STATE OF TEXAS
STATE HIGHWAY DEPARTMENT

PLAN OF PROPOSED
STATE HIGHWAY IMPROVEMENT

STATE PROJECT
C9-2-28, C9-3-15, C281-3-19

PLAN 1 IN = 50 FT.
SCALE: PROFILE 1 IN. HOR = 50 FT. 1 IN. VERT = 10 FT.
CROSS SECTIONS 1 IN. HOR. AND VERT = 5 FT.

DALLAS COUNTY
S.H. 78 AND S.H. 66

723415

Final Plans

IPE 4056277

NOTE: THE CONTRACTOR SHALL MAK... OWN INVESTIGATION AN... ARRANGEM... FOR TRACKAGE FACILITIES

	STATE	
6	TEXAS	
	COUNTY	
18	DALLAS	

LETTING DATE: 11-13-74
DATE WORK BEGAN 12-17-74
DATE WORK COMPLETE 1-30-76
DATE Work ACCEPTED: 2-2-76
No Extra Work Orders

THE CONTRACTOR SHALL PROVIDE AN... ERECT BARRICADE AND WARNING SIGN... ACCORDANCE WITH BC-74(1) THRU (6) ... POINTS INDICATED AND AT OTHER P... AS DIRECTED.

INDEX OF SHEETS

SHEET No.	DESCRIPTION
1	TITLE SHEET
2	PROJECT LAYOUT
4	SEQUENCE OF WORK (Sheet 3 Omitted)
5-6	TYPICAL SECTIONS
7-10	SPECIFICATION DATA
11-12	ESTIMATE AND QUANTITY
13-17	SUMMARY SHEETS
18-24	PLAN-PROFILE SHEETS
25-26	INTERSECTION DETAIL SHEETS
27-28	MISCELLANEOUS DETAILS
29-32	DRAINAGE DATA AND COMPUTATIONS
33-39	STORM SEWER LAYOUTS AND PROFILES
40-42	CULVERT PROFILES AND DETAILS
43-48	INLET AND MANHOLE DETAILS
49	CPCD-71 (REV.)
50	JS-71 (MOD)
51	CH-11
52	CH-11-B-30°
53	SC-NA
54	MCW-P-15°
55	MCW-P(Mod)
56	MCW-P-15°(MOD)
57-58	MC-15°(MOD)
59	MC5-1 (MOD)
60	MC8-2 (MOD)
61	RAIL TY T 101
62	GF(TD)74
63	OPTIONAL CONSTRUCTION JOINT DETAIL
64-69	BC(1) THRU BC(6)-74

S.H. 78 FROM EXISTING S.H. 78 IN GARLAND ALONG AVENUE "B" TO FIRST STREET AND ALONG FIRST STREET FROM AVENUE "D" TO EXISTING S.H. 78 (IPE 405)
S.H. 66 FROM PROPOSED S.H. 78 TO NEAR DAIRY ROAD (IPE 277)
PROJECT LENGTH = 9,... FT = 1.7... MILES
TYPE GRADING, STORM SEWERS, BASE AND CONCRETE PAVEMENT

9-2-28		9-3-15		281-3-19	
FEET	MILES	FEET	MILES	FEET	MILES
5,177.37	0.980	3,2..35	0.610		

FIELD CHANGES

NO. 1 ADD 19 DRIVEWAYS
NO. 2 ... 281-3-19 LT. STA. 14+... TO 15+... THE EXISTING CURB AND REPL... WITH ...
CURB ... STA. 63+50 TO STA. 74+30. ADD CONC. C AND G ... AT THE FOLLOWING LOCATIONS:
9TH ST. 16.6 LF 10TH ST. 10.7 LF 11TH ST. 32.3 LF
12TH ST. 33.7 LF 13TH ST. 15.6 LF LT. STA. 74+30 17.6 LF

