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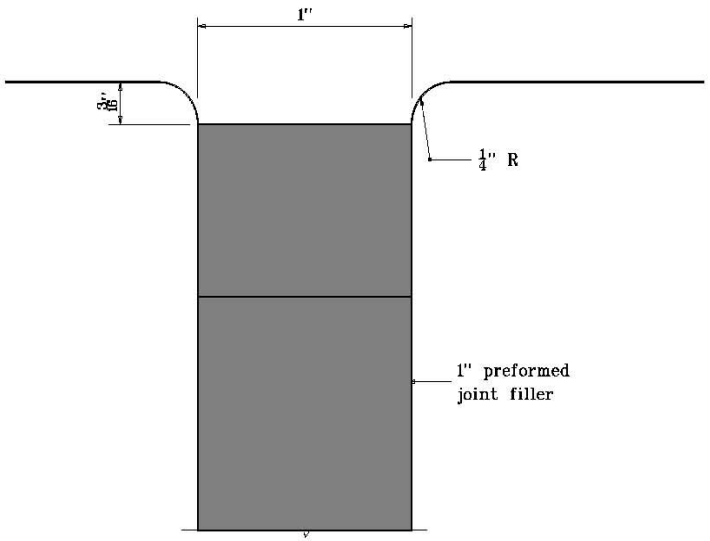

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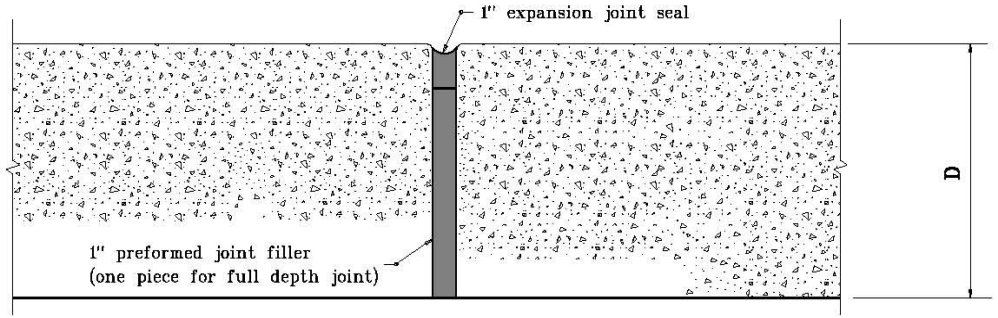


