

**CITY OF
TERRE HAUTE
DEPARTMENT
OF ENGINEERING**

City Hall
17 Harding Avenue, Room 200
Terre Haute, IN 47807

Phone: 812.232.4028
Fax: 812.234.3973

www.terrehaute.IN.gov

Addendum #1

**MISCELLANEOUS REPAIR TO
CURB, CURB AND GUTTER, HANDICAP RAMPS AND
OTHER CONCRETE FLATWORK
FOR THE CITY OF TERRE HAUTE, INDIANA**

KEVIN D. BURKE
Mayor

PATRICK GOODWIN, P.E.
City Engineer
engineering@terrehaute.in.gov

- INDOT specification 604.03 is referenced in the bid documents. Included in this addendum is a copy of specification 604.03 and the associated details. It should be noted that detectable warning elements are now required by the Federal Highway Administration.

Concrete, Class A.....	702
Detectable Warning Elements.....	905.05
Fine Aggregate, Size No. 23, No. 24, or No. 15	904
Joint Filler.....	906.01
Paint.....	909.05
Reinforcing Bars	910.01
Silica Sand.....	ASTM C 778

Hand railing shall be aluminum pipe in accordance with ASTM 221, alloy 6063, temper T52 or galvanized steel pipe in accordance with ASTM A 53, grade B, all as specified.

The detectable warning elements shall be set in a thin set latex modified mortar in accordance with ANSI A108.1 or as recommended by the element manufacturer for outdoor use for adhering brick to concrete.

A type A certification in accordance with 916 for detectable warning elements and thin set latex modified mortar shall be furnished prior to use of the materials.

A type C certification in accordance with 916 for the silica sand shall be furnished prior to use of the material.

CONSTRUCTION REQUIREMENTS

604.03 Portland Cement Concrete Sidewalks and Curb Ramps.

(a) General Requirements. The location of curb ramps shall take precedence over the location of drainage structures and signal, utility, or light poles. Drainage structures shall not be located within the limits of the curb ramp, exclusive of flared sides. Poles shall be located so as not to impede the usage or safety of the curb ramps. Crosswalk markings shall be located such that the curb ramps shall be contained within the markings unless otherwise specified. The flared sides need not fall within the crosswalk lines. The normal gutter flow line shall be maintained throughout the curb ramp area, and appropriate drainage structures shall be used, as needed, to intercept the flow prior to the curb ramp area. Positive drainage shall also be provided to carry water away from the intersection of the curb ramp and the gutter line.

The bottom edge of curb ramps and the top of curb shall be flush with the edge of the adjacent pavement or the gutter line.

The curb ramp running slope shall not exceed 12:1, except where conditions necessitate, a 10:1 slope may be utilized for a maximum rise of 150 mm (6 in.). Curb ramp cross slope shall not exceed 50:1 except where infeasible.

(b) Excavation. Excavation shall be made to the required depth and to a width that will permit the installation and bracing of the forms. The foundation shall be shaped and compacted to a firm even surface in accordance with the section shown on the plans. All soft and yielding material shall be removed and replaced with acceptable material.

(c) Forms. Forms shall be of wood, metal, or other approved material and shall extend for the full depth of the concrete. Forms shall be straight, free from warp, and of sufficient strength to resist the pressure of the concrete without springing. Bracing and staking of forms shall be such that the forms remain in both horizontal and vertical alignment until their removal.

(d) Placing Concrete. The foundation shall be thoroughly moistened immediately prior to the placing of the concrete. The proportioning, mixing, and placing of the concrete shall be in accordance with 702. The thickness of the concrete in the curb ramp, including flared sides, shall be as shown on the plans for the type specified.

(e) Finishing. The surface shall be finished with a wooden float. No plastering of the surface will be permitted. Ramp surfaces shall be coarse broomed and corrugated transverse to the slope as shown on the plans. The surface texture of the flared sides shall be coarse broomed with the striations transverse to the slopes.

All exposed edges shall be finished with a 6 mm (1/4 in.) radius.

(f) Joints. The type and location of joints and the size of preformed joint filler shall be as shown on the plans.

All concrete joints shall be finished with a 6 mm (1/4 in.) radius.

Preformed 13 mm (1/2 in.) joint filler shall be placed around all appurtenances, such as manholes and utility poles which extend into and through the sidewalk, and between the sidewalk and any fixed structure, such as a building or bridge. The preformed joint filler shall extend for the full depth of the sidewalk or curb ramp, and shall be flush with the surface of the adjacent concrete.

(g) Detectable Warning Elements. Detectable warning elements shall be as shown on the plans. They shall be set in a thin set mortar on top of the concrete base. The concrete base shall be cleaned of all materials which might prevent the mortar from adhering to the base. The mortar shall be applied to the concrete in accordance with the manufacturer's recommendations. Where elements smaller than full sized are needed, whole elements shall be cut full depth with an appropriate power saw.

Brick joints shall be hand tight with a maximum of 1.5 mm (1/16 in.) width.

The joints between bricks shall be filled with a fine aggregate No. 15 or an equivalent sand. This filling shall be accomplished by repeated brooming of the aggregate across the face of the bricks. Excess aggregate shall then be removed from the surface.

(h) Curing. Concrete shall be cured for at least 72 h. Curing shall be in accordance with 504.04 except curing compound shall not be used in the area where detectable warning elements are to be installed. During the curing period all pedestrian traffic shall be excluded.

