NOTES:

1. JOINTS SHALL BE FORMED AT RIGHT ANGLES TO THE ALIGNMENT OF THE SIDEWALK AND TO THE DEPTHS INDICATED BELOW.

2. THE SIDEWALK SHALL BE MARKED OFF INTO SQUARE STONES (PICTURE FRAMED) BY CONTRACTION JOINTS. CONTRACTION JOINTS SHALL BE ONE-EIGHTH (1/8) INCH WIDE BY ONE (1) INCH DEEP AND SHALL BE FORMED BY TOOLING.

3. EXPANSION JOINTS SHALL BE FORMED BY A ONE-HALF (1/2) INCH THICK PREFORMED JOINT FILLER, EXTENDING THE FULL DEPTH OF THE SLAB, AND SECURED SO THAT THEY ARE NOT MOVED BY DEPOSITING AND COMPACTING THE CONCRETE AT THESE JOINTS.

4. EXPANSION JOINTS SHALL BE PLACED WHERE SIDEWALK ABUTS OTHER STRUCTURES AND SHALL NOT BE SPACED MORE THAN 50 FEET APART ON STRAIGHT RUNS FOR HAND LAID SIDEWALK AND NOT MORE THAN 100 FEET APART ON STRAIGHT RUNS FOR MACHINE LAID SIDEWALKS.
NOTES:
1. JOINTS SHALL BE FORMED AT RIGHT ANGLES TO THE ALIGNMENT OF THE SIDEWALK AND TO THE DEPTHS INDICATED BELOW.

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4. EXPANSION JOINTS SHALL BE PLACED WHERE SIDEWALK ABUTS OTHER STRUCTURES AND SHALL NOT BE SPACED MORE THAN 50FT. APART ON STRAIGHT RUNS FOR HAND LAID SIDEWALK AND NOT MORE THAN 100FT. APART ON STRAIGHT RUNS FOR MACHINE LAID SIDEWALKS.
NOTES:
1. JOINTS SHALL BE SAWED AT RIGHT ANGLES TO THE ALIGNMENT OF THE SIDEWALK AND TO THE DEPTHS INDICATED BELOW.

2. THE SIDEWALK SHALL BE MARKED OFF INTO SQUARE STONES (PICTURE FRAMED) BY CONTRACTION JOINTS. CONTRACTION JOINTS SHALL SHALL BE ONE-EIGHT (1/8) INCH WIDE BY ONE (1) INCH DEEP AND SHALL BE FORMED BY TOOLING.

3. EXPANSION JOINTS SHALL BE FORMED BY A ONE-HALF (1/2) INCH THICK PREFORMED JOINT FILLER, EXTENDING THE FULL DEPTH OF THE SLAB, AND SECURED SO THAT THEY ARE NOT MOVED BY DEPOSITING AND COMPACTING THE CONCRETE AT THESE JOINTS.

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5. CONCRETE SHALL BE USED FOR THE CONSTRUCTION OF THE BICYCLE TRAILS LOCATED WITHIN CITY STREET R-O-W. AT THE DISCRETION OF THE CITY ENGINEER A 4" THICK ASPHALT SIDEWALK 8 FEET WIDE ON A 4" THICK AB-3 BASE MAY BE CONSTRUCTED ON CITY R-O-W NOT ADJACENT TO A STREET.
VARES 6" TO 24"

SECTION

NOTE:
FOR HEIGHTS GREATER THAN 48IN., DESIGN CALCS. MUST BE SUBMITTED

NOTES:

1. PROVIDE 4" DIA. PVC DRAIN TILE AT 20' INTERVALS ALONG LENGTH OF RETAINING WALL WITH GALVANIZED SCREEN AND GRANULAR BACKFILL WHEN WALL HEIGHT IS GREATER THAN OR EQUAL TO 18" FROM TOP SURFACE OF SIDEWALK.

