



**CUY-90-14.90**

**PID 77332/85531**

---

**APPENDIX EX-15**

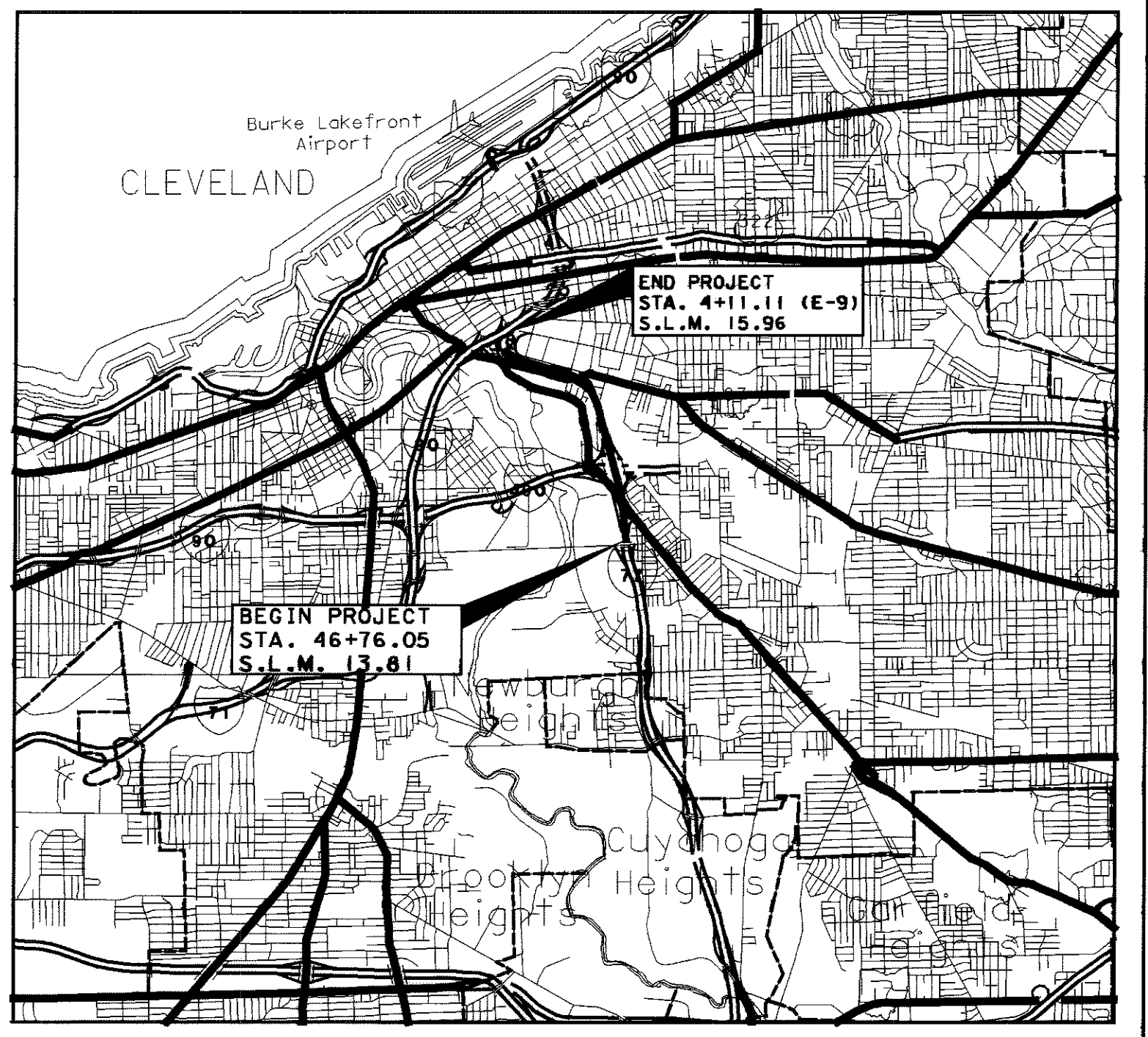
---

**CUY-077-1375 PID 23127**

**(Reference Document)**

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

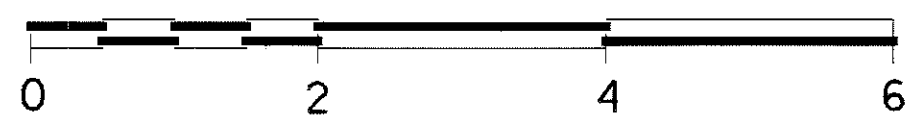
**Innerbelt Bridge  
Construction Contract Group 1 (CCG1)**



LOCATION MAP

LONGITUDE - W 81°39'09.8" LATITUDE - N 41°28'34.4"

SCALE IN MILES



# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

# CUY-77-13.75

CITY OF CLEVELAND  
CUYAHOGA COUNTY

### PROJECT DESCRIPTION:

PROJECT INCLUDES THE MILLING AND RESURFACING OF IR-77 FROM PERSHING TO IR-90 USING SUPERPAVE IN THE CITY OF CLEVELAND. ADDITIONAL WORK SHALL INCLUDE GUARDRAIL AND PAVEMENT MARKINGS.

### 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 REVISED CODE OF OHIO.

### 1997 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 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATES.

APPROVED *Alice D. Conley*  
DATE 6/11/00 DISTRICT DEPUTY DIRECTOR

APPROVED *Gordon Preston, Jr.*  
DATE 5-22-02 DIRECTOR, DEPARTMENT OF TRANSPORTATION

### INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATICS PLAN SHEET	2
TYPICAL SECTION	3-5
GENERAL NOTES	6-9
MAINTENANCE OF TRAFFIC NOTES	10-16
ESTIMATED QUANTITIES	17-19
GENERAL SUMMARY	20-21
PLAN SHEETS	22-32
MISCELLANEOUS DETAILS	33-37, 35A, 35B, 36A
TRAFFIC CONTROL GENERAL NOTES	38-39
TRAFFIC CONTROL PLAN SHEETS	40-50
TRAFFIC CONTROL ESTIMATED QUANTITIES	51-52
ATR DETAIL SHEETS	53-55

PORTION OF IR-77 TO BE IMPROVED \_\_\_\_\_  
STATE & FEDERAL ROUTES \_\_\_\_\_  
OTHER ROADS \_\_\_\_\_

**DESIGN DESIGNATION IR-77**

CURRENT ADT (2002)	109,860
DESIGN YEAR ADT (2022)	131,832
DESIGN HOURLY VOLUME (2002)	13183
DIRECTIONAL DISTRIBUTION	55%
TRUCKS (24 HOUR B&C)	8%
DESIGN SPEED	60 MPH
LEGAL SPEED	60 MPH

DESIGN FUNCTIONAL CLASSIFICATION - FREEWAY (URBAN)

DESIGN EXCEPTIONS: NONE REQUIRED

**UNDERGROUND UTILITIES**  
TWO WORKING DAYS  
BEFORE YOU DIG  
CALL 1-800-362-2764 (TOLL FREE)  
OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

ENGINEERS SEAL  
STATE OF OHIO  
LOUIS G. MINCEK  
E-59472  
REGISTERED  
PROFESSIONAL ENGINEER

PLAN PREPARED BY:  
OHIO DEPARTMENT OF TRANSPORTATION  
DISTRICT 12  
PRODUCTION

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	7/28/00	GR-3.2M	10/21/97	TC-71.10	4/19/02	MT-99.20M	1/30/95	828	12/14/00
BP-5.1	7/28/00	GR-4.1M	11/30/94	TC-72.20	1/19/01	MT-105.10M	4/25/94	858	11/07/00
BP-9.1	7/28/00	GR-4.2M	10/21/97	TC-73.10	1/19/01	MT-105.11M	4/25/94		
		RM-1.1M	4/29/99	MT-35.10	4/20/01			906	5/05/98
				MT-95.30	4/19/02			908	11/07/00
				MT-98.12	4/19/02			925	9/14/99
				MT-98.13	4/19/02			932	10/02/96
				MT-98.14	4/19/02				
				MT-98.15	4/19/02				
				MT-98.16	4/19/02				
GR-1.1M	10/21/97	TC-52.10	4/20/01	MT-98.17	4/25/94				
GR-1.2M	1/03/96	TC-52.20	4/20/01	MT-98.18	4/25/94				
GR-1.3M	11/30/94			MT-98.19	3/01/96				
GR-2.1M	4/14/98	TC-65.10	10/19/01						
GR-3.1M	10/21/97	TC-65.11	10/19/01						

CUY - IR 77 - 13.75  
020449 P1D - 23127  
Dist 12 10/9/2002

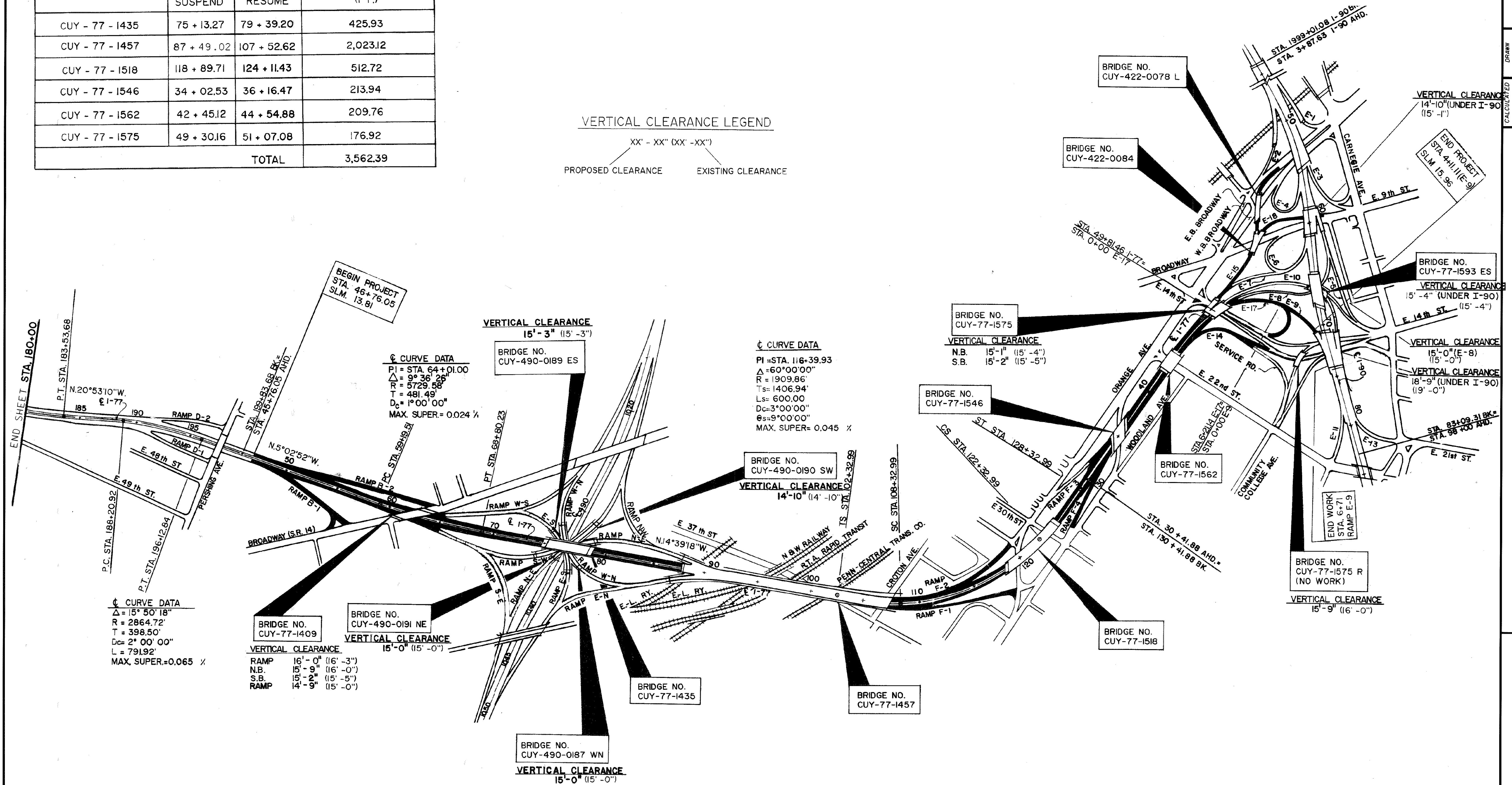
fkropkpk  
06-MAY-2002 12:48PM

I:\PROJECTS\PI\23127\dgn\23127grt.a.dgn

FEDERAL PROJECT NO. TE21-G010 (252)  
PID NO. 23127  
CONSTRUCTION PROJECT NO.  
RAILROAD INVOLVEMENT NONE  
CUYAHOGA COUNTY CUY-77-13.75  
1/55

DEDUCTIONS FOR BRIDGE WORK			
BRIDGE NO.	STATION		LENGTH (FT.)
	SUSPEND	RESUME	
CUY - 77 - 1435	75 + 13.27	79 + 39.20	425.93
CUY - 77 - 1457	87 + 49.02	107 + 52.62	2,023.12
CUY - 77 - 1518	118 + 89.71	124 + 11.43	512.72
CUY - 77 - 1546	34 + 02.53	36 + 16.47	213.94
CUY - 77 - 1562	42 + 45.12	44 + 54.88	209.76
CUY - 77 - 1575	49 + 30.16	51 + 07.08	176.92
TOTAL			3,562.39

VERTICAL CLEARANCE LEGEND  
 XX' - XX" (XX' - XX")  
 PROPOSED CLEARANCE      EXISTING CLEARANCE

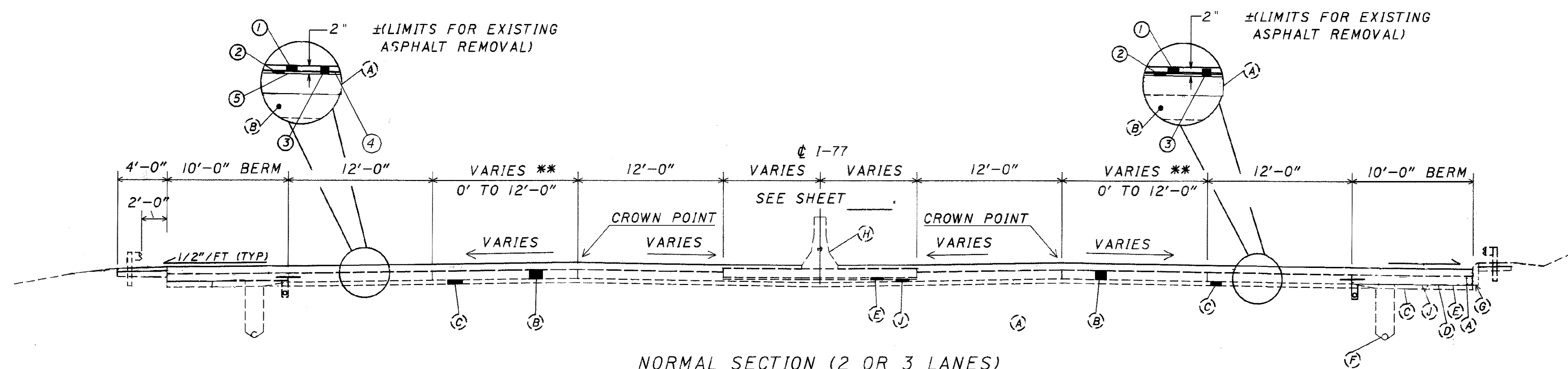


I:\PROJECTS\PID23127\dgn\23127GBA.dgn 09-MAY-2002 8:24AM fkomopka

DRAWN LGM  
 CHECKED LGM  
 CALCULATED LGM  
 REVISED XXX  
 EMK

SCHEMATIC PLAN SHEET

CUYAHOGA COUNTY  
 CUY-77-13.81



**NORMAL SECTION (2 OR 3 LANES)**

STA. 46+76.05 TO STA. 59+19.51 \*\*  
 STA. 68+80.23 TO STA. 98+26  
 STA. 98+26 TO STA. 102+32.99 \*\*  
 STA. 128+32.99 TO STA. 130+41.88 \*\*  
 STA. 30+41.88 TO STA. 46+50 \*\*  
 STA. 46+50 TO STA. 51+77.4

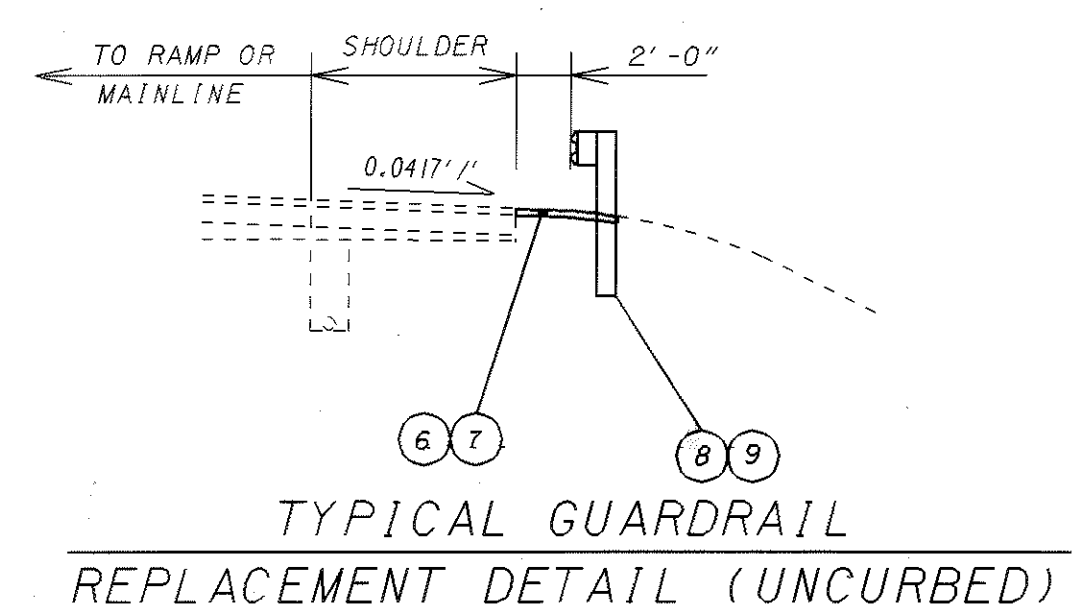
\*\* → 12'-0" (3 LANE SECTION)

**EXISTING LEGEND**

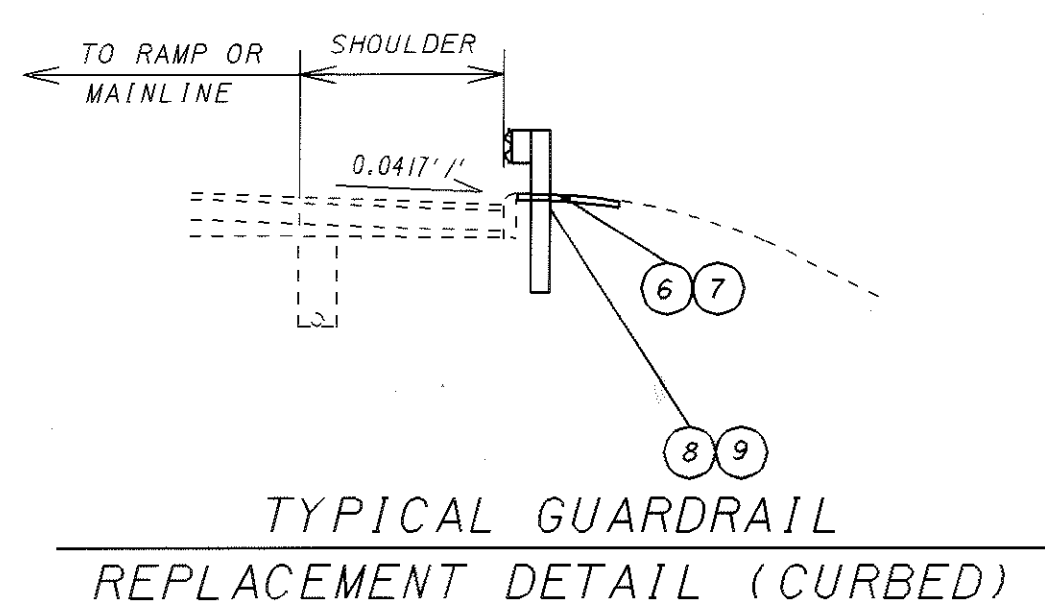
- (A) ASPHALT CONCRETE SURFACE COURSE
- (B) 9" REINFORCED CONCRETE PAVEMENT
- (C) SUBBASE
- (D) CONCRETE BASE
- (E) BITUMINOUS AGGREGATE BASE
- (F) UNDERDRAIN
- (G) CURB (SANDSTONE, CONCRETE, OR ASPHALT)
- (H) CONCRETE BARRIER MEDIAN
- (I) GUARDRAIL, TYPE 5
- (J) AGGREGATE BASE
- (K) COMPACTED AGGREGATE
- (L) CONCRETE SIDEWALK

**PROPOSED LEGEND**

- (1) ITEM 858 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
- (2) ITEM 858 - ASPHALT CONCRETE INTERMEDIATE COURSE, 9.5MM, TYPE A (448), VARIABLE 0 TO 1/2"
- (3) ITEM 254 - PAVEMENT PLANING, BITUMINOUS (T=2"±)
- (4) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
- (5) ITEM 407 - TACK COAT
- (6) ITEM 203 - LINEAR GRADING, METHOD A
- (7) ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22 (UNDER GUARDRAIL)
- (8) ITEM 202 - GUARDRAIL REMOVED
- (9) ITEM 606 - GUARDRAIL, TYPE 5



**TYPICAL GUARDRAIL REPLACEMENT DETAIL (UNCURBED)**



**TYPICAL GUARDRAIL REPLACEMENT DETAIL (CURBED)**

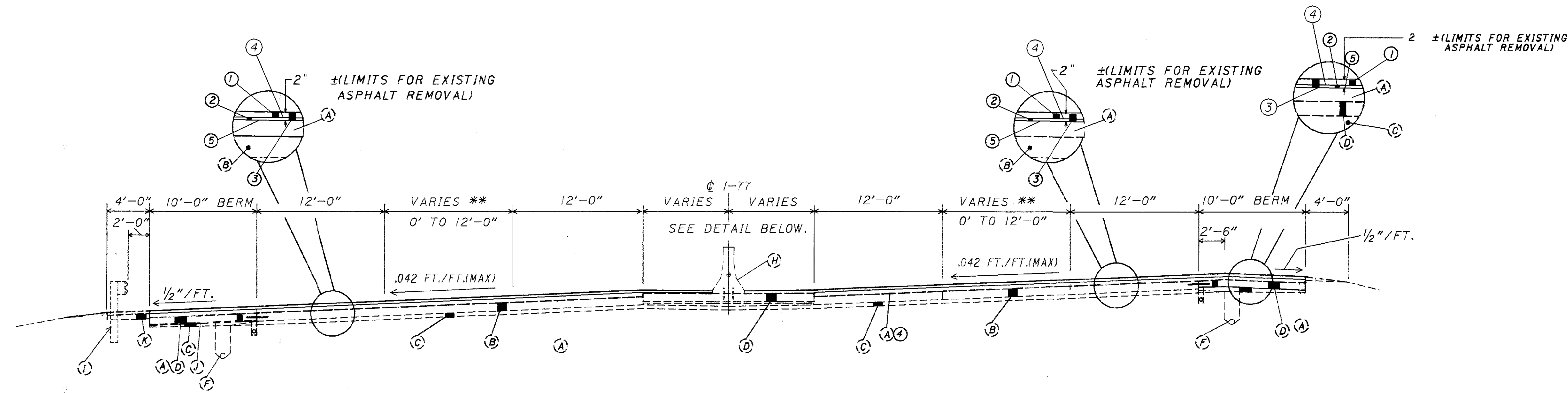
I:\PROJECTS\PID23127\ dgn\23127CYA.dgn 09-MAY-2002 8:24AM fkomopka

DRAWN	LGM	REVISOR	XXX
CALCULATED	LGM	CHECKED	XXX

TYPICAL SECTION PLAN SHEET

CUYAHOGA COUNTY  
 CUY-77-13.81

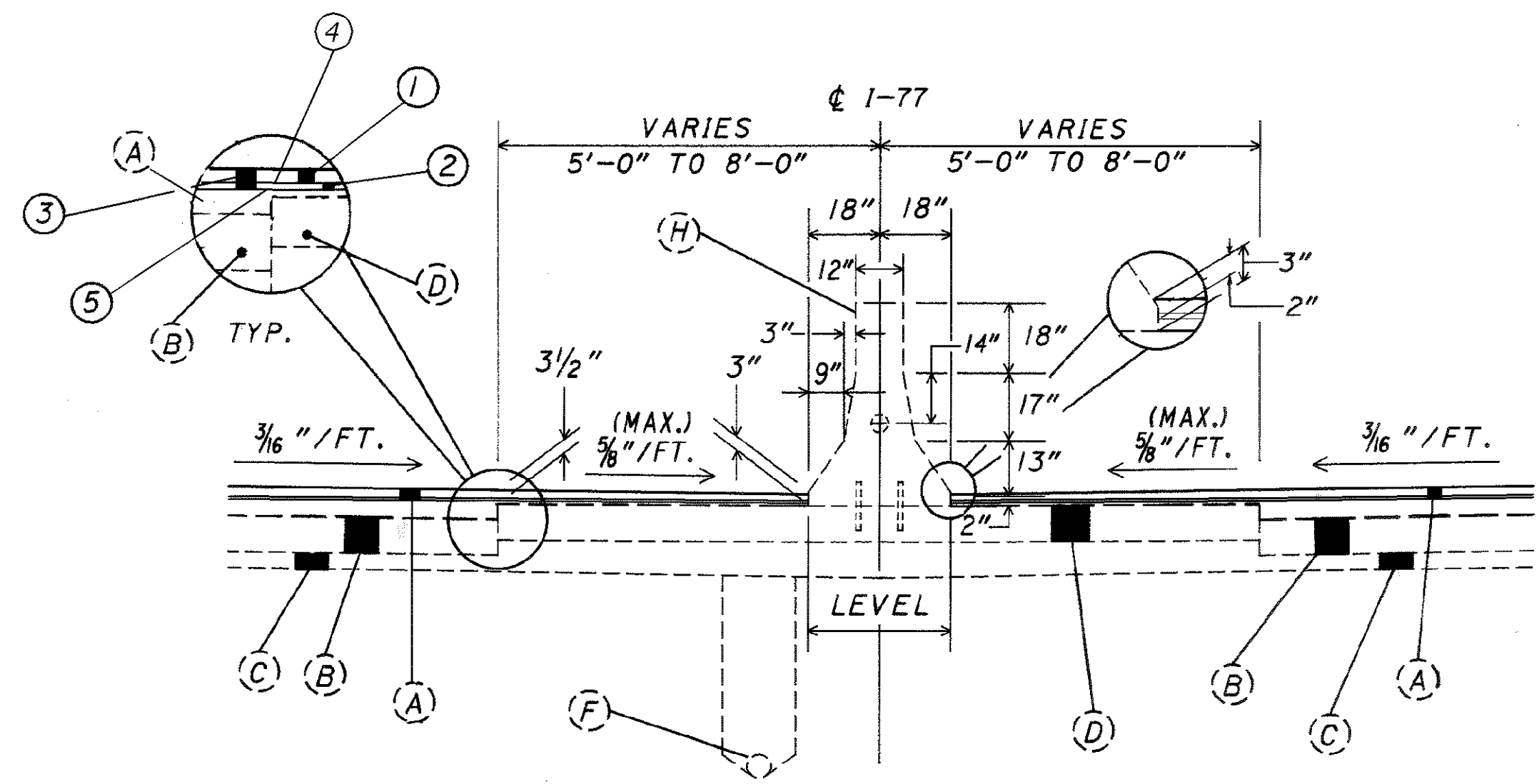




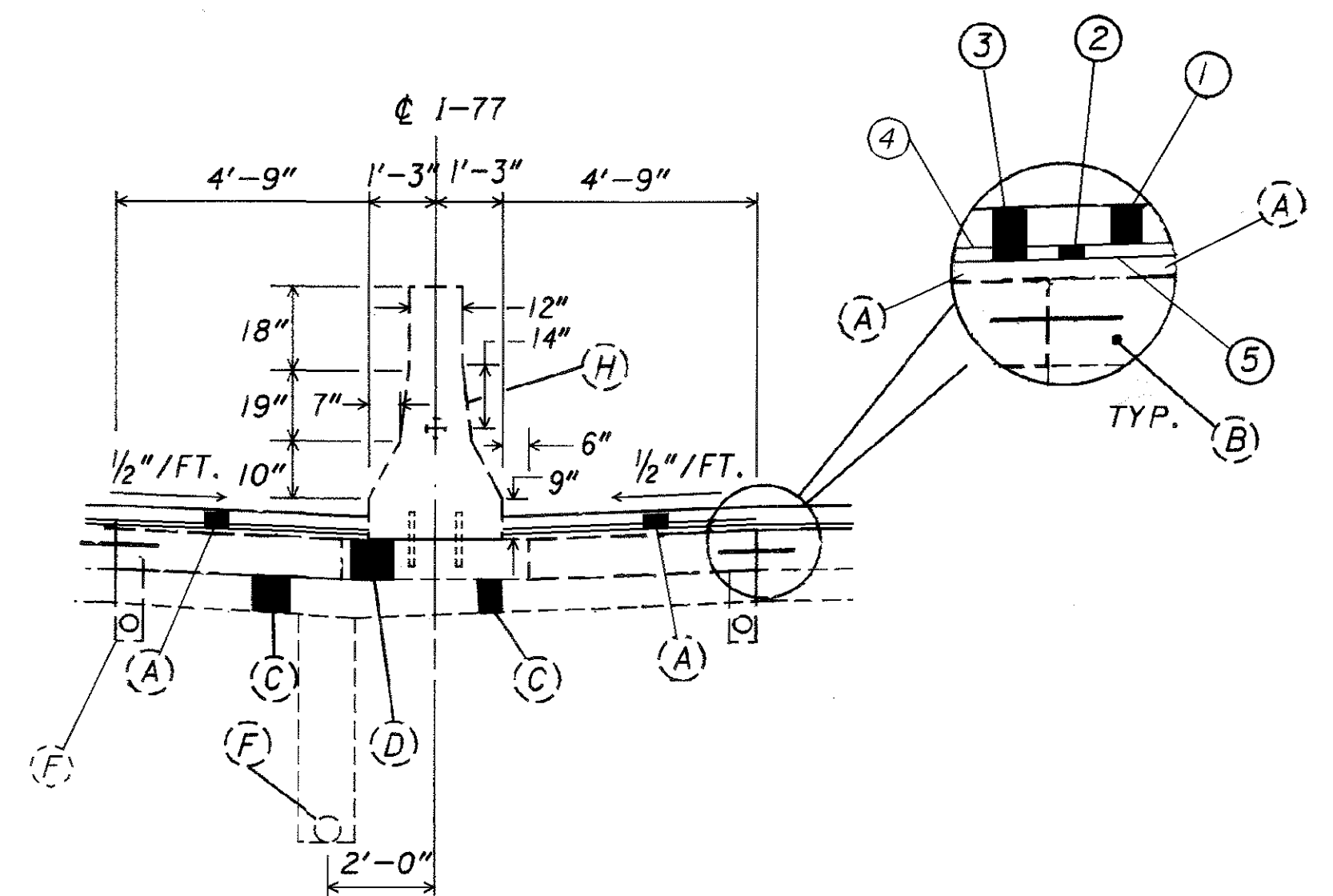
**SUPERELEVATED SECTION (2 OR 3 LANES)**

STA. 59+19.51 TO STA. 65+43 \*\*  
 STA. TO 65+43 TO STA. 68+80.23  
 STA. 102+32.99 TO STA. 128+32.99 \*\*

\*\* -42'-0" (3 LANE SECTION)



**TYPICAL CONCRETE BARRIER MEDIAN (50")**  
 STA. 65+43 TO STA. 130+41.88  
 STA. 30+41.88 TO STA. 51+77.74



**TYPICAL CONCRETE BARRIER MEDIAN (50" EXISTING BARRIER)**  
 STA. 46+76.05 TO STA. 65+43

SEE SHEET 3 FOR LEGEND AND GUARDRAIL DETAILS.

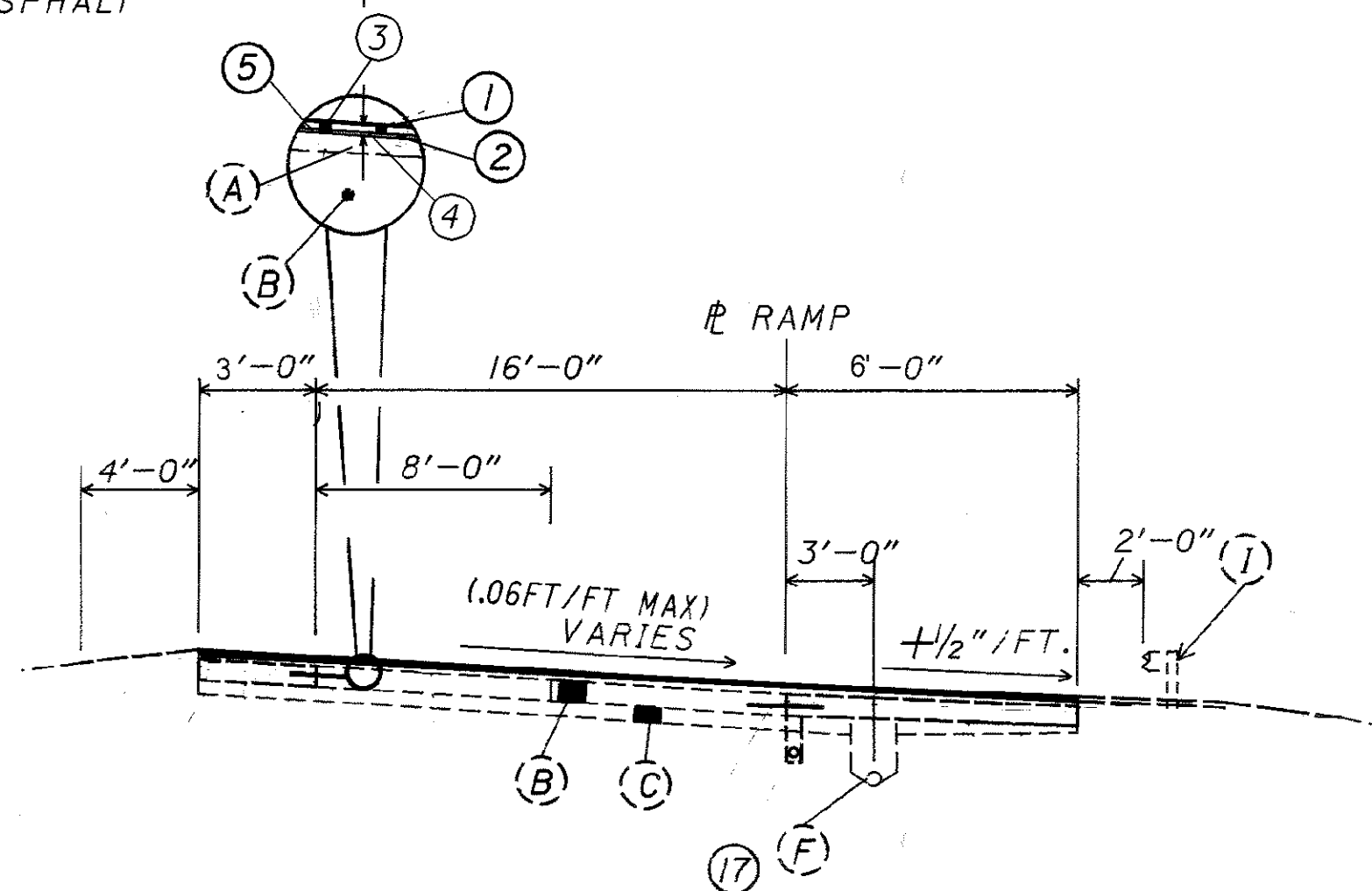
I:\PROJECTS\PID23127\dgn\23127GVB.dgn 09-MAY-2002 8:24AM fkonopka

DRAWN	LGM	REVISED	XXX
CALCULATED	LGM	CHECKED	XXX

TYPICAL SECTION PLAN SHEET

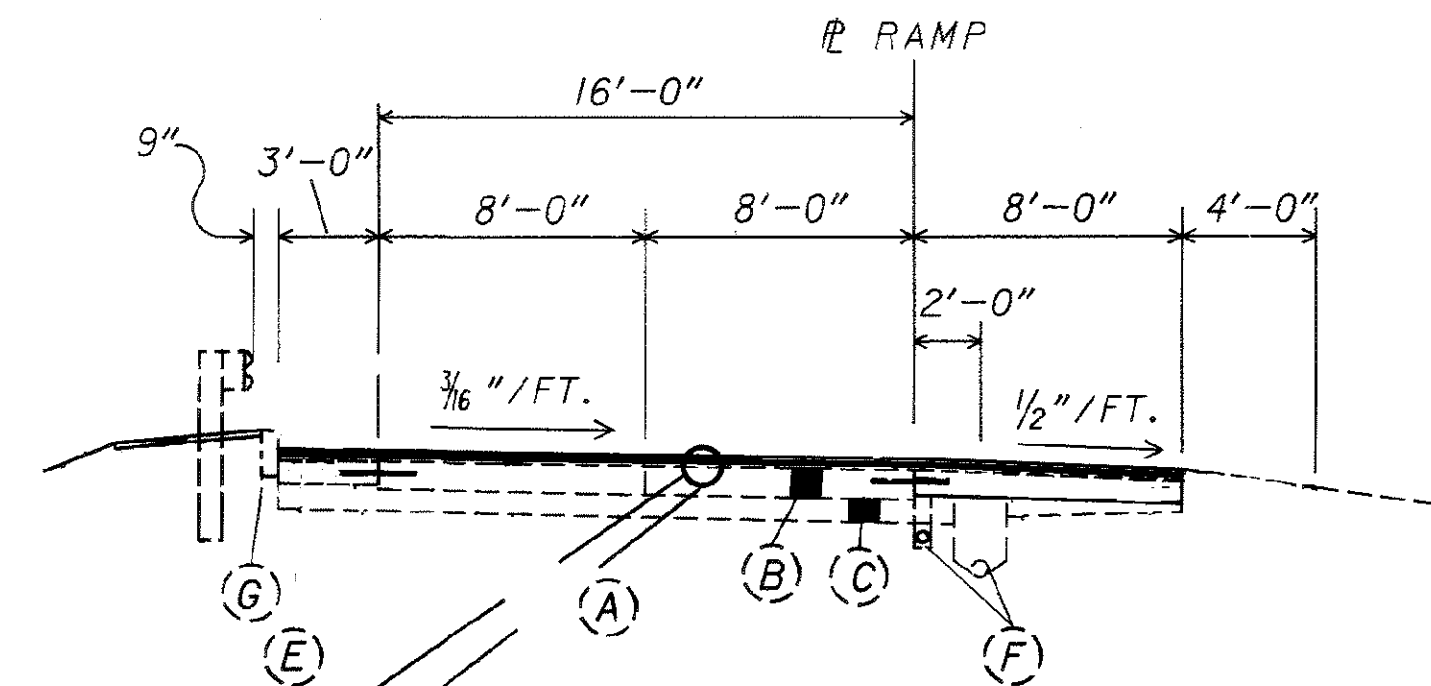
CUYAHOGA COUNTY  
 CUY-77-13.81

2" (LIMITS FOR EXISTING ASPHALT REMOVAL)



**NORMAL RAMP SECTION  
(UNCURBED)**

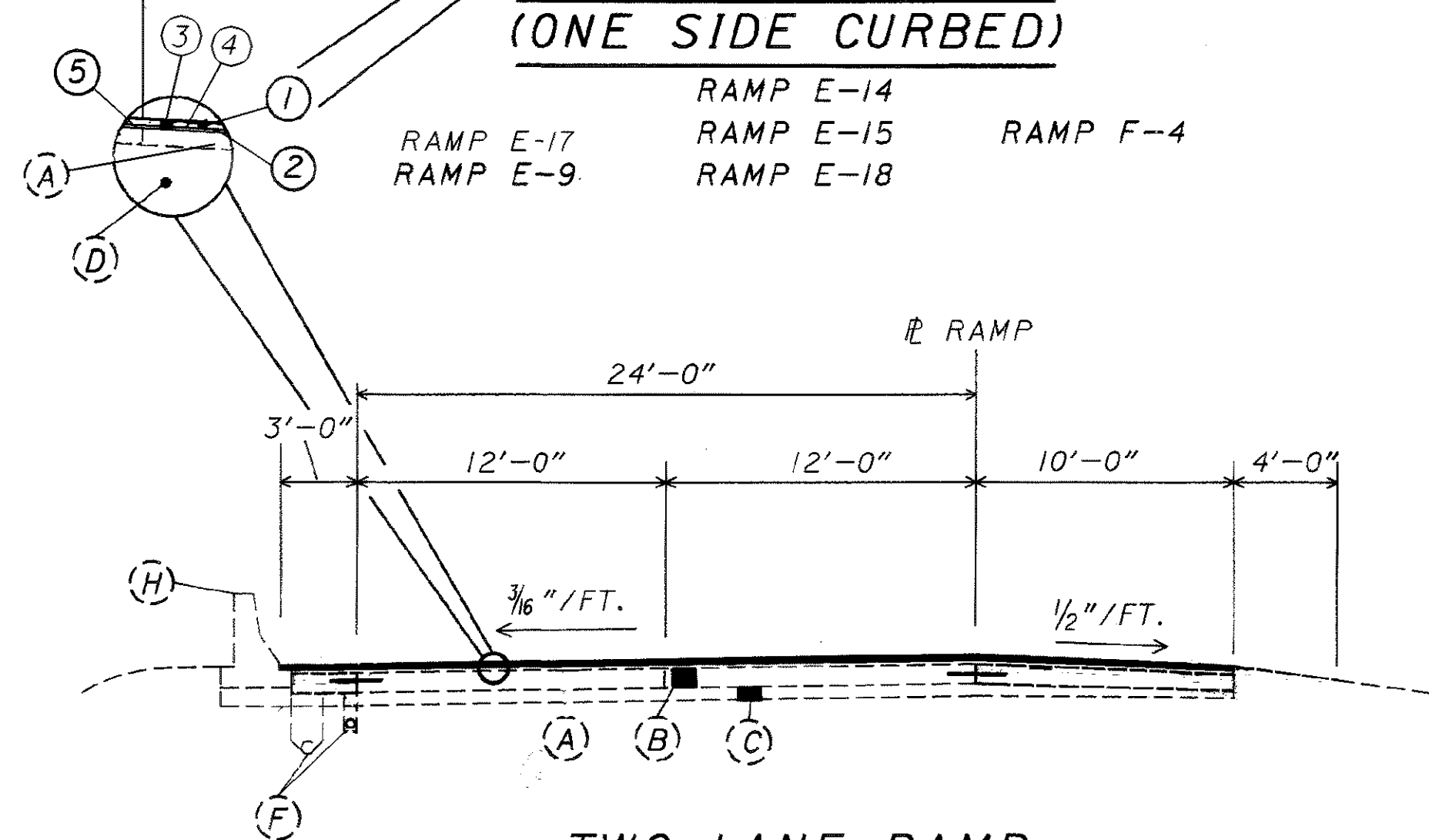
RAMP F-1  
RAMP F-2



**ONE LANE RAMP  
(ONE SIDE CURBED)**

RAMP E-14  
RAMP E-17    RAMP E-15    RAMP F-4  
RAMP E-9    RAMP E-18

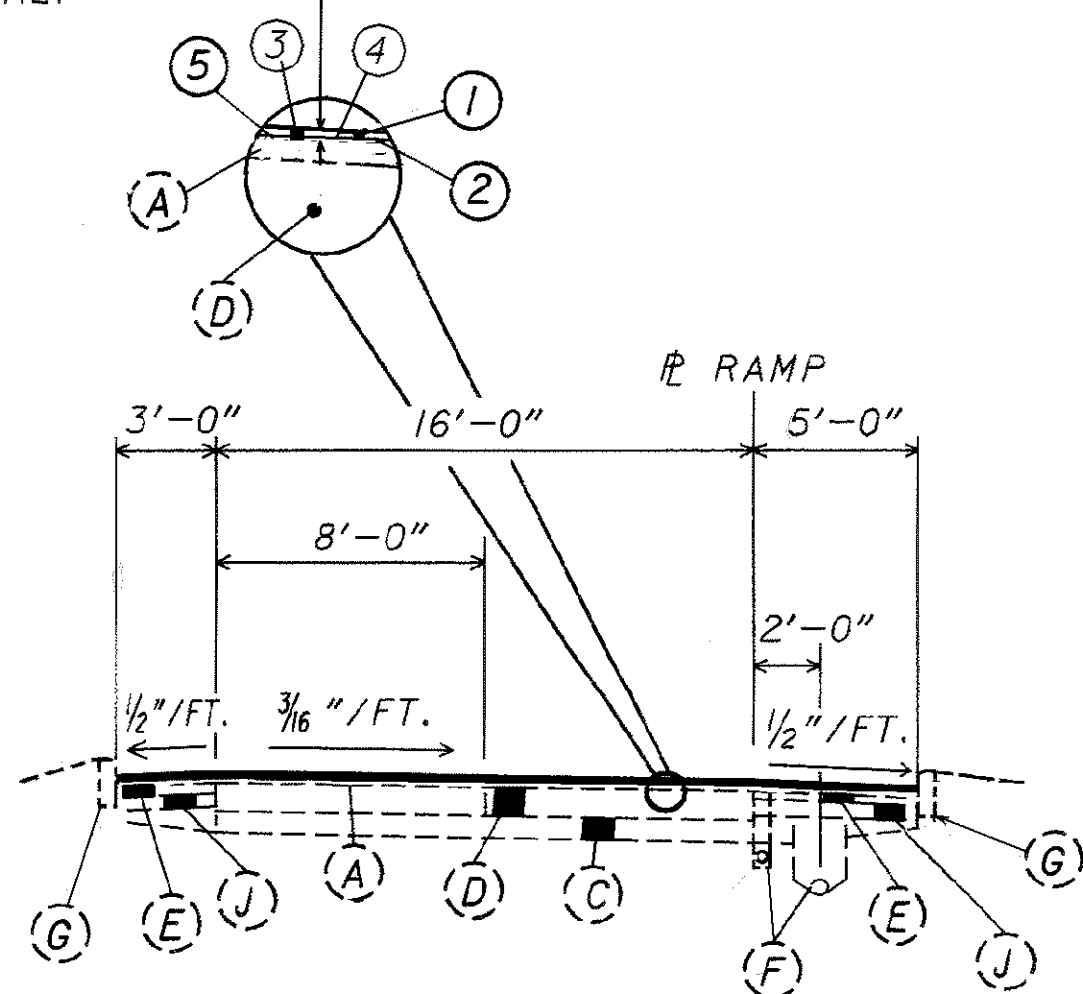
2" (LIMITS FOR EXISTING ASPHALT REMOVAL)



**TWO LANE RAMP  
(ONE SIDE CURBED)**

RAMP E-17

2" (LIMITS FOR EXISTING ASPHALT REMOVAL)



**NORMAL RAMP SECTION (CURBED)**

RAMP B-1  
RAMP B-2

I:\PROJECTS\PID23127\dgn\23127G.C.dgn 09-MAY-2002 8:25AM fkonopka

DRAWN	LGM	REVISOR	XXX
CALCULATED	LGM	CHECKED	XXX

TYPICAL SECTION PLAN SHEET

CUYAHOGA COUNTY  
CUI-77-13.81

SEE SHEET 3 FOR LEGEND AND GUARDRAIL DETAILS.

