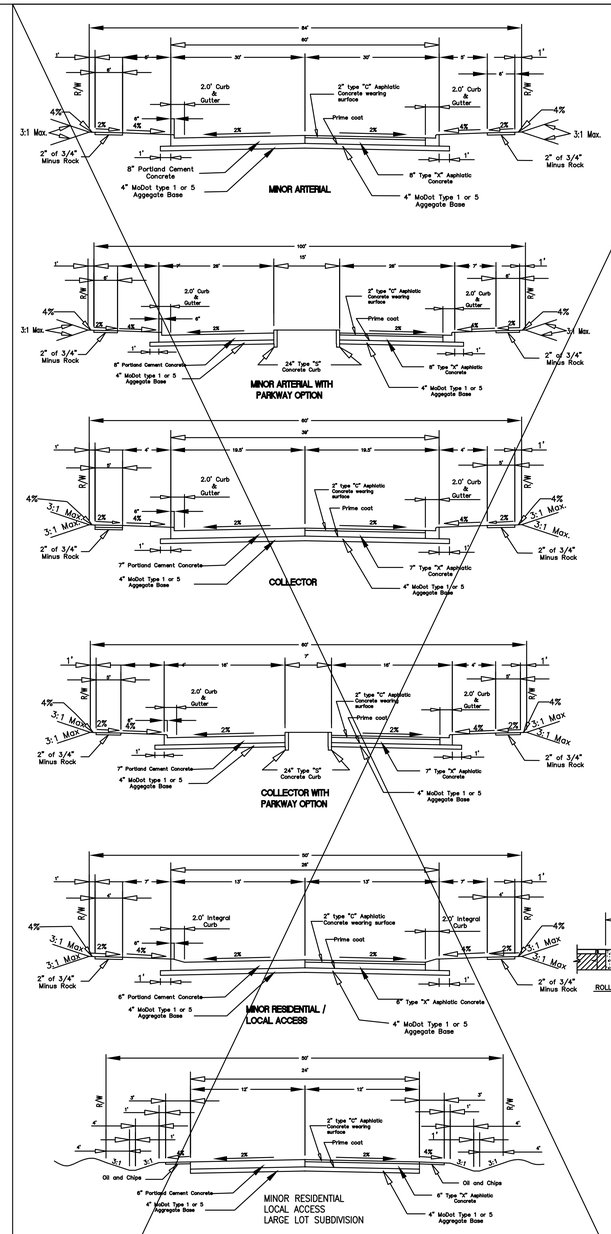


	ROW Width	Pavement Width	Lane Width	No. of Drive Lanes	Utility Easement	Design Speed
Minor Arterial	84	60	12	5	10	40
Collector	60	39	12	3	10	35
Residential Collector	56	32**	N/A	2	10	25
Minor Residential Local Access	50	26	N/A	2	10	25*

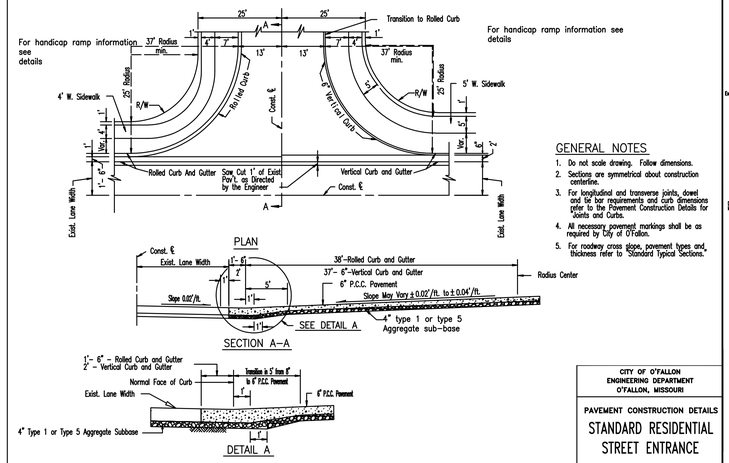
Notes: * = Can be varied with City Engineer's approval
** = Detail to match minor residential street with wider pavement
– these requirements may be varied by other City ordinances
– these standards are minimum standards
– Parkway options can be provided as indicated above

Designer will provide roadway cross section and joint locations in a seperate detail drawing.

