CSJ = 135-2-30
PERM STRUCTURE
NOS. 99, 100, 101 & 102

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.			SHEET NO.
6	TEXAS	MANH 92 (88)M			1
STATE DIST NO.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.	HIGHWAY NO.
18	COLLIN	135	02	30	US380

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY IMPROVEMENT

FEDERAL AID PROJECT
MANH 92(88)M
COLLIN COUNTY

US-380
FROM: NEAR F.M. 1461
TO: NEAR U.S. 75
NET LENGTH OF PROJECT: 15,547.61 FT. = 2.943 MI. = RDWY = 15,427.32 FT. = 2.921 MI. BRIDGE = 120.29 FT. = 0.022 MI.

FOR THE CONSTRUCTION OF: THE UPGRADING OF A NON-FREEWAY FACILITY.
CONSISTING OF: GRADING, ASPHALT STABILIZED BASE, CONCRETE PAVEMENT, PAVEMENT MARKINGS, SIGNING, ILLUMINATION, STORM SEWER & CULVERTS

DESIGN SPEED=55 M.P.H.

NOTES: THE CONTRACTOR SHALL MAKE HIS OWN INVESTIGATION AND ARRANGEMENTS FOR RAIL DELIVERY POINTS AND TRACKAGE FACILITIES.

THE CONTRACTOR SHALL PROVIDE AND ERECT BARRICADES AND WARNING SIGNS IN ACCORDANCE WITH BC-(1) THRU (9)-1994 AT POINTS INDICATED AND AT OTHER POINTS AS DIRECTED BY THE ENGINEER.

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1G-1J	ESTIMATE & QUANTITY
2-4	TYPICAL SECTIONS
5	LEFT TURN LANE DETAILS
6-12	SUMMARY OF EARTHWORK, ROADWAY, SIGNING, PAVEMENT MARKING & ILLUMINATION QUANTITIES
13-20	TRAFFIC CONTROL PLANS
21-36	PAVING PLAN-PROFILE SHEETS
37-41	INTERSECTION LAYOUTS
42-43	DRAINAGE AREA MAP (STORM SEWER)
44-45	RUNOFF COMPUTATIONS
46-50	STORM SEWER AND INLET COMPUTATIONS
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71	HYDRAULIC DATA SHEET (CULVERTS)
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96-97	ALLEY DETAILS
98	MISCELLANEOUS INLET AND PAVEMENT REPLACEMENT DETAILS
99	MISCELLANEOUS DRAINAGE DETAILS
100	JUNCTION BOX DETAILS (STA. 913+08.31)
101	MISCELLANEOUS CULVERT DETAILS (CULVERT 5 AND CULVERT 4A)
102	APRON MODIFICATION (CULVERT 6)
103 - 103H	EROSION CONTROL PLAN
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129	SPECIAL MCW-P-9°
130	MODIFIED MCW-P
131	MODIFIED MCW-P-30°
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155	MC9-3
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160	MCW-P
161	MCW-P-30°
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165	MCW-F1-30
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172	W(1)
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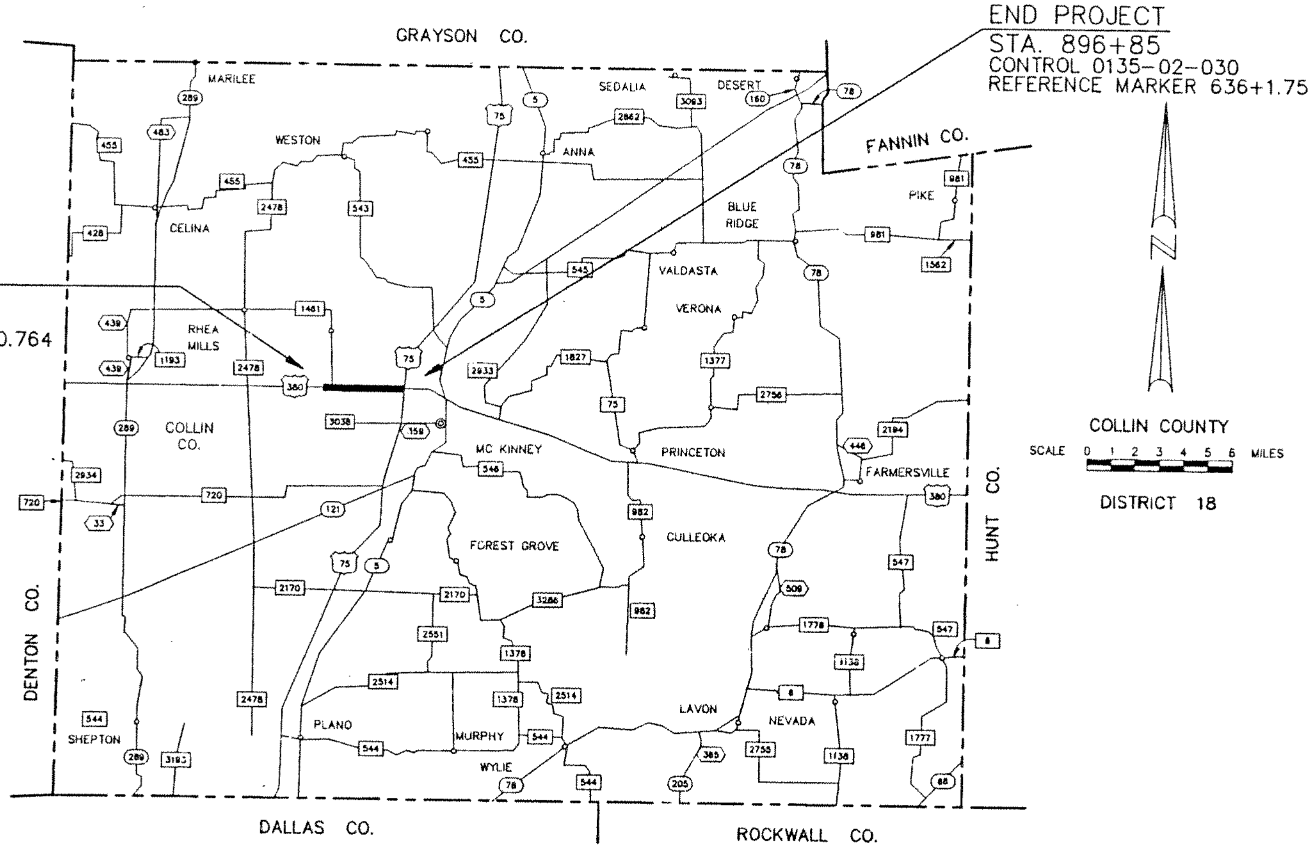
196A	RIPRAP COLLAR DETAIL FOR REINFORCED CONCRETE PIPE WITH SAFETY END TREATMENT

