

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	1	115
PROJECT FILE NO.		608565	

TITLE SHEET & INDEX

PLAN AND PROFILE OF ST. JAMES AVENUE @ CAREW STREET

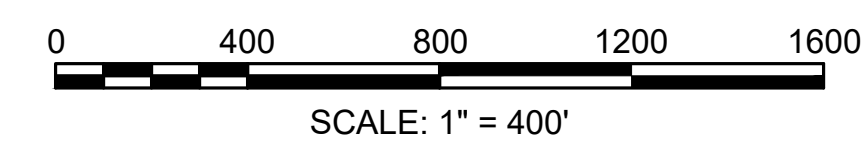
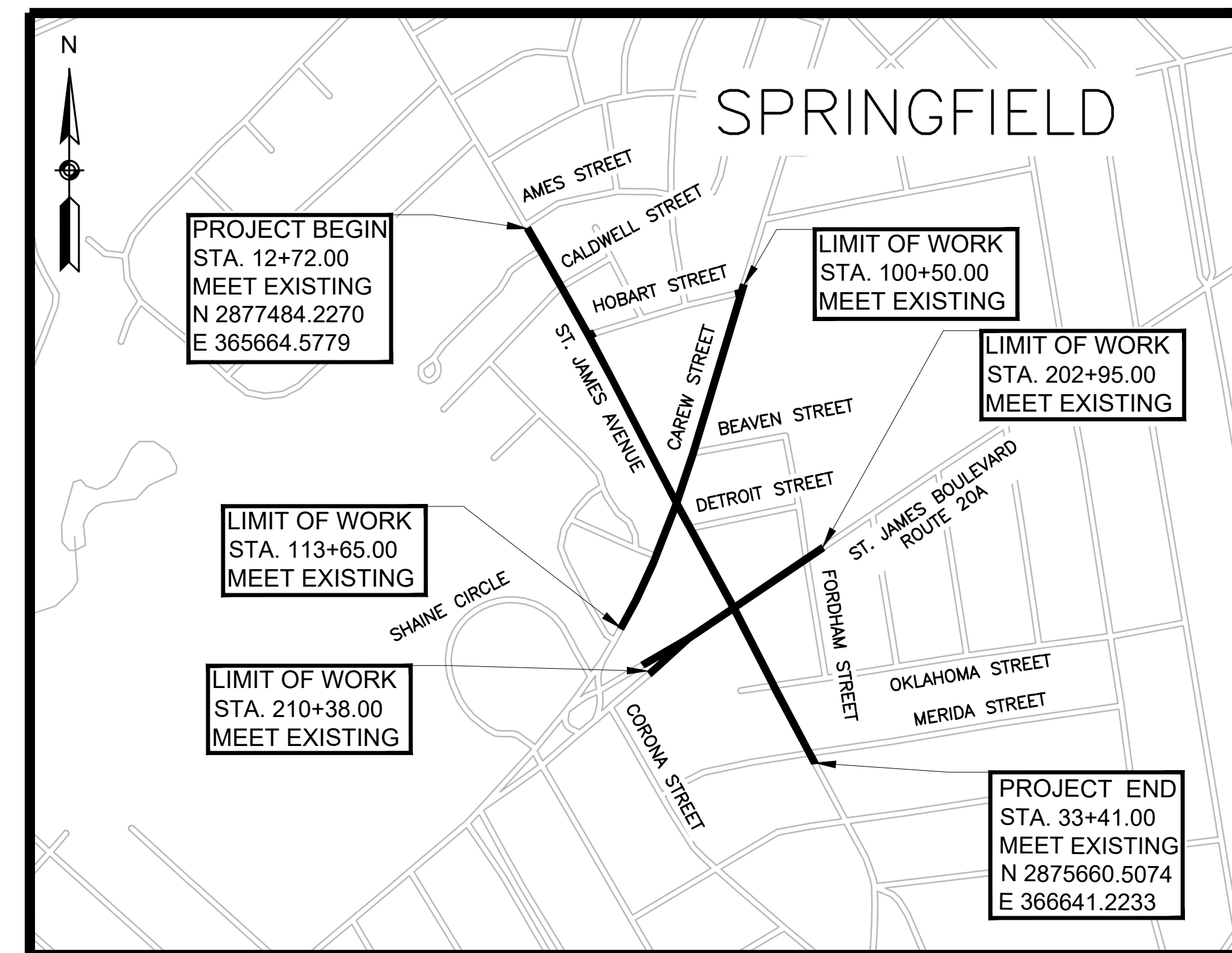
IN THE CITY OF
SPRINGFIELD
HAMPDEN COUNTY

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

25% SUBMISSION

INDEX

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LENGTH OF PROJECT = 4127.00 FEET = 0.782 MILES

DESIGN DESIGNATION (ST. JAMES AVENUE)

DESIGN SPEED	30 MPH
ADT (2020)	16,950
ADT (2035)	18,260
K	8.3%
D	51% NB
T (PEAK HOUR)	1.2%
T (AVERAGE DAY)	1.4%
DHV	1,520
DDHV	775 NB
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL

06/05/20

GPI Engineering
Design
Planning
Construction Management
978.570.2999 GPI.NET.COM
Greenman-Pedersen, Inc.
181 Ballardvale Street, Suite 202
Wilmington, MA 01887

DATE	DESCRIPTION	REV #



RECOMMENDED FOR APPROVAL

CHIEF ENGINEER DATE

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
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		HAY BALES/SILT FENCE/COMPOST FILTER TUBES
		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

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE
		CROSSWALK
		SOLID WHITE LINE
		SOLID YELLOW LINE
		BROKEN WHITE LINE
		BROKEN YELLOW LINE
		DOTTED WHITE LINE
		DOTTED YELLOW LINE
		DOTTED WHITE LINE EXTENSION
		DOTTED YELLOW LINE EXTENSION
		DOUBLE WHITE LINE
		DOUBLE YELLOW LINE

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
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

GENERAL NOTES

- TOPOGRAPHICAL INFORMATION WAS PROVIDED BY GREENMAN-PEDERSEN, INC., BETWEEN JULY 2018 AND NOVEMBER 2018 (978-570-2999). SUPPLEMENTAL SURVEY WAS PROVIDED BY GREENMAN-PEDERSEN, INC., FEBRUARY 2020 AND MARCH 2020. VERTICAL DATUM IS BASED ON NAVD 1988. HORIZONTAL DATUM IS BASED ON MA MAINLAND NAD 83.
- THE LOCATIONS AND SIZES OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE EXACTLY AND TO PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CALL "DIG-SAFE" 1-888-DIGSAFE (344-7233) AT LEAST 72 HOURS BEFORE COMMENCING CONSTRUCTION.
- WHERE AN EXISTING UNDERGROUND UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS, OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE & RESET" (R&R).
- ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS NOTED OTHERWISE.
- ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
- ALL 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.
- ALL TRANSVERSE JOINTS, AND ALL LONGITUDINAL JOINTS BETWEEN NEW SURFACE PAVEMENT AND EXISTING SURFACE PAVEMENT TO REMAIN SHALL BE COATED WITH A HOT Poured RUBBERIZED ASPHALT SEALER (ITEM 464.5).
- ALL DISTURBED AREAS NOT DESIGNATED TO BE PAVED SHALL HAVE LOAM BORROW PLACED AND SEEDED. THE LOAM BORROW SHALL HAVE A MINIMUM DEPTH OF 4 INCHES AND SHALL BE PLACED FLUSH WITH THE TOP OF THE ADJACENT CURB, EDGING, BERM OR PAVEMENT SURFACE.
- THE LIMIT OF WORK AREA SHALL BE THE STREET RIGHT OF WAY UNLESS SHOWN OTHERWISE.
- PRIOR TO THE START OF ANY NEW UTILITY WORK, ALL ELEVATIONS OF EXISTING UTILITIES IN THOSE AREAS ARE TO BE VERIFIED. THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY SHOULD ANY DISCREPANCIES OCCUR.
- ALL CASTINGS SHALL BE SET FLUSH WITH FINISHED GRADE.
- ALL PUBLICLY OWNED GATE BOXES, SERVICE BOXES, MANHOLE FRAMES AND COVERS SHALL BE ADJUSTED TO GRADE BY THE CONTRACTOR.
- ALL NEW SIDEWALKS AND DRIVEWAY GRADES SHALL MATCH EXISTING GRADES AT BACK OF SIDEWALK LINE UNLESS SHOWN OTHERWISE ON THE PLANS AND CROSS-SECTIONS.
- THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PROTECT ALL EXISTING TREES AND ROOTS THAT ARE NOT DESIGNATED FOR REMOVAL.
- CONTRACTOR TO CONTACT ENGINEER PRIOR TO INSTALLATION OF BOUNDS FOR FINAL LOCATIONS.
- DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE & GRADE UP TO A DEPTH OF 5' SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5' WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.

GENERAL ABBREVIATIONS

DIP	DUCTILE IRON PIPE	NIC	NOT IN CONTRACT	SMH	SEWER MANHOLE
DW	STEADY DON'T WALK - PORTLAND ORANGE	NO.	NUMBER	ST	STREET
DWY	DRIVEWAY	PC	POINT OF CURVATURE	STA	STATION
ELEV (or EL.)	ELEVATION	PCC	POINT OF COMPOUND CURVATURE	SSD	STOPPING SIGHT DISTANCE
EMB	EMBANKMENT	P.G.L.	PROFILE GRADE LINE	SHLO	STATE HIGHWAY LAYOUT LINE
EOP	EDGE OF PAVEMENT	PI	POINT OF INTERSECTION	SW	SIDEWALK
EXIST (or EX)	EXISTING	POC	POINT ON CURVE	T	TANGENT DISTANCE OF CURVE/TRUCK %
EXC	EXCAVATION	POT	POINT ON TANGENT	TAN	TANGENT
F&C	FRAME AND COVER	PRC	POINT OF REVERSE CURVATURE	TEMP	TEMPORARY
F&G	FRAME AND GRATE	PROJ	PROJECT	TC	TOP OF CURB
FDN.	FOUNDATION	PROP	PROPOSED	TOS	TOP OF SLOPE
FLDSTN	FIELDSTONE	PSB	PLANTABLE SOIL BORROW	TYP	TYPICAL
GAR	GARAGE	PT	POINT OF TANGENCY	UP	UTILITY POLE
GD	GROUND	PVC	POINT OF VERTICAL CURVATURE	VAR	VARIES
GG	GAS GATE	PVCC	POINT OF VERTICAL COMPOUND CURVATURE	VERT	VERTICAL
GI	GUTTER INLET	PVI	POINT OF VERTICAL INTERSECTION	VC	VERTICAL CURVE
GIP	GALVANIZED IRON PIPE	PVRC	POINT OF VERTICAL REVERSE CURVATURE	WCR	WHEEL CHAIR RAMP
GRAN	GRANITE	PVT	POINT OF VERTICAL TANGENCY	WG	WATER GATE
GRAV	GRAVEL	PVMT	PAVEMENT	WIP	WROUGHT IRON PIPE
GRD	GUARD	PWW	PAVED WATER WAY	WM	WATER METER/WATER MAIN
HDW	HEADWALL	R	RADIUS OF CURVATURE	X-SECT	CROSS SECTION
HMA	HOT MIX ASPHALT	R&D	REMOVE AND DISPOSE		
HOR	HORIZONTAL	RCP	REINFORCED CONCRETE PIPE		
HYD	HYDRANT	RD	ROAD		
INV	INVERT	RDWY	ROADWAY		
JCT	JUNCTION	REM	REMOVE		
L	LENGTH OF CURVE	RET	RETAIN		
LB	LEACH BASIN	RET WALL	RETAINING WALL		
LP	LIGHT POLE	ROW	RIGHT OF WAY		
LT	LEFT	RR	RAILROAD		
MAX	MAXIMUM	R&R	REMOVE AND RESET		
MB	MAILBOX	R&S	REMOVE AND STACK		
MH	MANHOLE	RT	RIGHT		
MHB	MASSACHUSETTS HIGHWAY BOUND	SB	STONE BOUND		
MIN	MINIMUM	SHLD	SHOULDER		

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ST. JAMES AVENUE @ CAREW STREET

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MA	-	2	115
PROJECT FILE NO.		608565	

LEGEND & ABBREVIATIONS

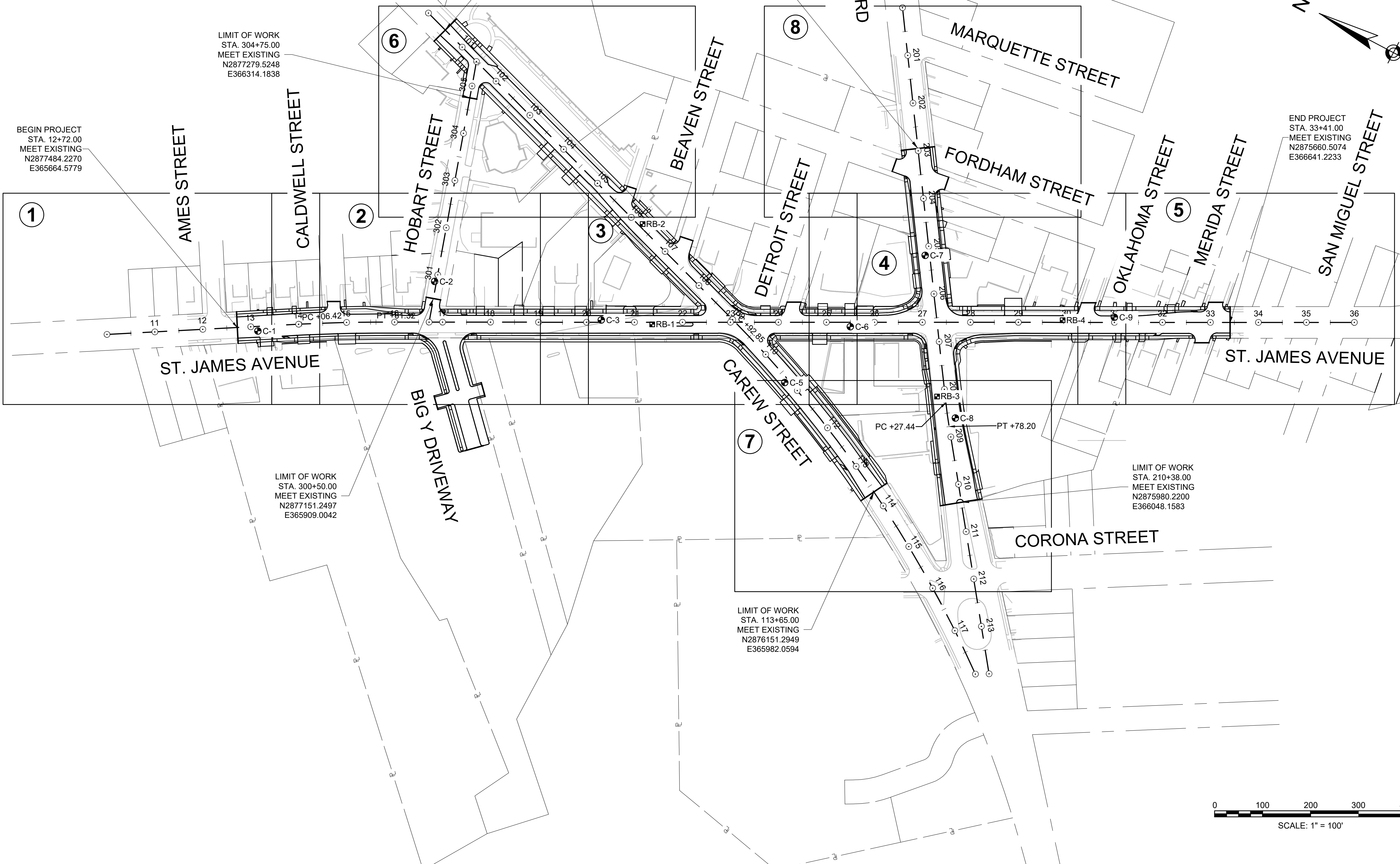
SHEET REFERENCE:	1	2	3	4	5	6	7	8
Drawing Title:	Drawing Number:							
CONSTRUCTION BASELINE TIES	6	7	8	9	10	11	12	13
CONSTRUCTION PLANS	14	15	16	17	18	19	20	21
DRAINAGE & UTILITY PLANS	22	23	24	25	26	27	28	29
TRAFFIC SIGN & PAVEMENT MARKING PLANS	30	31	32	33	34	35	36	37
TRAFFIC SIGNAL PLANS	41	43	45					
LANDSCAPE PLANS	51	52	53	54	55	56	57	58

● C-# = CORING LOCATION AND NUMBER
 ■ RB-# = TEST PIT LOCATION AND NUMBER

SPRINGFIELD
 ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	3	115

PROJECT FILE NO. 608565
 KEY PLAN



BEGIN PROJECT
 STA. 12+72.00
 MEET EXISTING
 N2877484.2270
 E365664.5779

LIMIT OF WORK
 STA. 304+75.00
 MEET EXISTING
 N2877279.5248
 E366314.1838

LIMIT OF WORK
 STA. 100+50.00
 MEET EXISTING
 N2877390.8032
 E366415.1583

LIMIT OF WORK
 STA. 202+95.00
 MEET EXISTING
 N2876404.9121
 E366657.6158

END PROJECT
 STA. 33+41.00
 MEET EXISTING
 N2875660.5074
 E366641.2233

LIMIT OF WORK
 STA. 300+50.00
 MEET EXISTING
 N2877151.2497
 E365909.0042

LIMIT OF WORK
 STA. 210+38.00
 MEET EXISTING
 N2875980.2200
 E366048.1583

LIMIT OF WORK
 STA. 113+65.00
 MEET EXISTING
 N2876151.2949
 E365982.0594

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	4	115
PROJECT FILE NO.		608565	

TYPICAL SECTIONS

PAVEMENT NOTES

FULL DEPTH HMA CONSTRUCTION

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

BASE: 4" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5) OVER

SUBBASE: 4" DENSE GRADED CRUSHED STONE OVER
8" GRAVEL BORROW TYPE B (OR SUITABLE EXISTING MATERIAL)

FINE MILLING & HMA OVERLAY

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

SURFACE MILLING: 1 3/4" PAVEMENT FINE MILLING (TO REMOVE EXISTING SURFACE COURSE AND PROVIDE A SMOOTH RIDE QUALITY)

FULL DEPTH HMA CONSTRUCTION LESS THAN 4 FEET

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

BASE: 6" CEMENT CONCRETE BASE COURSE OVER

SUBBASE: 8" GRAVEL BORROW TYPE B (OR SUITABLE EXISTING MATERIAL)

CEMENT CONCRETE SIDEWALK, WHEELCHAIR RAMPS AND WALKWAYS

SURFACE COURSE: 4" CEMENT CONCRETE (AIR ENTRAINED 4000 PSI, 3/4", 610) OVER

SUBBASE: 8" GRAVEL BORROW TYPE B

CEMENT CONCRETE SIDEWALK AT DRIVEWAYS

SURFACE COURSE: 6" CEMENT CONCRETE (AIR ENTRAINED 4000 PSI, 3/4", 610) OVER

SUBBASE: 8" GRAVEL BORROW TYPE B

HMA WALKWAYS

SURFACE COURSE: 1 1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
1 3/4" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER

SUBBASE: 8" GRAVEL BORROW TYPE B

HMA DRIVEWAYS AND SHARED USE PATH

SURFACE COURSE: 1 1/2" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER
2 1/2" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER

SUBBASE: 8" GRAVEL BORROW TYPE B

PAVEMENT NOTES:

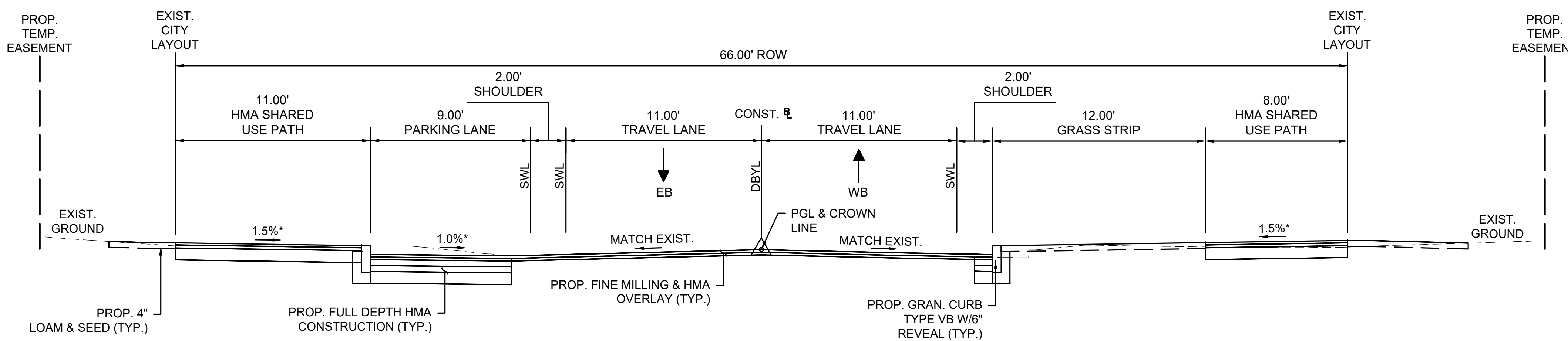
- ALL HMA, PAVEMENT FINE MILLING, HMA FOR PATCHING, ASPHALT EMULSION FOR TACK COAT AND HMA JOINT SEALANT SHALL BE IN ACCORDANCE WITH SECTION 450.

GENERAL NOTES:

- THE PROPOSED HMA OVERLAY OPERATION IN MILLED AREAS SHALL EXTEND ACROSS THE FULL DEPTH CONSTRUCTION.
- HMA SHARED USE PATH SHALL BE PAID FOR UNDER ITEM 702. HOT MIX ASPHALT SIDEWALK OR DRIVEWAY
- ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF 1.5% (0.015 FT/FT). TOLERANCE FOR CONSTRUCTION SHALL BE ±0.50%. IN NO CASE SHALL THE SIDEWALK CROSS SLOPE EXCEED 2.0% (0.02 FT/FT). SIDEWALKS SHALL HAVE A MINIMUM CLEAR PATH OF 36" FREE OF OBSTRUCTION (UTILITY POLES, HYDRANTS, ETC.).
- THE SECTIONS OF PROPOSED ROADWAY NOT COVERED IN THE RANGE OF STATIONS ASSOCIATED WITH THE TYPICAL SECTIONS ARE EITHER AT INTERSECTIONS OR ARE IN AREAS OF TRANSITION AND THEREFORE HAVE NOT BEEN SHOWN. THESE SECTIONS ARE:

STA. 12+72 TO STA. 16+25	ST. JAMES AVENUE
STA. 22+75 TO STA. 24+00	ST. JAMES AVENUE
STA. 26+00 TO STA. 28+00	ST. JAMES AVENUE
STA. 29+95 TO STA. 33+41	ST. JAMES AVENUE
STA. 101+25 TO STA. 101+80	CAREW STREET
STA. 105+00 TO STA. 106+00	CAREW STREET
STA. 112+30 TO STA. 113+65	CAREW STREET
STA. 202+95 TO STA. 204+70	ST. JAMES BOULEVARD (ROUTE 20A)
STA. 206+00 TO STA. 207+85	ST. JAMES BOULEVARD (ROUTE 20A)
STA. 208+65 TO STA. 210+38	ST. JAMES BOULEVARD (ROUTE 20A)

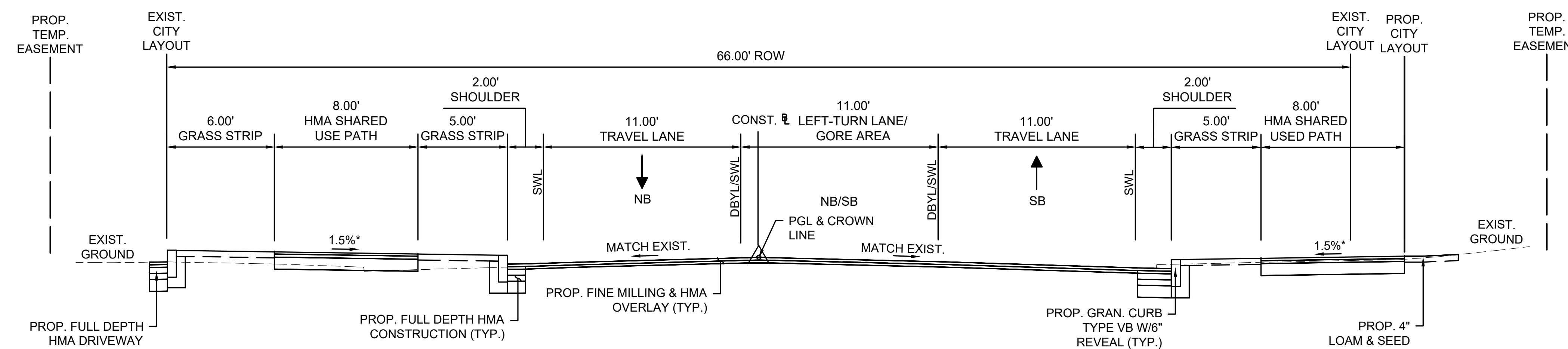
- THE CONTRACTOR IS HEREBY NOTIFIED THAT IT IS ANTICIPATED THAT THE EXISTING SUBBASE MAY BE SUITABLE FOR REUSE AS GRAVEL BORROW MATERIAL. THE EXISTING SUBBASE MATERIAL WILL BE TESTED BY MASSDOT. IF THE TESTING REVEALS THAT THE EXISTING SUBBASE MATERIAL IS SUITABLE FOR REUSE AS GRAVEL BORROW FOR FULL DEPTH CONSTRUCTION AREAS, IT SHALL BE RETAINED AND THE QUANTITIES FOR EXCAVATION AND GRAVEL BORROW SHALL BE ADJUSTED ACCORDINGLY.



TYPICAL SECTION - CAREW STREET

STA. 101+80 - 105+00

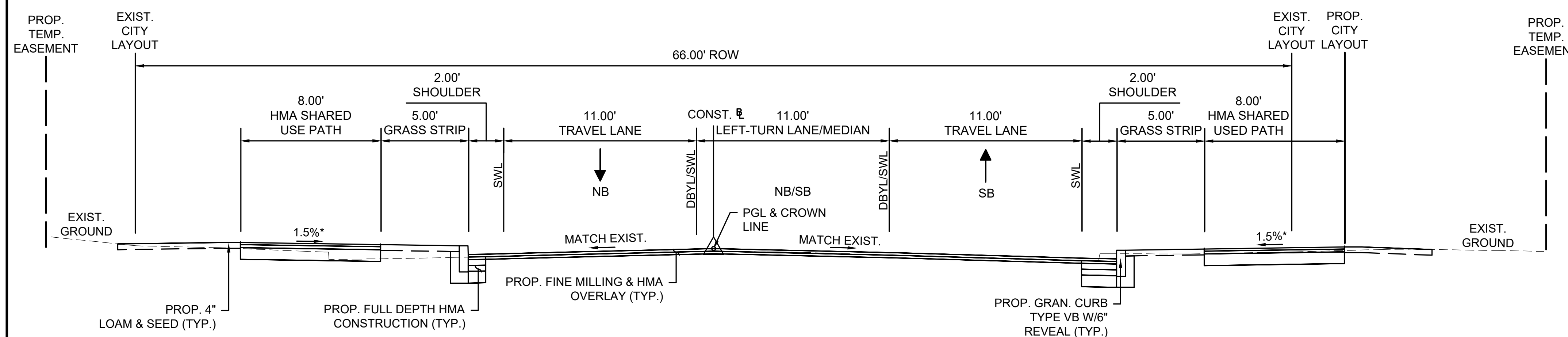
* 0.5% ± TOLERANCE FOR CONSTRUCTION



TYPICAL SECTION - ST. JAMES AVENUE

STA. 24+00 - 26+00
STA. 28+00 - 29+95

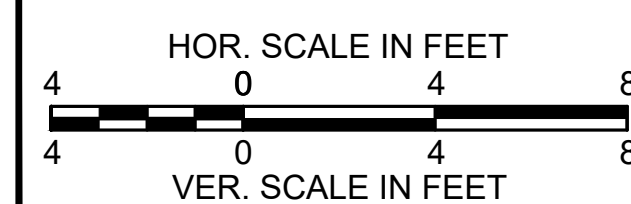
* 0.5% ± TOLERANCE FOR CONSTRUCTION



TYPICAL SECTION - ST. JAMES AVENUE

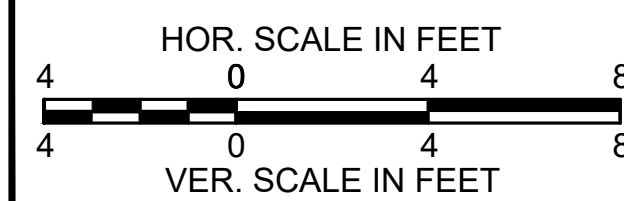
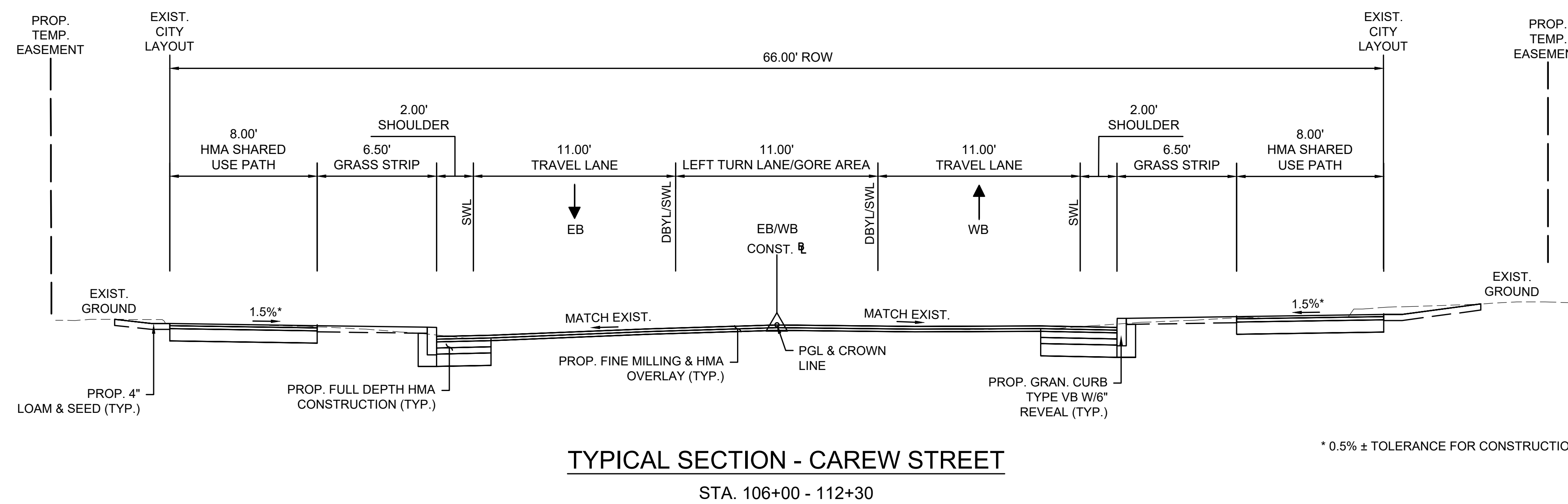
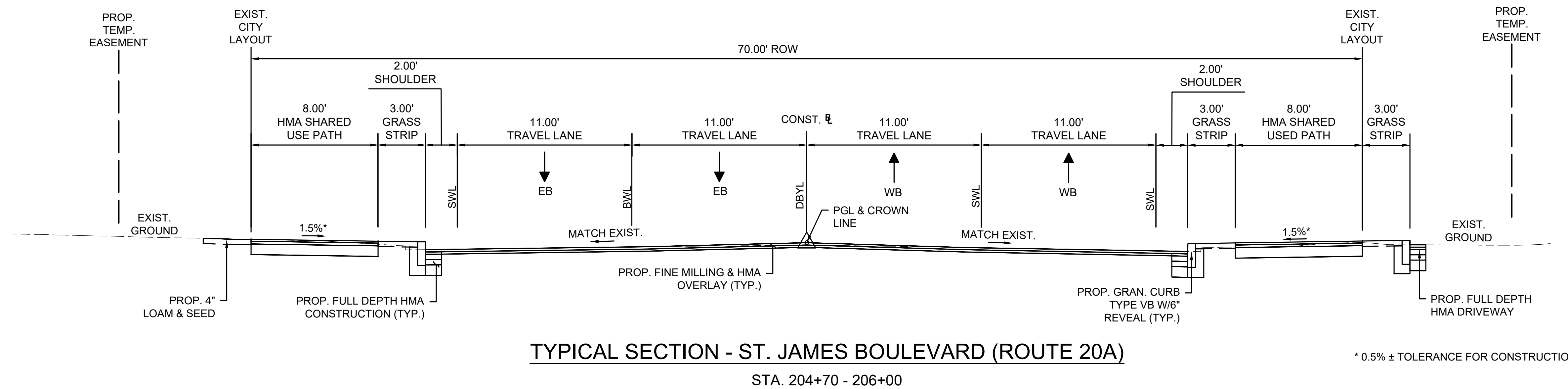
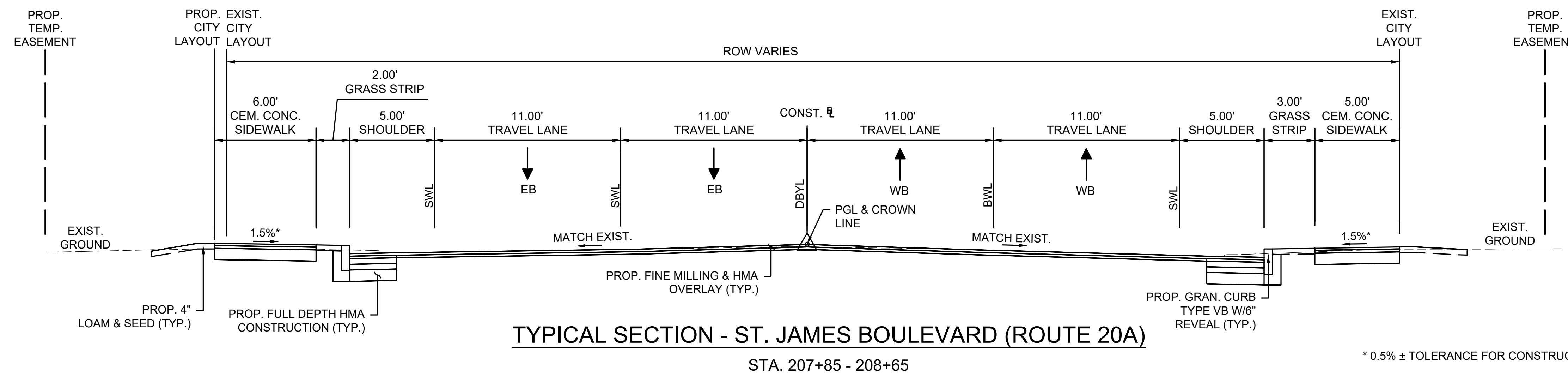
STA. 16+25 - 22+75

* 0.5% ± TOLERANCE FOR CONSTRUCTION



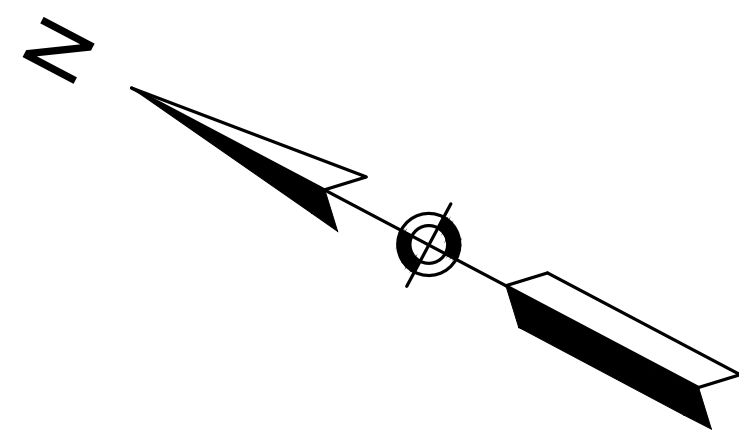
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MA	-	5	115
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TYPICAL SECTIONS



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	6	115
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CONSTRUCTION BASELINE TIES



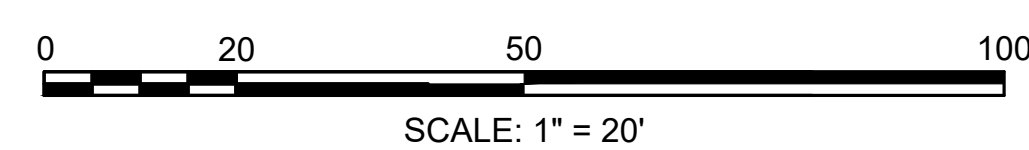
ST JAMES AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	10+00.00	2877717.574	365524.817		S30°55'09"E 406.42'	14+06.42	2877368.908	365733.647

ST. JAMES AVENUE

AMES STREET

BEGIN PROJECT
STA. 12+72.00
MEET EXISTING
N2877484.2270
E365664.5779

CONTINUED ON
SHEET 7



N/F
DAVID W. WILSON
BK/PG 8751/202
PB/PL 1/3 (LOT 32)
MAP ID 111700214
1149 ST. JAMES AVENUE

N/F
LUIS A. VIZCARRONDO
BK/PG 22312/466
PB/PL 1/3 (LOT 62)
MAP ID 111700215
1143 ST. JAMES AVENUE

N/F
TIFFANY N. MOCK
BK/PG 21340/191
PB/PL 1/3 (LOT 63)
MAP ID 111700216
1139 ST. JAMES AVENUE

N/F
PAULINA CINTRON
BK/PG 21167/391
PB/PL 1/3 (LOT 64)
MAP ID 111700217
1129 ST. JAMES AVENUE

N/F
THE BANK OF NEW YORK
MELLON TRUST COMPANY,
NATIONAL ASSOCIATION
BK/PG 20753/411
PB/PL 1/3 (LOT 65)
MAP ID 111700218
1123 ST. JAMES AVENUE

N/F
GLADYS HERNANDEZ AND
JOSE A. HERNANDEZ
BK/PG 16364/416
PB/PL 1/3 (LOT 96)
MAP ID 111700219
1119 ST. JAMES AVENUE

N/F
TODD S. MELBOURNE AND
TRACY L. MELBOURNE
BK/PG 20466/511
PB/PL 1/3 (LOT 97)
MAP ID 111700220
1113 ST. JAMES AVENUE

N/F
RAYONIA & PATEL, LLC
BK/PG 19355/428
PB/PL 108/25
MAP ID 111700160
1116 ST. JAMES AVENUE

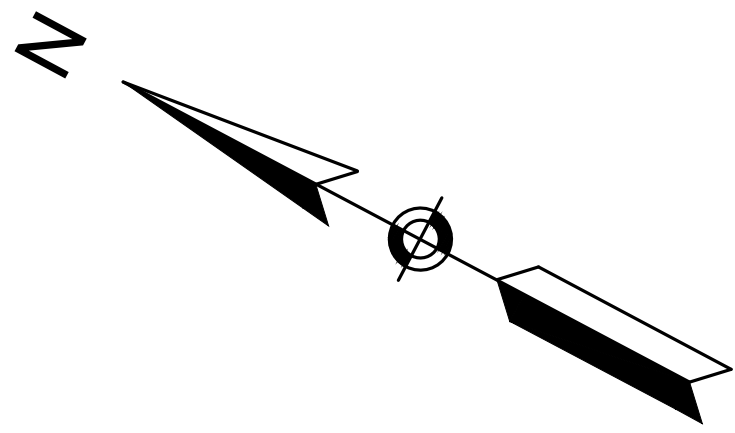
N/F
THE SPRINGFIELD HOUSING
AUTHORITY
BK/PG 3676/33
PB/PL 127/129
MAP ID 111700162
1118-1122 ST. JAMES AVENUE

N/F
EVAN R. TARDY AND
JENNIFER L. TARDY
BK/PG 15667/346
MAP ID 111700168
1150 ST. JAMES AVENUE

N/F
LISSETTE ALICEA AND
MIGUEL A. ALICEA
BK/PG 15016/26
MAP ID 111700167
1144 ST. JAMES AVENUE

N/F
MICHELLE L. HALL
BK/PG 17858/382
MAP ID 111700166
1140 ST. JAMES AVENUE

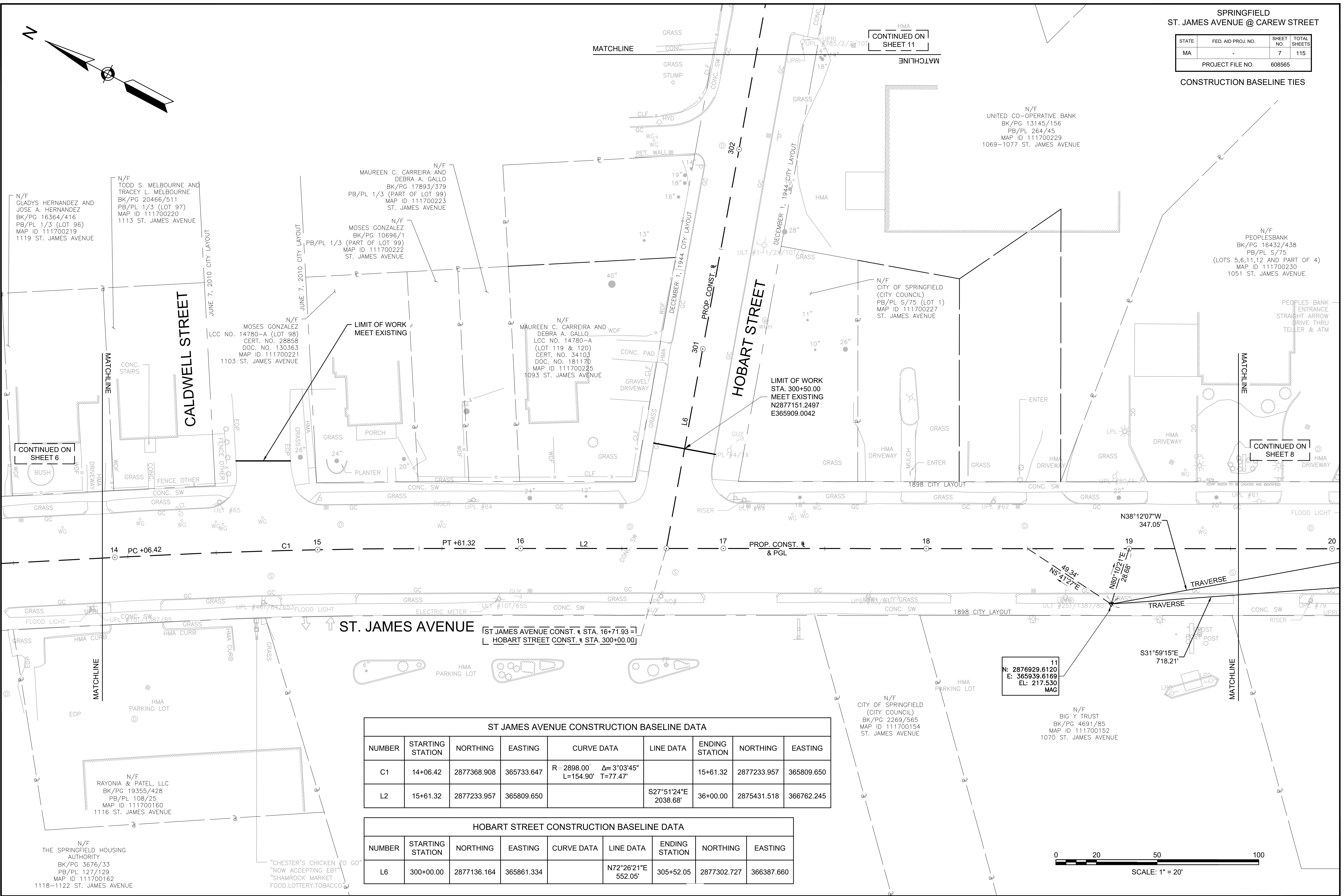
N/F
SHUBH LAXMI, LLC
BK/PG 22447/310
PB/PL 127/129
MAP ID 111700165
1130 ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	7	115
PROJECT FILE NO.		608565	

CONSTRUCTION BASELINE TIES

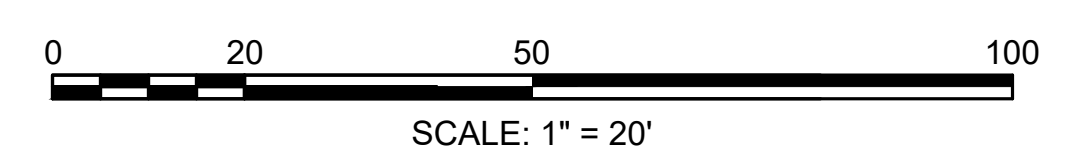


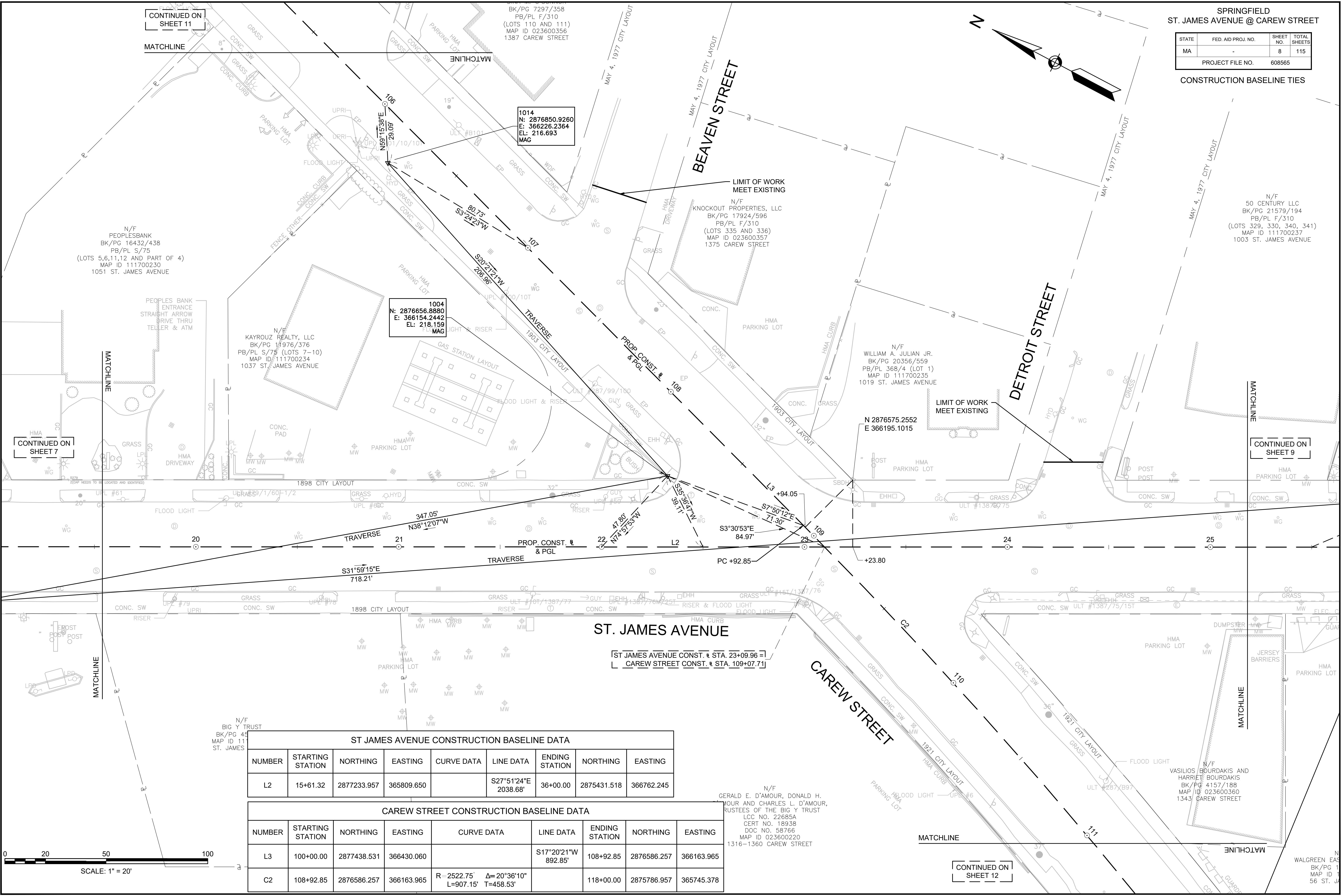
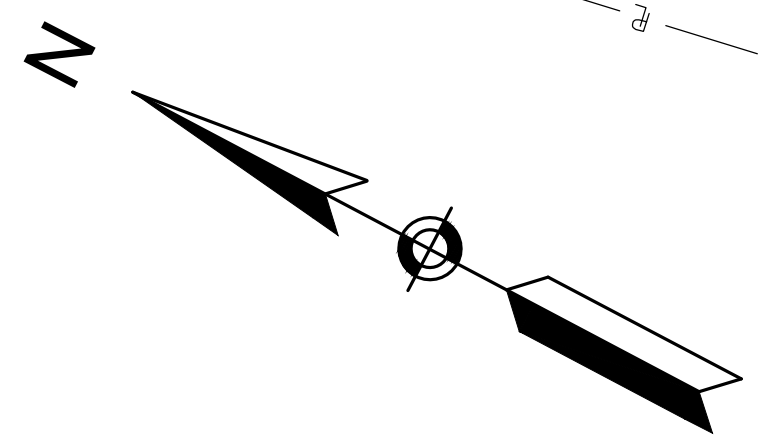
CONTINUED ON SHEET 8

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C1	14+06.42	2877368.908	365733.647	R=2898.00' Δ=3°03'45" L=154.90' T=77.47'		15+61.32	2877233.957	365809.650
L2	15+61.32	2877233.957	365809.650		S27°51'24"E 2038.68'	36+00.00	2875431.518	366762.245

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L6	300+00.00	2877136.164	365861.334		N72°26'21"E 552.05'	305+52.05	2877302.727	366387.660

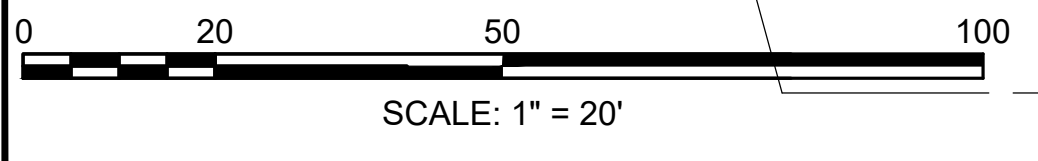
11
N: 2876929.6120
E: 365939.6169
EL: 217.530
MAG





ST JAMES AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L2	15+61.32	2877233.957	365809.650		S27°51'24"E 2038.68'	36+00.00	2875431.518	366762.245

CAREW STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L3	100+00.00	2877438.531	366430.060		S17°20'21"W 892.85'	108+92.85	2876586.257	366163.965
C2	108+92.85	2876586.257	366163.965	R=2522.75' Δ=20°36'10" L=907.15' T=458.53'		118+00.00	2875786.957	365745.378



CONTINUED ON SHEET 7

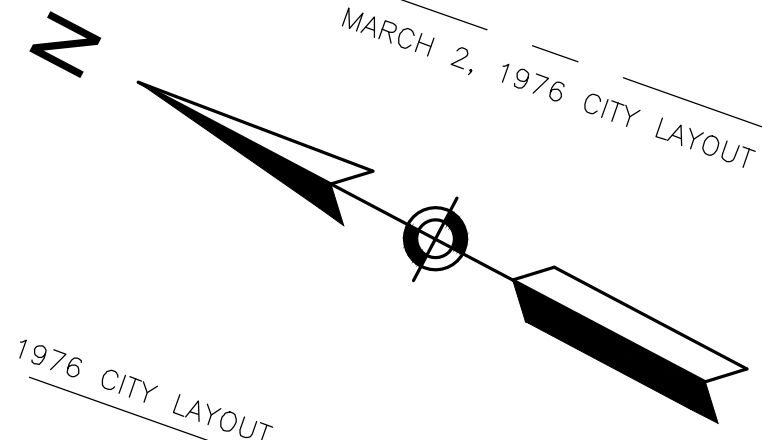
CONTINUED ON SHEET 11

CONTINUED ON SHEET 9

CONTINUED ON SHEET 12

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	9	115
PROJECT FILE NO.		608565	

CONSTRUCTION BASELINE TIES



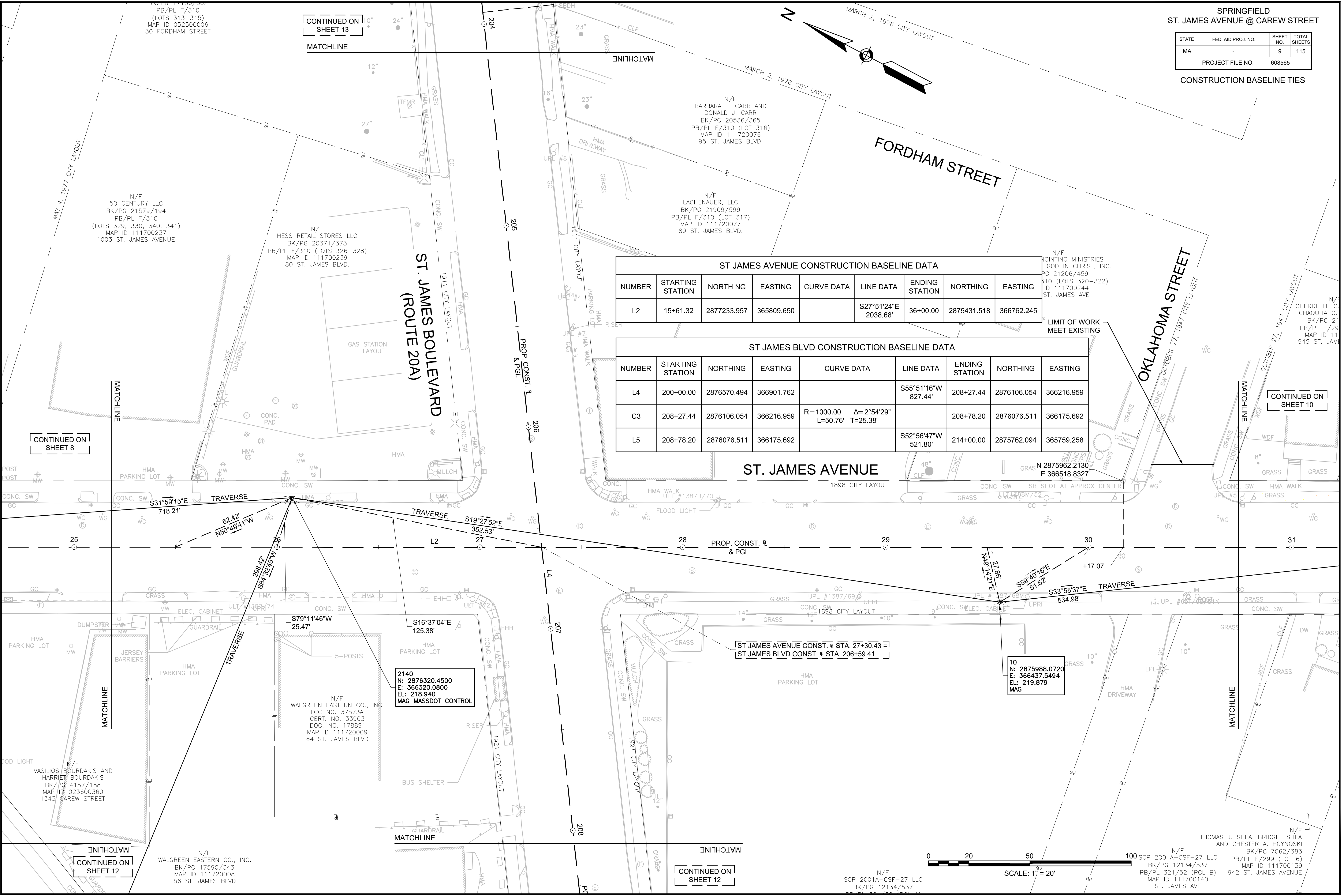
ST JAMES AVENUE CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L2	15+61.32	2877233.957	365809.650		S27°51'24"E 2038.68'	36+00.00	2875431.518	366762.245

ST JAMES BLVD CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L4	200+00.00	2876570.494	366901.762		S55°51'16"W 827.44'	208+27.44	2876106.054	366216.959
C3	208+27.44	2876106.054	366216.959	R=1000.00' Δ=2°54'29" L=50.76' T=25.38'		208+78.20	2876076.511	366175.692
L5	208+78.20	2876076.511	366175.692		S52°56'47"W 521.80'	214+00.00	2875762.094	365759.258

ST. JAMES AVENUE



CONTINUED ON SHEET 8

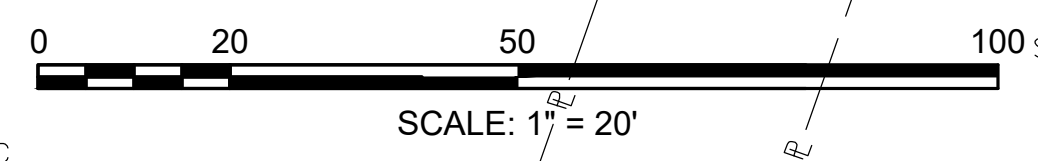
CONTINUED ON SHEET 10

CONTINUED ON SHEET 12

CONTINUED ON SHEET 12

2140
N: 2876320.4500
E: 366320.0800
EL: 218.940
MAG MASSDOT CONTROL

10
N: 2875988.0720
E: 366437.5494
EL: 219.879
MAG



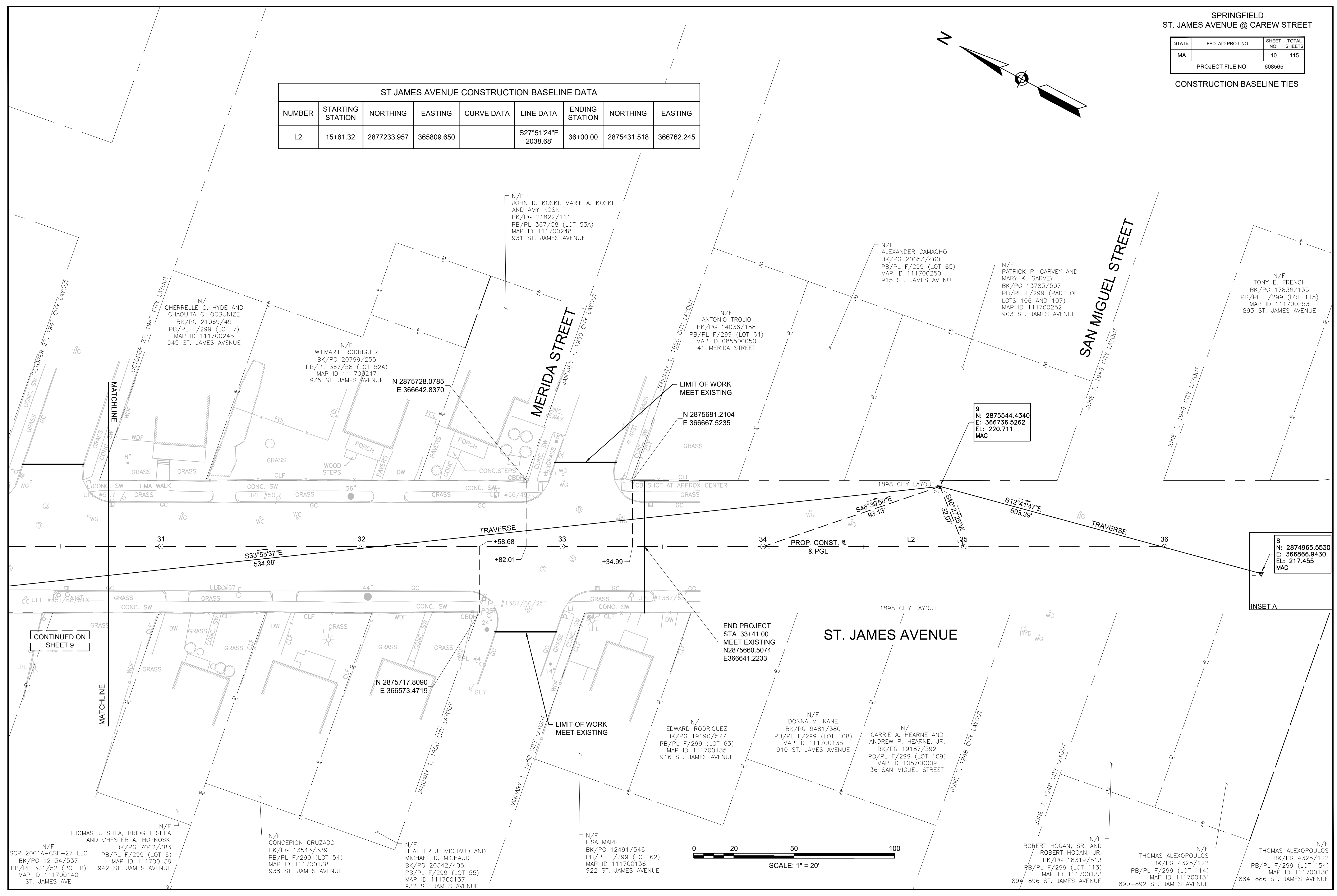
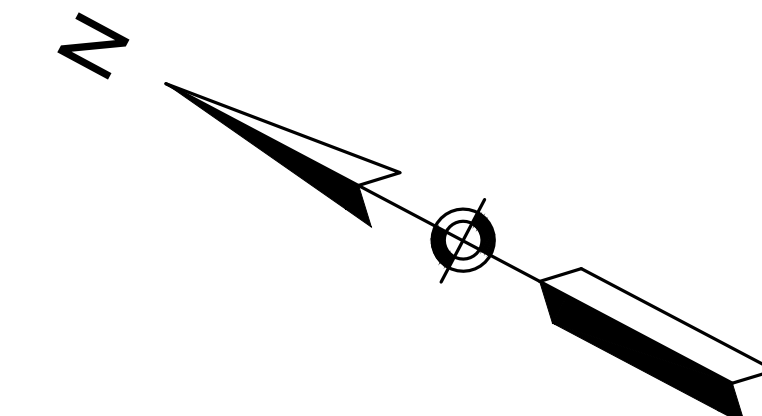
N/F
SCP 2001A-CSF-27 LLC
BK/PG 12134/537

N/F
THOMAS J. SHEA, BRIDGET SHEA
AND CHESTER A. HOYNOSKI
BK/PG 7062/383
SCP 2001A-CSF-27 LLC
BK/PG 12134/537
PB/PL F/299 (LOT 6)
MAP ID 111700139
PB/PL 321/52 (PCL B)
MAP ID 111700140
942 ST. JAMES AVENUE
ST. JAMES AVE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	10	115
PROJECT FILE NO.		608565	

CONSTRUCTION BASELINE TIES

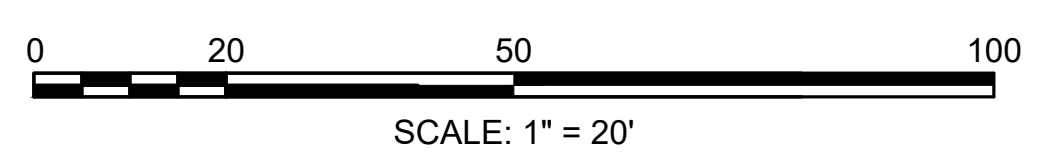
ST JAMES AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L2	15+61.32	2877233.957	365809.650		S27°51'24"E 2038.68'	36+00.00	2875431.518	366762.245



9
N: 2875544.4340
E: 366736.5262
EL: 220.711
MAG

8
N: 2874965.5530
E: 366866.9430
EL: 217.455
MAG

INSET A



CONTINUED ON
SHEET 9

MATCHLINE

N/F
SCP 2001A-CSF-27 LLC
BK/PG 12134/537
PB/PL 321/52 (PCL B)
MAP ID 111700140
ST. JAMES AVE

N/F
THOMAS J. SHEA, BRIDGET SHEA
AND CHESTER A. HOYNOSKI
BK/PG 7062/383
PB/PL F/299 (LOT 6)
MAP ID 111700139
942 ST. JAMES AVENUE

N/F
CONCEPCION CRUZADO
BK/PG 13543/339
PB/PL F/299 (LOT 54)
MAP ID 111700138
938 ST. JAMES AVENUE

N/F
HEATHER J. MICHAUD AND
MICHAEL D. MICHAUD
BK/PG 20342/405
PB/PL F/299 (LOT 55)
MAP ID 111700137
932 ST. JAMES AVENUE

N/F
LISA MARK
BK/PG 12491/546
PB/PL F/299 (LOT 62)
MAP ID 111700136
922 ST. JAMES AVENUE

N/F
EDWARD RODRIGUEZ
BK/PG 19190/577
PB/PL F/299 (LOT 63)
MAP ID 111700135
916 ST. JAMES AVENUE

N/F
DONNA M. KANE
BK/PG 9481/380
PB/PL F/299 (LOT 108)
MAP ID 111700135
910 ST. JAMES AVENUE

N/F
CARRIE A. HEARNE AND
ANDREW P. HEARNE, JR.
BK/PG 19187/592
PB/PL F/299 (LOT 109)
MAP ID 105700009
36 SAN MIGUEL STREET

N/F
ROBERT HOGAN, SR. AND
ROBERT HOGAN, JR.
BK/PG 18319/513
PB/PL F/299 (LOT 114)
MAP ID 111700133
894-896 ST. JAMES AVENUE

N/F
THOMAS ALEXOPOULOS
BK/PG 4325/122
PB/PL F/299 (LOT 114)
MAP ID 111700131
890-892 ST. JAMES AVENUE

N/F
THOMAS ALEXOPOULOS
BK/PG 4325/122
PB/PL F/299 (LOT 154)
MAP ID 111700130
884-886 ST. JAMES AVENUE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	11	115
PROJECT FILE NO.		608565	

CONSTRUCTION BASELINE TIES

CAREW STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L3	100+00.00	2877438.531	366430.060		S17°20'21"W 892.85'	108+92.85	2876586.257	366163.965

HOBART STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L6	300+00.00	2877136.164	365861.334		N72°26'21"E 552.05'	305+52.05	2877302.727	366387.660

N/F
ALGERNON D. ANATOL
BK/PG 11427/309
PB/PL 44/37
MAP ID 023600233
1450-1456 CAREW STREET

LIMIT OF WORK
STA. 100+50.00
MEET EXISTING
N2877390.8032
E366415.1583

N/F
JOAO A. DIAS AND JULIA E. DIAS
L.C.C. NO. 14780-B
CERT. NO. 38578
CAREW STREET CONST. @ STA. 101+42.27 =
HOBART STREET CONST. @ STA. 305+52.05

LIMIT OF WORK
STA. 304+75.00
MEET EXISTING
N2877279.4794
E366314.1982

N/F
CITY OF SPRINGFIELD
(SCHOOL DEPARTMENT)
(MARY O. POTTENGER ELEM. SCHOOL)
MAP ID 1117000351
1435 CAREW STREET

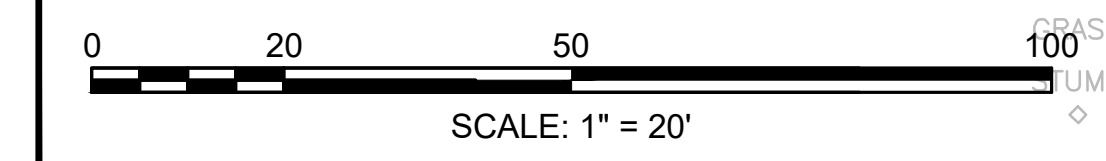
N/F
CITY OF SPRINGFIELD
(SCHOOL DEPARTMENT)
(MARY O. POTTENGER ELEM. SCHOOL)
MAP ID 1117000354
CAREW STREET

N/F
CANAAN BAPTIST CHURCH OF CHRIST
BK/PG 7624/392
PB/PL 34/67
(LOTS 15-18)
MAP ID 023600229
1430 CAREW STREET

NEW ENGLAND TELEPHONE AND
TELEGRAPH COMPANY EASEMENT
BK/PG 8605/340
PB/PL 287/25

LIMIT OF WORK
MEET EXISTING

N/F
MICHAEL J. O'CONNOR AND
DINA M. O'CONNOR
BK/PG 7297/358
PB/PL F/310
(LOTS 110 AND 111)
MAP ID 023600356
1387 CAREW STREET



MATCHLINE

MATCHLINE

MATCHLINE

MATCHLINE

CONTINUED ON
SHEET 7

CONTINUED ON
SHEET 8

SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	12	115
PROJECT FILE NO.		608565	

CONSTRUCTION BASELINE TIES

PB/PL 321/52 (PCL A)
MAP ID 111700142
970 ST. JAMES AVE

N/F
OWNER UNKNOWN
OKLAHOMA STREET

N/F
90 TERMAR PROPERTY LLC
BK/PG 21586/72
PB/PL N/25 (68 AND PART OF 69)
MAP ID 111720089
MAP ID 111720088
23-29 ST. JAMES BLVD

N/F
TEMPEST L. HENRY
BK/PG 22504/198
PB/PL N/25 (PART OF 69)
MAP ID 032600072
9 CARONA STREET

CORONA STREET

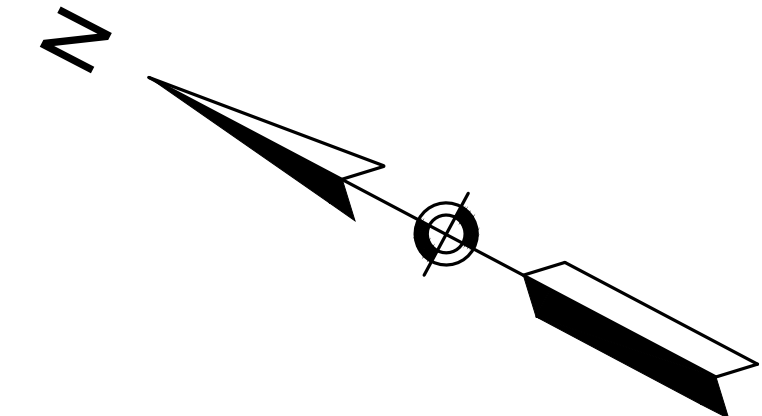


SCALE: 1" = 20'

NOVEMBER 16, 1956 CITY LAYOUT

CONTINUED ON SHEET 8

CONTINUED ON SHEET 9



MATCHLINE

MATCHLINE

MATCHLINE

MATCHLINE

N/F
WALGREEN EASTERN CO., INC.
BK/PG 17590/343
MAP ID 111720008
56 ST. JAMES BLVD

N/F
EVA M. SURPRENANT
IRREVOCABLE TRUST
BK/PG 11115/496
PB/PL 271/6
MAP ID 111720006
40 ST. JAMES BLVD

LIMIT OF WORK
STA. 113+65.00
MEET EXISTING
N2876151.2949
E365982.0594

LIMIT OF WORK
STA. 210+38.00
MEET EXISTING
N2875980.2200
E366048.1583

ST. JAMES BOULEVARD
(ROUTE 20A)

12
N: 2875950.6210
E: 365904.7873
EL: 216.645
MAG

CAREW STREET CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C2	108+92.85	2876586.257	366163.965	R=2522.75' Δ=20°36'10" L=907.15' T=458.53'		118+00.00	2875786.957	365745.378

ST JAMES BLVD CONSTRUCTION BASELINE DATA

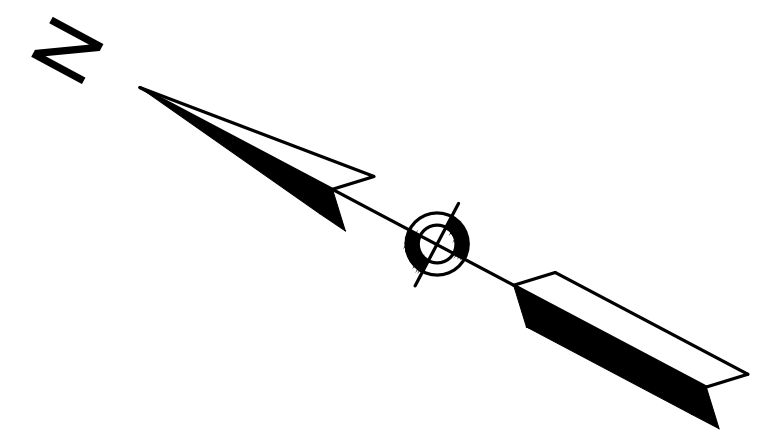
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L5	208+78.20	2876076.511	366175.692		S52°56'47"W 521.80'	214+00.00	2875762.094	365759.258

CAREW STREET

NOVEMBER 16, 1956 CITY LAYOUT

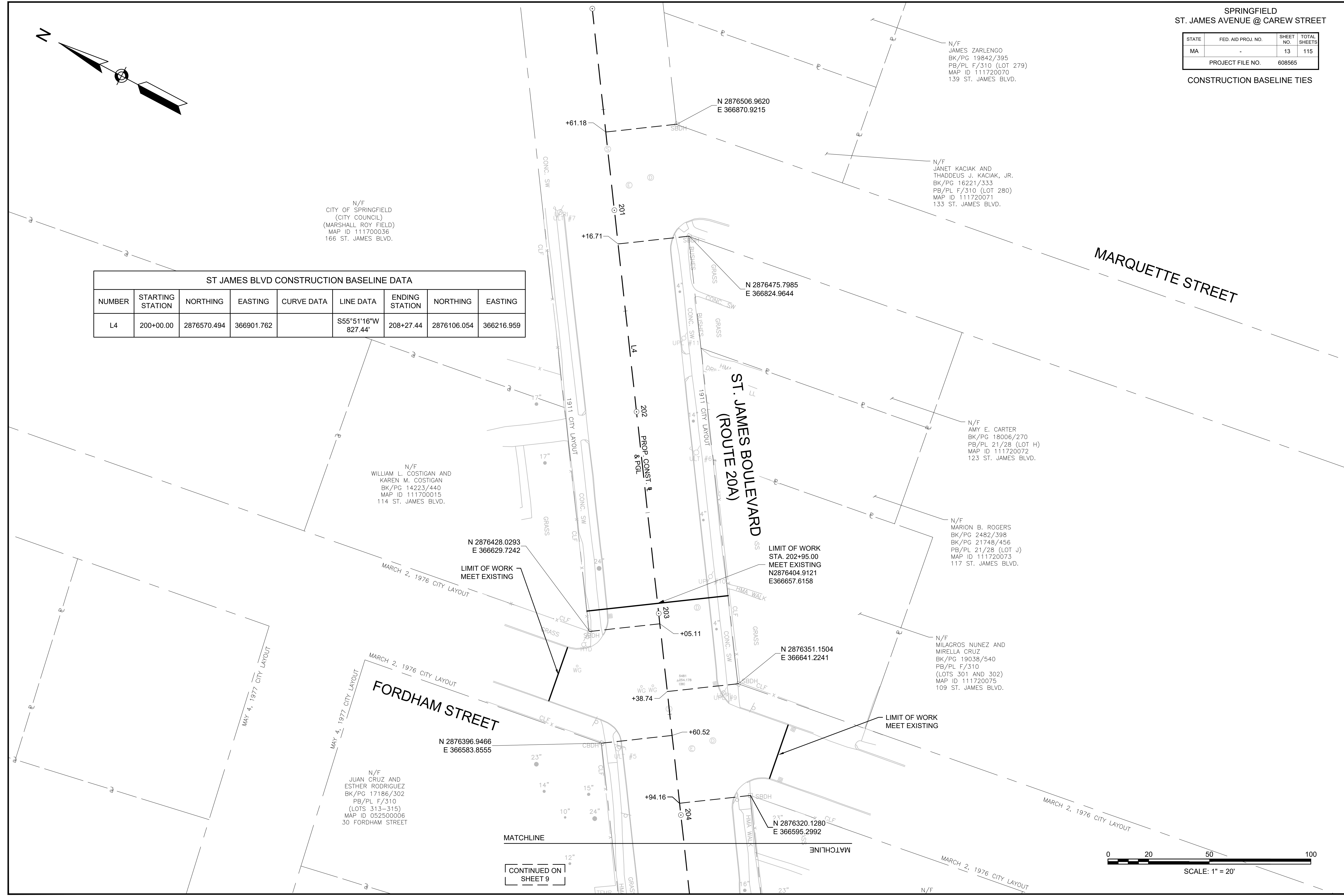
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	13	115
PROJECT FILE NO.		608565	

CONSTRUCTION BASELINE TIES



N/F
CITY OF SPRINGFIELD
(CITY COUNCIL)
(MARSHALL ROY FIELD)
MAP ID 111700036
166 ST. JAMES BLVD.

ST JAMES BLVD CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L4	200+00.00	2876570.494	366901.762		S55°51'16"W 827.44'	208+27.44	2876106.054	366216.959



N/F
WILLIAM L. COSTIGAN AND
KAREN M. COSTIGAN
BK/PG 14223/440
MAP ID 111700015
114 ST. JAMES BLVD.

N 2876428.0293
E 366629.7242
LIMIT OF WORK
MEET EXISTING

LIMIT OF WORK
STA. 202+95.00
MEET EXISTING
N2876404.9121
E366657.6158

N 2876351.1504
E 366641.2241

N 2876396.9466
E 366583.8555

N 2876320.1280
E 366595.2992

N/F
JUAN CRUZ AND
ESTHER RODRIGUEZ
BK/PG 17186/302
PB/PL F/310
(LOTS 313-315)
MAP ID 052500006
30 FORDHAM STREET

N/F
JAMES ZARLENGO
BK/PG 19842/395
PB/PL F/310 (LOT 279)
MAP ID 111720070
139 ST. JAMES BLVD.

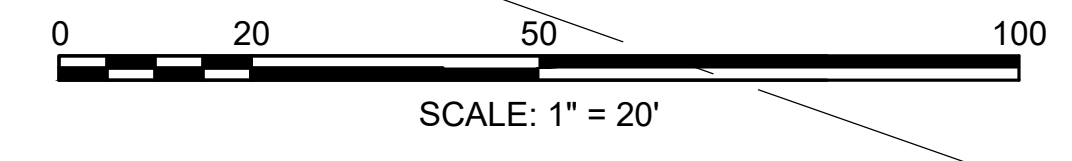
N/F
JANET KACIAK AND
THADDEUS J. KACIAK, JR.
BK/PG 16221/333
PB/PL F/310 (LOT 280)
MAP ID 111720071
133 ST. JAMES BLVD.

N/F
AMY E. CARTER
BK/PG 18006/270
PB/PL 21/28 (LOT H)
MAP ID 111720072
123 ST. JAMES BLVD.

N/F
MARION B. ROGERS
BK/PG 2482/398
BK/PG 21748/456
PB/PL 21/28 (LOT J)
MAP ID 111720073
117 ST. JAMES BLVD.

N/F
MILAGROS NUNEZ AND
MIRELLA CRUZ
BK/PG 19038/540
PB/PL F/310
(LOTS 301 AND 302)
MAP ID 111720075
109 ST. JAMES BLVD.

CONTINUED ON
SHEET 9



HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

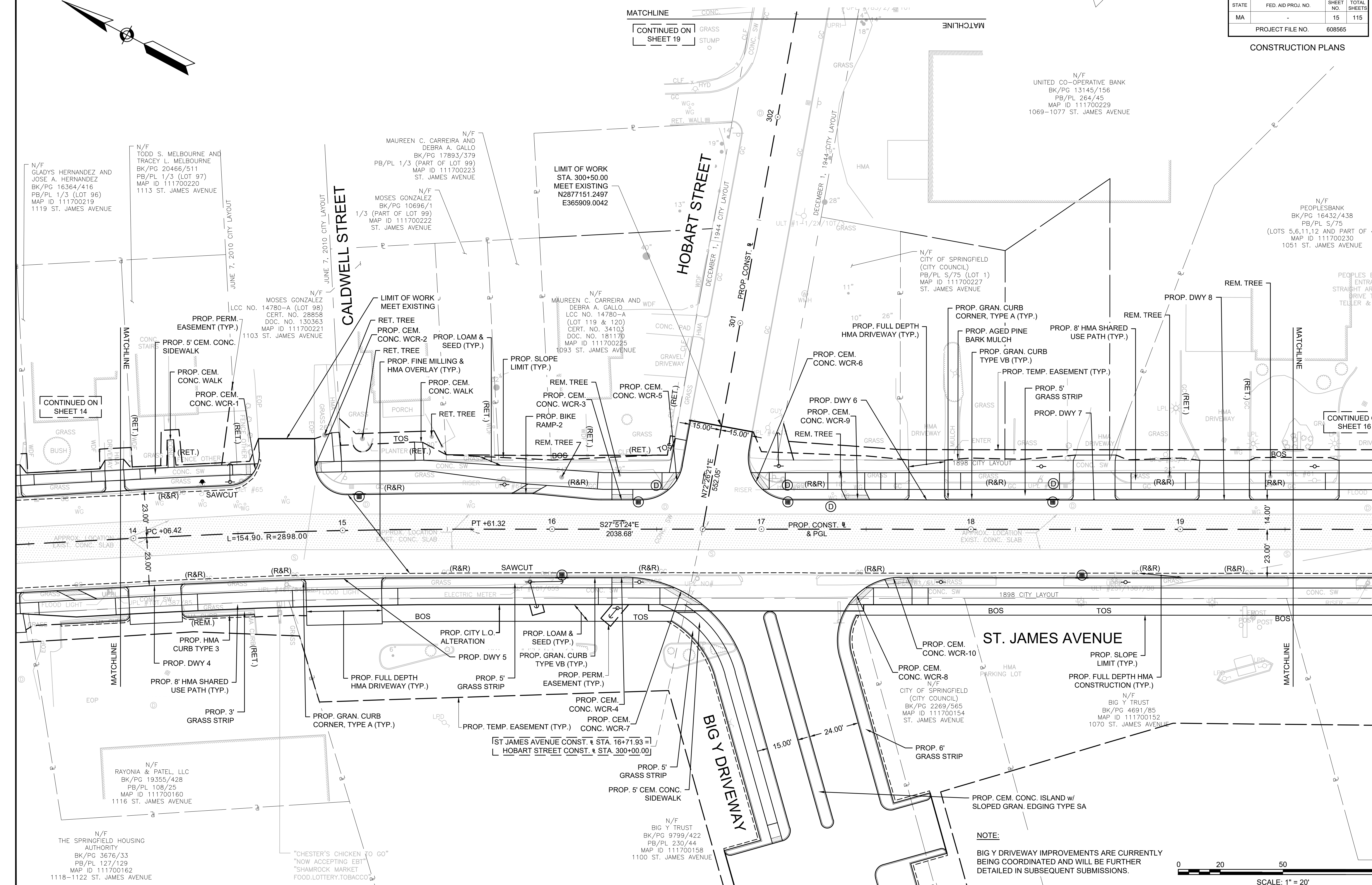
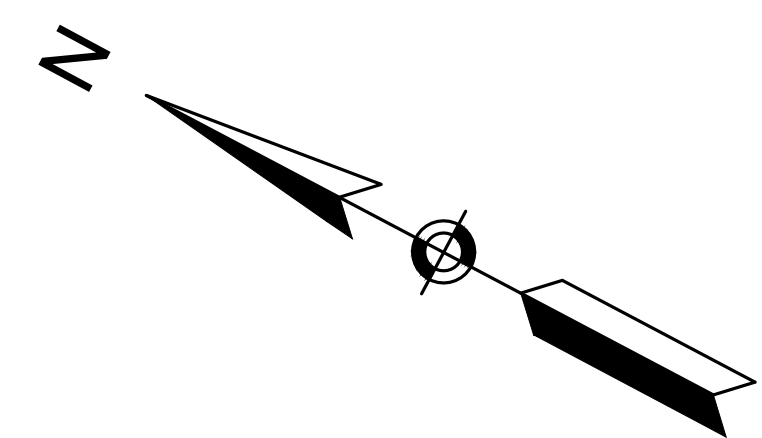
WATER SUPPLY ALTERATIONS
NONE

DRAINAGE DETAILS
SEE SHEET 23

SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	15	115
PROJECT FILE NO.		608565	

CONSTRUCTION PLANS



N/F
UNITED CO-OPERATIVE BANK
BK/PG 13145/156
PB/PL 264/45
MAP ID 111700229
1069-1077 ST. JAMES AVENUE

N/F
PEOPLES BANK
BK/PG 16432/438
PB/PL S/75
(LOTS 5,6,11,12 AND PART OF 4)
MAP ID 111700230
1051 ST. JAMES AVENUE

N/F
GLADYS HERNANDEZ AND
JOSE A. HERNANDEZ
BK/PG 16364/416
PB/PL 1/3 (LOT 96)
MAP ID 111700219
1119 ST. JAMES AVENUE

N/F
TODD S. MELBOURNE AND
TRACY L. MELBOURNE
BK/PG 20466/511
PB/PL 1/3 (LOT 97)
MAP ID 111700220
1113 ST. JAMES AVENUE

N/F
MAUREEN C. CARREIRA AND
DEBRA A. GALLO
BK/PG 17893/379
PB/PL 1/3 (PART OF LOT 99)
MAP ID 111700223
ST. JAMES AVENUE

N/F
MOSES GONZALEZ
BK/PG 10696/1
1/3 (PART OF LOT 99)
MAP ID 111700222
ST. JAMES AVENUE

LIMIT OF WORK
STA. 300+50.00
MEET EXISTING
N2877151.2497
E365909.0042

N/F
MAUREEN C. CARREIRA AND
DEBRA A. GALLO
LCC NO. 14780-A
(LOT 119 & 120)
CERT. NO. 34103
DOC. NO. 181170
MAP ID 111700225
1093 ST. JAMES AVENUE

N/F
CITY OF SPRINGFIELD
(CITY COUNCIL)
PB/PL S/75 (LOT 1)
MAP ID 111700227
ST. JAMES AVENUE

LCC NO. 14780-A (LOT 98)
CERT. NO. 28858
DOC. NO. 130363
MAP ID 111700221
ST. JAMES AVENUE

N/F
MOSES GONZALEZ
LCC NO. 14780-A (LOT 98)
CERT. NO. 28858
DOC. NO. 130363
MAP ID 111700221
ST. JAMES AVENUE

CONTINUED ON
SHEET 14

CONTINUED ON
SHEET 16

APPROX. LOCATION EXIST. CONC. SLAB

PC +06.42 L=154.90 R=2898.00

PT +61.32 S27°51'24"E 2038.68'

PROP. CONST. & PGL

APPROX. LOCATION EXIST. CONC. SLAB

ST. JAMES AVENUE

PROP. CEM. CONC. WCR-10
PROP. CEM. CONC. WCR-8
N/F
CITY OF SPRINGFIELD
(CITY COUNCIL)
BK/PG 2269/565
MAP ID 111700154
ST. JAMES AVENUE

PROP. SLOPE LIMIT (TYP.)
PROP. FULL DEPTH HMA CONSTRUCTION (TYP.)

N/F
BIG Y TRUST
BK/PG 4691/85
MAP ID 111700152
1070 ST. JAMES AVENUE

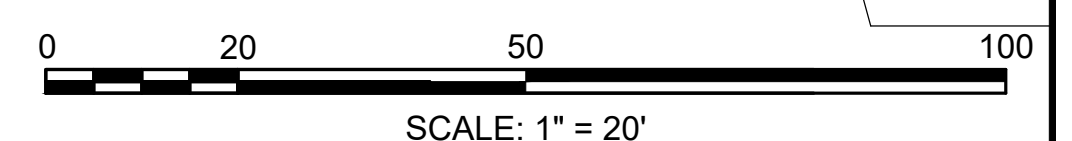
N/F
RAYONIA & PATEL, LLC
BK/PG 19355/428
PB/PL 108/25
MAP ID 111700160
1116 ST. JAMES AVENUE

N/F
THE SPRINGFIELD HOUSING
AUTHORITY
BK/PG 3676/33
PB/PL 127/129
MAP ID 111700162
1118-1122 ST. JAMES AVENUE

"CHESTER'S CHICKEN TO GO"
"NOW ACCEPTING EBT"
"SHAMROCK MARKET"
FOOD, LOTTERY, TOBACCO

N/F
BIG Y TRUST
BK/PG 9799/422
PB/PL 230/44
MAP ID 111700158
1100 ST. JAMES AVENUE

NOTE:
BIG Y DRIVEWAY IMPROVEMENTS ARE CURRENTLY
BEING COORDINATED AND WILL BE FURTHER
DETAILED IN SUBSEQUENT SUBMISSIONS.



