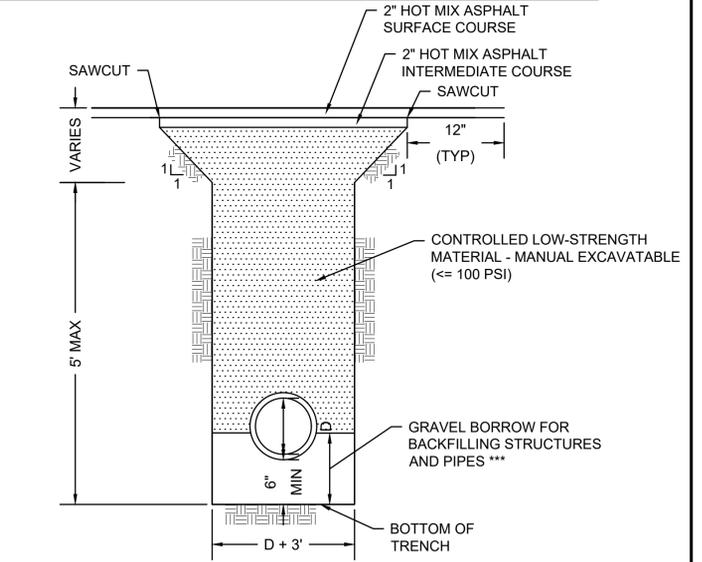


- NOTES:**
- WHERE GRAVEL BORROW IS USED TO BACKFILL TRENCHES IT SHALL BE PAID FOR UNDER ITEM 151.2, REGARDLESS OF STONE SIZE

\*\*\* WHERE GRAVEL BORROW, TYPE B IS PROPOSED WITHIN 10' OF THE 24", 30", OR 48" WATER MAINS, 8" OF CONTROLLED LOW-STRENGTH MATERIAL - MANUAL EXCAVATABLE (<=100 PSI) SHALL BE USED IN PLACE OF GRAVEL BORROW, TYPE B.

**TRENCH IN FULL DEPTH PAVEMENT**

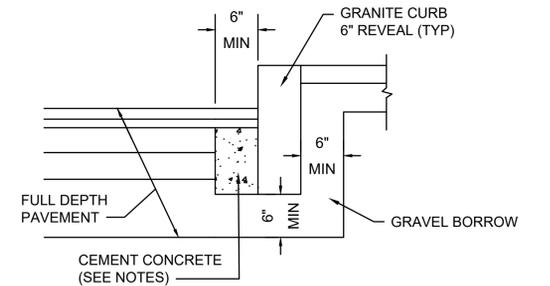
SCALE: N.T.S. DWG: TRENCH-04



\*\*\* WHERE GRAVEL BORROW, TYPE B IS PROPOSED WITHIN 10' OF THE 24", 30", OR 48" WATER MAINS, 8" OF CONTROLLED LOW-STRENGTH MATERIAL - MANUAL EXCAVATABLE (<=100 PSI) SHALL BE USED IN PLACE OF GRAVEL BORROW, TYPE B.

**TRENCH DETAIL IN EXISTING HOT MIX ASPHALT**

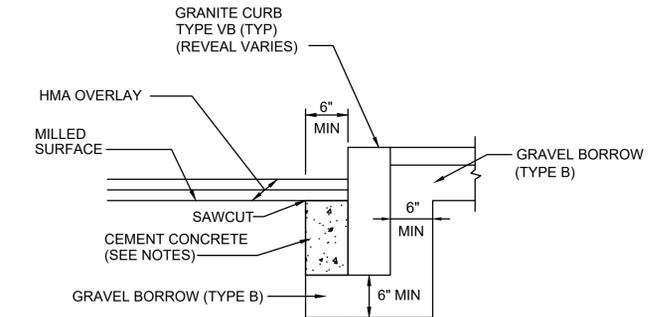
SCALE: N.T.S.



- NOTES:**
- TO BE PLACED IF CURB IS INSTALLED AFTER HOT MIX ASPHALT
  - CONCRETE SHALL BE INCLUDED IN PRICE BID FOR GRANITE CURB
  - 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**

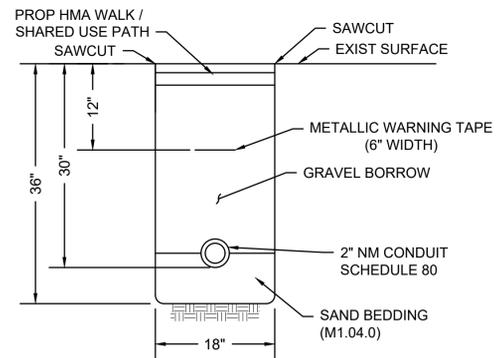
SCALE: N.T.S. DWG: CURB-05 DATE: MARCH 2013



- NOTES:**
- CONCRETE SHALL BE INCLUDED IN PRICE BID FOR GRANITE CURB.
  - SAWCUT 6" FROM CURB LINE AND REMOVE EXISTING PAVEMENT AND GRAVEL. REPLACE WITH CEMENT CONCRETE.
  - 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.

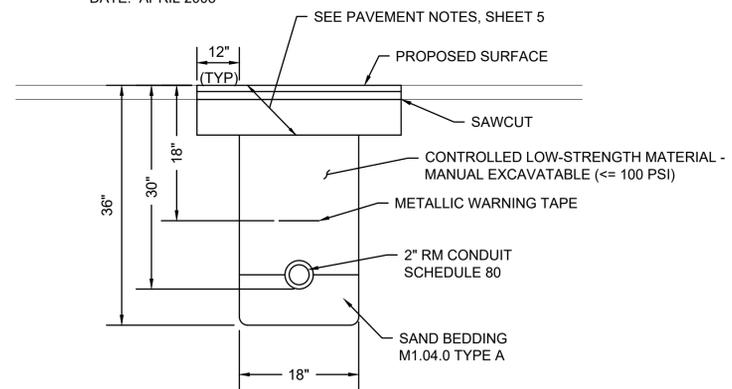
**GRANITE CURB IN PAVEMENT MILLING AND OVERLAY**

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



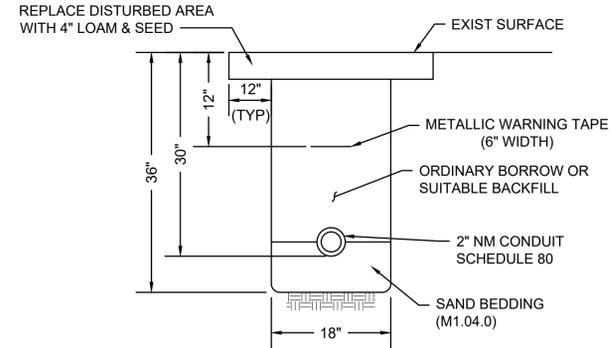
**CONDUIT IN SIDEWALK**

SCALE: N.T.S.



**CONDUIT CROSSING ROADWAY**

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

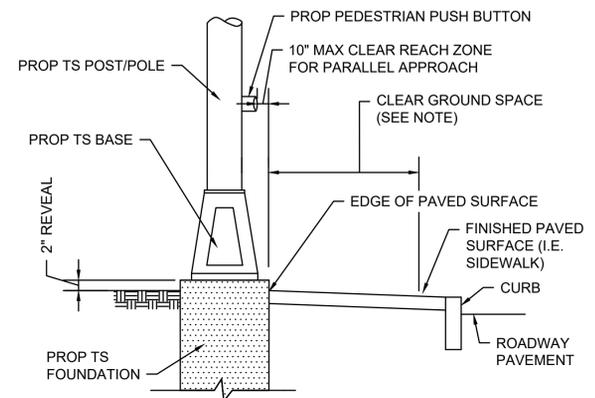


**CONDUIT IN GRASS**

SCALE: N.T.S.

WORCESTER CHANDLER STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	56	100
PROJECT FILE NO. 608961			
CONSTRUCTION DETAILS			

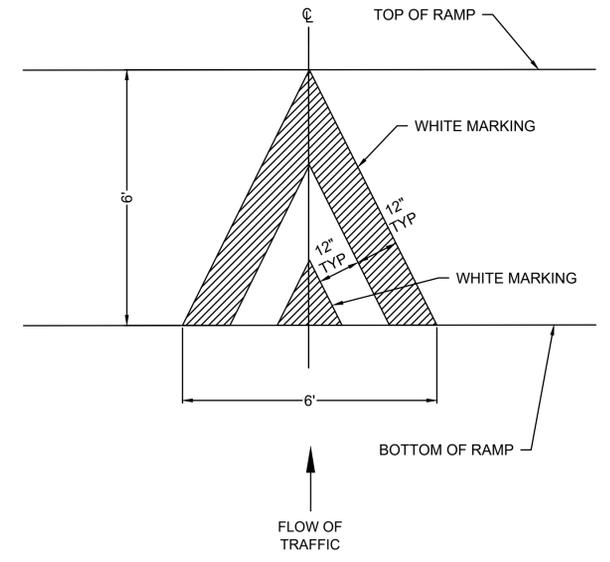
13294.01\_H01(DEF).DWG Plotted on 12-Feb-2025 7:12 PM



**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.

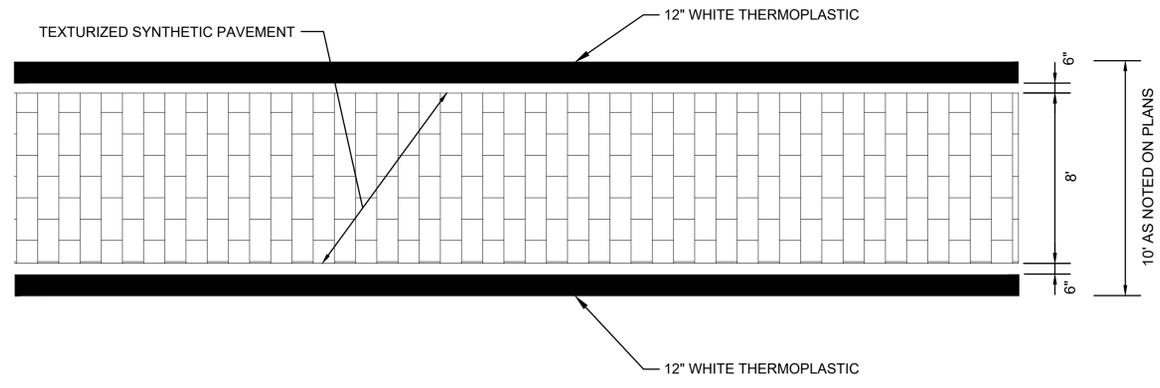
**PEDESTRIAN PUSH BUTTON CLEAR ZONE**

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



**RAISED CROSSWALK MARKINGS**

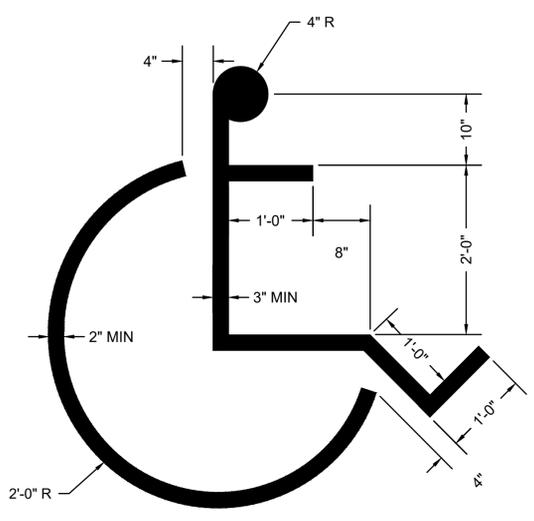
SCALE: N.T.S.



**NOTE:** THIS DETAIL APPLIES TO ALL CROSSWALKS

**TEXTURIZED CROSSWALK**

SCALE: N.T.S.

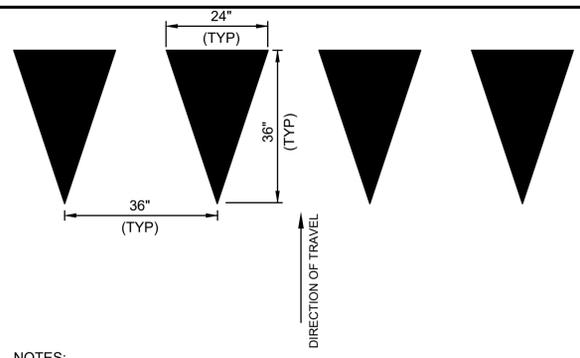


**NOTE:**  
1. SYMBOL SHALL BE CENTERED IN THE PARKING STALL  
2. SYMBOL SHALL BE REFLECTORIZED PREFORMED THERMOPLASTIC

**HANDICAPPED PARKING STALL SYMBOL**

SCALE: N.T.S. DWG: PM-02 DATE: MARCH 2013

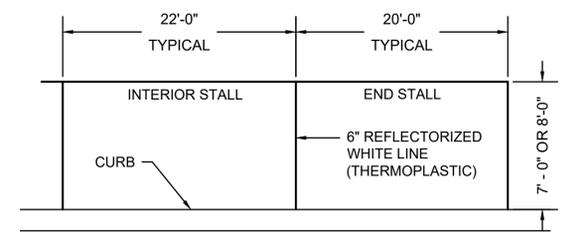
**NOTES:**  
1. SEE MUTCD FIGURE 3B-29 FOR MORE INFORMATION.  
2. RAISED CROSSWALK MARKING SHALL BE REFLECTIVE PREFORMED THERMOPLASTIC.  
3. MARKINGS TO BE LOCATED IN CENTER OF TRAVEL LANE. SEE SIGNAGE AND MARKING PLANS FOR LOCATIONS.



**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.

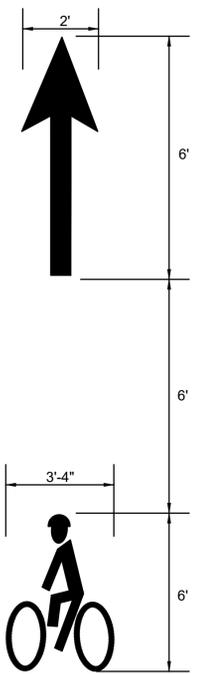
**YIELD LINE TRIANGLES**

SCALE: NTS



**PARKING STALL MARKINGS**

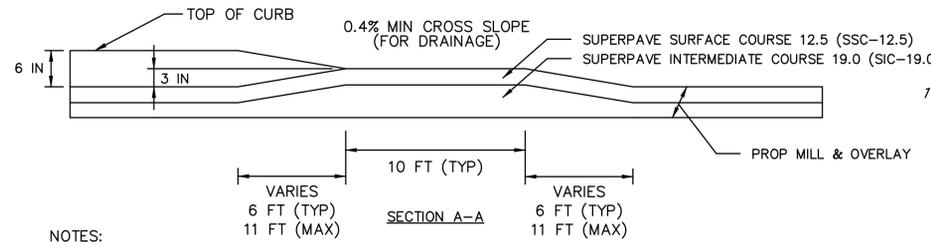
SCALE: N.T.S. DWG: PM-01 DATE: MARCH 2013



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

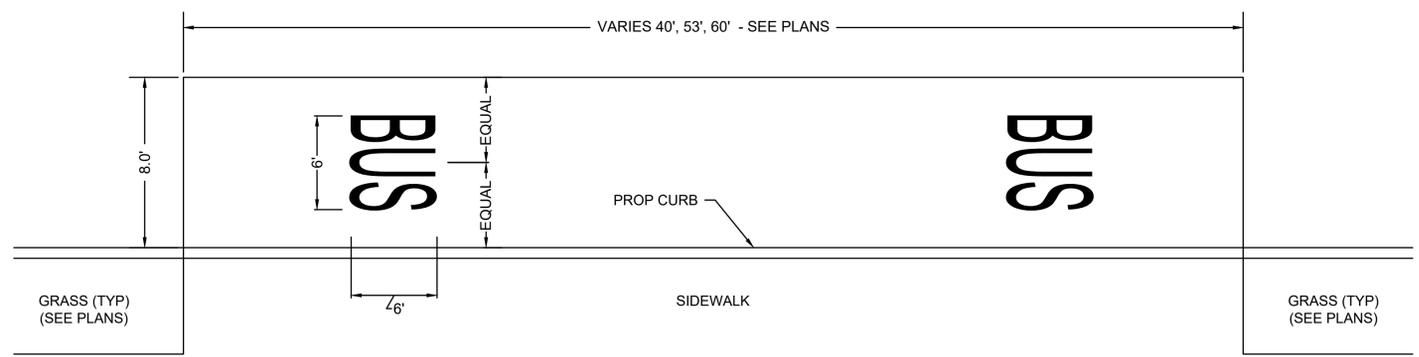
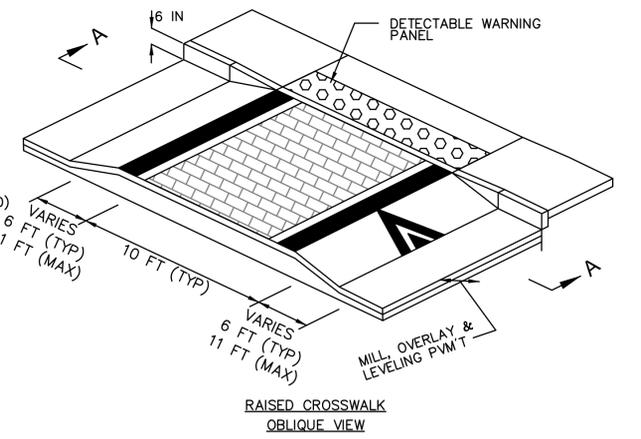
**BIKE LANE PAVEMENT MARKINGS**

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



**NOTES:**  
1. RAISED CROSSINGS SHOULD BE PAVED IN 2\"/>

**STANDARD RAISED CROSSWALK DETAIL**



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

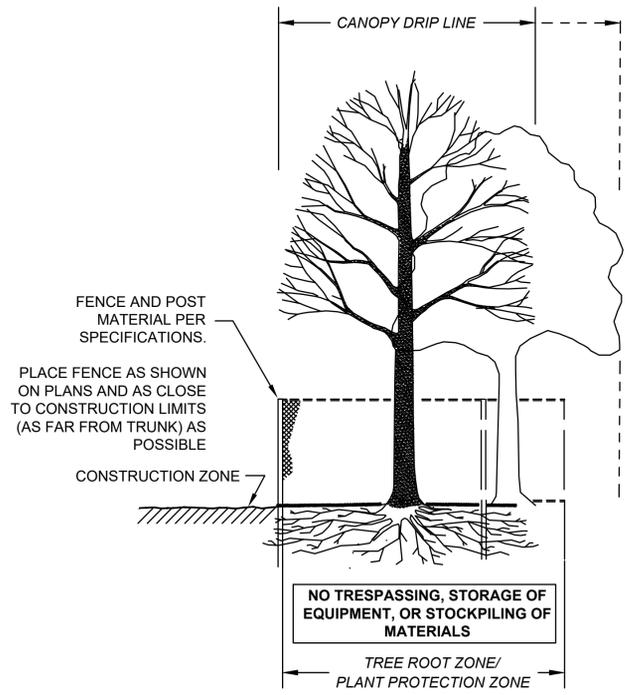
**BUS BAY DETAIL**

SCALE: N.T.S.

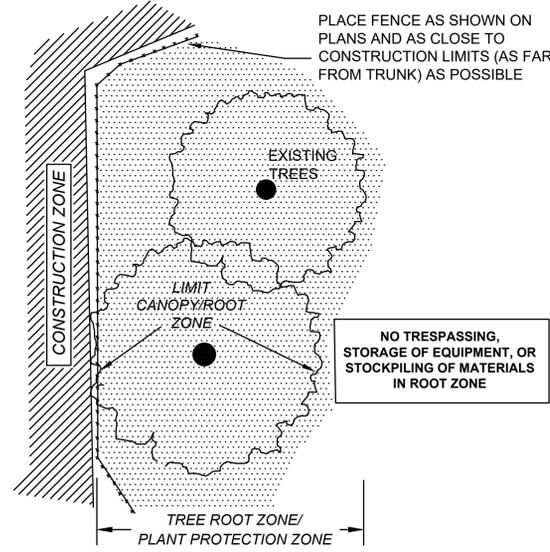
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	57	100

PROJECT FILE NO. 608961

CONSTRUCTION DETAILS



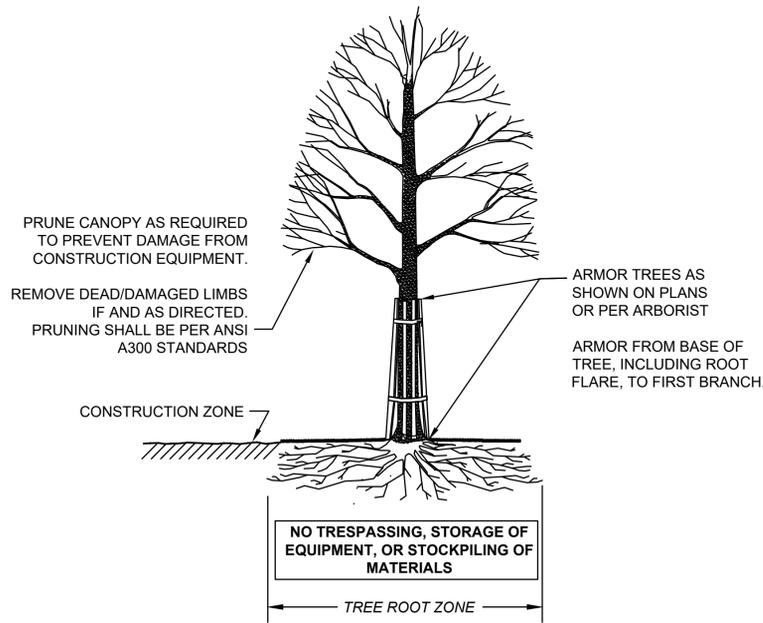
SECTION - FENCE PROTECTION OF ROOT ZONE



PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

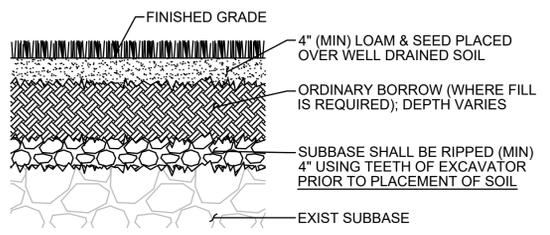
TREE PROTECTION - ROOT ZONE

NOT TO SCALE



SECTION - TRUNK ARMORING & PRUNING

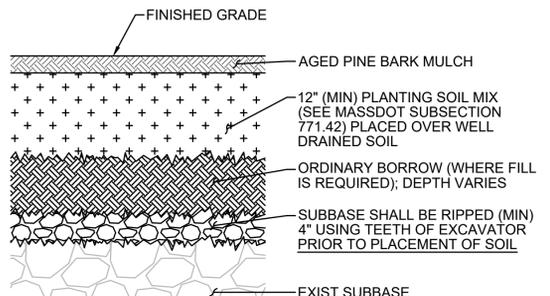
TREE PROTECTION - TRUNK



NOTE  
ALL EXISTING ASPHALT SHALL BE STRIPPED AND REMOVED PRIOR TO TILLING. ASPHALT SHALL NOT BE MIXED WITH THE SUBBASE.

LAWN IN FORMER PAVED AREAS

SCALE: NTS

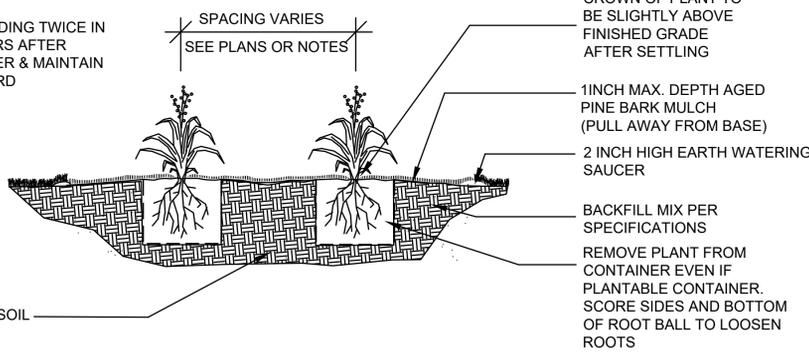


NOTE  
ALL EXISTING ASPHALT SHALL BE STRIPPED AND REMOVED PROPT TO TILLING. ASPHALT SHALL NOT BE MIXED WITH THE SUBBASE.

PLANTING BED IN FORMER PAVED AREAS

SCALE: NTS

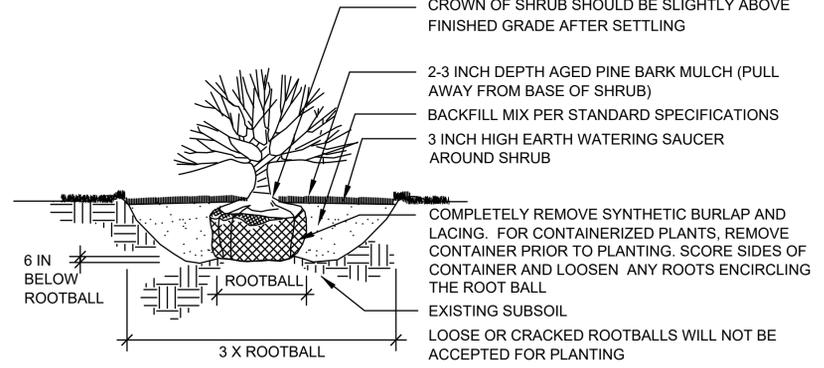
EXCAVATE TO REQUIRED DEPTH AND BACKFILL WITH PLANTING MIX  
RAISE AND REPLANT PLANTS THAT SETTLE MORE THAN 3 INCHES AFTER PLANTING AND WATERING IN  
WATER BY FLOODING TWICE IN FIRST TWO HOURS AFTER PLANTING. WATER & MAINTAIN AS PER STANDARD SPECIFICATIONS



PERENNIAL PLANTING

NOT TO SCALE

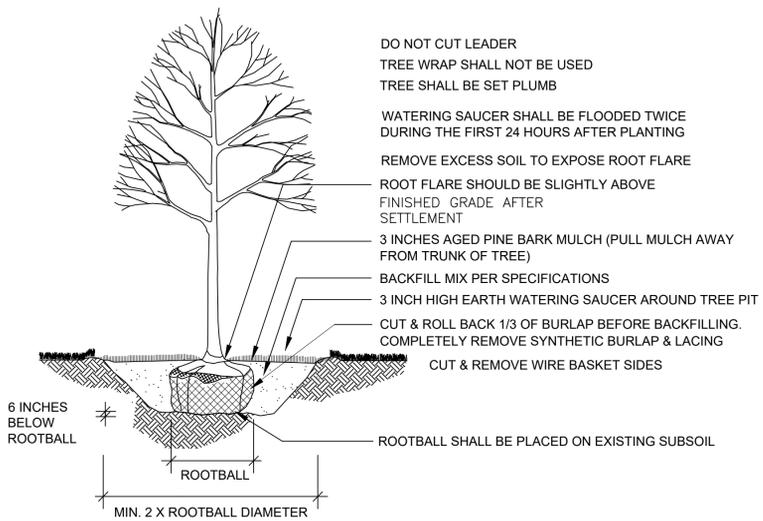
EXCAVATE TO REQUIRED DEPTH AND BACKFILL WITH PLANTING MIX  
SHRUBS SHALL BE SET PLUMB



SHRUB PLANTING

NOT TO SCALE

WATER BY FLOODING TWICE IN FIRST TWO HOURS AFTER PLANTING. WATER & MAINTAIN AS PER STANDARD SPECIFICATIONS



DECIDUOUS TREE PLANTING

NOT TO SCALE

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	58	100

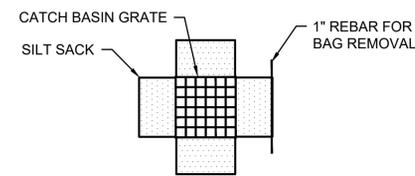
PROJECT FILE NO. 608961

CONSTRUCTION DETAILS

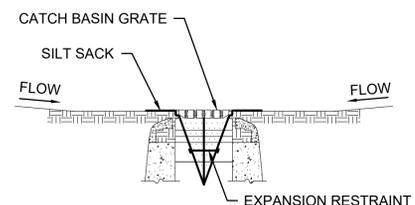
RRFB DURATION

LOCATION	CROSSWALK LENGTH	MINIMUM FLASH DURATION	PROGRAMMED FLASH DURATION
1	34'	11	11
2	43'	14	14

- NOTES:
- CROSSWALK LENGTH IS DETERMINED FROM FARTHEST BUTTON TO OPPOSITE CURB RAMP OPENING.
  - MINIMUM FLASH DURATION IS CROSSWALK LENGTH DIVIDED BY 3.0 FEET PER SECOND.
  - PROGRAMMED FLASH DURATION NOT TO BE LESS THAN 7 SECONDS.