# GENERAL

## PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MILLING AND RESURFACING OF INTER-STATE 77 FROM JUST NORTH OF THE PERSHING ROAD OVERPASS UP TO THE IR-90 INTERCHANGE IN THE CITY OF CLEVELAND. ALSO INCLUDED IN THE MILLING AND RESURFACING OPERATIONS WILL BE RAMPS B-1 AND B-2 (BROADWAY AVE), F-1, F-2 AND F-4 (WOODLAND AVE/E. 30TH ST.), E-14 (E.14 ST. AND ACCESS ROAD), E-9/E-17 (NORTHBOUND IR-77 TO EASTBOUND IR-90), E-15 AND E-18 (BROADWAY AVE., E.9TH ST. TO SOUTHBOUND IR-77). FROM PAST HISTORY OF THE PAVEMENT REHABILITATION, ALONG WITH A FIELD REVIEW NO FULL DEPTH REPAIRS ARE ANTICIPATED.

SEE PLAN SHEETS FOR EXACT LIMITS. OTHER ITEMS OF WORK SHALL INCLUDED PARTIAL DEPTH PAVEMENT REPAIRS, GUARDRAIL UPGRADE, PAVEMENT MARKINGS, RPM'S AND RELAMPING OF THE EXISTING LIGHTING.

## RIGHT OF WAY

ALL WORK SHALL BE PERFORMED WITHIN THE EXISTING RIGHT OF WAY OR EASEMENTS.

## 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.

THESE PLANS MAY BE REVIEWED AT THE

OHIO DEPARTMENT OF TRANSPORTATION  
DISTRICT 12 OFFICE  
5500 TRANSPORTATION BOULEVARD  
GARFIELD, HEIGHTS, OHIO 44125

## CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROXIMATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

## 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.

## COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS/HER OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT. NO WAIVER OF ANY PROVISIONS OF 105.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS IS INTENDED.

## 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.

## 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.

## ITEM 806 - FIELD OFFICE, TYPE B

A TYPE B FIELD OFFICE IS REQUIRED FOR THIS PROJECT.

## ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U. S. G. S. DATUM.

## COST PARTICIPATION

THE QUANTITIES WHICH APPEAR IN THE GENERAL SUMMARIES HAVE BEEN PLACED IN THE FOLLOWING PARTICIPATION AREAS:

COST PARTICIPATION I - FEDERAL AND STATE

## ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THERE FROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING, BY THE DIRECTOR.

## UTILITY OWNERSHIP

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT. THE OHIO DEPARTMENT OF TRANSPORTATION HAS USED THE BEST AVAILABLE INFORMATION TO DETERMINE THE UTILITY COMPANIES SERVING THIS AREA, BUT CANNOT GUARANTEE THE UTILITY COMPANY LIST IS COMPLETE.

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

AMERITECH  
13630 LORAIN AVE. 4TH FLOOR  
CLEVELAND, OH 44111  
(216) 476-6142

AMERICAN TELEPHONE & TELEGRAPH  
229 WEST 7TH STREET  
CINCINNATI, OH 45202  
ATTN: JEFF BALLINGER  
PHONE (513) 784-3238  
FAX (513) 784-3274

CLEVELAND PUBLIC POWER (MELP)  
1300 LAKESIDE AVE.  
CLEVELAND, OHIO 44114  
ATTN: DALE TURKOVICH EXT. 115  
PHONE: (216) 664-4245  
FAX: (614) 664-2777

CITY OF CLEVELAND WATER DEPT.  
1201 LAKESIDE AVE.  
CLEVELAND, OHIO 44114  
ATTN: DON TREBAR  
PHONE: (216) 644-2444  
FAX: 664-2378

THE ILLUMINATING CO.  
6896 MILLER RD  
BRECKSVILLE, OH 44141  
(440) 546-8748

EAST OHIO GAS CO.  
1201 E. 55TH ST  
CLEVELAND, OH 44103  
(216) 736-6755

CITY OF CLEVELAND DIVISION  
OF WATER POLLUTION CONTROL  
12302 KIRBY ROAD  
CLEVELAND, OHIO 44108  
ATTN: RACHID ZOGHAIB  
PHONE: (216) 664-2786

CITY OF CLEVELAND SAFETY  
SIGNAL SYSTEM  
310 CARNEGIE  
CLEVELAND, OHIO 44115  
ATTN: TOM SEGAL, CHIEF  
PHONE: (216) 664-3247  
FAX: (216) 664-2597

## ITEM 623 - CONSTRUCTION LAYOUT STAKES, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 623, THIS ITEM SHALL BE USED TO PROVIDE THE SURVEY OF THE ASPHALT BRIDGE TRANSITIONS AS REQUIRED BY THE NOTES ON SHEET 36A.

## GUARDRAIL PROTECTION

NO SIGN SUPPORTS SHALL BE ERECTED BEFORE THE NECESSARY GUARDRAIL PROTECTION IS IN PLACE. SIMILARLY EXISTING GUARDRAIL WHICH PROTECTS AN OBSTRUCTION OR SLOPE WHICH IS TO BE UPGRADED TO ELIMINATE GUARDRAIL, SHALL NOT BE REMOVED UNTIL THAT WORK HAS BEEN COMPLETED. EXISTING GUARDRAIL WHICH IS SCHEDULED TO BE REPLACED WITH TYPE 5 GUARDRAIL, SHALL NOT BE REMOVED UNTIL THE NEW GUARDRAIL IS READY TO BE INSTALLED, UNDER NO CIRCUMSTANCES SHALL ANY HAZARD BE WITHOUT GUARDRAIL PROTECTION FOR MORE THAN 24 HOURS. (SEE PUBLIC SAFETY NOTE SHEET NO. 11)

CALCULATED  
LGM  
CHECKED  
LDH

GENERAL NOTES

CUYAHOGA COUNTY  
CUY-77-13.81

6  
55



# ROADWAY

## TYPE 5 GUARDRAIL POST SPACING

WHEN THE OFFSET BETWEEN THE FACE OF THE GUARDRAIL AND BRIDGE PIERS, MAJOR SIGNS, SIGN SUPPORTS, OR OTHER FIXED OBSTACLES IS LESS THAN 5 FEET 6 INCHES THE GUARDRAIL SHALL BE STIFFENED BY PROVIDING 3 FEET 1.5 INCH POST SPACING FROM 12.5 FEET IN ADVANCE OF THE OBSTRUCTION TO ITS END, AS PER STANDARD DRAWING GR-2.1M COST SHALL BE INCLUDED IN THE TYPE 5A UNIT PRICE BID.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED, AS DIRECTED BY THE ENGINEER, IN PLACE OF TYPE 5 GUARDRAIL AS OUTLINED ABOVE:

ITEM 606-GUARDRAIL, TYPE 5A . . . . . 150 LIN.FT.

## LOCATION OF GUARDRAIL

THE LOCATIONS OF GUARDRAIL RUNS, AS SHOWN IN THESE PLANS, ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

## ITEM 202 - GUARDRAIL REMOVED

THIS ITEM SHALL INCLUDE BOTH STANDARD AND BARRIER TYPE RAILS INCLUDING ANCHOR ASSEMBLIES AND TERMINAL ASSEMBLIES.

## PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING 203, LINEAR GRADING METHOD A, AND PAVING UNDER GUARDRAIL USING 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG 64-22.

ITEM 203, LINEAR GRADING, METHOD A SHALL CONSIST OF EXCAVATING TOPSOIL, PLACING GRANULAR MATERIAL AND APPLYING HERBICIDE AS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH THE FOLLOWING:

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 203.05.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 203.02 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

HERBICIDE SHALL BE TREFLANE E.C., SPIKE OR AN APPROVED EQUAL AND SHALL BE APPLIED TO THE PREPARED AREA AFTER FINAL LEVELING AND GRADING HAS BEEN COMPLETED. THE APPLICATION SHALL BE JUST PRIOR TO PAVING AND SHALL STRICTLY ADHERE TO THE MANUFACTURER'S INSTRUCTIONS.

EACH SUCCESSFUL BIDDER MUST BE LICENSED BY THE OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL APPLICATOR AND ALL PERSONS INVOLVED IN THE ACTUAL SPRAYING SHALL BE LICENSED AS COMMERCIAL OPERATORS IN THE APPROPRIATE SPRAY CATEGORY. APPROPRIATE LICENSES SHALL BE SUBMITTED TO THE PROJECT SUPERVISOR, PRIOR TO COMMENCING WORK FOR VERIFICATION.

ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 203, LINEAR GRADING, METHOD A.

## PAVING UNDER GUARDRAIL (CONT'D)

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 448 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A: 1) SET GUARDRAIL POSTS  
2) PLACE ITEM 448

METHOD B: 1) PLACE ITEM 448  
2) BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)  
3) SET GUARDRAIL POSTS  
4) PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE A BITUMINOUS CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 448, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG 64-22.

## ITEM 203 - LINEAR GRADING, METHOD A

THIS ITEM OF WORK SHALL CONSIST OF EXCAVATING ALONG THE OUTSIDE EDGE OF THE PAVED SHOULDER, AS DETAILED ON THE TYPICAL SECTIONS, TO PREPARE THE GROUND SURFACE FOR PAVING UNDER GUARDRAIL. THIS ITEM SHALL BE USED TO PREPARE PROPOSED GUARDRAIL AND EXISTING GUARDRAIL RUNS.

ALL COLLECTED DEBRIS SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATION.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 203, STA., LINEAR GRADING, METHOD A AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THIS ITEM OF WORK.

## GUARDRAIL QUANTITIES

THE GUARDRAIL RUNS SCHEDULED FOR REPAIR AND THE QUANTITIES SHOWN IN THE PLANS REPRESENT THE CURRENT CONDITIONS AT THE TIME THE PLANS WERE PREPARED. LOCATIONS OF RUNS WERE BASED UPON PREVIOUS PLANS AND ARE SUBJECT TO FIELD VERIFICATION. ADDITIONAL AREAS OF REPAIR MAY HAVE OCCURED IN THE INTERIM. THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED, AS DIRECTED BY THE ENGINEER FOR ADDITIONAL REPAIR AND/OR REPLACEMENT AREAS NOT INCLUDED IN THE PLANS:

ITEM 606 - GUARDRAIL TYPE 5 . . . . .	500	L.F.
ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98. . . . .	1	EACH
ITEM 606 - ANCHOR ASSEMBLY, TYPE T . . . . .	1	EACH
ITEM 606 - BRIDGE TERMINAL ASSEMBLY, TYPE 1 . . . . .	1	EACH
ITEM 606 - BRIDGE TERMINAL ASSEMBLY, TYPE 4 . . . . .	1	EACH
		AS PER PLAN
ITEM 203 - LINEAR GRADING, METHOD A . . . . .	5	STA.
ITEM 448 - ASPHALT CONCRETE, INTERMEDIATE . . . . .	17	C.Y.
		TYPE 1, PG64-22, (UNDER GUARDRAIL)
ITEM 626 - BARRIER REFLECTOR, TYPE A . . . . .	6	EACH
ITEM 202 - GUARDRAIL REMOVED . . . . .	500	L.F.

## ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

SEE NOTES AND DETAILS ON SHEET 33 FOR THIS ITEM.

## LIGHTING CIRCUIT CONFLICT

IF AN EXISTING LIGHTING CIRCUIT IS HIT DURING THE INSTALLATION OF NEW GUARDRAIL, THE FOLLOWING CONTINGENCY QUANTITIES SHALL BE USED AS DIRECTED BY THE ENGINEER TO REPAIR THE DAMAGED CIRCUIT.

THE CONTRACTOR SHALL HAVE ONE WEEK FROM THE TIME THE CIRCUIT IS DAMAGED TO COMPLETE THE REPAIRS AND RESTORE SERVICE TO THE EXISTING CIRCUIT. FAILURE TO COMPLETE THE REPAIRS WITHIN THE ONE WEEK TIME FRAME SHALL RESULT IN LIQUIDATED DAMAGES BEING ASSESSED PER CMS 108.07.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE ABOVE MENTIONED WORK:

ITEM 603 - 4" CONDUIT, TYPE E . . . . .	40	LIN.FT.
ITEM 625 - 24" TRENCH . . . . .	1000	LIN.FT.
ITEM 625 - PULLBOX, 18", . . . . .	.2	EACH
	713.08	
ITEM 625 - CONDUIT, 2", 713.04 . . . . .	1000	LIN.FT.
ITEM 625 - NO.4 AWG, 5000 . . . . .	2000	LIN.FT.
		VOLT DISTRIBUTION
		CABLE
ITEM 625 - CONNECTOR KIT, . . . . .	.6	EACH
		TYPE 11
ITEM 625 - CABLE SPLICING KIT . . . . .	.4	EACH

## CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN ON STANDARD CONSTRUCTION DRAWING GR-1.1M. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

## ITEM 202 - RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN

RAISED PAVEMENT MARKERS SHALL BE REMOVED FROM THE ROADWAY IN A MANNER THAT PREVENTS DAMAGE TO THE CASTINGS. REMOVED MARKERS SHALL BE COLLECTED, STORED IN 55 GALLON DRUMS (WITH AMOUNT CLEARLY MARKED) AND THEN DELIVERED TO THE ODOT WARRENSVILLE YARD, 25609 EMERY RD., WARRENSVILLE HTS., OHIO 44128 (SR 175 AT INTERSECTION OF I-271 AND EMERY RD.), BY THE CONTRACTOR, AS DIRECTED BY THE ENGINEER. THE PROJECT ENGINEER SHALL GIVE THE WARRENSVILLE TRAFFIC DEPARTMENT (292-5801) 48 HOUR NOTICE PRIOR TO ANY DELIVERIES. THE PROJECT ENGINEER SHALL BE RESPONSIBLE FOR FURNISHING ALL NECESSARY TRANSFER/RECEIVING DOCUMENTATION TO THE YARD. ALL COSTS ASSOCIATED WITH THE REMOVAL, STORAGE AND DELIVERY OF THESE MARKERS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 202 - RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED THROUGHOUT THIS PROJECT:

ITEM 202-RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN . . . . .	370	EACH
---	-----	------

I:\PROJECTS\PID23127\GNA.dgn 09-MAY-2002 8:25AM fkonopka

CALCULATED LGM	CHECKED EMK
GENERAL NOTES	
CUYAHOGA COUNTY CUY-77-13.81	
7 55	



# DRAINAGE AND EROSION CONTROL

## ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIALS SHALL MEET ITEM 604 OF THE SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATION 932 AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL - MISCELLANEOUS METAL . . . . . 7500 LBS.

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

## REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

## CASTINGS ADJUSTED TO GRADE

ALL CASTINGS SHALL BE ADJUSTED TO THE FINISHED ROADWAY ELEVATION BY THE CONTRACTOR. THE DEPTH OF AN ADJUST TO GRADE SHALL BE 1 FT OR LESS AND THE WORK SHALL BE AS OUTLINED IN 604.03. ANY WORK BEYOND 1 FT DEPTH SHALL BE PAID UNDER THE ITEM 604 - CATCH BASIN, MONUMENT BOX OR MANHOLE RECONSTRUCTED TO GRADE. THE TIME BETWEEN ADJUSTING THE CASTINGS AND RESURFACING SHALL BE KEPT TO AN ABSOLUTE MINIMUM. NO ADJUSTING RINGS SHALL BE PERMITTED. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 604-MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN . 1 EACH  
ITEM 604-CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN. . 2 EACH  
ITEM 604-MANHOLE ADJUSTED TO GRADE, AS PER PLAN. . . . 2 EACH

## ITEM 604 - CATCH BASIN, MONUMENT BOX OR MANHOLE RECONSTRUCTED TO GRADE

THE CONTRACTOR AND FIELD ENGINEER SHALL FIELD CHECK ALL EXISTING CATCH BASINS, MONUMENT BOXES OR MANHOLES LOCATED WITHIN THE LIMITS OF THE THE PROJECT. ANY CATCH BASIN, MONUMENT BOX OR MANHOLE FOUND THAT EXHIBITS SUBSTANTIAL DETERIORATION AND REQUIRES MORE WORK THAN IS SPECIFIED UNDER CASTINGS ADJUSTED TO GRADE, SHALL BE RECONSTRUCTED TO GRADE AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 604 - CATCH BASIN, RECONSTRUCTED TO GRADE . . . . 1 EACH  
ITEM 604 - MONUMENT BOX, RECONSTRUCTED TO GRADE . . . 1 EACH  
ITEM 604 - MANHOLE, RECONSTRUCTED TO GRADE . . . . . 1 EACH

i:\PROJECTS\PID23127\dgn\23127GNA.dgn 09-MAY-2002 8:26AM fkonopka

CALCULATED  
LGM  
CHECKED  
EMK

GENERAL NOTES

CUYAHOGA COUNTY  
CUY-77-13.81

# PAVEMENT

## SPREADING EQUIPMENT

AN AUTOMATIC SCREED CONTROL HAVING A 40 FOOT SKI ARM SHALL BE USED FOR PLACING THE INTERMEDIATE COURSE (SEE PROPOSAL NOTE). FOR FULL WIDTH PAVING, THE WIDTH LAID SHALL NOT EXCEED THE PAVER'S RATED WIDTH AS RECOMMENDED BY THE PAVER MANUFACTURER.

## ALIGNMENT AND PROFILE

THE WORK PROPOSED BY THIS PROJECT IS FOR THE RE-SURFACING OF THE EXISTING PAVEMENT. THE PROFILE OF THE PROPOSED SURFACE WILL BE THE SAME AS THAT OF THE EXISTING 1R-77, AND RAMP PAVEMENT, EXCEPT WHERE OTHERWISE SHOWN IN THE PLANS.

## LONGITUDINAL JOINTS (FLEXIBLE PAVEMENT)

LONGITUDINAL JOINTS BETWEEN A PAVEMENT LANE AND ADJOINING BERM OR SPEED CHANGE LANE, AND BETWEEN A SPEED CHANGE LANE AND THE ADJOINING BERM SHALL BE MADE THE SAME DAY. ALL LONGITUDINAL JOINTS SHALL BE HOT WITH THE EXCEPTION OF ONE COLD JOINT PER ROADWAY. LONGITUDINAL JOINT LOCATIONS SHALL BE AS APPROVED BY THE ENGINEER. EACH RAMP SHALL HAVE ONLY ONE LONGITUDINAL COLD JOINT LOCATED APPROXIMATELY HALFWAY ACROSS THE RAMP.

## ITEM 254 - PAVEMENT PLANING, BITUMINOUS, AS PER PLAN

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING ASPHALT OVERLAY FULL WIDTH TO A DEPTH OF (2) TWO INCHES.

AREAS WHICH HAVE TRANSVERSE WEDGES (BUTT JOINTS) ARE TO BE REMOVED IN TWO PASSES AS REQUIRED FOR MAINTAINING TRAFFIC. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE SECOND PASS.

PRIOR TO PLANING THE PAVEMENT, THE CONTRACTOR SHALL FIELD SURVEY THE LOCATIONS OF THE EXISTING PAVEMENT MARKINGS WITHIN THE PROJECT LIMITS FOR THE PLACEMENT OF TEMPORARY MARKINGS AND PROPOSED FINAL PAVEMENT MARKINGS. THE FIELD SURVEY SHALL BE USED IN CONJUNCTION WITH THE TRAFFIC CONTROL PLAN SHEETS. THE TRAFFIC CONTROL PLAN SHEETS AND QUANTITIES WERE DEVELOPED BASED UPON PREVIOUS PLAN UPGRADES. AN EXACT FIELD SURVEY WAS NOT PERFORMED. THE TRAFFIC CONTROL PLAN SHEETS SHALL BE USED FOR REFERENCE, WITH THE FIELD SURVEY BEING USED TO CONFIRM THE PLANS. ANY DISCREPENCIES BETWEEN THE PLANS AND THE FIELD SURVEY, THE FIELD SURVEY SHALL DICTATE. ALL COSTS ASSOCIATED WITH THIS SURVEY SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 - PAVEMENT PLANING BITUMINOUS, AS PER PLAN.

## ITEM 254 - PATCHING PLANED SURFACE

THIS ITEM OF WORK SHALL BE USED TO PATCH AREAS ON THE EXISTING CONCRETE BASE AFTER THE EXISTING ASPHALT HAS BEEN MILLED TO THE REQUIRED DEPTH OF 2"±, AND ANY ADDITIONAL LOOSE, DEBONDED OR SPALLED MATERIAL HAS BEEN REMOVED AND THE REMAINING SURFACE CLEANED.

THIS WORK SHALL BE PERFORMED PER SECTION 254.05 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS MANUAL.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER TO PERFORM THIS WORK.

ITEM 254 - PATCHING PLANED SURFACES . . . . . 1000 SQ.YD.

## ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE

THE RATE OF APPLICATION OF THE 407 TACK COAT FOR INTERMEDIATE COURSE SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.05 GALLONS PER SQUARE YARD OF TACK COAT FOR INTERMEDIATE COURSE FOR ESTIMATING PURPOSES ONLY.

## ITEM 407 - TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.10 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

## ITEM 618 - RUMBLE STRIPS, TYPE 2 (ASPHALT)

THE FOLLOWING ESTIMATED QUANTITY SHALL BE USED TO CONSTRUCT ITEM 618, RUMBLE STRIPS, TYPE 2 (ASPHALT) AS PER STANDARD DRAWING BP-9.1:

ITEM 618 - RUMBLE STRIPS, TYPE 2 (ASPHALT) . . . 5.30 MILE

## ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN A

THIS ITEM SHALL BE USED FOR THE REPAIR OF UNSOUND, COLD-PATCH, OR POP-OUT AREAS OF LONGITUDINAL JOINTS AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PERFORMED AFTER THE MILLING OPERATION AND PRIOR TO RESURFACING. THE DEPTH OF THE REPAIR FROM THE TOP OF THE MILLED SURFACE DOWN TO THE TOP OF THE EXISTING CONCRETE BASE SHALL BE 4". THE WIDTH OF THE REPAIR SHALL BE 12" CENTERED OVER THE EXISTING JOINT AS SHOWN ON SHEET 36.

FOR ADDITIONAL NOTES, DETAILS, AND QUANTITIES, SEE SHEET 36.

## ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN B

THIS ITEM SHALL BE USED FOR THE REPAIR OF UNSOUND, COLD-PATCH, OR POP-AREAS OF TRANSVERSE JOINTS AND CRACKS AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PERFORMED AFTER THE MILLING OPERATION AND PRIOR TO RESURFACING. THE DEPTH OF THE REPAIR FROM THE TOP OF THE MILLED SURFACE DOWN TO THE TOP OF THE EXISTING CONCRETE BASE SHALL BE 4". THE WIDTH OF THE REPAIR SHALL BE 12" CENTERED OVER THE EXISTING JOINT OR CRACK AS SHOWN ON SHEET 36.

FOR ADDITIONAL NOTES, DETAILS, AND QUANTITIES, SEE SHEET 36.

## ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN C

THIS ITEM OF WORK SHALL BE USED FOR THE REPAIR OF THE MILLED SURFACE EXHIBITING UNSOUND, COLD-PATCH OR POP-OUT AREAS THAT ARE WIDER THAN 12". THIS WORK SHALL BE PERFORMED AFTER THE MILLING OPERATION AND PRIOR TO RESURFACING. IF EXISTING DETERIORATED CRACKS AND/OR JOINTS EITHER LONGITUDINAL OR TRANSVERSE ARE WITHIN THE AREA OF DISTRESS TO BE REPAIRED, THEY SHALL BE INCLUDED IN THE REPAIR AREA AND PAID FOR UNDER THIS ITEM. THE DEPTH OF REPAIR FROM THE TOP OF THE MILLED SURFACE DOWN TO THE TOP OF THE EXISTING CONCRETE BASE IS 4".

THE FOLLOWING ESTIMATED QUANTITY HAS BE CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN C.

FOR ADDITIONAL NOTES, DETAILS, AND QUANTITIES, SEE SHEET 36.

I:\PROJECTS\PID23127\dgn\3127GNA.dgn 09-MAY-2002 8:26AM fkonopka

CALCULATED  
LGM  
CHECKED  
EMK

GENERAL NOTES

CUYAHOGA COUNTY  
CUY-77-13.81



MAINTAINING VEHICULAR TRAFFIC

GENERAL PROVISIONS

1. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE "SCHEDULE OF THRU LANES TO BE MAINTAINED" DESCRIBED ON SHEET NO. 16. THE CONTRACTOR SHALL SET UP AND OPERATE HIS EQUIPMENT IN SUCH A MANNER AS TO MINIMIZE ENCROACHMENT UPON THE TRAVELED WIDTH OF PAVEMENT.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, THE RESPONSIBLE LAW ENFORCEMENT AGENCY AND THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 12 PUBLIC INFORMATION OFFICER ( (216) 581-2333, EXT. 244) NOT LESS THAN TWENTY-FOUR (24) HOURS PRIOR TO A SCHEDULED DISRUPTION OF TRAFFIC.
3. NIGHTTIME WORK SHALL BE PERMITTED IN ACCORDANCE WITH THESE PLANS AND NOTES. THE CONTRACTOR SHALL PROVIDE FLOOD LIGHTING OF THE WORK AREA IN ORDER TO ASSURE THE SAFEST CONDITIONS DURING NIGHTTIME WORK. A LIGHTING PLAN FOR NIGHTTIME OPERATIONS SHALL BE PRESENTED TO AND APPROVED BY THE ENGINEER.
4. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NEW WARNING AND INFORMATION SIGNS NECESSARY FOR MAINTAINING TRAFFIC. THE CONTRACTOR SHALL DETERMINE WHAT SIGNS ARE NEEDED AND ADVISE THE ENGINEER TWO (2) WEEKS IN ADVANCE OF HIS DETAILED PLANS.  
  
SEE THE OMTCD AND STANDARD DRAWINGS FOR THE MINIMUM SIGNAGE REQUIRED.
5. TRAFFIC CONTROL DEVICES SHALL BE SET UP PRIOR TO THE START OF CONSTRUCTION, AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SPECIAL CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED AND SHALL BE IMMEDIATELY REMOVED THEREAFTER. WHERE OPERATIONS ARE PERFORMED IN STAGES, THERE SHALL BE IN PLACE ONLY THOSE DEVICES THAT APPLY TO THE CONDITION PRESENT DURING STAGE IN PROGRESS. ALL SIGNS WITH MESSAGES WHICH DO NOT APPLY DURING A CERTAIN PERIOD SHALL BE COVERED OR SET ASIDE OUT OF THE VIEW OF TRAFFIC.
6. PLACEMENT OF FINAL ROADWAY PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE "SCHEDULE OF THRU LANES TO BE MAINTAINED" DESCRIBED ON SHEET NO. 16.

THE CONTRACTOR SHALL PROVIDE TWO (2) TRAILING VEHICLES AS PER MT-99.20M FOLLOWING THE PAVEMENT MARKING EQUIPMENT. THE TWO (2) TRAILING VEHICLES SHALL TRAVEL 500 FEET APART WITH THE REMOTE VEHICLE TRAVELING ON THE SHOULDER (LEFT OR RIGHT AS APPLICABLE) WHERE USABLE SHOULDER IS AVAILABLE. THE FIRST TRAIL VEHICLE IN A TRAFFIC LANE SHALL BE EQUIPPED WITH A TRUCK MOUNTED ATTENUATOR MEETING NCHRP 350 REQUIREMENTS. THE INTERMEDIATE TRAILING VEHICLE SHALL TRAVEL IN THE CLOSED LANE 500 FEET BEHIND THE PAVEMENT MARKING EQUIPMENT. THE POLICE CRUISER SHALL TRAVEL 500 TO 1000 FEET BEHIND THE REMOTE TRAILING VEHICLE. EACH TRAILING VEHICLE SHALL HAVE A YELLOW FLASHING BEACON PLUS 48" MIN. ORANGE AND BLACK CONSTRUCTION WARNING SIGNS MOUNTED ON THE BACK FACING TRAFFIC WITH STANDARD TYPE MESSAGES ADVISING MOTORISTS OF THE WORK AHEAD, ADVISORY WARNING SPEED AND WHICH LANE IS CLOSED.

7. DURING NON-WORKING PERIODS, OPEN EXCAVATIONS SHALL BE DELINEATED WITH WARNING FLASHERS AND/OR OTHER APPROVED DEVICES AS DEEMED APPROPRIATE BY THE ENGINEER.

MAINTAINING VEHICULAR TRAFFIC (CONT.)

8. EXISTING SIGNS LOCATED WITHIN THE ROAD WORK AREAS WHICH ARE NECESSARY FOR INTERIM OR PERMANENT TRAFFIC CONTROL SHALL BE REMOVED AND REERECTED IN LOCATIONS AS APPROVED BY THE ENGINEER.
9. NO STOPPAGE OF TRAFFIC SHALL OCCUR WITHOUT LAW ENFORCEMENT PERSONNEL AT EACH LOCATION TO DIRECT TRAFFIC.
10. WHENEVER A TOTAL CLOSURE IS IMPLEMENTED, THE CONTRACTOR SHALL PROVIDE A PORTABLE CHANGEABLE MESSAGE SIGN, TYPE FROM ODOT'S PRE-APPROVED LIST. IT SHALL BE PLACED 1.5 MILES TO 2 MILES IN ADVANCE OF THE CLOSURE OR AS DIRECTED BY THE ENGINEER.
11. ANY TIME TRAFFIC MUST BE COMPLETELY STOPPED ON A FREEWAY, OR INTERSTATE IT SHALL BE DONE IN THE FOLLOWING MANNER: (THIS INCLUDES THE ERECTION OF OVER HEAD SUPPORTS.) THE COMPLETE TRAFFIC STOPPAGE ON ALL LANES OF ANY DIRECTIONAL ROADWAY SHALL BE NO MORE THAN 10 MINUTES IN ANY ONE CONSECUTIVE 30 MINUTE PERIOD.

A MINIMUM OF TWO (2) LAW ENFORCEMENT OFFICERS (L.E.O.) WITH PATROL VEHICLES SHALL BE USED TO PACE MOTORISTS TO A STOP. THERE SHALL BE ONE L.E.O. FOR EACH LANE ON THE FREEWAY.

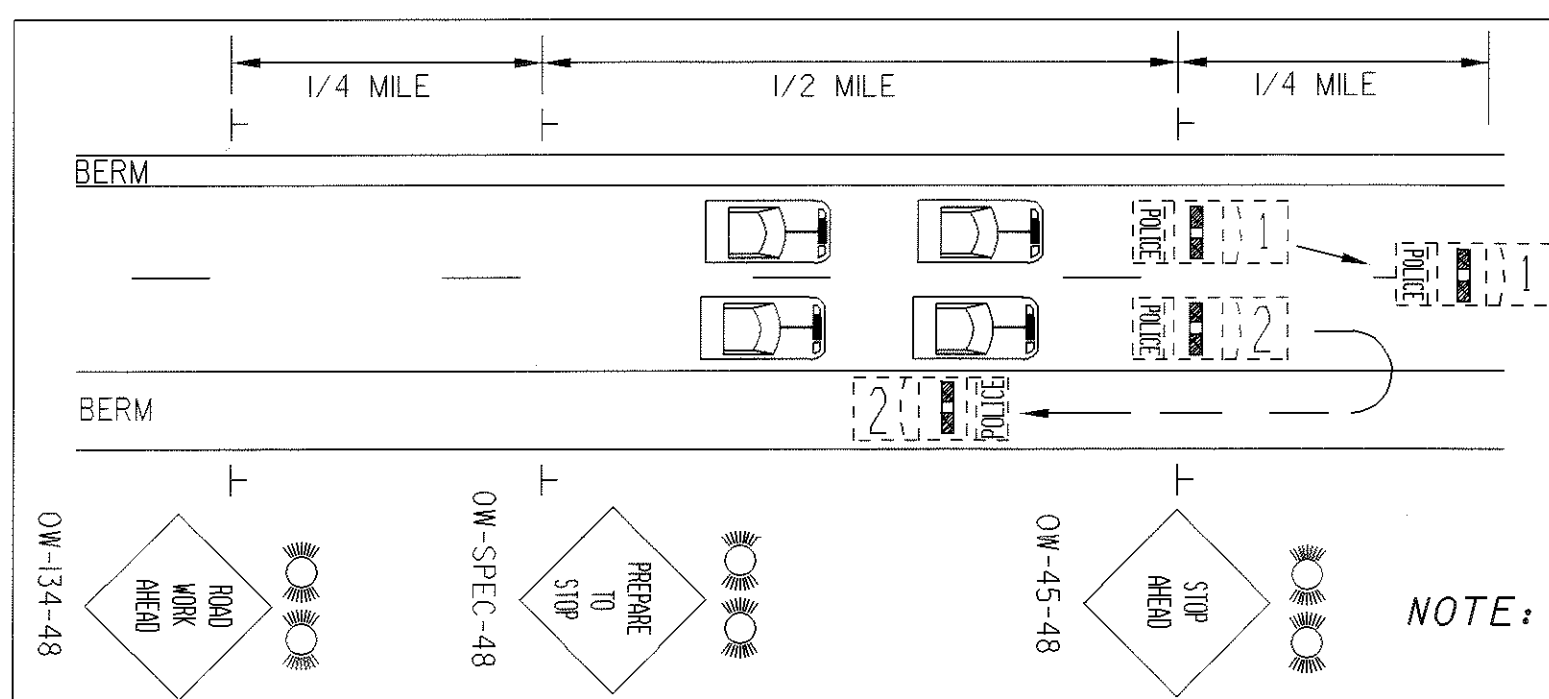
AFTER TRAFFIC HAS BEEN SLOWED, ONE (1) PATROL VEHICLE SHALL TRAVEL ALONG THE ROADWAY SHOULDER 500 FEET BEHIND THE BACK UP OF STOPPED VEHICLES. WHERE STOPPAGE OCCURS IN THE VICINITY OF FREEWAY ENTRANCES, THE CONTRACTOR SHALL PLACE FLAGMEN ON THE RAMPS TO STOP TRAFFIC. PATROL VEHICLES SHALL HAVE FLASHING BEACONS.

TO PROVIDED ADEQUATE VISIBILITY TO APPROACHING MOTORIST THE CONTRACTOR SHALL ERECT AND MAINTAIN "ROADWORK AHEAD", "PREPARE TO STOP", AND "STOP AHEAD" SIGNS WITH TWO FLASHING TWELVE INCH (12) TRAFFIC SIGNAL HEADS IN ACCORDANCE WITH 632.05. THESE SIGNS SHALL BE ILLUMINATED DURING NIGHT OPERATIONS AND SHALL BE 48 INCH BY 48 INCH SIGNS. PATROL VEHICLES AND SIGNS SHALL BE LOCATED IN ACCORDANCE WITH THE SKETCH BELOW.

FLARES MAY BE SUBSTITUTED FOR THE FLASHING 12 INCH SIGNAL HEADS. THERE SHALL BE 2 FLARES AT EACH SIGN ON BOTH SIDES ON THE ROADWAY. THE FLARES SHALL BE REPLACED IF THEY BURN OUT. THE SIGNS DO NOT HAVE TO BE ILLUMINATED DURING NIGHT OPERATIONS IF FLARES ARE USED.

STOPPING TRAFFIC SHALL BE DONE WHEN THE GREATEST NUMBER OF LANES IS PERMITTED TO BE CLOSED BY THE PLANS OR BY DISTRICT 12'S PERMITTED LANE CLOSURES REFERENCE MAP.

A PORTABLE CHANGEABLE MESSAGE SIGN, TYPE TO BE ON ODOTS PRE-APPROVED LIST, SHALL BE PLACED 1.5 MILES TO 2 MILES IN ADVANCE OF THE CLOSURE OR AS DIRECTED BY THE ENGINEER.



NOTE: DETAIL IS SHOWN FOR 2 LANES. FOR 3 OR 4 LANES 3 PATROL VEHICLES ARE REQUIRED.

MAINTAINING VEHICULAR TRAFFIC (CONT.)

12. FOR ANY OPERATION NOT SPECIFICALLY MENTIONED IN THESE PLANS, THE TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
13. ALL LABOR, MATERIALS, EQUIPMENT AND ANY INCIDENTALS REQUIRED TO COMPLETE THE WORK AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

TRAFFIC CONTROL MATERIALS

A. SIGNS

SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES, SHALL BE AS PROVIDED IN THE "MANUAL", OR IN SIGN DESIGN DRAWINGS PROVIDED BY THE DEPARTMENT OF TRANSPORTATION. THE SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER PRIOR TO THE START OF THE PROJECT.

ALL SIGNS SHALL HAVE A REFLECTORIZED BACKGROUND OF REFLECTIVE MATERIALS AS DESCRIBED IN THE "MANUAL".

B. SIGN SUPPORTS

TEMPORARY SIGN SUPPORTS SHALL BE AS SHOWN ON MT-105.10M AND MT-105.11M.

C. DRUMS

DRUMS SHALL BE IN ACCORDANCE WITH PERTINENT SECTIONS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. ALL PERMANENT LANE CLOSURES SHALL BE DELINEATED WITH DRUMS SPACED AT 50 FEET CENTER TO CENTER. ALL COSTS FOR INSTALLING, MAINTAINING AND SUBSEQUENT REMOVAL OF SAID DRUMS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

D. LIGHTING DEVICES

FLASHERS SHALL BE 12 VOLT BATTERY OPERATED MODELS WITH 7 INCH DIAMETER YELLOW LENSES ILLUMINATED BY RAPID INTERMITTENT FLASHES OF SHORT DURATION AND SHALL BE PLACED ON ALL SIGNS AT ALL TIMES.

CONTINUOUS BURN LIGHTS SHALL BE 12 VOLT BATTERY OPERATED MODELS WITH MINIMUM 7 INCH DIAMETER YELLOW LENSES.

E. FLASHING ARROW BARRICADE

WHENEVER ANY PART OF THE TRAVELED SURFACE IS CLOSED. THE MOTORIST SHALL BE WARNED AND DIVERTED BY THE CONTRACTOR THROUGH THE USE OF ONE FLASHING ARROW BARRICADE FOR EACH LANE CLOSED. THE CONTRACTOR SHALL REFER TO STANDARD DRAWING MT-35.10 AND THE PROVISION SET FORTH IN OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS FOR ALL INFORMATION REGARDING FURNISHING, MAINTAINING, AND USE OF FLASHING ARROW BARRICADES. IF THE FLASHING ARROW BARRICADE IS WITHIN 300 FT OF A RESIDENCE OR ON A SURFACE STREET, A SOLAR POWERED FLASHING ARROW BARRICADE SHALL BE USED. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.



PUBLIC SAFETY

THE FOLLOWING PROVISIONS "A", "B", AND "C" SHALL APPLY WHEN THE LANE ADJACENT TO THE GUARDRAIL IS OPEN TO TRAFFIC:

THE PERIOD OF TIME THAT A HAZARD IS LEFT UNPROTECTED BY THE REMOVAL OF GUARDRAIL SHALL BE HELD TO AN ABSOLUTE MINIMUM AND IN NO CASE SHALL SUCH A PERIOD BE LONGER THAN ONE WORKING DAY. IF, AFTER ONE DAY, THE ENTIRE RUN OF GUARDRAIL CONSTRUCTION IS NOT COMPLETE THE FOLLOWING SHALL APPLY:

- A. IN AREAS WHERE EXISTING GUARDRAIL HAS BEEN REMOVED OR THE GUARDRAIL IS IN A PARTIAL STAGE OF COMPLETION. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TYPE II BARRICADES WITH TYPE C (STEADY BURNING) WARNING LIGHTS WITHIN THE LIMITS OF THE UNPROTECTED AREA. THE BARRICADES SHALL BE PLACED AT 50' INTERVALS AND OFFSET AT LEAST TWO FEET FROM THE EDGE OF THE TRAVELED ROADWAY AND IN CLOSE PROXIMITY TO THE CONSTRUCTION. THE APPROACH END OF A PARTIALLY COMPLETED RUN OF GUARDRAIL SHALL BE FASTENED AT GROUND LEVEL TO A STEEL DRUM.
- B. IF THE EXISTING GUARDRAIL IS FOR THE PROTECTION OF AN OBSTACLE (I.E. SIGN SUPPORT, BRIDGE PAREPET, ETC.) THE CONTRACTOR SHALL ERECT PORTABLE CONCRETE BARRIER IN THE DIRECTION OF TRAFFIC. THE REQUIREMENTS OF PARAGRAPH "A" SHALL APPLY TO THE REMAINING GUARDRAIL WITHIN THE RUN. TEMPORARY BARRIER SHALL BE FLARED AT A 20:1 (MINIMUM) TAPER RATE AND SHALL INCLUDE A TEMPORARY END TERMINAL AS PER RM-4.2M.
- C. THE REQUIREMENTS STATED IN "A" SHALL APPLY FOR A PERIOD NOT TO EXCEED ONE WEEK. WHERE THE REBUILDING OR CONSTRUCTION OF ANY RUN OF GUARDRAIL CANNOT BE ACCOMPLISHED WITHIN ONE WEEK, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY CONCRETE BARRIER IN THE INTERIM TIME IT TAKES TO COMPLETE THE WORK (SEE DETAIL ON SHEET 14). THE APPROACH END OF THE PORTABLE CONCRETE BARRIER SHALL BE FLARED TO THE OUTER EDGE OF THE PAVED SHOULDER AND SHALL INCLUDE A TEMPORARY END TERMINAL AS PER RM-4.2M. IN ADDITION, A TYPE II BARRICADE WITH TYPE B (HIGH INTENSITY FLASHER) WARNING LIGHT SHALL BE PLACED IN FRONT OF THIS INITIAL SECTION OF TEMPORARY BARRIERS TO PROVIDE FOREWARNING TO THE APPROACHING TRAFFIC.
- D. TEMPORARY CONCRETE BARRIER IS NOT REQUIRED TO SEPARATE OPPOSING TRAFFIC WHEN THE MEDIAN BARRIER IS REMOVED PROVIDED THAT BOTH MEDIAN LANES REMAIN CLOSED UNTIL THE NEW MEDIAN BARRIER IS IN PLACE. FOR HAZARDS WITHIN THESE ZONES, PARAGRAPHS A, B AND C ABOVE STILL APPLY.