Residential streets shall be a minumum of 6" P.C. concrete over 4" rock base on compacted subgrade per ordinance number 4875.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

Typical Pavement Design
SECTION NO. 405.370

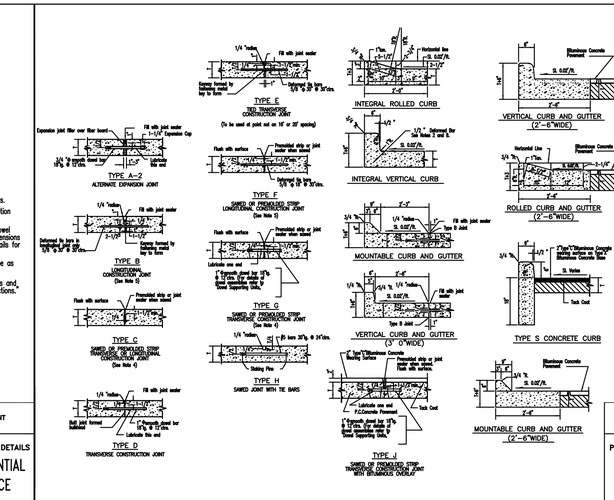


GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. Sections are symmetrical about construction centerline.
3. For longitudinal and transverse joints, dowel and tie bar requirements and curb dimensions refer to the Pavement Construction Details for Joints and Curbs.
4. All necessary pavement markings shall be as required by City of O'Fallon.
5. For roadway cross slope, pavement types and, thickness refer to "Standard Typical Sections."

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

PAVEMENT CONSTRUCTION DETAILS
STANDARD RESIDENTIAL STREET ENTRANCE



GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. Construction joint and tie bars are to omitted when curb is poured monolithic with pavement.
3. Minimum Thickness for Pavement is:

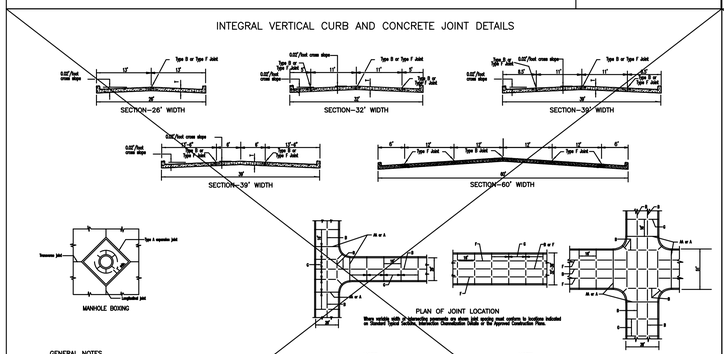
Aluminous Concrete Pavement Thickness =	(1)
All Residential Minor and Local Streets	6"
Residential Collector Streets	7"
All Arterial Streets	8"

4. Type "V" Transverse Joint is required for Arterial and Non-Residential streets. Use Type "C" Transverse Joint for all others.
5. For Subdivision or Street Paving having 6" pavement, curb and gutter shall be 2'-6" wide. Curb and gutter with 7" pavement shall be 3'-0" wide. Curb and gutter with 8" pavement shall be 3'-6" wide or 2'-6" wide and be used for Type "V" Longitudinal Joints.
6. Refer to Pavement Construction Details for Integral Vertical Curb and Concrete Pavement, Integral Rolled Curb and Concrete Pavement and Vertical Curb and Concrete Pavement typical sections and details.
7. Curb and gutter transitions for different curb and gutter types, or for flat walk and transition of curb around portion of the pavement radius, shall be built on the bottom of the curb.
8. All reinforced bars for joints and curbs shall be No. 5 bars. Bars deformations to ASTM A615-68a.
9. Length of bar to be hook and keyed by hand, 24" if bars are to be placed in the forms.
10. Transverse or longitudinal construction joints, in curb having alignment and/or width change, shall be located at the point where the alignment is tangent to the curb radius.
11. The free end of the dowel bar for a length of at least 11" shall be coated with oil or asphalt.
12. All dowel bars 18"ø x 12"ctrs. shall be epoxy coated.
13. Expansion Joint A-3 from St. Louis County pavement construction details, shall be allowed in addition to Type A and A-2 expansion joints.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

