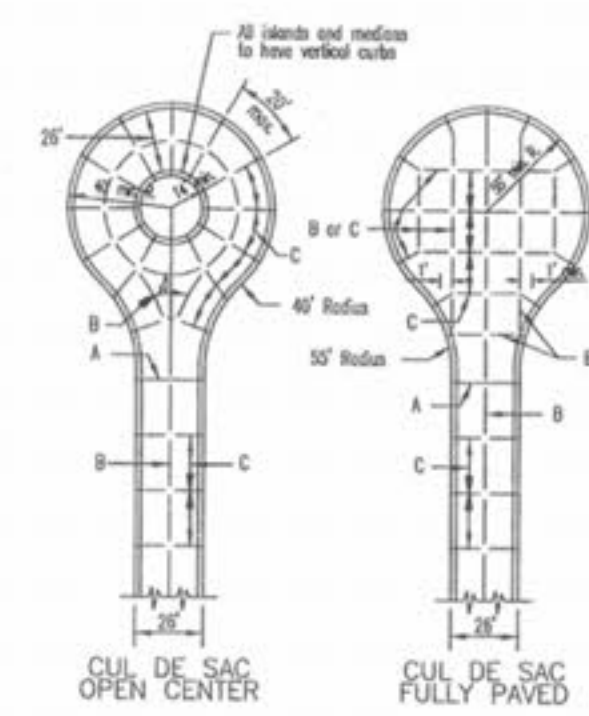
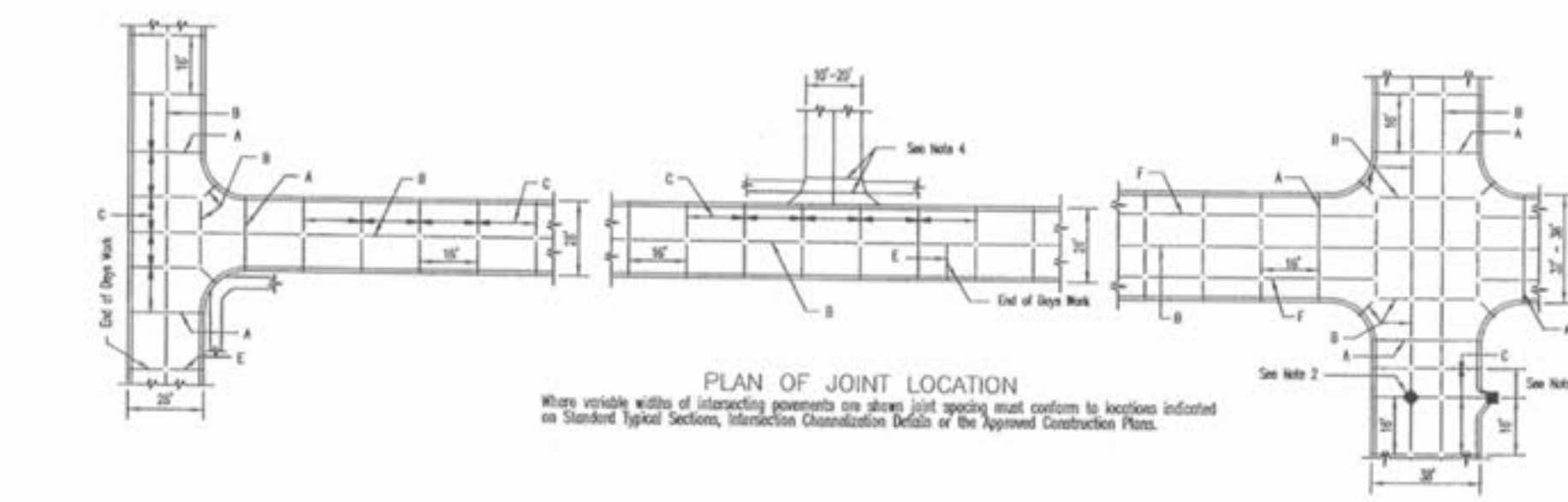
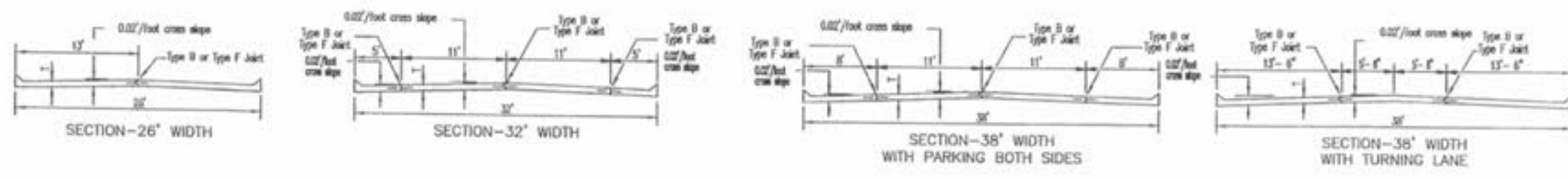


