

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
RIC - 30 - 12.37 , ASD - 30 - 0.00
MADISON AND MIFFLIN TOWNSHIPS
CITY OF MANSFIELD
RICHLAND COUNTY
MIFFLIN TOWNSHIP
ASHLAND COUNTY

DESIGN DESIGNATION

1984 ADT	=	16,500
2004 ADT	=	23,000
DHV	=	2,300
D	=	50%
T	=	19%
V	=	60 MPH

FR - 49 (39)

MICROFILMED
DEC 9 1991

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.

1985 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.

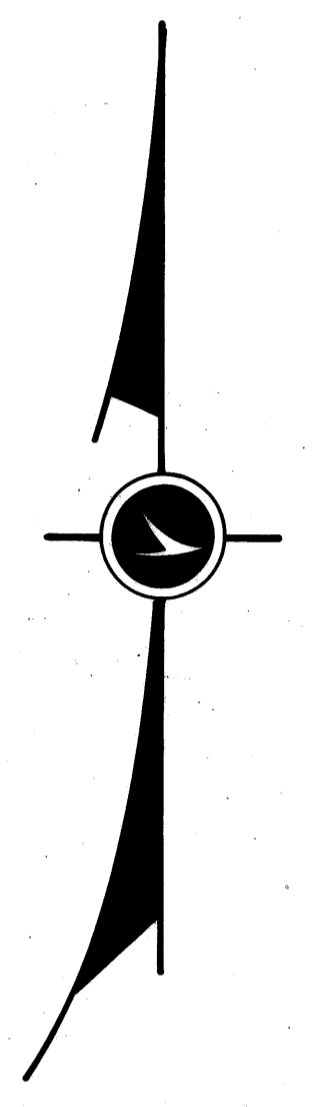
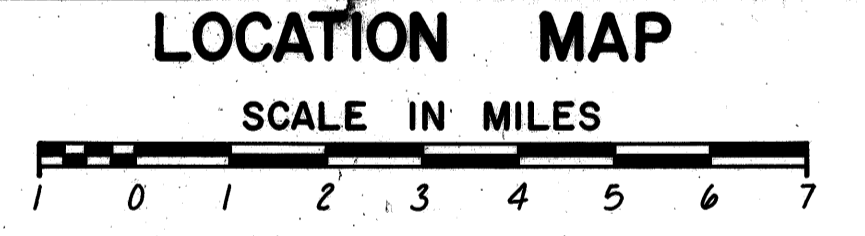
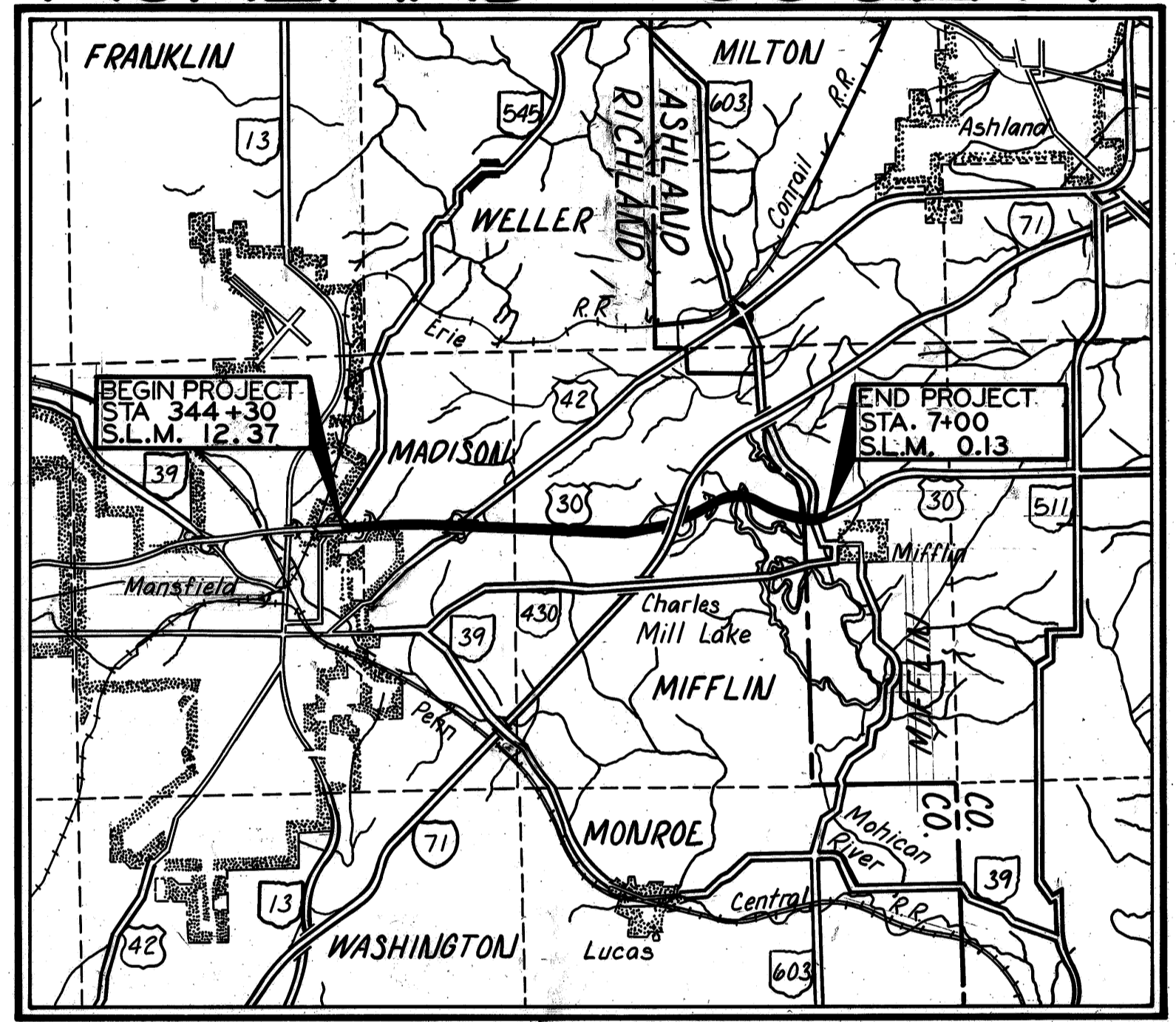
I hereby approve these plans and declare that the making of this improvement will not require the closing of the highway to traffic and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

CONVENTIONAL SIGNS

County Line	-----	Limited Access (only)	-----	LA	
Township Line	-----	Right of Way (only)	-----	RW	
Section Line	-----	Limited Access & Right of Way	-----	LA & RW	
Corporation Line	-----	Existing Right of Way	-----		
Fence Line (existing)	-x-x-	Property Line	-----	(in existing fence) -x-x-	
Fence Line (proposed)	-x-x-	Railroad	-----	or -----	
Center Line	-----	Guardrail (existing)	-----	(proposed) -----	
Trees, Stumps	(to be removed)				
Utility Poles: Telephone	φ	Power	φ	Light	φ

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LINE DATA

BEGIN PROJECT	STA. 344 + 30	33,178.90 LINF.T.
STATION EQUATION	STA. 676 + 08.90 BK.±	
	STA. 670 + 00.00 AH.±	2,734.00 LINF.T.
STATION EQUATION	STA. 697 + 34.00 BK.±	
	STA. 0 + 00 AH.±	700.00 LINF.T.
END PROJECT	STA. 7 + 00	700.00 LINF.T.
NET PROJECT LENGTH		36,612.90 LINF.T.
	OR	6.934 MILES

UNDERGROUND UTILITIES
48 HOURS
BEFORE YOU DIG
Call...800-362-2764 (Toll free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

Portion to be improved:
State & Federal Routes
Other Roads

SCALES
Plan
Profile: Horizontal, Vertical
Cross Section: Horizontal, Vertical

SUPPLEMENTAL SPECIFICATIONS

812	11-7-83	947	10-17-83
824	10-8-82		
836	3-12-75	933	8-21-80
848	2-17-83		
849	10-19-81		
		861	9-9-83
		961	9-9-83

Approved: Nancy W. Pung
Date: 12/13/84 District Deputy Director of Transportation

Approved: Walter J. Geringer
Date: 2-8-85 Engineer, Bureau of Bridges and Structural Design

Approved: Wayne H. Kauble
Date: 4-22-85 Chief Engineer, Planning and Design

Approved: Waven J. Smith
Date: 4-22-85 Director, Department of Transportation

ADD FOR WORK:
STA. 7+00 TO STA. 13+60 +660.00 LINF.T.
ADD FOR SIDE ROAD WORK (FROM SHEET 2) +9,834.00 LINF.T.
NET WORK LENGTH 47,106.90 LINF.T.
OR 8.922 MILES

Plan Prepared By:
DISTRICT 3 DESIGN

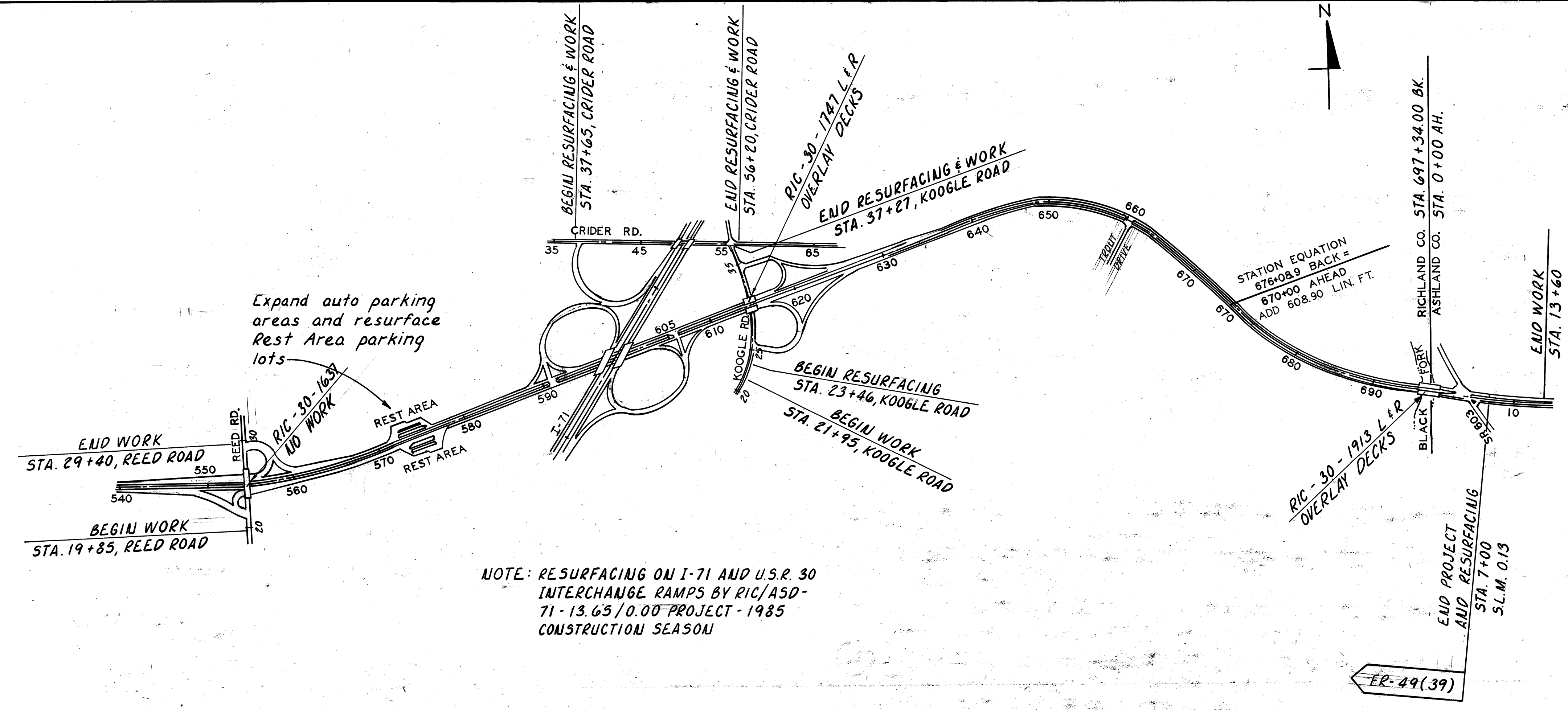
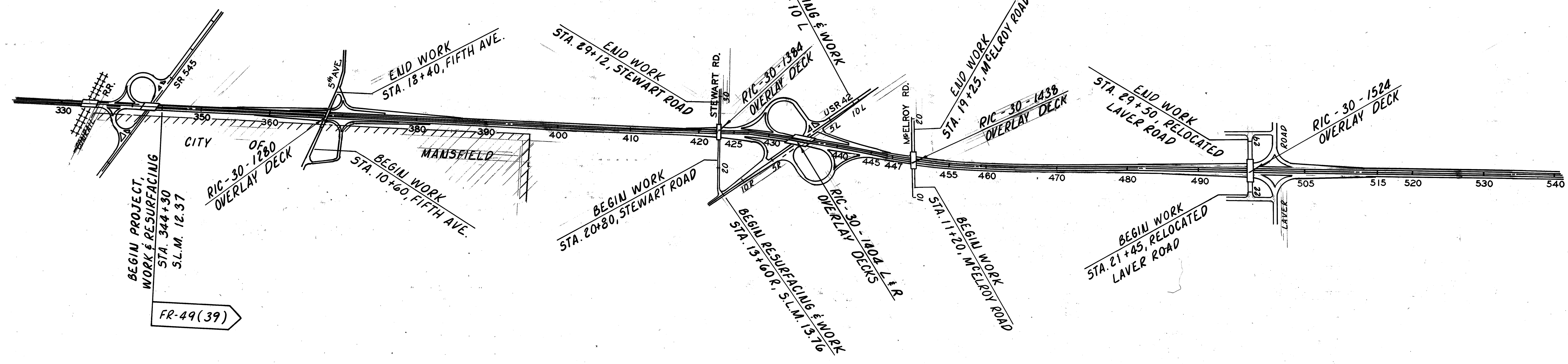
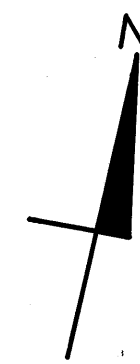
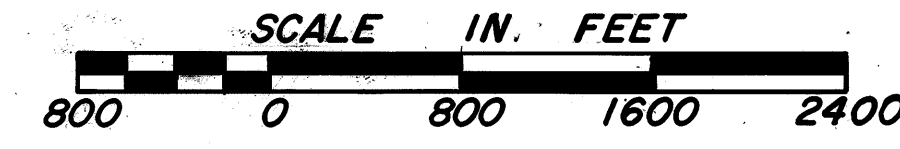
SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

BP-5	7-16-81	HW-4A	4-1-80	HL-1	9-6-73	TC-41.10	8-20-84	AS-1-81	11-27-81
BP-7	12-6-76	HW-4B	4-1-80			TC-41.20	3-26-79	DBR-2-73	4-10-73
BP-3	12-6-76	MC-6	1-30-84					BR-1	5-29-79
BP-4	7-16-81	MC-4	7-26-76	TC-7.65	3-1-79	TC-42.10	8-19-77	BR-1-67	sh. 1 10-15-77
GR-3B	2-5-82	MC-9	1-30-84			TC-42.20	3-26-79	SD-1-63	11-12-63
GR-1	2-5-82	MC-10	5-1-76	TC-21.10	1-20-84				
GR-2B	2-5-82	MC-9A	5-1-81			TC-52.10	4-3-79		
GR-3	2-5-82	MH-1	6-12-75	TC-22.10	3-1-79	TC-52.20	4-3-79		
GR-4	2-5-82	MH-3	6-12-75	TC-22.20	3-1-79	TC-61.10	4-5-82		
GR-4A	1-30-84	MH-5	6-12-75	TC-31.21	3-6-79	TC-71.10	4-9-79	LA-1	6-1-79
GR-5	2-5-82	GR-7	2-5-82	TC-32.10	3-8-79	TC-72.20	2-26-82		
GR-6	2-5-82	CB-2-2-A	B.5+1-79	TC-32.11	3-2-79				
GR-6A	2-5-82	CB-5	11-10-83	TC-31.20	3-1-79	TC-35.10	8-29-84		

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED:
DIVISION ADMINISTRATOR DATE

RIC-30-12.37
ASD-30-0.00

SCHEMATIC PLAN



WORK LENGTH ON SIDE ROADS

FIFTH AVE. :	STA. 10 + 60 TO STA. 18 + 40 = 780.00 LIN. FT.
STEWART ROAD :	STA. 20 + 80 TO STA. 29 + 12 = 832.00 LIN. FT.
U.S.R. 42 :	STA. 13 + 60R TO STA. 9 + 10L = 2270.00 LIN. FT.
MC ELROY ROAD :	STA. 11 + 20 TO STA. 19 + 25 = 805.00 LIN. FT.
RELOCATED LAVER ROAD :	STA. 21 + 45 TO STA. 29 + 50 = 805.00 LIN. FT.
REED ROAD :	STA. 19 + 85 TO STA. 29 + 40 = 955.00 LIN. FT.
KOOGLE ROAD :	STA. 21 + 95 TO STA. 37 + 27 = 1532.00 LIN. FT.
CRIDER ROAD :	STA. 37 + 65 TO STA. 56 + 20 = 1855.00 LIN. FT.
TOTAL SIDE ROAD WORK = 9834.00 LIN. FT.	

NOTE: RESURFACING ON I-71 AND U.S.R. 30 INTERCHANGE RAMPS BY RIC/ASD-71-13.65/0.00 PROJECT-1985 CONSTRUCTION SEASON

Expand auto parking areas and resurface Rest Area parking lots

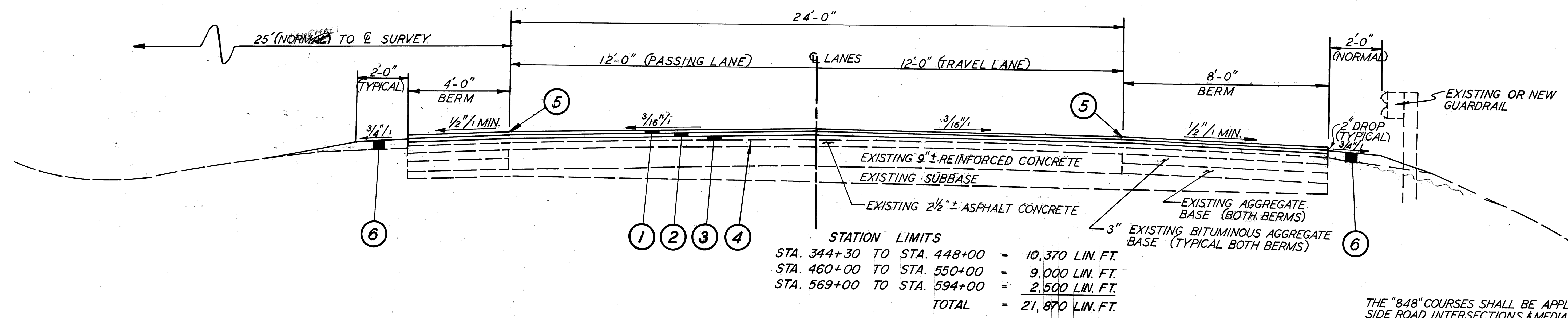
TYPICAL SECTIONS

TYPE 848

NORMAL SECTION "A" (DIRECTION OF TRAVEL)

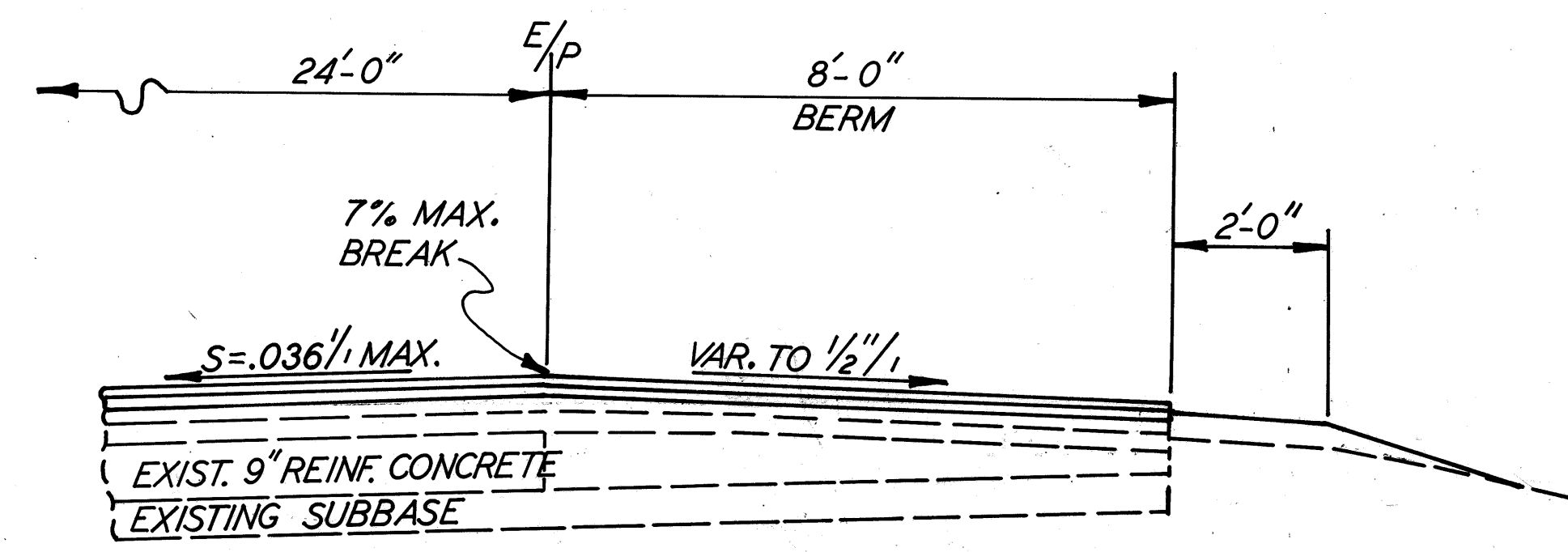
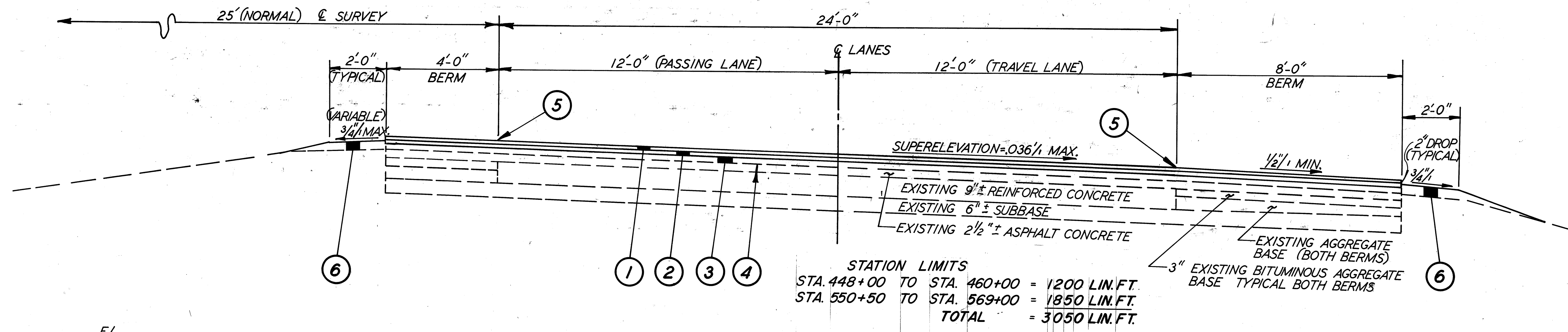
FHWA REGION	STATE	PROJECT	3
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ASD-30-0.00



THE "848" COURSES SHALL BE APPLIED TO SIDE ROAD INTERSECTIONS & MEDIAN CROSS-OVERS AT RAMP AND INTERSECTIONS.

SUPERELEVATED SECTION "B" (DIRECTION OF TRAVEL)



TREATMENT FOR 8' OUTSIDE BERM ON HIGH SIDE OF SUPERELEVATION

- LEGEND**
- ① 1 1/4" 848 ASPHALT CONCRETE SURFACE COURSE, TYPE 1 AC-20
 - ② 1 3/4" 848 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20.
 - ③ 2" 848 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20. (See Proposal Note)
 - ④ 407 TACK COAT, AS PER PLAN (SEE GENERAL NOTE) AND COVER AGGREGATE - APPLIED TO EXISTING PAVEMENT AND BERM SURFACES.
 - ⑤ HOT LONGITUDINAL JOINT. (SEE GENERAL NOTE)
 - ⑥ 617 COMPACTED AGGREGATE.
 - ⑦ 1/2" MINIMUM 848 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, AC-20
 - ⑧ 4"-301 BITUMINOUS AGGREGATE BASE: AC-20, RT-11 OR RT-12

TYPICAL SECTIONS

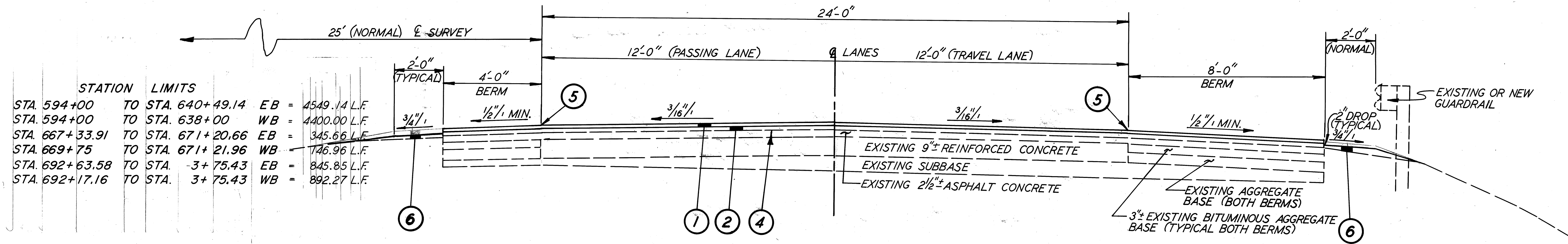
TYPE 848

NORMAL SECTION "C" (DIRECTION OF TRAVEL)

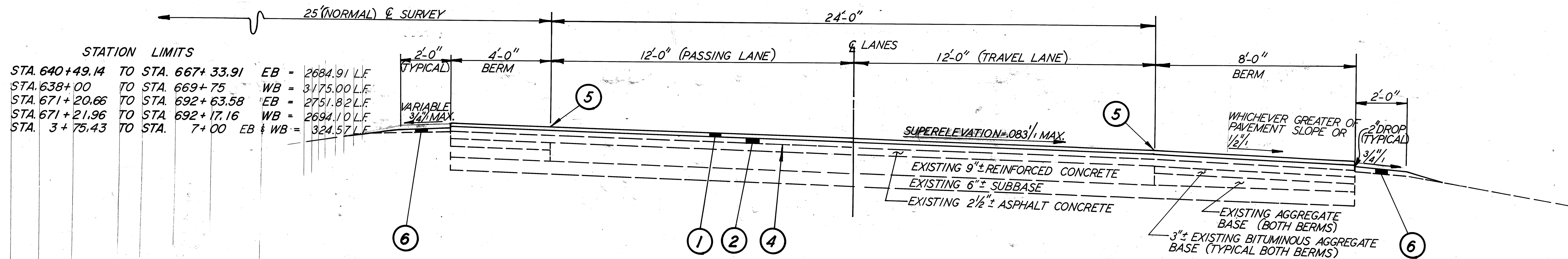
FHWA REGION	STATE	PROJECT
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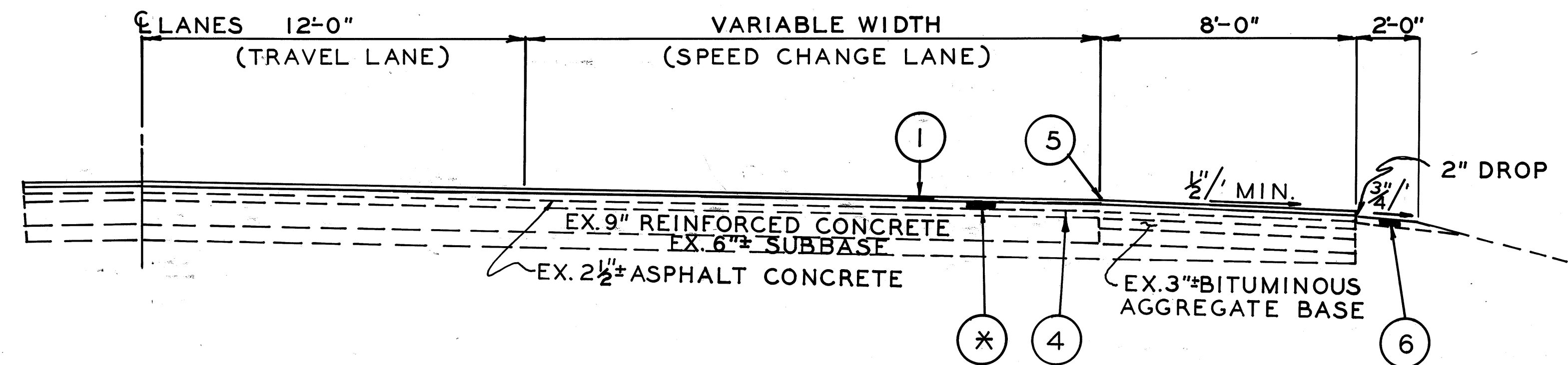
SUPERELEVATION SECTION "D" (DIRECTION OF TRAVEL)



SEE SHEET 3 FOR LEGEND

TYPICAL SECTIONS TYPE 848

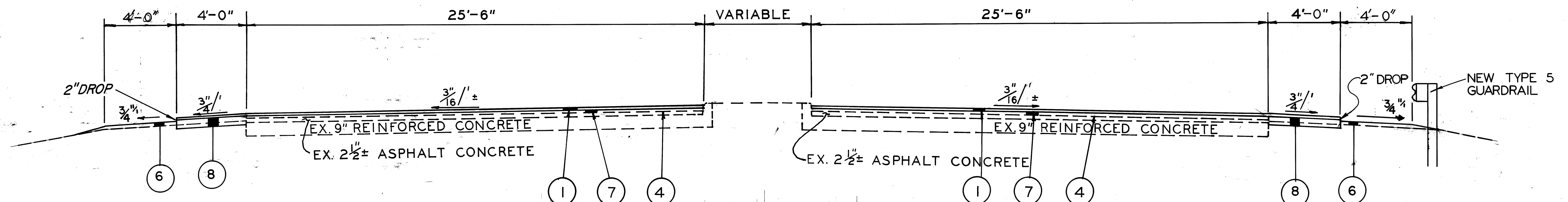
U.S.R. 30 SPEED CHANGE LANE TYPICAL



* ITEMS 2 & 3 OR ITEM 2 ONLY FOR STATION LIMITS AS LISTED UNDER TYPICAL SECTIONS "A" & "C"

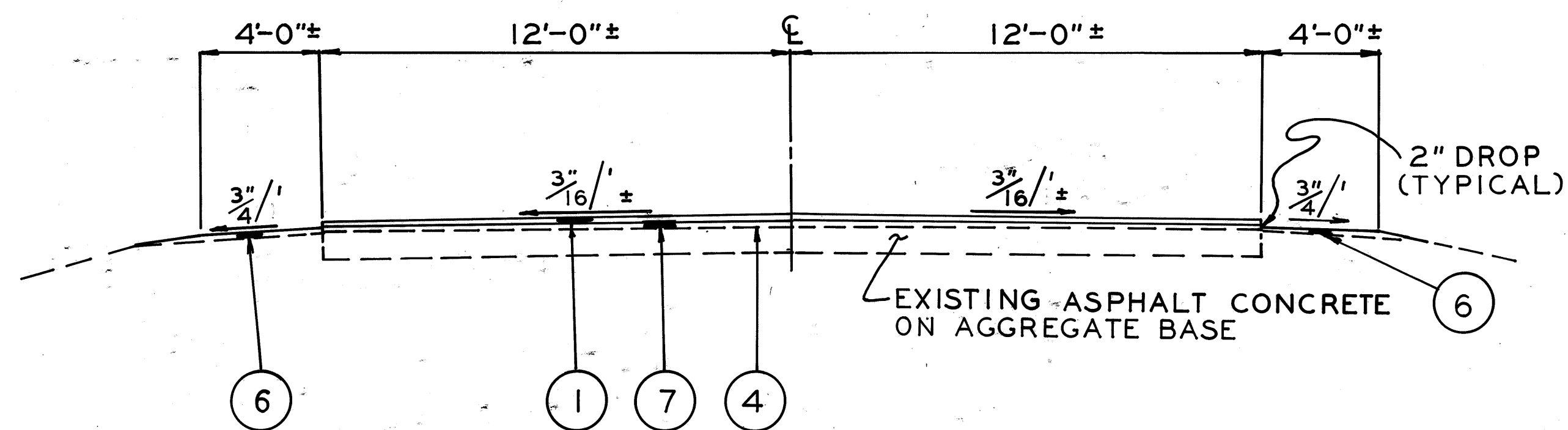
SEE SHEET 3 FOR LEGEND

U.S.R. 42 TYPICAL



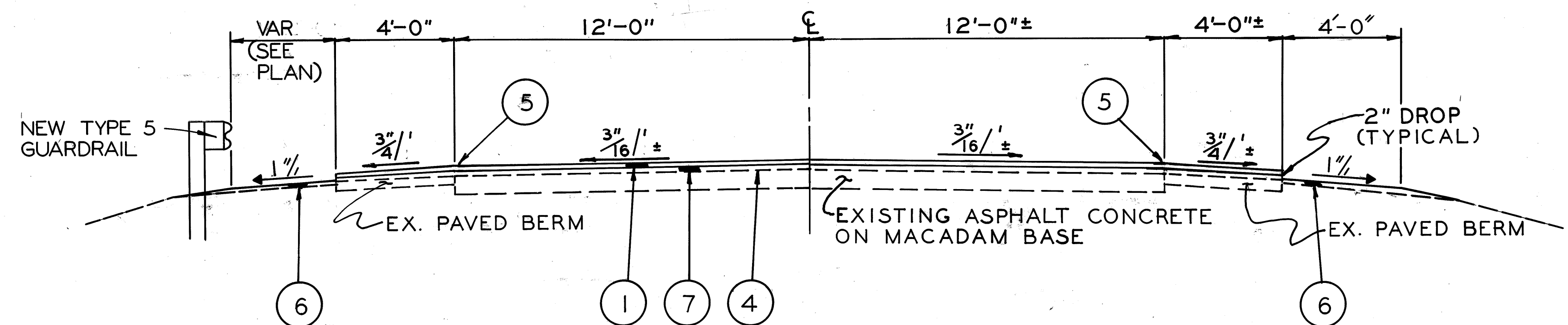
STA. 0+00 TO STA. 9+10 L = 910 LIN. FT.
STA. 0+00 TO STA. 13+60 R = 1360 LIN. FT.
TOTAL = 2270 LIN. FT.

CRIDER ROAD TYPICAL



STA. 37+65 TO STA. 56+20 = 1855 LIN. FT.

KOOGLE ROAD TYPICAL



STA. 23+46 TO STA. 37+27 = 1481 LIN. FT.

TYPICAL SECTIONS

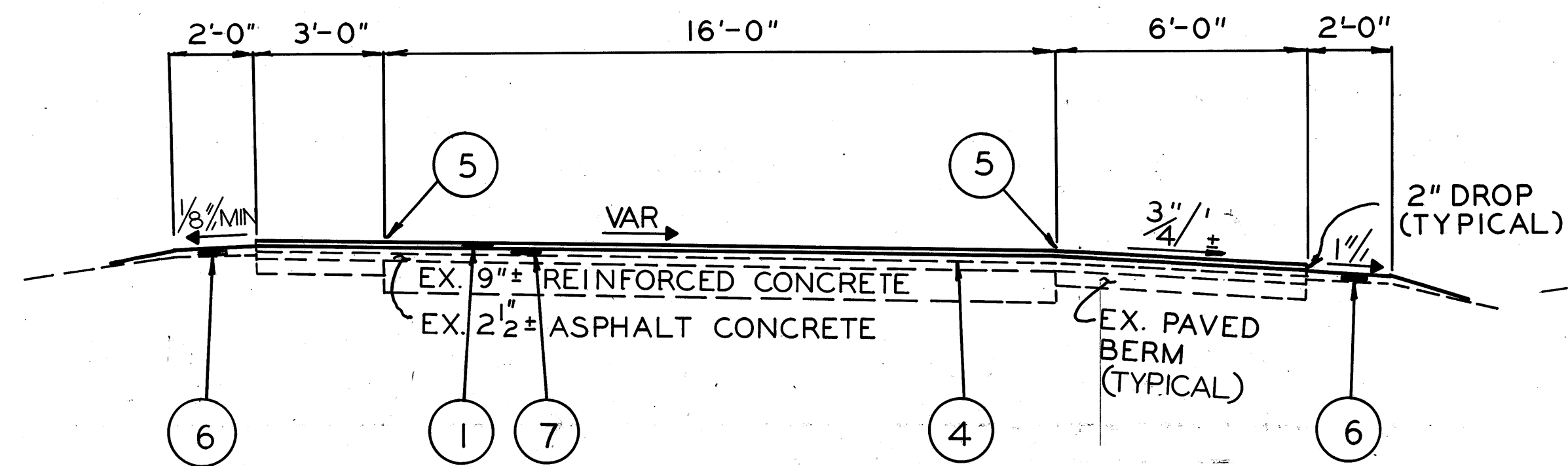
TYPE 848

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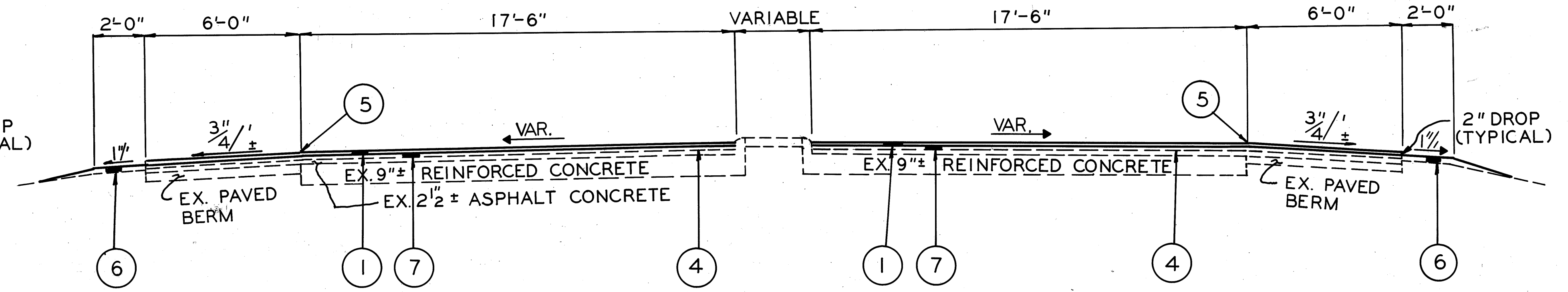
RIC-30-12.37
ASD-30-0.00

ONE-WAY RAMP TYPICAL (IN DIRECTION OF TRAVEL)



U.S.R.42 INTERCHANGE

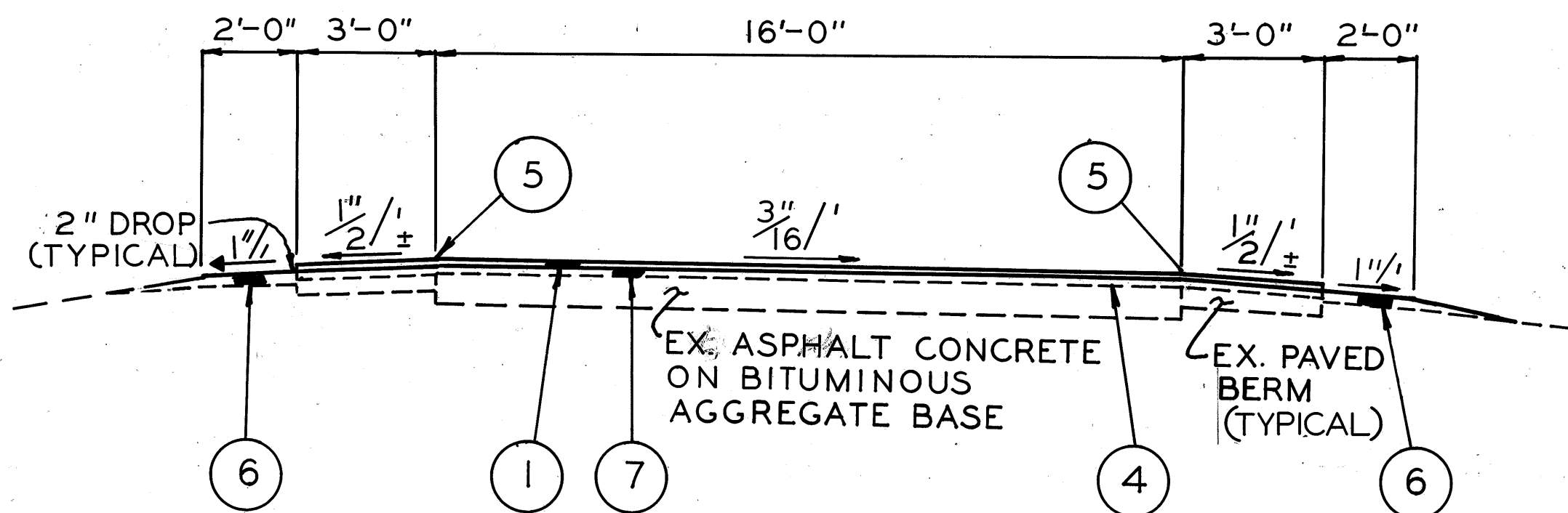
TWO-WAY RAMP TYPICAL



U.S.R.42 INTERCHANGE

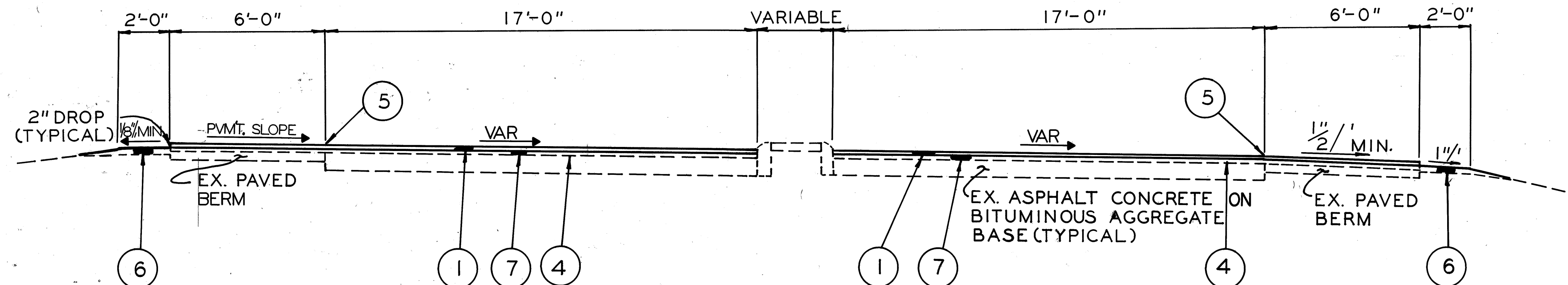
SEE SHEET 3 FOR LEGEND

NORMAL ONE-WAY RAMP TYPICAL



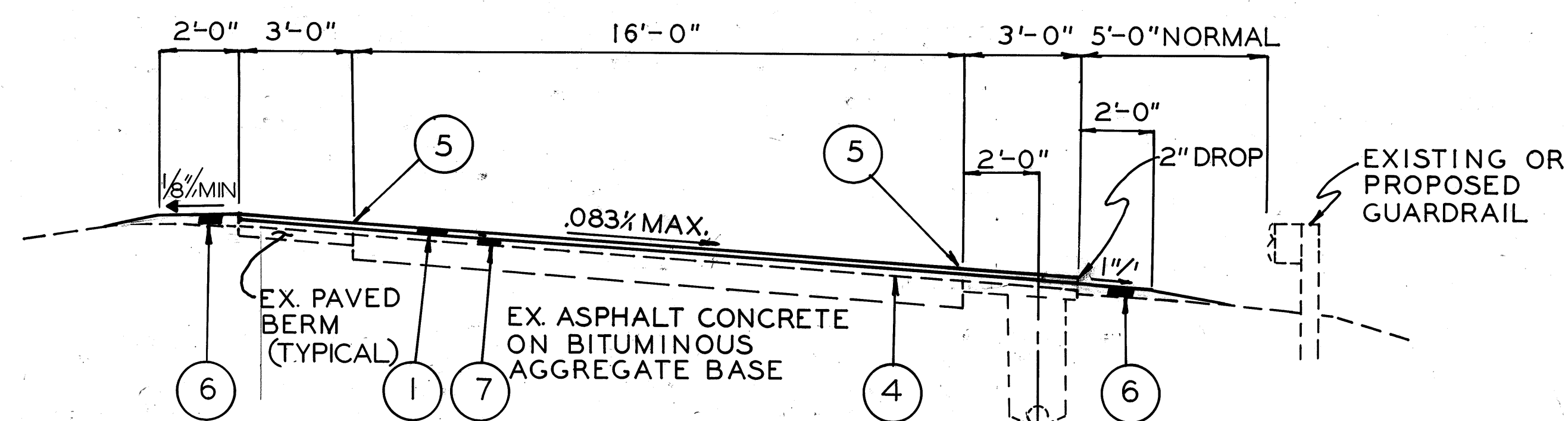
FIFTH AVE; LAVER ROAD, REED ROAD AND
KOOGLER ROAD INTERCHANGES

TWO-WAY RAMP TYPICAL



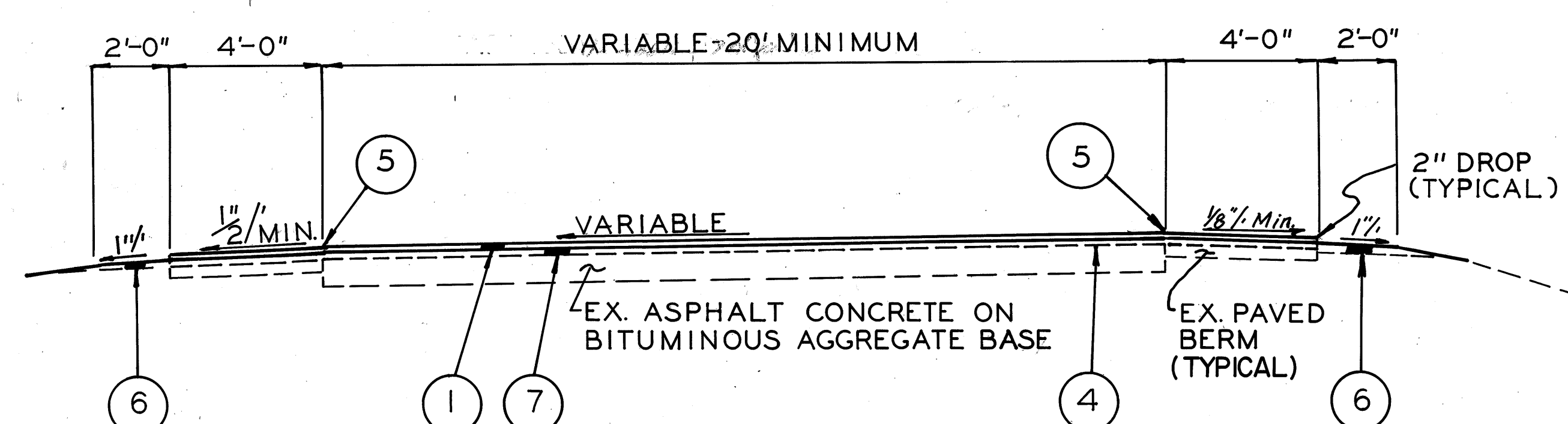
REED ROAD & KOOGLER ROAD INTERCHANGES

SUPERELEVATED ONE-WAY RAMP TYPICAL



FIFTH AVE; LAVER ROAD, REED ROAD AND
KOOGLER ROAD INTERCHANGES

TWO-WAY UNDIVIDED RAMP TYPICAL



FIFTH AVE. INTERCHANGES

GENERAL NOTES

RIC - 30 - 12.37 / ASD - 30 - 0.00

FED RD DIVISION	STATE	PROJECT	(7)
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CALC. BY *R.D.S. 12/84*
CHK'D. BY *R.D.S. 12/84*

FIELD OFFICE:

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 800 SQ. FT. OF FLOOR SPACE. PAYMENT SHALL BE AT THE LUMP SUM PRICE BID FOR ITEM 619, FIELD OFFICE.

CONTINGENCY QUANTITIES:

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY 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 AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ALIGNMENT AND PROFILE:

THE WORK PROPOSED BY THIS PROJECT IS FOR THE RESURFACING OF THE EXISTING PAVEMENT. THE ALIGNMENT OF THIS EXISTING PAVEMENT WILL NOT BE CHANGED, AND THE PROFILE OF THE PROPOSED SURFACE WILL BE SIMILAR TO THAT OF THE EXISTING PAVEMENT EXCEPT THAT IT WILL BE RAISED AN AMOUNT EQUAL TO THE THICKNESS OF THE RESURFACING COURSES SPECIFIED IN THESE PLANS.

TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS:

REFERENCE TO SUPPLEMENTAL SPECIFICATIONS 857, 858, 859, 957, 958, AND 959 ON THE TRAFFIC CONTROL STANDARD DRAWINGS IN THIS PLAN SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS 630, 631, 632, 730, 731, AND 732.

WORK WITHIN EXISTING RIGHT-OF-WAY:

ALL WORK SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY AT ALL LOCATIONS ON THIS PROJECT.

UNDERGROUND UTILITIES:

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 OF THE OHIO REVISED CODE.

ALTERNATE MANHOLE TOPS:

ECCENTRIC CONE TOPS USED IN CONSTRUCTION OF PRECAST MANHOLES SHALL CONFORM TO THE REQUIREMENTS OF STANDARD CONSTRUCTION DRAWING MH-3 EXCEPT THAT THEY MAY HAVE A MINIMUM HEIGHT OF 24 INCHES.

REMOVAL OF TREES OR STUMPS:

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING, EXCEPT THAT THOSE TREES FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"	7	0	7
30"	0	0	0
48"	0	0	0
60"	0	0	0

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

UTILITY OWNERSHIP:

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

GAS: COLUMBIA GAS OF OHIO, INC.
1120 WEST FOURTH STREET
P.O. BOX 1328
MANSFIELD, OHIO 44901-1328
TELEPHONE: (419)

TELEPHONE: UNITED TELEPHONE COMPANY OF OHIO
175 ASHLAND ROAD
MANSFIELD, OHIO 44702
TELEPHONE: (419) 755-7190

AMERICAN TELEPHONE AND TELEGRAPH
30 SOUTH RIVERSIDE PLAZA
CHICAGO, ILLINOIS 60606

ITEM 407 TACK COAT:

BITUMINOUS MATERIAL SHALL BE APPLIED AT THE RATE OF 0.1 GAL. MAXIMUM PER SQUARE YARD ON THE CONCRETE PAVEMENT AND BERM SURFACES, BUT COMPLETE SURFACE COVERAGE SHALL BE REQUIRED. AREAS OF TACK STRIPPED BY CONSTRUCTION EQUIPMENT OR TRAFFIC SHALL BE RECOATED PRIOR TO PLACING ASPHALT CONCRETE. ITEM 407.06 SHALL BE FOLLOWED UNLESS WAIVED BY THE ENGINEER. IF ASPHALT EMULSION IS USED, SUFFICIENT TIME MUST BE ALLOWED FOR COMPLETE BREAKING TO OCCUR BEFORE THE OVERLAY IS PLACED. WITH ASPHALT EMULSION, IF COMPLETE PAVEMENT SURFACE COVERAGE CANNOT BE OBTAINED AT A RATE OF 0.1 GALLONS PER SQUARE YARD, A DILUTED MATERIAL SHALL BE USED. THE APPLICATION RATE SHALL BE INCREASED BY THE PERCENTAGE OF WATER USED FOR DILUTION, BUT METHOD OF MEASUREMENT FOR 407 SHALL BE GALLONS OF ASPHALT EMULSION PRIOR TO DILUTION.

THE TACK COAT AND COVER AGGREGATE OPERATIONS SHALL BE DETERMINED AS PER 407.05. PLAN QUANTITIES INDICATE AVERAGE APPLICATION RATES OF 0.1 GAL. PER SQUARE YARD OF TACK COAT AND 7 LBS. PER SQUARE YARD OF COVER AGGREGATE FOR ESTIMATING PURPOSES ONLY.

848 ASPHALT CONCRETE:

ON THIS PROJECT, ITEM 848, TABLE 2-2, PROPERTIES OF MIXTURES SHALL BE FOR HEAVY TRAFFIC VOLUMES.

SPREADING EQUIPMENT AND ROLLERS:

AN AUTOMATIC SCREED CONTROL HAVING A 40-FOOT SKI-ARM SHALL BE USED FOR PLACING THE 848 INTERMEDIATE COURSE (SEE PROPOSAL NOTE). THE WIDTH LAID ON ANY ONE PASS SHALL NOT EXCEED THE PAVEMENT'S RATED WIDTH AS RECOMMENDED BY THE PAVEMENT MANUFACTURER.

A PNEUMATIC TIRE ROLLER AS PER 401.11 SHALL BE REQUIRED AS AN INTERMEDIATE ROLLER FOR COMPACTION OF THE 848 COURSES. THE FINISH ROLLER SHALL BE A STEEL WHEELED TANDEM ROLLER AS PER 401.11. NO VIBRATORY ROLLER WILL BE PERMITTED AS A FINISH ROLLER.

NIGHT PAVING:

NO 848 RESURFACING COURSE SHALL BE PLACED AT NIGHT.

LONGITUDINAL JOINTS, 848 COURSES:

A HOT LONGITUDINAL JOINT SHALL BE MADE BETWEEN THE PAVEMENT LANE AND THE ADJOINING BERM AS SHOWN ON THE TYPICAL SECTIONS, ITEM NO. 5 FOR THE SURFACE COURSE. ALL OTHER LONGITUDINAL JOINTS BETWEEN PAVEMENT LANES AND CENTERLINE SHALL BE COLD JOINTS SEALED BY COATING THE VERTICAL FACE, AS PER 401.15.

PROJECT FEATHERS:

A BUTT-JOINT AS PER STANDARD DRAWING BP-5 SHALL BE USED WHERE THE FEATHER IS ON EXISTING ASPHALT.

SUSPENSION OF RESURFACING OVER WINTER:

IF THIS PROJECT SHOULD CARRY OVER THE WINTER SEASON, THE INTERMEDIATE COURSE(S) SHALL NOT BE ALLOWED TO LAY EXPOSED TO TRAFFIC OVER THE WINTER.

AFTER OCTOBER 31, IN LIEU OF THE LAST PARAGRAPH OF 401.12, THE FOLLOWING REQUIREMENTS SHALL BE MET:

ANY INTERMEDIATE COURSE LAID SHALL BE COVERED BY THE SURFACE COURSE WITHIN TWO (2) WORK DAYS.

ALSO, ALL FINAL PAVEMENT MARKINGS SHALL BE APPLIED TO THE NEW SURFACE COURSE BEFORE WINTER. IF THIS CANNOT BE ACCOMPLISHED UNDER SPECIFICATION CONDITIONS, THE CONTRACTOR SHALL APPLY INTERIM MARKINGS AS PER WORK ZONE REQUIREMENTS, SHEET 58. THE PERMANENT PAVEMENT MARKINGS SHALL THEN BE APPLIED THE NEXT SPRING.

202 CURB REMOVED, AS PER PLAN:

AFTER THE CONCRETE CURBS ARE REMOVED, THE REMAINING TRENCH SHALL BE BACK FILLED WITH 848 ASPHALT CONCRETE AND COMPACTED TO THE LEVEL OF THE ADJACENT PAVEMENT AND/OR PAVED BERM, SEE DETAIL ON SHEET NO. 20. IN ADDITION, SOME MINOR GRADING WORK MAY BE NECESSARY ON THE EMBANKMENT BEHIND THE PORTION OF THE CURB REMOVAL BEYOND THE MAINLINE PAVED BERM, SEE DETAIL ON SHEET NO. 20. THE COST OF THE 848 ASPHALT BACKFILL AND MINOR GRADING WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202 CURB REMOVED, AS PER PLAN.

ALL CURB REMOVAL AND BACKFILL WORK SHALL BE COMPLETED PRIOR TO THE PLACING OF THE 848 ON THE ADJACENT PAVEMENT AND/OR PAVED BERM.

SEEDING AND MULCHING:

SEEDING QUANTITIES ASSOCIATED WITH THE 203 EARTHWORK ITEMS SHOWN ON THE PLAN ARE ONLY APPROXIMATE AND FINAL PAYMENT WILL BE FOR THE ACTUAL NUMBER OF SQUARE YARDS OF DISTURBED AREAS SEEDING AND MULCHED AS PER 659.

COMMERCIAL FERTILIZER SHALL BE APPLIED AS PER 659.08:

$$(14,961 + 1550) \times 20 \times 9 \div (1000 \times 2000) = 1.49 \text{ TONS}$$

WATERING PERMANENT SEEDED AREAS:

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH OF THE PERMANENT SEEDED AREAS AS PER 659.09:

ITEM 659 - WATER 20 M-GAL.

GENERAL NOTES

RIC-30-12.37 / ASD-30-0.00

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5	OHIO		114

CALC. BY *RRG. 1/84.*
CHK'D. BY *RCS. 1/84.*

EROSION CONTROL:

ALL PERMANENT EROSION CONTROL ITEMS SHALL BE PLACED IMMEDIATELY AFTER THE EARTHWORK IS COMPLETED AT EACH LOCATION.

ITEMS 601, 660 & 670 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE WILL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS, AND TURF OF A STABLE NATURE WILL NOT BE REMOVED IN ORDER TO PLACE 670. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES FOR THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

RESTORATION OF DISTURBED AREAS ASSOCIATED WITH WORK FOR GUARDRAIL AND SIGN ITEMS:

THE CONTRACTOR SHALL RESTORE ALL SEEDED AND SODDED AREAS, PAVED SHOULDERS, AND ALL OTHER DISTURBED SURFACES TO A CONDITION AT LEAST EQUAL TO THAT EXISTING BEFORE THIS WORK WAS STARTED. ALL REPLACEMENTS SHALL BE DONE IN ACCORDANCE WITH THE PERTINENT SPECIFICATION ITEMS AND AS DIRECTED BY THE ENGINEER. PAYMENT FOR ALL RESTORATION WORK, INCLUDING MATERIALS, EQUIPMENT, LABOR, INCIDENTALS AND DISPOSAL OF ALL SURPLUS MATERIALS, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR VARIOUS 606 AND 630 ITEMS.

CONDUIT END TREATMENT:

IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE HEADWALLS, CONCRETE RIPRAP, ROCK CHANNEL PROTECTION, SODDING, ETC.

202 - RAISED PAVEMENT MARKERS REMOVED FOR STORAGE:

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR REMOVING RAISED PAVEMENT MARKERS AS PER 202.071:

ITEM 202 - RAISED PAVEMENT MARKERS REMOVED FOR STORAGE 2333 EACH

202 - GUARDRAIL REMOVED FOR STORAGE:

GALVANIZED GUARDRAIL DESIGNATED FOR REMOVAL FOR STORAGE SHALL BE CAREFULLY DISMANTLED AND THE RAIL ELEMENTS, POST BOLTS, STEEL POSTS AND SPACER BLOCKS STORED FOR REMOVAL BY STATE FORCES. ALL WOOD POSTS AND BLOCKS, BOLTS AND OTHER MATERIAL NOT CONSIDERED SALVAGEABLE SHALL BE DISPOSED OF BY THE CONTRACTOR. ALL POST AND CONCRETE ANCHOR HOLES SHALL BE CAREFULLY FILLED AND TAMPED.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID FOR 202 GUARDRAIL REMOVED FOR STORAGE, OR 202 BARRIER GUARDRAIL REMOVED FOR STORAGE, MEASURED BY THE LINEAR FOOT CENTER TO CENTER OF TERMINAL POSTS INCLUDING ANCHOR ASSEMBLIES WHERE REQUIRED AND/OR BRIDGE TERMINALS WHEN RAIL ATTACHES TO A BRIDGE PARAPET.

ITEM 202 - ANCHOR POST REMOVED:

THE EXISTING TYPE A ANCHOR ASSEMBLIES ON THE APPROACH END OF THE GUARDRAIL ON THIS PROJECT SHALL BE MODIFIED TO REMOVE POST "C" INCLUDING SPACER BLOCKS AND CONCRETE ENCASUREMENT TO A MINIMUM OF ONE FOOT BELOW THE GROUND LINE. THE RESULTING POST HOLE SHALL BE BACKFILLED AND TAMPED AND THE SITE RESTORED. SPECIAL CARE SHALL BE EXERCISED SO AS NOT TO DAMAGE THE RAIL ELEMENT OF THE ANCHOR ASSEMBLY AND ANY DAMAGE SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AT NO COST TO THE STATE. ALL MATERIALS REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR.

PAYMENT FOR ALL THE ABOVE WORK TO REMOVE THE POST FROM THE EXISTING TYPE "A" ANCHOR ASSEMBLIES SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR ITEM 202, ANCHOR POST REMOVED.

* POST "C" IS FIRST POST FROM CONCRETE ANCHOR.

GUARDRAIL REPLACEMENT:

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE, GRADE AND REINSTALL THE GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL EXISTING GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE NEW REPLACEMENT MATERIALS ARE ON THE SITE, READY FOR INSTALLATION. THE EXPOSED APPROACH END OF THE FINAL SECTION OF AN INCOMPLETE GUARDRAIL RUN SHALL BE DROPPED TO THE GROUND UNTIL THE INSTALLATION IS COMPLETED. WHEN A GAP EXISTS IN A GUARDRAIL RUN, RAIL ELEMENTS SHALL BE BOLTED TOGETHER TO ELIMINATE EXPOSED ENDS DURING NON-WORKING HOURS. FAILURE TO COMPLY WITH THESE REQUIREMENTS SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED ON THIS PROJECT UNTIL SUCH TIME THAT THE ENGINEER IS ASSURED OF SAID COMPLIANCE.

LOCATIONS OF GUARDRAIL:

THE LOCATIONS OF GUARDRAIL RUNS, AS SHOWN IN THE PLANS, ARE SUBJECT TO ADJUSTMENT IN THE FIELD TO ASSURE THAT THE PLANNED INSTALLATIONS WILL AFFORD THE MAXIMUM PROTECTION FOR TRAFFIC.

GUARDRAIL OVER CULVERTS AND PIER FOOTINGS:

WHEN SUFFICIENT POST DEPTH IS NOT AVAILABLE DUE TO A CULVERT OR PIER FOOTING, THE GUARDRAIL POSTS DIRECTLY OVER THE CULVERT OR PIER FOOTING SHALL NOT BE DRIVEN BUT SET IN HOLES. IF THE DISTANCE BETWEEN THE GROUND LINE AND THE TOP OF THE CULVERT OR PIER FOOTING IS LESS THAN THREE FEET, THE POST SHALL BE ENCASED IN A MINIMUM OF 4" THICKNESS OF CLASS C CONCRETE FOR THE FULL DEPTH BELOW GROUND. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 606 - GUARDRAIL TYPE 5.

ITEM 606 - INTERMEDIATE GUARDRAIL POST:

ADDITIONAL INTERMEDIATE GUARDRAIL POSTS SHALL BE ADDED TO PROVIDE 3'-1 1/2" POST SPACING AS PER STANDARD DRAWING GR-7 IN THE EXISTING GUARDRAIL RUNS IN FRONT OF THE BRIDGE PIERS ON THIS PROJECT. ALL THE NEW INTERMEDIATE POSTS SHALL BE THE SAME MATERIAL AS THE EXISTING POSTS IN THE RUN. THE INTERMEDIATE POST BOLT SLOT SHALL BE FIELD PUNCHED OR DRILLED AND THE HOLES SHALL BE REGALVANIZED AS DIRECTED BY THE ENGINEER WITH SPRAY-ON OR STICK-FORM GALVANIZING REPAIR COMPOUND MEETING THE REQUIREMENTS OF FSS-0-G-93. THE CONTRACTOR SHALL PROVIDE A NEW WOOD BLOCKOUT, BACK-UP PLATE, POST BOLT AND MISCELLANEOUS HARDWARE AS PER THE REQUIREMENTS FOR TYPE 5 GUARDRAIL.

WHEN SUFFICIENT POST DEPTH IS NOT AVAILABLE DUE TO A PIER FOOTER, THE INTERMEDIATE GUARDRAIL POSTS DIRECTLY OVER THE PIER FOOTER SHALL NOT BE DRIVEN BUT SET IN HOLES. IF THE DISTANCE BELOW THE GROUND LINE AND THE TOP OF THE PIER FOOTER IS LESS THAN THREE (3) FEET, THE INTERMEDIATE POST SHALL BE ENCASED IN A MINIMUM OF FOUR (4) INCHES THICKNESS OF CLASS C CONCRETE FOR THE FULL DEPTH OF GROUND COVER.

PAYMENT FOR PROVIDING EACH INTERMEDIATE POST, CONCRETE ENCASUREMENT WHEN REQUIRED, AND ACCESSORIES AS DETAILED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "ITEM 606 - INTERMEDIATE GUARDRAIL POST."

ITEM 606 - RAISING TYPE 5 GUARDRAIL, AS PER PLAN:

WHERE DESIGNATED ON THE PLAN, THE TYPE 5 GUARDRAIL SHALL BE RAISED ON THE EXISTING POSTS, RAISING ON EXISTING WOOD POSTS SHALL BE AS PER STANDARD DRAWING GR-2B. RAISING ON EXISTING STEEL POSTS SHALL BE AS PER DETAIL ON SHT. 20, WITH NEW STEEL BLOCKS. THE RAIL SHALL BE DISMANTLED ONLY TO THE EXTENT NECESSARY TO FIELD BORE OR PUNCH A NEW BOLT HOLE(S) IN THE POST, TO REPAIR OR REGALVANIZE THE HOLE AREAS (STEEL), AND TO RECONNECT THE RAIL AND BLOCKS TO THE EXISTING POSTS. THE POST BOLTS MAY BE REUSED WITH WOOD POSTS

THE NEW BOLT HOLE AREA IN THE STEEL POSTS SHALL BE REGALVANIZED IN ACCORDANCE WITH AASHTO SPECIFICATION M36-731 SECTION 23 OR REPAIRED UNDER THE DIRECTION OF THE ENGINEER WITH STICK-FORM GALVANIZING REPAIR COMPOUND MEETING THE REQUIREMENTS OF FSS-0-G-93.

THE EXISTING TYPE "A" ANCHOR ASSEMBLIES AND/OR BRIDGE TERMINALS WILL NOT BE ADJUSTED, UNLESS REQUIRED BY THE PLAN, AND THE LAST RAIL ELEMENT HEIGHT SHALL BE TRANSITIONED TO MEET THESE ASSEMBLIES.

PAYMENT FOR ALL THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 606, RAISING TYPE 5 GUARDRAIL, AS PER PLAN.

ITEM SPECIAL - RESHAPING BERMS:

BERMS AT LOCATIONS WHERE EXISTING GUARDRAIL IS REMOVED OR WHERE NEW GUARDRAIL IS TO BE ERECTED SHALL BE RESHAPED AS DIRECTED BY THE ENGINEER TO INSURE A SMOOTH SURFACE FREE OF ALL IRREGULARITIES. EXCESS EXCAVATION RESULTING FROM RESHAPING BERMS SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT FOR RESHAPING BERMS AS DIRECTED SHALL BE INCLUDED IN THE CONTRACT PRICE BID PER LINEAL FOOT FOR ITEM SPECIAL - RESHAPING BERMS.

FLUSHING AND REPAIR OF UNDERDRAINS:

ALL EXISTING UNDERDRAINS SHALL BE FLUSHED WITH WATER TO DETERMINE IF THEY ARE FUNCTIONING PROPERLY AND, IF NOT, THE OBSTRUCTIONS ARE TO BE LOCATED AND REPAIRED. THE FOLLOWING PROCEDURES AND METHODS OF PAYMENT ARE PROVIDED FOR THIS PURPOSE. A COPY OF THE ORIGINAL CONSTRUCTION PLANS SHOWING THE LOCATION OF THE UNDERDRAINS AND OUTLETS WILL BE ON FILE IN THE PROJECT OFFICE.

1) ITEM SPECIAL - UNDERDRAIN OPENING - (EACH). THIS ITEM SHALL CONSIST OF EXPOSING THE FIRST TILE AT THE UPPER END OF AN UNDERDRAIN LINE OR A SUBSEQUENT INTERMEDIATE UNDERDRAIN OPENING AS APPROVED HEREIN. PAYMENT FOR EACH OPENING SHALL INCLUDE THE TRENCH EXCAVATION LENGTHWISE OVER THE EXISTING TILE, REPLACING THE 6" TILE BROKEN IN MAKING THE OPENING AND THE BACKFILLING WITH NO. 8 AGGREGATE AS PER 605, EXCEPT THAT A MINIMUM OF 6" 301 OR 848 TYPE 2 MATERIAL SHALL BE PLACED AND COMPACTED AT THE TOP OF THE TRENCH TO THE LEVEL OF ADJACENT PAVED BERM. PAYMENT FOR THE OPERATIONS DESCRIBED ABOVE SHALL INCLUDE ALL, LABOR, TOOLS, EQUIPMENT AND MATERIALS INCIDENTAL TO COMPLETING THE ITEM INCLUDING A MAXIMUM OF 6 LIN. FT. OF 6" UNDERDRAIN AND SHALL BE MADE FOR "EACH" - ITEM SPECIAL - UNDERDRAIN OPENING.

2) ITEM SPECIAL - WATER - (M-GALS.). AFTER THE UNDERDRAIN OPENING HAS BEEN MADE AND THE EXPOSED TILE REMOVED, THE LINE SHALL BE FLUSHED WITH WATER USING A MINIMUM SIZE HOSE OF 2" AND A MAXIMUM VOLUME OF WATER CALCULATED AT 1-1/2 GALLONS PER LIN. FT. OF UNDERDRAIN LINE. THE FLUSHING OPERATION MAY BE STOPPED AT ANY TIME BY THE ENGINEER IF FIELD OBSERVATIONS SHOW THE LINE TO BE EITHER PLUGGED OR OPERATING EFFICIENTLY.

IN THE EVENT THE LINE IS FOUND TO BE PLUGGED OR FLOW RESTRICTED, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE RESTRICTION BY RODDING OR OTHER SIMILAR METHOD APPROVED BY THE ENGINEER. AN INTERMEDIATE UNDERDRAIN OPENING WILL BE PERMITTED AND PAID FOR, PROVIDING THE DISTANCE TO THE OUTLET IS MORE THAN 500 FT. FROM THE INITIAL OPENING (OR INTERMEDIATE OPENING). THE COST OF CLEANING THE LINE IS TO BE INCLUDED IN THE UNIT BID PRICE FOR WATER.

THE METHOD OF MEASUREMENT FOR THE ITEM SPECIAL - "WATER" WILL BE IN ACCORDANCE WITH SPECIFICATION - SECTION 616.03 AND PAYMENT WILL BE PER THOUSAND GALLONS (M-GAL.) USED AND MEASURED. AS PER THE REQUIREMENTS OF 616.03.

3) WHERE A SECTION OF TILE IS FOUND TO BE PLUGGED OR BROKEN, IT SHALL BE REMOVED AFTER BEING ISOLATED AS NOTED ABOVE OR OTHER METHOD APPROVED BY ENGINEER. THIS SECTION SHALL BE REPLACED AT APPROXIMATELY THE LINE AND GRADE IN ITS ENTIRETY WITH 6" PIPE UNDERDRAINS. THE COST OF REMOVAL OF EXISTING TILE IS CONSIDERED TO BE INCIDENTAL TO THIS WORK AND EXTREME CARE IS TO BE EXERCISED IN NOT DAMAGING OR REMOVING ANY MORE TILE THAN IS NECESSARY. MEASUREMENT AND PAYMENT FOR THIS WORK WILL BE AS PER SECTION 605.06 AND 605.07 RESPECTIVELY.

***** NOTE CONTINUED ON NEXT SHEET *****

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4) AFTER ALL REPAIRS HAVE BEEN MADE TO A LINE, A FINAL FLUSHING WILL BE PERFORMED TO ASCERTAIN THAT THE LINE IS FUNCTIONING PROPERLY AFTER WHICH THE CLOSING OF THE INITIAL OPENING THEN WILL BE PERMITTED.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED IN THE SUMMARY FOR THIS WORK ON THIS PROJECT:

ITEM SPECIAL - UNDERDRAIN OPENING	80 EACH
ITEM SPECIAL - WATER	80 M-GAL.
ITEM 605 - 6" UNCLASSIFIED PIPE UNDERDRAINS,	350 LIN. FT.
ITEM 603 - 6" CONDUIT, TYPE F	80 LIN. FT.

*** 100% STATE ITEMS ***

CONNECTIONS TO EXISTING PIPES:

WHERE THE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT.

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

MEDIAN GUARDRAIL PROTECTION AT TWIN OVERPASS STRUCTURES:

THE NEW MEDIAN GUARDRAIL PROTECTION FOR THE APPROACH TO TWIN OVERPASS STRUCTURES ON USR 30 SHALL BE BUILT ON THE EXISTING EARTH DIKE ON APPROXIMATELY THE SAME LINE AS THE EXISTING GUARDRAIL WHICH IS TO BE REMOVED.

THE REMAINDER OF THE EXISTING EARTH DIKE BEYOND THE PROPOSED GUARDRAIL END SHALL BE REMOVED, WHERE REQUIRED BY THE PLAN, BY REGRADING THE DIKE AND ADJACENT AREA AS SHOWN ON THE PLAN CROSS-SECTIONS. THE EXISTING DRAINAGE SHALL NOT BE INTERRUPTED. THE COST OF THE REGRADING OPERATIONS SHALL BE INCLUDED FOR EACH OF THE RESPECTIVE EARTHWORK ITEMS.

MEDIAN CONSTRUCTION EQUIPMENT CROSSINGS:

CONSTRUCTION EQUIPMENT SHALL CROSS THE MEDIAN ONLY AT THE EXISTING INTERSECTIONS AND CROSSOVERS AND AT OTHER ADDITIONAL LOCATIONS APPROVED BY THE ENGINEER. A MAXIMUM OF FOUR (4) ADDITIONAL EQUIPMENT CROSSINGS MAY BE ALLOWED WITH EACH LOCATED APPROXIMATELY MIDWAY BETWEEN THE EXISTING CROSSOVERS.

THE CONTRACTOR SHALL BE RESPONSIBLE, AT HIS EXPENSE, FOR THE RESTORATION OF THE ADDITIONAL EQUIPMENT CROSSINGS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING PRIOR TO HIS WORK OPERATIONS, INCLUDING RESEEDING, AS PER 659.

WHEN THE MEDIAN CROSSINGS ARE BEING USED IN THE AREA OF ONE-LANE TRAFFIC OPERATION, THE CONTRACTOR SHALL PROVIDE AT HIS EXPENSE THE SERVICES OF A LAW ENFORCEMENT OFFICER WITH PATROL CAR TO CONTROL TRAFFIC FLOW.

ITEM SPECIAL - PAVEMENT PLANING: BITUMINOUS

THIS WORK SHALL CONSIST OF PLANING THE EXISTING PAVEMENT AND DISPOSING OF THE CUTTINGS IN ACCORDANCE WITH THE SPECIFICATIONS.

EXISTING PAVEMENT TYPE: THE ITEM DESCRIPTION INDICATES THE PREDOMINANT TYPE OF PAVEMENT. ALL PAVEMENT ENCOUNTERED IN THE AREAS DESIGNATED ON THE PLANS SHALL BE PLANED, MEASURED AND PAID FOR UNDER THE ITEM, REGARDLESS OF PAVEMENT TYPE.

EQUIPMENT: PLANING EQUIPMENT SHALL BE SELF-PROPELLED WITH SUFFICIENT POWER AND STABILITY TO CONSISTENTLY AND EFFICIENTLY PRODUCE THE REQUIRED RESULTS. THE CUTTING ELEMENT MAY BE OF THE GRINDING, SAWING OR MILLING TYPE.

PLANING CUTTERS SHALL BE MOUNTED RIGIDLY TO THE CARRIER AND SHALL BE ADJUSTABLE AND CONTROLLABLE AS TO DEPTH OF CUT AND CROSS-SLOPE. LONGITUDINAL PLANING ACTION MAY BE PRODUCED EITHER BY MEANS OF A SUITABLE CARRIER WHEELBASE OR BY MEANS OF AN AUTOMATIC CONTROL SYSTEM HAVING AN EXTERNAL REFERENCE. CROSS-SLOPE ADJUSTMENTS OR AUTOMATIC CONTROLS SHALL

BE CAPABLE OF PRODUCING EITHER A VARIABLE OR A CONSTANT CROSS-SLOPE AS REQUIRED.

PLANING CUTTERS SHALL BE DESIGNED, MAINTAINED AND OPERATED SO AS TO PRODUCE A SURFACE FREE FROM GROOVES, RIDGES, GOUGES OR OTHER IRREGULARITIES DETRIMENTAL TO THE SAFE OPERATION OF VEHICLES IN TRAFFIC ROUTED ONTO THE PLANED SURFACE, TEMPORARILY OR PERMANENTLY.

AN AUTOMATIC MILLING HEAD PROFILE CONTROL HAVING A 30-FOOT MINIMUM SKI-ARM SHALL BE USED DURING THE PLANING OPERATION. THE DEPTH OF CUT MAY BE CONTROLLED FROM EITHER THE PAVEMENT CENTERLINE OR EDGE.

SUITABLE SUPPLEMENTAL EQUIPMENT OR METHODS, APPROVED BY THE ENGINEER, MAY BE USED IN SMALL OR CONFINED AREAS.

PLANING: ONE OR MORE PLANING PASSES SHALL BE MADE OVER THE DESIGNATED AREA AS NECESSARY TO REMOVE SUCH IRREGULARITIES AS BUMPS, CORRUGATIONS, AND WHEEL RUTS, AND WHEN REQUIRED, AS NECESSARY TO ESTABLISH A NEW PAVEMENT SURFACE ELEVATION OR CROSS-SLOPE.

PLANING WHERE TRAFFIC IS TO BE MAINTAINED SHALL BE STARTED ON THE DRIVING OR PASSING LANE AND THE ADJACENT LANE SHALL BE PLANED THE NEXT WORK DAY UNLESS THAT LANE IS LEFT CLOSED FOR OTHER PAVING OPERATIONS.

CUTTINGS SHALL BE REMOVED FROM THE SURFACE FOLLOWING EACH PASS OF THE EQUIPMENT. BEFORE OPENING THE COMPLETED AREA TO TRAFFIC, THE SURFACE SHALL BE CLEANED THOROUGHLY OF ALL LOOSE MATERIAL THAT WOULD CREATE A HAZARD, A NUISANCE, OR WOULD BE REDEPOSITED INTO THE SURFACE TEXTURE. CUTTINGS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH 203.05 (2).

EFFECTIVE MEASURES SHALL BE TAKEN TO CONTROL DUST, SMOKE, CONTAMINATION OF THE PAVEMENT, AND THE SCATTERING OF LOOSE PARTICLES DURING PLANING AND CLEANING OPERATIONS.

WHERE SOUND PAVEMENT HAS BEEN GOUGED, TORN OR OTHERWISE DAMAGED DURING PLANING OPERATIONS, THE DAMAGED AREAS SHALL BE REPAIRED AT NO ADDITIONAL COST IN A MANNER SATISFACTORY TO THE ENGINEER TO CONFORM TO THE ADJACENT PAVEMENT IN SMOOTHNESS AND DURABILITY.

SURFACE TOLERANCES: THE SURFACE SHALL BE PLANED TO A SMOOTHNESS OF PLUS OR MINUS 1/4 INCH IN TEN FEET AND THE SURFACES AT THE EDGES OF ADJACENT PASSES SHALL BE MATCHED WITHIN 1/4 INCH. THE CROSS-SLOPE OF THE PLANED SURFACE SHALL CONFORM TO THE SPECIFIED CROSS-SLOPE WITHIN PLUS OR MINUS 3/4 INCH IN TEN FEET.

METHOD OF MEASUREMENT: THE QUANTITY OF PAVEMENT PLANING INCLUDING THE REMOVAL AND DISPOSAL OF CUTTINGS SHALL BE THE NUMBER OF SQUARE YARDS PLANED. SEE SHEET 13 FOR REFERENCE TO AREAS TO BE PLANED.

ITEM SPECIAL - PARTIAL DEPTH PAVEMENT REPAIR:

THIS ITEM OF WORK SHALL CONSIST OF PARTIAL DEPTH REMOVAL OF EXISTING ASPHALT AND CONCRETE PAVEMENT IN AREAS EXHIBITING DETERIORATION AT THE SURFACE, APPLYING TACK COAT, AND PLACING AND COMPACTING ASPHALT CONCRETE.

THE ENGINEER SHALL DESIGNATE THE LOCATION AND THE LIMITS OF THE AREAS TO BE REPAIRED. THE REPAIR AREAS WILL BE ROUGHLY RECTANGULAR IN SHAPE AS REQUIRED TO ENVELOP SURFACE DETERIORATION. UNLESS OTHERWISE SHOWN IN THE PLANS, TYPICAL REPAIR AREAS WILL BE AT TRANSVERSE CRACKS AND JOINTS AND ALONG PORTIONS OF LONGITUDINAL JOINTS. THE REMOVAL SHALL BE AS INDICATED ON THE PLAN. (SEE SHT. 19)

THE PAVEMENT SHALL BE REMOVED TO THE SPECIFIED DEPTH WITHIN THE DESIGNATED LIMITS BY A METHOD THAT WILL NOT LOOSEN OR OTHERWISE DAMAGE ADJACENT PAVEMENT. PAVEMENT SO REMOVED SHALL BE DISPOSSED OF IN ACCORDANCE WITH 203.05.

AFTER REMOVAL OF THE PAVEMENT, TACK COAT USING AC-20 SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY COAT ALL EXPOSED SURFACES AND TO FILL CRACKS AND JOINT OPENINGS.

ASPHALT CONCRETE AS SPECIFIED IN DETAIL SHALL THEN BE PLACED AND COMPACTED IN ONE OR MORE LIFTS AS NECESSARY TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE. (THE MAXIMUM LIFT THICKNESS SHALL BE THREE (3) INCHES.)

THE NUMBER OF CUBIC YARDS TO BE PAID FOR SHALL BE THE ACCEPTED QUANTITY OF ASPHALT CONCRETE MATERIAL COMPLETE IN PLACE. PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE WORK, INCLUDING TACK COAT AND ASPHALT CONCRETE. PAYMENT WILL BE PAID FOR UNDER:

ITEM SPECIAL - PARTIAL DEPTH PAVEMENT REPAIR CU.YDS.
(SEE SHEET 19 FOR QUANTITY)

* CALCULATED BY WEIGHT CONVERSION AS PER 401.17.

FLEXIBLE BERM REPAIR:

THIS ITEM OF WORK SHALL CONSIST OF PARTIAL DEPTH REPAIR OF THE EXISTING PAVED BERM IN AREAS EXHIBITING SEVERE CRACKING, DETERIORATION AND SURFACE DISTORTIONS. THE ENGINEER SHALL DESIGNATE THE LOCATIONS AND LIMITS OF THE AREAS TO BE REPAIRED. THE REPAIR AREAS SHALL BE ROUGHLY RECTANGULAR IN SHAPE.

THE MATERIAL WITHIN THE DESIGNATED AREAS SHALL BE REMOVED BY METHODS WHICH WILL NOT DAMAGE THE ADJACENT BERM. THE DEPTH OF REMOVAL SHALL BE SUFFICIENT TO REMOVE ALL BROKEN AND LOOSE ASPHALT OR PRIMED AGGREGATE, BUT TO A MINIMUM OF SIX INCHES BELOW THE ADJACENT BERM THROUGHOUT THE REPAIR AREA. THE MATERIAL SO REMOVED SHALL BE DISPOSSED OF IN ACCORDANCE WITH 203.05.

AFTER REMOVAL OF THE DETERIORATED MATERIALS, ITEM 407 TACK COAT SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY COAT THE SURFACE AND PENETRATE CRACKS. ITEM 301 BITUMINOUS AGGREGATE BASE THEN SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT BERM SURFACE. THE LENGTH OF EXCAVATION OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE ENGINEER. NO EXCAVATION SHALL BE LEFT OPEN OVERNIGHT. IN CASE OF EMERGENCY, THE OPEN EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS DIRECTED.

THIS WORK SHALL BE COMPLETED PRIOR TO THE PLACEMENT OF THE 848 COURSE ON THE PAVED BERM.

THE NUMBER OF CUBIC YARDS TO BE PAID SHALL BE FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE WORK, INCLUDING THE 301 AND 407.

THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER TO MAKE REPAIRS ON THE PAVED BERMS.

ITEM SPECIAL - FLEXIBLE BERM REPAIR 600 CU.YDS.

ITEM SPECIAL - CRACK SEALING, HOT APPLIED, ASTM D-3405

AFTER ALL PAVEMENT REPAIR WORK HAS BEEN COMPLETED IN AN AREA, ALL OPEN CRACKS AND JOINTS IN THE EXISTING PAVEMENT AND BETWEEN PAVEMENT AND BERMS SHALL BE CLEANED AND SEALED AS PER THE PROPOSAL NOTE.

THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED IN THE SUMMARY TO BE USED WHERE DIRECTED BY THE ENGINEER ON THE PROJECT:

ITEM SPECIAL - CRACK SEALING, HOT APPLIED, 27,000 LBS.
ASTM D-3405

TRENCH FOR NEW PAVED BERMS AND PAVEMENT WIDENING:

TRENCH EXCAVATION FOR NEW PAVED BERM (U.S. 42), TEMPORARY PAVEMENTS AND NEW PAVEMENT AT THE REST AREAS SHALL BE ADEQUATELY MAINTAINED AND PROTECTED AT ALL TIMES WITH BARRICADES AND/OR DRUMS WITH STEADY BURNING AMBER LIGHTS ATTACHED. PLACEMENT OF THE PROPOSED 301 AND 305 MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION OPERATIONS. THE LENGTH OF TRENCH OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE ENGINEER. NO EXCAVATION SHALL BE LEFT OPEN OVERNIGHT. IN CASE OF EMERGENCY, THE OPEN EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS DIRECTED.

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PROFILE CORRECTION UNDER OVERHEAD BRIDGES:

IN ORDER TO MAINTAIN ADEQUATE VERTICAL CLEARANCE UNDER OVERHEAD BRIDGES, THE EXISTING ASPHALT CONCRETE SHALL BE PLANED OFF THE EXISTING CONCRETE PAVEMENT AND BERMS, WHERE REQUIRED, FOR APPROXIMATELY 150-FOOT EACH SIDE OF THE BRIDGE. THE PROFILE SHALL BE TRANSITIONED BACK TO THE NORMAL PAVEMENT PLANING PROFILE AS PER DETAIL ON SHEET 91. CARE SHALL BE TAKEN SO THAT POSITIVE PAVEMENT AND BERM DRAINAGE WILL BE MAINTAINED AND TO ASSURE A SMOOTH TRANSITION.

CONTRACTION JOINTS IN BASE WIDENING (REST AREAS):

WHERE NEW CONCRETE BASE IS PLACED ADJACENT TO EXISTING CONCRETE BASE, CONTRACTION JOINTS SHALL BE PROVIDED IN THE NEW BASE SO AS TO FORM A CONTINUOUS JOINT WITH THAT IN THE EXISTING BASE.

THE MAXIMUM DISTANCE BETWEEN THE JOINTS IN THE NEW BASE SHALL BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-4. IF NECESSARY, ADDITIONAL JOINTS SHALL BE PROVIDED IN THE NEW BASE AT APPROXIMATELY EQUAL INTERVALS BETWEEN EXISTING JOINTS THAT EXCEED THE MAXIMUM SPACING.

ITEM SPECIAL - IMPACT ATTENUATOR, G-R-E-A-T SYSTEM:

THIS WORK SHALL CONSIST OF AN IMPACT ATTENUATOR UNIT AND BACKUP ASSEMBLY SUPPLIED BY ENERGY ABSORPTION SYSTEMS INC., ONE IBM PLAZA, CHICAGO, ILL., AND PLACED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND PLAN DETAIL SHEETS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, THICKNESSES AND TYPICAL DETAILS SHOWN ON SHEET 42 OR ESTABLISHED BY THE ENGINEER.

INCLUDED IN THE COST OF THE IMPACT ATTENUATOR SHALL BE ALL EXCAVATION, REMOVAL OF OTHER EXISTING CONFLICTING MATERIALS, CONCRETE AND REINFORCING STEEL NECESSARY TO CONSTRUCT THE INSTALLATION PAD AND CABLE ANCHORAGE FOOTER ACCORDING TO THE APPLICABLE DETAIL DESIGN SHEETS. CONCRETE FOR THE INSTALLATION PAD SHALL MEET THE REQUIREMENTS OF 509.02. ALSO INCLUDED IN THE ATTENUATOR COST ARE ANY OTHER RELATED INCIDENTAL ITEMS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL "G-R-E-A-T" SYSTEM IMPACT ATTENUATOR.

THE NOSE OF THE ATTENUATOR SHALL BE MARKED WITH FOUR EVENLY SPACED FOUR INCH WIDE VERTICAL STRIPES OF WHITE REFLECTIVE MATERIAL. THE FENDER PANELS SHALL BE MARKED WITH WHITE REFLECTIVE MATERIAL IN VERTICAL STRIPES FOUR INCHES IN WIDTH. CENTER OF THE STRIPE SHALL BE LOCATED SIX INCHES FROM THE REAR EDGE OF EACH PANEL.

THE ACCEPTED QUANTITY OF IMPACT ATTENUATORS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH INSTALLATION UNDER "ITEM SPECIAL - IMPACT ATTENUATOR, G-R-E-A-T SYSTEM MODEL 300300 SF6, BIDIRECTIONAL."

614 - MAINTAINING TRAFFIC:

A) GENERAL - THROUGH TRAFFIC SHALL BE MAINTAINED IN EACH DIRECTION AT ALL TIMES ON U.S.R. 30 AND ON ALL INTERCHANGE RAMP. TRAFFIC CONTROL SHALL BE MAINTAINED AS PER THE SPECIFICATIONS, PLAN DETAILS, AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE OPERATIONS SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION WITH THE LATEST REVISIONS. IN ADDITION, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1) THE CONTRACTOR SHALL SUBMIT, IN WRITING, A SCHEDULE OF OPERATIONS TO THE DIRECTOR AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT.

2) A WATCHMAN SHALL BE ON THE PROJECT AFTER WORKING HOURS DURING THE TIMES TRAFFIC IS DIVERTED FROM ITS NORMAL TRAFFIC LANES TO INSURE THE PROPER FUNCTIONING OF THE VARIOUS TRAFFIC CONTROL DEVICES.

B) TRAFFIC CONTROL - 4 - LANE SECTIONS - A MINIMUM OF ONE LANE OF THROUGH TRAFFIC SHALL BE MAINTAINED IN EACH DIRECTION AT ALL TIMES DURING WORKING HOURS. ALL TRAFFIC SHALL BE RETURNED TO ITS NORMAL PATTERN AFTER THE COMPLETION OF EACH WORK DAY, EXCEPT DURING THE REQUIRED PERIODS FOR THE REPAIR AND OVERLAY OF THE VARIOUS BRIDGE DECKS ON THE PROJECT. (SEE

DETAILS, SHEETS 96 TO 106 IN THE PLAN).

IN ALL CASES, TRAFFIC SHALL BE SEPARATED FROM THE WORK AREA BY DRUMS, OR CONES (DAYTIME ONLY) SPACED AS PER THE PLAN DETAILS. THE LENGTH OF RESTRICTED TRAFFIC ZONES SHALL BE KEPT TO A MINIMUM AS DIRECTED BY THE ENGINEER.

AT EACH RAMP, THERE SHALL BE AN AREA OF 175 (PLUS OR MINUS) FEET IN LENGTH IN THE OUTSIDE DIRECTIONAL LANE WHICH SHALL BE RESURFACED AT THE SAME TIME AS THE MEDIAN DIRECTIONAL LANE OR SHALL BE OMITTED DURING THE TIME THE OUTSIDE DIRECTIONAL LANE IS BEING RESURFACED TO MAINTAIN ACCESS TO OR FROM RAMP AT INTERCHANGES. THESE AREAS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROVIDE SAFE FLOW OF TRAFFIC ENTERING OR LEAVING THE RAMP WHILE THE OUTSIDE DIRECTIONAL LANE IS BEING RESURFACED. THE SPEED CHANGE LANES ADJACENT TO THE 175 (PLUS OR MINUS) FOOT AREAS SHALL BE USED TO PROVIDE ONE-LANE TRAFFIC WHILE THE MEDIAN LANE IS BEING RESURFACED.

IN ADDITION, NO LANE RESTRICTIONS, EXCEPT FOR BRIDGE REPAIR AND OVERLAY WORK SHALL BE ALLOWED BETWEEN 3:00 PM ON FRIDAY AFTERNOON TO MONDAY MORNING (OR TUESDAY MORNING WHEN MONDAY IS A CELEBRATED HOLIDAY).

C) TRAFFIC CONTROL - RAMP: TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON ALL RAMP BY USE OF THE EXISTING PAVEMENT AND PAVED BERMS. ALL TRAFFIC SHALL BE RETURNED TO ITS NORMAL PATTERN AT THE COMPLETION OF EACH WORK DAY, EXCEPT DURING DECK OVERLAYS. SPECIAL PROVISIONS SHALL BE MADE TO WARN TRAFFIC ENTERING A ONE-LANE TRAFFIC ZONE FROM A RAMP.

D) TRAFFIC CONTROL - U.S.R. 42: THROUGH TRAFFIC SHALL BE MAINTAINED IN EACH DIRECTION AT ALL TIMES DURING THE PAVEMENT PLANING AND RESURFACING OPERATIONS.

DURING THE REMOVAL OF THE EXISTING OVERHEAD SIGN SUPPORT AND THE ERECTION OF NEW OVERHEAD SIGN SUPPORTS, IT WILL BE NECESSARY TO STOP ALL TRAFFIC. THE CONTRACTOR SHALL ARRANGE HIS WORK SO THAT THE DURATION OF A STOPPAGE WILL NOT EXCEED 15 MINUTES. AFTER THE HIGHWAY IS REOPENED, SUFFICIENT TIME SHALL ELAPSE TO STABILIZE TRAFFIC BEFORE ANOTHER STOPPAGE CAN OCCUR. THE FOLLOWING REQUIREMENT SHALL APPLY TO THE ROAD CLOSURE:

- 1) AT LEAST TWO (2) PATROLMEN WITH PATROL CARS SHALL BE PROVIDED ON EACH APPROACH TO THE CLOSURE. ONE PATROL CAR SHALL BE POSITIONED IMMEDIATELY IN FRONT OF THE POINT OF CLOSURE. EACH APPROACH SHALL HAVE R-1-48 (STOP), OW-152-48 (PREPARE TO STOP) AND OW-134-48 (ROAD WORK AHEAD) SIGNS SPACED AS PER THE OMTCD. THE ADVANCE PATROL CAR SHALL BE POSITIONED NEAR THE OW-152 SIGN. THE ADVANCE PATROL CAR AND THE TWO (2) ADVANCE SIGNS SHALL BE MOVED BACK AS REQUIRED BY THE QUEING OF THE STOPPED VEHICLES. *The patrolmen with patrol cars shall be included for payment in Item 614 Maintaining Traffic.*
- 2) ROAD CLOSURES ARE NOT PERMITTED ON HOLIDAYS, WEEKENDS, OR BETWEEN THE HOURS OF 7 A.M. TO 9 A.M. AND 3 P.M. TO 6 P.M. WEEKDAYS.

E) TRAFFIC CONTROL - LOCAL ROAD OVERPASSES: TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON FIFTH AVENUE, STEWART ROAD, MCELROY ROAD, LAVER ROAD, AND REED ROAD. ONE LANE TRAFFIC SHALL BE MAINTAINED WITH A TRAFFIC SIGNAL SYSTEM AS PER PLAN DETAILS, SHEETS 107 TO 110, FOR PERIODS OF TIME AS APPROVED BY THE ENGINEER, DURING THE BRIDGE DECK OVERLAY WORK. *THE CONTRACTOR SHALL NOTIFY THE COUNTY ENGINEER IN WRITING, AT LEAST 7 DAYS IN ADVANCE OF STARTING DECK WORK AT EACH BRIDGE.*

F) TRAFFIC CONTROL - SIDE ROAD INTERSECTIONS: TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON TROUT DRIVE AND STATE ROUTE 603. ONE LANE TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE COMPLETED ASPHALT CONCRETE COURSES.

G) TRAFFIC CONTROL - REST AREAS: TRAFFIC SHALL BE MAINTAINED AT ALL TIMES TO THE REST AREA PARKING AREAS, EXCEPT DURING THE WORKING HOURS AS DETAILED BELOW.

THE TRUCK PARKING AREA MAY BE CLOSED TO TRAFFIC FOR MINIMUM PERIODS OF TIME DURING THE REPAIR OF EXISTING CONCRETE PAVEMENT AND THE RESURFACING OPERATIONS. DURING THIS PERIOD, THE WHOLE REST AREA UNIT SHALL BE SHUT DOWN AND THE ENTRANCE BARRICADED.

THE AUTO PARKING AREA MAY BE CLOSED TO TRAFFIC FOR MINIMUM PERIODS OF TIME DURING THE REPAIR OF EXISTING CONCRETE PAVEMENT, EXTENSION OF THE PARKING AREA AND FOR RESURFACING OPERATIONS. DURING THESE PERIODS, THE REST AREA UNIT SHALL REMAIN OPEN TO THE TRUCK PARKING AREA ONLY.

H) QUANTITIES FOR MAINTAINING TRAFFIC: THE FOLLOWING QUANTITIES ARE INCLUDED IN THE GENERAL SUMMARY FOR MAINTAINING TRAFFIC, AS OUTLINED ABOVE, TO BE USED AS DIRECTED BY THE ENGINEER ON THIS PROJECT:

614 - MAINTAINING TRAFFIC	LUMP SUM
404 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	200 CU.YDS.

ADDITIONAL NOTES:

BRIDGES - DECK OVERLAY AND REPAIRS SEE SHEETS 74 - 76
ITEM 203 - EARTHWORK FOR U-TURN MEDIAN CROSSOVERS.
AS PER PLAN..... SEE SHEET 21
ITEM 620 - REFLECTORS, TYPE D..... SEE SHEET 56
ITEMS 630 AND 631 - OVERHEAD SIGNING NOTES..... SEE SHEET 57
ITEM 614 - WORK ZONE PAVEMENT MARKINGS..... SEE SHEET 58.
ITEM 622 - TEMPORARY PRECAST CONCRETE BARRIER.
AS PER PLAN..... SEE SHEET 95
ITEM 605 - AGGREGATE DRAINS, AS PER PLAN..... SEE SHEET 18
Item 615 - Temporary Pavement, Class A & B, as per plan See Sheets 105 & 108
Item 622 - Concrete Barrier, as per plan..... See Sheet 41

GENERAL SUMMARY

RIC-30-12.37
ASD-30-0.00

CALC. BY: *PDJ 12/84*
CHKD. BY: *TEW 12/84*

FROM SHEET NO.	SUB TOTALS		ITEM	PLAN TOTAL	UNITS	DESCRIPTION
	FR-49	100% State				
						ROADWAY
7	LUMP		201	LUMP		Clearing And Grubbing
13	3		202	3	Each	Catch Basin Abandoned
	2449		202	2449	Lin.Ft.	Curb Removed, As Per Plan
	505		202	505	Sq.Yd.	Wearing Course Removed
	330		202	330	Sq.Yd.	Pavement Removed
	262		202	262	Sq.Yd.	Concrete Traffic Island Removed
	20,925.5		202	20,925.5	Lin.Ft.	Guard Rail Removed For Storage
	2875		202	2875	Lin.Ft.	Guard Rail Removed For Storage, Barrier Design
	45		202	45	Each	Anchor Post Removed
	22		202	22	Lin.Ft.	Pipe Removed, 24" and Under
	2333		202	2333	Each	Raised Pavement Markers Removed For Storage
	2573		203	2573	Cu.Yd.	Excavation Not Including Embankment Construction
	5896		203	5896	Cu.Yd.	Embankment
	2904		203	2904	Sq.Yd.	Subgrade Compaction
	200		404	200	Cu.Yd.	Bituminous Concrete For Maintaining Traffic
	2		Special	2	Each	Impact Attenuator, G-R-E-A-T System Model 300300 SF6 Bi-Directional
	21,482.4		606	21,482.4	Lin.Ft.	Guard Rail, Type 5
	100		606	100	Lin.Ft.	Guard Rail, Barrier Design, Type 5
	13,012.5		606	13,012.5	Lin.Ft.	Raising Type 5 Guardrail, As Per Plan
	219		606	219	Each	Intermediate Guard Rail Post, As Per Plan
	47		606	47	Each	Anchor Assembly, Standard Type A
	4		606	4	Each	Anchor Assembly, Barrier Design, Standard Type A
	41		606	41	Each	Anchor Assembly, Standard Type T
	20		606	20	Each	Bridge Terminal Assembly, Standard Type A
	8		606	8	Each	Bridge Terminal Assembly, Standard Type B
	4		606	4	Each	Bridge Terminal Assembly, Standard Type J
	19,762		Special	19,762	Lin.Ft.	Reshaping Berms
	6		604	6	Each	Monument Box Adjusted To Grade
	1615		608	1615	Sq.Ft.	4" Concrete Walk
	LUMP		615	LUMP		Temporary Roads
	1745		615	1745	Sq.Yd.	Temporary Pavement, Class A, As Per Plan
	818		615	818	Sq.Yd.	Temporary Pavement, Class B, As Per Plan
	<i>lump</i>		622	<i>lump</i>		Temporary Precast Concrete Barrier, As Per Plan
						EROSION CONTROL
	5		601	5	Cu.Yd.	Rock Channel Protection, Type C with Filter
	14961		659	14,961	Sq.Yd.	Seeding and Mulching
	1.49		659	1.49	Ton	Commercial Fertilizer
	20		659	20	M-Gal.	Water
	1550		660	1550	Sq.Yd.	Sodding
13	1400		670	1400	Sq.Yd.	Ditch Erosion Protection

FROM SHEET NO.	SUB TOTALS		ITEM	PLAN TOTAL	UNITS	DESCRIPTION
	FR-49	100% State				
						PAVEMENT
13	603		301	603	Cu.Yd.	Bituminous Aggregate Base: AC-20, RT-II or RT-12
1	859		310	859	Cu.Yd.	Subbase, Type II
	14896		848	14896	Cu.Yd.	Asphalt Concrete Surface Course, Type I, AC-20
	1285		848	1285	Cu.Yd.	Asphalt Concrete Intermediate Course, Type I, AC-20
	28439		848	28439	Cu.Yd.	Asphalt Concrete Intermediate Course, Type 2, AC-20
	42881		407	42881	Gal.	Tack Coat, As Per Plan
	1501		407	1501	Ton	Cover Aggregate
	4170		617	4170	Cu.Yd.	Compacted Aggregate
	600		Special	600	Cu.Yd.	Partial Depth Pavement Repair
	1090		Special	1090	Sq.Yd.	Full Depth Rigid Pavement Removal And Flexible Replacement
	5000		Special	5000	Lin.Ft.	Pavement Sawing
	2840		812	2840	Cu.Ft.	Subsealing Material
	7100		812	7100	Each	Hole For Subsealing
	53,903		Special	53,903	Sq.Yd.	Pavement Planing, Bituminous
	600		Special	600	Cu.Yd.	Flexible Berm Repair
	27,000		Special	27,000	Lbs.	Crack Sealing, Hot Applied, ASTM D-3405
	1009		305	1009	Sq.Yd.	9" Concrete Base
	489		609	489	Lin.Ft.	Curb, Standard Type 2-A
	133		612	133	Sq.Yd.	4" Concrete Traffic Island
	50		609	50	Lin.Ft.	Curb, Standard Type 6
	160		622	160	Lin.Ft.	Concrete Barrier, As Per Plan
						DRAINAGE
	80		Special	80	Each	Underdrain Opening
	80		Special	80	M-Gal.	Water
	0.7		602	0.7	Cu.Yd.	Concrete Masonry
	279		603	279	Lin.Ft.	12" Conduit, Type B
	4		603	4	Lin.Ft.	10" Conduit, Type C
	450		603	450	Lin.Ft.	12" Conduit, Type C
	818		603	818	Lin.Ft.	18" Conduit, Type C
		80	603	80	Lin.Ft.	6" Conduit, Type F
	4		604	4	Each	Catch Basin Adjusted To Grade
	9		604	9	Each	Catch Basin Reconstructed to Grade
	2		604	2	Each	Manhole Adjusted to Grade
	10		604	10	Each	Catch Basin, Standard No. 5 Without Concrete Apron
	3		604	3	Each	Catch Basin, Standard No. 2-2-B
	1		604	1	Each	Manhole, Standard No. 1
	1		604	1	Each	Manhole, Standard No. 3 with Flat Slab Top
	3672		605	3672	Lin.Ft.	Aggregate Drains, As Per Plan
		350	605	350	Lin.Ft.	6" Unclassified Pipe Underdrains
13	153		605	153	Lin.Ft.	Aggregate Drains

GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	12 114
5	OHIO		

RIC-30-12.37
ASD-30-0.00
 CALC. BY: *BOB 1/64*
 CHKD. BY: *TEW 1/64*

FROM SHEET NO.	SUB TOTALS			ITEM	PLAN TOTAL	UNITS	DESCRIPTION	FROM SHEET NO.	SUB TOTALS			ITEM	PLAN TOTAL	UNITS	DESCRIPTION
	FR- 49	100% State							FR- 49	100% State					
							TRAFFIC CONTROL								TRAFFIC CONTROL (CONTINUED)
14	3940			621	3940	Mile	Edge Lines	14	1			631	1	Each	Sign Service, As Per Plan
	1567			621	1567	Mile	Lane Lines		4			631	4	Each	Signs Wired
	1.73			621	1.73	Mile	Center Lines								
	14361			621	14361	Lin.Ft.	Channelizing Lines								
	5302			621	5302	Lin.Ft.	Transverse Lines								
	40			621	40	Sq.Ft.	Island Marking		5			631	5	Each	Removal of Luminaire and Reerection
	2782			621	2782	Lin.Ft.	Parking Lot Stall Marking		1			631	1	Each	Removal of Disconnect Switch with Enclosure and Reerection
	598			847	598	Lin.Ft.	Stop Line, 947.02								
	19			847	19	Each	Lane Arrow, 947.02								
	10			847	10	Each	Word "Only" on Pavement, 96", 947.02								
	3907			614	3907	Miles	Temporary Lane Lines, Class II								
	1.50			614	1.50	Miles	Temporary Center Lines, Class II								
	7800			614	7800	Lin. Ft.	Temporary Gore Marking, Class II								
	0.03			614	0.03	Miles	Temporary Lane Lines, Class I		10,197		Special	10,197	Sq.Yd.		Superplasticized Dense Concrete Overlay, 1 3/4" Thickness (See Proposal Note)
	5.68			614	5.68	Miles	Temporary Edge Lines, Class I		641		Special	641	Cu.Yd.		Superplasticized Dense Concrete Overlay, Variable Thickness (See Proposal Note)
	0.17			614	0.17	Miles	Temporary Center Lines, Class I		10		Special	10	Cu.Yd.		Full Depth Repair
	5820			614	5820	Lin.Ft.	Temporary Channelizing Lines, Class I		343		516	343	Lin.Ft.		Vertical Extension of Structural Expansion Joints, Modification A, As Per Plan
	96			614	96	Lin.Ft.	Temporary Stop Lines, Class I		437		516	437	Lin.Ft.		Vertical Extension of Structural Expansion Joints, Modification B, As Per Plan
									138		516	138	Lin.Ft.		Structural Expansion Joints, Including Elastometric Compression Seals, As Per Plan
	2			620	2	Each	Reflector, Type D		240		511	240	Cu.Yd.		Class S Concrete, Parapet, As Per Plan
	129			630	129	Each	Removal of Ground Mounted Signs and Reerection		124		511	124	Cu.Yd.		Class S Concrete, Deck Edge, As Per Plan
	1			630	1	Each	Removal of Ground Mounted Major Signs and Reerection		47		511	47	Cu.Yd.		Class S Concrete, Backwall, As Per Plan
	9			630	9	Each	Removal of Ground Mounted Signs and Storage		34		511	34	Cu.Yd.		Class S Concrete, Pier Encasement, As Per Plan
	4			630	4	Each	Removal of Overhead Mounted Signs and Reerection		4620		Special	4620	Sq.Yd.		Sealing of Concrete Surfaces (See Proposal Note)
	1			630	1	Each	Removal of Overhead Sign Support and Storage, Type 7.4		1408		510	1408	Each		Dowel Holes
	140			630	140	Each	Removal of Ground Mounted Post Supports		1050		517	1050	Lin.Ft.		Railing (Single Deep Beam with Steel Tubular Backup, Type 2 Post and Bolts)
	55			630	55	Sq.Ft.	Signs, Flat Sheet		35		518	35	Cu.Yd.		Porous Backfill, As Per Plan
	371			630	371	Lin.Ft.	Ground Mounted Supports, No. 3 Post		420		609	420	Lin.Ft.		Asphalt Concrete Curb, AC-20, Standard Type 1
	1266			630	1266	Lin.Ft.	Ground Mounted Supports, No. 4 Post		384		611	384	Sq.Yd.		Reinforced Concrete Approach Slab, (T=15")
	32			630	32	Lin.Ft.	Ground Mounted Supports, No. 6 Post		12		Special	12	Each		Safety Parapet Modification
	674			630	674	Lin.Ft.	Ground Mounted Supports, S4 x 7.7 Beam		735		Special	735	Lin.Ft.		Joint Seal
	144			630	144	Lin.Ft.	Ground Mounted Supports, W6 x 9 Beam		20		Special	20	Each		Trim Beams
	14.0			630	14.0	Cu.Yd.	Concrete for Embedded Foundations		74		Special	74	Each		Scupper Extension and Bar Removal
	10.3			630	10.3	Cu.Yd.	Concrete for Anchor Base Foundations		58,468		824	58,468	Lbs.		Epoxy Coated Reinforcing Steel
	46			630	46	Each	Breakaway Beam Connections		1779		202	1779	Lin.Ft.		Portions of Structure Removed, Parapet, As Per Plan
	1			630	1	Each	Overhead Sign Support, Type TC-7.65, Design 8, Span 110 Feet	14	1016		202	1016	Lin.Ft.		Portions of Structure Removed, Deck Edge, As Per Plan
14	1			625	1	Each	Ground Rod, 713.16								
								7	Lump		619	Lump			Field Office
									Lump		623	Lump			Construction Layout Stakes
									Lump		624	Lump			Mobilization
								10	Lump		614	Lump			Maintaining Traffic

RESURFACING CALCULATIONS

CALC BY: RJR 9/84
CHK'D BY: MGA 9/84

FHWA REGION	STATE	PROJECT
5	OHIO	

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RIC - 30 - 12.37
ASD - 30 - 0.00

LOCATION	STATION LIMITS	SIDE	LENGTH LIN. FT.	PAVEMENT QUANTITIES										BERM QUANTITIES														
				PAVEMENT WIDTH FT.	PAVEMENT AREA SQ. YD.	407		848 ASPHALT CONCRETE				BERM WIDTH FT.	BERM AREA SQ. YD.	407		848 ASPHALT CONCRETE				203 EXCAVATION CU. YD.	301 BITUMINOUS AGGREGATE BASE, (4" THK.) CU. YD.	617 COMPACTED AGGREGATE CU. YD.						
						TACK COAT @ 0.1 GAL. PER SQ. YD. GAL.	COVER AGG. @ 7 LBS. PER SQ. YD. TONS	SURFACE COURSE		INTERMEDIATE COURSE				TACK COAT @ 0.1 GAL. PER SQ. YD. GAL.	COVER AGG. @ 7 LBS. PER SQ. YD. TONS	SURFACE COURSE		INTERMEDIATE COURSE										
								THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.					THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.				THICKNESS IN.	QUANTITY CU. YD.				
Mainline	344+30 to 432+57.88	EB	8,827.88	24	23,541	2354.1	82.4	1 1/4"	817.4			2 1/4"	2452.2			8" Out. 4" Ins.	11,771	1,177.1	41.2	1 1/4"	408.7			2 1/4"	1226.1			572.2
	344+30 to 432+27.68	WB	8,797.68	24	23,460	2346.0	82.1		814.6			2 1/4"	2443.8				11,730	1,173.0	41.1		407.3			2 1/4"	1221.9			570.2
	435+52.32 to 594+00	EB	15,847.68	24	42,260	4226.0	147.9		1467.4			2 1/4"	4402.1				21,130	2,113.0	74.0		733.7			2 1/4"	2201.0			1027.2
	436+22.12 to 594+00	WB	15,777.88	24	42,074	4207.4	147.3		1460.9			2 1/4"	4382.7				21,037	2,103.7	73.6		730.5			2 1/4"	2191.4			1022.6
	594+00 to 613+85.30	EB	1,985.30	24	5,294	529.4	18.5		183.8			1 3/4"	257.3				2,647	264.7	9.3		91.9			1 3/4"	128.7			55.1
	594+00 to 614+02.08	WB	2,002.08	24	5,339	533.9	18.7		185.4			1 3/4"	259.5				2,669	266.9	9.3		92.7				129.7			55.6
	615+27.42 to 676+08.98	EB	6,081.48	24	16,217	1621.7	56.8		563.1				788.3				8,109	810.9	28.4		281.6				394.2			168.9
	615+44.20 to 676+08.98	WB	6,064.70	24	16,173	1617.3	56.6		561.6				786.2				8,086	808.6	28.3		280.8				393.1			168.5
	670+00 Ah to 695+56.75	EB	2,556.75	24	6,818	681.8	23.9		236.7				331.4				3,409	340.9	11.9		118.4				165.7			71.0
	670+00 Ah to 695+56.75	WB	2,556.75	24	6,818	681.8	23.9		236.7				331.4				3,409	340.9	11.9		118.4				165.7			71.0
	0+79.25 to 7+00	EB	620.75	24	1,655	165.5	5.8		57.5				80.5				2,207	220.7	7.7		76.6				107.3			17.2
Mainline	0+79.25 to 7+00	WB	620.75	24	1,655	165.5	5.8	1 1/4"	57.5			1 3/4"	80.5			8" Out. 4" Ins.	2,207	220.7	7.7	1 1/4"	76.6			1 3/4"	107.3			17.2
Sub-Total This Sht.						19,130.4	669.7		6,642.6		0		16,595.9				9,841.1	344.4			3417.2		0		8432.1	0	0	3816.7
Sub-Total From Sht. 16						6,667.1	233.4		2,315.3		664.6		1,961.4				1,385.0	48.6			480.7		192.5		0	123	164.2	3179.0
Sub-Total From Sht. 17						4,861.8	170.0		1,688.3		333.2		1,402.7				873.5	30.5			303.3		95.0		46.6	0	0	174.6
Totals						30,659.3	1073.1		10,646.2		997.8		19,960.0				12,099.6	423.5			4201.2		287.5		8478.7	123	164.2	4170.3

RESURFACING CALCULATIONS

CALC BY: RJR 9/84
CHK'D BY: MGA 9/84

FHWA REGION	STATE	PROJECT
5	OHIO	

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RIC - 30 - 12.37
ASD - 30 - 0.00

LOCATION	STATION LIMITS	SIDE	LENGTH LIN. FT.	PAVEMENT QUANTITIES										BERM QUANTITIES											
				PAVEMENT WIDTH FT.	PAVEMENT AREA SQ. YD.	407		848 ASPHALT CONCRETE				BERM WIDTH FT.	BERM AREA SQ. YD.	407		848 ASPHALT CONCRETE				EXCAVATION CU. YD.	BITUMINOUS AGGREGATE BASE (4" THK.) CU. YD.	COMPACTED AGGREGATE CU. YD.			
						TACK COAT @ 0.1 GAL. PER SQ. YD.	COVER AGG. @ 7 LBS. PER SQ. YD.	SURFACE COURSE		INTERMEDIATE COURSE				TACK COAT @ 0.1 GAL. PER SQ. YD.	COVER AGG. @ 7 LBS. PER SQ. YD.	SURFACE COURSE		INTERMEDIATE COURSE							
								TYPE 1	TYPE 2	TYPE 1	TYPE 2					TYPE 1	TYPE 2	TYPE 1	TYPE 2						
THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.										
5th Avenue	Ramp A		16	938	93.8	3.3	1 1/4"	32.6	1/2"	13.0			3 1/2"	361	36.1	1.3	1 1/4"	12.5	1/2"	5.0				6.9	
	Ramp A Decel Lane	From U.S. 30	EB	Var.	2202	220.2	7.7						2,1 3/4	229.4											
	Ramp B		16	1102	110.2	3.9		38.3	1/2"	15.3			3 1/2"	891	89.1	3.1	1 1/4"	30.9	1/2"	12.4				8.1	
	Ramp B Accel Lane	To U.S. 30	EB	Var.	1389	138.9	4.9		48.2				2,1 3/4	144.7											
	Ramp C		16	1149	114.9	4.0		39.9	1/2"	16.0			3 1/2"	459	45.9	1.6	1 1/4"	15.9	1/2"	6.4				9.0	
	Ramp C Decel Lane	From U.S. 30	WB	Var.	1980	198.0	6.9		68.8				2,1 3/4	206.3											
	Ramp D		16	1394	139.4	4.9		48.4	1/2"	19.4			3 1/2"	1070	107.0	3.7	1 1/4"	37.2	1/2"	14.9				10.0	
	Ramp D Accel Lane	To U.S. 30	WB	Var.	1389	138.9	4.9		48.2				2,1 3/4	144.7											
	Ramps C & D @ 5th Avenue		Var.	999	99.9	3.5		34.7	1/2"	13.9			3	129	12.9	0.5	1 1/4"	4.5	1/2"	1.8				2.7	
	Ramp R @ 5th Avenue		Var.	2014	201.4	7.0	1 1/4"	69.9	1/2"	28.0			3	528	52.8	1.8	1 1/4"	18.3	1/2"	7.3				11.0	
U.S.R. 422	Ramp A		16	1194	119.4	4.2	1 1/4"	41.5	1/2"	16.6				453	45.3	1.6	1 1/4"	15.7	1/2"	6.3				8.9	
	Ramp A Decel Lane	From U.S. 30	WB	Var.	1724	172.4	6.0		59.9				2,1 3/4	179.6											
	Ramp B		16	981	98.1	3.4		34.1	1/2"	13.6				421	42.1	1.5	1 1/4"	14.6	1/2"	5.8				7.1	
	Ramp B Decel Lane	From U.S. 30	EB	Var.	1407	140.7	4.9		48.9				2,1 3/4	146.6											
	Ramp B Accel Lane	To U.S.R. 42		Var.	671	67.1	2.3		23.3	1/2"	9.3														
	Ramp Tr, Tr & Tr		Var.	6696	669.6	23.4		232.5	1/2"	93.0				2445	244.5	8.6	1 1/4"	84.9	1/2"	34.0				28.5	
	Ramp Tr Accel Lane	To U.S. 30	EB	Var.	1373	137.3	4.8		47.7				2,1 3/4	143.0											
	Ramp Tr Accel Lane	To U.S.R. 42		Var.	514	51.4	1.8		17.8	1/2"	7.1														
	Ramp Tr Decel Lane	From U.S.R. 42		Var.	401	40.1	1.4		13.9	1/2"	5.6														
	Ramp Tr Decel Lane	From U.S. 30	EB	Var.	343	34.3	1.2		11.9				2,1 3/4	35.7											
	Ramp U, U _L & U _R		Var.	2929	292.9	10.3		101.7	1/2"	40.7				2606	260.6	9.1	1 1/4"	90.5	1/2"	36.2				20.5	
	Ramp U _L Accel Lane	To U.S.R. 42		Var.	1030	103.0	3.6		35.8	1/2"	14.3														
	Ramp U _R Decel Lane	From U.S.R. 42		Var.	4135	413.5	14.5		143.6	1/2"	57.4														
	Ramp U _R Accel Lane	To U.S. 30	WB	Var.	1389	138.9	4.9		48.2				2,1 3/4	144.7											
	Ramp U _L Decel Lane	From U.S. 30	WB	Var.	143	14.3	0.5		5.0				2,1 3/4	14.9											
	9+10L to 13+60R U.S.R. 42		Var.	15139	1513.9	53.0	1 1/4"	525.7	1/2"	210.3				1478	147.8	5.2	1 1/4"	51.3	1/2"	20.5		123	164.2	23.1	
Laver Road	Ramp A		16	1583	158.3	5.5	1 1/4"	55.0	1/2"	22.0				531	53.1	1.9	1 1/4"	18.4	1/2"	7.4				10.5	
	Ramp A Decel Lane	From U.S. 30	EB	Var.	1275	127.5	4.5		44.3				2,1 3/4	132.8											
	Ramp B		16	1740	174.0	6.1		60.4	1/2"	24.2				1055	105.5	3.7	1 1/4"	36.6	1/2"	14.7				12.4	
	Ramp B Accel Lane	To U.S. 30	EB	Var.	1389	138.9	4.9		48.2				2,1 3/4	144.7											
	Ramp C		16	1277	127.7	4.5		44.3	1/2"	17.7				393	39.3	1.4	1 1/4"	13.6	1/2"	5.5				7.2	
	Ramp C Decel Lane	From U.S. 30	WB	Var.	1436	143.6	5.0		49.9				2,1 3/4	149.6											
	Ramp D		16	1957	195.7	6.8		68.0	1/2"	27.2				1030	103.0	3.6	1 1/4"	35.8	1/2"	14.3				13.1	
	Ramp D Accel Lane	To U.S. 30	WB	Var.	1389	138.9	4.9	1 1/4"	48.2				2,1 3/4	144.6											
	Sub-Totals to Sht. 15			6667.1	666.7	233.4		2315.3		664.6				1385.0	48.6		480.7		192.5		0	123	164.2	179.0	

RESURFACING CALCULATIONS

CALC. BY: RJK 9/84
CHK'D BY: MGA 9/84

FHWA REGION	STATE	PROJECT
51	OHIO	

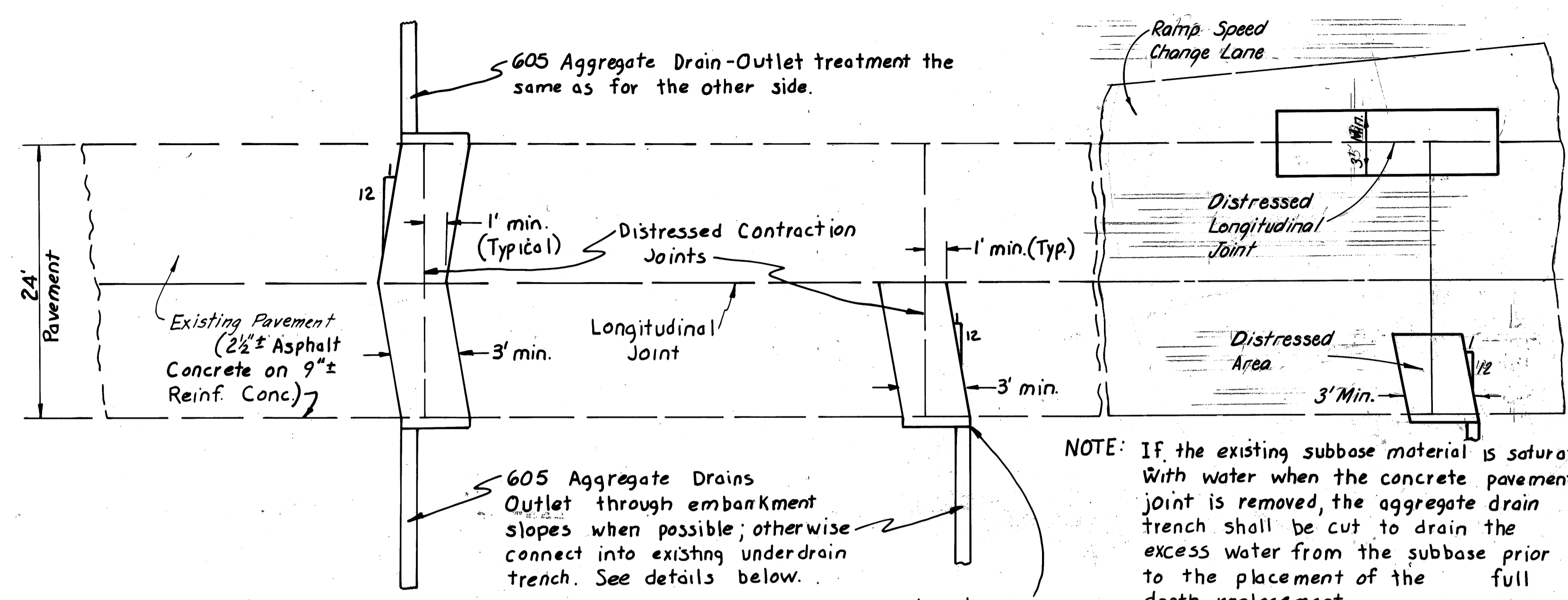
17
114

RIC - 30 - 12.37
ASD - 30 - 0.00

LOCATION	STATION LIMITS	SIDE	LENGTH LIN. FT.	PAVEMENT QUANTITIES										BERM QUANTITIES												
				PAVEMENT WIDTH FT.	PAVEMENT AREA SQ. YD.	407		848 ASPHALT CONCRETE				BERM WIDTH FT.	BERM AREA SQ. YD.	407		848 ASPHALT CONCRETE				203 EXCAVATION CU. YD.	301 BITUMINOUS AGGREGATE BASE, (4" THK) CU. YD.	617 COMPACTED AGGREGATE CU. YD.				
						TACK COAT @ 0.1 GAL. PER SQ. YD.	COVER AGG. @ 7 LBS. PER SQ. YD.	SURFACE COURSE		INTERMEDIATE COURSE				TACK COAT @ 0.1 GAL. PER SQ. YD.	COVER AGG. @ 7 LBS. PER SQ. YD.	SURFACE COURSE		INTERMEDIATE COURSE								
								TYPE 1	TYPE 2	THICKNESS IN.	QUANTITY CU. YD.					THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.				THICKNESS IN.	QUANTITY CU. YD.	THICKNESS IN.	QUANTITY CU. YD.
Reed Road	Ramp A			16	1753	175.3	6.1	1/4"	60.9	1/2"	24.3			733	73.3	2.6	1/4"	25.5	1/2"	10.2			12.8			
	Ramp A Decel Lane From U.S. 30	EB		Var.	1537	153.7	5.4		53.4			2, 1 3/4	160.1										10.4			
	Ramp B			16	1525	152.5	5.3		53.0	1/2"	21.2			623	62.3	2.2	1/4"	21.6	1/2"	8.7			10.4			
	Ramp B Accel Lane To U.S. 30	EB		Var.	1785	178.5	6.2		62.0			2, 1 3/4	185.9										10.6			
	Ramp C			16	1453	145.3	5.1		50.5	1/2"	20.2			638	63.8	2.2	1/4"	22.2	1/2"	8.9			10.6			
	Ramp C Decel Lane From U.S. 30	WB		Var.	1013	101.3	3.5		35.2			2, 1 3/4	105.5										11.8			
	Ramp D			16	1536	153.6	5.4		53.3	1/2"	21.3			670	67.0	2.3	1/4"	23.3	1/2"	9.3			11.8			
	Ramp D Accel Lane To U.S. 30	WB		Var.	1389	138.9	4.9	1/4"	48.2			2, 1 3/4	144.7													
North Rest Area	Rest Area Parking	WB		Var.	3487	348.7	12.2	1/4"	121.0																	
	Decel Lane From U.S. 30	WB		Var.	753	75.3	2.6	1/4"	26.1			2, 1 3/4	78.4													
	Accel Lane To U.S. 30	WB		Var.	1042	104.2	3.6	1/4"	36.2			2, 1 3/4	108.5	131	13.1	0.5	1/4"	4.5			2, 1 3/4	13.6				
South Rest Area	Rest Area Parking	EB		Var.	3485	348.5	12.2	1/4"	121.0																	
	Decel Lane From U.S. 30	EB		Var.	1006	100.6	3.5	1/4"	34.9			2, 1 3/4	104.8													
	Accel Lane To U.S. 30	EB		Var.	1282	128.2	4.5	1/4"	44.5			2, 1 3/4	133.5	131	13.1	0.5	1/4"	4.5			2, 1 3/4	13.6				
Koogle Road	Ramp A			Var.	3485	348.5	12.2	1/4"	121.0	1/2"	48.4			1225	122.5	4.3	1/4"	42.5	1/2"	17.0			15.1			
	Ramp A Decel Lane From U.S. 30	EB		Var.	670	67.0	2.3		23.3			2, 1 3/4	32.6													
	Ramp B			Var.	1673	167.3	5.9		58.1	1/2"	23.2			581	58.1	2.0	1/4"	20.2	1/2"	8.1			10.2			
	Ramp B Accel Lane To U.S. 30	EB		Var.	1389	138.9	4.9		48.2			1 3/4	67.5													
	Ramp C			Var.	2559	255.9	9.0		88.8	1/2"	35.5			867	86.7	3.0	1/4"	30.1	1/2"	12.0			10.2			
	Ramp C Accel Lane To U.S. 30	WB		Var.	1059	105.9	3.7		36.8			1 3/4	51.5													
	Ramp D			Var.	1168	116.8	4.1		40.6	1/2"	16.2			433	43.3	1.5	1/4"	15.0	1/2"	6.0			8.1			
	Ramp D Decel Lane From U.S. 30	WB		Var.	1182	118.2	4.1	1/4"	41.0			1 3/4	57.5													
	23+46 to 36+75		1329	24	3544	354.4	12.4	1/4"	123.1	1/2"	49.2			4'	1066	106.6	3.7	1/4"	37.0	1/2"	14.8		16.7			
	Throat @ Crider Road				214	21.4	0.7	1/4"	7.4	1/2"	3.0															
Crider Road	37+65 to 56+20		1855	21 to 24	5087	508.7	17.8	1/4"	176.6	1/2"	70.7			4'	1237	123.7	4.3	1/4"	43.0				68.7			
Trout Drive	Cross - Over			Var.	1181	118.1	4.1	1/4"	41.0			1 3/4	57.4	147	14.7	0.5	1/4"	5.1			1 3/4	7.1				
S.R. 603	Cross - Over				2361	236.1	8.3	1/4"	82.0			1 3/4	114.8	253	25.3	0.9	1/4"	8.8			1 3/4	12.3				
Sub-Totals to Sht 15						4861.8	170.0		1688.3		333.2		1402.7				873.5	30.5		303.5	95.0		46.6	0	0	174.6

RIC-30-12.37
ASD-30-0.00

Calc. by PDA 9/84
CHK'd by ROS 12/84



See Proposal Note for additional requirements.