SHEETS OMITTED: 184



BEGIN PROJECT
STA. 1052+32.61
CONTROL 0135-02-030
REFERENCE MARKER 634+0.764

END PROJECT
STA. 896+85
CONTROL 0135-02-030
REFERENCE MARKER 636+1.758

COLLIN COUNTY
DISTRICT 18

SHEETS 117, 118, 119, 120 and 121 PLUS THE STANDARD SHEETS SPECIFICALLY IDENTIFIED ABOVE HAVE BEEN ISSUED BY ME AND ARE APPLICABLE TO THIS PROJECT.
Richard Carson Jr. 3/23/92
SIGNATURE DATE

RICHARD CARSON JR. 40854

NOTE:

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, MARCH 1, 1993, AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT: REQUIRED CONTRACT PROVISIONS ALL FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273 DECEMBER 1993)

JACK R. DAVIS 24312
RICHARD CARSON JR. 40854

SUBMITTED BY:
P.E. 24312
BROCKETTE DAVIS DRAKE, INC.
Richard Carson Jr. P.E. 40854
BROCKETTE DAVIS DRAKE, INC.

CITY OF MCKINNEY:
APPROVED: 4-2 19 92
Jack Carr

REVISED
6/30/94

TEXAS DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR LETTING: 4-15 19 92
P.E.
DISTRICT DESIGN ENGINEER

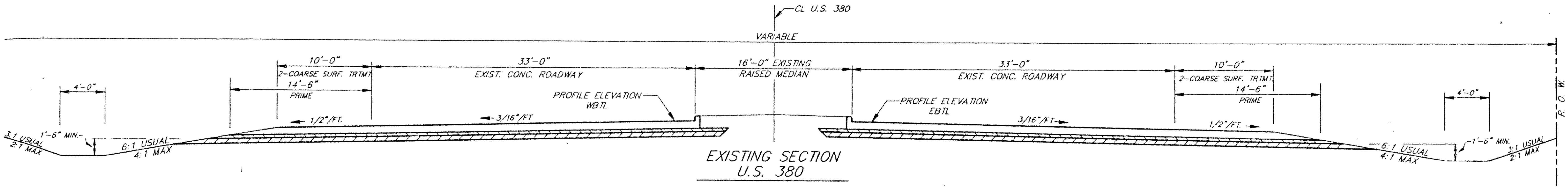
RECOMMENDED FOR LETTING: 4-1 19 92
William
SUPERVISING RESIDENT ENGINEER