SECTION THROUGH JOINT

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK EXPANSION JOINT

SEPTEMBER 1999

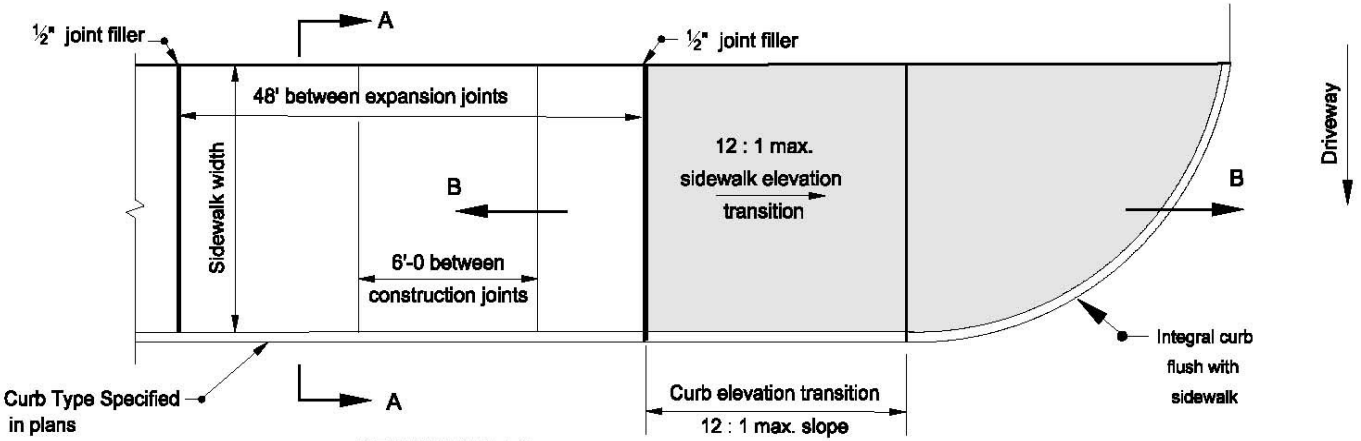
STANDARD DRAWING NO. **E 604-CCSJ-01**

ANTHONY L. UREMOVICH REGISTERED No. 18095 STATE OF INDIANA PROFESSIONAL ENGINEER

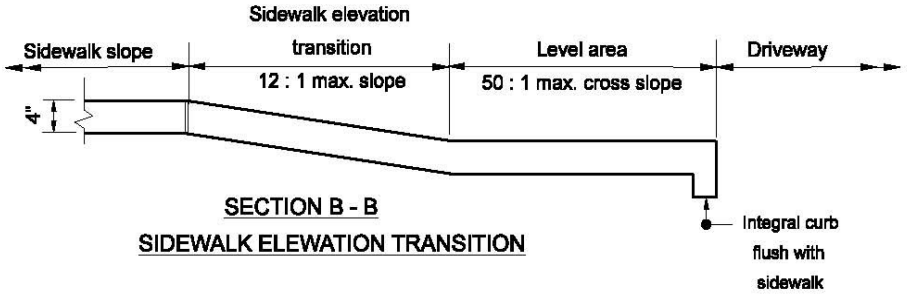
DESIGN STANDARDS ENGINEER

/s/ Anthony L. Uremovich 9-01-99
DESIGN STANDARDS ENGINEER DATE

/s/ Donald W. Lucas 9-01-99
CHIEF HIGHWAY ENGINEER DATE

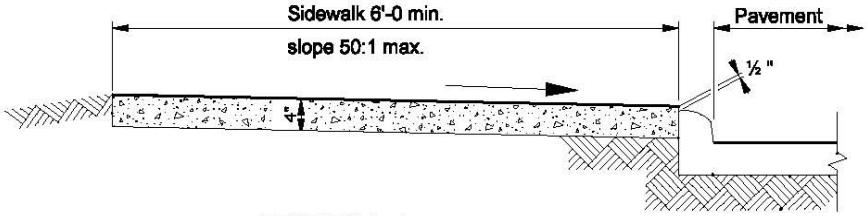


SIDEWALK PLAN



SECTION B - B

SIDEWALK ELEWATION TRANSITION



SECTION A - A

SIDEWALK ADJACENT TO CURB

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK DETAILS

SIDEWALK ADJACENT TO CURB

SEPTEMBER 2005

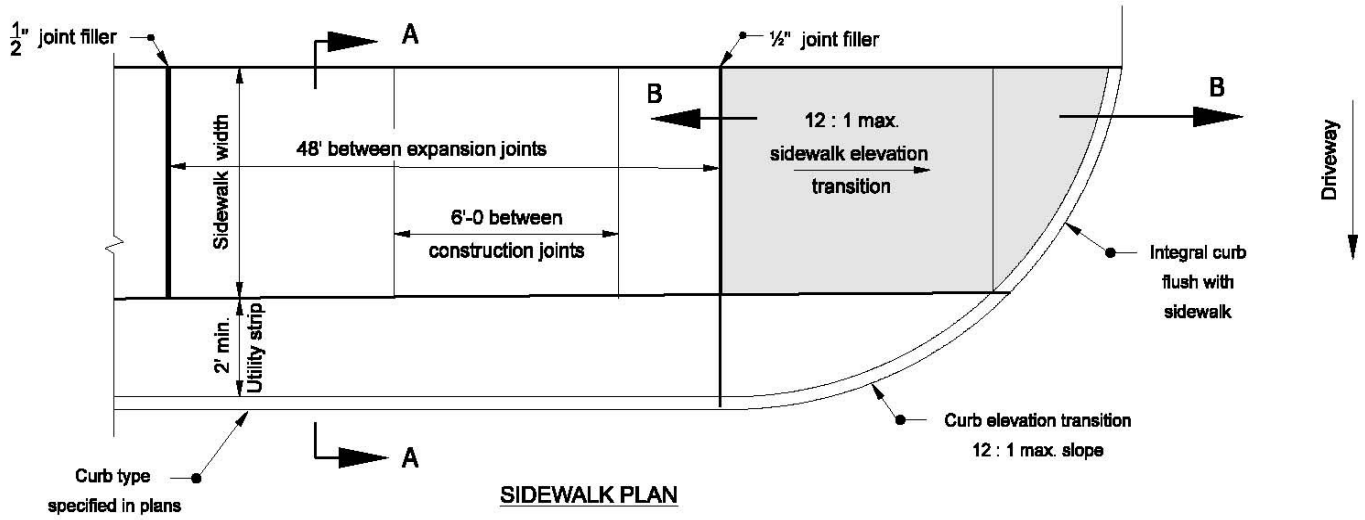
STANDARD DRAWING NO. E 604-SDWK-02

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

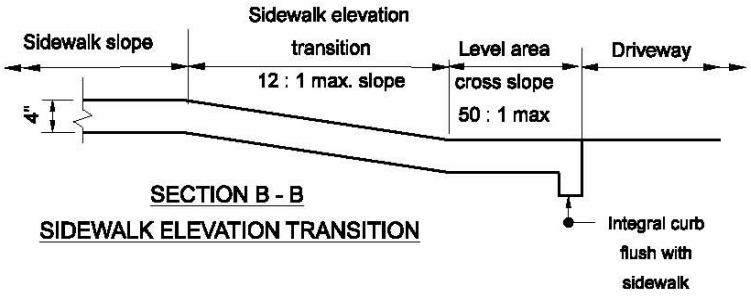
DESIGN STANDARDS ENGINEER

/s/ Richard L.VanCleave 9-01-05
DESIGN STANDARDS ENGINEER DATE

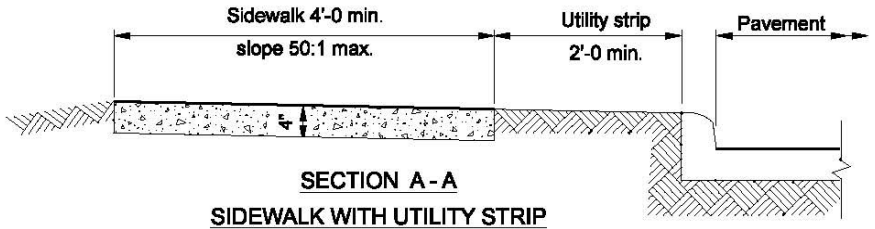
/s/ Richard K.Smutzer 9-01-05
CHIEF HIGHWAY ENGINEER DATE



SIDEWALK PLAN



SECTION B - B
SIDEWALK ELEVATION TRANSITION



SECTION A - A
SIDEWALK WITH UTILITY STRIP

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK DETAILS

SIDEWALK WITH UTILITY STRIP

SEPTEMBER 2005

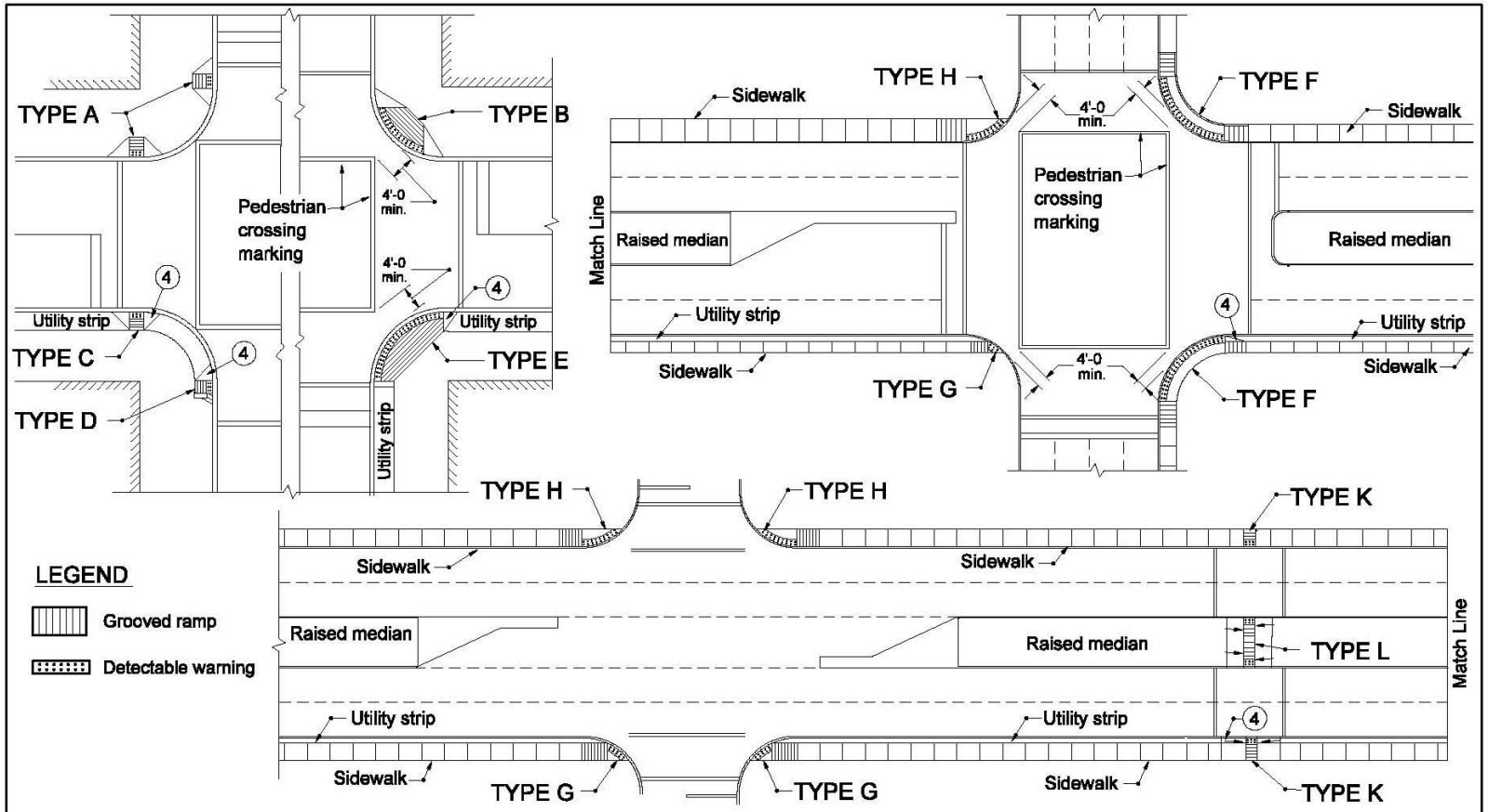
STANDARD DRAWING NO. E 604-SDWK-01

REGISTERED RICHARD L. VanCLEAVE No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 9-01-05
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Smutzer 9-01-05
CHIEF HIGHWAY ENGINEER DATE



1. The curb ramp type includes the ramp and flared sides as indicated on the details. A level landing shall be provided at the high end of every curb ramp.
2. For details of sidewalk curb ramp types see Standard Drawings E 604-SWCR-03 to -11.
3. The curb ramps shall be placed within the marked crosswalk area.

④ Flared side of sidewalk curb ramp next to utility strip shall be sodded.