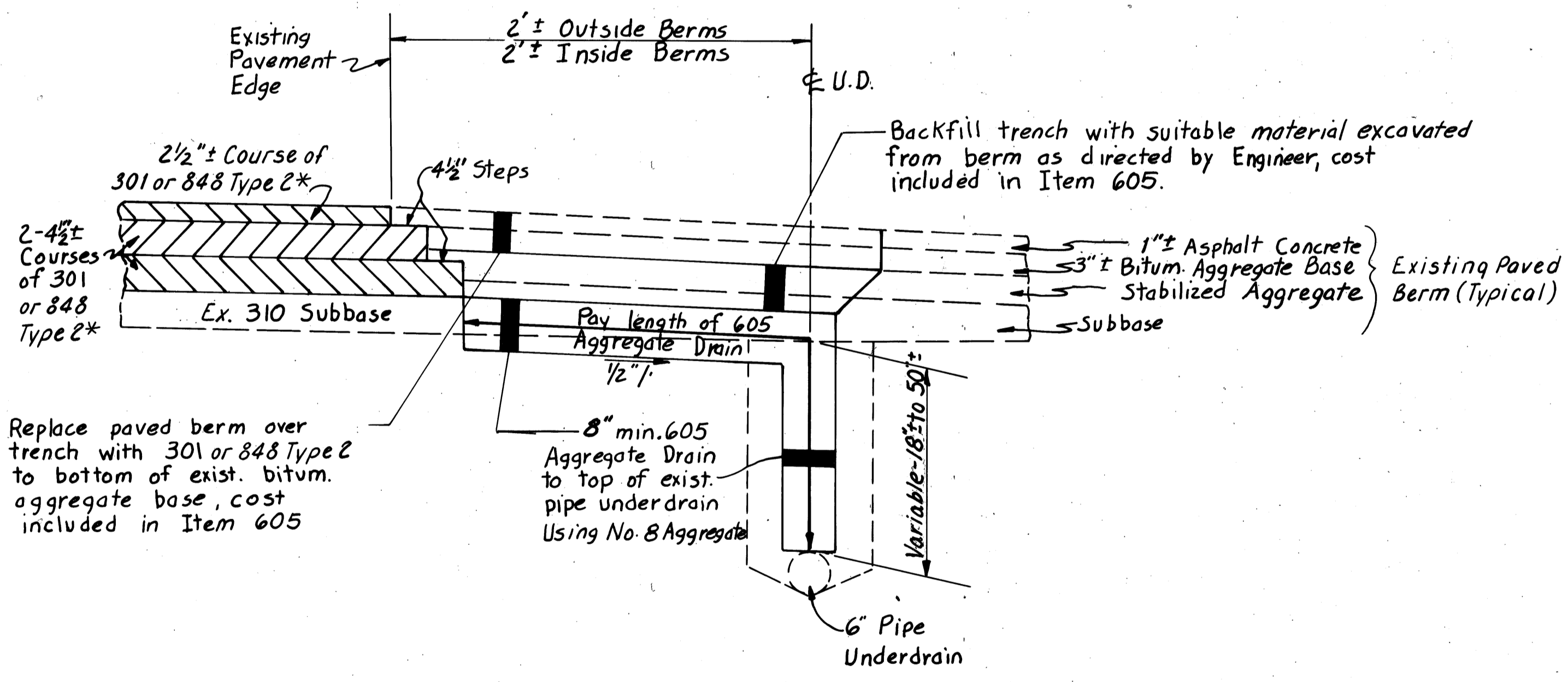
This type of pavement repair shall be used for distressed transverse/longitudinal joint repairs in the existing reinforced concrete pavement. The location and sizes of these repairs shall be as directed by the Engineer.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR THIS PAVEMENT JOINT REPAIR WORK:

Item	Special	Full depth rigid pavement removal and flexible replacement	1090 Sq. Yds.
Item	Special	Pavement Sawing	5000 Lin. Ft.
Item	605	Aggregate Drains, As Per Plan	3672 Lin. Ft.

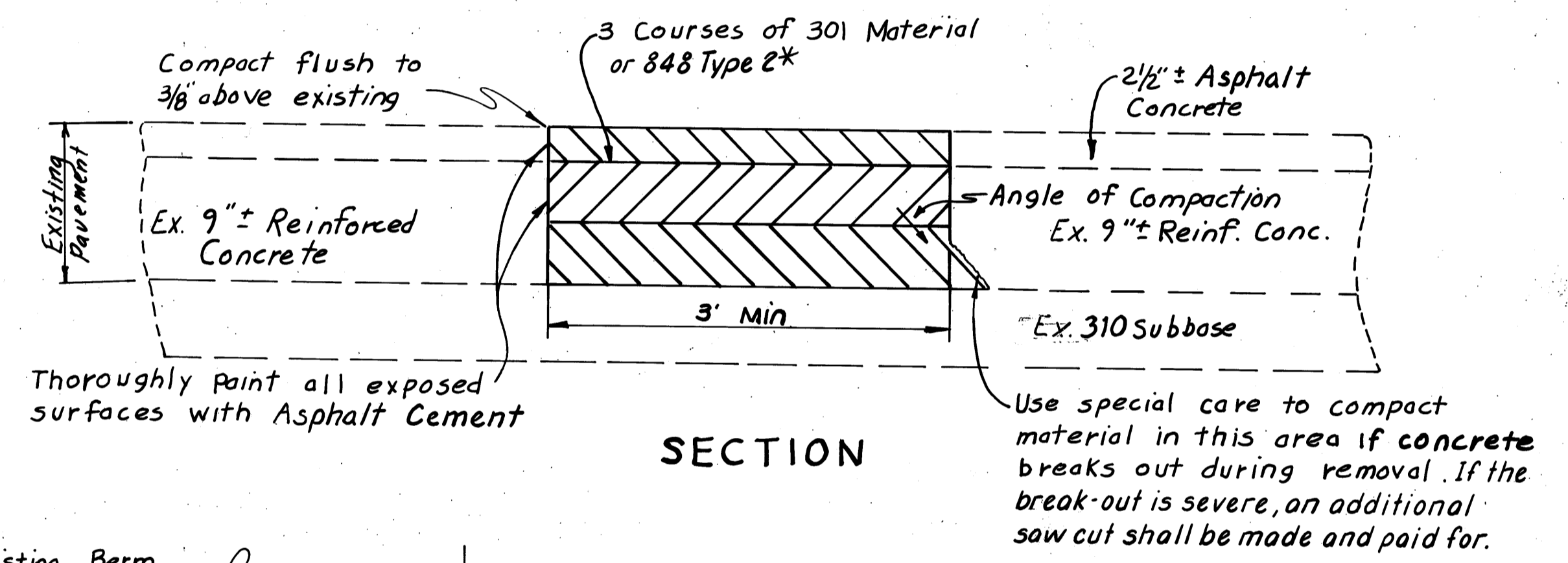
NOTE: If the existing subbase material is saturated with water when the concrete pavement joint is removed, the aggregate drain trench shall be cut to drain the excess water from the subbase prior to the placement of the full depth replacement.

PLAN

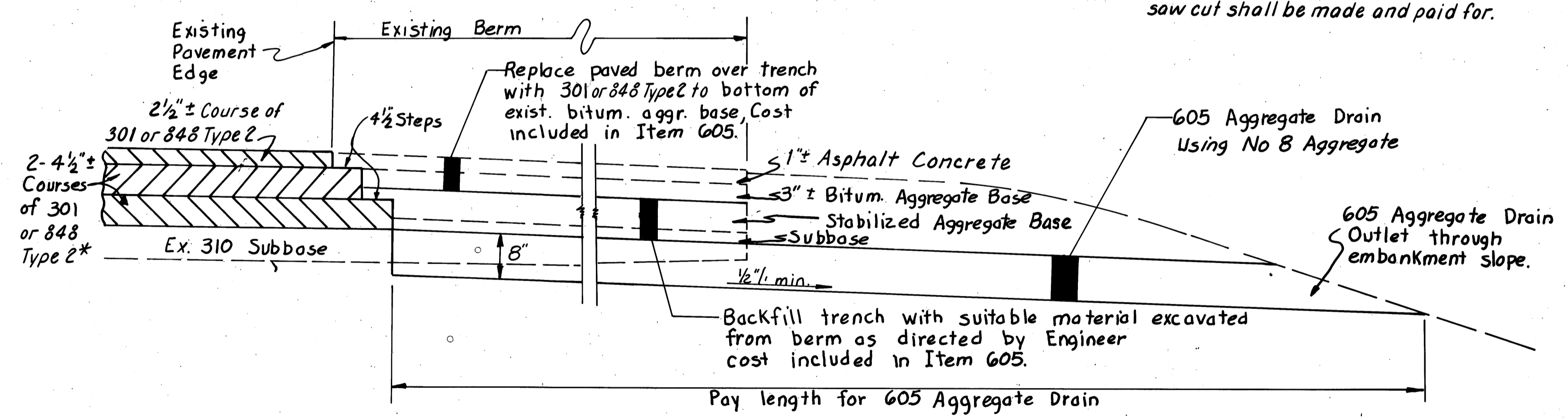


DETAIL FOR AGGREGATE DRAIN OUTLET INTO UNDERDRAIN TRENCH (CUT SECTIONS)

* As an Option 402 Material may be used if approved by Engineer.



SECTION



DETAIL FOR AGGREGATE DRAIN OUTLET THROUGH EMBANKMENT SLOPE

FULL DEPTH CONCRETE PAVEMENT REPAIR DETAILS USING FLEXIBLE REPLACEMENT

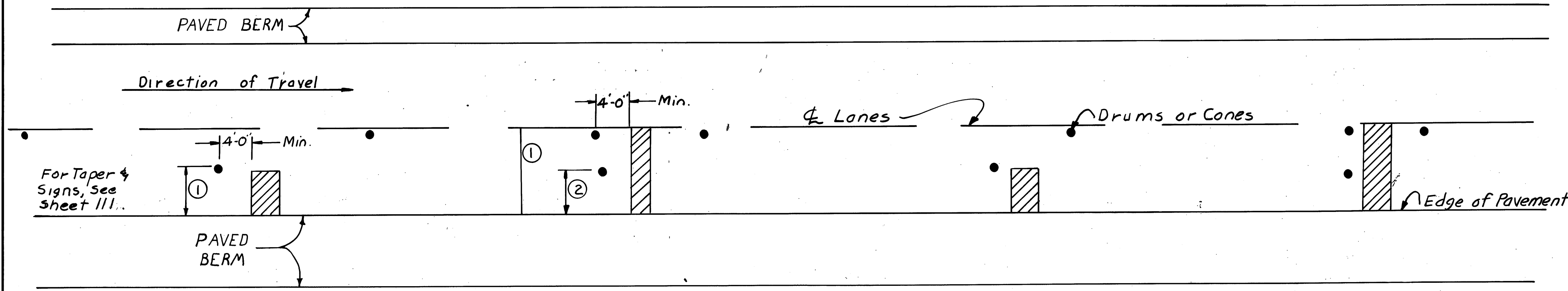
NOTE: If cones are used, provisions shall be made to stabilize the cones to prevent them from blowing over.

FHWA REGION	STATE	PROJECT	
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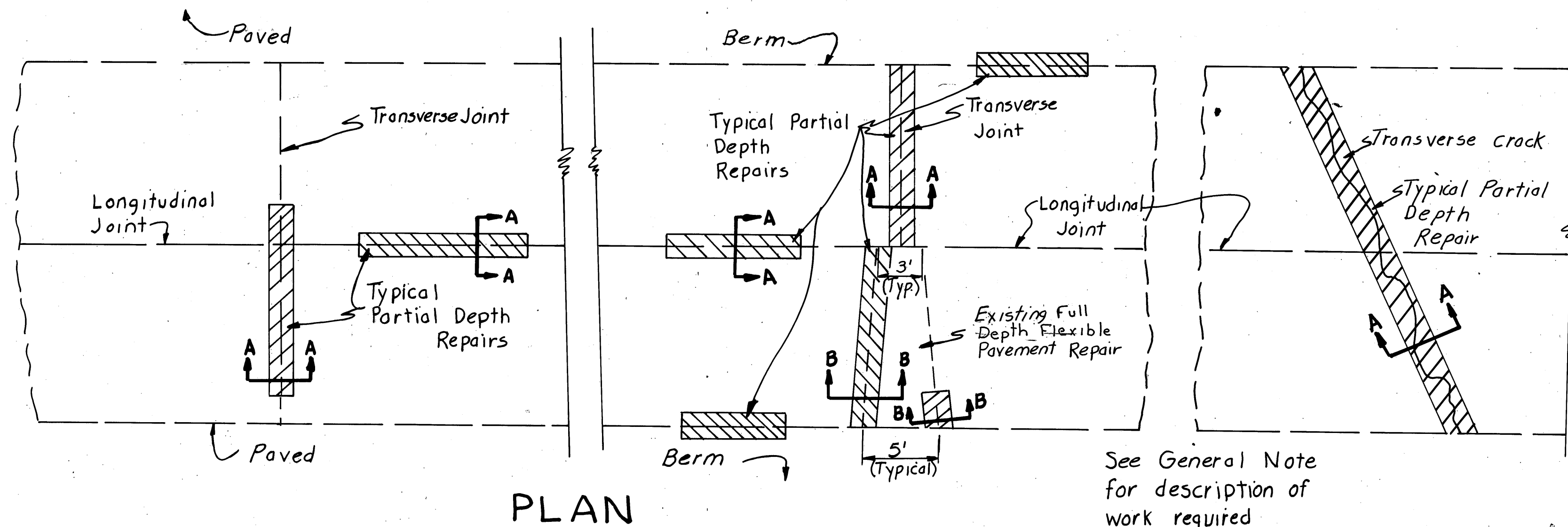
RIC-30-12.37
ASD-30-0.00

Calc. by ROB 1/84
Chkd. by ROB 1/84

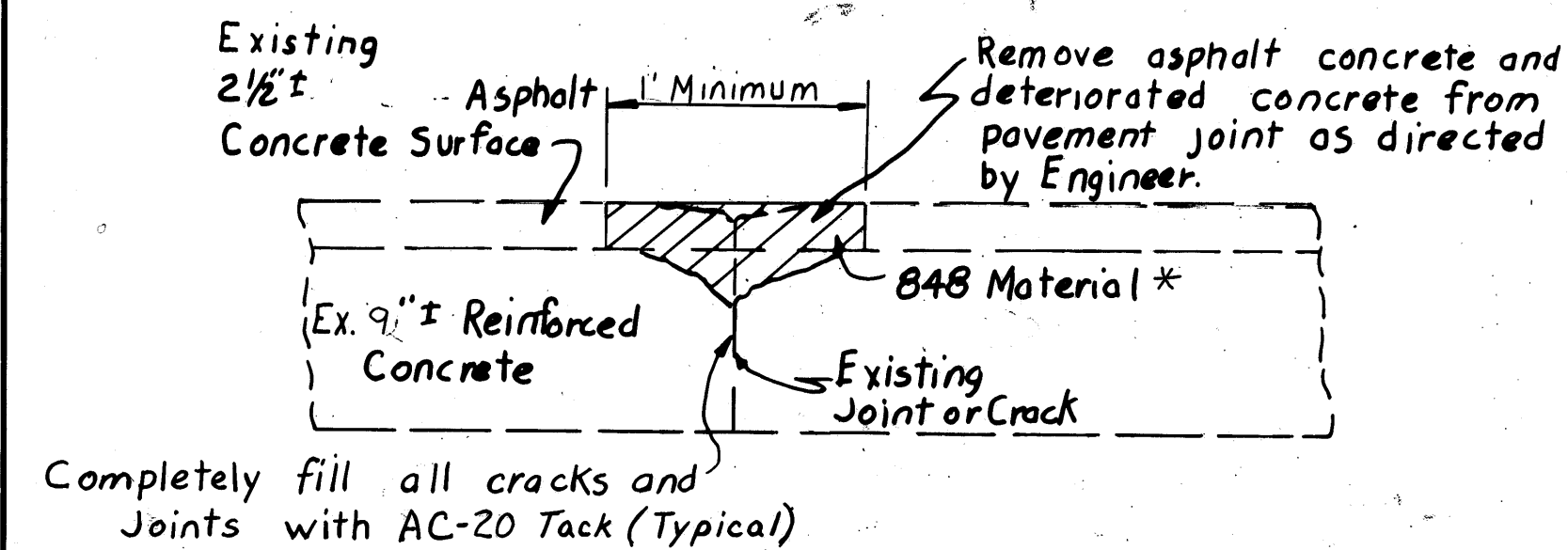


TRAFFIC MAINTENANCE DETAIL FOR LANE CLOSURE FOR PAVEMENT REPAIR (FULL DEPTH)

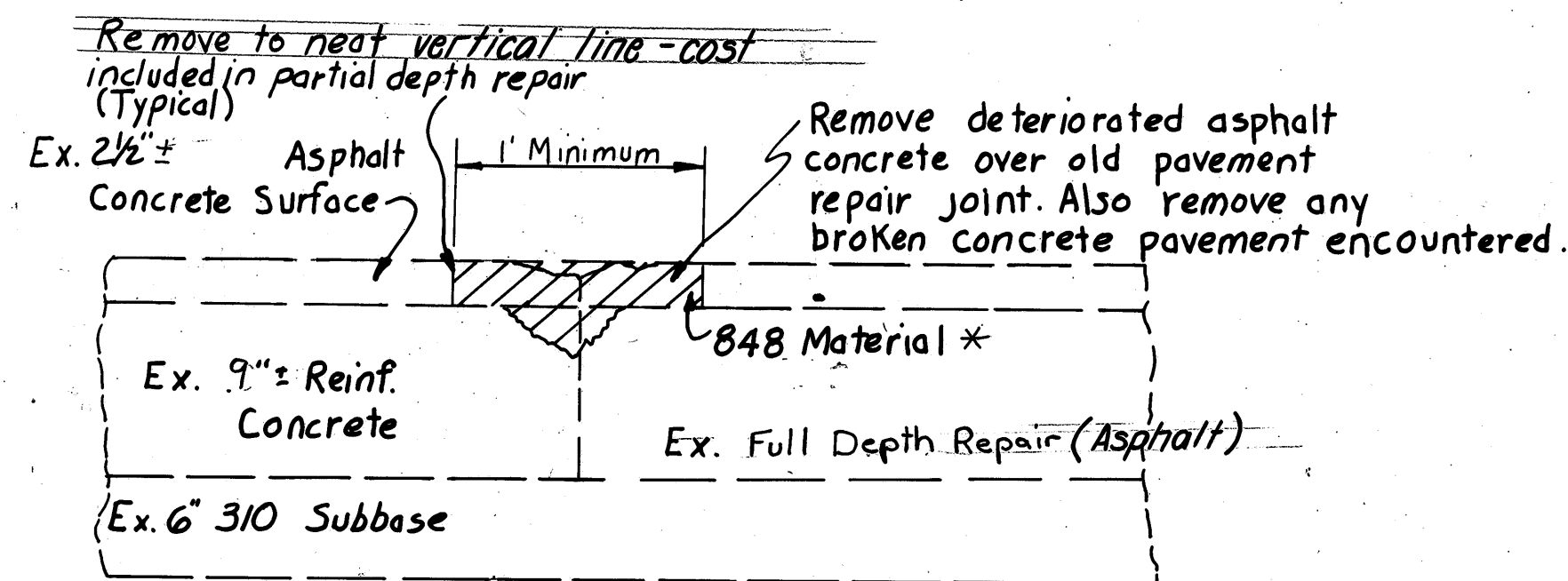
- ① The Contractor shall place an additional drum (or cone) at each pavement removal. The face of this drum shall be even with the outside edge of the removal. The drum shall remain in place until traffic is returned to this lane of pavement.
- ② If pavement removal is more than 6'-0" long an additional drum (or cone) shall be placed one half the distance from the edge of the removal to the edge of pavement. The drum shall remain in place until traffic is returned to this lane of pavement. Lane closures shall not be more than 1 mile long unless authorized by the Engineer. The Contractor shall restrict the sawing operation to only the removal and replacement areas which can be completed in one week or as directed by the Engineer.



See General Note for description of work required



SECTION A-A

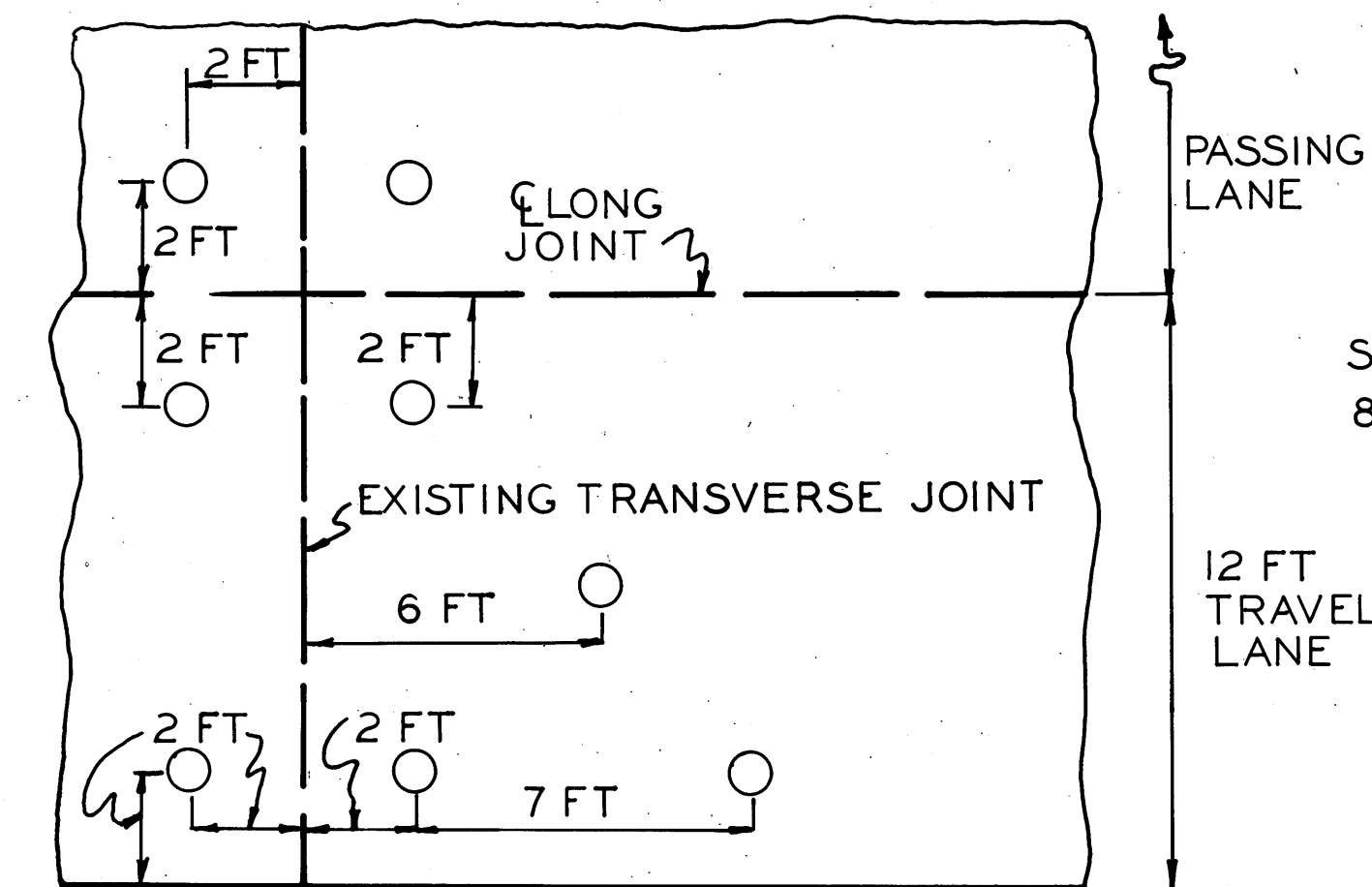


SECTION B-B

* As an Option 403 or 402 may be used if approved by the Engineer.

PARTIAL DEPTH PAVEMENT REPAIR DETAILS

Item	Special	Estimated Quantity
Partial Depth Pavement Repair		600 Cu. Yds.



SEE NOTE BELOW FOR HOLES IN PASSING LANE

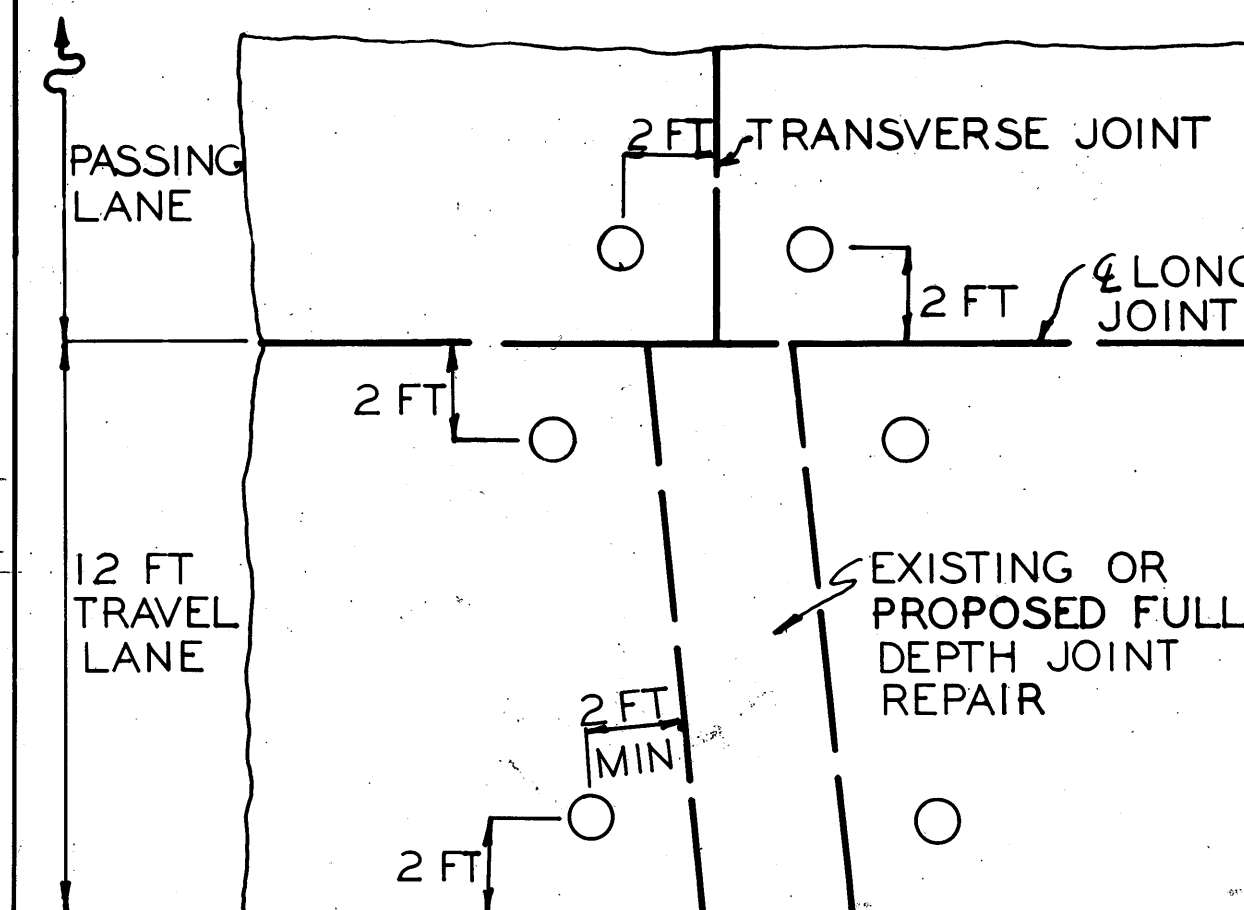
SEE SUPPLEMENTAL SPECIFICATION 812 FOR ADDITIONAL REQUIREMENTS

TYPICAL HOLE PATTERN FOR JOINTS NOT REPLACED WITH FULL DEPTH REPAIRS

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO BE USED FOR GROUT SUB-SEALING OF THE EXISTING CONCRETE PAVEMENT

812 HOLE FOR SUB-SEALING	7100 EACH
812 SUB-SEALING MATERIAL	2840 CU.FT.

NOTE: THE HOLES IN THE PASSING LANE SHALL BE ADDED ONLY WHEN A NOTICEABLE QUANTITY OF SUB-SEALING MATERIAL IS PUMPED INTO THE ADJACENT HOLES IN THE TRAVEL LANE

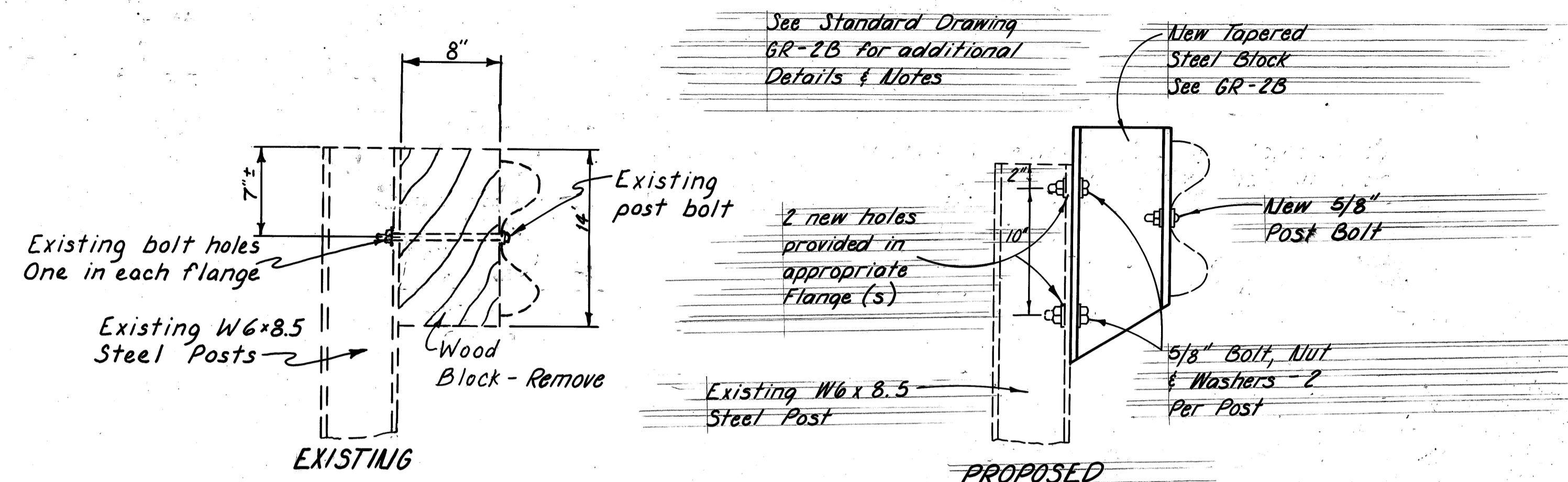


TYPICAL HOLE PATTERN AT FULL DEPTH JOINT REPAIRS

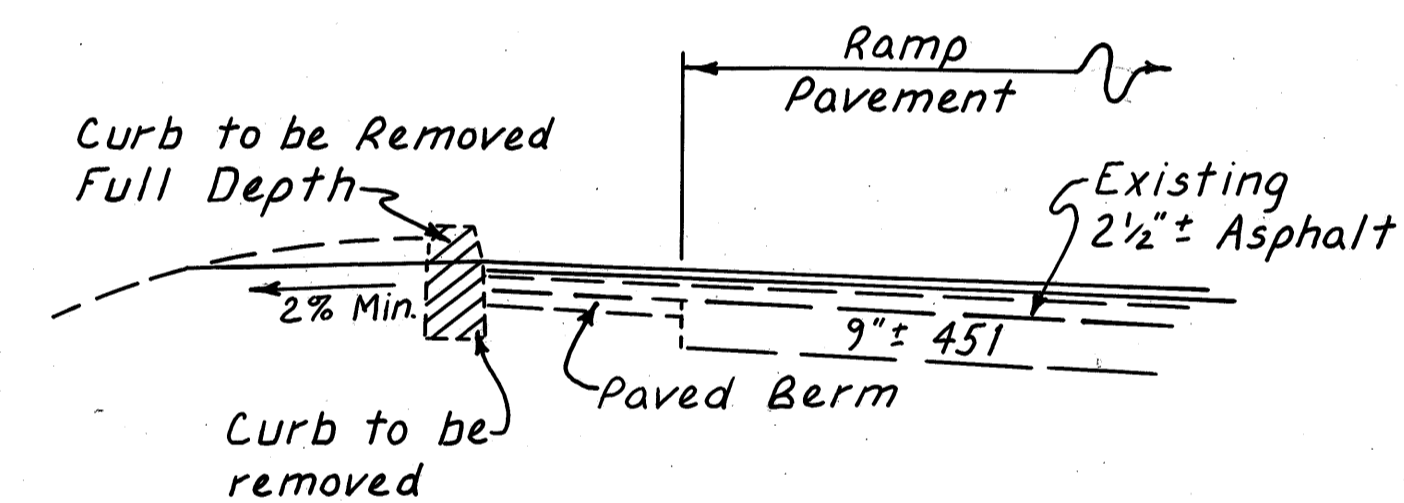
DETAILS FOR GROUT SUB-SEALING EXISTING PAVEMENT

PAVEMENT REPAIR DETAILS

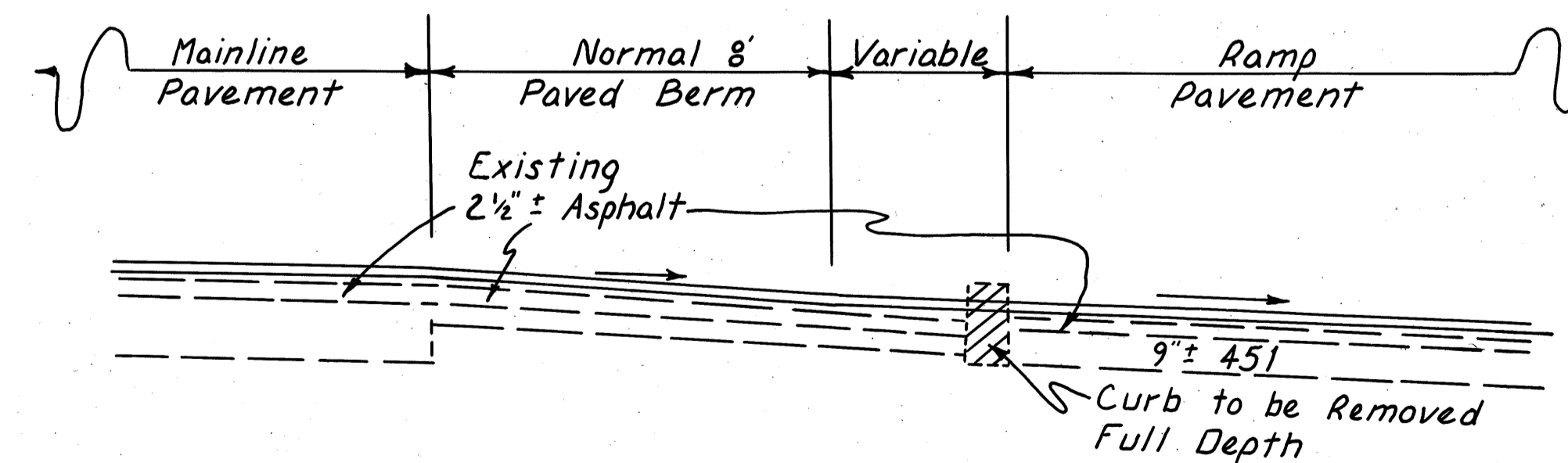
RIC-30-12.37
ASD-30-0.00



DETAIL FOR RAISING TYPE 5 GUARDRAIL ON EXISTING STEEL POSTS



See General Note for additional requirements

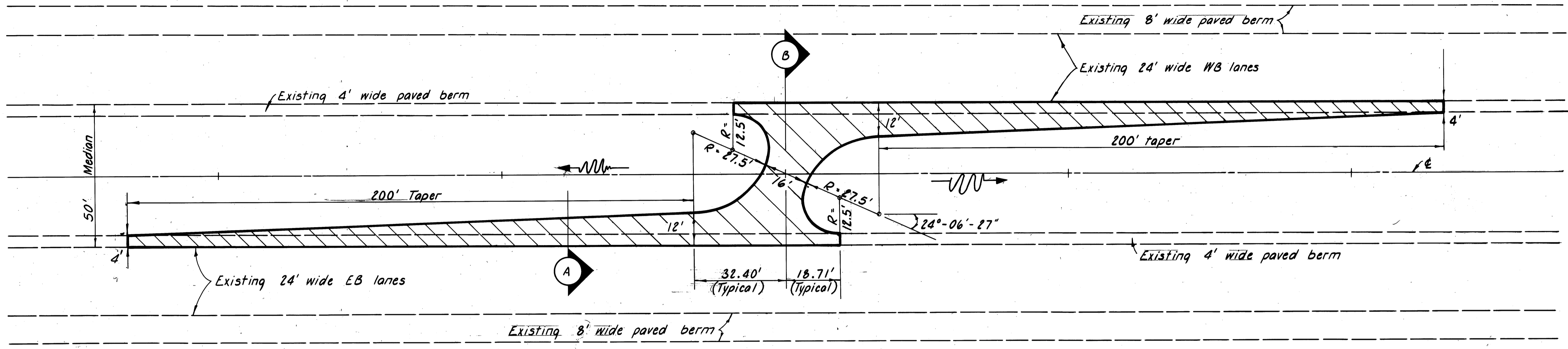


CURB REMOVAL DETAILS AT ACCELERATION RAMP

CALC BY: P.O.P. 7/64
 CHK'D BY: H.F.L. 12/64

FHWA REGION	STATE	PROJECT
5	OHIO	

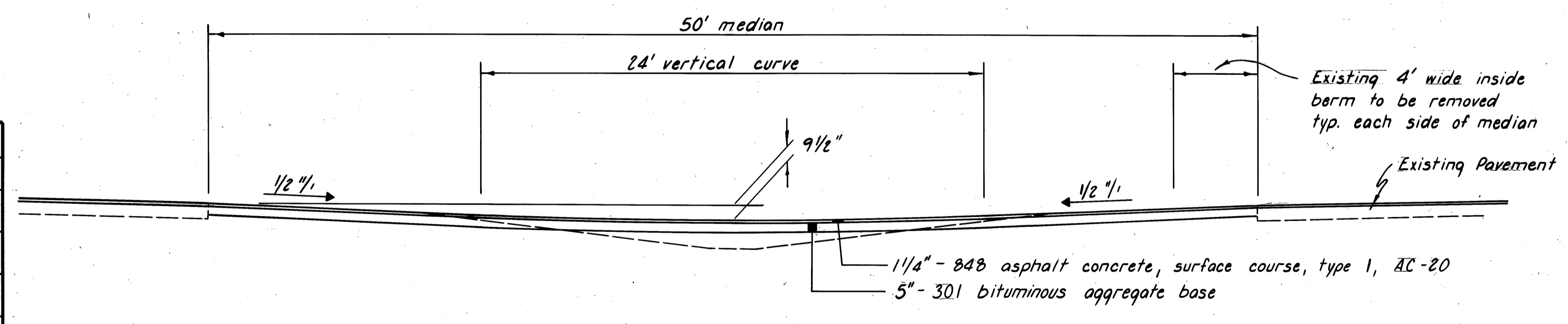
RIC - 30 - 12.37
 ASD - 30 - 0.00



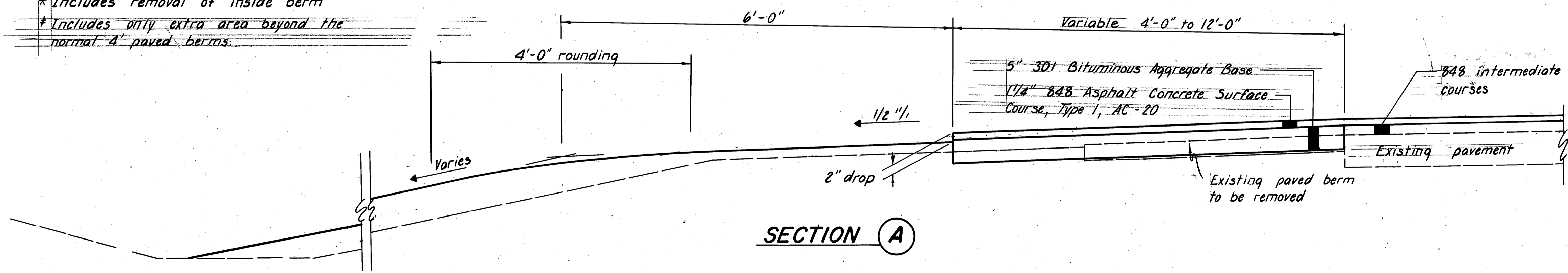
PROPOSED U-TURN - MEDIAN CROSS-OVER
 (STA. 460+00)

ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	QUANTITY
848	Asphalt concrete, surface course, type 1, AC-20	11.3 cu. yds.*
301	Bituminous aggregate base	76.3 cu. yds.
203	Excavation Not Including Embankment Constr.*	70 Cu. Yd.
659	Seeding & Mulching	1055 sq. yds.
203	Embankment	8 Cu. Yd.

*Includes removal of inside berm
 *Includes only extra area beyond the normal 4' paved berms.



NOTE: The subgrade under the 301 material shall be compacted, as per 1st & 3rd paragraphs of 203.13(a)

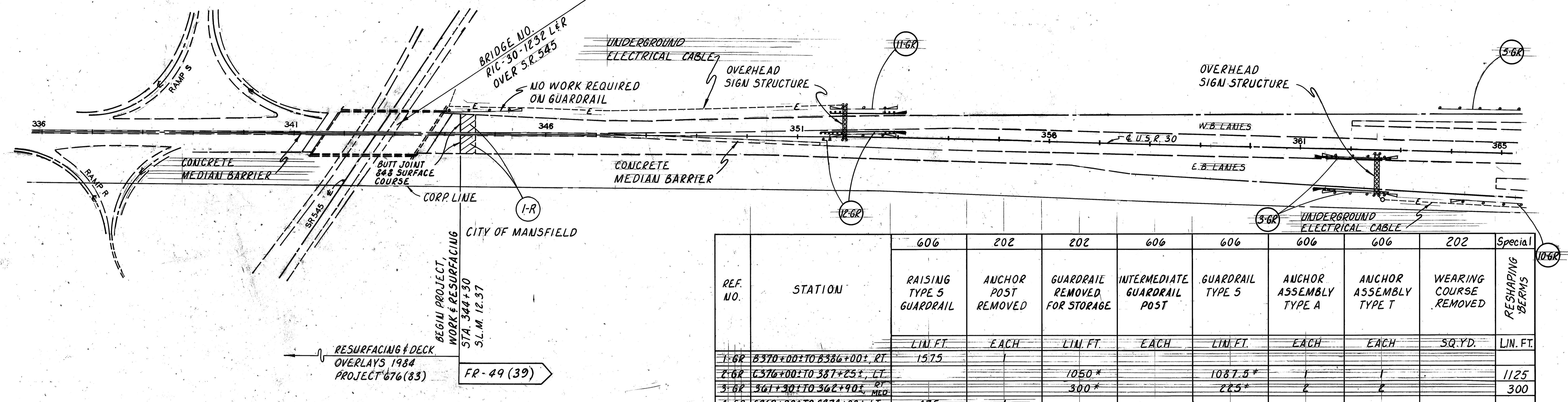


NOTE: EXISTING GUARDRAIL IS TYPE 5 WITH WOOD POSTS.

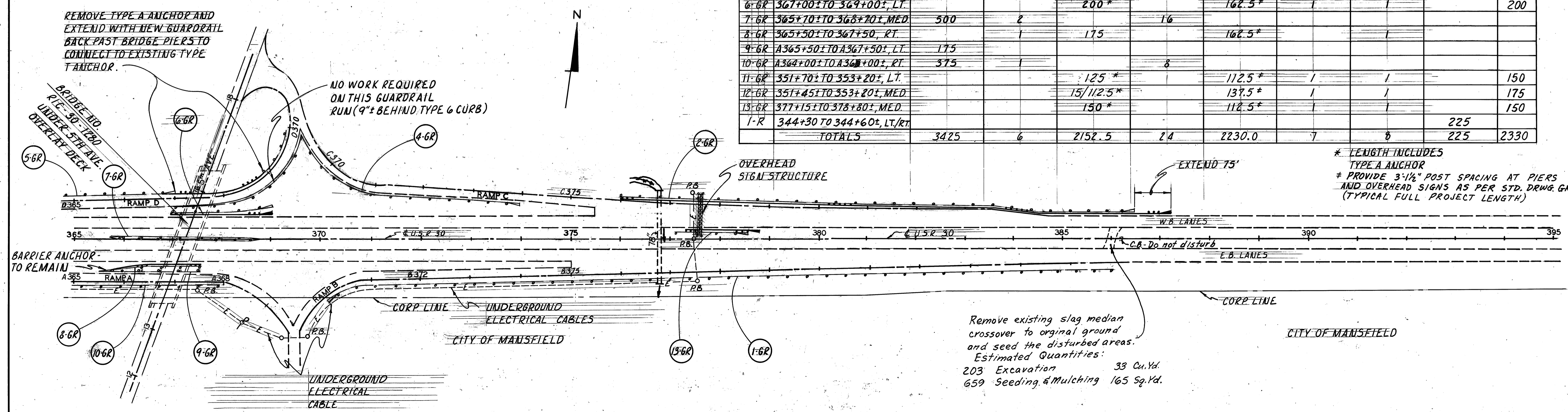
FHWA REGION	STATE	PROJECT	22
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RIC-30-12.37
ASD-30-0.00

Calc By: PJA 9/84
Chkd By: TEW 12/84



REF. NO.	STATION	606	202	202	606	606	606	202	Special	
		RAISING TYPE 5 GUARDRAIL	ANCHOR POST REMOVED	GUARDRAIL REMOVED FOR STORAGE	INTERMEDIATE GUARDRAIL POST	GUARDRAIL TYPE 5	ANCHOR ASSEMBLY TYPE A	ANCHOR ASSEMBLY TYPE T	WEARING COURSE REMOVED	RESHAPING BERMS
		LIN. FT.	EACH	LIN. FT.	EACH	LIN. FT.	EACH	EACH	SQ. YD.	LIN. FT.
1-GR	B370+00± TO B386+00±, RT	15.75								
2-GR	C376+00± TO C387+25±, LT			1050*		1087.5*				1125
3-GR	361+30± TO 362+90±, MED			300*		225*	2	2		300
4-GR	C369+00± TO C374+00±, LT	47.5								
5-GR	D363+45± TO D369+00±, LT	32.5		25*		230*				230
6-GR	367+00± TO 369+00±, LT			200*		162.5*				200
7-GR	365+70± TO 368+70±, MED	500	2		16					
8-GR	365+50± TO 367+50±, RT			175		162.5*				
9-GR	A365+50± TO A367+50±, LT	17.5								
10-GR	A364+00± TO A366+00±, RT	37.5			8					
11-GR	351+70± TO 353+20±, LT			125*		112.5*				150
12-GR	351+45± TO 353+20±, MED			15/112.5*		137.5*				175
13-GR	377+15± TO 378+80±, MED			150*		112.5*				150
1-R	344+30 TO 344+60±, LT/RT								225	
TOTALS		3425	6	2152.5	24	2230.0	7	8	225	2330



* LENGTH INCLUDES TYPE A ANCHOR
* PROVIDE 3'-1/2" POST SPACING AT PIERS AND OVERHEAD SIGNS AS PER STD. DRWG. GR-7. (TYPICAL FULL PROJECT LENGTH)

Remove existing slag median crossover to original ground and seed the disturbed areas.
Estimated Quantities:
203 Excavation 33 Cu.Yd.
659 Seeding & Mulching 165 Sq.Yd.

FOR ADDITIONAL DETAILS @ 5TH AVENUE INTERCHANGE, SEE SHEET 23.

NOTE: ADD INTERMEDIATE GUARDRAIL POSTS, WHERE SPECIFIED, TO PROVIDE 3'-1/2" POST SPACING AT BRIDGE PIERS AND OVERHEAD SIGN STRUCTURES AS PER STANDARD DRAWING GR-7.

RIC-30-12.37
ASD-30-0.00

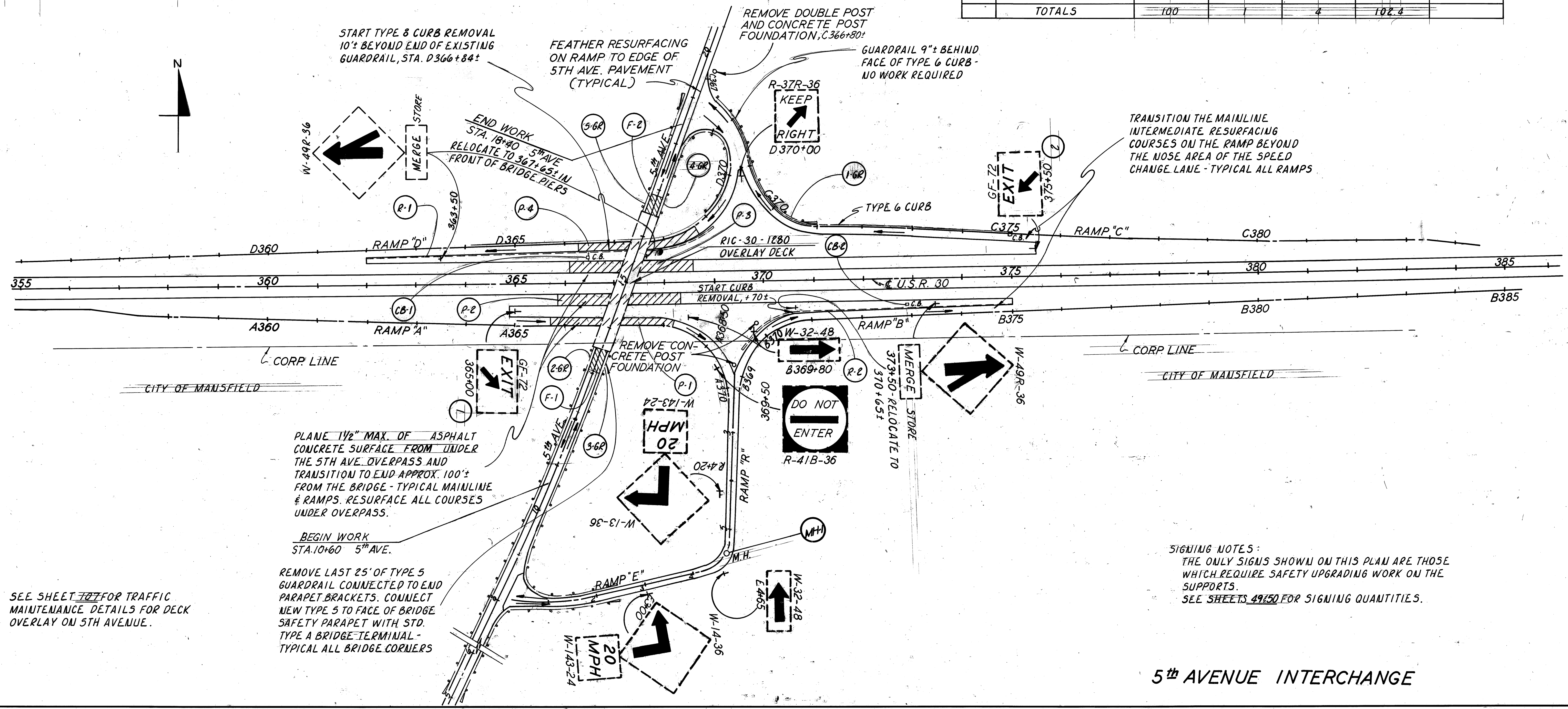
CALC BY: T.O.H. 9/81
CHK'D BY: TEW 12/82

REF. NO.	STATION	202	604	848	407	SPECIAL	604
		CURB REMOVED, AS PER PLAN	CATCH BASIN, ADJUSTED TO GRADE	ASPHALT CONCRETE SURFACE COURSE	TACK COAT	COVER AGGREGATE	ASPHALT PAVEMENT PLANING
		LIN. FT.	EACH	Variable Thick. CU. YD.	GAL.	TON	SQ. YD.
CB-1	366+50±, LT.						
CB-2	372+88±, RT.						
MH-1	5 +50± RAMP "R"						1
R-1	D362+00± TO D366+84±, RT.	484					
R-2	B370+70± TO B375+00±, RT.	433					
F-1	13+08± TO 13+58±			5.6	17.8	0.6	
F-2	16+47± TO 16+87±			4.4	14.2	0.5	
P-1	A365+70± TO A368+20±					611	
P-2	365+85± TO 368+35±, E.B.					1000	
P-3	366+10± TO 368+60±, W.B.					1000	
P-4	D366+25± TO D368+75±					611	
TOTALS		917	2	10.0	32.0	1.1	3222

NOTE: EXISTING GUARDRAIL ON 5TH AVE AND RAMP IS TYPE 5 WITH ANCHORS, WOOD POSTS. GUARDRAIL CONNECTS TO BRACKETS IN END OF PARAPETS.

GUARDRAIL QUANTITIES

REF. NO.	STATION	202		606	
		GUARDRAIL REMOVED FOR STORAGE	ANCHOR POST REMOVED	BRIDGE TERMINAL ASSEMBLY TYPE A	GUARDRAIL TYPE 5
		LIN. FT.	EACH	EACH	LIN. FT.
1-GR	C370+88±, RT.				
2-GR	13+12± TO 13+38±, LT.	25			25.6
3-GR	13+12± TO 13+38±, RT.	25			25.6
4-GR	16+62± TO 16+88±, RT.	25			25.6
5-GR	16+62± TO 16+88±, LT.	25			25.6
TOTALS		100		4	102.4



SIGNING NOTES:
THE ONLY SIGNS SHOWN ON THIS PLAN ARE THOSE WHICH REQUIRE SAFETY UPGRADING WORK ON THE SUPPORTS.
SEE SHEETS 49&50 FOR SIGNING QUANTITIES.

SEE SHEET 49 FOR TRAFFIC MAINTENANCE DETAILS FOR DECK OVERLAY ON 5TH AVENUE.

PLANE 1/2" MAX. OF ASPHALT CONCRETE SURFACE FROM UNDER THE 5TH AVE. OVERPASS AND TRANSITION TO END APPROX. 100' FROM THE BRIDGE - TYPICAL MAINLINE & RAMPS. RESURFACE ALL COURSES UNDER OVERPASS.

BEGIN WORK STA. 10+60 5TH AVE.
REMOVE LAST 25' OF TYPE 5 GUARDRAIL CONNECTED TO END PARAPET BRACKETS. CONNECT NEW TYPE 5 TO FACE OF BRIDGE SAFETY PARAPET WITH STD. TYPE A BRIDGE TERMINAL - TYPICAL ALL BRIDGE CORNERS

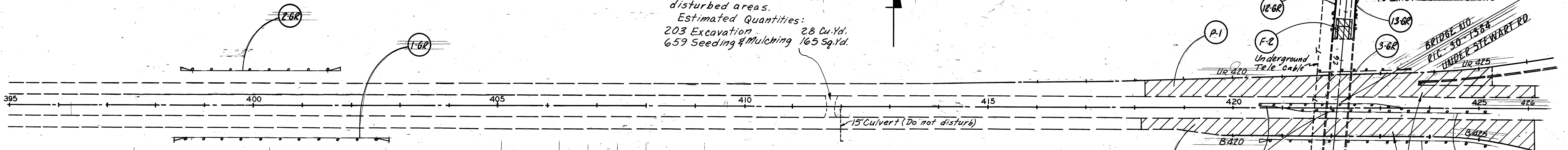
5th AVENUE INTERCHANGE

RIC-30-12.37
 ASD-30-0.00
 CALC BY: JEB 9/84
 CHK'D BY: TEW 10/84

GUARDRAIL NOTES:

EXISTING GUARDRAIL ON U.S.R 30 RAMP IS GALVANIZED TYPE 5 (WOOD POSTS) WITH "A" AND "T" ANCHORS.
 EXISTING GUARDRAIL ON THE STEWART & MCELROY ROAD BRIDGE APPROACHES IS GALVANIZED TYPE 4 WITH "A" ANCHORS AND WOOD POSTS. GUARDRAIL IS CONNECTED TO BRACKETS IN END OF PARAPETS.

Remove existing aggregate median crossover and seed disturbed areas.
 Estimated Quantities:
 203 Excavation 28 Cu.Yd.
 659 Seeding & Mulching 165 Sq.Yd.



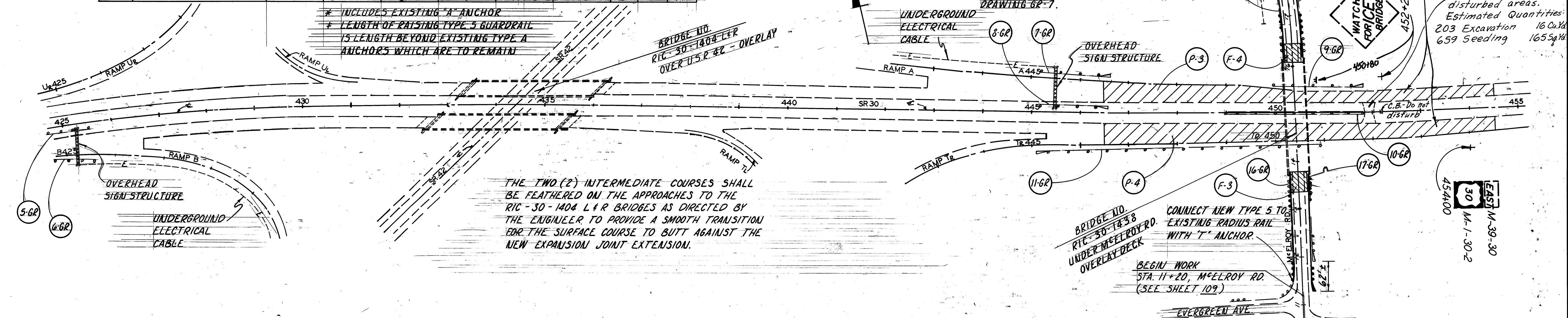
REF. NO.	STATION	ANCHOR POST REMOVED	RAISING TYPE 5 GUARDRAIL*	INTERMEDIATE GUARDRAIL POST	BRIDGE TERMINAL ASSEMBLY TYPE A	GUARDRAIL TYPE 5	GUARDRAIL REMOVED FOR STORAGE	ANCHOR ASSEMBLY TYPE T	SPEC. RESHAPING BERM
		EACH	LINE FT.	EACH	EACH	LINE FT.	LINE FT.	EACH	LINE FT.
1-GR	398+53 TO 402+91, RT		387.5						
2-GR	398+54 TO 401+79, LT		275						
3-GR	420+177 TO 423+65, RT		162.5	8					
4-GR	420+71 TO 422+50, MED			16					
5-GR	423+58 TO 425+58, MED		200						
6-GR	4420+51 TO 4425+63, RT		487.5	8					
7-GR	4445+14 TO 4446+52, LT		112.5	3					
8-GR	445+14 TO 446+52, MED		112.5	3					
9-GR	449+96 TO 451+84, LT		162.5	8					
10-GR	448+96 TO 451+87, MED			16					
11-GR	4445+05 TO 4450+92, RT		562.5	8					
12-GR	26+49 TO 27+74, LT					100.7	100		100
13-GR	26+56 TO 27+71, RT					88.2	87.5		88
14-GR	21+04 TO 23+63, LT					237.5	162.5*	1	237
15-GR	21+02 TO 23+65, RT					237.5	162.5*	1	237
16-GR	11+42 TO 13+67, LT					213.2	225	1	212
17-GR	11+30 TO 13+67, RT					212.5	175	1	212
18-GR	16+10 TO 18+74, LT					250.7	250		250
19-GR	16+16 TO 19+22, RT					313.2	312.5		312
TOTALS		15	2462.5	70	8	1653.5	1475	3	1648

* INCLUDES EXISTING "A" ANCHOR
 † LENGTH OF RAISING TYPE 5 GUARDRAIL IS LENGTH BEYOND EXISTING TYPE A ANCHORS WHICH ARE TO REMAIN

PAVEMENT FEATHERS & PLANING

REF. NO.	STATION	ASPHALT CONCRETE SURFACE COURSE Variable	TACK COAT	COVER AGGREGATE	ASPHALT PAVEMENT PLANING
		CU.YD.	GAL.	TON	SQ.YD.
F-1	23+40 TO 23+80	4.4	14.2	0.5	
F-2	26+45 TO 26+85	4.4	14.2	0.5	
F-3	13+35 TO 13+75	4.4	14.2	0.5	
F-4	16+05 TO 16+45	4.4	14.2	0.5	
P-1	418+15 TO 426+15, W.B.				4860
P-2	418+10 TO 426+10, E.B.				4150
P-3	446+50 TO 454+50, W.B.				3615
P-4	446+50 TO 454+50, E.B.				4220
TOTALS		17.6	56.8	2.0	16,845

NOTE: ADD INTERMEDIATE GUARDRAIL POSTS TO PROVIDE 3'-1/2" POST SPACING AT ALL BRIDGE PIERS AND OVERHEAD SIGN STRUCTURES AS PER STANDARD DRAWING GR-7.



THE TWO (2) INTERMEDIATE COURSES SHALL BE FEATHERED ON THE APPROACHES TO THE RIC-30-1404 L&R BRIDGES AS DIRECTED BY THE ENGINEER TO PROVIDE A SMOOTH TRANSITION FOR THE SURFACE COURSE TO BUTT AGAINST THE NEW EXPANSION JOINT EXTENSION.

SEE SHEET 25 FOR ADDITIONAL DETAILS FOR U.S.R 42 INTERCHANGE

SIGNING NOTES:
 THE DAILY SIGNS SHOWN ON THIS PLAN ARE THOSE WHICH REQUIRE SAFETY UPGRADING WORK ON THE SUPPORTS.
 SEE SHEET 49 FOR SIGNING QUANTITIES.

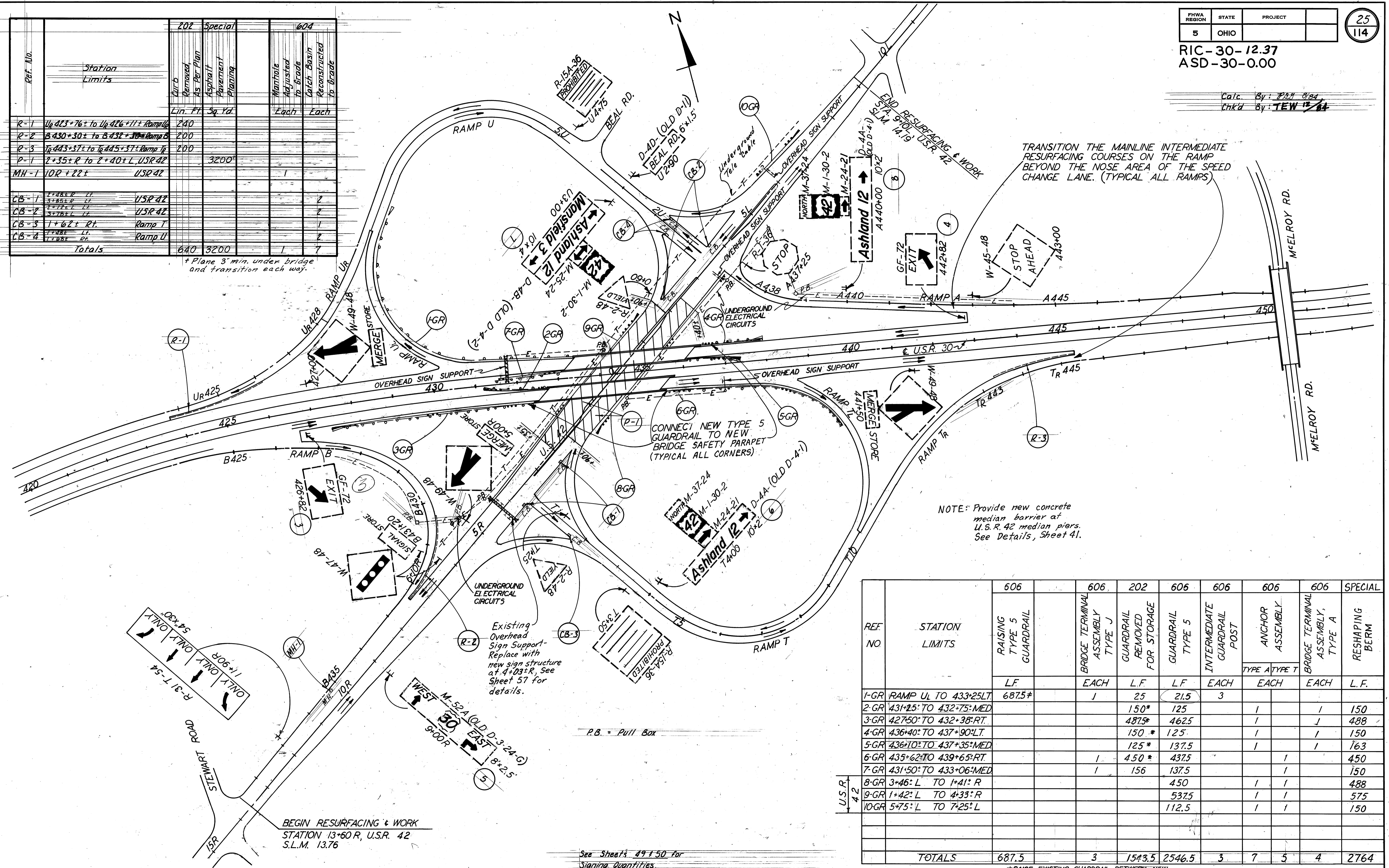
SEE SHEET 109 FOR TRAFFIC MAINTENANCE DETAILS FOR DECK OVERLAY ON MCELROY ROAD.

RIC-30-12.37
ASD-30-0.00

Calc. By: *TEW 8/84*
CHK'd By: *TEW 12/84*

Ref. No.	Station Limits	202		Special		604		
		Cur. B. Removed	As. Pav. Plan	Asphalt Pavement	Planing	Manhole Adjusted to Grade	Catch Basin Reconstructed to Grade	
		Lin. Ft.	Sq. Yd.			Each	Each	
R-1	Up 423+76 to Up 426+11 Ramp U	240						
R-2	B 430+30 to B 432+38 Ramp B	200						
R-3	Tr 443+37 to Tr 445+37 Ramp Tr	200						
P-1	2+35 R to 2+40 L U.S.R. 42		3200					
MH-1	10R + 22L	USR 42						
CB-1	1+48 R Lt.	USR 42						
CB-2	3+78 L Lt.	USR 42						
CB-3	1+62 R Rt.	Ramp T						
CB-4	1+48 R Lt.	Ramp U						
Totals		640	3200					

+ Plane 3' min. under bridge and transition each way.



REF. NO.	STATION LIMITS	606	606	202	606	606	606	606	606	SPECIAL
		RAISING TYPE 5 GUARDRAIL	BRIDGE TERMINAL ASSEMBLY TYPE J	GUARDRAIL REMOVED FOR STORAGE	GUARDRAIL TYPE 5	INTERMEDIATE GUARDRAIL POST	ANCHOR ASSEMBLY	BRIDGE TERMINAL ASSEMBLY, TYPE A	RESHAPING BERM	
		LF	EACH	LF	LF	EACH	EACH	EACH	EACH	L.F.
1-GR	RAMP UL TO 433+25LT	687.5*	1	25	21.5	3				150
2-GR	431+25 TO 432+75 MED			150*	125					488
3-GR	427+50 TO 432+38 RT			487.5*	462.5					150
4-GR	436+40 TO 437+90 LT			150*	125					163
5-GR	436+10 TO 437+35 MED			125*	137.5					450
6-GR	435+62 TO 439+65 RT			450*	437.5					150
7-GR	431+50 TO 433+06 MED			156	137.5					488
8-GR	3+46 L TO 1+41 R				450					575
9-GR	1+42 L TO 4+33 R				537.5					150
10GR	5+75 L TO 7+25 L				112.5					
TOTALS		687.5	3	1543.5	2546.5	3	7	5	4	2764

*RAISE EXISTING GUARDRAIL BETWEEN NEW BRIDGE TERMINAL AND ANCHOR *INCLUDES LENGTH OF TYPE A ANCHORS

U.S. 42 INTERCHANGE

SIGNING NOTES

THE ONLY SIGNS SHOWN ON THIS PLAN ARE THOSE WHICH REQUIRE SAFETY UP-GRADING WORK ON THE SUPPORTS. SEE SHEET 49 FOR SIGNING QUANTITIES



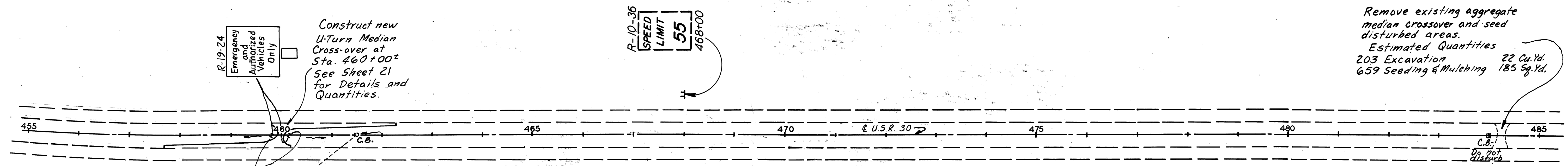
PHWA REGION	STATE	PROJECT
5	OHIO	

26
114

RIC-30-12.37
ASD-30-0.00

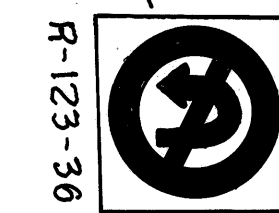
Calc. by R.D. 8/84
Chkd. by TEW/1/84

Remove existing aggregate median crossover and seed disturbed areas.
Estimated Quantities
203 Excavation 22 Cu. Yd.
659 Seeding & Mulching 185 Sq. Yd.



Construct new U-Turn Median Cross-over at Sta. 460+00± See Sheet 21 for Details and Quantities.

R-10-36
SPEED LIMIT
55
468+00



See Typical Detail for new sign placement at median U-Turn Cross-over, Sheet 56.

PAVEMENT PLANING QUANTITIES

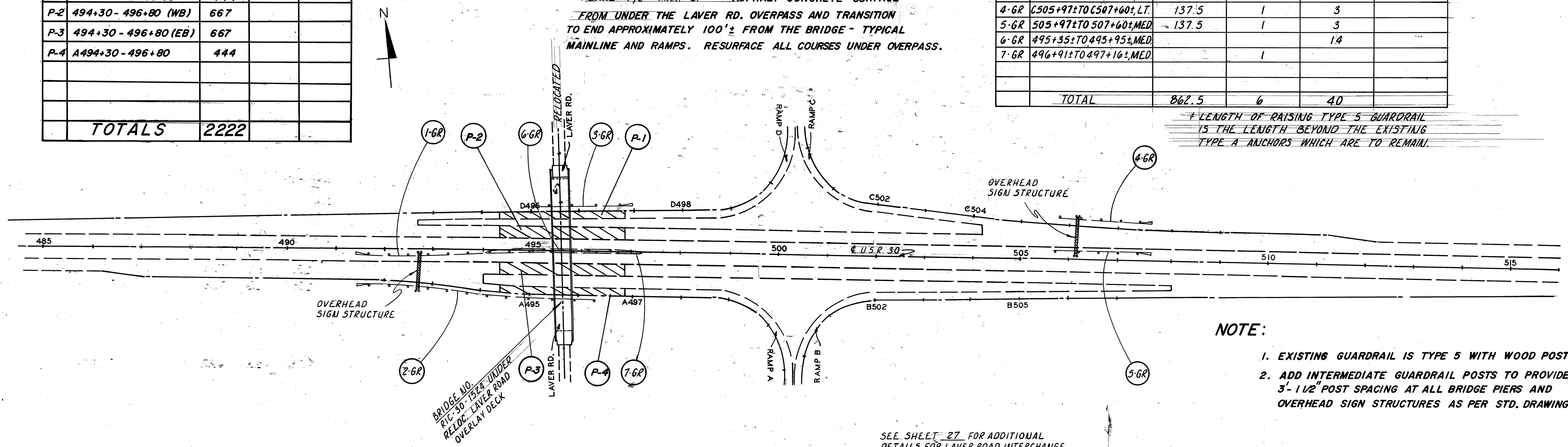
REF. NO.	STATION LIMITS	SPECIAL ASPHALT PAVEMENT PLANING	
		ASPHALT PAVEMENT PLANING	SQ. YD.
P-1	D494+30 - D496+80	444	
P-2	494+30 - 496+80 (WB)	667	
P-3	494+30 - 496+80 (EB)	667	
P-4	A494+30 - 496+80	444	
TOTALS		2222	

GUARDRAIL QUANTITIES

REF. NO.	STATION LIMITS	606	202	606
		RAISING TYPE 5 GUARDRAIL †	ANCHOR POST REMOVED	INTERMEDIATE GUARDRAIL POST
		LIN. FT.	EACH	EACH
1-GR	491+41± TO 492+91± MED	125	1	3
2-GR	A491+42± TO A496+29± RT	462.5	1	3/7
3-GR	D494+97± TO D496+97± LT		1	7
4-GR	C505+97± TO C507+60± LT	137.5	1	3
5-GR	505+97± TO 507+60± MED	137.5	1	3
6-GR	495+35± TO 495+95± MED			14
7-GR	496+91± TO 497+16± MED		1	
TOTAL		862.5	6	40

† LENGTH OF RAISING TYPE 5 GUARDRAIL IS THE LENGTH BEYOND THE EXISTING TYPE A ANCHORS WHICH ARE TO REMAIN.

PLANE 1 1/2" MAX. OF ASPHALT CONCRETE SURFACE FROM UNDER THE LAVER RD. OVERPASS AND TRANSITION TO END APPROXIMATELY 100'± FROM THE BRIDGE - TYPICAL MAINLINE AND RAMPS. RESURFACE ALL COURSES UNDER OVERPASS.



NOTE:

- EXISTING GUARDRAIL IS TYPE 5 WITH WOOD POSTS.
- ADD INTERMEDIATE GUARDRAIL POSTS TO PROVIDE 3'-1 1/2" POST SPACING AT ALL BRIDGE PIERS AND OVERHEAD SIGN STRUCTURES AS PER STD. DRAWING GR-7.

SEE SHEET 27 FOR ADDITIONAL DETAILS FOR LAVER ROAD INTERCHANGE

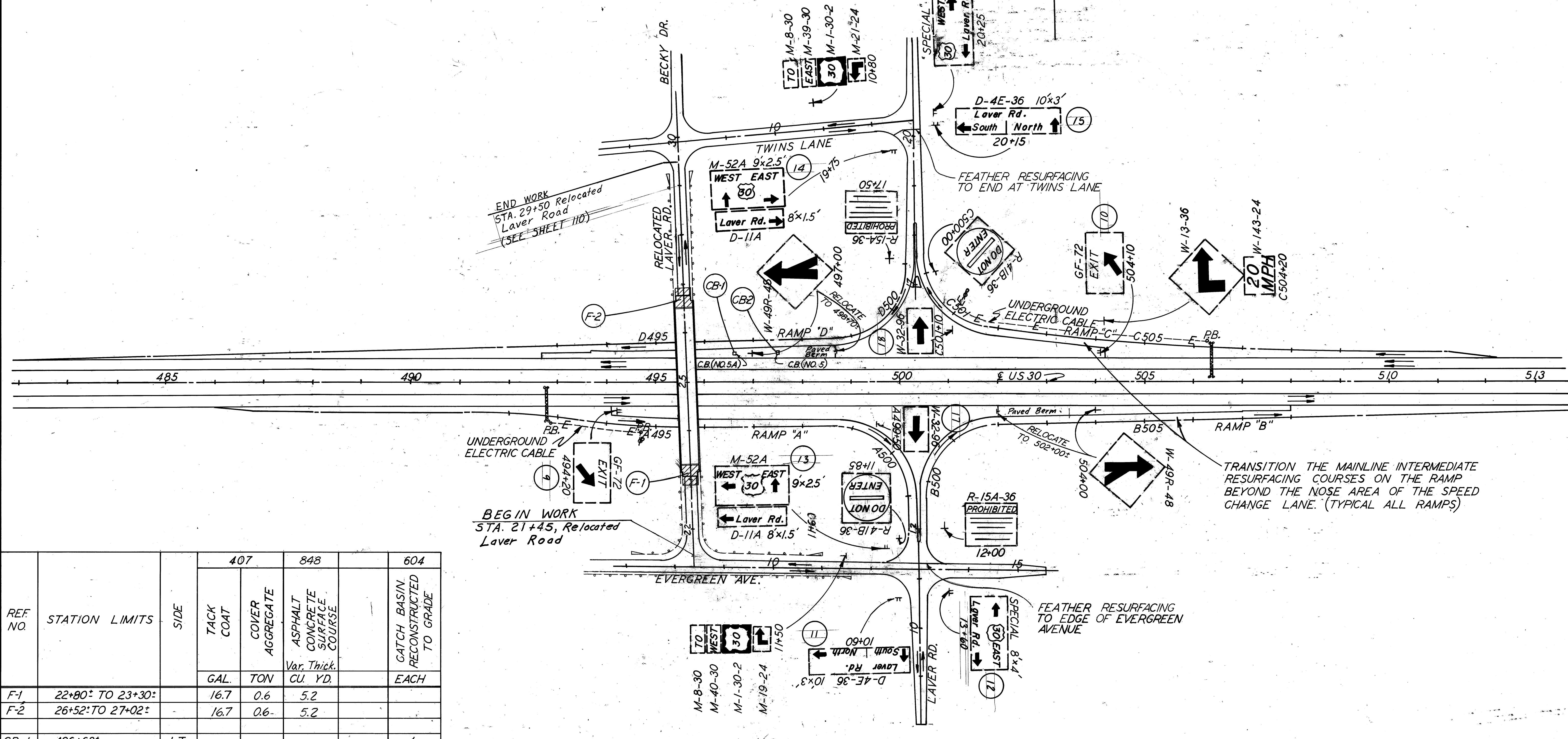
SIGNING NOTES: THE ONLY SIGNS SHOWN ON THIS PLAN ARE THOSE WHICH REQUIRE SAFETY UPGRADING WORK ON THE SUPPORTS. SEE SHEET 50 FOR SIGNING QUANTITIES.

FHWA REGION	STATE	PROJECT
5	OHIO	

27
114

RIC-30-12.37
ASD-30-0.00

Calc. by *SPY 8/84*
Chkd. by *TEW 12/84*



REF NO.	STATION LIMITS	SIDE	407		848	604
			TACK COAT	COVER AGGREGATE	ASPHALT CONCRETE SURFACE COURSE	GATCH BASIN RECONSTRUCTED TO GRADE
			GAL.	TON	Var. Thick. CU. YD.	EACH
F-1	22+80± TO 23+30±		16.7	0.6	5.2	
F-2	26+52± TO 27+02±		16.7	0.6	5.2	
CB-1	496+62±	LT.				1
CB-2	497+50±	LT.				1
TOTALS			334	1.2	10.4	2

SEE SHEET 110 FOR TRAFFIC MAINTENANCE DETAILS FOR DECK OVERLAY ON LAVER ROAD OVERPASS.

NOTE: EXISTING GUARDRAIL ON THE LAVER ROAD BRIDGE APPROACHES IS TYPE 5 WITH TYPE A BRIDGE TERMINALS. NO WORK REQUIRED.

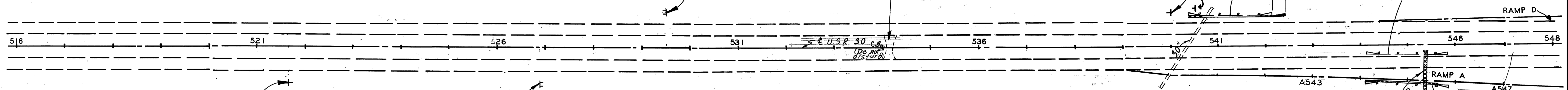
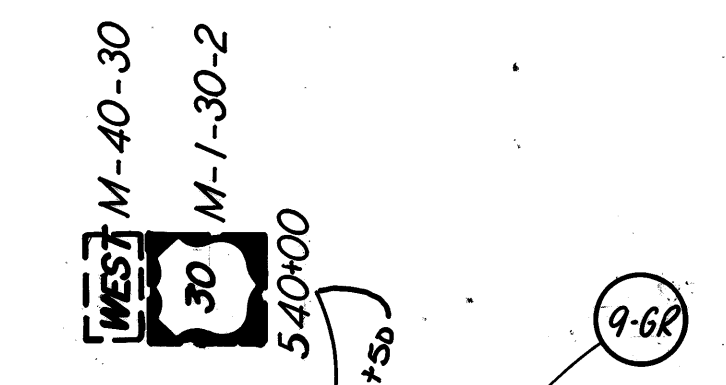
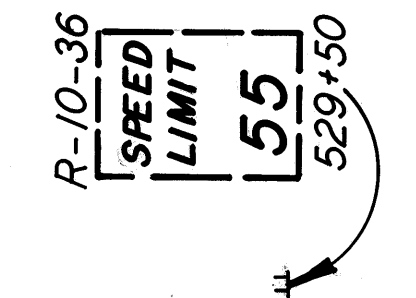
LAVER RD. INTERCHANGE

RIC-30-12.37
ASD-30-0.00

CALC BY: *8-28-84*
CHKD BY: *TEW 12/84*

EXISTING GUARDRAIL IS TYPE 5 WITH WOOD POSTS AND "A" ANCHORS.

Remove existing aggregate median crossover and seed disturbed areas.
Estimated Quantities:
203 Excavation 16 Cu.Yd.
659 Seeding & Mulching 165 Sq.Yd.



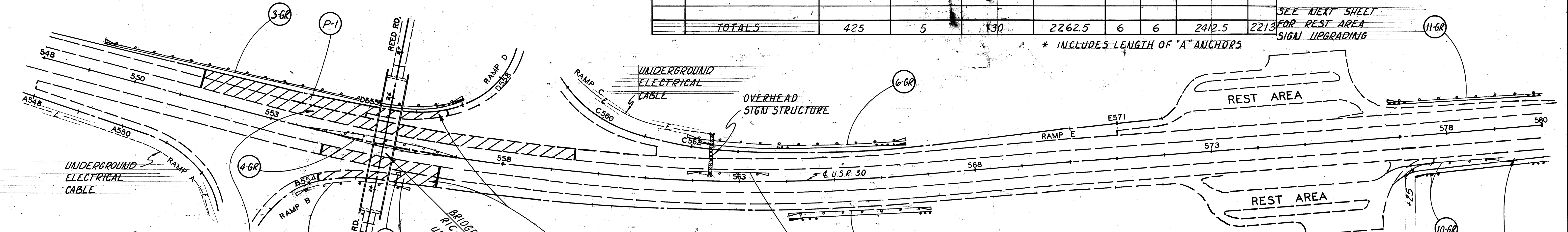
REF NO	STATION LIMITS	202		SPECIAL
		CATCH BASIN ABANDONED	ASPHALT PAVEMENT PLANING	
		EACH	SQ. YDS.	
P-1	551+40 TO 559+40 ^{WB & RAMP D}		4120	
P-2	554+15 TO 556+65 ^{EB & RAMP B}		1760	
CB-1	555+85 ^{RT}	1*		
TOTALS		1	5880	

REF. NO.	STATION	606	202	606	606		202	SPEC. RESHAPING BERM L.F.	
		RAISING TYPE 5 GUARDRAIL	ANCHOR POST REMOVED	INTERMEDIATE GUARDRAIL POST	GUARDRAIL TYPE 5	ANCHOR ASSEMBLY			GUARDRAIL REMOVED FOR STORAGE
		LIN. FT.	EACH	EACH	LIN. FT.	TYPE A	TYPE T		LIN. FT.
1-GR	544+15 TO 545+90, MED.	125		3					
2-GR	A544+15 TO A545+90, RT.				112.5	1	1	175*	
3-GR	U.S.R. 30 RAMP "D" 549+13 TO D556+94, LT.				737.5	1	1	775*	
4-GR	553+95 TO 556+95, MED.		2	16					
5-GR	RAMP "B" U.S.R. 30 B553+94 TO 556+23.99, RT.	175		8					
6-GR	RAMP "C" U.S.R. 30 C561+86 TO 566+55, LT.				425	1	1	462.5*	
7-GR	561+85 TO 563+60, MED.	125		3					
8-GR	564+00 TO 567+00, RT.				262.5	1	1	300*	
9-GR	540+80 TO 542+50, LT.				162.5	1	1	175*	
10-GR	577+00 TO 580+00, RT.				250	1		200*	
11-GR	576+75 TO 580+00, LT.				312.5		1	325*	
TOTALS		425	5	30	2262.5	6	6	2412.5	

* INCLUDES LENGTH OF "A" ANCHORS

* ABANDON BY CONNECTING PIPES THROUGH.

NOTE: ADD INTERMEDIATE GUARDRAIL POSTS TO PROVIDE 3'-1/2" POST SPACING AT BRIDGE PIERS AND OVERHEAD SIGN STRUCTURES AS PER STD. DRAWING GR-7.



TO MAINTAIN PROPER VERTICAL CLEARANCE OVER THE W.B. LANES, PLANE THE EXISTING ASPHALT CONCRETE COURSES OFF THE PAVEMENT AND BERMS AND TRANSITION EACH WAY FROM THE OVERPASS- SEE DETAIL ON SHEET 91. TRANSITION THE INITIAL 848 INTERMEDIATE COURSE TO STOP 150' FROM THE OVERPASS AND PAVE THE TOP TWO 848 COURSES UNDER THE OVERPASS ON THE W.B. LANES.

PLANE 1/2" MAX. OF ASPHALT CONCRETE SURFACE FROM THE E.B. LANES AND RAMP B & D AND TRANSITION TO END 100' FROM THE BRIDGE RESURFACE ALL COURSES UNDER THE OVERPASS.

SEE SHEET 29 FOR ADDITIONAL DETAILS FOR REED ROAD INTERCHANGE

SIGNING NOTES:

THE ONLY SIGNS SHOWN ON THIS PLAN ARE THOSE WHICH REQUIRE SAFETY UPGRADING WORK ON THE SUPPORTS.
SEE SHEET 49 FOR SIGNING QUANTITIES.

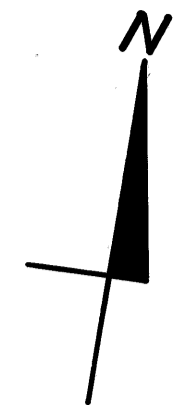
PROPOSED ACCELERATION LANE TO BE ADDED AT REST AREA EXIT, SEE DETAILS, SHEET 34.

SEE NEXT SHEET FOR REST AREA SIGN UPGRADING

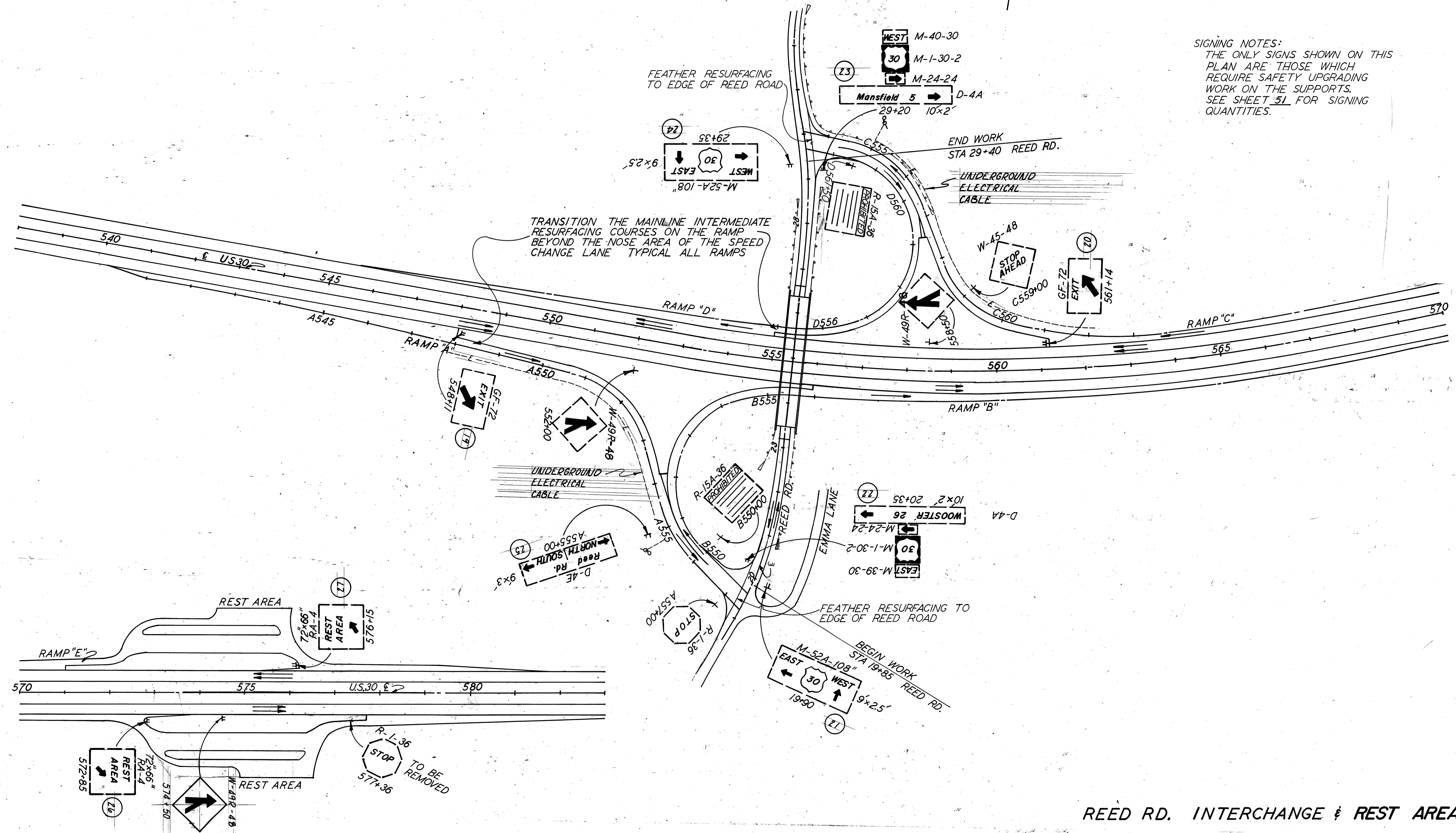
FHWA REGION	STATE	PROJECT
5	OHIO	

RIC-30-12.37
ASD-30-0.00

NOTE: EXISTING GUARDRAIL ON THE REED ROAD BRIDGE APPROACHES IS TYPE 5 WITH TYPE A BRIDGE TERMINALS. NO WORK REQUIRED.



SIGNING NOTES:
THE ONLY SIGNS SHOWN ON THIS PLAN ARE THOSE WHICH REQUIRE SAFETY UPGRADING WORK ON THE SUPPORTS. SEE SHEET 51 FOR SIGNING QUANTITIES.



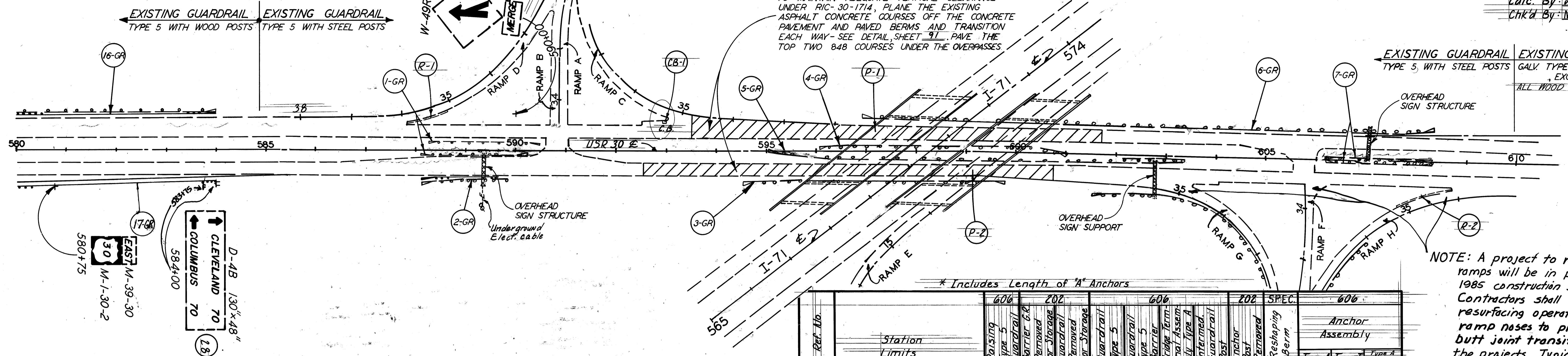
REED RD. INTERCHANGE & REST AREAS

RIC-30-12.37
ASD-30-000

Calc. By: P.O. 1/84
Chk'd By: MGA 1/1/84

EXISTING VERTICAL CLEARANCES
 RIC-30-1714 E.B. LANES = 14'-8"
 (S.B.-71) W.B. LANES = 14'-7"
 RIC-30-1718 E.B. LANES = 16'-9"
 (N.B.-71) W.B. LANES = 15'-11"

TO MAINTAIN ADEQUATE VERTICAL CLEARANCE UNDER RIC-30-1714, PLANE THE EXISTING ASPHALT CONCRETE COURSES OFF THE CONCRETE PAVEMENT AND PAVED BERMS AND TRANSITION EACH WAY - SEE DETAIL SHEET 91. PAVE THE TOP TWO 848 COURSES UNDER THE OVERPASSES.

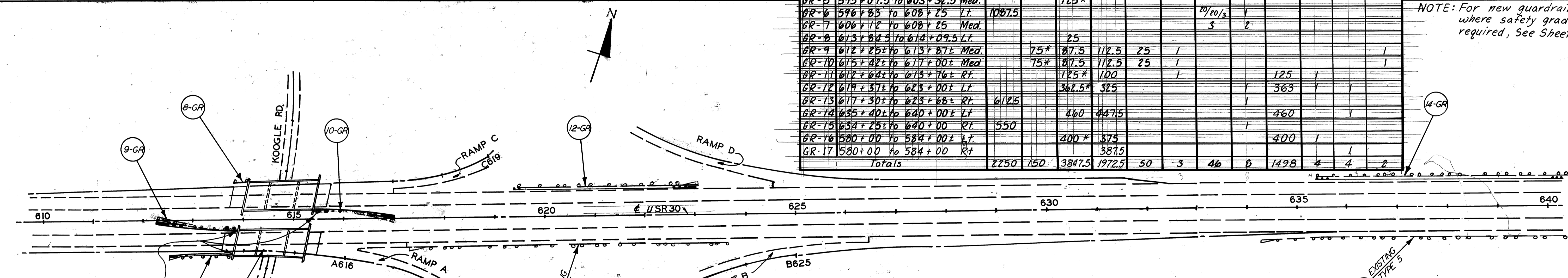


NOTE: A project to resurface the I-71 ramps will be in progress during 1985 construction season. The Contractors shall coordinate their resurfacing operations at the ramp noses to provide a smooth butt joint transition between the projects. Typical also for Ramps A to D noses at left.

See sheets 43 to 47 for proposed earthwork, drainage and new guardrail around overhead sign supports and I-71 overpass bridge piers, sta. 587+64± to sta. 608+30±

Ref. No.	Station Limits	606		202		606		202		SPEC.		606		
		Raising Type 5	Guardrail	Barrier	Removed	Guardrail	Barrier	Removed	Guardrail	Barrier	Removed	Reshaping	Type A	Type T
		Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Each	Each	Each	Lin. Ft.	Each	Each	Each
BR-1	588+13 to 590+26 Med.													
BR-2	588+13 to 589+88 Rt.				117.5	112.5					150	1	1	
BR-3	594+45 to 599+70 Rt.				475*									
BR-4	596+00 to 601+00 Med.				500*									
BR-5	595+07.5 to 603+32.5 Med.				725*									
BR-6	596+85 to 608+25 Lt.	1087.5								20/20/3	1			
BR-7	606+12 to 608+25 Med.									3	2			
BR-8	613+84.5 to 614+09.5 Lt.				25									
BR-9	612+25± to 613+87± Med.		75*	87.5	112.5	25	1							
BR-10	615+42± to 617+00± Med.		75*	87.5	112.5	25	1							
BR-11	612+64± to 613+76± Rt.				125*	100	1					125	1	
BR-12	619+37± to 623+00± Lt.				362.5*	325						363	1	
BR-13	617+30± to 623+88± Rt.	612.5												
BR-14	635+40± to 640+00± Lt.				460	447.5						460	1	
BR-15	634+25± to 640+00± Rt.	550												
BR-16	580+00 to 584+00± Lt.				400*	375						400	1	
GR-17	580+00 to 584+00 Rt.					387.5								
Totals		2250	150	3847.5	1972.5	50	3	46	8	1498	4	4	2	

NOTE: For new guardrail quantities where safety grading work is required, See Sheet 43.



Ref. No.	Station Limits	202		Special		604	
		Curb Removed	Asphalt	Pavement	Planning	Catch Basin	Adjusted to Grade
		Lin. Ft.	Sq. Yds.			Each	
P-1	593+50± to 601+70± WB					3330	
P-2	592+55± to 600+75± EB					3620	
R-1	35+10± to 35+88± Ramp D			81			
R-2	34+80± to 35+87± Ramp H			114			
CB-1	592+95± Lt.						1
Totals			195	6950			1

SIGNING NOTES
 The only signs shown on this plan are those which require safety upgrading work on the supports.
 See sheet 49 for signing quantities.

SEE SHEET 31 FOR ADDITIONAL DETAILS FOR KOOGLE ROAD INTERCHANGE

GUARDRAIL NOTES

Existing guardrail on Ramps is Galvanized Type 4 (Wood Posts), some with "A" Anchors on Approach End. The guardrail around the Overhead Sign Support (626+40±) is Type 5 (Wood Posts) with "A" Anchors.

See Sheet 33 for Resurfacing Limits on Crider Road

SIGNING NOTE:

The Only Signs shown on this plan are those which require safety upgrading work on the supports. See Sheet 51 for Signing Quantities

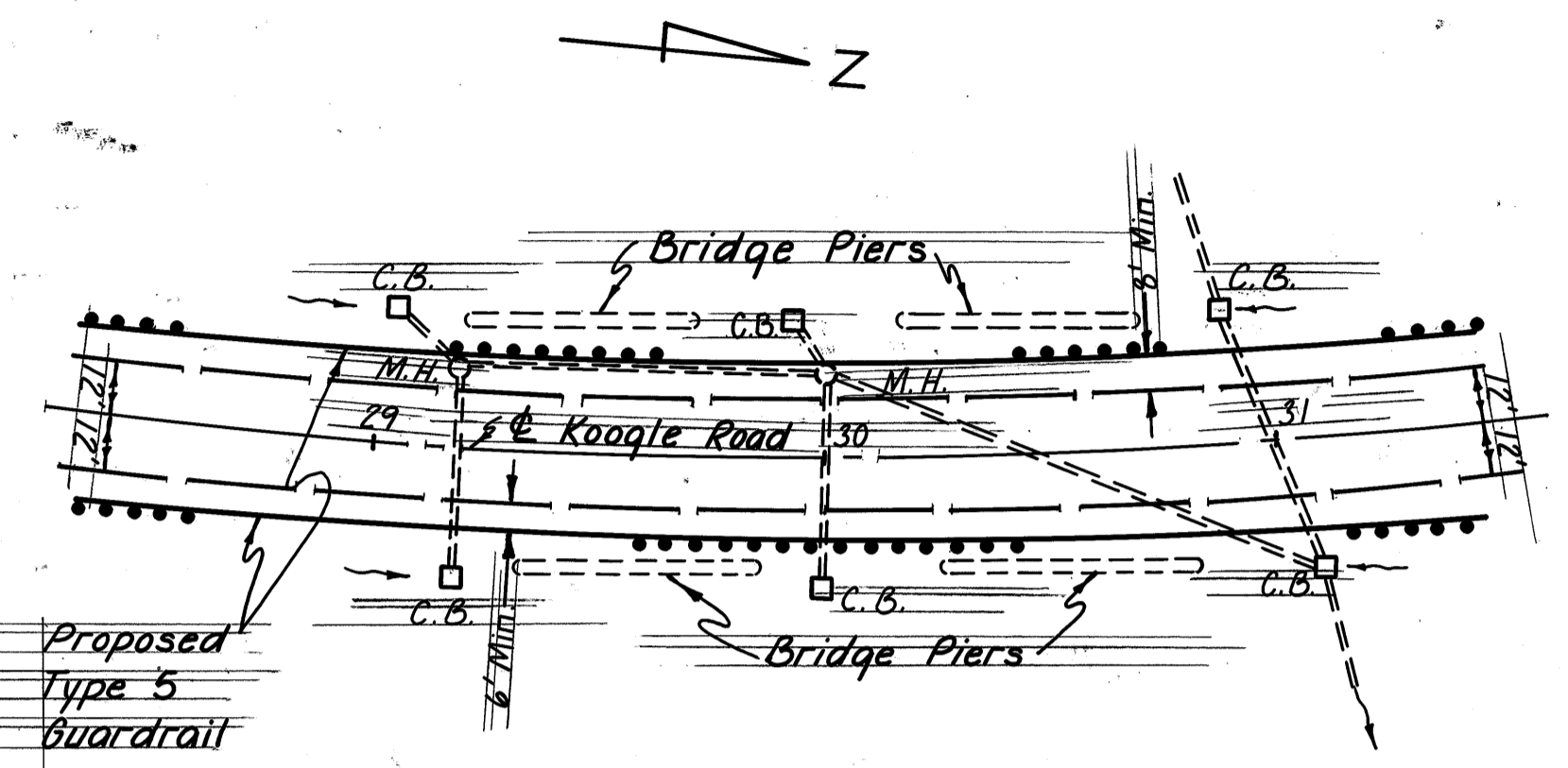
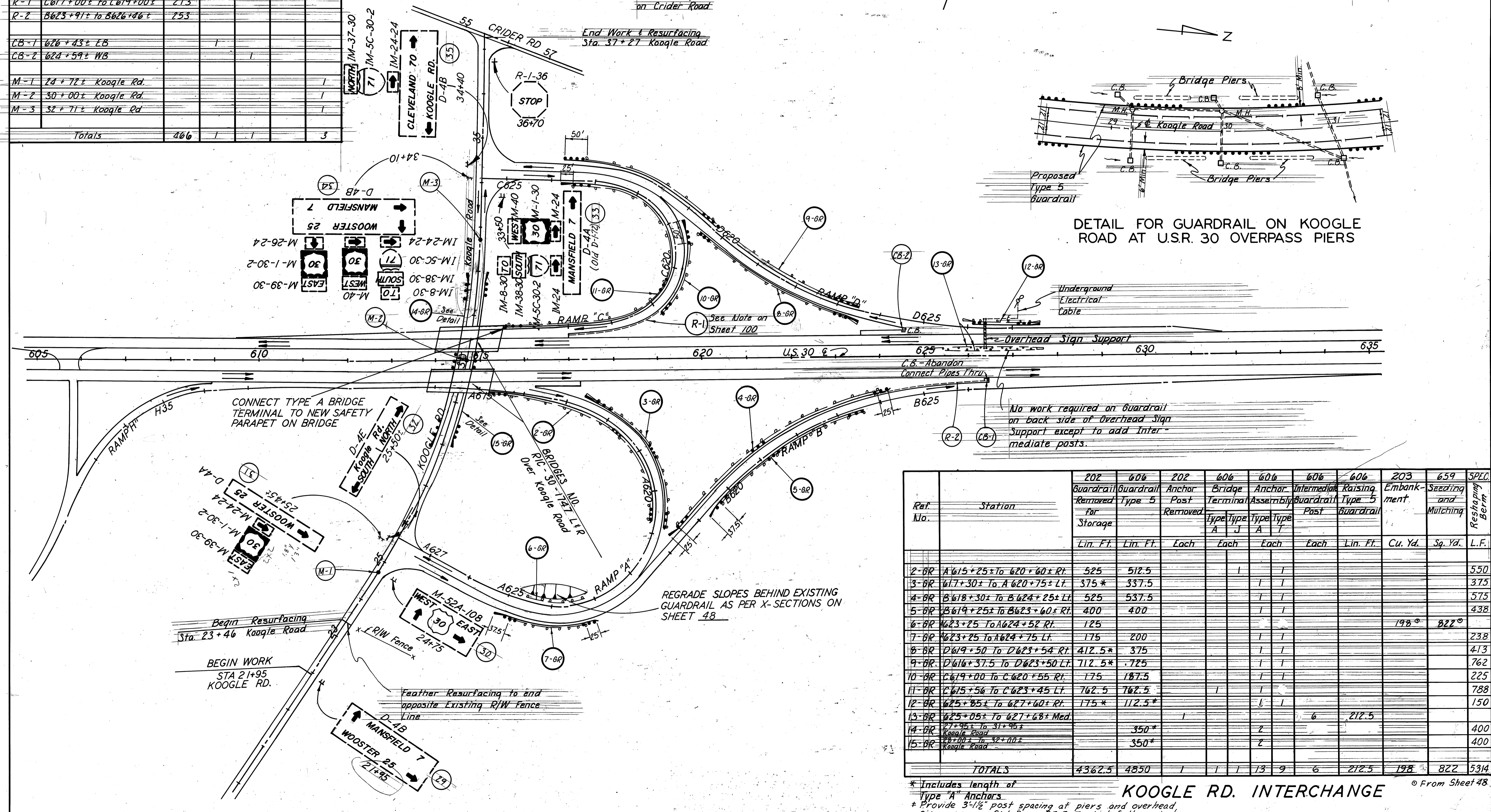
FHWA REGION	STATE	PROJECT	
5	OHIO		

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114

RIC-30-12.97
ASD-30-0.00

Calc. By: ROY 984
Chk'd By: MGA 1364

Ref. No.	Station Limits	202		606		604	
		Curb Removed	As Per Plan	Catch Basin Abandoned	Catch Basin Adjusted to Grade	Manurement Box Adjusted to Grade	
		Lin. Ft.	Each	Each	Each	Each	
R-1	C617+00± to C619+00±	213					
R-2	B623+91± to B626+46±	253					
CB-1	626+43± LB		1				
CB-2	624+59± WB		1				
M-1	74+72± Koogle Rd.					1	
M-2	30+00± Koogle Rd.					1	
M-3	32+71± Koogle Rd.					1	
Totals		466	1	1	1	3	



DETAIL FOR GUARDRAIL ON KOOGLE ROAD AT U.S. 30 OVERPASS PIERS

CONNECT TYPE A BRIDGE TERMINAL TO NEW SAFETY PARAPET ON BRIDGE

REGRADE SLOPES BEHIND EXISTING GUARDRAIL AS PER X-SECTIONS ON SHEET 48

BEGIN WORK STA 21+95 KOOGLE RD.

Ref. No.	Station	202		606		202		606		606		203		659		SPLC Resurfacing Berm
		Guardrail Removed for Storage	Guardrail Type 5	Anchor Post Removed	Bridge Terminal Type A	Anchor Assembly Type A	Intermediate Guardrail Post	Raising Type 5 Guardrail	Embarkment	Seeding and Mutching	Resurfacing	Berm				
		Lin. Ft.	Lin. Ft.	Each	Each	Each	Each	Each	Each	Lin. Ft.	Cu. Yd.	Sq. Yd.	L.F.			
2-OR	A615+25± to A620+60± RT.	525	512.5		1											550
3-OR	B617+30± to A620+75± LT.	375*	337.5			1	1									375
4-OR	B618+30± to B624+25± LT.	525	537.5			1	1									575
5-OR	B619+25± to B623+60± RT.	400	400			1	1									438
6-OR	A623+25± to A624+52± RT.	125										198°	822°			
7-OR	A623+25± to A624+75± LT.	175	200			1	1									238
8-OR	D619+50± to D623+54± RT.	412.5*	375			1	1									413
9-OR	D616+37.5± to D623+50± LT.	712.5*	725			1	1									762
10-OR	C619+00± to C620+55± RT.	175	187.5			1	1									225
11-OR	C615+56± to C623+45± LT.	762.5	762.5			1	1									788
12-OR	C625+85± to C627+60± RT.	175*	112.5*			1	1									150
13-OR	625+05± to 627+68± Med.							1	6		212.5					
14-OR	21+95± to 31+95± Koogle Road		350*													400
15-OR	32+00± to 32+00± Koogle Road		350*													400
TOTALS		4362.5	4850	1	1	1	13	9	6	212.5	198	822	5314			

* Includes length of Type "A" Anchors
* Provide 3 1/2" post spacing at piers and overhead signs as per Std. Drwg. GR-7, Typical full project.

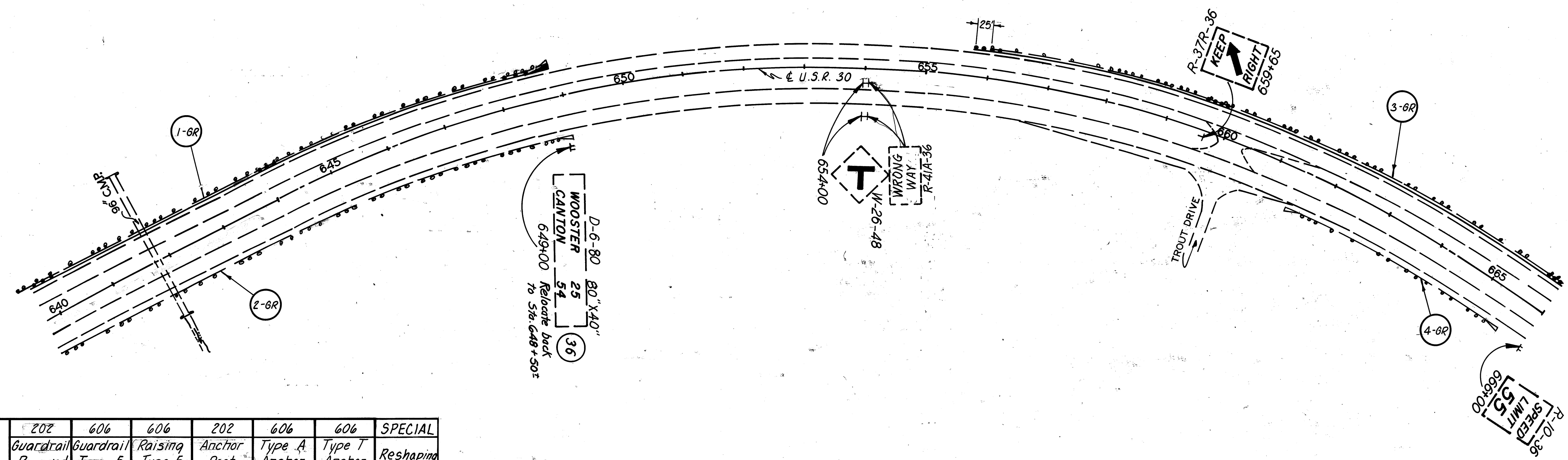
KOOGLE RD. INTERCHANGE

From Sheet 48

NOTE: EXISTING GUARDRAIL ON THE EASTBOUND LANES IS TYPE 5(WOOD POSTS) WITH "A" ANCHORS. EXISTING GUARDRAIL ON THE WESTBOUND LANES IS GALVANIZED, TYPE 4(WOOD POSTS) WITH "A" ANCHORS ON THE APPROACH END.

