



PAVEMENT DESIGN MANUAL

**CITY OF WICHITA FALLS, TEXAS
PUBLIC WORKS DEPARTMENT
1300 SEVENTH STREET
WICHITA FALLS, TEXAS 76301**

Approved by: City Council

Russell Schreiber, P.E., Public Works Director

Effective Date: _____

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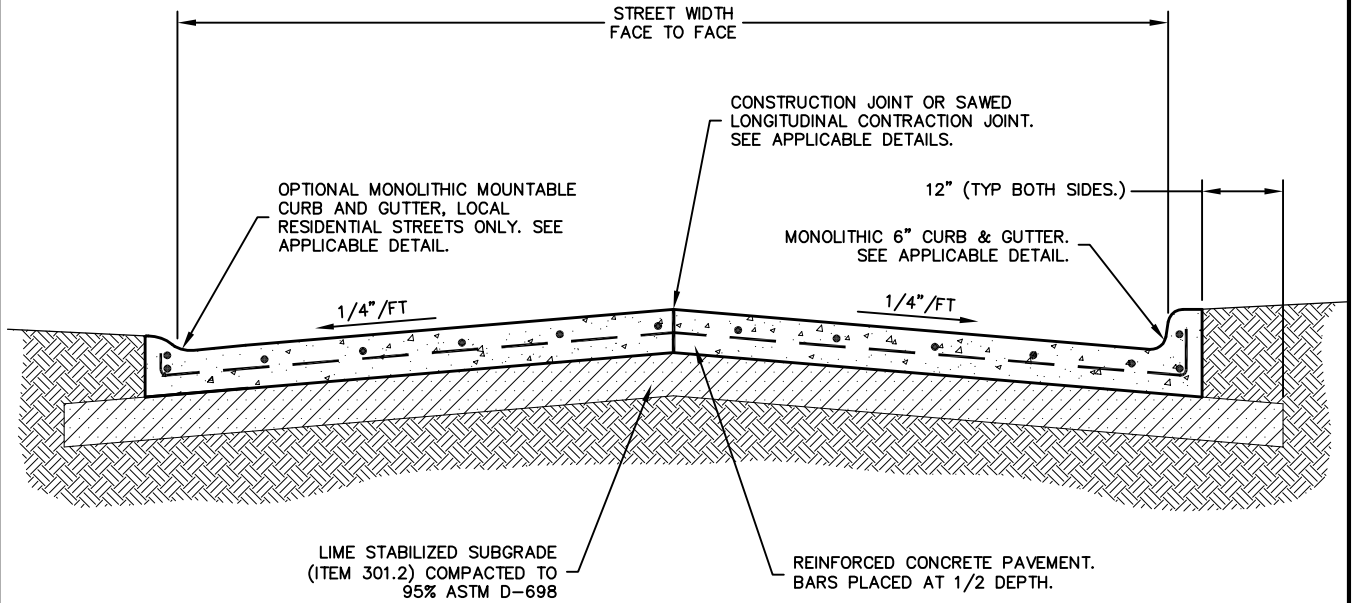
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1.0 INTRODUCTION

1.1 Purpose and Scope

The development of this design manual is authorized by the City of Wichita Falls Subdivision and Development Regulations Ordinance to protect and provide for the safety and welfare of the general public and to ensure the proper development of public infrastructure within the City and its extraterritorial jurisdiction. This manual establishes standard design guidance for pavement development and construction processes within the jurisdiction of the City and is intended to encourage a greater uniformity in developing plans for the City's pavement facilities. The design standards described in the following pages are intended to serve as guidelines for the development of pavement structures for local government review and approval purposes; however, the responsibility for the adequacy and effectiveness of the actual design remains with the design engineer and sound engineering judgment must always be applied. Users of this manual should be knowledgeable and experienced in the theory and application of pavement engineering principles. Any deviation from the requirements of this manual must be approved by the Director of Public Works or designee.

2.0 DESIGN CRITERIA:



GENERAL NOTES:

1. CONSTRUCT EXPANSION AND CONTRACTION JOINTS AT INTERVALS SHOWN ON SPACING DIAGRAM FOR JOINTS. SEE APPLICABLE DETAILS.
2. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
3. SEE PORTLAND CEMENT CONCRETE PAVEMENT, ITEM 303 OF THE STANDARD SPECIFICATIONS.
4. ALL EXPOSED CONCRETE SURFACES MUST BE CURED IN ACCORDANCE WITH ITEM 303.5.7 OF THE STANDARD SPECIFICATIONS.
5. BACKFILL FROM BACK OF CURB TO RIGHT OF WAY LINE MUST BE COMPACTED TO 90% OF ASTM D-698.
6. SUB GRADE PREPARATION MUST CONSIST OF LIME STABILIZATION IN ACCORDANCE WITH ITEM 301.2 OF THE STANDARD SPECIFICATIONS, APPLIED AT A RATE OF 30 LBS./SQ.YD., COMPACTED TO 95% ASTM D-698.
7. FLEXIBLE BASE OF SAME THICKNESS MEETING REQUIREMENTS OF ITEM 301.5 OF THE STANDARD SPECIFICATIONS MAY BE SUBSTITUTED FOR LIME STABILIZED SUBGRADE.

STREET CLASSIFICATION	STREET WIDTH	PAVEMENT THICKNESS	SUBGRADE THICKNESS	STEEL REINFORCING
LOCAL RESIDENTIAL STREET	30' FACE TO FACE	6" CONCRETE	6" TREATED SUBGRADE	#4 BARS @ 18" O.C.E.W.
LOCAL INDUSTRIAL / COMMERCIAL STREET	36' FACE TO FACE	7" CONCRETE	6" TREATED SUBGRADE	#4 BARS @ 18" O.C.E.W.
MINOR & MAJOR COLLECTORS & ARTERIALS	GREATER THAN 36' FACE TO FACE	8" CONCRETE	8" TREATED SUBGRADE	#5 BARS @ 18" O.C.E.W.

CONCRETE PAVEMENT SECTION

NOT TO SCALE

PAVEMENT STANDARDS

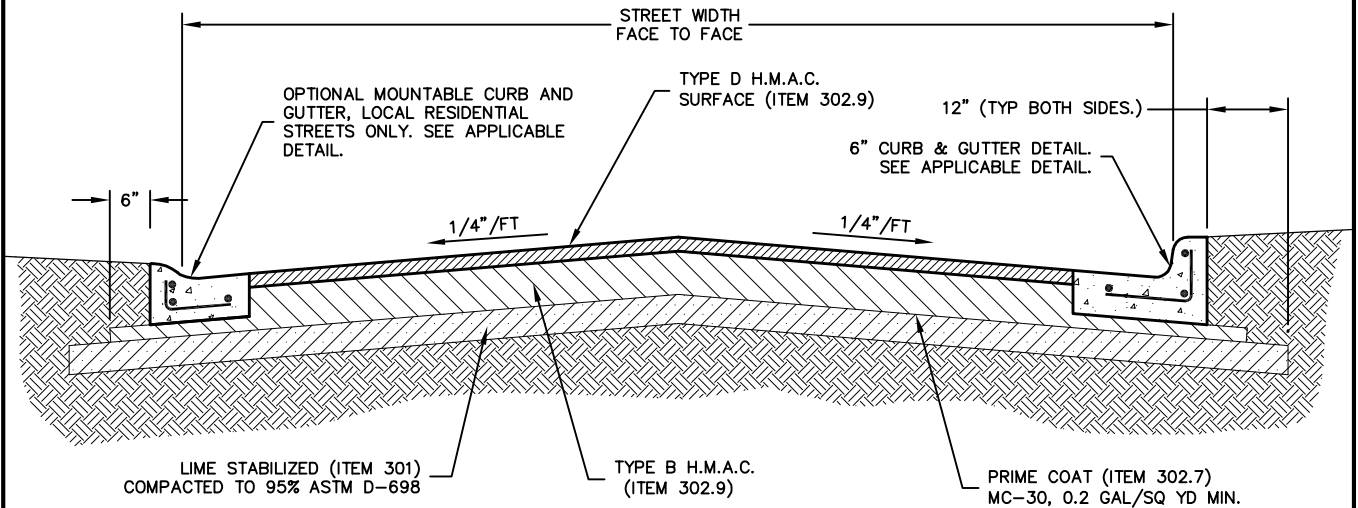
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ENGINEERING DIVISION

SEPTEMBER 2023

CONCRETE
PAVEMENT SECTION

DETAIL NO. 2000

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GENERAL NOTES:

1. AFTER COMPACTION, THE HMAC MUST BE WITHIN 1/4" TO 1/2" ABOVE TOP OF LIP OF GUTTER.
2. SEE ASPHALT PAVEMENT, ITEM 302 OF THE STANDARD SPECIFICATIONS.
3. BACKFILL FROM BACK OF CURB TO RIGHT OF WAY LINE MUST BE COMPACTIONED TO 90% OF ASTM D-698.
4. SUB GRADE PREPARATION MUST CONSIST OF LIME STABILIZATION IN ACCORDANCE WITH ITEM 301.2 OF THE STANDARD SPECIFICATIONS, APPLIED AT A RATE OF 30 LBS./SQ.YD., COMPACTIONED TO 95% ASTM D-698.
5. FLEXIBLE BASE OF SAME THICKNESS, MEETING REQUIREMENTS OF ITEM 301.5 OF THE STANDARD SPECIFICATIONS, MAY BE SUBSTITUTED FOR LIME STABILIZED SUBGRADE.
6. THE TYPE "B" ASPHALT UNDER THE CURB AND GUTTER MAY BE ELIMINATED BY ADDITIONAL THICKNESS OF CONCRETE GUTTER TO MATCH ASPHALT PAVEMENT SECTION.

STREET CLASSIFICATION	SURFACE COURSE THICKNESS	BASE COURSE THICKNESS	SUBGRADE THICKNESS
LOCAL RESIDENTIAL STREETS	2" TYPE D H.M.A.C.	4" TYPE B H.M.A.C.	6" TREATED SUBGRADE
LOCAL INDUSTRIAL / COMMERCIAL STREETS	2" TYPE D H.M.A.C.	6" TYPE B H.M.A.C.	6" TREATED SUBGRADE
ARTERIAL STREETS MINOR & MAJOR COLLECTOR STREETS	2" TYPE D H.M.A.C.	8" TYPE B H.M.A.C.	8" TREATED SUBGRADE

ASPHALT PAVEMENT SECTION

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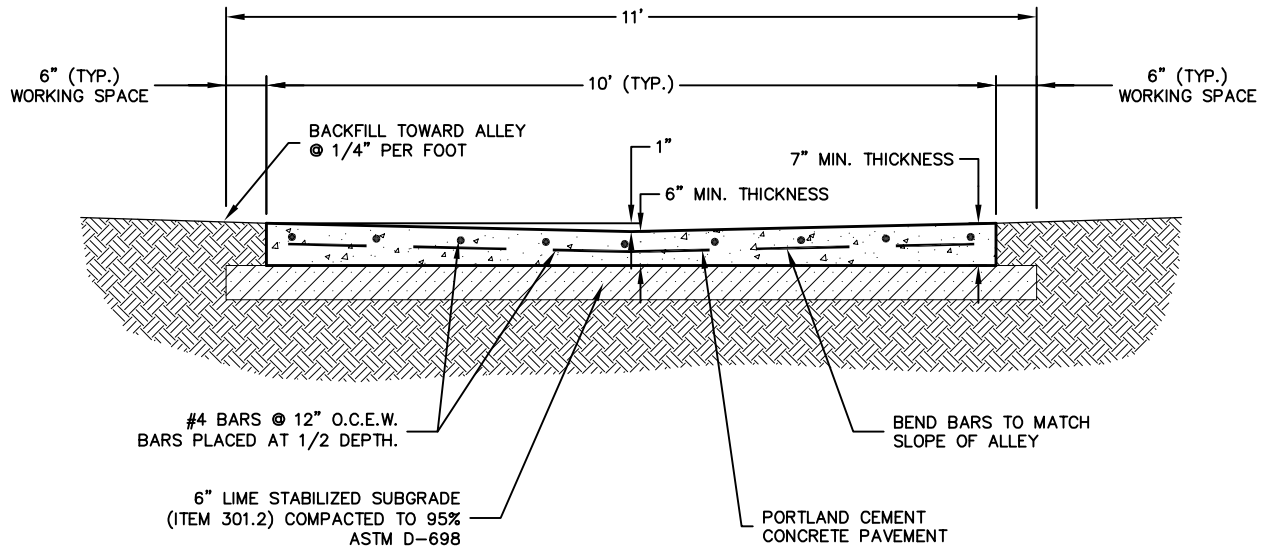
PAVEMENT STANDARDS

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ASPHALT
PAVEMENT SECTION

DETAIL NO. 2010



GENERAL NOTES:

1. SEE ALLEY PAVING ITEM 303.6 OF THE STANDARD SPECIFICATIONS.
2. SUB GRADE PREPARATION MUST CONSIST OF 6" LIME STABILIZATION IN ACCORDANCE WITH ITEM 301.2 OF THE STANDARD SPECIFICATIONS, APPLIED AT A RATE OF 30 LBS./ PER SQ.YD., COMPACTED TO 95% ASTM D-698.
3. 6" INCHES OF FLEXIBLE BASE MEETING THE REQUIREMENTS OF ITEM 301.5 OF THE STANDARD SPECIFICATIONS, MAY BE SUBSTITUTED FOR LIME STABILIZED SUBGRADE.
4. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
5. ALL EXPOSED CONCRETE SURFACES MUST BE CURED IN ACCORDANCE WITH ITEM 303.5.7 OF THE STANDARD SPECIFICATIONS.
6. EXPANSION JOINTS MUST BE PLACED AT EACH END OF THE ALLEY AND AT MAX. SPACING OF 300'.
7. BACKFILL ADJACENT TO CONCRETE EDGES TO A MINIMUM OF 90% STANDARD PROCTOR (ASTM D-698) IN 6" INCH LIFTS.
8. CONSTRUCT SAWED CONTRACTION JOINTS AT 15' INTERVALS.