PLAN VIEW



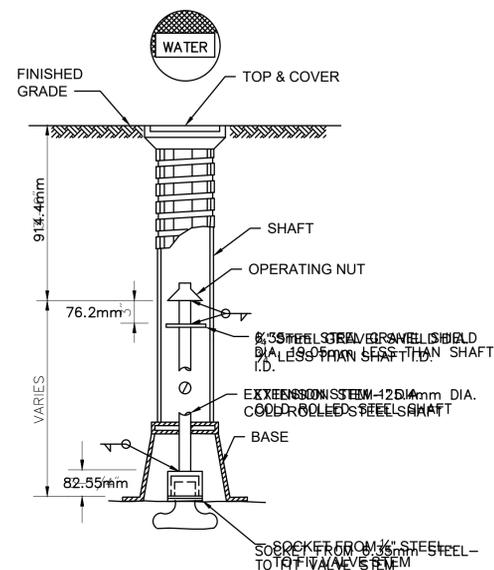
SECTION VIEW

NOTES:

- 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.
- GRATE TO BE PLACED OVER SILT SACK.
- SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED

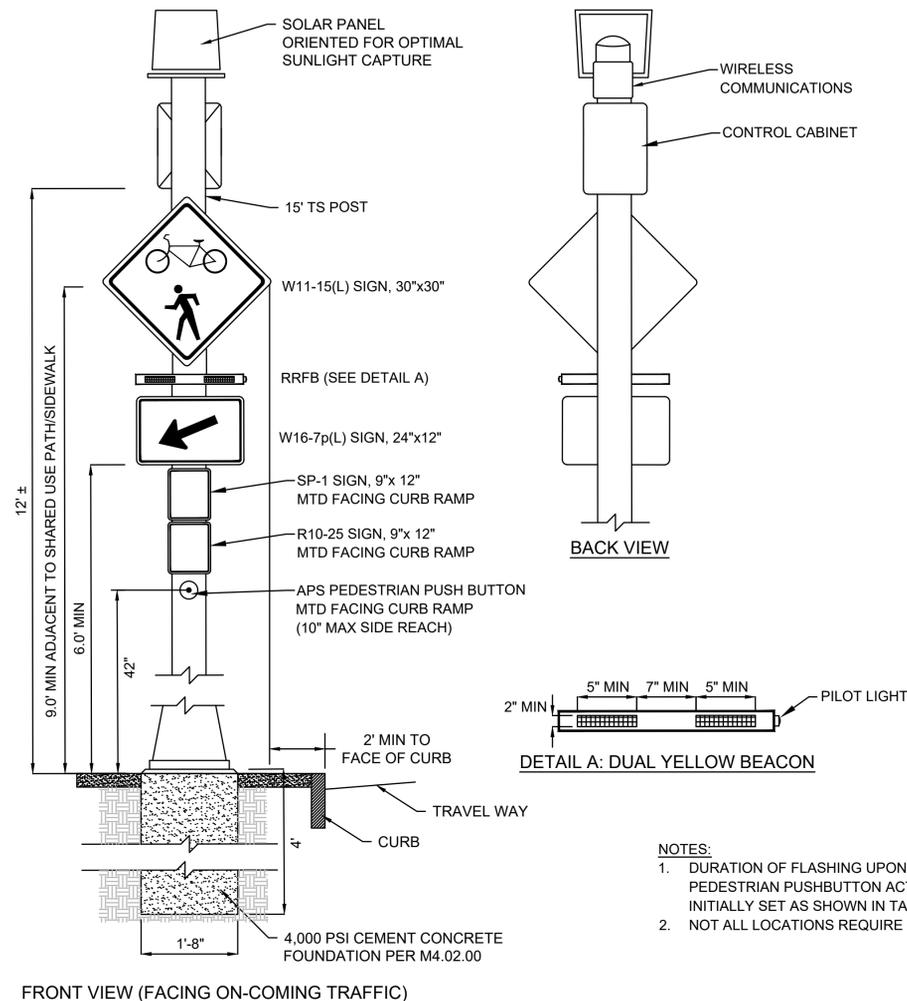
**INLET PROTECTION - SILT SACK IN CATCH BASIN**

SCALE: N.T.S.



**VALVE SHAFT EXTENSION**

SCALE: NTS



FRONT VIEW (FACING ON-COMING TRAFFIC)

**RECTANGULAR RAPID FLASHING BEACON (SOLAR)**

SCALE: NTS

NOTES:

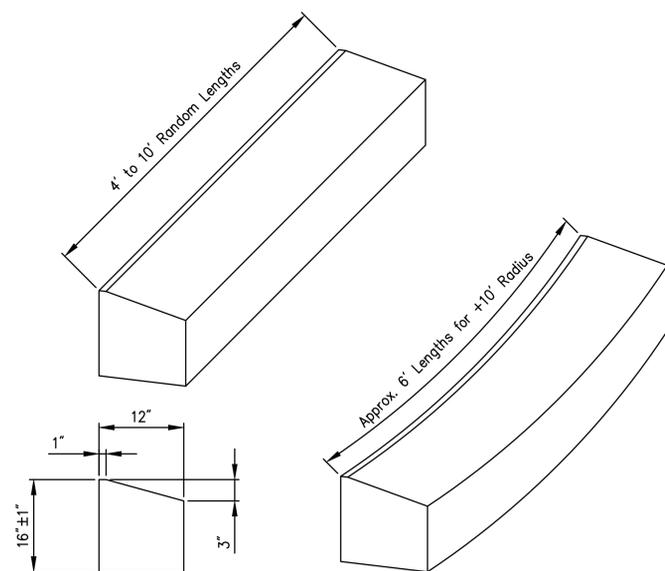
- DURATION OF FLASHING UPON RECEIPT OF VALID PEDESTRIAN PUSHBUTTON ACTUATION SHALL BE INITIALLY SET AS SHOWN IN TABLE
- NOT ALL LOCATIONS REQUIRE "BACK VIEW"

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	59	100

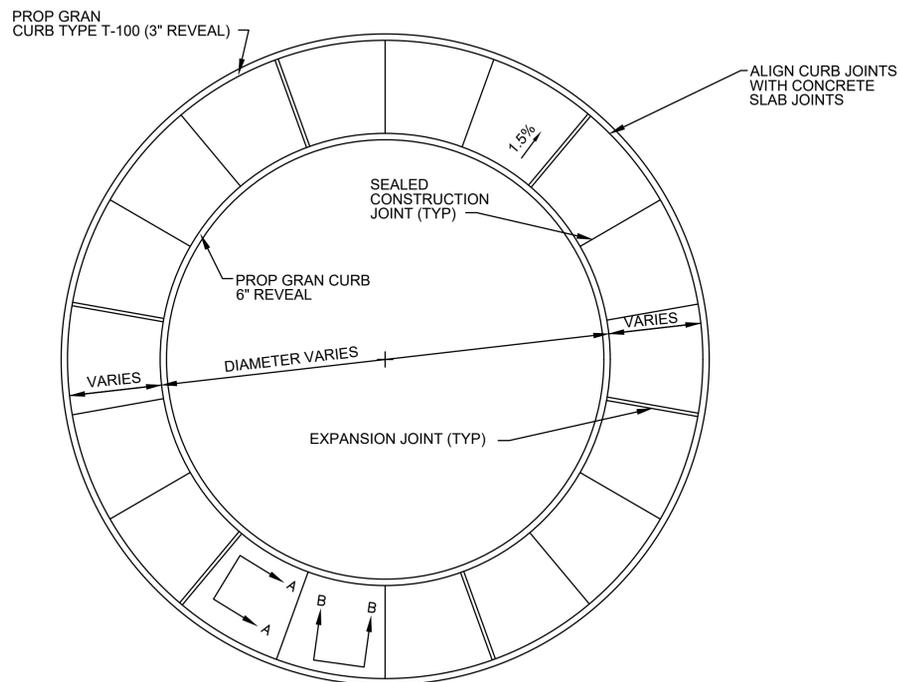
PROJECT FILE NO. 608961

CONSTRUCTION DETAILS



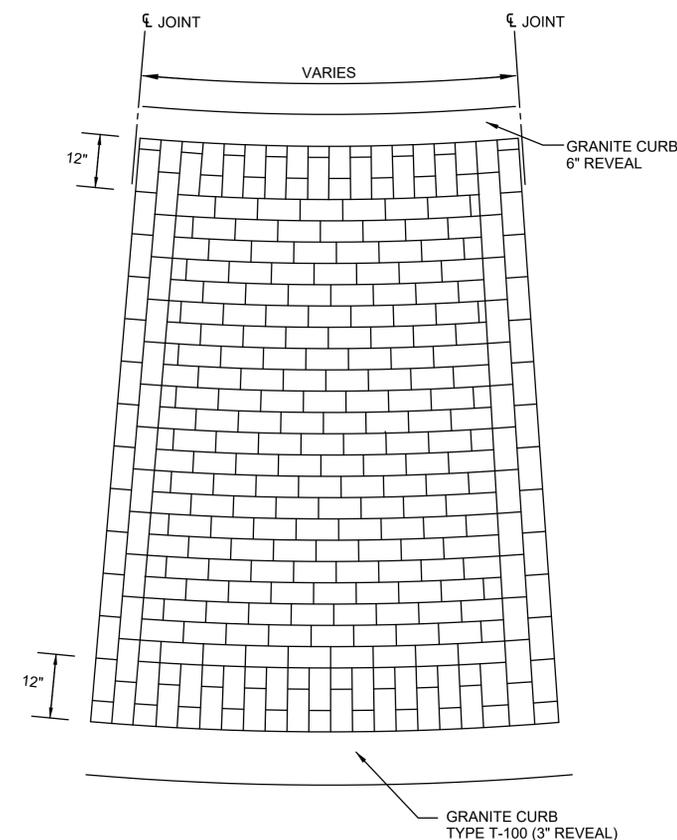
TYPE T-100 TRAVERSABLE GRANITE CURBING

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



JOINT LAYOUT

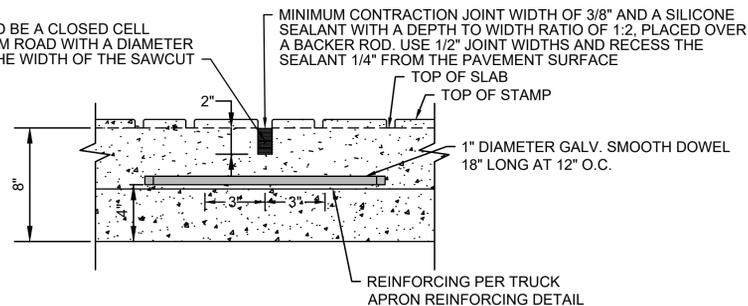
SCALE: N.T.S. DWG: -- DATE: APR. 2014



STAMPED CEMENT CONCRETE PAVEMENT

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

BACKER ROD SHOULD BE A CLOSED CELL POLYURETHANE FOAM ROAD WITH A DIAMETER 25% LARGER THAN THE WIDTH OF THE SAWCUT

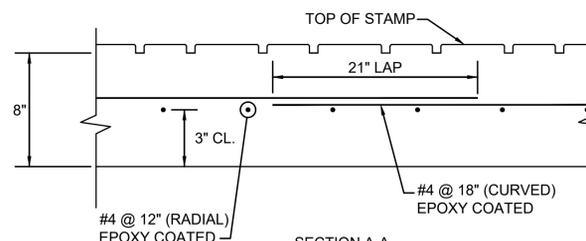


NOTE:

1. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONTRACTION JOINT.
2. CONSTRUCTION JOINTS TO BE SPACED AT 24'-0" MAX. CONTRACTOR SHALL SUBMIT JOINT LAYOUT PLAN TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

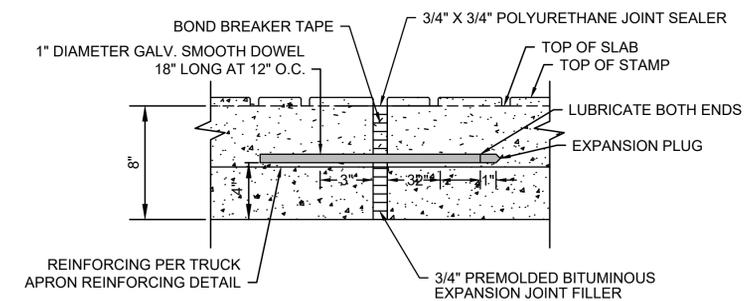
TRUCK APRON CONTRACTION JOINT (CJ)

SCALE: NTS



REINFORCED CEMENT CONCRETE TRUCK APRON

SCALE: NTS



NOTE:

1. REINFORCEMENT SHALL END 2" CLEAR OF EXPANSION JOINT.
2. EXPANSION JOINTS TO BE SPACED AT 72'-0" MAX. CONTRACTOR SHALL SUBMIT JOINT LAYOUT PLAN TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

TRUCK APRON EXPANSION JOINT (EJ)

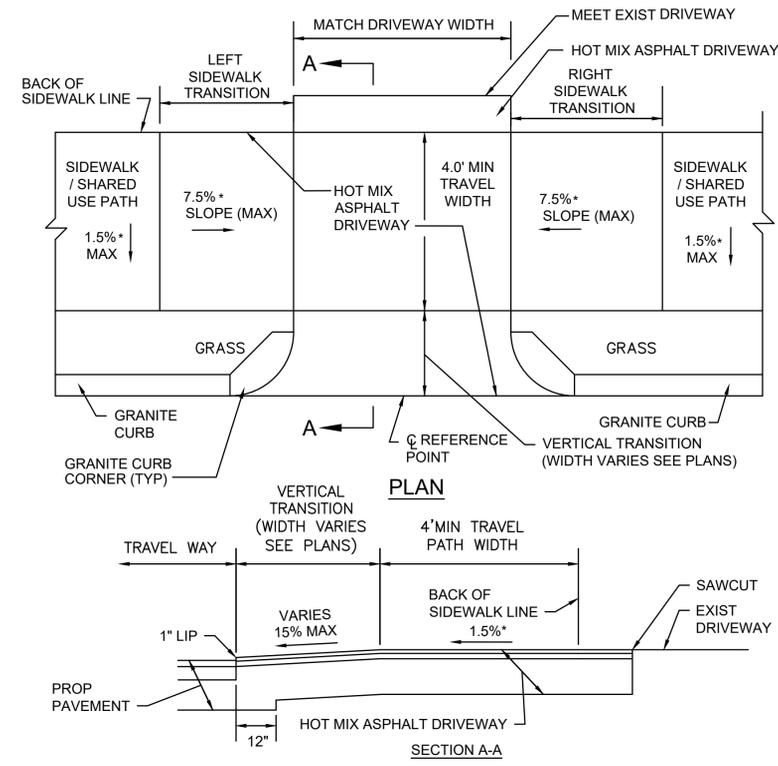
SCALE: NTS

WORCESTER  
CHANDLER STREET

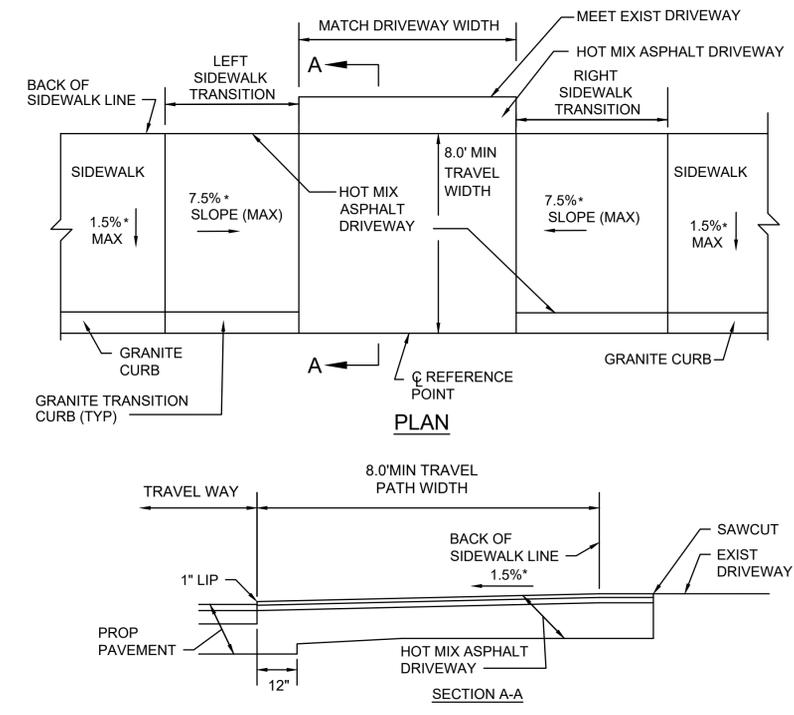
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	60	100

PROJECT FILE NO. 608961

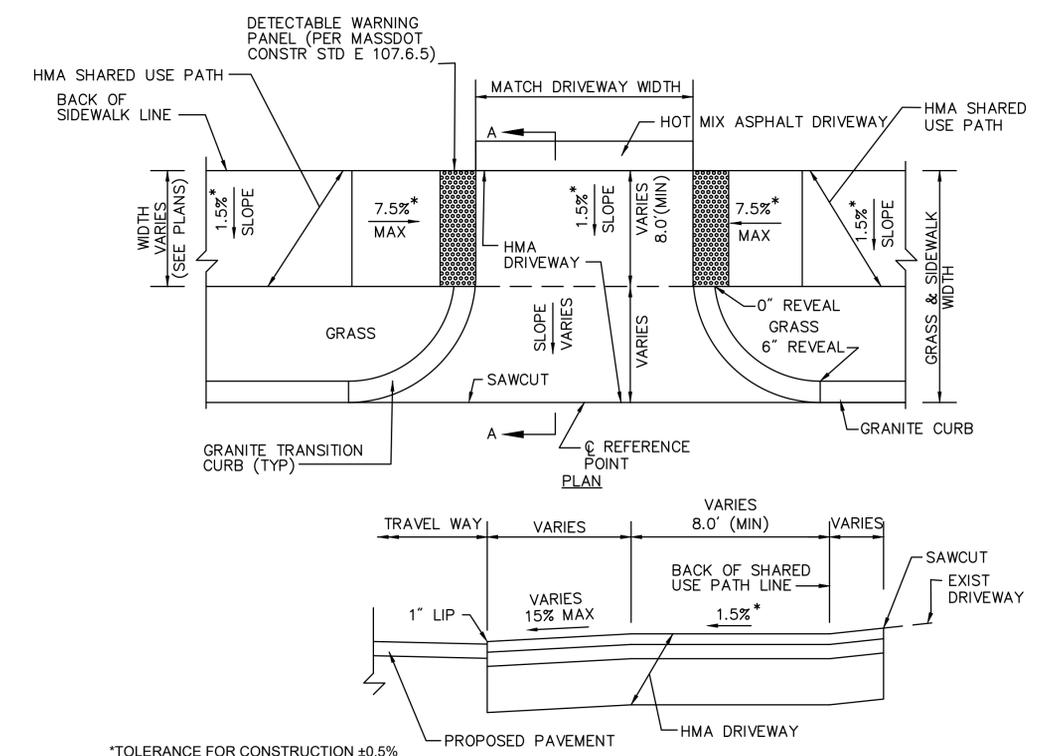
CONSTRUCTION DETAILS



\* TOLERANCE FOR CONSTRUCTION ±0.5%



\* TOLERANCE FOR CONSTRUCTION ±0.5%



\*TOLERANCE FOR CONSTRUCTION ±0.5%

NO.	LOCATION	SIDEWALK WIDTH	ROADWAY GUTTER	LEFT SIDE		RIGHT SIDE		ε OPENING ELEVATION
				REVEAL	TRANS	REVEAL	TRANS	
1	103+24.01 30.00' LT	5'-0"	0.66%	6"	6'-6"	6"	7'-8"	569.15
5	106+34.78 35.18' LT	10'-6"	-2.25%	6"	-	6"	-	576.84
6	107+88.41 26.00' LT	10'-6"	1.82%	6"	3'-3"	6"	3'-3"	578.39
4	204+02.76 16.86' LT	10'-0"	-2.48%	6"	14'-0"	6"	-	576.38

NO.	LOCATION	SIDEWALK WIDTH	ROADWAY GUTTER	LEFT SIDE		RIGHT SIDE		ε OPENING ELEVATION
				REVEAL	TRANS	REVEAL	TRANS	
2	104+25 30.00' LT	5'-0"	2.23%	6"	6'-6"	6"	11'-0"	570.27
8	302+04.96 21.34' RT	8'-0"	-2.00%	6"	11'-0"	6"	6'-6"	574.47

NO.	LOCATION	SIDEWALK WIDTH	ROADWAY GUTTER	LEFT SIDE		RIGHT SIDE		ε OPENING ELEVATION
				REVEAL	TRANS	REVEAL	TRANS	
3	105+59.47 44.83' RT	10'-0"	0.13%	6"	6'-6"	6"	6'-6"	574.89
7	113+13.44 58.48' LT	10'-0"	-1.1%	6"	9'-0"	6"	6'-6"	577.93
9	115+24.60 18.30' RT	10'-0"	0.9%	6"	-	6"	-	579.66
10	115+75.41 19.62' RT	10'-0"	0.17%	6"	-	6"	-	579.93

**DRIVEWAY WITH SIDEWALK AND CURB CORNER WITH GRASS STRIP**

SCALE: N.T.S.

**DRIVEWAY WITH SIDEWALK AND STRAIGHT TRANSITION CURB**

SCALE: N.T.S.

DWG: DRIVE-09

DATE: JUNE 2013

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

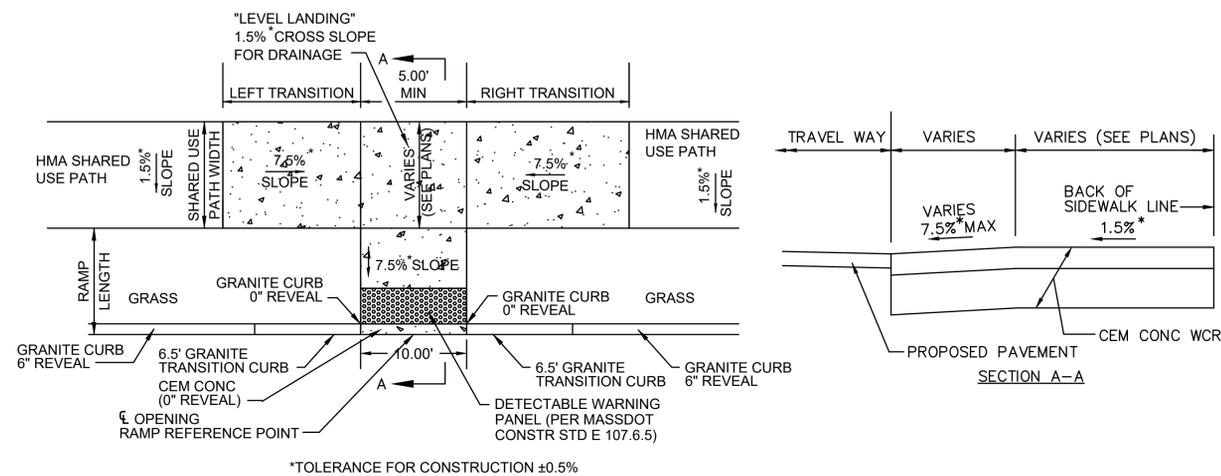
SCALE: N.T.S.

WORCESTER  
CHANDLER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	61	100

PROJECT FILE NO. 608961

CONSTRUCTION DETAILS

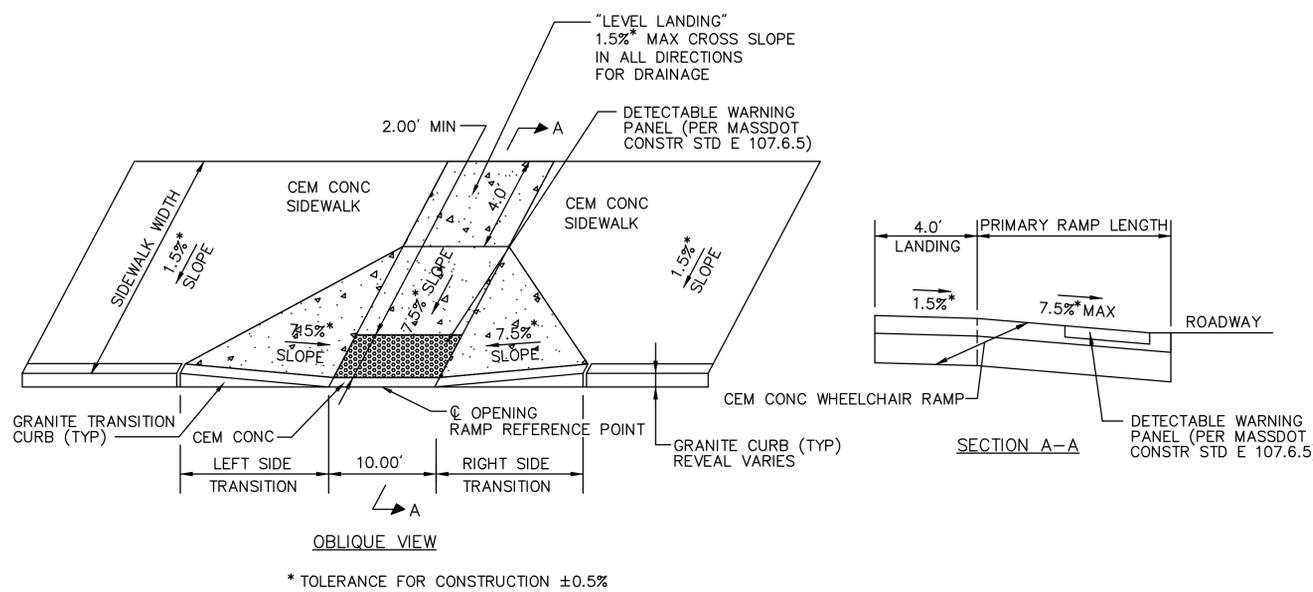


PEDESTRIAN CURB RAMP DATA									
NO.	LOCATION	SIDEWALK WIDTH	ROADWAY GUTTER	LEFT SIDE		RIGHT SIDE		OPENING ELEVATION	NOTES
				REVEAL	TRANS	REVEAL	TRANS		
2	105+21.46 21.88' LT	10'	5.56%	6"	6'-6"	6"	15'-0"	574.75'	NO GRASS STRIP
22	114+35.14 18.48' LT	10'	0.9%	6"	6'-6"	6"	7'-8"	579.04'	-
5	204+19.15 22.84' RT	10'	-2.39%	6"	6'-6"	6"	9'-0"	576.35'	NO GRASS STRIP
6	204+24.12 20.36' LT	10'	-1.05%	6"	-	6"	6'-6"	576.81'	NO GRASS STRIP
33	118+89.89 13.00' RT	8'	-0.25%	6"	3'-3"	6"	6'-6"	577.51'	-
34	119+22.18 13.00' RT	8'	-1.26%	6"	6'-6"	6"	4'-6"	577.03'	-

**CURB RAMP - WITH GRASS STRIP AND SIDE TRANSITIONS**

SCALE: N.T.S.