(i) **Painting.** The exposed surfaces of the curb throughout the width of curb ramps shall be painted yellow in accordance with 808.06. Silica sand shall be applied to the wet paint along the top of the curb at the rate of 0.7 kg/L (6.0 lb/gal.).

604.04 PCC Steps. PCC steps shall be in accordance with the applicable provisions of 604.03. In addition, all exposed edges shall be rounded to a 6 mm (1/4 in.) radius.

604.05 Reconstructed PCC Sidewalk. Where existing concrete sidewalk is to be reconstructed, all disintegrated concrete, brick, stone, or other material shall be completely removed and replaced with new concrete sidewalk in accordance with 604.03.

Such sidewalk shall be constructed to a minimum depth of 100 mm (4 in.) unless another depth is designated and to the width of the adjoining walk, or to a width of no less than 1200 mm (48 in.) from the face of curb, or to such other width as directed.

The removal of concrete sidewalk shall be to uniform lines as directed. The sidewalk to be removed shall be cut in a straight line with an approved power driven concrete saw. The sawing shall be such that the portion of sidewalk to remain in place shall not be damaged. All portions which are damaged or removed back of the established line shall be replaced.

Unless otherwise directed, sidewalk which must be removed shall be removed between tool marks or joints. At locations where the sidewalk and curb are adjacent and the curb is deteriorated, the curb shall also be replaced as directed.

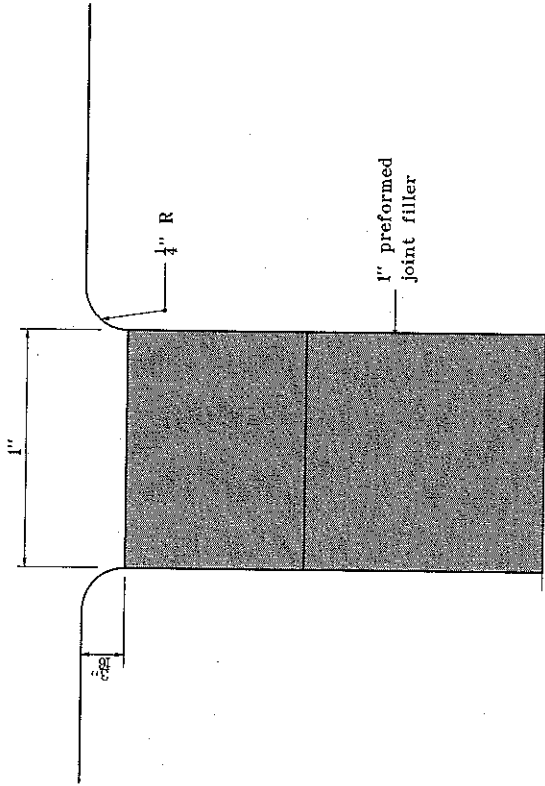
The new sidewalk shall have a joint pattern similar to the surrounding sidewalk. Sidewalk placed at drives shall be 150 mm (6 in.) thick, or the same depth of the existing drive, whichever is greater.

604.06 Re-Laid Sidewalk. This work consists of the removal and re-laying of concrete, stone-slab, or brick sidewalk at the locations shown on the plans or as directed. In the operations of removing and re-laying, care shall be taken not to damage any of the sidewalk. Before re-laying, a cushion of fine aggregate shall be spread on the prepared subgrade to a depth of no less than 50 mm (2 in.). Cracked or damaged sections shall not be relaid but shall be disposed of as directed.

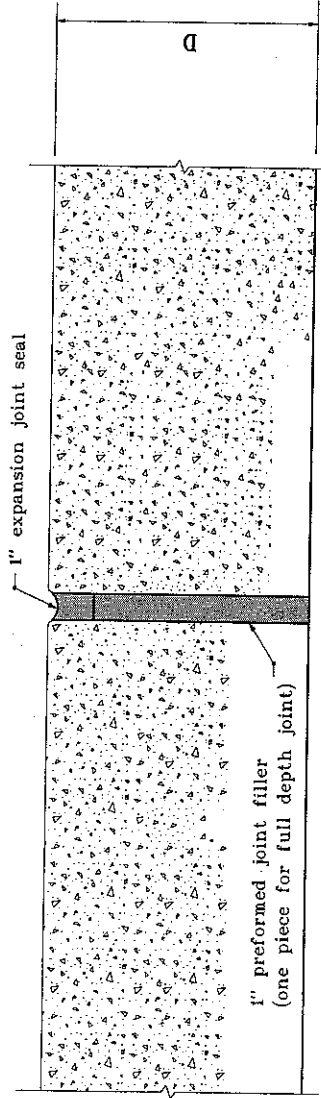
604.07 HMA Sidewalk.

(a) **Excavation and Forms.** Excavation and forms, when required, shall be in accordance with 604.03(b) and 604.03(c).

(b) **Bed Course.** Bed course material shall be coarse aggregate No. 53 and shall be placed in lifts not exceeding 100 mm (4 in.) in depth. Each lift shall be thoroughly compacted.



