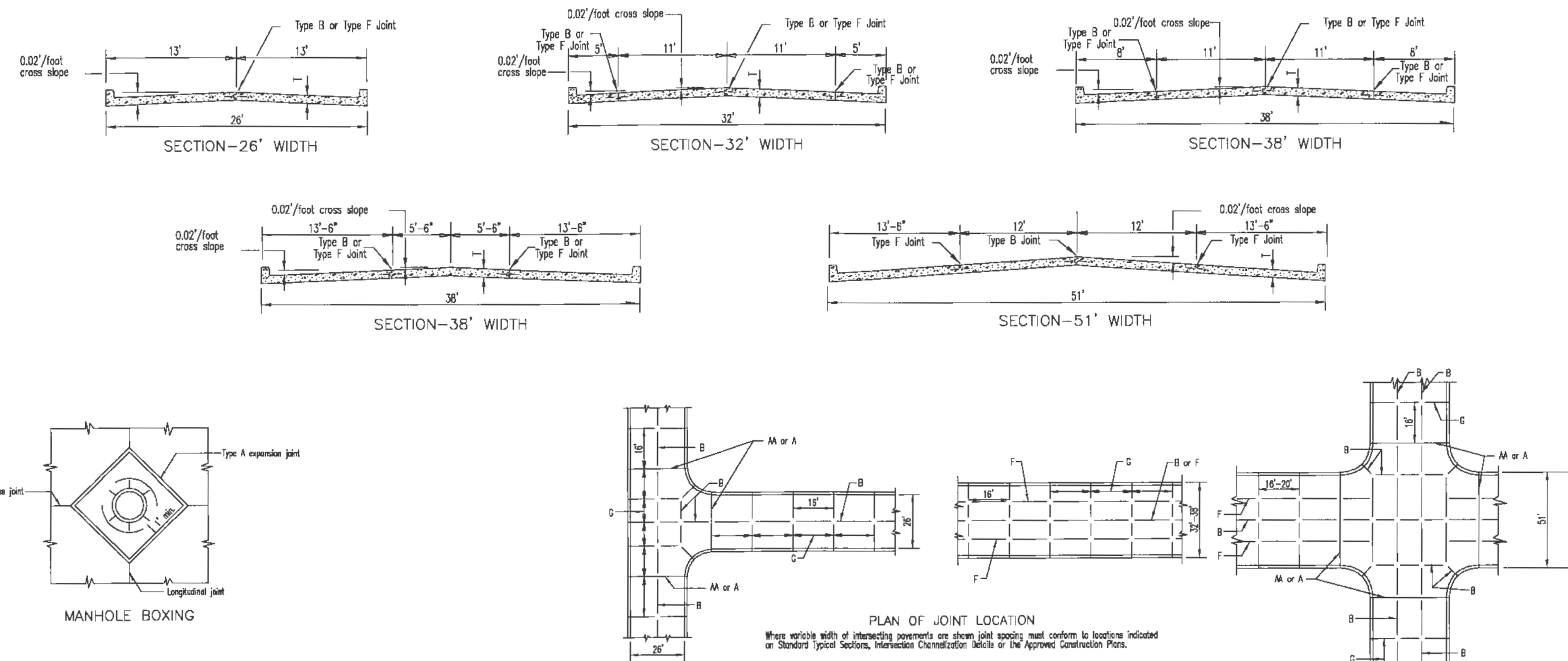


INTEGRAL VERTICAL CURB AND CONCRETE PAVEMENT TYPICAL SECTIONS AND DETAILS



GENERAL NOTES

- Do not scale drawing. Follow dimensions.
- All street inlets shall be separated from the pavement and curb by expansion joint material extending completely through curb and slab. Microbe coatings within the pavement limits shall be based as shown.
- When a joint falls within 5ft. of, or contacts inlets, manholes, or other structures, shorten one or more panels either side of opening to permit joint to fall on round structures and at or between corners of rectangular structures.
- Driveway configurations are shown in the "Entrance Construction Details".
- Construction joint and tie bars may be omitted when curb is poured monolithic with pavement.
- Minimum Thickness for Pavement is:

| | |
|-----------------------------|----|
| All Non-Residential Streets | 1" |
| All Arterial Streets | 6" |

NOTE

Joint filler material shall meet ASTM designations as follows:
 Bituminous type ASTM D-984-53
 Non extruding & resilient bituminous type (BMS) ASTM D-1751-60T
 Non extruding & resilient non bituminous type (rubber) ASTM D-5249

NOTE

Joint sealant material shall meet ASTM and MSHT designations as follows:
 Bituminous type ASTM D-3465
 Non extruding & resilient bituminous type (BMS) MSHT M-301 or ASTM D-1190-74
 Non extruding & resilient non bituminous type (rubber) MSHT M-173-84 or latest revisions thereof.

