

SCHEMATIC PLAN

DESIGN AGENCY

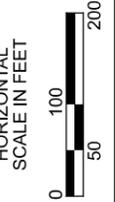
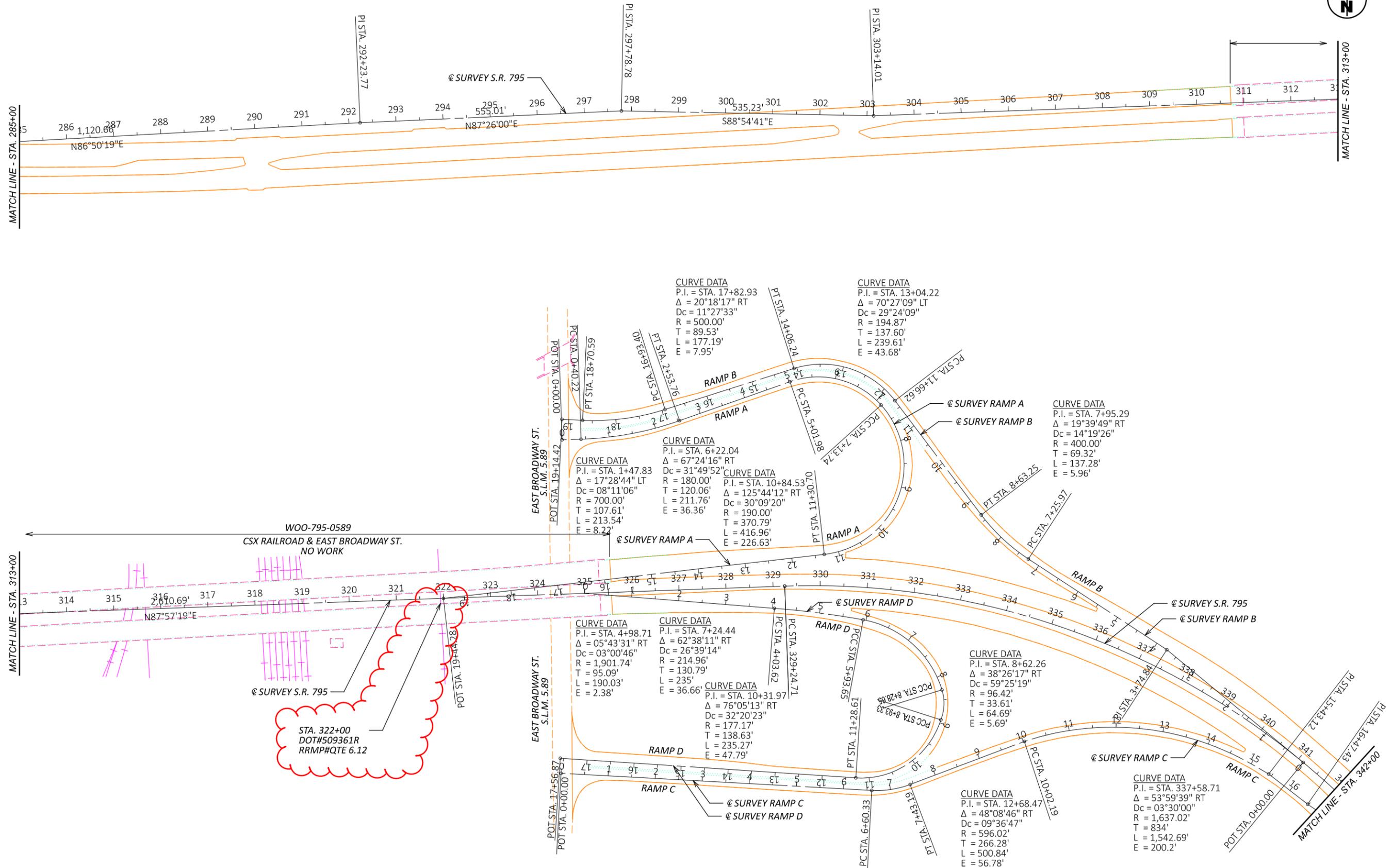


DESIGNER
 TLM

REVIEWER
 JMF 08-15-23

PROJECT ID
 105531

SHEET TOTAL
 P.03 76

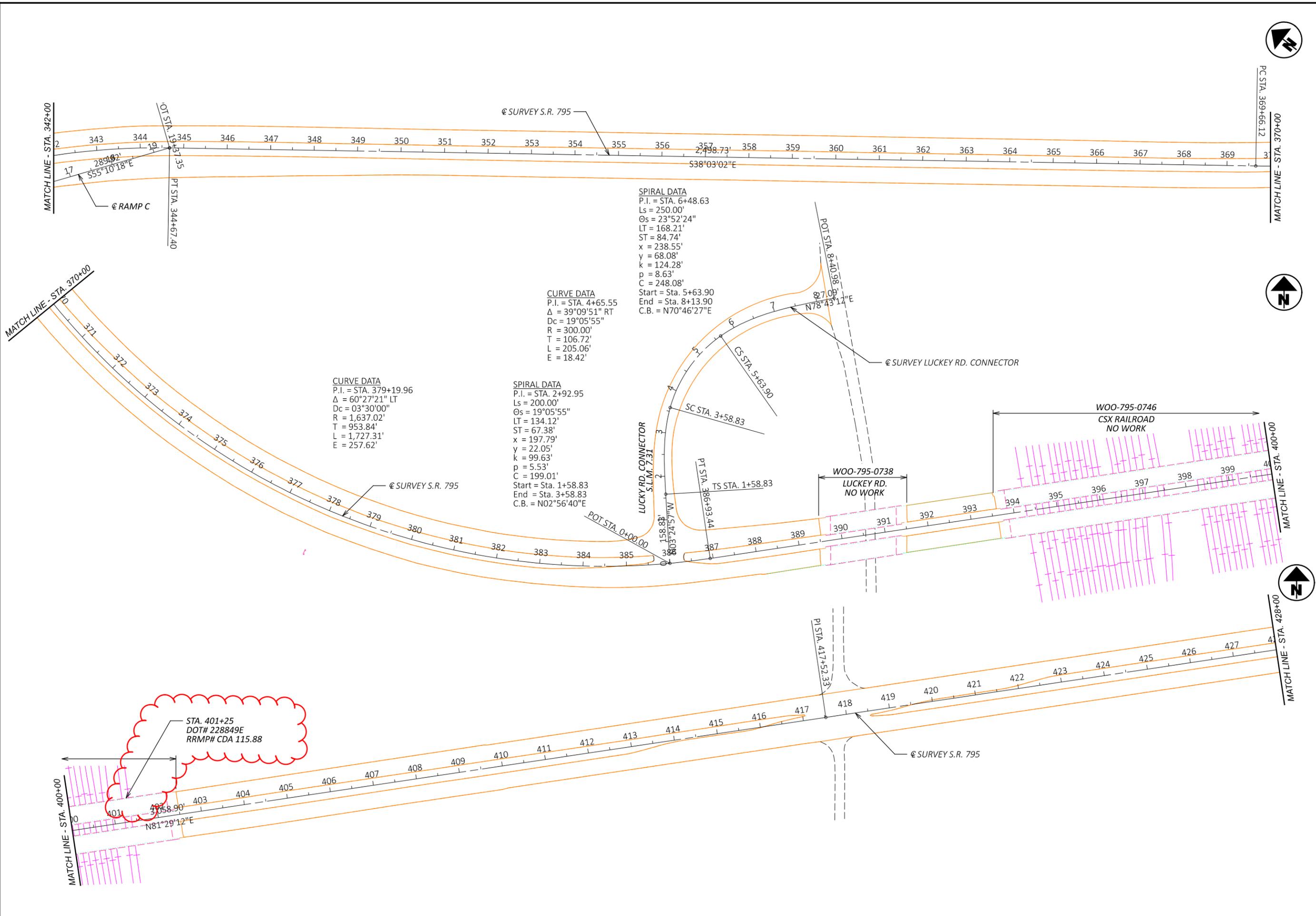


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MATCH LINE - STA. 342+00
 @ RAMP C
 2891.82'
 S55°10'18"E