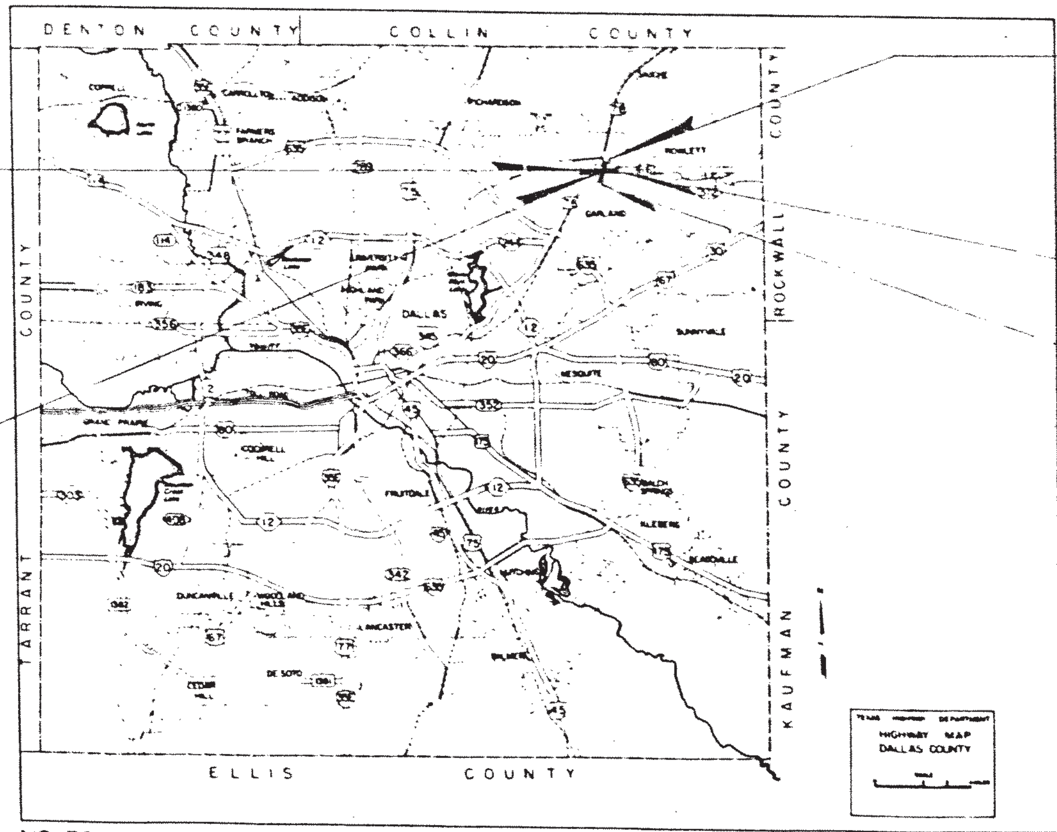
Sta. 49+85 = Begin Project C9-2-28
Control 9-2-28

Sta. 102+78.75 = End Project C9-2-28
Control 9-2-28 (S.H. 78)
Begin Project C9-3-15
Control 9-3-15 (S.H. 66)
= Sta. 16+83.18 = C... Project C281-3-19
Control 281-3-19 (S.H. 78)

Sta. 21+36 = End Project ...
Control 281-3-19 (S.H. 78)

Sta. 135+00 = End Project C9-3-15
Control 9-3-15 (S.H. 66)
= Sta. 35+00 Project US 2792 (4)
Control 9-3-16

Sta. 10+40 = Begin Project C281-3-19
Control 281-3-19



NO EQUATIONS
4 - EXCEPTIONS: 83+36.77 - 83+47.23, 83+89.77 - 84+00.23, 84+07.77 - 84+18.23, & 82+62.57 - 87+47.57 } = -116.38 FT. (CONT. 9-2-28)
ONE RAILROAD CROSSING: (A.T. & S.F. R.R.)
LAYOUT SCALE: 1 IN. = 4 MI.

CONVENTIONAL SIGNS
STATE OR NATIONAL LINE
CITY OR VILLAGE LINE
COUNTY LINE
BASE OR SURVEY LINE
RIGHT OF WAY LINE
RIGHT OF WAY MARKERS
FENCE LINE
RAILROAD
TRAVELLED WAY
CULVERT OR BRIDGE
...
TELEGRAPH OR TELEPHONE

SPECIFICATIONS ADOPTED BY THE STATE HIGHWAY DEPARTMENT OF TEXAS JANUARY 3, 1972 AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS SHALL GOVERN ON THIS PROJECT: ...

CITY OF GARLAND
APPROVED 9-1...
CITY MANAGER

TEXAS HIGHWAY DEPARTMENT

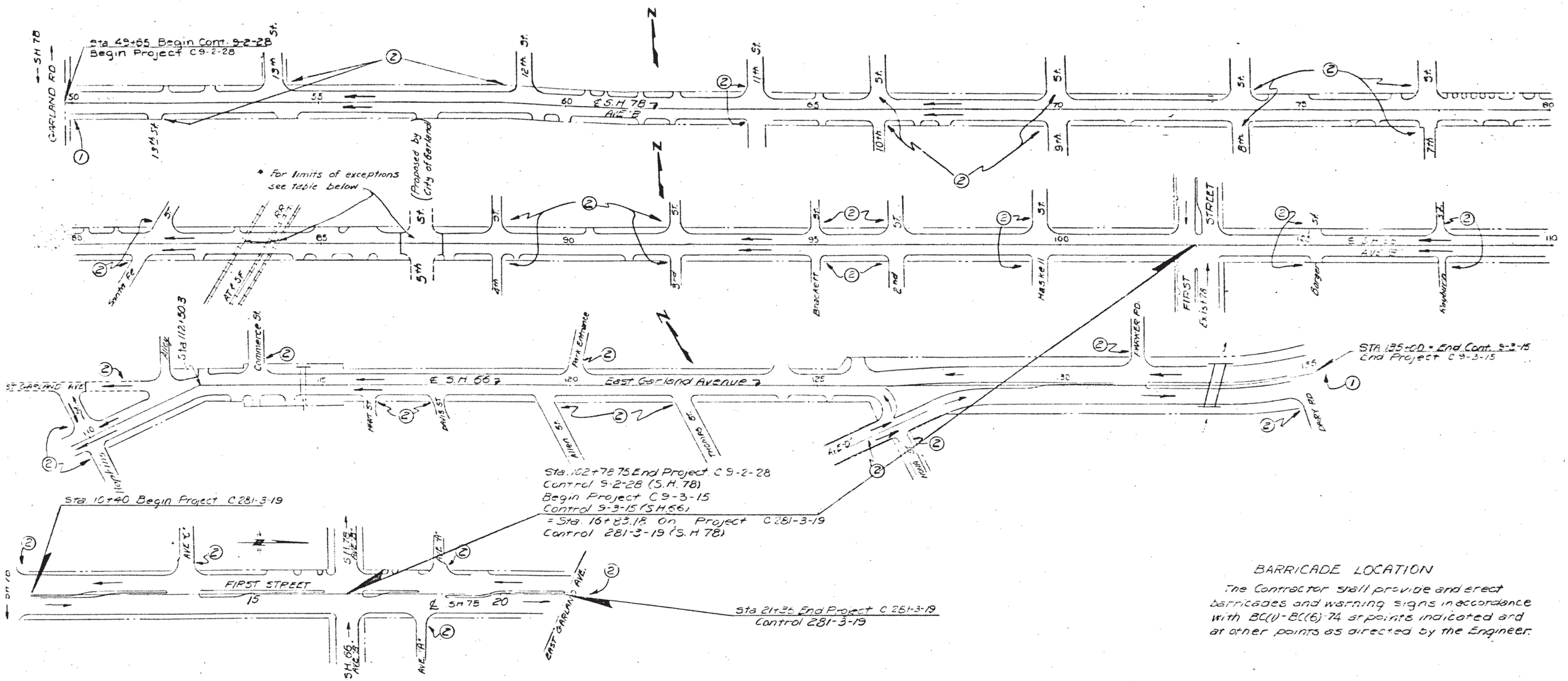
CORRECT 3 Feb 1972
W. P. Walker
SUPV. RESIDENT ENGINEER