WHEN THE LANE ADJACENT TO THE GUARDRAIL IS CLOSED TO TRAFFIC THE PROVISIONS OF PARAGRAPH "A" ABOVE SHALL APPLY AFTER 1 DAY. THE PROVISIONS OF PARAGRAPH "B" ABOVE SHALL APPLY AFTER 10 DAYS, AND THE PROVISIONS OF PARAGRAPH "C" ABOVE SHALL APPLY AFTER 15 DAYS.

THE TERM "GUARDRAIL" AS USED HEREIN SHALL BE UNDERSTOOD TO COVER ALL TYPES OF GUARDRAIL, EXISTING OR PROPOSED FOR THE PROJECT INCLUDING BARRIER DESIGN GUARDRAIL, BRIDGE WINGWALL PARAPETS, AND CONCRETE BARRIER.

THE COST OF COMPLYING WITH THESE SAFETY PROCEDURES SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

PROGRESS SCHEDULE (CRITICAL PATH METHOD)

THE PRE-CONSTRUCTION MEETING SHALL BE HELD NO LATER THAN 30 CALENDAR DAYS AFTER THE CONTRACT IS SIGNED. THE CONTRACTOR SHALL SUBMIT THEIR PROPOSED CPM SCHEDULE AT THE PRE-CONSTRUCTION MEETING FOR REVIEW BY THE CONSTRUCTION ENGINEER WITHIN 14 CALENDAR DAYS AFTER THE PRE-CONSTRUCTION MEETING.

A FINAL CPM SCHEDULE SHALL BE SUBMITTED TO THE CONSTRUCTION ENGINEER WITHIN 30 CALENDAR DAYS FROM THE DATE OF THE PRE-CONSTRUCTION MEETING BUT AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO THE DATE DESIGNATED AS THE STARTING DATE IN THE CPM SCHEDULE. THE SCHEDULE SHALL BE SIGNED AND DATED BY THE PRIME CONTRACTOR AND NAMED SUBCONTRACTORS.

PROJECT PROGRESS MEETINGS

PROGRESS MEETINGS WILL BE HELD EVERY FOUR (4) WEEKS AT THE PROJECT OFFICE, OR OTHER LOCATION DESIGNATED BY THE CONSTRUCTION ENGINEER AND ATTENDED BY O.D.O.T. AND CONTRACTOR DECISION-MAKING PERSONNEL.

THE PURPOSE OF THESE MEETINGS WILL BE TO DISCUSS CRITICAL OPERATIONS AND POTENTIAL PROBLEMS. THE CONTRACTOR WILL CONFIRM THE NUMBER AND DURATION OF WORK SHIFTS, NUMBER OF WORK CREWS, AND SPECIFIC PORTIONS OF THE WORK TO BE PERFORMED DURING THE FOLLOWING WEEKS.

THESE MEETINGS CAN ONLY BE WAIVED BY THE CONSTRUCTION ENGINEER.

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

VEHICLES AND EQUIPMENT SHALL ALWAYS MOVE WITH, AND NOT ACROSS OR AGAINST THE FLOW OF TRAFFIC. VEHICLES AND OTHER EQUIPMENT SHALL NOT PARK OR STOP EXCEPT WITHIN DESIGNATED WORK AREAS; AND SHALL NOT ENTER AND LEAVE WORK AREAS IN A MANNER WHICH WILL BE HAZARDOUS TO, OR INTERFERE WITH THE NORMAL TRAFFIC FLOW. PERSONAL VEHICLES WILL NOT BE PERMITTED TO PARK WITHIN THE RIGHT-OF-WAY EXCEPT IN SPECIFIC AREAS DESIGNATED BY THE ENGINEER.

EQUIPMENT, VEHICLES AND MATERIALS SHALL NOT BE STORED OR PARKED WITHIN 30 FEET OF THE TRAVELED WAY UNLESS 6 FEET BEHIND PCB OR GUARDRAIL.

ALL WORK VEHICLES AND EQUIPMENT THAT ENTERS THE WORK ZONE MORE THAN ONCE A DAY 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 OF A MILE, DAY OR NIGHT.

SUSPENSION OF WORK

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

ITEM 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 THE TYPE SHOWN ON THE LIST OF APPROVED PCMS MAINTAINED BY THE DIRECTOR. THE PCMS SHALL BE A CLASS I OR II TYPE UNIT.

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.

THE PCMS SHALL BE EQUIPPED WITH A MYRIAD SAFETY BEAM OR AN APPROVED EQUAL AS DETERMINED BY THE ENGINEER. THE MYRIAD SAFETY BEAM SENDS OUT A SIGNAL THAT ACTIVATES RADAR DETECTORS. THE BEAM IS APPROVED BY THE F.C.C. THE MYRIAD SAFETY BEAM SHALL USE THE SAME POWER SUPPLY AS THE PCMS. THE MYRIAD SAFETY BEAM SHALL BE ABLE TO BE ACTIVATED WITH THE PCMS RUNNING OR NOT. THE MYRIAD SAFETY BEAM IS DISTRIBUTED BY THE TRIPLEX GROUP, INC., P.O. BOX 428. NEW HOPE, PA. 18938. PHONE (215) 862-5077.

NO FLIP DISK UNITS ARE ALLOWED.

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

THERE SHALL BE FOUR CLASS I OR II CHANGEABLE MESSAGE SIGN AT 3 MONTHS EACH.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN . . . . . 12 SIGN-MONTHS

MAJOR WORK ITEMS

THE FOLLOWING MAJOR WORK ITEMS WILL REQUIRE TRAFFIC MAINTENANCE WHICH SHALL BE INCORPORATED INTO THE CONTRACTORS SEQUENCE OF OPERATIONS.

- A. PLANING OF IR-77 AND RAMPS
- B. PARTIAL DEPTH PAVEMENT REPAIRS
- C. OVERLAY IR-77 AND RAMPS
- D. PAVEMENT MARKINGS
- E. INSTALLATION OF GUARDRAIL

SIGNAGE

ADVANCE WARNING SIGN GROUPS AS PER STANDARD DRAWINGS MT-95.30, MT-98.12, MT-98.13, MT-98.14, MT-98.15, MT-98.16, MT-98.17M, AND MT-98.18M SHALL BE INSTALLED, PAYMENT FOR THESE SIGNS SHALL BE UNDER ITEM 614 - MAINTAINING TRAFFIC.

I:\PROJECTS\IPD23127.dgn \23127mna.dgn 09-MAY-2002 8:27AM fkonopka

CALCULATED  
LGM  
CHECKED  
EMK

MAINTENANCE OF TRAFFIC NOTES

CUYAHOGA COUNTY  
CUY-77-13.81

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.

ITEM 614 - TEMPORARY PAVEMENT MARKINGS (RESURFACING)

TEMPORARY MARKINGS SHALL BE PLACED AT THE LOCATIONS OF THE PERMANENT MARKINGS AS SHOWN IN THE TRAFFIC CONTROL PLANS.

THIS ITEM SHALL BE USED AFTER THE OVERLAY IS PLACED. THE ESTIMATED QUANTITIES FOR THIS WORK ARE SHOWN ON THE GENERAL SUMMARY.

PERMANENT PAVEMENT MARKINGS

AFTER PLACING THE SURFACE COURSE, THE CONTRACTOR MAY PLACE PERMANENT PAVEMENT MARKINGS AT LOCATIONS SHOWN IN THE TYPICALS AND THE TRAFFIC CONTROL SHEETS INSTEAD OF PLACING TEMPORARY PAVEMENT MARKINGS, WHICH SHALL BE NON-PERFORMED AT THESE LOCATIONS.

NIGHT VEST

ALL OF THE CONTRACTORS AND SUB-CONTRACTORS PERSONNEL WORKING DURING THE HOURS OF DARKNESS SHALL WEAR A 100% SILVER REFLECTIVE SAFETY VEST. THE SAFETY VEST SHALL BE PROVIDED BY THE CONTRACTOR. THE VEST MAY HAVE SEVERAL LIME OR ORANGE STRIPES ON IT.

TEMPORARY CONCRETE BARRIER (PUBLIC SAFETY)

TEMPORARY CONCRETE BARRIER SECTIONS (10 FT LONG) AS REQUIRED BY THE PUBLIC SAFETY NOTE SHALL BE SUPPLIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LOADING, UNLOADING AND TRANSPORTATION OF THE BARRIER.

THE BARRIER SECTIONS SHALL BE BOLTED TOGETHER WITH STEEL CONNECTIONS AS PER STANDARD CONSTRUCTION DRAWING RM-4.2M.

IT IS ANTICIPATED THAT THE SAME BARRIER WILL BE USED IN VARIOUS PHASES OF CONSTRUCTION. MOVEMENT OF THE CONCRETE BARRIER BETWEEN PHASES SHALL BE ACCOMPLISHED IN ONE WORKING DAY.

ALL COSTS FOR FURNISHING, INSTALLING, REINSTALLING AND SUBSEQUENT REMOVING TEMPORARY CONCRETE BARRIER AS DESCRIBED UNDER PUBLIC SAFETY WILL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 622 - PORTABLE CONCRETE BARRIER.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF ITEM 614 AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER AND OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

- FOR TOTAL CLOSURES OF EXIT RAMPS.
- WHEN DIRECTED BY THE ENGINEER.

LAW ENFORCEMENT OFFICERS (L.E.O.'S) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

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 QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - LAW ENFORCEMENT OFFICER W/PATROL CAR .480 HOURS

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

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO AT HIS OWN EXPENSE.

RAMP CLOSURES FOR REPAIRS OR RESURFACING

THE CONTRACTOR MAY CLOSE ONE RAMP AT A TIME FOR REPAIRS OR RESURFACING. THE CLOSURES SHALL BE LIMITED TO THE HOURS SHOWN IN THE "SCHEDULE OF THRU LANES TO BE MAINTAINED" TABLE. THE MOTORING PUBLIC SHALL BE GIVEN ADVANCE WARNING OF CLOSURES AT LEAST 72 HOURS IN ADVANCE THROUGH THE USE OF EITHER A GROUND MOUNTED FLAT SHEET SIGN OR A PORTABLE CHANGEABLE MESSAGE SIGN. A LEO WITH PATROL CAR (PAID FOR SEPARATELY) SHALL BE USED FOR EACH RAMP CLOSURE AND BE PRESENT FOR THE ENTIRE CLOSURE TIME.

FREEWAY ENTRANCE RAMPS SHALL BE CLOSED WITH A PCMS SUGGESTING A RECOMMENDED DETOUR.

FREEWAY EXIT RAMPS SHALL BE CLOSED WITH A PCMS ROUTING TRAFFIC TO THE NEXT EXIT AND A SECOND PCMS INDICATING A U-TURN AT THAT EXIT (UNLESS DIRECTED DIFFERENTLY BY THE ENGINEER).

FOR RAMP CLOSURES ONE OR TWO ADDITIONAL PCMS UNITS WILL BE NEEDED AS DESCRIBED ABOVE. THESE WILL BE IN ADDITION TO THE PCMS UNITS SPECIFIED IN THE PLANS AND SHALL BE PAID FOR BY THE CONTRACTOR.

HOLIDAY CLOSURES

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

MOTHERS DAY	LABOR DAY	THANKSGIVING
MEMORIAL DAY	FOURTH OF JULY	EASTER

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:

<u>DAY OF THE WEEK</u>	<u>TIME ALL LANES MUST BE OPEN TO TRAFFIC</u>	
SUNDAY	12:00N FRIDAY	THROUGH 12:00N MONDAY
MONDAY	12:00N FRIDAY	THROUGH 12:00N TUESDAY
TUESDAY	12:00N MONDAY	THROUGH 12:00N WEDNESDAY
WEDNESDAY	12:00N TUESDAY	THROUGH 12:00N THURSDAY
THURSDAY	12:00N WEDNESDAY	THROUGH 12:00N MONDAY
FRIDAY	12:00N THURSDAY	THROUGH 12:00N MONDAY
SATURDAY	12:00N FRIDAY	THROUGH 12:00N 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 108.07.

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 OPERATIONAL 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.

FLASHING ARROW PANEL

DURING ANY CONSTRUCTION PHASE WHEN FLASHING ARROW PANELS ARE SHOWN ON THE PLANS, ELECTRIC POWERED EQUIPMENT OR SOLAR POWERED EQUIPMENT APPROVED BY THE ENGINEER SHALL BE EXCLUSIVELY UTILIZED WHEN LOCATED WITHIN 300 FEET OF ANY RESIDENCE. DIESEL OR GASOLINE POWERED GENERATORS WILL NOT BE PERMITTED IN THESE AREAS.

SPECIAL EVENT LIMITATIONS

DURING THE NIGHT OF ALL CLEVELAND INDIAN GAMES, DURING ANY STADIUM, GUND ARENA OR DOWNTOWN EVENT WITH ATTENDANCE IN EXCESS OF 20,000, THE CONTRACTOR SHALL NOT CLOSE A LANE(S) IN THE INBOUND DIRECTION 2 HOURS BEFORE AN EVENT AND IN THE OUTBOUND DIRECTION 2 HOURS AFTER AN EVENT ENDS. ANTICIPATED EVENTS INCLUDE GAMES OF THE INDIANS, BROWNS, CAVALIERS, CONCERTS, FIREWORKS, ETC.

I:\PROJECTS\PID23127\dgm\23127mna.dgn 09-MAY-2002 8:27AM fkonopka

CALCULATED  
LGM  
CHECKED  
EMK

MAINTENANCE OF TRAFFIC NOTES

CUYAHOGA COUNTY  
CUY-77-13.81



PLANED SURFACES

THE DURATION OF TIME BETWEEN PLANING THE EXISTING ASPHALT PAVEMENT AND PLACING THE SURFACE COURSE SHALL BE KEPT TO A MINIMUM. IN NO INSTANCE SHALL THIS EXCEED 14 CALENDAR DAYS. THIS IS TO ENSURE THAT THE POTENTIAL DEGRADATION OF THE EXISTING PAVEMENT AND PROPOSED INTERMEDIATE COURSE IS KEPT TO A MINIMUM. IN THE EVENT THAT THE TIME BETWEEN PLANING THE PAVEMENT AND PLACING THE ASPHALT SURFACE COURSE EXCEEDS 14 CALENDAR DAYS, LIQUIDATED DAMAGES AS PER 108.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS MANUAL SHALL BE ASSESSED.

TRAFFIC CONTROL AND SEQUENCE OF ASPHALT CONCRETE WORK

ALL ASPHALT CONCRETE OPERATIONS SHALL BE CONDUCTED IN A MANNER THAT WILL ASSURE MINIMUM DANGER AND INCONVENIENCE TO THE HIGHWAY USERS. ALL ASPHALT WORK SHALL BE PERFORMED AT THE TIMES PROVIDED IN THE "SCHEDULE OF THRU LANES TO BE MAINTAINED" NOTE ON SHEET 16. THE PROCEDURE FOR INSTALLATION OF ANY ASPHALT LAYER SHALL BE SUCH THAT NO GREATER THAN 1-1/2 INCH DISCONTINUITY IN THE ELEVATION OF THE TRAVELED SURFACE SHALL BE EXPOSED TO TRAFFIC.

THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS SUCH THAT ALL HALF-WIDTH OVERLAYS ARE NOT EXPOSED TO TRAFFIC FOR MORE THAN 24 HOURS.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS ANY PART-WIDTH RESURFACING JOINT EXCEPT AS IS NECESSARY DURING THE ACTUAL RESURFACING OPERATION. ANY PART WIDTH RESURFACING JOINTS WHICH MUST BE EXPOSED TO TRAFFIC SHALL BE RAMPED USING ITEM 614 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC AT A RATE NOT TO EXCEED 2 INCHES IN 1 FOOT (LONGITUDINAL JOINTS).

TEMPORARY TRANSVERSE RESURFACING JOINTS WHICH MUST BE EXPOSED TO TRAFFIC SHALL BE RAMPED USING ITEM 614 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC AT A RATE NOT TO EXCEED 1 INCH IN 10 FEET.

WHENEVER TRAFFIC IS SUBJECTED TO HALF-WIDTH OVERLAYS PRIOR TO COMPLETING THE ASPHALT COURSE, THE CONTRACTOR SHALL PROVIDE OW-171-48 AND OWP-171-24 SIGNS (DUAL SIGN INSTALLATION). PLACEMENT SHALL BE AS DIRECTED BY THE ENGINEER AND INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

TRAFFIC MUST BE MAINTAINED AT ALL TIMES IN BOTH DIRECTIONS IN ACCORDANCE WITH THE "SCHEDULE OF THRU LANES TO BE MAINTAINED".

WHENEVER ANY PART OF THE TRAVELED SURFACE IS CLOSED, THE MOTORISTS SHALL BE WARNED AND DIVERTED BY THE CONTRACTOR THROUGH THE USE OF A FLASHING ARROW, IN ADDITION TO THOSE PROVISIONS SET FORTH IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".

PRIOR TO OPENING THE ROADWAY TO NORMAL TRAFFIC DURING WINTER MONTHS, ALL ASPHALT WORK INCLUDING THE SURFACE COURSE MUST BE COMPLETED AN EQUAL FULL WIDTH DISTANCE. NO INTERMEDIATE LEVELING COURSE IS TO BE TRAVELED ON DURING WINTER MONTHS NOR SHALL ANY PART WIDTH RESURFACING REMAIN DURING THE WINTER. THE CONTRACTOR IS CAUTIONED TO SCHEDULE HIS OPERATIONS TO MEET THIS REQUIREMENT. IF THE CONTRACTOR DOES NOT MEET THIS REQUIREMENT OR HAS THIS REQUIREMENT WAIVED, THE CONTRACTOR SHALL INCREASE THE THICKNESS OF THE 858 SURFACE COURSE BY 1/2" ENTIRELY AT HIS EXPENSE FOR LABOR, MATERIALS, AND EQUIPMENT.

ITEM 614 - MAINTAINING TRAFFIC MISC.: BITUMINOUS CONCRETE FORM MAINTAINING TRAFFIC

THIS ITEM SHALL BE USED TO REPAIR HOLES IN BRIDGE DECKS, ROADWAY SURFACE AND BERMS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MONITOR THE ROADWAY TO DETERMINE WHEN THE HOLES SHALL BE PATCHED. THE CONTRACTOR MUST NOTIFY THE ENGINEER FOR HIS/HER APPROVAL.

THE CONTRACTOR WILL BE RESPONSIBLE FOR DAMAGES TO MOTORIST VEHICLES IF THE HOLES ARE NOT FILLED IN A REASONABLE AMOUNT OF TIME.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE ROADWAY, BRIDGE DECKS AND BERMS (IN THE DIRECTION WORK IS BEING PERFORMED) FROM THE FIRST DAY OF WORK UNTIL CONSTRUCTION IS COMPLETE. THIS INCLUDES PERIODS WHEN WORK IS SUSPENDED.

THE CONTRACTOR HAS A MAXIMUM TIME OF 2 HOURS AFTER HE HAS BEEN INFORMED OF A POT HOLE, BY PROJECT PERSONNEL, TO TAKE CORRECTIVE ACTION. IF THE CONTRACTOR FAILS TO TAKE ACTION TO FIX THE POT HOLE WITHIN THE 2 HOUR LIMIT, THE CONTRACTOR SHALL BE CHARGED A LIQUIDATED DAMAGE OF \$1000 PER OCCURENCE.

THE PROCEDURE FOR PATCHING A HOLE IS:

REMOVE ALL LOOSE AND DISINTEGRATED ASPHALT OR CONCRETE TO AN EXTENT TO EXPOSE SOUND CONCRETE OR ASPHALT. THE PERIMETER OF ALL REMOVAL AREAS SHALL BE VERTICAL.

CARE SHALL BE TAKEN ON BRIDGE DECKS NOT TO PUNCTURE THE DECK OR DAMAGE THE REINFORCING STEEL. THE CONTRACTOR SHALL TAKE WHAT EVER STEPS NECESSARY TO MAKE THE BRIDGE DECK PASSABLE.

THE SURFACE TO BE PATCHED MUST BE CLEANED AND DRIED.

THE ENTIRE SURFACE SHALL BE TACK COATED, INCLUDING THE VERTICAL FACES.

ASPHALT CONCRETE SHALL BE IN ACCORDANCE TO ITEM 404 OR 402 AS DETERMINED BY THE ENGINEER. IT SHALL BE PLACED IN 2 INCH LIFTS AND COMPACTED TO THE LEVEL OF THE WEARING SURFACE.

DURING WINTER MONTHS ONLY WHEN ASPHALT IS NOT AVAILABLE OR AT THE DIRECTION OF THE ENGINEER COLD MIX MAY BE USED. COMPACTION EQUIPMENT MUST BE APPROVED BY THE ENGINEER.

ALL TRAFFIC CONTROL NEEDED FOR THIS ITEM OF WORK SHALL BE INCLUDED IN THIS ITEM OF WORK.

THE CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE ROAD REPAIRS WHICH ARE IMMEDIATELY AT TASK. A MINIMUM OF 3 LABORERS, 2 FULL SIZE PICKUP TRUCKS, 1 ARROW BOARD, M.O.T. SIGNS, AND TOOLS INCLUDING COMPRESSORS, JACKHAMMERS, AIR HOSES AND BLOW PIPES, AND CUT-OFF SAWS SHALL BE NEEDED TO COMPLETE THIS WORK. ANY ADDITIONAL LABOR, EQUIPMENT OR MATERIAL NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE AT NO ADDITIONAL COST TO THE STATE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 614 - MAINTAINING TRAFFIC MISC.: BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC. . . . 50 HOURS

ITEM 614 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC

THIS ITEM SHALL BE USED TO PROVIDED TEMPORARY ASPHALT RAMPS FOR TRANSVERSE DISCONTINUITIES. RAMPING SHALL BE PLACED AT THE RATE OF 1" PER 10 FT.

TEMPORARY ASPHALT RAMPS SHALL BE REMOVED AS PART OF THIS ITEM.

ITEM 614 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC . . . . . 100 CU. YD.

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY.

I:\PROJECTS\PID2327\dgm\23127mna.dgn 09-MAY-2002 8:27AM fkonopka

CALCULATED  
LGM  
CHECKED  
EMK

MAINTENANCE OF TRAFFIC NOTES

CUYAHOGA COUNTY  
CUY-77-13.81



TEMPORARY PAVEMENT MARKINGS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY, TO BE USED AS DIRECTED BY THE ENGINEER, TO PLACE TEMPORARY PAVEMENT MARKINGS AFTER THE CONTRACTOR HAS PLANNED THE EXISTING ASPHALT AND AFTER THE PROPOSED OVERLAY HAS BEEN PLACED.

ITEM 614 - TEMPORARY EDGE LINE, CLASS I, 642 PAINT . . . . .	7.61 MILE
ITEM 614 - TEMPORARY LANE LINE, CLASS I, 642 PAINT . . . . .	4.38 MILE
ITEM 614 - TEMPORARY CHANNELIZING LINE, CLASS I, 642 PAINT . . . . .	6659 L. F.
ITEM 614 - TEMPORARY STOP LINE, CLASS I, 642 PAINT . . . . .	135 L.F.
ITEM 614 - TEMPORARY CROSSWALK LINE, CLASS I, 642 PAINT . . . . .	286 L.F.
ITEM 614 - TEMPORARY LANE ARROW, CLASS I, 642 PAINT . . . . .	8 EACH

THE FOLLOWING CLASS II MARKINGS ARE FOR PLACEMENT AFTER THE SURFACE COURSE, PRIOR TO FINAL MARKINGS. IN LIEU OF PLACING THE CLASS II MARKINGS, THE CONTRACTOR MAY CHOOSE TO PLACE THE PERMANENT MARKINGS IN WHICH CASE THE CLASS II MARKINGS SHALL BE NON-PERFORMED.

ITEM 614 - TEMPORARY LANE LINE, CLASS II, 642 PAINT . . . . .	4.38 MILE
--	-----------

ITEM 630 - SIGNING MISC.: ADDITIONAL SIGNS, GROUND MOUNTED, AS DIRECTED BY THE ENGINEER

WHEN ADDITIONAL SIGNING IS NEEDED TO MAINTAIN TRAFFIC, THE CONTRACTOR SHALL FURNISH THE SIGN OR SIGNS AS DIRECTED BY THE ENGINEER. THESE SIGNS SHALL BE GROUND MOUNTED AND MEET ALL THE SPECIFICATIONS OF THE PLAN, PROPOSAL AND CURRENT YEAR CMS.

PAYMENT FOR THIS ITEM SHALL INCLUDE BUT NOT BE LIMITED TO THE COST TO FURNISH AND ERECT THE SIGN, INCLUDING DRIVE POSTS OR OTHER APPROVED METHODS OF SUPPORT, MAINTAINING THE SIGN AND REMOVAL OF THE SIGN.

THE FOLLOWING QUANTITY SHALL BE CARRIED TO THE GENERAL SUMMARY:

ITEM 630 - SIGNING MISC.: ADDITIONAL SIGNS, GROUND MOUNTED, AS DIRECTED BY THE ENGINEER...	400 SQ. FT.
--	-------------

WORKSITE TRAFFIC SUPERVISOR

The contractor shall employ, subject to the approval of the engineer/supervisor, a CERTIFIED Wporksite Traffic Supervisor, (WTS). The WTS shall be certified from one of the following organizations:

1. American Traffic Safety Service Association(A.T.S.S.A).  
PHONE NO. (540) 368-1711 Certified Traffic Control Supervisor, 2 day course.
2. Or take the following course by the The National Highway Institute, Design and Operation of Work Zone Traffic Control, 3 day course, phone no. 1-877-558-6873.

The WTS position is established for the purpose of supervising the installation of the work zone, monitoring it and correcting any deficiencies in the work zone. The WTS shall oversee all operations that affect the movement of vehicular and pedestrian traffic through the work zone.

The WTS shall be present when the contractor or subcontractor installs a traffic restriction, lane closure etc. In lieu of the WTS being present when a subcontractor has a traffic control zone in place the subcontractor may use is own personnel that is a Certified WTS. The contractor and subcontractor must present a copy of his WTS certificate to the Project Engineer. A WTS must be present for any closure or traffic restriction that takes place on the project.

The WTS may be a part of the working crew and must be in charge of setting up the work zone. After the work zone is in place the WTS may resume other duties not related to work zone traffic control. If the restrictions are short term, the WTS shall monitor the zone for compliance. Traffic control will be the WTS's main duty during implementation of the work zones. The WTS shall have the authority to have the deficiencies corrected as soon as possible. The WTS shall provide the Project Engineer a sketch of the (TCP) traffic control plan every day there is to be a short term traffic restriction, lane closure etc. This TCP shall show how the WORK ZONES are to be implemented.

Daily, including weekends and holidays the WTS shall spend a minimum of one hour reviewing and maintaining the work zone. These hours may be adjusted by the engineer but must be performed once a day during the construction seasons. The hours may be reduced during the winter construction season if directed by the engineer. The WTS shall inspect the work zone at the beginning and end of each work day and one time per week during the hours of darkness.

WORKZONE TRAFIC SUPERVISOR (CONT'D)

A record of each day's review shall be given to the project engineer the following workday, in writing and shall include: Traffic control device condition, placement, visibility, traffic flow conditions, incidents, accidents, congestion points, adequacy of advanced warning signs beyond the project limits, interaction of work vehicles with traffic, proper storage of materials and equipment, any deficiencies and resolutions of the deficiencies etc.

A 24-hour phone number shall be made available to the project engineer/supervisor in order to contact the WTS. The WTS shall have a pager and the phone number provided to the project engineer.

Failure of the contractor to comply with any of the above, shall constitute cause for the project engineer / supervisor to deduct \$500.00 per day from money due the contractor not as a penalty but as a liquidated damage.

PAYMENT FOR THE WTS SHALL BE INCLUDED UNDER THE LUMP SUM ITEM 614 - MAINTAINING TRAFFIC.

PLACING PORTABLE CONCRETE BARRIER

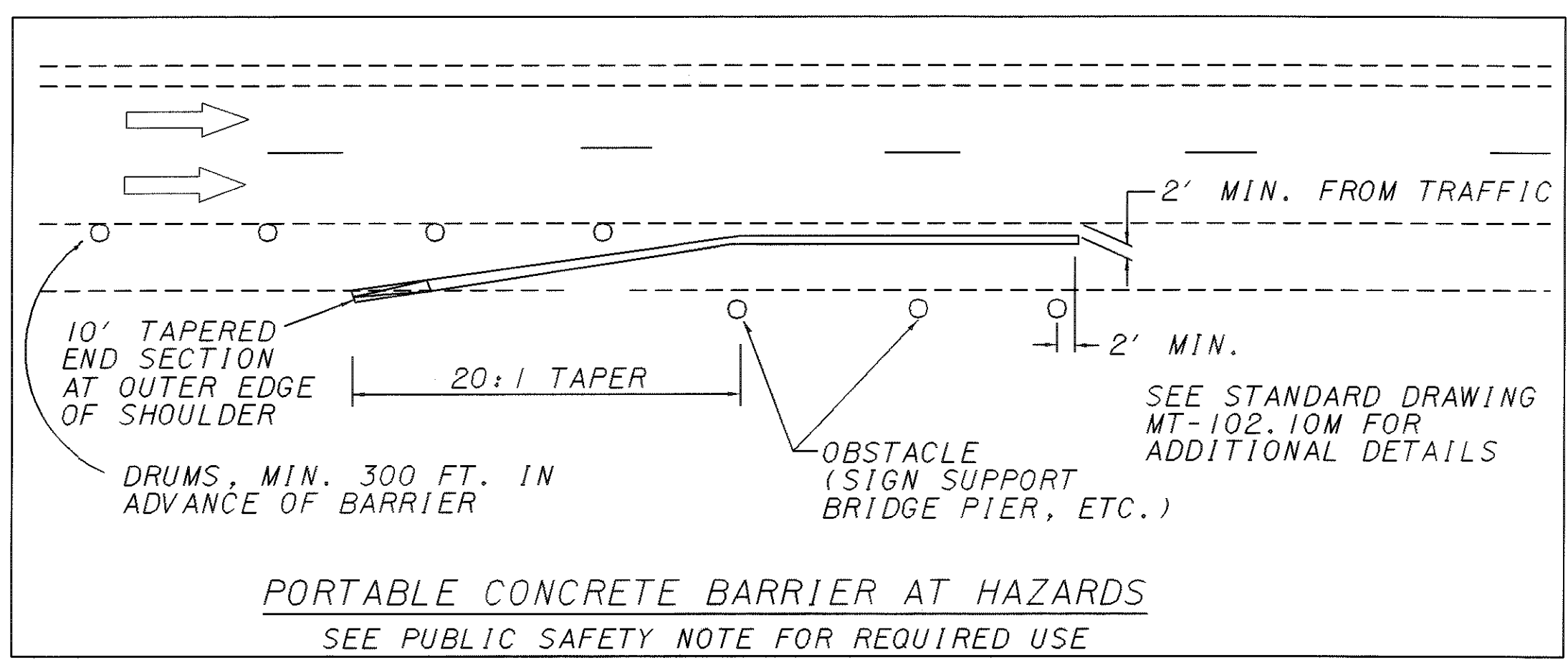
WHEN PLACING OR REMOVING PCB THE ADJACENT LANE SHALL BE CLOSED WHEN POSSIBLE.

DETOUR FOR RAMP E-9 CLOSURE

RAMP E-9 WILL BE ALLOWED TO BE CLOSED IN ORDER TO MILL THE EXISTING ASPHALT, PERFORM PARTIAL DEPTH REPAIRS AS NEEDED, PLACE ASPHALT INTERMEDIATE COURSE, PLACE ASPHALT SURFACE AND PERMANENT PAVEMENT MARKINGS. THE CLOSURE TIMES SHALL BE IN ACCORDANCE WITH THE TABLE FOUND IN THE "SCHEDULE OF LANES TO BE MAINTAINED". THE PROPOSED DETOUR WILL USE 1R-90 WESTBOUND VIA RAMP E-8. TRAFFIC WILL THEN EXIT THE E.14TH/ABBEY AVENUE EXIT. TRAFFIC WILL BE DIRECTED TO THE 1R-90 EASTBOUND ON-RAMP AT ABBEY AVENUE.

THE PROPOSED DETOUR SHALL BE SIGNED ACCORDING TO THE O.M.U.T.C.D AND ANY APPLICABLE STANDARD CONSTRUCTION DRAWINGS. ALTHOUGH THE DETOUR IS DESCRIBED IN THE NOTE, NO ADDITIONAL DETAILS OF THE PROPOSED DETOUR ARE PROVIDED IN THESE PLANS. ALL SIGNS AND SIGN LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER.

PAYMENT FOR ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PROPERLY SIGN THIS DETOUR SHALL BE INCLUDED IN THE LUMP SUM BID FOR 614, MAINTAINING TRAFFIC.



PORTABLE CONCRETE BARRIER AT HAZARDS  
SEE PUBLIC SAFETY NOTE FOR REQUIRED USE

GENERAL

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THRU VEHICULAR ACCESS IN BOTH DIRECTIONS AT ALL TIMES THROUGHOUT THE PROJECT AREA. THE PROJECT SHALL BE CONSTRUCTED IN PHASES IN ORDER TO MINIMIZE TRAFFIC DISRUPTION AND INCONVENIENCE TO THE GENERAL PUBLIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL EQUIPMENT, MATERIALS AND MANPOWER NEEDED TO ADEQUATELY MAINTAIN TRAFFIC AS PROVIDED FOR IN THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR IS REMINDED THAT, IN THE CONDUCT OF THIS PROJECT, HIS SEQUENCE OF OPERATIONS SHALL BE PLANNED IN SUCH A WAY AS TO MINIMIZE THE NUMBER OF LANE REDUCTIONS AND/OR LANE WIDTH REDUCTIONS REQUIRED TO MAINTAIN TRAFFIC THROUGH THE PROJECT.

PERMITTED LANE CLOSURES SHALL BE AS SHOWN ON THE "SCHEDULE OF THRU LANES TO BE MAINTAINED TABLE." THE TIME LIMITS SHOWN IN THIS TABLE SHALL BE ADHERED TO OR LIQUIDATED DAMAGES WILL BE ASSESSED.

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 THIS REQUIREMENT THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

LIQUIDATED DAMAGES/SHORT TERM LANE CLOSURES

SHORT TERM LANE CLOSURES ARE THOSE WHICH ARE PERMITTED BY THE "SCHEDULE OF THRU LANES TO BE MAINTAINED" TABLE.

THESE TIMES SHALL NOT BE REVISED WITHOUT PRIOR APPROVAL FROM THE DISTRICT 12 WORK ZONE TRAFFIC CONTROL ENGINEER.

SHORT TERM LIQUIDATED DAMAGES SHALL ALSO BE ASSESSED WHEN A RAMP CLOSURE IS VIOLATED.

IF SHORT TERM LANE CLOSURES ARE IN PLACE OUTSIDE THE SPECIFIED TIMES, LIQUIDATED DAMAGES IN THE AMOUNT OF \$ 85.00 PER MINUTE SHALL BE ASSESSED THE CONTRACTOR FOR EACH MINUTE THE LANE REMAINS CLOSED.

SHORT TERM LANE CLOSURES SHALL ONLY BE IMPLEMENTED WHEN WORK IS BEING CONTINUOUSLY PERFORMED. THE CLOSURE SHALL BE REMOVED AS SOON AS POSSIBLE AFTER WORK HAS STOPPED.

LIQUIDATED DAMAGES/INTERIM COMPLETION REQUIREMENTS

THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS AND INCREASE HIS WORK FORCE AS NECESSARY SO AS TO COMPLETE ALL WORK ITEMS FOR THE IDENTIFIED WORK ZONES WITHIN THE TIME LIMITS ALLOCATED.

LIQUIDATED DAMAGES/INTERIM COMPLETION REQUIREMENTS (CONT.)

THE TIME LIMIT SHOWN SHALL BEGIN ON THE FIRST DAY THAT THE CONTRACTOR BEGINS MILLING OPERATIONS AND SHALL CONTINUE BASED UPON CALENDAR DAYS UNTIL COMPLETION OF SURFACE COURSE (30 DAYS) AND ALL WORK (45 DAYS).

LIQUIDATED DAMAGES AS DETERMINED FROM THE TABLE IN SECTION 108.07 OF THE SPECIFICATIONS SHALL BE ASSESSED FOR EACH DAY (OR PORTION THEREOF) FOR WHICH THE TIME LIMIT IS NOT MET.

RAMP CLOSURES FOR REPAIRS OR RESURFACING

THE CONTRACTOR MAY CLOSE ONE RAMP AT A TIME FOR MILLING, PARTIAL REPAIRS OR RESURFACING. RAMPS SCHEDULED FOR REPAIRS AND RESURFACING MAY BE CLOSED A MAXIMUM OF 4 TIMES EACH.

THE CLOSURES SHALL BE LIMITED TO THE HOURS SHOWN IN THE "SCHEDULE OF THRU LANES TO BE MAINTAINED" TABLE. THE MOTORING PUBLIC SHALL BE GIVEN ADVANCE WARNING OF CLOSURES AT LEAST 72 HOURS IN ADVANCE THROUGH THE USE OF EITHER A GROUND MOUNTED FLAT SHEET SIGN OR A PORTABLE CHANGEABLE MESSAGE SIGN. A LEO WITH PATROL CAR (PAID FOR SEPARATELY) SHALL BE USED FOR EACH RAMP CLOSURE AND BE PRESENT FOR THE ENTIRE CLOSURE TIME.

FREEWAY ENTRANCE RAMPS SHALL BE CLOSED WITH A PCMS SUGGESTING A RECOMMENDED DETOUR.

FREEWAY EXIT RAMPS SHALL BE CLOSED WITH A PCMS ROUTING TRAFFIC TO THE NEXT EXIT AND A SECOND PCMS INDICATING A U-TURN AT THAT EXIT (UNLESS DIRECTED DIFFERENTLY BY THE ENGINEER).

FOR RAMP CLOSURES ONE OR TWO ADDITIONAL PCMS UNITS WILL BE NEEDED AS DESCRIBED ABOVE. THESE WILL BE IN ADDITION TO THE PCMS UNITS SPECIFIED IN THE PLANS AND SHALL BE PAID FOR BY THE CONTRACTOR.

I:\PROJECTS\PID23121\dgn\23121mna.dgn 09-MAY-2002 8:28AM fkonopka

CALCULATED  
LGM  
CHECKED  
EMK

**MAINTENANCE OF TRAFFIC NOTES**

**CUYAHOGA COUNTY  
CUY-77-13.81**

# SCHEDULE OF THRU LANES TO BE MAINTAINED

NA = NOT APPLICABLE

⊕ - SEE "RAMP CLOSURE FOR RESURFACING" GENERAL NOTE

SECTION	ROAD	LANE REDUCTIONS				3 LANE CLOSURE	YES/NO	PERMITTED RAMP CLOSURES		HALF WIDTH RAMP PAVING OR CRACK SEALING (UNDER TRAFFIC)
		1 LANE CLOSURE		2 LANE CLOSURE				SHORT TERM CLOSURE ⊕		
		WEEKDAY	WEEKEND	WEEKDAY	WEEKEND			WEEKDAYS	WEEKENDS	
PERSHING TO IR-490	IR 77 (3 LANES, NB)	7 PM to 6 AM 10 AM to 12 PM	8 PM FRI TO 6 AM MON	11 PM to 5 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON	NA				
	IR 77 (3 LANES, SB)	7 PM to 6 AM 10 AM to 12 PM	8 PM FRI TO 6 AM MON	11 PM TO 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON	NA				
2-LANE SECTION OVER IR-490	IR 77 (2 LANES, NB)	11 PM to 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON	NA	NA	NA				
	IR 77 (2 LANES, SB)	11 PM to 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON	NA	NA	NA				
IR-490 TO IR-90	IR 77 (3 LANES, EB)	10 AM TO 12 PM 7 PM TO 6 AM	7 PM FRI TO 6 AM MON	11 PM TO 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON	NA				
	IR 77 (3 LANES, SB)	10 AM TO 12 PM 7 PM TO 6 AM	7 PM FRI TO 6 AM MON	11 PM TO 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON	NA				
	RAMP B-1 ⊕	NA	NA	NA	NA	YES	7 PM to 6 AM 10 AM to 12 PM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON		
	RAMP B-2 ⊕	NA	NA	NA	NA	YES	7 PM to 6 AM 10 AM to 12 PM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON		
	RAMP F-1 ⊕	NA	NA	NA	NA	YES	11 PM TO 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON		
	RAMP F-2 ⊕	NA	NA	NA	NA	YES	11 PM TO 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON		
	RAMP F-3 ⊕	NA	NA	NA	NA	YES	11 PM TO 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON		
	RAMP F-4 ⊕	NA	NA	NA	NA	YES	11 PM TO 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON		
	RAMP E-9 ⊕	NA	NA	NA	NA	YES	11 PM TO 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON		
	RAMP E-14 ⊕	NA	NA	NA	NA	YES	11 PM to 6 AM	1 AM SAT TO 8 AM SAT 1 AM SUN TO 10 AM SUN 11 PM SUN TO 6 AM MON		
	RAMP E-15 ⊕	NA	NA	NA	NA	YES	11 PM to 6 AM	1 AM SAT TO 9 AM SAT 1 AM SUN TO 10 AM SUN 11 PM SUN TO 6 AM MON		
	RAMP E-17 ⊕	NA	NA	NA	NA	YES	11 PM TO 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON		
	RAMP E-18 ⊕	NA	NA	NA	NA	YES	11 PM TO 6 AM	12 AM SAT TO 9 AM SAT 12 AM SUN TO 11 AM SUN 11 PM SUN TO 6 AM MON		

\* - ALL LANE CLOSURES LISTED ABOVE MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY THE "DISTRICT 12, PERMITTED LANE CLOSURE TIMES" 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 LANE OR SHOULDER CLOSURES SHALL BE IN PLACE WHEN NO WORK IS BEING PERFORMED.