5. See Standard Drawing E 604-SWCR-02 for General Notes.

INDIANA DEPARTMENT OF TRANSPORTATION

LOCATION PLAN FOR SIDEWALK CURB RAMPS

SEPTEMBER 2005

STANDARD DRAWING NO. E 604-SWCR-01

REGISTERED RICHARD L. VanCLEAVE No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

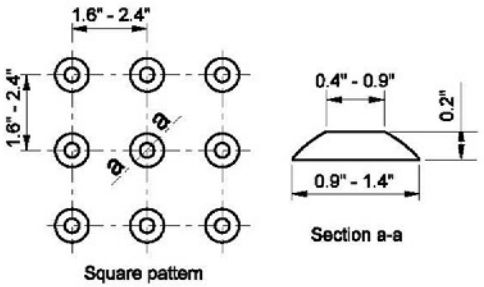
/s/ Richard L. VanCleave — DESIGN STANDARDS ENGINEER — 9-01-05 DATE

/s/ Richard K. Smutzer — CHIEF HIGHWAY ENGINEER — 9-01-05 DATE

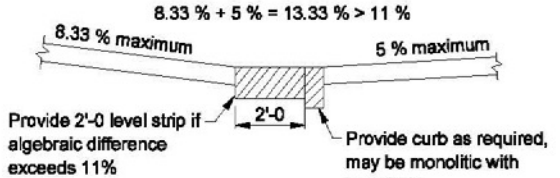
GENERAL NOTES :

1. These dimensions are based on a 6 in. curb height. They shall be proportionally adjusted for other curb heights.
2. Where site infeasibility precludes construction to the width shown, such width may be decreased to a minimum of 3'-0.
3. The bottom edge of the curb ramp shall be flush with the edge of adjacent pavement and gutter line.
4. Landing areas at the top of curb ramps shall have maximum cross slope of 50 : 1 in any direction. When site infeasibility precludes a landing slope of 50 : 1 in any direction, the slope perpendicular to the curb face shall not exceed 50 :1.
5. If site infeasibility precludes construction to the width shown, the landing width may be decreased to 3'-0 minimum. The running slope of the curb ramp may be steepened to a maximum of 10 : 1 for a maximum 6 in. rise.

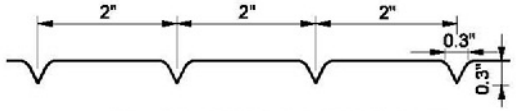
6. Drainage inlets should be located uphill from curb ramps to prevent puddles at the path of travel.
7. See Standard Drawing E 604-SWCR-12 for improved access on narrow sidewalks.
8. Algebraic difference in grade between the base of curb ramp and the gutter shall be limited to less than 11%. If it is not practical, a 2'-0 wide level strip shall be provided. See detail sketch.
9. Minimum recommended width of curb ramp is 4'-0.



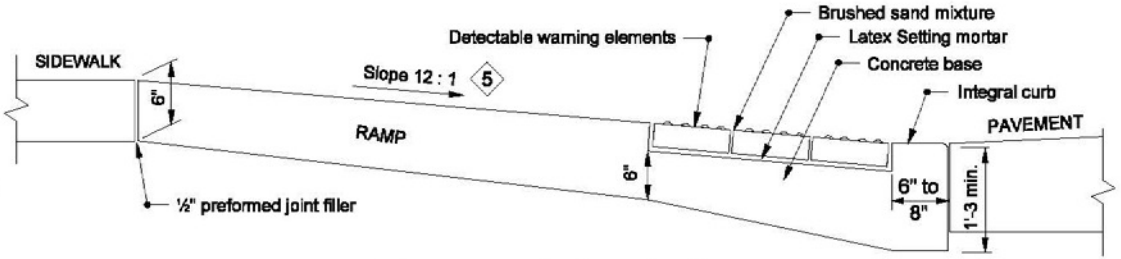
TRUNCATED DOMES USED IN DETECTABLE WARNINGS



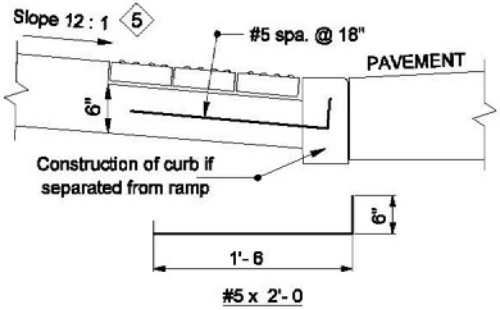
CHANGE OF GRADE



DETAIL OF RAMP GROOVES



RAMP AND BRICK SURFACE CONSTRUCTION DETAIL



ALTERNATE CURB CONSTRUCTION

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK CURB RAMPS
GENERAL NOTES & DETAILS

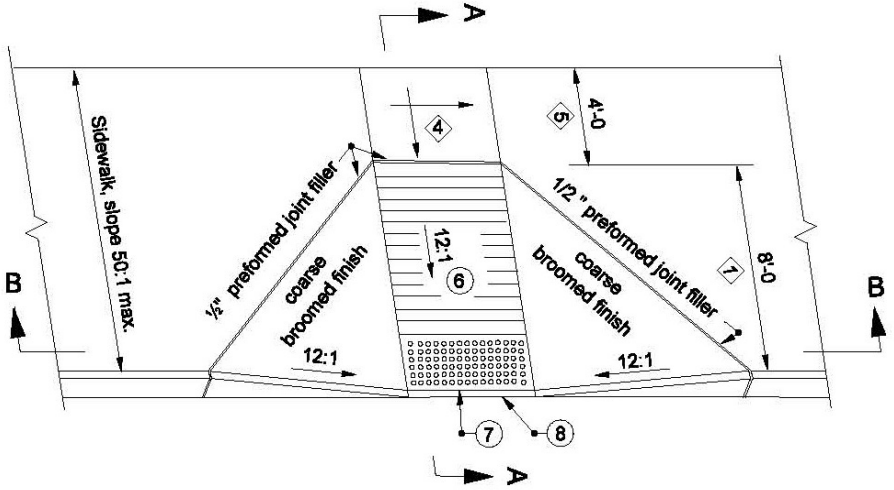
SEPTEMBER 2005

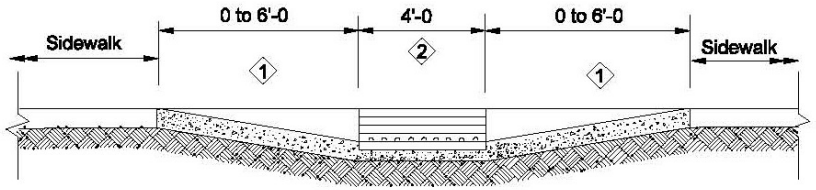
STANDARD DRAWING NO. E 604-SWCR-02

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER
DESIGN STANDARDS ENGINEER

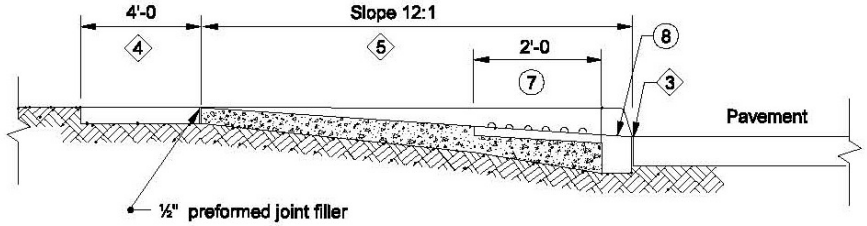
/s/ Richard L VanCleave 9-01-05
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K Smutzer 9-01-05
CHIEF HIGHWAY ENGINEER DATE





SECTION B-B



SECTION A-A

NOTES :

6. See Standard Drawing E 604-SWCR-02 for groove details.
7. See Standard Drawing E 604-SWCR-02 for details of the detectable warning.
8. See Standard Drawing E 604-SWCR-02 for alternate curb construction.
10. See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.
11. See Standard Drawing E 604-SWCR-02 for typical ramp construction detail.