DOT STA. 19+37.35
 PT STA. 344+67.40

@ SURVEY S.R. 795

SPIRAL DATA
 P.I. = STA. 6+48.63
 Ls = 250.00'
 Os = 23°52'24"
 LT = 168.21'
 ST = 84.74'
 x = 238.55'
 y = 68.08'
 k = 124.28'
 p = 8.63'
 C = 248.08'
 Start = Sta. 5+63.90
 End = Sta. 8+13.90
 C.B. = N70°46'27"E

CURVE DATA
 P.I. = STA. 4+65.55
 Δ = 39°09'51" RT
 Dc = 19°05'55"
 R = 300.00'
 T = 106.72'
 L = 205.06'
 E = 18.42'

CURVE DATA
 P.I. = STA. 379+19.96
 Δ = 60°27'21" LT
 Dc = 03°30'00"
 R = 1,637.02'
 T = 953.84'
 L = 1,727.31'
 E = 257.62'

SPIRAL DATA
 P.I. = STA. 2+92.95
 Ls = 200.00'
 Os = 19°05'55"
 LT = 134.12'
 ST = 67.38'
 x = 197.79'
 y = 22.05'
 k = 99.63'
 p = 5.53'
 C = 199.01'
 Start = Sta. 1+58.83
 End = Sta. 3+58.83
 C.B. = N02°56'40"E

LUCKY RD. CONNECTOR
 S.I.M. 7.31

SC STA. 3+58.83
 CS STA. 5+63.90

PT STA. 386+93.44
 TS STA. 1+58.83

WOO-795-0738
 LUCKEY RD.
 NO WORK

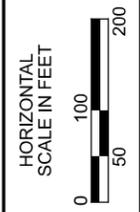
WOO-795-0746
 CSX RAILROAD
 NO WORK

STA. 401+25
 DOT# 228849E
 RRMP# CDA 115.88

37058.90'
 N81°29'12"E

@ SURVEY S.R. 795

PI STA. 417+52.33



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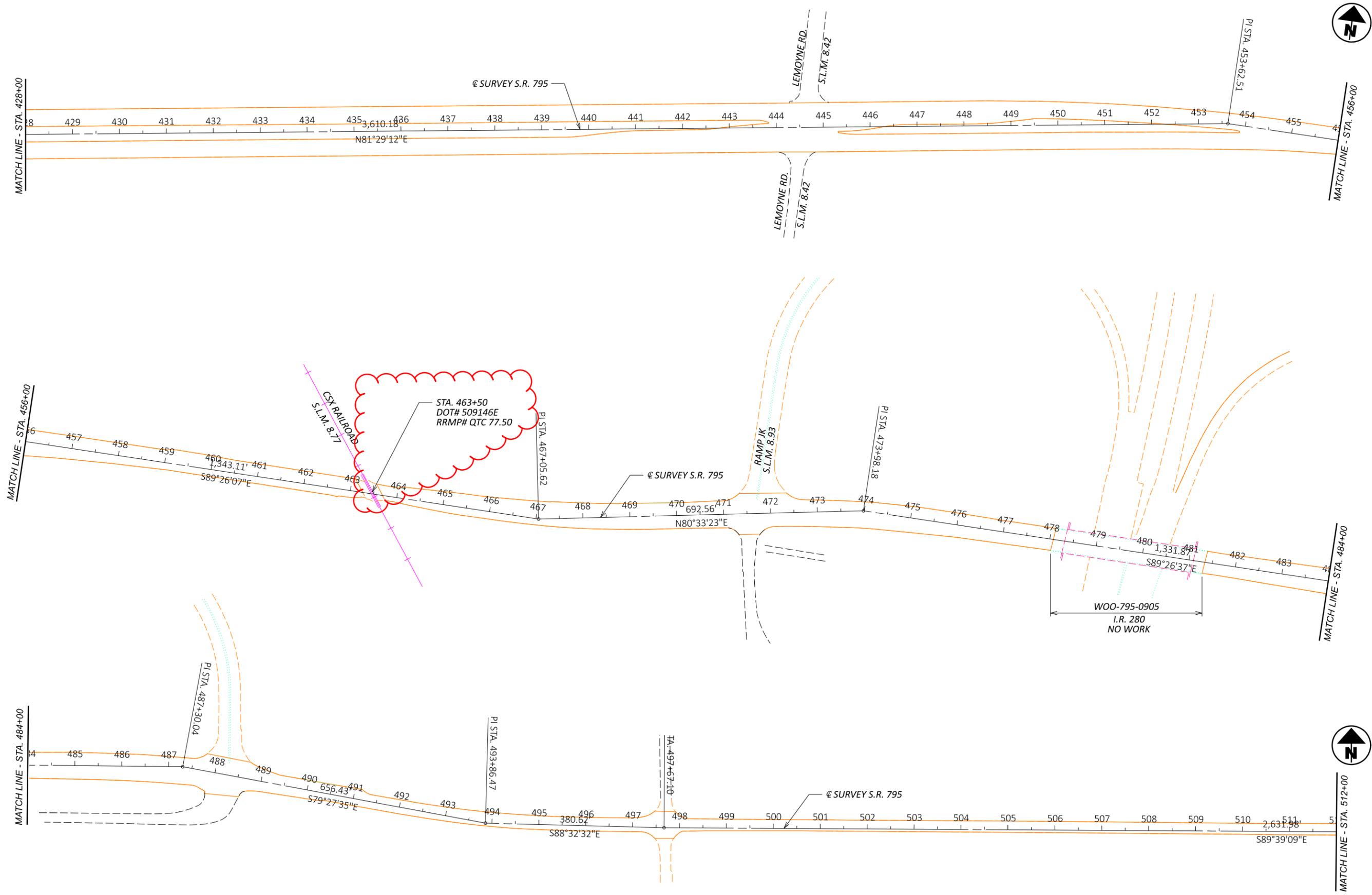


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ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. THE FOUR-LANE SECTION OF WOO-795 FROM THE BEGINNING OF THE PROJECT LIMITS TO APPROXIMATE STA. 455+00 SHALL BE MAINTAINED PER STANDARD CONSTRUCTION DRAWING MT-95.30. LANE CLOSURE WITHIN THE FOUR-LANE SECTION SHALL BE LIMITED TO A MAXIMUM OF 4 MILES IN TOTAL LENGTH. WORK FROM THE BEGINNING OF THE PROJECT LIMITS TO PEMBERVILLE RD (STA 499+00) SHALL TAKE PLACE OVERNIGHT WITHIN THE HOURS 7PM AND 7AM. LANE CLOSURES MAY BE MAINTAINED DURING THE DAYTIME HOURS, BUT NO WORK SHALL TAKE PLACE.

LEFT AND RIGHT TURN LANES SHALL BE MAINTAINED AT INTERSECTIONS WHERE EXISTING TURN LANES ARE PROVIDED EXCEPT FOR THE TIME PERIOD REQUIRED TO PLAN AND PAVE THE TURN LANE OR ITS ADJACENT LANE.

S.R. 795 & EAST BROADWAY RAMPS: THE FOLLOWING SETS OF RAMPS MAY BE CLOSED FOR UP TO 10 DAYS FOR CURB REPLACEMENT AND RESURFACING ALONG THE RAMPS.

RAMPS A & B
RAMPS C & D

THE TWO SETS OF RAMPS SHALL NOT BE CLOSED CONCURRENTLY.

NO WORK SHALL BE PERFORMED AND ALL LANES OF TRAFFIC INCLUDING ALL RAMPS AND INTERSECTIONS SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAY OR SPECIAL EVENTS:

NEW YEAR'S (OBSERVED)	GENERAL/REGULAR ELECTION DAY (NOV)
TOTAL SOLAR ECLIPSE (4/8/24)	THANKSGIVING
MEMORIAL DAY	CHRISTMAS (OBSERVED)
FOURTH OF JULY (OBSERVED)	EASTER
LABOR DAY	

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR SPECIAL EVENT TIME ALL LANES MUST BE OPEN TO TRAFFIC

SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
MONDAY	(TOTAL SOLAR ECLIPSE)
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY	(GEN./REG. ELECTION)
WEDNESDAY	5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
THURSDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY	(THANKSGIVING ONLY)
FRIDAY	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

DURING THE SAME PERIODS, MAINTAIN PEDESTRAIN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS

SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE A THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
ROAD CLOSURES	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS NUMBER SHALL BE 419-373-4428.

