SS 3,40, 65-4-17 253 (26) 20 JEFFERSON 65-8-87 STATE OF TEXAS STATE HIGHWAY DEPARTMENT IPE 75 INDEX OF SHEETS DESCRIPTION TITLE SHEET

SPECIFICATION AND DATA SHEET

TYPICAL SECTION

QUANTITY SUMMARIES & BASIS OF ESTIMATE
ESTIMATE AND QUANTITY SUMMARY

PLAN PROFILE

DRIVEWAY, STREET INTERSECTION AND RAMP DETAILS

HAUL DIAGRAM

STORM SEWER OUTFALL STRUCTURE

PUMP STATION LAYOUTS AND DETAILS

BRIDGES SUMMARY & BEARING SEAT ELEVATION

EAST LAYACA ST BRIDGE LAYOUT AND DETAILS

PRESTRESSED CONCRETE BEAM DETAILS

ARMOR JOINT AND PJS DETAILS

TYPE C-4 RAIL

MSP

EAST LAYACA ST RETAINING WALL LAYOUT AND DETAILS TITLE SHEET OF PROPOSED 4-5 6-8 9-11 12-17 18-20 21 22 PLANS HIGHWAY IMPROVEMENT FEDERAL AID PROJECT.

U 53 (26)

PLAN, 1 IN. = 50FT.

PROFILE: IN. HOR. = 50FT., 1 IN. VERT. = 5 FT.

CROSS-SECTIONS. 1 IN. HOR. AND VERT. = 5 FT. ADE BARRICADES "D" SIGNS, D-34 A . D-35. D-59, D 57 t 1-55 AT BELWANG AU END OF PROJE PROVIDE CONS D-54 AT STREET CROSS SES. 28-34 35-40 41-43A OTHERS AS NOTED. 7825 FT.= 1482 MI. 44-45 46 47 NET LENGTH OF PROJECT= JEFFERSON COUNTY MSP
EAST LAVACA ST RETAINING WALL LAYOUT AND DETAILS
EAST VIRGINIA ST RETAINING WALL LAYOUT AND DETAILS
RETAINING WALL (TYPICAL DETAILS)
BRIDGE APPROACH SLABS & BAS-65A (SPECIAL)
DRAINAGE AREA MAPS & STORM SEWER COMPUTATIONS
INLETS AND MANHOLE DETAILS
SCNA
SCL
FWN
CPCR (B) 65
CPJR (B) 65
CPJR (B) 65(20)
CPJR (F) 65(20)
TA (CP) 65 A(20) 47 48-60 61-72 73-73A 74-76 77-30 81-85 **SPUR 380** FROM FLORIDA AVENUE NORTH TO THREADNEEDLE ST. 81 - 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 99 GRADING, STRUCTURES, CEMENT STABILIZED BASE AND CONCRETE PAVEMENT CPJR (F) 65 (20)
TA (CP) 65 A(20)
JS-65 (20)
TB & TM-66
GF (TD)-65 (20)
MBGF (B) (20) & CAHBF (20)
CLF-61
CONDUIT DETAILS
M-61
BW-61-(1) & (2)
CIS 64 STA, 182+00 END PROJ. U 55 24 100 - 101 END PROJ. 0 25 21 CONT. 65-8-57 STA. 182 + 60 CONTROL 65-8-84 PROJECT U1043 (18) CITY LIMITS BEAUMONT INCORPORATED 89,175 1960 CENSUS STA.103+75 BEG. PROJ. U 53 (26) CONT. 65-8-87 STATE HIGHWAY DEPARTMENT FEB. 17, 1967 DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS 

