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STATE OF TEXAS STATE HIGHWAY DEPARTMENT

PLANS OF COMPLETED STATE HIGHWAY IMPROVEMENT

FEDERAL AID PROJECT.
UI 56 (7) & UGI 56 (9)

PLAN: 1 IN. = 20 FT.
PROFILE: 1 IN. HOR. = 20 FT., 1 IN. VERT. = 5 FT.

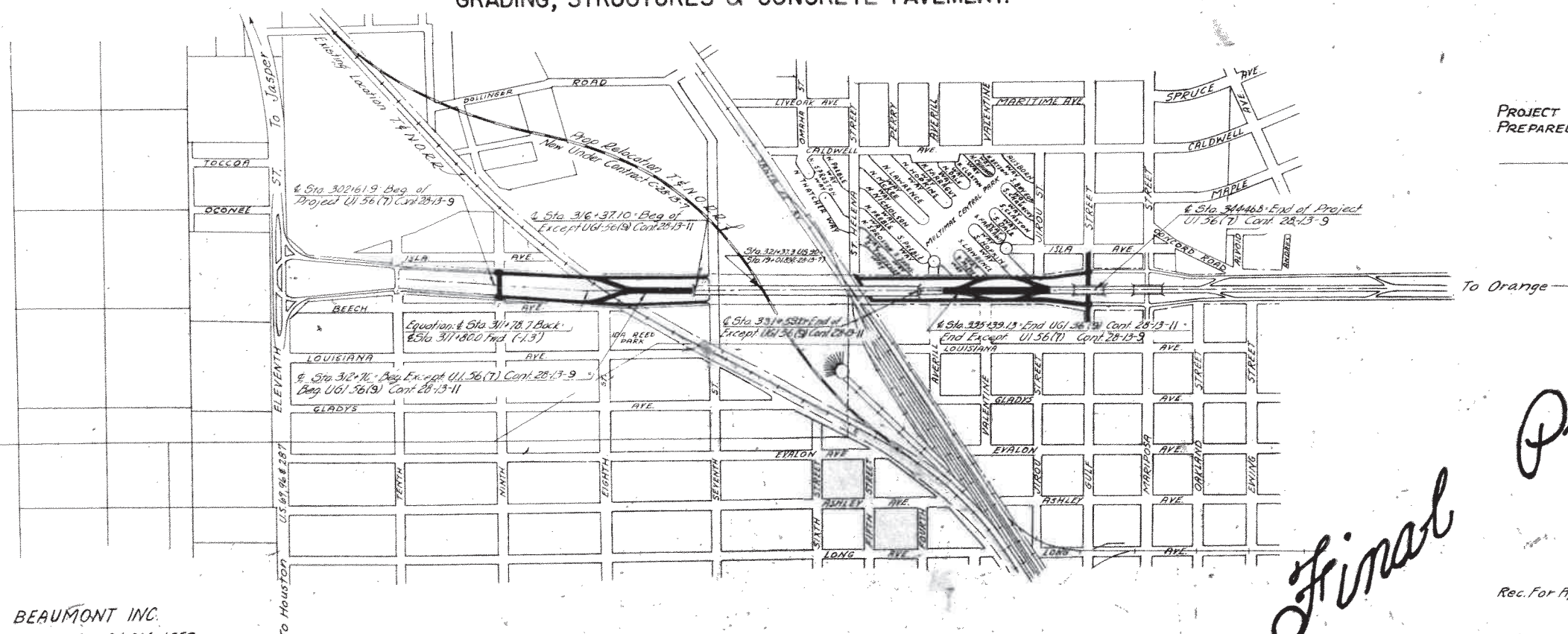
OTHERS AS NOTED.
NET LENGTH OF PROJECT = 2661.49 FT. = 0.503 MI. (UI 56 (7) = 1914.47' 0.362 MI.
UGI 56 (9) = 747.02' 0.141 MI.)

JEFFERSON COUNTY

FROM NINTH ST. TO GULF STREET.

HIGHWAY NO. U.S. 90

GRADING, STRUCTURES & CONCRETE PAVEMENT.



BEAUMONT INC.

Population 94,014 1950

Equation: Sta 311+78.7 Back - Sta 314+00.0 Fwd
Exceptions: UGI 56 (7) Sta 316+37.10 to 331+53.24 - 1132.04

-1.3'
-1522.71

Total = -1523.41'

DELIVERY POINT OF MATERIAL			
DELIVERY POINT	RAILROAD	DISTANCE	CAPACITY
BEAUMONT	T & N. O.	1.0	AMPLE
BEAUMONT	K. C. S.	1.0	AMPLE
BEAUMONT	G. C. & S. F.	1.0	AMPLE
BEAUMONT	M. P.	1.0	AMPLE

NOTE: FEDERAL PROJECT MARKERS OF APPROVED DESIGN WILL BE
ERECTED AT EACH END OF PROJECT PRIOR TO COMPLETION.

LAYOUT SCALE: 1 IN. = 500 FT.

APPROVED FIELD CHANGES

No.	DESCRIPTION
1	ELIMINATE PROPOSED TEMPORARY CONNECTION AT NINTH ST.