ALLEY PAVEMENT SECTION NOT TO SCALE

PAVEMENT STANDARDS

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ALLEY
PAVEMENT SECTION

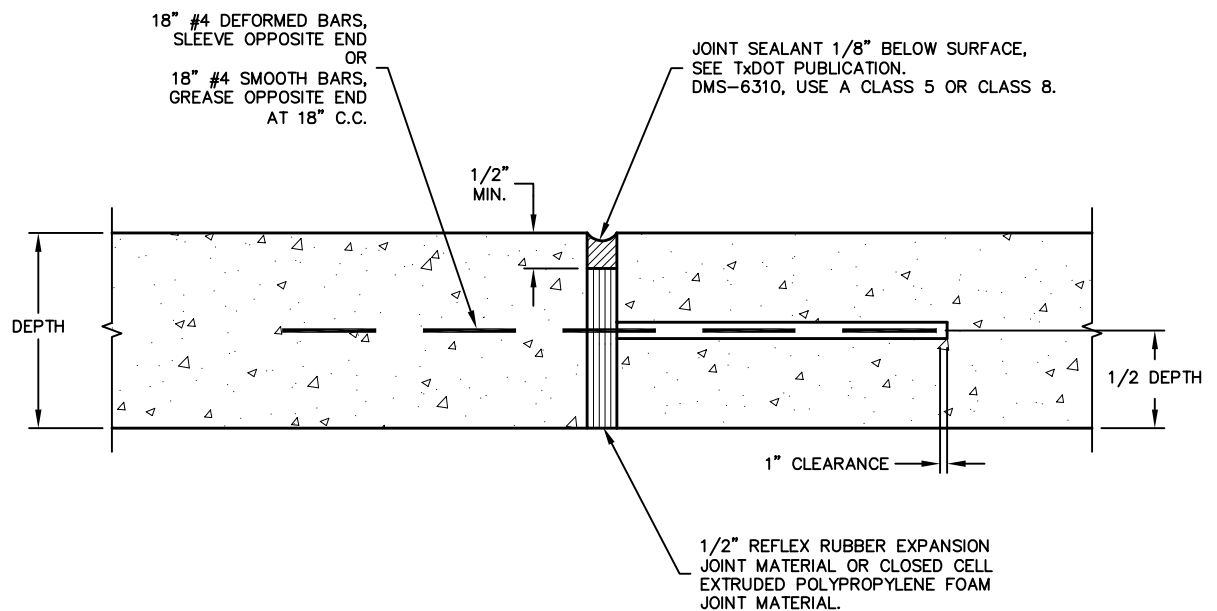
DETAIL NO. 2040



NOT TO SCALE

PAVEMENT STANDARDS	CITY OF WICHITA FALLS, TX ENGINEERING DIVISION	CONSTRUCTION JOINT
	SEPTEMBER 2023	DETAIL NO. 2050

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GENERAL NOTES:

1. SEE EXPANSION JOINTS, ITEM 303.5.4.2 OF THE STANDARD SPECIFICATIONS.
2. DOWEL BARS MUST BE ADEQUATELY BRACED WITH DOWEL BASKETS TO ASSURE THEY WILL BE MAINTAINED PERPENDICULAR AND LEVEL TO JOINT DURING PLACEMENT OF CONCRETE.

EXPANSION JOINT

NOT TO SCALE

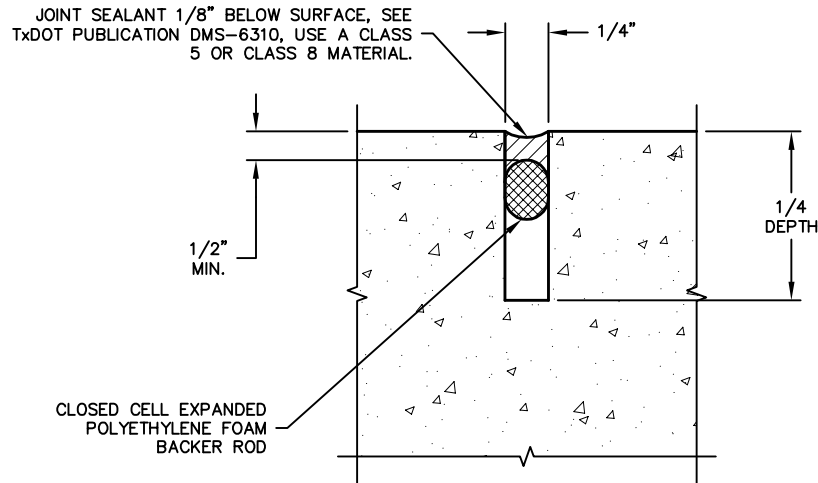
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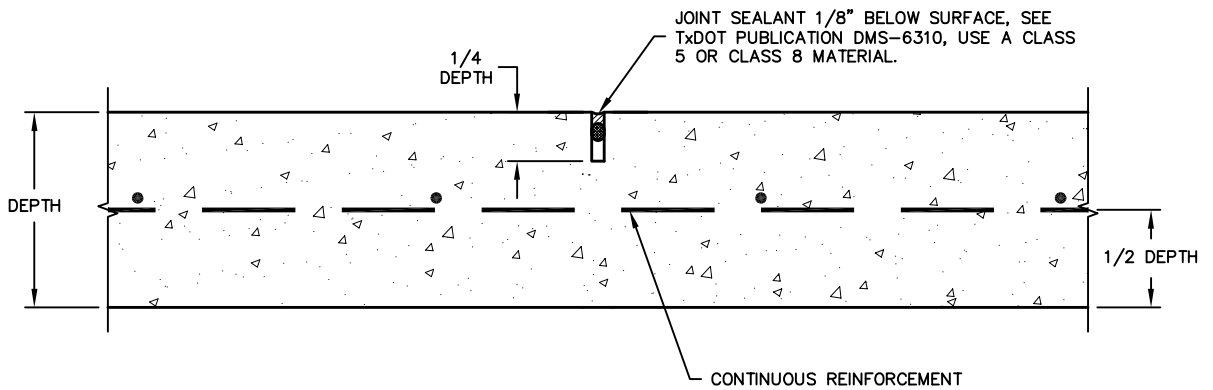
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EXPANSION JOINT

DETAIL NO. 2051



JOINT SEALANT



GENERAL NOTES:

1. SEE CONTRACTION JOINTS, ITEM 303.5.4.3 OF THE STANDARD SPECIFICATIONS.

SAWED CONTRACTION JOINT

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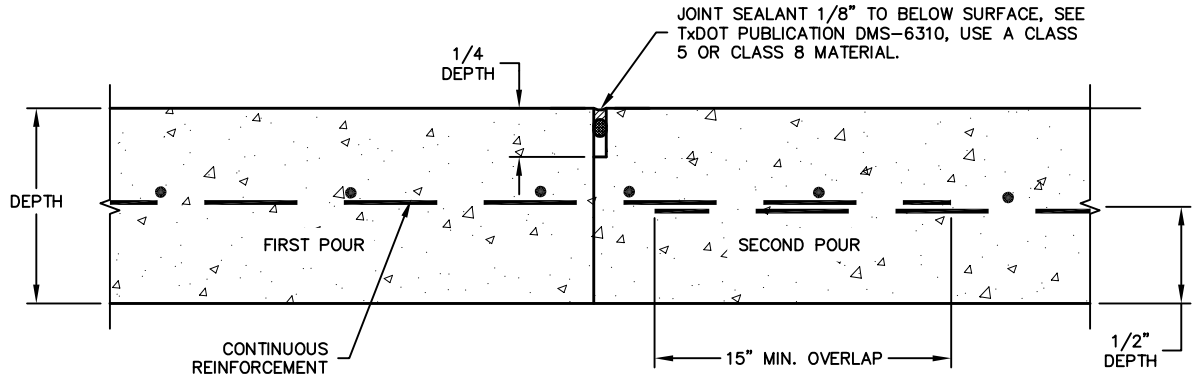
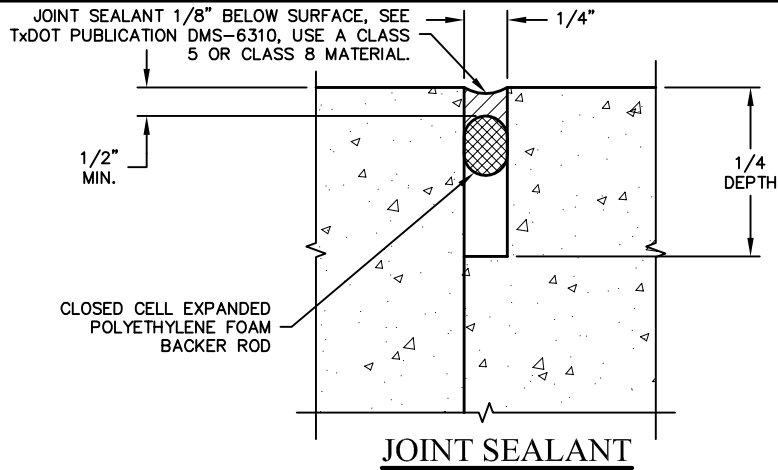
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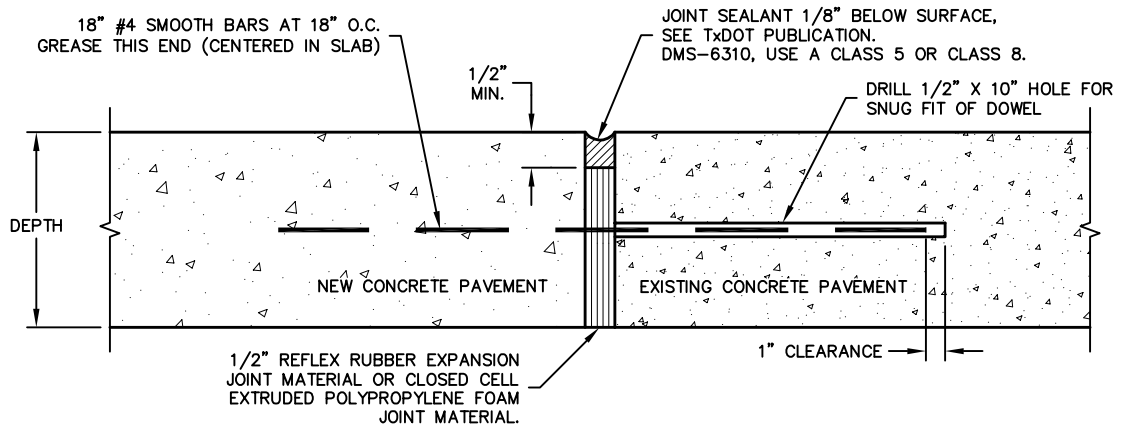
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SAWED CONTRACTION
JOINT

DETAIL NO. 2052



USE WHEN EXPANSION JOINT IS NOT REQUIRED



USE WHEN EXPANSION JOINT IS REQUIRED

GENERAL NOTES:

1. IF EXPANSION JOINT IS NOT REQUIRED, INSTALL PER CONSTRUCTION JOINT DETAIL.
2. SEE EXPANSION JOINTS, ITEM 303.5.4.2 OF THE STANDARD SPECIFICATIONS.

EXISTING PAVEMENT
TIE-IN JOINT

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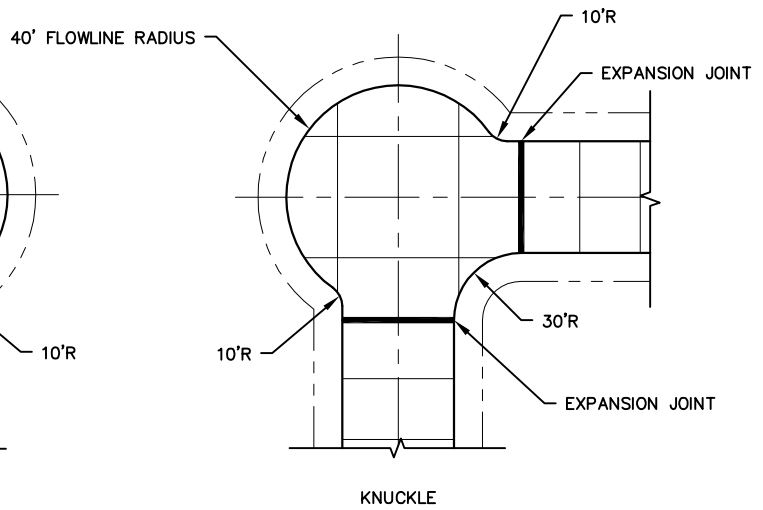
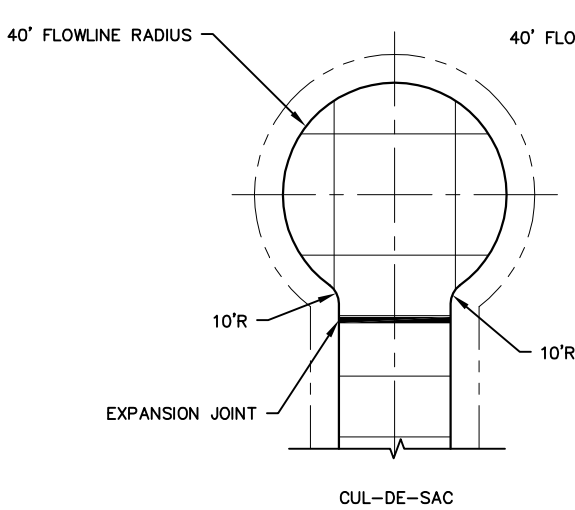
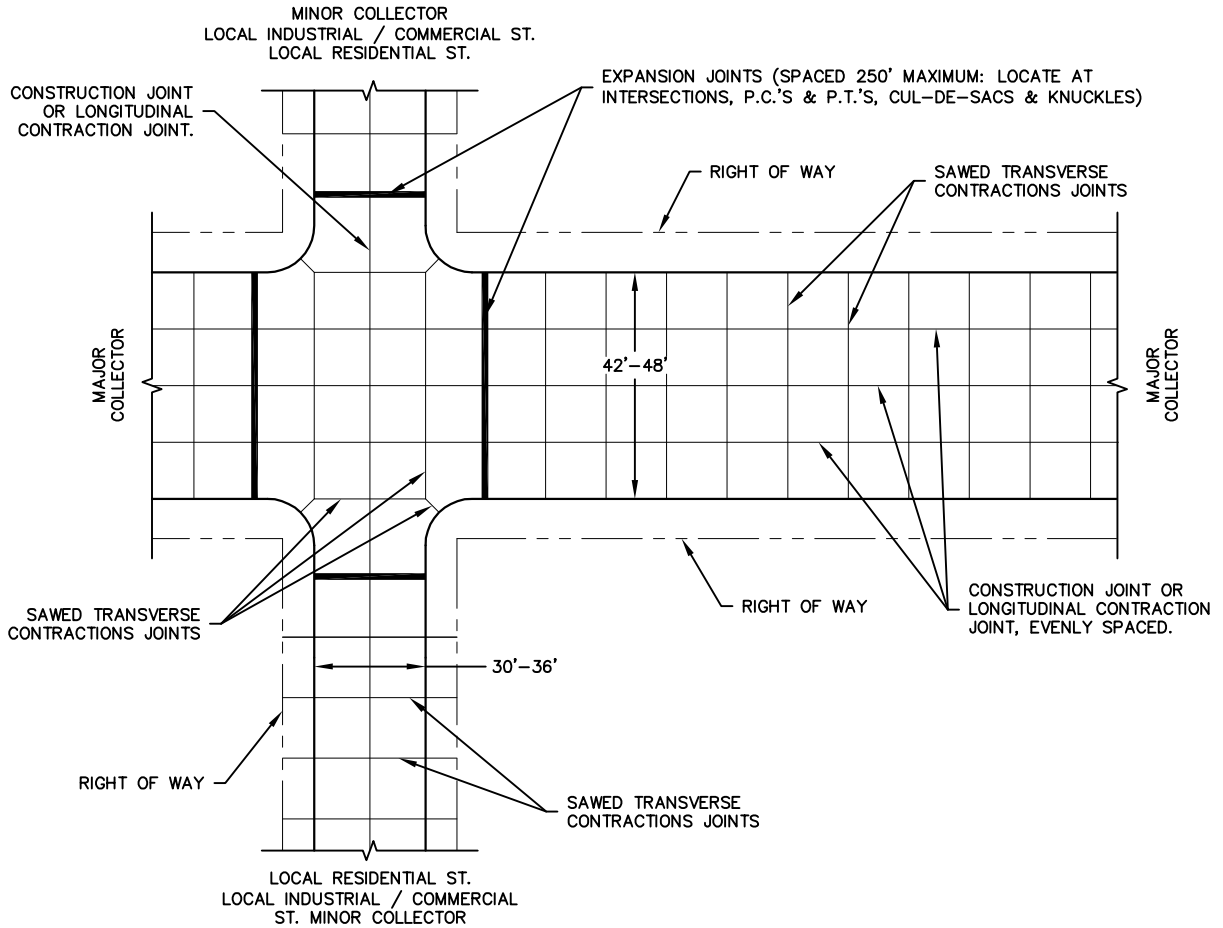
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SEPTEMBER 2023