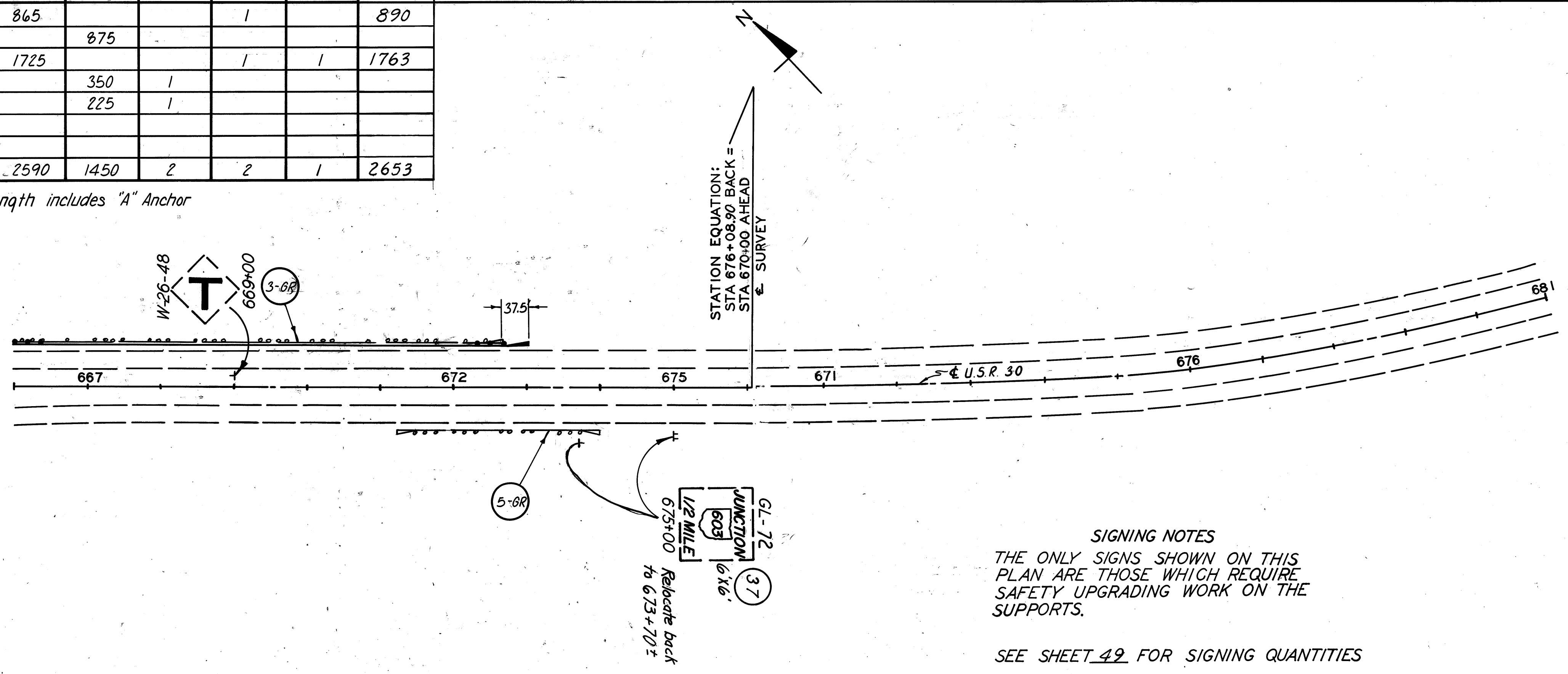
RIC-30-12.37
ASD-30-0.00

CALC. BY: CDJ 9/64
CHKD. BY: TEW 12/64



Ref. No.	Station	202	606	606	202	606	606	SPECIAL
		Guardrail Removed For Storage	Guardrail Type 5	Raising Type 5 Guardrail	Anchor Post Removed	Type A Anchor Assembly	Type T Anchor Assembly	
		Lin. Ft.	Lin. Ft.	Lin. Ft.	Each	Each	Each	Lin. Ft.
1-GR	640+00 to 648+85±LT	890*	865			1		890
2-GR	640+00 to 649+00±RT			875				
3-GR	655+75±to 673+00±LT	1700*	1725			1	1	1763
4-GR	661+30±to 665+25±LT			350	1			
5-GR	671+25±to 673+73±RT			225	1			
Totals		2590*	2590	1450	2	2	1	2653

* Removal Length includes "A" Anchor



SIGNING NOTES
THE ONLY SIGNS SHOWN ON THIS PLAN ARE THOSE WHICH REQUIRE SAFETY UPGRADING WORK ON THE SUPPORTS.

SEE SHEET 49 FOR SIGNING QUANTITIES

GUARDRAIL NOTE:
 EXISTING GUARDRAIL ON THE WESTBOUND LANES IS GALVANIZED TYPE 4 (WOOD POSTS) WITH 'A' ANCHOR ON APPROACH.
 EXISTING GUARDRAIL ON THE EASTBOUND LANES IS TYPE 5 (WOOD POSTS) WITH 'A' ANCHORS.

SIGNING NOTES:

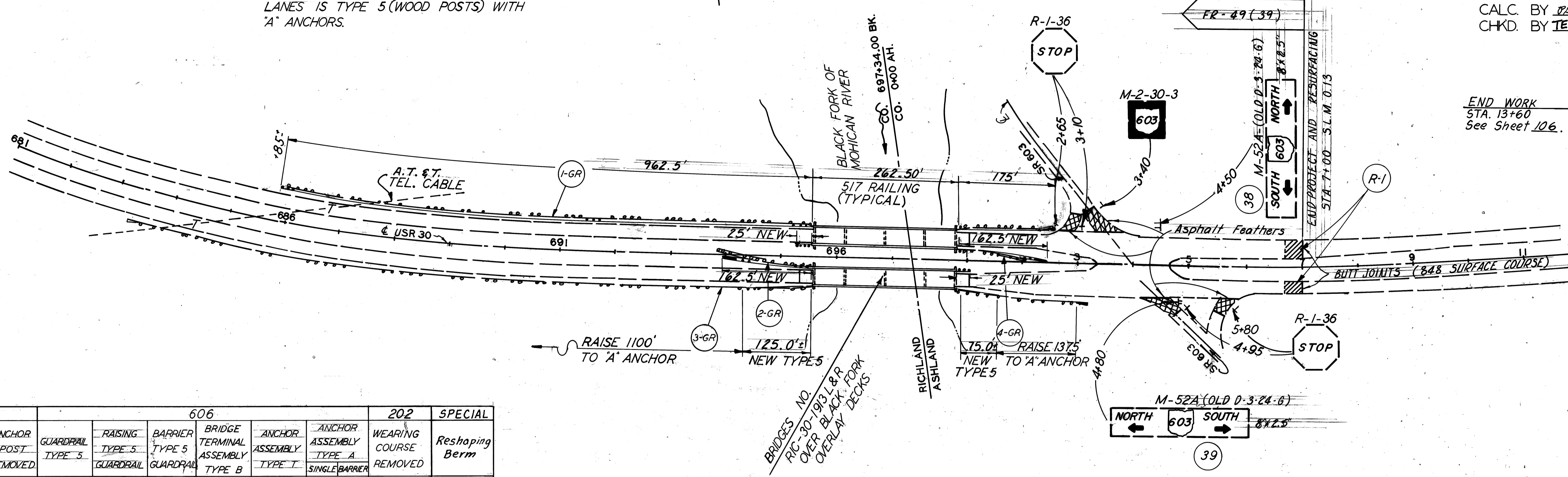
The only signs shown on this plan are those which require safety upgrading work on the supports.
 See Sheet 49 for Signing Quantities.

FHWA REGION	STATE	PROJECT
5	OHIO	

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RIC-30-12.37
 ASD-30-0.00

CALC. BY *PJA 9/84*
 CHKD. BY *TEW 12/84*

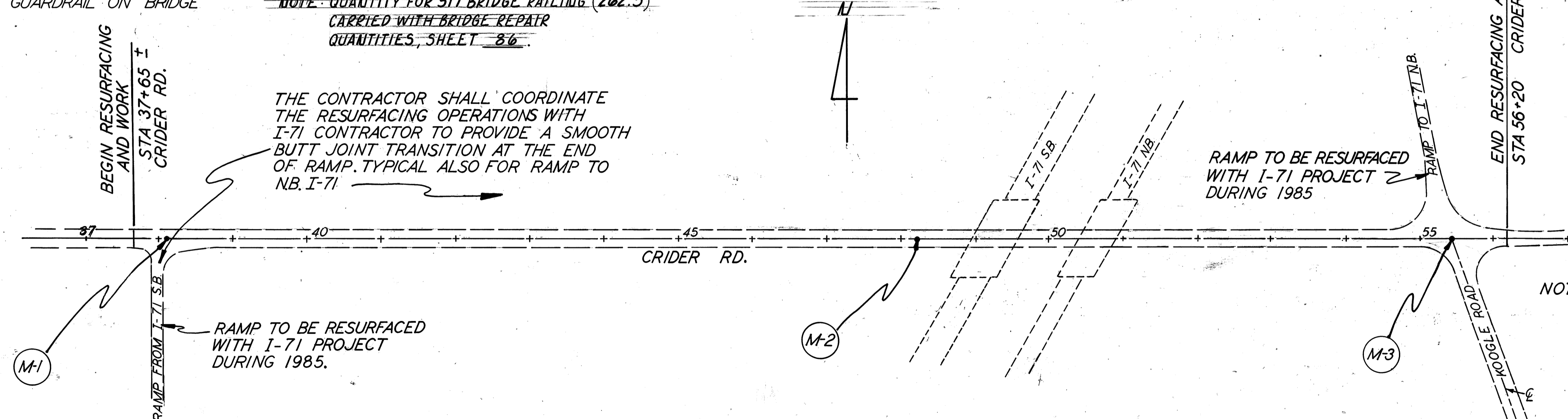


REF. NO.	STATION LIMITS	202			606				202	SPECIAL	
		GUARDRAIL REMOVED FOR STORAGE	BARRIER GUARDRAIL REMOVED FOR STORAGE	ANCHOR POST REMOVED	GUARDRAIL TYPE 5	RAISING TYPE 5 GUARDRAIL	BARRIER TYPE 5 GUARDRAIL	BRIDGE TERMINAL ASSEMBLY TYPE B	ANCHOR ASSEMBLY TYPE T	ANCHOR ASSEMBLY TYPE A SINGLE BARRIER	WEARING COURSE REMOVED
		LIN. FT.	EACH	LIN. FT.		EACH	EACH	EACH	SQ. YD.	LIN. FT.	
1-GR	685+85 TO 2+54	1381 *		1100		2	1	1		1137	
2-GR	692+85 TO 10+51	350 *	87.5	125	25	2	1	1			
3-GR	692+85 TO 2+98	456 *	1	200	12375	2				205	
4-GR	695+35 TO 7+46	325 *	50	125		2	1	1			
R-1	670+10 TO 7+00								280		
TOTALS		2512	137.5	1550	12375	50	3	2	280	1342	

* INCLUDES LENGTH OF GUARDRAIL ON BRIDGE

NOTE: QUANTITY FOR 517 BRIDGE RAILING (262.5) CARRIED WITH BRIDGE REPAIR QUANTITIES, SHEET 86.

NOTE: SIGN SUPPORTS ON CRIDER RD. TO BE UPGRADED WITH I-71 PROJECT

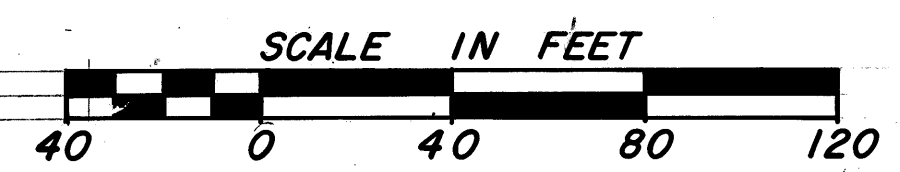


REF. NO.	STATION LIMITS	604 MONUMENT BOXES ADJUSTED TO GRADE EACH
M-1	38+06 ±	1
M-2	48+21 ±	1
M-3	55+42 ±	1
TOTALS		3

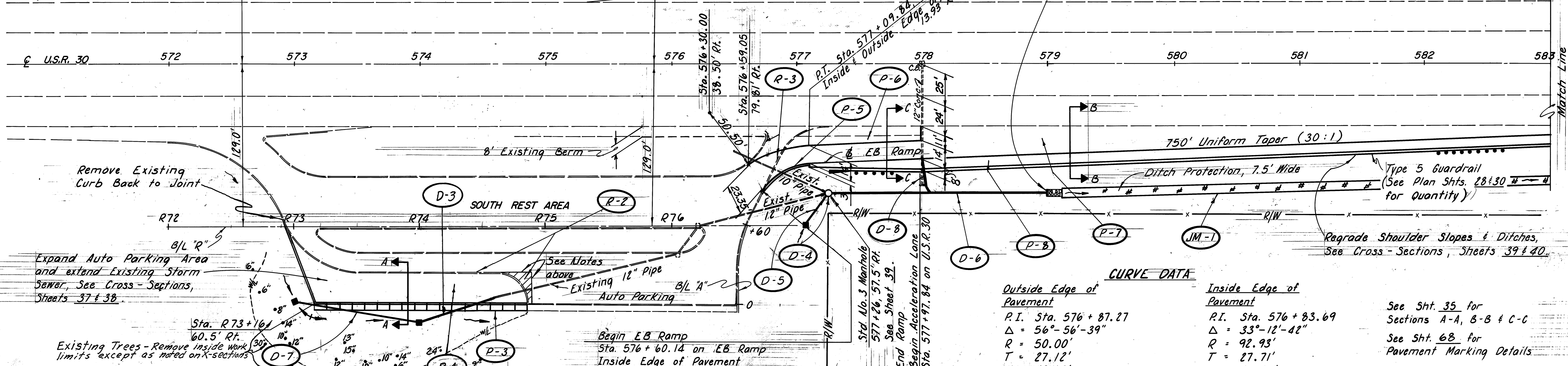
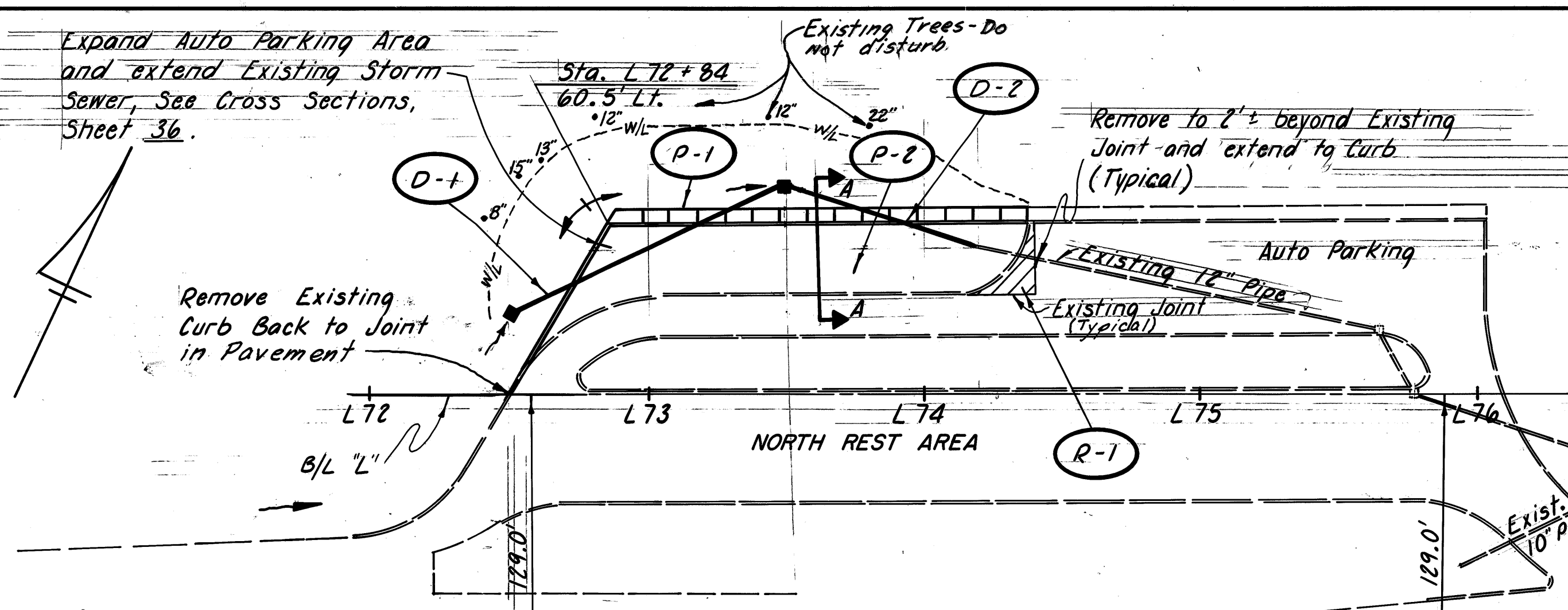
NOTE: FOR KOOGLE RD. RESURFACING SEE PLAN SHEET 31 AND TYPICAL SECTION.

RIC-30-12.37
ASD-30-0.00
Calc. By: RJR 9/84
Chkd By: MGA 9/84

B.M.: Chiseled "+" on top of Concrete Curb, NW Corner Parking Area @ WB Rest Area. Elev. = 1176.87



From Sht. No.	Location	203		659		660	
		Excavation	Embankment	Seeding & Mulching	Soil	Soil	Soil
		Cu. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.
36	North Rest Area	425	75			582	
37	South Rest Area	991	2			746	
38	South Rest Area	181	67	597		222	
39	EB Acceleration Lane	276	2159	1884			
40	EB Acceleration Lane	270	934	1858			
Totals		2143	3237	4339		1550	

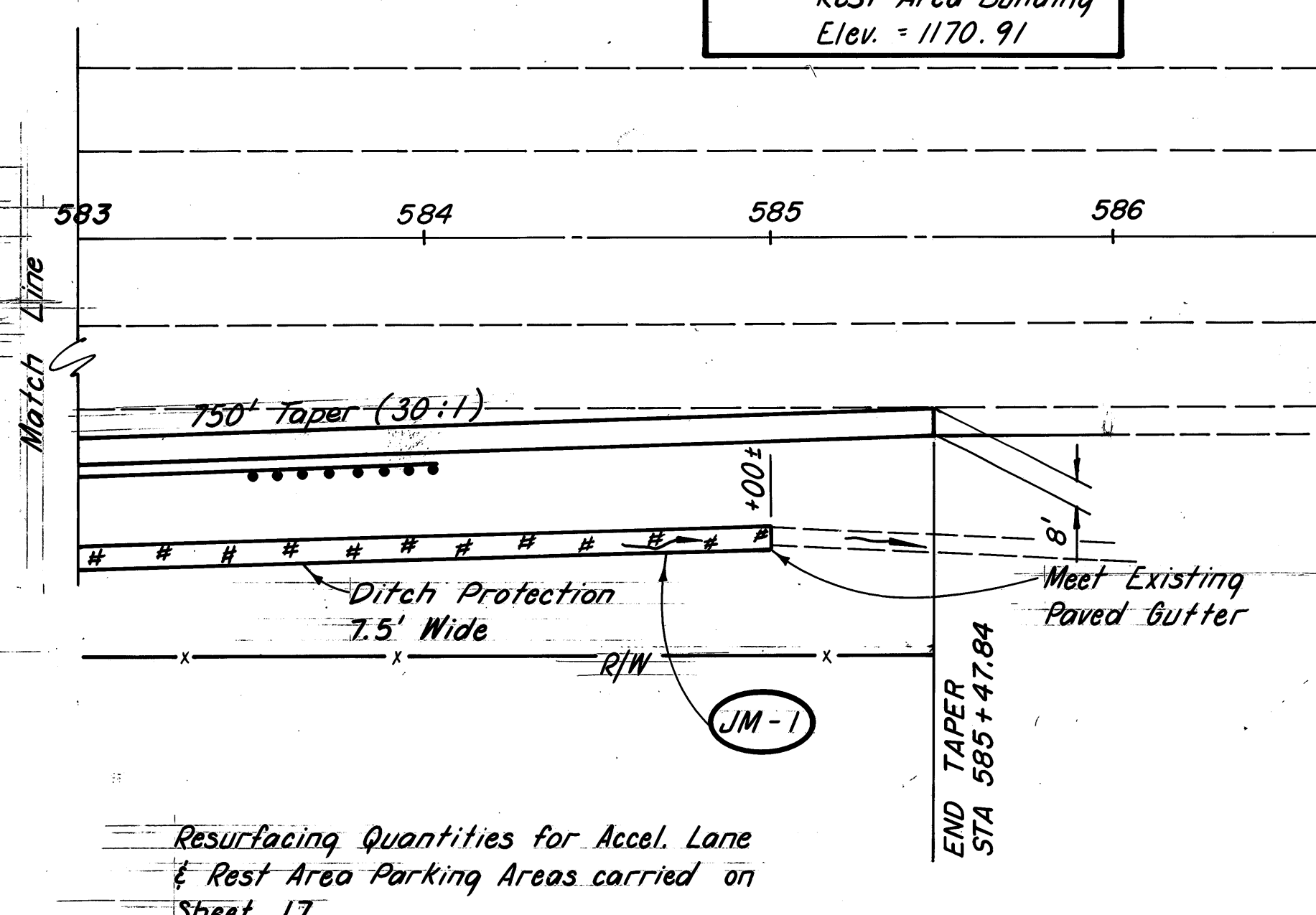


CURVE DATA

Location	Outside Edge of Pavement	Inside Edge of Pavement
Sta. 576 + 87.27	P.I. Sta. 576 + 87.27	P.I. Sta. 576 + 83.69
	Δ = 56°-56'-39"	Δ = 33°-12'-42"
	R = 50.00'	R = 92.93'
	T = 27.12'	T = 27.71'
	L = 49.69'	L = 53.86'

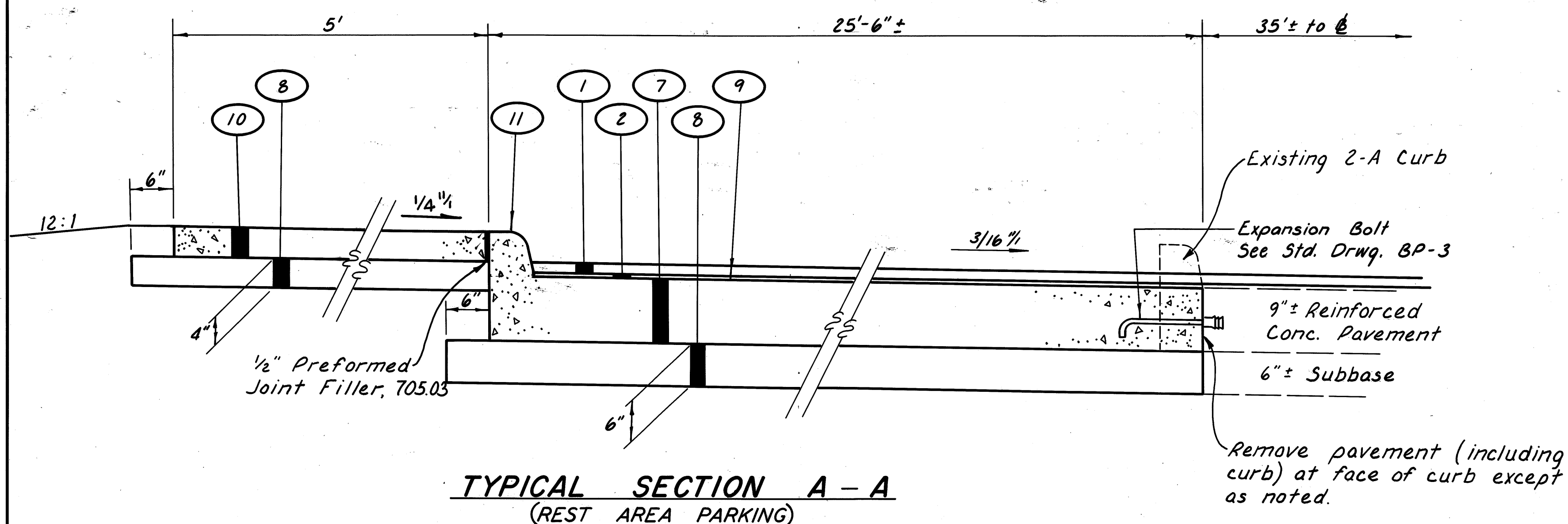
Ref. No.	Station Limits	Rest Area on Mainline	Side	202		203		670		605		301		305		310		601		602		603				604		608		609	
				Pavement Removed	Curb Removed	Subgrade Compaction	Ditch Erosion Protection	Aggregate Drains	4" THK. 8" THK.	9" THK.	4" THK. 6" THK. 11" THK. VAR. 15" THK.	Concrete Base	Subbase, Type II	Rock Channel Protection	Concrete Masonry	Type "B"	Type "C"	Standard Catch Basins	Standard No. 3 Manhole w/ Flat Slab Top	Concrete Walk	Curb	Conduit	Conduit	Conduit	Conduit	Conduit	Conduit	Conduit	Conduit	Conduit	Conduit
				Sq. Yd.	Lin. Ft.	Sq. Yd.	Sq. Yd.	L.F.	Cu. Yd.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Lin. Ft.	Each	Each	Sq. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.				
D-1	L72+50 to L73+50	North	Lt.																												
D-2	L73+50 to L74+20	North	Lt.																												
D-3	R74+00 to R74+60.5	South	Rt.																												
D-4	577+20± to 577+26	M/L	Rt.																												
D-5	A0+60 to 577+25.5	South	Rt.																												
D-6	577+26 to 579+00	M/L	Rt.																												
D-7	R73+00 to R74+00	South	Rt.																												
D-8	578+00± to 578+08±	M/L	Rt.																												
R-1	L72+50± to L74+39±	North	Lt.																												
R-2	R72+87± to R74+88±	South	Rt.																												
R-3	R76+59± to R77+10±	South	Lt.																												
P-1	L72+84± to L74+37±	North	Lt.																												
P-2	L72+40± to L74+39±	North	Lt.																												
P-3	R73+16± to R74+86±	South	Rt.																												
P-4	R72+87± to R74+88±	South	Rt.																												
P-5	576+60± to 577+09.84	Ramp	B/L																												
P-6	576+90± to 576+97.84	M/L	Rt.																												
P-7	576+75± to 585+47.84	M/L	Rt.																												
P-8	577+09.84 to 585+47.84	M/L	Rt.																												
JM-1	579+10 to 585+00	M/L	Rt.																												
Totals				62	95	22	2904	492	153	88	275	1009	20.0	172.7	377.0	260.0	29.2	2.2	0.33	279	4	134	174	3	2	1	7615	489	50		

B.M.: R.R. Spike in 48" Oak Tree - 25'± South of EB Rest Area Building Elev. = 1170.91



Resurfacing Quantities for Accel. Lane & Rest Area Parking Areas carried on Sheet 17.

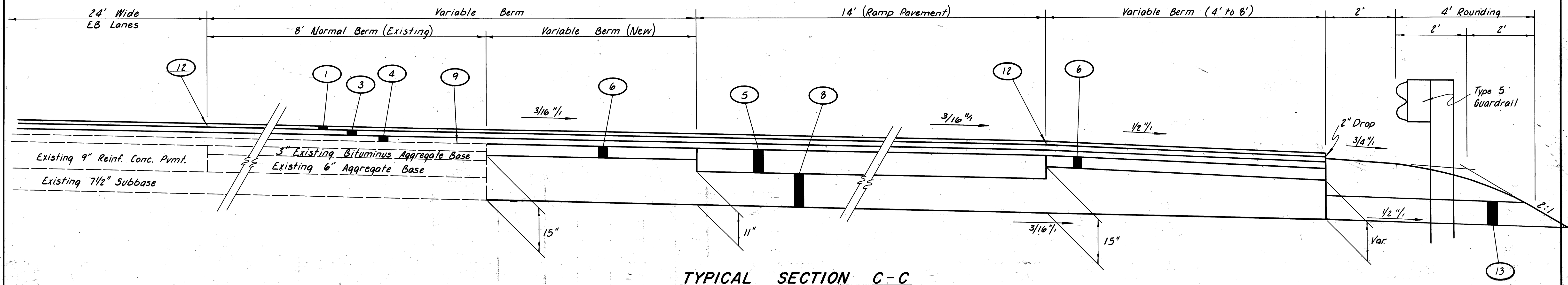
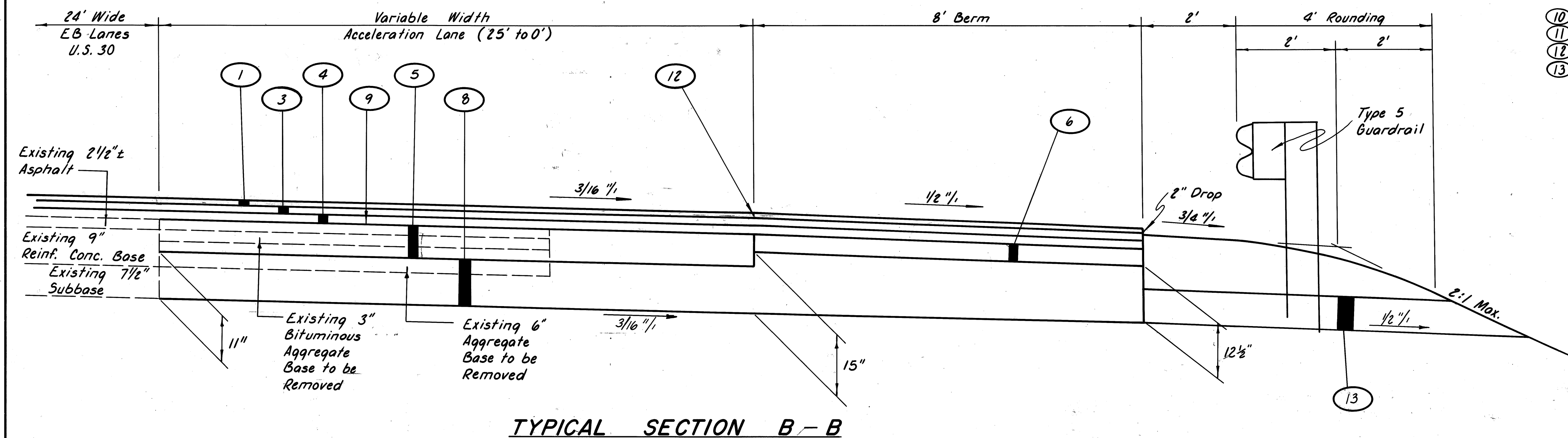
REST AREAS EXPANSION DETAILS

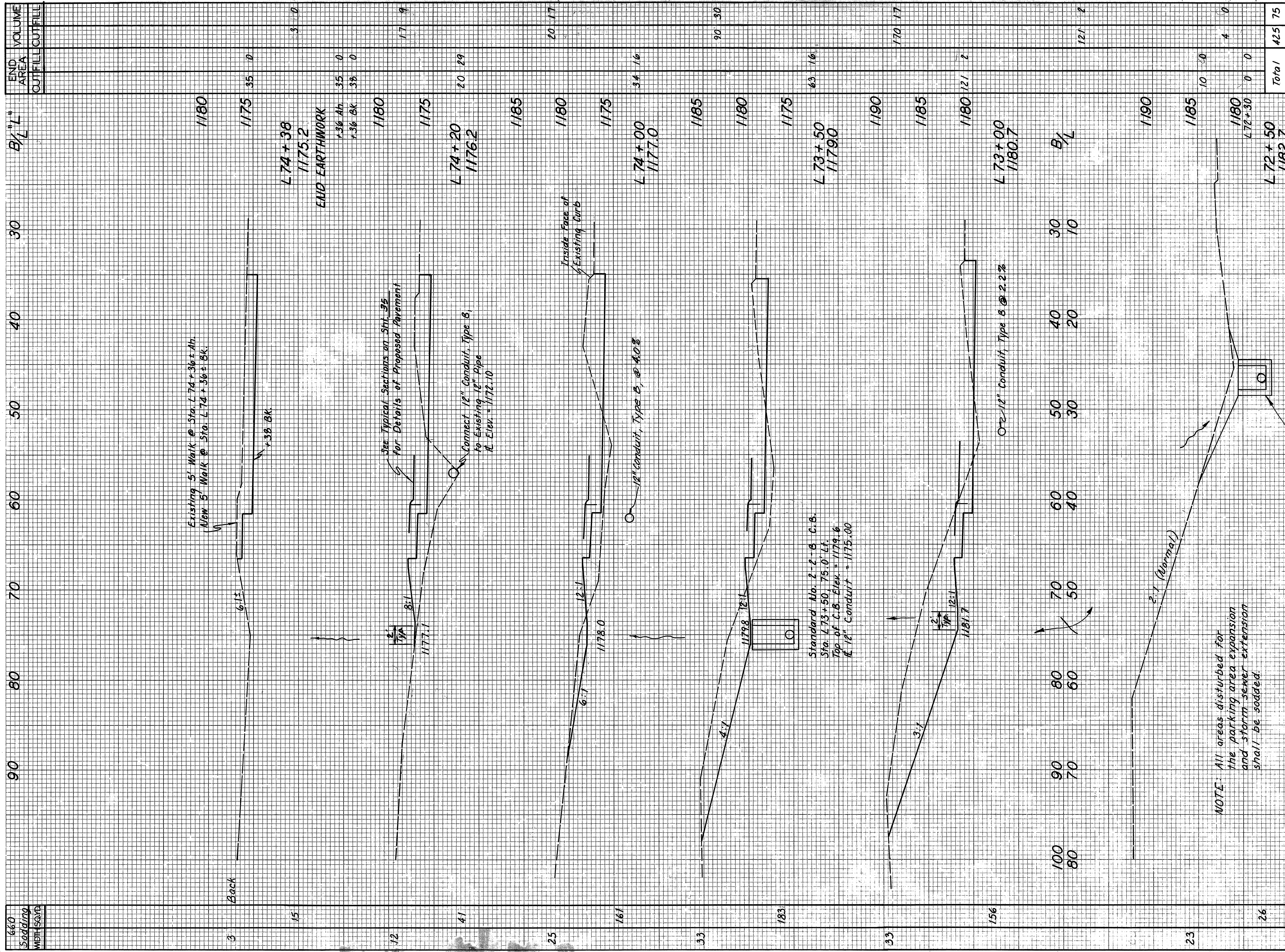


LEGEND:

- ① 1 1/4" - 848 Asphalt Concrete, Surface Course, Type 1, AC-20
- ② 1/2" Average - 848 Asphalt Concrete, Intermediate Course, Type 1, AC-20.
- ③ 1 3/4" - 848 Asphalt Concrete, Intermediate Course, Type 2 AC-20.
- ④ 2" - 848 Asphalt Concrete, Intermediate Course, Type 2, AC-20
- ⑤ 8" - 301 - Bituminous Aggregate Base: AC-20, or RT-11 or RT-12
- ⑥ 4" - 301 - Bituminous Aggregate Base: AC-20, or RT-11 or RT-12
- ⑦ 9" - 305 - Concrete Base
- ⑧ 310 - Subbase, Type II (See Typical Section for Thickness)
- ⑨ 407 Tack Coat, As Per Plan (See General Note) and Cover Aggregate - Applied to Existing Pavement and Berm Surfaces.
- ⑩ 4" - 608 Concrete Walk
- ⑪ 609 - Curb, Type 2A
- ⑫ Hot Longitudinal Joint (See General Note).
- ⑬ 605 Aggregate Drains (See Note Below)

The Aggregate Drains shall be placed at 50' intervals along the outside of the acceleration lane. The aggregate drains shall be installed after the 310 Subbase has been placed, but prior to the construction of the paved berm.





FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

RIC-30-12.37
 ASD-30-0.00

Calc. By RJR 9/84
 Chkd By MCA 9/84

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114

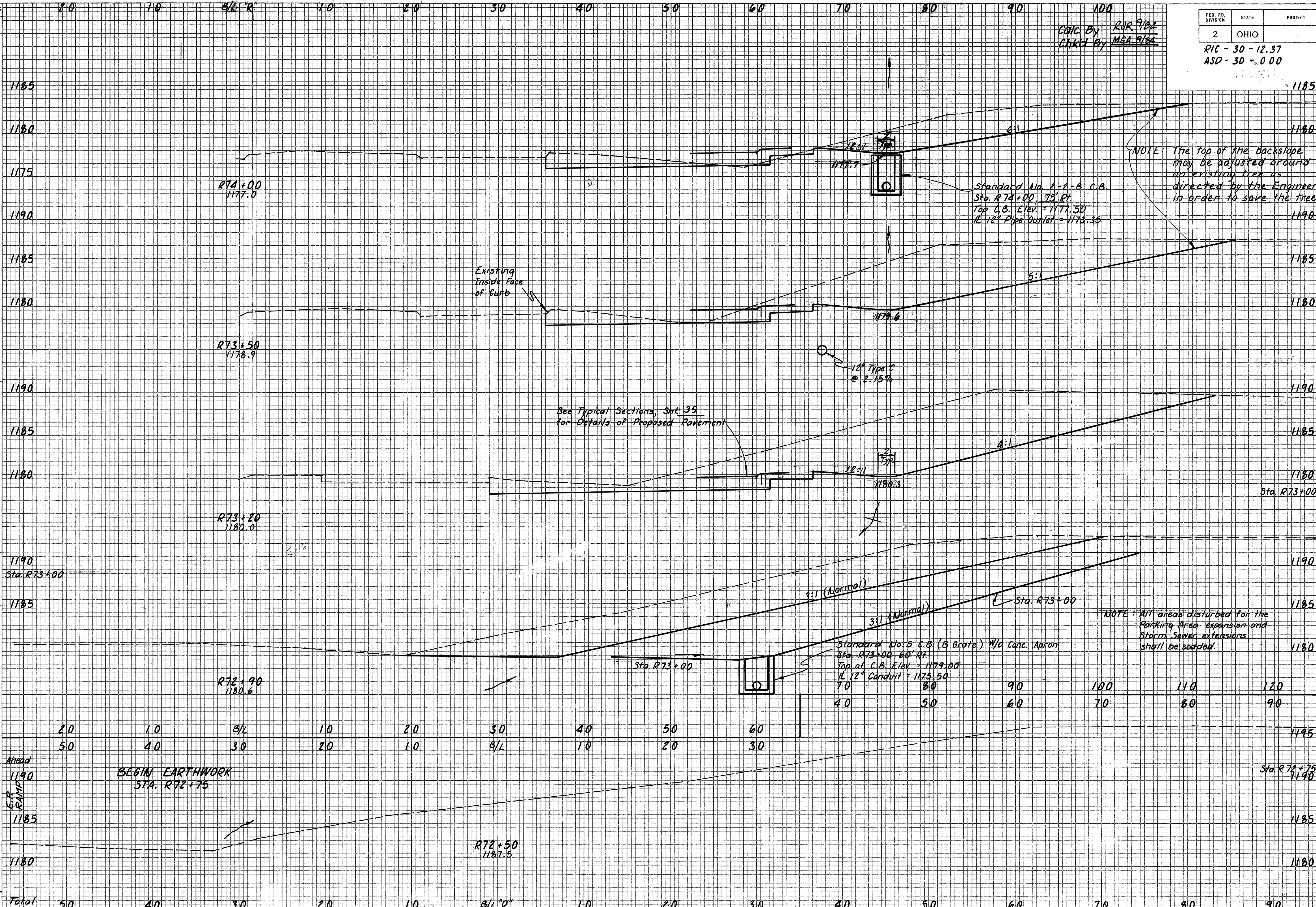
B/L	"L"	END AREA	VOLUME	CUT/FILL
1180				
1175	35	0		
L 74 + 38			3	0
1175.2				
END EARTHWORK				
r.36 Ah		35		
r.36 Bk		38		
1180			17	9
1175				
L 74 + 20		20		19
1176.2				
1185				
1180			20	17
1175				
L 74 + 00		34		16
1177.0				
1185				
1180			90	30
1175				
L 73 + 50		63		16
1179.0				
1190				
1185				
1180			170	17
1175				
L 73 + 00		121		2
1180.7				
B/L				
30				
10				
1190				
1185			10	0
1180				
L 72 + 50		4		0
1182.7				
Total			425	75

NOTE: All areas disturbed for the parking area expansion and storm sewer extension shall be sodded.

Standard No. 5 C.B. (B Grate) 1/2 Conc. Apron
 Sta. L 72 + 50 ± 26.5' LF
 Top of C.B. Elev. = 1180.50
 12" Pipe Outlet = 1177.43

BEGIN EARTHWORK
 STA L 72 + 30

660 SODDING
 END WIDTH SO. YDS.
 46
 53
 77
 80
 87
 77
 68
 4

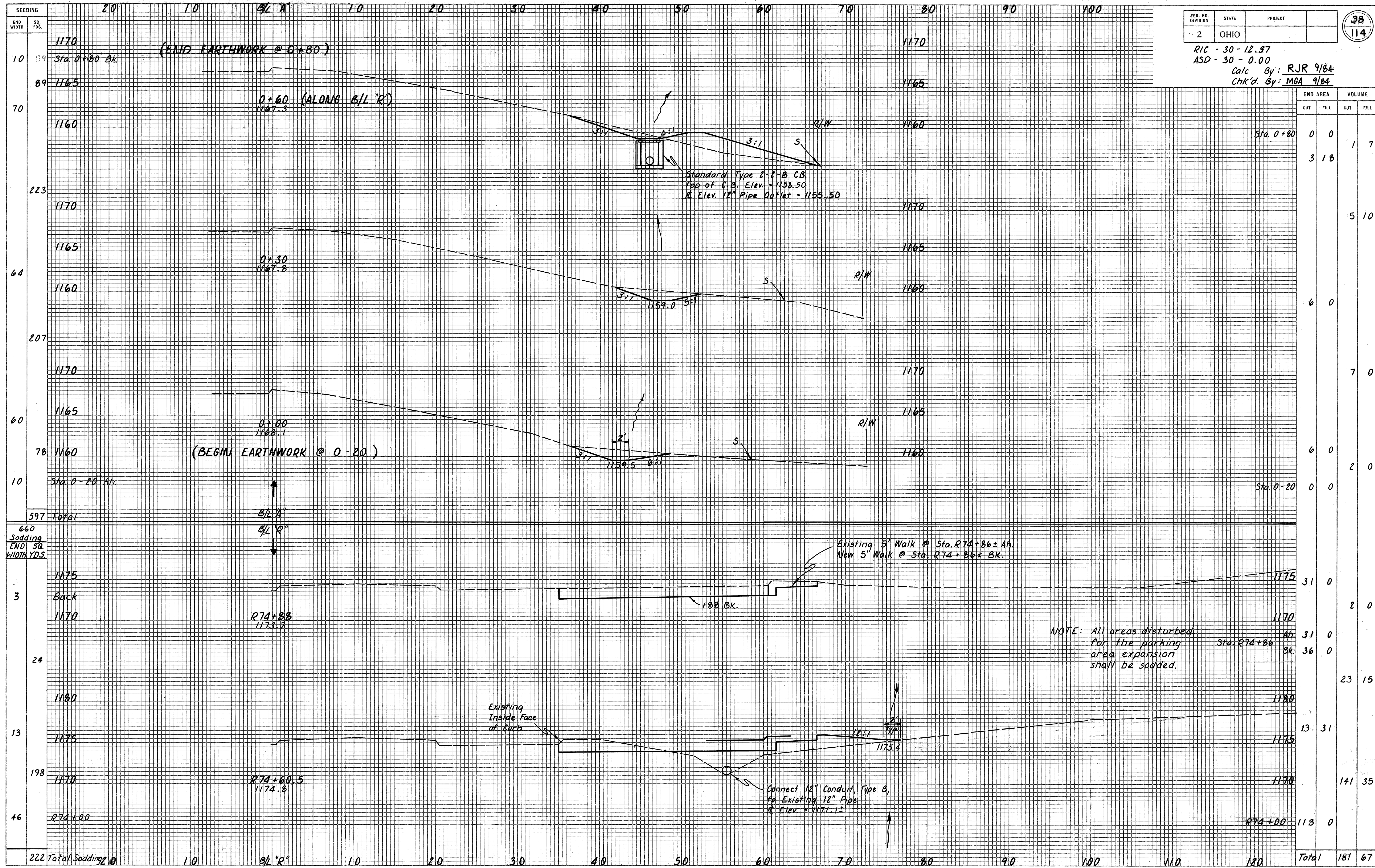


FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

RIC - 30 - 12.37
 ASD - 30 - 0 00
 37
 114

END AREA	VOLUME	
	CUT	FILL
11.3	2	
303	2	
274	0	
297	0	
309	0	
231	0	
315	0	
101	0	
233	0	
65	0	
1195		
0	0	
1185		
1180		
Totals	997	2

CROSS-SECTIONS @ SOUTH REST AREA



STATION	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Sta. 0+80	0	0	1	7
	3	18		
			5	10
			6	0
			7	0
			6	0
			2	0
Sta. 0-20	0	0		
597 Total				
660 Sodding				
END SQ. WIDTH YDS.				
3 Back			31	0
				2
24			31	0
			36	0
				23
13			13	31
				141
198				35
46			113	0
222 Total Sodding			Total	181 67

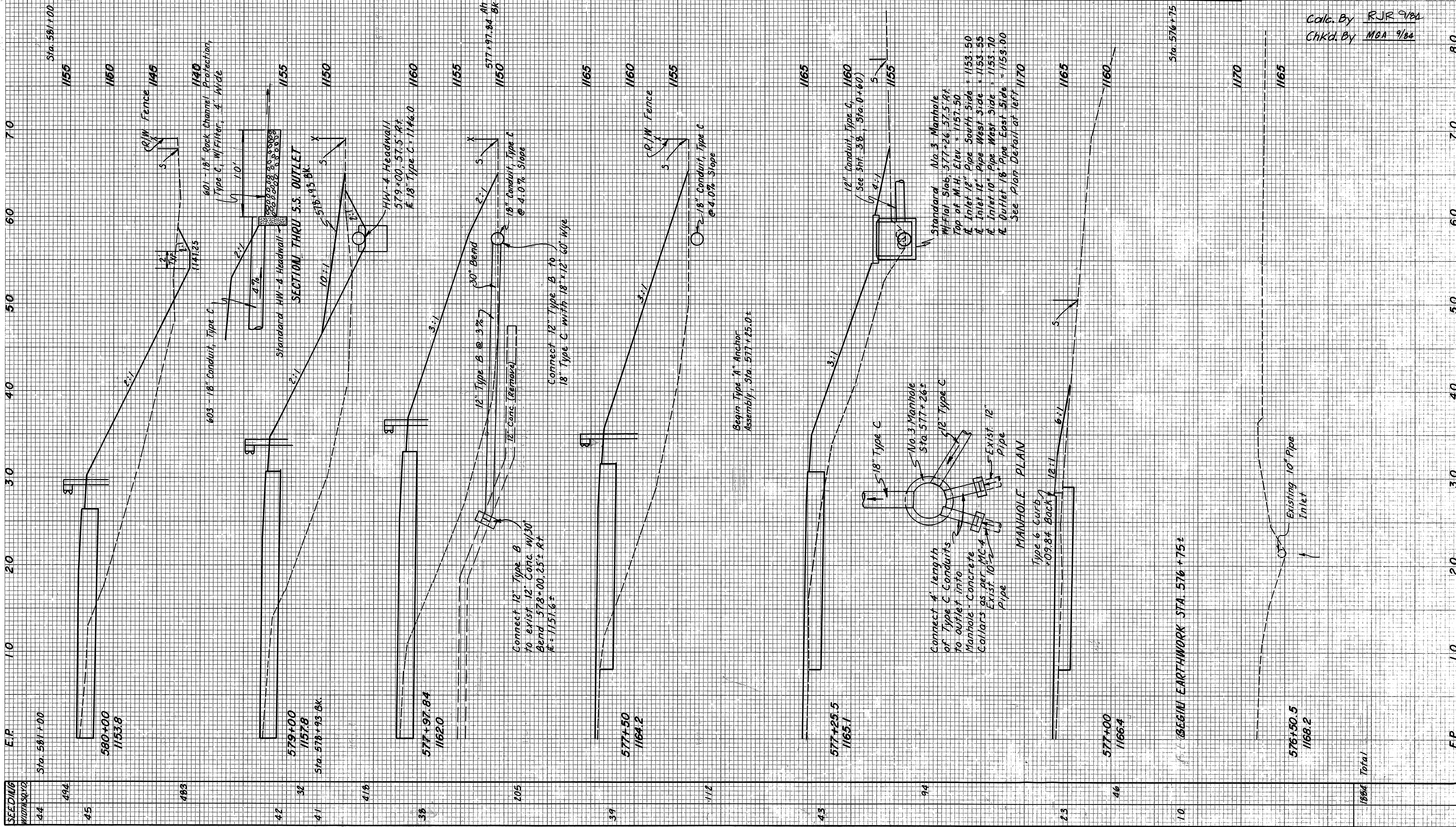
CROSS-SECTIONS @ SOUTH REST AREA

SEEDING WIDTH SQ. FT.	E.P.	Sta.	Elev.	END AREA		VOLUME
				DIT	FILL	
44		Sta. 581+00	1155	2.3	74	
45		580+00 1153.8	1160		81	300
42		579+00 1157.8	1155		99	
41		Sta. 578+93 BK.	1150			85
41b		577+97.84 1162.0	1160	25	146	
38		577+97.84 1162.0	1155	15	170	
205		577+97.84 1162.0	1150			51
39		577+50 1164.2	1165			9
43		577+25.5 1165.1	1160			12
94		577+25.5 1165.1	1155	20	93	
23		577+00 1166.4	1165	75	7	
10		Sta. 576+75	1170			0
1884	Total					276

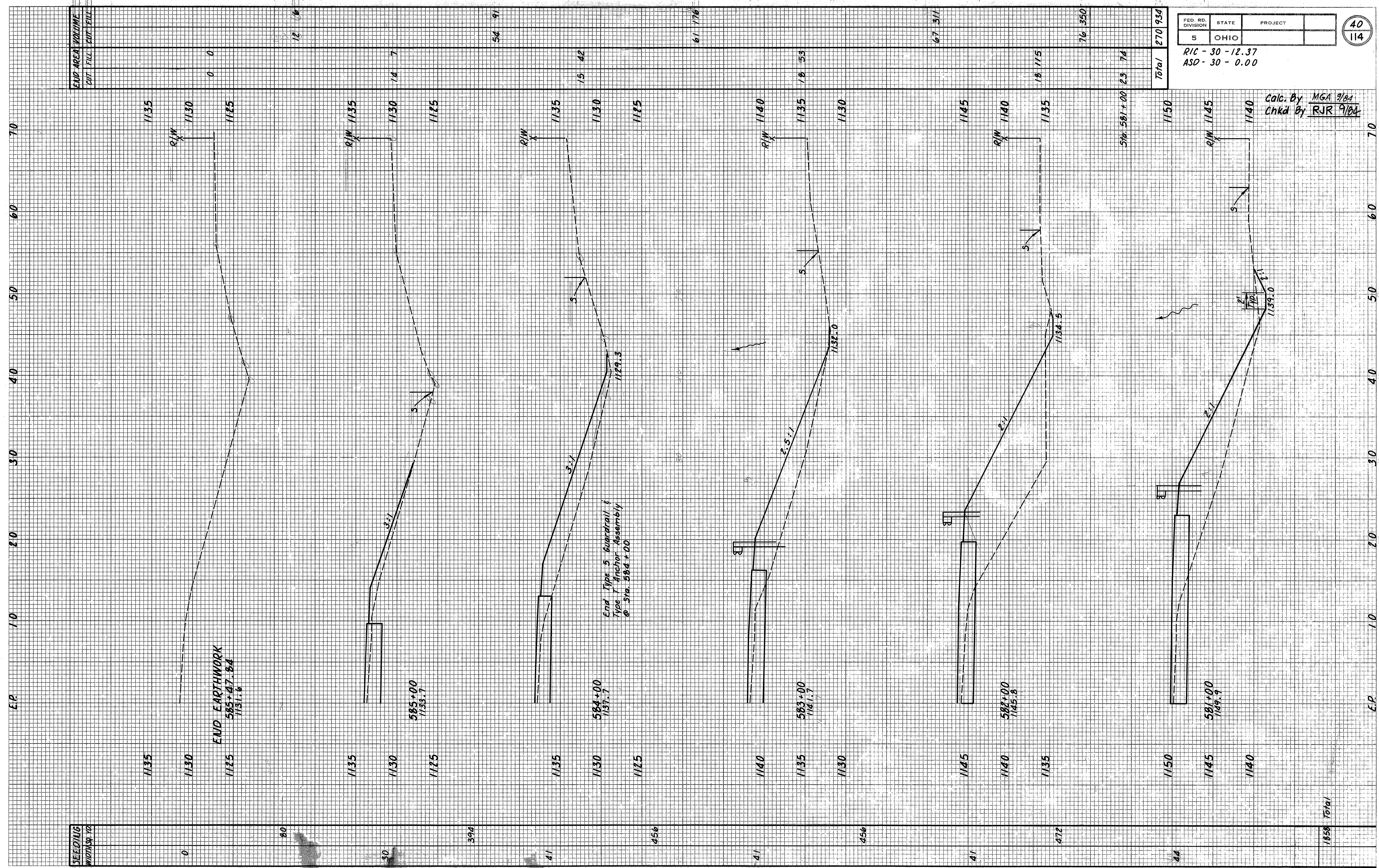
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

RIC - 30 - 12.37
 ASD - 30 - 0.00

Calc. By RJR 9/84
 Chkd. By MCA 9/84



CROSS SECTIONS @ EB ACCELERATION LANE



FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

RIC - 30 - 12.37
ASD - 30 - 0.00

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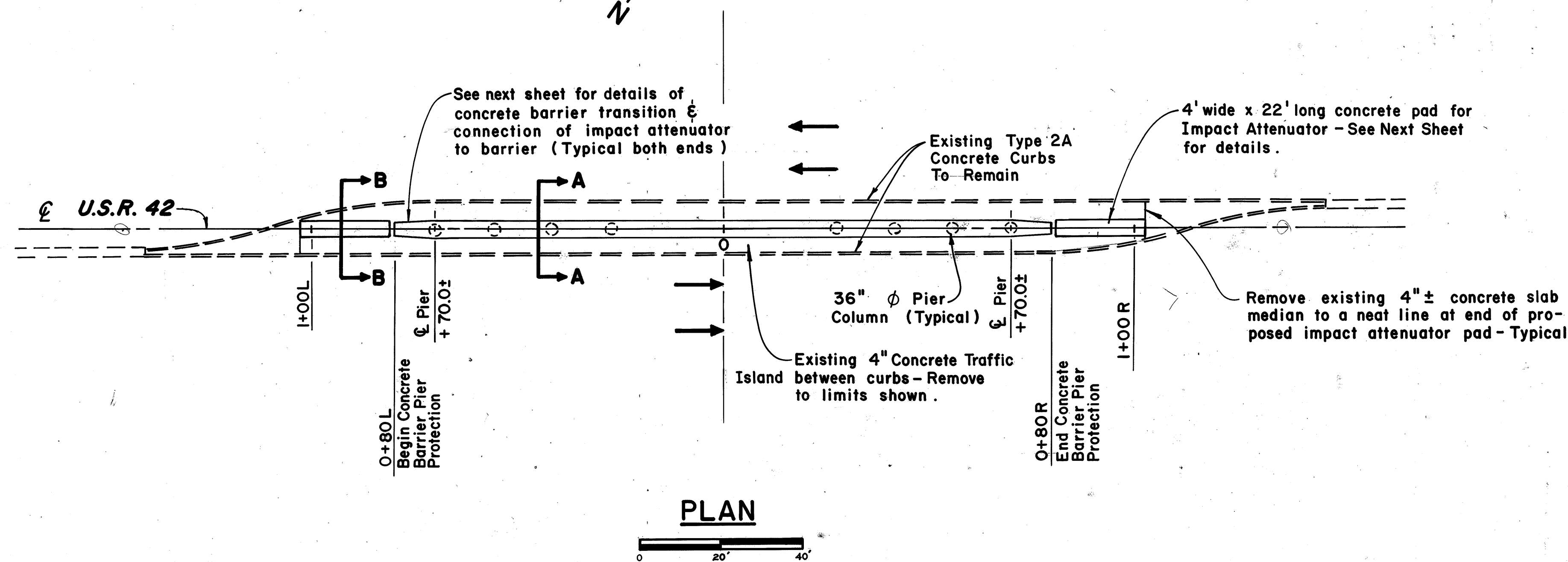
Calc. By MGA 9/84
Chkd By RJR 9/84

CROSS SECTIONS @ EB ACCELERATION LANE

Calc. By *PDA 9/84*
 Chkd. By *ROS 12/84*

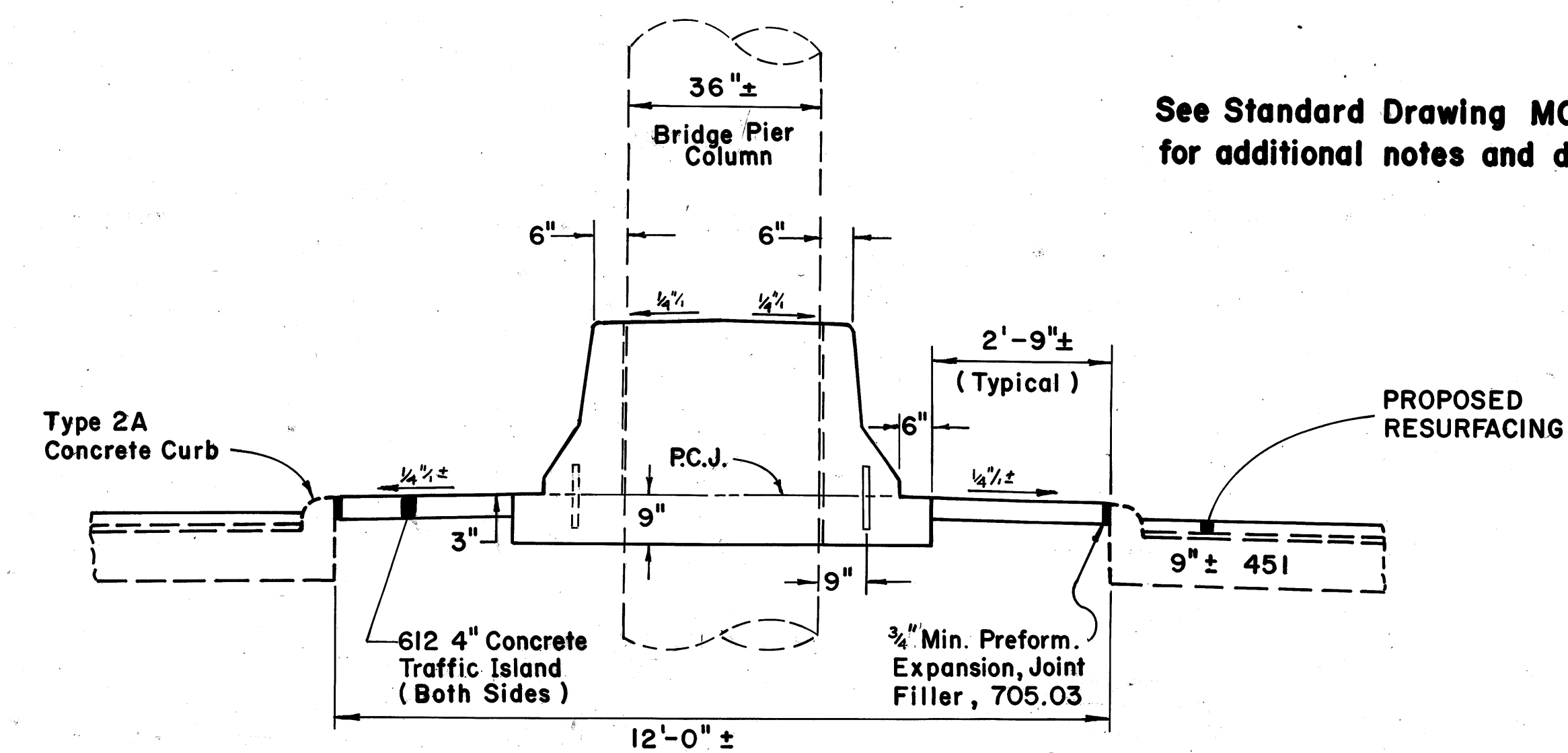
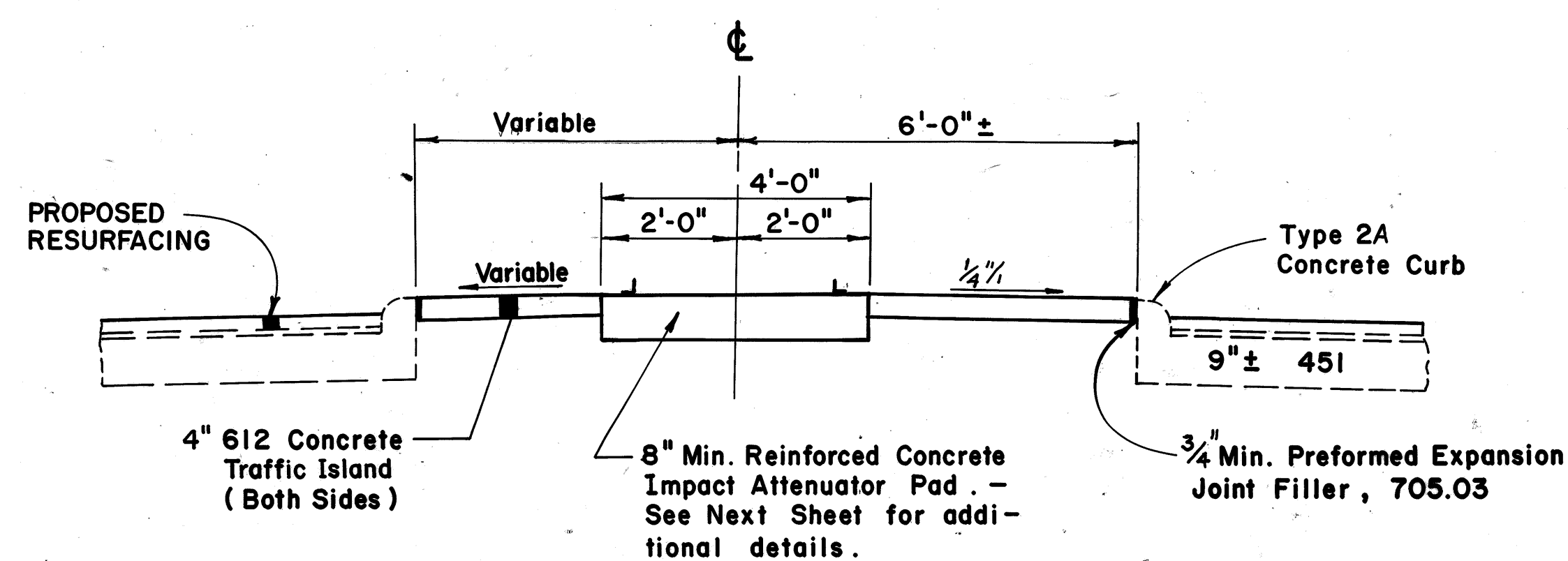
FHWA REGION	STATE	PROJECT
5	OHIO	

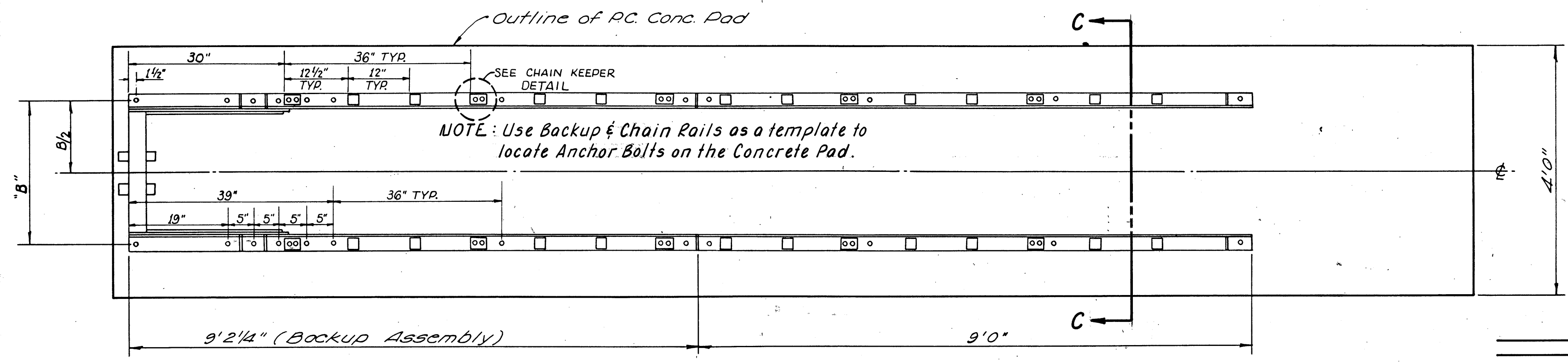
RIC-30-12.37
 ASD-30-0.00



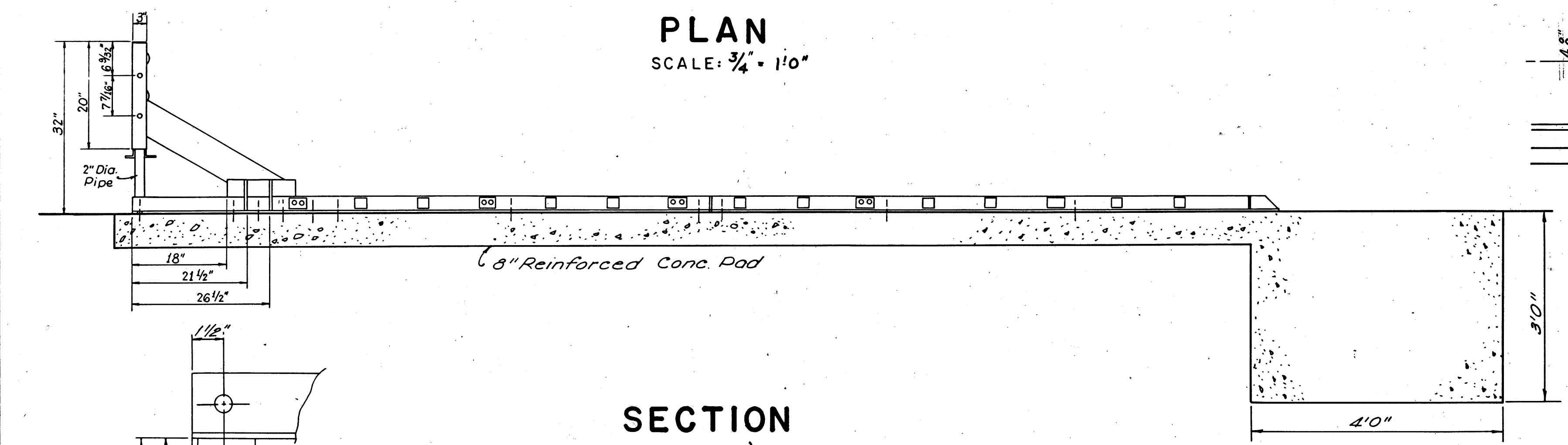
ESTIMATED QUANTITIES

ITEM	QUANTITY	UNITS	DESCRIPTION
202	262	Sq.Yd.	Concrete Traffic Island Removed
612	133	Sq.Yd.	4" Concrete Traffic Island
622	160	Lin.Ft.	Concrete Barrier, As Per Plan
SPECIAL	2	Each	Impact Attenuator, G-R-E-A-T System Model 300300 SF6, Bi-Directional

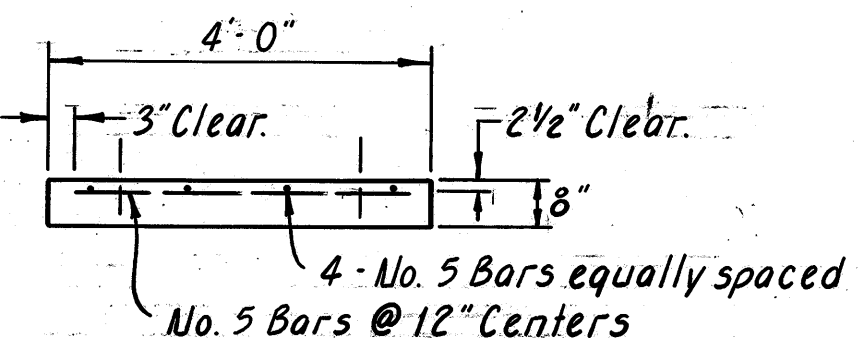
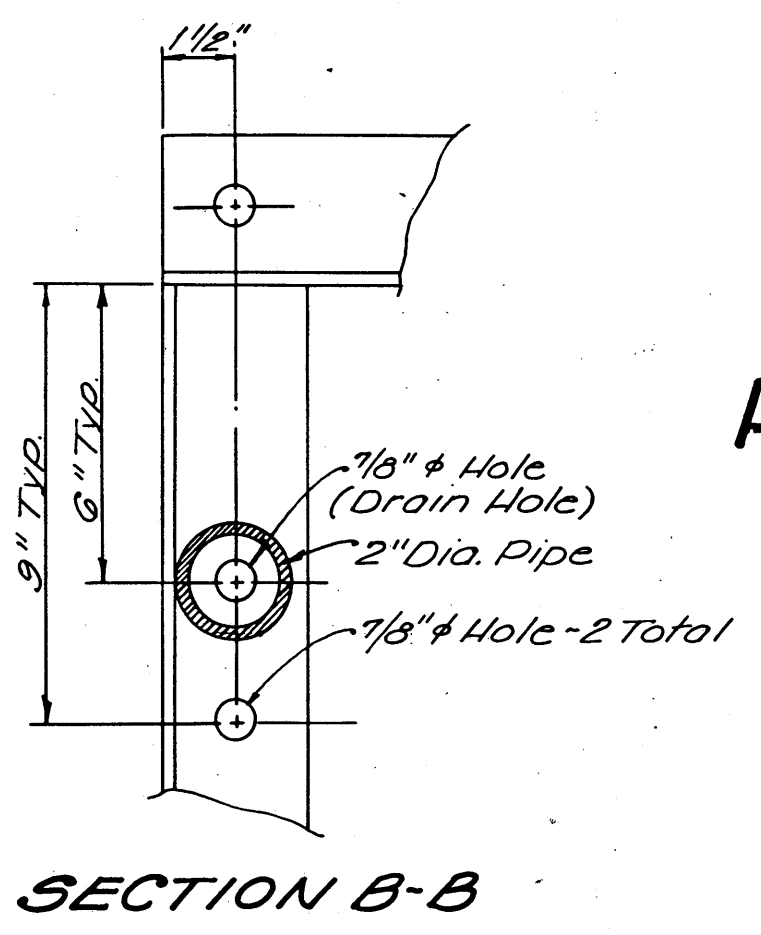




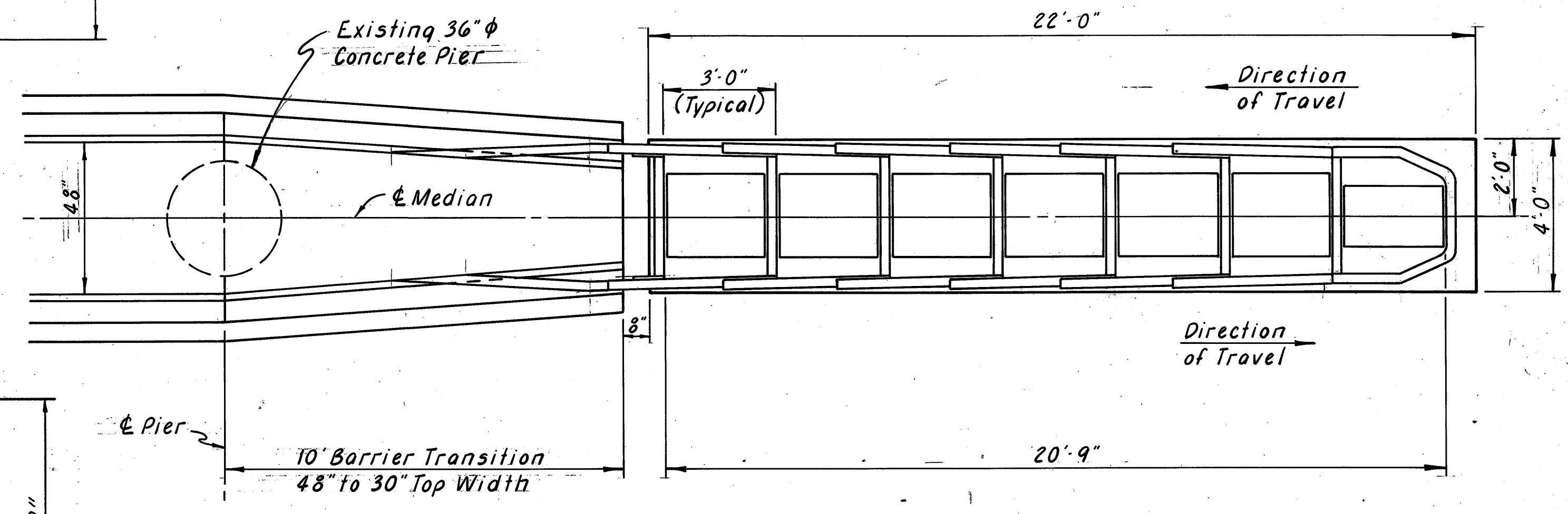
PLAN
SCALE: 3/4" = 1'-0"



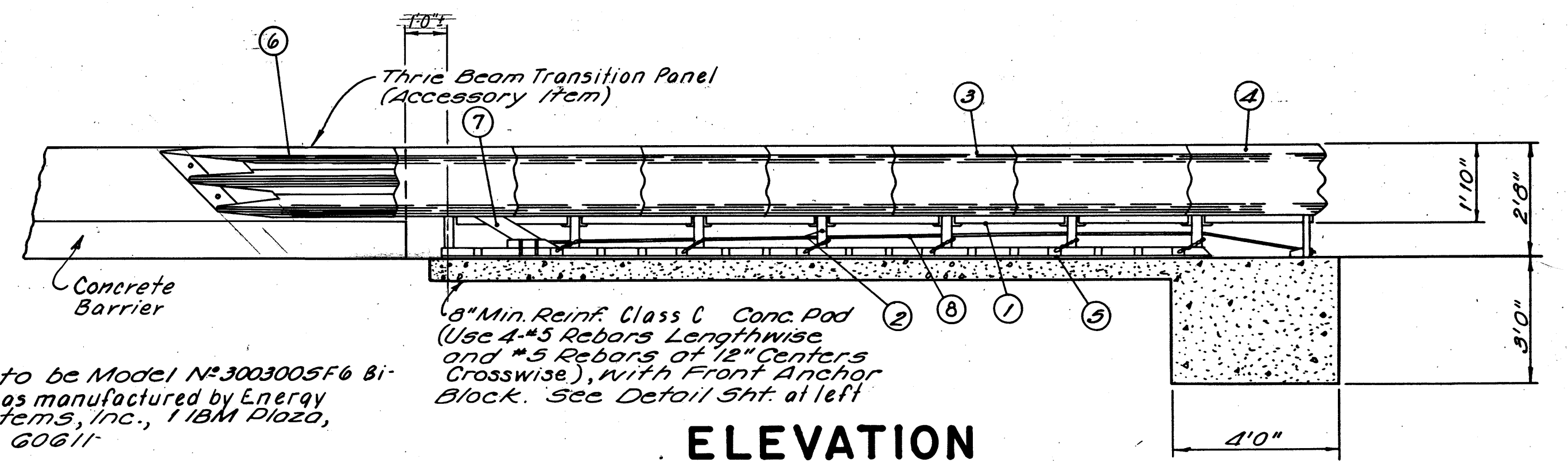
SECTION
ANCHOR CHAIN RAIL DETAILS



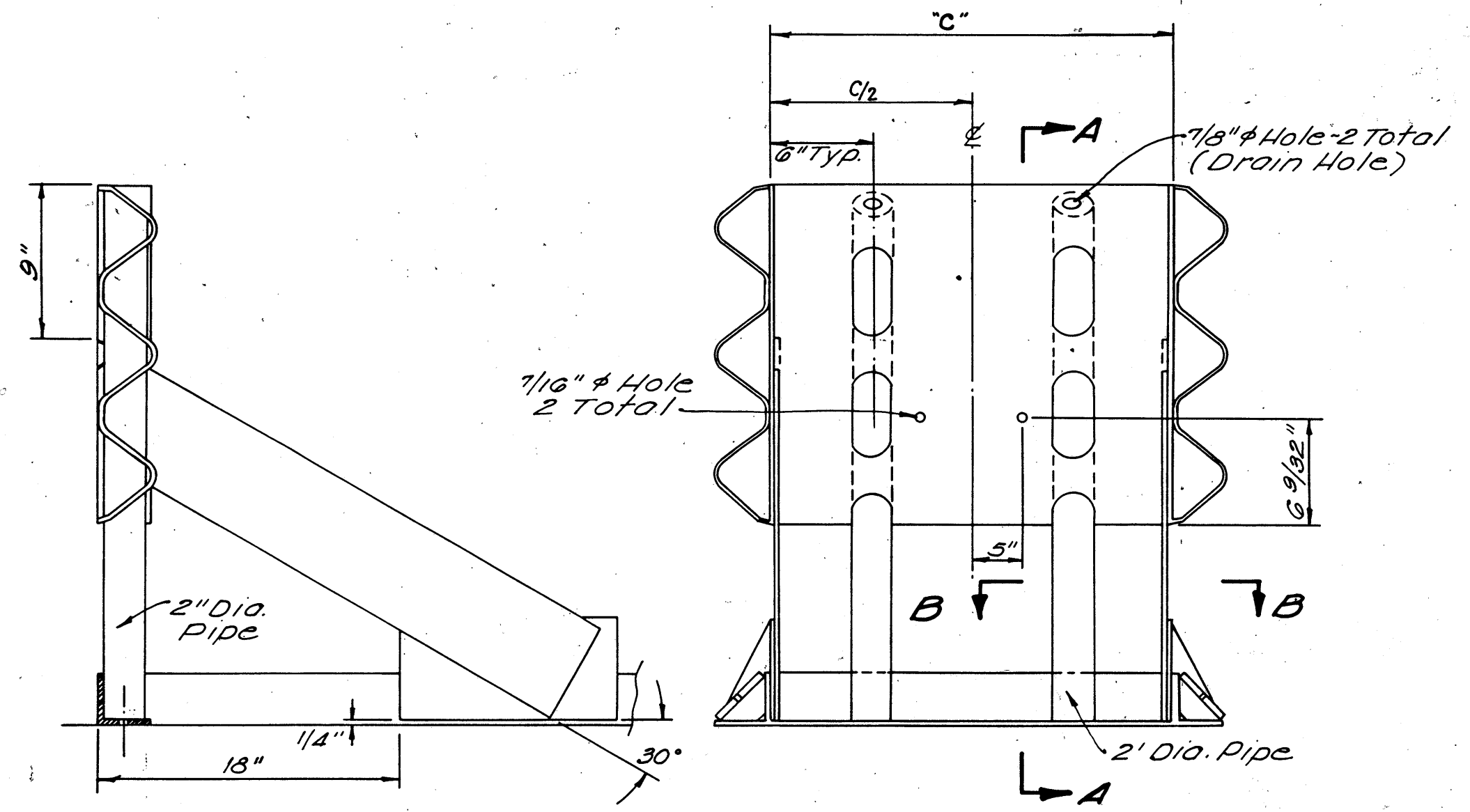
Rebar placement shall not interfere with the drilling of the anchor bolt holes.



PLAN 3/8" = 1'-0"



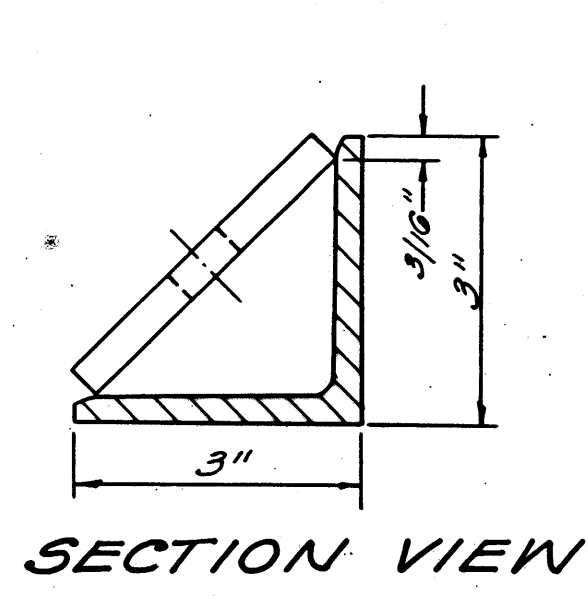
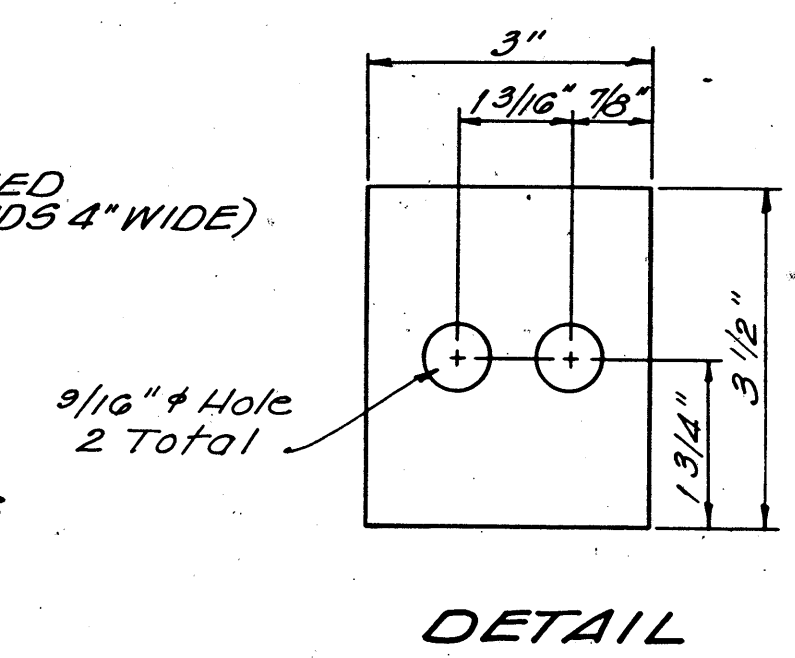
Impact Attenuator to be Model No. 300300SF6 Bi-Directional R.E.A.T. as manufactured by Energy Absorption Systems, Inc., 118M Plaza, Chicago, Illinois 60611



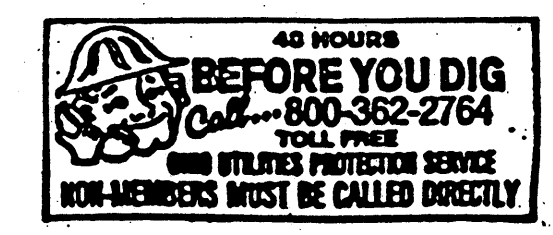
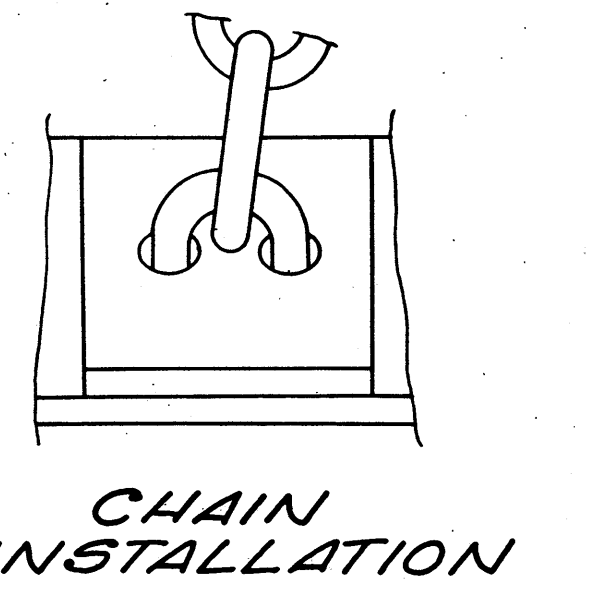
TENSION STRUT BACKUP ASSEMBLY SCALE: 1/2" = 1'-0"

LEGEND

- ① HI-DRI CARTRIDGE (HEX FOAM TYPE)
- ② DIAPHRAGM
- ③ THRIE BEAM FENDER PANEL
- ④ NOSE COVER (APPLY WHITE REFLECTORIZED TAPE TO NOSE COVER) (BANDS 4" WIDE)
- ⑤ CHAIN RAIL
- ⑥ THRIE BEAM TRANSITION PANEL
- ⑦ TENSION STRUT BACKUP
- ⑧ RESTRAINING CABLE W/PLATE ANCHORS



CHAIN KEEPER DETAIL
SCALE: 1/2" = 1"



See General Note for Additional Requirements

TABLE A			
MODEL	"B"	"C"	
300300	3'-3"	3'-0"	

B.M.: Chiseled "+" on N.W. Corner of Concrete Sign Support Base
Sta. 589+38/120'± Rt. &
Elev. = 1115.84

NOTE: All Quantities for Removing Existing Guardrail or Raising Guardrail Carried on Plan Sheet 30.

EMBANKMENT & SEEDING QUANTITIES

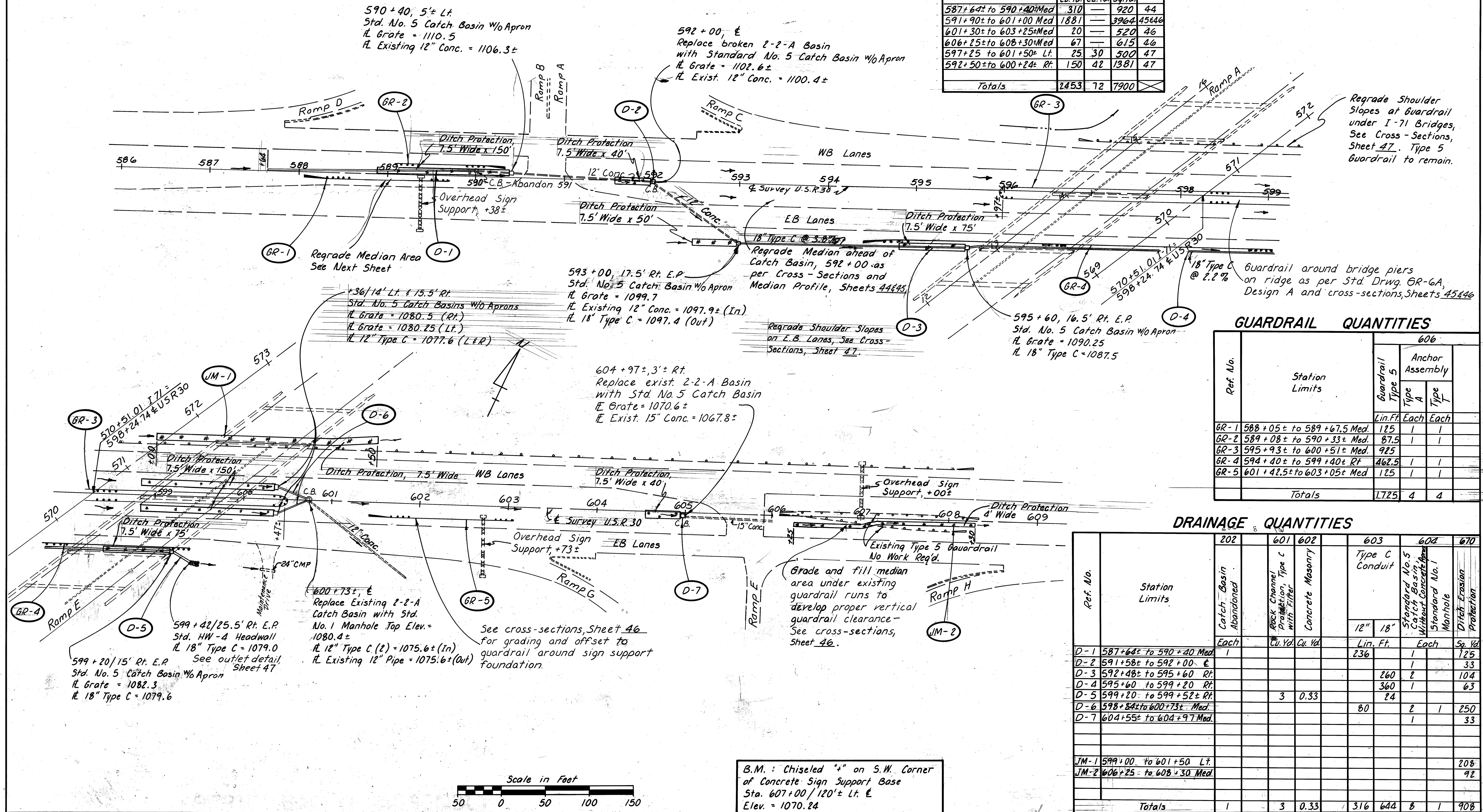
Station Limits	203		659	
	Embarkment	Excavation	Seeding and Mulching	From Sheet Numbers
	Cu. Yd.	Cu. Yd.	Sq. Yd.	
587+64± to 590+40± Med	310	—	920	44
591+90± to 601+00 Med	1881	—	3964	45446
601+30± to 603+25± Med	20	—	520	46
606+25± to 608+30± Med	67	—	615	46
597+25 to 601+50± Lt.	25	30	500	47
592+50± to 600+24± Rt.	150	42	1381	47
Totals	2453	72	7900	

FHWA REGION	STATE	PROJECT
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RIC-30-12.37
ASD-30-0.00

Calc. by: J.D.S. 8/84
Chk'd. by: J.E.W. 10/84

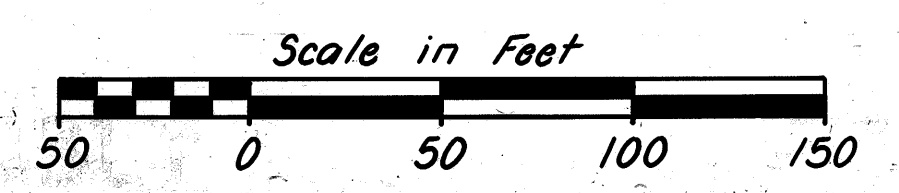


GUARDRAIL QUANTITIES

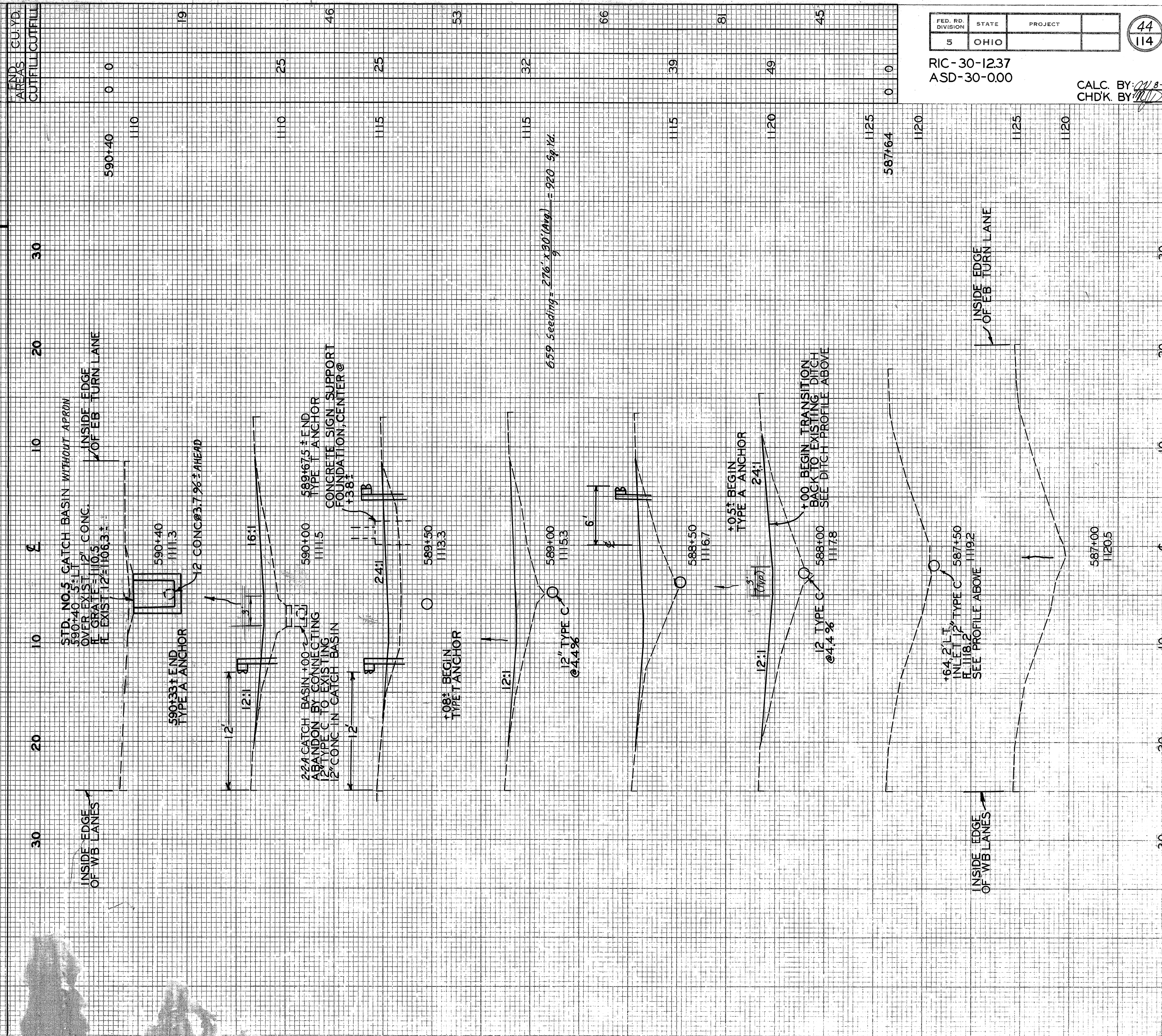
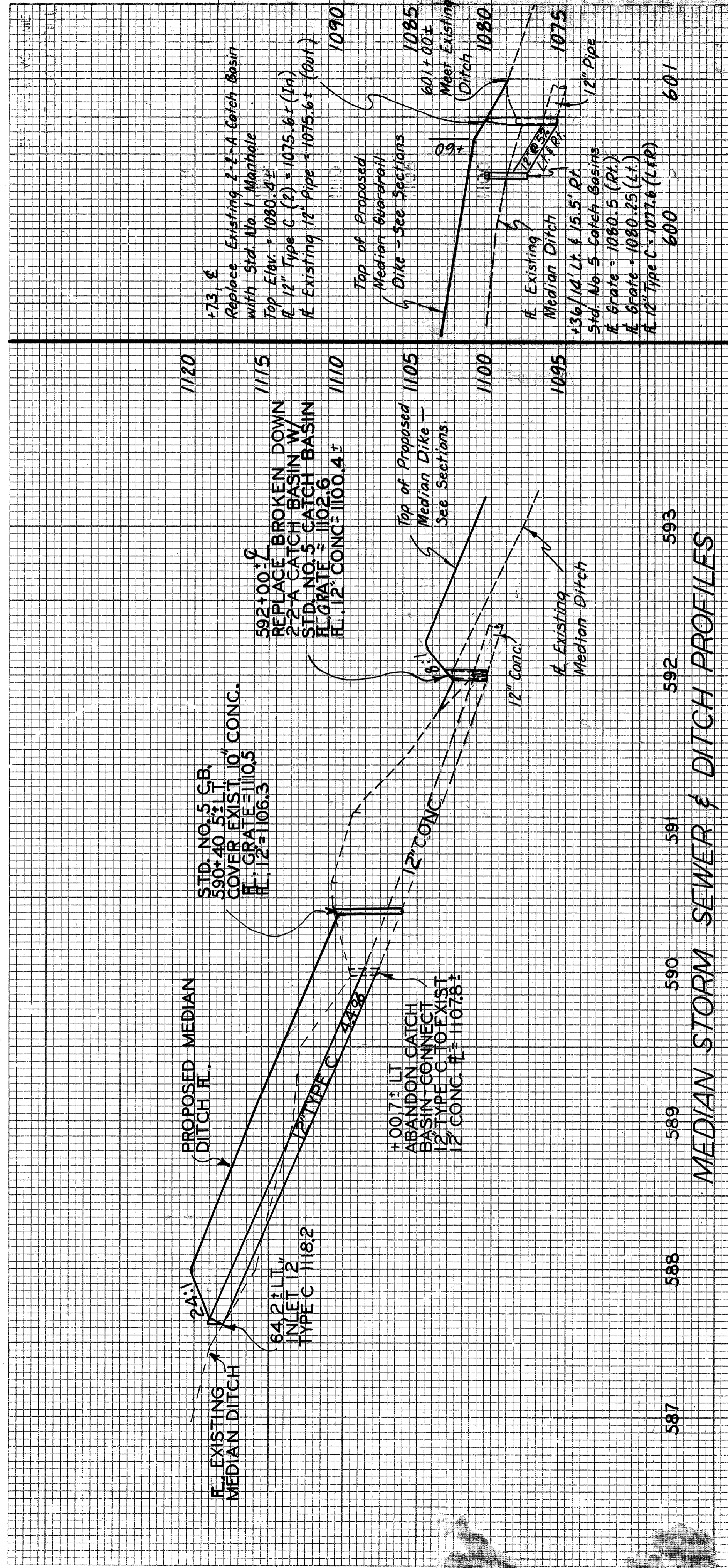
Ref. No.	Station Limits	606		
		Guardrail Type 5	Anchor Assembly	
			Type A	Type T
Lin. Ft.	Each	Each	Each	
GR-1	588+05± to 589+67.5 Med.	125	1	1
GR-2	589+08± to 590+33± Med.	87.5	1	1
GR-3	595+93± to 600+51± Med.	925	1	1
GR-4	594+40± to 599+40± Rt.	462.5	1	1
GR-5	601+42.5± to 603+05± Med.	125	1	1
Totals		1725	4	4

DRAINAGE QUANTITIES

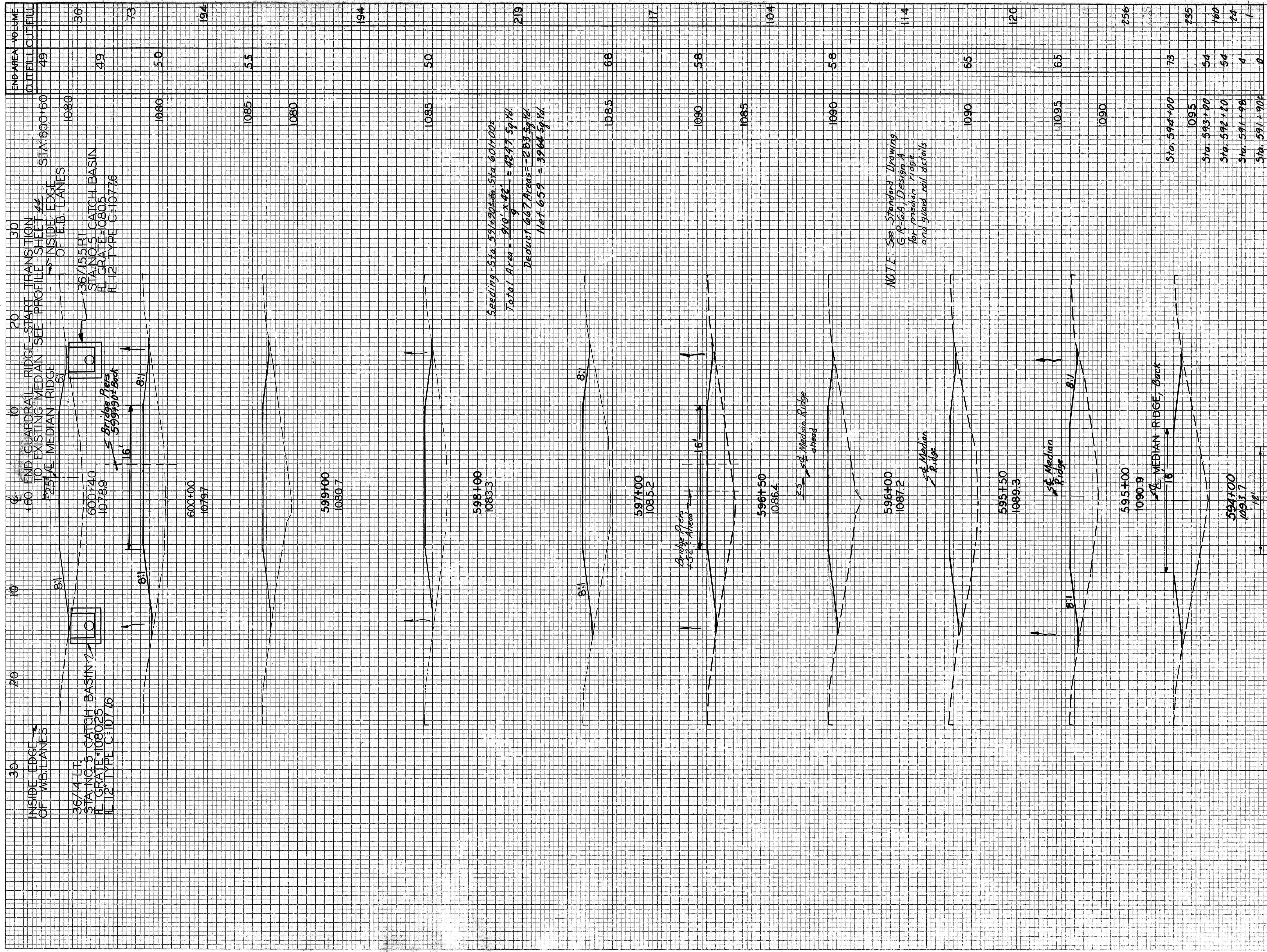
Ref. No.	Station Limits	Catch Basin Abandoned	Rock Channel Protection, Type C with Filter	Concrete Masonry	Type C Conduit		Standard No. 5 Catch Basin, Without Concrete Box	Standard No. 1 Manhole	Ditch Erosion Protection
					12" Lin. Ft.	18" Lin. Ft.			
		Each	Cu. Yd.	Cu. Yd.	Lin. Ft.	Each	Sq. Yd.		
D-1	587+64± to 590+40 Med.	1	—	—	236	1	125		
D-2	591+58± to 592+00 &	1	—	—	—	1	33		
D-3	592+48± to 595+60 Rt.	—	—	—	260	2	104		
D-4	595+60 to 599+20 Rt.	—	—	—	360	1	63		
D-5	599+20 to 599+52± Rt.	—	3	0.33	84	—	—		
D-6	598+84± to 600+73± Med.	—	—	—	80	2	250		
D-7	604+55± to 604+97 Med.	—	—	—	—	1	33		
JM-1	599+00 to 601+50 Lt.	—	—	—	—	—	208		
JM-2	606+25 to 608+30 Med.	—	—	—	—	—	92		
Totals		1	3	0.33	316	644	8	1	908



B.M.: Chiseled "+" on S.W. Corner of Concrete Sign Support Base
Sta. 607+00/120'± Lt. &
Elev. = 1070.24



STATION	ELEVATION	AREA	CUT	FILL	CUT/FILL
587	1118.2				
588	1118.2				
589	1118.2				
590	1118.2				
590+40	1118.2				
590+100	1118.2				
590+140	1118.2				
TOTAL			0	0	0



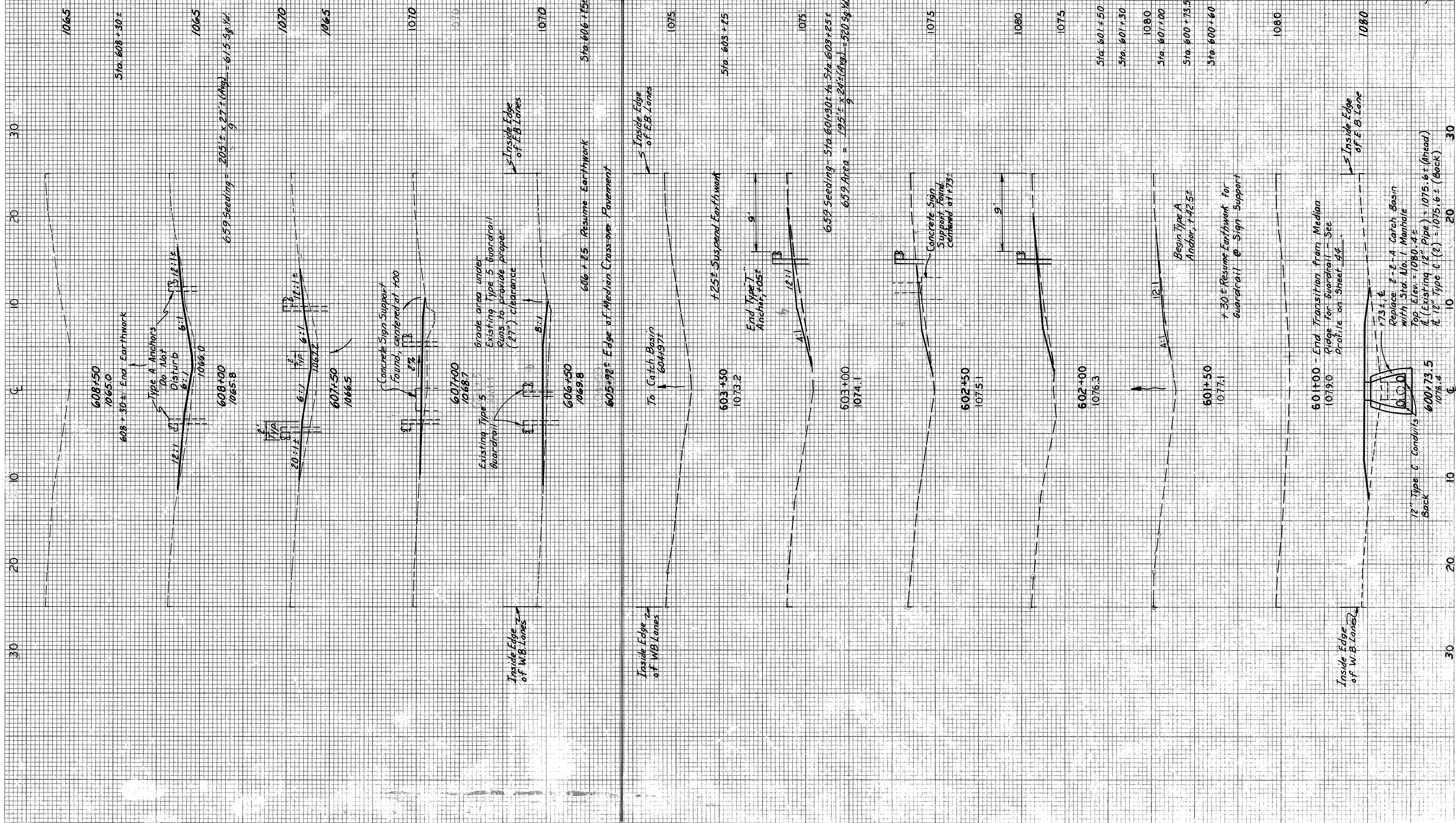
Seeding - Sta. 591+00 to Sta. 601+00
Total Area = $910' \times 42' = 4247 \text{ Sq. Yd.}$
Deduct 667 Areas = 283 Sq. Yd.
Net 659 = 3964 Sq. Yd.

