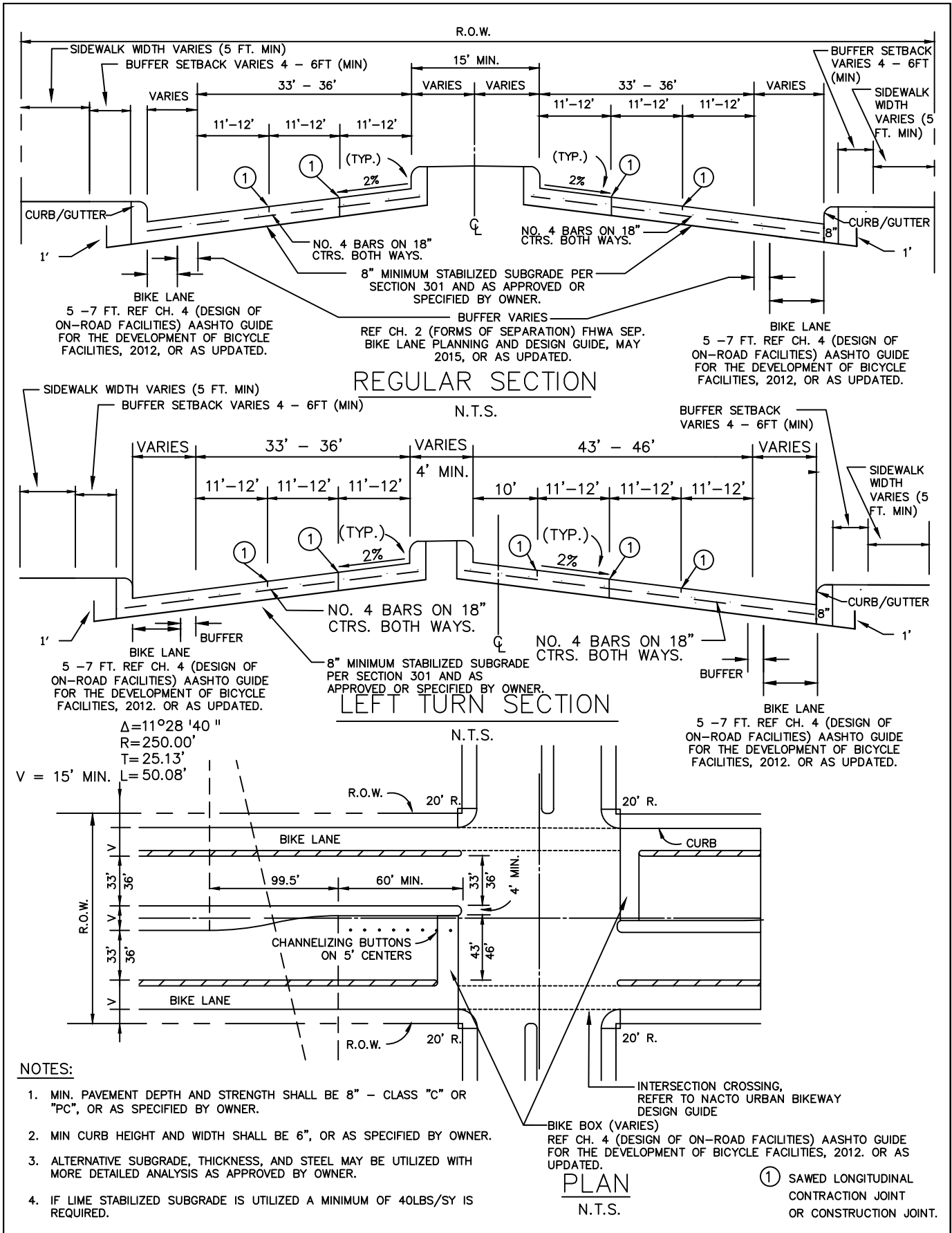


## **DIVISION 2000 PAVEMENT SYSTEMS**

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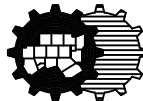
<u><i>Drawing #</i></u>	<u><i>Subject</i></u>	<u><i>Section I: Item #</i></u>
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<b>2020</b>	<b>Reinforced Concrete Pavement</b> Four-Lane Divided Thoroughfare	303. Pages 303-1 to 303-23
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REINFORCED CONCRETE PAVEMENT  
SIX-LANE DIVIDED THOROUGHFARE

North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE

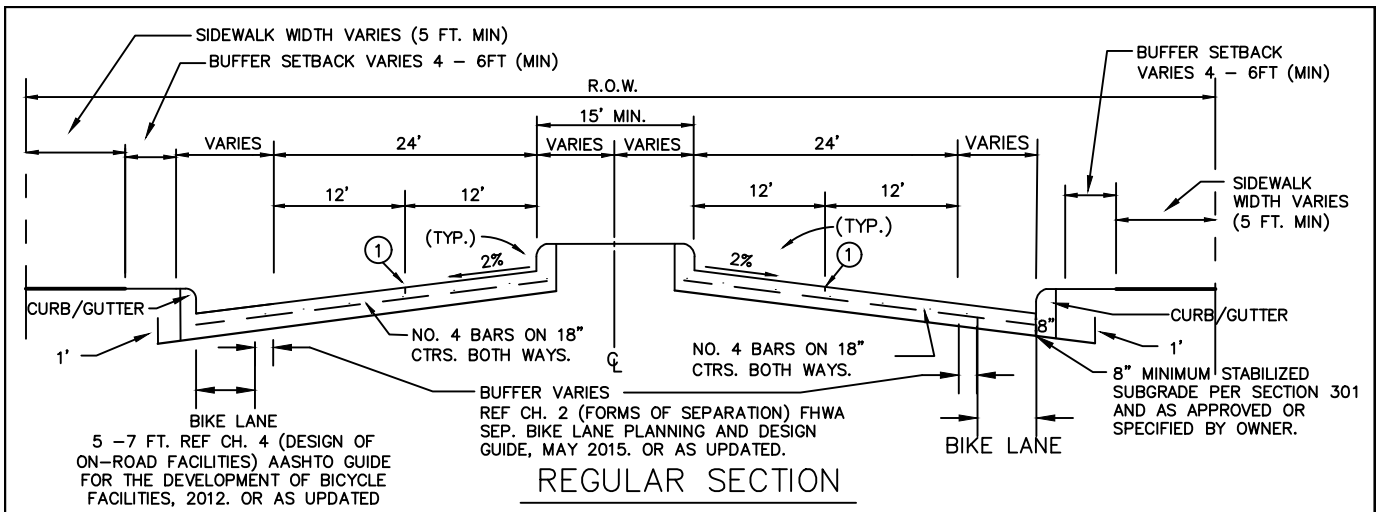
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DATE

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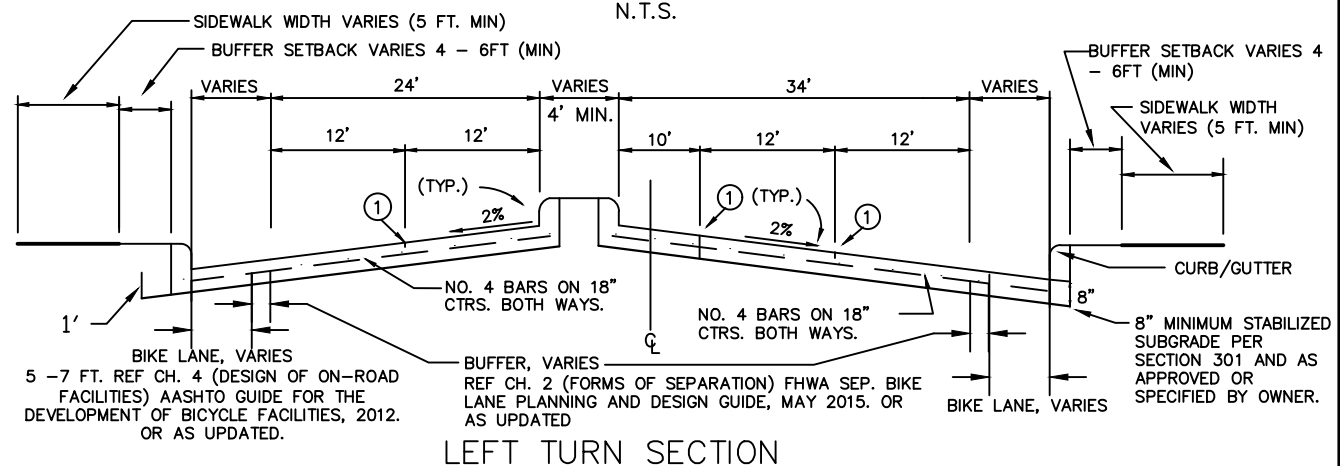
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2010



REGULAR SECTION

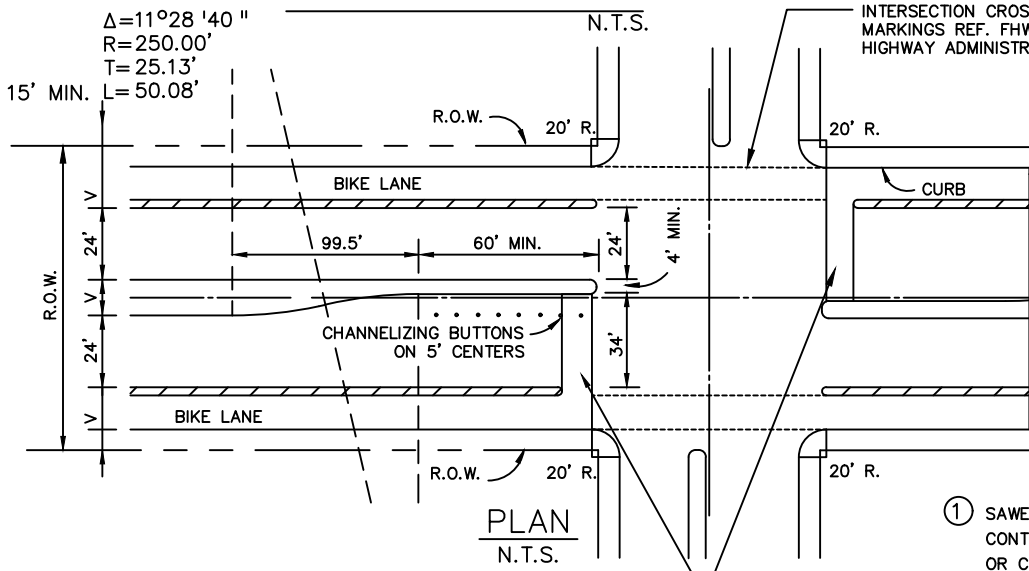
N.T.S.



LEFT TURN SECTION

N.T.S.

$\Delta = 11^\circ 28' 40''$   
 $R = 250.00'$   
 $T = 25.13'$   
 $L = 50.08'$   
 $V = 15' \text{ MIN.}$



PLAN  
N.T.S.

① SAWED LONGITUDINAL CONTRACTION JOINT OR CONSTRUCTION JOINT

NOTES:

1. MIN. PAVEMENT DEPTH AND STRENGTH SHALL BE 8" - CLASS "C" OR "PC", OR AS SPECIFIED BY OWNER.
2. MIN CURB HEIGHT AND WIDTH SHALL BE 6", OR AS SPECIFIED BY OWNER.
3. ALTERNATIVE SUBGRADE, THICKNESS, AND STEEL MAY BE UTILIZED WITH MORE DETAILED ANALYSIS AS APPROVED BY OWNER.
4. IF LIME STABILIZED SUBGRADE IS UTILIZED A MINIMUM OF 40LBS/SY IS REQUIRED.
5. SEE DETAIL 2170 FOR SIDEWALKS.
6. IF THERE IS A REQUIRED BIKE LANE THE BUFFER SHOULD BE 1' - 3' DEPENDING ON THE SPEED.
7. SIDEWALKS SHOULD BE 5' AS DIRECTED BY CITY BUT CAN BE REDUCED TO A MINIMUM OF 3' SIDEWALKS WITH A BULB OUT.

REINFORCED CONCRETE PAVEMENT  
 FOUR-LANE DIVIDED THOROUGHFARE

North Central Texas Council of Governments

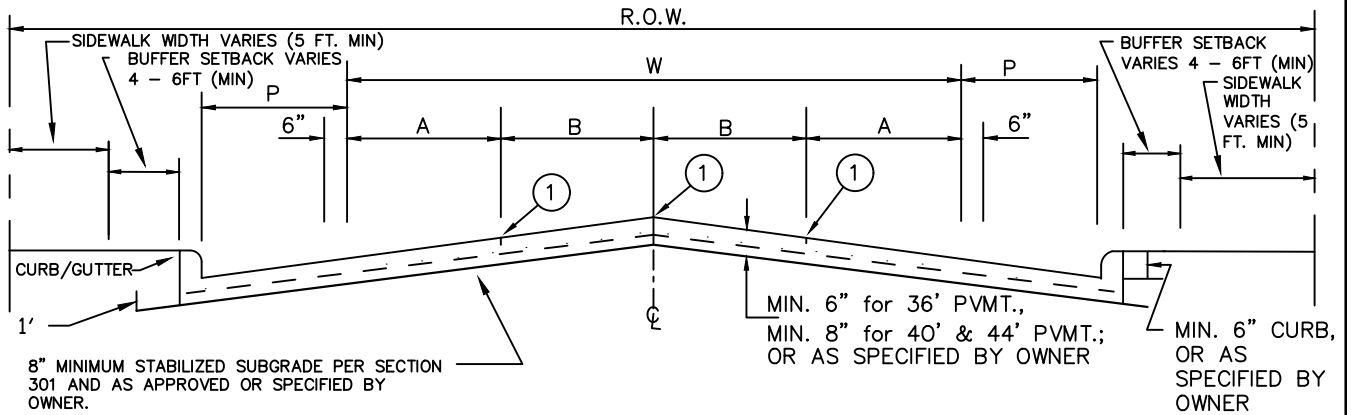


STANDARD SPECIFICATION REFERENCE

303

DATE  
TBD

STANDARD DRAWING NO.  
2020

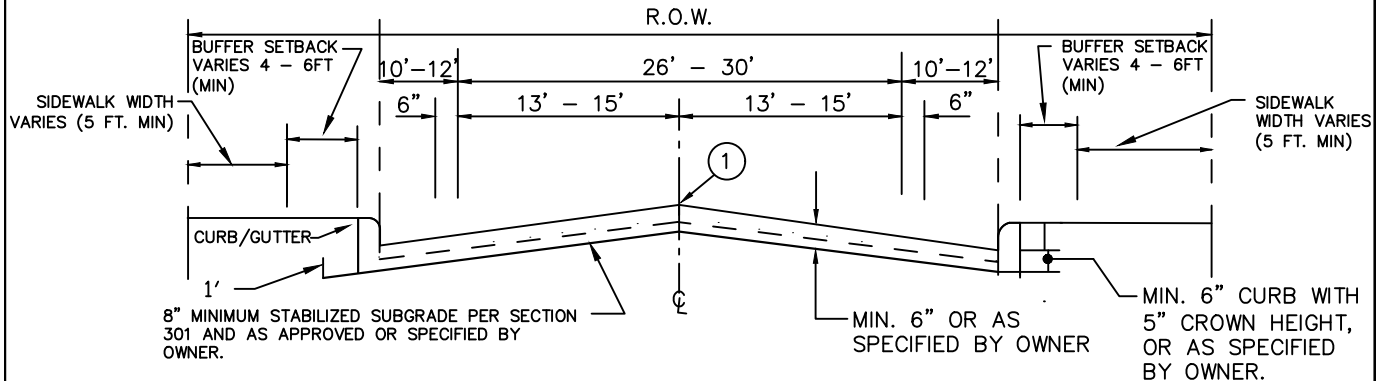


STREET WIDTH(W)	A	B	R.O.W. WIDTH	P	CROWN HEIGHT*
36'	8'	10'	VARIES	VARIES	6"
40'	8' OR 10'	10' OR 12'	VARIES	VARIES	6"
44'	11'	11'	VARIES	VARIES	8"

\*SEE NOTE 4

### FOUR TRAVEL LANES OR TWO TRAVEL LANES & TWO PARKING LANES

N.T.S.