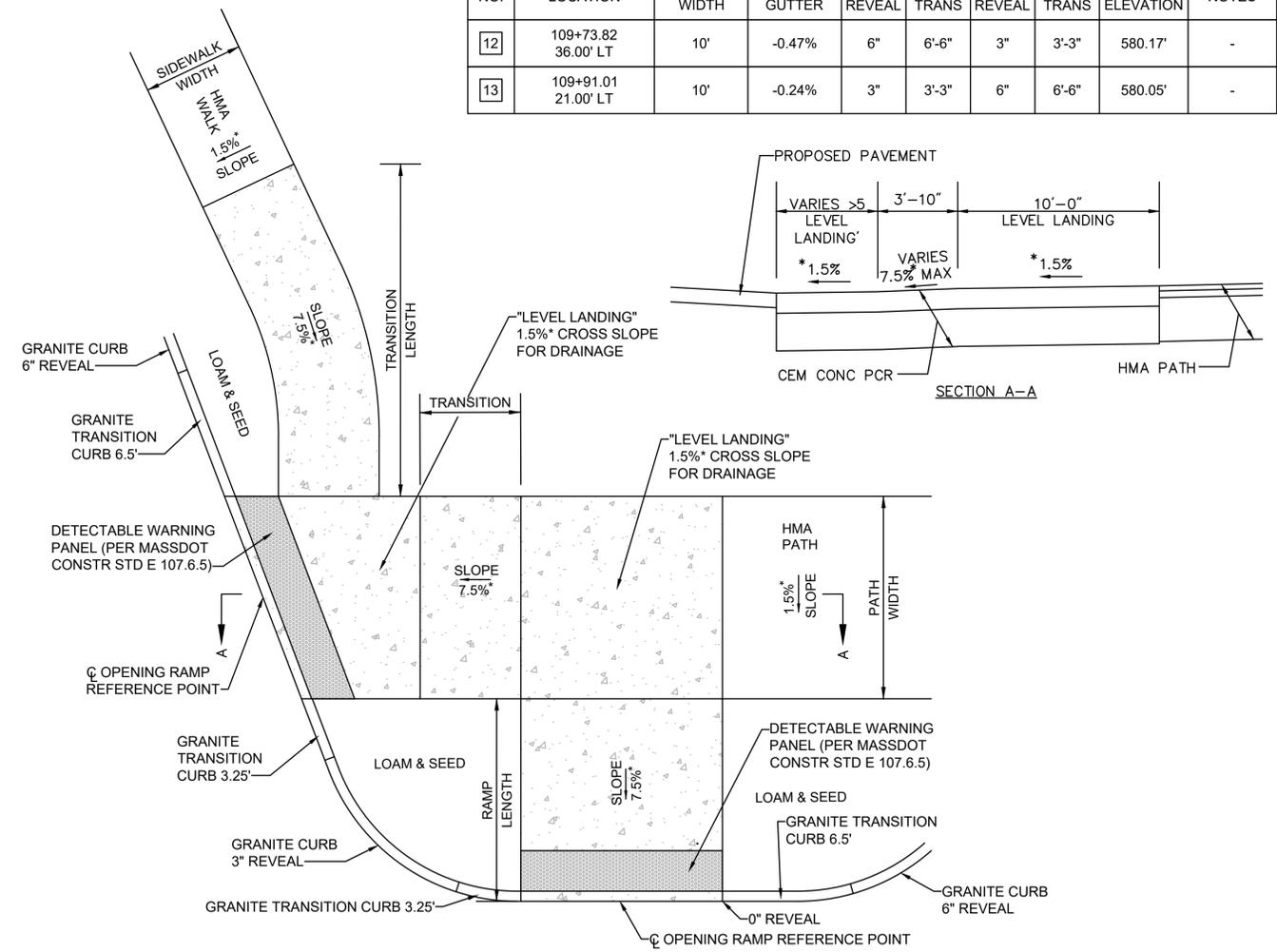
PEDESTRIAN CURB RAMP DATA									
NO.	LOCATION	SIDEWALK WIDTH	ROADWAY GUTTER	LEFT SIDE		RIGHT SIDE		OPENING ELEVATION	NOTES
				REVEAL	TRANS	REVEAL	TRANS		
12	109+73.82 36.00' LT	10'	-0.47%	6"	6'-6"	3"	3'-3"	580.17'	-
13	109+91.01 21.00' LT	10'	-0.24%	3"	3'-3"	6"	6'-6"	580.05'	-



PEDESTRIAN CURB RAMP DATA									
NO.	LOCATION	SIDEWALK WIDTH	ROADWAY GUTTER	LEFT SIDE		RIGHT SIDE		OPENING ELEVATION	NOTES
				REVEAL	TRANS	REVEAL	TRANS		
30	116+51.95 15.22' RT	15'	-1.75%	6"	3'-10"	6"	3'-3"	579.75'	-

**CURB RAMP WITH SIDEWALK GREATER THAN 12.0 FT**

SCALE: N.T.S.



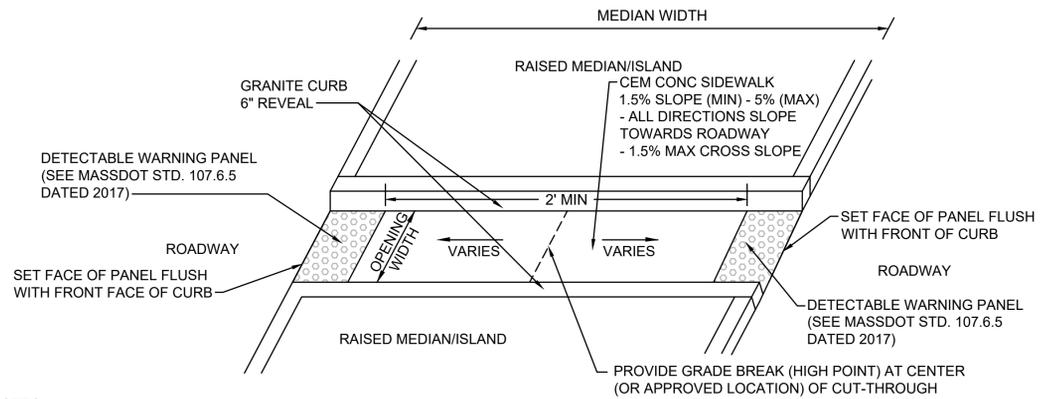
**CURB RAMP AT SOUTHERN CORNER OF CLARIDGE DRIVE AND CHANDLER STREET**

SCALE: N.T.S.

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	62	100

PROJECT FILE NO. 608961

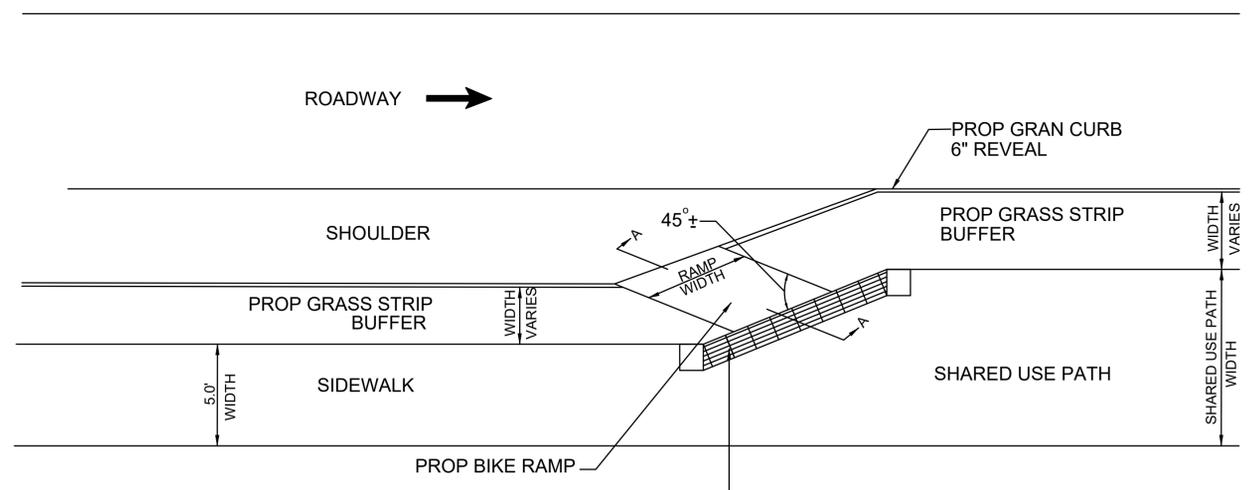
CONSTRUCTION DETAILS



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

**MEDIAN CUT-THROUGH**

SCALE: N.T.S.



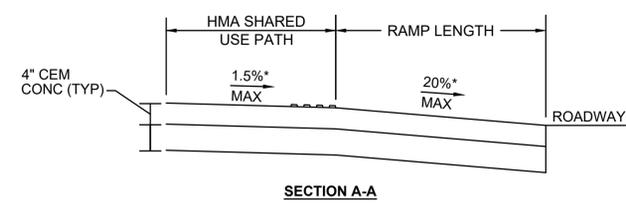
- NOTES:  
1. DETECTABLE WARNING PANELS ARE NO LONGER USED ON BIKE RAMPS. TDIs CAN BE USED TO DELINEATE THE DESIRED PATH FOR PEDESTRIANS NEAR THE RAMP.  
2. PROVIDE EDGE ALONG SHARED USE PATH TO GUIDE PEDESTRIANS PAST THE BIKE RAMP.

\*TOLERANCE FOR CONSTRUCTION ±0.5%

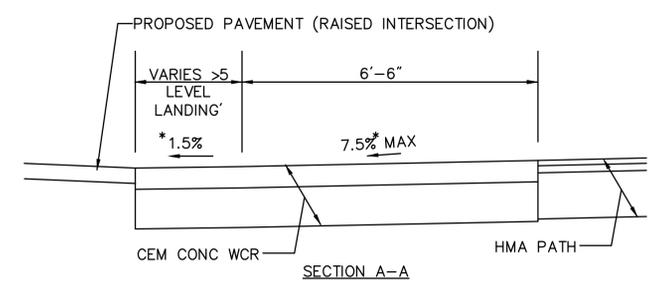
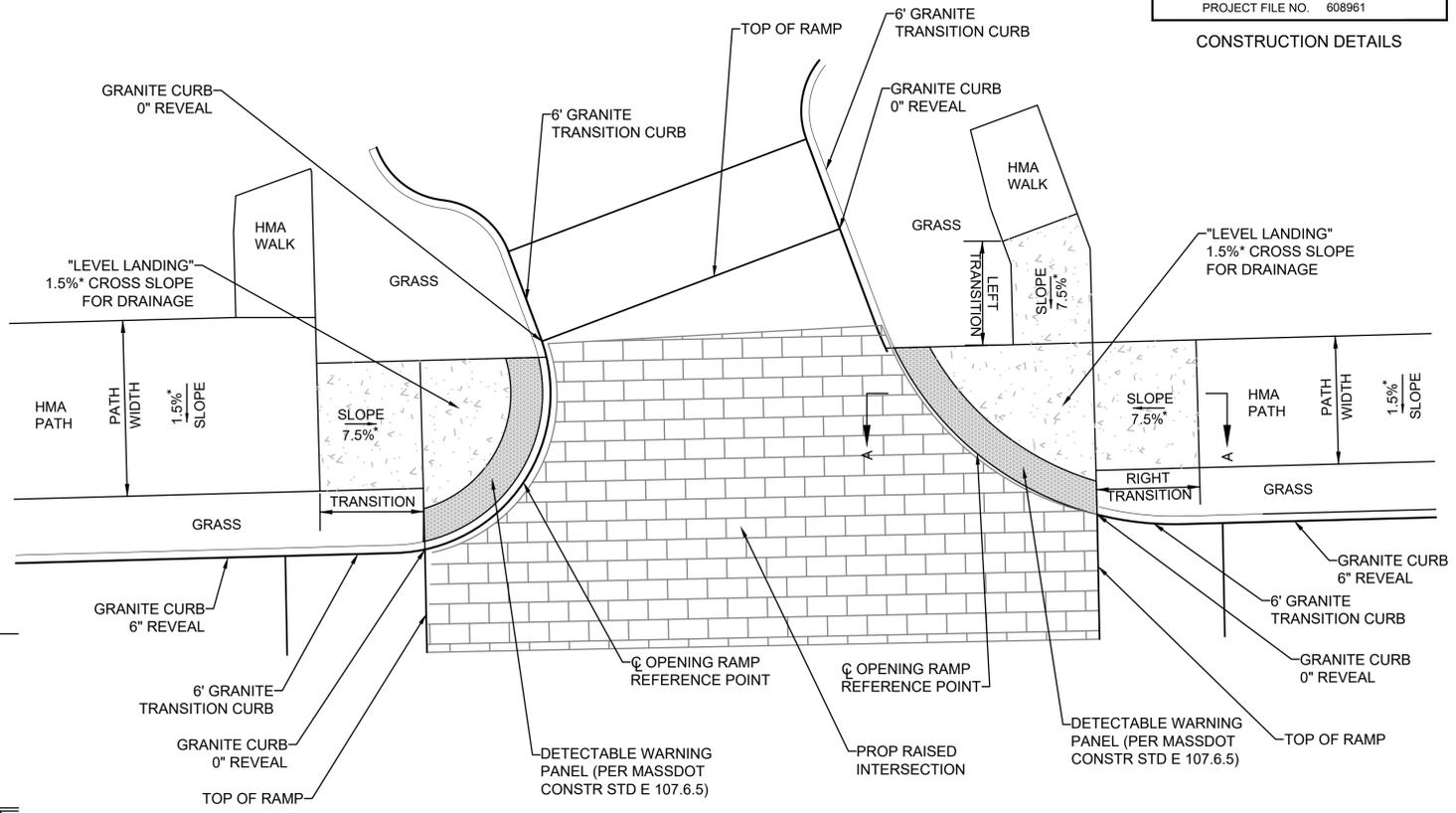
**TRANSITION FROM ON STREET BIKE LANE TO SHARED USE PATH**

SCALE: NTS

BIKE RAMP DATA					
NO.	LOCATION	RAMP WIDTH	ROADWAY GUTTER	RAMP LENGTH	± OPENING ELEVATION
1	104+65.39 20.66' LT	5'-0"	5.75%	4'-10"	571.88'
3	104+96.35 28.39' RT	5'-0"	2.32%	9'-0"	572.78'
9	203+68.06 17.23' RT	5'-0"	-3.83%	7'-2"	578.54'
28	116+21.29 13.30' LT	5'-0"	-0.80%	16'-2"	579.81
21	302+21.17 19.30' LT	5'-0"	2.00%	12'-2"	574.99



SECTION A-A



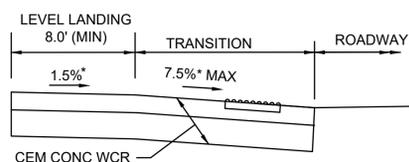
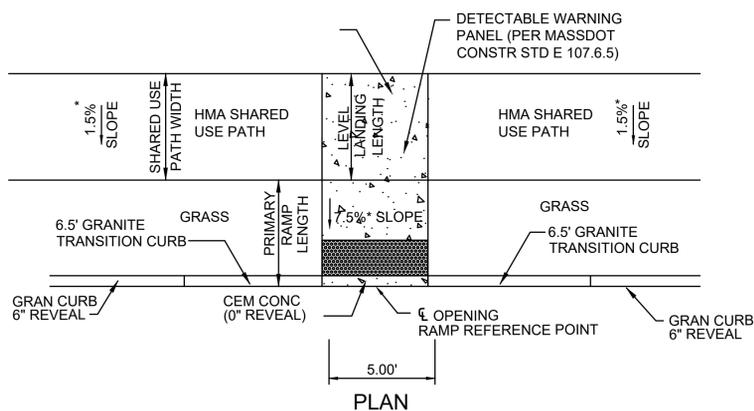
SECTION A-A

PEDESTRIAN CURB RAMP DATA									
NO.	LOCATION	SIDEWALK WIDTH	ROADWAY GUTTER	LEFT SIDE		RIGHT SIDE		± OPENING ELEVATION	NOTES
				REVEAL	TRANS	REVEAL	TRANS		
31	118+89.12 19.38' LT	11'	-1.00%	6"	6'-6"	6"	-	576.61'	-
32	119+20.89' 19.35' LT	8'	-1.00%	6"	6'-6"	6"	6'-6"	576.44'	-

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	63	100

PROJECT FILE NO. 608961

CONSTRUCTION DETAILS



LEGEND

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

\*TOLERANCE FOR CONSTRUCTION ±0.5%

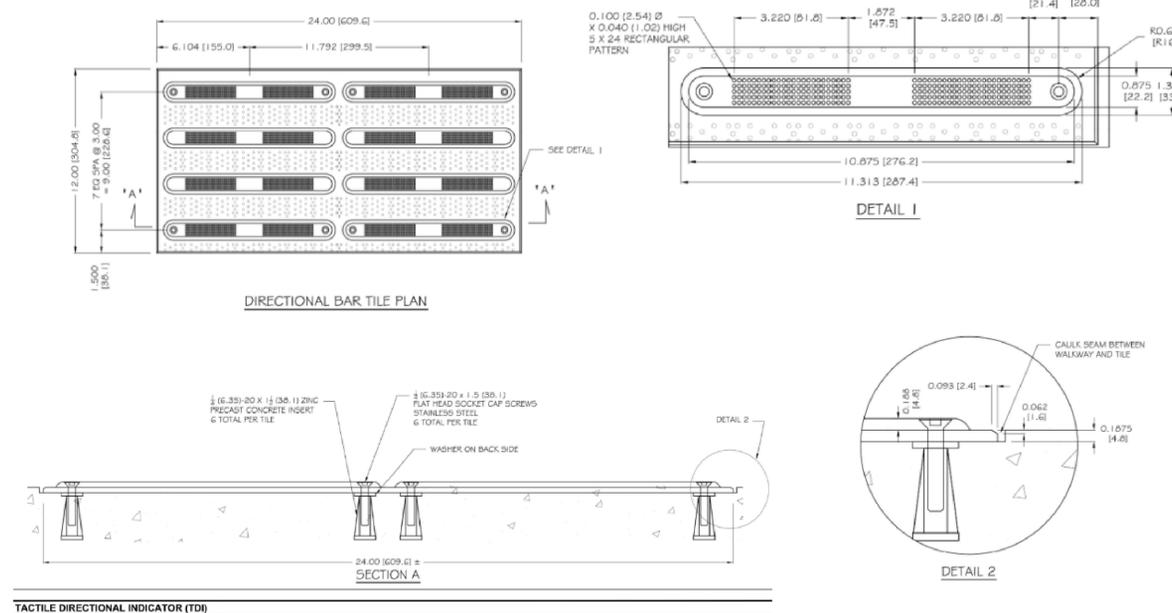
PEDESTRIAN CURB RAMP DATA							
NO.	LOCATION	SUP WIDTH	RAMP WIDTH	ROADWAY GUTTER	PRIMARY RAMP LENGTH	REVEAL	ε OPENING ELEVATION
4	105+23.33 21.30' RT	10'-0"	10'-0"	5.56%	14'-1"	6"	574.56'
8	106+83.71 24.13' RT	10'-0"	10'-0"	4.2%	15'-4"	6"	576.58'
7	106+81.81 18.23' LT	10'-0"	10'-0"	3.10%	14'-10"	6"	576.70'
15	112+41.43 24.05' LT	10'-0"	10'-0"	-2.90%	13'-0"	6"	578.98'
16	112+44.06 19.37' RT	10'-0"	10'-0"	-0.90%	29'-2"	6"	579.17'
23	114+36.64 23.01' RT	10'-0"	10'-0"	-1.56%	19'-6"	6"	579.09'
29	116+51.95 13.02' LT	10'-0"	10'-0"	-2.00%	5'-1"	6"	579.79'
9	108+87.66 21.00' LT	10'-0"	10'-0"	0.77%	8'-6"	6"	579.73'
10	108+87.51 21.00' RT	10'-0"	10'-0"	0.79%	9'-0"	6"	579.53'
14	109+91.69 21.00' RT	10'-0"	10'-0"	-0.21%	9'-1"	6"	579.84'
13	109+91.69 21.00' LT	10'-0"	10'-0"	-1.75%	9'-1"	6"	579.75'

**CURB RAMP - WITH GRASS STRIP AND NO SIDE TRANSITIONS**

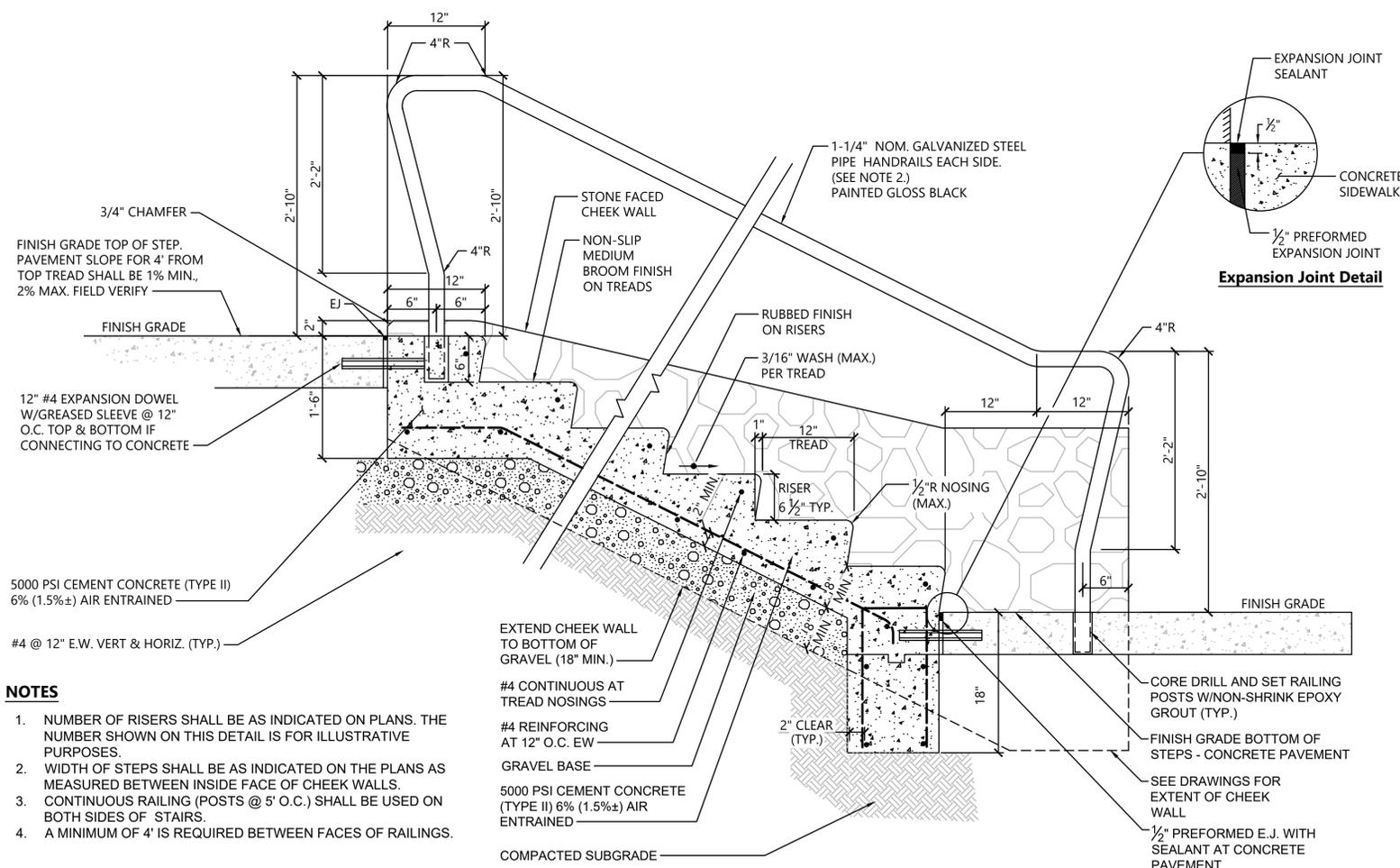
SCALE: N.T.S.

DWG: DRIVE-09

DATE: JUNE 2013



TACTILE DIRECTIONAL INDICATOR (TDI)  
SCALE: 1/2" = 1'-0"



NOTES

- NUMBER OF RISERS SHALL BE AS INDICATED ON PLANS. THE NUMBER SHOWN ON THIS DETAIL IS FOR ILLUSTRATIVE PURPOSES.
- WIDTH OF STEPS SHALL BE AS INDICATED ON THE PLANS AS MEASURED BETWEEN INSIDE FACE OF CHEEK WALLS.
- CONTINUOUS RAILING (POSTS @ 5' O.C.) SHALL BE USED ON BOTH SIDES OF STAIRS.
- A MINIMUM OF 4' IS REQUIRED BETWEEN FACES OF RAILINGS.

**CONCRETE STEPS WITH HANDRAIL**

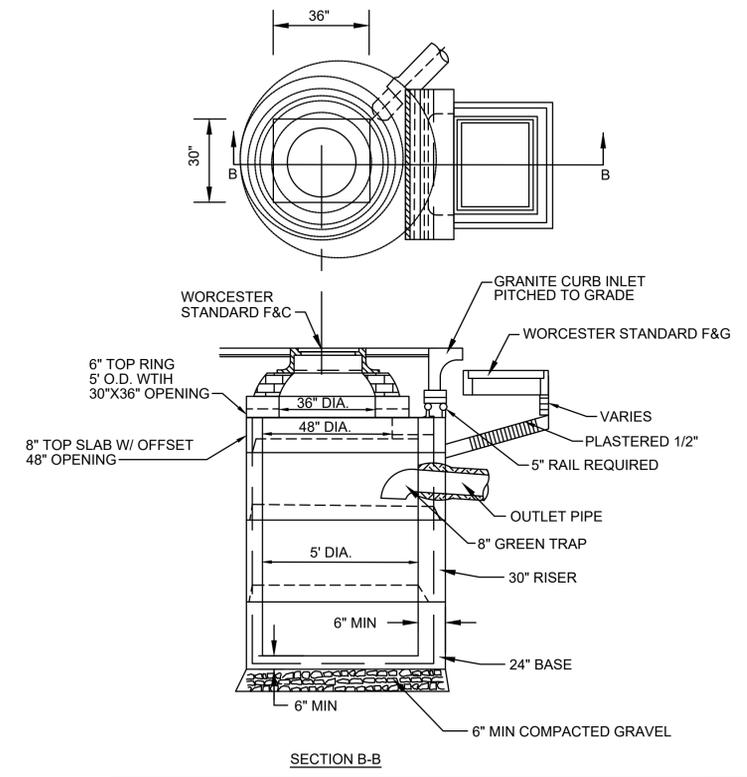
SCALE: N.T.S.

