



**CUY-90-14.90**

**PID 77332/85531**

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**APPENDIX MT-02**

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**Temporary Add Lanes (CUY-77-14.58 Stage 3 Plans)  
(Reference Document)**

State of Ohio  
Department of Transportation  
Jolene M. Molitoris, Director

**Innerbelt Bridge  
Construction Contract Group 1 (CCG1)**

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

**PART 2**

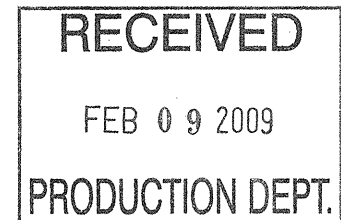
**CUY-77-14.58 / VAR**

CITY OF CLEVELAND  
CUYAHOGA COUNTY

**STAGE 3  
REVIEW PLANS**

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF SIGNING AND PAVEMENT MARKINGS TO REROUTE ONE LANE OF IR 90 BETWEEN IR 71 AND IR 77 TO USE AN ALTERNATE ROUTE ON IR 77 AND IR 490.



LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2008 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT FOR RAMP CLOSURES AS NOTED ON SHEETS 8 & 9 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATES.



LOCATION MAP

LATITUDE: N 41°29'07" LONGITUDE: W 81°40'40"

SCALE IN MILES



PORTION TO BE IMPROVED -----  
INTERSTATE & DIVIDED HIGHWAY =====  
UNDIVIDED STATE & FEDERAL ROUTES =====  
OTHER ROADS -----

DESIGN DESIGNATION	IR-77	IR-90	IR-490
CURRENT ADT (2009)	109300	104700	54950
DESIGN YEAR ADT (2029)	111560	106860	56090
DESIGN HOURLY VOLUME	11160	10690	5610
DIRECTIONAL DISTRIBUTION	55 %	55 %	55 %
TRUCKS (24 HOUR B&C)	8 %	7.5 %	9.0 %
DESIGN SPEED	50 MPH	60 MPH	65 MPH
LEGAL SPEED	50 MPH	50 MPH	60 MPH

DESIGN FUNCTIONAL CLASSIFICATION - URBAN INTERSTATE

DESIGN EXCEPTIONS : NONE

PROJECT EARTH DISTURBED AREA = N/A MAINTENANCE PROJECT  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA = N/A MAINTENANCE PROJECT  
NOTICE OF INTENT EARTH DISTURBED AREA = N/A MAINTENANCE PROJECT

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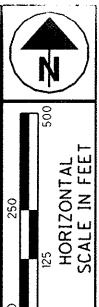
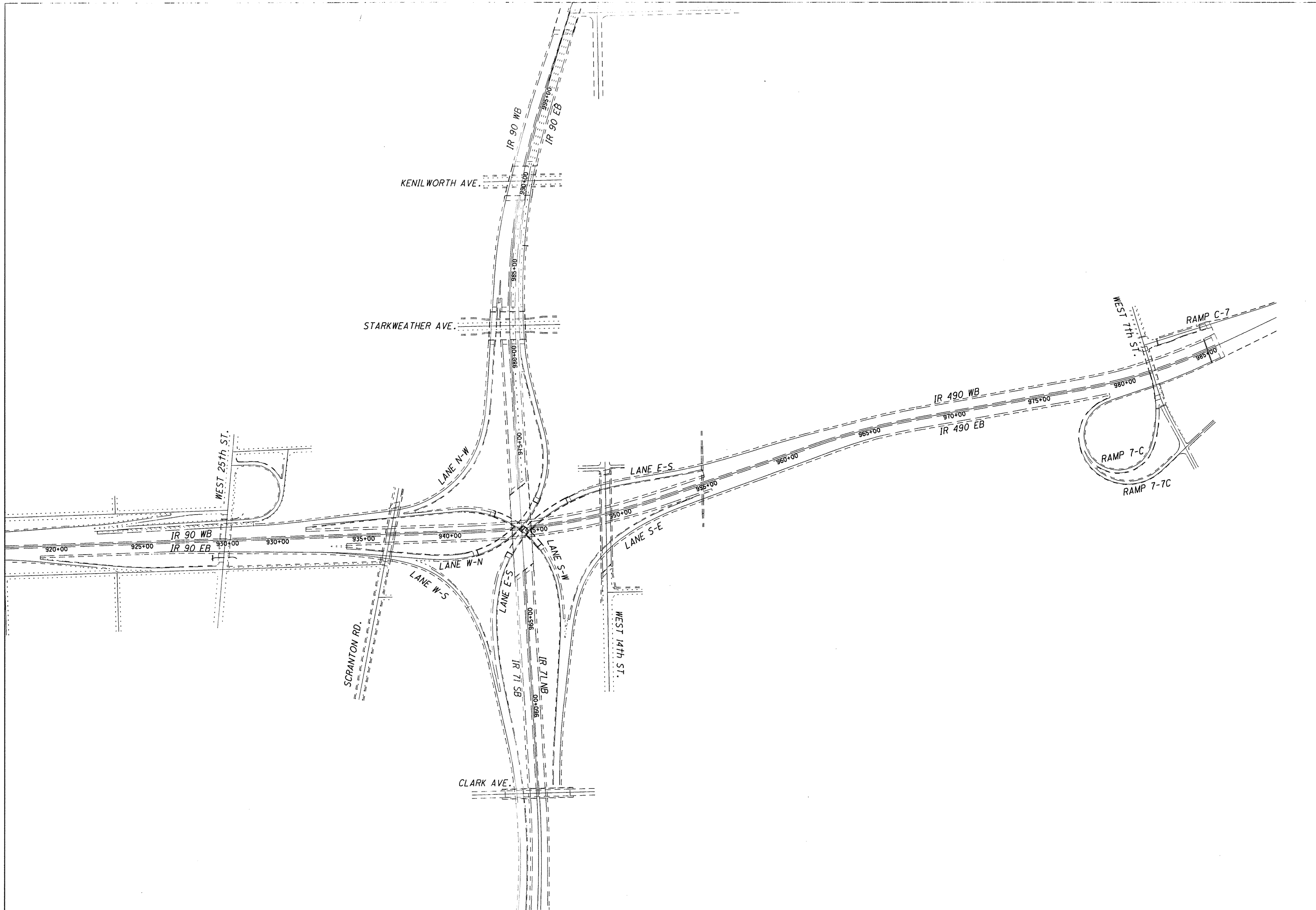
PLAN PREPARED BY:  
BURGESS & NIPLE  
100 WEST ERIE STREET  
PAINESVILLE, OHIO 44077

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	10/19/07	MT-35.10	04/20/01		TC-16.20	01/19/07		800	01/16/09
BP-9.1	04/15/05	MT-95.30	09/05/06		TC-22.20	01/19/01			
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					TC-41.41	01/19/01			
		MT-99.20M	01/30/95		TC-42.20	07/16/04			
					TC-51.11	04/20/01			
		MT-101.60	09/05/06		TC-51.12	04/20/01			
		MT-102.20	09/05/06		TC-52.10	01/19/07			
		MT-105.10	10/18/02		TC-52.20	01/19/07			
		MT-105.11	10/18/02		TC-65.10	01/21/05			
					TC-65.11	01/21/05			
					TC-72.20	01/21/05			

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ DISTRICT DEPUTY DIRECTOR

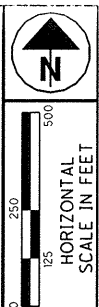
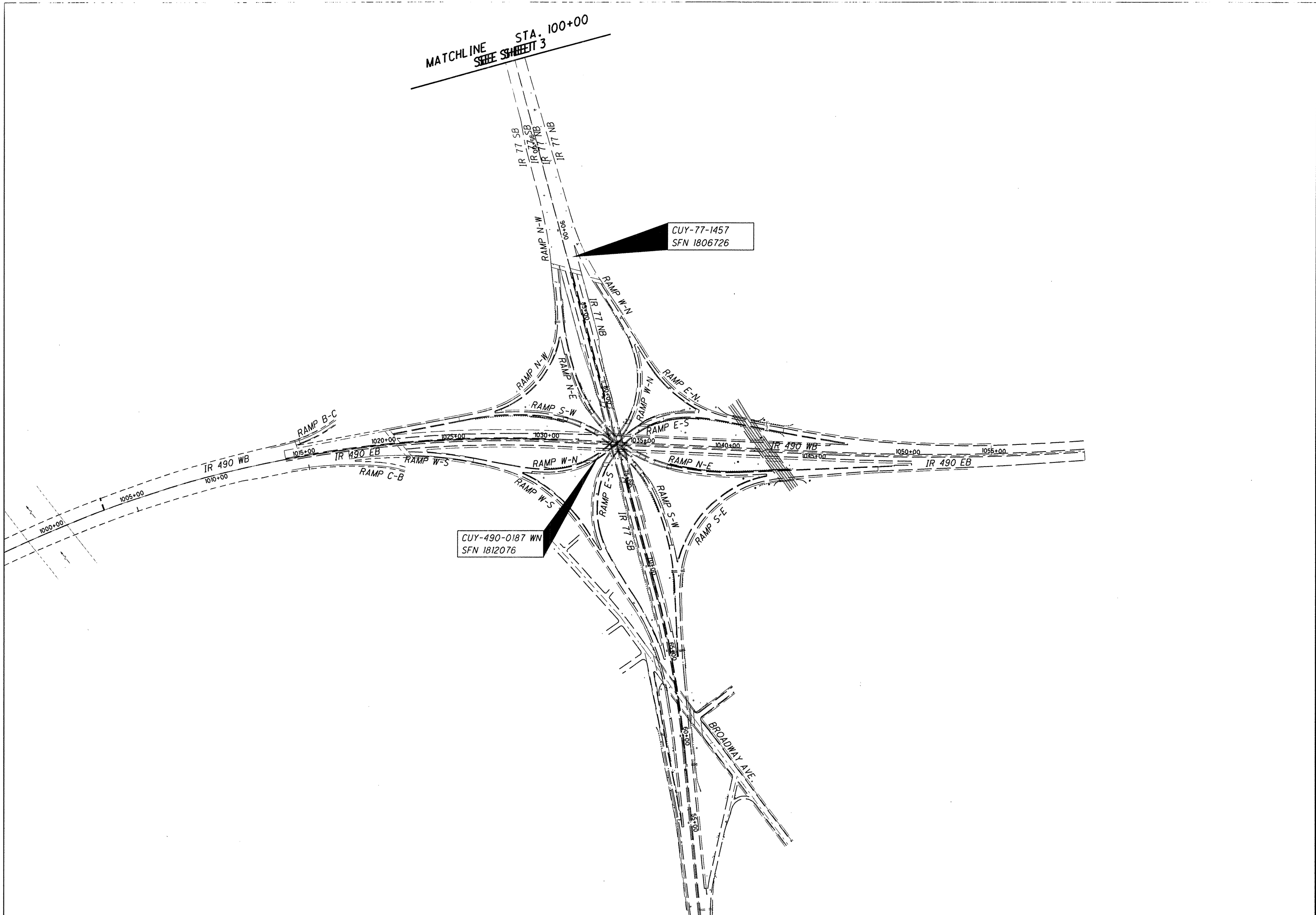
APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. \_\_\_\_\_  
 PID NO. **85049**  
 CONSTRUCTION PROJECT NO. \_\_\_\_\_  
 RAILROAD INVOLVEMENT **NONE**  
**CUY-77-14.58 / VAR**  
 1



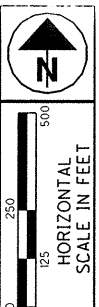
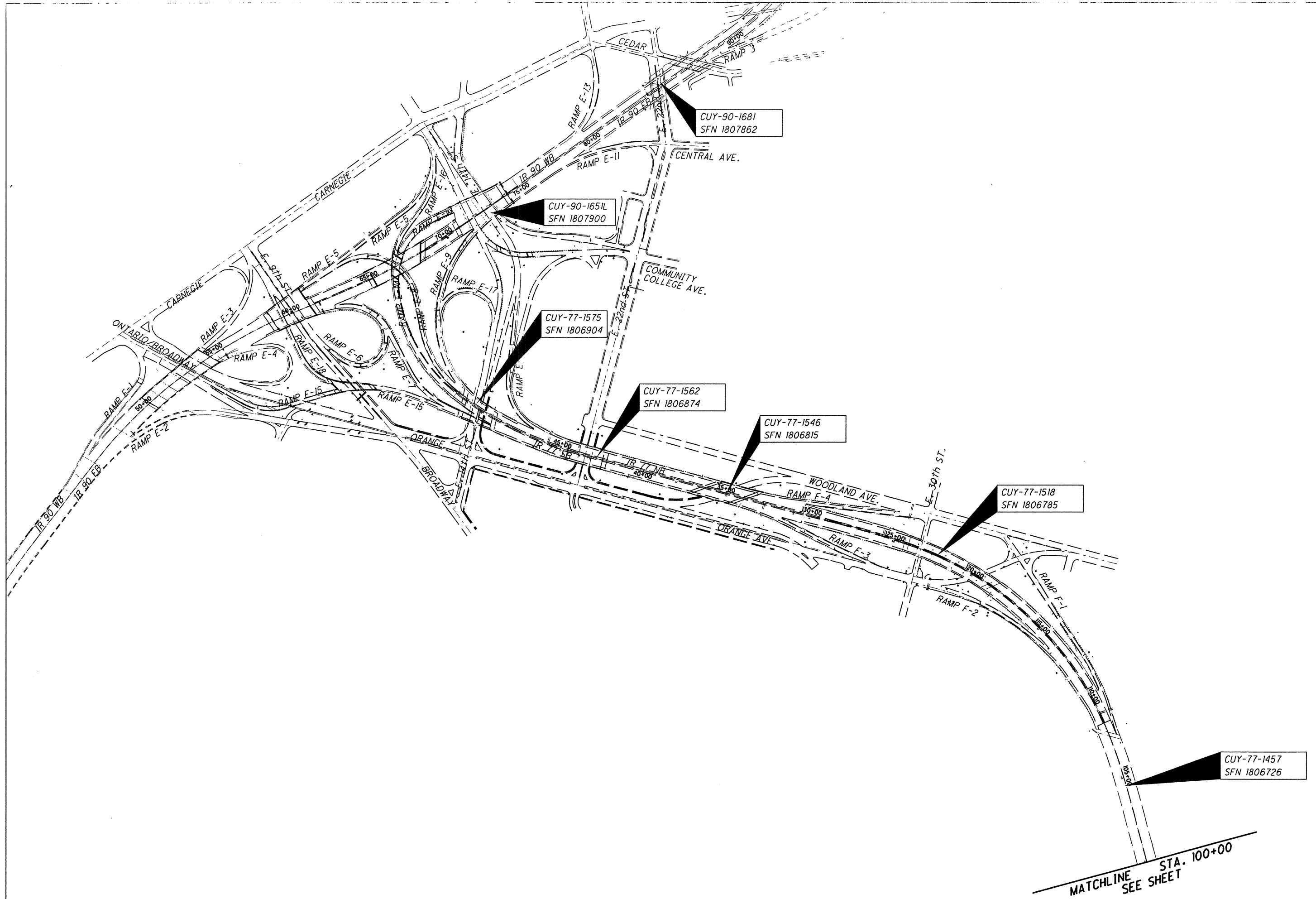
**SCHEMATIC PLAN**

**CUY-77-14.58 / VAR**



**SCHEMATIC PLAN**

**CUY-77-14.58 / VAR**



**SCHEMATIC PLAN**

**CUY-77-14.58 / VAR**

# GENERAL NOTES

## PROPOSED WORK

THE PROPOSED WORK CONSISTS OF SIGNING AND PAVEMENT MARKINGS TO REROUTE ONE LANE OF IR 90 BETWEEN IR 71 AND IR 77 TO USE AN ALTERNATE ROUTE. THE ALTERNATE ROUTE WILL ADD ONE LANE IN BOTH DIRECTIONS ON IR 77 BETWEEN IR 90 AND IR 490. AT THE RAMPS TO AND FROM IR 77 ONE ADDITIONAL LANE WILL ALSO BE CREATED.

## UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

OHIO DEPARTMENT OF TRANSPORTATION  
5500 TRANSPORTATION BLVD.  
GARFIELD HTS., OHIO, 44125  
(216) 581-2100

PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CALL OHIO UTILITIES PROTECTION SERVICE TWO (2) WORKING DAYS BEFORE YOU DIG. TOLL FREE TELEPHONE: 1-800-362-2764.

## RIGHT OF WAY

ALL WORK WILL BE PERFORMED WITHIN THE EXISTING RIGHT OF WAY.

## CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

## EXISTING TYPICAL SECTIONS

EXISTING TYPICAL SECTIONS HAVE BEEN TAKEN FROM THE RECORDS AND ARE BELIEVED TO REPRESENT THE EXISTING PAVEMENT, BUT THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THE SAME.

FOR FURTHER INFORMATION IN REGARD TO THE EXISTING TYPICAL SECTIONS, THE CONTRACTOR SHALL REFER TO THE PREVIOUS CONSTRUCTION PLANS:

CUY-21-14.12 (77 & 490) 1963	CUY-77-13.81 1992
CUY-490-1.65 2002	CUY-77-13.75 2002
CUY-77/90-13.79/16.21 1978	CUY-90-16.24 1992

## COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT. NO WAIVER OF ANY PROVISIONS OF 105.08 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS IS INTENDED.

## RESTORATION AND CLEAN UP

RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE WORK WAS STARTED PER CMS 104.04.

REMOVE ANY BROKEN GLASSWARE FOUND BY CREWS IN THE WORK AREA. DISPOSE OF ANY BROKEN GLASS IN REGULAR RUBBISH DISPOSAL UNITS. DISPOSE OF ALL REMOVED STEEL OFF THE RIGHT OF WAY. PAYMENT FOR RESTORATION WORK IS INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS.

## WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR, WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

## CONTRACTORS EQUIPMENT AND OPERATION

ALL VEHICLES AND EQUIPMENT MUST BE EQUIPPED WITH AT LEAST ONE FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT THAT IS VISIBLE IN ALL DIRECTIONS OF TRAFFIC FOR AT LEAST ONE QUARTER MILE, DAY OR NIGHT.

UNLESS BEHIND CONCRETE BARRIER, THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC ONLY.

## EQUIPMENT AND MATERIAL STORAGE

IN ORDER TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC THE CONTRACTOR'S ATTENTION IS DIRECTED TO 614.03. IN ADDITION THE FOLLOWING PROVISIONS SHALL APPLY:

1. ANY REMOVED ITEMS SHALL NOT BE STORED ON THE RIGHT OF WAY FOR MORE THAN THIRTY DAYS.
2. THE STORAGE OF EQUIPMENT, MATERIALS, AND VEHICLES WITHIN THE HIGHWAY RIGHT OF WAY WILL BE PERMITTED. THE NUMBER OF AREAS AND EXACT LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE STATE.

## PAVEMENT

### ITEM 253 - PAVEMENT REPAIR, AS PER PLAN

THIS ITEM OF WORK SHALL BE USED TO FILL THE EXISTING RUMBLE STRIPS WITH ASPHALT PRIOR TO SHIFTING TRAFFIC ONTO THE SHOULDERS. NO REMOVAL (253.02) IS NECESSARY, HOWEVER THE CONTRACTOR SHALL CLEAN THE EXISTING GROOVES. PAYMENT SHALL BE BASED UPON A RATE OF 0.12 CUBIC YARDS PER 100 LINEAR FEET (MEASURED LONGITUDINALLY ALONG THE SHOULDER). NO ADJUSTMENT WILL BE MADE FOR USING MORE OR LESS MATERIAL.

### ITEM 407 - TACK COAT

THE RATE OF APPLICATION OF THE TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION OF 0.075 GALLONS PER SQ. YD. OF TACK COAT.

## TRAFFIC CONTROL

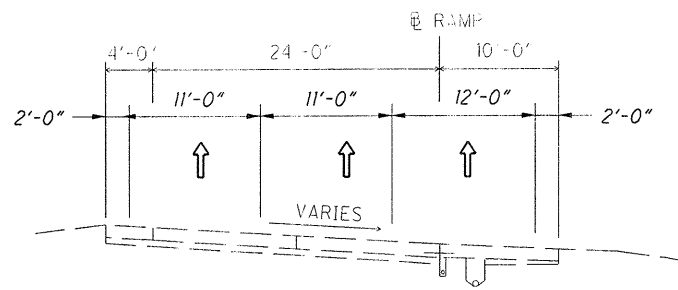
### FINAL PAVEMENT MARKINGS

THE WORK ZONE PAVEMENT MARKINGS SHALL BE REPLACED USING ITEM 643. THIS WORK SHALL BE PERFORMED PRIOR TO WINTER MONTHS.

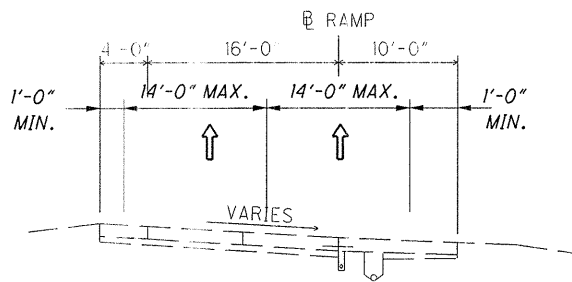
GENERAL NOTES

CUY-77-14.58 / VAR

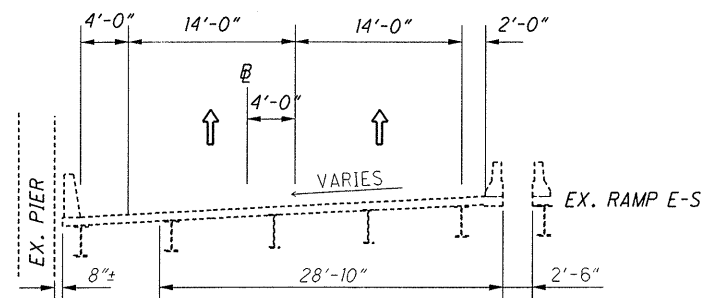
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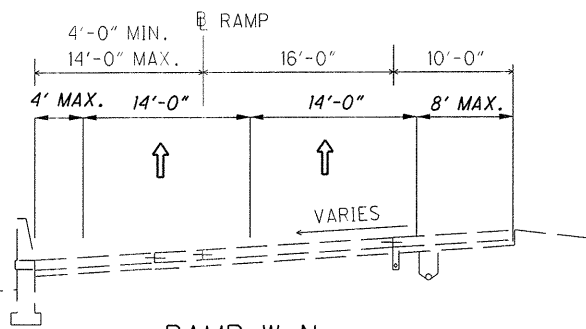
RAMP W-S  
EX. 2-LANE



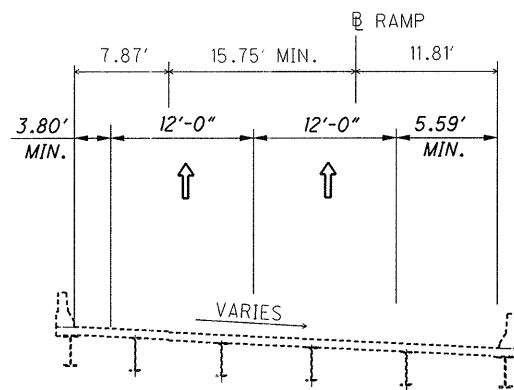
RAMP N-W  
EX. 1-LANE



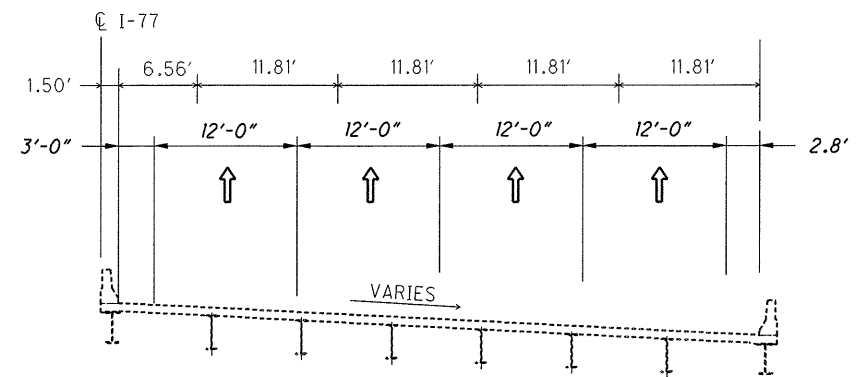
RAMP W-N  
1-LANE EXISTING  
2-LANES PROPOSED  
CUY-490-0187 WN



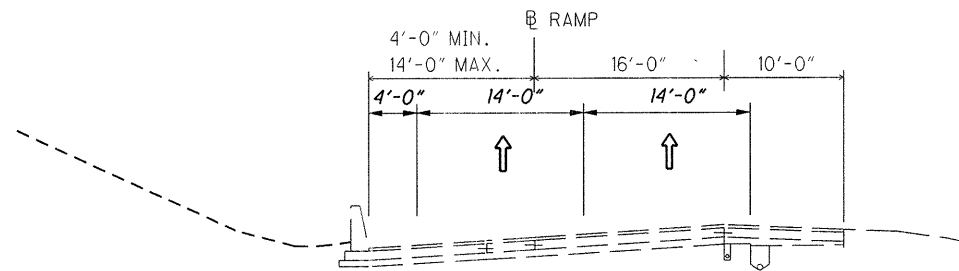
RAMP W-N  
EX. 1-LANE  
SOUTH OF BRIDGE



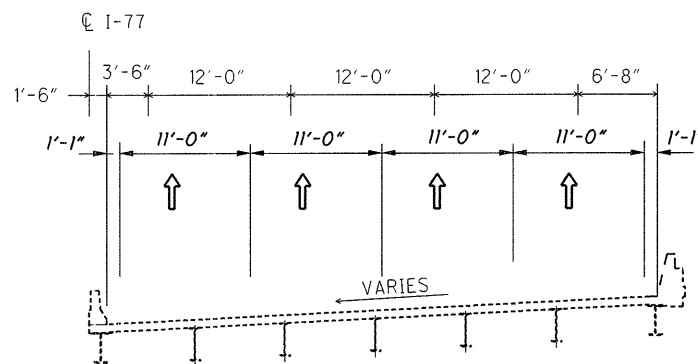
RAMP W-N  
1-LANE BUILT AS 2-LANE  
CUY-77-1457



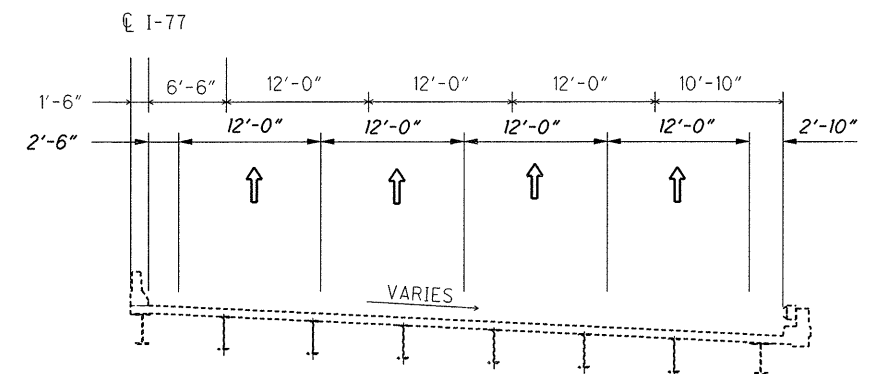
I-77 MAINLINE  
EX. 3-LANE  
CUY-77-1457  
OVER KINGSBURY RUN



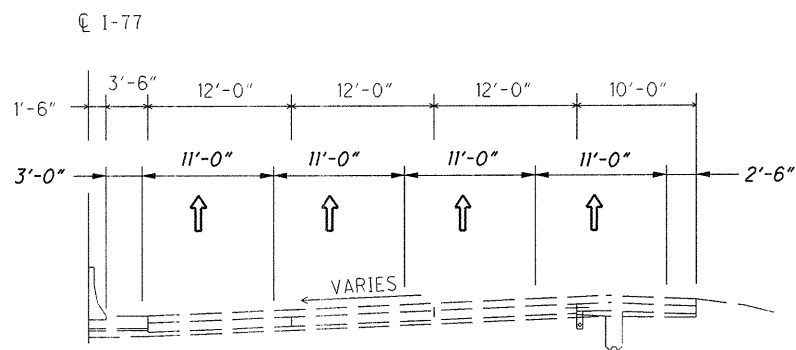
RAMP W-N  
EX. 1-LANE  
NORTH OF BRIDGE



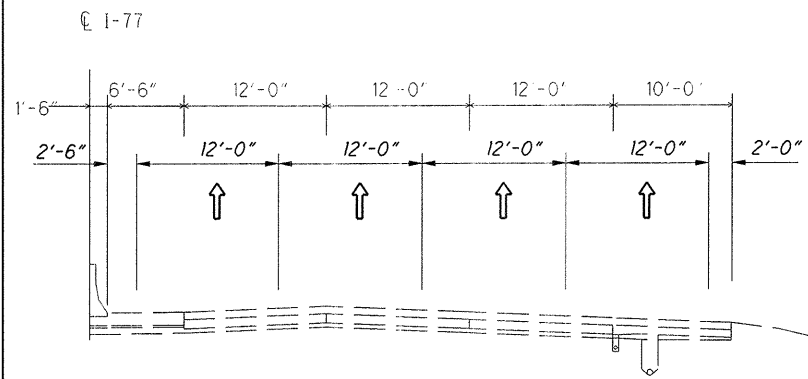
I-77 MAINLINE  
EX. 3-LANE  
CUY-77-1518  
OVER E 30TH ST



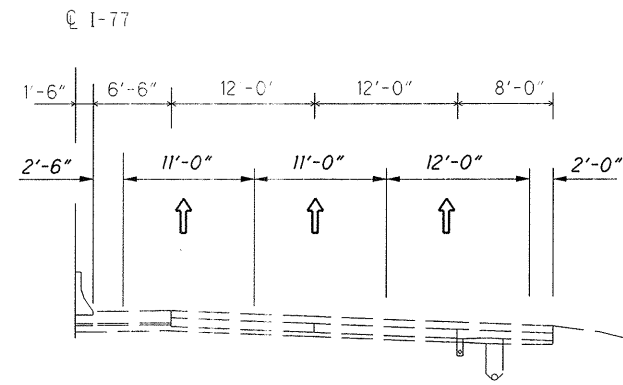
I-77 MAINLINE  
EX. 3-LANE  
CUY-77-1546  
OVER ORANGE AVE /  
CUY-77-1562  
OVER E 22TH ST



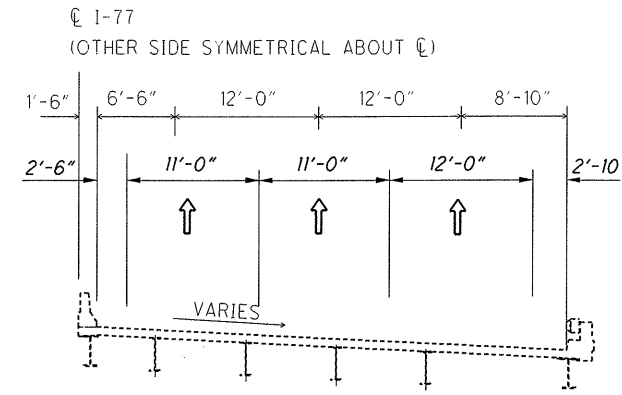
I-77 MAINLINE  
EX. 3-LANE



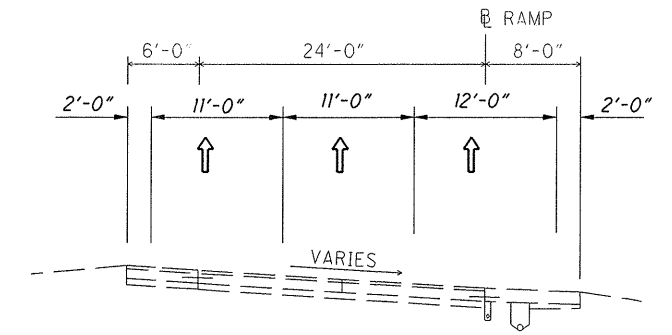
I-77 MAINLINE  
EX. 3-LANE



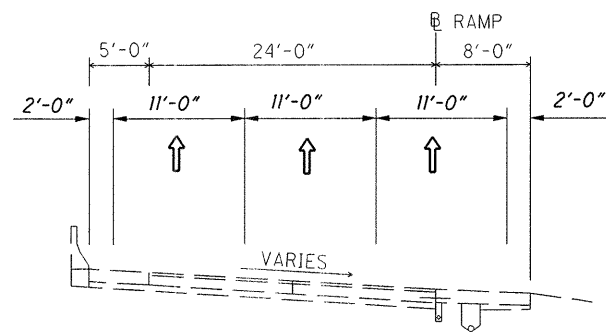
I-77 NB  
EX. 2-LANE



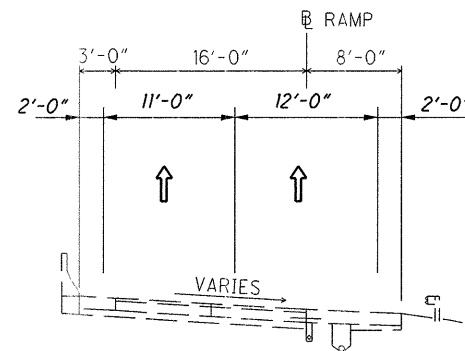
I-77 NB  
EX. 2-LANE  
CUY-77-1575  
OVER E 14TH ST



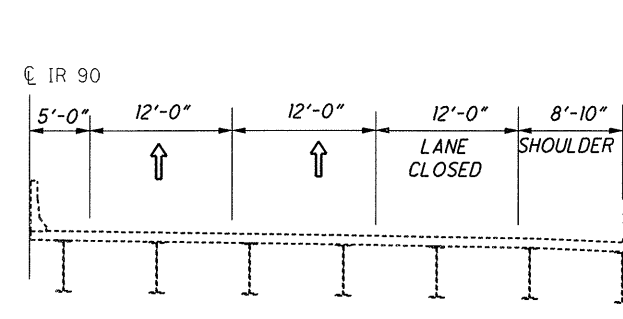
RAMP E-9  
EX. 2-LANE



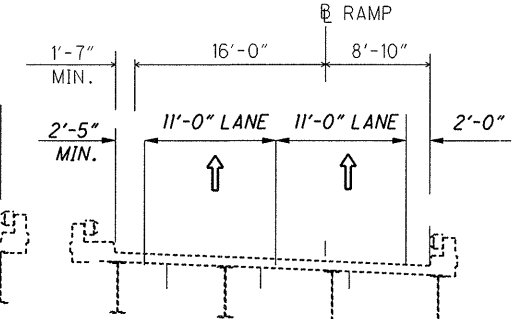
RAMP E-9  
EX. 2-LANE



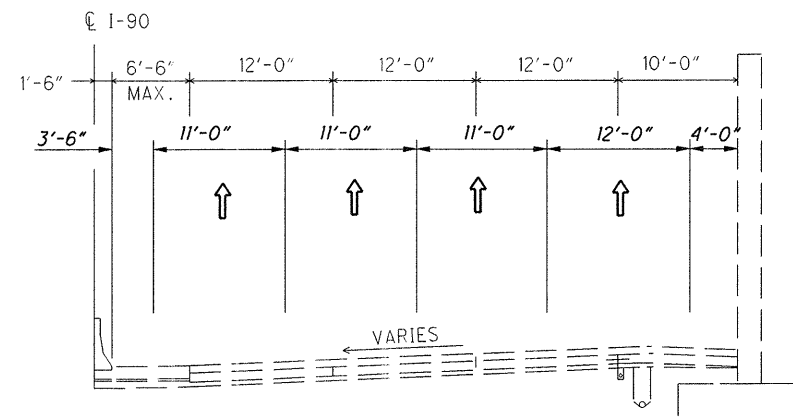
RAMP E-9  
EX. 1-LANE



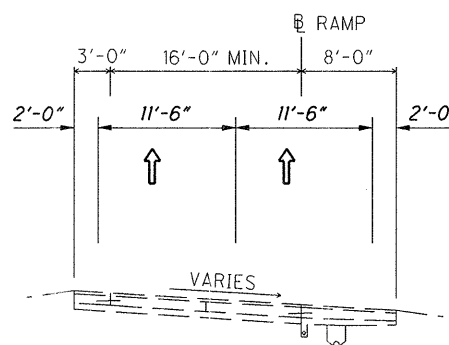
IR90 EASTBOUND  
EX. 3-LANE  
CUY-90-1651 L



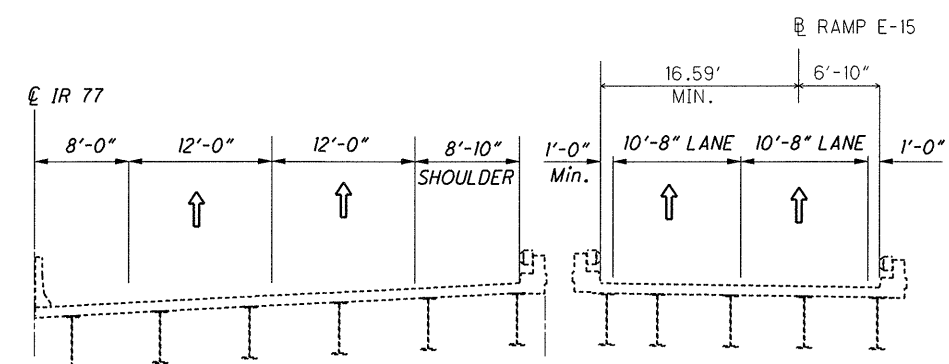
RAMP E-9  
EX. 1-LANE  
CUY-90-1651 L



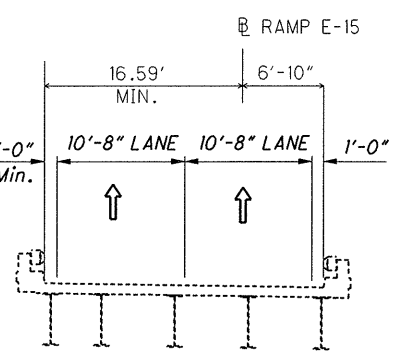
I-90



RAMP E-15  
EX. 1-LANE



IR77 SOUTHBOUND  
CUY-77-1575



RAMP E-15  
EX. 1-LANE



## 614 MAINTAINING TRAFFIC

THE PROPOSED WORK CONSISTS OF SIGNING AND PAVEMENT MARKINGS TO REROUTE ONE LANE OF IR 90 BETWEEN IR 71 AND IR 77 TO USE AN ALTERNATE ROUTE. THE ALTERNATE ROUTE WILL ADD ONE LANE IN BOTH DIRECTIONS ON IR 77 BETWEEN IR 90 AND IR 490. AT THE RAMPS TO AND FROM IR 77 ONE ADDITIONAL LANE WILL ALSO BE CREATED.