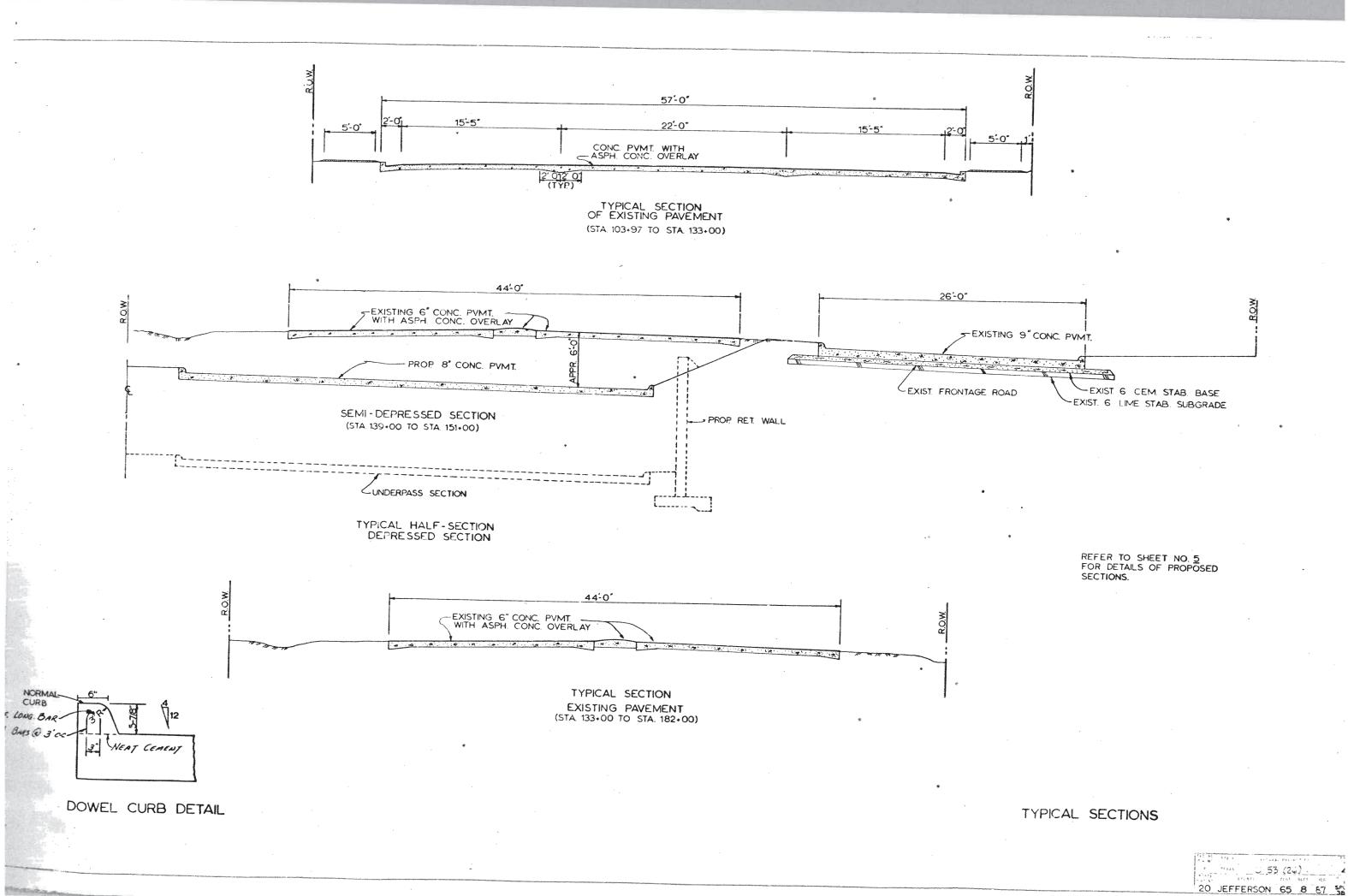
LAYOUT SCALE: 1 IN. - 300 FT.

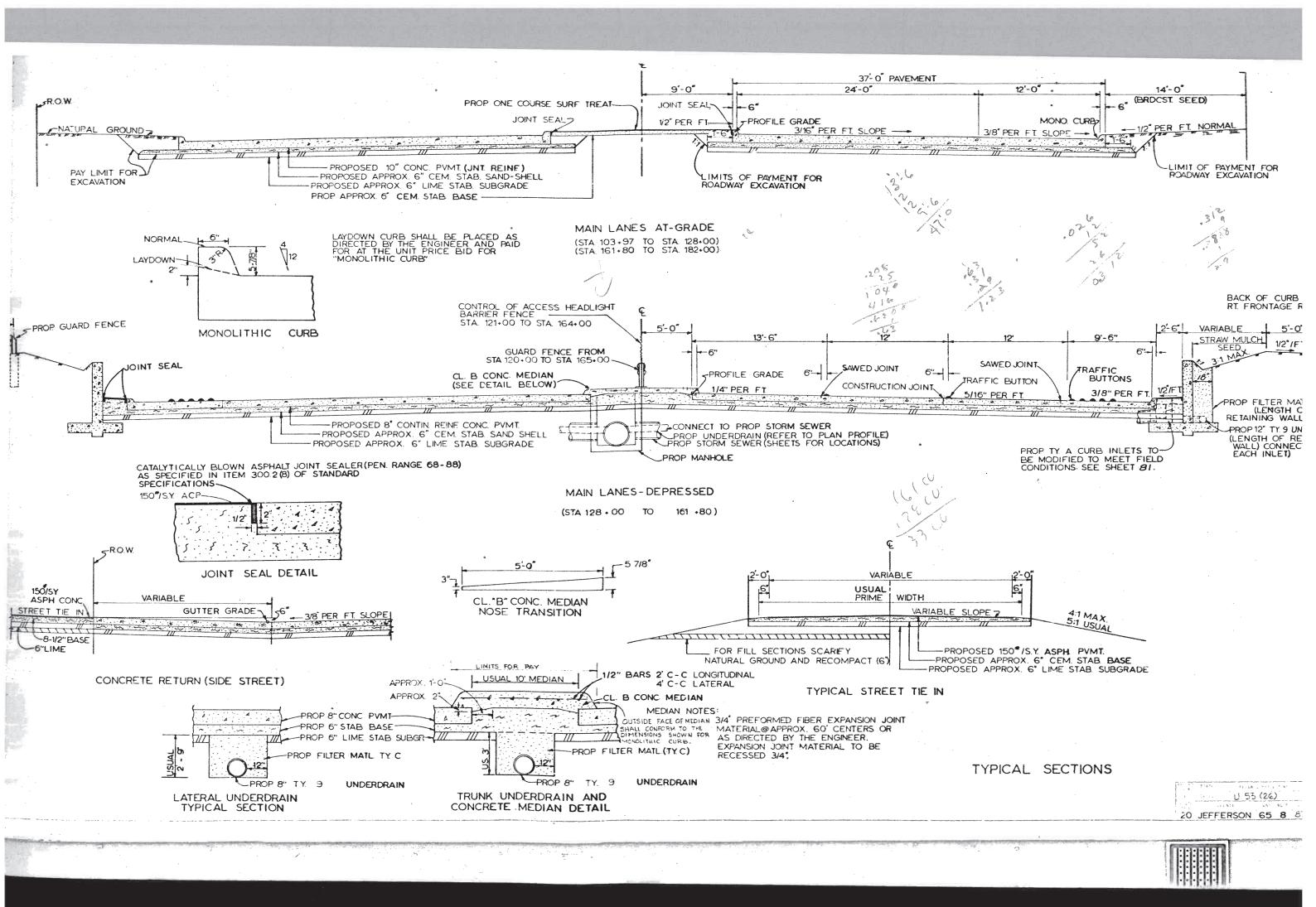
25.25 7 85.40 ...