NOTE: See Standard Drawing
G.R.-6A Design A
for median ridge
and guard rail details

598+00, 4
Replace broken 2-2-A C.B.
with Standard No. 5 Catch Basin
Fl. Grate = 1102.62
Fl. Exist. 12" Conc. = 1100.4+

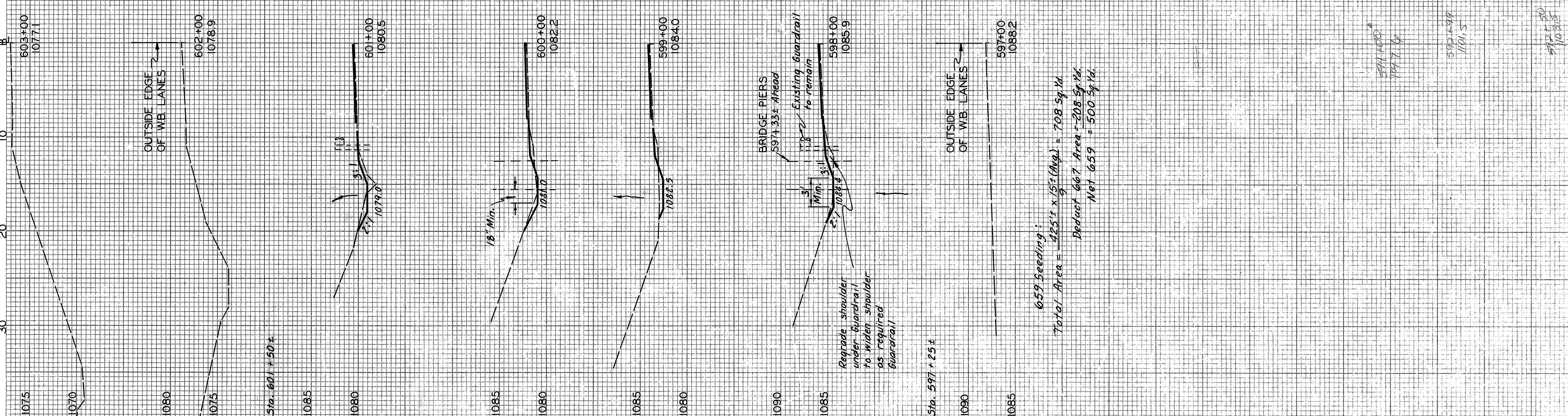
MEDIAN X-SECTIONS AT I-71-591+48 TO 600+40

END AREA	VOLUME
CUT	FILL
1065	0
1065	0
1065	8
1070	15
1065	22
1070	9
1070	8
1070	0
1075	0
1075	5
1075	3
1080	3
1075	1
1080	0
1080	0
1080	29
1080	49

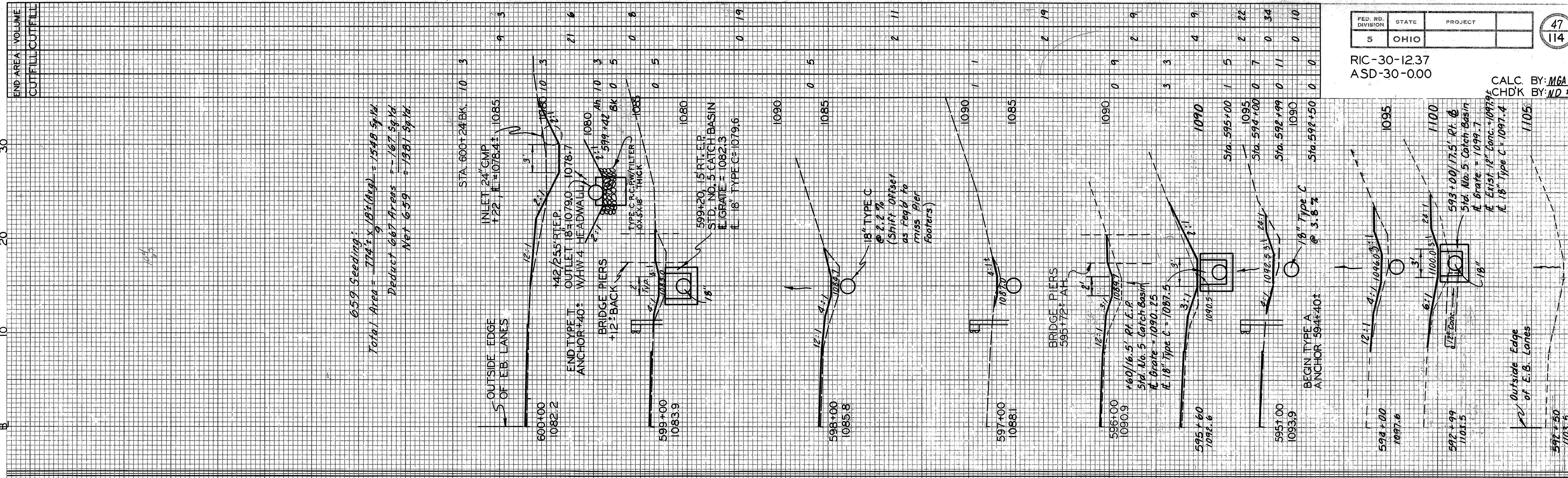


MEDIAN X-SECTIONS AT I-71-600+73.5 TO 608+50

END AREA VOLUME
CUT/FILL CUT/FILL



END AREA VOLUME
CUT/FILL CUT/FILL

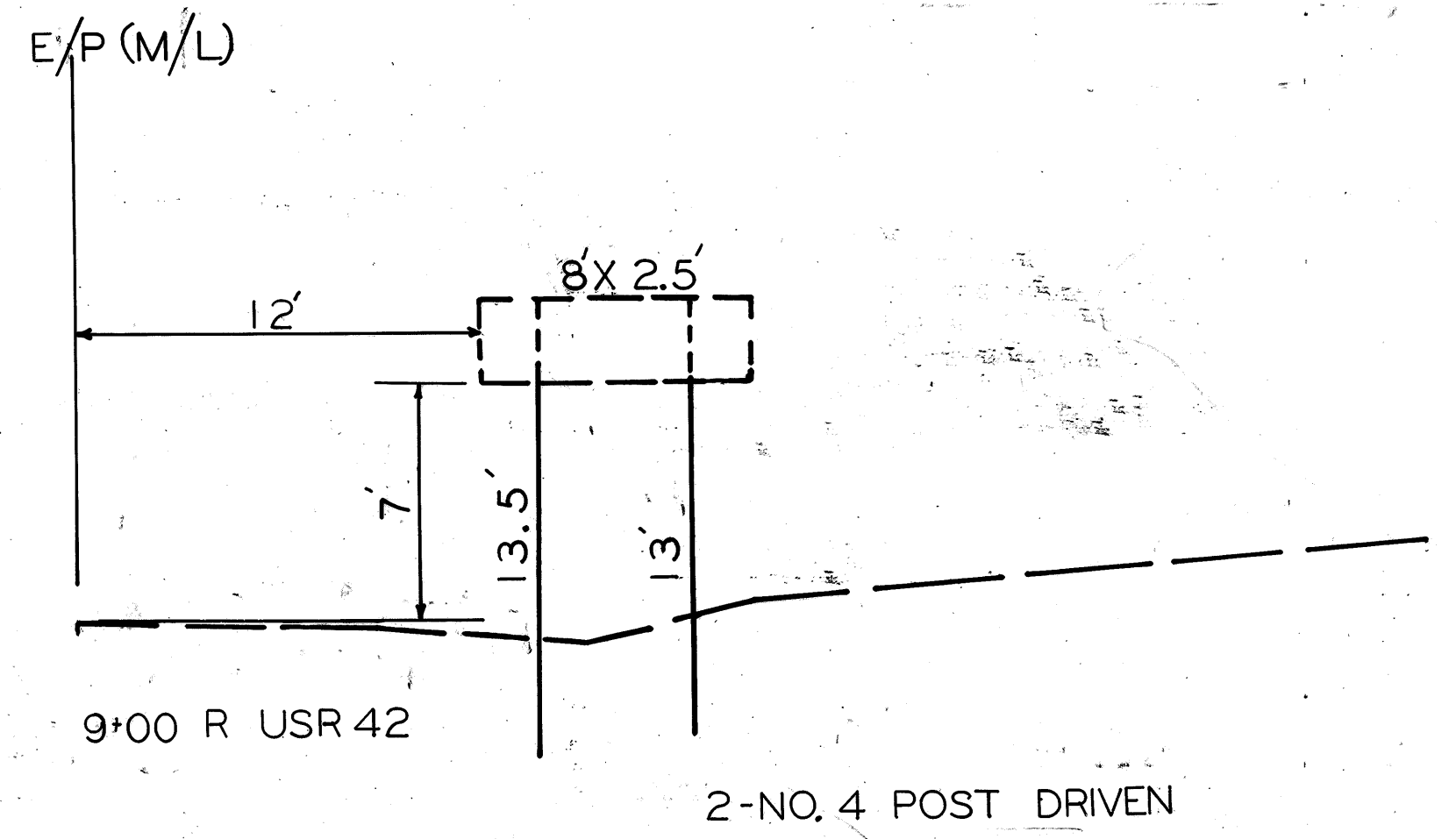


FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

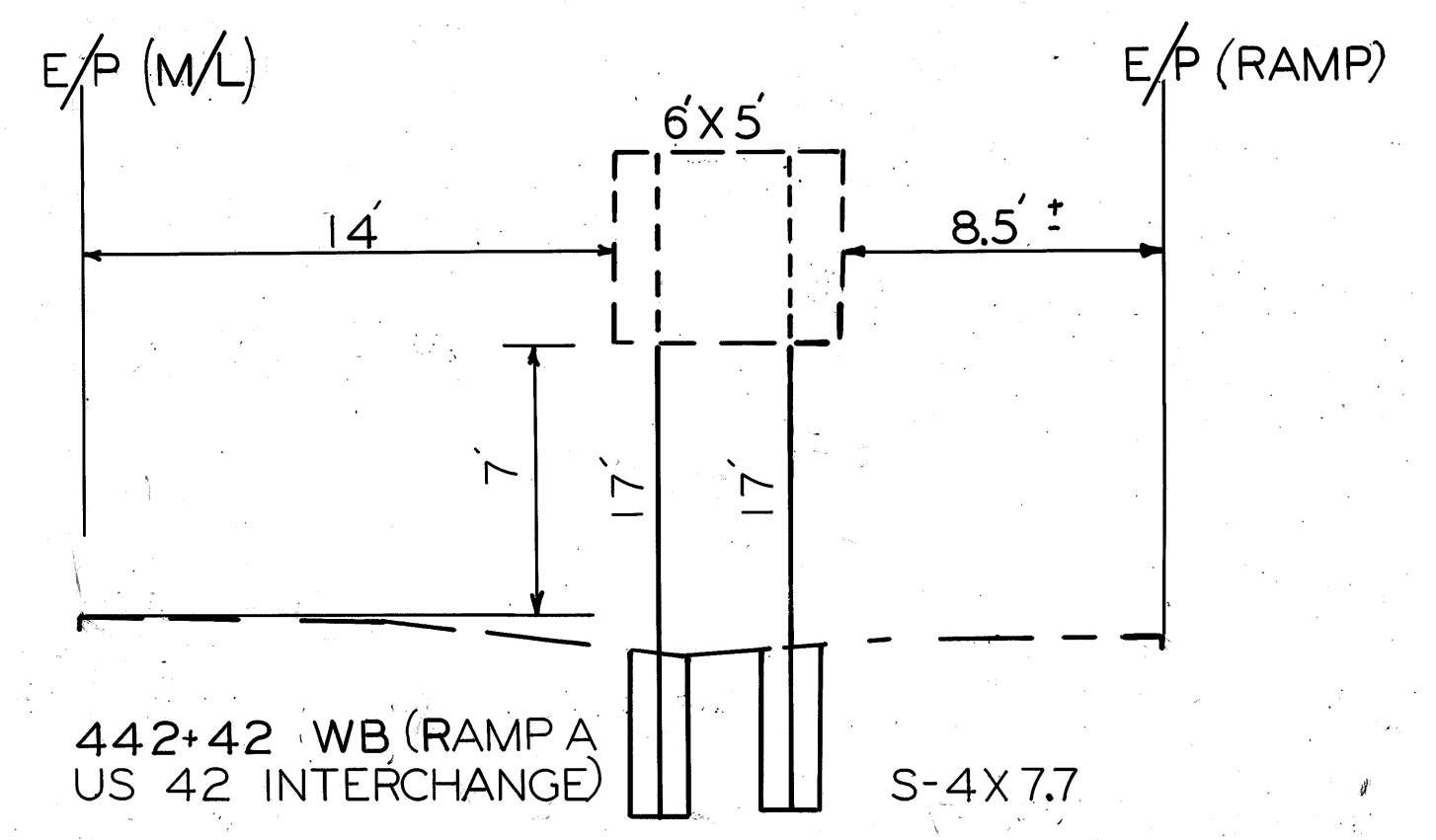
RIC-30-1237
ASD-30-000

CALC. BY: MGA
CHKD. BY: ND

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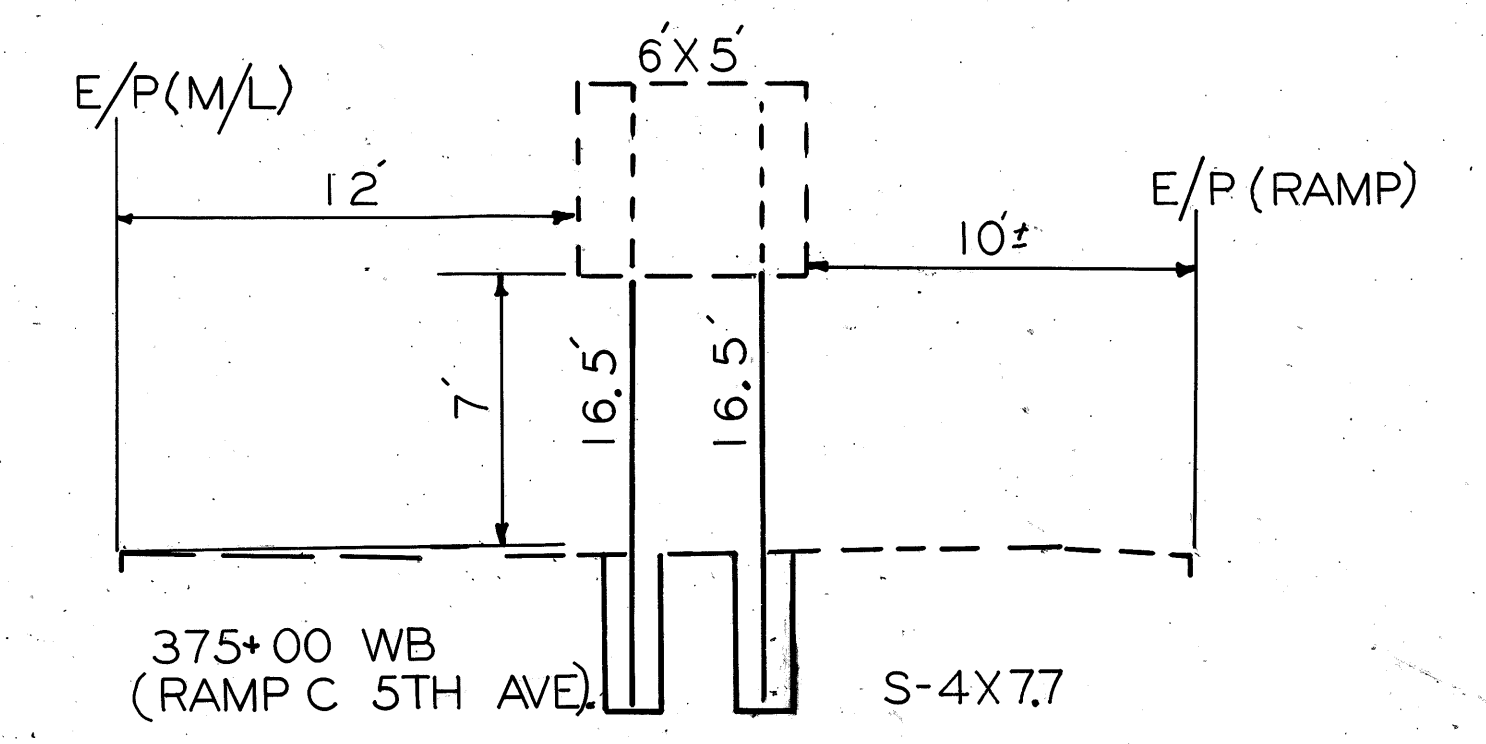


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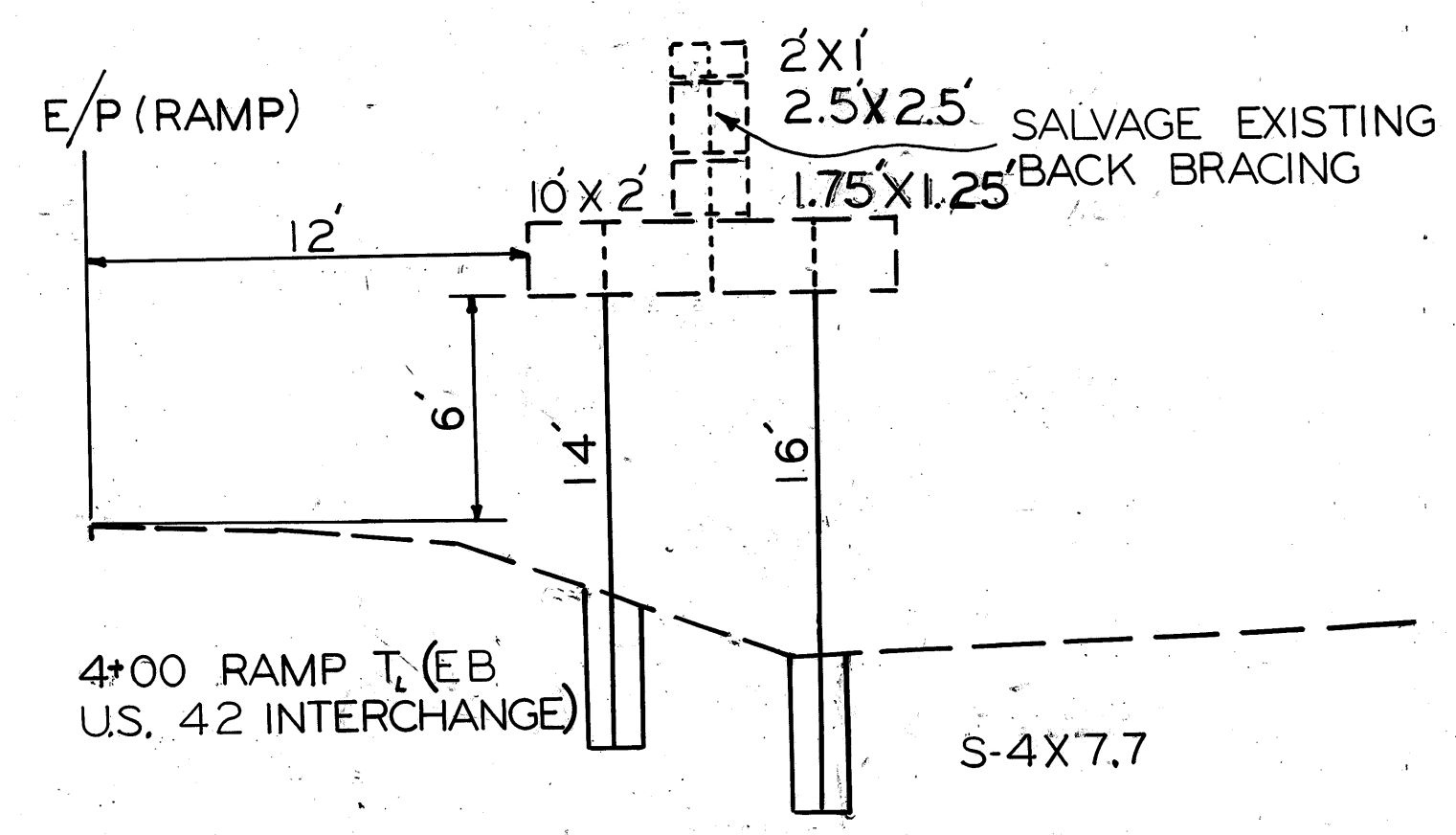
NOTE: NEW SIGN LOCATION APPROX. 40' BEHIND EXISTING LOCATION

4

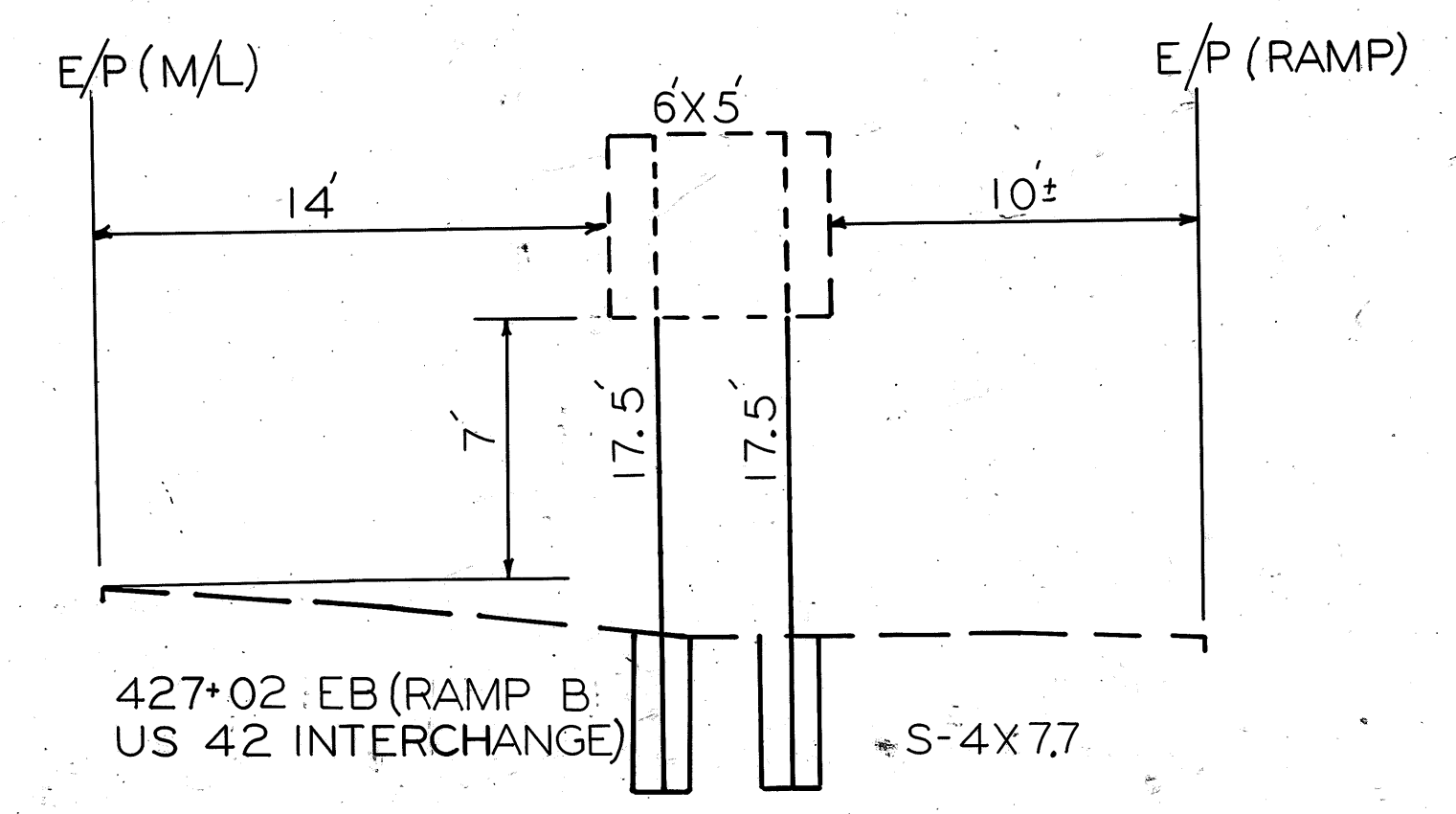


NOTE: NEW SIGN LOCATION APPROX. 50' BEHIND EXISTING LOCATION

2

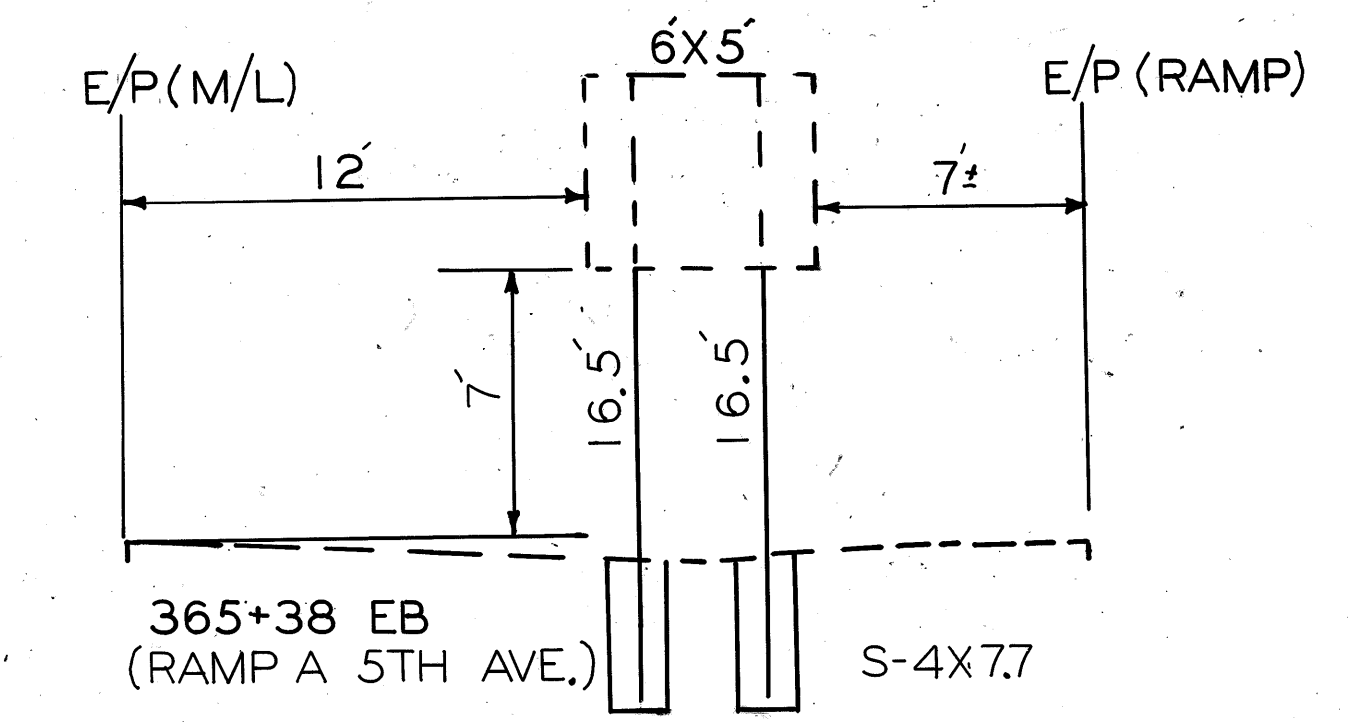


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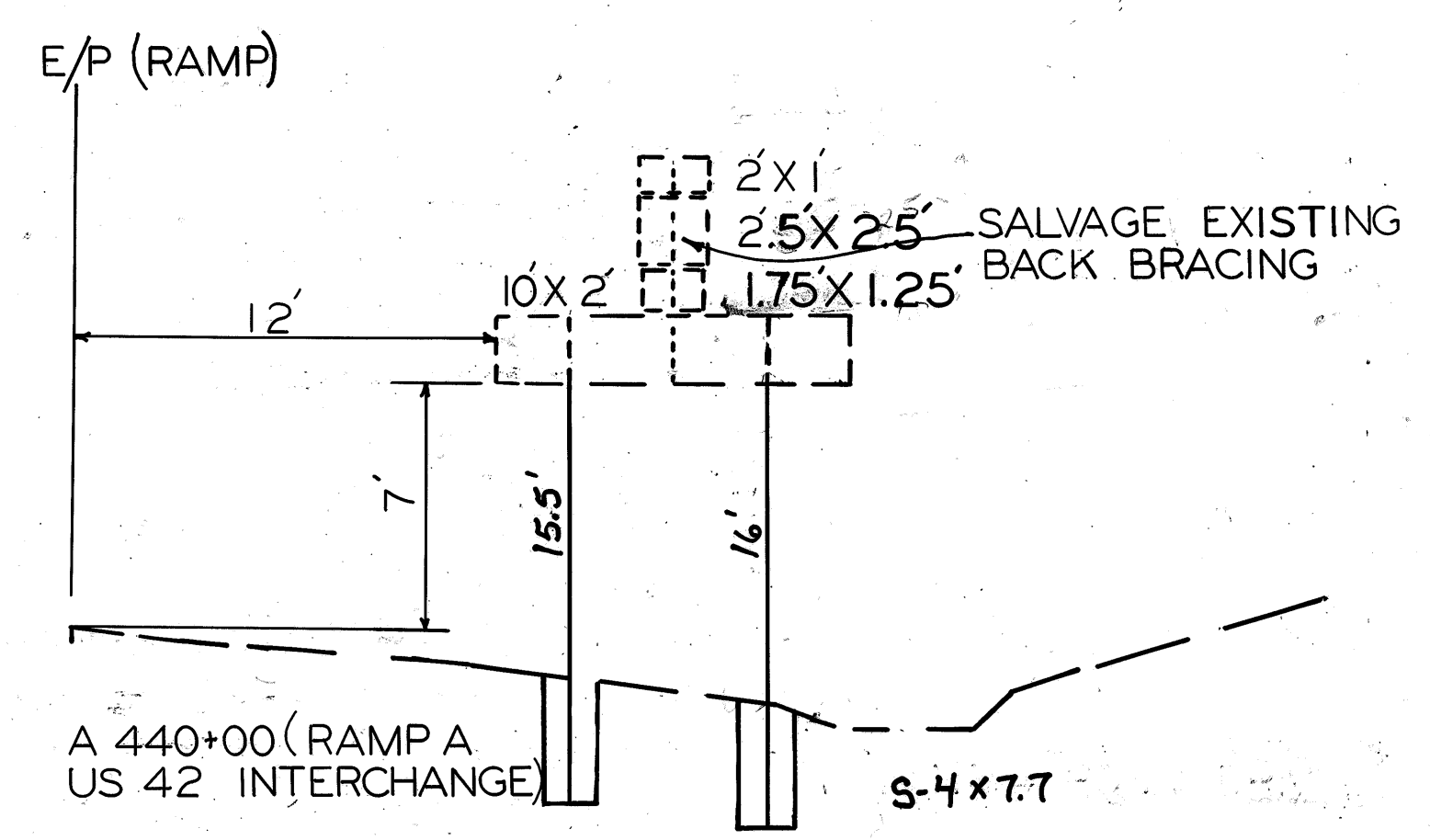
NOTE: NEW SIGN LOCATION APPROX. 20' BEHIND EXISTING LOCATION

3

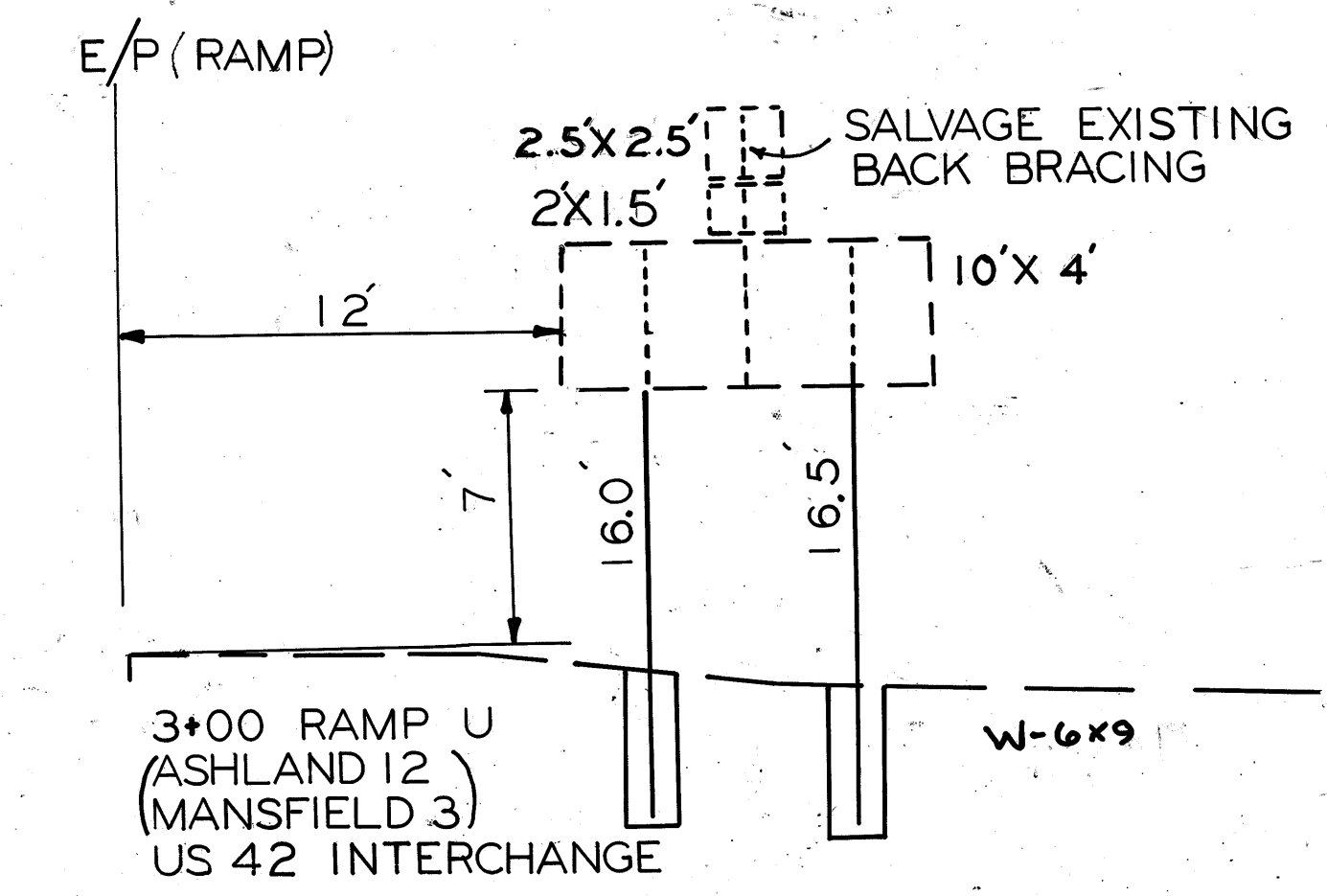


NOTE: NEW SIGN LOCATION APPROX. 38' BEHIND EXISTING LOCATION

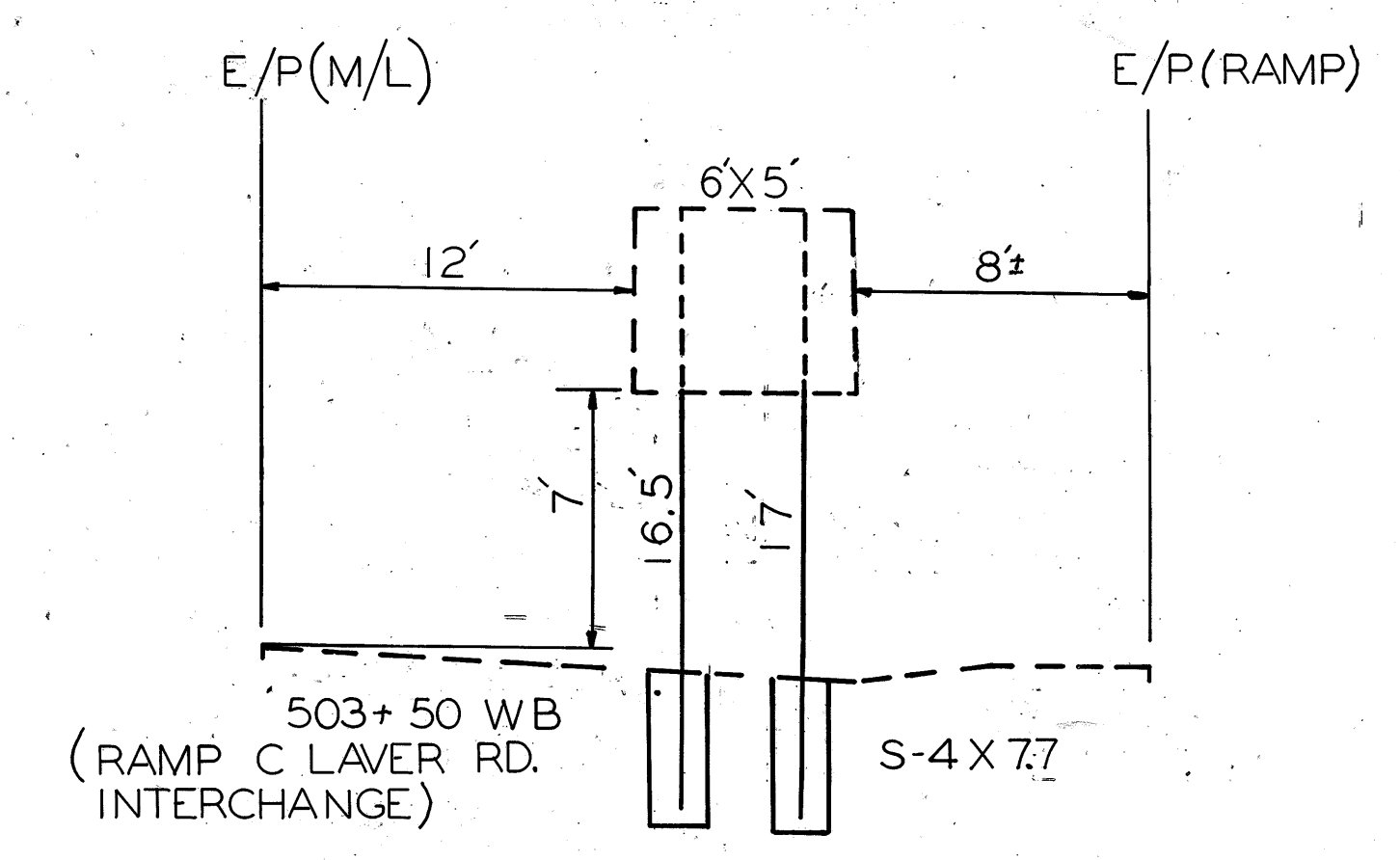
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8

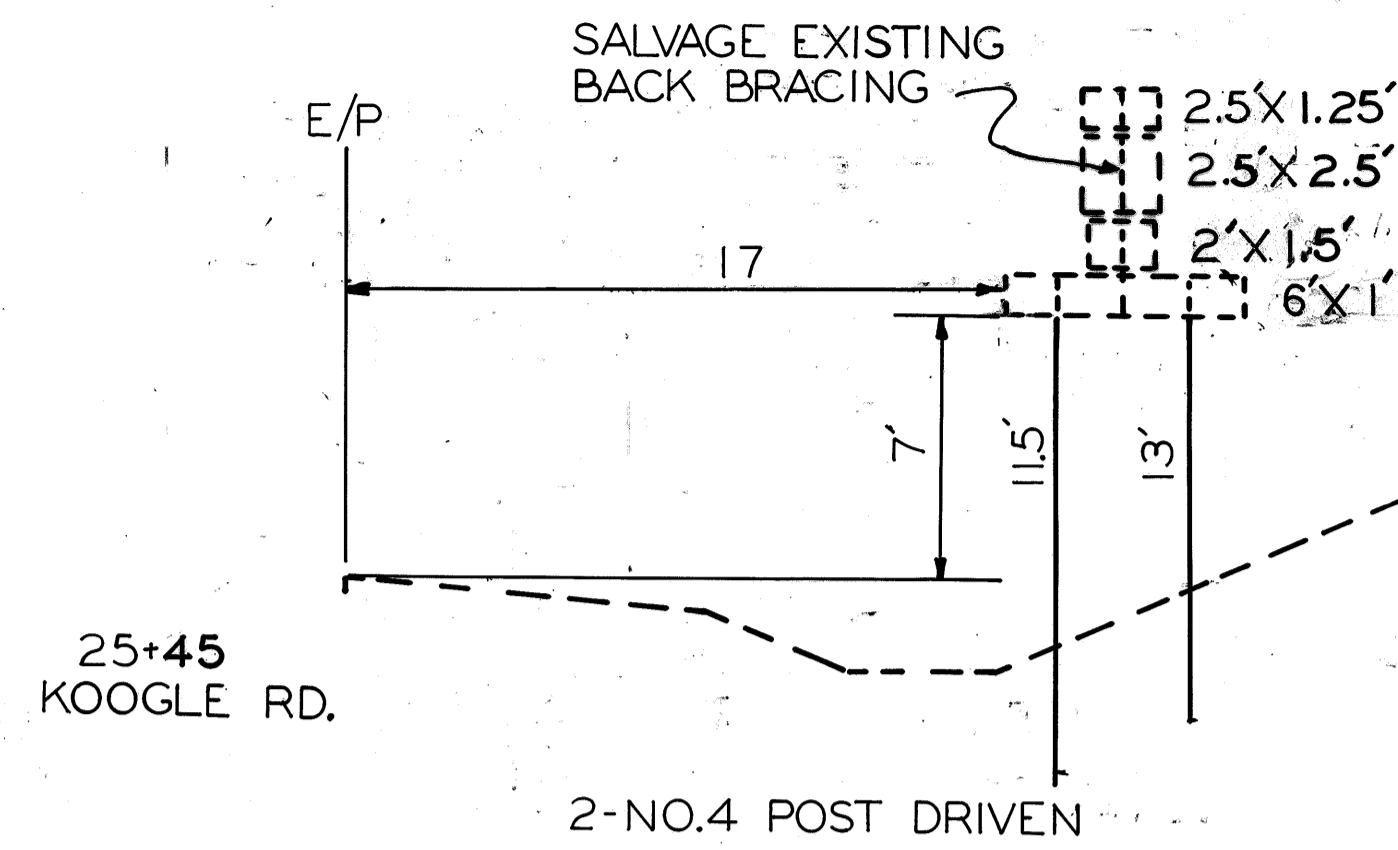


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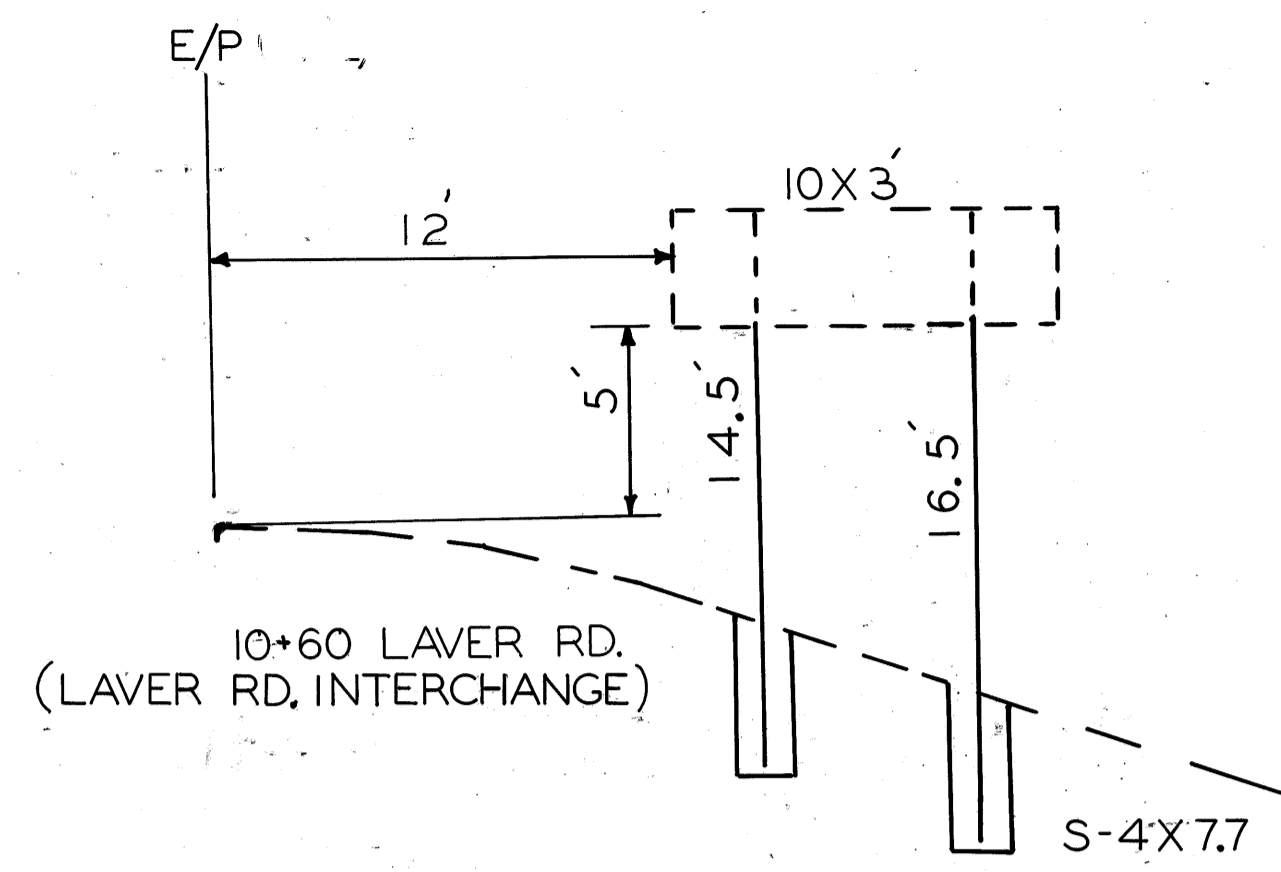


NOTE: NEW SIGN LOCATION APPROX. 60' BEHIND EXISTING LOCATION

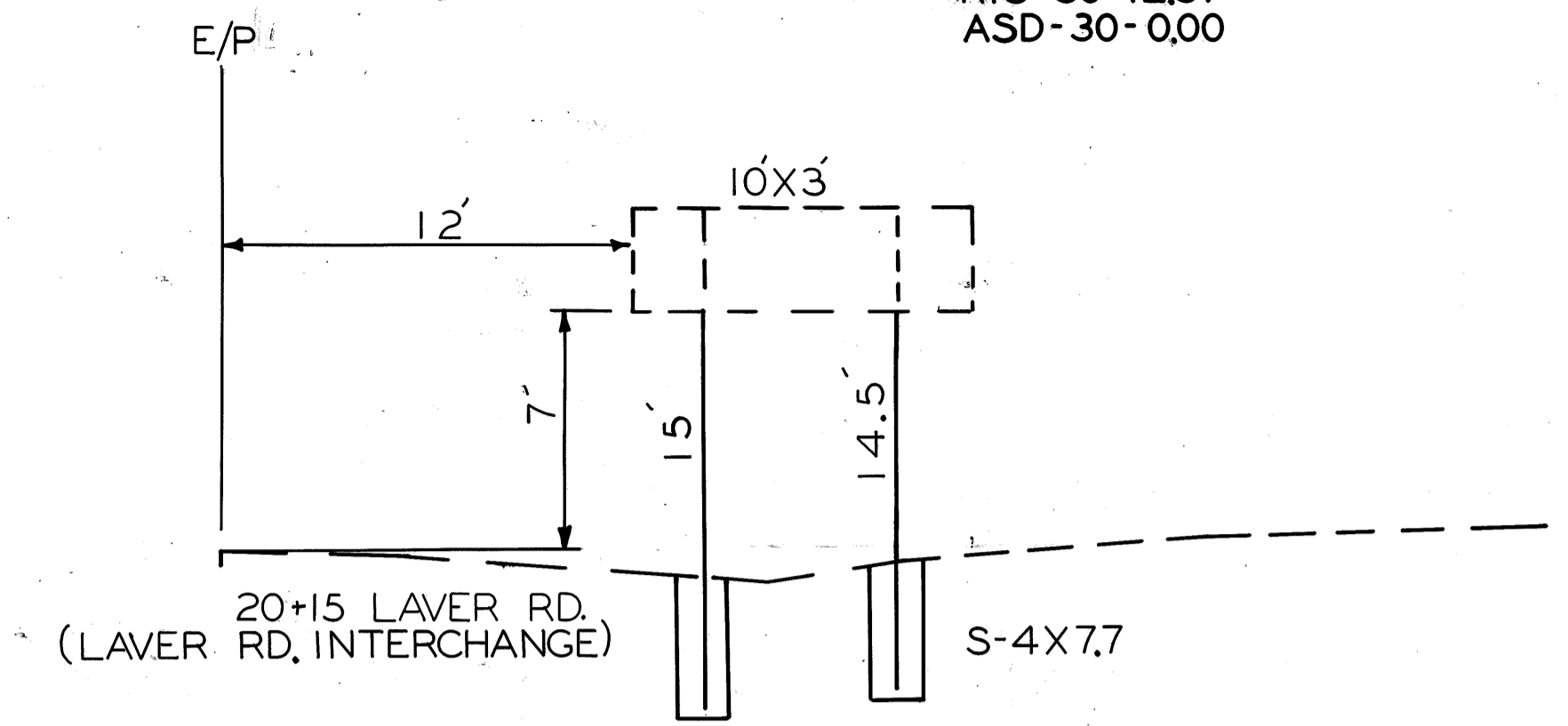
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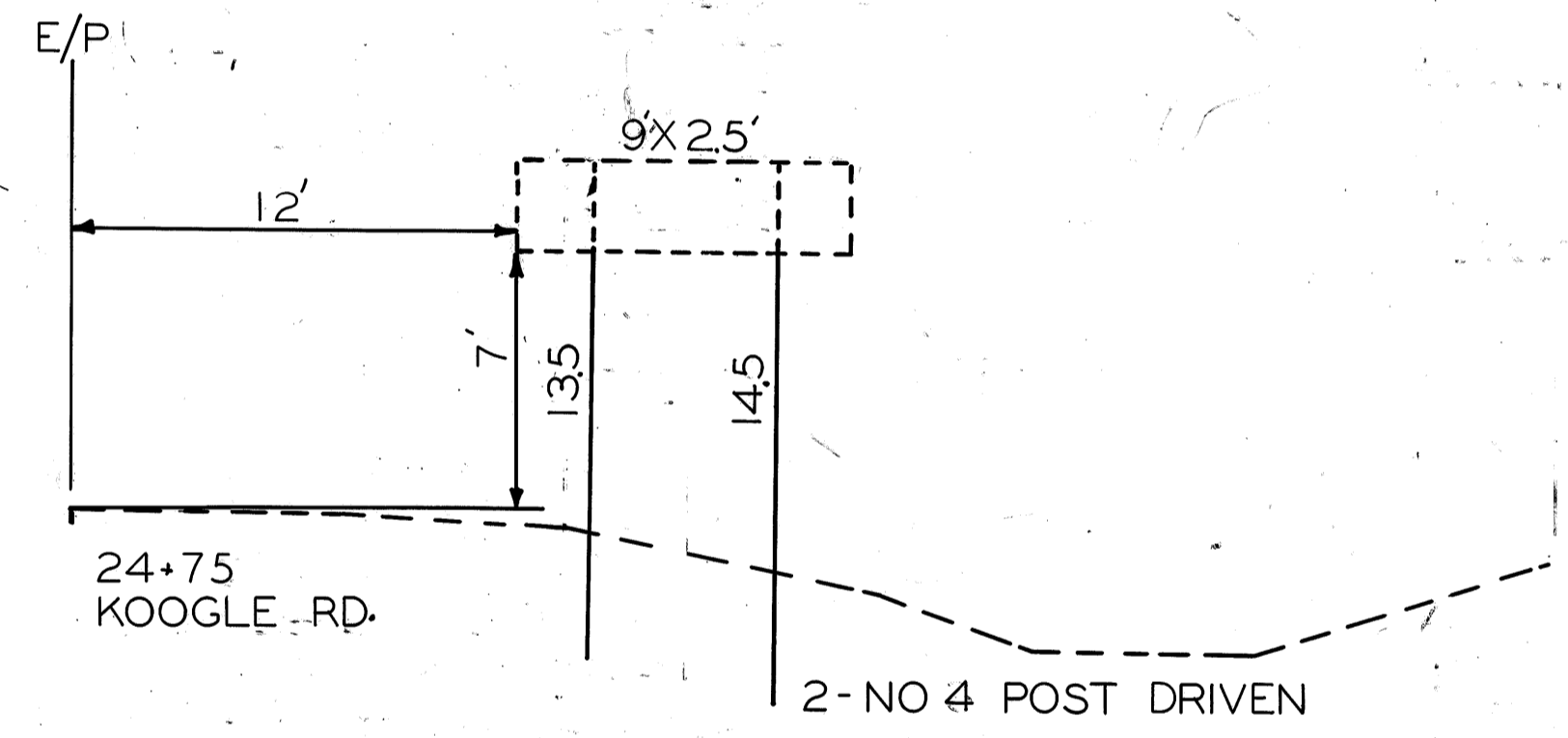
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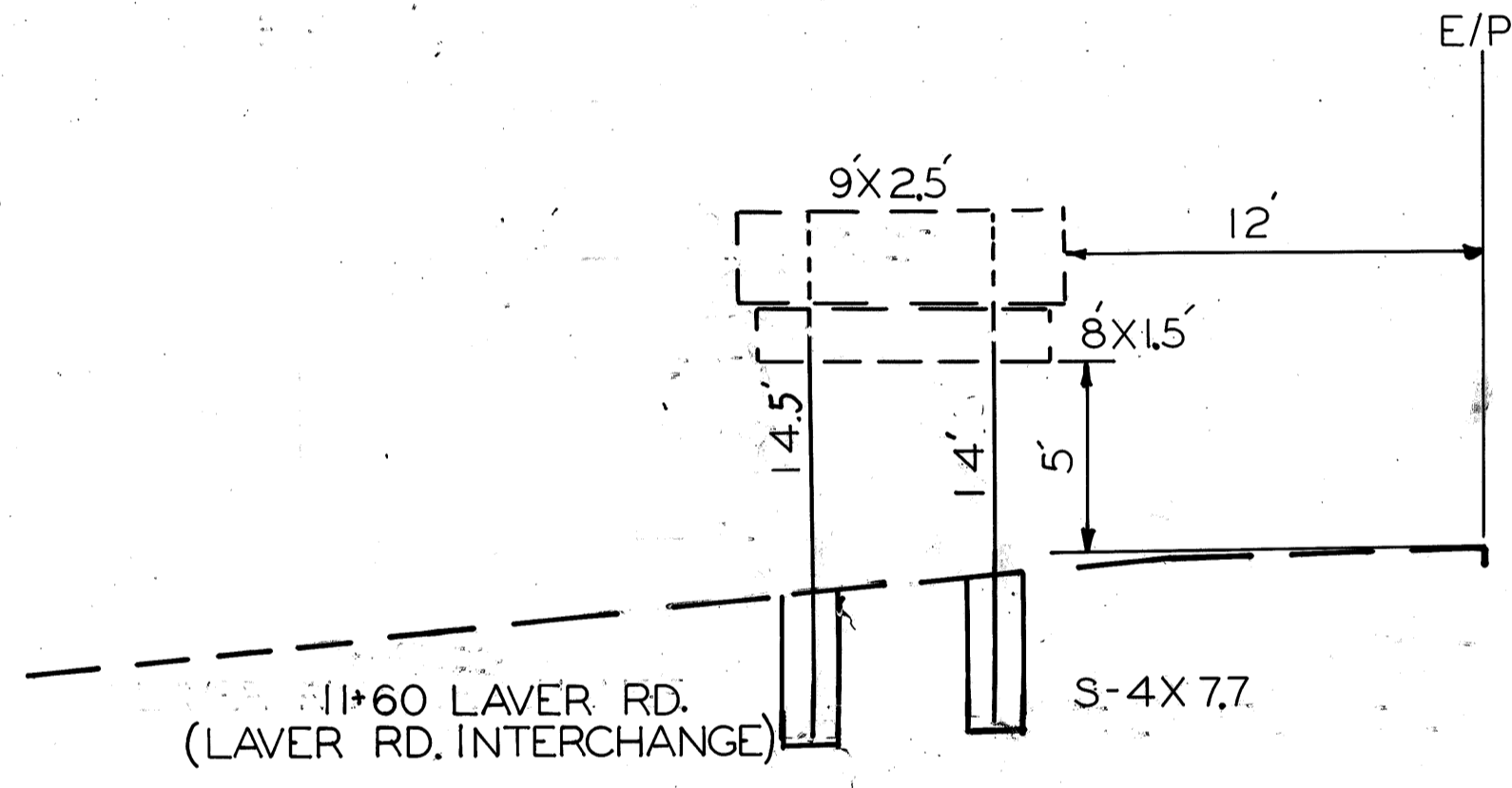
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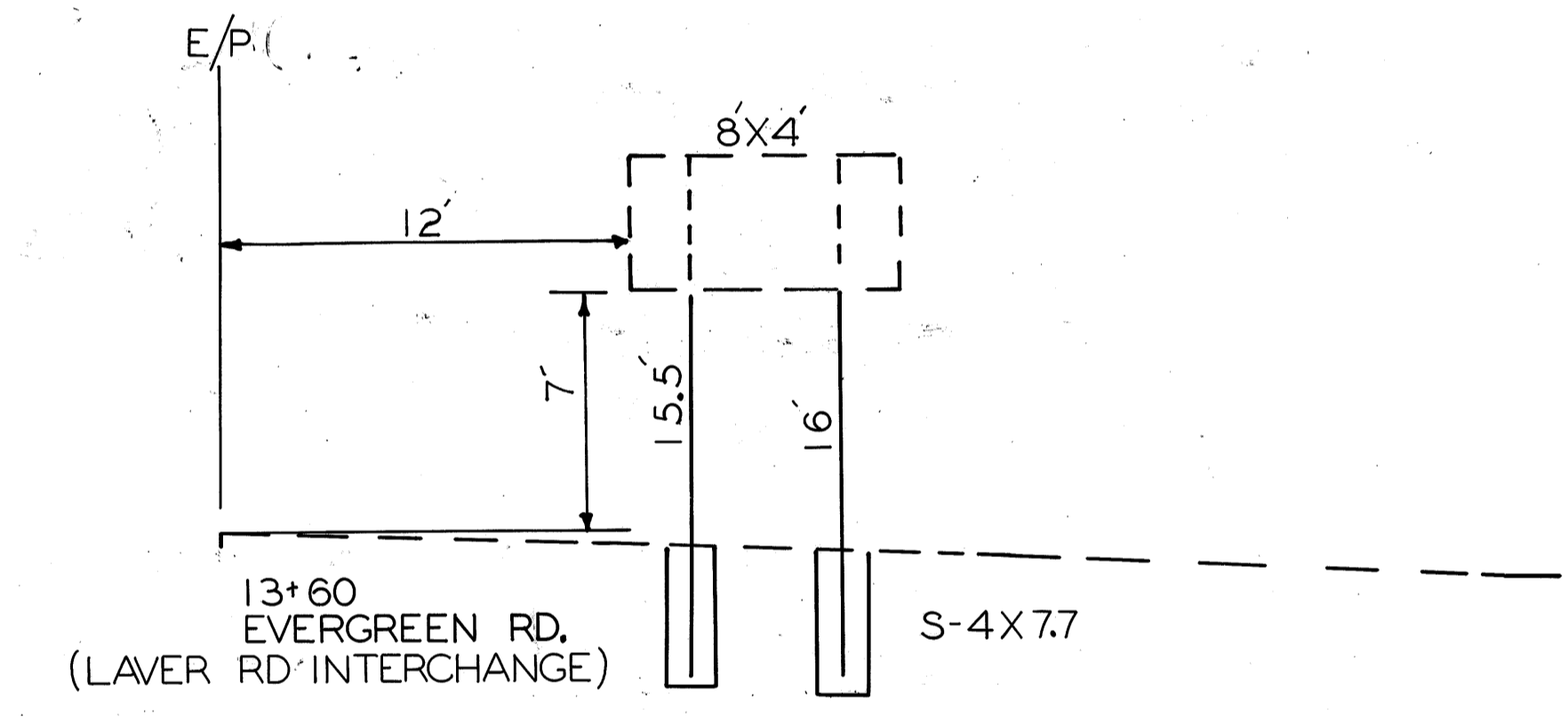
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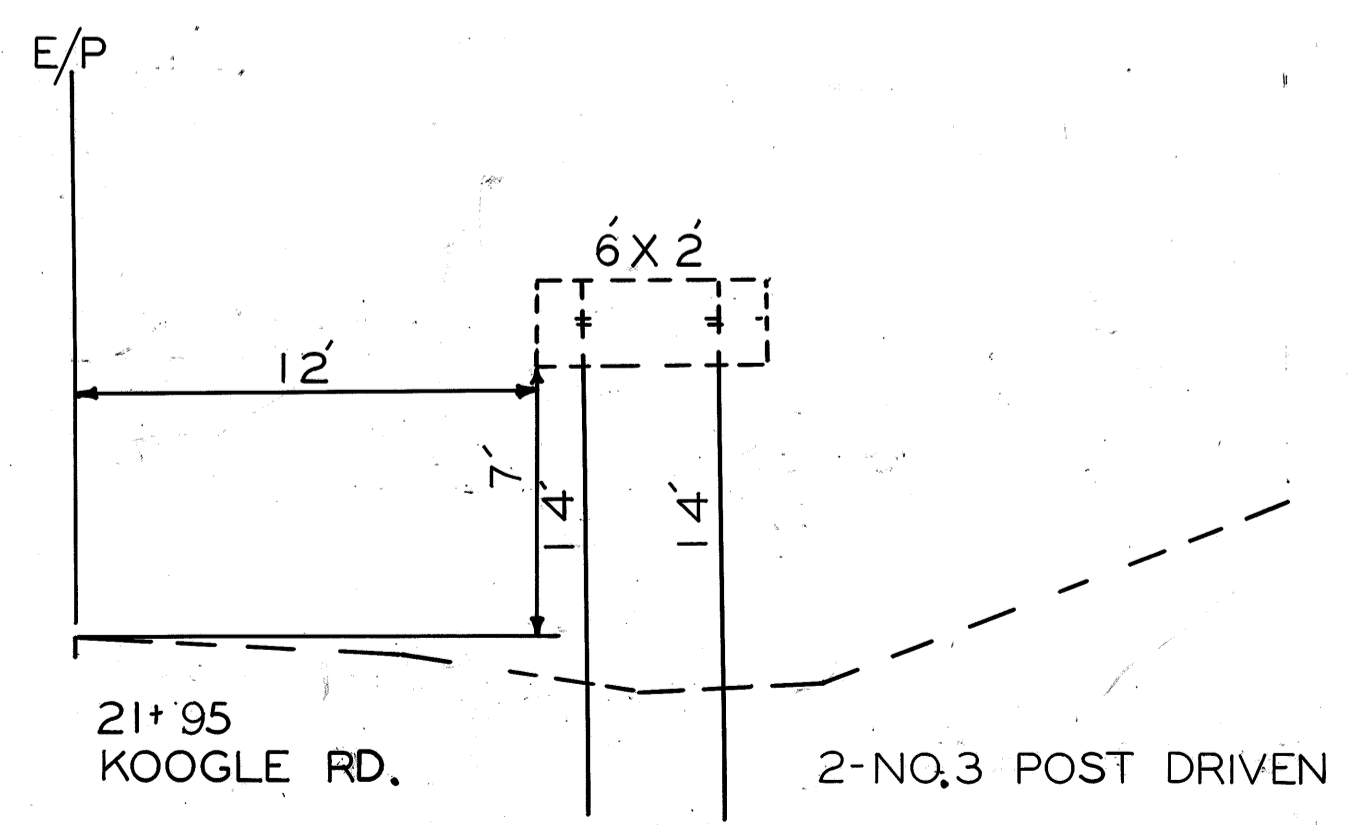
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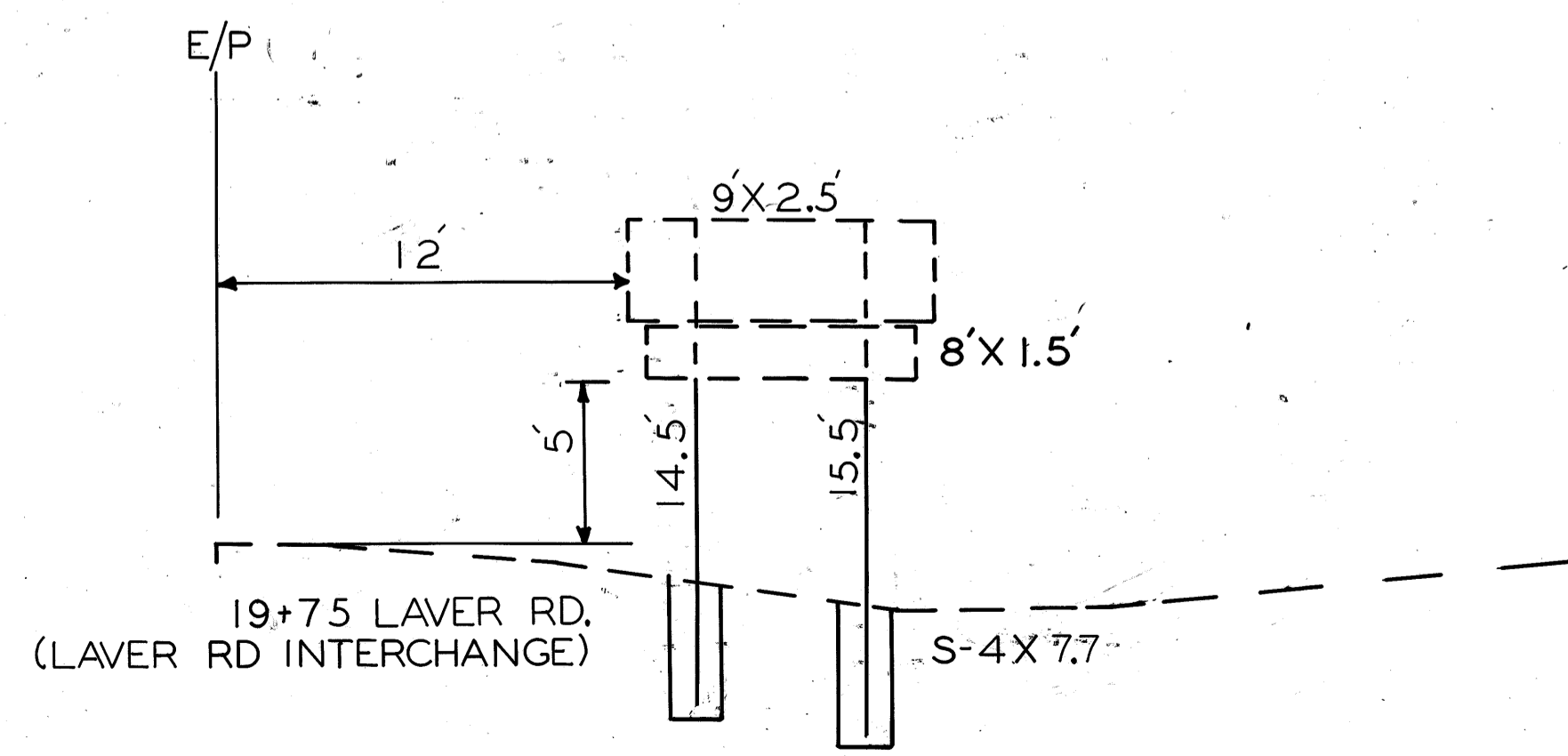
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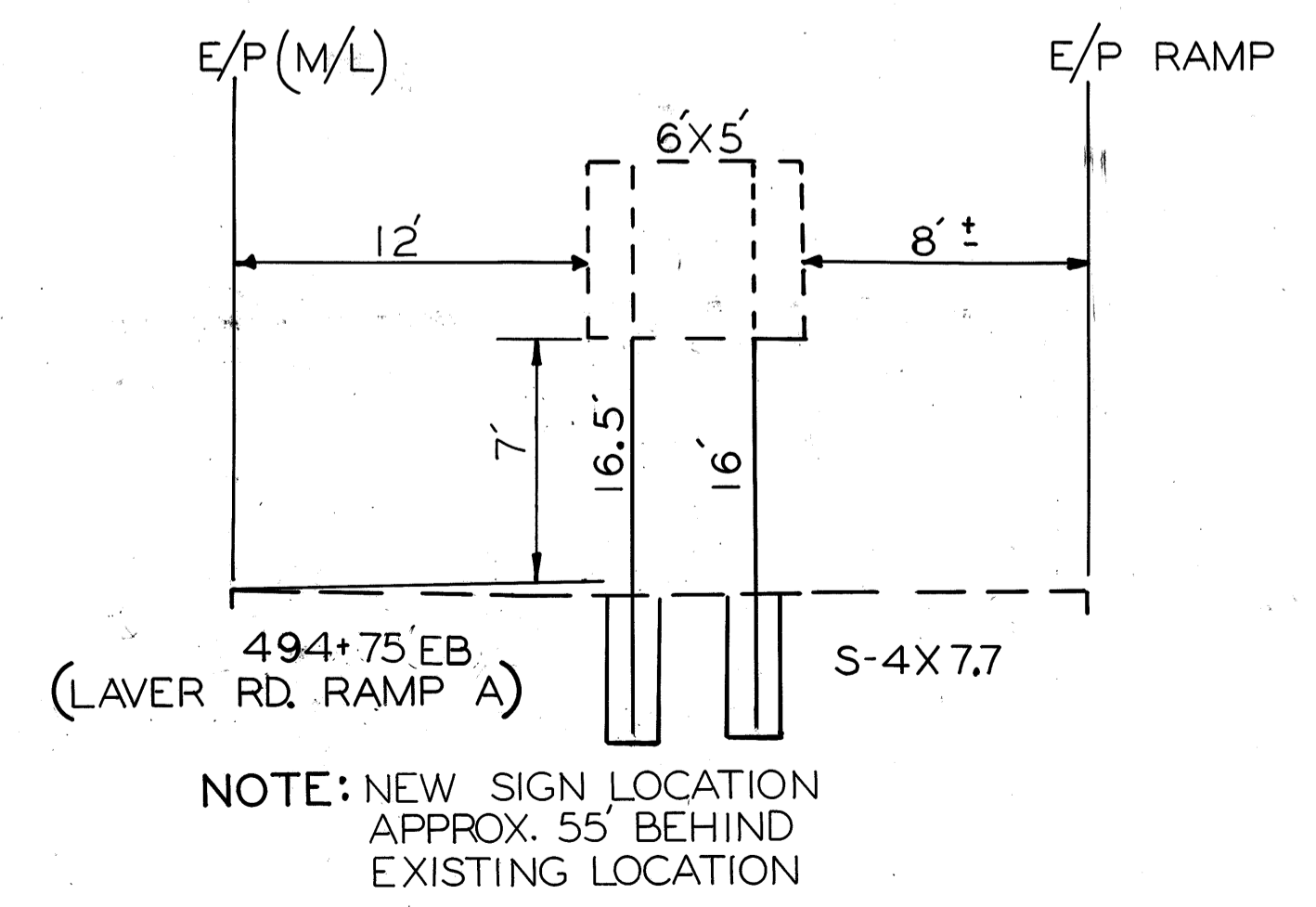
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29



14

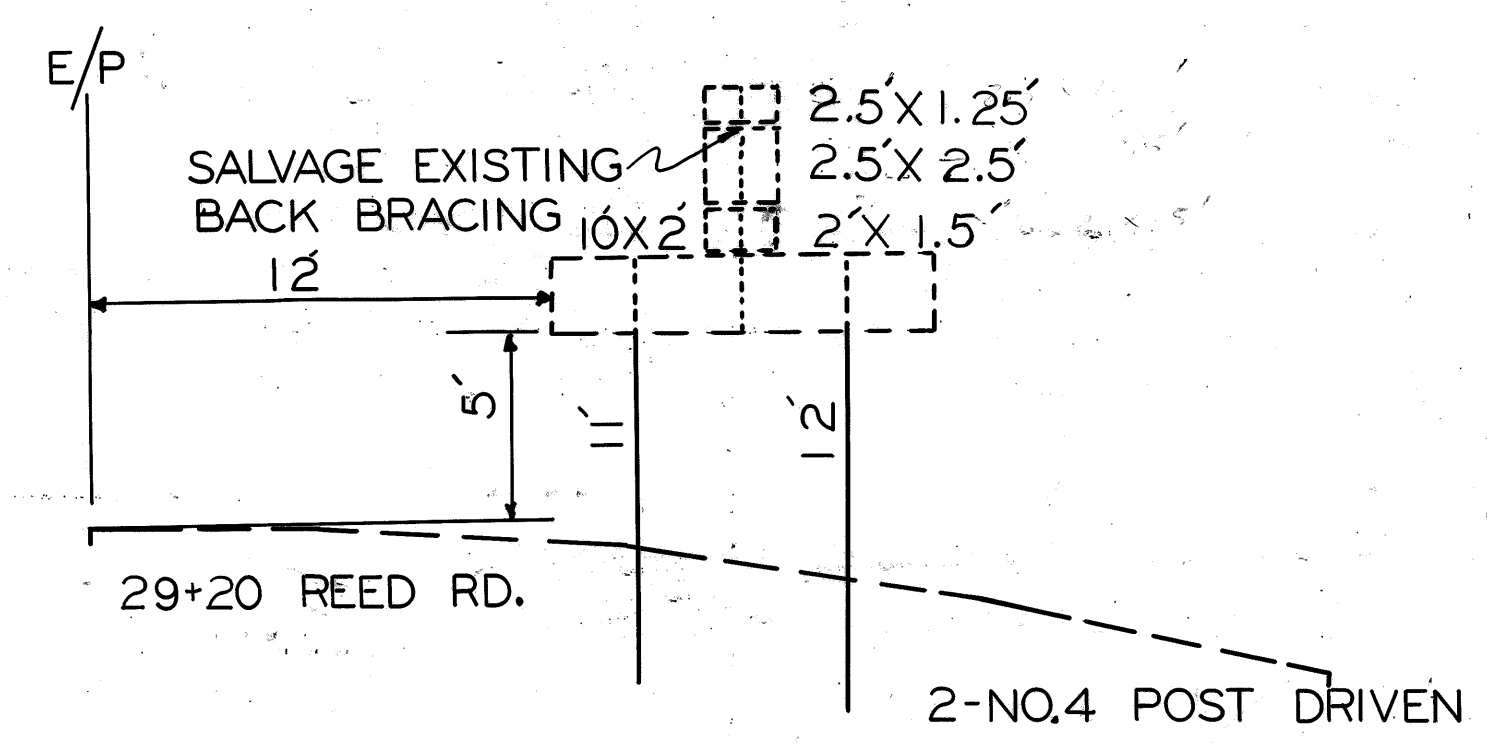


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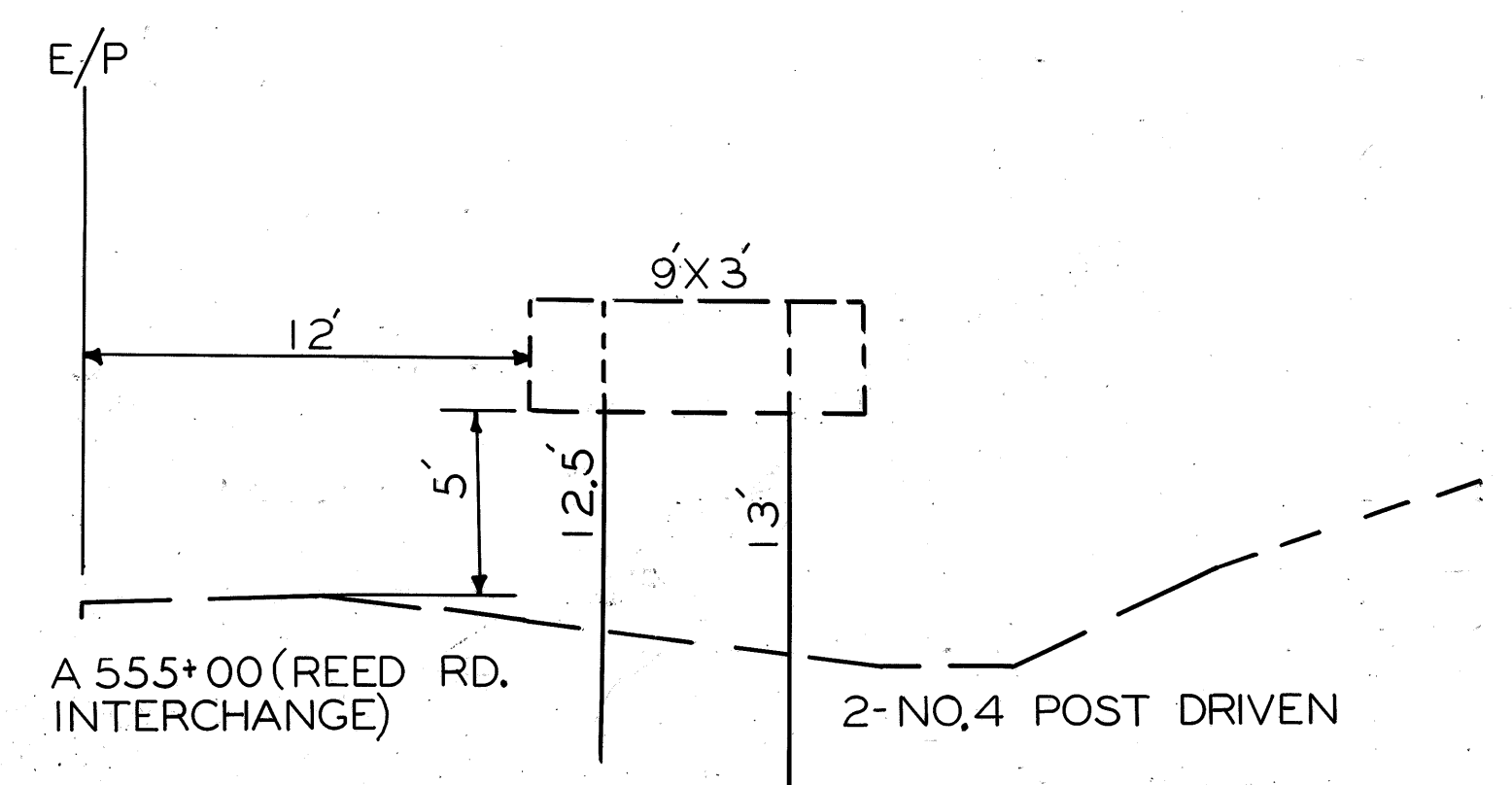
FHWA REGION	STATE	PROJECT
5	OHIO	

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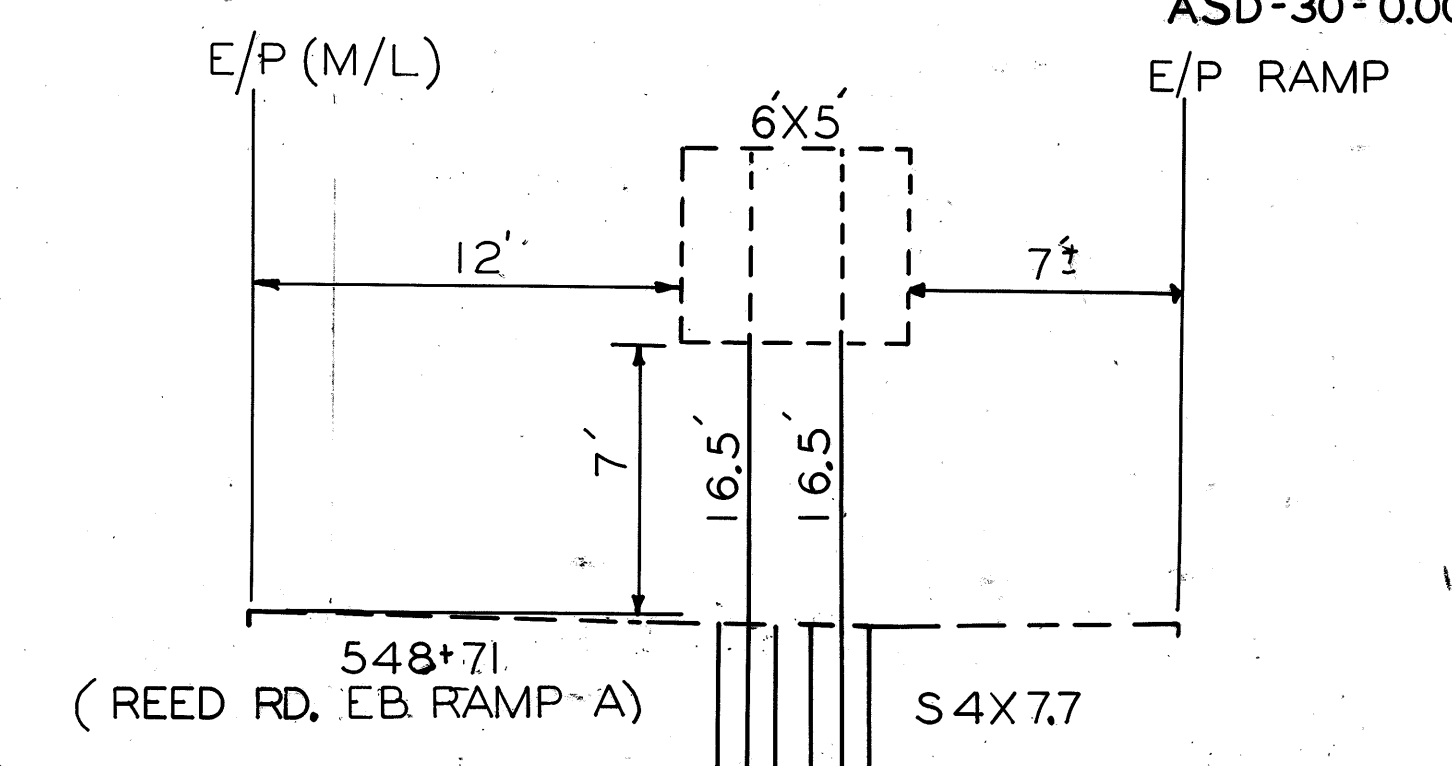
RIC-30-12.37
ASD-30-0.00



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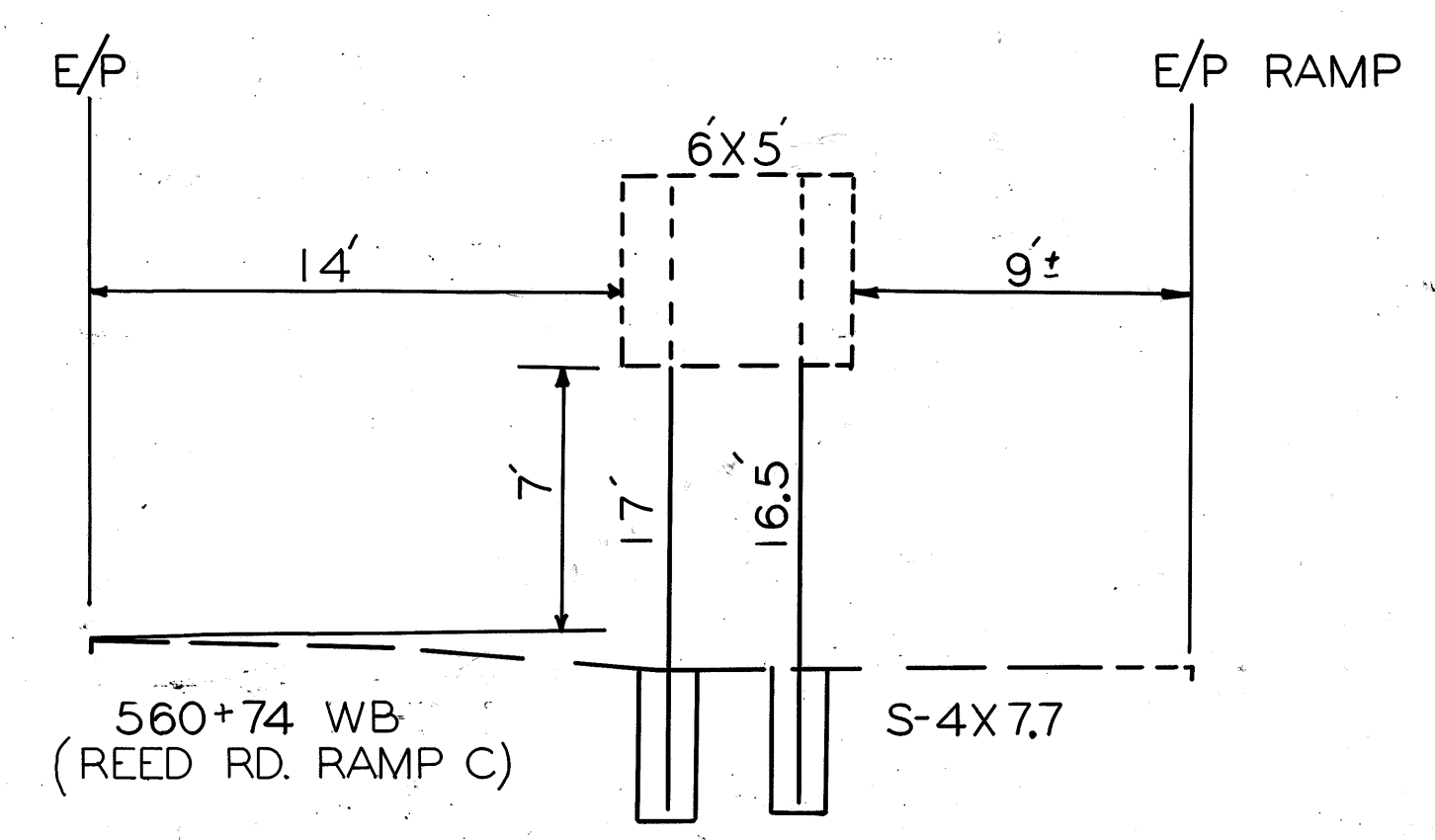


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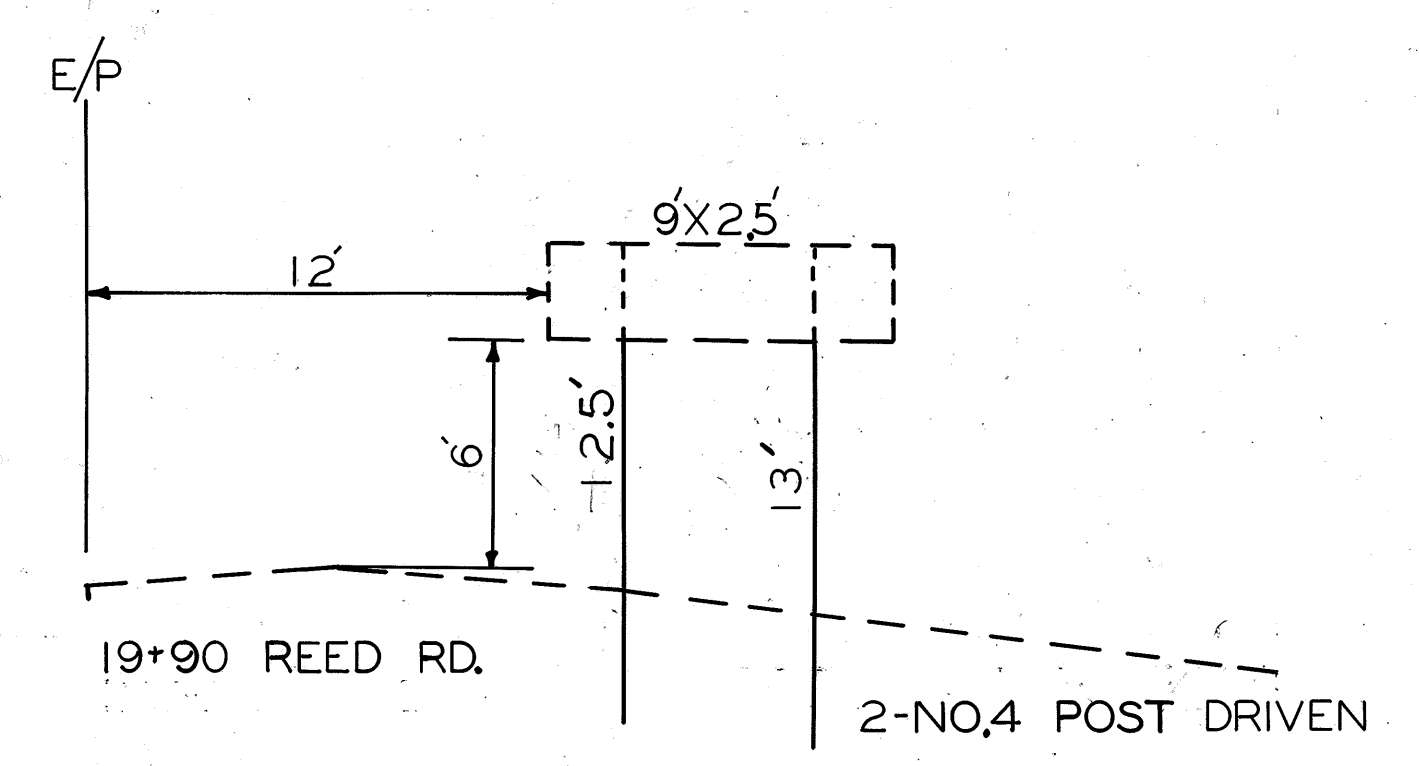
NOTE: NEW SIGN LOCATION
APPROX. 60' BEHIND
EXISTING LOCATION

19

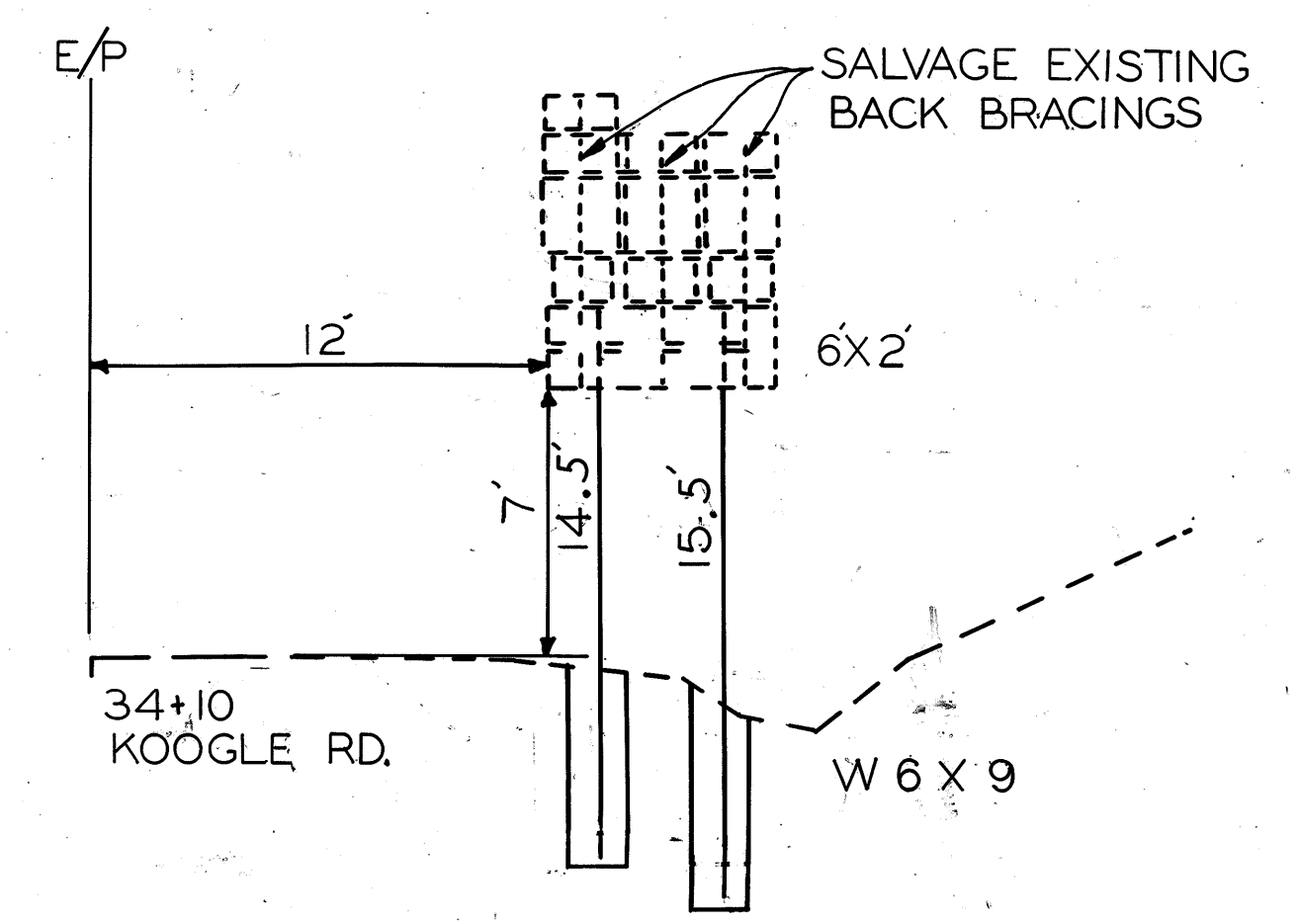


NOTE: NEW SIGN LOCATION
APPROX. 40' BEHIND
EXISTING LOCATION

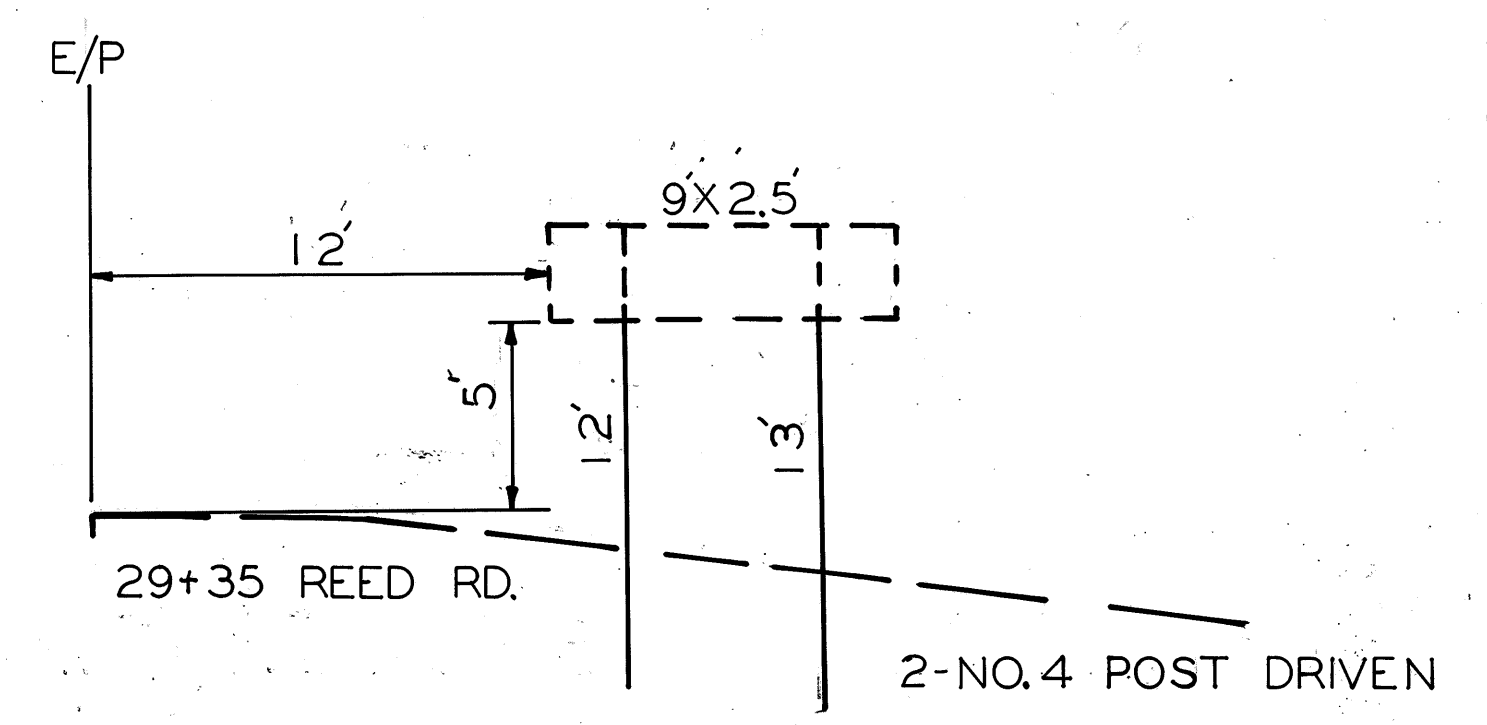
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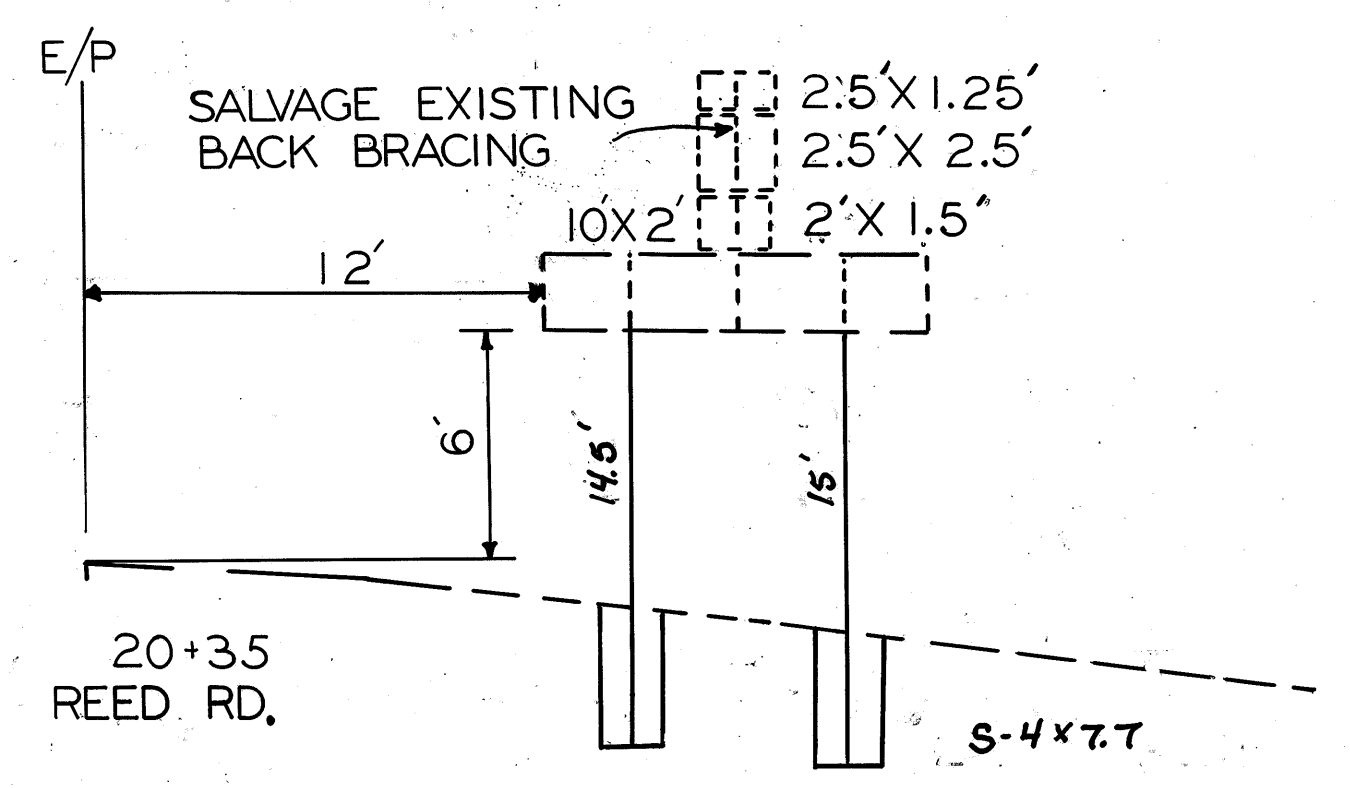
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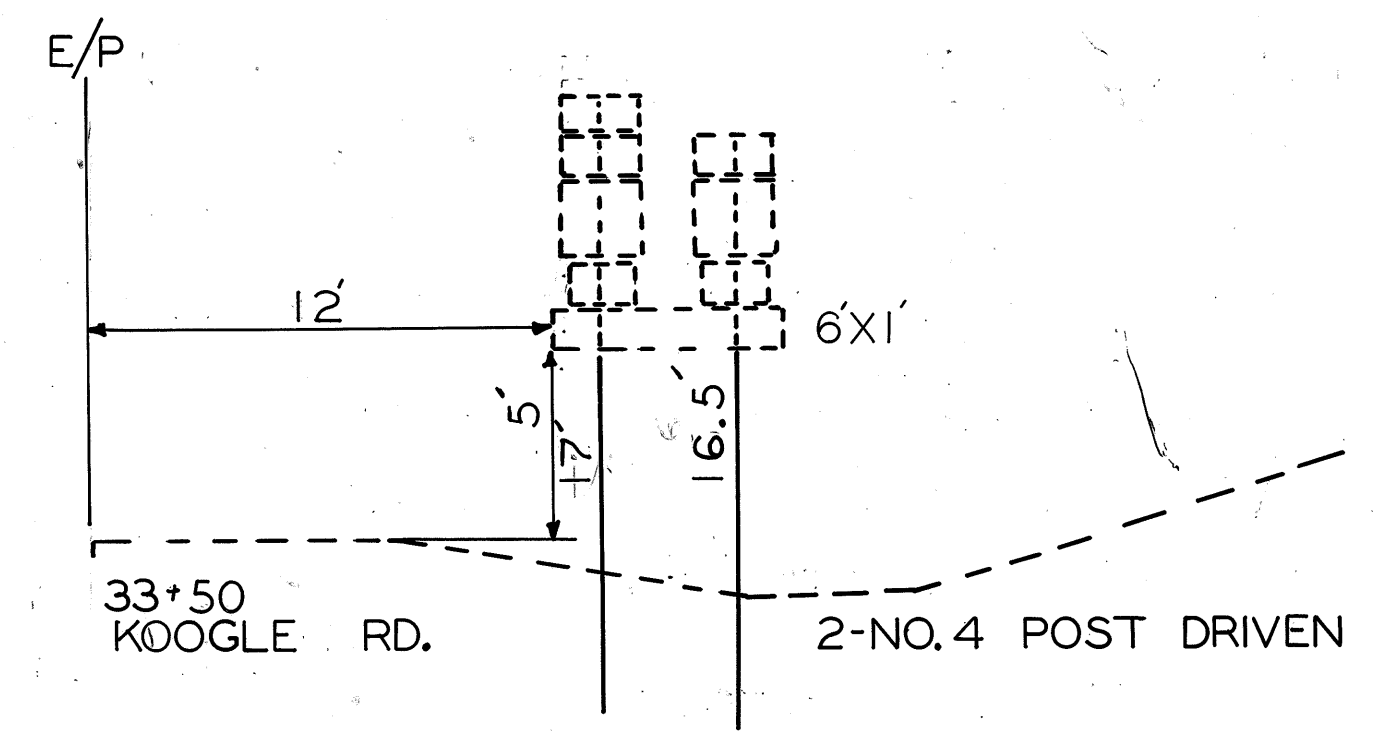
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22

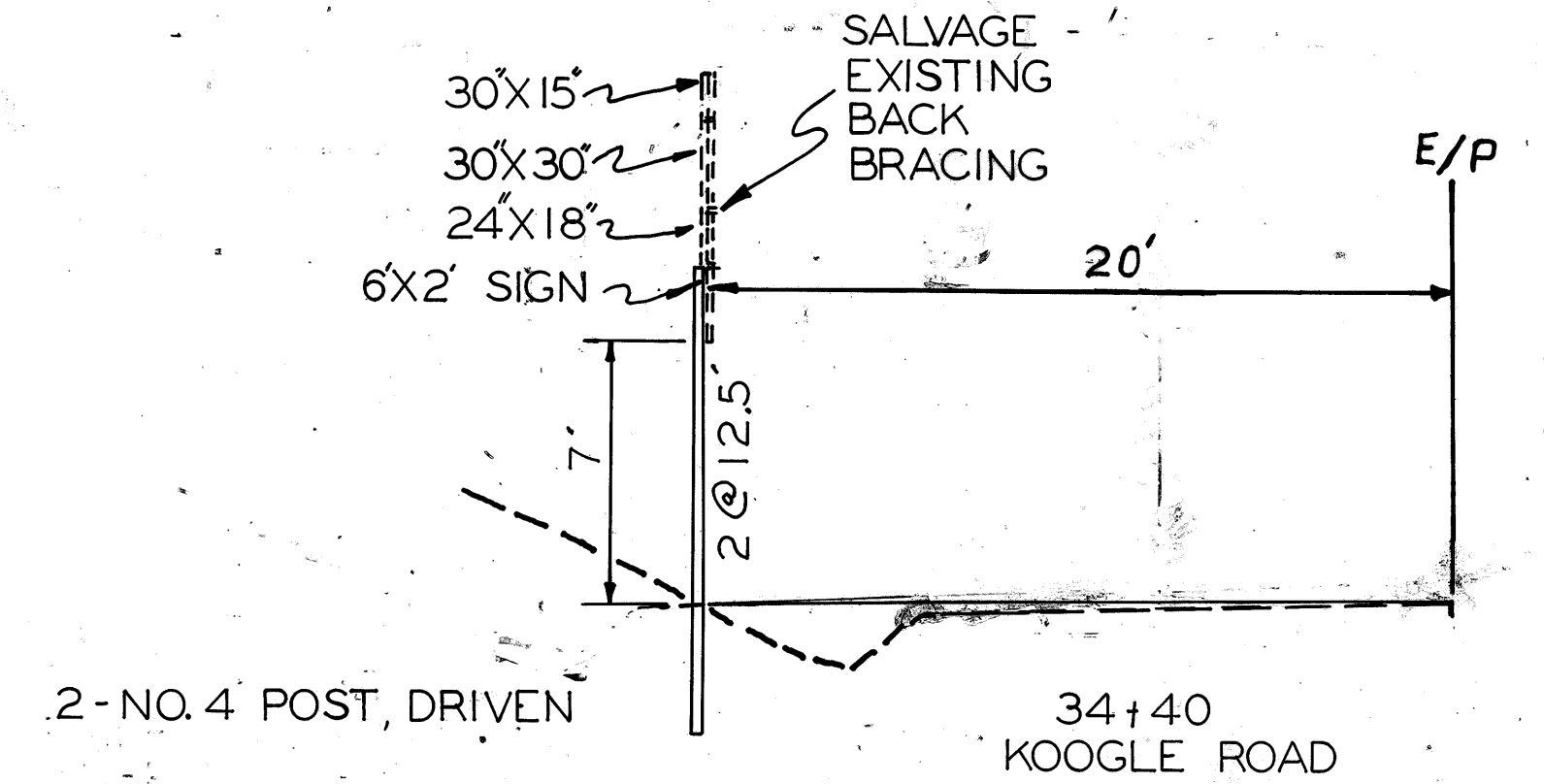


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FHWA REGION	STATE	PROJECT
5	OHIO	

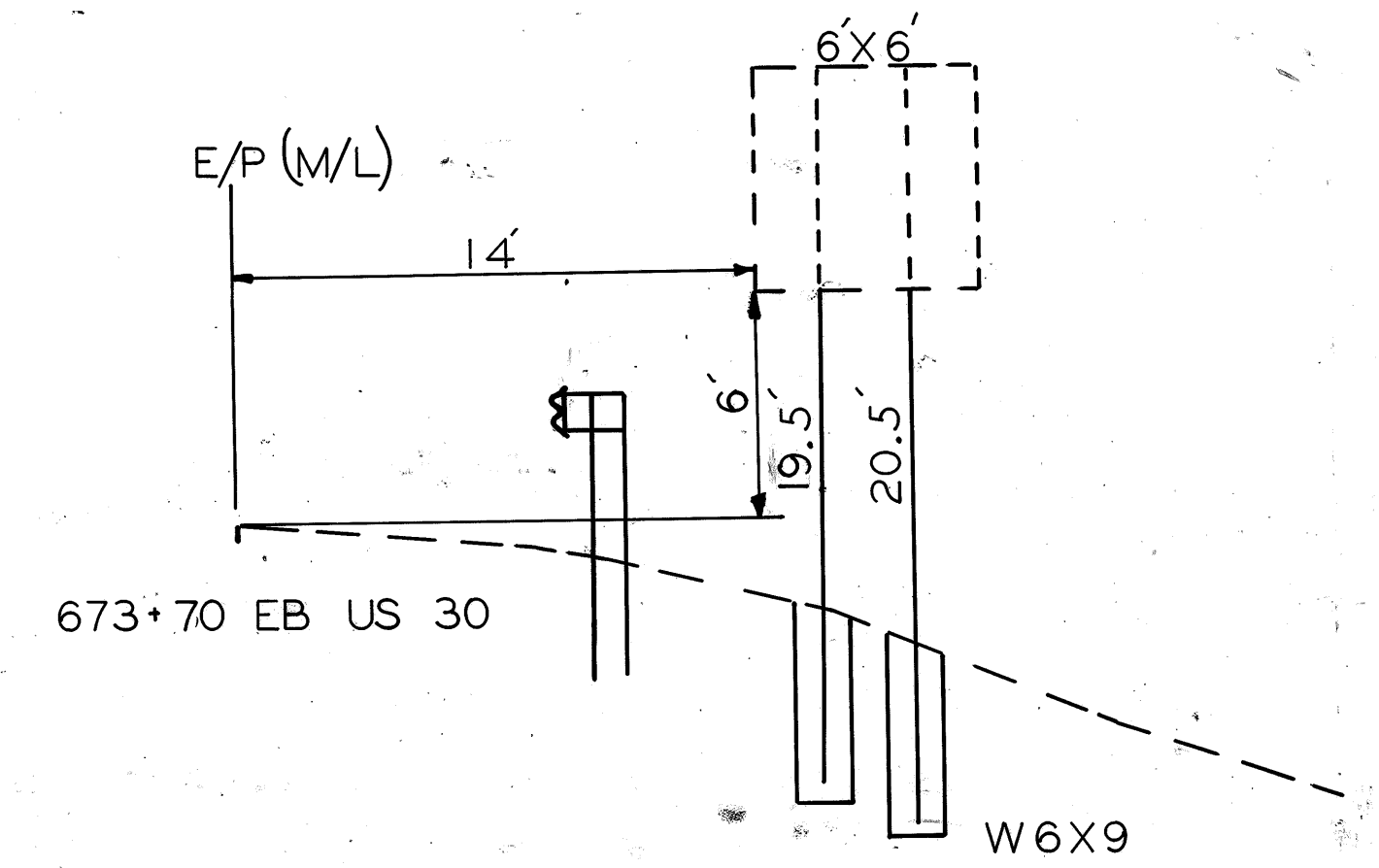
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114

RIC-30-12.37
ASD-30-0.00

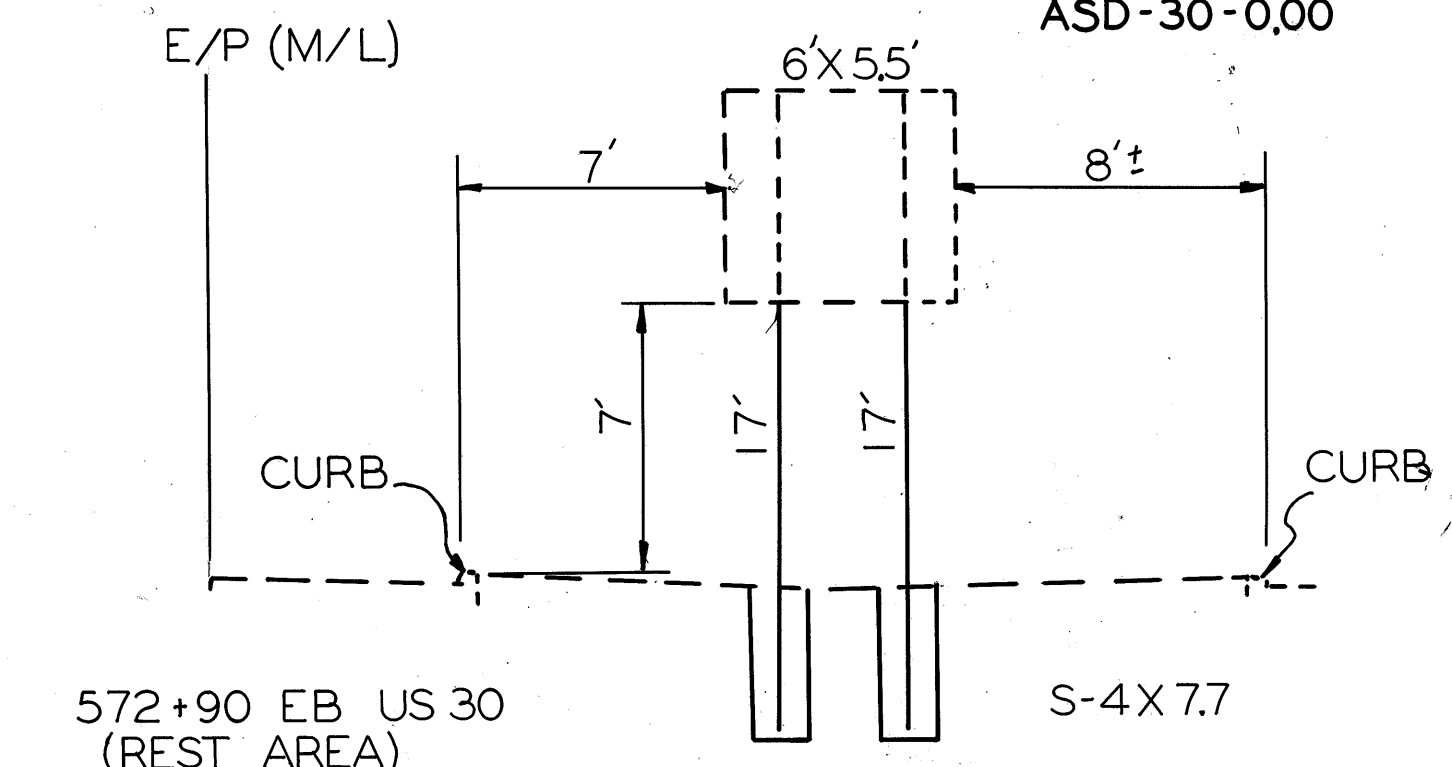


SIDE ELEVATION VIEW

35

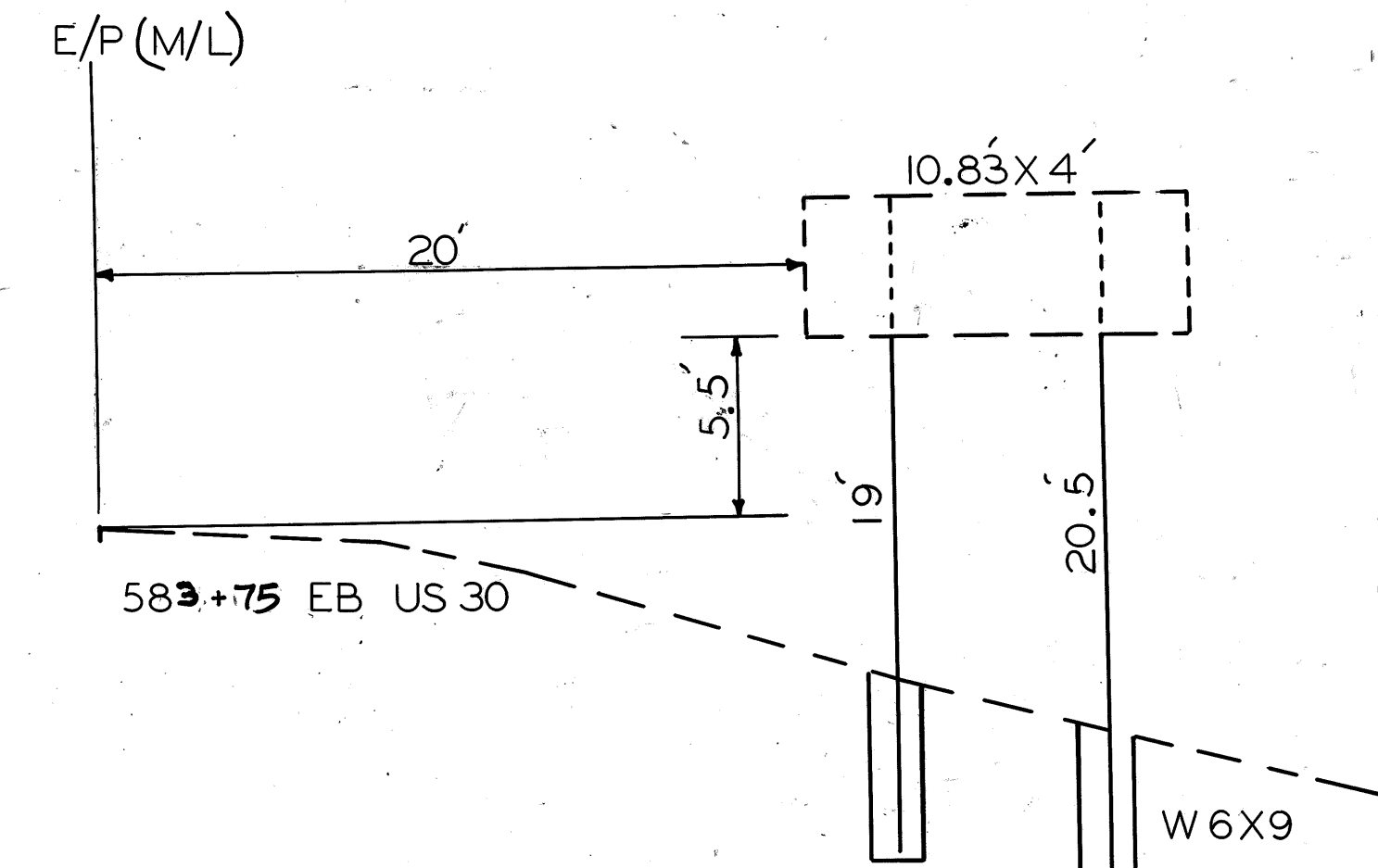


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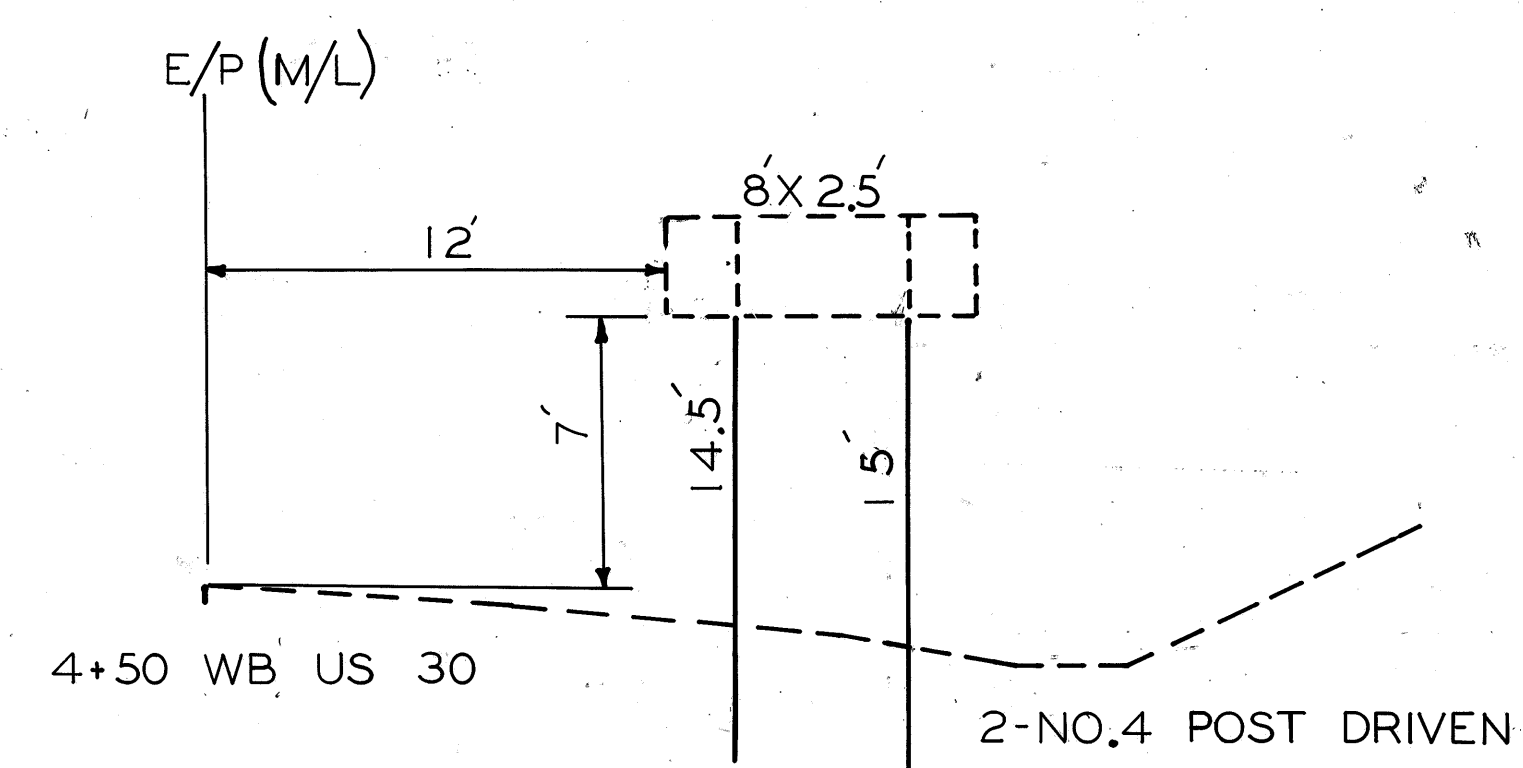


NOTE: NEW SIGN LOCATION
APPROX. 5' BEHIND
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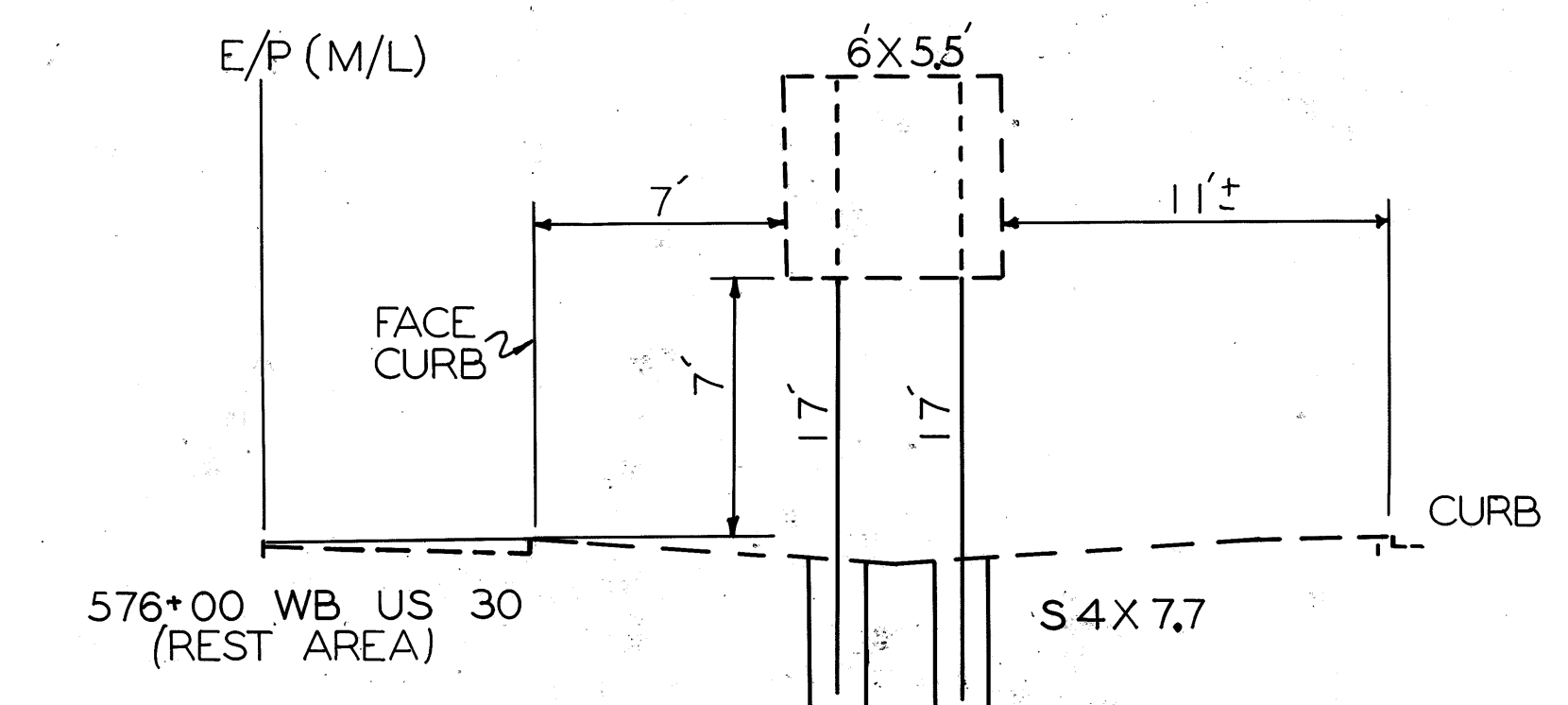
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28

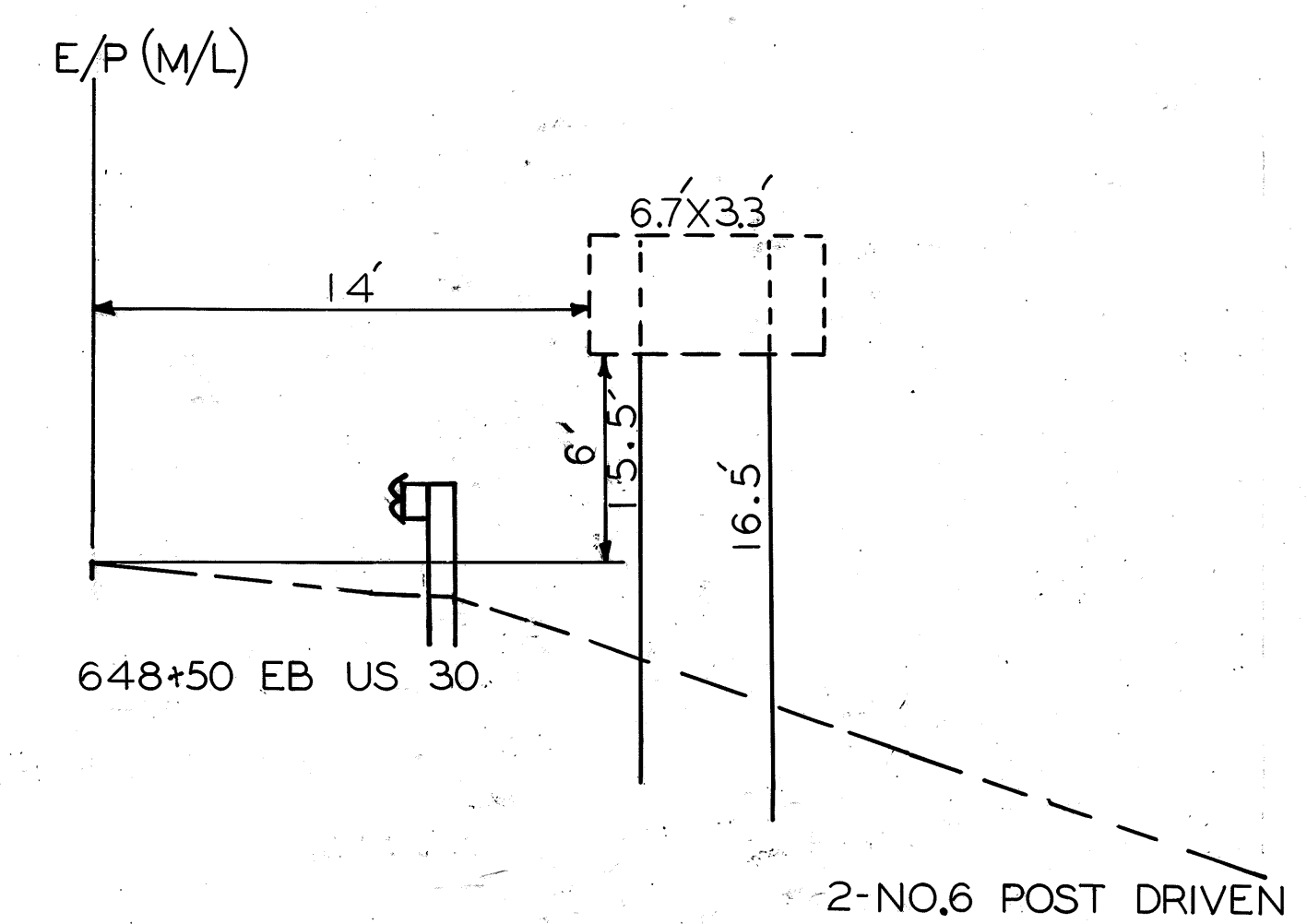


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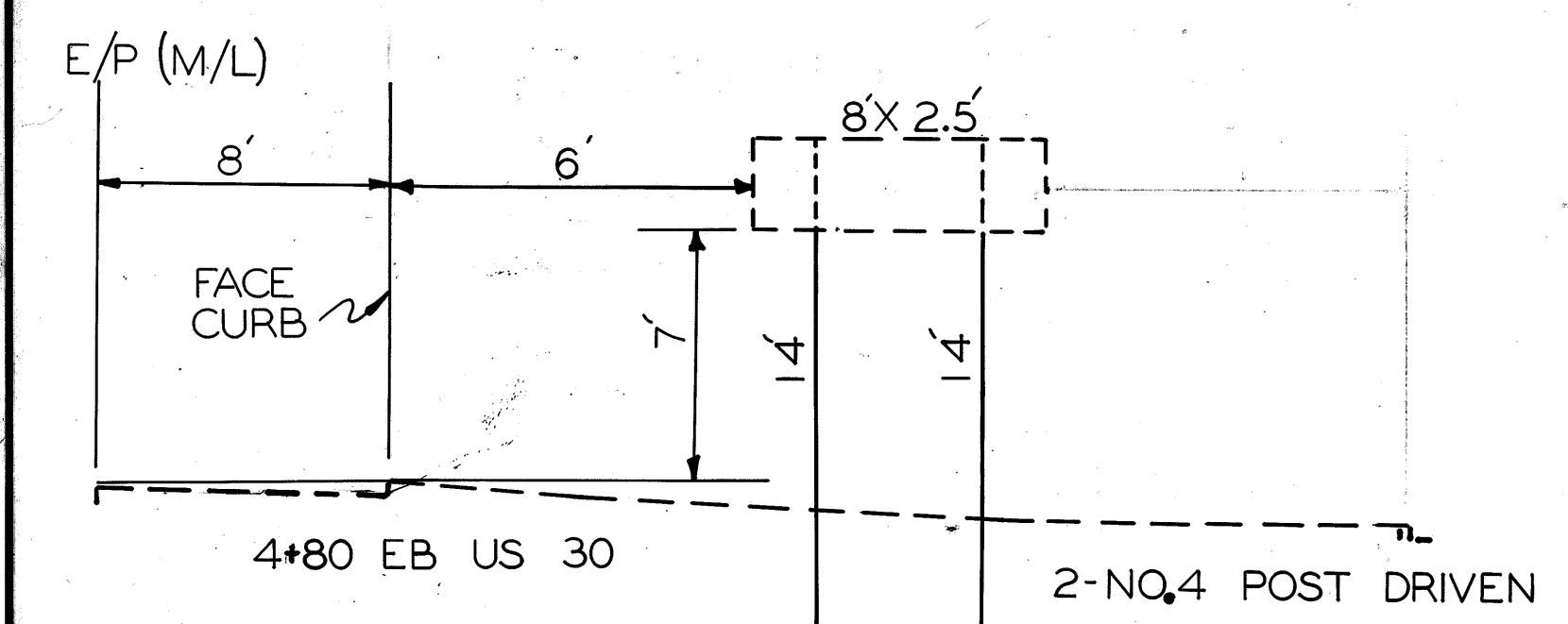


NOTE: NEW SIGN LOCATION
APPROX. 15' BEHIND
EXISTING LOCATION

27



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39

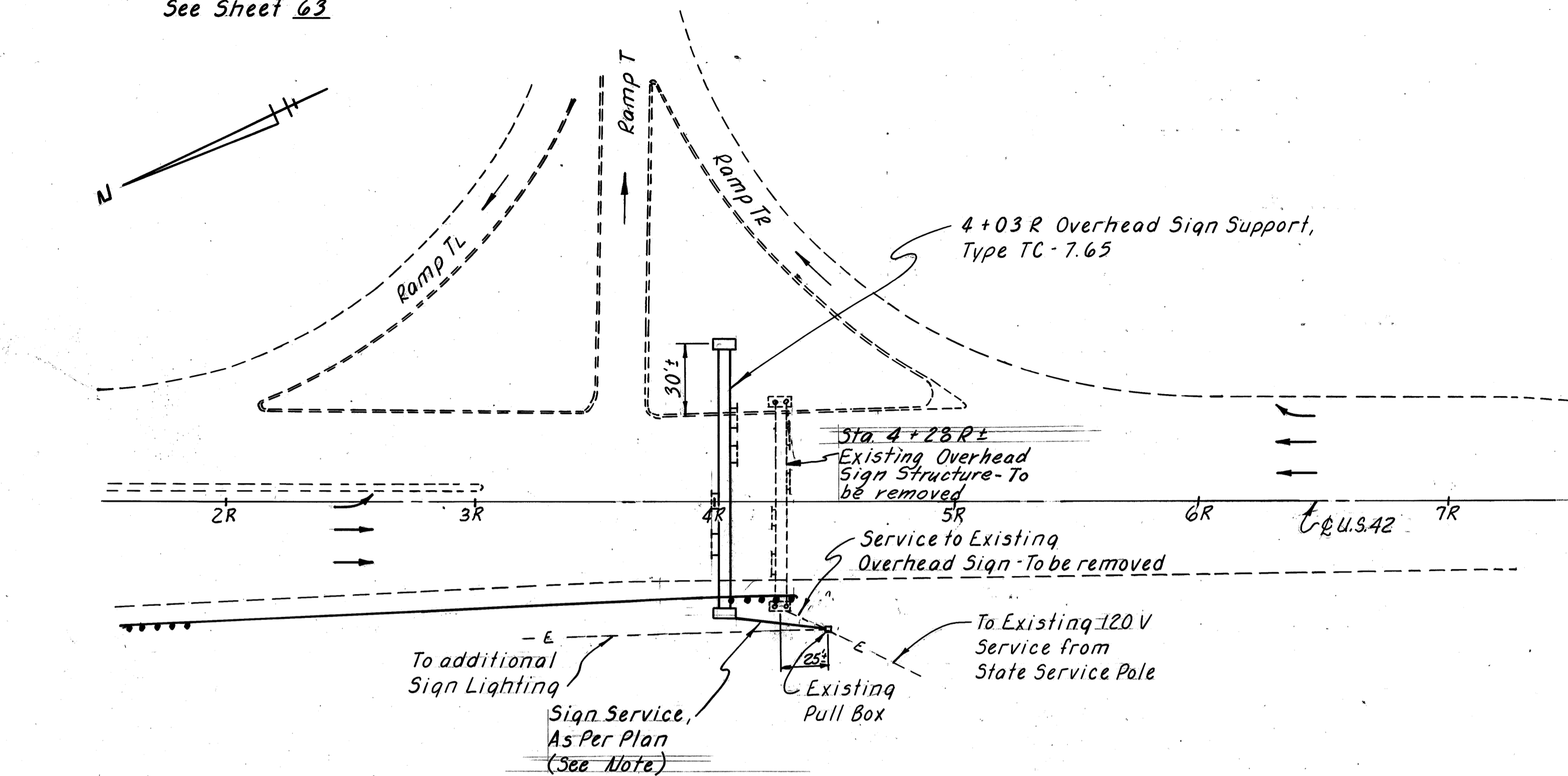
NOTE: For Pavement Marking,
See Sheet 63

FHWA REGION	STATE	PROJECT	
5	OHIO		

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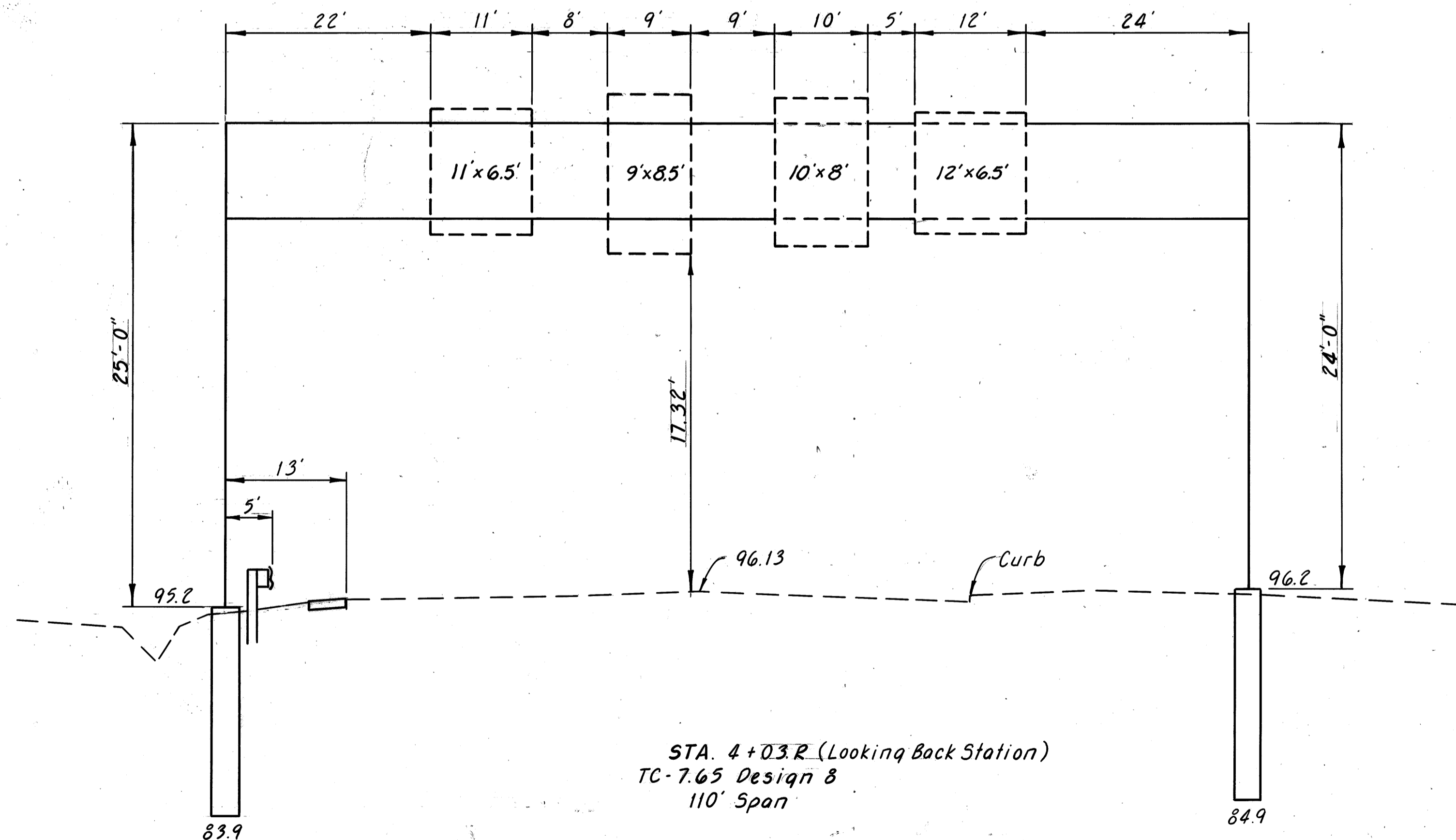
RIC - 30 - 12.37
ASD - 30 - 0.00

Calc. By: C.N. 9/84
Chkd. By: P.P. 10/84



PLAN

SCALE:



SCALES: Horizontal

Vertical

ITEM	DESCRIPTION	QUANTITY
630	Concrete for Anchor Base Foundation	10.3 C.Y.
630	Overhead Sign Support, Type TC-7.65, Design 8, Span 110 Feet	1 Ea.
630	Removal of Overhead Mounted Sign and Reerection	4 Ea.
630	Removal of Overhead Sign Support and Storage, Type 7.4 Design 2	1 Ea.
631	Sign Service, As Per Plan	1 Ea.
631	Signs Wired	4 Ea.
631	Removal of Disconnect Switch with Enclosure and Reerection	1 Ea.
631	Removal of Luminaire and Reerection	5 Ea.
625	Ground Rod, 713.16	1 Ea.