CORRECT 3-9 1972
J. R. Kirkpatrick
DISTRICT DESIGN ENGINEER

CORRECT 3-6 1972 RECOMMENDED FOR APPROVAL
...
SUPV. RESIDENT ENGINEER

RECOMMENDED FOR APPROVAL 3-9 1972
John ... K...
DISTRICT ENGINEER

APPROVED
CHIEF ENGINEER OF HIGHWAY DESIGN



* LIMITS OF EXCEPTIONS

A.T. & S.F.R.R.

83+36.77 - 83+47.23

83+89.77 - 84+00.23

84+07.77 - 84+18.23

5th. Street

86+62.57 - 87+47.57

BARRICADE LOCATION

The Contractor shall provide and erect barricades and warning signs in accordance with BC(1)-BC(6)-74 at points indicated and at other points as directed by the Engineer.

(1) Barricades Class I(C) with signs G20-1, G20-6 CW20-1D, G20-2 & R10-8.

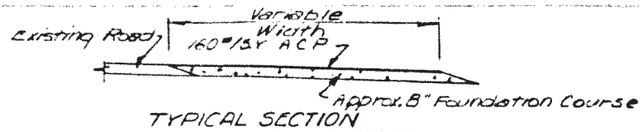
(2) Signs CW 20-1D and R 10-8

PROJECT LAYOUT SHEET
SCALE: 1" = 100'

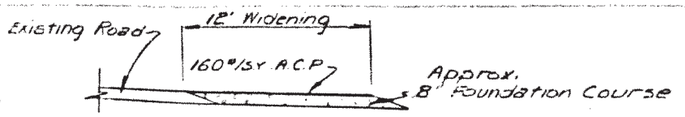
2

C 9-2-28, etc.