### ONE TRAVEL LANE & TWO PARKING LANES

N.T.S.

① INDICATES SAWED LONGITUDINAL CONTRACTION OR CONSTRUCTION JOINT.

**NOTES :**

- ALL REINFORCEMENT SHALL BE 4" BARS ON 18" CENTERS BOTH WAYS, EXCEPT WHERE NOTED.
- ALTERNATIVE SUBGRADE, THICKNESS, AND STEEL MAY BE UTILIZED WITH MORE DETAILED STUDY AND ANALYSIS AND AS APPROVED BY OWNER.
- PAVEMENT STRENGTH SHALL CONFORM TO CLASS "C" OR "PC" CONCRETE, OR AS SPECIFIED BY THE OWNER.
- STRAIGHT CROWN OR PARABOLIC CROWN AS APPROVED BY OWNER.
- SEE DETAILS 2170 FOR SIDEWALKS.

REINFORCED CONCRETE PAVEMENT

North Central Texas Council of Governments

STANDARD SPECIFICATION REFERENCE

303

2- & 4-LANE UNDIVIDED THOROUGHFARE

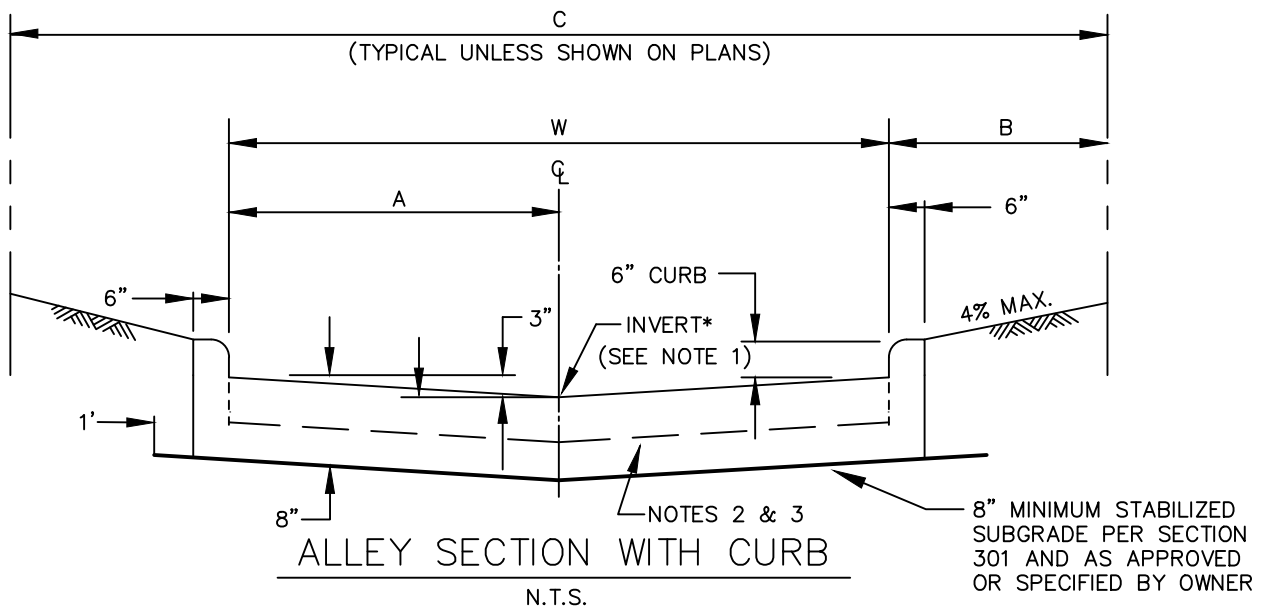
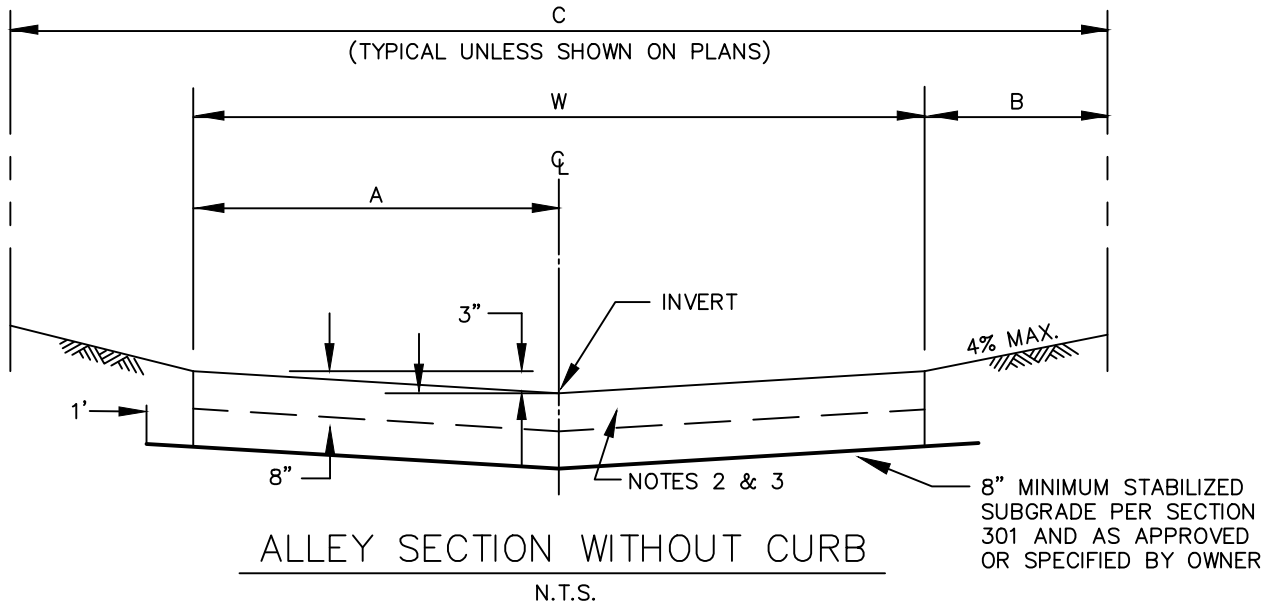


DATE

STANDARD DRAWING NO.

TBD

2030



**NOTES:**

1. CROWN SELECTION MAY BE USED IN LIEU OF INVERT WITH PROVISION OF AN ADEQUATE DRAINAGE DESIGN AND AS APPROVED BY OWNER.
2. REINFORCED WITH NO. 3 BARS AT 18" C-C BOTH WAYS OR AS APPROVED BY OWNER.
3. ALTERNATIVE SUBGRADE, THICKNESS, AND STEEL MAY BE UTILIZED WITH MORE DETAILED STUDY AND ANALYSIS AND AS APPROVED BY OWNER.
4. EXPANSION JOINTS TO BE PLACED AT INTERSECTION AND NOT TO EXCEED 600' BETWEEN JOINTS.
5. CONCRETE SHALL BE CLASS "C" OR "PC", OR AS SPECIFIED BY OWNER.
6. SEE DETAIL 2170 FOR SIDEWALKS.

ALLEY WIDTH (W)	A	B	R.O.W. WIDTH (C)
10'	5'	2'-6"	15'
12'	6'	2'-6"	17'
16'	8'	2'-6"	21'
20'	10'	2'-6"	25'

REINFORCED CONCRETE PAVEMENT

ALLEYS

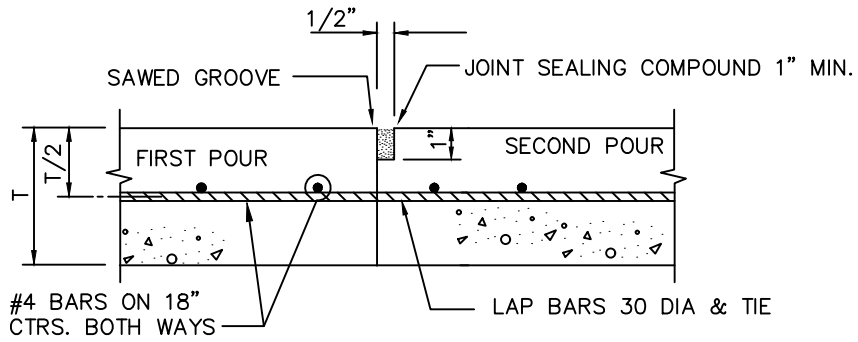
North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE  
303. PAGES 303-1 TO 303-23

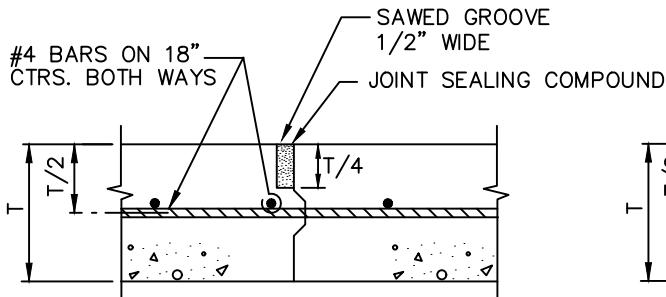
DATE  
TBD

STANDARD DRAWING NO.  
2040

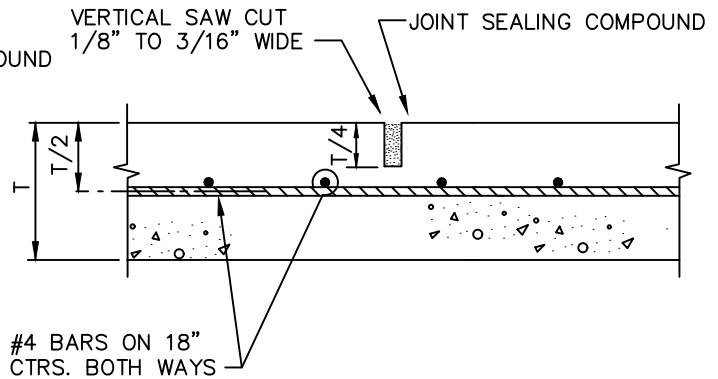


### CONSTRUCTION JOINT

N.T.S.



**KEYWAY JOINT**  
(FOR PAVEMENT THICKNESS > 6")  
N.T.S.

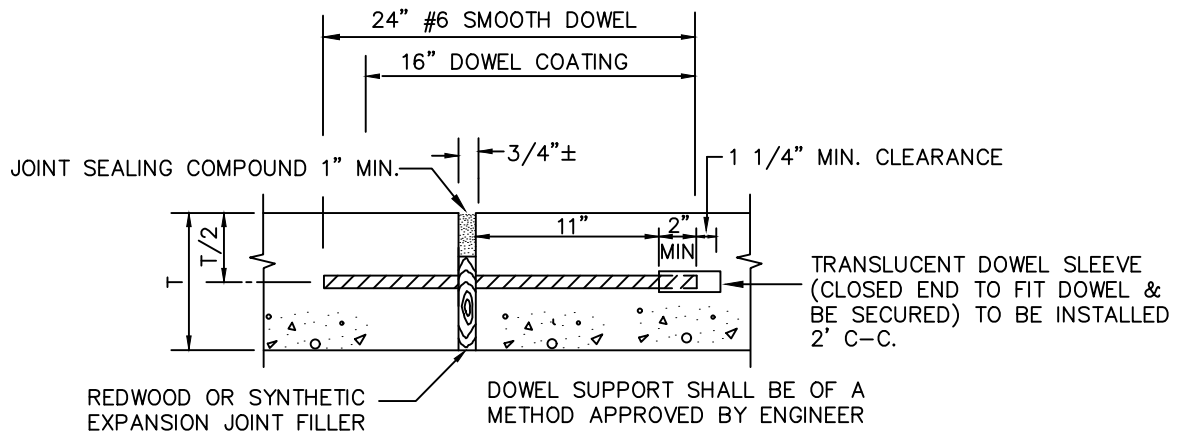


### SAWED CONTRACTION JOINT

N.T.S.

**NOTE:**

1. APPLY BACKER ROD AS APPROVED BY OWNER



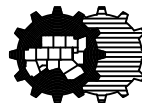
### EXPANSION JOINT

(SPACED 600 FT. MAXIMUM; LOCATE AT STRUCTURES AND AT INTERSECTION P.C.'S & P.T.'S)  
N.T.S.