INTEGRAL ROLLED CURB AND CONCRETE PAVEMENT TYPICAL SECTIONS AND DETAILS

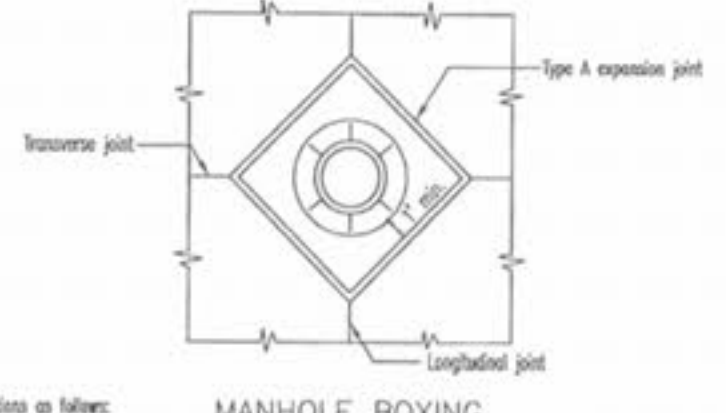


STREET	JOINT TYPE	JOINT AND BAR REQUIREMENTS
3 LANE	Transverse	TYPE C no steel bars
RESIDENTIAL 32'-36" wide	Longitudinal	Within a joint section: TYPE F 5/8" ϕ deformed tie bars @ 30' cts. At the edge between the joint sections: TYPE B 5/8" ϕ deformed tie bars @ 30' cts.
7" thick concrete	Expansion	TYPE A no steel bars
RESIDENTIAL 2 LANE	Transverse	TYPE C no steel bars
25' wide pavement	Longitudinal	Full Width Construction TYPE F modified with 1/2" ϕ deformed tie bars @ 30' cts. Half Width Construction TYPE B modified with 1/2" ϕ deformed tie bars @ 30' cts.
6" thick concrete	Expansion	TYPE A no steel bars

NOTE: Joint filler material shall meet ASTM designations as follows:
 Blanket type ASTM D-994-03
 Non-saturating & resilient blanket type (flex) ASTM D-1751-00T
 Non-saturating & resilient non-blanket type (polymer) ASTM D-5249

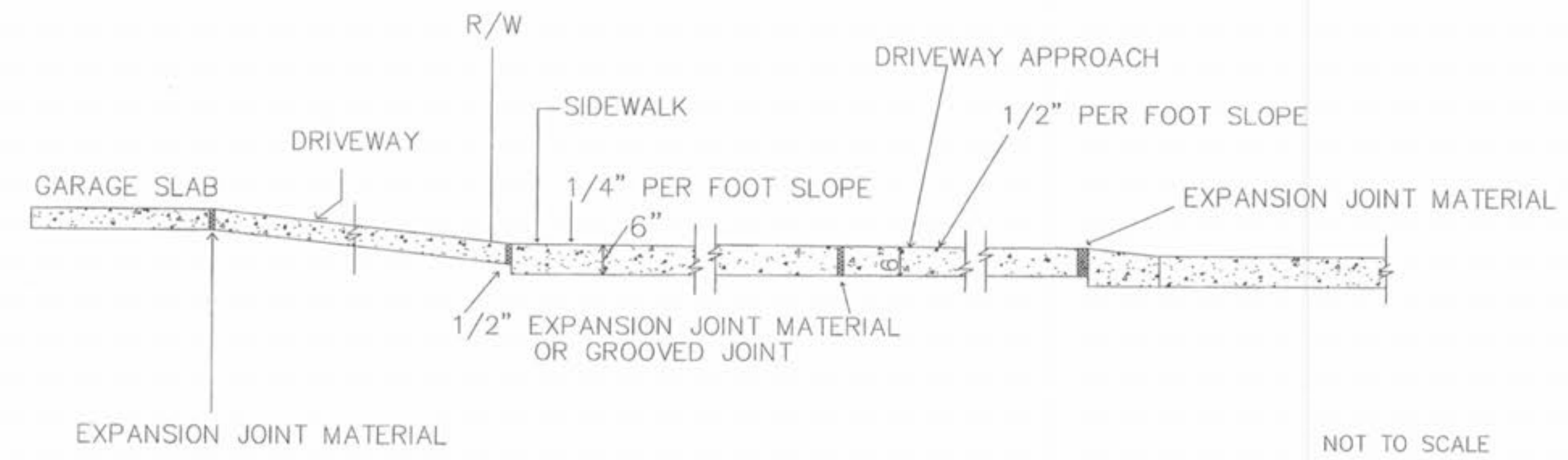
NOTE: Joint sealant material shall meet ASTM and AASHTO designations as follows:
 ASTM D-3465 AASHTO M-301
 ASTM D-1190-74 AASHTO M-173-04
 or latest revisions thereof.