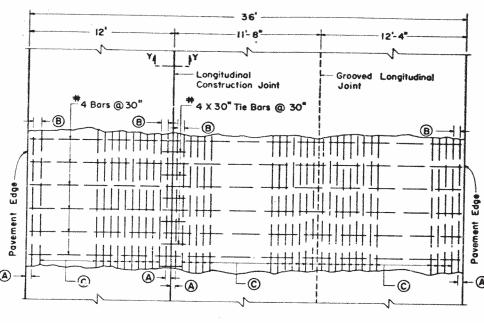
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LETTING DATE.

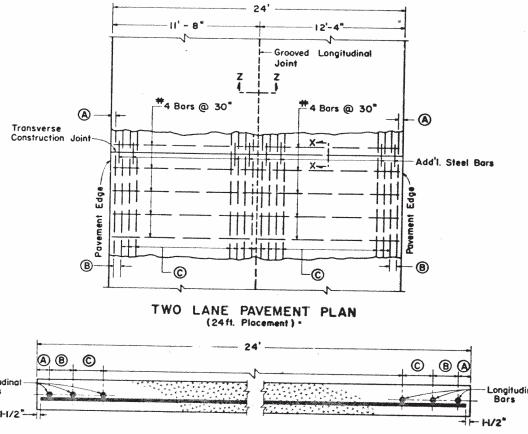
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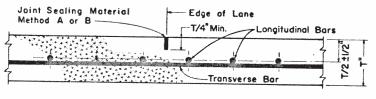


THREE LANE PAVEMENT PLAN
(12ft. and 24ft. Placement) \*

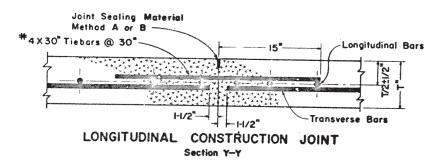


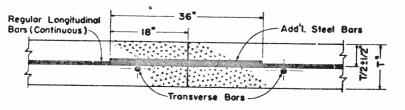
TYPICAL SECTION (24ft. Placement)

\*LANE WIDTHS ARE FOR ILLUSTRATIVE PURPOSES ONLY AND SHOULD NOT BE USED IF IN CONFLICT WITH TYPICAL CROSS SECTIONS SHOWN ELSEWHERE IN THE PLANS.



GROOVED LONGITUDINAL JOINT
Section Z-Z





# TRANSVERSE CONSTRUCTION JOINT Section x-x

SPECIAL NOTE
THE CONTRACTOR SHALL HOLD AND SAVE THE STATE, ITS OFFICERS, ITS AGENTS, AND ITS EMPLOYEES HARMLESS TO LIABILITY OF ANY NATURE OR KIND, INCLUDING COST AND EXPENSES FOR OR ON ACCOUNT OF ANY PATENT OR UNPATENTED INVENTION, ARTICLE OR APPLIANCE MANUFACTURED OR USED IN ACCORDANCE WITH THE DETAILS OF THESE PLANS.