PAVEMENT CONSTRUCTION DETAILS
JOINTS AND CURBS

INTEGRAL VERTICAL CURB AND CONCRETE JOINT DETAILS



GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. All street joints 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.
3. 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.
4. Driveway configurations are shown in the "Entrance Construction Details."
5. Construction joints and tie bars may be omitted when curb is poured monolithic with pavement.
6. Minimum Thickness for Pavement is:

Residential 26'-32' wide pavement	6"
Streets	
Residential 39' wide Streets	7"

7. For joint and bar requirements refer to the Pavement Construction Details for Joints and Curbs. Note that the width and location may change the type of joint required.
8. Transverse or longitudinal construction joints in slip formed pavements shall be a saw cut joint, at a max. 14' spacing.
9. 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.

NOTE
Joint sealer material shall meet ASTM designations as follows:
Bituminous type ..... ASTM D-994-52
Non extruding & resilient bituminous type (Bar) ..... ASTM D-1751-59T
Non extruding & resilient non bituminous type (rubber) ASTM D-2628

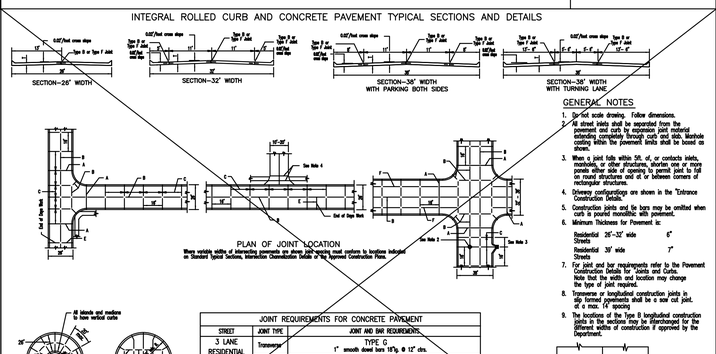
NOTE
Joint sealer material shall meet ASTM and AASHTO designations as follows:
ASTM D-3405 ..... AASHTO M-301 or
ASTM D-1190-74 ..... AASHTO M-173-64
or latest revisions thereof.

JOINT REQUIREMENTS FOR CONCRETE PAVEMENT		
STREET	JOINT TYPE	JOINT AND BAR REQUIREMENTS
All Streets Non-Residential	Transverse	TYPE C 1" smooth dowel bars 18"ø, @ 12" ctrs.
26'-32' wide pavement	Longitudinal	Within 4 paved widths: TYPE E 5/8 " ø deformed tie bars 18"L @ 30"ctrs. At the slip between two paved widths: TYPE B 5/8 " ø deformed tie bars 30"L @ 30"ctrs.
7'-6" thick concrete	Expansion	TYPE A or Type A Modified

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

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

INTEGRAL ROLLED CURB AND CONCRETE PAVEMENT TYPICAL SECTIONS AND DETAILS



GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. All street joints 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.
3. 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.
4. Driveway configurations are shown in the "Entrance Construction Details."
5. Construction joints and tie bars may be omitted when curb is poured monolithic with pavement.
6. Minimum Thickness for Pavement is:

Residential 26'-32' wide Streets	6"
Residential 36' wide Streets	7"

7. For joint and bar requirements refer to the Pavement Construction Details for Joints and Curbs. Note that the width and location may change the type of joint required.
8. Transverse or longitudinal construction joints in slip formed pavements shall be a saw cut joint, at a max. 14' spacing
9. 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.