APPROVED FOR LETTING 5-6-92
P.E.
for DIRECTOR OF BRIDGES & STRUCTURES

RECOMMENDED FOR LETTING: April 15 19 92

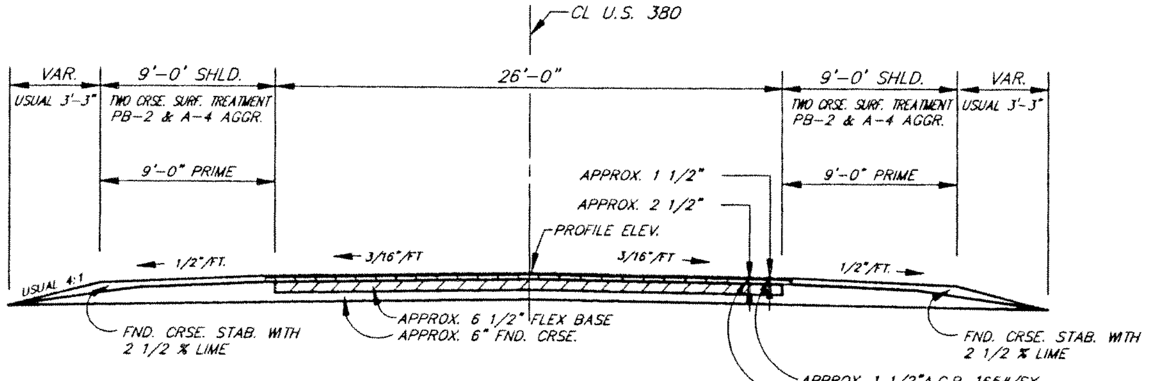
APPROVED FOR LETTING 5-13-92
P.E.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED:



EXISTING SECTION
U.S. 380

STA. 896+85 TO STA. 903+50



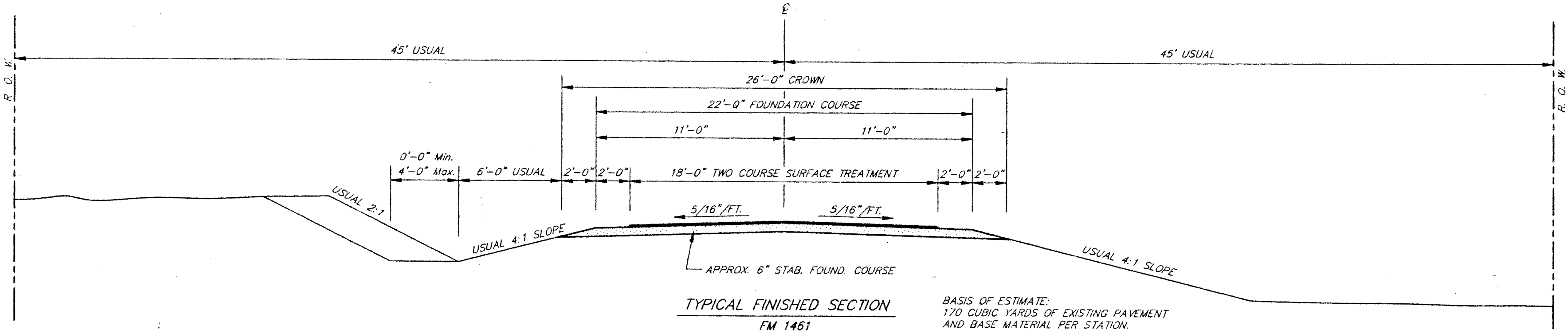
APPROX. 1 1/2" A.C.P. 165#/SY
APPROX. 2 1/2" TY A A.S.B. 275#/SY
NOTE: THE ASPHALTIC MATERIAL SHALL BE RECLAIMED AND STOCKPILED; 289 S.Y. PER STATION

BASIS OF ESTIMATE:
183 CUBIC YARDS OF BASE
MATERIAL PER STATION.
(TO BE USED AS SELECT FILL)

EXISTING SECTION
U.S. 380

STA. 907+75 TO STA. 1035+00

NOTE: ANY ASB CALLED FOR IN THE
PLANS WILL BE REPLACED
WITH ACP & WILL BE PAID
FOR AS ACP.

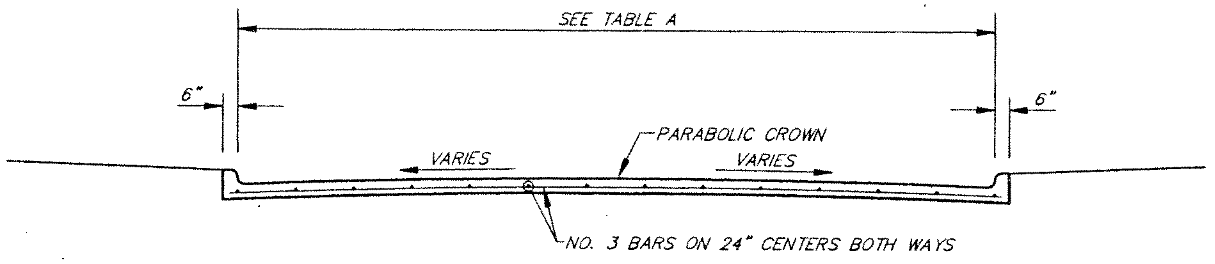


TYPICAL FINISHED SECTION
FM 1461
NTS

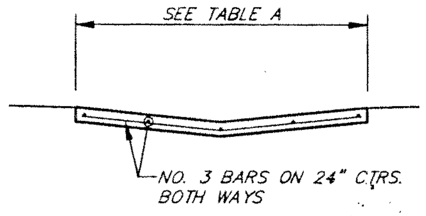
BASIS OF ESTIMATE:
170 CUBIC YARDS OF EXISTING PAVEMENT
AND BASE MATERIAL PER STATION.