LIGHTING USED TO ILLUMINATE THE WORK AREA SHALL BE AIMED AND SHIELDED TO PREVENT GLARE ENCROACHING INTO OPEN TRAFFIC LANES. FOR ADDITIONAL NOTES SEE THE "FLOODLIGHTING" NOTE.

ALL SIGNS, BARRICADES, SIGN SUPPORTS, CONES, DRUMS, FLAGGERS AND INCIDENTALS SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE MOST RECENT REVISION, CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), EXCEPT AS NOTED WITHIN. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES PER 108.07 OF THE CMS.

THE MAINTENANCE OF TRAFFIC DETAILS SHALL BE COORDINATED WITH THE MAINTENANCE OF TRAFFIC DETAILS OF ANY ADJACENT CONSTRUCTION PROJECTS. THE CONTRACTORS ARE REQUIRED TO COOPERATE WITH EACH OTHERS WORK ACTIVITIES DURING THE ENTIRE CONSTRUCTION PROCESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 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.

### MAINTENANCE OF TRAFFIC OVERVIEW

THROUGHOUT THIS PROJECT, NO LONG TERM OR RUSH HOUR LANE CLOSURES WILL BE PERMITTED.

### GENERAL

TRAFFIC ON IR77, IR90, IR 490, CROSSROADS AND THE RAMPS SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH THE LANE CLOSURE NOTES FOUND ON SHEET 9.

### MAINTENANCE OF TRAFFIC SHIFTS

THE MAINTENANCE OF TRAFFIC SHIFTS USE STANDARD CONSTRUCTION DRAWING MT-102.10 AS A BASE, UNLESS SPECIFICALLY SHOWN OTHERWISE, ALL REQUIREMENTS OF THIS STANDARD CONSTRUCTION DRAWING SHALL BE INCORPORATED IN THE APPLICABLE CONSTRUCTION PHASES AS DETAILED IN THESE PLANS EXCEPT FOR THE FOLLOWING ITEMS:

1. NO LIGHTING IS REQUIRED.
2. R4-9-36 "STAY IN LANE" SIGN IS NOT REQUIRED.
3. W1-HI-1-36 (DIAGONAL ARROW) SIGN IS NOT REQUIRED.

### SEQUENCE OF CONSTRUCTION

IN ORDER TO PROVIDE THE SAFEST ENVIRONMENT FOR THE MOTORISTS, THE WORK SHALL BE PERFORMED IN THE FOLLOWING SEQUENCE:

1. FILL RUMBLE GROOVES IN SHOULDER SHIFT AREAS.
2. CLOSE AND DETOUR RAMP E-13, REMOVE PCB AND REPAIR PAVEMENT.
3. INSTALL OVERHEAD GUIDE SIGNS TO ALLOW FOR THE CLOSURE OF RAMPS E-8 & E-11.
4. INSTALL RAMP EN AND RAMP F-4 DETOUR SIGNAGE. IMPLEMENT DETOUR NO SOONER THAN ONE DAY PRIOR TO REVISING THE IR77NB PAVEMENT MARKINGS. CLOSE RAMPS EN AND F-4.
5. MODIFY PAVEMENT MARKINGS AS PER THE PLAN DETAILS, SHIFT TRAFFIC TO THE NEW PATTERN.
6. INSTALL REMAINDER OF OVERHEAD SIGN MODIFICATIONS WITHIN 1 WEEK OF SHIFTING TRAFFIC.

### TRUCK MOUNTED ATTENUATOR

WHEN THE CONTRACTOR IS SETTING LONG OR SHORT TERM WORK ZONES AND THE SHOULDERS (RIGHT OR LEFT SHOULDER) ARE LESS THAN 10 FEET IN WIDTH AND ARE ON A ROAD WITH SPEEDS 40 MPH OR HIGHER, A TRUCK MOUNTED ATTENUATOR (TMA) MUST TRAIL THE OPERATION OF SETTING THE ADVANCE WARNING SIGNS UP OR TAKING THEM DOWN. A TMA SHALL ALSO BE PROVIDED TO PROTECT THE WORKERS SETTING UP THE DRUMS OR PORTABLE CONCRETE BARRIERS. THIS SAME TRUCK MUST HAVE A TYPE B FLASHING ARROW PANEL MOUNTED ON IT FACING THE REAR OF THE TRUCK.

THE TMA MUST BRING A VEHICLE WEIGHING 1800 TO 4500 POUNDS AND TRAVELING AT 60 MPH TO A SAFE, CONTROLLED STOP, PER NCHRP 350 CRITERIA. THE MANUFACTURER'S SPECIFICATION MUST BE FOLLOWED CONCERNING THE SIZE OF THE TRUCK AND THE CONNECTIONS TO THE TMA.

### TRAFFIC WIDTH REQUIREMENTS:

THE MINIMUM LANE WIDTHS ARE SHOWN IN THE MAINTENANCE OF TRAFFIC DETAILS. IF NOT SPECIFICALLY SHOWN, THEY SHALL CONSIST OF A MINIMUM 11'-0" WIDE LANE(S) PLUS 12" MINIMUM BUFFER ON EACH SIDE TO GUARDRAIL, PARAPETS, DRUMS, BARRIER OR EDGES OF PAVED SURFACES.

### FULL CLOSURES OF RAMP EN, RAMP E-8, RAMP E-11, RAMP E-13 AND RAMP F-4

A FULL CLOSURE OF RAMP EN, RAMP E-8, RAMP E-11, RAMP E-13 AND RAMP F-4 WILL BE REQUIRED PRIOR TO IMPLEMENTING THE ALTERNATE ROUTE SIGNING AND PAVEMENT MARKINGS. DETOUR SIGNING FOR RAMP EN, RAMP E-13 AND RAMP F-4 MUST BE IN PLACE PRIOR TO CLOSING THE RAMP. DETOUR SIGNING WILL BE PAID FOR INDIVIDUALLY FOR RAMPS EN, E-13 AND F-4.

OVERHEAD SIGN MODIFICATIONS TO ACCOMMODATE THE CLOSURE OF RAMPS E-8 & E-11 MUST BE IN PLACE PRIOR TO IMPLEMENTING THE CLOSURES.

THE DETOUR SIGNS PLACED FOR THE ABOVE RAMP CLOSURES ARE TO REMAIN IN PLACE AT THE COMPLETION OF THE PROJECT.

### CLOSURE OF RAMP E-16

A FULL CLOSURE OF RAMP E-16 WILL BE IMPLEMENTED AS DIRECTED BY THE ENGINEER. THIS CLOSURE WILL BE USED IF NECESSARY TO IMPROVE THE FLOW OF RAMP E-10.

DETOUR SIGNS SHALL NOT BE ORDERED UNLESS DIRECTED BY THE ENGINEER. PAYMENT FOR DETOUR SIGNING WILL ONLY BE MADE IF THIS WORK IS IMPLEMENTED.

THE DETOUR SIGNS PLACED FOR THE ABOVE RAMP CLOSURE ARE TO REMAIN IN PLACE AT THE COMPLETION OF THE PROJECT.

IMPLEMENTATION OF MAINTENANCE OF TRAFFIC ZONES

⊕ - PROPOSED

NO SET UPS OR TAKE DOWNS OF MAINTENANCE OF TRAFFIC ITEMS SUCH AS PAVEMENT MARKINGS, DRUMS, PCB'S, ETC., SHALL BE DONE DURING RUSH HOURS, 6 AM TO 10 AM OR 3 PM TO 7 PM. WHEN LANE CLOSURES ARE NEEDED TO PERFORM THIS WORK, THEY SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE LANE CLOSURE NOTES ON THIS SHEET.

PERMITTED LANE CLOSURES (PLC):

ALL LANE CLOSURES ON THIS PROJECT MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY THE "DISTRICT 12 PERMITTED LANE CLOSURE TIMES" (P.L.C.T.) LIST, WHICH IS LOCATED ON THE ODOT WEB SITE:  
[www.dot.state.oh.us/dist12/workzone/laneclo.htm](http://www.dot.state.oh.us/dist12/workzone/laneclo.htm)

THE LATEST REVISION, AT 14 DAYS PRIOR TO THE BID DATE, SHALL BE IN EFFECT FOR THIS PROJECT.

NO TEMPORARY LANE OR TEMPORARY SHOULDER CLOSURES SHALL BE IN PLACE WHEN NO WORK IS BEING PERFORMED.

IF LANE CLOSURES ARE IN PLACE OUTSIDE THE SPECIFIED TIME, LIQUIDATED DAMAGES IN THE AMOUNT OF \$20.00 PER MINUTE FOR THE FIRST 30 MINUTES, THEN \$50.00 PER MINUTE THEREAFTER, SHALL BE ASSESSED THE CONTRACTOR FOR EACH MINUTE THE LANE REMAINS CLOSED.

LANE CLOSURES ANALYSIS FOR ADDITIONAL LANE CLOSURE TIMES

IF THE CONTRACTOR WOULD LIKE TO CLOSE LANES OUTSIDE THE TIME PERMITTED THERE MUST FIRST BE A LANE CLOSURE ANALYSIS. A LANE CLOSURE ANALYSIS SHALL BE DONE AND DOCUMENTED IN THE FOLLOWING MANNER:

LANES MAY BE CLOSED IF THE HOURLY COUNTS (PER LANE TO REMAIN OPEN) ARE LESS THAN THE COUNTS GIVEN BELOW. IF THE ADDITIONAL HOURS ARE ON A WEEKDAY THE COUNT MUST BE DONE ON A WEEKDAY. SAME FOR A WEEKEND.

TWO HOURLY COUNTS SHALL BE DONE FOR THE ADDITIONAL TIMES THE CONTRACTOR WOULD LIKE TO CLOSE AN ADDITIONAL LANE. IF THE HOURLY COUNT (PER LANE TO REMAIN OPEN) IS UNDER 1100 VEHICLES PER HOUR (PER LANE TO REMAIN OPEN) FOR WEEKDAYS AND 1400 VEHICLES PER HOUR (PER LANE TO REMAIN OPEN) FOR WEEKENDS THEN THE CONTRACTOR MAY CLOSE A LANE DURING HOURS THAT MEET THIS CRITERIA.

THE TRAFFIC COUNTS SHALL BE TURNED INTO THE WORK ZONE TRAFFIC CONTROL ENGINEER FOR APPROVAL OF THE NEW TIMES. IF A BACK UP, (STOP AND GO TRAFFIC) OR DELAYS, (SPEEDS BELOW 40 MPH) OCCURS DURING THE NEW CLOSURE TIMES THE CONTRACTOR SHALL DO ANOTHER ANALYSIS. IF A TRAFFIC BACKUP OR DELAY OCCURS AFTER THE SECOND ANALYSIS, THE CONTRACTOR SHALL NOT CLOSE THE LANES FOR THE ADDITIONAL HOURS.

SUPPLEMENTAL PERMITTED LANE CLOSURES

FOR LANE CLOSURES NOT LISTED IN THE "DISTRICT 12 PERMITTED LANE CLOSURE TIMES" (P.L.C.T.) LIST, THE TABULATED CLOSURES LISTED IN THE ADJACENT TABLE SHALL APPLY. (THESE VALUES OVERRIDE THE PLCT)

PERMITTED LANE CLOSURE AND UNAUTHORIZED LANE USAGE TABLE

LOCATION	DIRECTION	EX. NO. LANES	WEEKDAYS		WEEKENDS		UNAUTHORIZED LANE USE		COMMENTS
			1 LANE CLOSED *	2 LANES CLOSED *	1 LANE CLOSED *	2 LANES CLOSED *	TIME UNIT	DISINCENTIVE PER TIME UNIT	
RAMP WN RAMP NW	NB SB	1	10 AM-2 PM 9 PM-5 AM	NOT APPLICABLE	7 PM-5 AM	NOT APPLICABLE	MINUTE	\$20	NARROW THE EXISTING LANE USING CONES OR DRUMS. DO NOT CLOSE
RAMP WN RAMP NW	NB SB	2⊕	10 AM-2 PM 9 PM-5 AM	NOT APPLICABLE	7 PM-5 AM	NOT APPLICABLE	MINUTE	\$20(FIRST 60) \$50(AFTER 60)	
RAMP E-9	NB	2⊕	8 PM-5 AM	NOT APPLICABLE	10 AM-11:59AM 8 PM-5 AM	NOT APPLICABLE	MINUTE	\$20(FIRST 30) \$50(AFTER 30)	CLOSE IR77 RIGHT LANE. SPLIT TRAFFIC AT GORE 1 LANE EACH RAMP
RAMP E-15	SB	1	NARROW LANE 10 AM-11:59AM 8 PM-5 AM	NOT APPLICABLE	NARROW LANE 10 AM-11:59AM 8 PM-5 AM	NOT APPLICABLE	MINUTE	\$20	NARROW THE EXISTING LANE USING CONES OR DRUMS. DO NOT CLOSE
RAMP E-15	SB	2⊕	10 AM-11:59AM 8 PM-5 AM	NOT APPLICABLE	10 AM-11:59AM 8 PM-5 AM	NOT APPLICABLE	MINUTE	\$20	
RAMP E-17	NB	1	NARROW LANE 10 AM-11:59AM 8 PM-5 AM	NOT APPLICABLE	NARROW LANE 10 AM-11:59AM 8 PM-5 AM	NOT APPLICABLE	MINUTE	\$20	NARROW THE EXISTING LANE USING CONES OR DRUMS. DO NOT CLOSE

\* - DO NOT IMPLEMENT LANE CLOSURES OR LANE NARROWING ON IR77, IR90 OR RAMPS IN THE INBOUND DIRECTION 2 HOURS BEFORE AND IN THE OUTBOUND DIRECTION 2 HOURS AFTER EVENTS WITH AN ANTICIPATED ATTENDANCE GREATER THAN 20,000 AT PROGRESSIVE FIELD, CLEVELAND BROWNS STADIUM OR THE QUICKEN LOANS ARENA.

UNAUTHORIZED LANE USAGE

THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DESIGNATED IN THE UNAUTHORIZED LANE USE TABLE LOCATED ON THIS PAGE FOR EACH UNIT OF TIME A CRITICAL LANE / RAMP IS CLOSED BY THE CONTRACTOR'S ACTION WHILE NOT OTHERWISE PERMITTED BY THE CONTRACT. THE DISINCENTIVE WILL BE FOR ANY LANE CLOSURES CAUSED BY THE CONTRATOR DURING TIMES AND LOCATIONS NOT SPECIFICALLY PERMITTED BY THIS CONTRACT.

RAMP OR ROADWAY DETOURED CLOSURES

ONE WEEK PRIOR TO IMPLEMENTING ANY DETOURED CLOSURE, SIGNS OR A PCMS ALERTING THE MOTORISTS OF THE IMPENDING CLOSURE SHALL BE ERECTED.

MAINTENANCE OF TRAFFIC  
GENERAL NOTES

CUY-77-14.58 / VAR

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO SET UP OR TAKE DOWN OF MAINTENANCE OF TRAFFIC ITEMS SUCH AS PAVEMENT MARKINGS, DRUMS, PCB'S, ETC., SHALL BE DONE DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

FOURTH OF JULY

NEW YEARS LABOR DAY

MEMORIAL DAY THANKSGIVING

SPECIAL EVENTS WITH 20,000 SEATING

(OTHER HOLIDAY OR EVENT)

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

DAY OF THE WEEK 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
TUESDAY	12:00N	MONDAY	THROUGH	6:00 AM	WEDNESDAY
WEDNESDAY	12:00N	TUESDAY	THROUGH	6:00 AM	THURSDAY
THURSDAY	12:00N	WEDNESDAY	THROUGH	6:00 AM	MONDAY
FRIDAY	12:00N	THURSDAY	THROUGH	6:00 AM	MONDAY
SATURDAY	12:00N	FRIDAY	THROUGH	6:00 AM	MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE. SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH CMS 108.07.

IN ADDITION TO THE ABOVE REQUIREMENTS, ALL LANES MUST BE OPEN 2 HOURS BEFORE A SPECIAL EVENT IN THE INBOUND DIRECTION AND ALL LANES MUST BE OPEN FOR 2 HOURS AFTER A SPECIAL EVENT.

**MAINTAINING TRAFFIC - GENERAL**

COORDINATION WITH ADJACENT PROJECTS

THE CONSTRUCTION AT EITHER TERMINI OF THIS PROJECT MAY REQUIRE THE CONTRACTOR TO COORDINATE CONSTRUCTION WITH AN ADJACENT CONSTRUCTION PROJECT. IF COORDINATION IS NECESSARY, THE CONTRACTORS MUST COORDINATE THEIR WORK SCHEDULES AND SUBMIT TO THE DISTRICT CONSTRUCTION ENGINEER WHO WILL ESTABLISH THE FINAL APPROVED COORDINATED WORK SCHEDULE.

PLACEMENT OF 643 PAVEMENT MARKINGS AND 621 RAISED PAV'T MARKERS

PLACEMENT OF 643 PAVEMENT MARKINGS AND INSTALLATION OF 621 RAISED PAVEMENT MARKERS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE "PERMITTED LANE CLOSURE" NOTE ON SHEET 9

ITEM 614, WORK ZONE PAVEMENT MARKINGS

THE "TEMPORARY" PAVEMENT MARKING DESCRIPTIONS AND LEGENDS SHOWN THROUGHOUT THESE PLANS SHOULD BE CONSIDERED TO READ "WORK ZONE" PAVEMENT MARKINGS AS PER THE 2005 CMS.

TRANSITION AREA DELINEATION

WORK ZONE DELINEATION FOR LANE SHIFTS IS SHOWN ON THE PLAN DETAIL SHEETS. THIS SPECIAL TREATMENT SHALL TYPICALLY BE USED FOR SHIFTS OF 4' OR MORE, SOME SHIFTS GREATER THAN 4 FEET WILL NOT RECEIVE THE TREATMENT. THE LOCATIONS WHERE WORK ZONE DELINEATION TREATMENT SHOULD BE INSTALLED IS CALLED OUT ON THE MAINTENANCE OF TRAFFIC PLANS.

ON ASPHALT SURFACES 621 RAISED PAVEMENT MARKERS SHALL BE PROVIDED. ON CONCRETE SURFACES, 614 WORK ZONE RAISED PAVEMENT MARKERS SHALL BE PROVIDED AND SUBSEQUENTLY REMOVED PRIOR TO WINTER.

ASPHALT CONCRETE FOR MAINTAINING TRAFFIC

THE FOLLOWING ITEM WILL BE USED FOR THE MAINTENANCE OF THE EXISTING PAVEMENT, SHOULDERS OR BRIDGES:

614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 10 CU. YARD

ITEM 614, WORK ZONE SIGNING

ALL WORK ZONE SIGNING SHALL UTILIZE A FLUORESCENT ORANGE BACKGROUND COLOR EXCEPT FOR REGULATORY SIGNS.

ITEM 643 - POLYESTER PAVEMENT MARKINGS (AS PER PLAN)

EDGE LINES AND LANES LINES SHALL BE 6" WIDE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE REPLACEMENT OF THE WORK ZONE MARKINGS, PRIOR TO WINTER.

ITEM 643 - EDGE LINE, AS PER PLAN	<u>10.33</u>	MILE
ITEM 643 - LANE LINE, AS PER PLAN	<u>7.56</u>	MILE
ITEM 643 - CHANNELIZING LINE	<u>9010</u>	FEET
ITEM 643 - DOTTED LINE	<u>1100</u>	FEET

MAINTENANCE OF TRAFFIC CONTROL ZONES

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THE SIGNS, DRUMS AND TEMPORARY PAVEMENT MARKINGS AT THE LOCATIONS DETAILED IN THE PLANS OR SPECIFIED IN THE STANDARD DRAWINGS. WHEN THE CONTRACTOR IS NOTIFIED OF DEFICIENCIES HE SHALL CORRECT THE DEFICIENCIES AS SOON AS POSSIBLE, PREFERABLY WITHIN 12 HOURS AND NO LATER THAN 24 HOURS. IF ANY NOTED DEFICIENCIES ARE NOT CORRECTED WITHIN 24 HOURS THE ENGINEER SHALL DEDUCT ONE DAY PAY FOR ITEM 614 - MAINTAINING TRAFFIC, NOT AS A PENALTY BUT AS LIQUIDATED DAMAGES. THE CONTRACTOR SHALL BE SUBJECT TO THESE LIQUIDATED DAMAGES FOR EACH AND EVERY DAY THAT THESE PROVISIONS ARE NOT MET. ALL COSTS FOR MAINTAINING THE WORK ZONES AS DESCRIBED ABOVE SHALL BE INCLUDED UNDER ITEM 614 - MAINTAINING TRAFFIC.

CALCULATED  
CHECKED

MAINTENANCE OF TRAFFIC  
GENERAL NOTES

CUY-77-14.58 / VAR

CONCRETE BARRIER DELINEATION

OBJECT MARKERS SHALL BE INSTALLED ON ALL CONCRETE BARRIER, PERMANENT AND/OR TEMPORARY, 32 INCHES (0.8 M) OR LESS IN HEIGHT, LOCATED WITHIN 5 FEET (1.5 M) OF THE EDGE OF THE ADJACENT TRAVEL LANE. OBJECT MARKER SPACING SHALL BE 50 FEET (15 METERS).

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING OBJECT MARKERS.

THE FOLLOWING ESTIMATED QUANTITIY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS OUTLINED ABOVE.

ITEM 614 - OBJECT MARKER, ONE-WAY (CONC. BARRIER) 56 EACH

614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE WHEN NO LONGER NEEDED. A PORTABLE CHANGEABLE MESSAGE SIGN(S). THE PCMS SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR:  
[HTTP://WWW.DOT.STATE.OH.US/TESTLAB/APPLISTS/MISC/PCMS%20-%20NTPEP-BASED.HTM](http://www.dot.state.oh.us/testlab/applists/misc/pcms%20-%20ntpep-based.htm)

NO FLIP DISC (OR VARIATION OF FLIP DISC) UNITS WILL BE ALLOWED.

CLASS A PCMS UNITS SHALL HAVE A MINIMUM LEGIBILITY DISTANCE OF 1200 FEET. CLASS B PCMS UNITS SHALL HAVE A MINIMUM LEGIBILITY DISTANCE OF 475 FEET.

THE PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE MOUNTED ON A TRAILER. THE LOCATION OF THE PCMS SHALL BE AS DIRECTED BY THE ENGINEER. THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE LINK WHICH WILL ALLOW REMOTE SIGN ACTIVATION, DEACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES.

THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER THE SOFTWARE NECESSARY TO CONTROL THE PCMS REMOTELY.

AT THE DIRECTION OF THE ENGINEER THE PCMS MAY BE REMOVED FOR PERIODS OF TIMES WHEN NOT IN USE. NO PAYMENT WILL BE MADE FOR THESE TIMES (EXAMPLE: WINTER MONTHS).

**PAYMENT:**

THERE SHALL BE 4 CLASS A PCMS UNITS AT 2 MONTHS EACH.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE BID PER SIGN-MONTH FOR ALL SIGNS FURNISHED UNDER ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK, INCLUDING RELOCATION IF NECESSARY.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 8 SIGN MONTHS

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME 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 OPERATE 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 MAINTAINING TRAFFIC.

CALCULATED  
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ENF

MAINTENANCE OF TRAFFIC  
GENERAL NOTES

CUY-77-14.58 / VAR

WORKSITE TRAFFIC SUPERVISOR

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS MAY BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZATIONS:

1. AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA), PHONE NUMBER 1-800-272-8772, CERTIFIED TRAFFIC CONTROL SUPERVISOR (TCS).
2. NATIONAL HIGHWAY INSTITUTE, DESIGN AND OPERATION OF WORK ZONE TRAFFIC CONTROL, PHONE NUMBER 1-703-235-0528.
3. THE OHIO CONTRACTORS ASSOCIATION, TRAFFIC CONTROL SUPERVISOR (OCA/TCS) WORK ZONE CLASS, ONLY IF TAKEN AFTER MAY 5, 2004, PHONE NUMBER 1-614-599-7915..
4. OHIO LABORERS TRAINING, TRAFFIC CONTROL SUPERVISORS CLASS, PHONE NUMBER 1-740-599-7915.

A COPY OF EACH WTSS CERTIFICATION AND 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7) THE CONTRACTOR MAY DESIGNATE AN ALTERNATE WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY. EACH WTS SHALL HAVE A CURRENT WTS CERTIFICATION (WITH AN EXPIRATION DATE NO MORE THAN 5 YEARS FROM THE DATE OF ISSUE) FROM ANY OF THE APPROVED ORGANIZATIONS. THE WTS POSITION HAS THE RESPONSIBILITY OF MONITORING AND CORRECTING TRAFFIC CONTROL DEFICIENCIES FOR THE ENTIRE WORK ZONE.

THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS, AND BE ABLE TO BE ON SITE FOR ALL EMERGENCY TRAFFIC CONTROL NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF AND BE PREPARED TO EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TRAFFIC CONTROL DEVICES.
2. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TRAFFIC CONTROL MANAGEMENT IS DISCUSSED.
3. BE AVAILABLE FOR MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST OR WITHIN 36 HOURS.
4. BE AWARE OF, AND COORDINATE IF NECESSARY, ALL TRAFFIC CONTROL OPERATIONS, INCLUDING THOSE OF SUBCONTRACTORS AND SUPPLIERS.
5. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). A WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEOS WHILE THEY ARE ON THE PROJECT.
6. COORDINATE MEETINGS WITH ODOT PERSONNEL, LEOS AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS WORK ZONE TRAFFIC CONTROL.
7. ENSURE COMPLIANCE WITH THE CONTRACT DOCUMENTS FOR SIGNS, BARRICADES, TEMPORARY CONCRETE BARRIER, PAVEMENT MARKINGS, PORTABLE MESSAGE SIGNS, AND OTHER TRAFFIC CONTROL DEVICES ON A DAILY BASIS; AND FACILITATE ANY CORRECTIVE ACTION NECESSARY.
8. NOTIFY THE CONTRACTOR OF THE NEED FOR CLEANING AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES, INCLUDING THE COVERING AND REMOVAL OF INAPPLICABLE SIGNS.
9. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TRAFFIC CONTROL DEVICES AND/OR TRAFFIC OPERATIONS ON A DAILY BASIS (7 DAYS A WEEK). IN ADDITION, A WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:
  - A. INITIAL TRAFFIC CONTROL SETUP (DAY AND NIGHT REVIEW).
  - B. DAILY TRAFFIC CONTROL SETUP AND REMOVAL.
  - C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TRAFFIC CONTROL SETUP.
  - D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA.
  - E. REMOVAL OF TRAFFIC CONTROL DEVICES AT THE END OF A PHASE OR PROJECT.
  - F. ALL OTHER EMERGENCY TRAFFIC CONTROL NEEDS.
10. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 9 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORK DAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TRAFFIC CONTROL MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THIS DOCUMENT CAN BE FOUND IN THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION INSPECTION FORMS MANUAL DATED 10/15/06 OR CURRENT REVISION.
11. VERIFY THAT ALL FLAGGING OPERATIONS ARE BEING CONDUCTED PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
12. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND APPLICABLE STANDARDS AND SPECIFICATIONS INCLUDED IN THE CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

(CONTINUED)

WORKSITE TRAFFIC SUPERVISOR (CONTINUED)

THE DEPARTMENT WILL NOT PAY THE UNIT PRICE BID FOR THE WTS FOR ANY DAY ON WHICH THE CONTRACTOR FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. SHOULD THE CONTRACTOR'S FAILURE TO PERFORM ANY OF THE DUTIES DESCRIBED ABOVE RESULT IN A MAINTENANCE OF TRAFFIC SAFETY ISSUE, THE DEPARTMENT WILL DEDUCT THE PRORATED DAILY AMOUNT FOR ITEM 614 MAINTENANCE OF TRAFFIC FROM THE CONTRACTOR'S NEXT SCHEDULED ESTIMATE.

IF THREE OR MORE FAILURES TO PERFORM THE DUTIES SET FORTH ABOVE OCCUR, THE WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR THE WORKSITE TRAFFIC SUPERVISOR:

ITEM 614 - WORKSITE TRAFFIC SUPERVISOR 2 MONTHS

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 IN THIS NOTE WILL NOT GENERALLY BE PERMITTED AT PROJECT COST UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE ENGINEER. LEO'S SHOULD NOT BE USED WHERE THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 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 CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED. IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

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

DURING A TRAFFIC SIGNAL INSTALLATION 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).

ROUTINE PATROLLING THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) AS SPECIFIED IN THE PLANS. 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 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. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A LIST OF THE APPROPRIATE LAW ENFORCEMENT AGENCY(S), INCLUDING ADDRESS AND TELEPHONE NUMBER.

THE LEO SHOULD REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING THE SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF THE SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHOULD 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 THE SHIFT.

LAW ENFORCEMENT OFFICERS (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).

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR 80 HOURS

THE HOURS PAID SHALL INCLUDE 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 AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR.