CONTINUED ON SHEET 19

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
NONE

DRAINAGE DETAILS
SEE SHEET 24

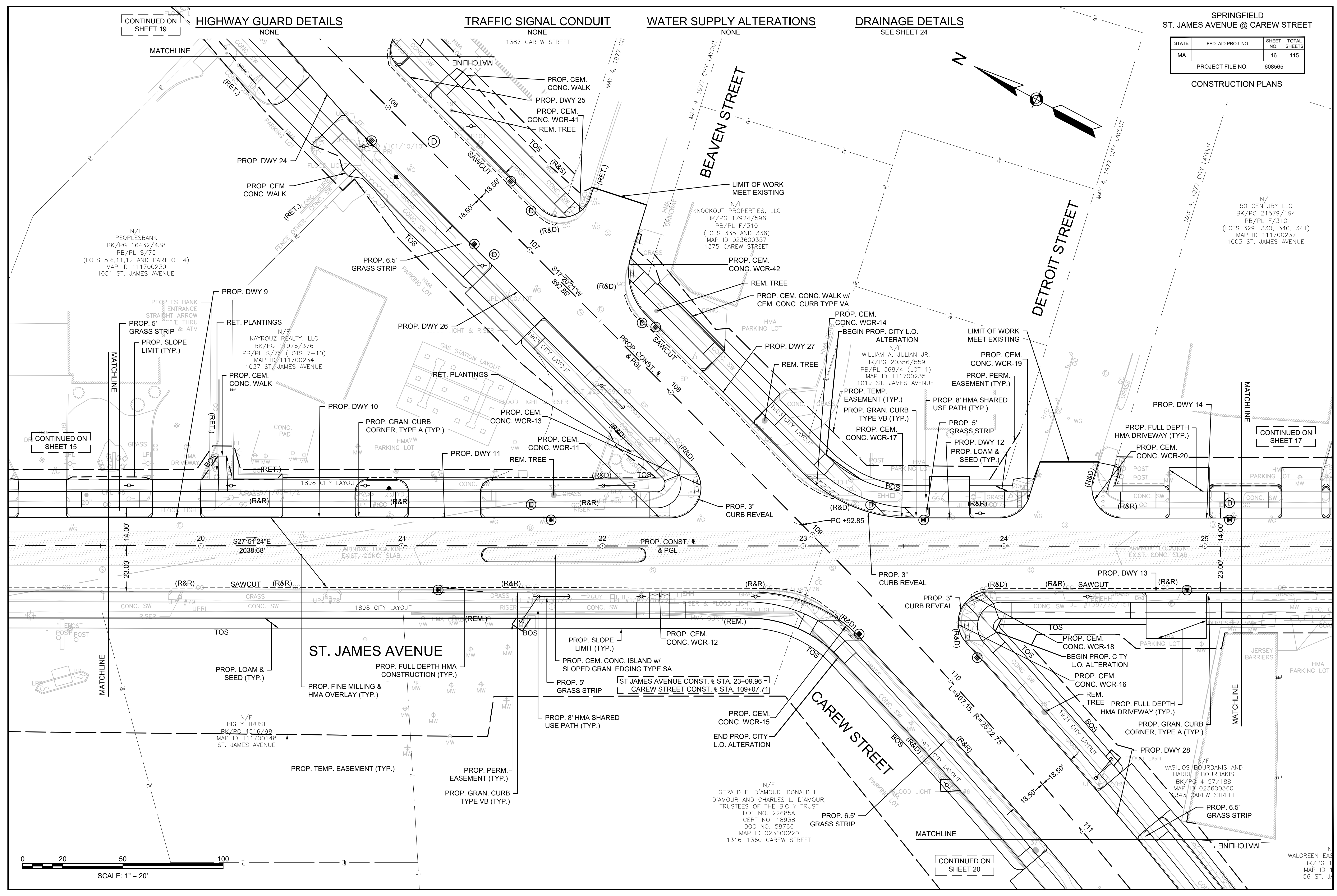
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		16	115

PROJECT FILE NO. 608565

CONSTRUCTION PLANS

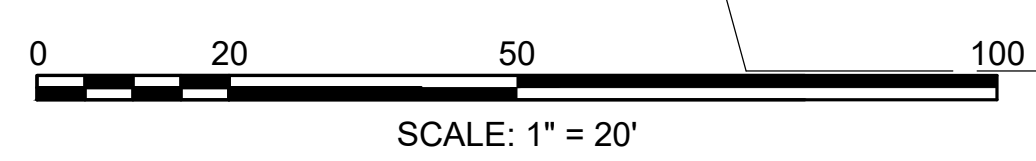
N/F
50 CENTURY LLC
BK/PG 21579/194
PB/PL F/310
(LOTS 329, 330, 340, 341)
MAP ID 111700237
1003 ST. JAMES AVENUE



CONTINUED ON SHEET 15

CONTINUED ON SHEET 17

CONTINUED ON SHEET 20



bk/PG 171
PB/PL F
(LOTS 313
30 FORDHAM

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

NONE

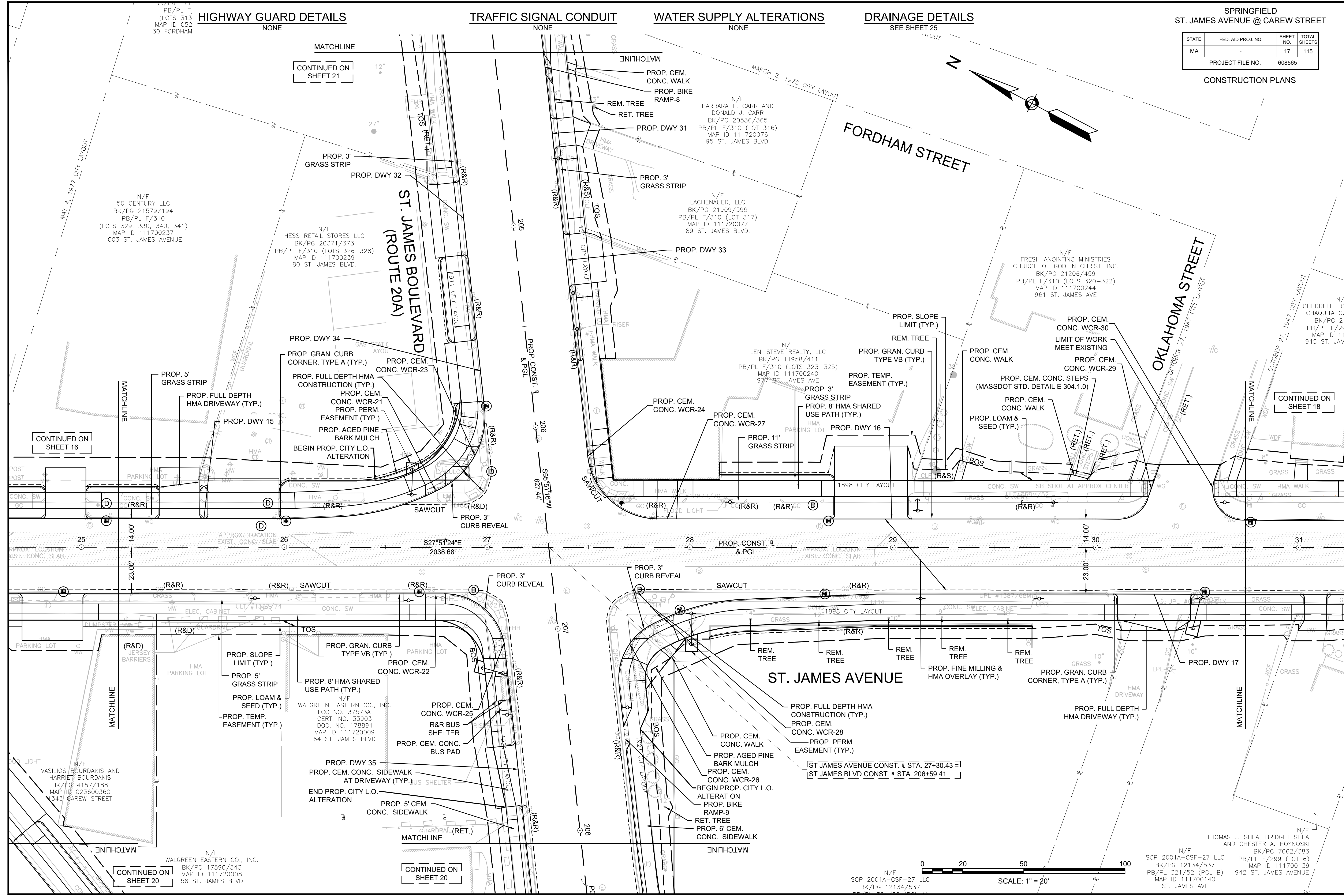
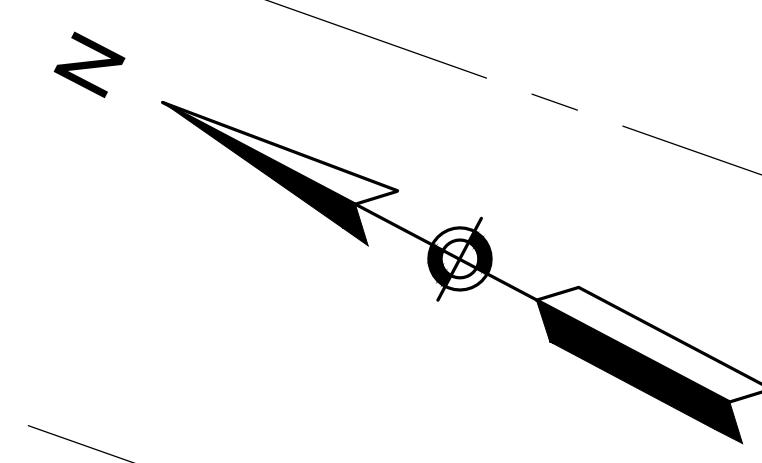
DRAINAGE DETAILS

SEE SHEET 25

SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		17	115
PROJECT FILE NO.		608565	

CONSTRUCTION PLANS



CONTINUED ON SHEET 16

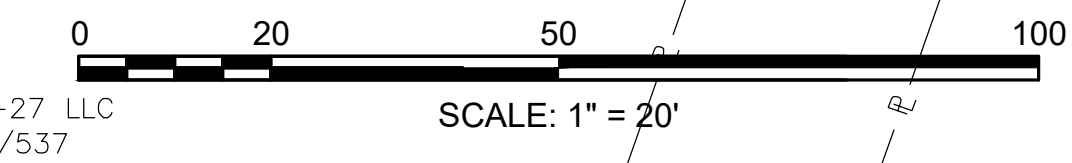
CONTINUED ON SHEET 21

CONTINUED ON SHEET 18

CONTINUED ON SHEET 20

CONTINUED ON SHEET 20

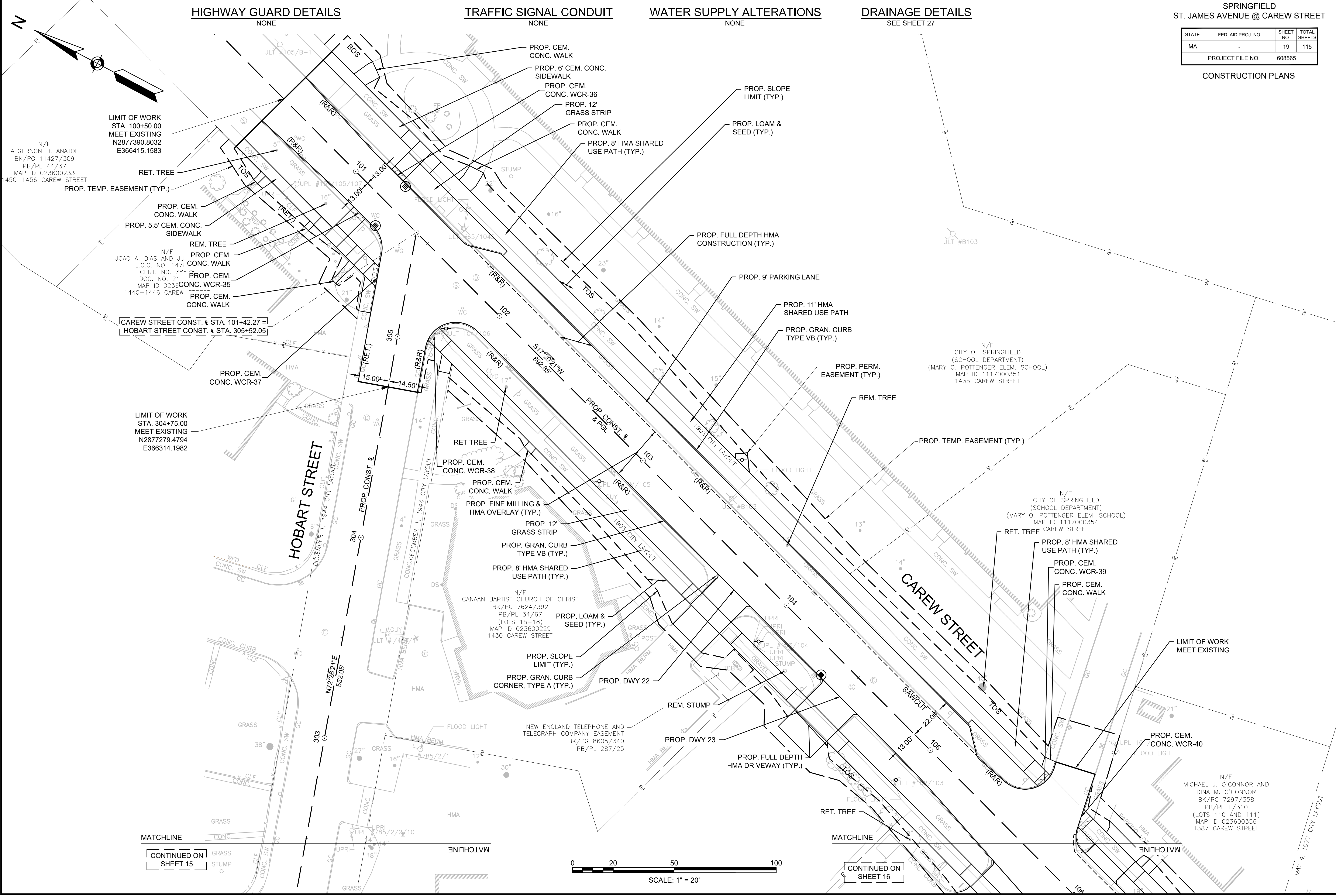
N/F
SCP 2001A-CSF-27 LLC
BK/PG 12134/537



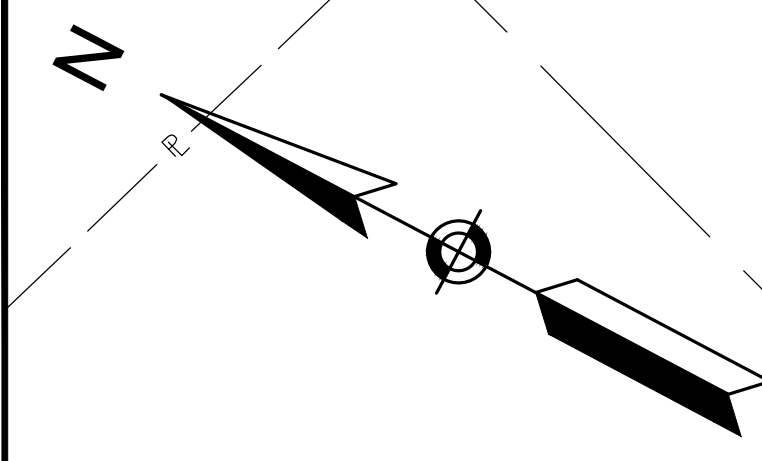
N/F
THOMAS J. SHEA, BRIDGET SHEA
AND CHESTER A. HOYNOSKI
BK/PG 7062/383
SCP 2001A-CSF-27 LLC
BK/PG 12134/537
PB/PL F/299 (LOT 6)
MAP ID 111700139
PB/PL 321/52 (PCL B)
MAP ID 111700140
942 ST. JAMES AVENUE
ST. JAMES AVE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	19	115
PROJECT FILE NO.		608565	

CONSTRUCTION PLANS



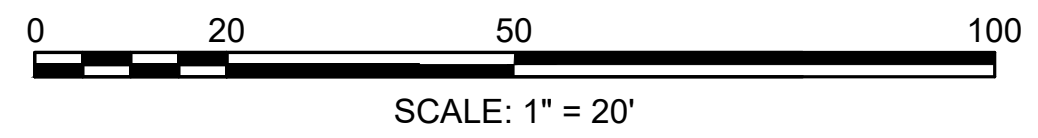
HIGHWAY GUARD DETAILS NONE
 TRAFFIC SIGNAL CONDUIT NONE
 WATER SUPPLY ALTERATIONS NONE
 DRAINAGE DETAILS SEE SHEET 27



LIMIT OF WORK
STA. 100+50.00
MEET EXISTING
N2877390.8032
E366415.1583

LIMIT OF WORK
STA. 304+75.00
MEET EXISTING
N2877279.4794
E366314.1982

MATCHLINE
CONTINUED ON
SHEET 15



MATCHLINE
CONTINUED ON
SHEET 16

SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	20	115
PROJECT FILE NO.		608565	

CONSTRUCTION PLANS

PB/PL 321/52 (PCL A)
MAP ID 111700142
970 ST. JAMES AVE

N/F
OWNER UNKNOWN
OKLAHOMA STREET

N/F
90 TERMAR PROPERTY LLC
BK/PG 21586/72
PB/PL N/25 (68 AND PART OF 69)
MAP ID 111720089
MAP ID 111720088
23-29 ST. JAMES BLVD

N/F
TEMPEST L. HENRY
BK/PG 22504/198
PB/PL N/25 (PART OF 69)
MAP ID 032600072
9 CARONA STREET

CORONA STREET

NOVEMBER 16, 1956 CITY LAYOUT

NOVEMBER 16, 1956 CITY LAYOUT

DRAINAGE DETAILS
SEE SHEET 28

208
209

PC+27.44
L=50.76, R=1000.00
PT+78.20

27.00' 27.08'

SAWCUT

RET. TREE

RET. TREE

PROP. 6' CEM. CONC. SIDEWALK (TYP.)

PROP. 2' GRASS STRIP

RET. TREE

PROP. SLOPE LIMIT (TYP.)

PROP. LOAM & SEED (TYP.)

RET. TREE

PROP. GRAN. CURB CORNER, TYPE A (TYP.)

PROP. CEM. CONC. SIDEWALK AT DRIVEWAY (TYP.)

PROP. FULL DEPTH HMA DRIVEWAY (TYP.)

PROP. DWY 37

PROP. DWY 36

PROP. FULL DEPTH HMA CONSTRUCTION (TYP.)

PROP. EOP RET. EXIST. CURB

LIMIT OF WORK STA. 210+38.00 MEET EXISTING N2875980.2200 E366048.1583

33.40' 33.13'

PROP. CONST. & P&QS

211

212

210

SSP+58.47W
S21.80'

TFMR

GRANITEL DRIVEWAY

HMA

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

WATER SUPPLY ALTERATIONS
NONE

MATCHLINE

HMA WALK

PROP. HMA WALK

PROP. PERM. EASEMENT (TYP.)

PROP. 3' GRASS STRIP

R&R MAILBOXES (2)

PROP. 5' CEM. CONC. SIDEWALK (TYP.)

PROP. FINE MILLING & HMA OVERLAY (TYP.)

PROP. GRAN. CURB TYPE VB (TYP.)

PROP. DWY 36

PROP. FULL DEPTH HMA CONSTRUCTION (TYP.)

PROP. EOP RET. EXIST. CURB

LIMIT OF WORK STA. 210+38.00 MEET EXISTING N2875980.2200 E366048.1583

33.40' 33.13'

PROP. CONST. & P&QS

211

212

210

SSP+58.47W
S21.80'

TFMR

GRANITEL DRIVEWAY

HMA

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

TRAFFIC SIGNAL CONDUIT
NONE

N/F
WALGREEN EASTERN CO., INC.
BK/PG 17590/343
MAP ID 111720008
56 ST. JAMES BLVD

PROP. 6.5' GRASS STRIP

HMA CURB (REM.)

PROP. 3' GRASS STRIP

PROP. 8' HMA SHARED USE PATH (TYP.)

PROP. BIKE RAMP-6

PROP. SLOPE LIMIT (TYP.)

PROP. LOAM & SEED (TYP.)

PROP. 6' CEM. CONC. SIDEWALK

N/F
EVA M. SURPRENANT IRREVOCABLE TRUST
BK/PG 11115/496
PB/PL 271/6
MAP ID 111720006
40 ST. JAMES BLVD

LIMIT OF WORK STA. 113+65.00 MEET EXISTING N2876151.3174 E365982.0171

18.50' 18.50'

PROP. DWY 30

PROP. FULL DEPTH HMA DRIVEWAY (TYP.)

PROP. 8' HMA SHARED USE PATH (TYP.)

PROP. BIKE RAMP-5

PROP. TEMP. EASEMENT (TYP.)

PROP. FINE MILLING & HMA OVERLAY (TYP.)

PROP. CEM. CONC. WALK

PROP. GRAN. CURB TYPE VB (TYP.)

RET. TREE

PROP. VARIABLE WIDTH CEM. CONC. SIDEWALK

18.50' 18.50'

PROP. DWY 29

PROP. GRAN. CURB CORNER, TYPE A (TYP.)

PROP. PERM. EASEMENT (TYP.)

PROP. 3' GRASS STRIP

PROP. 6.5' GRASS STRIP

PROP. DWY 30

PROP. FULL DEPTH HMA DRIVEWAY (TYP.)

PROP. 8' HMA SHARED USE PATH (TYP.)

PROP. BIKE RAMP-5

PROP. TEMP. EASEMENT (TYP.)

PROP. FINE MILLING & HMA OVERLAY (TYP.)

PROP. CEM. CONC. WALK

PROP. GRAN. CURB TYPE VB (TYP.)

RET. TREE

PROP. VARIABLE WIDTH CEM. CONC. SIDEWALK

18.50' 18.50'

PROP. DWY 29

PROP. GRAN. CURB CORNER, TYPE A (TYP.)

PROP. PERM. EASEMENT (TYP.)

PROP. 3' GRASS STRIP

PROP. 6.5' GRASS STRIP

PROP. DWY 30

PROP. FULL DEPTH HMA DRIVEWAY (TYP.)

PROP. 8' HMA SHARED USE PATH (TYP.)

HIGHWAY GUARD DETAILS
NONE

CONTINUED ON SHEET 16

MATCHLINE

REM. TREE

PROP. DWY 29

PROP. GRAN. CURB CORNER, TYPE A (TYP.)

PROP. PERM. EASEMENT (TYP.)

PROP. 3' GRASS STRIP

PROP. 6.5' GRASS STRIP

PROP. DWY 30

PROP. FULL DEPTH HMA DRIVEWAY (TYP.)

PROP. 8' HMA SHARED USE PATH (TYP.)

PROP. BIKE RAMP-5

PROP. TEMP. EASEMENT (TYP.)

PROP. FINE MILLING & HMA OVERLAY (TYP.)

PROP. CEM. CONC. WALK

PROP. GRAN. CURB TYPE VB (TYP.)

RET. TREE

PROP. VARIABLE WIDTH CEM. CONC. SIDEWALK

18.50' 18.50'

PROP. DWY 29

PROP. GRAN. CURB CORNER, TYPE A (TYP.)

PROP. PERM. EASEMENT (TYP.)

PROP. 3' GRASS STRIP

PROP. 6.5' GRASS STRIP

PROP. DWY 30

PROP. FULL DEPTH HMA DRIVEWAY (TYP.)

PROP. 8' HMA SHARED USE PATH (TYP.)

PROP. BIKE RAMP-5

PROP. TEMP. EASEMENT (TYP.)

PROP. FINE MILLING & HMA OVERLAY (TYP.)

PROP. CEM. CONC. WALK

PROP. GRAN. CURB TYPE VB (TYP.)

RET. TREE

PROP. VARIABLE WIDTH CEM. CONC. SIDEWALK

18.50' 18.50'

PROP. DWY 29

PROP. GRAN. CURB CORNER, TYPE A (TYP.)

PROP. PERM. EASEMENT (TYP.)

PROP. 3' GRASS STRIP

PROP. 6.5' GRASS STRIP

PROP. DWY 30

PROP. FULL DEPTH HMA DRIVEWAY (TYP.)

PROP. 8' HMA SHARED USE PATH (TYP.)

PROP. BIKE RAMP-5

PROP. TEMP. EASEMENT (TYP.)

PROP. FINE MILLING & HMA OVERLAY (TYP.)

PROP. CEM. CONC. WALK

CONSTRUCTION PLANS

CONTINUED ON SHEET 17

MATCHLINE

RET. TREE

RET. TREE

PROP. 6' CEM. CONC. SIDEWALK (TYP.)

PROP. 2' GRASS STRIP

RET. TREE

PROP. SLOPE LIMIT (TYP.)

PROP. LOAM & SEED (TYP.)

RET. TREE

PROP. GRAN. CURB CORNER, TYPE A (TYP.)

PROP. CEM. CONC. SIDEWALK AT DRIVEWAY (TYP.)

PROP. FULL DEPTH HMA DRIVEWAY (TYP.)

PROP. DWY 37

PROP. DWY 36

PROP. FULL DEPTH HMA CONSTRUCTION (TYP.)

PROP. EOP RET. EXIST. CURB

LIMIT OF WORK STA. 210+38.00 MEET EXISTING N2875980.2200 E366048.1583

33.40' 33.13'

PROP. CONST. & P&QS

211

212

210

SSP+58.47W
S21.80'

TFMR

GRANITEL DRIVEWAY

HMA

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW

CONC. SW



HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

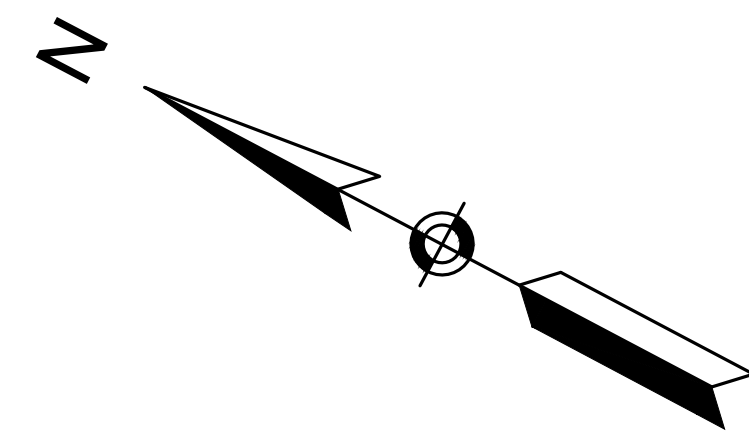
WATER SUPPLY ALTERATIONS
NONE

DRAINAGE DETAILS
SEE SHEET 29

SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	21	115
PROJECT FILE NO.		608565	

CONSTRUCTION PLANS



N/F
CITY OF SPRINGFIELD
(CITY COUNCIL)
(MARSHALL ROY FIELD)
MAP ID 111700036
166 ST. JAMES BLVD.

N/F
JAMES ZARLENGO
BK/PG 19842/395
PB/PL F/310 (LOT 279)
MAP ID 111720070
139 ST. JAMES BLVD.

N/F
JANET KACIAK AND
THADDEUS J. KACIAK, JR.
BK/PG 16221/333
PB/PL F/310 (LOT 280)
MAP ID 111720071
133 ST. JAMES BLVD.

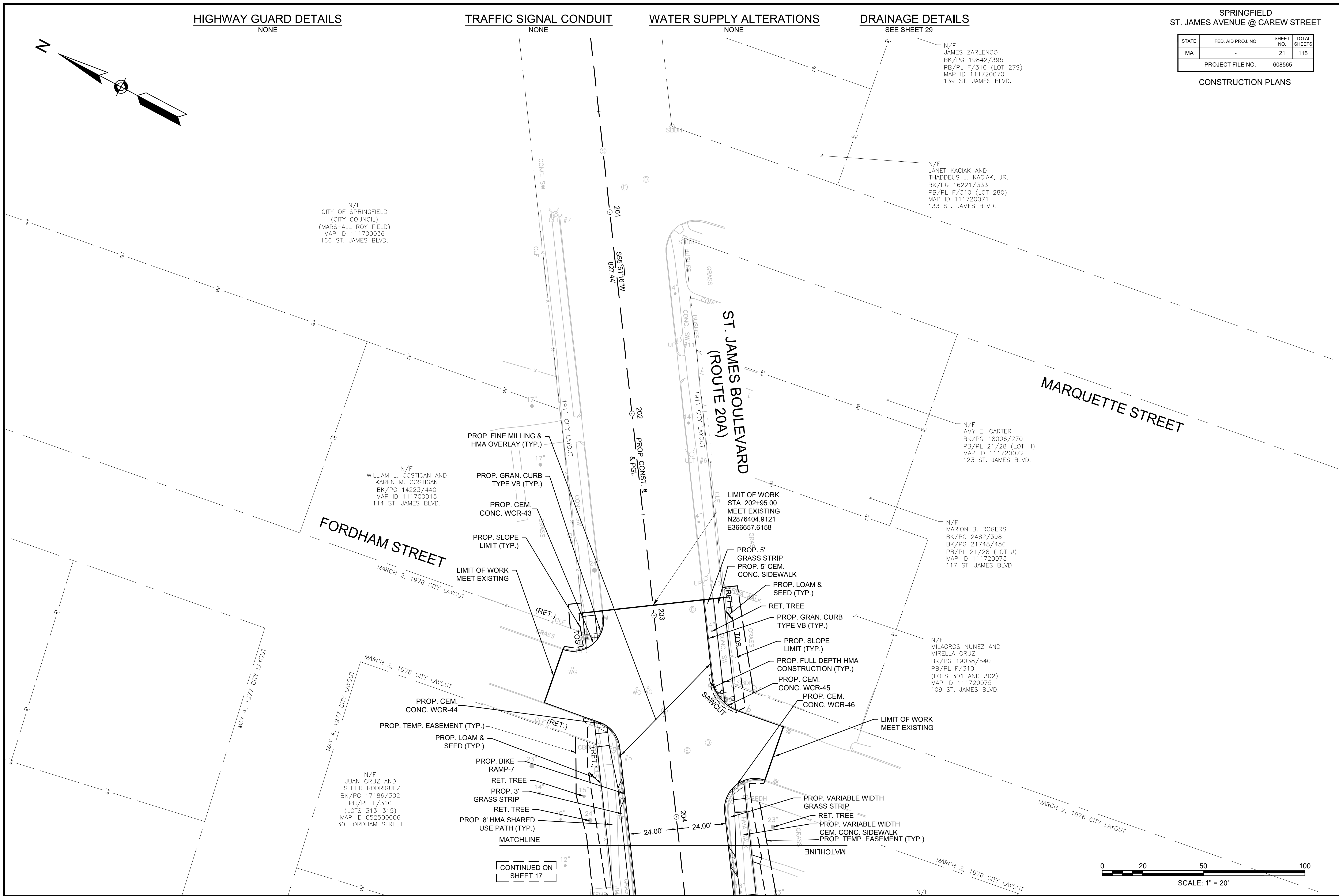
N/F
WILLIAM L. COSTIGAN AND
KAREN M. COSTIGAN
BK/PG 14223/440
MAP ID 111700015
114 ST. JAMES BLVD.

N/F
AMY E. CARTER
BK/PG 18006/270
PB/PL 21/28 (LOT H)
MAP ID 111720072
123 ST. JAMES BLVD.

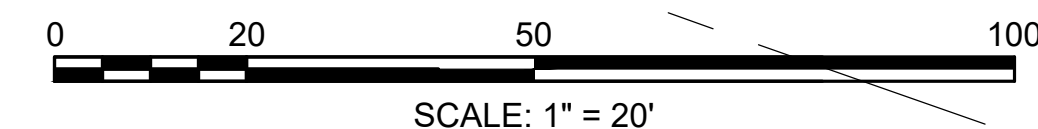
N/F
MARION B. ROGERS
BK/PG 2482/398
BK/PG 21748/456
PB/PL 21/28 (LOT J)
MAP ID 111720073
117 ST. JAMES BLVD.

N/F
MILAGROS NUNEZ AND
MIRELLA CRUZ
BK/PG 19038/540
PB/PL F/310
(LOTS 301 AND 302)
MAP ID 111720075
109 ST. JAMES BLVD.

N/F
JUAN CRUZ AND
ESTHER RODRIGUEZ
BK/PG 17186/302
PB/PL F/310
(LOTS 313-315)
MAP ID 052500006
30 FORDHAM STREET

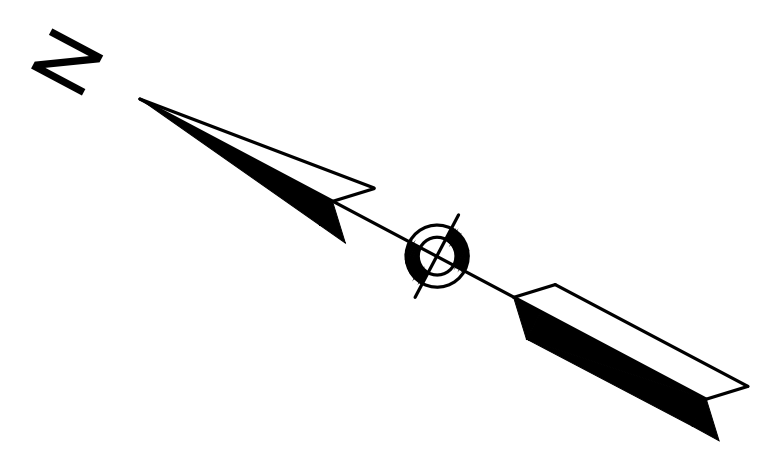


CONTINUED ON
SHEET 17



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	22	115
PROJECT FILE NO.		608565	

DRAINAGE & UTILITY PLANS

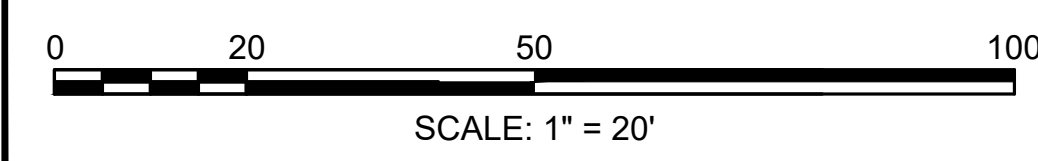


ST. JAMES AVENUE

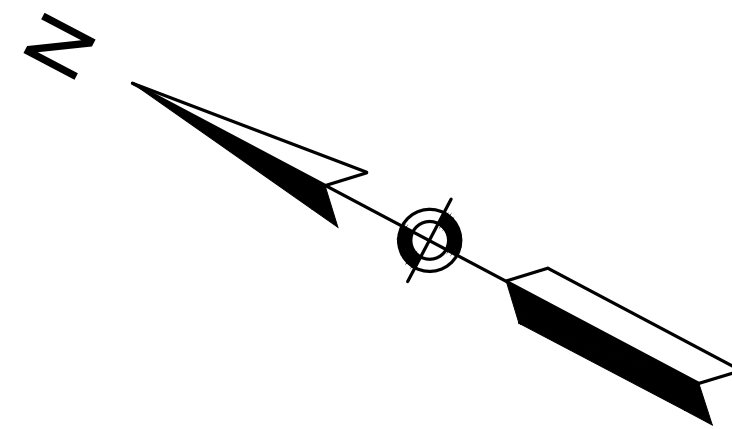
AMES STREET



NOTES:
1. THE EXACT LOCATION OF UNDERGROUND UTILITIES IS NOT KNOWN. GUTTER INLETS ARE PROPOSED WHERE IMPACTS ARE BELIEVED TO OCCUR. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL TEST PIT GUTTER INLET LOCATIONS TO DETERMINE IF A GUTTER INLET IS REQUIRED. IF THERE ARE NO UTILITY CONFLICTS, THE CATCH BASIN CONNECTED TO THE GUTTER INLET SHALL BE INSTALLED IN PLACE OF THE GUTTER INLET.



CONTINUED ON SHEET 23

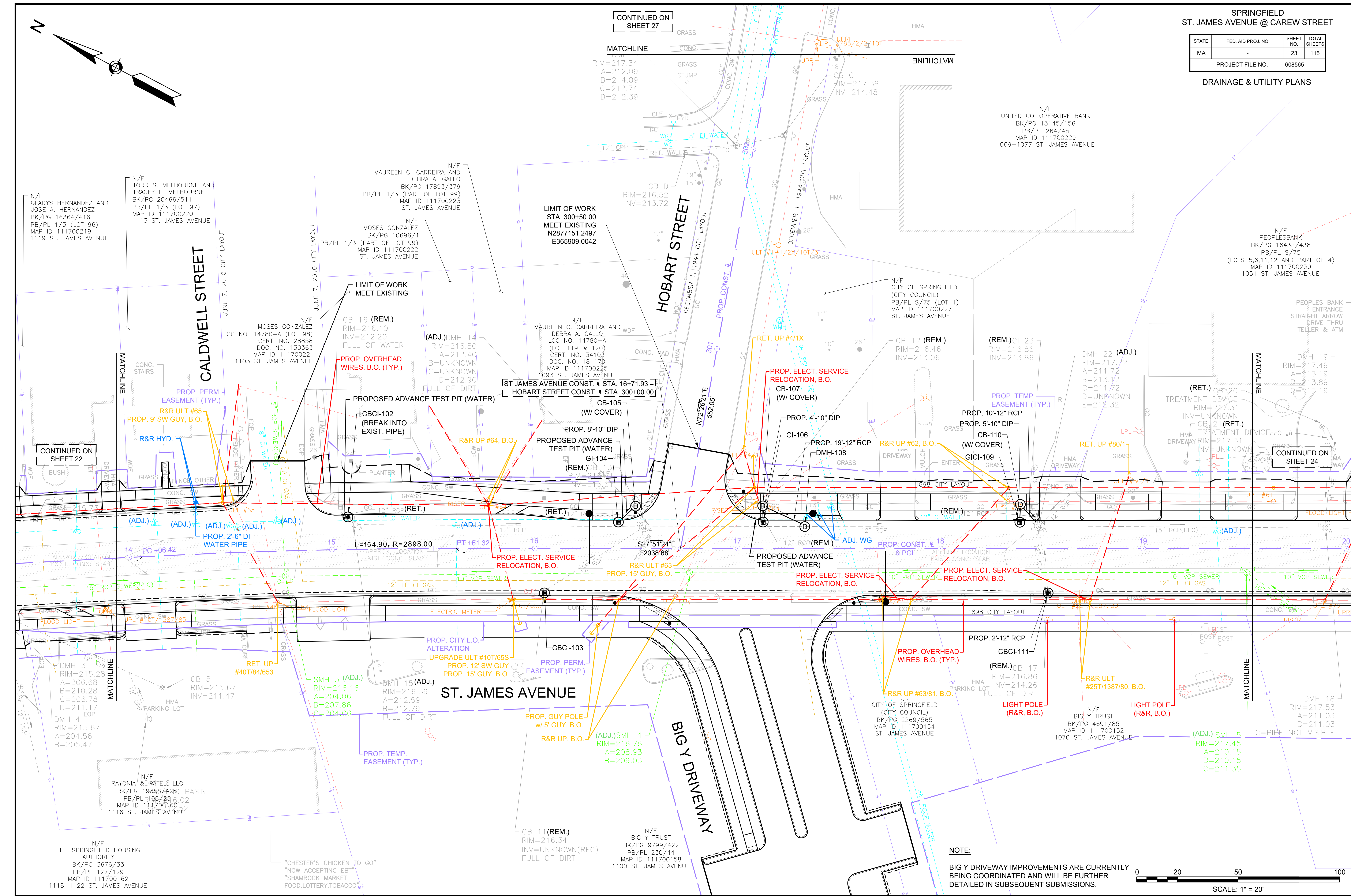


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

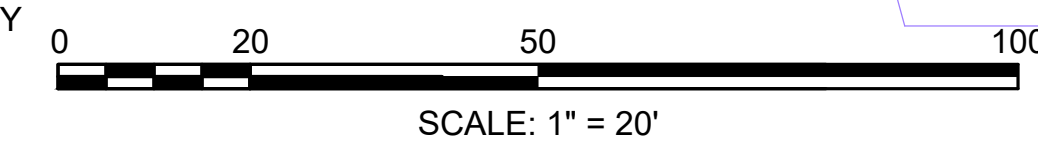
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	23	115

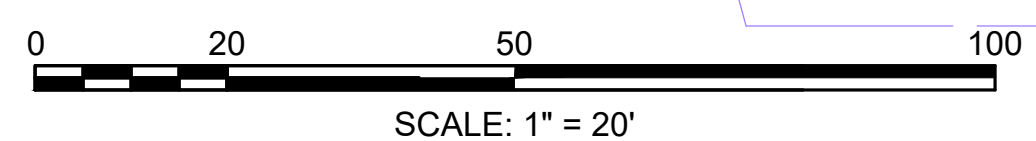
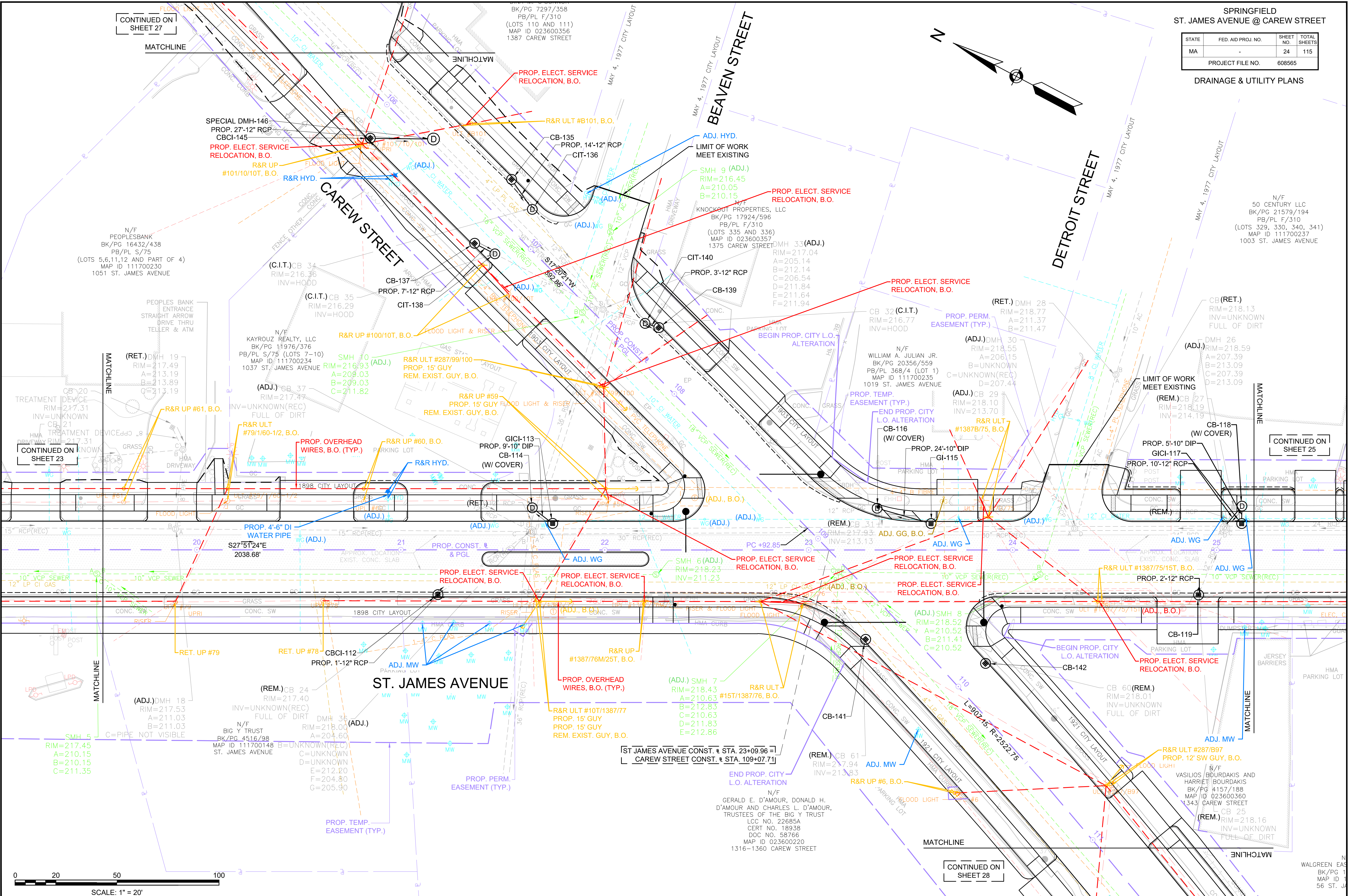
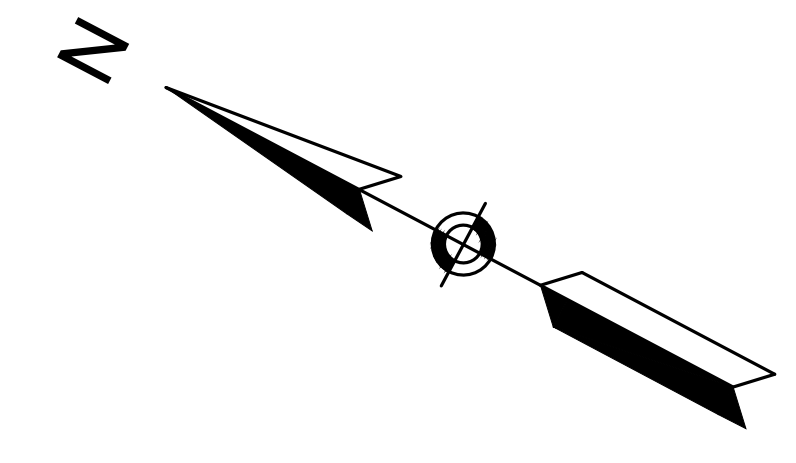
PROJECT FILE NO. 608565

DRAINAGE & UTILITY PLANS



NOTE:
BIG Y DRIVEWAY IMPROVEMENTS ARE CURRENTLY BEING COORDINATED AND WILL BE FURTHER DETAILED IN SUBSEQUENT SUBMISSIONS.





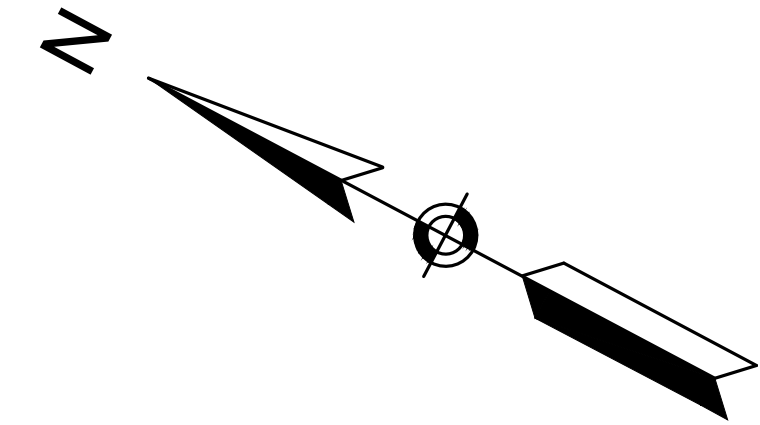
CONTINUED ON SHEET 27

CONTINUED ON SHEET 23

CONTINUED ON SHEET 25

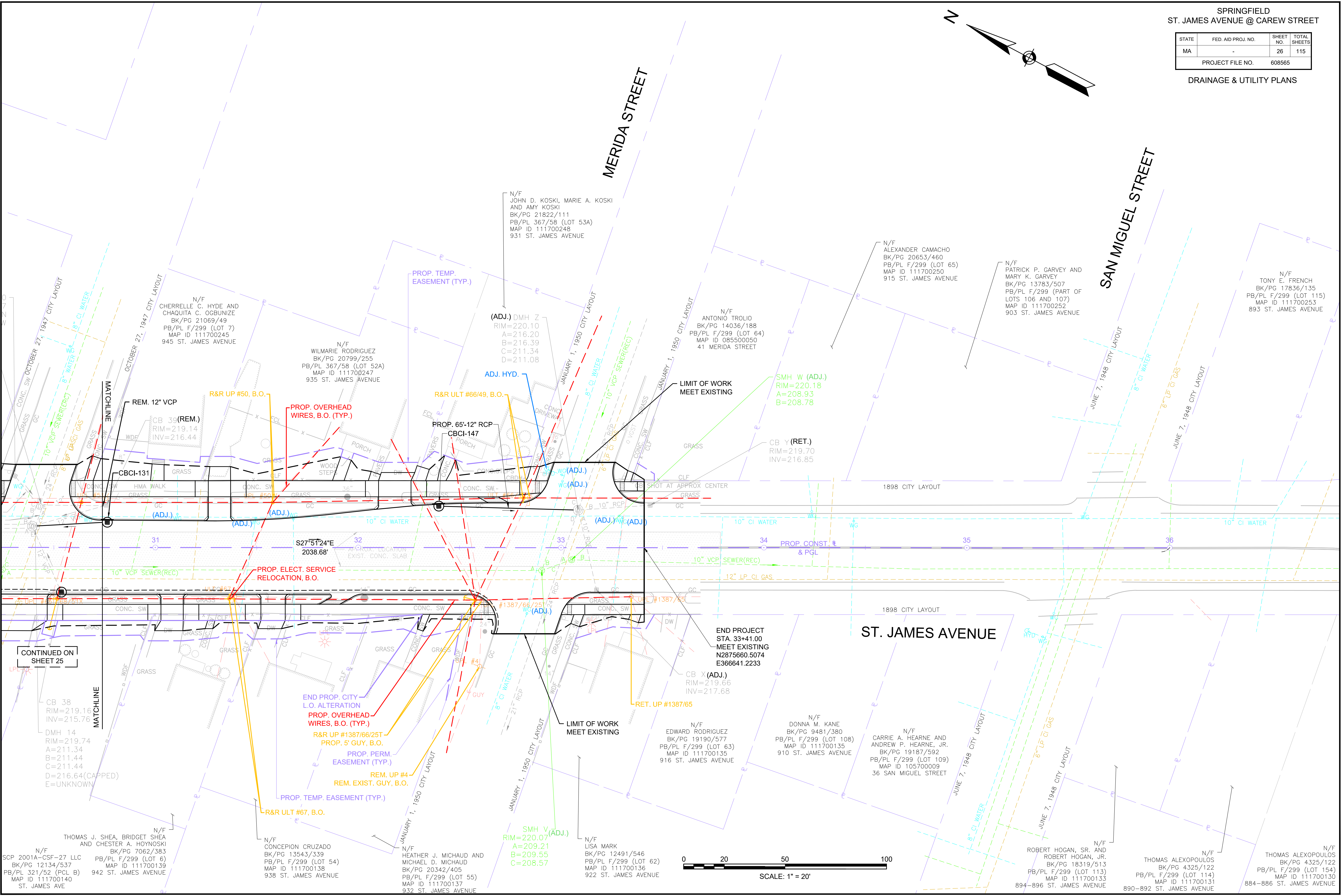
CONTINUED ON SHEET 28

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	26	115
PROJECT FILE NO.		608565	

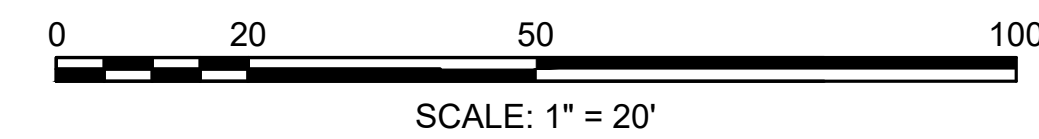


MERIDA STREET

SAN MIGUEL STREET



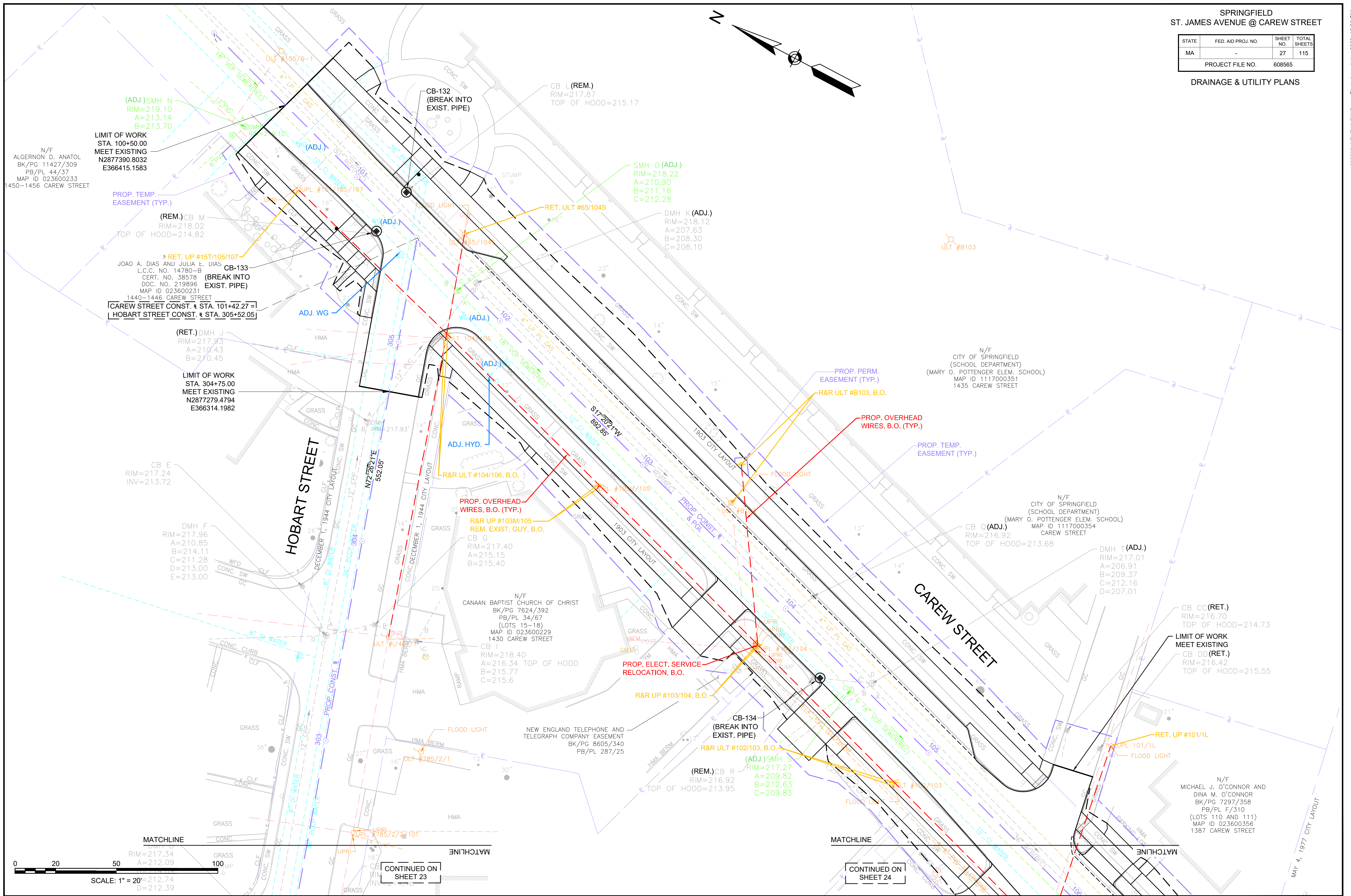
CONTINUED ON SHEET 25



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	27	115
PROJECT FILE NO.		608565	

DRAINAGE & UTILITY PLANS



N/F
ALGERNON D. ANATOL
BK/PG 11427/309
PB/PL 44/37
MAP ID 023600233
1450-1456 CAREW STREET

LIMIT OF WORK
STA. 100+50.00
MEET EXISTING
N2877390.8032
E366415.1583

PROP. TEMP.
EASEMENT (TYP.)

(REM.) CB M
RIM=218.02
TOP OF HOOD=214.82

RET. UP #157/105/107
JOAO A. DIAS AND JULIA E. DIAS
L.C.C. NO. 14780-B
CERT. NO. 38578
DOC. NO. 219896
MAP ID 023600231
1440-1446 CAREW STREET
[CAREW STREET CONST. STA. 101+42.27 =
HOBART STREET CONST. STA. 305+52.05]

(RET.) DMH J
RIM=217.93
A=210.43
B=210.45

LIMIT OF WORK
STA. 304+75.00
MEET EXISTING
N2877279.4794
E366314.1982

CB E
RIM=217.24
INV=213.72

DMH F
RIM=217.96
A=210.85
B=214.11
C=211.28
D=213.00
E=213.00

PROP. OVERHEAD
WIRES, B.O. (TYP.)
R&R UP #103M/105
REM. EXIST. GUY, B.O.
CB G
RIM=217.40
A=215.15
B=215.40

N/F
CANAAN BAPTIST CHURCH OF CHRIST
BK/PG 7624/392
PB/PL 34/67
(LOTS 15-18)
MAP ID 023600229
1430 CAREW STREET
CB I
RIM=218.40
A=216.34 TOP OF HOOD
B=215.77
C=215.6

NEW ENGLAND TELEPHONE AND
TELEGRAPH COMPANY EASEMENT
BK/PG 8605/340
PB/PL 287/25

CB-134
(BREAK INTO
EXIST. PIPE)
R&R ULT #102/103, B.O.
(ADJ.) SMH S
RIM=217.27
A=209.82
B=212.63
C=209.83
(REM.) CB R
RIM=216.92
TOP OF HOOD=213.95

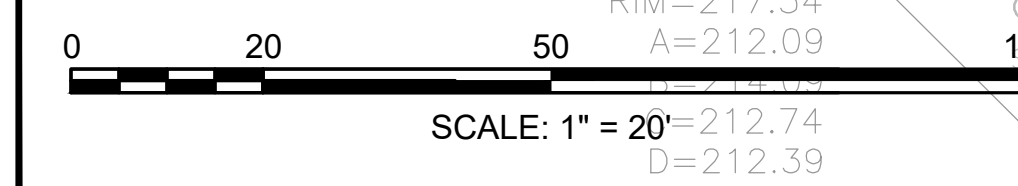
N/F
CITY OF SPRINGFIELD
(SCHOOL DEPARTMENT)
(MARY O. POTTENGER ELEM. SCHOOL)
MAP ID 1117000351
1435 CAREW STREET

N/F
CITY OF SPRINGFIELD
(SCHOOL DEPARTMENT)
(MARY O. POTTENGER ELEM. SCHOOL)
MAP ID 1117000354
CAREW STREET

DMH T (ADJ.)
RIM=217.01
A=206.91
B=209.37
C=212.16
D=207.01

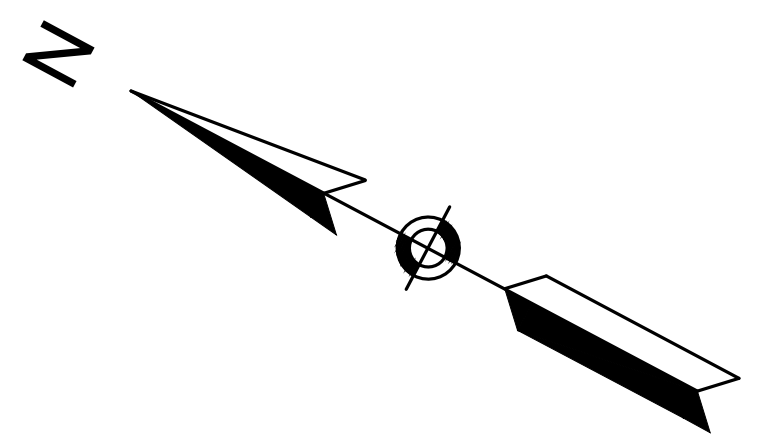
CB CC (RET.)
RIM=216.70
TOP OF HOOD=214.73
LIMIT OF WORK
MEET EXISTING
CB DD (RET.)
RIM=216.42
TOP OF HOOD=215.55

N/F
MICHAEL J. O'CONNOR AND
DINA M. O'CONNOR
BK/PG 7297/358
PB/PL F/310
(LOTS 110 AND 111)
MAP ID 023600356
1387 CAREW STREET



CONTINUED ON
SHEET 23

CONTINUED ON
SHEET 24



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	29	115

PROJECT FILE NO. 608565
DRAINAGE & UTILITY PLANS

N/F
JAMES ZARLENGO
BK/PG 19842/395
PB/PL F/310 (LOT 279)
MAP ID 111720070
139 ST. JAMES BLVD.

N/F
JANET KACIAK AND
THADDEUS J. KACIAK, JR.
BK/PG 16221/333
PB/PL F/310 (LOT 280)
MAP ID 111720071
133 ST. JAMES BLVD.

N/F
CITY OF SPRINGFIELD
(CITY COUNCIL)
(MARSHALL ROY FIELD)
MAP ID 111700036
166 ST. JAMES BLVD.

DMH 66
RIM=220.22
A=215.42
B=216.42
C=215.62
D=216.32
E=216.42
F=216.52

SMH 27
RIM=220.59
A=213.29
B=213.29

N/F
WILLIAM L. COSTIGAN AND
KAREN M. COSTIGAN
BK/PG 14223/440
MAP ID 111700015
114 ST. JAMES BLVD.

N/F
AMY E. CARTER
BK/PG 18006/270
PB/PL 21/28 (LOT H)
MAP ID 111720072
123 ST. JAMES BLVD.

N/F
MARION B. ROGERS
BK/PG 2482/398
BK/PG 21748/456
PB/PL 21/28 (LOT J)
MAP ID 111720073
117 ST. JAMES BLVD.

N/F
MILAGROS NUNEZ AND
MIRELLA CRUZ
BK/PG 19038/540
PB/PL F/310
(LOTS 301 AND 302)
MAP ID 111720075
109 ST. JAMES BLVD.

(ADJ.) SMH 28
RIM=219.95
A=212.55
B=212.55
C=212.65

(ADJ.) DMH 63
RIM=219.48
A=211.88
B=214.08
C=216.38
D=214.68
E=214.68

N/F
JUAN CRUZ AND
ESTHER RODRIGUEZ
BK/PG 17186/302
PB/PL F/310
(LOTS 313-315)
MAP ID 052500006
30 FORDHAM STREET

ST. JAMES BOULEVARD
(ROUTE 20A)

MARQUETTE STREET

FORDHAM STREET

MAY 4, 1977 CITY LAYOUT

MAY 4, 1977 CITY LAYOUT

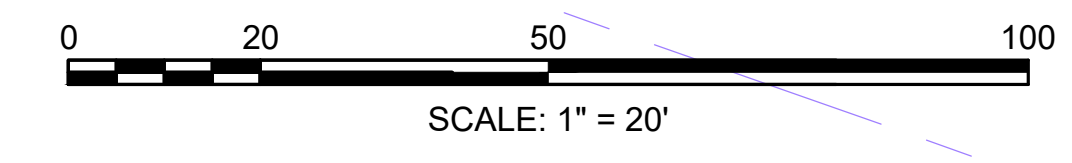
MARCH 2, 1976 CITY LAYOUT

MARCH 2, 1976 CITY LAYOUT

MARCH 2, 1976 CITY LAYOUT

MARCH 2, 1976 CITY LAYOUT

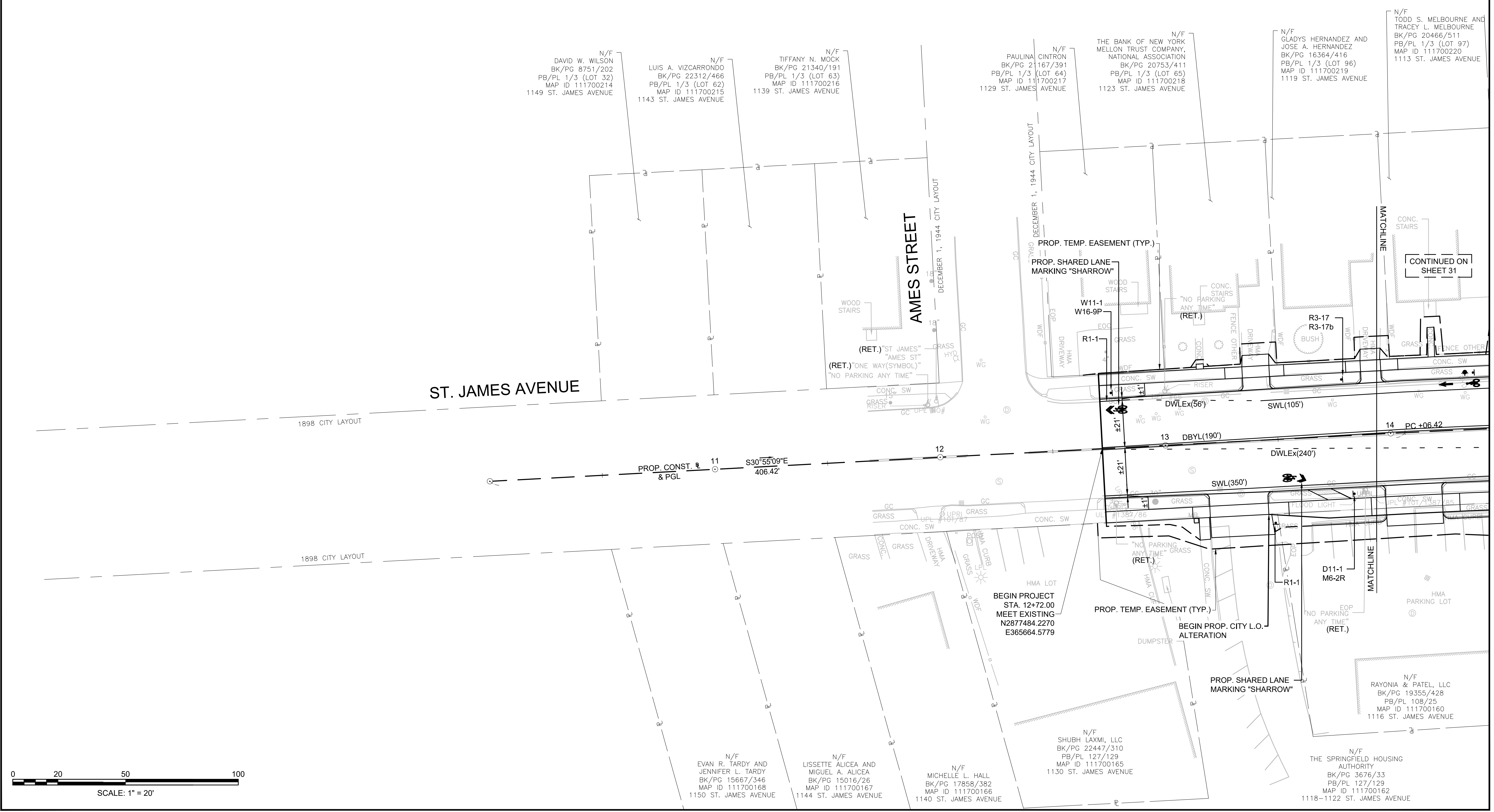
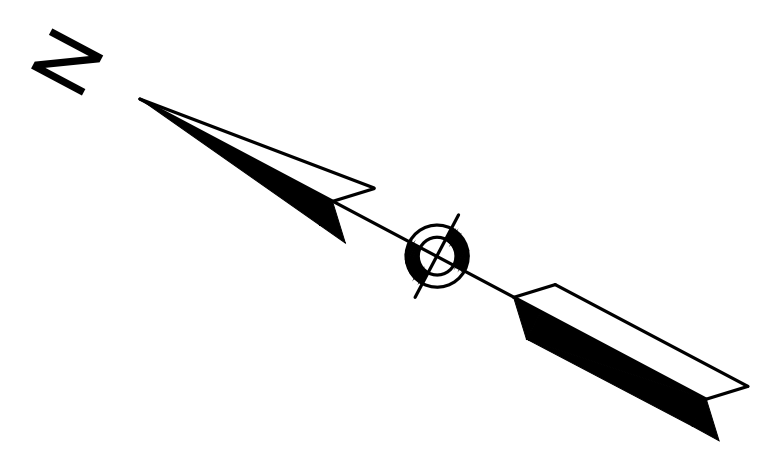
CONTINUED ON SHEET 25



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	30	115
PROJECT FILE NO.		608565	

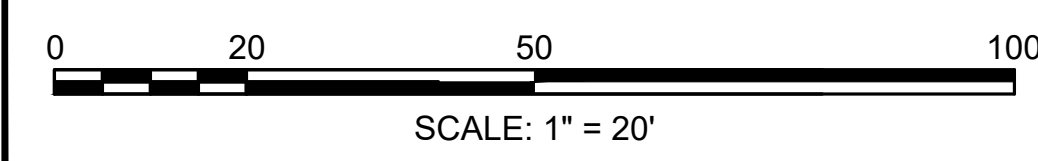
TRAFFIC SIGN & PAVEMENT
MARKING PLANS



ST. JAMES AVENUE

AMES STREET

CONTINUED ON
SHEET 31



N/F
DAVID W. WILSON
BK/PG 8751/202
PB/PL 1/3 (LOT 32)
MAP ID 111700214
1149 ST. JAMES AVENUE

N/F
LUIS A. VIZCARRONDO
BK/PG 22312/466
PB/PL 1/3 (LOT 62)
MAP ID 111700215
1143 ST. JAMES AVENUE

N/F
TIFFANY N. MOCK
BK/PG 21340/191
PB/PL 1/3 (LOT 63)
MAP ID 111700216
1139 ST. JAMES AVENUE

N/F
PAULINA CINTRON
BK/PG 21167/391
PB/PL 1/3 (LOT 64)
MAP ID 111700217
1129 ST. JAMES AVENUE

N/F
THE BANK OF NEW YORK
MELLON TRUST COMPANY,
NATIONAL ASSOCIATION
BK/PG 20753/411
PB/PL 1/3 (LOT 65)
MAP ID 111700218
1123 ST. JAMES AVENUE

N/F
GLADYS HERNANDEZ AND
JOSE A. HERNANDEZ
BK/PG 16364/416
PB/PL 1/3 (LOT 96)
MAP ID 111700219
1119 ST. JAMES AVENUE

N/F
TODD S. MELBOURNE AND
TRACY L. MELBOURNE
BK/PG 20466/511
PB/PL 1/3 (LOT 97)
MAP ID 111700220
1113 ST. JAMES AVENUE

N/F
EVAN R. TARDY AND
JENNIFER L. TARDY
BK/PG 15667/346
MAP ID 111700168
1150 ST. JAMES AVENUE

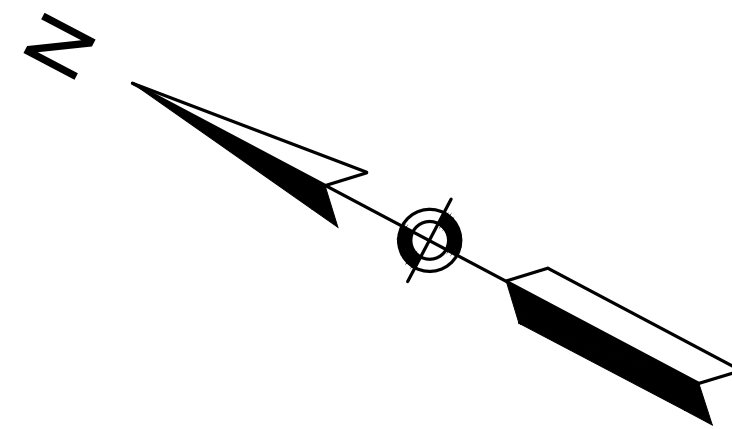
N/F
LISSETTE ALICEA AND
MIGUEL A. ALICEA
BK/PG 15016/26
MAP ID 111700167
1144 ST. JAMES AVENUE

N/F
MICHELLE L. HALL
BK/PG 17858/382
MAP ID 111700166
1140 ST. JAMES AVENUE

N/F
SHUBH LAXMI, LLC
BK/PG 22447/310
PB/PL 127/129
MAP ID 111700165
1130 ST. JAMES AVENUE

N/F
THE SPRINGFIELD HOUSING
AUTHORITY
BK/PG 3676/33
PB/PL 127/129
MAP ID 111700162
1118-1122 ST. JAMES AVENUE

N/F
RAYONIA & PATEL, LLC
BK/PG 19355/428
PB/PL 108/25
MAP ID 111700160
1116 ST. JAMES AVENUE



CONTINUED ON SHEET 35

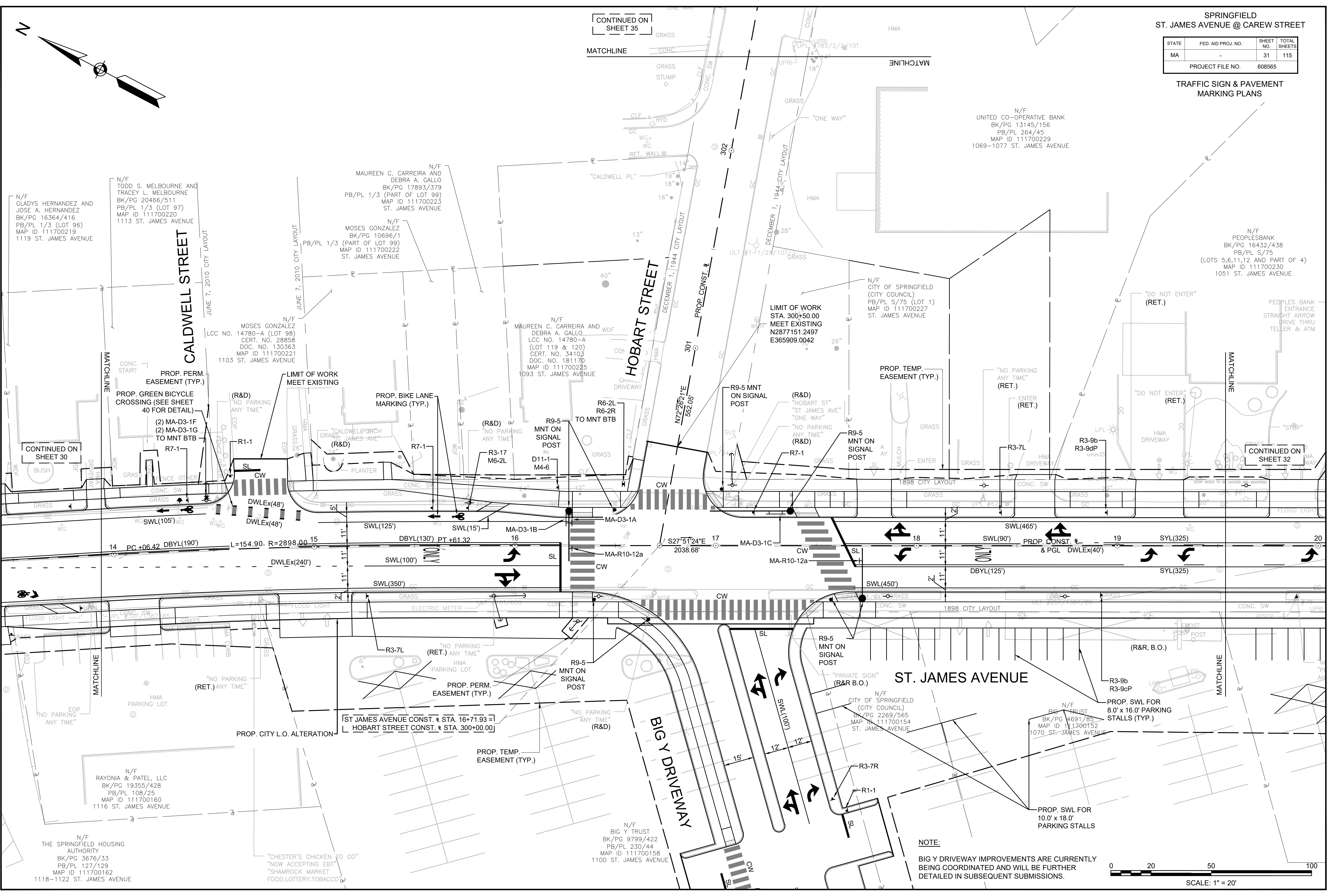
SPRINGFIELD ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	31	115
PROJECT FILE NO.		608565	

TRAFFIC SIGN & PAVEMENT MARKING PLANS

N/F
UNITED CO-OPERATIVE BANK
BK/PG 13145/156
PB/PL 264/45
MAP ID 111700229
1069-1077 ST. JAMES AVENUE

N/F
PEOPLES BANK
BK/PG 16432/438
PB/PL S/75
(LOTS 5,6,11,12 AND PART OF 4)
MAP ID 111700230
1051 ST. JAMES AVENUE

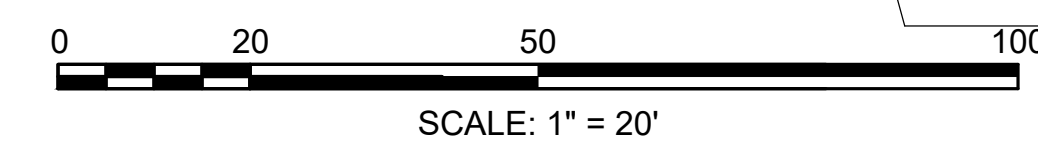


CONTINUED ON SHEET 30

CONTINUED ON SHEET 32

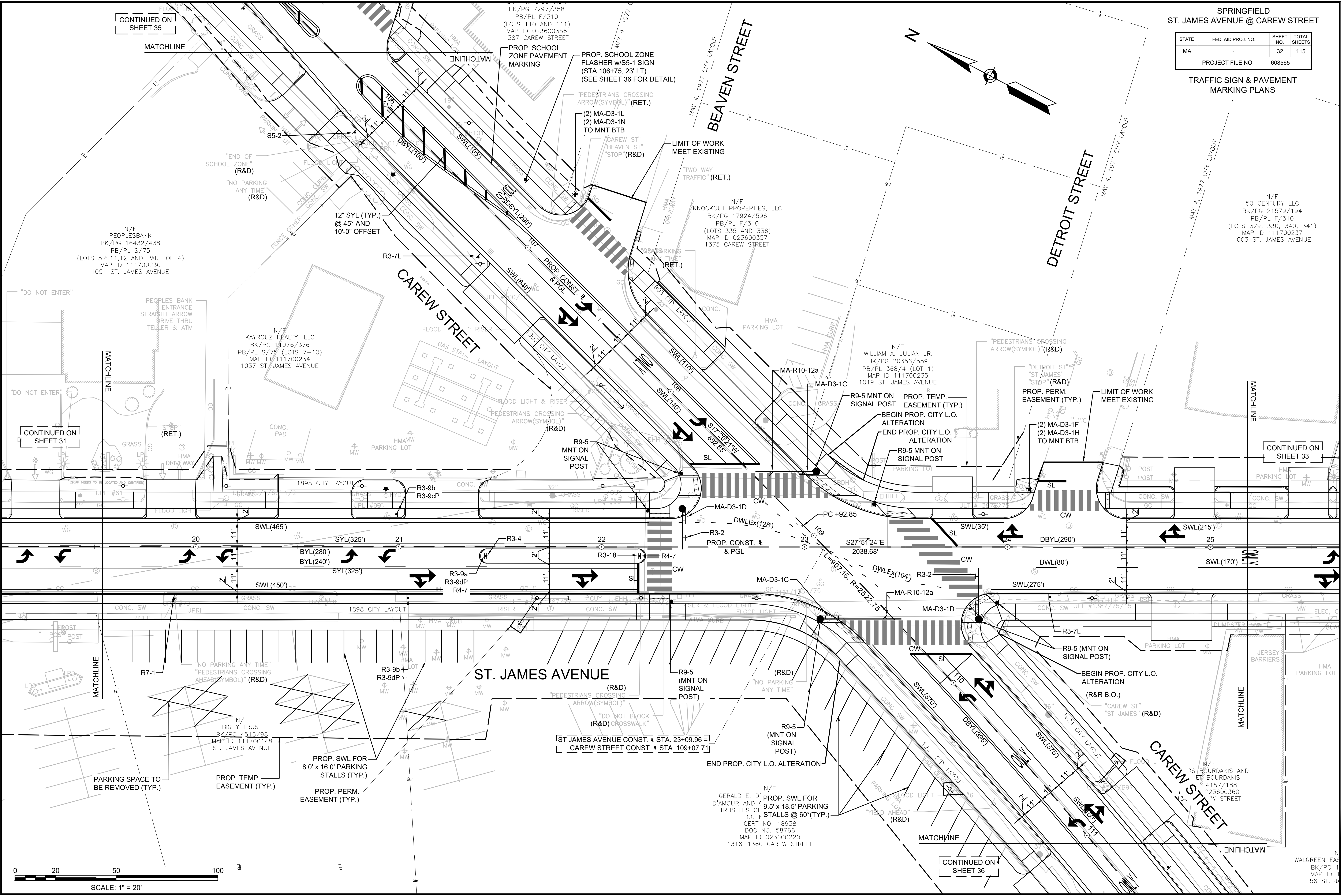
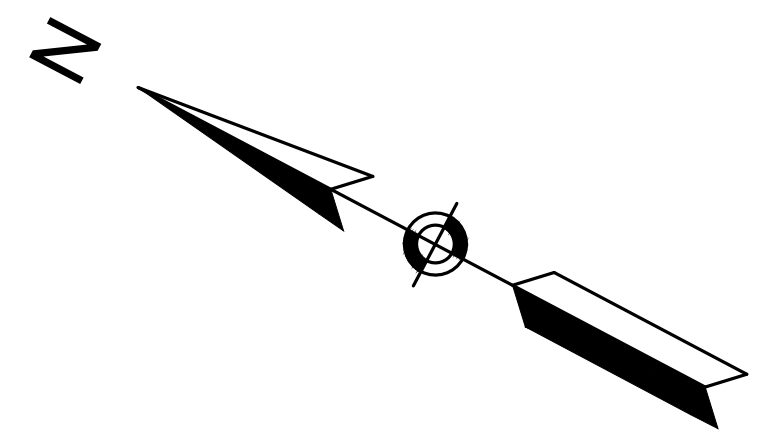
ST JAMES AVENUE CONST. # STA. 16+71.93 =
HOBART STREET CONST. # STA. 300+00.00

NOTE:
BIG Y DRIVEWAY IMPROVEMENTS ARE CURRENTLY BEING COORDINATED AND WILL BE FURTHER DETAILED IN SUBSEQUENT SUBMISSIONS.



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		32	115
PROJECT FILE NO.		608565	

TRAFFIC SIGN & PAVEMENT MARKING PLANS

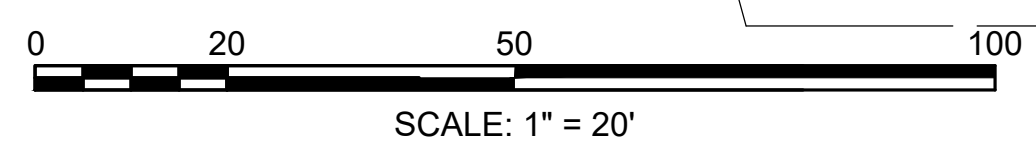


CONTINUED ON SHEET 35

CONTINUED ON SHEET 31

CONTINUED ON SHEET 33

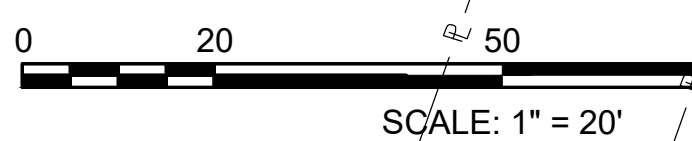
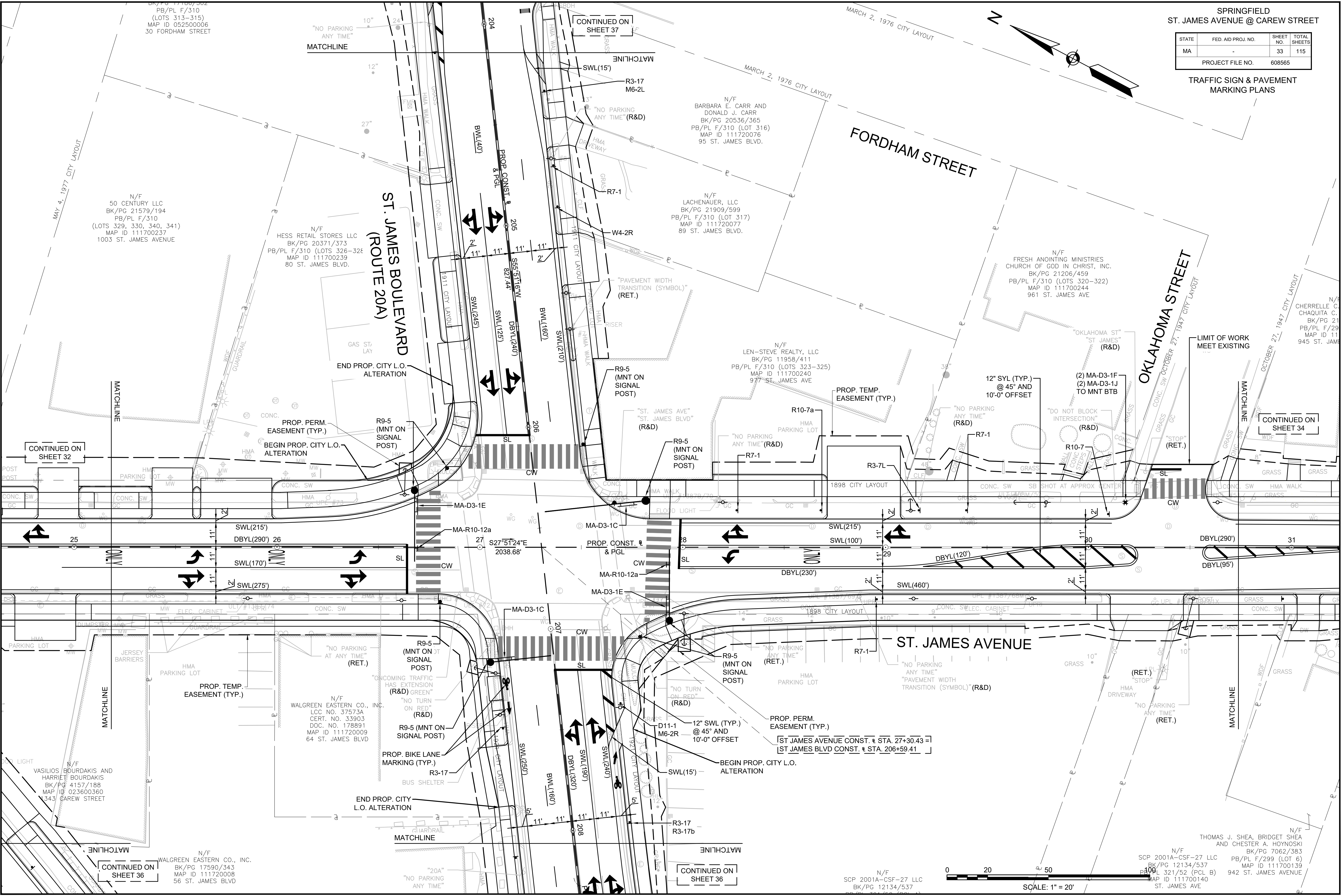
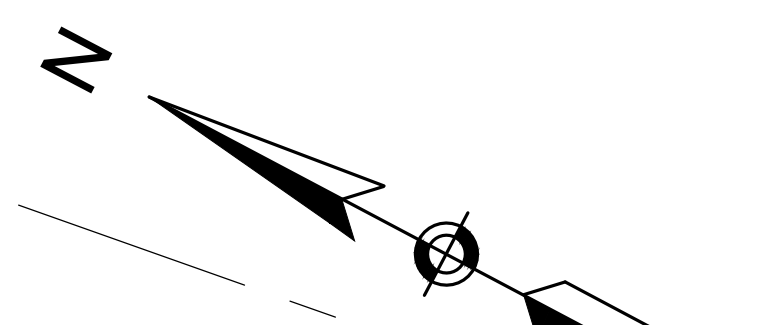
CONTINUED ON SHEET 36



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		33	115
PROJECT FILE NO.		608565	

TRAFFIC SIGN & PAVEMENT MARKING PLANS



CONTINUED ON SHEET 36

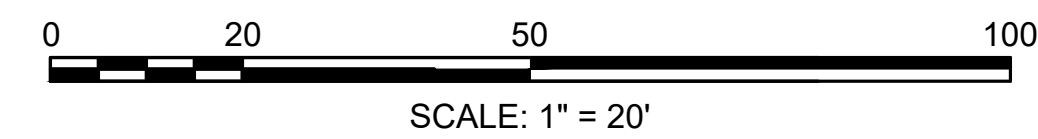
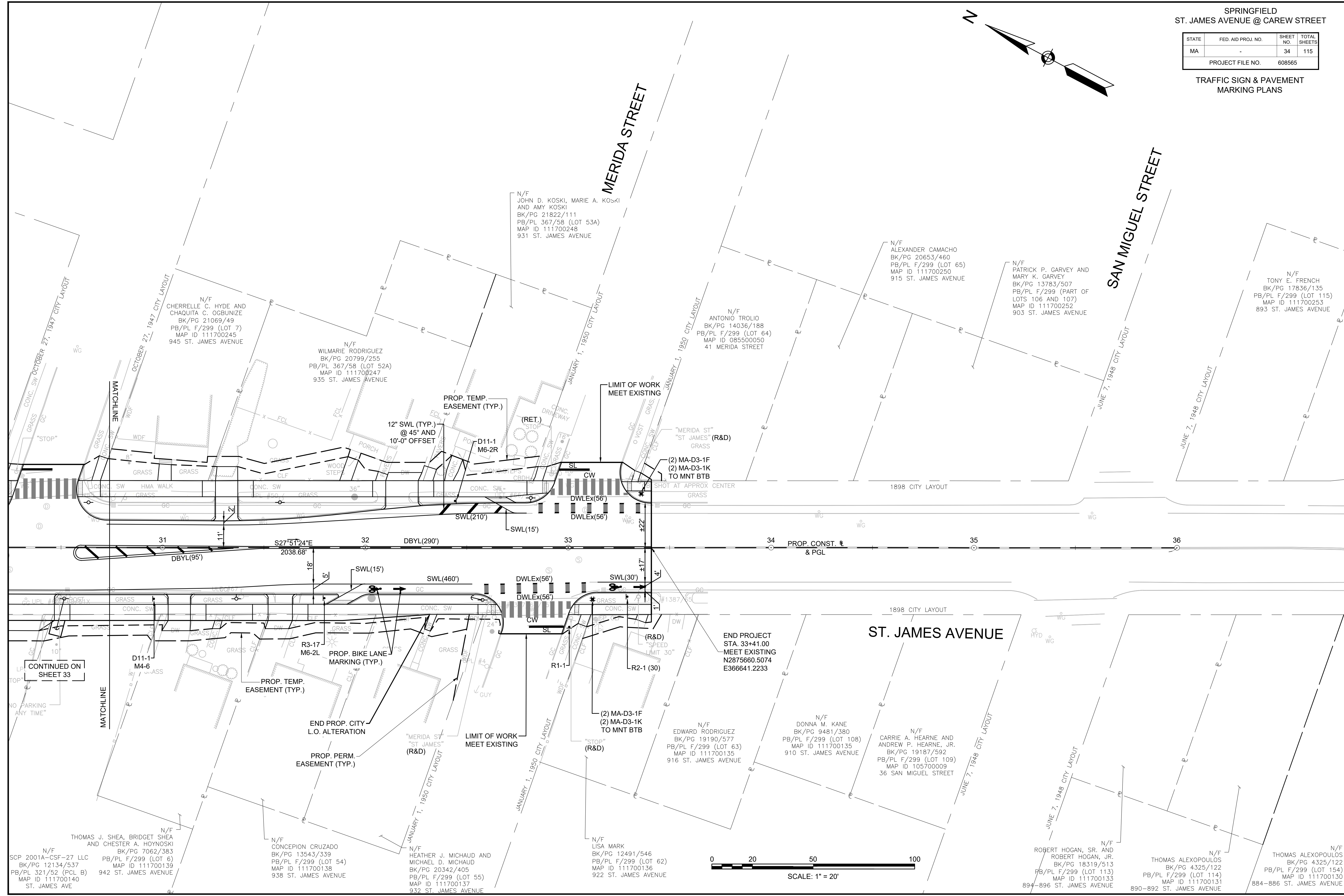
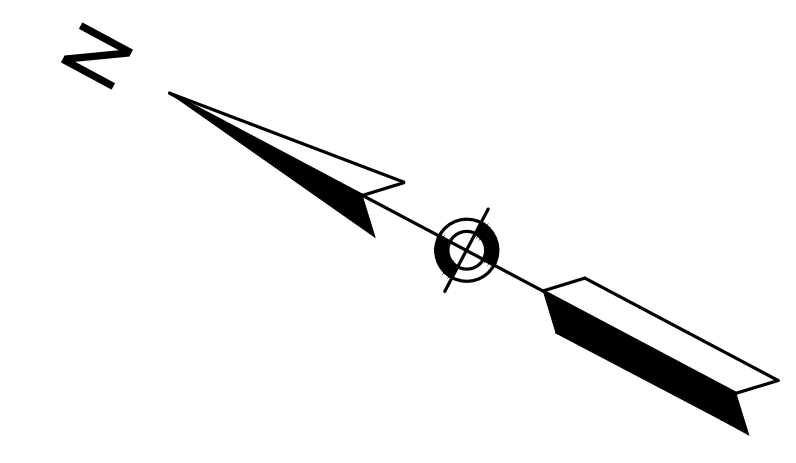
CONTINUED ON SHEET 36

CONTINUED ON SHEET 34

CONTINUED ON SHEET 37

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	34	115
PROJECT FILE NO.		608565	

TRAFFIC SIGN & PAVEMENT MARKING PLANS



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		36	115
PROJECT FILE NO.		608565	

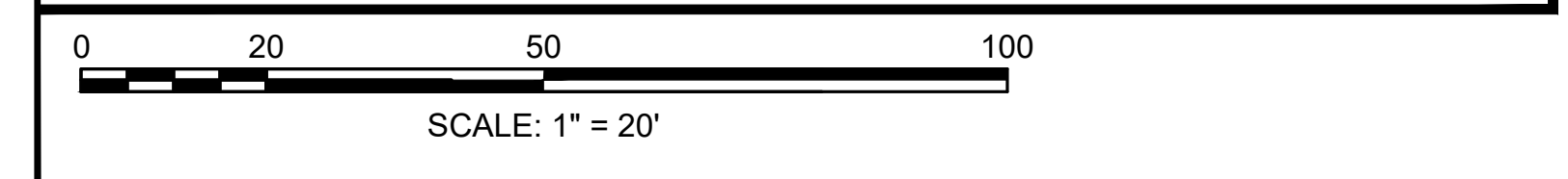
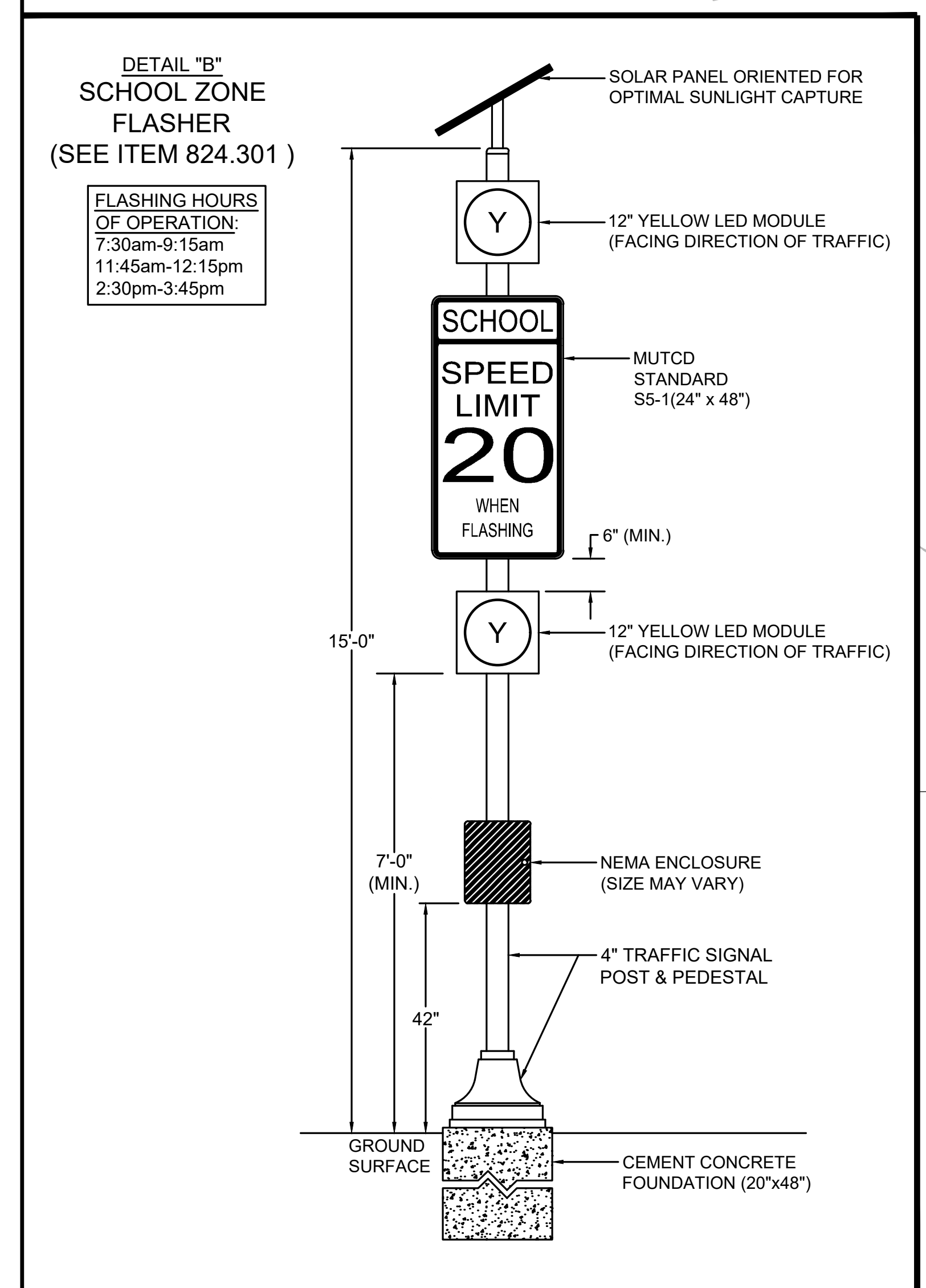
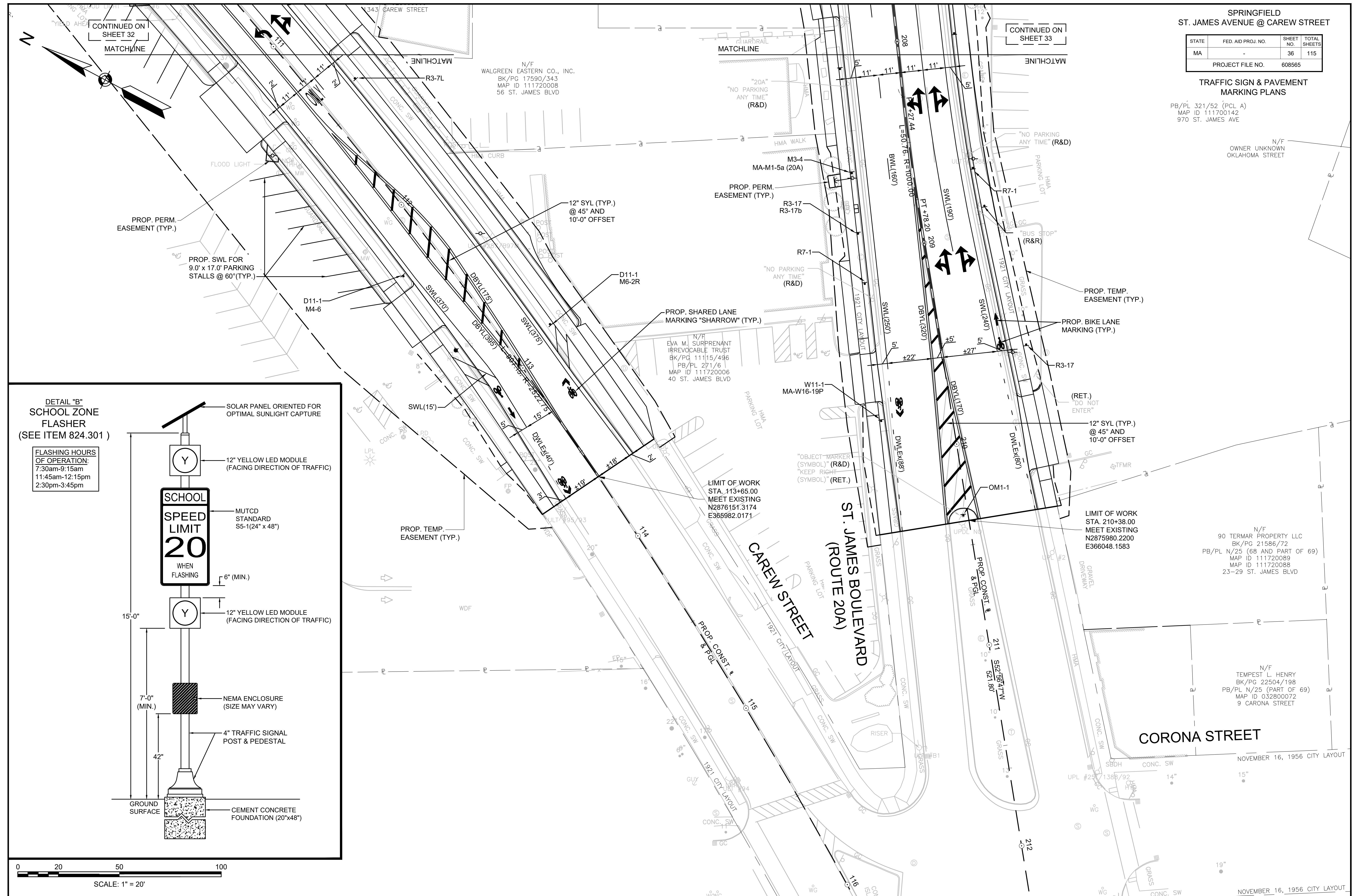
TRAFFIC SIGN & PAVEMENT MARKING PLANS

PB/PL 321/52 (PCL A)
MAP ID 111700142
970 ST. JAMES AVE

N/F
OWNER UNKNOWN
OKLAHOMA STREET

N/F
90 TERMAR PROPERTY LLC
BK/PG 21586/72
PB/PL N/25 (68 AND PART OF 69)
MAP ID 111720089
MAP ID 111720088
23-29 ST. JAMES BLVD

N/F
TEMPEST L. HENRY
BK/PG 22504/198
PB/PL N/25 (PART OF 69)
MAP ID 032600072
9 CARONA STREET



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	37	115
PROJECT FILE NO.		608565	

TRAFFIC SIGN & PAVEMENT MARKING PLANS

N/F
JAMES ZARLENGO
BK/PG 19842/395
PB/PL F/310 (LOT 279)
MAP ID 111720070
139 ST. JAMES BLVD.

N/F
JANET KACIAK AND
THADDEUS J. KACIAK, JR.
BK/PG 16221/333
PB/PL F/310 (LOT 280)
MAP ID 111720071
133 ST. JAMES BLVD.

N/F
CITY OF SPRINGFIELD
(CITY COUNCIL)
(MARSHALL ROY FIELD)
MAP ID 111700036
166 ST. JAMES BLVD.

N/F
WILLIAM L. COSTIGAN AND
KAREN M. COSTIGAN
BK/PG 14223/440
MAP ID 111700015
114 ST. JAMES BLVD.

N/F
AMY E. CARTER
BK/PG 18006/270
PB/PL 21/28 (LOT H)
MAP ID 111720072
123 ST. JAMES BLVD.

N/F
MARION B. ROGERS
BK/PG 2482/398
BK/PG 21748/456
PB/PL 21/28 (LOT J)
MAP ID 111720073
117 ST. JAMES BLVD.

N/F
MILAGROS NUNEZ AND
MIRELLA CRUZ
BK/PG 19038/540
PB/PL F/310
(LOTS 301 AND 302)
MAP ID 111720075
109 ST. JAMES BLVD.

N/F
JUAN CRUZ AND
ESTHER RODRIGUEZ
BK/PG 17186/302
PB/PL F/310
(LOTS 313-315)
MAP ID 052500006
30 FORDHAM STREET

ST. JAMES BOULEVARD
(ROUTE 20A)

MARQUETTE STREET

FORDHAM STREET

(2) MA-D3-1P
(2) MA-D3-1Q
TO MNT BTB;
R5-1

LIMIT OF WORK
MEET EXISTING

"ONE WAY"
"DO NOT ENTER"
(RET) "STOP"
R2-1 (30)

PROP. TEMP.
EASEMENT (TYP.)