**WORCESTER  
CHANDLER STREET**

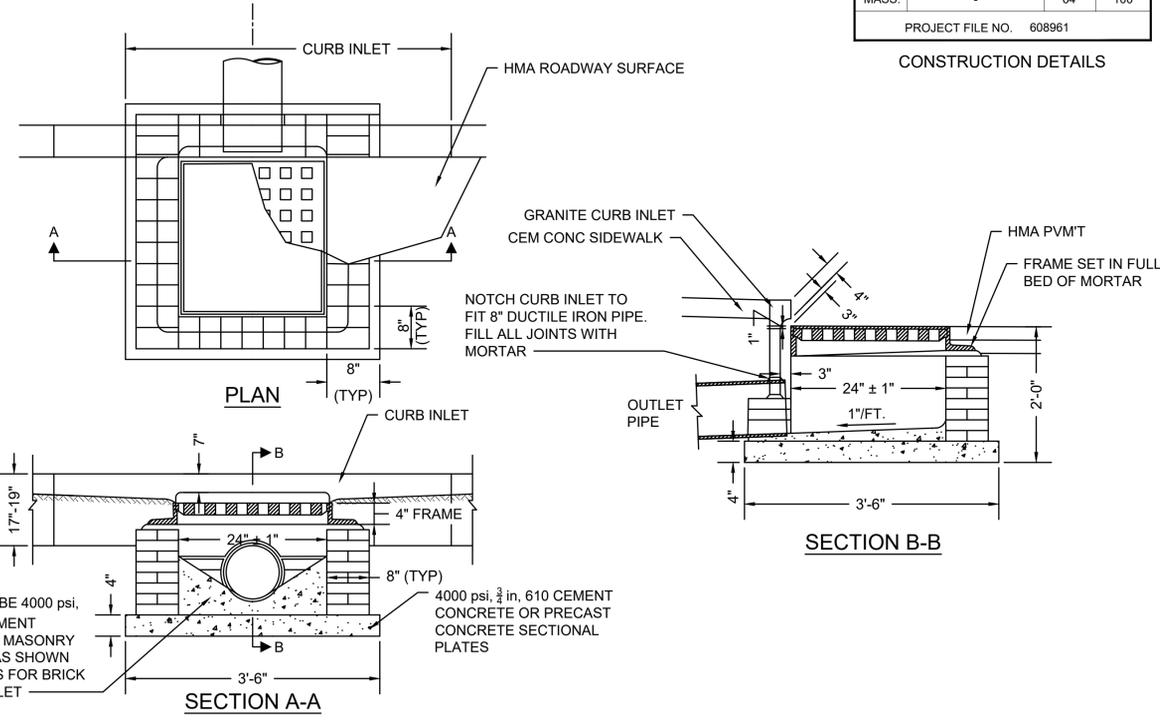
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	64	100

PROJECT FILE NO. 608961

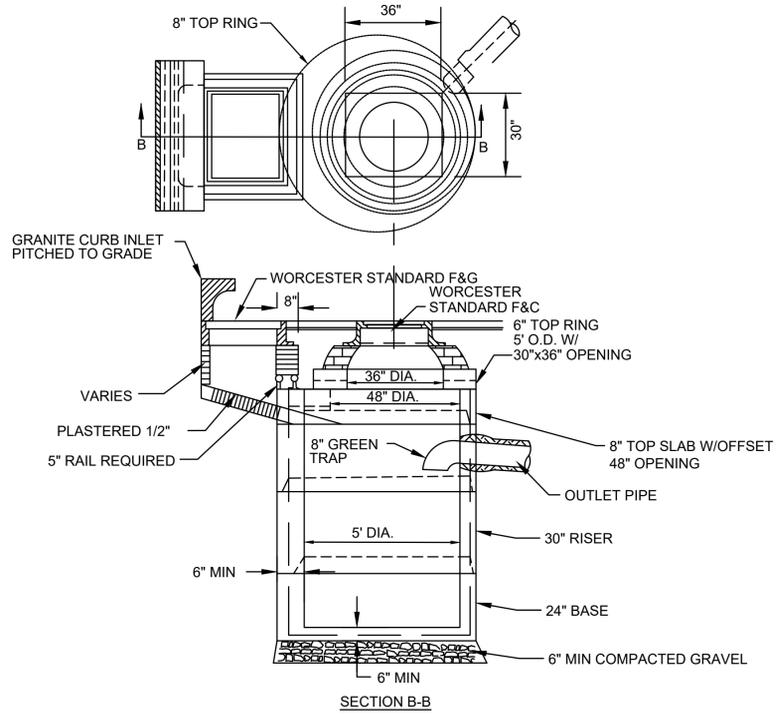
**CONSTRUCTION DETAILS**



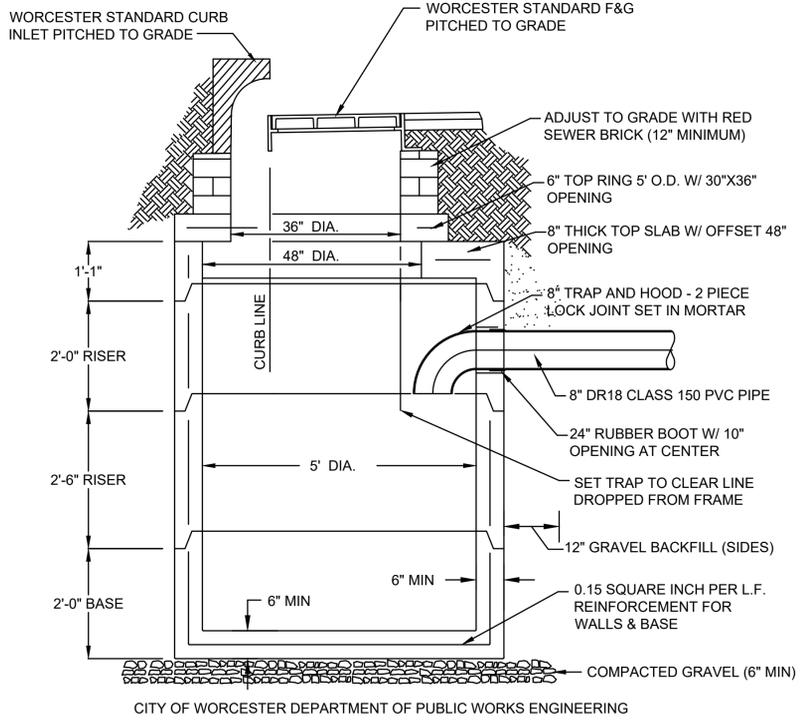
**CATCH BASIN - MUNICIPAL STANDARD ALTERNATE TYPE (IN SIDEWALK)**  
SCALE: NTS



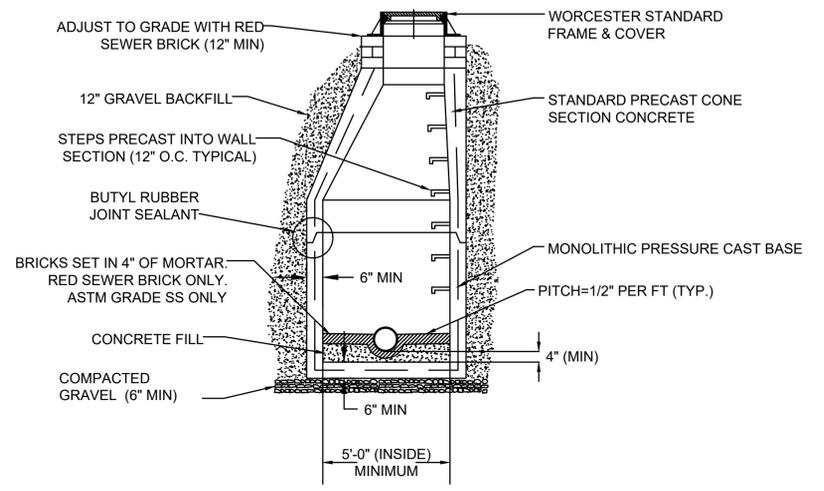
**GUTTER INLET - SPECIAL**  
SCALE: NTS



**CATCH BASIN - MUNICIPAL STANDARD ALTERNATE TYPE (IN ROADWAY)**  
SCALE: NTS



**CATCH BASIN - MUNICIPAL STANDARD**  
SCALE: NTS



**MANHOLE - MUNICIPAL STANDARD**  
SCALE: NTS

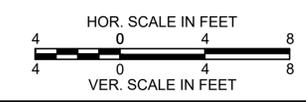
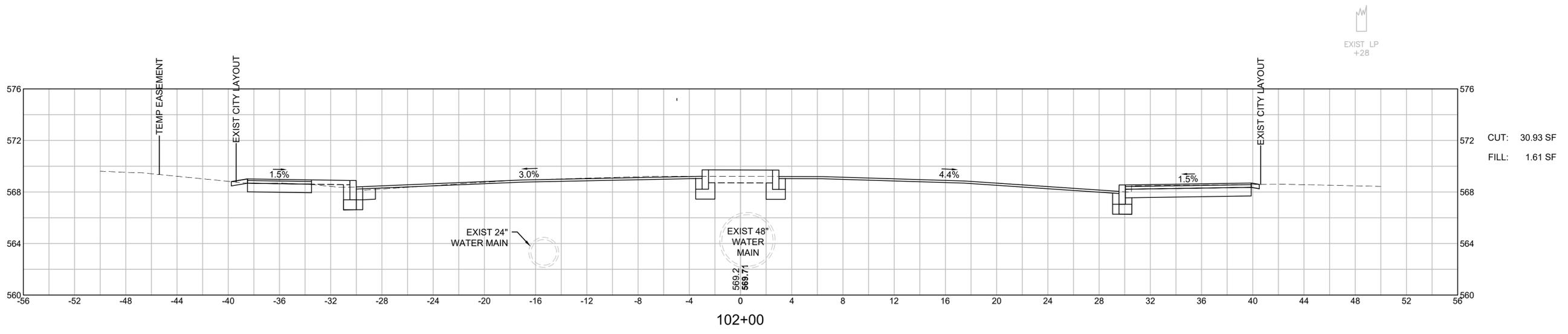
CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS ENGINEERING

CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS ENGINEERING

**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	65	100
PROJECT FILE NO.		608961	

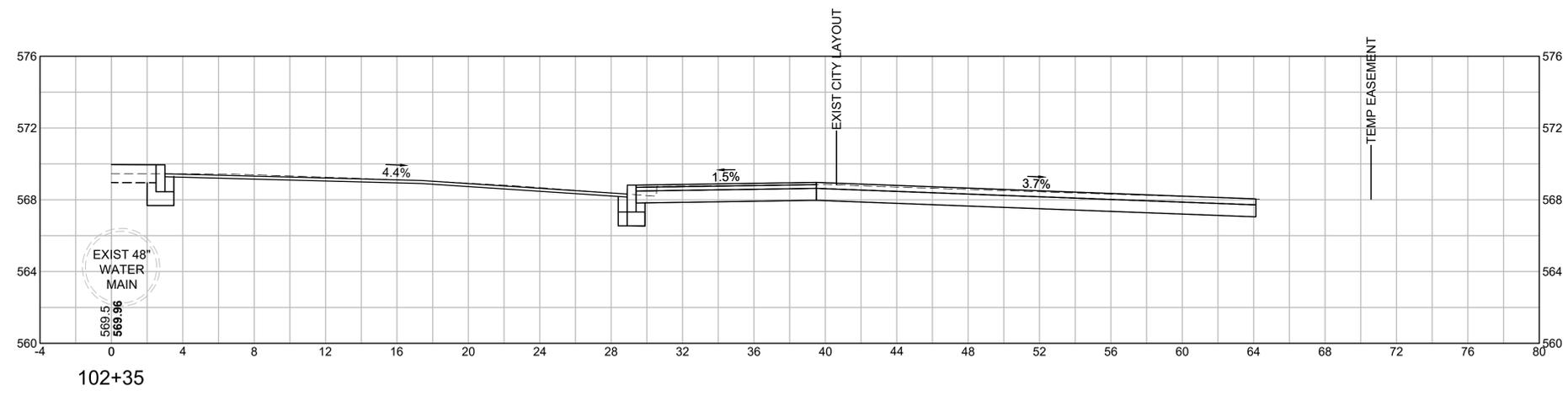
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



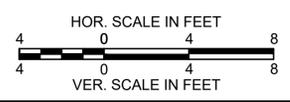
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	66	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



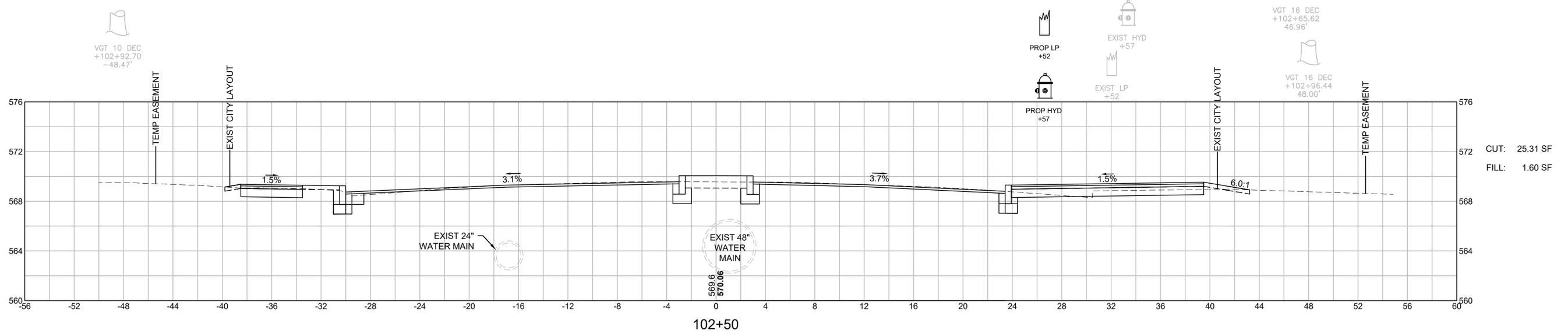
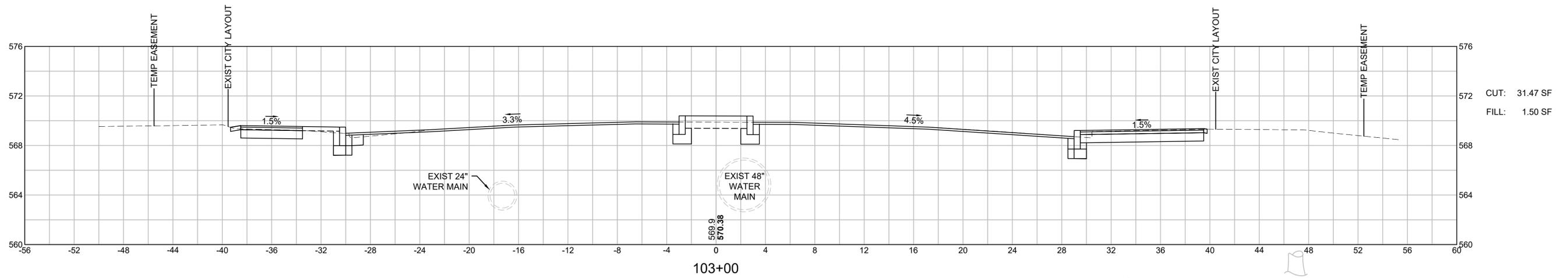
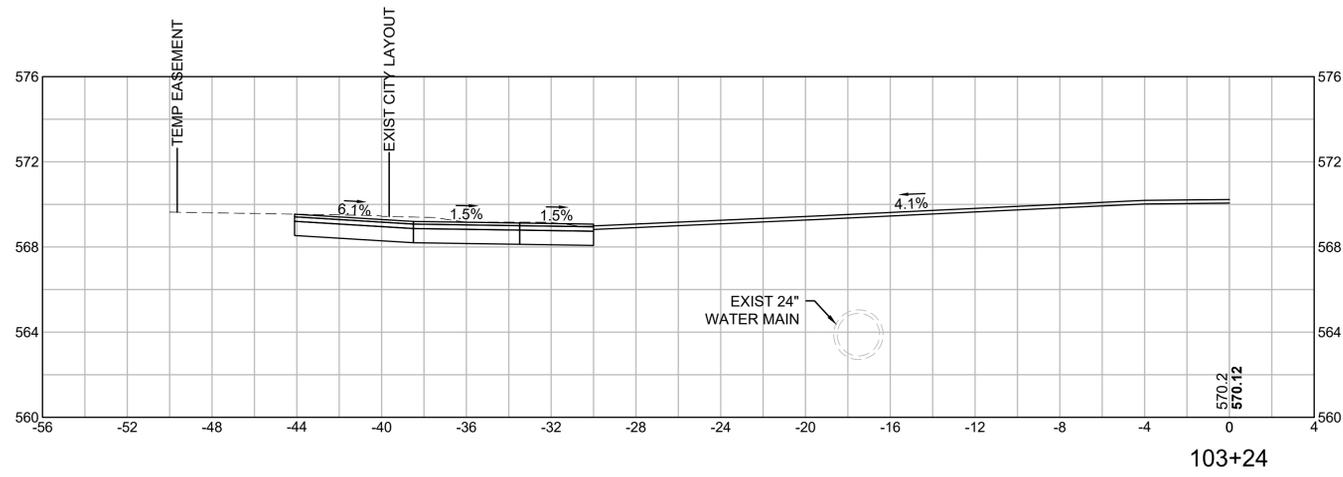
102+35



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	67	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**

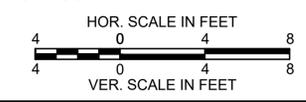


VGT 10 DEC  
+102+92.70  
-48.47'

PROP LP +52  
EXIST HYD +57  
EXIST LP +52  
PROP HYD +57  
VGT 16 DEC +102+65.62 -46.96'  
VGT 16 DEC +102+96.44 -48.00'

CUT: 31.47 SF  
FILL: 1.50 SF

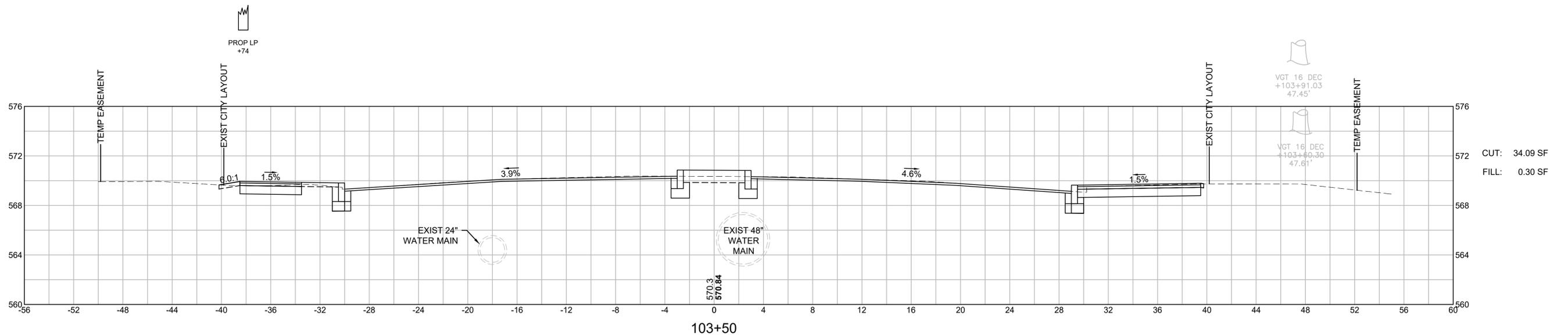
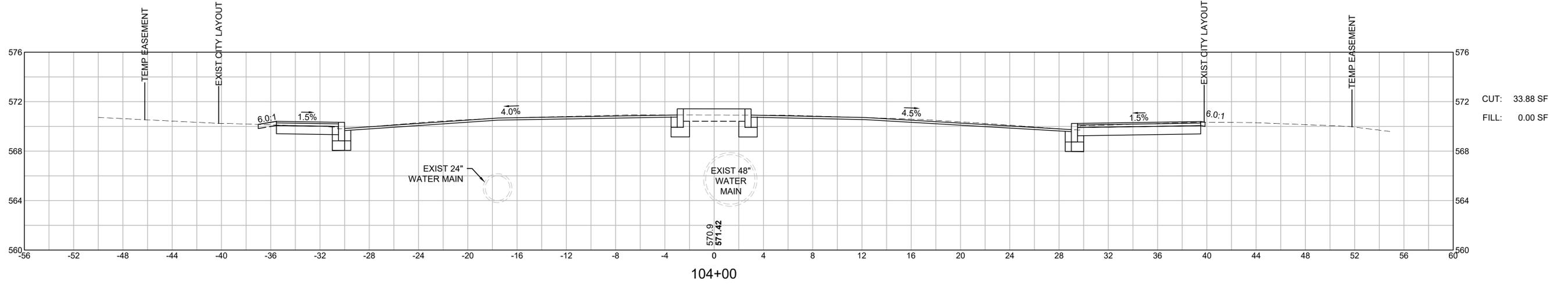
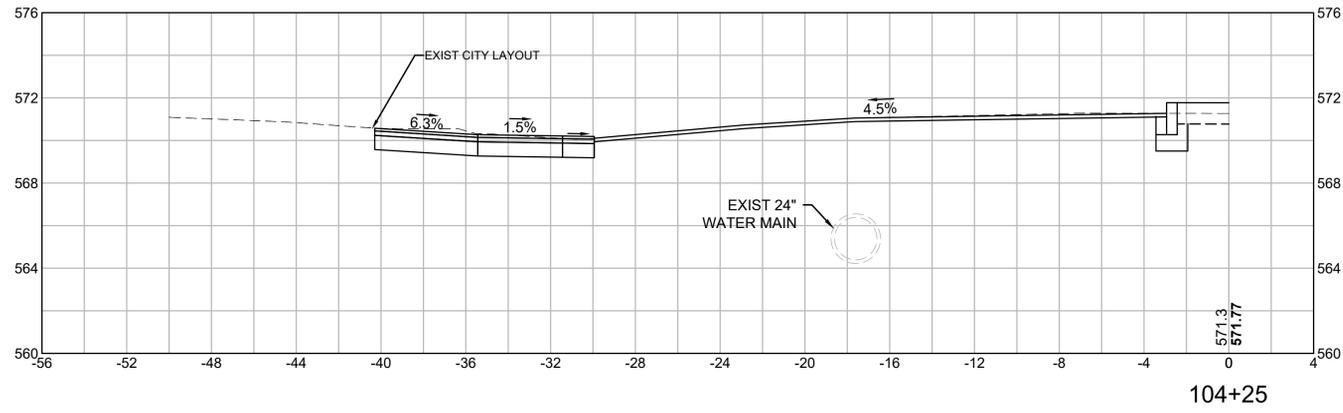
CUT: 25.31 SF  
FILL: 1.60 SF



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	68	100
PROJECT FILE NO.		608961	

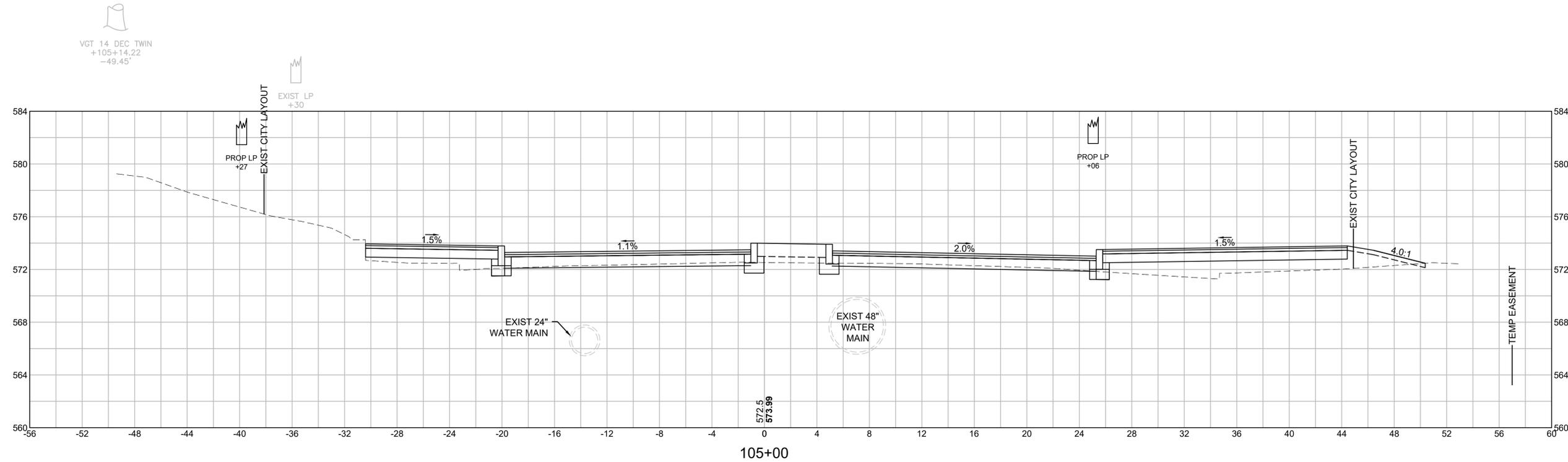
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



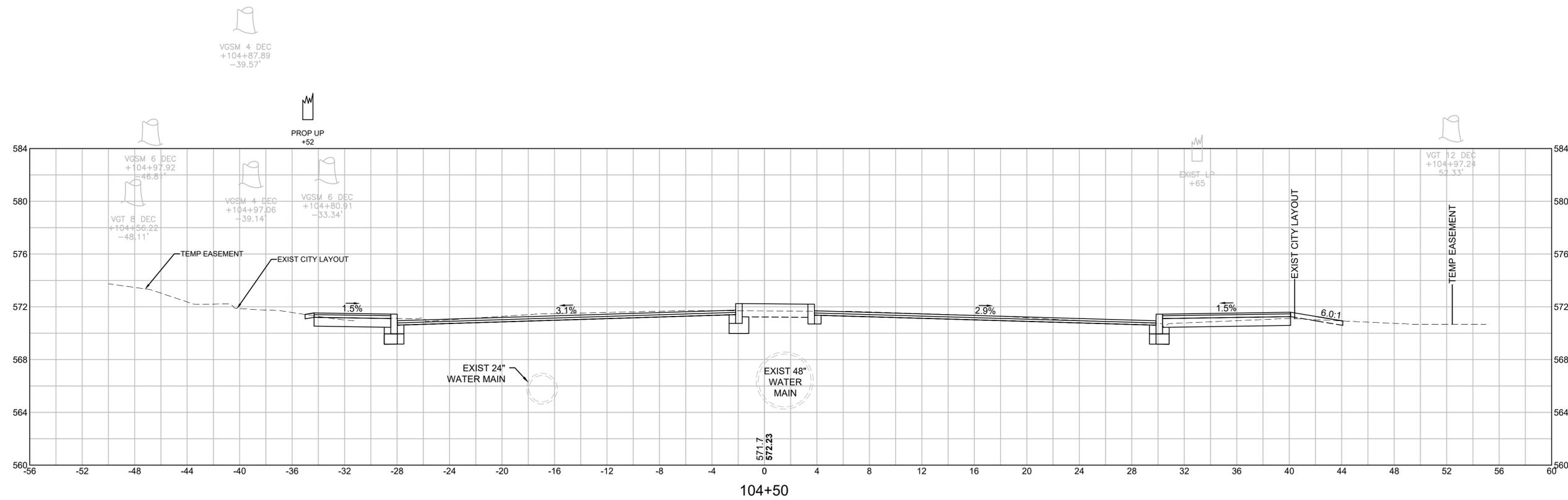
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	69	100
PROJECT FILE NO.		608961	

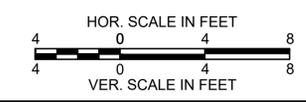
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



CUT: 4.43 SF  
FILL: 51.09 SF



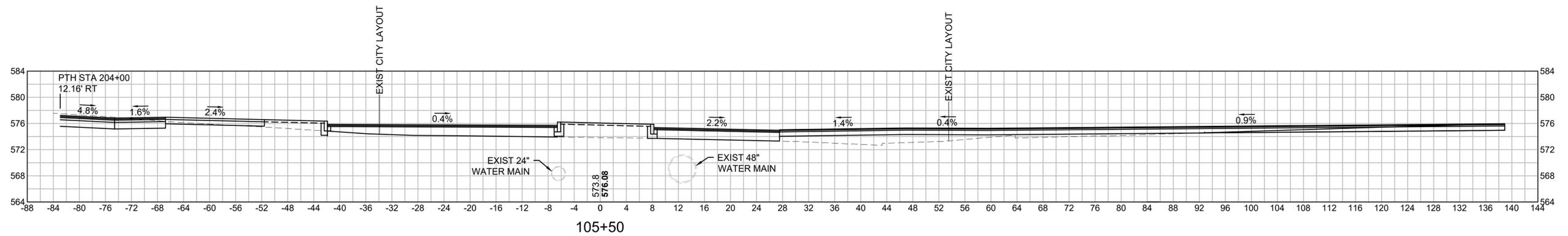
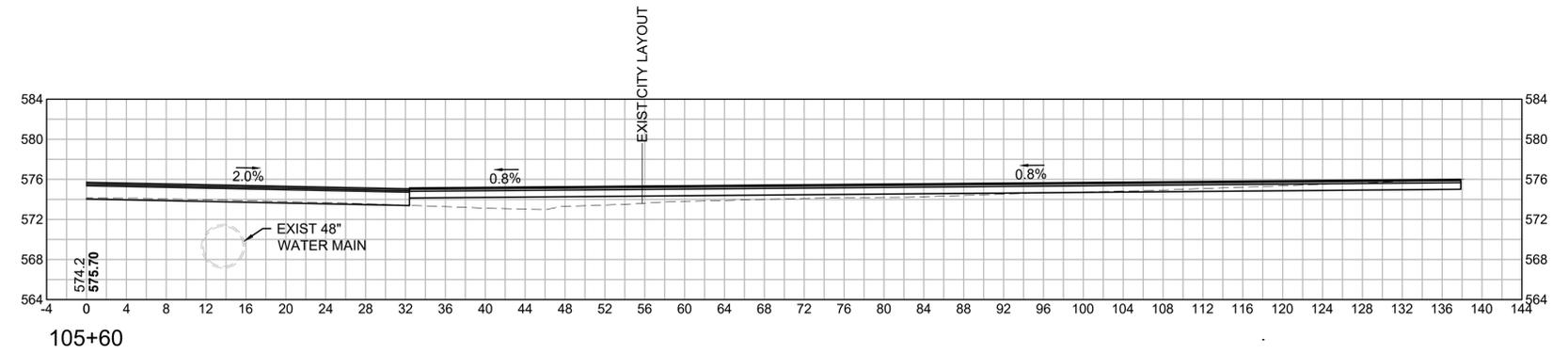
CUT: 35.96 SF  
FILL: 0.16 SF



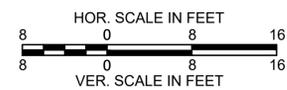
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	70	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



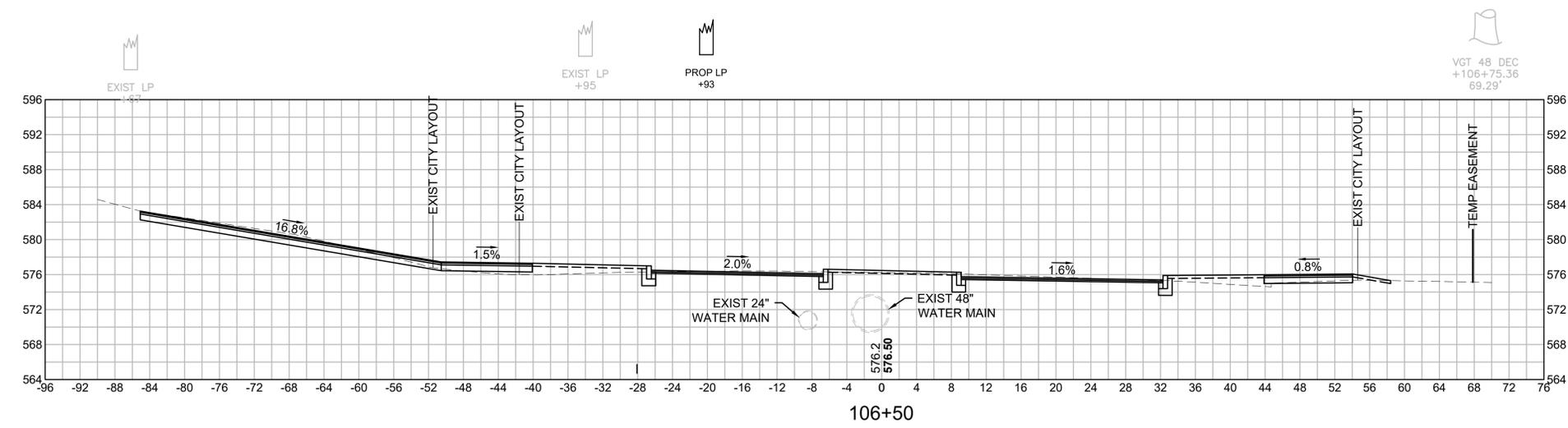
CUT: 42.78 SF  
FILL: 121.43 SF



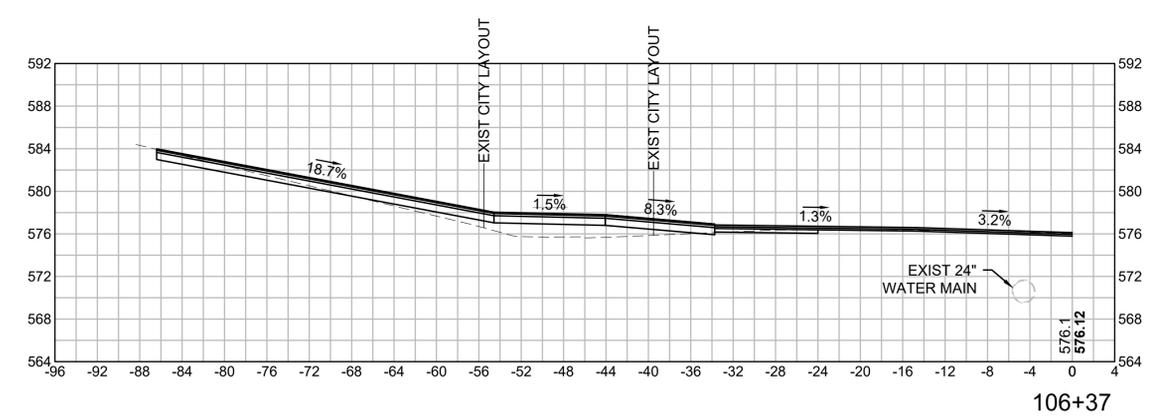
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	71	100
PROJECT FILE NO.		608961	