Quantities carried to Sub-Summary Sheet 14

NOTES

GENERAL:

THE EXISTING OVERHEAD LIGHTED SIGNS INCLUDING LUMINAIRES AT STATION 4+28 R. SHALL BE REMOVED AND REERECTED ON A NEW OVERHEAD SIGN SUPPORT AT STATION 4+03 R.

ITEM 630 OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8, SPAN 110 FEET REQUIRES THE FURNISHING OF VARIOUS PIECES OF MISCELLANEOUS HARDWARE. THE CONTRACTOR MAY SALVAGE HARDWARE FROM THE EXISTING SIGN INSTALLATION IF APPROVED BY THE ENGINEER. THE NEW HARDWARE FURNISHED BY THE ABOVE ITEM SHALL BECOME THE PROPERTY OF THE STATE, IF NOT USED.

ITEM 631 SIGNS WIRED PROVIDES FOR A COMPLETE ELECTRICAL SYSTEM FROM THE DISCONNECT SWITCH TO THE LUMINAIRES. THE CONTRACTOR MAY SALVAGE THE ELECTRICAL SYSTEM FROM THE EXISTING JUNCTION BOX MOUNTED ON THE SIGN SUPPORT TO THE LUMINAIRE IF APPROVED BY THE ENGINEER.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE VARIOUS BID ITEMS.

631 SIGN SERVICE, AS PER PLAN:

IN ADDITION TO THE WORK INCLUDED IN SECTION 631.06 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS, THE FOLLOWING SHALL APPLY:

THE CONTRACTOR SHALL REMOVE THE SIGN SERVICE FROM THE EXISTING PULL BOX TO THE EXISTING OVERHEAD SIGN AND SUPPLY THE NECESSARY CABLE SPLICING KIT (SECTION 625.17) FOR THE SIGN SERVICE FROM THE EXISTING PULLBOX TO THE NEW OVERHEAD SIGN.

PAYMENT FOR THE ABOVE WORK, INCLUDING LABOR, MATERIAL AND EQUIPMENT SHALL BE PAID FOR BY ITEM 631 PER EACH SIGN SERVICE, AS PER PLAN.

614 WORK ZONE PAVEMENT MARKINGS

GENERAL

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND WHEN NECESSARY, REMOVE WORK ZONE RETROREFLECTIVE PAVEMENT MARKINGS ON EXISTING, RECONSTRUCTED, RESURFACED OR TEMPORARY ROADS WITHIN THE WORK LIMITS, IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.

THE MARKINGS SHALL BE MAINTAINED IN GOOD CONDITION TO PROVIDE DAY AND NIGHT VISIBILITY. THE MARKINGS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER TO MAINTAIN REQUIRED VISUAL EFFECTIVENESS AND NIGHT VISIBILITY AT NO ADDITIONAL COST TO THE STATE.

THE CONTRACTOR SHALL, IN ADVANCE OF ANY SECTION OF ROADWAY LACKING OMITTED FULL PATTERN STANDARD DIMENSION EDGE LINE OR CENTER LINE MARKINGS, ERECT A "NO EDGE LINES" (OW-167) SIGN OR "UNMARKED NO PASSING ZONES" (OW-168) SIGN OR BOTH AS MAY BE APPROPRIATE. THESE SIGNS SHALL BE IN PLACE PRIOR TO EXPOSING THE ROADWAY TO TRAFFIC. THESE SIGNS SHALL BE REPEATED EVERY 1 TO 2 MILES AND AT OTHER LOCATIONS AS NECESSARY. THESE SIGNS SHALL BE REMOVED WHEN THEY NO LONGER APPLY. THE COST FOR FURNISHING AND ERECTING AND SUBSEQUENTLY REMOVING THESE SIGNS SHALL BE INCLUDED IN 614 MAINTAINING TRAFFIC, UNLESS SPECIFICALLY ITEMIZED.

TEMPORARY PAVEMENT MARKING MATERIALS

UNLESS OTHERWISE INDICATED ON THE PLANS, TEMPORARY PAVEMENT MARKINGS MAY BE EITHER 621.02 PAINT OR 947.03 TYPE B OR C PREFORMED MATERIAL. *WHERE PAVEMENT MARKINGS ARE NOT LIABLE TO BE TRACKED, EITHER CONVENTIONAL OR FAST DRYING PAINT MAY BE USED FOR 621.02.*

PAINTED MARKINGS SHALL BE IN ACCORDANCE WITH 621 EXCEPT THAT THE INCREASE OF 25 PERCENT IN THE APPLICATION RATE FOR NEW BITUMINOUS PAVEMENT AND PARAGRAPH 621.14 SHALL NOT APPLY.

TYPE B AND TYPE C PREFORMED MATERIAL

PREFORMED MATERIAL SHALL COMPLY WITH 947.03 EXCEPT THAT NO PREFORMED MATERIAL CONTAINING METAL SHALL BE PLACED ON ANY SURFACE UNLESS IT WILL BE REMOVED LATER BY THE CONTRACTOR. TEMPORARY PAVEMENT MARKINGS OF 947.03 PREFORMED MATERIAL SHALL BE REMOVED PRIOR TO PLACEMENT OF 621 OR 847 SURFACE COURSE MARKINGS AT THAT LOCATION. PREFORMED MATERIAL SHALL BE APPLIED IN ACCORDANCE WITH 847 EXCEPT AS MODIFIED HEREIN.

PLACEMENT

TEMPORARY MARKINGS SHALL BE COMPLETE AND IN PLACE ON ALL PAVEMENT PRIOR TO EXPOSING IT TO TRAFFIC. WHEN TEMPORARY MARKINGS CONFLICT WITH THE TRAFFIC PATTERN, THEY SHALL BE REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH 621.134.

TEMPORARY MARKING CLASSES

CLASS I MARKINGS

CLASS I MARKINGS SHALL BE APPLIED TO THE FULL DIMENSIONS AS DEFINED IN 621 WITH THE FOLLOWING ADDITIONS OR EXCEPTIONS:

- 1) LANE LINES SHALL BE 4-INCHES IN WIDTH.
- 2) TRANSVERSE LINES SHALL BE 8-INCHES IN WIDTH.
- 3) STOP LINES SHALL BE 12-INCHES IN WIDTH.
- 4) CROSS WALK LINES SHALL BE 8-INCHES IN WIDTH.

CLASS II MARKINGS

CLASS II MARKINGS (ABBREVIATED) SHALL BE DEFINED AS FOLLOWS:

CENTER LINES SHALL CONSIST OF SINGLE, YELLOW 4-INCH WIDE BY A MINIMUM OF 48-INCH LONG DASHES SPACED AT A MAXIMUM OF 40-FOOT INTERVALS.

LANE LINES SHALL CONSIST OF WHITE 4-INCH WIDE BY A MINIMUM OF 48-INCH LONG DASHES SPACED AT A MAXIMUM OF 40-FOOT INTERVALS.

GORE MARKINGS SHALL BE TWO CONTINUOUS, WHITE 4-INCH LINES PLACED AT THE THEORETICAL GORE OF AN EXIT RAMP OR DIVERGING ROADWAYS. **LENGTH OF LINES SHALL BE 100-FOOT MAXIMUM.**

THE PAINT APPLICATION RATE SHALL BE NOT LESS THAN 1.6 GALLONS PER MILE FOR LANE LINE AND CENTER LINE AND 16 GALLONS PER MILE FOR GORE MARKINGS.

CONFLICTING EXISTING MARKINGS

THE CONTRACTOR SHALL, PRIOR TO PLACING TEMPORARY MARKINGS, REMOVE ALL CONFLICTING EXISTING MARKINGS VISIBLE TO THE TRAVELING PUBLIC DURING DAYLIGHT OR NIGHTTIME HOURS IN ACCORDANCE WITH 621.134. THE COST FOR REMOVAL OF CONFLICTING MARKINGS SHALL BE INCLUDED IN 614 MAINTAINING TRAFFIC UNLESS SPECIFICALLY ITEMIZED.

THE CONTRACTOR SHALL ALSO REMOVE THE PRISMATIC RETRO-REFLECTOR WITHIN ANY RAISED PAVEMENT MARKER (RPM) WHICH IS IN CONFLICT WITH THE TEMPORARY PAVEMENT MARKINGS. WHEN THE TEMPORARY PAVEMENT MARKINGS ARE REMOVED AND THE RPM IS NO LONGER IN CONFLICT, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE RECESSED REFLECTOR ATTACHMENT AREA OF THE CASTING AND INSTALL A NEW PRISMATIC RETRO-REFLECTOR OF THE SAME KIND AND COLOR. THE COST FOR THIS WORK SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS.

INTERIM MARKINGS

WITHIN 21 CALENDAR DAYS AFTER OPENING ANY LENGTH OF PAVEMENT TO TRAFFIC, THE 621 OR 847 PAVEMENT MARKINGS CALLED FOR IN THE PLANS OR EQUIVALENT 614 CLASS I, PAINT MARKINGS SHALL BE APPLIED. THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO PLACE AND MAINTAIN 614 CLASS I PAINT MARKINGS AS PART OF THE LUMP SUM BID FOR 614 MAINTAINING TRAFFIC.

FOR EACH CALENDAR DAY BEYOND 21 DAYS THAT THIS WORK SHALL REMAIN UNCOMPLETED, THE PROVISIONS OF 108.07 WILL BE INVOKED, EXCEPT THAT BETWEEN NOVEMBER 15 AND APRIL 15 WEATHER CONDITIONS SHALL NOT BE AN ACCEPTABLE REASON FOR EXTENSION.

METHOD OF MEASUREMENT

TEMPORARY PAVEMENT MARKINGS WILL BE MEASURED COMPLETE IN PLACE, BY CLASS AND MATERIAL, IN THE UNITS DESIGNATED. LINE QUANTITIES WILL BE THE LENGTH OF THE COMPLETED STRIPE, INCLUDING GAPS, INTERSECTIONS, AND OTHER SECTIONS OF PAVEMENT NOT NORMALLY MARKED, IN ACCORDANCE WITH 621.15.

TEMPORARY PAVEMENT MARKINGS WILL INCLUDE THE LAYOUT, APPLICATION AND REMOVAL OF THE MARKINGS, WHEN REQUIRED.

BASIS OF PAYMENT

PAYMENT FOR ACCEPTED QUANTITIES COMPLETE IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR PLACEMENT, MAINTENANCE AND NECESSARY REMOVAL OF THE MARKINGS.

ITEM	UNIT	DESCRIPTION
614	MILES	TEMPORARY LANE LINES, CLASS _____, * _____
614	MILES	TEMPORARY CENTER LINES, CLASS _____, * _____
614	LIN. FT.	TEMPORARY CHANNELIZING LINES, CLASS I, * _____
614	MILES	TEMPORARY EDGE LINES, CLASS I, * _____
614	LIN. FT.	TEMPORARY GORE MARKINGS, CLASS II, * _____
614	LIN. FT.	TEMPORARY STOP LINES, CLASS I, * _____
614	LIN. FT.	TEMPORARY CROSSWALK LINES, CLASS I, * _____
614	EACH	TEMPORARY LANE ARROWS, CLASS I, * _____
614	EACH	TEMPORARY RAILROAD SYMBOL MARKINGS, CLASS I, * _____
614	EACH	TEMPORARY WORD "ONLY" ON PAVEMENT, 72-INCH, CLASS I, * _____
614	LIN. FT.	TEMPORARY TRANSVERSE LINES, CLASS I, * _____
614	LIN. FT.	TEMPORARY DOTTED LINES, CLASS I, * _____

*621 PAINT, 947.03 TYPE B OR 947.03 TYPE C

The following estimated quantities are to be used as directed by Engineer to provide temporary pavement markings on this project:

On U.S.R. 30:

614 Temporary Lane Lines, Class II:	
1st. Intermediate Course: Sta. 344+30 to Sta. 594+00 E.B. & W.B.	= 9.46 Miles
2nd. Intermediate & surface Courses: Full Project E.B. & W.B.	= 27.74 Miles
Pavement Planing Areas	= 1.30 Miles
TOTAL	= 38.50 Miles

614 Temporary Gore Markings, Class II:	
11 Locations x 3 applications x 200 L.F.	= 6600 Lin.Ft.
3 Locations x 2 applications x 200 L.F.	= 1200 Lin.Ft.
TOTAL	= 7800 Lin.Ft.

614 Temporary Channelizing Lines, Class I (At Ramp Acceleration Lanes):	
9 Locations x 3 applications x 150 L.F.	= 4050 Lin.Ft.
3 Locations x 2 applications x 150 L.F.	= 900 Lin.Ft.
TOTAL	= 4950 Lin.Ft.

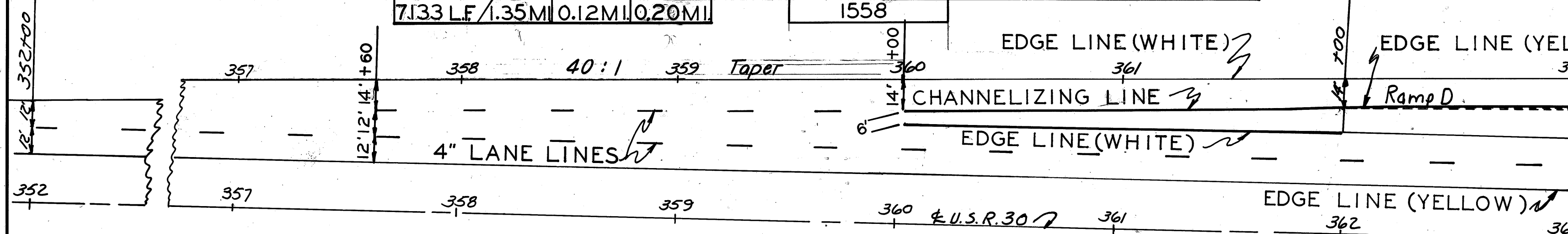
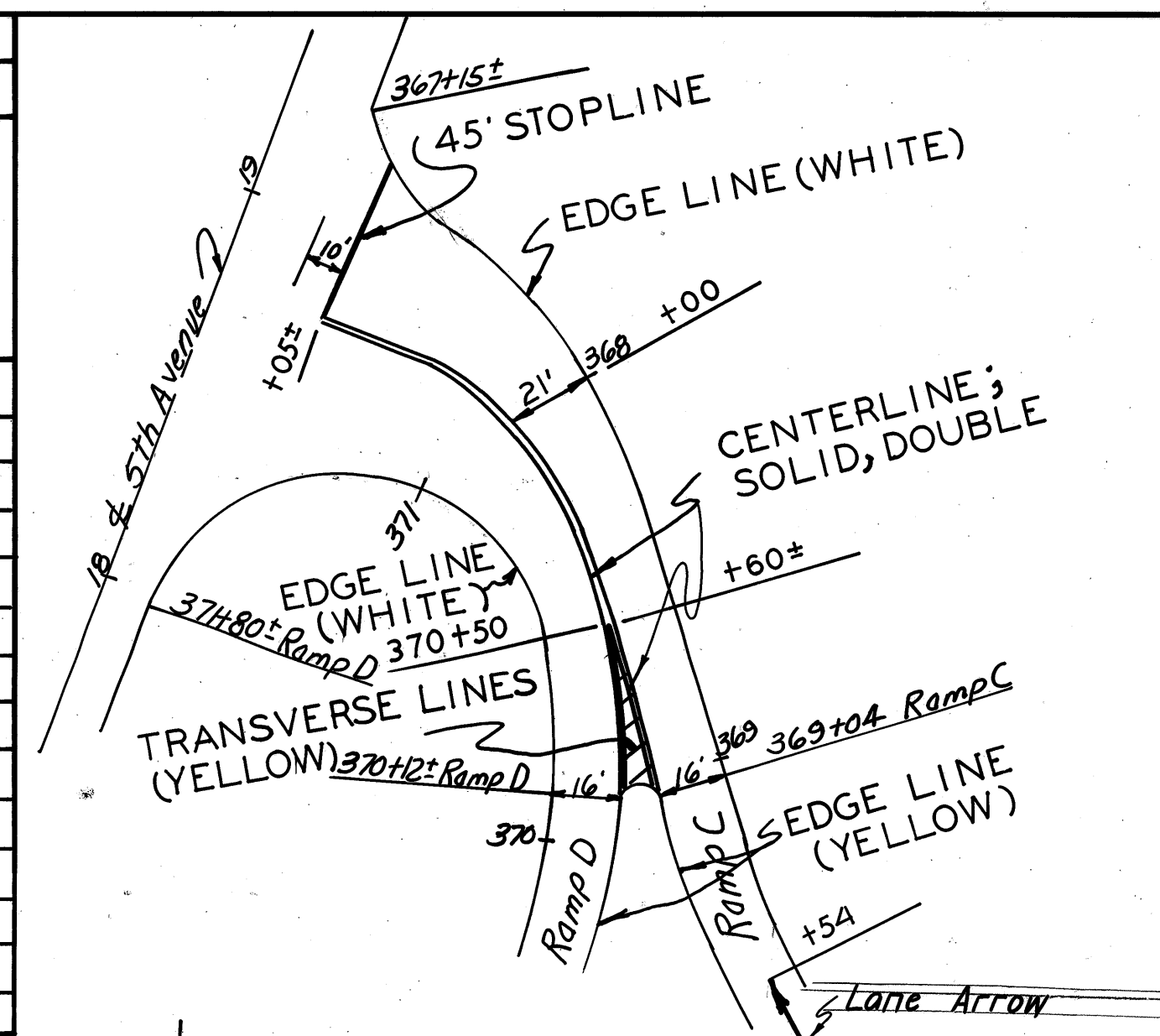
On Side Roads:

614 Temporary Center Lines, Class II	
5th., Stewart, McElroy & Laver: 1 application x 1436 L.F.	= 0.27 Miles
Koogle & Crider: 2 applications x 3236 L.F.	= 1.23 Miles
TOTAL	= 1.50 Miles

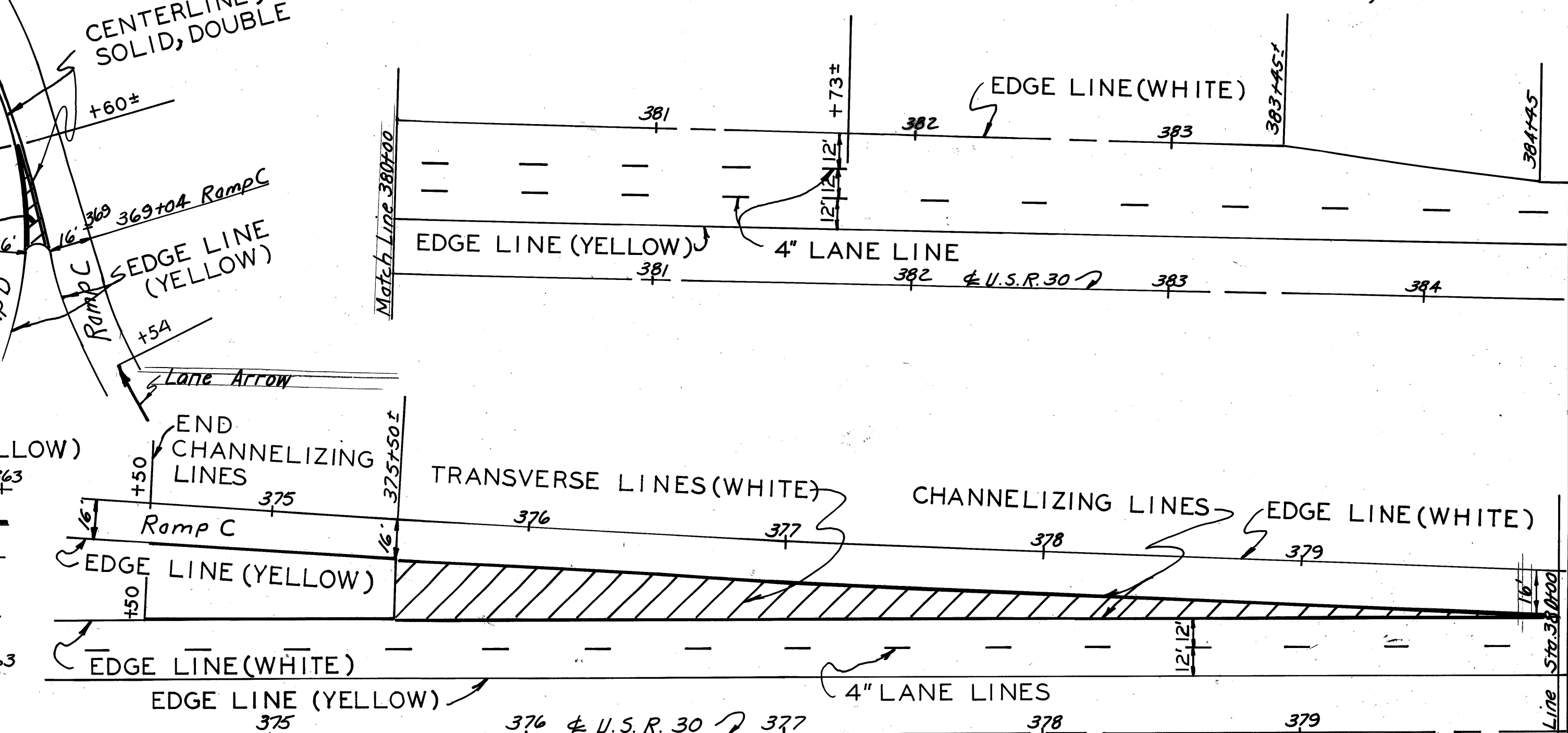
614 Temporary Lane Lines, Class II	
U.S.R. 42: 2 applications x 1510 L.F.	= 0.57 Miles

LOCATION

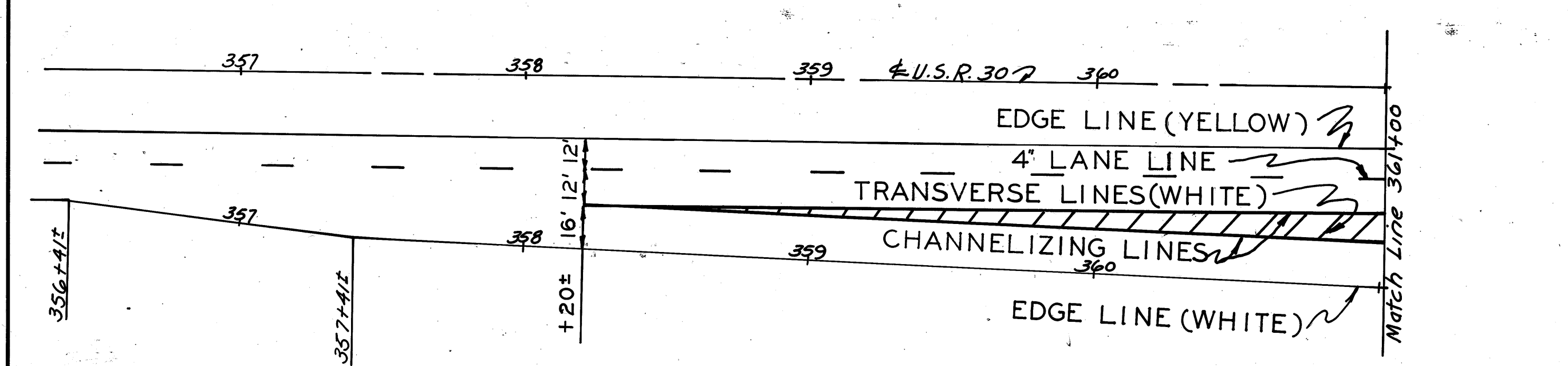
LOCATION	621							847		
	EDGE LINE (WHITE)	EDGE LINE (YELLOW)	4" LANE LINE	CENTERLINES; SOLID, DOUBLE	CHANNELIZING LINES	TRANSVERSE LINES (WHITE)	TRANSVERSE LINES (YELLOW)	STOP LINES	LANE ARROWS	947.02
	LIN. FT./MILES				LIN. FT.			LIN. FT. EACH		
RAMP A DECEL LANE TO 365+91±					1542	911				
RAMP A 365+91± TO 370+17±	426	366		79			10			
RAMP R	718			359						
RAMP E	917			399				40		
RAMP B 368+56± TO 375+00±	644	584								
RAMP B ACCEL LANE TO 379+40	200		240		200					
RAMP C TO 374+50	740	546		203			26	45	1	
RAMP C DECEL LANE TO 381+73±				173	1100	611				
RAMP D 362+00 TO 371+80±	980	812								
RAMP D ACCEL LANE 357+60 TO 362+00	200		240		200					
TOTAL	4825	2308	653	1040	3042	1522	36	85	1	
	7133 LF / 1.35 MI	0.12 MI	0.20 MI			1558				



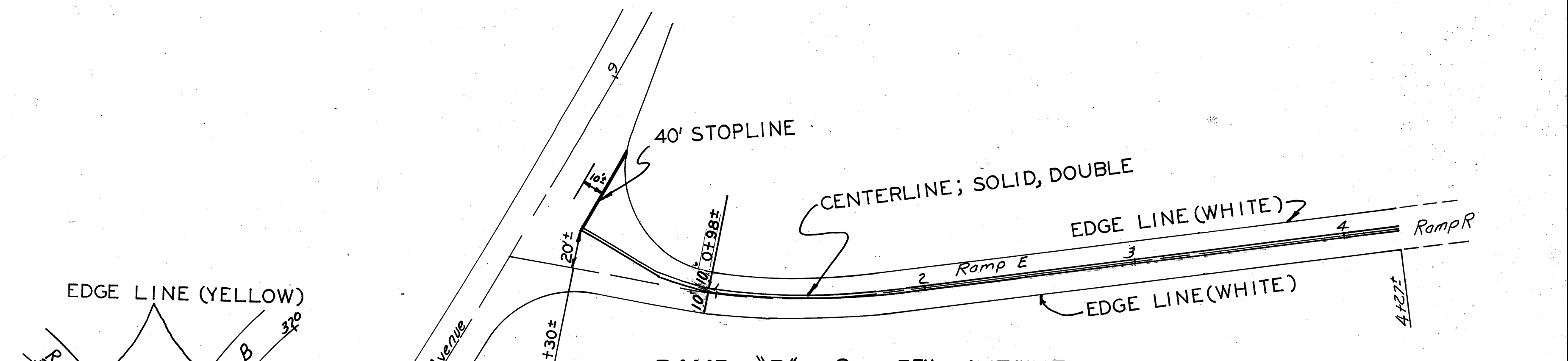
RAMP "D" ACCELERATION LANE



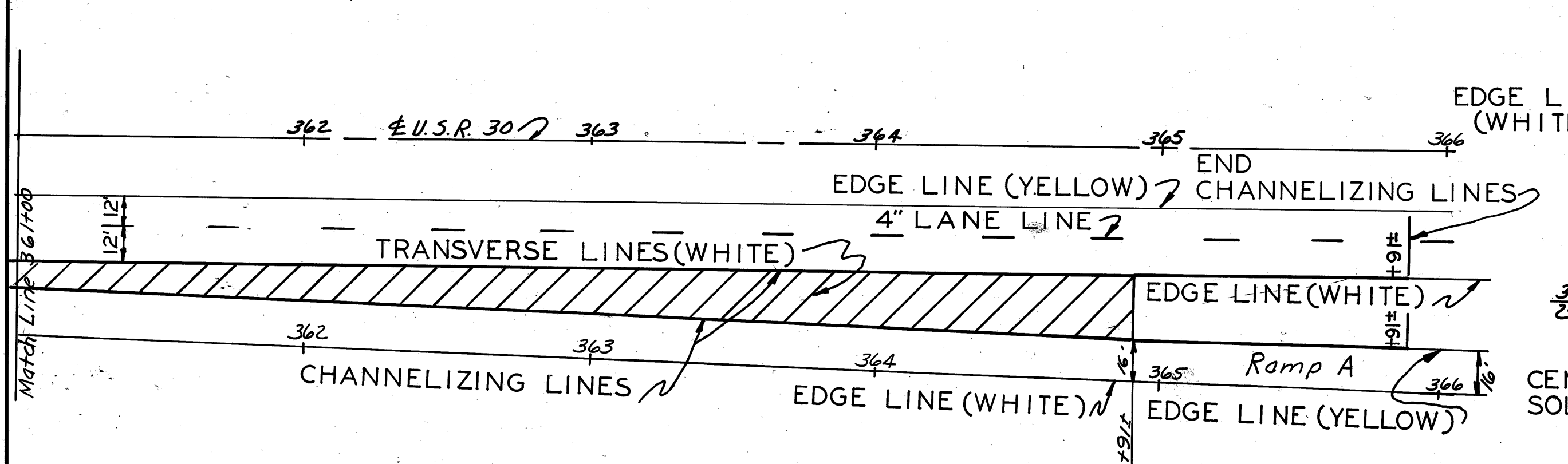
RAMP "C" DECELERATION LANE



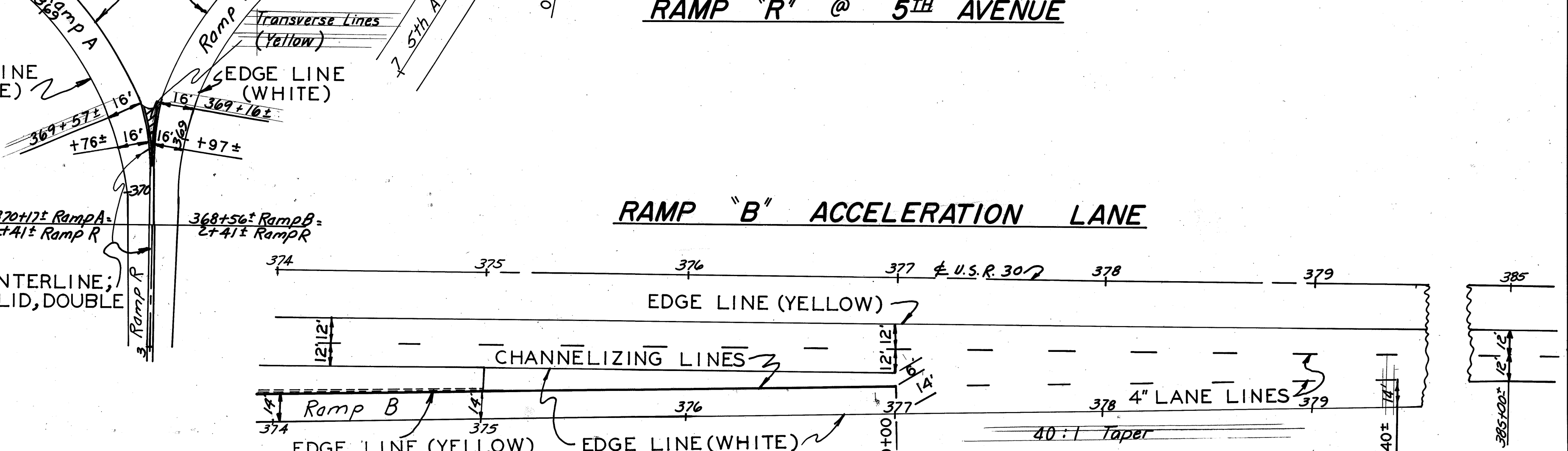
RAMP "A" DECELERATION LANE

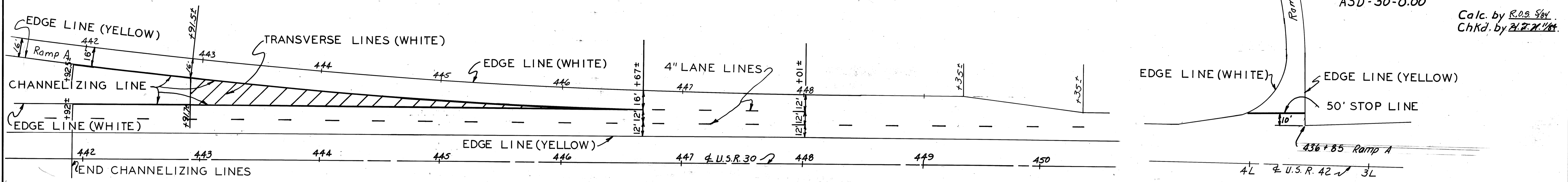


RAMP "R" @ 5TH AVENUE



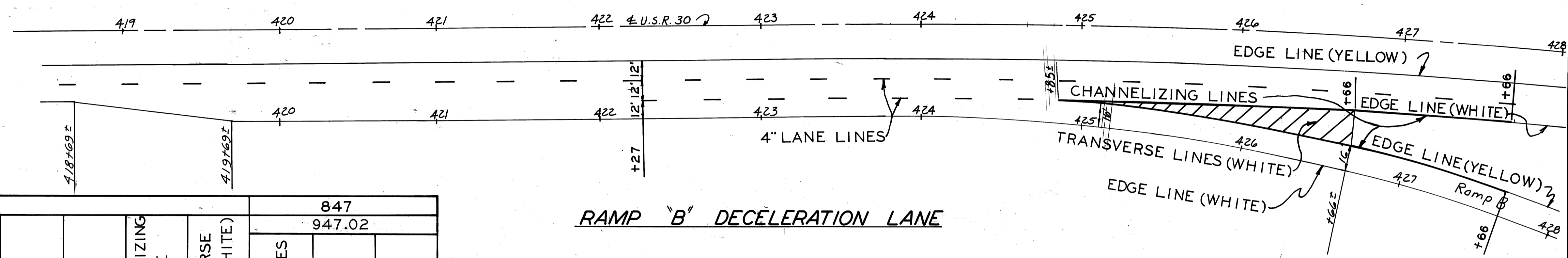
RAMP "B" ACCELERATION LANE





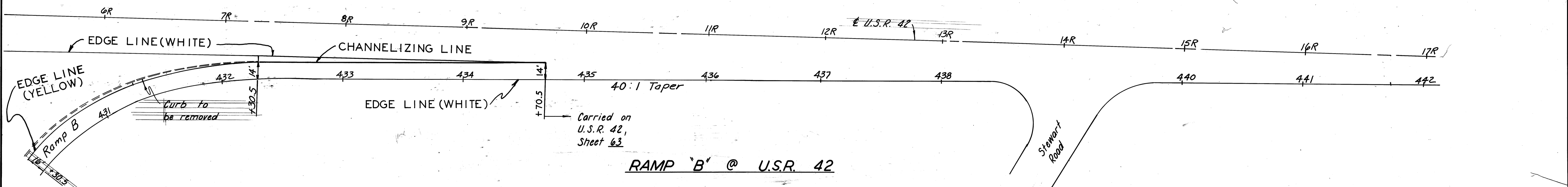
RAMP "A" DECELERATION LANE

RAMP "A" @ U.S.R. 42

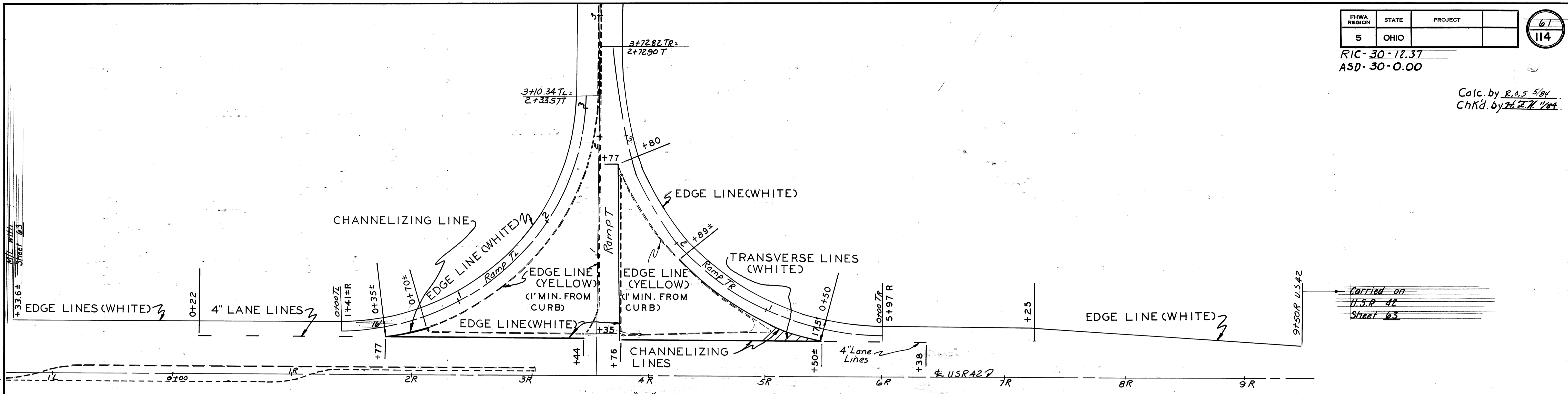


RAMP "B" DECELERATION LANE

LOCATION	621						847		
	EDGE LINE (WHITE)	EDGE LINE (YELLOW)	LANE LINE				CHANNELIZING LINE	TRANSVERSE LINES (WHITE)	STOP LINES
	LIN. FT./MILES	L.F./MI.				LIN. FT.	LIN. FT.	LIN. FT.	
RAMP A (DECEL LANE TO 441+92)			134				950	509	
RAMP A (441+92 TO US 42)	572	507						50	
RAMP B (DECEL LANE TO 427+66)			258				562	246	
RAMP B TO 9+71R US 42	705	465					240		
TOTALS	1277	972	392				1752	755	50
	2249 / 0.43MI.		0.07MI.						



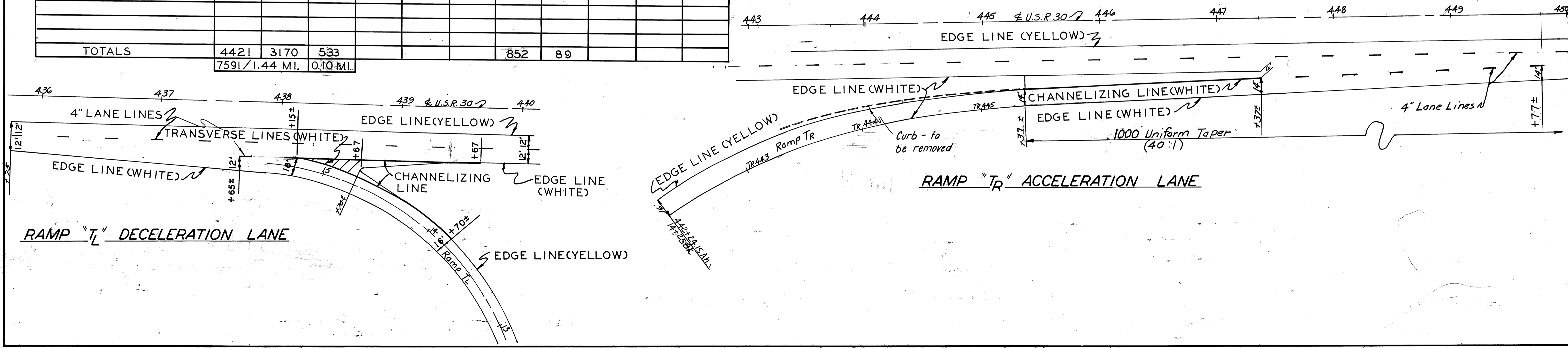
RAMP "B" @ U.S.R. 42



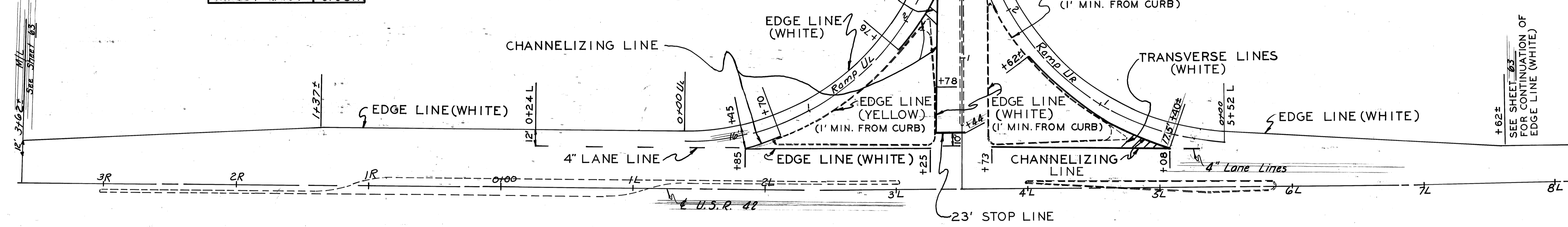
RAMP "T" @ U.S.R. 42

LOCATION	621					
	EDGE LINE (WHITE)	EDGE LINE (YELLOW)	LANE LINE		CHANNELIZING LINE	TRANSVERSE LINE (WHITE)
	LIN. FT. / MILES	LIN. FT.			LIN. FT.	LIN. FT.
RAMP TR (STA 9+50R TO 3+73 TR)	726	91	88		313	37
RAMP TL (STA 1+34L US42 TO 3+10 TL)	752	240	155		35	
RAMP T (STA 0+35 TO 10+43±)	1721	1817				
RAMP TR (STA 10+43 TO US30 ACC. LN)	895	695	240		200	
RAMP TL (STA 10+43 TO US30 DEC. LN)	327	327	50		304	52
TOTALS	4421	3170	533		852	89
	7591 / 1.44 MI.		0.10 MI.			

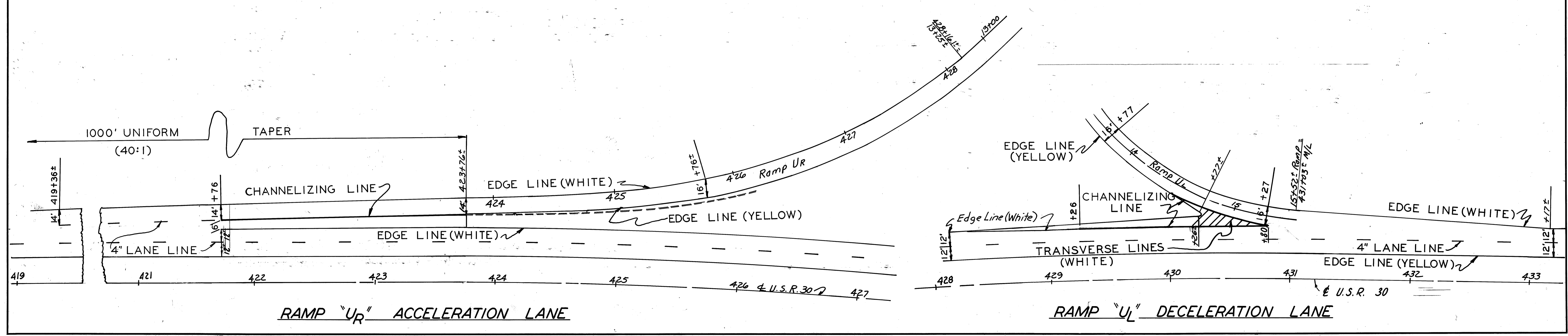
See Sheet 63 for Additional Pavement Marking Details for U.S.R. 42



LOCATION	621						847		
	EDGE LINES (WHITE)	EDGE LINES (YELLOW)	LANE LINES		CHANNELIZING LINES	TRANSVERSE LINES (WHITE)	STOP LINES		
	LIN. FT./MILES	LF./MI.			LIN. FT.	LIN. FT.	LIN. FT.		
RAMP UR (US 42 DECEL TO 3+02)	512	61	22		257	26			
RAMP UL (US 42 ACCEL TO 3+13)	956	106	161		155	20			
RAMP U (0+44± TO 10+86±)	1849	2084					23/25		
RAMP UR (10+86± TO 13+25±)	239	239							
RAMP UL (10+86± TO 13+77±)	291	-291							
RAMP UR (US 30 ACCEL TO 428+16±)	640	440	240		200				
RAMP UL (US 30 DECEL TO 13+77)					304	46			
	4487	3221	423		916	92	48		
	7708 / 1.46 Mi.		0.08 Mi						

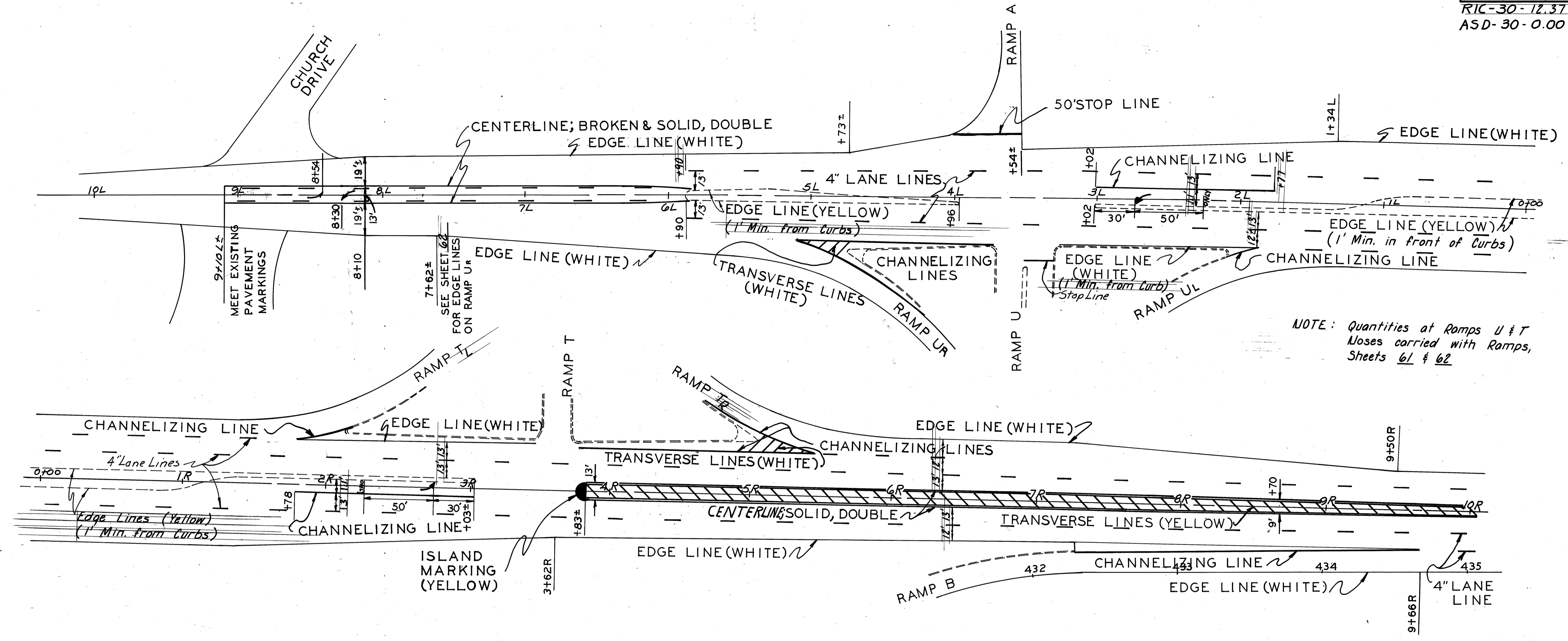


RAMP "U" @ U.S.R. 42



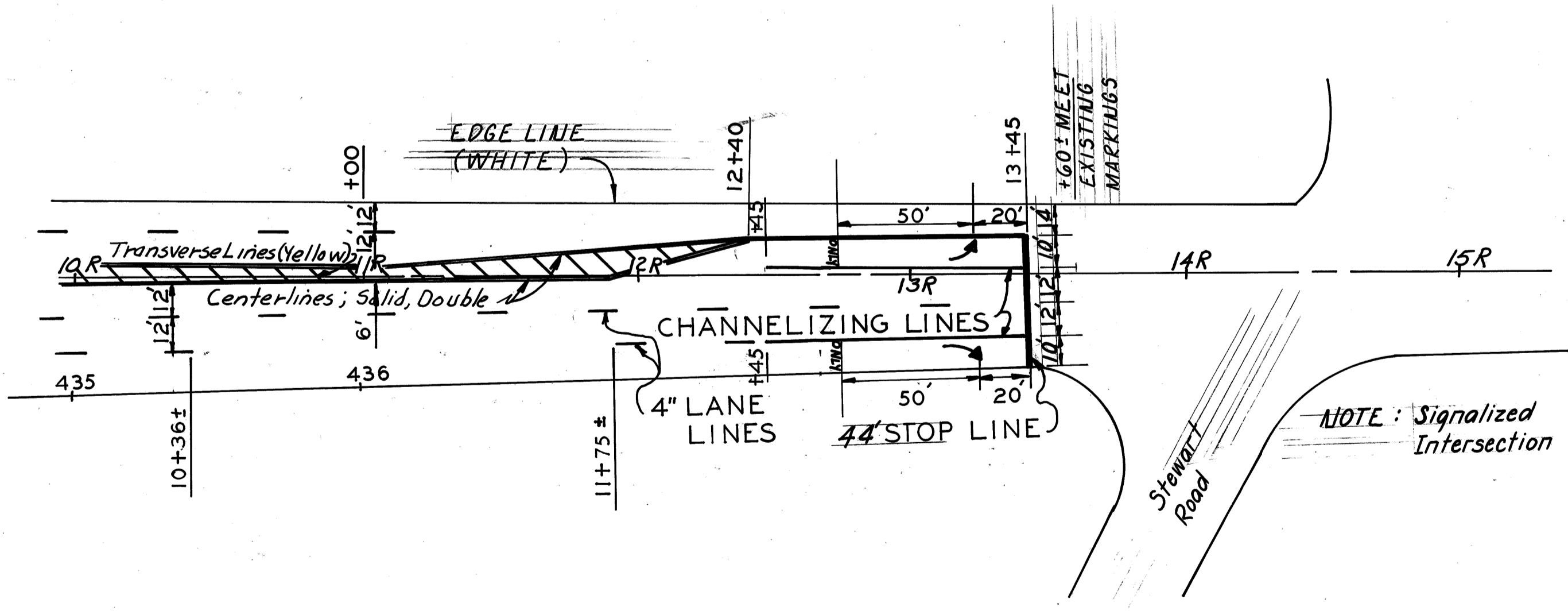
RAMP "UR" ACCELERATION LANE

RAMP "UL" DECELERATION LANE

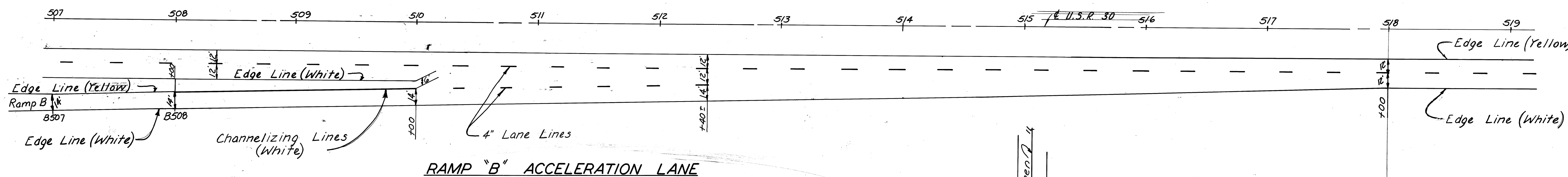
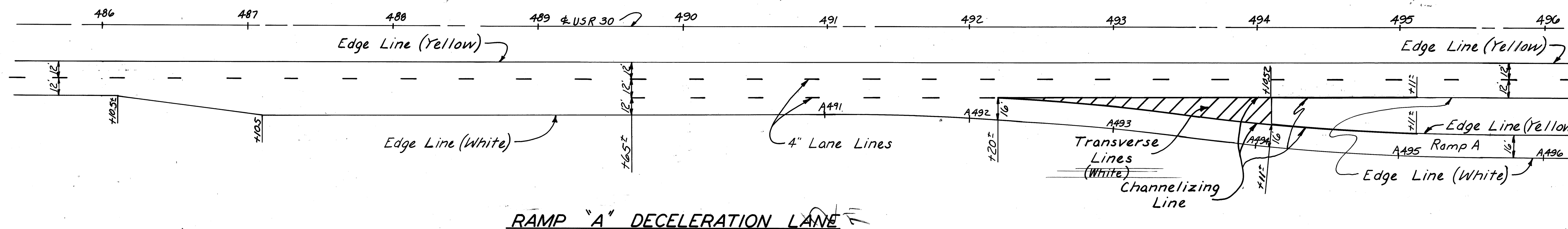


NOTE: Quantities at Ramps U & T
Nos. carried with Ramps,
Sheets 61 & 62

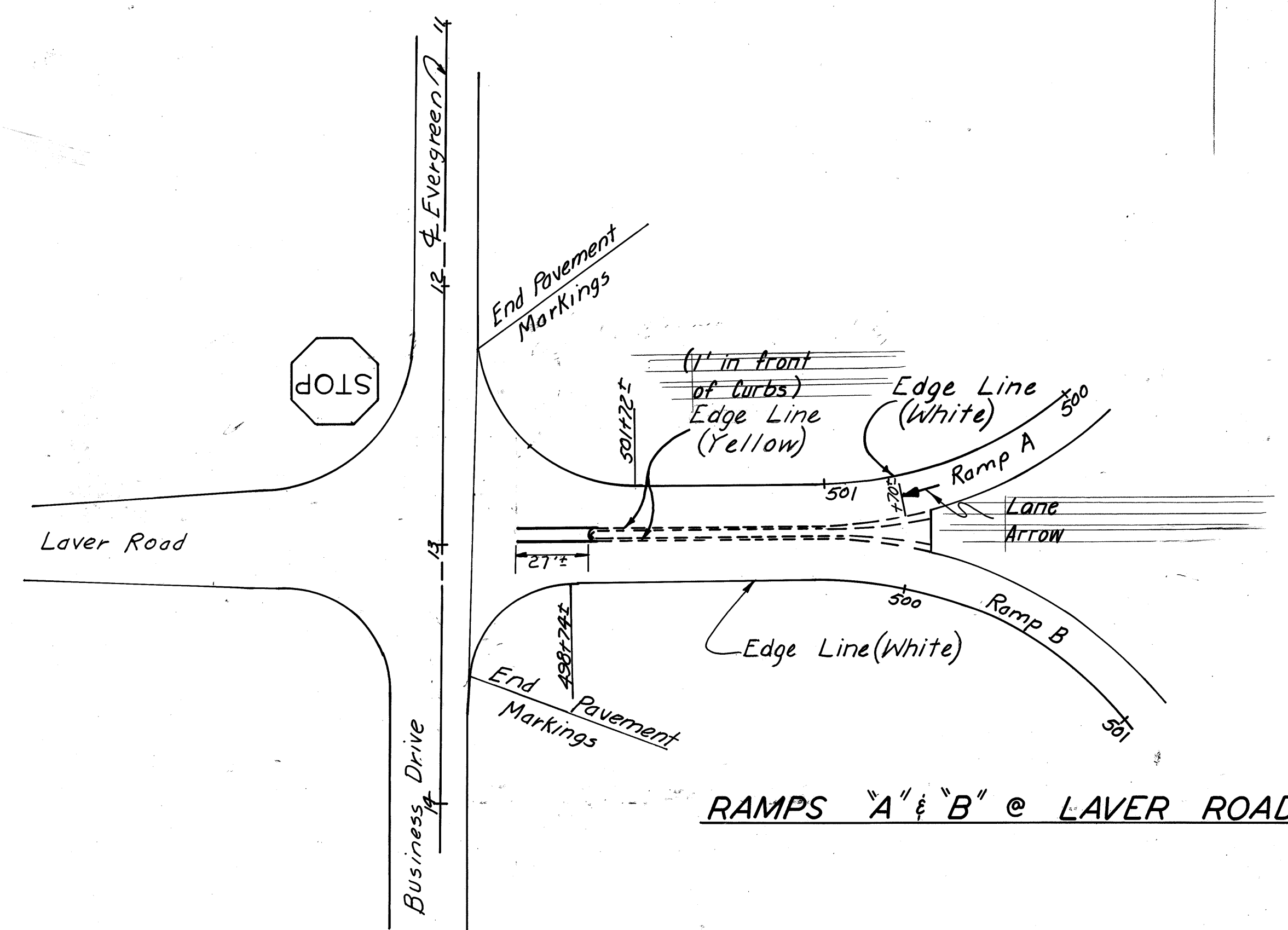
LOCATION	621							847			
	EDGE LINE (WHITE)	EDGE LINE (YELLOW)	LANE LANE	CENTER LINES; SOLID, DOUBLE	CENTER LINES; BROKEN & SOLID, DOUBLE	CHANNELIZING LINES	TRANSVERSE LINES (YELLOW)	ISLAND MARKING (YELLOW)	LANE ARROW	STOP LINES	WORD ONLY ON PAVEMENT 9.6"
	LIN. FT. / MILES	LIN. FT. / MILES	LIN. FT. / MILES	LIN. FT. / MILES	LIN. FT.	LIN. FT.	SQ. FT.	EACH	LIN. FT.	EACH	
STA 0+00 TO 5+90L	337	992	1180			125					
STA 5+90L TO 9+10L	468				640			2			
STA 0+00 TO 3+83R	21	606	766			125	40	1		1	
STA 3+83R TO 13+45R	1372		1819	1814		200		2	44	2	
TOTALS	2198	1598	3765	1814	640	450	969	40	6	44	4
	3796 L.F. / 0.72 MI.		0.71 MI.	2.454 L.F. / 0.46 MI.							

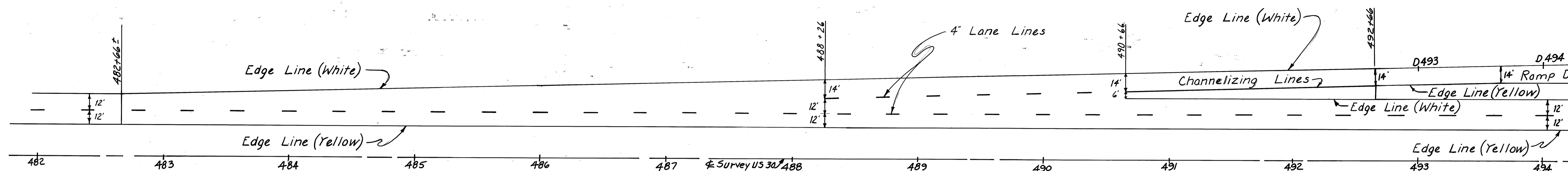


NOTE: Signalized Intersection

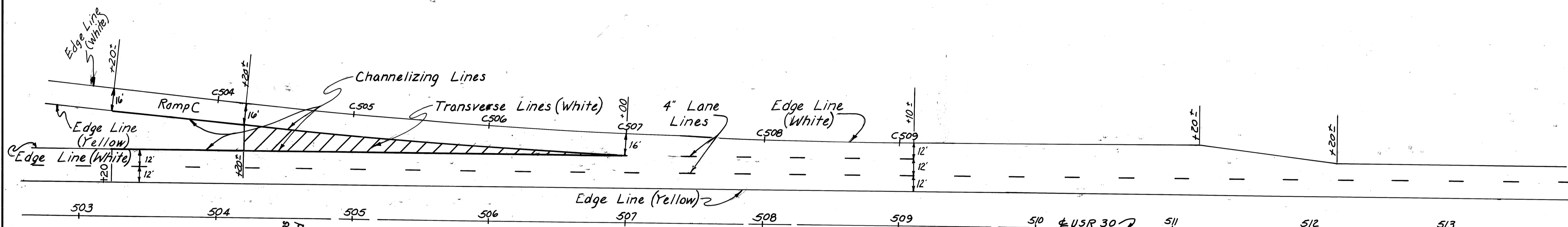


LOCATION	621					847	
	Edge Lines (White)	Edge Lines (Yellow)	Lane Lines	Channelizing Lines	Transverse Lines (White)		Lane Arrow
	Lin. Ft./Miles			Lin. Ft.			Each
Ramp A Deceleration Lane			255	582	214		
Ramp A (To Laver Road)	750	707					1
Ramp B Acceleration Lane			240	200			
Ramp B (From Laver Road)	1181	947					
TOTALS	1931	1654	495	782	214		1
	3585 L.F./0.68 Mi.		0.09 Mi.				

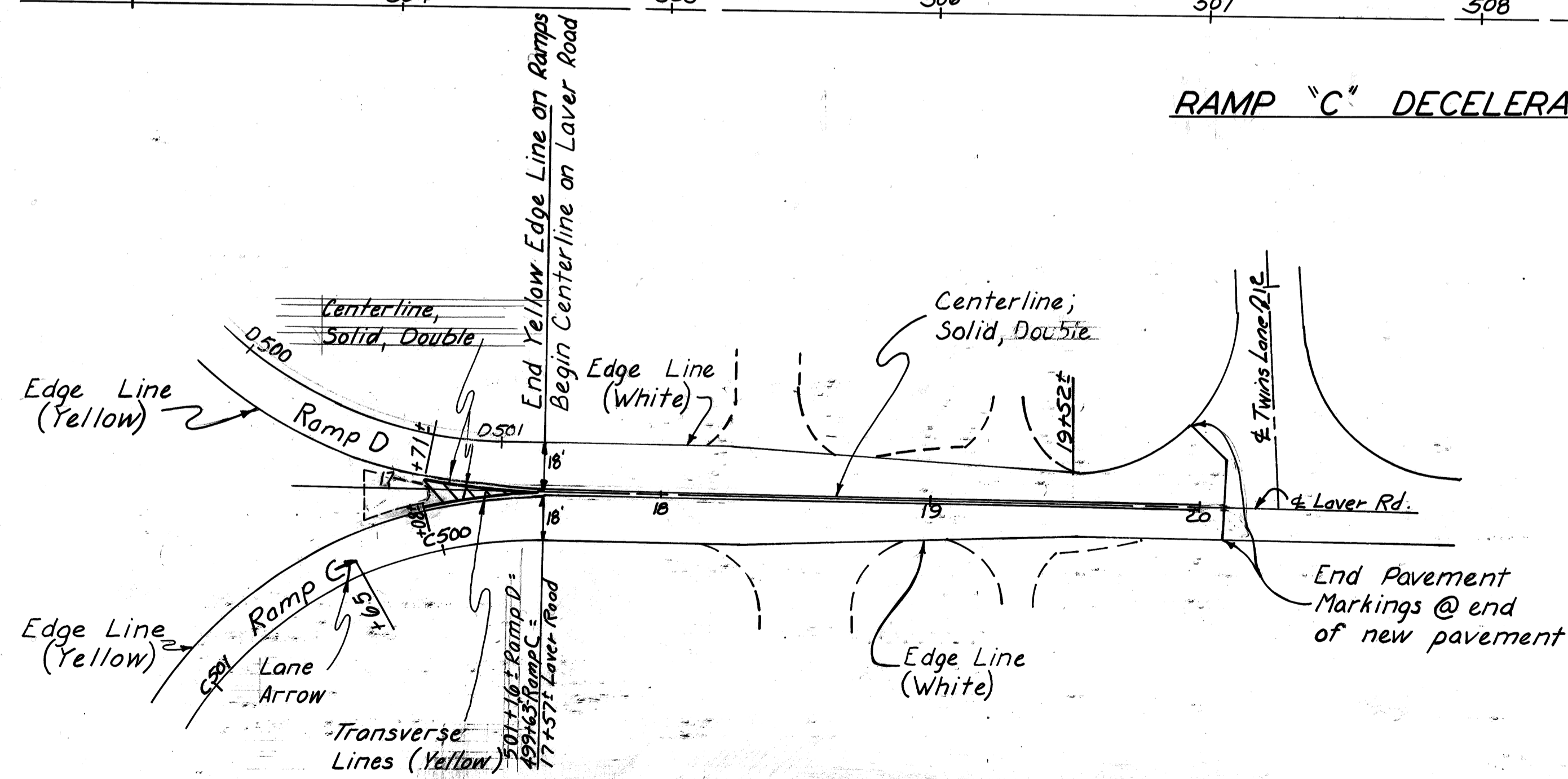




RAMP "D" ACCELERATION LANE



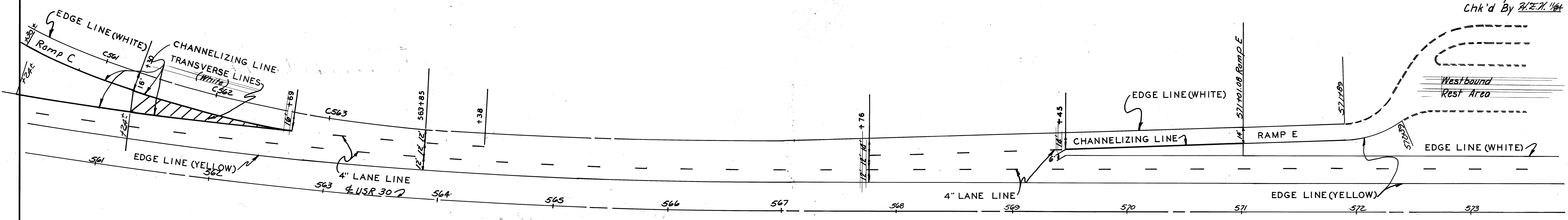
RAMP "C" DECELERATION LANE



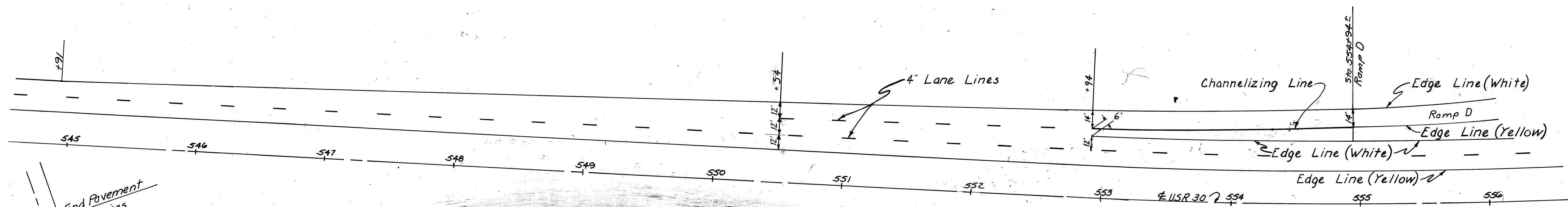
RAMPS "C" & "D" @ LAVER ROAD

LOCATION	621					847	LANE ARROW
	Edge Lines (White)	Edge Lines (Yellow)	Lane Lines	Channelizing Lines	Transverse Lines (White)	Centerlines; Solid, Double	
	Lin. Ft. / Miles			Lin. Ft.	Lin. Ft./Miles	Lin. Ft.	EACH
Ramp D, Acceleration Lane			240	200			
Ramp D (From Laver Road)	1050	805			45	24	
Ramp C Deceleration Lane			210	760	314		
Ramp C (To Laver Road)	357	312			45		
Laver Road	498				243		
TOTALS	1905	1117	450	960	314	333	24
	3022 L.F. / 0.57 Mi.		0.09 Mi.		0.06 Mi.		

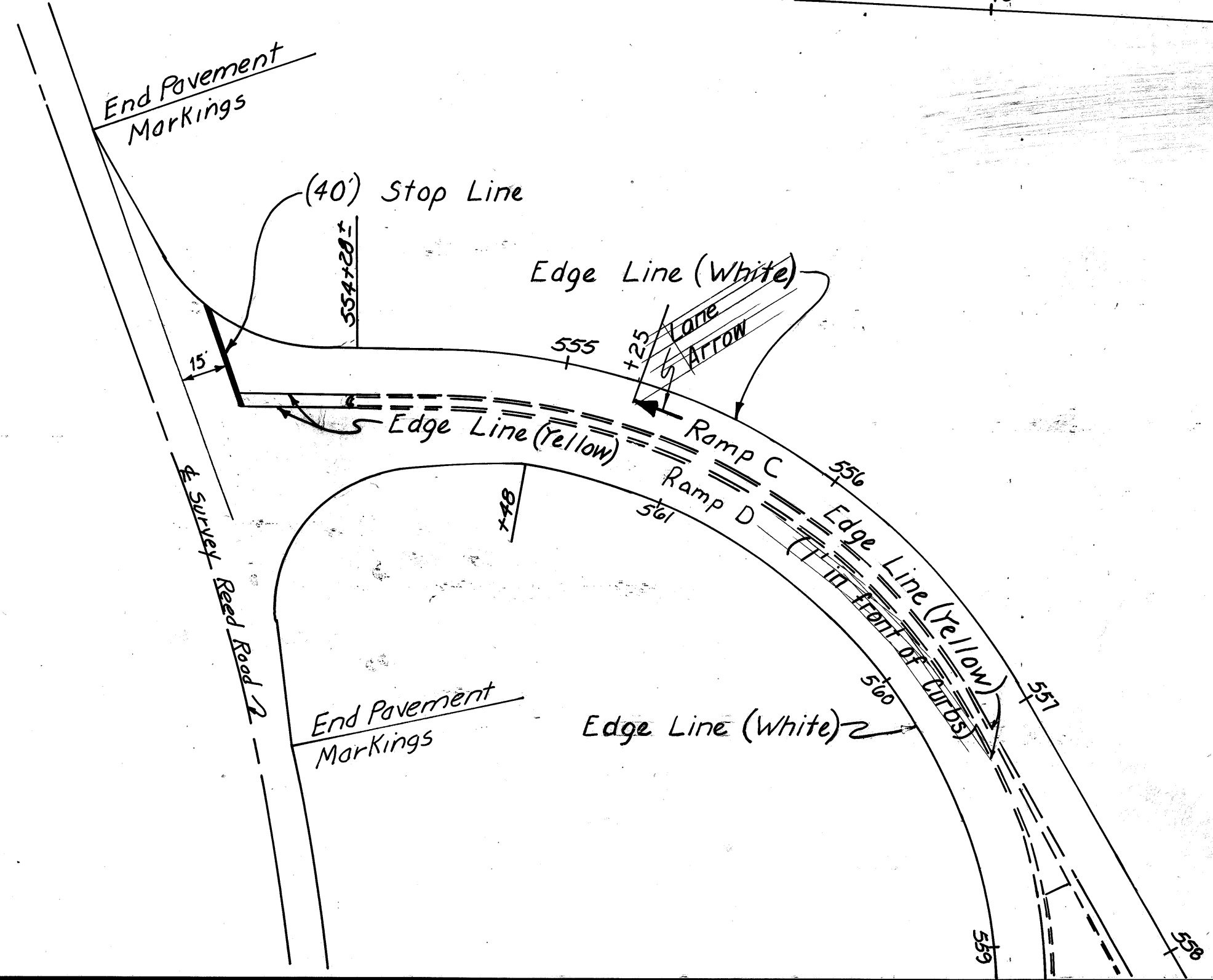
RIC - 30 - 12.37
 ASD - 30 - 0.00
 Calc. By R.O.S. 9/81
 Chk'd By R.E.H. 1/82



RAMP "C" DECELERATION LANE
RAMP "E" ACCELERATION LANE



RAMP "D" ACCELERATION LANE

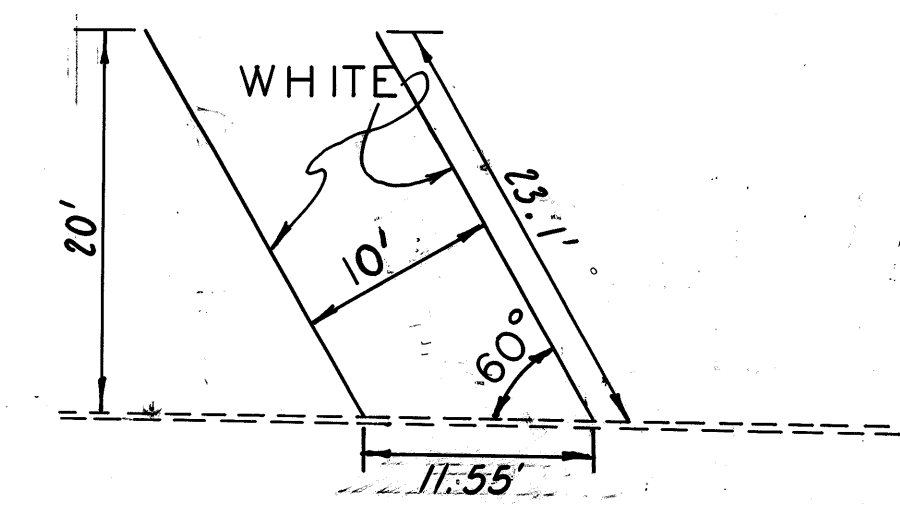


RAMP C & D @ REED ROAD

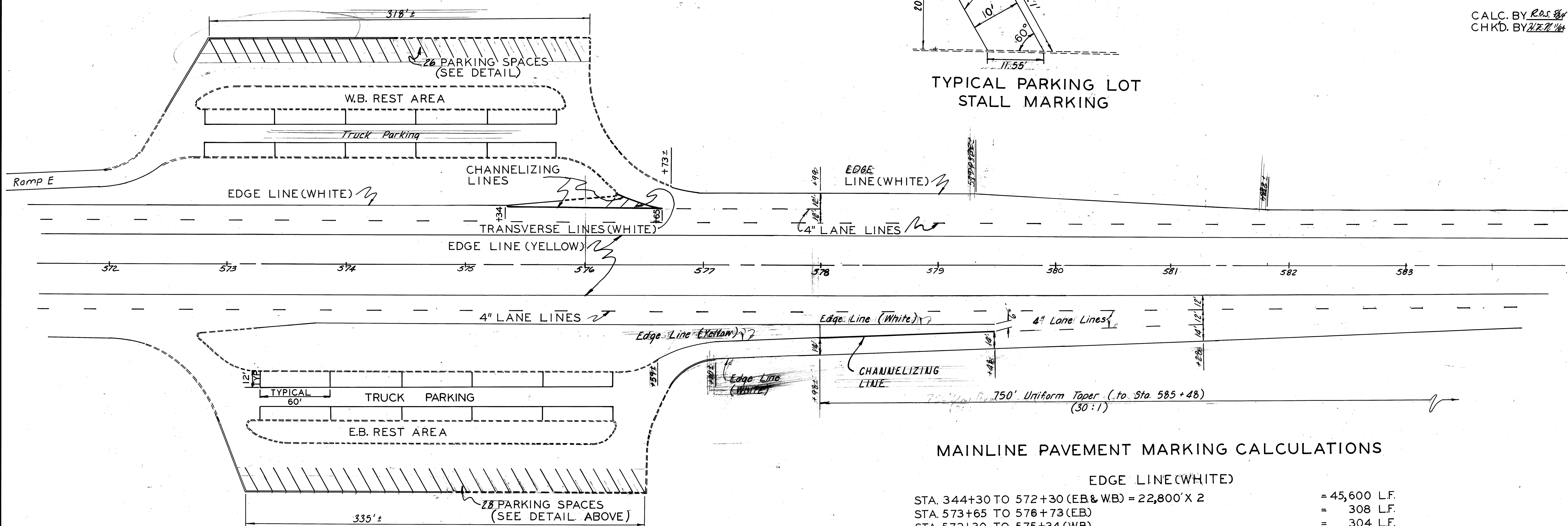
LOCATION	621					847	
	Edge Lines (White)	Edge Lines (Yellow)	Lane Lines	Channelizing Lines	Transverse Lines (White)	Stop Lines	LANE ARROWS
	Lin. Ft. / Miles					Lin. Ft.	Each
Ramp C Deceleration Lane			169	484	163		
Ramp C (To Reed Road)	727	642				40	1
Ramp E (From WB Roadside Rest)	244	138	169	156			
Ramp D Acceleration Lane			240	200			
Ramp D (From Reed Road)	1014	754					
TOTALS	1985	1534	578	840	163	40	1
	3519 LF / 0.67 Miles		0.11 Miles				

RIC-30-12.37
ASD-30-000

CALC. BY R.O.S. 8/4
CHKD. BY J.E.W. 1/84



TYPICAL PARKING LOT STALL MARKING



MAINLINE PAVEMENT MARKING CALCULATIONS

EDGE LINE (WHITE)

STA. 344+30 TO 572+30 (EB & WB) = 22,800' X 2	= 45,600 L.F.
STA. 573+65 TO 576+73 (EB)	= 308 L.F.
STA. 572+30 TO 575+34 (WB)	= 304 L.F.
STA. 576+73 TO 676+09 (EB & WB) = 9,936' X 2	= 19,872 L.F.
STA. 670+00 TO 697+34 (E.B. & WB) = 2,734' X 2	= 5,468 L.F.
STA. 0+00 TO 7+00 (EB & WB) = 700' X 2	= 1,400 L.F.
TOTAL	= 72,952 L.F. OR 13.82 MI.

EDGE LINE (YELLOW)

STA. 344+30 TO 676+09 (EB & WB) = 33,179' X 2	= 66,358 L.F.
STA. 670+00 TO 697+34 (EB & WB) = 2,734' X 2	= 5,468 L.F.
STA. 0+00 TO 3+35 (EB & WB) = 335' X 2	= 670 L.F.
STA. 4+55 TO 7+00 (EB & WB) = 245' X 2	= 490 L.F.
TOTAL	= 72,986 L.F. OR 13.82 MI.

LANE LINES

STA. 344+30 TO 676+09 (EB & WB) = 33,179' X 2	= 66,358 L.F.
STA. 670+00 TO 697+34 (EB & WB) = 2,734' X 2	= 5,468 L.F.
STA. 0+00 TO 7+00 (EB & WB) = 700' X 2	= 1,400 L.F.
TOTAL	= 73,226 L.F. OR 13.87 MI.

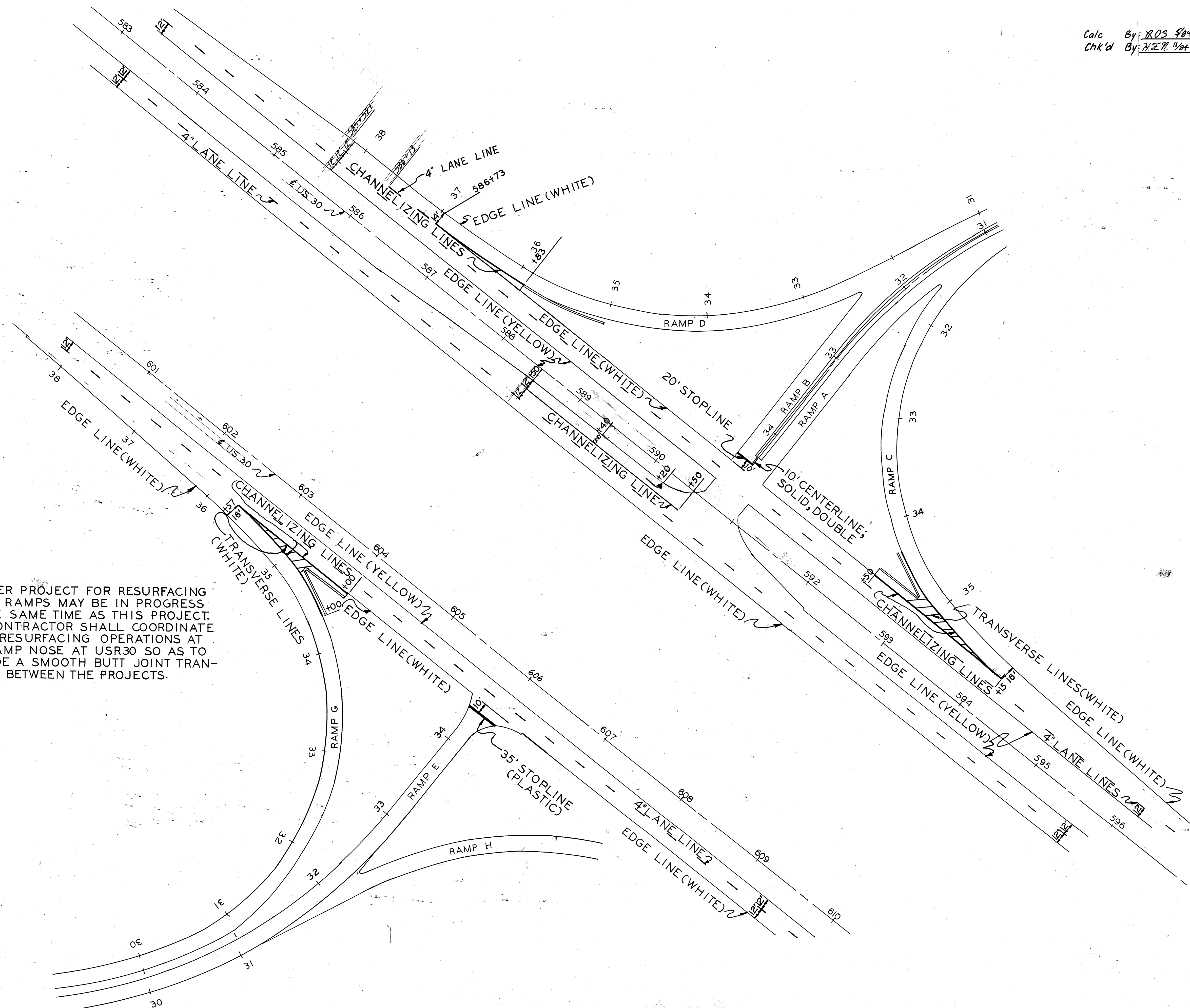
LOCATION	621					
	PARKING LOT STALL MARKINGS	LANE LINES	CHANNELIZING LINES	TRANSVERSE LINES (WHITE)	EDGE LINES (WHITE)	EDGE LINES (YELLOW)
	LIN. FT.	LIN. FT./MI.	LIN. FT.	LIN. FT.	LIN. FT.	MILES
STA. 575+34 TO 577+99		134	171	40		
W.B. REST AREA	1368					
E.B. REST AREA	1414					
EB ACCEL STA. 576+59± TO 581+28±		180	150		238	140
TOTALS	2782	314	321	40	238	140
		0.06 MI.			378 LF / 0.07 MILES	

FHWA REGION	STATE	PROJECT
5	OHIO	

69
114

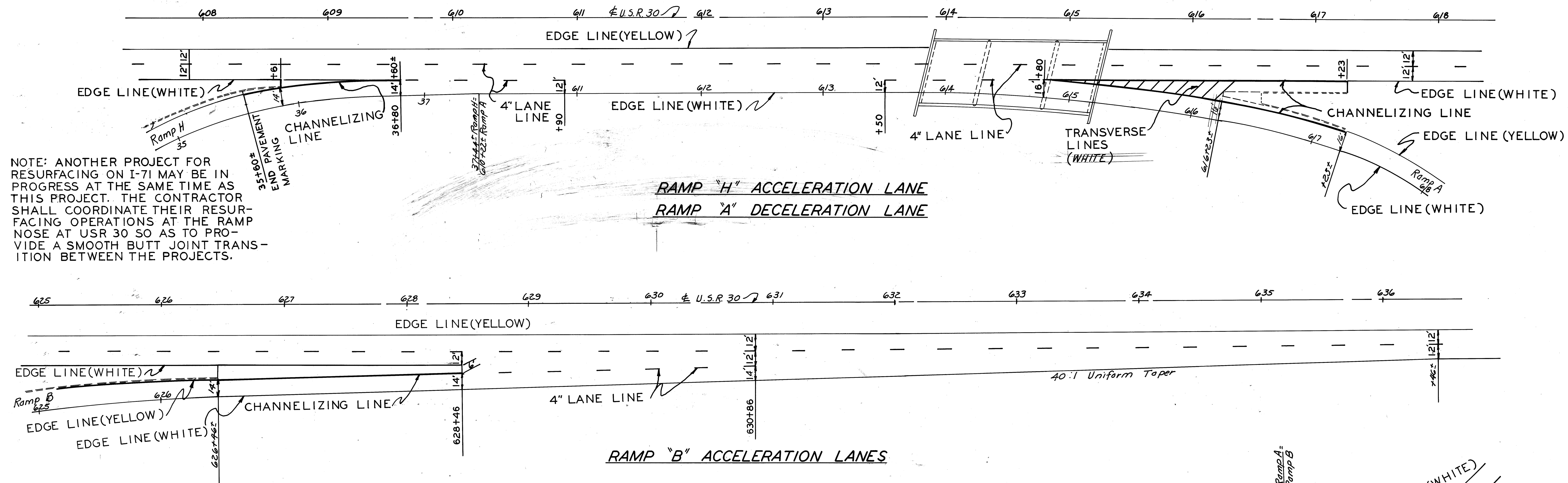
Calc By: ROS 9/81
Chk'd By: W.E.M. 1/82

RIC-30-12.37
ASD-30-0.00

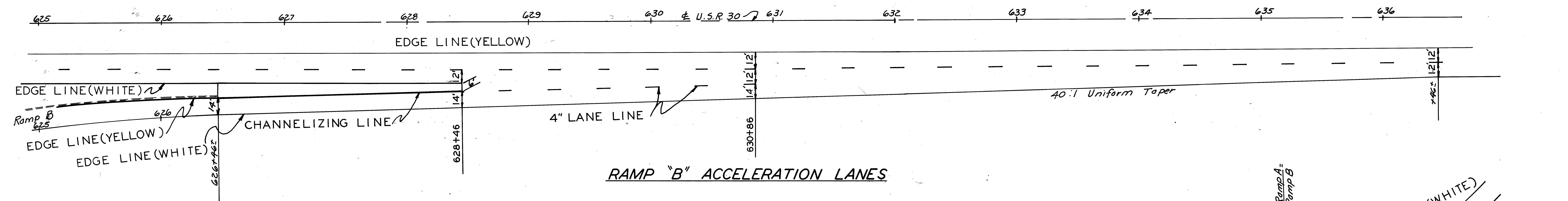


NOTE: ANOTHER PROJECT FOR RESURFACING ON I-71 RAMPS MAY BE IN PROGRESS AT THE SAME TIME AS THIS PROJECT. THE CONTRACTOR SHALL COORDINATE THEIR RESURFACING OPERATIONS AT THE RAMP NOSE AT USR30 SO AS TO PROVIDE A SMOOTH BUTT JOINT TRANSITION BETWEEN THE PROJECTS.

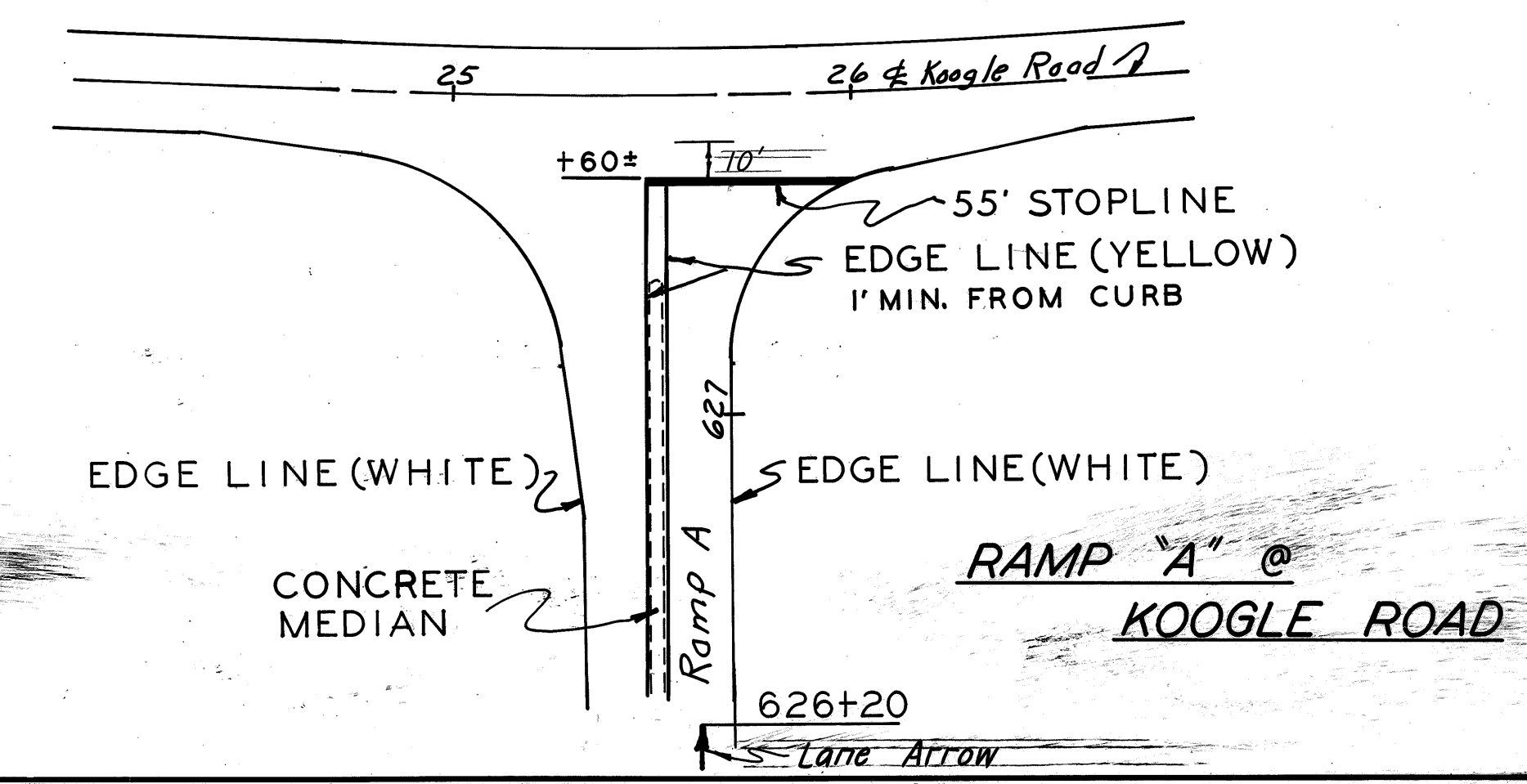
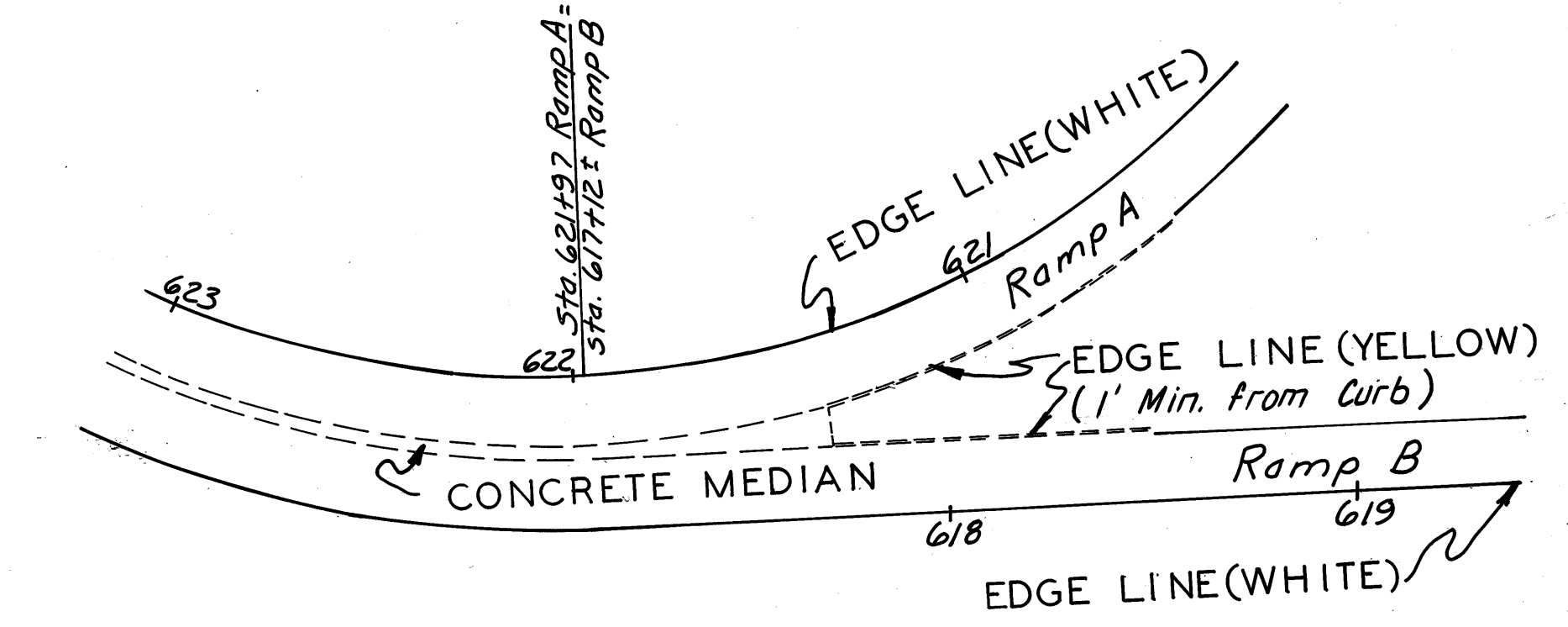
LOCATION	EDGE LINE (WHITE)		CENTERLINES; SOLID, DOUBLE		CHANNELIZING LINES		TRANSVERSE LINES (WHITE)		LANE LINES		STOP LINES		LANE ARROWS		WORD "ONLY" ON PAVEMENT	
	LIN. FT.	/ MILES	LIN. FT.	/ MILES	LIN. FT.	/ MILES	LIN. FT.	/ MILES	LIN. FT.	/ MILES	LIN. FT.	/ MILES	LIN. FT.	/ MILES	LIN. FT.	/ MILES
RAMP D ACCEL. LANE	110															
RAMP B		10														
RAMP C DECEL. LANE			330													
STA. 588+50 E.B. TO 590+50 E.B.			200													
RAMP G DECEL. LANE			286													
RAMP E	110	10	926	10	217	60	20									
TOTALS	110	10	926	10	217	60	20									
		0.02 MI.		0.01 MI.		0.01 MI.										



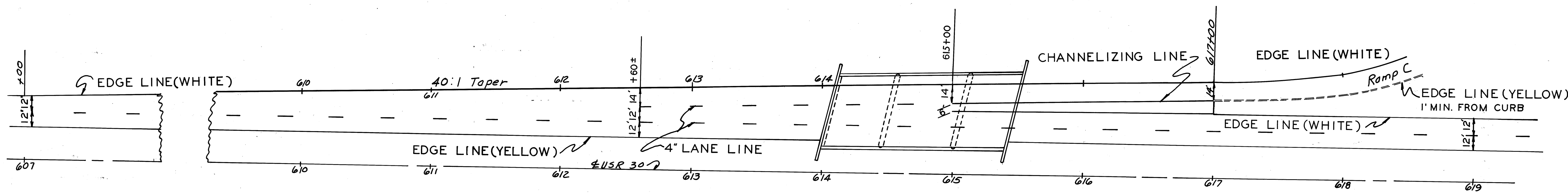
NOTE: ANOTHER PROJECT FOR RESURFACING ON I-71 MAY BE IN PROGRESS AT THE SAME TIME AS THIS PROJECT. THE CONTRACTOR SHALL COORDINATE THEIR RESURFACING OPERATIONS AT THE RAMP NOSE AT USR 30 SO AS TO PROVIDE A SMOOTH BUTT JOINT TRANSITION BETWEEN THE PROJECTS.



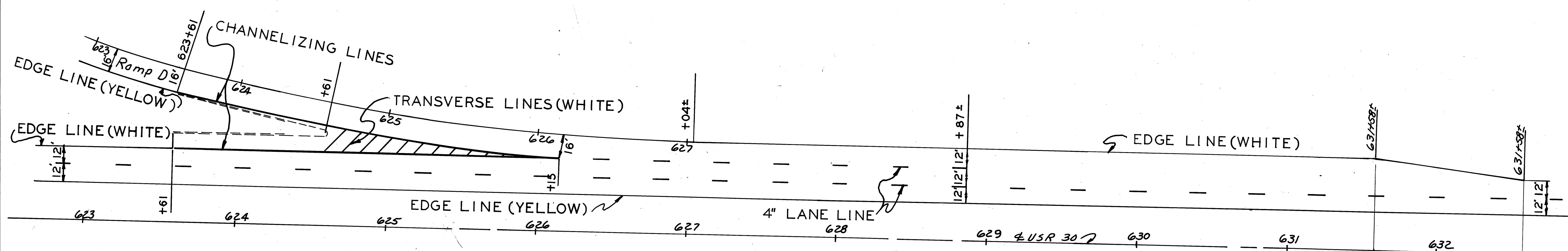
LOCATION	621					847	
	EDGE LINE (WHITE)	EDGE LINE (YELLOW)	LANE LINES	CHANNELIZING LINES	TRANSVERSE LINES (WHITE)	STOP LINES	LANE ARROW
	LIN. FT./MILES					LIN. FT.	EACH
RAMP H(35+60± TO 610+90±)	120		130		129		
RAMP A(DECCEL LANE TO 617+23±)			130		486	144	
RAMP A(617+23± TO KOOGLE RD.)	1747	1600				55	1
RAMP B(617+12± TO 626+46±)	934	934					
RAMP B ACCEL LANE TO 630 86	200		240		200		
TOTALS	3001	2534	500		815	144	55
	5535 L.F. / 1.05 MI.		0.09 MI				



PAVEMENT MARKING RAMPS A & B KOOGLE ROAD

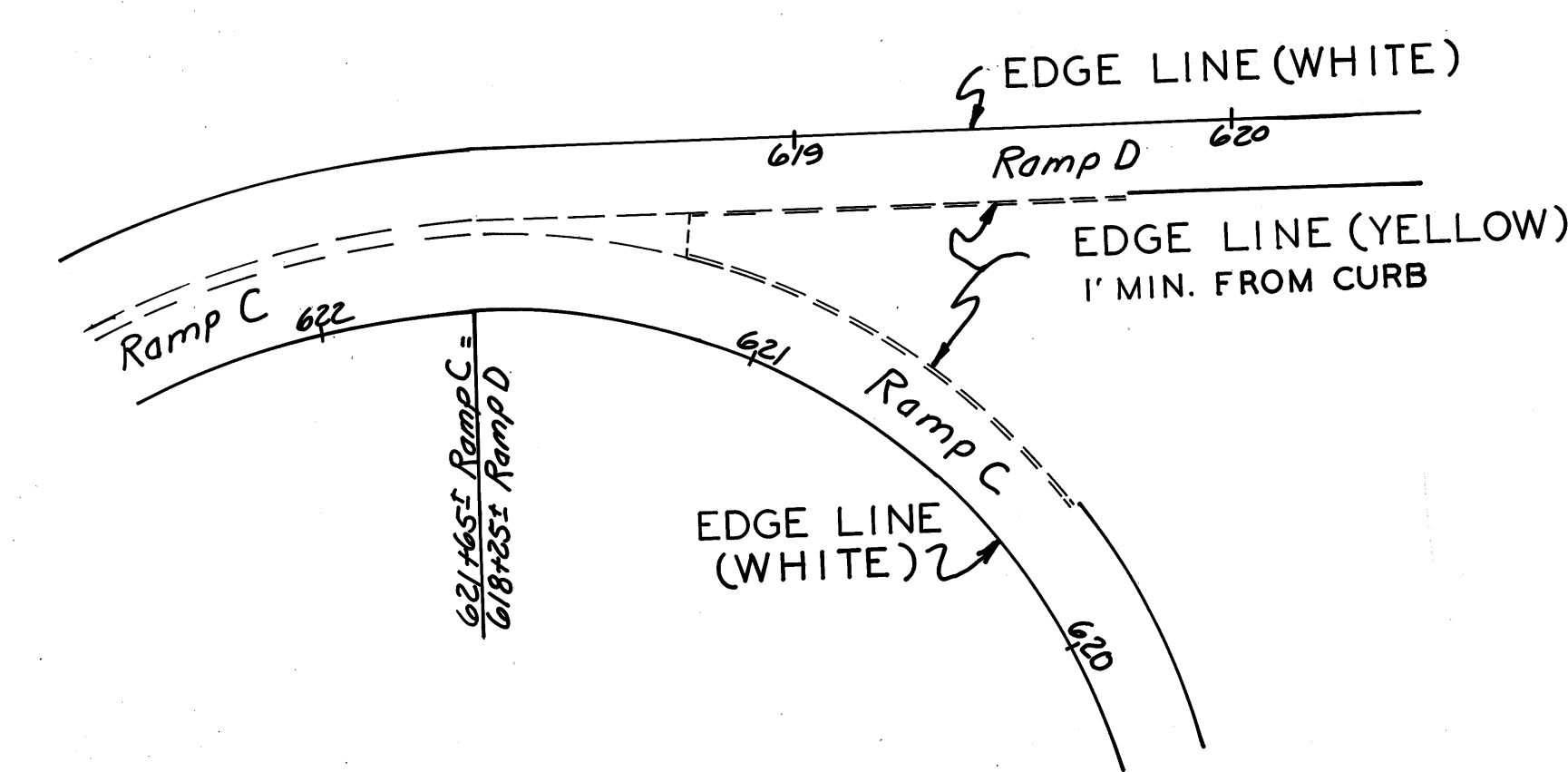


RAMP "C" ACCELERATION LANE

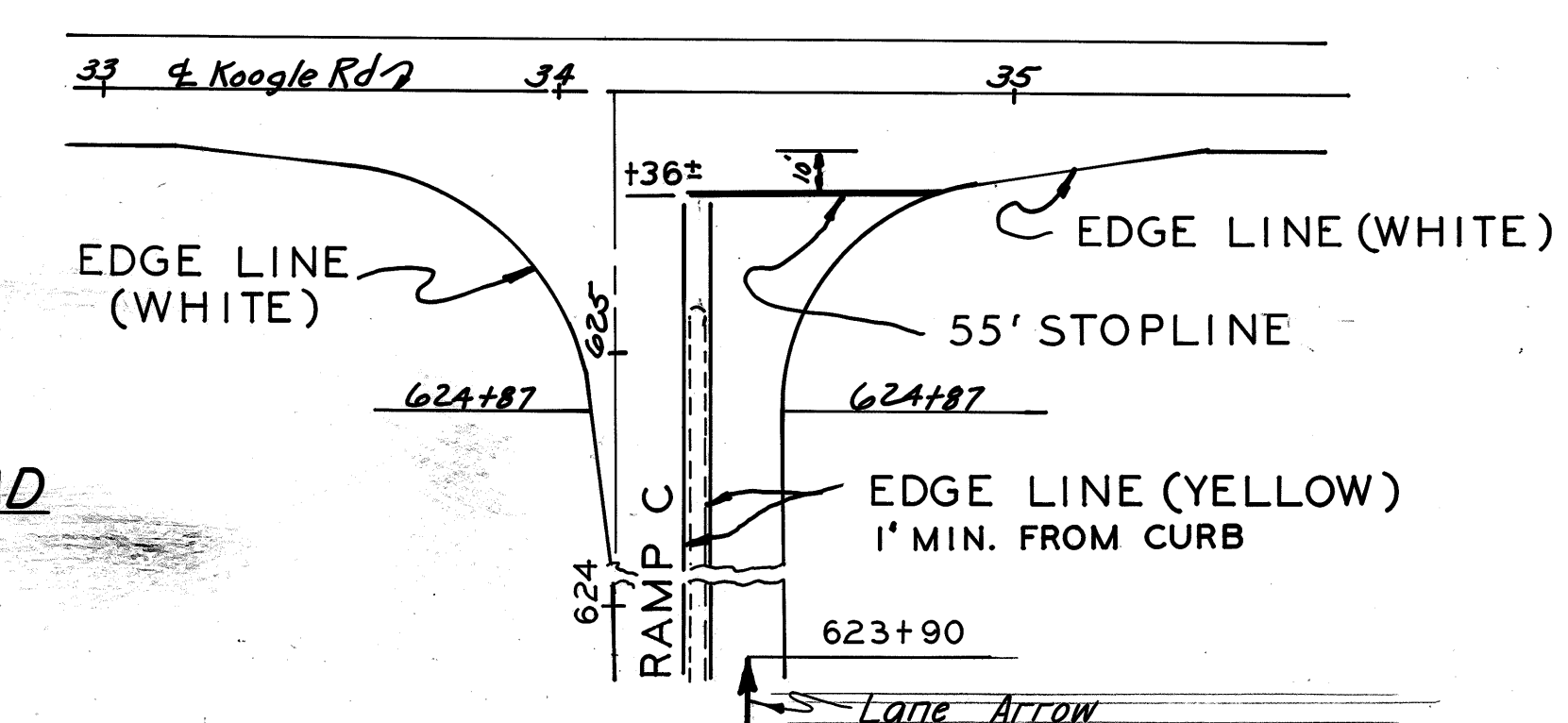


RAMP "D" DECELERATION LANE

LOCATION	621					847		STOP LINES	LANE ARROW
	EDGE LINE (WHITE)	EDGE LINE (YELLOW)	LANE LINE	CHANNELIZING LINES	TRANSVERSE LINES (WHITE)	947.02			
	LIN. FT. / MILES			LIN. FT.	LIN. FT.	LIN. FT.	EACH		
RAMP C (ACCEL LANE TO 617+00)	200		240	200					
RAMP C (617+00 TO KOOGLE RD.)	1354	1207				55			
RAMP D (618+25± TO 623+61)	536	536							
RAMP D (DECEL LANE 628+87±)			272	508	155				
TOTALS	2090	1743	512	708	155	55			
	3833 / 0.73 MI.		0.10 MI.						



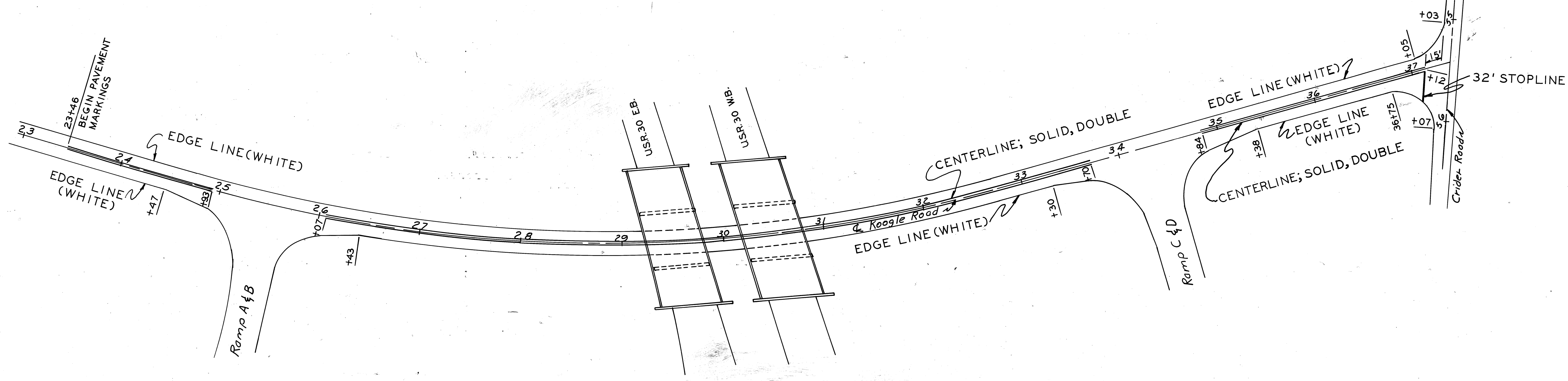
RAMP "C" @
KOOGLE ROAD



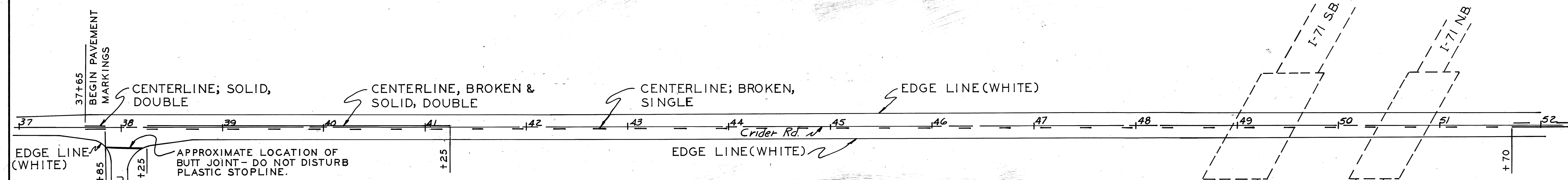
PAVEMENT MARKING RAMPS C & D KOOGLE ROAD

RIC-30-12.37
ASD-30-0.00

Calc. by R.O.S.H.
Chkd. by H.Z.N.

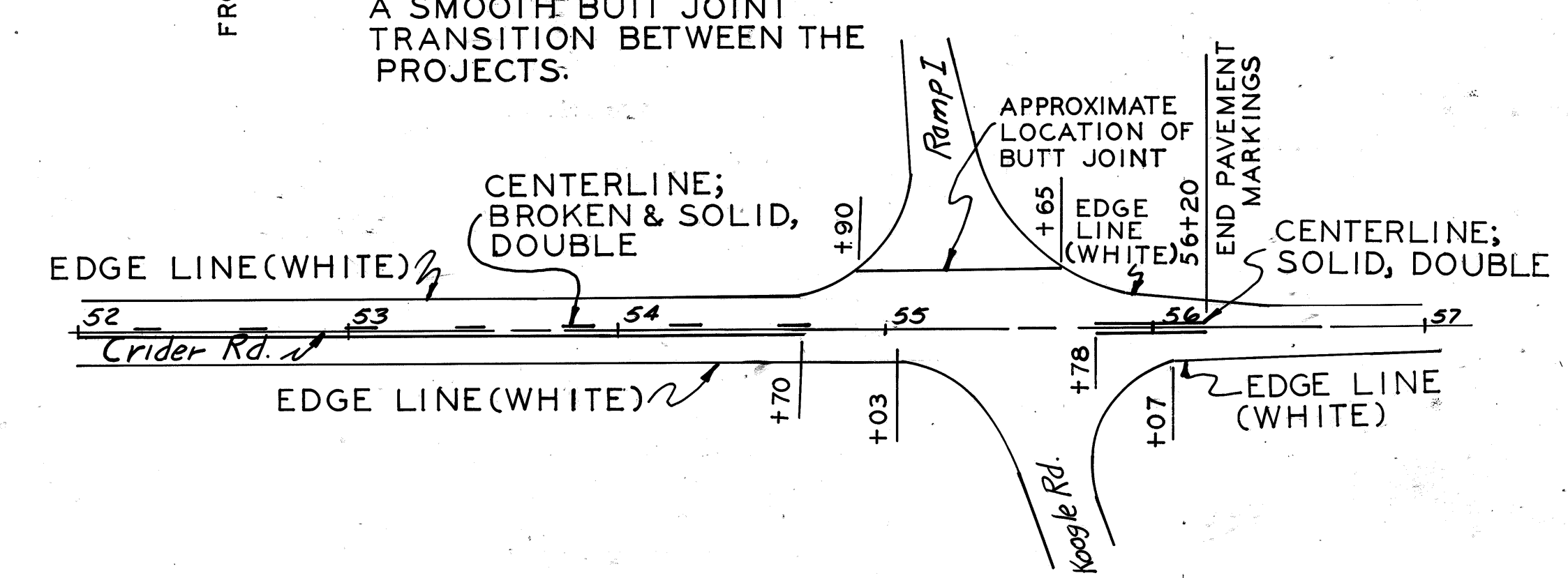


KOOGLE ROAD DETAIL



CRIDER ROAD DETAIL

APPROXIMATE LOCATION OF BUTT JOINT - DO NOT DISTURB PLASTIC STOPLINE.
NOTE: THE I-71 RAMP WILL BE RESURFACED DURING SUMMER 1985. THE CONTRACTORS SHALL COORDINATE THEIR RESURFACING OPERATIONS SO AS TO PROVIDE A SMOOTH BUTT JOINT TRANSITION BETWEEN THE PROJECTS.

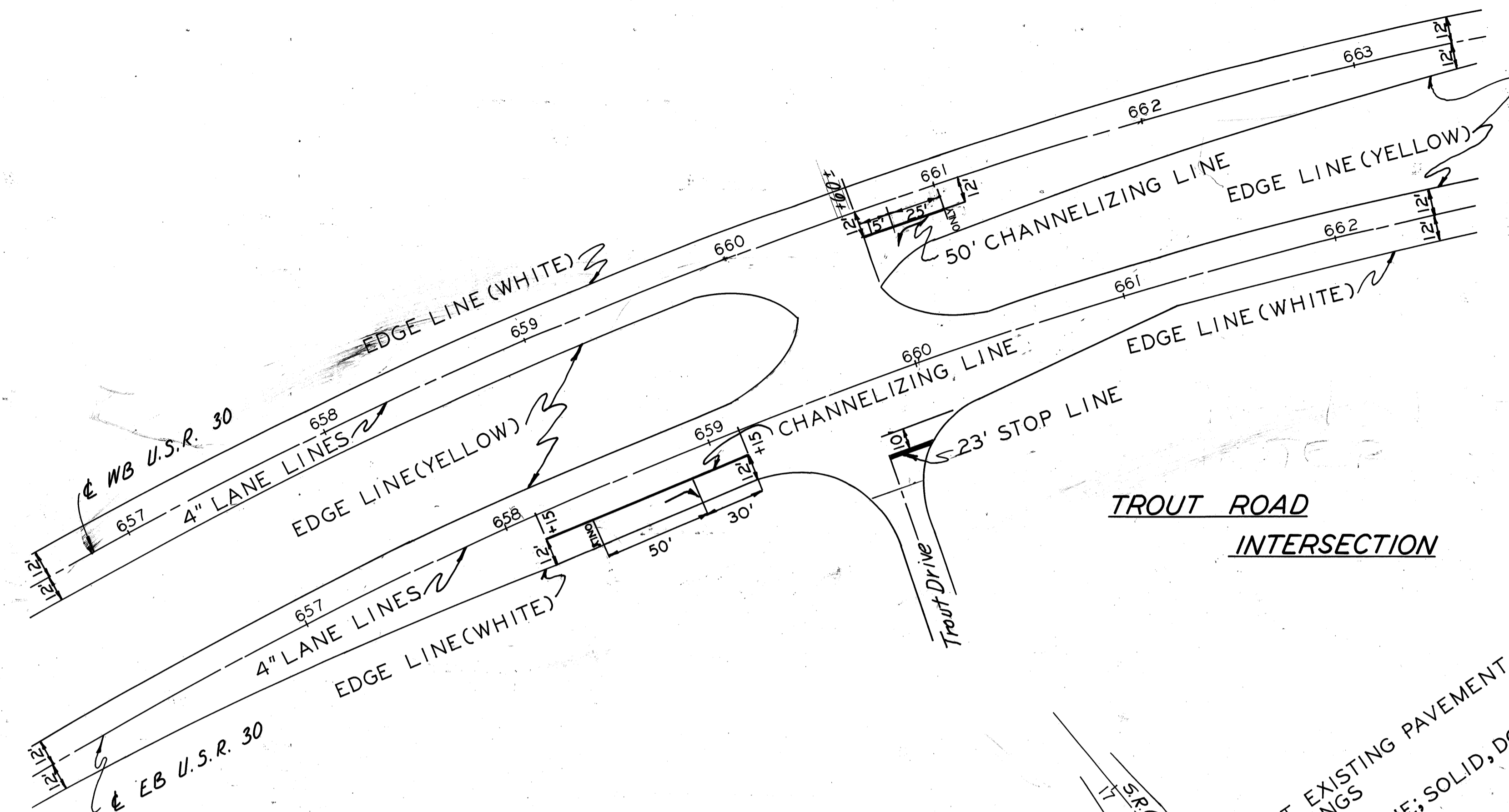


CRIDER RD @ KOOGLE ROAD

LOCATION	621		847	
	EDGE LINES (WHITE)	CENTERLINES; SOLID, DOUBLE	CENTERLINES; BROKEN & SOLID, DOUBLE	CENTERLINE; BROKEN, SINGLE
	STOP LINES			
	LIN. FT./MI.	LIN. FT./ MILES		LIN. FT.
KOOGLE ROAD	2396	1138		32
CRIDER ROAD	3491	62	600	1045
TOTALS	5887	1200	600	1045
	1.11 MI.	2845 LF/ 0.54 MI.		