EXISTING PAVEMENT
TIE-IN JOINT

DETAIL NO. 2053



GENERAL NOTES:

1. SAWED TRANSVERSE CONTRACTION JOINTS MUST BE SPACED AT 15' MAX. SPACING.

SPACING DIAGRAM FOR JOINTS

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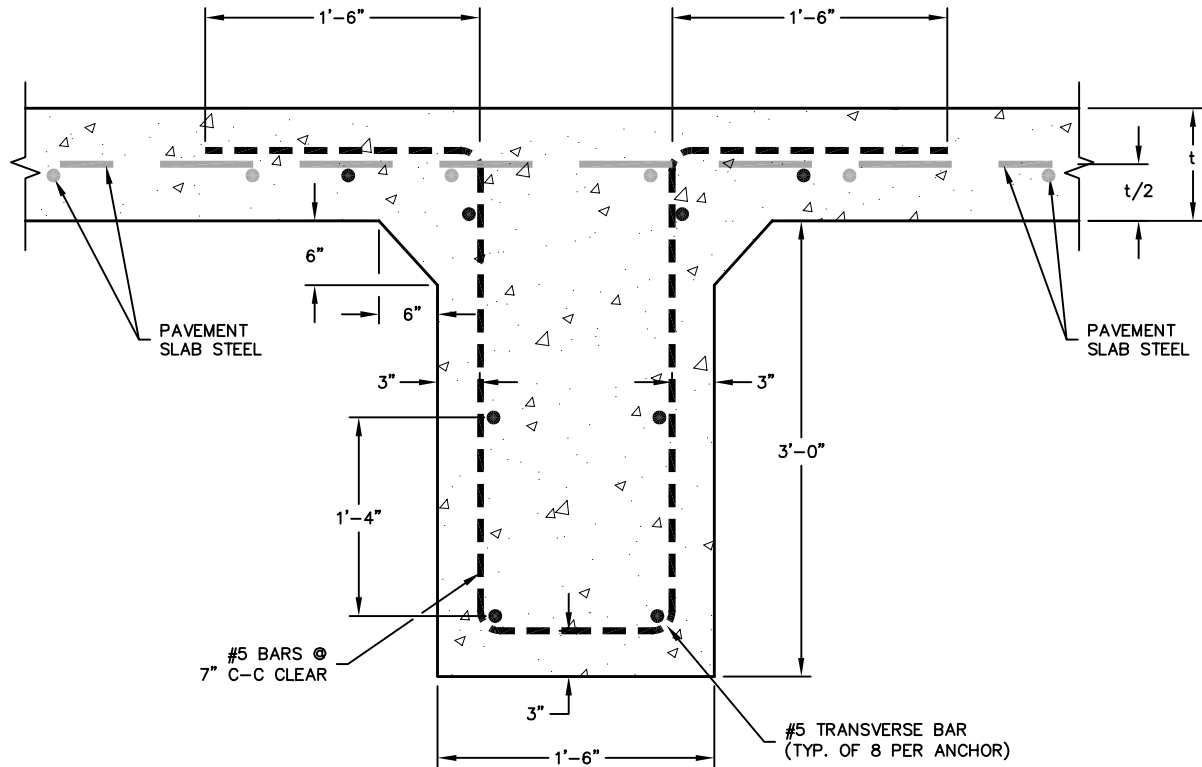
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SPACING DIAGRAM FOR JOINTS

DETAIL NO. 2060



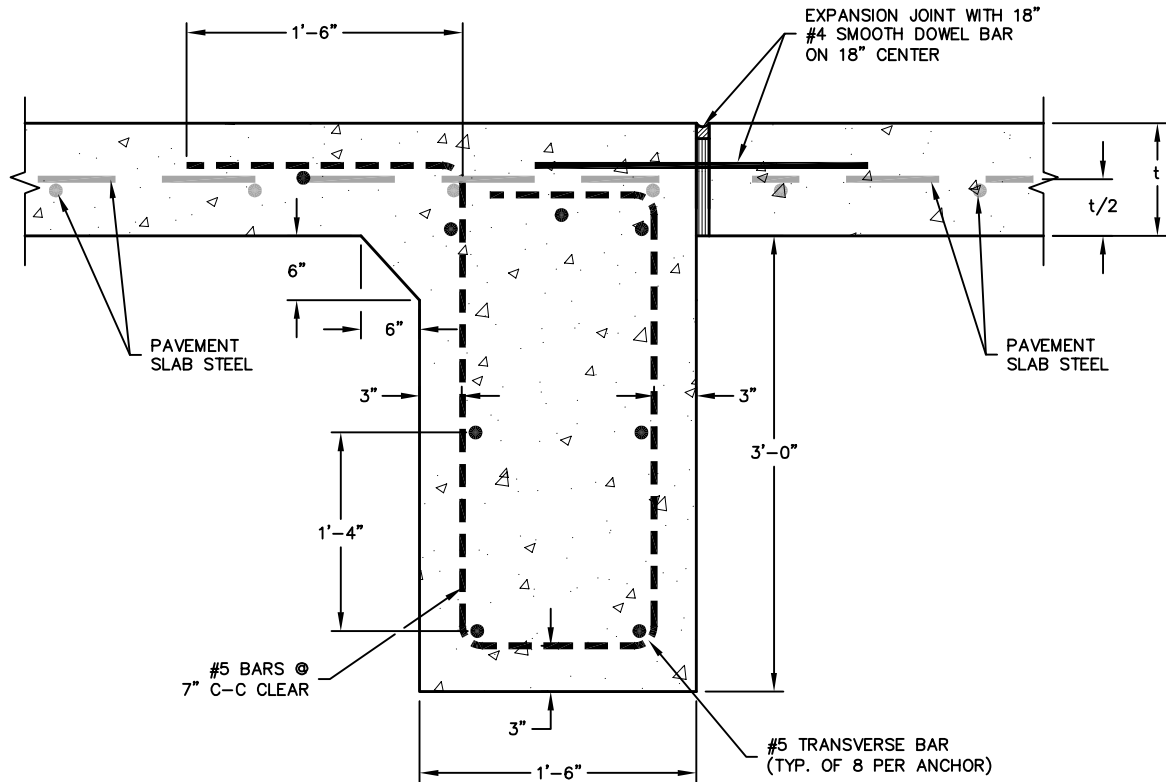
GENERAL NOTES:

1. DETAILS AS TO PAVEMENT SLAB WIDTH, THICKNESS, AND CROWN CROSS-SLOPE MUST BE AS SHOWN ELSEWHERE ON THE PLANS.
2. THE CONCRETE PAVEMENT SLAB MUST CONTINUE ACROSS THE ANCHOR LUGS AS SHOWN.
3. REINFORCING FOR THE ANCHOR LUGS MUST BE STEEL CONFORMING TO ASTM DESIGNATION A615, GRADE 60 OR A-616, GRADE 60. ALL STEEL IN LUGS AND SUPPORT SLAB MUST BE #5 BARS.
4. SAWCUT TRANSVERSE CONTRACTION JOINTS WILL NOT BE PERMITTED WITHIN THE LIMITS OF THE ANCHOR LUGS WITHOUT THE APPROVAL OF THE ENGINEER.
5. FOR CONCRETE PAVEMENT SECTION SEE APPLICABLE DETAIL.

TERMINAL ANCHOR FOR CONCRETE PAVEMENT

NOT TO SCALE

PAVEMENT STANDARDS	CITY OF WICHITA FALLS, TX ENGINEERING DIVISION	TERMINAL ANCHOR FOR CONCRETE PAVEMENT
	SEPTEMBER 2023	DETAIL NO. 2070



GENERAL NOTES:

1. DETAILS AS TO PAVEMENT SLAB WIDTH, THICKNESS, AND CROWN CROSS-SLOPE MUST BE AS SHOWN ELSEWHERE ON THE PLANS.
2. REINFORCING FOR THE ANCHOR LUGS MUST BE STEEL CONFORMING TO ASTM DESIGNATION A615, GRADE 60 OR A-616, GRADE 60. ALL STEEL IN LUGS AND SUPPORT SLAB MUST BE #5 BARS.
3. SAWCUT CONTRACTION JOINTS WILL NOT BE PERMITTED WITHIN THE LIMITS OF THE ANCHOR LUGS WITHOUT THE APPROVAL OF THE ENGINEER.
4. SEE CONCRETE PAVEMENT SECTION AND EXPANSION JOINT. SEE APPLICABLE DETAIL.

TERMINAL ANCHOR WITH EXPANSION JOINT FOR CONCRETE PAVEMENT

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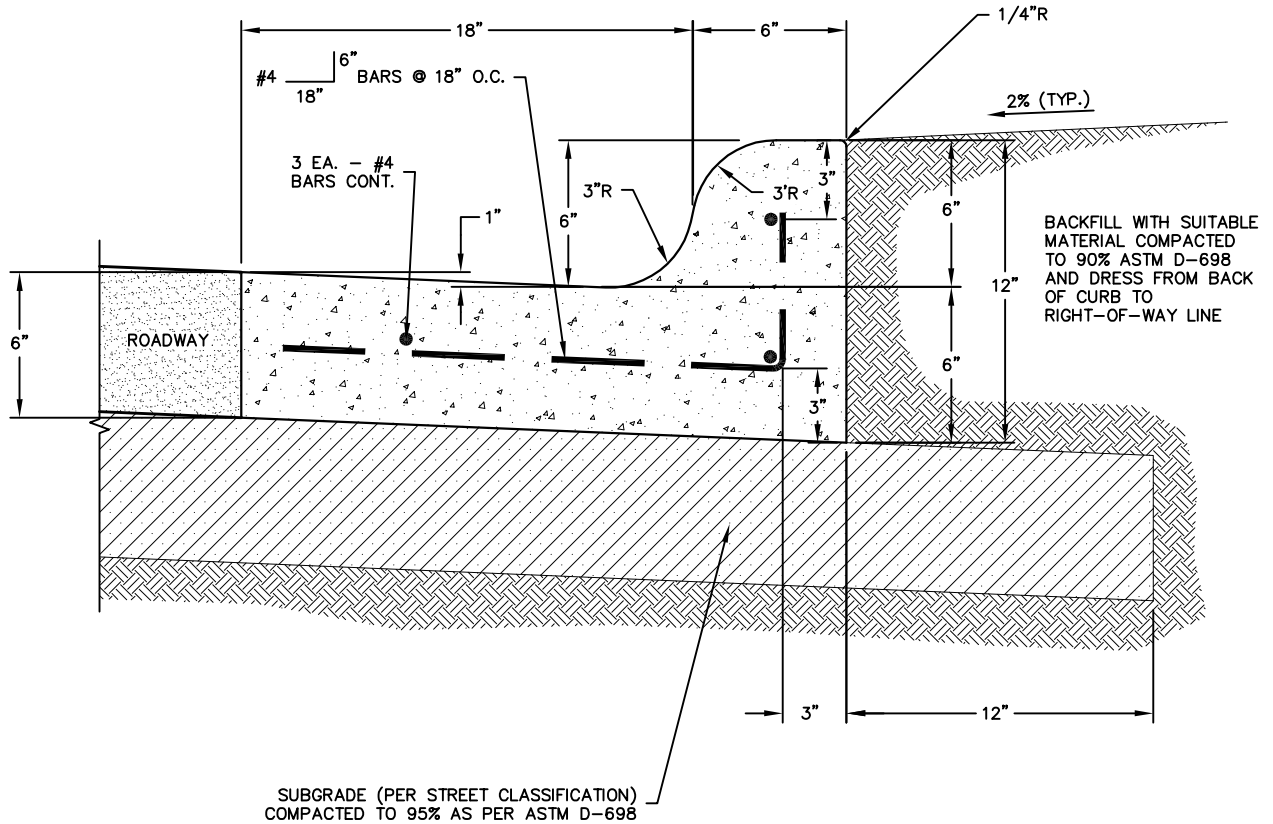
PAVEMENT STANDARDS

CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

TERMINAL ANCHOR WITH EXPANSION
JOINT FOR CONCRETE PAVEMENT

DETAIL NO. 2071



GENERAL NOTES:

1. DOWEL REINFORCEMENT 6" INTO EXISTING CURB AND GUTTER.
2. CONSTRUCT 1/2" EXPANSION JOINTS AT 250' ON CENTER, INTERSECTIONS, PTS & PCS, AND CONTRACTION JOINTS AT 15' ON CENTER.
3. SEE CONCRETE CURB & GUTTER, ITEM 305.1 OF THE STANDARD SPECIFICATIONS.
4. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
5. SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY. (2" MAX.).
6. MATCH PAVEMENT THICKNESS WHEN PLACED MONOLITHIC WITH CONCRETE PAVEMENT.
7. PROVIDE 1" GUTTER DEPRESSION.