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK CURB RAMP TYPE A

SEPTEMBER 2005

STANDARD DRAWING NO. E 604-SWCR-03

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave — DESIGN STANDARDS ENGINEER — 9-01-05 DATE

/s/ Richard K. Smutzer — CHIEF HIGHWAY ENGINEER — 9-01-05 DATE

NOTES :

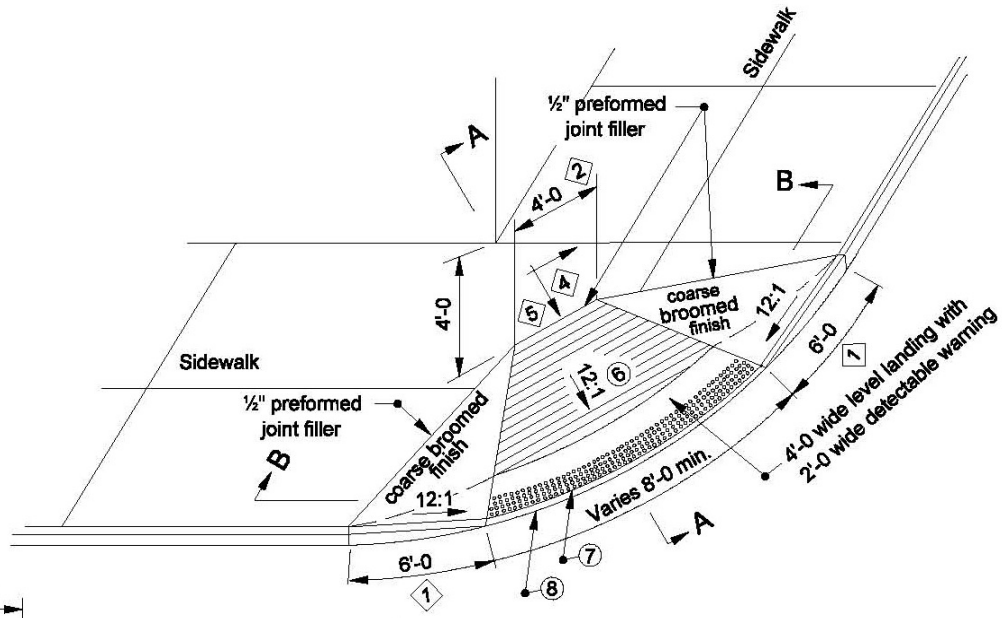
(6) See Standard Drawing E 604-SWCR-02 for groove details.

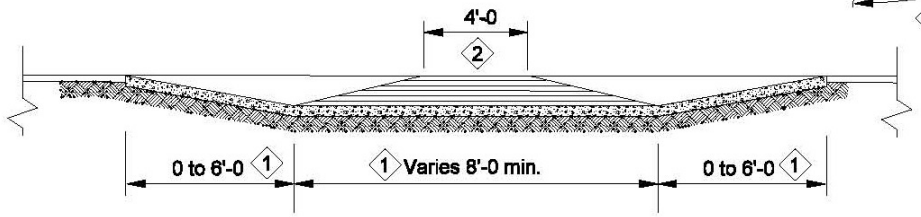
(7) See Standard Drawing E 604-SWCR-02 for details of the detectable warnings.

(8) See Standard Drawing E 604-SWCR-02 for alternate curb construction.

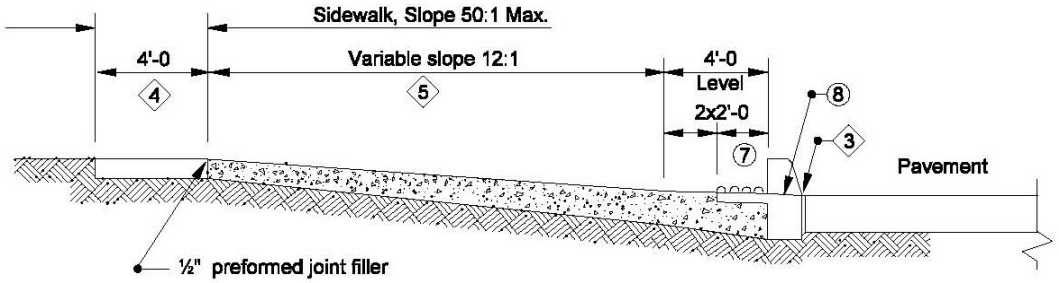
9. See Standard Drawing E 604-SWCR-02 for typical ramp construction detail.

10. See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.





SECTION B-B



SECTION A-A

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK CURB RAMP TYPE B

SEPTEMBER 2005

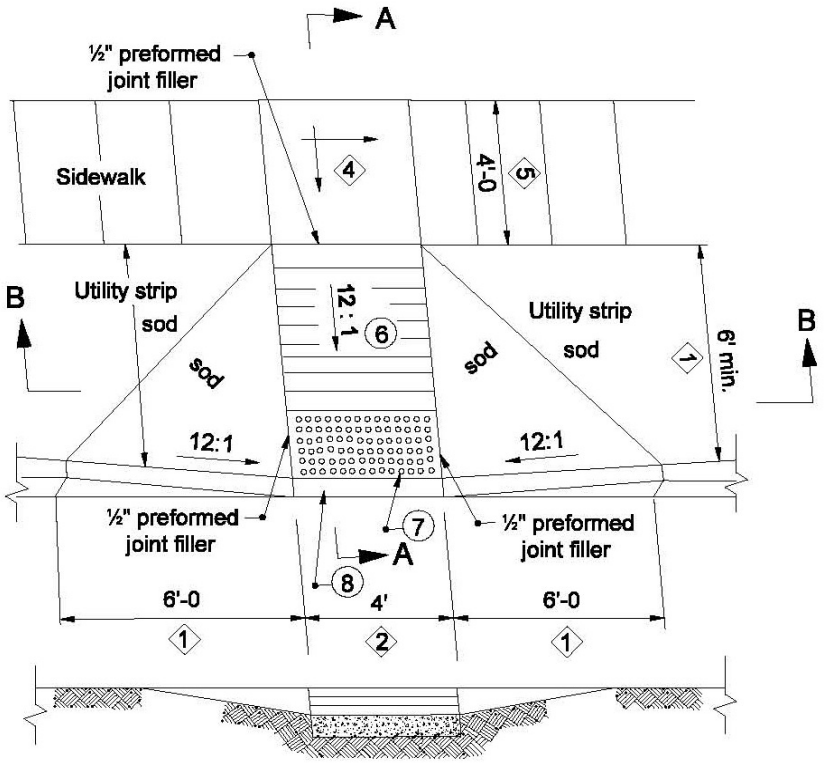
STANDARD DRAWING NO. E 604-SWCR-04

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

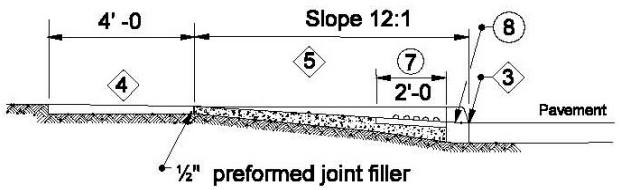
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 9-01-05
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Smutzer 9-01-05
CHIEF HIGHWAY ENGINEER DATE



SECTION B-B



SECTION A-A

NOTES :

6. See Standard Drawing E 604-SWCR-02 for groove details.
7. See Standard Drawing E 604-SWCR-02 for details of the detectable warning surface.
8. See Standard Drawing E 604-SWCR-02 for alternate curb construction.
9. See Standard Drawing E 604-SWCR-02 for typical ramp construction detail.
10. See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK CURB RAMPS TYPE C