RIC-30-12.37
ASD-30-0.00

Calc. by R.O.S. 8/81
CHK'd by J.E.T. 1/82



**PERMANENT PAVEMENT MARKINGS ON SIDE ROAD OVERPASSES
W/ CONCRETE OVERLAYS**

CENTERLINES, SOLID, DOUBLE:

5th Ave.: Sta. 12+10± to Sta. 18+90±	=	680 Lin. Ft.
Stewart Road: Sta. 22+05± to Sta. 27+62±	=	557 Lin. Ft.
McElroy Road: Sta. 12+30± to Sta. 17+53±	=	525 Lin. Ft.
Reloc. Laver Rd.: Sta. 22+07± to Sta. 28+00±	=	593 Lin. Ft.
Total	=	2,355 Lin. Ft.

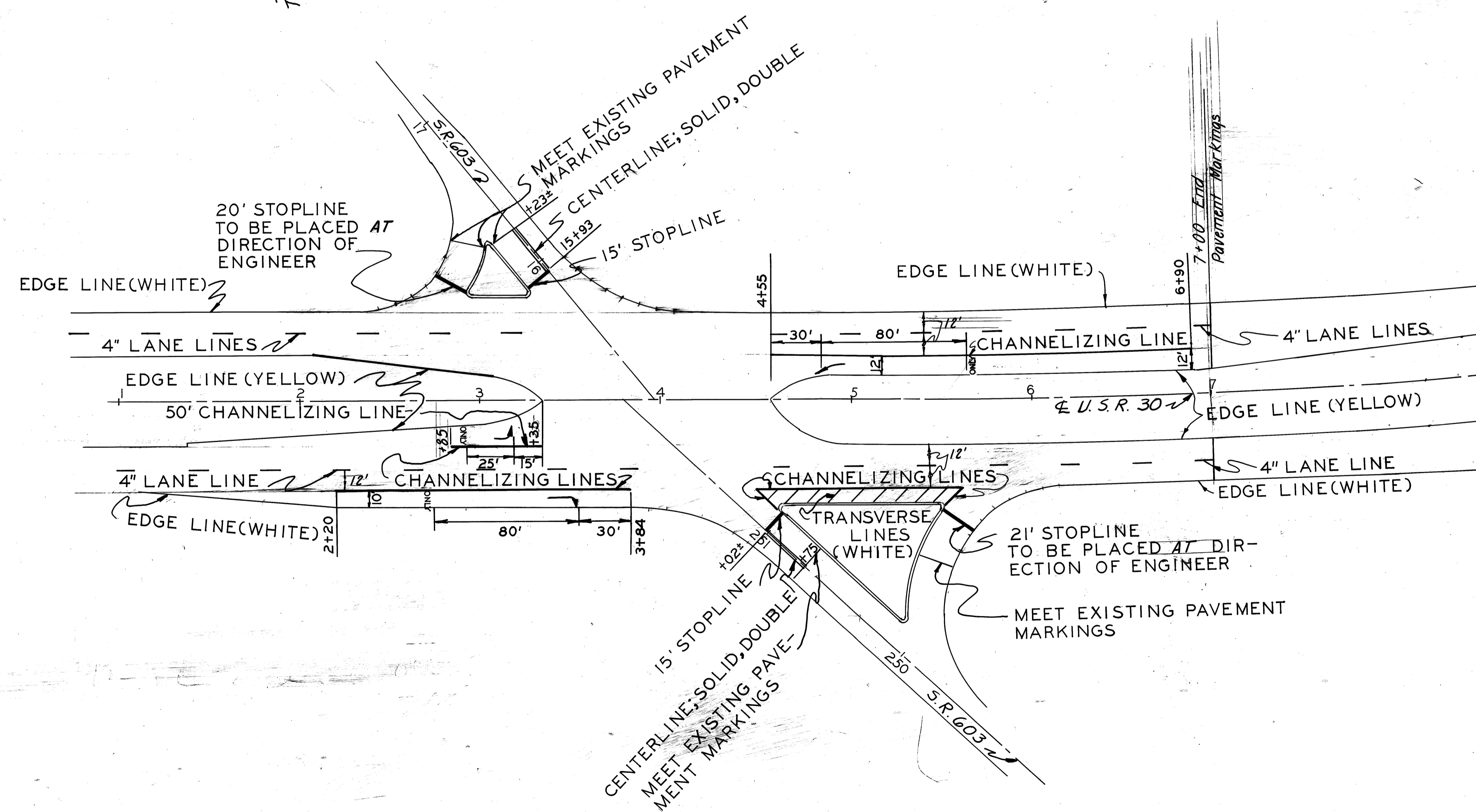
0.45 Miles

EDGE LINES, WHITE:

5th Ave.: Sta. 12+35± to Sta. 18+65± Lt. & Rt.	=	1260 Lin. Ft.
Stewart Road: Sta. 22+30± to Sta. 27+37± Lt. & Rt.	=	1014 Lin. Ft.
McElroy Road: Sta. 12+55± to Sta. 17+30± Lt. & Rt.	=	950 Lin. Ft.
Reloc. Laver Rd.: Sta. 22+07± to Sta. 27+75± Lt. & Rt.	=	1136 Lin. Ft.
Total	=	4360 Lin. Ft.

0.83 Miles

**TROUT ROAD
INTERSECTION**



S.R. 603 INTERSECTION

LOCATION	621				847		
	CENTERLINES; SOLID, DOUBLE	CHANNELIZING LINES	TRANSVERSE LINES (WHITE)	LANE ARROW	947.02		STOP LINES
					WORD "ONLY" ON PAVEMENT, 96		
LIN. FT./MI.	LIN. FT.	LIN. FT.	EACH	EACH	LIN. FT.		
TROUT DRIVE INTERSECTION		150		2	2	23	
SR 603 INTERSECTION (N & S)	57	599	120	3	3	71	
TOTALS	57	749	120	5	5	94	
	0.01 MI.						

GENERAL NOTES

RIC-30-12.37
ASD-30-0.00

FED. NO. DIVISION	STATE	PROJECT
5	OHIO	

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VERIFICATION:

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

BR-1-67, SHEET 1, REVISED 10-15-71

BR-1 DATED 5-29-79

AS-1-81 DATED 11-27-81

AND TO SUPPLEMENTAL SPECS 836 DATED 3-12-75 AND 849 DATED 10-19-81.

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND/OR FROM FIELD OBSERVATION AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGES ARE AVAILABLE UPON REQUEST AT THE DISTRICT 3 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, ASHLAND OHIO.

CONTRACT BID PRICES SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

STREAM POLLUTION (RIC-30-1913 L&R):

THE CONTRACTOR SHALL MAKE PROVISIONS DURING THE BRIDGE REPAIR OPERATION NOT TO ALLOW ANY MATERIALS, EQUIPMENT, ETC., TO FALL INTO OR ENTER THE WATER. MATERIALS MAY BE ALLOWED TO FALL ONTO THE STREAM BANK IF ALL OF THESE MATERIALS ARE REMOVED THE SAME DAY.

ALL WASTE MATERIAL FROM THE STRUCTURES OR APPROACHES SHALL BE DISPOSED OF BY THE CONTRACTOR, BUT IN NO CASE SHALL THE CONTRACTOR OR HIS AGENT USE THE MATERIALS AS FILL AT ANY LOCATION ALONG THE STREAM. THE COST TO COMPLY WITH ALL OF THE ABOVE SHALL BE INCLUDED IN THE RESPECTIVE BID ITEMS.

PROTECTION OF BOATERS:

WHEN WORKING ON STRUCTURES RIC-30-1913 L & R, THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTION TO PROTECT THE WORK AREA AND WARN BOATERS OF THE WORK ACTIVITY, ESPECIALLY DURING THE WORKING HOURS WHEN THERE IS A RISK OF POSSIBLE INJURY. THE CONTRACTOR SHALL SUBMIT A PLAN TO THE DISTRICT CONSTRUCTION ENGINEER AND RECEIVE APPROVAL AT LEAST TEN (10) DAYS PRIOR TO ANY DECK EDGE REMOVAL.

AN OPENING FOR BOATERS TO PASS UNDER THE BRIDGE SHALL BE MAINTAINED AT ALL TIMES.

PROTECTION OF TRAFFIC:

WHEN REMOVING THE PARAPET ON STRUCTURES RIC-30-1404 L & R AND RIC-30-1747 L & R THE CONTRACTOR SHALL CLOSE THE LANE ON U.S. ROUTE 42 AND KOOGLE ROAD UNDER THE WORK AREA. THE LANE ON U.S. ROUTE 42 SHALL BE CLOSED AS PER C-21 OF THE "OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", CURRENT EDITION WITH LATEST REVISIONS AT THE TIME THE CONTRACT IS AWARDED. KOOGLE ROAD SHALL BE CLOSED AS PER C-18. THE LANE CLOSURES SHALL BE REMOVED WHEN WORK IS COMPLETED EACH DAY. NO MATERIALS SHALL BE ALLOWED TO FALL ONTO U.S. ROUTE 42 OR KOOGLE ROAD. THE CONTRACTOR SHALL SUBMIT A PLAN TO THE DISTRICT CONSTRUCTION ENGINEER AND RECEIVE APPROVAL AT LEAST TEN (10) DAYS PRIOR TO ANY PARAPET REMOVAL.

WORK LIMITATIONS:

NO CONCRETE DECK OVERLAYS SHALL BE PLACED BEFORE MAY 1.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO THAT ALL DECK OVERLAYS ARE PLACED BEFORE OCTOBER 15. IF FOR SOME UNFORESEEN CIRCUMSTANCES THE DECK OVERLAYS OR PORTIONS OF DECK OVERLAY ARE NOT PLACED BY OCTOBER 15, REGARDLESS OF THE WORK REMAINING, THE FULL DEPTH REPAIRS SHALL BE COMPLETED AS PER 511 AND THE UNFINISHED DECK SHALL BE RESURFACED WITH ITEM 404 ASPHALT CONCRETE AND OPENED TO TRAFFIC. THE CONTRACTOR SHALL PLACE AND MAINTAIN AT HIS EXPENSE THE ASPHALT WEARING SURFACE UNTIL REMOVED AT HIS EXPENSE THE FOLLOWING SPRING WHEN THE DECK OVERLAY CAN BE PLACED AFTER MAY 1.

TEMPORARY WEDGE:

AFTER THE CONCRETE OVERLAY HAS BEEN PLACED AND BEFORE THE BRIDGE IS OPENED TO TRAFFIC A TEMPORARY WEDGE WILL BE INSTALLED TO MAINTAIN TRAFFIC IF THE PERMANENT ASPHALT IS NOT IN PLACE. THE TEMPORARY WEDGE SHALL BE 848 ASPHALT CONCRETE BUILT AS PER STANDARD DRAWING BP-5, EXCEPT NO TACK COAT WILL BE REQUIRED. THE TEMPORARY WEDGE WILL BE FEATHERED AT ONE INCH PER TWENTY-FIVE FEET OR AS DIRECTED BY THE ENGINEER. THE TEMPORARY WEDGE WILL BE COMPLETELY REMOVED JUST BEFORE THE ROADWAY ASPHALT IS INSTALLED AND IN NO CASE SHALL TRAFFIC BE ALLOWED TO CROSS AN END DAM WITHOUT AN APPROVED TEMPORARY WEDGE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL, ASPHALT PAVEMENT PLANING:

ALL ASPHALT, SEALS, AND WATERPROOFING SHALL BE PLANED FROM THE BRIDGE BEFORE ANY DECK OVERLAY WORK MAY BEGIN. THE CONCRETE DECK SHALL NOT BE SCARIFIED AT THE SAME TIME AS THE ASPHALT IS PLANED. THE ASPHALT ON THE BRIDGE SHALL NOT BE PLANED UNTIL THE CONTRACTOR IS READY TO BEGIN DECK WORK ON THE BRIDGE WITHIN THREE (3) DAYS.

FOR ALL ASPHALT PLANING REQUIREMENTS SEE GENERAL NOTE ON SHEET NO. 9

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD FOR ITEM SPECIAL, ASPHALT PAVEMENT PLANING WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

PORTIONS OF STRUCTURES REMOVED:

THE BRIDGE PARAPET ON STRUCTURE RIC-30-1404 L & R AND RIC-30-1747 L & R AND THE CURB AND DECK EDGE ON STRUCTURE RIC-30-1913 L & R SHALL BE REMOVED AS SHOWN IN DETAILS ON SHEET NO. 84, 85 & 89.

THE PARAPET, THE DECK EDGE AND THE CURB SHALL BE REMOVED BY A HYDRAULIC SPLITTING METHOD. A LINE OF HOLES SHALL BE DRILLED ALONG THE REMOVAL LINE AND A HYDRAULIC SPLITTER USED AS PER THE MANUFACTURER'S RECOMMENDATIONS. THIRTY-FIVE (35) AND FIFTEEN (15) POUND JACK HAMMERS MAY BE USED FOR THE FINAL FINISH WORK. A HOE RAM WILL NOT BE PERMITTED TO DO ANY OF THE WORK. CONCRETE SHALL BE REMOVED IN A MANNER THAT PREVENTS CUTTING, ELONGATING, OR DAMAGING OF THE EXISTING REINFORCING STEEL TO BE SALVAGED. IF EXISTING REINFORCING STEEL DESIGNATED FOR SALVAGE IS DAMAGED DURING REMOVAL OPERATIONS, DOWELLED REINFORCING STEEL MUST BE ADDED AT THE CONTRACTOR'S EXPENSE.

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS, WILL BE MADE AT THE CONTRACT BID PRICE:

ITEM	UNIT	DESCRIPTION
202	LIN. FT.	PORTIONS OF STRUCTURES REMOVED, PARAPET, AS PER PLAN
202	LIN. FT.	PORTIONS OF STRUCTURES REMOVED, DECK EDGE, AS PER PLAN

ITEM 511, CLASS S CONCRETE, PIER ENCASEMENT, AS PER PLAN

PIER COLUMNS SHALL BE ENCASED AS PER DETAILS ON SHEET NO. 94. ALL LOOSE AND DISINTEGRATED CONCRETE AND CALCIUM CARBONATE DEPOSITS SHALL BE REMOVED WITH HAND TOOLS. WITHIN TWENTY-FOUR (24) HOURS BEFORE PLACING CONCRETE, THE SURFACE OF THE EXISTING PIERS AGAINST WHICH THE CONCRETE SHALL BE PLACED AND THE REINFORCING STEEL SHALL BE THOROUGHLY CLEANED BY SANDBLASTING. THE EXISTING CONCRETE SURFACE AGAINST WHICH CONCRETE SHALL BE POURED SHALL BE KEPT WET FOR AT LEAST ONE (1) HOUR BEFORE PLACING CONCRETE, AND BE APPROACHING DRYNESS AT THE TIME OF THE PLACING OF THE CONCRETE TO FACILITATE THE BOND.

IN LIEU OF THE PROPORTIONING SPECIFIED IN 499.03 AND 511.02, THE FOLLOWING TABLE SHALL BE USED TO ESTABLISH THE QUANTITIES PER CUBIC YARD FOR CONCRETE, THE COARSE AGGREGATE SHALL BE LIMESTONE.

QUANTITIES PER CUBIC YARD (USING NO. 8 LIMESTONE)				
AGGREGATE			CEMENT	WATER/
FINE	COURSE	TOTAL	CONTENT	CEMENT
(LB)	(LB)	(LB)	(LB)	RATIO
1591	1127	2718	715	0.40

AIR CONTENT- 8% PLUS OR MINUS 2%

HIGH RANGE WATER REDUCER (SUPERPLASTICIZER) MAY BE USED AT THE OPTION OF THE CONTRACTOR. THE DOSAGE RATE WILL BE DETERMINED BY THE CONTRACTOR BASED ON THE MANUFACTURER'S RECOMMENDATION TO ACHIEVE THE DESIRED WORKABILITY LEVEL.

HIGH RANGE WATER REDUCERS SHALL CONFORM TO 705.12, ASTM-C494 TYPE F AND SHALL NOT CONTAIN CALCIUM CHLORIDE.

THE CEMENT CONTENT SHALL BE MAINTAINED AND A MAXIMUM WATER-CEMENT RATIO OF 0.40 SHALL NOT BE EXCEEDED. THE SLUMP OF THE UNPLASTIZED CONCRETE DELIVERED TO THE JOB SITE SHALL BE 1 1/2" PLUS OR MINUS 1/2". THE SUPERPLASTICIZING ADMIXTURE SHALL BE ADDED AT THE JOB SITE AND MIXED A MINIMUM OF FIVE (5) MINUTES. AFTER THE SUPERPLASTICIZER HAS BEEN ADDED, THE SLUMP SHALL BE 6 1/2" PLUS OR MINUS 1/2". THE CONTRACTOR SHALL FURNISH A VOLUMERIC DISPENSER FOR THE SUPERPLASTICIZER.

CONCRETE MIXTURES CONTAINING A HIGH RANGE WATER REDUCER SHALL MEET THE SAME REQUIREMENTS FOR ENTRAINED AIR CONTENT, MINIMUM STRENGTH, AND MAXIMUM WATER-CEMENT RATIO AS REQUIRED FOR THE RESPECTIVE GRADE OF CONCRETE WITHOUT A HIGH RANGE WATER REDUCER.

SAMPLING AND TESTING FOR ENTRAINED AIR CONTENT AND MINIMUM STRENGTH SHOULD BE TAKEN FROM THE CONCRETE THAT HAS BEEN TREATED WITH A HIGH RANGE WATER REDUCER.

CURING SHALL BE IN ACCORDANCE WITH 511.14 TYPE A WATER CURING.

ALL OTHER PROVISIONS OF ITEM 511 SHALL REMAIN IN EFFECT.

PAYMENT FOR ALL OF THE ABOVE INCLUDING REMOVAL OF THE EXISTING CONCRETE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR ITEM 511, CLASS S CONCRETE, PIER ENCASEMENT, AS PER PLAN, WHICH SHALL INCLUDE ANY EXCAVATION REQUIRED AND ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

GENERAL NOTES

RIC-30-12.37
ASD-30-000

FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

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ITEM 511 CLASS S CONCRETE, BACKWALL, AS PER PLAN:

THE BACKWALL ON STRUCTURE RIC-30-1913R AND THE TOP OF THE BACKWALL ON STRUCTURE RIC-30-1913L SHALL BE REPLACED AS PER DETAILS ON SHEET NO'S 87 & 88 .

CONCRETE SHALL BE REMOVED BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE WEIGHT OF THE HAMMERS SHALL NOT BE MORE THAN THIRTY-FIVE (35) POUNDS. CARE SHOULD BE TAKEN NOT TO DAMAGE THE EXISTING REINFORCING STEEL DURING THE REMOVAL OF THE CONCRETE. IF THE EXISTING REINFORCING STEEL, WHICH IS TO BE SALVAGED, IS DAMAGED; THEN THE CONTRACTOR WILL ADD DOWELS AT HIS OWN EXPENSE.

BEFORE PLACING CONCRETE THE SURFACE OF THE EXISTING CONCRETE AGAINST WHICH THE NEW CONCRETE SHALL BE PLACED AND THE EXISTING REINFORCING STEEL SHALL BE THOROUGHLY CLEANED BY SANDBLASTING. THE EXISTING CONCRETE SURFACE AGAINST WHICH CONCRETE SHALL BE POURED SHALL BE KEPT WET FOR AT LEAST ONE (1) HOUR BEFORE PLACING CONCRETE, AND BE APPROACHING DRYNESS AT THE TIME OF THE PLACING OF THE CONCRETE TO FACILITATE THE BOND.

IN LIEU OF THE PROPORTIONING SPECIFIED IN 499.03 AND 511.02, THE FOLLOWING TABLE SHALL BE USED TO ESTABLISH THE QUANTITIES PER CUBIC YARD. COARSE AGGREGATE SHALL BE NO. 8 LIMESTONE AND SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF 703.02 OF THE SPECIFICATIONS.

FINE AGG. (LBS)	COARSE AGG. (LBS)	TOTAL AGG. (LIMESTONE) (LBS)	CEMENT CONTENT (LB)	MAXIMUM WATER/CEMENT RATIO
1555	1100	2655	715	0.50

AIR CONTENT 8% PLUS OR MINUS 2%

ALL OTHER PROVISIONS OF ITEM 511 SHALL REMAIN IN EFFECT.

PAYMENT FOR ALL OF THE ABOVE INCLUDING REMOVAL OF THE EXISTING CONCRETE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR ITEM 511, CLASS S CONCRETE, BACKWALL, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

CLASS S CONCRETE:

IN LIEU OF THE PROPORTIONING SPECIFIED IN 499.03 AND 511.02, THE FOLLOWING TABLE SHALL BE USED TO ESTABLISH THE QUANTITIES PER CUBIC YARD FOR CONCRETE, THE COARSE AGGREGATE SHALL BE LIMESTONE.

QUANTITIES PER CUBIC YARD (USING NO.8 LIMESTONE)				
AGGREGATE			CEMENT	WATER/
FINE (LB)	COARSE (LB)	TOTAL (LB)	CONTENT (LB)	CEMENT RATIO
1591	1127	2718	715	0.40

AIR CONTENT- 8% PLUS OR MINUS 2%

HIGH RANGE WATER REDUCER (SUPERPLASTICIZER) MAY BE USED AT THE OPTION OF THE CONTRACTOR. THE DOSAGE RATE WILL BE DETERMINED BY THE CONTRACTOR BASED ON THE MANUFACTURER'S RECOMMENDATION TO ACHIEVE THE DESIRED WORKABILITY LEVEL.

HIGH RANGE WATER REDUCER SHALL CONFORM TO 705.12, ASTM-C494 TYPE F AND SHALL NOT CONTAIN CALCIUM CHLORIDE.

THE CEMENT CONTENT SHALL BE MAINTAINED AND A MAXIMUM WATER-CEMENT RATIO OF 0.40 SHALL NOT BE EXCEEDED. THE SLUMP OF THE UNPLASTICIZED CONCRETE DELIVERED TO THE JOB SITE SHALL BE 1 1/2" PLUS OR MINUS 1/2". THE SUPERPLASTICIZING ADMIXTURE SHALL BE ADDED AT THE JOB SITE AND MIXED A MINIMUM OF FIVE (5) MINUTES. AFTER THE SUPERPLASTICIZER HAS BEEN ADDED, THE SLUMP SHALL BE 6 1/2" PLUS OR MINUS 1/2". THE CONTRACTOR SHALL FURNISH A VOLUMERIC DISPENSER FOR THE SUPERPLASTICIZER.

CONCRETE MIXTURES CONTAINING A HIGH RANGE WATER REDUCER SHALL MEET THE SAME REQUIREMENTS FOR ENTRAINED AIR CONTENT, MAXIMUM STRENGTH, AND MAXIMUM WATER-CEMENT RATIO AS REQUIRED FOR THE RESPECTIVE GRADE OF CONCRETE WITHOUT A HIGH RANGE WATER REDUCER.

SAMPLING AND TESTING FOR ENTRAINED AIR CONTENT AND MINIMUM STRENGTH SHOULD BE TAKEN FROM THE CONCRETE THAT HAS BEEN TREATED WITH A HIGH RANGE WATER REDUCER.

CURING SHALL BE IN ACCORDANCE WITH 511.14 TYPE A WATER CURING.

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS, WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	UNIT	DESCRIPTION
511	CU. YD.	CLASS S CONCRETE, PARAPET, AS PER PLAN
511	CU. YD.	CLASS S CONCRETE, DECK EDGE, AS PER PLAN

ITEM 516 VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS, MODIFICATION A OR B, AS PER PLAN:

THIS ITEM SHALL INCLUDE ALL THE WORK REQUIRED TO REMOVE PORTIONS OF STRUCTURES IN CURBS, REMOVE EXISTING VERTICAL EXTENSION BARS AS REQUIRED, TRIM EXISTING ANGLES, PROVIDE ALL ANCHORS, STUDS, STEEL EXTRUSIONS, STEEL BARS, NEOPRENE EXTRUSION, PREFORMED EXPANSION JOINT FILLER AND REPLACEMENT CONCRETE IN ACCORDANCE WITH DETAILS ON SHEET NO'S-79-83.

THE STEEL EXTRUSION SHALL BE TYPE E WITH S300E (FOR 2" JOINT OPENINGS) NEOPRENE EXTRUSION AS MANUFACTURED BY WATSON BOWMAN ASSOCIATES, INC., 1280 NIAGRA STREET, BUFFALO, NEW YORK, 14213. (FOR 3" JOINT OPENINGS USE A S400 NEOPRENE EXTRUSION).

THE STEEL EXTRUSION SHALL BE PROVIDED IN MAXIMUM LENGTHS POSSIBLE TO ALLOW FOR TRAFFIC MAINTENANCE AND SHALL BE WELDED TOGETHER TO FORM A WATERTIGHT JOINT. THE NEOPRENE EXTRUSION SHALL BE ONE CONTINUOUS PIECE. THE NEOPRENE SHALL NOT BE INSTALLED UNTIL ALL OTHER WORK IS COMPLETE UPON THE STRUCTURE. AN ADHESIVE SHALL BE USED TO FACILITATE PLACEMENT OF THE NEOPRENE EXTRUSION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.

PHYSICAL PROPERTIES:

- THE STEEL EXTRUSION SHALL CONFORM TO ASTM A242, A36 OR, A588.
- ADHESIVES SHALL BE ONE-PART MOISTURE CURING POLYURETHANE AND HYDRO-CARBON MIXTURES AS DISTRIBUTED UNDER THE TRADE NAME BON-LASTIC BY WATSON BOWMAN ASSOCIATES, INC., OF BUFFALO, NEW YORK; OR AN APPROVED EQUIVALENT.
- THE NOEPRENE EXTRUSION SHALL CONFORM TO THE PHYSICAL PROPERTIES SPECIFIED FOR AASHTO M220 EXCEPT FOR THE RECOVERY TEST. IT SHALL BE ONE CONTINUOUS PIECE FOR EACH JOINT.
- SET SCREWS FOR FASTENING OF OPTIONAL SPLIT EXTRUSION SHALL BE STAINLESS STEEL.

THE D.S. BROWN COMPANY, P.O.BOX 158, NORTH BALTIMORE, OHIO 45872, WILL BE ACCEPTED AS AN ALTERNATE. THE STEEL EXTRUSION SHALL BE TYPE SS-E WITH NO. 300 SEAL (FOR 2" JOINT OPENINGS). (FOR 3" JOINT OPENINGS USE A NO. 500 SEAL). THE CONTRACTOR SHALL FURNISH MATERIAL SPECIFICATION, CERTIFIED MATERIAL TEST RESULTS, CERTIFICATION THAT THE PRODUCT MEETS SPECIFICATIONS, APPROPRIATE INSTALLATION PROCEDURES NECESSARY TO ACCOMMODATE THE ALTERNATE DESIGN.

THE APPROVAL OF AN ALTERNATE JOINT SEAL DESIGN AND THE ISSUANCE OF REVISED PROJECT PLANS SHALL BE BASED ON THE UNDERSTANDING THAT SUCH PROJECT MODIFICATIONS WILL BE DONE WITHOUT COST TO THE STATE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LINEAL FOOT FOR ITEM 516, VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS, MODIFICATION A OR B, AS PER PLAN, WHICH SHALL INCLUDE ALL THE LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR ALL THE VARIOUS MODIFICATIONS* OF THE TYPE E, AND TYPE SS-E EXTRUSIONS AS DETAILED.

*MODIFICATION REFERS ONLY TO THE SECTION OF JOINT NORMAL THROUGH ROADWAY

ITEM 516 STRUCTURAL EXPANSION JOINTS INCLUDING ELASTOMERIC COMPRESSION SEALS:

THIS ITEM SHALL INCLUDE ALL WORK REQUIRED TO PROVIDE AND INSTALL THE ELASTOMERIC COMPRESSION SEAL AND ALL ARMOR AND SUPPORT STEEL AS PER DETAILS ON SHEET NO. 89 . THE 6 X 4 X 3/4 EXTENSION ANGLES SHALL BE PAID FOR UNDER THIS ITEM.

THE ELASTOMERIC COMPRESSION SEAL SHALL BE A WD-300 AS MANUFACTURED BY WATSON BOWMAN ASSOCIATES INC., 1280 NIAGARA STREET, BUFFALO, NEW YORK 14213, A CV3000 A MANUFACTURED BY THE D.S. BROWN COMPANY, P.O. BOX 158, NORTH BALTIMORE, OHIO 45872 OR AN APPROVED EQUAL. THE PROVISIONS OF SUPPLEMENTARY SPECIFICATION 849 PERTAINING TO MATERIALS, MATERIAL REQUIREMENTS, PREPARATION FOR INSTALLATION AND INSTALLATION SHALL APPLY TO THE COMPRESSION SEALS EXCEPT THAT THE SIKASTIX 360 HAS BEEN REPLACED BY SIKASTIX 323.

ALL STRUCTURAL STEEL SHALL BE GALVANIZED BE PER 711.02.

PAYMENT FOR ALL THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LINEAL FOOT FOR ITEM 516, STRUCTURAL EXPANSION JOINTS INCLUDING ELASTOMERIC COMPRESSION SEALS WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO COMPLETE THE ABOVE WORK.

ITEM 518, POROUS BACKFILL, AS PER PLAN:

THE POROUS BACKFILL SHALL BE CONSTRUCTED AS PER DETAILS ON SHEET NO. 87 & 88.

THE FILTER FABRIC SHALL BE TYPE B, AS PER SUPPLEMENTAL SPECIFICATION 939. DURING ALL PERIODS OF SHIPMENT AND STORAGE THE CLOTH SHALL BE WRAPPED IN A HEAVY DUTY PROTECTIVE COVERING TO PROTECT IT FROM DIRECT SUNLIGHT, MUD, DIRT, DUST, AND OTHER DEBRIS.

THE FILTER FABRIC SHALL BE CONTINUOUS EXCEPT AT THE CENTER JOINT. ALL JOINTS SHALL BE LAPPED AT A MINIMUM OF TWO (2) FEET. THE SUBSURFACE DRAIN SHALL SLOPE 1/2 INCH PER FOOT TO DRAIN. THE AGGREGATE SHALL BE NO. 57 CRUSHED GRAVEL.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR ITEM 518, POROUS BACKFILL, AS PER PLAN, WHICH SHALL INCLUDE THE REMOVAL AND DISPOSAL OF EXISTING PAVED BERM, SUBBASE AND EMBANKMENT MATERIAL, REPLACING THE PAVED BERM, FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

GENERAL NOTES

RIC-30-12.37
ASD-30-0.00

FED NO DIVISION	STATE	PROJECT
5	OHIO	

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ITEM SPECIAL- SAFETY PARAPET MODIFICATION:

THIS ITEM SHALL INCLUDE ALL THE WORK REQUIRED TO RELOCATE THE EXISTING SAFETY PARAPET EXPANSION JOINTS AS PER DETAILS ON SHEET NO.79. THIS ITEM SHALL BE USED TO REMOVE PORTIONS OF STRUCTURES IN THE SAFETY PARAPET AS PER 202.03, TRIM EXISTING REINFORCING STEEL, DRILL DOWEL HOLES AND INSTALL DOWELS AS PER 510.02 AND 824, INSTALL ARMOR PLATING AND PROVIDE REPLACEMENT CONCRETE AS PER 511.

PAYMENT FOR ALL THE ABOVE SHALL BE AT THE UNIT PRICE BID PER EACH FOR ITEM SPECIAL, SAFETY PARAPET MODIFICATION, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL - SCUPPER EXTENSION AND BAR REMOVAL:

THIS ITEM SHALL INCLUDE RAISING THE EDGE OF THE SCUPPERS AND REMOVING THE BARS AS SHOWN IN DETAILS ON SHEET NO. 92 .

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER EACH FOR ITEM SPECIAL, SCUPPER EXTENSION AND BAR REMOVAL, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL - SEALING OF CONCRETE SURFACES:

ALL PIER COLUMNS AND PARAPETS SHALL BE SEALED USING EITHER SILANE OR AN EPOXY SEALER. SEE THE DETAILS ON SHEET NO. 93 FOR AREAS TO BE SEALED. SEE THE PROPOSAL NOTE FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES.

ITEM SPECIAL- JOINT SEAL:

THE JOINT BETWEEN THE BACKWALL AND THE APPROACH SLAB, THE PARAPET EXPANSION JOINTS AND THE GAP BETWEEN THE APPROACH SLAB AND THE PARAPET SHALL BE SEALED AS PER DETAIL ON SHEET NO.80 & 93. THE PARAPET JOINT SEAL SHALL BE EVAZOTE 50 AS MANUFACTURED BY E-POXY INDUSTRIES INC., 14 WEST SHORE STREET, RAVENA, NEW YORK 12143, TELEPHONE (518)-759-6193 OR E.V.A. AS MANUFACTURED BY THERMAL-CHEM INC, 1400 LOUIS AVENUE, ELK GROVE VILLAGE, IL. 60007 USA, TELEPHONE (323)-364-0364.

THE SEAL SHALL BE CEMENTED IN WITH AN ADHESIVE AS RECOMMENDED BY THE MANUFACTURER OF THE JOINT SEAL. ALL LAITANCIES OR SURFACES CONTAMINANTS SHALL BE REMOVED TO INSURE MAXIMUM ADHESION. THE CONTRACTOR SHALL ESTABLISH THE PARAPET JOINT SEAL SIZE AND INSTALL THE APPROPRIATE SEAL AS RECOMMENDED BY THE MANUFACTURER.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM SPECIAL - JOINT SEAL WHICH SHALL INCLUDE THE SAW CUT, SURFACE PREPARATION, ADHESIVE AND ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL - TRIM BEAMS:

THE EXISTING BEAMS ON STRUCTURES RIC-30-1913 L & R SHALL BE TRIMMED AND GROUND SMOOTH TO ALLOW FOR MOVEMENT OF THE PROPOSED EXPANSION JOINTS. FOR DETAILS SEE SHEET NO. 89 .

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT A UNIT PRICE BID PER EACH BEAM FOR ITEM SPECIAL - TRIM BEAMS, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

BRIDGE QUANTITIES

CALCULATED BY YW 1-20-84
 CHECKED BY QAC 10-9-84

FHWA REGION	STATE	PROJECT	
5	OHIO		

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RIC/ASD-30-12.37/00.00

STRUCTURAL FILE NUMBER	STRUCTURE NUMBER	TYPE	SKEW	LENGTH	WIDTH	AREA	NUMBER OF SCUPPERS	END DAM LENGTH	ROAD WIDTH	BERM WIDTH	TYPE OF WEARING SURFACE	SPECIAL				SPECIAL *				SPECIAL *				SPECIAL *				SPECIAL				
												ASPHALT PAVEMENT PLANING				SUPERPLACTICIZED DENSE CONCRETE OVERLAY (1 3/4" THICKNESS)				SUPERPLACTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS)				FULL DEPTH REPAIR				SCUPPER EXTENSION AND BAR REMOVAL				
												SQ. YD.				SQ. YD.				CU. YD.				CU. YD.				EACH				
												FR				FR				FR				FR				FR				FR
7001290	RIC-30-1280 (5 TH. AVE. OVERPASS)	322	20°05'20" R.F.	288.5	42.5	1362	12	94.3	24.0	12 I. 12 O.	CONC.					1362				48				1				12				
7001320	RIC-30-1384 (STEWART RD. OVERPASS)	322	4° 54'25" R.F.	258.5	42.5	1221	12	88.4	24.0	12 I. 12 O.	CONC.					1221				30				1				12				
7001355	RIC-30-1404 L (OVER U.S. 42)	322	45° 45'00" L.F.	294.4	31.4	1027	20	97.0	24.0	6 I. 8 O.	ASPH.	2294				1027				66				1				-				
7001444	RIC-30-1404 R (OVER U.S. 42)	322	45° 45' 00" L.F.	294.4	31.4	1027	20	97.0	24.0	6 I. 8 O.	ASPH.	2294				1027				123				1				-				
7001479	RIC-30-1438 (MCELROY RD. OVERPASS)	322	0° 00' 00"	226.0	42.5	1067	12	88.1	24.0	12 I. 12 O.	CONC.					1067				27				1				12				
7001495	RIC-30-1524 (LAVER RD. OVERPASS)	322	0° 00' 00"	319.5	30.0	1065	10	72.0	24.0	10 I. 10 O.	CONC.					1065				27				1				10				
7001517	RIC-30-1638 (CREED RD. OVERPASS)	322																														
7004656	RIC-30-1714 UNDER I - 71	322																														
7004680	RIC-30-1718 UNDER I - 71	322																														
7001568	RIC-30-1747 L (OVER KOOGLE RD.)	322	12° 47'00" L.F.	142.1	55.3 AVG.	873	14	589 RR. 55.2 FWD	24	57.3 RR. 53.2 FWD	6 I. 8 O.	ASPH.	3176				873				105				1				14			
7001592	RIC-30-1747 R (OVER KOOGLE RD.)	322	12° 47'00" L.F.	142.1	53.5 AVG.	845	14	51.3 RR. 57.9 FWD	24	50.3 RR. 56.7 FWD	6 I. 10 O.	ASPH.	3176				845				56				1				14			
7001657	RIC-30-1913 L (OVER BLACK FORK)	322	0° 00' 00"	256.5	30.0	855	44	69.0	24	10 I. 10 O.	ASPH.	2322				855				56				1				-				
7001681	RIC-30-1913 R (OVER BLACK FORK)	322	0 00 00	256.5	30.0	855	44	69.0	24	10 I. 10 O.	ASPH.	2322				855				103				1				-				
TOTAL												15584				10197				641				10				74				

* SEE PROPOSAL NOTE

CALCULATED BY JK 1-20-24
 CHECKED BY QAC 10-7-24

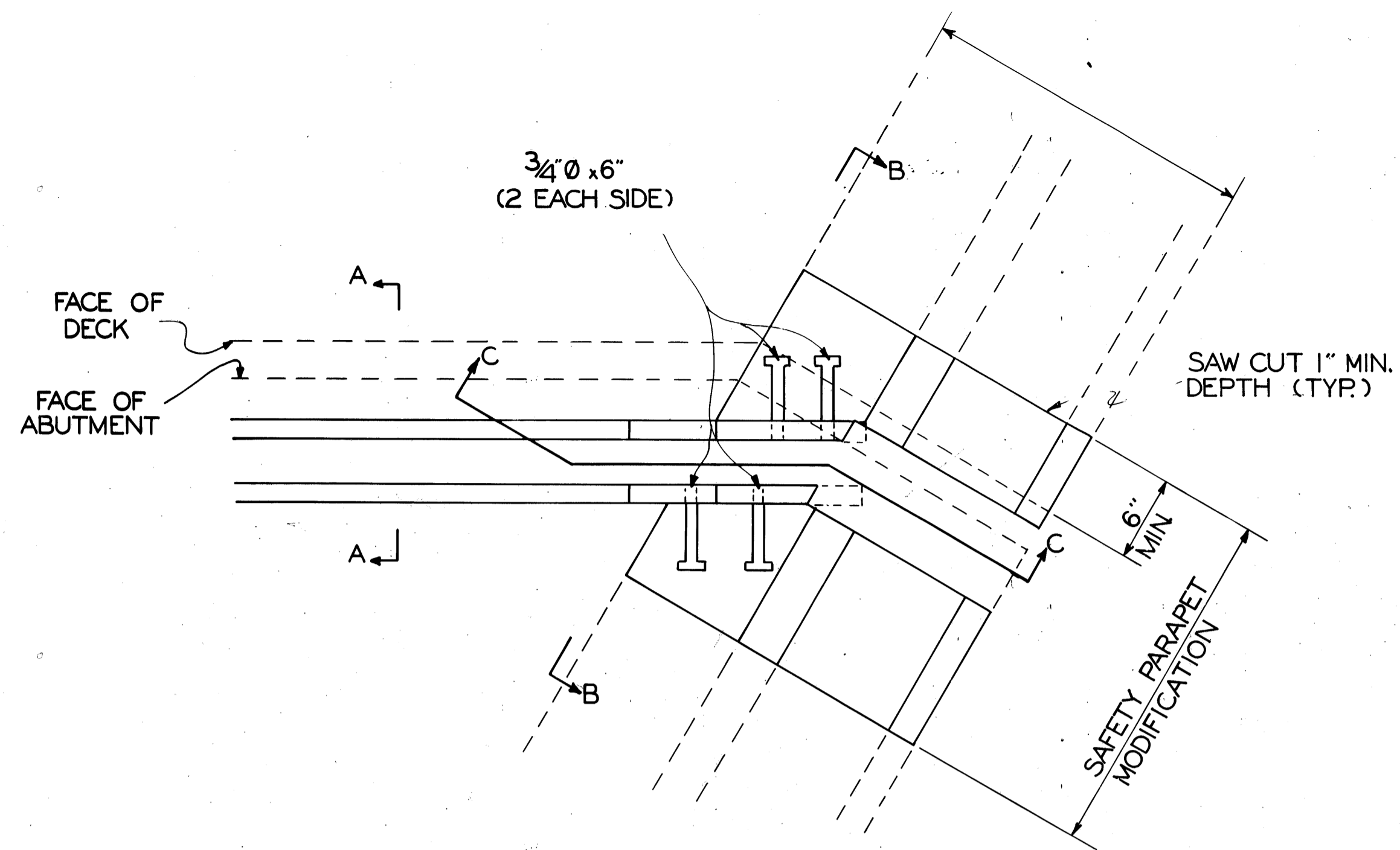
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

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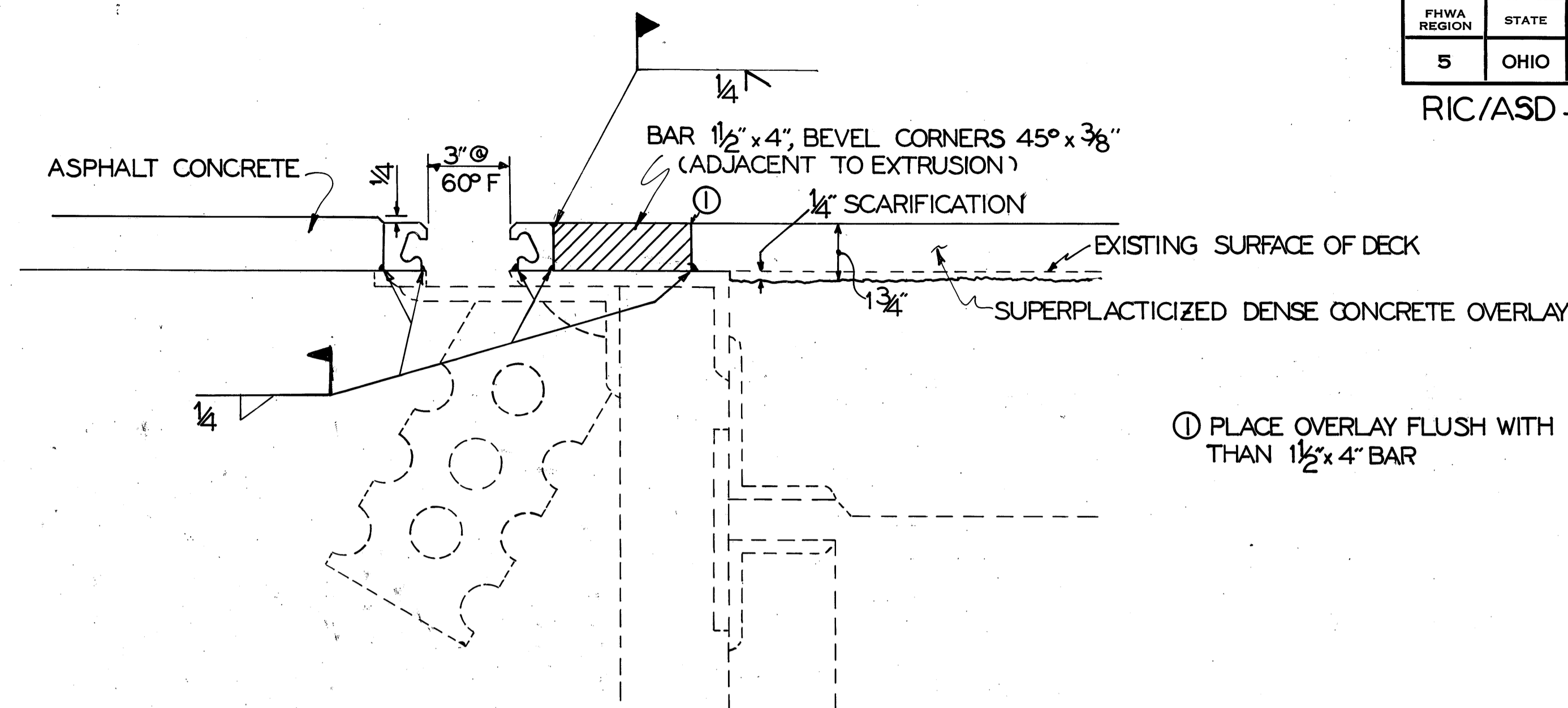
BRIDGE QUANTITIES (CONTINUED)

RIC / ASD-30 -1237 /00.00

STRUCTURE NUMBER	516				516				SPECIAL				516				609				SPECIAL				SPECIAL			
	VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS, MODIFICATION A, AS PER PLAN				VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS, MODIFICATION B, AS PER PLAN				SAFETY PARAPET MODIFICATION				STRUCTURAL EXPANSION JOINTS INCLUDING ELASTOMERIC COMPRESSION SEALS, AS PER PLAN				ASPHALT CONCRETE CURB				SEALING OF CONCRETE SURFACES (SEE PROPOSAL NOTE)				JOINT SEAL			
	LIN. FT.				LIN. FT.				EACH				LIN. FT.				LIN. FT.				SQ. YD.				LIN. FT.			
	FR				FR				FR				FR				FR				FR				FR			
RIC-30-1280	94.3				—				4				—				60				490				64			
RIC-30-1384	88.4				—				4				—				60				335				60			
RIC-30-1404L	—				97.0				—				—				60				454				35			
RIC-30-1404R	—				97.0				—				—				60				471				35			
RIC-30-1438	88.1				—				4				—				60				319				60			
RIC-30-1524	72.0				—				—				—				—				619				148			
RIC-30-1638	—				—				—				—				—				384				—			
RIC-30-1714	—				—				—				—				—				351				—			
RIC-30-1718	—				—				—				—				—				338				—			
RIC-30-1747L	—				126.0				—				—				60				222				102			
RIC-30-1747R	—				117.0				—				—				60				223				93			
RIC-30-1913L	—				—				—				69.0				—				207				69			
RIC-30-1913R	—				—				—				69.0				—				207				69			
TOTAL	342.8				437.0				12				138.0				420				4620				735			



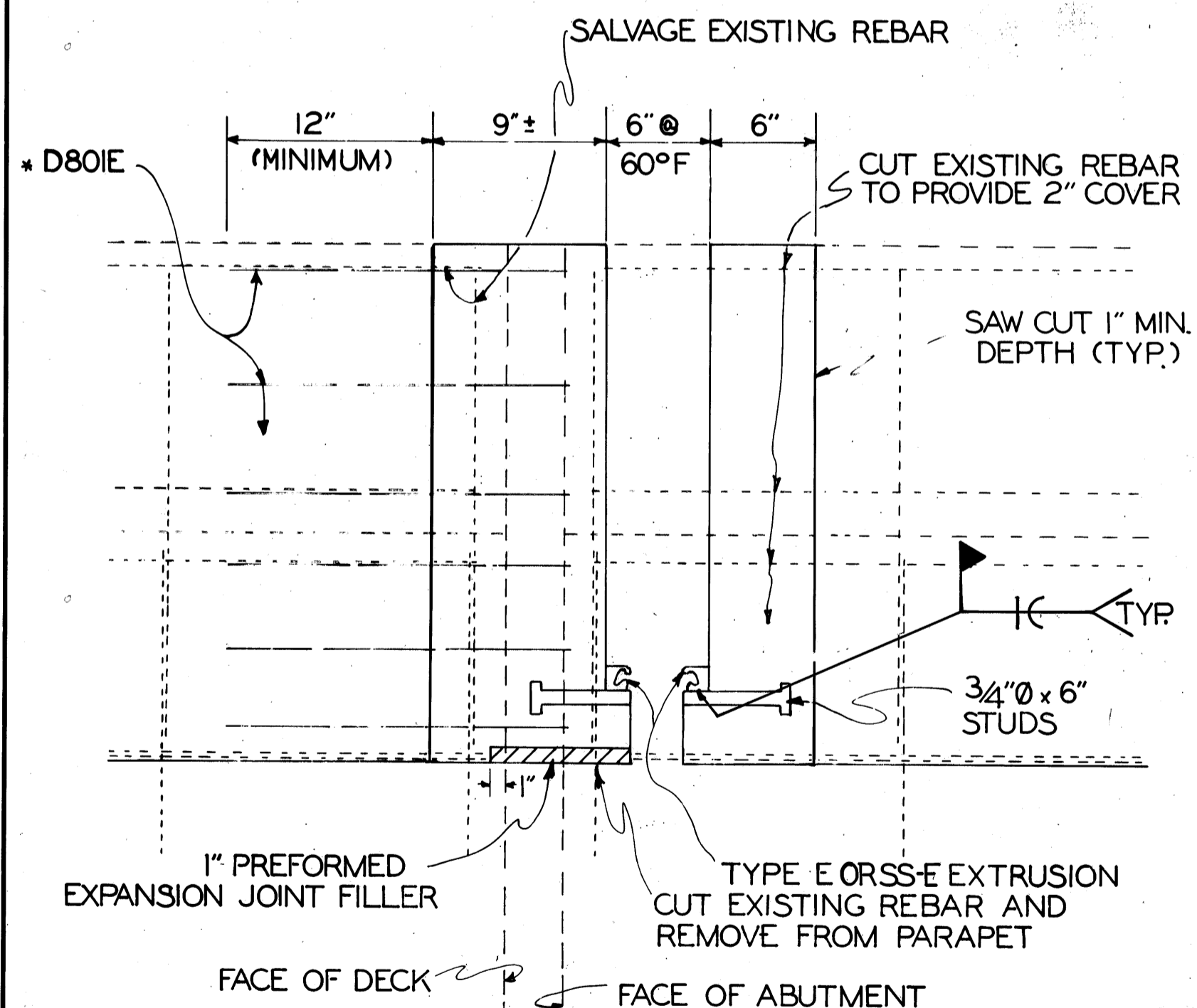
PLAN VIEW OF EXPANSION JOINT



SECTION A-A
JOINT NORMAL THROUGH ROADWAY
MODIFICATION A

① PLACE OVERLAY FLUSH WITH OR SLIGHTLY HIGHER THAN 1/2" x 4" BAR

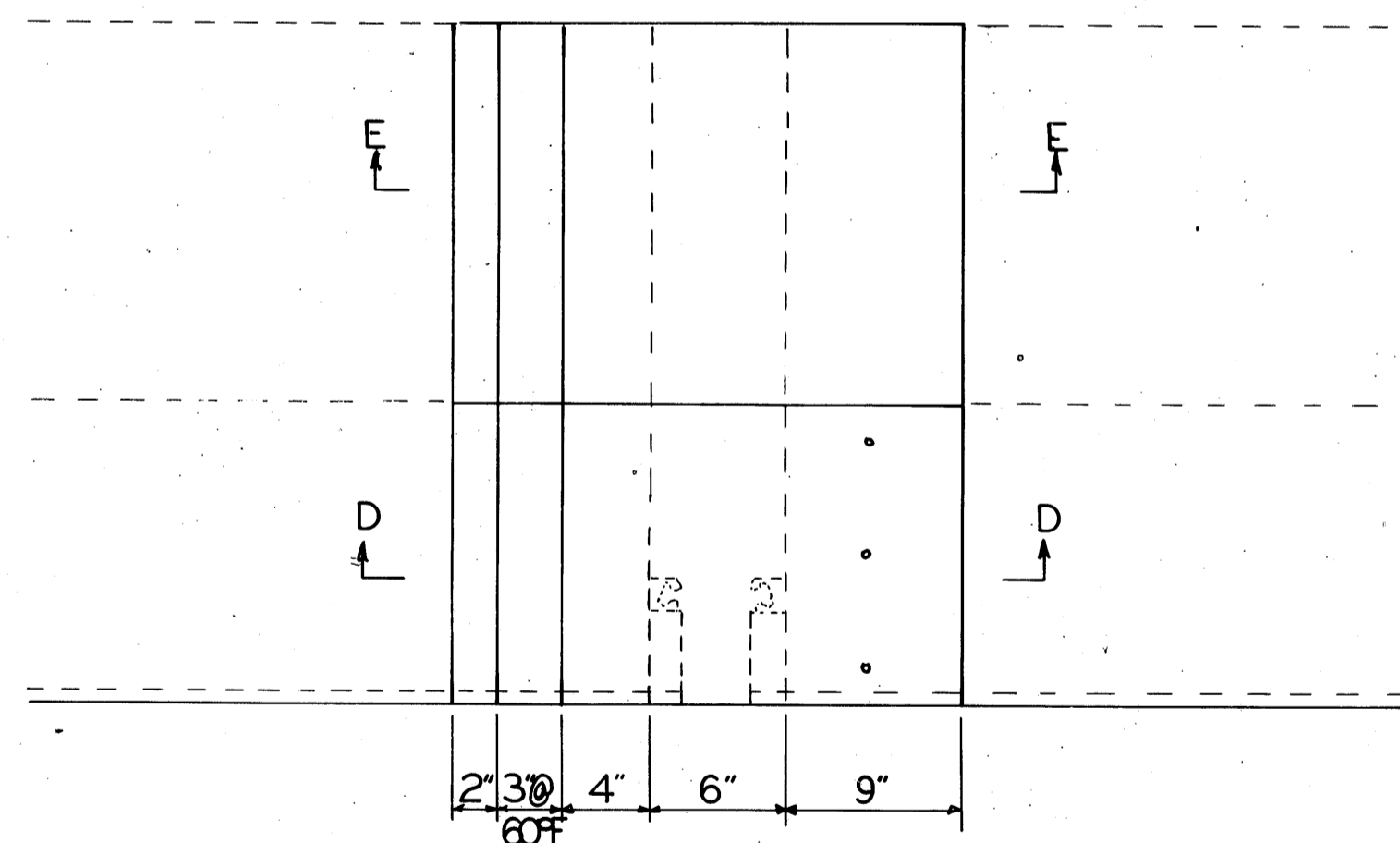
NOTE: THE CONTRACTOR HAS THE OPTION OF SPLITTING THE EXTRUSION AS SHOWN TO FACILITATE PLACEMENT OF THE STRIP SEAL. (TYPICAL ALL DETAILS.)



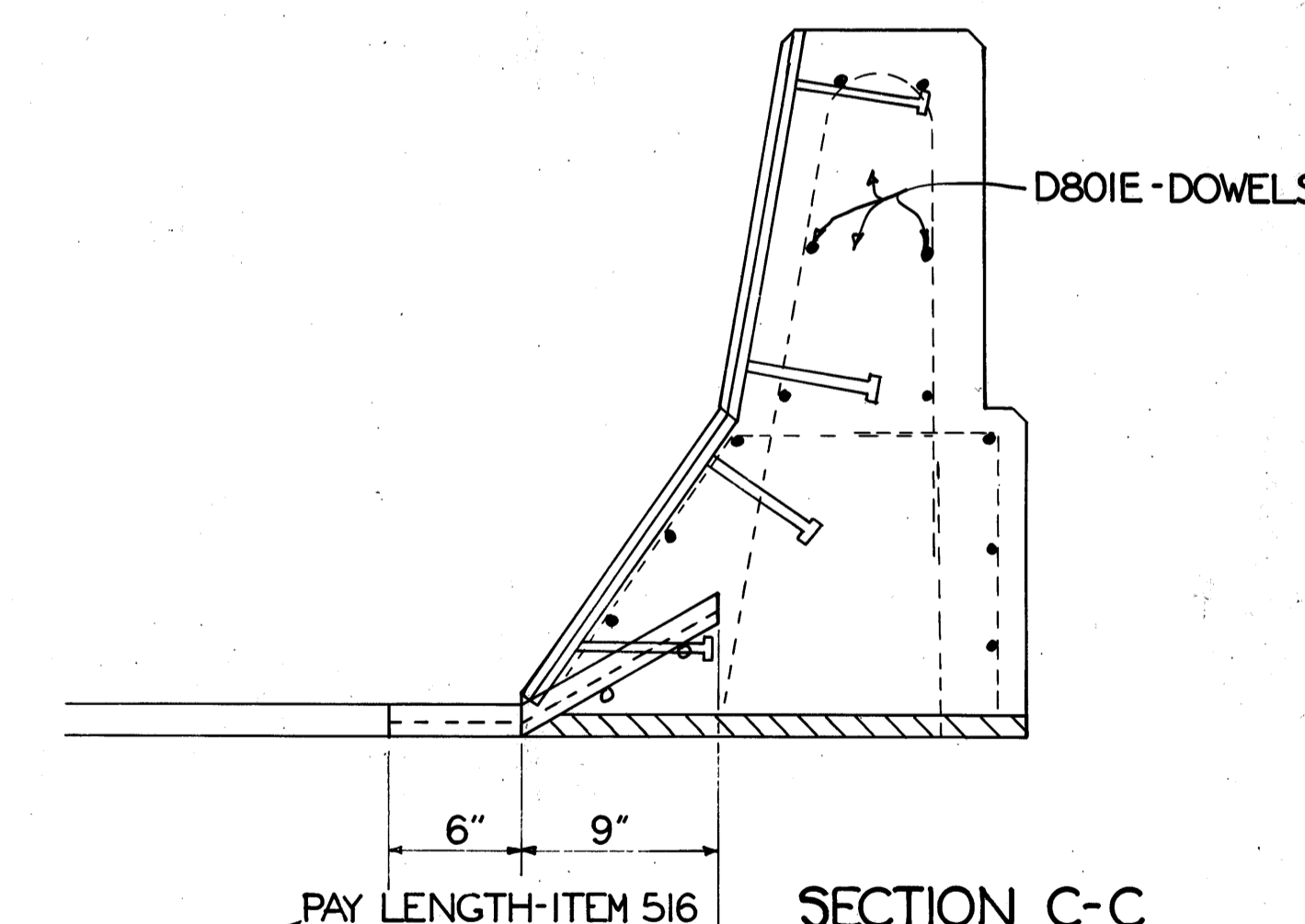
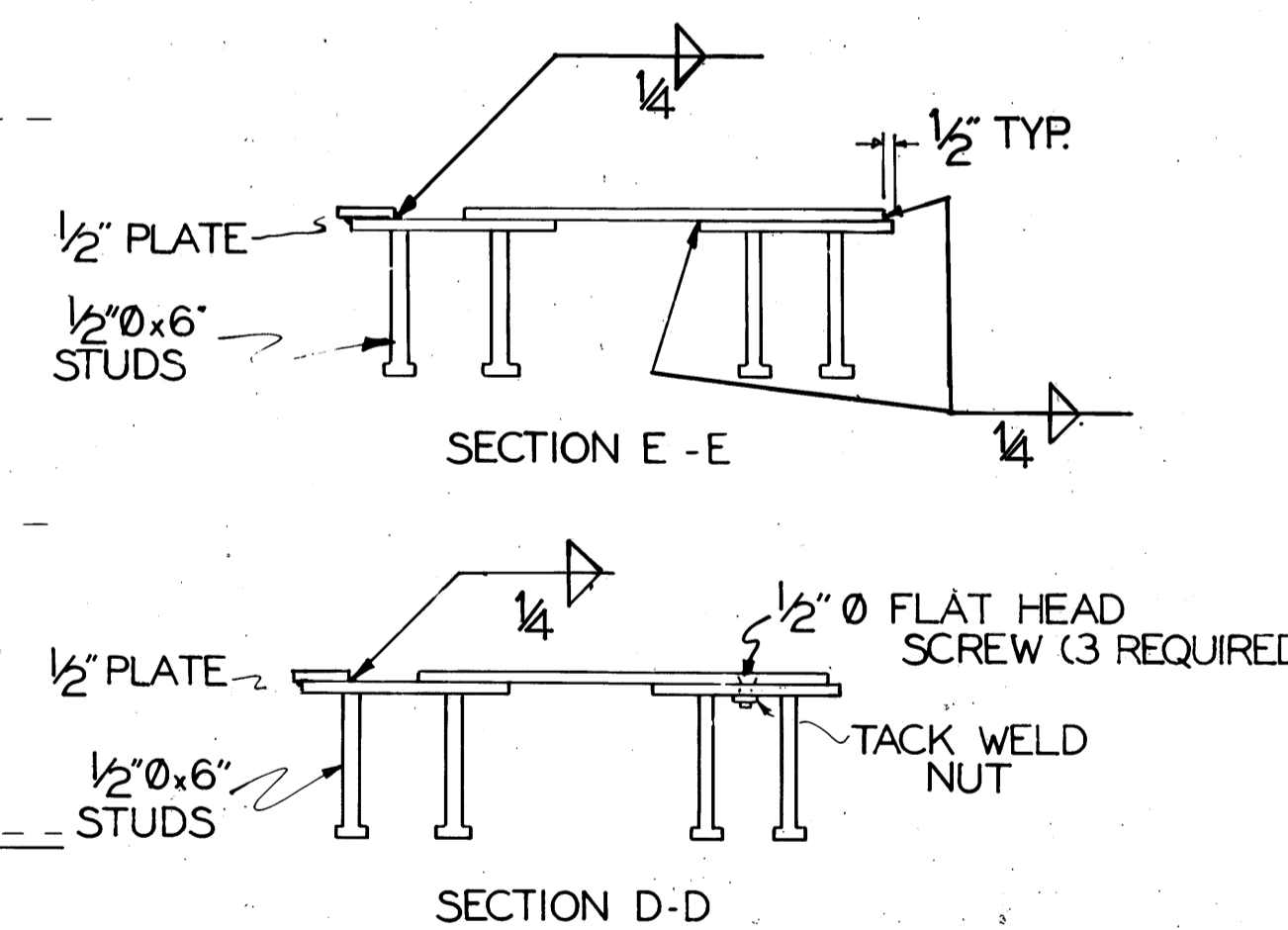
*NOTE: DOWEL HOLES MAY BE DRILLED ON AN ANGLE IF REQUIRED.

NOTE: FOR DETAILS OF EXISTING PARAPET SEE STANDARD DRAWING BR-1-67, SHEET 1 OF 3.

SECTION B-B
JOINT NORMAL THROUGH PARAPET



SECTION B-B
(ARMOR PLATING)

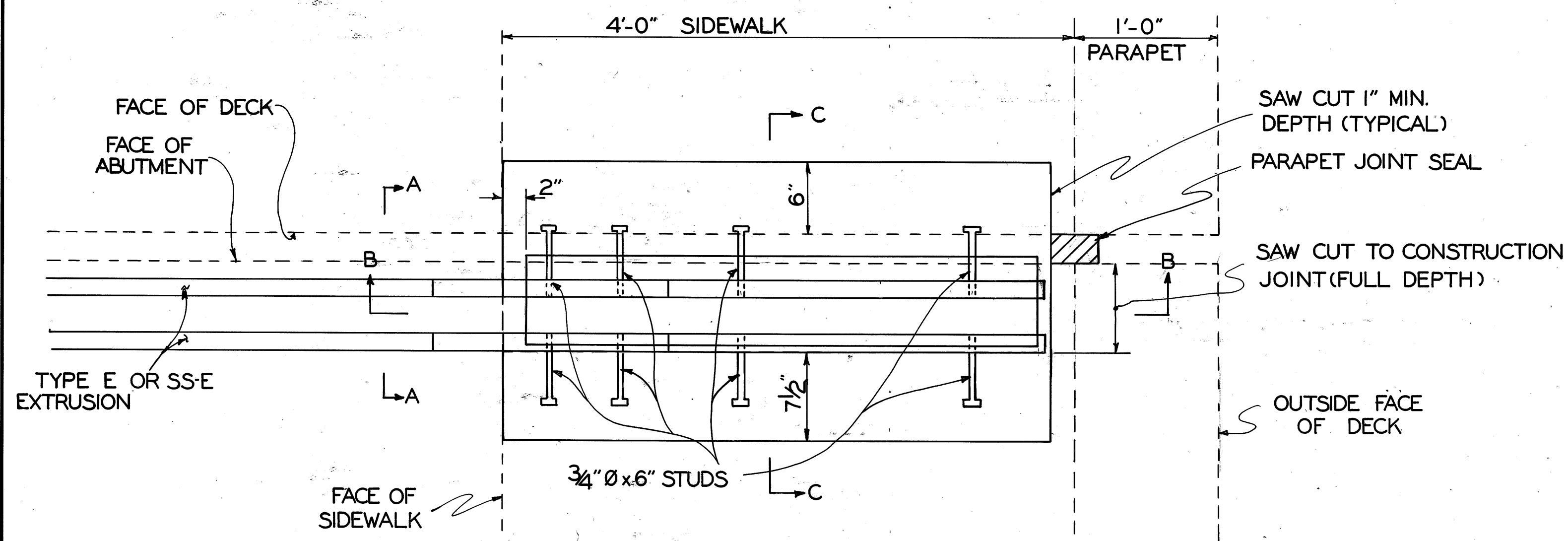


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

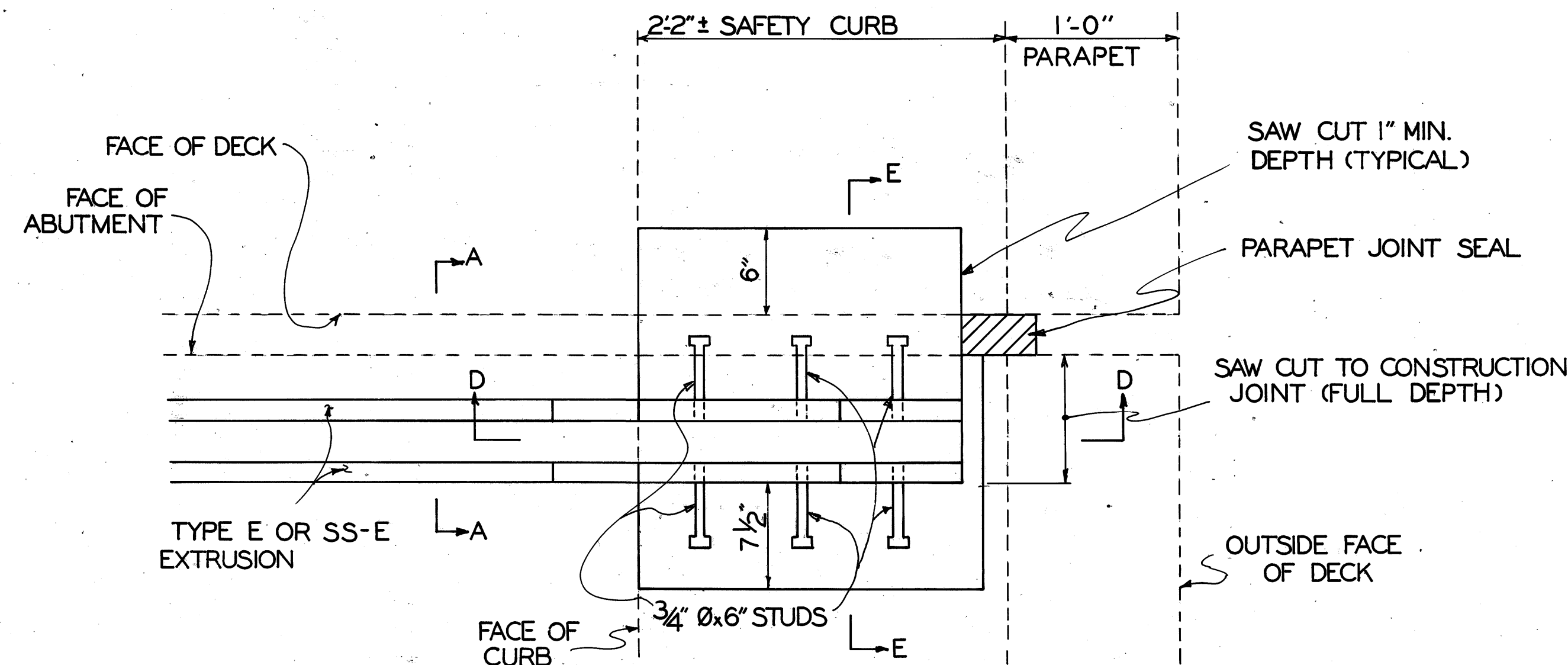
EXPANSION JOINT DETAILS

MODIFICATION A
RIC-30-1280
RIC-30-1384
RIC-30-1438

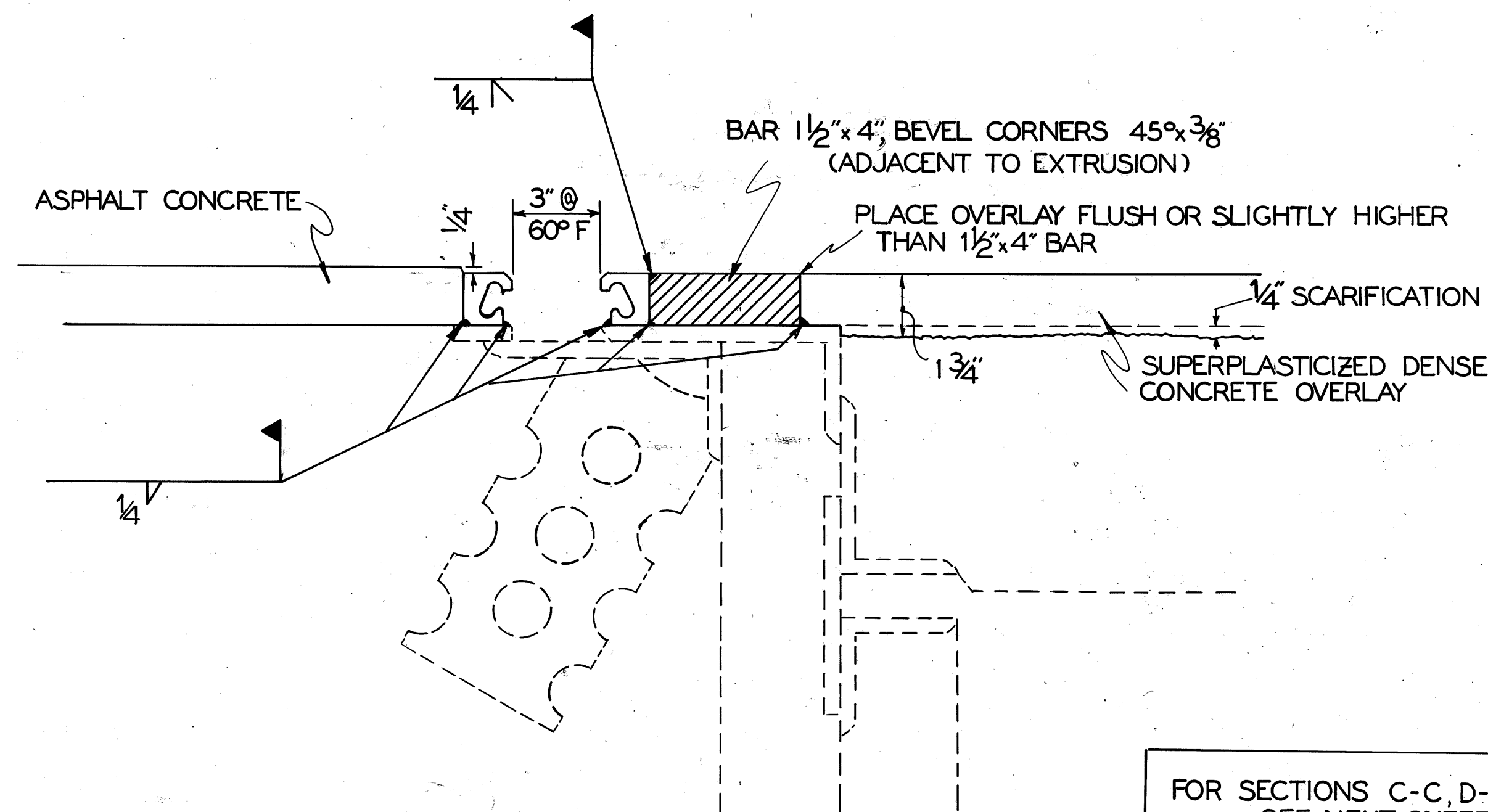
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
kw	DES	DES	gac	JEL	10-9-84	



PLAN VIEW OF EXPANSION JOINT SEAL AT SIDEWALK
(WEST SIDE RIC-30-1524)

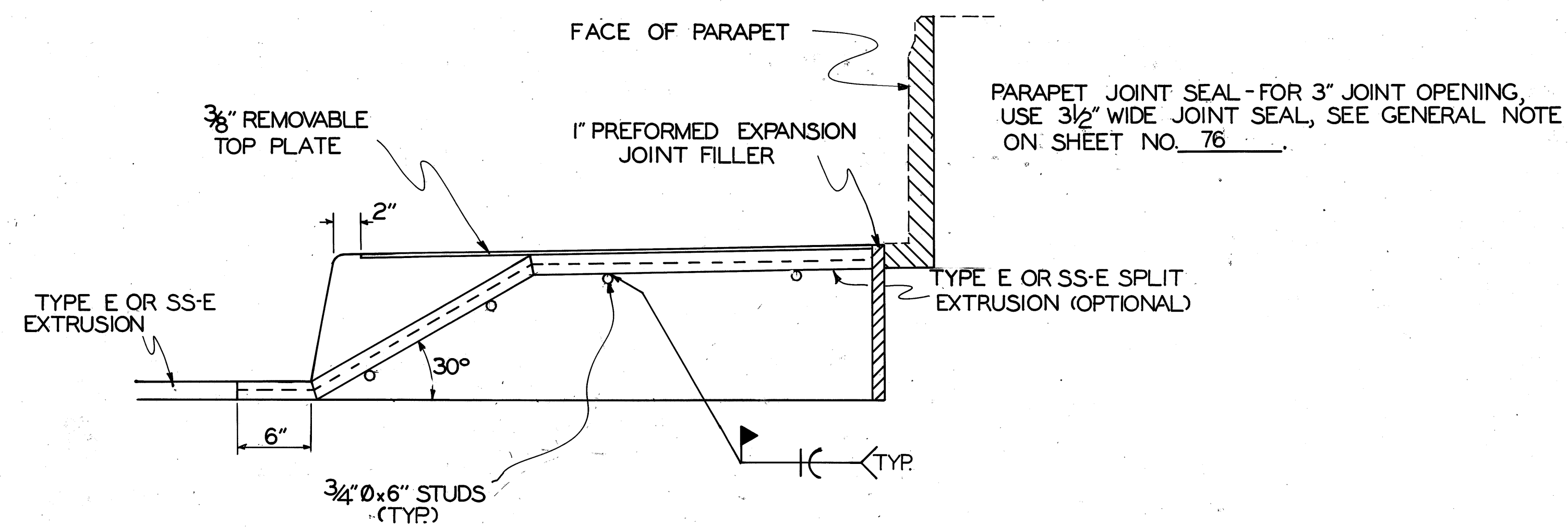


PLAN VIEW OF EXPANSION JOINT SEAL AT CURB
(EAST SIDE RIC-30-1524)



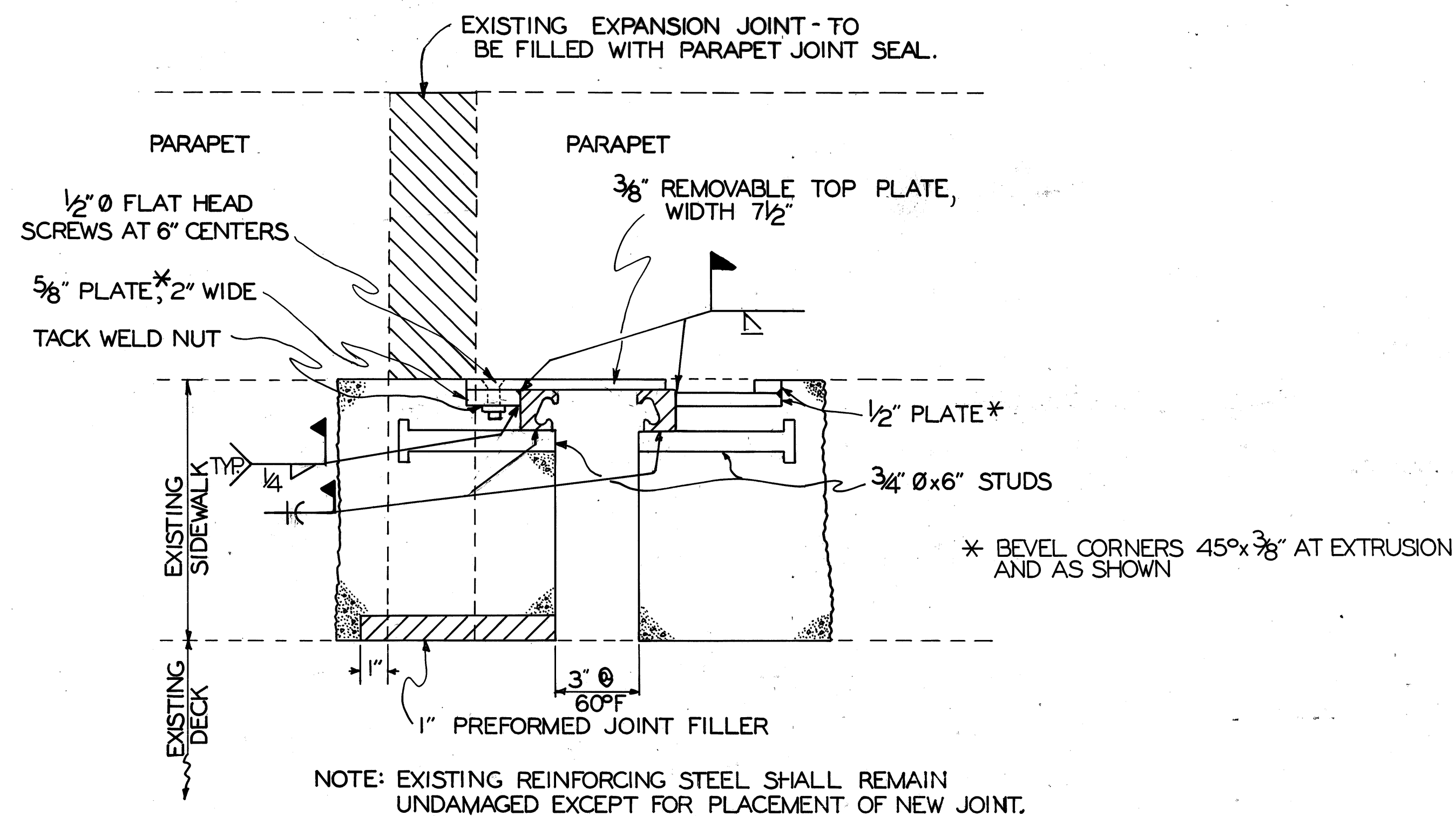
SECTION A-A
JOINT NORMAL THROUGH ROADWAY
MODIFICATION A

FOR SECTIONS C-C, D-D & E-E
SEE NEXT SHEET.

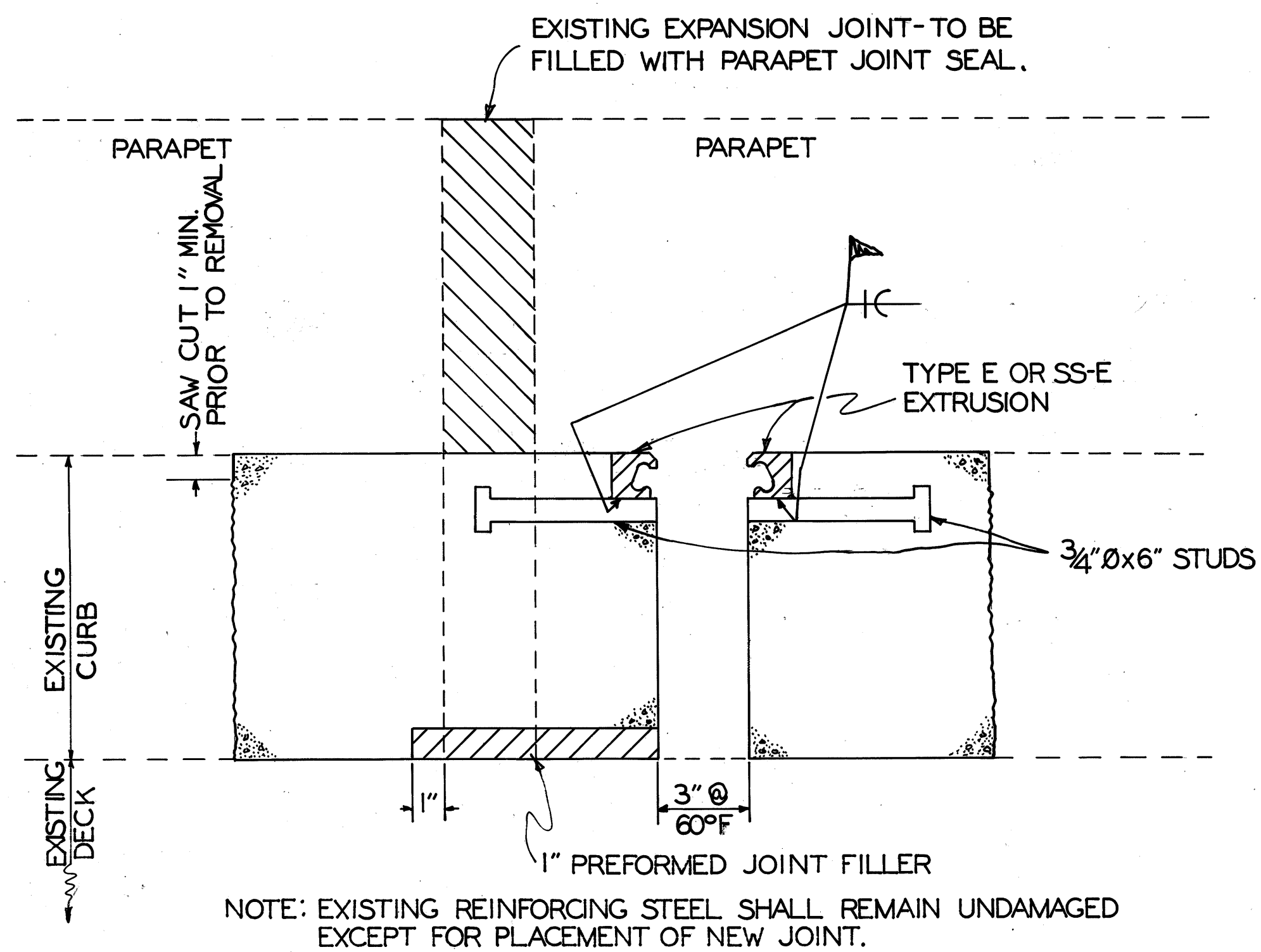


SECTION B-B
JOINT TRANSVERSE THROUGH SIDEWALK

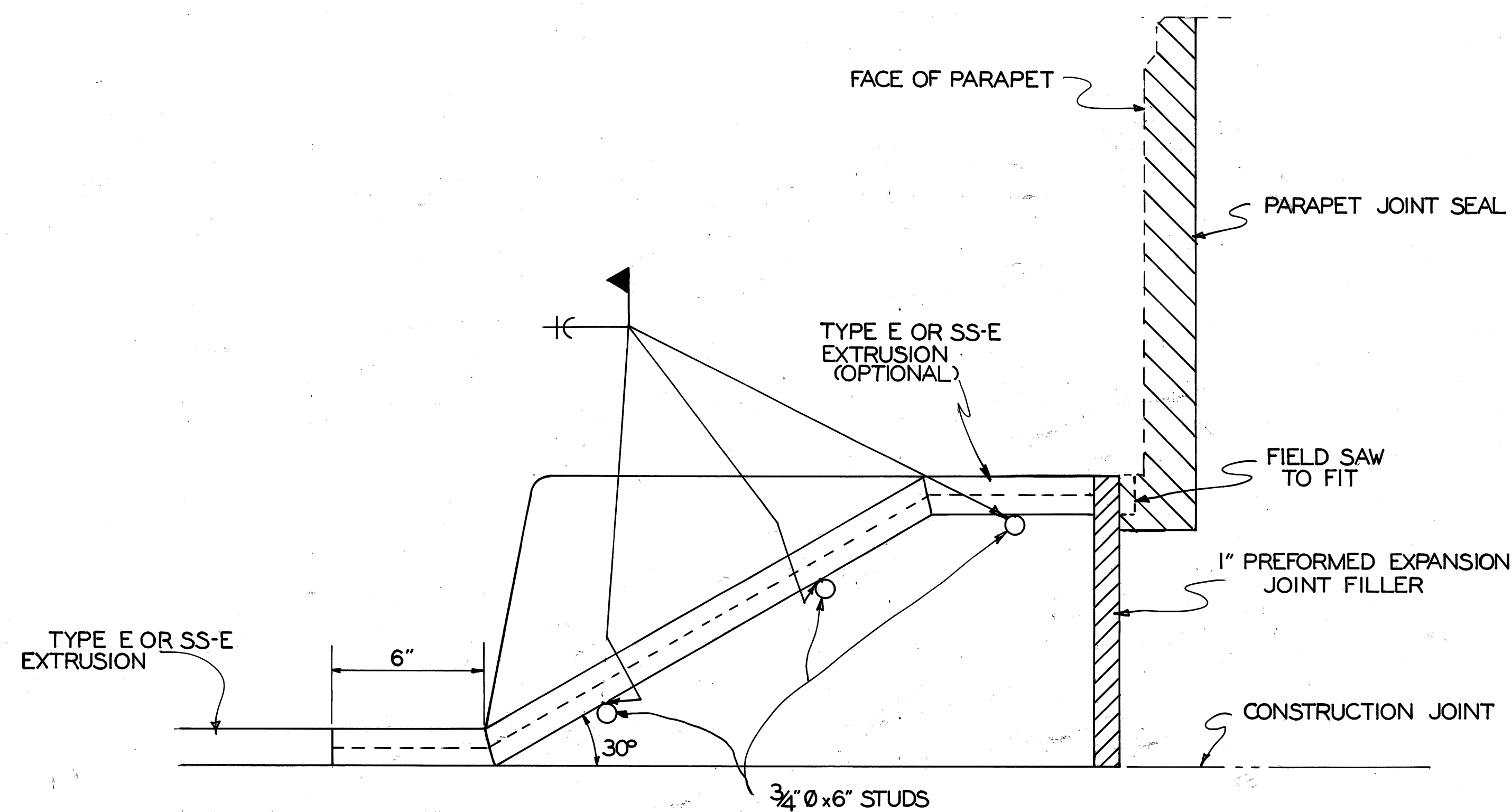
STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT THREE						
EXPANSION JOINT DETAILS MODIFICATION A RIC - 30 - 1524						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Kw	DFS	DFS	QAC	Jsc	10-9-84	



SECTION C-C
JOINT NORMAL THROUGH SIDEWALK

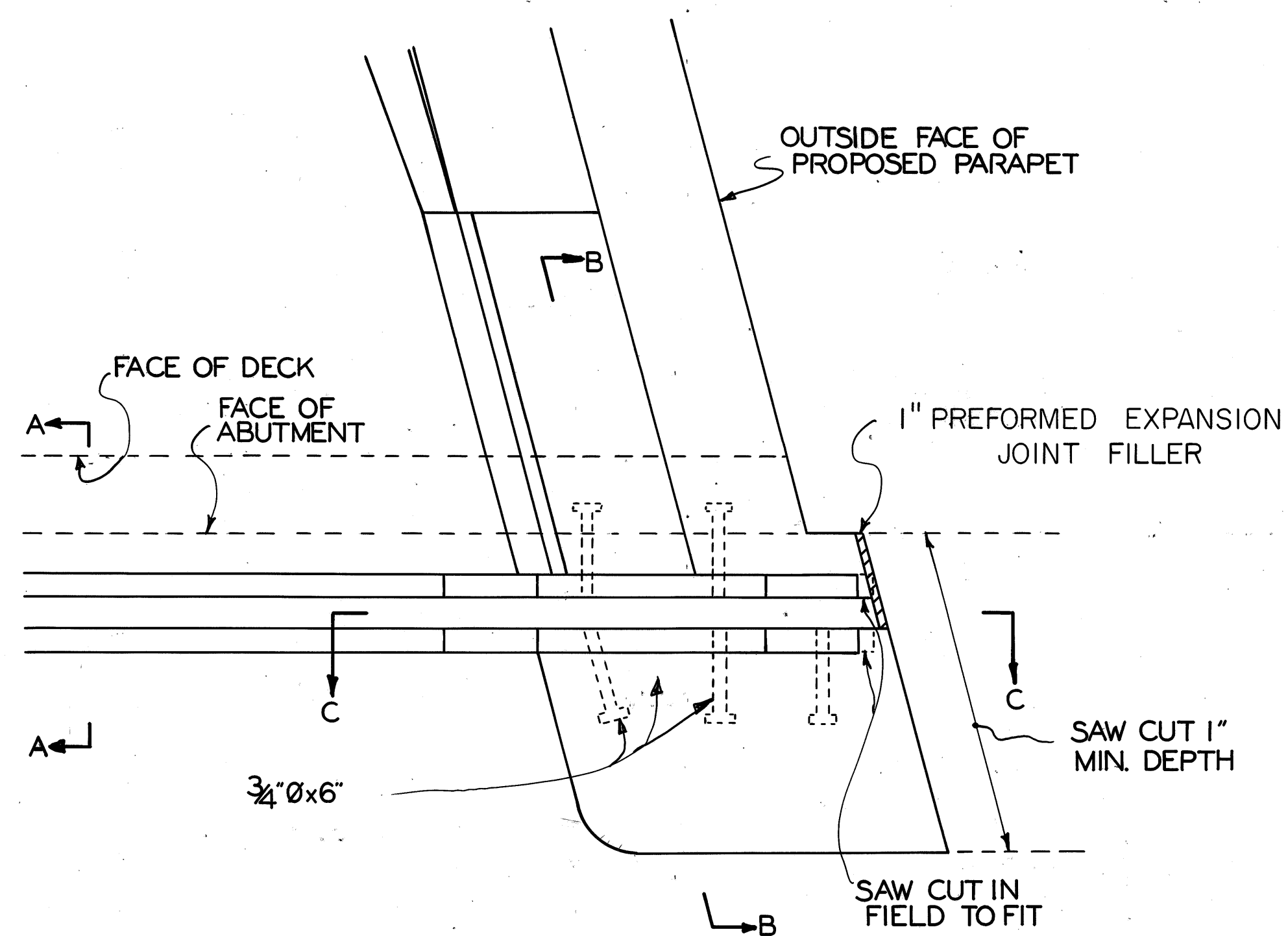


SECTION E-E
JOINT NORMAL THROUGH CURB

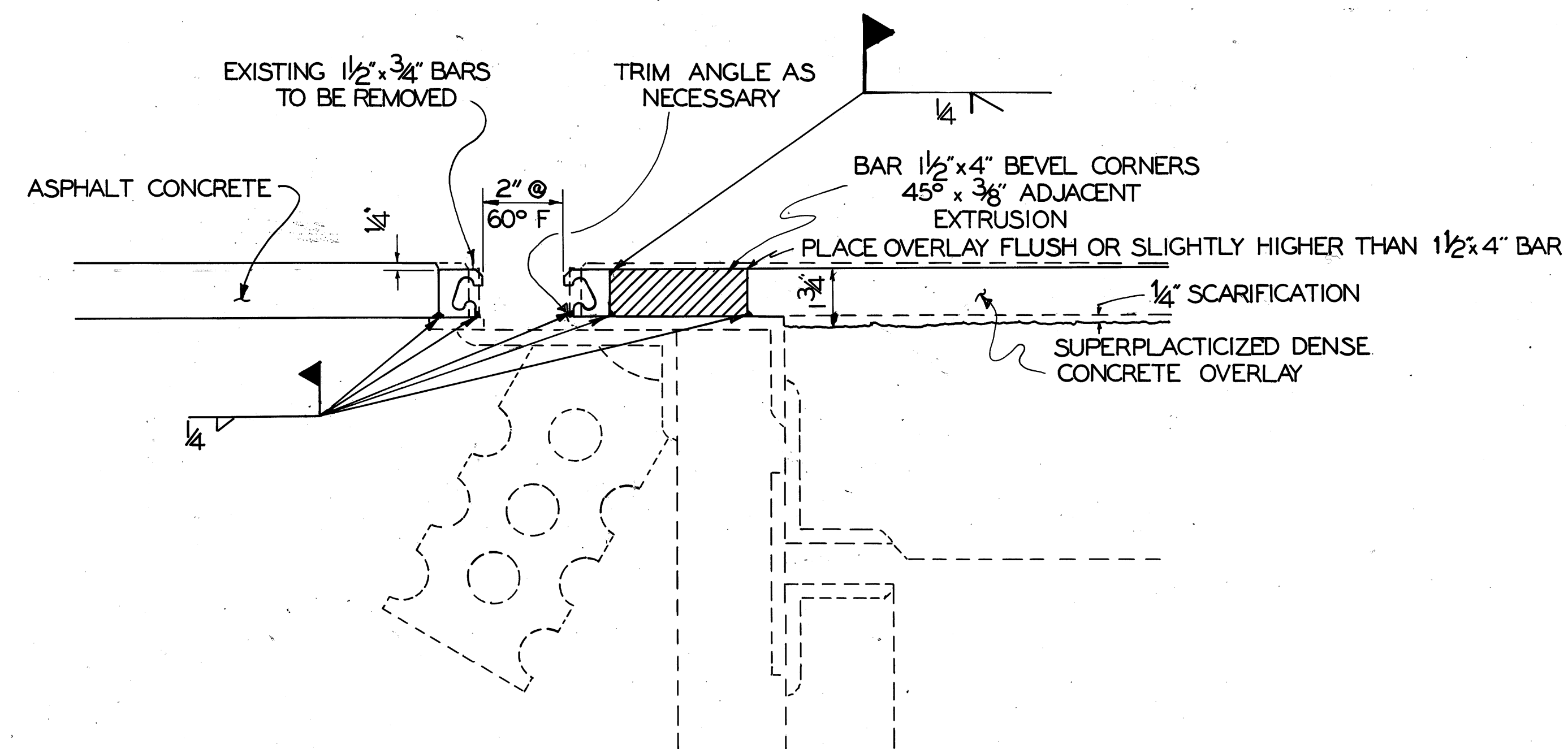


SECTION D-D
JOINT TRANSVERSE THROUGH CURB

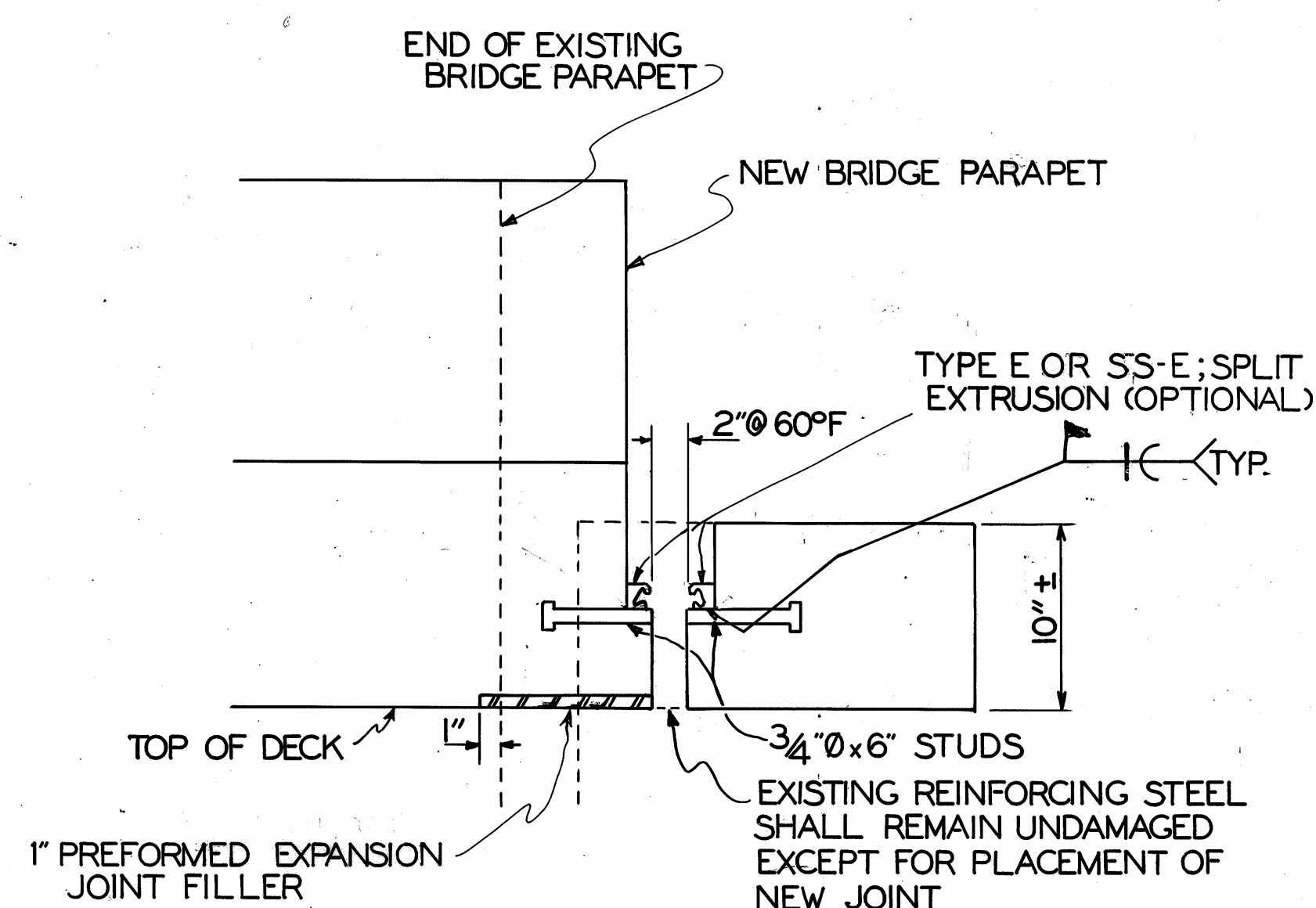
STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT THREE						
EXPANSION JOINT DETAILS						
MODIFICATION A						
RIC-30-1524						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
KW	DES	DES	QAC	JEC	10-9-84	



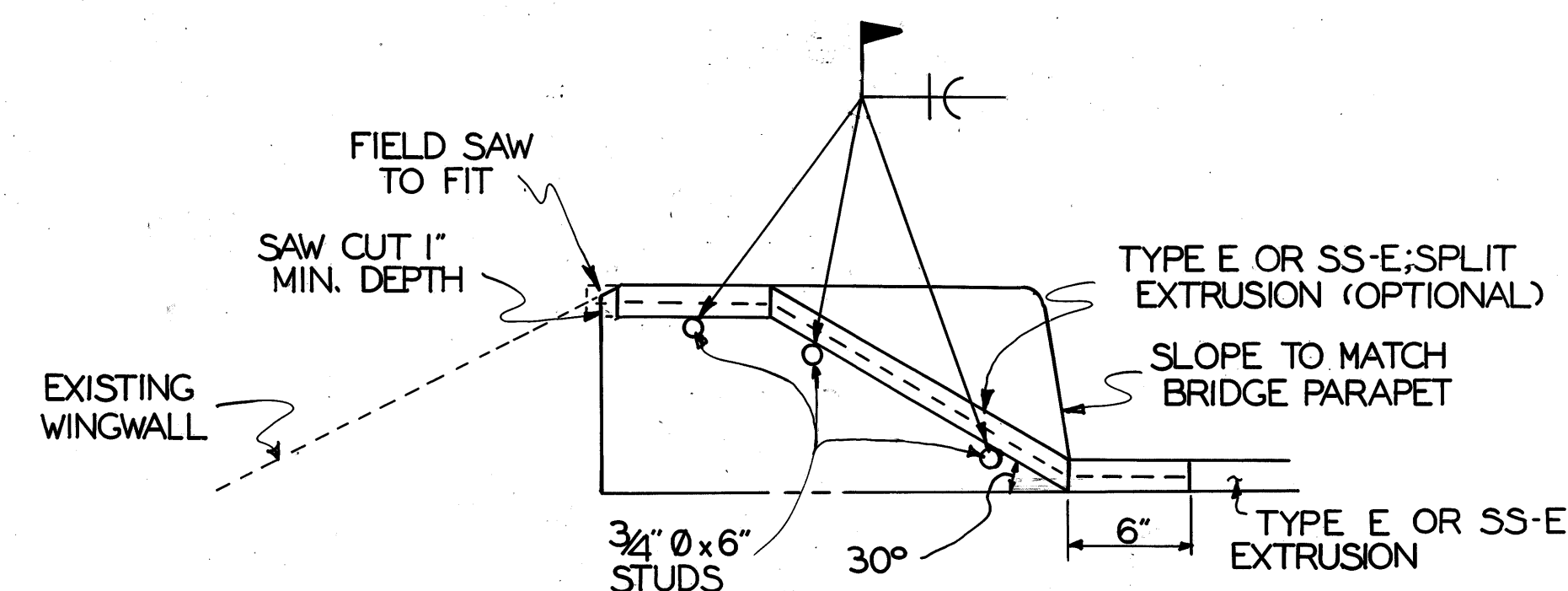
PLAN VIEW OF EXPANSION JOINT SEAL AT PARAPET MODIFICATION B



SECTION A-A JOINT NORMAL THROUGH ROADWAY

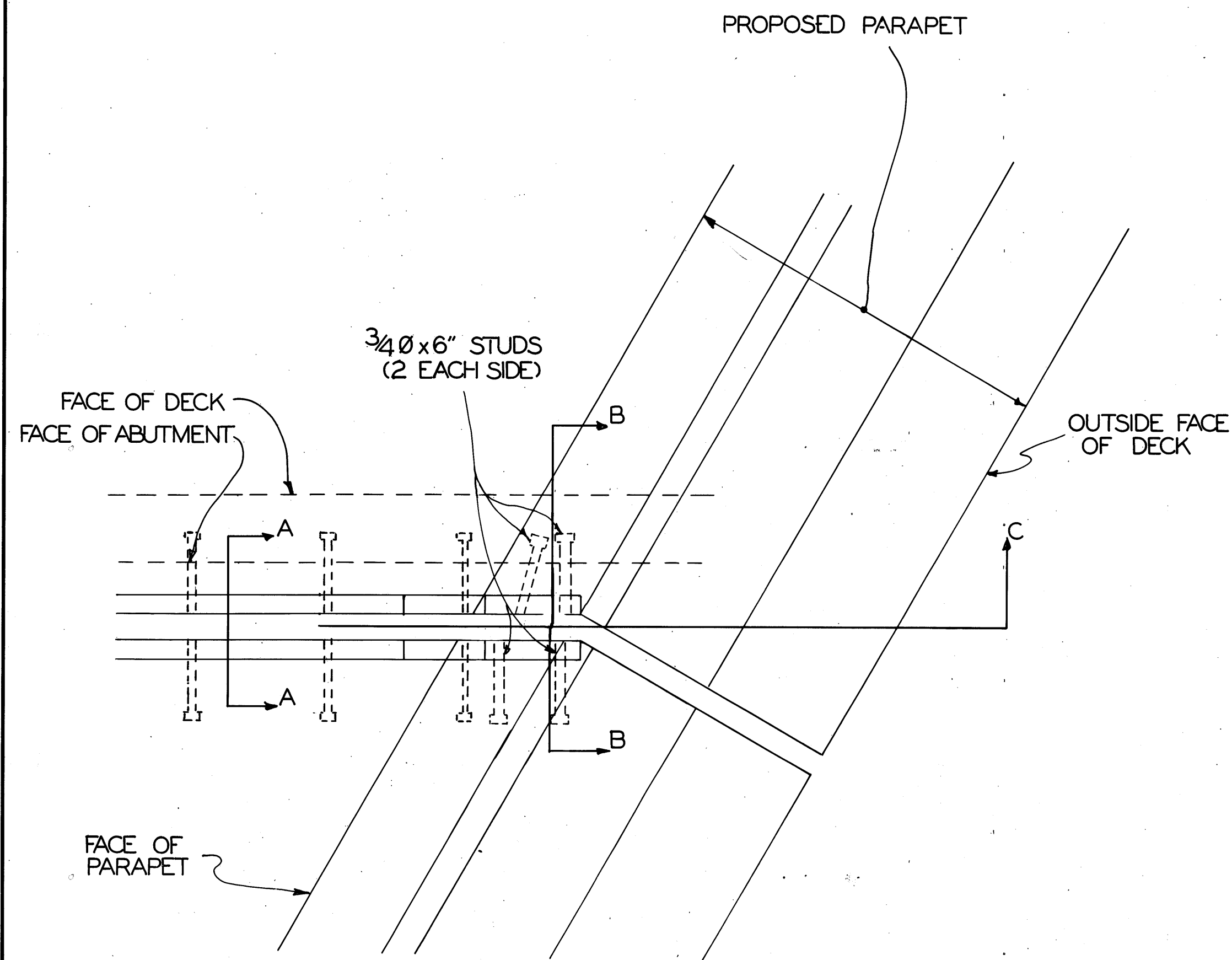


SECTION B-B JOINT NORMAL THROUGH PARAPET

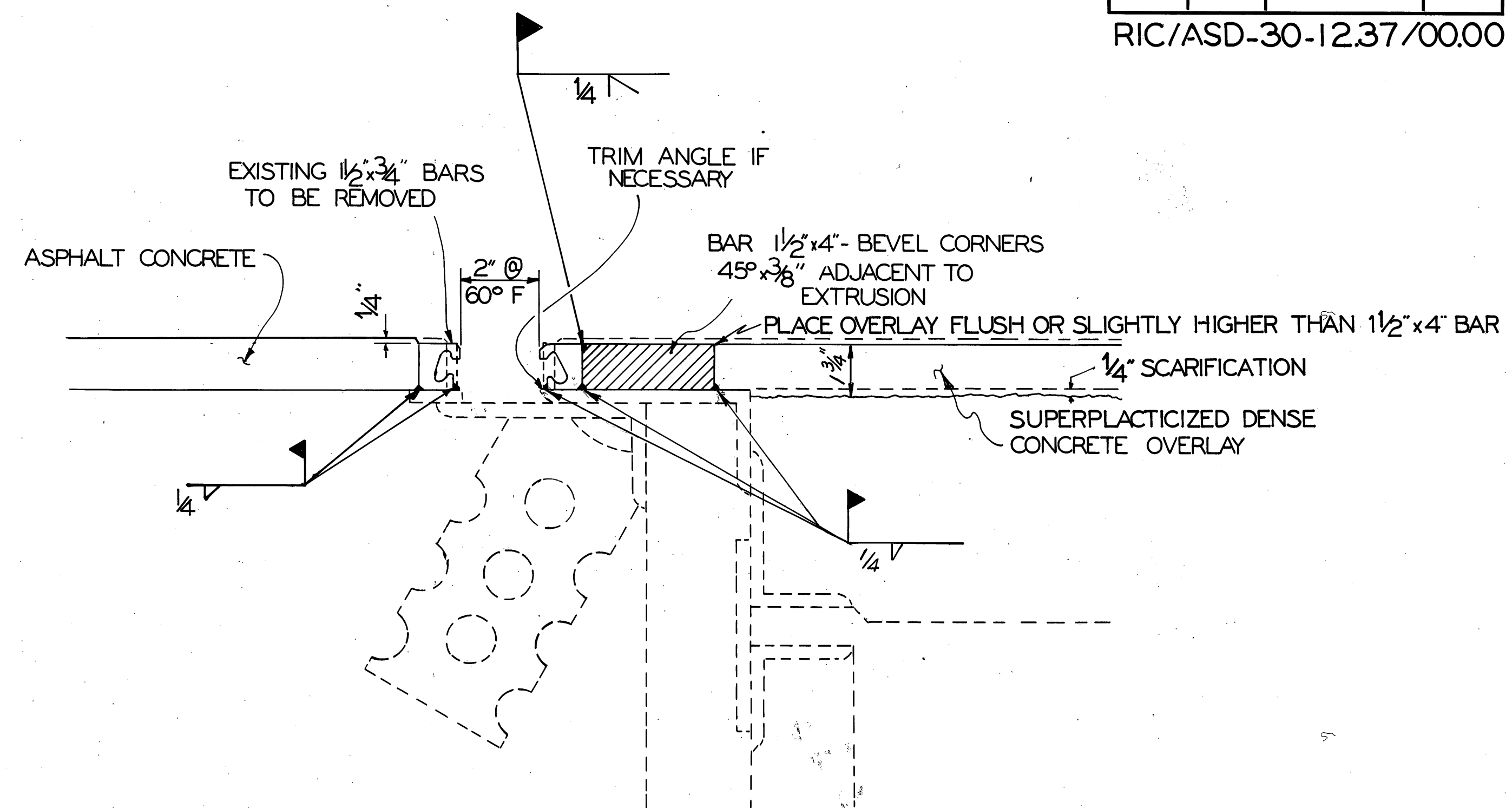


SECTION C-C JOINT TRANSVERSE THROUGH WINGWALL

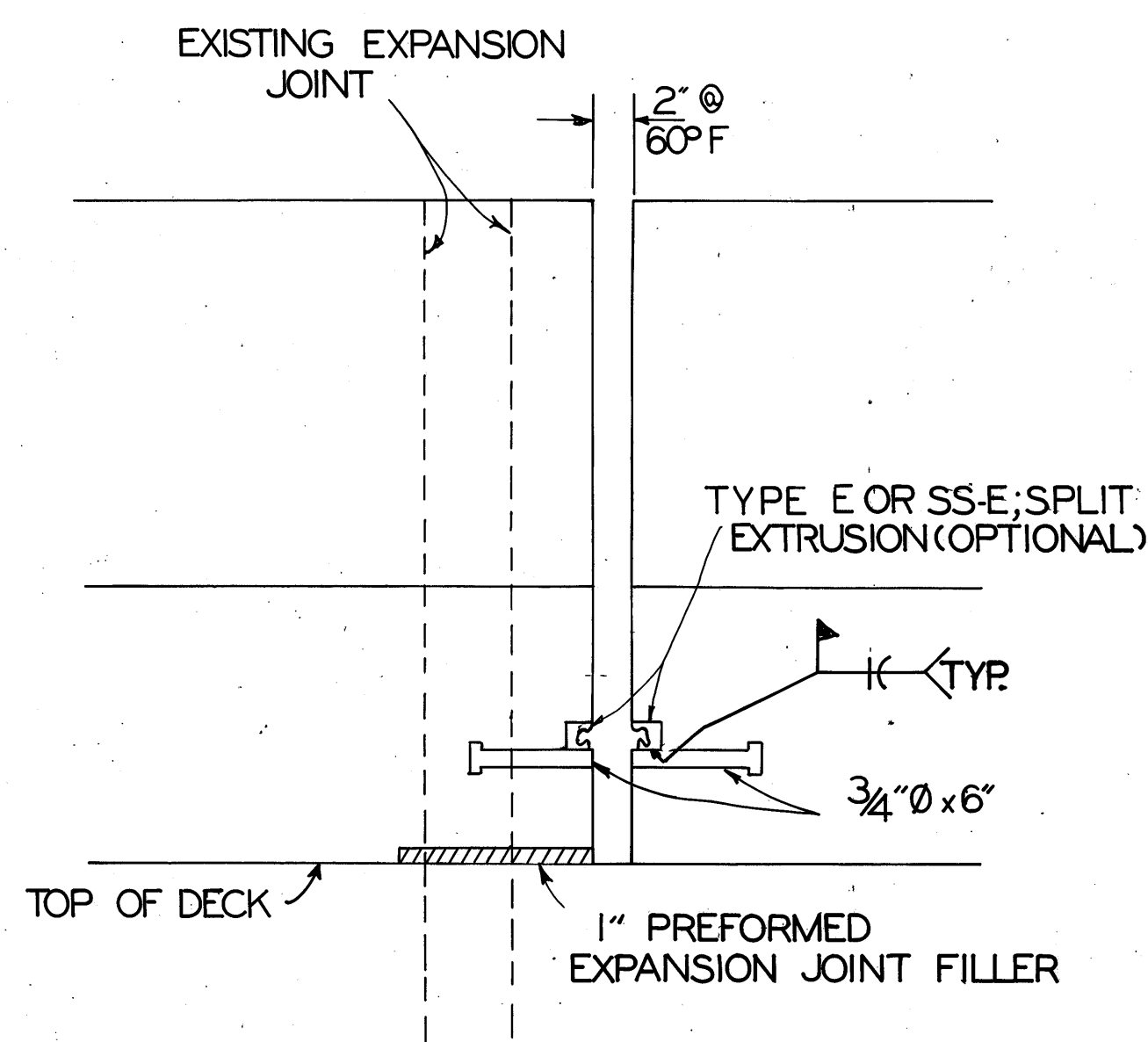
STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT THREE						
EXPANSION JOINT DETAILS						
MODIFICATION B						
RIC-30-1747 L & R						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
kw	DES	DES	gac	DES	10-9-84	



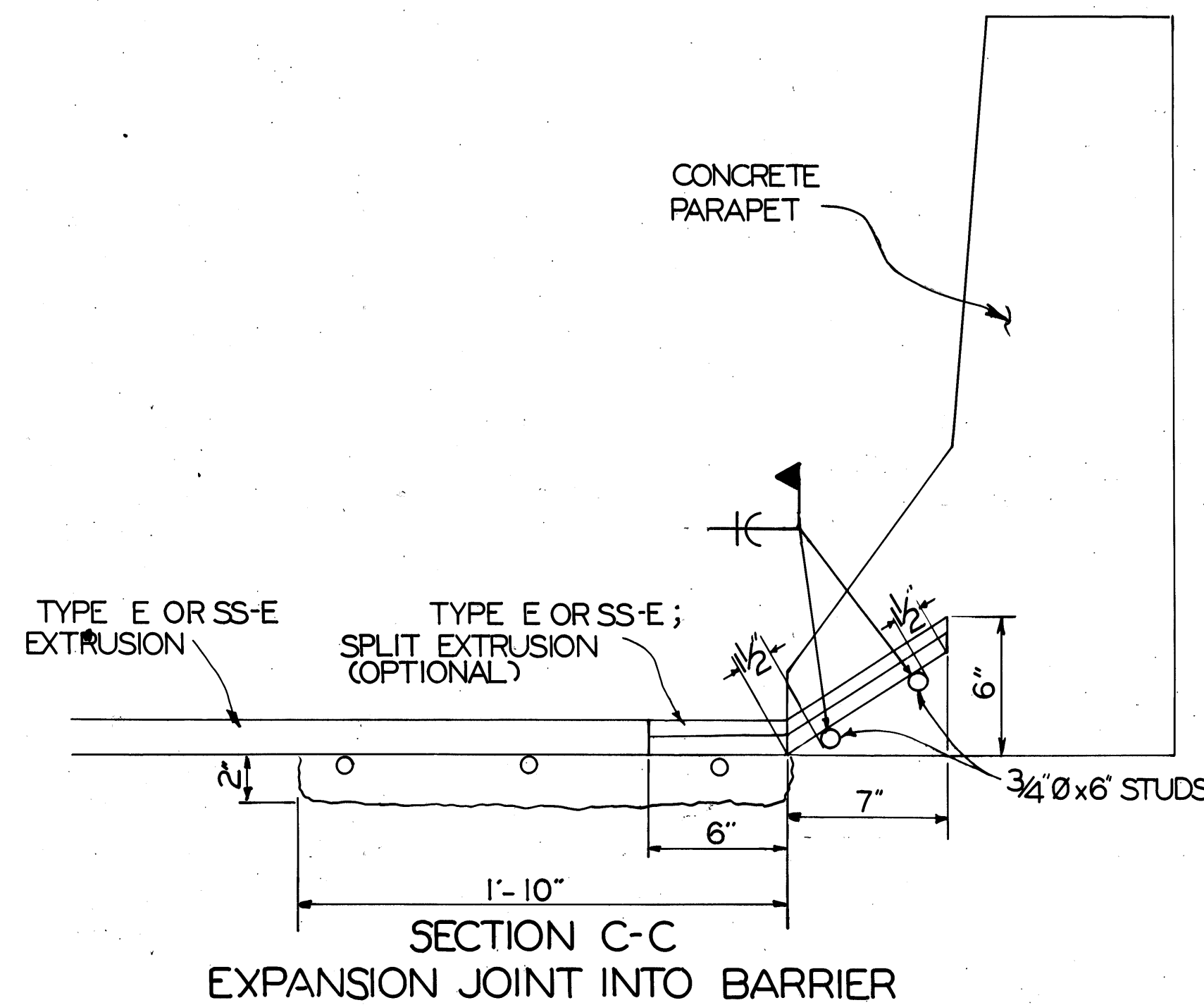
EXPANSION JOINT PLAN VIEW



SECTION A-A
JOINT NORMAL THROUGH ROADWAY
MODIFICATION B

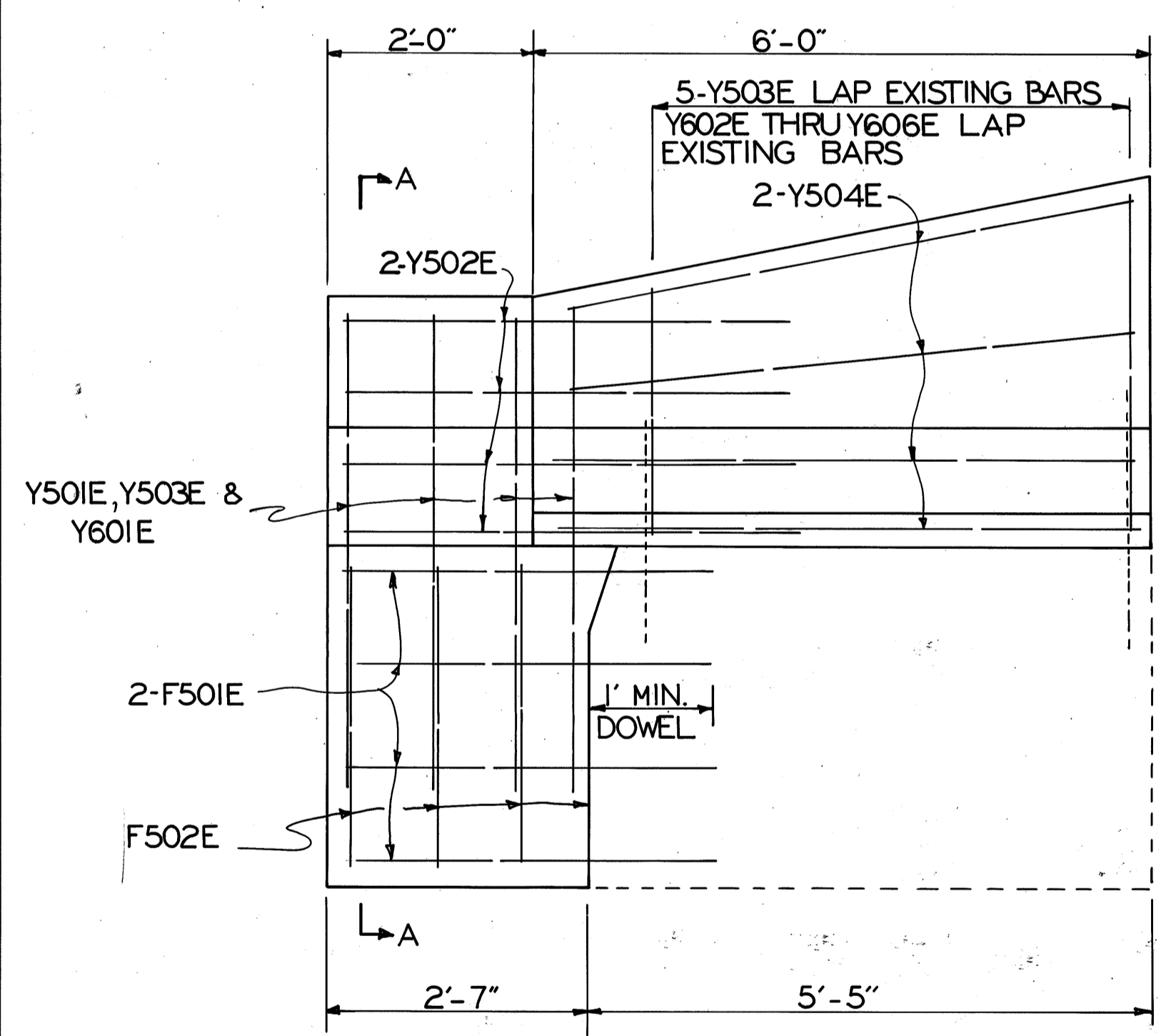
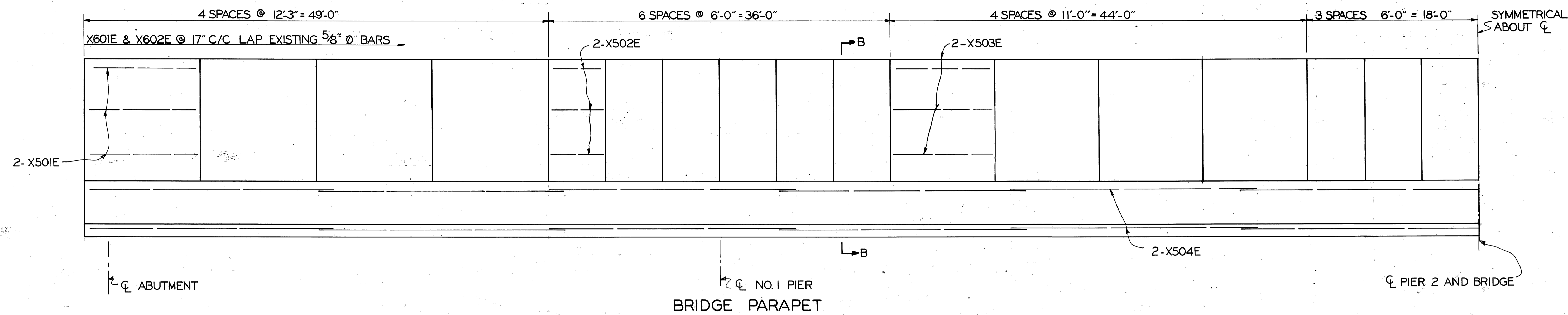


SECTION B-B
JOINT NORMAL THROUGH BARRIER

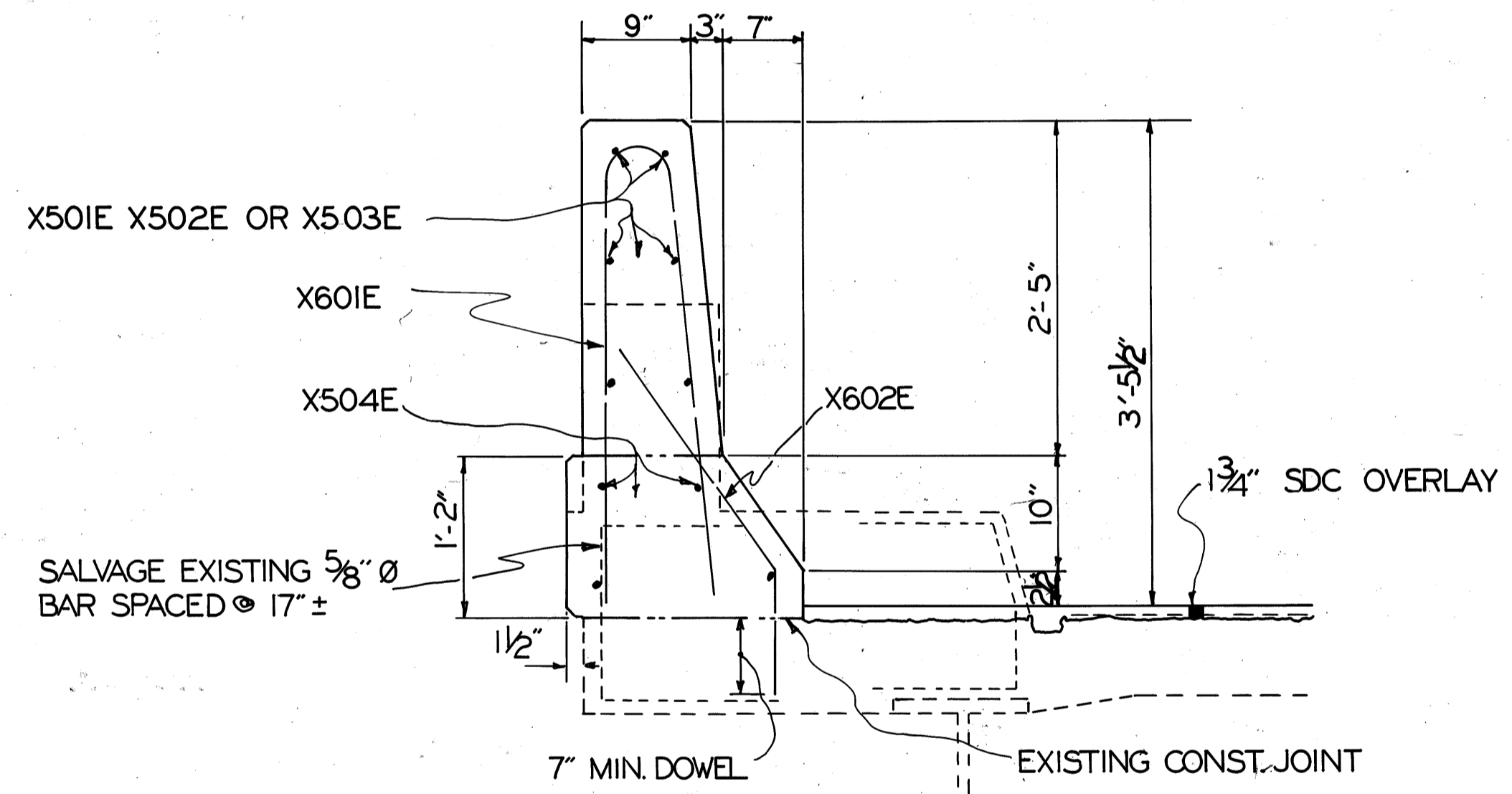


SECTION C-C
EXPANSION JOINT INTO BARRIER

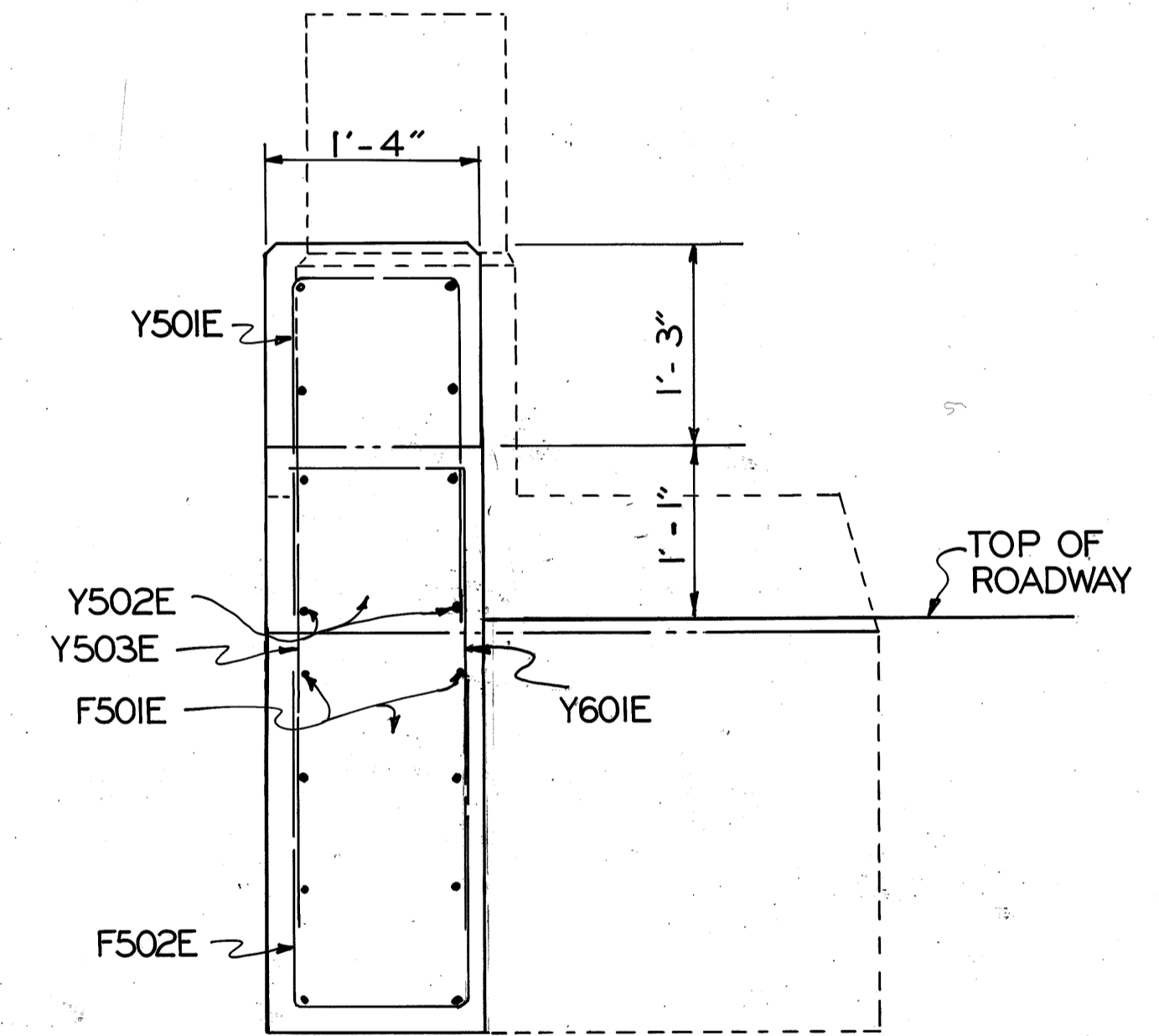
STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT THREE						
MODIFICATION B EXPANSION JOINT DETAILS FOR STRUCTURES:						
RIC -30 -1404 L&R						
DESIGNED	DRAWN	TRACED	REVIEWED	REVISOR	DATE	REVISED
HW	QES	QES	gac	JEC	10-9-84	



ABUTMENT PARAPET



SECTION B-B



SECTION A-A

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
202	1224	LIN. FT.	PORTIONS OF STRUCTURES REMOVED, PARAPET, AS PER PLAN
510	884	EACH	DOWEL HOLES
511	181	CU. YD.	CLASS S CONCRETE, PARAPET, AS PER PLAN
824	26304	LB.	EPOXY COATED REINFORCING STEEL

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PARAPET DETAILS

RIC-30-1404 L & R

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RW	DES	DES	QAC	JEC	10-9-84	

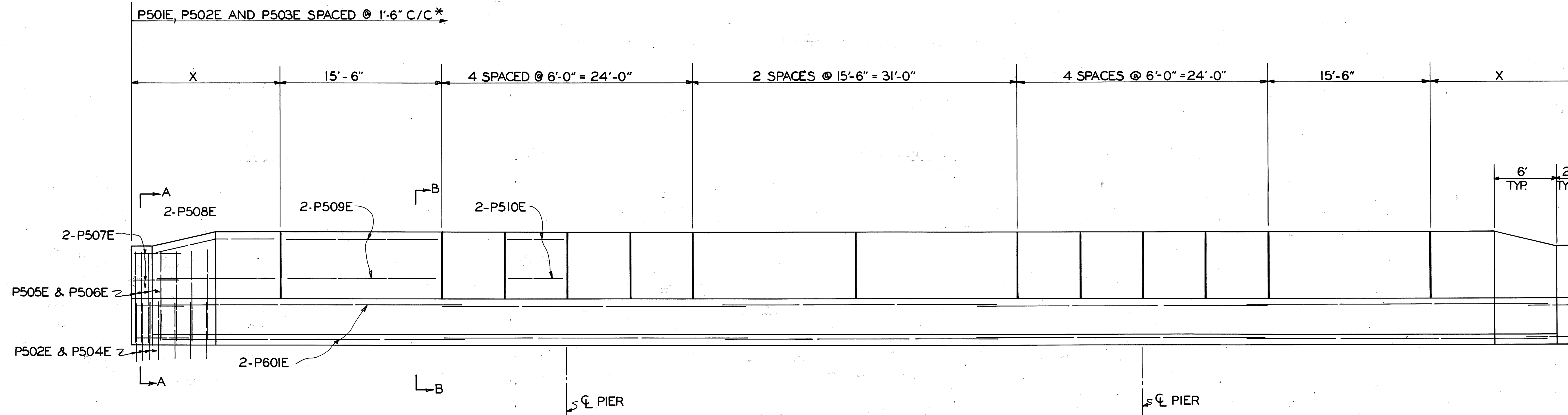
* NOTE: DO NOT INSTALL ANY P503E BARS WITHIN 2" OF A DEFLECTION JOINT.