SILICONE JOINT SEALANT



SECTION THROUGH JOINT

INDIANA DEPARTMENT OF TRANSPORTATION

SIDEWALK

EXPANSION JOINT

SEPTEMBER 1999

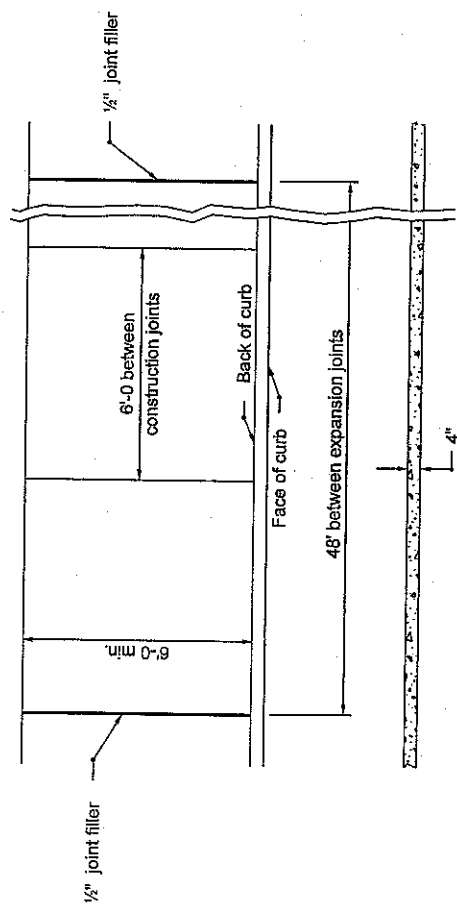
STANDARD DRAWING NO. E 604-CCSJ-01



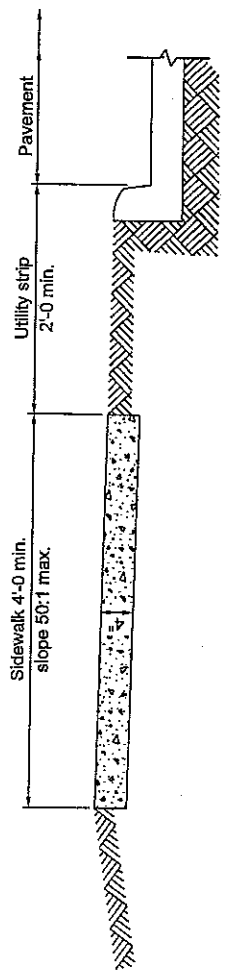
/s/ Anthony L. Urenko 9-01-99
DESIGN STANDARDS ENGINEER DATE

