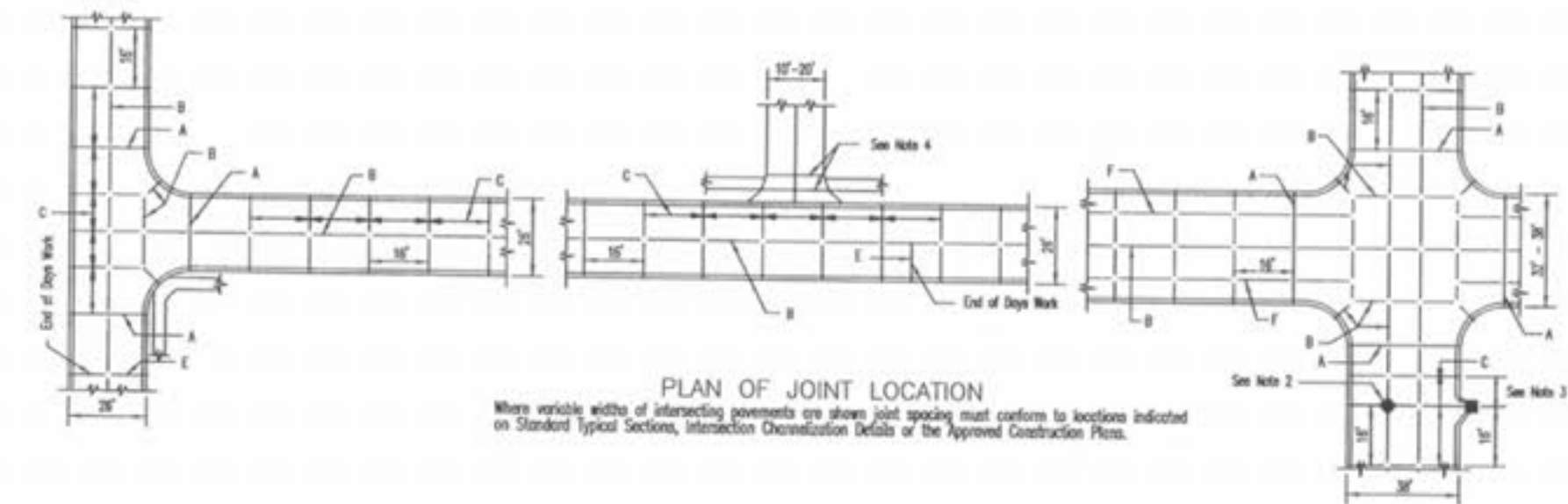
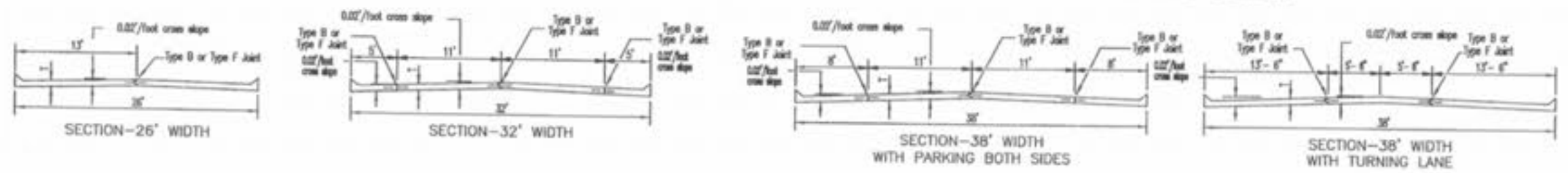
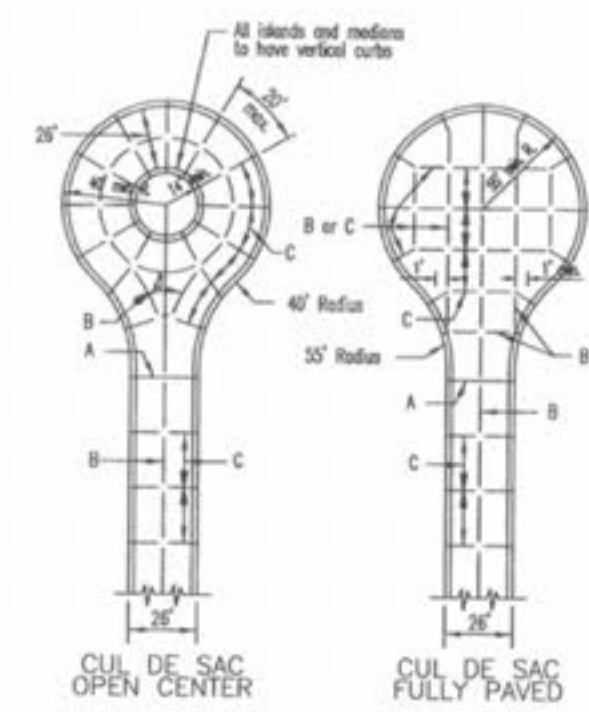