2. ALL EXPOSED CORNERS OF WALL SHALL BE CHAMFERED.

3. ALL BAR SPACING ARE FROM CENTER TO CENTER, UNLESS OTHERWISE SHOWN. THE CLEARANCE FROM FACE OF CONCRETE TO BAR SHALL BE 2" UNLESS OTHERWISE NOTED.

4. THE SIDEWALK SHALL BE MARKED OFF INTO SQUARE STONES (PICTURE FRAMED) BY CONTRACTION JOINTS. CONTRACTION JOINTS SHALL BE ONE-EIGHTH (1/8) INCH WIDE BY ONE (1) INCH DEEP AND SHALL BE FORMED BY TOOLING.

4. RETAINING WALLS AT LEAST 4' IN HEIGHT SHALL HAVE A HANDRAIL OR DENSE LANDSCAPING AS APPROVED BY THE CITY ENGINEER.

Drawn By: Don Hurlbert, P.E.

REVISION 2009
SECTION

NOTE:
FOR HEIGHTS GREATER THAN 48IN., DESIGN CALC. MUST BE SUBMITTED

NOTES:

1. PROVIDE 4" DIA. PVC DRAIN TILE AT 20' INTERVALS ALONG LENGTH OF RETAINING WALL WITH GALVANIZED SCREEN AND GRANULAR BACKFILL WHEN WALL HEIGHT IS GREATER THAN OR EQUAL TO 18" FROM TOP SURFACE OF SIDEWALK.

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6. RETAINING WALLS AT LEAST 4’ IN HEIGHT SHALL HAVE A HANDRAIL OR DENSE LANDSCAPING AS APPROVED BY THE CITY ENGINEER.
NOTE:
1. RETAINING WALLS AT LEAST 4’ IN HEIGHT SHALL HAVE A HANDRAIL OR DENSE LANDSCAPING AS APPROVED BY THE CITY ENGINEER.
SECTION D-D

RIGHT-OF-WAY LINE

BREAK POINT

8%MAX CHANCE IN SLOPE

12%MAX CHANCE IN SLOPE

3/4MAX

16%'

6' MIN Poured Concrete

Cutter Edge

Tool"d

Remove Curb

3/4' Lip @ Curb Line

Grade @ Face of Curb

Maintain Cutter Exist. Cutter Line

Varies

ADJACENT TO CURB

DRIVE WITH 5' S/W

5'

1/2' Expansion

CURB LINE

1/2' CURB & EXIST. CUTTER LINE

CURT (CC-1)

VARIETY

5'

CURB

BACK OF CURB

5'

SIDEWALK

1.6%

SIDEWALK (CURB & SIDEWALK)

TRANSITION

CONTRACTION JOINT

VARIABLE (10 MIN OR 20 MAX)

Driveway Width

TRANSITION (CURB & SIDEWALK)

1.6%

5'
SECTION D-D

TO 95% STD. MAX DENSITY
(SUBGRADE TO BE COMPACTED)
6" MIN POUR D CONCRETE
2% - 4%
6.0" 1/2" EXPANSION
BRE A VARIES
BREAK POINT

NOTE: CENTER CONTRACTION JOINT REQUIRED ON DRIVE 12' WIDER

DRIVE WITH 4' S/W

CUTTER LINE

CUTTER JOINT

1/2" EXPANSION

Curb Transition

2% - 4%

CUTTER JOINT

CONTRACTION

2% - 4%

TOP OF CURB

1/2" EXPANSION

VARIABLE (1.0" MIN OR 2.0" MAX)

1.0% MIN

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE
**PLAN**

- **PRIVATE DRIVE**
  - **DRIVEWAY WIDTH**
    - VARIABLE - 10' MIN
    - 20' MAX
  - **1/2" EXPANSION JOINT**
  - **PROVIDE STORM DRAINAGE PIPE W/END SECTIONS. SIZE TO BE APPROVED BY CITY ENGINEER (15" DIA MIN. CLASS III RCP OR 16 GA. CMP.).**