ODOT NOTIFICATION CONTACT INFORMATION

THE ODOT PROJECT ENGINEER SHALL FORWARD THE CONSTRUCTION NOTIFICATION INFORMATION TO THE FOLLOWING DEPARTMENTS WITHIN THE TIMELINE OUTLINED IN THE "NOTIFICATION OF TRAFFIC RESTRICTIONS" NOTE TO ENSURE COMPLIANCE WITH FEDERAL NOTIFICATION REQUIREMENTS:

DISTRICT PUBLIC INFORMATION OFFICER (PIO)
BY PHONE AT: (419) 373-4428
OR EMAIL AT: D02.PIO@DOT.OHIO.GOV

DISTRICT PERMIT SECTION
BY PHONE AT: (419) 373-4301
OR EMAIL AT: D02.PERMITS@DOT.OHIO.GOV

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>=2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

COORDINATION WITH PROJECTS

DURING CONSTRUCTION OF THIS PROJECT, IT IS POSSIBLE THAT WORK WILL BE PERFORMED ON THE FOLLOWING PROJECTS:

PID 117233 WOO-CR9-5.86

IT WILL BE IMPORTANT TO COORDINATE WORK WHEN NECESSARY TO AVOID ANY POTENTIAL PROBLEMS.

PLANED SURFACES

NO PLANED SURFACES SHALL BE OPEN TO THE PUBLIC FOR MORE THAN 7 DAYS. IF THE PLANED SURFACE IS OPEN FOR MORE THAN 7 DAYS, THEN IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR THE PAVEMENT FAILURES THAT OCCURRED AFTER THE 7 DAYS.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

DRIVEWAY AND PROPERTY ACCESS

ACCESS TO ALL PROPERTIES MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DRIVEWAY ACCESS SHALL BE MAINTAINED BY USE OF EXISTING AND PROPOSED PAVEMENT, BERMS, OR SHOULDERS. THE CONTRACTOR SHALL PROVIDE RESIDENTS AND/OR BUSINESSES WITH A MINIMUM TWENTY-FOUR (24) HOUR NOTICE WHEN ACCESS TO THEIR DRIVEWAYS WILL BE RESTRICTED/CHANGED DUE TO CONSTRUCTION.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

DESIGN AGENCY



DESIGNER
TLM

REVIEWER
JJM 08-15-23

PROJECT ID
105531

SHEET TOTAL
P.20 76

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE

FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN A NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING THE SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS

EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

320 HRS (FUNDING: 01/NHS/05)
40 HRS (FUNDING: 02/S->2/05)

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 360 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

BROADWAY STREET DETOUR ROUTE

THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE THE DETOUR SIGNS FOR THE BROADWAY STREET RAMP CLOSURES.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, DETOUR SIGNING LUMP SUM

DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER BASED ON 3% OF THE PAVEMENT AREA TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ESTIMATED LENGTH OF DETOUR = 4 MILES			
ITEM 202, PAVEMENT REMOVED	1560	SQ. YD.	
ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE, 1½"	1560	SQ. YD.	
ITEM 301, ASPHALT CONCRETE BASE, PG64-22, 6"	260	CU. YD.	
ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	65	CU. YD.	
ITEM 407, NON-TRACKING TACK COAT	86	GAL.	
ITEM 617, COMPACTED AGGREGATE	12	CU. YD.	
ITEM 642, CENTER LINE	0.15	MILE	

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET 15 OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 4 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE

(LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.) THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN PLAN 1 SIGN MONTH ASSUMING 1 PCMS SIGN(S) SIGN(S) FOR 1 MONTH(S)

PCMS DISPLAYS

R	A	M	P	T	O		
B	R	O	A	D	W	A	Y
C	L	O	S	E	D		

LOCATION EASTBOUND S.R. 163, MESSAGE #1

F	O	L	L	O	W		
P	O	S	T	E	D		
D	E	T	O	U	R		

LOCATION EASTBOUND S.R. 163, MESSAGE #2

RAILROAD COORDINATION

- 1.) IF ANY ISSUE OR INCIDENT OCCURS WITHIN CSXT ROW, PLEASE CONTACT THE CSXT PUBLIC SAFETY COORDINATION CENTER AT 800-232-0144.
- 2.) ROADWAY FLAGGERS MUST BE PRESENT ON EACH SIDE OF THE RAILROAD CROSSING, ANYTIME TRAFFIC IS DIRECTED INTO OPPOSING TRAFFIC LANES AT THE RAILROAD CROSSING.
- 3.) CHANNELIZATION/MOT/EROSION DEVICES SHALL NOT BE PLACED WITHIN 15 FT FROM THE CENTER LINE OF RAILROAD TRACKS.

DESIGN AGENCY

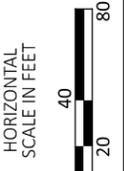
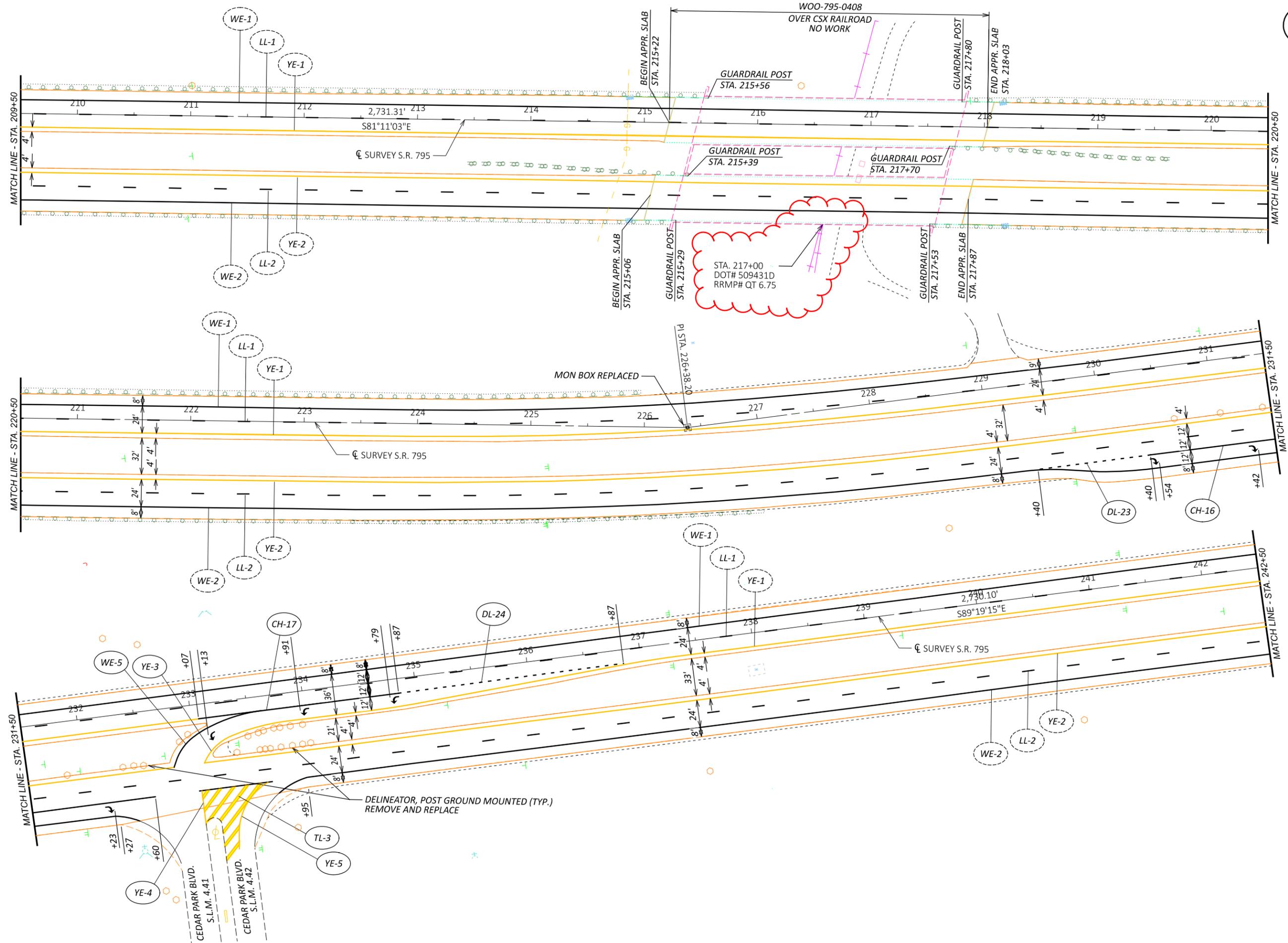