CALCULATED  
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CHECKED  
ENF

MAINTENANCE OF TRAFFIC  
GENERAL NOTES

CUY-77-14.58 / VAR

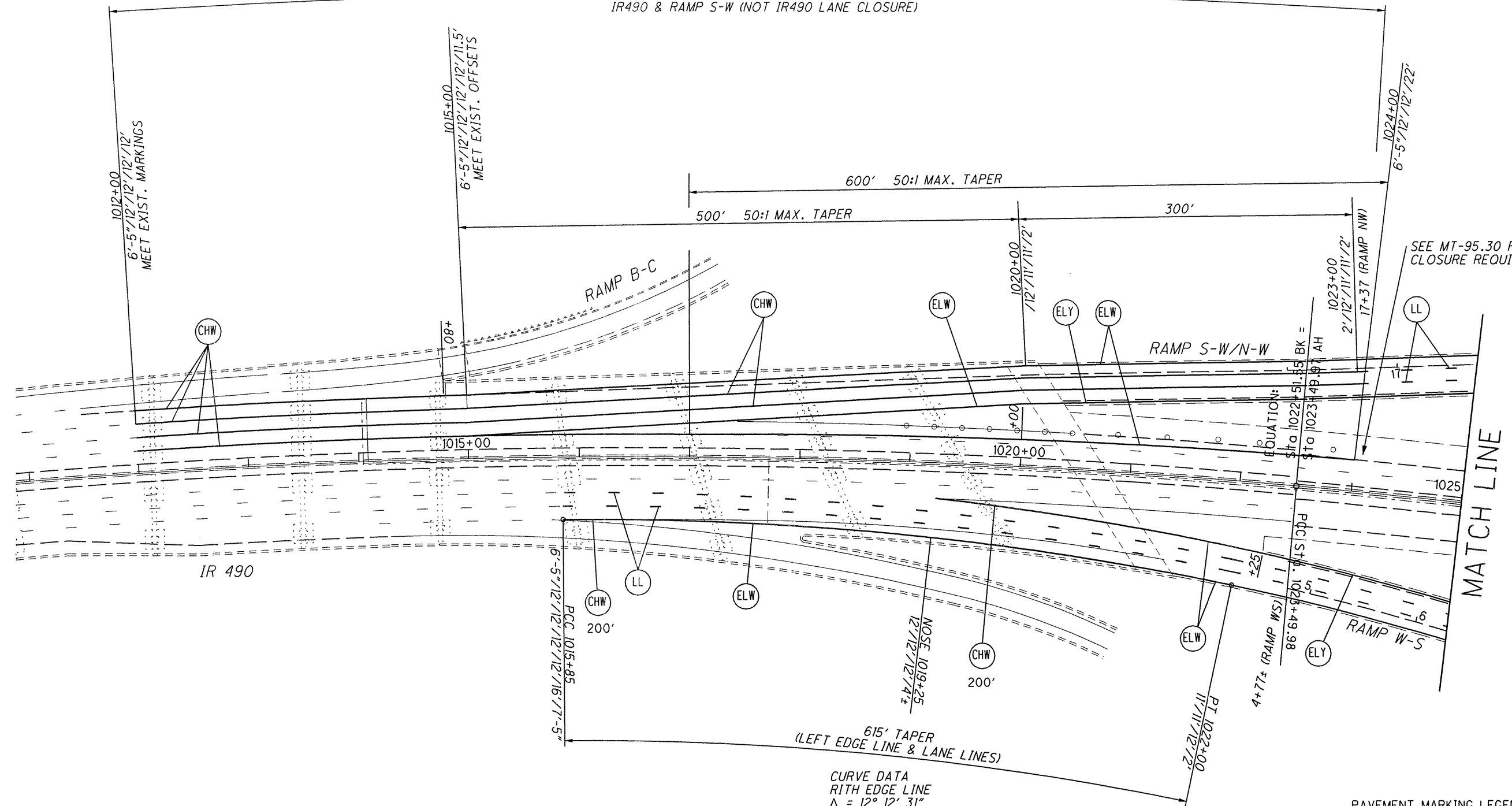


DESIGNED BY  
**BURGESS & NIPLE**

**MAINTENANCE OF TRAFFIC  
IR 90 DETOUR VIA 490 & IR 77**

**CUY-77-14.58 / VAR**

TRANSITION AREA DELINEATION  
IR490 & RAMP S-W (NOT IR490 LANE CLOSURE)



SEE MT-95.30 FOR LANE CLOSURE REQUIREMENTS

CURVE DATA  
RITH EDGE LINE  
 $\Delta = 12^\circ 12' 31''$   
 $Dc = 2^\circ 00' 00''$   
 $R = 2864.79'$   
 $T = 306.38'$   
 $L = 610.43'$   
 $E = 16.34'$

PAVEMENT MARKING LEGEND

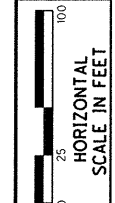
- (LL) - LANE LINE
- (ELW) - EDGE LINE, WHITE
- (ELY) - EDGE LINE, YELLOW
- (CHW) - CHANNELIZING LINE, WHITE
- (DL) - DOTTED LINE

WORK ZONE PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CMS 614.11, WORK ZONE PAVEMENT MARKINGS, CLASS I

SEE MT-102.20 FOR LANE SHIFT SIGNAGE AND OTHER REQUIREMENTS (APPLY TO SHIFTS OF 4' OR GREATER)

LEGEND

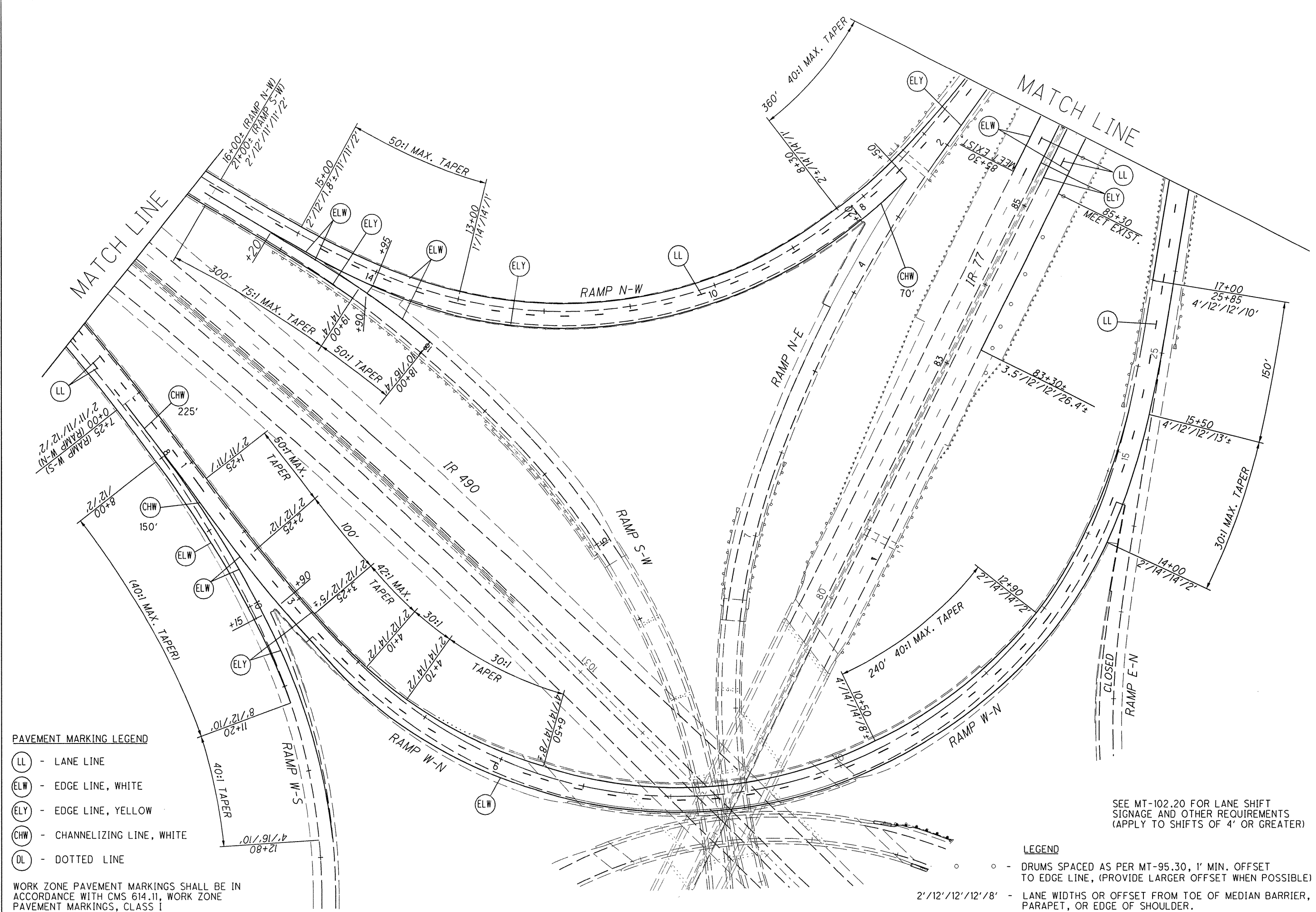
- o o - DRUMS SPACED AS PER MT-95.30, 1' MIN. OFFSET TO EDGE LINE, (PROVIDE LARGER OFFSET WHEN POSSIBLE)
- 2'/12'/12'/12'/8' - LANE WIDTHS OR OFFSET FROM TOE OF MEDIAN BARRIER, PARAPET, OR EDGE OF SHOULDER.



DESIGNED BY  
**BURGESS & NIPLE**

# MAINTENANCE OF TRAFFIC IR 90 DETOUR VIA IR 490 & IR 77

## CUY-77-14.58 / VAR



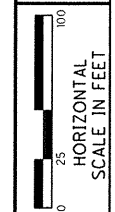
### PAVEMENT MARKING LEGEND

- (LL) - LANE LINE
- (ELW) - EDGE LINE, WHITE
- (ELY) - EDGE LINE, YELLOW
- (CHW) - CHANNELIZING LINE, WHITE
- (DL) - DOTTED LINE

WORK ZONE PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CMS 614.11, WORK ZONE PAVEMENT MARKINGS, CLASS I

### LEGEND

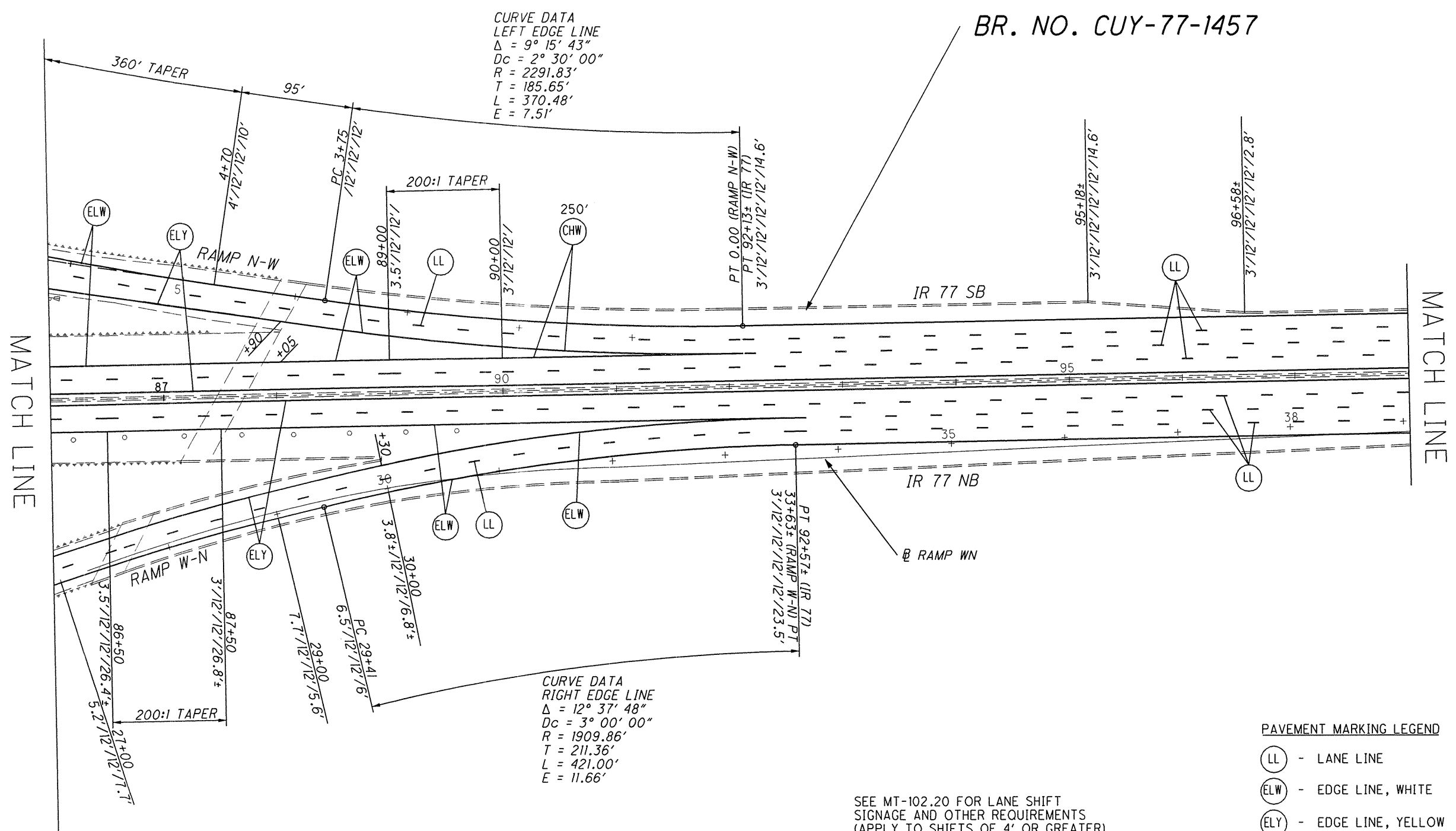
- - DRUMS SPACED AS PER MT-95.30, 1' MIN. OFFSET TO EDGE LINE, (PROVIDE LARGER OFFSET WHEN POSSIBLE)
- - 2'/12'/12'/12'/8' - LANE WIDTHS OR OFFSET FROM TOE OF MEDIAN BARRIER, PARAPET, OR EDGE OF SHOULDER.



DESIGNED BY  
**BURGESS & NIPLE**

**MAINTENANCE OF TRAFFIC  
IR 90 DETOUR VIA IR 490 & IR 77**

**CUY-77-14.58 / VAR**



**CURVE DATA  
LEFT EDGE LINE**  
 $\Delta = 9^\circ 15' 43''$   
 $Dc = 2^\circ 30' 00''$   
 $R = 2291.83'$   
 $T = 185.65'$   
 $L = 370.48'$   
 $E = 7.51'$

**BR. NO. CUY-77-1457**

**CURVE DATA  
RIGHT EDGE LINE**  
 $\Delta = 12^\circ 37' 48''$   
 $Dc = 3^\circ 00' 00''$   
 $R = 1909.86'$   
 $T = 211.36'$   
 $L = 421.00'$   
 $E = 11.66'$

SEE MT-102.20 FOR LANE SHIFT SIGNAGE AND OTHER REQUIREMENTS (APPLY TO SHIFTS OF 4' OR GREATER)

**LEGEND**

- ○ - DRUMS SPACED AS PER MT-95.30, 1' MIN. OFFSET TO EDGE LINE, (PROVIDE LARGER OFFSET WHEN POSSIBLE)
- 2' / 12' / 12' / 12' / 8' - LANE WIDTHS OR OFFSET FROM TOE OF MEDIAN BARRIER, PARAPET, OR EDGE OF SHOULDER.

**PAVEMENT MARKING LEGEND**

- (LL) - LANE LINE
- (ELW) - EDGE LINE, WHITE
- (ELY) - EDGE LINE, YELLOW
- (CHW) - CHANNELIZING LINE, WHITE
- (DL) - DOTTED LINE

WORK ZONE PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CMS 614.11, WORK ZONE PAVEMENT MARKINGS, CLASS I



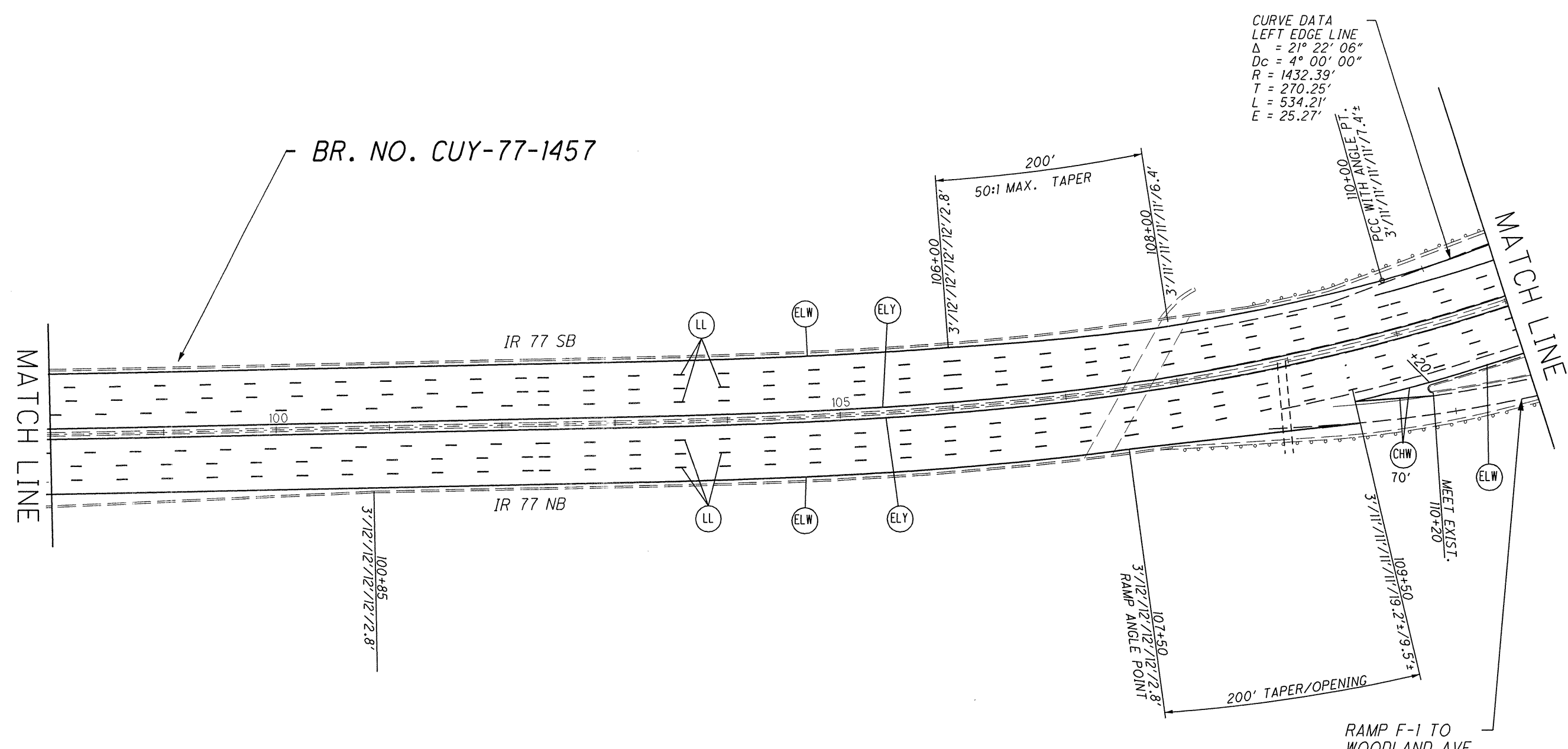


0 25 100  
HORIZONTAL  
SCALE IN FEET

DESIGNED BY  
**BURGESS & NIPLE**

**MAINTENANCE OF TRAFFIC  
IR 90 DETOUR VIA IR 490 & IR 77**

**CUY-77-14.58 / VAR**



**CURVE DATA**  
 LEFT EDGE LINE  
 $\Delta = 21^\circ 22' 06''$   
 $Dc = 4^\circ 00' 00''$   
 $R = 1432.39'$   
 $T = 270.25'$   
 $L = 534.21'$   
 $E = 25.27'$

BR. NO. CUY-77-1457

RAMP F-1 TO  
WOODLAND AVE.

SEE MT-102.20 FOR LANE SHIFT  
SIGNAGE AND OTHER REQUIREMENTS  
(APPLY TO SHIFTS OF 4' OR GREATER)

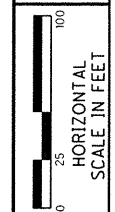
**LEGEND**

- ○ - DRUMS SPACED AS PER MT-95.30, 1' MIN. OFFSET TO EDGE LINE, (PROVIDE LARGER OFFSET WHEN POSSIBLE)
- 2' / 12' / 12' / 12' / 8' - LANE WIDTHS OR OFFSET FROM TOE OF MEDIAN BARRIER, PARAPET, OR EDGE OF SHOULDER.

**PAVEMENT MARKING LEGEND**

- LL - LANE LINE
- ELW - EDGE LINE, WHITE
- ELY - EDGE LINE, YELLOW
- CHW - CHANNELIZING LINE, WHITE
- DL - DOTTED LINE

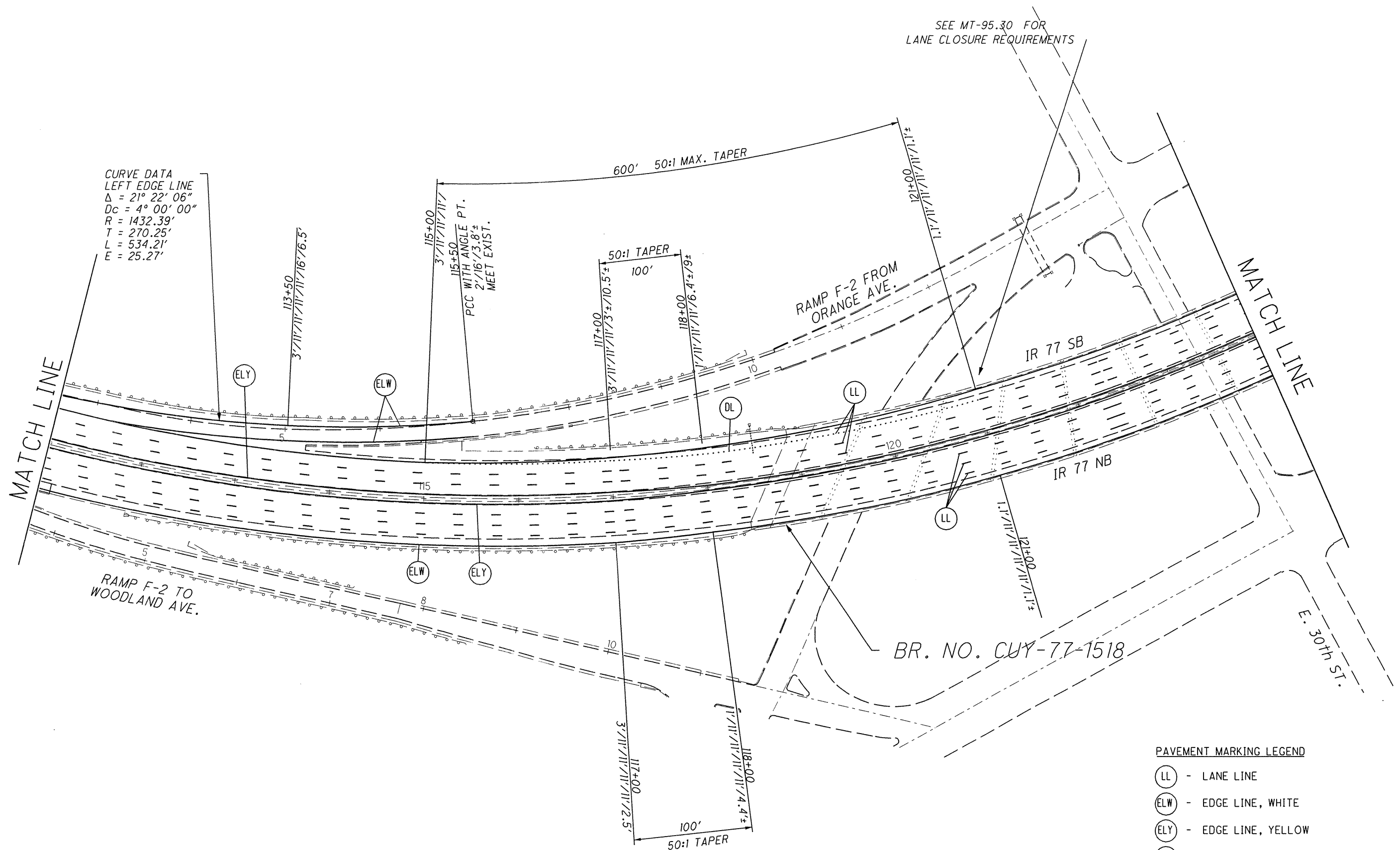
WORK ZONE PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CMS 614.11, WORK ZONE PAVEMENT MARKINGS, CLASS I



DESIGNED BY  
**BURGESS & NIPLÉ**

**MAINTENANCE OF TRAFFIC  
IR 90 DETOUR VIA IR 490 & IR 77**

**CUY-77-14.58 / VAR**



CURVE DATA  
LEFT EDGE LINE  
 $\Delta = 21^\circ 22' 06''$   
 $Dc = 4^\circ 00' 00''$   
 $R = 1432.39'$   
 $T = 270.25'$   
 $L = 534.21'$   
 $E = 25.27'$

SEE MT-95.30 FOR  
LANE CLOSURE REQUIREMENTS

600' 50:1 MAX. TAPER

50:1 TAPER  
100'

RAMP F-2 FROM  
ORANGE AVE.

IR 77 SB

MATCH LINE

IR 77 NB

RAMP F-2 TO  
WOODLAND AVE.

BR. NO. CUY-77-1518

E. 30th ST.

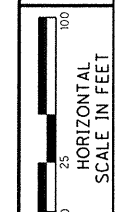
**PAVEMENT MARKING LEGEND**

- (LL) - LANE LINE
- (ELW) - EDGE LINE, WHITE
- (ELY) - EDGE LINE, YELLOW
- (CHW) - CHANNELIZING LINE, WHITE
- (DL) - DOTTED LINE

**LEGEND**

- o - DRUMS SPACED AS PER MT-95.30, 1' MIN. OFFSET TO EDGE LINE, (PROVIDE LARGER OFFSET WHEN POSSIBLE)
- 2' / 12' / 12' / 12' / 8' - LANE WIDTHS OR OFFSET FROM TOE OF MEDIAN BARRIER, PARAPET, OR EDGE OF SHOULDER.

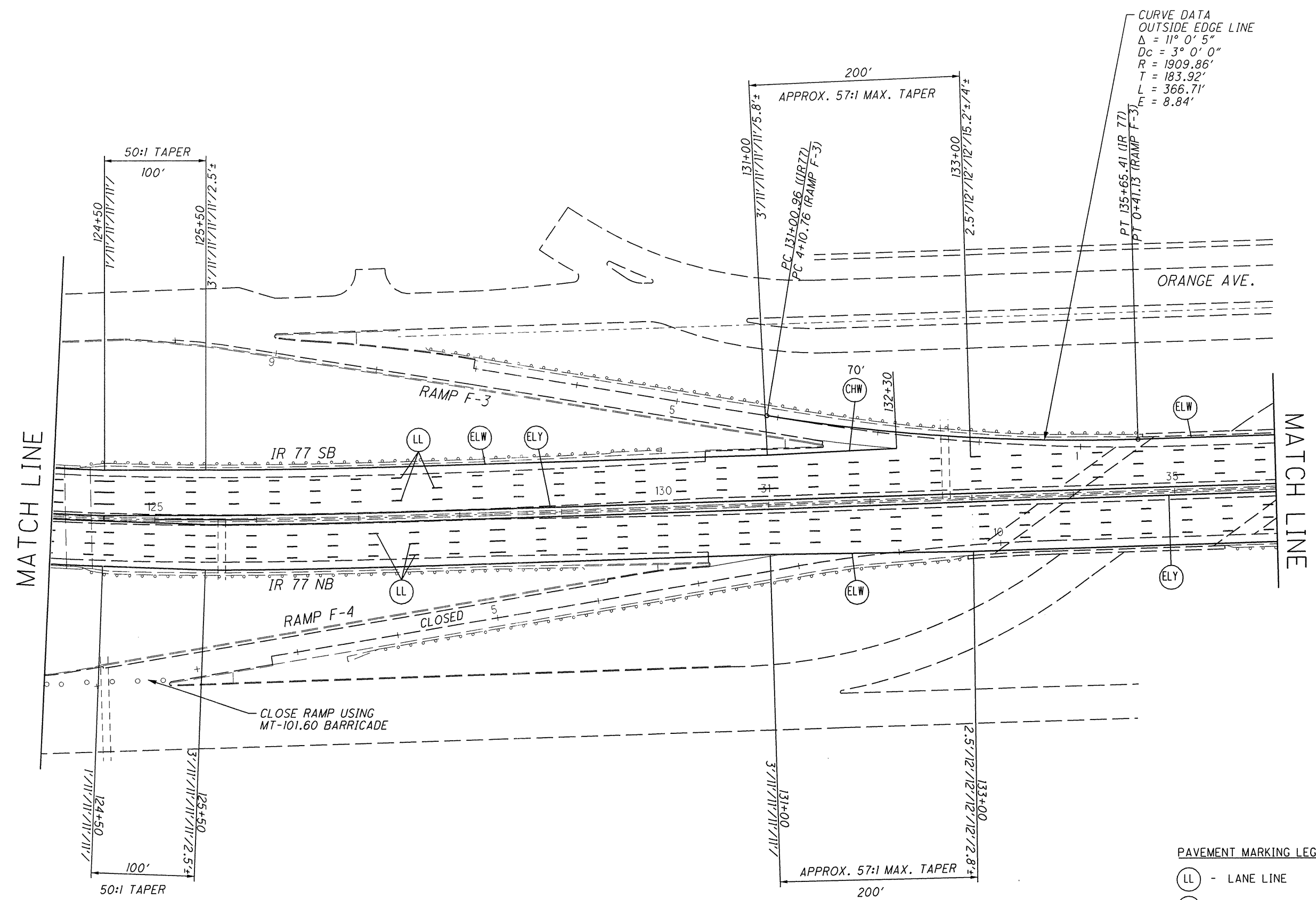
SEE MT-102.20 FOR LANE SHIFT  
SIGNAGE AND OTHER REQUIREMENTS  
(APPLY TO SHIFTS OF 4' OR GREATER)



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**BURGESS & NIPLE**

**MAINTENANCE OF TRAFFIC  
IR 90 DETOUR VIA IR 490 & IR 77**

**CUY-77-14.58 / VAR**



CURVE DATA  
OUTSIDE EDGE LINE

$\Delta$	= 11° 0' 5"
Dc	= 3° 0' 0"
R	= 1909.86'
T	= 183.92'
L	= 366.71'
E	= 8.84'

PAVEMENT MARKING LEGEND

(LL)	- LANE LINE
(ELW)	- EDGE LINE, WHITE
(ELY)	- EDGE LINE, YELLOW
(CHW)	- CHANNELIZING LINE, WHITE
(DL)	- DOTTED LINE

LEGEND

- ○ - DRUMS SPACED AS PER MT-95.30, 1' MIN. OFFSET TO EDGE LINE, (PROVIDE LARGER OFFSET WHEN POSSIBLE)
- 2' / 12' / 12' / 12' / 8' - LANE WIDTHS OR OFFSET FROM TOE OF MEDIAN BARRIER, PARAPET, OR EDGE OF SHOULDER.

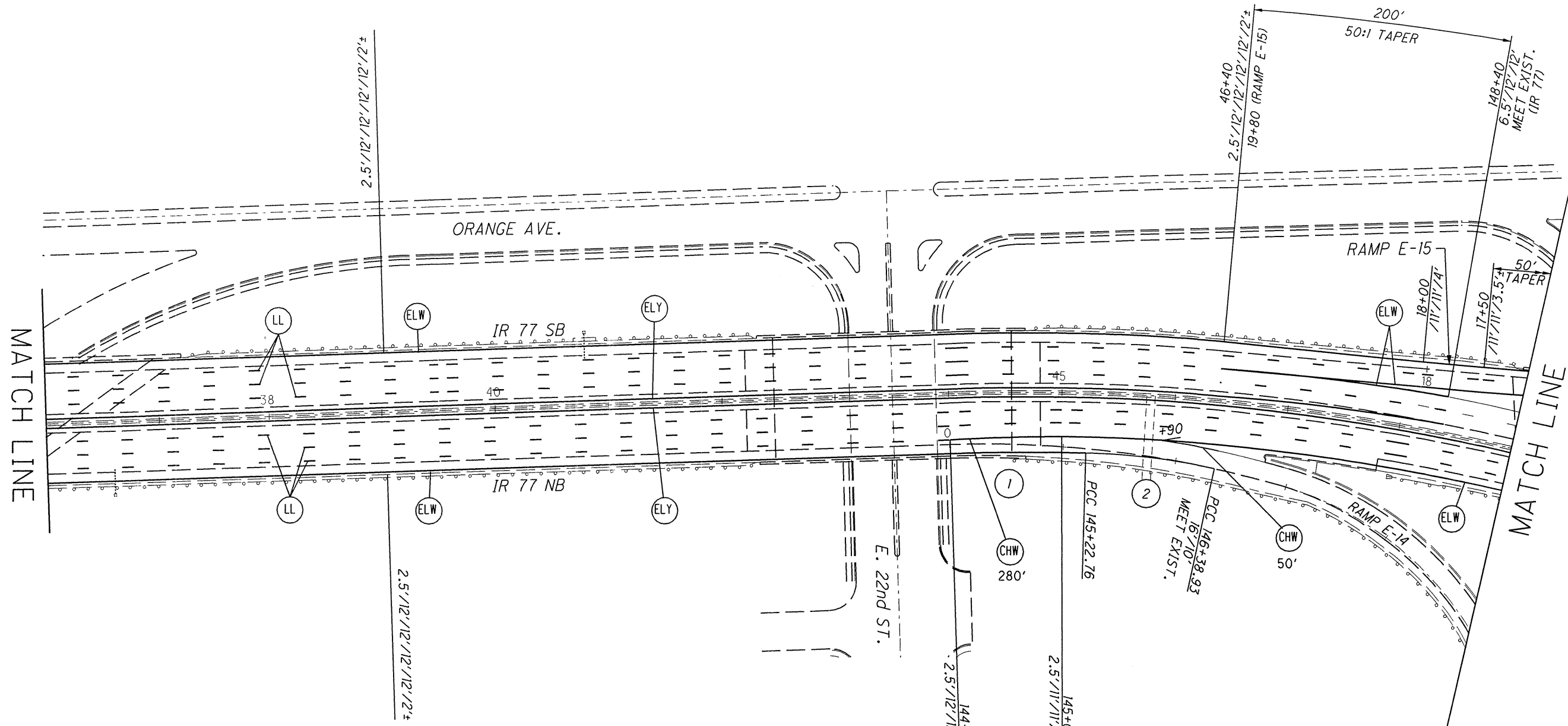
SEE MT-102.20 FOR LANE SHIFT SIGNAGE AND OTHER REQUIREMENTS (APPLY TO SHIFTS OF 4' OR GREATER)



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**MAINTENANCE OF TRAFFIC  
IR 90 DETOUR VIA IR 490 & IR 77**

**CUY-77-14.58 / VAR**



**CURVE DATA  
RIGHT EDGE LINE**

<p>① <math>\Delta = 3^\circ 36' 03''</math>  <math>D_c = 3^\circ 00' 23''</math>  <math>R = 1905.86'</math>  <math>T = 59.91'</math>  <math>L = 119.78'</math>  <math>E = 0.94'</math></p>	<p>② <math>\Delta = 10^\circ 54' 45''</math>  <math>D_c = 9^\circ 32' 57''</math>  <math>R = 600.00'</math>  <math>T = 57.31'</math>  <math>L = 114.28'</math>  <math>E = 2.73'</math></p>
--	--

**LEGEND**

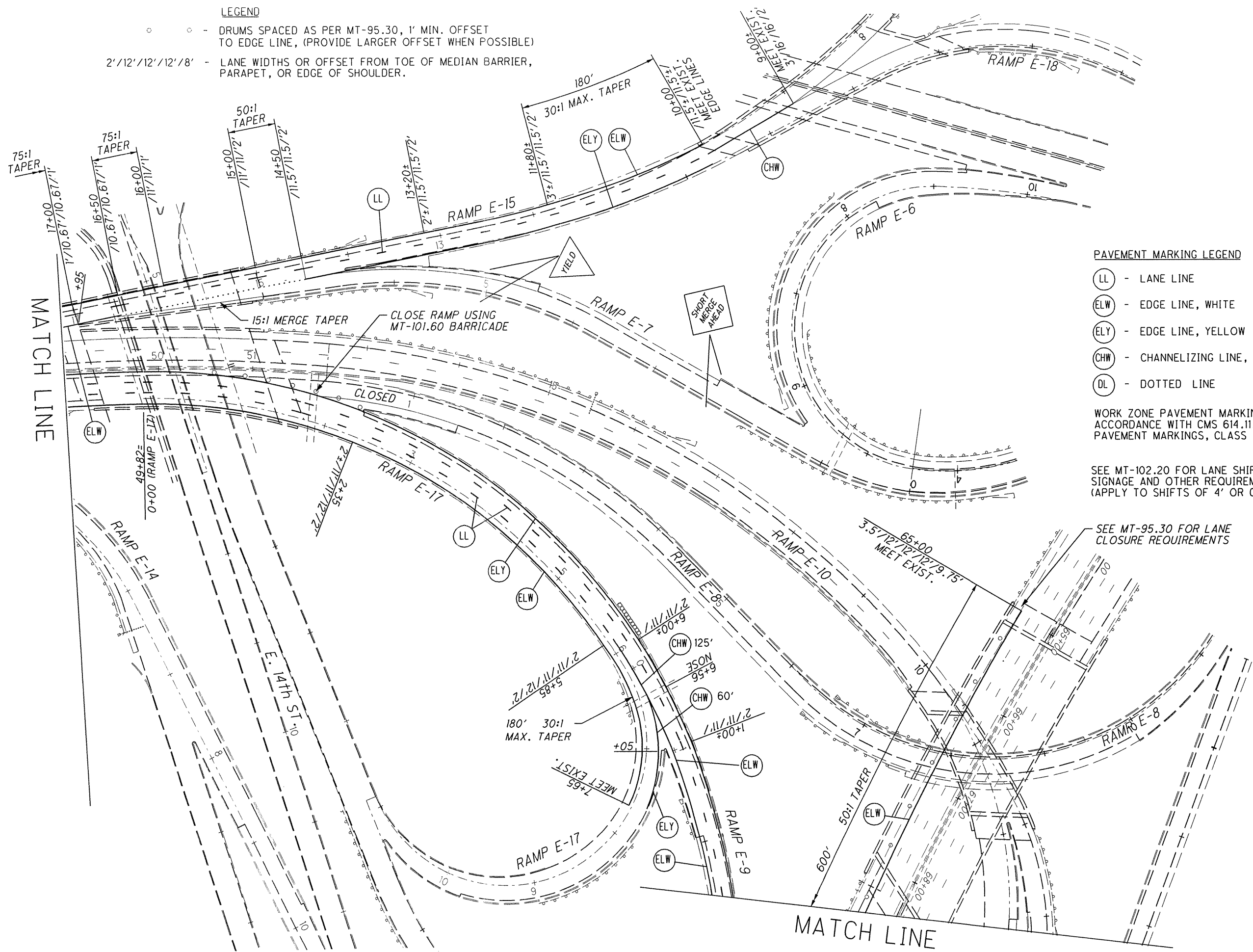
- ○ - DRUMS SPACED AS PER MT-95.30, 1' MIN. OFFSET TO EDGE LINE, (PROVIDE LARGER OFFSET WHEN POSSIBLE)
- 2'/12'/12'/12'/12'/8' - LANE WIDTHS OR OFFSET FROM TOE OF MEDIAN BARRIER, PARAPET, OR EDGE OF SHOULDER.