MAINTENANCE OF TRAFFIC NOTES

CUYAHOGA COUNTY  
CUY-77-13.81

CALCULATED  
EMK  
CHECKED  
EMK



\* SPLICE PROPOSED GUARDRAIL TO EXISTING THRIE BEAM RAIL ON BRIDGES

GUARDRAIL AND RELATED QUANTITIES

SHEET NO.	REFERENCE NO.	EXISTING LOCATIONS		PROPOSED LOCATIONS		DIRECTION	SIDE	202				606							203	448	626		
		FROM	TO	FROM	TO			GUARDRAIL REMOVED	L.F.	GUARDRAIL, TYPE 5	ANCHOR ASSEMBLY, TYPE A	ANCHOR ASSEMBLY, TYPE E-98	ANCHOR ASSEMBLY, TYPE T	GUARDRAIL MISC.: THRIE BEAM	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY, TYPE 2	BRIDGE TERMINAL ASSEMBLY, TYPE 4, AS PER PLAN	L.F.				L.F.	L.F.
22-23	1-G	48+70	50+20	48+70	50+20	NB	RT	175				112.5		/	/					1.8	6.6	3	
23	2-G	56+68	60+68	56+68	60+68	NB	RT	425				325		/						4.3	15.7	5	
24-25	*3-G	72+50	74+75	72+50	74+75	NB	RT	275				225		/						2.8	10.3	3	
25-26	*4-G	79+39.5	87+00	79+39.5	87+00	NB	RT	762.5				762.5		/						7.6	28.2	8	
26-27	5-G	107+90.68	8+46.5 RAMP S-30	107+90.68	8+46.5 RAMP S-30	NB	RT	812.5				800		/						8.2	30.1	9	
27	*6-G	111+92	118+42	111+92	118+42	NB	RT	700				650		/						7.0	25.9	7	
28	*7-G	124+31	129+18.5	124+31	129+18.5	NB	RT	487.5				425		/						4.9	18.1	5	
28	*8-G	3+48.83 RAMP F-4	33+00	3+48.83 RAMP F-4	33+00	NB	RT	625				600	/	/						6.3	23.1	7	
28-29	*9-G	35+50	42+30	35+50	42+30	NB	RT	675				675		/	/					6.8	25.0	7	
29-30	*10-G	0+38 RAMP E-14	6+00.5 RAMP E-14	0+38 RAMP E-14	6+00.5 RAMP E-14	NB	RT	612.5				550		/						6.2	22.7	7	
29-30	11-G	3+50 RAMP E-14	7+75 RAMP E-14	3+50 RAMP E-14	7+75 RAMP E-14	NB	RT	425				362.5		/	/					4.3	15.7	5	
29-30	*12-G	47+95.5	49+33	47+95.5	49+33	NB	RT	187.5				137.5		/						1.9	7.0	3	
30	*13-G	1+62 RAMP E-17	6+87 RAMP E-17	1+62 RAMP E-17	6+87 RAMP E-17	NB	RT	525				512.5		/						5.3	22.7	6	
30,32	*14-G	1+51.5 RAMP E-9	4+39 RAMP E-9	1+51.5 RAMP E-9	4+39 RAMP E-9	NB	RT	350				287.5		/	/					3.5	13.0	4	
32	15-G	6+40 RAMP E-8	8+65 RAMP E-8	6+40 RAMP E-8	8+65 RAMP E-8	WB	RT	162.5				112.5		/						1.7	6.1	3	
32	16-G	6+57.5 RAMP E-8	9+44.5 RAMP E-8	6+57.5 RAMP E-8	9+44.5 RAMP E-8	WB	LT	162.5				112.5		/						1.7	6.1	3	
30	*17-G	5+55 RAMP E-7	7+55 RAMP E-7	5+55 RAMP E-7	7+55 RAMP E-7	SB	LT	200				175		/						2.3	8.4	3	
30	*18-G	13+78.5 RAMP E-15	15+16 RAMP E-15	13+78.5 RAMP E-15	15+16 RAMP E-15	SB	RT	137.5				112.5		/						1.7	6.1	3	
32	19-G	4+05 RAMP E-10	5+17.5 RAMP E-10	4+05 RAMP E-10	5+17.5 RAMP E-10	SB	LT	112.5				100		/						1.1	4.2	2	
32	20-G	4+06 RAMP E-10	6+18 RAMP E-10	4+06 RAMP E-10	6+18 RAMP E-10	SB	RT	212.5				200		/						2.1	7.9	3	
30	*21-G	13+37.5 RAMP E-10	18+12.5 RAMP E-10	13+37.5 RAMP E-10	18+12.5 RAMP E-10	SB	RT	475				425		/						4.8	17.6	5	
29	*22-G	44+68	49+05	44+68	49+05	SB	RT	437.5				437.5		/						1.9	7.1	3	
28-29	*23-G	37+20	42+30	37+20	42+30	SB	RT	512.5				512.5		/	/					5.1	19.0	5	
28	*24-G	7+52.4 RAMP F-3	34+69	7+52.4 RAMP F-3	34+69	SB	RT	712.5				700		/						7.1	26.4	8	
28	*25-G	124+24	129+99	124+24	129+99	SB	RT	575				525		/						5.8	21.3	6	
27	*26-G	116+30	119+05	116+30	119+05	SB	RT	275				262.5		/						2.8	10.2	4	
26-27	27-G	107+95	9+96.59 RAMP F-2	107+95	9+96.59 RAMP F-2	SB	RT	1037.5				1012.5	/	/						10.4	38.4	11	
25-26	*28-G	79+77	87+06	79+77	87+43	SB	RT	762.5				712.5		/						7.6	28.2	9	
24-25	*29-G	66+87.5	75+12.5	66+87.5	75+12.5	SB	RT	825				812.5		/						8.3	30.6	9	
23	30-G	18+37.5 RAMP B-2	19+75 RAMP B-2	18+37.5 RAMP B-2	19+75 RAMP B-2	SB	LT	137.5				125		/						1.4	5.1	3	
TOTALS CARRIED TO GENERAL SUMMARY SHEET 20								13775				12762.5	2	14	13	150	6	7	1		136.7	506.8	159

GUARDRAIL AND IMPACT ATTENUATOR QUANTITIES

CUYAHOGA COUNTY  
CUY-77-13.81

CALCULATED  
LGM  
CHECKED  
EMK

I:\PROJECTS\PID23127\ dgn \23127GSA.dgn 09-MAY-2002 8:28AM fkonopka

ESTIMATED PAVEMENT QUANTITIES

SHEET REF. NO.	LOCATION		LENGTH	END WIDTHS	SURFACE AREA	254	407	407	858	858
						PAVEMENT PLANING, BITUMINOUS, AS PER PLAN (T=2"±)	TACK COAT FOR INTERMEDIATE COURSE (0.05 GAL./S.Y.)	TACK COAT (0.10 GAL./S.Y.)	ASPHALT CONCRETE, INTERMEDIATE COURSE, 9.5MM, TYPE A (448), (0"-1/2")	1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, A (446)
	FROM	TO	LIN FT	LIN FT	SQ YDS	SQ YDS	GALLON	GALLON	CU.YD.	CU.YD.
	NORTHBOUND IR-77									
22	45+76.05	48+10.78	234.73	60.5	1578	1578	78.9	157.8	32.9	66.8
22	48+10.78	50+00	189.22	60.5-73.5	1409	1409	70.5	140.9	29.4	58.7
23	50+00	50+80	80	73.5-76.5	667	667	33.4	66.7	13.9	27.8
		(10+76 RAMP B-1)								
23	50+80	59+19.5	839.5	50.5	4711	4711	235.6	471.1	98.1	196.3
23	59+19.5	64+00	480.5	50.5-71.5	3257	3257	162.9	325.7	67.9	135.7
24	64+00	64+51	51	71.5-73.5	411	411	20.6	41.1	8.6	17.1
		(5+33.3 RAMP S-E)								
24	64+51	73+00	849	38.5	3632	3632	181.6	363.2	75.7	151.3
25	73+00	74+34	134	38.5	573	573	28.7	57.3	11.9	23.9
25	74+34	75+03.07	69.07	38.5-35.5	284	284	14.2	28.4	5.9	11.8
25	79+54.40	79+76.77	22.37	34.5-37.5	89	89	4.5	8.9	1.9	3.7
25	79+76.77	82+18	241.23	37.5	1005	1005	50.3	100.5	20.9	41.9
25	82+18	83+33	115	42.5	543	543	27.2	54.3	11.3	22.6
25	83+33	85+00	167	54.5	1011	1011	50.6	101.1	21.1	42.1
26	85+00	87+35.37	235.37	54.5	1425	1425	71.3	142.5	29.7	59.4
26	107+57.59	110+00	242.41	50.8-81.7	1784	1784	89.2	178.4	37.2	74.3
27	110+00	110+13.86	13.86	81.7-83.1	127	127	6.4	12.7	2.6	5.3
		(2+80.63 RAMP F-1)								
27	110+13.86	118+09	795.14	49.5	4373	4373	218.7	437.3	91.1	182.2
27	118+09	118+75.15	66.15	49.5-47.5	356	356	17.8	35.6	7.4	14.8
28	124+39.11	124+60.38	21.27	47.5-49.5	115	115	5.8	11.5	2.4	4.8
28	124+60.38	130+41.88 BK	581.5	49.5	3198	3198	159.9	319.8	66.6	133.3
		30+41.88 AH								
		(7+16.40 RAMP F-4)								
28	30+41.88 AH	33+37.84	295.96	80.2-51.6	2167	2167	108.4	216.7	45.1	90.3
		130+41.88 BK								
28	36+05.43	37+50	144.57	51	819	819	41	81.9	17.1	34.1
		37+50	470.46	51	2667	2667	133.4	266.7	55.6	111.1
29	44+80.33	46+85.02	204.69	53-71.6	1417	1417	70.9	141.7	29.5	59.0
		(2+76.73 RAMP E-14)								
29	46+85.02	49+00	214.98	39	932	932	46.6	93.2	19.4	38.8
30	49+00	49+11	11	39	48	48	2.4	4.8	1.0	2.0
30	49+11	49+36	25	39	108	108	5.4	10.8	2.3	4.5
TOTAL						38706	1936.2	3870.6	806.5	1613.6

ESTIMATED PAVEMENT QUANTITIES

SHEET REF. NO.	LOCATION		LENGTH	END WIDTHS	SURFACE AREA	254	407	407	858	858
						PAVEMENT PLANING, BITUMINOUS, AS PER PLAN (T=2"±)	TACK COAT FOR INTERMEDIATE COURSE (0.05 GAL./S.Y.)	TACK COAT (0.10 GAL./S.Y.)	ASPHALT CONCRETE, INTERMEDIATE COURSE, 9.5MM, TYPE A (448), (0"-1/2")	1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, A (446)
	FROM	TO	LIN FT	LIN FT	SQ YDS	SQ YDS	GALLON	GALLON	CU.YD.	CU.YD.
	SOUTHBOUND IR-77									
22	45+76.05	50+00	423.95	50.3-60.5	2610	2610	131	261	54.4	108.8
23	50+00	54+75.55	475.55							
		(14+54.68 RAMP B-2)								
23	54+75.55	64+00	924.45	48.5-70.5	6112	6112	306	611.2	127.3	254.7
24	64+00	64+50.19	50.19	70.5-75.5	407	407	20.4	40.7	8.5	17.0
		(23+70.60 RAMP W-S)								
24	64+50.19	65+32.72	82.53	39.5-48	401	401	20.1	40.1	8.4	16.7
24	65+32.72	73+00	767.28	37.5	3197	3197	159.9	319.7	66.6	133.2
25	73+00	74+29.30	129.30	37.5	539	539	27	53.9	11.2	22.5
25	74+29.30	75+20.92	41.62	37.5-34.5	166	166	8.3	16.6	3.5	6.9
25	79+46.42	80+10.72	64.30	34.5-38.5	261	261	13.1	26.1	5.4	10.9
25	80+10.72	81+68	157.28	38.5	673	673	33.7	67.3	14.0	28.0
25	81+68	83+32	164	43.5	793	793	39.7	79.3	16.5	33.0
25	83+32	85+00	168	55.5	1036	1036	51.8	103.6	21.6	43.2
26	85+00	87+62	262	55.5	1616	1616	80.8	161.6	33.7	67.3
26	107+96.50	110+00	203.5	47.5-54.4	1152	1152	57.6	115.2	24.0	48.0
27	110+00	113+69.99	369.99	54.5-62.5	2405	2405	120.3	240.5	50.1	100.2
		(5+21.87 RAMP F-2)								
27	113+69.99	115+38.70	169.05	45-59.5	981	981	49.1	98.1	20.4	40.9
27	115+38.70	119+04.79	366.09	49.5	2013	2013	100.7	201.3	41.9	83.9
28	124+10.60	124+35.60	25	48	133	133	6.7	13.3	2.8	5.5
28	124+35.60	130+41.88 BK	606.28	51	3436	3436	171.8	343.6	71.6	143.2
		30+41.88 AH								
28	30+41.88	31+55.97	114.09	51	647	647	32.4	64.7	13.5	27.0
28	31+55.97	34+16.75	260.78	76.1-53.2	1873	1873	93.7	187.3	39.0	78.0
28	34+16.75	34+41.75	25	52.2	145	145	7.3	14.5	3.0	6.0
28	36+57.18	36+82.18	25	51	142	142	7.1	14.2	3.0	6.0
28	36+82.18	37+50	67.82	51	384	384	19.2	38.4	8.0	16.0
29	37+50	42+20.46	470.46	51	2666	2666	133.3	266.6	55.5	111.1
29	42+20.46	42+45.46	25	51	142	142	7.1	14.2	3.0	6.0
29	44+55.23	44+80.23	25	51	142	142	7.1	14.2	3.0	6.0
29	44+80.23	48+72.33	392.1	51-55.7	2324	2324	116.2	232.4	48.4	96.8
29	48+72.33	48+98.20	25.87	55.7	160	160	8	16	3.3	6.7
29-30	48+98.20	49+23.20	25	37	103	103	5.2	10.3	2.1	4.3
TOTAL						36659	1834.6	3665.9	763.7	1527.8
GRAND TOTAL CARRIED TO GENERAL SUMMARY SHEET 20						75365	3770.8	7536.5	1570.2	3141.4

ESTIMATED PAVEMENT QUANTITIES

CUYAHOGA COUNTY  
CUY-77-13.81



\* COMPUTER GENERATED

ESTIMATED PAVEMENT QUANTITIES

SHEET REF. NO.	LOCATION		LENGTH LIN FT	END WIDTHS LIN FT	SURFACE AREA SQ YDS	254	407	407	858	858
						PAVEMENT PLANING, BITUMINOUS, AS PER PLAN (T=2"±)	TACK COAT FOR INTERMEDIATE COURSE (0.05 GAL./S.Y.)	TACK COAT (0.10 GAL./S.Y.)	ASPHALT CONCRETE, INTERMEDIATE COURSE, 9.5MM, TYPE A (448), (0"-1/2")	1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, A (446)
	FROM	TO				SQ YDS	GALLON	GALLON	CU.YD.	CU.YD.
RAMP B-1										
23	10+76	11+90.97	114.97	33.6-24	368	368	18.4	36.8	7.7	15.4
23	11+90.97	14+31.11	240.14	24	640	640	32	64.0	13.3	26.6
23	14+31.11	15+78.70	147.59	24-37	500	500	25	50.0	10.4	20.8
23	15+78.70	17+51.73	173.03	37	711	711	35.6	71.1	14.8	29.6
23	*RAMP B-1 SPUR				202	202	10.1	20.2	4.2	8.4
RAMP B-2										
23	14+54.68	15+54.68	100	22-23	250	250	12.5	25.0	5.2	10.4
23	(54+75.55)									
23	15+54.68	16+54.68	100	23-26	272	272	13.6	27.2	5.7	11.4
23	16+54.68	19+37	282.32	26	816	816	40.8	81.6	17.0	34.0
23	19+37	20+75	138	26-22	368	368	18.4	36.8	7.7	15.4
23	20+75	22+00	125	22-30	361	361	18.1	36.1	7.5	13.0
23	22+00	24+00	200	30	667	667	33.4	66.7	13.9	27.8
RAMP F-1										
27	2+80.63	3+80.63	100	29-22	283	283	14.2	28.3	5.9	11.8
27	(110+13.68)									
27	3+80.63	7+75	394.37	22	964	964	48.2	96.4	20.1	40.2
27	7+75	10+42.33	267.33	22-30	772	772	38.6	77.2	16.1	32.2
27	10+42.33	11+65.96	123.63	30	412	412	20.6	41.2	8.6	17.2
27	*RAMP F-1 SPUR				252	252	12.6	25.2	5.3	10.6
RAMP F-2										
26	5+21.87	6+21.87	100	24	267	267	13.4	26.7	5.6	11.2
27	(113+69.99)									
27	6+21.87	7+21.87	100	24-22	256	256	12.8	25.6	5.3	10.6
27	7+21.87	10+22.49	300.62	22	735	735	36.8	73.5	15.3	30.6
27	10+22.49	12+40	217.51	22-30	628	628	31.4	62.8	13.1	26.2
RAMP F-4										
28	0+35.88	1+73.65	137.77	79-94	1324	1324	66.2	132.4	27.6	55.2
28	1+73.65	7+16.40	542.75	27	1628	1628	81.4	162.8	33.9	67.8
28	*BUTT JOINT AREAS				408	408	20.4	40.8	8.5	17.0
TOTAL						13084	654.5	1308.4	272.7	543.4

ESTIMATED PAVEMENT QUANTITIES

SHEET REF. NO.	LOCATION		LENGTH LIN FT	END WIDTHS LIN FT	SURFACE AREA SQ YDS	254	407	407	858	858
						PAVEMENT PLANING, BITUMINOUS, AS PER PLAN (T=2"±)	TACK COAT FOR INTERMEDIATE COURSE (0.05 GAL./S.Y.)	TACK COAT (0.10 GAL./S.Y.)	ASPHALT CONCRETE, INTERMEDIATE COURSE, 9.5MM, TYPE A (448), (0"-1/2")	1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, A (446)
	FROM	TO				SQ YDS	GALLON	GALLON	CU.YD.	CU.YD.
RAMP E-9										
30	0+93.60	2+00	106.4	27	319	319	16.0	31.9	6.6	13.2
32	(7+06.65 E-17)									
32	2+00	4+50.96	250.96	25	697	697	34.9	69.7	14.5	29.0
	*BUTT JOINT AREA				86	86	4.3	8.6	1.8	3.6
RAMP E-14										
29	2+76.73	4+72.70	195.97	25	545	545	27.3	54.5	11.4	22.8
29	(46+85.02)	(0+00 ACCESS RD)								
30	4+72.70	5+00	27.3	25-27	79	79	4.0	7.9	1.6	3.2
30	5+00	7+76.96	276.96	27-45	1108	1108	55.4	110.8	23.1	46.2
30	7+76.96	10+53	276.04	27	828	828	41.4	82.8	17.3	34.6
30	*BUTT JOINT AREAS				135	135	6.8	13.5	2.8	5.6
RAMP E-15										
30	0+00	3+80	380	20	845	845	42.3	84.5	17.6	35.2
30	7+00	7+80	80	18	160	160	8.0	16.0	3.3	6.6
31	10+00	11+00	100	25-27	289	289	14.5	28.9	6.0	12.0
31	11+00	14+09.52	309.52	25	860	860	43.0	86.0	17.9	35.8
31	14+09.52	15+32.64	123.12	42-37	540	540	27.0	54.0	11.3	22.6
	*BUTT JOINT AREA				53	53	2.7	5.3	1.1	2.2
RAMP E-17										
30	1+46	2+31.62	85.62	52-68	571	571	28.6	57.1	11.9	23.8
30	(51+27.02)	(0+47.96 E-8)								
30	2+31.62	5+83.64	352.02	35	1369	1369	68.5	136.9	28.5	57.0
30	5+83.64	7+06.65	123.01	35-57	629	629	31.5	62.9	13.1	26.2
30	7+06.65	10+70.65	364	25	1011	1011	50.6	101.1	21.1	42.2
	*BUTT JOINT AREA				47	47	2.4	4.7	1.0	2.0
RAMP E-18										
31	1+90	8+00	610	25	1694	1694	169	84.7	35.3	70.6
TOTAL						11865	678.2	1101.8	247.2	494.4
GRAND TOTAL CARRIED TO GENERAL SUMMARY SHEET 20						24949	1333	2410	520	1038

I:\PROJECTS\1023127\dgm\2312705C.dgn 09-MAY-2002 8:29AM fkonopka

CALCULATED  
LGM  
CHECKED  
EMK

ESTIMATED PAVEMENT QUANTITIES

CUYAHOGA COUNTY  
CUY-77-13.81



SHEET NUMBER										COST PARTICIPATION 1-FEDERAL AND STATE										ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.													
7	8	9	17	18	19	36																																
ROADWAY																																						
	500								13775						202	38000	14275	LIN.FT.	GUARDRAIL REMOVED																			
	370														202	54101	370	EACH	RAISED PAVEMENT MARKER REMOVED FOR STORAGE, AS PER PLAN	7																		
	5								136.7						203	60200	141.7	STATION	LINEAR GRADING, METHOD A																			
	500								12762.5						606	13000	13262.5	LIN.FT.	GUARDRAIL, TYPE 5																			
	150														606	13050	150	LIN.FT.	GUARDRAIL, TYPE 5A																			
	1								14						606	22010	15	EACH	ANCHOR ASSEMBLY, TYPE E-98																			
									2						606	25000	2	EACH	ANCHOR ASSEMBLY, TYPE A																			
	1								13						606	26500	14	EACH	ANCHOR ASSEMBLY, TYPE T																			
	1								6						606	35000	7	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1																			
									7						606	35100	7	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2																			
	1								1						606	35141	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4, AS PER PLAN	35A																		
									150						606	98000	150	LIN.FT.	GUARDRAIL MISC.: THRIE BEAM																			
					5.30										618	40600	5.30	MILE	RUMBLE STRIPS, TYPE 2 (ASPHALT)																			
DRAINAGE																																						
															604	09001	2	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	8																		
															604	09500	1	EACH	CATCH BASIN RECONSTRUCTED TO GRADE																			
															604	34501	2	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	8																		
															604	35500	1	EACH	MANHOLE RECONSTRUCTED TO GRADE																			
															604	39501	1	EACH	MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN	8																		
															604	39600	1	EACH	MONUMENT BOX RECONSTRUCTED TO GRADE																			
															SPEC.	604E50000	7500	POUND	MISCELLANEOUS METAL																			
PAVEMENT																																						
															251	01001	400	SQ.YD.	PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN A	9,36																		
															251	01001	50	SQ.YD.	PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN B	9,36																		
															251	01001	100	SQ.YD.	PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN C	9,36																		
															254	01001	100314	SQ.YD.	PAVEMENT PLANING, BITUMINOUS, AS PER PLAN	9																		
															254	01600	1000	SQ.YD.	PATCHING PLANED SURFACES																			
															407	10000	9946.5	GALLON	TACK COAT																			
															407	14000	5103.8	GALLON	TACK COAT FOR INTERMEDIATE COURSE																			
	17								506.8						448	46060	523.8	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (UNDER GUARDRAIL), PG64-22																			
															858	10000	4179.4	CU.YD.	ASPHALT CONCRETE, SURFACE COURSE, 12.5MM, TYPE A (446)																			
															858	20100	2090.2	CU.YD.	ASPHALT CONCRETE, INTERMEDIATE COURSE, 9.5MM, TYPE A (448)																			

GENERAL SUMMARY  
 CUYAHOGA COUNTY  
 CUY-77-13.81  
 20  
 55

SHEET NUMBER COST PARTICIPATION 1-FEDERAL AND STATE

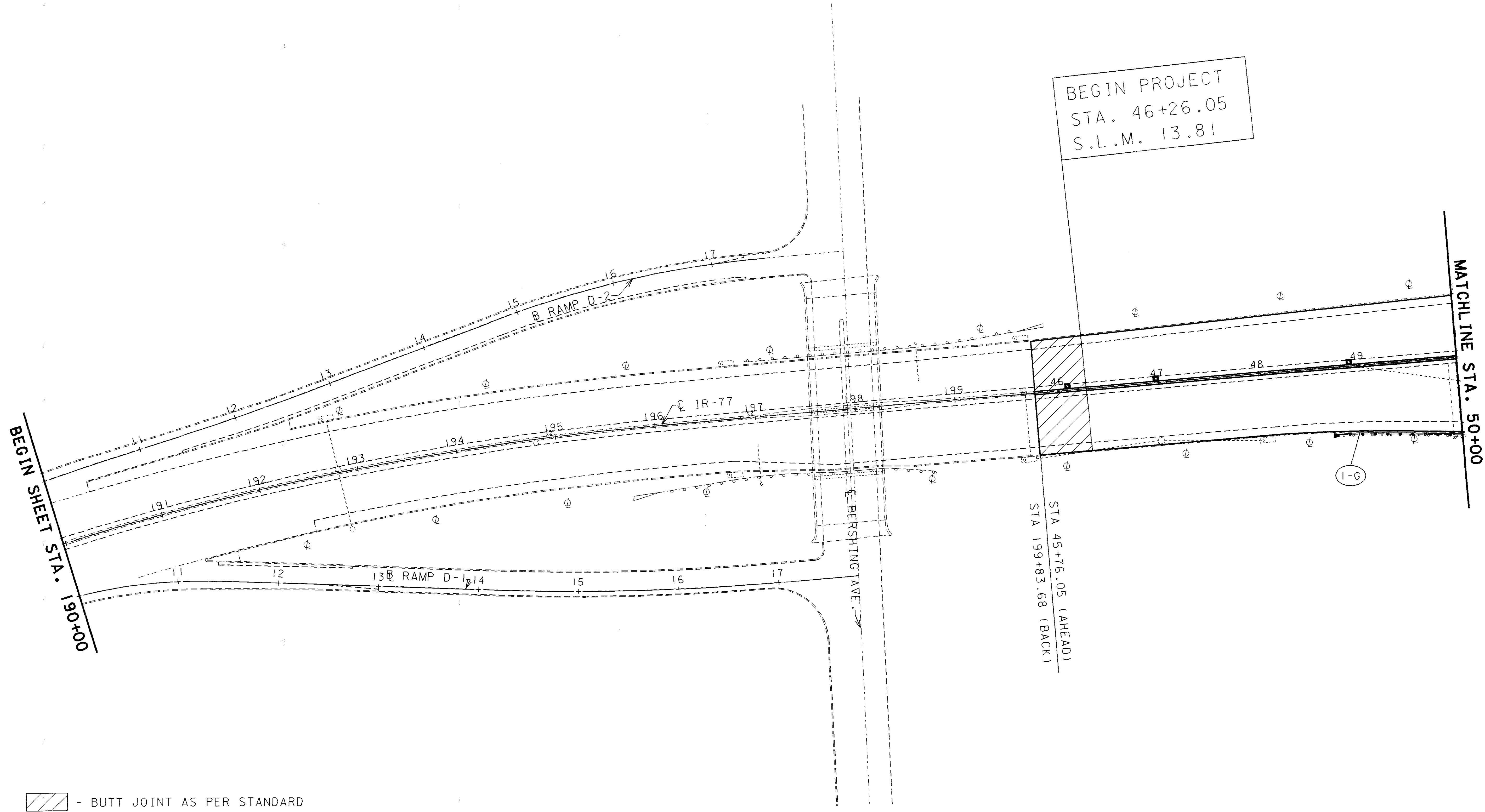
7	11	12	13	14	17	38	51	52	53	54	55
						370					
6					159	2			12	6	6
									920	260	260
									6	3	3
						4.79	2.82				
						4.36	0.02				
						4819	1840				
							135				
							286				
						963	154				
							8				
							3				
						163					

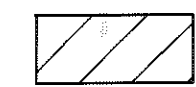
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
<b>TRAFFIC CONTROL</b>					
621	00200	370	EACH	RAISED PAVEMENT MARKER, INSTALLATION ONLY	
626	00100	165	EACH	BARRIER REFLECTOR, TYPE A	
632	26501	26	EACH	DETECTOR LOOP, AS PER PLAN	38,53-55
632	65200	1440	LIN.FT.	LOOP DETECTOR LEAD-IN CABLE	
632	90400	12	EACH	SIGNALIZATION MISC.: PIEZOCABLE AXLE SENSOR, CLASS I (11' IN LENGTH)	
828	10000	7.61	MILE	EDGE LINE	
828	10100	4.38	MILE	LANE LINE	
828	10300	6659	LIN.FT.	CHANNELIZING LINE	
828	10400	135	LIN.FT.	STOP LINE	
828	10500	286	LIN.FT.	CROSSWALK LINE	
828	10600	1117	LIN.FT.	TRANSVERSE LINE	
828	20300	8	EACH	LANE ARROW	
828	20400	3	EACH	WORD ON PAVEMENT, 72"	
828	20500	163	LIN.FT.	DOTTED LINE	
<b>LIGHTING</b>					
603	00400	40	LIN.FT.	4" CONDUIT, TYPE E	
625	00500	6	EACH	CONNECTOR KIT, TYPE II	
625	01500	4	EACH	CABLE SPLICING KIT	
625	23200	2000	LIN.FT.	NO. 4 AWG, 5000 VOLT DISTRIBUTION CABLE	
625	25400	1000	LIN.FT.	CONDUIT, 2", 713.04	
625	29002	1000	LIN.FT.	TRENCH, 24" DEEP	
625	30700	2	EACH	PULLBOX, 713.08, 18"	
<b>MAINTENANCE OF TRAFFIC</b>					
614	11100	480	HOURL	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
614	13000	100	CU.YD.	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	
614	18020	50	HOURL	MAINTAINING TRAFFIC MISC.: BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	13
614	18601	12	SIGN MONTHS	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	11
614	20100	4.38	MILE	TEMPORARY LANE LINE, CLASS I, 642 PAINT	
614	20500	4.38	MILE	TEMPORARY LANE LINE, CLASS II, 642 PAINT	
614	22100	7.61	MILE	TEMPORARY EDGE LINE, CLASS I, 642 PAINT	
614	23200	6659	LIN.FT.	TEMPORARY CHANNELIZING LINE, CLASS I, 642 PAINT	
614	26200	135	LIN.FT.	TEMPORARY STOP LINE, CLASS I, 642 PAINT	
614	27200	286	LIN.FT.	TEMPORARY CROSSWALK LINE, CLASS I, 642 PAINT	
614	30200	8	EACH	TEMPORARY LANE ARROW, CLASS I, 642 PAINT	
630	97800	400	SQ.FT.	SIGNING MISC.: ADDITIONAL SIGNS, GROUND MOUNTED, AS DIRECTED BY THE ENGINEER	14
<b>GENERAL</b>					
614	11000	LUMP		MAINTAINING TRAFFIC	
623	10001	LUMP		CONSTRUCTION LAYOUT STAKES, AS PER PLAN	6,36
624	10000	LUMP		MOBILIZATION	
806	16010	10	MONTH	FIELD OFFICE, TYPE B	

GENERAL SUMMARY

CUYAHOGA COUNTY  
CUY-77-13.81

I:\PROJECTS\PID23127\dgn\23127G6A.dgn 09-MAY-2002 8:30AM fkonopka


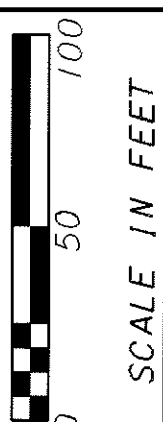


 - BUTT JOINT AS PER STANDARD DRAWING BP-3.1

SEE SHEET 37 FOR INLET PAVING DETAIL.

CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18
PAVEMENT MARKING	40

CALCULATED LGM  
 CHECKED EMK

SCALE IN FEET

PLAN SHEET - I.R. 77  
 STA. 190+00 TO STA. 50+00

CUY-77-13.81

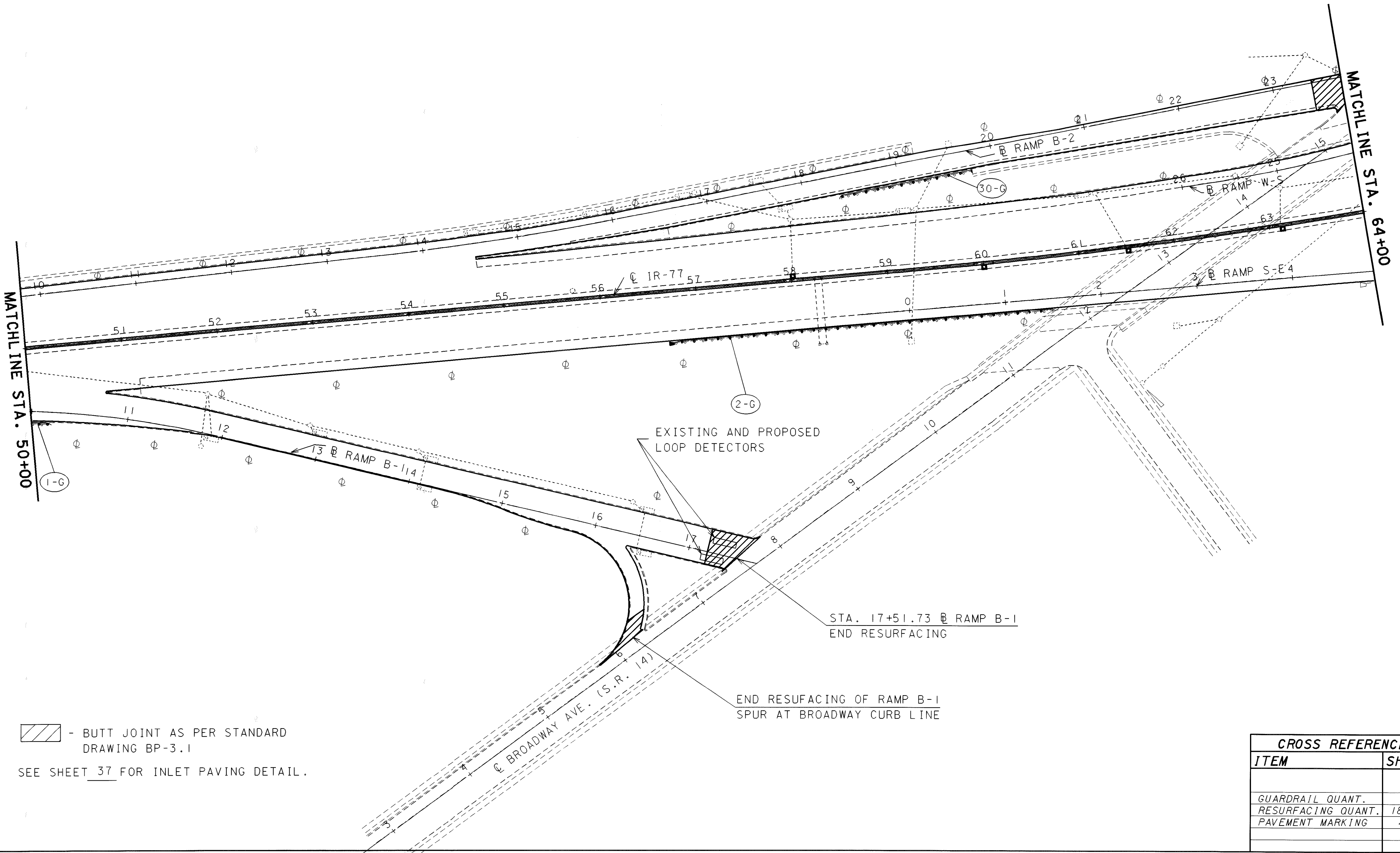
22  
 55



PLOT SUBMITTED: 09-MAY-2002 08:31

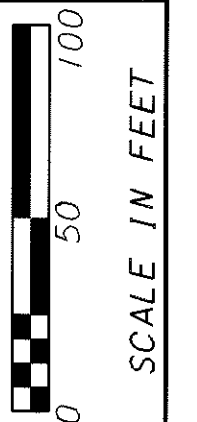
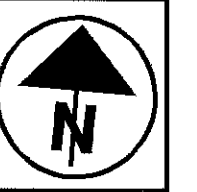
23127GPB.DGN

PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\PID23127\dgn\23127gpb.dgn



▨ - BUTT JOINT AS PER STANDARD  
 DRAWING BP-3.1  
 SEE SHEET 37 FOR INLET PAVING DETAIL.

CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18-19
PAVEMENT MARKING	41



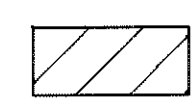
CALCULATED  
 LGM  
 CHECKED  
 EMK

PLAN SHEET - I.R. 77  
 STA. 50+00 TO STA. 64+00

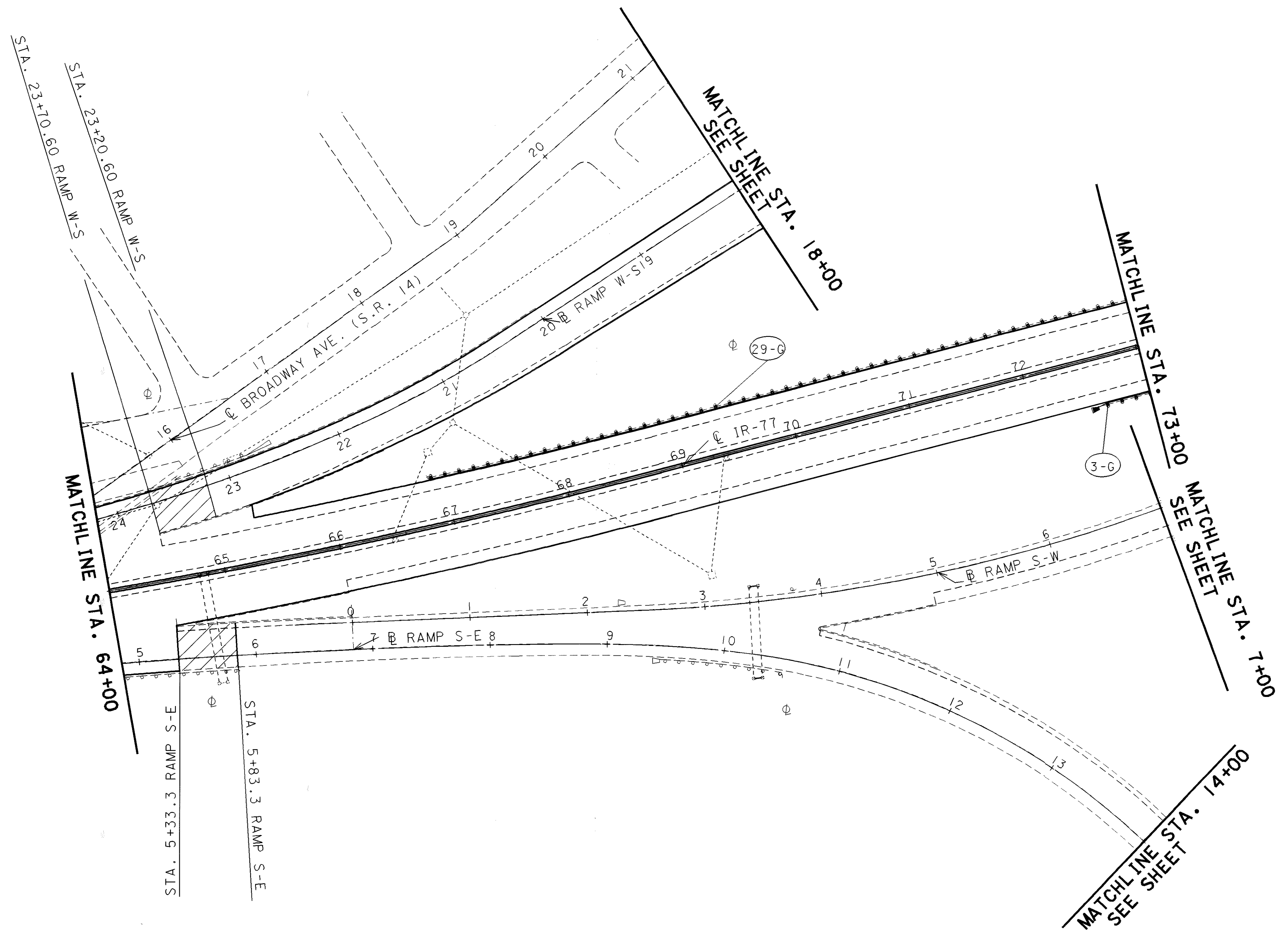
CUY-77-13.81

23  
 55

PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\PID23127\dgn\23127qpc.dgn  
 23127qpc.dgn  
 PLOT SUBMITTED: 09-MAY-2002 08:31

 - BUTT JOINT AS PER STANDARD DRAWING BP-3.1

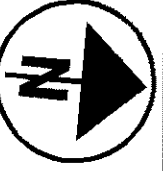
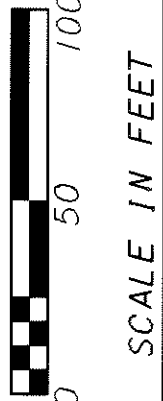
SEE SHEET 37 FOR INLET PAVING DETAIL.



CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18
PAVEMENT MARKING	42

CUY-77-13.81

PLAN SHEET - I.R. 77  
STA. 64+00 TO STA. 73+00


SCALE 1" = 100 FEET

CALCULATED  
LGM

CHECKED  
EMK

24
55

PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\PID23127\ dgn\23127.dgn  
 23127GPD.DGN  
 PLOT SUBMITTED: 09-MAY-2002 08:32


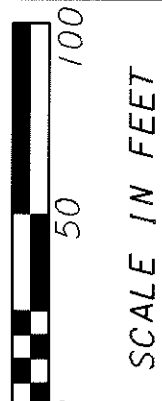
 - BUTT JOINT AS PER STANDARD DRAWING BP-3.1

SEE SHEET 37 FOR INLET PAVING DETAIL.

CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18
PAVEMENT MARKING	43

**PLAN SHEET - I.R. 77**  
**STA. 73+00 TO STA. 85+00**

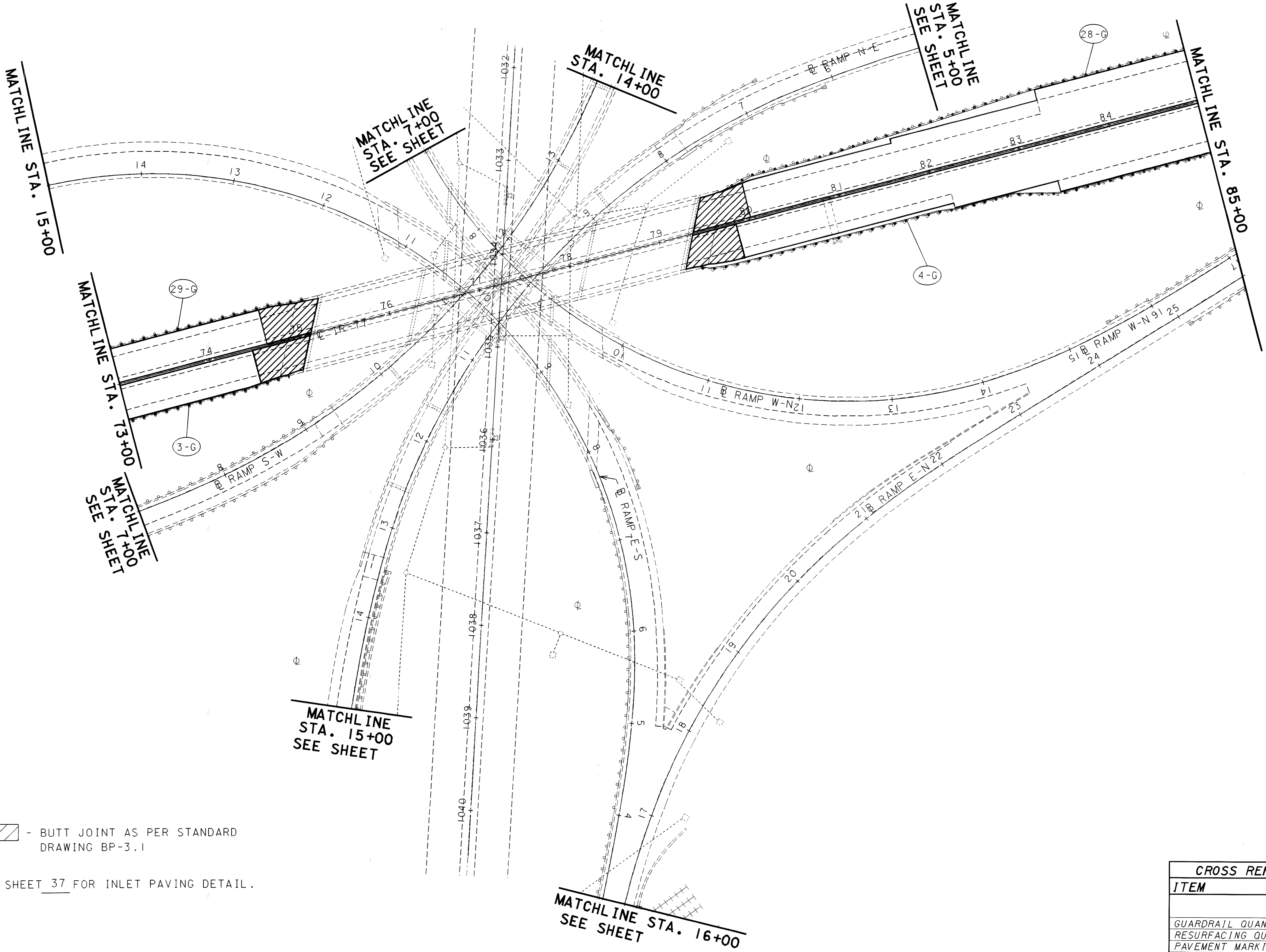
**CUY-77-13.81**

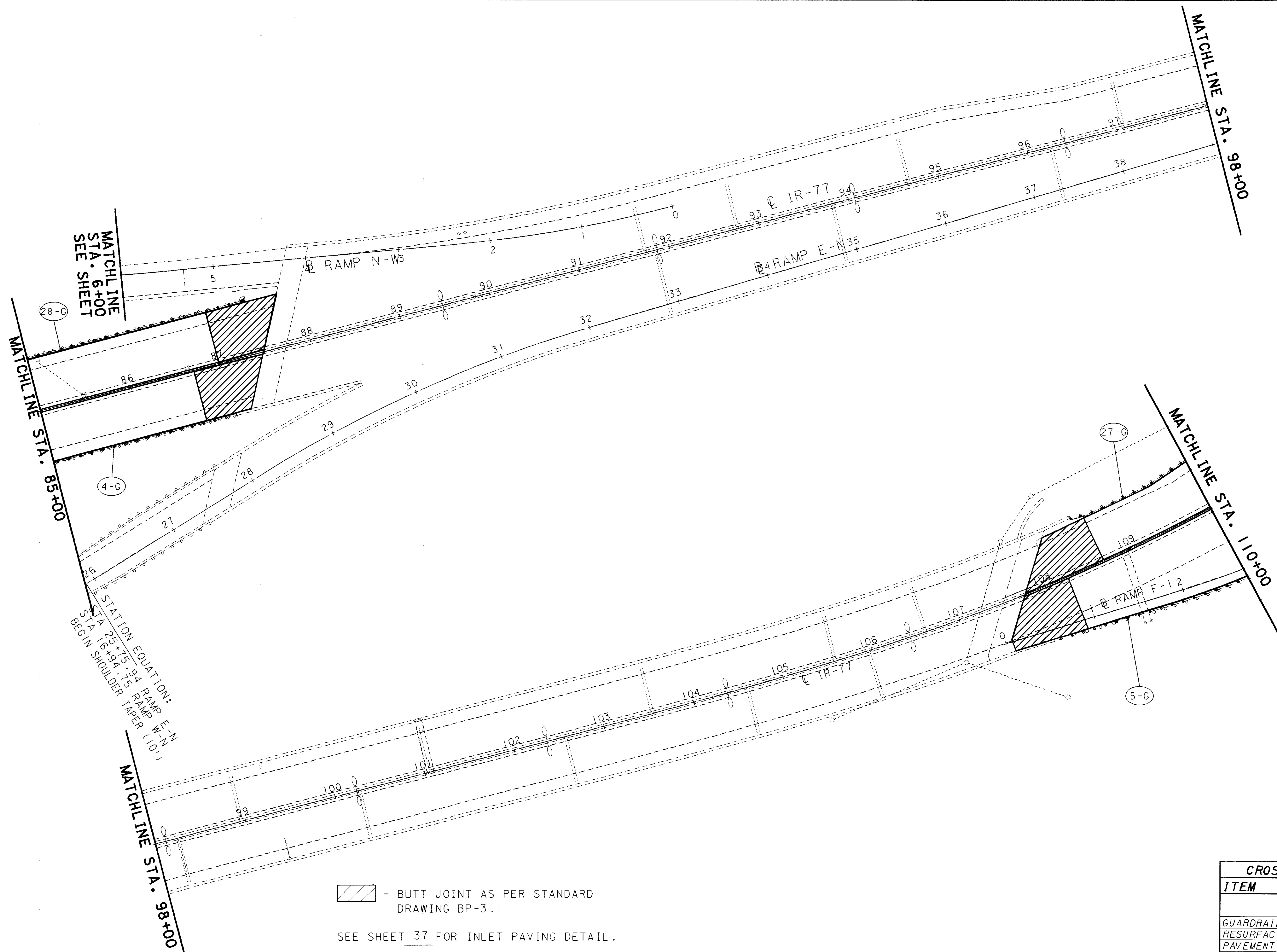
SCALE IN FEET

CALCULATED LGM  
 CHECKED E/MK

**25**  
**55**







- BUTT JOINT AS PER STANDARD DRAWING BP-3.1

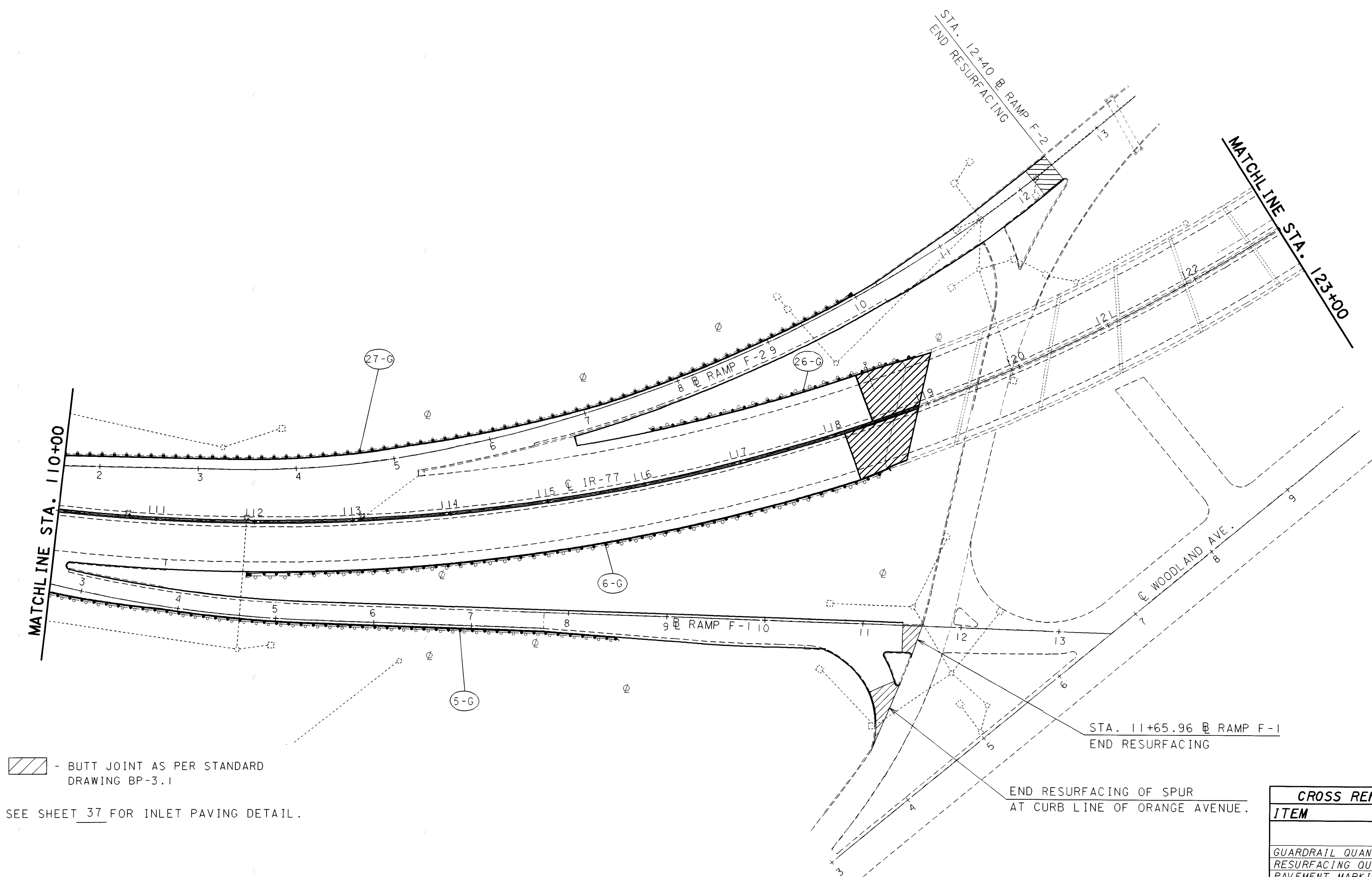
SEE SHEET 37 FOR INLET PAVING DETAIL.

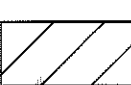
CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18
PAVEMENT MARKING	44

CALCULATED LGM  
 CHECKED EMK

SCALE: 1" = 100 FEET

**PLAN SHEET - I.R. 77**  
**STA. 85+00 TO STA. 110+00**



 - BUTT JOINT AS PER STANDARD DRAWING BP-3.1

SEE SHEET 37 FOR INLET PAVING DETAIL.

END RESURFACING OF SPUR AT CURB LINE OF ORANGE AVENUE.

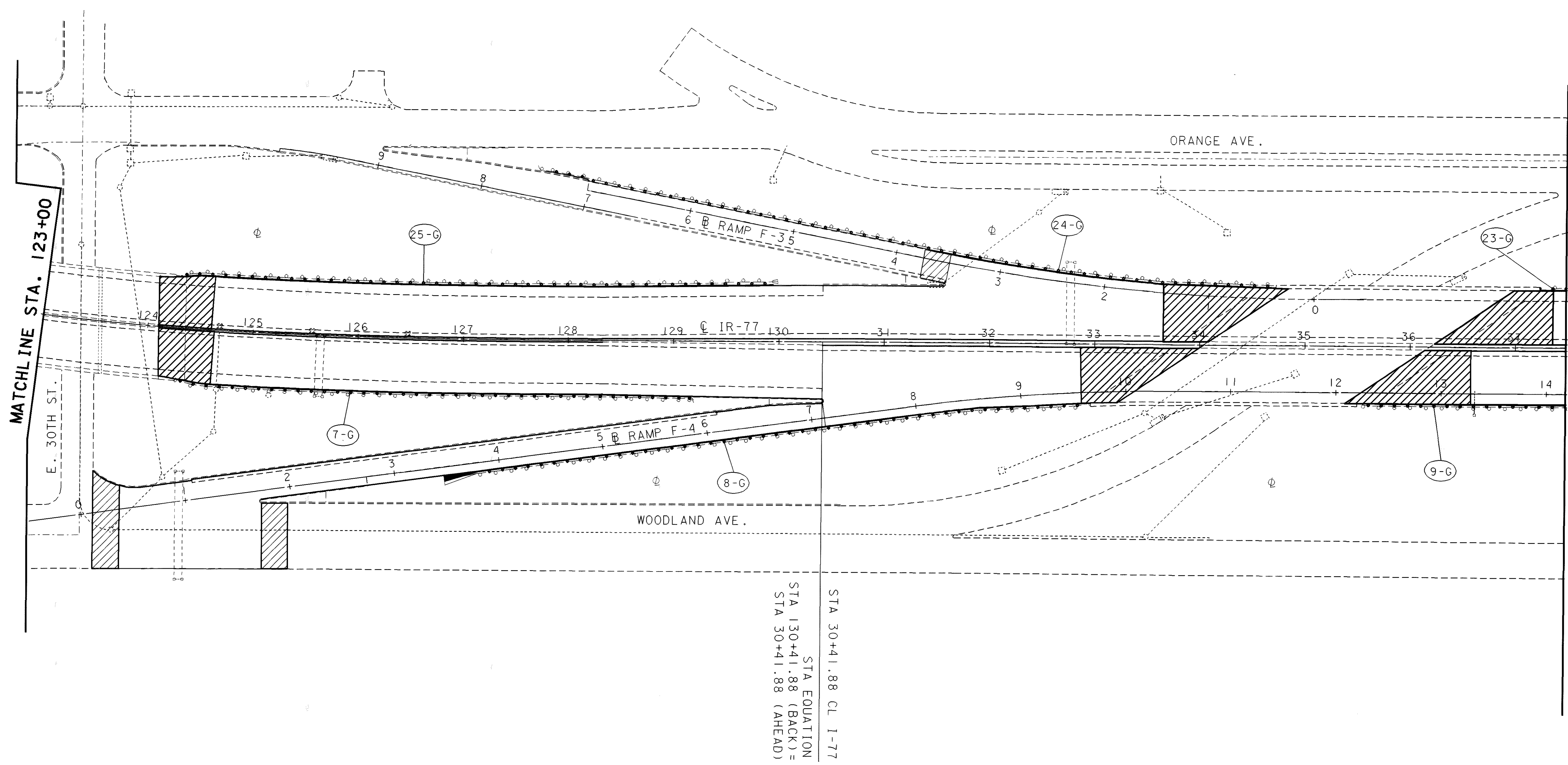
STA. 11+65.96 RAMP F-1  
 END RESURFACING

CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18
PAVEMENT MARKING	45

PLOT SUBMITTED: 09-MAY-2002 08:33

23127GPG.DGN

PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\PID23127\dgn\23127gpg.dgn



MATCHLINE STA. 123+00  
 E. 30TH ST.

MATCHLINE STA. 37+50

PLAN SHEET - I.R. 77  
 STA. 123+00 TO STA. 37+50

CUY-77-13.81

28  
 55

▨ - BUTT JOINT AS PER STANDARD  
 DRAWING BP-3.1

SEE SHEET 37 FOR INLET PAVING DETAIL.

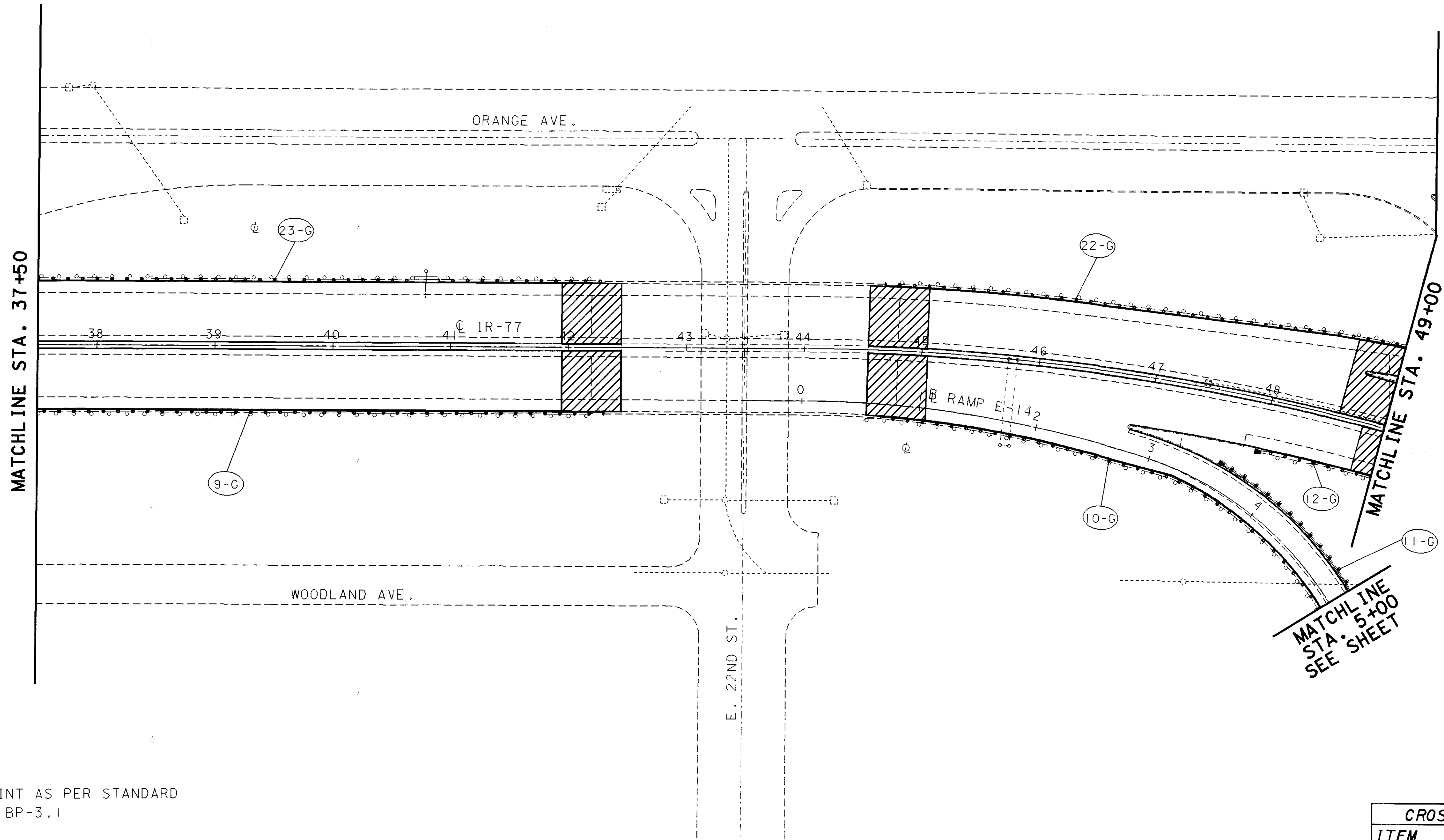
STA EQUATION  
 STA 130+41.88 (BACK) =  
 STA 30+41.88 (AHEAD)


CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18-19
PAVEMENT MARKING	46

CALCULATED LGM  
 CHECKED EMK

SCALE IN FEET





 - BUTT JOINT AS PER STANDARD  
 DRAWING BP-3.1

SEE SHEET 37 FOR INLET PAVING DETAIL.

CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18-19
PAVEMENT MARKING	47


CALCULATED  
 LGM  
 CHECKED  
 EMK

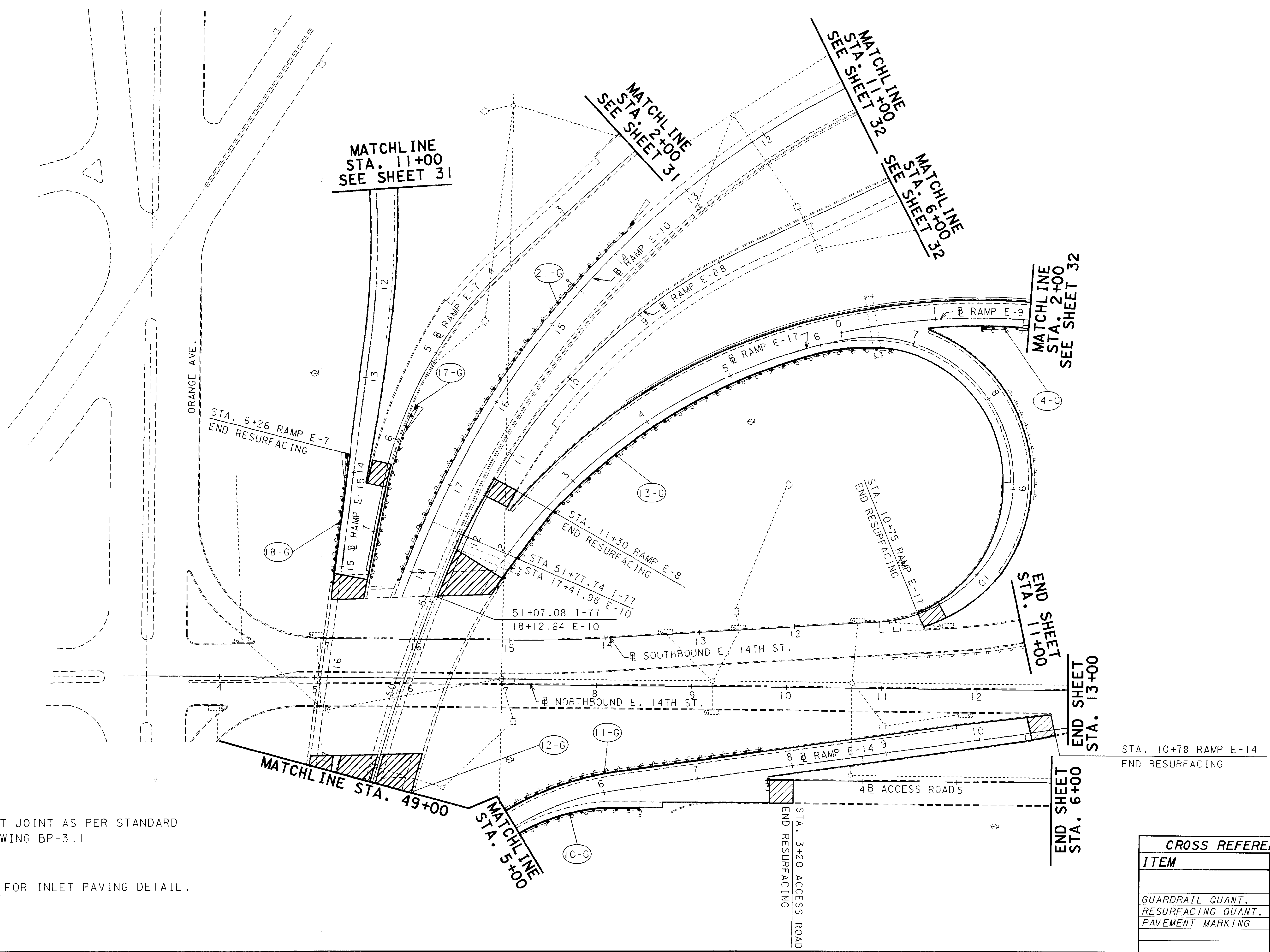
SCALE IN FEET

**PLAN SHEET - I.R. 77**  
**STA. 37+50 TO STA. 49+00**

**CUY-77-13.81**

PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\PID23127\ dgn\23127.gpi.dgn  
 23127GPI.DGN  
 PLOT SUBMITTED: 09-MAY-2002 08:34

 - BUTT JOINT AS PER STANDARD DRAWING BP-3.1  
 SEE SHEET 37 FOR INLET PAVING DETAIL.


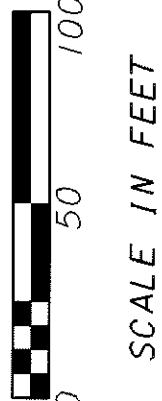


CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18-19
PAVEMENT MARKING	48

CUY-77-13.81

PLAN SHEET - I.R. 77  
 STA. 49+00 TO STA. 6+00 RAMP E-8

CALCULATED LGM  
 CHECKED EMK

  
  
 SCALE 1" = 100 FEET

30  
55

STA. 0+00 RAMP E-15  
 END RESURFACING  
 END SHEET


END SHEET

MATCHLINE  
 STA. 8+00

MATCHLINE STA. 65+00

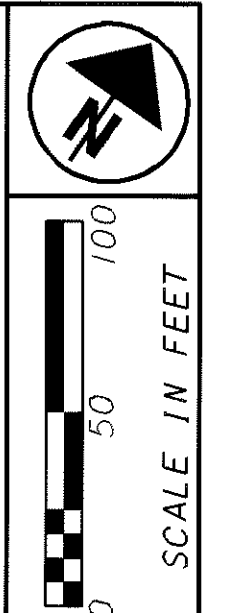
MATCHLINE  
 STA. 2+00  
 SEE SHEET 30

MATCHLINE  
 STA. 11+00  
 SEE SHEET 30

 - BUTT JOINT AS PER STANDARD  
 DRAWING BP-3.1

SEE SHEET 37 FOR INLET PAVING DETAIL.

CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18-19
PAVEMENT MARKING	49



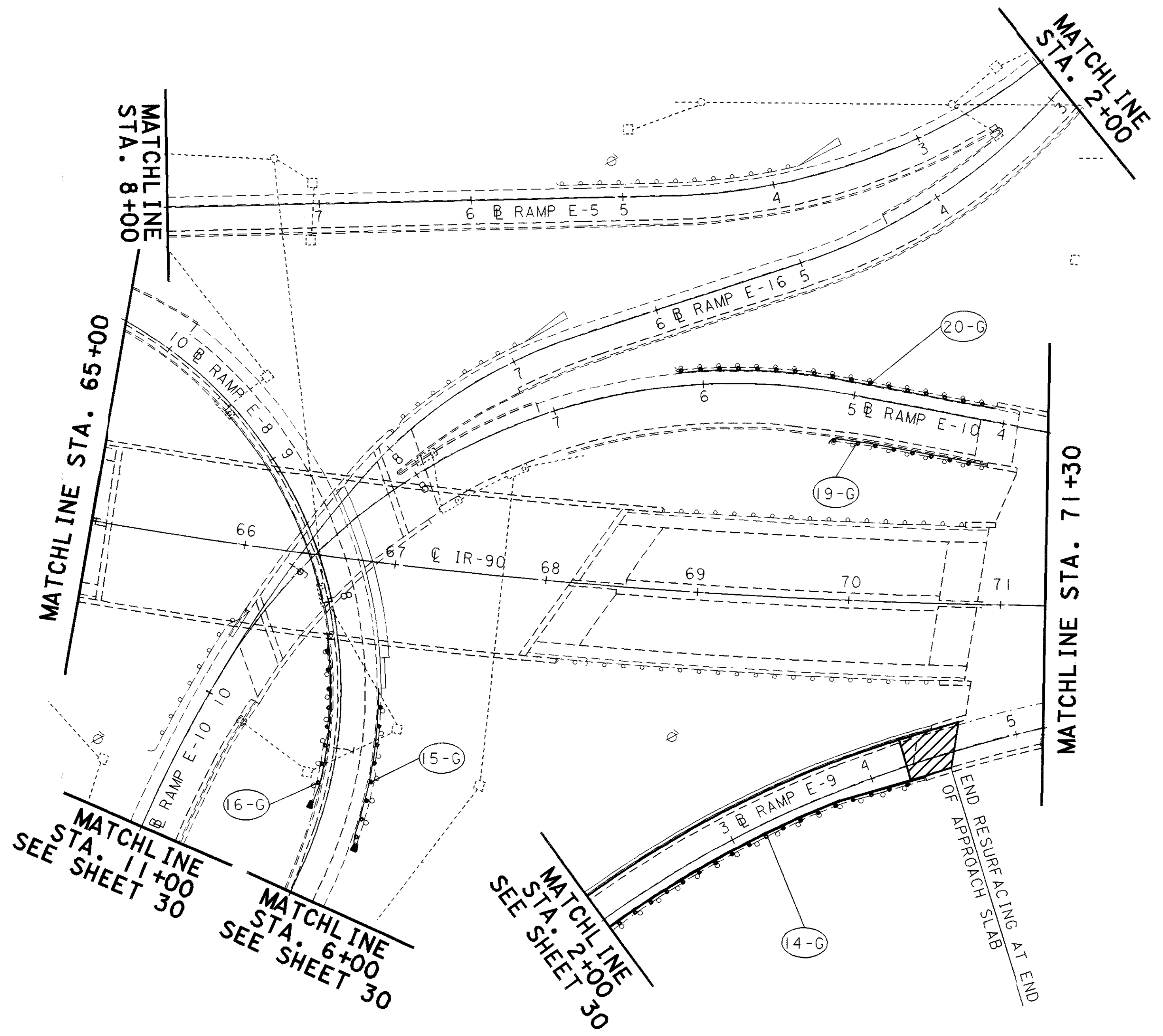
CALCULATED  
 LGM  
 CHECKED  
 EMK

**PLAN SHEET - I.R. 90**  
**STA. 56+00 TO STA. 65+00**

**CUY-77-13.81**



PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\PID23127\dgn\23127.gpk.dgn  
 23127GPK.DGN  
 PLOT SUBMITTED: 09-MAY-2002 08:35



- BUTT JOINT AS PER STANDARD DRAWING BP-3.1

SEE SHEET 37 FOR INLET PAVING DETAIL.

CROSS REFERENCE	
ITEM	SHEET
GUARDRAIL QUANT.	17
RESURFACING QUANT.	18-19
PAVEMENT MARKING	50

CALCULATED LGM  
 CHECKED EMK

SCALE 1" = 100 FEET

**PLAN SHEET - I.R. 90**  
**STA. 65+00 TO STA. 71+30**

**CUY-77-13.81**

32  
 55

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE ET-2000 (1997) MANUFACTURED BY SYRO, INC.  
1170 N. STATE STREET  
GIRARD, OHIO 44420  
TELEPHONE: (330) 545-4373.

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 15.24 m (50 FT), INCLUSIVE OF TWO 7.62 m (25 FT) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PREAPPROVED SHOP DRAWING:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL
SS265M	ET-2000 (1997) PLAN, ELEVATION & SECTIONS	6/20/97	3/6/98

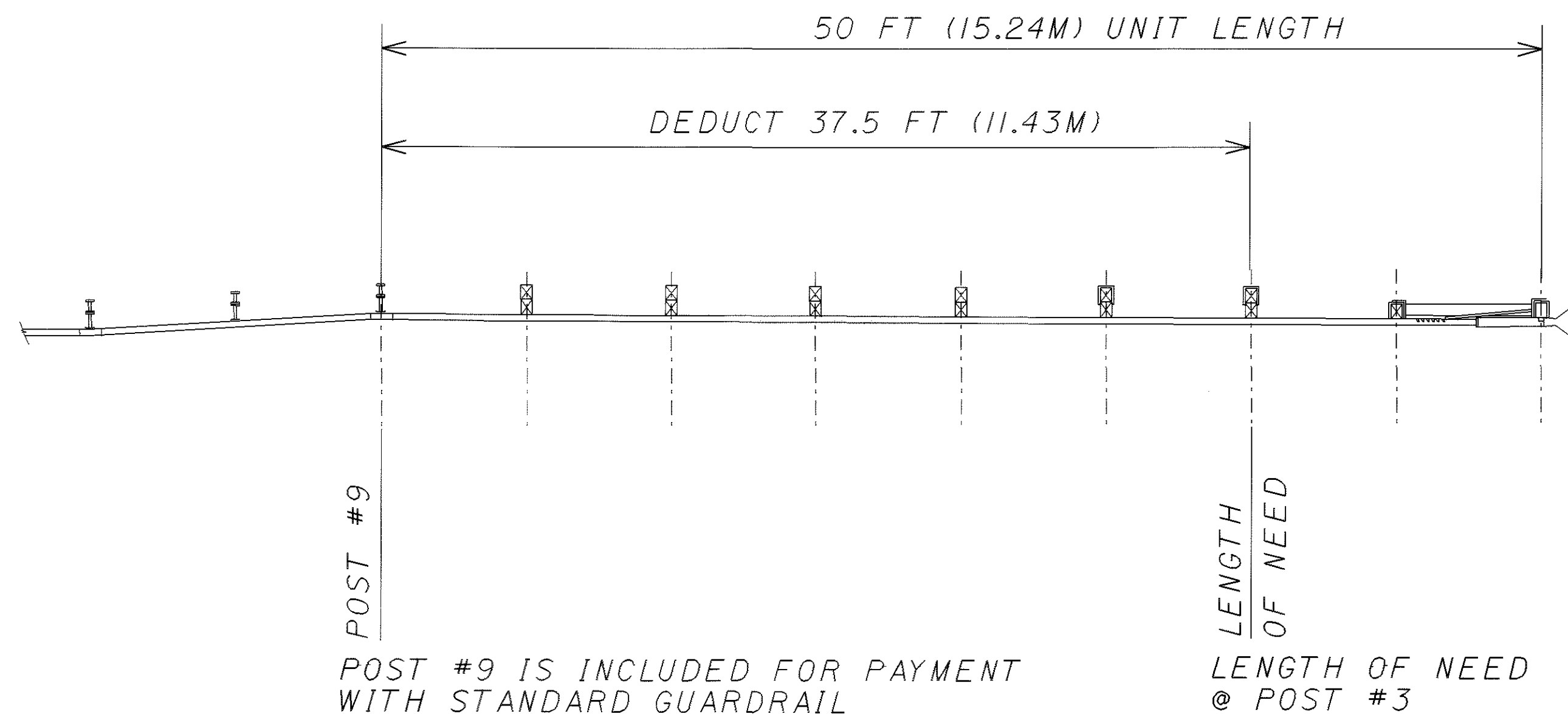
- 2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC.  
NEW CASTLE DRIVE  
FRANKFORT, IL 60423  
TELEPHONE: (815) 464-5917.

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 15.24 m (50 FT), INCLUSIVE OF FOUR 3.81 m (12.5 FT) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

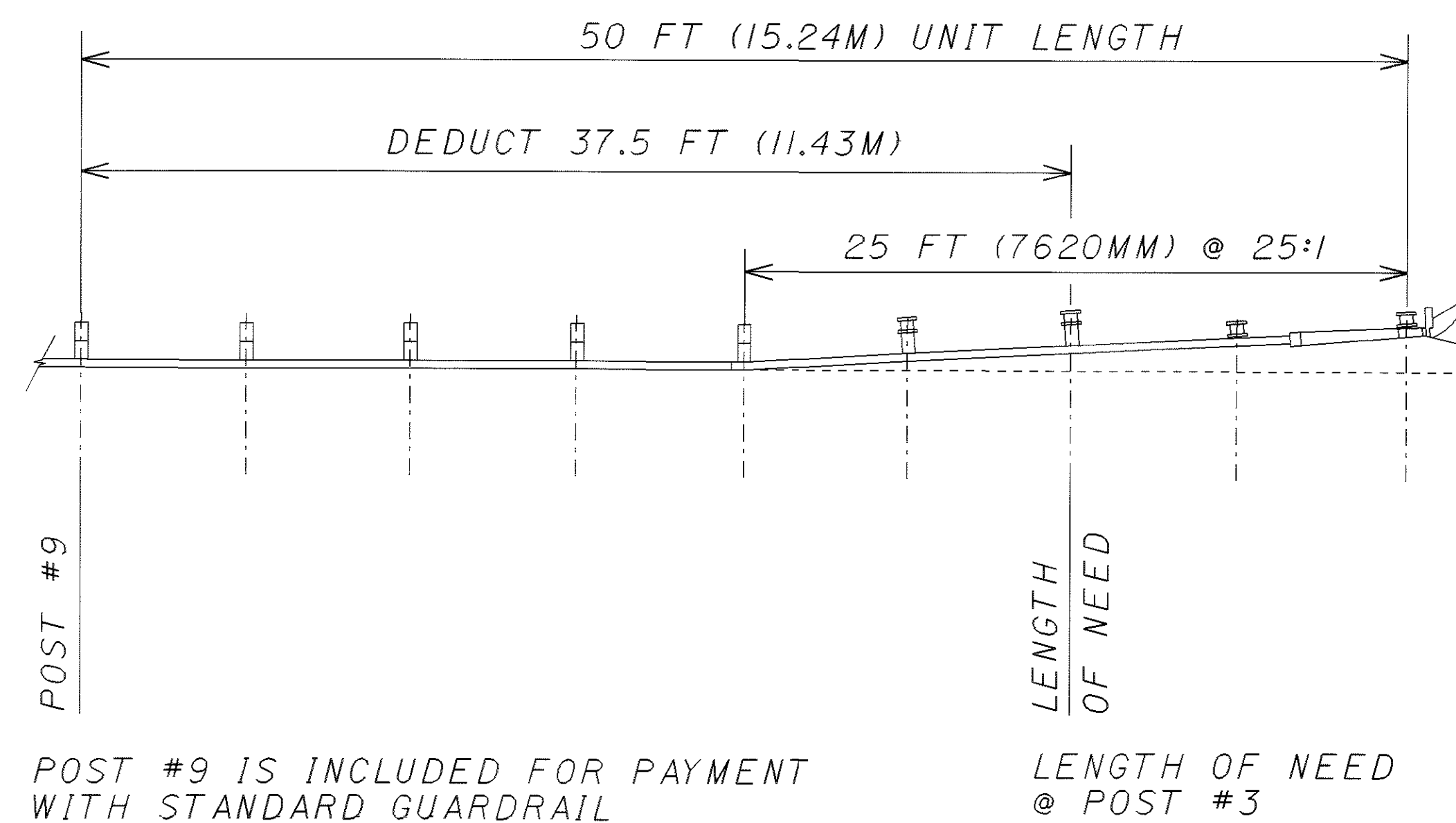
DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

A TYPE C DELINEATOR SHALL BE INSTALLED AT THE HEAD OF ALL TYPE E-98 UNITS LOCATED ON THE RIGHT SIDE OF THE THROUGH ROADWAY. A TYPE D DELINEATOR SHALL BE INSTALLED AT THE HEAD OF ALL TYPE E-98 UNITS LOCATED ON THE LEFT SIDE OF THE THROUGH ROADWAY. DELINEATORS SHALL COMPLY WITH STANDARD TRAFFIC DRAWING TC-61.10.

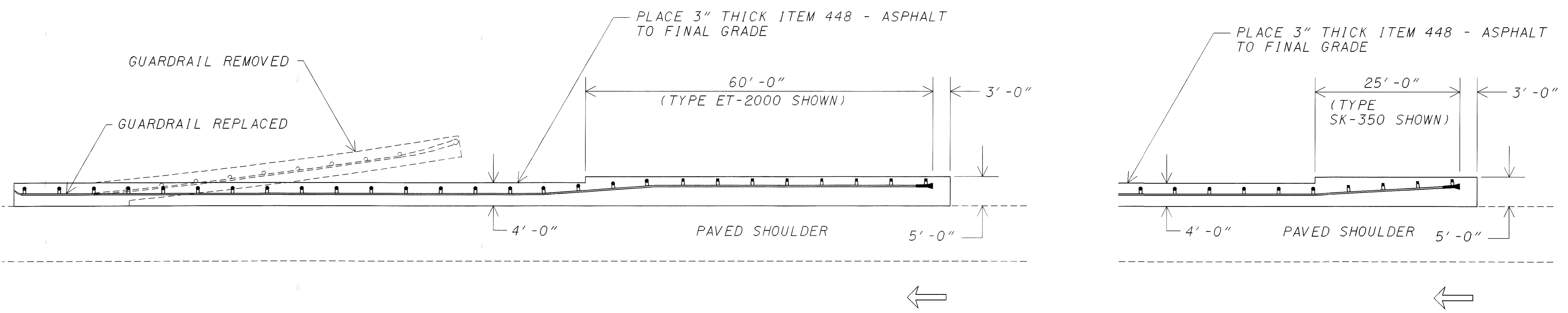
PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM; INCLUDING ALL RELATED TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.