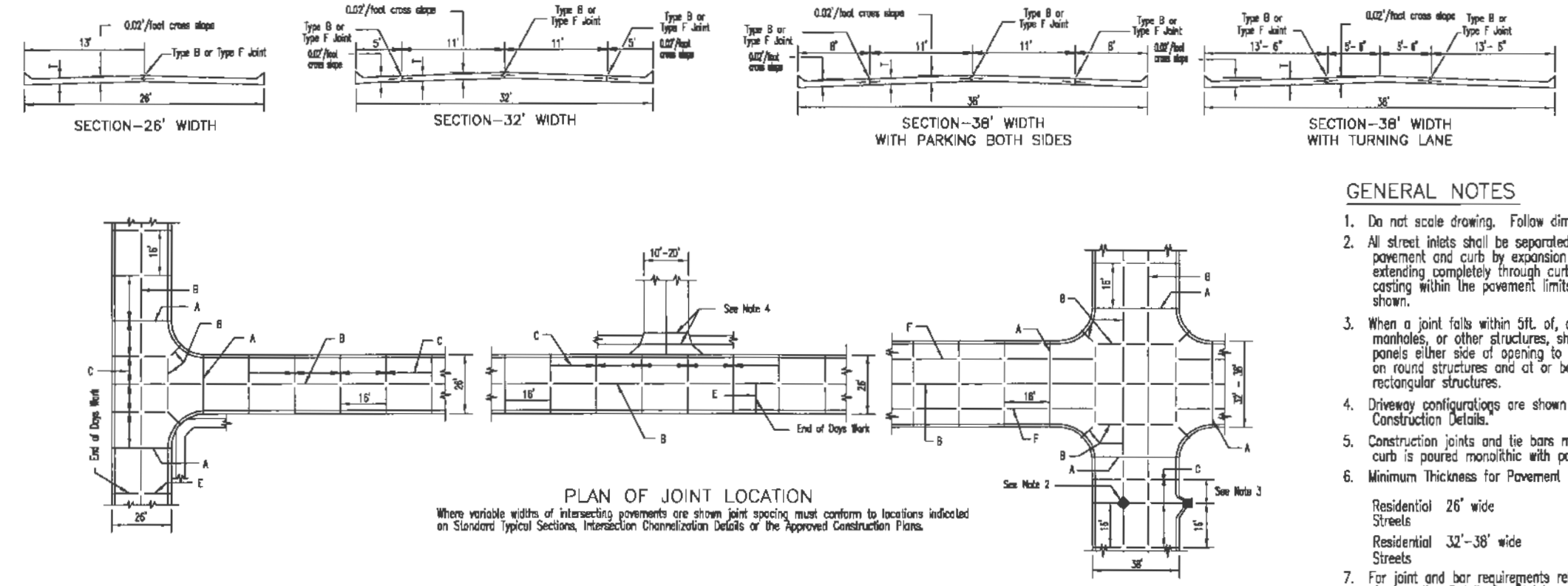
| STREET | JOINT TYPE | JOINT AND BAR REQUIREMENTS |
|-------------------------------|--------------|--|
| All Arterial, Non-Residential | Transverse | TYPE C 1" smooth dowel bars 18"lg. @ 12" cts. |
| 26'-51" wide pavement | Longitudinal | With a second section: TYPE E 5/8" deformed tie bars 18"lg. @ 30" cts. 5/8" deformed tie bars 30"lg. @ 30" cts. |
| | Expansion | TYPE A 3/4" smooth dowel bars 18"lg. @ 12" cts. |