**PAVEMENT MARKING LEGEND**

- ⊙ - LANE LINE
- ⊖ - EDGE LINE, WHITE
- ⊙ - EDGE LINE, YELLOW
- ⊖ - CHANNELIZING LINE, WHITE
- ⊙ - DOTTED LINE

WORK ZONE PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CMS 614.11, WORK ZONE PAVEMENT MARKINGS, CLASS I

- LEGEND**
- - DRUMS SPACED AS PER MT-95.30, 1' MIN. OFFSET TO EDGE LINE, (PROVIDE LARGER OFFSET WHEN POSSIBLE)
  - 2' / 12' / 12' / 12' / 8' - LANE WIDTHS OR OFFSET FROM TOE OF MEDIAN BARRIER, PARAPET, OR EDGE OF SHOULDER.



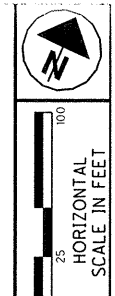
**PAVEMENT MARKING LEGEND**

- LL - LANE LINE
- ELW - EDGE LINE, WHITE
- ELY - EDGE LINE, YELLOW
- CHW - CHANNELIZING LINE, WHITE
- DL - DOTTED LINE

WORK ZONE PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CMS 614.11, WORK ZONE PAVEMENT MARKINGS, CLASS I

SEE MT-102.20 FOR LANE SHIFT SIGNAGE AND OTHER REQUIREMENTS (APPLY TO SHIFTS OF 4' OR GREATER)

SEE MT-95.30 FOR LANE CLOSURE REQUIREMENTS



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IR 90 DETOUR VIA IR 490 & IR 77**

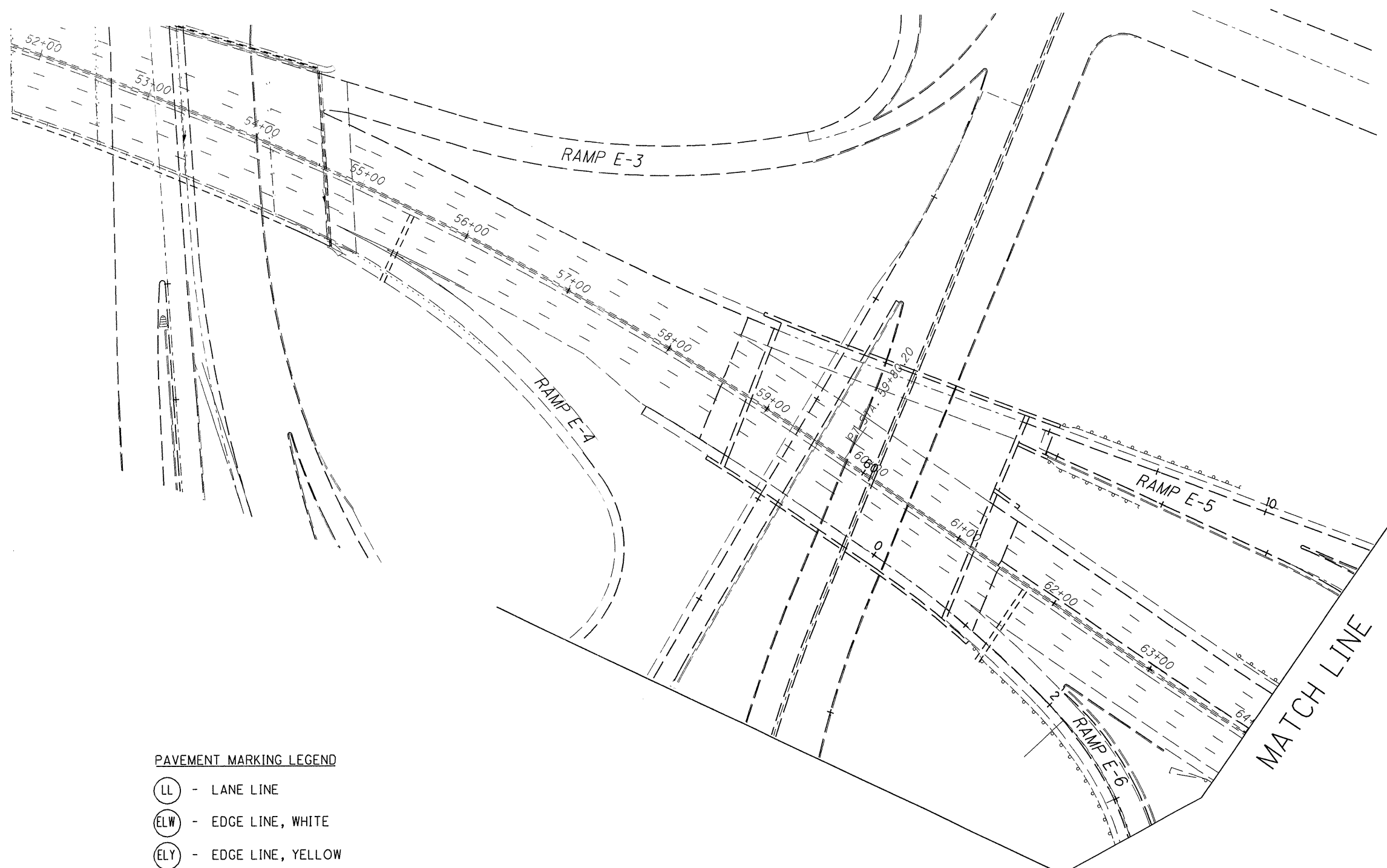
**CUY-77-14.58 / VAR**



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**MAINTENANCE OF TRAFFIC  
IR 90 DETOUR VIA IR 490 & IR 77**

**CUY-77-14.58/VAR**



**PAVEMENT MARKING LEGEND**

- (LL) - LANE LINE
- (ELW) - EDGE LINE, WHITE
- (ELY) - EDGE LINE, YELLOW
- (CHW) - CHANNELIZING LINE, WHITE
- (DL) - DOTTED LINE

WORK ZONE PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CMS 614.11, WORK ZONE PAVEMENT MARKINGS, CLASS I

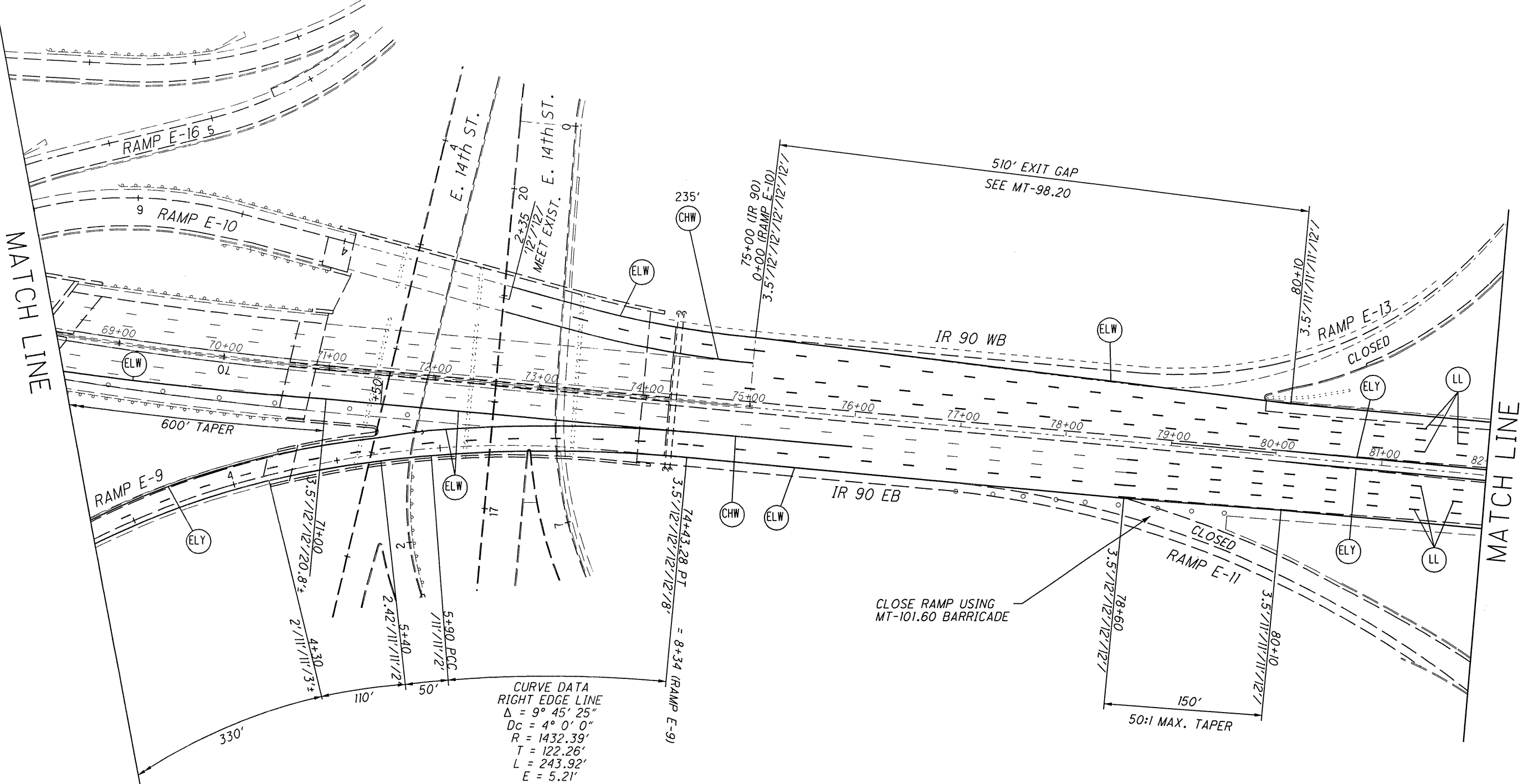
SEE MT-102.20 FOR LANE SHIFT SIGNAGE AND OTHER REQUIREMENTS (APPLY TO SHIFTS OF 4' OR GREATER)



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**MAINTENANCE OF TRAFFIC  
IR 90 DETOUR VIA IR 490 & IR 77**

**CUY-77-14.58 / VAR**

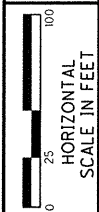


- PAVEMENT MARKING LEGEND**
- ⊘ - LANE LINE
  - ⊘ - EDGE LINE, WHITE
  - ⊘ - EDGE LINE, YELLOW
  - ⊘ - CHANNELIZING LINE, WHITE
  - ⊘ - DOTTED LINE

- LEGEND**
- ○ - DRUMS SPACED AS PER MT-95.30, 1' MIN. OFFSET TO EDGE LINE, (PROVIDE LARGER OFFSET WHEN POSSIBLE)
  - 2' / 12' / 12' / 12' / 8' - LANE WIDTHS OR OFFSET FROM TOE OF MEDIAN BARRIER, PARAPET, OR EDGE OF SHOULDER.

SEE MT-102.20 FOR LANE SHIFT SIGNAGE AND OTHER REQUIREMENTS (APPLY TO SHIFTS OF 4' OR GREATER)

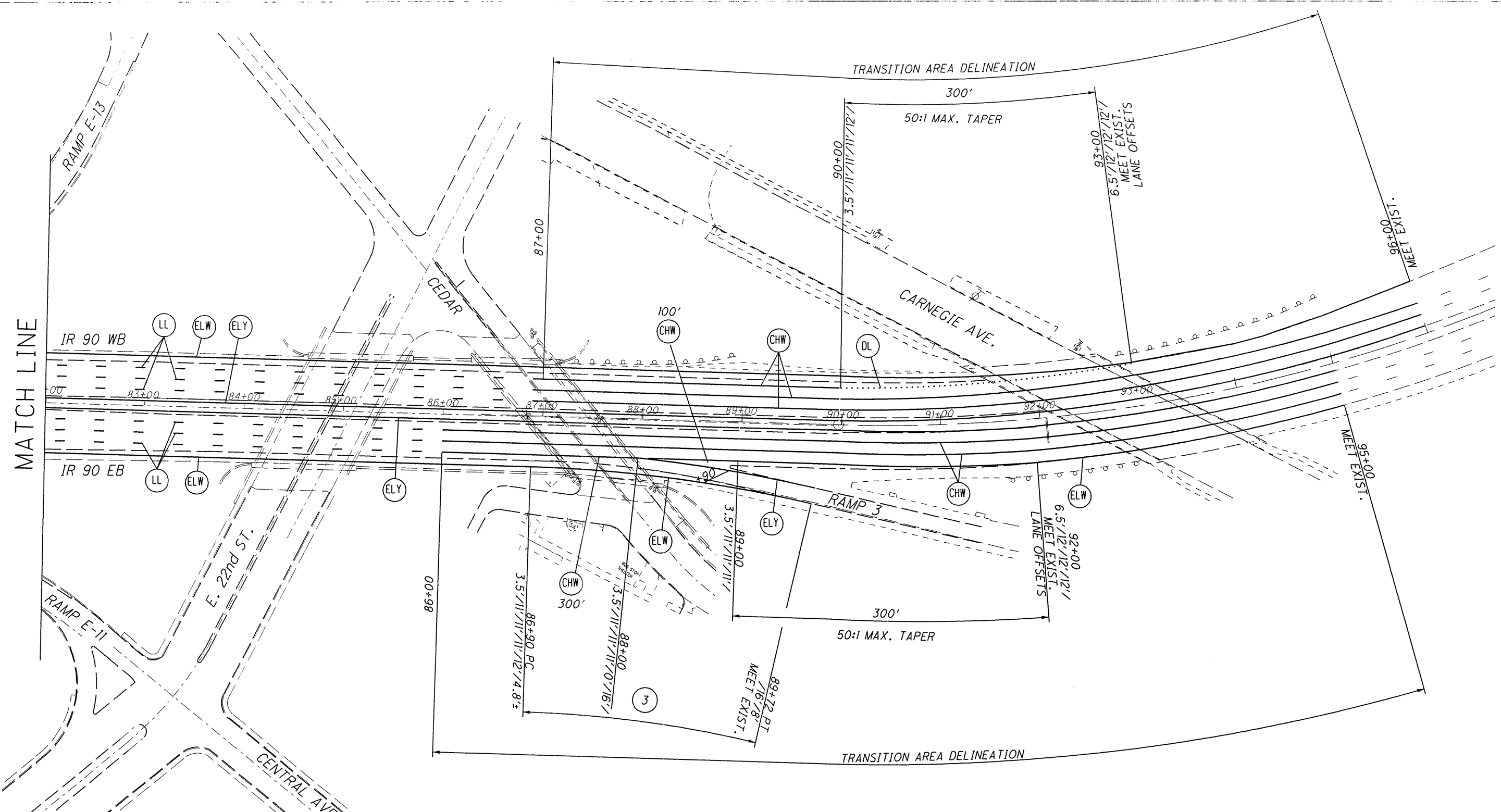
WORK ZONE PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CMS 614.11, WORK ZONE PAVEMENT MARKINGS, CLASS I



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**BURGESS & NIPLE**

**MAINTENANCE OF TRAFFIC  
IR 90 DETOUR VIA IR 490 & IR 77**

**CUY-77-14.58 / VAR**



③ CURVE DATA  
RIGHT EDGE LINE  
Δ = 11° 23' 27"  
Dc = 4° 00' 00"  
R = 1432.39'  
T = 142.86'  
L = 284.77'  
E = 7.11'

**LEGEND**

- ○ - DRUMS SPACED AS PER MT-95.30, 1' MIN. OFFSET TO EDGE LINE, (PROVIDE LARGER OFFSET WHEN POSSIBLE)
- 2'/12'/12'/12'/8' - LANE WIDTHS OR OFFSET FROM TOE OF MEDIAN BARRIER, PARAPET, OR EDGE OF SHOULDER.

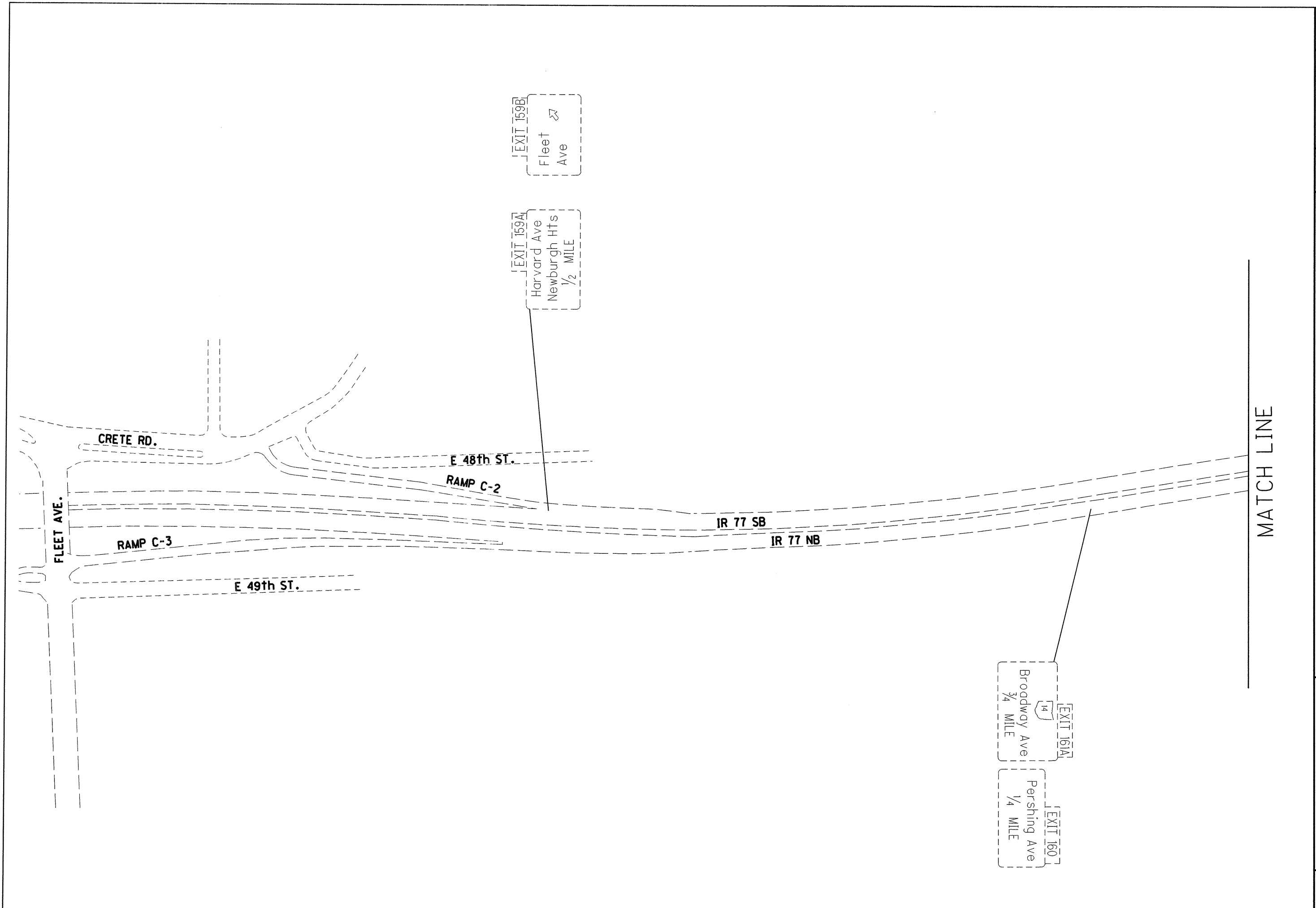
**PAVEMENT MARKING LEGEND**

- ⊙ - LANE LINE
- ⊖ - EDGE LINE, WHITE
- ⊙ - EDGE LINE, YELLOW
- ⊖ - CHANNELIZING LINE, WHITE
- ⊙ - DOTTED LINE

SEE MT-102.20 FOR LANE SHIFT SIGNAGE AND OTHER REQUIREMENTS (APPLY TO SHIFTS OF 4' OR GREATER)

WORK ZONE PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CMS 614.11, WORK ZONE PAVEMENT MARKINGS, CLASS I





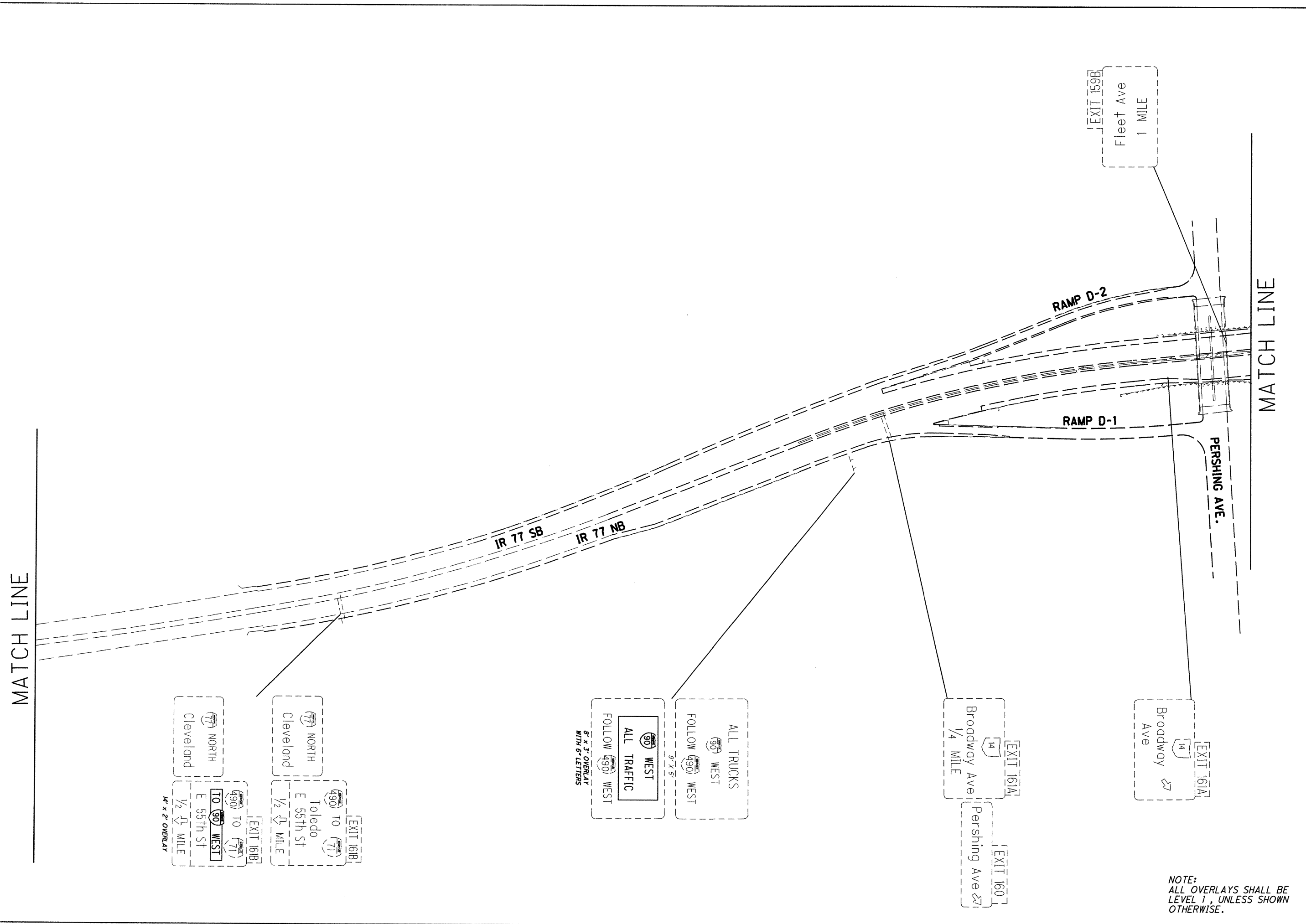
CALCULATED BY  
JTP  
CHECKED

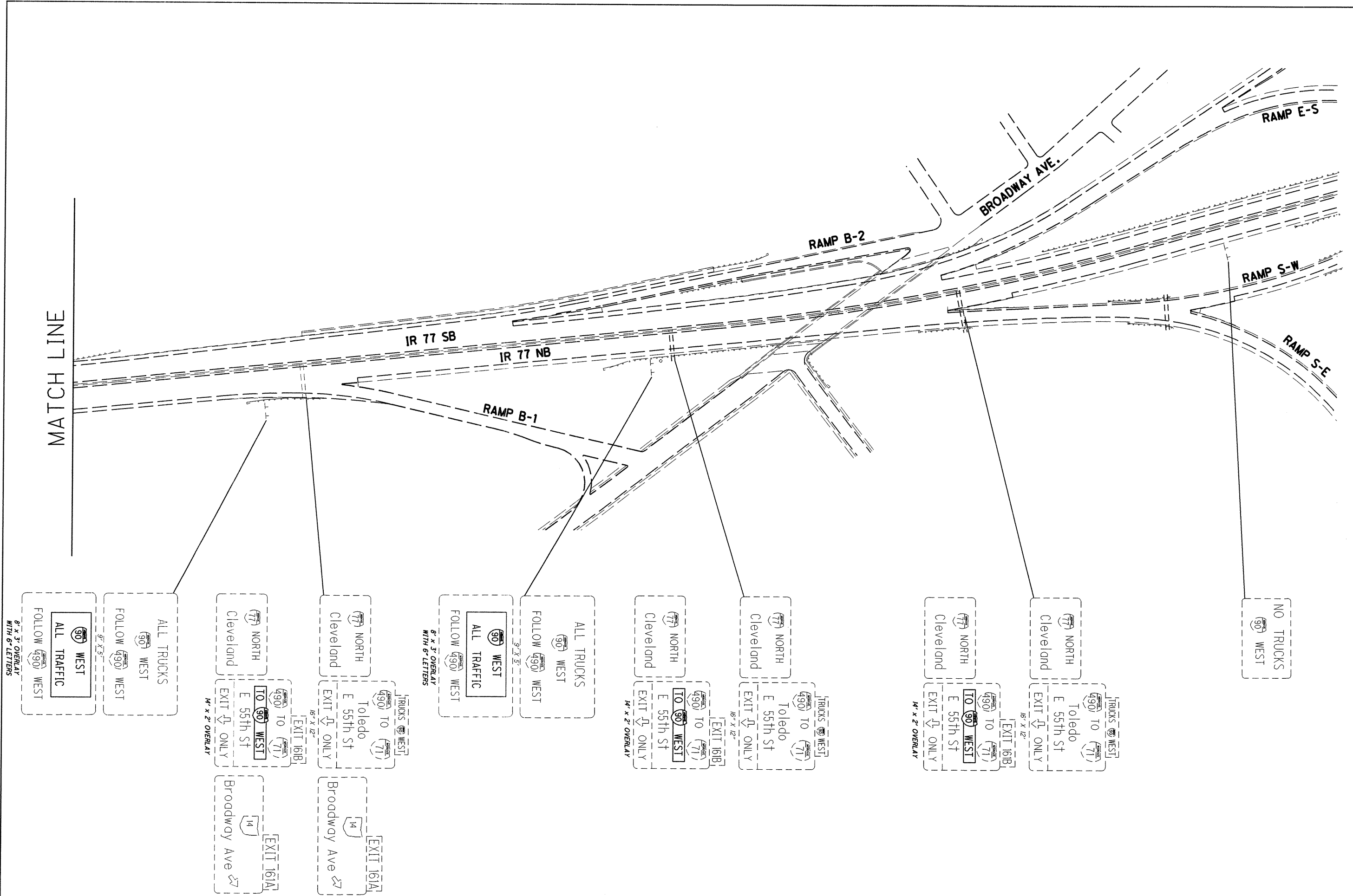
0 50 100 200  
HORIZONTAL SCALE IN FEET

N

**MAJOR SIGN REVISIONS**  
**RAMP E-8 CLOSURE**

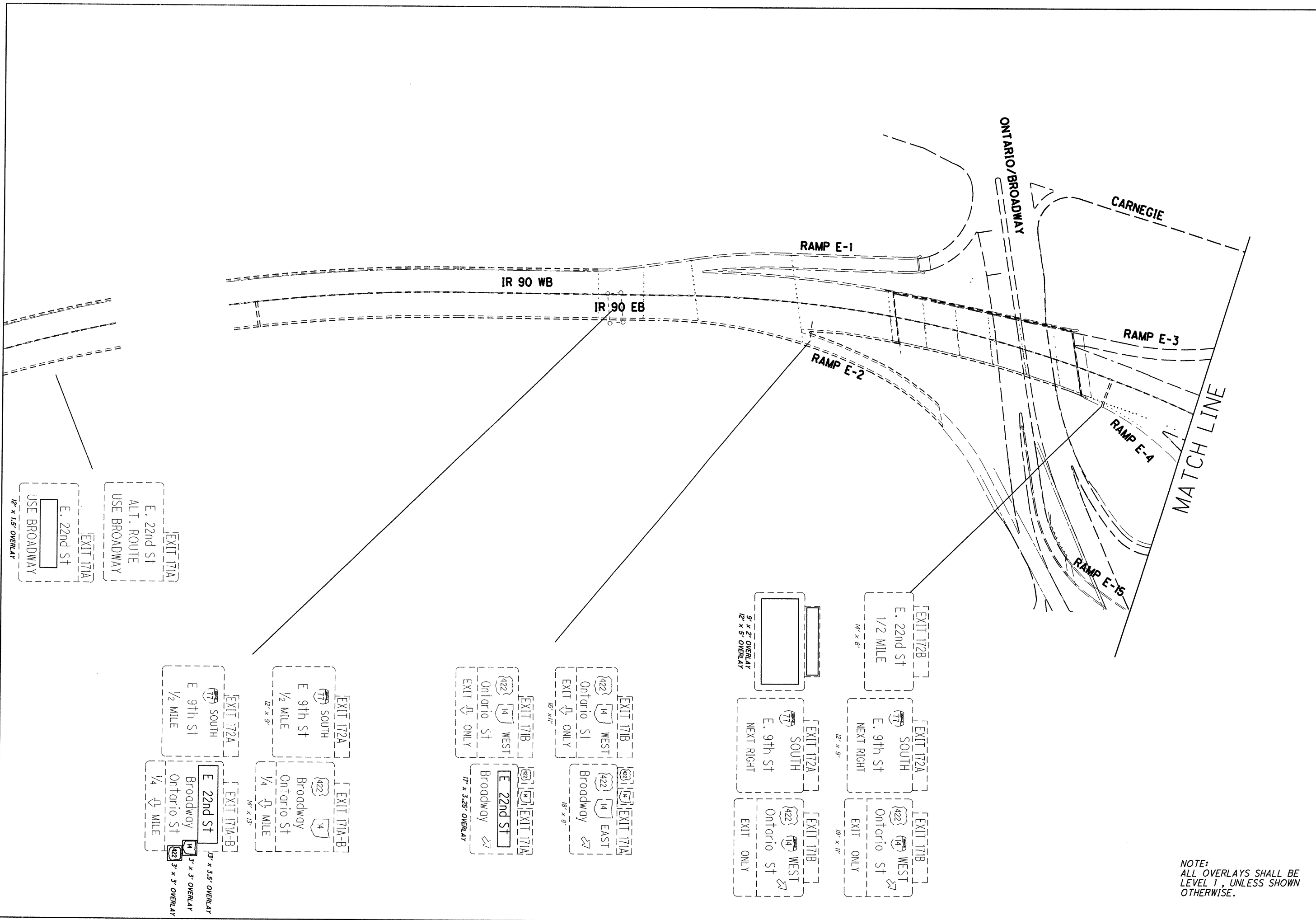
**CUY-77-14.58 / VAR**





NOTE:  
ALL OVERLAYS SHALL BE LEVEL 1, UNLESS SHOWN OTHERWISE.

  HORIZONTAL SCALE IN FEET
CALCULATED BY: JTP CHECKED BY:
MAJOR SIGN REVISIONS RAMP E-8 CLOSURE
CUY-77-14.58 / VAR
<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">25</div>



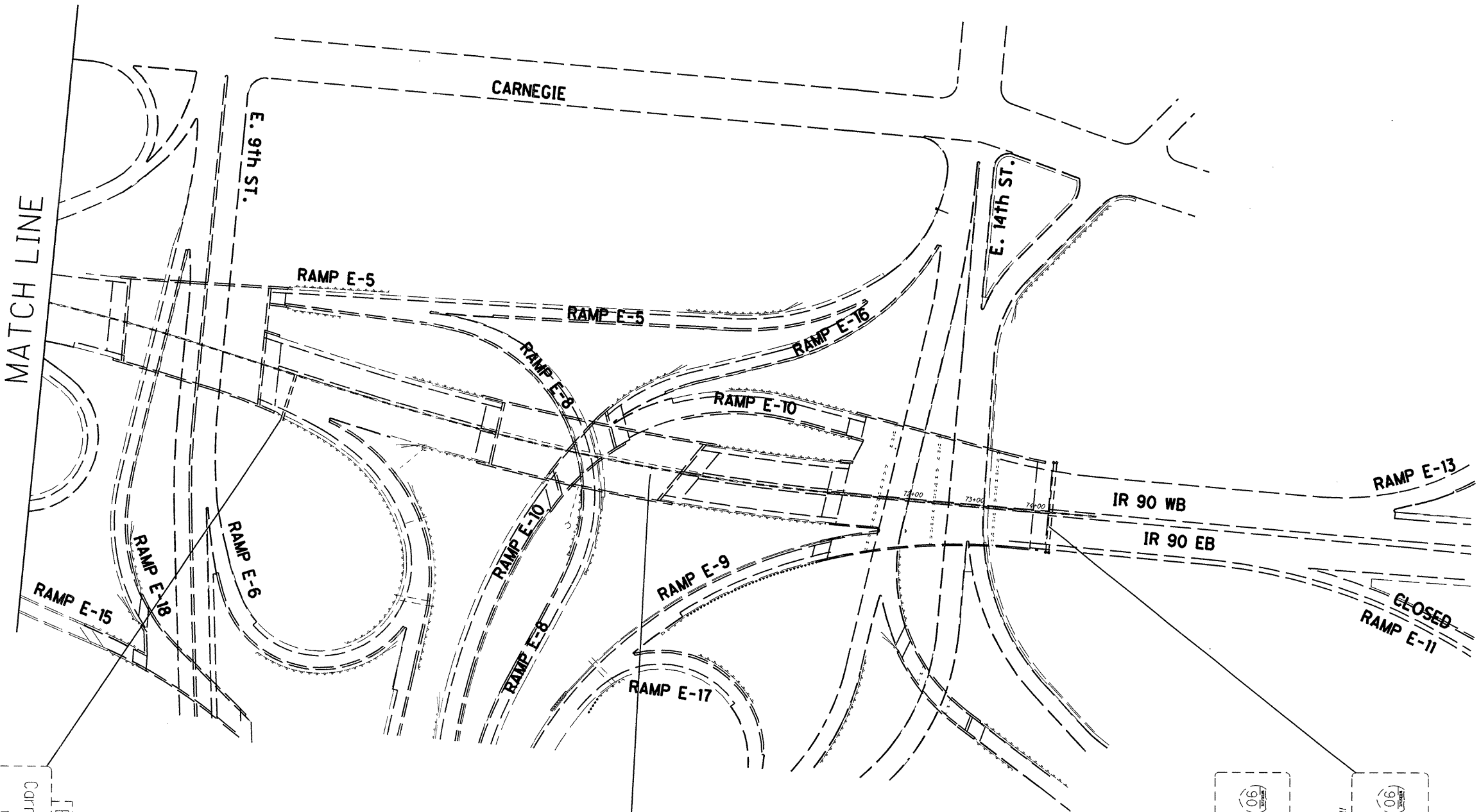
NOTE:  
 ALL OVERLAYS SHALL BE  
 LEVEL 1, UNLESS SHOWN  
 OTHERWISE.