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

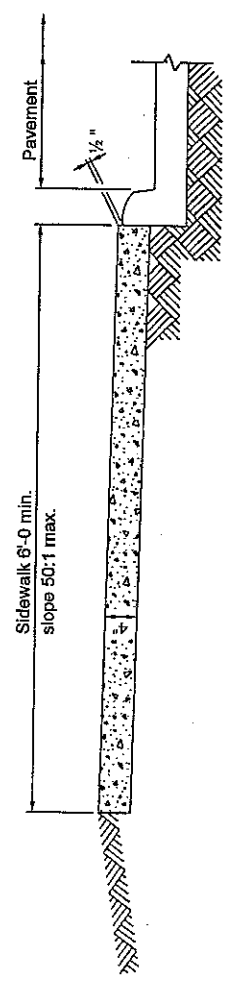
DESIGN STANDARDS ENGINEER



SIDEWALK



SECTION THROUGH SIDEWALK WITH UTILITY STRIP



SECTION THROUGH SIDEWALK ADJACENT TO CURB

INDIANA DEPARTMENT OF TRANSPORTATION
SIDEWALK DETAILS
 SEPTEMBER 2003
 STANDARD DRAWING NO. E 604-SDWK-01

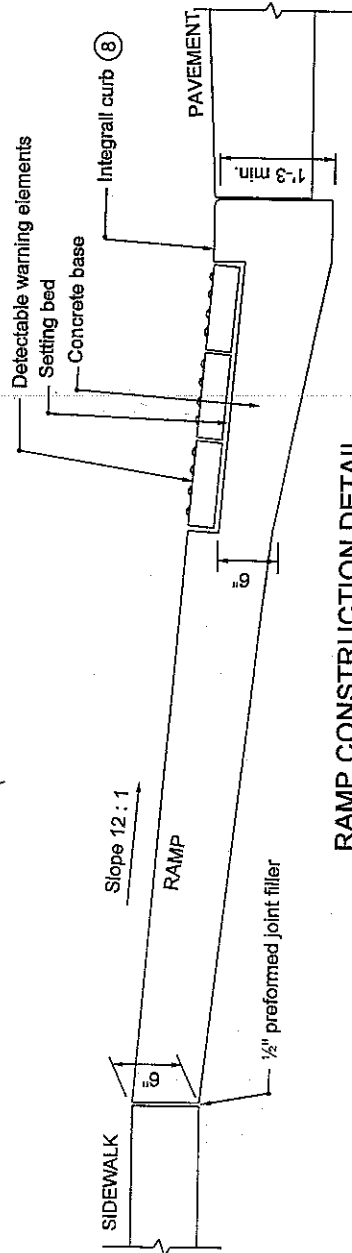
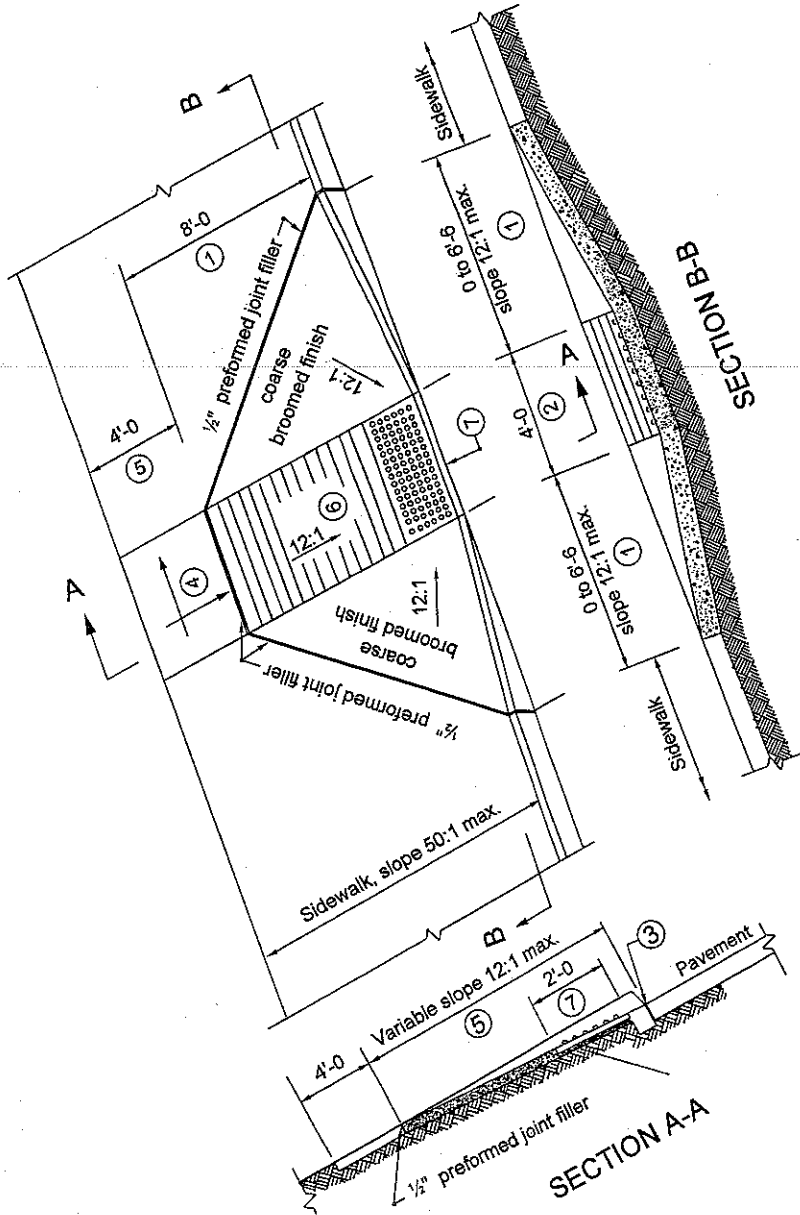
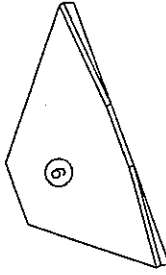
Richard L. VanCleave
 DESIGN STANDARDS ENGINEER
 9-02-03
 DATE

Richard K. Smutzer
 CHIEF HIGHWAY ENGINEER
 9-02-03
 DATE

INDIANA PROFESSIONAL ENGINEERS BOARD
 RICHARD L. VANCLEAVE
 NO. 9750
 STATE OF INDIANA
 PROFESSIONAL ENGINEER

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.
- ⑨ Indicated area denotes pay limits.
- 10. See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.