(R&D) "SPEED
LIMIT 30"

12" SWL (TYP.)
@ 45° AND
10'-0" OFFSET

(R&D)
"NO PARKING
ANY TIME"

CONTINUED ON
SHEET 33

LIMIT OF WORK
STA. 202+95.00
MEET EXISTING
N2876404.9121
E366657.6158

PROP. BIKE LANE
MARKING (TYP.)

W11-1
MA-W16-19P

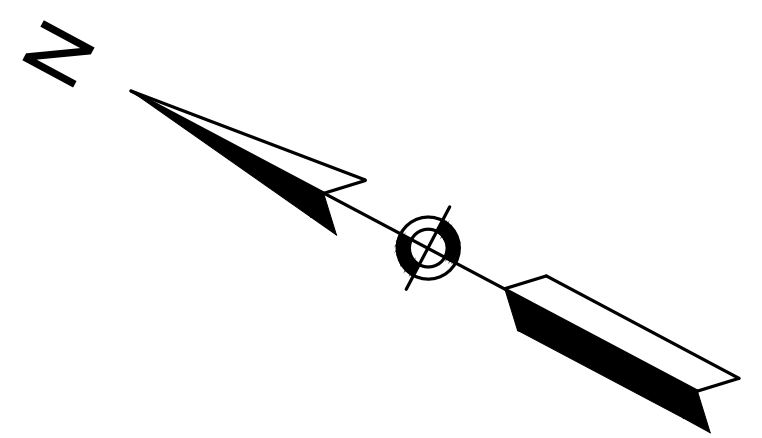
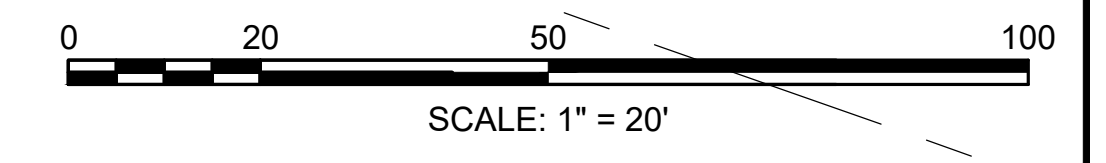
"STOP"
(RET.)

LIMIT OF WORK
MEET EXISTING

"FORDHAM ST"
"ST. JAMES BLVD"
"NO PARKING
ANY TIME" (R&D)

(2) MA-D3-1P
(2) MA-D3-1Q
TO MNT BTB

PROP. TEMP. EASEMENT (TYP.)



NOTES:

1. ALL WARNING, REGULATORY AND ROUTE MARKERS SHALL BE FABRICATED WITH HIGH INTENSITY ENCAPSULATED LENS REFLECTIVE SHEETING (SEE SECTION M9.30.0) TYPE III OR IV.
2. ALL SIGNS NOTED AS "(R&R)" SHALL BE MOUNTED ON NEW P5 POSTS OR AS OTHERWISE INDICATED.
3. ALL P5 POSTS SHALL BE TELESCOPIC SQUARE TYPE POSTS.
4. QUANTITIES OF SIGNS AND POSTS SHOWN ON THIS SHEET MAY DIFFER FROM THE TRAFFIC SIGN & PAVEMENT MARKING PLANS. WHERE DIFFERENCES OCCUR, THE TRAFFIC SIGN & PAVEMENT MARKING PLANS SHALL PREVAIL.

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	38	115
PROJECT FILE NO.		608565	

TRAFFIC SIGN SUMMARY SHEET





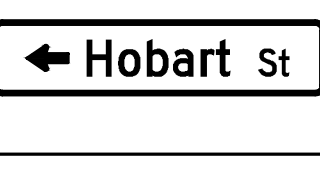

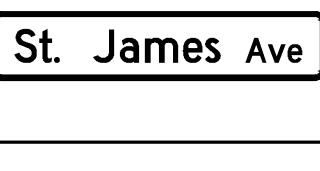

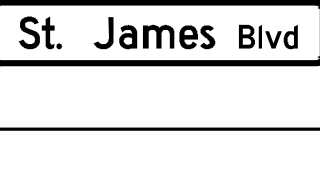
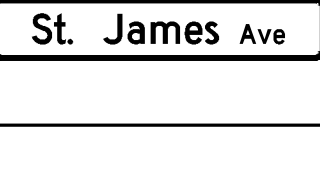


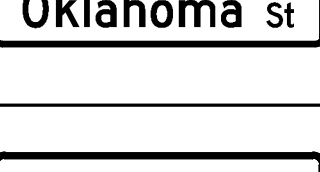
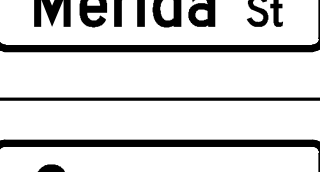

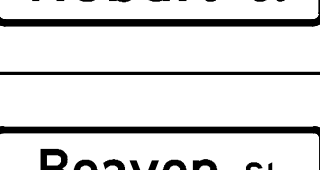
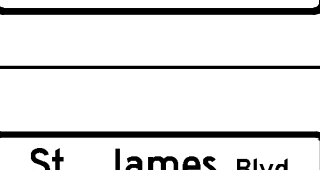
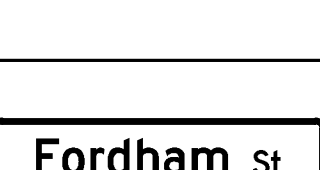

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)		NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING		BACK-GROUND	LEGEND	BORDER			
R1-1	30"	30"		MUTCD STANDARD		7	RED	WHITE	WHITE	P5 (7 REQ'D)	6.25	43.75
R2-1(30)	24"	30"		MUTCD STANDARD		2	WHITE	BLACK	BLACK	P5 (2 REQ'D)	5.00	10.00
R3-2	24"	24"		MUTCD STANDARD		2	WHITE	RED BLACK	BLACK	2 MNT ON MAST ARM	4.00	8.00
R3-4	24"	24"		MUTCD STANDARD		1	WHITE	RED BLACK	BLACK	MNT w/ R3-9a	4.00	4.00
R3-7L	30"	30"		MUTCD STANDARD		6	WHITE	BLACK	BLACK	P5 (6 REQ'D)	6.25	37.50
R3-7R	30"	30"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	6.25	6.25
R3-8c	30"	30"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	6.25	6.25
R3-9a	30"	36"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	7.50	7.50
R3-9b	24"	36"		MUTCD STANDARD		4	WHITE	BLACK	BLACK	P5 (4 REQ'D)	6.00	24.00
R3-9cP	30"	12"		MUTCD STANDARD		2	WHITE	BLACK	BLACK	2 MNT w/ R3-9b	2.50	5.00
R3-9dP	30"	12"		MUTCD STANDARD		3	WHITE	BLACK	BLACK	1 MNT w/ R3-9a 2 MNT w/ R3-9b	2.50	7.50
R3-17	24"	18"		MUTCD STANDARD		8	WHITE BLACK	WHITE BLACK	BLACK	P5 (8 REQ'D)	3.00	24.00
R3-17b	24"	8"		MUTCD STANDARD		3	WHITE	BLACK	BLACK	3 MNT w/R3-17	1.33	4.00
R3-18	24"	24"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	4.00	4.00
R4-7	24"	30"		MUTCD STANDARD		2	WHITE	BLACK	BLACK	1 MNT w/ R3-9a 1 MNT w/ R3-18	5.00	10.00
R5-1	30"	30"		MUTCD STANDARD		2	WHITE	RED WHITE	BLACK	1 MNT w/ R6-1L 1 MNT w/ MA-D3-1P	6.25	12.50
R6-1L	36"	12"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	3.00	3.00
R6-1R	36"	12"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	MNT w R6-1L	3.00	3.00
R6-2L	24"	30"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	5.00	5.00
R6-2R	24"	30"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	MNT w/ R6-2L	5.00	5.00

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)		NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING		BACK-GROUND	LEGEND	BORDER			
R7-1	12"	18"		MUTCD STANDARD		14	WHITE	RED BLACK	BLACK	P5 (14 REQ'D)	1.50	21.00
R9-5	12"	18"		MUTCD STANDARD		24	WHITE	BLACK	BLACK	24 MNT ON MAST ARM	1.50	36.00
MA-R10-12a	30"	36"		MASSDOT STANDARD		6	WHITE	BLACK/YELLOW	BLACK	6 MNT ON MAST ARM	7.50	45.00
R10-7	24"	30"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	5.00	5.00
R10-7a	24"	30"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	5.00	5.00
MA-M1-5a (20A)	30"	24"		MASSDOT STANDARD		1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	5.00	5.00
M3-4	12"	24"		MASSDOT STANDARD		1	WHITE	BLACK	BLACK	MNT w/ MA-M1-5a(20A)	2.00	2.00
M4-6	24"	12"		MUTCD STANDARD		3	GREEN	WHITE	WHITE	3 MNT w D11-1	2.00	6.00
M6-2L	21"	15"		MUTCD STANDARD		3	WHITE	BLACK	BLACK	3 MNT w/ R3-17	2.19	6.56
M6-2R	21"	15"		MUTCD STANDARD		5	GREEN	WHITE	WHITW	5 MNT w D11-1	2.19	10.94
D11-1	24"	18"		MUTCD STANDARD		8	GREEN	WHITE	WHITE	P5 (8 REQ'D)	3.00	24.00
OM1-1	24"	24"		MUTCD STANDARD		1	YELLOW	3 1/4" YELLOW REFLECTORS (9)	-	P5 (1 REQ'D)	4.00	4.00
S1-1	30"	30"		MUTCD STANDARD		4	YELLOW	BLACK	BLACK	2 PAY UNDER ITEM 824.221	PAY UNDER ITEM 824.221	
S5-1	24"	48"		MUTCD STANDARD		1	YELLOW/WHITE	BLACK	BLACK	MNT w/ SCHOOL ZONE FLASHER	PAY UNDER ITEM 824.301	PAIY UNDER ITEM 824.301
S5-2	24"	30"		MUTCD STANDARD		1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	5.00	5.00
W4-2R	30"	30"		MUTCD STANDARD		1	YELLOW	BLACK	BLACK	P5 (1 REQ'D)	6.25	6.25
W11-1	30"	30"		MUTCD STANDARD		3	YELLOW	BLACK	BLACK	P5 (3 REQ'D)	6.25	18.75

SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	39	115
PROJECT FILE NO.		608565	

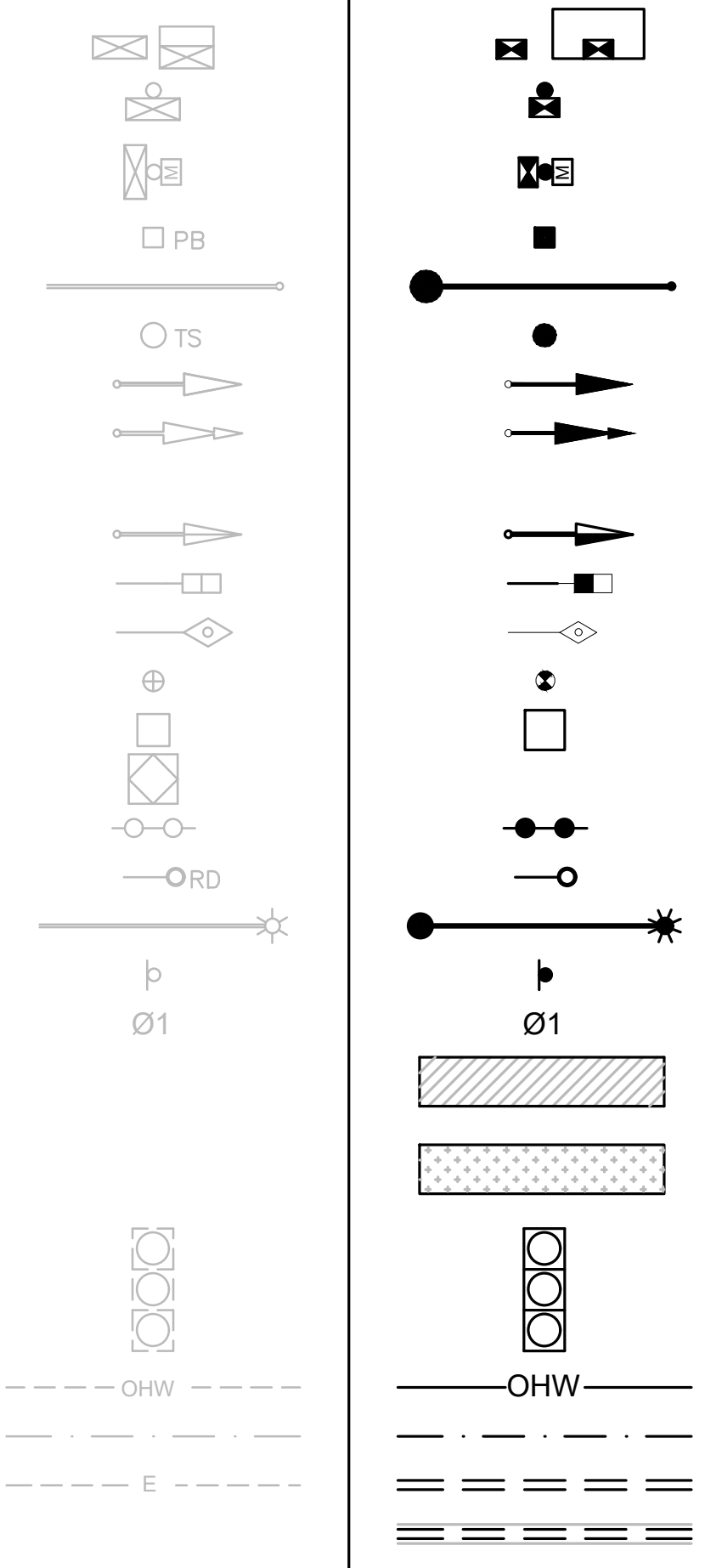
TRAFFIC SIGN SUMMARY SHEET

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)		NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET	
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING		BACK-GROUND	LEGEND	BORDER				
W16-7pL	24"	12"		MUTCD STANDARD		2	YELLOW	BLACK	BLACK	2 MNT w/ S1-1 (PAY UNDER ITEM 824.221)	PAY UNDER ITEM 824.221		
W16-7pR	24"	12"		MUTCD STANDARD		2	YELLOW	BLACK	BLACK	2 MNT w/ S1-1 (PAY UNDER ITEM 824.221)	PAY UNDER ITEM 824.221		
W16-9P	24"	12"		MUTCD STANDARD		1	YELLOW	BLACK	BLACK	MNT w/ W11-1	2.00	2.00	
MA-W16-19P	24"	18"		MASSDOT STANDARD		2	YELLOW	BLACK	BLACK	2 MNT w/ W11-1	3.00	6.00	
MA-D3-1A	108"	24"		12"D/9"D (12"x8" ARROW)	6" 6"	1	GREEN	WHITE	WHITE	1 MNT ON MAST ARM	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1B	108"	24"		12"D/9"D (12"x8" ARROW)	6" 6"	1	GREEN	WHITE	WHITE	1 MNT ON MAST ARM	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1C	120"	24"		12"D/9"D	6" 6"	5	GREEN	WHITE	WHITE	5 MNT ON MAST ARM	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1D	84"	24"		12"D/9"D	3" 3"	2	GREEN	WHITE	WHITE	2 MNT ON MAST ARM	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1E	126"	24"		12"D/9"D	3" 3"	2	GREEN	WHITE	WHITE	2 MNT ON MAST ARM	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1F	66"	12"		6"D/4"D	3" 3"	10	GREEN	WHITE	WHITE	P5 (5 REQ'D) 2 MNT BTB	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1G	54"	12"		6"D/4"D	3" 3"	2	GREEN	WHITE	WHITE	2 MNT BTB w/ MA-D3-1F	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1H	42"	12"		6"D/4"D	3" 3"	2	GREEN	WHITE	WHITE	2 MNT BTB w/ MA-D3-1F	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1J	54"	12"		6"D/4"D	3" 3"	2	GREEN	WHITE	WHITE	2 MNT BTB w/ MA-D3-1F	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1K	42"	12"		6"D/4"D	3" 3"	4	GREEN	WHITE	WHITE	2 MNT BTB w/ MA-D3-1F	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1L	42"	12"		6"D/4"D	3" 3"	4	GREEN	WHITE	WHITE	P5 (2 REQ'D) 2 MNT BTB	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1M	42"	12"		6"D/4"D	3" 3"	2	GREEN	WHITE	WHITE	2 MNT BTB w/MA-D3-1L	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1N	48"	12"		6"D/4"D	3" 3"	2	GREEN	WHITE	WHITE	2 MNT BTB w/MA-D3-1L	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1P	66"	12"		6"D/4"D	3" 3"	4	GREEN	WHITE	WHITE	P5 (2 REQ'D) 2 MNT BTB	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	
MA-D3-1Q	54"	12"		6"D/4"D	3" 3"	4	GREEN	WHITE	WHITE	2 MNT BTB w/MA-D3-1P	PAY UNDER ITEM 874.	PAY UNDER ITEM 874.	

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	40	115
PROJECT FILE NO.		608565	

TRAFFIC LEGEND ABBREVIATIONS & NOTES

EXISTING PROPOSED



TRAFFIC SIGNAL LEGEND

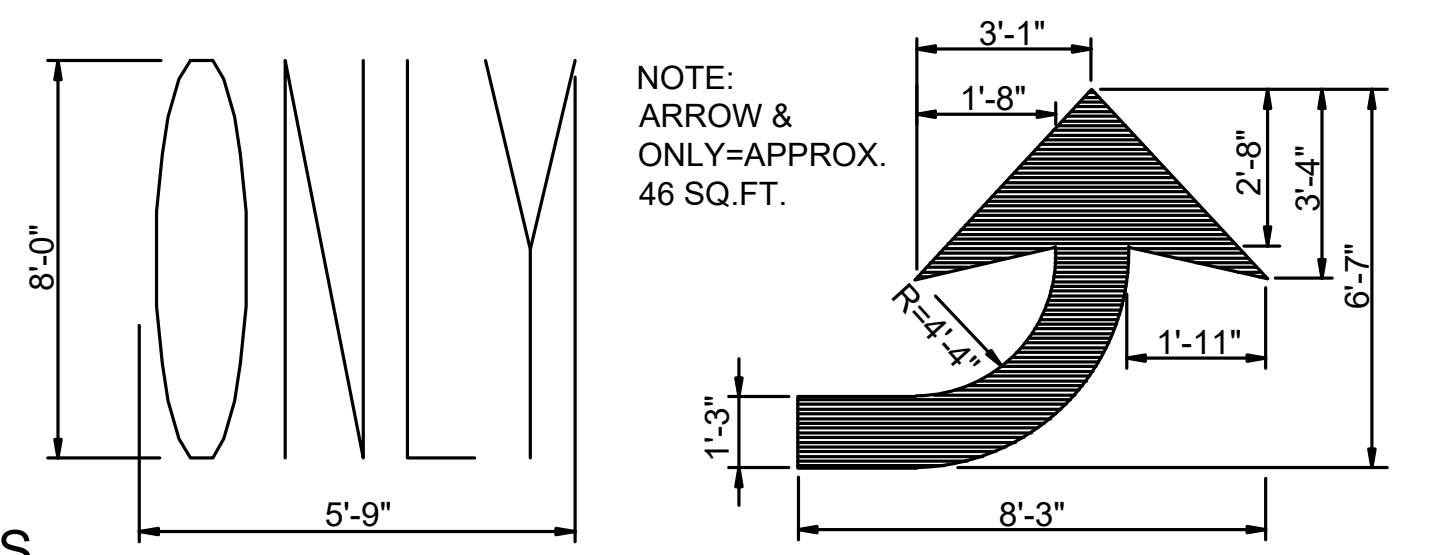
- CONTROL CABINET GROUND MOUNTED (WITH & WITHOUT CONC. PAD)
- CONTROL CABINET POLE MOUNTED
- FLASHING BEACON CONTROL & METER PEDESTAL
- PULL BOX (12" x 12" OR AS NOTED)
- MAST ARM, SHAFT & BASE (ARM LENGTH AS NOTED)
- SIGNAL POST & BASE (ALPHA-NUMERIC DESIGNATION NOTED)
- VEHICULAR SIGNAL HEAD (ALPHA-NUMERIC DESIGNATION NOTED)
- VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED (ALPHA-NUMERIC DESIGNATION NOTED)
- FLASHING BEACON (ALPHA-NUMERIC DESIGNATION NOTED)
- PEDESTRIAN SIGNAL HEAD (ALPHA-NUMERIC DESIGNATION NOTED)
- EMERGENCY PREEMPTION OPTICAL DETECTOR
- PEDESTRIAN PUSH BUTTON, SIGN & SADDLE
- WIRE LOOP DETECTOR (6' x 6' OR AS NOTED)
- HIGH MAST POLE OR TOWER
- MAGNETOMETER
- RADAR DETECTOR
- SIGNAL & LIGHTING MAST ARM
- TRAFFIC SIGN & POST
- CONTROLLER PHASE ACTUATED
- ZONE OF DETECTION FOR SPECIAL DETECTORS
- ZONE OF VISIBILITY FOR PROGRAMMED SIGNAL
- TRAFFIC SIGNAL HEAD (12" LENSES OR AS NOTED)
- OVERHEAD WIRE(S)
- DIRECT BURIAL CABLE
- TRAFFIC SIGNAL CONDUIT
- CONDUIT CROSSING ROADWAY WITH CONTROLLED DENSITY FILL

GENERAL ABBREVIATIONS

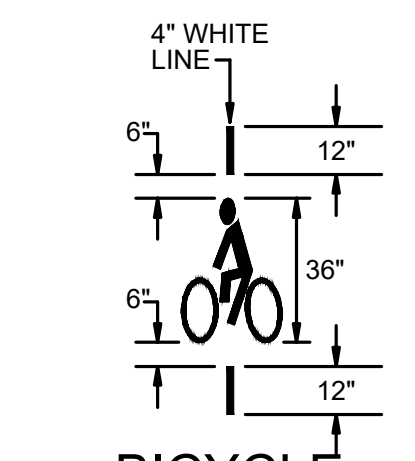
- MAX MAXIMUM
- MIN MINIMUM
- BO BY OTHERS
- PROP PROPOSED
- R & D REMOVE AND DISPOSE
- R & R REMOVE AND RESET
- R & S REMOVE AND STACK
- REM REMOVE
- RET RETAIN

TRAFFIC SIGNAL ABBREVIATIONS

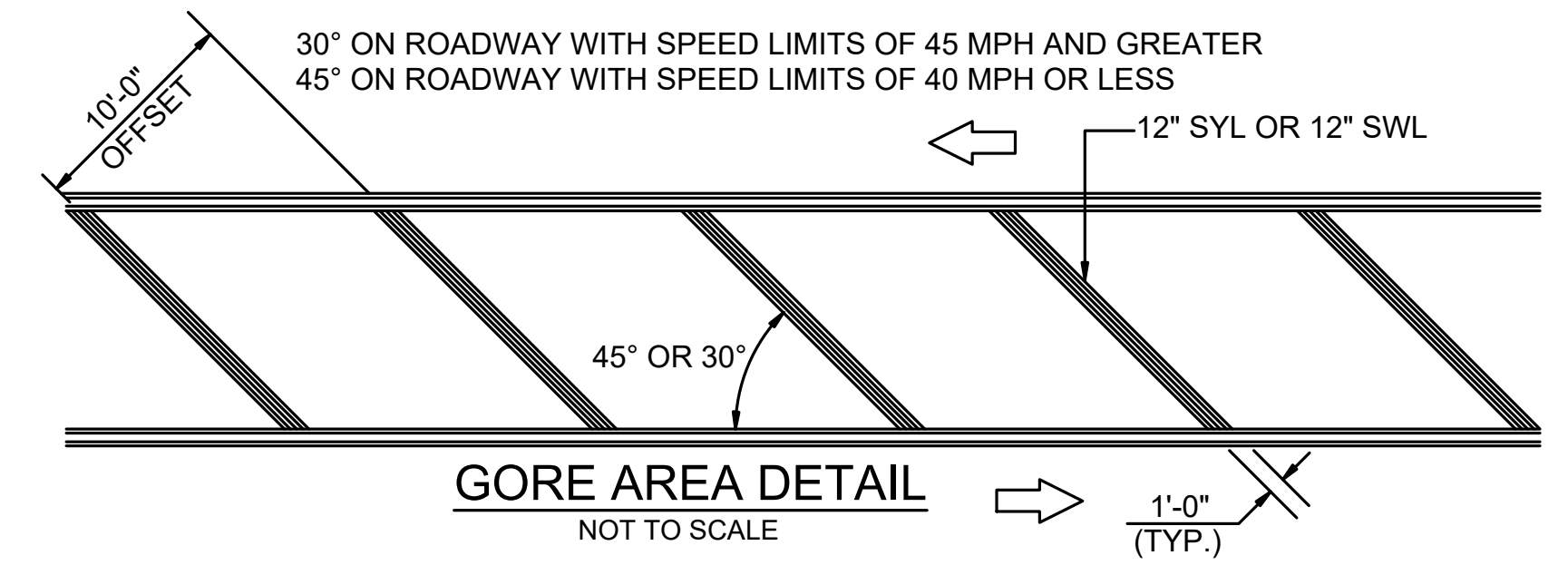
- R STEADY CIRCULAR RED
- Y STEADY CIRCULAR AMBER
- G STEADY CIRCULAR GREEN
- RL STEADY RED LEFT ARROW
- GL STEADY GREEN LEFT ARROW
- GV STEADY GREEN VERTICAL ARROW
- RR STEADY RED RIGHT ARROW
- YR STEADY AMBER RIGHT ARROW
- GR STEADY GREEN RIGHT ARROW
- FR FLASHING CIRCULAR RED
- FY FLASHING CIRCULAR AMBER
- FRL FLASHING RED LEFT ARROW
- FRR FLASHING RED RIGHT ARROW
- W WALK - LUNAR WHITE
- DW DON'T WALK - PORTLAND ORANGE
- FDW FLASHING DON'T WALK - PORTLAND ORANGE
- L DETECTOR - LOCK
- NL DETECTOR - NON-LOCK
- V VEHICLE MOVEMENT
- P PEDESTRIAN MOVEMENT
- PMV PERMISSIVE VEHICULAR MOVEMENT
- DCP DETECTOR CONTROLLING PHASE



ARROW & ONLY DETAIL
NOT TO SCALE



BICYCLE LEGEND MARKING DETAIL
NOT TO SCALE



GORE AREA DETAIL
NOT TO SCALE

GENERAL NOTES

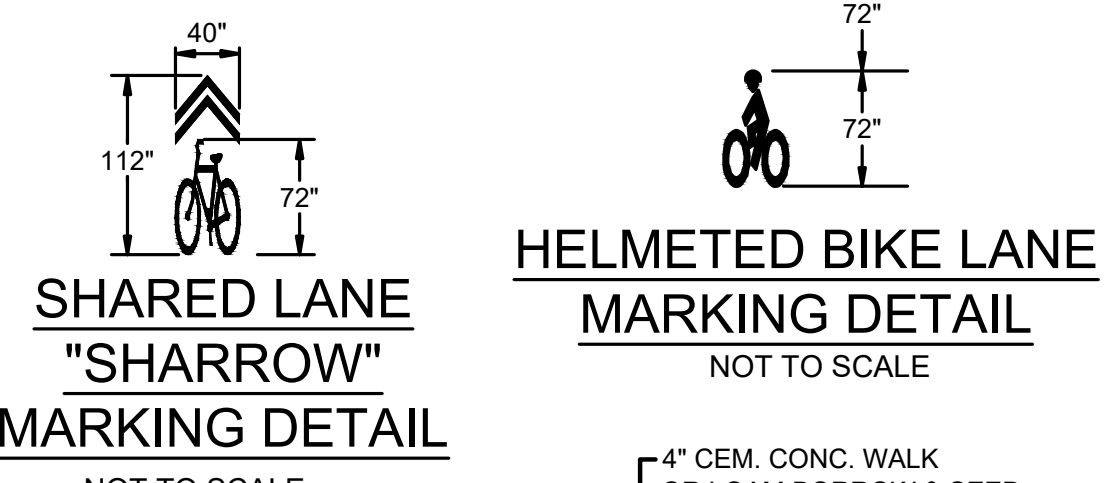
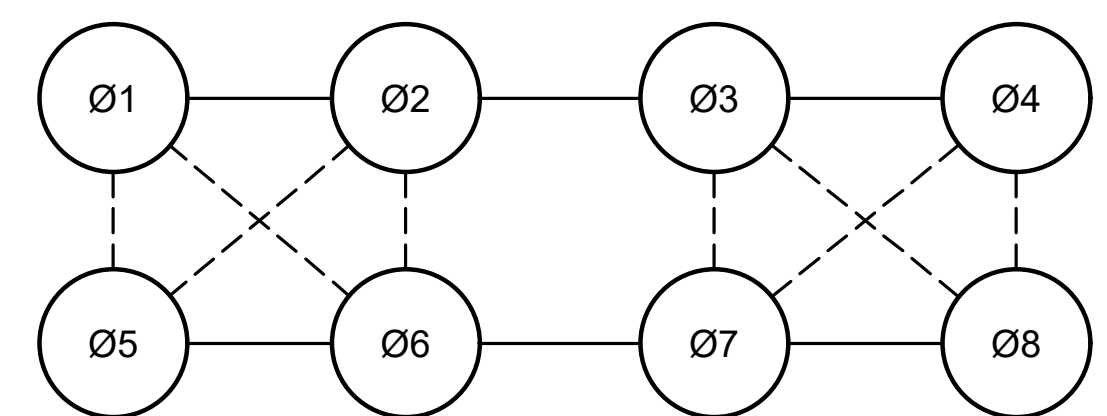
- ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS NOTED OTHERWISE.
- ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.

TRAFFIC SIGNAL NOTES

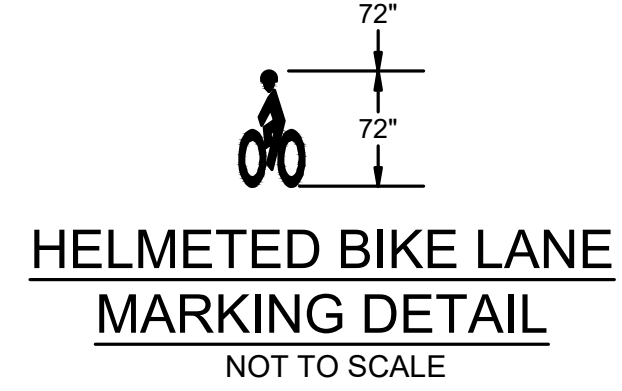
- SEE CONSTRUCTION AND TRAFFIC PLANS FOR ADDITIONAL DETAILS.
- PROPOSED CONTROLLERS SHALL BE NEMA TS2, KEYBOARD ENTRY, MENU-DRIVEN TYPE WHERE AN EXISTING UNDERGROUND UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- POLE-MOUNTED SIGNALS SHALL BE MOUNTED TO PROVIDE A 2-FOOT MINIMUM HORIZONTAL CLEARANCE BETWEEN VERTICAL PROJECTION OF THE CURBLINE AND THE SIGNAL VISOR. WHEN FEASIBLE, INSTALL AT BACK OF SIDEWALK UNLESS OTHERWISE NOTED. PROVIDE SPECIAL MOUNTING HARDWARE AS REQUIRED.
- CONSTRUCTION OF THE TRAFFIC CONTROL SIGNAL SYSTEMS SHOWN ON THE FOLLOWING DRAWINGS SHALL CONFORM TO THE MASSACHUSETTS HIGHWAY DEPARTMENT'S "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES", 1988 ED. AS AMENDED, AND THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2009 EDITION AS AMENDED.
- ALL TRAFFIC CONTROL SIGNAL EQUIPMENT SHALL BE LISTED ON THE CURRENT MASSDOT'S "APPROVED LIST" AND IS SUBJECT TO THE APPROVAL OF THE DESIGN ENGINEER AND/OR THE MASSDOT.
- ALL OVERHEAD CONDUCTORS FOR SIGNAL HOUSINGS SHALL BE STRANDED WIRE.
- ALL PROPOSED WIRE LOOP DETECTORS SHALL BE CENTERED WITHIN RESPECTIVE LANES UNLESS OTHERWISE NOTED.
- ALL PROPOSED LENSES SHALL HAVE TUNNEL VISORS.
- ALL MAST ARM MOUNTED SIGNALS SHALL BE REGIONALLY MOUNTED.
- FLASHING OPERATION PER 2009 M.U.T.C.D., SECTION 4D.28 - 4D.31.
- IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S).
- ALL NEW TRAFFIC CONTROLLER CABINETS SHALL BE EQUIPPED WITH A LEVER-TYPE METER BY-PASS. SPECIFICATIONS FOR THE BY-PASS MUST BE APPROVED BY THE APPROPRIATE UTILITY COMPANY.
- WHERE CALLED FOR ON THE PLANS, THE PROPOSED LOCATIONS OF THE OPTICAL DETECTOR UNITS AND CONFIRMATION BEACON ARE PERCEIVED BEST BUT NOT FINAL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE OPTIMUM PLACEMENT IN COOPERATION WITH THE LOCAL MUNICIPALITY'S FIRE DEPARTMENT. THE OPTICAL DETECTOR UNITS SHALL HAVE AN UNOBSTRUCTED LINE-OF-SIGHT VIEW ALONG THE ROUTE OF APPROACHING PRIORITY VEHICLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND VERIFYING THAT THERE IS SUFFICIENT CLEARANCE BETWEEN ALL PROPOSED TRAFFIC SIGNAL POLES AND EXISTING AND RELOCATED OVERHEAD UTILITY LINES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR COORDINATING WITH THE AFFECTED UTILITY COMPANIES RELATIVE TO THE SCOPE OF ANY REQUIRED RELOCATIONS. THIS SHALL BE PERFORMED WITHIN TEN DAYS AFTER AWARD OF THE CONTRACT.
- THE CONTRACTOR SHALL REMOVE AND DELIVER ALL EXISTING TRAFFIC SIGNAL EQUIPMENT WITHIN THE PROJECT LIMITS TO THE APPROPRIATE OWNER'S MAINTENANCE DEPOT EXCEPT FOR LOCATIONS NOTED ON THE PLANS.

NEMA DUAL RING PHASING NOTES

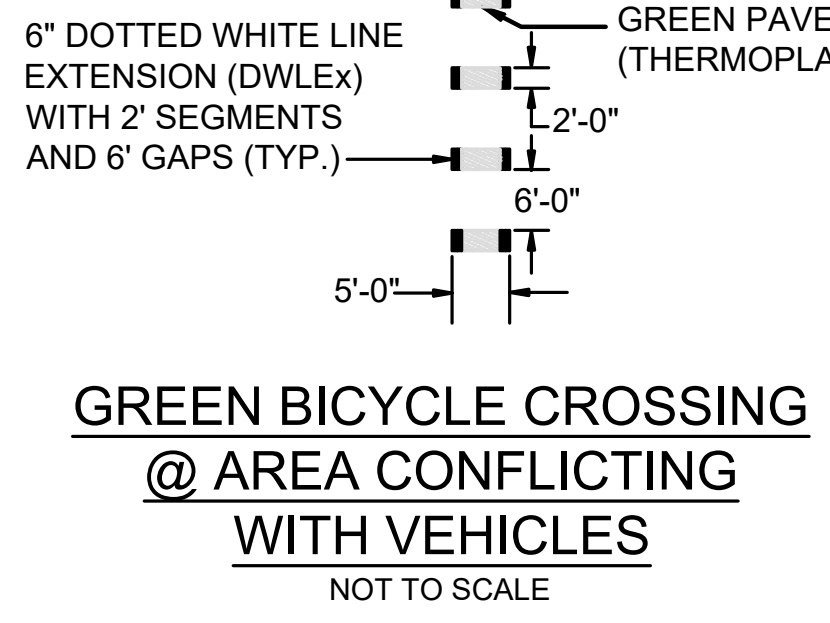
- PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
- PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.



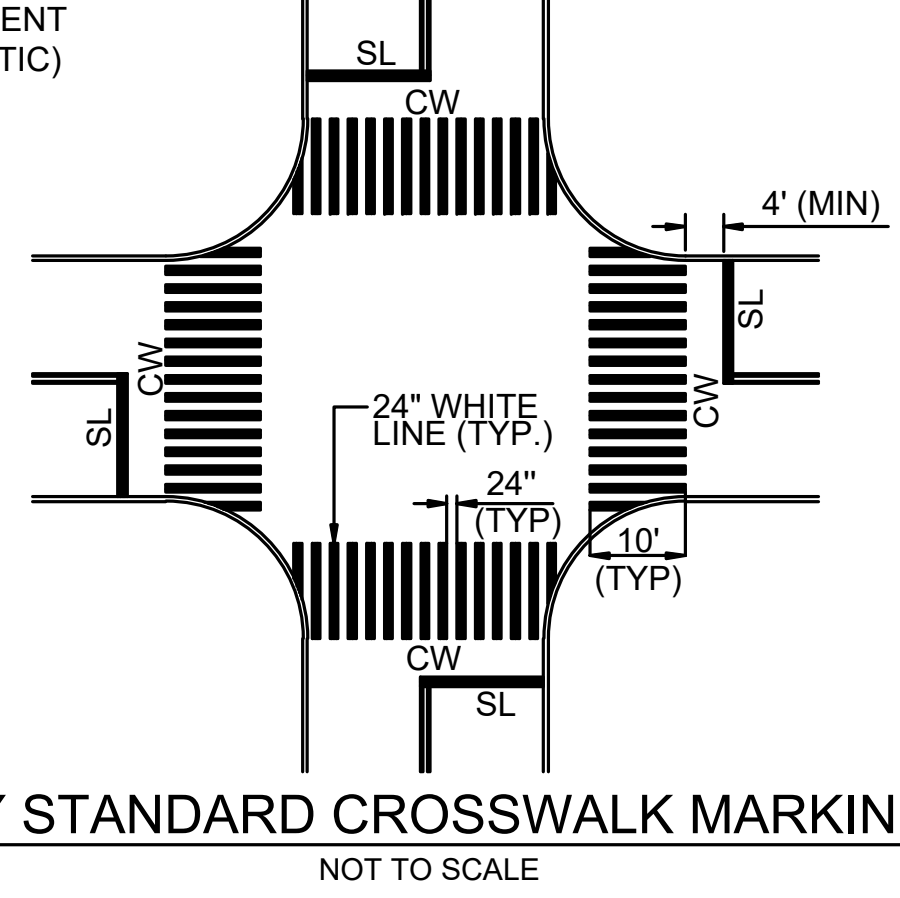
SHARED LANE "SHARROW" MARKING DETAIL
NOT TO SCALE



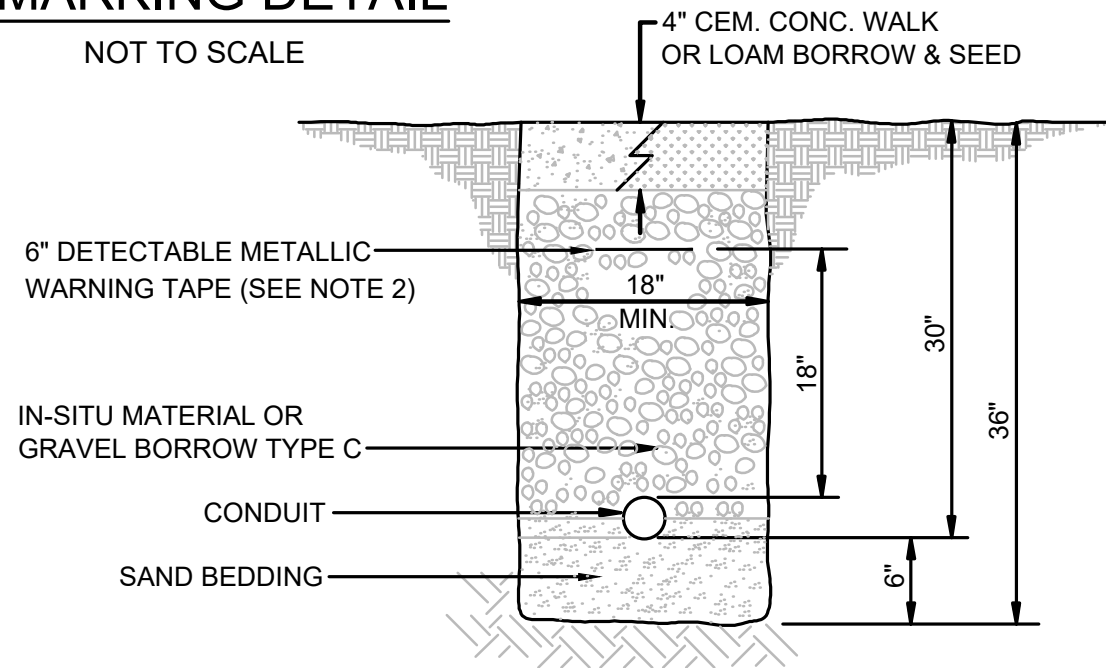
HELMETED BIKE LANE MARKING DETAIL
NOT TO SCALE



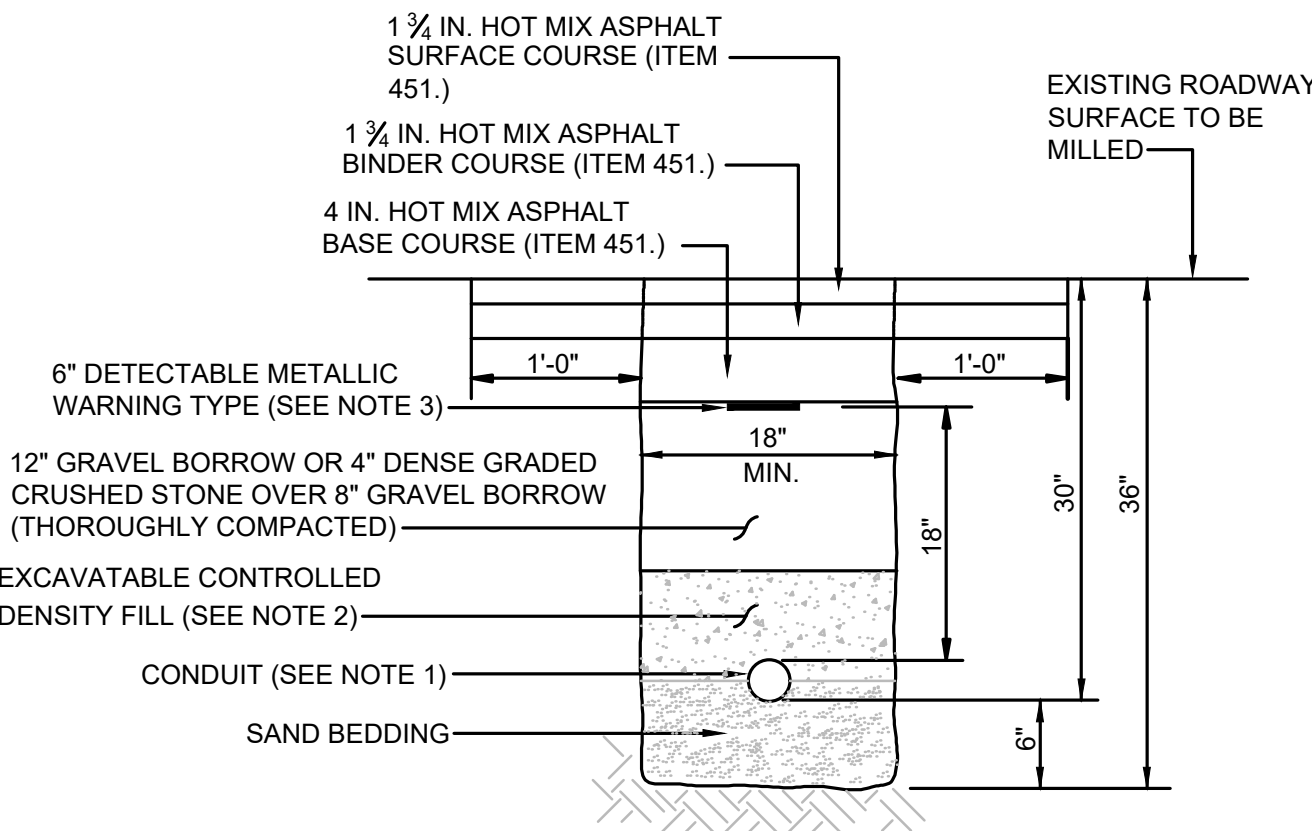
GREEN BICYCLE CROSSING @ AREA CONFLICTING WITH VEHICLES
NOT TO SCALE



CITY STANDARD CROSSWALK MARKINGS
NOT TO SCALE

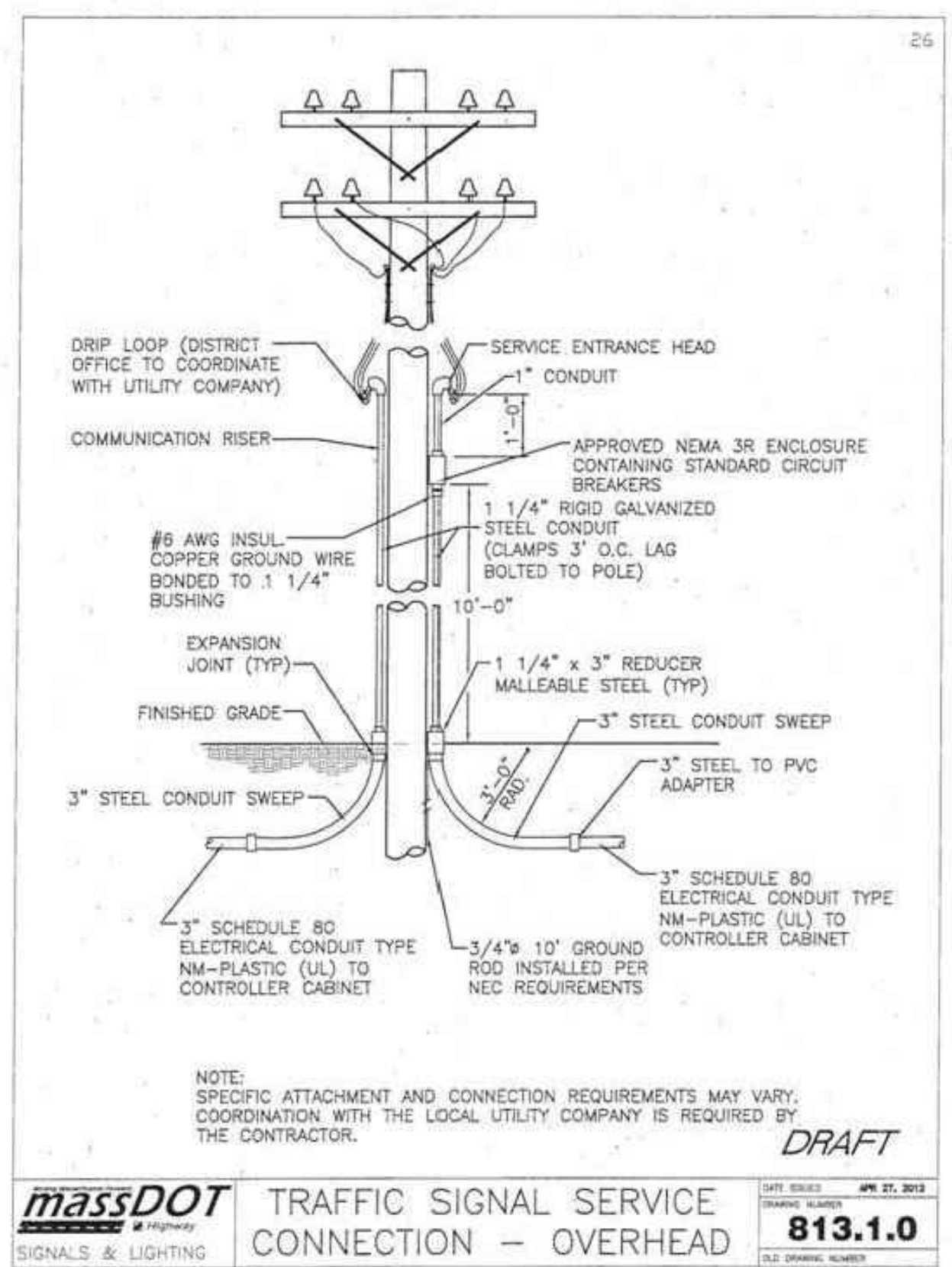


TRAFFIC SIGNAL CONDUIT TRENCH DETAIL (IN SIDEWALK OR LANDSCAPE AREA)
NOT TO SCALE



TRAFFIC SIGNAL CONDUIT TRENCH DETAIL (IN ROADWAY TO BE MILLED)
NOT TO SCALE

- NOTES:
- SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL), WITH PULL ROPE, UNLESS OTHERWISE APPROVED BY MASSDOT.
 - CONTROLLED DENSITY FILL SHALL MEET THE REQUIREMENTS OF SUBSECTION M4.08.0.
 - WARNING TAPE COLOR SHALL BE PER APWA STANDARDS.
 - HMA SURFACE, INTERMEDIATE AND BASE COURSE SHALL BE PAID FOR UNDER ITEM 451.
 - EXCAVATABLE CONTROLLED DENSITY FILL ONLY REQUIRED IN CONDUIT TRENCHES LOCATED WITHIN AREAS OF EXIST. ROADWAY PAVEMENT THAT DO NOT REQUIRE FULL DEPTH PAVEMENT CONSTRUCTION.



TRAFFIC SIGNAL SERVICE CONNECTION - OVERHEAD
813.1.0



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

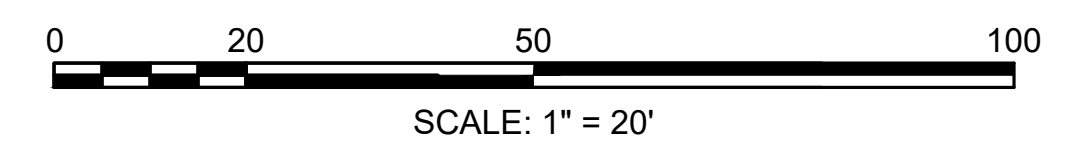
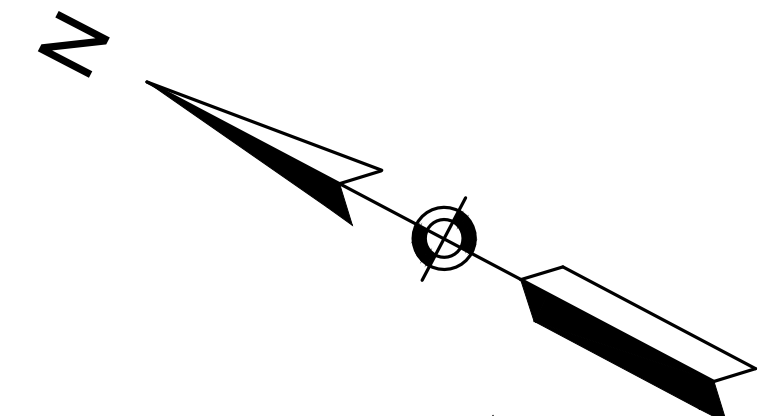
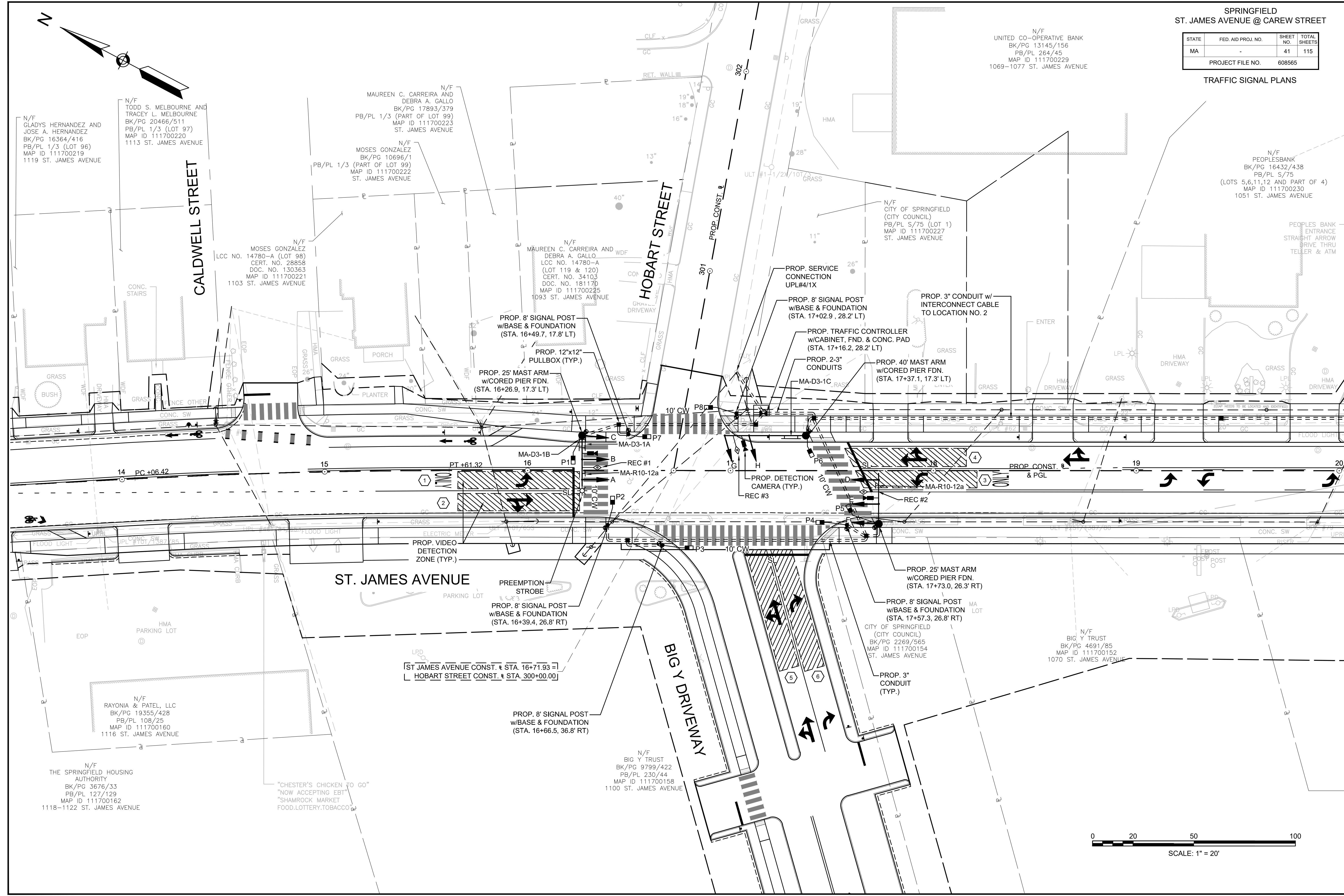
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	41	115

PROJECT FILE NO. 608565

TRAFFIC SIGNAL PLANS

N/F
UNITED CO-OPERATIVE BANK
BK/PG 13145/156
PB/PL 264/45
MAP ID 111700229
1069-1077 ST. JAMES AVENUE

N/F
PEOPLESBANK
BK/PG 16432/438
PB/PL S/75
(LOTS 5,6,11,12 AND PART OF 4)
MAP ID 111700230
1051 ST. JAMES AVENUE



608565_HD (TS)DWG Picked on 4-Jun-2020 10:23 PM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	42	115
PROJECT FILE NO.		608565	

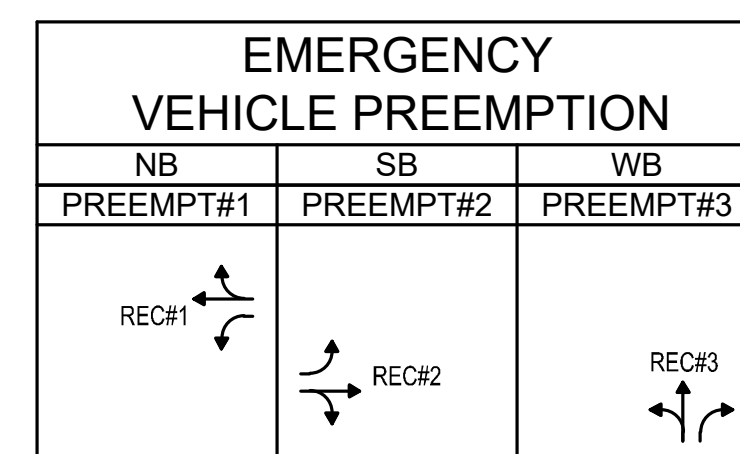
TRAFFIC SIGNAL PLANS

LOCATION NO. 1
ST. JAMES AVENUE @ HOBART STREET &
BIG Y DRIVEWAY

TABLE 2-1: LOCATION NO. 1
ST. JAMES AVENUE @ HOBART ST/BIG Y DRIVEWAY
COORDINATION DATA
(ALL ENTRIES IN SECONDS)

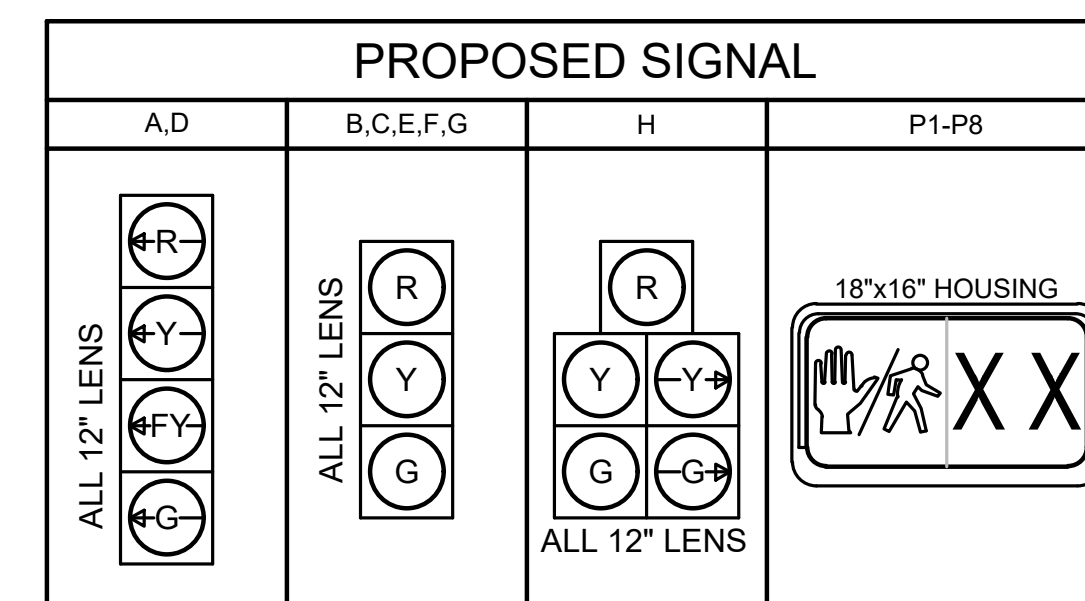
	PLAN 1 M-F: 0700-1200	PLAN 2 M-F: 1200-1900	PLAN 3 SAT & SUN:
CYCLE	80	120	80
OFFSET	19	18	19
SPLIT TIME Ø1	10	12	10
SPLIT TIME Ø2	46	84	46
SPLIT TIME Ø3	--	--	--
SPLIT TIME Ø4	24	24	24
SPLIT TIME Ø5	10	20	10
SPLIT TIME Ø6	46	76	46
SPLIT TIME Ø7	--	--	--
SPLIT TIME Ø8	--	--	--

1. OFFSET IS REFERENCE TO THE END OF COORDINATED Ø2 AND Ø6.
2. Ø2 & Ø6 "CALL NOT ACTUATED" DURING COORDINATION.
3. PLAN FORCE OFF SHALL BE IN EFFECT.
4. SPLIT TIMES EQUAL TO GREEN PLUS CLEARANCES.
5. MAX 2 & 3 TERMINATIONS SHALL BE IN EFFECT DURING COORDINATION.
6. YIELD MODE COORDINATION SHALL BE IN EFFECT.



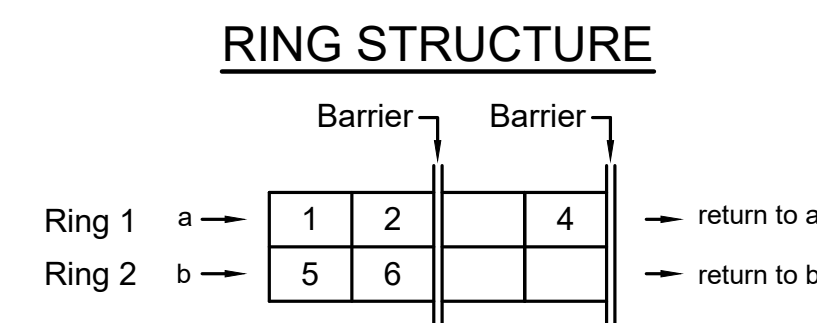
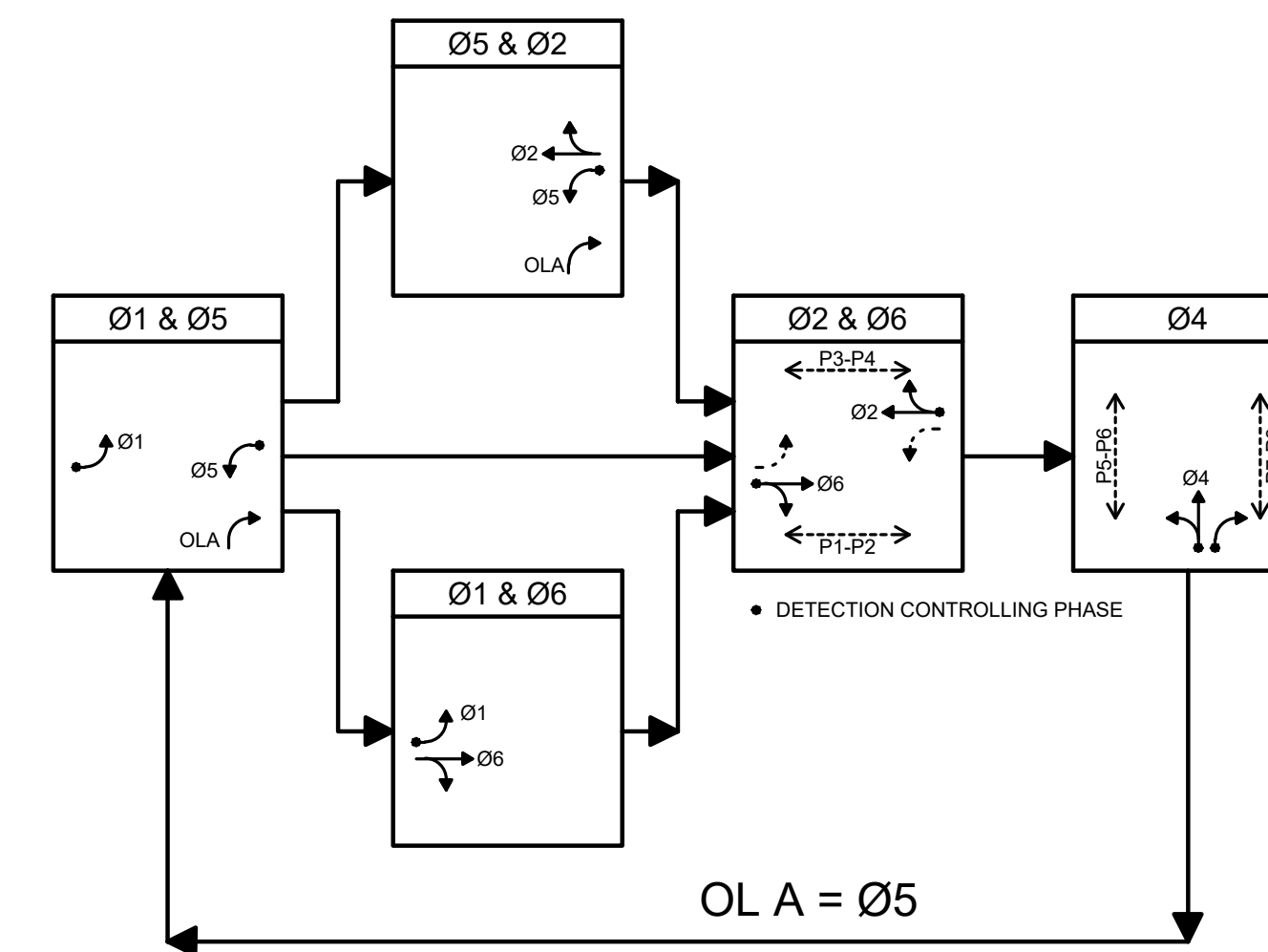
EMERGENCY VEHICLE PREEMPTION OPERATION

- EMERGENCY VEHICLE PREEMPTION SIGNAL SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS (RECEIVERS) LOCATED AT THE INTERSECTION.
- PREEMPTION SIGNALS SHALL BE SERVICED ON A FIRST COME FIRST SERVED BASIS. IN CASE WHERE TWO OR MORE CALLS ARE COMING IN AT THE SAME TIME, PREEMPTION SHALL BE PRIORITIZED WITH PREEMPT #1 (ST. JAMES AVENUE NB) FIRST, THEN FOLLOW BY PREEMPT #2 (ST. JAMES AVENUE SB) AND PREEMPT #3 (BIG Y DRIVEWAY EB).
- IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED BY OPTICAL DETECTOR REC#1 (OR REC#2, REC#3), THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PREEMPTION SIGNAL #1 (OR #2, #3) GREEN FOR A MINIMUM OF TEN (10) SECONDS OR UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME THE RELEVANT CLEARANCE INTERVALS AND SERVICE THE SUBSEQUENT EMERGENCY VEHICLE PREEMPTION SIGNAL IF NECESSARY. NORMAL SIGNAL OPERATION SHALL RESUME PROVIDED THAT ALL PREEMPTION SIGNALS HAVE CEASED.
- NORMAL VEHICLE CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PREEMPTION DEMAND.
- PREEMPTION STROBE SHALL BE ILLUMINATED ONLY WHEN THE PREEMPTION PHASE IS ON GREEN.



- NOTES: 1. ALL INDICATIONS SHALL BE "LED" TYPE LENS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
2. ALL OVERHEAD SIGNALS SHALL BE RIGIDLY MOUNTED. ALL SIGNAL HEADS SHALL BE EQUIPPED WITH CUT TUNNEL VISORS AND 5" SOLID BACKPLATES.
3. ALL VEHICLE SIGNAL HEAD BACKPLATES SHALL INCLUDE 3" YELLOW RETRO-REFLECTIVE BORDER IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
4. ALL PEDESTRIAN DISPLAY SHALL BE "FULL" DISPLAYS. NO OUTLINE SYMBOL SHALL BE PERMITTED.

PREFERENTIAL PHASE SEQUENCE



	Ø1	Ø2	Ø4	Ø5	Ø6	
FULLY-ACTUATED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SEMI-ACTUATED	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRE-TIMED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SEQUENCE AND TIMING

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	FLASH OPER.
ST. JAMES AVENUE	NB	A	RL	RL	RL	FYL	YL	RL	RL	RL	RL	GL	YL	RL	RL	RL	RL	FYL
ST. JAMES AVENUE	NB	B,C	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	FY
ST. JAMES AVENUE	SB	D	GL	YL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	FYL	YL	RL	FYL
ST. JAMES AVENUE	SB	E,F	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	FY
BIG Y DRIVEWAY	EB	G	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FR
BIG Y DRIVEWAY	EB	H	R	R	R	R	R	R	G	Y	R	GR	YR	R	R	R	R	FR
PEDESTRIAN	ALL	P1-P8	DW	DW	DW	W/FDW	DW	W/FDW	DW	DW	DW	DW	DW	DW	W/FDW	DW	DW	OUT

TIMING IN SECONDS

	5	10	7	5	10	EMERGENCY
MINIMUM INITIAL	5	10	7	5	10	
PASSAGE	3	3	3	3	3	
MAXIMUM 1 (FREE OPERATION)	10	40	18	10	40	
MAXIMUM 2 (PLAN 1 & PLAN 3)	5	40	18	5	40	
MAXIMUM 3 (PLAN 2)	7	78	18	15	70	
CHANGE	3	2	4	3	2	
PEDESTRIAN		7/21	3		7/21	3
RECALL	OFF	MIN	OFF	OFF	MIN	
MEMORY	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	

* SEE TABLE 2-1 FOR SPLITS

MAJOR ITEMS REQUIRED

QUANTITY	DESCRIPTION
1	ADVANCE TRAFFIC CONTROLLER (ATC) AND NEMA TS2 CABINET WITH FOUNDATION AND CONC. PAD
1	SERVICE CONNECTION (OVERHEAD FROM RELOC. UTILITY POLE #4/1X)
2	25' MAST ARM ASSEMBLY, BASE & FDN.
1	40' MAST ARM ASSEMBLY, BASE & FDN.
5	8' SIGNAL POST, BASE & FDN.
5	SIGNAL HEAD, 3 SECTION
2	SIGNAL HEAD, 4 SECTION
1	SIGNAL HEAD, 5 SECTION
8	PEDESTRIAN HOUSING GRAPHIC LED WITH COUNTDOWN TIMER
8	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSH BUTTON (APS TYPE) INTEGRATED R10-3e SIGN & SADDLE w/LED CONFIRMATION LIGHT
3	DETECTION SYSTEM WITH CAMERA(S), AND PROCESSORS THAT IS CAPABLE OF STOP LINE PRESENT DETECTION, HIGH SPEED DILEMMA ZONE DETECTION AND BICYCLE DETECTION AS SHOWN ON THE PLAN
3	UNDIRECTIONAL SINGLE CHANNEL OPTICAL DETECTOR (RECEIVER)
2	PREEMPTION 2-CHANNEL PHASE SELECTOR WITH DUAL MODE
1	PREEMPTION CONFIRMATION STROBE (CLEAR)
5	PULL BOX 12"x12" - SD2.031 (PAY SEPARATELY UNDER ITEM 811.31)

PLUS ALL MISCELLANEOUS EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL

TRAFFIC CONTROLLER DATA

PARAMETER	SELECTION
PHASE ASSIGNMENTS	STD. NEMA
OVERLAPS	STD. NEMA
RINGS	DUAL
DUAL ENTRY	ON (PHASE 2 & 6)
SIMULTANEOUS GAP OUT DISABLED	YES (PHASE 2 & 6)
MINIMUM YELLOW IN SECONDS	3
MAX II BY INTERNAL CLOCK	YES
NIGHT TIME FLASH BY INTERNAL CLOCK	NOT USED
TYPE OF INTERCONNECT TO MASTER	INTERCONNECT CABLE
REMOTE MUTCD FLASH BY MASTER	YES

DETECTION DATA

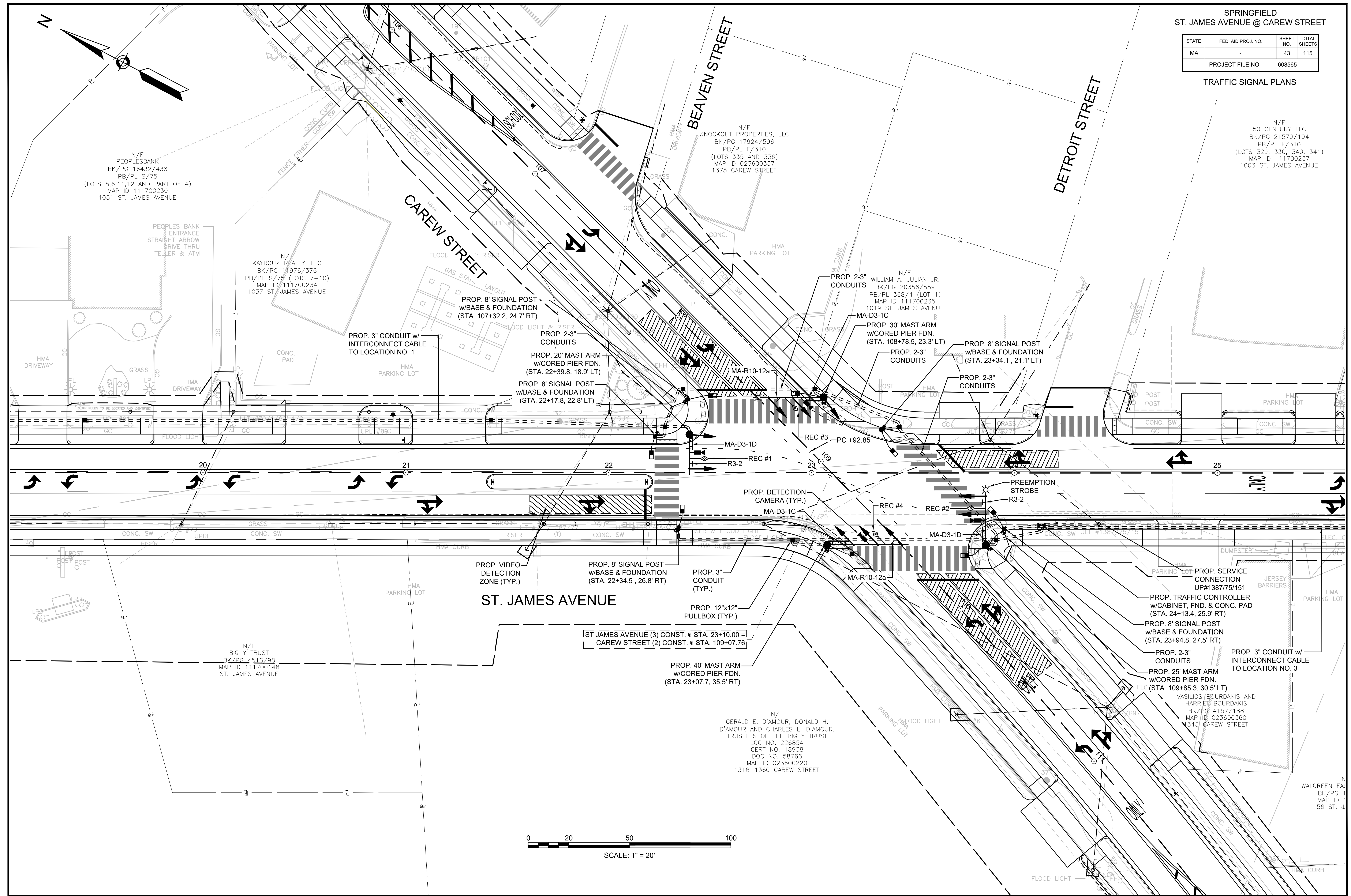
DETECTION ZONE NO.	LOCATION	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
1	ST. JAMES AVENUE SB LEFT	1	1	B	-	-
2	ST. JAMES AVENUE SB THRU/RIGHT	6	6	B	-	-
3	ST. JAMES AVENUE NB LEFT	5	5	B	-	-
4	ST. JAMES AVENUE NB THRU/RIGHT	2	2	B	-	-
5	BIG Y DRIVEWAY EB LEFT/THRU	4	4	B	-	-
6	BIG Y DRIVEWAY EB RIGHT	4	4&5	A	-	2 SEC

SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	43	115
PROJECT FILE NO.		608565	

TRAFFIC SIGNAL PLANS

N/F
50 CENTURY LLC
BK/PG 21579/194
PB/PL F/310
(LOTS 329, 330, 340, 341)
MAP ID 111700237
1003 ST. JAMES AVENUE



N/F
PEOPLESBANK
BK/PG 16432/438
PB/PL S/75
(LOTS 5,6,11,12 AND PART OF 4)
MAP ID 111700230
1051 ST. JAMES AVENUE

N/F
KAYROUZ REALTY, LLC
BK/PG 11976/376
PB/PL S/75 (LOTS 7-10)
MAP ID 111700234
1037 ST. JAMES AVENUE

N/F
KNOCKOUT PROPERTIES, LLC
BK/PG 17924/596
PB/PL F/310
(LOTS 335 AND 336)
MAP ID 023600357
1375 CAREW STREET

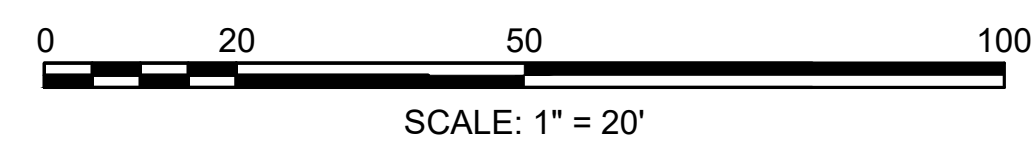
N/F
WILLIAM A. JULIAN JR.
BK/PG 20356/559
PB/PL 368/4 (LOT 1)
MAP ID 111700235
1019 ST. JAMES AVENUE

N/F
BIG Y TRUST
BK/PG 4516/98
MAP ID 111700148
ST. JAMES AVENUE

N/F
GERALD E. D'AMOUR, DONALD H.
D'AMOUR AND CHARLES L. D'AMOUR,
TRUSTEES OF THE BIG Y TRUST
LCC NO. 22685A
CERT NO. 18938
DOC NO. 58766
MAP ID 023600220
1316-1360 CAREW STREET

VASILIOS / BOURDAKIS AND
HARRIET / BOURDAKIS
BK/PG 4157/188
MAP ID 023600360
1343 CAREW STREET

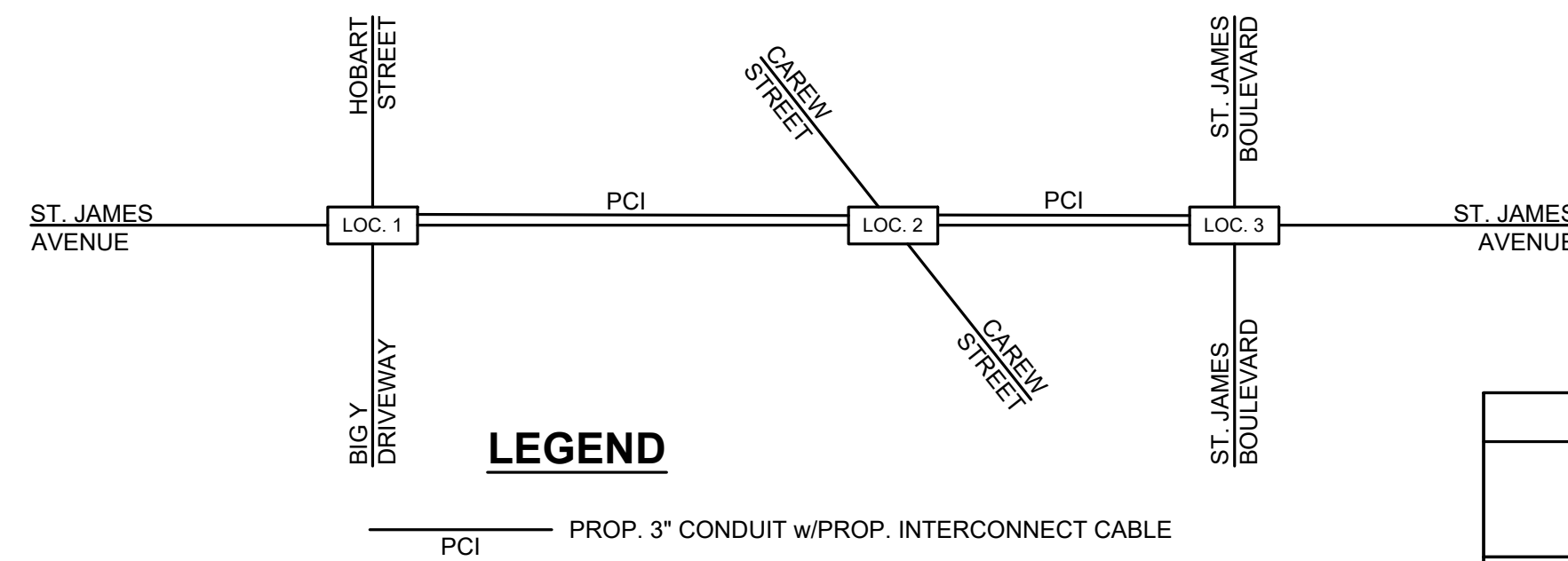
WALGREEN EA
BK/PG 1
MAP ID
56 ST. J



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	44	115
PROJECT FILE NO.		608565	

TRAFFIC SIGNAL PLANS

SCHEMATIC OF INTERCONNECT SYSTEM



LEGEND

PCI PROP. 3" CONDUIT w/PROP. INTERCONNECT CABLE

LOCATION NO. 2 (MASTER)
ST. JAMES AVENUE @ CAREW STREET

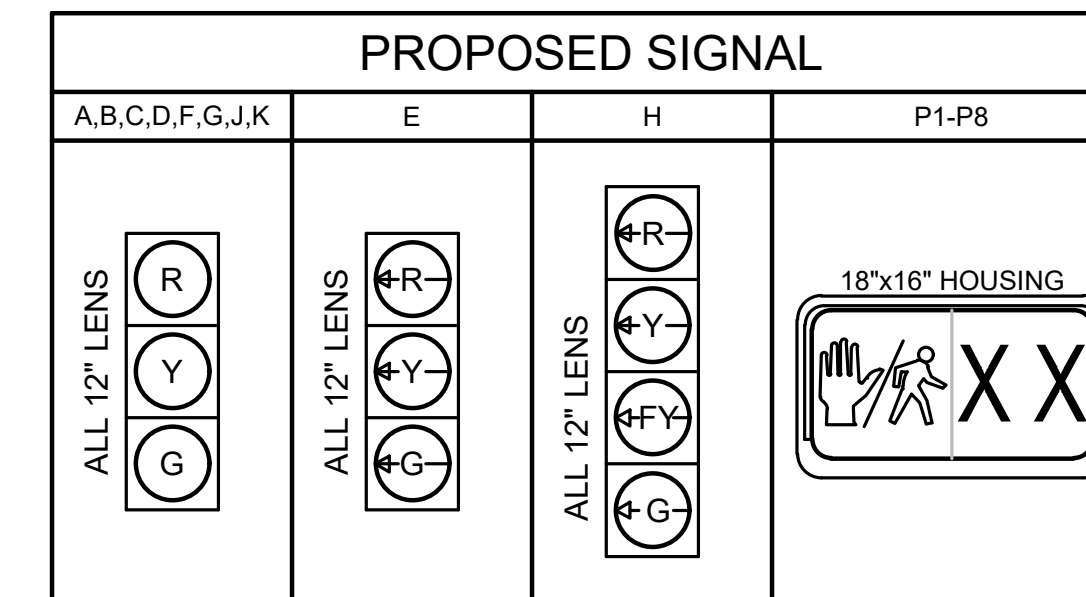
MASTER PROGRAM			
SUB SYSTEM#1			
ST. JAMES AVENUE			
DAILY & WEEKLY PROGRAM			
	MONDAY - FRIDAY	SATURDAY	SUNDAY
PLAN 1 80" CYCLE	0700 - 1200	-	-
PLAN 2 120" CYCLE	1200 - 1900	-	-
PLAN 3 80" CYCLE	-	1000 - 1800	1000 - 1800
FREE OPERATION	0000 - 0700 1900 - 2400	0000 - 1000 1800 - 2400	0000 - 1000 1800 - 2400
FLASH OPERATION	-	-	-

LOCATION NO. 1: ST. JAMES AVENUE @ HOBART STREET/BIG Y DRIVEWAY ----- LOCAL
LOCATION NO. 2: ST. JAMES AVENUE @ CAREW STREET ----- MASTER
LOCATION NO. 3: ST. JAMES AVENUE @ ST. JAMES BOULEVARD (RTE. 20A) ----- LOCAL

TABLE 2-2: LOCATION NO. 2
ST. JAMES AVENUE @ CAREW STREET
COORDINATION DATA
(ALL ENTRIES IN SECONDS)

	PLAN 1 M-F: 0700-1200		PLAN 2 M-F: 1200-1900		PLAN 3 SAT & SUN:	
CYCLE	80		120		80	
OFFSET	0		0		0	
	w/o Ø9	w/ Ø9	w/o Ø9	w/ Ø9	w/o Ø9	w/ Ø9
SPLIT TIME Ø1	--	--	--	--	--	--
SPLIT TIME Ø2	45	27	77	59	45	27
SPLIT TIME Ø3	16	13	17	14	16	13
SPLIT TIME Ø4	19	14	26	21	19	14
SPLIT TIME Ø5	--	--	--	--	--	--
SPLIT TIME Ø6	45	27	77	59	45	27
SPLIT TIME Ø7	12	11	14	12	12	11
SPLIT TIME Ø8	23	16	29	23	23	16
SPLIT TIME Ø9	--	26	--	26	--	26

- OFFSET IS REFERENCE TO THE END OF COORDINATED Ø2 AND Ø6.
- Ø2 & Ø6 "CALL NOT ACTUATED" DURING COORDINATION.
- PLAN FORCE OFF SHALL BE IN EFFECT.
- SPLIT TIMES EQUAL TO GREEN PLUS CLEARANCES.
- MAX 2 & 3 TERMINATIONS SHALL BE IN EFFECT DURING COORDINATION.
- YIELD MODE COORDINATION SHALL BE IN EFFECT.

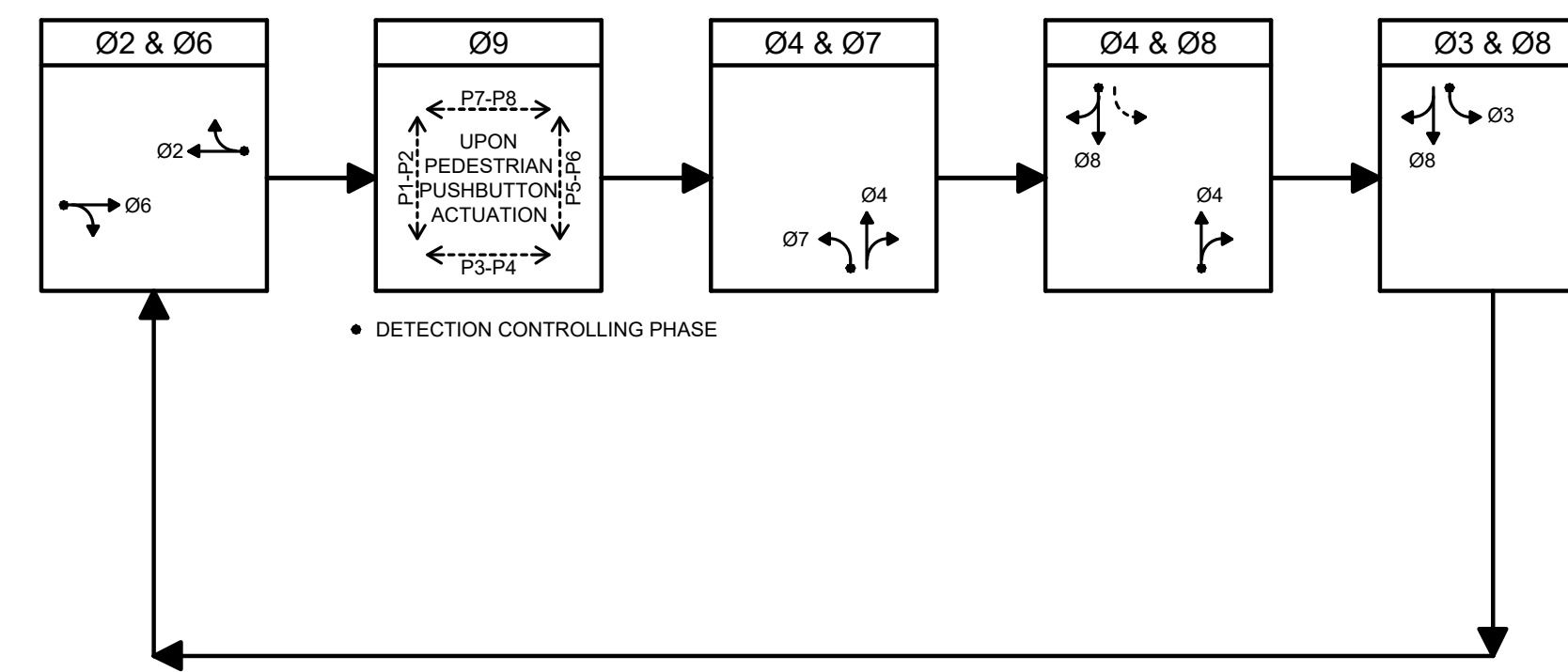


- NOTES:
- ALL INDICATIONS SHALL BE "LED" TYPE LENS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
 - ALL OVERHEAD SIGNALS SHALL BE RIGIDLY MOUNTED. ALL SIGNAL HEADS SHALL BE EQUIPPED WITH CUT TUNNEL VISORS AND 5" SOLID BACKPLATES.
 - ALL VEHICLE SIGNAL HEAD BACKPLATES SHALL INCLUDE 3" YELLOW RETRO-REFLECTIVE BORDER IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
 - ALL PEDESTRIAN DISPLAY SHALL BE "FULL" DISPLAYS. NO OUTLINE SYMBOL SHALL BE PERMITTED.

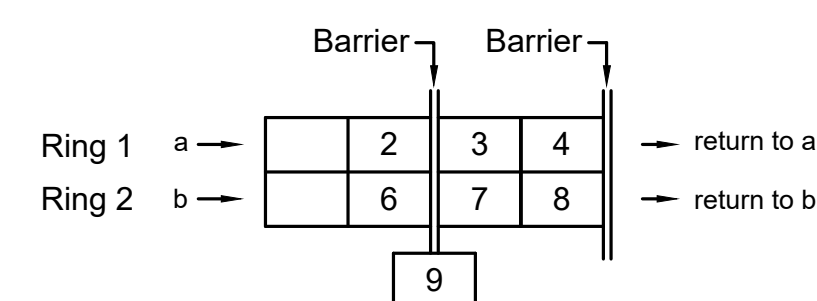
QUANTITY	DESCRIPTION
1	ADVANCE TRAFFIC CONTROLLER (ATC) AND NEMA TS2 CABINET WITH FOUNDATION AND CONC. PAD
1	ON-STREET MASTER CONTROLLER (TO LOCATE IN THE SAME CABINET)
1	SERVICE CONNECTION (OVERHEAD FROM RELOC. UTILITY POLE #138775/151)
1	20' MAST ARM ASSEMBLY, BASE & FDN.
1	25' MAST ARM ASSEMBLY, BASE & FDN.
1	30' MAST ARM ASSEMBLY, BASE & FDN.
1	40' MAST ARM ASSEMBLY, BASE & FDN.
5	8' SIGNAL POST, BASE & FDN.
9	SIGNAL HEAD, 3 SECTION
1	SIGNAL HEAD, 4 SECTION
8	PEDESTRIAN HOUSING GRAPHIC LED WITH COUNTDOWN TIMER
8	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSH BUTTON (APS TYPE) INTEGRATED R10-3e SIGN & SADDLE w/LED CONFIRMATION LIGHT
4	DETECTION SYSTEM WITH CAMERA(S), AND PROCESSORS THAT IS CAPABLE OF STOP LINE PRESENT DETECTION, HIGH SPEED DILEMMA ZONE DETECTION AND BICYCLE DETECTION AS SHOWN ON THE PLAN
4	UNDIRECTIONAL SINGLE CHANNEL OPTICAL DETECTOR (RECEIVER)
2	PREEMPTION 2-CHANNEL PHASE SELECTOR WITH DUAL MODE
2	PREEMPTION CONFIRMATION STROBE (CLEAR)
6	PULL BOX 12"x12" - SD2.031 (PAY SEPARATELY UNDER ITEM 811.31)

PLUS ALL MISCELLANEOUS EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL.

PREFERENTIAL PHASE SEQUENCE



RING STRUCTURE



EMERGENCY VEHICLE PREEMPTION			
NB	SB	EB	WB
PREEMPT#1	PREEMPT#2	PREEMPT#3	PREEMPT#4
REC#1	REC#2	REC#3	REC#4

EMERGENCY VEHICLE PREEMPTION OPERATION

- EMERGENCY VEHICLE PREEMPTION SIGNAL SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS (RECEIVERS) LOCATED AT THE INTERSECTION.
- PREEMPTION SIGNALS SHALL BE SERVICED ON A FIRST COME FIRST SERVED BASIS. IN CASE WHERE TWO OR MORE CALLS ARE COMING IN AT THE SAME TIME, PREEMPTION SHALL BE PRIORITIZED WITH PREEMPT #1 (ST. JAMES AVENUE NB) FIRST, THEN FOLLOW BY PREEMPT #2 (ST. JAMES AVENUE SB), THEN FOLLOW BY PREEMPT #3 (CAREW STREET EB) AND PREEMPT #4 (CAREW STREET WB).
- IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED BY OPTICAL DETECTOR REC#1 (OR REC#2, REC#3, REC#4), THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PREEMPTION SIGNAL #1 (OR #2, #3, #4) GREEN FOR A MINIMUM OF TEN (10) SECONDS OR UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME THE RELEVANT CLEARANCE INTERVALS AND SERVICE THE SUBSEQUENT EMERGENCY VEHICLE PREEMPTION SIGNAL IF NECESSARY. NORMAL SIGNAL OPERATION SHALL RESUME PROVIDED THAT ALL PREEMPTION SIGNALS HAVE CEASED.
- NORMAL VEHICLE CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PREEMPTION DEMAND.
- PREEMPTION STROBE SHALL BE ILLUMINATED ONLY WHEN THE PREEMPTION PHASE IS ON GREEN.