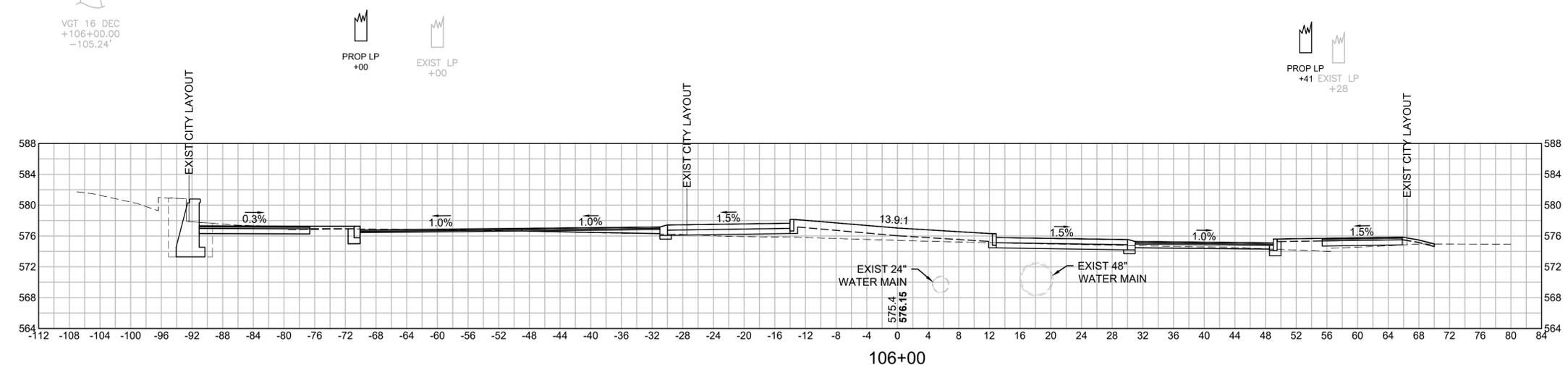
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



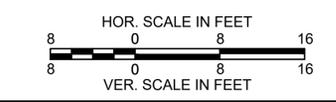
CUT: 78.54 SF  
FILL: 16.40 SF



VGT 16 DEC  
+106+00.00  
-105.24'



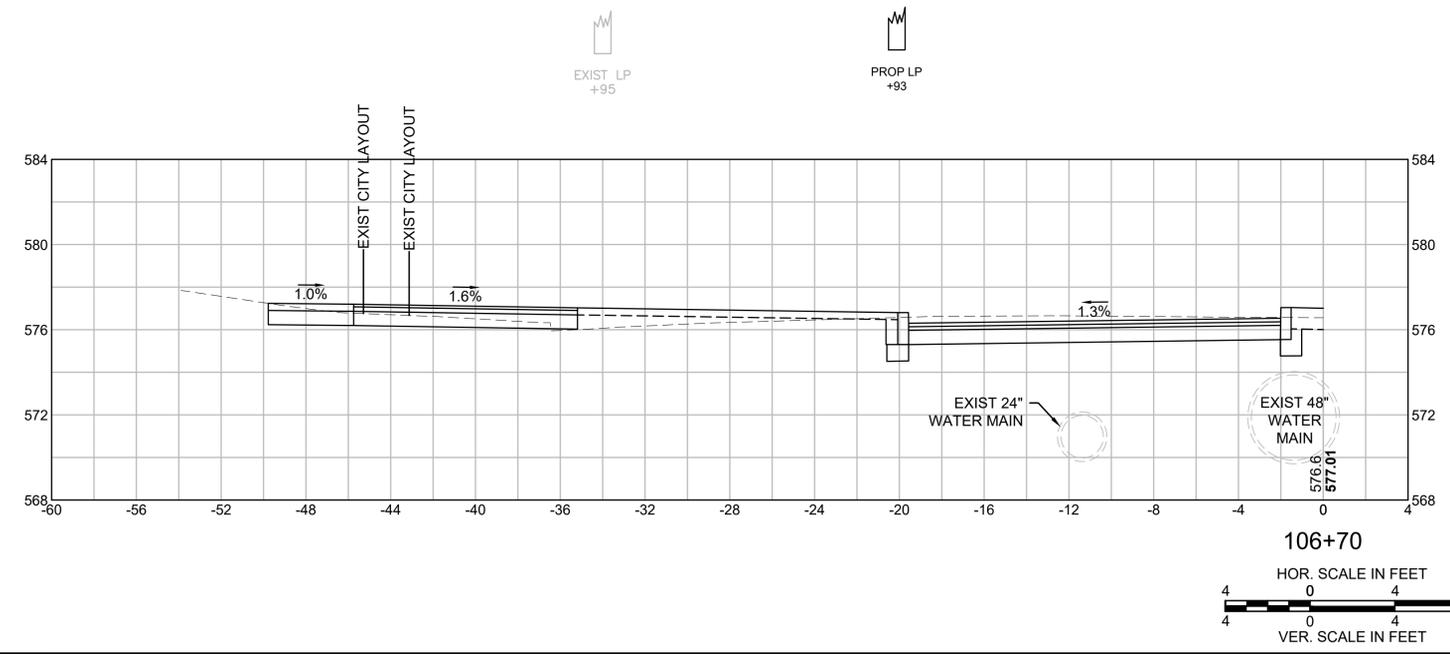
CUT: 61.91 SF  
FILL: 43.38 SF



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	72	100
PROJECT FILE NO.		608961	

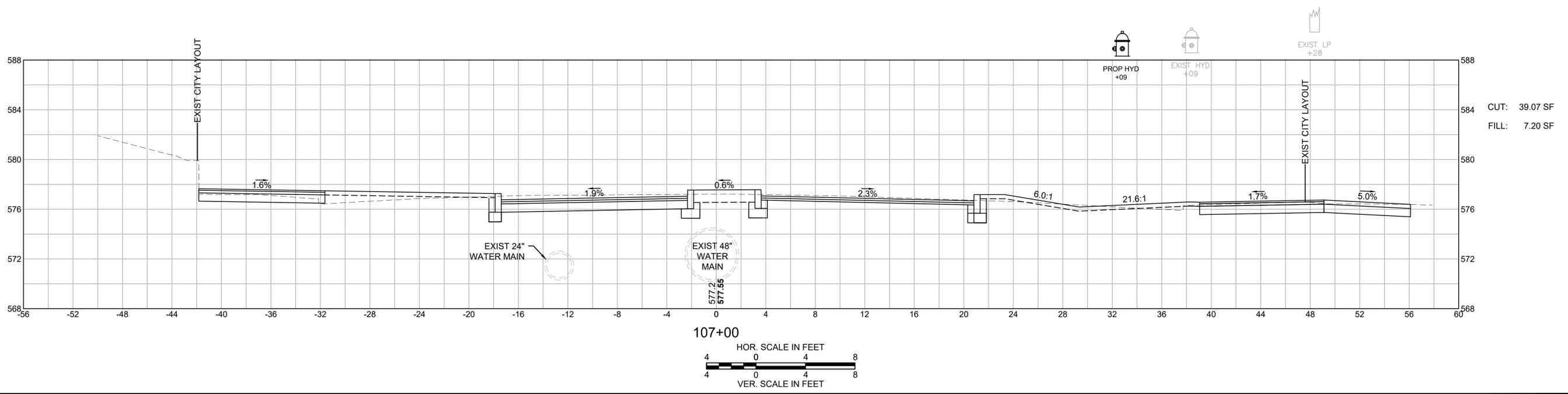
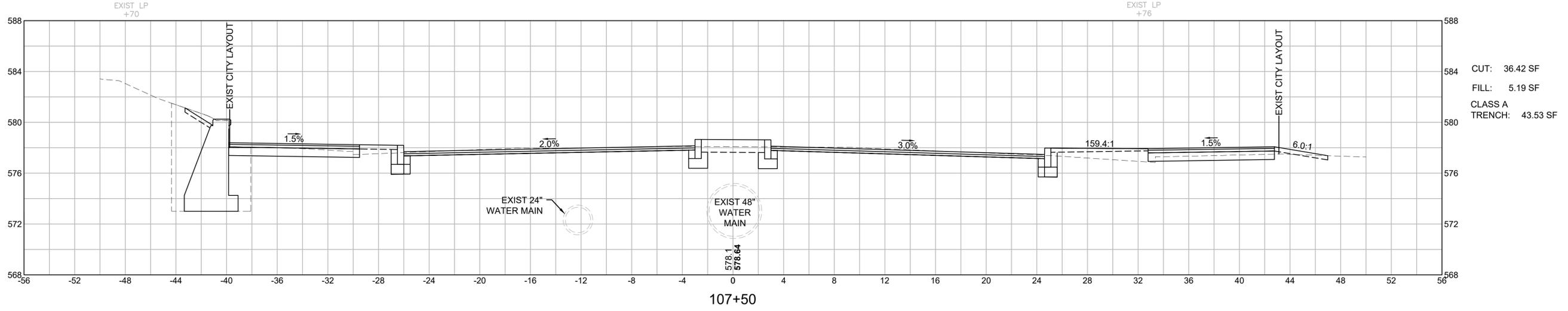
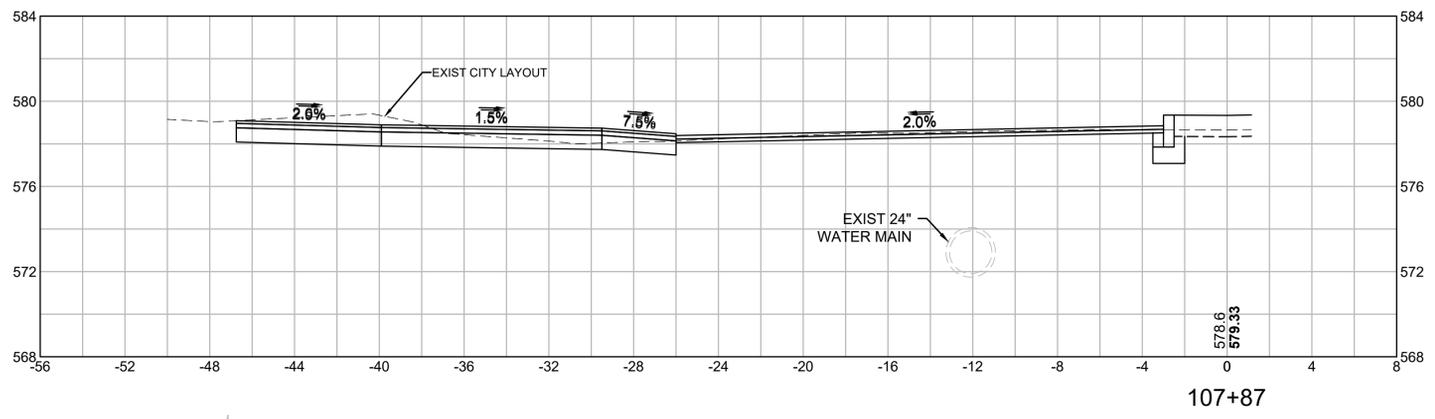
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	73	100
PROJECT FILE NO.		608961	

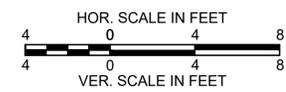
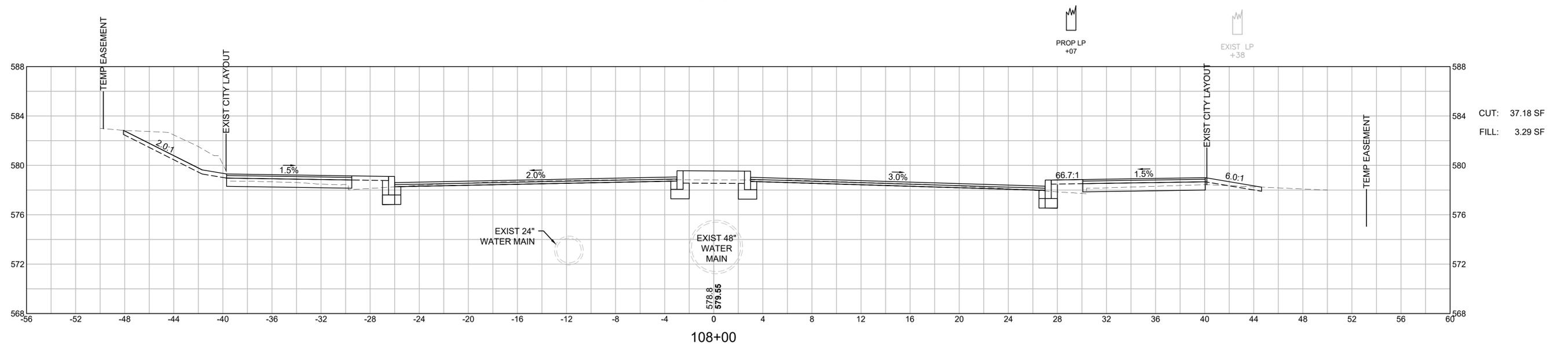
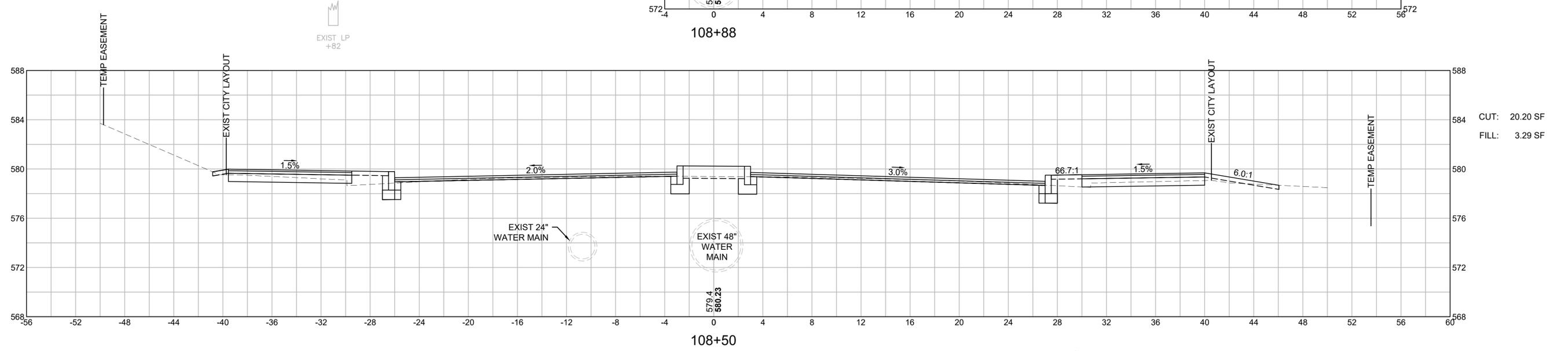
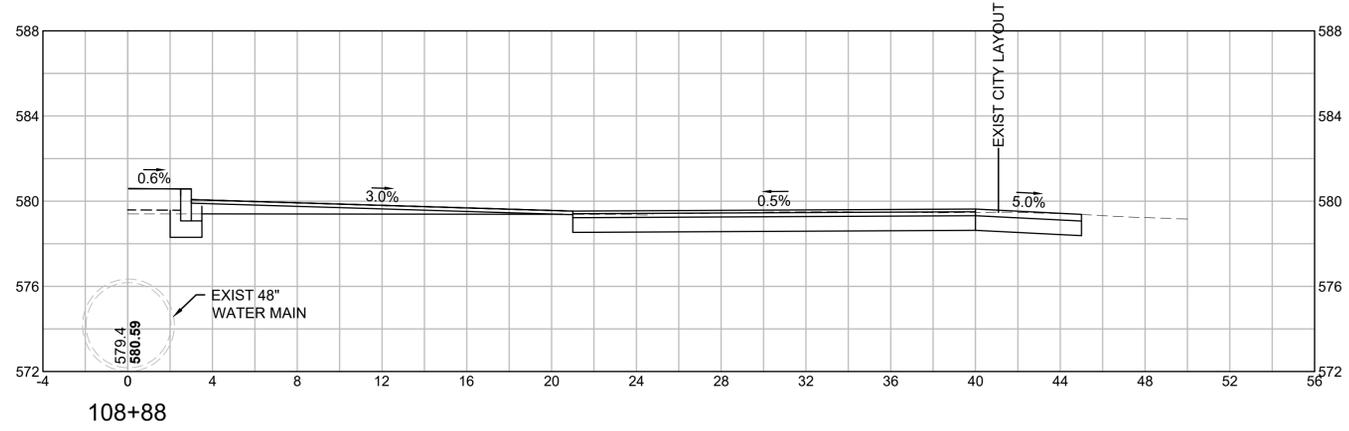
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	74	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**

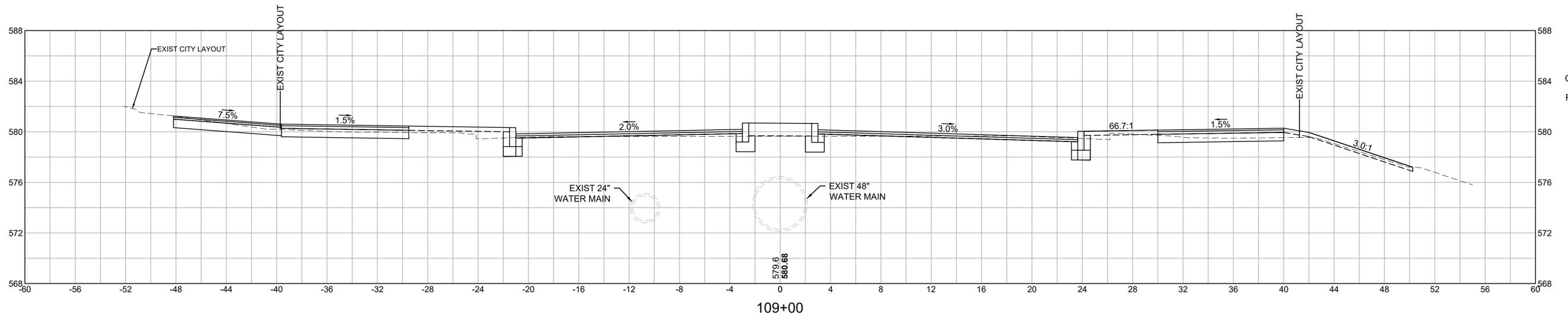


**WORCESTER  
CHANDLER STREET**

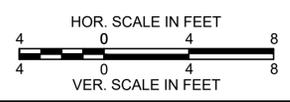
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	75	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**

VGT 16 DEC  
+109+09.19  
-49.92'



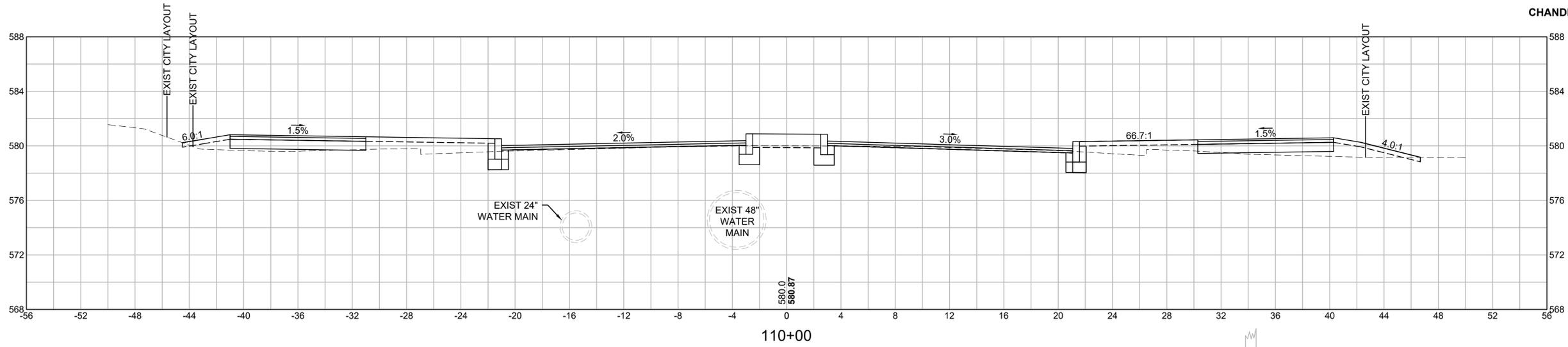
CUT: 26.  
FILL: 4.



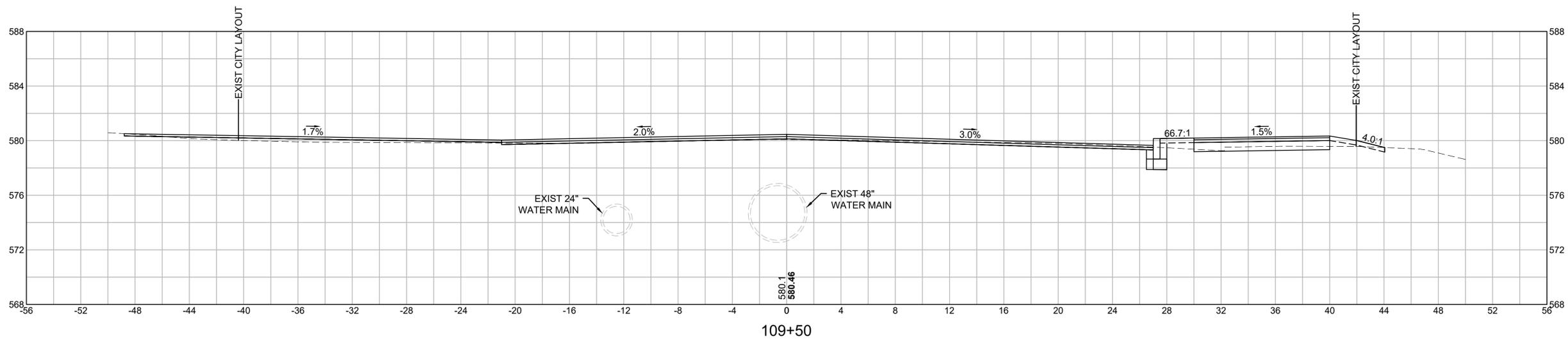
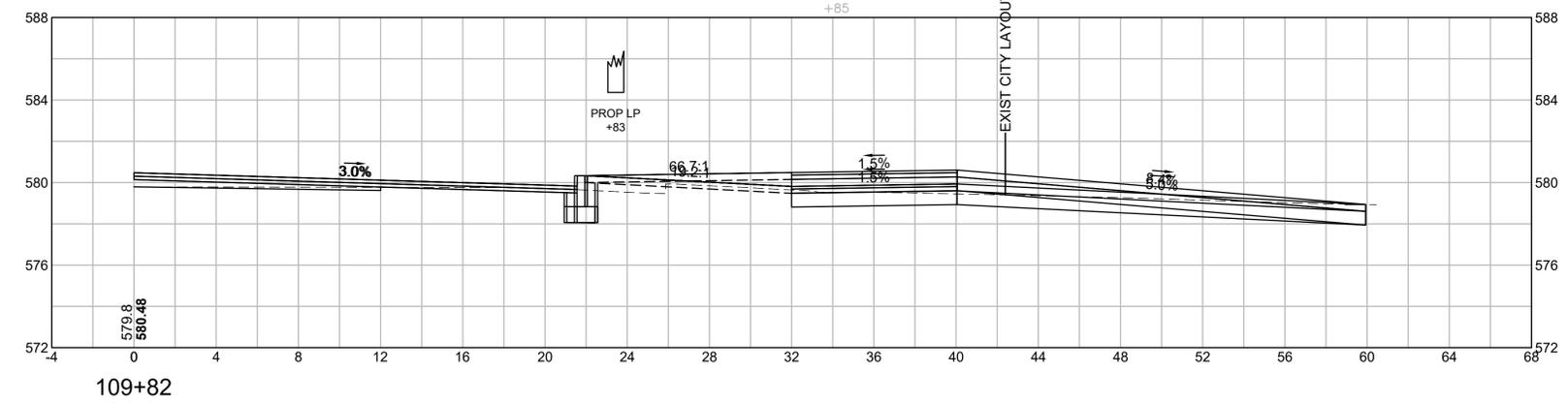
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	76	100
PROJECT FILE NO.		608961	

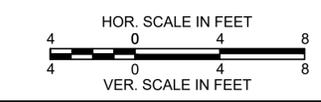
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



CUT: 11.46 SF  
FILL: 17.96 SF



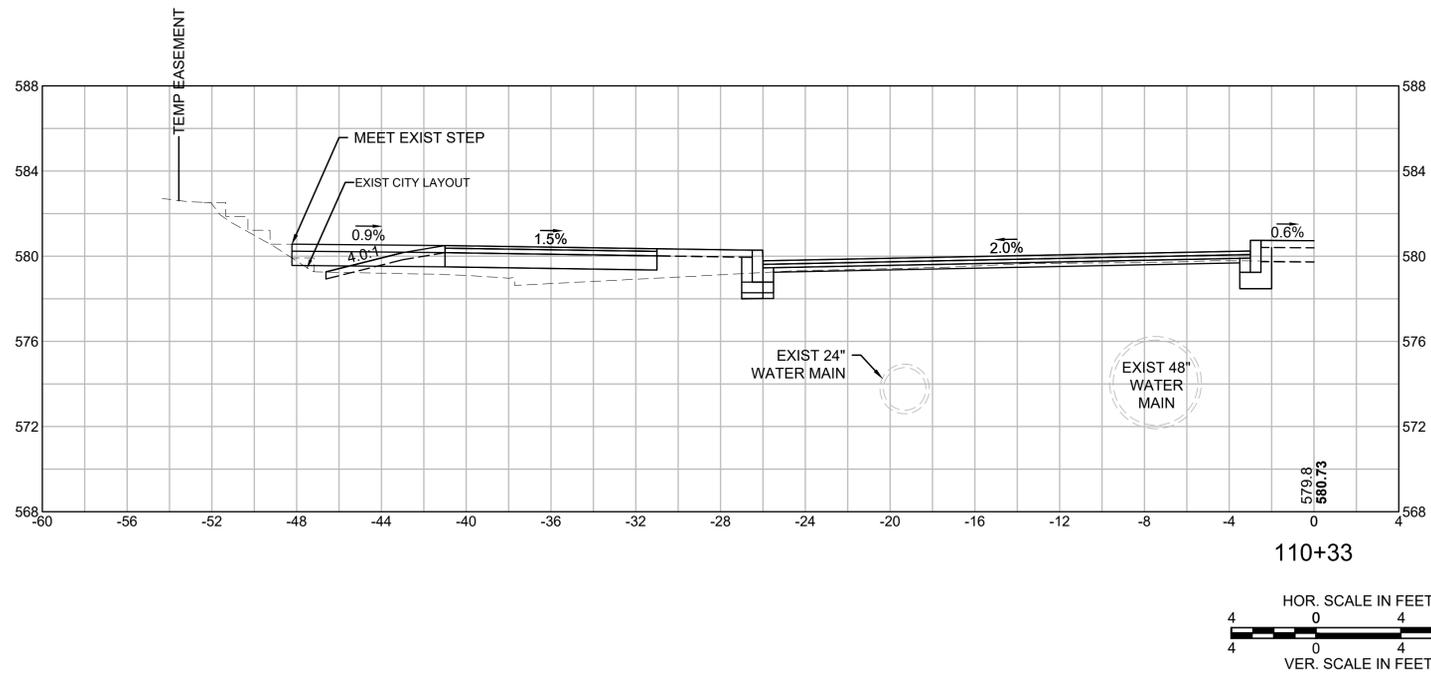
CUT: 9.67 SF  
FILL: 6.43 SF



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	77	100
PROJECT FILE NO.		608961	