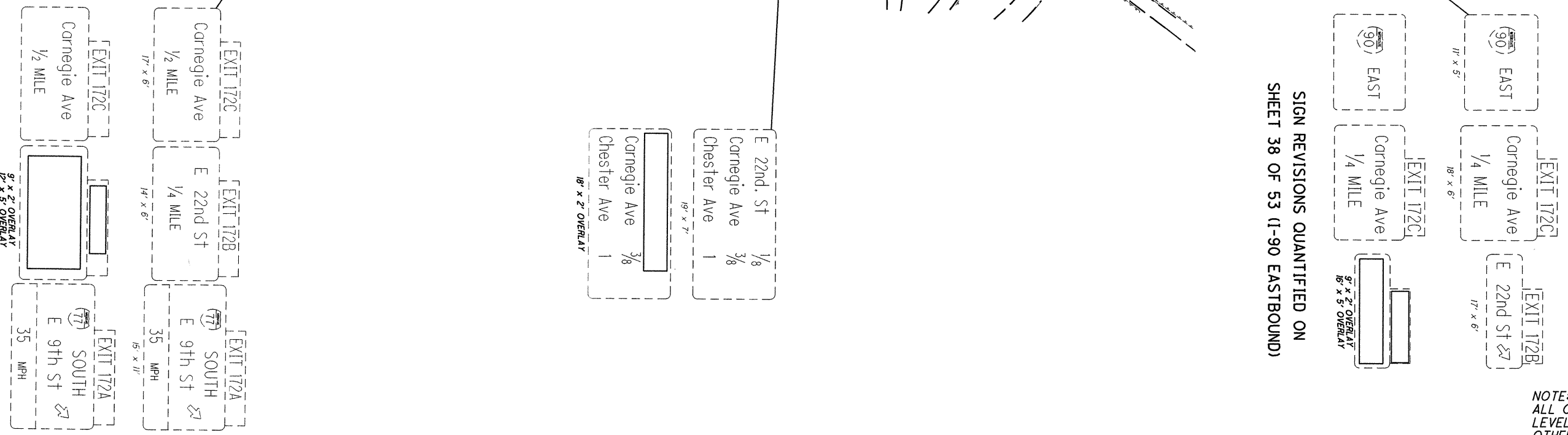
CALCULATED  
JTP  
CHECKED

**MAJOR SIGN REVISIONS  
RAMP E-11 CLOSURE**

**CUY-77-14.58 / VAR**

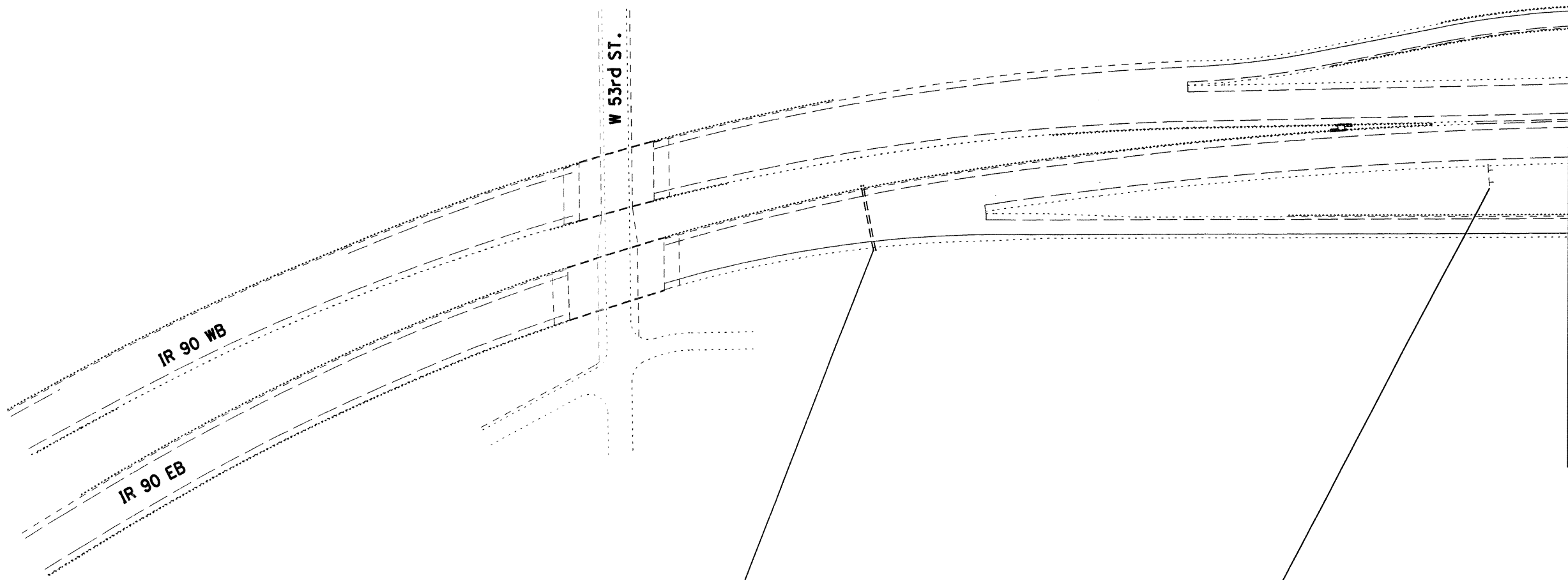


SIGN REVISIONS QUANTIFIED ON  
SHEET 38 OF 53 (I-90 EASTBOUND)



NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.

MATCH LINE



9' x 7'  
ALL TRUCKS  
90 EAST  
FOLLOW 490 EAST  
TO 77 NORTH

8' x 6' OVERLAY  
WITH 6" LETTERS  
90 EAST  
AVOID DELAYS  
USE ALT ROUTE

14' x 10'  
TRUCKS 90 EAST  
EAST TO  
EXIT 1 1/4 MILES

14' x 9'  
EXIT 170A  
42  
W 25th St  
1 MILE  
18' x 9'  
EXIT 169  
W 44th St  
W 41th St  
EXIT ONLY

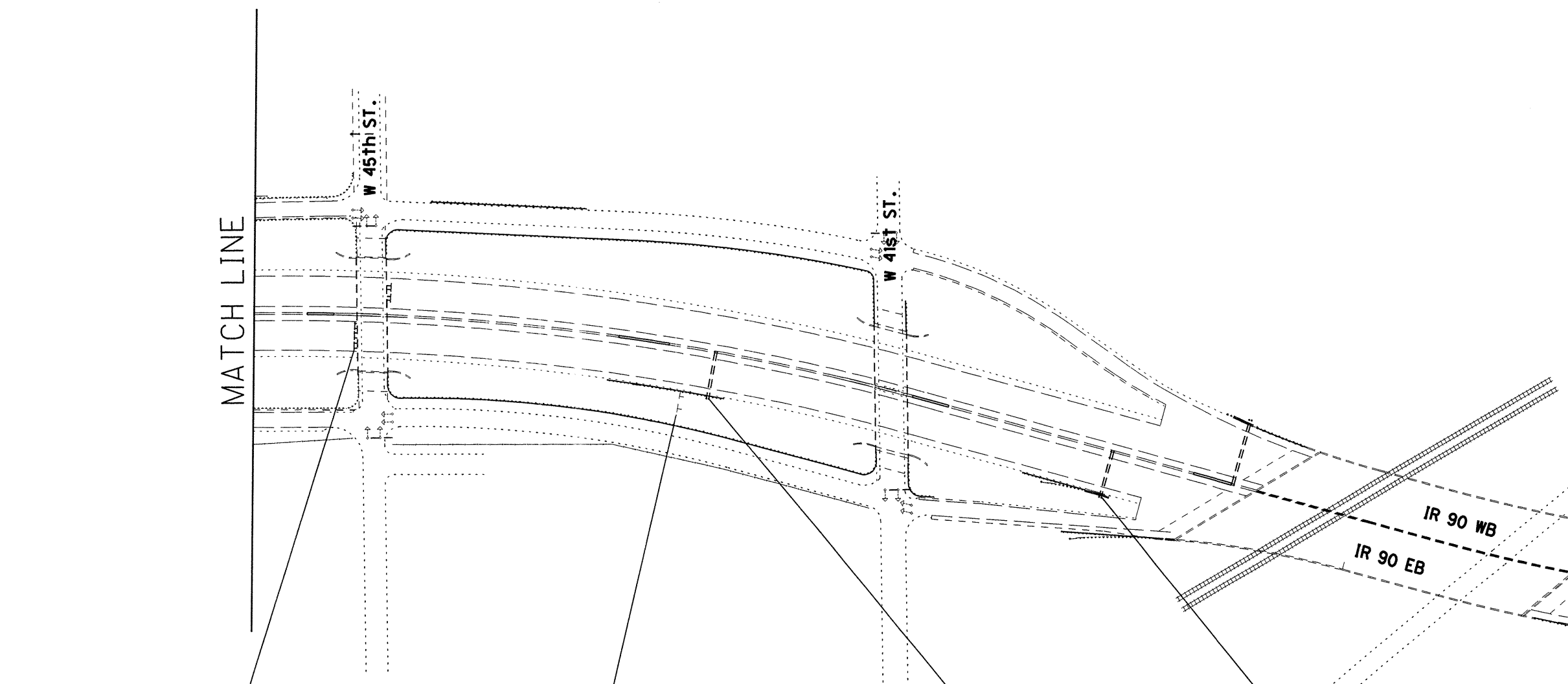
13.5' x 6' OVERLAY  
TRUCKS 90 EAST  
EAST TO ALT  
EXIT 1 1/4 MILES

14' x 9'  
EXIT 170A  
42  
W 25th St  
1 MILE  
18' x 9'  
EXIT 169  
W 44th St  
W 41th St  
EXIT ONLY

NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.

MATCH LINE

MATCH LINE



EXIT 170B  
 SOUTH  
 Columbus  
 3/4 MILE

EXIT 170A  
 W 25th St  
 1/2 MILE

TRUCKS TO EAST  
 EAST TO EAST  
 MUST USE ALT ROUTE

EXIT ONLY

NO TRUCKS  
 EAST  
 Cleveland

ALL TRUCKS  
 EAST  
 FOLLOW EAST  
 TO NORTH

EAST  
 AVOID DELAYS  
 USE ALT ROUTE

TRUCKS TO EAST  
 EAST TO EAST  
 MUST USE ALT ROUTE

EXIT 1 MILE

NO TRUCKS  
 EAST  
 Cleveland

EXIT 170B  
 SOUTH  
 Columbus  
 1 MILE

ALL TRUCKS  
 EAST  
 MUST USE ALT ROUTE

EXIT 1 MILE

NO TRUCKS  
 EAST  
 Cleveland

EXIT 170B  
 SOUTH  
 Columbus  
 1 MILE

NOTE:  
 ALL OVERLAYS SHALL BE  
 LEVEL 1, UNLESS SHOWN  
 OTHERWISE.

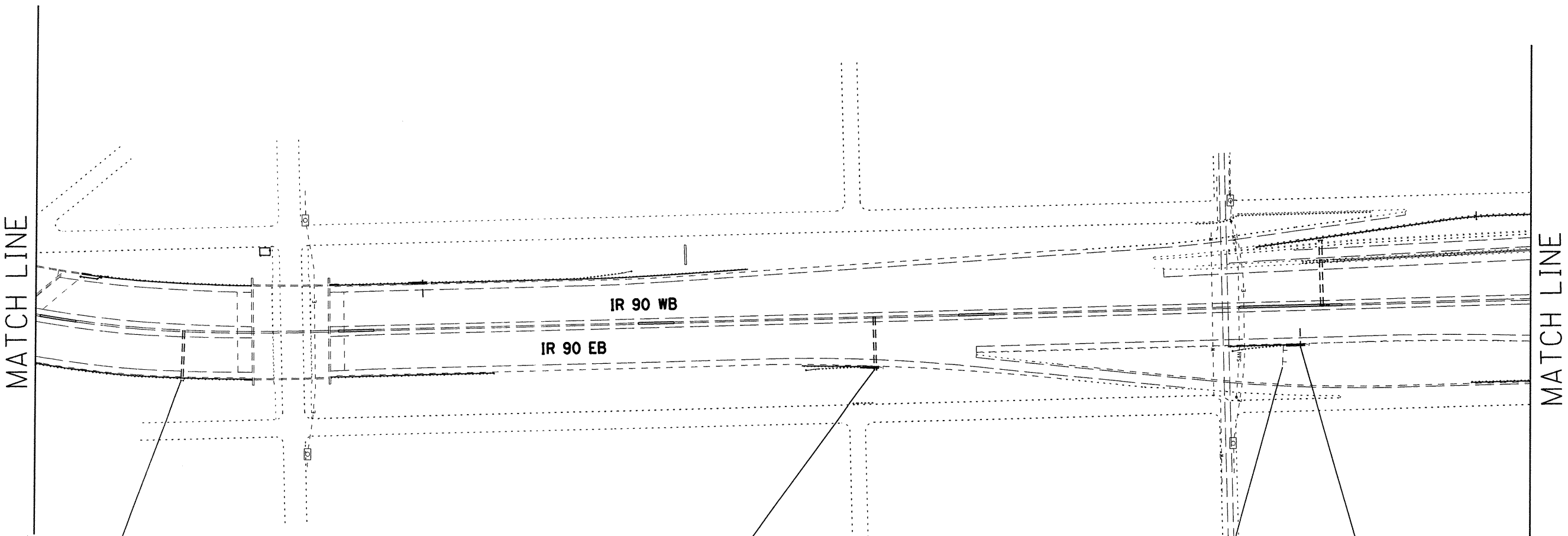


0 50 100 200  
HORIZONTAL  
SCALE IN FEET

CALCULATED  
JTP  
CHECKED

**MAINTENANCE OF TRAFFIC  
IR90 EASTBOUND ALT. ROUTE**

**CUY-77-14.58 / VAR**



17' x 13' OVERLAY  
KEEP LEFT  
USE ALT ROUTE  
EAST

17' x 10'  
EXIT 170C  
EAST TO  
EXIT ONLY

16' x 9'  
EXIT 170B  
SOUTH  
Columbus  
1/2 MILE

15' x 11'  
EXIT 170A  
W 25th St  
EXIT ONLY

EXIT 170B  
SOUTH  
Columbus  
1/2 MILE

EXIT 170A  
W 25th St  
EXIT ONLY

8' x 2' OVERLAY  
ALL TRUCKS  
EAST TO  
MUST USE  
ALT ROUTE  
EXIT ONLY

17' x 10'  
NO TRUCKS  
EAST  
Cleveland  
EXIT ONLY

17' x 11'  
EXIT 170A  
W 25th St  
EXIT ONLY

17' x 10'  
TRUCKS TO  
EAST TO  
EXIT ONLY

17' x 10'  
NO TRUCKS  
EAST  
Cleveland  
EXIT ONLY

17' x 11'  
EXIT 170A  
W 25th St  
EXIT ONLY

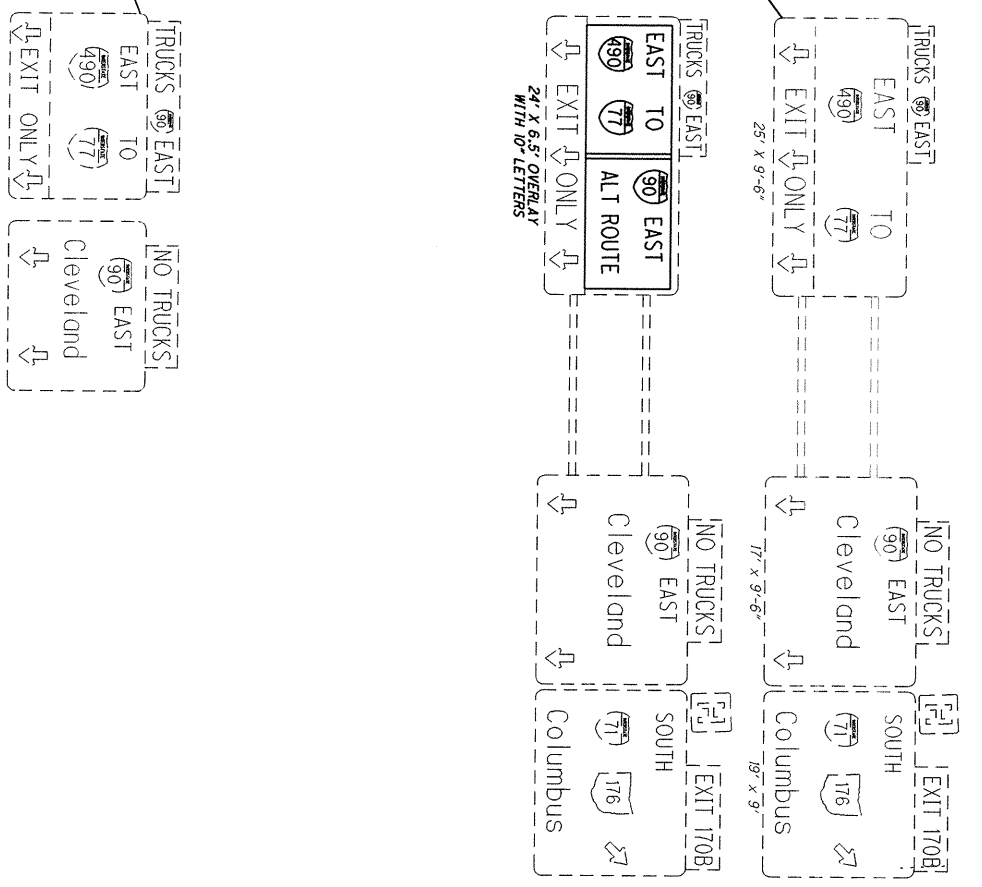
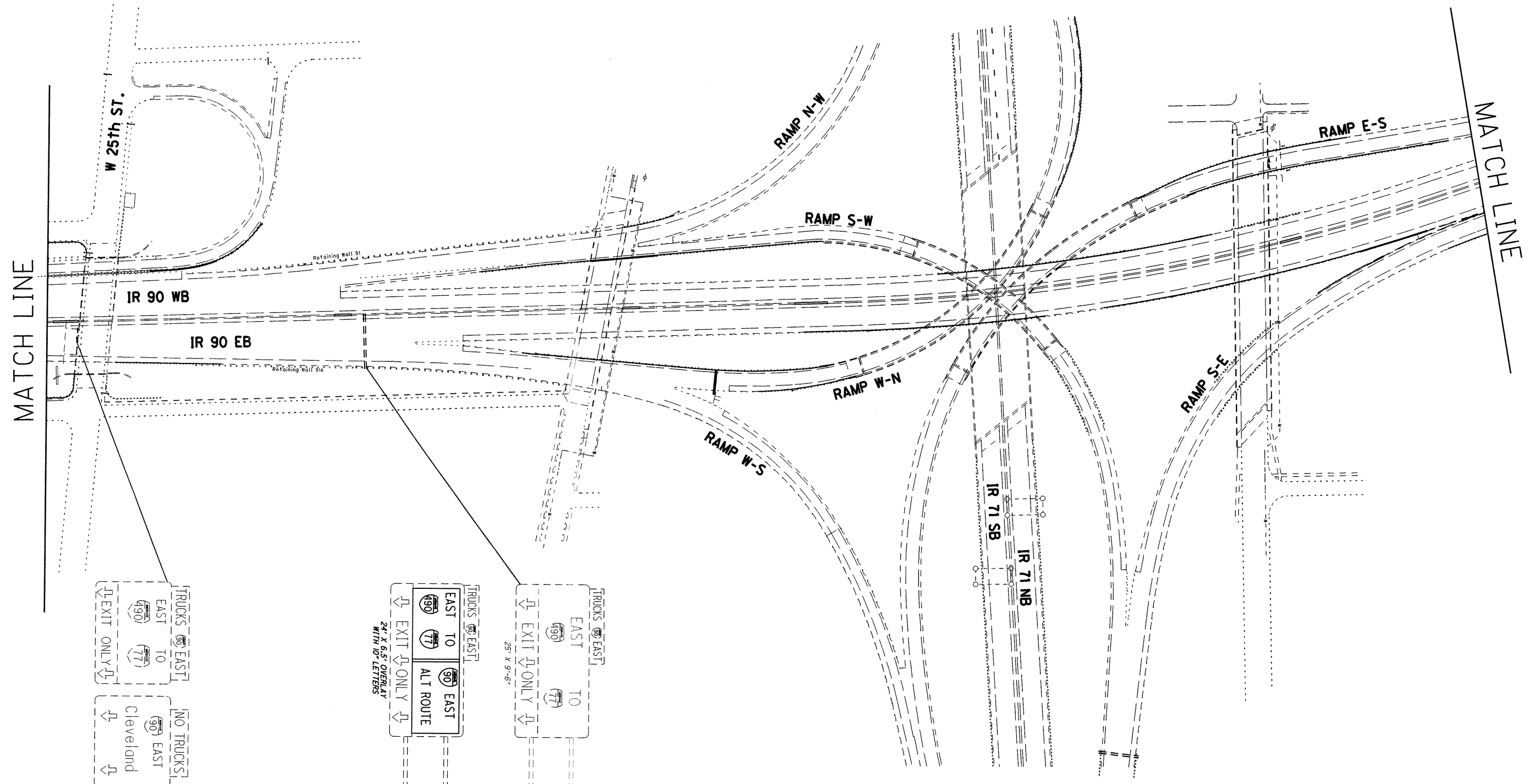
8' x 6' OVERLAY  
WITH 6'-LETTERS  
EAST  
AVOID DELAYS  
USE ALT ROUTE

9' x 7'  
ALL TRUCKS  
EAST  
FOLLOW EAST  
TO NORTH

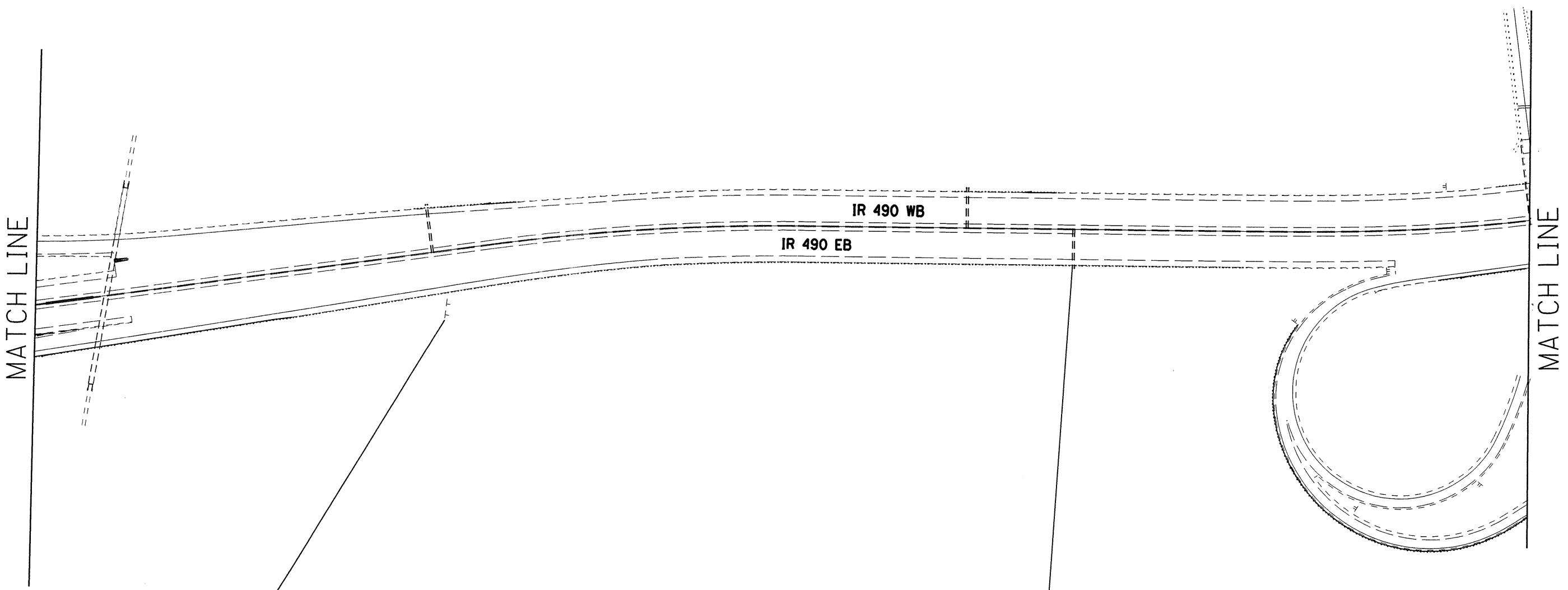
16' x 9'  
EXIT 170B  
SOUTH  
Columbus  
NEXT RIGHT

NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.





NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.



8' x 6' OVERLAY WITH 6" LETTERS  
 EAST  
 ALI ROUTE  
 KEEP RIGHT

13' x 2' OVERLAY WITH 10" LETTERS

TRUCKS EAST  
 Akron Downtown  
 1 MILE

TRUCKS EAST  
 Akron  
 1 MILE

EXIT 2A  
 Broadway 3/4 MILE

EXIT 2A  
 Broadway 3/4 MILE

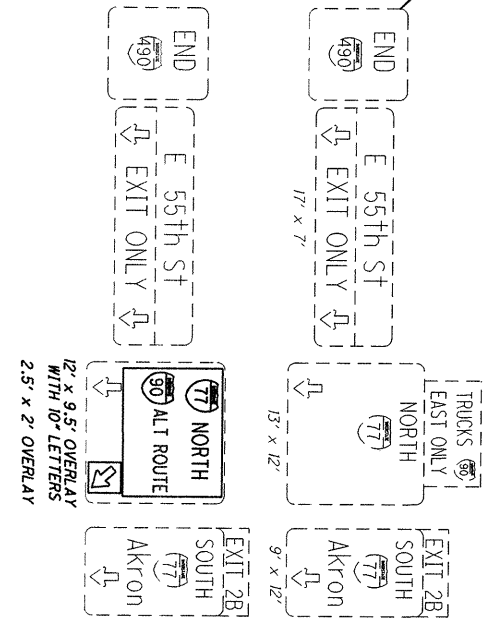
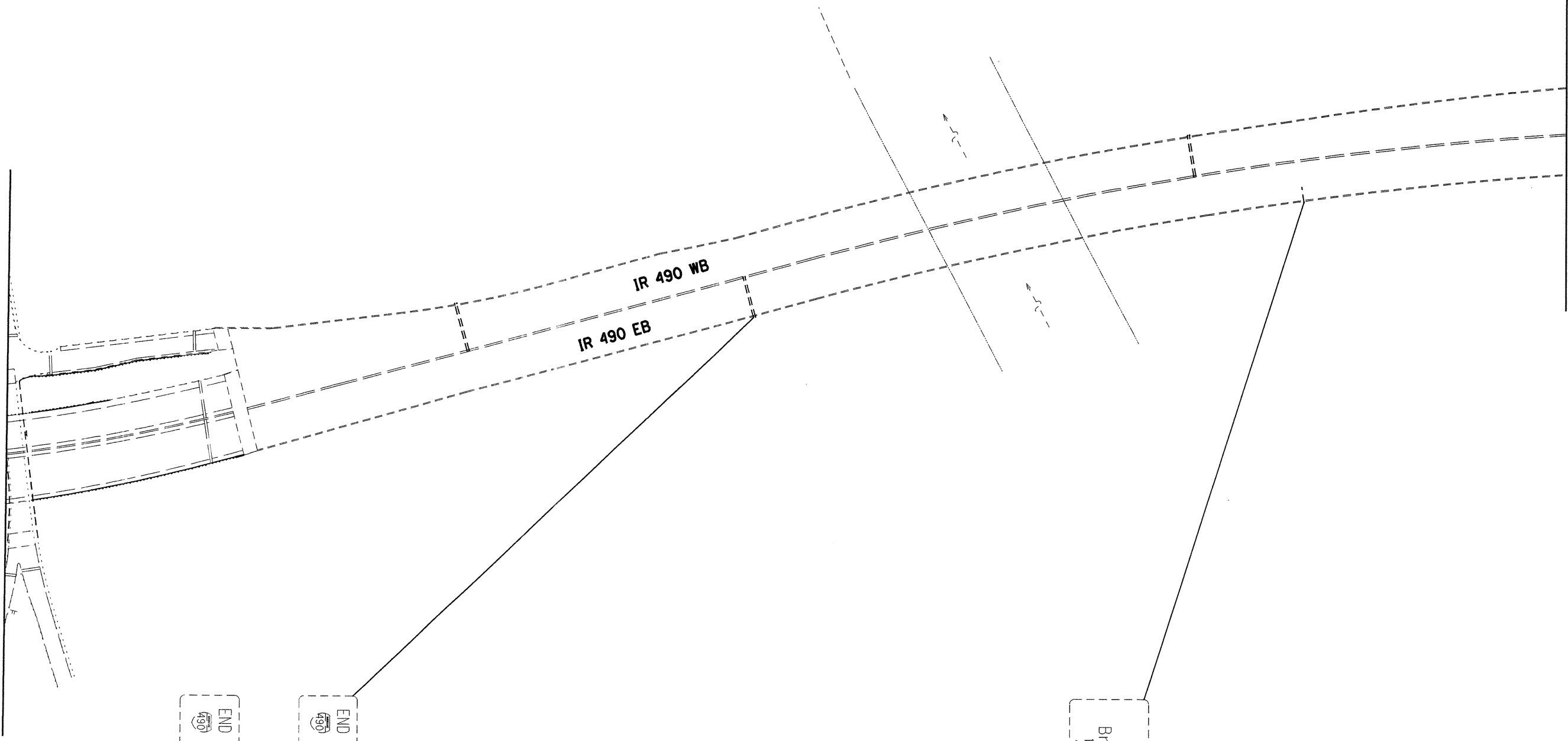
EXIT 2A  
 Broadway 3/4 MILE

NOTE:  
 ALL OVERLAYS SHALL BE LEVEL 1, UNLESS SHOWN OTHERWISE.

I-90 EASTBOUND

MATCH LINE

MATCH LINE

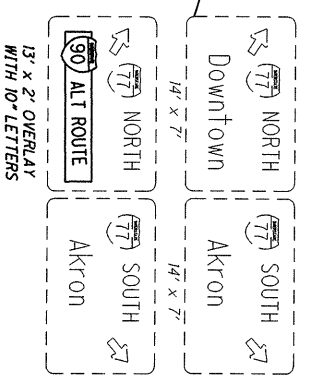
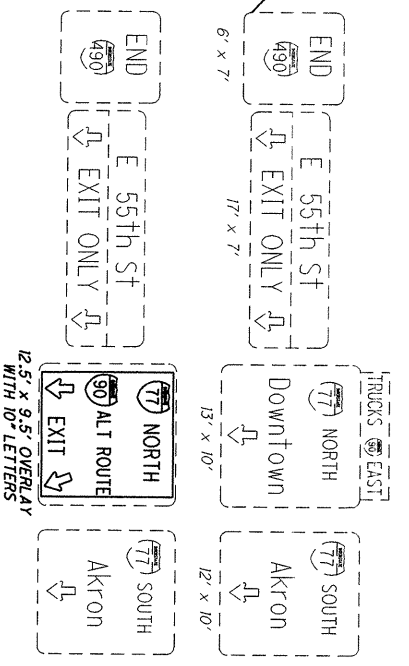
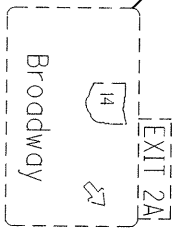
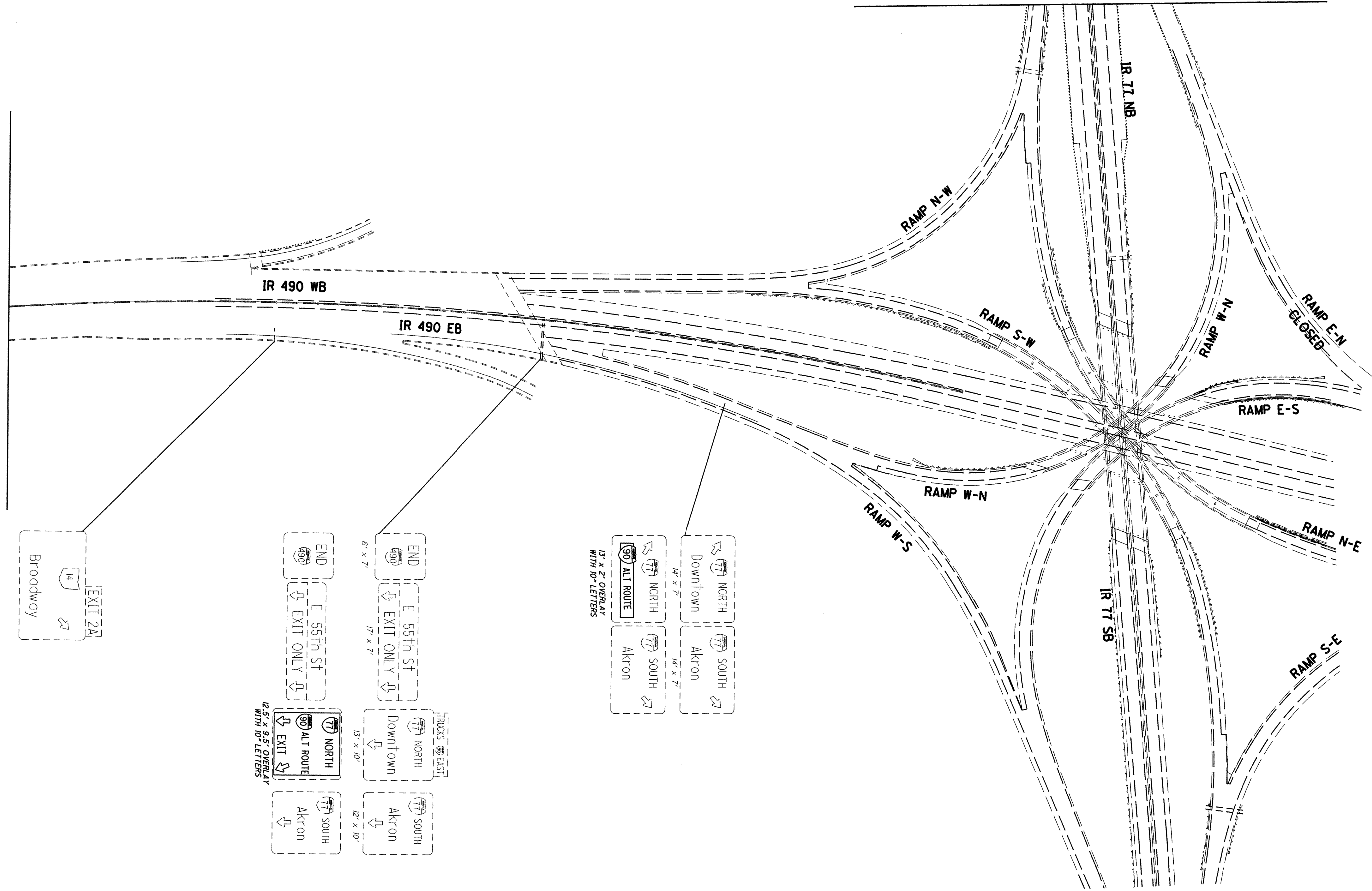


NOTE:  
 ALL OVERLAYS SHALL BE  
 LEVEL 1, UNLESS SHOWN  
 OTHERWISE.