- 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. Manhole curbing 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 normal joint to fit on round structures and all 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'-36" wide Streets 7"
 - For joint and bar requirements refer to the Pavement Construction Details for "Joints and Curbs" - Std. Detg. C502.03. 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.



SAINT CHARLES COUNTY
 HIGHWAY DEPARTMENT
 ST. CHARLES, MISSOURI
 PAVEMENT CONSTRUCTION DETAILS
 INTEGRAL ROLLED CURB AND
 CONCRETE PAVEMENT
 TYPICAL SECTIONS AND DETAILS

DATE: October, 2002 DRAWING: C502.02



- NOTES:**
- A 1" JOINT IS REQUIRED AT THE CURB AND GARAGE FOR ALL DRIVEWAYS LOCATED ON THE OUTER EDGE OF CURVED PAVEMENT, UNLESS GROOVED JOINTS ARE USED AT SIDEWALK. THEN A 2" JOINT IS REQUIRED AT CURB.
 - A 1/2" JOINT IS REQUIRED AT THE CURB AND GARAGE FOR ALL DRIVEWAYS LOCATED ON TANGENT SECTIONS OF PAVEMENT OR ON THE INNER EDGE OF CURVED PAVEMENT.
 - EXPANSION JOINT MATERIAL MUST EXTEND THROUGH THE FULL DEPTH OF THE PAVEMENT.
 - SIDEWALK THICKNESS SHALL BE A MINIMUM OF 7" THROUGH COMMERCIAL DRIVEWAYS.

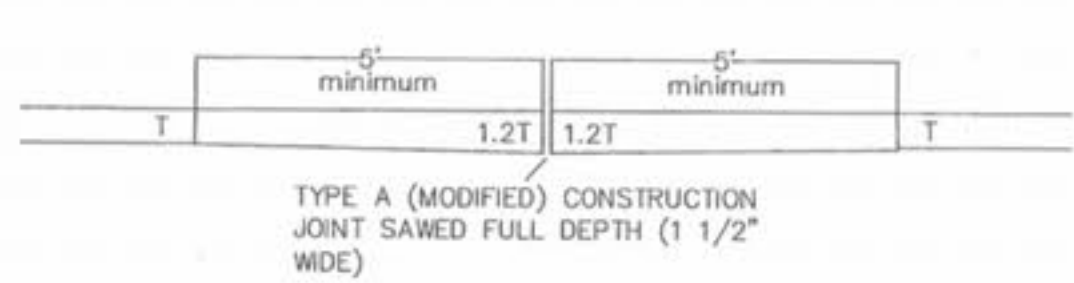
NOT TO SCALE

SAINT CHARLES COUNTY
 HIGHWAY DEPARTMENT
 ST. CHARLES, MISSOURI
 PAVEMENT CONSTRUCTION DETAILS
 Integral Curb Detail "B" at Driveways