APPROVED EXTRA WORK ORDER

No.	DESCRIPTION
1	PLACING OF 12" OF 36" PIPE AT NINTH ST.
2	FURNISHING AND PLACING WHITE CERAMIC LANE MARKERS
3	FURNISHING AND PLACING 4" CONCRETE PIPE UNDERDRAIN.

PROJECT CONSTRUCTED AND FINAL PLANS
PREPARED BY:

Effingham
EXPRESSWAY ENGINEER

Rec. For Approval *Comartin*
City Engineer of Beaumont

Approved *Alb. Summers*
Mayor City of Beaumont

STATE HIGHWAY DEPARTMENT

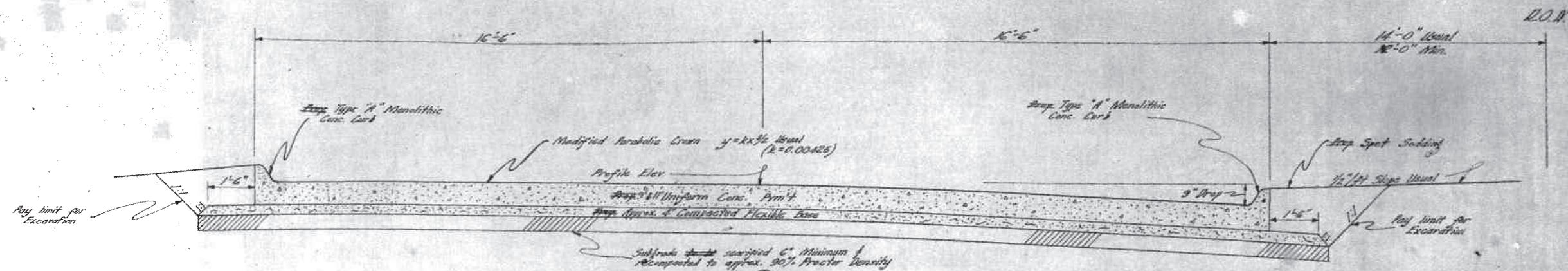
CORRECT: 2-14-53
W.E. Simmons
SUPERVISING URBAN ENGINEER
RECOMMENDED FOR APPROVAL: 3-4-53

RECOMMENDED FOR APPROVAL:
BRIDGE ENGINEER
RECOMMENDED FOR APPROVAL:
ENGINEER ROAD DESIGN
APPROVED:
CHIEF ENGINEER OF PLANNING

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
RECOMMENDED FOR APPROVAL:
DISTRICT ENGINEER
DATE
APPROVED:
DIVISION ENGINEER
DATE

shall provide and erect Street Barricades
in accordance with B-W-52 at points
for the Engineer, and as shown on Layout Sheet 2.
Barricades shall be provided at all Cross
streets created by the Engineer.
A description of Project
Contract, Traffic service and sequence

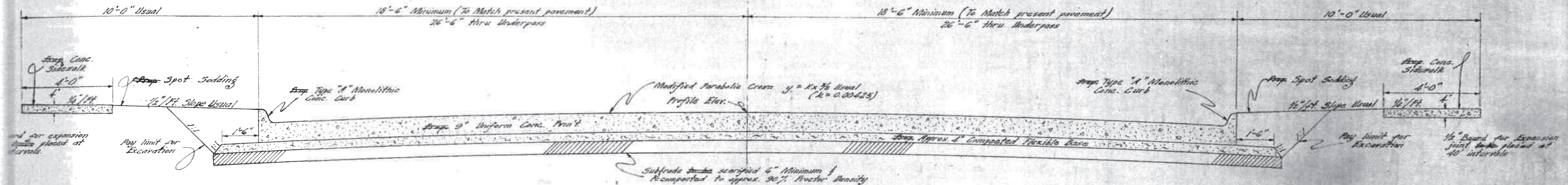




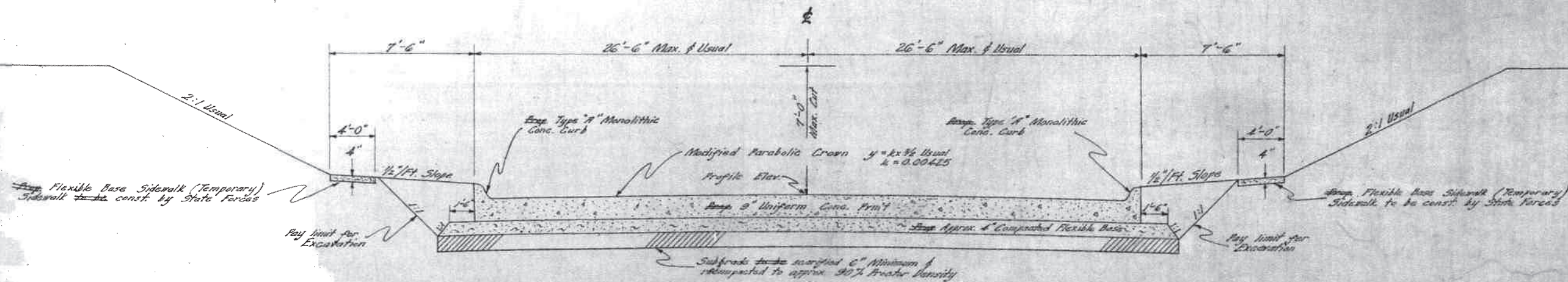
①
NORMAL & USUAL SECTION
NORTH & SOUTH FRONTAGE ST.'S
TO BE USED APPROX. 60 STATIONS

9" UNIFORM APPROX. 50 STA. †
11" UNIFORM APPROX. 10 STA. †

† See sheet 5 for quantities.