INTEGRAL ROLLED CURB AND CONCRETE PAVEMENT TYPICAL SECTIONS AND DETAILS



PLAN OF JOINT LOCATION
Where variable widths of intersecting pavements are shown joint spacing must conform to locations indicated on Standard Typical Sections, Intersection Construction Details or the Approved Construction Plans.



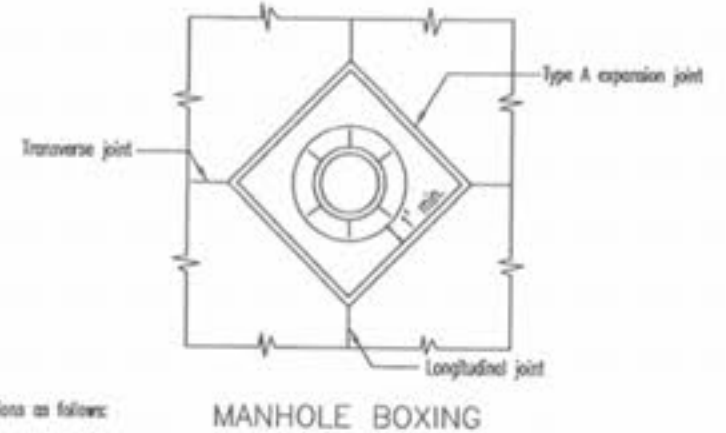
JOINT REQUIREMENTS FOR CONCRETE PAVEMENT		
STREET	JOINT TYPE	JOINT AND BAR REQUIREMENTS
3 LANE RESIDENTIAL 32'-36' wide pavement	Transverse	TYPE C no steel bars
	Longitudinal	Within a poured section: TYPE F 5/8" ϕ deformed tie bars @ 30' cts. At the edge between two poured sections: TYPE B 1/2" ϕ deformed tie bars @ 30' cts.
7" thick concrete	Expansion	TYPE A no steel bars
	Transverse	TYPE C no steel bars
RESIDENTIAL 2 LANE 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.
	Expansion	TYPE A no steel bars

NOTE

Joint filler material shall meet ASTM designations as follows:
Blumitious type - ASTM D-994-53
Non extruding & resilient blumitious type (fiber) - ASTM D-1751-00T
Non extruding & resilient non blumitious type (polymer) - ASTM D-5249