I-90 EASTBOUND

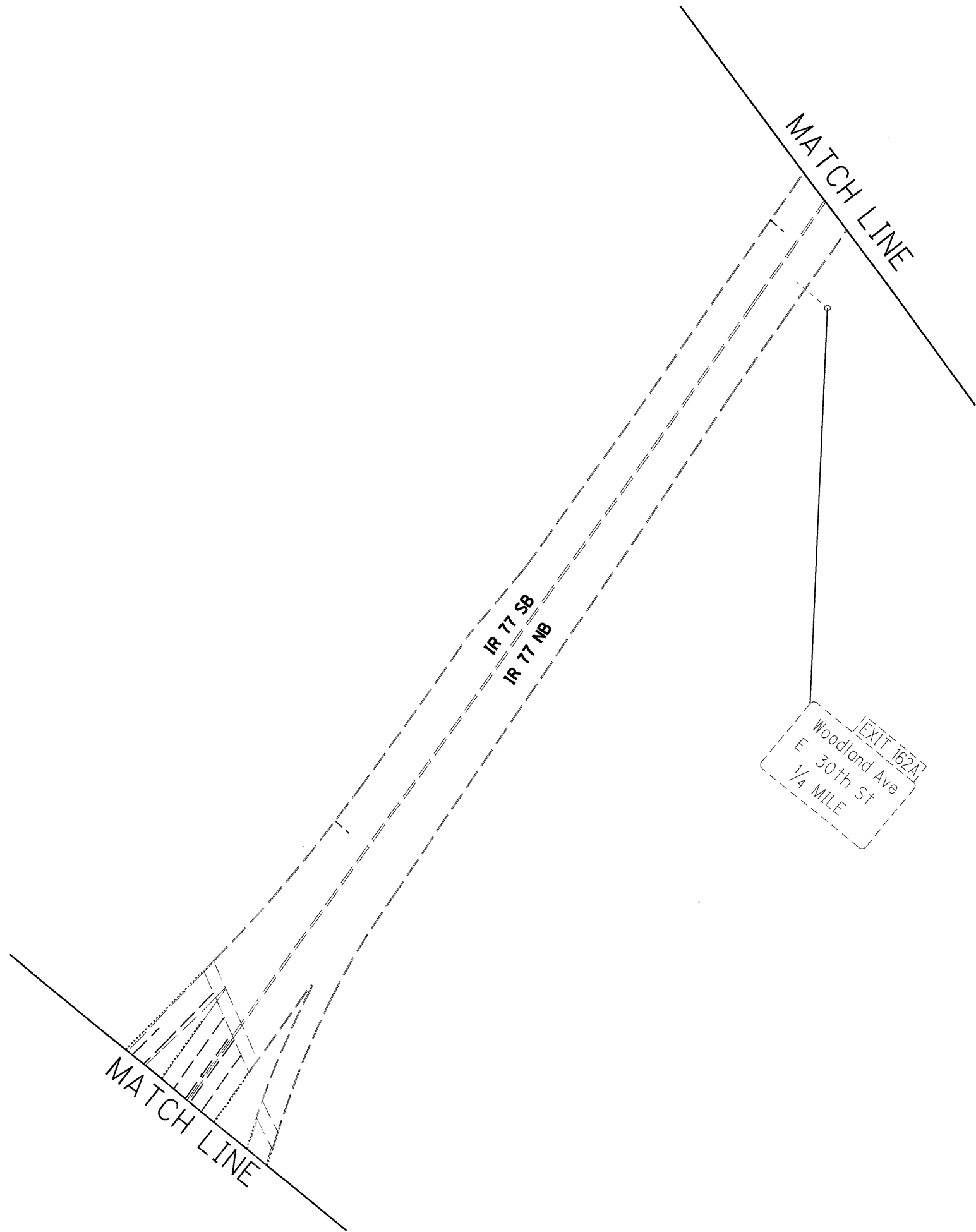
MATCH LINE

MATCH LINE



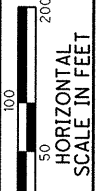
NOTE:  
ALL OVERLAYS SHALL BE LEVEL 1, UNLESS SHOWN OTHERWISE.

I-90 EASTBOUND



NOTE:  
 ALL OVERLAYS SHALL BE  
 LEVEL 1, UNLESS SHOWN  
 OTHERWISE.

I-90 EASTBOUND



CALCULATED  
 JTP  
 CHECKED

MAJOR SIGN REVISIONS  
 IR90 EASTBOUND ALTERNATE ROUTE

CUY-77-14.58 / VAR



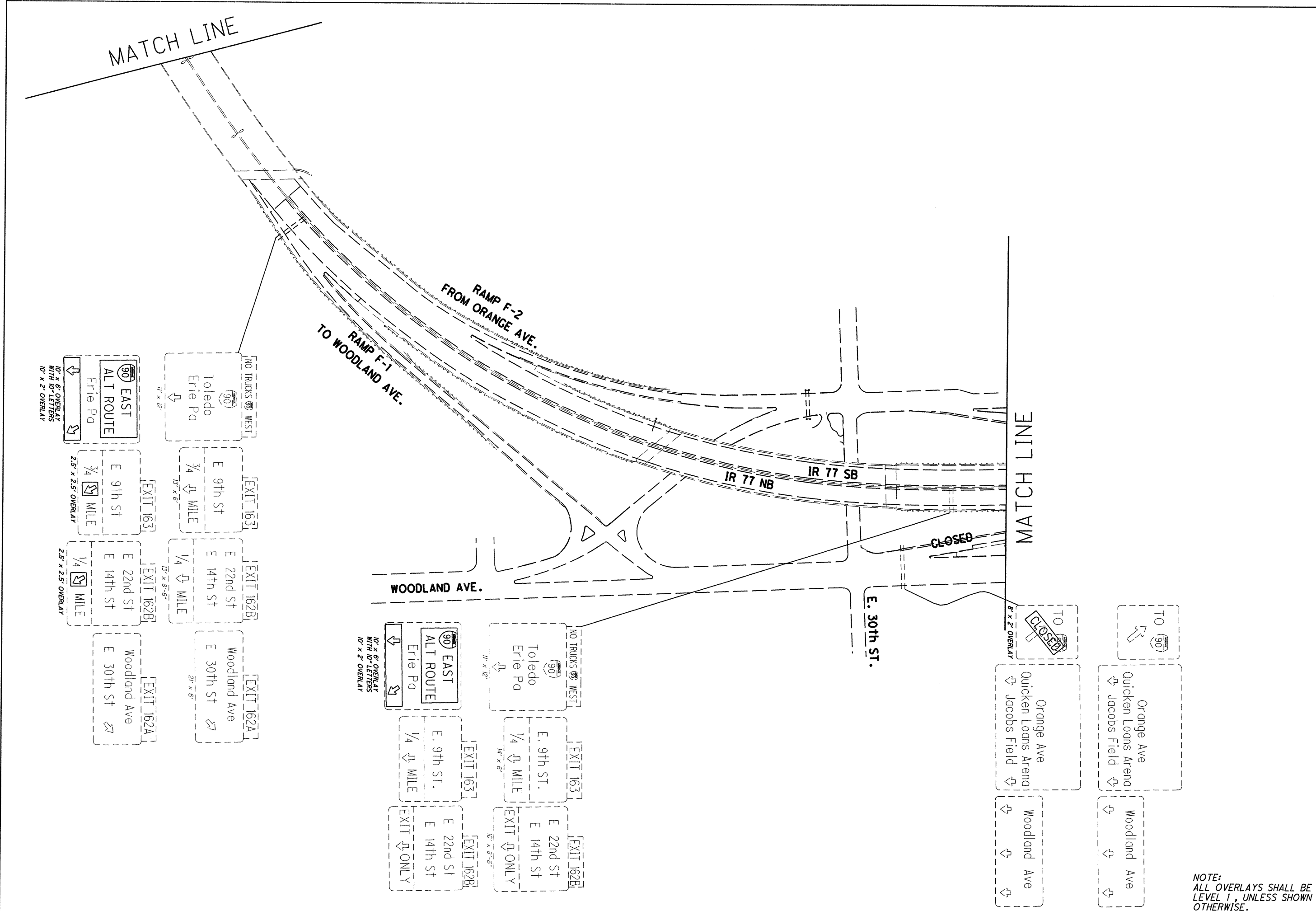
0 100 200  
HORIZONTAL SCALE IN FEET

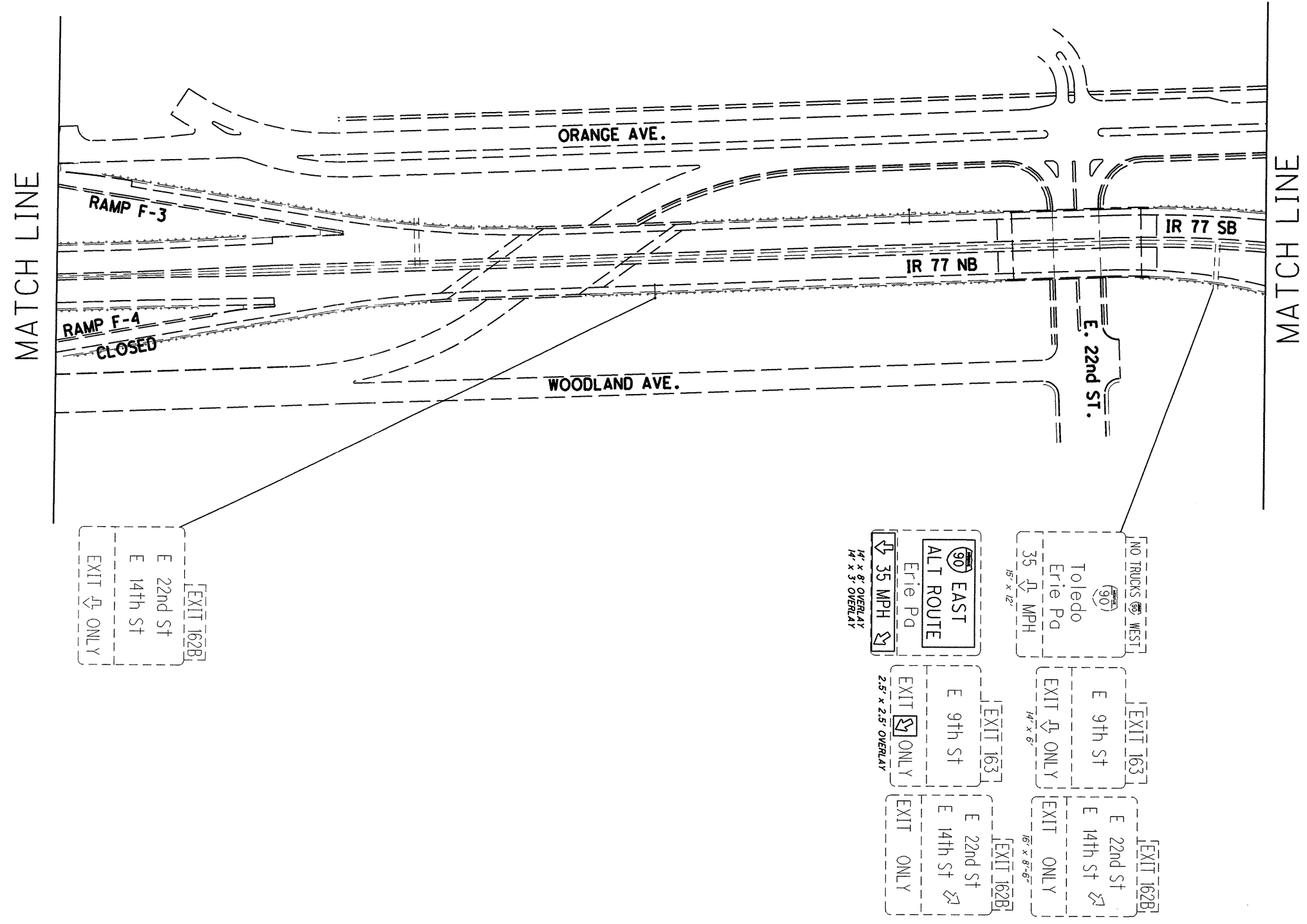
CALCULATED  
JTP  
CHECKED

MAJOR SIGN REVISIONS  
IR90 EASTBOUND ALTERNATE ROUTE

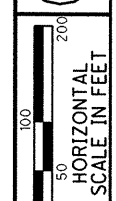
CUY-77-14.58 / VAR

NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.





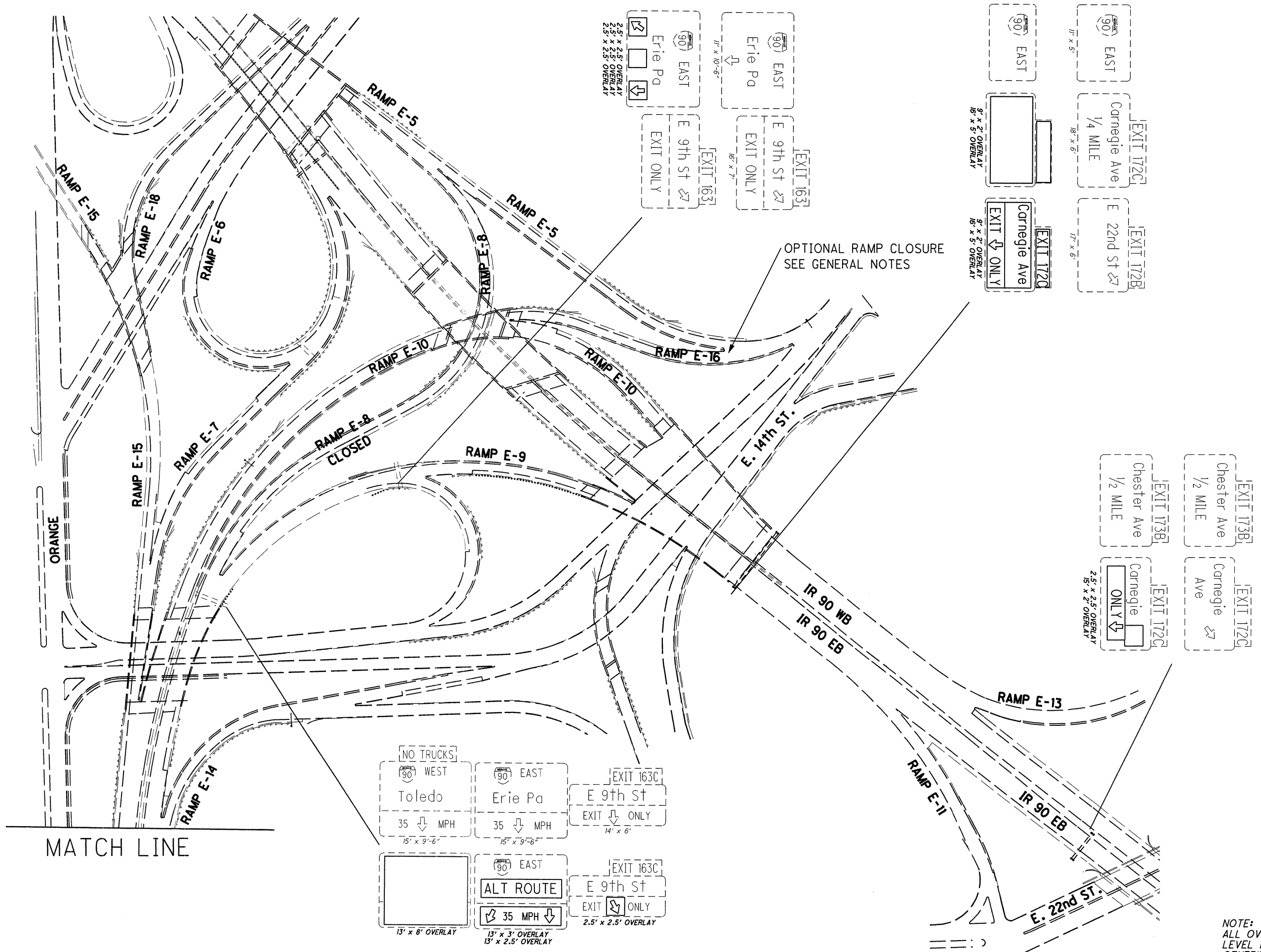
NOTE: ALL OVERLAYS SHALL BE LEVEL 1, UNLESS SHOWN OTHERWISE.



CALCULATED 0  
JTP  
CHECKED

**MAJOR SIGN REVISIONS  
IR90 EASTBOUND ALTERNATE ROUTE**

**CUY-77-14.58 / VAR**



NO TRUCKS  
 (90) WEST Toledo 35 MPH 15' x 9'-6"  
 (90) EAST Erie Pa 35 MPH 15' x 9'-6"  
 EXIT 163C E 9th St EXIT ONLY 14' x 6"  
 ALT ROUTE (90) EAST E 9th St EXIT ONLY 2.5' x 2.5' OVERLAY  
 35 MPH 13' x 3' OVERLAY 13' x 2.5' OVERLAY  
 13' x 8' OVERLAY

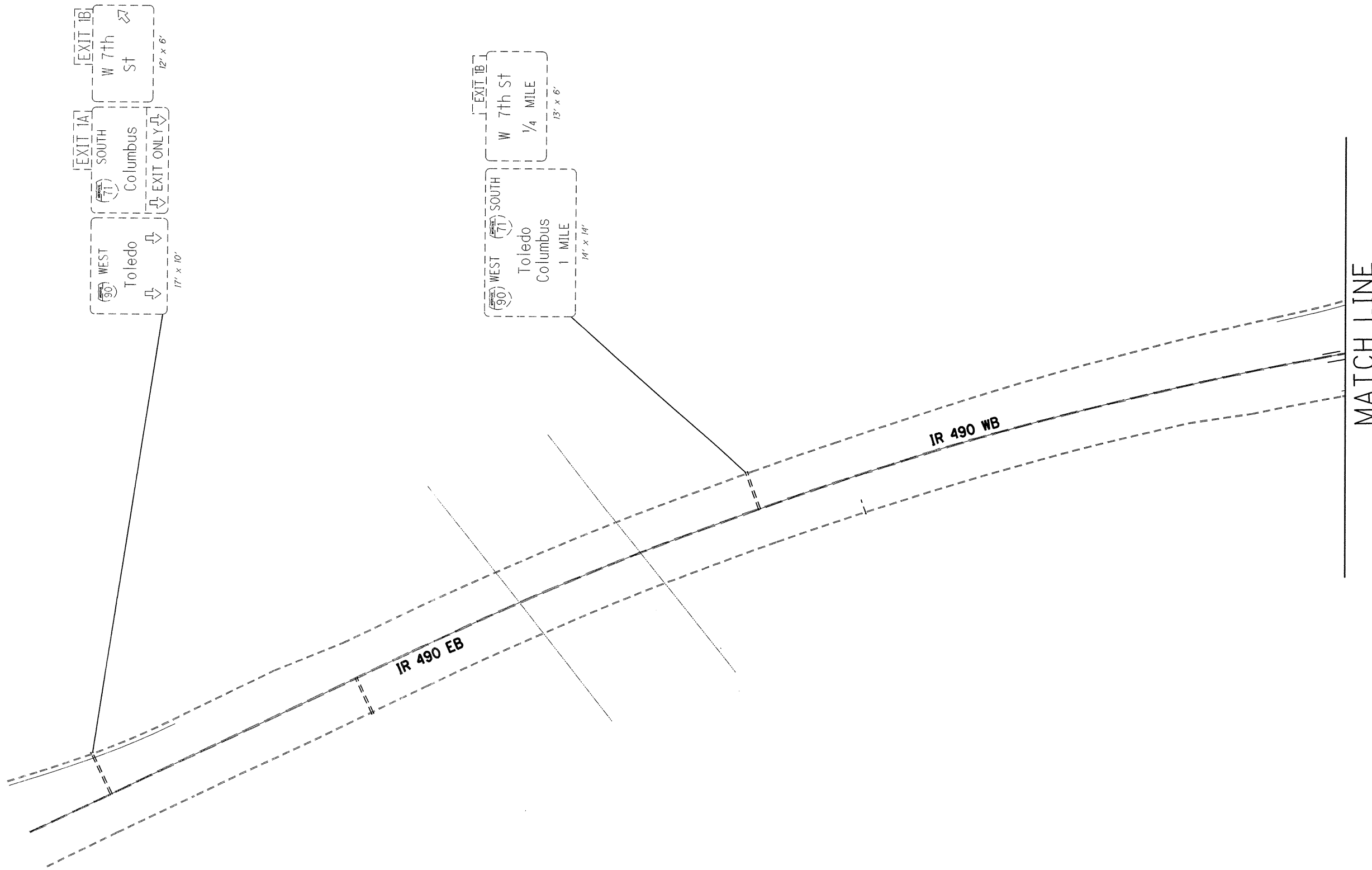
(90) EAST Erie Pa 11' x 10'-6"  
 (90) EAST E 9th St EXIT ONLY 16' x 7"  
 (90) EAST E 22nd St EXIT ONLY 17' x 6"  
 (90) EAST Carnegie Ave 1/4 MILE EXIT 172C 18' x 6"  
 (90) EAST Carnegie Ave EXIT ONLY 17' x 6"  
 (90) EAST Erie Pa 9' x 2' OVERLAY 18' x 5' OVERLAY  
 (90) EAST Erie Pa 5' x 2' OVERLAY 18' x 5' OVERLAY

EXIT 173B Chester Ave 1/2 MILE EXIT 173B  
 EXIT 172C Carnegie Ave ONLY 2.5' x 2.5' OVERLAY 15' x 2' OVERLAY  
 EXIT 172C Chester Ave 1/2 MILE EXIT 173B

OPTIONAL RAMP CLOSURE  
SEE GENERAL NOTES

NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.





NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.

CALCULATED  
JTP  
CHECKED

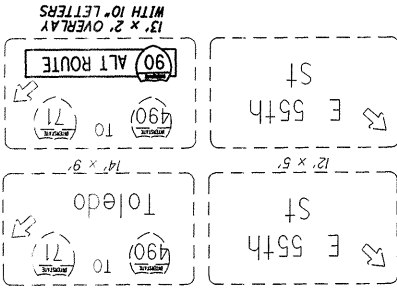
0 50 100 200  
HORIZONTAL  
SCALE IN FEET

**MAINTENANCE OF TRAFFIC  
IR90 WESTBOUND ALT. ROUTE**

**CUY-77-14.58 / VAR**

MATCH LINE

IR 490 WB  
IR 490 EB



MATCH LINE

RAMP N-W

RAMP S-W

RAMP W-N

RAMP W-S

IR 77 NB

IR 77 SB

RAMP E-S

RAMP E-N  
CLOSED

RAMP N-E

RAMP S-E

NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.

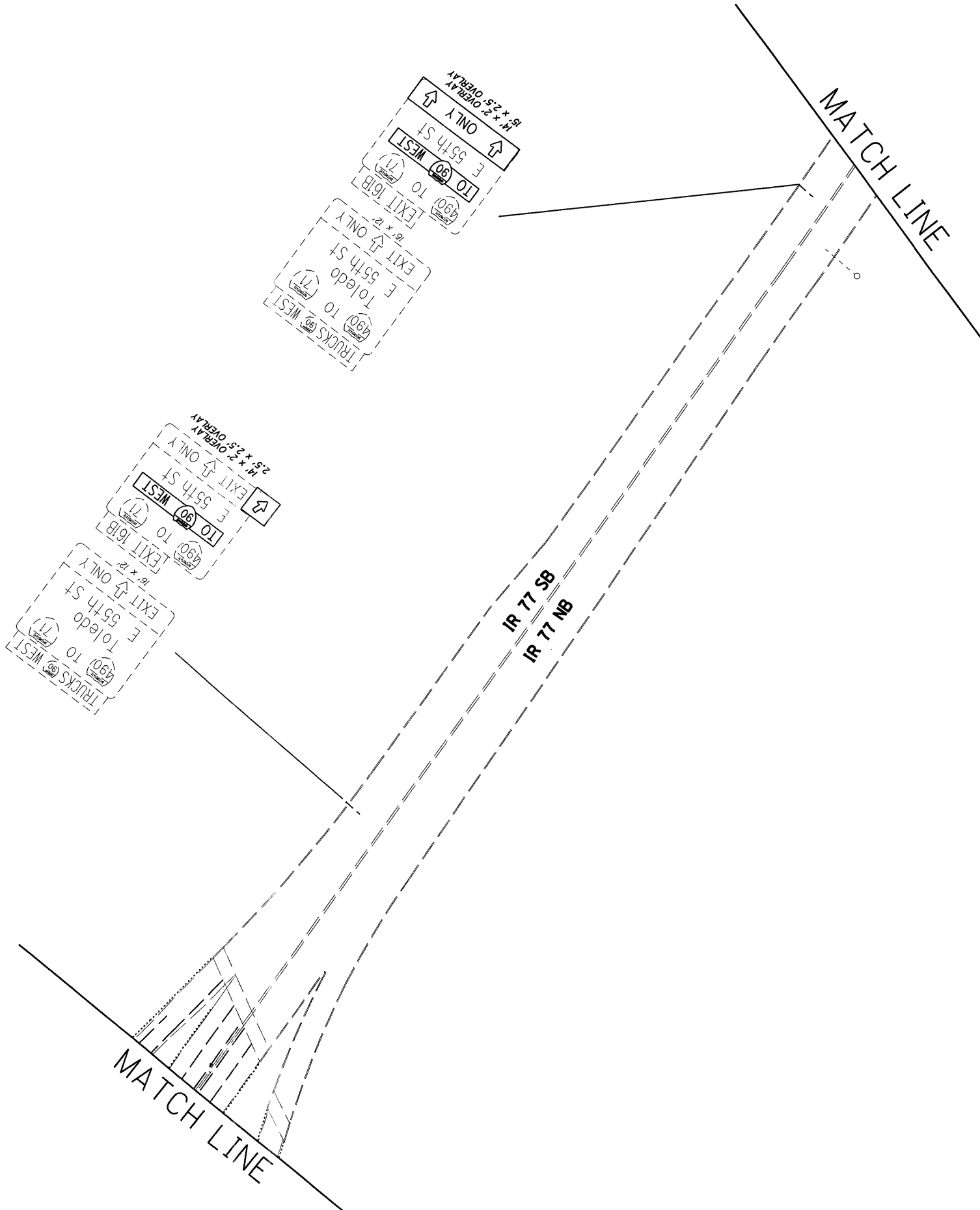


CALCULATED  
JTP  
CHECKED

MAINTENANCE OF TRAFFIC  
IR90 WESTBOUND ALT. ROUTE

CUY-77-14.58 / VAR

40



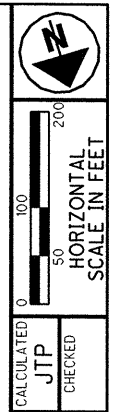
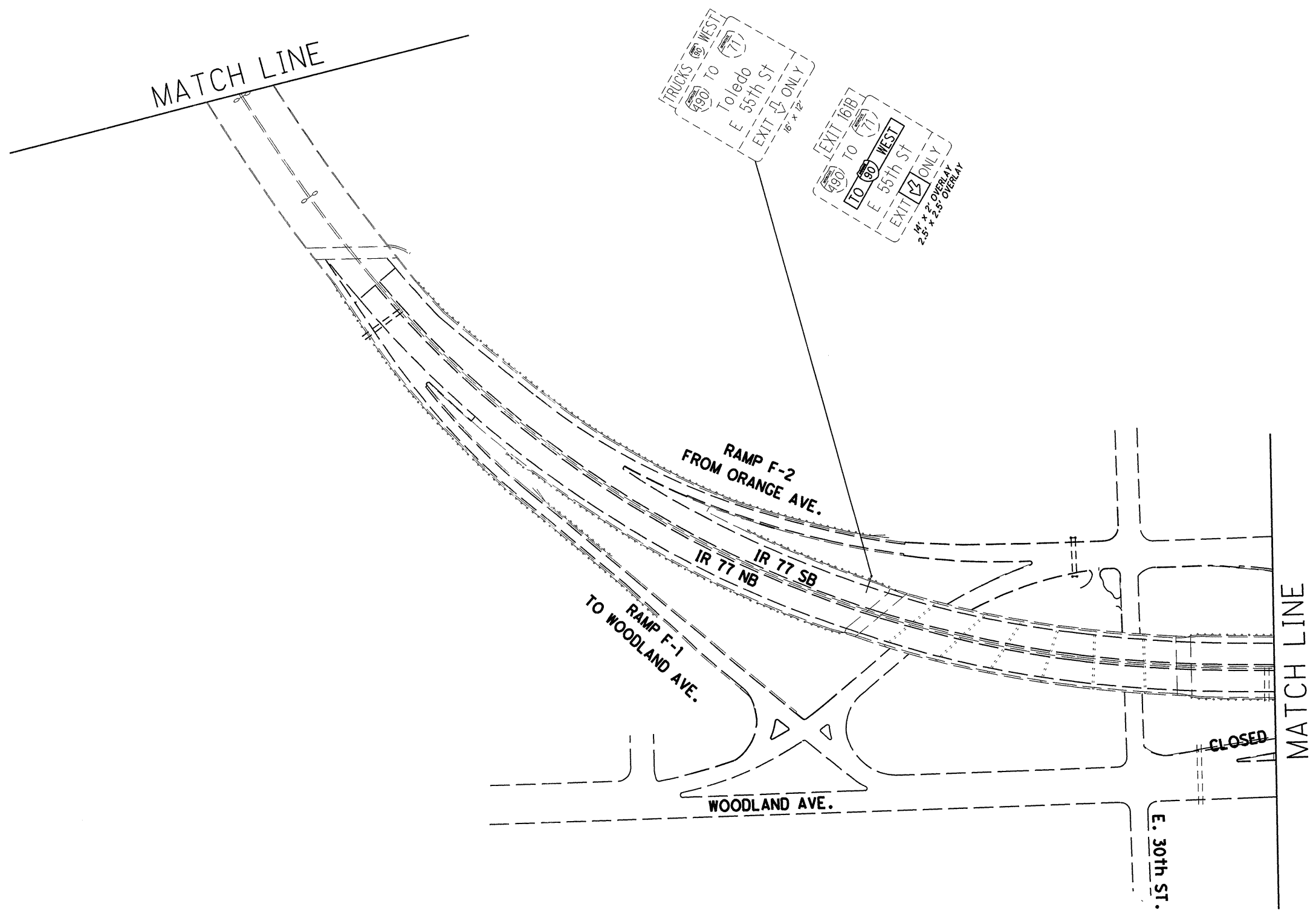
NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.



CALCULATED 0 100 200  
JTP  
CHECKED  
HORIZONTAL  
SCALE IN FEET

**MAINTENANCE OF TRAFFIC  
IR90 WESTBOUND ALT. ROUTE**

**CUY-77-14.58 / VAR**



CALCULATED BY JTP  
CHECKED BY

**CUY-77-14.58 / VAR**

**MAINTENANCE OF TRAFFIC  
IR 90 WESTBOUND ALT. ROUTE**

NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.

MATCH LINE

RAMP F-3

RAMP F-4

CLOSED

ORANGE AVE.

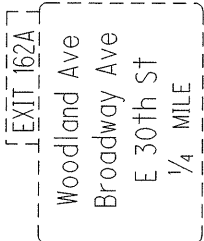
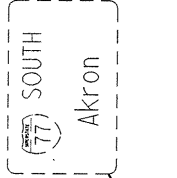
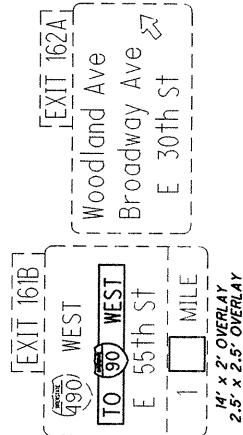
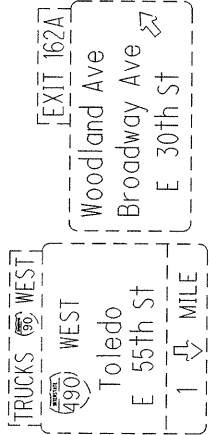
WOODLAND AVE.

IR 77 NB

IR 77 SB

E. 22nd ST.

MATCH LINE



NOTE:  
ALL OVERLAYS SHALL BE  
LEVEL 1, UNLESS SHOWN  
OTHERWISE.