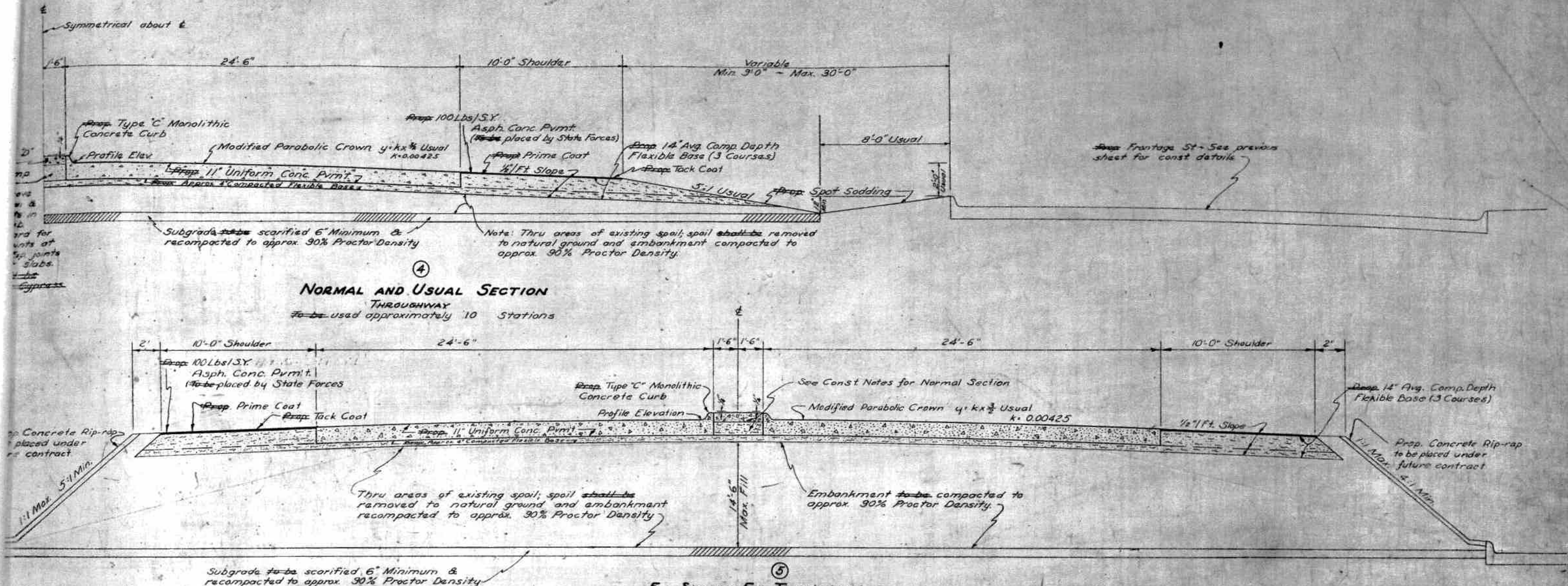
②
NORMAL SECTION
GULF STREET
TO BE USED APPROX. 3 STATIONS
(APPROACH TO UNDERPASS)



③
CUT SECTION
GULF STREET
TO BE USED APPROX. 3 STATIONS
(THRU UNDERPASS)

TYPICAL CROSS SECTIONS
NORTH & SOUTH FRONTAGE ST.'S
& GULF ST.

FILE NO.	DATE	FEDERAL AID PROJECT NO.	SHEET NO.
6	TEXAS	U156(17)-UG156(2)	4
STATE	COUNTY	FEDERAL AID PROJECT NO.	SHEET NO.
20	Jefferson	28	13



GENERAL NOTES

In these instances where fixed features require, the governing slopes indicated hereon may be varied between the limits and to the extent determined by the Engineer.

The 6" depth of subgrade to be scarified and recompacted to approx. 90% Proctor Density will not be measured for payment. The cost of scarifying and such manipulation, not including "Sprinkling" and "Rolling", as is necessary to prepare the material for compaction will not be paid for directly but will be considered subsidiary to bid item "Common Road Excavation".

For more detailed limits of pavements, curbs, paved shoulders, sodding, etc. refer to Plan & Profile sheets in these plans.

Contour elevations shown on Plan & Profile sheets will govern where in conflict with usual pavement crowns shown on Typical Cross-Section sheets.

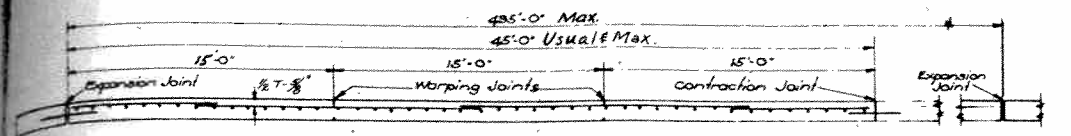
For details of pavement widths, transitions at intersections and intersecting streets, refer to Plan & Profile and Pavement Layout sheets.

