

INDEX OF SHEETS

SEE SHEET NO. 1A (ROADWAY PLANS)
SEE SHEET NO. 2 (STRUCTURE PLANS)

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

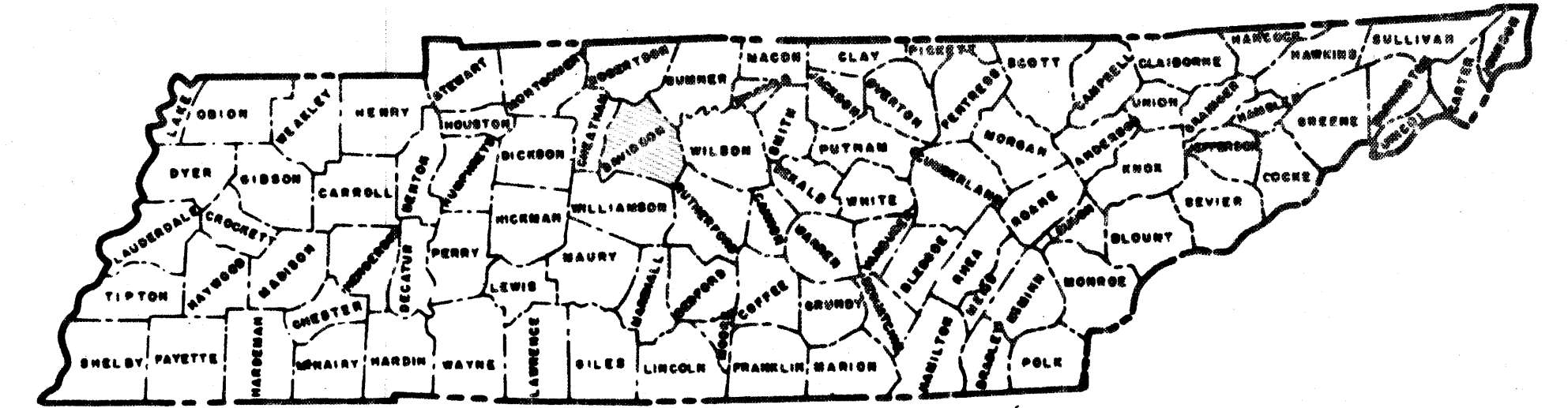
FED. ROAD DIST. NO.	T E N N	YEAR	SHEET NO.
3		1982	1
FED. AID PROJ. NO.	I-440-4(48)211		
STATE PROJ. NO.	19015-3113-44		

DAVIDSON COUNTY

6 BRIDGES IN 'STACK' AREA
(I-440 AND I-65 DIRECTIONAL INTERCHANGE)

BRIDGES

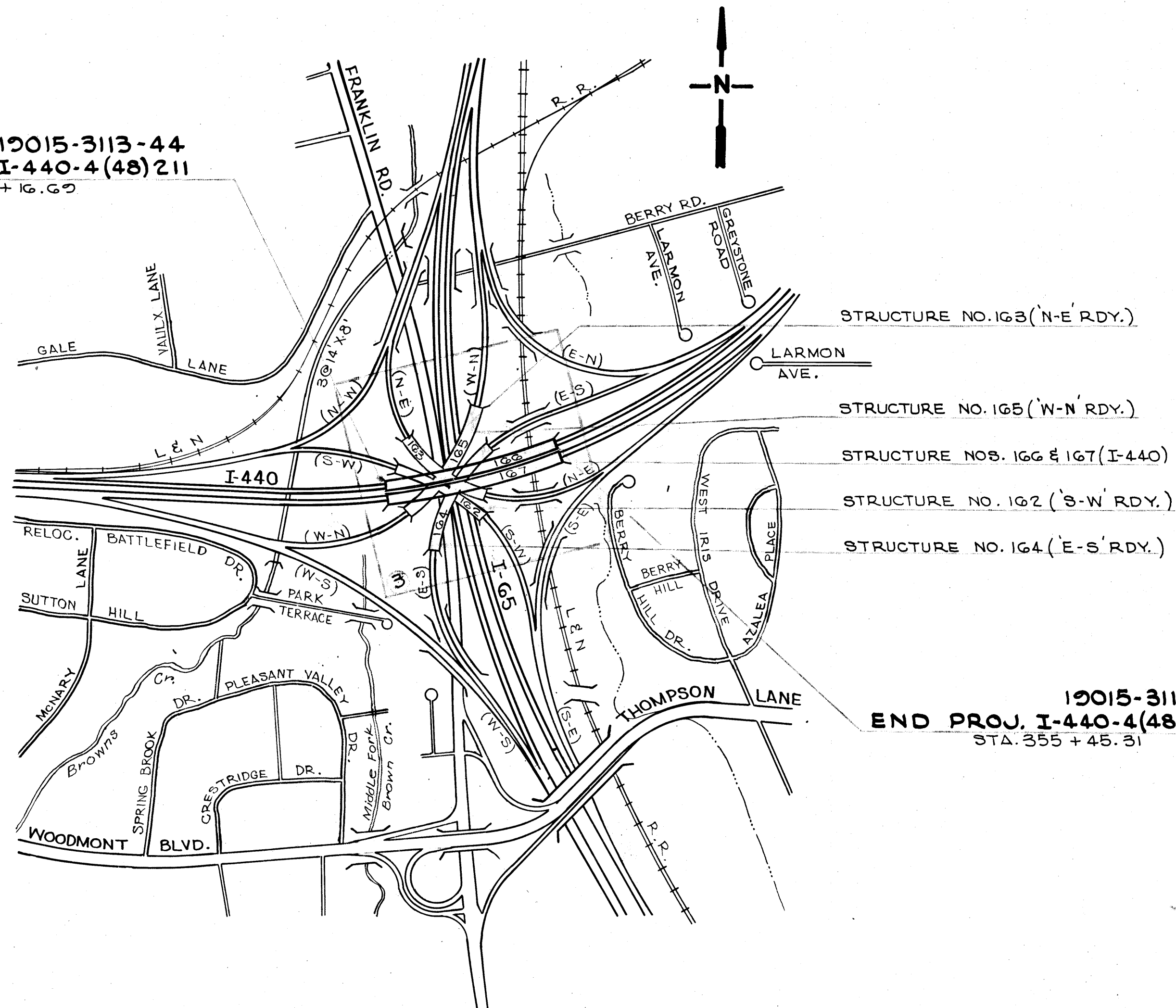
INTERSTATE HIGHWAY NO. I-440 'PARKWAY' F.A.H.S. NO. I-440



TRAFFIC DATA	
A.D.T. (BASE YEAR)	30,100
A.D.T. (DESIGN YEAR)	62,000
D.H.V. (DESIGN YEAR)	5,270
D	55-45
T	8%
V (MAIN LINE)	60 M.P.H.
V (RAMPS)	50 M.P.H.

TRAFFIC SHOWN ABOVE IS REDUCED FACILITY TRAFFIC AS DESCRIBED IN THE F.E.I.S. AS APPROVED BY THE F.H.W.A. ON 9-19-80.

19015-3113-44
BEGIN PROJ. I-440-4(48)211
STA. 345+16.69



19015-3113-44
END PROJ. I-440-4(48)211
STA. 355+45.31

NO EQUATIONS
NO EXCLUSIONS

SPECIAL NOTE

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

ROADWAY LENGTH 0.000 MILES
* BRIDGE LENGTH 0.124 MILES
PROJECT LENGTH 0.124 MILES

* DOES NOT INCLUDE 0.097 MI. FOR STRUCTURE NO. 162, 0.088 MI. FOR STRUCTURE NO. 163, 0.133 MI. FOR STRUCTURE NO. 164, 0.134 MI. FOR STRUCTURE NO. 165.

APPROVED *Lewis Evans*
STATE TRANSPORTATION ENGINEER

DATE

APPROVED *Paul E. F...*
COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:
DIVISION ADMINISTRATOR DATE

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION FORMERLY DEPARTMENT OF HIGHWAYS DATED MARCH 1, 1981 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

DESIGNER REAVIS PENDERGRASS CHECK BY

STANDARD ROADWAY DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	1A

REV. 4-8-82: ADDED UTILITY SHEET NOS. 9 THRU. 18 TO INDEX.

REV. 11-50-82 SHEET NOS. 9, 10, 11, 12, 15, 16, 17 & 18 ELIMINATED FROM PLANS.

SHEET NO.	SHEET NAME
1	TITLE SHEET
1A	INDEX (ROADWAY PLANS)
2	ESTIMATED STRUCTURES INDEX AND QUANTITIES
2A	ESTIMATED ROADWAY QUANTITIES
2B	TYPICAL SECTIONS
2C	GENERAL NOTES AND SCOPE-OF-WORK
2D	TABULATED QUANTITIES
2E	DETAILS
2F	TRAFFIC CONTROL PLAN (PHASE I)
2G	TRAFFIC CONTROL PLAN (PHASE II)
2H	TRAFFIC CONTROL PLAN (PHASE III)
2I	TRAFFIC CONTROL PLAN (PHASE IV) DETAILS
2J	TRAFFIC CONTROL PLAN (PHASE IV a)
2K	TRAFFIC CONTROL PLAN (PHASE IV b)
3	PROPOSED LAYOUT (INTERCHANGE ROADWAYS IN "STACK")
3A	CURVE DATA (INTERCHANGE ROADWAYS IN "STACK")
4	PROFILE I-440 (STRUCTURE #166 & #167)
5	PROFILE "S-W" ROADWAY (STRUCTURE #162)
6	PROFILE "N-E" ROADWAY (STRUCTURE #163)
7	PROFILE "E-S" ROADWAY (STRUCTURE #164)
8	PROFILE "N-N" ROADWAY (STRUCTURE #165)
13-14	UTILITY
(9-12 & 15-18)	ELIMINATED FROM PROJECT

DWG. NO.	CURRENT REVISION DATE	TITLE
<u>ROADWAY DESIGN STANDARDS</u>		
RD-S-1	9-18-79	STANDARD ABBREVIATIONS.
RD-L-1	3-15-76	STANDARD LEGEND.
RD-L-2	9-18-79	STANDARD LEGEND.
RD-S-11	4-4-77	ROADSIDE SLOPE DEVELOPMENT.
RD-S-11A	4-4-77	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION.
RD-S-15	4-4-77	DESIGN STANDARDS 4-LANE HIGHWAYS IN RURAL AND URBAN AREAS (ON FAI AND FAP SYSTEMS).
RD-SA-1	4-4-77	SAFETY APPROACH TO UNDERPASSES - GRADING DESIGN.
RD-SE-1	11-9-76	STANDARD SUPERELEVATION DETAILS.

DWG. NO.	CURRENT REVISION DATE	TITLE
<u>DRAINAGE - CULVERTS AND ENDWALLS</u>		
D-CE-1	1-1-76	CONSTRUCTION DETAILS.
D-PB-1	2-25-77	CLASS "C" BEDDING AND CULVERT EXCAVATION.
D-PE-8	1-1-76	PIPE AND PIPE ARCH CULVERTS BEVELED ENDS AND RIP-RAP.
D-PG-3	3-2-76	FERROUS AND ALUMINUM CORRUGATED METAL PIPE.

DWG. NO.	CURRENT REVISION DATE	TITLE
<u>DRAINAGE - CATCH BASINS AND MANHOLES</u>		
D-CB-3	7-17-81	NOS. 36 AND 37 CATCH BASIN AND GRATE.
D-CB-9	1-1-76	STANDARD APRONS SPILLWAY AT BRIDGE ENDS.

DWG. NO.	CURRENT REVISION DATE	TITLE
<u>SAFETY APPURTENANCES AND FENCE</u>		
S-FA-5	1-1-76	FLASHING YELLOW ARROW BOARD
S-GR-1	7-17-81	W-BEAM BARRIER RAIL ELEMENT DETAILS AND SPECIFICATIONS.
S-GR-2	7-17-81	W-BEAM BARRIER POST DETAILS AND SPECIFICATIONS.
S-GR-3	9-21-77	W-BEAM BARRIER FASTENING HARDWARE AND REFLECTORS.
S-GR-4	7-17-81	W-BEAM BARRIER TERMINAL ELEMENT DETAILS.
S-GR-5	7-17-81	GUARDRAIL TERMINAL ANCHOR TYPE II
S-GR-6	7-17-81	GUARDRAIL BARRIER TREATMENT FOR PIERS IN MEDIAN.
S-GR-10	7-17-81	CONCRETE MEDIAN BARRIER AT BRIDGE PIER AND MEDIAN DIVIDER TERMINAL ANCHOR.

DWG. NO.	CURRENT REVISION DATE	TITLE
<u>TRAFFIC CONTROL APPURTENANCES</u>		
T-M-1	NEW DRAWING	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS.
T-M-6	NEW DRAWING	MARKING DETAILS OF RAMP INTERSECTIONS.

DWG. NO.	CURRENT REVISION DATE	TITLE
<u>EROSION CONTROL AND LANDSCAPING</u>		
EL-P-1	7-17-81	TEMPORARY POLLUTION CONTROL STRUCTURES.
EL-P-2	7-17-81	TYPICAL TEMPORARY POLLUTION CONTROL STRUCTURE LOCATIONS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX

TENN. STATE HIGHWAYS
FILE JAN 1992

2-16

TULLOCH POST 10899

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	2A

REV. 5-12-83 QUANTITY
REVISED ON ITEM NO. 705-04.01.

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	TOTAL	UNIT
103-10.01	TRAINEE	4,000	HOURL
203-01	ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED)	5,000	CU. YD.
203-03	BORROW EXCAVATION (UNCLASSIFIED)	5,000	CU. YD.
203-06	WATER	87	M. GAL.
203-07	FURNISHING AND SPREADING TOPSOIL	2,400	CU. YD.
204-07	BEDDING MATERIAL (PIPE) CLASS (B)	75	CU. YD.
206-01	FINAL DRESSING	6	STA.
209-01	TEMPORARY BERM	1,700	LIN. FT.
209-02	TEMPORARY SLOPE DRAIN	650	LIN. FT.
209-05	SEDIMENT REMOVAL	1,500	CU. YD.
209-06	BALED HAY OR STRAW EROSION CHECKS	350	BALE
209-07	DUMPED ROCK	750	CU. YD.
303-01	MINERAL AGGREGATE, TYPE 'A' BASE, GRADING 'D'	880	TON
303-06	CALCIUM CHLORIDE	42	BAG
303-15	MINERAL AGGREGATE (SIZE 4G7)	110	TON
307-02.01	AGGREGATE (BPMB-HM) GRADING "B" MIX	241	TON
307-02.02	ASPHALT CEMENT (BPMB-HM) GRADING "B" MIX	11	TON
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	4	TON
402-02	AGGREGATE FOR COVER MATERIAL (PC)	16	TON
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	1	TON
411-01.01	MINERAL AGGREGATE (ACS) GRADING "D"	404	TON
411-01.02	ASPHALT CEMENT (ACS) GRADING "D"	26	TON
604-01.01	CLASS 'A' CONCRETE (ROADWAY)	29	CU. YD.
607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	116	LIN. FT.
607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	74	LIN. FT.
607-37.02	18" CORRUGATED METAL PIPE CULVERT	400	LIN. FT.
610-05.04	CORRUGATED METAL PIPE DRAINS (12")	680	LIN. FT.
611-02.51	CAPPING EXISTING CATCH BASIN	3	EACH
611-03.01	CLASS 'A' CONCRETE (CATCH BASIN)	5	CU. YD.
611-07.04	STRUCTURAL STEEL (CATCH BASIN)	268	LB.
701-01.01	CONCRETE SIDEWALK (4 INCHES)	800	SQ. FT.
703-01	CEMENT CONCRETE DITCH PAVING	10	CU. YD.
705-01.02	PROTECTIVE GUARDRAIL AT BRIDGE PIERS	600	LIN. FT.
705-02.02	METAL DEEP BEAM SINGLE GUARDRAIL (POST SPACING 6 FT. 3 IN.)	12	LIN. FT.
705-04.01	GUARDRAIL TERMINAL ANCHOR (TYPE II)	2	EACH
711-02	CONCRETE MEDIAN BARRIER (BRIDGE PIER PROTECTION)	293	LIN. FT.
712-01	TRAFFIC CONTROL	1	LUMP SUM
712-02	PORTABLE BARRIER RAIL	600	LIN. FT.
712-05.01	WARNING LIGHTS (TYPE A)	25	EACH
712-05.02	WARNING LIGHTS (TYPE B)	25	EACH
712-05.03	WARNING LIGHTS (TYPE C)	80	EACH
712-06	SIGNS (CONSTRUCTION)	2,425	SQ. FT.
712-07.02	TEMPORARY BARRICADES (TYPE II)	180	LIN. FT.
712-07.03	TEMPORARY BARRICADES (TYPE III)	690	LIN. FT.
712-08.03	ARROW BOARD (TYPE C)	6	EACH
713-16.01	CHANGEABLE MESSAGE SIGN UNIT	4	EACH
716-05.01	PAINTED PAVEMENT MARKING (LINE)	1	LIN. MILE
717-01	MOBILIZATION	1	LUMP SUM
801-01.02	CROWN VETCH MIXTURE (WITH MULCH)	160	UNIT
801-03	WATER (SEEDING AND SODDING)	26	M. GAL.
801-07	SEED (SUPPLEMENTAL APPLICATION)	56	LB.
801-08	FERTILIZER (SUPPLEMENTAL APPLICATION)	1	TON
803-01	SODDING (NEW SOD)	2,540	S. Y.