DESIGNER TLM

REVIEWER JJM 08-15-23

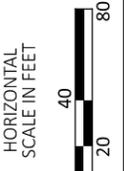
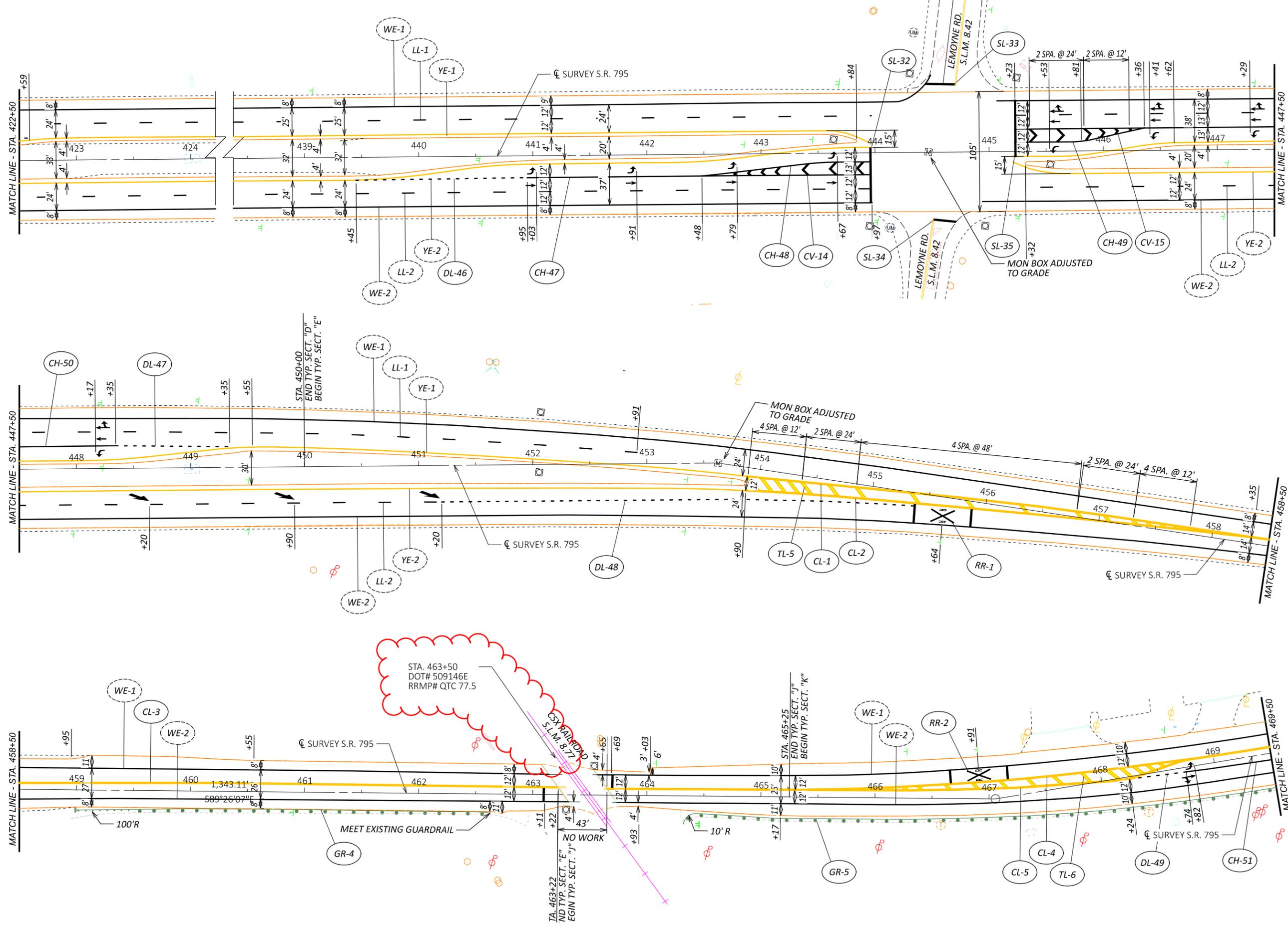
PROJECT ID 105531

SHEET TOTAL P.22 76



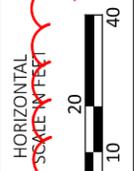
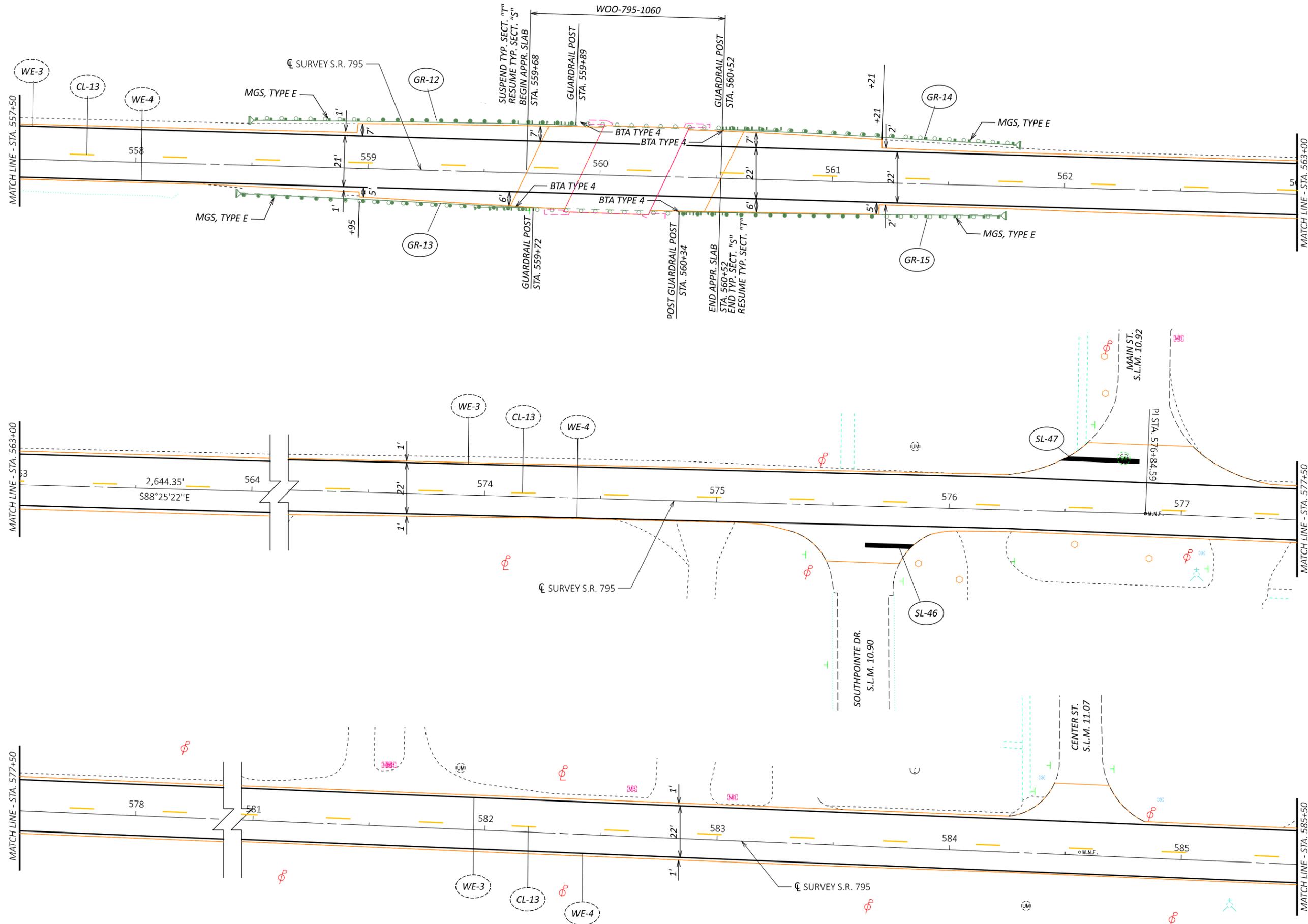
PLAN SHEET
STA. 209+50 TO STA. 242+50