REINFORCED CONCRETE PAVEMENT

JOINTS

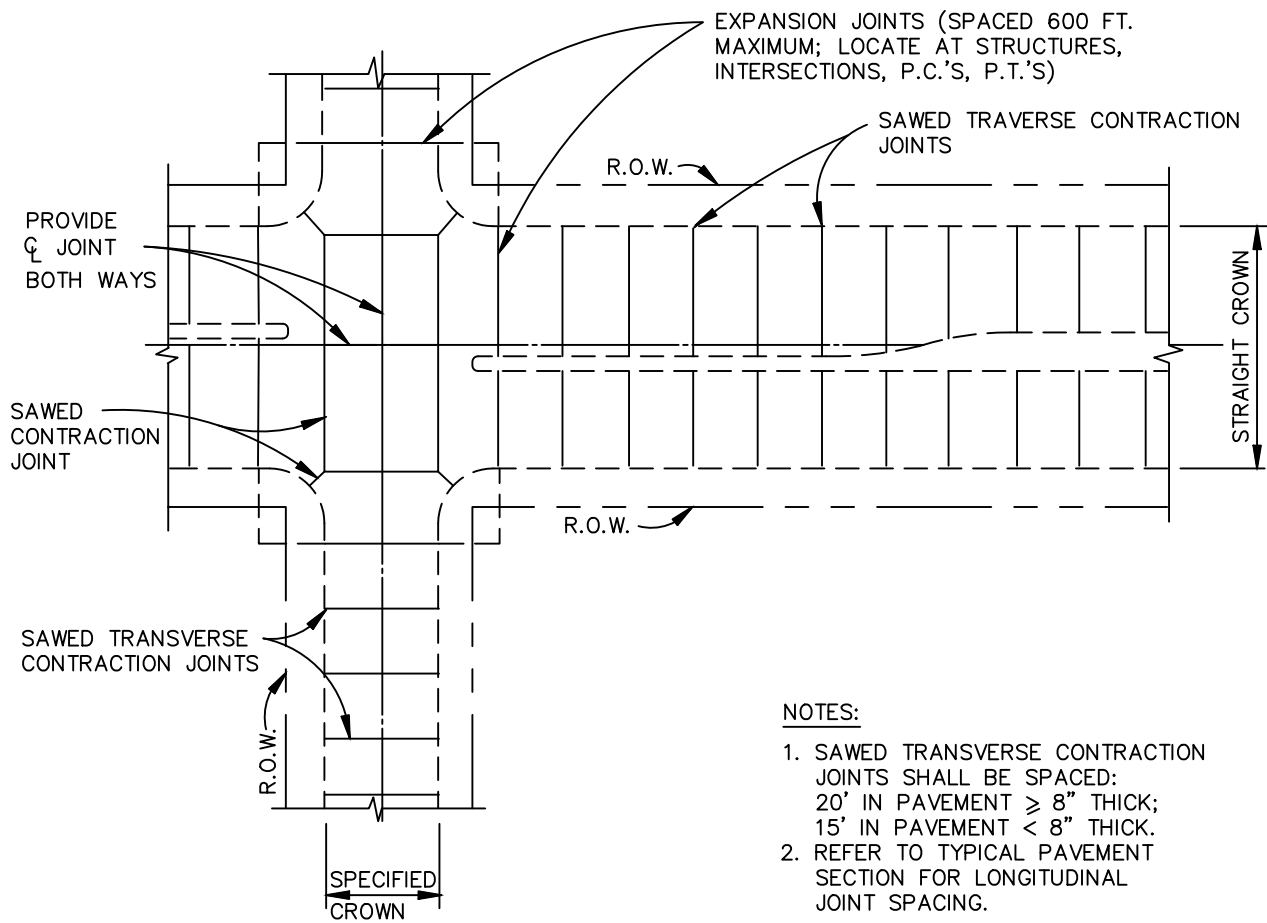
North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE  
303.5.4. PAGES 303-1 TO  
303-23

DATE  
TBD

STANDARD DRAWING NO.  
2050



**NOTES:**

1. SAWED TRANSVERSE CONTRACTION JOINTS SHALL BE SPACED:  
 20' IN PAVEMENT  $\geq$  8" THICK;  
 15' IN PAVEMENT < 8" THICK.
2. REFER TO TYPICAL PAVEMENT SECTION FOR LONGITUDINAL JOINT SPACING.

SPACING DIAGRAM FOR TRANSVERSE JOINTS

N.T.S.

REINFORCED CONCRETE PAVEMENT

TRANSVERSE JOINT SPACING

North Central Texas Council of Governments

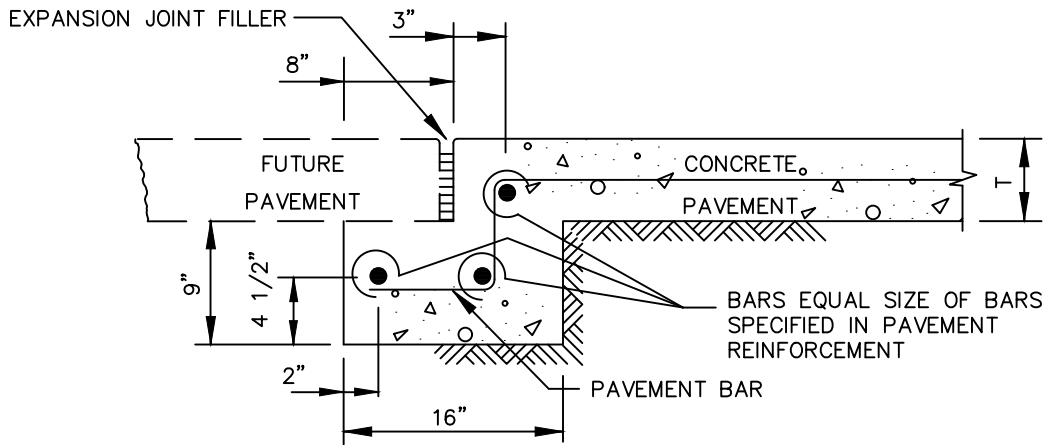


STANDARD SPECIFICATION REFERENCE  
 303.5.4. PAGES 303-1 TO  
 303-23

DATE  
 TBD

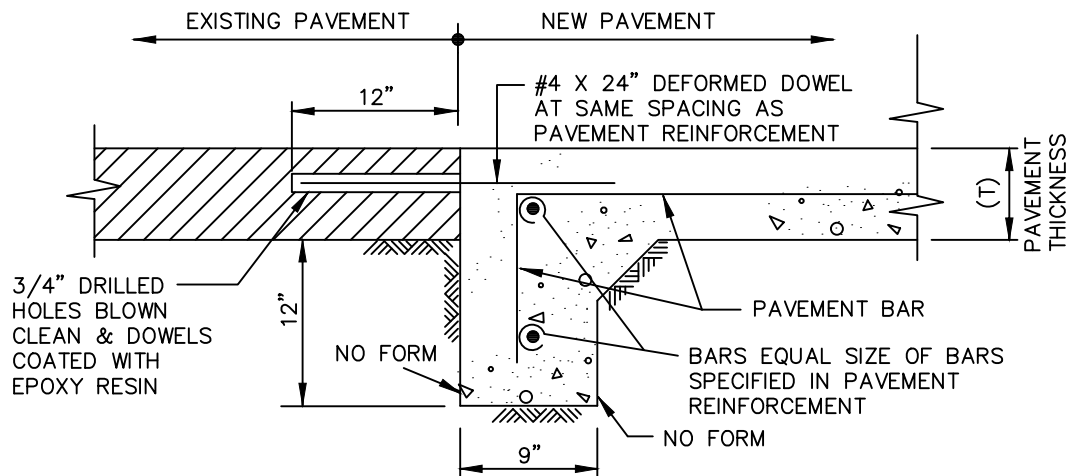
STANDARD DRAWING NO.  
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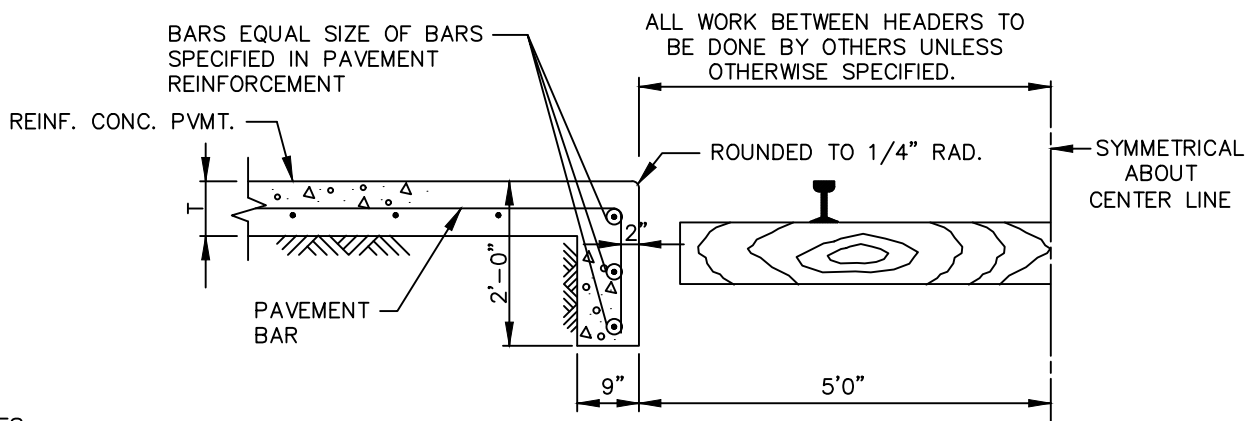
STREET HEADER FOR FUTURE PAVEMENT

N.T.S.



STREET HEADER AT EXISTING PAVEMENT

N.T.S.



STREET HEADER AT RAILROAD

N.T.S.

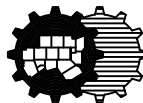
NOTES:

1. PAVEMENT BARS TO BE BENT DOWN INTO HEADER.

2. HEADER AND PAVEMENT TO BE MONOLITHIC.

REINFORCED CONCRETE PAVEMENT  
STREET HEADERS

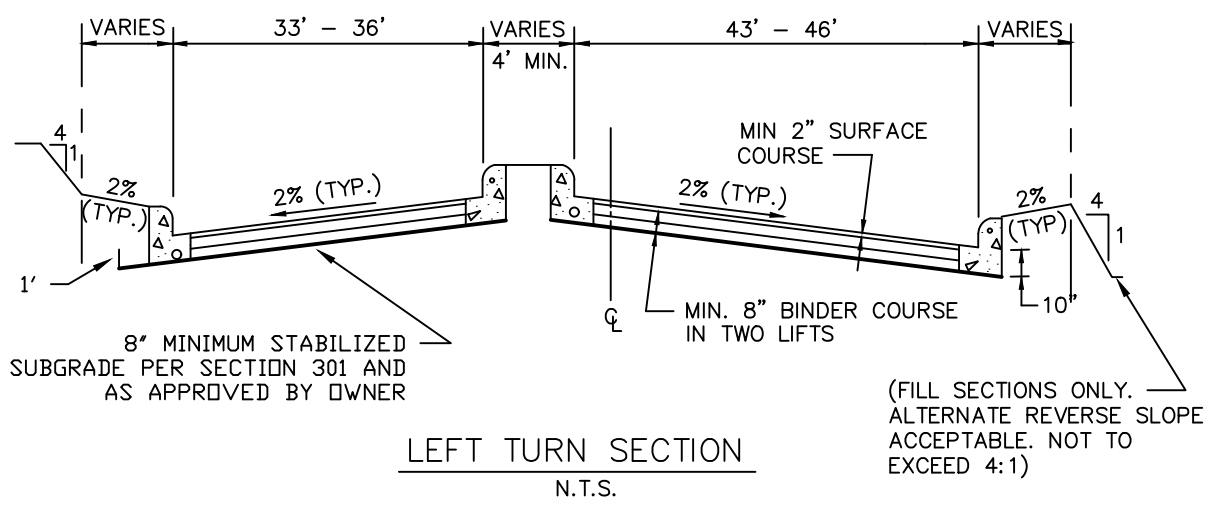
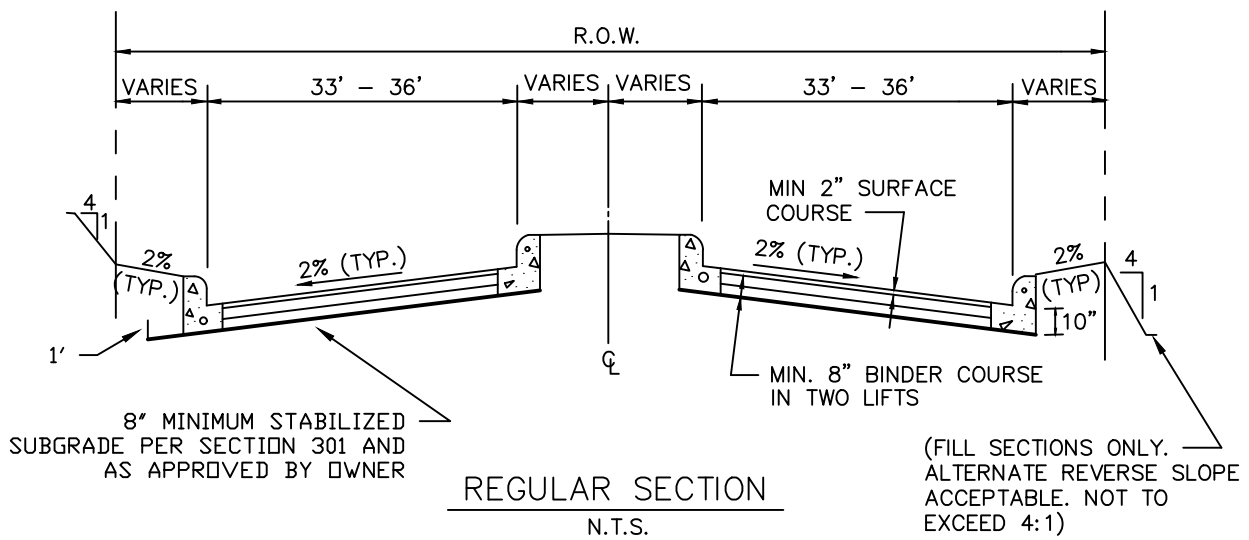
North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE  
303.5.4. PAGES 303-1 TO  
303-23

DATE  
TBD

STANDARD DRAWING NO.  
2070



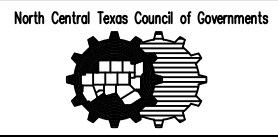
MIN. PAVEMENT DEPTH = 10" { 2" HMA SURFACE COURSE  
8" MIN. HMA BINDER COURSE

(SEE STANDARD DRAWING NO. 2010 FOR PLAN VIEW)

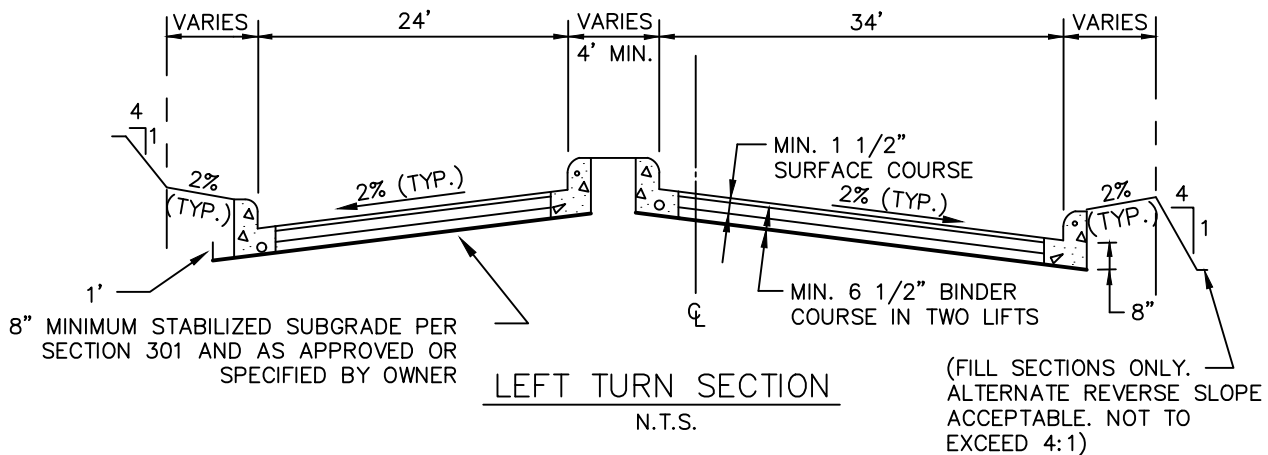
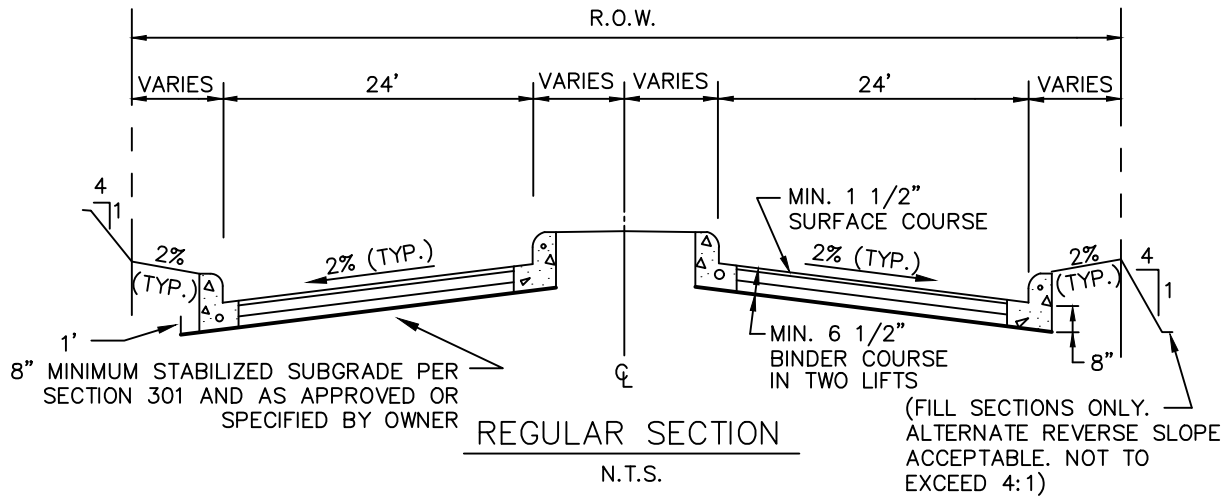
**NOTES:**