FOOTNOTES

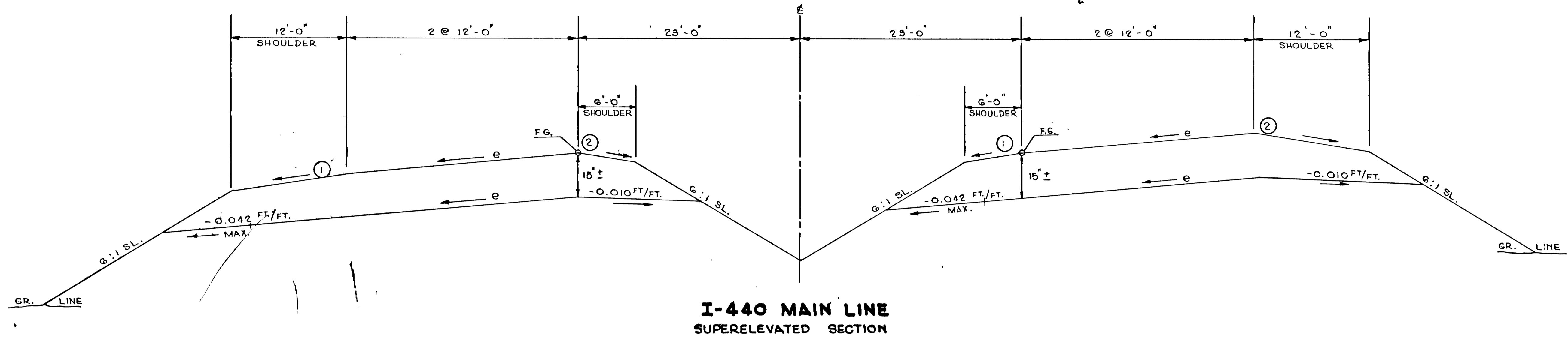
- ① TYPE I AND II PIPE WITH HELICAL CORRUGATIONS SHALL BE REROLLED TO FORM CIRCUMFERENTIAL CORRUGATIONS. SEE AASHTO M-26-81 I, SECTION 20.3 END FINISH, AND SECTIONS 21.1 AND 21.2, COUPLING BANDS, AND AASHTO M-126-80 I, SECTION 12.3 END FINISH, AND SECTIONS 20.1 AND 20.2, COUPLING BANDS.
- ② QUANTITY MAY BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.
- ③ INCLUDES 37 M. GAL. FOR EMBANKMENT.
- ④ INCLUDES 1 M. GAL. FOR CROWN VETCH AND 25 M. GAL. FOR SODDING.
- ⑤ TO BE USED WITH CONCRETE MEDIAN BARRIER (BRIDGE PIER PROTECTION).
- ⑥ INCLUDES 180 TONS FOR BACK-FILLING BRIDGES, 700 TONS FOR DETOUR ROUTE IMPROVEMENTS.
- ⑦ SEE GENERAL NOTE (24) FOR WORK TO BE INCLUDED IN THIS PAY ITEM.
- ⑧ SEE SPECIAL PROVISION NO. 713.C. THE MESSAGE BOARDS USED ON THIS PROJECT ARE TO BECOME PROPERTY OF THE STATE, AND DELIVERED TO THE T. D. O. T. MAINTENANCE YARD ON CENTENNIAL BLVD., IN GOOD WORKING ORDER.
- ⑨ TO BE USED UNDER MEDIAN CROSS-OVERS ON I-65, COST OF BEVELING ENDS OF PIPE TO BE INCLUDED IN COST OF PIPE.
- ⑩ TO BE USED FOR DETOUR IMPROVEMENTS.
- ⑪ INCLUDES 2000 S. Y. FOR RE-DRESSING DETOURS (HARDING PLACE AND I-65 CROSS-OVERS).
- ⑫ TO BE USED WITH 18" C.M. PIPE UNDER I-65 MEDIAN CROSS-OVERS.

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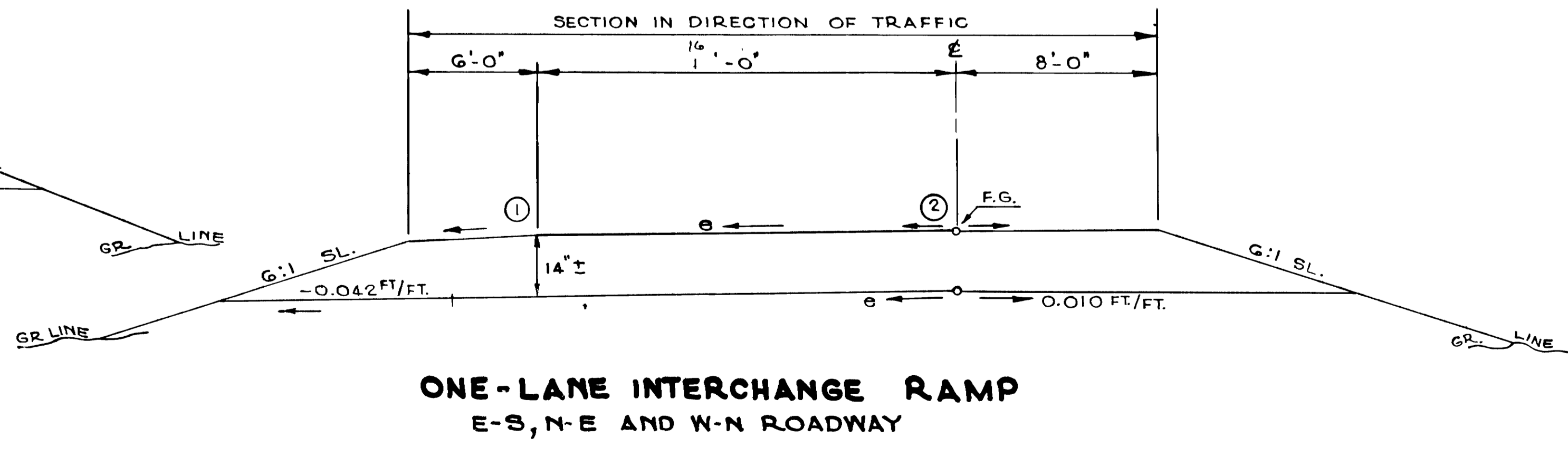
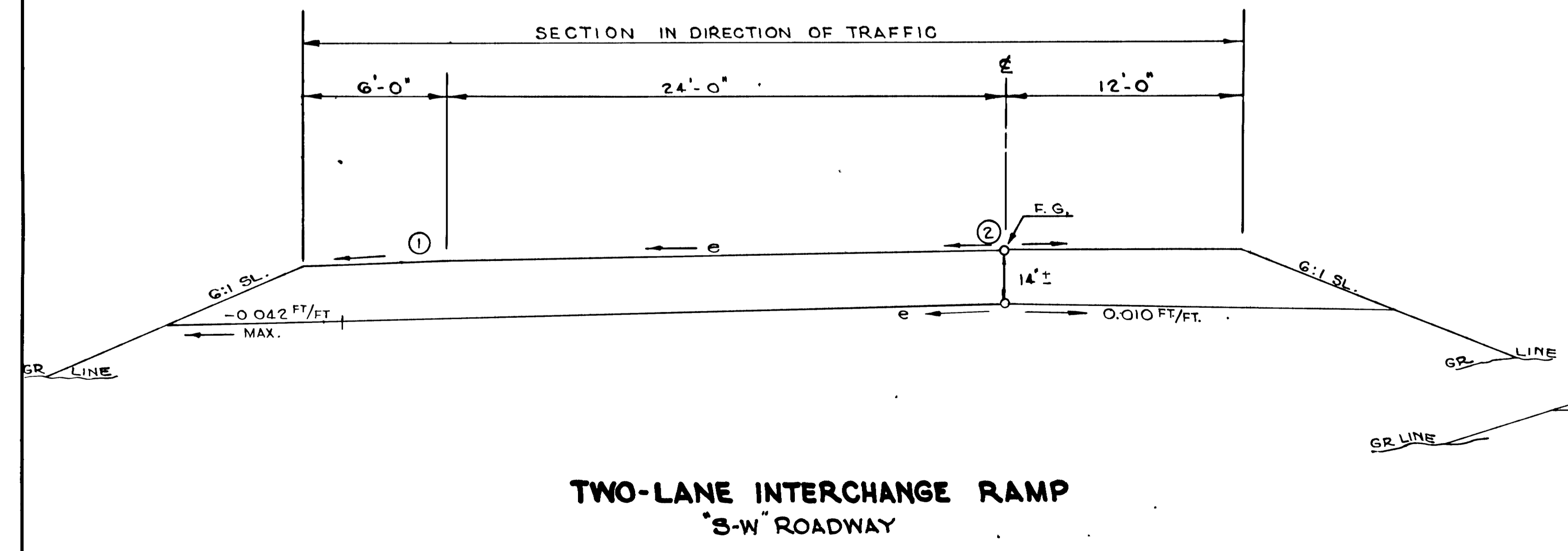
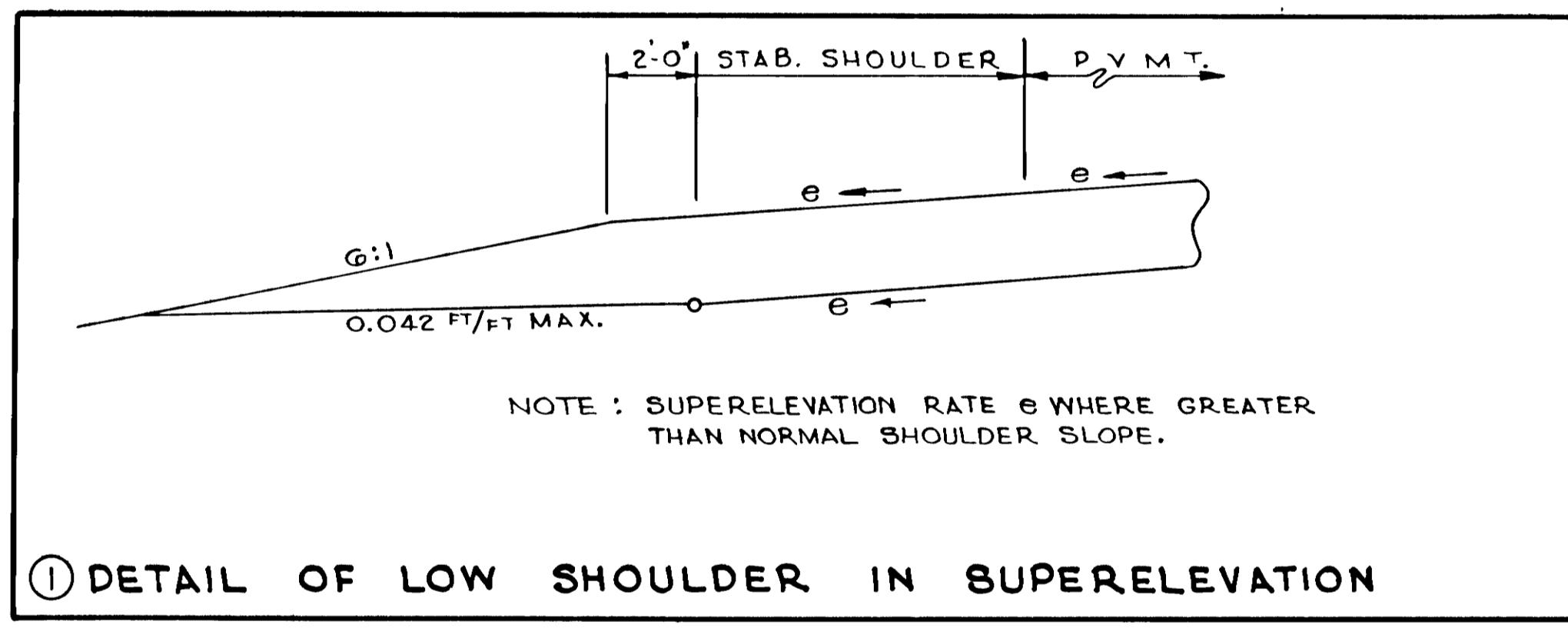
**ESTIMATED
ROADWAY
QUANTITIES**

TYPE	YEAR	PROJECT NO	SHEET NO
BRIDGE	1982	I-440-4(48)211	2B

MISSISSIPPI
 PLAN
 No. 92



- ① SEE DETAIL OF LOW SHOULDER IN SUPERELEVATION (THIS SHEET).
- ② ROLL-OVER ALGEBRAIC DIFFERENCE IN RATES OF CROSS-SLOPES NOT TO EXCEED -0.07 FT/FT.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TYPICAL SECTIONS
AND DETAIL**

GENERAL NOTES

TYPE	YEAR	PROJECT NO	SHEET NO
BRIDGE	1982	I-440-4(48)211	2C

REV. 4-G-82: GENERAL NOTE
20 ADDED TO PLANS.

MISCELLANEOUS

- ① THE THEORETICAL GRADE LINE SHOWN ON THE PLANS REPRESENTS THE FINISHED PAYEMENT SURFACE.
- ② SUPERELEVATION AND CROWNS ARE PLUS OR MINUS FROM THE THEORETICAL GRADE LINE. SEE STD. DWG. NO. RD-9E-1, ROADWAY CROSS-SECTIONS AND PROFILE SHEETS FOR DETAILS.
- ③ NO OPEN BURNING WILL BE ALLOWED ON THIS PROJECT.
- ④ LOCATION OF UTILITIES PUBLIC AND/OR PRIVATE ARE APPROXIMATE ONLY THEIR EXACT LOCATION SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- ⑤ AFTER THE GUARDRAIL LOCATIONS HAVE BEEN STAKED, BUT PRIOR TO ORDERING THE GUARDRAIL, AN INSPECTION WILL BE MADE BY STATE AND F.H.W.A. PERSONNEL FOR THE PURPOSE OF VERIFYING OR ADJUSTING THE LOCATIONS AND TYPE OF END TERMINALS TO BEST SUITE THE GRADING AND TERRAIN.
- ⑥ ENTRANCE AND EXIT FROM LOCAL STREETS TO PRIVATE PROPERTY MUST BE PROVIDED AT ALL TIMES. ALL COSTS FOR MAINTENANCE AND PROTECTION OF TRAFFIC TO BE INCLUDED IN OTHER ITEMS OF CONSTRUCTION.
- ⑦ THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE FACT THAT HE WILL NOT HAVE EXCLUSIVE OCCUPANCY WITHIN AND ADJACENT TO THE LIMITS OF THIS CONTRACT. CONTRACTS FOR GRADE AND DRAIN, LANDSCAPING, NOISE WALLS, LIGHTING, SIGNING AND PAVING ARE ALL ANTICIPATED DURING THE WORK ON THIS CONTRACT. THIS CONTRACTOR SHALL NOT RESTRICT RIGHT OF ACCESS TO ANY SUBSEQUENT CONTRACTORS OR OTHERS TO WHOM THE STATE MAY GRANT THE RIGHT TO WORK WITHIN THE PROJECT AREA.
- ⑧ THE ABATEMENT OF CONSTRUCTION NOISE IS A HIGH PRIORITY AREA ON THIS CONTRACT, MEANING THAT THE CONTRACTOR WILL BE REQUIRED TO PERFORM HIS NORMAL CONSTRUCTION OPERATIONS BETWEEN THE HOURS OF 6:00 A.M. AND 7:00 P.M. AS DIRECTED BY THE ENGINEER. THIS INCLUDES BLASTING, DRILLING, OPERATION OF HEAVY CONSTRUCTION EQUIPMENT. AS FAR AS BLASTING IS CONCERNED THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH THE 1975 BLASTING LAW, WHICH IS ADMINISTERED BY THE TENNESSEE DEPARTMENT OF INSURANCE AND BANKING. THIS LAW REQUIRES CERTIFICATION OF PERSONNEL IN THE FIELD AND ESTABLISHES CRITERIA RELATING TO SIZE, TIMING, AND MAGNITUDE OF THE BLAST, AND THE DISTANCE FROM ANY NEARBY BUILDINGS OR IMPROVEMENTS. SHOULD ANY DAMAGES OCCUR DUE TO BLASTING, THE CONTRACTOR WILL BE HELD RESPONSIBLE.
- ⑨ THE CONTRACTOR MAY CONTINUE HIS CONSTRUCTION OPERATIONS AFTER THE 7:00 P.M. DEADLINE AS NOTED ABOVE (NOTE ⑧), IF HIS CONSTRUCTION NOISE IS KEPT TO A MINIMUM.
- ⑩ THE EXISTING CONCRETE MEDIAN BARRIER ON FRANKLIN ROAD FROM STA. 29+10 TO STA. 32+03 IS TO BE REMOVED AND REPLACED WITH CONCRETE MEDIAN BARRIER (BRIDGE PIER PROTECTION). THE COST OF REMOVING THE EXISTING MEDIAN BARRIER IS TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 711-02.
- ⑪ THE BRIDGE DRAIN AT THE END OF STRUCTURE NO. 165 IS TO BE TIED INTO THE EXISTING STORM SEWER SYSTEM ALONG I-65 (RT STA. 528+40). THE COST OF TIEING THE 12" C.M. PIPE INTO THIS EXISTING CATCH BASIN IS TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 610-05.04.
- ⑫ IT IS ANTICIPATED THAT THE CONSTRUCTION OF THIS PROJECT I-440-4(48)211 WILL NOT BE COMPLETED BY THE TIME OTHER PROJECTS FOR THIS AREA ARE LET TO CONTRACT. THE CONTRACTOR OF THIS PROJECT (I-440-4(48)211) WILL BE REQUIRED TO COOPERATE WITH THE CONTRACTOR ON PROJECT I-440-4(46)211 AND WITH CONTRACTORS OF FUTURE PROJECTS IN THIS AREA. THE CONTRACTOR ON THIS PROJECT (I-440-4(48)211) WILL NOT RECEIVE ANY ADDITIONAL COMPENSATION FOR ANY DELAYS OR INCONVENIENCES CAUSED BY THE CONSTRUCTION OF PROJECT I-440-4(46)211 OR FUTURE PROJECTS IN THIS AREA.
- ⑬ IF DURING THE PROCESS OF CONSTRUCTING THE BRIDGE PIERS ON FRANKLIN ROAD ANY OF THE PAVEMENT IS REMOVED OR DISTURBED THE CONTRACTOR WILL BE REQUIRED TO REPLACE THIS PAVEMENT AS DIRECTED BY THE ENGINEER, COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF CONSTRUCTION.
- ⑭ THE POSSIBILITY EXISTS THAT SOME, OR ALL OF THE EXISTING EMBANKMENTS AT THE BRIDGE ENDS MAY HAVE TO BE ADJUSTED. THE PROPER LOCATION, AND GRADES ARE TO BE DETERMINED IN THE FIELD, AND ADJUSTMENTS, IF ANY REQUIRED WILL BE DONE AS DIRECTED BY THE ENGINEER. EMBANKMENT SLOPES THAT ARE ADJUSTED ARE TO BE TOPSOILED, AND SEEDED (CROWN VETCH MIXTURE). COST OF THIS WORK TO BE PAID FOR UNDER ITEM NOS. 203-01, 203-07, 801-01.02.
- ⑮ THE CONTRACTOR WILL BE REQUIRED TO USE EXTREME CAUTION IN WORKING AROUND EXISTING UTILITIES ALONG THE L&N RAILROAD, I-65 AND FRANKLIN ROAD. IN THE EVENT ANY DAMAGE IS DONE TO THESE EXISTING UTILITIES DUE TO THE CONSTRUCTION OF THIS PROJECT THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING SAID DAMAGE.
- ⑯ THE CONTRACTOR WILL NOTIFY L&N RAILROAD WHEN CONSTRUCTING THE BRIDGES OVER THE RAILROAD, AND THE CRASH WALL ALONG SIDE THE RAILROAD AT STRUCTURE NO. 166.
- ⑰ DITCH QUANTITIES, IN GENERAL, ARE BASED UPON THE PAVING OF ALL EARTHEN DITCHES HAVING GRADES OF 3% OR MORE, AND THE SODDING OF THOSE HAVING GRADES LESS THAN 3%.
- ⑱ THE ENGINEER IN CHARGE OF PROJECT CONSTRUCTION MAY DECIDE THAT SOME DITCHES WITH GRADES 3% OR STEEPER WOULD FUNCTION WITHOUT EROSION IF SODDED OR THAT SOME DITCHES WITH GRADE FLATTER THAN 3% SHOULD BE PAVED. PAYMENT WILL BE ADJUSTED FOR THE INCREASE AND/OR DECREASE IN QUANTITIES AT THE PRICE BID.
- ⑲ FORMED OR SAWED CONTRACTION JOINTS (1/4" WIDE AND 1" DEEP) WILL BE REQUIRED AT A MAXIMUM OF 20' INTERVALS AND ONE-HALF (1/2) INCH TRANSVERSE PREMOULDED FIBER EXPANSION JOINTS WILL BE REQUIRED AT 60' INTERVALS IN ALL CONCRETE PAVED DITCHES, COST TO BE INCLUDED IN THE PRICE BID FOR THE PAY ITEM FOR PAVED DITCHES.
- ⑳ THE CONTRACTOR WILL BE REQUIRED TO SHAPE DITCHES TO THE SPECIFIED DESIGN, ALL COST TO BE INCLUDED IN THE PRICE BID FOR THE PAY ITEM FOR PAVED DITCHES.
- ㉑ THE COST OF EXCAVATION FOR PIPE CULVERTS, CATCH BASINS WILL BE INCLUDED IN THEIR RESPECTIVE PAY ITEMS AND WILL NOT BE PAID FOR DIRECTLY.
- ㉒ UNIFORMED OFF-DUTY POLICEMEN ARE TO BE USED AT CERTAIN POINTS WHILE TRAFFIC IS BEING DETOURED WHEN FRANKLIN ROAD AND I-65 IS CLOSED, SEE SHEET NOS. 2G, AND 2H FOR LOCATIONS. THE LOCATIONS SHOWN ARE A MINIMUM REQUIREMENT, THE CONTRACTOR MAY BE REQUIRED TO FURNISH MORE OR LESS THAN SHOWN. THE COST OF THE UNIFORMED OFF-DUTY POLICEMEN ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 712-01.