NOTE

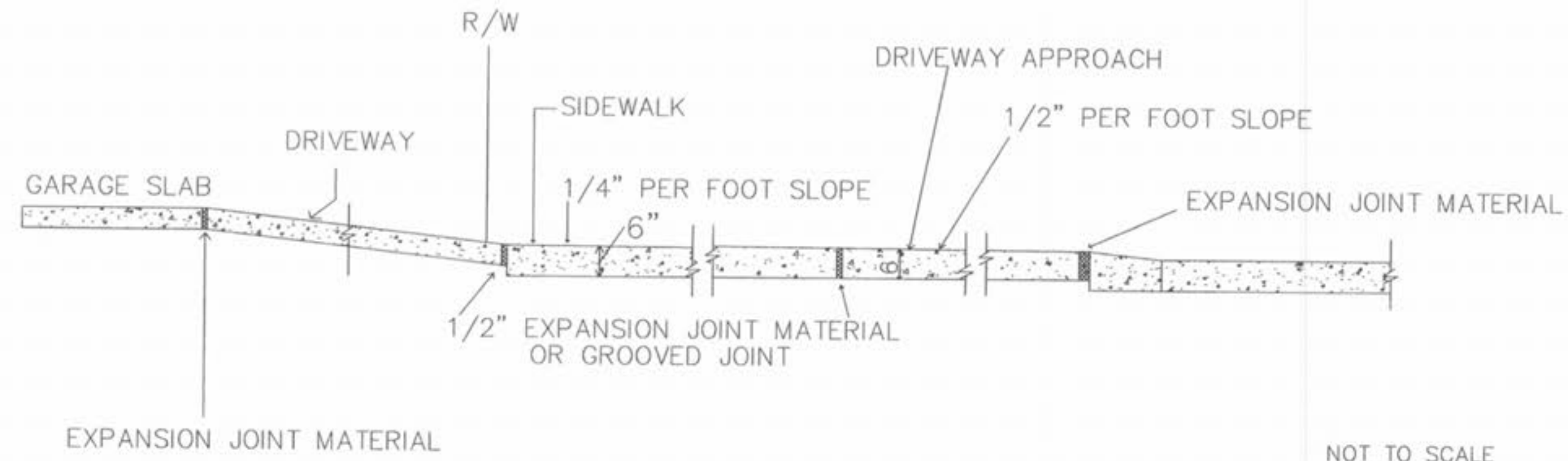
Joint sealant material shall meet ASTM and AASHTO designations as follows:
ASTM D-3405, AASHTO M-301 or ASTM D-1190-74, AASHTO M-173-04 or select equivalent thereof.



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: CS02.02

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 casting within the pavement limits shall be boxed as shown.
- When a joint falls within 5ft. of, or contacts inlets, manholes, or other structures, shorten one or more points 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 25' 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. Det. 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.



- 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.

SAINT CHARLES COUNTY HIGHWAY DEPARTMENT ST. CHARLES, MISSOURI
PAVEMENT CONSTRUCTION DETAILS
Integral Curb Detail "B" at Driveways
DATE: May, 2002 DRAWING: CS02.05