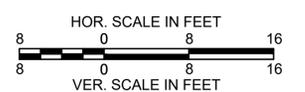
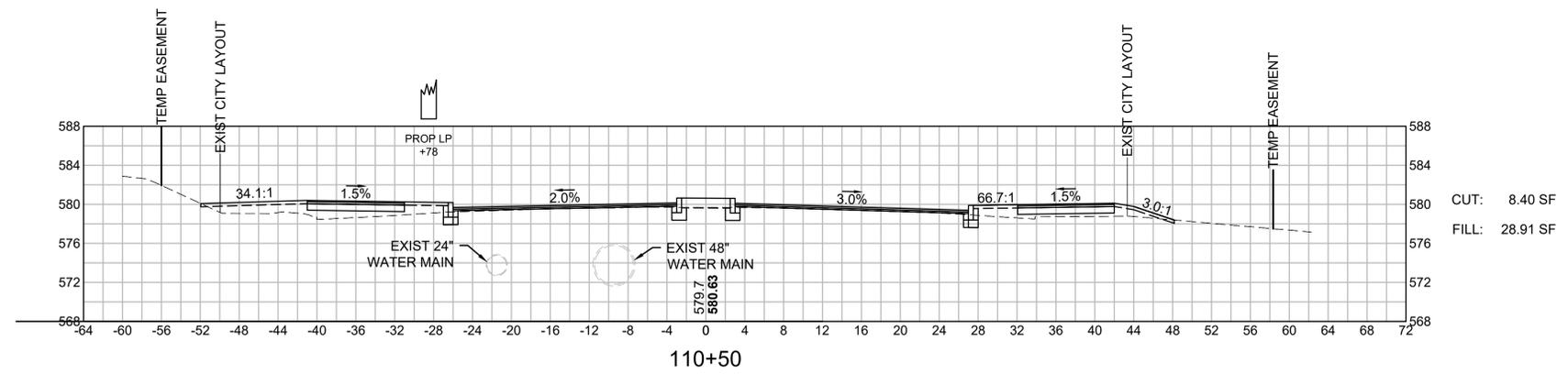
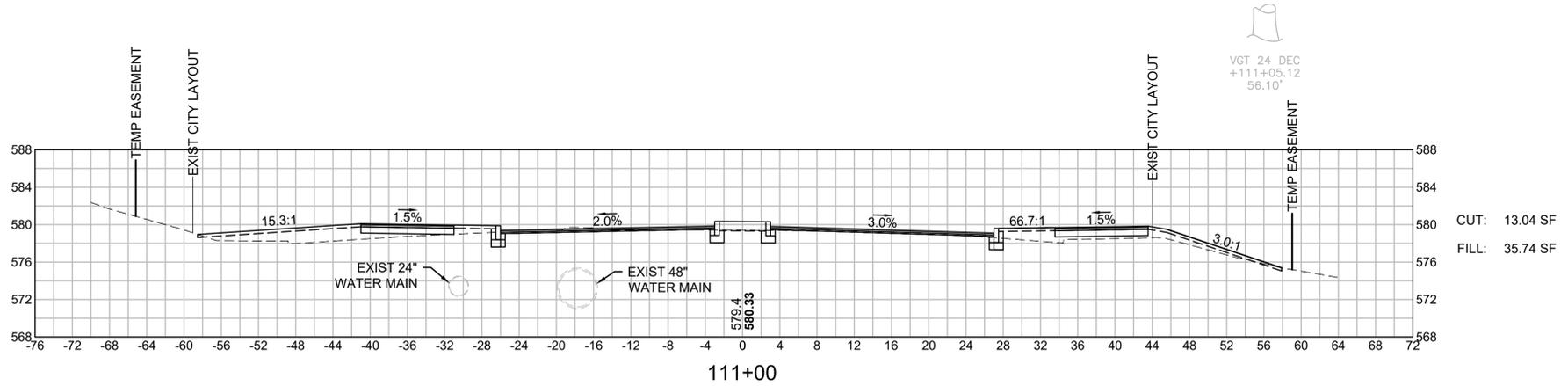
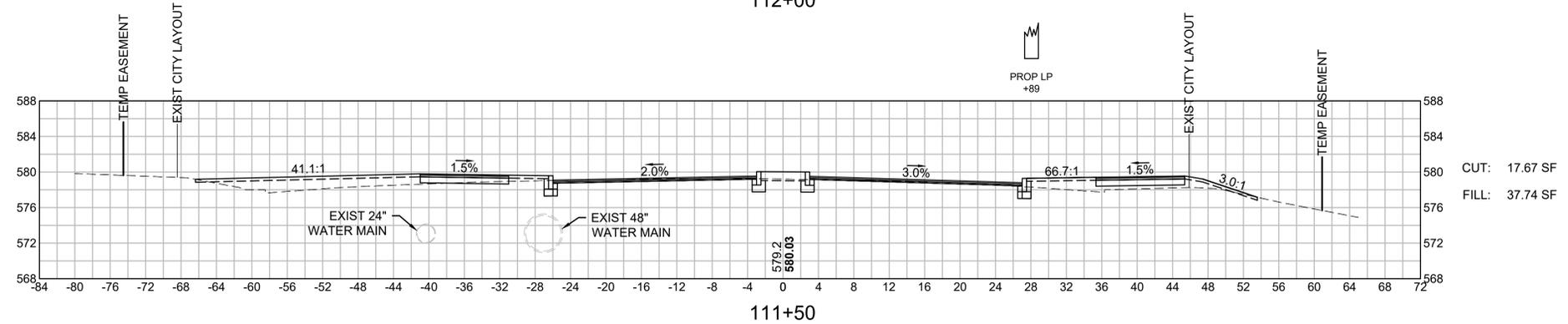
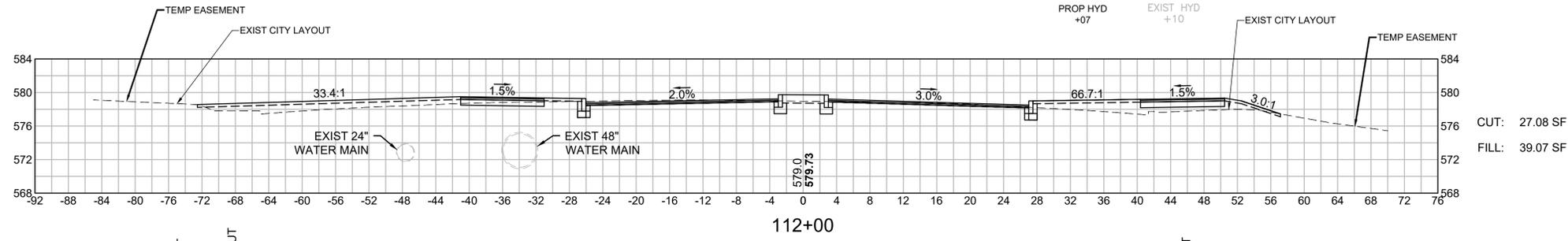
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	78	100
PROJECT FILE NO.		608961	

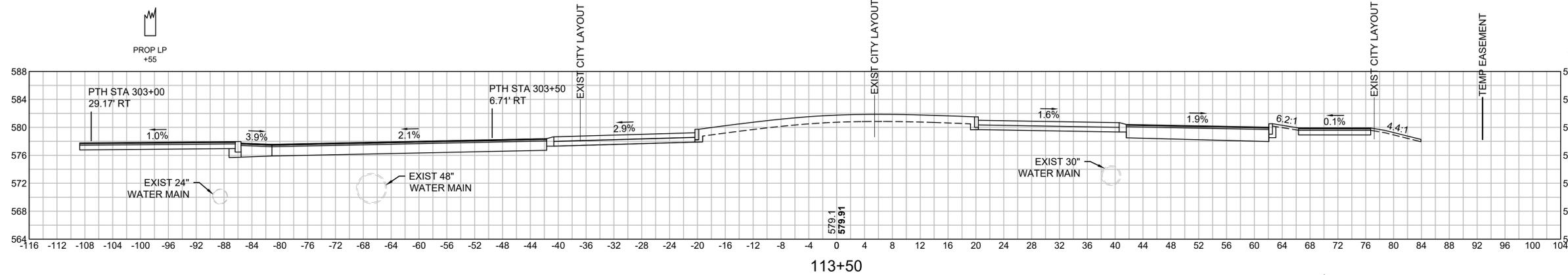
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



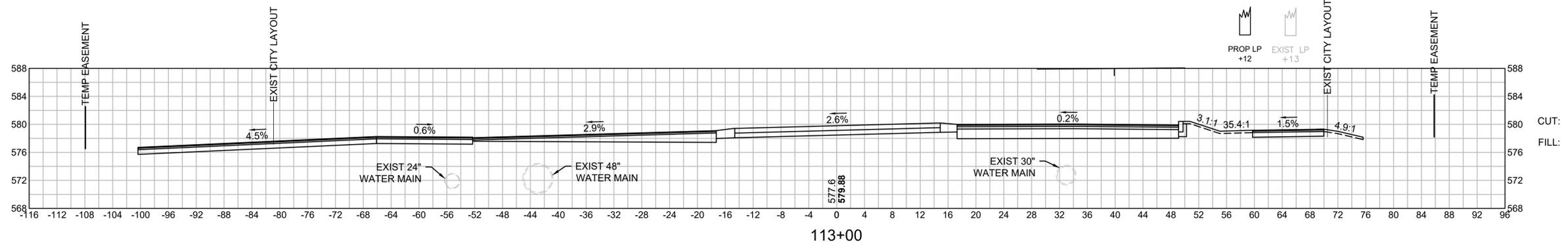
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	79	100
PROJECT FILE NO.		608961	

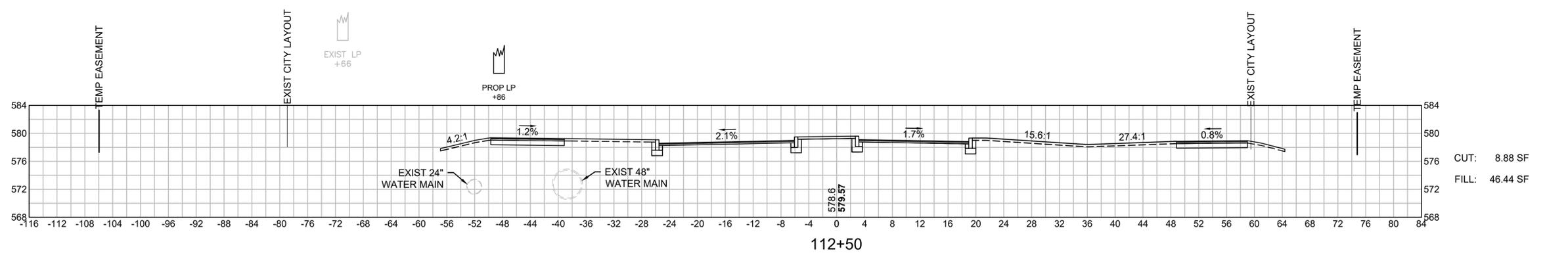
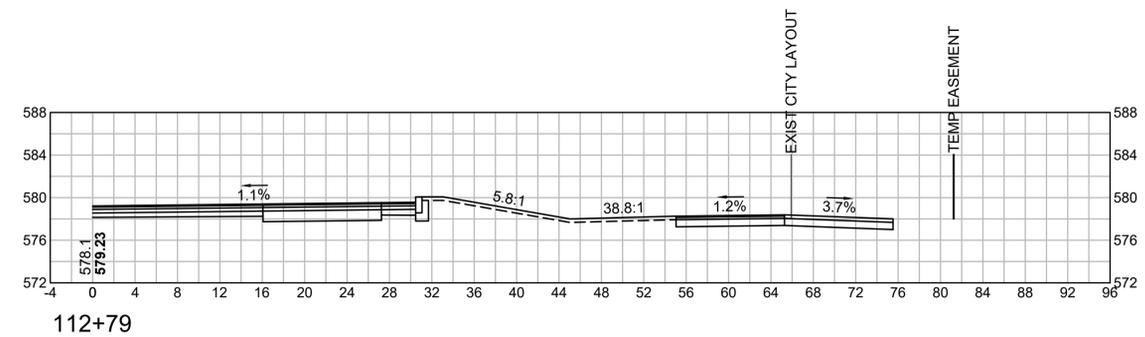
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



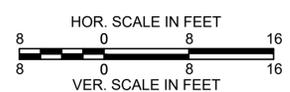
CUT: 22.27 SF  
FILL: 229.33 SF



CUT: 21.27 SF  
FILL: 113.15 SF



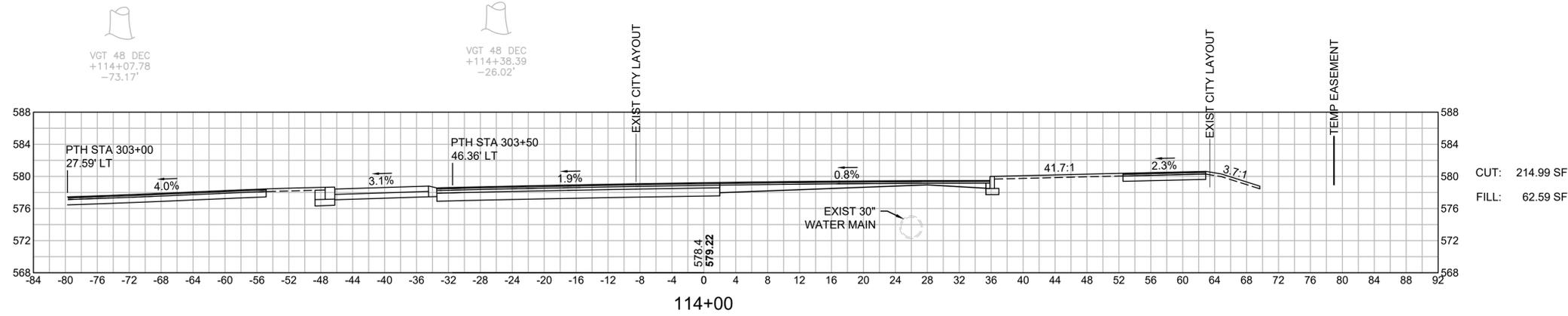
CUT: 8.88 SF  
FILL: 46.44 SF



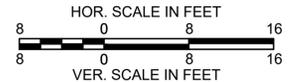
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	80	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



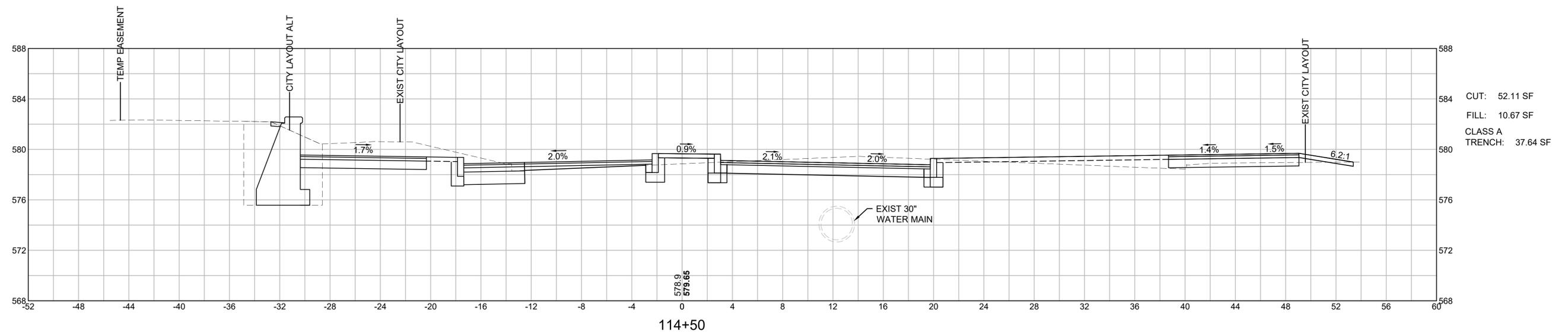
CUT: 214.99 SF  
FILL: 62.59 SF



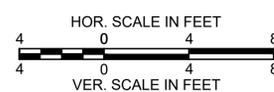
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	81	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



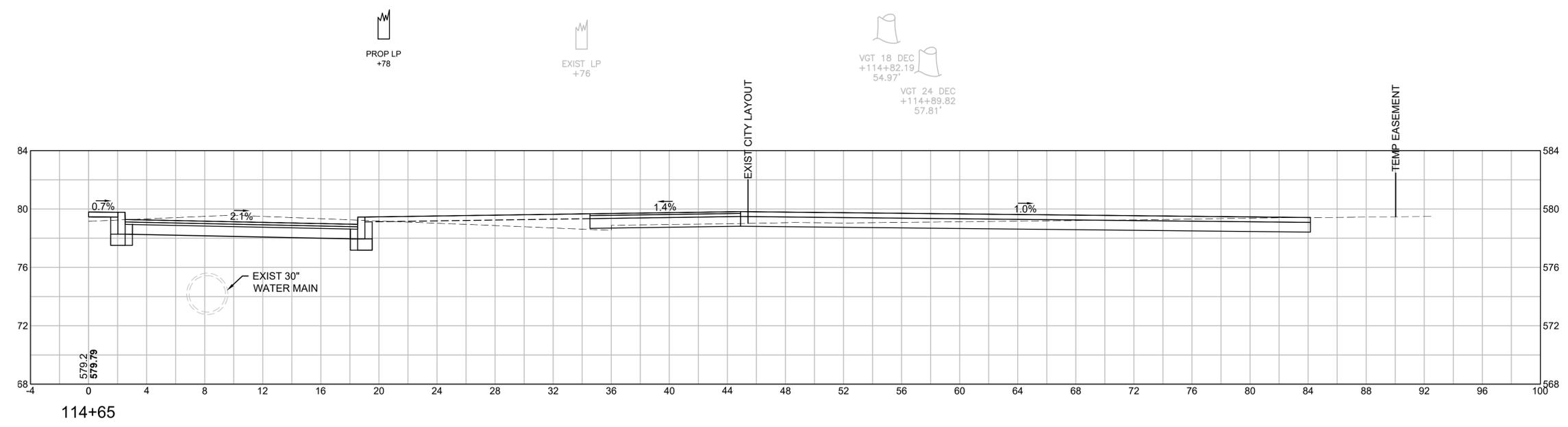
CUT: 52.11 SF  
 FILL: 10.67 SF  
 CLASS A  
 TRENCH: 37.64 SF



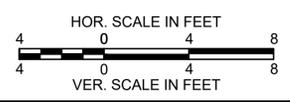
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	82	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



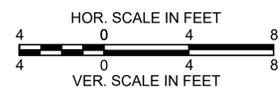
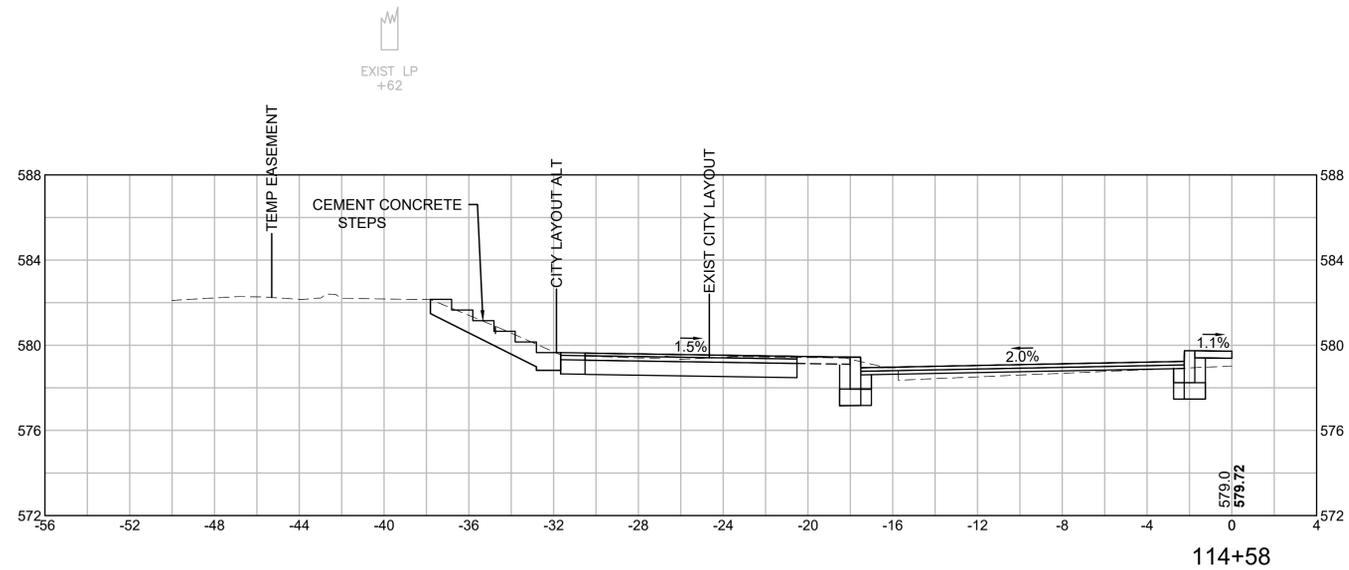
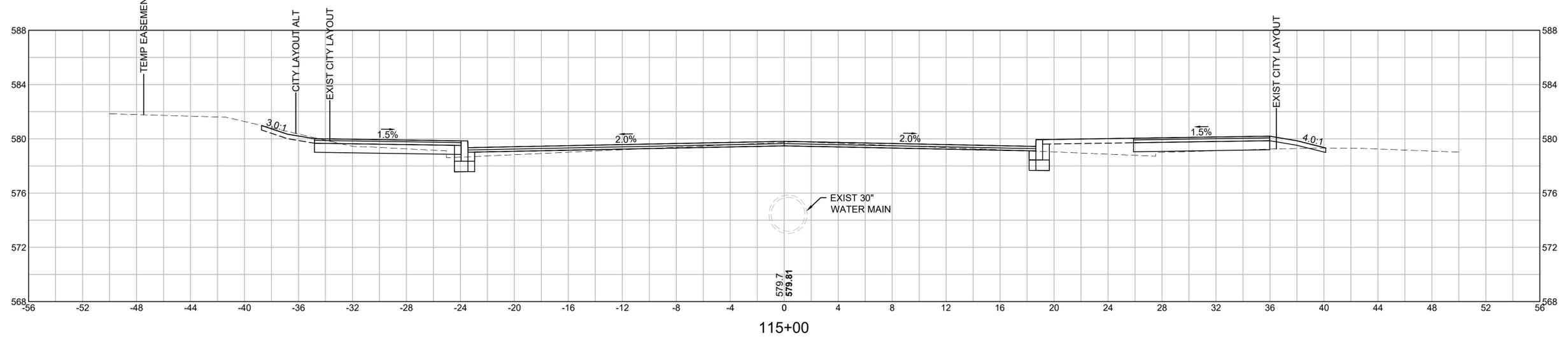
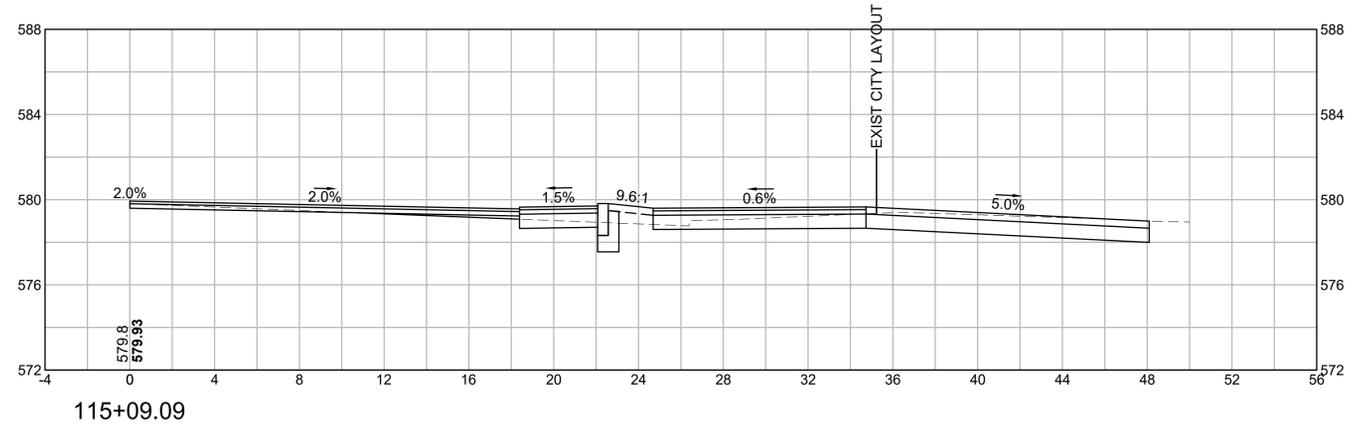
114+65



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	83	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



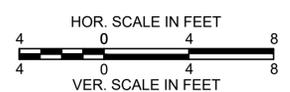
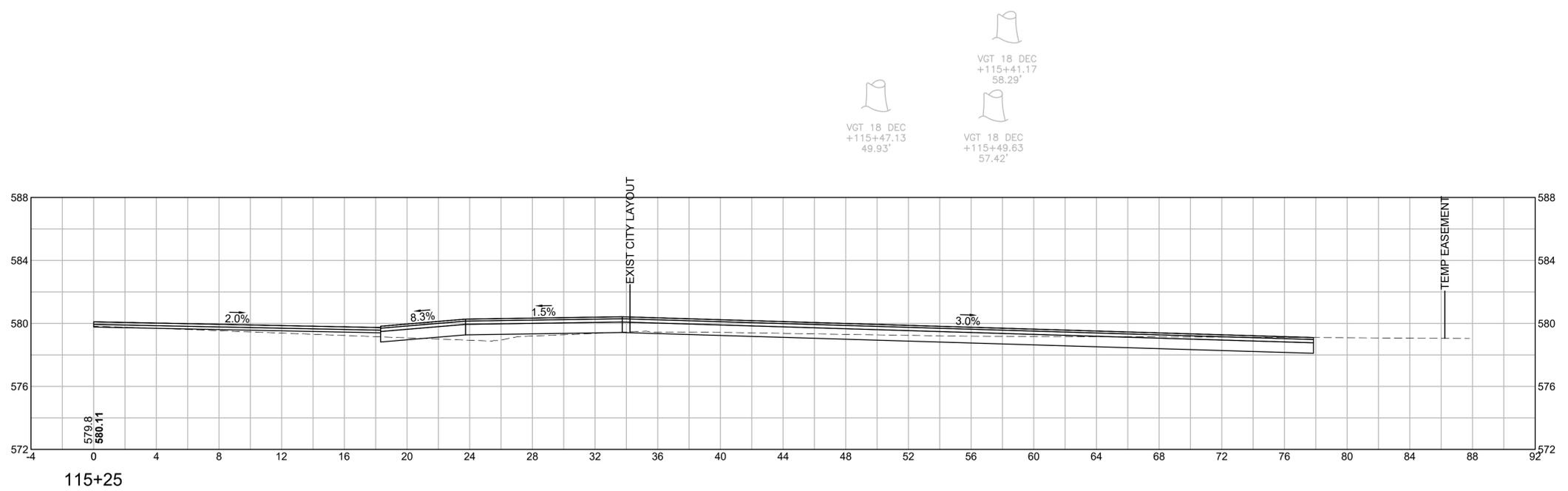
VGT 10 DEC  
+115+07.75  
-41.44'

EXIST LP  
+62

**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	84	100
PROJECT FILE NO.		608961	

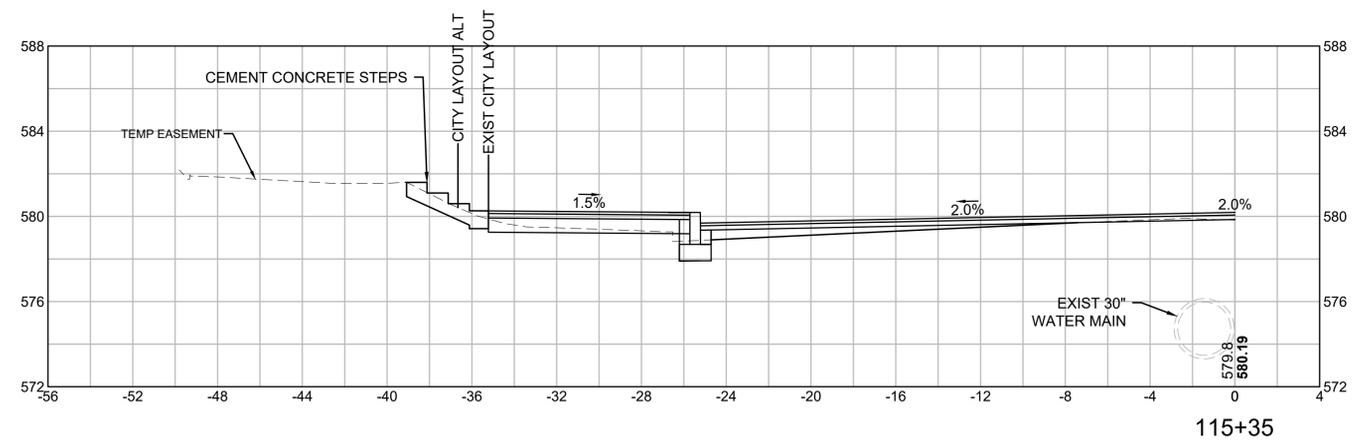
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