- ㉓ AFTER ALL THE STEEL IS SET ON STRUCTURE NOS. 162, 163, 164 AND 165, AND THE ENGINEER DETERMINES THAT THE MEDIAN CROSS-OVERS ON I-65 ARE NO LONGER NEEDED, THE CONTRACTOR SHALL REMOVE THE CROSS-OVERS. COST OF REMOVING THE CROSS-OVERS (INCLUDES PAVEMENT, BASE MATERIAL, EMBANKMENT, AND 18" C.M. PIPE) TO BE INCLUDED IN ITEM NO. 203-01. THE 18" C.M. PIPE TO BECOME PROPERTY OF THE CONTRACTOR.
- ㉔ THE TRAFFIC CONTROL PLAN (PHASE III) SHOWN ON SHEET NO. 2H IS A SUGGESTED PLAN, IF THE CONTRACTOR HAS A DIFFERENT PLAN HE IS TO SUBMIT HIS PLAN TO THE ENGINEER FOR APPROVAL. THERE ARE SEVERAL LOCATIONS ON THIS PHASE WHERE RAMPS ARE BEING WIDENED. WIDENING IS BEING DONE TO FACILITATE TWO LANE TRAFFIC OPERATION WHEN THE DETOUR IS OPERATING. THE AREAS WHERE THE WIDENING IS BEING DONE IS TO BE STRIPED TO THE NORMAL DAY-TO-DAY OPERATION, AND "DOUBLE WEIGHTED" TRAFFIC CONES ARE TO BE USED AT INTERSECTIONS TO CHANNELIZE DETOUR TRAFFIC. COST OF STRIPING IS TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 712-01. THE COST OF REMOVING THE EXISTING ISLAND AT HARDING PLACE IS TO BE INCLUDED IN ITEM NO. 203-01, STRIPING THIS AREA INCLUDED IN ITEM NO. 712-01, TRAFFIC CONTROL.
- ㉕ PORTIONS OF THE EXISTING RAMP SHOULDERS ON THE ENTRANCE RAMP TO I-65 AT HARDING PLACE MAY NEED TO BE REMOVED BEFORE THE WIDENING IS DONE. THE COST OF REMOVING AND/OR REDRESSING THE EXISTING SHOULDERS IS TO BE INCLUDED IN THE UNIT PRICE BID FOR SURFACE MATERIAL, ITEM NO. 411-01.01. IF THE ENGINEER DETERMINES THAT SHOULDERS ON ANY OF THE OTHER RAMPS NEED REMOVING AND/OR REDRESSING THE SAME BASIS OF PAYMENT APPLIES.
- ㉖ ALL THE CHANNELIZING DEVICES (TRAFFIC CONES) ARE TO BE "DOUBLE WEIGHTED" AT THE BASE, COST TO BE INCLUDED IN ITEM NO. 712-01.
- ㉗ THE CONTRACTOR IS TO TAKE EVERY PRECAUTION, INCLUDING NETTING UNDER THE STRUCTURES IF NEEDED, TO PREVENT DEBRIS OR TOOLS FROM FALLING ON THE TRAFFIC PROCEEDING THROUGH THE CONSTRUCTION AREA. THE ENGINEER WILL MAKE THE DETERMINATION IN THE FIELD AS TO WHAT EXTENT THESE SAFETY MEASURES ARE TAKEN. COST OF THIS WORK TO BE INCLUDED IN ITEM NO. 712-01.
- ㉘ THE CONTRACTOR, THROUGH THE PROJECT ENGINEER SHALL NOTIFY THE APPROPRIATE METROPOLITAN OFFICIALS (CITY TRAFFIC ENGINEER) AT LEAST ONE WEEK (7 DAYS) PRIOR TO DETOURING TRAFFIC ON FRANKLIN ROAD AND I-65.
- ㉙ THE CONTRACTOR OF THIS PROJECT WILL BE REQUIRED TO CO-ORDINATE HIS WORK WITH THE CONTRACTOR OF PROJECT I-440-4(46)211 AND OTHER CONTRACTORS THAT MAY BE WORKING IN THIS AREA, SO THAT FRANKLIN ROAD AND I-65 WILL NOT BE CLOSED AT THE SAME TIME.

RAILROAD ASSISTANT CHIEF ENGINEER

MR. G. T. BONNER
L&N RAILROAD COMPANY
P.O. BOX 32290
LOUISVILLE, KENTUCKY, 40232

RAILROAD SUPERINTENDENTS

MR. F. E. PURSLEY L&N RAILROAD NASHVILLE DIVISION 1038 TALLEY AVENUE NASHVILLE, TN, 37211	MR. E. W. BRATCHER L&N RAILROAD ATLANTA DIVISION P.O. BOX 1775 ATLANTA, GA., 30301
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SCOPE OF WORK

THE CONSTRUCTION OF 6 (SIX) BRIDGES:

- ① BRIDGE ON 'S-W' ROADWAY OVER I-65 AND FRANKLIN ROAD (STRUCTURE NO. 162).
- ② BRIDGE ON 'N-E' ROADWAY OVER FRANKLIN ROAD AND I-65 (STRUCTURE NO. 163).
- ③ BRIDGE ON 'E-S' ROADWAY OVER 'N-E' ROADWAY, 'S-W' ROADWAY, I-65 AND FRANKLIN ROAD (STRUCTURE NO. 164).
- ④ BRIDGE ON 'W-N' ROADWAY OVER 'S-W' ROADWAY, 'N-E' ROADWAY, FRANKLIN ROAD AND I-65 (STRUCTURE NO. 165).
- ⑤ DUAL BRIDGES ON I-440 OVER 'W-N' ROADWAY, 'E-S' ROADWAY, 'S-W' ROADWAY, 'N-E' ROADWAY, FRANKLIN ROAD AND I-65 (STRUCTURE NOS. 166 AND 167).

THE INSTALLATION OF GUARDRAIL AND ANCHOR BLOCKS, WHERE AND AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

THE INSTALLATION OF TEMPORARY TRAFFIC CONTROL ITEMS, WHERE AND AS INDICATED ON THE PLANS, AND IN CONFORMANCE WITH THE M.U.T.C.D., AND APPROVED BY THE ENGINEER.

THE CONSTRUCTION OF A STORM SEWER SYSTEM AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE INSTALLATION OF CONCRETE SLOPE PAVING UNDER BRIDGES, BRIDGE DRAINS, TEMPORARY POLLUTION CONTROL ITEMS, CONCRETE MEDIAN BARRIER AT BRIDGE PIERS, WHERE AND AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE ADJUSTMENT OF EMBANKMENTS AT THE BRIDGE ENDS, WHERE AND AS DIRECTED BY THE ENGINEER. (THE EXTENT OF THIS WORK WILL HAVE TO BE DETERMINED BY THE ENGINEER AT EACH INDIVIDUAL LOCATION).

THE SEEDING (CROWN VETCH MIXTURE), TOPSOIL INSTALLATION AND OTHER MISCELLANEOUS ITEMS REQUIRED FOR THE COMPLETION OF THIS PROJECT.

- ㉚ IN THE EVENT THE CONTRACTOR HAS TO MOVE ANY CONSTRUCTION EQUIPMENT ACROSS THE TRAFFIC LANES ON I-65. HE IS TO OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO MOVING SAID EQUIPMENT. THE ENGINEER IS TO ENSURE THAT THE CONTRACTOR USES ADEQUATE TRAFFIC CONTROL MEASURES, INCLUDING FLAGMEN WHILE CONSTRUCTION TRAFFIC IS BEING MOVED. COST OF THIS WORK TO BE INCLUDED IN ITEM NO. 712-01.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
AND
SCOPE OF WORK

TYPE	YEAR	PROJECT NO	SHEET NO
BRIDGE	1982	I-440-4(48)211	2 D

REV 5/12/83 GUARDRAIL TABLE REVISED

APRON SPILLWAY AT BRIDGE ENDS (STD. DWG. D-CB-2)

LOCATION	SIDE	APPROX. STATION	WIDTH OF SPILLWAY OPENING	12" C.M. PIPE LIN. FT.	CL. "A" CONC C.Y. *	REMARKS
S-W ROADWAY	LT.	151+70	15'	60'	4.3	
W-N ROADWAY	LT.	447+50	10'	110'	3.3	
W-N ROADWAY	LT.	454+82	10'	120'	3.3	TIE INTO EXIST. C.B. RT. I-65
I-440	LT.	345+05	15'	120'	4.3	
I-440	LT.	355+55	15'	110'	4.3	
I-440	RT.	345+05	15'	80'	4.3	TIE TO SPILLWAY ON BRIDGE DRAIN I-440 LT. STA 345+05
I-440	RT.	355+55	15'	80'	4.3	TIE TO SPILLWAY ON BRIDGE DRAIN I-440 LT. STA 355+55
TOTALS				680'	28.1	

PROPOSED GUARDRAIL (S-GR-1, S-GR-2, S-GR-3, S-GR-4, S-GR-5, S-GR-6, S-GR-7E, S-GR-8, S-GR-9 AND S-GR-10)

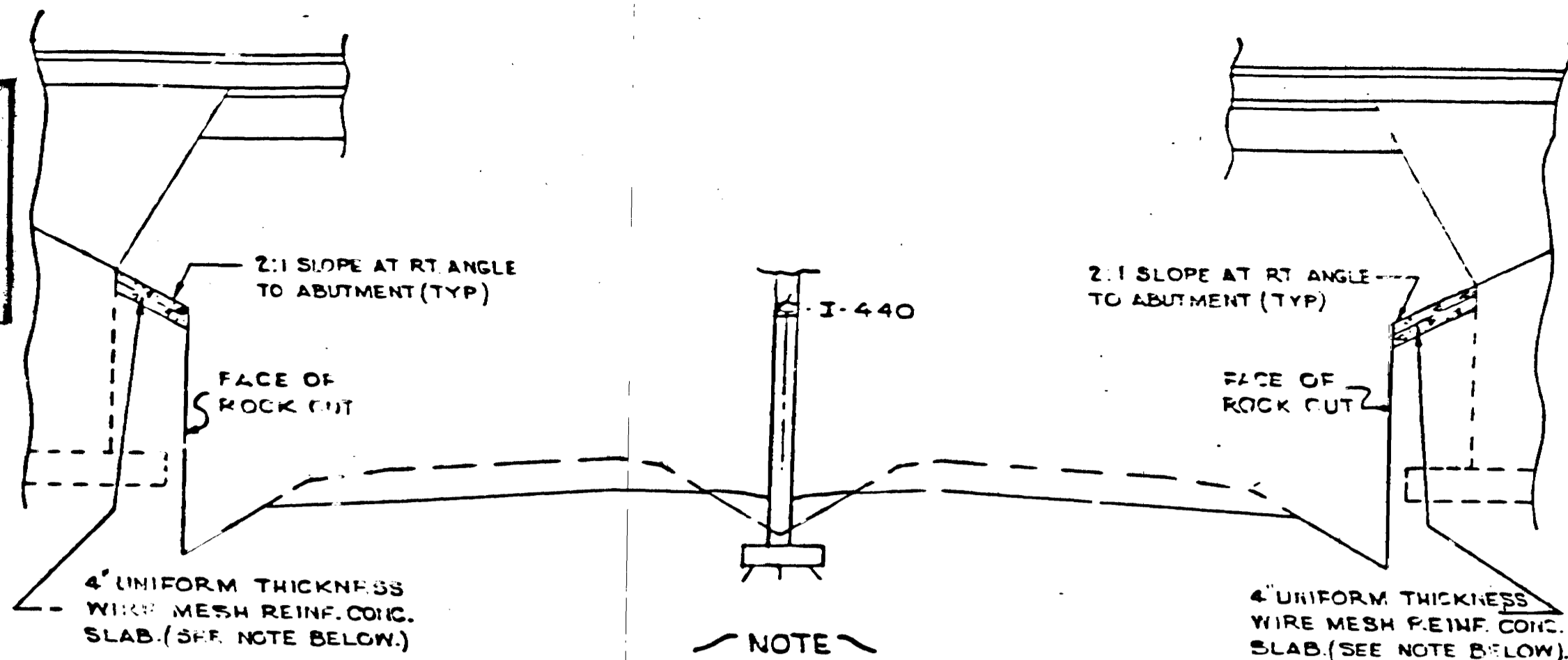
LOCATION	SHEET NO.	SIDE	STATION		TERMINAL ANCHOR			TYPE AND LENGTH		
			FROM	TO	705-04.01 (TYPE II) ①			705-01.02		705-02.02
MAIN LINE I-65 E MEDIAN	3	RT.	521+40	524+95	1			300'		G
MAIN LINE I-65 E MEDIAN	3	LT.	521+46	525+01	1			300'		G
TOTALS					2			600'		12

① INCLUDES 25' OF W-BEAM GUARDRAIL (SEE STD DWG. S-GR-5).

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

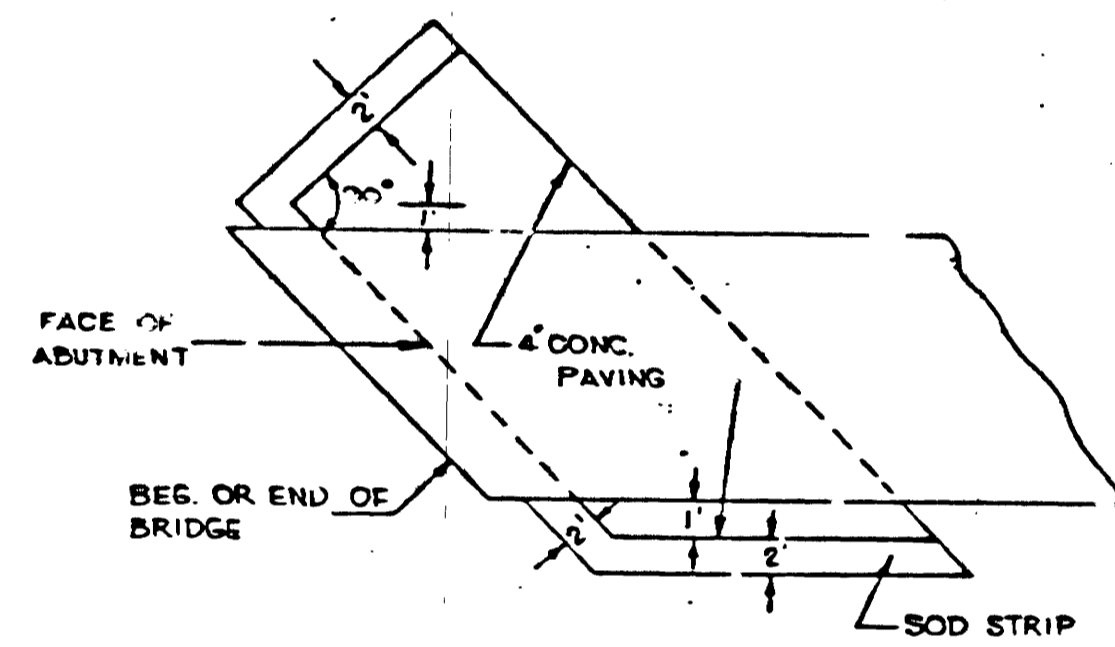
**TABULATED
QUANTITIES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	2 E

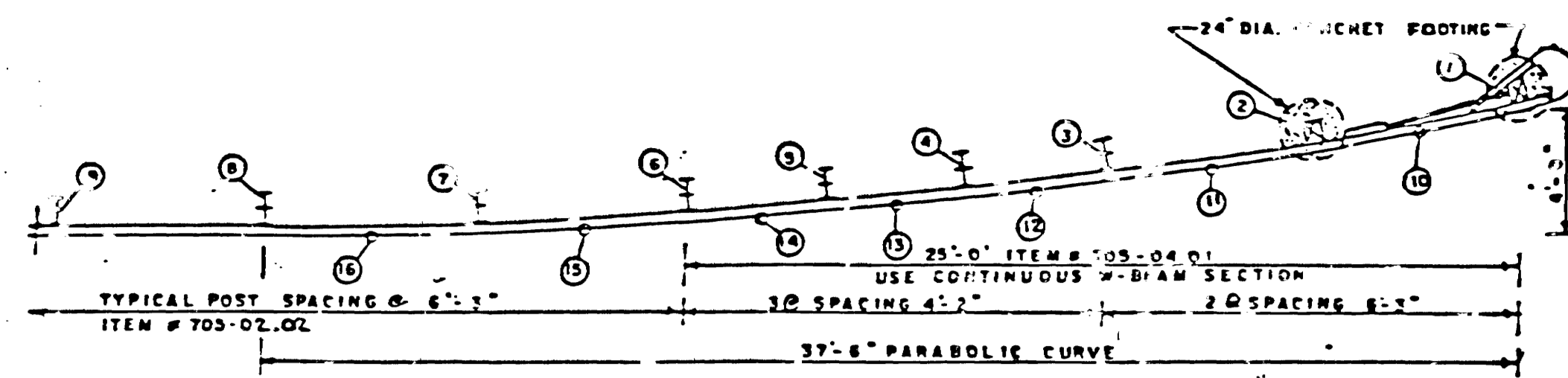


NOTE

PAVE SLOPES AND EXPOSED EARTH UNDER BRIDGES WITH 4" THICK CEMENT CONCRETE SLAB REINFORCED WITH NO. 4 GAGE WIRE FABRIC @ 6" CENTER TO CENTER AND 58 LBS. PER 100 S.F. THE SLAB SHALL EXTEND THE WIDTH OF THE STRUCTURE. THE WIRE FABRIC REINFORCEMENT SHALL BE PLACED ONE-HALF THE DEPTH OF THE SLAB AND EXTEND TO WITHIN 3" OF ITS EDGE WITH A 12" OVERLAP REQUIRED ON ALL SHEETS. THE COST OF THE WIRE FABRIC REINFORCEMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 703-04. REINFORCED CONCRETE SLOPE PAVEMENT. ONE-HALF INCH PRE-MOLDED EXPANSION JOINTS WITHOUT LOAD TRANSFERS SHALL BE FORMED ABOUT ALL STRUCTURES AND FEATURES PROJECTING THRU, IN OR AGAINST THE SLAB. THE SLAB SHALL BE GROOVED PARALLEL WITH AND AT RIGHT ANGLES TO THE UNDER ROADWAY CENTER LINE AT 6" CENTER TO CENTER. DEPTH OF GROOVE TO BE NOT LESS THAN 1". (FOR SKEWED BRIDGES, SEE MODIFICATION THIS SHEET).