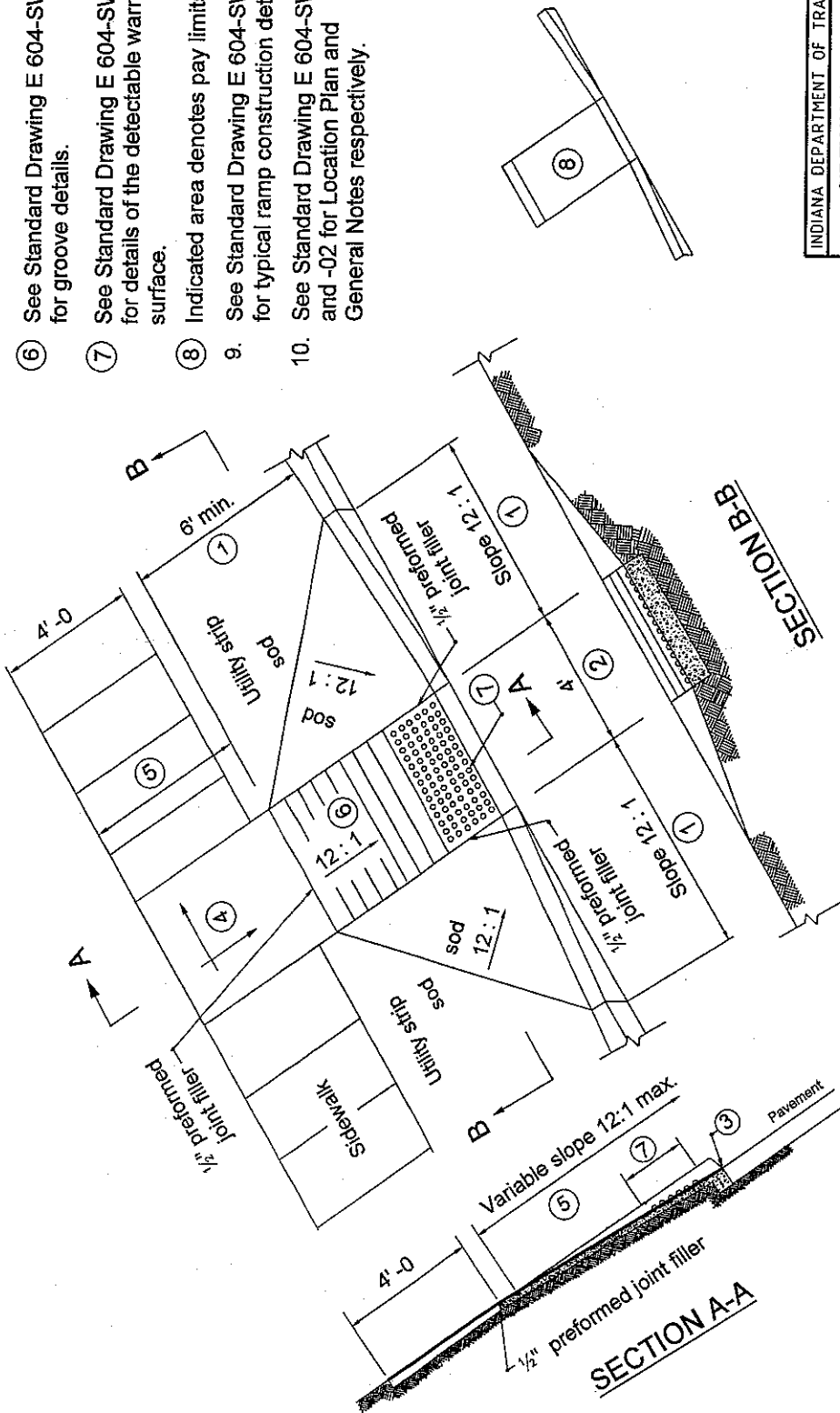


RAMP CONSTRUCTION DETAIL

INDIANA DEPARTMENT OF TRANSPORTATION	
SIDWALK CURB RAMP TYPE A	
SEPTEMBER 2003	
STANDARD DRAWING NO. E 604-SWCR-03	
/s/ Anthony L. Urepa DESIGN STANDARDS ENGINEER	9-02-03 DATE
/s/ Richard L. Somfor CHIEF HIGHWAY ENGINEER	9-02-03 DATE
DESIGN STANDARDS ENGINEER	

NOTES:

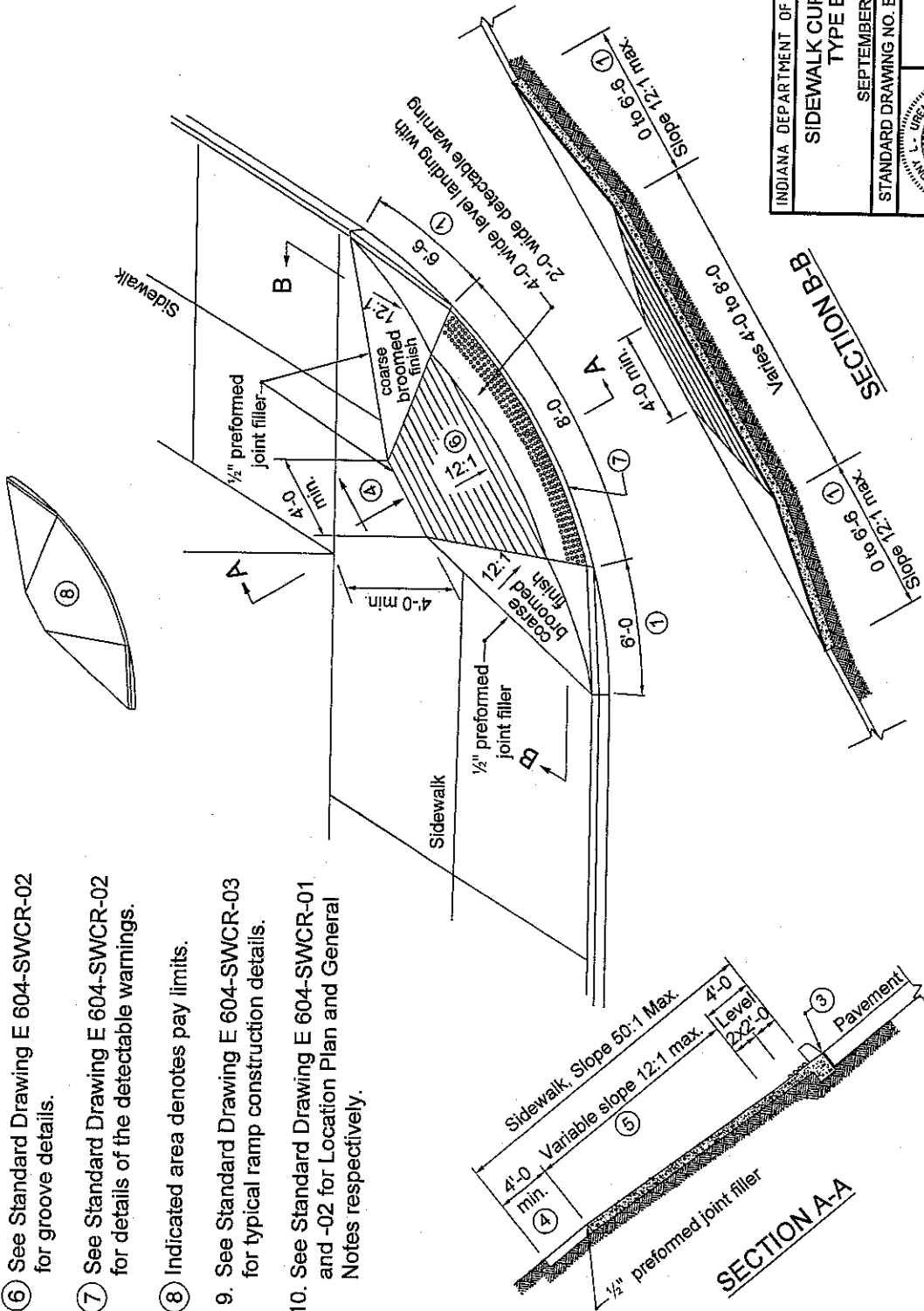
- ⑥ See Standard Drawing E 604-SWCR-02 for groove details.
- ⑦ See Standard Drawing E 604-SWCR-02 for details of the detectable warning surface.
- ⑧ Indicated area denotes pay limits.
- 9. See Standard Drawing E 604-SWCR-03 for typical ramp construction details.
- 10. See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.