1. A SOIL INVESTIGATION FOR SUBGRADE DESIGN SHALL BE CONDUCTED BY THE ENGINEER AND THIS DESIGN SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.
2. WHERE FULL-DEPTH ASPHALT PAVEMENTS ARE BEING CONSIDERED FOR USE, THE ASPHALT PAVEMENT THICKNESS SHALL BE BASED UPON NECESSARY SUBGRADE ANALYSES AND PAVEMENT THICKNESS DESIGN DETERMINATIONS AS APPROVED BY THE OWNER.
3. MIN. CURB HEIGHT AND WIDTH SHALL BE 6", OR AS SPECIFIED BY OWNER.
4. TACK COAT BETWEEN COURSES AS REQUIRED.
5. SEE DETAIL 2170 FOR SIDEWALKS.

HOT MIX ASPHALT PAVEMENT  
SIX-LANE DIVIDED THOROUGHFARE



STANDARD SPECIFICATION REFERENCE	
302. PAGES 302-1 TO 302-25	
DATE	STANDARD DRAWING NO.
TBD	2080



MIN. PAVEMENT DEPTH = 8"  $\left\{ \begin{array}{l} 1 \frac{1}{2}" \text{ HMA SURFACE COURSE} \\ 2-3 \frac{1}{4}" \text{ HMA BINDER COURSES} \end{array} \right.$

(SEE STANDARD DRAWING NO. 2020 FOR PLAN VIEW)

**NOTES:**

1. A SOIL INVESTIGATION FOR SUBGRADE DESIGN SHALL BE CONDUCTED BY THE ENGINEER AND THIS DESIGN SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.
2. WHERE FULL-DEPTH ASPHALT PAVEMENTS ARE BEING CONSIDERED FOR USE, THE ASPHALT PAVEMENT THICKNESS SHALL BE BASED UPON NECESSARY SUBGRADE ANALYSES AND PAVEMENT THICKNESS DESIGN DETERMINATIONS AS APPROVED BY THE OWNER.
3. MIN. CURB HEIGHT AND WIDTH SHALL BE 6", OR AS SPECIFIED BY OWNER.
4. TACK COAT BETWEEN COURSES AS REQUIRED.
5. SEE DETAIL 2170 FOR SIDEWALKS.

HOT MIX ASPHALT PAVEMENT  
FOUR-LANE DIVIDED THOROUGHFARE

North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE

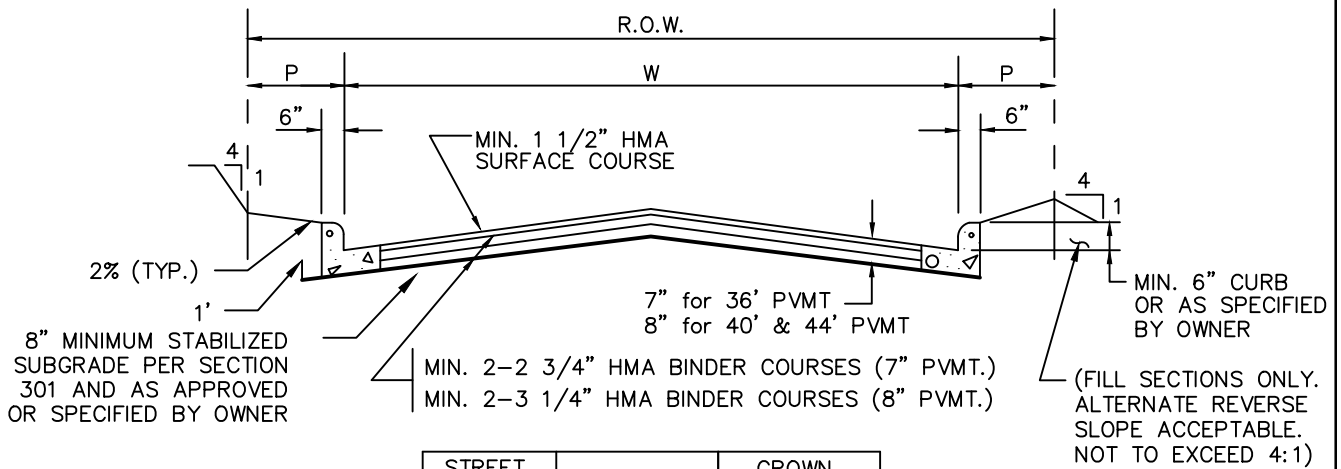
302. PAGES 302-1 TO 302-25

DATE

STANDARD DRAWING NO.

TBD

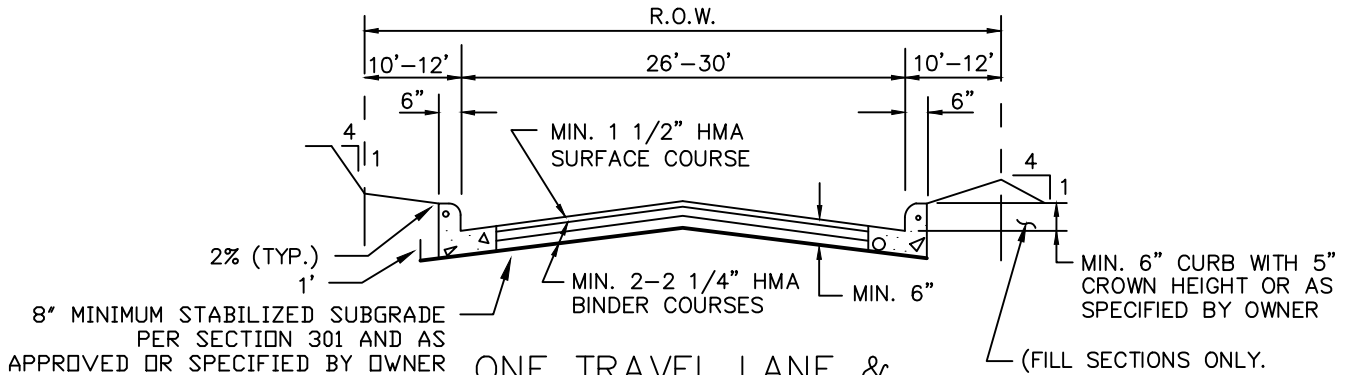
2090



STREET WIDTH(W)	P	CROWN HEIGHT
36'	VARIES	6"
40'	VARIES	6"
44'	VARIES	8"

FOUR TRAVEL LANES OR  
TWO TRAVEL LANES &  
TWO PARKING LANES

N.T.S.



ONE TRAVEL LANE &  
TWO PARKING LANES

N.T.S.

NOTES:

1. A SOIL INVESTIGATION FOR SUBGRADE DESIGN SHALL BE CONDUCTED BY THE ENGINEER THIS DESIGN SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.
2. WHERE FULL-DEPTH ASPHALT PAVEMENTS ARE BEING CONSIDERED FOR USE, THE ASPHALT PAVEMENT THICKNESS SHALL BE BASED UPON NECESSARY SUBGRADE ANALYSES AND PAVEMENT THICKNESS DESIGN DETERMINATIONS AS APPROVED BY THE OWNER. THICKNESSES SHOWN ARE TYPICAL.
3. TACK COAT BETWEEN COARSE AS REQUIRED.
4. STRAIGHT CROWN OR PARABOLIC CROWN AS APPROVED BY OWNER.
5. SEE DETAIL 2170 FOR SIDEWALKS.

HOT MIX ASPHALT PAVEMENT

2- & 4-LANE UNDIVIDED THOROUGHFARE

North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE

302. PAGES 302-1 TO 302-25

DATE

TBD

STANDARD DRAWING NO.

2100

GENERAL NOTES:

1. REINFORCED CONCRETE PAVEMENT:
  - A. ALL CURBS SHALL BE PLACED INTEGRAL WITH PAVEMENT UNLESS OTHERWISE APPROVED BY THE OWNER.
  - B. CURBS SHALL MEET THE SAME COMPRESSIVE STRENGTH AS SPECIFIED FOR THE PAVEMENT.
  - C. BAR LAPS SHALL BE 30 DIAMETERS.
  - D. REINFORCING BARS SHALL BE SUPPORTED BY CHAIRS OR OTHER DEVICES APPROVED BY THE OWNER.
  
2. SUBGRADE: (UNLESS OTHERWISE SPECIFIED BY OWNER)
  - A. SUBGRADE UNDER ALL PAVEMENTS SHALL BE STABILIZED TO MINIMUM DEPTH OF 6". IF THE P.I. IS 15 OR GREATER, LIME SHALL BE USED, IF THE P.I. IS LESS THAN 15, CEMENT SHALL BE USED OR AS RECOMMENDED BY A GEOTECH ENGINEER. LABORATORY TESTS MUST BE PERFORMED TO DETERMINE THE AMOUNT OF CEMENT REQUIRED TO LOWER THE P.I. TO 15 OR BELOW SATURATION P.I. ( $PH \geq 12.4$ ) WILL BE THE LIMIT WHEN A SOIL'S P.I. CANNOT BE BROUGHT TO 15 OR LOWER.
  - B. WHERE THE IN PLACE MATERIAL HAS A P.I. OF LESS THAN 15, THE SUBGRADE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 6" AND RECOMPACTED.
  - C. WHERE SULFATES ARE PRESENT, CONSULT A GEOTECHNICAL ENGINEER FOR RECOMMEND SUBGRADE TREATMENT.
  
3. IF THE ROADWAY IS A DESIGNATED BIKE ROUTE OR BIKE USAGE IS ANTICIPATED, REFER TO AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES (2012, 4TH EDITION) OR THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD):

PAVEMENT SYSTEMS

GENERAL NOTES

North Central Texas Council of Governments



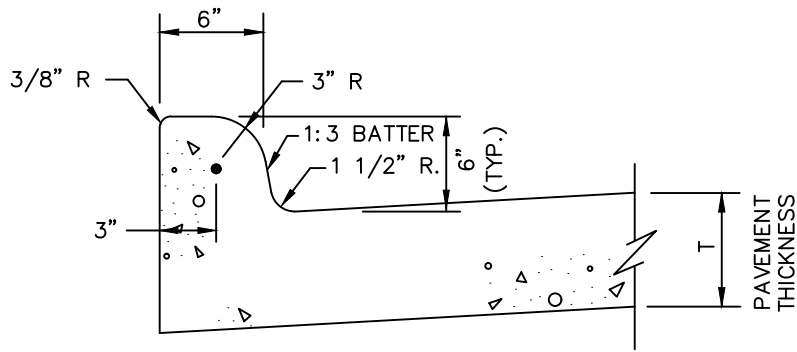
STANDARD SPECIFICATION REFERENCE  
302. PAGES 302-1 TO 302-25  
303. PAGES 303-1 303-23

DATE

TBD

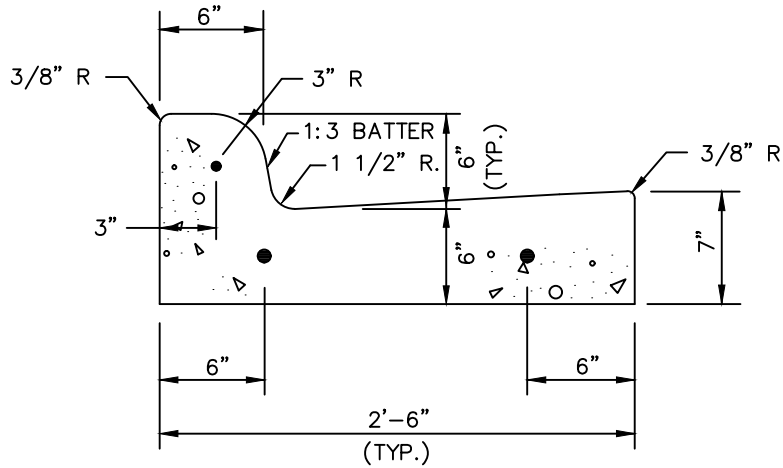
STANDARD DRAWING NO.

2110



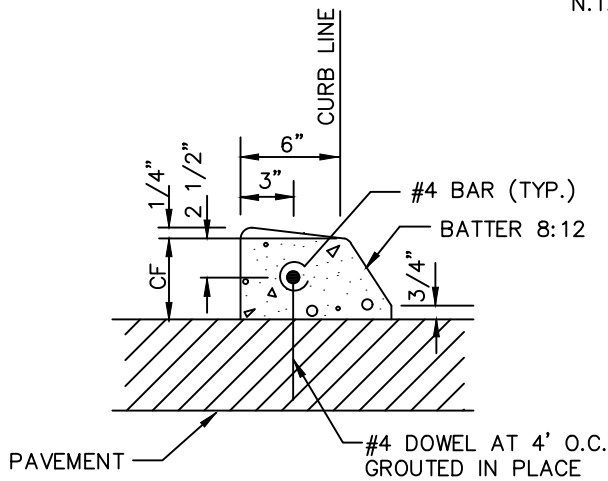
**INTEGRAL CURB & GUTTER**

N.T.S.



**SEPARATE CURB & GUTTER**

N.T.S.



**DOWELED CURB**

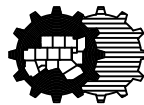
N.T.S.

**NOTES:**

1. REINFORCEMENT SHALL BE NO. 4 BARS, UNLESS OTHERWISE SPECIFIED.
2. CONCRETE SHALL BE CLASS "C" OR "PC".
3. "CF" IS 6" UNLESS OTHERWISE SPECIFIED.
4. ALL CURBS ARE CONSTRUCTED OF PORTLAND CEMENT CONCRETE UNLESS OTHERWISE SHOWN.
5. GRADE SHALL BE MEASURED AT BACK OF CURB.