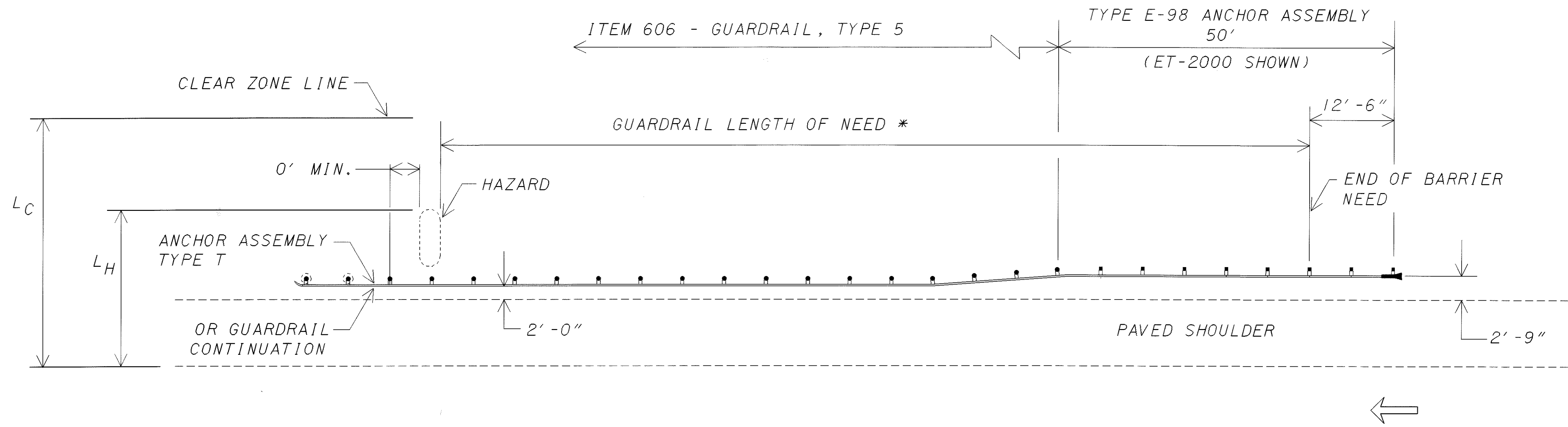
ET-2000



SKT-350



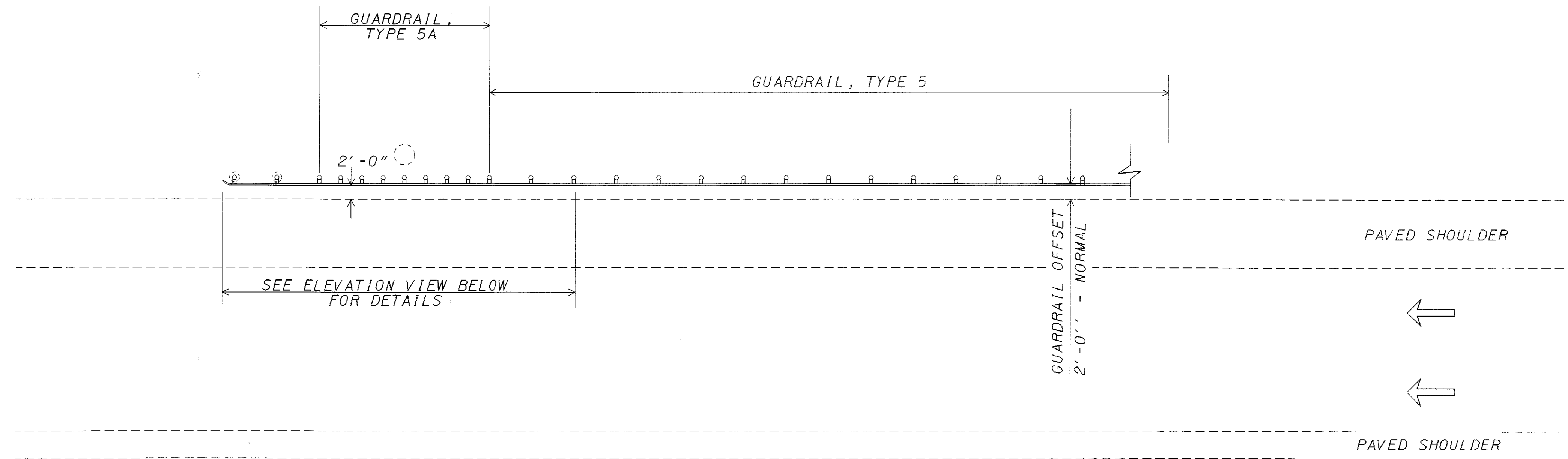
ITEM 448 FOR EROSION CONTROL WITH TYPE E-98 ANCHOR ASSEMBLY



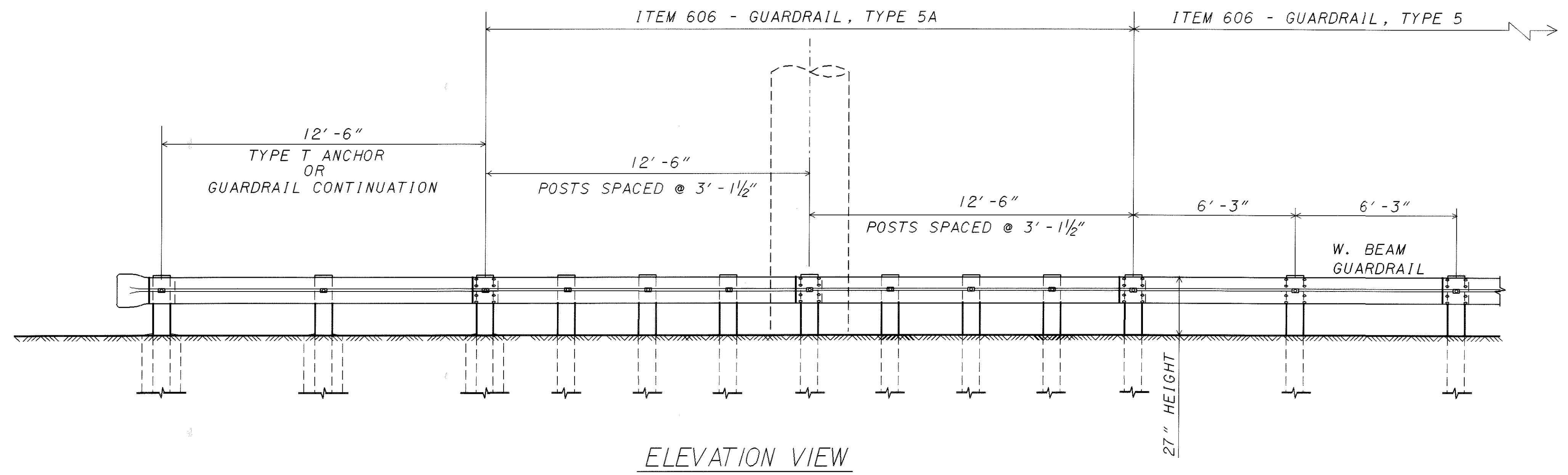
TYPICAL GUARDRAIL PROTECTION OF HAZARDS

I:\PROJECTS\PID23127\dgn\23127grb.dgn 09-MAY-2002 8:36AM fkonopka





TYPE 5A GUARDRAIL PROTECTION FOR OVERHEAD SIGN SUPPORTS  
 REQUIRED WHEN FACE OF HAZARD IS BETWEEN 5'-6" AND 3'-6" OF FACE OF GUARDRAIL



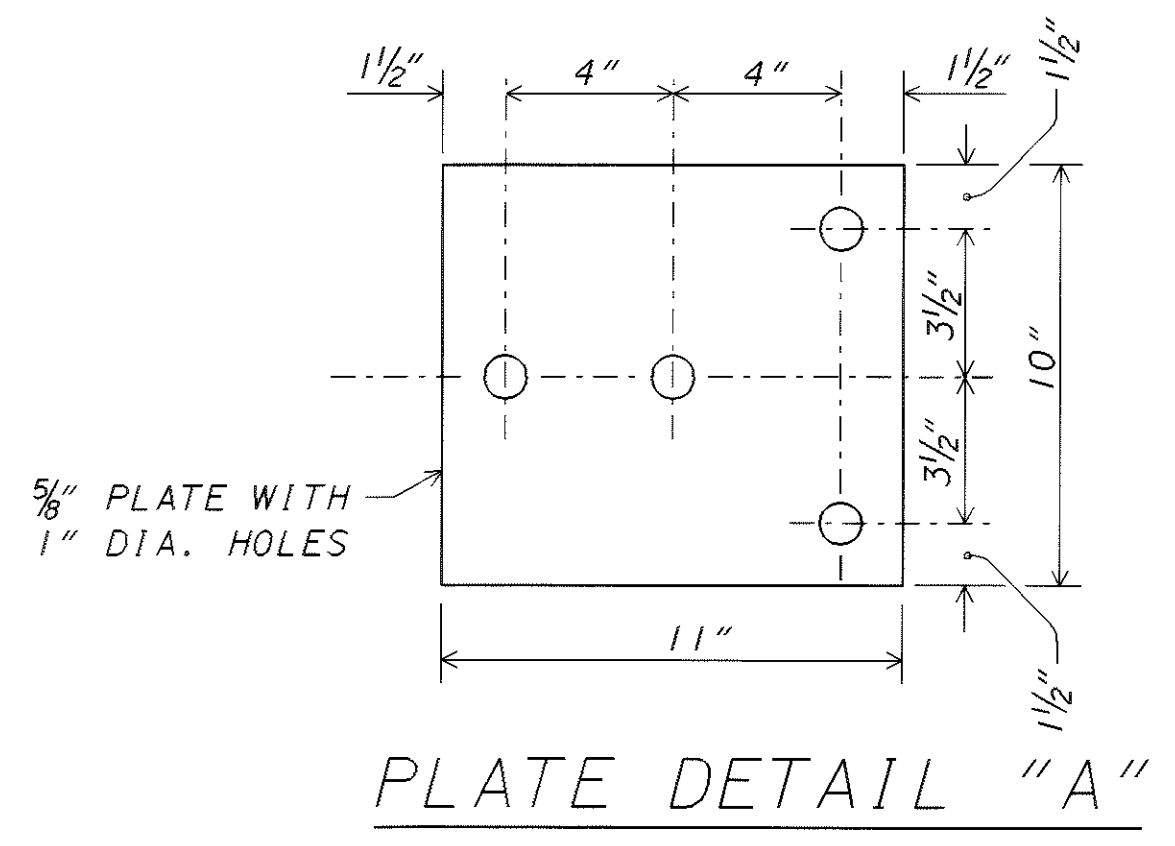
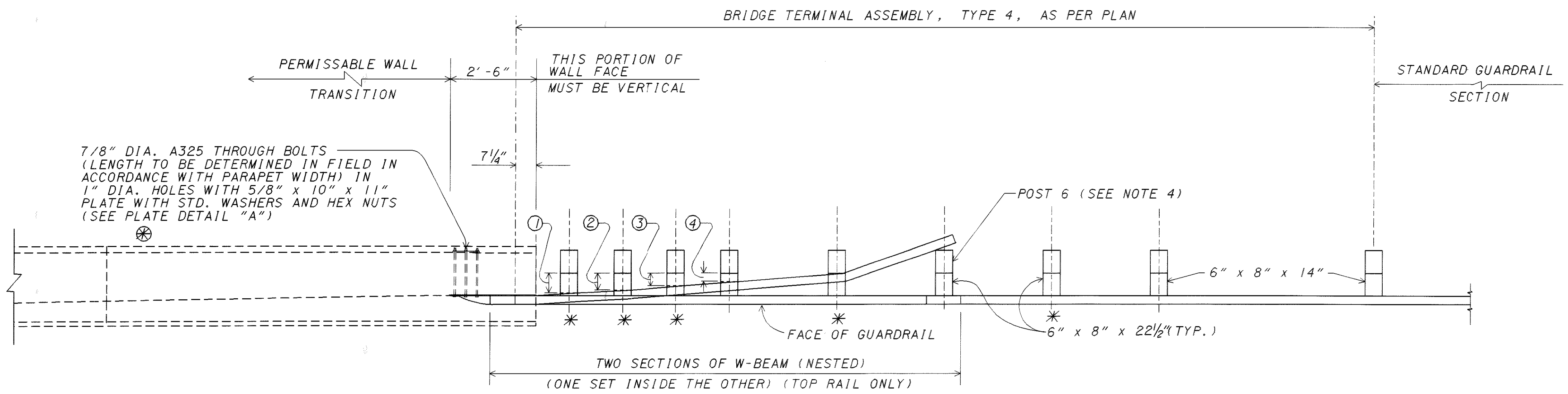
ELEVATION VIEW

I:\PROJECTS\PID23127\dgm\23127gr.c.dgn 09-MAY-2002 8:56AM fkonopka

DESIGNED	EMK
CHECKED	LDH
REVISION	XXX

GUARDRAIL DETAILS  
 TYPE 5A PROTECTION AT  
 OVERHEAD SIGN SUPPORTS

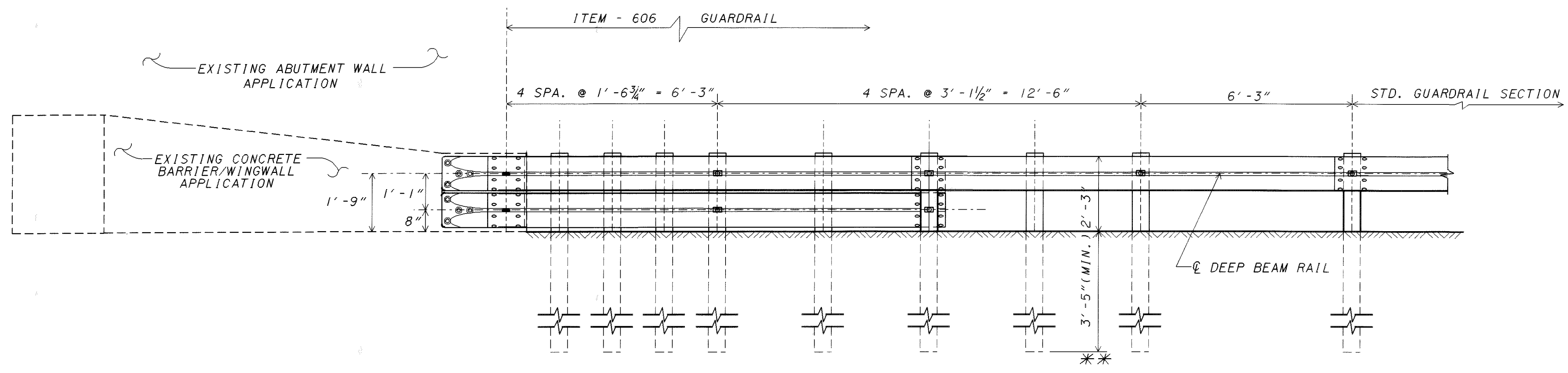
CUYAHOGA COUNTY  
 CUY-77-13.81



⊗ - FOR ATTACHMENT TO ABUTMENT WALLS, THIS ITEM REQUIRES THE USE OF POLYESTER RESIN ANCHORS WITH FEMALE THREADED INSERTS (10" LONG) TO ACCEPT 7/8" DIAMETER BOLTS. (PLATE DETAIL NOT REQUIRED)

PLAN

\* GUARDRAIL NOT ATTACHED TO POSTS. BLOCKOUT FASTENED TO POST WITH STD. POST BOLT.



ELEVATION

\*\*SEE STD. CONSTRUCTION DRAWING GR-1.2 FOR ADDITIONAL POST EMBEDMENT DETAILS.

GENERAL NOTES

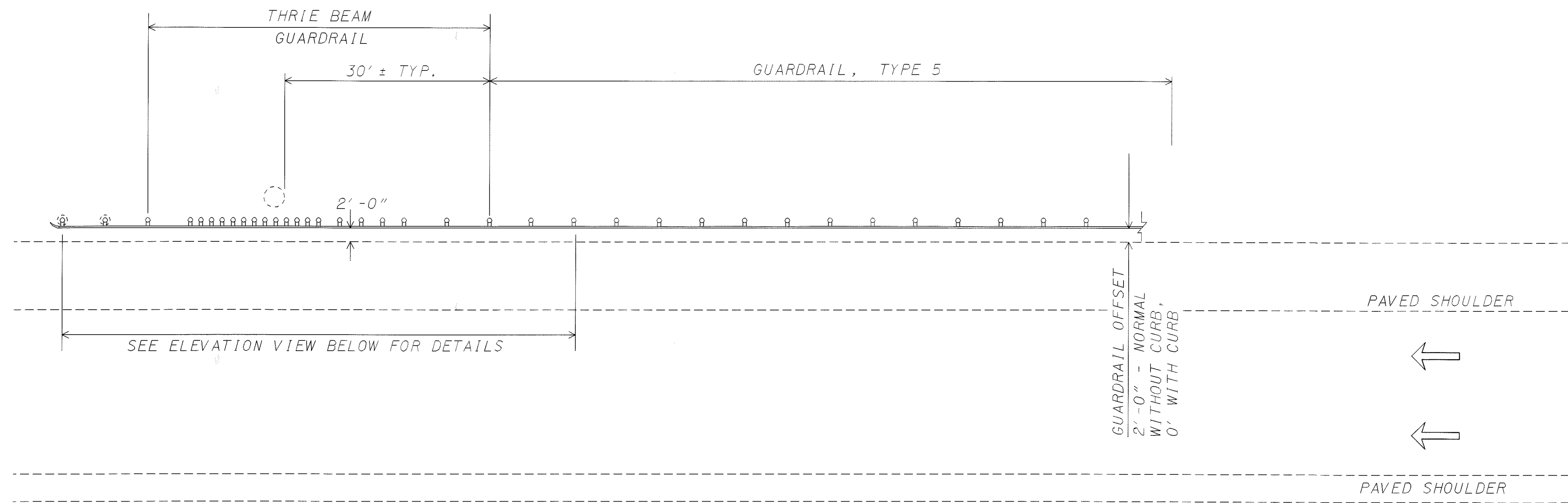
1. THIS GUARDRAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO A VERTICAL CONCRETE SHAPE AND SHOULD NOT BE CONNECTED DIRECTLY TO A CONCRETE SAFETY SHAPE. CONCRETE SAFETY SHAPE BARRIERS SHOULD BE TRANSITIONED TO A VERTICAL SHAPE AT THE GUARDRAIL CONNECTION.
2. THE RUBRAIL MAY BE SHOP BENT IN THE LAST 3 FEET TO FACILITATE INSTALLATION.
3. BOTTOM WOOD BLOCKS, LOCATED ON POSTS 1, 2, 3, AND 4 ARE CENTER DRILLED AND SECURED WITH 5/8" CARRIAGE BOLTS.
4. POSTS 1, 2, 3, 4, AND 6 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKS AND/OR LOWER BEAM.
5. SEE STANDARD CONSTRUCTION DRAWINGS GR-1.2M AND GR-3.4M FOR ADDITIONAL DETAILS.

BLOCKOUT CHART  
BOTTOM BEAM WOOD BLOCKS  
1'-2" X 6"

POST	THICKNESS
①	7"
②	6"
③	4.5"
④	3"

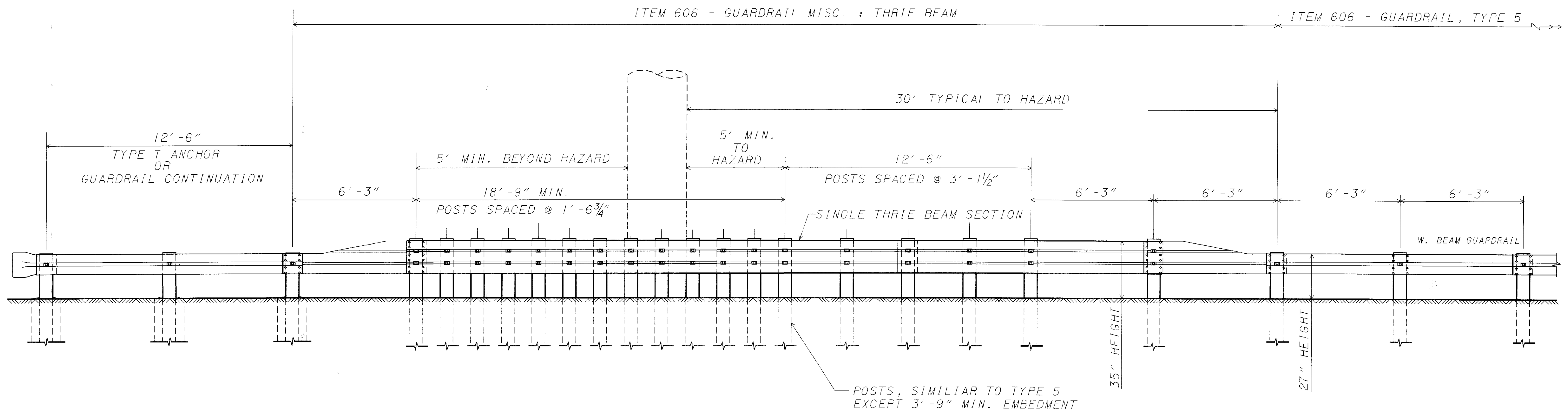
THIS DETAIL MODIFIES A BRIDGE TERMINAL ASSEMBLY, TYPE 4 FOR CONNECTION TO A VERTICAL WALL. ALL DIMENSIONS AND DETAILS SHOWN ARE IN AGREEMENT WITH THE APPROVED CRASHWORTHY GUARDRAIL TRANSITION FOUND IN "FHWA TECHNICAL ADVISORY T 5040.26" AND THE "ROADSIDE DESIGN GUIDE"

I:\PROJECTS\IPD23127\dgm\23127gr.F.dgn 09-MAY-2002 8:37AM fkonopka



THRIE BEAM GUARDRAIL PROTECTION FOR OVERHEAD SIGN SUPPORTS OR PIERS

REQUIRED WHEN FACE OF HAZARD IS BETWEEN 3'-6" AND 2'-9" OF NORMAL GUARDRAIL OFFSET



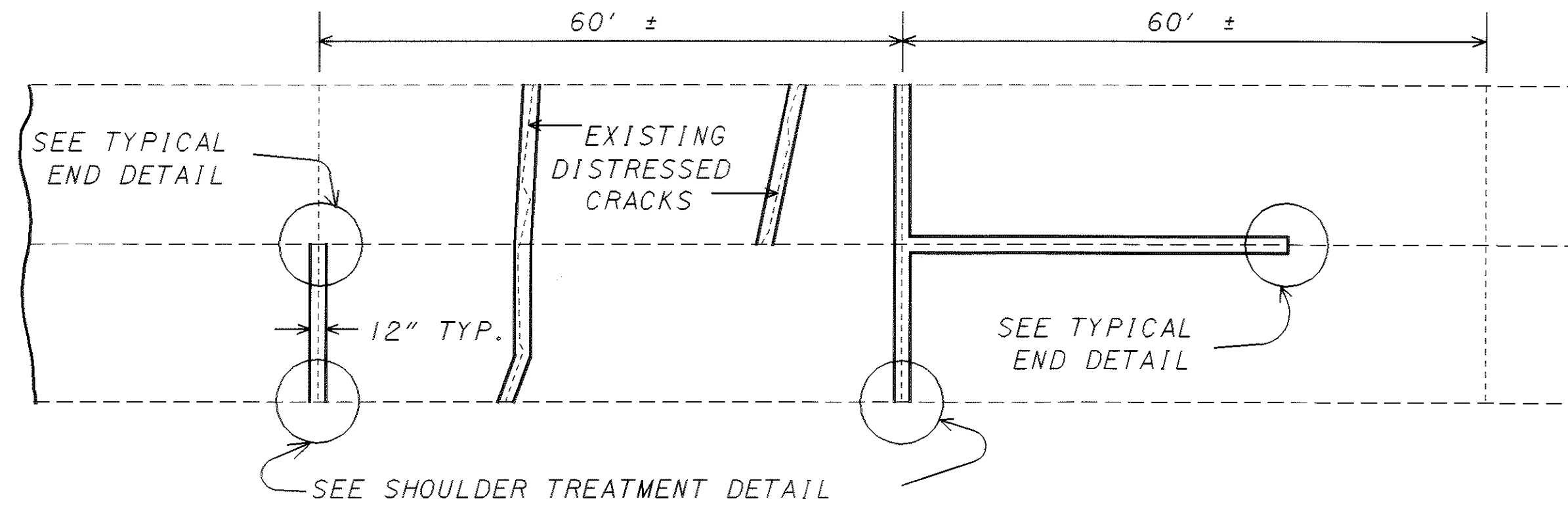
ELEVATION VIEW

PLOTTED FROM: 23127gre.dgn

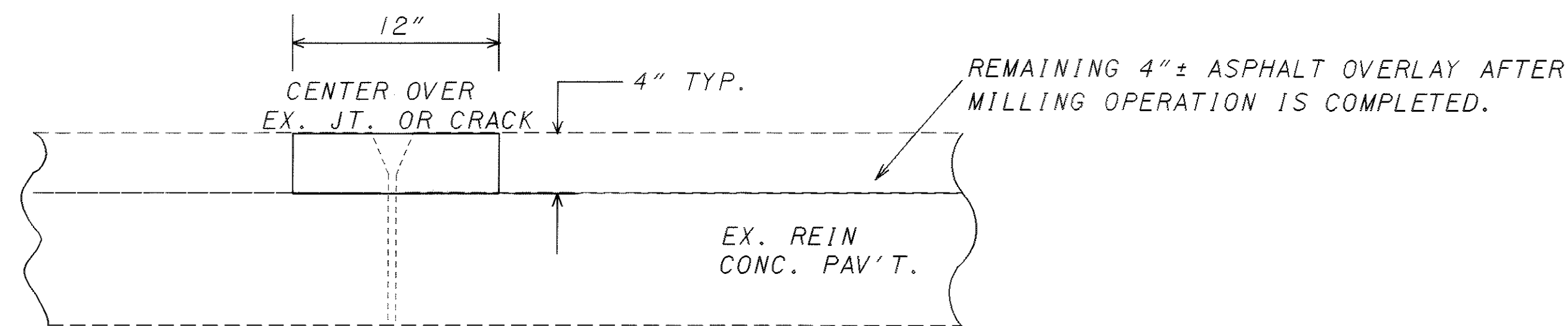


I:\PROJECTS\PID23127\dgn\23127gma.dgn 09-MAY-2002 8:37AM fkonopka

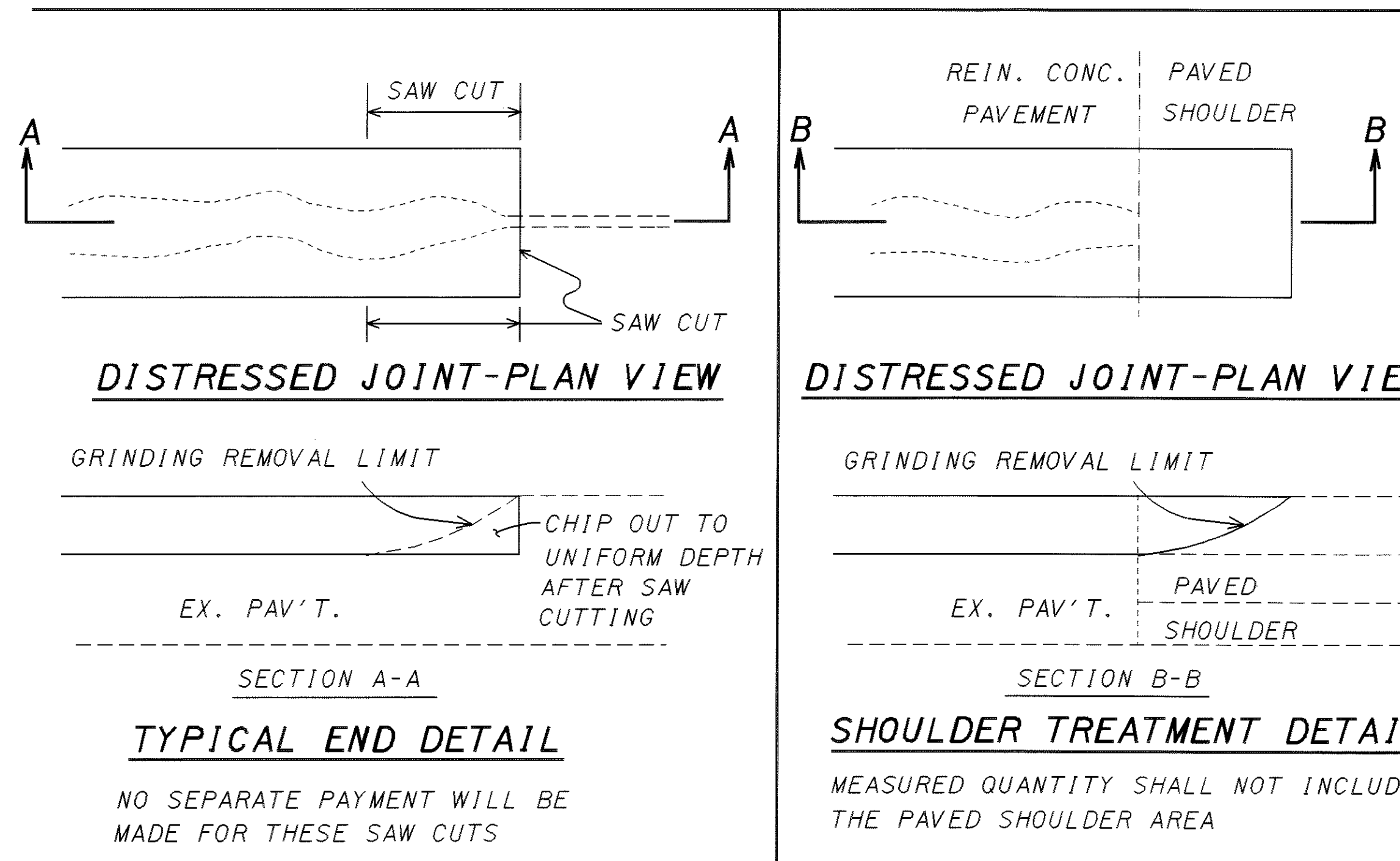
DIRECTION OF TRAFFIC



**PARTIAL DEPTH JOINT OR CRACK REPAIR**



**ITEM 251 - PARTIAL DEPTH PAV'T REPAIR**



ESTIMATED QUANTITY *
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN A <u>400</u> SQ. YD.
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN B <u>50</u> SQ. YD.
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN C <u>100</u> SQ. YD.

SEE GENERAL NOTES ON SHEET NO. 9 FOR ADDITIONAL INFORMATION.

\* QUANTITY ESTIMATES ARE BASED ON VISUAL INSPECTION. AN ADDITIONAL 5% WAS ADDED TO THE REPAIR AREA TO COMPENSATE FOR ANY ROADWAY DETERIORATION THAT MAY OCCUR BETWEEN THE TIME OF PLAN PREPARATION AND ACTUAL CONSTRUCTION.

VISUAL SURVEY DATE - 3/17/02

IR- 77 AND RAMPS, EXISTING SURFACE AREA - 98620 S. Y.

CALCULATED  
 EMK  
 CHECKED  
 LDH  
**CUYAHOGA COUNTY**  
**PAVEMENT REPAIR DETAILS & ESTIMATED QUANTITIES**  
**CUY-77-13.81**  
 36  
 55

# LEVELING OF EXISTING ASPHALT TRANSITIONS

STRAIGHT GRADE - THE ASPHALT TRANSITIONS SHALL BE CONSIDERED UNACCEPTABLE IF THE FINAL GRADE VARIES FROM THE DESIRED STRAIGHT GRADE BY GREATER THAN 0.02 FEET ANYWHERE THROUGHOUT THE LENGTH OF THE 75' TRANSITION. THIS TOLERANCE SHALL BE MEASURED EVERY 10 FEET ALONG THE TRANSITION PLUS AN ADDITIONAL MEASUREMENT AT 5 FEET FROM THE BRIDGE EXPANSION JOINT.

PAYMENT FOR ITEMS 254 AND 858 (WITHIN 75 FT.) SHALL NOT BE MADE UNTIL AFTER A SURVEY HAS BEEN MADE SHOWING THAT THE TOLERANCES HAVE BEEN MET. THE SURVEY SHALL BE PERFORMED BY THE CONTRACTOR PRIOR TO OPENING THE ROAD TO TRAFFIC. THIS INFORMATION SHALL BE IMMEDIATELY SUPPLIED TO THE PROJECT ENGINEER.

ALL UNACCEPTABLE ASPHALT TRANSITION AREAS SHALL BE REPAIRED AND RESURVEYED AT THE CONTRACTORS EXPENSE. THE REPAIR METHOD SHALL BE AS PER THE ORIGINAL MILL AND FILL APPROACH LEVELING SEQUENCE.

PREFERABLE, PLANING AND PLACEMENT OF THE ASPHALT CONCRETE SHALL BE PERFORMED DURING THE SAME CLOSURE.

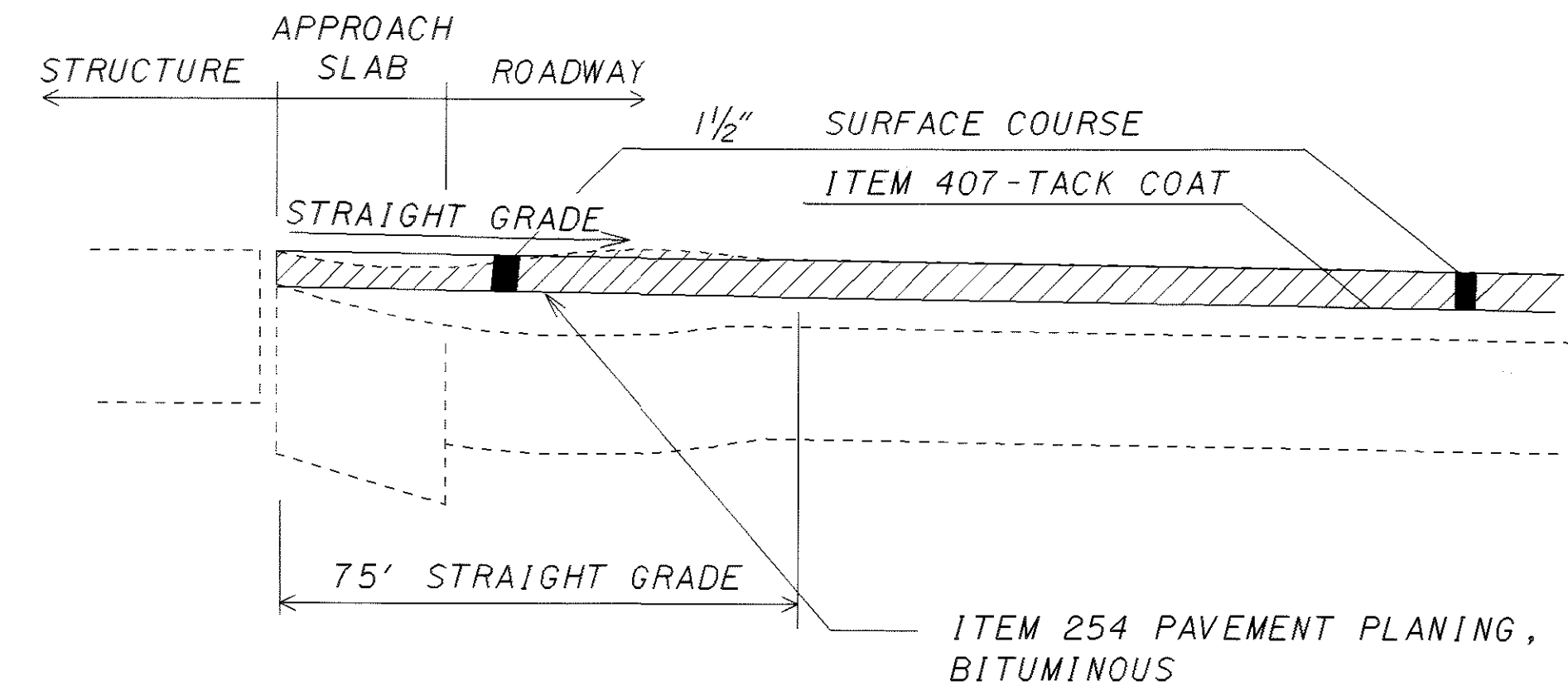
IF THE 446 SURFACE COURSE IS NOT PLACED PRIOR TO OPENING TO TRAFFIC THE FOLLOWING SHALL BE DONE AT THE CONTRACTOR'S EXPENSE:

PROVIDE TEMPORARY ASPHALT RAMPS AT A RATE NOT TO EXCEED 1" IN 10'.

# METHOD TO PROVIDE SMOOTH BRIDGE APPROACHES

THE PROCEDURE TO CORRECT UNEVEN BRIDGE APPROACHES IS AS FOLLOWS:

- A. DETERMINE FINAL GRADE LINE BY EXTENDING A STRAIGHT LINE FROM THE TOP OF THE BRIDGE END DAM JOINT TO A POINT 75' AWAY AT THE TOP OF EXISTING RESURFACING. THIS SHALL BE DONE AT EACH EDGE OF THE MILLING MACHINE
- B. REMOVE ASPHALT CONCRETE EXACTLY 1-1/2" BELOW THE FINAL GRADE. THE MILLING MACHINE MUST BE CAPABLE OF FOLLOWING THE STRING LINE TO ESTABLISH THE EXACT REMOVAL LIMIT.
- C. PLACE ITEM 407 - TACK COAT AND ITEM 446 - ASPHALT CONCRETE, TO DESIRED GRADE. THE PAVING MACHINE MUST FOLLOW THE STRINGLINE GRADE AT EACH EDGE OF THE PAVER.
- D. SURVEY TRANSITION TO VERIFY THAT THE REPAIR IS WITHIN THE ALLOWABLE TOLERANCE.



PLOT SUBMITTED:09-MAY-2002 08:38

18736GMC.DGN

PLOTTED BY:tkonopka  
PLOTTED FROM:PROJECTS\BPID23127\Bdgn\B23127gmc.dgn

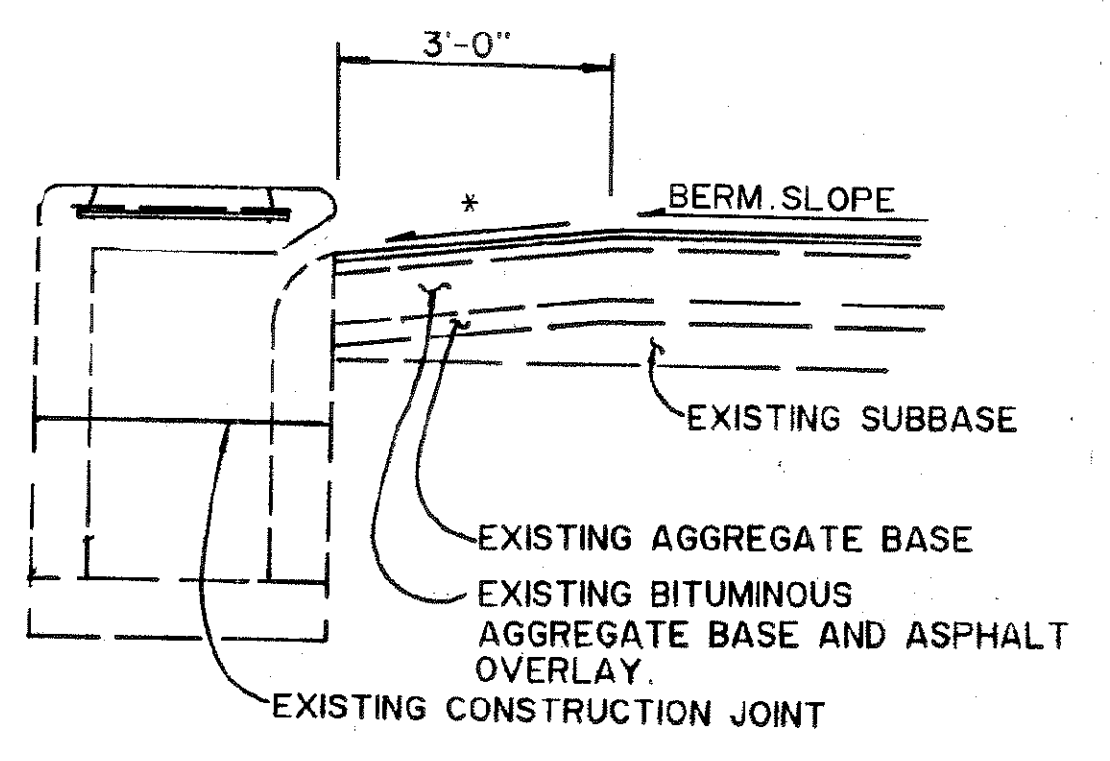
CALCULATED  
EMK  
CHECKED  
ENF

ASPHALT TRANSITION DETAIL AND  
RESURFACING LIMIT DEATAIL

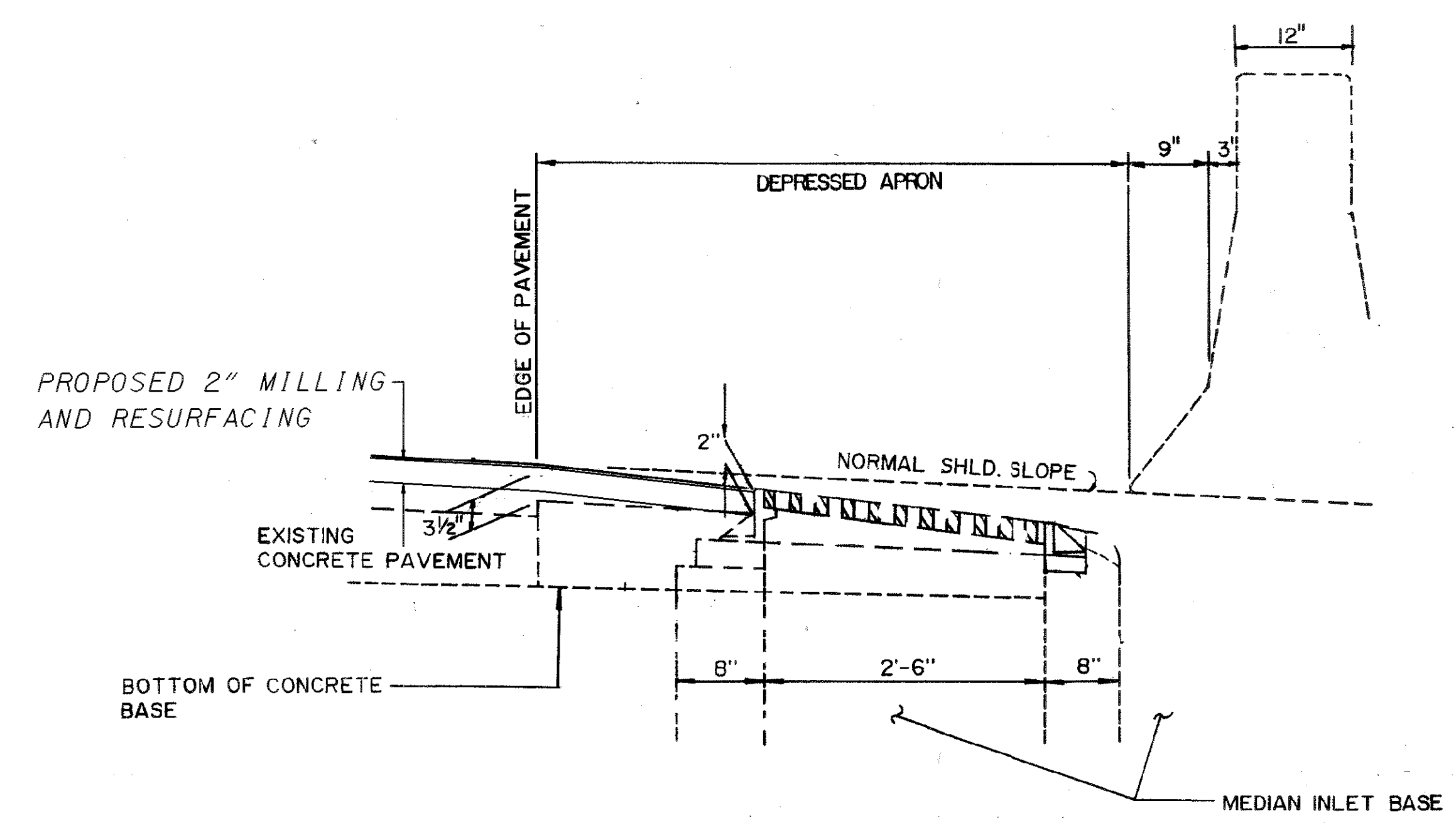
CUI-77-13.81

36A  
55

\* MATCH EXISTING CROSS SLOPE



PAVING DETAIL AT SHOULDER INLET



PAVING DETAIL AT MEDIAN INLET



# TRAFFIC CONTROL

## RAISED PAVEMENT MARKERS

### MATERIALS SUPPLIED BY THE DEPARTMENT

FOR THIS PROJECT, THE RPM CASTINGS SUPPLIED BY O.D.O.T. WILL COME WITH REFLECTORS ATTACHED.

ALL MATERIALS ARE TO BE CONTRACTOR FURNISHED, EXCEPT THAT THE DEPARTMENT SHALL SUPPLY RPM MATERIALS IN THE QUANTITIES SHOWN HEREIN TO THE CONTRACTOR. PAY ITEMS FOR THE DEPARTMENT SUPPLIED MATERIALS SHALL BE INDICATED AS "INSTALLATION ONLY". THE TYPE OF DEPARTMENT SUPPLIED MATERIAL SHALL BE RAISED PAVEMENT MARKER CASTINGS.

THE CONTRACTOR SHALL PICK UP THE DEPARTMENT SUPPLIED RPM MATERIALS AT THE OPI WAREHOUSE IN COLUMBUS, OHIO.

THE CONTRACTOR SHALL PICK UP DEPARTMENT SUPPLIED RPM MATERIALS AT THE SPECIFIED LOCATION(S) FOR TRANSPORT TO THE WORK SITE OR TO THE CONTRACTOR'S STORAGE FACILITY. THE RECYCLED RAISED PAVEMENT MARKER (RPM) AUTHORIZATION FORM IS TO BE SIGNED BY THE DISTRICT CONSTRUCTION ENGINEER PRIOR TO PICK UP OF THE RPMS. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND / OR THE PARTIES LISTED ON THE AUTHORIZATION FORM IN WRITING AT LEAST FIVE (5) CALENDAR DAYS PRIOR TO PICK UP OF THE DEPARTMENT SUPPLIED MATERIALS. THE CONTRACTOR SHALL STORE THE RPMS WITHOUT DAMAGE OR CONTAMINATION WITH FOREIGN MATTER. A DEDUCTION IN THE AMOUNT OF THE ACTUAL COST TO THE DEPARTMENT SHALL BE MADE FOR MATERIALS DAMAGED BY THE CONTRACTOR OR FOR CASTINGS RECEIVED BY THE CONTRACTOR WHICH WERE NOT INSTALLED AND WERE NOT RETURNED TO THE DEPARTMENT.

RETURN OF NON-PERFORMED RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT

RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT, THAT ARE NON-PERFORMED SHALL BE CAREFULLY REPACKED OR PACKED IN THE BOXES IN THE SAME STYLE AND QUANTITY AS ORIGINALLY RECEIVED FROM THE DEPARTMENT. CASTING STYLES SHALL NOT BE MIXED WITHIN ANY ONE CONTAINER. THE CONTRACTOR SHALL CLEARLY MARK ON THE OUTSIDE OF EACH CONTAINER THE STYLE OF CASTING. BOXES SHALL BE PLACED ON SKIDS OR PALLETS IN THE SAME STYLE (LOW PROFILE OR CONVENTIONAL, REFLECTORISED OR NON REFLECTORISED) AND NO MORE THAN 420 RPMS (OR 21 BOXES) ON ONE SKID.

ONLY USE THE BOXES SUPPLIED BY THE RAISED PAVEMENT MARKER RECYCLER. BOXES MUST BE MARKED WITH THE RECYCLER'S PART OR CATALOG NUMBER AND THE PROJECT NUMBER. THE RECYCLER'S CATALOG OR PART NUMBERS MAY BE OBTAINED FROM THE OFFICE OF TRAFFIC ENGINEERING IN COLUMBUS, OHIO OR FROM THE RECYCLER. BOXES NOT MARKED WITH THE PROPER RECYCLER'S CATALOG OR PART NUMBERS, AND THE DEPARTMENT'S PROJECT NUMBER WILL NOT BE ACCEPTED AT THE RECYCLER'S WAREHOUSE. NON PERFORMED MATERIALS WILL BE RETURNED TO THE LOCATION AS SPECIFIED BY THE DISTRICT CONSTRUCTION ENGINEER WITHIN 30 DAYS OF THE COMPLETION OF THE PROJECT.

THE ABOVE WORK INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL NEEDED TO PERFORM THE WORK, SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE PAY ITEM.

IF THE DEPARTMENT HAS TO REPACKAGE THE RPMS CORRECTLY, THE CONTRACTOR WILL BE ASSESSED THE ACTUAL COST FOR REPACKAGING THE MATERIALS BY THE DEPARTMENT'S FORCES.

LOADING OF MATERIALS SUPPLIED BY THE DEPARTMENT AT THE RECYCLER'S WAREHOUSE

TRUCKS SHALL HAVE A LOADING HEIGHT OF 48 INCHES AND BE ABLE TO BACK UP FLUSH TO THE LOADING DOCK.

TRUCKS SHALL NOT HAVE ANY OBSTRUCTIONS OR PROTRUSIONS THAT PREVENT THE LOADING BY A STANDARD FORKLIFT OR LIFT TRUCK.

SEMI TRUCKS OR 20 FOOT COMMERCIAL TRUCKS ARE THE MOST APPROPRIATE TRUCKS FOR LOADS IN EXCESS OF 4 PALLETS (ONE PALLET = 21 BOXES = 2100 LBS).

STAKE BODY TRUCKS ARE APPROPRIATE TO LOAD LESS THAN 4 PALLETS, PROVIDED THE TRUCK IS RATED FOR THE LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT BY CHAINING OR STRAPPING DOWN AS NEEDED.