- **END SECTION (TYP)**
  - 4:1 MIN SLOPE (TYP)

- **VARIATES W/ROW**
  - **EDGE OF EXISTING ROADWAY**

- **VARIES**

- **5' MIN**

**SECTION A-A**

- **VARIATES W/ROW**
  - **EDGE OF EXISTING ROADWAY**
  - **MATCH EXISTING ROADWAY CROWN (.5% MIN - 2% MAX)**

- **ROW**
  - **6" POURED CONCRETE OR 6" ASPHALTIC CONCRETE PAVEMENT**

- **BREAK POINT**
  - **COMPACTED GRANULAR BACKFILL**
  - **12% MAX CHANGE IN SLOPE**

- **REQUIRES WITH CONCRETE DRIVEWAY CONSTRUCTION ONLY**

**REV 2009**

**RESIDENTIAL DRIVE AT NON-CURBED STREET**

**D22-9**
NOTE:
1. ENTRANCE TO DRIVE TO BE POURED MONOLITHICALLY.

** SLOPE AS PER STREET CROSS SECTION

SECTION E–E

REV 2009
NOTE: DIMENSIONS BELOW ARE GIVEN IN FEET

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SIDEWALK RAMP TYPE 1

PLANT VIEW

MAXIMUM DESIRABLE
RAMP SLOPE = 1"/FT.
(MAXIMUM = 1 1/2"/FT.)

SECTION B-B

PAV'T. C&G RAMP Varies SIDEWALK

SECTION A-A

1/2" EXPANSION JOINT
(MATERIAL FULL DEPTH
OF SIDEWALK)

RAMP OPENING
VARIES (4'-0" MIN.
5'-0" PREFERRED)

SECTION C-C
TYPE A & B SIDEWALK RAMP
NOT TO SCALE

amics
curb & gutter

REV 2009

CITY OF LIBERTY, MO
DEPARTMENT OF PUBLIC WORKS

SIDEWALK RAMP DETAIL D22-12a
Sidewalk & Sidewalk Ramp Notes:

1. Sidewalk ramp location determined from the intersection of the extension of back of sidewalk and back of curb & gutter.
2. Key all construction joints or use tie bars #4 epoxy coated @ 12" o.c.
3. Longitudinal joint spacing to match width of sidewalk.
4. Sidewalk Ramp shall be lengthened to provide ADA compliance slope but need not exceed 15°.
5. ADA maximum ramp slope = 1”/Ft.
   ADA maximum cross slope = 2%.
6. Detectable warnings to comply with ADA requirements.
7. Cast in Tact Warning Panel (Part # MA TP22 or MA TP12 or approved equal).
8. All Concrete in ramp insert area shall be removed prior to placement of insert.
9. All edges shall be neat and tooled.
10. Access tile replacement cast in place color #22144 (Brick Red)

NOTE: TO BE USED WHERE SIDEWALK OCCUPIES ENTIRE AREA BETWEEN CURB AND PROPERTY LINE.

* Use of template for concrete removal is recommended.

REV 2009
Wheelchair Passing Space to be Constructed where Length of 4’ Wide Sidewalk Exceeds 200’.

Notes:
1. Ramp cross slope will transition from street slope to landing.
2. Landing will be set to limit maximum ramp slope 8.33%.
3. If sidewalk running slope is 6% or less, use 1 square on either side of landing to transition from running slope to landing slope.
CURB RAMP

PLAN

3/4" LIP @ GUTTER LINE
MAINTAIN EXIST. GUTTER
GRADE @ FACE OF CURB

REMOVE CURB AND GUTTER

6" MIN POURED CONCRETE
(SUBGRADE TO BE COMPACTED
TO 95% STD. MAX DENSITY)

TOOLED EDGE

3/4 MAX

ALL SIDEWALKS SHALL MEET
ADA REQUIREMENTS

SECTION D-D