CALC. BY *KW*
CHKD. BY *gac* 10-9-84

FHWA REGION	STATE	PROJECT
5	OHIO	

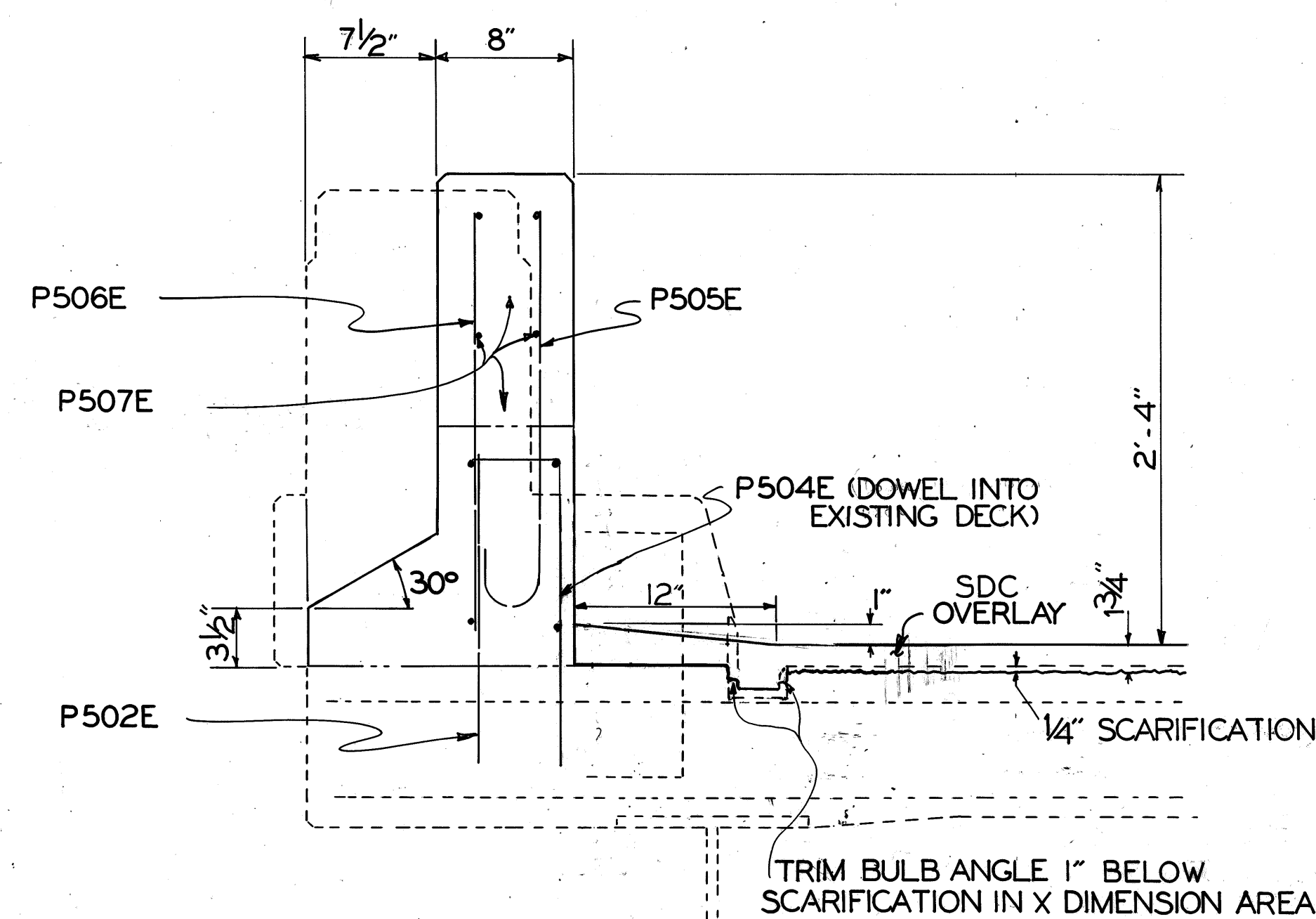
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RIC/ASD-30-1237/0000

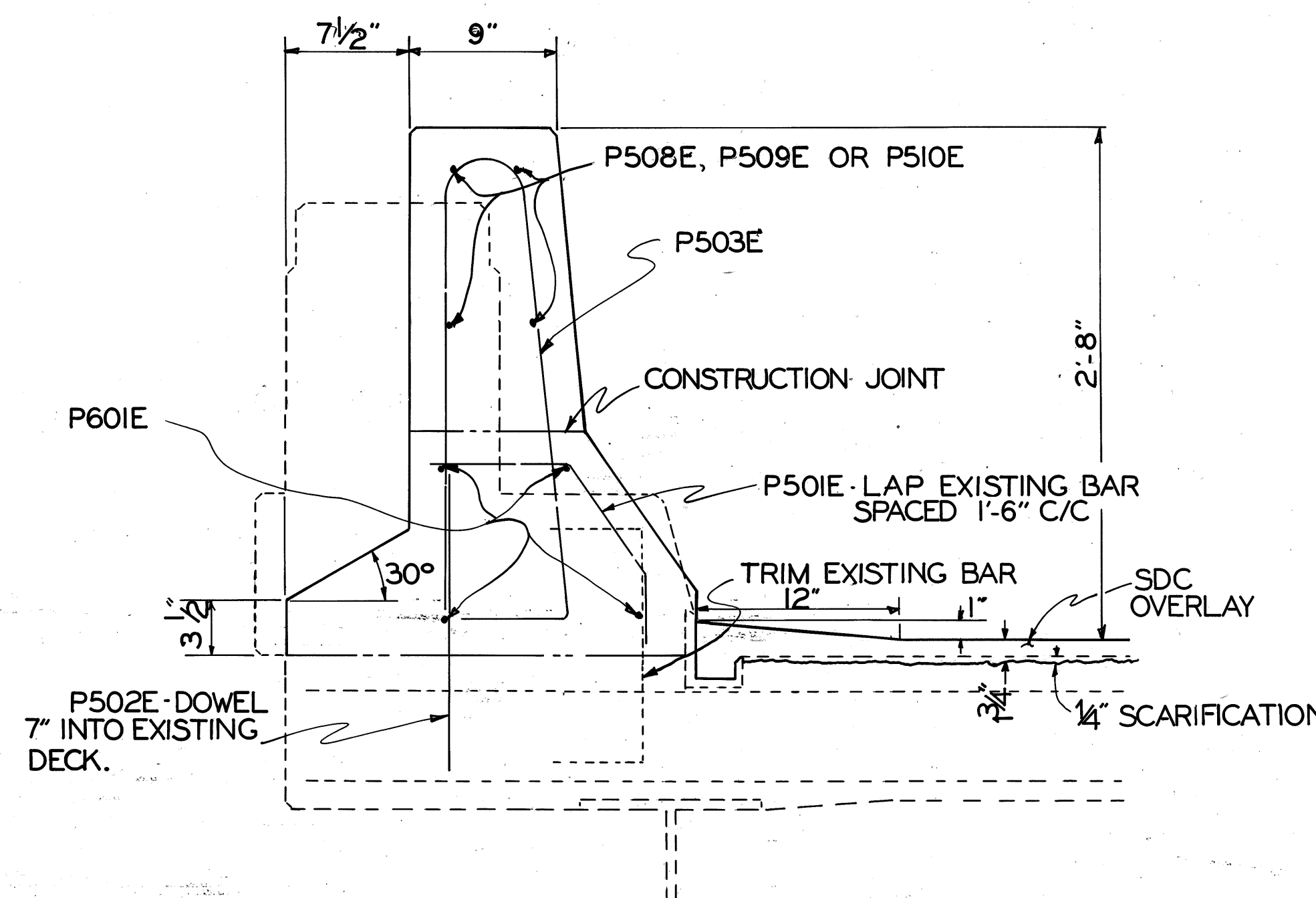


NOTE: HOLES FOR SPLICE BOLTS ATTACHING GUARDRAIL TO THE TERMINAL CONNECTOR AT ENDS OF PARAPETS SHALL BE SLOTTED 29/32" x 3" AND ALL BOLTS SHALL BE TIGHTENED AS SPECIFIED FOR EXPANSION JOINTS AS PER CMS 606.05 TO ALLOW FOR BRIDGE MOVEMENT.

DEFLECTION JOINT SPACING



SECTION A - A



SECTION B - B

DIMENSION X

RIC-30-1747L	LT. PARAPET	14'-9 1/4"
	RT. PARAPET	14'-4 1/4"
RIC-30-1747R	LT. PARAPET	14'-4 1/4"
	RT. PARAPET	13'-9 3/8"

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
202	555	LIN. FT.	PORTIONS OF STRUCTURES REMOVED, PARAPET, AS PER PLAN
510	436	EACH	DOWEL HOLES
511	59	CU. YD.	CLASS 'S' CONCRETE, PARAPET, AS PER PLAN
824	9350	LB.	EPOXY COATED REINFORCING STEEL

NOTE: SEE SHEET NO. 90 FOR REINFORCING STEEL LIST.

NOTE: FOR ANY PARAPET DIMENSIONS NOT SHOWN SEE STANDARD DRAWING BR-1, 5-29-79.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PARAPET DETAILS

RIC - 30 - 1747 L & R

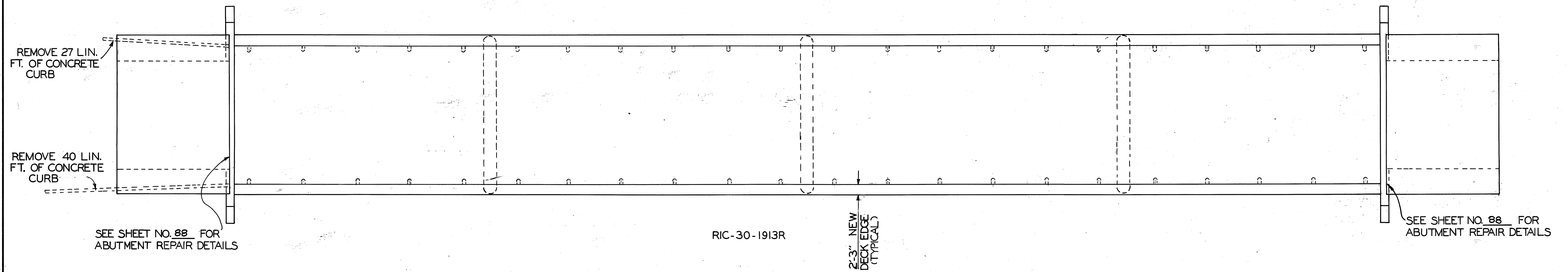
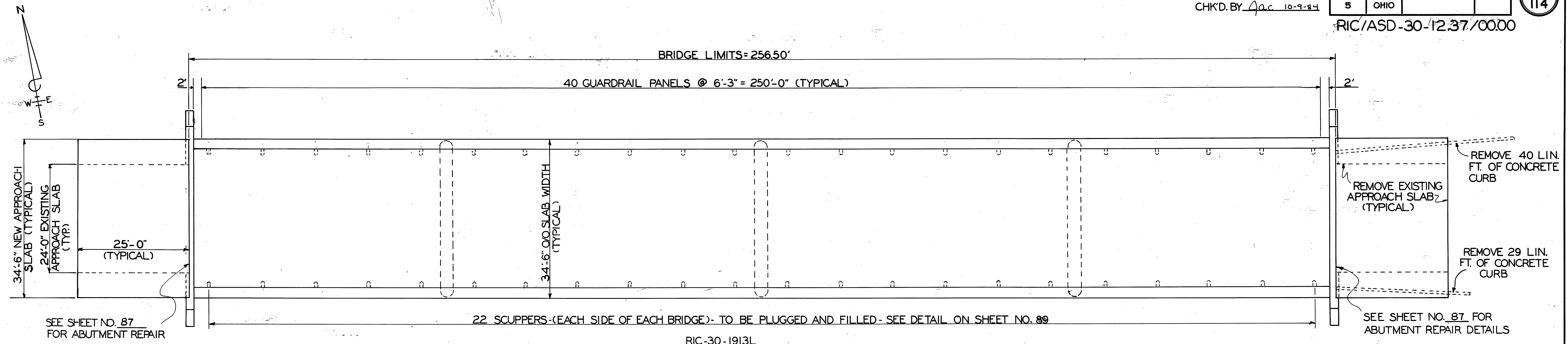
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
<i>KW</i>	<i>DES</i>	<i>DES</i>	<i>gac</i>	<i>gac</i>	10-9-84	

CALC. BY *KW*
 CHK'D. BY *Qac* 10-9-84

FHWA REGION	STATE	PROJECT
5	OHIO	

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RIC/ASD-30-12.37/0000



ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION	RIC-30-1913L	RIC-30-1913R
202	136	LIN. FT.	CURB REMOVED	69	67
202	268	SQ. YD.	PAVEMENT REMOVED	134	134
202	1016	LIN. FT.	PORTIONS OF STRUCTURES REMOVED, DECK EDGE, AS PER PLAN	508	508
203	50	CU. YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONST.	25	25
510	88	EACH	DOWEL HOLES	88	—
511	47	CU. YD.	CLASS S CONCRETE, BACKWALL, AS PER PLAN	9	38
511	124	CU. YD.	CLASS S CONCRETE, DECK EDGE, AS PER PLAN	62	62
517	1050.0	LIN. FT.	RAILING (DEEP BEAM WITH STEEL TUBULAR BACKUP, TYPE 2 POSTS AND BOLTS)	525.0	525.0
518	35	CU. YD.	POROUS BACKFILL AS PER PLAN	17.5	17.5
611	384	SQ. YD.	REINFORCED CONCRETE APPROACH SLABS, T=15"	192	192
824	19704	LB.	EPOXY COATED REINFORCING STEEL	9218	10486
SPECIAL	20	EACH	TRIM BEAMS	10	10

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
 DISTRICT THREE

GENERAL PLAN
 AND
 ESTIMATED QUANTITIES

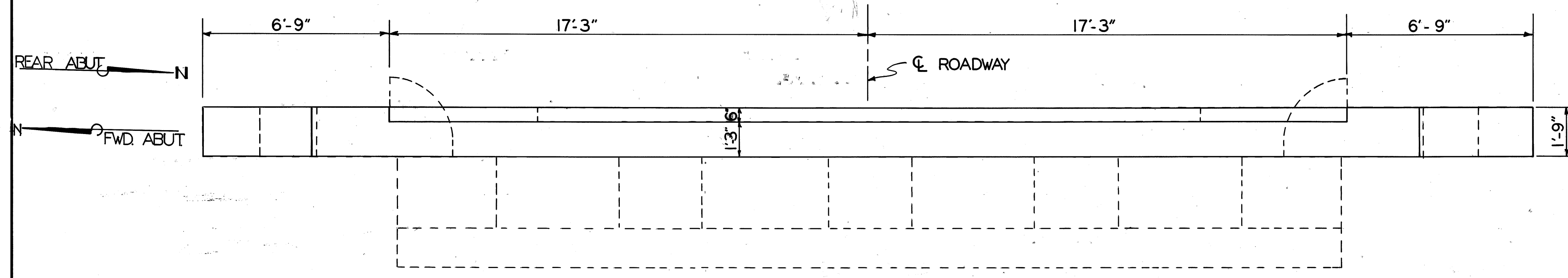
RIC-30-1913 L&R

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
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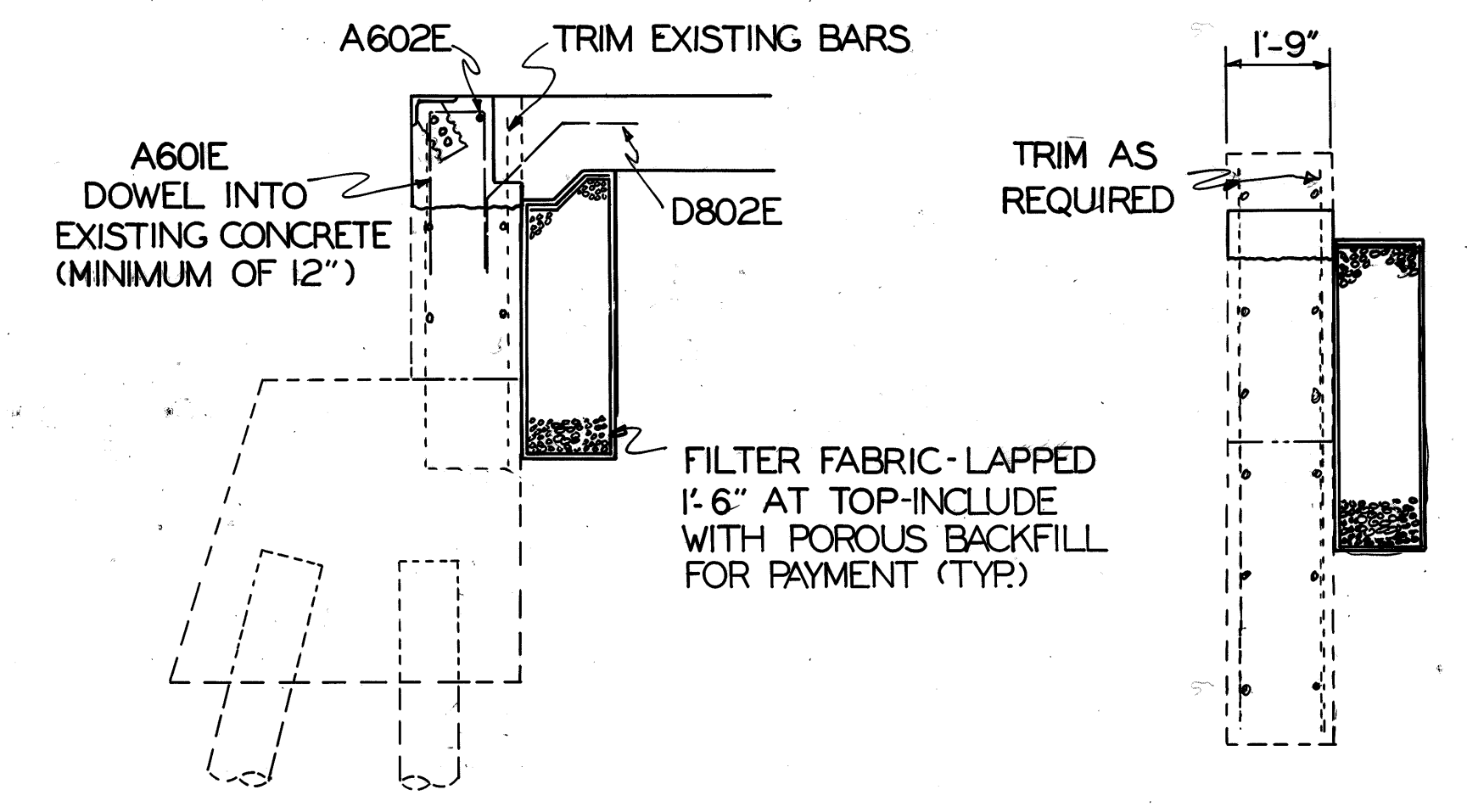
FHWA REGION	STATE	PROJECT
5	OHIO	

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RIC/ASD-30-1237/0000



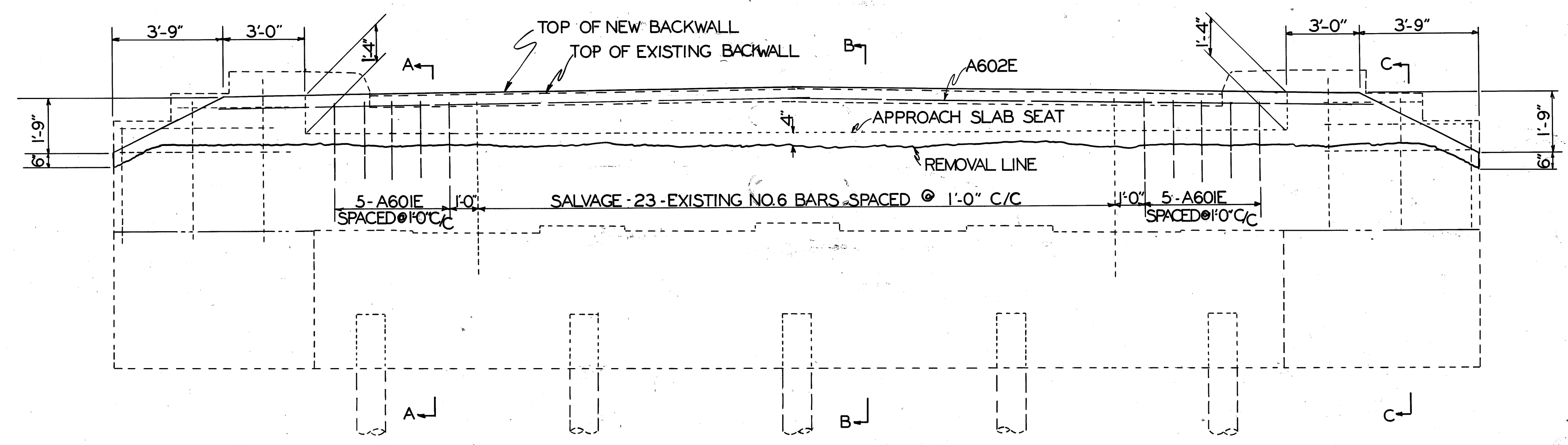
PLAN



SECTION A-A

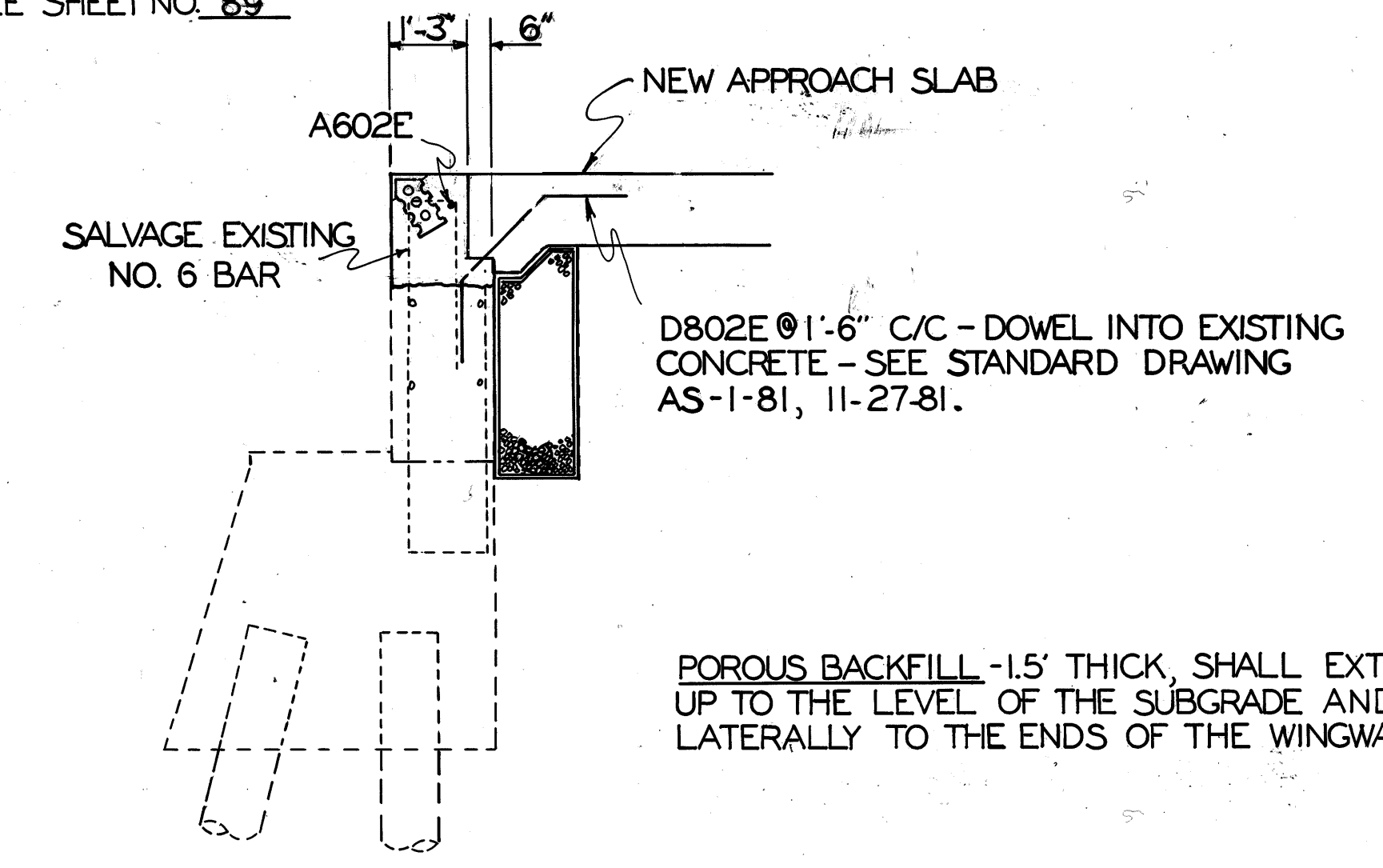
SECTION C-C

NOTE: SALVAGE ALL EXISTING REINFORCING STEEL IN WINGWALLS. TRIM AS REQUIRED.



ELEVATION

NOTE: FOR EXPANSION JOINT DETAILS SEE SHEET NO. 89



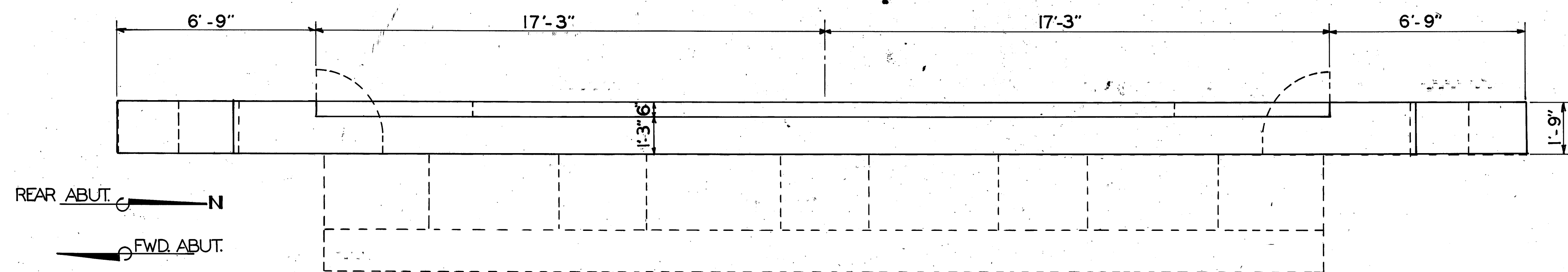
SECTION B-B

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT THREE						
ABUTMENT REPAIR DETAILS RIC-30-1913L						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
KW	DES	DES	pac	JEC	10-9-84	

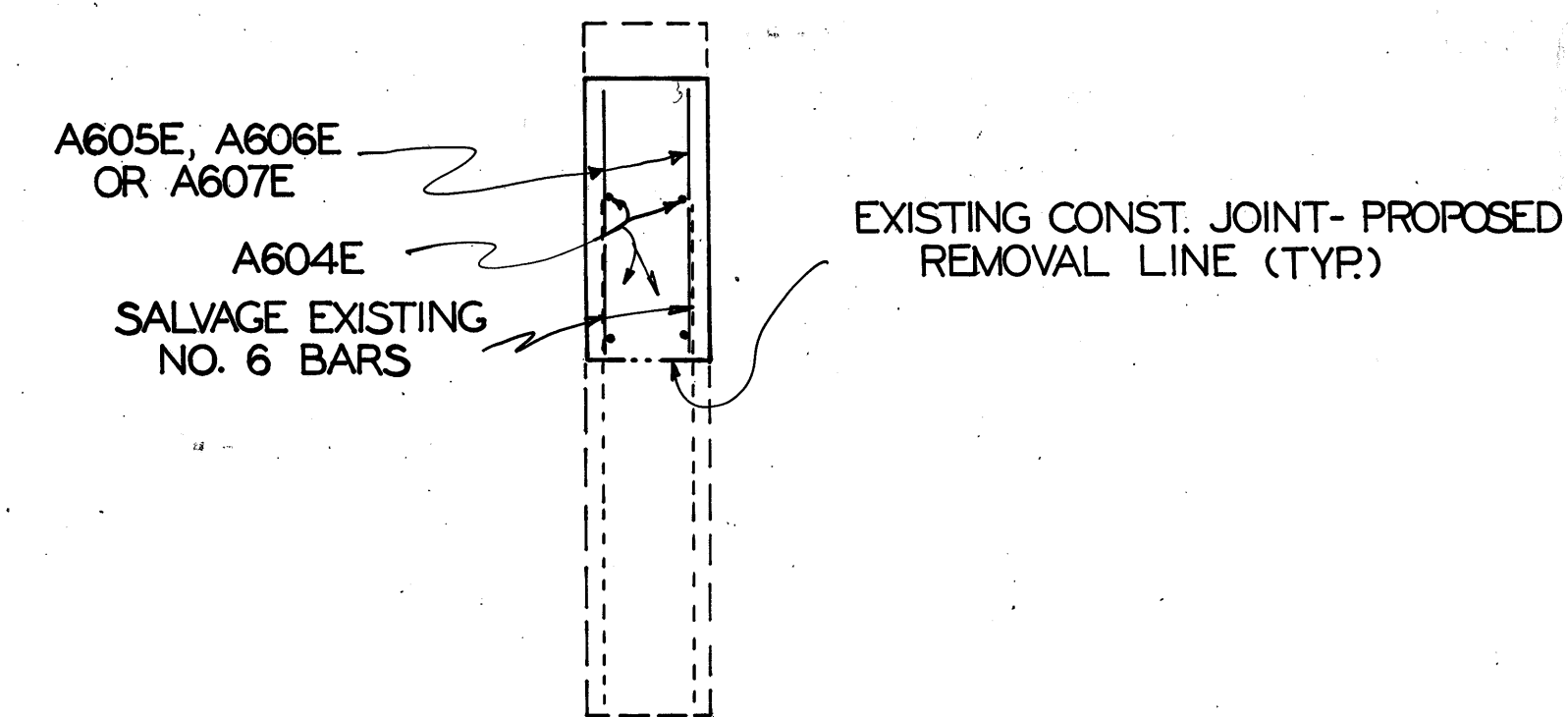
FHWA REGION	STATE	PROJECT	
5	OHIO		

88
114

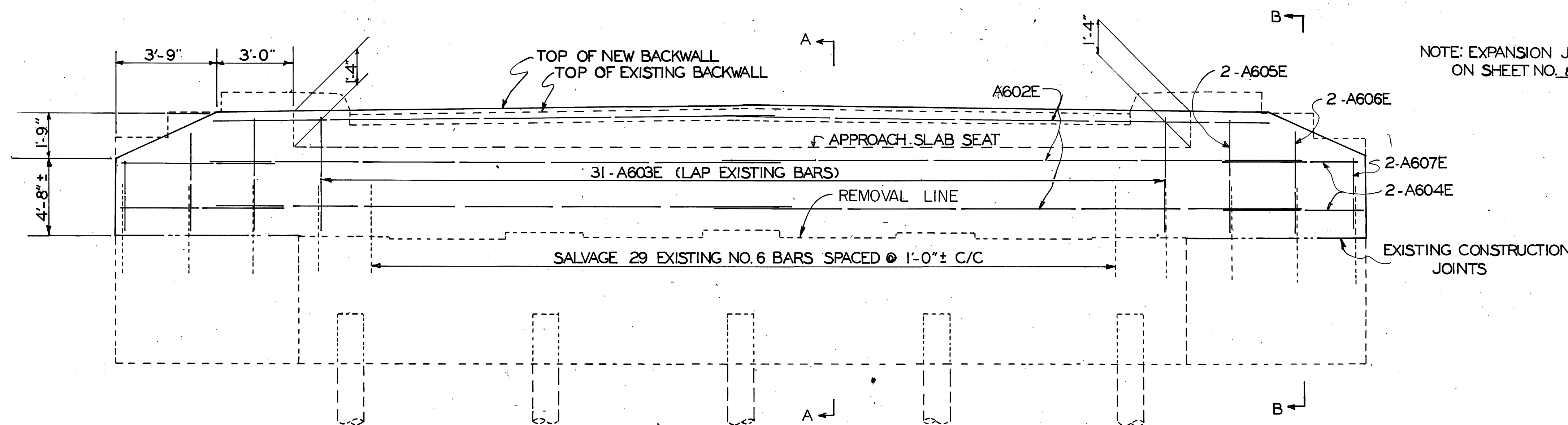
RIC/ASD-30+1237/0000



PLAN

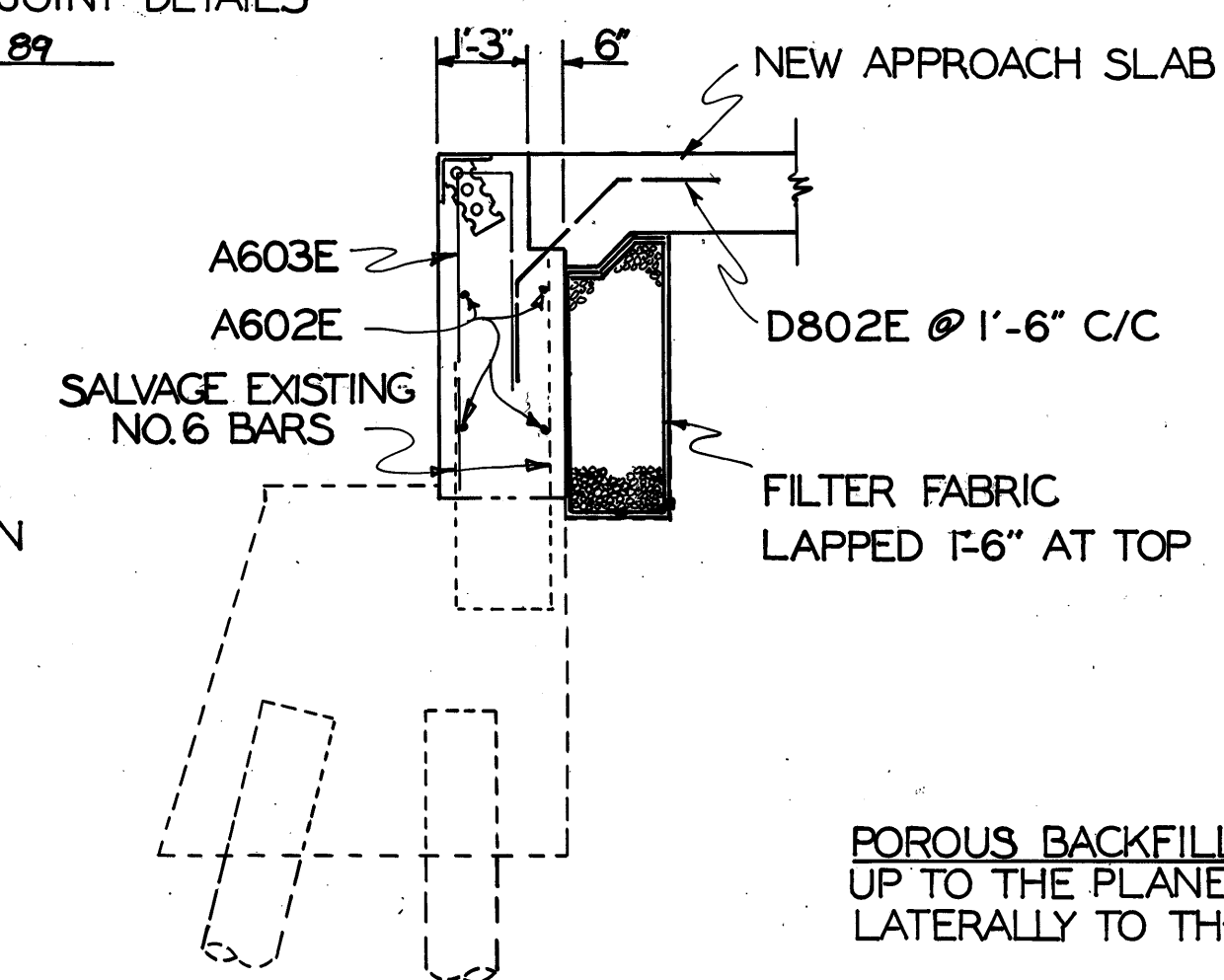


SECTION B-B



ELEVATION

NOTE: EXPANSION JOINT DETAILS ON SHEET NO. 89



SECTION A-A

POROUS BACKFILL - 1.5' THICK, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE AND LATERALLY TO THE ENDS OF THE WINGWALLS.

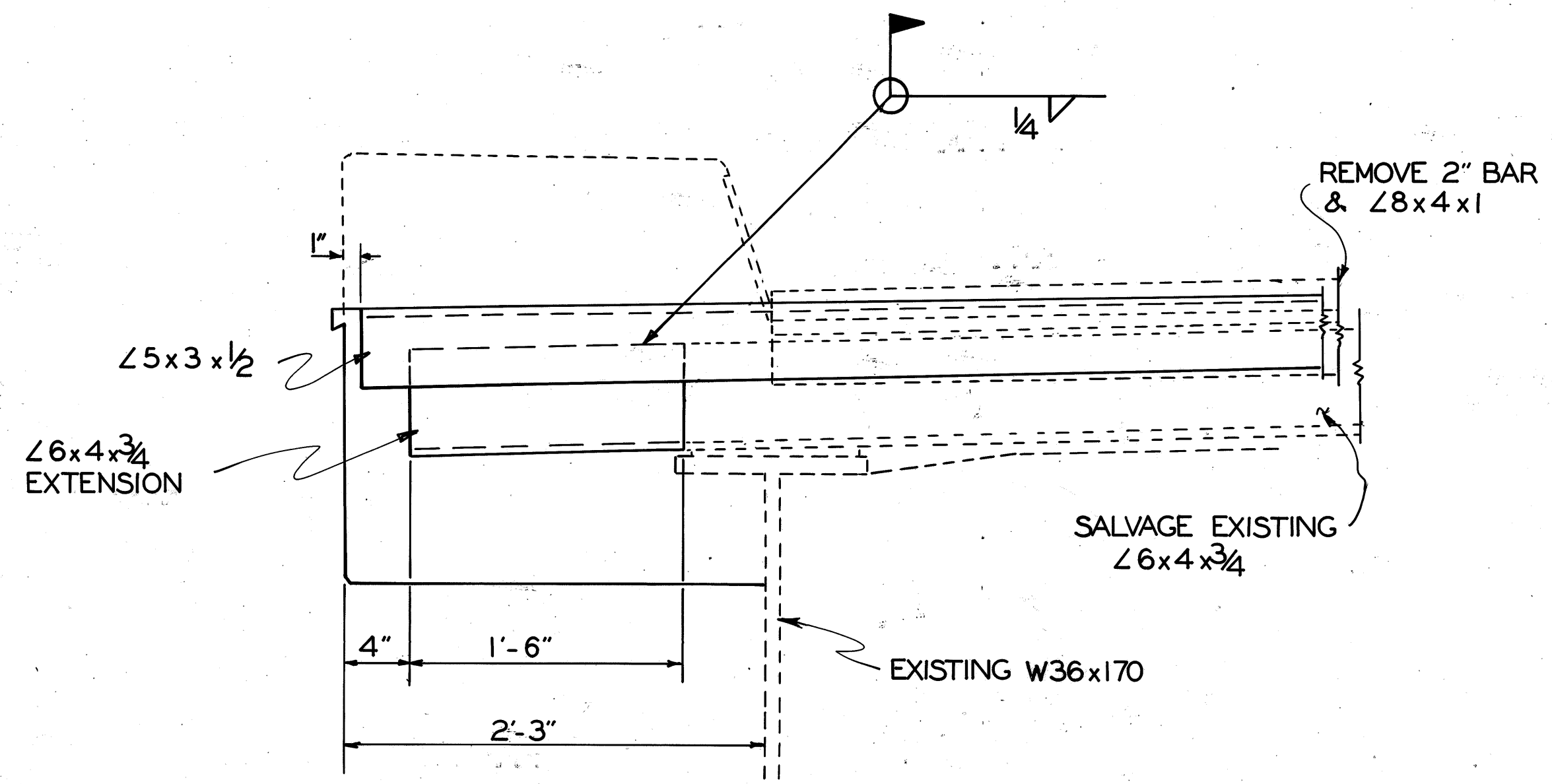
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

ABUTMENT REPAIRS
DETAILS

RIC - 30 - 1913R

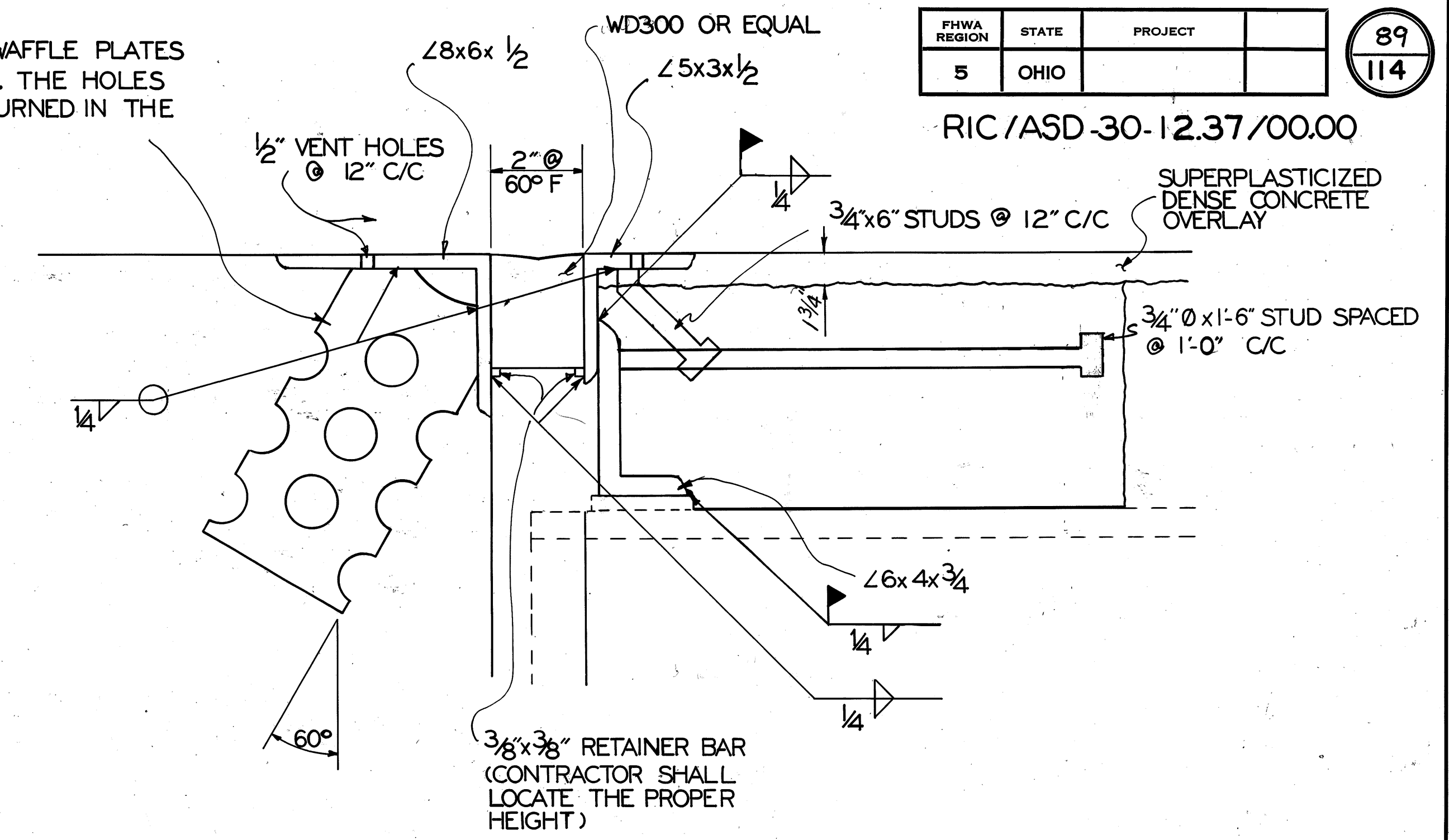
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
KW	BES	BES	QAC	SEC	10-9-84	

RIC / ASD-30-12.37/00.00

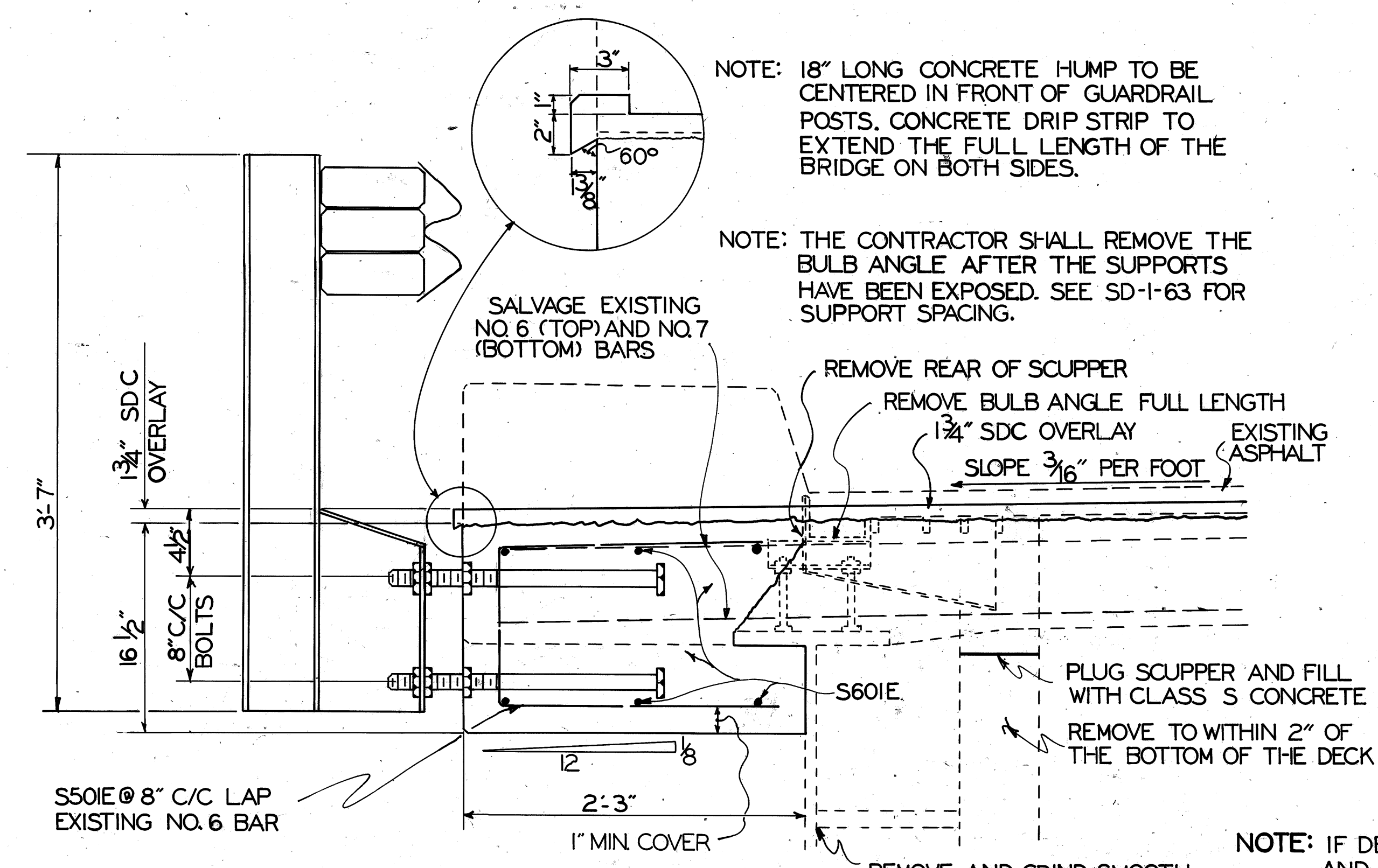


DECK EDGE EXPANSION JOINT DETAILS

6x 1/2 x 12" WAFFLE PLATES @ 15" C/C. THE HOLES MAY BE BURNED IN THE PLATE.

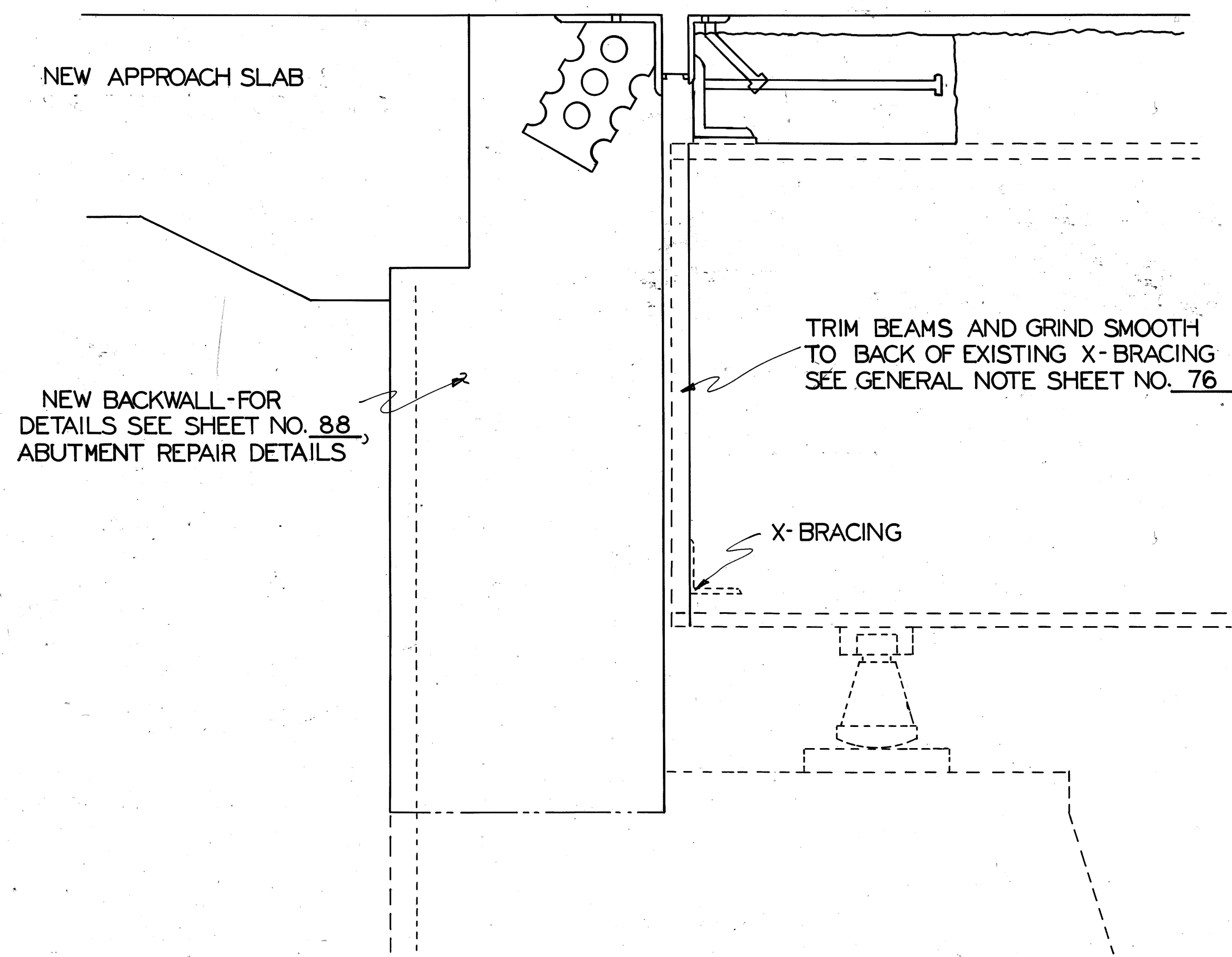


EXPANSION JOINT DETAILS



PROPOSED DECK EDGE DETAILS

NOTE: IF DECK IS PLANNED BEFORE THE REMOVAL AND REPLACEMENT OF THE DECK EDGE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY CONTAMINATED CONCRETE DECK SURFACE AND THE ADDITIONAL VARIABLE CONCRETE THICKNESS REQUIRED.

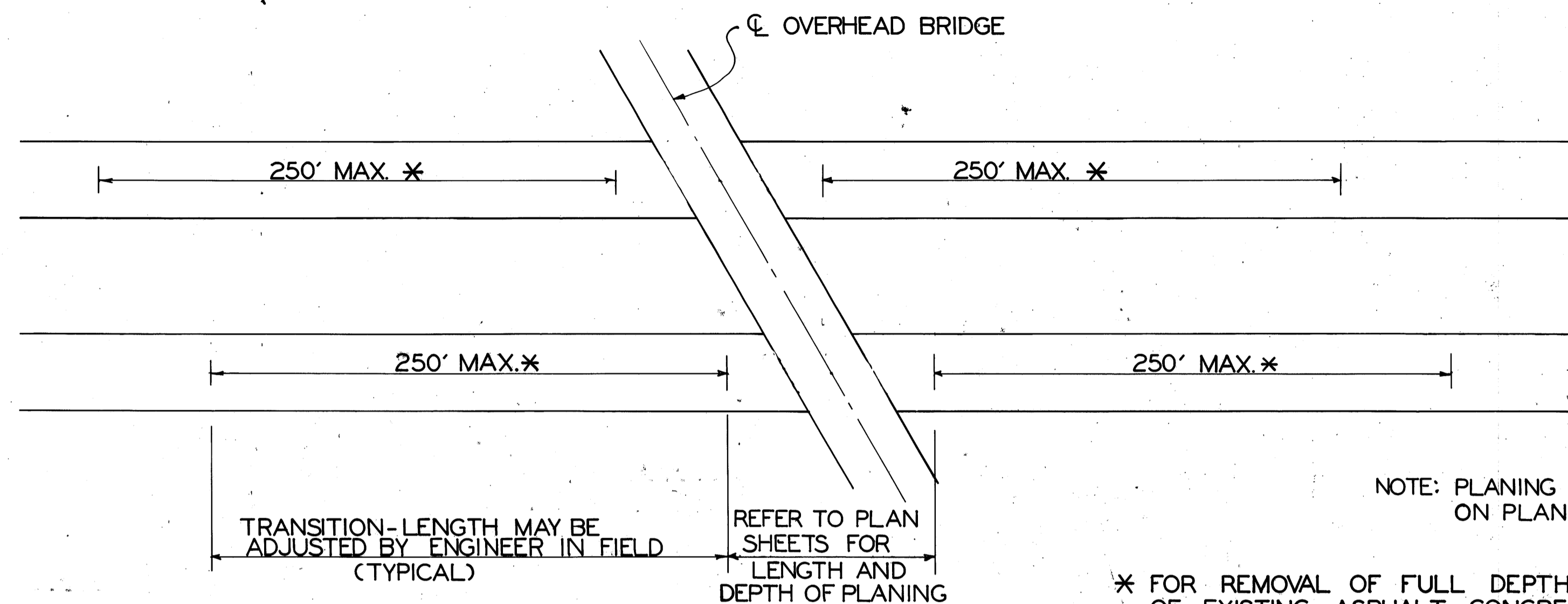


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

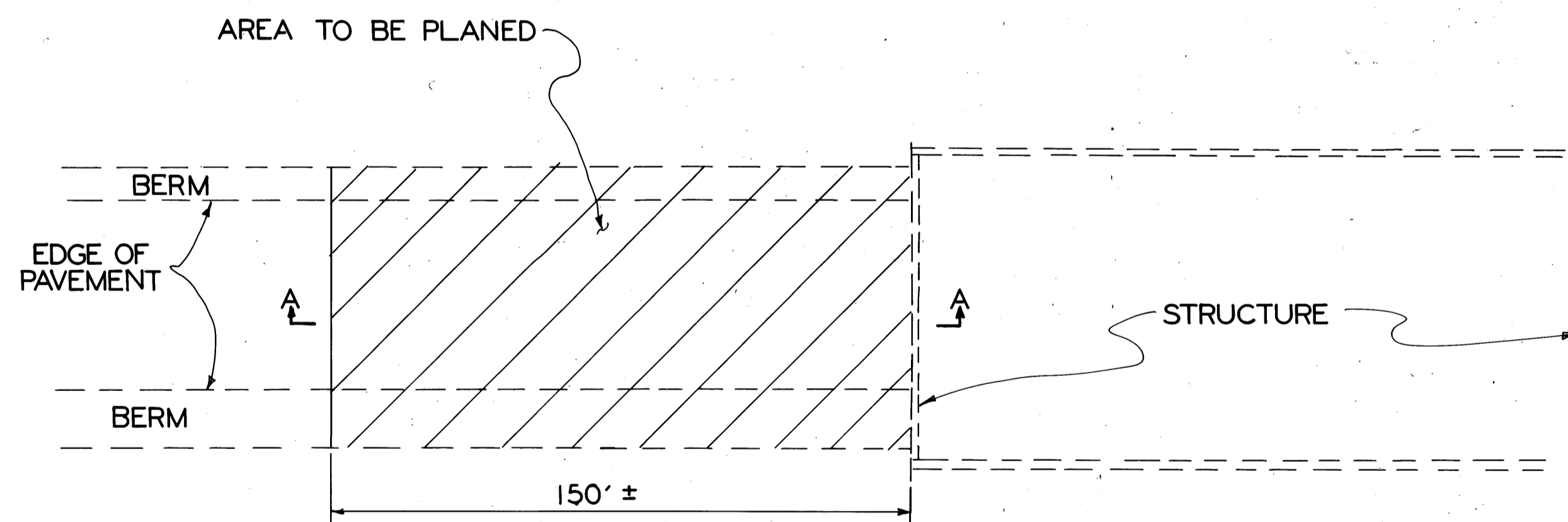
DECK EDGE AND
EXPANSION JOINT DETAILS

RIC -30- 1913R & L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RW	DES	DES	QAC	SEC	10-9-89	

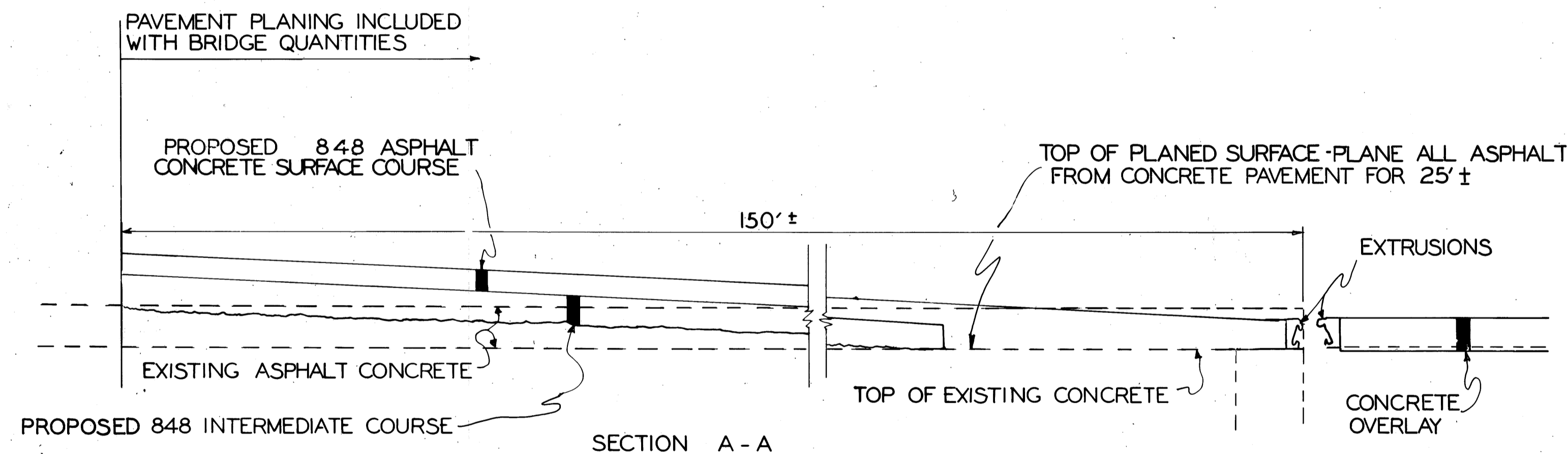


PLANING UNDER OVERHEAD BRIDGES

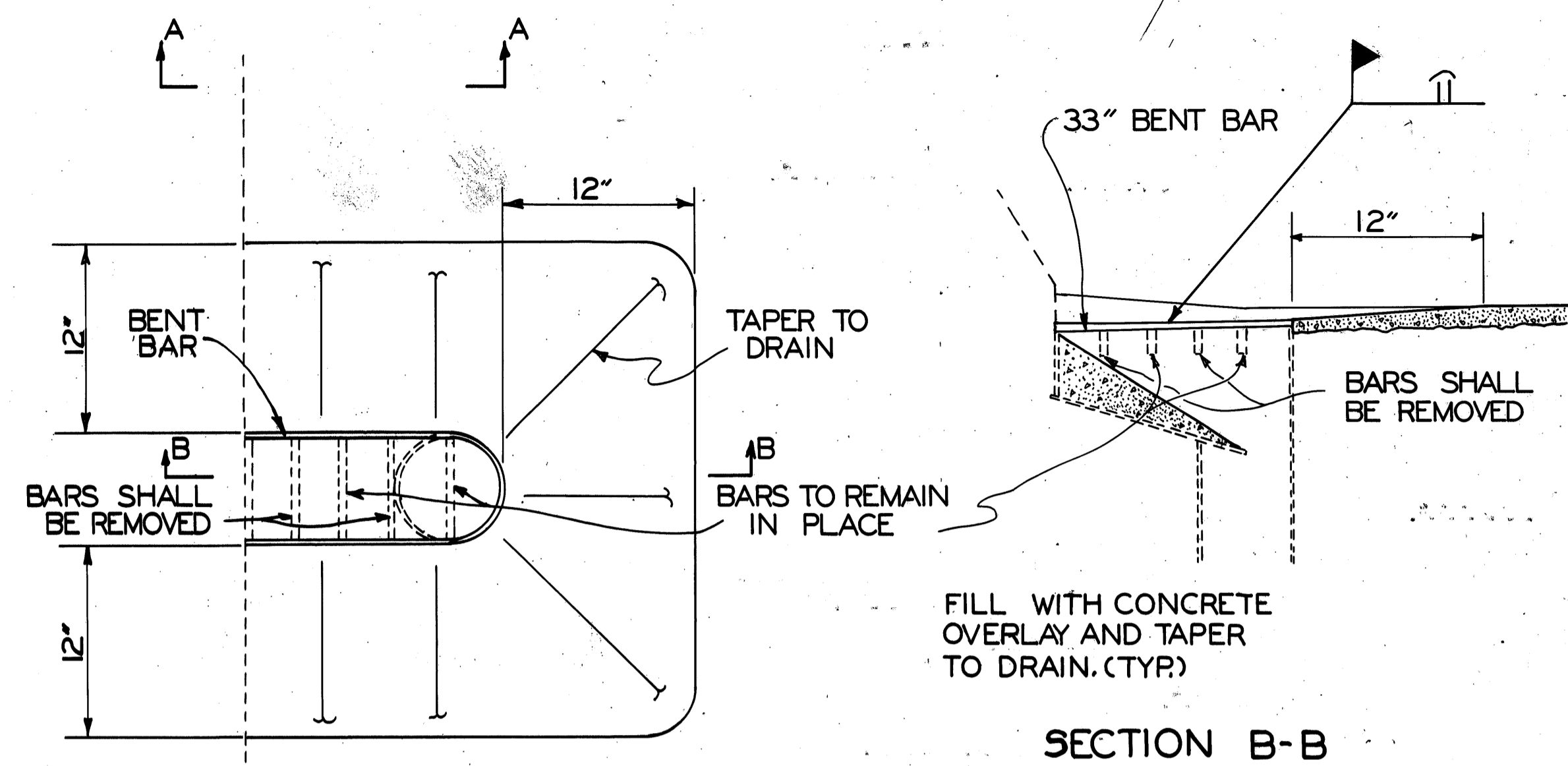


DETAILS FOR PLANING ON BRIDGE APPROACHES

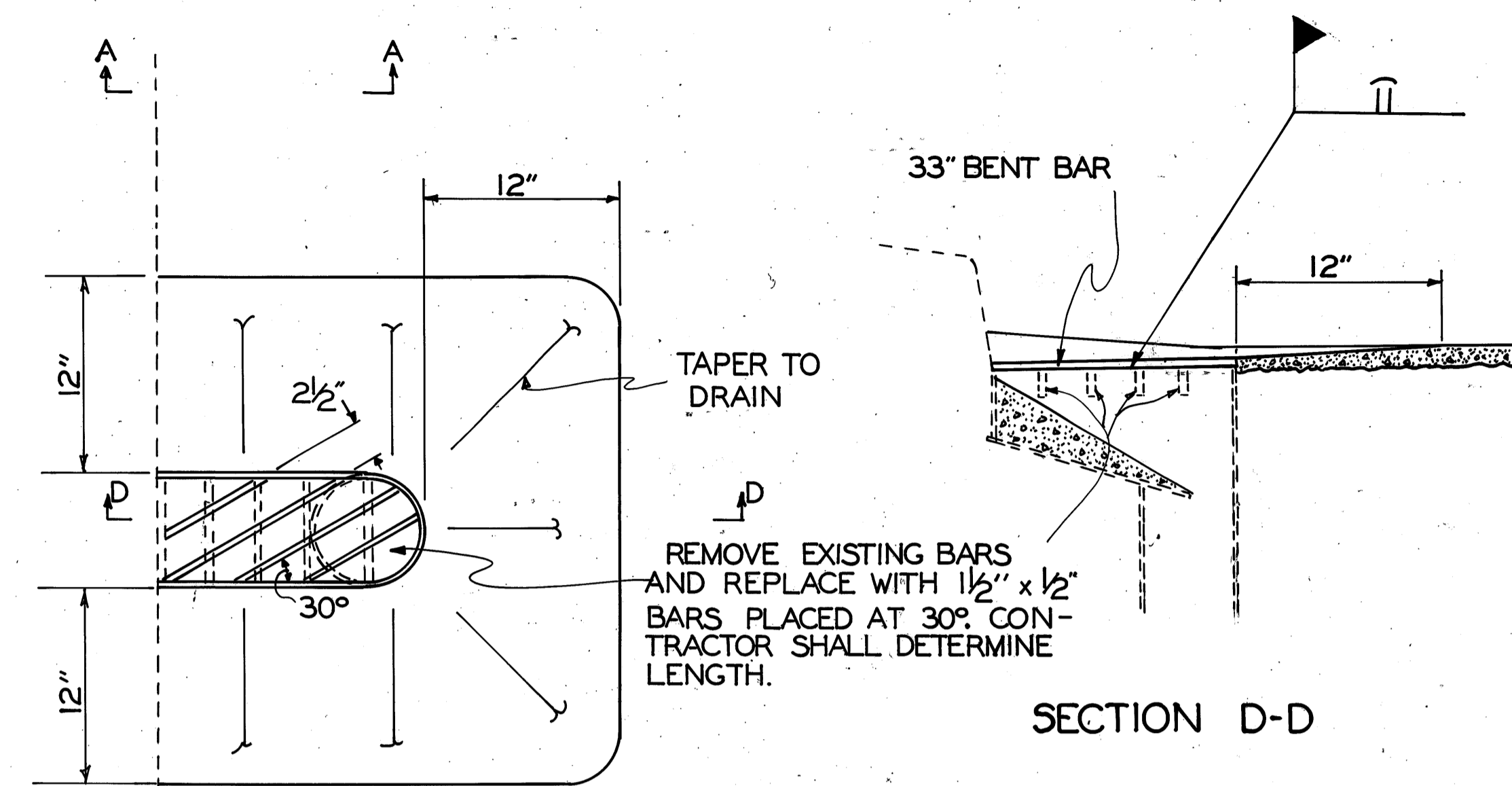
RIC-30-1404 L & R
 RIC-30-1747 L & R
 RIC-30-1913 L & R



STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT THREE						
PLANING DETAILS FOR UNDER OVERHEAD BRIDGES AND ON BRIDGE APPROACHES						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
KW	DES	DES	QAC	REC	10-9-88	



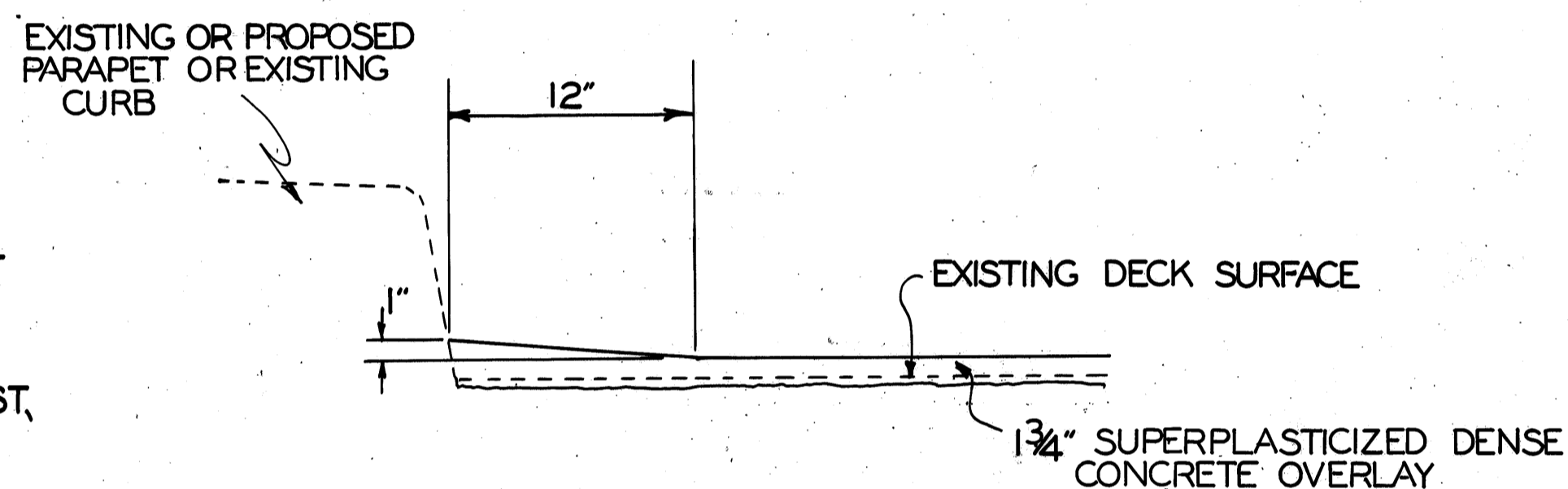
RIC-30-1280



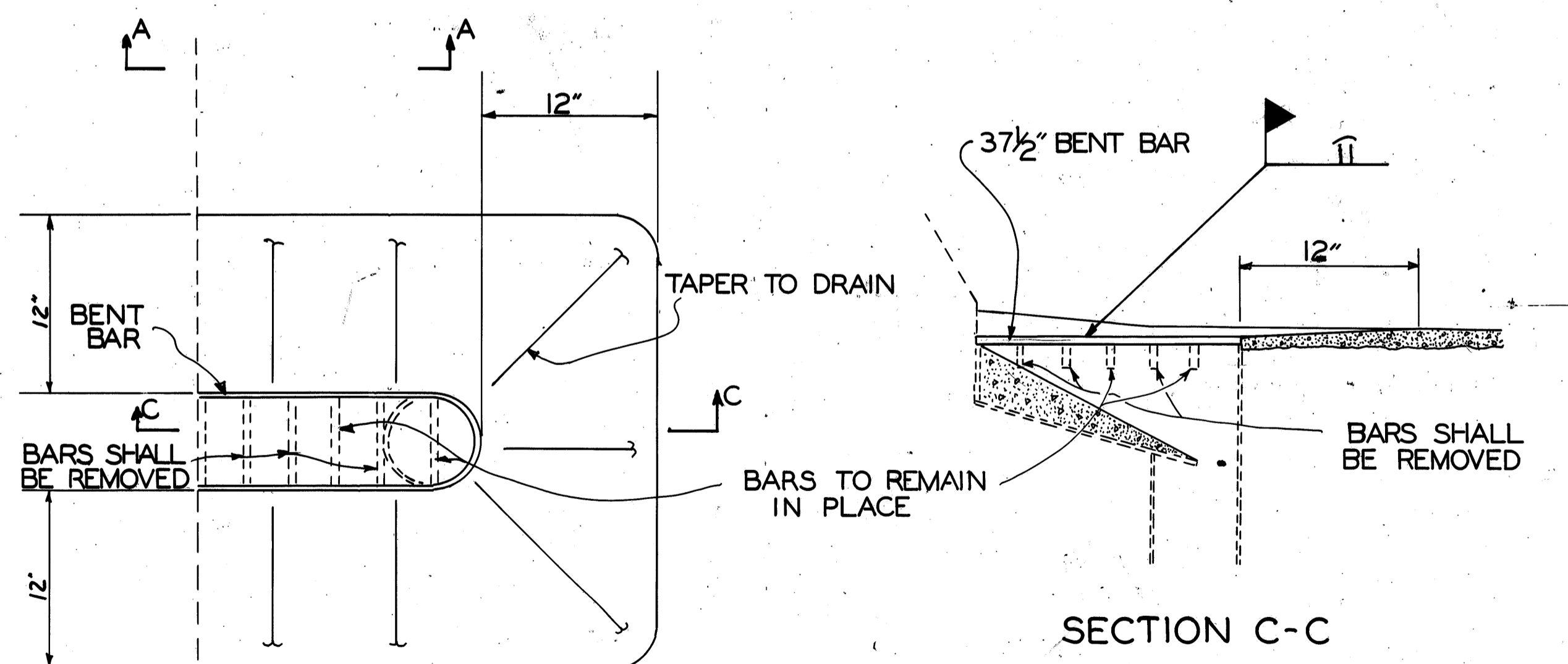
RIC-30-1524

NOTE: A BAR SHALL BE BENT TO CONFORM WITH SCUPPER EDGE AND WELDED IN PLACE AFTER EXISTING SURFACE HAS BEEN CLEANED TO THE ENGINEER'S SATISFACTION. A 1/2" x 3/8" (SEE DRAWINGS FOR LENGTH) BAR SHALL BE USED. (TYP)

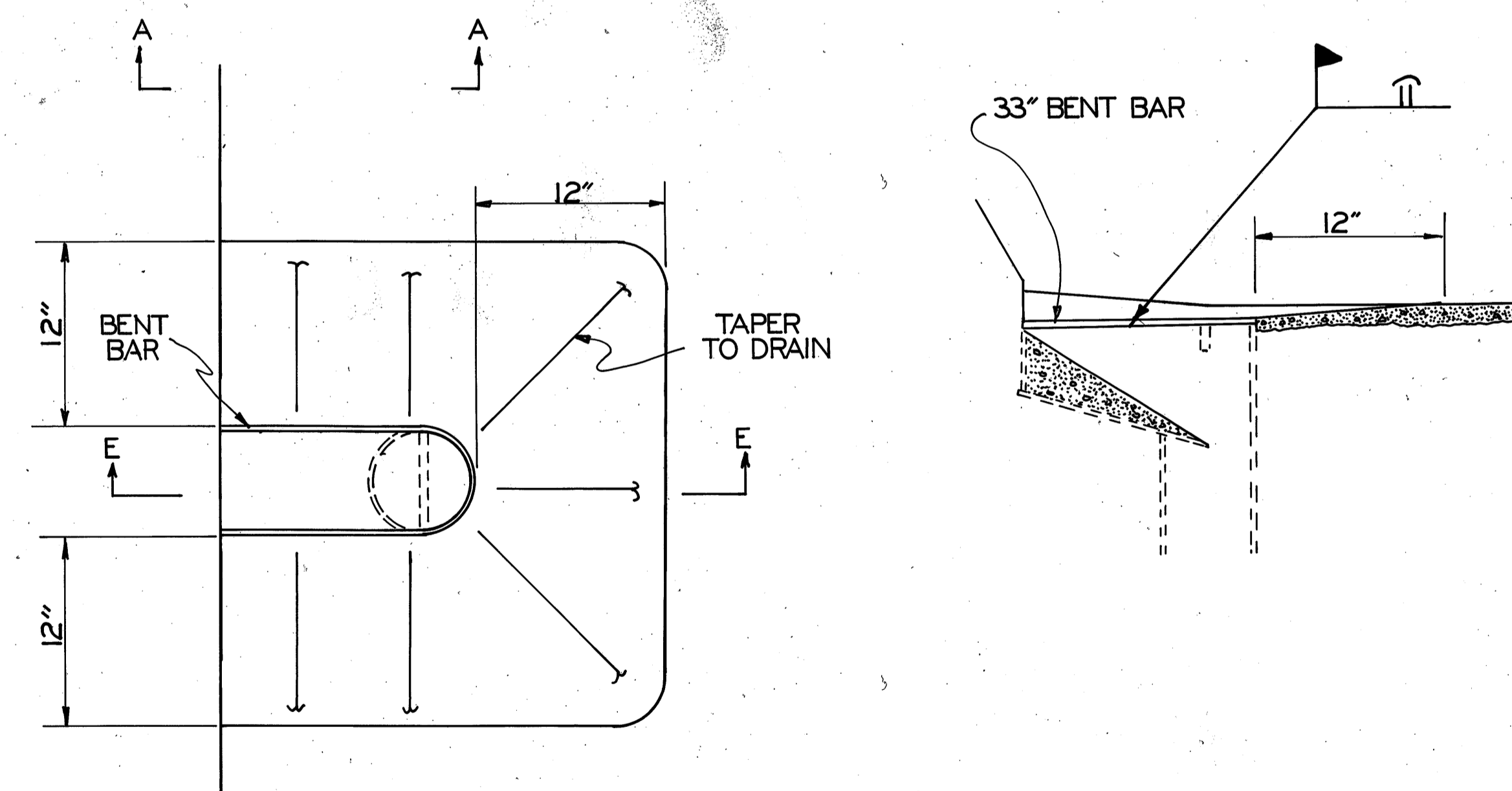
NOTE: CONTRACTOR SHALL CLEAN ALL SURFACES, WHICH NEW CONCRETE IS TO BE PLACED AGAINST, TO THE ENGINEER'S SATISFACTION. (TYP)



SECTION A-A



RIC-30-1384 & 1438



RIC-30-1747 L & R

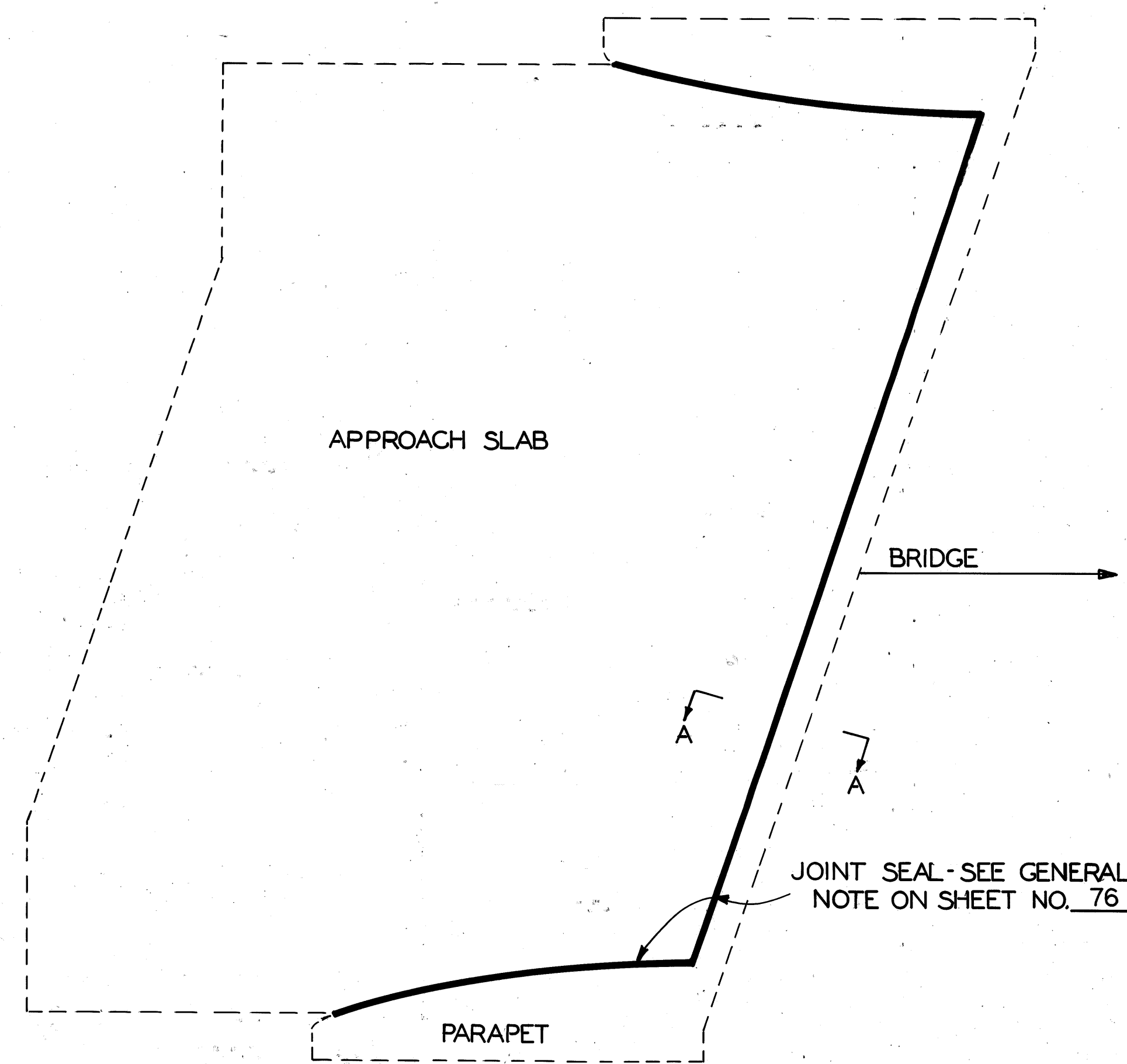
SCUPPER EXTENSION AND BAR REMOVAL DETAILS

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

SCUPPER EXTENSION AND
BAR REMOVAL DETAILS

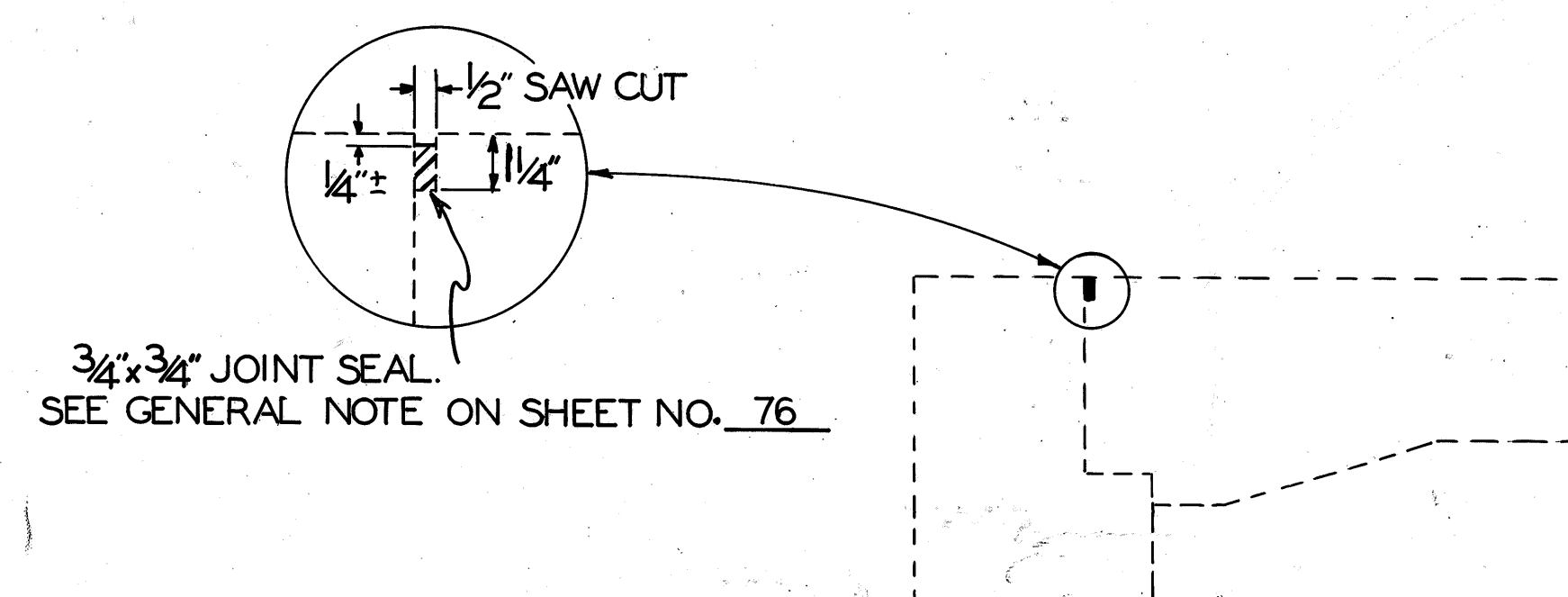
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K/w	DES	DES	gac	hec	10-8-84	

NOTE: PIER SEALING TO BE DONE AFTER PIER ENCASEMENT WORK IS COMPLETED. SEE SHEET NO. 94 FOR PIER ENCASEMENT DETAILS.

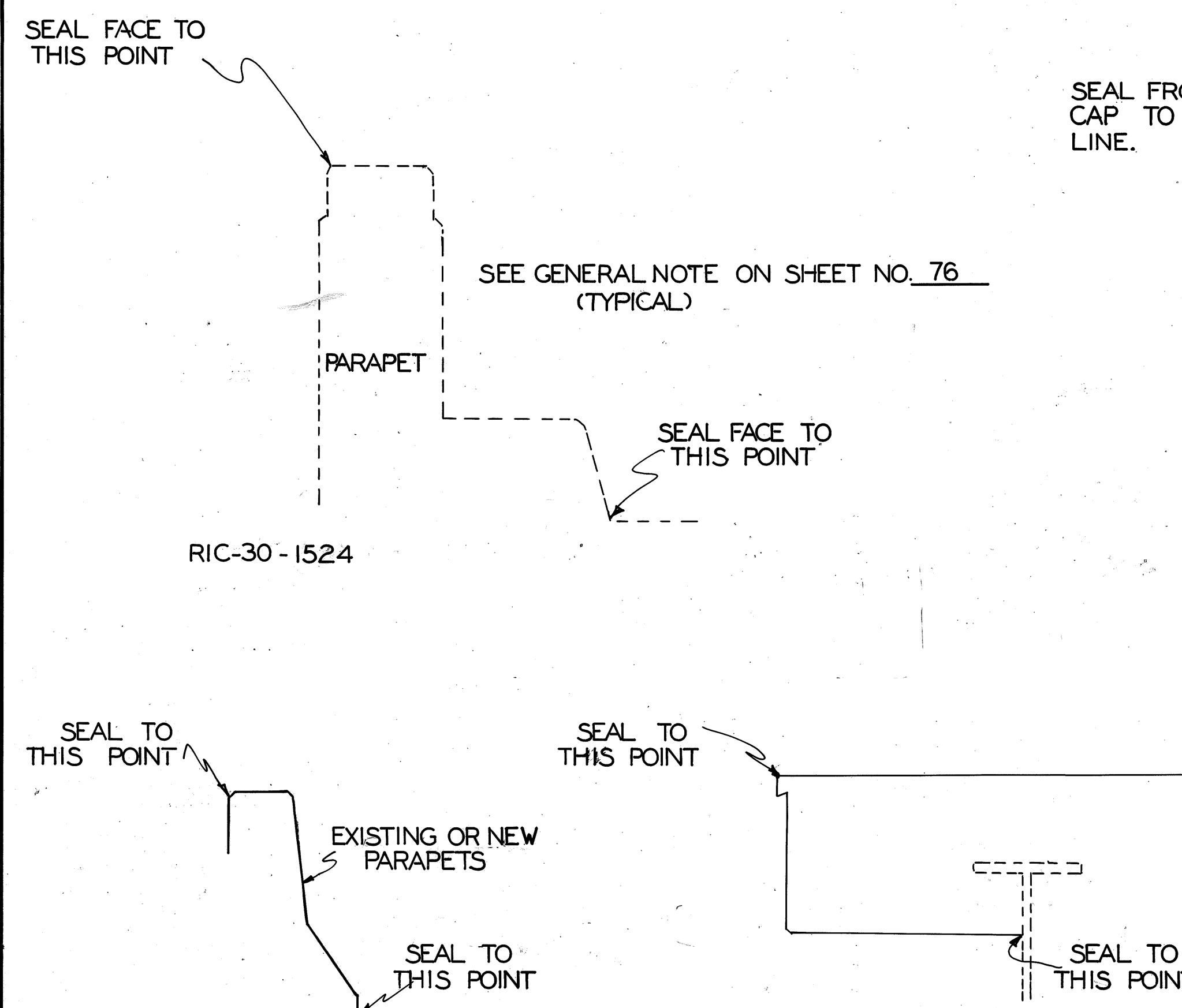


APPROACH SLAB JOINT SEAL DETAILS

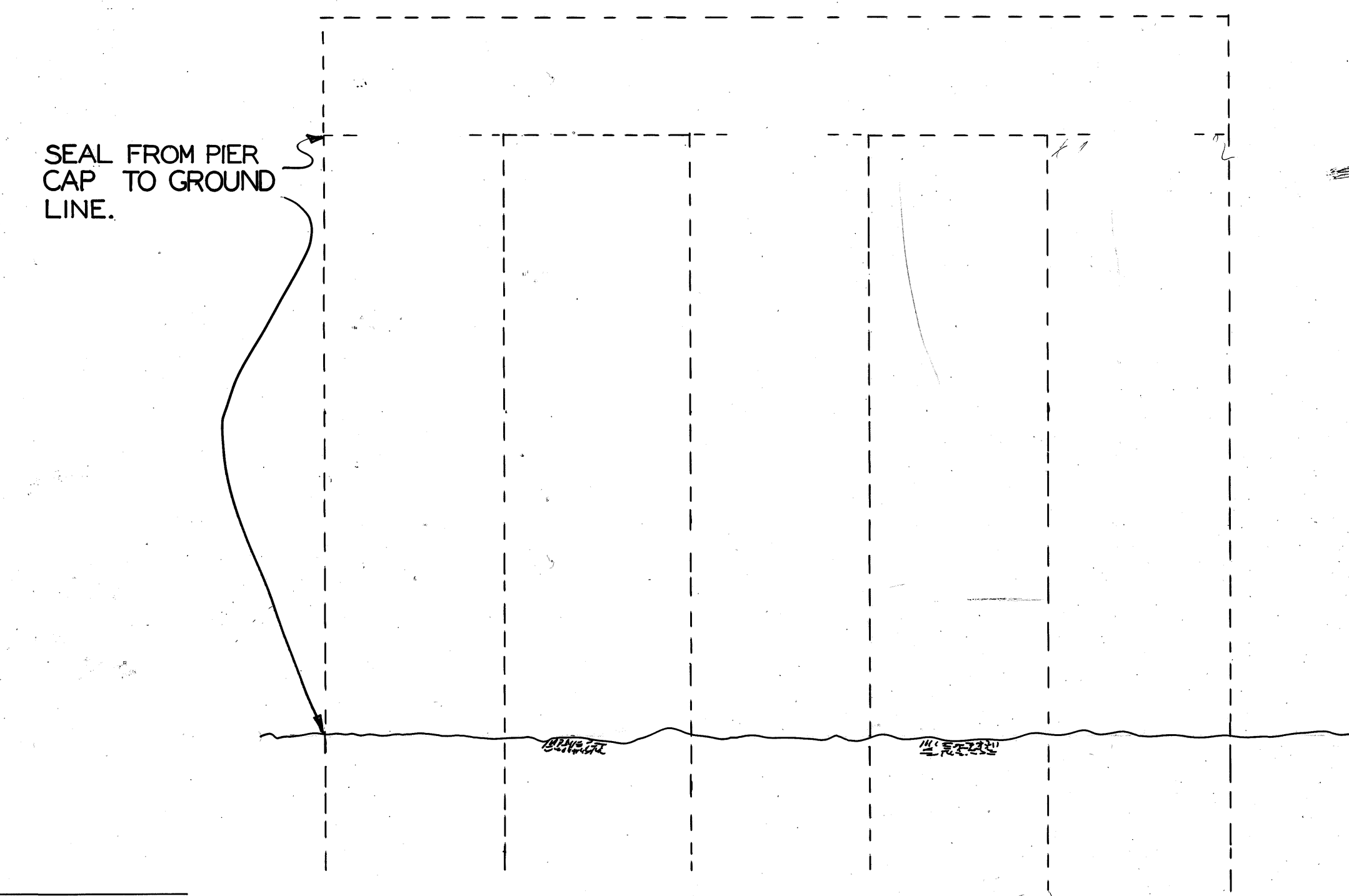
RIC-30-1280; 1384; 1404 L&R; 1438; 1524; 1747 L&R; 1913 L&R



SECTION A-A

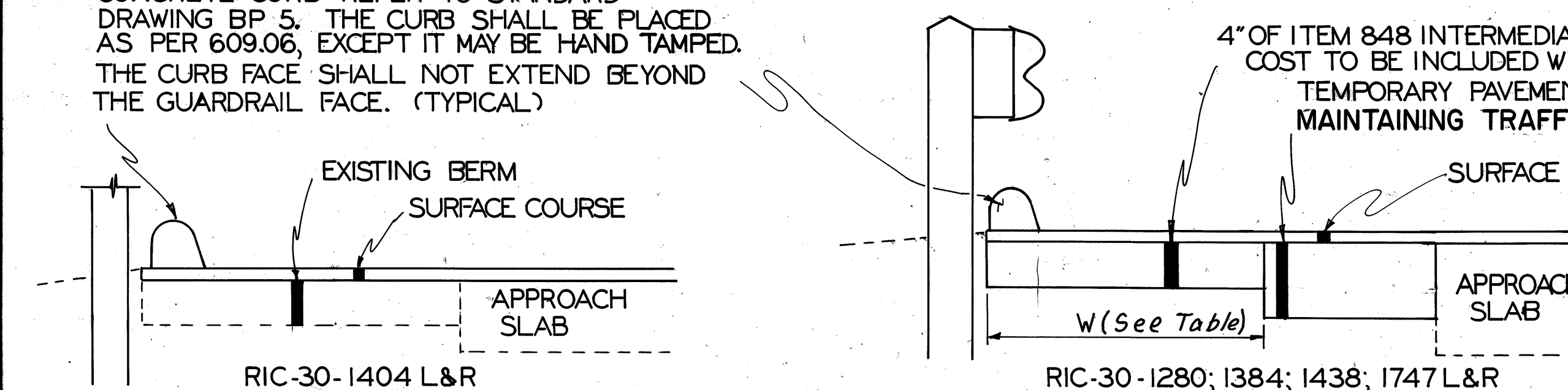


DETAILS FOR SEALING CONCRETE SURFACES



RIC-30-1280; 1384; 1404 L&R; 1438; 1524; 1638; 1714; 1718; 1747 L&R

15 LINEAL FEET OF TYPE I ASPHALT CONCRETE CURB - REFER TO STANDARD DRAWING BP 5. THE CURB SHALL BE PLACED AS PER 609.06, EXCEPT IT MAY BE HAND TAMPED. THE CURB FACE SHALL NOT EXTEND BEYOND THE GUARDRAIL FACE. (TYPICAL)



ASPHALT CONCRETE CURB DETAILS

STRUCTURE	W
1280	6'
1384	6'
1438	6'
1747 L&R	2'

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

MISC. DETAILS

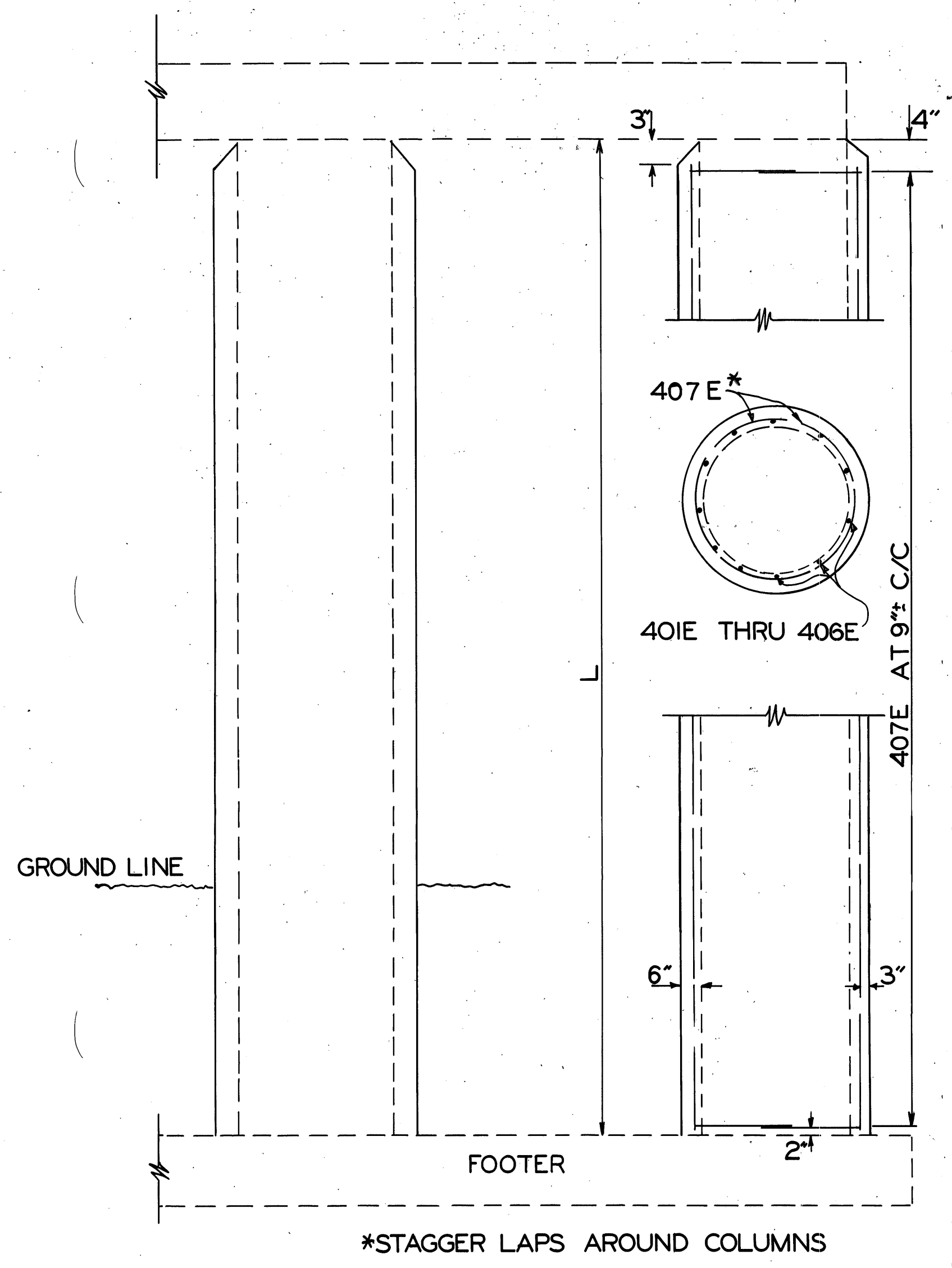
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KW	DES	DES	QAC	AFEC	10-9-99	

CALC. BY *XW*
 CHKD. BY *gac* 10-9-81

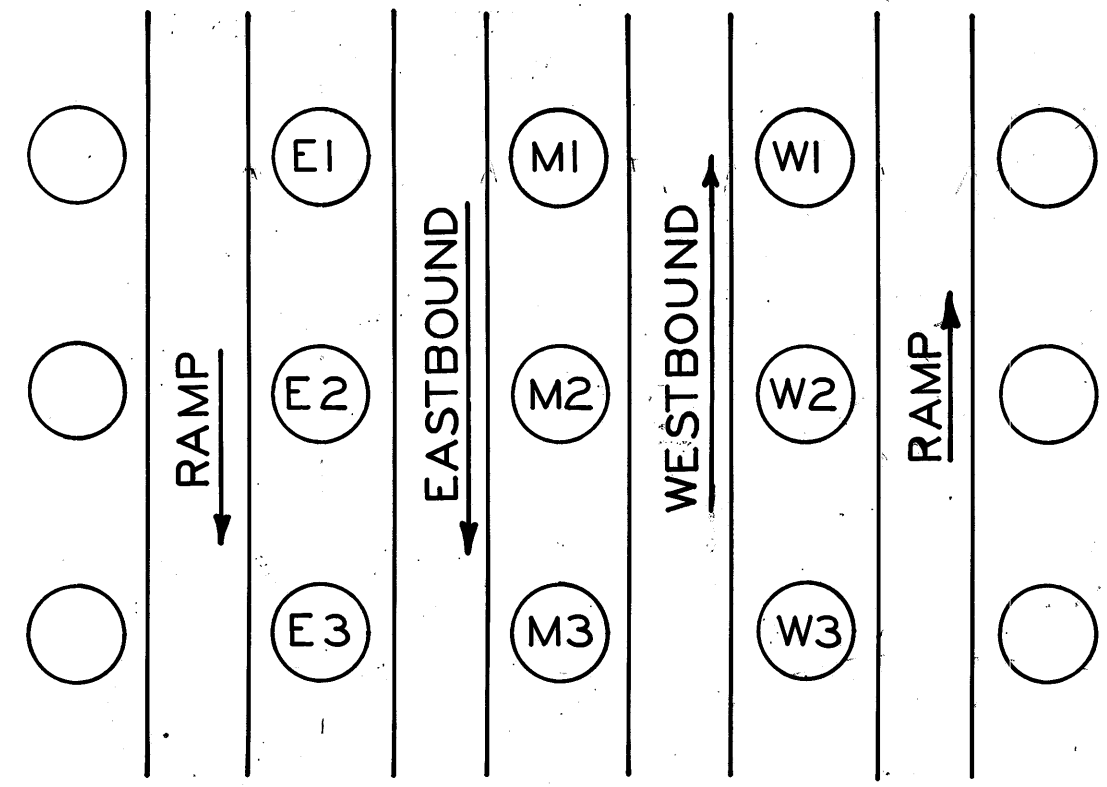
FHWA REGION	STATE	PROJECT
5	OHIO	

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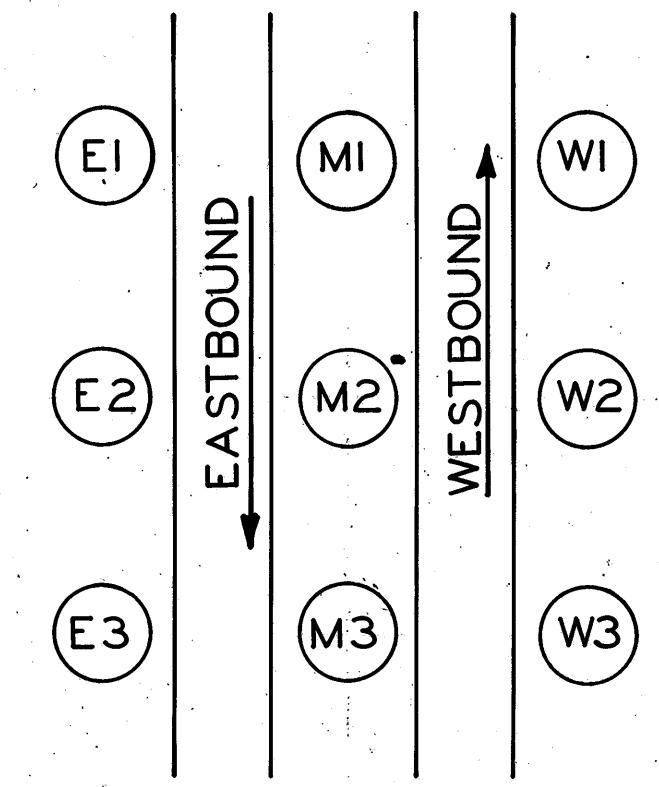
RIC/ASD-30-12.37/0.00



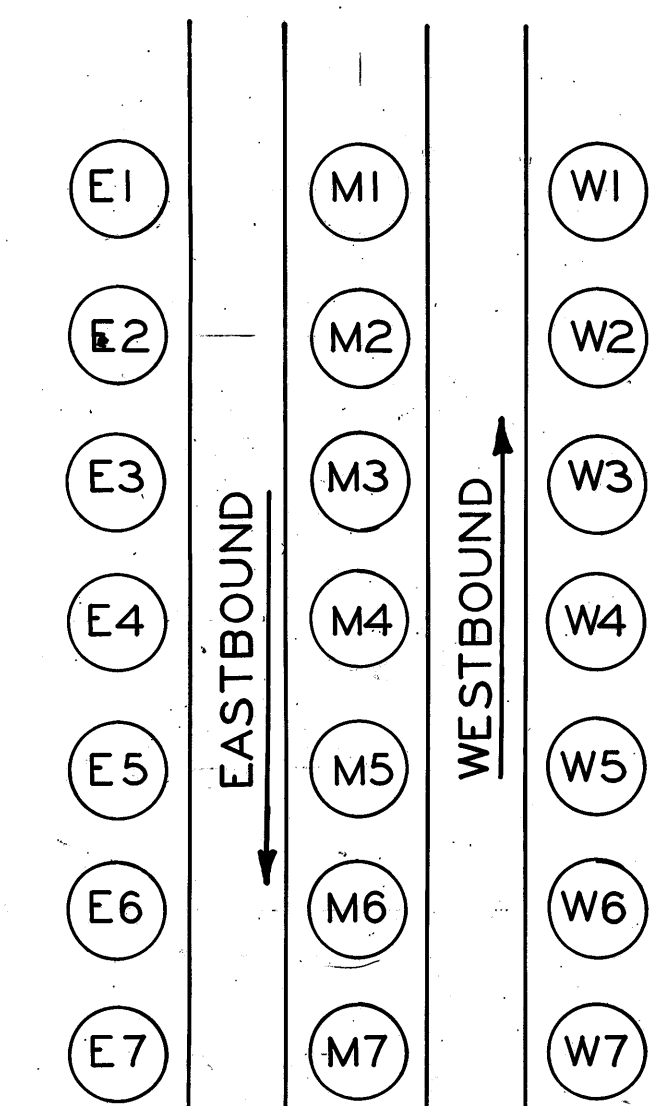
STRUCTURE	PIER COLUMNS TO BE ENCASED	PIER COLUMNS ENCASEMENT LENGTH (L)	511	824 - EPOXY COATED REINFORCING STEEL									
			CLASS S CONCRETE, PIER ENCASEMENT AS PER PLAN	MARK	NUMBER	LENGTH L-6"	SHAPE	WEIGHT	MARK	NUMBER	LENGTH	SHAPE	WEIGHT
		FEET	CU. YD.		PER PIER	FEET		LBS. PER STRUCTURE		PER PIER	FEET		LBS. PER STRUCTURE
RIC-30-1280	E3	16'-9"	3	401E	11	16'-3"	S	119	407E	44	6'-9"	B	198
RIC-30-1438	W1	18'-0"	4	402E	11	17'-6"	S	129	407E	46	6'-9"	B	208
RIC-30-1714	E1, E2, E3 W1 W2	16'-8 1/4" 15'-11 3/8"	17	403E 404E	11	16'-2" 15'-5"	S	583	407E	44 42	6'-9"	B	974
RIC-30-1718	E3 W2 W3	17'-0 1/4" 15'-5 1/2"	10	405E 406E	11	16'-6" 14'-11"	S	340	407E	44 40	6'-9"	B	559
			34					1171					1939
								TOTAL 824 = 3110 LBS.					



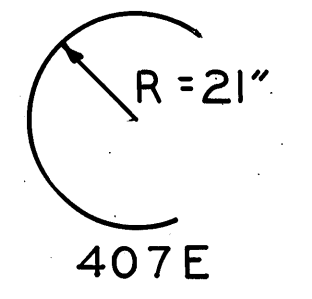
RIC-30-1280
(UNDER 5TH. AVE)



RIC-30-1438
(UNDER MCELROY RD.)