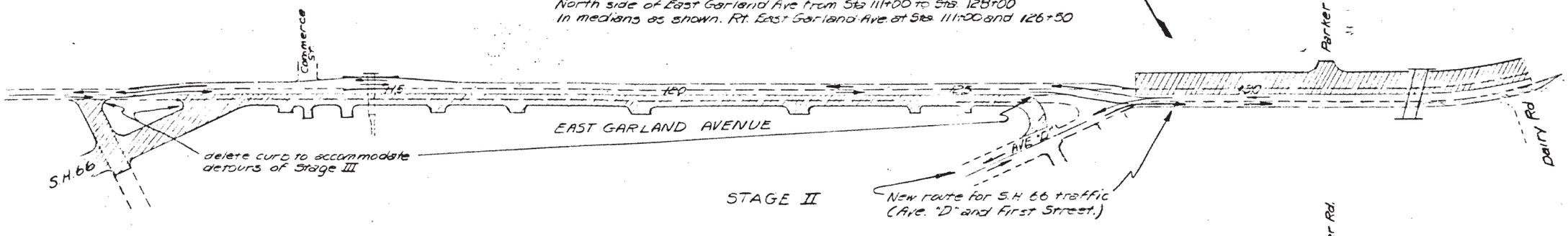
18 DALLAS 9 2 28



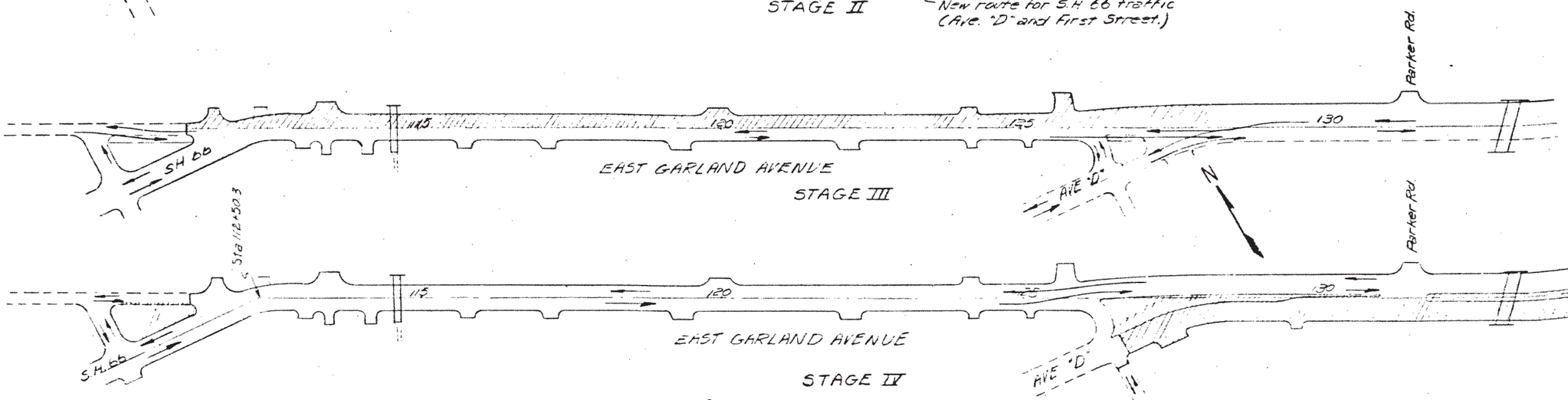
TYPICAL SECTION
Culvert detour Sta 114+61.92± and Sta 133+00 (Stage I & II)



TYPICAL SECTION
South side of East Garland Ave. from Sta. 127+50 to Sta 135+50
North side of East Garland Ave from Sta 111+00 to Sta. 128+00
In medians as shown. Rt. East Garland Ave. at Sta. 111+00 and 126+50

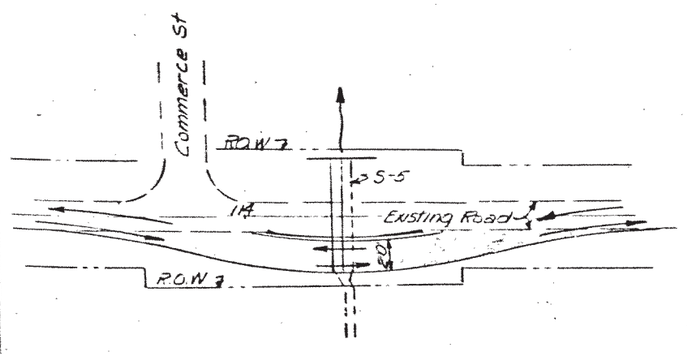


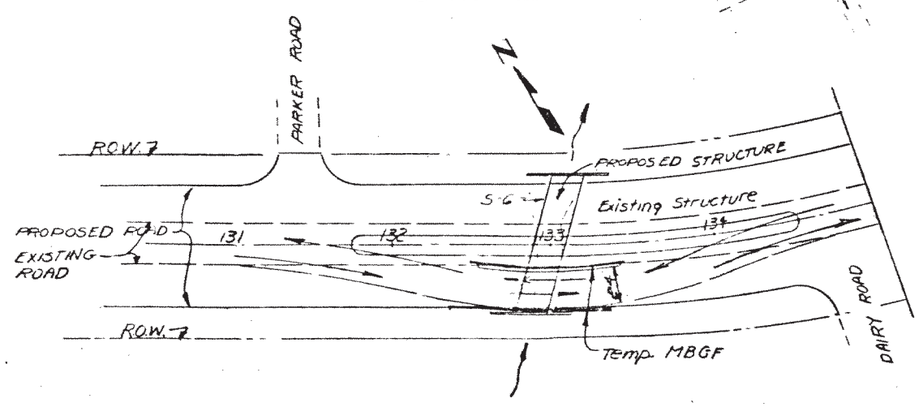
STAGE II



STAGE III

STAGE IV



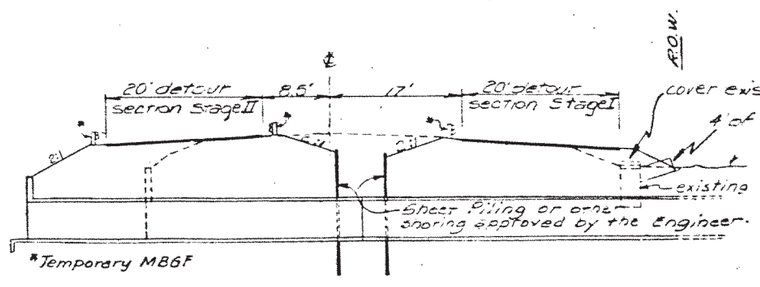


STAGE I.