	Ø2	Ø3	Ø4	Ø6	Ø7	Ø8	Ø9
FULLY-ACTUATED	<input checked="" type="checkbox"/>	ISOLATED	<input type="checkbox"/>				
SEMI-ACTUATED	<input type="checkbox"/>	COORDINATED/ INTERCONNECTED	<input checked="" type="checkbox"/>				
PRE-TIMED	<input type="checkbox"/>	EXIST. WIRELESS BROADBAND	<input type="checkbox"/>				

SEQUENCE AND TIMING																								
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	FLASH OPER.
ST. JAMES AVENUE	NB	A,B	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
ST. JAMES AVENUE	SB	C,D	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	FY
CAREW STREET	EB	E	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	GL	YL	RL	RL	RL	RL	RL	RL	RL	FRL
CAREW STREET	EB	F,G	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	FR
CAREW STREET	WB	H	RL	RL	RL	GL	YL	RL	RL	RL	RL	RL	RL	RL	RL	RL	FYL	YL	RL	RL	RL	RL	FRL	
CAREW STREET	WB	J,K	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
PEDESTRIAN	ALL	P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT	
TIMING IN SECONDS																								
MINIMUM INITIAL			10			5			10			10			5			10						
PASSAGE			3			3			3			3			3			3						
MAXIMUM 1 (FREE OPERATION)			40			10			17			40			6			21						
MAXIMUM 2 (PLAN 1 & PLAN 3)			39			10			13.5			39			6			17.5						
MAXIMUM 3 (PLAN 2)			71			11			20.5			71			8			23.5						
CHANGE			4	2		3	3		3.5	2		4	2		3	3		3.5	2					
PEDESTRIAN																						7/15	4	
RECALL			MIN			OFF			OFF			MIN			OFF			OFF						
MEMORY			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING						

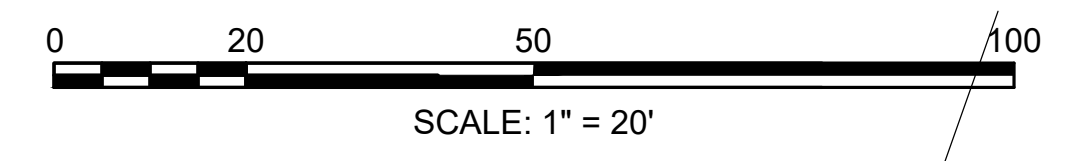
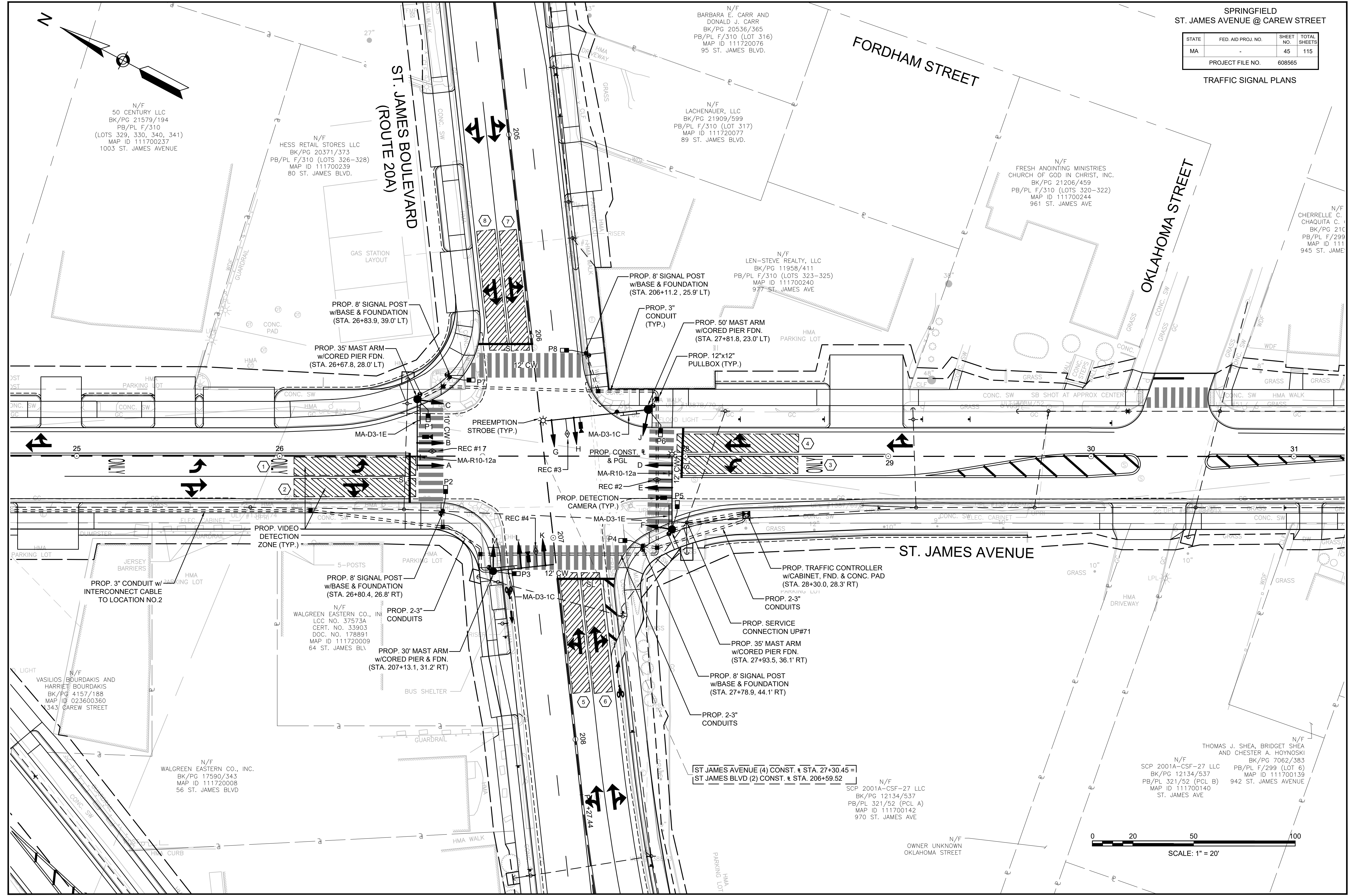
* SEE TABLE 2-2 FOR SPLITS

TRAFFIC CONTROLLER DATA	
PARAMETER	SELECTION
PHASE ASSIGNMENTS	STD. NEMA
OVERLAPS	STD. NEMA
RINGS	DUAL
DUAL ENTRY	ON (PHASE 2&6) (PHASE 4&8)
SIMULTANEOUS GAP OUT DISABLED	YES (PHASE 2&6) (PHASE 4&8)
MINIMUM YELLOW IN SECONDS	3
MAX II BY INTERNAL CLOCK	YES
NIGHT TIME FLASH BY INTERNAL CLOCK	NOT USED
TYPE OF INTERCONNECT TO MASTER	INTERCONNECT CABLE
REMOTE MUTCD FLASH BY MASTER	YES

DETECTION DATA						
DETECTION ZONE NO.	LOCATION	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
1	ST. JAMES AVENUE SB THRU/RIGHT	6	6	B	-	-
2	ST. JAMES AVENUE NB THRU/RIGHT	2	2	B	-	-
3	CAREW STREET EB LEFT	7	7	B	-	-
4	CAREW STREET EB THRU/RIGHT	4	4	B	-	-
5	CAREW STREET WB LEFT	3	3	B	-	-
6	CAREW STREET WB THRU/RIGHT	8	8	B	-	-

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		45	115
PROJECT FILE NO.		608565	

TRAFFIC SIGNAL PLANS



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	46	115
PROJECT FILE NO.		608565	

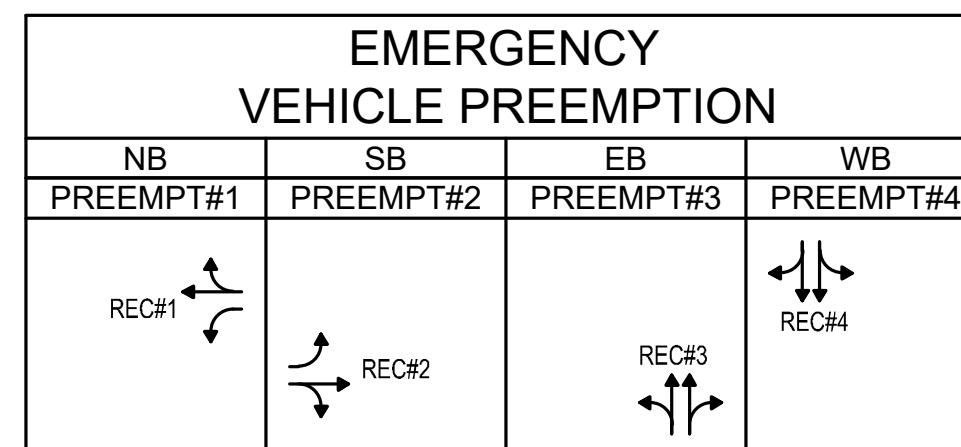
TRAFFIC SIGNAL PLANS

LOCATION NO. 3
ST. JAMES AVENUE @ ST. JAMES
BOULEVARD (ROUTE 20A)

TABLE 2-3: LOCATION NO. 3
ST. JAMES AVENUE @ ST. JAMES BOULEVARD (ROUTE 20A)
COORDINATION DATA
(ALL ENTRIES IN SECONDS)

	PLAN 1 M-F: 0700-1200		PLAN 2 M-F: 1200-1900		PLAN 3 SAT & SUN:	
	w/o Ø9	w/ Ø9	w/o Ø9	w/ Ø9	w/o Ø9	w/ Ø9
CYCLE	80		120		80	
OFFSET	70		109		70	
SPLIT TIME Ø1	10	10	20	13	10	10
SPLIT TIME Ø2	39	18	60	51	39	18
SPLIT TIME Ø3	14	11	16	11	14	11
SPLIT TIME Ø4	17	16	24	20	17	16
SPLIT TIME Ø5	--	--	--	--	--	--
SPLIT TIME Ø6	49	28	80	64	49	28
SPLIT TIME Ø7	--	--	--	--	--	--
SPLIT TIME Ø8	31	27	40	31	31	27
SPLIT TIME Ø9	--	25	--	25	--	25

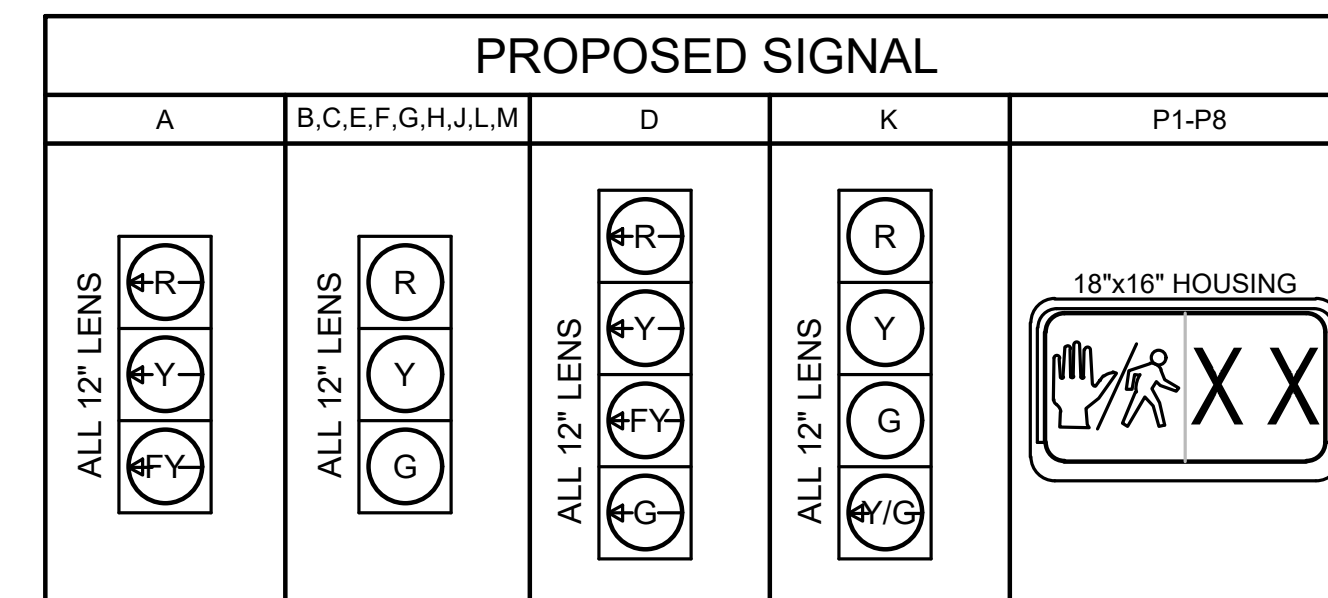
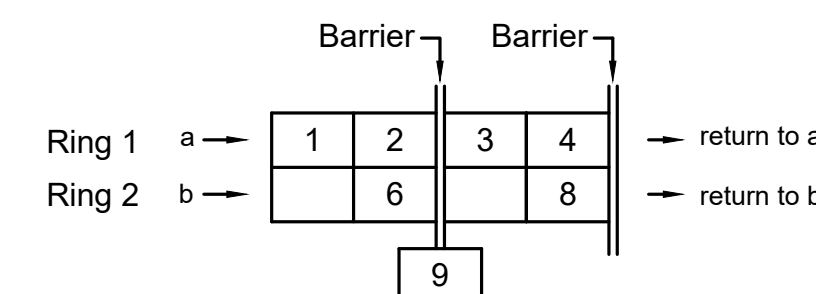
1. OFFSET IS REFERENCE TO THE END OF COORDINATED Ø2 AND Ø6.
2. Ø2 & Ø6 "CALL NOT ACTUATED" DURING COORDINATION.
3. PLAN FORCE OFF SHALL BE IN EFFECT.
4. SPLIT TIMES EQUAL TO GREEN PLUS CLEARANCES.
5. MAX 2 & 3 TERMINATIONS SHALL BE IN EFFECT DURING COORDINATION.
6. YIELD MODE COORDINATION SHALL BE IN EFFECT.



EMERGENCY VEHICLE PREEMPTION OPERATION

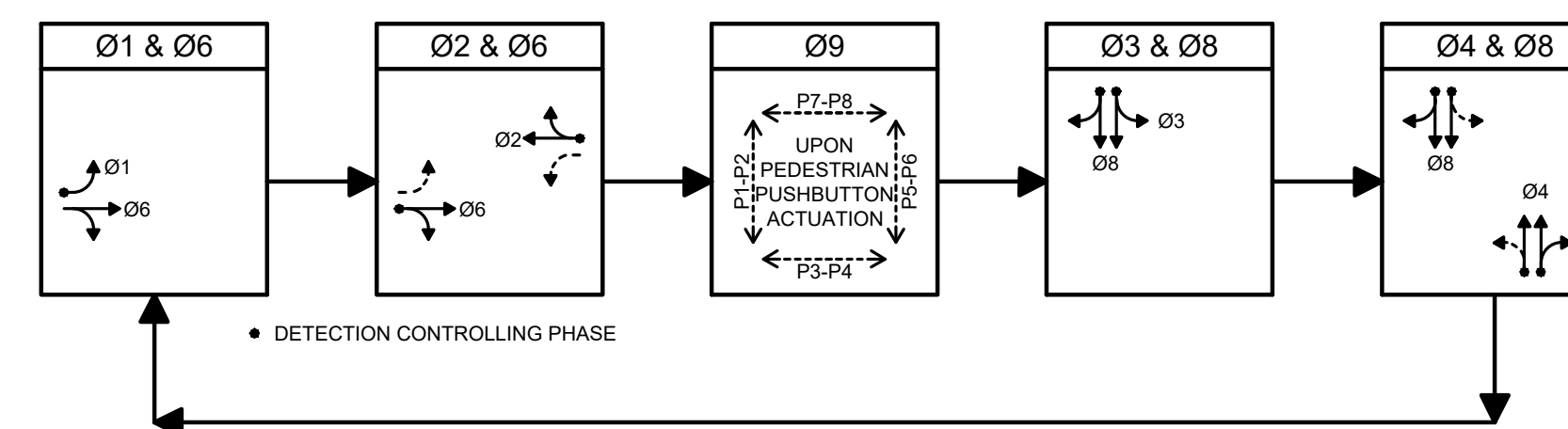
1. EMERGENCY VEHICLE PREEMPTION SIGNAL SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS (RECEIVERS) LOCATED AT THE INTERSECTION.
2. PREEMPTION SIGNALS SHALL BE SERVICED ON A FIRST COME FIRST SERVED BASIS. IN CASE WHERE TWO OR MORE CALLS ARE COMING IN AT THE SAME TIME, PREEMPTION SHALL BE PRIORITIZED WITH PREEMPT #1 (ST. JAMES AVENUE NB) FIRST, THEN FOLLOW BY PREEMPT #2 (ST. JAMES AVENUE SB), THEN FOLLOW BY PREEMPT #3 (ST. JAMES BOULEVARD (RTE. 20A) EB) AND PREEMPT #4 (ST. JAMES BOULEVARD (RTE. 20A) WB).
3. IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED BY OPTICAL DETECTOR REC#1 (OR REC#2, REC#3, REC#4), THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PREEMPTION SIGNAL #1 (OR #2, #3, #4) GREEN FOR A MINIMUM OF TEN (10) SECONDS OR UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME THE RELEVANT CLEARANCE INTERVALS AND SERVICE THE SUBSEQUENT EMERGENCY VEHICLE PREEMPTION SIGNAL IF NECESSARY. NORMAL SIGNAL OPERATION SHALL RESUME PROVIDED THAT ALL PREEMPTION SIGNALS HAVE CEASED.
4. NORMAL VEHICLE CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PREEMPTION DEMAND.
5. PREEMPTION STROBE SHALL BE ILLUMINATED ONLY WHEN THE PREEMPTION PHASE IS ON GREEN.

RING STRUCTURE



- NOTES: 1. ALL INDICATIONS SHALL BE "LED" TYPE LENS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
2. ALL OVERHEAD SIGNALS SHALL BE RIGIDLY MOUNTED. ALL SIGNAL HEADS SHALL BE EQUIPPED WITH CUT TUNNEL VISORS AND 5" SOLID BACKPLATES.
3. ALL VEHICLE SIGNAL HEAD BACKPLATES SHALL INCLUDE 3" YELLOW RETRO-REFLECTIVE BORDER IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
4. ALL PEDESTRIAN DISPLAY SHALL BE "FULL" DISPLAYS. NO OUTLINE SYMBOL SHALL BE PERMITTED.

PREFERENTIAL PHASE SEQUENCE



	Ø1	Ø2	Ø3	Ø4	Ø6	Ø8	Ø9
FULLY-ACTUATED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SEMI-ACTUATED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRE-TIMED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SEQUENCE AND TIMING

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	FLASH OPER.		
ST. JAMES AVENUE	NB	A	RL	RL	RL	FYL	YL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	FYL		
ST. JAMES AVENUE	NB	B,C	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY		
ST. JAMES AVENUE	SB	D	GL	YL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	FYL	YL	RL	RL	RL	RL	RL	RL	RL	FYL		
ST. JAMES AVENUE	SB	E,F	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	FY		
ST. JAMES BOULEVARD (RTE. 20A)	EB	G,H,J	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	FR		
ST. JAMES BOULEVARD (RTE. 20A)	WB	K	R	R	R	R	R	R	GL	Y	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR		
ST. JAMES BOULEVARD (RTE. 20A)	WB	L,M	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR		
PEDESTRIAN	ALL	P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT		
TIMING IN SECONDS																										
MINIMUM INITIAL			5			10			5			10			10			10			10					
PASSAGE			3			3			3			3			3			3			3					
MAXIMUM 1 (FREE OPERATION)			10			33			8			11.5			48			25								
MAXIMUM 2 (PLAN 1 & PLAN 3)			5			33			8.5			11.5			43			25.5								
MAXIMUM 3 (PLAN 2)			15			54			10.5			18.5			74			34.5								
CHANGE				3	2		4	2		3	2.5		4	1.5		4	2		4	1.5						
PEDESTRIAN																						7/14	4			
RECALL			OFF			MIN			OFF			OFF			MIN			OFF				OFF				
MEMORY			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING				LOCKING				

* SEE TABLE 2-3 FOR SPLITS

MAJOR ITEMS REQUIRED

QUANTITY	DESCRIPTION
1	ADVANCE TRAFFIC CONTROLLER (ATC) AND NEMA TS2 CABINET WITH FOUNDATION AND CONC. PAD
1	SERVICE CONNECTION (OVERHEAD FROM RELOC. UTILITY POLE #71)
1	30' MAST ARM ASSEMBLY, BASE & FDN.
2	35' MAST ARM ASSEMBLY, BASE & FDN.
1	50' MAST ARM ASSEMBLY, BASE & FDN.
4	8' SIGNAL POST, BASE & FDN.
10	SIGNAL HEAD, 3 SECTION
2	SIGNAL HEAD, 4 SECTION
8	PEDESTRIAN HOUSING GRAPHIC LED WITH COUNTDOWN TIMER
8	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSH BUTTON (APS TYPE) INTEGRATED R10-3e SIGN & SADDLE w/LED CONFIRMATION LIGHT
4	DETECTION SYSTEM WITH CAMERA(S), AND PROCESSORS THAT IS CAPABLE OF STOP LINE PRESENT DETECTION, HIGH SPEED DILEMMA ZONE DETECTION AND BICYCLE DETECTION AS SHOWN ON THE PLAN
4	UNDIRECTIONAL SINGLE CHANNEL OPTICAL DETECTOR (RECEIVER)
2	PREEMPTION 2-CHANNEL PHASE SELECTOR WITH DUAL MODE
2	PREEMPTION CONFIRMATION STROBE (CLEAR)
6	PULL BOX 12"x12" - SD2.031 (PAY SEPARATELY UNDER ITEM 811.31)

PLUS ALL MISCELLANEOUS EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL

TRAFFIC CONTROLLER DATA

PARAMETER	SELECTION
PHASE ASSIGNMENTS	STD. NEMA
OVERLAPS	STD. NEMA
RINGS	DUAL
DUAL ENTRY	ON (PHASE 2&6) (PHASE 4&8)
SIMULTANEOUS GAP OUT DISABLED	YES (PHASE 2&6) (PHASE 4&8)
MINIMUM YELLOW IN SECONDS	3
MAX II BY INTERNAL CLOCK	YES
NIGHT TIME FLASH BY INTERNAL CLOCK	NOT USED
TYPE OF INTERCONNECT TO MASTER	INTERCONNECT CABLE
REMOTE MUTCD FLASH BY MASTER	YES

DETECTION DATA

DETECTION ZONE NO.	LOCATION	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
1	ST. JAMES AVENUE SB LEFT	1	1	B	-	-
2	ST. JAMES AVENUE SB THRU/RIGHT	6	6	B	-	-
3	ST. JAMES AVENUE NB LEFT	2	2	B	-	-
4	ST. JAMES AVENUE NB THRU/RIGHT	2	2	B	-	-
5	ST. JAMES BLVD EB LEFT/THRU	4	4	B	-	-
6	ST. JAMES BLVD EB THRU/RIGHT	4	4	B	-	-
7	ST. JAMES BLVD WB LEFT/THRU	3	3&8	B	-	-
8	ST. JAMES BLVD WB THRU/RIGHT	8	8	B	-	-

TRAFFIC MANAGEMENT NOTES

GENERAL

- ALL TRAFFIC MANAGEMENT AND WORK ZONE TRAFFIC CONTROL MEASURES SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), MASSDOT - HIGHWAY DIVISION'S "STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TRAFFIC MANAGEMENT PLANS", THE STANDARD SPECIFICATIONS, AND THE FOLLOWING NOTES.
- THE TEMPORARY TRAFFIC CONTROL PLANS CONTAINED HEREIN ARE GIVEN AS A GUIDE FOR TYPICAL WORK ZONE TRAFFIC CONTROL APPLICATIONS FOR THE TYPES OF WORK ANTICIPATED FOR THIS PROJECT. THEY ARE NOT INTENDED TO COVER ALL POSSIBLE CONSTRUCTION OPERATIONS WHICH THE CONTRACTOR MAY CHOOSE TO EMPLOY. WORK ZONE TRAFFIC CONTROL FOR OTHER CONSTRUCTION OPERATIONS OR OTHER TRAFFIC SITUATIONS IF APPLICABLE SHALL BE IN ACCORDANCE WITH THE REFERENCES LISTED IN NOTE NO. 1 AND AS APPROVED OR DIRECTED BY THE ENGINEER.
- WITH THE EXCEPTION OF THE PERMANENT LANE CLOSURES REQUIRED FOR STAGED CONSTRUCTION, LANE RESTRICTIONS MAY NOT REMAIN OVERNIGHT OR DURING NON-WORKING HOURS. AFTER EACH WORKING DAY, TRAFFIC CONTROL DEVICES THAT ARE NOT REQUIRED SHALL BE MOVED OFF THE ROADWAY OR FULL DEPTH CONSTRUCTION AREA AND PLACED SO AS NOT TO IMPEDE PEDESTRIAN AREAS. ABUTTER ACCESS OR CAUSE CONFUSION TO MOTORISTS. IN CERTAIN CIRCUMSTANCES, AND ONLY WITH THE APPROVAL OF MASSDOT AND THE ENGINEER, LANE RESTRICTIONS MAY REMAIN OVERNIGHT.
- CONTRACTOR SHALL PROVIDE A SAFE TEMPORARY PEDESTRIAN ACCESS WHERE EXISTING SIDEWALKS OR OTHER PEDESTRIAN AREAS ARE AFFECTED BY CONSTRUCTION WORK. CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
- PLACE ALL CONSTRUCTION SIGNING, TRAFFIC CONTROL DEVICES AND TEMPORARY PAVEMENT MARKINGS FOR EACH PHASE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ONE (1) THRU TRAVEL LANE HAVING A MINIMUM WIDTH OF 11'-0" MUST BE PROVIDED FOR BOTH DIRECTIONS (LANE MAY BE SHARED AND DIRECTION OF TRAVEL TO ALTERNATE UNDER POLICE OFFICER OR FLAGGER CONTROL) DURING ALL PHASES OF CONSTRUCTION AS SHOWN ON THE TEMPORARY TRAFFIC CONTROL PLANS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. MINIMUM LANE WIDTH IS MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- WHEN WORK INFRINGES UPON THE TRAVELED WAY, WORK SHALL BE RESTRICTED TO OFF-PEAK HOURS ONLY (NORMALLY 9:00am TO 4:00pm, MONDAY TO FRIDAY). THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF ROAD CLOSURE.
- TAPER LENGTH FORMULAE FOR CHANNELIZATION DEVICES: ENGLISH UNITS:
 $L = W \times S$ FOR SPEED EQUAL TO OR GREATER THAN 45 M.P.H.
 $L = WS^2 / 60$ FOR SPEED EQUAL TO OR LESS THAN 40 M.P.H.
 WHERE: L = MIN. LENGTH OF TAPER, S = POSTED SPEED, W = OFFSET WIDTH.
- ADVISORY SPEED LIMIT, IF USED, SHALL BE SET IN THE FIELD BY THE ENGINEER. W13-1P PLATES SHALL BE USED WHERE APPROPRIATE.
- FLASHING ARROW PANEL SHALL BE SET IN "ARROW MODE" WHEN USED FOR ACTUAL LANE CLOSURES ONLY. FOR SHOULDER CLOSURES, BULBS TO BE ILLUMINATED IN A NON-DIRECTIONAL CAUTION CONFIGURATION TO AVOID UNNECESSARY LANE SHIFTS.
- DISTANCES SHOWN ON THE TEMPORARY TRAFFIC CONTROL PLANS ARE A GUIDE ONLY, AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.

GRADE DIFFERENCES

- WHERE THERE IS A LONGITUDINAL DIFFERENCE IN ELEVATION BETWEEN EXISTING PAVEMENT AND ADJACENT TRAVEL SURFACE (UNDER REPAIR OR RECONSTRUCTION), THE CONTRACTOR SHALL PATCH A TEMPORARY HMA WEDGE WITH A 12:1 (OR FLATTER) SLOPE FOR SMOOTH TRANSITION. SEE DETAIL, THIS SHEET.
- CROSS-SECTIONAL GRADE DIFFERENCES IN EXCESS OF 2" DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF REFLECTORIZED DRUMS.
- CROSS-SECTIONAL GRADE DIFFERENCES IN EXCESS OF 4" DURING NON-WORKING HOURS SHALL BE PROTECTED BY BACKFILLING WITH A WEDGE OF EARTHWORK TO BE COMPACTED AT 4:1 SLOPE AND WILL ALSO REQUIRE DELINEATION BY USE OF DRUMS.
- A MINIMUM SLOPE OF 4:1 MUST BE MAINTAINED AFTER WORKING HOURS DURING SUBBASE AND BASE COURSE INSTALLATION ALONG EDGE OF THE TRAVELED WAY (SEE DETAIL, THIS SHEET). A MAXIMUM SLOPE OF 8:1 MUST BE MAINTAINED ON ALL ABUTTER ACCESS DRIVES AND A MAXIMUM SLOPE OF 12:1 MUST BE MAINTAINED ON ALL SIDEWALKS.

CONSTRUCTION SIGNING

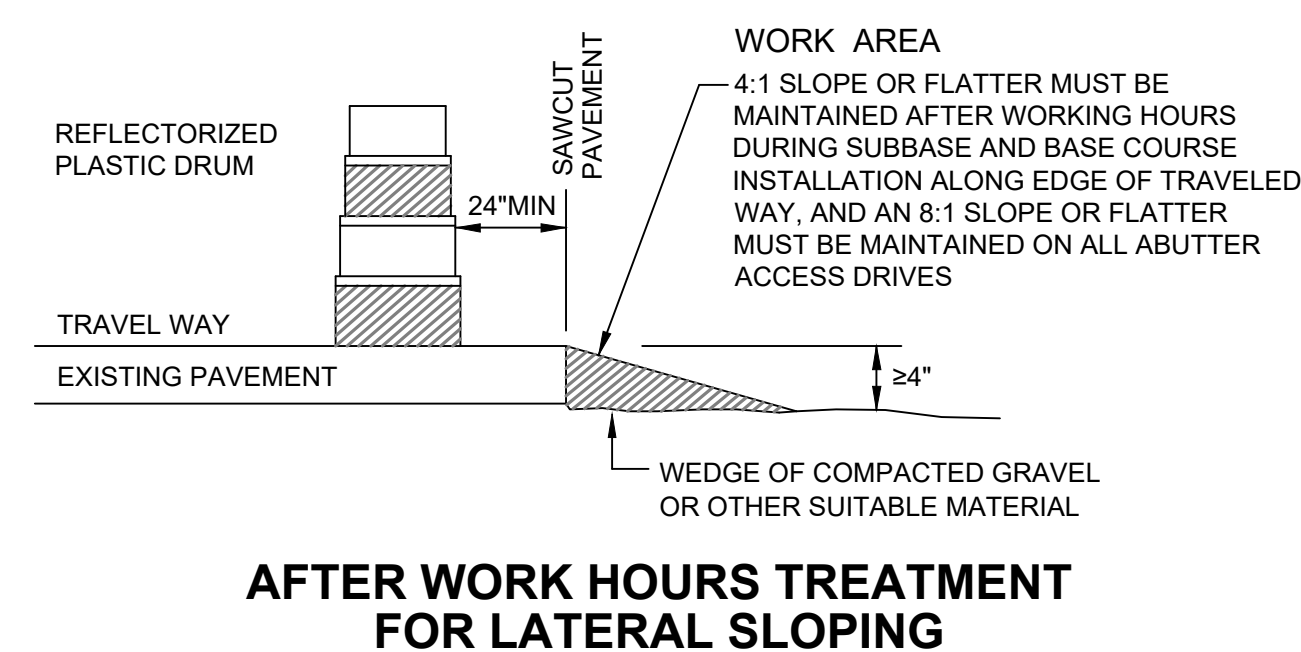
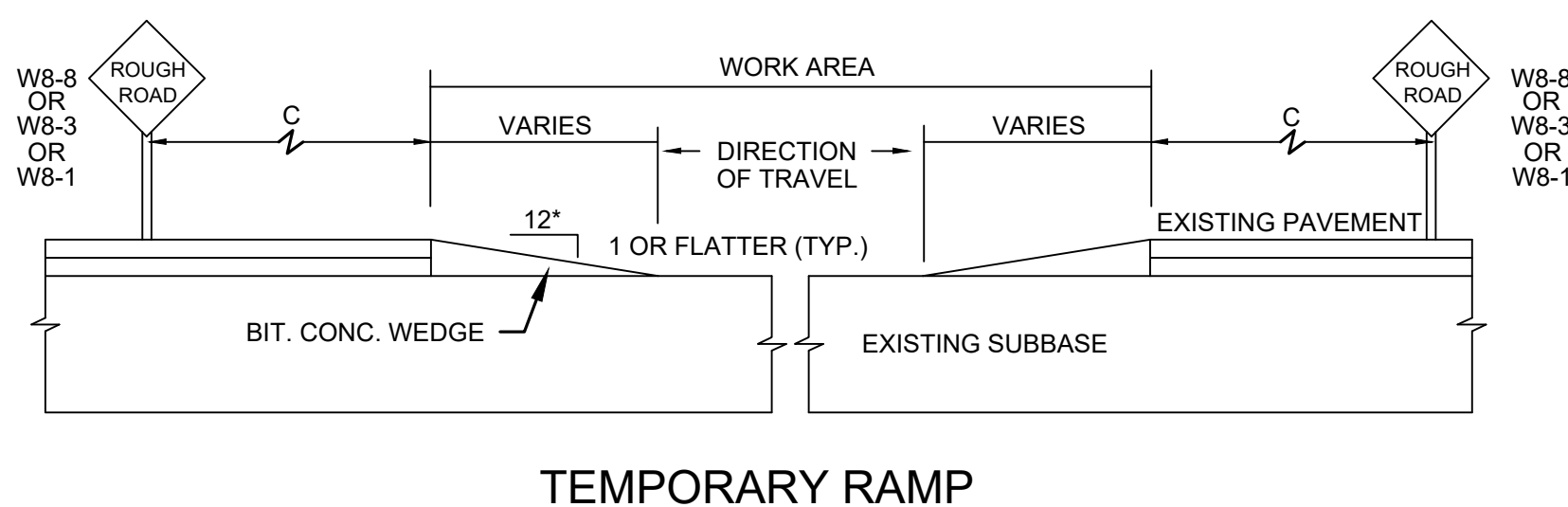
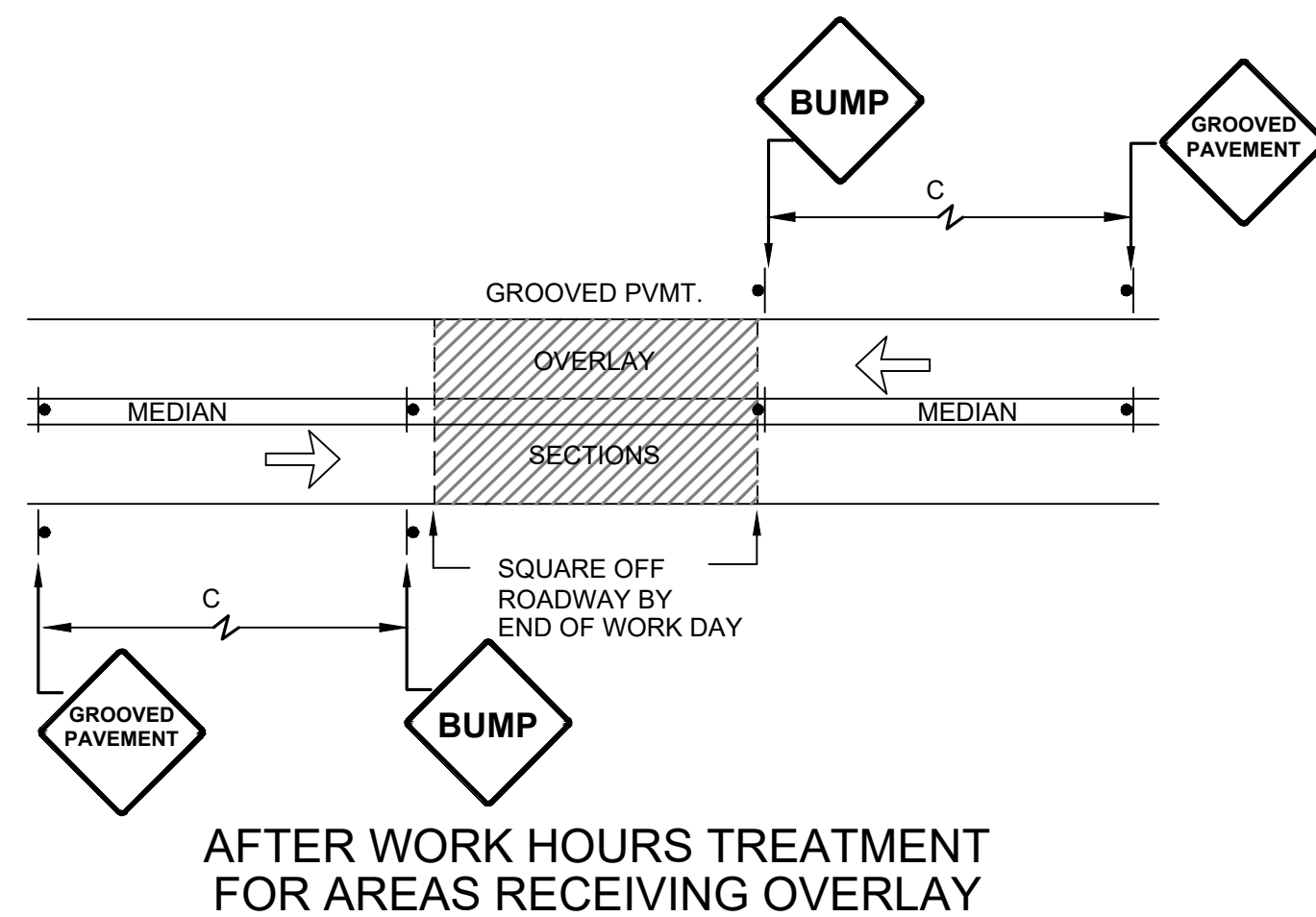
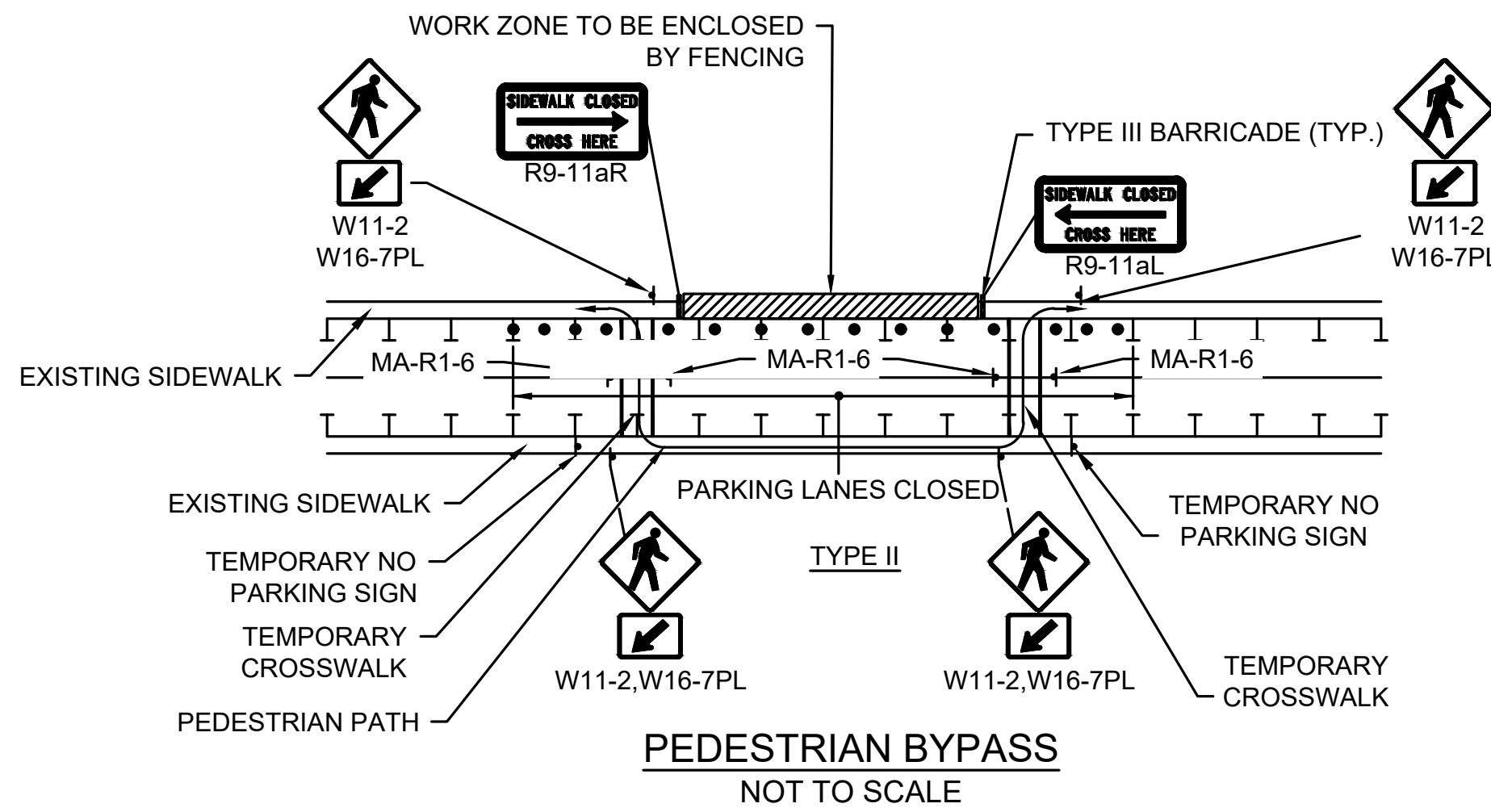
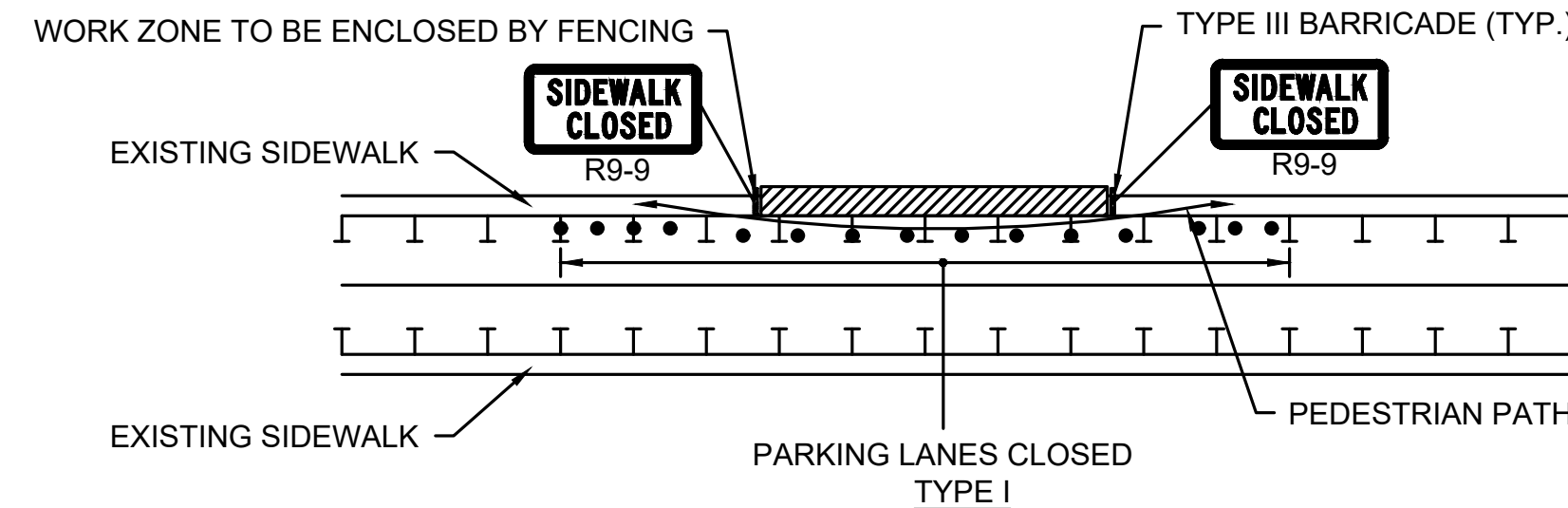
- ALL CONSTRUCTION SIGNS SHALL BE BLACK LEGEND ON A REFLECTORIZED ORANGE BACKGROUND UNLESS OTHERWISE NOTED.
- CONSTRUCTION SIGNING SHOWN ON THE ADVANCE SIGNING PLAN SHALL ONLY BE USED WHEN WORK IS BEING DONE WHICH RESTRICTS TRAFFIC.
- STANDARD ORANGE OR FLUORESCENT RED-ORANGE FLAGS (16"x16" MIN.) MAY BE ATTACHED TWO (2) EACH ON ALL ADVANCE WARNING SIGNS. FLAGS SHALL NOT INTERFERE WITH A CLEAR VIEW OF THE SIGN FACE. IF USED, THE COST FOR THE FLAGS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE SIGNS WITH NO ADDITIONAL PAYMENT.
- EXISTING GUIDE SIGNS SHALL BE TEMPORARILY RESET AS DIRECTED BY THE ENGINEER.
- ALL SIGNS, INCLUDING EXISTING, THAT ARE NOT REPRESENTATIVE OF ACTUAL WORK CONDITIONS SHALL BE EITHER COVERED OR REMOVED WHEN NOT APPLICABLE.
- IF USED, ALL W20-4 AND W20-5 SIGNS SHALL BE TAKEN DOWN OR COVERED AT THE CLOSE OF EACH DAY UNLESS LANE RESTRICTIONS ARE PERMITTED TO REMAIN OVERNIGHT IN ACCORDANCE WITH NOTE NO. 3 ABOVE.
- USE W20-7 OR MA-W20-7b SIGNS ONLY WHILE POLICE OR FLAGGERS ARE DIRECTING TRAFFIC. THEY SHALL BE TAKEN DOWN OR COVERED AT THE CLOSE OF EACH DAY OR WHEN NOT IN USE.

PAVEMENT MARKINGS

- PAVEMENT MARKINGS WHICH ARE NO LONGER APPLICABLE SHALL BE REMOVED. APPLY TEMPORARY MARKINGS WHERE SHOWN ON THE TEMPORARY TRAFFIC CONTROL PLANS.
- ON PROJECTS WHERE PAVEMENT OVERLAY IS NOT DESIGNATED, EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROLS SHOULD BE COVERED TEMPORARILY WITH BLACKOUT TAPE, AS DIRECTED BY THE ENGINEER, FOR THE FULL DURATION OF THE PHASE IN PROGRESS. TEMPORARY PAINTED OR REMOVABLE TAPE MARKINGS SHALL BE USED AS NECESSARY FOR ALL PHASES OF CONSTRUCTION.

CHANNNELIZATION

- THE MAXIMUM SPACING BETWEEN CHANNELIZATION DEVICES (DRUMS OR CONES) SHALL BE APPROXIMATELY EQUAL IN FEET TO THE POSTED SPEED LIMIT.
- REFLECTORIZED CONES SHALL BE 36" HIGH.
- PLASTIC DRUMS MUST PASS THE CRITERIA SET FORTH IN NCHRP 350 "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES." IF THEY DO NOT MEET THESE CRITERIA, THEY MUST BE REMOVED FROM THE PROJECT.
- TEMPORARY IMPACT ATTENUATORS MUST MEET THE PERFORMANCE STANDARDS OF NCHRP 350.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY MUST PASS THE CRITERIA SET FORTH IN NCHRP 350 "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES." IF THEY DO NOT MEET THIS CRITERIA, THEY MUST BE REMOVED FROM THE PROJECT.



NOTES

- ADDITIONAL ADVANCE WARNING MAY BE NECESSARY.
- CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN. VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE.
- STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
- IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, TEMPORARY CROSSWALKS WITH APPROPRIATE SIGNS SHOULD BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER.
- BYPASS IS TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DIRECTED BY THE ENGINEER.
- THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THIS WALKWAY EXCEEDS 200 FEET THEN A 5 FOOT X 5 FOOT PASSING ZONE IS REQUIRED.

SUGGESTED WORK ZONE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS**		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS*	350	350	350
MOST OTHER ROADWAYS*	500	500	500
FREEWAYS AND EXPRESSWAYS*	1,000	1,500	2,640

Based on: Table 6C-1 MUTCD latest edition

*ROAD TYPE TO BE DETERMINED BY MASSDOT OFFICE OF TRANSPORTATION PLANNING.

**DISTANCES ARE SHOWN IN FEET. THE COLUMN HEADINGS A, B AND C ARE THE DIMENSIONS SHOWN IN THE DETAIL/TYPICAL SETUP FIGURES. THE A DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN. THE B DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS. THE C DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS. (THE "THIRD" SIGN IS THE FIRST ONE TYPICALLY ENCOUNTERED BY A DRIVER APPROACHING A TEMPORARY TRAFFIC CONTROL (TTC) ZONE.)

THE "THIRD" SIGN ABOVE IS TYPICALLY REFERRED TO AS AN "ADVANCE WARNING" SIGN ON THE TTCP SETUPS. THESE ADVANCE WARNING SIGNS ARE LOCATED PRIOR TO THE PROJECT LIMITS ON ALL APPROACHES (I.E. THE W20-1 SERIES (ROAD WORK XX FT) SIGNS), AND USUALLY REMAIN FOR THE DURATION OF THE PROJECT.

THE FIRST AND SECOND WARNING SIGNS ABOVE ARE REFERRED TO AS THE OPERATIONAL (DAY-TO-DAY) WORK ZONE SIGNS AND MAY BE MOVED DEPENDING ON WHERE THE SPECIFIC ROADWAY WORK FOR THAT DAY IS LOCATED.

R2-10a SIGNS SHALL BE PLACED BETWEEN THE SECOND AND THIRD SIGNS AS DESCRIBED ABOVE.

R2-10a, R2-10e, AND W20-1 SERIES SIGNS ARE TO BE INCLUDED ON ALL DETAILS/TYPICAL SETUPS.

SIGN SPACING MAY NEED TO BE INCREASED IF ADDITIONAL SIGNS ARE REQUIRED PER THE DETAIL/TYPICAL SETUP FIGURES.

BUFFER SPACING

SPEED* (MPH)	DISTANCE (FT)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
75	820

*POSTED SPEED, OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED.

SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	47	115
PROJECT FILE NO.		608565	

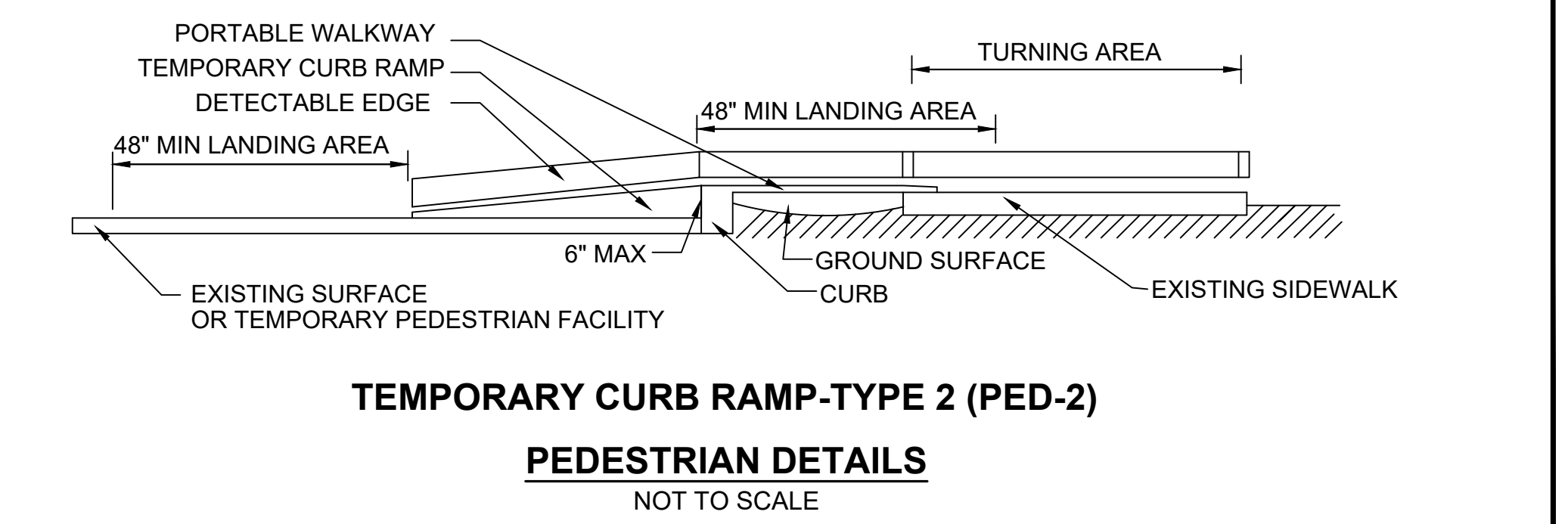
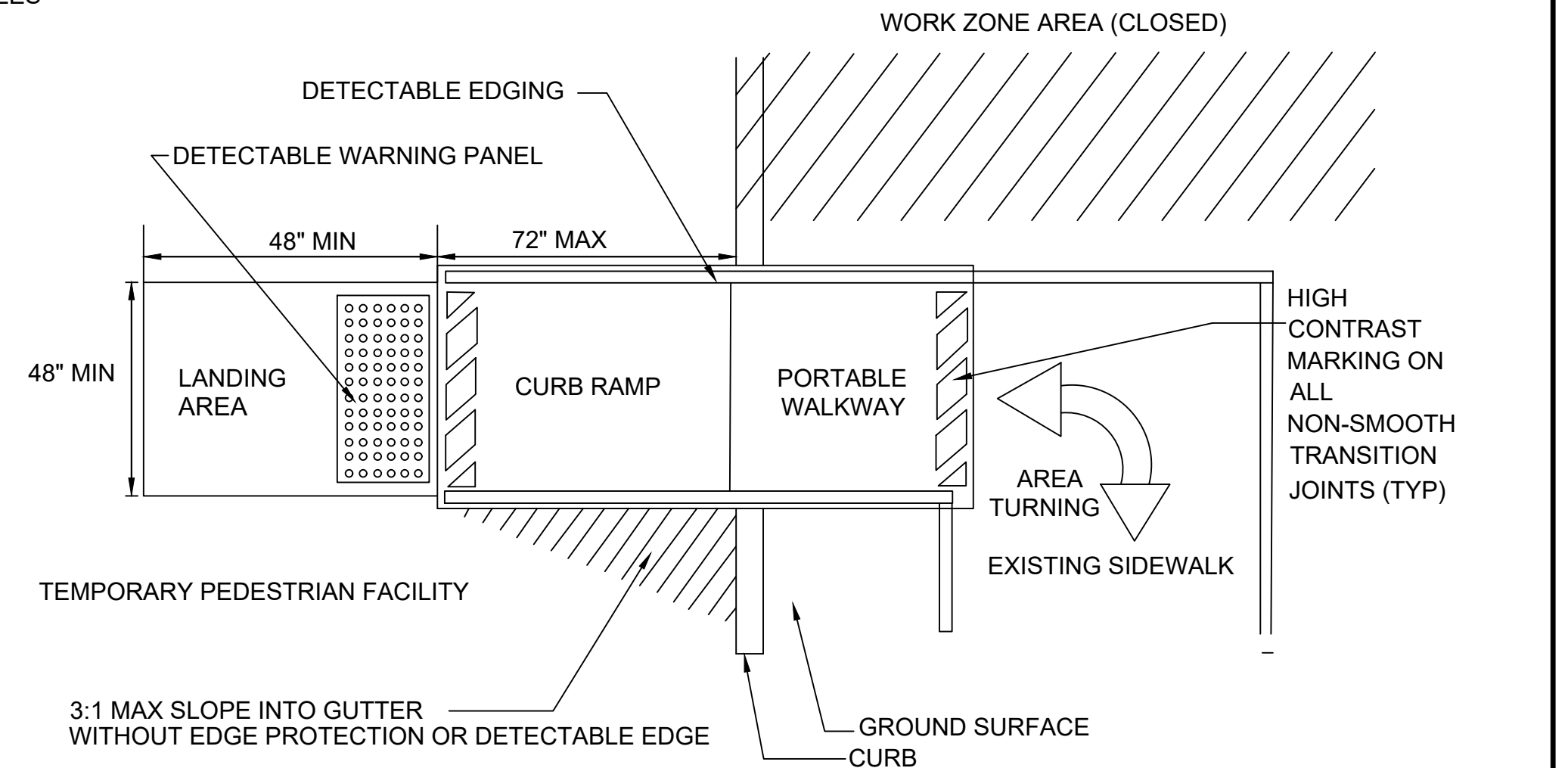
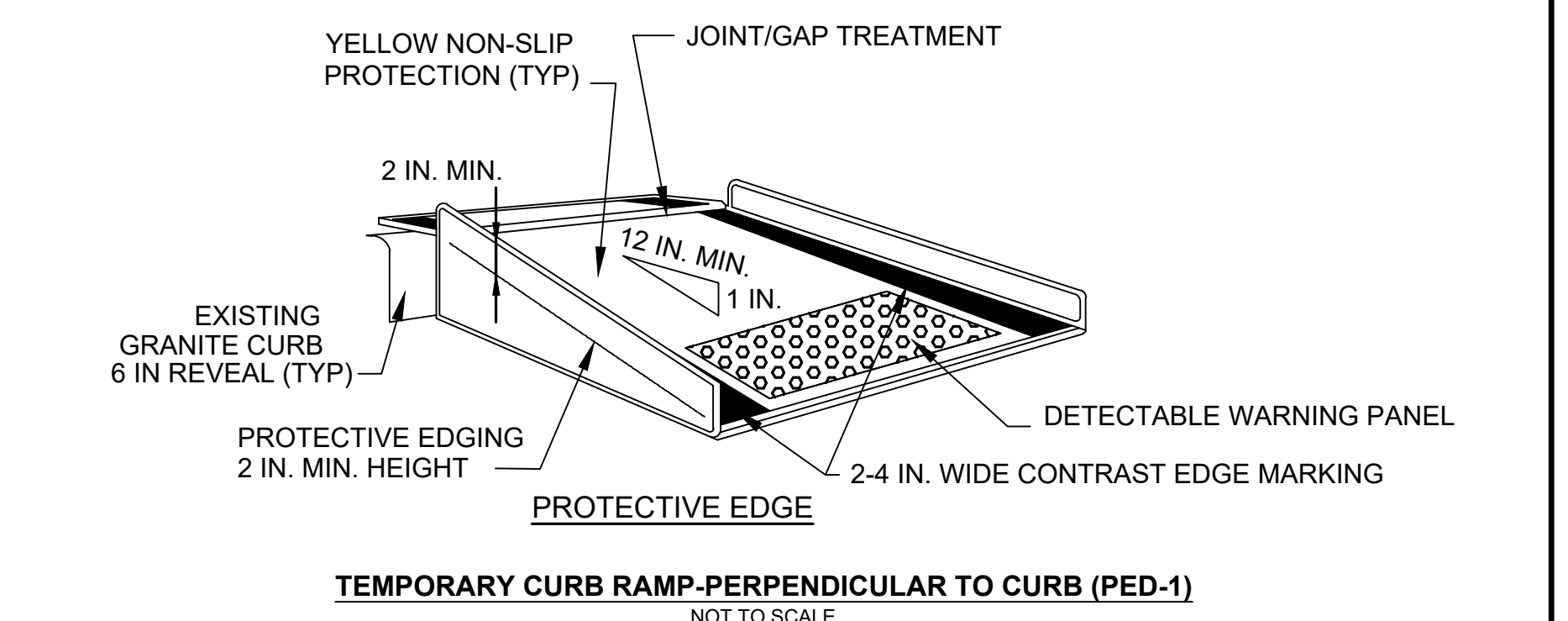
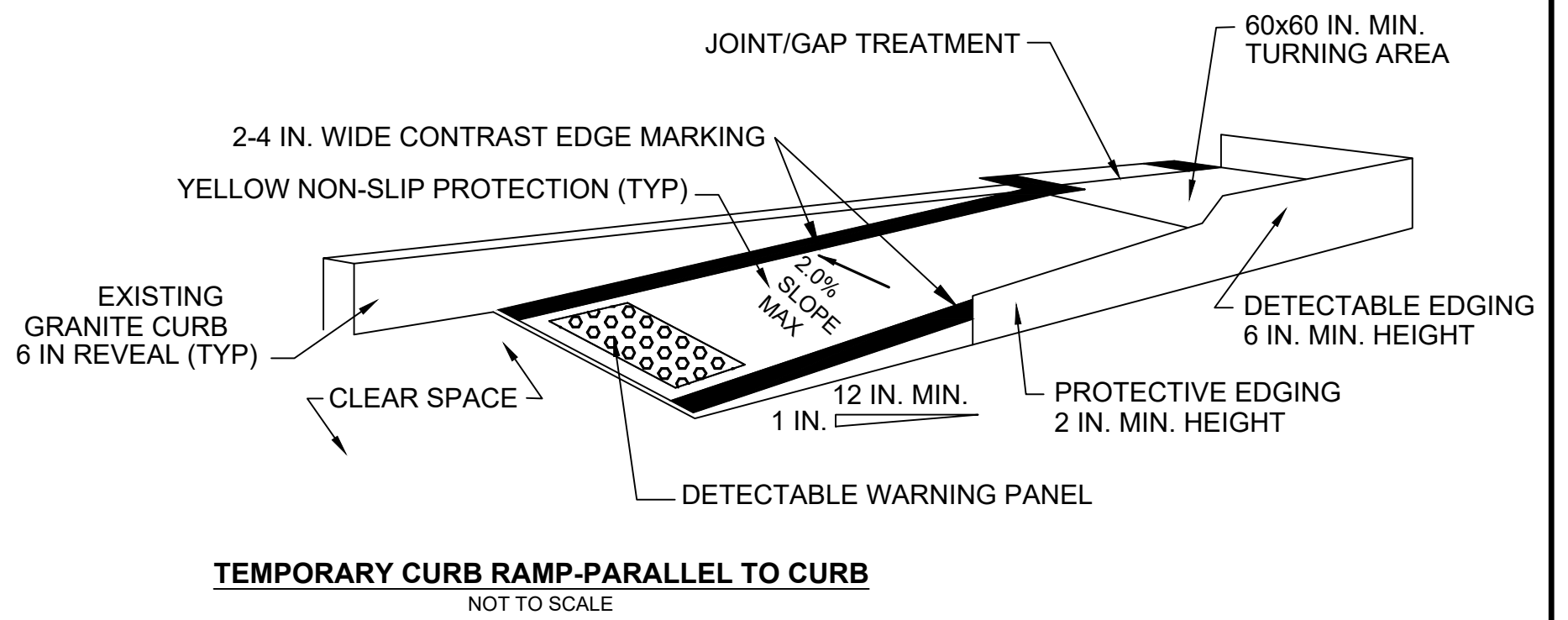
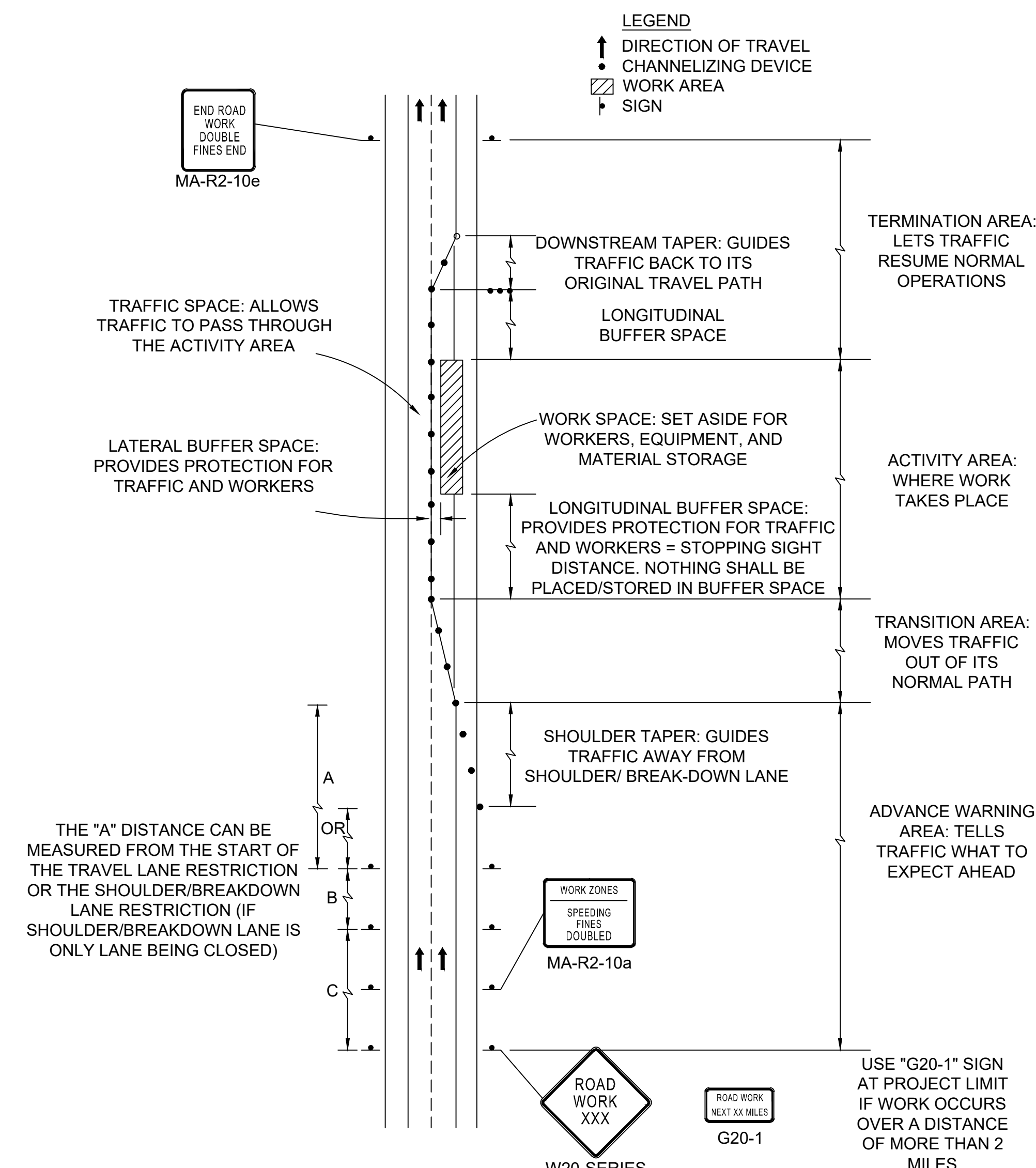
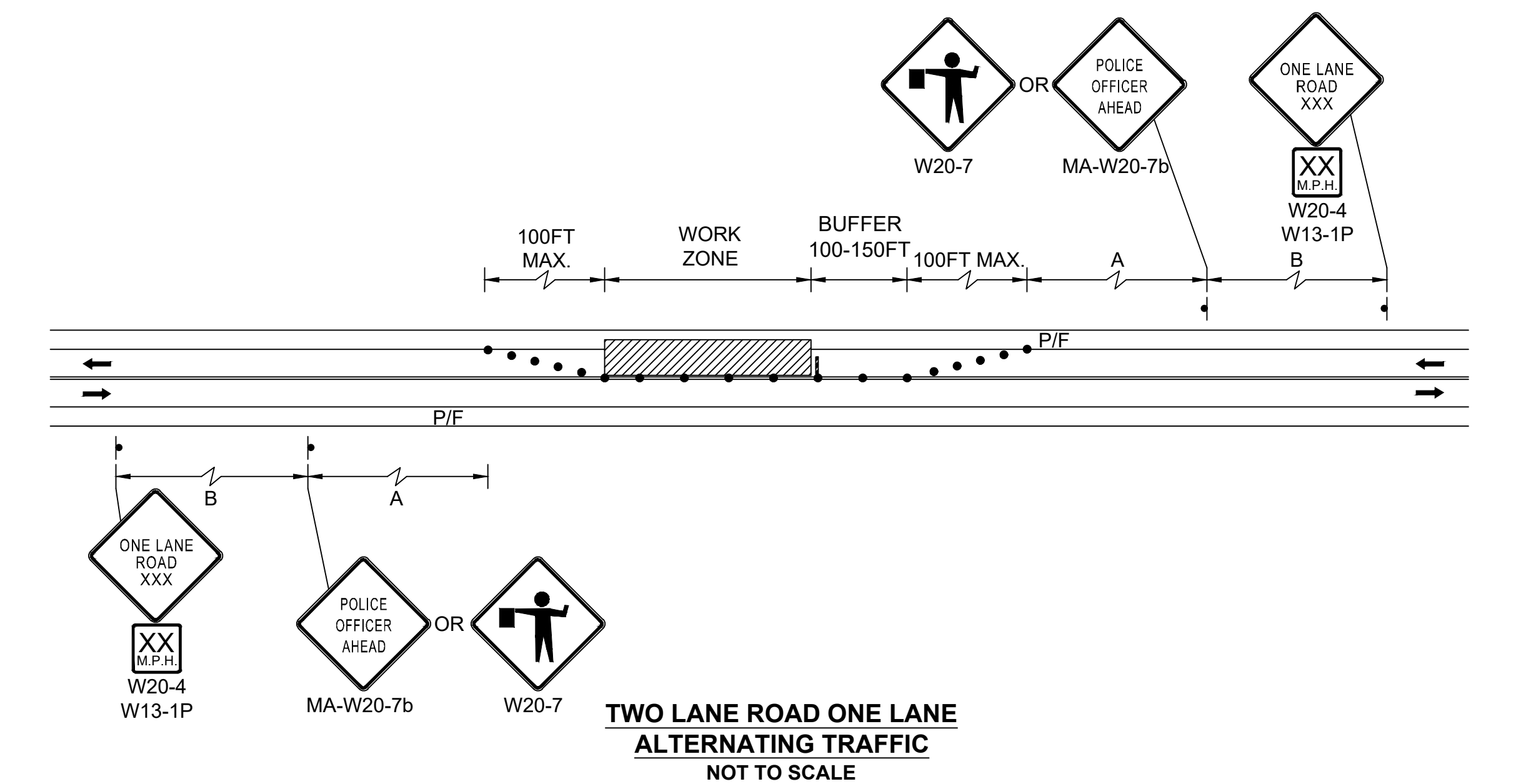
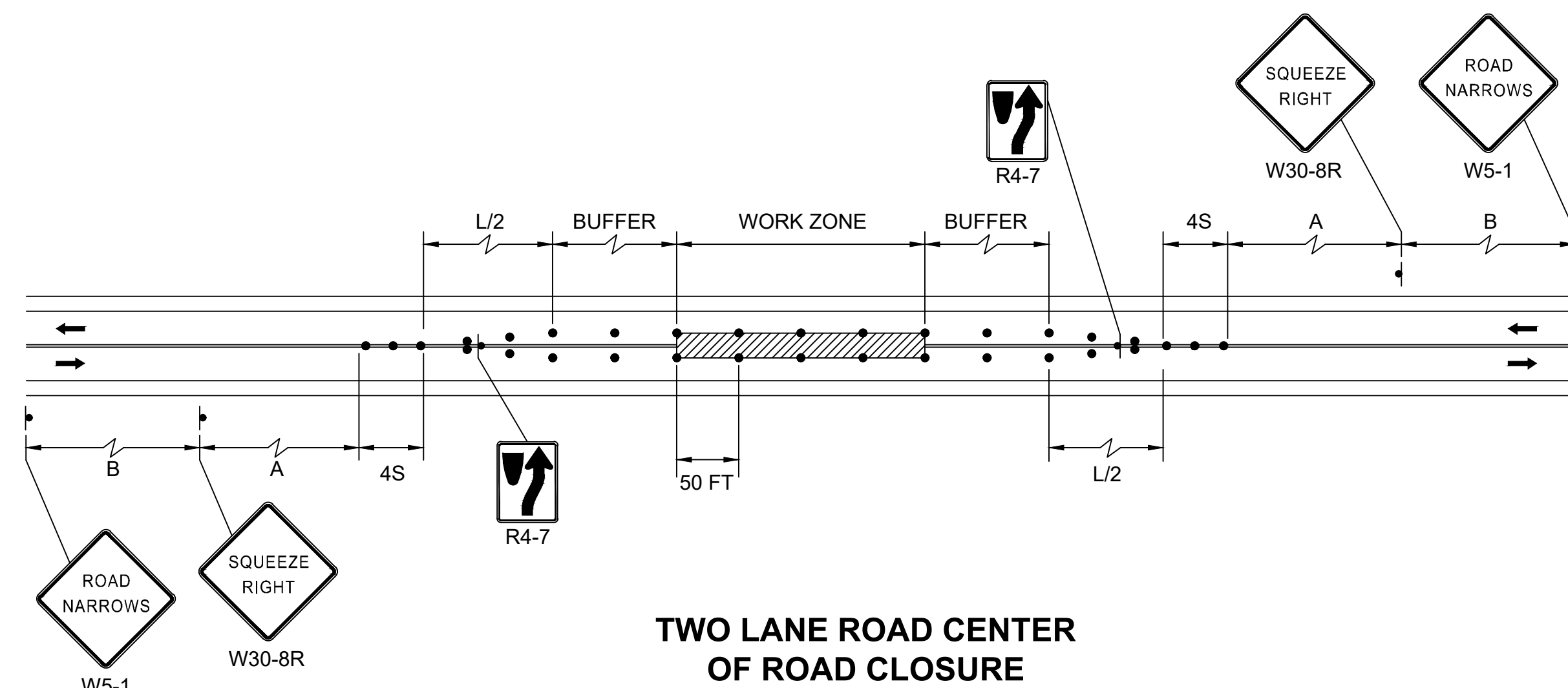
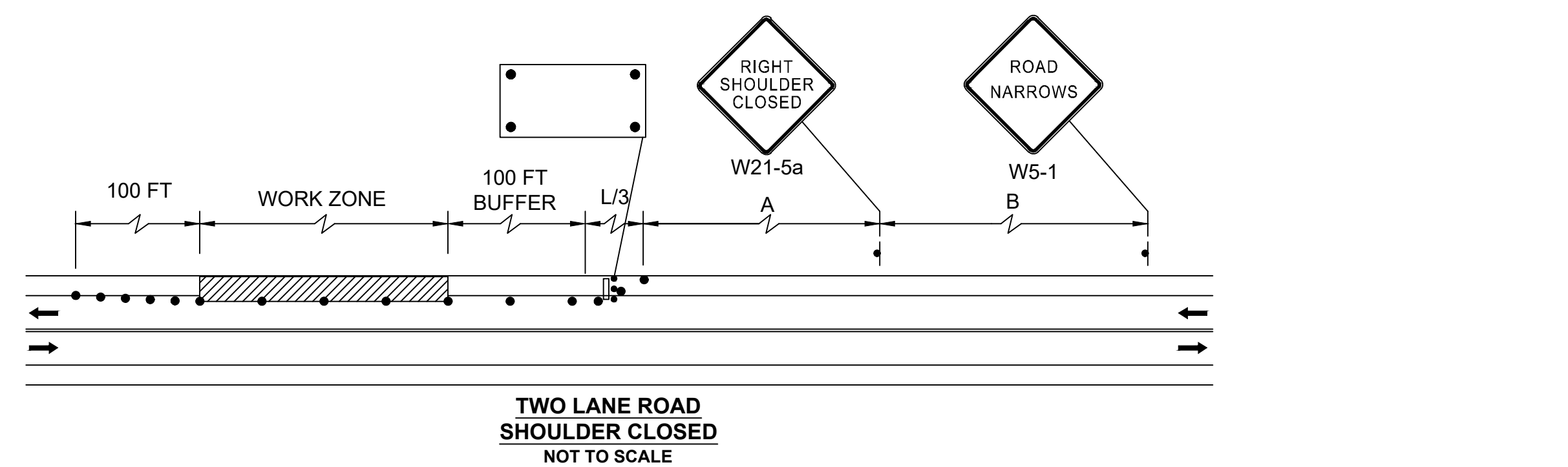
TEMPORARY TRAFFIC CONTROL PLANS

TRAFFIC MANAGEMENT LEGEND

	WORK AREA
	DIRECTION OF TRAVEL
	REFLECTORIZED DRUM OR CONE
	REFLECTORIZED DRUM WITH TYPE 'A' FLASHING WARNING LIGHT
	POLICE OFFICER OR FLAGGER CONTROL
	PORTABLE TYPE III BARRICADE (4' WIDE, MIN.)
	FLASHING ARROW BOARD (30"x60" STD. SIZE WITH 13 LAMPS, MIN.)
	TEMPORARY PRECAST CONCRETE BARRIER WITH TEMPORARY FENCE & WHITE REFLECTORS
	TEMPORARY IMPACT ATTENUATOR
	PAVEMENT MARKINGS TO COVER OR REMOVE (SEE NOTES 23 & 24)
	PORTABLE CHANGEABLE MESSAGE SIGN
	MOVABLE IMPACT ATTENUATOR

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	48	115
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TEMPORARY TRAFFIC CONTROL PLANS



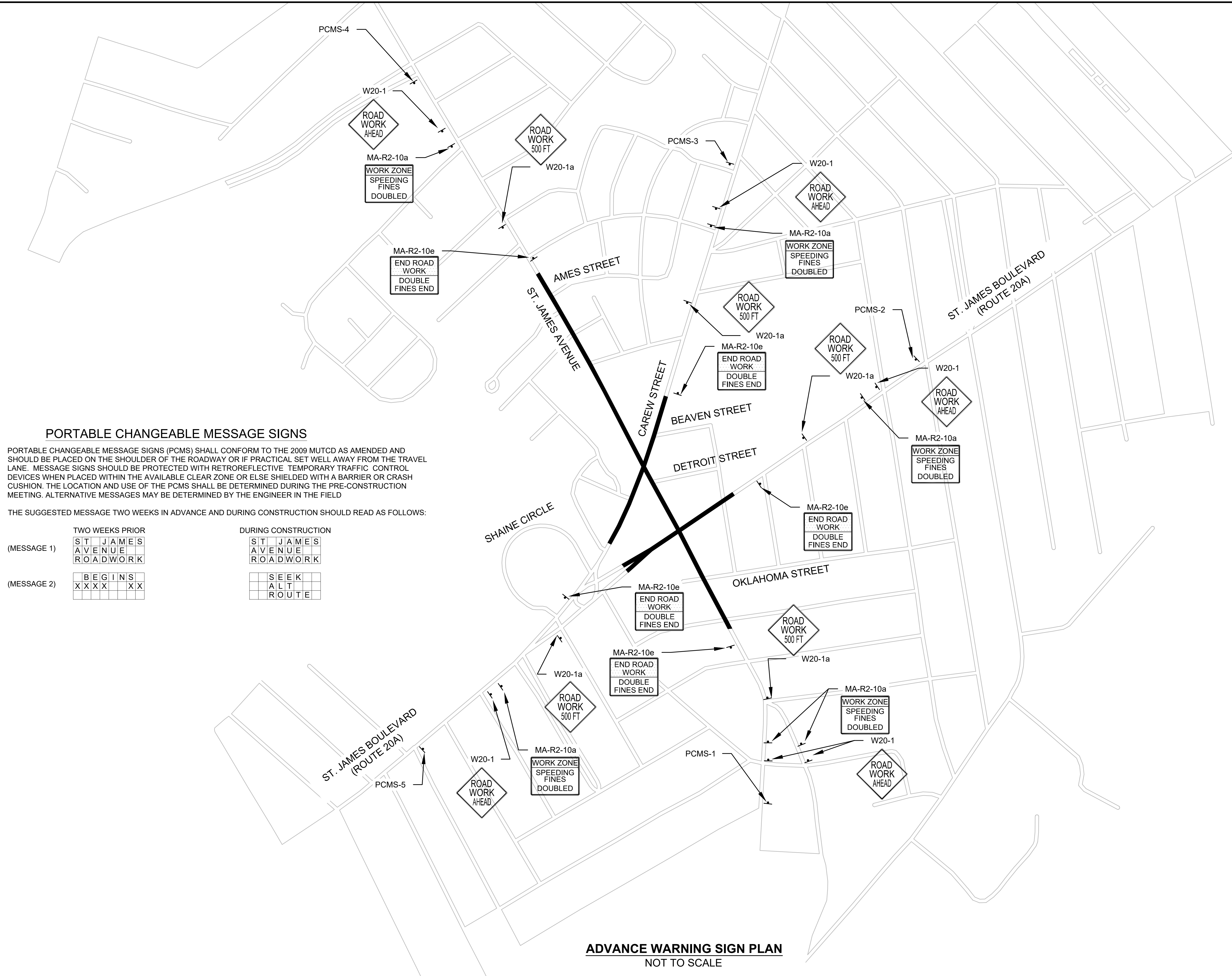
- NOTES:
- CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
 - PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOP STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
 - DETECTABLE EDGING WITH 6 IN. 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 48x48 IN. 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 IN. WIDTH.
 - CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5 IN. 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.

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MA	-	49	115
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TEMPORARY TRAFFIC CONTROL PLANS



608565_HD (TTCP).DWG Plotted on 4-Jun-2020 10:25 PM



PORTABLE CHANGEABLE MESSAGE SIGNS

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL CONFORM TO THE 2009 MUTCD AS AMENDED AND SHOULD BE PLACED ON THE SHOULDER OF THE ROADWAY OR IF PRACTICAL SET WELL AWAY FROM THE TRAVEL LANE. MESSAGE SIGNS SHOULD BE PROTECTED WITH RETROREFLECTIVE TEMPORARY TRAFFIC CONTROL DEVICES WHEN PLACED WITHIN THE AVAILABLE CLEAR ZONE OR ELSE SHIELDED WITH A BARRIER OR CRASH CUSHION. THE LOCATION AND USE OF THE PCMS SHALL BE DETERMINED DURING THE PRE-CONSTRUCTION MEETING. ALTERNATIVE MESSAGES MAY BE DETERMINED BY THE ENGINEER IN THE FIELD

THE SUGGESTED MESSAGE TWO WEEKS IN ADVANCE AND DURING CONSTRUCTION SHOULD READ AS FOLLOWS:

	TWO WEEKS PRIOR	DURING CONSTRUCTION
(MESSAGE 1)	ST JAMES AVENUE ROADWORK	ST JAMES AVENUE ROADWORK
(MESSAGE 2)	BEGINS XXXX XX	SEEK ALT ROUTE

ADVANCE WARNING SIGN PLAN
NOT TO SCALE

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MA	-	50	115
PROJECT FILE NO.		608565	

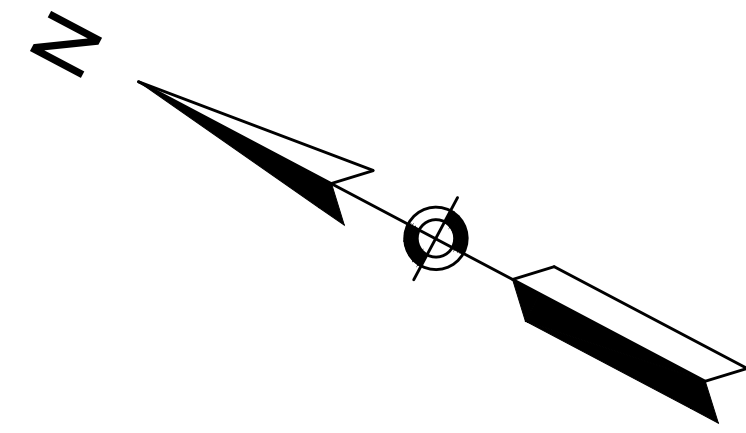
TEMPORARY TRAFFIC CONTROL PLANS

CONSTRUCTION SIGN SUMMARY







IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)		NUMBER OF SIGNS REQUIRED	COLOR			UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING		BACK-GROUND	LEGEND	BORDER		
MA-R1-6	12"	36"		MASSDOT STANDARD		4	YELLOW WHITE	BLACK BLACK/RED	BLACK BLACK	3.00	12.00
MA-R2-10a	48"	36"		MASSDOT STANDARD		5	FLUORESCENT ORANGE WHITE	BLACK BLACK	BLACK BLACK	12.00	60.00
MA-R2-10e	36"	48"		MASSDOT STANDARD		5	FLUORESCENT ORANGE WHITE	BLACK BLACK	BLACK BLACK	12.00	60.00
R4-7	24"	30"		MUTCD STANDARD	4	WHITE	BLACK	BLACK	5.00	20.00	
R9-9	24"	12"			4	WHITE	BLACK	BLACK	2.00	8.00	
R9-11aL	24"	12"			1	WHITE	BLACK	BLACK	2.00	2.00	
R9-11aR	24"	12"			1	WHITE	BLACK	BLACK	2.00	2.00	
W1-4L	36"	36"			2	FLUORESCENT ORANGE	BLACK	BLACK	9.00	18.00	
W1-4R	36"	36"			2	FLUORESCENT ORANGE	BLACK	BLACK	9.00	18.00	
W5-1	36"	36"			6	FLUORESCENT ORANGE	BLACK	BLACK	9.00	54.00	
W8-1	36"	36"			2	FLUORESCENT ORANGE	BLACK	BLACK	9.00	18.00	
W8-3	36"	36"			2	FLUORESCENT ORANGE	BLACK	BLACK	9.00	18.00	

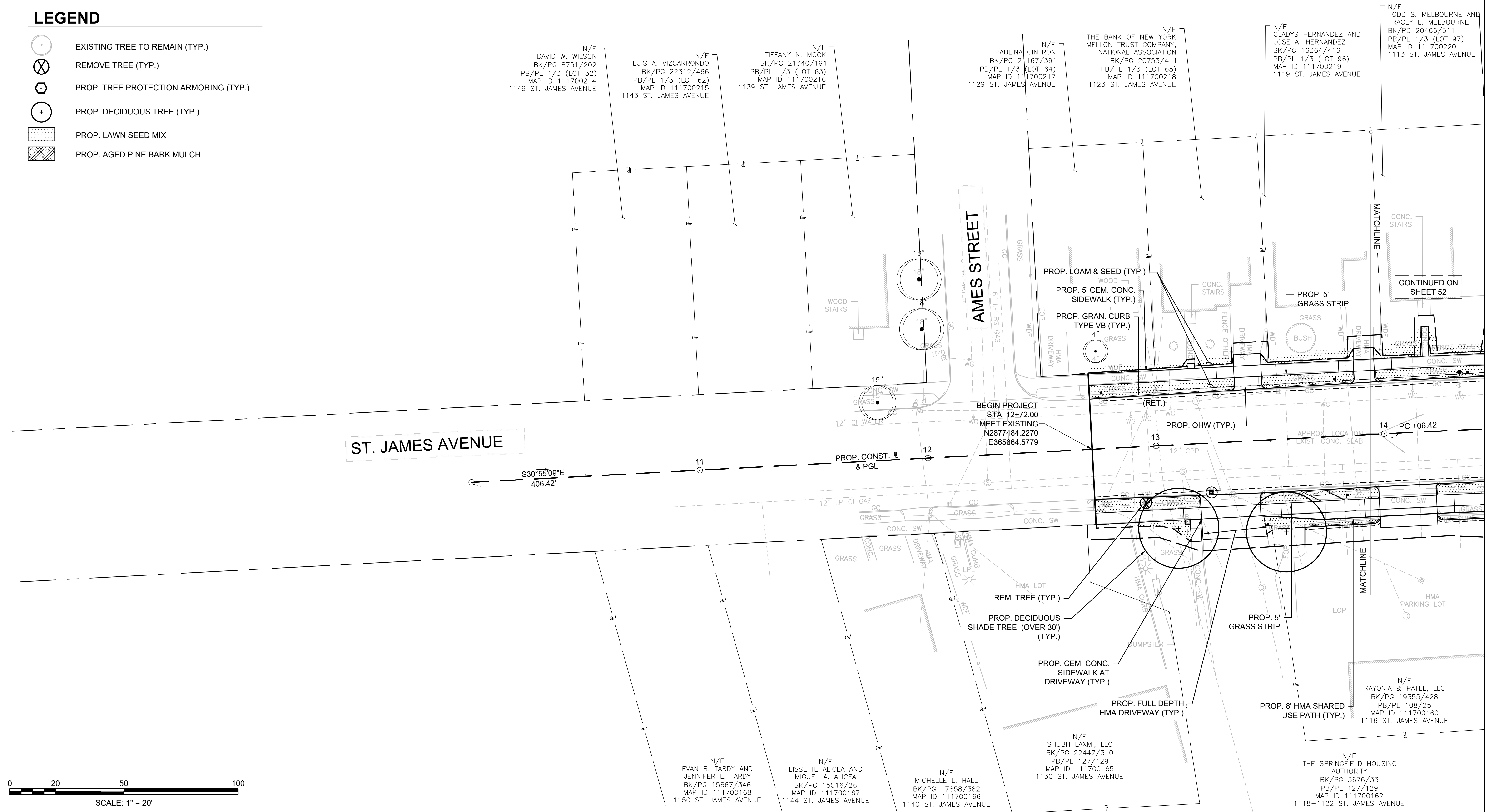
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	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING		BACK-GROUND	LEGEND	BORDER		
W8-8	36"	36"		MUTCD STANDARD	2	FLUORESCENT ORANGE	BLACK	BLACK	9.00	18.00	
W8-15	36"	36"			2	FLUORESCENT ORANGE	BLACK	BLACK	9.00	18.00	
W11-2	30"	30"			4	YELLOW	BLACK	BLACK	6.25	25.00	
W13-1P	24"	30"			2	FLUORESCENT ORANGE	BLACK	BLACK	5.00	10.00	
W16-7PL	24"	12"			4	YELLOW	BLACK	BLACK	2.00	8.00	
W20-1	36"	36"			5	FLUORESCENT ORANGE	BLACK	BLACK	9.00	45.00	
W20-1a	36"	36"			5	FLUORESCENT ORANGE	BLACK	BLACK	9.00	45.00	
W20-4	36"	36"			4	FLUORESCENT ORANGE	BLACK	BLACK	9.00	36.00	
W20-7	36"	36"			2	FLUORESCENT ORANGE	BLACK	BLACK	9.00	18.00	
MA-W20-7b	36"	36"			4	FLUORESCENT ORANGE	BLACK	BLACK	9.00	36.00	
W21-5a	36"	36"		1	FLUORESCENT ORANGE	BLACK	BLACK	9.00	9.00		
W30-8R	36"	36"		2	FLUORESCENT ORANGE	BLACK	BLACK	9.00	18.00		

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	51	115
PROJECT FILE NO.		608565	







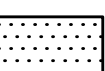
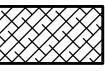
LEGEND

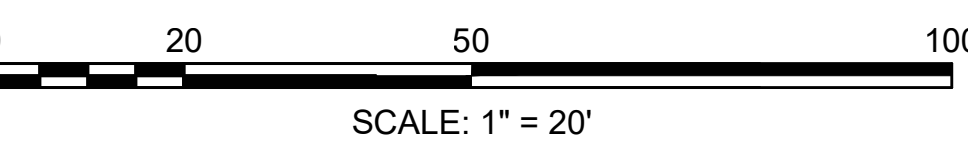
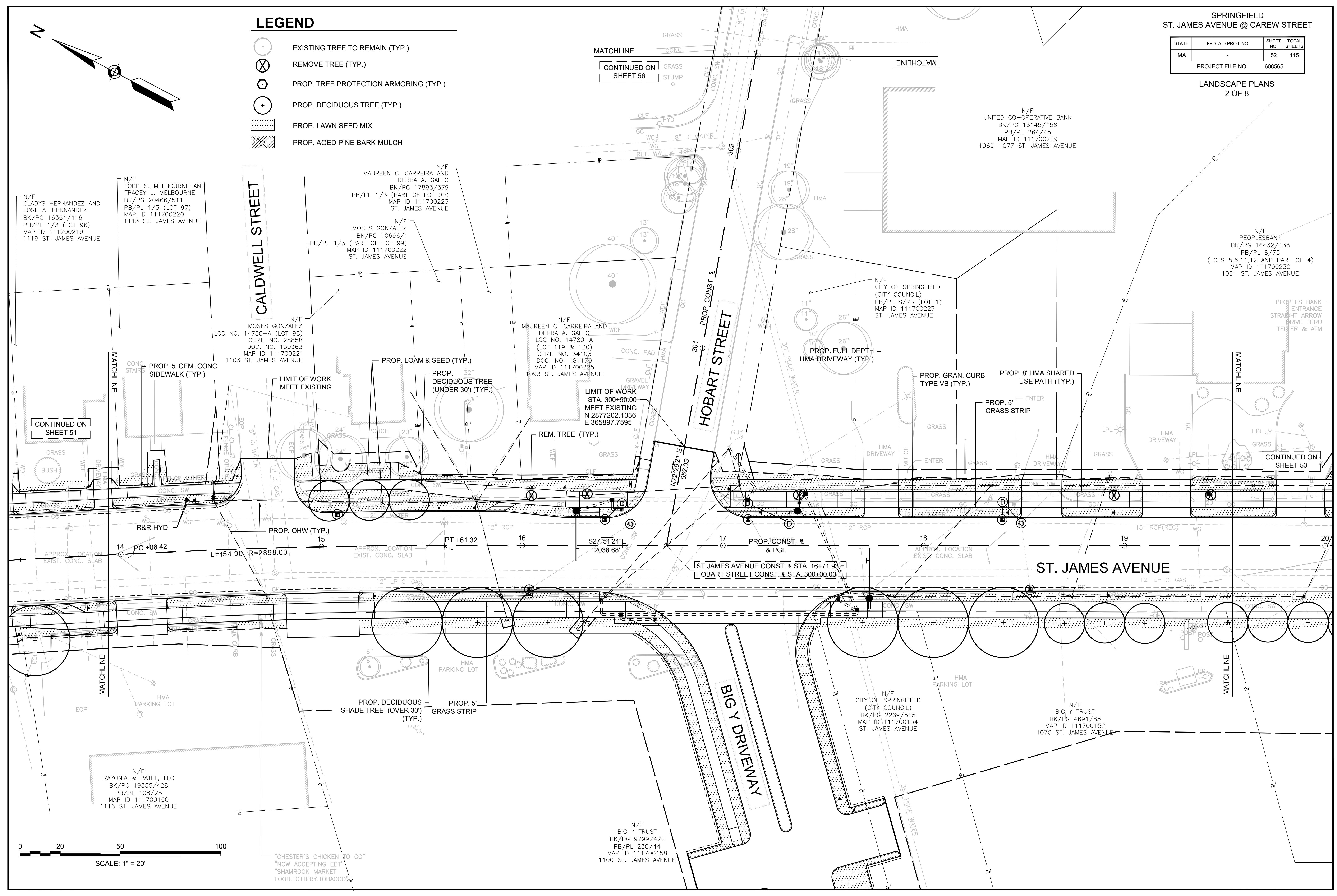
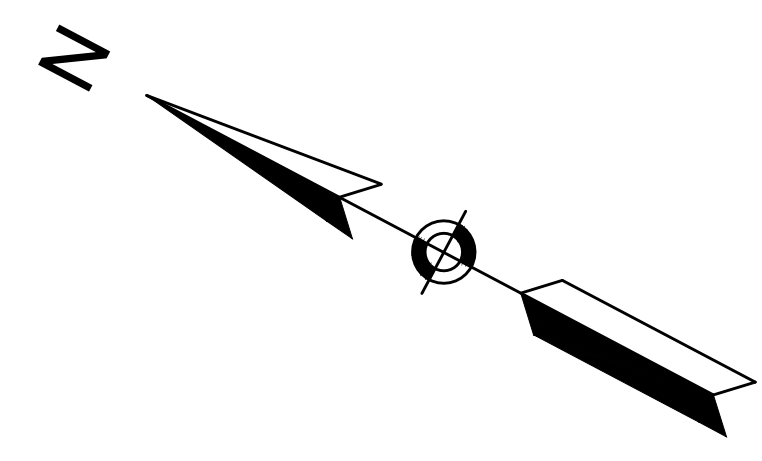
-  EXISTING TREE TO REMAIN (TYP.)
-  REMOVE TREE (TYP.)
-  PROP. TREE PROTECTION ARMORING (TYP.)
-  PROP. DECIDUOUS TREE (TYP.)
-  PROP. LAWN SEED MIX
-  PROP. AGED PINE BARK MULCH



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	52	115
PROJECT FILE NO.		608565	

LEGEND

-  EXISTING TREE TO REMAIN (TYP.)
-  REMOVE TREE (TYP.)
-  PROP. TREE PROTECTION ARMORING (TYP.)
-  PROP. DECIDUOUS TREE (TYP.)
-  PROP. LAWN SEED MIX
-  PROP. AGED PINE BARK MULCH



"CHESTER'S CHICKEN TO GO"
"NOW ACCEPTING EBT"
"SHAMROCK MARKET"
FOOD, LOTTERY, TOBACCO

N/F
BIG Y TRUST
BK/PG 9799/422
PB/PL 230/44
MAP ID 111700158
1100 ST. JAMES AVENUE

N/F
CITY OF SPRINGFIELD
(CITY COUNCIL)
BK/PG 2269/565
MAP ID 111700154
ST. JAMES AVENUE

N/F
BIG Y TRUST
BK/PG 4691/85
MAP ID 111700152
1070 ST. JAMES AVENUE

N/F
RAYONIA & PATEL, LLC
BK/PG 19355/428
PB/PL 108/25
MAP ID 111700160
1116 ST. JAMES AVENUE

PROP. DECIDUOUS
SHADE TREE (OVER 30')
(TYP.)