INDIANA DEPARTMENT OF TRANSPORTATION	
SIDEWALK CURB RAMPS TYPE C	
SEPTEMBER 2003	
STANDARD DRAWING NO. E 604-SWCR-05	
	/s/ Anthony L. Urzyczek DESIGN STANDARDS ENGINEER DATE 9-02-03
	/s/ Richard L. Sumner CHIEF HIGHWAY ENGINEER DATE 9-02-03

NOTES:

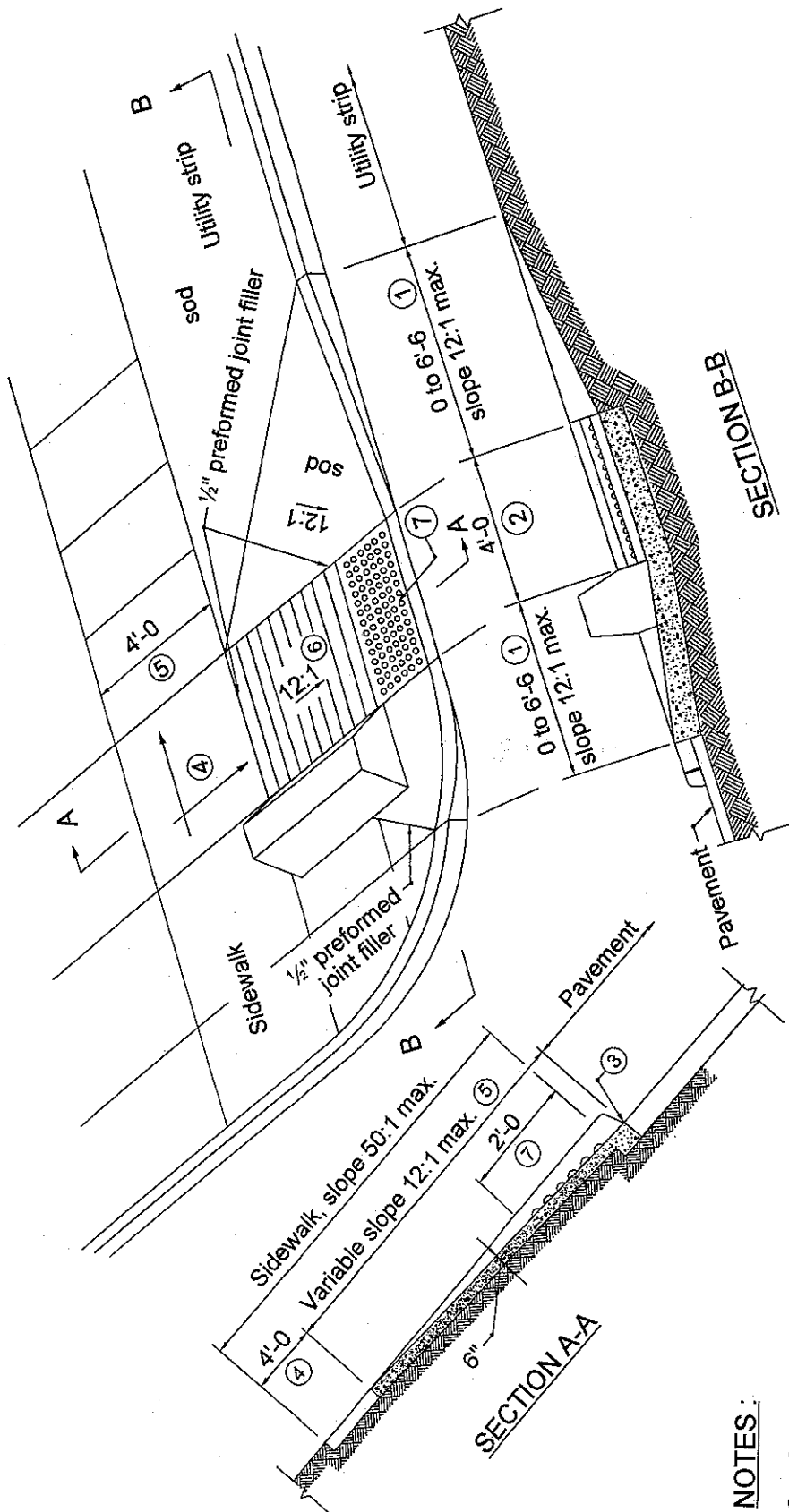
- ⑥ See Standard Drawing E 604-SWCR-02 for groove details.
- ⑦ See Standard Drawing E 604-SWCR-02 for details of the detectable warnings.
- ⑧ Indicated area denotes pay limits.
- 9. See Standard Drawing E 604-SWCR-03 for typical ramp construction details.
- 10. See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.