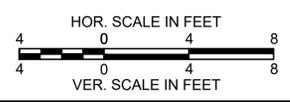
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	85	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



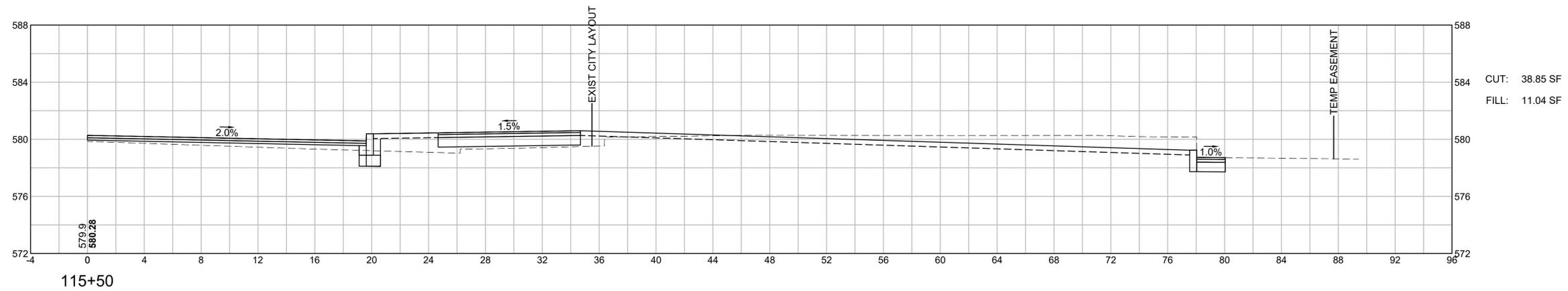
115+35



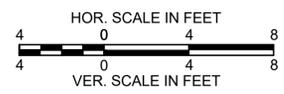
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	86	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



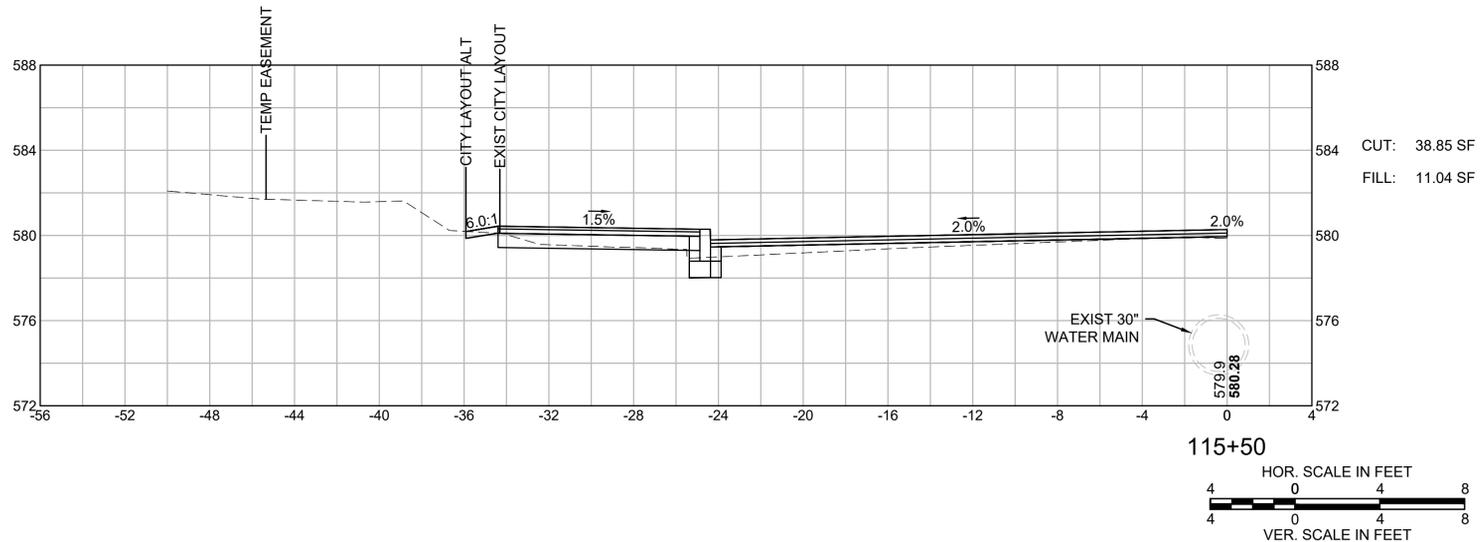
CUT: 38.85 SF  
FILL: 11.04 SF



**WORCESTER  
CHANDLER STREET**

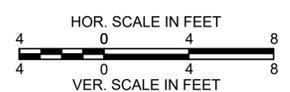
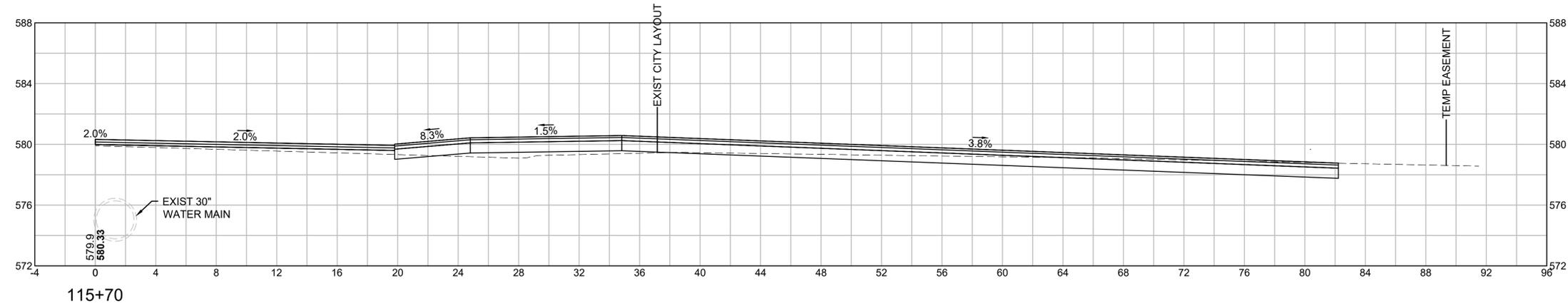
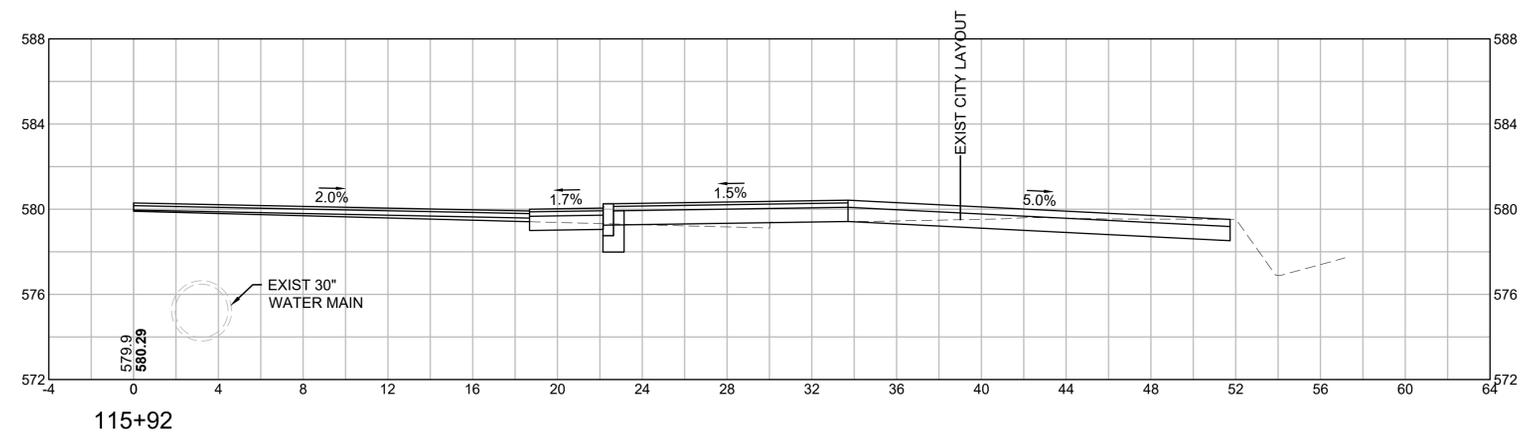
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	87	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



CUT: 38.85 SF  
 FILL: 11.04 SF

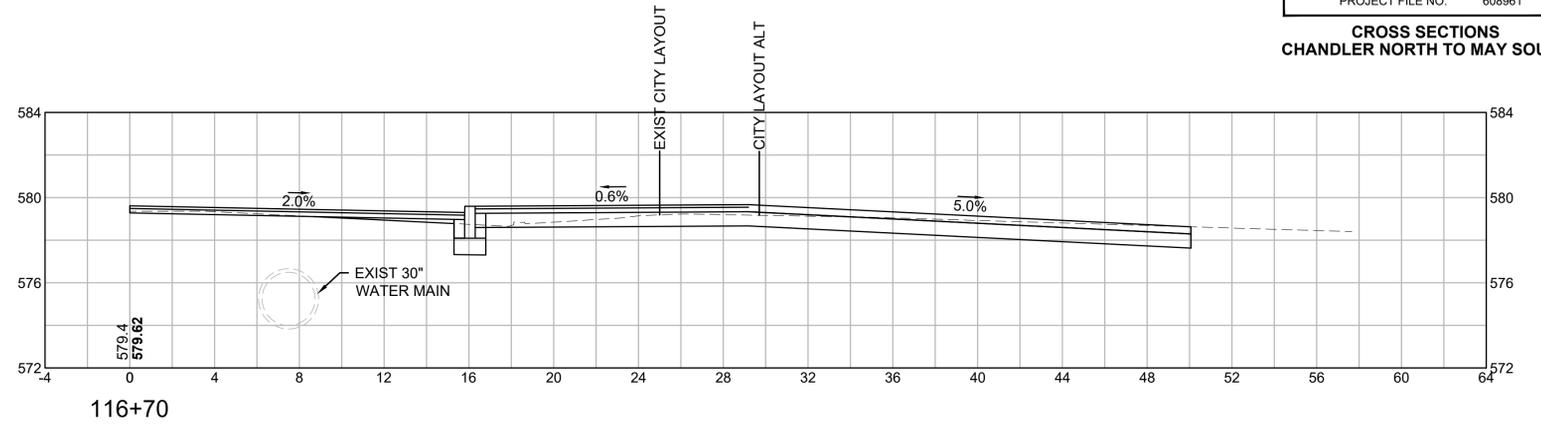
PROP LP  
+98



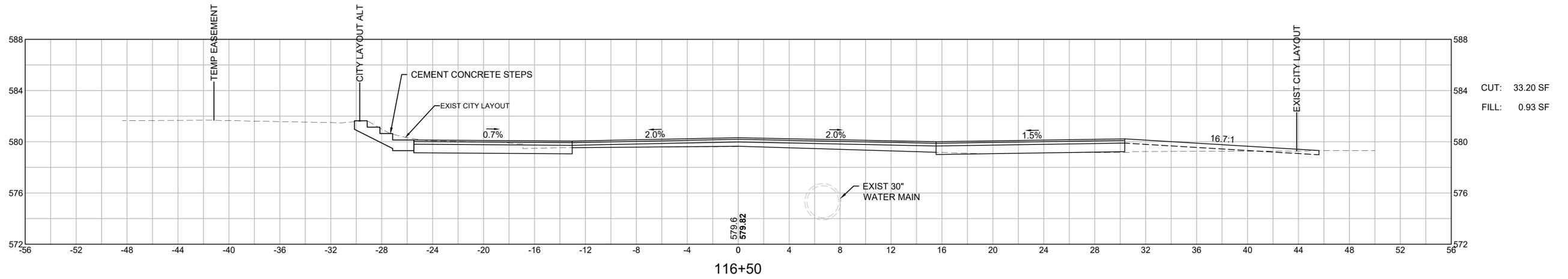
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	89	100
PROJECT FILE NO.		608961	

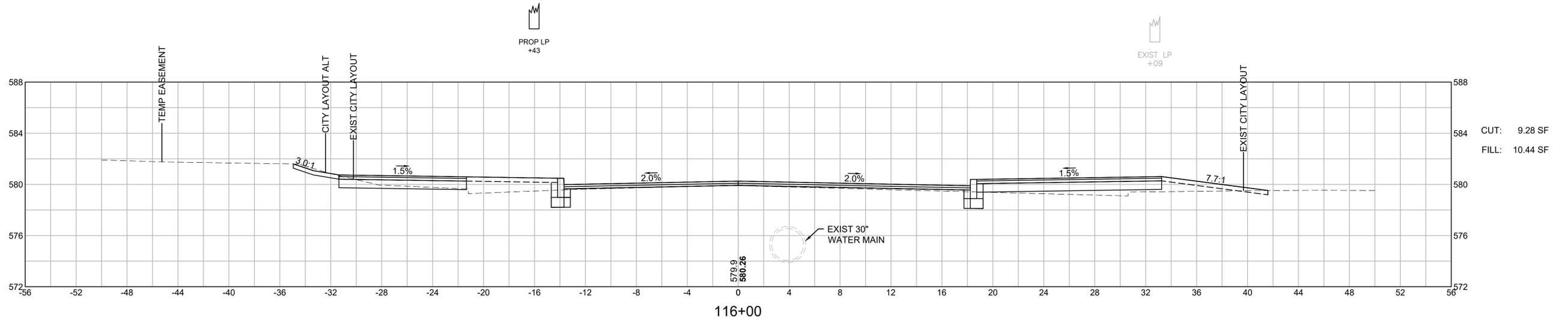
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



116+70



116+50



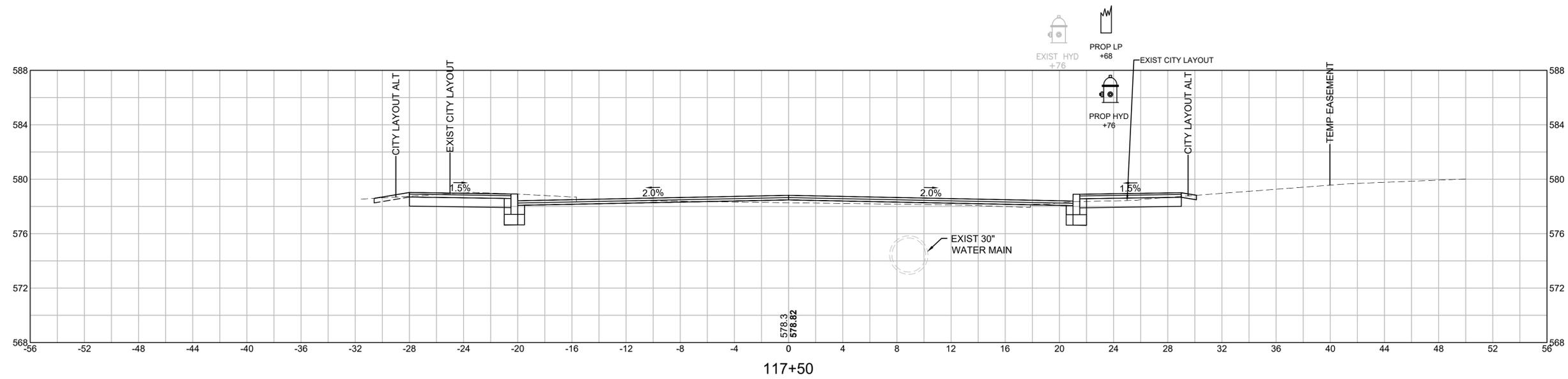
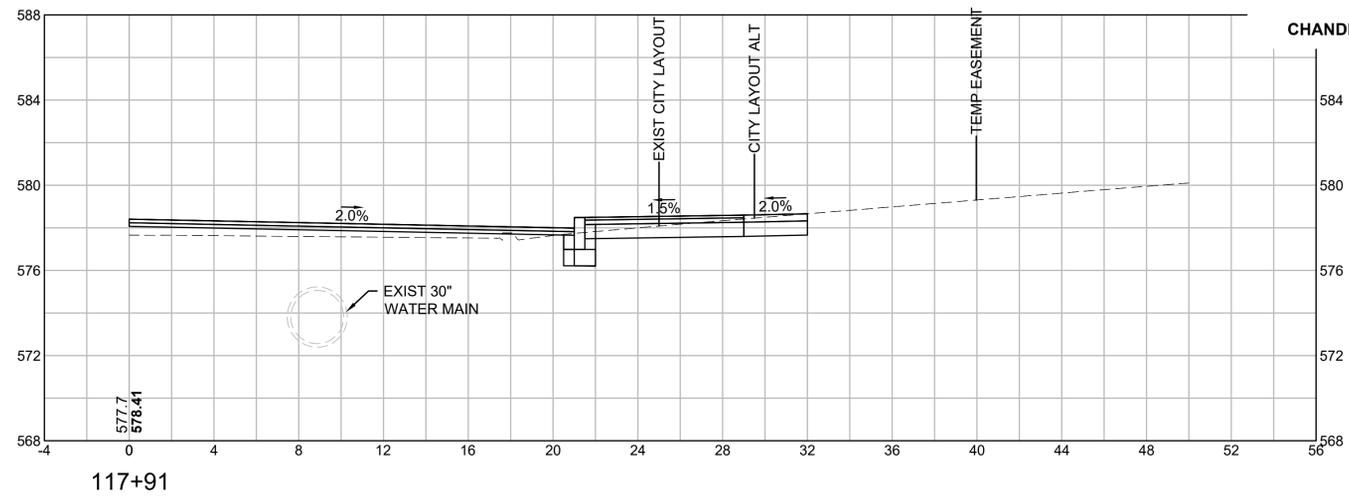
116+00



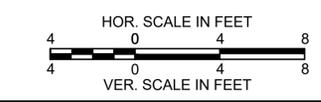
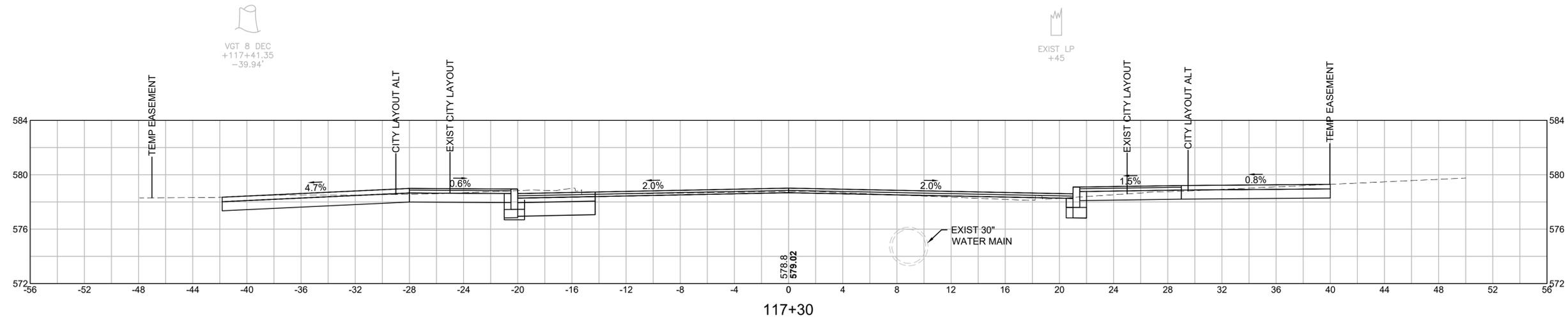
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	90	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



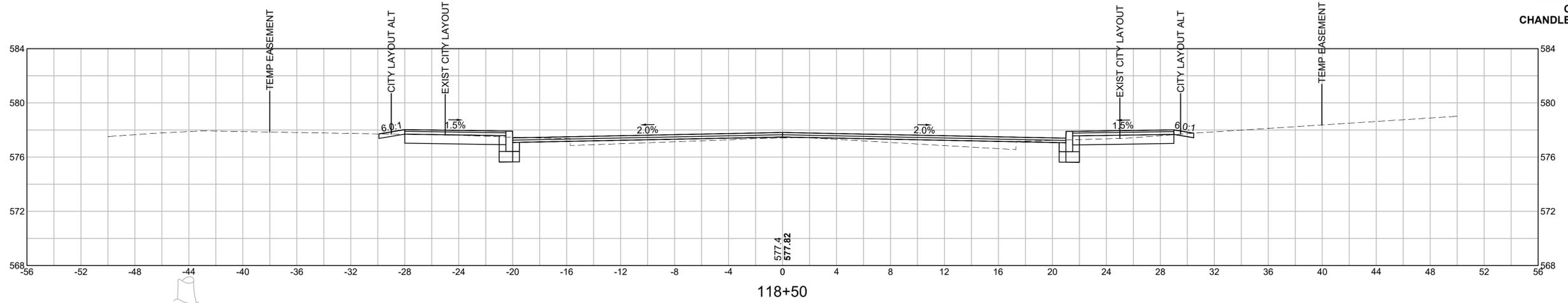
CUT: 20.61 SF  
FILL: 3.93 SF



**WORCESTER  
CHANDLER STREET**

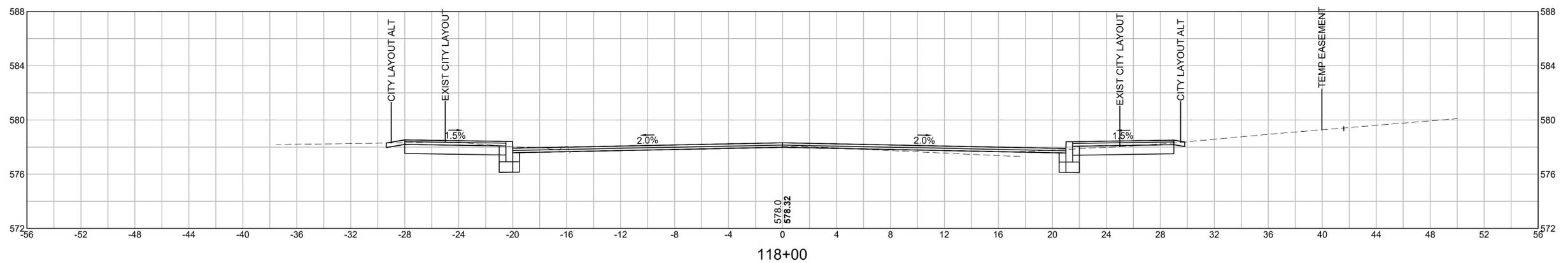
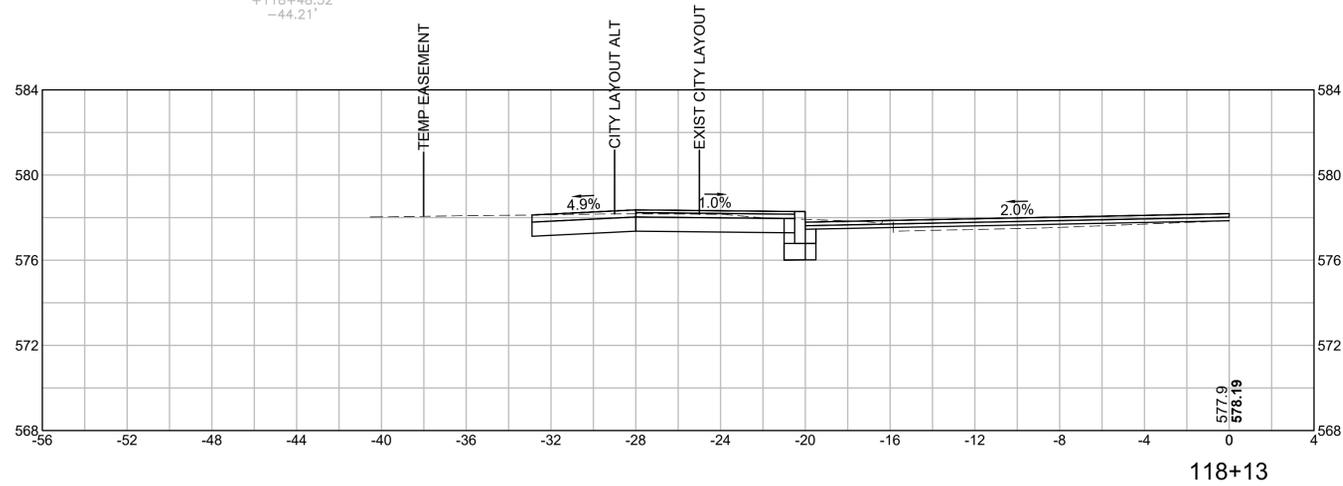
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	91	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



CUT: 14.57 SF  
FILL: 7.99 SF

VGT 24 DEC  
+118+48.52  
-44.21'



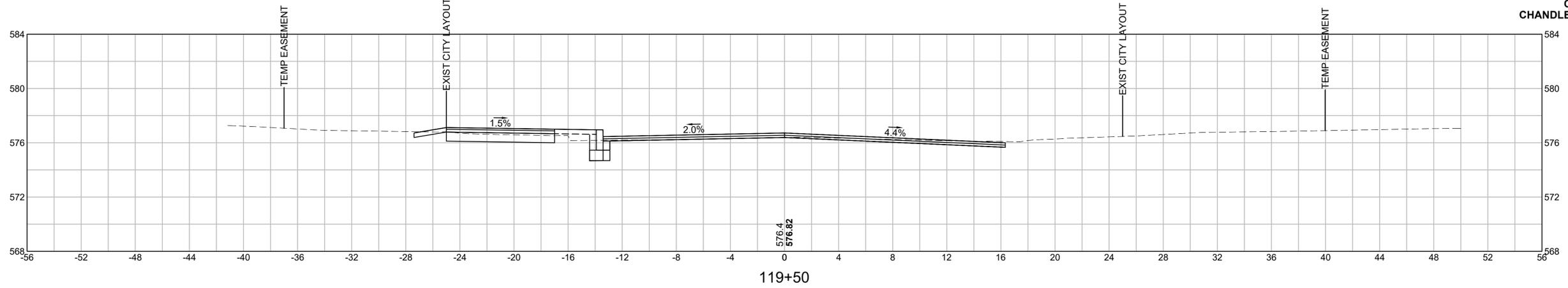
CUT: 17.64 SF  
FILL: 2.24 SF



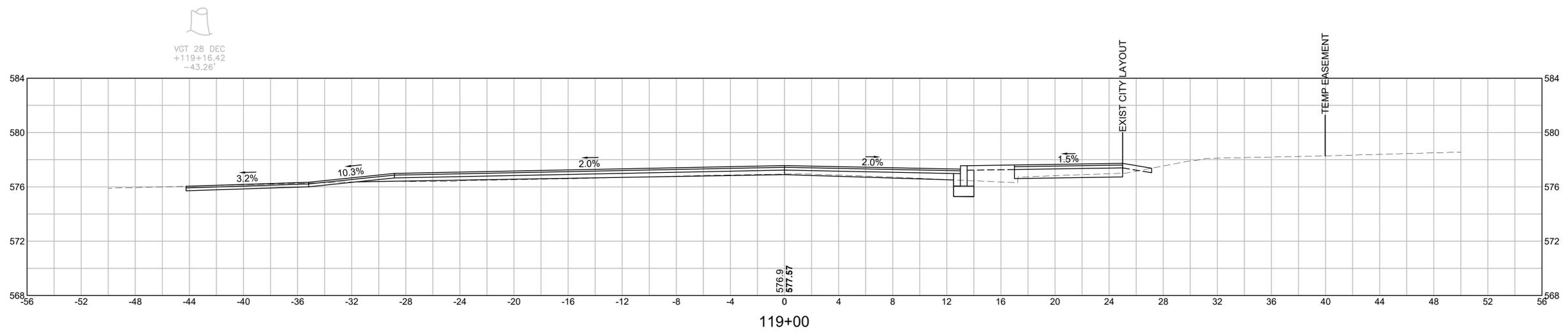
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	92	100
PROJECT FILE NO.		608961	