#### GENERAL NOTES

- NO EXPANSION JOINTS WILL BE USED EXCEPT AT STRUCTURAL ENDS OR FIXED OBJECTS AS SHOWN ELSEWHERE IN THE PLANS.
- FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND REINFORCE-MENT REFER TO THE GOVERNING SPECIFICATIONS FOR "CONCRETE PAVEMENT".
- DETAILS AS TO PAVEMENT WIDTH, PAVEMENT THICKNESS AND THE CROWN CROSS-SLOPE SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
- WITHIN ANY AREA BOUNDED BY TWO FEET OF PAVEMENT LENGTH MEASURED PARALLEL TO THE CENTERLINE AND TWELVE FEET OF PAVEMENT WIDTH MEASURED PERPENDICULAR TO THE PAVEMENT CENTERLINE, NOT OVER 33% OF THE REGULAR LONGITUDINAL STEEL SHALL BE SPLICED.
- 5. LONGITUDINAL AND TRANSVERSE BARS SHALL BE OF HIGH YIELD STEEL CONFORMING TO ASTM A-432 OR ASTM A-61 (SPECIAL GRADE) AS NOTED IN THE SPECIFICATIONS.
- 6. SPLICES SHALL BE A MINIMUM OF 24 TIMES THE NOMINAL DIAMETER OF THE BAR.
- 7. BARS OF HIGH YIELD STEEL SHALL NOT BE BENT. IF THE CONTRACTOR ELECTS TO BEND THE TIEBARS, THEY SHALL BE OF STRUCTURAL OR INTERMEDIATE GRADE STEEL AND SPACED AT 24" C-C.
- 8. AT TRANSVERSE CONSTRUCTION JOINTS THE REGULAR LONGITUDINAL BARS SHALL EXTEND BEYOND THE JOINT SO THAT THE BAR SPLICES FOR THE REGULAR LONGITUDINAL BARS SHALL BE A MINIMUM OF FOUR FEET FROM THE CONSTRUCTION JOINT. AT LONGITUDINAL CONSTRUCTION JOINTS IF THE CONTRACTOR ELECTS TO CONTINUE THE REGULAR TRANSVERSE STEEL THROUGH THE JOINT, THE 44 \$ TEBBARS SHOWN HEREON MAY BE DELETED. VIBRATION WITH HAND MANIPULATED MECHANICAL VIBRATORS WILL BE REQUIRED AD JACENT TO ALL TRANSVERSE CONSTRUCTION JOINTS.
- 9. WITH THE APPROVAL OF THE ENGINEER, MULTIPLE PIECE TIEBARS (THREADED COUPLING OR OTHER ADEQUATE DEVICE) MAY BE USED TO FACILITATE CONSTRUCTION PROVIDED THE SYSTEM DEVELOPS A FORCE EQUAL TO 1 1/2 TIMES THE MINIMUM YIELD FORCE OF THE TIEBAR SHOWN. THE SPACINGS FOR THE SYSTEM SHALL BE LESS THAN OR EQUAL TO THE SPACING ALLOWED FOR BARS OF SIMILAR YIELD STRENGTH.
- 10. THE CHAIRS USED TO SUPPORT THE BAR MAT SHALL BE OF SUFFICIENT STRUCTURAL QUALITY AND NUMBER TO HOLD THE MAT WITHIN THE PLACEMENT HEIGHT TOLERANCES, AND SHALL BE OF A TYPE APPROVED BY THE ENGINEER.
- 11. IN THE NORMAL 30" PLACEMENT FOR THE TRANSVERSE BARS, CHAIRS SHALL BE PLACED UNDER EVERY TRANSVERSE BAR. THE TRANSVERSE SPACING SHALL BE A 43" MAXIMUM. PLACEMENT MAY BE STAGGERED SO THAT CHAIRS IN ALTERNATE ROWS ARE CENTERED BETWEEN THE CHAIRS IN ADJACENT ROWS.
- JOINT GROOVE AND SEAL DETAILS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.

Pavement	Bor	24 ft. Placement Width					12ft. Placement Width					Add'i Steel @ Trans.Const.Jt.			
Thickness "T" in.		pur   Spacing C-C	No.	Steel	Spi	acina	C-C	No.	Steel		Avg. Spa.	②No. per Lane	Weight #/ft.		
8	No.5	1										5, x36"	14	10	2.61
7	No.5											5/8 ×36"		10	2.61
6	No.4	3	4.5	7	42	12.93	3	6	7	21	12.93	%≠×36"	8	18	3.01

MOTE: THE SPACINGS (B) SHOWN IN THE ABOVE PLACEMENT TABLE ARE THE MAXIMUM ALLOWABLE SPACINGS. WHERE THE PROPOSED PLACEMENT WIDTHS VARY FROM THE BASIC DESIGN WIDTH SHOWN, THE SPACING (B) AND THE ADJACENT SPACING (C) SHALL BE ADJUSTED TO ACCOMMODATE A REINFORCEMENT ARRANGEMENT EQUAL TO OR STIGHTLY HEAVIER THAN THAT SHOWN AS DIRECTED BY THE ENGINEER.