Note:
Use a minimum of 2' clearance from the edge of the roadway to the face of the temporary MBGF

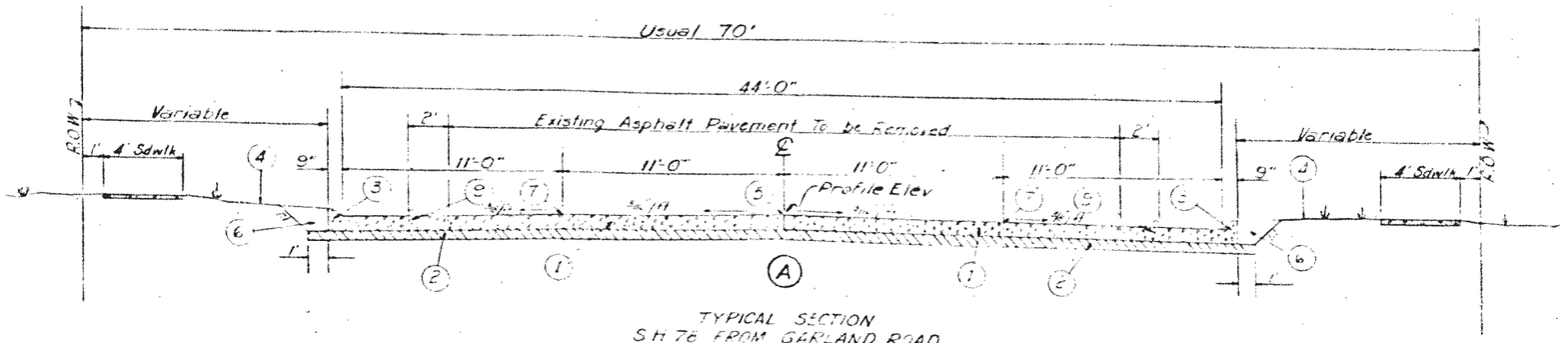
LEGEND

- ☐ - TEMPORARY DETOUR
- ▨ - ROAD SECTION TO BE E

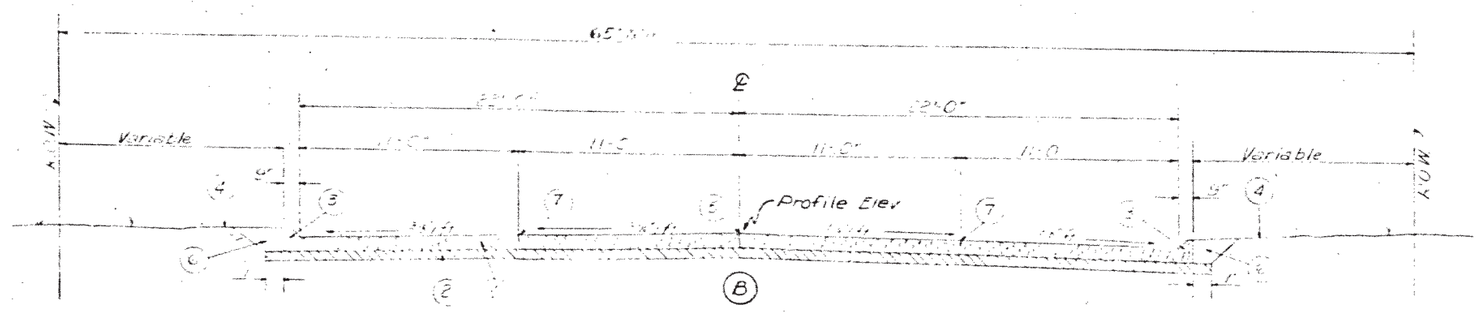


STAGE CONSTRUCTION FOR CULVERT AT STATION 114+62 ±

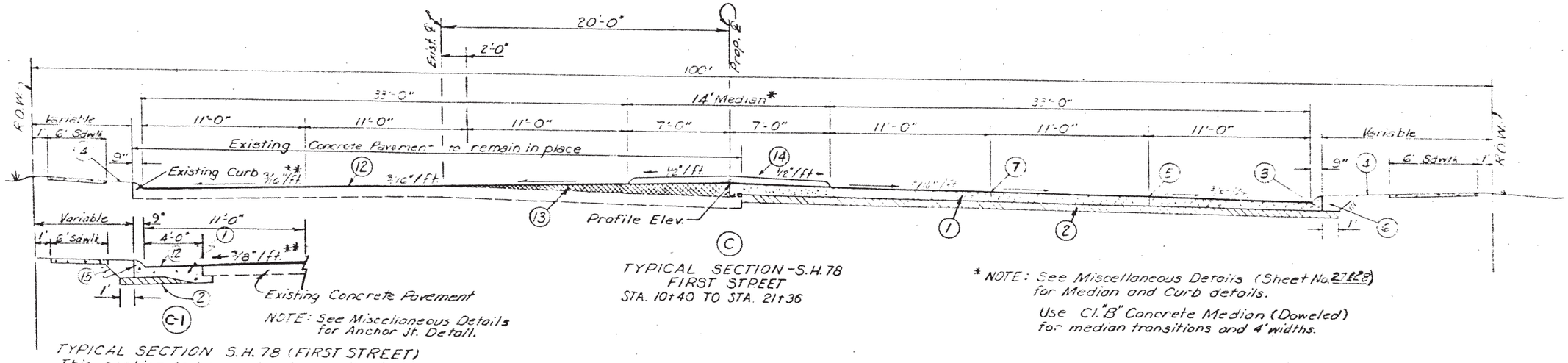
SUGGESTED SEQUENCE OF WORK



TYPICAL SECTION
S.H. 78 FROM GARLAND ROAD
TO SANTA FE STREET
STA 49+85 To Sta 81+50



TYPICAL SECTION
S.H. 75 FROM SANTA FE STREET
To 1st STREET STA. 81+50 TO STA 102+78.75
S.H. 66 FROM 1st STREET TO EAST
GARLAND AVE. STA 102+78.75 TO STA. 112+50.3