6" CURB AND GUTTER

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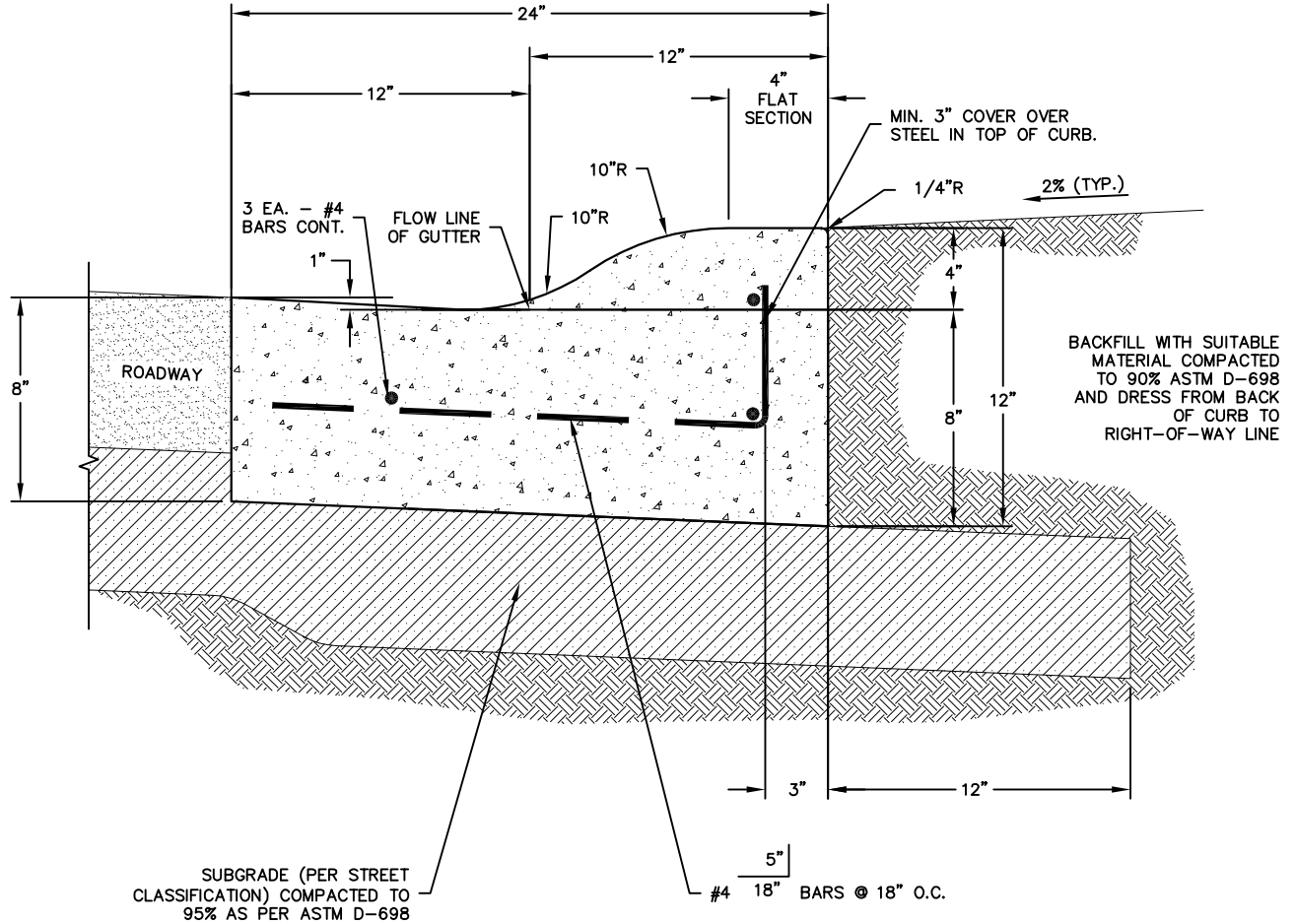
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CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

6" CURB AND GUTTER

DETAIL NO. 2120



GENERAL NOTES:

1. DOWEL REINFORCEMENT 6" INTO EXISTING CURB AND GUTTER.
2. CONSTRUCT 1/2" EXPANSION JOINTS AT 250' ON CENTER, INTERSECTIONS, PTS & PCS, AND CONTRACTION JOINTS AT 15' ON CENTER.
3. SEE CONCRETE CURB & GUTTER, ITEM 305.1 OF THE STANDARD SPECIFICATIONS.
4. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
5. SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY. (2" MAX.).
6. MATCH PAVEMENT THICKNESS WHEN PLACED MONOLITHIC WITH CONCRETE PAVEMENT.
7. PROVIDE 1" GUTTER DEPRESSION.

CURB AND GUTTER MOUNTABLE

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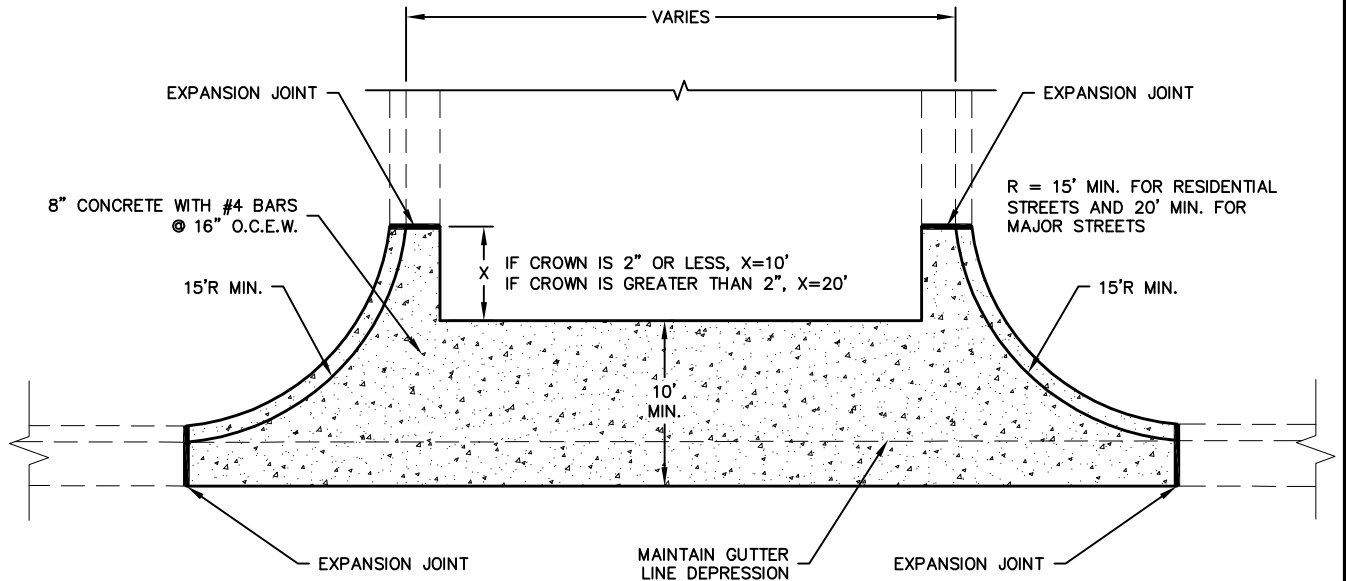
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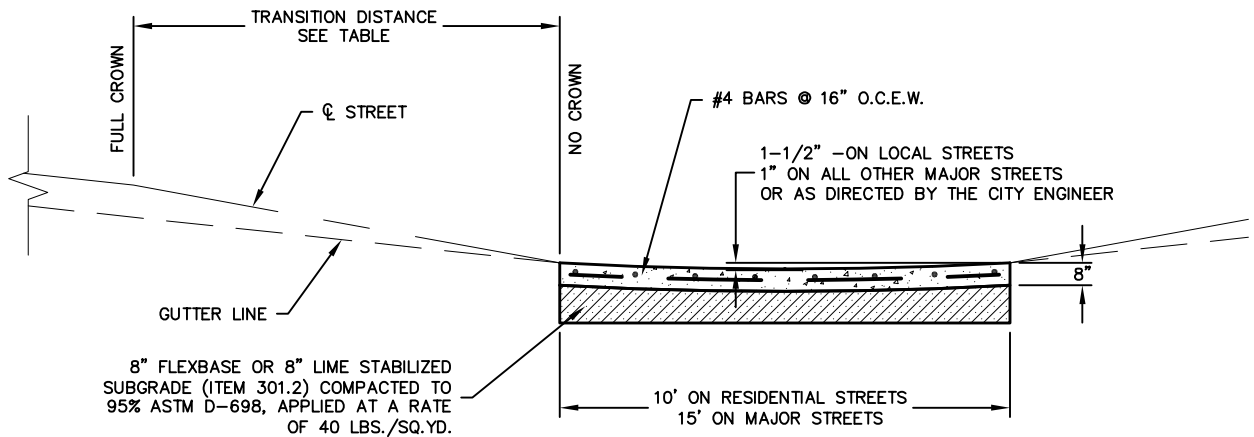
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CURB AND GUTTER
MOUNTABLE

DETAIL NO. 2121



INTERSECTION VALLEY GUTTER



CROWN OF ROADWAY (in.)	TRANSITION DISTANCE (ft.)
0"	0'
1"	10'
2"	20'
3"	30'
4"	40'
5"	50'

MIDSTREET VALLEY GUTTER

GENERAL NOTES:

1. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
2. ALL EXPOSED CONCRETE SURFACES MUST BE CURED IN ACCORDANCE WITH ITEM 303.5.7 OF THE STANDARD SPECIFICATIONS.

CONCRETE VALLEY GUTTER

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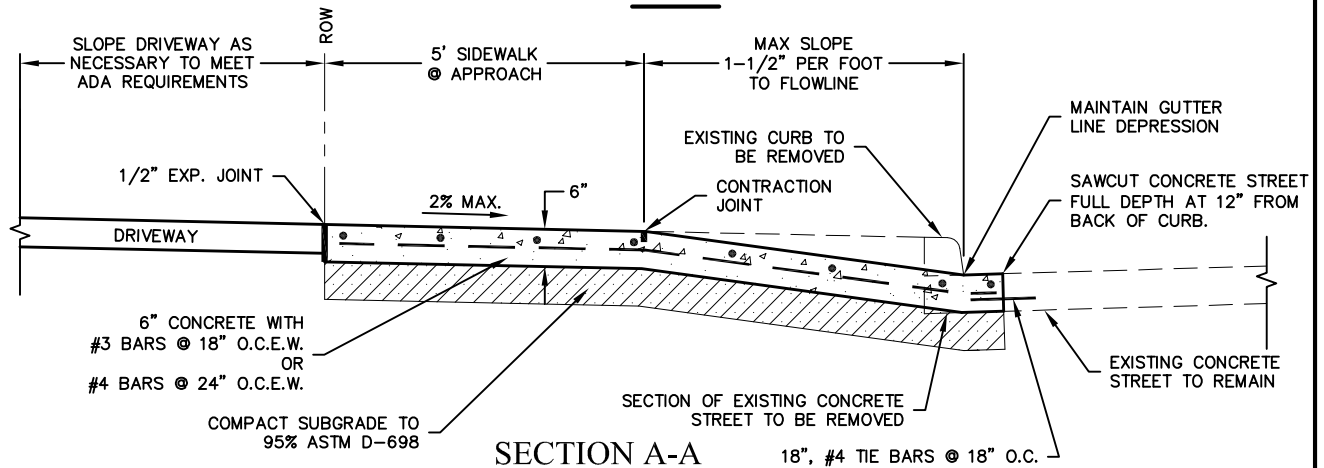
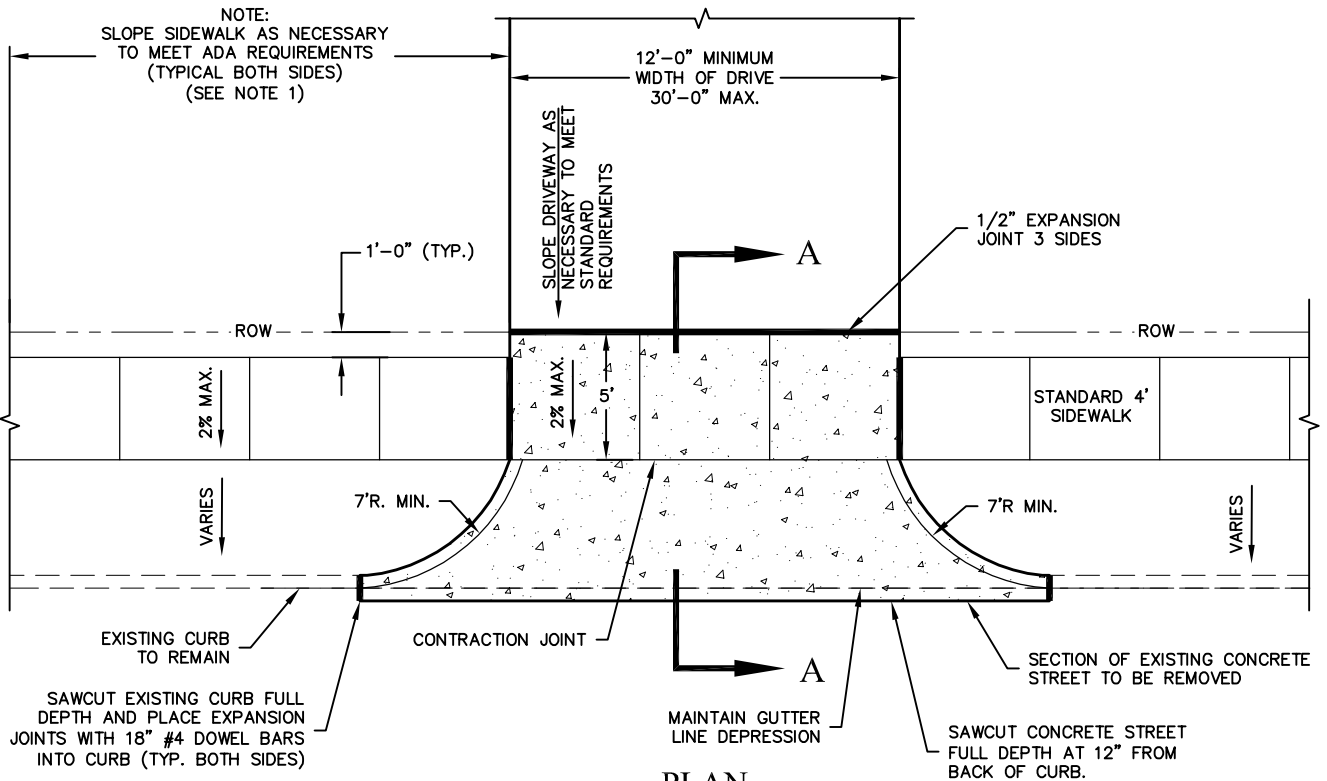
PAVEMENT STANDARDS

CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

CONCRETE
VALLEY GUTTER

DETAIL NO. 2130



GENERAL NOTES:

1. SLOPE OF SIDEWALK AT DRIVE APPROACHES MUST COMPLY WITH ADA REQUIREMENTS (1" PER FOOT MAXIMUM).
2. SEE DRIVE APPROACHES, ITEM 305.2 OF THE STANDARD SPECIFICATIONS.
3. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
4. SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY.
5. ALL STEEL MUST HAVE A 2" MINIMUM COVER.
6. REBAR MUST STOP 2" PRIOR TO EDGE OF EXISTING STREET.
7. ANY UTILITY BOXES OR MANHOLES WITHIN THE APPROACH MUST BE ADJUSTED BY THE CITY UTILITY DEPARTMENT, OR OWNER OF UTILITY, TO BE FLUSH WITH FINISH GRADE, OR RELOCATED OUT OF THE APPROACH TO THE PROPER GRADE. ALL ADJUSTMENT COST WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, OR THE OWNER INSTALLING THE APPROACH.