TABLE A
(FOR INFORMATIONAL PURPOSES ONLY)

STREET NAME	WIDTH, FT.	THICKNESS	REINF.
OSMOND DRIVE	64	8"	SHOWN
ALLEY "A"	8	6"	"
MEANDERING WAY	40	6"	"
ALLEY "B"	8	6"	"
WISTERIA WAY	26	6"	"
ALLEY "C"	12	6"	"
SKYLINE DRIVE	24.5	8"	"



EXISTING TYPICAL SECTION
INTERSECTING CONCRETE STREETS
NTS

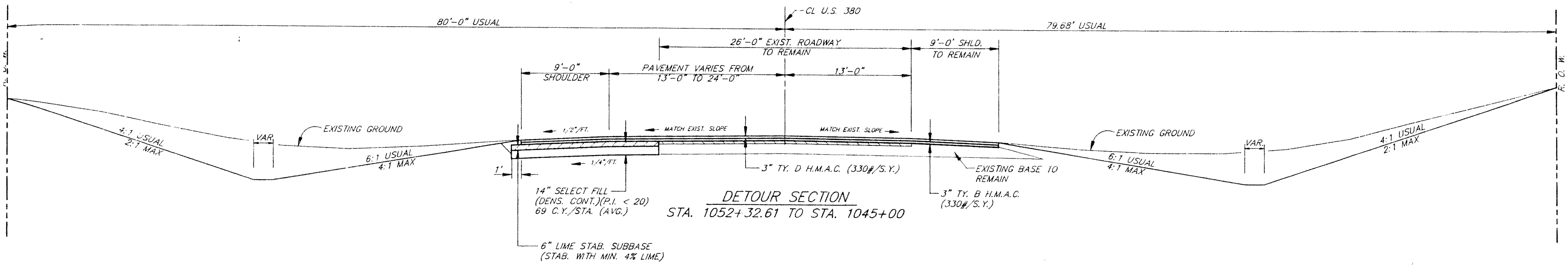


EXISTING TYPICAL SECTION
CONCRETE ALLEYS
NTS

3/23/92

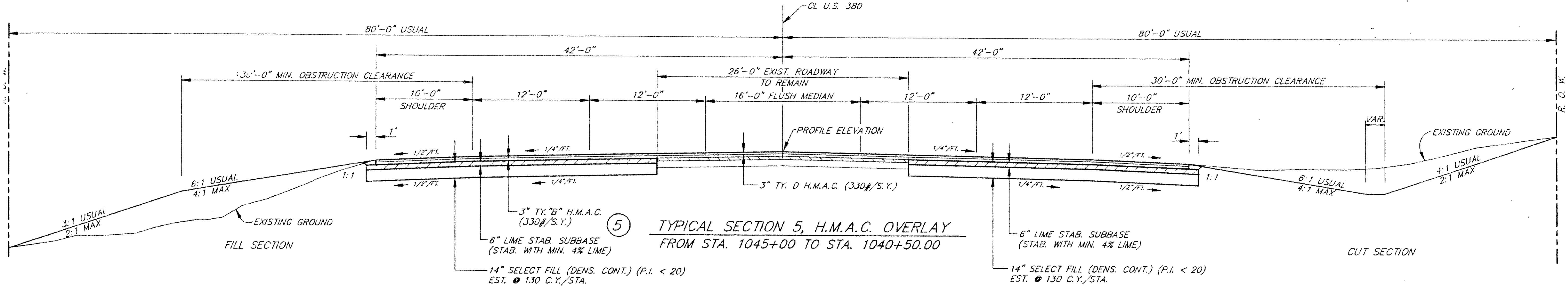
EXISTING SECTIONS

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