SEPTEMBER 2005

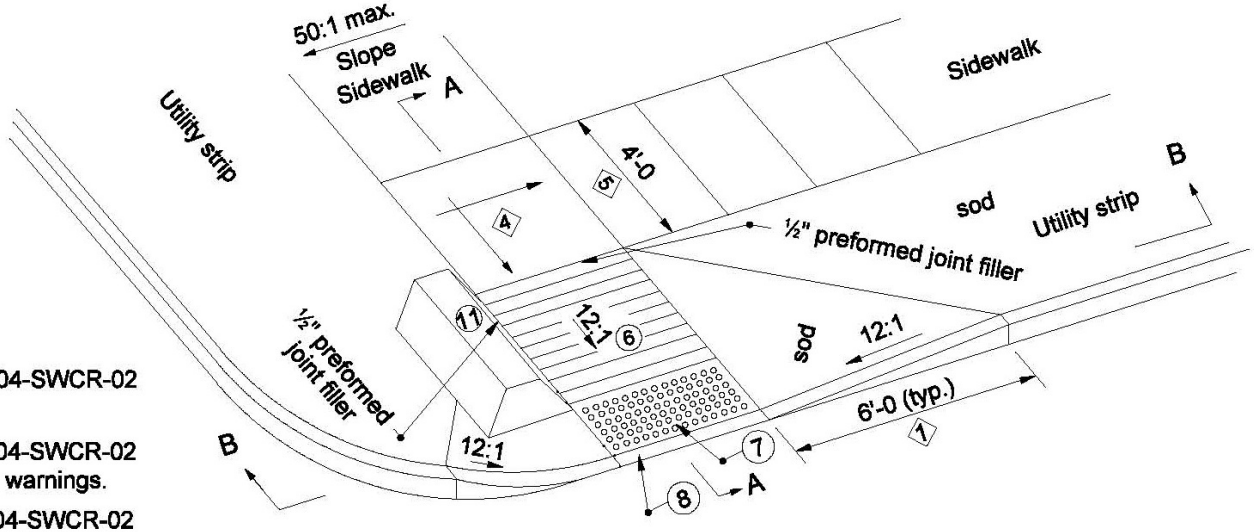
STANDARD DRAWING NO. E 604-SWCR-05

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 9-01-05
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Smutzer 9-01-05
CHIEF HIGHWAY ENGINEER DATE



NOTES :

⑥ See Standard Drawing E 604-SWCR-02 for groove details.

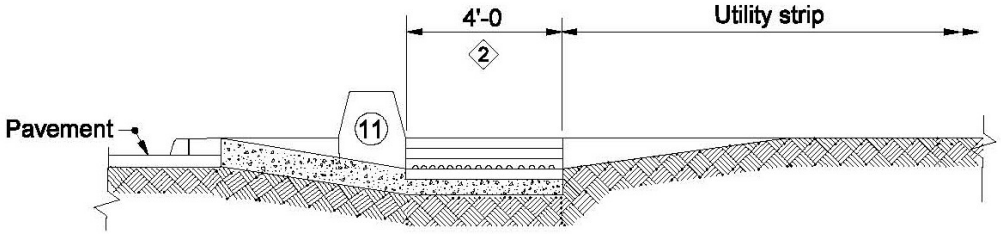
⑦ See Standard Drawing E 604-SWCR-02 for details of the detectable warnings.

⑧ See Standard Drawing E 604-SWCR-02 for alternate curb construction.

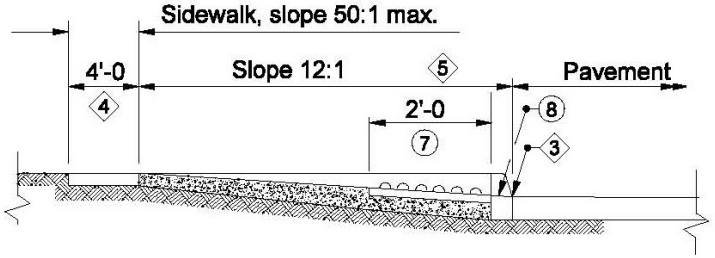
9. See Standard Drawing E 604-SWCR-02 for typical ramp construction detail.

10. See Standard Drawing E 604-SWCR-01 and -02 for Plan Location and General Notes respectively.

⑪ Street furnishing such as planter, signal base, etc.



SECTION B-B



SECTION A-A

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK RAMP CURB
TYPE D

SEPTEMBER 2005

STANDARD DRAWING NO. E 604-SWCR-06

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 9-01-05
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Smutzer 9-01-05
CHIEF HIGHWAY ENGINEER DATE

NOTES :

(6) See Standard Drawing E 604-SWCR-02 for groove details.

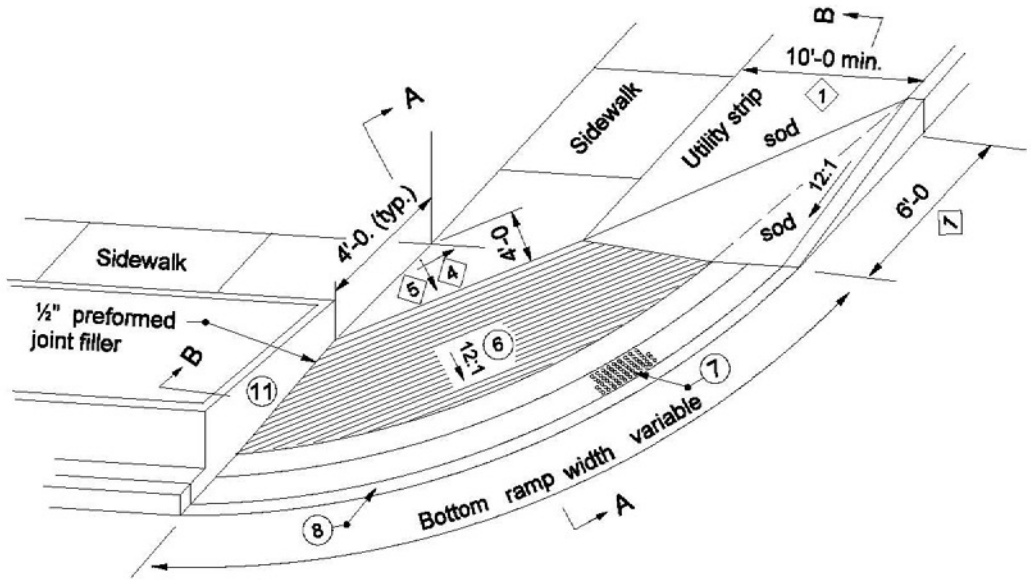
(7) See Standard Drawing E 604-SWCR-02 for details of detectable warning surface.

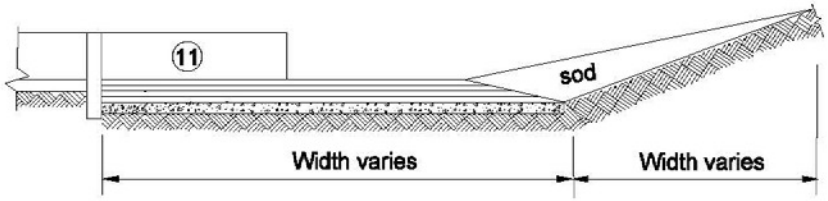
(8) See Standard Drawing E 604-SWCR-02 for alternate curb construction.

9. See Standard Drawing E 604-SWCR-02 for typical ramp construction detail.

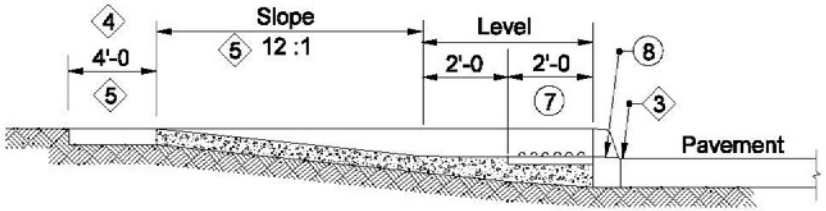
10. See Standard Drawing E 604-SWCR-01 and -02 for Plan Location and General Notes respectively.