TYPICAL SECTION - S.H. 78
FIRST STREET
STA. 10+40 TO STA. 21+36

NOTE: See Miscellaneous Details
for Anchor Jt. Detail.

TYPICAL SECTION S.H. 78 (FIRST STREET)
This section to be used between the following
limits where existing Concrete Pavement is to
be removed to facilitate installation of Storm Sewer.
Sta. 15+08 to Sta. 16+45 & Sta. 17+30 to Sta 20+54

**NOTE: From Sta. 14+50 to Sta. 16+61 the crown slope shall be 3/8"/Ft. for the outside 11' Lane. (Begin Transition from 3/16"/Ft. to 3/8"/Ft. @ Sta. 13+00)

* NOTE: See Miscellaneous Details (Sheet No. 27 & 28)
for Median and Curb details.
Use Cl. "B" Concrete Median (Doweled)
for median transitions and 4' widths.

LEGEND

1. 9 IN. CONCRETE PAVEMENT CPCD
2. LIME STABILIZED SUBGRADE (APPROX. 6 IN.)
3. MONO CURB (TYPE I)
4. 4 IN. MULCH SOD AND FERTILIZER
5. CONSTRUCTION JOINT
6. EARTH BACKFILL
7. LONGITUDINAL JOINT
8. 160 #/S.Y ASPHALTIC CONCRETE PAVEMENT
9. EXISTING CURB AND GUTTER TO BE REMOVED
10. PRIME COAT
11. APPROX. 12½ IN (AVG) FOUNDATION COURSE (LIME STA
12. 110 #/S.Y ASPHALTIC CONCRETE PAVEMENT
13. 375 #/S.Y (AVG) ASPHALTIC CONCRETE PAVEMENT
14. CONCRETE MEDIAN (4 IN.) (DOWEL)
15. MONO. CURB (TYPE I-A)
16. MONO. CURB (TYPE II)

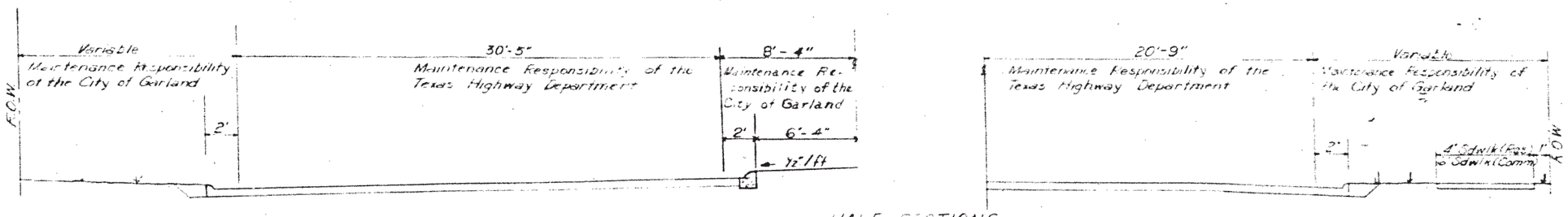
TYPICAL SECTIONS

Scale 1" = 4'