6	TEXAS	NH 92(88)M	2



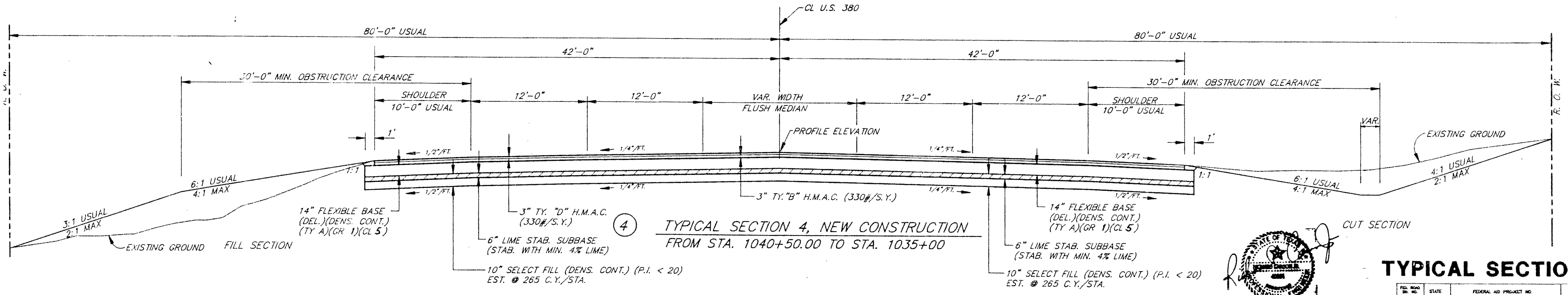
DETOUR SECTION

STA. 1052+32.61 TO STA. 1045+00



⑤ TYPICAL SECTION 5, H.M.A.C. OVERLAY

FROM STA. 1045+00 TO STA. 1040+50.00



④ TYPICAL SECTION 4, NEW CONSTRUCTION

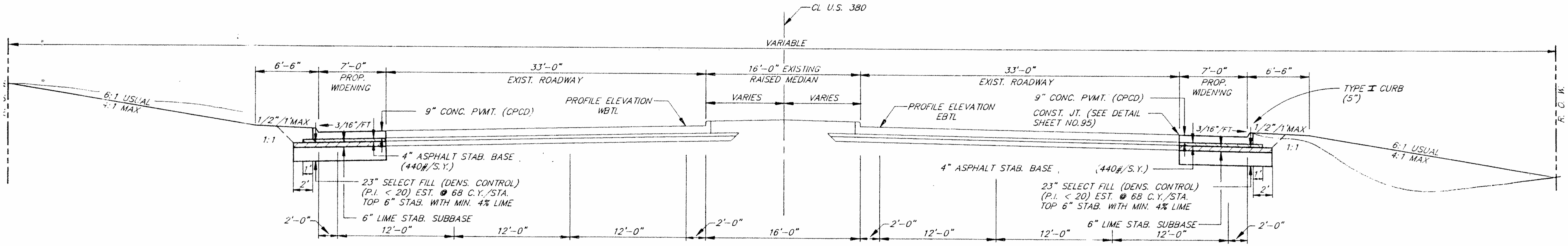
FROM STA. 1040+50.00 TO STA. 1035+00

STATE OF TEXAS PROFESSIONAL ENGINEER

1/23/92

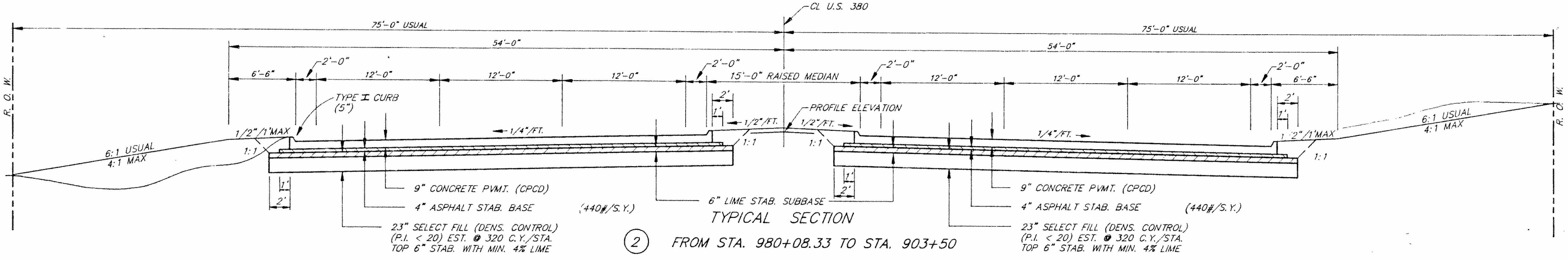
TYPICAL SECTION

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
6	TEXAS	NH 92 (88)M	3
STATE			