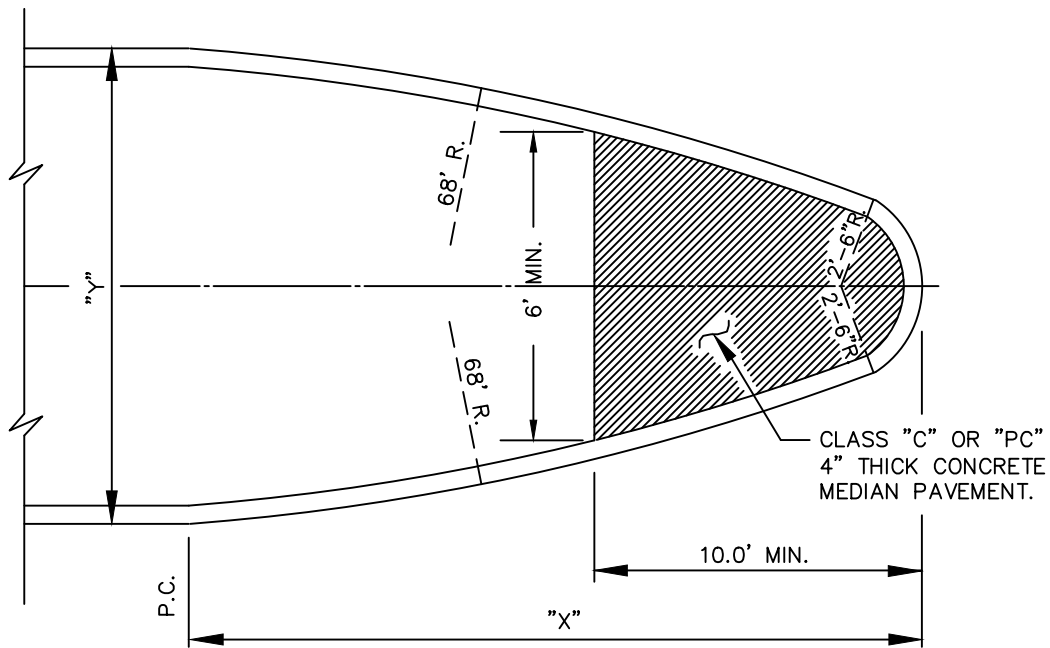
CONCRETE CURB & GUTTER  
INTEGRAL, SEPARATE, & DOWELED

North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE  
305.1. PAGES 305-1 TO 305-4

DATE OCT. '04	STANDARD DRAWING NO. 2120
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DIMENSIONS OF MEDIAN NOSE

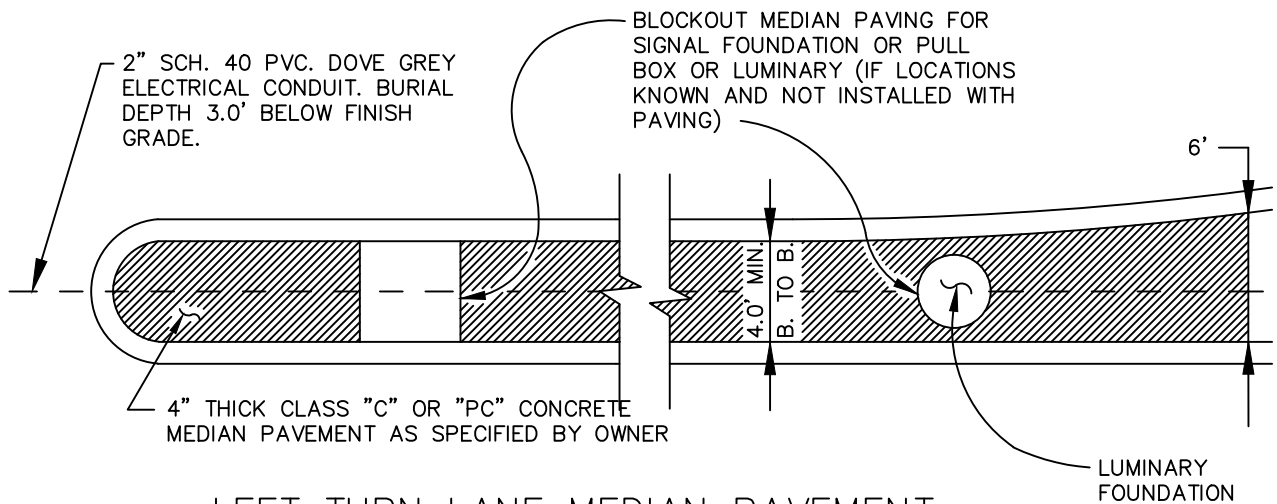
Y = 15'	X = 27.6'
Y = 16'	X = 28.8'
Y = 17'	X = 29.9'
Y = 18'	X = 30.9'

CONCRETE NOSE FOR MEDIAN ISLAND

N.T.S.

NOTE:

MEDIAN PAVING SHALL EXTEND TO POINT WHERE MEDIAN IS 6' WIDE. IF MEDIAN IS 6' WIDE, PAVING SHALL EXTEND 15' FROM NOSE. FOR MEDIANS WIDER THAN 6' PAVING SHALL EXTEND 10' FROM NOSE. ALL DISTANCES ARE MINIMUM.

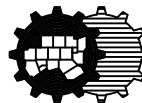


LEFT TURN LANE MEDIAN PAVEMENT

N.T.S.

MEDIAN ISLAND PAVEMENT  
NOSE & LEFT TURN LANE

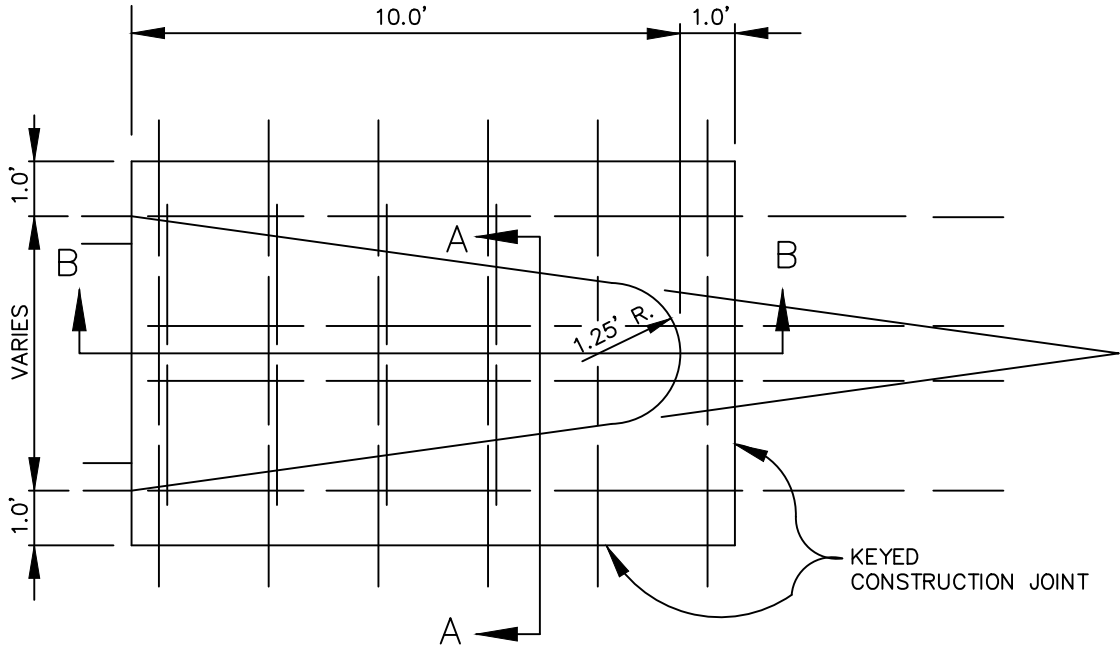
North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE  
305.3. PAGES 305-1 TO 305-4

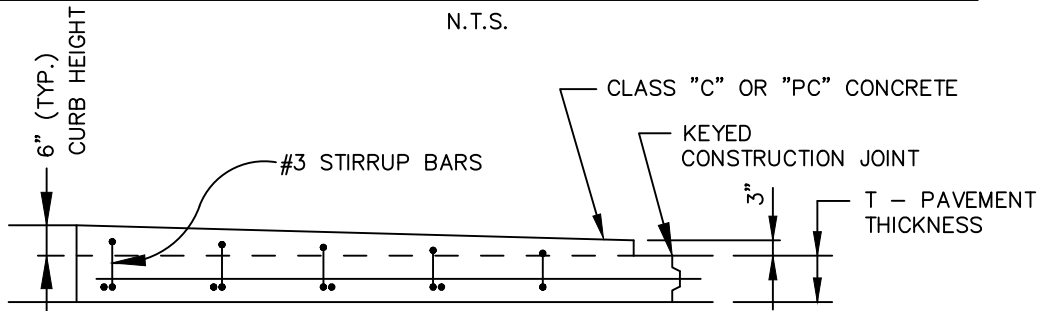
DATE  
TBD

STANDARD DRAWING NO.  
2130



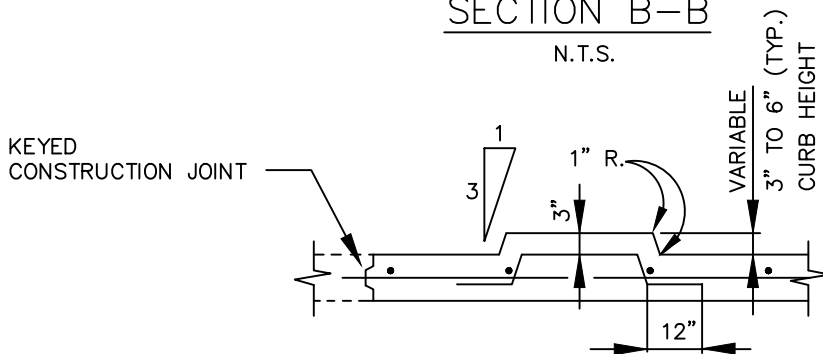
LOW PROFILE MONOLITHIC CONCRETE MEDIAN NOSE

N.T.S.



SECTION B-B

N.T.S.



SECTION A-A

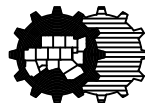
N.T.S.

NOTE:

REINFORCEMENT BARS SHALL MATCH THOSE IN PAVEMENT AS SPECIFIED BY OWNER.

MEDIAN ISLAND PAVEMENT  
MONOLITHIC CONCRETE NOSE

North Central Texas Council of Governments

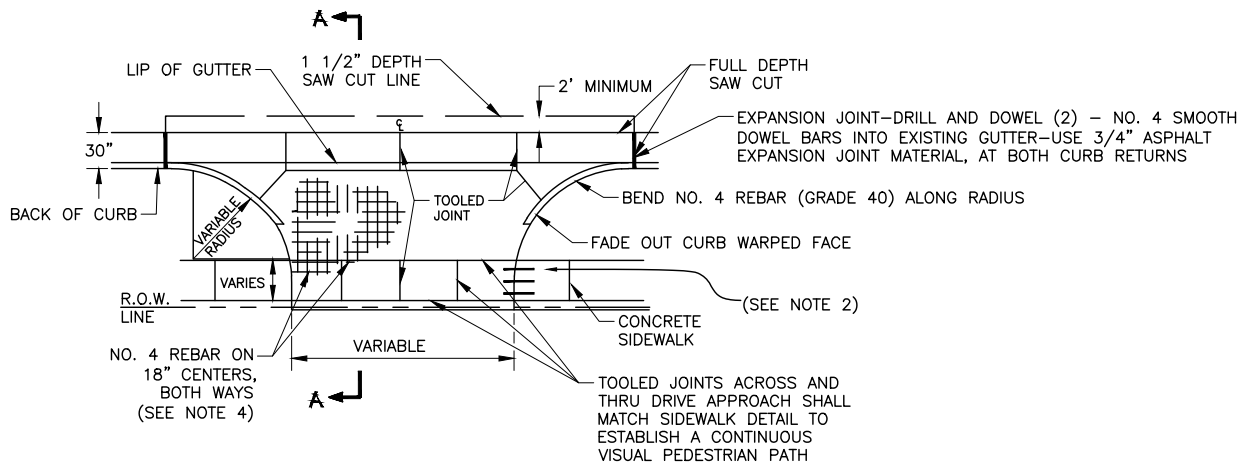


STANDARD SPECIFICATION REFERENCE  
305.3. PAGES 305-1 TO 305-4

DATE  
OCT. '04

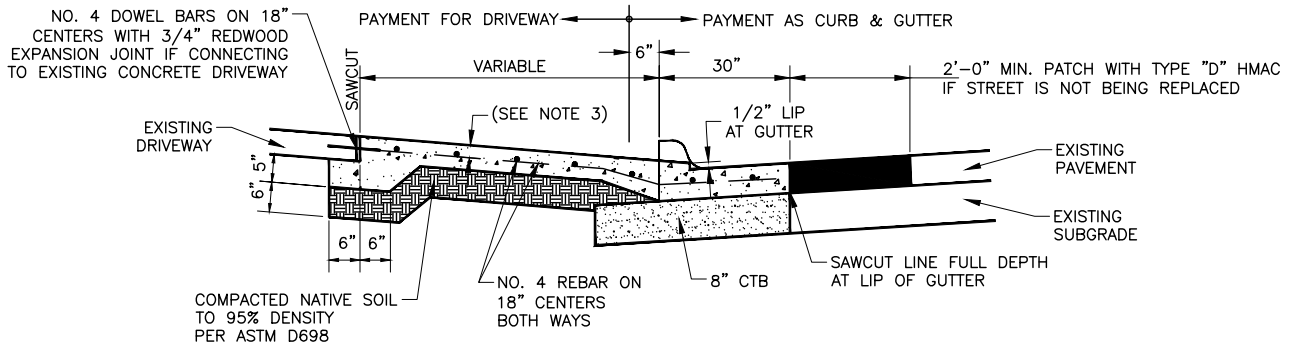
STANDARD DRAWING NO.  
2140





TYPICAL DRIVE APPROACH CONNECTING  
TO ASPHALT STREETS WITH  
CURB AND GUTTER

N.T.S.



SECTION 'A-A'  
N.T.S.

NOTES:

- THE SLOPE OF THE DRIVE WHERE SIDEWALKS CROSS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2%.
- REMOVE ANY EXISTING SIDEWALK AT NEAREST JOINT AND CONNECT REPLACED SECTION TO DRIVE WITH (3) - NO. 4 SMOOTH DOWEL BARS ON 18" CENTERS WITH 3/4" REDWOOD EXPANSION JOINT, WITH 1" REMOVABLE CAP STRIP. SEAL WITH SELF LEVELING GRAY SILICONE SEALANT.
- |             | SLOPE (MAX)* | SLAB THICKNESS |
|-------------|--------------|----------------|
| RESIDENTIAL | 6%           | 5"             |
| ALL OTHERS  | 3%           | 6"             |
- ALL CONNECTIONS TO STATE RIGHT-OF-WAY SHALL USE TXDOT DETAILS.
- FOR CITY CAPITAL IMPROVEMENT PROJECTS, MEASUREMENT FOR DRIVEWAY QUANTITY BEGINS 6" FROM BACK OF CURB. MEASUREMENT OF CURB & GUTTER QUANTITY IS THROUGH THE DRIVE APPROACH.
- ALL CURB AND GUTTER SHALL BE 30" UNLESS OTHERWISE DIRECTED BY THE CITY.
- CONCRETE SHALL BE CLASS C, 5 1/2 SACK AND HAVE COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS.
- IF STREET IS BEING REPLACED, PAVEMENT THICKNESS SHALL BE 6" FOR RESIDENTIAL AND 8" FOR COLLECTOR OR LARGER.