SHEET 1 OF 2

C9-2-28,

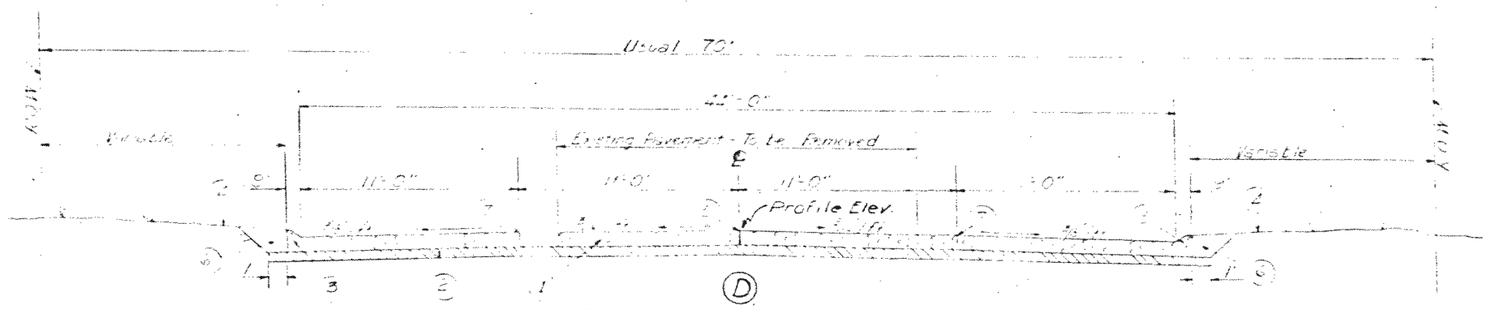
18 DALLAS 9



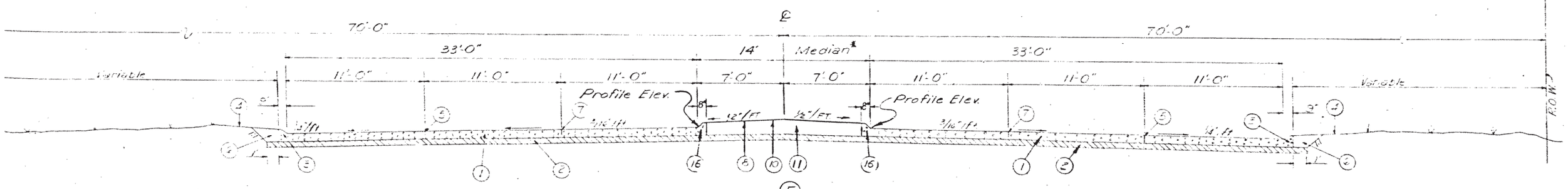
HALF SECTIONS
MAINTENANCE AGREEMENT
Showing the respective maintenance responsibilities of the Texas Highway Department and the City of Garland on S.H. 78 and S.H. 66

LEGEND

1. 9 IN. CONCRETE PAVEMENT CPCD
2. LIME STABILIZED SUBGRADE (APPROX. 6 IN.)
3. MONO. CURB (TYPE I)
4. 4 IN. MULCH SOD AND FERTILIZER
5. CONSTRUCTION JOINT
6. EARTH BACKFILL
7. LONGITUDINAL JOINT
8. 160#/S.Y. ASPHALTIC CONCRETE PAVEMENT
9. EXISTING CURB AND GUTTER TO BE REMOVED
10. PRIME COAT
11. APPROX. 12" (AVG) FOUNDATION COURSE (LIME STAB.)
12. 110#/S.Y. ASPHALTIC CONCRETE PAVEMENT
13. 375#/S.Y. (AVG.) ASPHALTIC CONCRETE PAVEMENT
14. CONCRETE MEDIAN (4 IN) (DOWEL)
15. MONO. CURB (TYPE IA)
16. MONO. CURB (TYPE I)



(D)
TYPICAL SECTION
S.H. 66 - FROM AVENUE 'B' EXTENDED
TO AVENUE 'D'
STA. 112+50.3 TO STA. 126+00



(E)
TYPICAL SECTION
S.H. 66 - FROM AVENUE 'D'
TO NEAR DAIRY ROAD
STA. 126+00 TO STA. 135+00

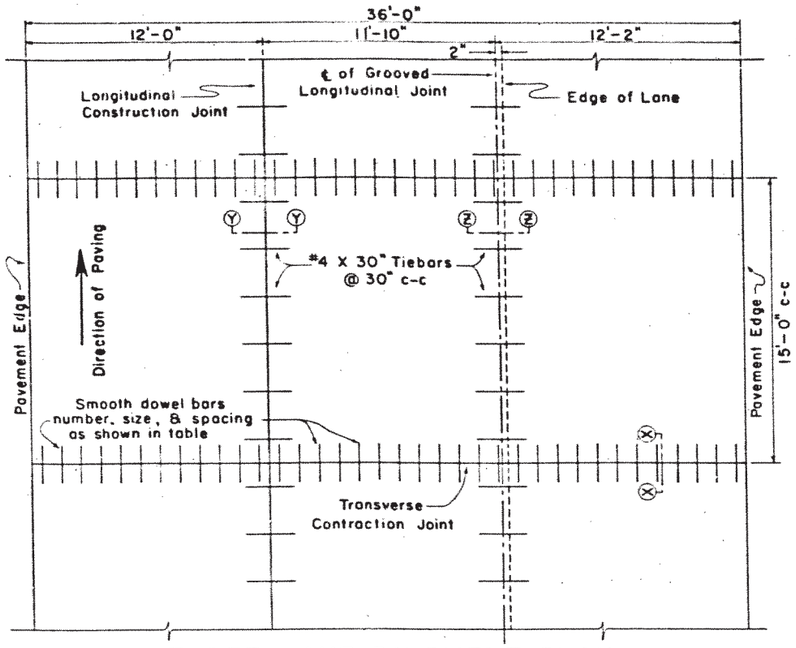
NOTE: See Miscellaneous Details (Sheet No. 27K28) for Median and Curb details.
Use Cl 'B' Concrete Median (Doweled) for median transitions and 4' widths.