(11) Street furnishing such as planter, signal base, etc.





SECTION B-B



SECTION A-A

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK CURB RAMPS
TYPE E

SEPTEMBER 2005

STANDARD DRAWING NO. E 604-SWCR-07

RICHARD L. VANCLEAVE REGISTERED NO. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 9-01-05
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Sandzer 9-01-05
CHIEF HIGHWAY ENGINEER DATE

NOTES :

(6) See Standard Drawing E 604-SWCR-02 for groove details.

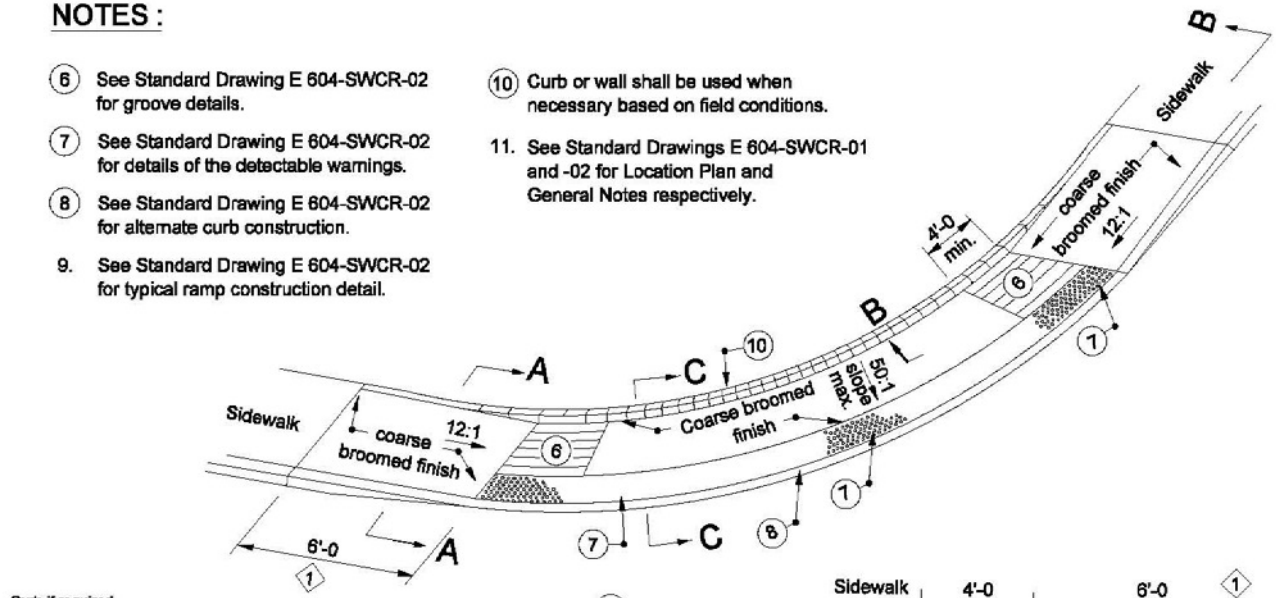
(7) See Standard Drawing E 604-SWCR-02 for details of the detectable warnings.

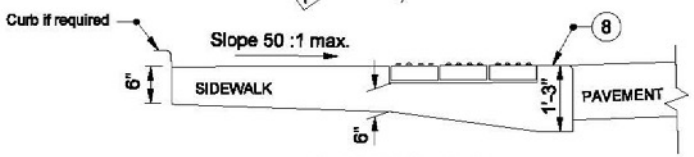
(8) See Standard Drawing E 604-SWCR-02 for alternate curb construction.

9. See Standard Drawing E 604-SWCR-02 for typical ramp construction detail.

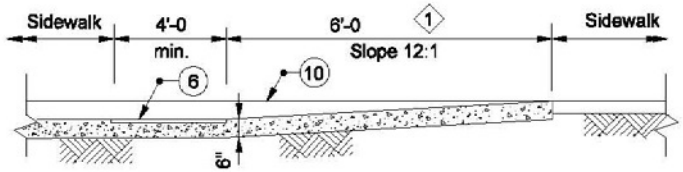
(10) Curb or wall shall be used when necessary based on field conditions.