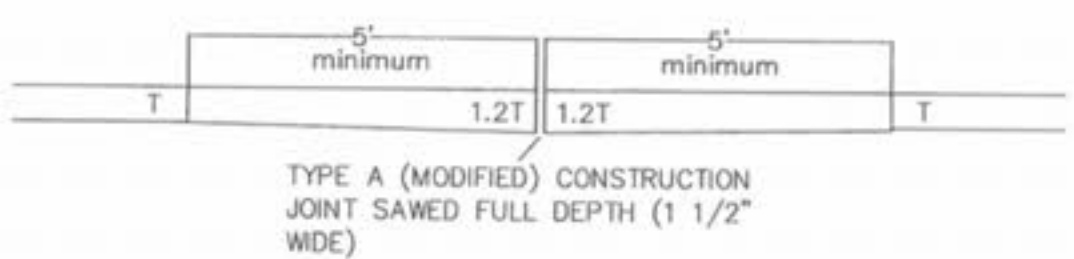
MAGNOLIA PAVEMENT DETAILS

ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2445



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

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

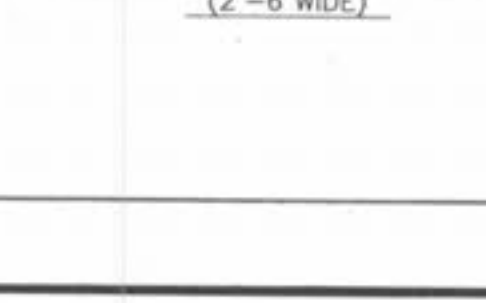
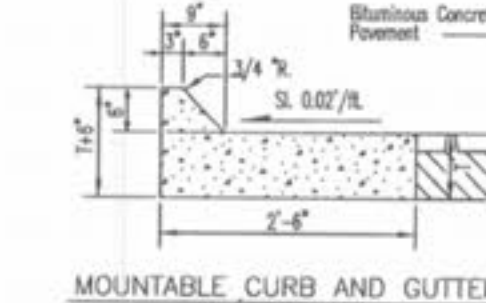
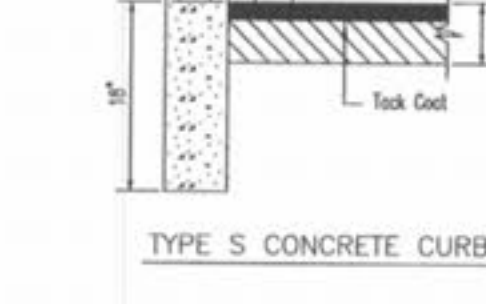
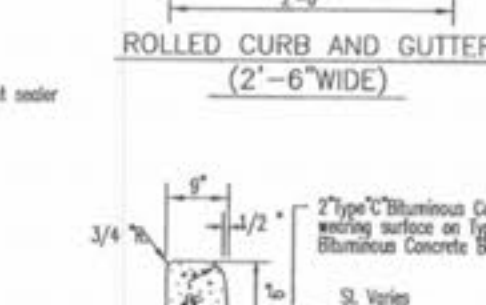
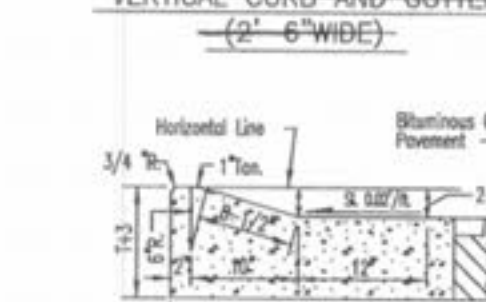
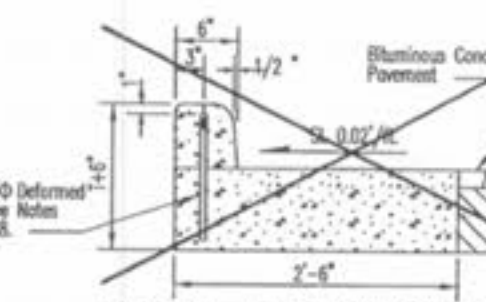
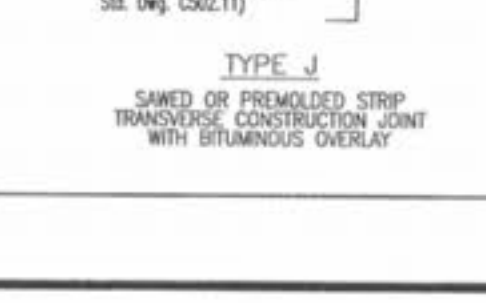
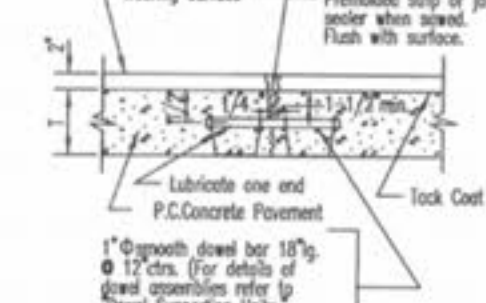
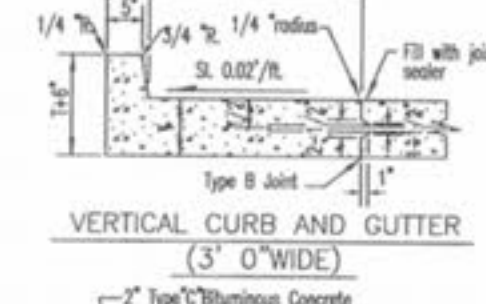
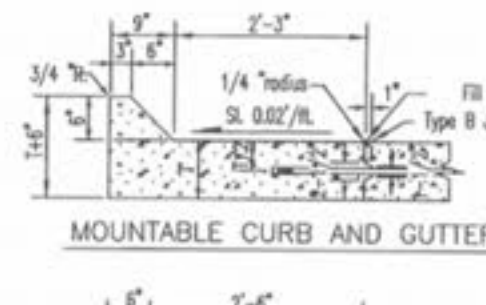
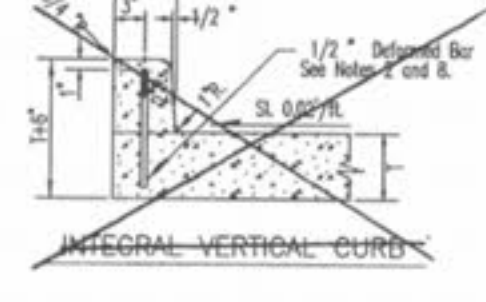
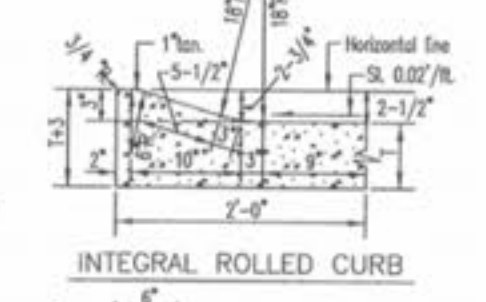