PICKUP TRUCKS ARE APPROPRIATE FOR LOADS OF APPROXIMATELY ONE PALLET, PROVIDED THE PICKUP TRUCK IS RATED FOR THE LOAD AND THE LOAD CAN BE SAFELY SECURED FOR TRANSPORT.

DUMP TRUCKS, TILT BED TRUCKS, AND NON COMMERCIAL MOVING VANS WILL NOT BE LOADED BY THE RECYCLERS WAREHOUSE.

THE WAREHOUSE SUPERVISOR WILL REFUSE TO LOAD ANY TRUCK THAT IS UNSAFE TO LOAD OR UNSUITABLE FOR THE LOAD BEING PLACED ON THE TRUCK.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY. THE CONTRACTOR SHALL INSTALL RECYCLED RAISED PAVEMENT MARKERS WITH PRISMATIC REFLECTORS:

ITEM 621-RAISED PAVEMENT MARKER, INSTALLATION ONLY.....370 EACH

## ENTRANCE AND EXIT MARKINGS

THE ENTRANCE AND EXIT PAVEMENT MARKINGS SHALL BE LOCATED AND INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-72.20. PLAN DETAILS SHOWING GORE LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM AS MANY MEASUREMENTS AS NEEDED TO DETERMINE THE CORRECT LOCATION OF THE MARKINGS.

## AUXILIARY MARKINGS

THE AUXILIARY PAVEMENT MARKINGS SHALL BE LOCATED AND INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-71.10M.

## RAISED PAVEMENT MARKER SPACING

THE RAISED PAVEMENT MARKER SPACING SHALL BE PER STANDARD DRAWING TC-65.10.

## LOOP DETECTORS

AN ESTIMATED QUANTITY OF ITEM 632-DETECTOR LOOP, AS PER PLAN HAS BEEN PROVIDED AS A CONTINGENCY WHEN WIRE IS CUT, BROKEN, OR DESTROYED DUE TO PAVEMENT REPAIR OR BUTT JOINT OPERATIONS.

NEW LOOP DETECTORS SHALL BE PLACED AT THE SAME LOCATIONS AND SAME SIZE AS THE EXISTING. THE LOOP DETECTOR WIRE SHALL BE REPLACED TO THE PULL BOX OR POLE, WHICHEVER IS APPLICABLE, UNDER ITEM 632 AND TC-82.10. THE NEW CABLE SPLICE KITS SHALL BE INCLUDED IN THIS PAY ITEM.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 632-DETECTOR LOOP, AS PER PLAN.....2 EACH

REF. #	LOCATION	SHT. #	SIZE	# OF TURNS
L-1	RAMP B-1	41	6' x24'	2
L-2	RAMP B-1	41	6' x24'	2

I:\PROJECTS\PID2327\dgm\2327TNA.dgn 09-MAY-2002 8:39AM fkonopka

CALCULATED  
LGM  
CHECKED  
EMK

TRAFFIC CONTROL GENERAL NOTES

CUYAHOGA COUNTY  
CUY-77-13.81

38  
55

# Material Furnished by the Department Installation Only

CALCULATED  
LGM  
CHECKED  
EMK

**MATERIALS SUPPLIED BY THE DEPARTMENT**

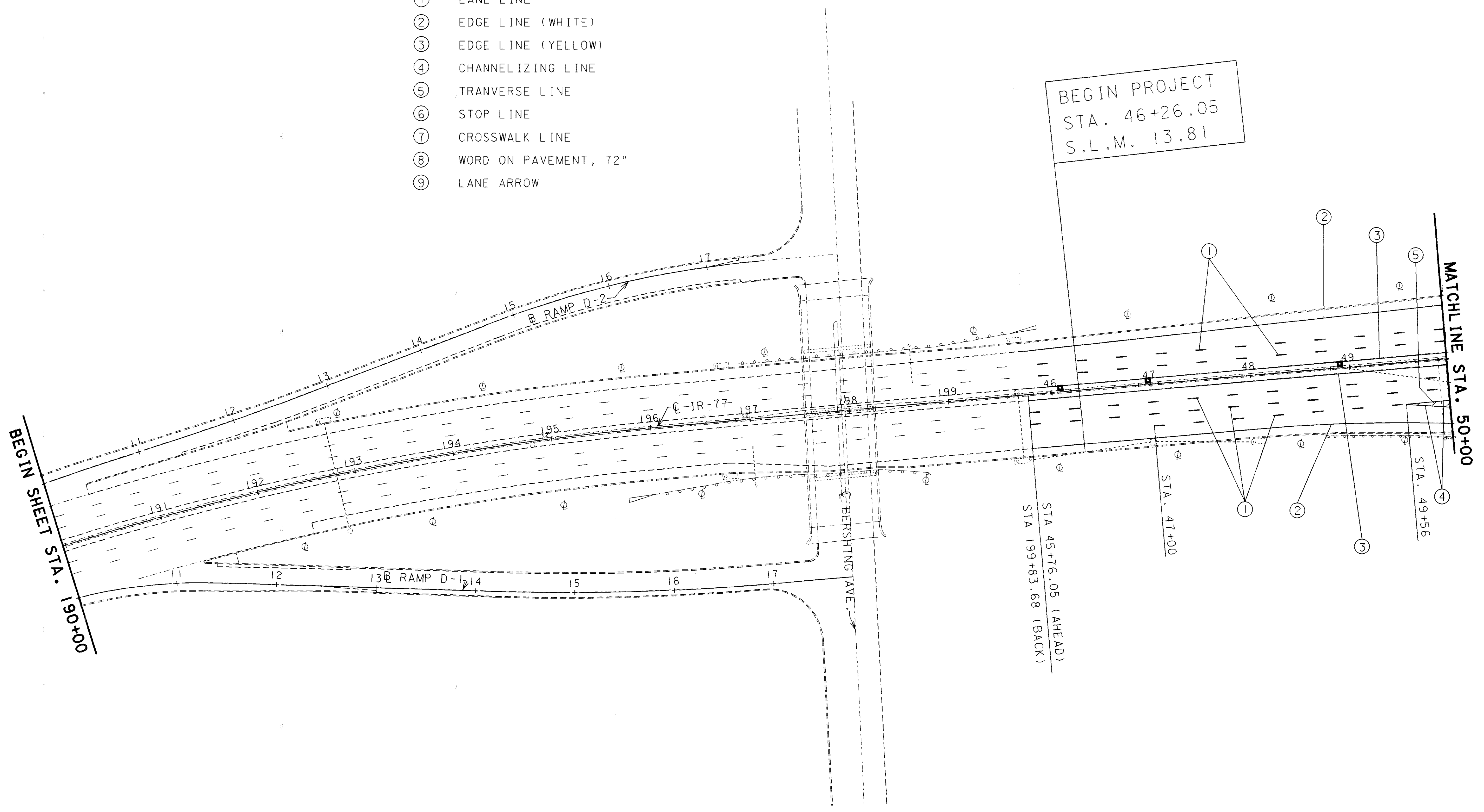
**CUYAHOGA COUNTY  
CUY-77-13.81**

Description	One-Way White		One-Way Yellow		Two-Way White		Two-Way Yellow		Two-Way White-Red		Two-Way Yellow-Red	
	Cols.	Dist.	Cols.	Dist.	Cols.	Dist.	Cols.	Dist.	Cols.	Dist.	Cols.	Dist.
Raised Pavement Marker, Installation Only	206		10						74		80	
<b>Total By Color</b>	<b>206</b>		<b>10</b>						<b>74</b>		<b>80</b>	

	Total	Number of Conventional High Profile	Number of Tapered Low Profile	District Stored	Columbus Stored
Raised Pavement Marker, Installation Only	<u>370</u>	_____	<u>370</u>	_____	<u>370</u>
Raised Pavement Marker Casting, Installation Only	_____	_____	_____	_____	_____
Prismatic Retro-Reflectors	_____	_____	_____	_____	_____
Raised Pavement Marker Misc.: Replacement of Raised Pavement Marker	_____	_____	_____	_____	_____

PROPOSED LEGEND

- ① LANE LINE
- ② EDGE LINE (WHITE)
- ③ EDGE LINE (YELLOW)
- ④ CHANNELIZING LINE
- ⑤ TRANSVERSE LINE
- ⑥ STOP LINE
- ⑦ CROSSWALK LINE
- ⑧ WORD ON PAVEMENT, 72"
- ⑨ LANE ARROW



CALCULATED LGM  
 CHECKED EMK

SCALE 1" = 100 FEET

TRAFFIC CONTROL PLAN SHEET - I.R. 77  
 STA. 190+00 TO STA. 50+00

CUY-77-13.81

CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	22
PAVEMENT MARKING	52
QUANTITIES	



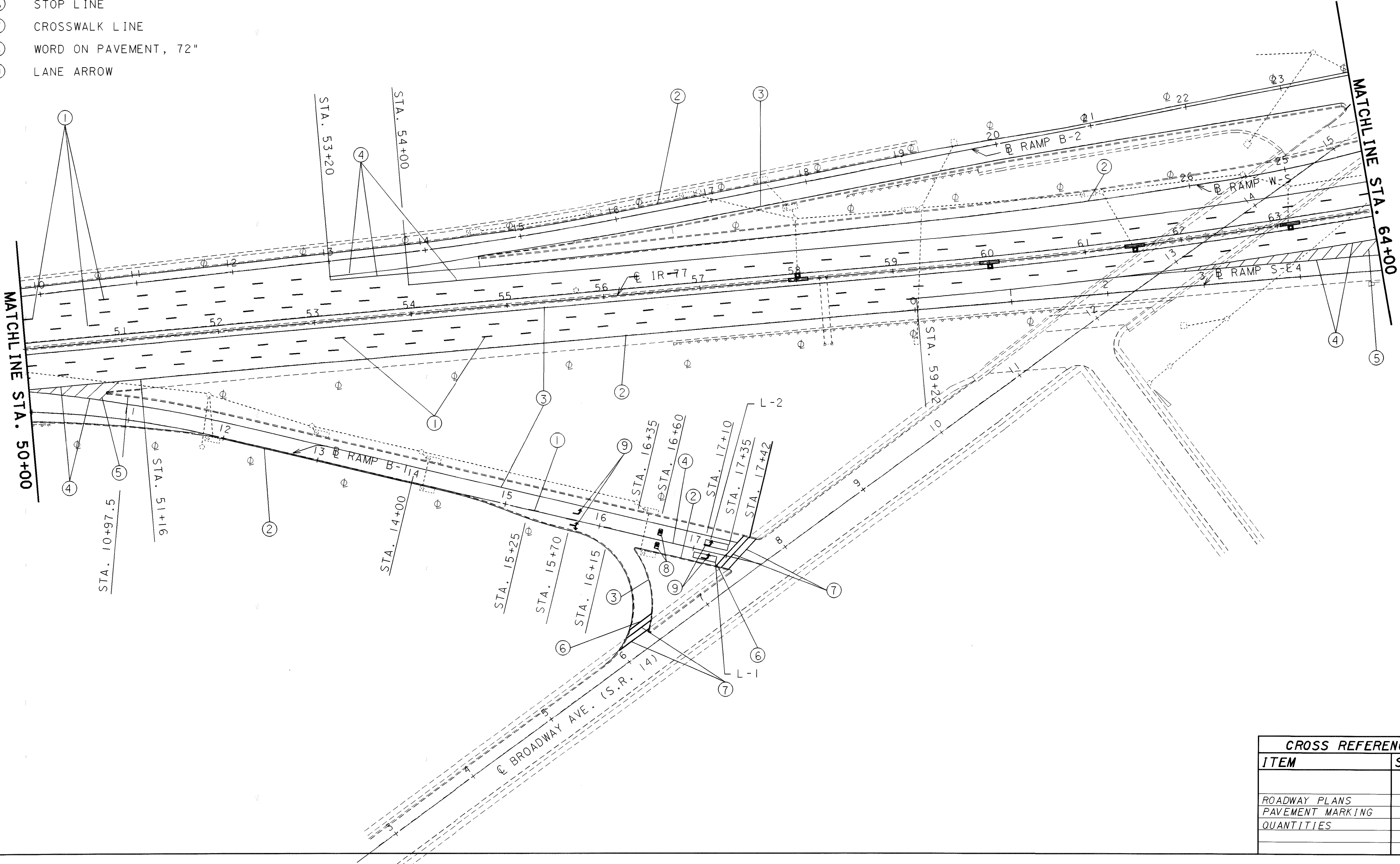
PILOT SUBMITTED: 09-MAY-2002 08:40

23127TPB.DGN

PLOTTED BY: fkonopka  
PLOTTED FROM: I:\PROJECTS\PID23127\dgn\23127tpb.dgn

PROPOSED LEGEND

- ① LANE LINE
- ② EDGE LINE (WHITE)
- ③ EDGE LINE (YELLOW)
- ④ CHANNELIZING LINE
- ⑤ TRANVERSE LINE
- ⑥ STOP LINE
- ⑦ CROSSWALK LINE
- ⑧ WORD ON PAVEMENT, 72"
- ⑨ LANE ARROW



CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	23
PAVEMENT MARKING	51-52
QUANTITIES	

CALCULATED LGM  
CHECKED EMK

SCALE: 1" = 100'

TRAFFIC CONTROL PLAN SHEET - I.R. 77  
STA. 50+00 TO STA. 64+00

CUY-77-13.81

41  
50

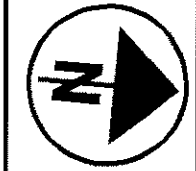
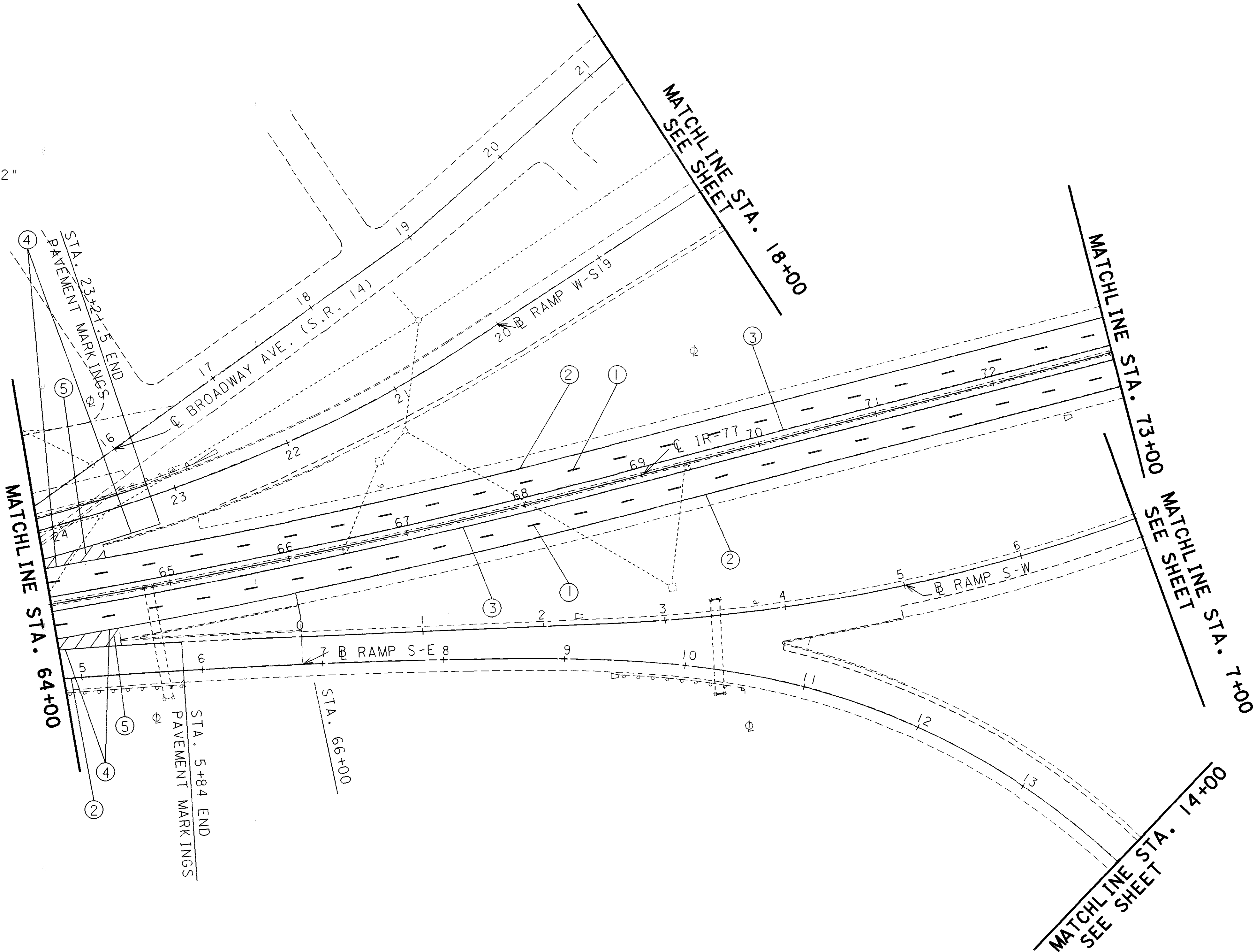
PLOT SUBMITTED: 09-MAY-2002 08:40

23127GPC.DGN

PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\PID23127\dgn\23127.tpc.dgn

PROPOSED LEGEND

- ① LANE LINE
- ② EDGE LINE (WHITE)
- ③ EDGE LINE (YELLOW)
- ④ CHANNELIZING LINE
- ⑤ TRANSVERSE LINE
- ⑥ STOP LINE
- ⑦ CROSSWALK LINE
- ⑧ WORD ON PAVEMENT, 72"
- ⑨ LANE ARROW



CALCULATED LGM  
 CHECKED EMK

TRAFFIC CONTROL PLAN SHEET - I.R. 77  
 STA. 64+00 TO STA. 73+00

CUY-77-13.81

CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	24
PAVEMENT MARKING	52
QUANTITIES	

42  
55

PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\PID23127\dgn\23127.tpd.dgn  
 23127GPD.DGN  
 PLOT SUBMITTED: 09-MAY-2002 08:41

- PROPOSED LEGEND
- ① LANE LINE
  - ② EDGE LINE (WHITE)
  - ③ EDGE LINE (YELLOW)
  - ④ CHANNELIZING LINE
  - ⑤ TRANSVERSE LINE
  - ⑥ STOP LINE
  - ⑦ CROSSWALK LINE
  - ⑧ WORD ON PAVEMENT, 72"
  - ⑨ LANE ARROW

CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	25
PAVEMENT MARKING	52
QUANTITIES	

CUY-77-13.81

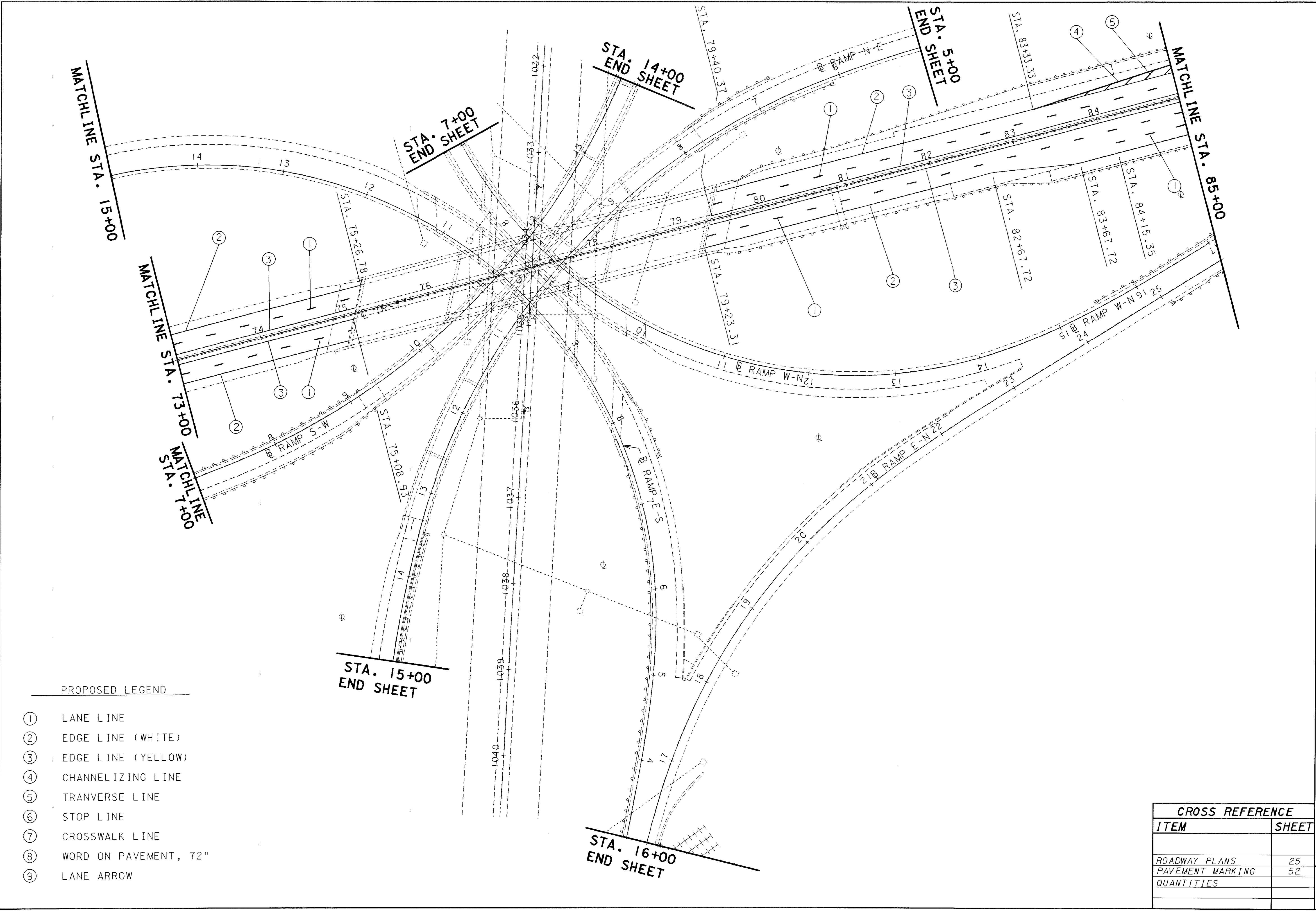
TRAFFIC CONTROL PLAN SHEET - I.R. 77

STA. 73+00 TO STA. 85+00

CALCULATED LGM

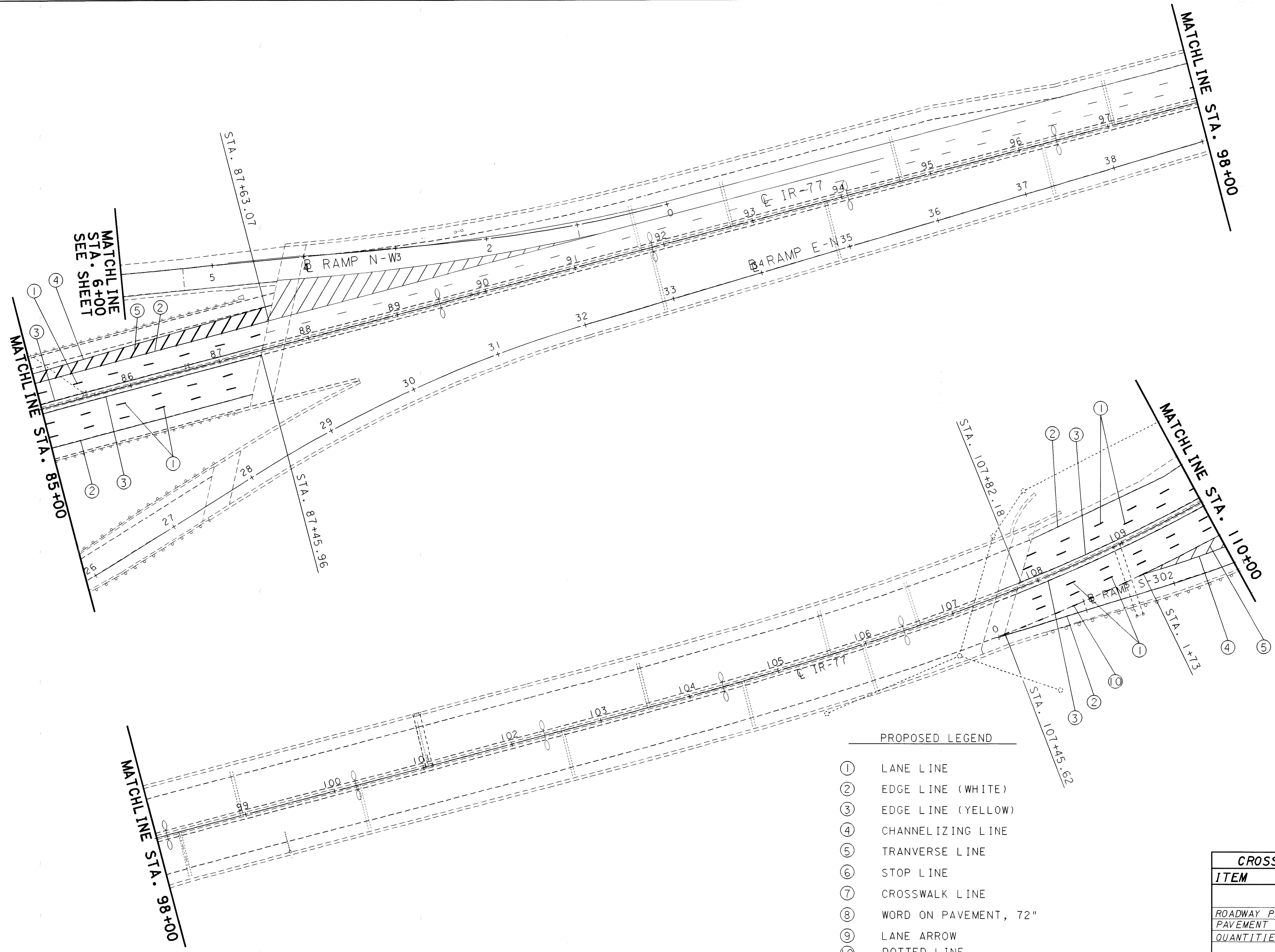
CHECKED EMK

SCALE IN FEET





PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\PI023127\ dgn\23127.tpe.dgn  
 23127OPD.DGN  
 PLOT SUBMITTED: 09-MAY-2002 08:41



PROPOSED LEGEND

- ① LANE LINE
- ② EDGE LINE (WHITE)
- ③ EDGE LINE (YELLOW)
- ④ CHANNELIZING LINE
- ⑤ TRANSVERSE LINE
- ⑥ STOP LINE
- ⑦ CROSSWALK LINE
- ⑧ WORD ON PAVEMENT, 72"
- ⑨ LANE ARROW
- ⑩ DOTTED LINE

CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	26
PAVEMENT MARKING	52
QUANTITIES	

CUY-77-13.81

TRAFFIC CONTROL PLAN SHEET - I.R. 77  
STA. 85+00 TO STA. 110+00

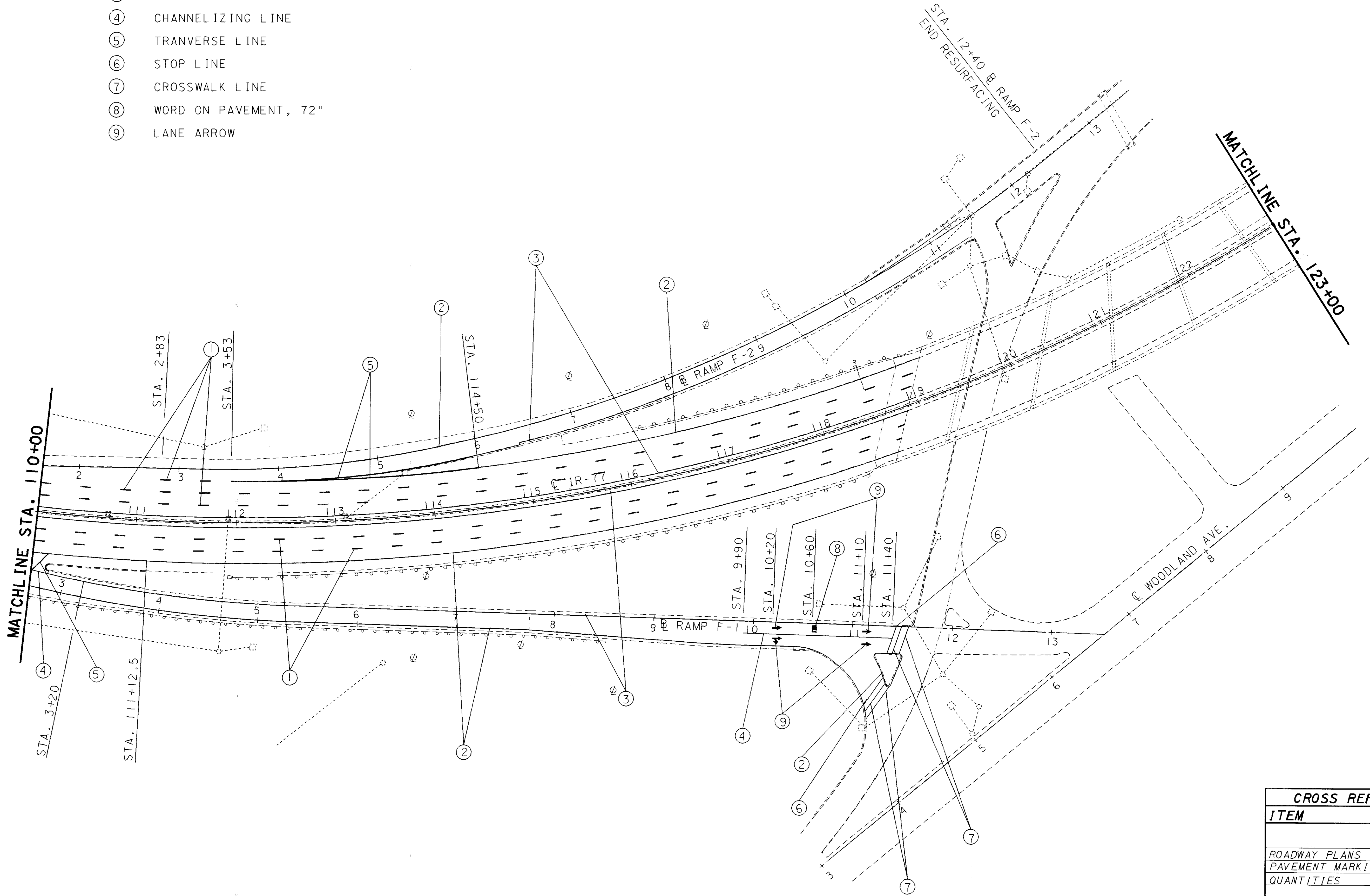
44  
55

CALCULATED LGM  
CHECKED EMK

SCALE IN FEET

PROPOSED LEGEND

- ① LANE LINE
- ② EDGE LINE (WHITE)
- ③ EDGE LINE (YELLOW)
- ④ CHANNELIZING LINE
- ⑤ TRANSVERSE LINE
- ⑥ STOP LINE
- ⑦ CROSSWALK LINE
- ⑧ WORD ON PAVEMENT, 72"
- ⑨ LANE ARROW



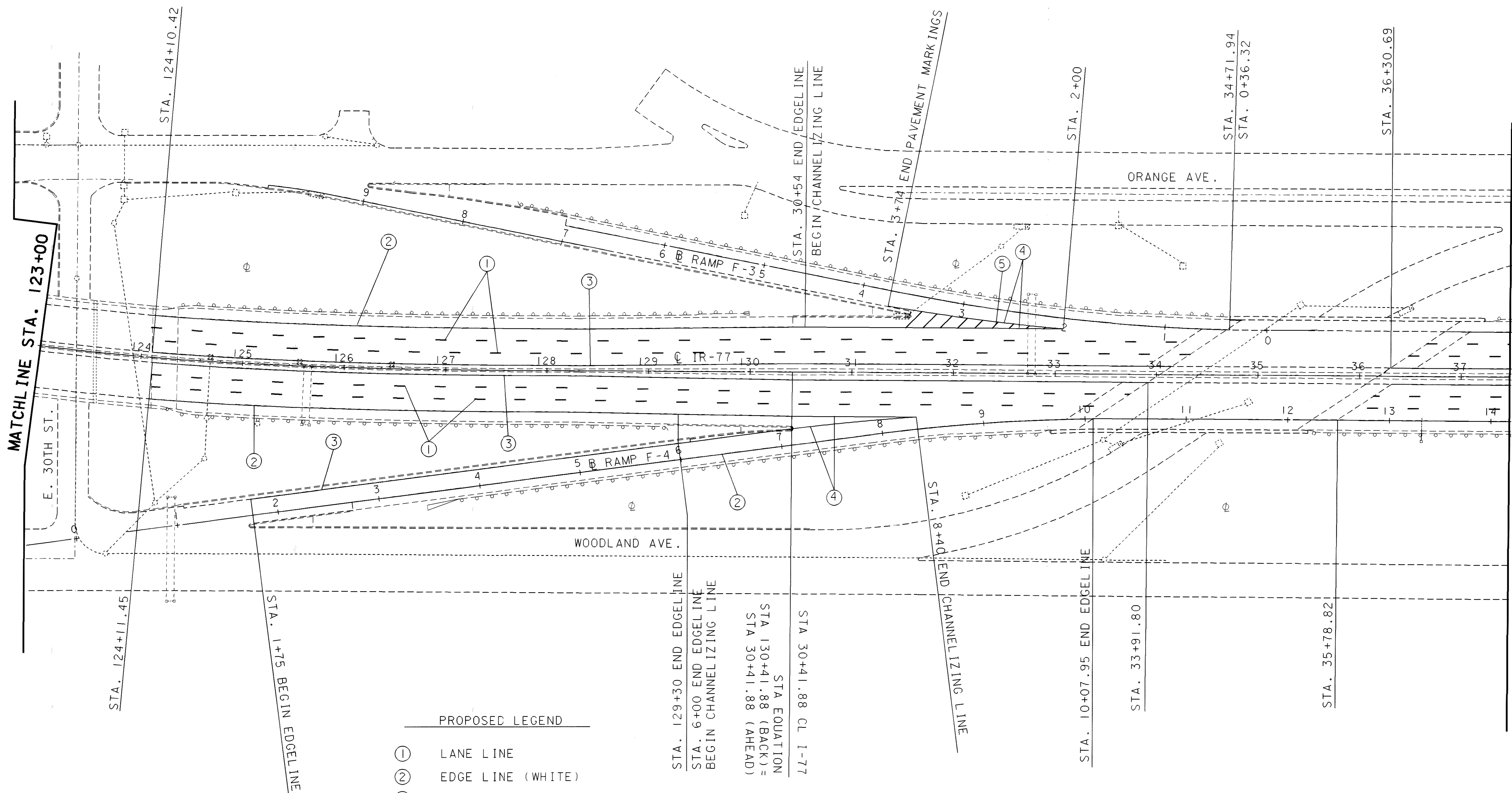
CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	27
PAVEMENT MARKING	52
QUANTITIES	

CALCULATED LGM  
 CHECKED EMK

SCALE 1 IN FEET

TRAFFIC CONTROL PLAN SHEET - I.R. 77  
 STA. 110+00 TO STA. 123+00

CUY-77-13.81



- PROPOSED LEGEND**
- ① LANE LINE
  - ② EDGE LINE (WHITE)
  - ③ EDGE LINE (YELLOW)
  - ④ CHANNELIZING LINE
  - ⑤ TRANSVERSE LINE
  - ⑥ STOP LINE
  - ⑦ CROSSWALK LINE
  - ⑧ WORD ON PAVEMENT, 72"
  - ⑨ LANE ARROW

CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	28
PAVEMENT MARKING	51-52
QUANTITIES	

**TRAFFIC CONTROL PLAN SHEET - I.R. 77**  
**STA. 123+00 TO STA. 37+50**

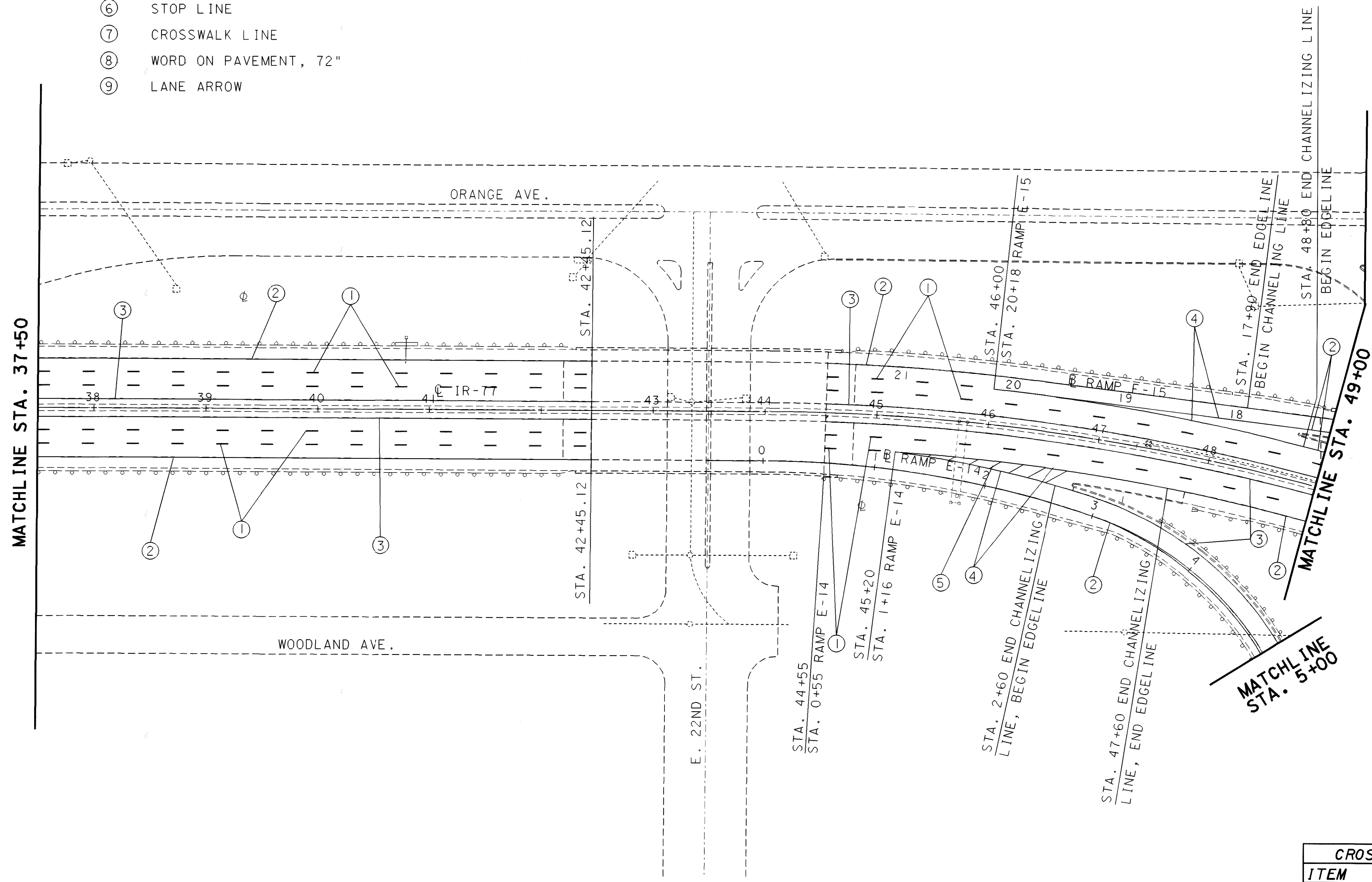
**CUY-77-13.81**

CALCULATED LGM  
 CHECKED EMK

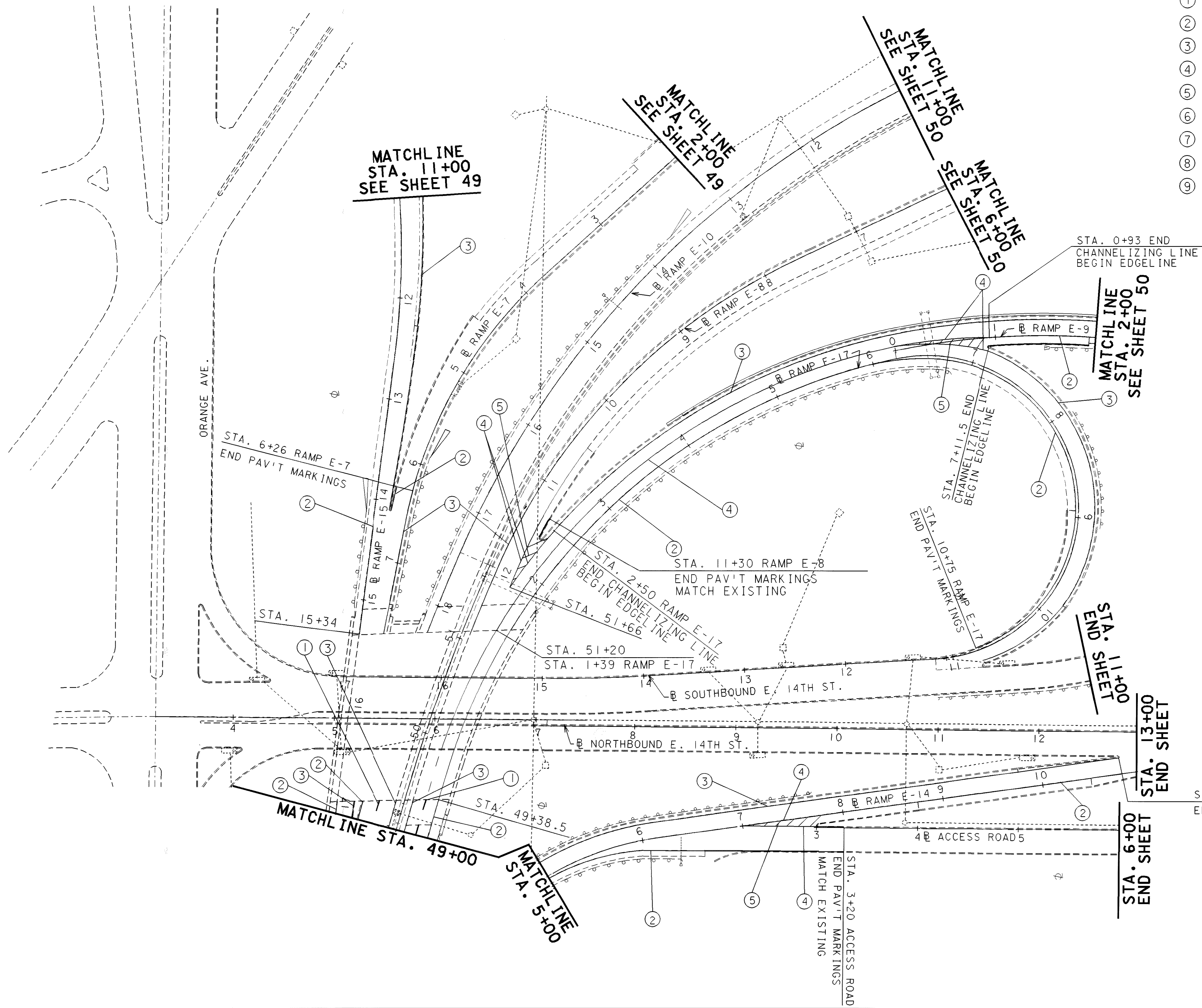
SCALE 1" = 100 FEET



- PROPOSED LEGEND
- ① LANE LINE
  - ② EDGE LINE (WHITE)
  - ③ EDGE LINE (YELLOW)
  - ④ CHANNELIZING LINE
  - ⑤ TRANSVERSE LINE
  - ⑥ STOP LINE
  - ⑦ CROSSWALK LINE
  - ⑧ WORD ON PAVEMENT, 72"
  - ⑨ LANE ARROW



CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	29
PAVEMENT MARKING	51-52
QUANTITIES	



PROPOSED LEGEND

- ① LANE LINE
- ② EDGE LINE (WHITE)
- ③ EDGE LINE (YELLOW)
- ④ CHANNELIZING LINE
- ⑤ TRANSVERSE LINE
- ⑥ STOP LINE
- ⑦ CROSSWALK LINE
- ⑧ WORD ON PAVEMENT, "72"
- ⑨ LANE ARROW