CUY-77-14.58 / VAR

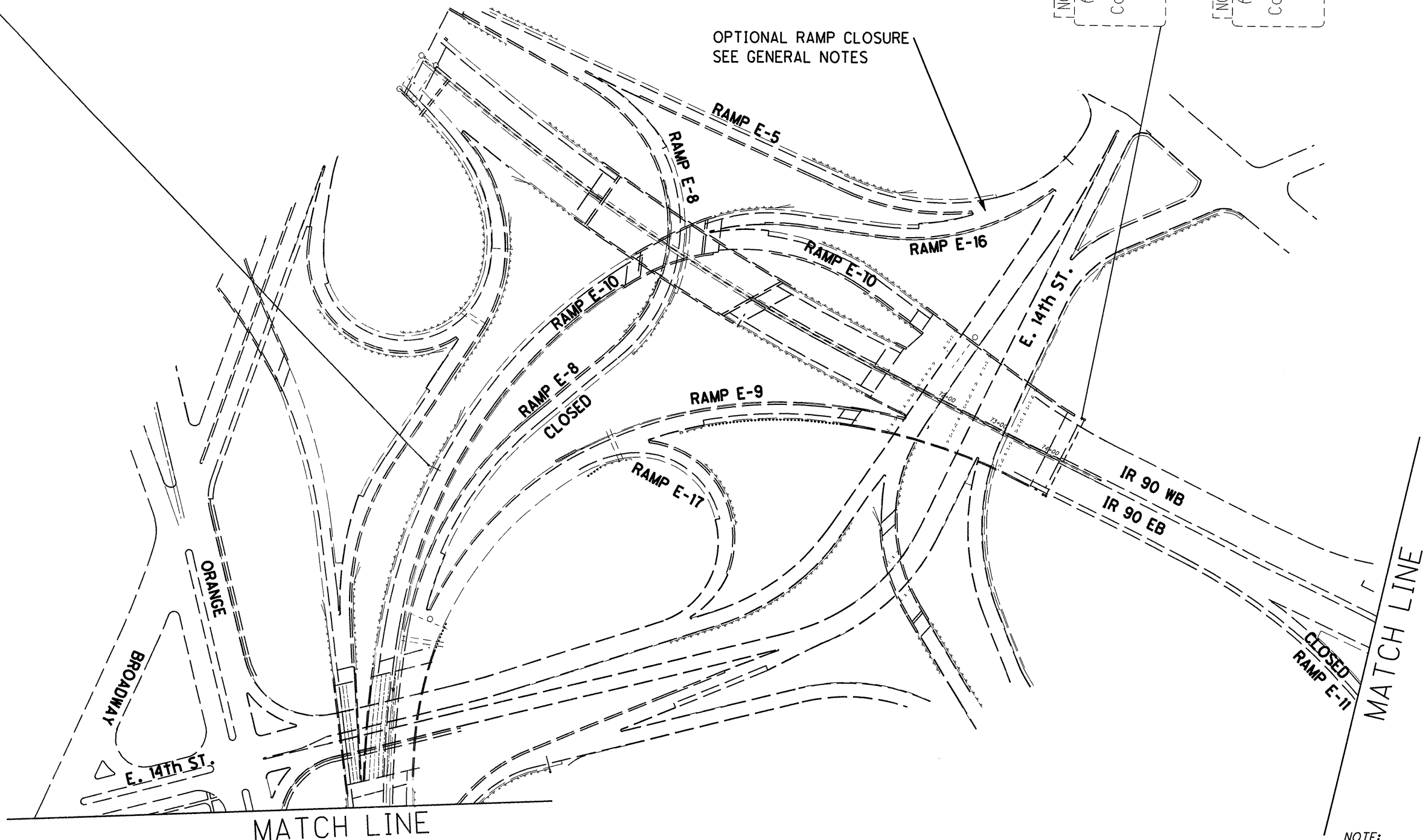
MAINTENANCE OF TRAFFIC  
IR90 WESTBOUND ALT. ROUTE

CALCULATED	JTP
CHECKED	CHECKED

0 50 100 200  
HORIZONTAL SCALE IN FEET



EXIT 162A  
 Woodland Ave  
 Broadway  
 E. 30th St  
 1/2 MILE



OPTIONAL RAMP CLOSURE  
 SEE GENERAL NOTES

NO TRUCKS SOUTH Columbus 1 1/2 MILES 15' x 9'-6"	NO TRUCKS WEST AKRON 40 MPH 11' x 5'	ALL TRUCKS SOUTH AKRON 40 MPH 15' x 9'-6"
NO TRUCKS SOUTH Columbus 1 1/2 MILES	NO TRUCKS WEST AKRON 40 MPH	ALL TRUCKS SOUTH AKRON 40 MPH

2.5' x 2.5' OVERLAY  
 15' x 2.5' OVERLAY  
 WITH 10" LETTERS  
 2.5' x 2.5' OVERLAY  
 2.5' x 2.5' OVERLAY

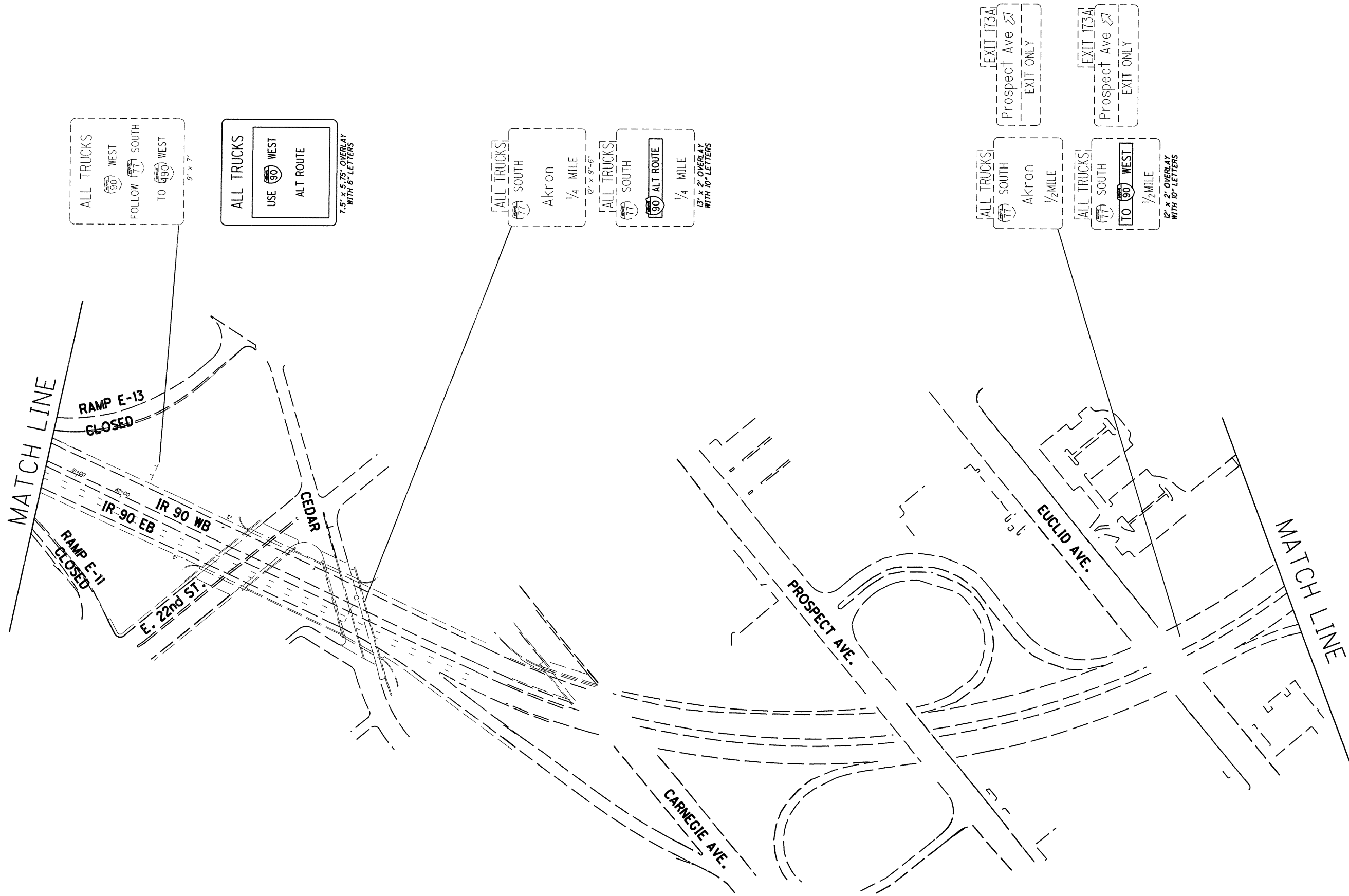
CALCULATED 0  
 JTP  
 CHECKED

100  
 50  
 0  
 HORIZONTAL  
 SCALE - IN FEET

**MAINTENANCE OF TRAFFIC  
 IR90 WESTBOUND ALT. ROUTE**

**CUY-77-14.58 / VAR**

NOTE:  
 ALL OVERLAYS SHALL BE  
 LEVEL 1, UNLESS SHOWN  
 OTHERWISE.



ALL TRUCKS  
 WEST  
 FOLLOW (90) SOUTH  
 TO (490) WEST  
 9' x 7'

ALL TRUCKS  
 USE (60) WEST  
 ALT ROUTE  
 7.5' x 5.75' OVERLAY  
 WITH 6" LETTERS

ALL TRUCKS  
 SOUTH  
 Akron  
 1/4 MILE  
 12' x 9'-6"

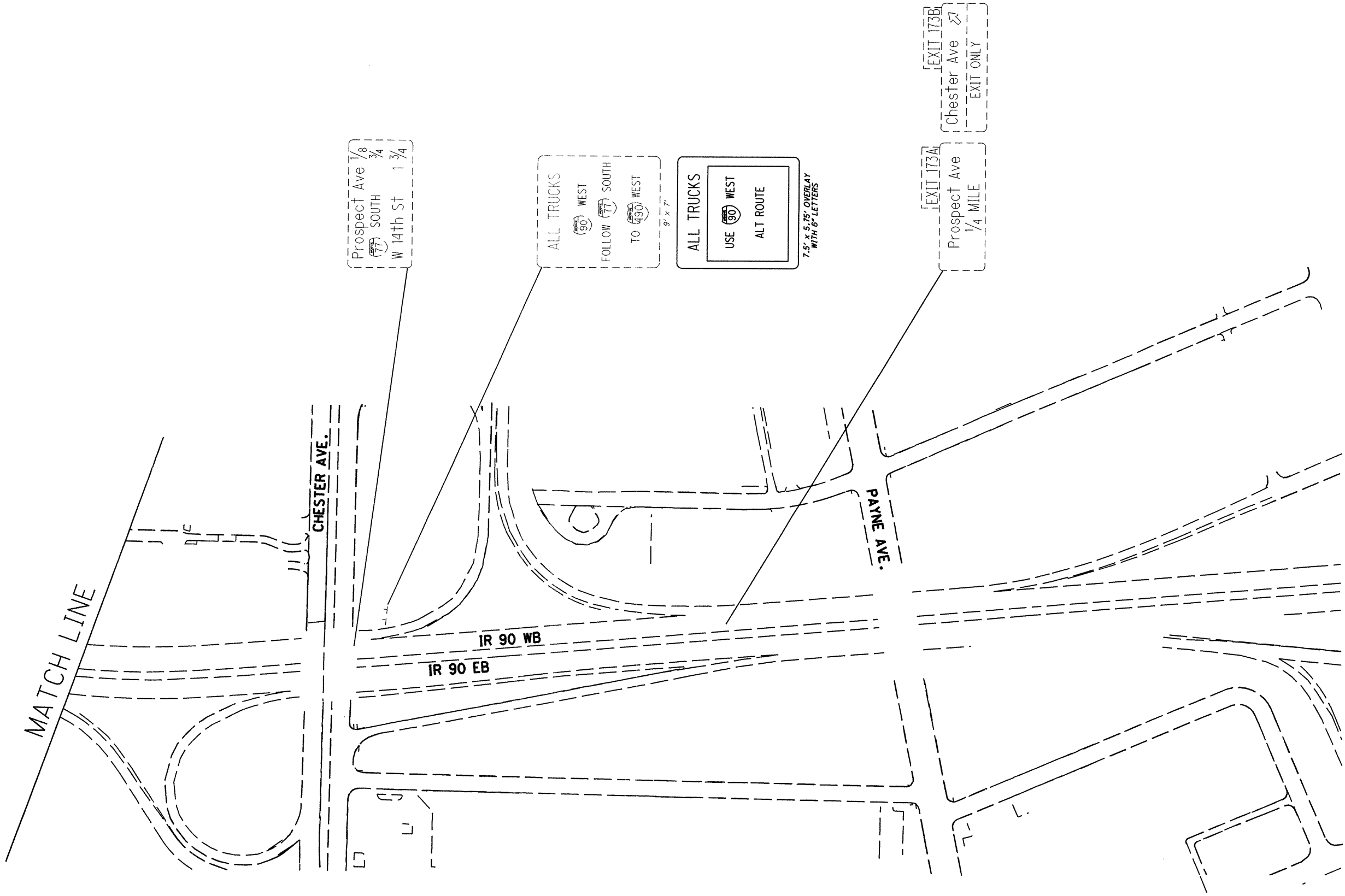
ALL TRUCKS  
 SOUTH  
 ALT ROUTE  
 1/4 MILE  
 13' x 2' OVERLAY  
 WITH 10" LETTERS

ALL TRUCKS  
 SOUTH  
 Akron  
 1/2 MILE  
 EXIT 173A  
 Prospect Ave  
 EXIT ONLY

ALL TRUCKS  
 SOUTH  
 TO (90) WEST  
 1/2 MILE  
 EXIT 173A  
 Prospect Ave  
 EXIT ONLY  
 12' x 2' OVERLAY  
 WITH 10" LETTERS

NOTE:  
 ALL OVERLAYS SHALL BE  
 LEVEL 1, UNLESS SHOWN  
 OTHERWISE.

CALCULATED JTP CHECKED	HORIZONTAL SCALE IN FEET
<b>CUY-77-14.58 / VAR</b>	
<b>MAINTENANCE OF TRAFFIC          IR90 WESTBOUND ALT. ROUTE</b>	
45	



Prospect Ave 1/8  
 SOUTH 3/4  
 W 14th St 1 3/4

ALL TRUCKS  
 WEST  
 FOLLOW SOUTH  
 TO WEST  
 9' x 7'

ALL TRUCKS  
 USE WEST  
 ALT ROUTE  
 7.5' x 5.75' OVERLAY  
 WITH 8" LETTERS

EXIT 173B  
 Chester Ave  
 EXIT ONLY

EXIT 173A  
 Prospect Ave  
 1/4 MILE

MATCH LINE

CHESTER AVE.

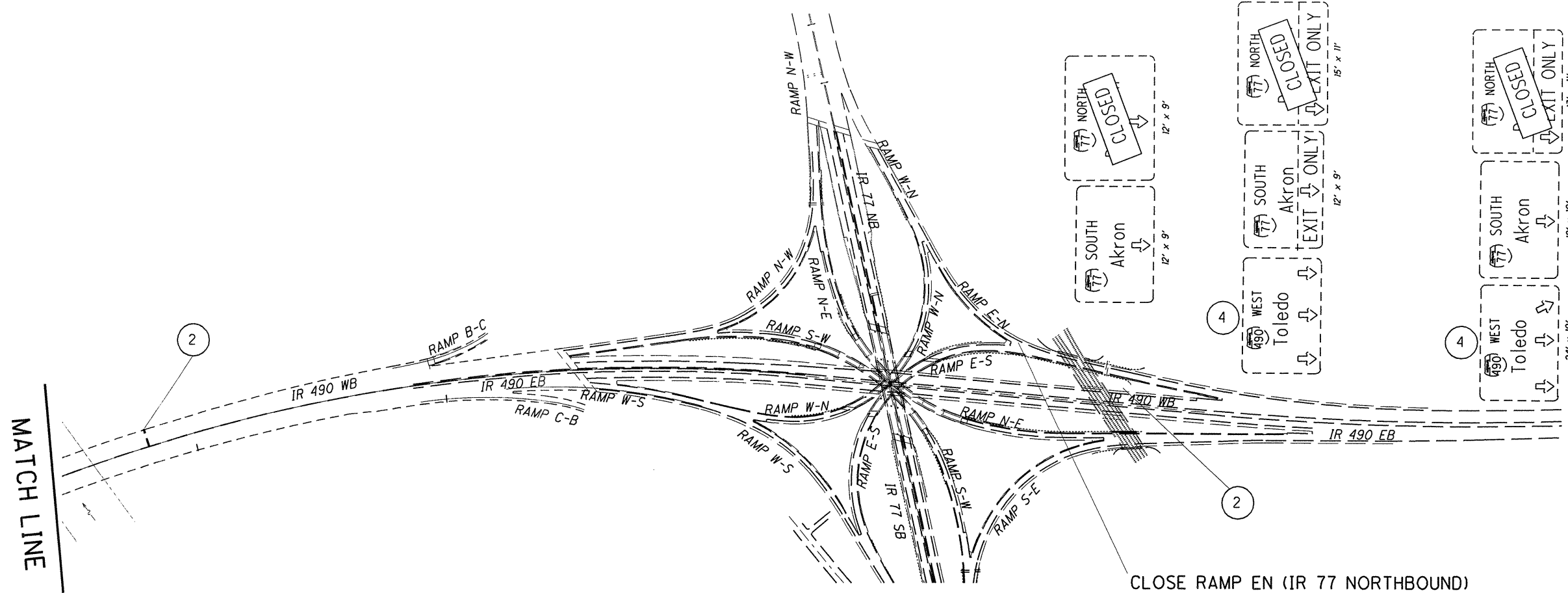
PAYNE AVE.

IR 90 WB  
 IR 90 EB

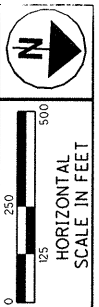
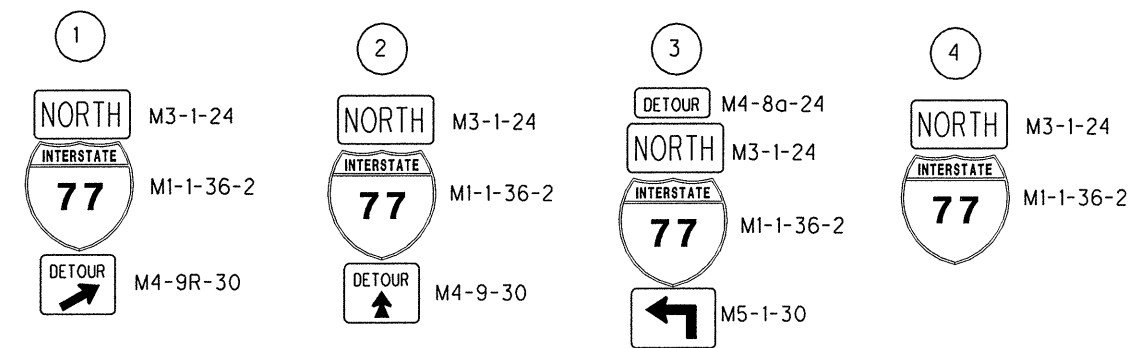
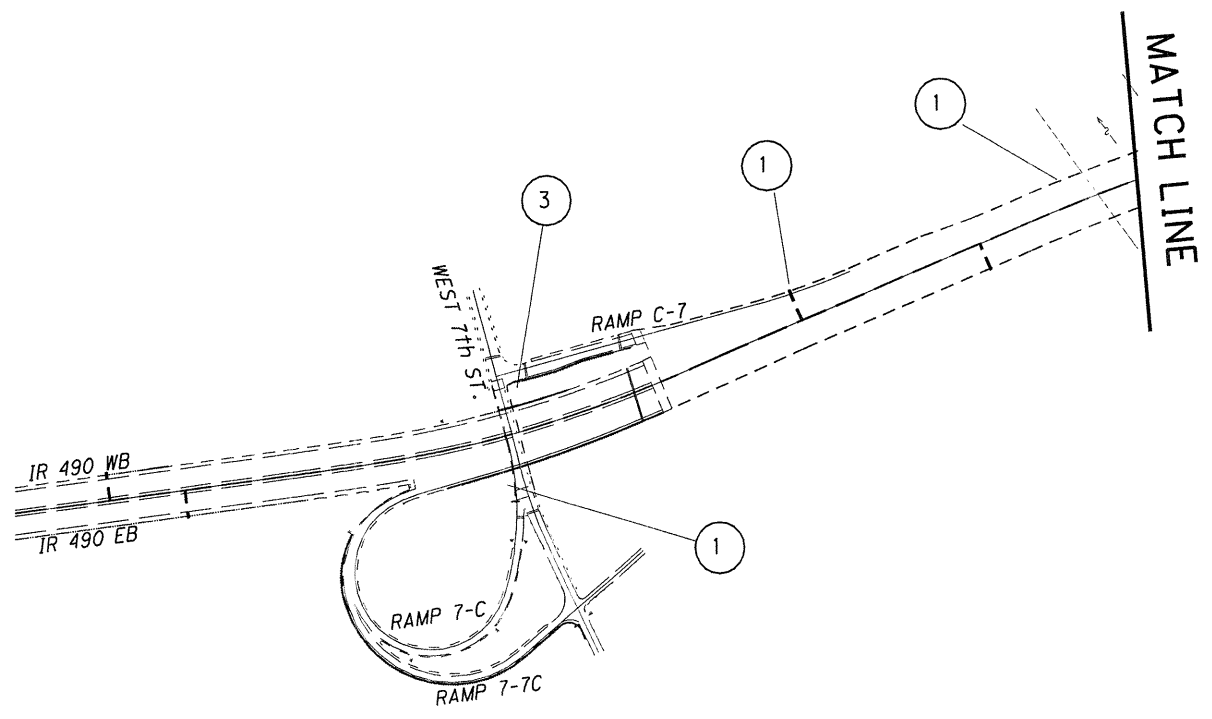
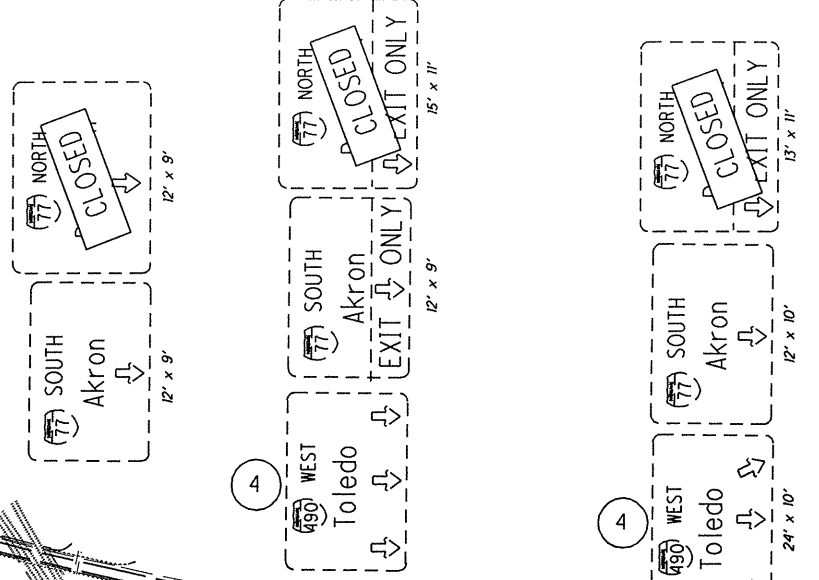
NOTE:  
 ALL OVERLAYS SHALL BE  
 LEVEL 1, UNLESS SHOWN  
 OTHERWISE.

	 HORIZONTAL SCALE IN FEET
CALCULATED JTP CHECKED	<b>CUY-77-14.58 / VAR</b>
<b>MAINTENANCE OF TRAFFIC          IR90 WESTBOUND ALT. ROUTE</b>	
46	



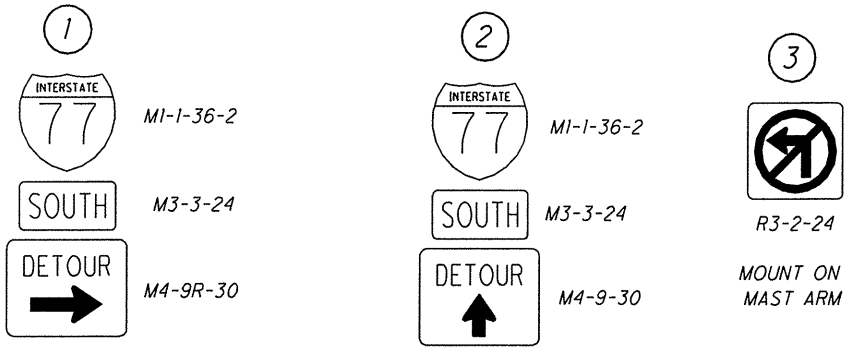


CLOSE RAMP EN (IR 77 NORTHBOUND)  
 USE MT-95.30 LANE CLOSURE  
 PROVIDE MT-101.60 BARRICADE

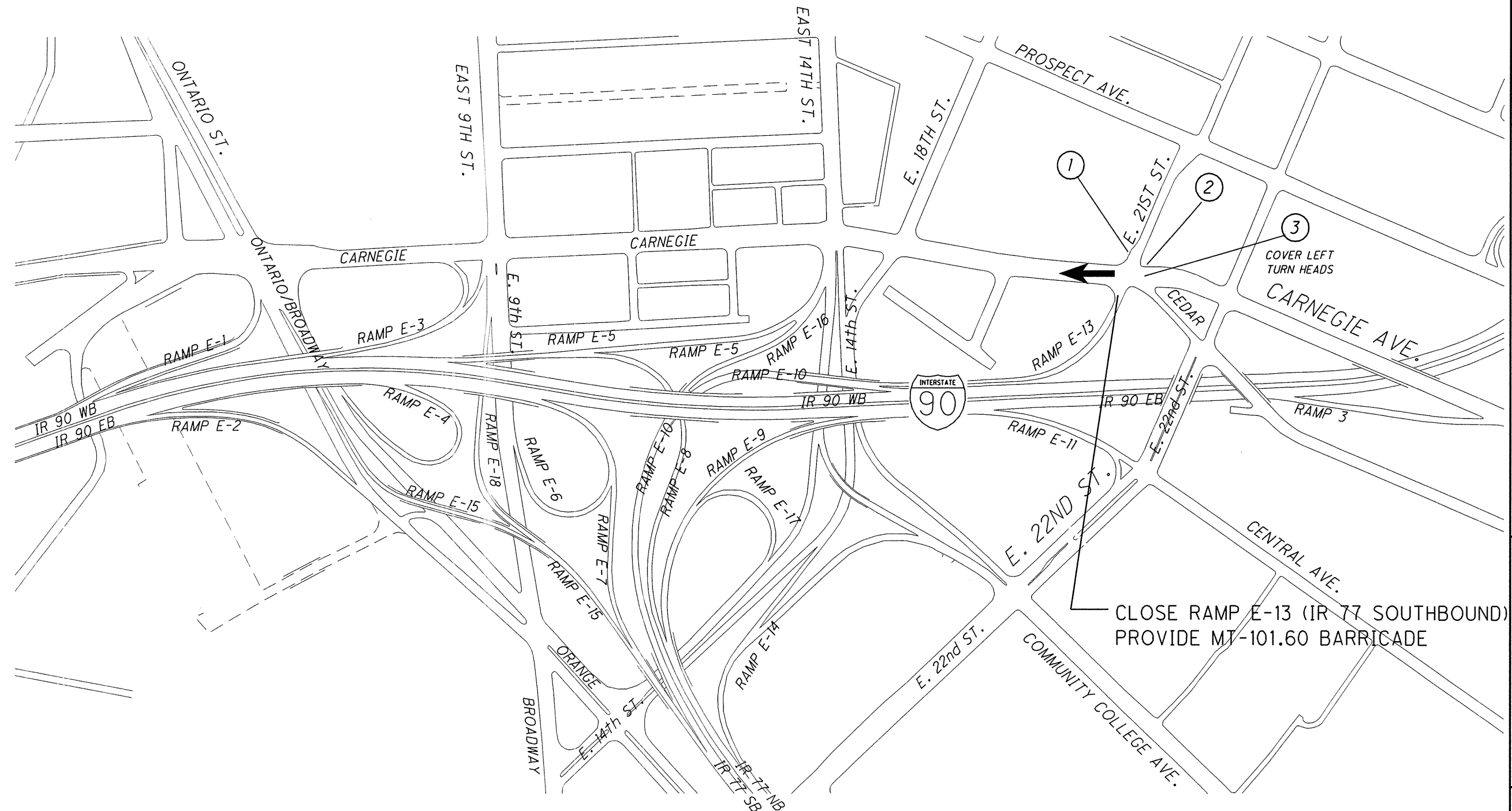


DETOUR PLAN - CLOSE RAMP EN

CUY-77-14.58 / VAR

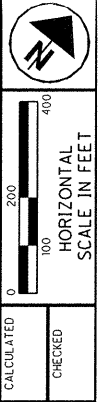
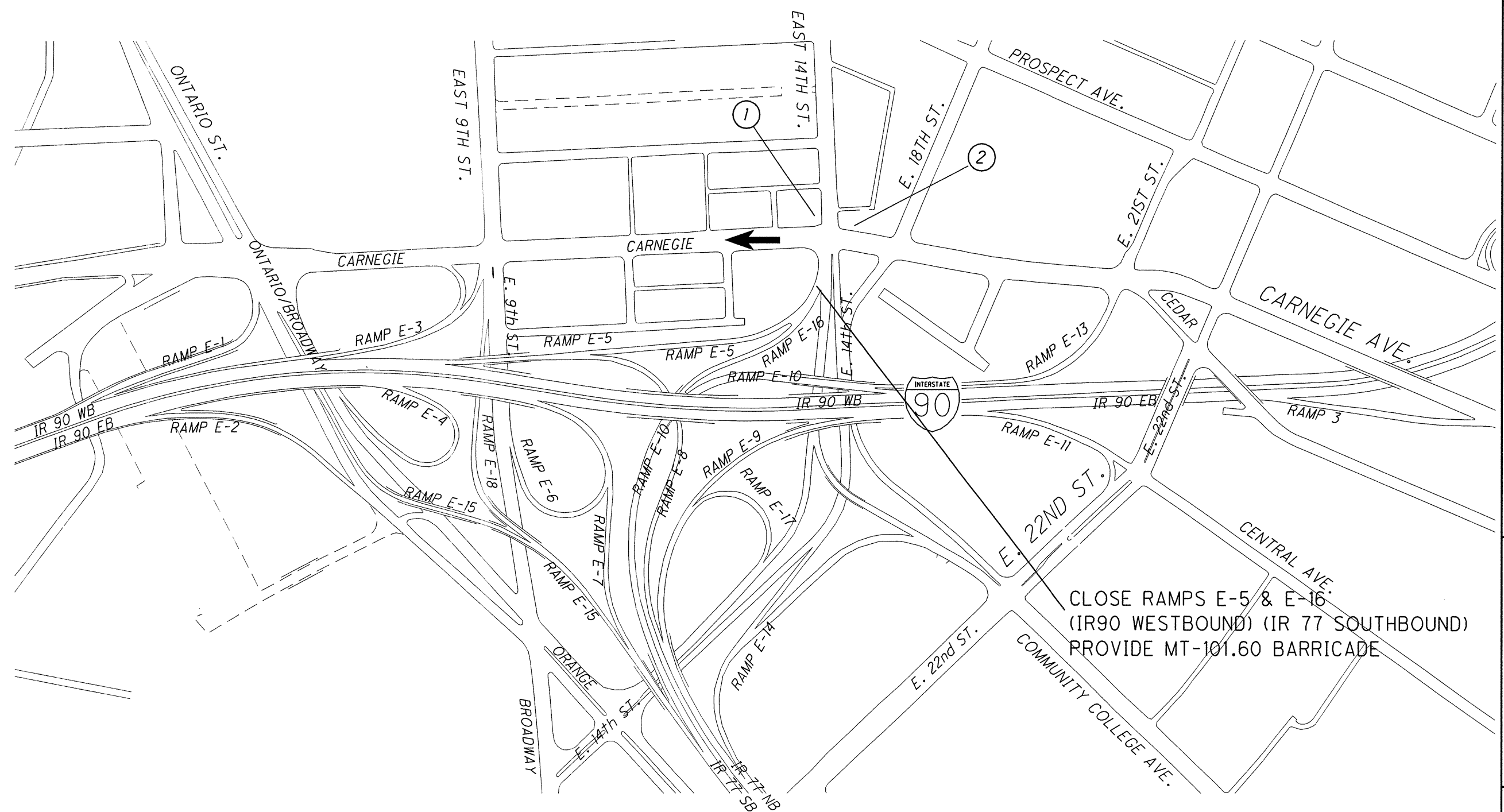
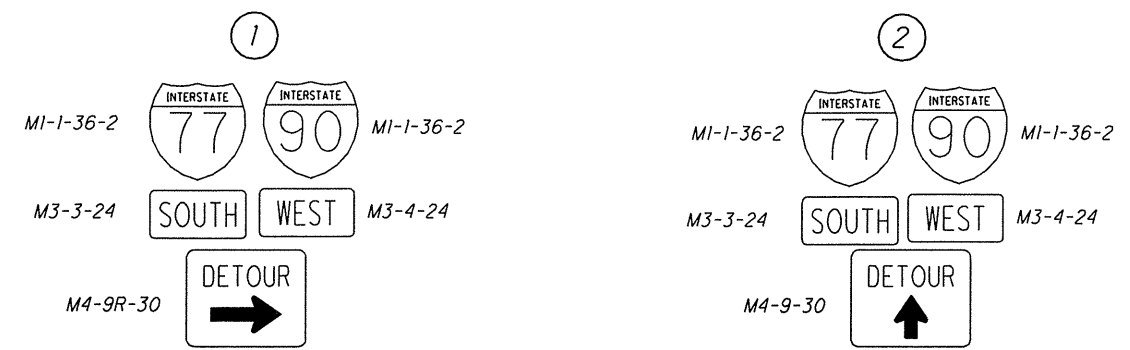


COVER ALL IR 77 SB SIGNS AT THE INTERSECTION OF E. 21ST ST. AND CARNEGIE AVENUE



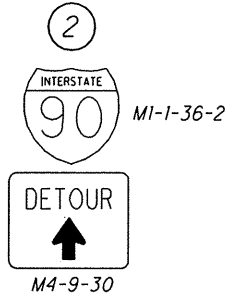
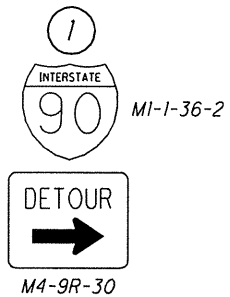
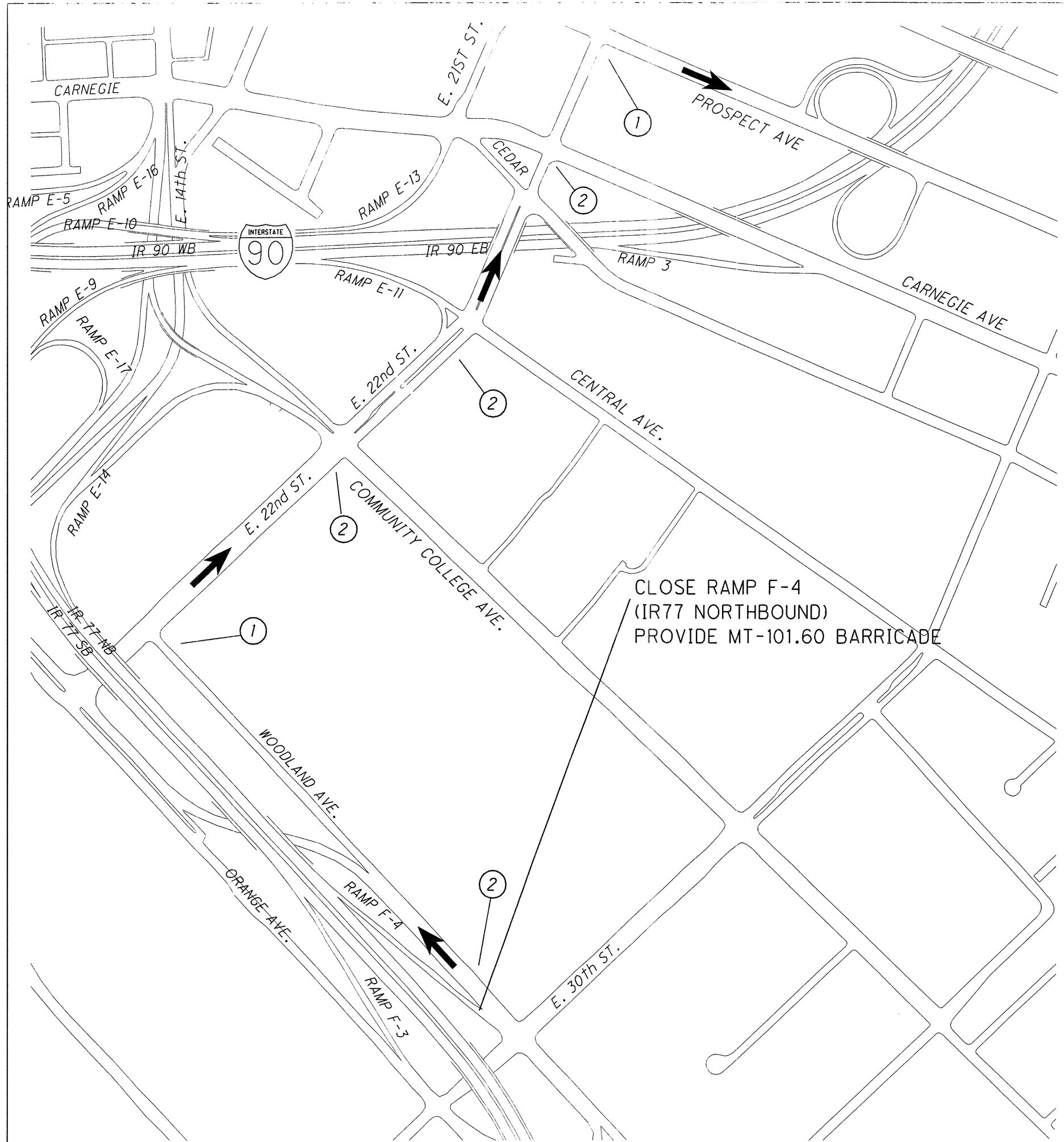
SEE MOT NOTES REGARDING IMPLEMENTATION OF THIS DETOUR