SKETCH SHOWING DETAILS OF SLOPE PAVING (CONC.) UNDER SKEWED BRIDGES



PARABOLIC CURVE RAIL OFFSET	
CODE NO.	OFFSET DISTANCE
1	4'-0"
10	3'-4 1/4"
2	2'-9 1/4"
11	2'-3"
3	1'-9 1/4"
12	1'-6"
4	1'-2 3/4"
13	1'-0"
5	0'-9 1/2"
14	0'-7 1/4"
6	0'-5 1/4"
15	0'-3"
7	0'-1 1/4"
16	0'-0 1/4"
8	0'-0"

NOTES: THIS SKETCH AND OFFSET TABLE IS TO FACILITATE INSTALLATION OF GUARDRAIL FLARE.

OMIT THE RECTANGULAR WASHER BETWEEN BUTTON HEAD BOLT AND RAIL ON POST NO'S 2 THROUGH 9.

BACK-UP PLATE IS REQUIRED ON ALL POSTS WHERE RAIL SPLICE DOES NOT OCCUR. COST OF BACK-UP PLATES TO BE INCLUDED IN PRICE BID FOR GUARDRAIL, LIN. FT.

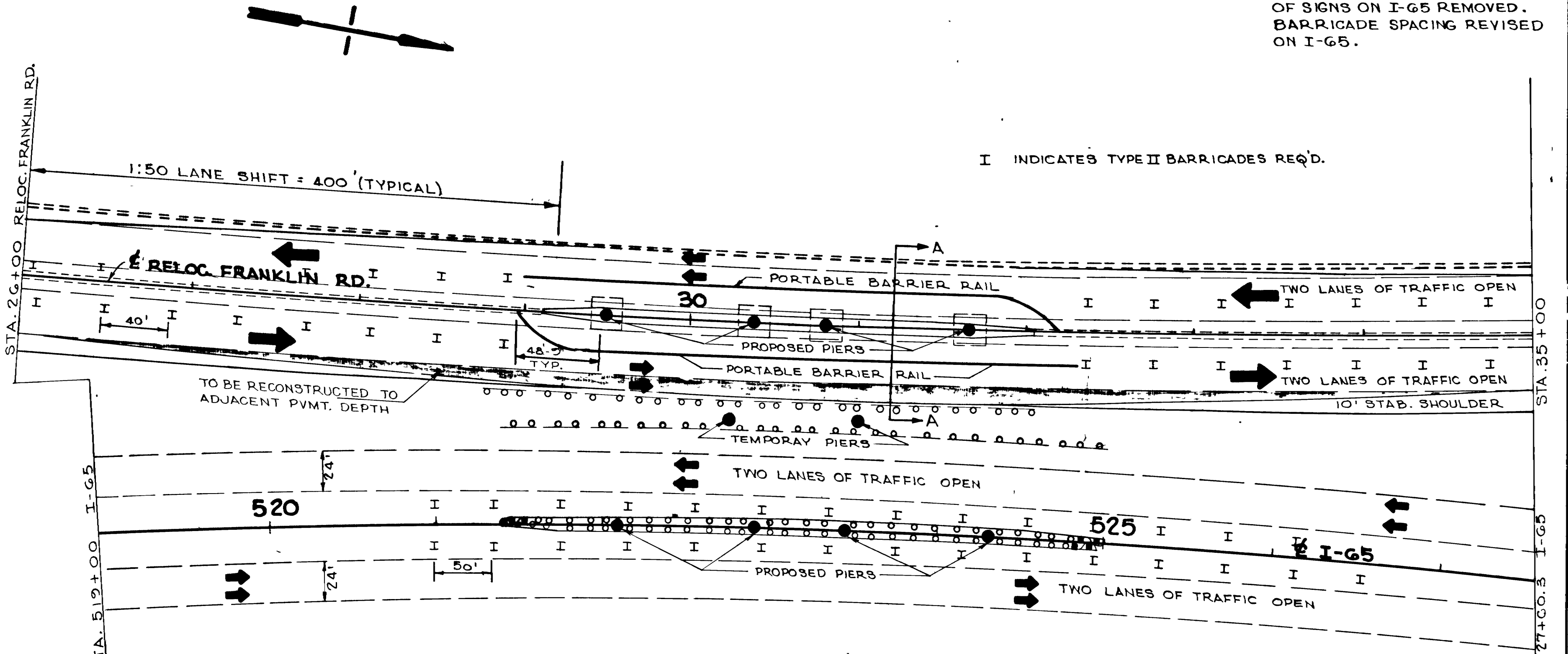
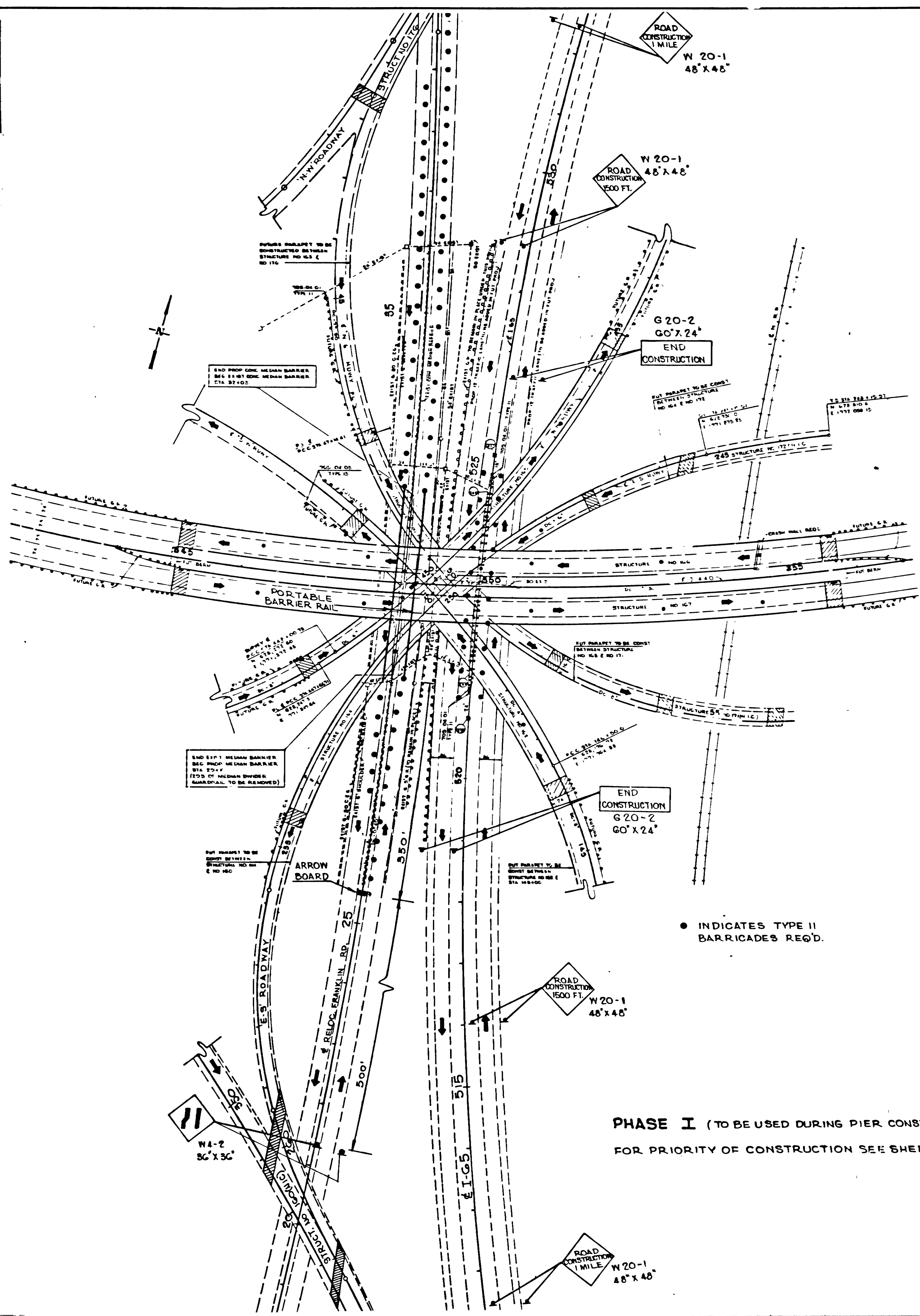
CODE NOS. 10 THRU. 16 ARE LOCATED HALF WAY BETWEEN POSTS.

STATE HIGHWAYS
 1 IN.
 1" = 100'

REV. 8-23-82: CHANGED DETAIL AND NOTE CONCERNING TRAFFIC CONTROL ON FRANKLIN PIKE. DELETED NOTE NO. 3 AND ADDED SECTION A-A.

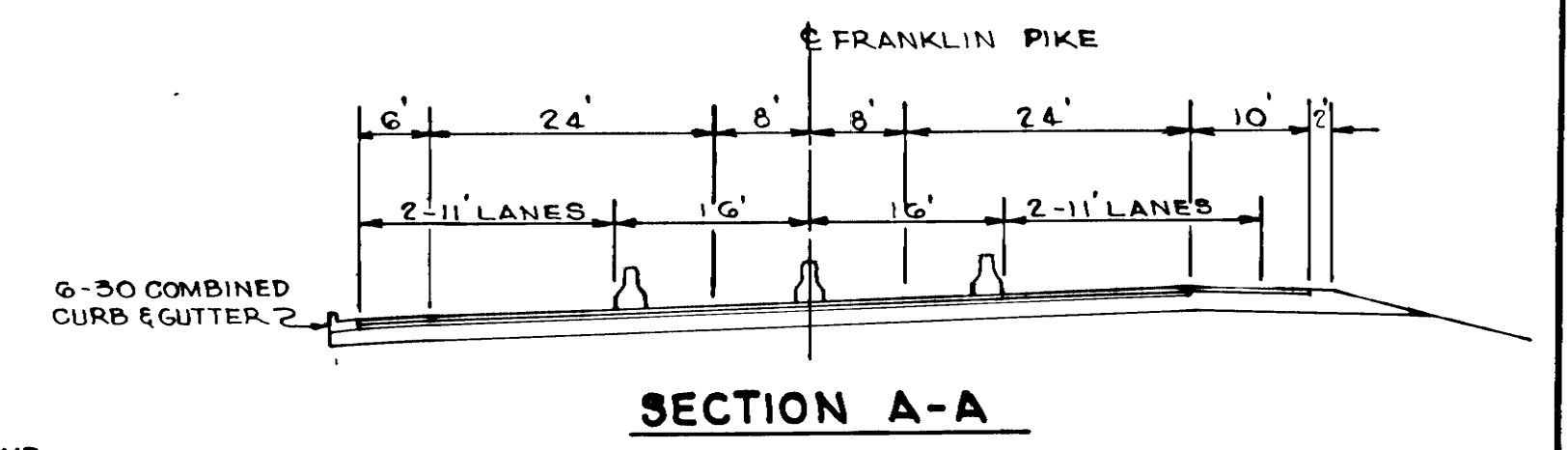
TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	2 F

REV. 4-6-82: W4-2 SIGN ADDED ON FRANKLIN ROAD (RT. 21+40+), W1-3, AND W13-1 SIGN DELETED ON FRANKLIN ROAD (STA. 25+50). NOTE CONCERNING INSTALLATION OF SIGNS ON I-65 REMOVED. BARRICADE SPACING REVISED ON I-65.



THE TRAFFIC ON FRANKLIN ROAD BOTH NORTHBOUND AND SOUTHBOUND IN THE AREA OF CONSTRUCTION SHALL BE SHIFTED IN ORDER TO MAINTAIN TWO LANES OF TRAFFIC IN EACH DIRECTION. THIS SHALL BE ACCOMPLISHED BY RECONSTRUCTING THE EXISTING 10' STABILIZED SHOULDER TO THE EXISTING PAVEMENT DEPTH, AND BY REMOVING ALL CONFLICTING PAVEMENT MARKING AND INSTALLING TEMPORARY STRIPING. WARNING LIGHTS SHALL BE USED AT NIGHT TO DELINEATE TRAFFIC.

THE TRAFFIC ON I-65 BOTH NORTHBOUND AND SOUTHBOUND WILL NOT BE EFFECTED UNDER THIS PHASE. TYPE II BARRICADES WITH WARNING LIGHTS WILL BE PLACED ON THE INSIDE SHOULDERS TO ALERT MOTORIST OF CONSTRUCTION OPERATIONS TAKING PLACE IN THE I-65 MEDIAN. ADVANCE WARNING SIGNS ARE BEING INSTALLED TO BE USED ON OTHER TRAFFIC CONTROL PHASES.



● INDICATES TYPE II BARRICADES REQ'D.

NOTES

- THE PLAN SHOWN IS A SUGGESTED TEMPORARY TRAFFIC CONTROL PLAN. THE CONTRACTOR MAY ELECT TO USE ANOTHER METHOD OF TRAFFIC CONTROL, IF HE DOES, THEN HE IS TO SUBMIT HIS TEMPORARY TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL.
- THE SIGNING FOR MAINTAINING TRAFFIC IS THE MINIMUM AMOUNT THAT WILL BE REQUIRED. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SIGNS AS DEEMED NECESSARY BY THE ENGINEER IN ACCORDANCE WITH PART VI OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. ADDITIONAL SIGNS WILL BE PAID FOR UNDER THE APPROPRIATE TRAFFIC CONTROL ITEMS.
- THE ADVANCE ROAD CONSTRUCTION SIGNS FOR FRANKLIN ROAD BOTH NORTH BOUND AND SOUTH BOUND ARE TO BE INSTALLED UNDER PROJECT I-440-4(48)211. THESE SIGNS ARE TO REMAIN IN PLACE UNTIL THE COMPLETION OF THIS PROJECT (I-440-4(48)211). IF AT THE COMPLETION OF THIS PROJECT (I-440-4(48)211); PROJECT I-440-4(48)211 IS STILL UNDER CONSTRUCTION, THEN THESE SIGNS WILL REMAIN IN PLACE AND WILL BE REMOVED BY THE CONTRACTOR ON PROJECT I-440-4(48)211. IF THIS PROJECT (I-440-4(48)211) IS THE LAST PROJECT OF THE TWO PROJECTS TO BE COMPLETED THEN THE CONTRACTOR OF THIS PROJECT (I-440-4(48)211) WILL BE REQUIRED TO REMOVE THESE SIGNS.

PHASE I (TO BE USED DURING PIER CONSTRUCTION)
 FOR PRIORITY OF CONSTRUCTION SEE SHEET 26.





STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

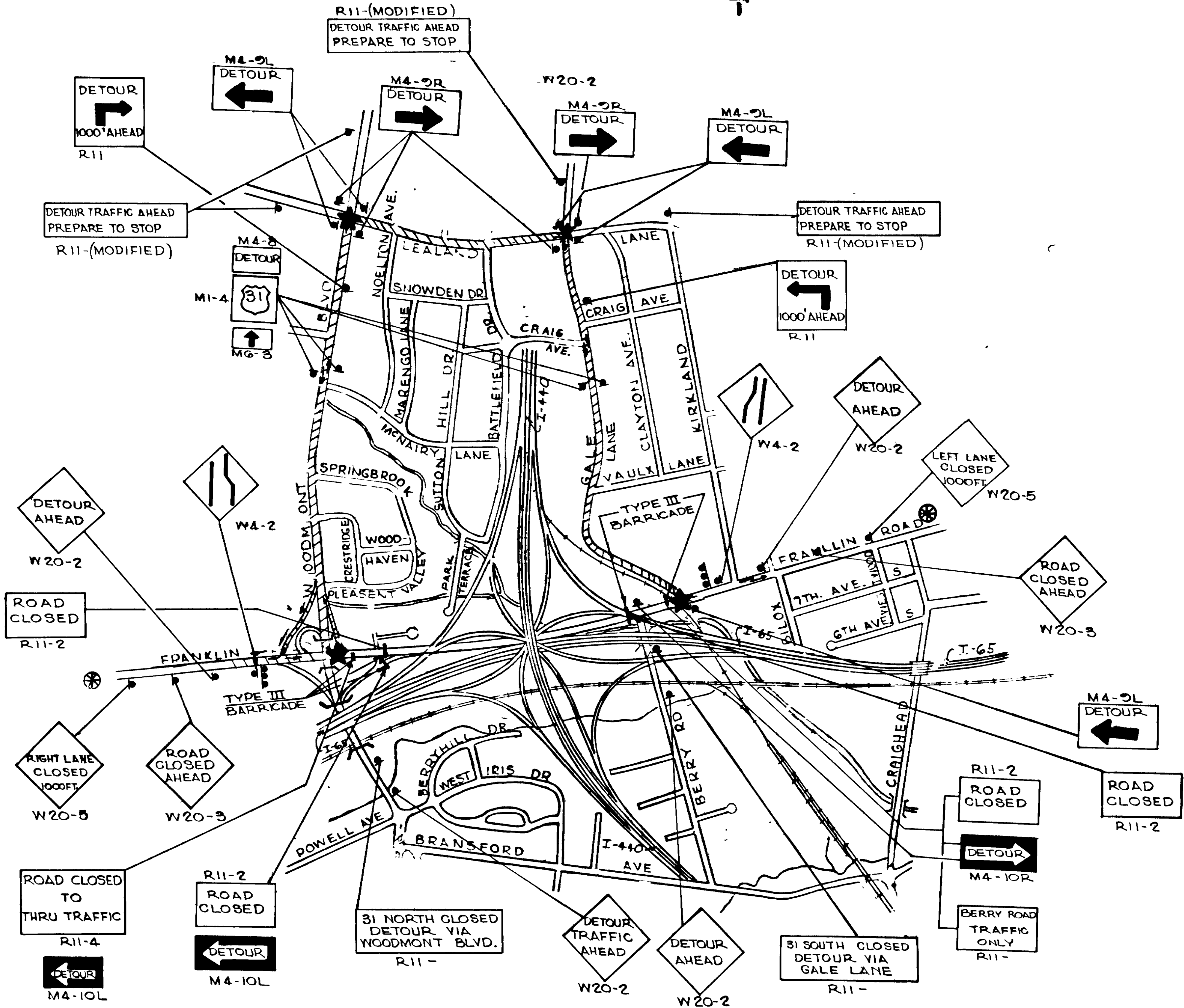
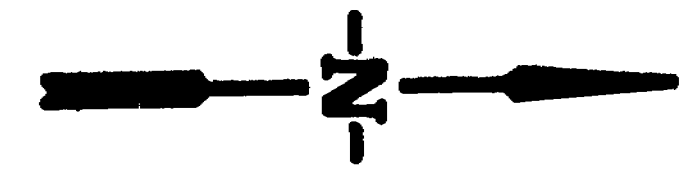
**TRAFFIC CONTROL
 PLAN
 PHASE I**

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(40)211	2G

REV. 4-6-82: SEQUENCE OF WARNING SIGNS REVISED ON FRANKLIN ROAD. ALL 'STREET' CLOSED SIGNS CHANGED TO 'ROAD' CLOSED SIGNS. FOOTNOTE © ADDED TO PLANS.