SAINT CHARLES COUNTY
 HIGHWAY DEPARTMENT
 ST. CHARLES, MISSOURI

PAVEMENT CONSTRUCTION DETAILS
 INTEGRAL VERTICAL CURB
 AND CONCRETE PAVEMENT
 TYPICAL SECTIONS AND DETAILS

DATE: October, 2022 DRAWING: CS02.01

INTEGRAL ROLLED CURB AND CONCRETE PAVEMENT TYPICAL SECTIONS AND DETAILS



GENERAL NOTES

- Do not scale drawing. Follow dimensions.
- All street inlets shall be separated from the pavement and curb by expansion joint material extending completely through curb and slab. Microbe coatings within the pavement limits shall be based as shown.
- When a joint falls within 5ft. of, or contacts inlets, manholes, or other structures, shorten one or more panels either side of opening to permit joint to fall on round structures and at or between corners of rectangular structures.
- Driveway configurations are shown in the "Entrance Construction Details".
- Construction joints and tie bars may be omitted when curb is poured monolithic with pavement.
- Minimum Thickness for Pavement is:

| | |
|----------------------------------|----|
| Residential 26' wide Streets | 6" |
| Residential 32'-38' wide Streets | 7" |
- For joint and bar requirements refer to the Pavement Construction Details for Joints and Curbs. Sec. Dev. CS02.03. Note that the width and location may change the type of joint required.
- Transverse or longitudinal construction joints in slip formed pavements may be made with a groover or tool, if such device has been approved in advance by the Department.
- The locations of the Type B longitudinal construction joints in the sections may be interchanged for the different widths of construction if approved by the Department.

| STREET | JOINT TYPE | JOINT AND BAR REQUIREMENTS |
|--|--------------|--|
| 3 LANE RESIDENTIAL 32'-38' wide pavement | Transverse | TYPE C no steel bars |
| 7' sidewalk/curb | Longitudinal | With a second section: TYPE E 5/8" deformed tie bars 18"lg. @ 30" cts. |
| | Expansion | TYPE A no steel bars |
| RESIDENTIAL 2 LANE 26' wide pavement | Transverse | TYPE C no steel bars |
| 7' sidewalk/curb | Longitudinal | With a second section: TYPE E 5/8" deformed tie bars 18"lg. @ 30" cts. |
| | Expansion | TYPE A no steel bars |

NOTE

Joint filler material shall meet ASTM designations as follows:
 Bituminous type ASTM D-984-53
 Non extruding & resilient bituminous type (BMS) ASTM D-1751-60T
 Non extruding & resilient non bituminous type (rubber) ASTM D-5249