PROP. 5'
GRASS STRIP

BIG Y DRIVEWAY

ST. JAMES AVENUE

HOBART STREET

CALDWELL STREET

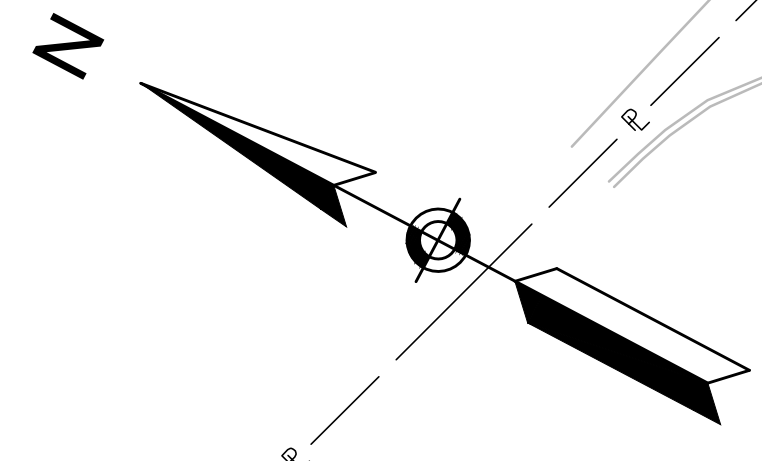
CONTINUED ON
SHEET 56

CONTINUED ON
SHEET 51

CONTINUED ON
SHEET 53

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	53	115
PROJECT FILE NO.		608565	

N/F
50 CENTURY LLC
BK/PG 21579/194
PB/PL F/310
(LOTS 329, 330, 340, 341)
MAP ID 111700237
1003 ST. JAMES AVENUE

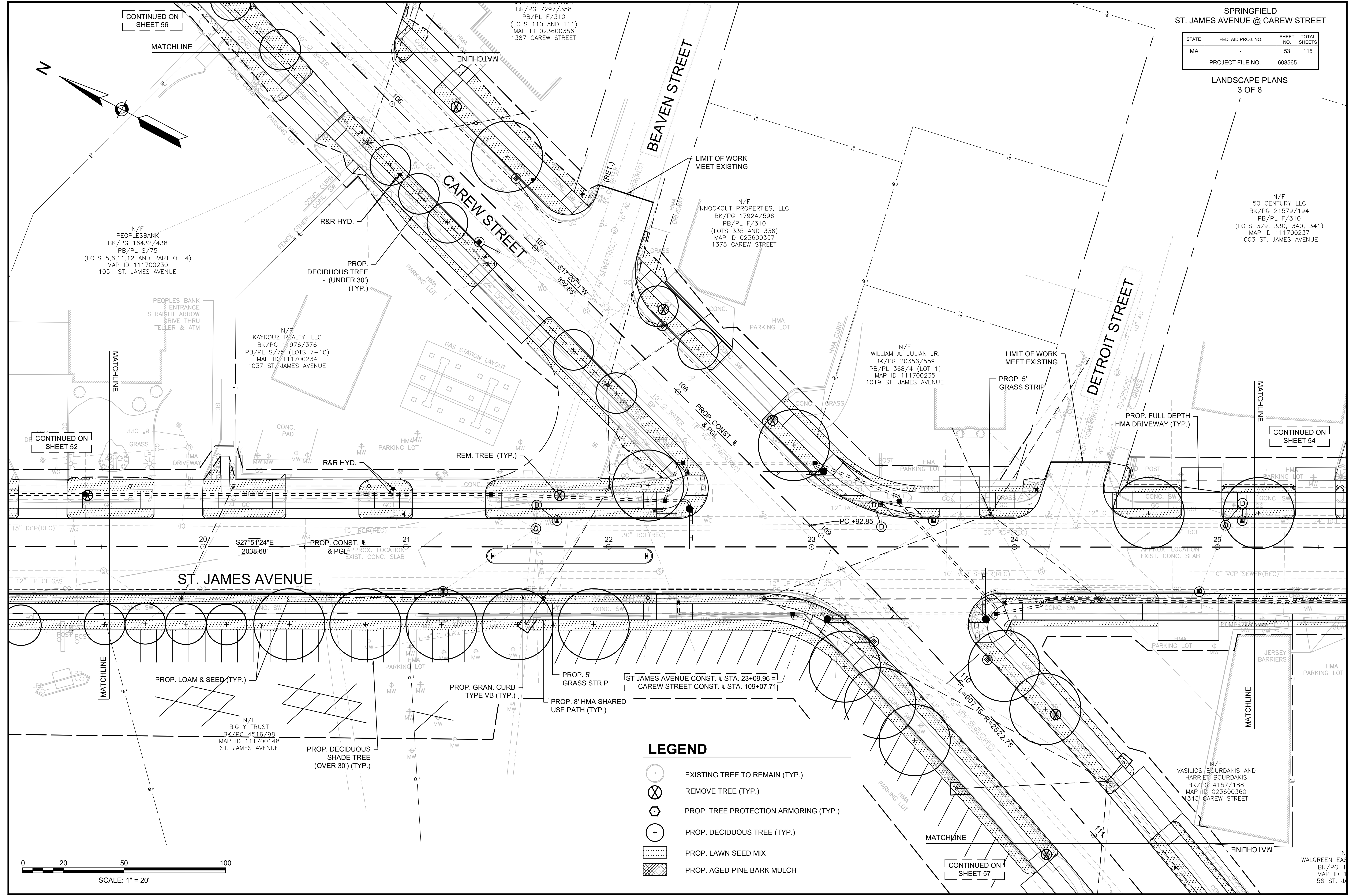


CONTINUED ON SHEET 56

CONTINUED ON SHEET 52

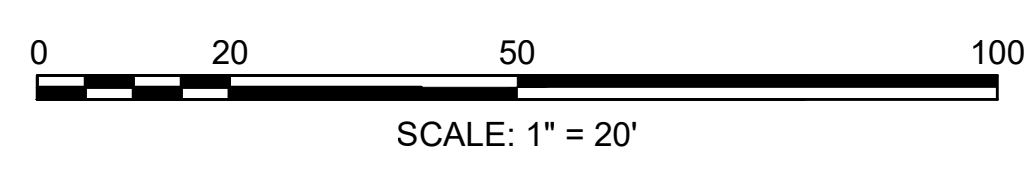
CONTINUED ON SHEET 54

CONTINUED ON SHEET 57



LEGEND

- EXISTING TREE TO REMAIN (TYP.)
- REMOVE TREE (TYP.)
- PROP. TREE PROTECTION ARMORING (TYP.)
- PROP. DECIDUOUS TREE (TYP.)
- PROP. LAWN SEED MIX
- PROP. AGED PINE BARK MULCH



N/F
PEOPLESBANK
BK/PG 116432/438
PB/PL S/75
(LOTS 5, 6, 11, 12, AND PART OF 4)
MAP ID 111700230
1051 ST. JAMES AVENUE

N/F
KAYROUZ REALTY, LLC
BK/PG 11976/376
PB/PL S/75 (LOTS 7-10)
MAP ID 111700234
1037 ST. JAMES AVENUE

N/F
KNOCKOUT PROPERTIES, LLC
BK/PG 17924/596
PB/PL F/310
(LOTS 335 AND 336)
MAP ID 023600357
1375 CAREW STREET

N/F
WILLIAM A. JULIAN JR.
BK/PG 20356/559
PB/PL 368/4 (LOT 1)
MAP ID 111700235
1019 ST. JAMES AVENUE





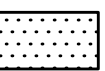
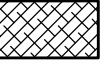
N/F
BIG Y TRUST
BK/PG 4516/98
MAP ID 111700148
ST. JAMES AVENUE

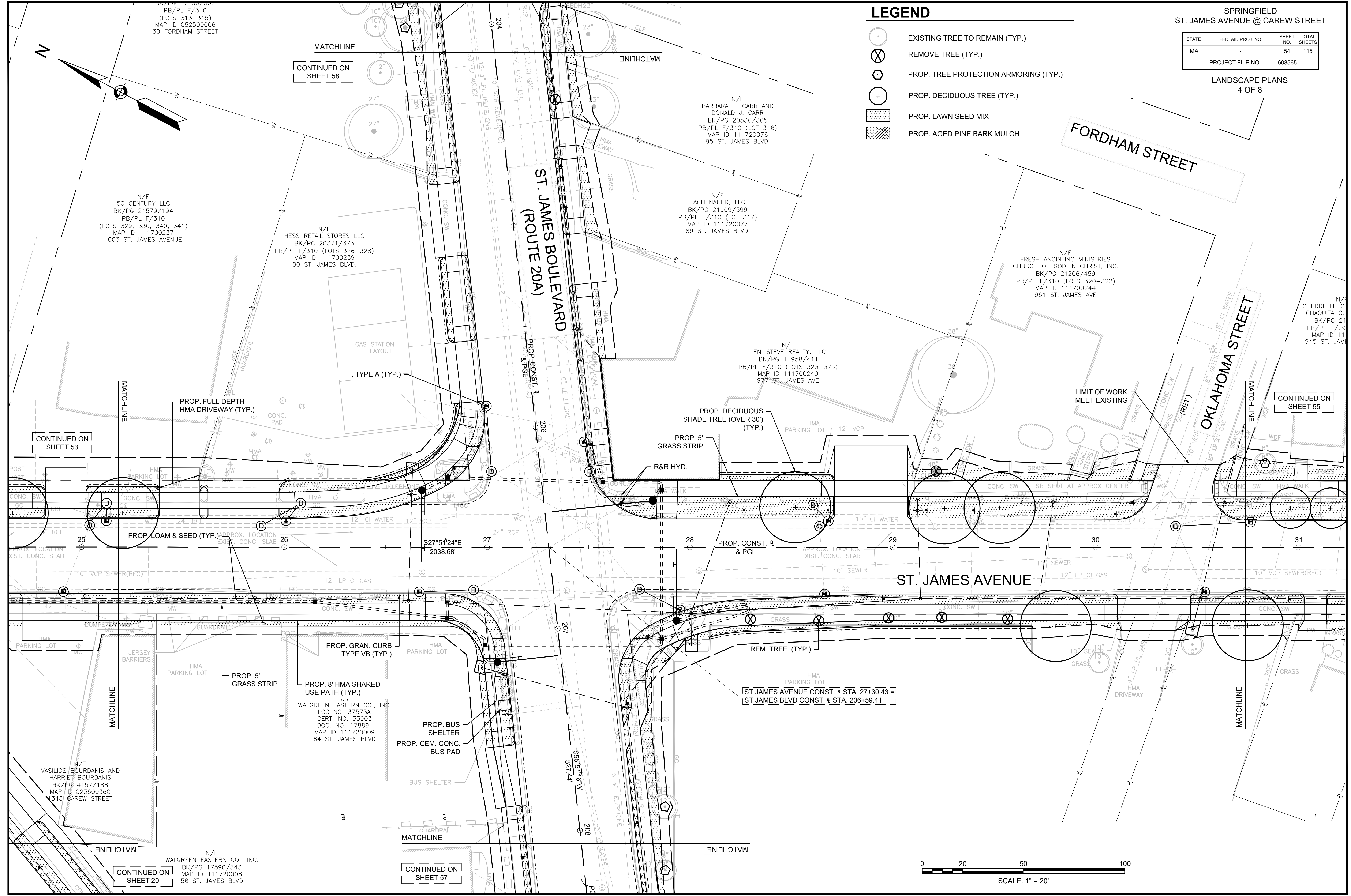
N/F
VASILIOS BOURDAKIS AND
HARRIET BOURDAKIS
BK/PG 4157/188
MAP ID 023600360
1343 CAREW STREET

N
WALGREEN EAST
BK/PG 1
MAP ID 1
56 ST. JAMES AVENUE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	54	115
PROJECT FILE NO.		608565	

LEGEND

-  EXISTING TREE TO REMAIN (TYP.)
-  REMOVE TREE (TYP.)
-  PROP. TREE PROTECTION ARMORING (TYP.)
-  PROP. DECIDUOUS TREE (TYP.)
-  PROP. LAWN SEED MIX
-  PROP. AGED PINE BARK MULCH



BK/PG 17100/302
PB/PL F/310
(LOTS 313-315)
MAP ID 05250006
30 FORDHAM STREET

N/F
50 CENTURY LLC
BK/PG 21579/194
PB/PL F/310
(LOTS 329, 330, 340, 341)
MAP ID 111700237
1003 ST. JAMES AVENUE

N/F
HESS RETAIL STORES LLC
BK/PG 20371/373
PB/PL F/310 (LOTS 326-328)
MAP ID 111700239
80 ST. JAMES BLVD.

N/F
BARBARA E. CARR AND
DONALD J. CARR
BK/PG 20536/365
PB/PL F/310 (LOT 316)
MAP ID 111720076
95 ST. JAMES BLVD.

N/F
LACHENAUER, LLC
BK/PG 21909/599
PB/PL F/310 (LOT 317)
MAP ID 111720077
89 ST. JAMES BLVD.

N/F
LEN-STEVE REALTY, LLC
BK/PG 11958/411
PB/PL F/310 (LOTS 323-325)
MAP ID 111700240
977 ST. JAMES AVE

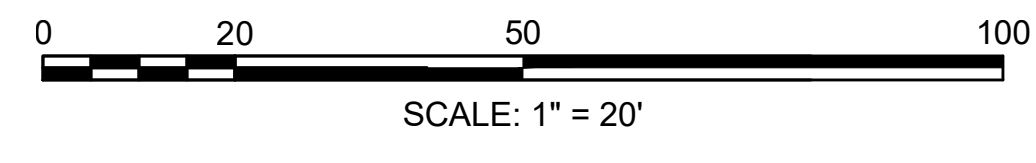
N/F
FRESH ANOINTING MINISTRIES
CHURCH OF GOD IN CHRIST, INC.
BK/PG 21206/459
PB/PL F/310 (LOTS 320-322)
MAP ID 111700244
961 ST. JAMES AVE

N/F
CHERRELLE C.
CHAQUITA C.
BK/PG 21
PB/PL F/29
MAP ID 11
945 ST. JAMES

N/F
WALGREEN EASTERN CO., INC.
LCC NO. 37573A
CERT. NO. 33903
DOC. NO. 178891
MAP ID 111720009
64 ST. JAMES BLVD

N/F
VASILIOS BOURDAKIS AND
HARRIET BOURDAKIS
BK/PG 4157/188
MAP ID 023600360
343 CAREW STREET

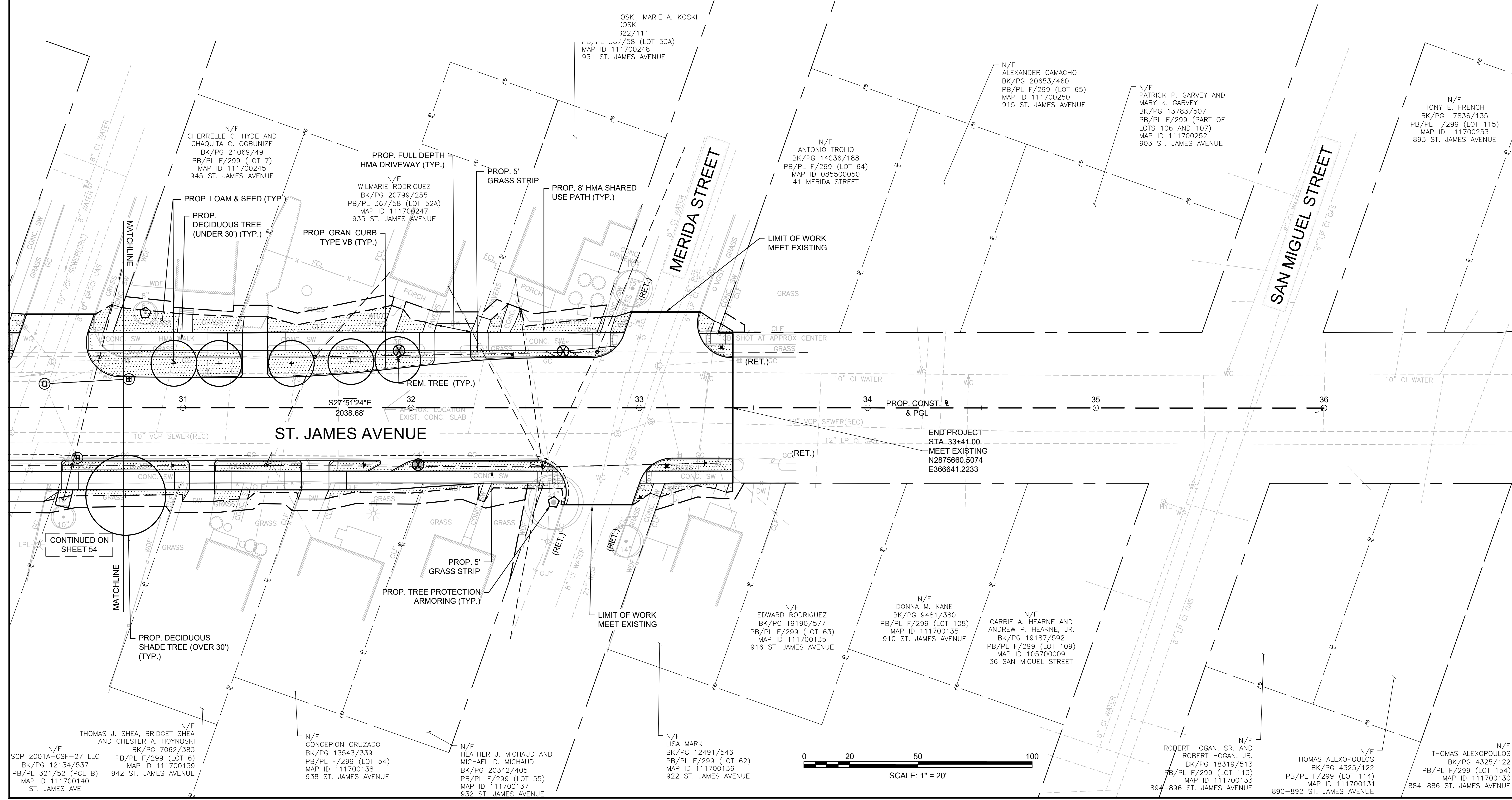
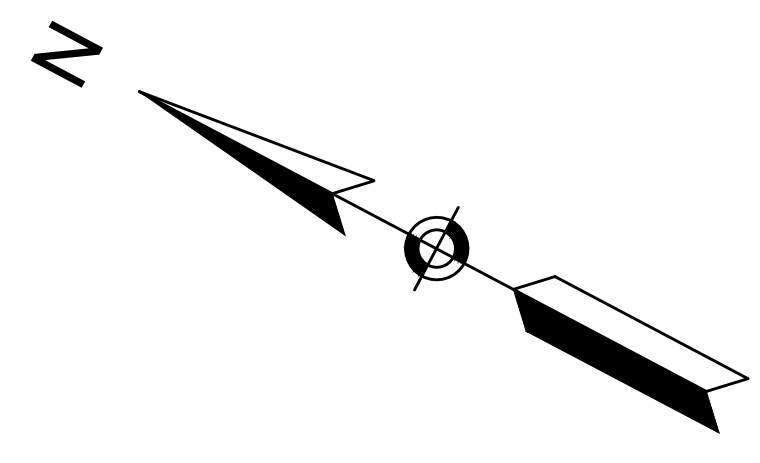
N/F
WALGREEN EASTERN CO., INC.
BK/PG 17590/343
MAP ID 111720008
56 ST. JAMES BLVD



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	55	115
PROJECT FILE NO.		608565	

LEGEND

- EXISTING TREE TO REMAIN (TYP.)
- REMOVE TREE (TYP.)
- PROP. TREE PROTECTION ARMORING (TYP.)
- PROP. DECIDUOUS TREE (TYP.)
- PROP. LAWN SEED MIX
- PROP. AGED PINE BARK MULCH



THOMAS J. SHEA, BRIDGET SHEA AND CHESTER A. HOYNOSKI
N/F SCP 2001A-CSF-27 LLC BK/PG 7062/383
N/F BK/PG 12134/537 PB/PL F/299 (LOT 6) MAP ID 111700139
PB/PL 321/52 (PCL B) 942 ST. JAMES AVENUE
MAP ID 111700140 ST. JAMES AVE

N/F CONCEPCION CRUZADO BK/PG 13543/339
PB/PL F/299 (LOT 54) MAP ID 111700138
938 ST. JAMES AVENUE

N/F HEATHER J. MICHAUD AND MICHAEL D. MICHAUD BK/PG 20342/405
PB/PL F/299 (LOT 55) MAP ID 111700137
932 ST. JAMES AVENUE

N/F LISA MARK BK/PG 12491/546
PB/PL F/299 (LOT 62) MAP ID 111700136
922 ST. JAMES AVENUE

N/F EDWARD RODRIGUEZ BK/PG 19190/577
PB/PL F/299 (LOT 63) MAP ID 111700135
916 ST. JAMES AVENUE

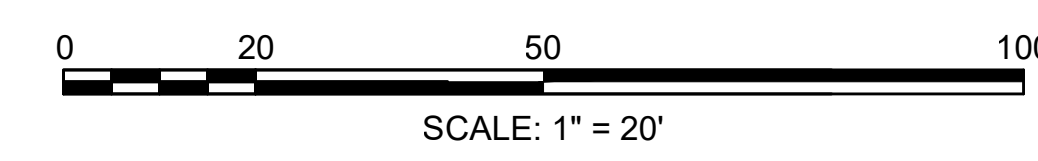
N/F DONNA M. KANE BK/PG 9481/380
PB/PL F/299 (LOT 108) MAP ID 111700135
910 ST. JAMES AVENUE

N/F CARRIE A. HEARNE AND ANDREW P. HEARNE, JR. BK/PG 19187/592
PB/PL F/299 (LOT 109) MAP ID 105700009
36 SAN MIGUEL STREET

N/F ROBERT HOGAN, SR. AND ROBERT HOGAN, JR. BK/PG 18319/513
PB/PL F/299 (LOT 114) MAP ID 111700133
894-896 ST. JAMES AVENUE

N/F THOMAS ALEXOPOULOS BK/PG 4325/122
PB/PL F/299 (LOT 114) MAP ID 111700131
890-892 ST. JAMES AVENUE

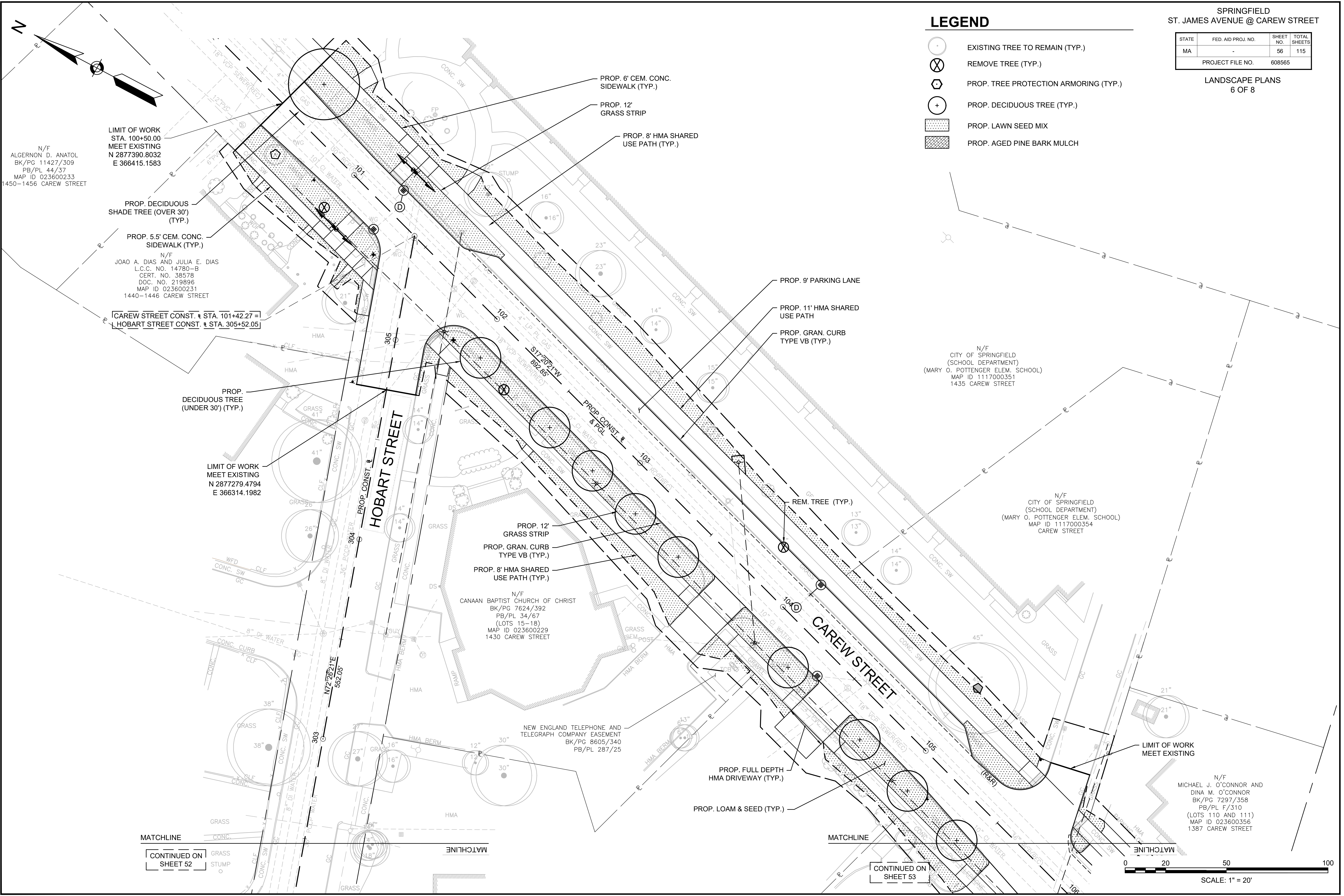
N/F THOMAS ALEXOPOULOS BK/PG 4325/122
PB/PL F/299 (LOT 154) MAP ID 111700130
884-886 ST. JAMES AVENUE



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	56	115
PROJECT FILE NO.		608565	

LEGEND

- EXISTING TREE TO REMAIN (TYP.)
- REMOVE TREE (TYP.)
- PROP. TREE PROTECTION ARMORING (TYP.)
- PROP. DECIDUOUS TREE (TYP.)
- PROP. LAWN SEED MIX
- PROP. AGED PINE BARK MULCH



N/F
ALGERNON D. ANATOL
BK/PG 11427/309
PB/PL 44/37
MAP ID 023600233
1450-1456 CAREW STREET

LIMIT OF WORK
STA. 100+50.00
MEET EXISTING
N 2877390.8032
E 366415.1583

PROP. DECIDUOUS
SHADE TREE (OVER 30')
(TYP.)

PROP. 5.5' CEM. CONC.
SIDEWALK (TYP.)

N/F
JOAO A. DIAS AND JULIA E. DIAS
L.C.C. NO. 14780-B
CERT. NO. 38578
DOC. NO. 219896
MAP ID 023600231
1440-1446 CAREW STREET

CAREW STREET CONST. @ STA. 101+42.27 =
HOBART STREET CONST. @ STA. 305+52.05

PROP.
DECIDUOUS TREE
(UNDER 30') (TYP.)

LIMIT OF WORK
MEET EXISTING
N 2877279.4794
E 366314.1982

HOBART STREET

PROP. 12'
GRASS STRIP
PROP. GRAN. CURB
TYPE VB (TYP.)
PROP. 8' HMA SHARED
USE PATH (TYP.)

N/F
CANAAN BAPTIST CHURCH OF CHRIST
BK/PG 7624/392
PB/PL 34/67
(LOTS 15-18)
MAP ID 023600229
1430 CAREW STREET

NEW ENGLAND TELEPHONE AND
TELEGRAPH COMPANY EASEMENT
BK/PG 8605/340
PB/PL 287/25

PROP. FULL DEPTH
HMA DRIVEWAY (TYP.)
PROP. LOAM & SEED (TYP.)

PROP. 9' PARKING LANE
PROP. 11' HMA SHARED
USE PATH
PROP. GRAN. CURB
TYPE VB (TYP.)

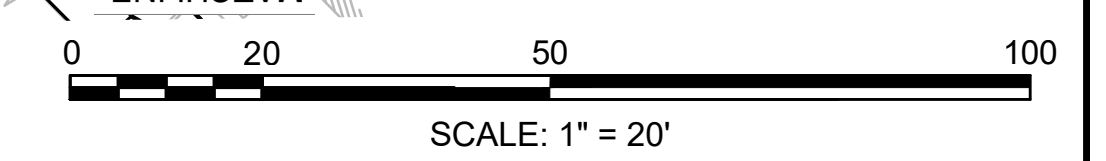
N/F
CITY OF SPRINGFIELD
(SCHOOL DEPARTMENT)
(MARY O. POTTENGER ELEM. SCHOOL)
MAP ID 1117000351
1435 CAREW STREET

N/F
CITY OF SPRINGFIELD
(SCHOOL DEPARTMENT)
(MARY O. POTTENGER ELEM. SCHOOL)
MAP ID 1117000354
CAREW STREET

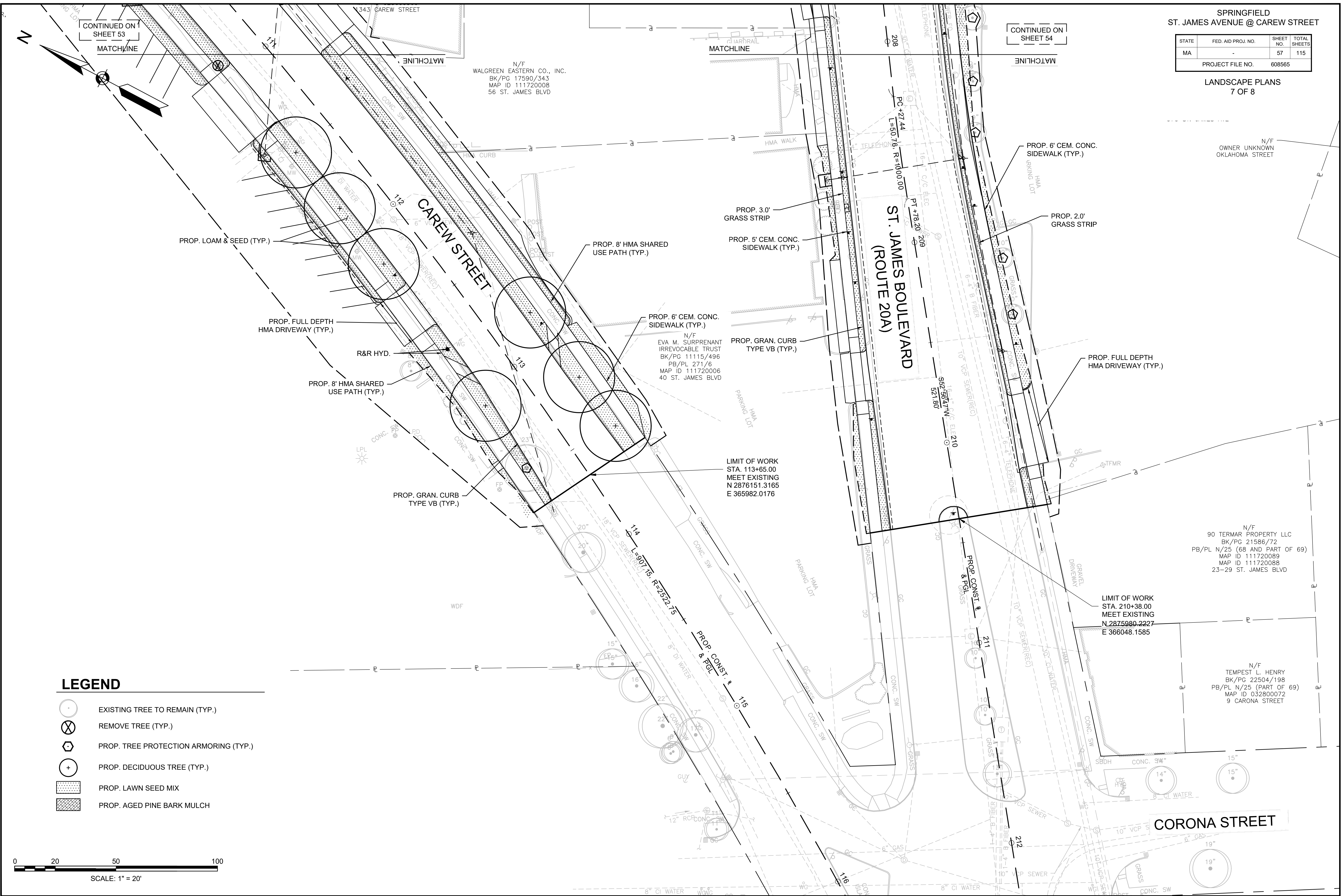
N/F
MICHAEL J. O'CONNOR AND
DINA M. O'CONNOR
BK/PG 7297/358
PB/PL F/310
(LOTS 110 AND 111)
MAP ID 023600356
1387 CAREW STREET

MATCHLINE
CONTINUED ON
SHEET 52





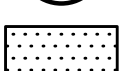

MATCHLINE
CONTINUED ON
SHEET 53

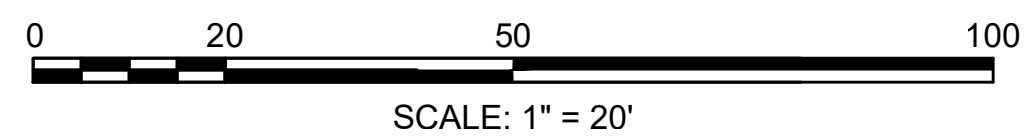


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	57	115
PROJECT FILE NO.		608565	

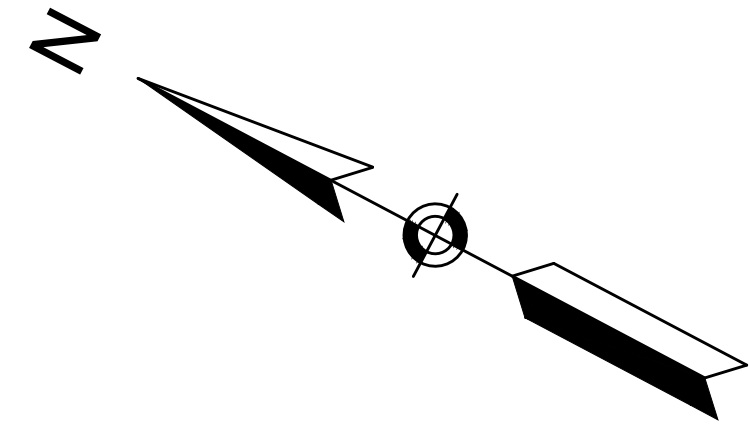


LEGEND




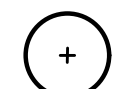
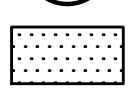
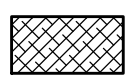
-  EXISTING TREE TO REMAIN (TYP.)
-  REMOVE TREE (TYP.)
-  PROP. TREE PROTECTION ARMORING (TYP.)
-  PROP. DECIDUOUS TREE (TYP.)
-  PROP. LAWN SEED MIX
-  PROP. AGED PINE BARK MULCH



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	58	115
PROJECT FILE NO.		608565	



LEGEND

-  EXISTING TREE TO REMAIN (TYP.)
-  REMOVE TREE (TYP.)
-  PROP. TREE PROTECTION ARMORING (TYP.)
-  PROP. DECIDUOUS TREE (TYP.)
-  PROP. LAWN SEED MIX
-  PROP. AGED PINE BARK MULCH

N/F
CITY OF SPRINGFIELD
(CITY COUNCIL)
(MARSHALL ROY FIELD)
MAP ID 111700036
166 ST. JAMES BLVD.

N/F
JAMES ZARLENGO
BK/PG 19842/395
PB/PL F/310 (LOT 279)
MAP ID 111720070
139 ST. JAMES BLVD.

N/F
JANET KACIAK AND
THADDEUS J. KACIAK, JR.
BK/PG 16221/333
PB/PL F/310 (LOT 280)
MAP ID 111720071
133 ST. JAMES BLVD.

N/F
WILLIAM L. COSTIGAN AND
KAREN M. COSTIGAN
BK/PG 14223/440
MAP ID 111700015
114 ST. JAMES BLVD.

N/F
AMY E. CARTER
BK/PG 18006/270
PB/PL 21/28 (LOT H)
MAP ID 111720072
123 ST. JAMES BLVD.

N/F
MARION B. ROGERS
BK/PG 2482/398
BK/PG 21748/456
PB/PL 21/28 (LOT J)
MAP ID 111720073
117 ST. JAMES BLVD.

N/F
MILAGROS NUNEZ AND
MIRELLA CRUZ
BK/PG 19038/540
PB/PL F/310
(LOTS 301 AND 302)
MAP ID 111720075
109 ST. JAMES BLVD.

N/F
JUAN CRUZ AND
ESTHER RODRIGUEZ
BK/PG 17186/302
PB/PL F/310
(LOTS 313-315)
MAP ID 052500006
30 FORDHAM STREET

**ST. JAMES BOULEVARD
(ROUTE 20A)**

MARQUETTE STREET

FORDHAM STREET

DETROIT STREET

PROP. GRAN. CURB
TYPE VB (TYP.)

LIMIT OF WORK
STA. 202+95.00
MEET EXISTING
N 2876404.9727
E 366657.5747

LIMIT OF WORK
MEET EXISTING

LIMIT OF WORK
MEET EXISTING

PROP. 3'
GRASS STRIP

PROP. 8' HMA SHARED
USE PATH (TYP.)

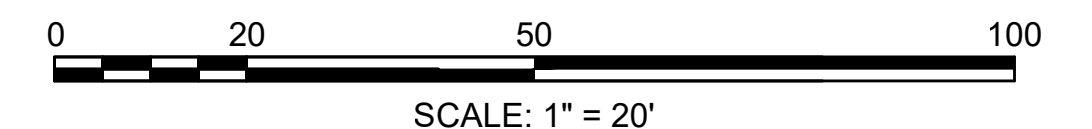
PROP. INDIVIDUAL
TREE ARMOR (TYP.)

PROP. LOAM & SEED (TYP.)

PROP. 3'
GRASS STRIP

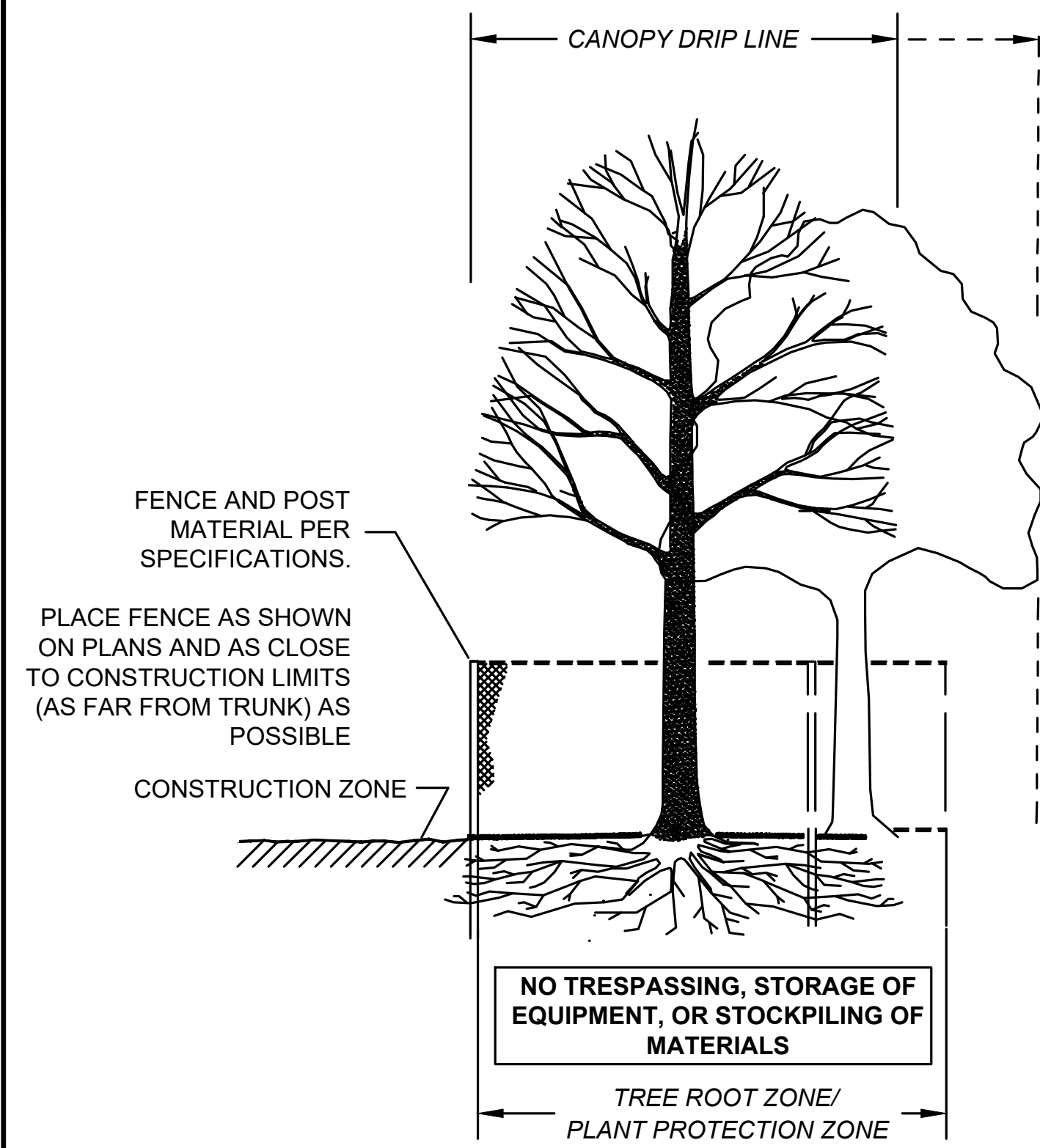
MATCHLINE

CONTINUED ON
SHEET 54

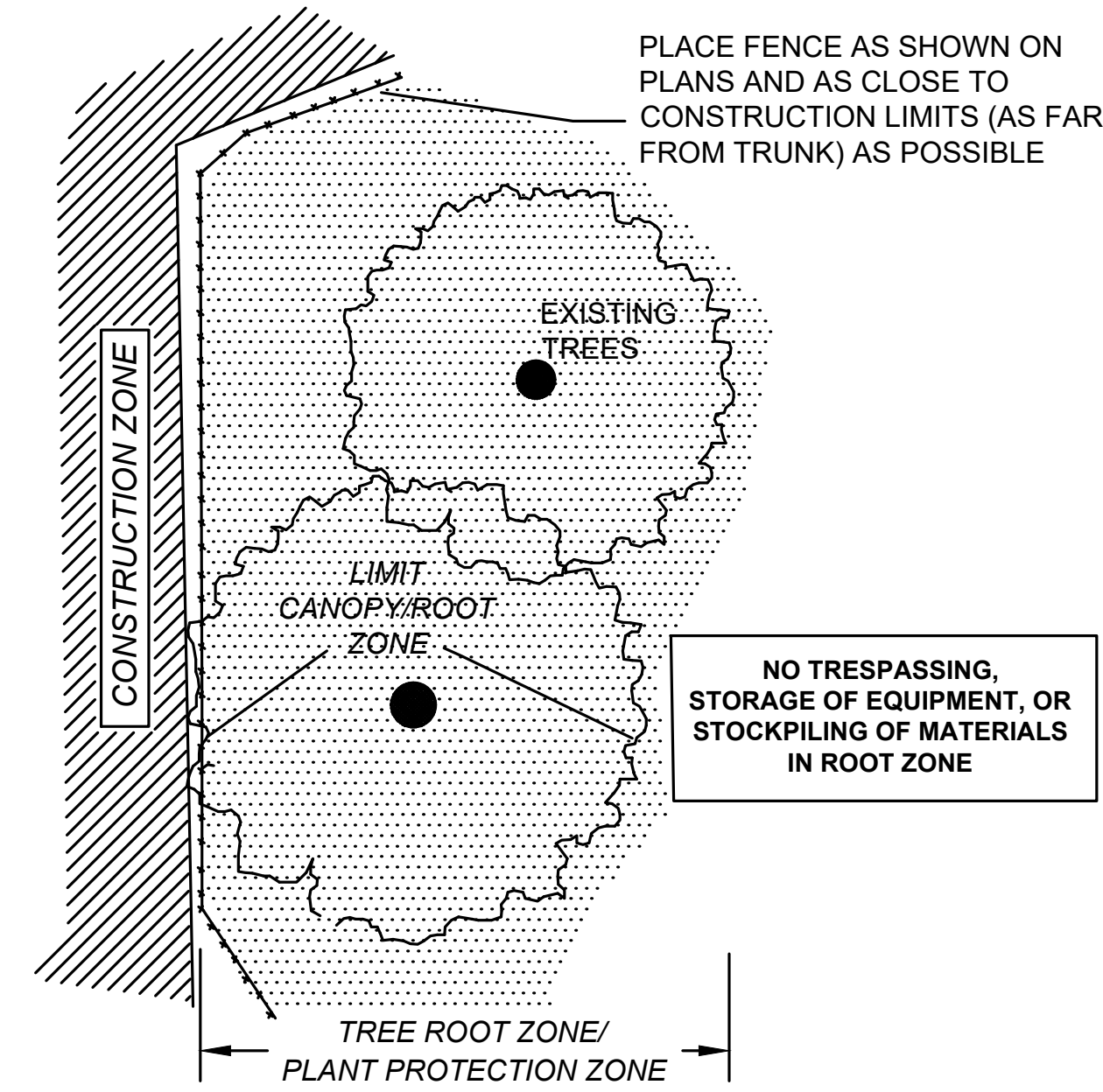


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	59	115
PROJECT FILE NO.		608565	

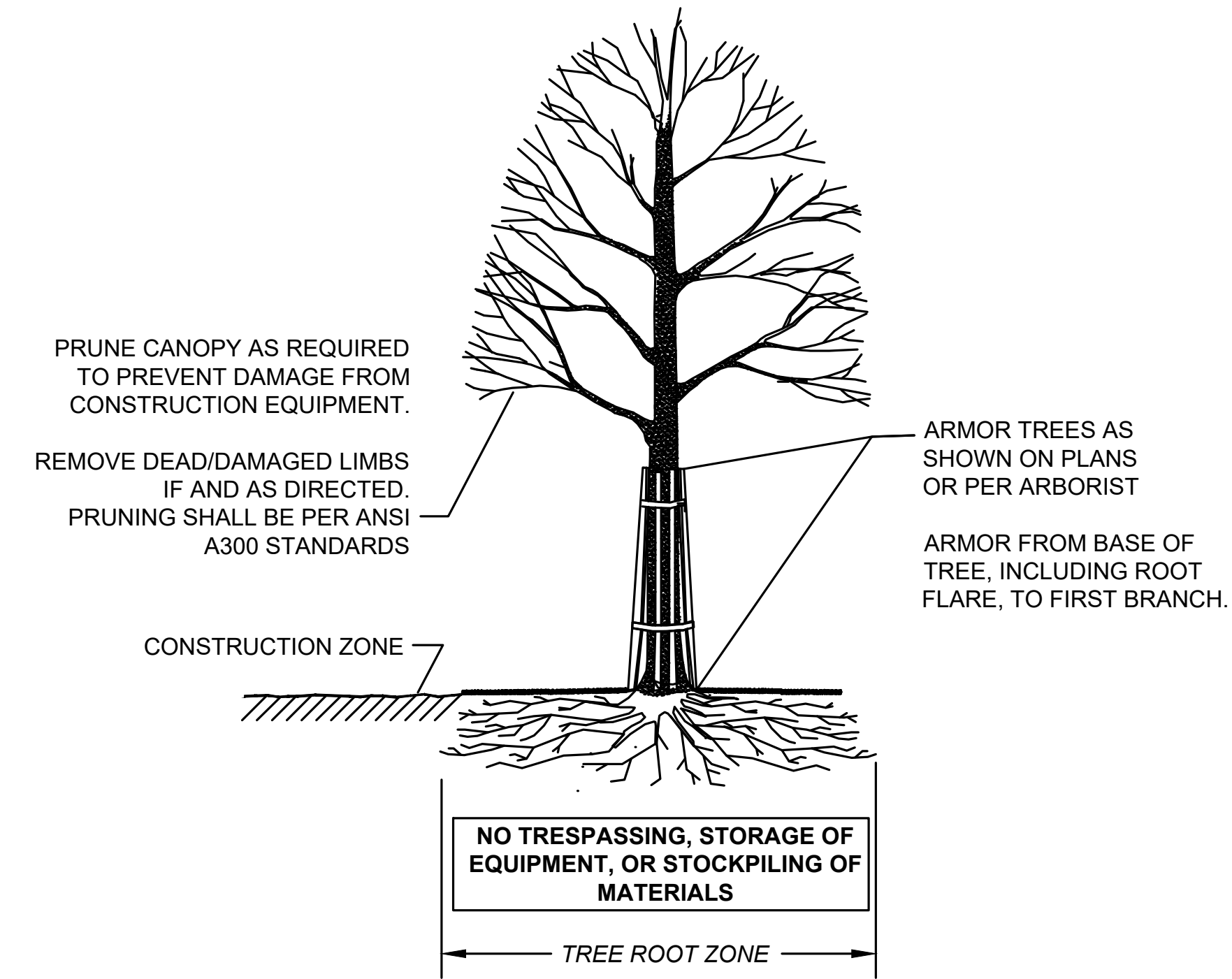
CONSTRUCTION DETAILS



SECTION - FENCE PROTECTION OF ROOT ZONE



PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

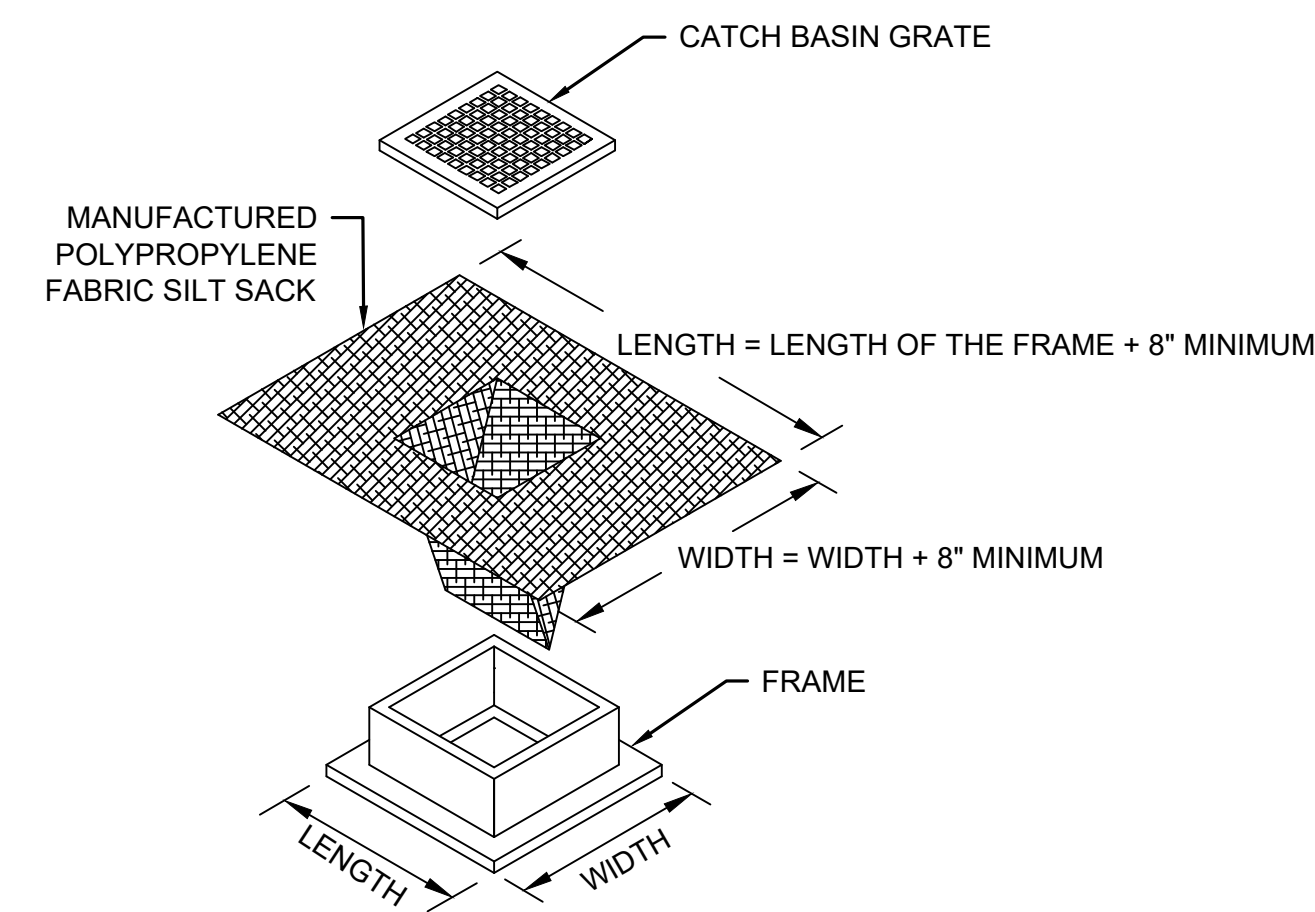


SECTION - TRUNK ARMORING & PRUNING

TREE PROTECTION - ROOT ZONE

NOT TO SCALE

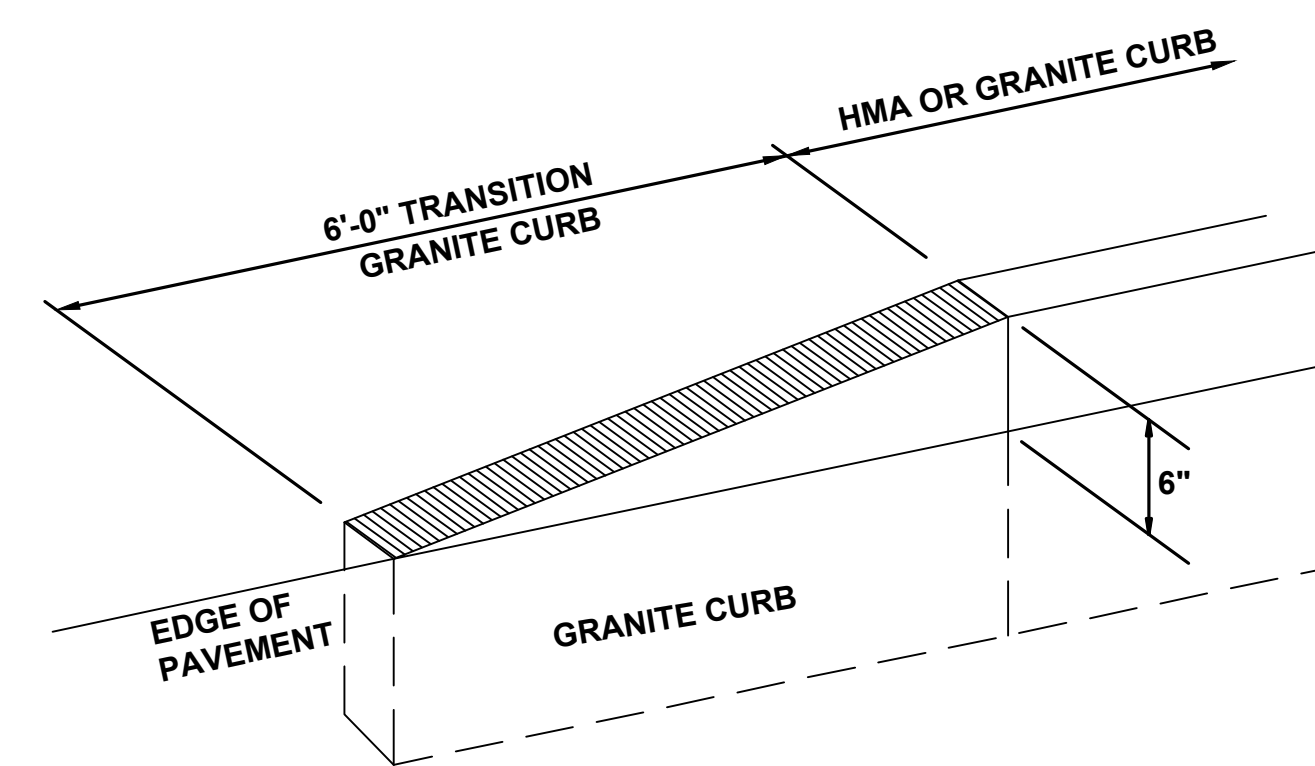
TREE PROTECTION - TRUNK



1. LENGTH AND WIDTH OF POLYPROPYLENE FABRIC MUST EXCEED EXISTING CATCH BASIN FRAME DIMENSIONS BY A MINIMUM OF 8".
2. REMOVE CATCH BASIN GRATE AND INSTALL POLYPROPYLENE FABRIC OVER CATCH BASIN FRAME. REPLACE CATCH BASIN GRATE TO SECURE POLYPROPYLENE FABRIC IN PLACE.
3. FOR USE ON ALL EXISTING CATCH BASINS WITHIN THE PROJECT LIMITS AND PROPOSED CATCH BASINS THAT ARE IN OPERATION DURING CONSTRUCTION.

INLET SEDIMENT CONTROL DEVICE

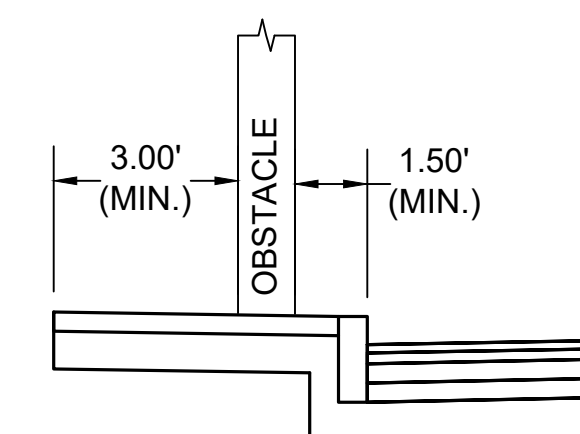
NOT TO SCALE



CURB TRANSITION DETAIL

NOT TO SCALE

TO BE USED FOR TRANSITION FROM HMA CURB OR GRANITE CURB TO EDGE OF PAVEMENT



NOTE:

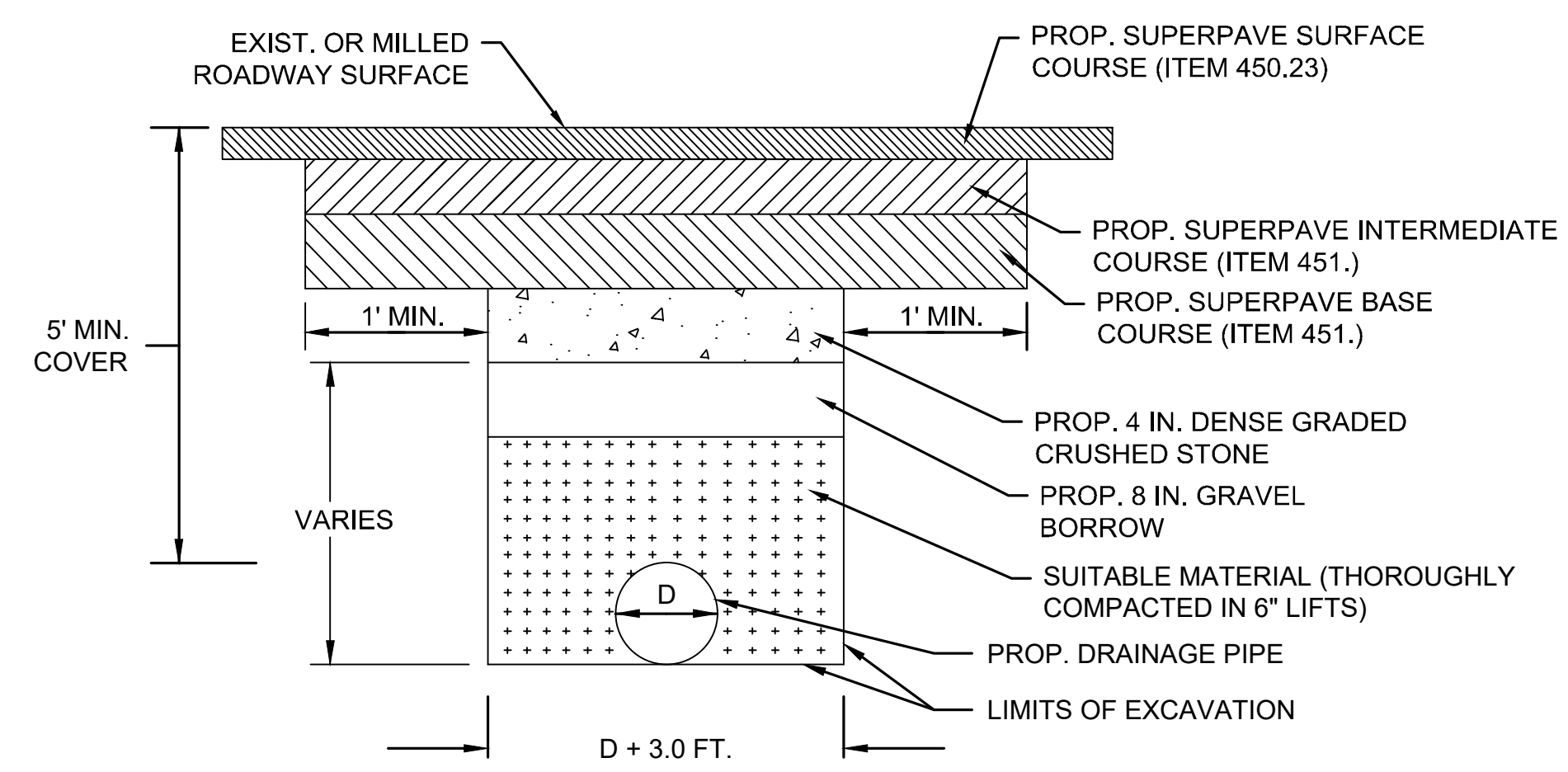
WHEN REMOVING AND RESETTING A VERTICAL STRUCTURE WITHIN THE PEDESTRIAN ACCESS ROUTE, A 3.0' MINIMUM WALKABLE PATH SHALL BE PROVIDED FROM THE FACE OF THE VERTICAL OBSTACLE TO THE EDGE OF THE WALKABLE PATH, EXCLUSIVE OF THE CURB. THE FACE OF THE VERTICAL OBSTACLE SHOULD ALSO BE A MINIMUM 1.5' FROM THE FACE OF THE CURB.

MINIMUM HORIZONTAL SIDEWALK CLEARANCE

NOT TO SCALE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	60	115
PROJECT FILE NO.		608565	

CONSTRUCTION DETAILS

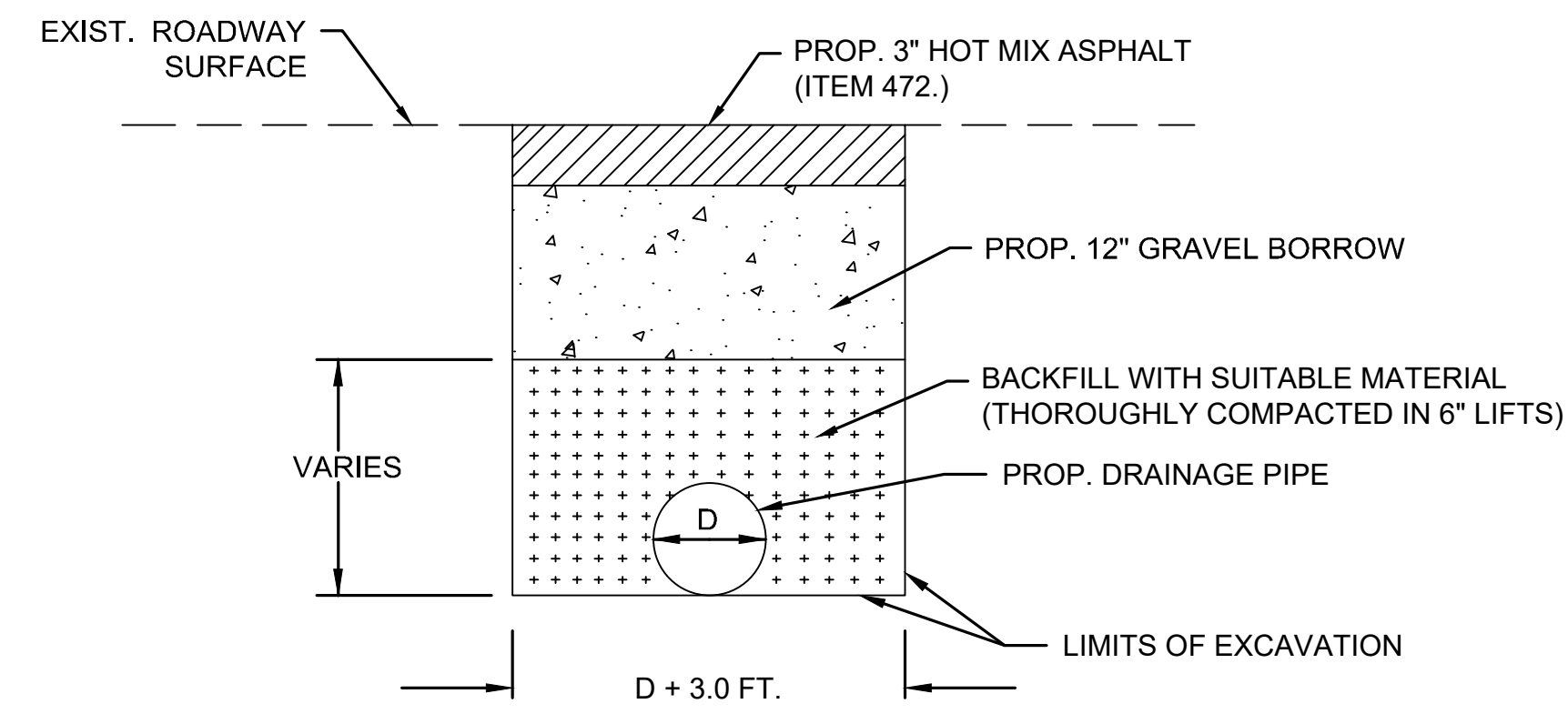


PERMANENT PATCH

(IN AREAS OF MILLING AND PAVEMENT OVERLAY)

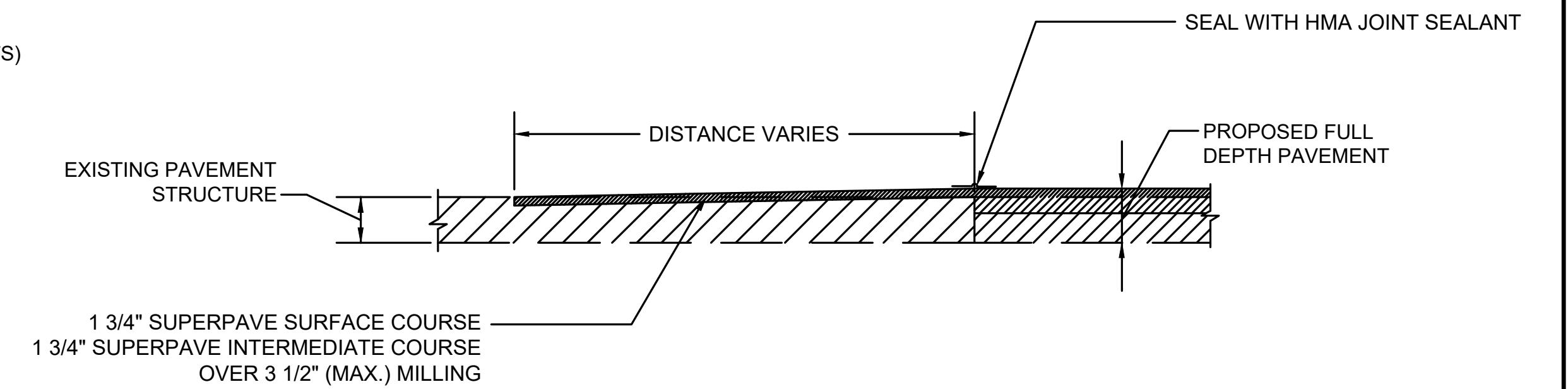
1. PLACE TACK COAT BETWEEN ALL HMA COURSES AND SAWCUT SURFACES PRIOR TO PLACING HMA. SEE PAVEMENT NOTES-FULL DEPTH HMA CONSTRUCTION FOR DEPTH OF HMA.

2. IF UNSUITABLE MATERIAL IS ENCOUNTERED AS DETERMINED BY THE ENGINEER, ADDITIONAL BEDDING SHALL BE PAID FOR UNDER ITEM 156.



TEMPORARY PATCH

(IN AREAS OF FULL DEPTH PAVEMENT RECONSTRUCTION)

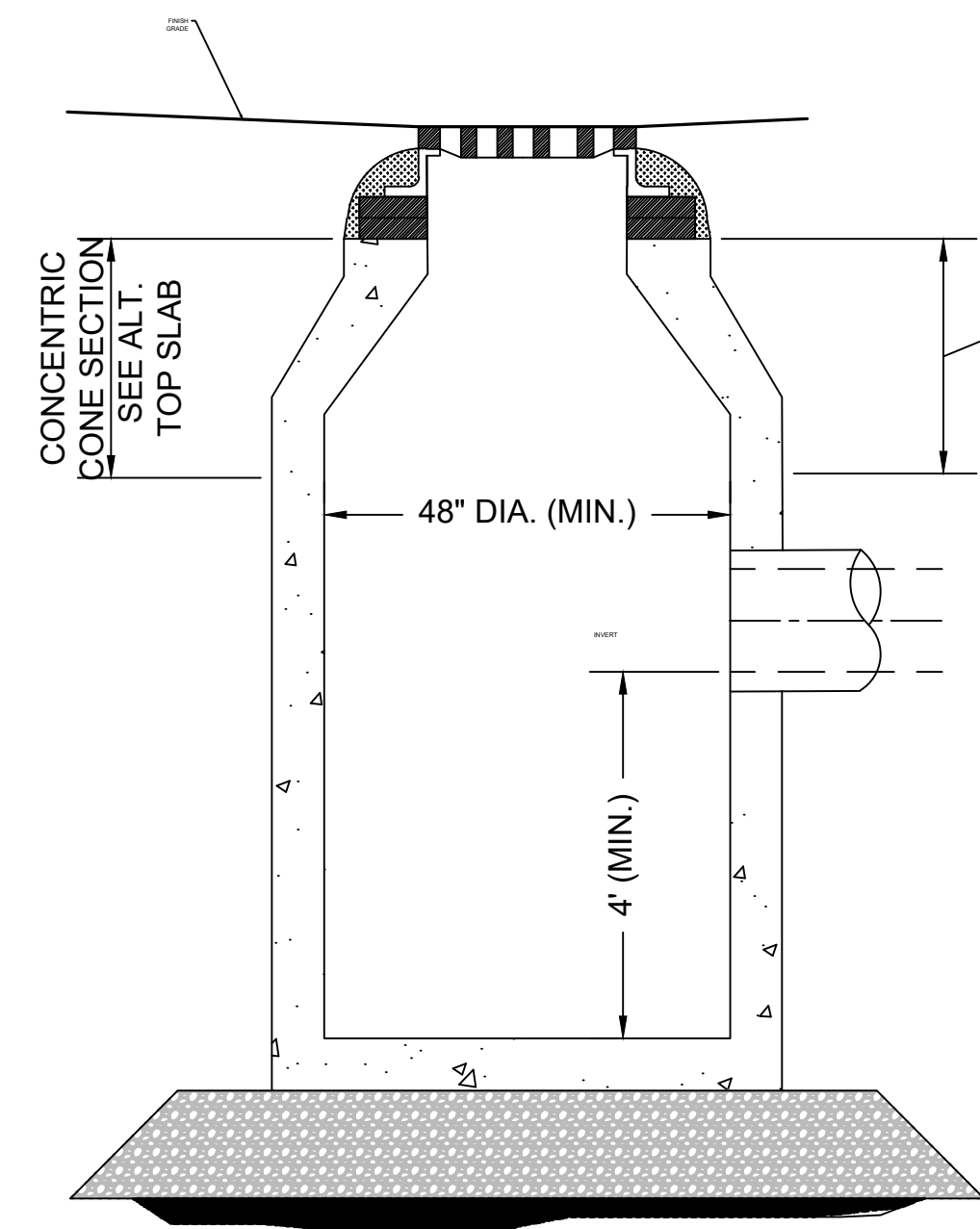
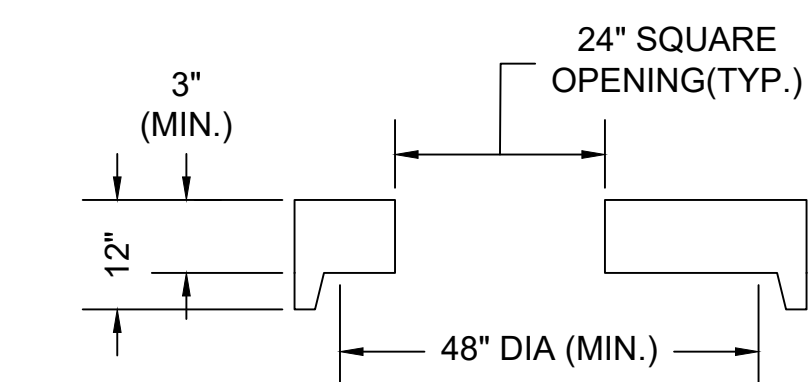
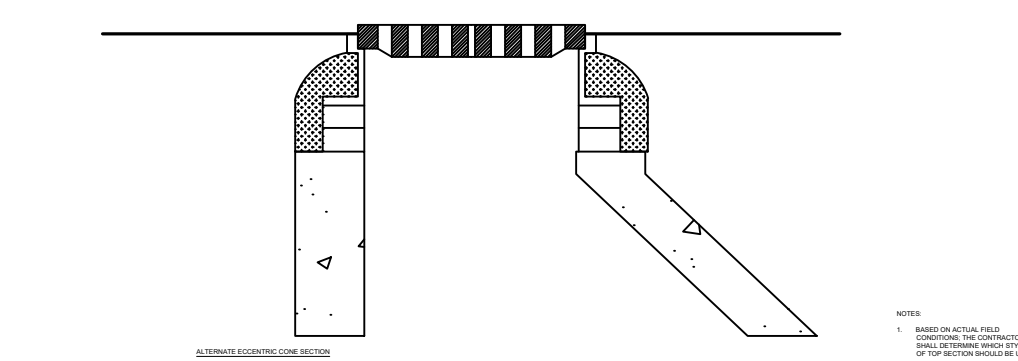


PAVEMENT TRANSITION DETAIL

NOT TO SCALE

DRAINAGE TRENCH DETAIL

NOT TO SCALE



CATCH BASIN

NOT TO SCALE

DEPTH VARIES. REMOVE EXISTING TOP SECTION AS NEEDED. REPLACE WITH NEW TOP SECTION AS NEEDED.

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	61	115
PROJECT FILE NO.		608565	

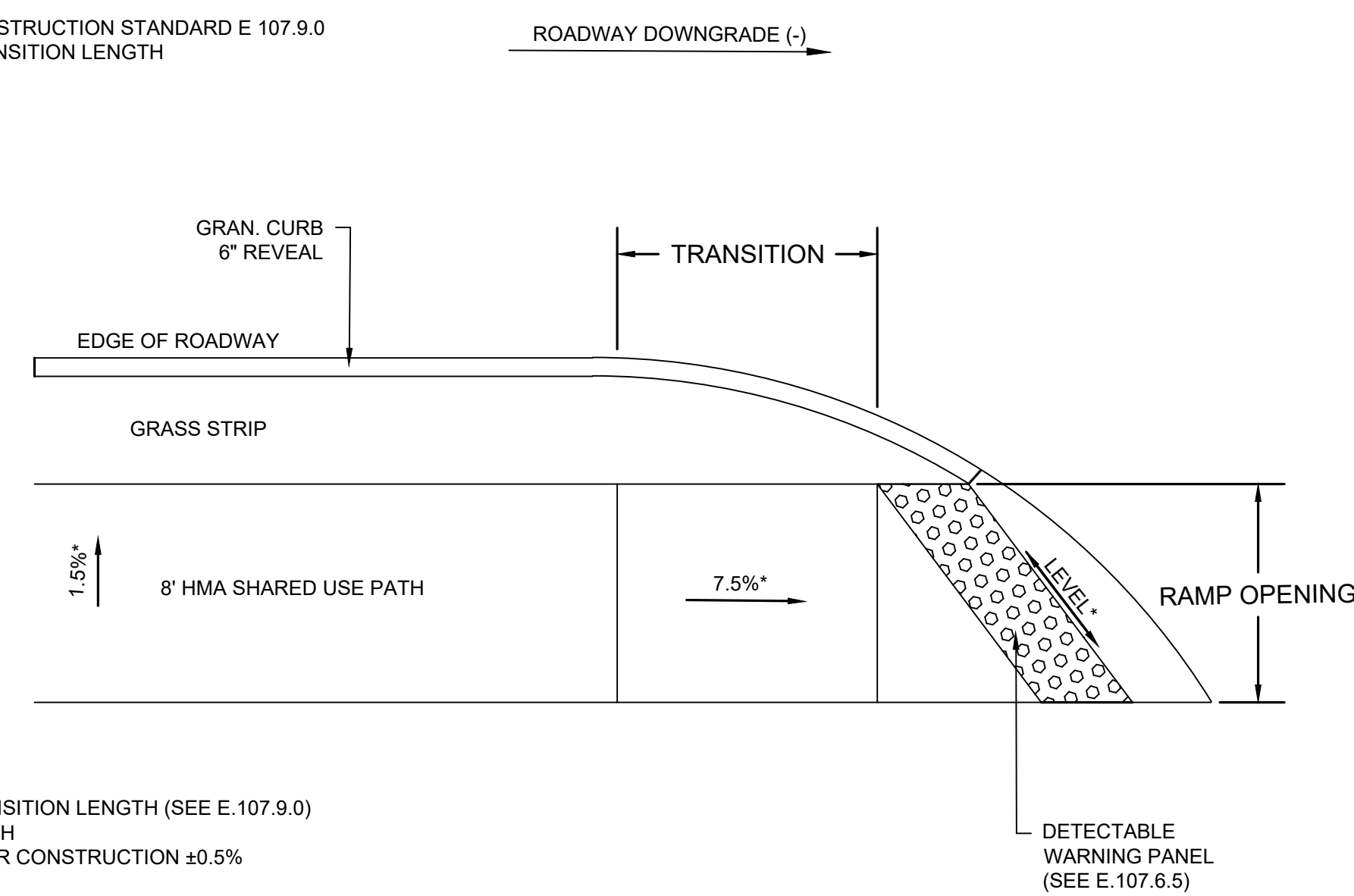
WHEELCHAIR RAMP DRIVEWAY DETAILS

ROADWAY PROFILE GRADE	*HIGH SIDE TRANSITION LENGTH
%	ENGLISH UNITS
=0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"
>4% TO 5%	15'-0" Max

NOTE:
*BASED ON A DESIGN SLOPE OF 7.5% AND A REVEAL OF 6".

NOTES:

- SEE CONSTRUCTION STANDARD E 107.9.0 FOR TRANSITION LENGTH



LEGEND

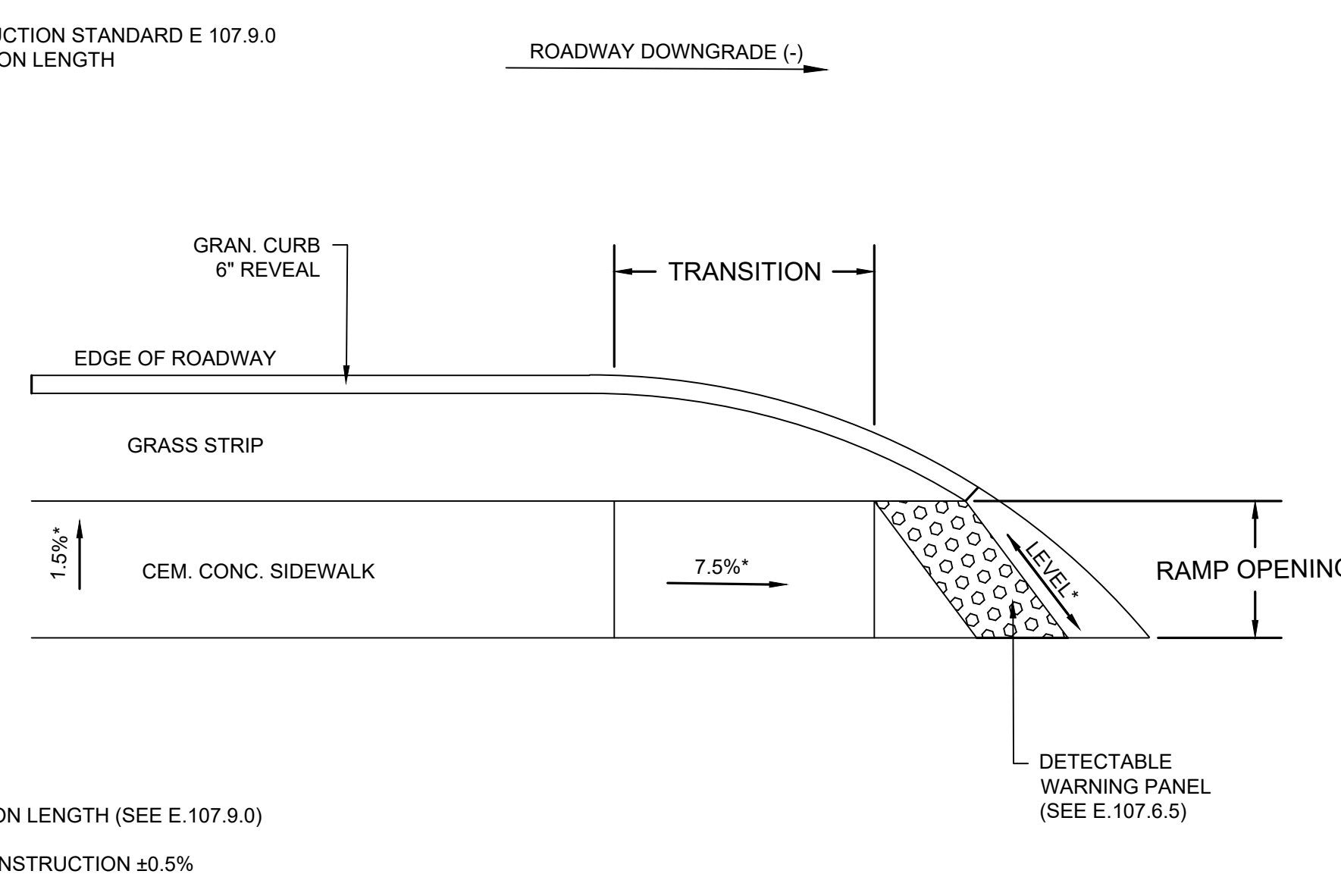
HSL = HIGH SIDE TRANSITION LENGTH (SEE E.107.9.0)
W = SIDEWALK WIDTH
* = TOLERANCE FOR CONSTRUCTION ±0.5%

WCR #	RAMP REFERENCE POINT			WIDTH OF OPENING	ROADWAY GUTTER SLOPE	TRANSITION LENGTH
	BASELINE	STATION	OFFSET			
6	ST. JAMES AVENUE					
7	ST. JAMES AVENUE					
8	ST. JAMES AVENUE					
19	ST. JAMES AVENUE					
20	ST. JAMES AVENUE					
29	ST. JAMES AVENUE					
30	ST. JAMES AVENUE					
33	ST. JAMES AVENUE					
38	CAREW STREET					
40	CAREW STREET					
41	CAREW STREET					
42	CAREW STREET					
44	ST. JAMES BOULEVARD					
46	ST. JAMES BOULEVARD					

PEDESTRIAN AND BICYCLE CROSSING FOR ONE CONTINUOUS DIRECTION OF TRAVEL

NOTES:

- SEE CONSTRUCTION STANDARD E 107.9.0 FOR TRANSITION LENGTH

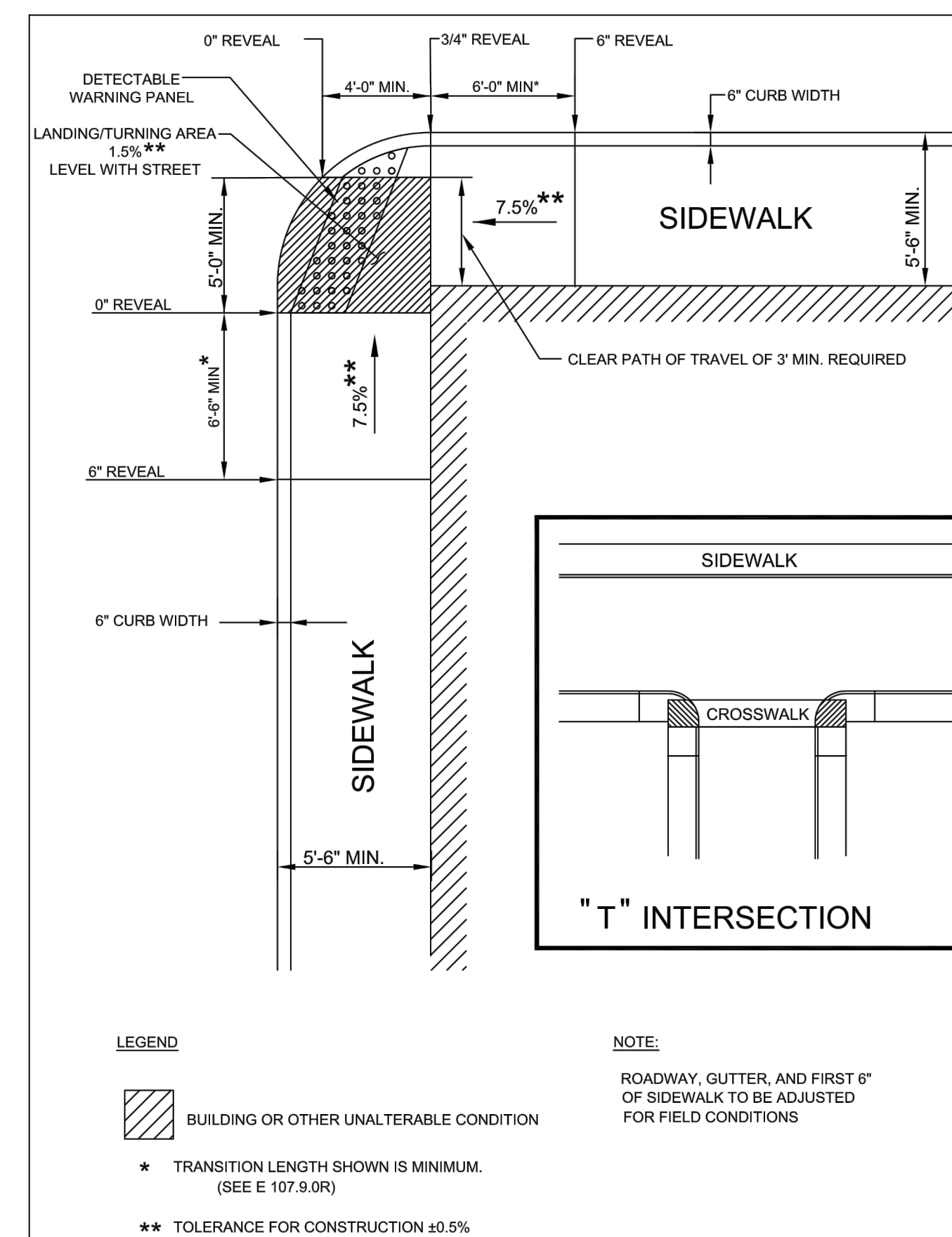


LEGEND

HSL = HIGH SIDE TRANSITION LENGTH (SEE E.107.9.0)
W = SIDEWALK WIDTH
* = TOLERANCE FOR CONSTRUCTION ±0.5%

WCR #	RAMP REFERENCE POINT			WIDTH OF OPENING	ROADWAY GUTTER SLOPE	TRANSITION LENGTH
	BASELINE	STATION	OFFSET			
1	ST. JAMES AVENUE					
2	ST. JAMES AVENUE					
31	ST. JAMES AVENUE					
32	ST. JAMES AVENUE					
34	ST. JAMES AVENUE					
43	ST. JAMES BOULEVARD					
45	ST. JAMES BOULEVARD					

PEDESTRIAN AND BICYCLE CROSSING FOR ONE CONTINUOUS DIRECTION OF TRAVEL



WCR #	RAMP REFERENCE POINT			WIDTH OF SIDEWALK	WIDTH OF OPENING	ROADWAY GUTTER SLOPE	LENGTH OF RAMP (W1)
	BASELINE	STATION	OFFSET				
5	ST. JAMES AVENUE						
37	CAREW STREET						
39	CAREW STREET						

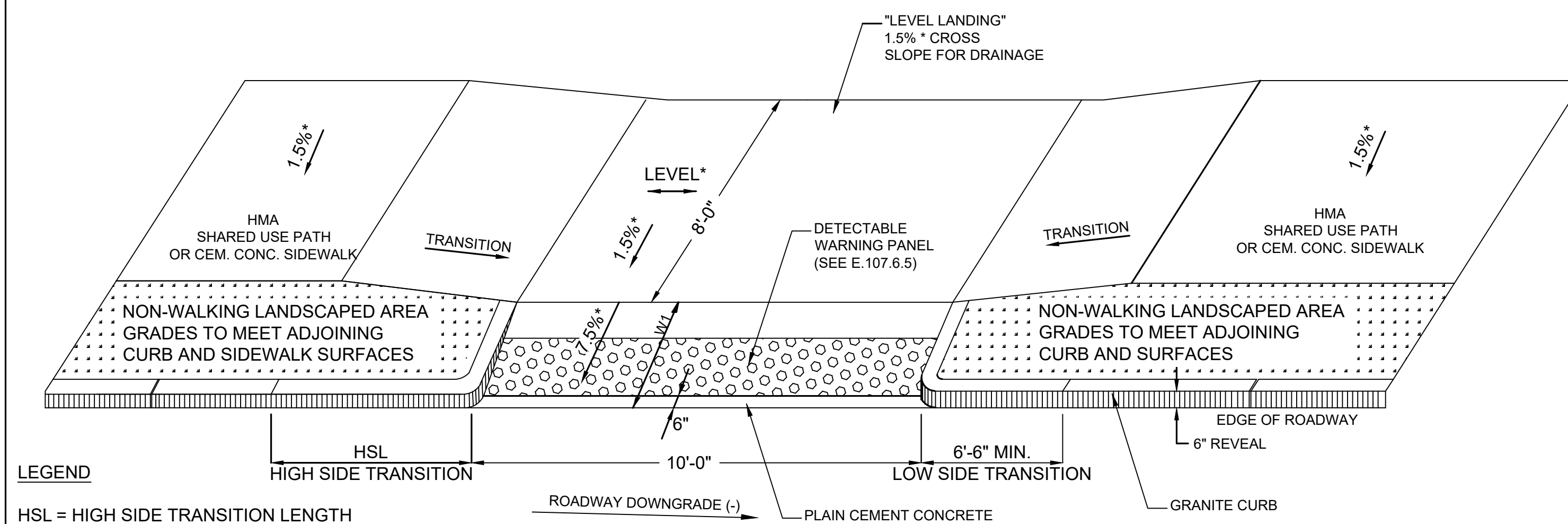
"T" INTERSECTION WHEELCHAIR RAMP

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	62	115
PROJECT FILE NO.		608565	

WHEELCHAIR RAMP DRIVEWAY
DETAILS

NOTES:

- SEE CONSTRUCTION STANDARD E 107.9.0
FOR TRANSITION LENGTH



LEGEND

HSL = HIGH SIDE TRANSITION LENGTH
(SEE E.107.9.0)
* = TOLERANCE FOR CONSTRUCTION ±0.5%

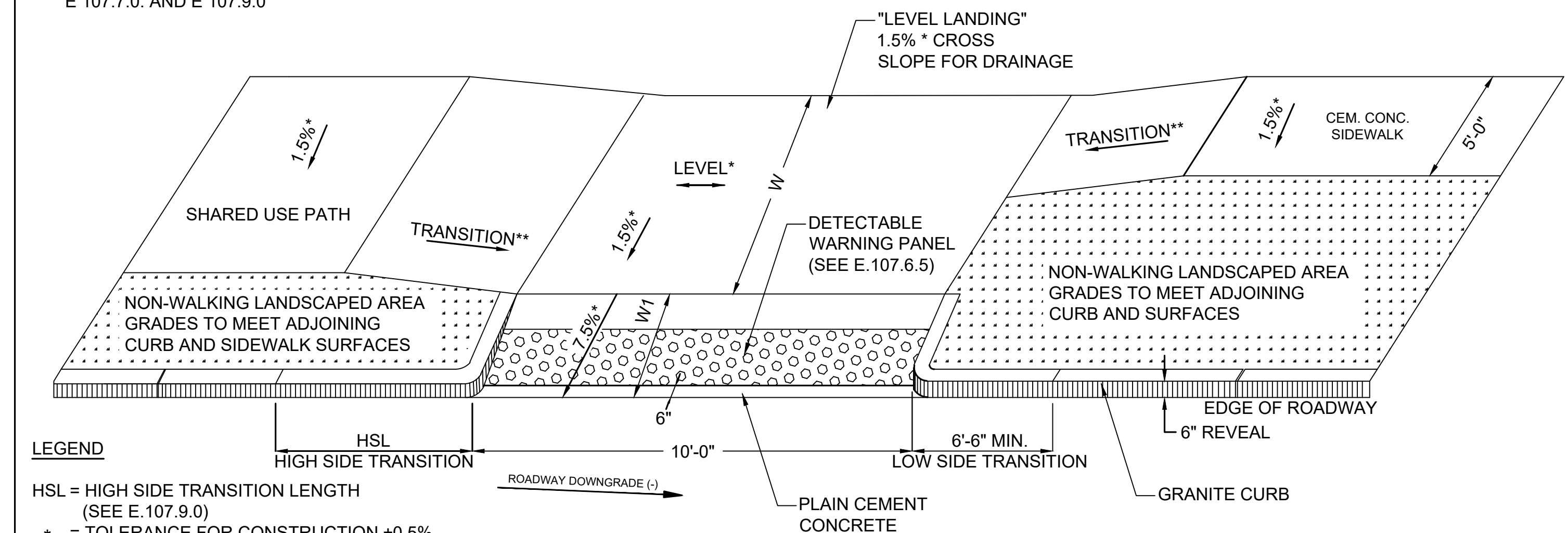
WCR #	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP (W1)	WIDTH OF SHARED USE PATH	WIDTH OF RAMP MIN. 5'-0"	DEPTH OF LEVEL LANDING MIN. 4'-0"	ROADWAY GUTTER SLOPE	TRANSITION LENGTH***	
	BASELINE	STATION	OFFSET						LEFT SIDE	RIGHT SIDE
5	ST. JAMES AVENUE									
6	ST. JAMES AVENUE									
9	ST. JAMES AVENUE									
10	ST. JAMES AVENUE									
11	ST. JAMES AVENUE									
12	ST. JAMES AVENUE									
13	CAREW STREET									
14	CAREW STREET									
15	CAREW STREET									
16	CAREW STREET									
17	ST. JAMES AVENUE									
18	ST. JAMES AVENUE									
21	ST. JAMES AVENUE									
22	ST. JAMES AVENUE									
23	ST. JAMES BOULEVARD									
24	ST. JAMES BOULEVARD									
26	ST. JAMES BOULEVARD									
27	ST. JAMES AVENUE									
28	ST. JAMES AVENUE									

***AS VIEWED FROM PROPOSED CONSTRUCTION BASELINE

SHARED USE PATH RAMP WITH LANDSCAPING STRIP

NOTES:

- * CONSTRUCTION TOLERANCE ±0.5%
- SEE CONSTRUCTION STANDARDS E 107.2.0,
E 107.7.0. AND E 107.9.0



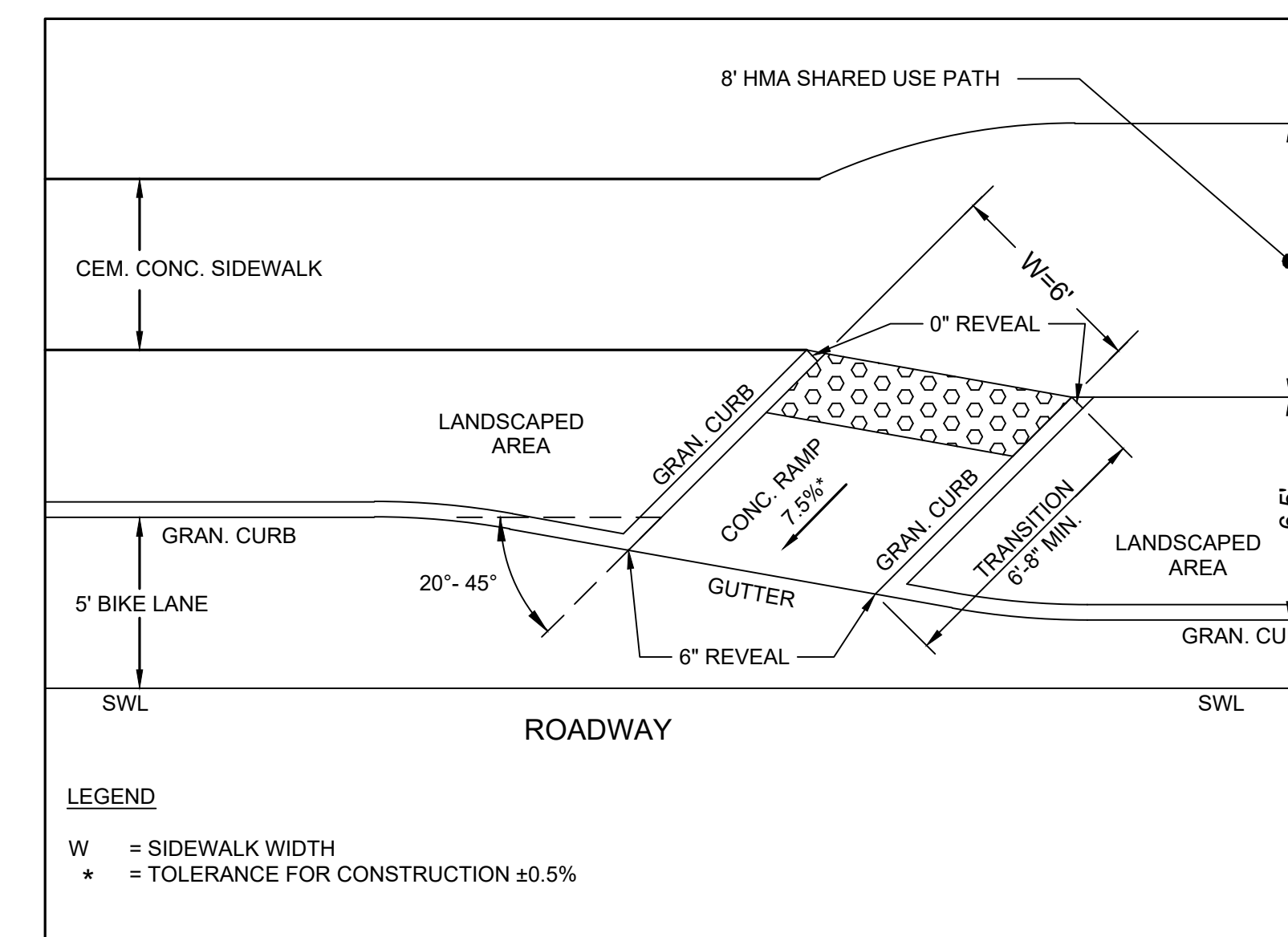
LEGEND

HSL = HIGH SIDE TRANSITION LENGTH
(SEE E.107.9.0)
* = TOLERANCE FOR CONSTRUCTION ±0.5%
** = SEE E 107.9.0 FOR TRANSITION LENGTH