11. See Standard Drawings E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.

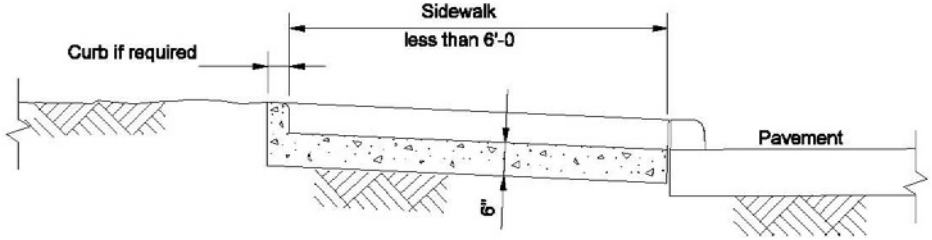




SECTION C-C



SECTION B-B



SECTION A-A

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK CURB RAMPS TYPE F

SEPTEMBER 2005

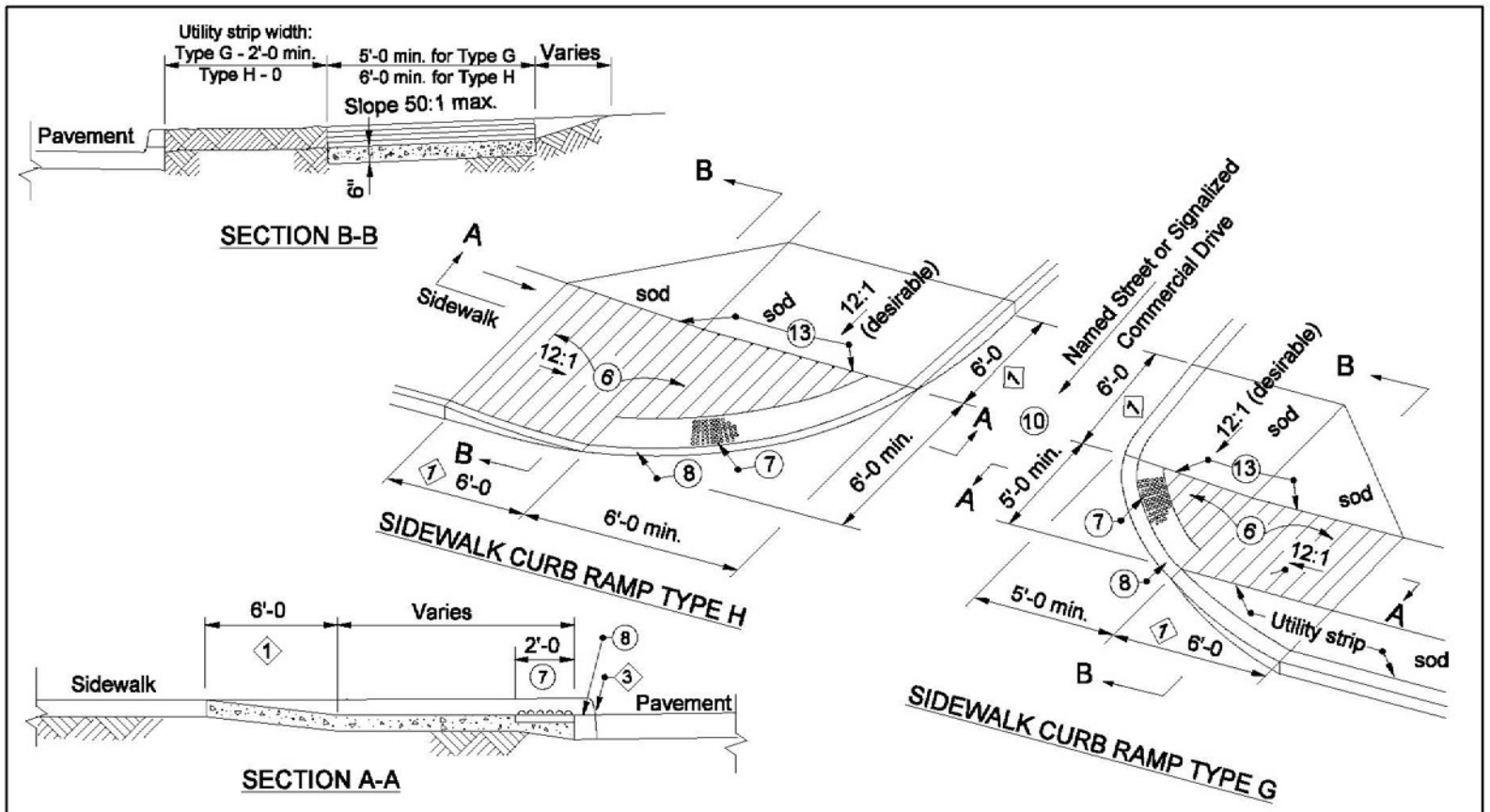
STANDARD DRAWING NO. E 604-SWCR-08

RICHARD L. VANCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 9-01-05
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Snyder 9-01-05
CHIEF HIGHWAY ENGINEER DATE



NOTES :

(6) See Standard Drawing E 604-SWCR-02 for groove details.

(7) See Standard Drawings E 604-SWCR-02 for details of the detectable warning surface.

(8) See Standard Drawing E 604-SWCR-02 for alternate curb construction.

(10) Sidewalk across approach shall be sloped at 50:1 maximum transversely.

11. See Standard Drawing E 604-SWCR-02 for typical ramp construction detail.

12. See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.

(13) Vertical face curb optional.

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK CURB'S RAMP'S TYPE G AND TYPE H

SEPTEMBER 2005

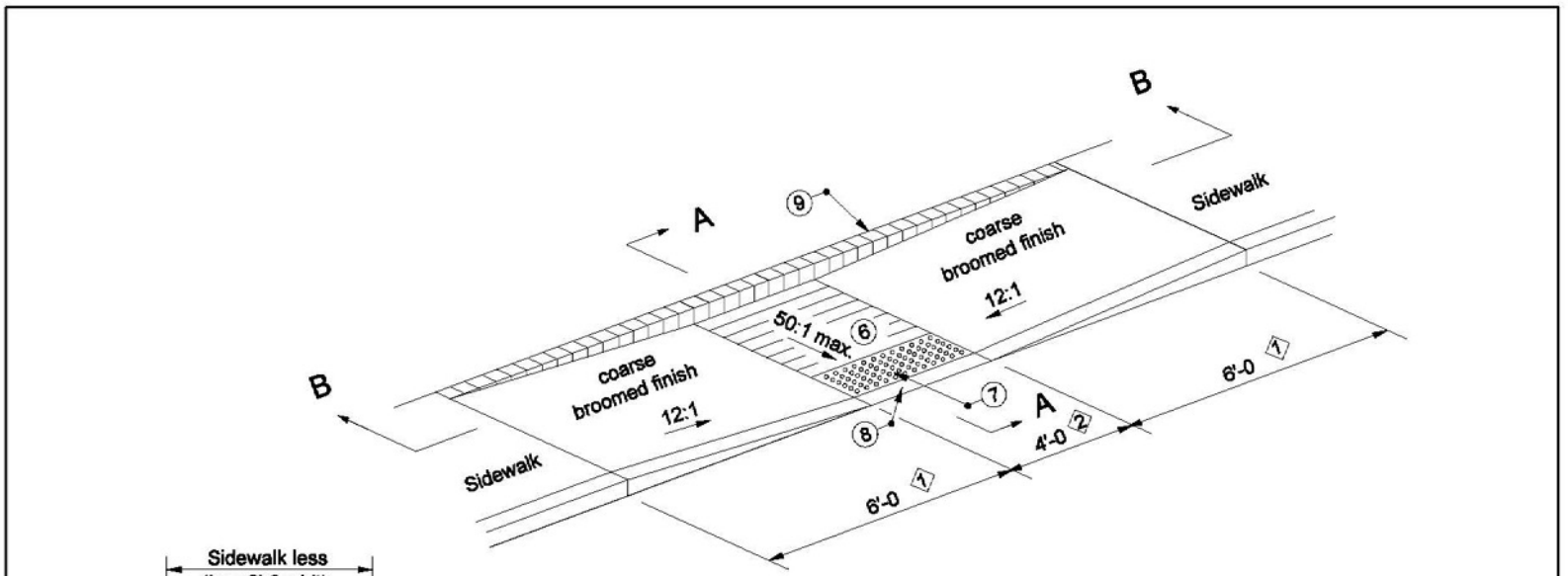
STANDARD DRAWING NO. E 604-SWCR-09

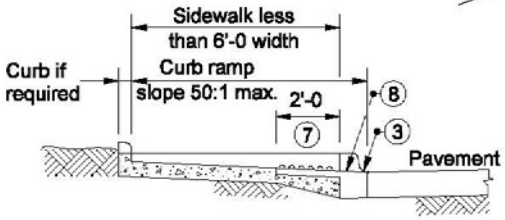
RICHARD L. VANCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

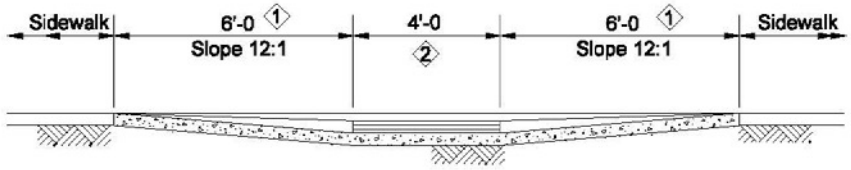
/s/ Richard L. VanCleave — DESIGN STANDARDS ENGINEER — 9-01-05 DATE

/s/ Richard K. Sautter — CHIEF HIGHWAY ENGINEER — 9-01-05 DATE





SECTION A-A



SECTION B-B

NOTES :

6. See Standard Drawing E 604-SWCR-02 for groove details.
7. See Standard Drawing E 604-SWCR-02 for details of detectable warnings surface.
8. See Standard Drawing E 604-SWCR-02 for alternate curb construction.
9. Curb optional. Shall be used when necessary based on field conditions.
10. See Standard Drawing E 604-SWCR-02 for typical ramp construction detail.
11. See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK CURB RAMP TYPE K

SEPTEMBER 2005

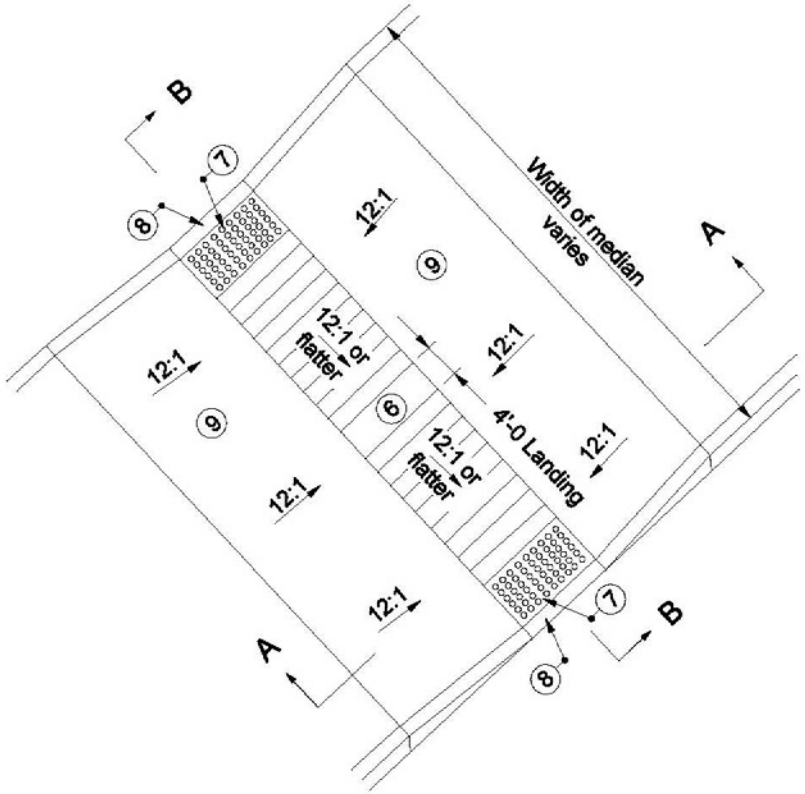
STANDARD DRAWING NO. E 604-SWCR-10

RICHARD L. VANCLEAVE REGISTERED No. 9750 STATE OF Indiana PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