LEGEND

-  INDICATES DETOUR ROUTE.
-  UNIFORMED OFF-DUTY TRAFFIC POLICEMEN REQUIRED.
-  ARROW PANEL REQUIRED.
-  CHANGEABLE MESSAGE SIGN UNIT REQUIRED.



**TRAFFIC CONTROL PLAN
PHASE II (TO BE USED WHEN FRANKLIN ROAD IS TO BE CLOSED)**

- 1 THE PLAN SHOWN IS A SUGGESTED TEMPORARY TRAFFIC CONTROL PLAN. THE CONTRACTOR MAY ELECT TO USE ANOTHER METHOD OF TRAFFIC CONTROL, IF HE DOES, THEN HE IS TO SUBMIT HIS TEMPORARY TRAFFIC PLAN TO THE ENGINEER FOR APPROVAL.
- 2 THE SIGNING FOR MAINTAINING TRAFFIC IS THE MINIMUM AMOUNT THAT WILL BE REQUIRED. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SIGNS AS DEEMED NECESSARY BY THE ENGINEER IN ACCORDANCE WITH PART VI OF MANUAL ON UNIFORM TRAFFIC DEVICES. ADDITIONAL SIGNS WILL BE PAID FOR UNDER THE APPROPRIATE TRAFFIC CONTROL ITEMS.
- 3 THIS PHASE IS TO BE USED ON THE WEEK-ENDS, ON SUNDAY MORNING, FROM THE HOURS OF 6:00 A.M. TO 8:00 A.M.
- 4 THE SIGNS FOR THE DETOUR ARE TO BE INSTALLED PRIOR TO ACTUAL USE. THE SIGNS ARE TO BE COVERED WHILE NOT IN USE.
- 5 UNIFORMED OFF-DUTY TRAFFIC POLICEMEN ARE TO BE STATIONED AT THE INTERSECTIONS NOTED IN ABOVE PLAN.
- 6 LANE CLOSURES ON FRANKLIN ROAD SHALL BE IN ACCORDANCE WITH THE M.U.T.C.D.

NOTE: THE MAIN PURPOSE OF THIS PLAN IS FOR DETOURING TRAFFIC ON FRANKLIN ROAD, WHILE STEEL IS BEING SET OVER FRANKLIN ROAD. IN THE EVENT SOMETHING HAPPENS (EQUIPMENT FAILURE, ETC.), AND FRANKLIN ROAD HAS TO BE CLOSED FOR A LONG DURATION, THEN THIS PLAN IS TO SERVE AS AN ALTERNATE ROUTE PLAN.

PRIORITY OF CONSTRUCTION

THE FIRST STRUCTURES TO BE CONSTRUCTED ON THIS PROJECT WILL BE NOS. 166 & 167, WHICH WILL BE CONSTRUCTED IN THREE (3) PHASES. PHASING INVOLVES CONSTRUCTING PIERS, AND SETTING STEEL GIRDERS OVER THE TRAFFIC LANES ON FRANKLIN ROAD AND I-65. WHILE SETTING THIS STEEL, FRANKLIN ROAD AND I-65 WILL BE CLOSED TO TRAFFIC. TO INSURE THAT FRANKLIN ROAD AND I-65 WILL NOT BE CLOSED AT THE SAME TIME, THE CONTRACTOR IS TO CONSTRUCT A TEMPORARY BENT BETWEEN FRANKLIN ROAD AND I-65.

PHASE I - THIS PHASE CONSISTS OF CONSTRUCTING THE PIERS FOR THE "STACK" STRUCTURES (Nos. 162, 163, 164, 165, 166 AND 167). THE TRAFFIC CONTROL PLAN ON SHEET NO. 2F SHOWS HOW TO CONTROL TRAFFIC WHEN THESE PIERS ARE BEING CONSTRUCTED IN THE MEDIANS OF FRANKLIN ROAD AND INTERSTATE 65.

PHASE II - WHILE SETTING STEEL OVER FRANKLIN ROAD (ON STRUCTURES 166 AND 167), FRANKLIN ROAD WILL BE CLOSED AND TRAFFIC WILL BE DETOURED USING GALE LANE, LEALAND LANE AND WOODMONT BOULEVARD. I-65 TRAFFIC WILL NOT BE EFFECTED. SEE SHEET NO. 26 FOR TRAFFIC CONTROL PLAN.

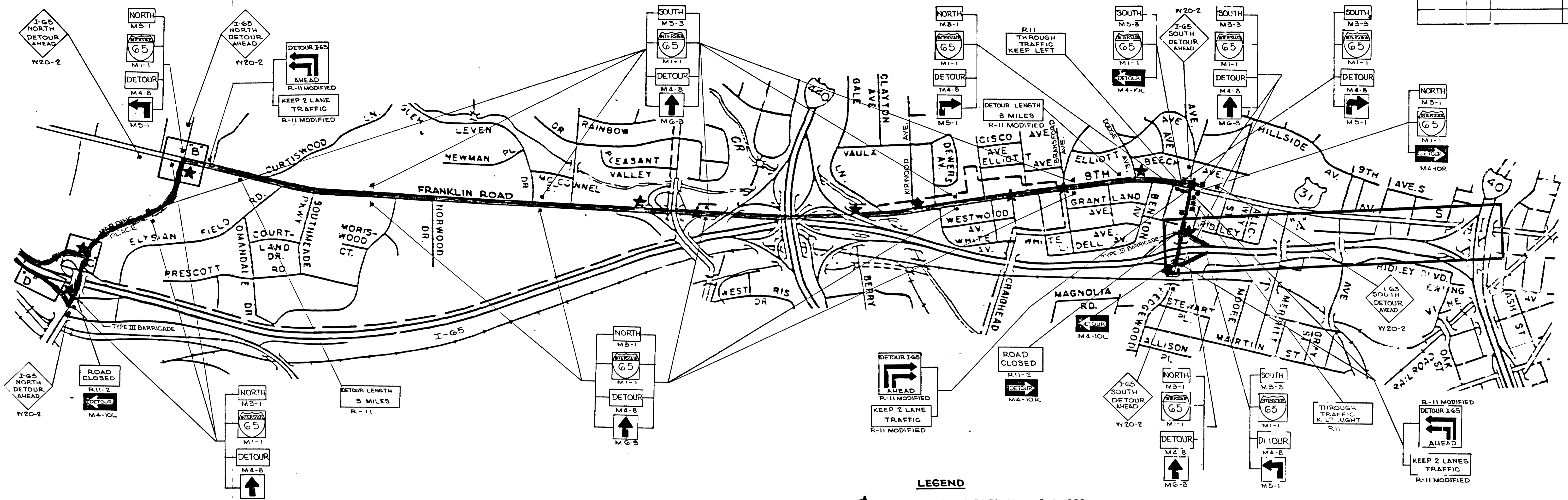
PHASE III - WHILE SETTING STEEL OVER I-65, ON STRUCTURE NOS. 166 AND 167, I-65 WILL BE CLOSED AT THE WEDGEWOOD AVENUE INTERCHANGE, AND THE HARDING PLACE INTERCHANGE. SOUTHBOUND TRAFFIC ON I-65 WILL EXIT AT WEDGEWOOD AVE. AND BE DETOURED TO FRANKLIN ROAD, LEFT ON FRANKLIN ROAD TO HARDING PLACE, LEFT ON HARDING PLACE TO I-65. NORTHBOUND TRAFFIC ON I-65 WILL EXIT AT HARDING PLACE, LEFT ON HARDING PLACE TO FRANKLIN ROAD TO WEDGEWOOD AVENUE TO I-65. SPECIAL ATTENTION IS DIRECTED TO THE FACT THAT UNIFORMED OFF-DUTY POLICEMEN WILL BE REQUIRED AT CERTAIN LOCATIONS ALONG THE DETOUR ROUTE. PROPOSED IMPROVEMENTS ARE REQUIRED ON THE ENTRANCE RAMP AT HARDING PLACE. THE RIGHT TURN LEG OF THE HARDING PLACE AND FRANKLIN ROAD INTERSECTION. FOR DETAILS SEE TRAFFIC CONTROL PLAN ON SHEET NO. 2H AND 2I. IF THE INSTALLATION OF TEMPORARY BENT NECESSITATES THAT ANY OF THE EXISTING GUARDRAIL BE REMOVED, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE BENT PIER PROTECTION WITH THE COST OF THIS PROTECTION INCLUDED IN ITEM NO. 712-01. WHEN ALL OF THE STEEL ON STRUCTURE NOS. 166 AND 167 IS SET, THE CONTRACTOR IS TO REMOVE THE TEMPORARY BENT, REDRESS THE AREA (SEED, SOD, ETC.), AND REINSTALL THE GUARDRAIL IF REQUIRED. COST TO BE INCLUDED IN RESPECTIVE ITEMS.

PHASE IV - THIS PHASE IS FOR THE REMAINING STRUCTURES IN THE "STACK", BEGINNING WITH LEVEL 2 (STRUCTURE NOS. 164 AND 165) AND DOWN TO LEVEL 1 (STRUCTURE NOS. 162 AND 163). WHEN STEEL IS BEING SET OVER THE SOUTHBOUND LANE OF FRANKLIN ROAD, THE TRAFFIC WILL BE TAPERED DOWN TO ONE (1) LANE AND DETOURED OVER TO THE NORTHBOUND LANE OF FRANKLIN ROAD. WHEN STEEL IS BEING SET OVER THE NORTHBOUND LANE OF FRANKLIN ROAD, THE TRAFFIC WILL BE TAPERED DOWN TO ONE LANE AND DETOURED OVER TO THE SOUTHBOUND LANE OF FRANKLIN ROAD. WHEN STEEL IS BEING SET OVER THE SOUTHBOUND LANE OF I-65, THE TRAFFIC WILL BE TAPERED DOWN TO ONE LANE AND DETOURED OVER TO THE NORTHBOUND LANE OF I-65. WHEN STEEL IS BEING SET OVER THE NORTHBOUND LANE OF I-65, THE TRAFFIC WILL BE TAPERED DOWN TO ONE LANE AND DETOURED OVER TO THE SOUTHBOUND LANE. THE TRAFFIC ON I-65 WILL BE DETOURED BY USING MEDIAN CROSS-OVERS. THE CONTRACTOR IS TO CONSTRUCT THESE CROSS-OVERS WHERE AND AS DIRECTED BY THE ENGINEER. THIS WORK INCLUDES THE GRADING, DRAINAGE & PAVING OF CROSS-OVERS. AFTER ALL THE STEEL IS SET ON THESE STRUCTURES, THE CONTRACTOR WILL BE REQUIRED TO REMOVE THESE CROSS-OVERS AND REDRESS (SOD, SEED, ETC.) THE AREA. COST OF THE CROSS-OVER WORK (INSTALLATION AND REMOVAL) IS TO BE INCLUDED IN RESPECTIVE ITEMS FOR DETAILS SEE THE TRAFFIC CONTROL PLANS ON SHEET NOS. 2J AND 2K.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**PRIORITY OF CONSTRUCTION & TRAFFIC CONTROL PLAN
PHASE II**

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	2 H



LEGEND

- ★ UNIFORMED OFF-DUTY POLICEMEN REQUIRED.
- ∞ ARROW BOARD REQUIRED.
- CHANGEABLE MESSAGE BOARD REQUIRED.

- ① THIS PHASE IS TO BE USED ON THE WEEK-ENDS, ON SUNDAY MORNING, FROM THE HOURS OF 6:00 A.M. TO 8:00 A.M.
- ② THE SIGNS FOR THE DETOUR ARE TO BE INSTALLED PRIOR TO ACTUAL USE. THE SIGNS ARE TO BE COVERED WHILE NOT IN USE.
- ③ SHADED AREA INDICATES DETOUR ROUTE.
- ④ CONE SPACING TO BE 50'.

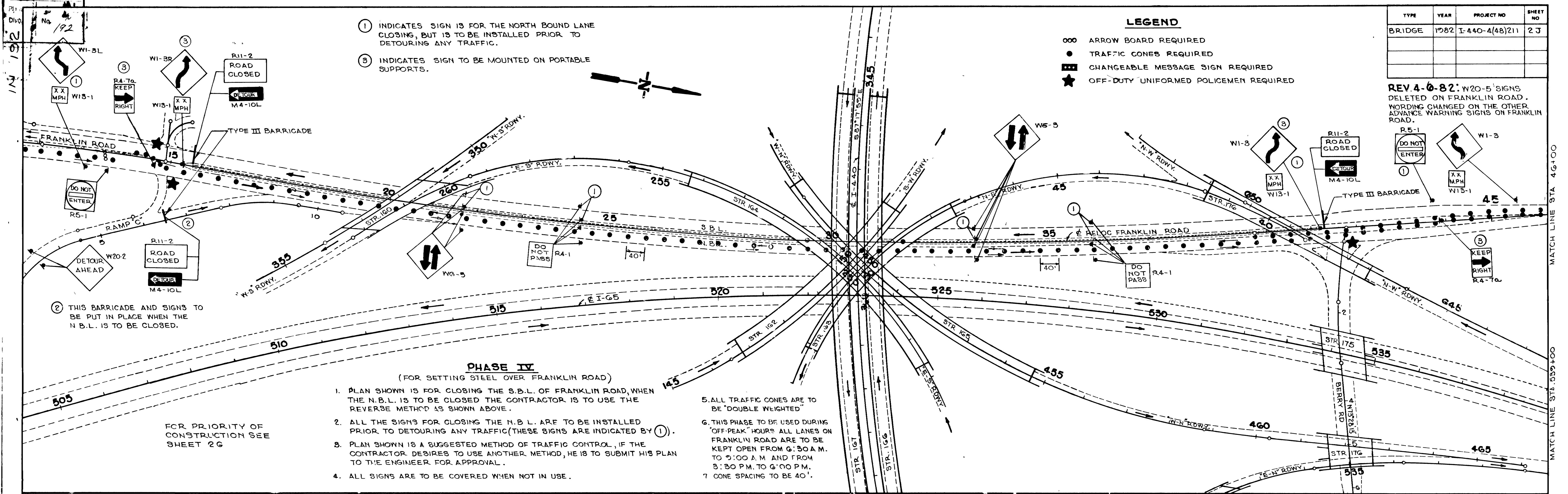
NOTE: THE MAIN PURPOSE OF THIS PLAN IS FOR DETOURING TRAFFIC ON I-65, WHILE STEEL IS BEING SET OVER I-65. IN THE EVENT SOMETHING HAPPENS (EQUIPMENT FAILURE, ETC.), AND I-65 HAS TO BE CLOSED FOR A LONG DURATION, THEN THIS PLAN IS TO SERVE AS AN ALTERNATE ROUTE PLAN.

THIS DETOUR PLAN HAS BEEN DESIGNED FOR 2-LANE DETOUR TRAFFIC. THE TRAFFIC COUNTS ON THE WEEK-END, ON SUNDAY MORNING MAY NOT NECESSITATE A 2-LANE OPERATION. IF THIS HAPPENS THEN CERTAIN SIGNS MAY NEED TO REMAIN COVERED AND POLICEMEN MAY NOT BE NECESSARY AT EVERY LOCATION SHOWN. THE TRAFFIC SIGNALS MAY HANDLE THE DETOUR TRAFFIC ON THIS ROUTE. IN THE EVENT OF AN EXTENDED DETOUR THE ENGINEER WILL CONTACT THE REGIONAL TRAFFIC ENGINEER FOR ADDITIONAL INSTRUCTIONS FOR HANDLING TRAFFIC.

PHASE III
 (TO BE USED WHEN I-65 IS CLOSED)
 FOR PRIORITY OF CONSTRUCTION
 SEE SHEET NO. 26.
 FOR DETAILS "A", "B", "C" & "D" SEE
 SHEET NO. 21.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL
 PLAN
 PHASE III**

TENN. STATE HIGHWAYS
 Plans
 Divn



- ① INDICATES SIGN IS FOR THE NORTH BOUND LANE CLOSING, BUT IS TO BE INSTALLED PRIOR TO DETOURING ANY TRAFFIC.
- ② INDICATES SIGN TO BE MOUNTED ON PORTABLE SUPPORTS.