WCR #	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP (W1)	WIDTH OF SHARED USE PATH (W)	WIDTH OF RAMP MIN. 5'-0"	DEPTH OF LEVEL LANDING MIN. 4'-0"	ROADWAY GUTTER SLOPE	TRANSITION LENGTH ***	
	BASELINE	STATION	OFFSET						LEFT SIDE	RIGHT SIDE
25	ST. JAMES BOULEVARD									
35	CAREW STREET									
36	CAREW STREET									

*** AS VIEWED FROM PROPOSED CONSTRUCTION BASELINE

SHARED USE PATH RAMP WITH LANDSCAPING STRIP



LEGEND

W = SIDEWALK WIDTH
* = TOLERANCE FOR CONSTRUCTION ±0.5%

BIKE RAMP #	RAMP REFERENCE POINT			ROADWAY GUTTER SLOPE	TRANSITION LENGTH
	BASELINE	STATION	OFFSET		
1	ST. JAMES AVENUE				
2	ST. JAMES AVENUE				
3	ST. JAMES AVENUE				
4	ST. JAMES AVENUE				
5	CAREW STREET				
6	CAREW STREET				
7	ST. JAMES BOULEVARD				
8	ST. JAMES BOULEVARD				
9	ST. JAMES BOULEVARD				

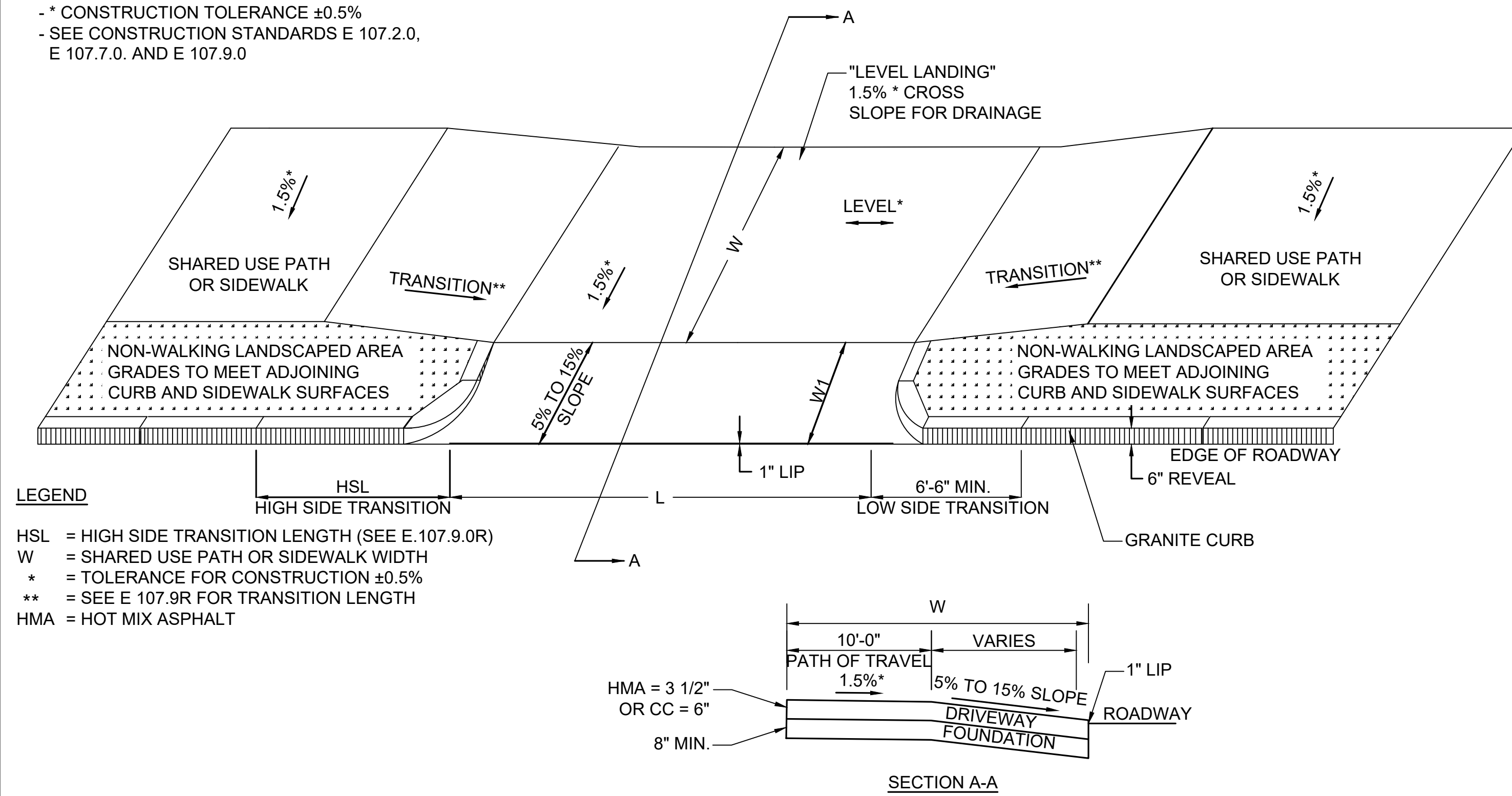
BICYCLE RAMP

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	63	115
PROJECT FILE NO.		608565	

WHEELCHAIR RAMP DRIVEWAY DETAILS

NOTES:

- * CONSTRUCTION TOLERANCE ±0.5%
- SEE CONSTRUCTION STANDARDS E 107.2.0, E 107.7.0. AND E 107.9.0

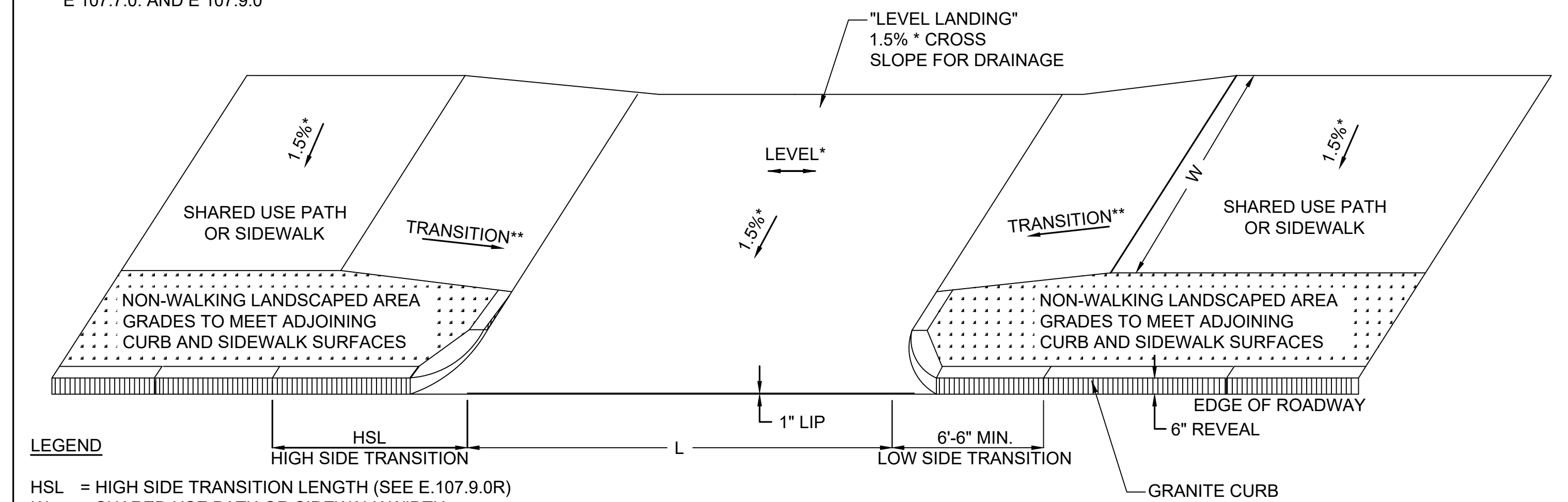


LEGEND

- HSL = HIGH SIDE TRANSITION LENGTH (SEE E.107.9.0R)
- W = SHARED USE PATH OR SIDEWALK WIDTH
- * = TOLERANCE FOR CONSTRUCTION ±0.5%
- ** = SEE E 107.9R FOR TRANSITION LENGTH
- HMA = HOT MIX ASPHALT

NOTES:

- * CONSTRUCTION TOLERANCE ±0.5%
- SEE CONSTRUCTION STANDARDS E 107.2.0, E 107.7.0. AND E 107.9.0



LEGEND

- HSL = HIGH SIDE TRANSITION LENGTH (SEE E.107.9.0R)
- W = SHARED USE PATH OR SIDEWALK WIDTH
- * = TOLERANCE FOR CONSTRUCTION ±0.5%
- ** = SEE E 107.9R FOR TRANSITION LENGTH
- HMA = HOT MIX ASPHALT

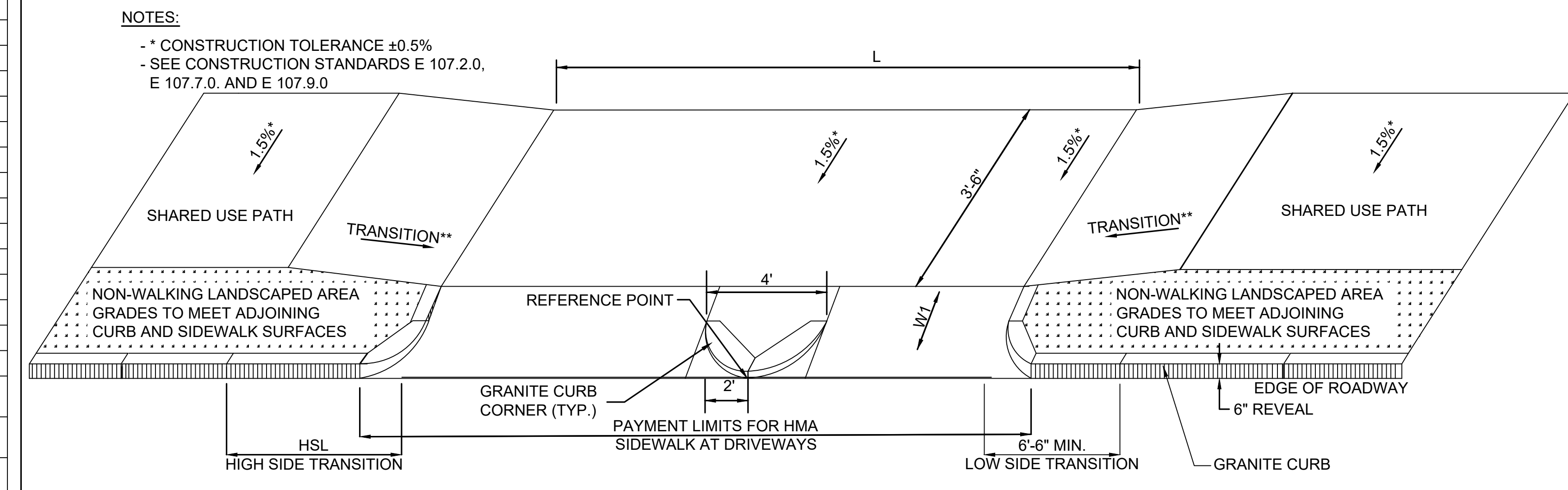
DWY #	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP (W1)	WIDTH OF SIDEWALK (W)	WIDTH OF DRIVEWAY (L)	DEPTH OF TRAVEL PATH MIN. 3'-3"	ROADWAY GUTTER SLOPE	TRANSITION LENGTH***	
	BASELINE	STATION	OFFSET						LEFT SIDE	RIGHT SIDE
2	ST. JAMES AVENUE									
3	ST. JAMES AVENUE									
4	ST. JAMES AVENUE									
5	ST. JAMES AVENUE									
6	ST. JAMES AVENUE									
7	ST. JAMES AVENUE									
8	ST. JAMES AVENUE									
9	ST. JAMES AVENUE									
10	ST. JAMES AVENUE									
11	ST. JAMES AVENUE									
12	ST. JAMES AVENUE									
13	ST. JAMES AVENUE									
14	ST. JAMES AVENUE									
17	ST. JAMES AVENUE									
18	ST. JAMES AVENUE									
19	ST. JAMES AVENUE									
20	ST. JAMES AVENUE									
21	ST. JAMES AVENUE									
22	CAREW STREET									
23	CAREW STREET									
24	CAREW STREET									
25	CAREW STREET									
26	CAREW STREET									
27	CAREW STREET									
28	CAREW STREET									
29	CAREW STREET									
30	CAREW STREET									
31	ST. JAMES BOULEVARD									
32	ST. JAMES BOULEVARD									
33	ST. JAMES BOULEVARD									
34	ST. JAMES BOULEVARD									
35	ST. JAMES BOULEVARD									
36	ST. JAMES BOULEVARD									
37	ST. JAMES BOULEVARD									

*** AS VIEWED FROM PROPOSED CONSTRUCTION BASELINE

SHARED USE PATH THROUGH DRIVEWAYS SEPARATED BY CURB RETURNS

DWY #	RAMP REFERENCE POINT			WIDTH OF SIDEWALK (W)	WIDTH OF DRIVEWAY (L)	DEPTH OF TRAVEL PATH MIN. 3'-0"	ROADWAY GUTTER SLOPE	TRANSITION LENGTH	
	BASELINE	STATION	OFFSET					LEFT SIDE	RIGHT SIDE
1	ST. JAMES AVENUE								
16	ST. JAMES AVENUE								

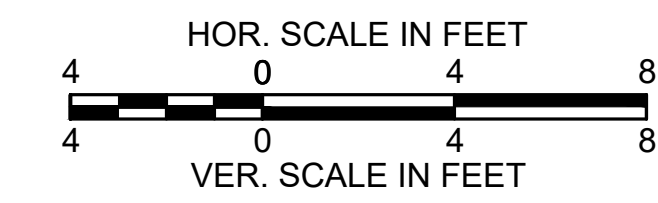
SHARED USE PATH THROUGH DRIVEWAYS SEPARATED BY CURB RETURNS



DWY #	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP (W1)	WIDTH OF SIDEWALK (W)	WIDTH OF DRIVEWAY (L)	DEPTH OF TRAVEL PATH	ROADWAY GUTTER SLOPE	TRANSITION LENGTH	
	BASELINE	STATION	OFFSET						LEFT SIDE	RIGHT SIDE
15	ST. JAMES AVENUE									

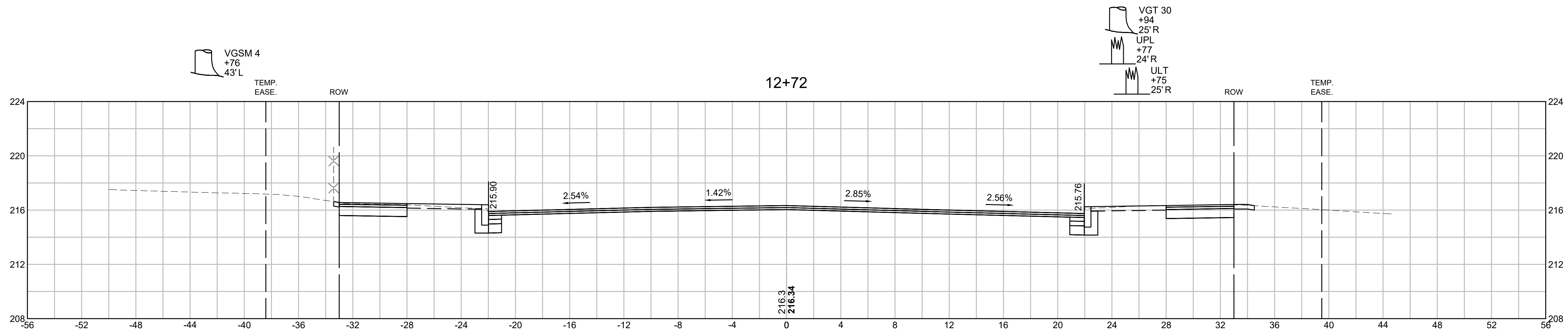
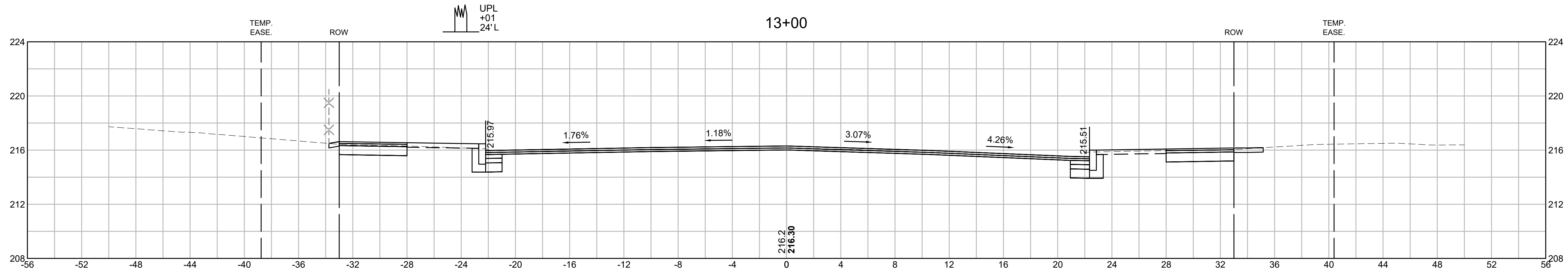
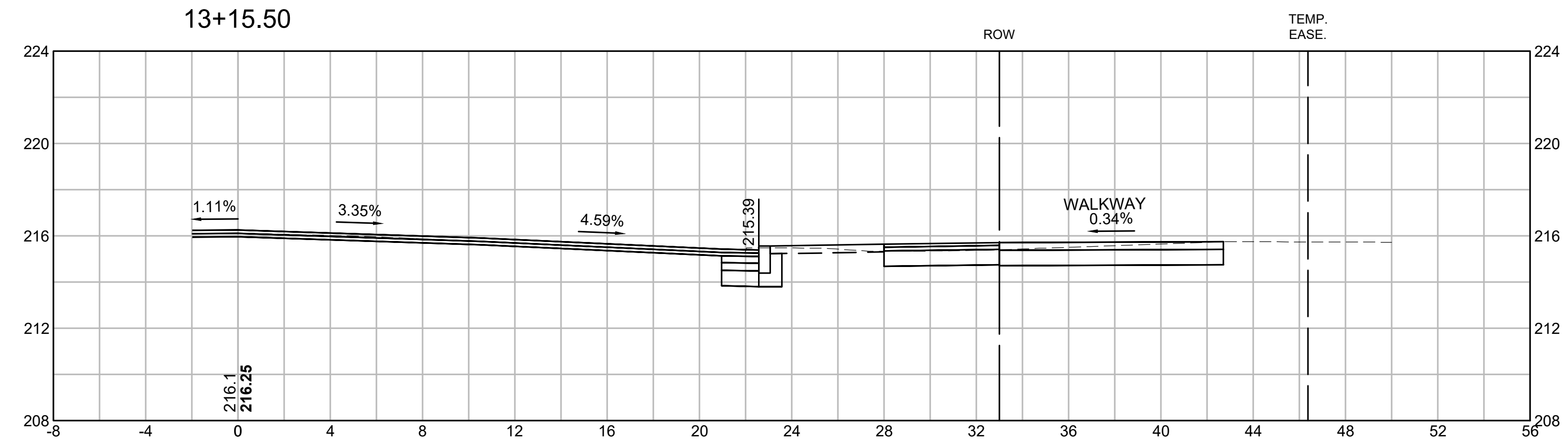
THROUGH SIDEWALK AT ADJACENT DRIVEWAYS SEPARATED BY CURB RETURNS

SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	64	115
PROJECT FILE NO.		608565	

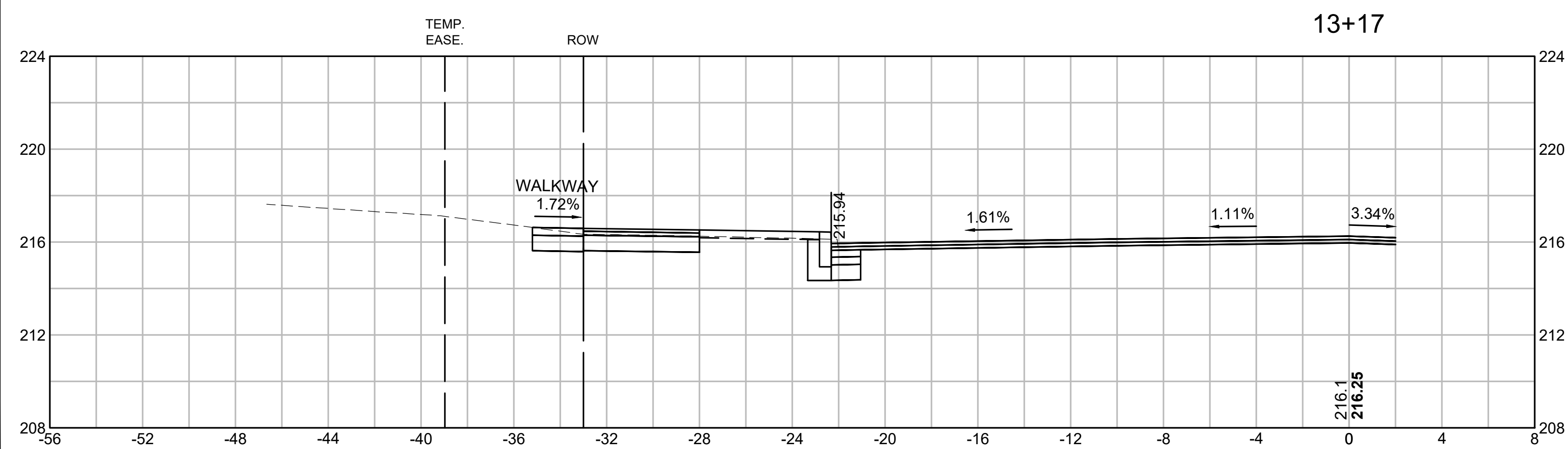
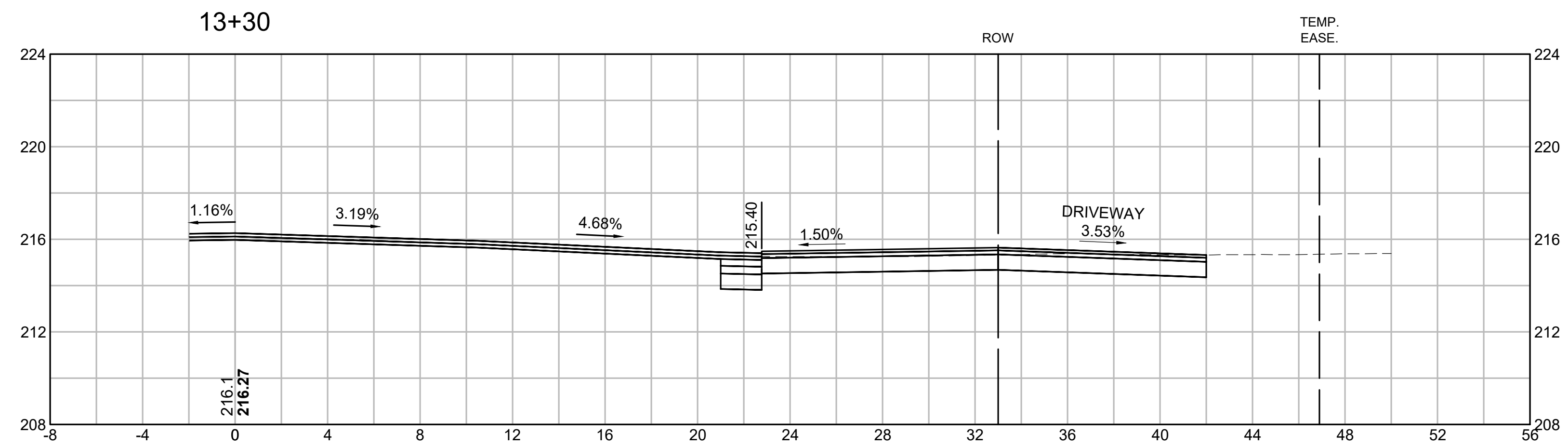
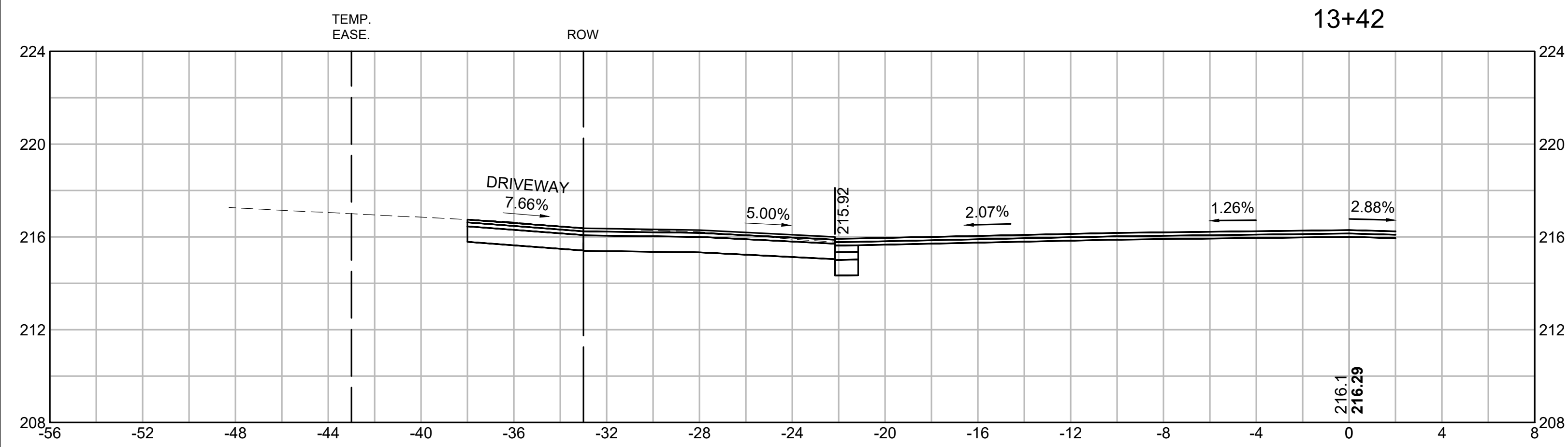
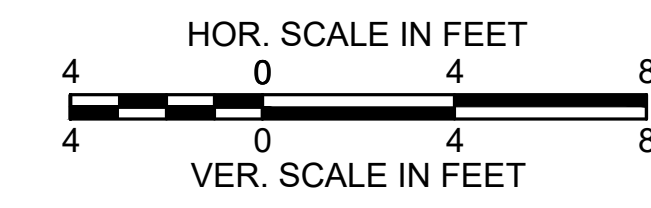
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	65	115
PROJECT FILE NO.		608565	

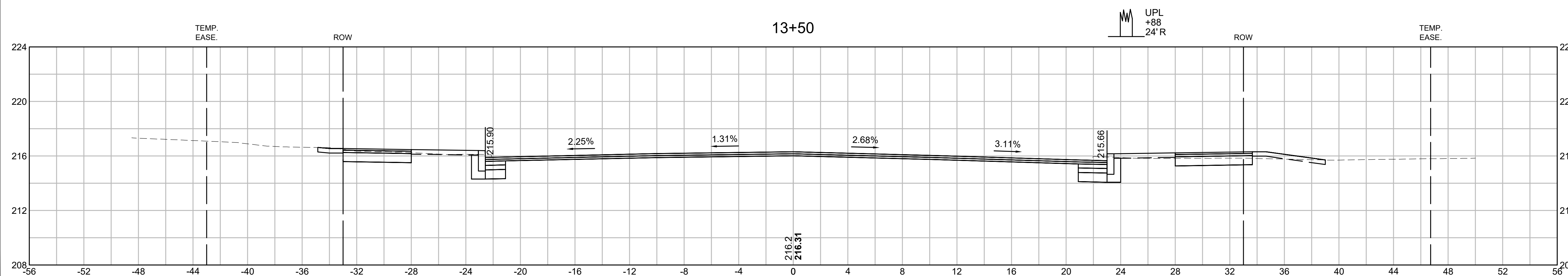
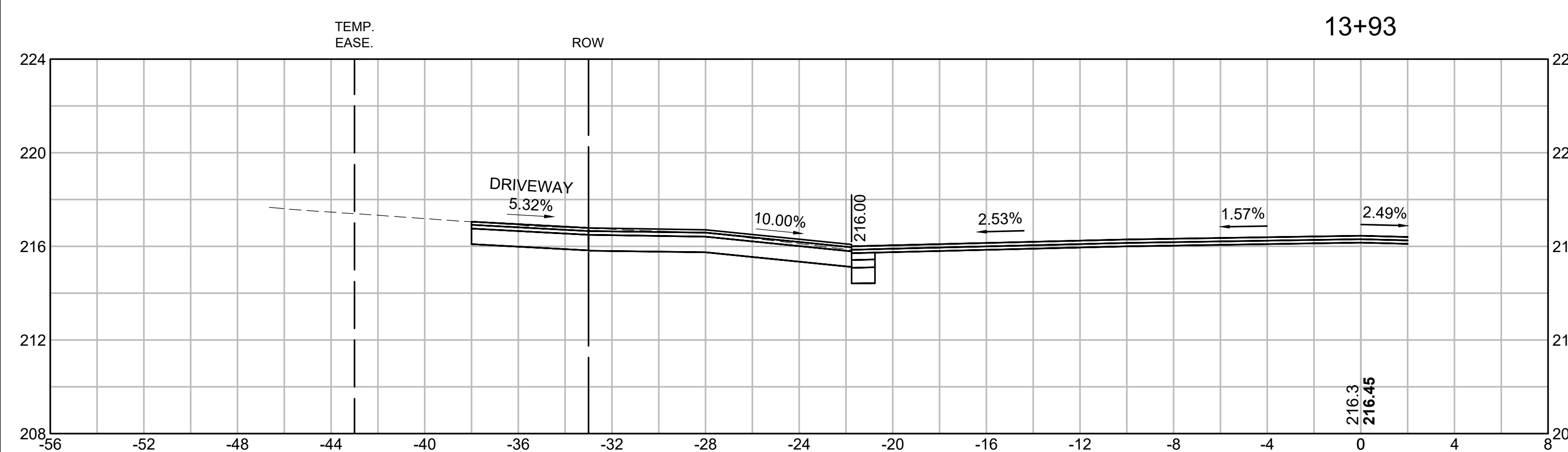
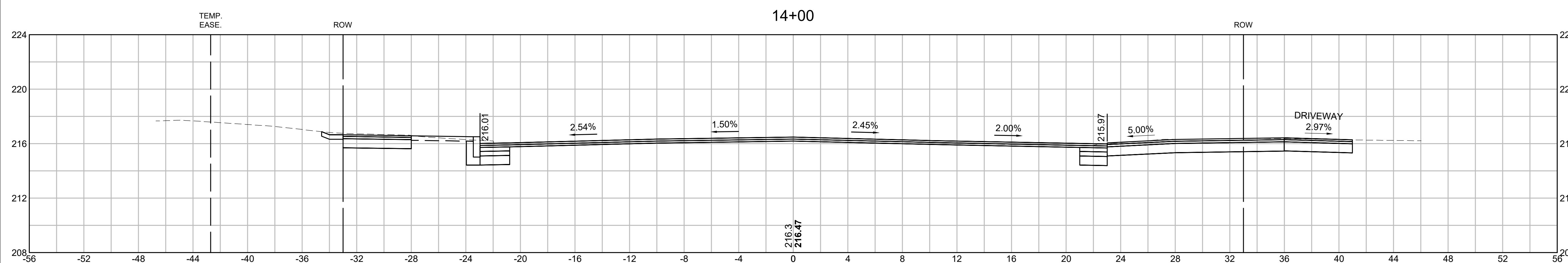
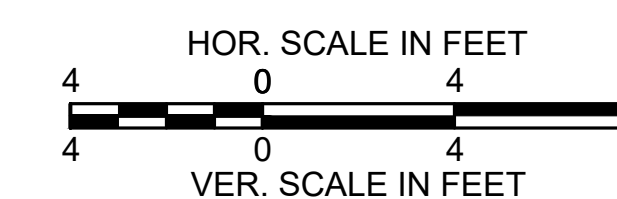
CROSS SECTIONS
ST. JAMES AVENUE



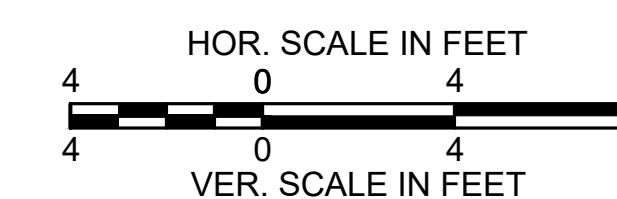
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	66	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
ST. JAMES AVENUE

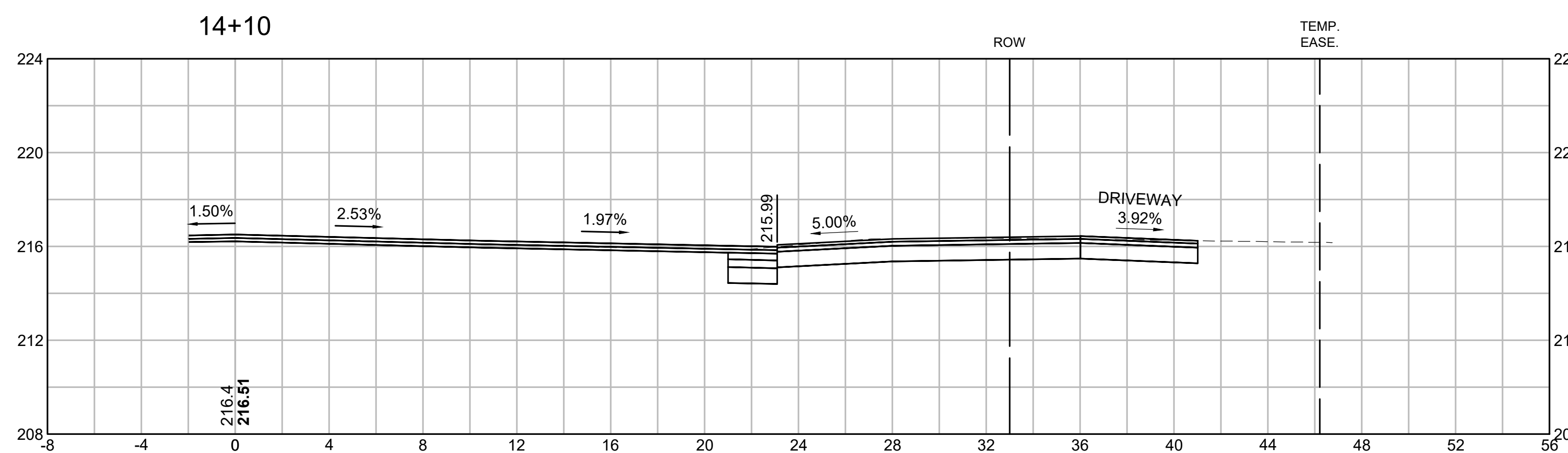
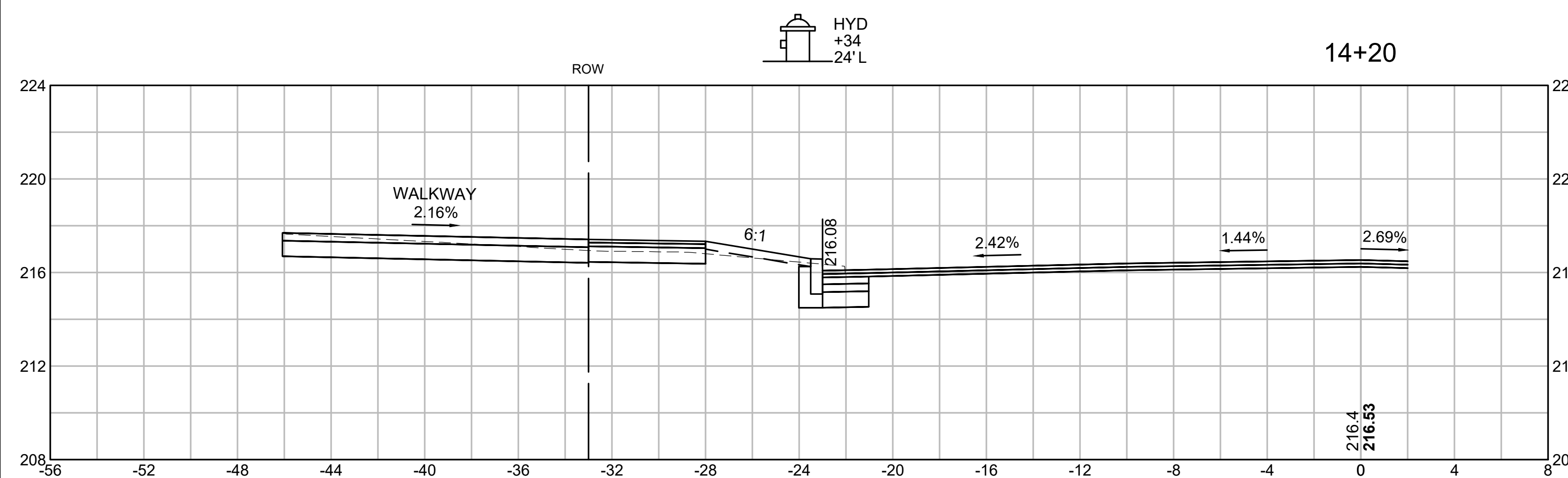
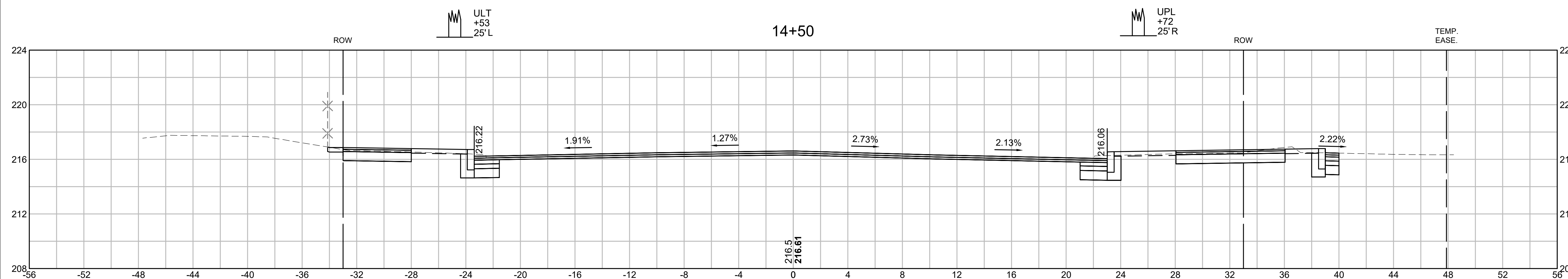


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

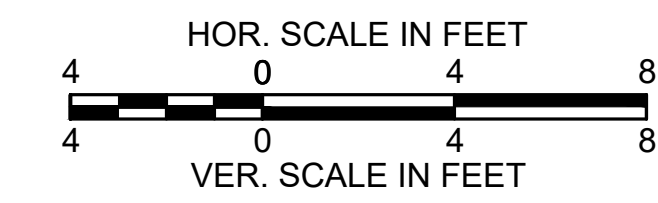


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	67	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
ST. JAMES AVENUE



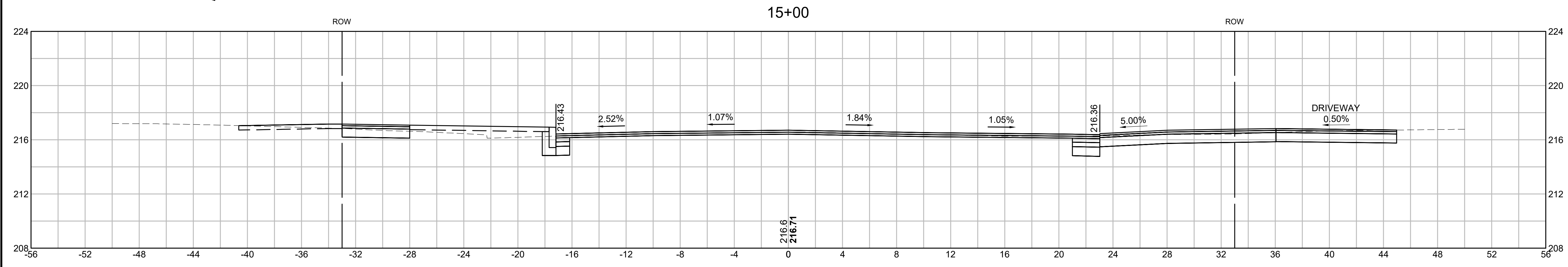
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET



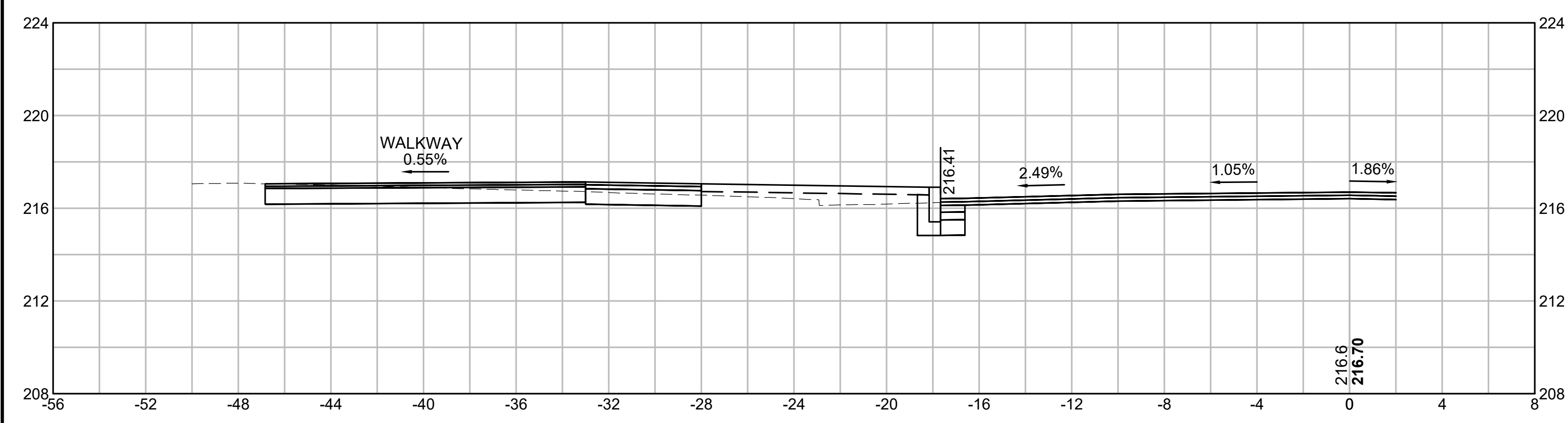
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	68	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
ST. JAMES AVENUE

VGT 24
+10
44'L

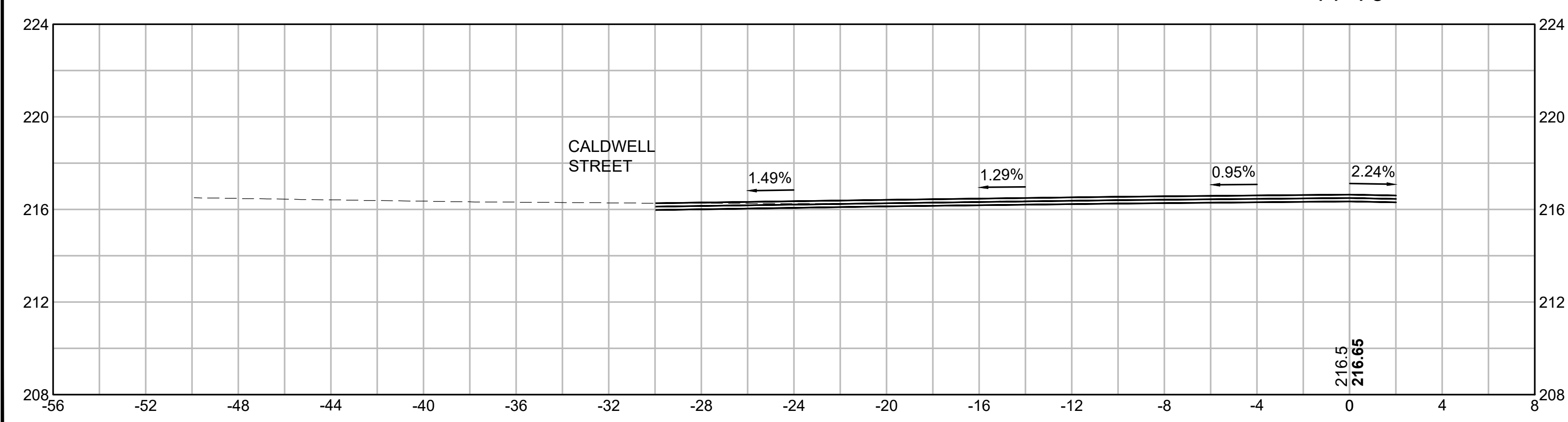


14+98

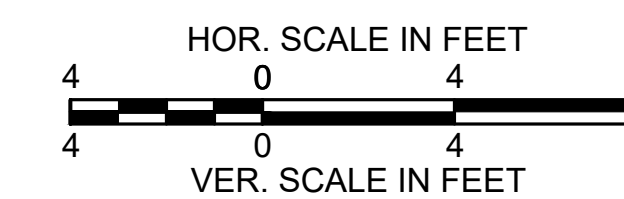


VGT 26
+93
46'L

14+75

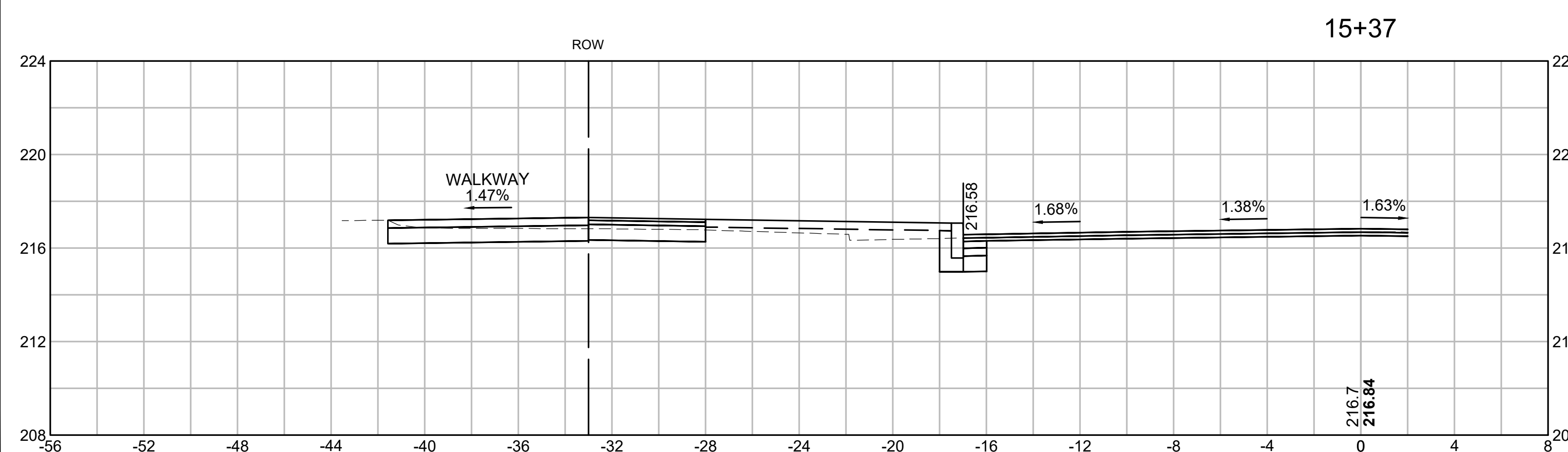
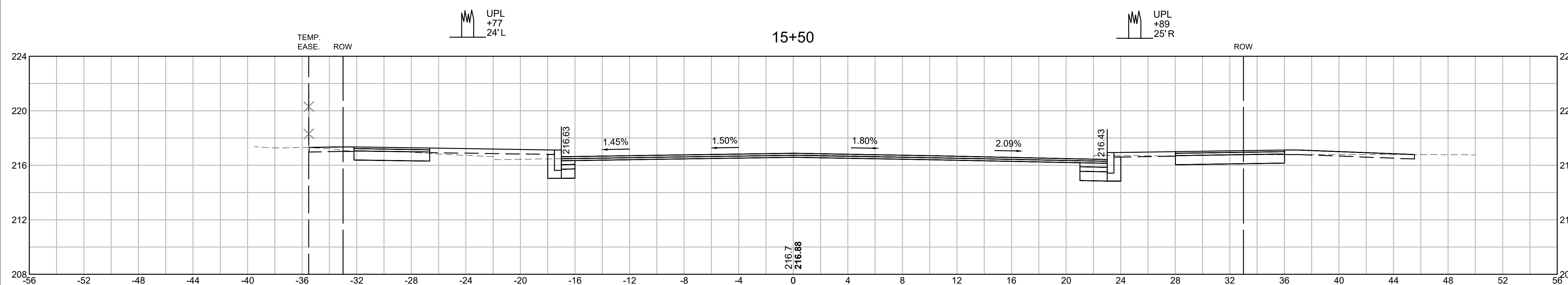
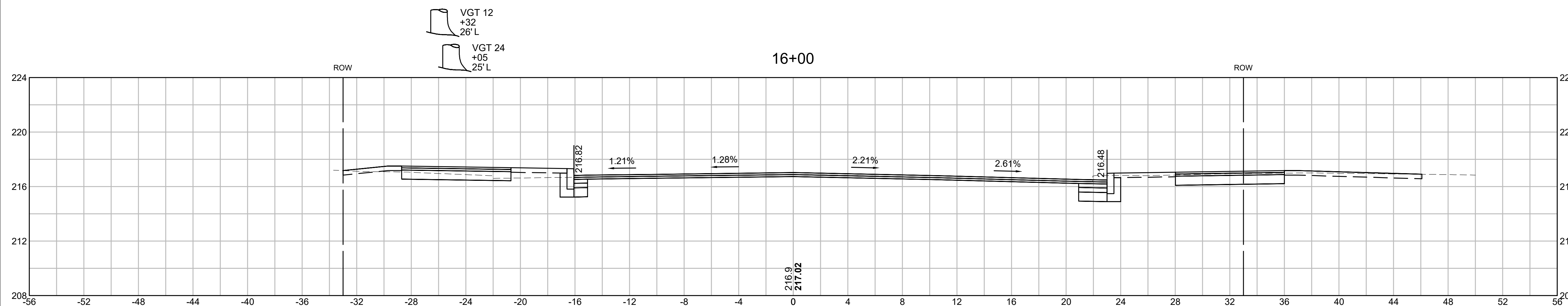


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

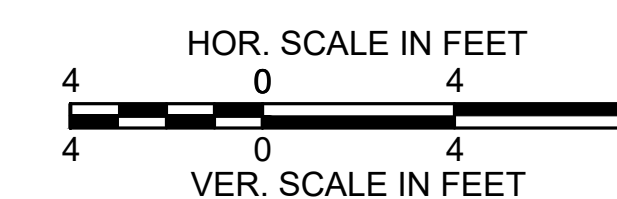


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	69	115
PROJECT FILE NO.		608565	

CROSS SECTIONS

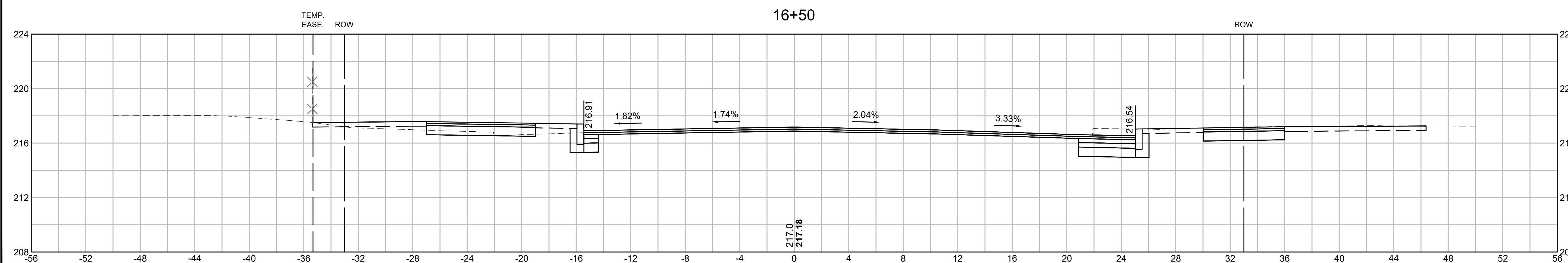
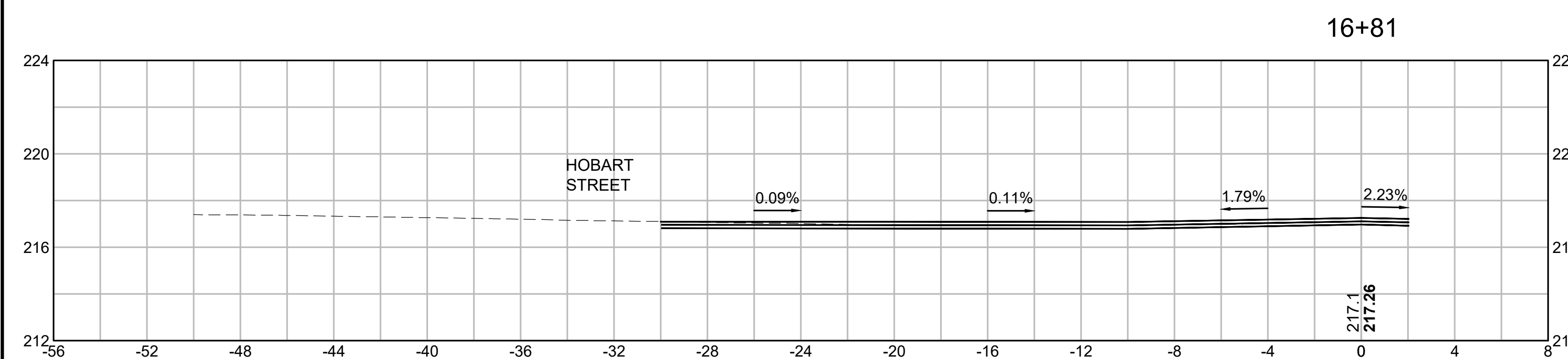
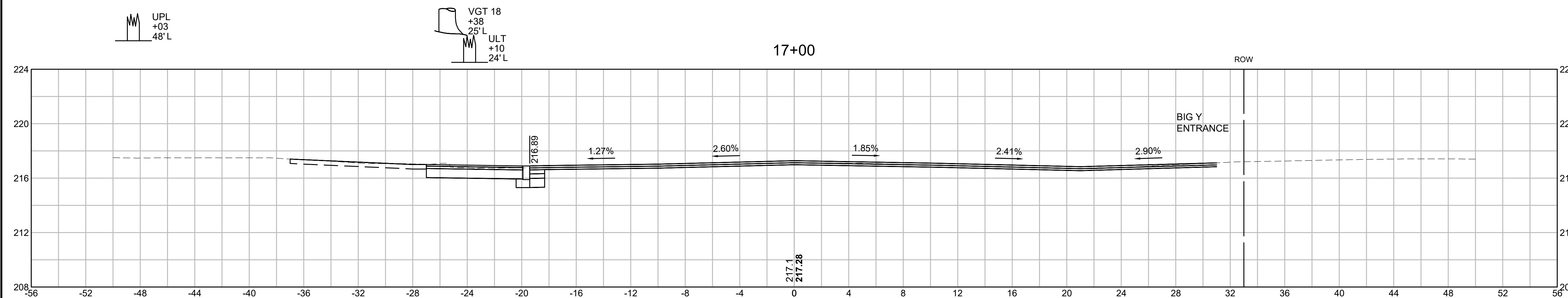


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	70	115
PROJECT FILE NO.		608565	

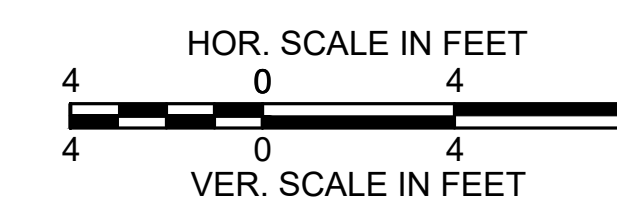
CROSS SECTIONS
ST. JAMES AVENUE



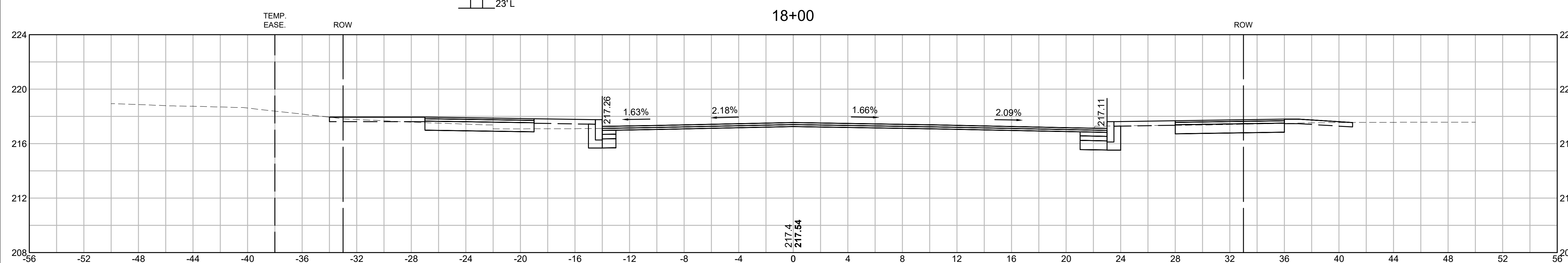
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	71	115
PROJECT FILE NO.		608565	

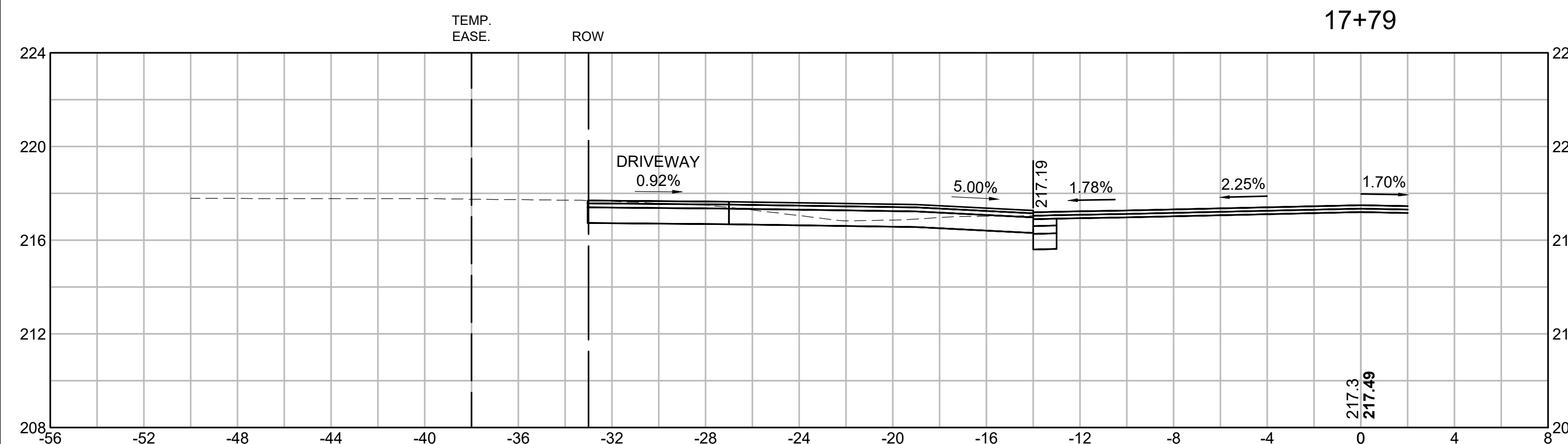
CROSS SECTIONS
ST. JAMES AVENUE



UPL
+33
23'L

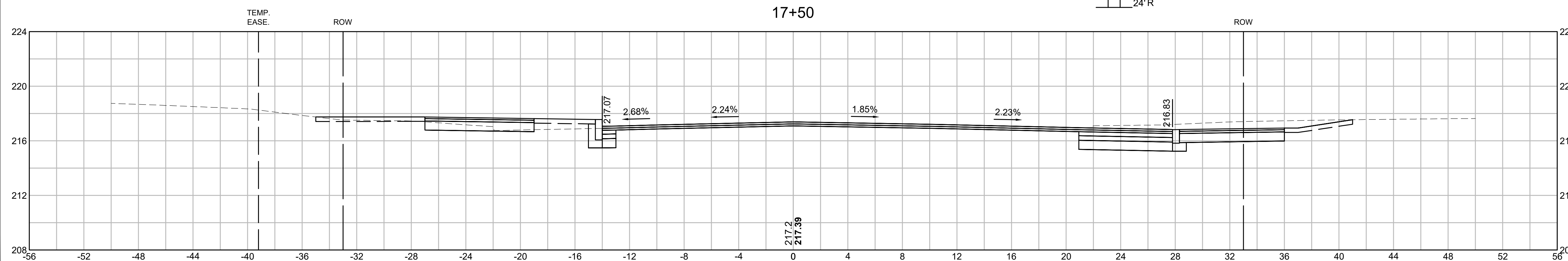


17+79



UPL
+72
24'R

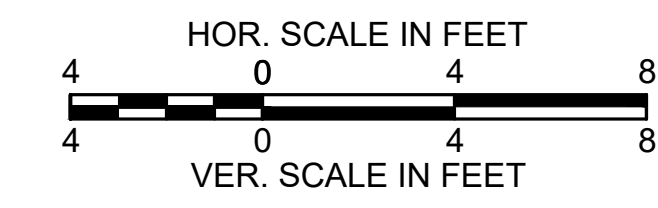
17+50



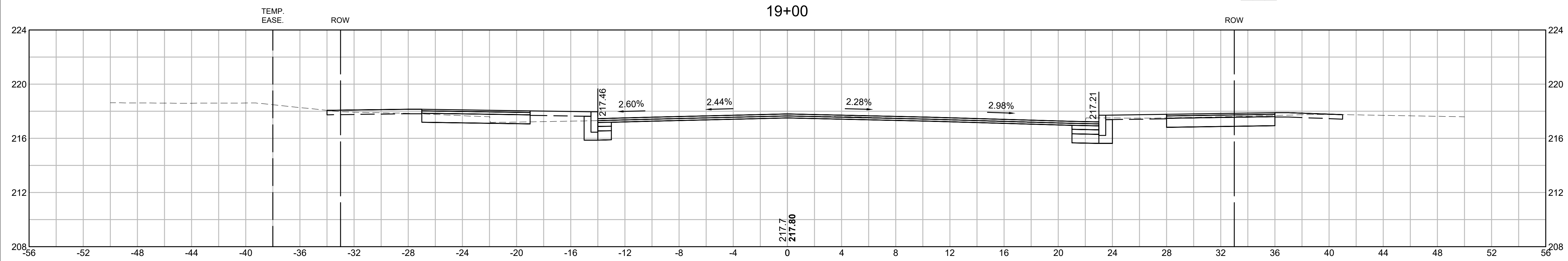
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	72	115
PROJECT FILE NO.		608565	

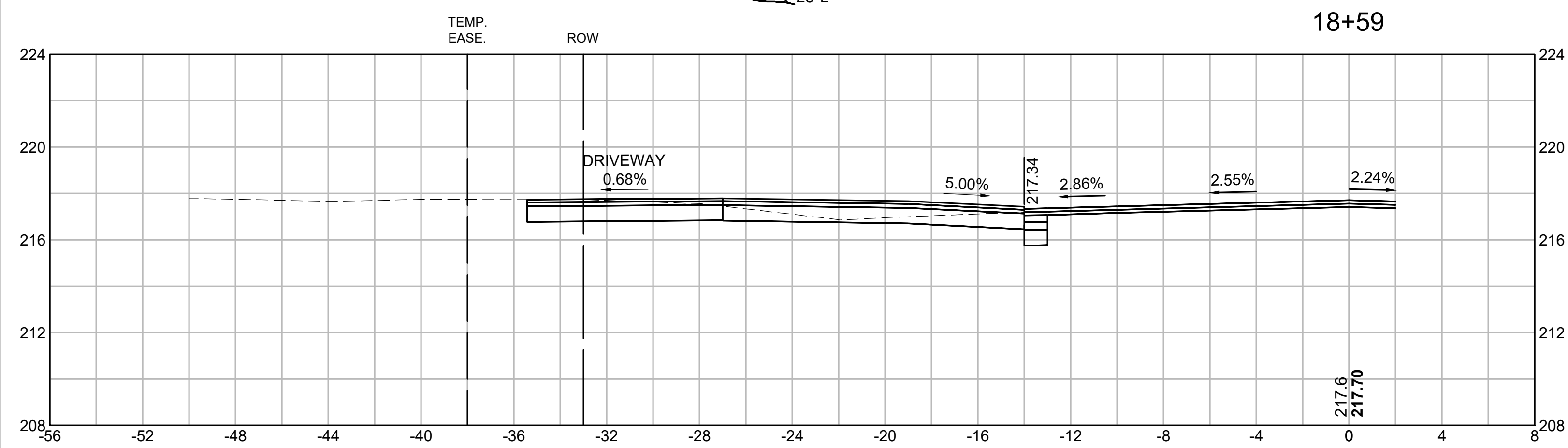
CROSS SECTIONS
ST. JAMES AVENUE



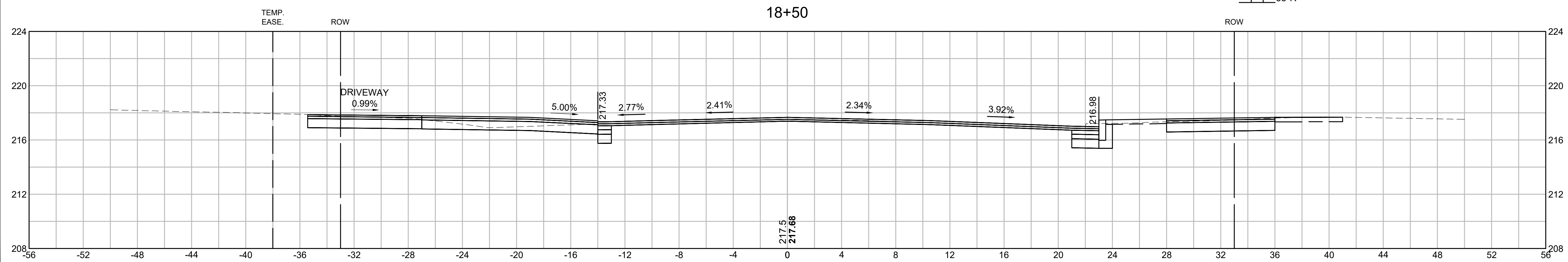
UPDL
+15
35' R



UPL +93 36' L
VGT 22 +95 25' L



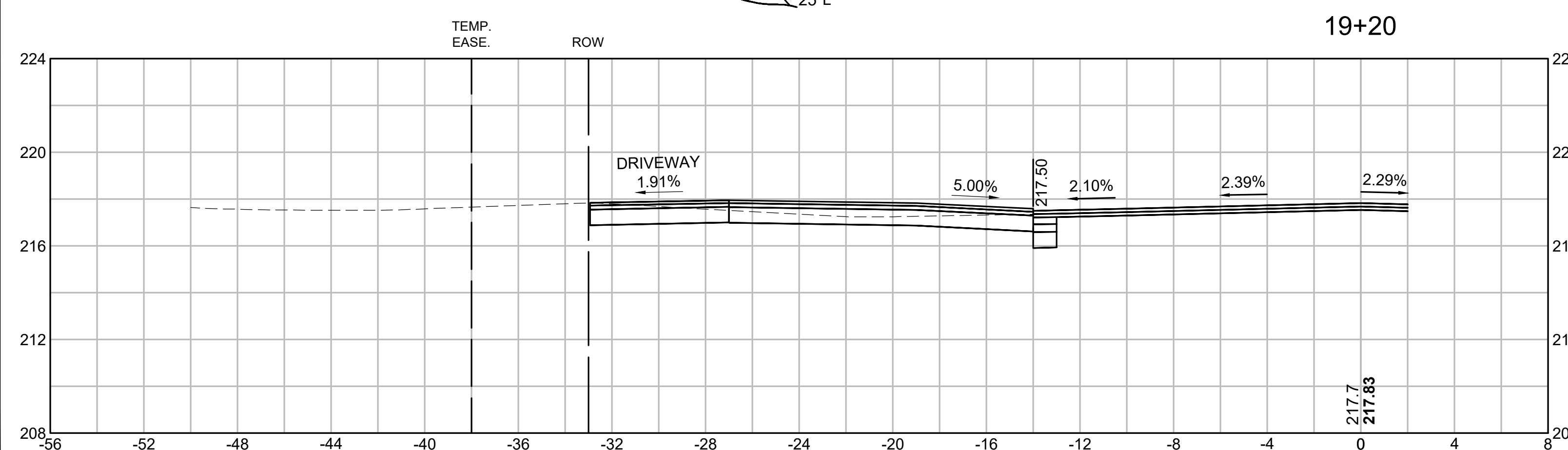
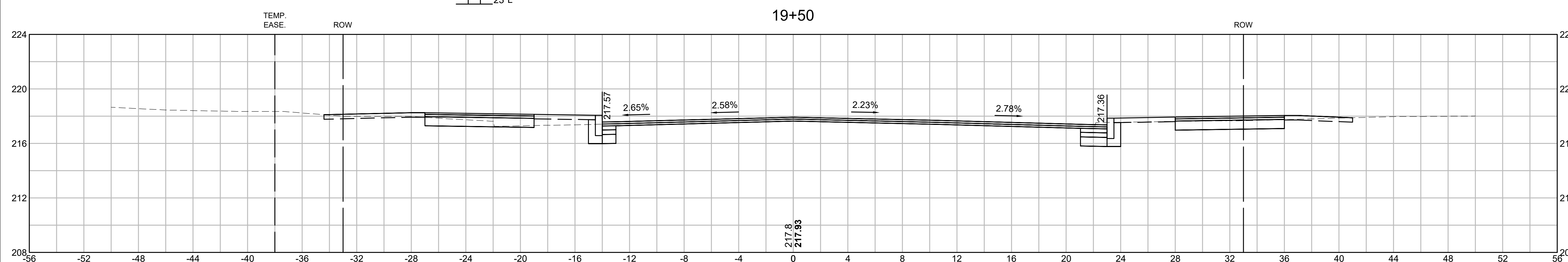
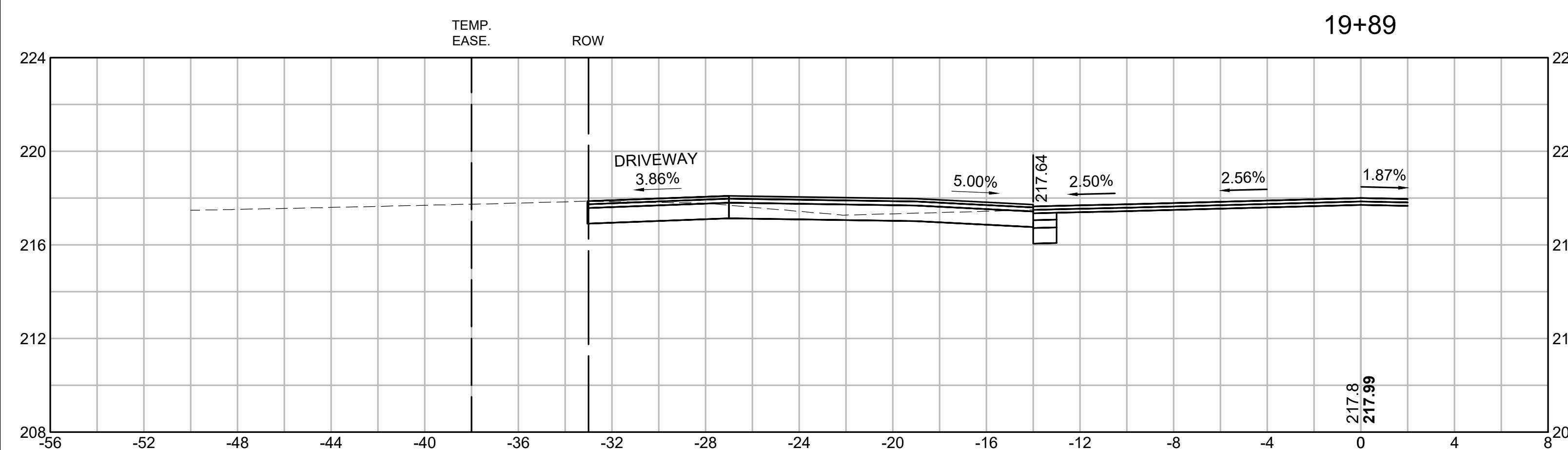
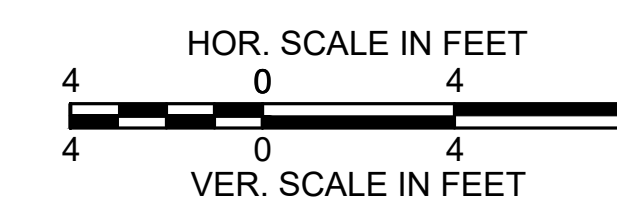
UPDL
+53
35' R



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	73	115
PROJECT FILE NO.		608565	

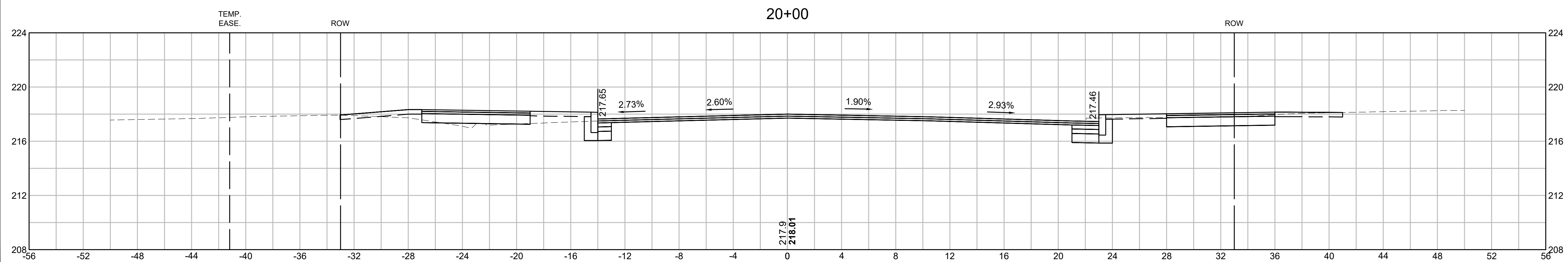
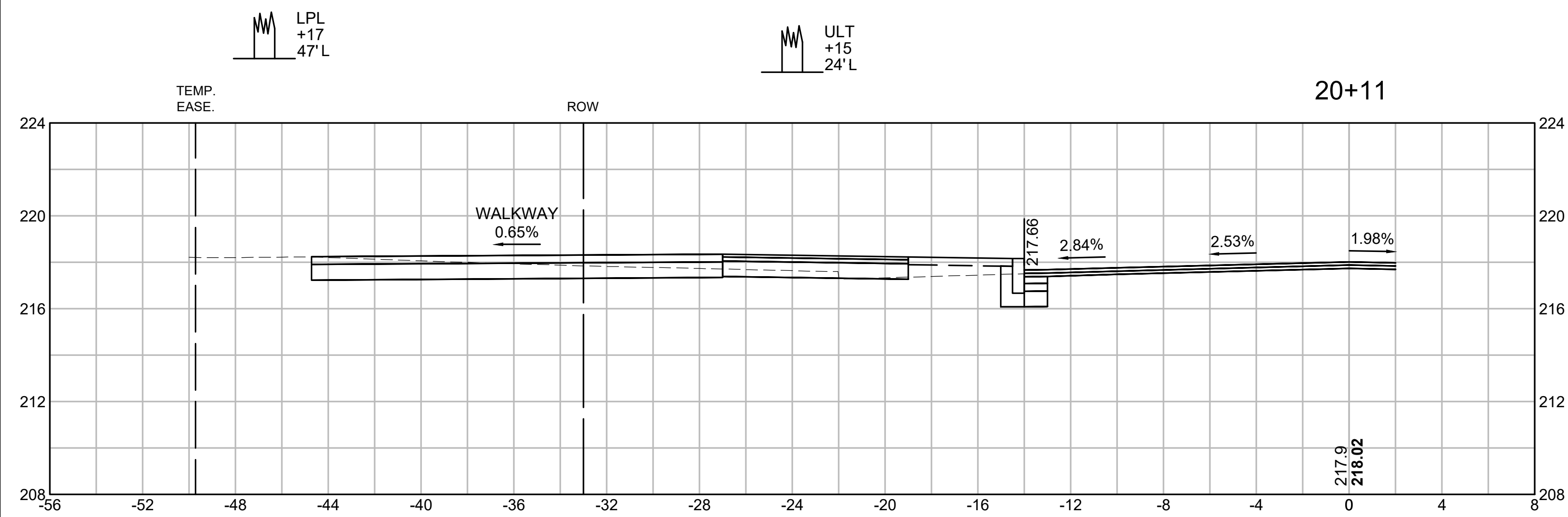
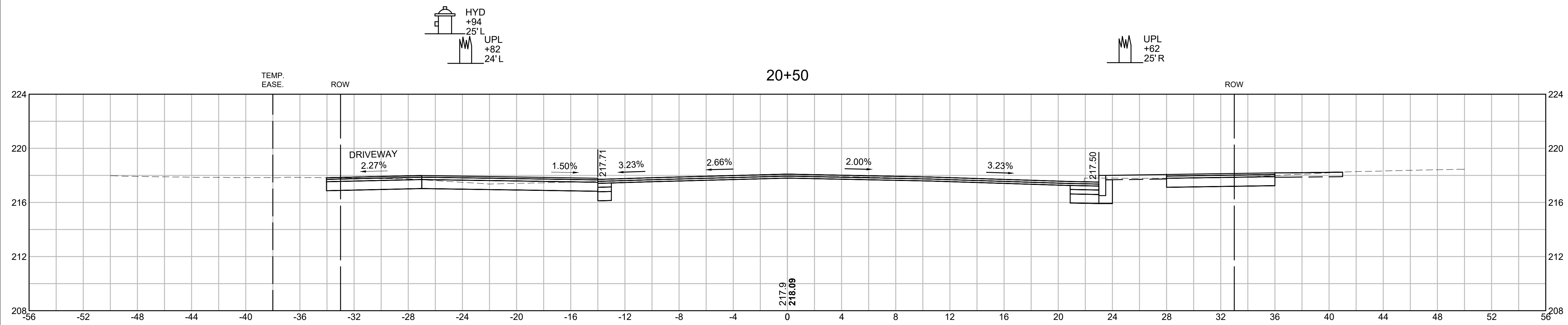
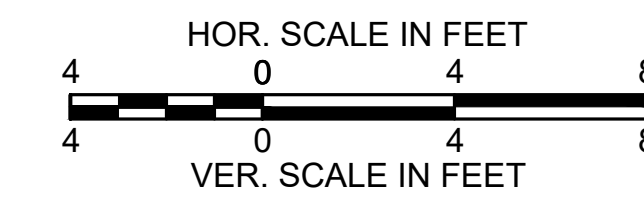
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	74	115
PROJECT FILE NO.		608565	

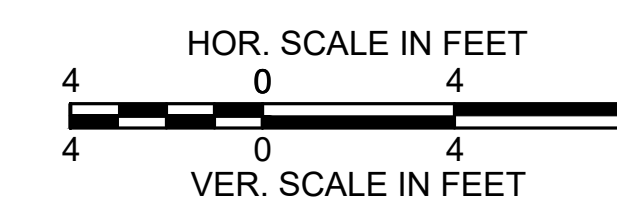
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	75	115
PROJECT FILE NO.		608565	

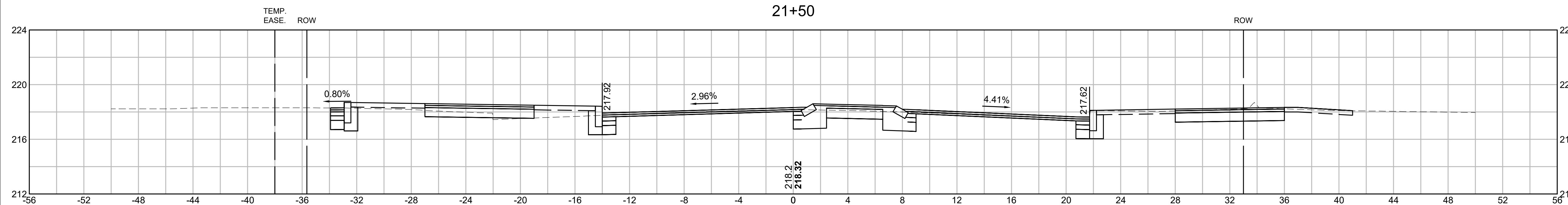
CROSS SECTIONS
ST. JAMES AVENUE



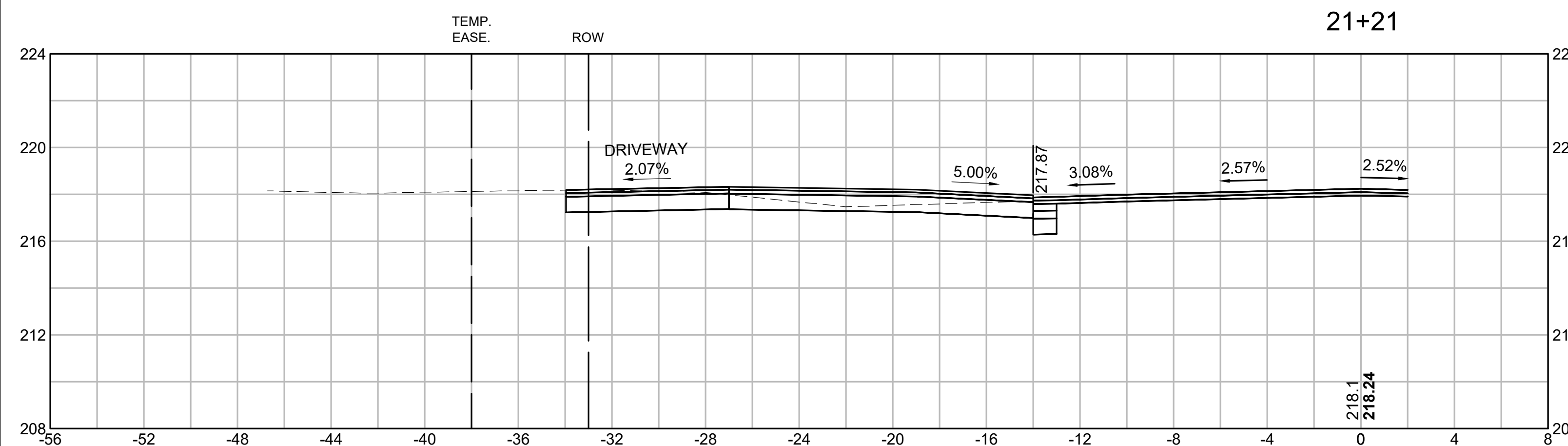
VGT 32
+76
25' L

ULT +66
23' R

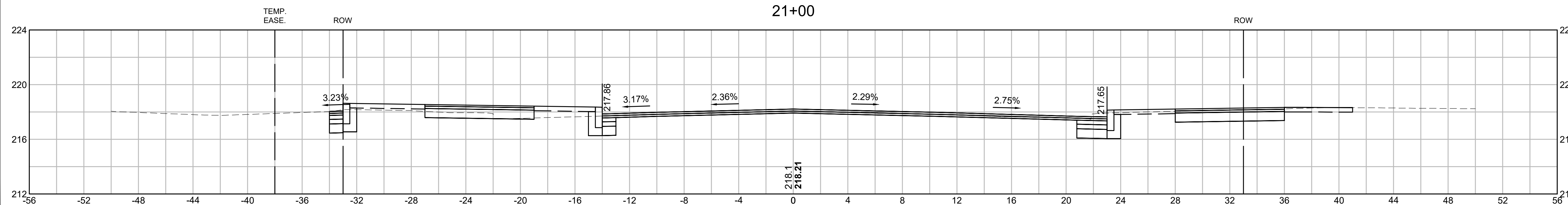
21+50



21+21



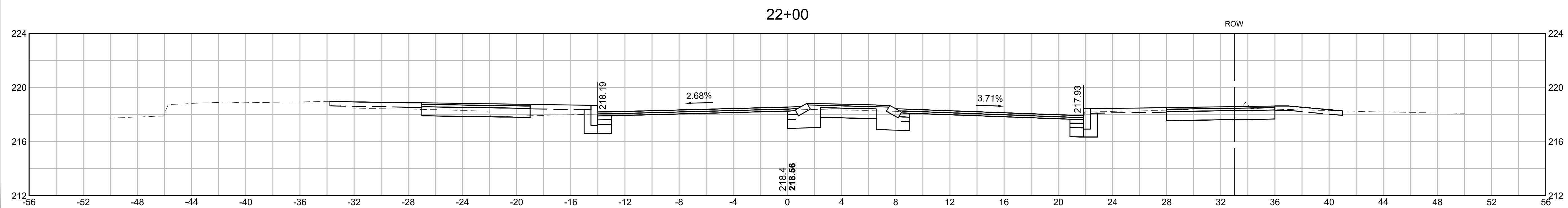
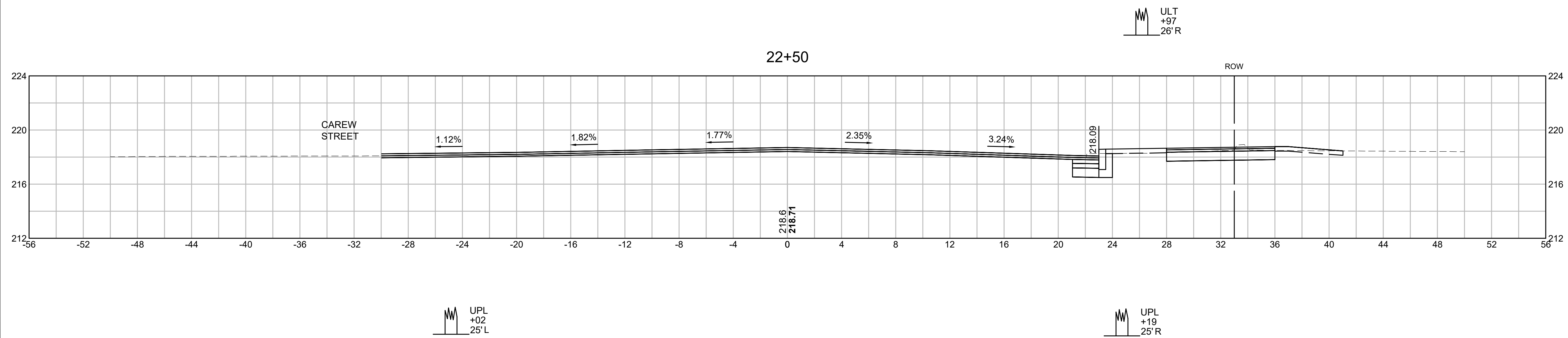
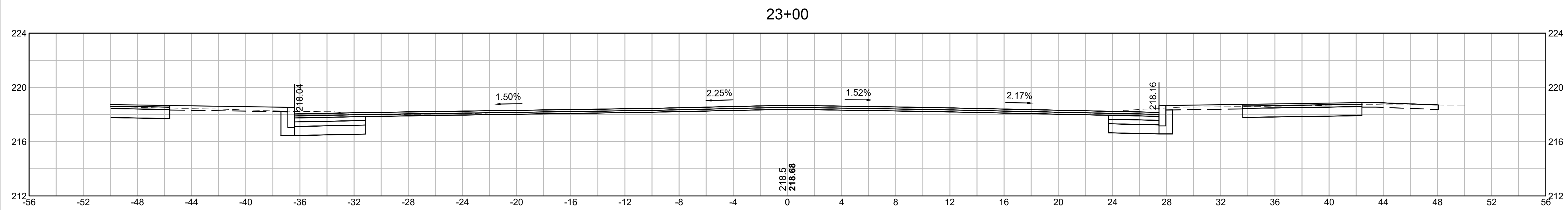
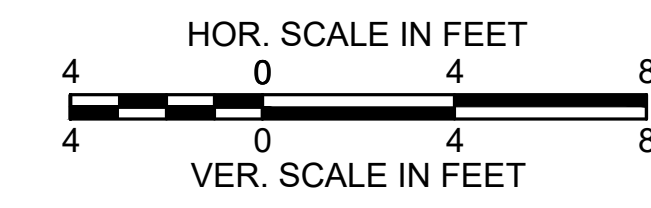
21+00



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	76	115
PROJECT FILE NO.		608565	

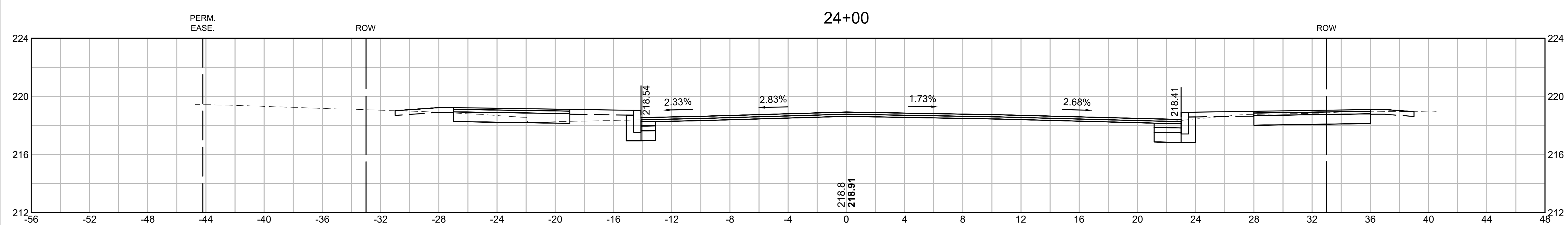
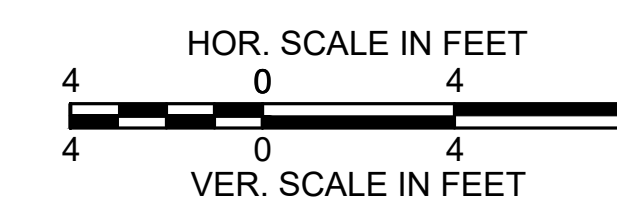
CROSS SECTIONS
ST. JAMES AVENUE



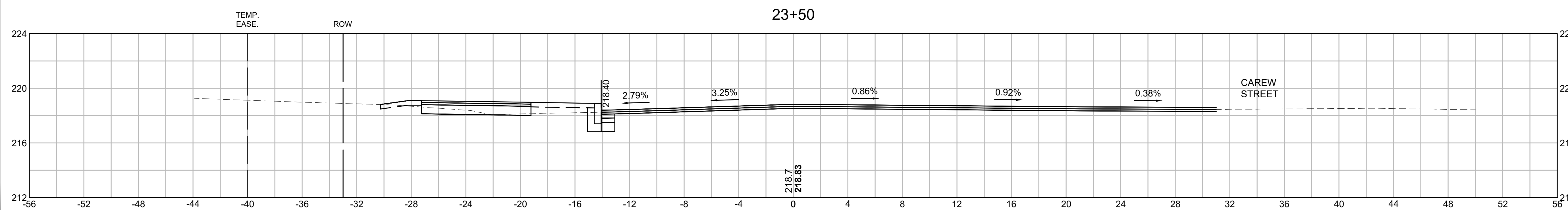
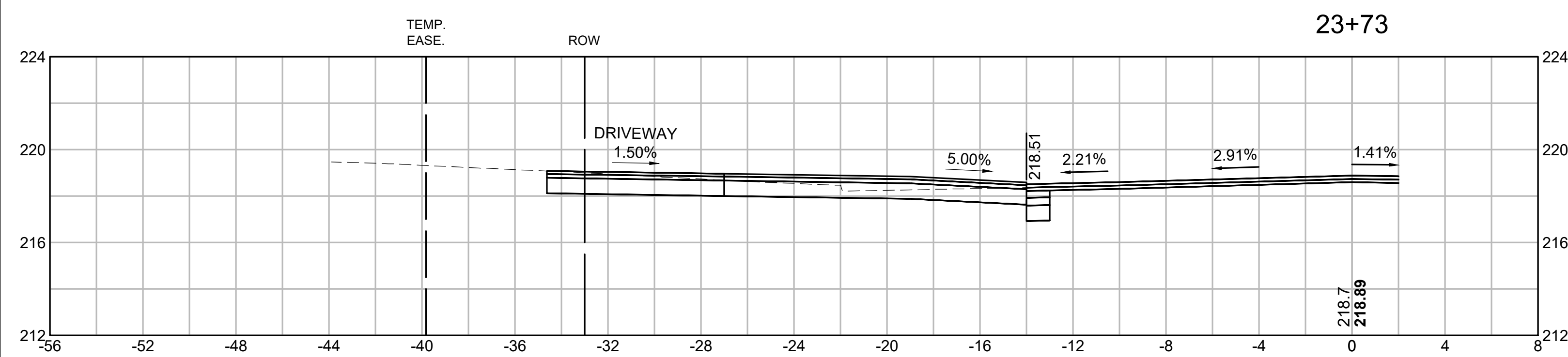
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	77	115
PROJECT FILE NO.		608565	

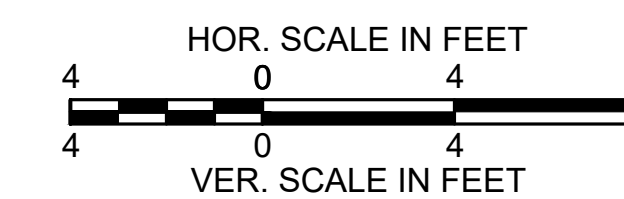
CROSS SECTIONS
ST. JAMES AVENUE



ULT
+85
24' L

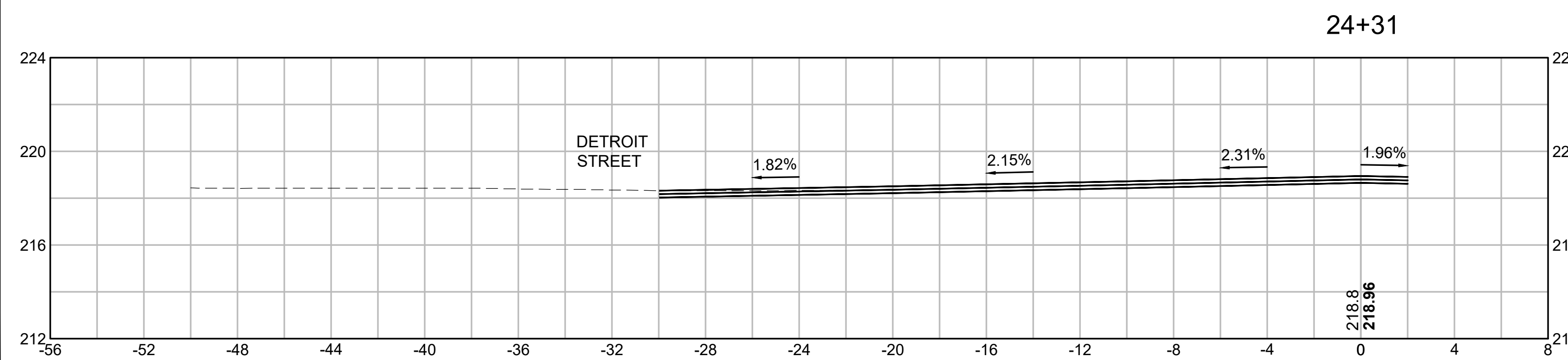
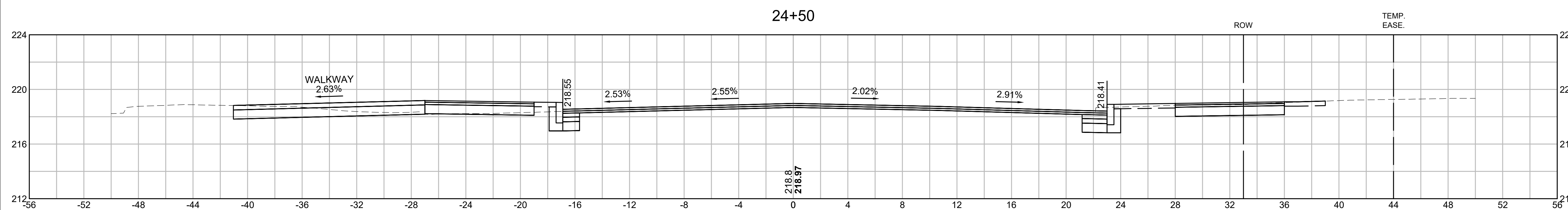
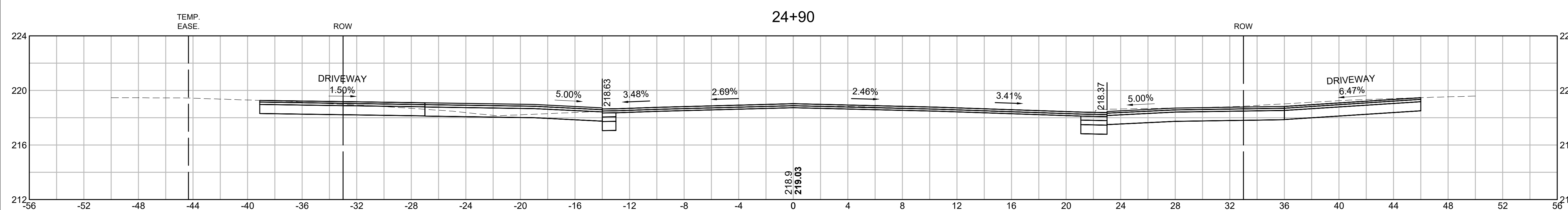