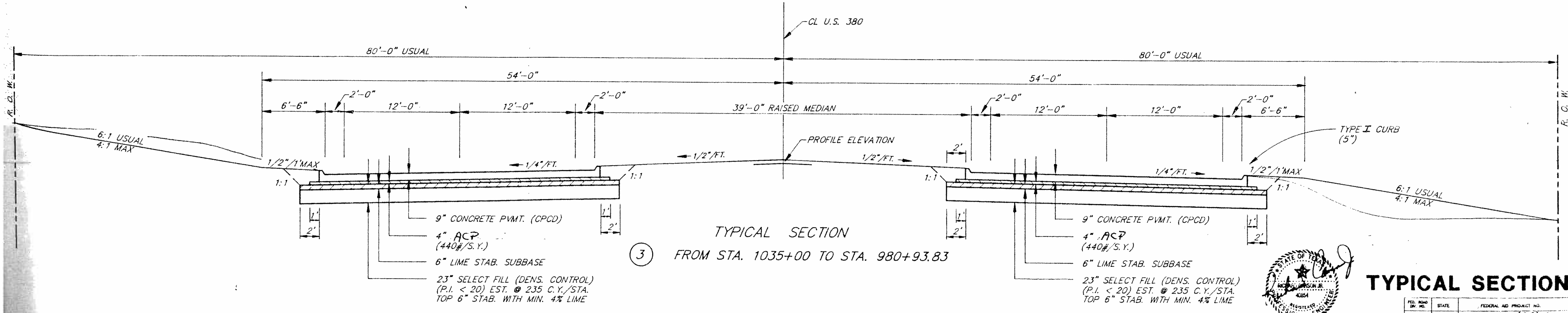
TYPICAL SECTION

① FROM STA. 903+50 TO STA. 896+85



TYPICAL SECTION

② FROM STA. 980+08.33 TO STA. 903+50

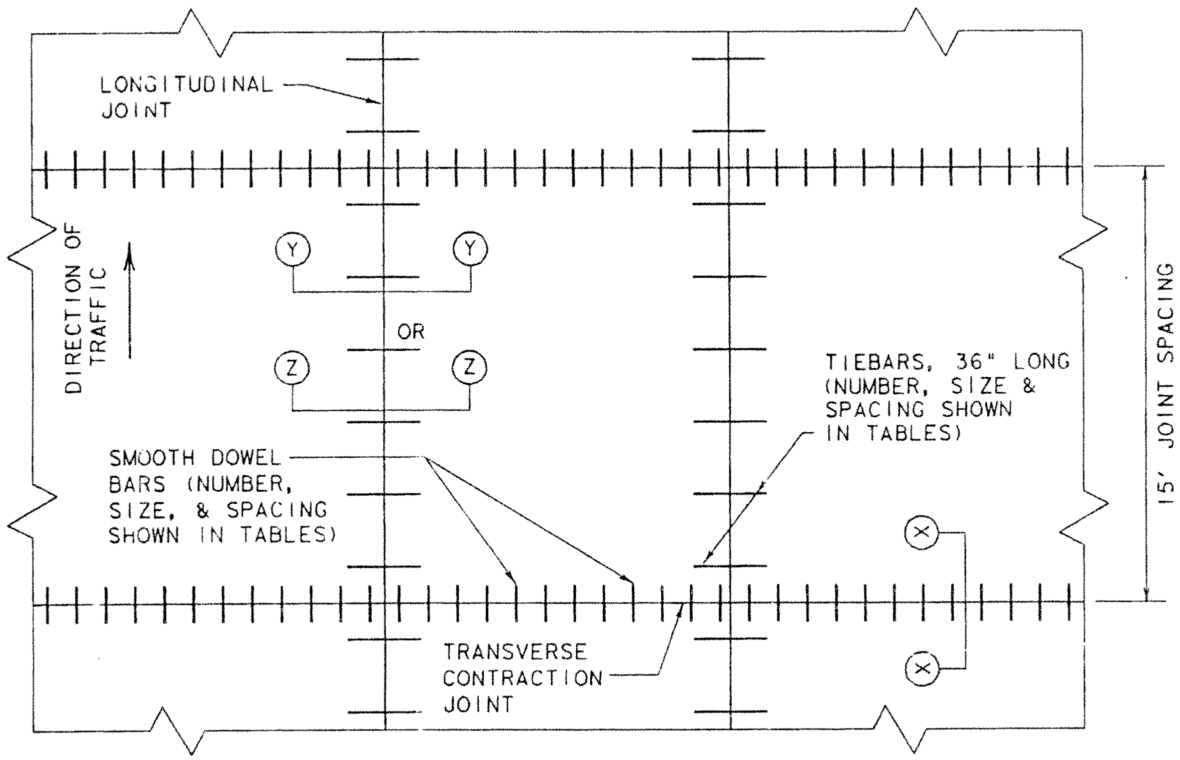


TYPICAL SECTION

③ FROM STA. 1035+00 TO STA. 980+93.83

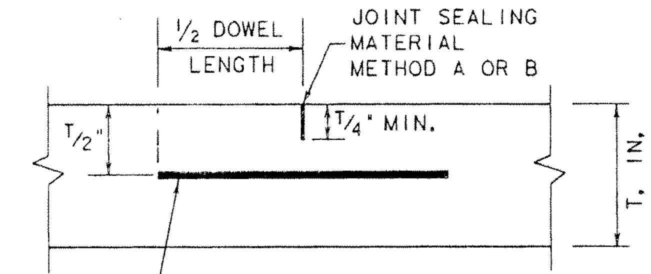
TYPICAL SECTIONS

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
6	TEXAS	NH 92 (88)M	4

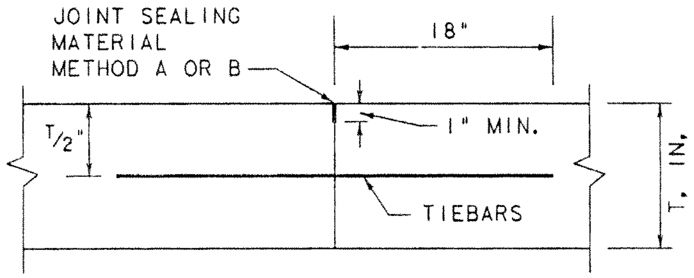


PAVEMENT DETAIL LAYOUT

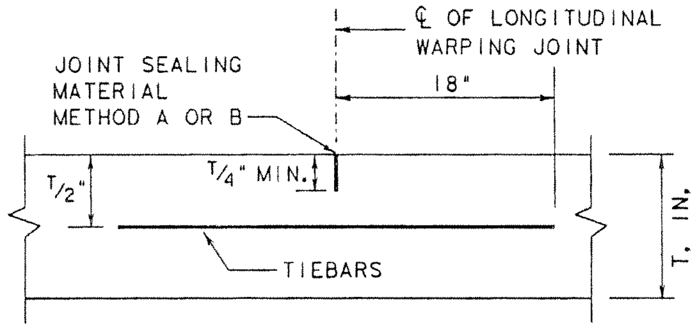
T, IN.	DOWELS (SMOOTH BARS)	
	SIZE AND LENGTH	AVERAGE SPACING (INCHES)
8	1" X 18"	12
9	1 ⅛" X 18"	12
10	1 ¼" X 18"	12
11	1 ⅜" X 18"	12
12	1 ½" X 18"	12
13	1 ⅝" X 18"	12
14	1 ¾" X 18"	12
15	1 ⅞" X 18"	12



TRANSVERSE CONTRACTION JOINT
SECTION X-X