COVER ALL IR 77 SB AND IR 90 WB SIGNS AT THE INTERSECTION OF E. 14th ST. AND CARNEGIE AVENUE



DETOUR PLAN - CLOSE RAMPS E-5 & E-16

CUY-77-14.58 / VAR



CALCULATED  
 CHECKED  
**DETOUR PLAN - CLOSE RAMP F-4**

**CUY-77-14.58 / VAR**

50

WORK ZONE PAVEMENT MARKINGS													
SHEET	LOCATION	STATION TO STATION		614					621				
				WORK ZONE EDGE LINE, CLASS 1, (WHITE)	WORK ZONE EDGE LINE, CLASS 1, (YELLOW)	WORK ZONE LANE LINE, CLASS 1	WORK ZONE CHANNELIZING LINE	WORK ZONE DOTTED LINE		WORK ZONE RAISED PAVEMENT MARKER	RAISED PAVEMENT MARKER		
		FROM	TO	FEET	FEET	FEET	FEET	FEET		EACH	EACH		
13	IR490EB	1015+85	1022+52	467	0	1344	200						
13	IR490EB	1019+25	1022+52	100	27		200						
13, 14	RAMP W-S	4+77	7+25	248	248								
14	RAMP W-S	7+25	11+20	395	170		150						
14	RAMP W-S	11+20	12+80		160								
14, 15	RAMP W-N	0+00	33+63	3138	3363	3363	225						
13	IR490WB	1012+00	1015+00	300			900			60			
13	IR490WB	1015+00	1024+00	800									
13	IR490WB	1015+00	1024+00	1300	300		1600			160			
14	RAMP S-W	19+00	21+00	200	200								
14	RAMP S-W	18+00	19+00	100									
13, 14, 15	RAMP N-W	0+00	7+50	900	350	750	250						
14	RAMP N-W	7+50	16+00	980	650	850							
13, 14	RAMP N-W	16+00	17+37	137	137	274							
14	IR77NB	83+30	85+30	200									
14, 15	IR77NB	85+30	92+57	727	727	727							
15, 16	IR77NB	92+57	109+50	1693	1693	5079							
16-19	IR 77NB	109+50	44+00	3381	3450	1035	140						
19	IR77NB	44+00	46+39	239			50						
19, 20	IR77NB	44+00	49+83	303	583	1166	280						
20	RAMP E-17	0+00	5+85	585	585	1170							
20	RAMP E-17	5+85	7+65	180	50		60						
20, 21	RAMP E-9	0+00	8+34	1134	534	834							
20, 21	IR90EB	65+00	76+00	1100									
21	IR90EB	74+43	78+60	417		417							
21, 22	IR90EB	78+60	86+00	740	740	2220							
22	IR90EB	86+00	95+00	600	900		2100			180			
22	RAMP 3	86+00	89+72	372	72		100						
14, 15	IR77SB	85+30	92+13	433	683	683	250						
15, 16	IR77SB	92+13	110+00	1787	1787	5361							
16, 17	RAMP F-2	110+00	115+50	1100									
16, 17	IR77SB	110+00	111+50		150	300							
17	IR77SB	111+50	115+00	350	350	700							
17	IR77SB	115+00	121+00	600	600	1200		600					
17, 18	IR77SB	121+00	132+30	1060	1130	3390	70						
18	RAMP F-3	131+00	132+30	130									
18, 19	IR77SB	32+30	46+40	1410	1410	4230							
19, 20	RAMP E-15	19+80	16+50	860		330							
20	RAMP E-15	16+50	14+50	200		200		200					
20	RAMP E-15	14+50	10+00	580	320	450							
20	RAMP E-15	10+00	9+00				100						
21	RAMP E-10	0+00	2+35	235		235	235						
21	IR90WB	75+00	80+10	510		1530							
21, 22	IR90WB	80+10	87+00	690	690	2070							
22	IR90WB	87+00	90+00	300	300		900			75			
22	IR90WB	90+00	93+00	300	300		600	300		60			
22	IR90WB	93+00	96+00	300	300		600			60			
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				31,581	22,959	39,908	9,010	1,100		375	220		
				=10.33 mi.	=7.56 mi.								

FILLING IN RUMBLE STRIPS						
SHEET	LOCATION	STATION TO STATION				253
				PAVEMENT REPAIR, AS PER PLAN		
		FROM	TO	LENGTH	No. SIDES	CU. YD.
16,17	77NB	110+00	118+40	840	1	1.01
18		124+50	130+50	600	1	0.72
18		132+30	133+30	100	1	0.12
19		35+50	42+40	690	1	0.83
19		44+60	45+90	130	1	0.16
19,20		47+90	48+30	40	1	0.05
16,17	77MED.	107+50	118+80	1130	2	2.71
18		124+20	134+00	980	2	2.35
19		36+30	42+40	610	2	1.46
19		44+60	48+00	340	1	0.41
19,20		44+60	49+30	470	1	0.56
16	77SB	108+00	110+00	200	1	0.24
17		113+60	119+00	540	1	0.65
18		124+20	131+50	730	1	0.88
18		31+50	34+70	320	1	0.38
19		37+00	42+40	540	1	0.65
19		44+60	48+80	420	1	0.50
21,22	90EB	79+50	89+00	950	1	1.14
21,22		80+00	92+00	1200	1	1.44
21,22	90WB	79+80	93+00	1320	1	1.58
21,22		80+00	93+00	1300	1	1.56
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>						19.40

MAINTENANCE OF TRAFFIC SUBSUMMARY

CUY-77-14.58 / VAR

SHEET NO.	LOCATION	SIZE	SIZE	630	
				SIGN, TEMPORARY OVERLAY	REMOVAL OF TEMPORARY OVERLAY AND DISPOSAL
				SO. FT.	EACH
24	IR 77 NB	14' x 2'		28	
24	IR 77 NB	8' x 3'		24	
25	IR 77 NB	8' x 3'		24	
25	IR 77 NB	14' x 2'	3' x 3'	37	1
25	IR 77 NB	8' x 3'		24	
25	IR 77 NB	14' x 2'	3' x 3'	37	1
25	IR 77 NB	14' x 2'	3' x 3'	37	1
26	IR 90 EB	12' x 1.5'		18	
26	IR 90 EB	13' x 3.5'	3' x 3'	54.5	
			3' x 3'	9	
26	IR 90 EB	17' x 3.25		55.25	
26	IR 90 EB	12' x 5'	9' x 2'	78	
27	IR 90 EB	12' x 5'	9' x 2'	78	
27	IR 90 EB	18' x 2'		36	
28	IR 90 EB	13.5' x 6'		81	
28	IR 90 EB	8' x 6'		48	
29	IR 90 EB	16' x 7'	8' x 2'	128	1
29	IR 90 EB	8' x 6'		48	
29	IR 90 EB	16' x 7'	8' x 2'	128	1
30	IR 90 EB	17' x 12'		204	
30	IR 90 EB	16' x 7'	8' x 2'	128	1
30	IR 90 EB	8' x 6'		48	
31	IR 90 EB	24' x 6.5'		156	
32	IR 490 EB	8' x 6'		48	
32	IR 490 EB	13' x 2'	3' x 3'	35	
33	IR 490 EB	12' x 9.5'	2.5' x 2'	119	1
34	IR 490 EB	12.5' x 9.5'		119	1
34	IR 490 EB	13' x 2'	3' x 3'	35	
36	IR 77 NB	10' x 6'	10' x 2'	80	1
36	IR 77 NB	10' x 6'	10' x 2'	80	1
36	IR 77 NB	8' x 2'		16	
37	IR 77 NB	14' x 8'	14' x 3'	154	1
37	IR 77 NB	2.5' x 2.5'		6.25	
38	IR 77 NB	13' x 8'		104	
38	IR 77 NB	13' x 3'	13' x 2.5'	71.5	
38	IR 77 NB	2.5' x 2.5'		6.25	
38	RAMP E-9	2.5' x 2.5'	2.5' x 2.5'	12.5	
			2.5' x 2.5'	6.25	
38	IR 90 EB	16' x 5'	9' x 2'	98	
38	IR 90 EB	16' x 5'	9' x 2'	98	
COLUMN TOTAL				2597.5	11

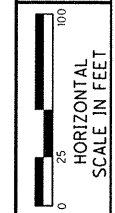
SHEET NO.	LOCATION	SIZE	SIZE	630	
				SIGN, TEMPORARY OVERLAY	REMOVAL OF TEMPORARY OVERLAY AND DISPOSAL
				SO. FT.	EACH
38	IR 90 EB	15' x 2'	2.5' x 2.5'	36.25	
40	RAMP N-W	13' x 2'	3' x 3'	35	
41	IR 77 SB	14' x 2'	3' x 3'	37	1
			2.5' x 2.5'	6.25	
41	IR 77 SB	14' x 2'	3' x 3'	37	1
			15' x 2.5'	37.5	
42	IR 77 SB	14' x 2'	3' x 3'	37	1
			2.5' x 2.5'	6.25	
43	IR 77 SB	14' x 2'	3' x 3'	37	1
			2.5' x 2.5'	6.25	
44	IR 90 WB	13' x 2'	3' x 3'	35	
		2.5' x 2.5'	2.5' x 2.5'	12.5	
			2.5' x 2.5'	6.25	
45	IR 90 WB	7.5' x 5.75'		43.25	
45	IR 90 WB	13' x 2'	3' x 3'	35	
45	IR 90 WB	12' x 2'	3' x 3'	33	
46	IR 90 WB	7.5' x 5.75'		43.25	
COLUMN TOTAL				483.75	4
SHEET TOTAL CARRIED TO GENERAL SUMMARY				3082	15

CALCULATE: KEH  
CHECKED: JTP

**SIGNING SUBSUMMARY**

**CUY-77-14.58 / VAR**

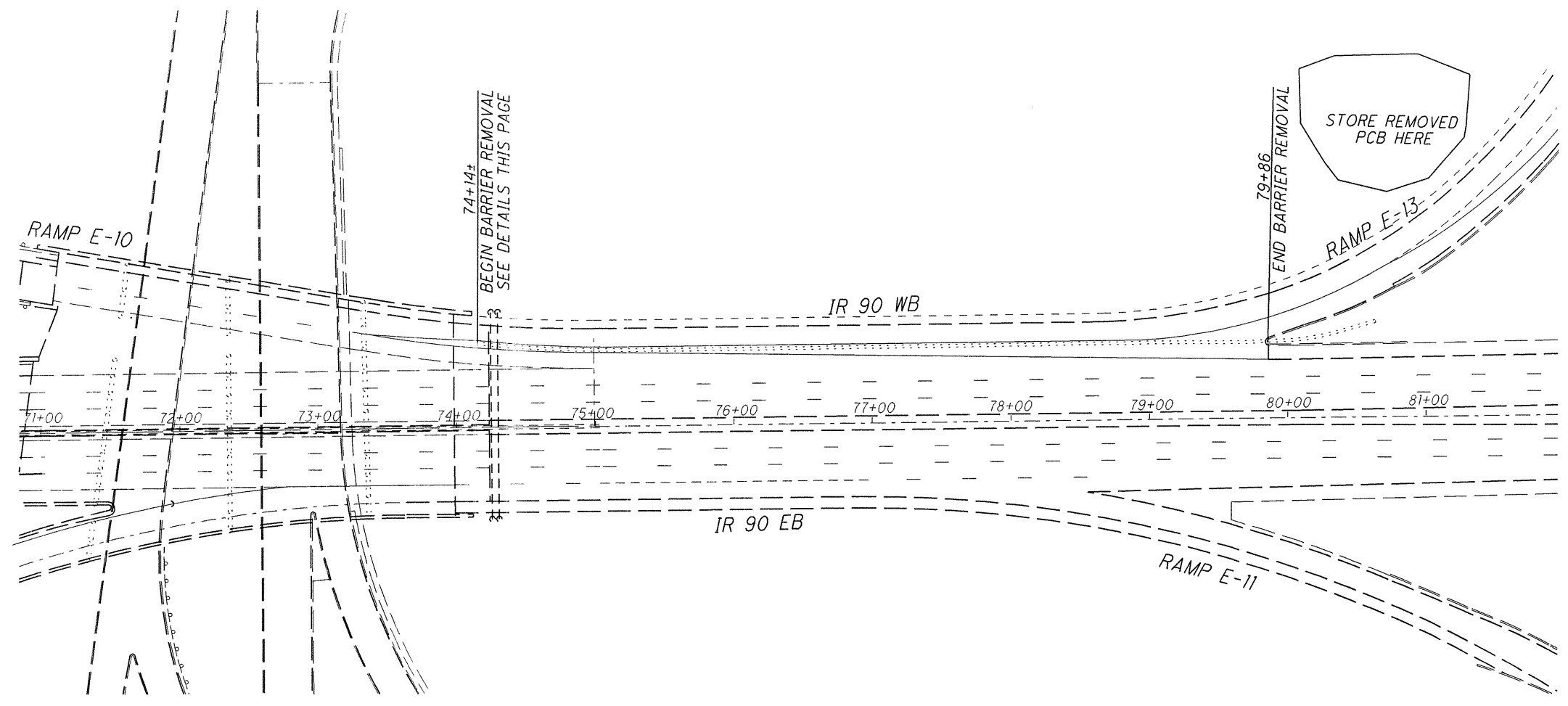




DESIGNED BY  
BURGESS & NIPLE

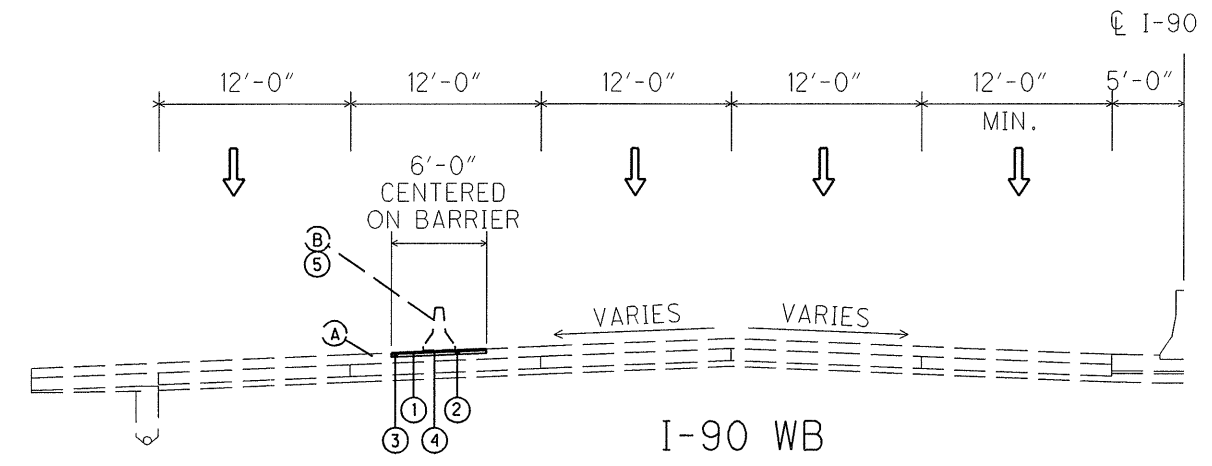
**MAINTENANCE OF TRAFFIC  
RAMP E-10&13 BARRIER REMOVAL DETAIL**

**CUY-77-14.58 / VAR**



ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNITS	QUANTITY
202	CONCRETE BARRIER REMOVED, AS PER PLAN	FT	572
254	PAVEMENT PLANING, ASPHALT CONCRETE	SY	382
407	TACK COAT	GAL	29
446	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, AS PER PLAN (1-1/2" THICK)	CY	16
446	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (2" THICK)	CY	22

ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN  
CAREFULLY REMOVE THE PCB AND STORE  
AT LOCATION SHOWN.



EXISTING LEGEND

- (A) ASPHALT CONCRETE
- (B) PORTABLE CONCRETE BARRIER, TYPE BRD, ANCHORED

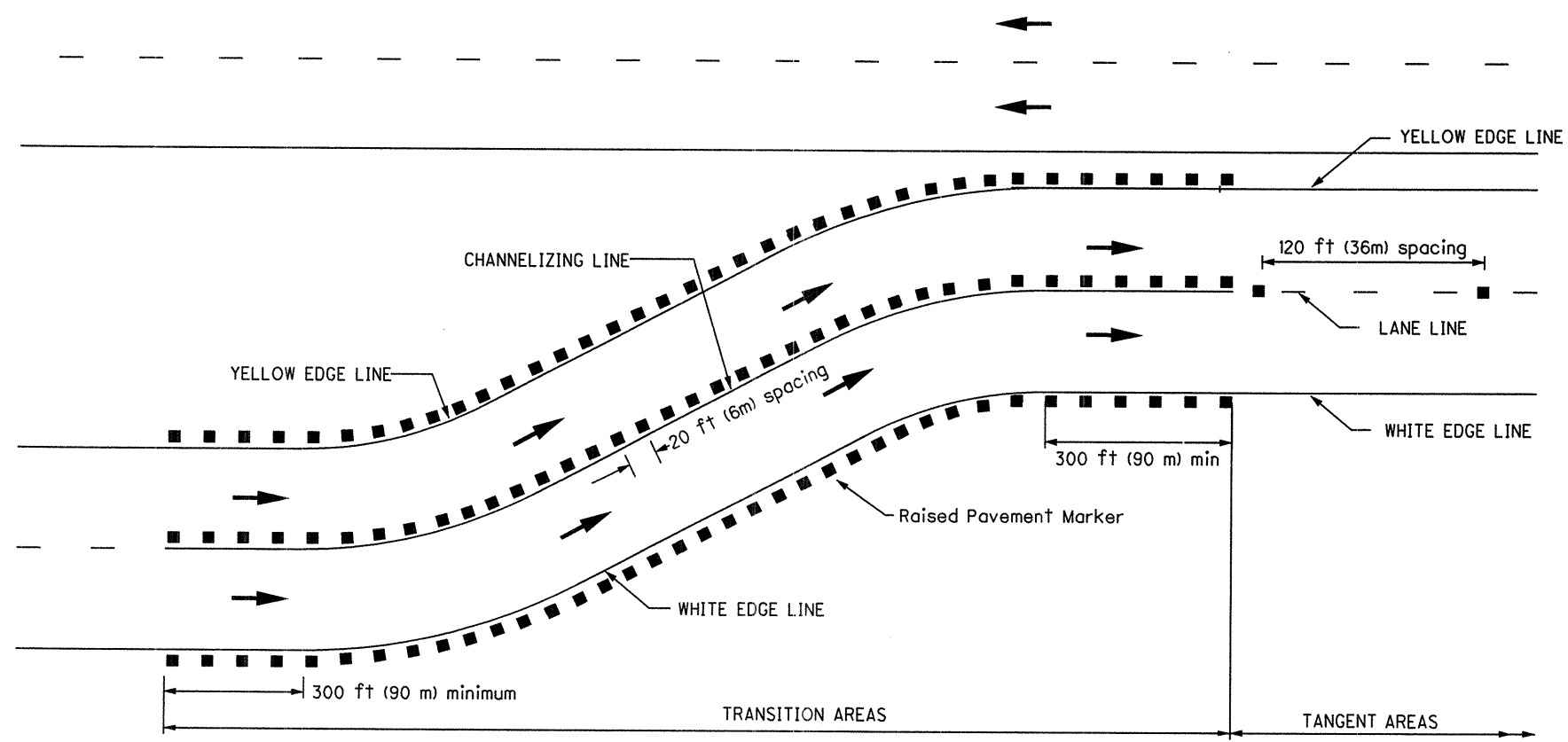
PROPOSED LEGEND

- ① ITEM - 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, AS PER PLAN (1-1/2" THICK)
- ② ITEM - 446 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (2" THICK)
- ③ ITEM - 254 PAVEMENT PLANING, ASPHALT CONCRETE (3 1/2" DEEP)
- ④ ITEM - 407 TACK COAT
- ⑤ ITEM - 202 CONCRETE BARRIER REMOVED, AS PER PLAN

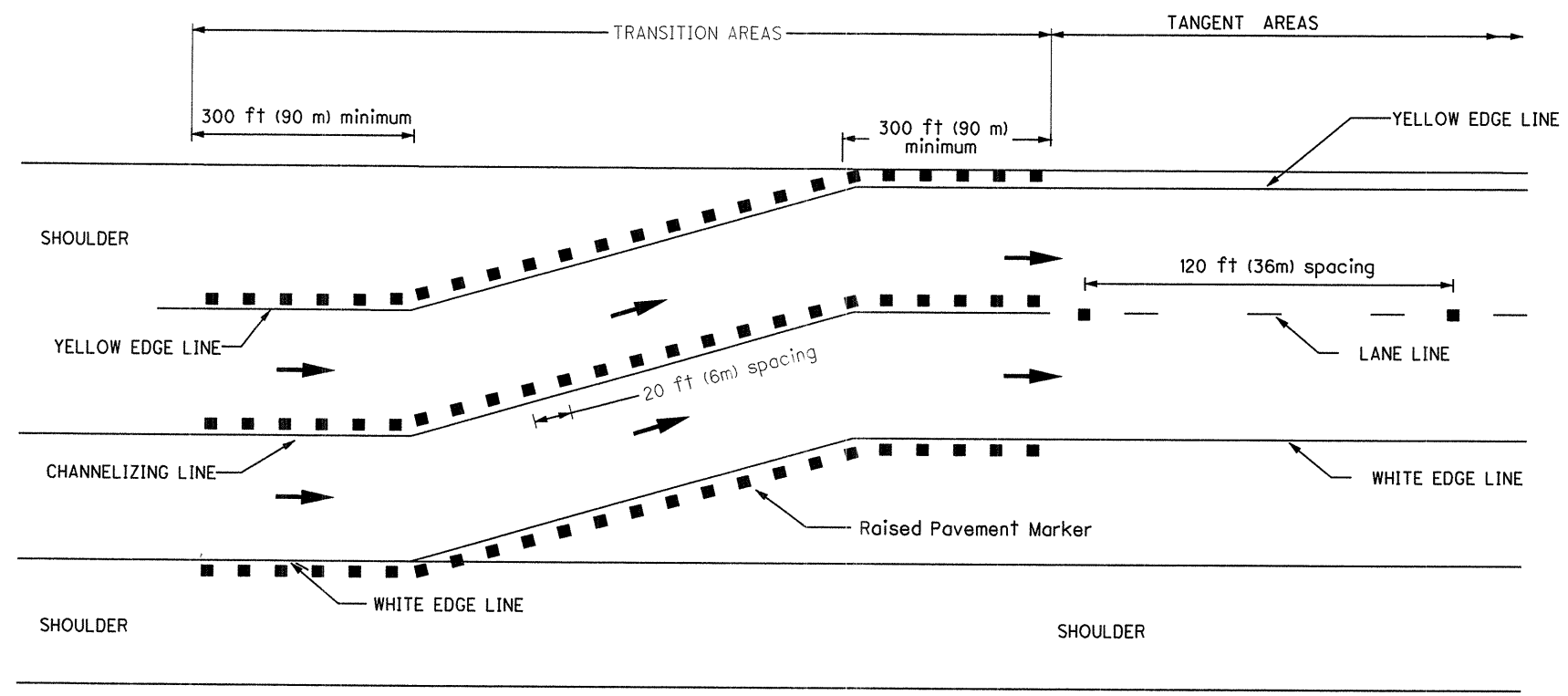


**NOTES**

1. This drawing presents delineation procedures for freeways and expressways on asphalt surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 feet (1.2 m) shall be as per the tangent area delineation.
2. Raised Pavement Markers shall meet the following seasonal specifications:
  - a) Raised Pavement Markers in place during the normal construction season may be either 621 Raised Pavement Markers or 614 Work Zone Raised Pavement Markers (WZRPMS). The normal construction season with regard to use of WZRPMS shall be the period from April 1 through October 15.
  - b) At locations where it is intended that Raised Pavement Markers will winter over, 621 Raised Pavement Markers shall be provided.
  - c) At locations where it is intended that work will continue beyond October 15 but will be completed prior to the beginning of snow-plowing season, 614 WZRPMS may remain in place until such time. Snow-plowing season shall be as specified in the plans. If snow-plowing season is not specified in the plans, it shall be assumed that snow-plowing season runs from October 16 through March 31. If project delays, not the fault of ODOT, cause work to extend into the snow-plowing season, the contractor shall be responsible for replacing WZRPMS with 621 Raised Pavement Markers, as determined by the Engineer, at the contractor's expense.
3. All material furnished shall be listed on the Department's Prequalified Lists.
4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.
5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
6. Spacing of raised pavement markers (RPMs) shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas RPMs shall be provided only along the lane lines, spaced at 120 foot (36 m) center-to-center.
7. The RPMs shall be 1-way, facing oncoming traffic, and shall be white or yellow to match the color of the associated line marking.
8. Along the edge lines, the RPMs shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the RPMs shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the RPMs shall be centered between dashes.
9. The RPMs shall be removed when they are no longer appropriate.
10. Holes resulting from removal of 621 RPMs shall be filled as per 202.10. If removal of the 621 RPMs does not take place immediately after the highlighted alignment becomes invalid, the reflectors within the 621 RPMs shall be removed.
11. Following removal of 621 RPMs resurfacing of the transition shall be performed. The resurfacing shall be performed at the time the surface course is being applied. In preparation for resurfacing, the existing pavement shall be removed to a depth necessary to match the level of the intermediate course of the proposed pavement.



**WORK ZONE DELINEATION FOR CROSSOVERS**



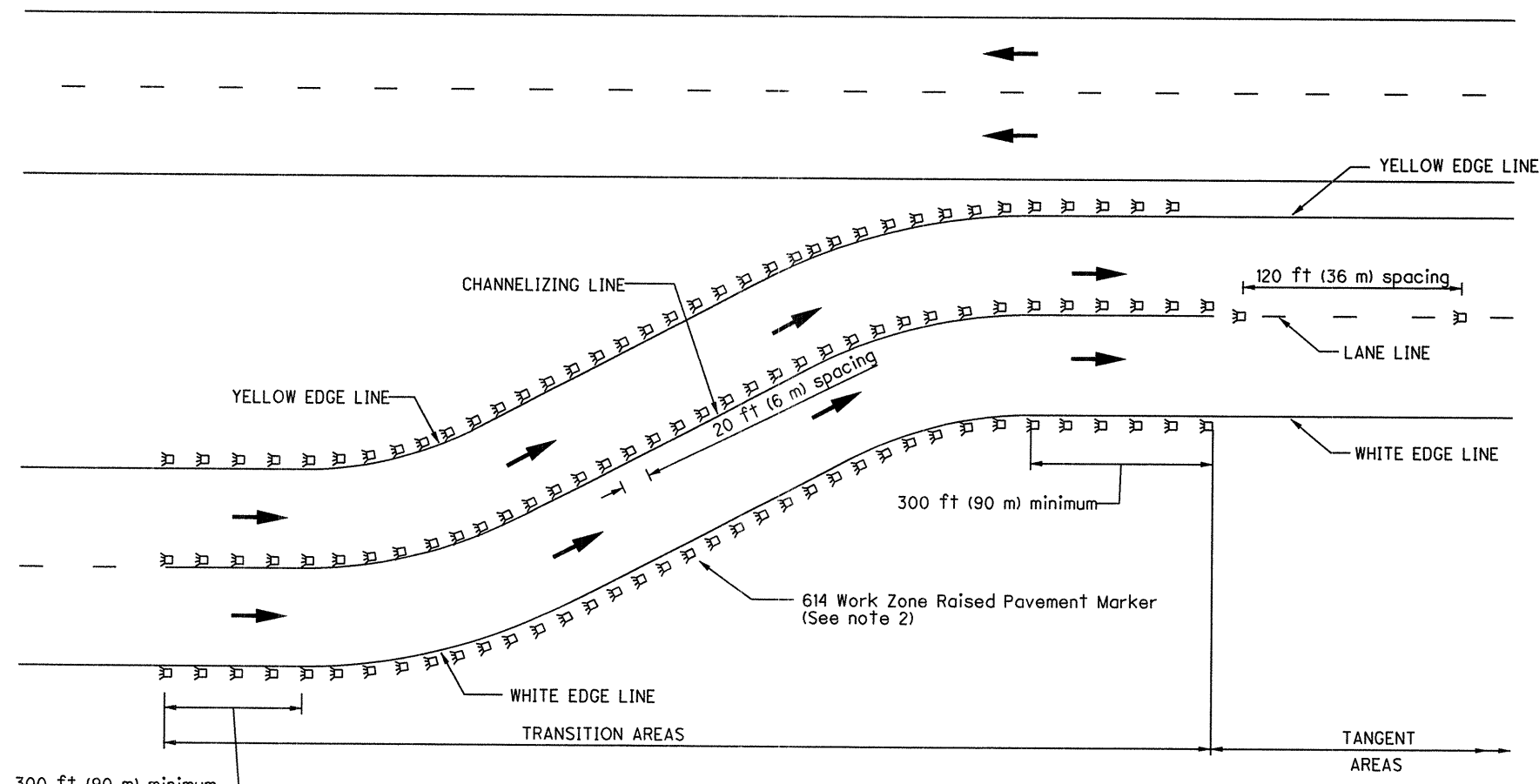
**WORK ZONE DELINEATION FOR LANE SHIFTS**

**LEGEND**

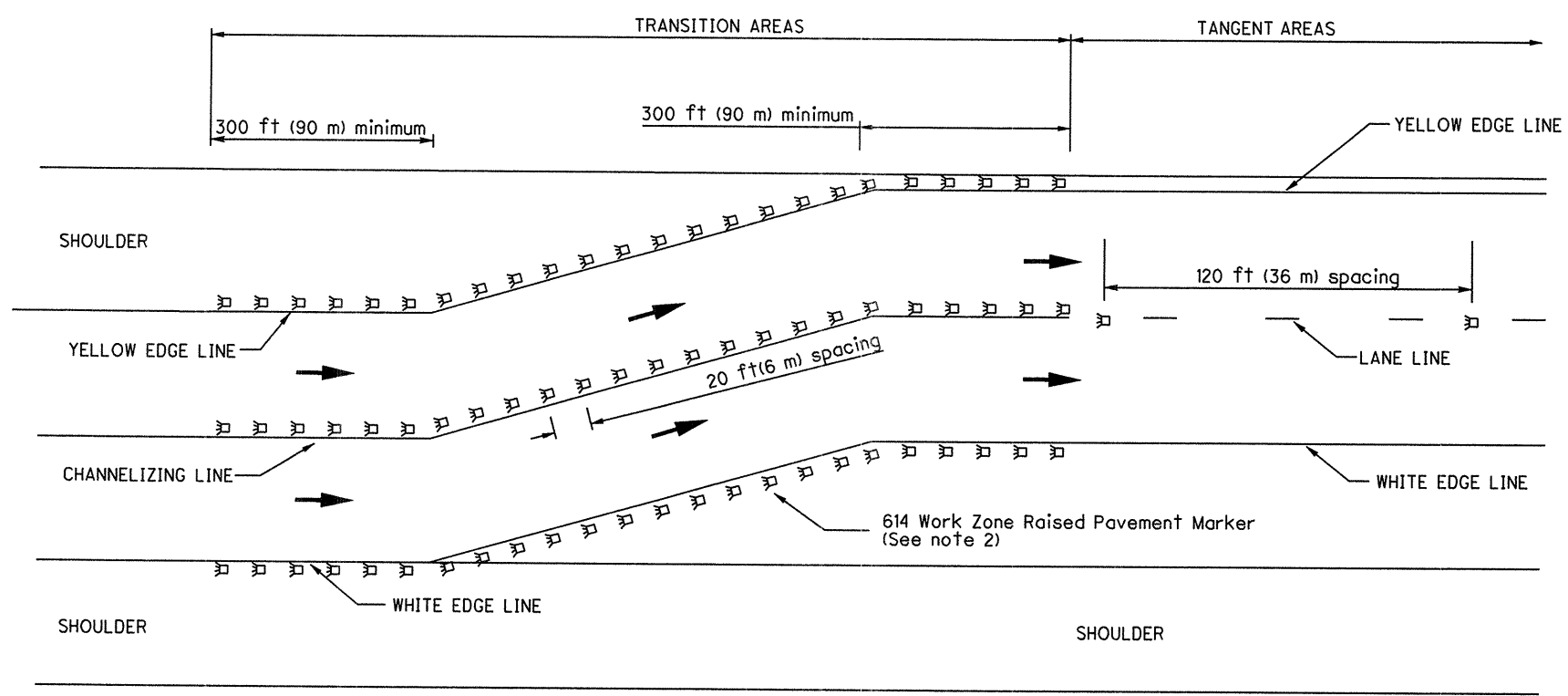
- RPM
- ➔ DIRECTION OF TRAVEL

NOTES

1. This drawing presents delineation procedures for freeways and expressways on concrete surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 feet (1.2 m) shall be as per the tangent area delineation.
2. The Work Zone Raised Pavement Markers (WZRPMS) shown on this drawing are intended for use only during the non-snow-plowing season. WZRPMS shall not be provided during the snow-plowing season. The snow-plowing season shall be from October 16 through March 31 or as otherwise specified in the plans. Where a temporary alignment will remain in use through the winter, the WZRPMS shall be removed prior the beginning of snow-plowing season and replaced approximately April 1, or as otherwise determined by the Engineer.
3. All material furnished shall be listed on the Department's Prequalified Lists.
4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.
5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
6. Spacing of WZRPMS shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas WZRPMS shall be provided only along the lane lines, spaced at 120 feet (36 m) center-to-center.
7. The WZRPMS shall be 1-way, facing oncoming traffic, and shall be white or yellow to match the color of the associated line marking.
8. Along the edge lines, the WZRPMS shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the WZRPMS shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the WZRPMS shall be centered between dashes.
9. The WZRPMS shall be removed when they are no longer appropriate.



WORK ZONE DELINEATION FOR CROSSOVERS



WORK ZONE DELINEATION FOR LANE SHIFTS

LEGEND

	WORK ZONE RPM, TYPE A
	DIRECTION OF TRAVEL