LEGEND

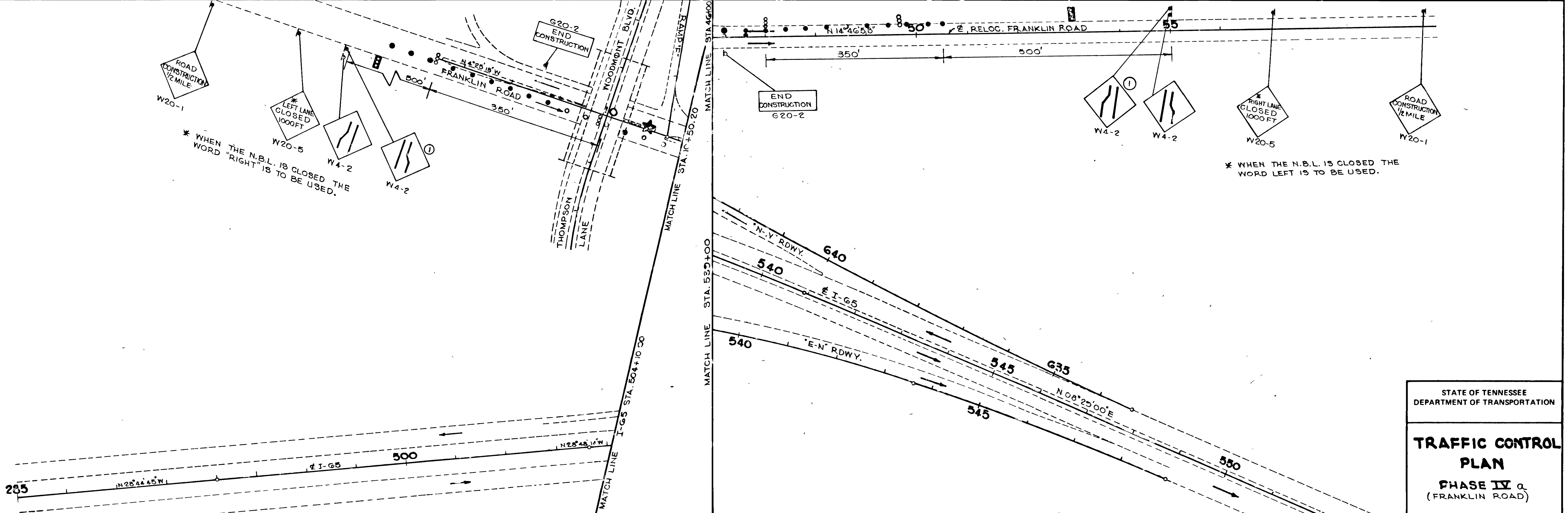
- 000 ARROW BOARD REQUIRED
- TRAFFIC CONES REQUIRED
- ★ CHANGEABLE MESSAGE SIGN REQUIRED
- ★ OFF-DUTY UNIFORMED POLICEMEN REQUIRED

TYPE	YEAR	PROJECT NO	SHEET NO
BRIDGE	1982	I-440-4(48)211	2 J

REV. 4-6-82: W20-5 SIGNS DELETED ON FRANKLIN ROAD. WORDING CHANGED ON THE OTHER ADVANCE WARNING SIGNS ON FRANKLIN ROAD.

- PHASE IV**
(FOR SETTING STEEL OVER FRANKLIN ROAD)
1. PLAN SHOWN IS FOR CLOSING THE S.B.L. OF FRANKLIN ROAD, WHEN THE N.B.L. IS TO BE CLOSED THE CONTRACTOR IS TO USE THE REVERSE METHOD AS SHOWN ABOVE.
 2. ALL THE SIGNS FOR CLOSING THE N.B.L. ARE TO BE INSTALLED PRIOR TO DETOURING ANY TRAFFIC (THESE SIGNS ARE INDICATED BY ①).
 3. PLAN SHOWN IS A SUGGESTED METHOD OF TRAFFIC CONTROL, IF THE CONTRACTOR DESIRES TO USE ANOTHER METHOD, HE IS TO SUBMIT HIS PLAN TO THE ENGINEER FOR APPROVAL.
 4. ALL SIGNS ARE TO BE COVERED WHEN NOT IN USE.
 5. ALL TRAFFIC CONES ARE TO BE "DOUBLE WEIGHTED"
 6. THIS PHASE TO BE USED DURING "OFF-PEAK" HOURS ALL LANES ON FRANKLIN ROAD ARE TO BE KEPT OPEN FROM 6:30 A.M. TO 9:00 A.M. AND FROM 3:30 P.M. TO 6:00 P.M.
 7. CONE SPACING TO BE 40'.

FOR PRIORITY OF CONSTRUCTION SEE SHEET 2 G



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

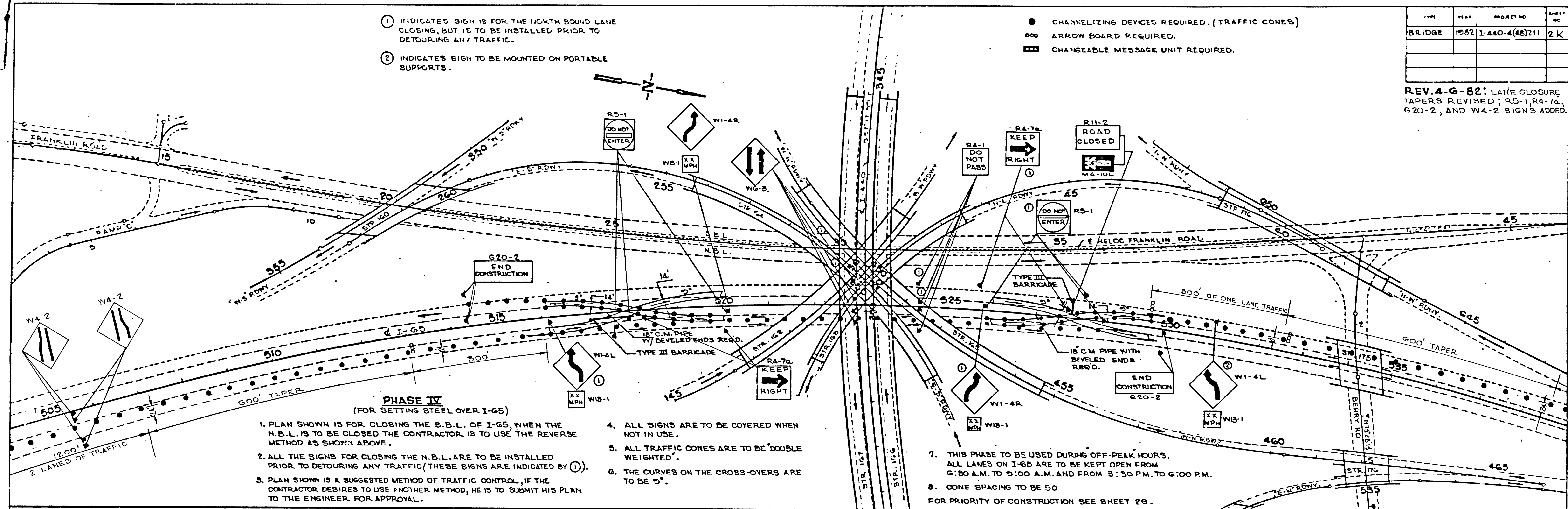
TRAFFIC CONTROL PLAN

PHASE IV a
(FRANKLIN ROAD)

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	2 K

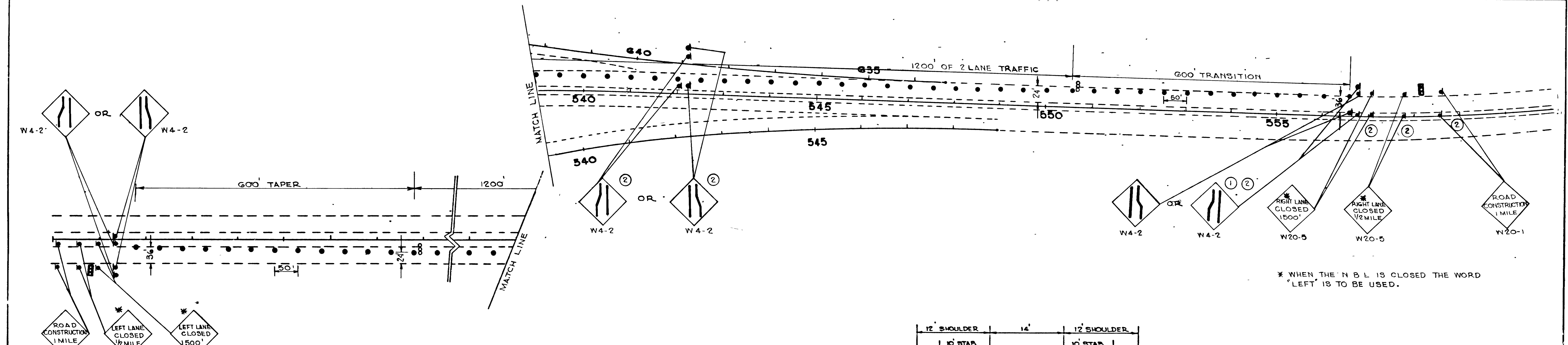
REV. 4-6-82: LANE CLOSURE TAPERS REVISED; R5-1, R4-7a, G20-2, AND W4-2 SIGNS ADDED.

- ① INDICATES SIGN IS FOR THE NORTH BOUND LANE CLOSING, BUT IS TO BE INSTALLED PRIOR TO DETOURING ANY TRAFFIC.
- ② INDICATES SIGN TO BE MOUNTED ON PORTABLE SUPPORTS.
- CHANNELIZING DEVICES REQUIRED. (TRAFFIC CONES)
- ARROW BOARD REQUIRED.
- ▬ CHANGEABLE MESSAGE UNIT REQUIRED.



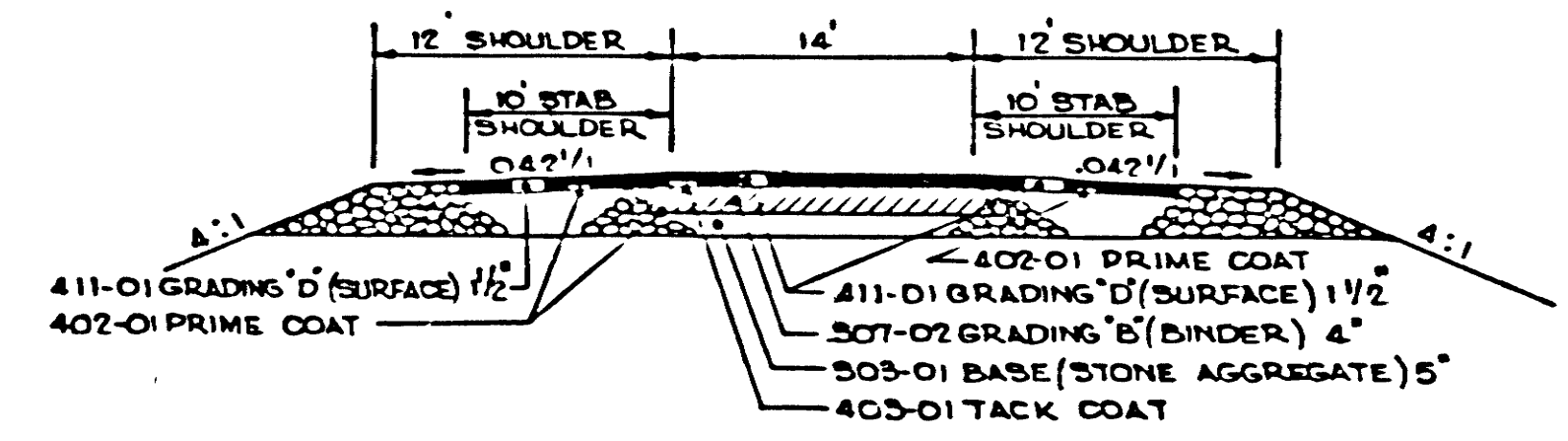
PHASE IV
(FOR SETTING STEEL OVER I-65)

1. PLAN SHOWN IS FOR CLOSING THE S.B.L. OF I-65, WHEN THE N.B.L. IS TO BE CLOSED THE CONTRACTOR IS TO USE THE REVERSE METHOD AS SHOWN ABOVE.
 2. ALL THE SIGNS FOR CLOSING THE N.B.L. ARE TO BE INSTALLED PRIOR TO DETOURING ANY TRAFFIC (THESE SIGNS ARE INDICATED BY ①).
 3. PLAN SHOWN IS A SUGGESTED METHOD OF TRAFFIC CONTROL, IF THE CONTRACTOR DESIRES TO USE ANOTHER METHOD, HE IS TO SUBMIT HIS PLAN TO THE ENGINEER FOR APPROVAL.
 4. ALL SIGNS ARE TO BE COVERED WHEN NOT IN USE.
 5. ALL TRAFFIC CONES ARE TO BE "DOUBLE WEIGHTED".
 6. THE CURVES ON THE CROSS-OVERS ARE TO BE 5°.
 7. THIS PHASE TO BE USED DURING OFF-PEAK HOURS. ALL LANES ON I-65 ARE TO BE KEPT OPEN FROM 6:30 A.M. TO 9:00 A.M. AND FROM 3:30 P.M. TO 6:00 P.M.
 8. CONE SPACING TO BE 50
- FOR PRIORITY OF CONSTRUCTION SEE SHEET 29.



* WHEN THE N B L IS CLOSED THE WORD "RIGHT" IS TO BE USED.

* WHEN THE N B L IS CLOSED THE WORD "LEFT" IS TO BE USED.



TYPICAL SECTION
CROSS-OVER

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL
PLAN
PHASE IV b**

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	3

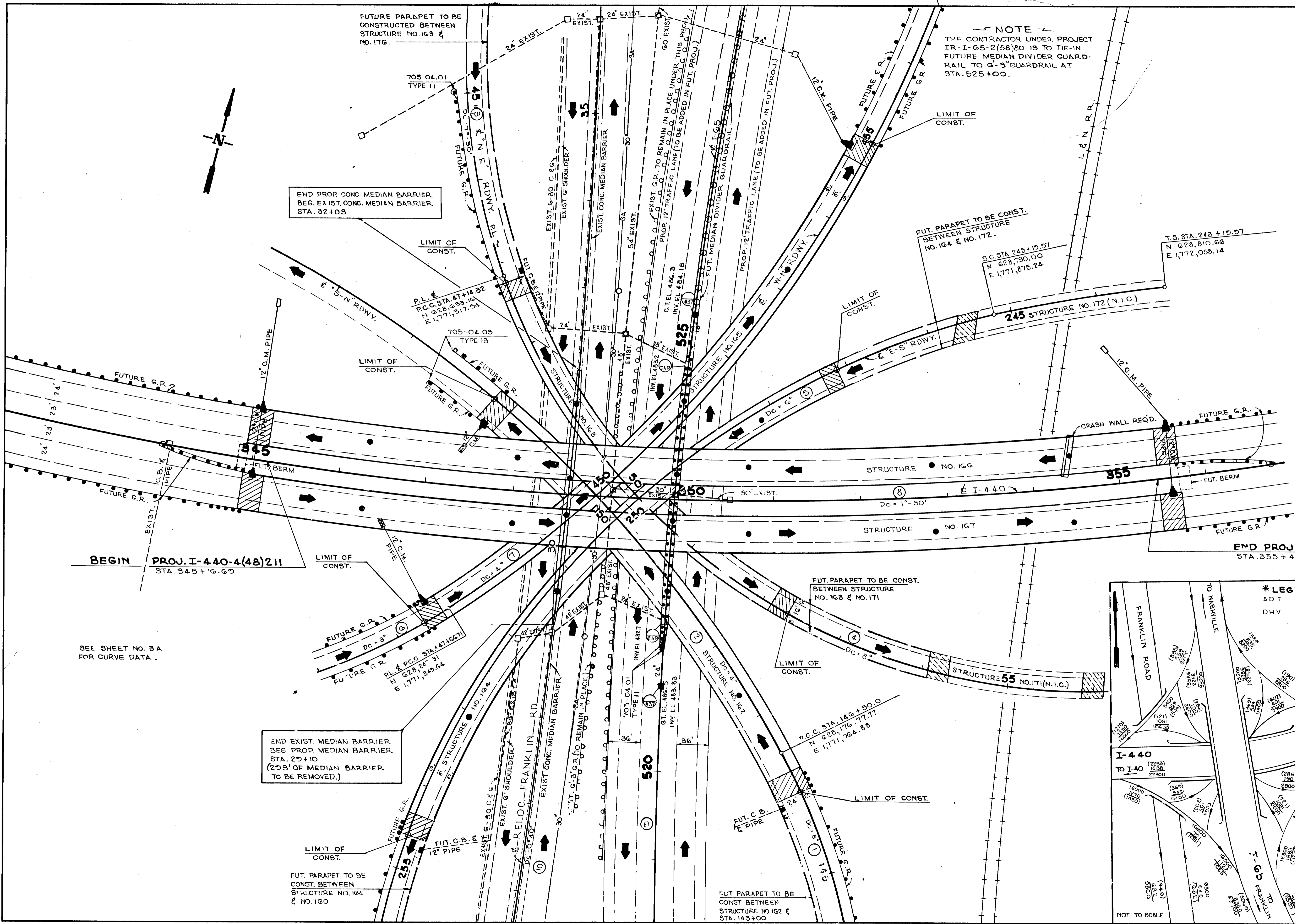
REV. 3-22-82: REFERENCE FOR CURVE DATA ADDED, CURVE NOS. ADDED.

REV. 6-9-82: SURVEY & CURVE POINT DELETED FROM 'W-N' RDY. CURVE POINTS REVISED ON 'E-S', 'N-E' AND 'S-W' RDYS.

REV. 5-12-83: TYPE 11 ANCHOR BLOCKS AT STA. 525+00 DELETED. FUTURE MEDIAN DIVIDER GUARDRAIL ADDED TO PLANS IN I-65 MEDIAN. NOTE CONCERNING TIEING IN MEDIAN DIVIDER GUARDRAIL ADDED TO PLANS.

NOTE
THE CONTRACTOR UNDER PROJECT IR-I-65-2(58)80 IS TO TIE-IN FUTURE MEDIAN DIVIDER GUARDRAIL TO 6'-3" GUARDRAIL AT STA. 525+00.