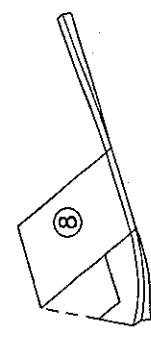
INDIANA DEPARTMENT OF TRANSPORTATION
**SIDEWALK CURB RAMP
 TYPE B**
 SEPTEMBER 2003
 STANDARD DRAWING NO. E 604-SWCR-04

DESIGNER	DATE
1/8" Richard L. Switzer	9/22/03
CHIEF HIGHWAY ENGINEER	DESIGN STANDARDS ENGINEER
1/8" Richard L. Switzer	9/22/03
CHIEF HIGHWAY ENGINEER	DESIGN STANDARDS ENGINEER

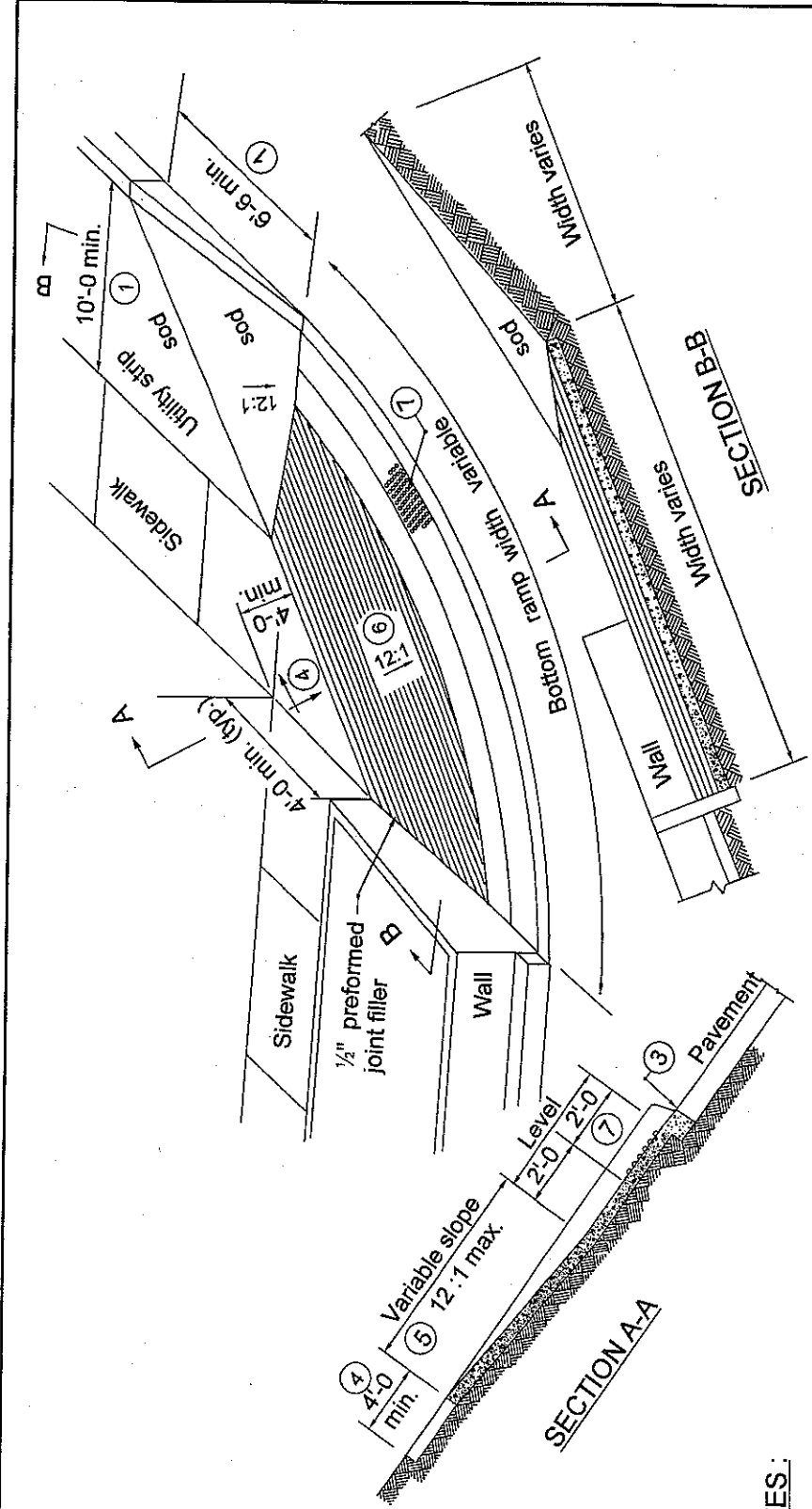
NO. 18055
 STATE OF INDIANA
 PROFESSIONAL ENGINEER
 RICHARD L. SWITZER



- 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 Indicated area denotes pay limits.
 - 9. See Standard Drawing E 604-SWCR-03 for typical ramp construction details.
 - 10. See Standard Drawing E 604-SWCR-01 and -02 for Plan Location and General Notes respectively.