- INCLUDES BOTH REGULAR LONGITUDINAL AND TRANSVERSE BARS
   BASED UPON 1 FOOT PAVEMENT LENGTHS FOR THE WIDTH INDICATED.
   ALL TRANSVERSE STEEL IS #4 BARS AT 30\* CENTERS.
- THIS SHALL BE THE MINIMUM NUMBER OF ADDITIONAL STEEL BARS TO BE PLACED PER LANE. THE SPACING OF THE ADDITIONAL STEEL BARS SHALL BE VARIED AS DIRECTED IN ORDER TO PROVIDE A MINIMUM CLEARANCE OF 2 1/2" FROM EACH REGULAR LONGITUDINAL REINFORCING BAR

TEXAS HIGHWAY DEPARTMENT

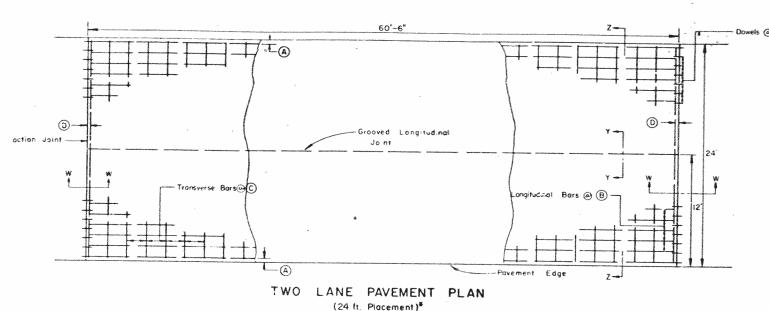
CONCRETE PAVEMENT DETAILS
CONTINUOUSLY REINFORCED

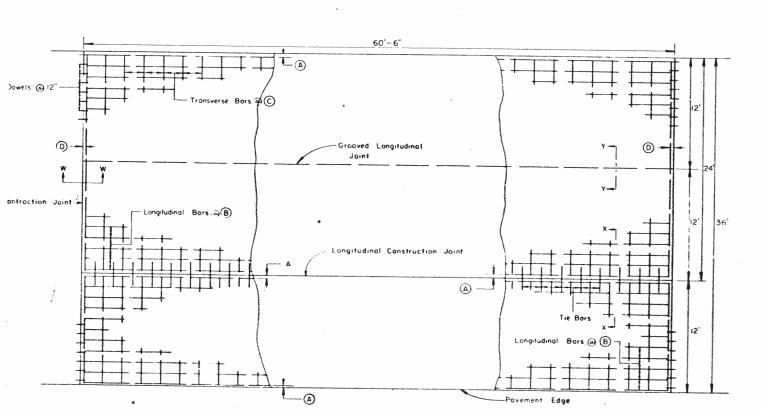
STEEL BARS

CPCR (B)-65

DN.	8 F M	DRAWING	DATE	16010						_	
CK.DN.	M05	ORIGINAL	SEPT. 1964			12 28 6 4 7 5 5 7 8					
DW.	CAR	Revised	JAN 1965		11 11 55		(26	)	1	1 2	
CK.DW.	4 M M	Revised	JULY 1965	1.11		. ( 82)				-	
TR.	CAR			*** **		*****					
CK.TR.	AFM.			20	1	Forma	15	Д	62	5	



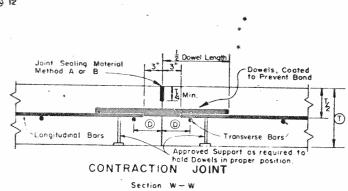


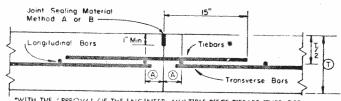


THREE LANE PAVEMENT PLAN

(12 ft. and 24 ft. Placement)#

8. Lone widths are for illustrative purposes only and should not be used if in conflict with typical cross sections shown elsewhere in the plans.

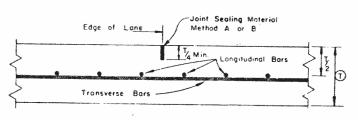




MITH THE APPROVAL OF THE ENGINEER, MULTIFLE PIECE TIEBARS (THREADED COUPLING OR OTHER ADEC WATE DEVICE) MAY BE USED TO FACILITATE CONSTRUCTION PROVIDED THE SYSTEM DEVELOPS A FORCE EQUAL TO 1 1/2 TIMES THE MINIMUM YIELD FORCE OF THE TIEBAR SHOWN. THE SPACINGS FOR THE SYSTEM SHALL BE LESS THAN OR EQUAL TO THE SPACING ALLOWED FOR BARS OF SHALLAR YIELD STRENGTH.