DESIGN AGENCY	
DESIGNER	TLM
REVIEWER	JMF
PROJECT ID	08-15-23
	105531
SHEET	TOTAL
P.43	76



PLAN SHEET
STA. 422+50 TO STA. 469+50

DESIGN AGENCY	
DESIGNER	TLM
REVIEWER	JMF 08-15-23
PROJECT ID	105531
SHEET	TOTAL
P.49	76



PLAN SHEET
 STA. 557+50 TO STA. 585+50

DESIGN AGENCY



DESIGNER

TLM

REVIEWER

JMF 08-15-23

PROJECT ID

105531

SHEET TOTAL

P.52 76

SIGNAL ACTIVATION

PRIOR TO ACTIVATING THE NEW TRAFFIC SIGNAL TO STOP AND GO MODE AND/OR REMOVING THE EXISTING TRAFFIC SIGNAL FROM SERVICE, ALL ITEMS IN THE PROPOSED SIGNAL PLAN SHALL BE FULLY COMPLETED, (I.E., VEHICLE DETECTION, PEDESTRIAN SIGNAL HEADS, ETC). IF THERE ARE CONSTRUCTABILITY ISSUES (I.E., ROADWAY WIDENING, ETC.) THAT PREVENT THE SIGNAL FROM BEING COMPLETED PRIOR TO ACTIVATION, IT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER. THE DISTRICT TRAFFIC ENGINEER WILL THEN REVIEW, APPROVE OR REJECT PROPOSALS TO ACTIVATE THE TRAFFIC SIGNAL PRIOR TO COMPLETION.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER AT LEAST 10 WORKING DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION OF THE SIGNAL INSTALLATION. FINAL INSPECTION IS NOT CONSIDERED COMPLETE UNTIL DESIGNATED DISTRICT TRAFFIC PERSONNEL INSPECT THE TRAFFIC SIGNAL AND ISSUE WRITTEN APPROVAL. IF ISSUES ARE FOUND DURING THE FINAL INSPECTION THAT EFFECT THE SAFETY OF THE TRAVELING PUBLIC AND/OR THE EFFICIENCY OF THE INTERSECTION, THE SIGNAL SHALL NOT BE ACTIVATED ON THE PROPOSED DATE. ANY PUNCH LIST ITEMS THAT ARE FOUND SHALL BE CORRECTED AND REINSPECTED BY

DISTRICT TRAFFIC PERSONNEL PRIOR TO FINAL ACCEPTANCE. ODOT FORCES SHALL ONLY ASSUME DAY TO DAY MAINTENANCE OF THE TRAFFIC SIGNAL AFTER FINAL WRITTEN ACCEPTANCE HAS BEEN ISSUED.

ITEM 625 - LUMINAIRE, CONVENTIONAL, SOLID-STATE (LED), AS PER PLAN, IES-II

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS 813, 913 AND 1114, THE LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE LED INSTEAD OF HIGH PRESSURE SODIUM. THE CONTRACTOR SHALL CHOSE ONE OF THE FOLLOWING LUMINAIRES LISTED BELOW, OR AN APPROVED EQUAL:

BRAND	CATALOG NO.
AMERICAN ELECTRIC LIGHTING	ATBL-A-MVOLT-R2-4B-3K
COOPER VERDEON	VERD-M-A0385-E-U-T2-7030-AP
GE EVOLVE	ERL2-16-A330XGRAYR

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH LUMINAIRE:

ITEM 625 LUMINAIRE, CONVENTIONAL, SOLID-STATE (LED), AS PER PLAN, IES-II

WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

632 PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), TYPE D2, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632 AND 732 THE FOLLOWING SHALL APPLY:

1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.

2. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

3. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.

4. THE PEDESTRIAN SIGNAL HEAD SHALL BE OF THE LED COUNTDOWN TYPE.

5. NEW ATTACHMENT HARDWARE AND FITTINGS SHALL BE USED.

6. THE LIGHT EMITTING DIODE (LED) MODULES SHALL MEET THE REQUIREMENTS OF C&MS 732.04. THE CONTRACTOR SHALL PROVIDE ODOT, IN WRITING, WITH THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE FOR ALL LED UNITS THAT ARE TO BE USED IN THE SIGNAL HEAD PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES.

PAYMENT FOR ITEM 632 PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), TYPE D2, AS PER PLAN SHALL BE MADE FOR THE NUMBER OF COMPLETE SIGNAL HEAD FURNISHED AND INSTALLED, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS AND NEW ATTACHMENT HARDWARE.

632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION

TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, CABINET, CONTROLLER, ETC., SHALL BE REMOVED IN ACCORDANCE WITH CMS 632.26 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE REUSED AS PART OF A NEW INSTALLATION ON THE PROJECT OR STORED ON THE PROJECT FOR SALVAGE BY (ODOT DISTRICT 2) IN ACCORDANCE WITH THE LISTING GIVEN HEREIN.

(ITEMS TO BE REUSED)

WOO-795-4.80

-COMMUNICATION/NETWORK EQUIPMENT AND RELATED COMPONENTS

(ITEMS TO BE STORED)

WOO-795-4.80

-CONTROLLER

-UPS

-CONFLICT MONITOR

IN THE EVENT THE ITEMS STORED ON THE PROJECT FOR SALVAGE BY THE LOCAL AGENCY ARE NOT REMOVED, THE CONTRACTOR SHALL, WHEN DIRECTED BY THE ENGINEER IN WRITING, REMOVE AND DISPOSE OF THE ITEMS AT NO ADDITIONAL COST TO THE PROJECT.

632 - REMOVAL OF MISC. TRAFFIC CONTROL ITEM: LOOP LEAD-IN CABLE

THE REMOVAL OF LOOP LEAD-IN CABLE INCLUDES ANY CABLE RUN, WHICH INCLUDES IN THE SUPPORT POLES, CONDUITS, AND CABINETS. THE REMOVAL OF LOOP LEAD IN SHALL BE DONE WHERE NEW DETECTION IS TO BE INSTALLED. LOOP LEAD IN SHALL BE REMOVED COMPLETELY FROM THE CABINETS TO THE NEAREST PULL BOX WHEN THE LOOPS ARE ON THE CABINET CORNER, OR FROM THE CABINET ACROSS THE SPAN AND TO THE NEXT PULL BOX WHEN THE CABLES ARE OVERHEAD.

PAYMENT FOR ITEM 632 REMOVAL OF MISC. TRAFFIC CONTROL ITEM: LOOP LEAD-IN CABLE SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH INTERSECTION, WHICH MAY INCLUDE ONE OR MORE CABLES.

UNDERDRAINS FOR PULLBOXES

REFERENCE TRAFFIC SCD HL-30.11 FOR DETAILS ABOUT DRAINING PULLBOXES. UNDERDRAINS FOR PULLBOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED 20 FEET.

ITEM 632 - SIGNALIZATION, MISC.: UNLASH AND RELASH MESSENGER WIRE

THE CONTRACTOR SHALL REMOVE EXISTING MESSENGER WIRE LASHING RODS AND REINSTALL THEM AS NECESSARY FOR THE INSTALLATION OF ANY NEW CABLES ON THE EXISTING INTERSECTION SPANS LABELED ON SHEETS 70 & 73. IF NECESSARY, NEW LASHING RODS SHALL BE INSTALLED. THE CABLES SHALL ENTER THE EXISTING STRAIN POLE THROUGH THE POLE CABLE ENTRANCE FITTING AND USE THE EXISTING CONDUIT SYSTEM TO GET TO THE CONTROLLER CABINET. THE NEW CABLES SHALL BE SUPPORTED BY A NEW CABLE SUPPORT ASSEMBLY AT THE TOP OF THE STRAIN POLE.

PAYMENT FOR ITEM 632 SIGNALIZATION MISC.: UNLASH AND RELASH MESSENGER WIRE WILL BE PER FOOT AND INCLUDE ALL LABOR, MATERIALS, CABLE SUPPORT ASSEMBLIES, AND EQUIPMENT TO INSTALL NEW CABLES ON EXISTING SPAN WIRE INSTALLATIONS.

632 SIGNAL SUPPORT FOUNDATION

PRIOR TO ORDERING THE SIGNAL SUPPORTS, THE CONTRACTOR SHALL CONTACT OUPS TO HAVE ALL THE UTILITIES LOCATED IN THE FIELD THEN MEET WITH THE PROJECT ENGINEER TO LOCATE THE PROPOSED SUPPORT LOCATIONS TO INSURE THERE ARE NO CONFLICTS WITH UTILITIES. IF THERE ARE ISSUES, THE PROJECT ENGINEER SHALL PROVIDE GUIDANCE AS TO THE RELOCATION OF THE SUPPORT POLES.