Max. superelevation for curves shall be 0.05/ft except when in conflict with contour elevations shown on Plan & Profile sheets, in which case contour elevations shall govern.

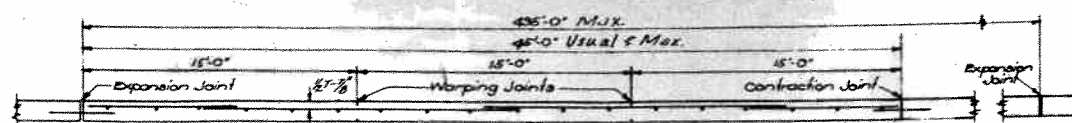
TYPICAL CROSS-SECTIONS
THROUGHWAY

Sheet 2 of 2

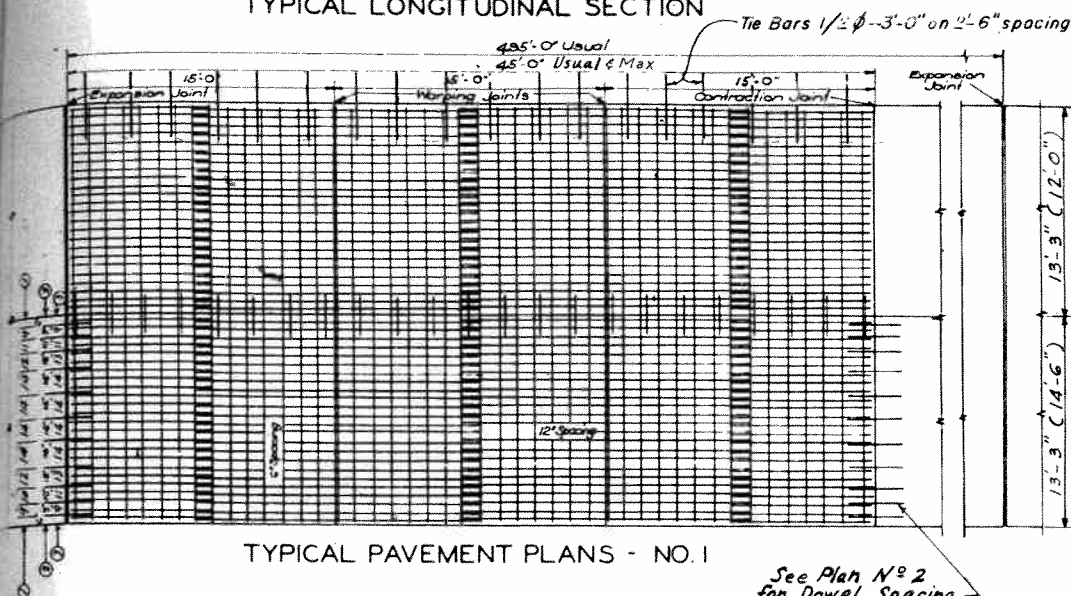
STATE	PROJECT NO.	DATE	BY
TEXAS	UI 36 (7) - UG 1-58 (1)	10/13/58	W. J. H. H.
STATE	PROJECT NO.	DATE	BY
20	10/13/58	10/13/58	W. J. H. H.