RIC-30-1714
RIC-30-1718
(UNDER I-71)



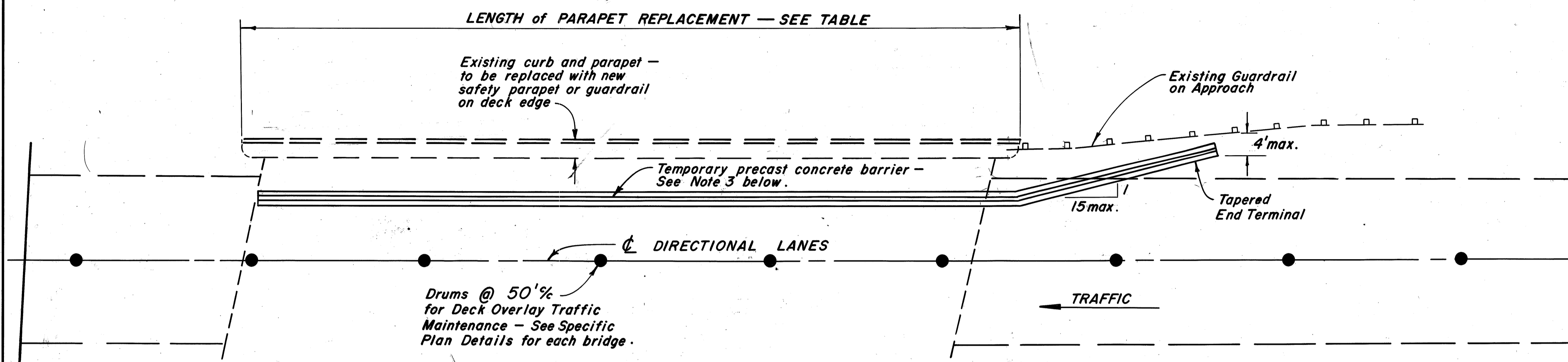
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PIER ENCASEMENT

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
<i>XW</i>	<i>Dfs</i>	<i>Dfs</i>	<i>gac</i>	<i>gac</i>	<i>10-9-81</i>	

RIC-30-12.37
ASD-30-0.00

Calc. by ROB 9/84
Chkd. by J.E.T. 9/84



TYPICAL DETAIL FOR PLACEMENT OF TEMPORARY CONCRETE BARRIER TO PROTECT BRIDGE PARAPET DURING REPLACEMENT

RIC-30-1404 L & R
RIC-30-1747 L & R
RIC-30-1913 L & R

TABLE OF PARAPET LENGTHS

BRIDGE NO.	Length of Bridge Parapet Replacement Lin. Ft.
RIC-30-1404 L & R	303.4 ±
RIC-30-1747 L	139.1 ± (avg.)
RIC-30-1747 R	138.1 ± (avg.)
RIC-30-1913 L & R	259.7 ±

Item 622 Temporary Precast Concrete Barrier, As Per Plan

The contractor shall determine the length of temporary precast concrete barrier he must provide to meet his anticipated work schedule for the parapet replacement work (and corresponding deck overlay) on the six (6) bridges listed.

Payment for furnishing the necessary length of temporary barrier as determined by contractor, for relocating the temporary barrier sections to the various bridge locations, for maintaining and subsequently removing the temporary barrier shall be included in the lump sum price bid for Item 622, Temporary Precast Concrete Barrier, As Per Plan.

NOTES:

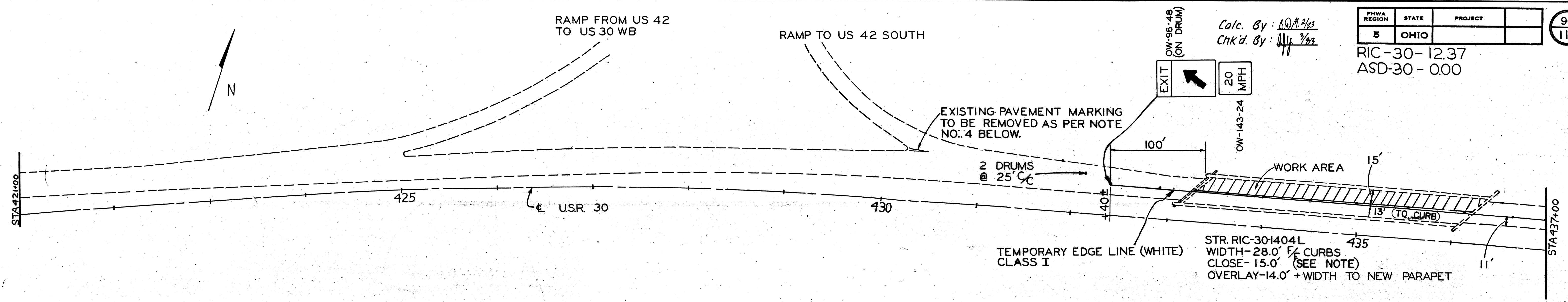
1. A temporary concrete barrier shall be used to protect the bridge edges during the removal and replacement of the existing parapets. The temporary concrete barrier shall be in place prior to removing any of the existing curb and parapet, and shall remain until the new safety parapet or new guardrail is completed.
2. The curb and parapet replacement work shall be completed at the same time the deck overlay preparatory work is in progress, so as to minimize the duration of each lane closure.
3. The lateral location of the temporary barrier shall be at the direction of the contractor, but it shall be placed within the limits of the area of the deck overlay closure, as shown in the typical detail. The approach end of the barrier shall be tapered back to the existing guardrail and an end terminal provided.

FROM SHEET No.	Quantities For Maintenance Of Traffic At Bridges									
	614					615			622	
	Temporary Edge Lines, Class I	Temporary Lane Lines, Class I	Temporary Center Lines, Class I	Temporary Channelizing Lines, Class I	Temporary Stop Lines, Class I	Temporary Roads	Temporary Pavement, Class A, As Per Plan	Temporary Pavement, Class B, As Per Plan	Temporary Precast Concrete Barrier, As Per Plan	
Miles	Miles	Miles	Lin. Ft.	Lin. Ft.	Lump	Sq. Yd.	Sq. Yd.	Lump	Sum	
95										Lump
99	0.79									
102	1.89	0.03		730		Lump	967			
105	1.56			140		Lump	778			
107	0.37		0.04		24	Lump		222		
108	0.36		0.04		24	Lump		240		
109	0.32		0.05		24	Lump		222		
110	0.39		0.04		24	Lump		134		
TOTALS	5.68	0.03	0.17	870	96	Lump	1745	818		Lump

Quantities Carried to Sub-summary, Sheets 13 & 14

RIC-30-12.37
ASD-30-000

Calc. By: *SDM/3/63*
Chk'd. By: *WJ 3/63*

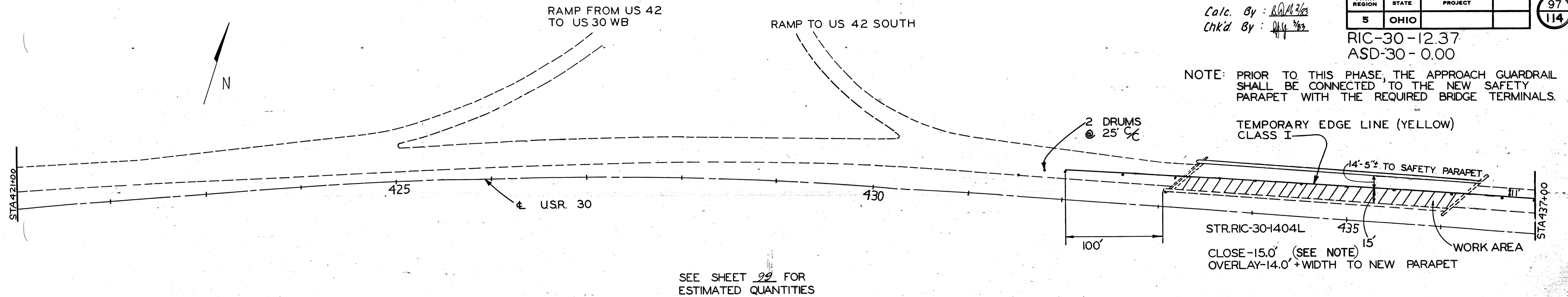


PHWA REGION	STATE	PROJECT	97
5	OHIO		114

Calc. By: *BOM*
 Chkd By: *QJ*

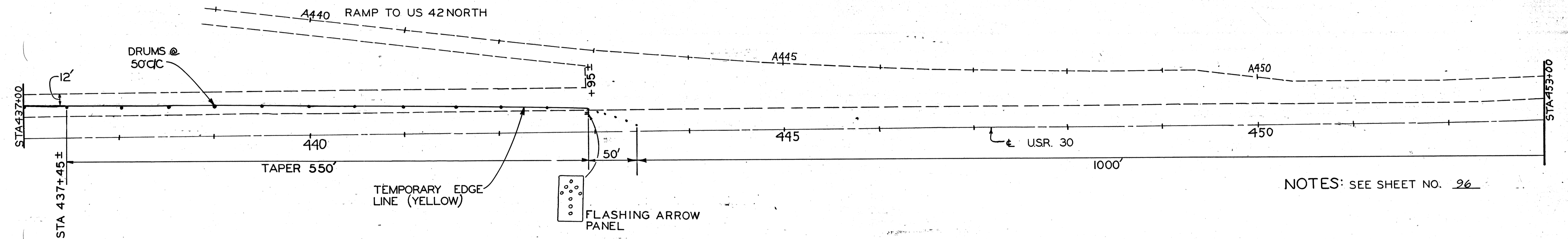
RIC-30-12.37
 ASD-30-0.00

NOTE: PRIOR TO THIS PHASE, THE APPROACH GUARDRAIL SHALL BE CONNECTED TO THE NEW SAFETY PARAPET WITH THE REQUIRED BRIDGE TERMINALS.

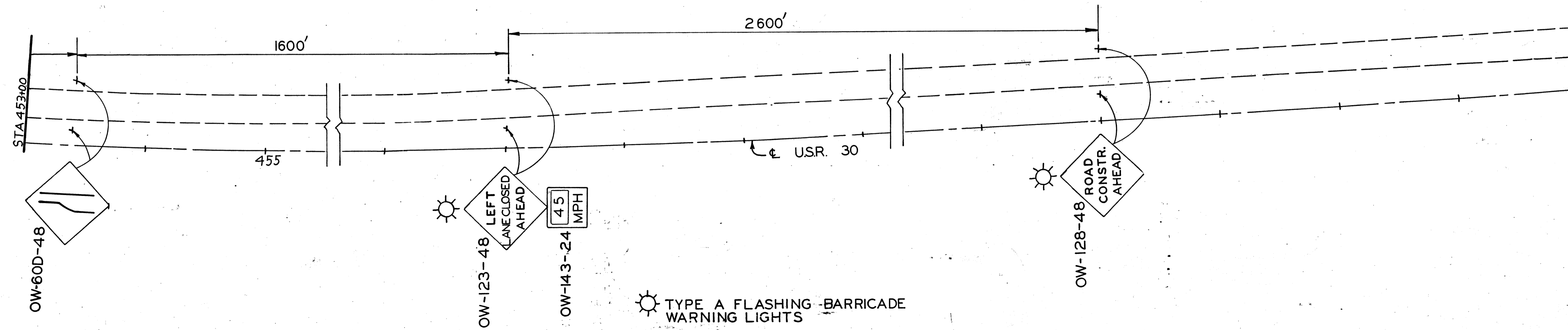


SEE SHEET 99 FOR ESTIMATED QUANTITIES

NOTE: THE CLOSURE WIDTH MAY BE INCREASED TO 18' MAX DURING ACTUAL DECK OVERLAY OPERATIONS. CONTRACTOR TO PROVIDE ADVANCE SIGNING OF THE NARROW ROADWAY.



NOTES: SEE SHEET NO. 96



PHASE B

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
 DISTRICT THREE

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TRAFFIC MAINTENANCE DETAILS

STR-RIC-30-1404L

CLOSING-WB PASSING LANE

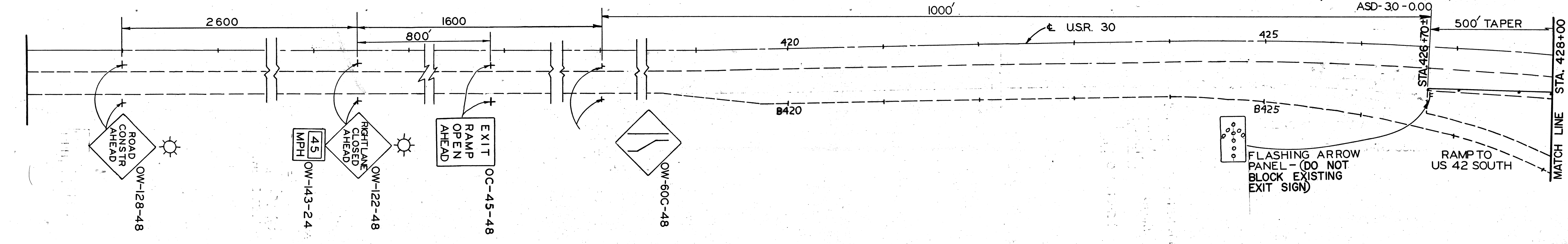
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE REVISED
<i>C.B.</i>	<i>BOM</i>	<i>BOM</i>			

Calc. By: BDM/2/83
 Chk'd By: RY/2/83

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5	OHIO		

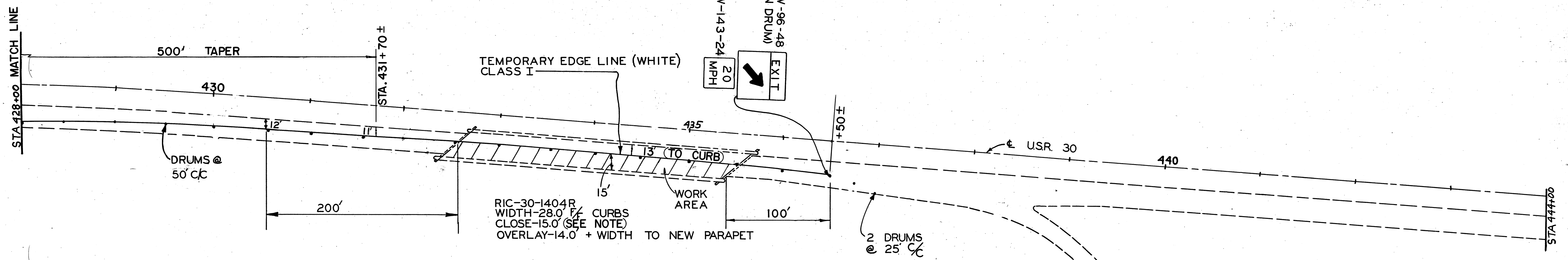
RIC-30-12.37
 ASD-30-0.00

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☀ = TYPE A FLASHING BARRICADE WARNING LIGHTS

SEE SHEET 99 FOR ESTIMATED QUANTITIES



NOTE: THE CLOSURE WIDTH MAY BE INCREASED TO 18' MAX DURING ACTUAL DECK OVERLAY OPERATIONS. CONTRACTOR TO PROVIDE ADVANCE SIGNING OF THE NARROW ROADWAY.

- NOTES:
1. DRUMS EACH W/ TYPE C STEADY BURN BARRICADE WARNING LIGHTS, WILL BE REQUIRED FOR LANE CLOSURES. BARRICADES WILL NOT BE PERMITTED FOR LANE CLOSURES.
 2. SEE SHEET III FOR ADDITIONAL DETAILS AND NOTES.
 3. THE EB AND WB LANES MAY BE WORKED TOGETHER OR INDEPENDENTLY.
 4. EXISTING PAVEMENT MARKINGS IN THE RAMP GORE AREA THAT CONFLICT WITH TRAFFIC MOVEMENTS SHALL BE REMOVED AS PER 621.134. REPLACEMENT SHALL BE ACCORDING TO ITEM 621 AND THE COST INCLUDED IN ITEM 614.
 5. AN ADDITIONAL SIGN OW-128-36 WILL BE REQUIRED ON THE ENTRANCE RAMP TO U.S. 30 E.B. FROM THE 5TH AVE. INTERCHANGE. PLACEMENT TO BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER.

PHASE A

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
 DISTRICT THREE

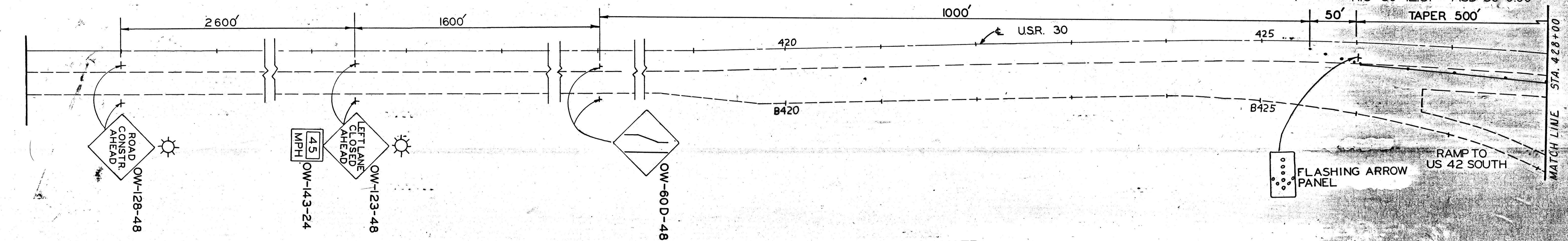
3 / 4

TRAFFIC MAINTENANCE DETAILS
 STR-RIC-30-1404R
 CLOSING EB DRIVING LANE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.R.B.	B.D.H.	B.D.H.				

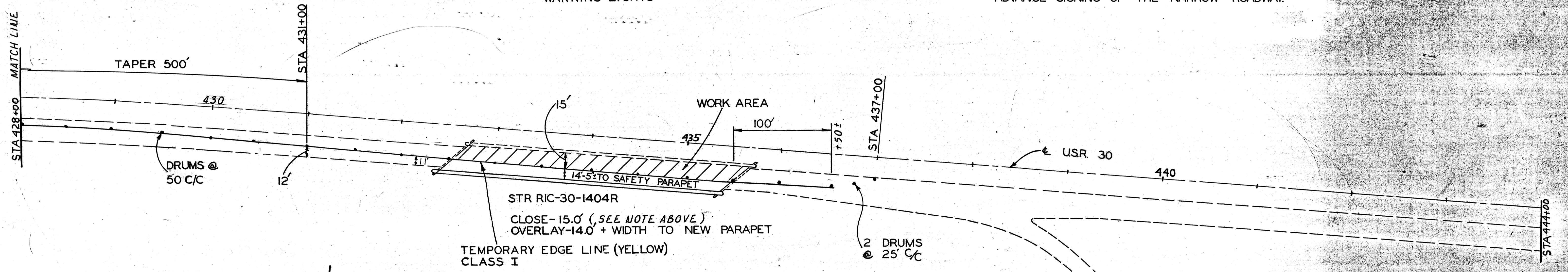
Calc. By: *B.A.M. 3/83*
 Chkd. By: *DDY 3/83*

FHWA REGION	STATE	PROJECT	99 114
5	OHIO	RIC-30-12.37 ASD-30-0.00	



NOTE: THE CLOSURE WIDTH MAY BE INCREASED TO 18' MAX. DURING ACTUAL DECK OVERLAY OPERATIONS. CONTRACTOR TO PROVIDE ADVANCE SIGNING OF THE NARROW ROADWAY.

☀ TYPE A FLASHING BARRICADE WARNING LIGHTS



NOTE: PRIOR TO THIS PHASE THE APPROACH GUARDRAIL SHALL BE CONNECTED TO THE NEW SAFETY PARAPET WITH THE REQUIRED BRIDGE TERMINALS.

NOTES: SEE SHEET NO. 98

		614			
		TEMPORARY EDGE LINES, CLASS I (WHITE)	TEMPORARY EDGE LINES, CLASS I (YELLOW)		
		LNFT./MILES	LNFT./MILES		
RIC-30-1404L	PHASE A	1050	—		
	PHASE B	—	1095		
RIC-30-1404R	PHASE A	982	—		
	PHASE B	—	1050		
TOTALS		2032	2145		
		4177 LNFT./0.79 MILE		Quantities carried to Sheet 95	

PHASE B

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
 DISTRICT THREE

4 / 4

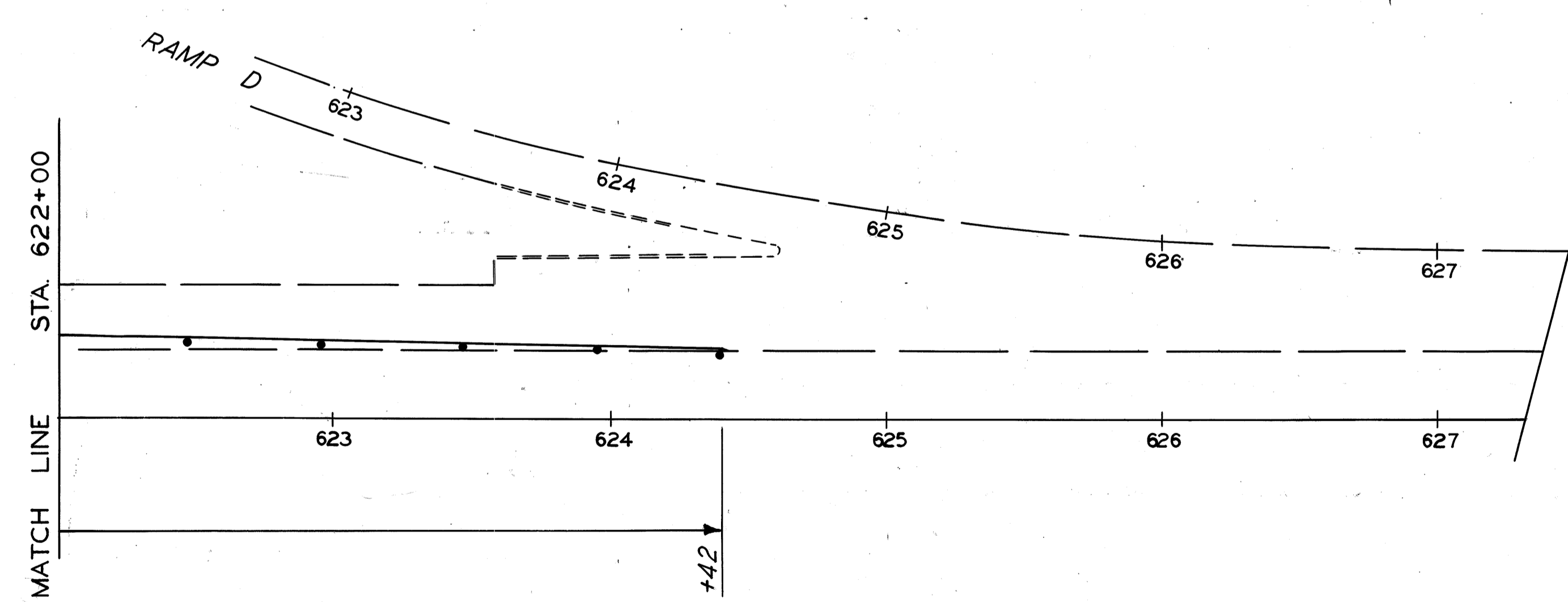
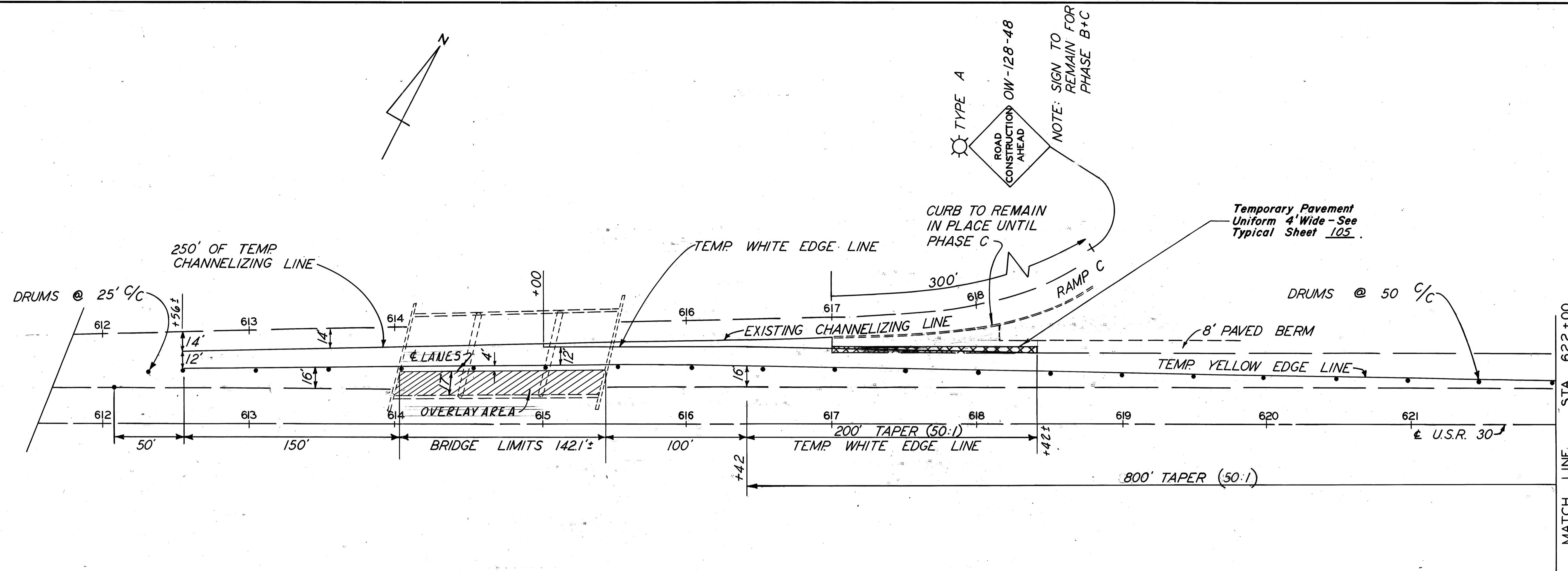
TRAFFIC MAINTENANCE DETAILS
 STR RIC-30-1404R
 CLOSING EB PASSING LANE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
<i>C.B.B.</i>	<i>B.A.M.</i>	<i>B.A.M.</i>				

FHWA REGION	STATE	PROJECT
5	OHIO	

100
114

RIC - 30 - 12.37
ASD - 30 - 0.00



NOTES:

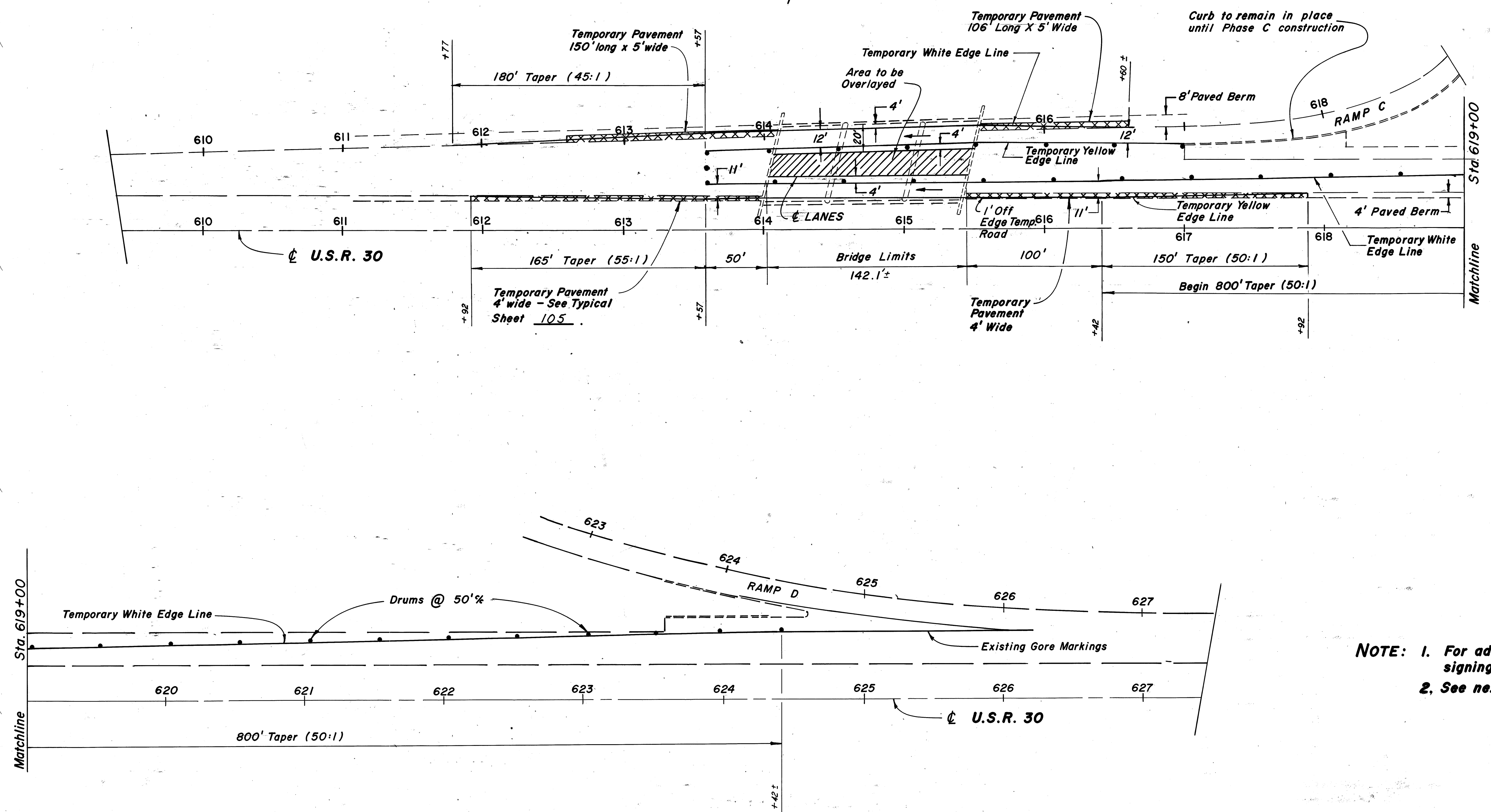
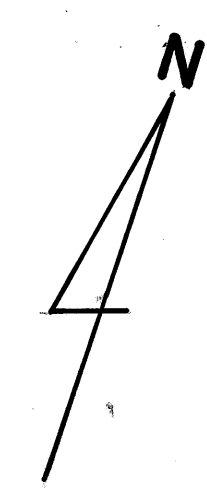
1. ALL DRUMS FOR PHASES A,B&C SHALL HAVE TYPE C STEADY BURN BARRICADE WARNING LIGHTS ATTACHED.
2. FOR ADDITIONAL DETAILS, NOTES AND SIGNING SEE SHEET 111.
3. QUANTITIES FOR PHASE A CARRIED ON SHEET 102.

PHASE A
RIC-30-17 47L

FHWA REGION	STATE	PROJECT
5	OHIO	

101
114

RIC-30-12.37
ASD.-30-0.00



NOTE: 1. For additional details, notes, and signing See Sheet III.
2. See next sheet for quantities.

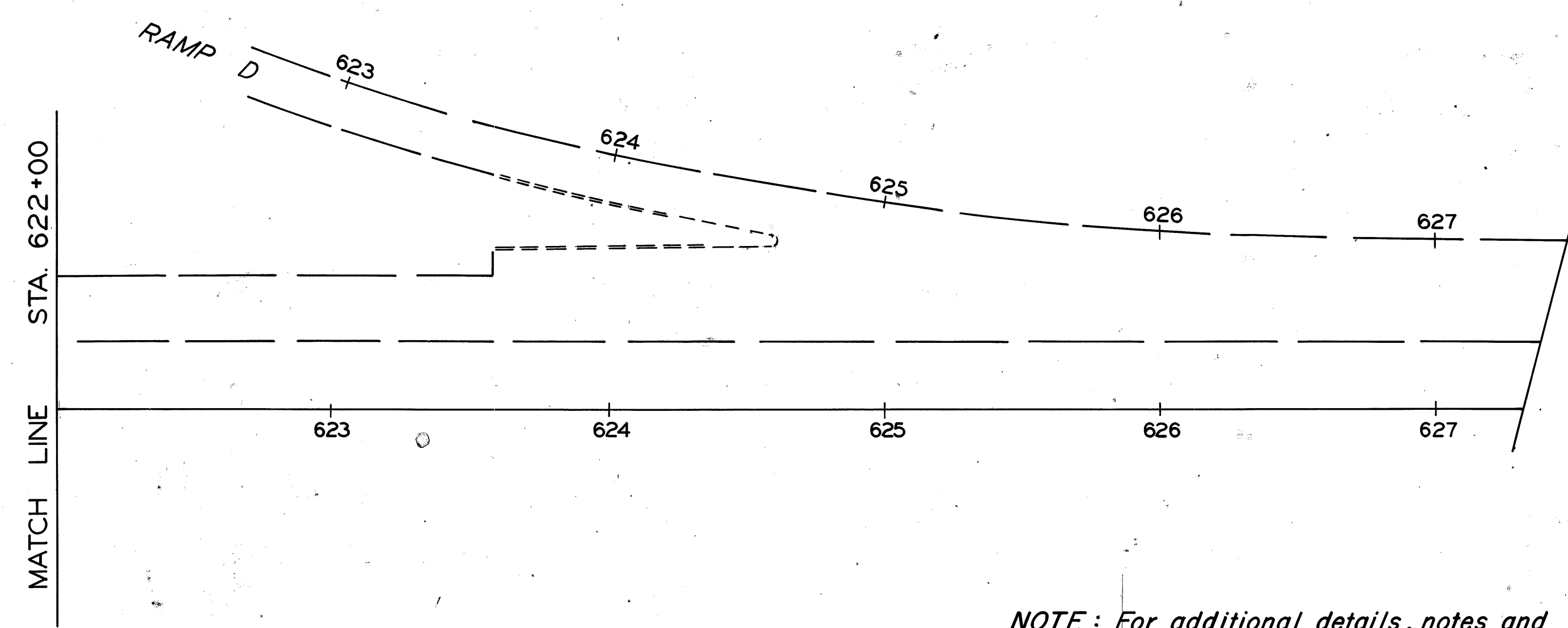
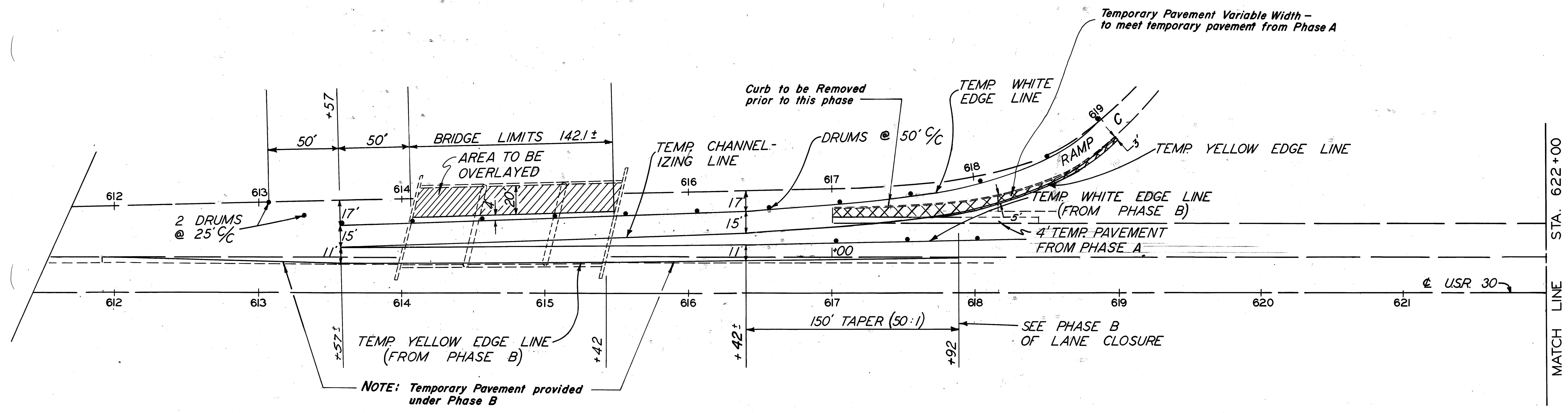
PHASE "B"
RIC-30-1747L

Calc. by 208/284
 Chkd. by 3/27/84

FHWA REGION	STATE	PROJECT
5	OHIO	

102
114

RIC - 30 - 12.37
 ASD - 30 - 0.00



		615		614			
		Temporary Pavement Class A, As Per Plan	Temporary Roads	Temporary Edge Lines, Class I (White)	Temporary Edge Lines, Class I (Yellow)	Temporary Channelizing Line, Class I	Temporary 4" Lane Line Class I
		Sq. Yds.	Lump Sum	LIN. FT. / MILES		LIN. FT.	Lin. Ft./Miles
RIC-30-1747L (W.B. Lanes)	Phase A	63	Lump	340	1186	250	—
	Phase B	346	Lump	1568	943	—	—
	Phase C	135	Lump	543	258	285	—
RIC-30-1747R (E.B. Lanes)	Phase A	194	Lump	386	1272	195	153
	Phase B	229	Lump	1483	1325	—	—
	Phase C	—	—	665	—	—	—
TOTALS		967	Lump	4985	4984	730	153
				9969 L.F. / 1.89 Mi.		0.03 Mi.	

NOTE: For additional details, notes and signing, see sheet 111.

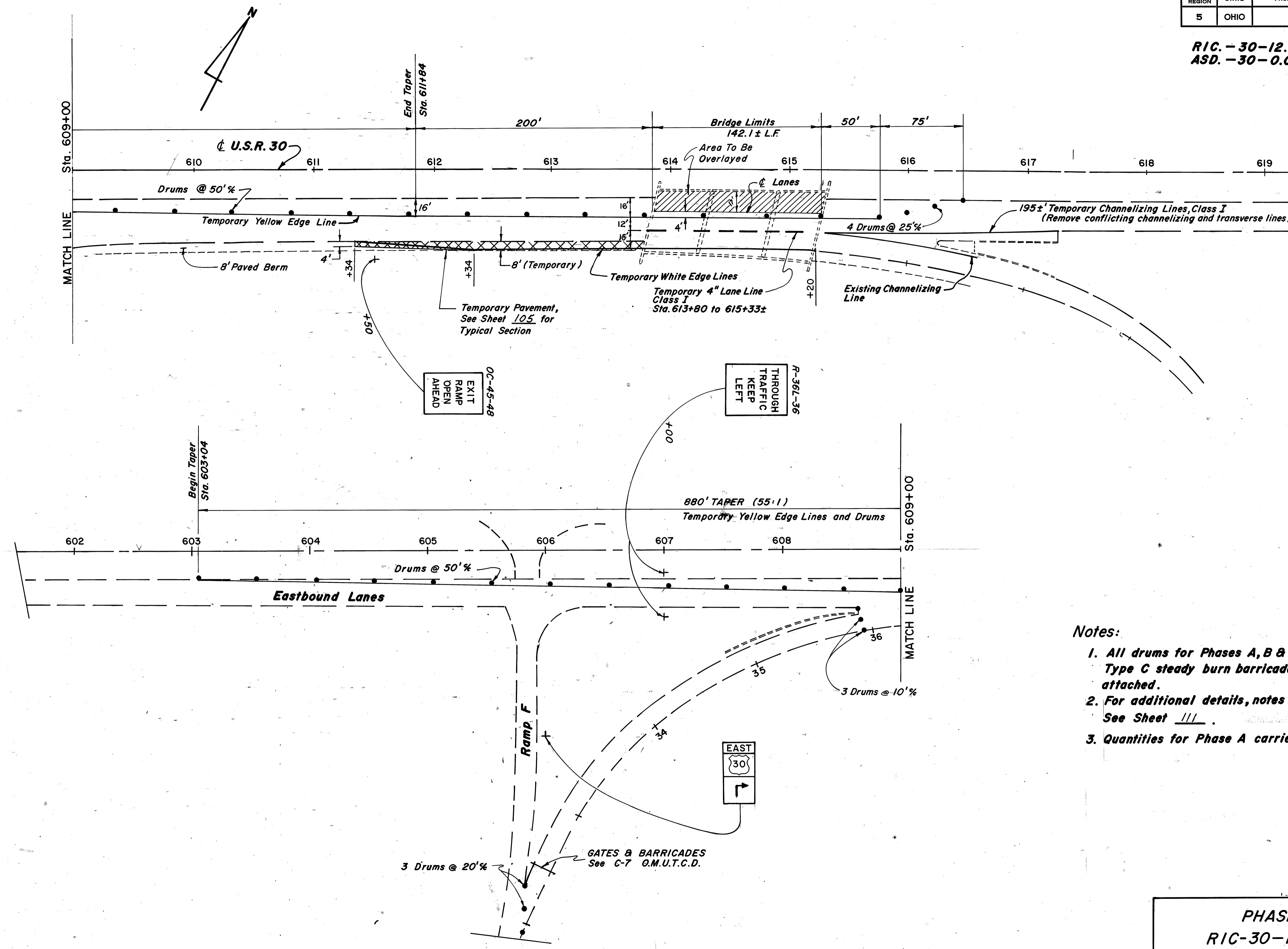
Quantities carried to Sheet 95.

PHASE C
 RIC-30-1747L

FHWA REGION	STATE	PROJECT
5	OHIO	

103
114

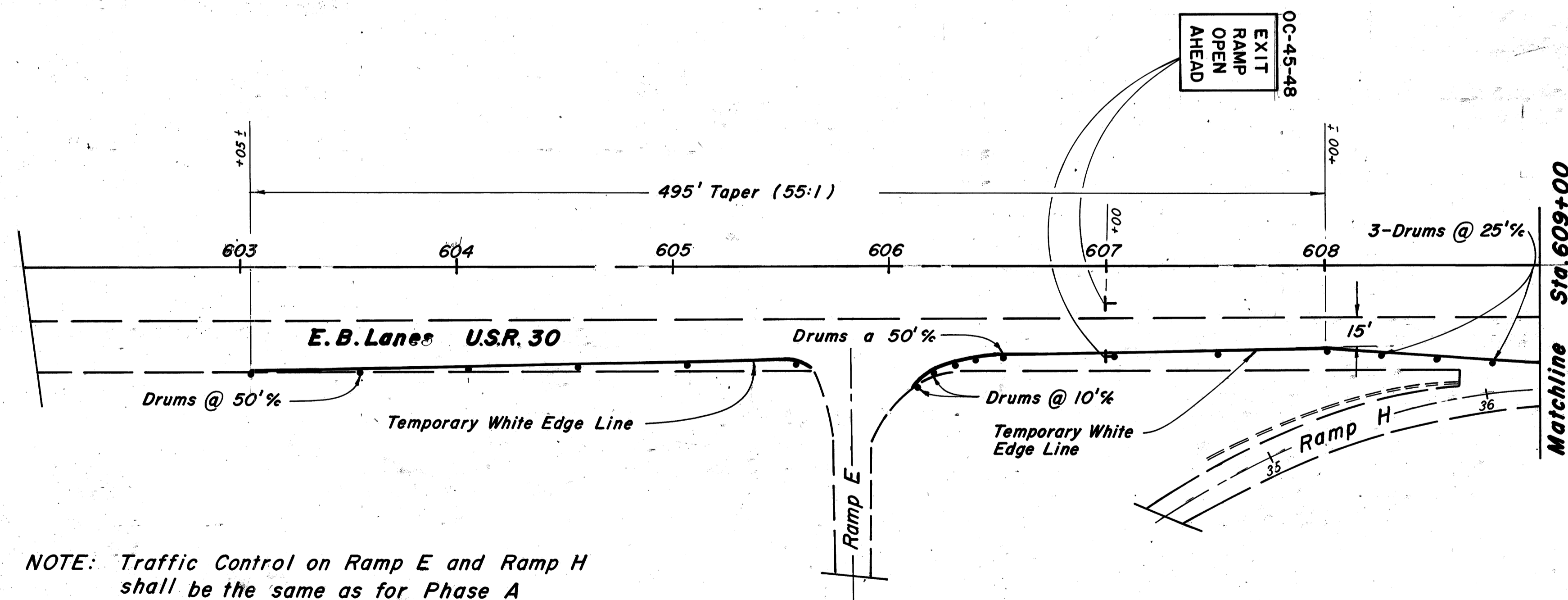
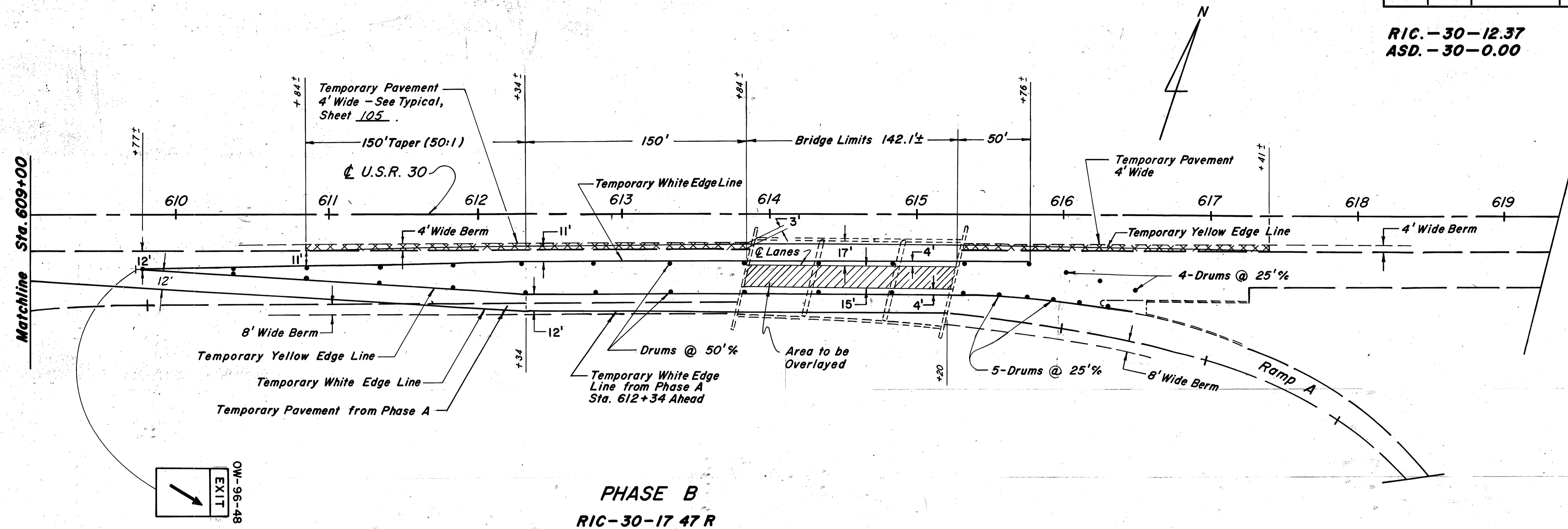
RIC - 30-12.37
ASD - 30-0.00



- Notes:**
1. All drums for Phases A, B & C shall have Type C steady burn barricade warning lights attached.
 2. For additional details, notes and signing See Sheet III.
 3. Quantities for Phase A carried on Sheet 102.

PHASE A
RIC-30-17 47R

RIC-30-12.37
ASD-30-0.00



NOTES:

1. For additional details, notes and signing see Sheets 103 & 111.
2. Quantities for Phase B carried on Sheet 102.

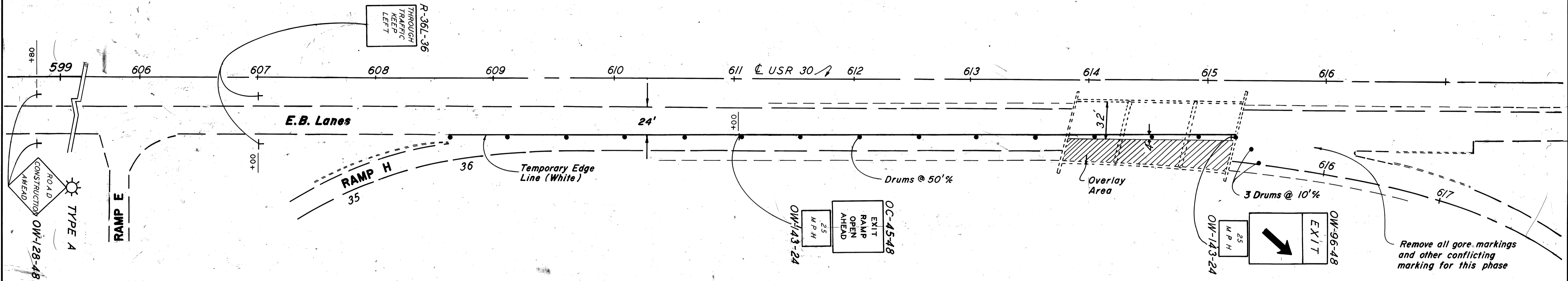
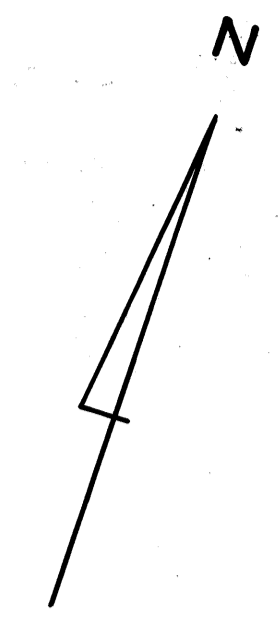
NOTE: Traffic Control on Ramp E and Ramp H shall be the same as for Phase A

Calc. by BDJ 9/84
 Chkd. by H. W. 1/84

FHWA REGION	STATE	PROJECT
5	OHIO	

105
114

RIC-30-12.37
 ASD-30-0.00



PHASE C
RIC-30-1747 R

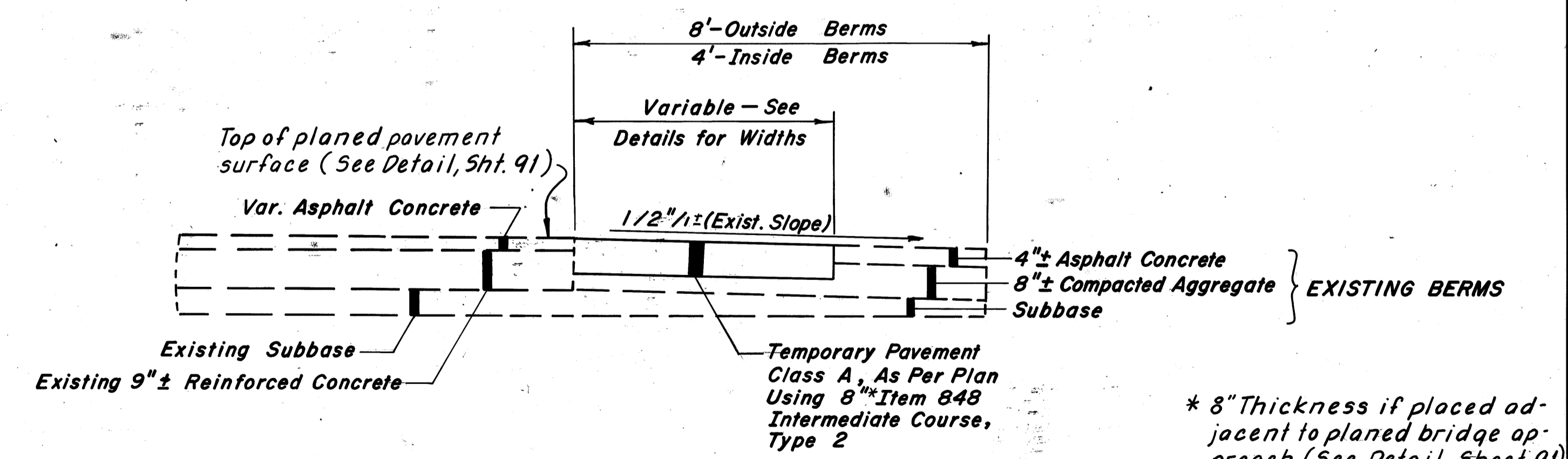
NOTE: Traffic Control on Ramp E and Ramp H shall be the same as for Phase A

- NOTES:**
1. For additional details, notes and signing, see Sheet III.
 2. Quantities for Phase C carried on Sheet 102.

		615		614		
		Temporary Pavement Class A As Per Plan	Temporary Roads	Temporary Edge Lines, Class I (White)	Temporary Edge Lines, Class I (Yellow)	Temporary Channelizing Line, (White)
		Sq.Yd.	Lump Sum	Lin.Ft. / Miles	Lin. Ft.	
RIC-30-1913L (W.B. Lanes)	PHASE A	122	Lump	1517	532	
	PHASE B	213	Lump	640	1484	140
RIC-30-1913R (E.B. Lanes)	PHASE A	182	Lump	1277	667	
	PHASE B	261	Lump	727	1387	
TOTALS		778	Lump	4161	4070	140

Quantities carried to Sheet 95 8231 L.F./1.56 Miles

See Next Sheet for Details



TYPICAL SECTION FOR TEMPORARY PAVEMENT AT U.S.R. 30 BRIDGES
RIC-30-1747 L & R.
RIC-30-1913 L & R.

NOTE: The Temporary Pavement shall remain in place as paved berm.

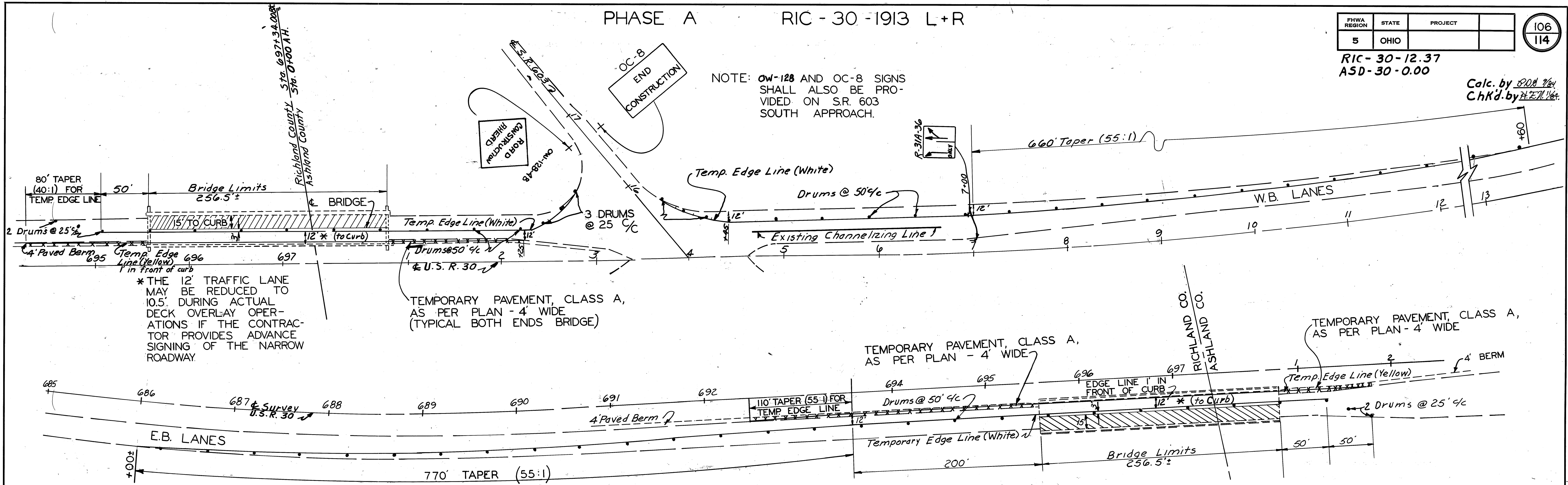
PHASE A RIC - 30 - 1913 L+R

FHWA REGION	STATE	PROJECT	106
5	OHIO		114

RIC - 30 - 12.37
ASD - 30 - 0.00

Calc. by *[Signature]*
Chkd. by *[Signature]*

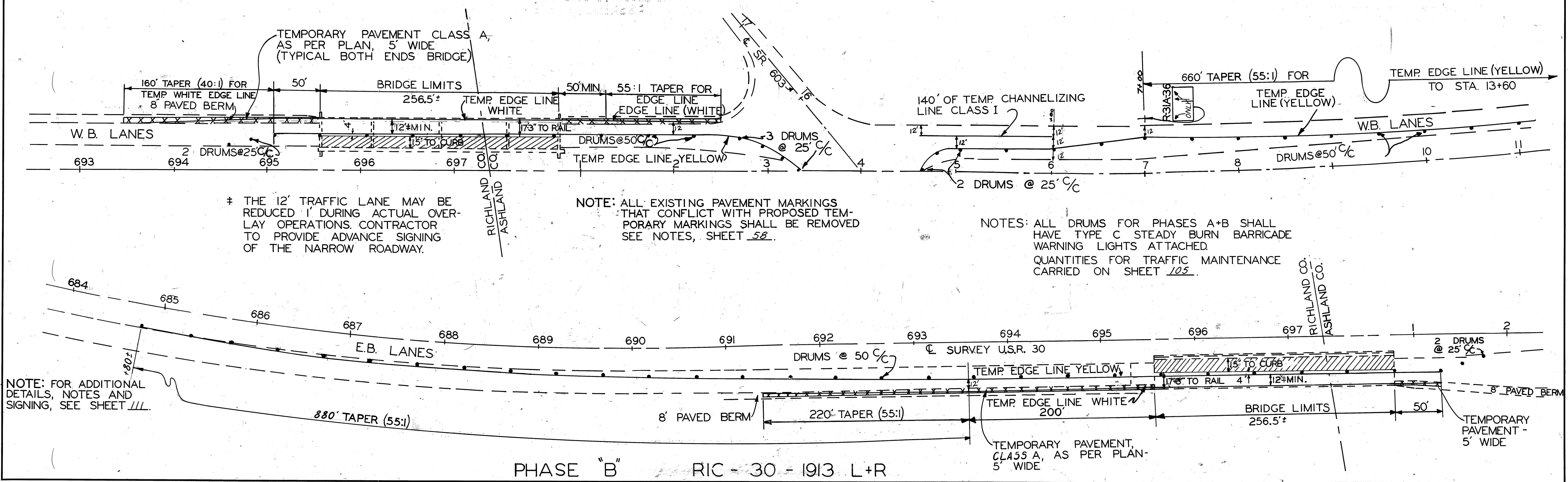
NOTE: OW-128 AND OC-8 SIGNS SHALL ALSO BE PROVIDED ON S.R. 603 SOUTH APPROACH.



* THE 12' TRAFFIC LANE MAY BE REDUCED TO 10.5' DURING ACTUAL DECK OVERLAY OPERATIONS IF THE CONTRACTOR PROVIDES ADVANCE SIGNING OF THE NARROW ROADWAY.

TEMPORARY PAVEMENT, CLASS A, AS PER PLAN - 4' WIDE

TEMPORARY PAVEMENT, CLASS A, AS PER PLAN - 4' WIDE



† THE 12' TRAFFIC LANE MAY BE REDUCED 1' DURING ACTUAL OVERLAY OPERATIONS. CONTRACTOR TO PROVIDE ADVANCE SIGNING OF THE NARROW ROADWAY.

NOTE: ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED TEMPORARY MARKINGS SHALL BE REMOVED. SEE NOTES, SHEET 52.

NOTES: ALL DRUMS FOR PHASES A+B SHALL HAVE TYPE C STEADY BURN BARRICADE WARNING LIGHTS ATTACHED. QUANTITIES FOR TRAFFIC MAINTENANCE CARRIED ON SHEET 105.

NOTE: FOR ADDITIONAL DETAILS, NOTES AND SIGNING, SEE SHEET 111.

TEMPORARY PAVEMENT, CLASS A, AS PER PLAN - 5' WIDE

PHASE "B" RIC - 30 - 1913 L+R

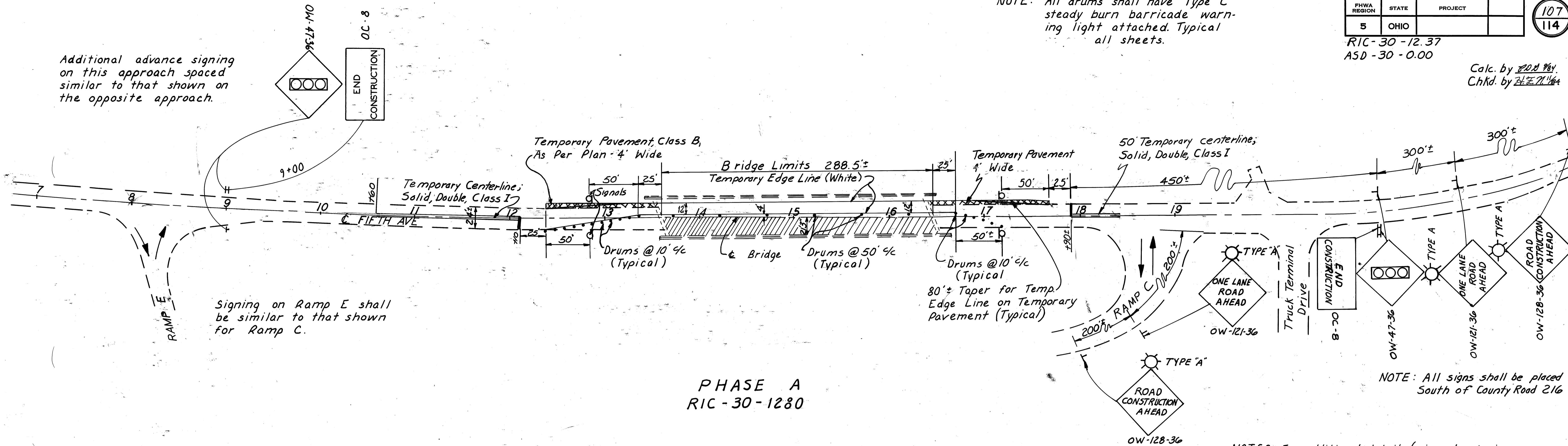
NOTE: All drums shall have Type C steady burn barricade warning light attached. Typical all sheets.

FHWA REGION	STATE	PROJECT	
5	OHIO		

RIC-30-12.37
ASD-30-0.00

Calc. by *[Signature]*
Chkd. by *[Signature]*

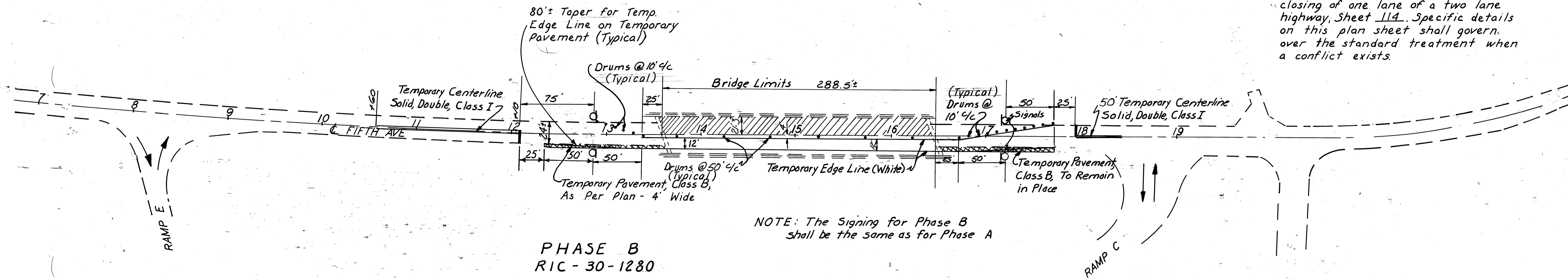
Additional advance signing on this approach spaced similar to that shown on the opposite approach.



PHASE A
RIC-30-1280

NOTE: All signs shall be placed South of County Road 216

NOTES: For additional details (signs, luminaires, signals, etc.) not shown, see signaled closing of one lane of a two lane highway, Sheet 114. Specific details on this plan sheet shall govern over the standard treatment when a conflict exists.



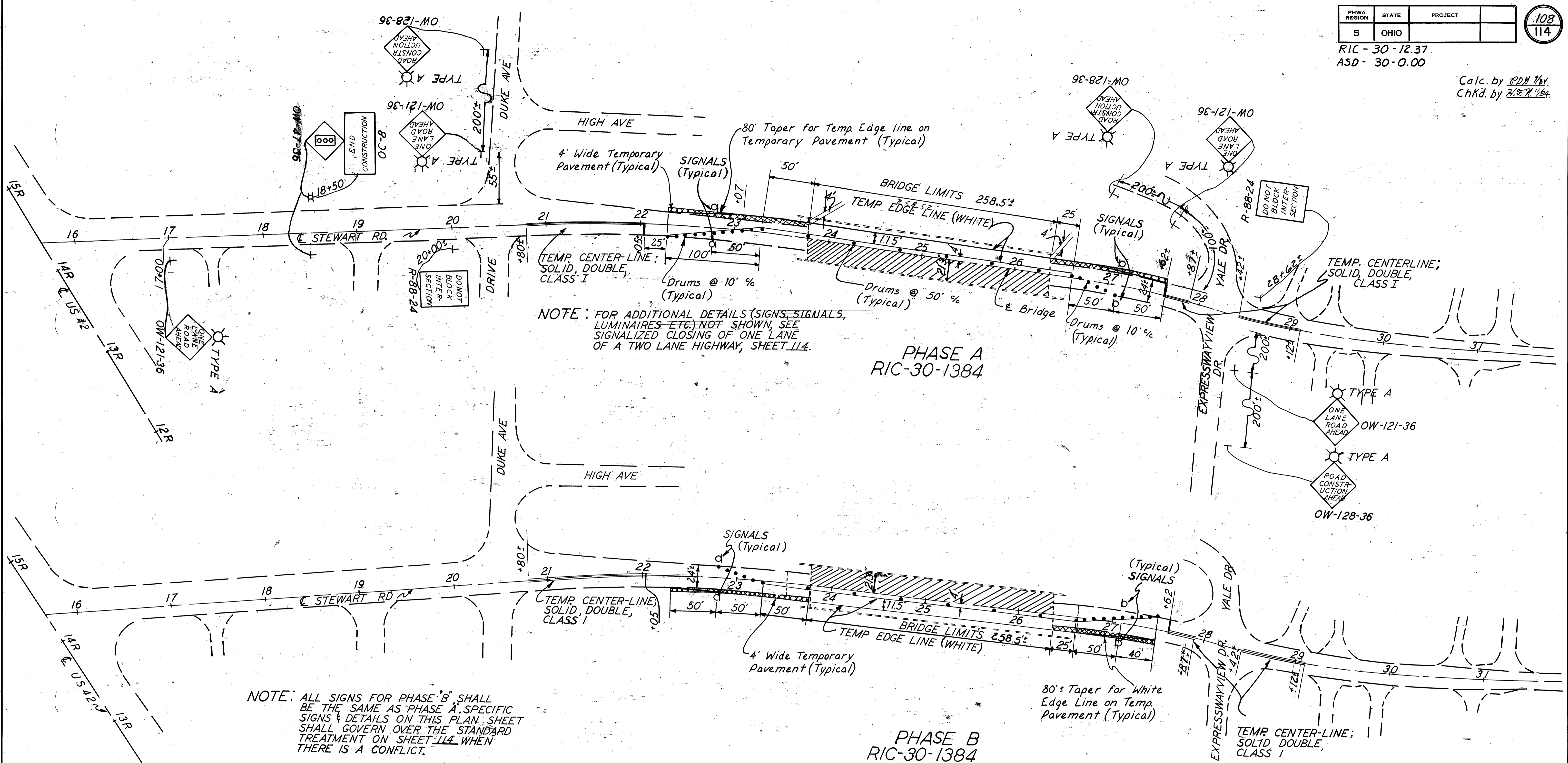
PHASE B
RIC-30-1280

NOTE: The Signing for Phase B shall be the same as for Phase A

NOTE: Typical section for Temporary Pavement, Type B, As Per Plan is the same as for Stewart Road, See Next Sheet. Fifth Ave. has existing 4'± paved berms in fair to poor condition. Portions of these berms may be used when directed by the Engineer and the proposed Temporary Pavement non-performed.

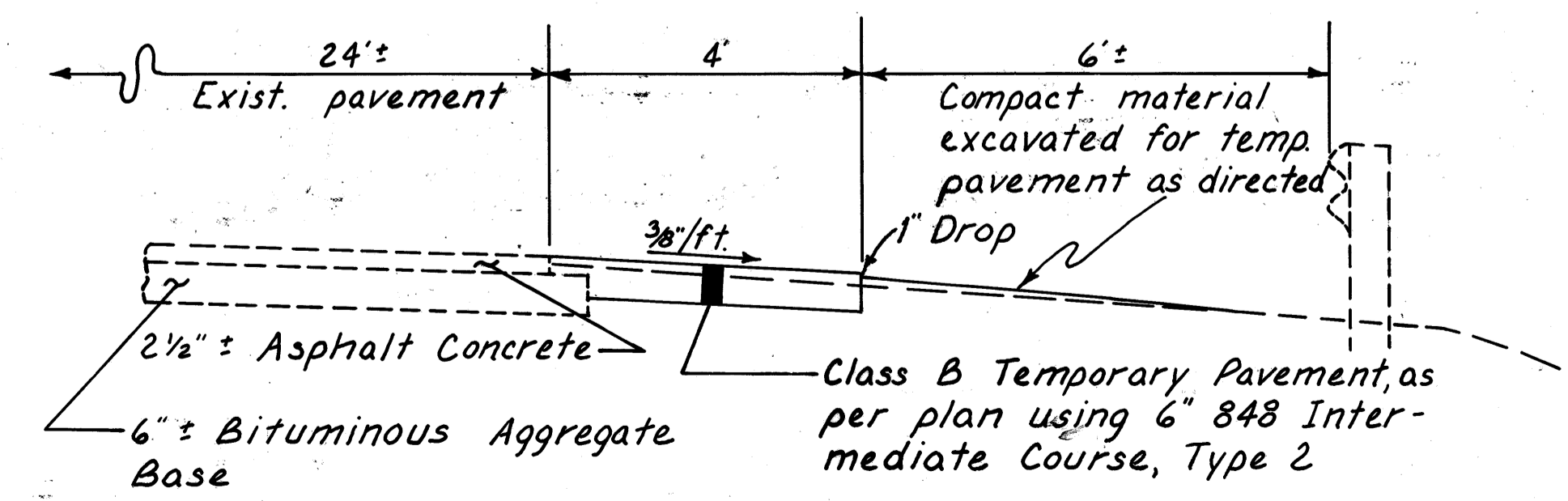
RIC-30-1280	G15		G14		
	Temporary Pavement Class B As Per Plan	Temporary Roads	Temporary Edge Lines Class I (White)	Temporary Centerlines Class I	Temporary Stop Lines Class I
	Sq. Yds.	Lump Sum	Lin. Ft./Mi.	Lin. Ft./Mi.	Lin. Ft.
Phase A	111	Lump	977	200	24
Phase B	111	Lump	977		
TOTALS	222	Lump	1954	200	24

Quantities carried to Sheet 95



RIC-30-1384	G15		G14		
	Temporary Pavement Class B As Per Plan	Temporary Roads	Temporary Edge Lines, Class I (White)	Temporary Centerlines Class I	Temporary Stop Lines Class I
	Sq. Yds.	Lump	Lin. Ft./Mi.	Lin. Ft./Mi.	Lin. Ft.
Phase A	122	Lump	976		
Phase B	118	Lump	947	220	24
TOTALS	240	Lump	1923	220	24
			0.36 Mi.	0.04 Miles	

Quantities carried to Sheet 95



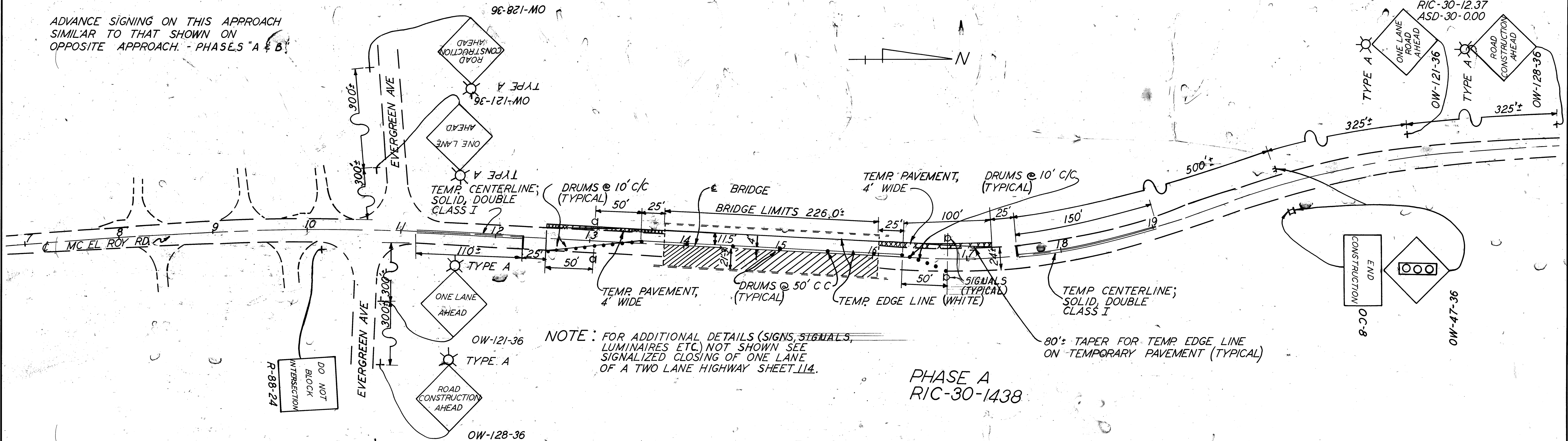
TYPICAL SECTION FOR TEMPORARY PAVEMENT PHASES A + B
Note: The Temporary Pavement shall remain in place as paved berm

CALC. BY *028 764*
 CHKD BY *2127 164*

FHWA REGION	STATE	PROJECT
5	OHIO	

109
114

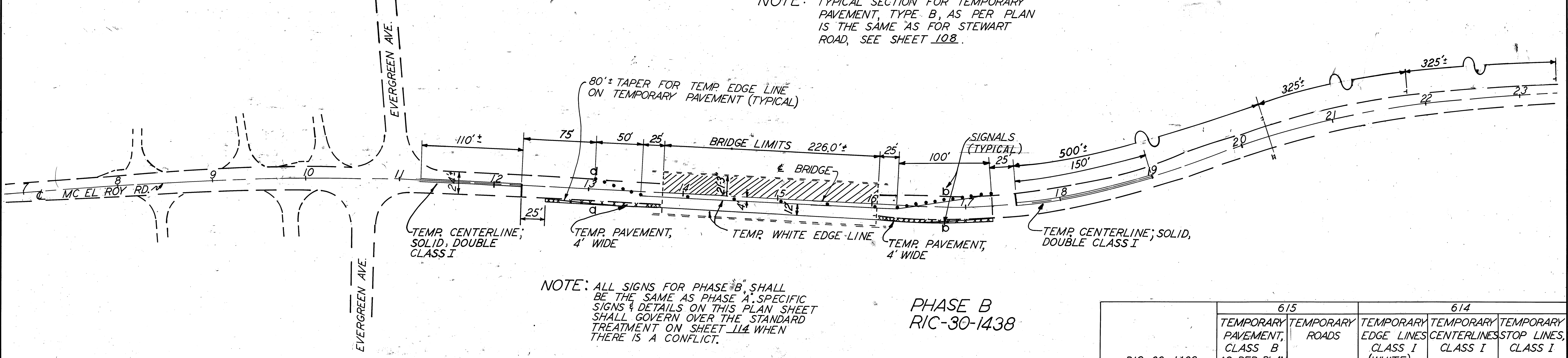
ADVANCE SIGNING ON THIS APPROACH
 SIMILAR TO THAT SHOWN ON
 OPPOSITE APPROACH. - PHASES "A" & "B"



NOTE: FOR ADDITIONAL DETAILS (SIGNS, SIGNALS, LUMINAIRES ETC.) NOT SHOWN SEE SIGNALIZED CLOSING OF ONE LANE OF A TWO LANE HIGHWAY SHEET 114.

PHASE A
 RIC-30-1438

NOTE: TYPICAL SECTION FOR TEMPORARY PAVEMENT, TYPE B, AS PER PLAN IS THE SAME AS FOR STEWART ROAD, SEE SHEET 108.



NOTE: ALL SIGNS FOR PHASE "B" SHALL BE THE SAME AS PHASE "A". SPECIFIC SIGNS & DETAILS ON THIS PLAN SHEET SHALL GOVERN OVER THE STANDARD TREATMENT ON SHEET 114 WHEN THERE IS A CONFLICT.

PHASE B
 RIC-30-1438

RIC-30-1438	615		614		TEMPORARY STOP LINES, CLASS I LIN. FT.
	TEMPORARY PAVEMENT, CLASS B AS PER PLAN SQ. YDS.	TEMPORARY ROADS LUMP	TEMPORARY EDGE LINES, CLASS I (WHITE) LIN. FT./MILE	TEMPORARY CENTERLINES, CLASS I LIN. FT./MILE	
PHASE A	111	LUMP	852	260	24
PHASE B	111	LUMP	852	260	24
TOTALS	222	LUMP	1704	260	24
Quantities carried to Sheet 95			0.32 MILE	0.05 MILE	

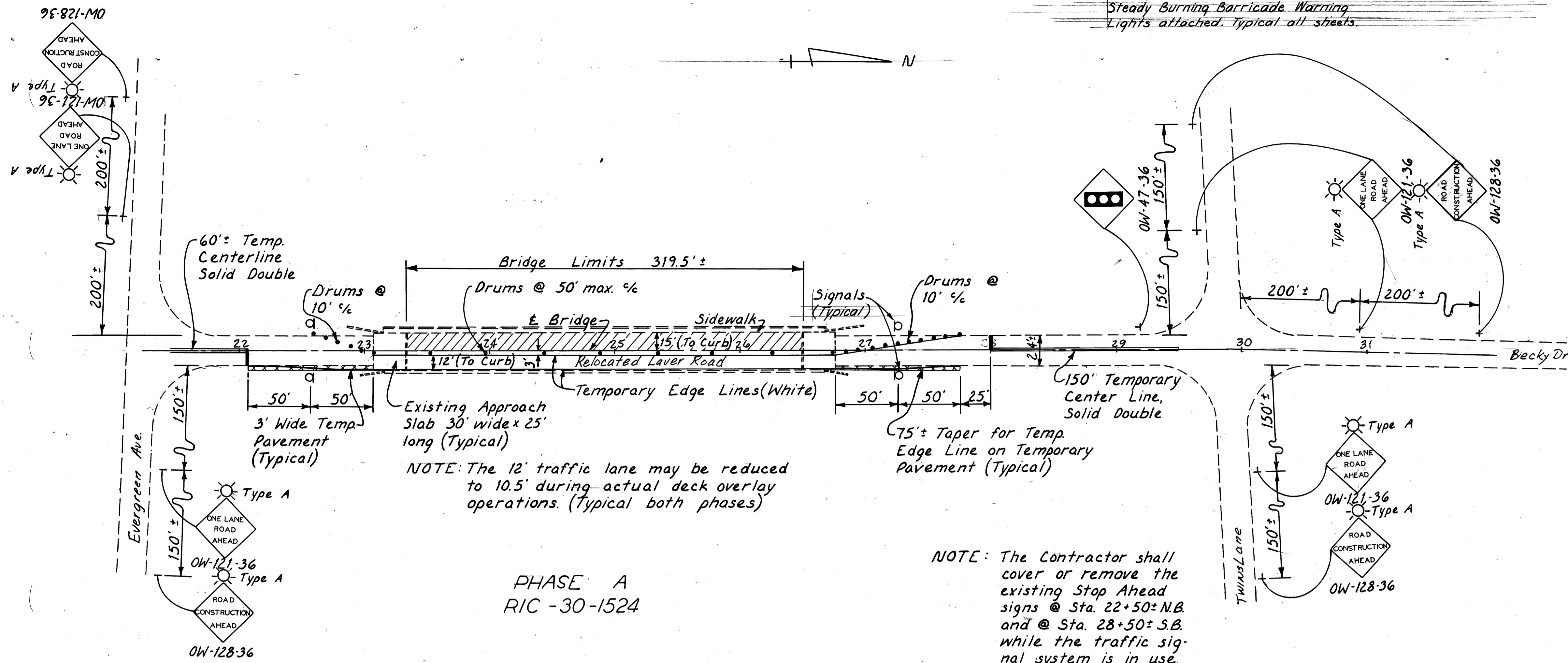
NOTE: All drums shall have Type C.
Steady Burning Barricade Warning
Lights attached. Typical all sheets.

Calc. by ROB 9/84
Chk'd by HEW 1/84

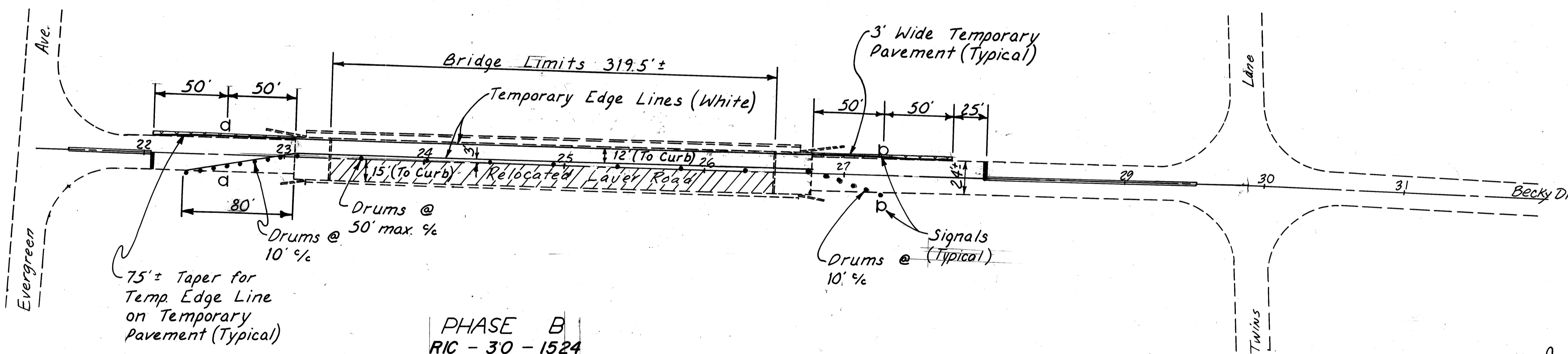
FHWA REGION	STATE	PROJECT
5	OHIO	

RIC - 30 - 12.37
ASD - 30 - 0.00

NOTE: This bridge deck overlay work shall not be done between Memorial Day and Labor Day due to increased vehicular and pedestrian traffic to adjacent public swimming pool.



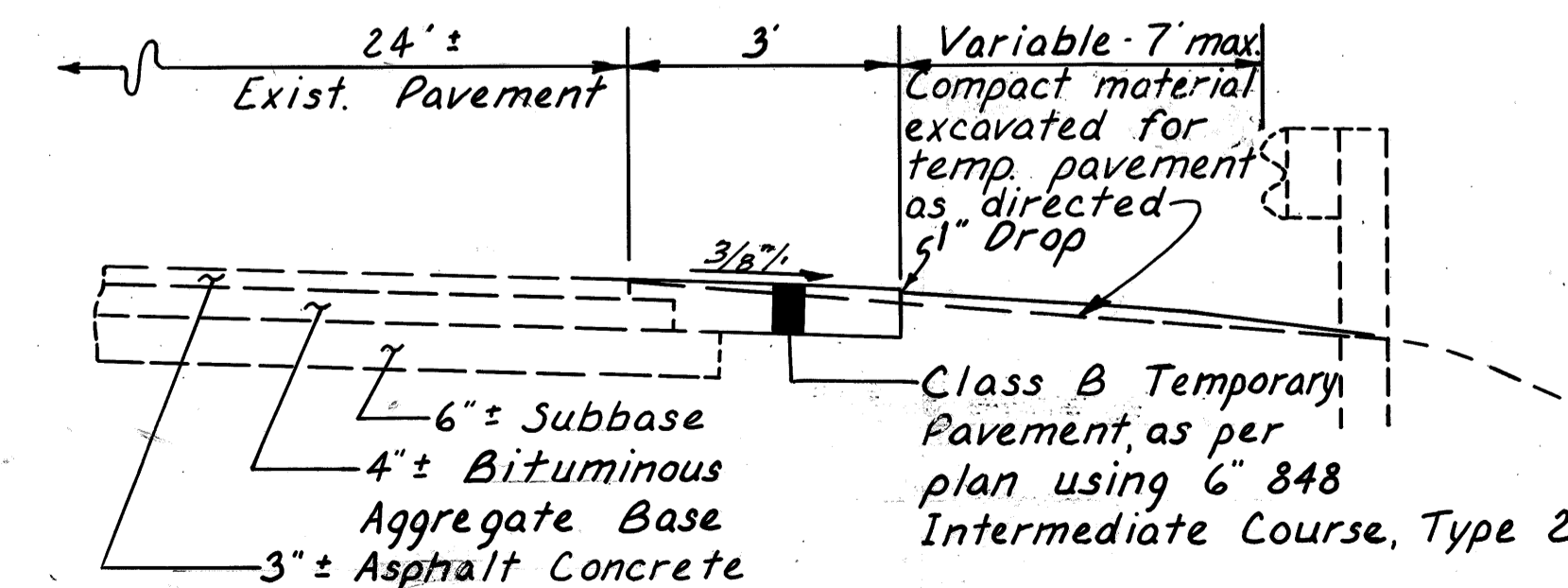
NOTES: For additional details (signs, luminaires, signals, etc.) not shown, see signaled closing of one lane of a two lane highway, Sheet 114. Specific details on this plan sheet shall govern over the standard treatment when a conflict exists.



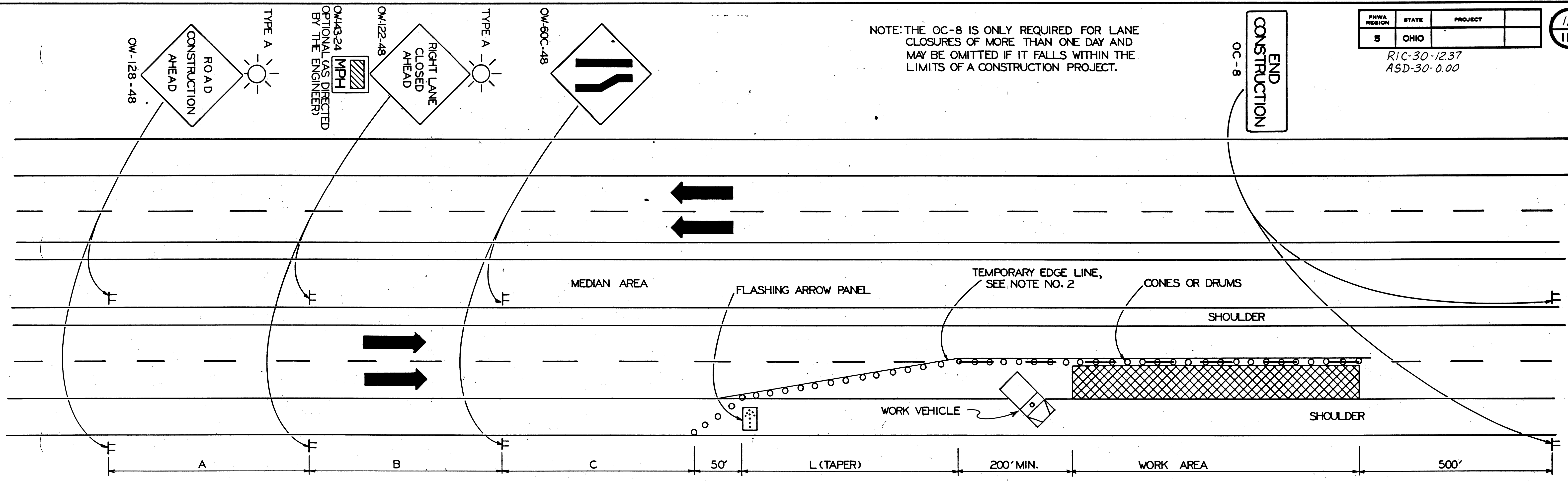
NOTE: All signs for Phase "B" shall be the same as for Phase "A"

RIC - 30 - 1524	615		614		
	Temporary Pavement, Class B As Per Plan	Temporary Roads	Temporary Edge Lines, Class I (White)	Temporary Centerlines, Class I	Temporary Stop Lines, Class I
	Sq. Yds.	Lump	Lin. Ft./Mile	Lin. Ft./Mile	Lin. Ft.
Phase A	67	Lump	1039	210	24
Phase B	67	Lump	1019		
TOTALS	134	Lump	2058	210	24

Quantities carried to Sheet 95 0.39 Mile 0.04 Mile



NOTE: THE OC-8 IS ONLY REQUIRED FOR LANE CLOSURES OF MORE THAN ONE DAY AND MAY BE OMITTED IF IT FALLS WITHIN THE LIMITS OF A CONSTRUCTION PROJECT.



- 1) THE TAPER LENGTH (L) SHALL BE IN ACCORDANCE WITH SECTION 7F-17 OF THE ODOTCD. THE LOCATION OF THE TRANSITION TAPER AND LOCATION OF THE ADVANCE WARNING SIGNS SHOULD BE ADJUSTED TO PROVIDE FOR ADEQUATE SIGHT DISTANCE FOR THE EXISTING VERTICAL AND HORIZONTAL ROADWAY ALIGNMENT. IN ORDER TO DETERMINE THE MINIMUM NUMBER OF CHANNELIZING DEVICES FOR THE TRANSITION TAPER SEE TABLE 7-5 ODOTCD. FOR A 55 MPH PREVAILING SPEED AND A 12 FT. LANE, NOT LESS THAN THIRTEEN (13) DRUMS SHALL BE USED TO FORM THE LANE TRANSITION TAPER IN ADVANCE OF THE WORK AREA. NOT LESS THAN FIVE (5) DRUMS SHALL BE USED TO FORM THE TAPER ON THE SHOULDER. DRUMS SHALL BE SPACED 50' CENTER TO CENTER IN THE WORK AREA. CONES HAVING A MINIMUM HEIGHT OF 28 INCHES MAY BE SUBSTITUTED FOR DRUMS FOR DAY TIME LANE CLOSURES. PROVISIONS SHALL BE MADE TO STABILIZE THE CONES TO PREVENT THEM FROM BLOWING OVER.
- 2) IF THE CONSTRUCTION OPERATION REQUIRES THE LANE CLOSURE FOR MORE THAN ONE DAY THEN THE EXISTING CONFLICTING PAVEMENT MARKINGS AND REFLECTORS FROM THE RAISED PAVEMENT MARKERS SHALL BE REMOVED AND THE APPROPRIATE COLOR TEMPORARY EDGE LINES SHALL BE APPLIED. PAVEMENT MARKING TAPE MAY BE USED. AFTER COMPLETION OF THE WORK, TEMPORARY MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH 621.134 AND THE ORIGINAL MARKINGS AND RAISED PAVEMENT MARKER REFLECTORS SHALL BE RESTORED.
- 3) THE MAJOR STANDARD LEVEL (36") WARNING SIGNS MAY BE USED ON DIVIDED STREETS OR HIGHWAYS THAT ARE NOT CLASSIFIED AS FREEWAYS OR EXPRESSWAYS.

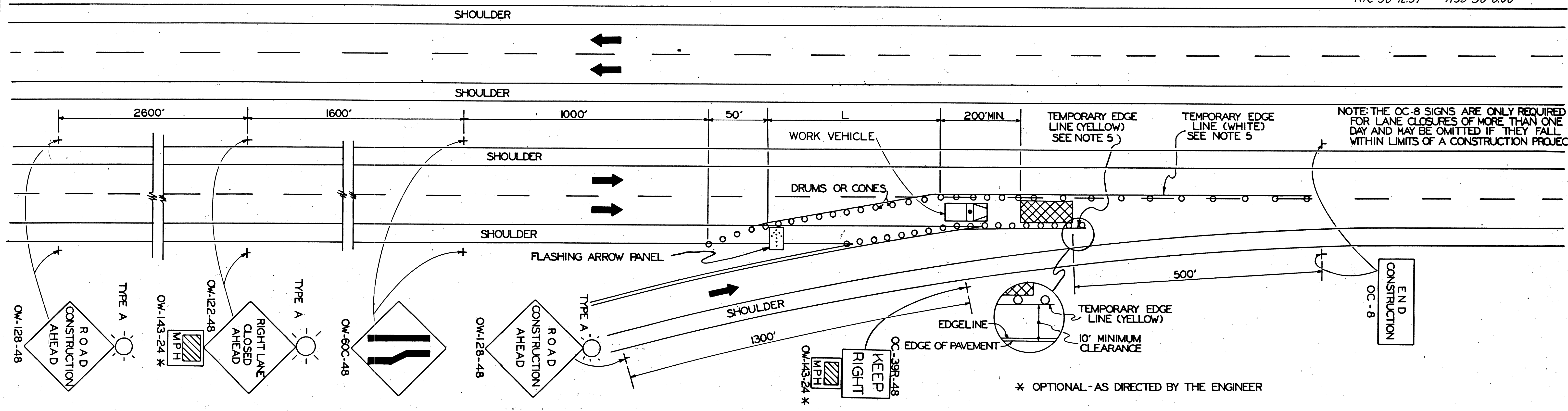
- 4) WHEN WORK IS BEING PERFORMED IN THE LANE ADJACENT TO THE MEDIAN ON A DIVIDED HIGHWAY AN OW-123-48 SIGN(S) SHALL BE SUBSTITUTED FOR THE OW-122-48 SIGN(S) AND AN OW-60D-48 SIGN(S) SHALL BE SUBSTITUTED FOR THE OW-60C-48 SIGN(S). NOTE NO. 2 IS APPLICABLE FOR THIS CLOSURE ALSO.
- 5) THE WORK VEHICLE SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER WORKERS ARE IN THE WORK AREA. THIS WORK VEHICLE SHALL BE REMOVED FROM THE PAVEMENT WHENEVER WORKERS ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE WORK VEHICLE SHOWN WHEN APPROVED BY THE ENGINEER. THE VEHICLE SHALL BE EQUIPPED WITH A 360° ROTATING OR FLASHING AMBER BEACON CLEARLY VISIBLE FOR A MINIMUM OF ONE-QUARTER (1/4) MILE.
- 6) THE FLASHING ARROW PANEL SHALL MEET THE REQUIREMENTS OF STANDARD DRAWING TC-35.10.
- 7) TYPE C STEADY BURN BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS FOR NIGHT LANE CLOSURES. THE MAXIMUM SPACING SHALL BE IDENTICAL TO THE CHANNELIZING DEVICE SPACING REQUIREMENTS DESCRIBED IN NOTE NO. 1.
- 8) TYPE A FLASHING BARRICADE WARNING LIGHTS SHOWN ON THE "ROAD CONSTRUCTION AHEAD" AND THE "RIGHT LANE CLOSED AHEAD" SIGNS ARE REQUIRED WHENEVER A NIGHT LANE CLOSURE IS NECESSARY.

- 9) SOME WORK AREA LOCATIONS MAY REQUIRE MORE THAN JUST STATIC OR CONVENTIONAL SIGNS TO ENHANCE COMMUNICATION WITH THE DRIVER. AT THESE LOCATIONS PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) UNITS ARE RECOMMENDED. THESE DEVICES SHOULD BE LOCATED APPROXIMATELY 2,000 FEET IN ADVANCE OF A LANE CLOSURE OR OTHER POINT OF REQUIRED ACTION. SEE SECTION 7G-8.1, ODOTCD FOR FURTHER GUIDANCE ON USE OF PCMS UNITS. THESE UNITS, IF REQUIRED, WILL BE SPECIFICALLY CALLED FOR IN THE PLANS AND PAID FOR SEPARATELY.
- 10) PAYMENT FOR ALL OF THE ABOVE, UNLESS ITEMIZED SEPARATELY, SHALL BE INCLUDED IN ITEM 614, MAINTAINING TRAFFIC.

NOTE: Specific Plan Details shall govern over this Standard Treatment when a conflict exists.

MINIMUM DISTANCE	A	B	C
	FEET	FEET	FEET
MAJOR STANDARD	500	500	500
URBAN FREEWAY & EXPRESSWAY	500 TO 1000	500 TO 1000	500 TO 1000
RURAL FREEWAY & EXPRESSWAY	2600	1600	1000

ODOT DISTRICT 3	
CLOSING ONE LANE OF A FOUR LANE DIVIDED HIGHWAY	DATE: 12/82
REVISED: CN 10-83	



NOTE: THE OC-8 SIGNS ARE ONLY REQUIRED FOR LANE CLOSURES OF MORE THAN ONE DAY AND MAY BE OMITTED IF THEY FALL WITHIN LIMITS OF A CONSTRUCTION PROJECT.

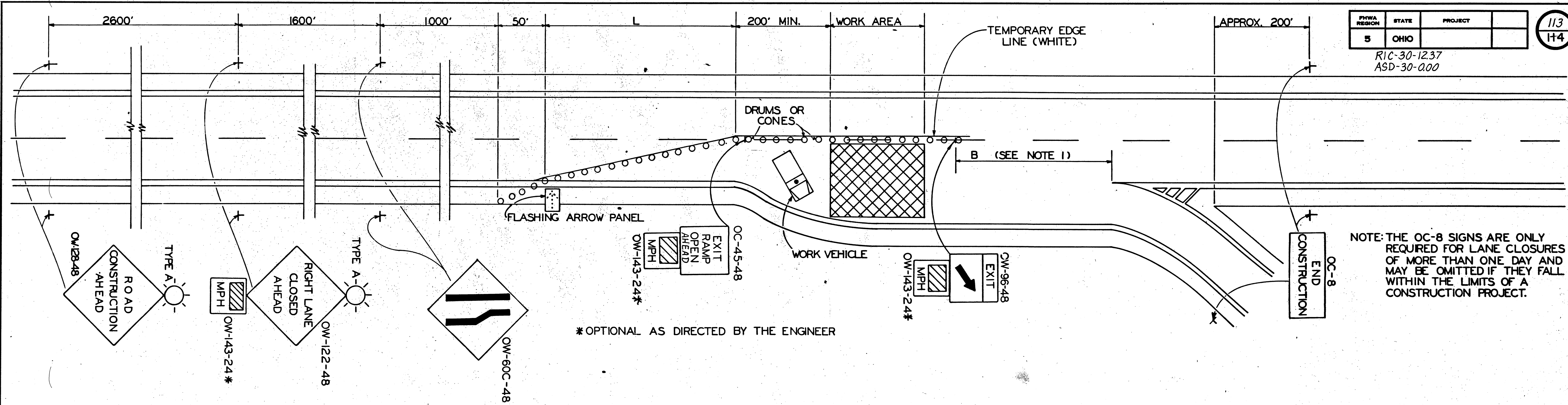
* OPTIONAL - AS DIRECTED BY THE ENGINEER

- 1) THIS WORK AREA TRAFFIC CONTROL APPLICATION SHALL BE EMPLOYED WHEN THE LATERAL CLEARANCE BETWEEN THE CHANNELIZING DEVICES AT THE RIGHT EDGE OF THE WORK AREA AND THE EDGE OF THE RAMP PAVEMENT IS 10 FEET OR MORE.
- 2) THE TAPER LENGTH (L) SHALL BE IN ACCORDANCE WITH SECTION 7F-17 OF THE OMTCD. THE LOCATION OF THE ADVANCE WARNING SIGNS SHOULD BE ADJUSTED TO PROVIDE FOR ADEQUATE SIGHT DISTANCE FOR THE EXISTING VERTICAL AND HORIZONTAL ROADWAY ALIGNMENT. IN ORDER TO DETERMINE THE MINIMUM NUMBER OF CHANNELIZING DEVICES FOR THE TRANSITION TAPER SEE TABLE 7-5 OMTCD. FOR A 55 MPH PREVAILING SPEED AND A 12 FOOT LANE, NOT LESS THAN THIRTEEN (13) DRUMS SHALL BE USED TO FORM THE LANE TRANSITION TAPER IN ADVANCE OF THE WORK AREA. NOT LESS THAN FIVE (5) DRUMS SHALL BE USED TO FORM THE TAPER IN THE SHOULDER AREA. DRUMS SHALL BE LOCATED AS SHOWN TO SEPARATE THE RAMP TRAFFIC FROM THE WORK AREA. DRUMS SHALL BE SPACED 50' CENTER TO CENTER. CONES HAVING A MINIMUM HEIGHT OF 28 INCHES MAY BE SUBSTITUTED FOR DRUMS FOR DAYTIME LANE CLOSURES.
- 3) THE SPACINGS BETWEEN CONSTRUCTION SIGNS SHOWN ON THIS DETAIL MAY REQUIRE ADJUSTMENTS (INCREASES OR DECREASES) TO ASSURE THAT THEY ARE POSITIONED NO CLOSER THAN 200 FEET TO EXISTING SIGNS OR AS DETERMINED BY THE ENGINEER.
- 4) RAMP SIGNS SHALL BE DUAL MOUNTED ON MULTILANE RAMPS.
- 5) IF THE CONSTRUCTION OPERATION REQUIRES THE LANE CLOSURE FOR MORE THAN ONE DAY, THEN THE EXISTING CONFLICTING PAVEMENT MARKINGS AND REFLECTORS FROM THE RAISED PAVEMENT MARKERS SHALL BE REMOVED AND THE APPROPRIATE COLOR TEMPORARY EDGE LINES SHALL BE APPLIED. PAVEMENT MARKING TAPE MAY BE USED.

- 6) AFTER COMPLETION OF THE WORK, TEMPORARY MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH 621.134 AND THE ORIGINAL MARKINGS AND RAISED PAVEMENT MARKER REFLECTORS SHALL BE RESTORED. THE WORK VEHICLE SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER MEN ARE WORKING WITHIN THE WORK AREA. THIS VEHICLE SHALL BE MOVED FROM THE PAVEMENT WHENEVER WORKMEN ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE WORK VEHICLE SHOWN WHEN APPROVED BY THE ENGINEER. THE VEHICLE SHALL BE EQUIPPED WITH A 360° ROTATING OR FLASHING AMBER BEACON CLEARLY VISIBLE FOR A MINIMUM OF ONE-QUARTER (1/4) MILE. A TRUCK MOUNTED IMPACT ATTENUATOR MAY BE EMPLOYED.
- 7) THE FLASHING ARROW PANEL SHALL MEET THE REQUIREMENTS OF STANDARD DRAWING TC-35.10.
- 8) TYPE C STEADY BURN BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS FOR NIGHT LANE CLOSURES. THE MAXIMUM SPACING SHALL BE IDENTICAL TO THE CHANNELIZING DEVICE SPACING REQUIREMENTS DESCRIBED IN NOTE NO. 1.
- 9) TYPE A FLASHING BARRICADE WARNING LIGHTS SHOWN ON THE "ROAD CONSTRUCTION AHEAD" AND THE "RIGHT LANE CLOSED AHEAD" SIGNS ARE REQUIRED WHENEVER A NIGHT LANE CLOSURE IS NECESSARY.
- 10) SOME WORK AREA LOCATIONS MAY REQUIRE MORE THAN JUST STATIC OR CONVENTIONAL SIGNS TO ENHANCE COMMUNICATION WITH THE DRIVER. AT THESE LOCATIONS PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) UNITS ARE RECOMMENDED. THESE DEVICES SHOULD BE LOCATED APPROXIMATELY 2,000 FEET IN ADVANCE OF A LANE CLOSURE OR OTHER POINT OF REQUIRED ACTION. SEE SECTION 76-8.1, OMTCD FOR FURTHER GUIDANCE ON USE OF PCMS UNITS. THESE UNITS, IF REQUIRED, WILL BE SPECIFICALLY CALLED FOR IN THE PLANS AND PAID FOR SEPARATELY.

11) PAYMENT FOR ALL OF THE ABOVE, UNLESS ITEMIZED SEPARATELY, SHALL BE INCLUDED IN ITEM 614, MAINTAINING TRAFFIC.

ODOT DISTRICT 3	
LANE CLOSURE AT ENTRANCE RAMP: PLAN A	DATE 8-3-79
REVISED: CN 12-83	



NOTE: THE OC-8 SIGNS ARE ONLY REQUIRED FOR LANE CLOSURES OF MORE THAN ONE DAY AND MAY BE OMITTED IF THEY FALL WITHIN THE LIMITS OF A CONSTRUCTION PROJECT.

* OPTIONAL AS DIRECTED BY THE ENGINEER

- 1) THIS WORK AREA TRAFFIC CONTROL APPLICATION SHALL ONLY BE USED WHEN THE DISTANCE "B" IS 100 FEET OR GREATER.
- 2) THE TAPER LENGTH (L) SHALL BE IN ACCORDANCE WITH SECTION 7F-17 OF THE ODOTCD. THE LOCATION OF THE ADVANCE WARNING SIGNS SHOULD BE ADJUSTED TO PROVIDE FOR ADEQUATE SIGHT DISTANCE FOR THE EXISTING VERTICAL AND HORIZONTAL ROADWAY ALIGNMENT. IN ORDER TO DETERMINE THE MINIMUM NUMBER OF CHANNELIZING DEVICES FOR THE TRANSITION TAPER SEE TABLE 7-5 ODOTCD. FOR A 55 MPH PREVAILING SPEED AND A 12 FOOT LANE, NOT LESS THAN THIRTEEN (13) DRUMS SHALL BE USED TO FORM THE LANE TRANSITION TAPER IN ADVANCE OF THE WORK AREA. NOT LESS THAN FIVE (5) DRUMS SHALL BE USED TO FORM THE TAPER IN THE SHOULDER AREA. DRUMS SHALL BE SPACED 50' CENTER TO CENTER. CONES HAVING A MINIMUM HEIGHT OF 28 INCHES MAY BE SUBSTITUTED FOR DRUMS FOR DAY-TIME LANE CLOSURES.
- 3) THE SPACINGS BETWEEN CONSTRUCTION SIGNS SHOWN ON THIS DETAIL MAY REQUIRE ADJUSTMENTS (INCREASES OR DECREASES) TO ASSURE THAT THEY ARE POSITIONED NO CLOSER THAN 200 FEET TO EXISTING SIGNS OR AS DETERMINED BY THE ENGINEER.
- 4) IF THE CONSTRUCTION OPERATION REQUIRES THE LANE CLOSURE FOR MORE THAN ONE DAY, THEN THE EXISTING CONFLICTING PAVEMENT MARKINGS AND REFLECTORS FROM THE RAISED PAVEMENT MARKERS SHALL BE REMOVED AND THE APPROPRIATE COLOR TEMPORARY EDGE LINES SHALL BE APPLIED. PAVEMENT MARKING TAPE MAY BE USED. AFTER COMPLETION OF THE WORK, TEMPORARY MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH 621.134 AND THE ORIGINAL MARKINGS AND RAISED PAVEMENT MARKER REFLECTORS SHALL BE RESTORED.

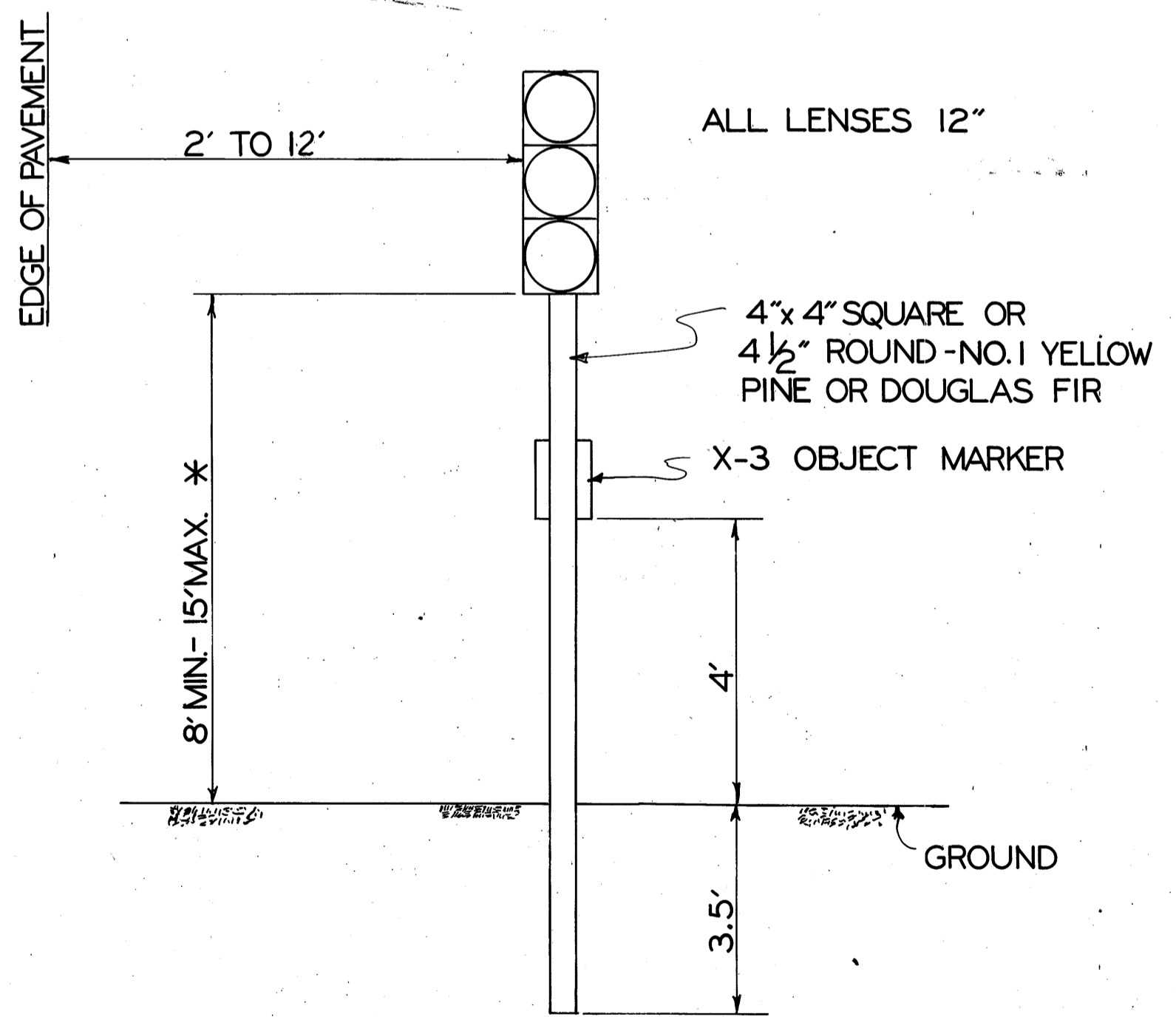
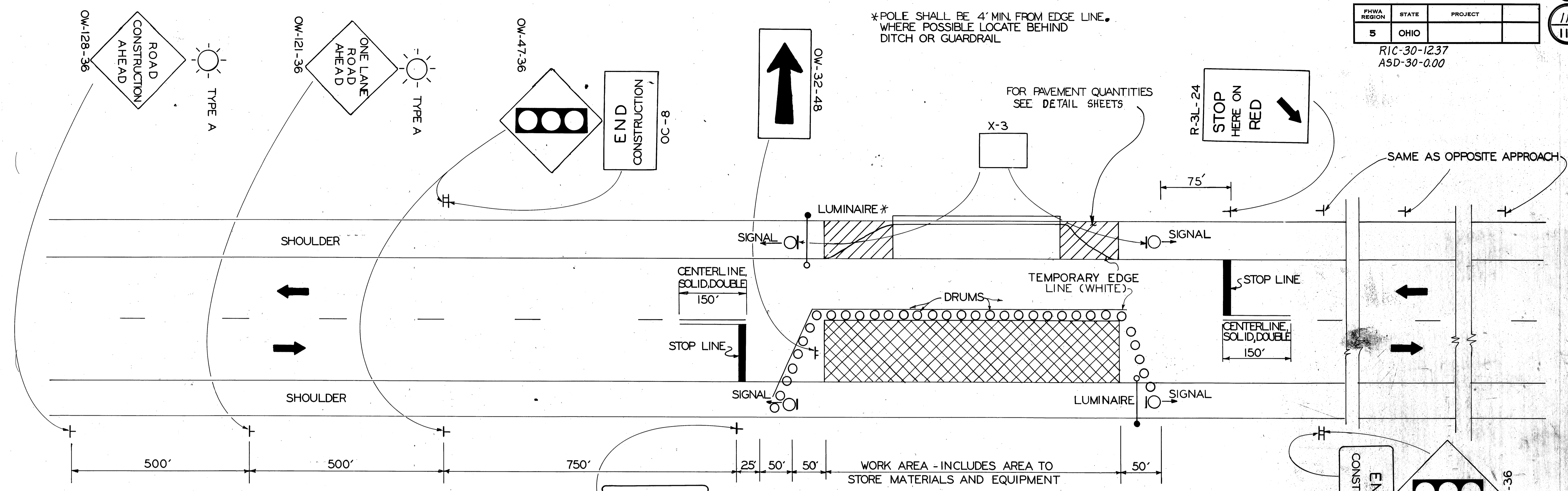
- 5) THE WORK VEHICLE SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER MEN ARE WORKING WITHIN THE WORK AREA. THIS VEHICLE SHALL BE MOVED FROM THE PAVEMENT WHENEVER WORKMEN ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE WORK VEHICLE SHOWN WHEN APPROVED BY THE ENGINEER. THE VEHICLE SHALL BE EQUIPPED WITH A 360° ROTATING OR FLASHING AMBER BEACON CLEARLY VISIBLE FOR A MINIMUM OF ONE-QUARTER (1/4) MILE.
- 6) THE FLASHING ARROW PANEL SHALL MEET THE REQUIREMENTS OF STANDARD DRAWING TC-35.10.
- 7) TYPE C STEADY BURN BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS FOR NIGHT LANE CLOSURES. THE MAXIMUM SPACING SHALL BE IDENTICAL TO THE CHANNELIZING DEVICE SPACING REQUIREMENTS DESCRIBED IN NOTE NO. 1.
- 8) TYPE A FLASHING BARRICADE WARNING LIGHTS SHOWN ON THE "ROAD CONSTRUCTION AHEAD" AND THE "RIGHT LANE CLOSED AHEAD" SIGNS ARE REQUIRED WHENEVER A NIGHT LANE CLOSURE IS NECESSARY.
- 9) SOME WORK AREA LOCATIONS MAY REQUIRE MORE THAN JUST STATIC OR CONVENTIONAL SIGNS TO ENHANCE COMMUNICATION WITH THE DRIVER. AT THESE LOCATIONS PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) UNITS ARE RECOMMENDED. THESE DEVICES SHOULD BE LOCATED APPROXIMATELY 2,000 FEET IN ADVANCE OF A LANE CLOSURE OR OTHER POINT OF REQUIRED ACTION. SEE SECTION 76-8.1, ODOTCD FOR FURTHER GUIDANCE ON USE OF PCMS UNITS. THESE UNITS, IF REQUIRED, WILL BE SPECIFICALLY CALLED FOR IN THE PLANS AND PAID FOR SEPARATELY.
- 10) PAYMENT FOR ALL OF THE ABOVE, UNLESS ITEMIZED SEPARATELY, SHALL BE INCLUDED IN ITEM 614, MAINTAINING TRAFFIC.

ODOT DISTRICT 3	
LANE CLOSURE BEFORE EXIT GORE	DATE 8-3-79
REVISED CN 12 83	

FHWA REGION	STATE	PROJECT
5	OHIO	

RIC-30-12.37
ASD-30-0.00

*POLE SHALL BE 4' MIN. FROM EDGE LINE.
WHERE POSSIBLE LOCATE BEHIND
DITCH OR GUARDRAIL



TYPICAL POLE SUPPORTED SIGNAL
* ABOVE GRADE OF ROADWAY CENTERLINE

- 1) THE MAXIMUM LENGTH OF WORK AREA FOR ONE WAY TRAFFIC SIGNAL CONTROL IS DETERMINED BY THE CAPACITY REQUIRED TO HANDLE THE PEAK HOUR DEMAND. PRACTICAL MAXIMUM LENGTH OF WORK AREA IS 400 FEET.
 - 2) A TWO PHASE CONTROLLER WITH CABINET, CAPABLE OF BEING SET WITH THE FOLLOWING SPLITS SHALL BE FURNISHED.
CYCLE LENGTH 60 SECONDS.
- | | GREEN | AMBER | RED |
|---------|-----------|----------|----------|
| PHASE A | <u>17</u> | <u>5</u> | <u>8</u> |
| PHASE B | <u>17</u> | <u>5</u> | <u>8</u> |
- THE ABOVE TIMING MAY BE CHANGED WITH APPROVAL OF THE ENGINEER. THE SIGNALS SHALL BE INSTALLED AND OPERATED IN ACCORDANCE WITH THE REQUIREMENTS OF PART 6 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. IN ADDITION ALL TRAFFIC SIGNALS AND EQUIPMENT USED IN THIS TRAFFIC SIGNAL INSTALLATION, SUCH AS A SIGNAL CABLE AND SIGNAL HEADS, SHALL BE IN CONFORMANCE WITH SPECIFICATIONS 632 AND 732. HOWEVER, THE PERFORMANCE TEST PROVISION NOTED IN SPECIFICATION 632.27, PARAGRAPH 6 AND THE WORKING DRAWING REQUIREMENTS OF 632.03 ARE WAIVED. THE CONTROLLER, FLASHERS, LOAD SWITCHES, CONFLICT MONITOR AND OTHER CONTROLLER ACCESSORIES SHALL COMPLY WITH SUPPLEMENTAL SPECIFICATIONS 861 AND 961, EXCEPT THAT THE REQUIREMENTS OF 861.03 AND 861.05 ARE WAIVED. USED EQUIPMENT MEETING CURRENT ODOT SPECIFICATIONS IS ACCEPTABLE.
- CONFLICT MONITORS SHALL BE FURNISHED AT ALL LOCATIONS UNLESS AN ELECTRO-MECHANICAL PRETIMED CONTROLLER WITH CAM SHAFT IS PROVIDED.

- 3) WHEN THE SIGNAL IS CHANGED TO A FLASH CONDITION EITHER MANUALLY OR AUTOMATICALLY, RED SHALL BE FLASHED TO BOTH APPROACHES.
- 3) DRUMS SHALL BE SPACED A MAXIMUM OF 50' CENTER TO CENTER WITHIN THE WORK AREA. DRUMS ON THE ADVANCE AND RETURN TAPERS SHALL BE SPACED AT 10' CENTER TO CENTER.
- 4) ADEQUATE AREA ILLUMINATION TO CLEARLY IDENTIFY BOTH ENDS OF THE WORK AREA AT NIGHT SHALL BE PROVIDED BY USING 150 WATT MINIMUM HIGH PRESSURE SODIUM LUMINAIRES OR 250 WATT MINIMUM MERCURY VAPOR LUMINAIRES. THE LUMINAIRES SHALL BE LOCATED ADJACENT TO ONE SIGNAL FOR EACH DIRECTION OF TRAFFIC AS SHOWN ABOVE. THE MOUNTING HEIGHT FOR THE LUMINAIRES SHALL BE A MINIMUM OF 27 FEET ABOVE THE PAVEMENT AND MOUNTED ON A SUPPORT OF ADEQUATE STRENGTH TO PROVIDE A SATISFACTORY INSTALLATION. THE OVERHEAD CONDUCTOR CLEARANCE SHALL BE A MINIMUM OF 20 FEET ABOVE THE PAVEMENT. THE LUMINAIRE ARMS SHALL BE OF SUFFICIENT LENGTH TO EXTEND TO THE EDGE OF THE PAVEMENT.
- 5) TEMPORARY CENTERLINE: SOLID, DOUBLE, AS SHOWN ABOVE, SHALL BE INSTALLED AND MAINTAINED WHERE NO-PASSING LINES ARE NOT ALREADY IN PLACE. 12" STOP LINES SHALL ALSO BE INSTALLED. TEMPORARY EDGE LINE (WHITE) SHALL BE INSTALLED ALONG THE EDGE OF THE TEMPORARY PAVEMENT. PAVEMENT MARKING TAPE MAY BE USED FOR THE TEMPORARY MARKING. EXISTING CONFLICTING PAVEMENT MARKINGS BETWEEN THE WORK AREA AND THE STOP LINE, AND ON THE EXISTING PAVEMENT ADJACENT TO THE WIDENING SHALL BE REMOVED. IF RAISED PAVEMENT MARKERS ARE EXISTING ALONG THE EDGE LINE, THE REFLECTORS SHALL BE REMOVED ALONG THE TEMPORARY PAVEMENT.

- 6) AFTER COMPLETION OF THE WORK, TEMPORARY MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH 621.134 AND THE ORIGINAL MARKINGS AND RAISED PAVEMENT MARKER REFLECTORS SHALL BE RESTORED.
- 6) THE TYPE A FLASHING BARRICADE WARNING LIGHTS SHOWN ON THE "ROAD CONSTRUCTION AHEAD" AND THE "ONE LANE ROAD AHEAD" SIGNS ARE REQUIRED WHENEVER A NIGHT LANE CLOSURE IS NECESSARY.
- 7) TYPE C STEADY BURN BARRICADE WARNING LIGHTS SHALL BE ERECTED ON THE DRUMS FOR NIGHT LANE CLOSURES. THE MAXIMUM SPACING SHALL BE IDENTICAL TO THE CHANNELIZING DEVICE SPACING REQUIREMENTS DESCRIBED IN NOTE 3.
- 8) THE HORIZONTAL OR VERTICAL ALIGNMENT OF THE ROADWAY MAY REQUIRE ADJUSTMENTS IN THE LOCATION OF THE ADVANCE WARNING SIGNS (THE DISTANCES SHOWN FOR ADVANCE WARNING SIGN SPACINGS ARE MINIMUMS). THE VERTICAL ALIGNMENT OF THE ROADWAY MAY REQUIRE ADJUSTMENTS IN THE HEIGHT OF THE SIGNAL HEADS WITHIN THE RANGE SPECIFIED IN THE TYPICAL POLE SUPPORTED SIGNAL DETAIL.
- 9) PAYMENT FOR ALL OF THE ABOVE, UNLESS ITEMIZED SEPARATELY, SHALL BE INCLUDED IN ITEM 614 MAINTAINING TRAFFIC.

ODOT DISTRICT 3

SIGNALIZED CLOSING OF ONE LANE OF A TWO LANE HIGHWAY

DATE: 12/82

REVISED: ON 10-83