RESIDENTIAL DRIVE APPROACH CONCRETE STREET

NOT TO SCALE

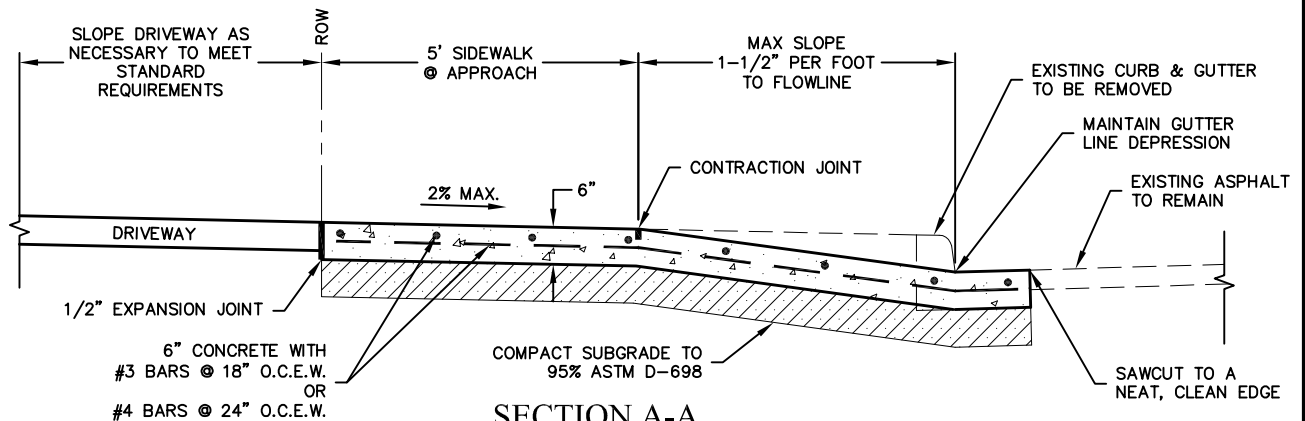
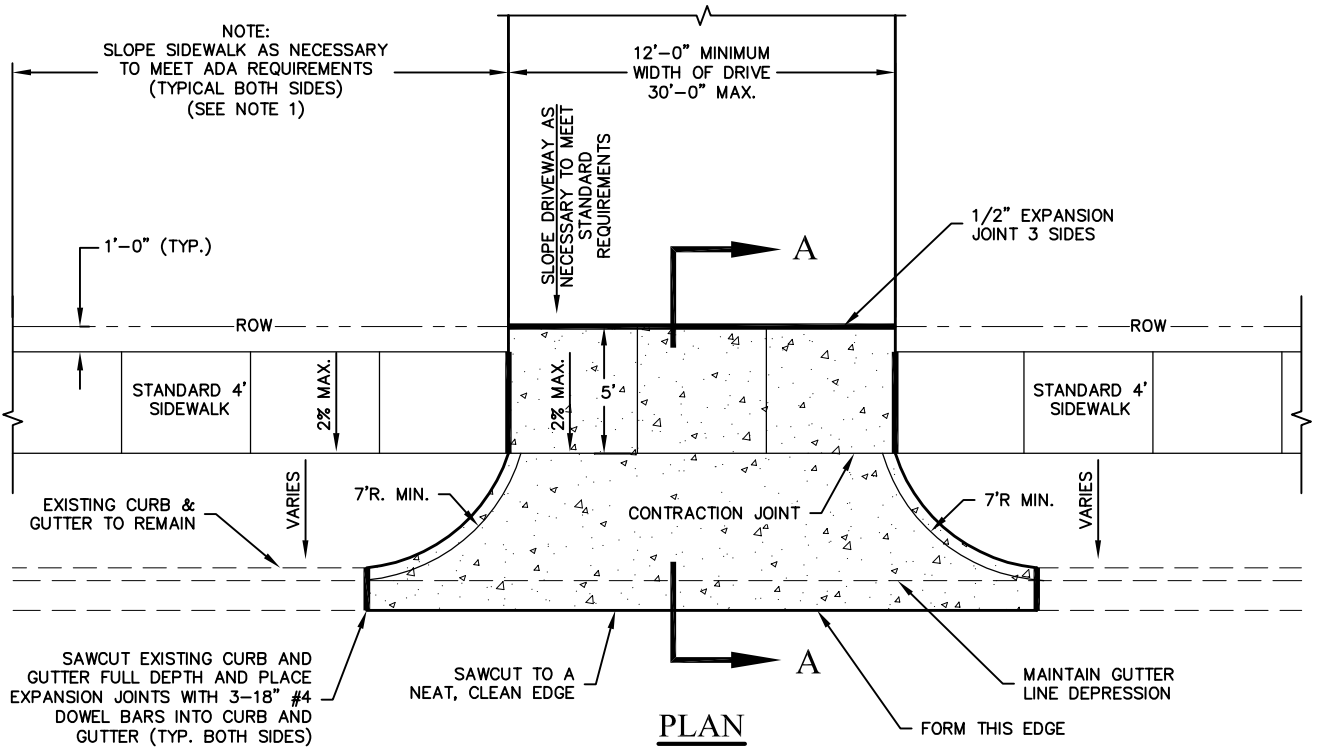
PAVEMENT STANDARDS

CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

RESIDENTIAL DRIVE APPROACH
CONCRETE STREET

DETAIL NO. 2140



GENERAL NOTES:

1. SLOPE OF SIDEWALK AT DRIVE APPROACHES MUST COMPLY WITH ADA REQUIREMENTS (1" PER FOOT MAXIMUM).
2. SEE DRIVE APPROACHES, ITEM 305.2 OF THE STANDARD SPECIFICATIONS.
3. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
4. SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY.
5. ALL STEEL MUST HAVE A 2" MINIMUM COVER.
6. REBAR MUST STOP 2" PRIOR TO EDGE OF EXISTING STREET.
7. ANY UTILITY BOXES OR MANHOLES WITHIN THE APPROACH MUST BE ADJUSTED BY THE CITY UTILITY DEPARTMENT, OR OWNER OF UTILITY, TO BE FLUSH WITH FINISH GRADE, OR RELOCATED OUT OF THE APPROACH TO THE PROPER GRADE. ALL ADJUSTMENT COST WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, OR THE OWNER INSTALLING THE APPROACH.

RESIDENTIAL DRIVE APPROACH ASPHALT STREET

NOT TO SCALE

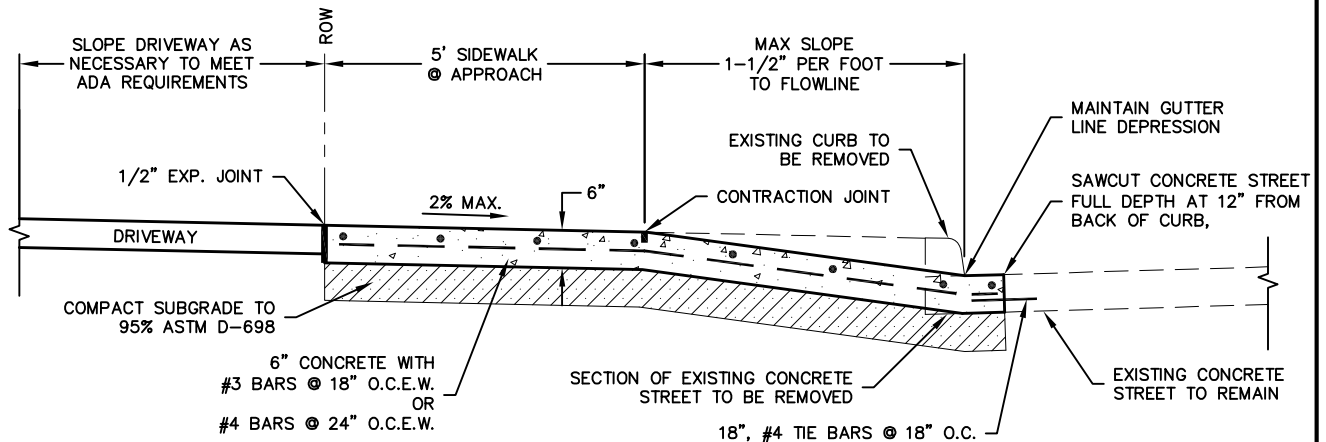
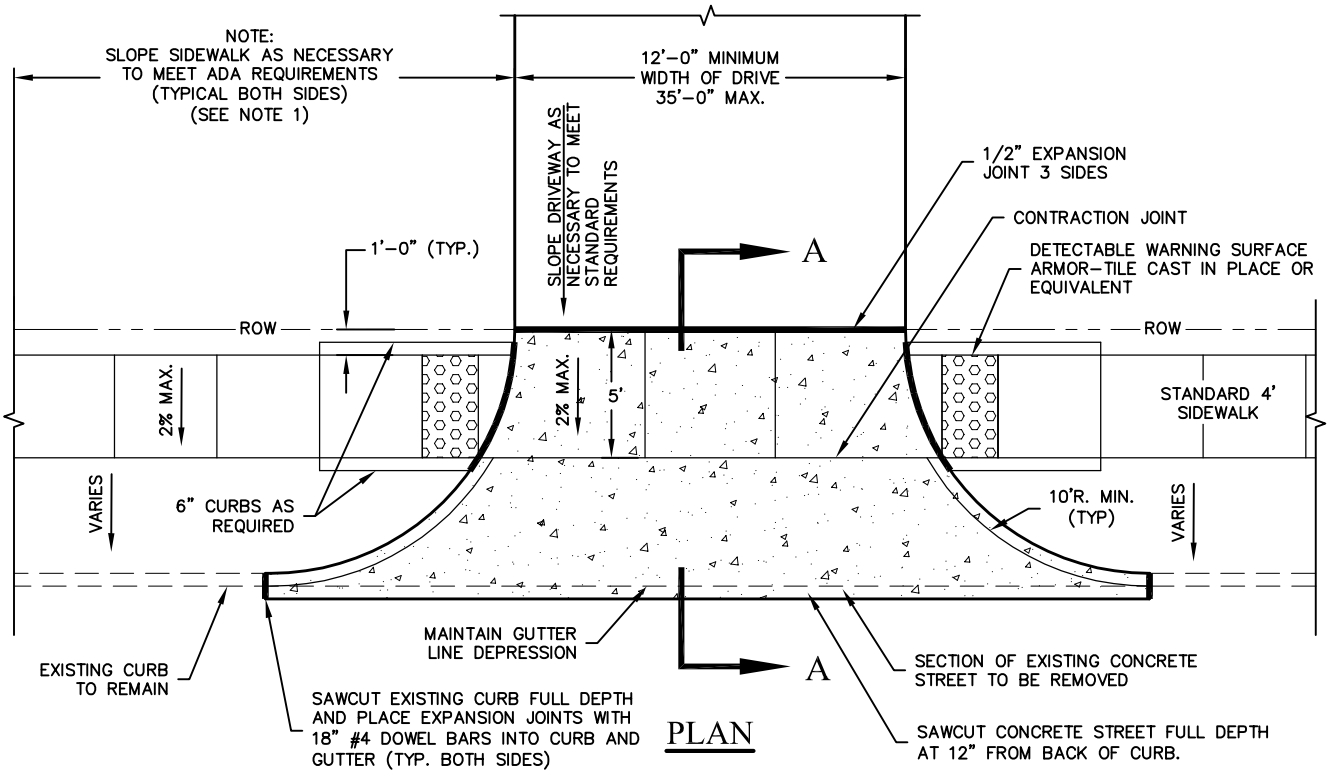
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CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

RESIDENTIAL DRIVE APPROACH
ASPHALT STREET

DETAIL NO. 2145



GENERAL NOTES:

1. SLOPE OF SIDEWALK AT DRIVE APPROACHES, AND DETECTABLE WARNING SURFACES MUST COMPLY WITH ADA REQUIREMENTS (1" PER FOOT MAXIMUM).
2. SEE DRIVE APPROACHES, ITEM 305.2 OF THE STANDARD SPECIFICATIONS.
3. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
4. SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY.
5. ALL STEEL MUST HAVE A 2" MINIMUM COVER.
6. REBAR MUST STOP 2" PRIOR TO EDGE OF EXISTING STREET.
7. ANY UTILITY BOXES OR MANHOLES WITHIN THE APPROACH MUST BE ADJUSTED BY THE CITY UTILITY DEPARTMENT, OR OWNER OF UTILITY, TO BE FLUSH WITH FINISH GRADE, OR RELOCATED OUT OF THE APPROACH TO THE PROPER GRADE. ALL ADJUSTMENT COST WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, OR THE OWNER INSTALLING THE APPROACH.

COMMERCIAL DRIVE APPROACH CONCRETE STREET

NOT TO SCALE

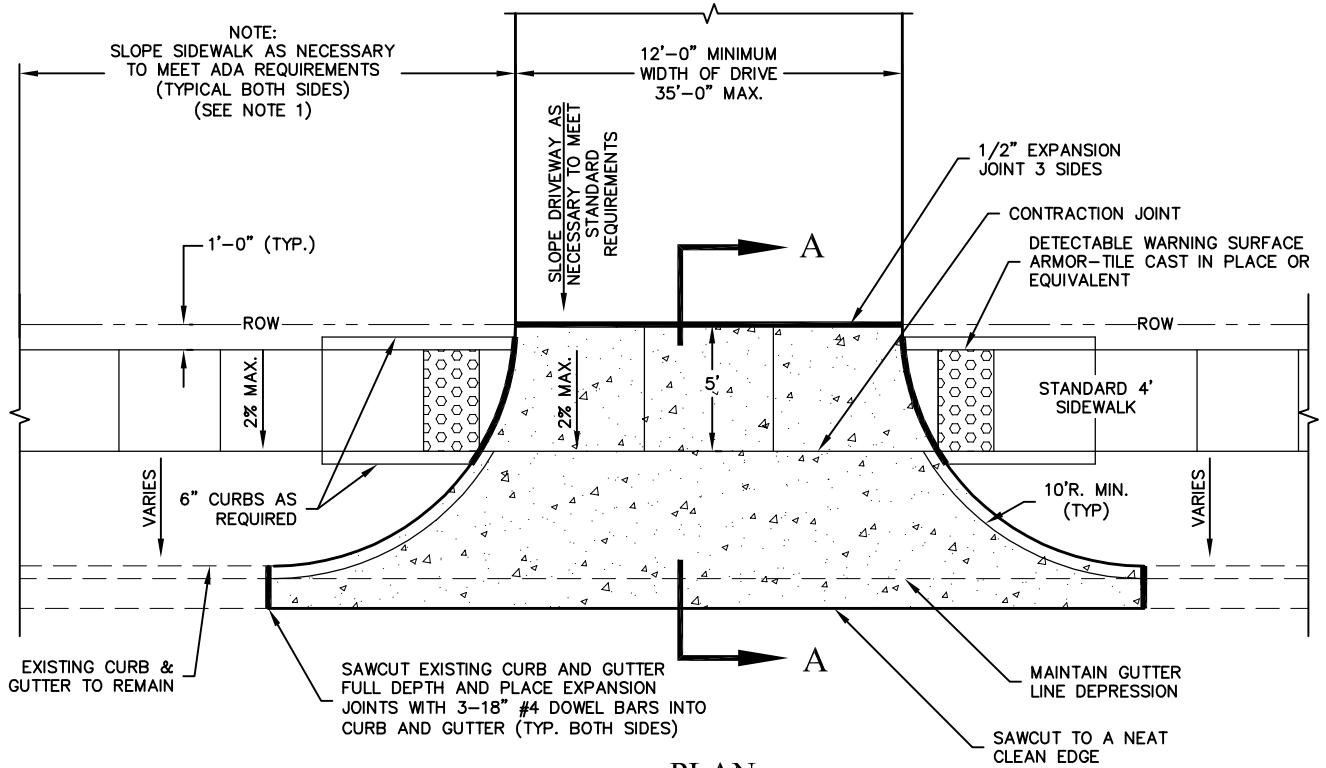
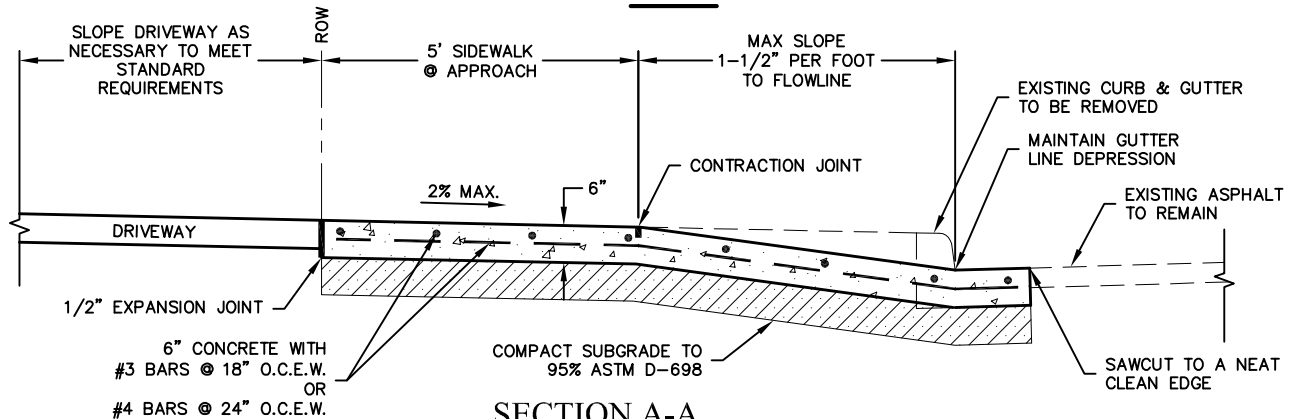
PAVEMENT STANDARDS

CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

COMMERCIAL DRIVE APPROACH
CONCRETE STREET

DETAIL NO. 2150

PLANSECTION A-A

GENERAL NOTES:

1. SLOPE OF SIDEWALK AT DRIVE APPROACHES, AND DETECTABLE WARNING SURFACES MUST COMPLY WITH ADA REQUIREMENTS (1" PER FOOT MAXIMUM).
2. SEE DRIVE APPROACHES, ITEM 305.2DA OF THE STANDARD SPECIFICATIONS.
3. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
4. SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY.
5. ALL STEEL MUST HAVE A 2" MINIMUM COVER.
6. REBAR MUST STOP 2" PRIOR TO EDGE OF EXISTING STREET.
7. ANY UTILITY BOXES OR MANHOLES WITHIN THE APPROACH MUST BE ADJUSTED BY THE CITY UTILITY DEPARTMENT, OR OWNER OF UTILITY, TO BE FLUSH WITH FINISH GRADE, OR RELOCATED OUT OF THE APPROACH TO THE PROPER GRADE. ALL ADJUSTMENT COST WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, OR THE OWNER INSTALLING THE APPROACH.