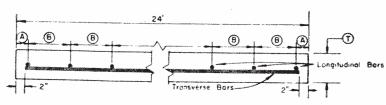
## LONGITUDINAL CONSTRUCTION JOINT

Section X-X



## GROOVED LONGITUDINAL JOINT

Section Y-Y



TYPICAL SECTION
Section Z-Z

.

#### GENERAL NOTES

- 1. JOINT GROOVE AND SEAL DETAILS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
- CONSTRUCTION JOINTS MAY BE SORMED BY THE USE OF METAL OR WOOD FOWAS 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.
- 3. TREATMENT OF PAVEMENT ENDS AT STRUCTURES OR AT FIXED OBJECTS WILL BE SHOWN ELSEWHERE IN THE PLANS.
- 4. FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND REINFORCEMENT REFER TO THE GOVERNING SPECIFICATIONS FOR "CONCRETE PAVEMENT".
- DETAILS AS TO PAVEMENT WIDTH, PAVEMENT THICKNESS, AND THE CROWN CROSS-SLOPE SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
- 6. LONGITUDINAL BARS AND TRANSVERS BARS SHALL BE INTERMEDIATE GRADE, HARD GRADE, OR HIGH YIELD STEEL IN ACCORDANCE WITH THE SIZE AND SPACING SHOWN IN THE TABLE, EXCEPT THAT ONLY INTERMEDIATE GRADE STEEL SHALL BE USED WHERE BARS ARE TO BE BENT.
- 7. IT IS THE INTENT OF THIS DESIGN: THAT THE LONGITUDINAL STEEL BE AT THE CENTER OF THE SLAB. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TAKE ALL NECESSARY PRECAUTIONS TO INSURE THAT THE FINAL POSITION OF THE STEEL IS WITHIN 1/2 INCH OF THE SLAB CENTER.
- 8. CONCRETE SHALL NOT BE DISCHARGED FROM THE MIXER DIRECTLY ON TOP OF OR ON THE SIDES OF THE JOINT ASSEMBLY.
- Y. ANY APPROVED METAL CHAIR TYPE OR DESIGN, WHICH WILL SATISFY THE REQUIREMENTS NOTED HEREON, WILL BE PERMITTED. CHAIR SPACINGS SHALL NOT BE GREATER THAN 60° C-C MEASURED PARALLEL TO THE PAVEMENT CENTER LINE AND 30° C-C MEASURED PERPENDICULAR TO THE PAVEMENT CENTER LINE. ADDITIONAL CHAIRS SHALL BE USED IF NECESSARY TO MEET THE STEEL PLACEMENT REQUIREMENTS.
- 10. THE CONTRACTOR SHALL HOLD AND SAVE THE STATE, ITS OFFICERS, ITS AGENTS, AND ITS EMPLOYEES HARMLESS TO LIABILITY OF ANY NATURE OF KIND, INCLUDING COST AND EXPENSES FOR OR ON ACCOUNT OF ANY PATENT OR UNPATENTED INVENTION, ARTICLE OR APPLIANCE MANUFACTURED OR USED IN ACCORDANCE WITH THE DETAILS OF THESE PLANS.
- 11. Dowel bars may be placed either top or bottom of joint steel
  All smooth dowel bars shall be secured by dowel bar chairs.
  TABLE OF REINFORCING STEEL SIZES, SPACINGS
  AND ESTIMATED QUANTITIES

		Ħ	24' PLACEMENT WIDTH							12' PLACEMENT WINTH					DOWELS		TIE BARS		- 1		
DESIGNS			ONGITUDINAL TRANSVERSE STEED		हास इ	LONGITUDINAL			TRANSVERSE		(S)		AVG.	WT.		AVG	wt				
0	(INCHES)	BAR	SPAC	SPAC	BAR	SPAC	SPAC	#/	ВАН	SPAC	SPAC	BAR	SPAC	SPAC	#/	SIZE	SPAC	#VFT.	SIZE	SPAC	#,4=1
		#	(A)	(B)	#1	(O)	O)	SY	#	(A)	(B)	#	© §N)	D)	757		aw)	n¥ st		(IN.)	OF JT
	10	3	*	8	4	24	3	8.05	3	4	8	4	24	3	7.71	12 0 ×22	12	7.89	#.4 x 30	24	0.84
L	9	3	3 3/4	81	4	26½	5 <u>1</u>	7.48	3	-	6	4	26	51	7.14	.20°	12	5.66	# 4 x 30°	26 <u>‡</u>	0.75
	8	3	4	10	4	30	3	6.48	3	2	10	4	30	3	630	* 18"	ĪΖ	464	#4 x x	30	067
	10	4	44	10}	4	18	3	070	4	71	103	4	18	3	10.84	12 ¢ x22	12		#4 x 30	18	1.11
н	9	4	6	12	4	20	3	9.57	4	6	12	4	20	3	948	1 0 20	12		#4 x 30	20	100
	8	4	24	131	4	22 ½	3	8.70	4	41	134	4	22 <u>1</u>	3	8.65	i" ∳ x!8″	12	4.01	#4 ×30	22	091