LONGITUDINAL CONSTRUCTION JOINT
SECTION Y-Y



LONGITUDINAL WARPING JOINT
SECTION Z-Z

GRADE 60 TRANSVERSE TIEBAR REQUIREMENTS FOR EACH 15' LONG SLAB

T IN.	DISTANCE FROM THE LONGITUDINAL JOINT TO THE NEAREST LONGITUDINAL FREE EDGE, FT.											
	< = 20			< = 30			< = 40			< = 50		
	BAR SIZE	NO. OF BARS	C-C SPACING IN.	BAR SIZE	NO. OF BARS	C-C SPACING IN.	BAR SIZE	NO. OF BARS	C-C SPACING IN.	BAR SIZE	NO. OF BARS	C-C SPACING IN.
8	#4	5	36"	#5	5	36"	#5	7	25"	#5	8	21"
9	#4	6	30"	#5	6	30"	#5	8	21"	#5	9	18"
10	#4	7	25"	#5	6	30"	#5	8	21"	#5	10	16"
11	#4	7	25"	#5	7	25"	#5	9	18"	#5	11	15"
12	#5	5	36"	#5	8	21"	#5	10	16"	#5	12	13"
13	#5	6	30"	#5	8	21"	#5	11	15"	#5	13	12"
14	#5	6	30"	#5	9	18"	#5	11	15"	#5	14	11"
15	#5	6	30"	#5	9	18"	#5	12	13"	#5	15	10"