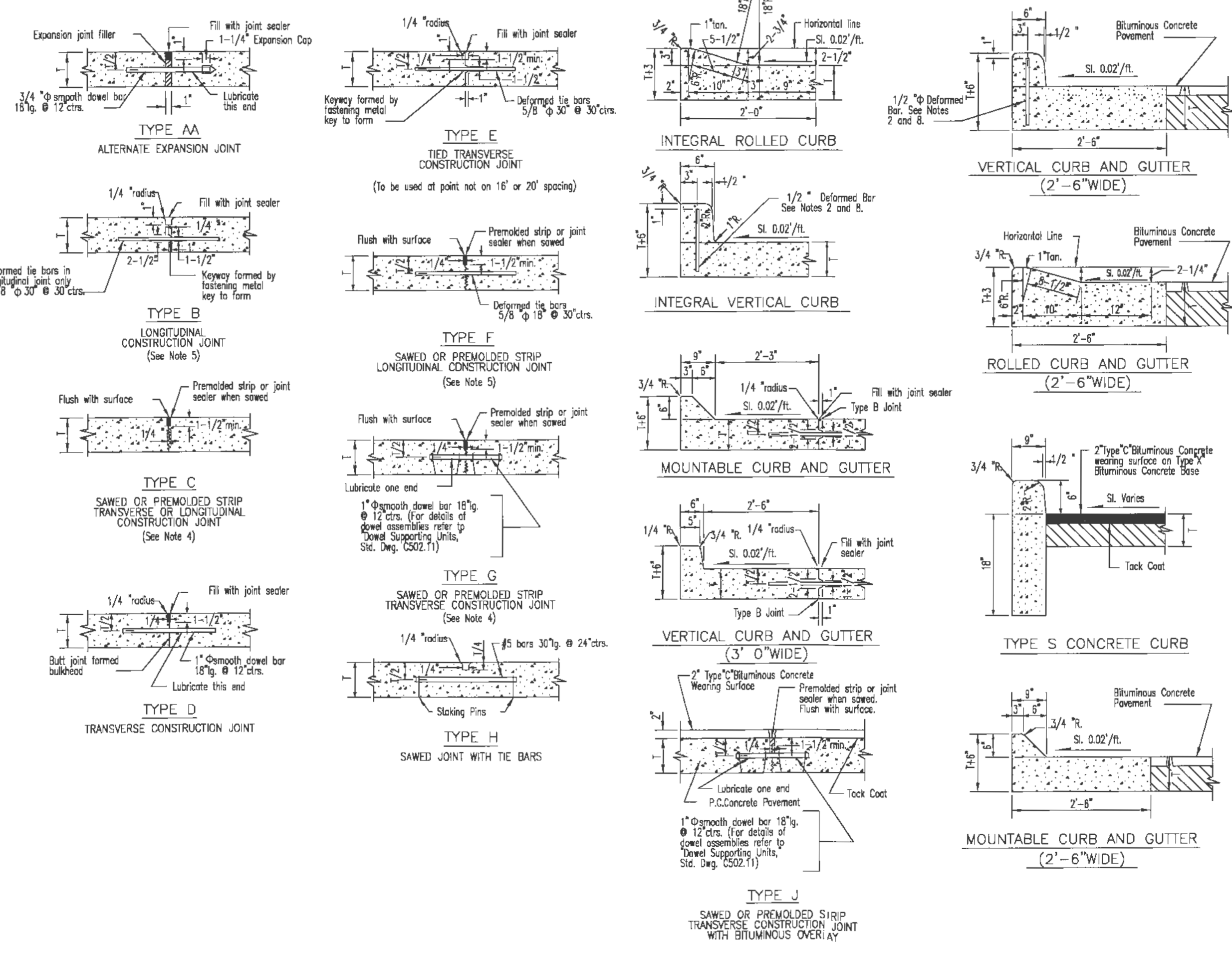
NOTE

Joint sealant material shall meet ASTM and MSHT designations as follows:
 Bituminous type ASTM D-3465
 Non extruding & resilient bituminous type (BMS) MSHT M-301 or ASTM D-1190-74
 Non extruding & resilient non bituminous type (rubber) MSHT M-173-84 or latest revisions thereof.

GENERAL NOTES

- Do not scale drawing. Follow dimensions.
- Construction joint and tie bars may be omitted when curb is poured integral with pavement.
- Minimum Thickness for Pavement is:

| | |
|---|-----|
| Bituminous Concrete Pavement Thickness = | (1) |
| All Residential Minor and Local Streets | 6" |
| Residential Collector and Non-Residential Streets | 7" |
| All Arterial Streets | 8" |
- Type "C" Transverse Joint is required for Arterial and Non-Residential streets. Use Type "C" Transverse Joint for all others.
- For Subdivision or Minor Streets having 6" concrete pavement, 1/2" deformed tie bars 30" long or 20" centers shall be used for Type "E" longitudinal joints and 1/2" deformed tie bars 18" long or 30" centers shall be used for Type "F" longitudinal joints.
- Refer to Pavement Construction Details for Integral Vertical Curb and Concrete Pavement Typical Sections and Details. Sec. Dev. CS02.01 and Integral Rolled Curb and Concrete Pavement Typical Sections and Details. Sec. Dev. CS02.02 for joint and bar requirements for different street classifications. Note that width and location of each poured portion of the pavement may change the type and location of joint required.
- All deformed bars for joints and curbs shall be steel bars conforming to A.S.I. M515-75, Grade 60.
- Length of the tie bars shall equal the thickness of pavement plus the height of curb less 1". The bars shall be placed at 24" centers.
- Transverse or longitudinal construction joints in slip formed pavements may be made with a groover or tool, if such device has been approved in advance by the Department.
- The free end of the dowel bar for a length of at least 11 inches shall be coated with an approved graphite grease.
- All cover bars 18"lg. @ 12" cts. shall be epoxy coated.