#### NOTE:

- (1) One of the alternate designs must be crossed out.
- L. atternate—to be used with subbases having a law friction factor.
- b H alternate—to be used with subbases having a his friction factor.
- Steel weights are for contractor's use only and include weights of longitudinal and transverse bars.

TEXAS HIGHWAY DEPARTMENT

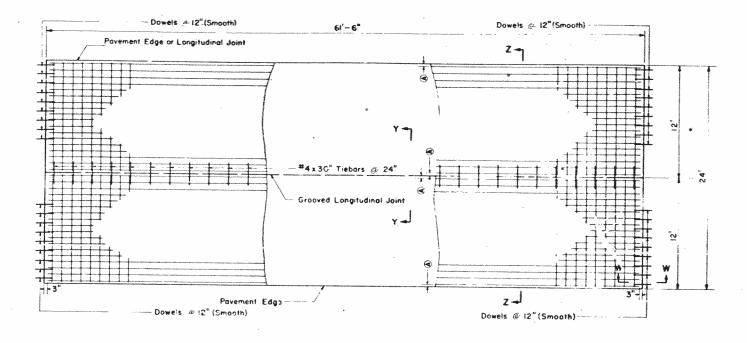
CONCRETE PAVEMENT DETAILS

JOINTED REINFORCED

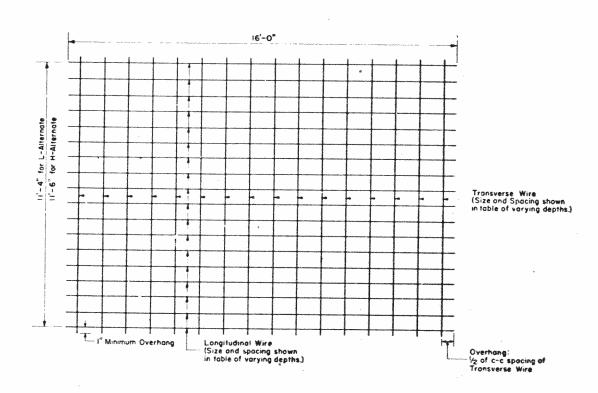
STEEL BARS

CPJR (B) - 65(20)

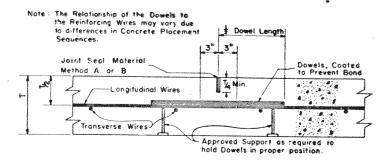
- 1	DN 8FM	DRAWING	DATE	FEB #8	STATE	***	841 PROMET 8	~	7 59
	ON DN MOS	OFIGINAL		5fV_66		7 E 17 E	MAS PRODUCT OF	<b>46</b>	
-	DW JFC	REVISED		- 6	TEXAS	U f	55(04)		9
-	CK DW			STATE	· c	SUBTE	CONT. SEC	1 108	\$1556,1
-	TR			DIST. NO.					1 1
	CX TR BFM			50	JEFFE	ERSON	65 6	187	SPUI



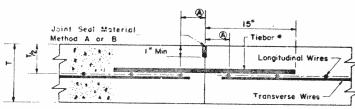
PAVEMENT PLAN



TYPICAL SHEET OF WELDED WIRE FABRIC

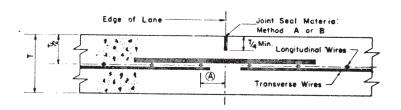


#### CONTRACTION JOINT Section W-W

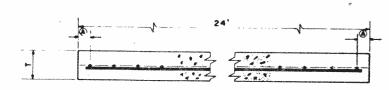


MIT THE FEROVAL OF THE ENGINEER, MULTIPLE PIECE TIEBARS (THREADED COLF, ING. CROTTER ADEQUATE DEVICE). MAY BE USED TO FACILITATE CONSTRUCTION FROWIDED THE SYSTEM DEVELOPS A FONCE FQUAL TO THAT TIMES THE MINIPUM YIELD FORCE OF THE TIEBAR SHOWN. THE SP. CINGS FOR THE CYSTEK SHALL BE LESS THAN OR EQUAL TO THE SPACING ALLOWED. OR BARS OF SHALL BE LESS THAN OR EQUAL TO THE SPACING ALLOWED.