6

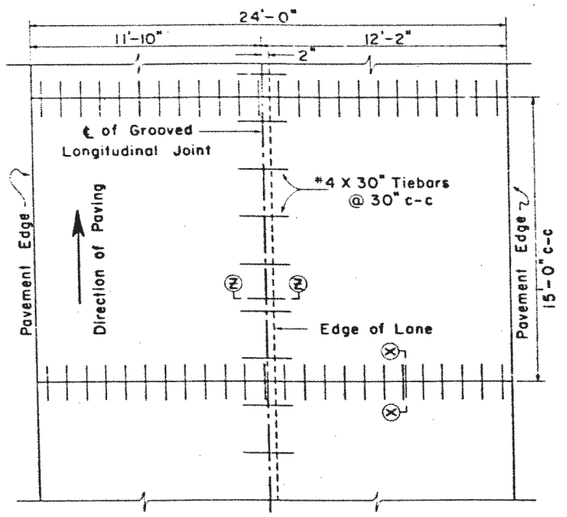
TYPICAL SECTIONS
SCALE 1"=4'
SHEET 2 OF 2

9-2-28, etc

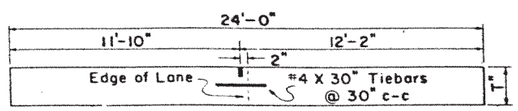
DALLAS 9 2 28



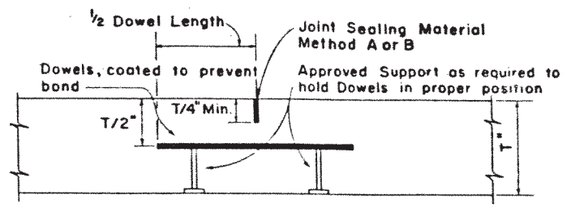
THREE LANE PAVEMENT PLAN
(12 ft. & 24 ft. Placement)*



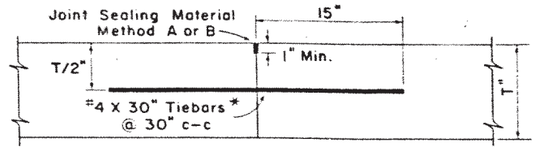
TWO LANE PAVEMENT PLAN



TYPICAL SECTION
(24 ft. Placement)*

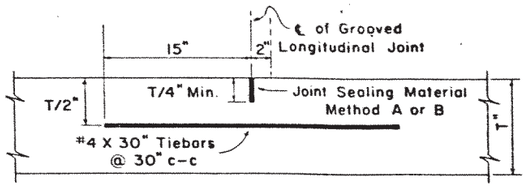


TRANSVERSE CONTRACTION JOINT
Section X-X



LONGITUDINAL CONSTRUCTION JOINT
Section Y-Y

*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 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.



GROOVED LONGITUDINAL JOINT
Section Z-Z

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

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. TIEBARS SHALL BE SECURED PARALLEL TO THE PAVEMENT SURFACE AND PERPENDICULAR TO THE CENTERLINE BY:
   (a) USE OF BAR CHAIRS
   (b) ACCURATELY PLACED IN POSITION ON THE SCREEDED CONCRETE BY MEANS OF AN APPROVED TEMPLATE AND FORCED TO THE PROPER POSITION WITH A SUITABLE TOOL; OR
   (c) BY ANY OTHER MEANS WHICH, PRIOR TO ITS USE, HAS BEEN APPROVED BY THE ENGINEER.
6. DOWEL BARS SHALL BE SECURED PARALLEL TO THE PAVEMENT SURFACE AND CENTERLINE BY A DOWEL BAR CHAIR.
7. WHEN WORK IS STOPPED DUE TO BREAKDOWN OR OTHER CAUSE, CONCRETE SHALL BE REMOVED BEYOND LAST CONTRACTION JOINT IN PLACE AND A HEADER INSTALLED.
8. 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.
9. 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.
10. LONGITUDINAL AND TRANSVERSE STEEL SPACING SHALL NOT VARY MORE THAN ONE TWELFTH OF THE SPACING SHOWN HEREON.
11. THE TIEBAR SPACINGS SHOWN ARE FOR ASTM DESIGNATIONS: A-615, OR A-616, GRADE 60, TIEBARS, WHICH SHALL NOT BE BENT. IF TIEBARS ARE TO BE BENT, THEY SHALL BE STEEL CONFORMING TO ASTM DESIGNATION: A-615, GRADE 40, WITH A CENTER TO CENTER SPACING OF 24 INCHES.
12. SEE RC (CPCR-71)$_{(rev)}$ FOR STEEL PLACING REQUIREMENTS IN THE AREA OF CONFLUENCE AT RAMP TERMINALS.

DEPTH OF PAVEMENT (INCHES)	DOWELS (SMOOTH BARS)		
	SIZE AND LENGTH	AVERAGE SPACING (INCHES)	WEIGHT PER FOOT OF JOINT (LBS.)
8	1" X 18"	12	4.01
9	1 1/8" X 20"	12	5.63
10	1 1/4" X 22"	12	7.65
11	1 3/8" X 24"	12	10.10

TEXAS HIGHWAY DEPARTMENT

CONCRETE PAVEMENT DETAILS
CONTRACTION DESIGN
CPCD-71 (Rev.)

4

DN	DRAWING	DATE	FED RD DIV NO	STATE	PROJECT NO
CK DN	Original	Feb 1962	6	TEXAS	
DW			STATE DIST NO	COUNTY	CONT SECT
CK DW					
TR					
CK TR					