192



BEGIN PROJ. I-440-4(48)211
STA. 345+16.69

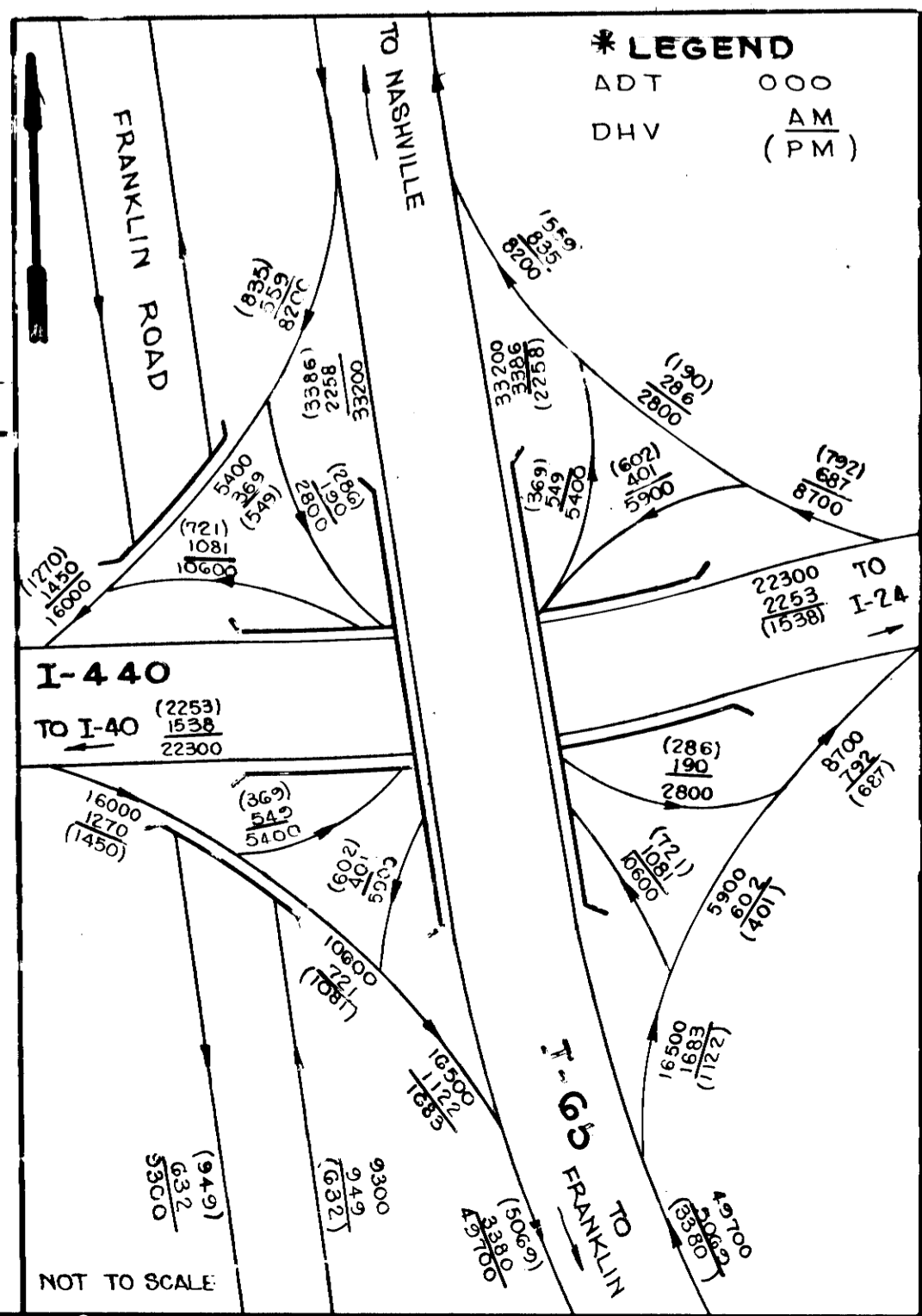
END PROJ. I-440-4(48)211
STA. 355+45.31

SEE SHEET NO. 3A FOR CURVE DATA.

END EXIST. MEDIAN BARRIER
BEG. PROP. MEDIAN BARRIER
STA. 29+10
(203' OF MEDIAN BARRIER
TO BE REMOVED.)

FUT. PARAPET TO BE CONST.
BETWEEN STRUCTURE NO. 164
& NO. 160

FUT. PARAPET TO BE CONST.
BETWEEN STRUCTURE NO. 162 &
STA. 143+00



*** LEGEND**
ADT 000
DHV (AM)
(PM)

* TRAFFIC SHOWN ABOVE IS REDUCED FACILITY TRAFFIC AS DESCRIBED IN THE F.E.I.S. AS APPROVED BY THE FHWA ON 7-7-83.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT
I-440 & I-65
STACK
STRUCTURES

SCALE: 1" = 50'

NOT TO SCALE

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	5A

REV. 3-22-82: CURVE DATA ADDED FOR FRANKLIN ROAD.
 REV. 6-9-82: CURVE DATA REVISED ON CURVES ①, ②, ③, ④, ⑥, ⑦, ⑧. C.C. CO-ORD ADDED TO CURVES.

STRUCTURE NO. 162
 'S-W' ROADWAY

①
CURVE 1
 P.I. STA. 145+16.00
 Δc = 21° 42' 15" LT.
 Dc = 8° 00' 00"
 T = 137.30'
 E = 13.04'
 Lc = 271.30'
 R = 716.20'
 C.C.N. = 627,691.99
 E = 1,771,237.69
 P.I.N = 628,075.71
 E = 1,771,857.81

②
CURVE 2
 P.I. STA. 150+55.83
 Δc = 31° 38' 14" LT.
 Dc = 4° 00' 00"
 T = 405.83'
 E = 56.38'
 Lc = 790.93'
 R = 1432.39'
 C.C.N. = 627,207.21
 E = 1,770,710.51
 P.I.N = 628,475.50
 E = 1,771,490.18

STRUCTURE NO. 163
 'N-E' ROADWAY

③
CURVE 3
 PAPER LOCATION (P.L.) 4
 P.I. STA. 44+48.68
 Δc = 41° 48' 21.61" LT.
 Dc = 7° 30' 00"
 T = 291.77'
 E = 53.82'
 Lc = 557.41'
 R = 763.94'
 C.C.N. = 629,057.55
 E = 1,771,952.77
 P.I.N = 628,875.77
 E = 1,771,155.46

④
CURVE 4
 PAPER LOCATION (P.L.) 4
 P.I. STA. 52+59.99
 Δc = 74° 36' 04.32" LT.
 Dc = 8° 00' 00"
 T = 545.61'
 E = 184.15'
 Lc = 932.52'
 R = 716.20'
 C.C.N. = 629,091.02
 E = 1,771,913.07
 P.I.N = 628,179.49
 E = 1,771,620.64

STRUCTURE NO. 164
 'E-S' ROADWAY

⑤
CURVE 5
 P.I. STA. 251+10.96
 Δc = 63° 30' 18" LT.
 Dc = 6° 00' 00"
 T = 550.99'
 E = 168.08'
 Lc = 1058.42'
 R = 954.93'
 C.C.N. = 627,885.27
 E = 1,772,320.58
 P.I.N = 628,454.39
 E = 1,771,352.45

STRUCTURE NO. 165
 'W-N' ROADWAY

⑥
CURVE 6
 PAPER LOCATION (P.L.) 4
 P.I. STA. 446+67.37
 Δc = 16° 00' 00" LT.
 Dc = 8° 00' 00"
 T = 100.66'
 E = 7.04'
 Lc = 200'
 R = 716.20'
 P.I.N = 628,178.38
 E = 1,771,281.34
 C.C.N = 628,733.30
 E = 1,770,823.57

⑦
CURVE 7
 PAPER LOCATION (P.L.) 4
 P.I. STA. 453+54.01
 Δc = 44° 35' 20" LT.
 Dc = 4° 00' 00"
 T = 587.31'
 E = 115.73'
 Lc = 1,114.72'
 R = 1,432.39'
 P.I.N = 628,678.71
 E = 1,771,748.17
 C.C.N = 629,219.29
 E = 1,770,297.49

STRUCTURE NO. 166 & 167
 I-440 MAIN LINE

⑧
CURVE 8
 P.I. STA. 349+65.28
 Δc = 27° 04' 43.5" LT.
 Dc = 1° 30' 00"
 T = 919.81'
 E = 109.19'
 Lc = 1805.25'
 R = 3,819.72'
 P.I.N = 628,317.91
 E = 1,771,556.42
 C.C.N = 628,161.47
 E = 1,770,741.96

FRANKLIN ROAD
 MAIN LINE
 ⑩
CURVE 10
 P.I. STA. 28+06.53
 Δc = 15° 31' 16" LT.
 Dc = 0° 40'
 T = 1,171.26'
 E = 79.44'
 Lc = 2,328.17'
 R = 8,594.37'
 C.C.N = 628,158.129
 E = 1,771,565.602

I-65 MAIN LINE

⑨
CURVE 9
 P.I. STA. 522+98.25
 Δc = 37° 17' 14" RT.
 Dc = 1° 00' 00"
 T = 1,938.07'
 E = 317.31'
 Lc = 3,728.72'
 R = 5,729.58'
 C.C.N. = 629,357.08
 E = 1,777,226.25
 P.I.N = 628,290.99
 E = 1,771,274.19

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

CURVE DATA

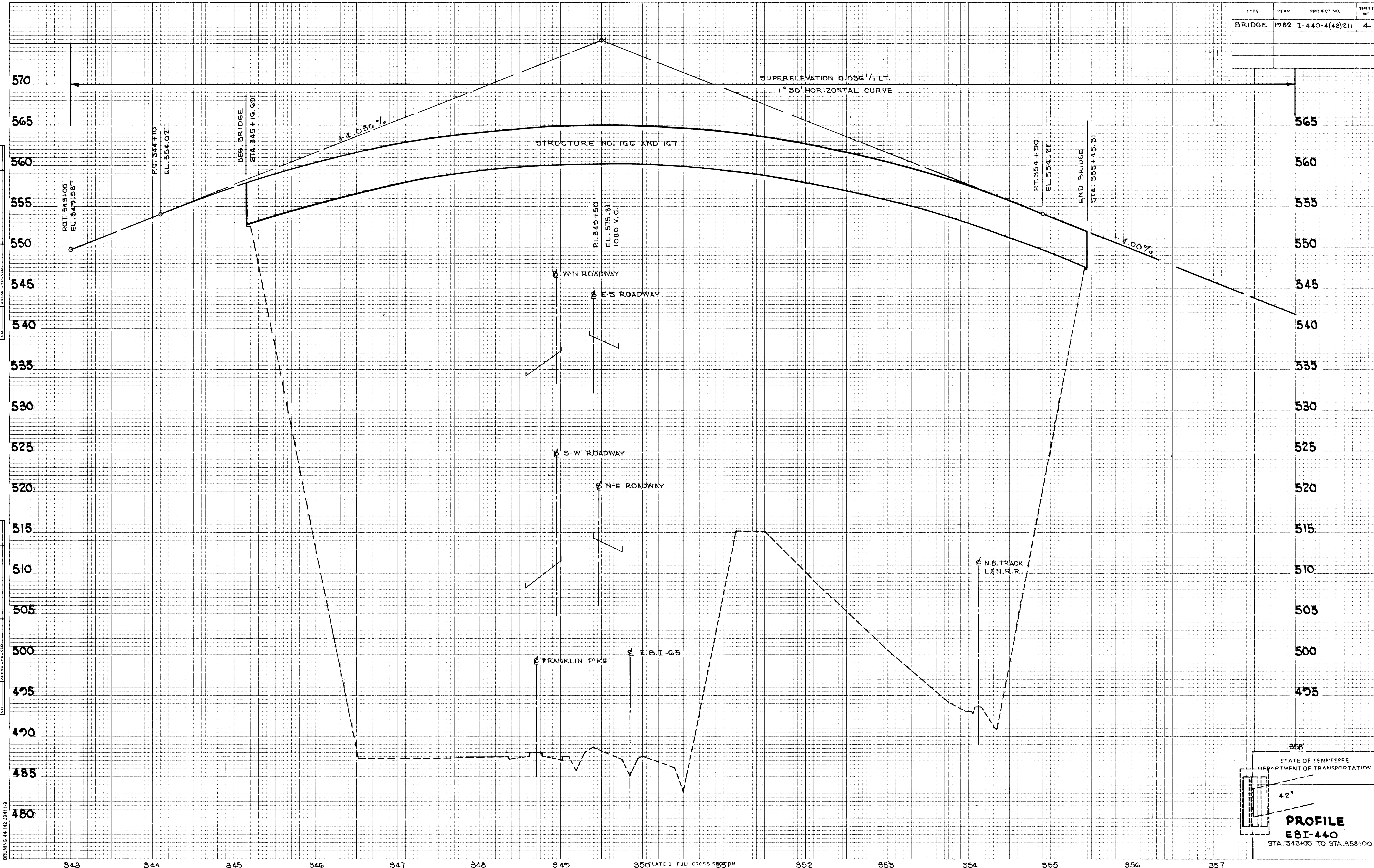
1/192

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	4

TENN. STATE HIGHWAYS
 Div. 1
 No. 192

FINAL SURVEY
 SURVEYED BY
 DATE
 TEMPLATE NO.
 AREAS CHECKED
 NO.

ORIGINAL SURVEY
 SURVEYED BY
 DATE
 TEMPLATE NO.
 AREAS CHECKED
 NO.



BRUNING 44-142-294119

PLATE 3 FULL CROSS SECTION
 CHARLES BRUNING COMPANY
 MADE IN U.S.A.

358

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

42'

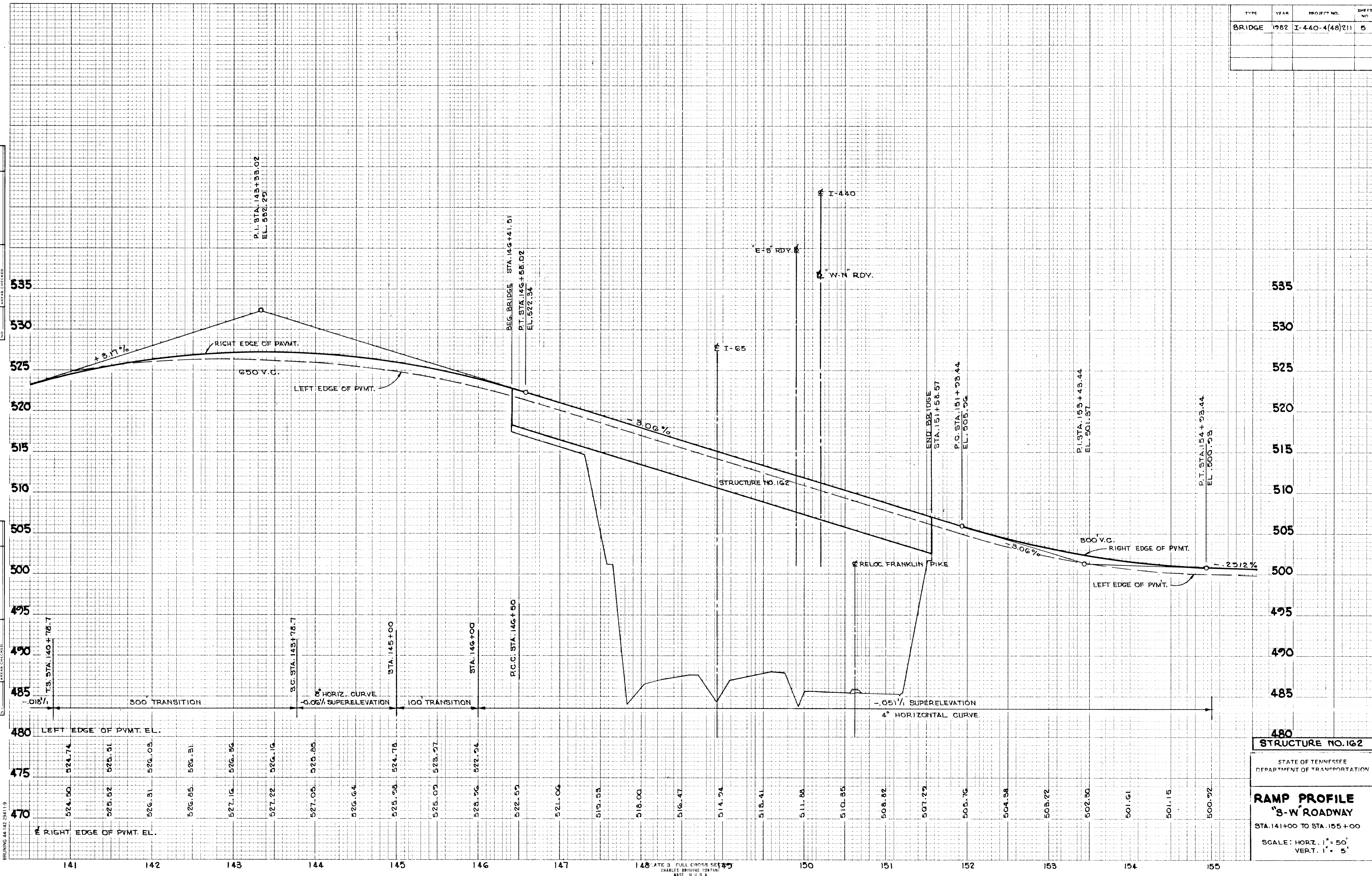
PROFILE
EBI-440
 STA. 343+00 TO STA. 358+00

IF IN STATE HIGHWAYS
 Plans of File No. 10
 Date 10/92

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	5

DATE	BY

DATE	BY



BRUNING 44-142 294119

480
 STRUCTURE NO. 162

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

RAMP PROFILE
 "S-W" ROADWAY

STA. 141+00 TO STA. 155+00

SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'

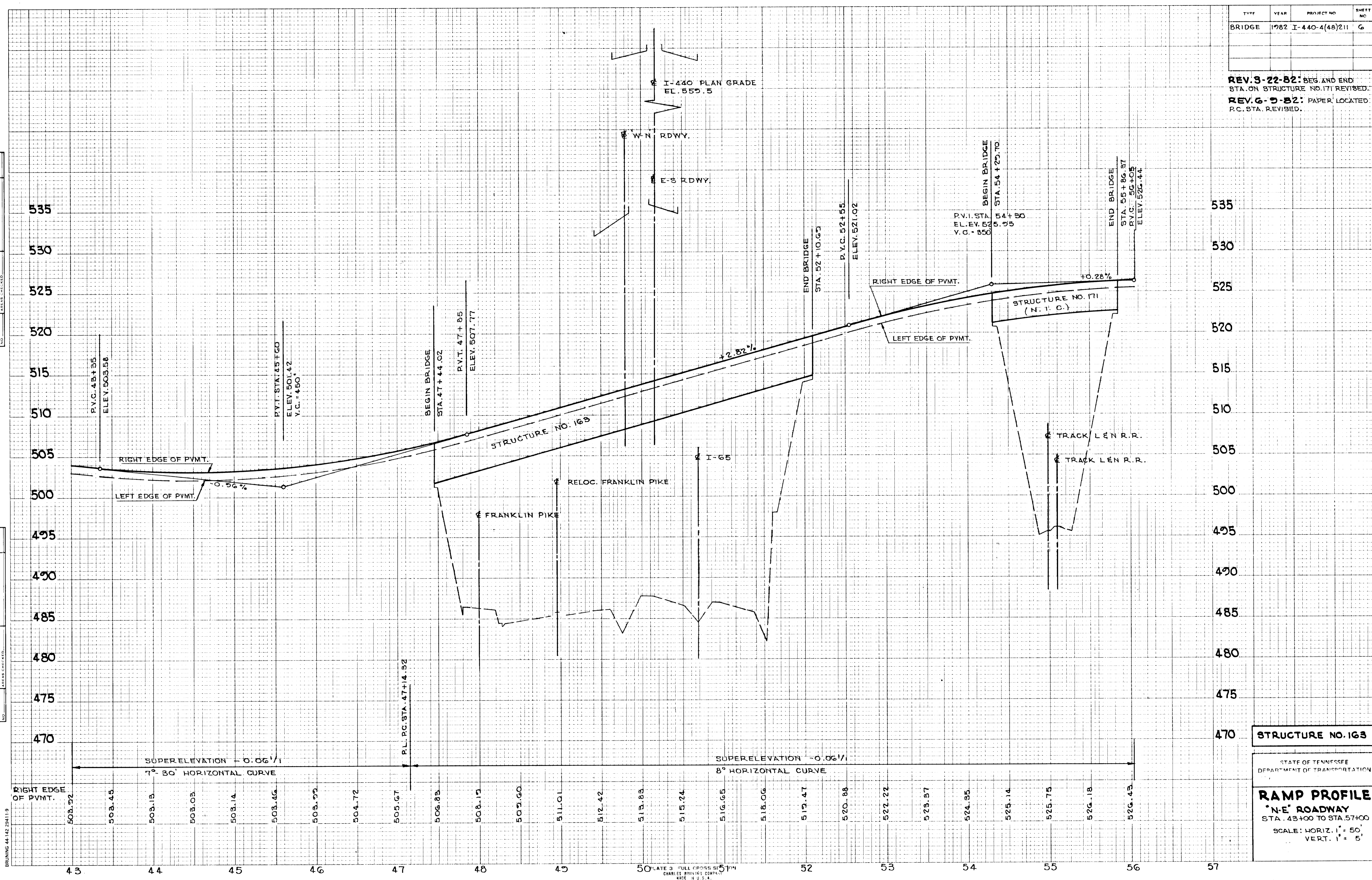
STATE HIGHWAYS
 No. 92
 DATE
 BY

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	6

REV. 3-22-82: BEG. AND END STA. ON STRUCTURE NO. 171 REVISED.
 REV. 6-9-82: PAPER LOCATED. P.C. STA. REVISED.