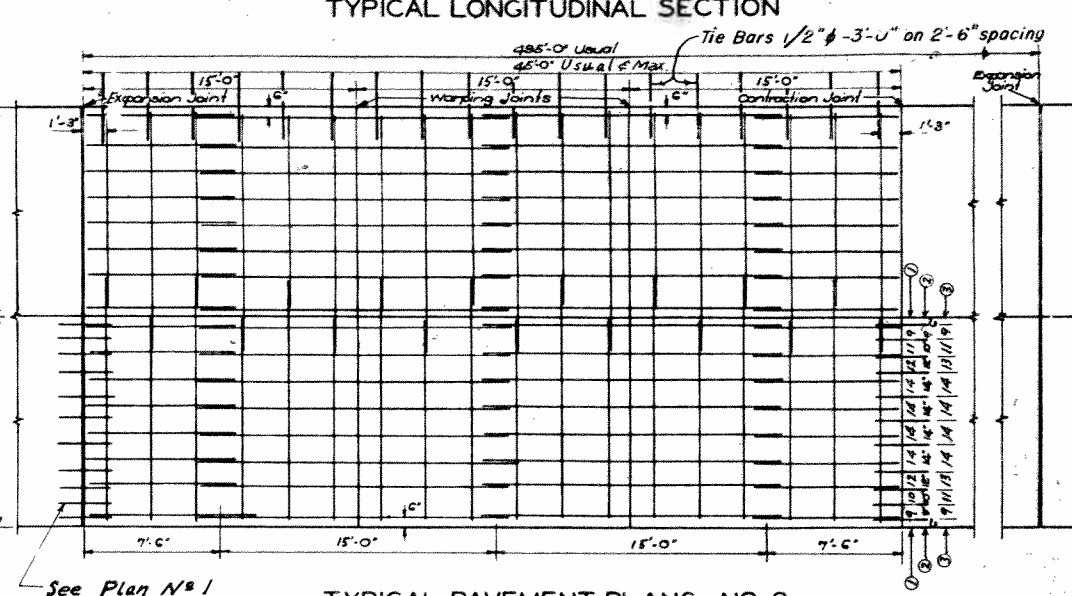
TYPICAL LONGITUDINAL SECTION



TYPICAL LONGITUDINAL SECTION

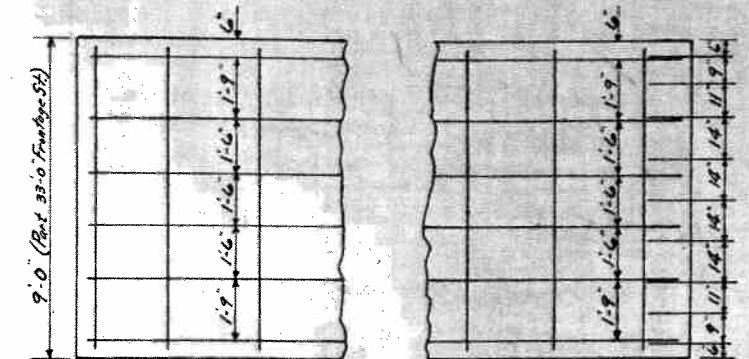


TYPICAL PAVEMENT PLANS - NO. 1



TYPICAL PAVEMENT PLANS - NO. 2

NOTE
Location of Expansion, Contraction, and Warping Joints shall conform to adjacent 24' Slab.



DETAIL 9'-0" SLAB (PART 33'-0" FRONTAGE ST.)

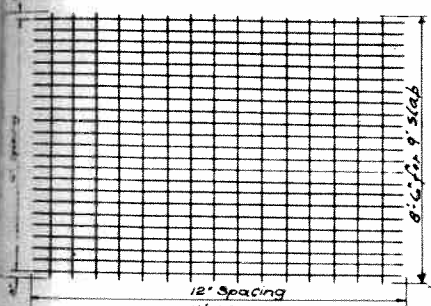
REINFORCING STEEL PLAN N° 2

Bar	At Exp. Joint		At Cont. Joint		Intermediate*	
	No.	Wt. Lbs.	No.	Wt. Lbs.	No.	Wt. Lbs.
Long.	6	32.398	6	32.398	6	66.800
Trans.	3	17.034	3	17.034	6	34.068

*For 45' Section multiply above quantities by 2

REINFORCING STEEL PLAN N° 3

9'-0" Width x 45'	
Long. Bars = 12- $\frac{1}{2}$ " Def. x 23'-0" = 184.368 Lbs.	
Trans. Bars = 19- $\frac{1}{2}$ " Def. x 8'-6" = 107.882 Lbs.	



WELDED WIRE FABRIC - MAT NO. 1

Welded Wire Fabric Reinforcement.
All welded wire fabric.

Longitudinal No. 1 @ 9" c.c.
Transverse No. 7 @ 12" c.c.
Weight 56 lbs. per 100 sq. ft.

NOTE: Weight does not include Tie Bars, Load Transmission Units or Dowel Bars.

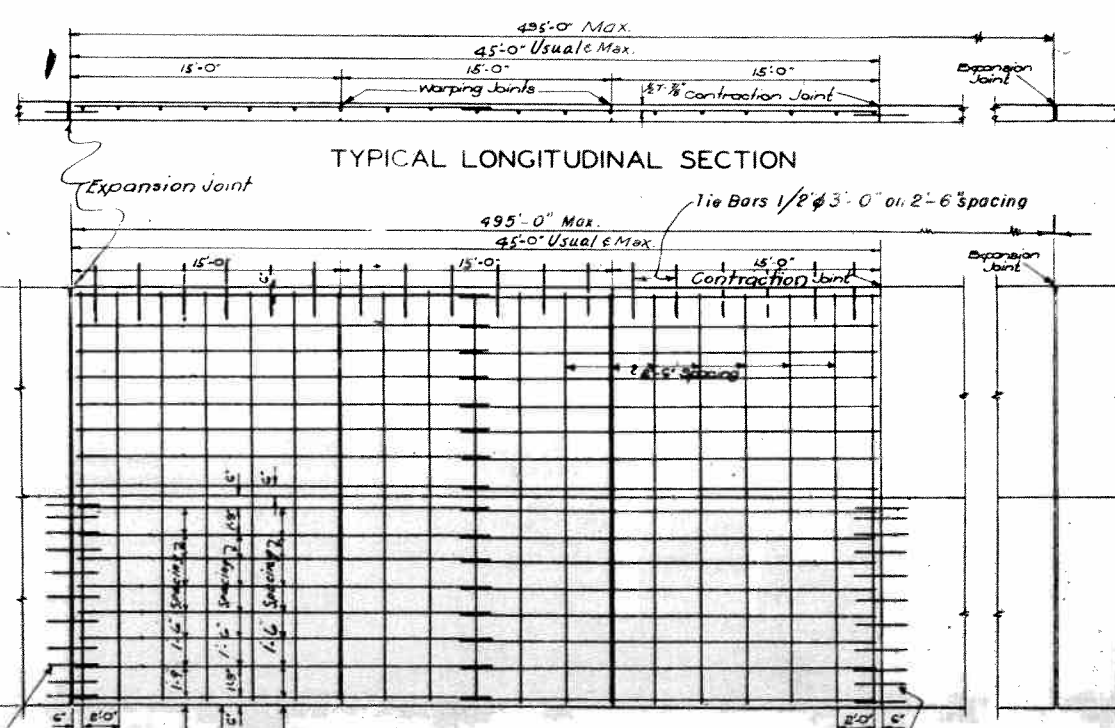
Welded wire mats on either side of Expansion, Contraction, and Warping Joints, can be standard mat cut half transversely.