CALCULATED LGM  
 CHECKED EMK

TRAFFIC CONTROL PLAN SHEET - I.R. 77  
 STA. 49+00 TO STA. 6+00 RAMP E-8

CUY-77-13.81

STA. 10+78 RAMP E-14  
 END PAV'T MARKINGS

CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	30
PAVEMENT MARKING	51-52
QUANTITIES	

48  
 55

PILOT SUBMITTED: 09-MAY-2002 08:44

23127TPJ.DGN

PLOTTED BY: fkonopka  
PLOTTED FROM: I:\PROJECTS\PID23127\dgn\23127tpj.dgn

PROPOSED LEGEND

- ① LANE LINE
- ② EDGE LINE (WHITE)
- ③ EDGE LINE (YELLOW)
- ④ CHANNELIZING LINE
- ⑤ TRANSVERSE LINE
- ⑥ STOP LINE
- ⑦ CROSSWALK LINE
- ⑧ WORD ON PAVEMENT, 72"
- ⑨ LANE ARROW

END SHEET

STA. 0+00 RAMP E-15  
END RESURFACING  
END SHEET

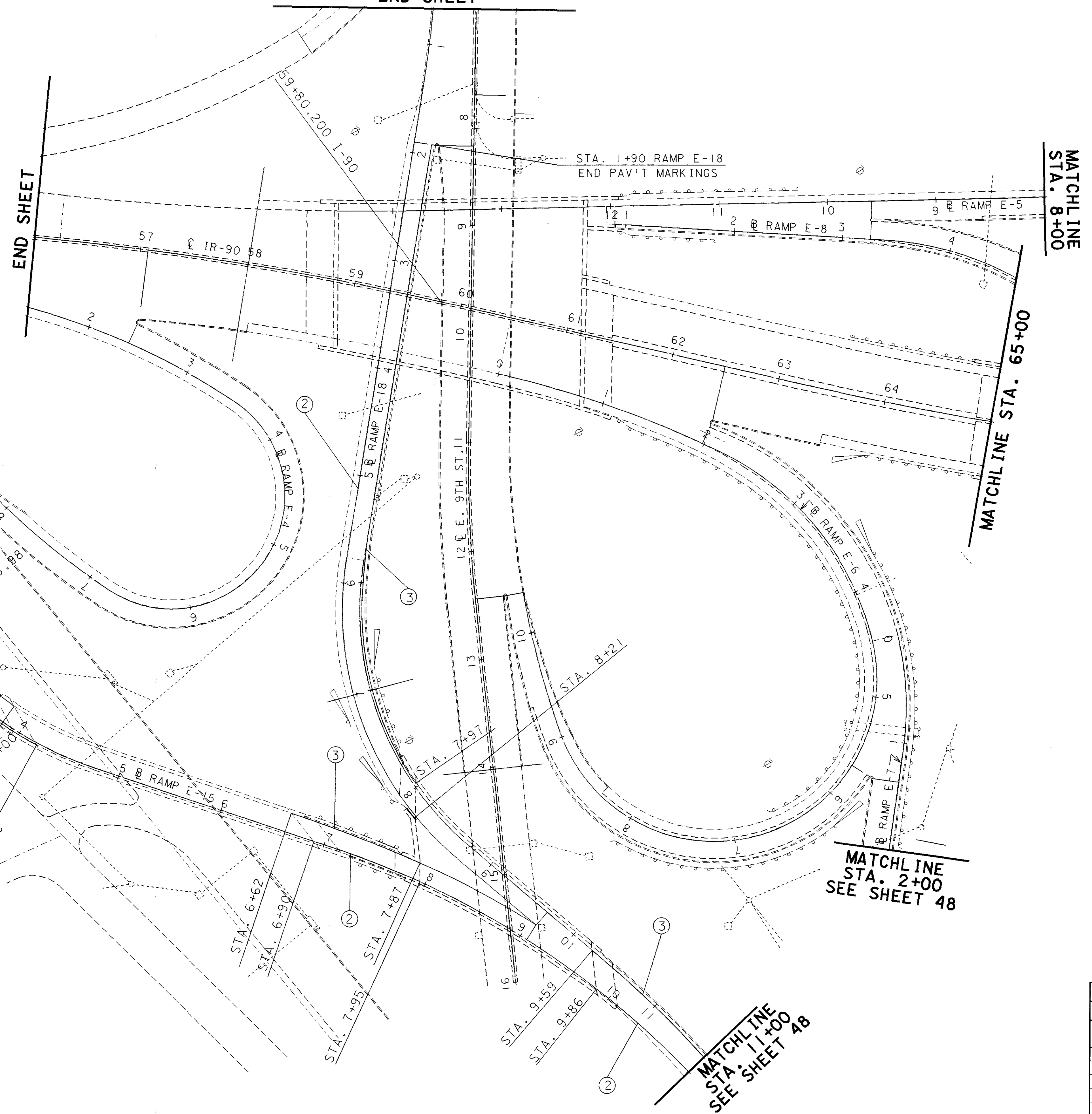
END SHEET

MATCHLINE  
STA. 8+00

MATCHLINE STA. 65+00

MATCHLINE  
STA. 2+00  
SEE SHEET 48

MATCHLINE  
STA. 11+00  
SEE SHEET 48



CALCULATED LGM  
CHECKED EMK

SCALE IN FEET

TRAFFIC CONTROL PLAN SHEET - I.R. 90  
STA. 56+00 TO STA. 65+00

CUY-77-13.81

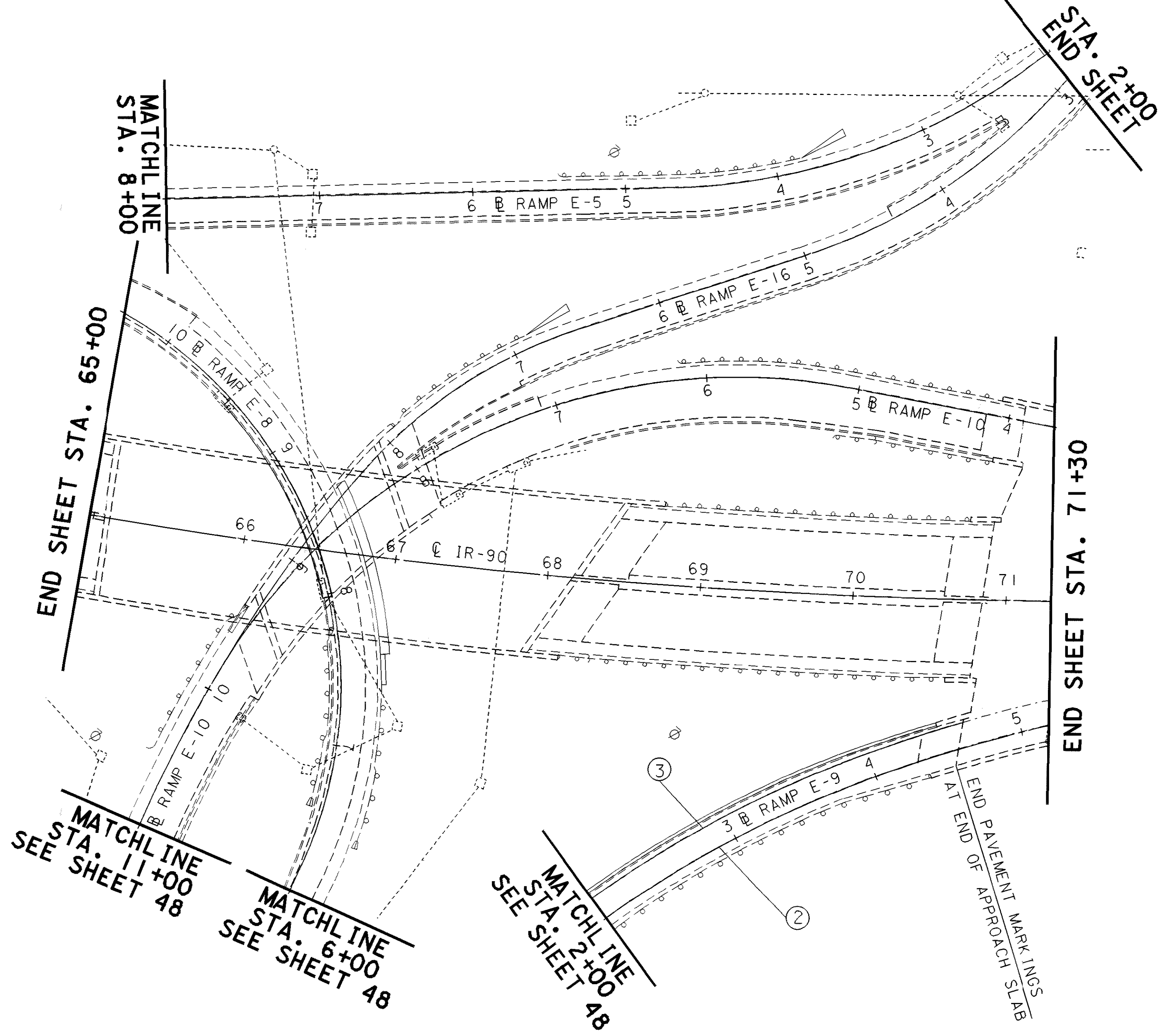
CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	31
PAVEMENT MARKING	51-52
QUANTITIES	

49  
55

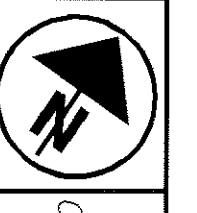


PROPOSED LEGEND

- ① LANE LINE
- ② EDGE LINE (WHITE)
- ③ EDGE LINE (YELLOW)
- ④ CHANNELIZING LINE
- ⑤ TRANSVERSE LINE
- ⑥ STOP LINE
- ⑦ CROSSWALK LINE
- ⑧ WORD ON PAVEMENT, 72"
- ⑨ LANE ARROW



CROSS REFERENCE	
ITEM	SHEET
ROADWAY PLANS	32
PAVEMENT MARKING	51-52
QUANTITIES	



CALCULATED	LGM	CHECKED	EMK
------------	-----	---------	-----

TRAFFIC CONTROL PLAN SHEET - I.R. 90  
 STA. 65+00 TO STA. 71+30

CUY-77-13.81

50  
55

I:\PROJECTS\PID2327\dgm\2327TSA.dgn 09-MAY-2002 8:44AM fkonopka

SHEET NO.	PAVEMENT MARKINGS																		
	ROADWAY	LOCATION		EDGE LINES (WHITE) LIN FT	EDGE LINES (YELLOW) LIN FT	LANE LINES LIN FT	828											TRANSVERSE LINES (WHITE) LIN FT	DOTTED LINE LIN FT
		FROM STATION	TO STATION				CHANNELIZING LINES (WHITE) LIN FT												
	IR-77 NORTHBOUND																		
40		45+76.05	50+00	424	424	850													
40		47+00	50+00			300													
40		49+56	50+00											16					
41		50+00	59+22	806	922	1844								75					
41		59+22	64+00	478	478	478								190					
42		64+00	73+00	704	903	903								66					
43		73+00	75+08.93	198	209	204													
43		79+23.31	85+00	577	564	660													
44		85+00	87+45.96	226	246	490													
44		107+45.62	110+00	269	226	509								56	163				
45		110+00	118+86.61	768	889	1773								23					
46		124+11.45	33+91.80	519	981	1960													
46		35+78.82	37+50	169	116	285													
47		37+50	42+45.12	495	495	990													
47		44+55	49+00	128	442	510								89					
48		49+00	49+38.5	40	33	37													
	IR-77 SOUTHBOUND																		
40		45+76.05	50+00	424	424	850													
41		50+00	53+20	320	320	960													
41		53+20	54+00	80	80	160													
41		54+00	64+00	919	1000	1000													
42		64+00	73+00	850	902	903													
43		73+00	75+26.78	227	215	221													
43		79+40.37	85+00	547	559	660								64					
44		85+00	87+63.07	263	261	262													
44		107+82.18	110+00	182	216	436													
45		110+00	119+16.28	458	891	1903													
46		124+10.42	34+71.94	643	1005	2123								102					
46		36+30.69	37+50	64	118	182													
47		37+50	42+45.12	495	495	990													
47		44+55	49+00	145	446	590													
TOTALS CARRIED TO GENERAL SUMMARY SHEET 21				11418	13860	23033								4819			963	163	
				4.79 MI.		4.36 MI.													

CALCULATED  
LGM  
CHECKED  
XXX

TRAFFIC CONTROL QUANTITIES  
PAVEMENT MARKINGS

CUYAHOGA COUNTY  
CUY-77-13.81

52  
55

PAVEMENT MARKINGS

SHEET NO.	ROADWAY	LOCATION		828																					
		FROM STATION	TO STATION	EDGE LINES (WHITE)	EDGE LINES (YELLOW)	LANE LINES					CHANNELIZING LINES (WHITE)				TRANSVERSE LINES (WHITE)		LANE ARROW	WORD ON PAVEMENT, 72"	STOP LINE	CROSSWALK LINE					
		LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	EACH	EACH	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT
41	RAMP B-1	10+00	17+50	849	747	90					100						4	2	72	153					
41	RAMP B-2	13+80	23+72	857	906																				
42	RAMP S-E	4+86	5+84	100																					
42	RAMP W-S	23+21.5	24+18	100																					
45	RAMP F-1	2+67	11+55	975	832						150						4	1	63	133					
45	RAMP F-2	1+63	11+40	966	609																				
46	RAMP F-3	0+36.32	3+74	338							174														
46	RAMP F-4	1+75	8+40		424						235														
46		1+75	10+07.95	833																					
47	RAMP E-14	0+55	5+00	455	250						147														
48		5+00	10+78	573	585						200			53											
48	RAMP E-17	1+39	10+75	920	806						661														
48	RAMP E-9	0+00	2+00	105	205						95			51											
49		2+00	4+56	256	270																				
48	RAMP E-8	11+30	12+67		134						78			50											
48	RAMP E-15	11+00 (49+00)	17+12	488	50	24																			
49	RAMP E-18	1+90	8+21	631	607																				
TOTALS CARRIED TO GENERAL SUMMARY SHEET 21				8446	6425	114					1840			154		8	3	135	286						
				2.82 MILES		0.02 MI.																			

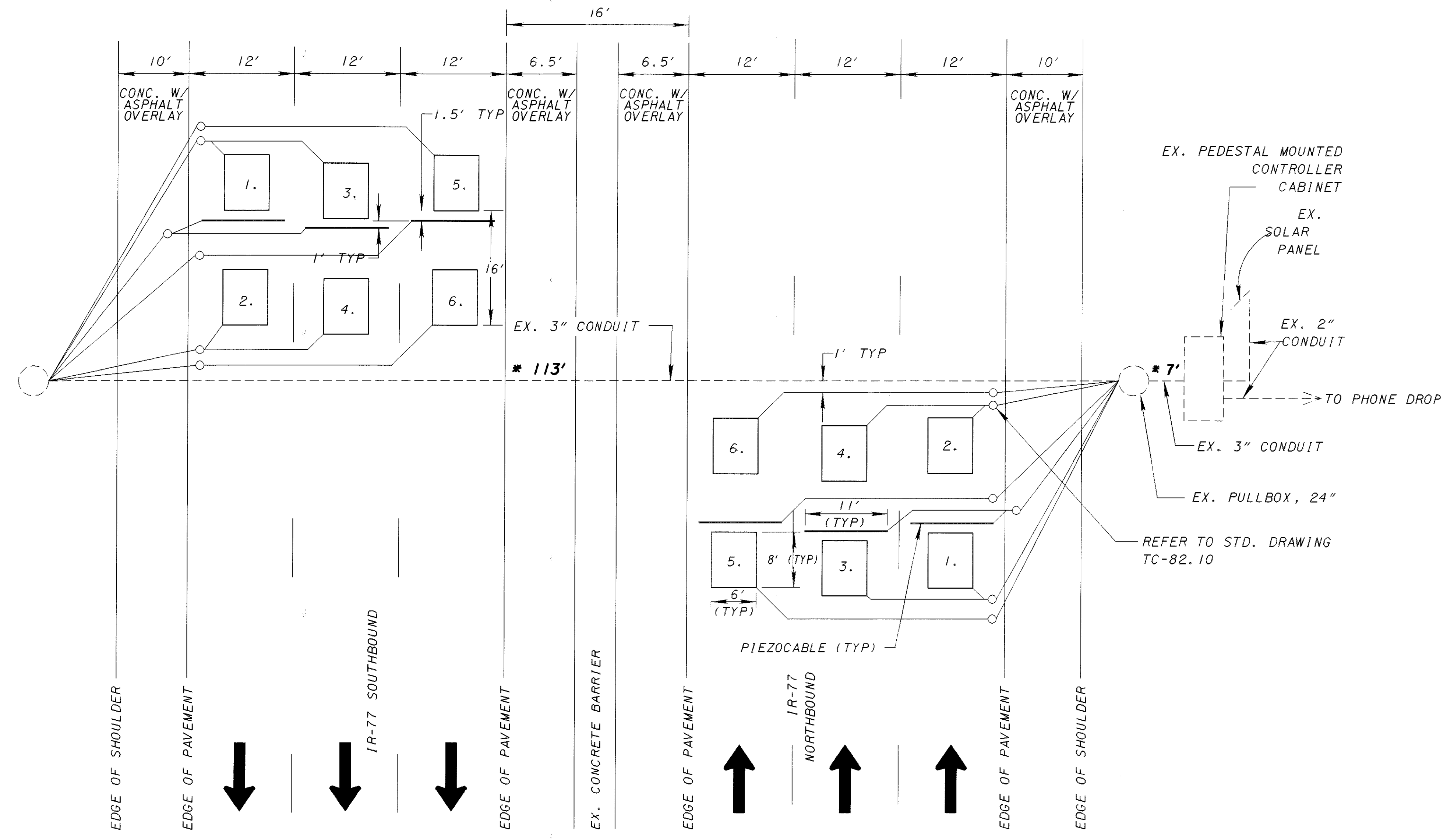
I:\PROJECTS\PID2327\dgm\2327TSA.dgn 09-MAY-2002 8:45AM fkonopka



PLOT SUBMITTED: 09-MAY-2002 08:46

20888GMB.DGN

PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\P1023127\adn\CUY77\atr.dgn



CUY-77: AT IR-77 @ STA 40+20 ±  
 CONTROLLER IN NB DIRECTION,

\* - DISTANCES SHOWN WERE MEASURED  
 DURING ORIGINAL CONSTRUCTION.

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION
632	26501	12	EACH	DETECTOR LOOP, AS PER PLAN
632	65200	920	LIN.FT.	LOOP DETECTOR LEAD-IN CABLE
632	90400	6	EACH	SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR, CLASS I (11' IN LENGTH)

NOTES (CONT.)

- ALL LOOPS SHALL BE 6' X 8'. LOOPS SHALL BE SPACED 16' FROM LEADING EDGE TO LEADING EDGE. INSTALLATION OF LOOPS SHALL CONFORM TO TC-82.10 EXCEPT THAT LOOPS SHALL BE INSTALLED WITH FOUR (4) TURNS AND CUT AS PER TC-82.10. IF THE EXISTING LEAD-IN CABLE IS USED, THE CABLE SPLICE KITS SHALL BE INCLUDED IN ITEM 632, DETECTOR LOOP, AS PER PLAN PAY QUANTITY.
- THE PIEZOCABLE AXLE SENSOR SHALL BE MADE BY MEASUREMENT SPECIALTIES ROADTAX BRASS LINGUINI [BL] CLASS I AXLE SENSOR OR EQUIVALENT. THE 11 FOOT SENSOR SHALL BE CENTERED IN THE 12 FOOT LANE. PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH ITEM SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR, CLASS I (11' IN LENGTH) AND SHALL INCLUDE THE LEAD IN CABLE, ALL MATERIAL, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY FOR EACH INSTALLATION, IN PLACE COMPLETE AND ACCEPTED. IT SHALL ALSO INCLUDE THE REMOVAL OF THE EXISTING PIEZOCABLE FROM THE PAVEMENT TO THE CONTROLLER CABINET.  
  
 THE PIEZOCABLE LEADIN CABLE SHALL BE PURCHASED AT DIFFERENT LENGTHS AS PART OF THE SENSOR AND SHALL NOT BE SPLICED. INCLUDED IN THIS ITEM SHALL BE THE PAVEMENT CUTTING OF SLOTS, APPLICATION OF SEALANT, CONDUIT AND DRILLING.
- A QUANTITY OF LOOP DETECTOR LEAD-IN CABLE IS INCLUDED IN THE PLANS. IF THE CONTRACTOR ELECTS TO USE THE EXISTING LEAD-IN CABLE, THIS QUANTITY SHALL BE NON-PERFORMED AT NO ADDITIONAL COST TO THE STATE.
- CABLE AND WIRE SHALL BE IDENTIFIED IN ACCORDANCE WITH 632.04. IDENTIFICATION SHALL INCLUDE THE DIRECTION OF TRAVEL (I.E. NB, WB) AND THE LOOP NUMBER AS SHOWN. EACH CABLE AND WIRE SHALL HAVE 5' COILED IN THE CONTROLLER CABINET FOR CONNECTION TO THE DATA COLLECTION SYSTEM.
- ADJACENT LOOPS (TRANSVERSE AND LONGITUDINAL) SHALL BE INSTALLED IN OPPOSITE DIRECTIONS, I.E., LOOP 1 AND LOOP 4, CLOCKWISE, LOOP 2 AND LOOP 3 COUNTER-CLOCKWISE. EACH LOOP SHALL HAVE A SEPERATE LEAD-IN CABLE ROUTED TO THE CONTROLLER CABINET AND TAGGED. EACH PIEZOCABLE LEAD-IN CABLE SHALL BE TAGGED ALSO.
- FIVE (5) WORKING DAYS PRIOR TO THE SCHEDULED INSTALLATION, THE CONTRACTOR SHALL CONTACT OFFICE OF TECH. SERVICES AT 614-466-3727.
- ALL ITEMS SHALL CONFORM TO C&M SPECIFICATIONS 625, 713, 632, 732, 633 AND 733, UNLESS OTHERWISE SPECIFIED.
- LOOPS AND PIEZOCABLES SHALL BE CUT IN THE ASPHALT SURFACE COURSE. THEY SHALL NOT BE INSTALLED BETWEEN THE INTERMEDIATE AND SURFACE COURSES.
- PIEZOCABLES SHALL BE INSTALLED WHEN THE TEMP. IS ABOVE 60 DEGREES FAHRENHEIT, OR SPECIAL PROVISION MADE TO ENSURE CURING OF EPOXY TAKES PLACE.
- ALL SENSORS ARE TO BE TESTED BY O.D.O.T. PERSONNEL AFTER THE INSTALLATION IS COMPLETE SO AS TO VERIFY THAT THE STATION IS UP AND OPERATING PROPERLY. IF THE ELECTRONIC EQUIPMENT DOES NOT PERFORM PROPERLY BECAUSE OF A POORLY INSTALLED SENSOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THE FAULTY SENSOR, AS SOON AS POSSIBLE AT HIS OWN COST.
- THE DRILLED CONDUIT HOLE FOR THE PIEZOCABLE SHALL BE AS PER TC-82.10 EXCEPT THAT THE HOLE SHALL BE LOCATED ONE FOOT OUTSIDE THE EDGE OF PAVEMENT, EVEN IF THE SHOULDER COMPOSITION IS DIFFERENT FROM THE ROADWAY.
- THE CONTRACTOR SHALL NOT SAW THE PAVEMENT OVER THE JACKED OR DRILLED CONDUIT OR SAW THE PAVEMENT ACROSS THE JACKED OR DRILLED CONDUIT.

NOTES

- FIVE (5) DAYS PRIOR TO PLANING OR ANY WORK THAT WILL DESTROY THE EXISTING ATR LOOPS OR PIEZOCABLES, THE CONTRACTOR SHALL CONTACT THE OFFICE OF TECH. SERVICES AT 614-466-3727 FOR INSTRUCTIONS TO DE-ACTIVATE THE EXISTING LOOPS AND PIEZOCABLES SO THAT SENSATIVE ELECTRONICS WILL NOT BE DESTROYED.

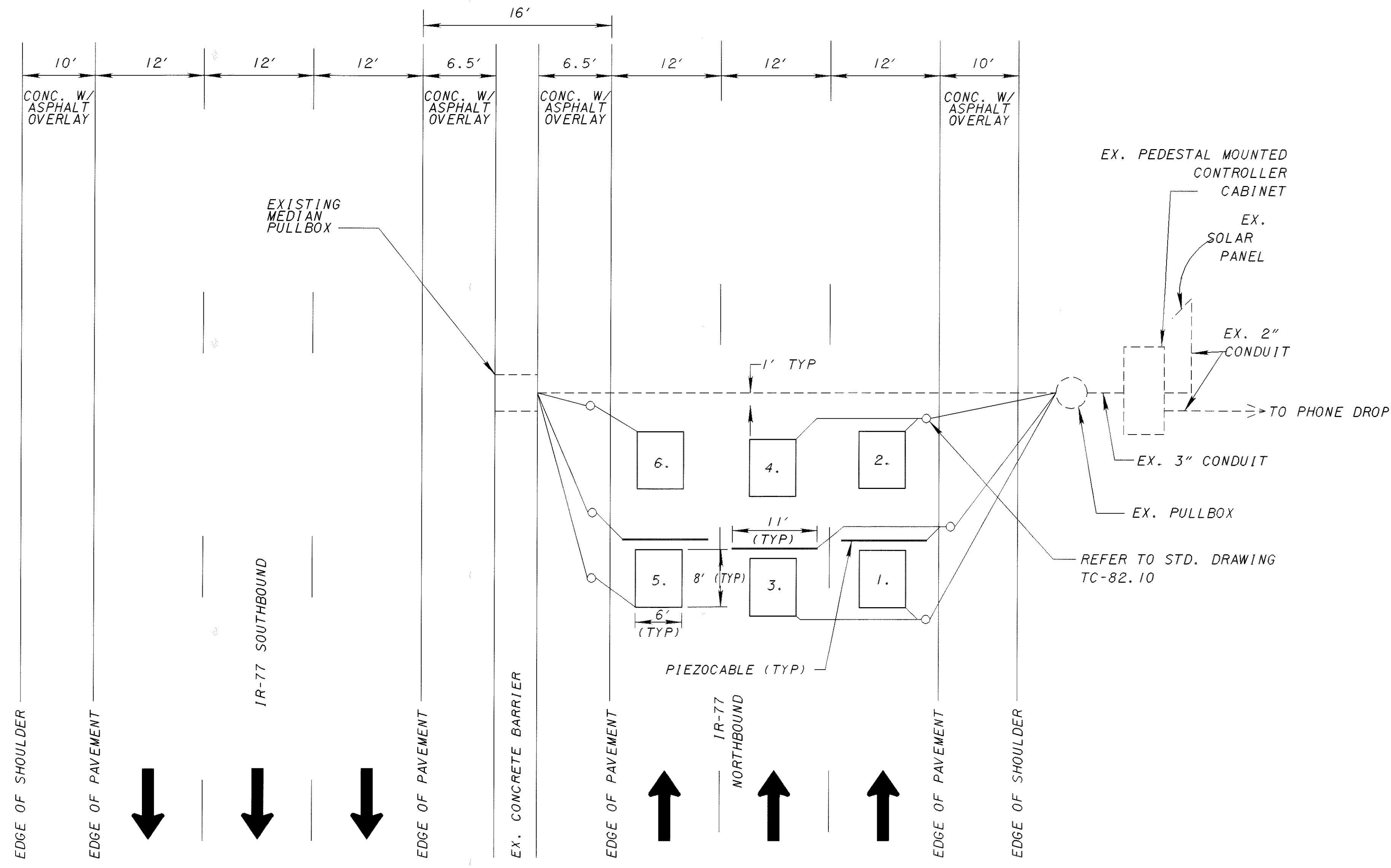
AUTOMATIC TRAFFIC RECORDER (CLASS)  
 6 LANE - PLAN INSERT SHEET  
 CUY-77-13.81  
 53  
 55

CALCULATED	DATE
EMK	06/06/91
CHECKED	09/28/92
LDH	10/08/98
	03/26/93
	07/25/95
	11/05/01

PLOT SUBMITTED: 09-MAY-2002 08:46

20888GMB.DGN

PLOTTED BY: fkonopka  
 PLOTTED FROM: I:\PROJECTS\PID23127\dgn\CUY77.tr.dgn



CUY-77: AT IR-77 NB @ STA 59+75 ±  
 CONTROLLER IN NB DIRECTION,

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION
632	26501	6	EACH	DETECTOR LOOP, AS PER PLAN
632	65200	260	LIN.FT.	LOOP DETECTOR LEAD-IN CABLE
632	90400	3	EACH	SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR, CLASS I (11' IN LENGTH)

**NOTES**

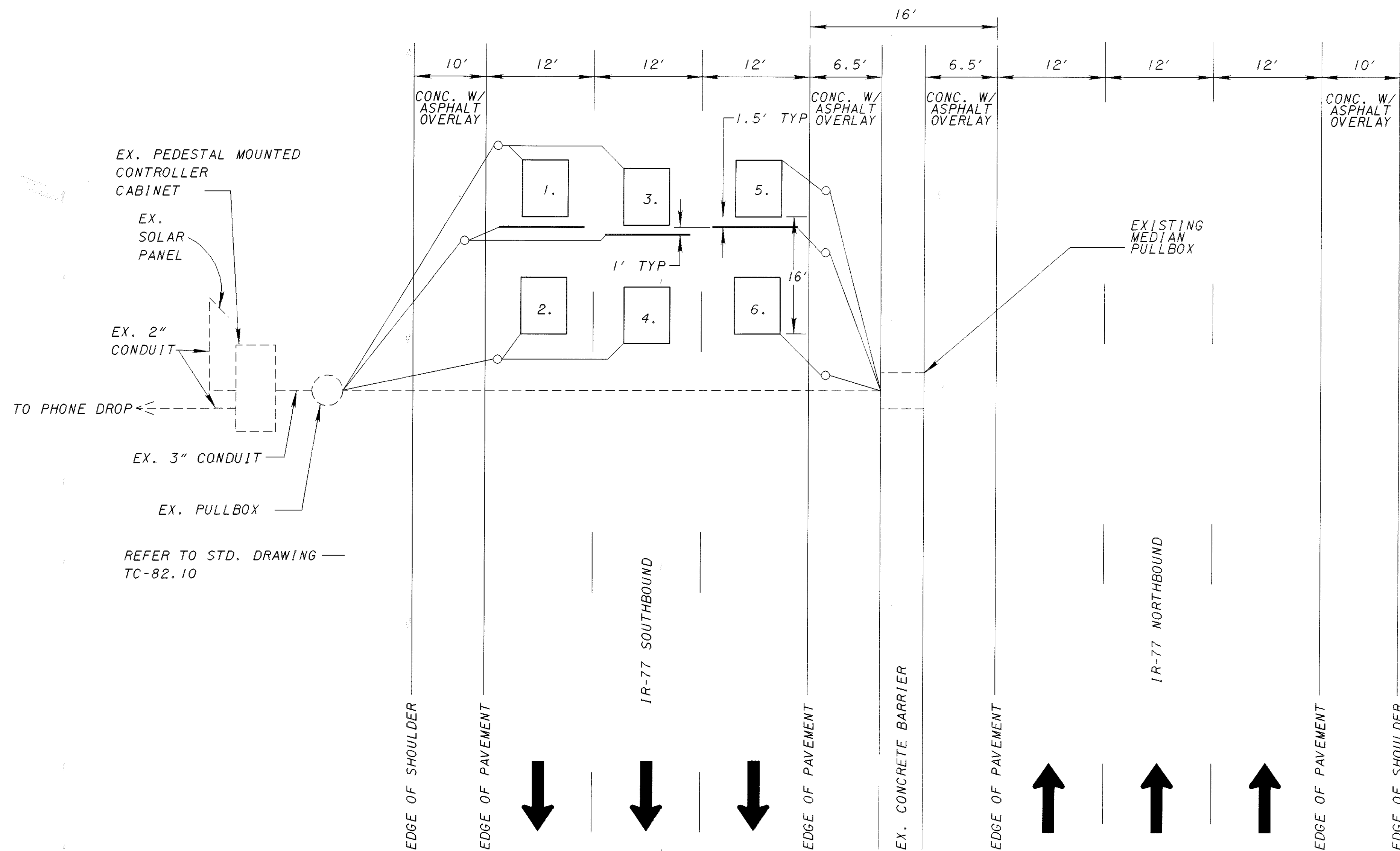
1. FIVE (5) DAYS PRIOR TO PLANING OR ANY WORK THAT WILL DESTROY THE EXISTING ATR LOOPS OR PIEZOCABLES, THE CONTRACTOR SHALL CONTACT THE OFFICE OF TECH. SERVICES AT 614-466-3727 FOR INSTRUCTIONS TO DE-ACTIVATE THE EXISTING LOOPS AND PIEZOCABLES SO THAT SENSATIVE ELECTRONICS WILL NOT BE DESTROYED.

**NOTES (CONT.)**

- ALL LOOPS SHALL BE 6' X 8'. LOOPS SHALL BE SPACED 16' FROM LEADING EDGE TO LEADING EDGE. INSTALLATION OF LOOPS SHALL CONFORM TO TC-82.10 EXCEPT THAT LOOPS SHALL BE INSTALLED WITH FOUR (4) TURNS AND CUT AS PER TC-82.10. IF THE EXISTING LEAD-IN CABLE IS USED, THE CABLE SPLICE KITS SHALL BE INCLUDED IN ITEM 632, DETECTOR LOOP, AS PER PLAN PAY QUANTITY.
- THE PIEZOCABLE AXLE SENSOR SHALL BE MADE BY MEASUREMENT SPECIALTIES ROADTAX BRASS LINGUINI [BL] CLASS I AXLE SENSOR OR EQUIVALENT. THE 11 FOOT SENSOR SHALL BE CENTERED IN THE 12 FOOT LANE. PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH ITEM SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR, CLASS I (11' IN LENGTH) AND SHALL INCLUDE THE LEAD IN CABLE, ALL MATERIAL, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY FOR EACH INSTALLATION, IN PLACE COMPLETE AND ACCEPTED. IT SHALL ALSO INCLUDE THE REMOVAL OF THE EXISTING PIEZOCABLE FROM THE PAVEMENT TO THE CONTROLLER CABINET.
- THE PIEZOCABLE LEADIN CABLE SHALL BE PURCHASED AT DIFFERENT LENGTHS AS PART OF THE SENSOR AND SHALL NOT BE SPLICED. INCLUDED IN THIS ITEM SHALL BE THE PAVEMENT CUTTING OF SLOTS, APPLICATION OF SEALANT, CONDUIT AND DRILLING.
- A QUANTITY OF LOOP DETECTOR LEAD-IN CABLE IS INCLUDED IN THE PLANS. IF THE CONTRACTOR ELECTS TO USE THE EXISTING LEAD-IN CABLE, THIS QUANTITY SHALL BE NON-PERFORMED AT NO ADDITIONAL COST TO THE STATE.
- CABLE AND WIRE SHALL BE IDENTIFIED IN ACCORDANCE WITH 632.04. IDENTIFICATION SHALL INCLUDE THE DIRECTION OF TRAVEL (I.E. NB, WB) AND THE LOOP NUMBER AS SHOWN. EACH CABLE AND WIRE SHALL HAVE 5' COILED IN THE CONTROLLER CABINET FOR CONNECTION TO THE DATA COLLECTION SYSTEM.
- ADJACENT LOOPS (TRANSVERSE AND LONGITUDINAL) SHALL BE INSTALLED IN OPPOSITE DIRECTIONS, I.E., LOOP 1 AND LOOP 4, CLOCKWISE, LOOP 2 AND LOOP 3 COUNTER-CLOCKWISE. EACH LOOP SHALL HAVE A SEPERATE LEAD-IN CABLE ROUTED TO THE CONTROLLER CABINET AND TAGGED. EACH PIEZOCABLE LEAD-IN CABLE SHALL BE TAGGED ALSO.
- FIVE (5) WORKING DAYS PRIOR TO THE SCHEDULED INSTALLATION, THE CONTRACTOR SHALL CONTACT OFFICE OF TECH. SERVICES AT 614-466-3727.
- ALL ITEMS SHALL CONFORM TO C&M SPECIFICATIONS 625, 713, 632, 732, 633 AND 733, UNLESS OTHERWISE SPECIFIED.
- LOOPS AND PIEZOCABLES SHALL BE CUT IN THE ASPHALT SURFACE COURSE. THEY SHALL NOT BE INSTALLED BETWEEN THE INTERMEDIATE AND SURFACE COURSES.
- PIEZOCABLES SHALL BE INSTALLED WHEN THE TEMP. IS ABOVE 60 DEGREES FAHRENHEIT, OR SPECIAL PROVISION MADE TO ENSURE CURING OF EPOXY TAKES PLACE.
- ALL SENSORS ARE TO BE TESTED BY O.D.O.T. PERSONNEL AFTER THE INSTALLATION IS COMPLETE SO AS TO VERIFY THAT THE STATION IS UP AND OPERATING PROPERLY. IF THE ELECTRONIC EQUIPMENT DOES NOT PERFORM PROPERLY BECAUSE OF A POORLY INSTALLED SENSOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THE FAULTY SENSOR, AS SOON AS POSSIBLE AT HIS OWN COST.
- THE DRILLED CONDUIT HOLE FOR THE PIEZOCABLE SHALL BE AS PER TC-82.10 EXCEPT THAT THE HOLE SHALL BE LOCATED ONE FOOT OUTSIDE THE EDGE OF PAVEMENT, EVEN IF THE SHOULDER COMPOSITION IS DIFFERENT FROM THE ROADWAY.
- THE CONTRACTOR SHALL NOT SAW THE PAVEMENT OVER THE JACKED OR DRILLED CONDUIT OR SAW THE PAVEMENT ACROSS THE JACKED OR DRILLED CONDUIT.

AUTOMATIC TRAFFIC RECORDER (CLASS)  
 6 LANE - PLAN INSERT SHEET  
 CUY-77-13.81  
 54  
 55

CALCULATED	EMK	DATE
CHECKED	LDH	06/06/91
		01/21/98
		09/28/92
		10/08/98
		03/26/93
		11/05/01
		07/25/95



CUY-77: AT IR-77 SB @ STA 47+50 ±  
 CONTROLLER IN SB DIRECTION,

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION
632	26501	6	EACH	DETECTOR LOOP, AS PER PLAN
632	65200	260	LIN.FT.	LOOP DETECTOR LEAD-IN CABLE
632	90400	3	EACH	SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR, CLASS I (11' IN LENGTH)

NOTES (CONT.)

- ALL LOOPS SHALL BE 6' X 8'. LOOPS SHALL BE SPACED 16' FROM LEADING EDGE TO LEADING EDGE. INSTALLATION OF LOOPS SHALL CONFORM TO TC-82.10 EXCEPT THAT LOOPS SHALL BE INSTALLED WITH FOUR (4) TURNS AND CUT AS PER TC-82.10. IF THE EXISTING LEAD-IN CABLE IS USED, THE CABLE SPLICE KITS SHALL BE INCLUDED IN ITEM 632, DETECTOR LOOP, AS PER PLAN PAY QUANTITY.
- THE PIEZOCABLE AXLE SENSOR SHALL BE MADE BY MEASUREMENT SPECIALTIES ROADTAX BRASS LINGUINI [BL] CLASS I AXLE SENSOR OR EQUIVALENT. THE 11 FOOT SENSOR SHALL BE CENTERED IN THE 12 FOOT LANE. PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH ITEM SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR, CLASS I (11' IN LENGTH) AND SHALL INCLUDE THE LEAD IN CABLE, ALL MATERIAL, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY FOR EACH INSTALLATION, IN PLACE COMPLETE AND ACCEPTED. IT SHALL ALSO INCLUDE THE REMOVAL OF THE EXISTING PIEZOCABLE FROM THE PAVEMENT TO THE CONTROLLER CABINET.  
  
THE PIEZOCABLE LEADIN CABLE SHALL BE PURCHASED AT DIFFERENT LENGTHS AS PART OF THE SENSOR AND SHALL NOT BE SPliced. INCLUDED IN THIS ITEM SHALL BE THE PAVEMENT CUTTING OF SLOTS, APPLICATION OF SEALANT, CONDUIT AND DRILLING.
- A QUANTITY OF LOOP DETECTOR LEAD-IN CABLE IS INCLUDED IN THE PLANS. IF THE CONTRACTOR ELECTS TO USE THE EXISTING LEAD-IN CABLE, THIS QUANTITY SHALL BE NON-PERFORMED AT NO ADDITIONAL COST TO THE STATE.
- CABLE AND WIRE SHALL BE IDENTIFIED IN ACCORDANCE WITH 632.04. IDENTIFICATION SHALL INCLUDE THE DIRECTION OF TRAVEL (I.E. NB, WB) AND THE LOOP NUMBER AS SHOWN. EACH CABLE AND WIRE SHALL HAVE 5' COILED IN THE CONTROLLER CABINET FOR CONNECTION TO THE DATA COLLECTION SYSTEM.
- ADJACENT LOOPS (TRANSVERSE AND LONGITUDINAL) SHALL BE INSTALLED IN OPPOSITE DIRECTIONS, I.E., LOOP 1 AND LOOP 4, CLOCKWISE, LOOP 2 AND LOOP 3 COUNTER-CLOCKWISE. EACH LOOP SHALL HAVE A SEPERATE LEAD-IN CABLE ROUTED TO THE CONTROLLER CABINET AND TAGGED. EACH PIEZOCABLE LEAD-IN CABLE SHALL BE TAGGED ALSO.
- FIVE (5) WORKING DAYS PRIOR TO THE SCHEDULED INSTALLATION, THE CONTRACTOR SHALL CONTACT OFFICE OF TECH. SERVICES AT 614-466-3727.
- ALL ITEMS SHALL CONFORM TO C&M SPECIFICATIONS 625, 713, 632, 732, 633 AND 733, UNLESS OTHERWISE SPECIFIED.
- LOOPS AND PIEZOCABLES SHALL BE CUT IN THE ASPHALT SURFACE COURSE. THEY SHALL NOT BE INSTALLED BETWEEN THE INTERMEDIATE AND SURFACE COURSES.
- PIEZOCABLES SHALL BE INSTALLED WHEN THE TEMP. IS ABOVE 60 DEGREES FAHRENHEIT, OR SPECIAL PROVISION MADE TO ENSURE CURING OF EPOXY TAKES PLACE.
- ALL SENSORS ARE TO BE TESTED BY O.D.O.T. PERSONNEL AFTER THE INSTALLATION IS COMPLETE SO AS TO VERIFY THAT THE STATION IS UP AND OPERATING PROPERLY. IF THE ELECTRONIC EQUIPMENT DOES NOT PERFORM PROPERLY BECAUSE OF A POORLY INSTALLED SENSOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THE FAULTY SENSOR, AS SOON AS POSSIBLE AT HIS OWN COST.
- THE DRILLED CONDUIT HOLE FOR THE PIEZOCABLE SHALL BE AS PER TC-82.10 EXCEPT THAT THE HOLE SHALL BE LOCATED ONE FOOT OUTSIDE THE EDGE OF PAVEMENT, EVEN IF THE SHOULDER COMPOSITION IS DIFFERENT FROM THE ROADWAY.
- THE CONTRACTOR SHALL NOT SAW THE PAVEMENT OVER THE JACKED OR DRILLED CONDUIT OR SAW THE PAVEMENT ACROSS THE JACKED OR DRILLED CONDUIT.

NOTES

- FIVE (5) DAYS PRIOR TO PLANING OR ANY WORK THAT WILL DESTROY THE EXISTING ATR LOOPS OR PIEZOCABLES, THE CONTRACTOR SHALL CONTACT THE OFFICE OF TECH. SERVICES AT 614-466-3727 FOR INSTRUCTIONS TO DE-ACTIVATE THE EXISTING LOOPS AND PIEZOCABLES SO THAT SENSATIVE ELECTRONICS WILL NOT BE DESTROYED.

CALCULATED	EMK
CHECKED	LDH
DATE	01/21/98
06/06/91	10/08/98
09/28/92	11/05/01
03/26/93	
07/25/95	