NO.	DATE	BY

NO.	DATE	BY



STRUCTURE NO. 163

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

RAMP PROFILE
 'N-E' ROADWAY
 STA. 43+00 TO STA. 57+00
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'

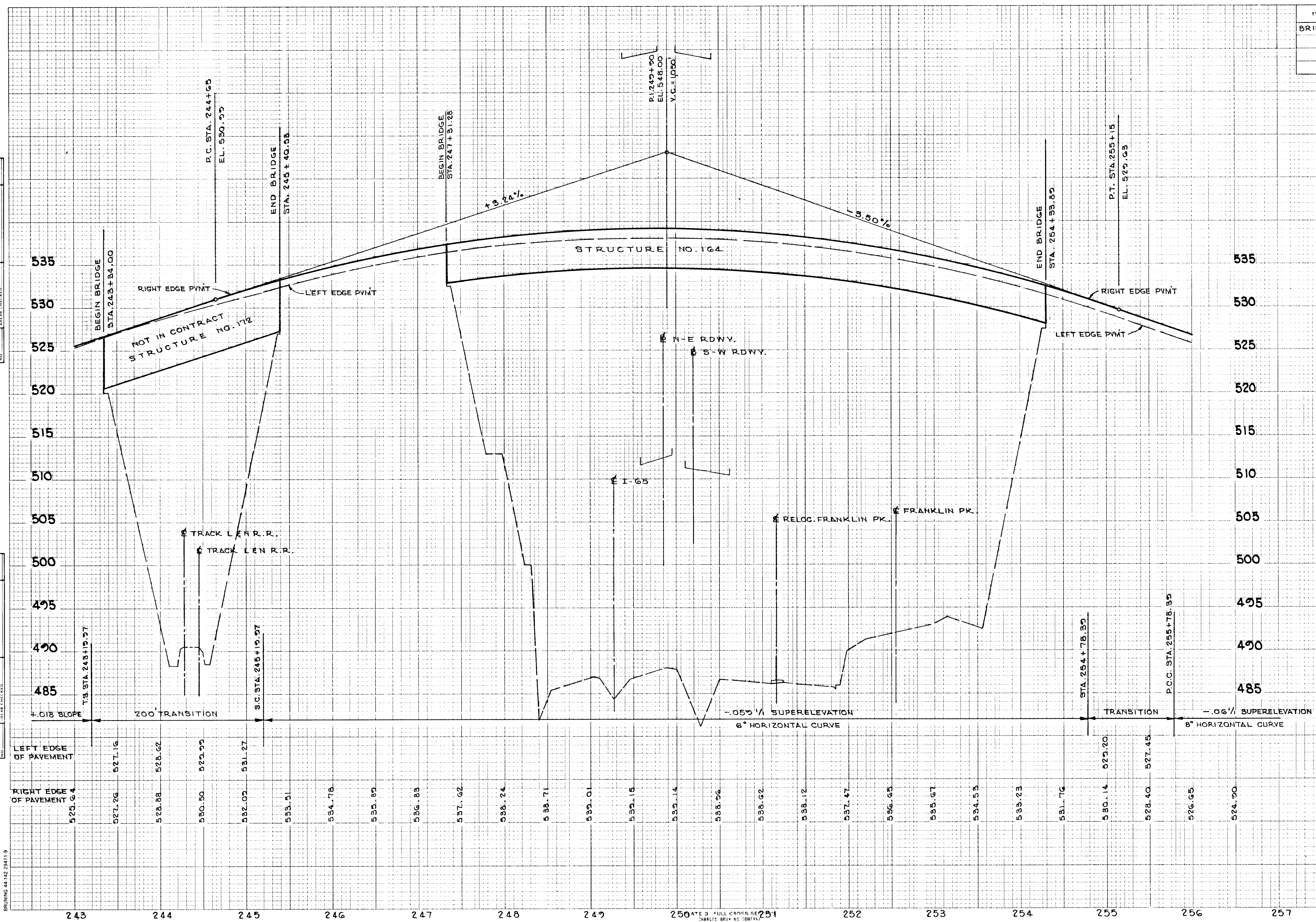
BRUNING 44 142 28411-9

STATE HIGHWAYS
 No. 192

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	7

NO.	DATE	BY

NO.	DATE	BY



BRUNING 44-142 29411-9

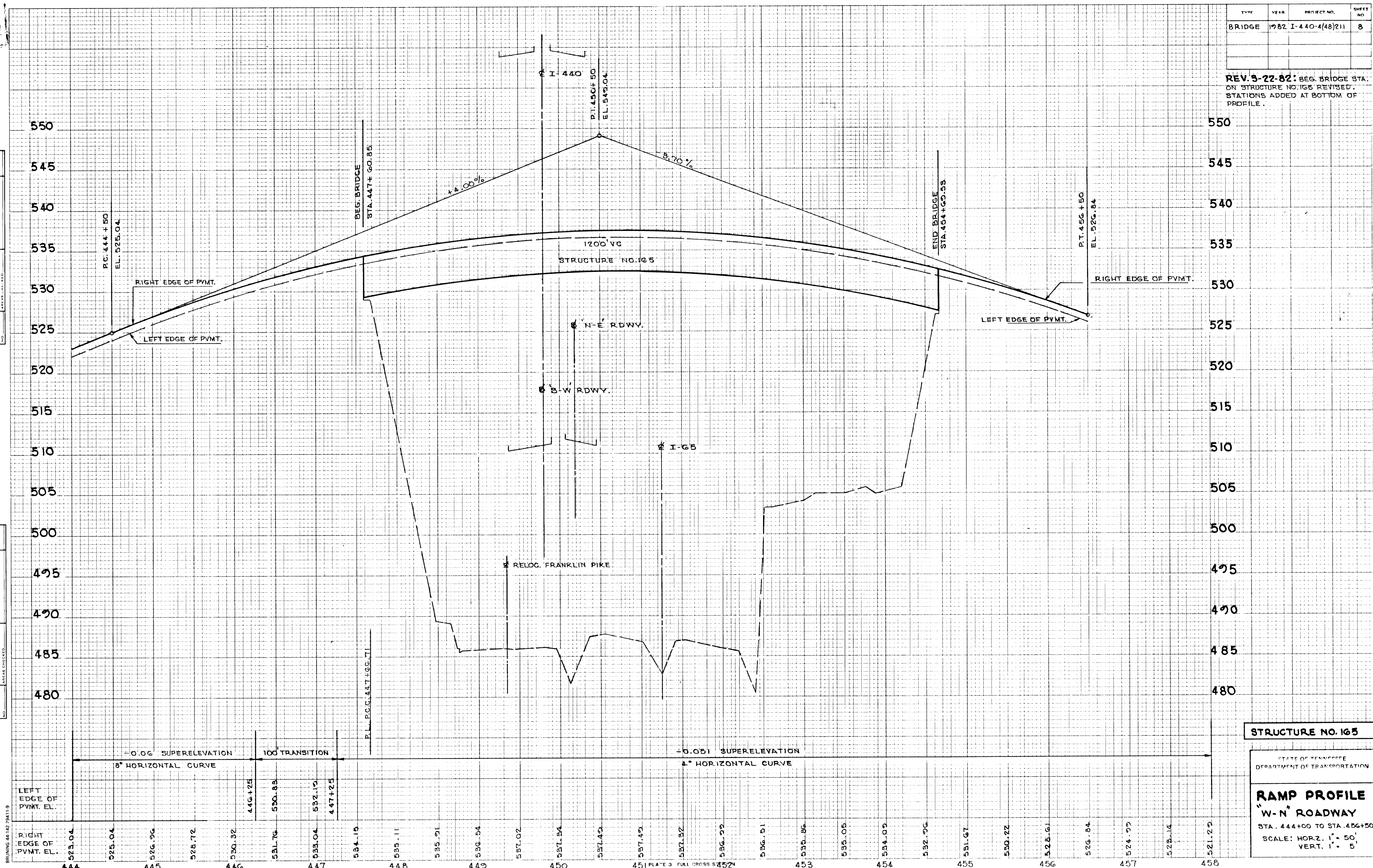
STRUCTURE 164

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

RAMP PROFILE
 'E-S' ROADWAY
 STA. 243+00 TO STA. 257+00
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	8

REV. 5-22-82: BEG. BRIDGE STA. ON STRUCTURE NO. 165 REVISED. STATIONS ADDED AT BOTTOM OF PROFILE.



THE 444
NOV 92
Dm

BY	DATE

BY	DATE

BRUNING 44142 29411-9

STRUCTURE NO. 165

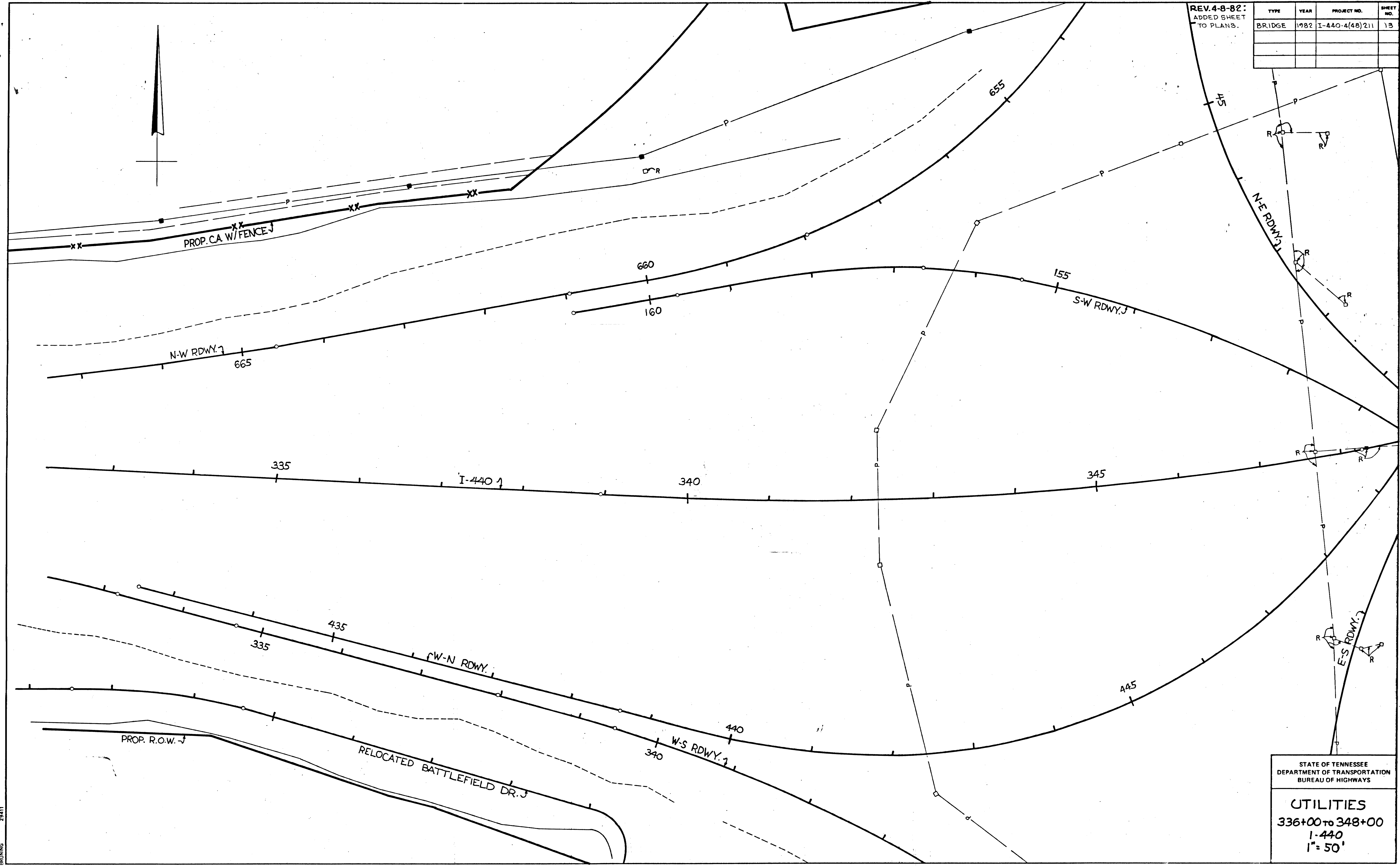
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILE
"W-N" ROADWAY
STA. 444+00 TO STA. 456+50
SCALE: HORZ. 1" = 50'
VERT. 1" = 5'

10
192

REV. 4-8-82:
ADDED SHEET
TO PLANS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	13



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

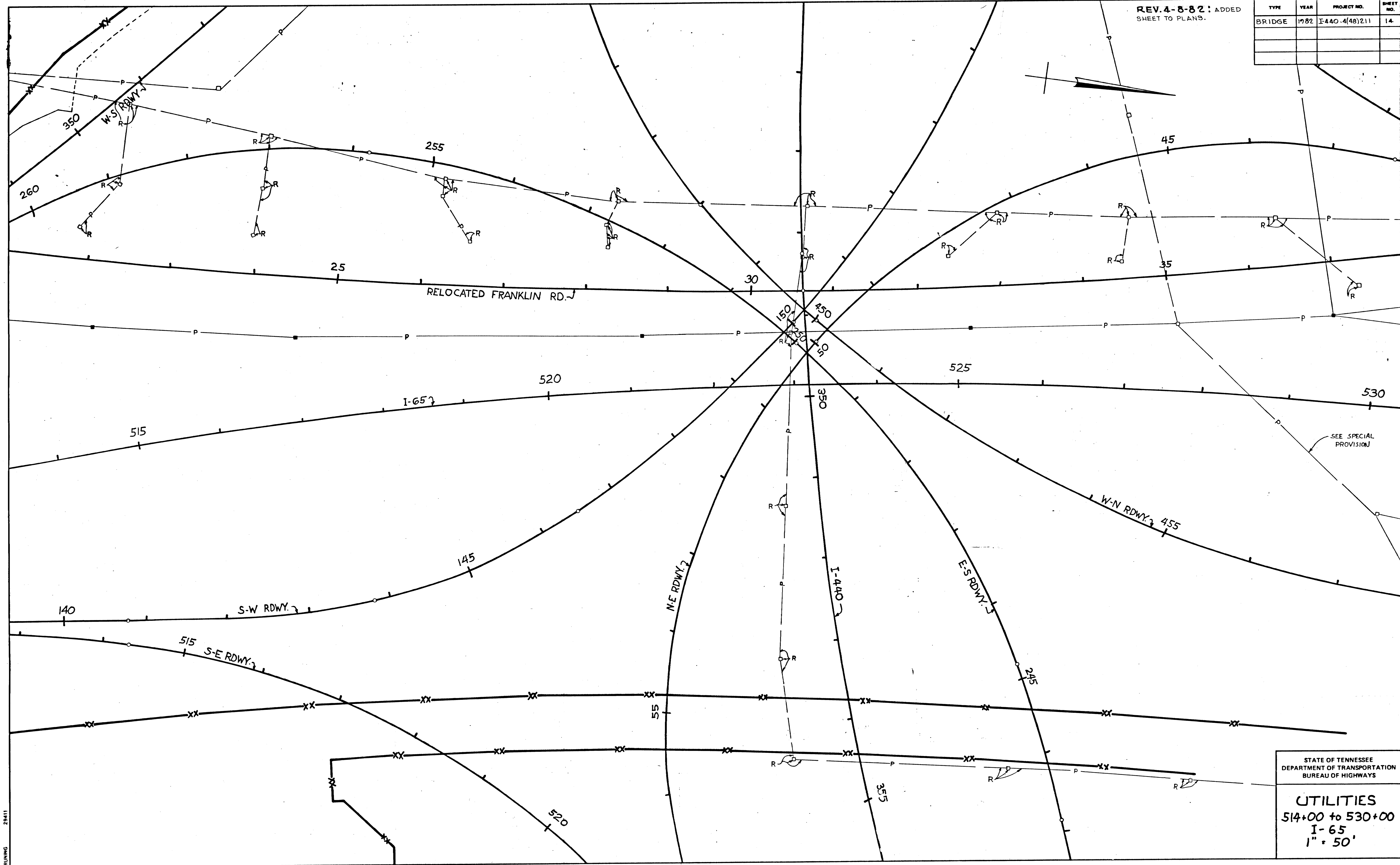
UTILITIES
336+00 to 348+00
I-440
1" = 50'

BRUNING 29411

REV. 4-8-82: ADDED SHEET TO PLANS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE	1982	I-440-4(48)211	14

1N
192



SEE SPECIAL PROVISION

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

UTILITIES
514+00 to 530+00
I-65
1" = 50'

BRUNING 29411