### LONGITUDINAL CONSTRUCTION JOINT



GROOVED LONGITUDINAL JOINT Section Y-Y



TYPICAL SECTION Section Z-Z

#### GENERAL NOTES

- I JOINT GROOVE AND SEAL DETAILS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS,
- CCNSTRUCTION JOINTS MAY BE FORMED BY THE USE OF METAL OR WOOD FORMS EQUAL IN CEPTH TO THE NOMINAL DEPTH OF THE PAVEMENT, OR BY OTHER MEANS WHICH HAVE BEEN APPROVED BY THE ENGINEER PRIOR
- 3 TREATMENT OF PAVEMENT ENDS AT STRUCTURES OR AT FIXED OBJECTS WILL BE SHOWN ELSEWHERE IN THE PLANS
- 4. FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND REINFORCEMENT REFER TO THE GOVERNING SPECIFICATIONS FOR "CONCRETE PAVEMENT".
- 5 DETAILS AS TO PAVENENT WIDTH, PAVEMENT THICKNESS, AND THE CROWN CROSS—SLOPE SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
- 6. THE MINIMUM TRANSVERSE LAP OF THE WELDED WIRE FABRIC SHALL BE 12 INCHES LONG. THE MINIMUM LONGITUDINAL LAP, IF USED, SHALL BE EQUAL TO THE CENTER TO CENTER SPACING OF THE LONGITUDINAL WIRE.
- 7. IT IS THE INTENT OF THIS DESIGN THAT THE LONGITUDINAL STEEL BE AT THE CENTER OF THE SLAB. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TAKE ALL NECESSARY PRECAUTIONS TO INSURE THAT THE FINAL POSITION OF THE STEEL IS WITHIN 1/2 INCH OF THE SLAB CENTER.
- 3. CONCRETE SHALL NOT BE DISCHARGED FROM THE MIXER DIRECTLY ON TOP OF OR ON THE SIDES OF THE JOINT ASSEMBLY
- 9 THE CONTRACTOR SHALL HOLD AND SAVE THE STATE, ITS OFFICERS, ITS AGENTS, AND ITS EMPLOYEES HARMLESS TO LIABILITY OF ANY NATURE OR KIND, INCLUDING COST AND EXPENSES FOR OR ON ACCOUNT OF ANY PATENT OR UNPATENTED INVENTION, ARTICLE OR APPLIANCE MANUFACTURED OR USED IN ACCORDANCE WITH THE DETAILS OF THESE

#### TABLE OF VARYING DEPTHS

Alternate	(T) Pavement	Steel Welded		Weight 2	(\$)	Dowels nooth Ba	rs)	Tiebars (Deformed Bars)			
Designs	Thickness (inches)	Wire Fabric* Style No.	Spacing (A)	⁵ysy	Size	Average Spacing (in.)		Size	Average Spacing (in.)	Weight	
And the second	10	812-Vo-1	4	5 58	14 4 x 22"	12	7.89	#4×30"	-24	0.84	
L	9	812-1/6-1	4	5 58	Fire	12	5.66	#4 x 30"	261/2	0.75	
	8	_812=T2	4	4.71	1"¢×18"	12	4.01	#4 x 30"	30	0.67	
	10	es- <sub>1</sub> %-1	3	7.66	↓	12	7.89	#4×30°	18	1.11	
н	9	68-16-1	3	7.66	1	12	5.66	<sup>#</sup> 4 x 30 <sup>#</sup>	20	1.00	
	8	68-13	3	6.20	l"#x18"	12	4.01	<sup>‡‡</sup> 4×30	22	0.91	

I. One of the alternate designs must be crossed out a L alternate—to be used with subtracts having a low friction factor.

b. Halternate—to be used with subbasis having a high friction factor.

- 2. Steel weights are for contractors information only

\*Code for welded wire fabric

8 12 6 1 Gauge of transverse wire Gauge of longitudinal wire Spacing of transverse wire (in) Spacing of longitudinal wire(In)

- 10. Fabric maybe placed either top or bottom of joint steel.
- 11. All smooth dowel bars shall be secured by dowel bars

TEXAS HIGHWAY DEPARTMENT CONCRETE PAVEMENT DETAILS JOINTED REINFORCED

> **WELDED WIRE FABRIC** CPJR (F) -65 (20)

Dn .	Dead of the Co.	DATE	165 m 40	STATE	HEARA, AND PROJECT NO				
Cx Dn			272 47	-		-			<u></u>
D#			6	TEXAS	L L	53 (	26)		1 4
C+ D+			57 A 1 E	cc	UNIT	LOWFF	-5 - Y-09-	poe No.	F
Ca Ta .		*	20	JEFF	ERSON	65	6	27	-