DUE TO THE FURTHER POSSIBILITY OF CONFLICT WITH EXISTING OR PROPOSED UNDERGROUND OBSTRUCTIONS (INCLUDING THE POSSIBILITY OF UNRECORDED OBSTRUCTIONS) WHICH COULD AFFECT THE LOCATION OF THE FOUNDATION FOR THIS ITEM, AND CONSEQUENTLY, THE DESIGN OF THE SUPPORT AND/OR ARMS, THE CONTRACTOR SHALL NOT PLACE FINAL ORDERS FOR THE ITEM UNTIL THE FOUNDATIONS HAVE BEEN INSTALLED, AT FINAL GRADE, AND THE CONTRACTOR HAS RECEIVED, FROM ENGINEER, WRITTEN NOTICE TO PROCEED WITH THE ORDERS FOR THE ITEM.

633 CABINET, TYPE TS-2, AS PER PLAN

THE CABINET SHALL BE FURNISHED AND INSTALLED ACCORDING TO CMS 633 AND 733 AND BE LISTED ON THE TRAFFIC AUTHORIZED PRODUCTS LIST (TAP).

THE GROUND-MOUNTED CABINET SHALL BE A NEMA TS-2, TYPE 1, CABINET SIZE 7 SUPER R WITH 16 LOAD SWITCH BAYS, LED UNDER-SHELF LIGHTING, POWER HARNESSSES FOR BOTH TS2 TYPE 1 AND TYPE 2 CONTROLLERS AND SHALL HAVE A MINIMUM OF THREE SHELVES.

EACH CABINET SHALL COME EQUIPPED WITH TWO 16-CHANNEL CABINET DETECTOR RACKS (CDR) INCLUDING BUS INTERFACE UNITS (BIU). THE LOOP DETECTOR TERMINATION PANEL FOR THE SECOND DETECTOR RACK SHALL BE OMITTED.

THE CABINET SHALL BE FURNISHED WITH AN EDI MMU AS ALLOWED ON THE TAP/APPROVED PRODUCTS LIST.

PAYMENT FOR ITEM 633 CABINET, TYPE TS-2, AS PER PLAN WILL BE AT THE CONTRACT BID PRICE PER EACH COMPLETE AND IN PLACE INCLUDING ALL CONNECTIONS TESTED AND ACCEPTED.

IF ANY FOUNDATION LOCATIONS MUST BE ADJUSTED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND MAINTAINING AGENCY, WHO WILL DETERMINE THE REVISED LOCATION AND IF NEEDED, THE SUPPORT DESIGN. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR DETERMINING THE REVISED DESIGN. THE ENGINEER WILL INFORM THE CONTRACTOR OF ANY CHANGES NECESSARY AND AUTHORIZE THE CONTRACTOR TO ORDER THE SUPPORT.

THE CONTRACTOR SHALL, WHEN DEVELOPING THE PROGRESS SCHEDULE, AND THOSE OF SUBCONTRACTORS, ENSURE THAT THE FOUNDATIONS ARE INSTALLED AT THE EARLIEST TIME AS IS FEASIBLE AND PRACTICAL, AND SHALL INCLUDE SUFFICIENT TIME IN THE PROGRESS SCHEDULE FOR ORDERING, MANUFACTURING, DELIVERY, AND INSTALLATION OF THE SUPPORT ITEMS AFTER THE FOUNDATIONS ARE IN PLACE.

NO PAYMENTS FOR DELIVERED MATERIALS FOR THE FOUNDATION OR SUPPORT ITEMS SHALL BE MADE UNTIL THE FOUNDATIONS ARE IN PLACE, AND IF CHANGES IN THE DESIGN OF THIS ITEM ARE REQUIRED, NO PAYMENT SHALL BE MADE FOR THE ITEMS MANUFACTURED TO THE ORIGINAL DESIGN.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE AND WILL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR EACH SUPPORT FURNISHED, IN PLACE, COMPLETE AND ACCEPTED.

633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 633 AND 733, POLE ATTACHMENT HARDWARE WILL BE INCLUDED FOR POLE-MOUNTED CABINETS, AND A CABINET RISER (8-INCH MINIMUM) AND ANCHOR BOLTS WILL BE PROVIDED FOR BASE-MOUNTED CABINETS. BEFORE PERFORMING THE WORK, THE CONTRACTOR, THE DISTRICT TRAFFIC ENGINEER AND THE PROJECT ENGINEER WILL PERFORM A SITE INSPECTION TO ESTABLISH THE LOCATION OF THE UPS CABINET AND FOUNDATION.

THE UPS CABINET SHALL INCLUDE A GENERATOR POWER PANEL WITH A HEAVY-DUTY POWER RELAY VERSUS THE LINE VOLTAGE GENERATOR SWITCH. THE GENERATOR INLET SHALL BE A RECESSED PANEL WITH A DOOR THAT IS FLUSH WITH THE EXTERNAL SIDE OF THE UPS CABINET. IT SHALL INCLUDE A RECESSED PLUG, AUTOMATIC TRANSFER SWITCH AND A DOOR THAT SECURELY CLOSES OVER THE POWER CORD.

THE CABINET SHALL HAVE A DOOR STOP MECHANISM AND THERMOSTATICALLY CONTROLLED FAN. ADDITIONALLY, THE CABINET SHALL BE BUILT WITH ALL BATTERIES ALWAYS BELOW THE INVERTER TO AVOID POTENTIAL FURTHER BATTERY LEAKAGE ISSUES.

THE CABINET SHALL INCLUDE A BATTERY BALANCING DEVICE THAT REGULATES THE BATTERIES AND OPTIMIZES PERFORMANCE.

AFTER FOUR (4) HOURS OF BATTERY RUNTIME, THE SYSTEM SHALL BE PROGRAMMED TO SWITCH THE INTERSECTION FROM FULL OPERATION TO CONTROLLER AUTOMATIC FLASH OPERATION THROUGH THE MONITOR. THE CONTROLLER SHALL BE PROGRAMMED SO THAT FLASH OPERATION SHALL BEGIN ONCE THE INTERSECTION RUNS MINOR STREET GREEN (TYP. PH. 4 & 8), ALL-RED CLEARANCE, AND THEN FLASH OPERATION.

THE UPS OUTPUT NOTIFICATIONS FOR ON BATTERY, BATTERY 2-HOUR TIMER, AND LOW BATTERY SHALL BE WIRED INTO THE TRAFFIC SIGNAL CABINET BACK PANEL OR THROUGH THE CONTROLLER WITH A C11 TO PROVIDE SPECIAL STATUS ALARMS FOR EACH OUTPUT INTO THE SIGNAL CONTROLLER.