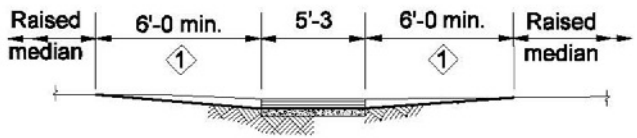
/s/ Richard L. VanCleave — DESIGN STANDARDS ENGINEER — 9-01-05 DATE

/s/ Richard K. Sautzer — CHIEF HIGHWAY ENGINEER — 9-01-05 DATE

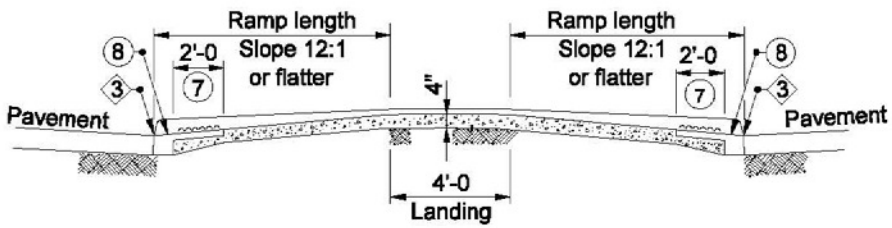


NOTES :

6. See Standard Drawing E 604-SWCR-02 for groove details.
7. See Standard Drawing E 604-SWCR-02 for details of the detectable warnings.
8. See Standard Drawing E 604-SWCR-02 for alternate curb construction.
9. Match material in place or in plans for median.
10. See Standard Drawing E 604-SWCR-02 for typical ramp construction details.
11. See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.
12. Ramp cross slope 50:1 desirable or match grade of roadway.
13. Detectable warnings are not reguired where the roadway crossing is controlled by traffic signals timed to provide full width street crossing by pedestrians.



SECTION A-A



SECTION B-B

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK CURB RAMPS
TYPE L

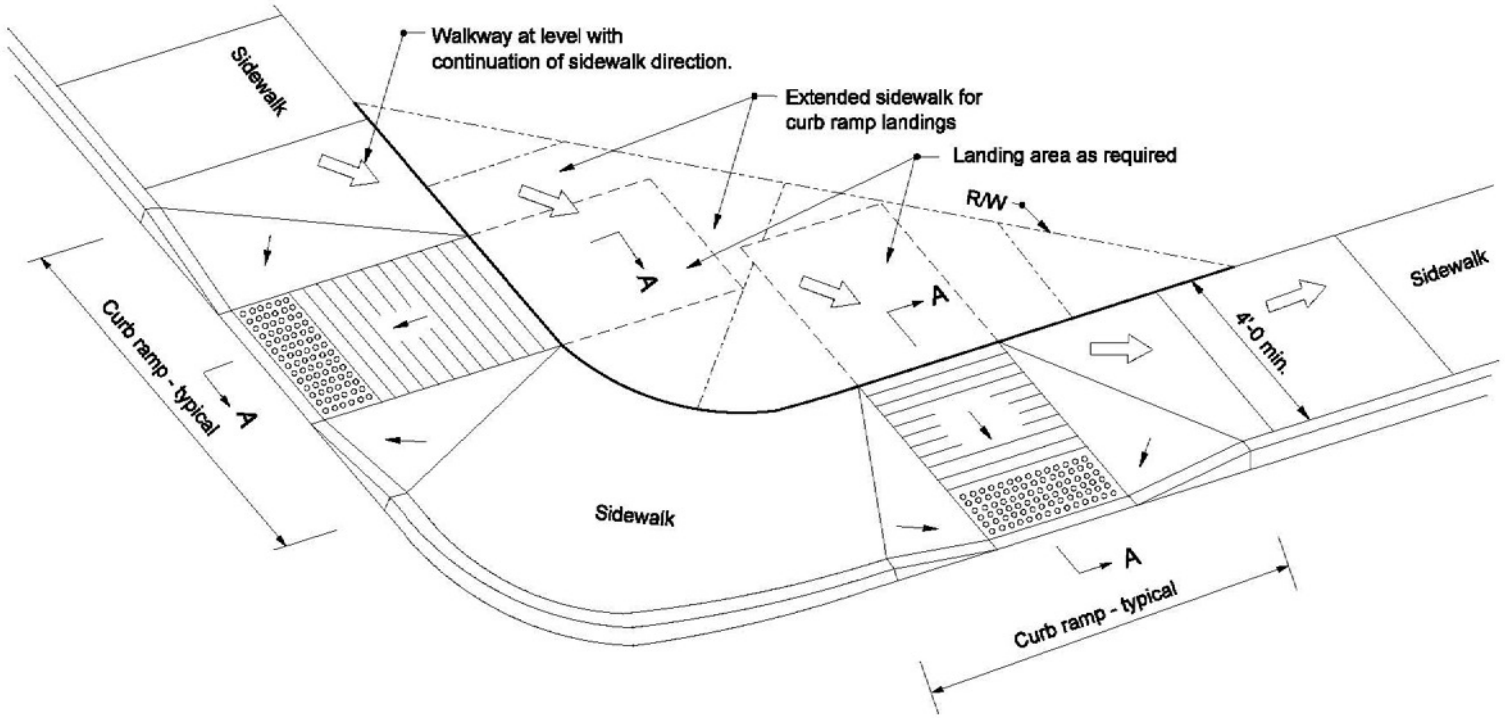
SEPTEMBER 2005

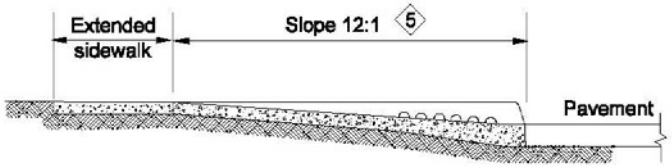
STANDARD DRAWING NO. E 604-SWCR-11

RICHARD L. VANCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave — DESIGN STANDARDS ENGINEER — 9-01-05 DATE

/s/ Richard K. Sandzer — CHIEF HIGHWAY ENGINEER — 9-01-05 DATE





SECTION A-A

NOTES :

1. Additional right-of-way to widen sidewalks if applicable to improve accessibility on narrow sidewalks.
2. See Standard Drawing E 604-SWCR-02 and -03 to -11 for General Notes and typical curb ramps details respectively.

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK CURB RAMP'S
IMPROVED ACCESS

SEPTEMBER 2005

STANDARD DRAWING NO. E 604-SWCR-12

RICHARD L. VANCLEAVE REGISTERED No. 9750 STATE OF Indiana PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

/s/ Richard L VanCleave 9-01-05
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K.Smutzer 9-01-05
CHIEF HIGHWAY ENGINEER DATE