GENERAL NOTES

1. NO EXPANSION JOINTS WILL BE USED EXCEPT AT STRUCTURE ENDS OR FIXED OBJECTS AS SHOWN ELSEWHERE IN THE PLANS.
2. FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND LOAD TRANSFER DEVICES REFER TO THE GOVERNING SPECIFICATIONS FOR "CONCRETE PAVEMENT".
3. DETAILS AS TO PAVEMENT WIDTH, PAVEMENT THICKNESS, AND THE CROWN CROSS-SLOPE SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
4. JOINT GROOVE AND SEAL DETAILS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
5. PAVEMENT WIDTHS IN EXCESS OF 16' SHALL BE PROVIDED WITH A LONGITUDINAL JOINT (SECTION Z-Z OR Y-Y). THESE JOINTS SHALL BE LOCATED WITHIN 6" OF THE LANE LINES UNLESS SHOWN ELSEWHERE ON THE PLANS. LONGITUDINAL JOINT TYPES AND LOCATIONS FOR THIS SPECIFIC PROJECT ARE SHOWN ELSEWHERE ON THE PLANS.
6. THE JOINT BETWEEN THE OUTSIDE LANE AND THE SHOULDER SHALL BE A LONGITUDINAL WARPING JOINT (SECTION Z-Z) UNLESS OTHERWISE SHOWN IN THE PLANS.
7. THE SPACING BETWEEN TRANSVERSE JOINTS SHALL BE 15 FEET UNLESS OTHERWISE SHOWN ON THE PLANS. THE SPACING BETWEEN TRANSVERSE JOINTS WILL NEVER EXCEED 20 FEET.
8. TIEBAR REQUIREMENTS INCREASE AS PAVEMENTS WIDEN. THE PAVEMENT WIDTH SHALL BE MEASURED AT RIGHT ANGLES TO THE CENTERLINE AND SHALL INCLUDE ALL MAINLINES, CONNECTORS, RAMPS AND CONCRETE SHOULDERS THAT ARE TIED TOGETHER. WHERE WIDTHS EXCEED 100', ADDITIONAL TIEBARS WILL BE REQUIRED, UNLESS A "FREE" (NON-REINFORCED) LONGITUDINAL JOINT IS SHOWN ELSEWHERE IN THE PLANS. WHERE THE CENTER MEDIAN IS TO BE PAVED AND A MEDIAN BARRIER IS PROVIDED, THE "FREE" (NON-REINFORCED) LONGITUDINAL JOINT WILL BE PLACED UNDER THE BARRIER.
9. WITH APPROVAL OF THE ENGINEER, MULTIPLE PIECE TIEBARS (THREADED COUPLING OR OTHER ADEQUATE DEVICE) MAY BE USED TO FACILITATE CONSTRUCTION. MULTIPLE PIECE TIEBARS SHALL DEVELOP A TENSILE STRENGTH OVER THEIR ENTIRE LENGTH EQUAL TO 1 ¼ TIMES THE YIELD STRENGTH OF THE TIEBARS SHOWN ON THIS STANDARD. EACH END OF THE MULTIPLE PIECE TIEBARS SHALL CONSIST OF DEFORMED REINFORCEMENT OF AT LEAST THE SIZE OF THE TIEBARS SHOWN. THE DEFORMED PORTION OF EACH END OF THE MULTIPLE PIECE TIEBARS SHALL BE AT LEAST ½ OF THE LENGTH OF THE TIEBARS SHOWN. THE SPACING FOR MULTIPLE PIECE TIEBARS SHALL BE EQUAL TO OR LESS THAN THAT OF THE TIEBARS SHOWN.
10. DOWEL AND TIEBAR SPACINGS SHALL NOT VARY MORE THAN ONE TWELFTH OF THE SPACING SHOWN HEREIN.
11. TRANSVERSE TIEBARS SHALL NOT BE WITHIN 15 INCHES OF TRANSVERSE JOINTS.
12. TIEBARS SHALL BE STEEL CONFORMING TO ASTM DESIGNATION A-615 OR A-616, GRADE 60. NO BENDING OF TIEBARS WILL BE ALLOWED. THE LENGTH OF THE TIEBARS SHALL BE 36 INCHES.
13. TIEBARS SHALL BE SECURED PARALLEL TO THE PAVEMENT SURFACE AND PERPENDICULAR TO THE CENTERLINE BY:
    (a) USE OF BAR CHAIRS
    (b) BY ANY OTHER MEANS WHICH, PRIOR TO ITS USE, HAS BEEN APPROVED BY THE ENGINEER.
14. DOWEL BARS SHALL BE SECURED PARALLEL TO THE PAVEMENT SURFACE AND CENTERLINE BY:
    (a) USE OF BAR CHAIRS
    (b) BY ANY OTHER MEANS WHICH, PRIOR TO ITS USE, HAS BEEN APPROVED BY THE ENGINEER.
15. WHERE A MONOLITHIC CURB IS SPECIFIED, THE JOINT IN THE CURB SHALL COINCIDE WITH PAVEMENT JOINTS AND MAY BE FORMED BY ANY MEANS WHICH, PRIOR TO ITS USE, HAS BEEN APPROVED BY THE ENGINEER.
16. TRANSVERSE CONSTRUCTION JOINTS MAY BE FORMED BY USE OF METAL OR WOOD FORMS EQUAL IN DEPTH TO THE NOMINAL DEPTH OF THE PAVEMENT, OR BY OTHER MEANS WHICH HAVE BEEN APPROVED BY THE ENGINEER PRIOR TO THEIR USE.
17. IF SILICEOUS GRAVEL IS USED AS A COARSE AGGREGATE, THE SAW CUT DEPTH FOR ALL CONTRACTION JOINTS AND LONGITUDINAL WARPING JOINTS SHALL BE T/3.

TEXAS DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT DETAILS

CONTRACTION DESIGN

CPCD-91(1)

MODIFICATIONS	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
	6	TEXAS	NH 92 (88)M	135