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	78	115
PROJECT FILE NO.		608565	

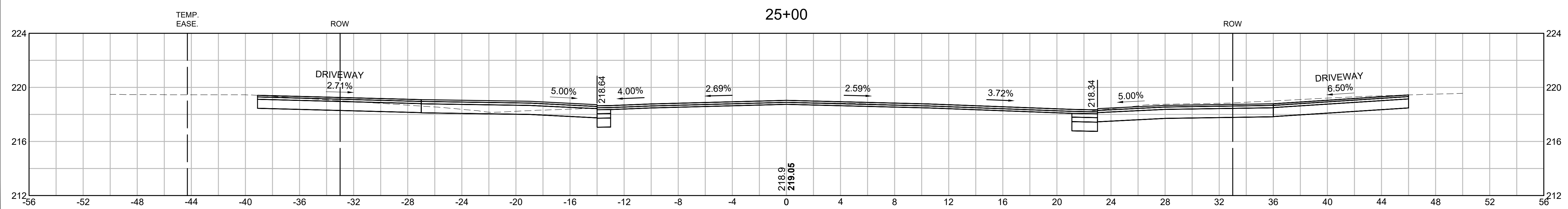
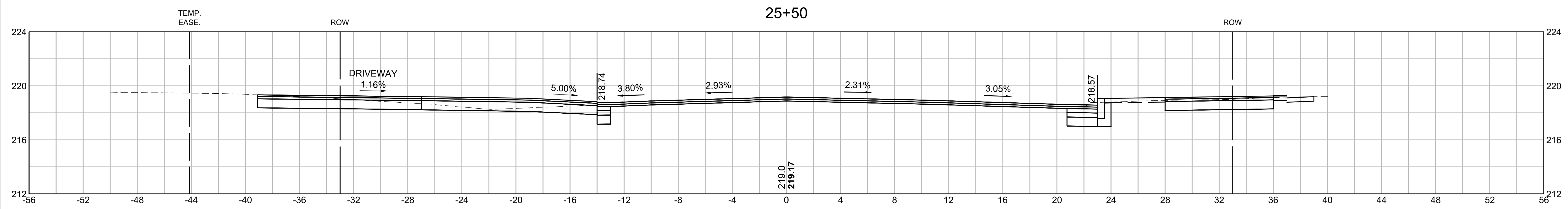
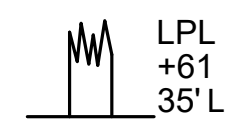
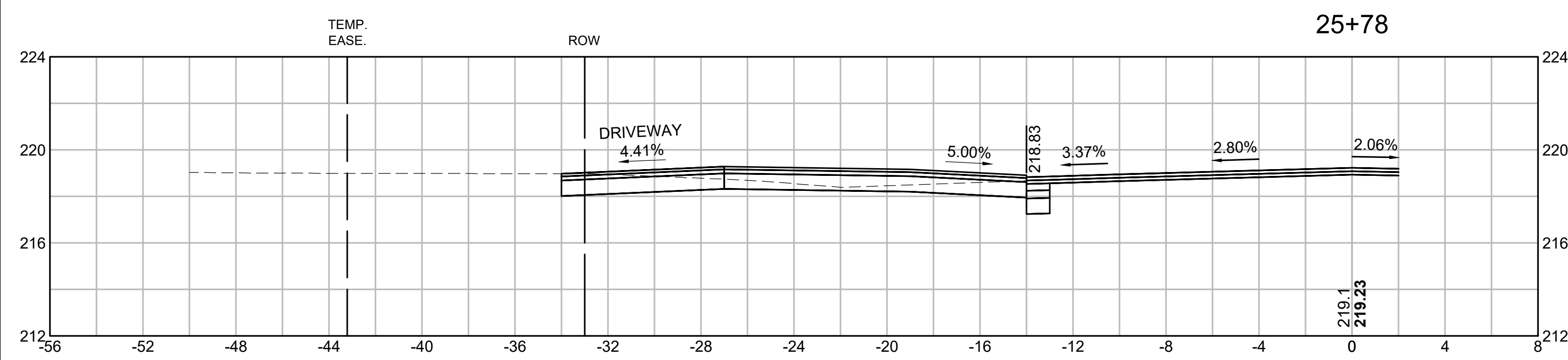
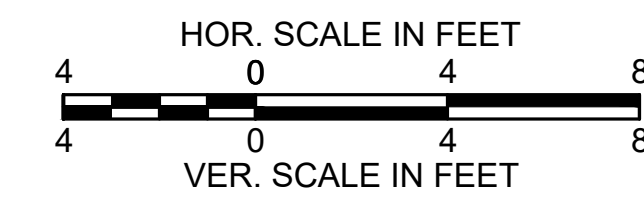
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	79	115
PROJECT FILE NO.		608565	

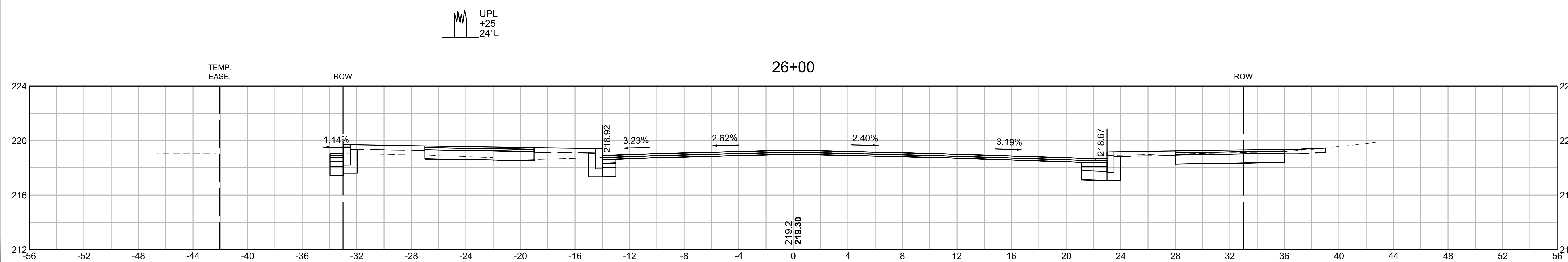
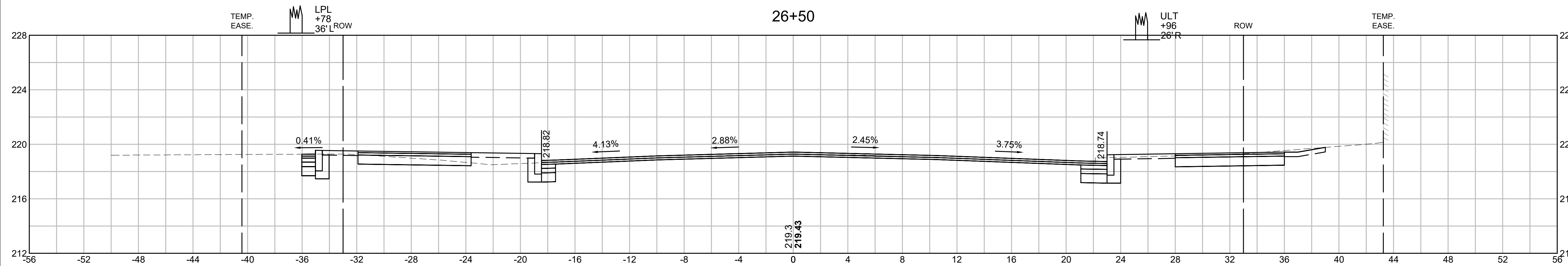
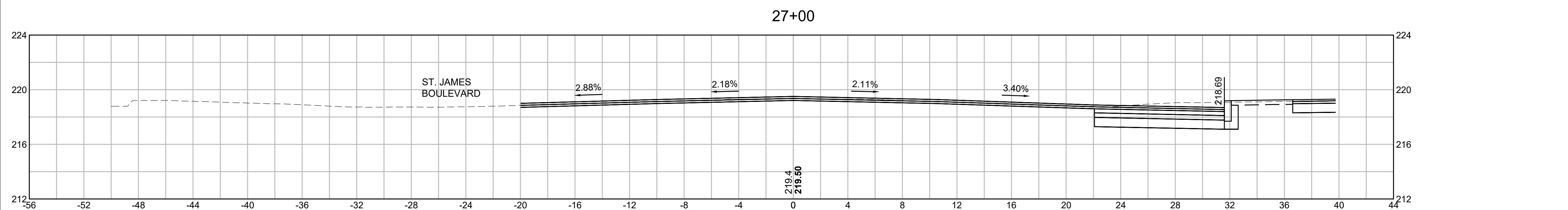
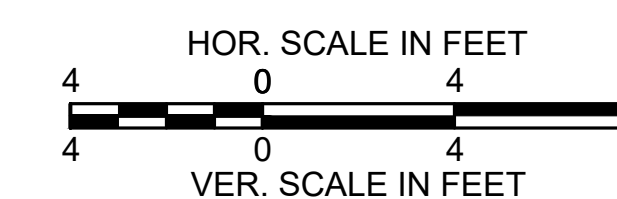
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	80	115
PROJECT FILE NO.		608565	

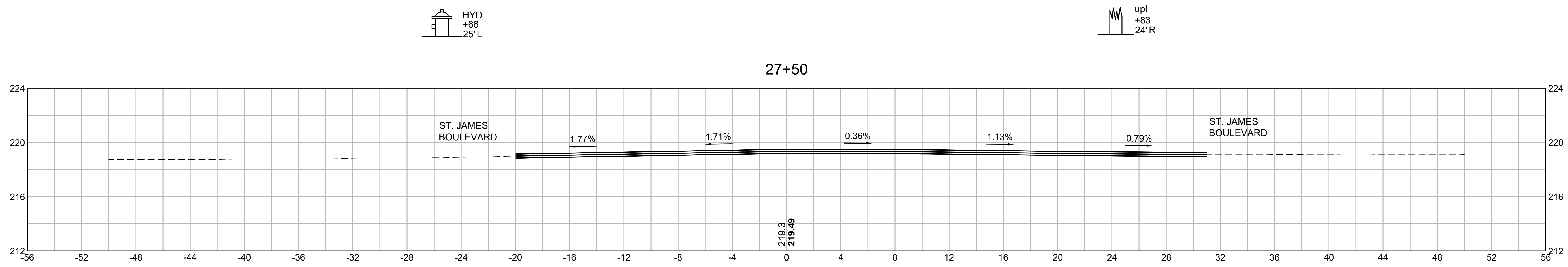
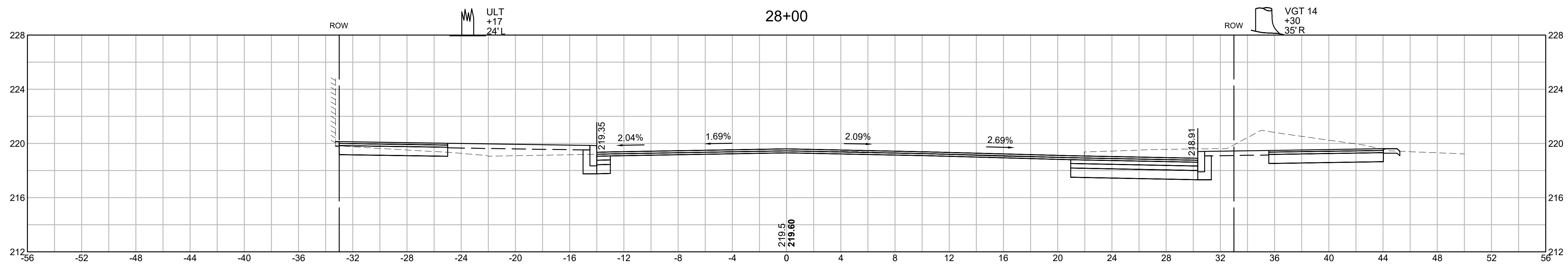
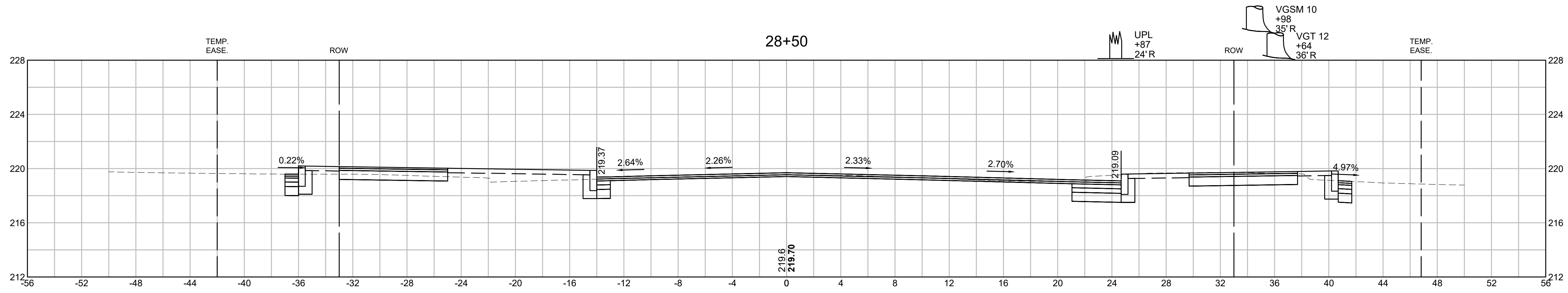
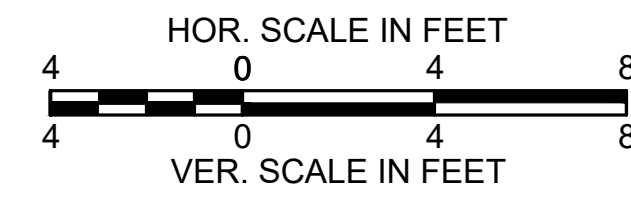
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	81	115
PROJECT FILE NO.		608565	

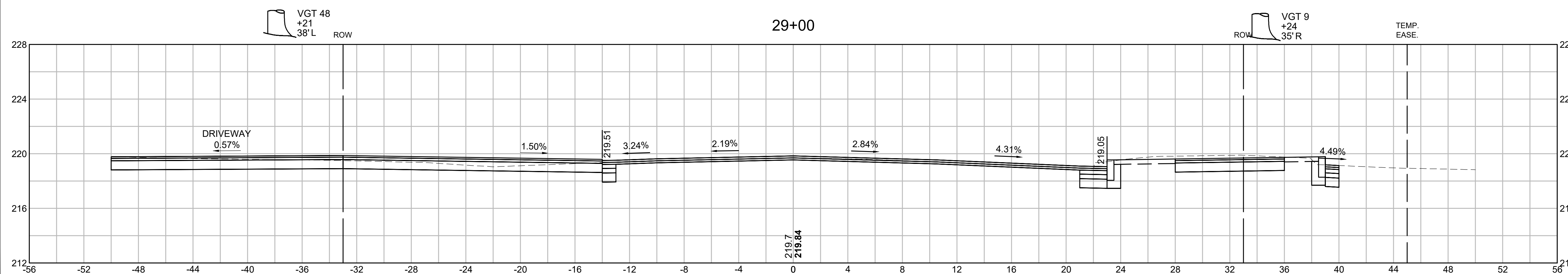
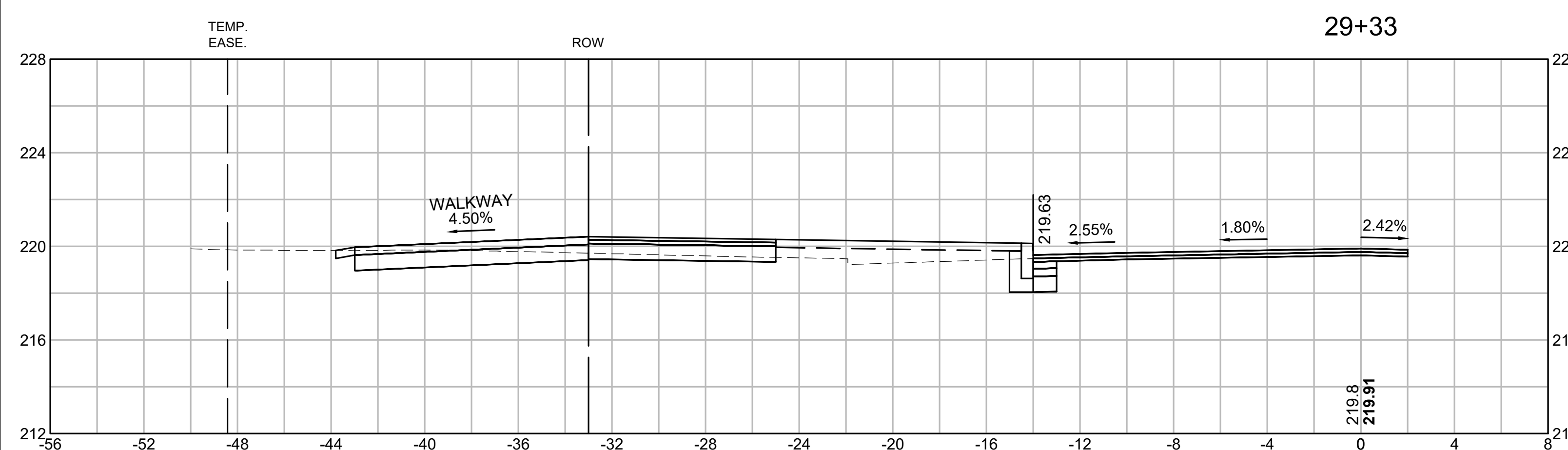
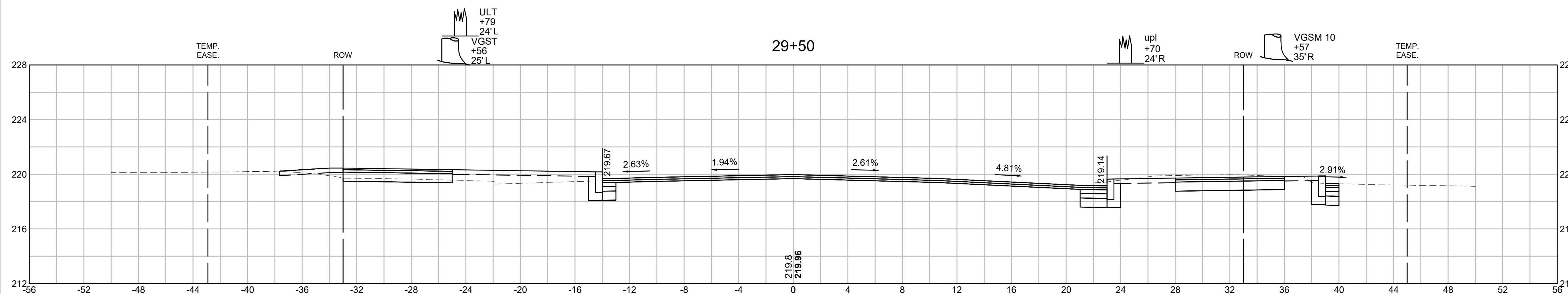
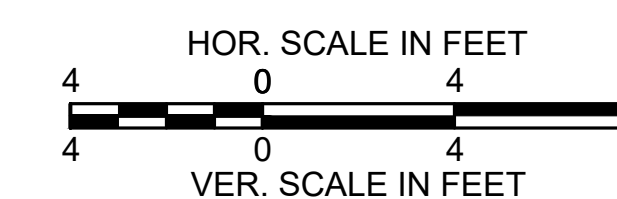
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	82	115
PROJECT FILE NO.		608565	

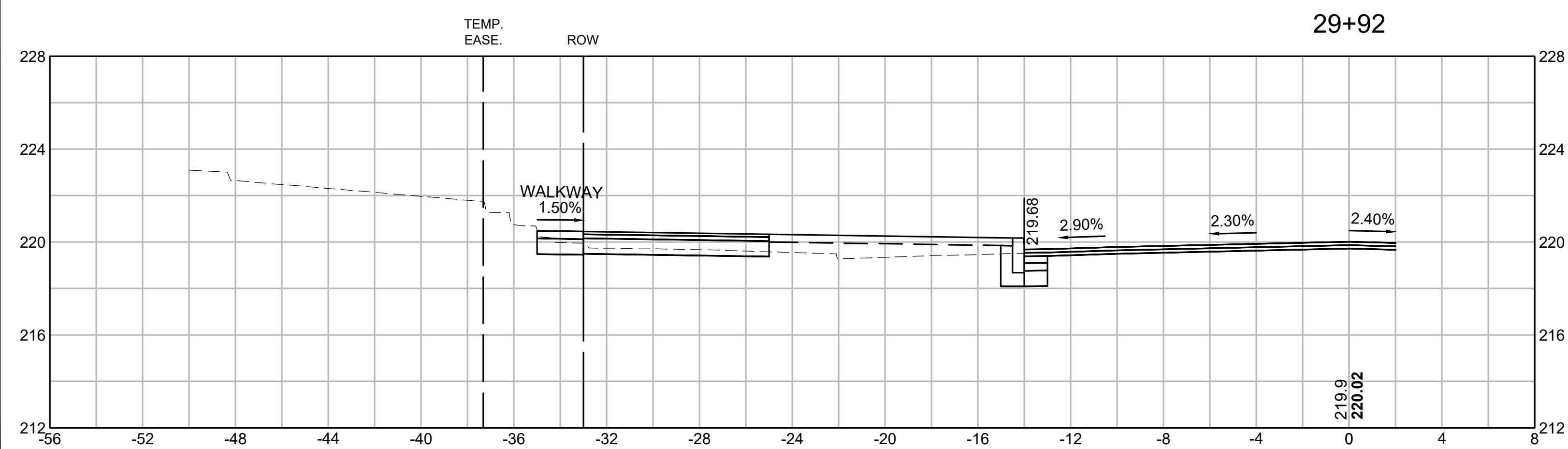
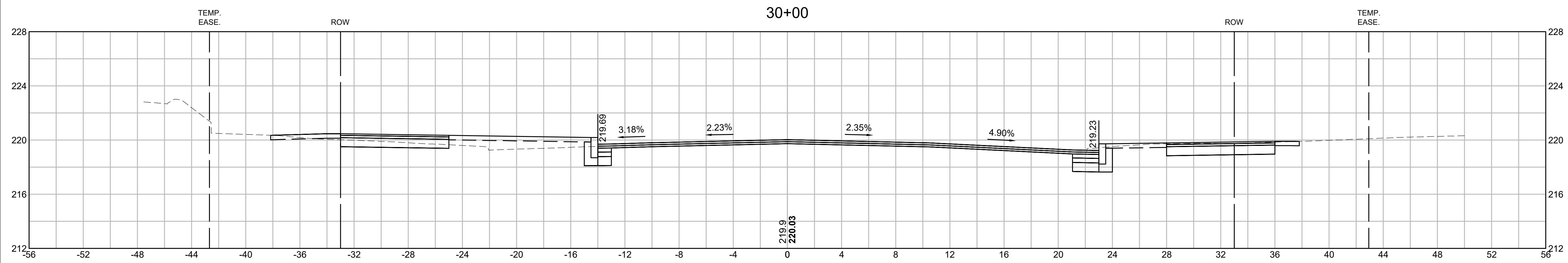
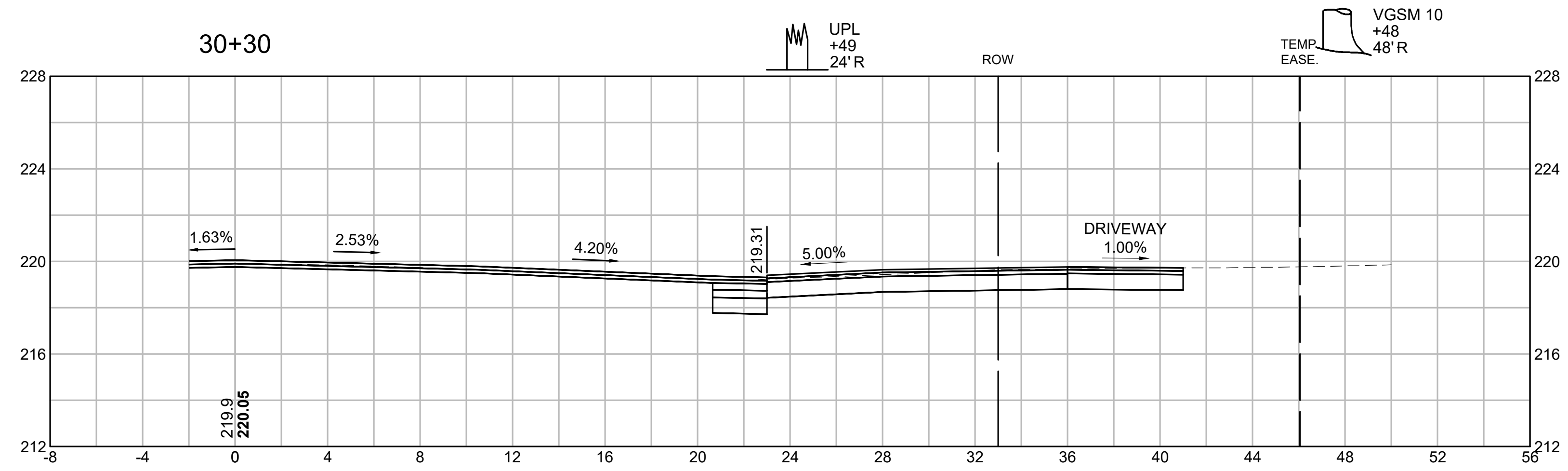
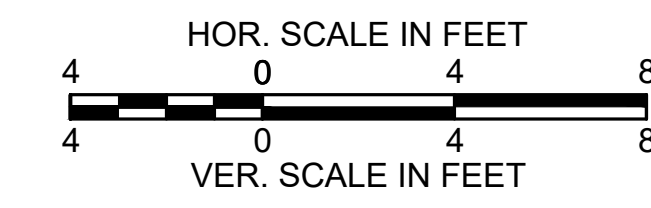
CROSS SECTIONS
ST. JAMES AVENUE



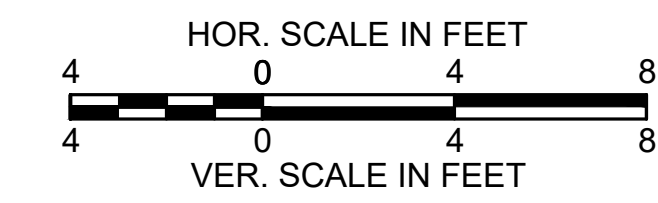
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	83	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
ST. JAMES AVENUE

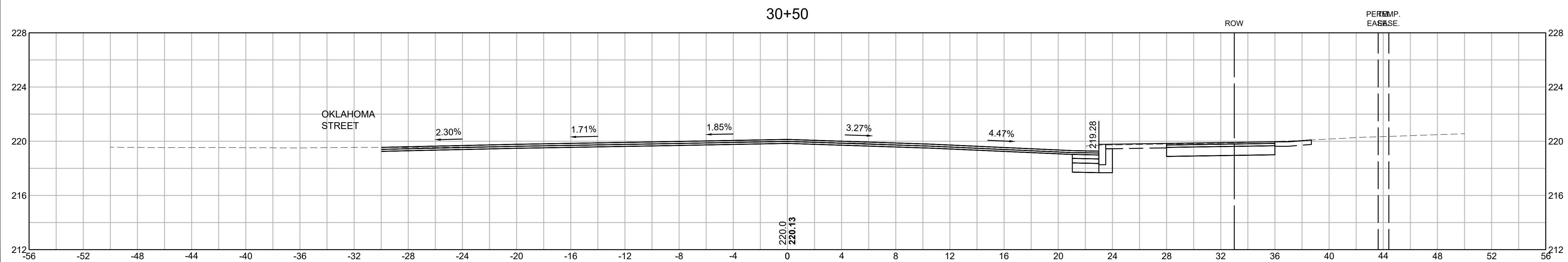
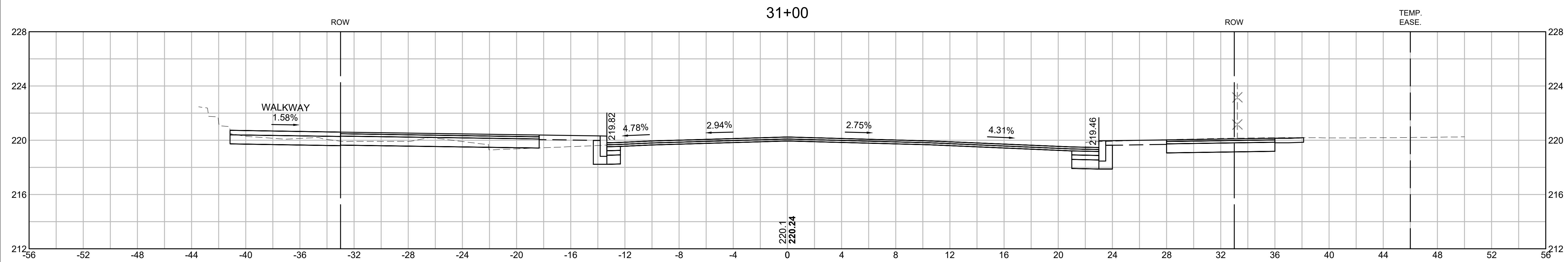
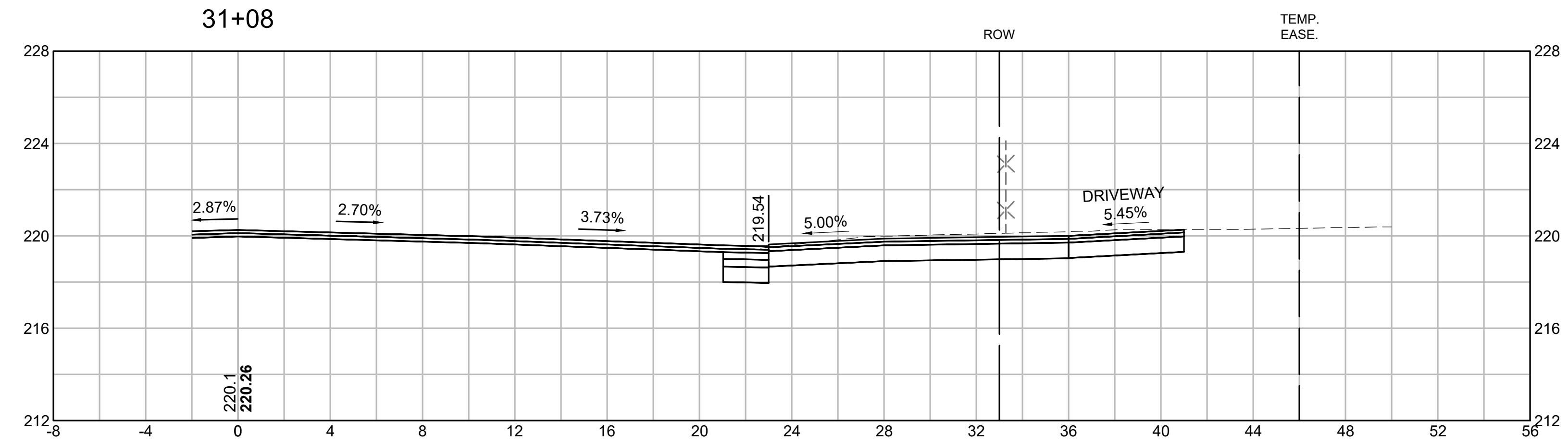


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

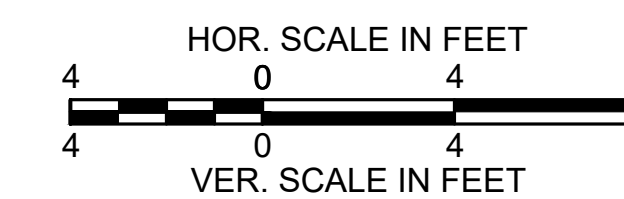


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	84	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
ST. JAMES AVENUE

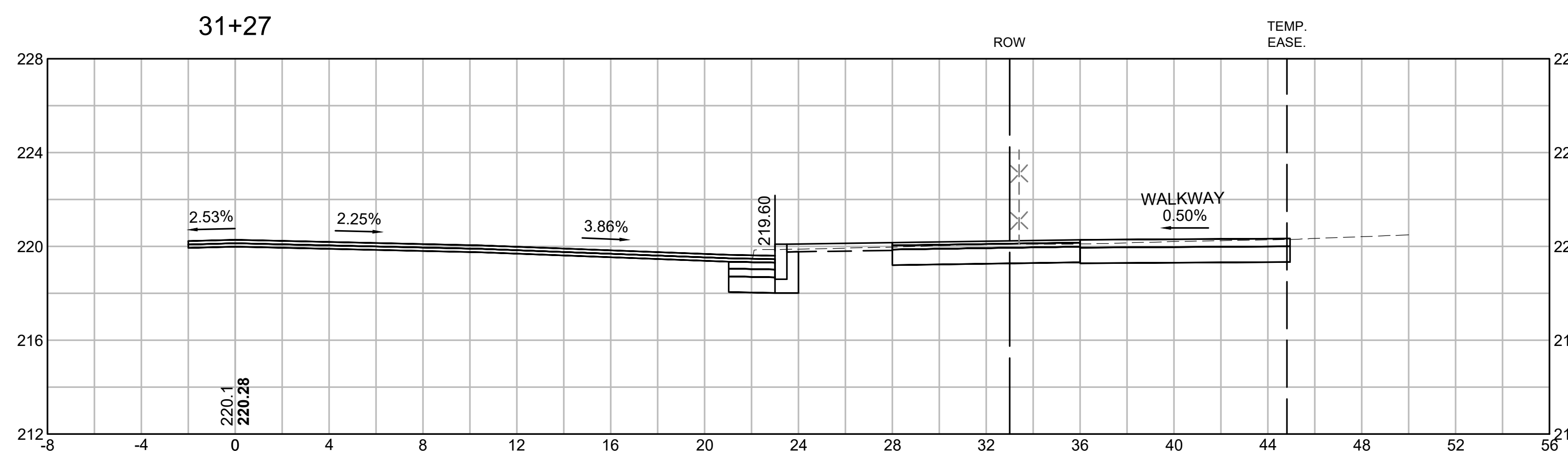
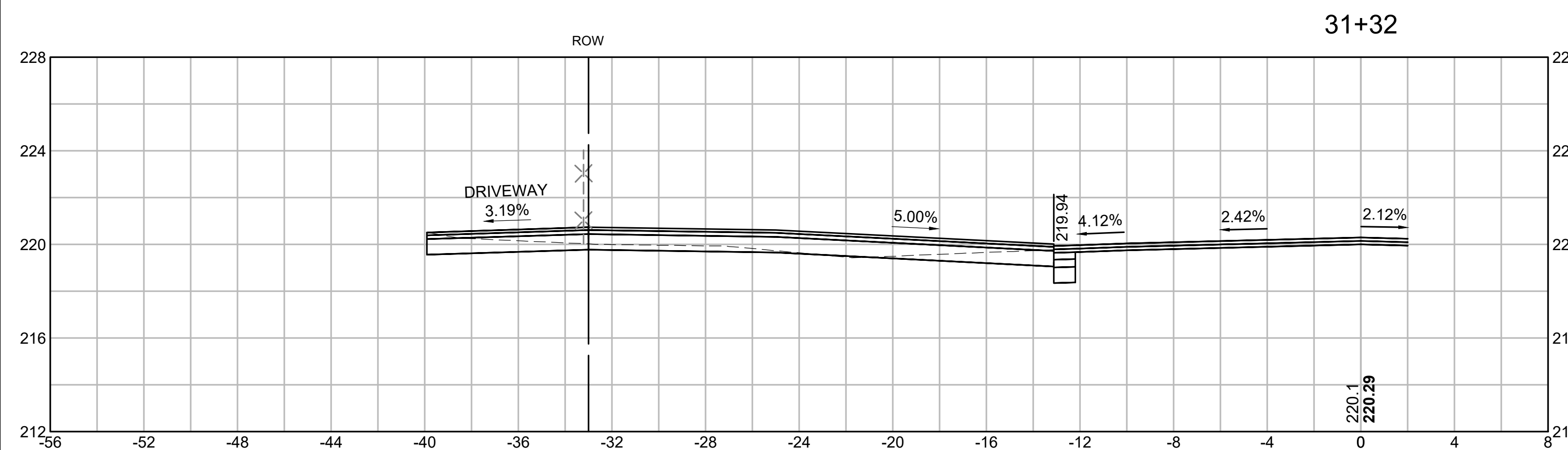
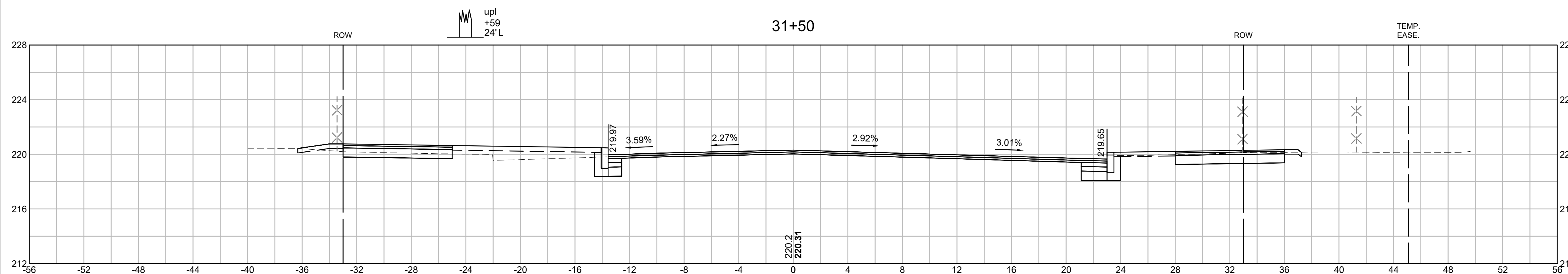


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	85	115
PROJECT FILE NO.		608565	

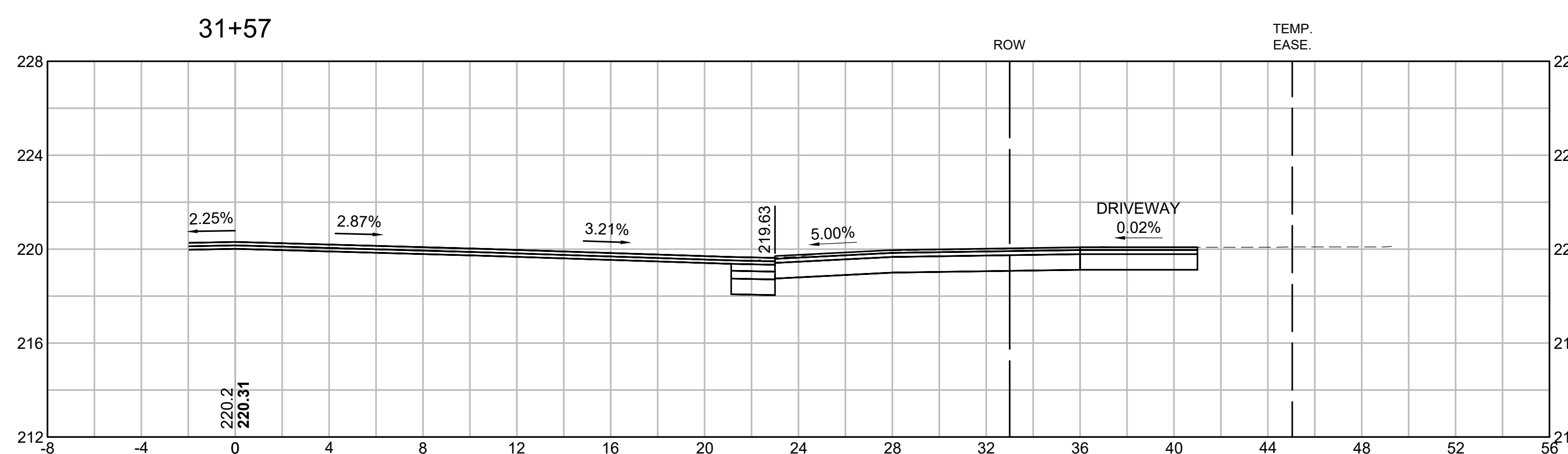
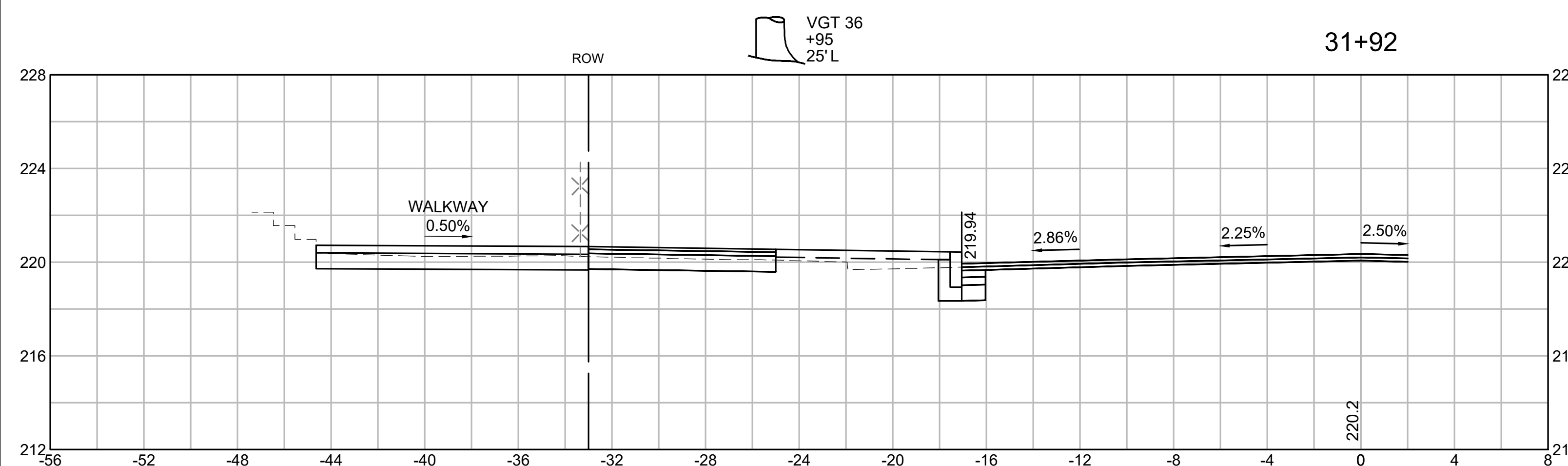
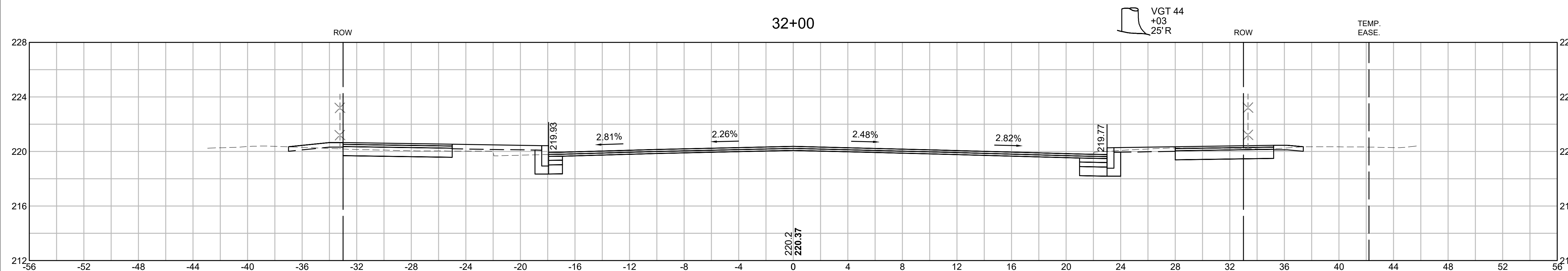
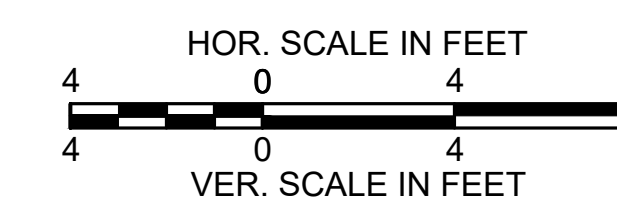
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	86	115
PROJECT FILE NO.		608565	

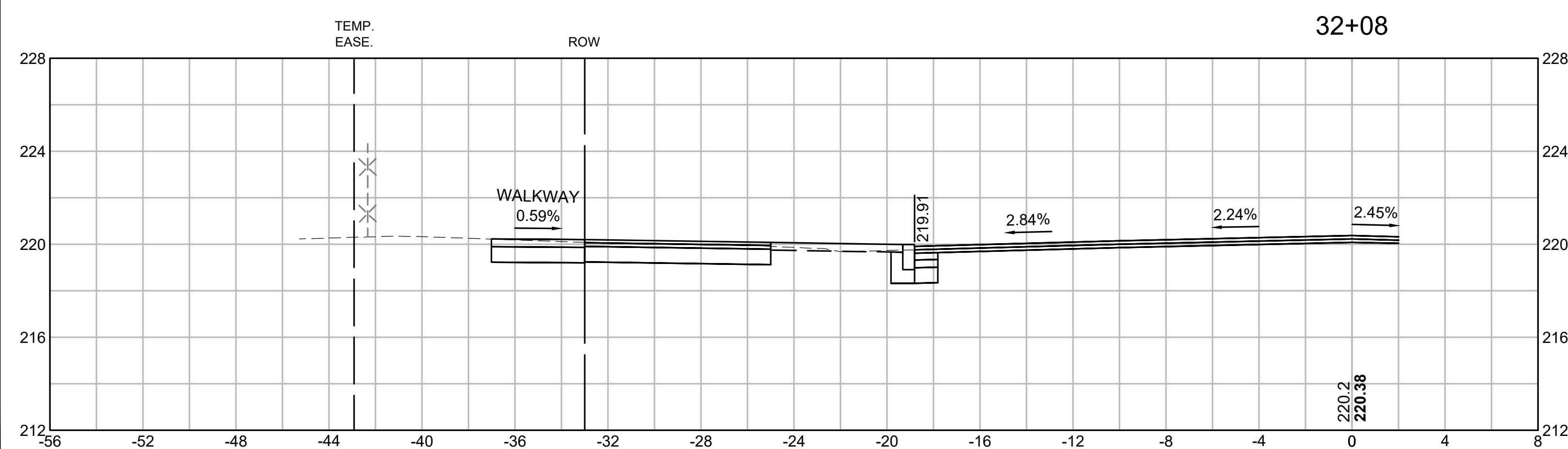
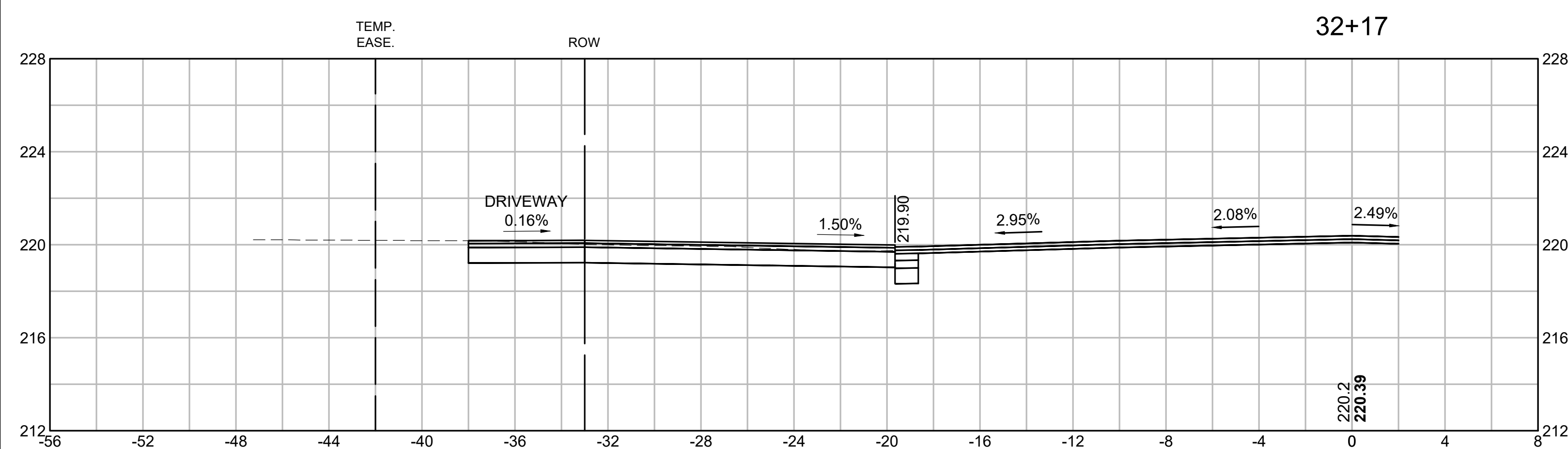
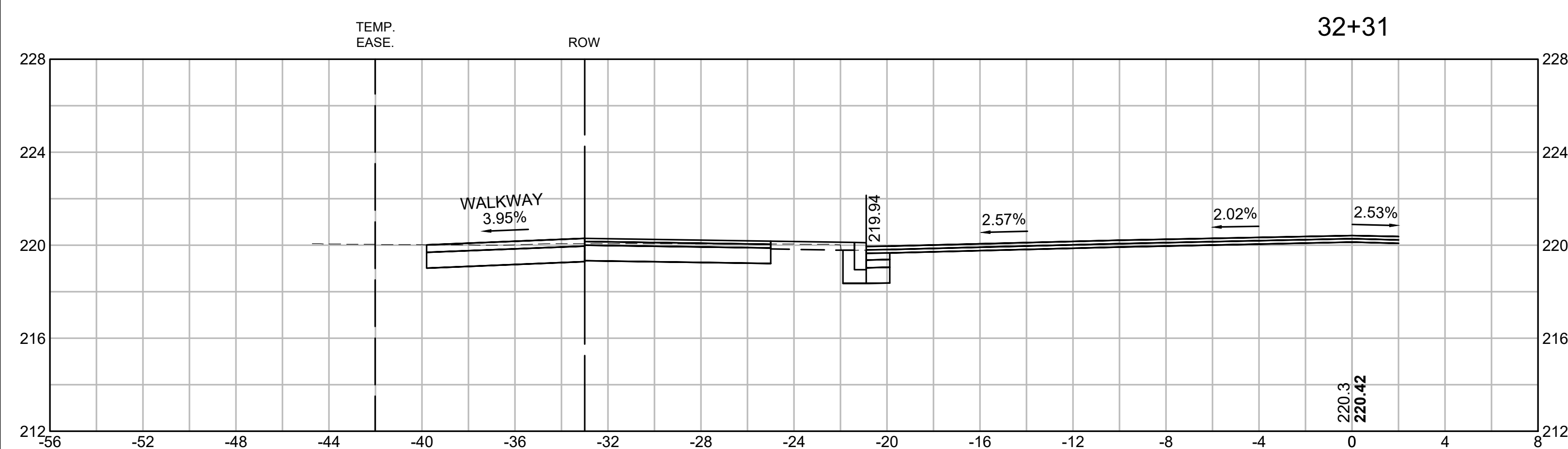
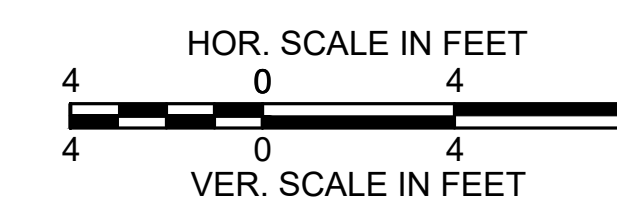
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	87	115
PROJECT FILE NO.		608565	

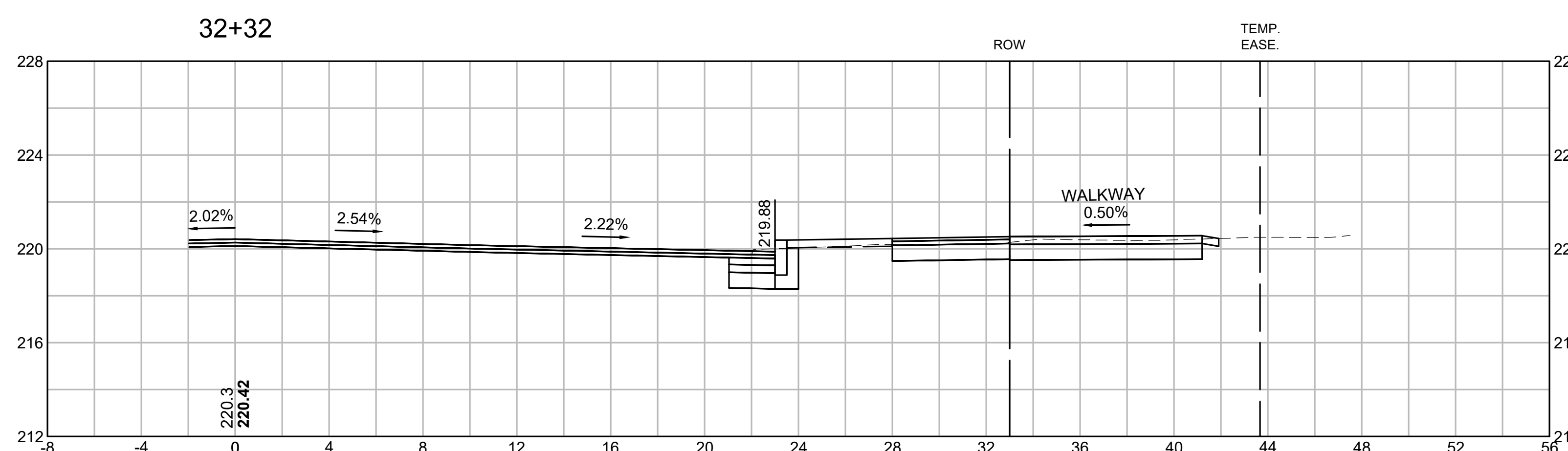
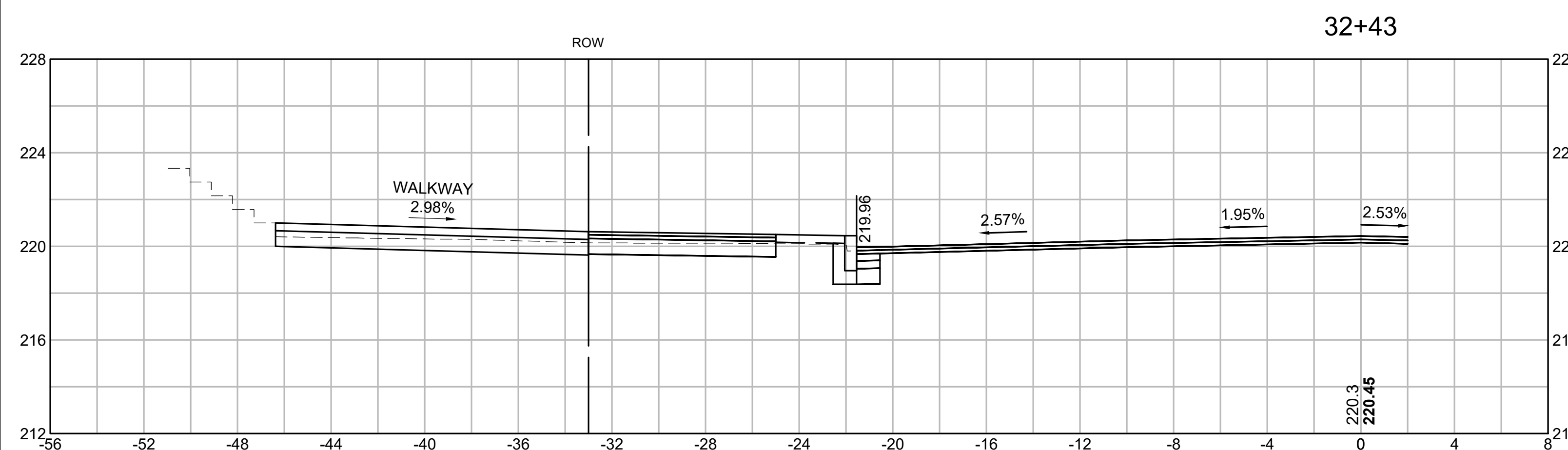
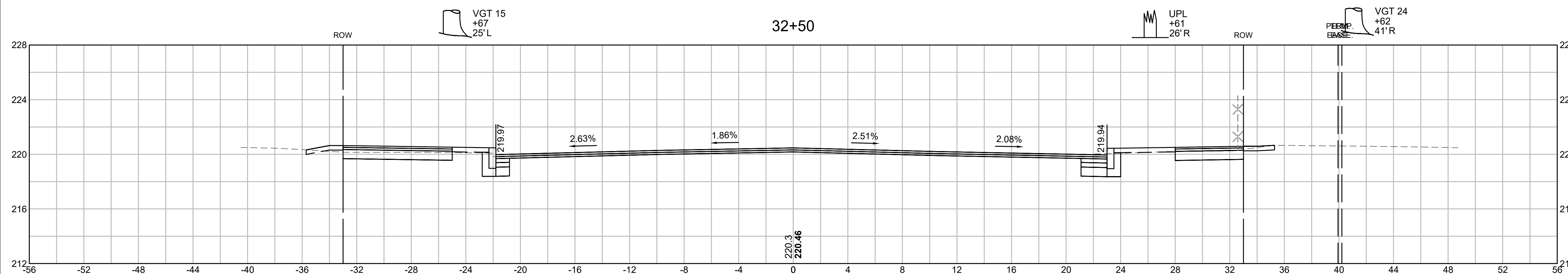
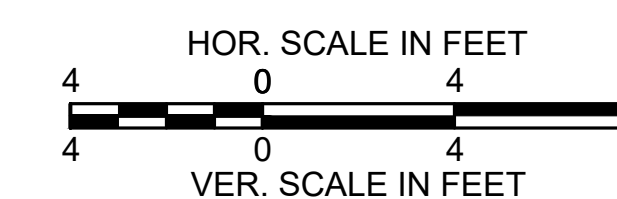
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	88	115
PROJECT FILE NO.		608565	

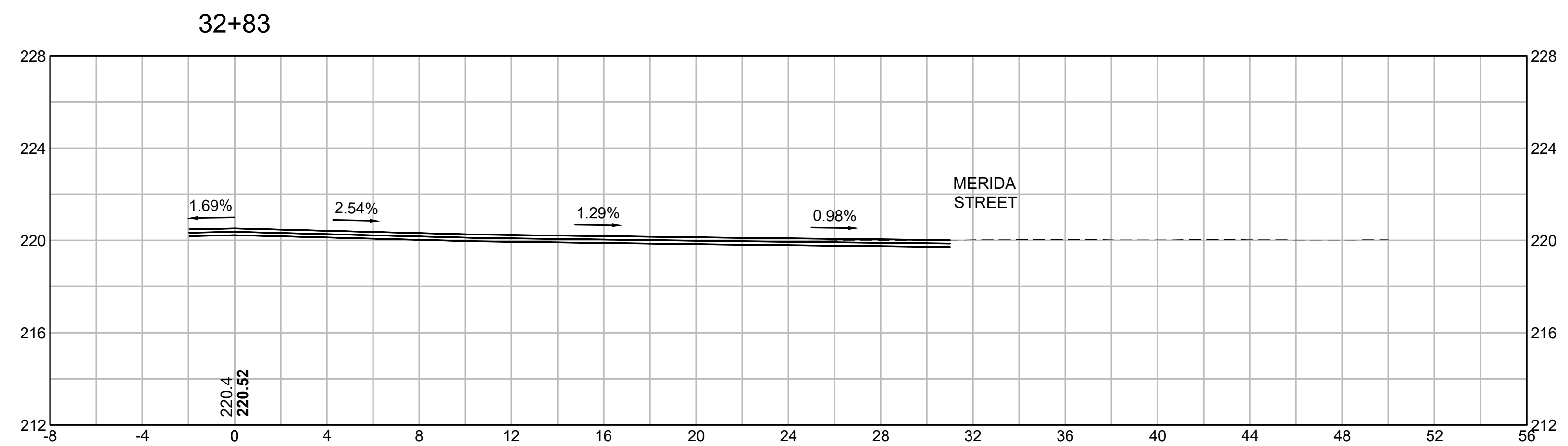
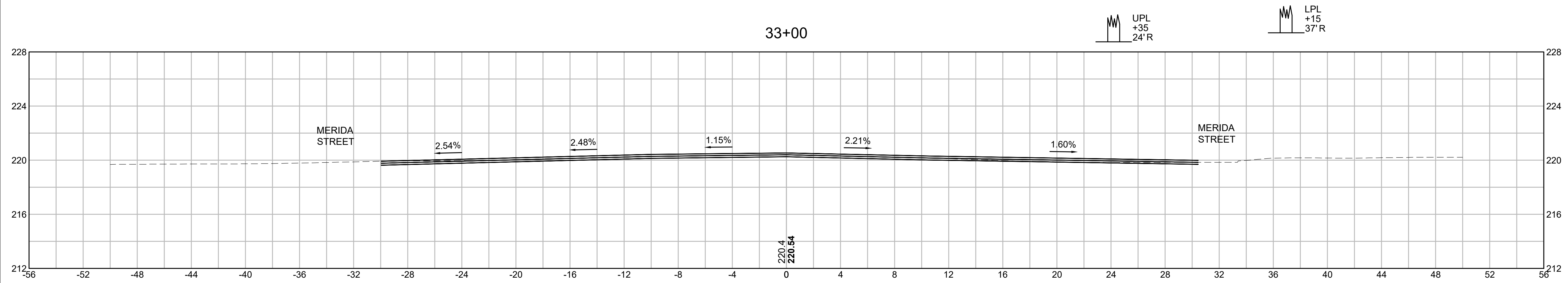
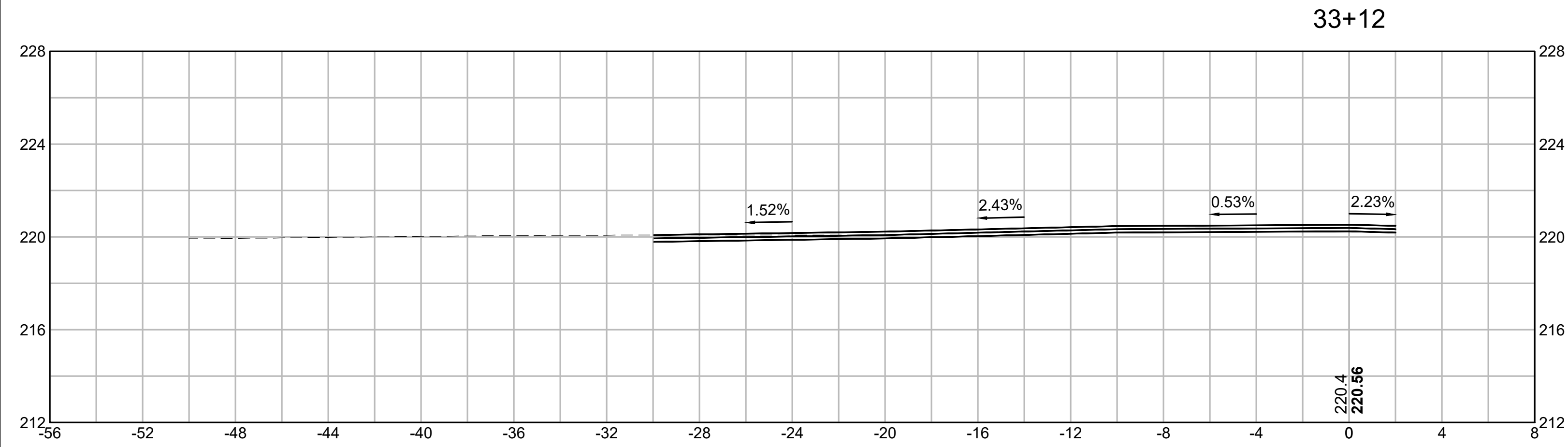
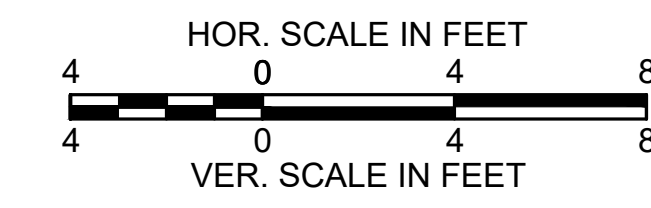
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	89	115
PROJECT FILE NO.		608565	

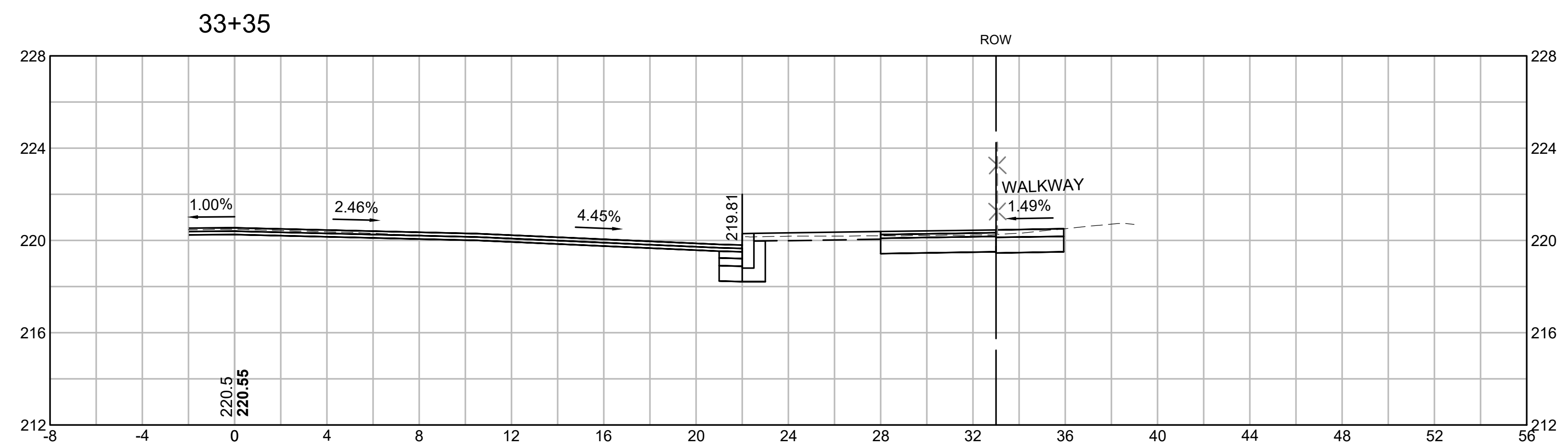
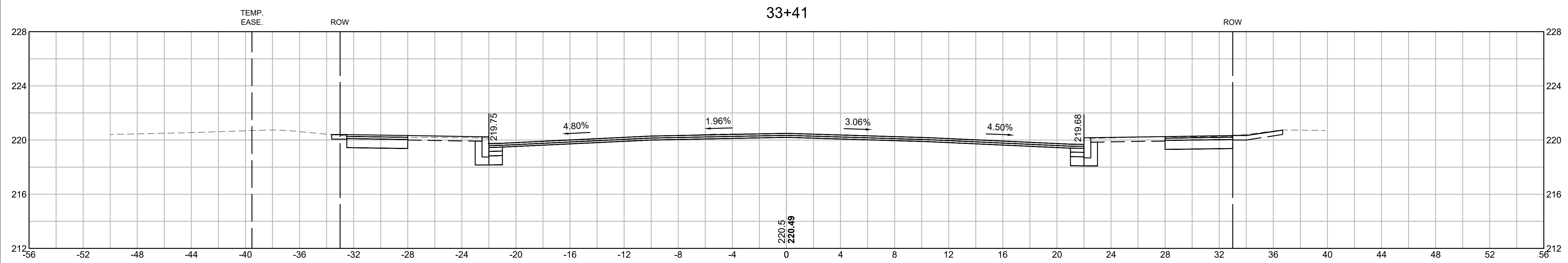
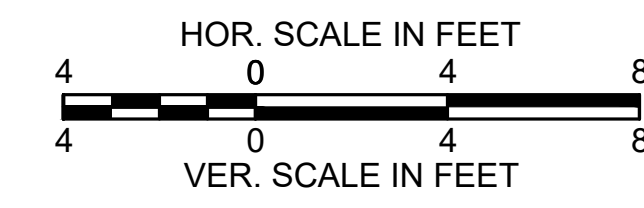
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	90	115
PROJECT FILE NO.		608565	

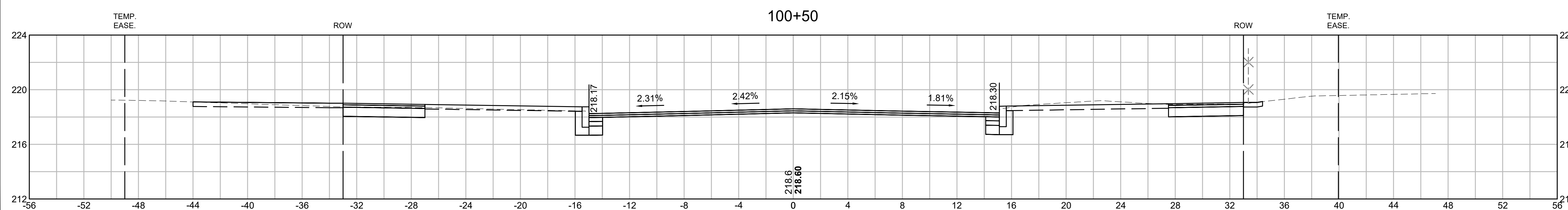
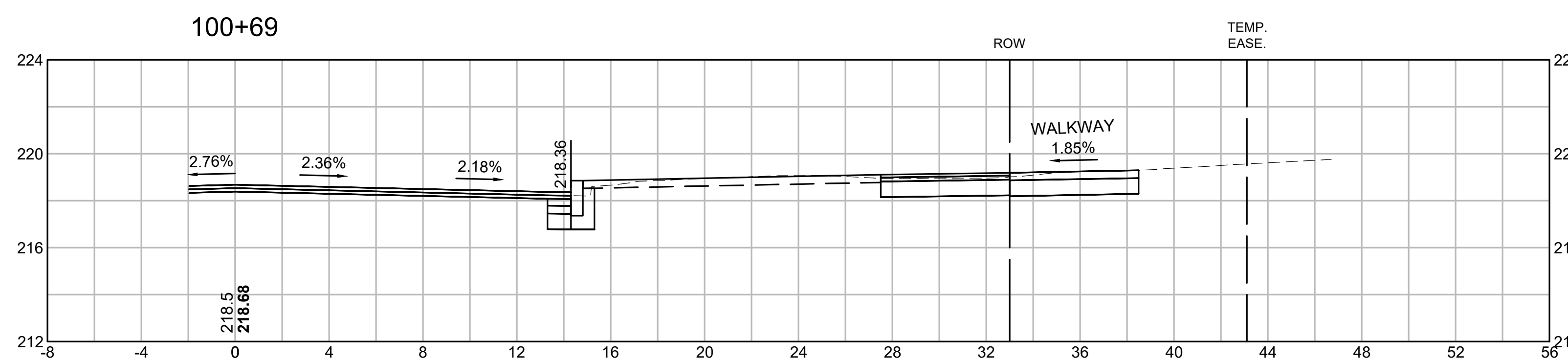
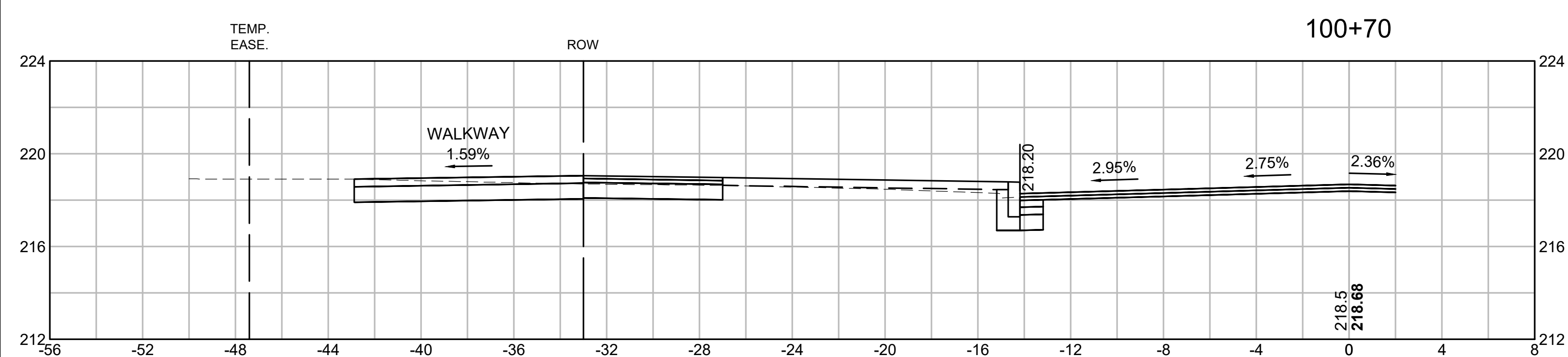
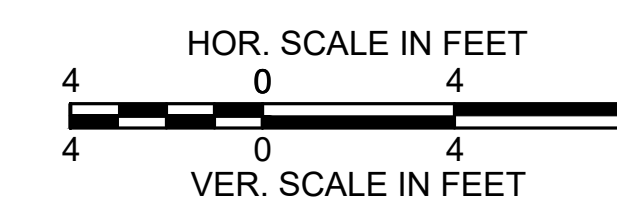
CROSS SECTIONS
ST. JAMES AVENUE



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	91	115
PROJECT FILE NO.		608565	

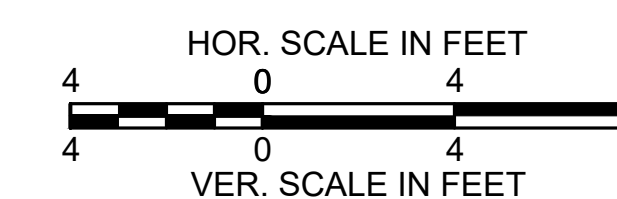
CROSS SECTIONS
CAREW STREET



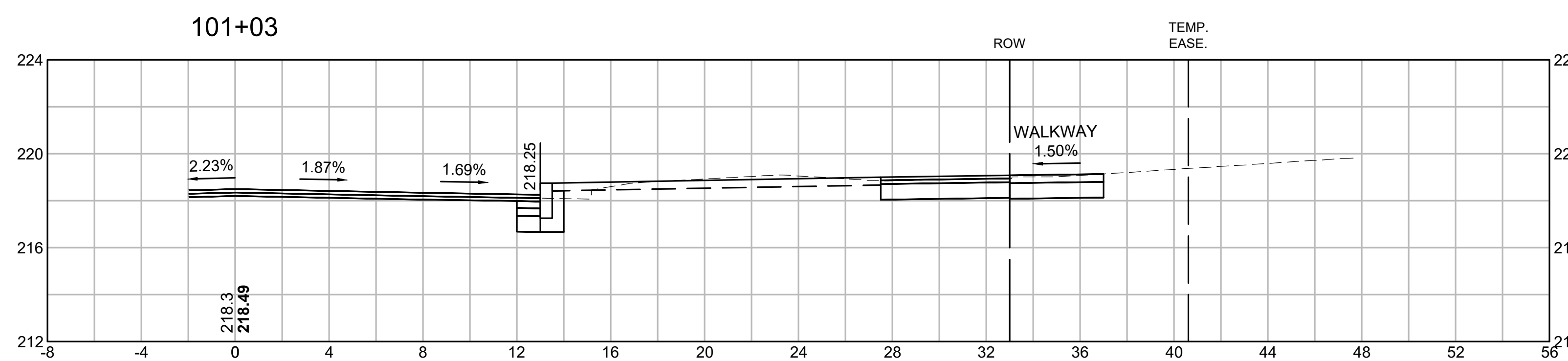
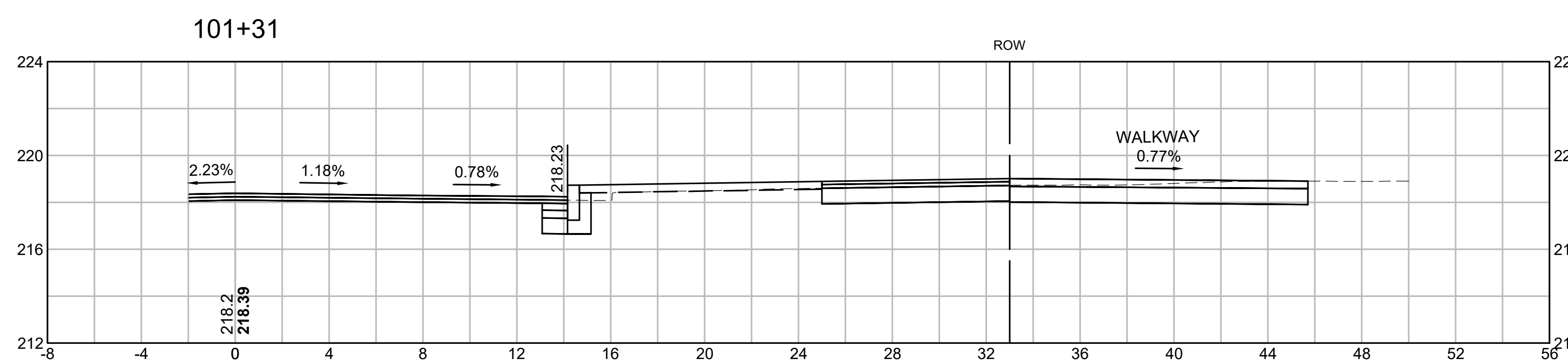
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	92	115
PROJECT FILE NO.		608565	

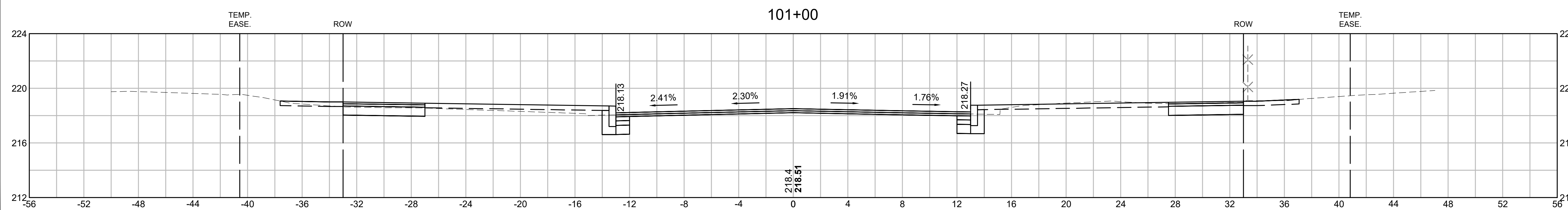
CROSS SECTIONS
CAREW STREET



VGT 21
+42
48'R



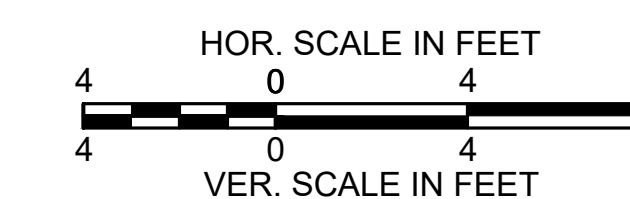
VGT 16
+01
22'R



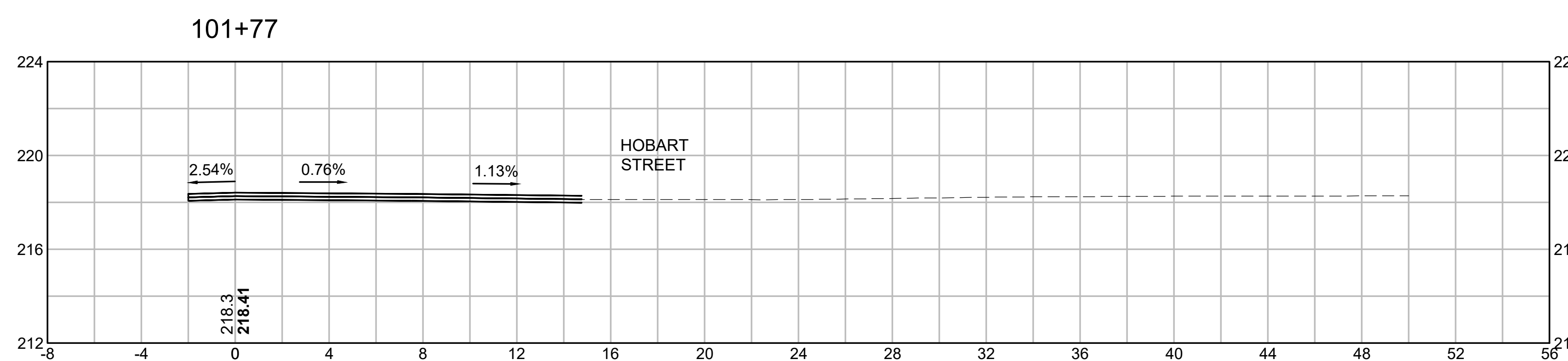
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	93	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
CAREW STREET

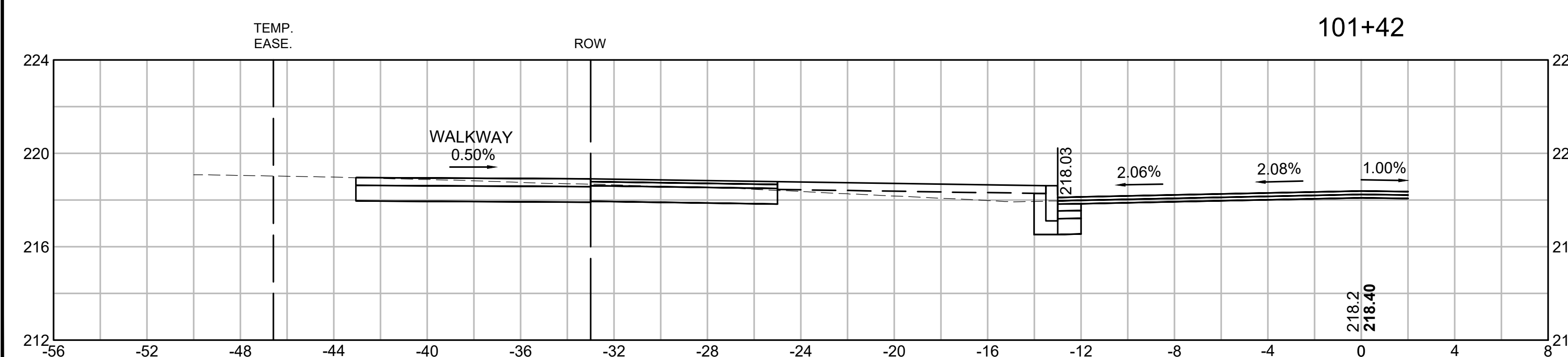
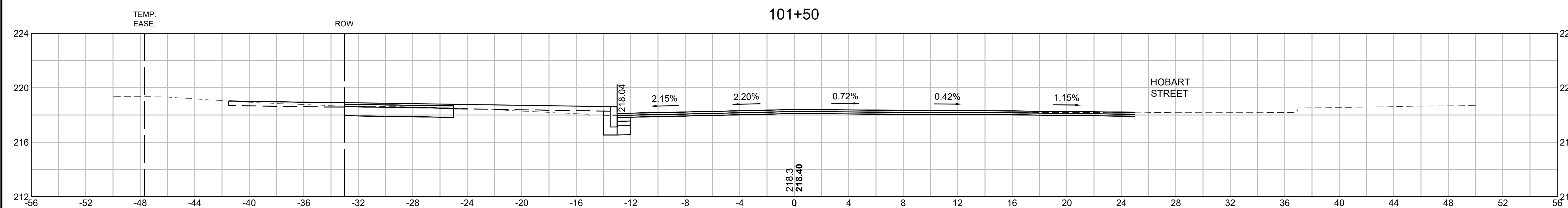


ULT 104/106
+87
25' R

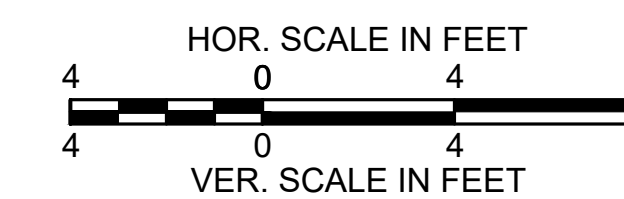


VGT 22
+53
40' L

ULT +57
18' L

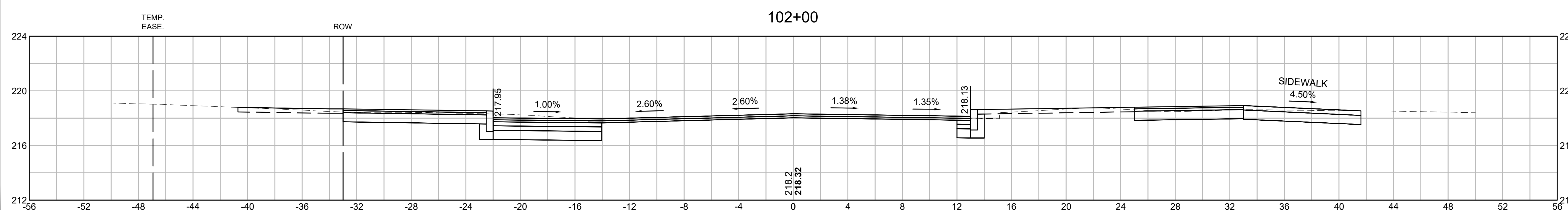
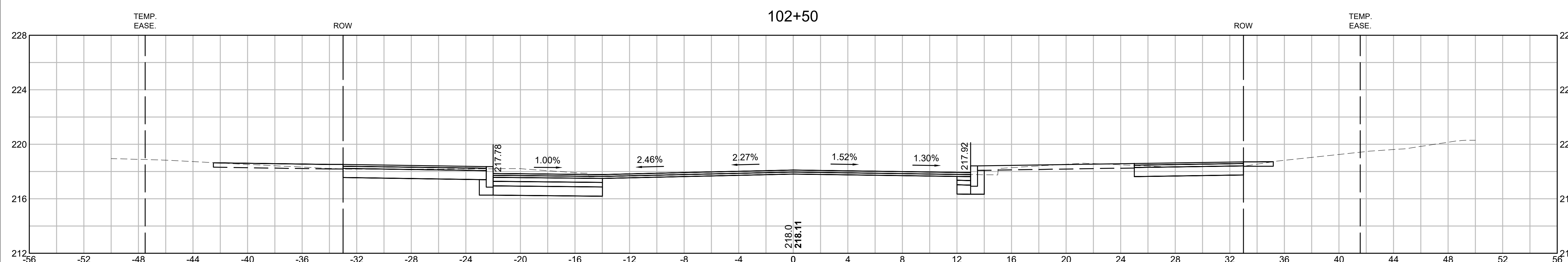
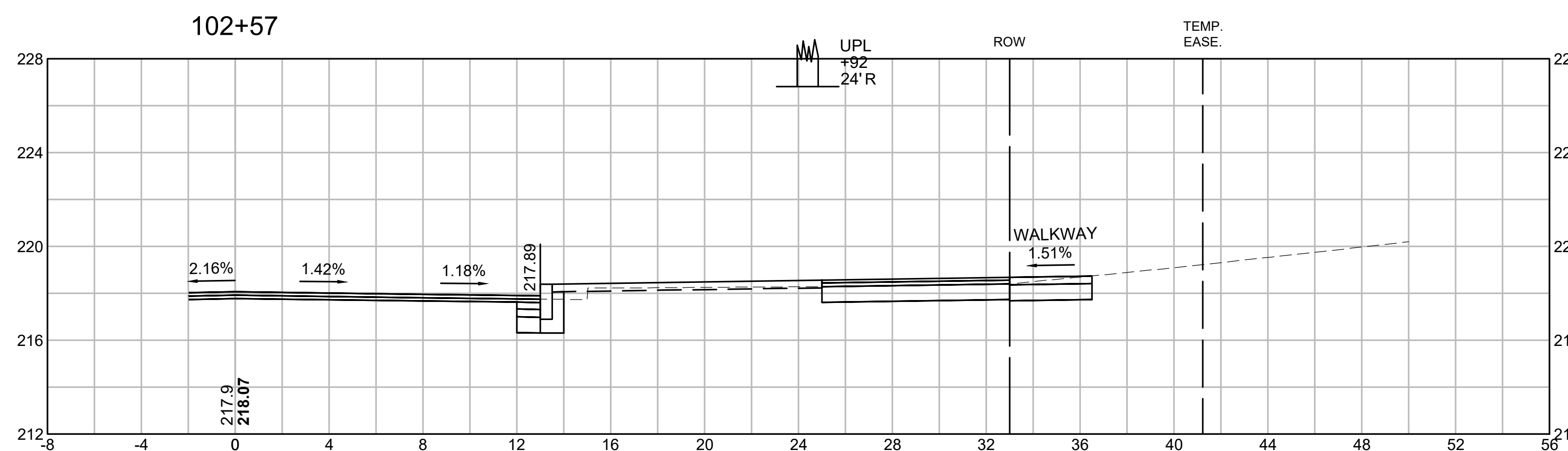


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

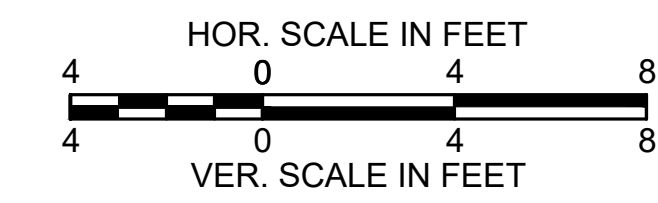


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	94	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
CAREW STREET

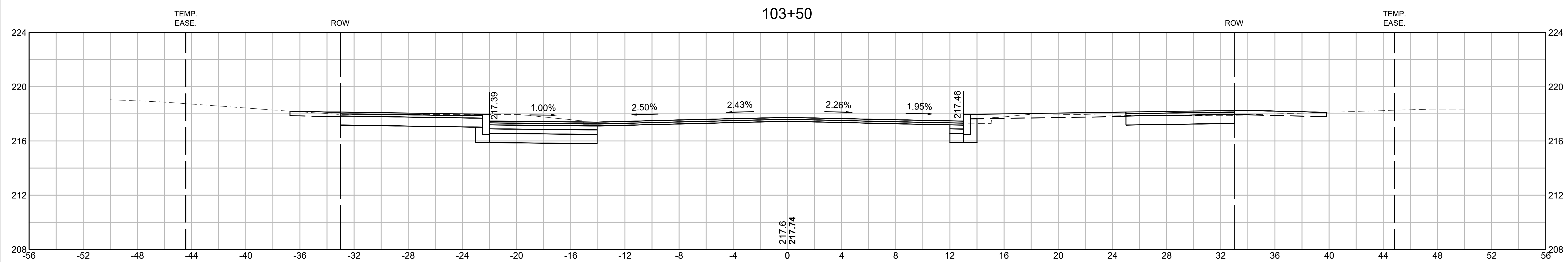
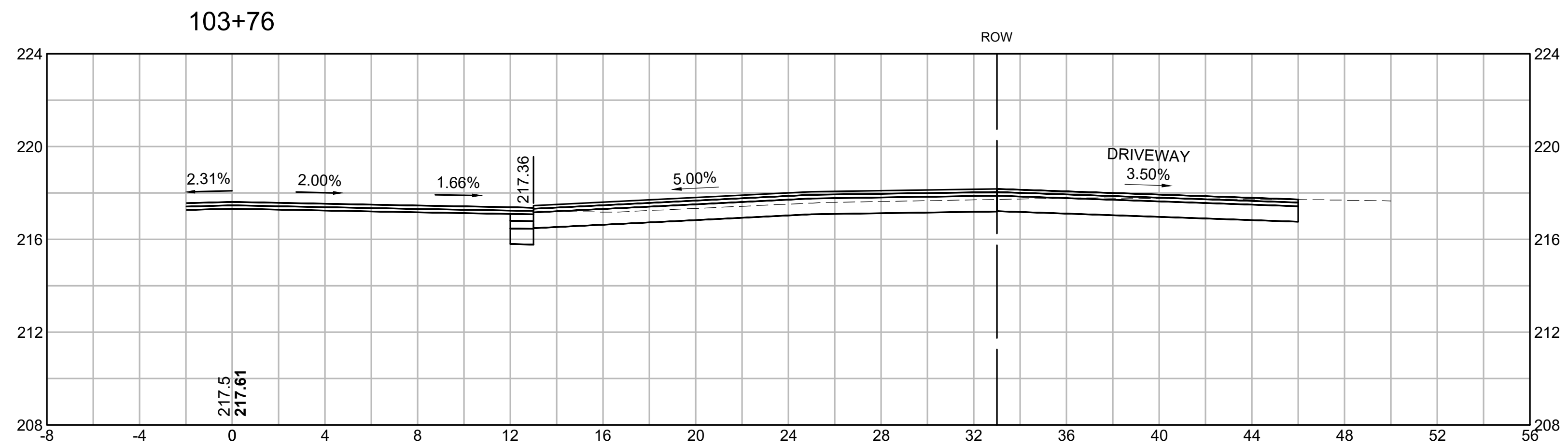


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

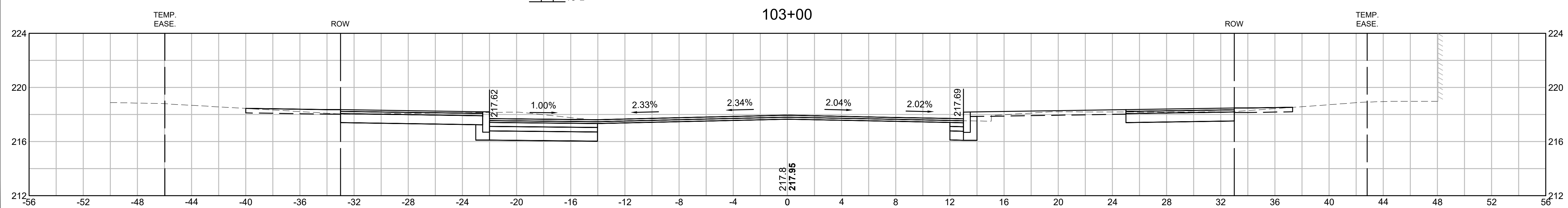


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	95	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
CAREW STREET