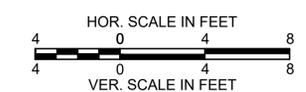
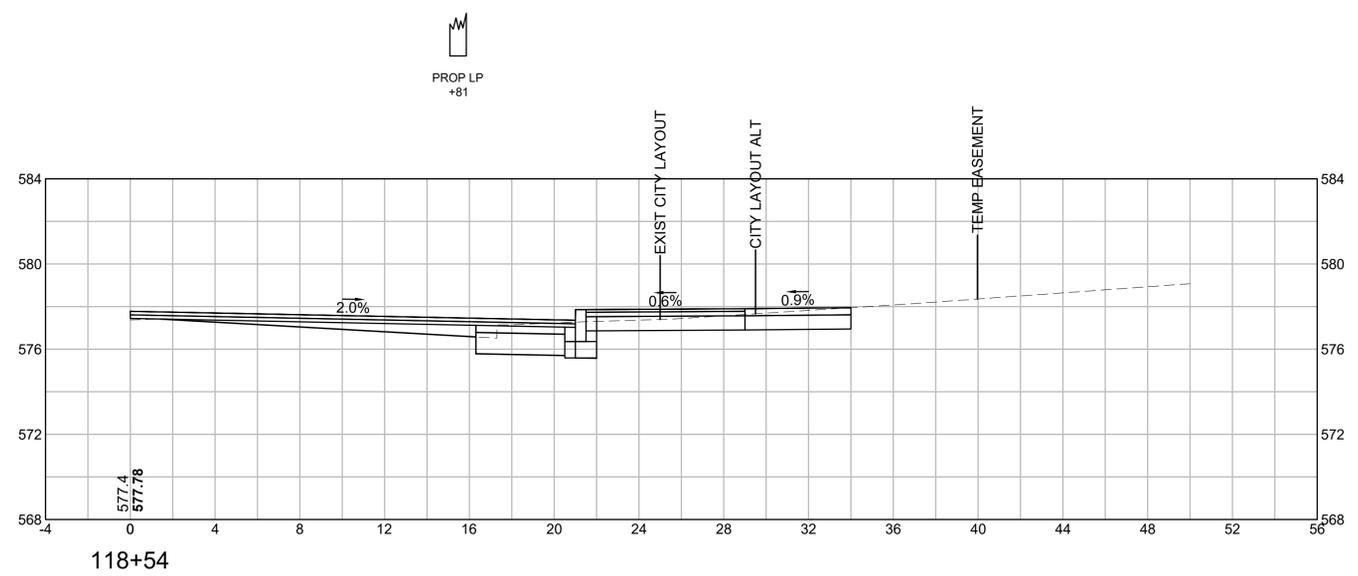
**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



CUT: 8.21 SF  
FILL: 2.30 SF



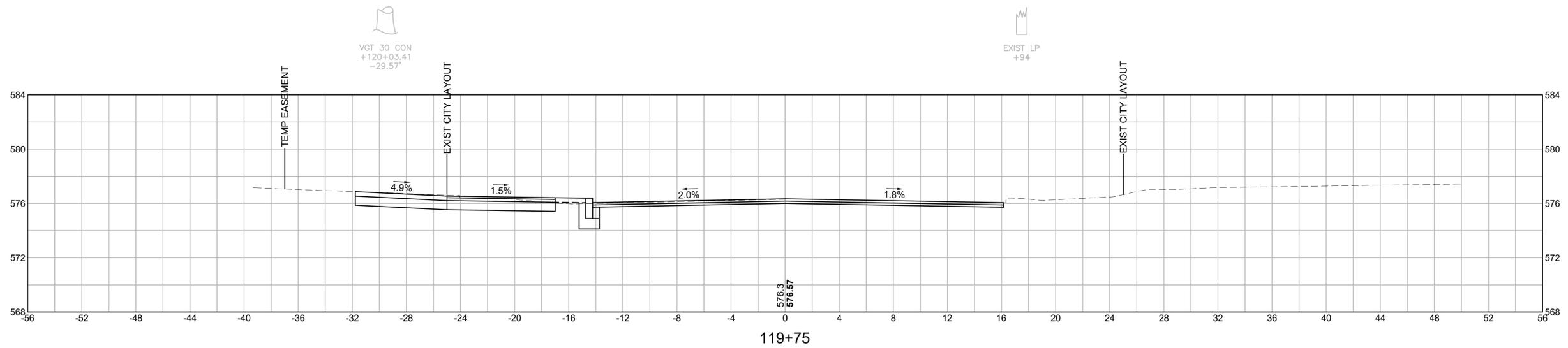
CUT: 34.81 SF  
FILL: 5.07 SF



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	93	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER NORTH TO MAY SOUTH**



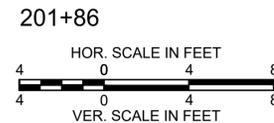
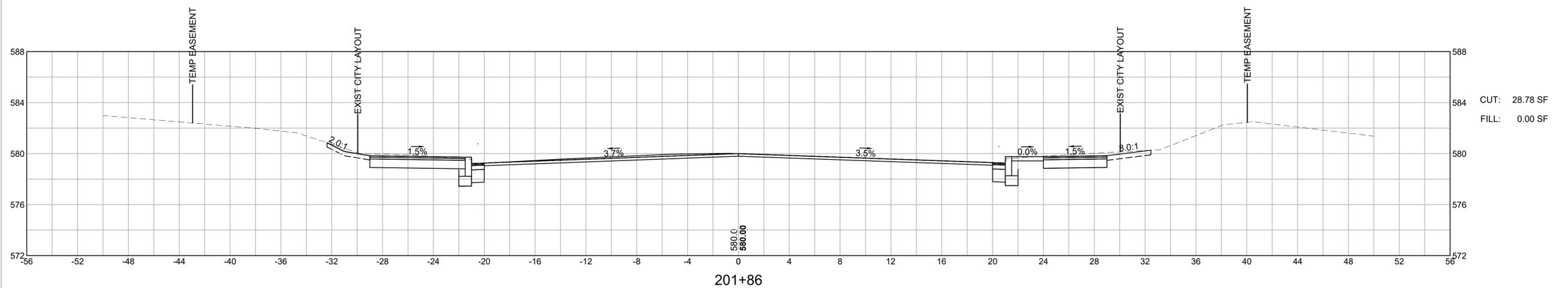
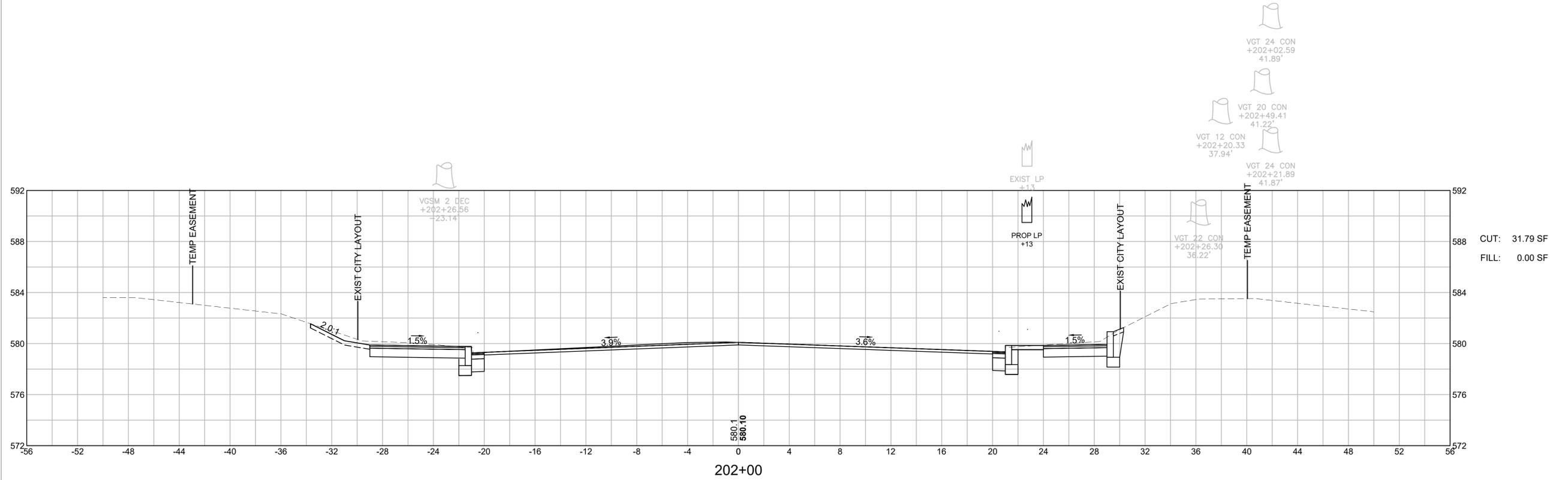
119+75



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	94	100
PROJECT FILE NO.		608961	

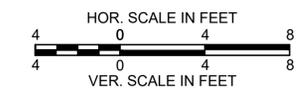
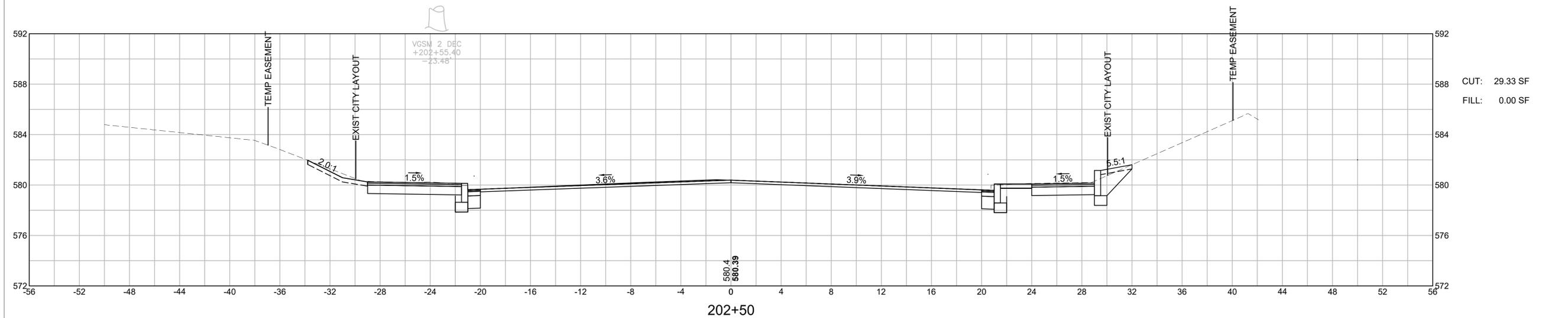
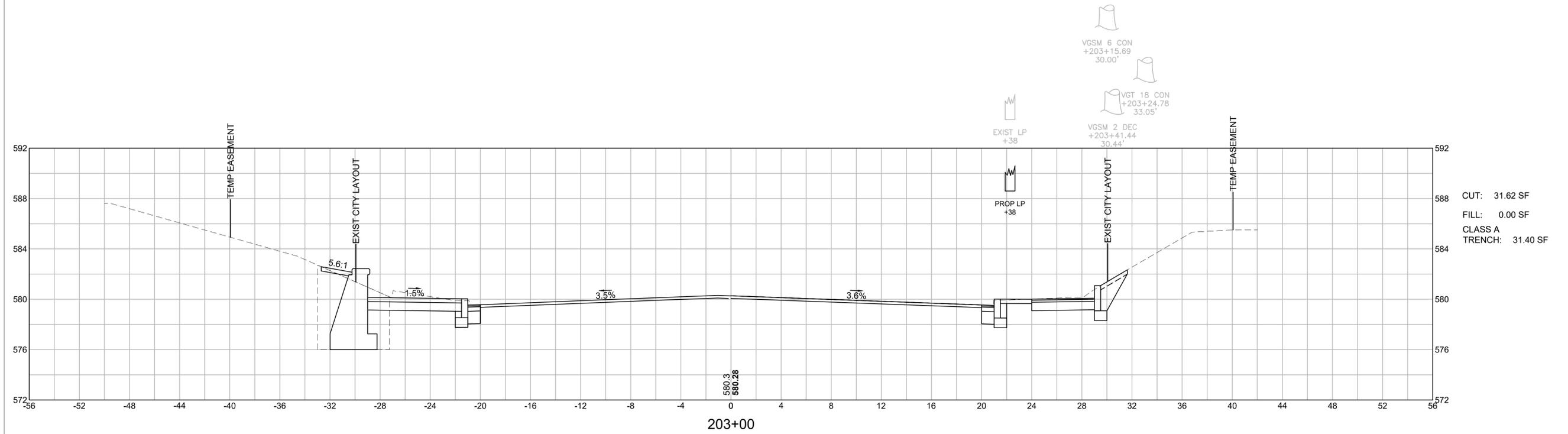
**CROSS SECTIONS  
MAY ST NORTH**



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	95	100
PROJECT FILE NO.		608961	

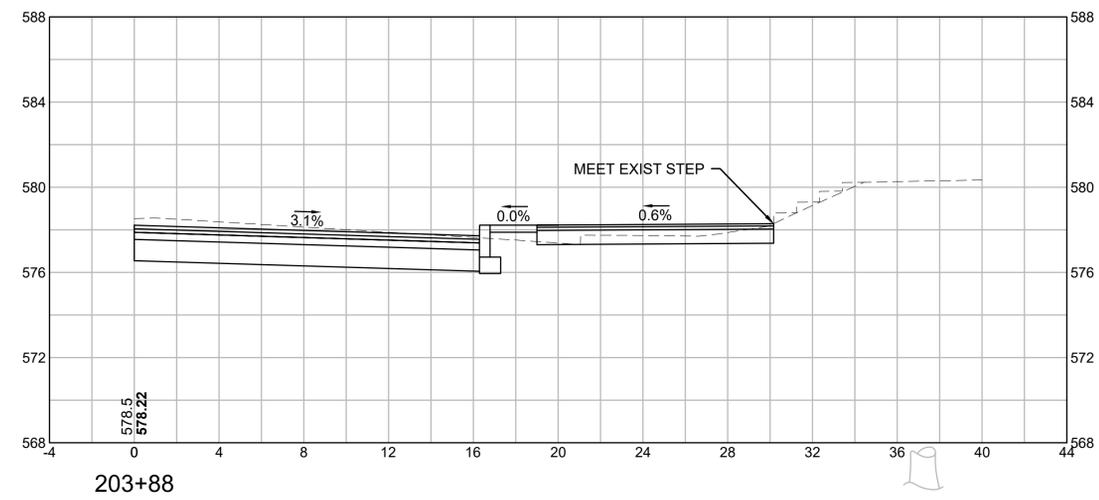
**CROSS SECTIONS  
MAY ST NORTH**



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	96	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
MAY ST NORTH**

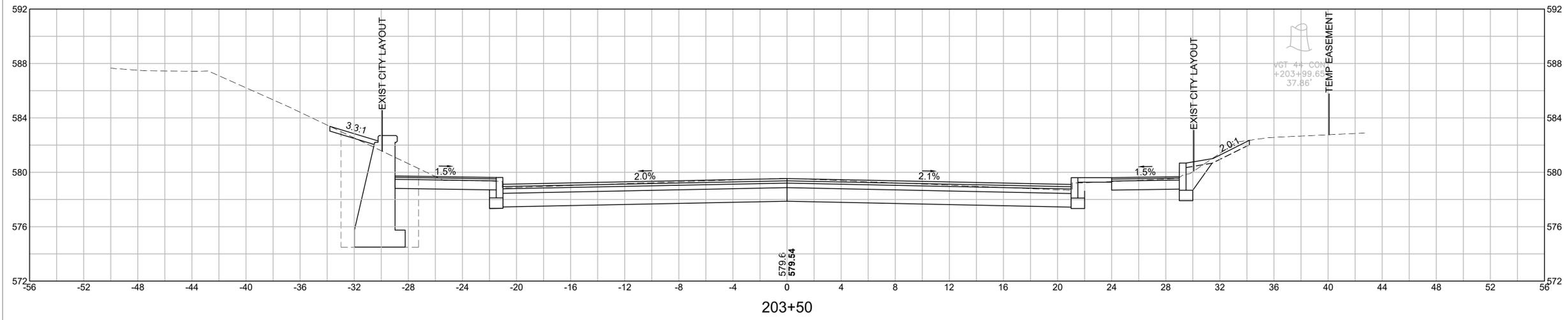


203+88

VGT 14 CON  
+203+66.53  
37.23'

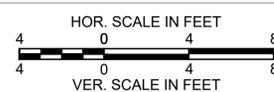
VGT 12 DEC TWIN  
+203+74.37  
33.40'

VCSM 6 DEC  
+203+71.08  
39.45'



203+50

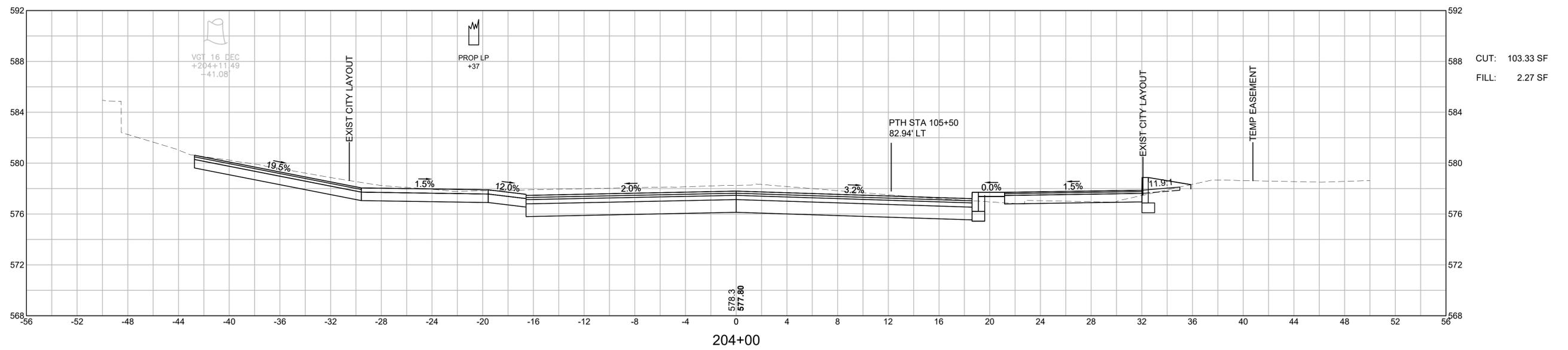
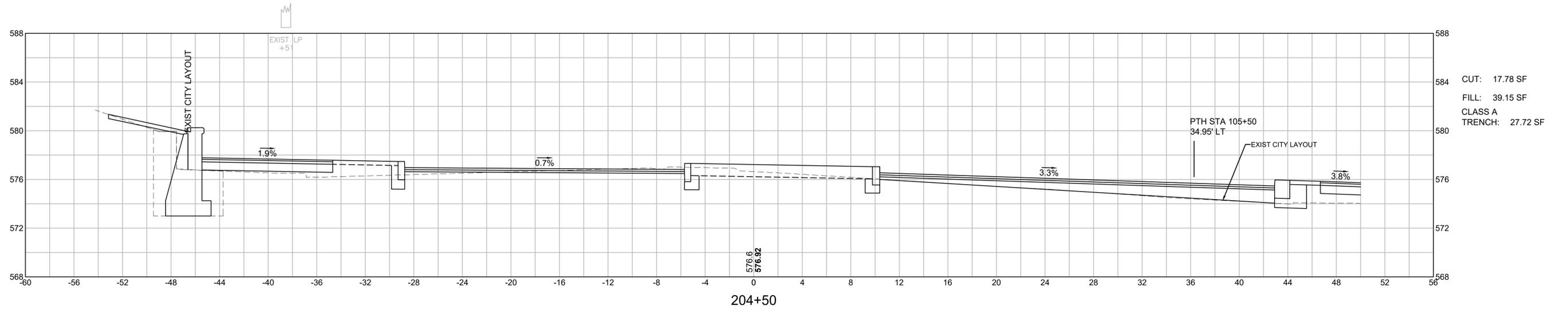
CUT: 83.41 SF  
FILL: 0.54 SF  
CLASS A  
TRENCH: 41.02 SF



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	97	100
PROJECT FILE NO.		608961	

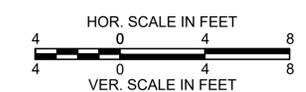
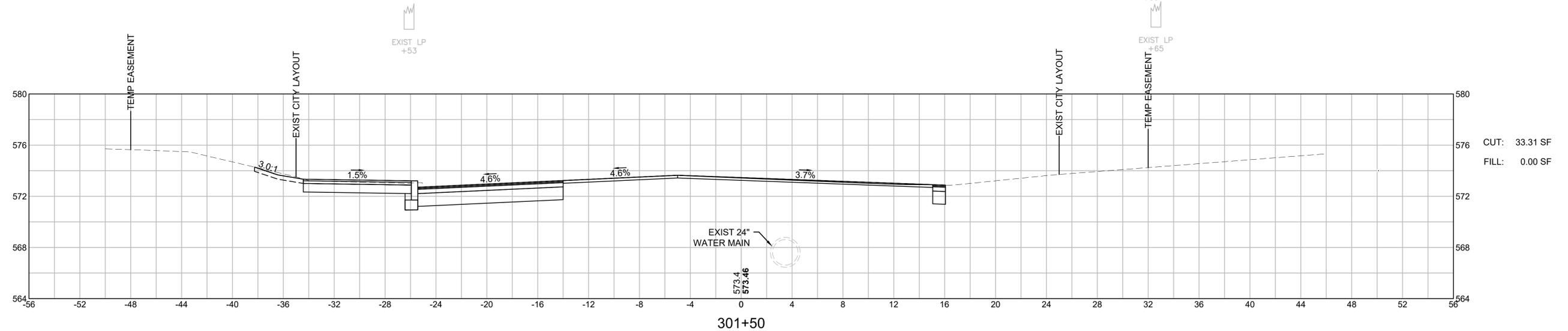
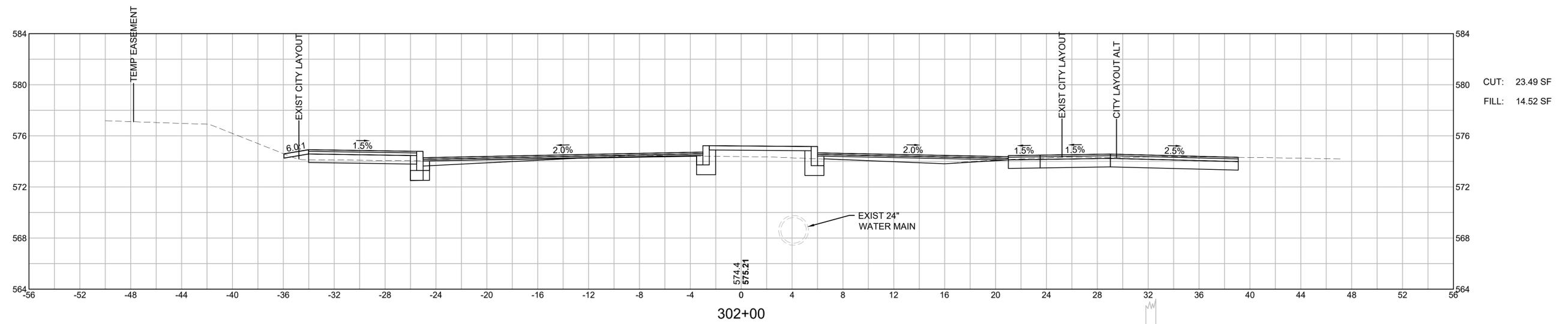
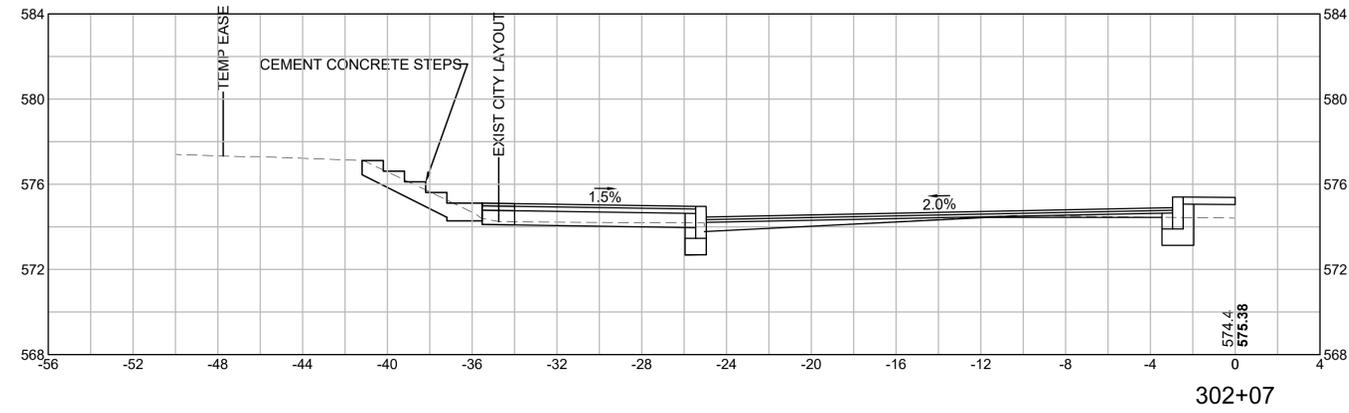
**CROSS SECTIONS  
MAY ST NORTH**



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	98	100
PROJECT FILE NO.		608961	

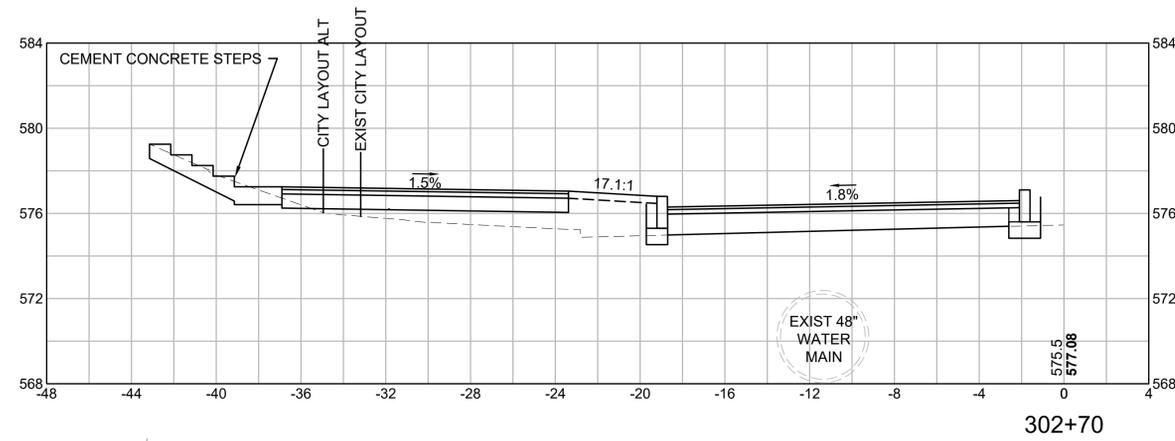
**CROSS SECTIONS  
CHANDLER ST SOUTH**



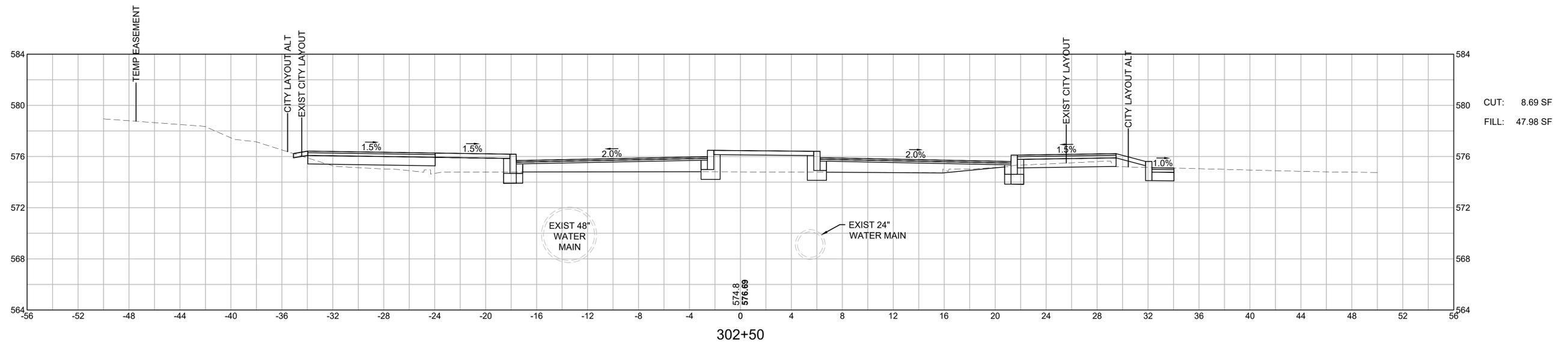
**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	99	100
PROJECT FILE NO.		608961	

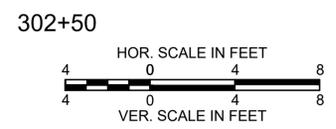
**CROSS SECTIONS  
CHANDLER ST SOUTH**



EXIST LP  
+69



CUT: 8.69 SF  
FILL: 47.98 SF



**WORCESTER  
CHANDLER STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	100	100
PROJECT FILE NO.		608961	

**CROSS SECTIONS  
CHANDLER ST SOUTH**