COMMERCIAL DRIVE APPROACH ASPHALT STREET

NOT TO SCALE

PAVEMENT STANDARDS

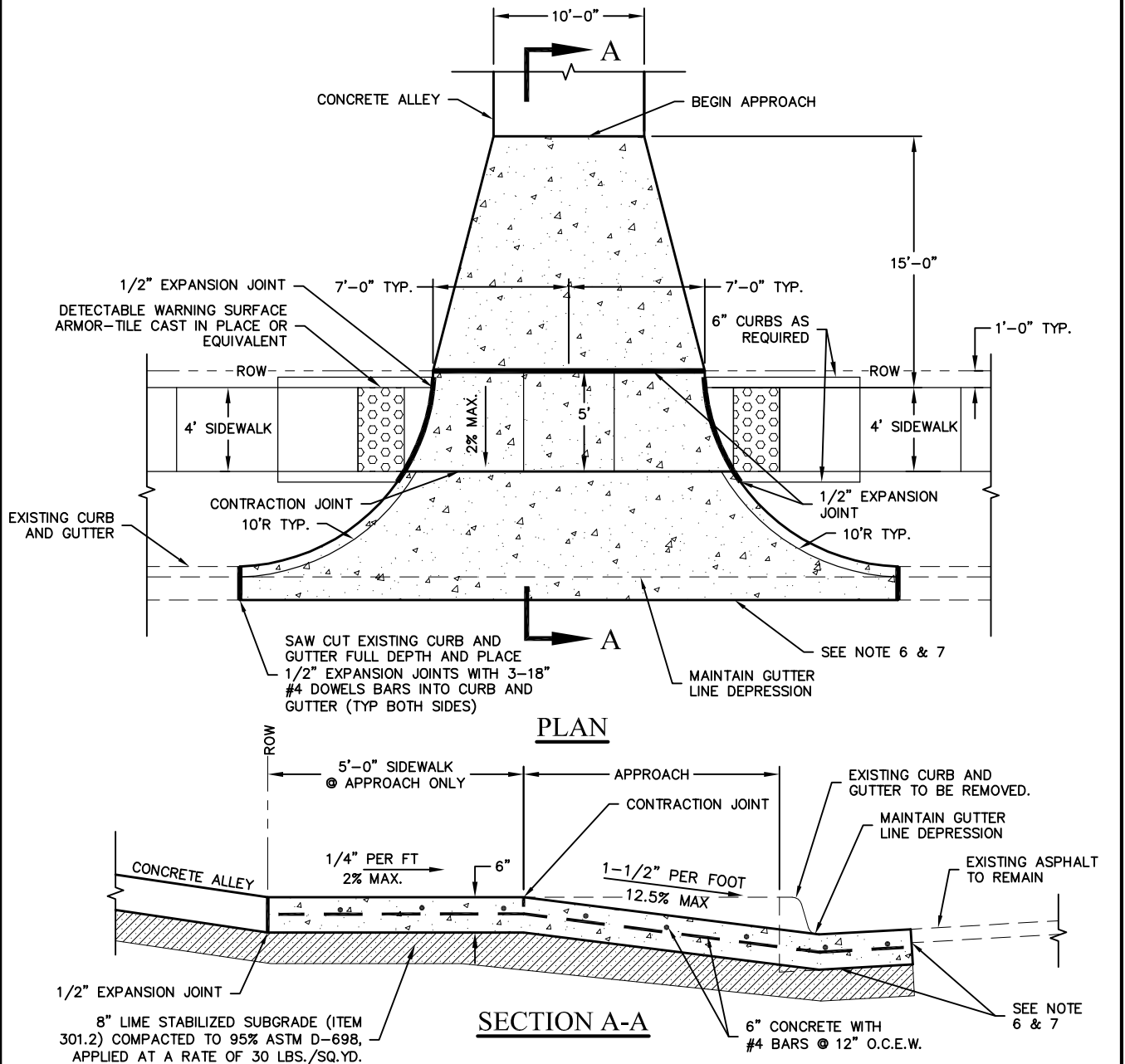
CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

COMMERCIAL DRIVE APPROACH
ASPHALT STREET

DETAIL NO. 2155

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GENERAL NOTES:

1. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
2. SEE DRIVE APPROACHES, ITEM 305.2 OF THE STANDARD SPECIFICATIONS.
3. ALL REINFORCING STEEL MUST HAVE A 2" MINIMUM COVER.
4. REFERENCE "PAVEMENT SECTION ALLEY DETAIL", FOR SUBGRADE PREPARATION REQUIREMENTS FOR ALLEY APPROACHES.
5. SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY.
6. FOR CONCRETE PAVEMENT:
WHEN THE EXISTING CURB HAS BEEN PLACED MONOLITHIC WITH THE STREET PAVEMENT, SAW CUT THE STREET AT 12" FROM BACK OF CURB, FULL DEPTH, INSTALL 18", TIE BARS @ 18" O.C. INTO THE STREET.
7. FOR ASPHALT PAVEMENT:
SAW CUT EXISTING PAVEMENT TO A NEAT, CLEAN EDGE.
8. SLOPE OF SIDEWALK AT DRIVE APPROACHES AND DETECTABLE WARNING SURFACES MUST COMPLY WITH ADA REQUIREMENTS (1" PER FOOT MAXIMUM).

ALLEY APPROACH

NOT TO SCALE

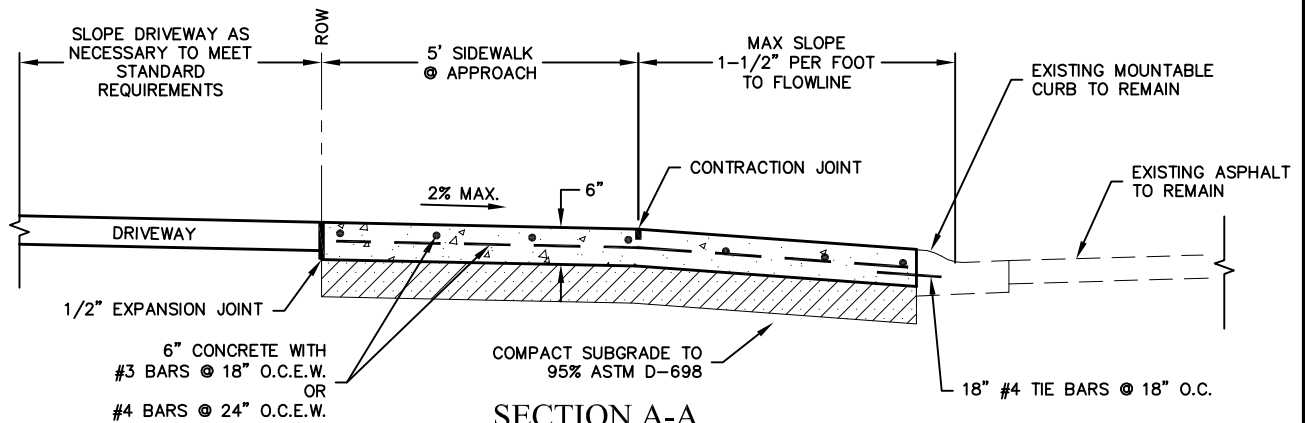
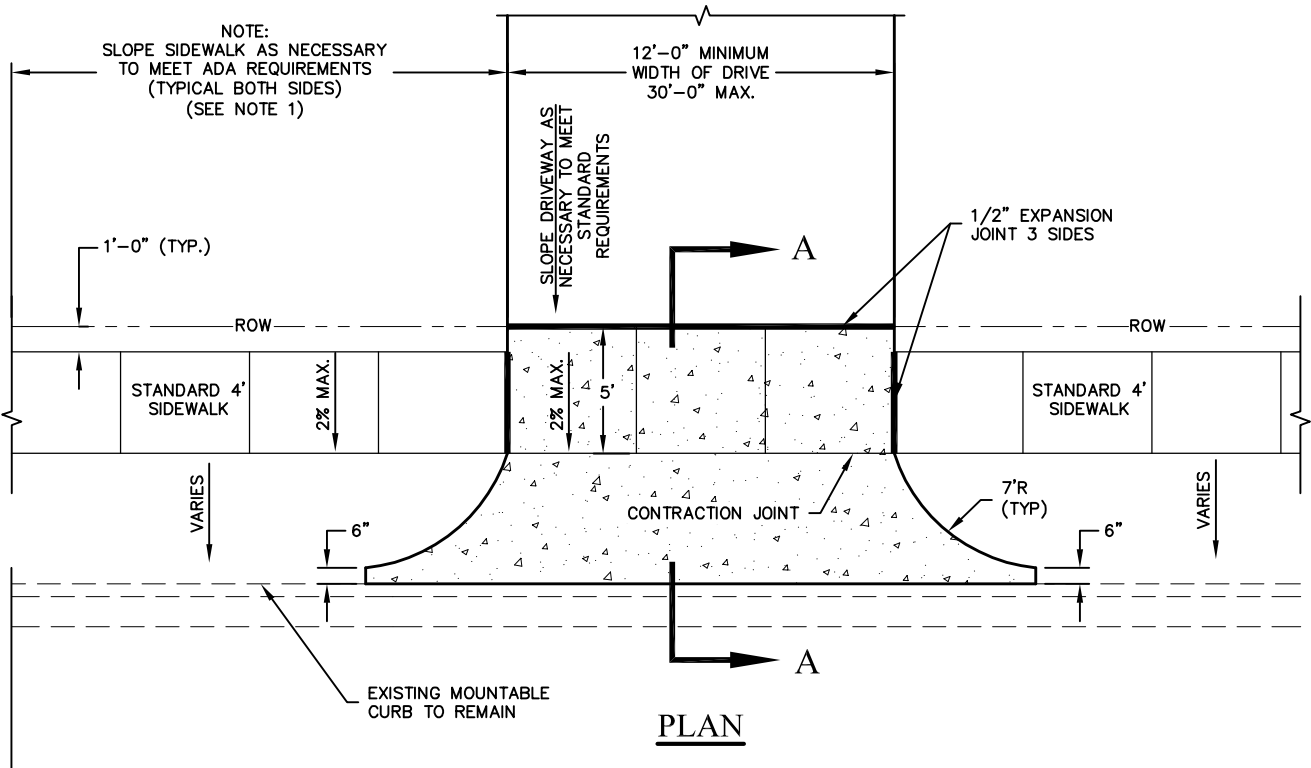
PAVEMENT STANDARDS

CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

ALLEY APPROACH

DETAIL NO. 2160



GENERAL NOTES:

1. SLOPE OF SIDEWALK AT DRIVE APPROACHES MUST COMPLY WITH ADA REQUIREMENTS (1" PER FOOT MAXIMUM).
2. SEE DRIVE APPROACHES, ITEM 305.2 OF THE STANDARD SPECIFICATIONS.
3. ALL CONCRETE MUST BE CLASS "C" (COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS).
4. SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY.
5. ALL STEEL MUST HAVE A 2" MINIMUM COVER.
6. REBAR MUST STOP 2" PRIOR TO EDGE OF EXISTING STREET.
7. ANY UTILITY BOXES OR MANHOLES WITHIN THE APPROACH MUST BE ADJUSTED BY THE CITY UTILITY DEPARTMENT, OR OWNER OF UTILITY, TO BE FLUSH WITH FINISH GRADE, OR RELOCATED OUT OF THE APPROACH TO THE PROPER GRADE. ALL ADJUSTMENT COST WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, OR THE OWNER INSTALLING THE APPROACH.