DATE: May, 2002 DRAWING: C502.05

MAGNOLIA
 PAVEMENT DETAILS

TYPE A (MODIFIED) CONSTRUCTION JOINT



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

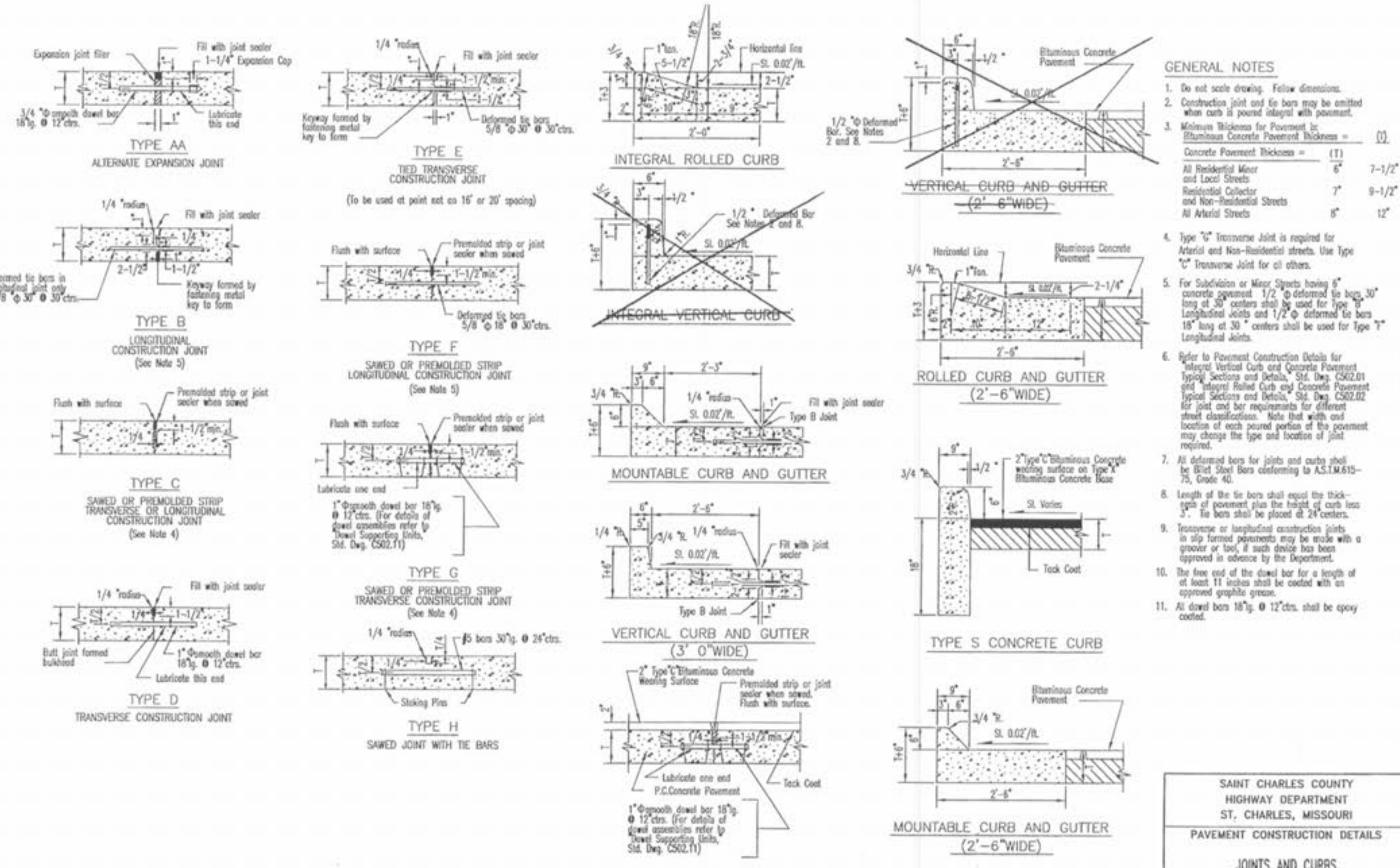


NOT TO SCALE

- 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, 2002 DRAWING: C502.04



- 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:
 Residential Concrete Pavement Thickness = (1) 6" 7-1/2"
 All Residential Motor and Load Streets 6" 7-1/2"
 Residential Collector and Non-Residential Streets 7" 9-1/2"
 All Arterial Streets 8" 12"
 - Type "C" Transverse Joint is required for Arterial and Non-Residential streets. Use Type "C" Transverse Joint for all others.
 - For Subdivision or Motor Streets having 8" concrete pavement, 1/2" ϕ deformed tie bars, 30" long at 30' centers shall be used for Type "B" Longitudinal joints and 1/2" ϕ deformed tie bars 18" long at 30' centers shall be used for Type "F" Longitudinal joints.
 - Refer to Pavement Construction Details for "Integral Vertical Curb and Concrete Pavement" (Std. Detg. C502.01) and "Integral Rolled Curb and Concrete Pavement" (Typical Sections and Details, Std. Detg. C502.02) for joint and bar requirements for different street classifications. Note that with one exception of each paved portion of the pavement may change the type and location of joint required.
 - All deformed bars for joints and curbs shall be #4 steel bars conforming to ASTM A615-03, Grade 60.
 - Length of the tie bars shall equal the thickness of pavement plus the height of curb less 1". Tie bars shall be placed @ 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 dowel bars 18" ϕ 12" cts. shall be epoxy coated.

SAINT CHARLES COUNTY
 HIGHWAY DEPARTMENT
 ST. CHARLES, MISSOURI
 PAVEMENT CONSTRUCTION DETAILS
 JOINTS AND CURBS

DATE: September, 2002 DRAWING: C502.03

ST. CHARLES ENGINEERING & SURVEYING, INC.
 801 S. FIFTH STREET, SUITE 202
 ST. CHARLES, MO 63301
 TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO. 03-0498
 DATE 12/1/03
 D-1