DESIGN AGENCY

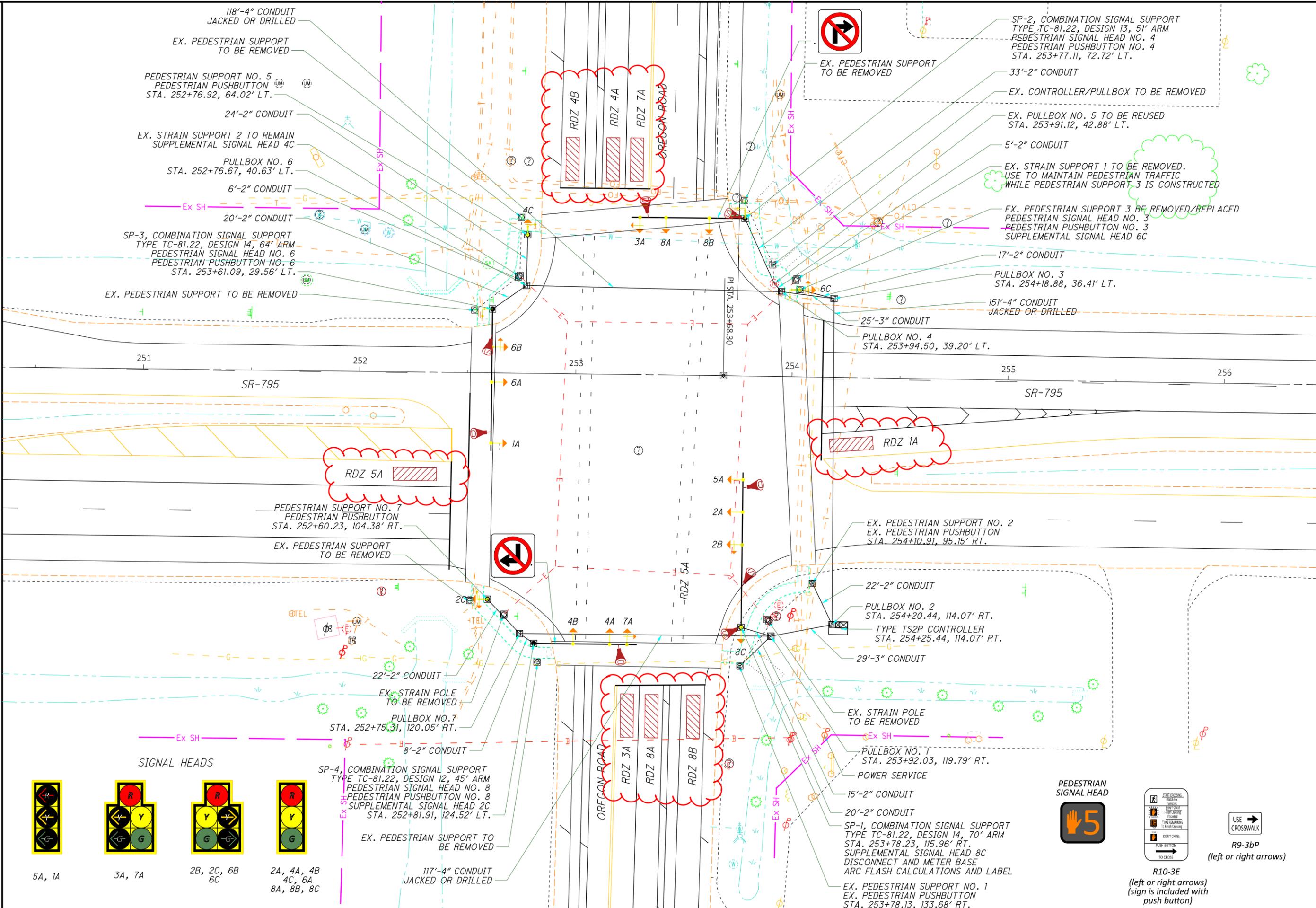


DESIGNER
DEK

REVIEWER
JJM

PROJECT ID
105531

SHEET TOTAL
59 76



5A, 1A



3A, 7A



2B, 2C, 6B
6C



2A, 4A, 4B
4C, 6A
8A, 8B, 8C

SP-4, COMBINATION SIGNAL SUPPORT
TYPE TC-81.22, DESIGN 12, 45' ARM
PEDESTRIAN SIGNAL HEAD NO. 8
PEDESTRIAN PUSHBUTTON NO. 8
SUPPLEMENTAL SIGNAL HEAD 2C
STA. 252+81.91, 124.52' LT.

EX. PEDESTRIAN SUPPORT TO BE REMOVED

117'-4" CONDUIT
JACKED OR DRILLED

SP-3, COMBINATION SIGNAL SUPPORT
TYPE TC-81.22, DESIGN 14, 64' ARM
PEDESTRIAN SIGNAL HEAD NO. 6
PEDESTRIAN PUSHBUTTON NO. 6
STA. 253+61.09, 29.56' LT.

EX. PEDESTRIAN SUPPORT TO BE REMOVED

PULLBOX NO. 6
STA. 252+76.67, 40.63' LT.

EX. STRAIN SUPPORT 2 TO REMAIN
SUPPLEMENTAL SIGNAL HEAD 4C

24'-2" CONDUIT

PEDESTRIAN SUPPORT NO. 5
PEDESTRIAN PUSHBUTTON
STA. 252+76.92, 64.02' LT.

EX. PEDESTRIAN SUPPORT TO BE REMOVED

118'-4" CONDUIT
JACKED OR DRILLED



EX. PEDESTRIAN SUPPORT TO BE REMOVED

SP-2, COMBINATION SIGNAL SUPPORT
TYPE TC-81.22, DESIGN 13, 51' ARM
PEDESTRIAN SIGNAL HEAD NO. 4
PEDESTRIAN PUSHBUTTON NO. 4
STA. 253+77.11, 72.72' LT.

33'-2" CONDUIT

EX. CONTROLLER/PULLBOX TO BE REMOVED

EX. PULLBOX NO. 5 TO BE REUSED
STA. 253+91.12, 42.88' LT.

5'-2" CONDUIT

EX. STRAIN SUPPORT 1 TO BE REMOVED.
USE TO MAINTAIN PEDESTRIAN TRAFFIC
WHILE PEDESTRIAN SUPPORT 3 IS CONSTRUCTED

EX. PEDESTRIAN SUPPORT 3 BE REMOVED/REPLACED
PEDESTRIAN SIGNAL HEAD NO. 3
PEDESTRIAN PUSHBUTTON NO. 3
SUPPLEMENTAL SIGNAL HEAD 6C

17'-2" CONDUIT

PULLBOX NO. 3
STA. 254+18.88, 36.41' LT.

151'-4" CONDUIT
JACKED OR DRILLED

25'-3" CONDUIT

PULLBOX NO. 4
STA. 253+94.50, 39.20' LT.

SR-795

SR-795

RDZ 5A

PEDESTRIAN SUPPORT NO. 7
PEDESTRIAN PUSHBUTTON
STA. 252+60.23, 104.38' RT.

EX. PEDESTRIAN SUPPORT TO BE REMOVED



RDZ 1A

EX. PEDESTRIAN SUPPORT NO. 2
EX. PEDESTRIAN PUSHBUTTON
STA. 254+10.91, 95.15' RT.

22'-2" CONDUIT

PULLBOX NO. 2
STA. 254+20.44, 114.07' RT.

TYPE TS2P CONTROLLER
STA. 254+25.44, 114.07' RT.

29'-3" CONDUIT

22'-2" CONDUIT

EX. STRAIN POLE TO BE REMOVED

PULLBOX NO. 7
STA. 252+75.31, 120.05' RT.

8'-2" CONDUIT

RDZ 3A
RDZ 8A
RDZ 8B

EX. STRAIN POLE TO BE REMOVED

PULLBOX NO. 1
STA. 253+92.03, 119.79' RT.

POWER SERVICE

15'-2" CONDUIT

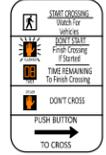
20'-2" CONDUIT

SP-1, COMBINATION SIGNAL SUPPORT
TYPE TC-81.22, DESIGN 14, 70' ARM
STA. 253+78.23, 115.96' RT.
SUPPLEMENTAL SIGNAL HEAD 8C
DISCONNECT AND METER BASE
ARC FLASH CALCULATIONS AND LABEL

EX. PEDESTRIAN SUPPORT NO. 1
EX. PEDESTRIAN PUSHBUTTON
STA. 253+78.13, 133.68' RT.



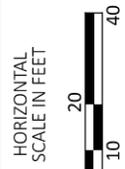
PEDESTRIAN SIGNAL HEAD



R10-3E
(left or right arrows)
(sign is included with push button)



R9-3bP
(left or right arrows)



TRAFFIC SIGNAL PLAN
WOO-795-4.80 (OREGON RD.)