RESIDENTIAL DRIVE APPROACH WITH MOUNTABLE CURB

NOT TO SCALE

PAVEMENT STANDARDS

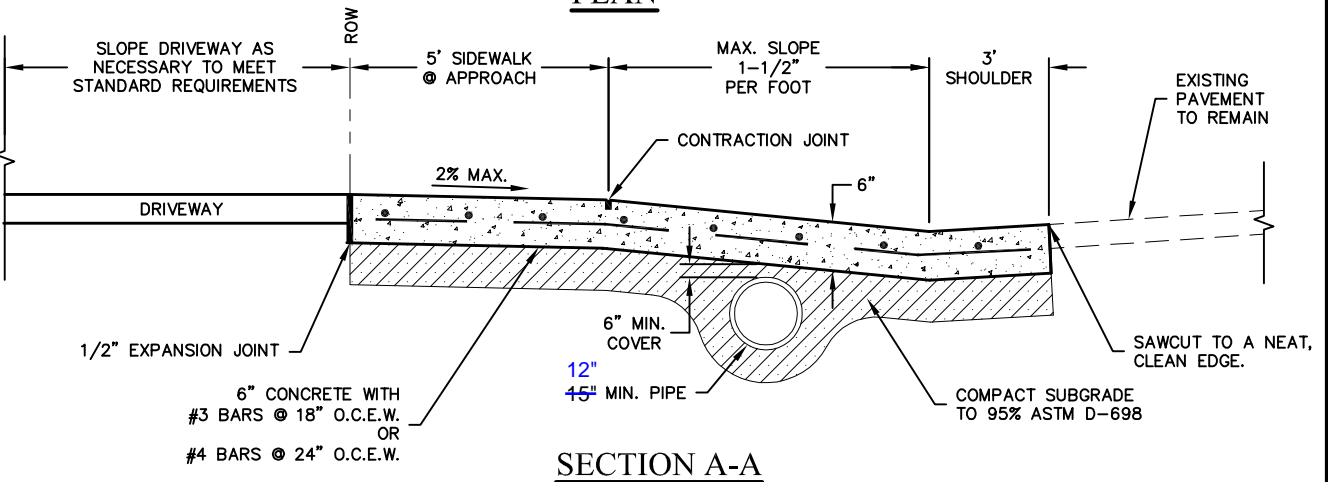
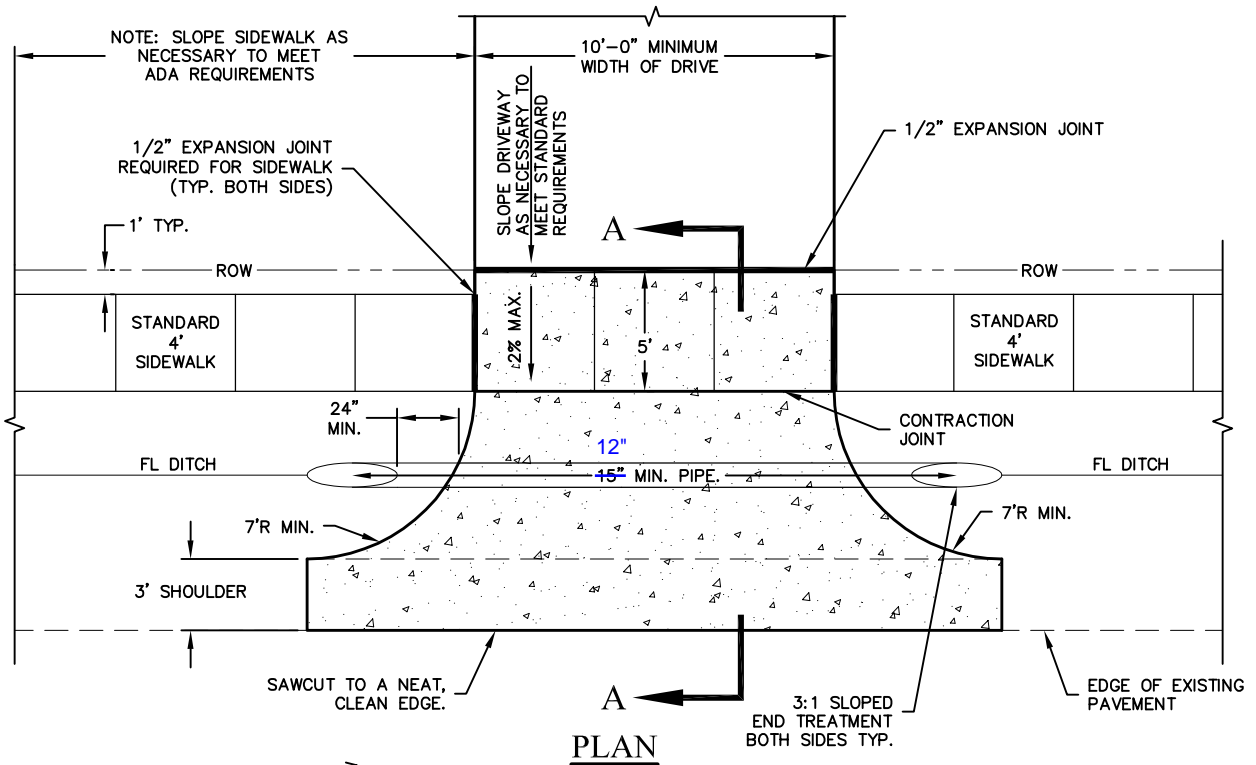
CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

RESIDENTIAL DRIVE APPROACH
WITH MOUNTABLE CURB

DETAIL NO. 2165

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GENERAL NOTES:

- SEE DRIVE APPROACHES, ITEM 305.2 OF THE STANDARD SPECIFICATIONS.
- ALL CONCRETE MUST BE CLASS "C" (COMPRESSED STRENGTH OF 3600 PSI @ 28 DAYS).
- SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY.
- ALL STEEL MUST HAVE A 2" MINIMUM COVER.
- DRAINAGE PIPE SIZE WILL BE MINIMUM 12" DIAMETER, OR AS DETERMINED BY CITY ENGINEER. DRAINAGE CONDITIONS MAY ALLOW A DIP IN DRIVEWAY WITHOUT PIPE.
- ANY UTILITY BOXES OR MANHOLES WITHIN THE APPROACH MUST BE ADJUSTED BY THE CITY UTILITY DEPARTMENT, OR OWNER OF UTILITY, TO BE FLUSH WITH FINISH GRADE, OR RELOCATED OUT OF THE APPROACH TO THE PROPER GRADE. ALL ADJUSTMENT COST WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, OR THE OWNER INSTALLING THE APPROACH.

DRIVE APPROACH

RURAL STREET

NOT TO SCALE

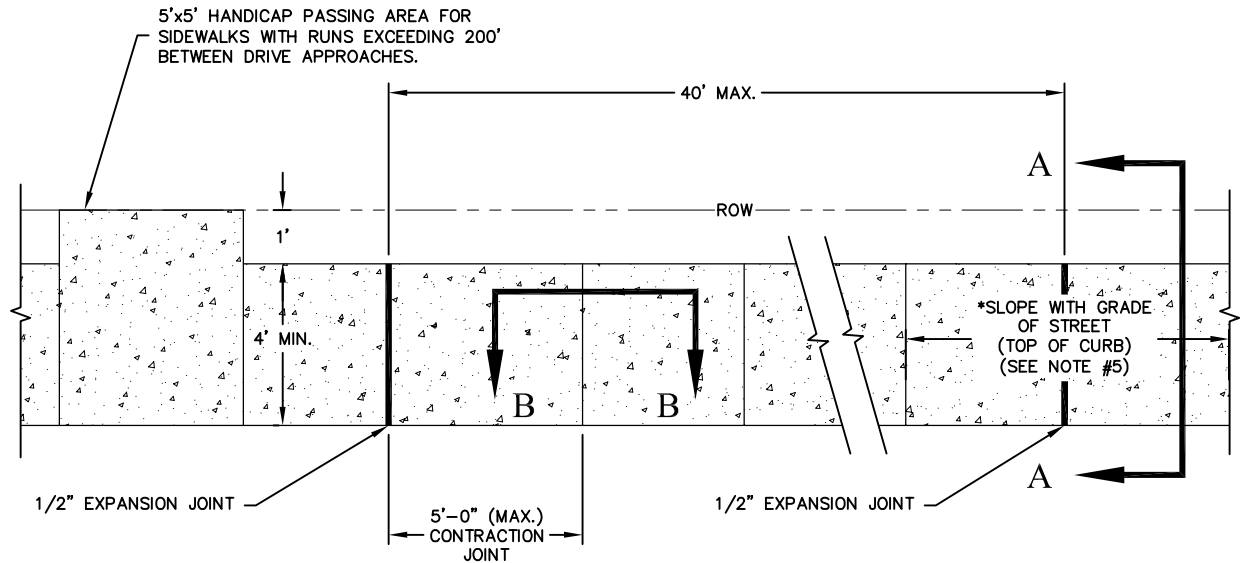
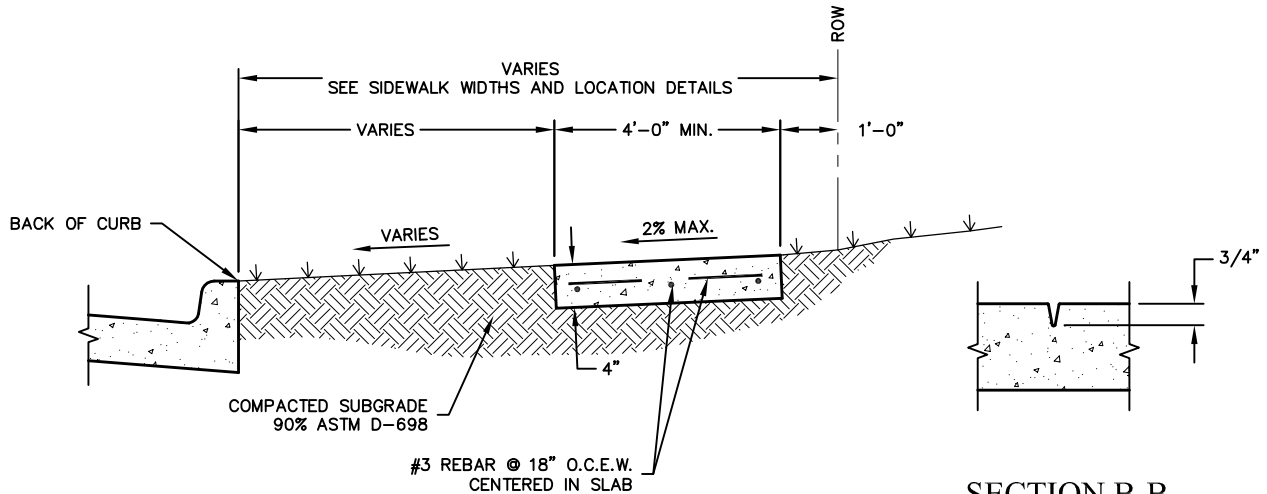
PAVEMENT STANDARDS

CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

DRIVE APPROACH
RURAL STREET

DETAIL NO. 2170

PLANSECTION A-ASECTION B-B
CONTRACTION JOINT

GENERAL NOTES:

1. SIDEWALK REINFORCING (EXCLUDING DRIVE APPROACHES) MUST BE #3 BARS @ 18" O.C.E.W. OR #4 BARS ON 24" O.C.
2. ALL CONCRETE MUST BE CLASS "C", (COMPRESSIVE STRENGTH OF 3,600 PSI. @ 28 DAYS.)
3. SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY.
4. ANY UTILITY BOXES OR MANHOLES WITHIN THE SIDEWALK MUST BE ADJUSTED BY THE CITY UTILITY DEPARTMENT, OR OWNER OF UTILITY, TO BE FLUSH WITH FINISH GRADE, OR RELOCATED OUT OF THE SIDEWALK TO THE PROPER GRADE. ALL ADJUSTMENT COST WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, OR THE OWNER INSTALLING THE SIDEWALK.
5. CROSS SLOPE AT DRIVE APPROACHES AND RAMPS MUST COMPLY WITH ADA REQUIREMENTS. (1 INCH PER FOOT MAXIMUM)
6. IF SIDEWALK IS PLACED ADJACENT TO CURB, MINIMUM WIDTH SHALL BE 6'.
7. PLACE SIDEWALK 1' OFF ROW LINE. PROVIDE 5' MINIMUM WIDTH SIDEWALK IN COMMERCIAL AREAS WITH HEAVY PEDESTRIAN MOVEMENTS.
8. SIDEWALKS INSTALLED WITHIN TXDOT RIGHT OF WAY MUST BE A MINIMUM WIDTH OF 5' AND MEET REQUIREMENTS OF TXDOT PEDESTRIAN STANDARDS.

SIDEWALK
NOT TO SCALE

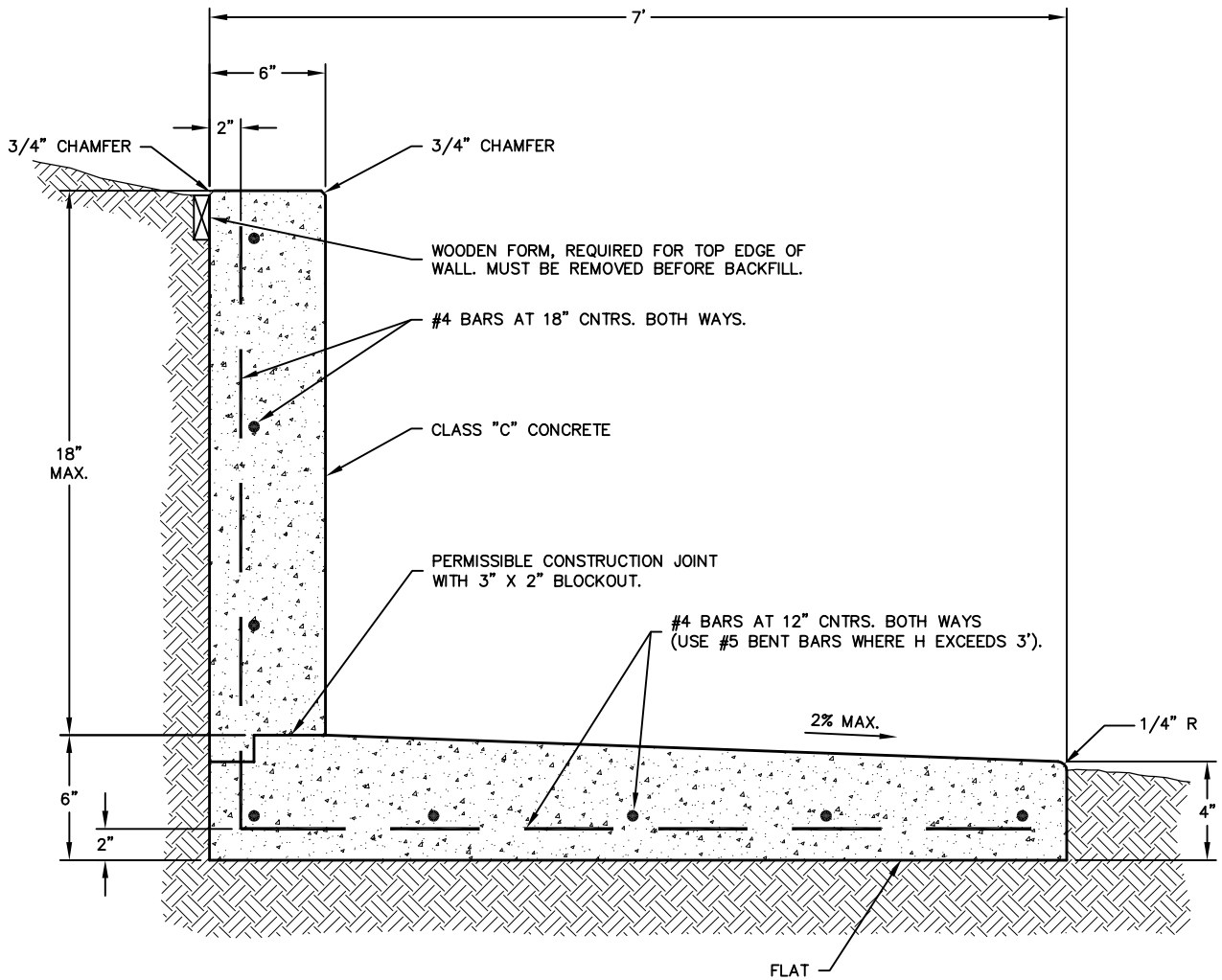
PAVEMENT STANDARDS

CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

SIDEWALK

DETAIL NO. 2200



GENERAL NOTES:

1. PROVIDE VERTICAL EXPANSION IN WALL AT 25' MAX. SPACING (USE EXPANSION JOINT DETAIL NO. 2051 WITH TXDOT TYPE A WATERSTOP AND MODIFY AS REQUIRED.)
2. WALL DESIGN ASSUMES NO SURCHARGE. A SPECIAL ENGINEERING ANALYSIS IS REQUIRED FOR OTHER CONDITIONS.
3. STRAIGHT, CLEAN EXCAVATION WALL MAY BE USED AS FORM ON BACK OF WALL. A WOODEN FORM IS REQUIRED FOR TOP EDGE OF WALL. IF BACK SIDE OF WALL DOES NOT USE EXISTING SOIL AS A FORM, BACKFILL BEHIND WALL IN 8" LIFTS COMPACTING TO 95% PER ASTM D-698.