REINFORCING STEEL PLAN N° 3

① 26'-6" Width x 45'
Bars = 36- $\frac{1}{2}$ " Def. x 23'-0" = 553.104 Lbs.
Bars = 19- $\frac{1}{2}$ " Def. x 26'-0" = 329.992 Lbs.

② 24'-0" Width x 45'
Bars = 32- $\frac{1}{2}$ " Def. x 23'-0" = 491.648 Lbs.
Bars = 19- $\frac{1}{2}$ " Def. x 23'-6" = 298.262 Lbs.

③ 20'-0" Width x 45'-0"
Bars = 28- $\frac{1}{2}$ " Def. x 23'-0" = 430.192 Lbs.
Bars = 19- $\frac{1}{2}$ " Def. x 19'-6" = 247.494 Lbs.



TYPICAL LONGITUDINAL SECTION

See Plan N° 1 for Dowel Spacing

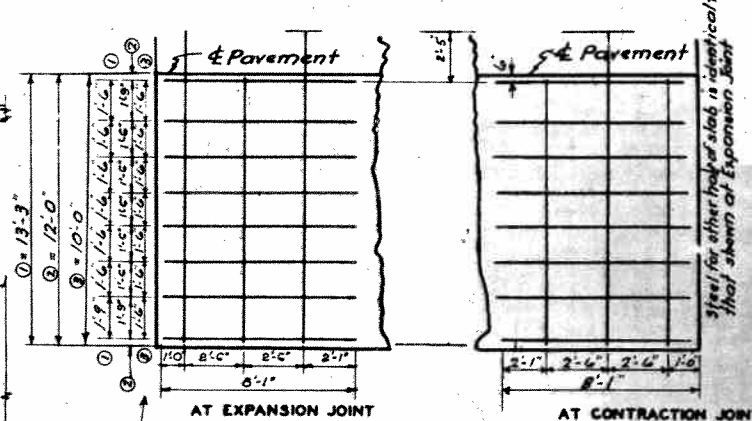
TYPICAL PAVEMENT PLANS - NO. 3

See Plan N° 2 for Detail

NOTE: Weight shown does not include Tie Bars, Load Transmission Units or Dowel Bars.

GENERAL NOTES:

Either of the (3) three alternate types of reinforcing shown may be constructed at the option of the Contractor. Pavements of varying width shall contain reinforcing placed to conform with the spacing shown on this sheet.



REINFORCING STEEL PLAN N° 2

Bar	At Exp. Joint		At Cont. Joint		Intermediate*	
	No.	Wt. Lbs.	No.	Wt. Lbs.	No.	Wt. Lbs.
Long.	18	97.193	18	97.193	18	200.401
Trans.	3	25.551	3	25.551	6	51.102
Trans.	3	24.893	3	24.893	6	49.786

③ 24'-0" Width *							24'		
Long.	16	8-1	86.394	16	8-1	86.394	16	8-1	172.788
Trans	3	4-0	23.046	3	4-0	23.046	6	4-0	46.092
Trans.	3	4-0	27.388	3	4-0	27.388	6	4-0	54.776

③ 20'-0" width						
Long.	14	8'-1	75.595	14	8'-1	75.595
Trans.	3	4'-6	19.038	3	4'-6	19.038
Trans.	3	11'-8	23.380	3	11'-8	23.380

*Note: For 53'-0" Pmt. and 33'-0" Pmt. slabs may be joined either by extending transverse bars 18" into adjoining slab or by the use of $\frac{1}{2}$ " def. x 3'-0" Tie Bars.

MAT DETAIL OF PAVEMENT PLAN NO. 2

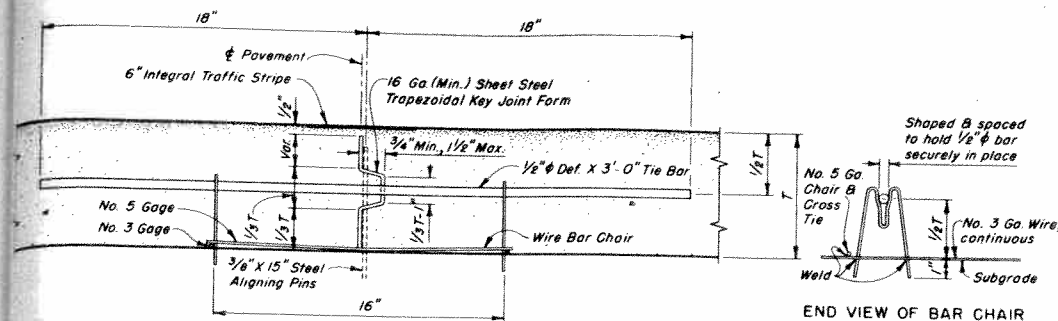
NOTE: Weight shown does not include Tie Bars, Load Transmission Units or Dowel Bars.

NOTE: 6" Integral Traffic Stripes shall be applied on the Thruway Sections. See Sheets N° 7 & 10 for location. Provisions for use of this patented installation have been made by the State free of royalty charges to the Contractor.