(ALSO SEE THE DESIGN CRITERIA MANUAL FOR OTHER SPECIFIC CRITERIA.)

RESIDENTIAL DRIVE APPROACH CONNECTING TO  
ASPHALT STREETS WITH CURB AND GUTTER

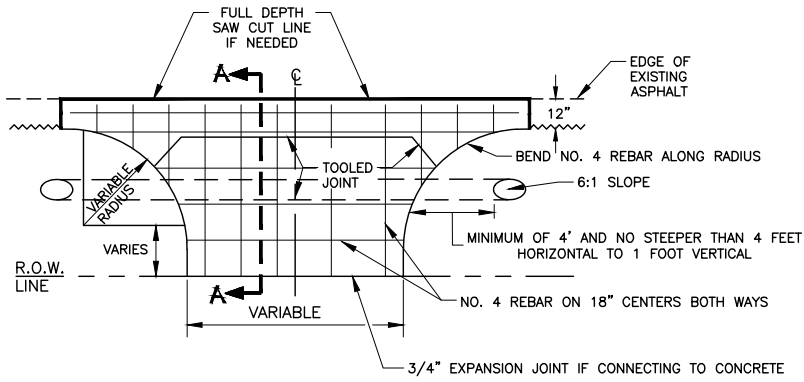
North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE  
305.2. PAGES 305-1 to 305-4

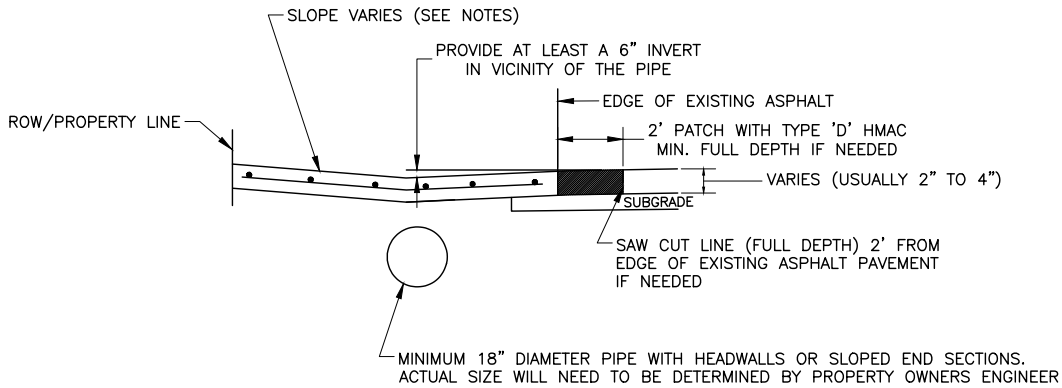
DATE  
TBD

STANDARD DRAWING NO.  
2150A



TYPICAL DRIVE APPROACH CONNECTING  
TO EXISTING RURAL TYPE  
ASPHALT STREETS

N.T.S.



SECTION A-A  
N.T.S.

NOTES:

- |   |                    |                      |                      |            |    |    |  |
|---|--------------------|----------------------|----------------------|------------|----|----|--|
| <p>1. THE SLOPE OF THE DRIVE WHERE SIDEWALKS CROSS SHALL HAVE A MAXIMUM GROSS SLOPE OF 2%.</p> <p>2.</p> <table border="0"> <tr> <td style="padding-right: 20px;">RESIDENTIAL</td> <td style="padding-right: 20px;">SLOPE (MAX)*<br/>6%</td> <td>SLAB THICKNESS<br/>5"</td> </tr> <tr> <td>ALL OTHERS</td> <td>3%</td> <td>6"</td> </tr> </table> <p>* MAXIMUM SLOPE DESIGNATED FOR NEW DEVELOPMENT CONSTRUCTION ONLY AND DOES NOT APPLY TO CAPITAL IMPROVEMENT RECONSTRUCTION OR REBUILD PROJECTS.</p> <p>(ALSO SEE THE DESIGN CRITERIA MANUAL FOR OTHER SPECIFIC CRITERIA.)</p> | RESIDENTIAL        | SLOPE (MAX)*<br>6%   | SLAB THICKNESS<br>5" | ALL OTHERS | 3% | 6" | <p>3. ALL CONNECTIONS TO STATE RIGHT-OF-WAY SHALL USE TXDOT DETAILS.</p> <p>4. CONCRETE SHALL BE CLASS C, 5 1/2 SACK AND HAVE COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS.</p> <p>5. MINIMUM VELOCITY THROUGH PIPE IS 2.5fps. MINIMUM SLOPE IN PIPE IS 0.5% UNLESS OTHERWISE DESIGNED TO MEET MINIMUM SLOPE REQUIREMENTS.</p> <p>6. IN SOME CASES A SWALE MAY BE PROVIDED IN LIEU OF THE PIPE. THE PROPERTY OWNER AND OWNER'S ENGINEER WILL NEED TO DETERMINE IF A SWALE CAN BE USED IN LIEU OF A PIPE.</p> |
| RESIDENTIAL   | SLOPE (MAX)*<br>6% | SLAB THICKNESS<br>5" |                      |            |    |    |  |
| ALL OTHERS  | 3%                 | 6"                   |                      |            |    |    |  |

RESIDENTIAL DRIVE APPROACH CONNECTING  
TO EXISTING RURAL TYPE ASPHALT STREET

North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE

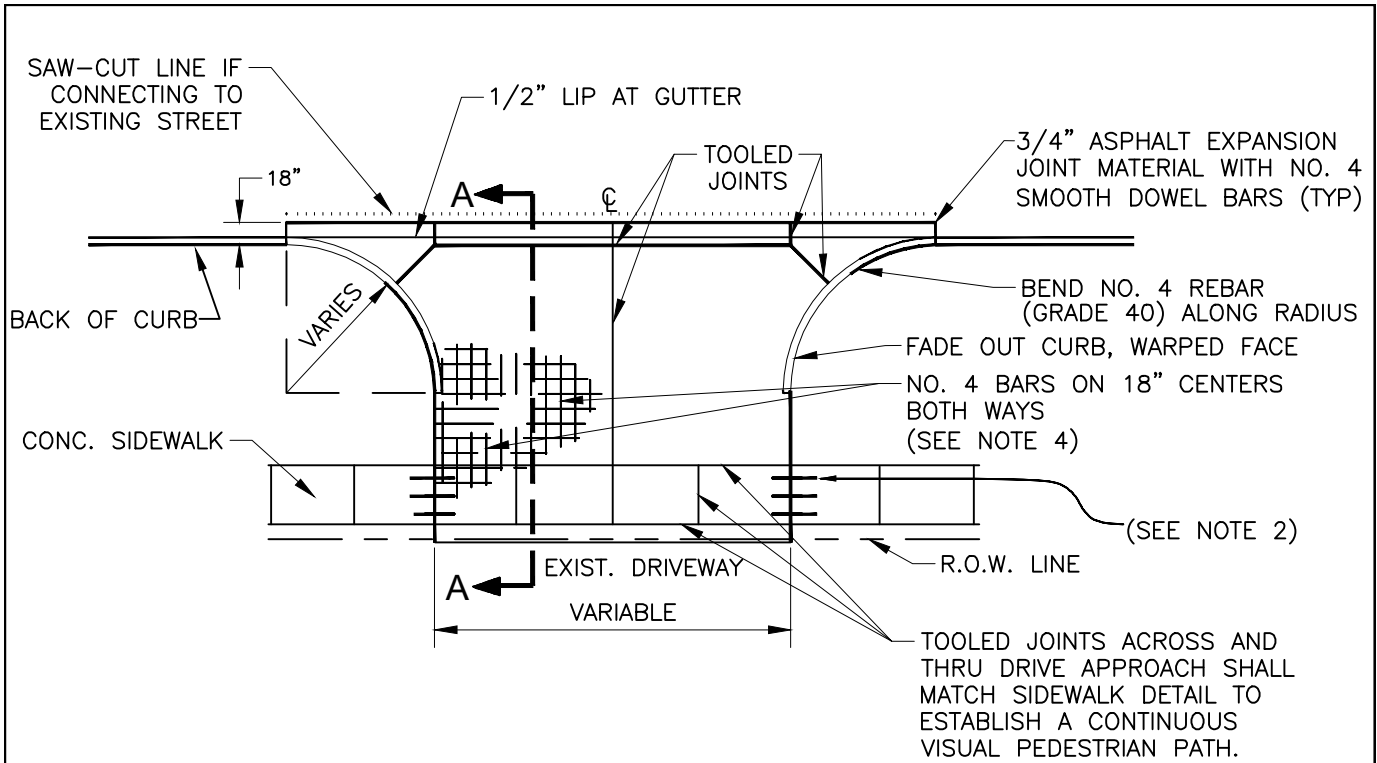
305.2. PAGES 305-1 TO 305-4

DATE

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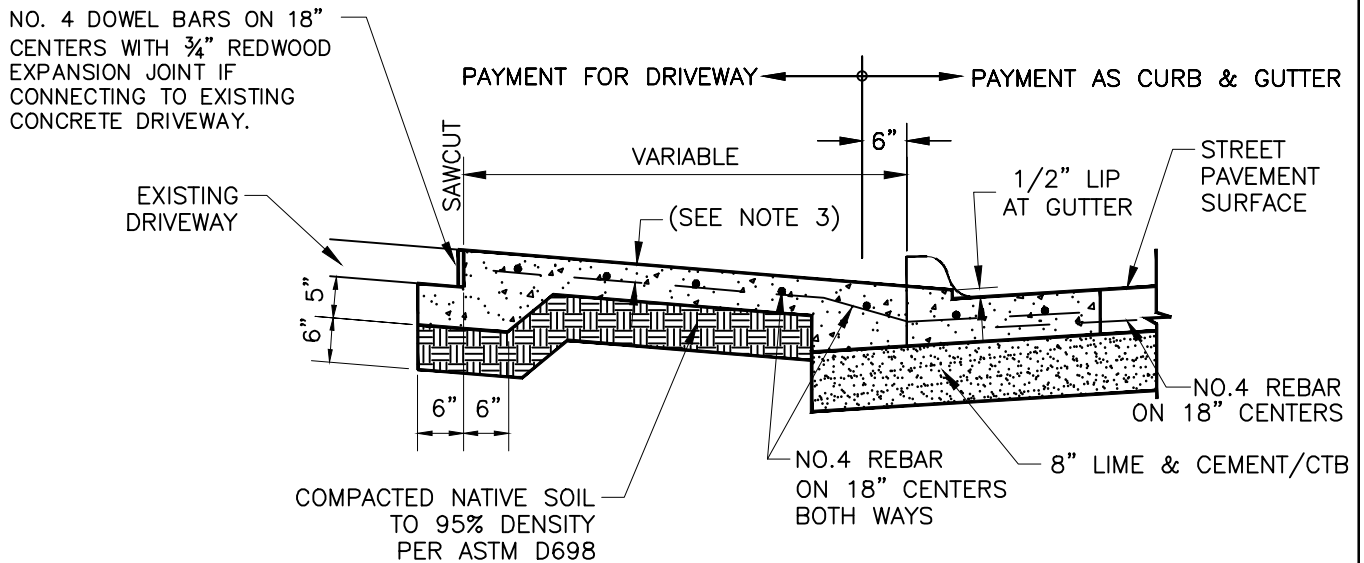
STANDARD DRAWING NO.

2150B



### TYPICAL DRIVE APPROACH ON A CONCRETE STREET

N.T.S.



### SECTION 'A-A'

N.T.S.

RESIDENTIAL DRIVE APPROACH  
ON A CONCRETE STREET

North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE

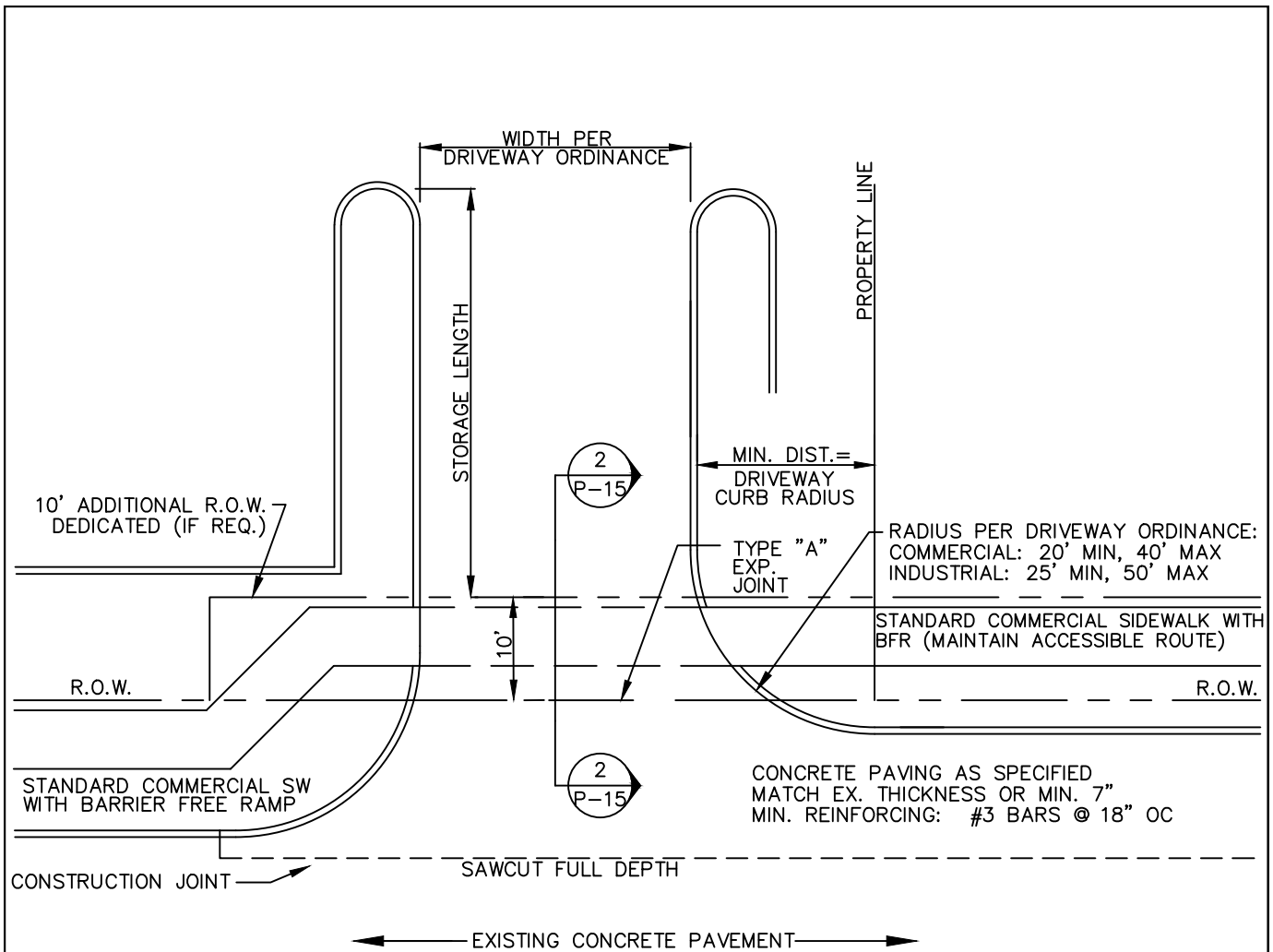
305.2. PAGES 305-1 TO 305-4

DATE

TBD

STANDARD DRAWING NO.