SIDEWALK WITH 18" RETAINING WALL

NOT TO SCALE

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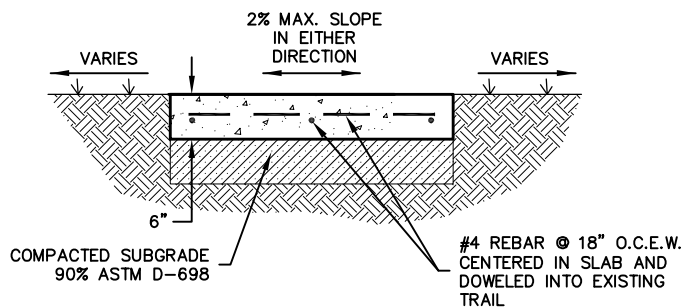
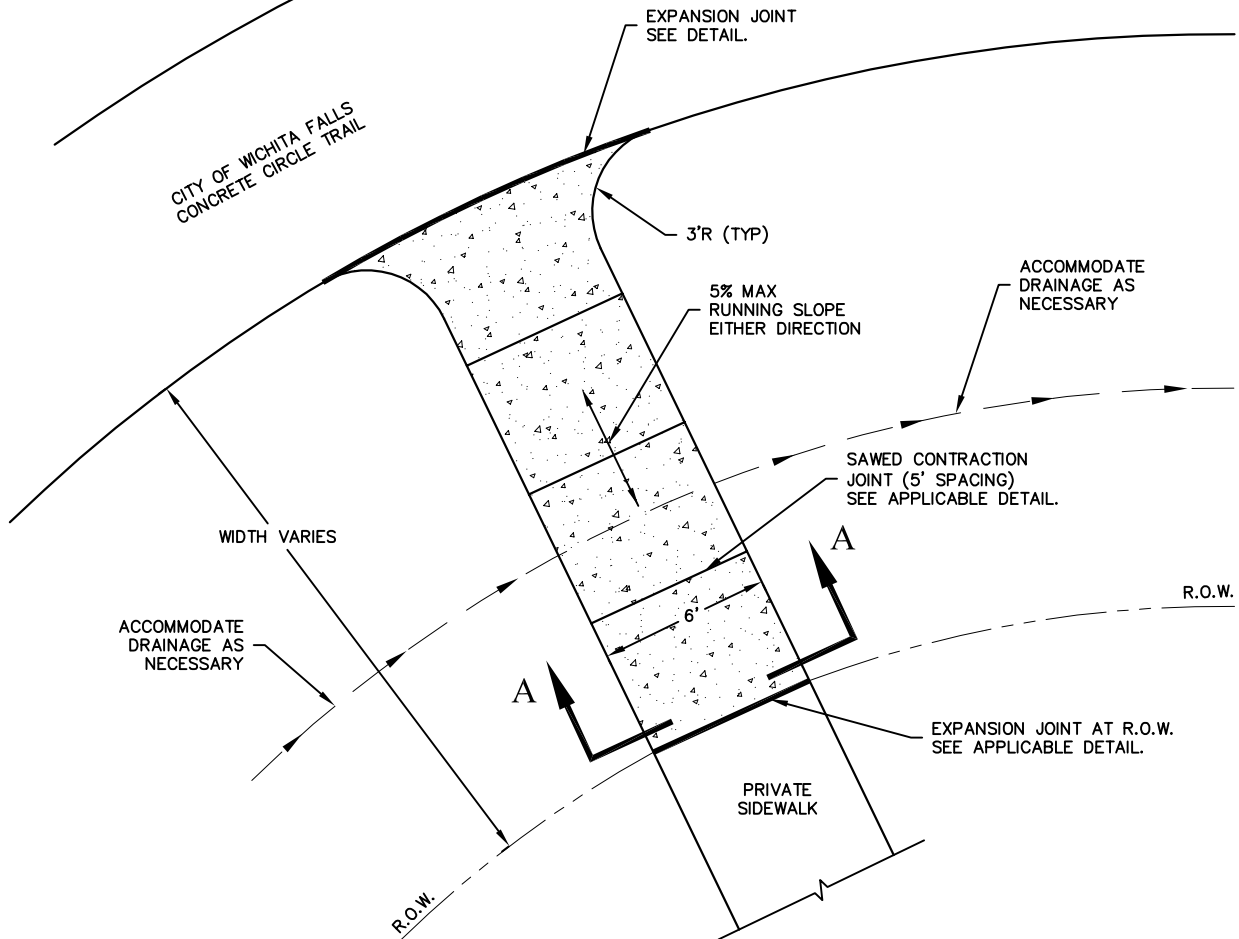
PAVEMENT STANDARDS

CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

SIDEWALK
WITH 18" RETAINING WALL

DETAIL NO. 2205



SECTION A-A

CIRCLE TRAIL CONNECTION

NOT TO SCALE

GENERAL NOTES:

1. APPROVAL REQUIRED FROM PARKS AND RECREATION FOR THE CIRCLE TRAIL CONNECTION, CONTACT PARKS AND RECREATION AT 940-761-7490.
2. ENCROACHMENT AGREEMENT REQUIRED FOR THE CIRCLE TRAIL CONNECTION, CONTACT PROPERTY MANAGEMENT AT 940-761-8816.
3. TRAIL CONNECTION MUST BE MADE AS PERPENDICULAR TO EXISTING TRAIL AS POSSIBLE.
4. SIDEWALK REINFORCING SHALL BE #4 BARS @ 18" O.C.E.W. AND DOWELED INTO EXISTING TRAIL.
5. ALL CONCRETE MUST BE CLASS "C", (COMPRESSIVE STRENGTH OF 3,600 PSI. @ 28 DAYS.)
6. SAND WILL NOT BE ACCEPTED AS COMPACTED SUBGRADE. SAND WILL BE ALLOWED FOR LEVEL-UP ONLY.
7. INSTALLATION MAY REQUIRE PIPE AND DITCH WORK TO ACCOMMODATE DRAINAGE.

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PAVEMENT STANDARDS

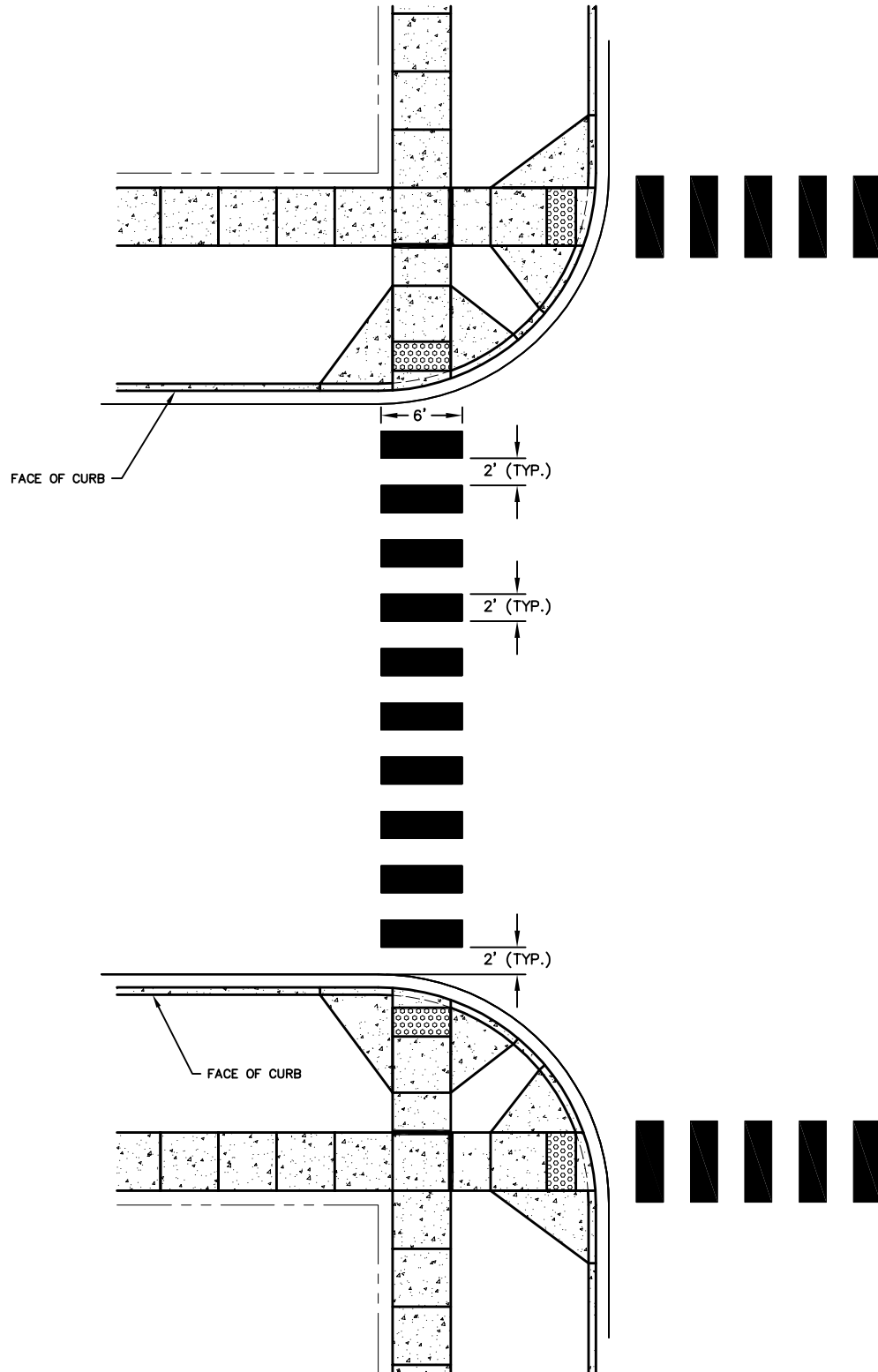
CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

CIRCLE TRAIL CONNECTION

DETAIL NO. 2210

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CROSSWALK STRIPING PLAN

NOTE:

NOT TO SCALE

1. STRIPING MUST BE WHITE, 100 MIL THICK HOT APPLIED THERMOPLASTIC WITH DROP-ON GLASS TRAFFIC BEADS OR TYPE C PREFABRICATED PAVEMENT MARKINGS. MATERIAL, SURFACE PREPARATION, SEALER, AND INSTALLATION OF CROSSWALK PAVEMENT MARKINGS MUST BE IN ACCORDANCE WITH ITEMS 666, 668, AND 678 OF TXDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES.

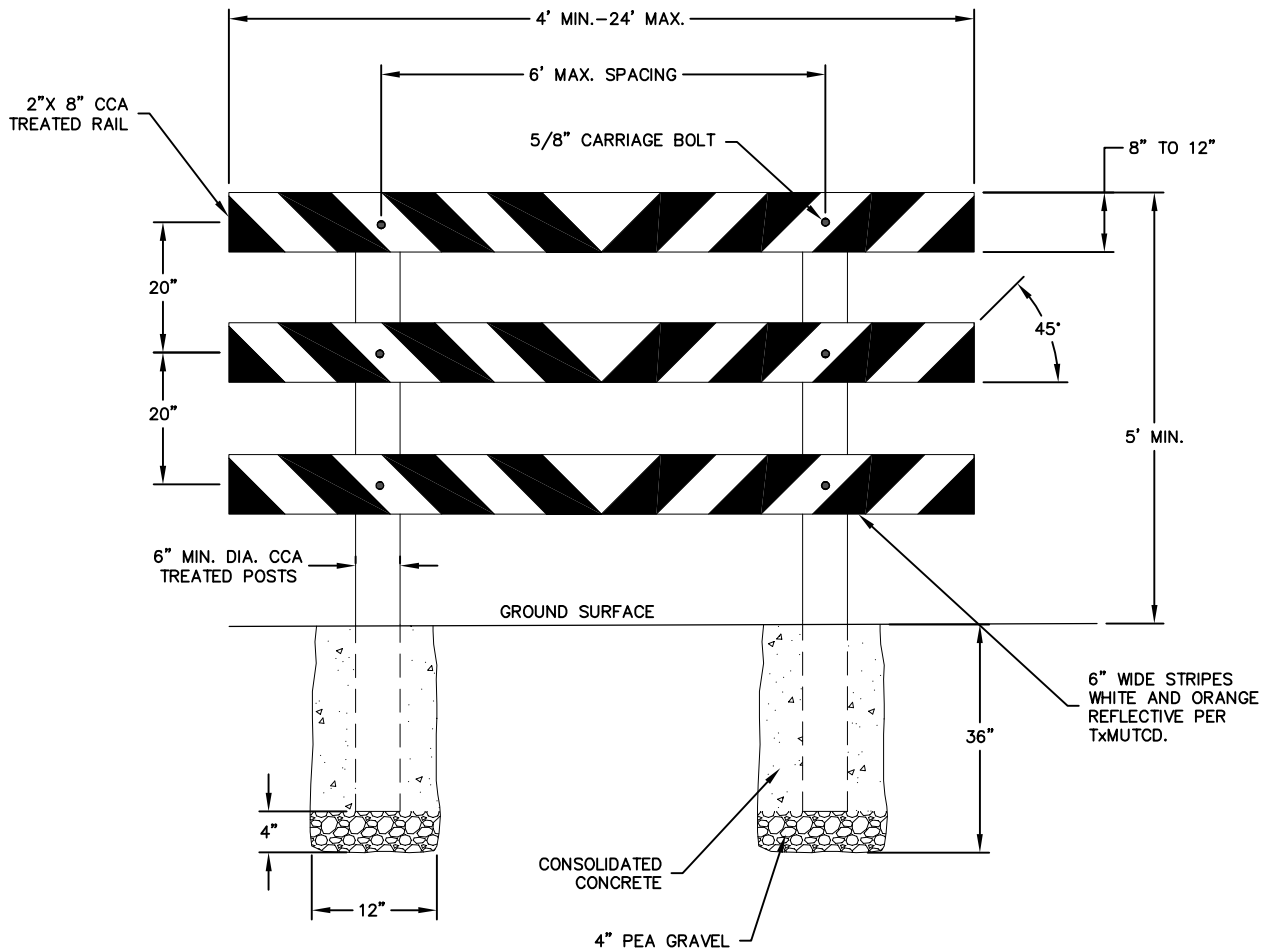
PAVEMENT STANDARDS

CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

CROSSWALK STRIPING PLAN

DETAIL NO. 2400



NOTE:

1. STRIPES ON BARRICADE SHALL BE ALTERNATING WHITE AND ORANGE RETROREFLECTIVE SHEETING WITH STRIPES SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION ROAD USERS ARE TO PASS. BARRICADE SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE T&MUTCD.

DEAD END STREET TYPE III BARRICADE DETAIL

NOT TO SCALE

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PAVEMENT STANDARDS

CITY OF WICHITA FALLS, TX
ENGINEERING DIVISION

SEPTEMBER 2023

DEAD END STREET
TYPE III BARRICADE DETAIL

DETAIL NO. 2410