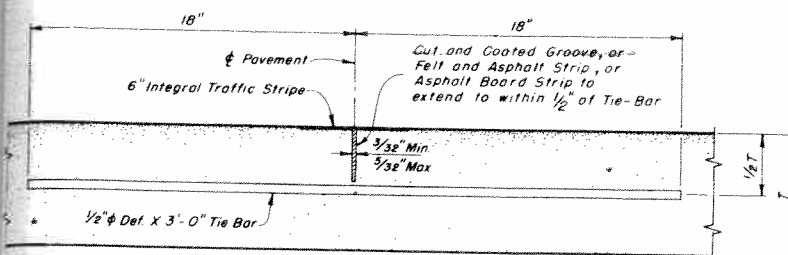
TEXAS HIGHWAY DEPARTMENT
CONCRETE PAVEMENT DETAILS
SHOWING
ALTERNATE METHODS OF REINFORCING
9" & 11" UNIFORM SECTIONS

*For 45' Section multiply Intermediate quantities by 2

REGION	STATE	FEDERAL AID PROJECT NO.	SHEET
4	TEXAS	11 5617-1015617	37
STATE	COUNTY	CONTRACT NO.	JOB NO.
20	JEFFERSON	15	11-11



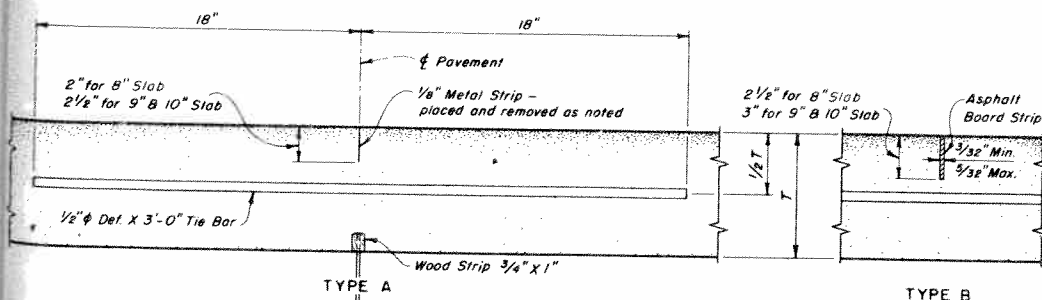
TYPE 1 - STEEL TONGUE-AND-GROOVE FORM



TYPE 2 - MACHINE CUT GROOVE

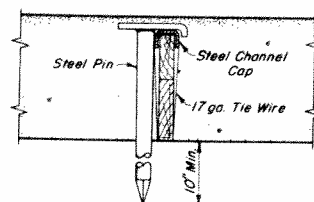
The groove shall be cut by an approved machine and the vertical faces of the concrete coated with an approved concrete curing compound before closing and final finishing, or a 1/16" asphalt impregnated felt strip shall be inserted, continuous between expansion joints, or an asphalt board strip held in an approved continuous metal shield, shall be placed continuously in a groove cut in the concrete by an approved mechanical device operated in advance of the longitudinal float. The strips or groove shall be true to line, vertical, and of the depth shown. Tie bars shall be installed as in Type 1, or accurately placed in position on the screeded concrete by means of an approved template and forced to the proper position with a suitable tool.

TERNATE TYPES OF LONGITUDINAL JOINTS



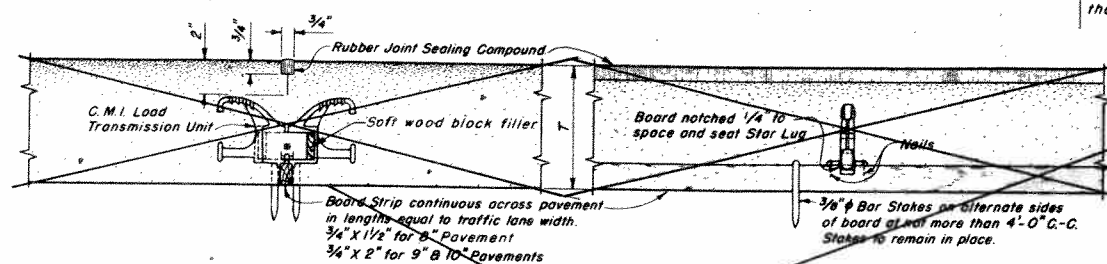
The 3/4" x 1" Wood Strip as shown for Type A shall be continuous for width of pavement, and shall be securely fastened to the subgrade by 40-penny wire nails driven through drilled holes at not more than 30" centers. Tie Bars shall be placed accurately in position, after screeding, by means of an approved template. The transverse finishing machine shall pass over the joint area after installing the bars.
Type A, 1/8" x 2" or 2 1/2" Metal Strip --- Cut top surface of concrete directly over wood strip and insert metal strip after screeding and in advance of longitudinal float. After longitudinal float has passed over, remove steel plate prior to finishing.
Type B, Asphalt Board Strip --- Asphalt board strip, held in an approved continuous metal shield, shall be placed continuously in a groove cut by an approved mechanical device operating in advance of the longitudinal float.