2150C



STORAGE LENGTH				
TOTAL PARKING SPACES PROVIDED	MF/COMMERICAL LAND USE		INDUSTRIAL LAND USE	
	AT NON-MEDIAN OPENING (FT)	AT NON-MEDIAN OPENING (FT)	AT NON-MEDIAN OPENING (FT)	AT NON-MEDIAN OPENING (FT)
LESS THAN 25	15	15	15	33
26 to 50	15	33	15	33
51 to 100	33	33	33	33
101 to 200	33	75	33	55
MORE THAN 200	75	75	55	75

NOTES:

1. FOR CONSTRUCTION JOINT DETAILS, SEE P-11. FOR EXPANSION JOINT DETAILS, SEE P-12.
2. STORAGE LENGTHS SHALL BE AS SHOWN OR IN ACCORDANCE WITH THE LATEST VERSION OF CHAPTER 53 OF THE CARROLLTON CODE OF ORDINANCES.
3. SIDEWALK SHALL BE AT A 2% CROSS SLOPE ACROSS THE DRIVEWAY.

COMMERCIAL DRIVE APPROACH

North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE

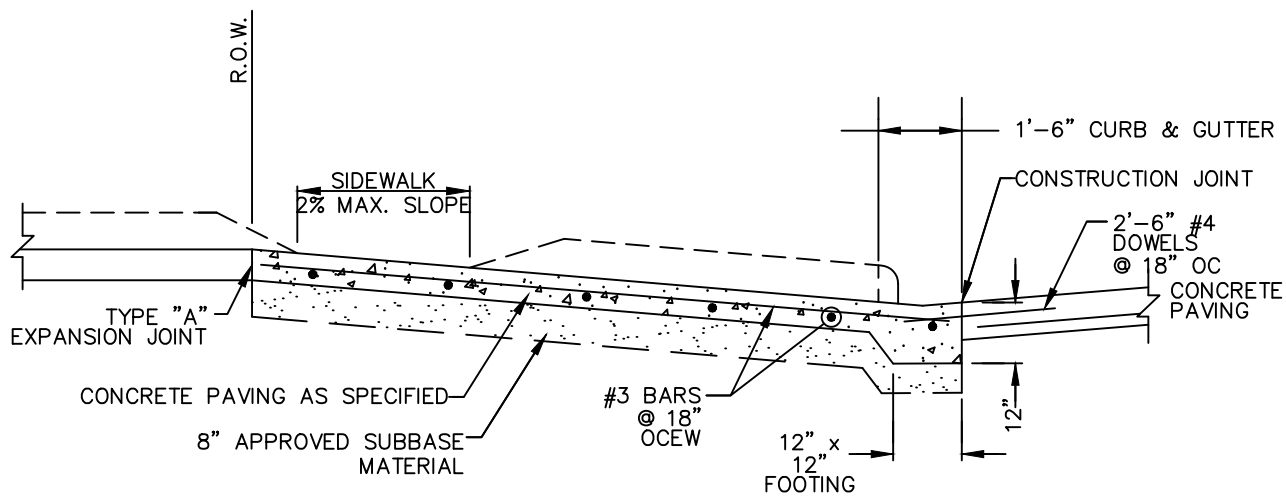
305.2. PAGES 305-1 TO 305-4

DATE

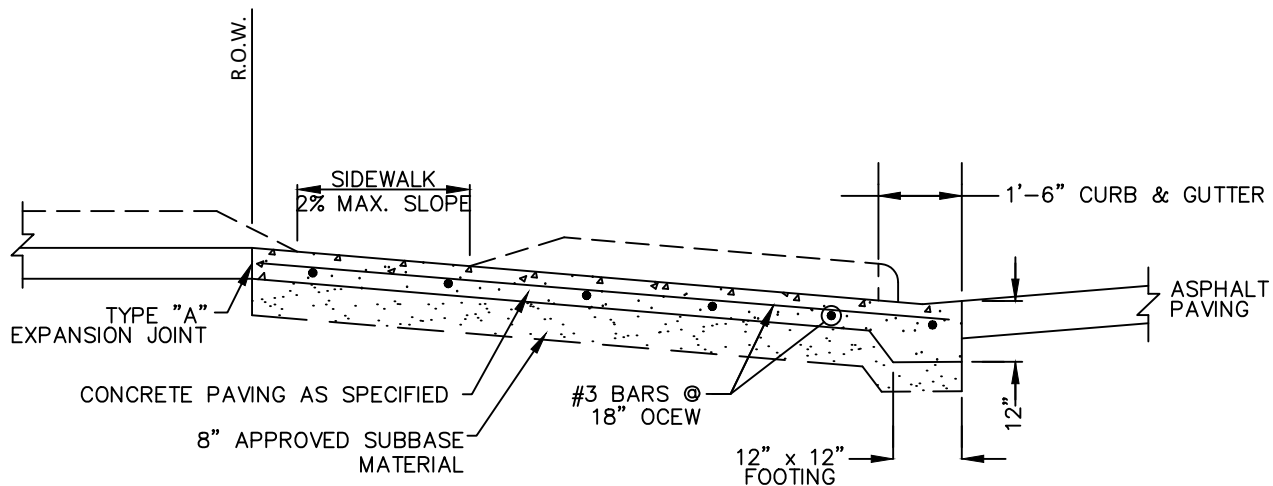
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STANDARD DRAWING NO.

2155A



COMMERCIAL APPROACH (CONCRETE PAVING)



COMMERCIAL APPROACH (ASPHALT PAVING)

NOTE:

SEE P-18 FOR BARRIER FREE RAMP DETAIL.

COMMERCIAL DRIVE APPROACH  
CROSS SECTIONS

North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE

305.2. PAGES 305-1 TO 305-4

DATE

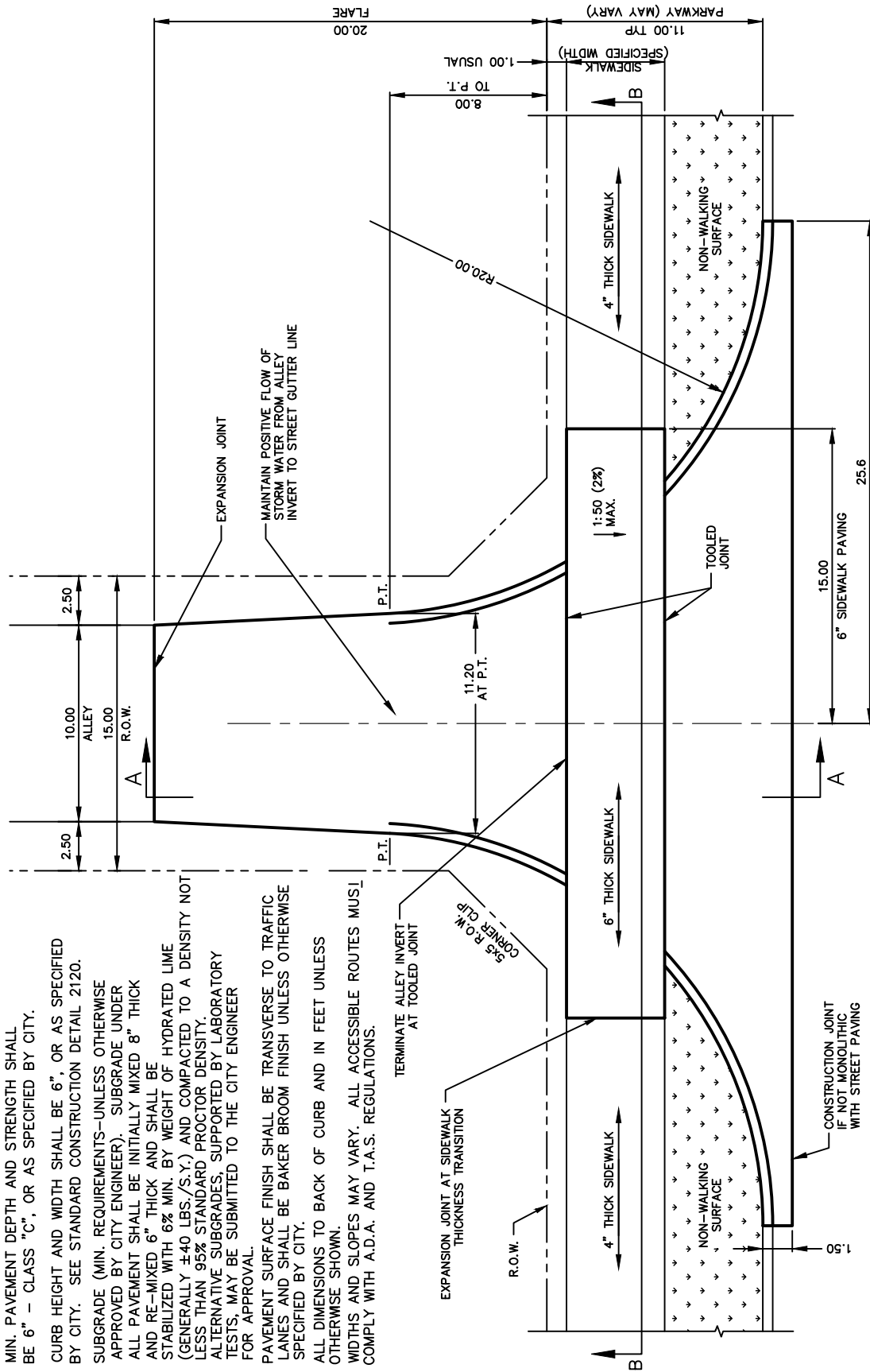
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STANDARD DRAWING NO.

2155B

**NOTES:**

1. MIN. PAVEMENT DEPTH AND STRENGTH SHALL BE 6" - CLASS "C", OR AS SPECIFIED BY CITY.
2. CURB HEIGHT AND WIDTH SHALL BE 6", OR AS SPECIFIED BY CITY. SEE STANDARD CONSTRUCTION DETAIL 2120.
3. SUBGRADE (MIN. REQUIREMENTS-UNLESS OTHERWISE APPROVED BY CITY ENGINEER). SUBGRADE UNDER ALL PAVEMENT SHALL BE INITIALLY MIXED 8" THICK AND RE-MIXED 6" THICK AND SHALL BE STABILIZED WITH 6% MIN. BY WEIGHT OF HYDRATED LIME (GENERALLY 4-40 LBS./S.Y.) AND COMPACTED TO A DENSITY NOT LESS THAN 95% STANDARD PROCTOR DENSITY. ALTERNATIVE SUBGRADES, SUPPORTED BY LABORATORY TESTS, MAY BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
4. PAVEMENT SURFACE FINISH SHALL BE TRANSVERSE TO TRAFFIC LANES AND SHALL BE BAKER BROOM FINISH UNLESS OTHERWISE SPECIFIED BY CITY.
5. ALL DIMENSIONS TO BACK OF CURB AND IN FEET UNLESS OTHERWISE SHOWN.
6. WIDTHS AND SLOPES MAY VARY. ALL ACCESSIBLE ROUTES MUST COMPLY WITH A.D.A. AND T.A.S. REGULATIONS.

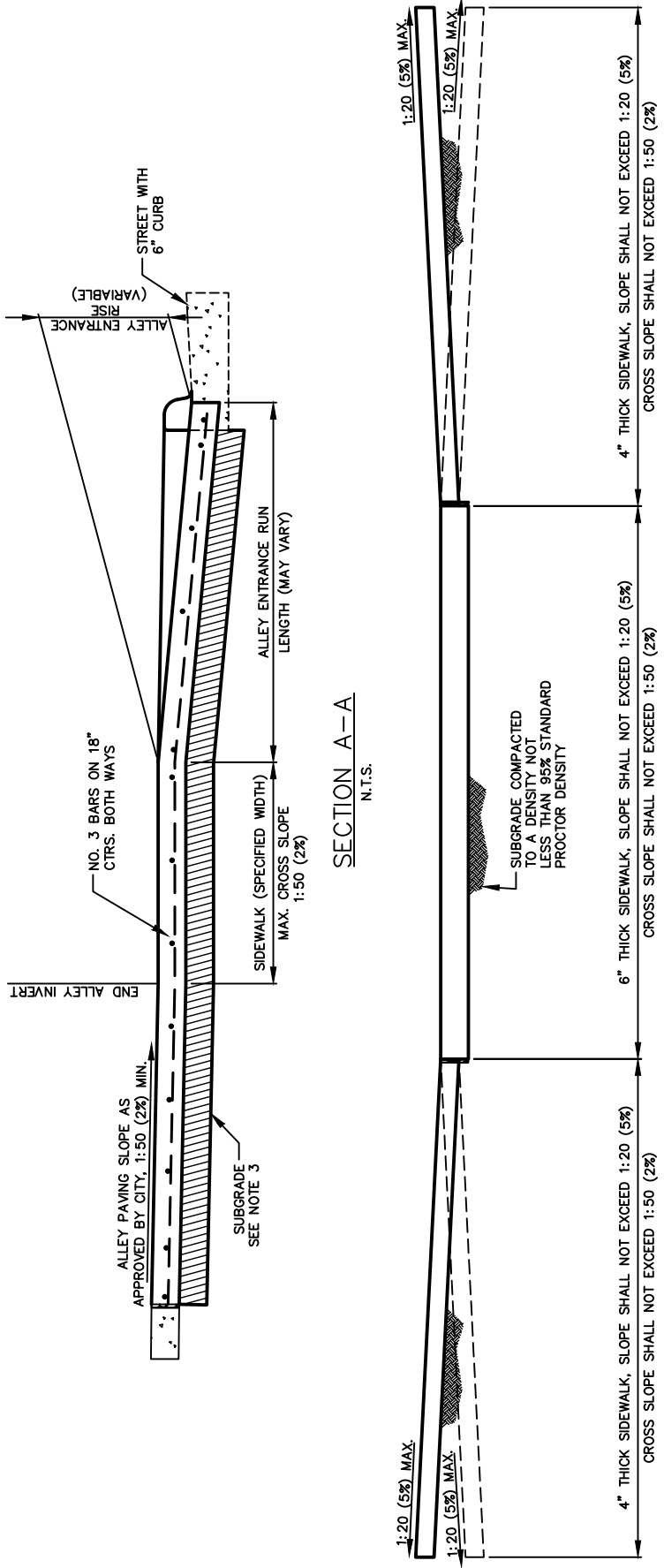


STANDARD DRAWING NO.  
2160A

ALLEY APPROACH  
RADIUS RETURN TYPE




North Central Texas Council of Governments  
STANDARD SPECIFICATION REFERENCE  
305.2 PAGES 305-1 TO 305-4  
DATE  
TBD  
STANDARD DRAWING NO.  
2160A