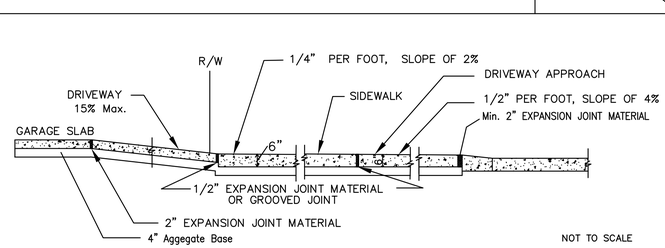
JOINT REQUIREMENTS FOR CONCRETE PAVEMENT		
STREET	JOINT TYPE	JOINT AND BAR REQUIREMENTS
3 LANE RESIDENTIAL 32'-36' wide pavement	Transverse	TYPE G 1" smooth dowel bars 18"L @ 12" ctrs.
	Longitudinal	Within 4 paved widths: TYPE E 5/8 " ø deformed tie bars 18"L @ 30"ctrs. At the slip between two paved widths: TYPE B 5/8 " ø deformed tie bars 30"L @ 30"ctrs.
7" thick concrete pavement	Expansion	TYPE A no steel bars
RESIDENTIAL 2 LANE 26' wide pavement 6" thick concrete	Transverse	TYPE C no steel bars
	Longitudinal	Full Width Construction: TYPE F modified with 1/2 " ø deformed tie bars 18"L @ 30"ctrs. Half Width Construction: TYPE B modified with 1/2 " ø deformed tie bars 30"L @ 30" ctrs.
	Expansion	TYPE A no steel bars

NOTE
Joint sealer material shall meet ASTM designations as follows:
Bituminous type ..... ASTM D-994-53
Non extruding & resilient bituminous type (Bar) ..... ASTM D-1751-59T
Non extruding & resilient non bituminous type (rubber) ASTM D-2240

NOTE
Joint sealer material shall meet ASTM and AASHTO designations as follows:
ASTM D-3405 ..... AASHTO M-301 or
ASTM D-1190-74 ..... AASHTO M-173-64
or latest revisions thereof.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

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



NOT TO SCALE

NOTES:

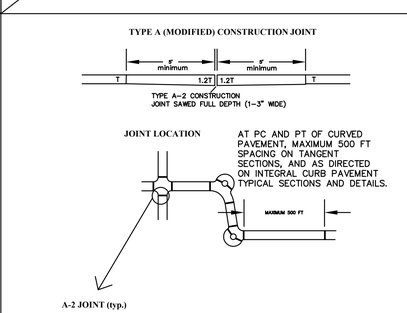
1- All driveway entrances shall be six (6) inches P.C.C. in depth from the curb to the property line.

2- All driveway approaches constructed in conjunction with sidewalk shall give the appearance that the sidewalk is continuous. That portion of the driveway approach that doubles as a sidewalk shall have a one-fourth (1/4) inch per foot cross slope the same as the abutting sidewalk.

3- A two (2) inch expansion joint is required between the street and driveway approach. One (1) additional two (2) inch expansion joint is required between the garage floor and the termination of the driveway.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

Integral Curb Detail "B" at Driveway
SECTION NO. 505.080



NOTES:

1. JOINT FILLER COMPOSED OF CELLULAR FIBERS, ASTM D–1751, MAY BE USED AT DRIVEWAY, SIDEWALK, AND SEWER INLET AND MANHOLE LOCATIONS.
2. SEE "INTEGRAL CURB DETAIL "B" AT DRIVEWAYS" FOR EXPANSION JOINT REQUIREMENTS AT DRIVEWAY CONNECTIONS TO THE STREET AND THE GARAGE.

NOT TO SCALE

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

PAVEMENT CONSTRUCTION DETAIL

NO.	DESCRIPTION	DATE
1	REV 1	7–24–2019
2	REV 2	8–23–2019
3	REV 4	10–25–2019
4	REV 5	11–26–2019

PROJECT TITLE
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15 CASTLE LANE
O'FALLON, MO 63366

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Civil Engineering & Surveying Services
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www.grimesconsulting.com
GRIMES CONSULTING, INC.
PROFESSIONAL ENGINEER CORPORATION, E–1470–D
PROFESSIONAL LAND SURVEYING CORPORATION, LS–343–D

STATE OF MISSOURI
LEONARD J. MEERS
NUMBER E-28288
REGISTERED PROFESSIONAL ENGINEER
1/13/20
LEONARD J. MEERS
PROFESSIONAL ENGINEER
E–28288

Developer / Owner Information
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Franklin, TN 37067
Email: steve@vitapmg.com

PAVEMENT DETAILS

P+Z No. 19–001400
Approval Date: 6/6/2019
City No.

Page No.
C8.3