ALTERNATE TYPES OF TRANSVERSE WARPING JOINTS



INSTALLING PIN FOR EXPANSION JOINT

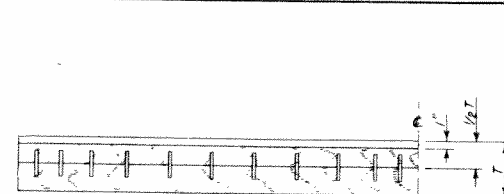
Board Joint Filler of specified type shall be secured on subgrade in exact position and line as illustrated or by other approved device. Pins shall be removed after passage of finishing machine, then pavement resurfaced by second pass of finishing machine. After second passage of finishing machine remove concrete to 1" below top of board and nail 3/4" x 2" wood strip to top of board filler to form joint seal space. Replace concrete and finish with longitudinal float. The wood top strip shall not be removed until immediately prior to pouring joint seal.



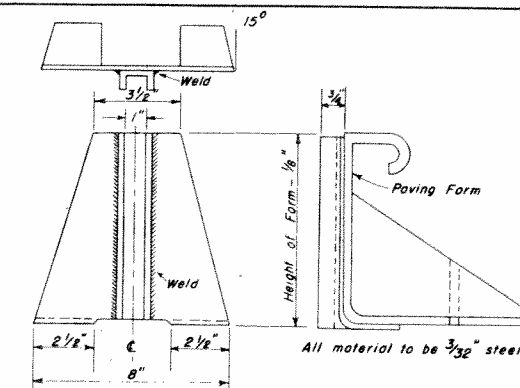
CAST MALLEABLE IRON CANTILEVER TYPE LOAD TRANSMISSION UNIT

D-14 1/2 "STAR LUG" as manufactured by Texas Foundries, Lufkin, Texas, or equal Load Transmission Unit

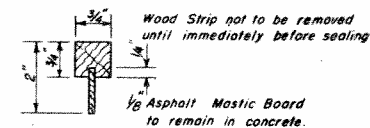
ALTERNATE TYPES OF TRANSVERSE CONTRACTION JOINTS



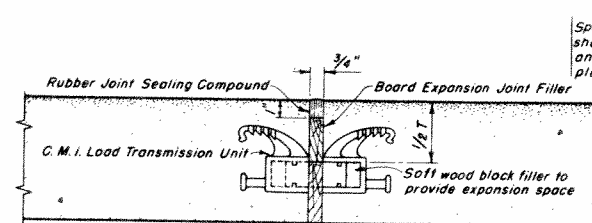
ELEVATION OF BOARD STRIP FOR EXPANSION JOINT WITH C.M.I. LOAD TRANSMISSION UNITS



ACCEPTABLE CONTRACTION AND EXPANSION JOINT HOLDER
(Other types may be used if approved by engineer)

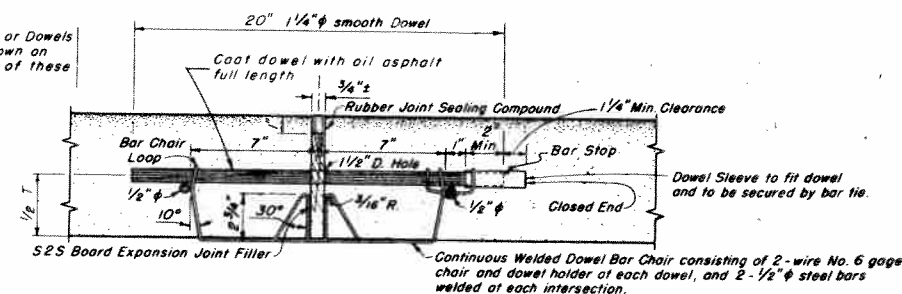


CONTRACTION JOINT SEAL FORM



CAST MALLEABLE IRON CANTILEVER TYPE LOAD TRANSMISSION UNIT
D-13 "STAR LUG" as manufactured by Texas Foundries, Lufkin, Texas, or equal Load Transmission Unit

ALTERNATE TYPES OF TRANSVERSE EXPANSION JOINTS



1 1/4" ROUND STEEL BAR DOWEL

GENERAL NOTES

Either of the alternate types of Joints shown by these details may be constructed, at the option of the Contractor. If the Contractor desires to use any other alternate device, he shall, prior to its use, secure its approval by the Engineer.

Load Transmission Units or Dowels shall be secured parallel to the pavement surface and center line. All Joints, including all materials, devices, and work required shall be considered subsidiary work and shall be included in the unit price bid for "Concrete Pavement." No direct payment will be made for any material, bar chair, steel, or any other device shown, nor for its installation.

"T" indicates center depth of thickened-edge pavements or depth of uniform pavements. For thickened edge pavements the bottom edges of board expansion joint fillers shall be made to conform with the subgrade by the addition of wedges of the same material and thickness.

The Contractor shall hold and save the State, its officers, its agents, and its employees harmless to liability of any nature or kind, including costs 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.

TEXAS HIGHWAY DEPARTMENT CONCRETE PAVEMENT JOINT DETAILS 8'-9'-11" SLABS

C.P.J. - 52-2(MOD.)

REVISED: FEB. 7, 1952

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
6	TEXAS	UI 56 (7) - UG 56 (9)	38
STATE DIST. NO.	COUNTY	CONTRACT SECTION NO.	JOB NO.