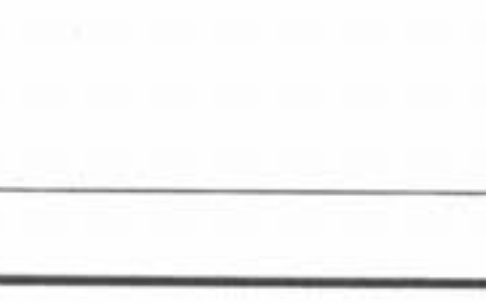
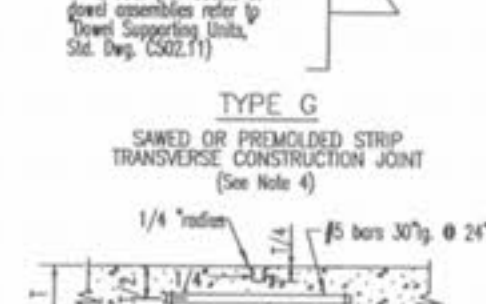
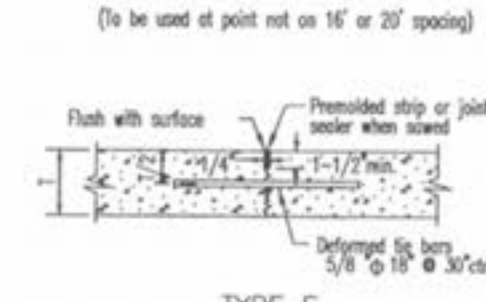
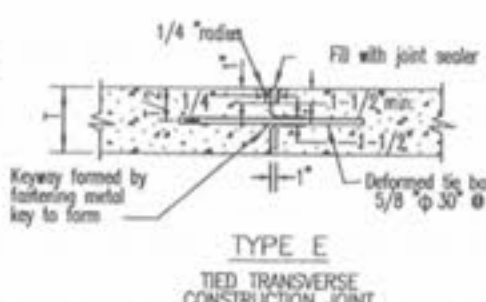
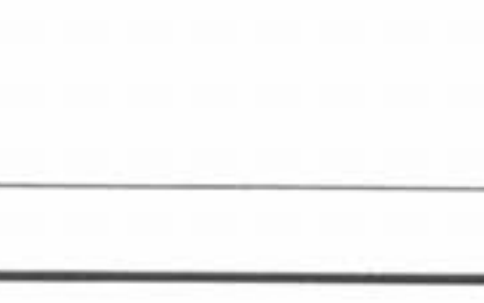
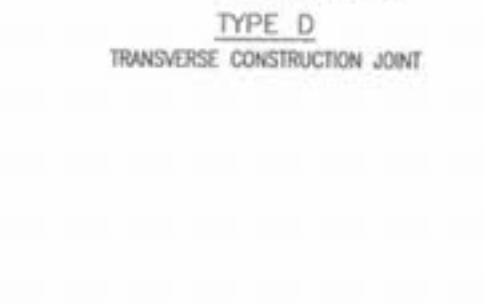
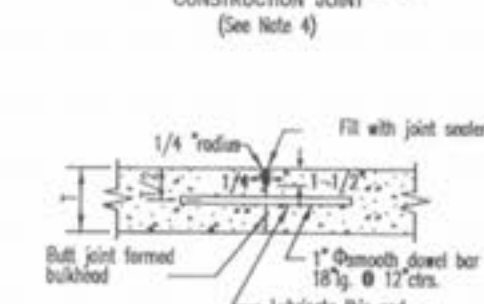
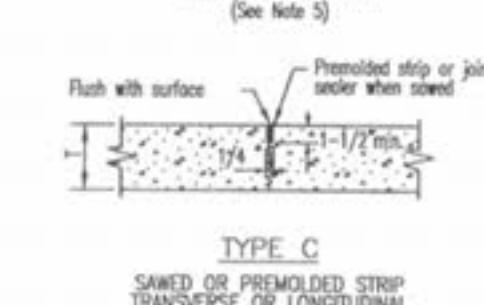
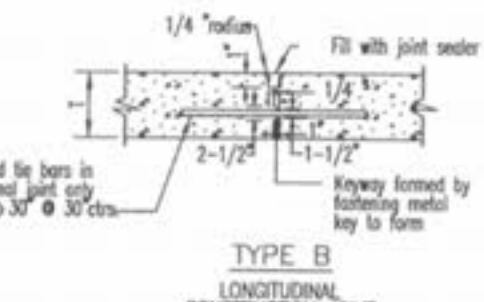
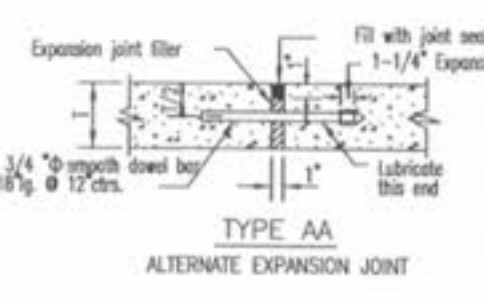


NOT TO SCALE

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: CS02.04



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 in Blumitious Concrete Pavement Thickness = (1) 6" 7'-1/2" Residential Minor and Local Streets 7" 9'-1/2" Residential Collector and Non-Residential Streets 8" 12" All Arterial Streets
- 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 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 @ 30' long at 30' centers shall be used for Type "F" Longitudinal Joints.
- Refer to Pavement Construction Details for "Integral Curbs and Concrete Pavement Typical Sections and Details", Std. Det. CS02.01 and "Integral Curbs and Concrete Pavement Typical Sections and Details", Std. Det. 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 Reinforcing Bars conforming to A.S.T.M. A615-75, Grade 60.
- Length of the tie bars shall equal the thickness of pavement plus the height of curb less 3". Tie 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 dowel bars 1 1/2" 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: CS02.03