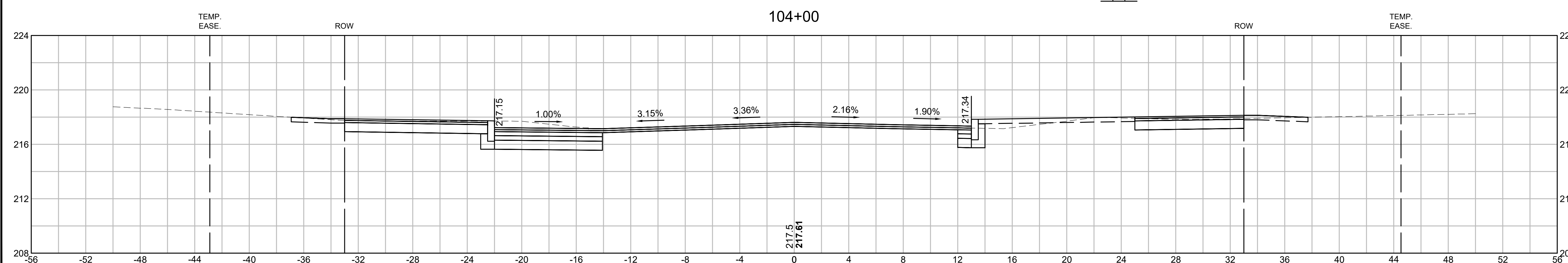
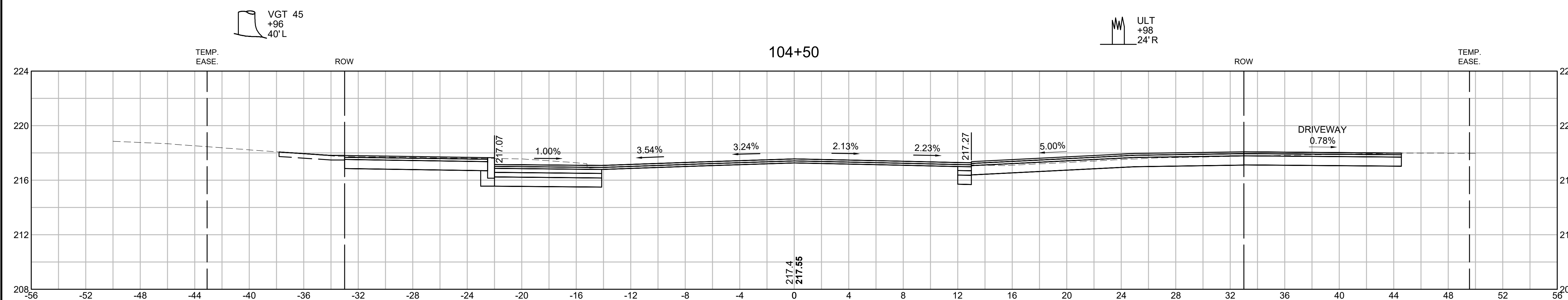
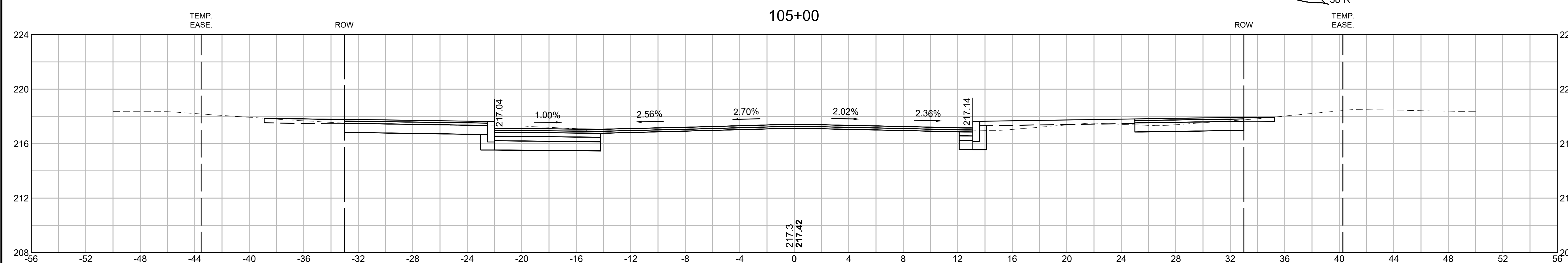
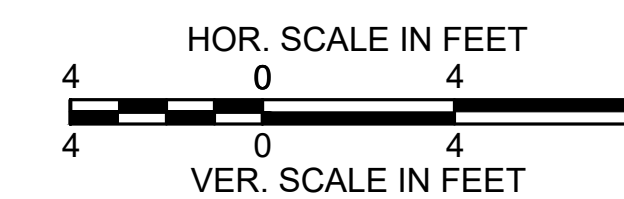
ULT
+44
18"L



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	96	115
PROJECT FILE NO.		608565	

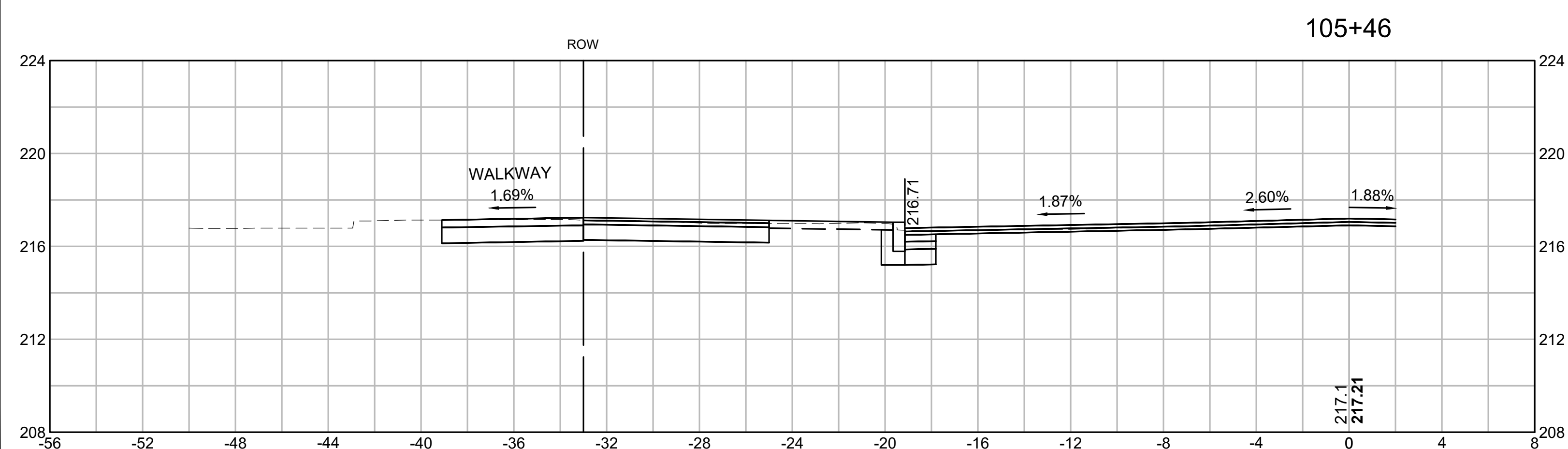
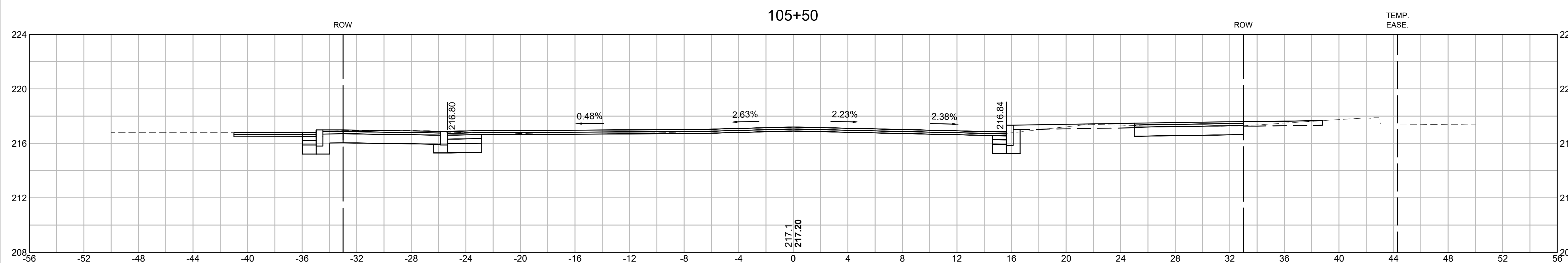
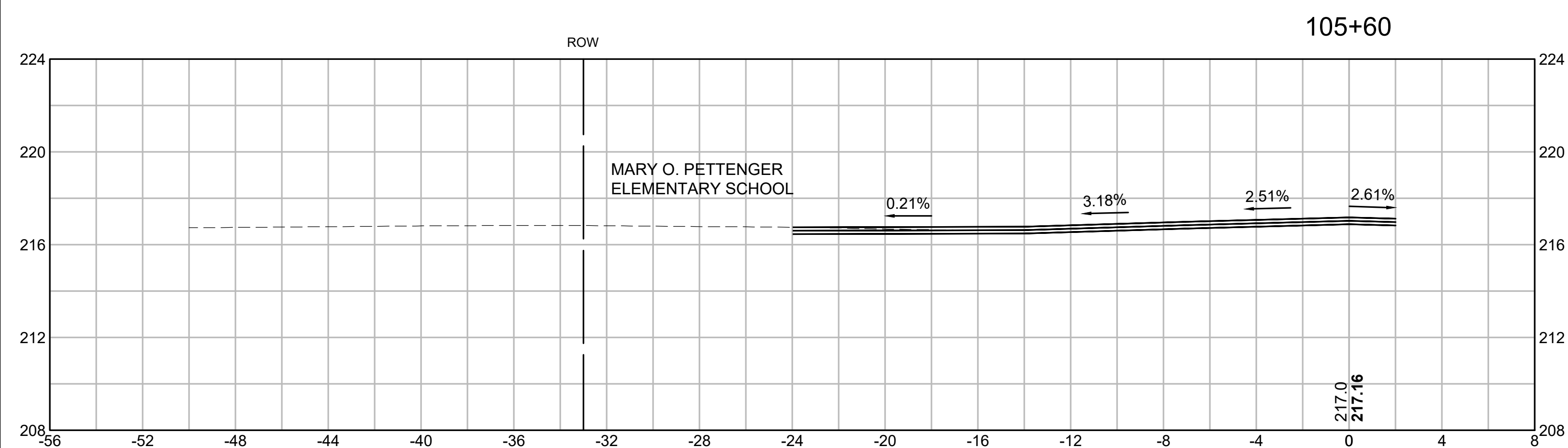
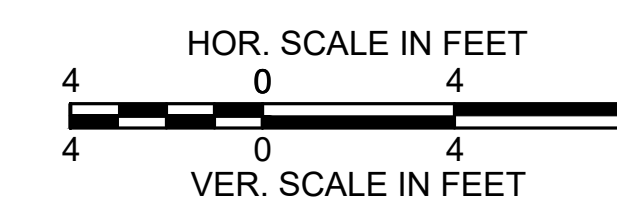
CROSS SECTIONS
CAREW STREET



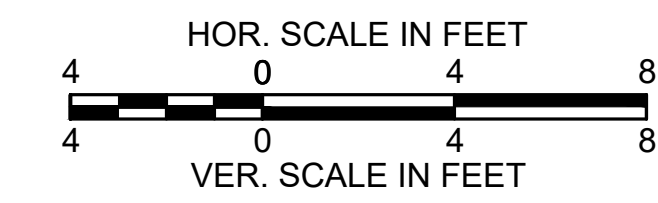
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	97	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
CAREW STREET

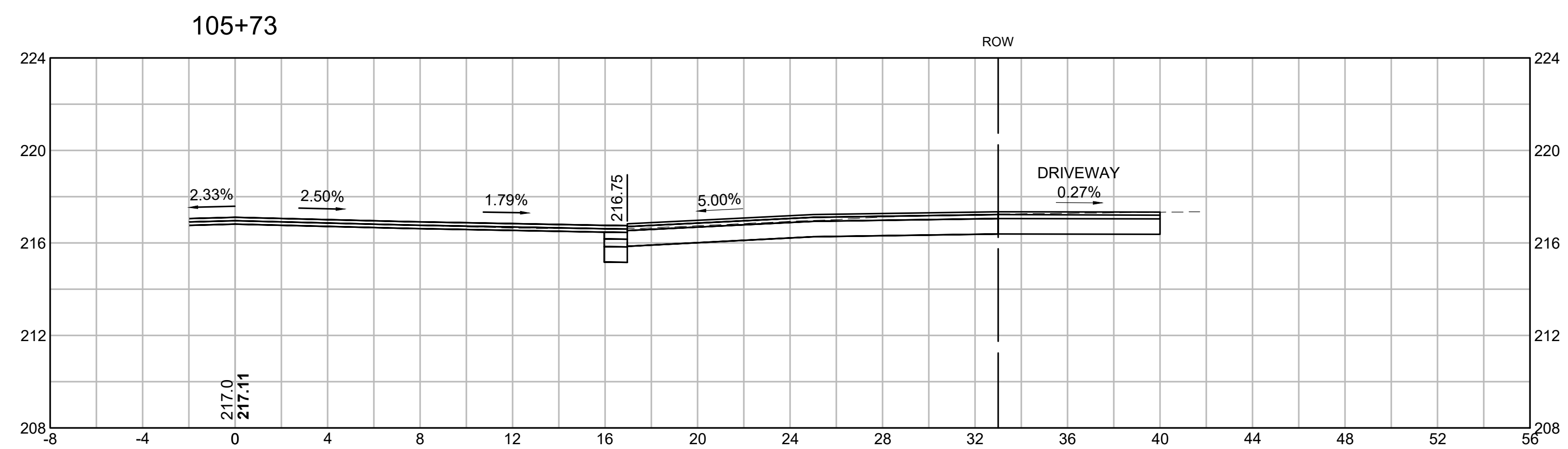
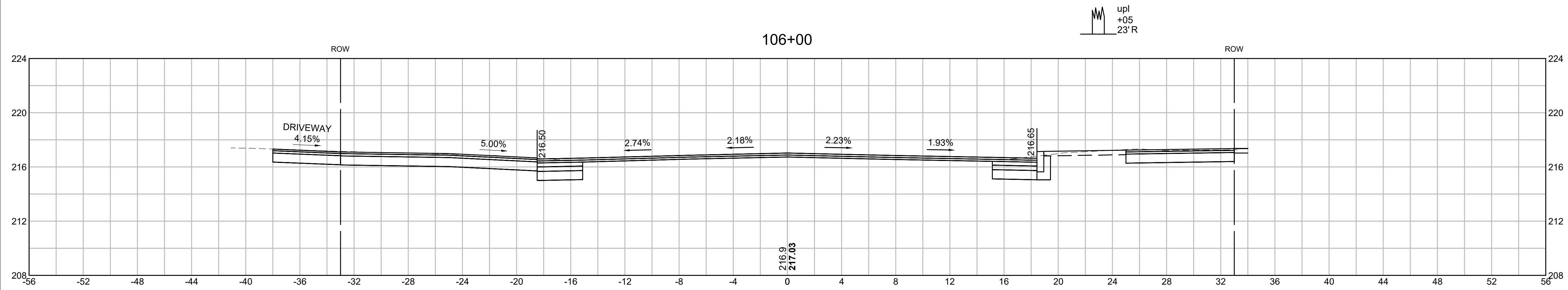
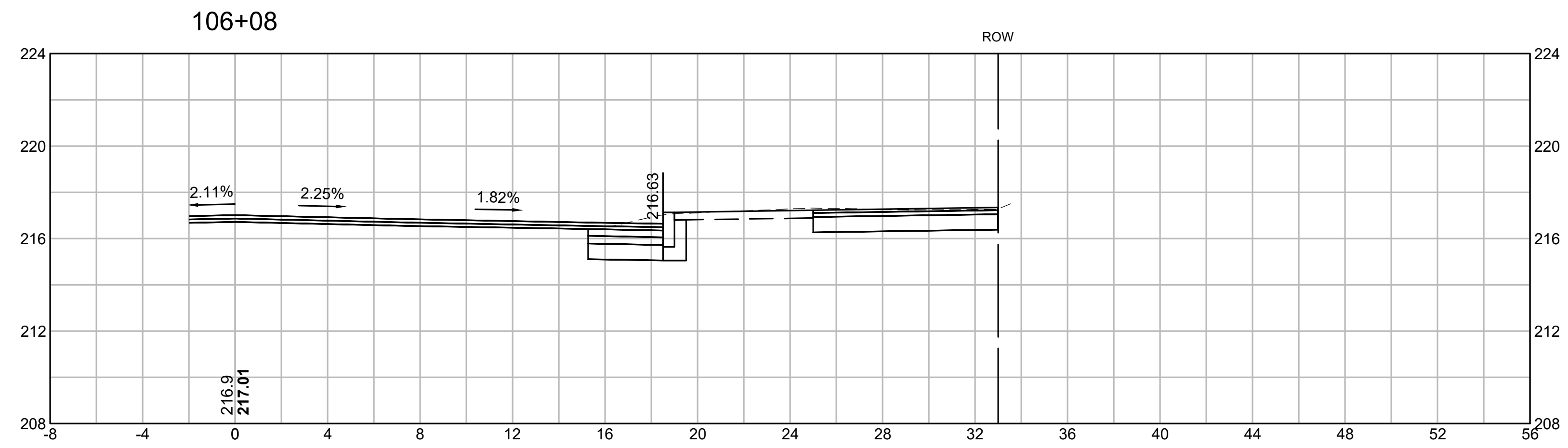


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	98	115
PROJECT FILE NO.		608565	

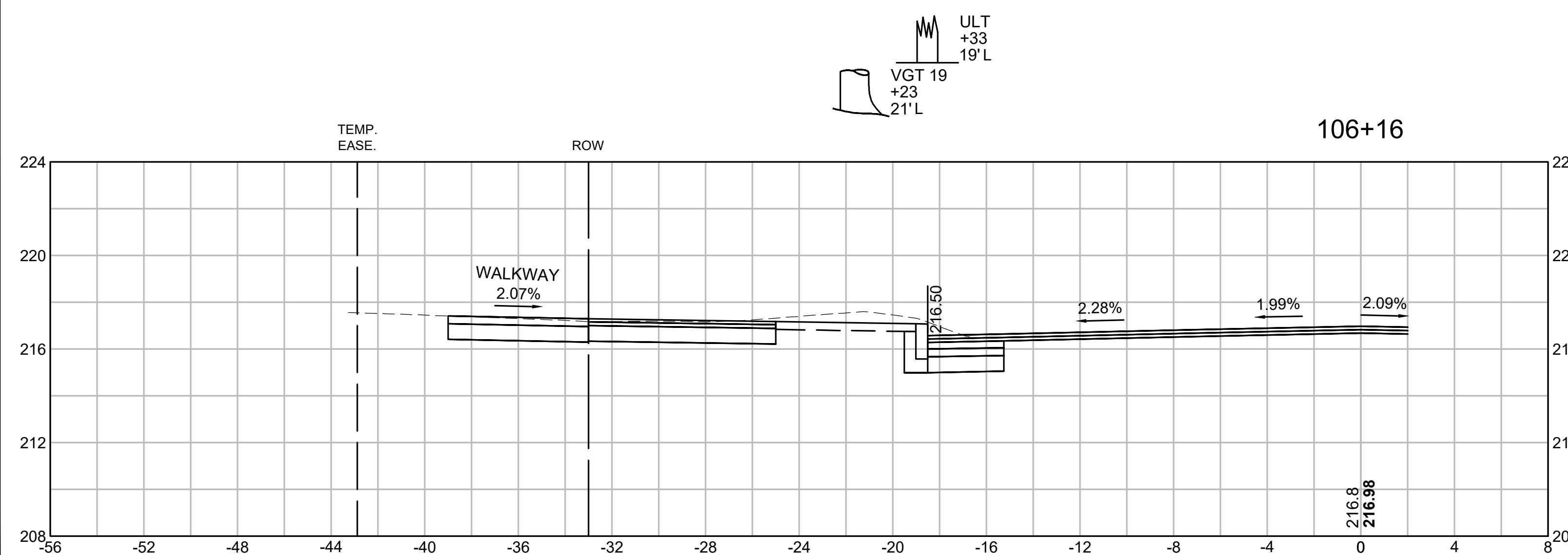
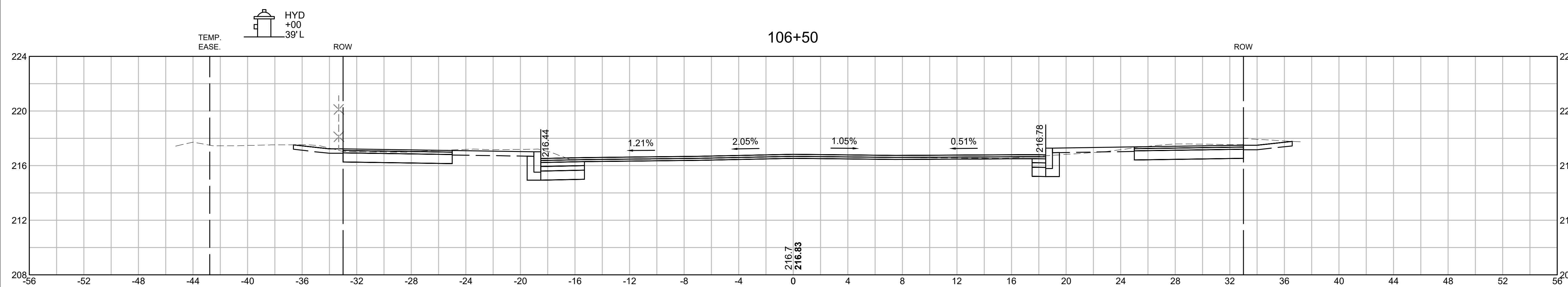
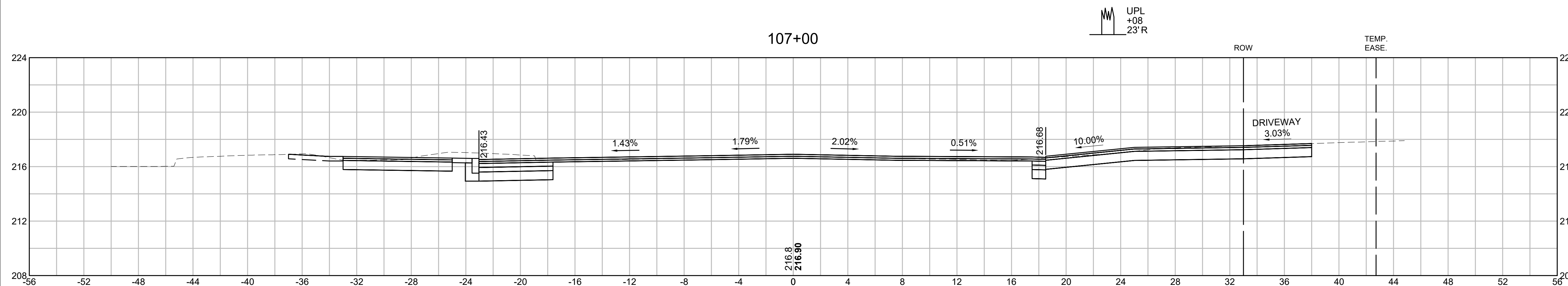
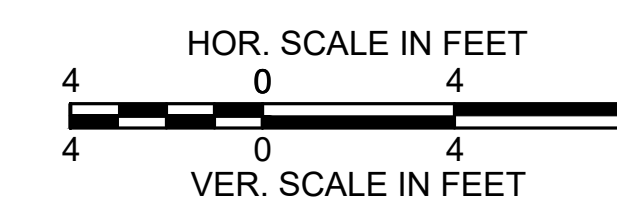
CROSS SECTIONS
CAREW STREET



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	99	115
PROJECT FILE NO.		608565	

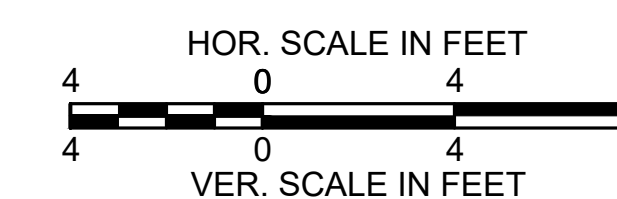
CROSS SECTIONS
CAREW STREET



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

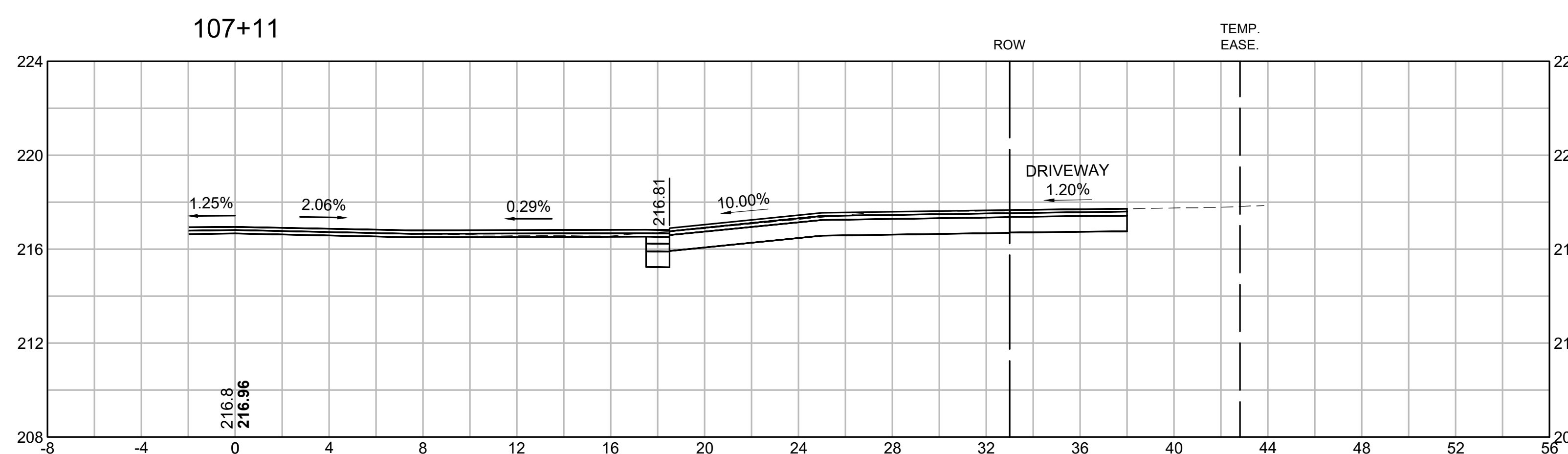
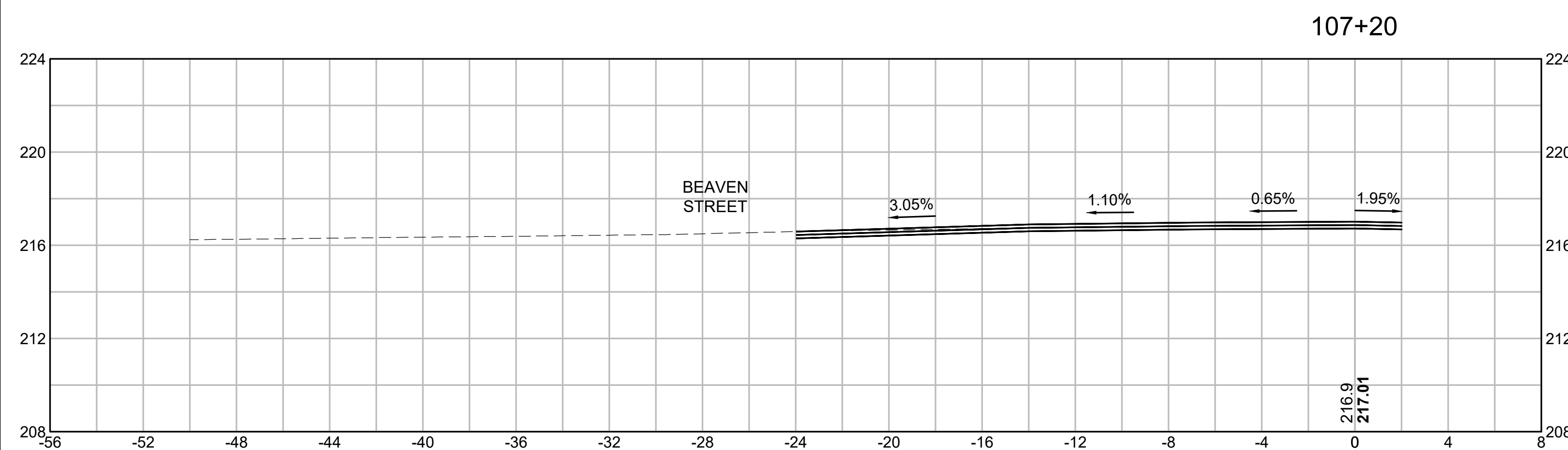
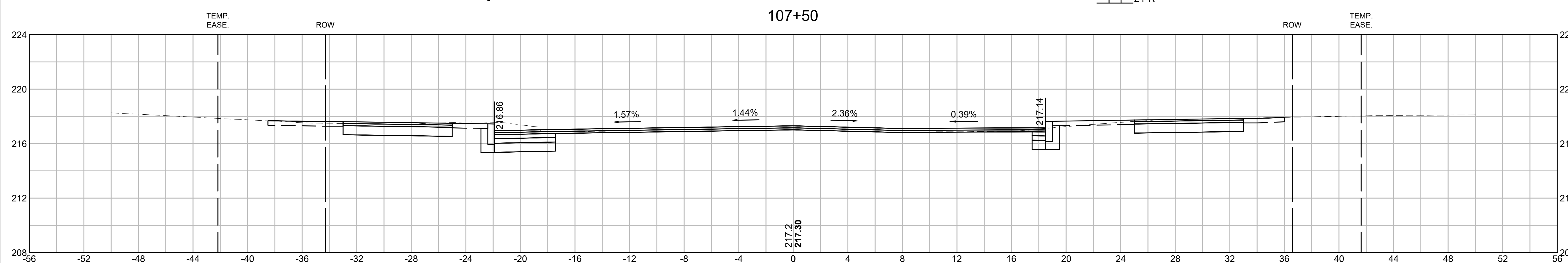
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	100	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
CAREW STREET

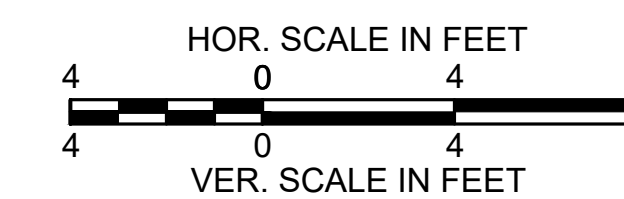


VG1 23
+66
23'L

UL1
+71
24'R

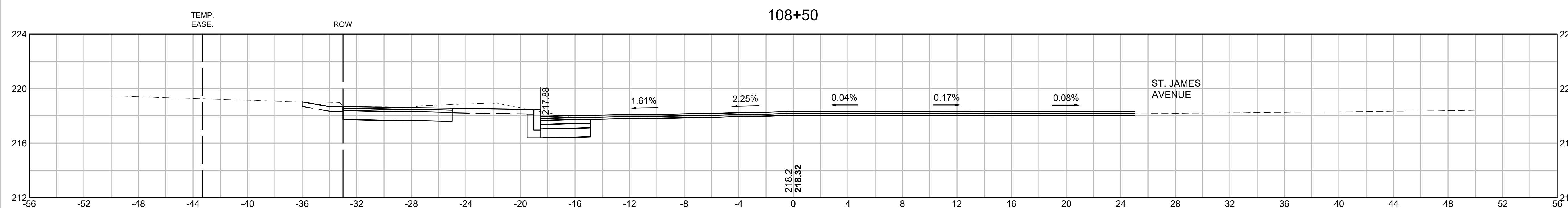


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

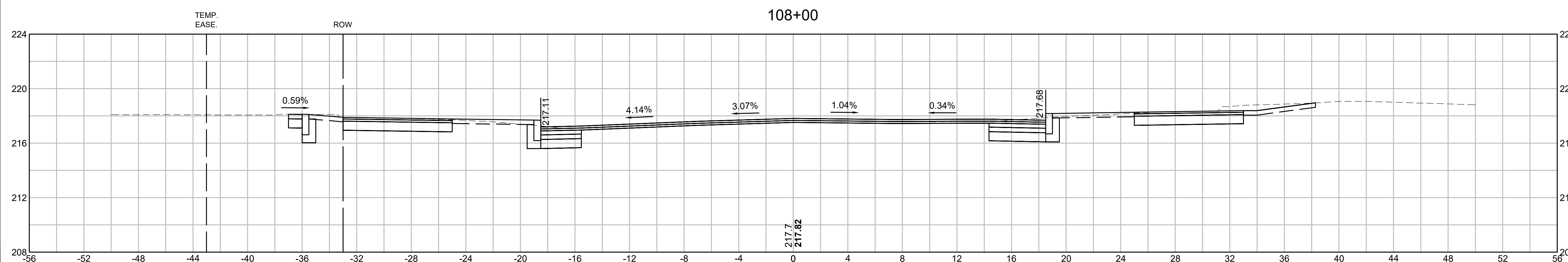
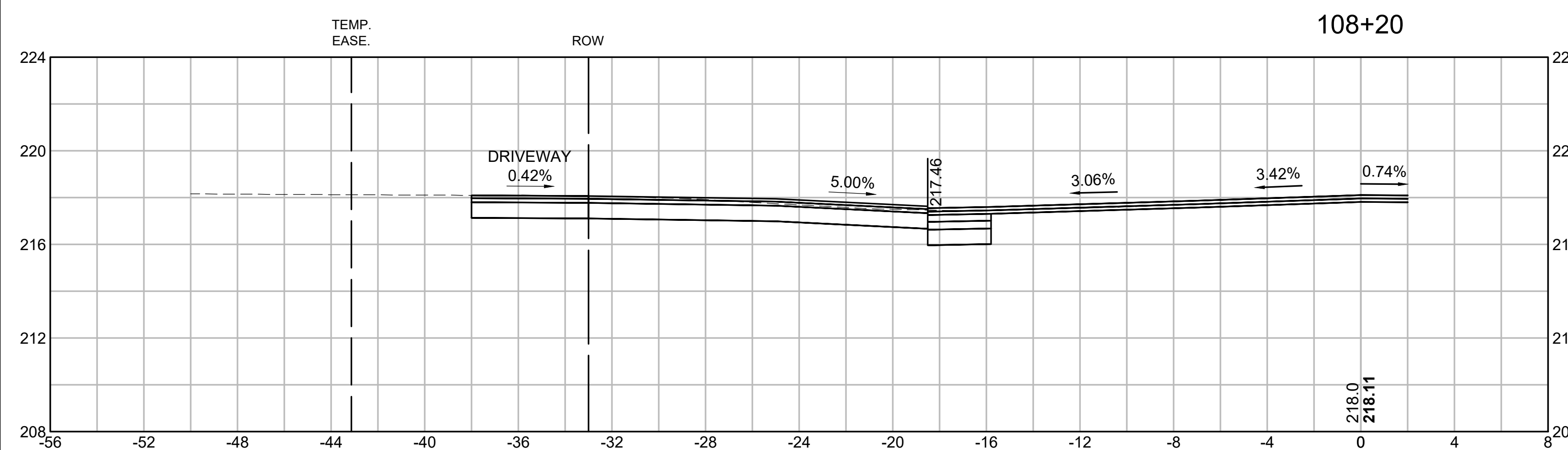


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	101	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
CAREW STREET



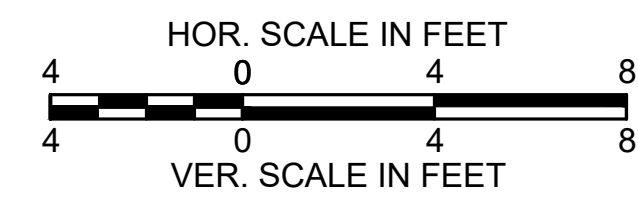
VGT 32
+43
23'L



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	102	115
PROJECT FILE NO.		608565	

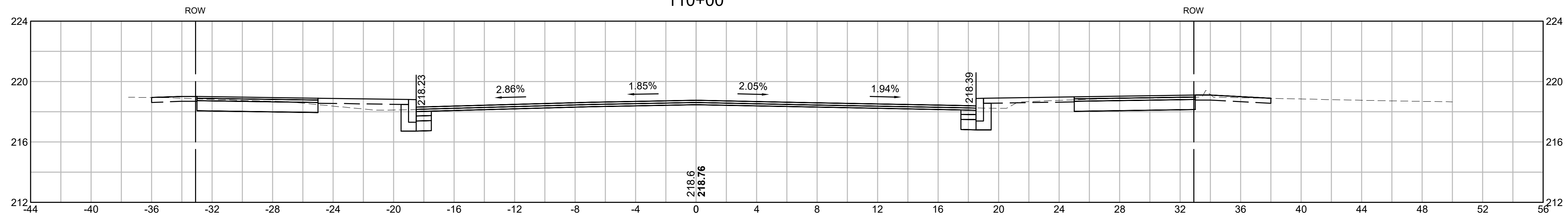
CROSS SECTIONS
CAREW STREET



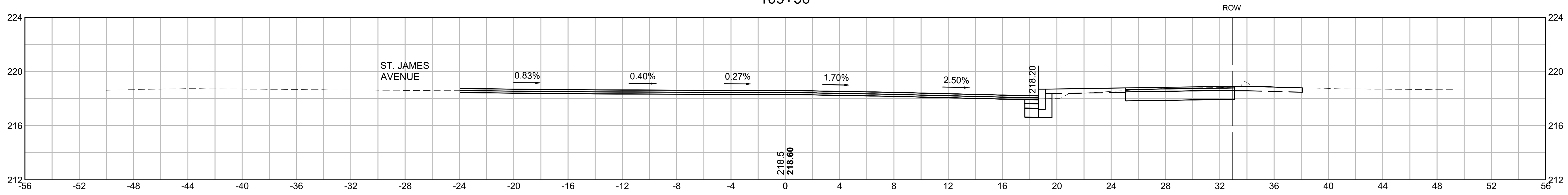
VGT 36
+43
24'L

upl
+40
34'R

110+00

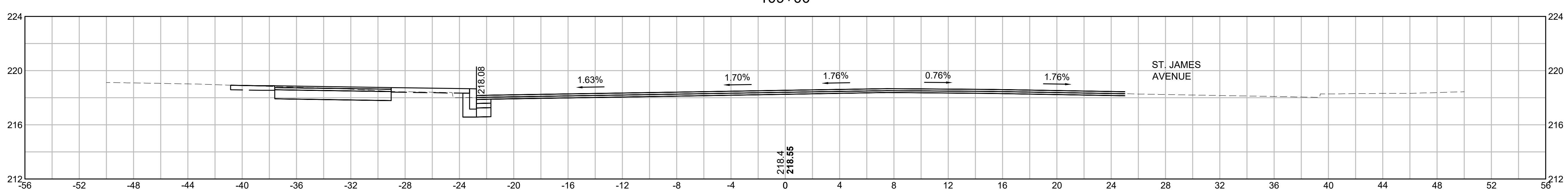


109+50



ULT
+18
28'R

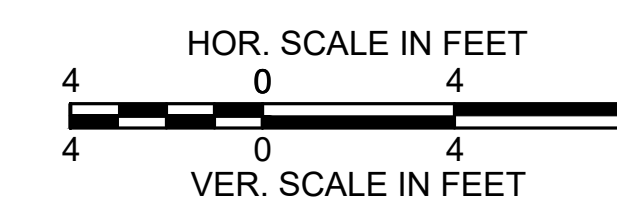
109+00



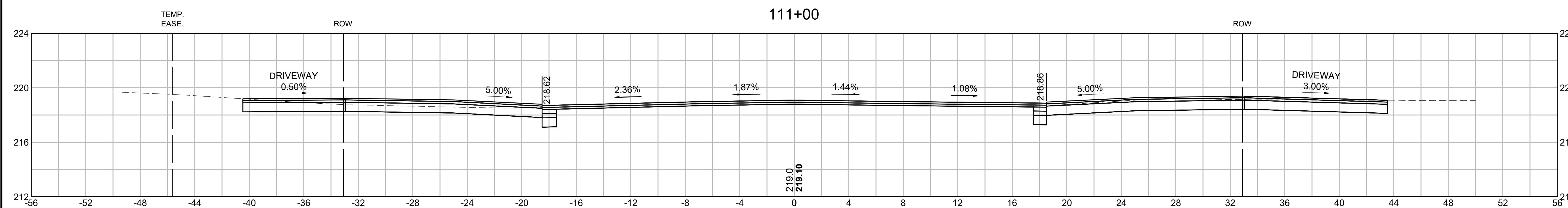
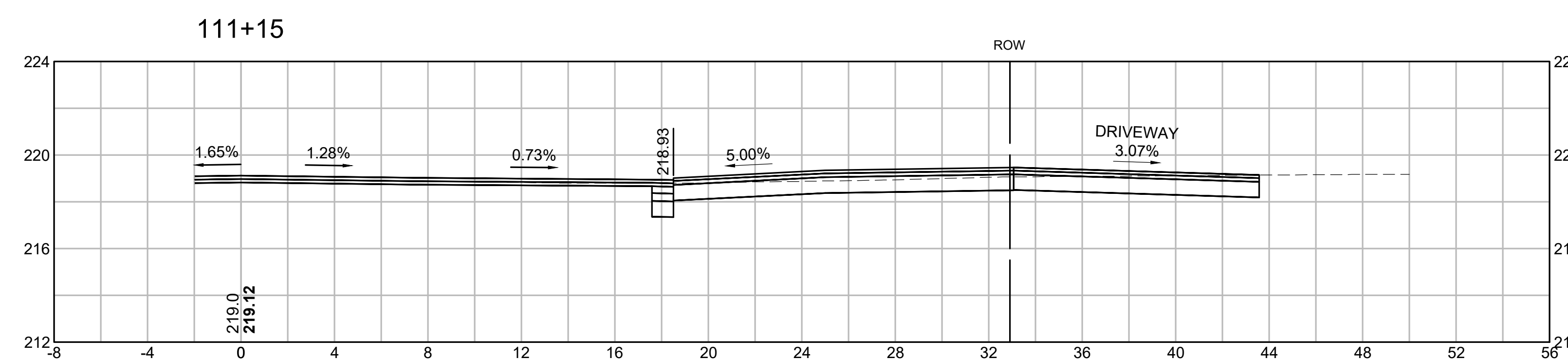
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	103	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
CAREW STREET

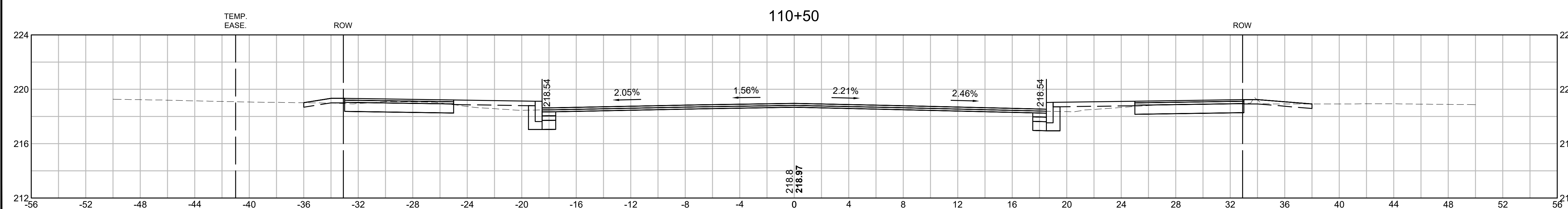


ULT NO
+40
34' R



ULT
+86
24' L

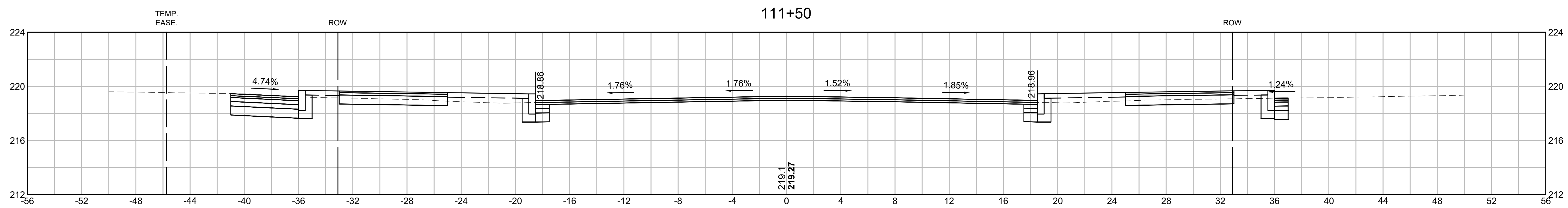
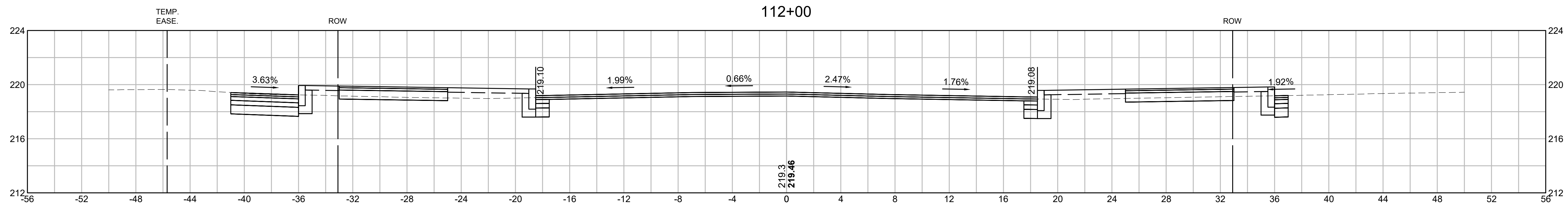
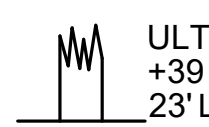
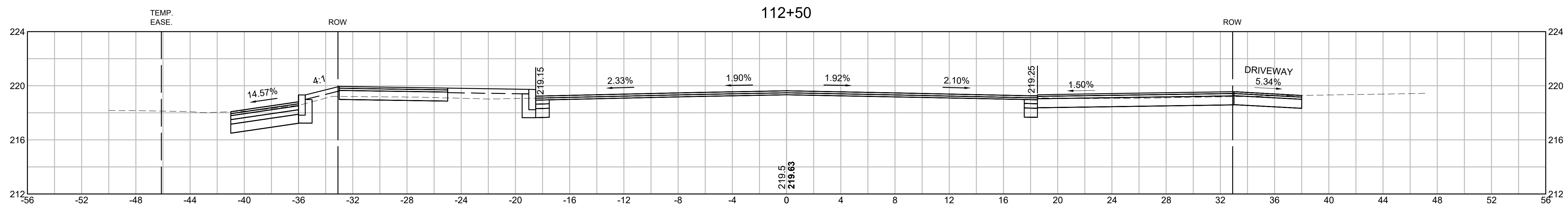
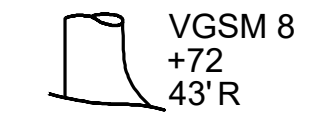
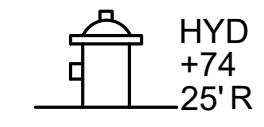
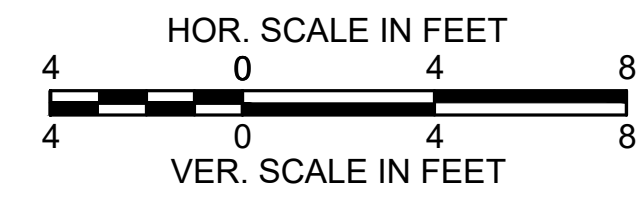
VGT 37
+92
24' R



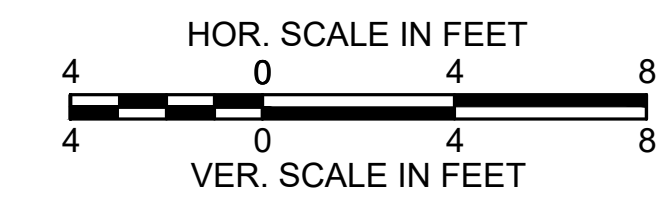
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	104	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
CAREW STREET



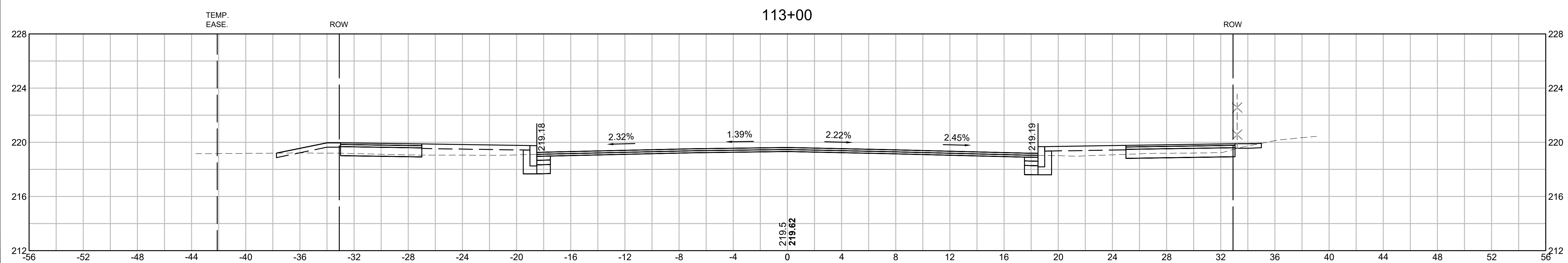
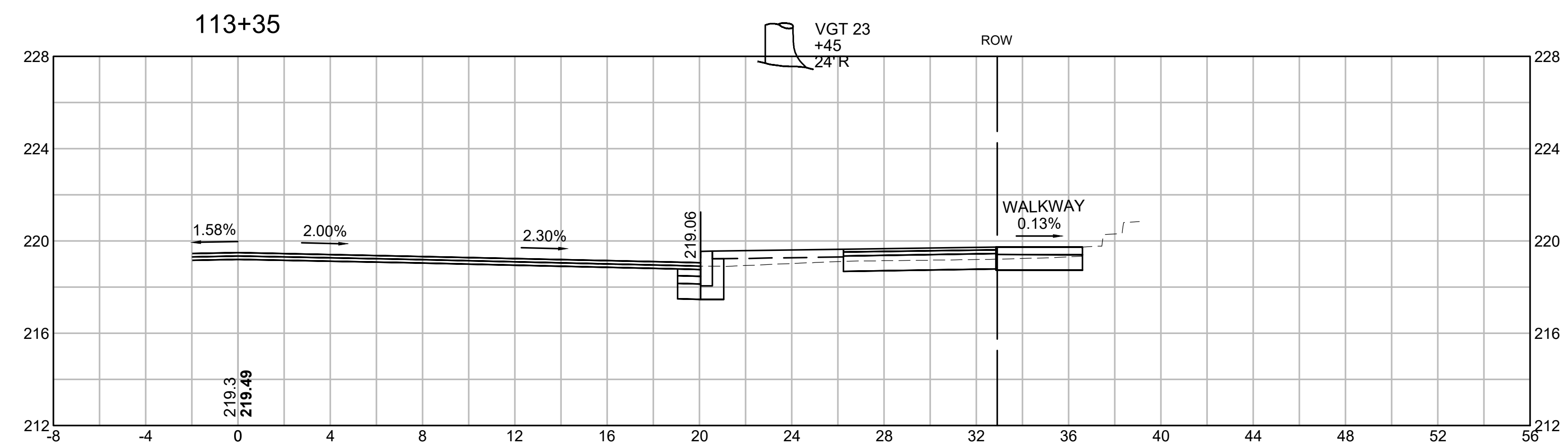
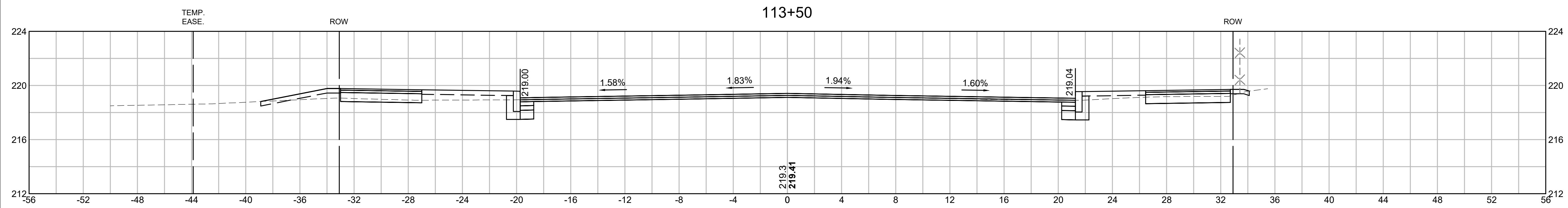
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET



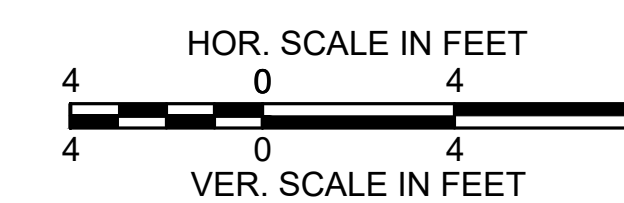
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	105	115

PROJECT FILE NO. 608565

CROSS SECTIONS
CAREW STREET

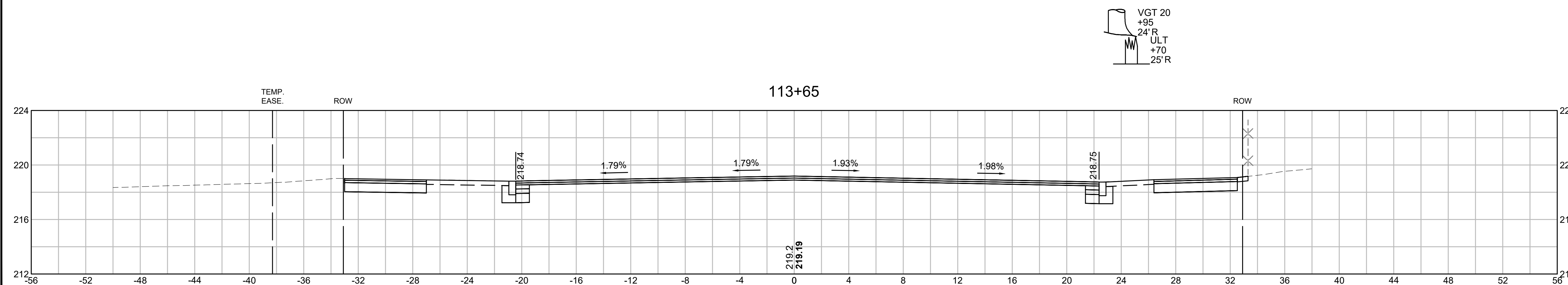


SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET



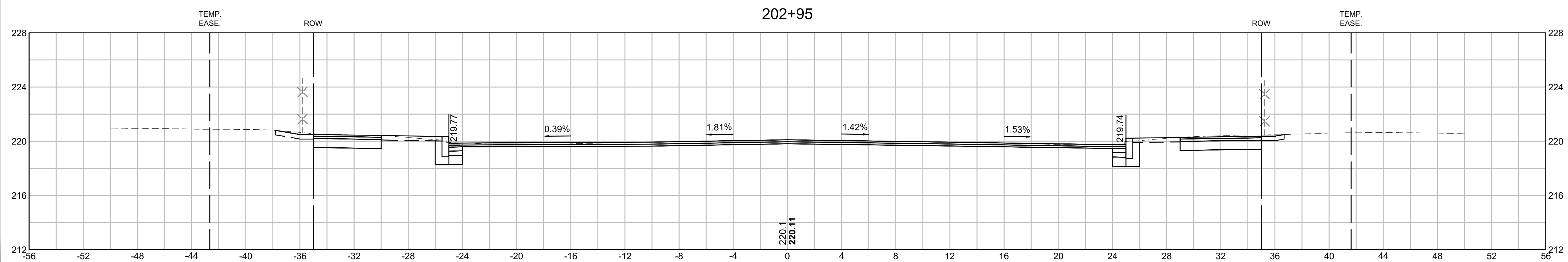
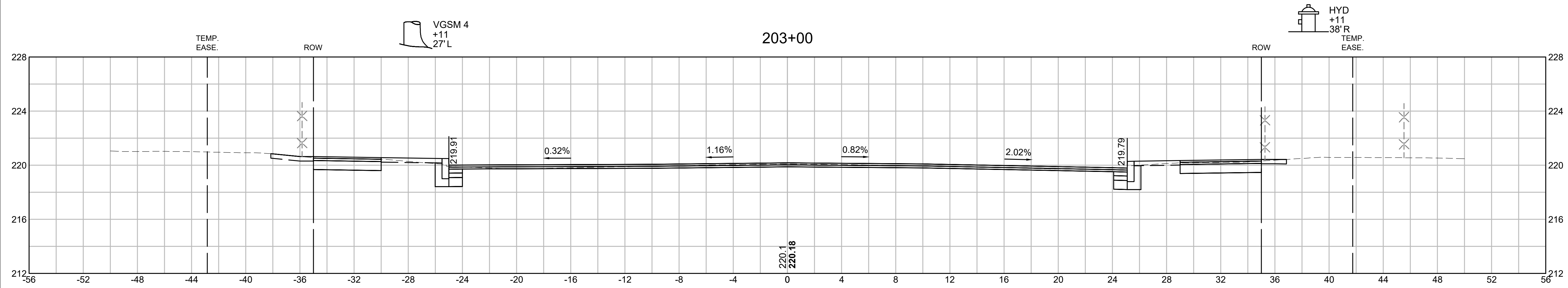
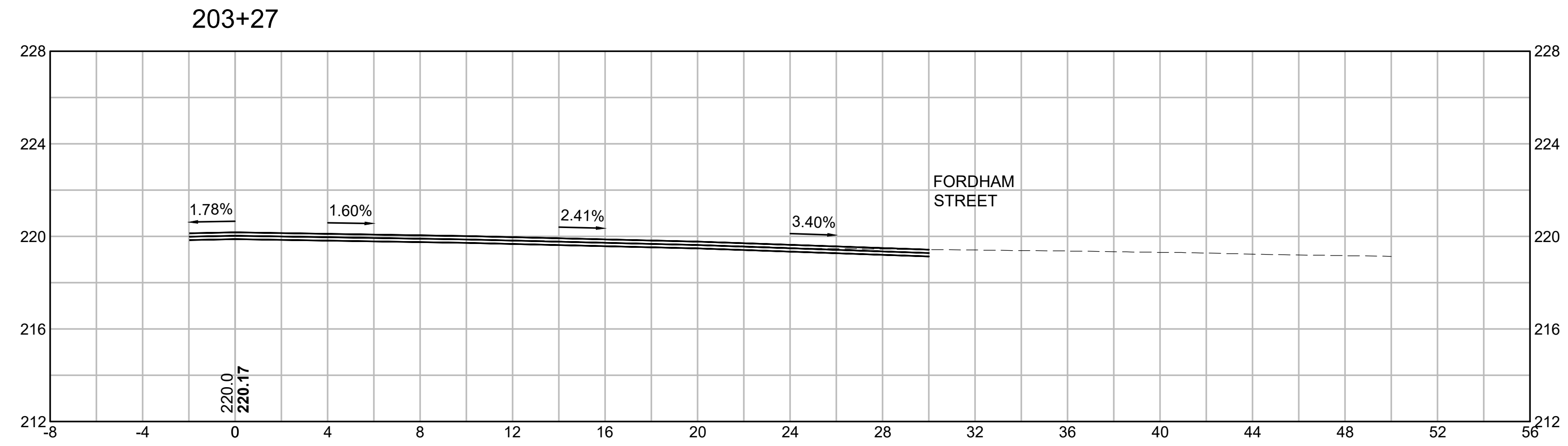
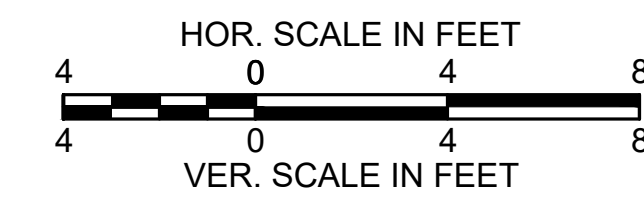
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	106	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
CAREW STREET



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	107	115
PROJECT FILE NO.		608565	

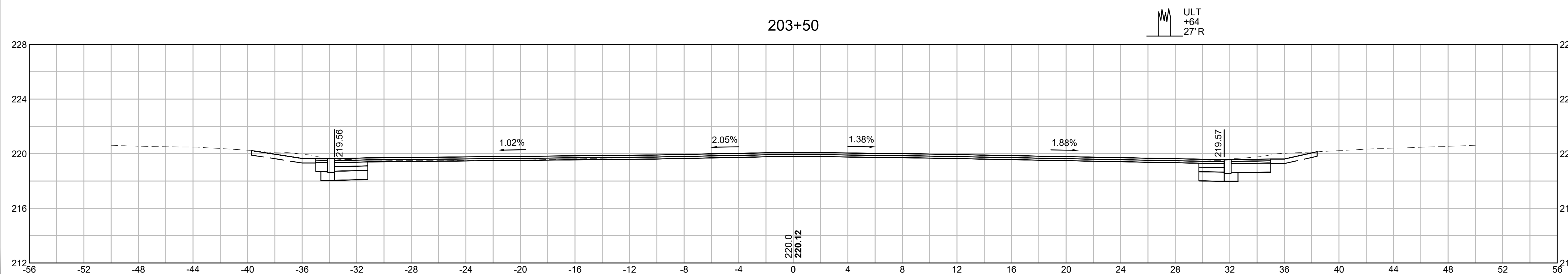
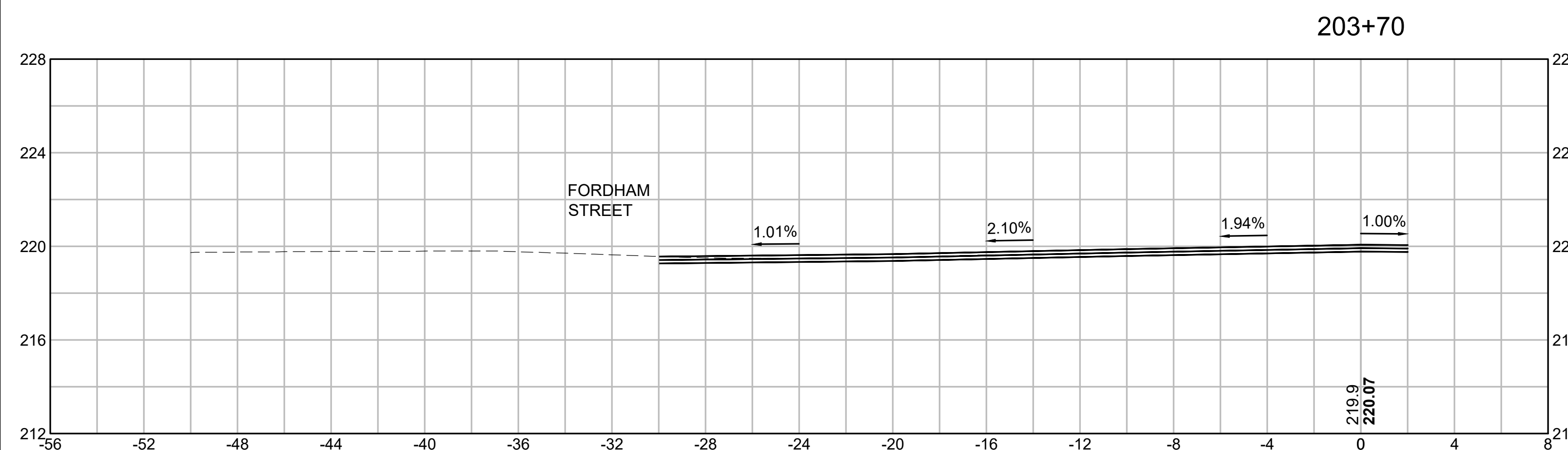
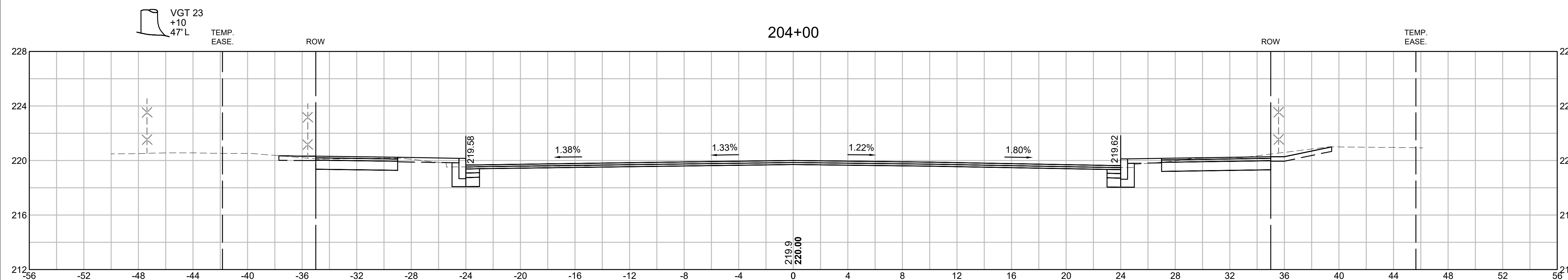
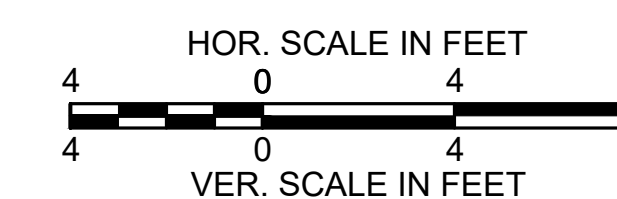
CROSS SECTIONS
ST. JAMES BOULEVARD



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	108	115
PROJECT FILE NO.		608565	

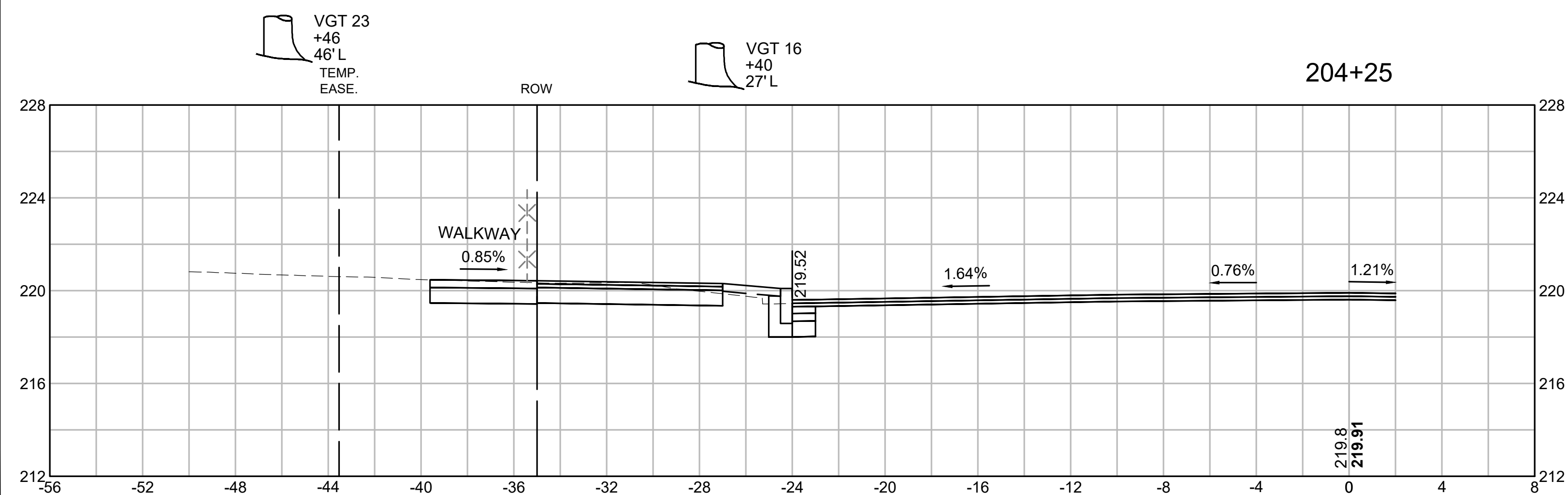
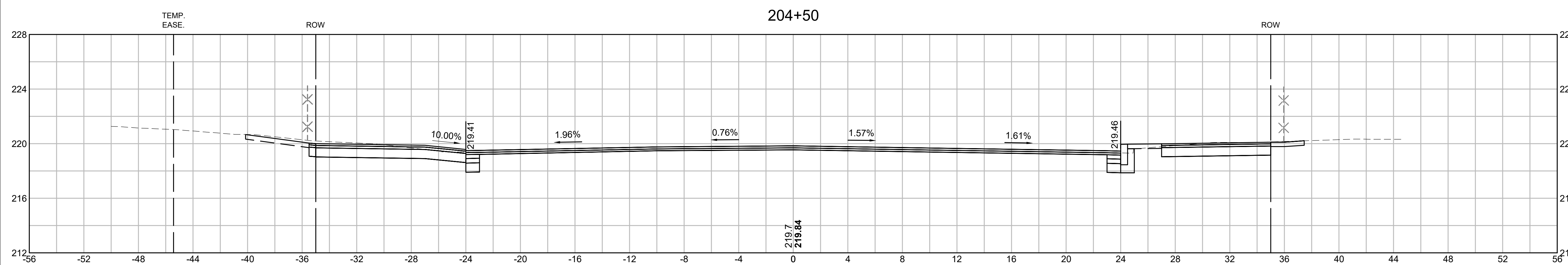
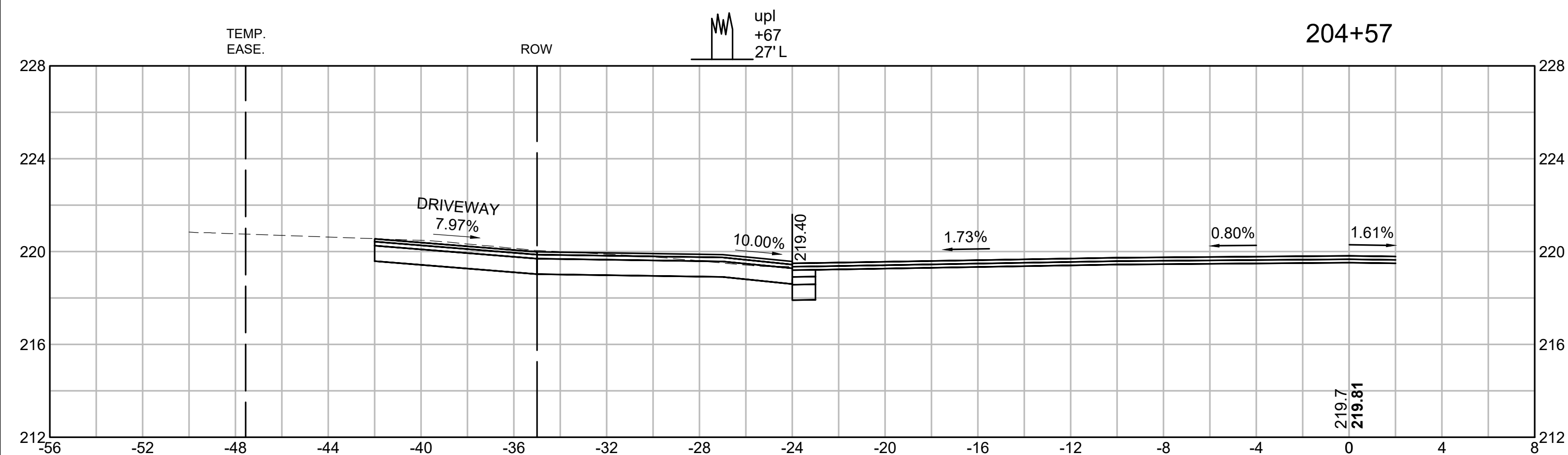
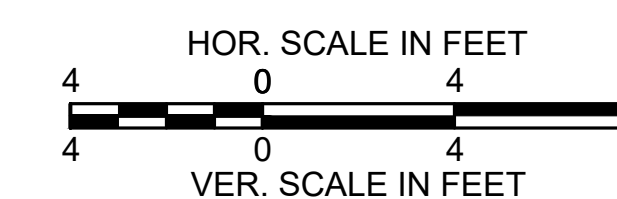
CROSS SECTIONS
ST. JAMES BOULEVARD



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	109	115
PROJECT FILE NO.		608565	

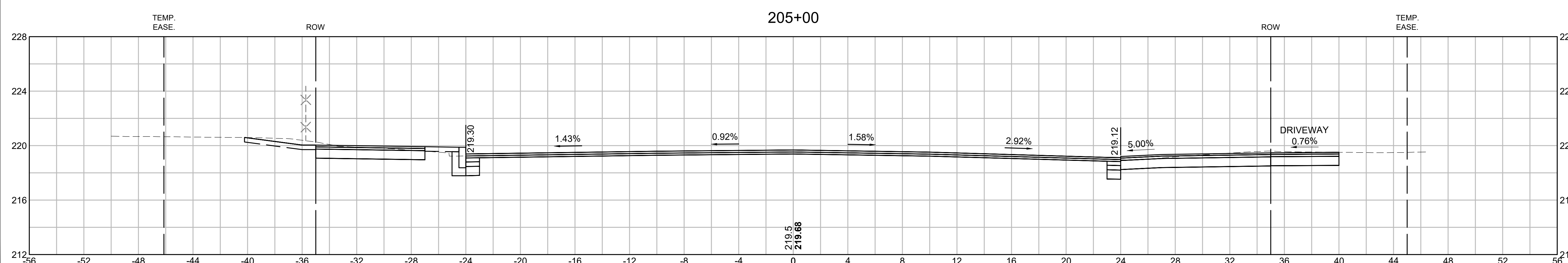
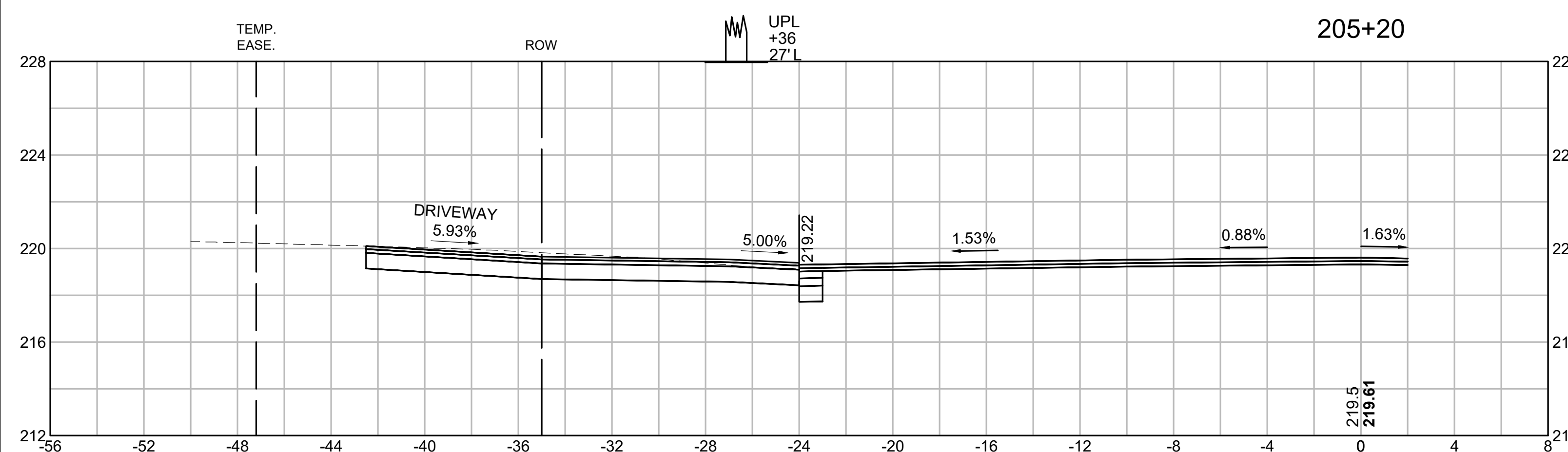
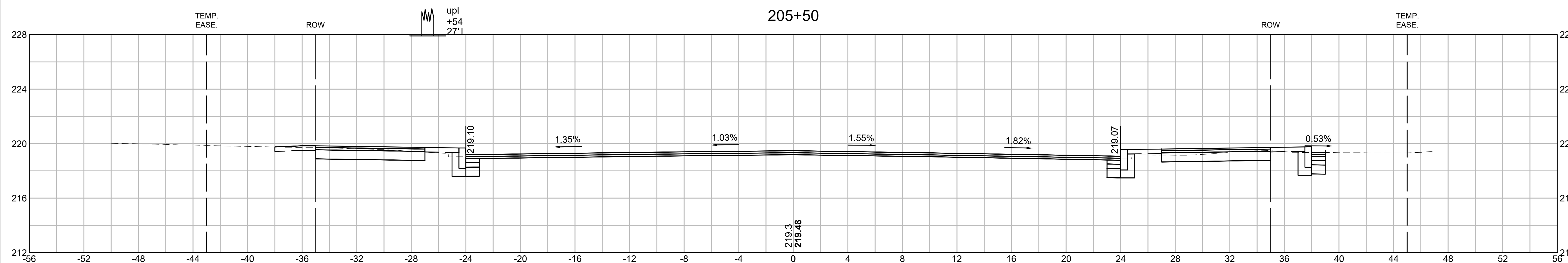
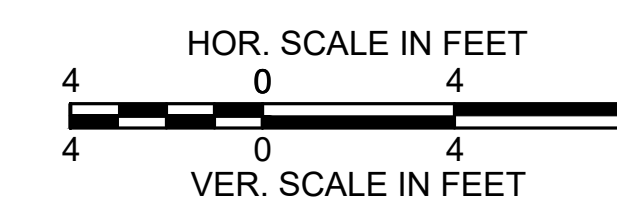
CROSS SECTIONS
ST. JAMES BOULEVARD



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	110	115
PROJECT FILE NO.		608565	

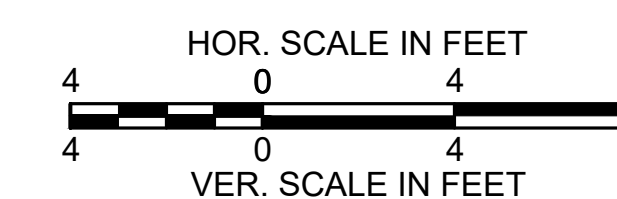
CROSS SECTIONS
ST. JAMES BOULEVARD



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	111	115
PROJECT FILE NO.		608565	

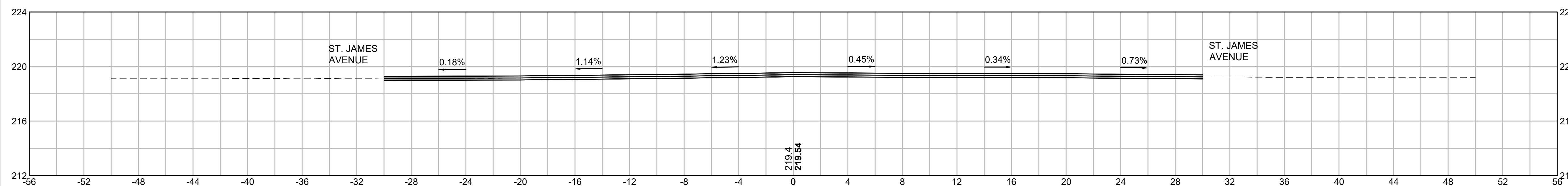
CROSS SECTIONS
ST. JAMES BOULEVARD



upl
+89
49'L

ULT
+81
37'R

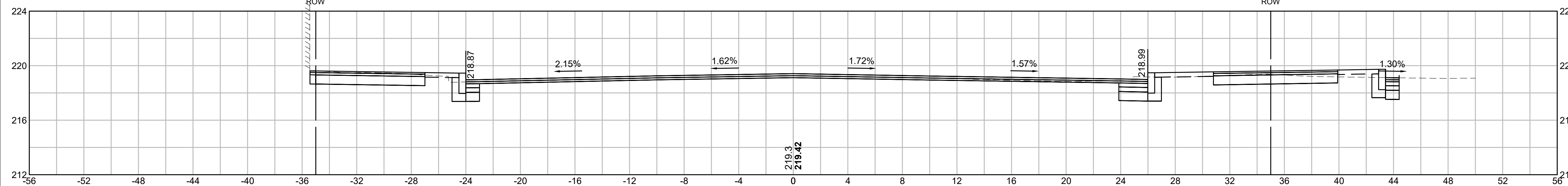
206+50



HYD
+38
38'L

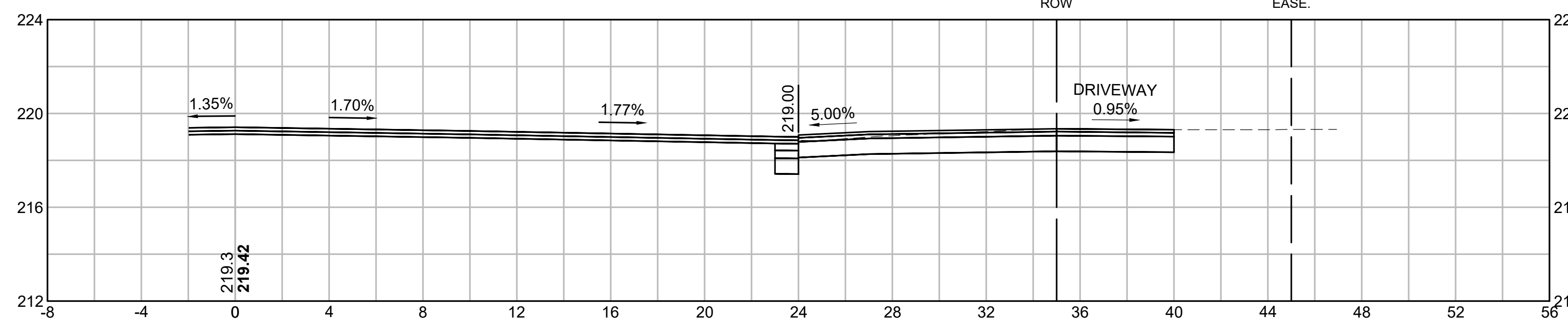
LPL
+18
48'R

206+00



LPL
+94
36'R

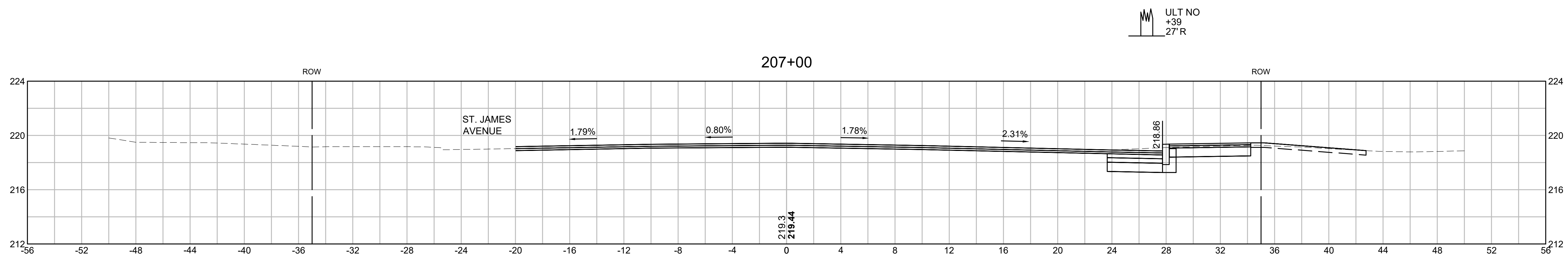
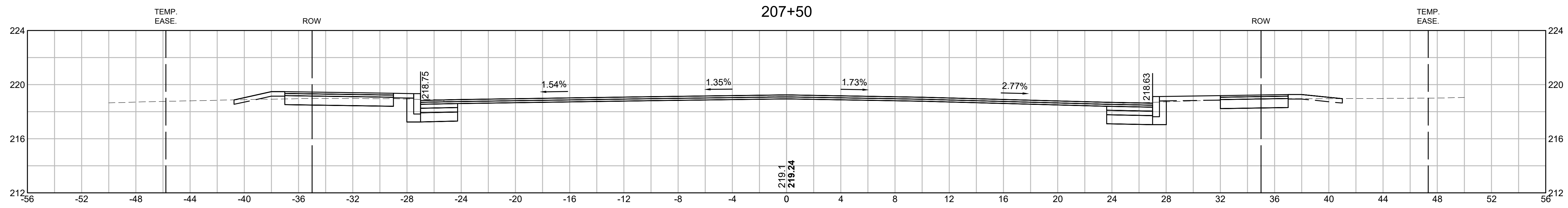
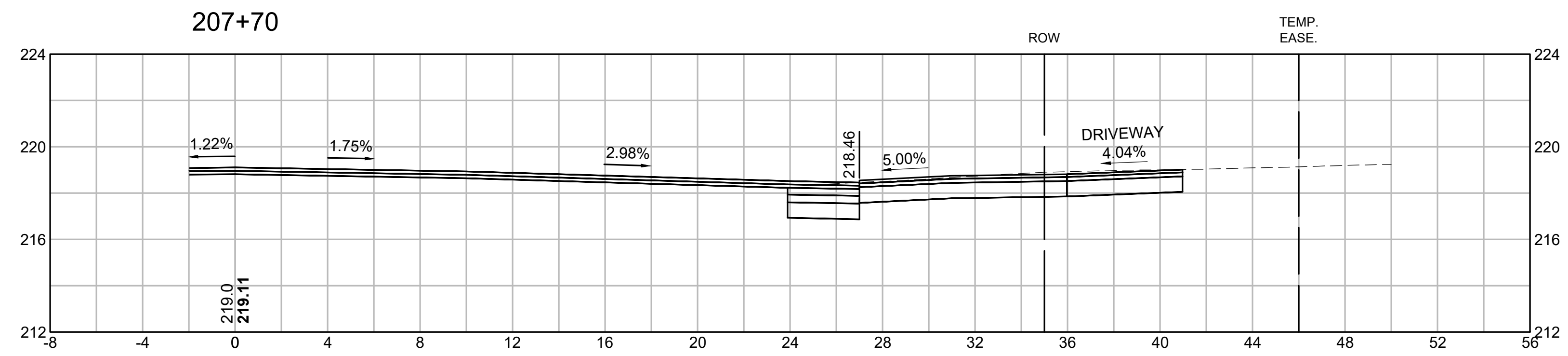
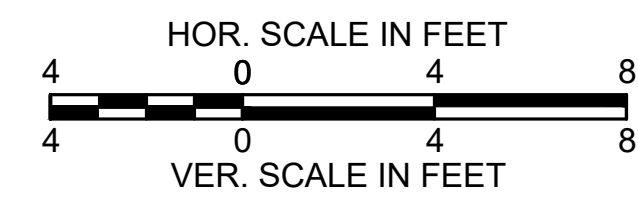
205+70



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	112	115
PROJECT FILE NO.		608565	

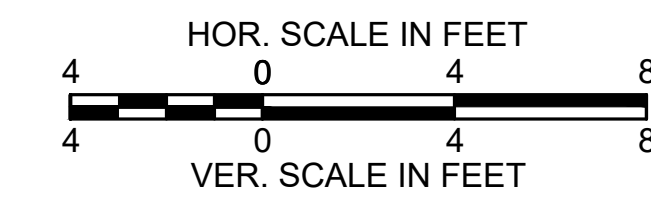
CROSS SECTIONS
ST. JAMES BOULEVARD



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

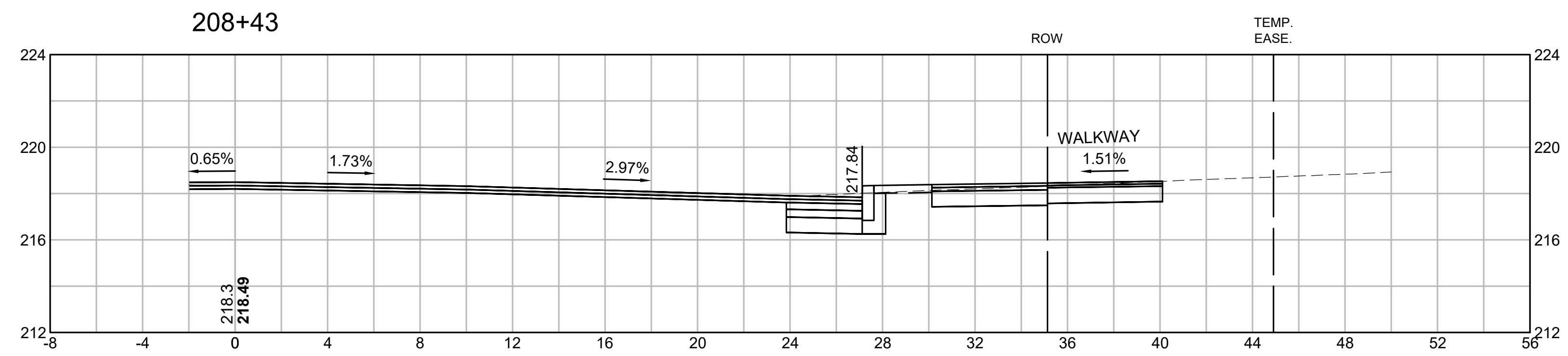
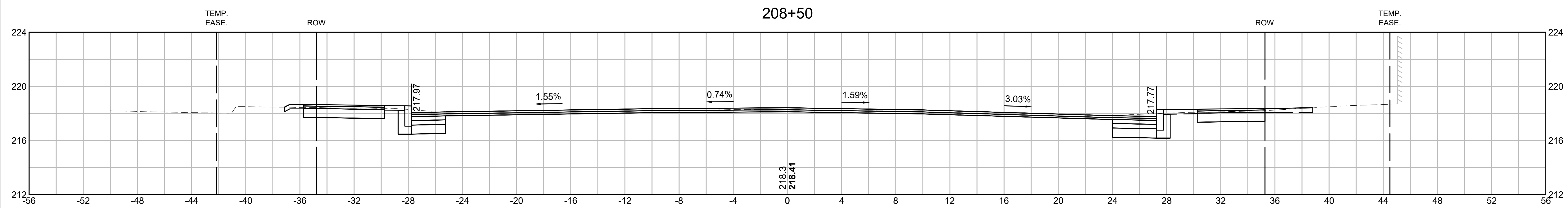
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	113	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
ST. JAMES BOULEVARD

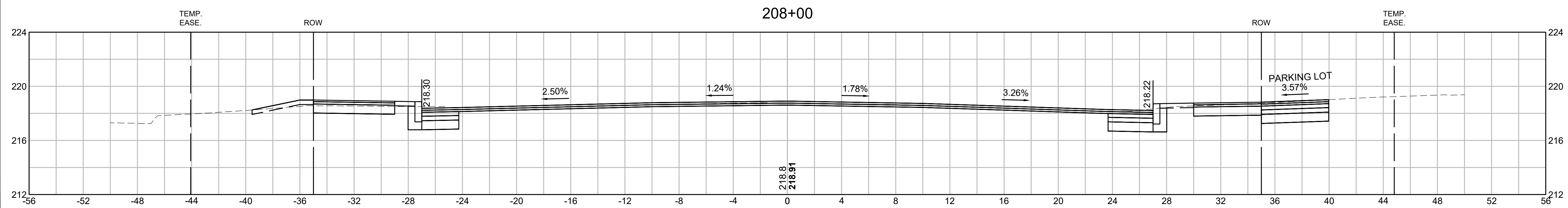


VGT 9
+50
38'L

ult
+60
28'L



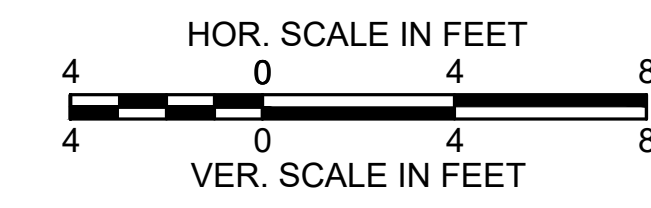
VGSM 9
+24
40'L



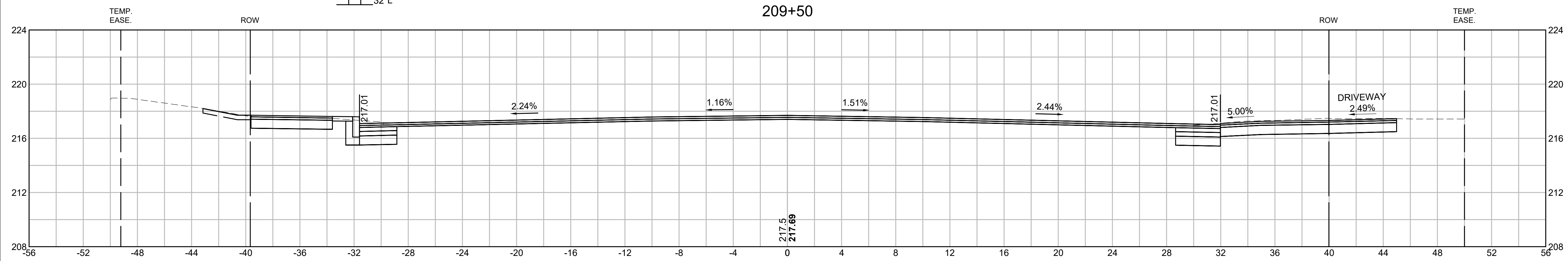
SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	114	115
PROJECT FILE NO.		608565	

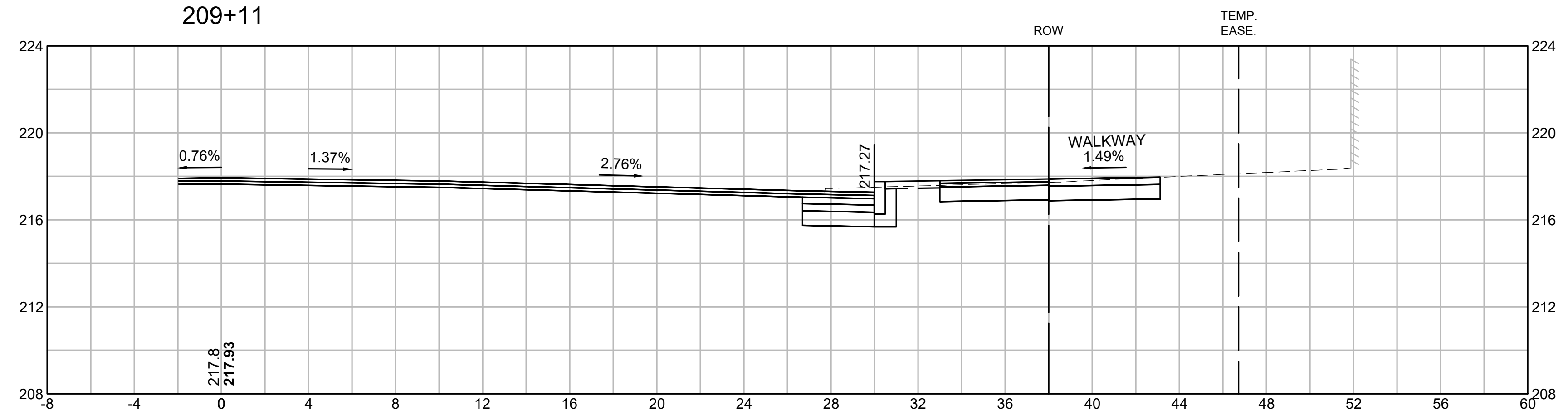
CROSS SECTIONS
ST. JAMES BOULEVARD



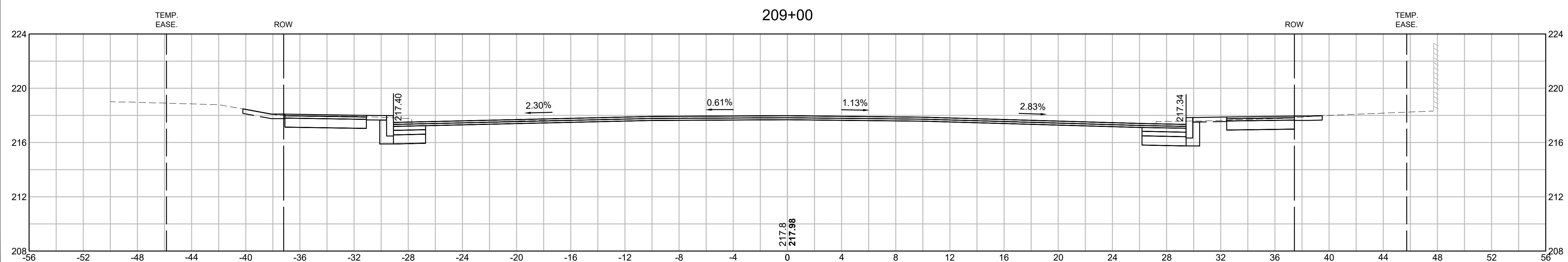
UPL
+58
32' L



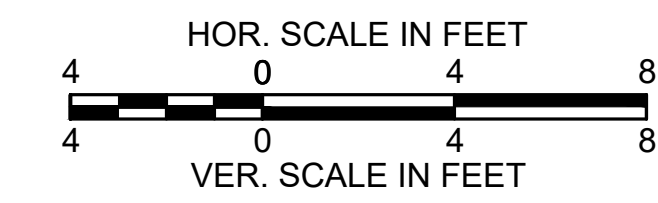
209+11



LPL
+00
40' L



SPRINGFIELD
ST. JAMES AVENUE @ CAREW STREET



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	115	115
PROJECT FILE NO.		608565	

CROSS SECTIONS
ST. JAMES BOULEVARD