DESIGN AGENCY



DESIGNER
DEK

REVIEWER
JMM

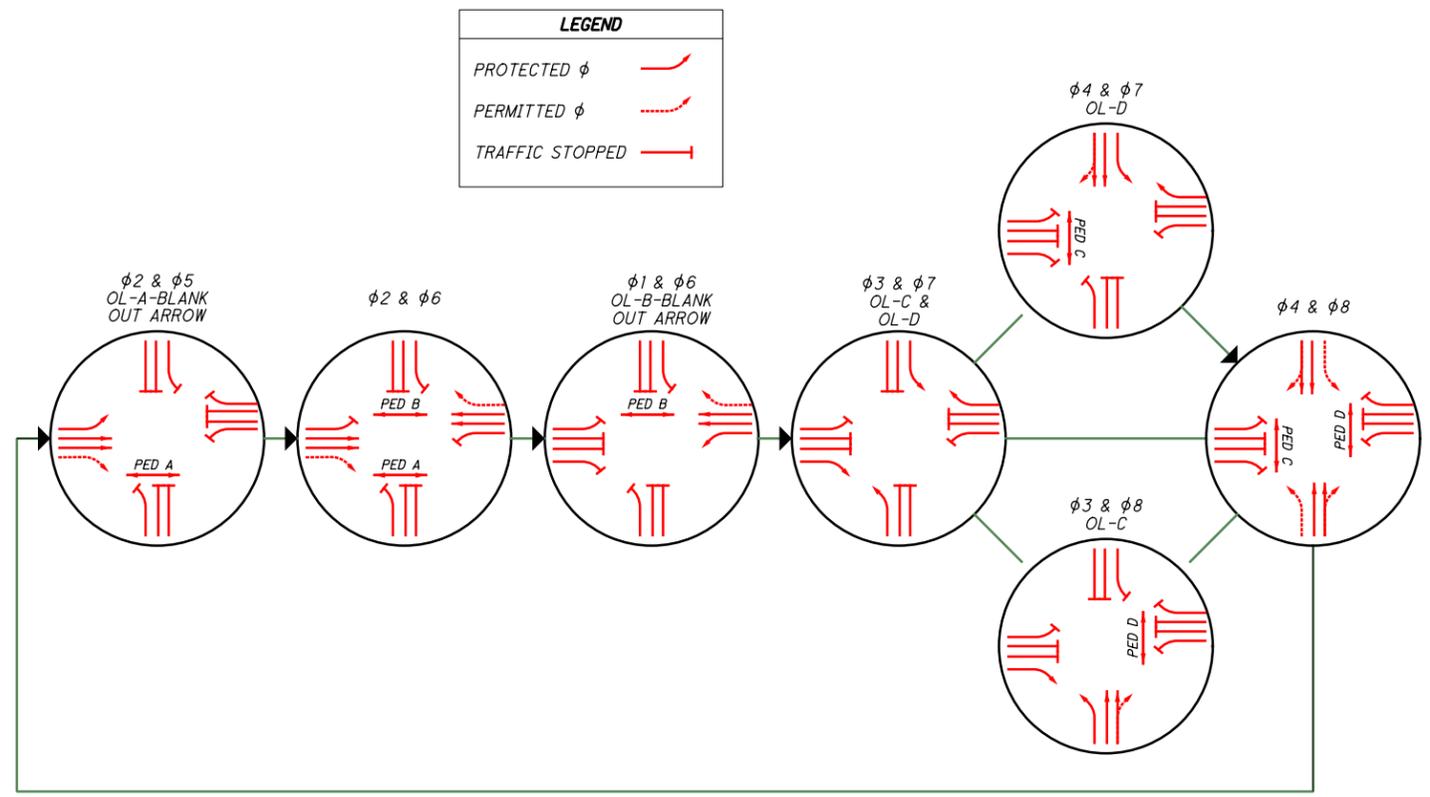
PROJECT ID
105531

SHEET TOTAL
P.64 76

SIGNAL TIMING CHART (TEM FORM 496-3)

INTERSECTION: WOO-795-4.80								
MAINTAINING AGENCY:								
START UP		DUAL ENTRY: ON		PHASES: 2 & 6, 4 & 8				
START IN: ALL-RED FLASH		REST IN RED: RING 1 - RING 2 -						
TIME FOR: FLASH, ALL RED (SEC.): 9, 6		OVERLAP		A	B	C	D	
FIRST PHASE(S): 2 & 6		PHASES		5	1	3	7	
COLOR DISPLAYED: GREEN								
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.						
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7
DIRECTION		WBL	EB	NBL	SB	EBL	WB	SBL
MINIMUM GREEN (INITIAL) (SEC.)		7	20	7	10	7	20	7
ADDED INITIAL *(SEC./ACTUATION)		-	-	-	-	-	-	-
MAXIMUM INITIAL *(SEC.)		-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)		3	3	3	3	3	3	3
TIME BEFORE REDUCTION *(SEC.)		-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)		-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)		-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)		20	60	20	30	20	60	20
MAXIMUM GREEN II (SEC.)		20	60	20	30	20	60	20
YELLOW CHANGE (SEC.)		5.7	5.7	4.6	5.5	5.4	5.7	4.6
ALL RED CLEARANCE (SEC.)		2.4	2.4	2.8	1	2.9	2.4	2.8
DELAYED GREEN (LPI) * (SEC.)		-	-	-	-	-	-	-
FLASHING YELLOW ARROW DELAY^ (SEC.)		-	-	-	-	-	-	-
WALK (SEC.)		-	12	-	10	-	12	-
PEDESTRIAN CLEARANCE (SEC.)		-	33	-	20	-	32	-
RECALL	MAXIMUM (ON/OFF)	-	ON	-	-	-	ON	-
	MINIMUM (ON/OFF)	-	ON	-	-	-	ON	-
	PEDESTRIAN (ON/OFF)	-	-	-	-	-	-	-
MEMORY (ON/OFF)	ON	ON	-	-	ON	ON	-	-
*VOLUME DENSITY CONTROLS								

PHASING DIAGRAM (TYPICAL)



RADAR DETECTION CHART

DETECTION ZONE	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC.)	EXTENSION PROGRAMMED IN CONTROLLER (SEC.)	DETECTOR NO.	PURPOSE	DETECTION ZONE LENGTH (FT)
1A	WB LEFT	PRESENCE	1	0	0	0	CALL/EXTEND PHASE 1	50
2A	EB THRU	PULSE	2	0	0	0	EXTEND PHASE 2	700
2B	EB THRU	PULSE	2	0	0	0	EXTEND PHASE 2	700
3A	NB LEFT	PRESENCE	3	0	0	0	CALL/EXTEND PHASE 3	50
4A	SB THRU	PULSE	4	0	0	0	EXTEND PHASE 4	700
4B	SB THRU	PULSE	4	0	0	0	EXTEND PHASE 4	700
5A	EB LEFT	PRESENCE	5	0	0	0	CALL/EXTEND PHASE 5	50
6A	WB THRU	PULSE	6	0	0	0	EXTEND PHASE 6	700
6B	WB THRU	PULSE	6	0	0	0	EXTEND PHASE 6	700
7A	SB LEFT	PRESENCE	7	0	0	0	CALL/EXTEND PHASE 7	50
8A	NB THRU	PULSE	8	0	0	0	EXTEND PHASE 8	700
8B	NB THRU	PULSE	8	0	0	0	EXTEND PHASE 8	700

NOTES:

- ALL MOVEMENTS SHALL BE ACTUATED. THE PRIMARY THRU MOVEMENT SHOULD HAVE MIN RECALL ACTIVE TO REST IN GREEN.
- RADAR DETECTION UNITS FOR DILEMMA ZONE DETECTION SHALL PLACE A CONSTANT CALL TO THE CONTROLLER WHEN VEHICLES TRAVEL TIMES TO THE STOP BAR ARE BETWEEN 2.5 AND 6 SECONDS. SPEED TRIGGER SHALL BE SET FOR VEHICLES TRAVELING 35 MPH AND GREATER.
- RADAR SHALL HAVE QUEUE DETECTION CONFIGURED AND A ZONE PLACED AT 100-200 FEET FROM STOP BAR FOR SLOW MOVING VEHICLE EXTENSIONS. SPEED TRIGGER SHALL BE SET AT 1-35 MPH.
- ALL DETECTOR DELAYS SHALL BE PLACED IN THE CONTROLLER.
- BLANK OUT ARROWS SHALL HAVE THEIR OWN LOAD SWITCH AND BE ADDED AS AN OVERLAP TO THEIR RESPECTIVE LEFT TURN PHASE.

ECONOLITE COORD SETTINGS	
MANUAL PATTERN	AUTO
SYSTEM SOURCE	SYS
SPLITS IN	SECONDS
TRANSITION	SMOOTH
DWELL/ADD TIME	0
OFFSET REFERENCE	YELLOW
PED RECALL	NO
LOCAL ZERO OVERRIDE	NO
RE-SYNC COUNT	-
ECPI COORD	YES
SYSTEM FORMAT	PTN
OFFSET IN	SECONDS
MAX SELECT	MAXINH
FORCE OFF	FLOAT
USE PED TIME	YES
PED RESERVICE	-
FO ADD INI GRN	-
MULTISYNC	-