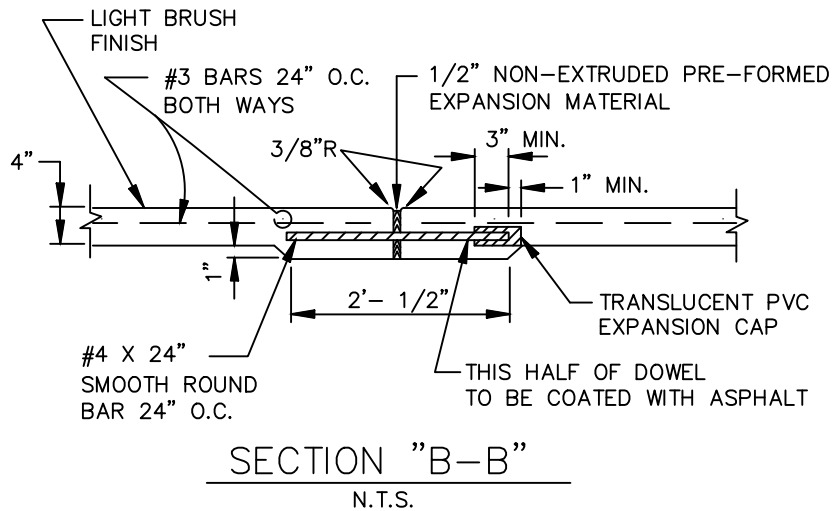
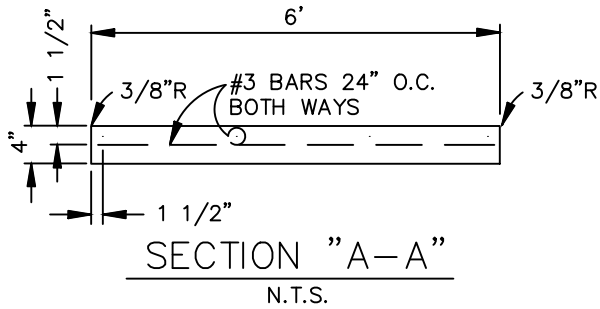
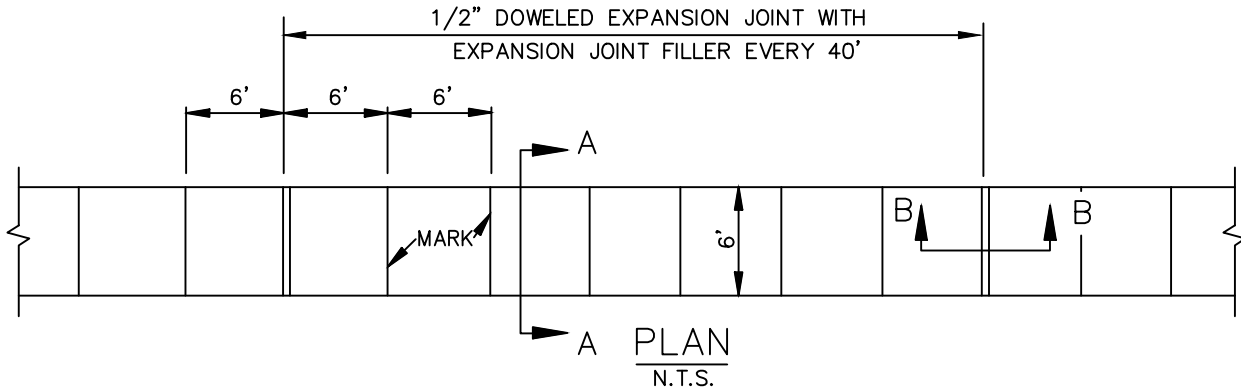


SECTION A-A  
N.T.S.

SECTION B-B  
N.T.S.

- NOTES:** 1. MIN. PAVEMENT DEPTH AND STRENGTH SHALL BE 6" - CLASS "C", OR AS SPECIFIED BY CITY.
2. CURB HEIGHT AND WIDTH SHALL BE 6", OR AS SPECIFIED BY CITY. SEE STANDARD CONSTRUCTION DETAIL 2120.
3. SUBGRADE (MIN. REQUIREMENTS-UNLESS OTHERWISE APPROVED BY CITY ENGINEER). SUBGRADE UNDER ALL PAVEMENT SHALL BE INITIALLY MIXED 8" THICK AND RE-MIXED 6" THICK AND SHALL BE STABILIZED WITH 6% MIN. BY WEIGHT OF HYDRATED LIME (GENERALLY ±40 LBS./S.Y.) AND COMPACTED TO A DENSITY NOT LESS THAN 95% STANDARD PROCTOR DENSITY. ALTERNATIVE SUBGRADES, SUPPORTED BY LABORATORY TESTS, MAY BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

 North Central Texas Council of Governments		STANDARD SPECIFICATION REFERENCE 305.2. PAGES 305-1 TO 305-4
ALLEY APPROACH	DATE TBD	STANDARD DRAWING NO. 2160B
RADIUS RETURN TYPE		
STANDARD DRAWING NO. 2160B		



**NOTE:**

1. REFER TO STANDARD SPECIFICATION ITEM 305.2 FOR ALTERNATE REINFORCEMENT.
2. CROSS SLOPE OF SIDEWALK SHALL BE 2% MAX.
3. OTHER THAN 6'-0" SIDEWALK WIDTH MAY BE SPECIFIED BY OWNER.
4. SIDEWALK SHALL BE CLASS "C" CONCRETE UNLESS OTHERWISE SPECIFIED BY OWNER.
5. ALL HONEYCOMB IN BACK OF CURB TO BE TROWEL-PLASTERED BEFORE POURING SIDEWALK.
6. LUG MAY BE FORMED BY SHAPING SUBGRADE TO APPROXIMATE DIMENSIONS SHOWN.

REINFORCED CONCRETE SIDEWALKS

JOINTS AND SPACING

North Central Texas Council of Governments

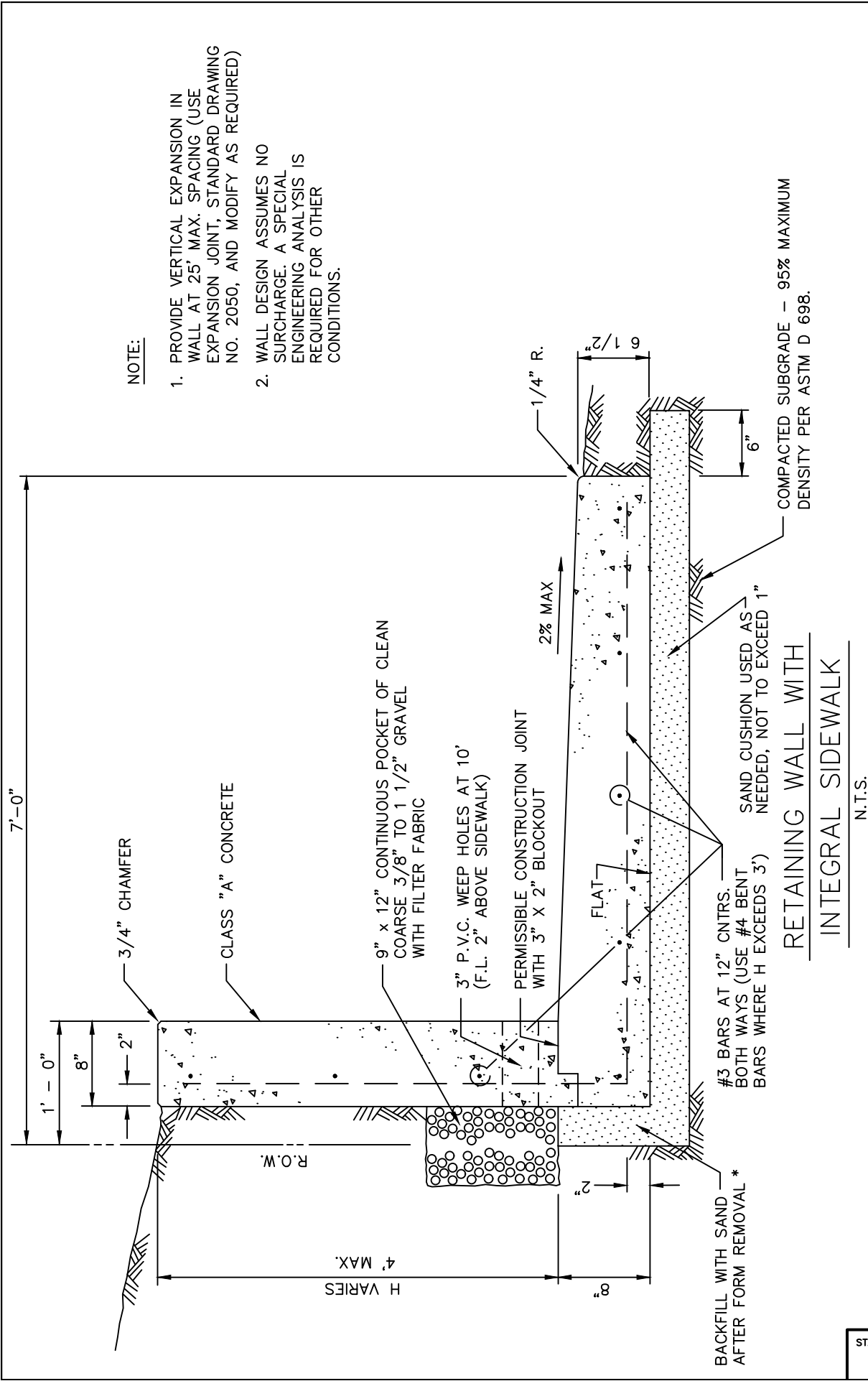


STANDARD SPECIFICATION REFERENCE  
305.2. PAGES 305-1 TO 305-4

DATE  
TBD

STANDARD DRAWING NO.  
2170





NOTE:

1. PROVIDE VERTICAL EXPANSION IN WALL AT 25' MAX. SPACING (USE EXPANSION JOINT, STANDARD DRAWING NO. 2050, AND MODIFY AS REQUIRED)
2. WALL DESIGN ASSUMES NO SURCHARGE. A SPECIAL ENGINEERING ANALYSIS IS REQUIRED FOR OTHER CONDITIONS.

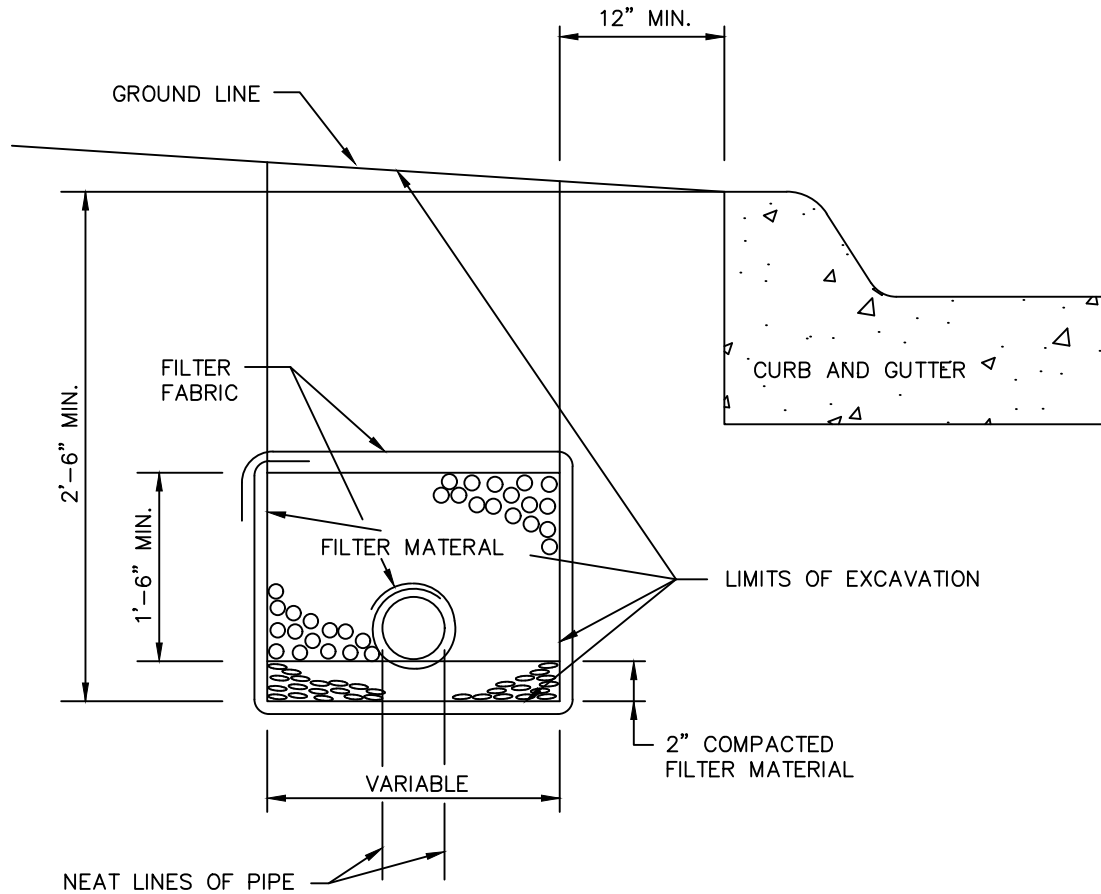
STANDARD SPECIFICATION REFERENCE 802.2 PAGE 802-1	STANDARD DRAWING NO. 2180
DATE TBD	



REINFORCED CONCRETE RETAINING WALL  
INTEGRAL WITH SIDEWALK

\* WHEN SPECIFIED ON PLANS

STANDARD DRAWING NO.  
2180



SECTION  
N.T.S.

LIMITS OF EXCAVATION

DEPTH OF TRENCH (FT.)	DIST. IN FT. OUTSIDE NEAT LINES OF PIPE SUBDRAIN
0 TO 6	1.00
6 TO 10	1.50
10 TO 15	2.00
OVER 15	2.50

FILTER MATERIAL SPECIFICATIONS

SIEVE SIZE	PERCENTAGE RETAINED ON SIEVE	
	TYPE A	TYPE B
1 1/2	---	0 - 10
3/4	0 - 10	20 - 40
3/8	15 - 35	---
NO. 4	35 - 55	40 - 60

TYPES OF PIPE ACCEPTABLE FOR USE AS SUBDRAIN

1. PERFORATED PVC PIPE.
2. PERFORATED POLYETHYLENE PIPE.

MATERIAL FINER THAN NO. 4 SIEVE

4	---
20	35 - 65
50	75 - 100

SUBDRAINS

PAVEMENT SUBGRADE

North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE

301. PAGES 301-1 TO 301-19

DATE

TBD

STANDARD DRAWING NO.

2190