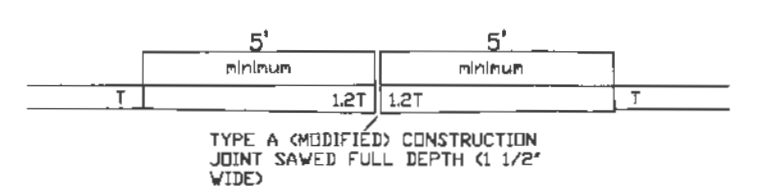


SAINT CHARLES COUNTY
 HIGHWAY DEPARTMENT
 ST. CHARLES, MISSOURI

PAVEMENT CONSTRUCTION DETAILS
 JOINTS AND CURBS

DATE: September, 2022 DRAWING: CS02.03

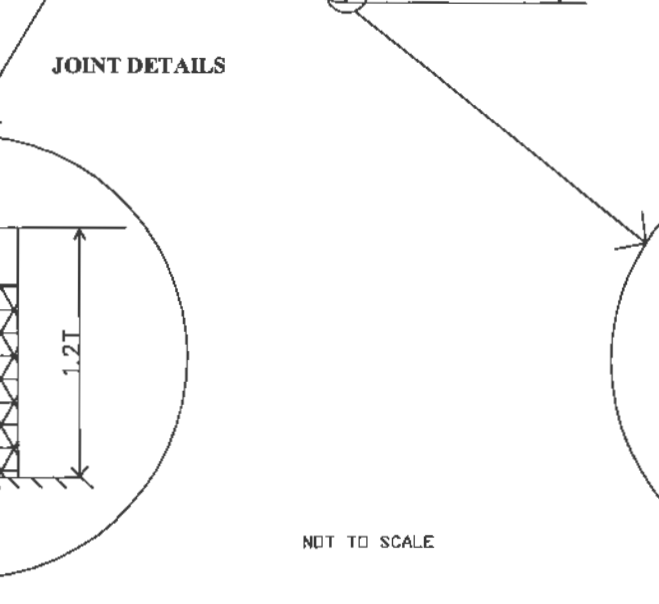
TYPE A (MODIFIED) CONSTRUCTION JOINT



JOINT LOCATION

AT EITHER PC OR PT OF CURVED PAVEMENT, MAXIMUM 1000 FT SPACING ON TANGENT SECTIONS, AND AS DIRECTED ON INTEGRAL CURB PAVEMENT TYPICAL SECTIONS AND DETAILS.

JOINT DETAILS



NOTES

- THE NUMBER OF BACKER RODS REQUIRED WILL VARY WITH THE PAVEMENT THICKNESS. BACKER RODS AND FLEXIBLE FOAM FILLER MUST EXTEND THROUGH THE FULL DEPTH OF THE PAVEMENT.
- JOINT FILLER SHALL BE A FLEXIBLE, NON-ABSORBENT, NON-GASSING, NON-STAINING, NON-SHRINKING MATERIAL, EXTRUDED FROM A CLOSED-CELL POLYMER, ASTM D-5249.
- JOINT FILLER COMPOSED OF CELLULAR FIBERS, ASTM D-1751, MAY BE USED AT DRIVEWAY, SIDEWALK, AND SEWER INLET AND MANHOLE LOCATIONS.
- SEE "INTEGRAL CURB DETAIL 'B'" AT DRIVEWAYS FOR EXPANSION JOINT REQUIREMENTS AT DRIVEWAY CONNECTIONS TO THE STREET AND THE GARAGE.

SAINT CHARLES COUNTY
 HIGHWAY DEPARTMENT
 ST. CHARLES, MISSOURI

PAVEMENT CONSTRUCTION DETAILS
 Type "A" Expansion Joint

DATE: May, 2022 DRAWING: CS02.04



| ISSUE | DATE | REMARKS |
|-------|---------|---------------------------|
| 2 | 5/11/05 | REVISED PER CITY COMMENTS |
| 3 | 7/29/05 | REVISED PER CITY COMMENTS |

The responsibility for professional engineering liability on this project is assumed by the engineer or architect. The engineer or architect is not responsible for the design or construction of any structure or system not specifically indicated on the drawings. The engineer or architect is not responsible for the design or construction of any structure or system not specifically indicated on the drawings.

LIBERTY
 ENGINEERING, L.L.C.

SAINT CHARLES COUNTY
 HIGHWAY DEPARTMENT
 ST. CHARLES, MISSOURI

PAVEMENT CONSTRUCTION DETAILS
 INTEGRAL ROLLED CURB AND
 CONCRETE PAVEMENT
 TYPICAL SECTIONS AND DETAILS

DATE: October, 2022 DRAWING: CS02.02

PREPARED BY:

PROJECT: KAPLAN DEVELOPMENT, LLC
 ROAD IMPROVEMENTS

CONSTRUCTION

PROJECT NO: 04021-00
 DESIGNED BY:
 DRAWN BY:
 CHECKED BY:
 SHEET NO: 11 OF 12

WABASH AVENUE
 ROAD IMPROVEMENTS

CONSTRUCTION

PROJECT NO: 04021-00
 DESIGNED BY:
 DRAWN BY:
 CHECKED BY:
 SHEET NO: 11 OF 12