INDIANA DEPARTMENT OF TRANSPORTATION	
SIDEWALK RAMP CURB TYPE D	
SEPTEMBER 2003	
STANDARD DRAWING NO. E 604-SWCR-06	
	/s/ Richard L. Sumner CHIEF HIGHWAY ENGINEER DATE 9-02-03
/s/ Arisook L. Trapanich DESIGN STANDARDS ENGINEER DATE 9-02-03	/s/ Richard L. Sumner CHIEF HIGHWAY ENGINEER DATE 9-02-03



INDIANA DEPARTMENT OF TRANSPORTATION

**SIDEWALK CURB RAMP
TYPE E**

SEPTEMBER 2003

STANDARD DRAWING NO. E 604-SWCR-07

DESIGN STANDARDS ENGINEER: /s/ Anthony L. Uremowicz, 9-02-03 DATE

CHIEF HIGHWAY ENGINEER: /s/ Richard K. Smutzer, 9-02-03 DATE

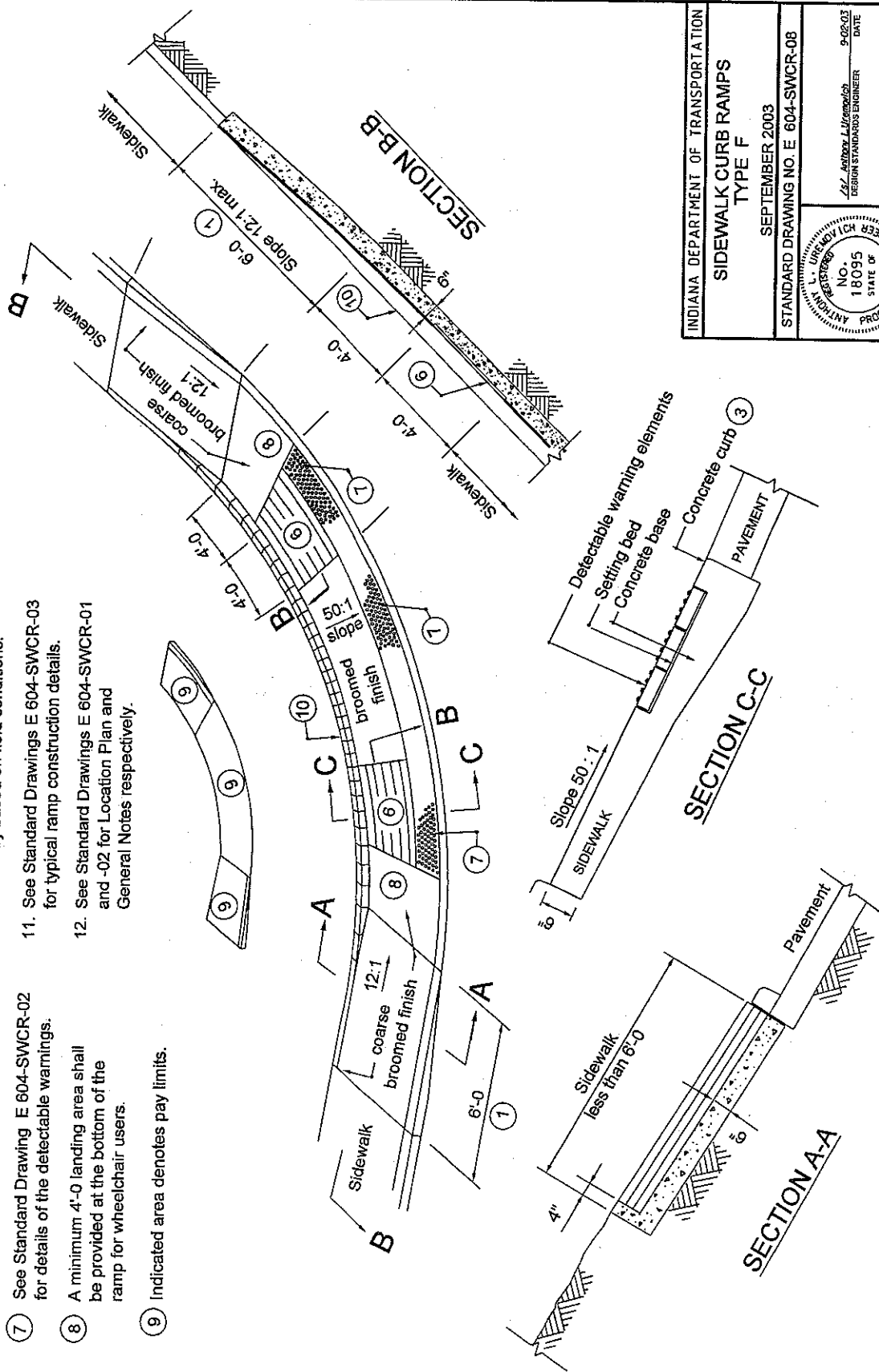
REGISTERED PROFESSIONAL ENGINEER
NO. 18095
STATE OF INDIANA

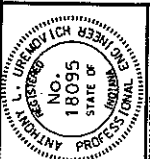
NOTES:

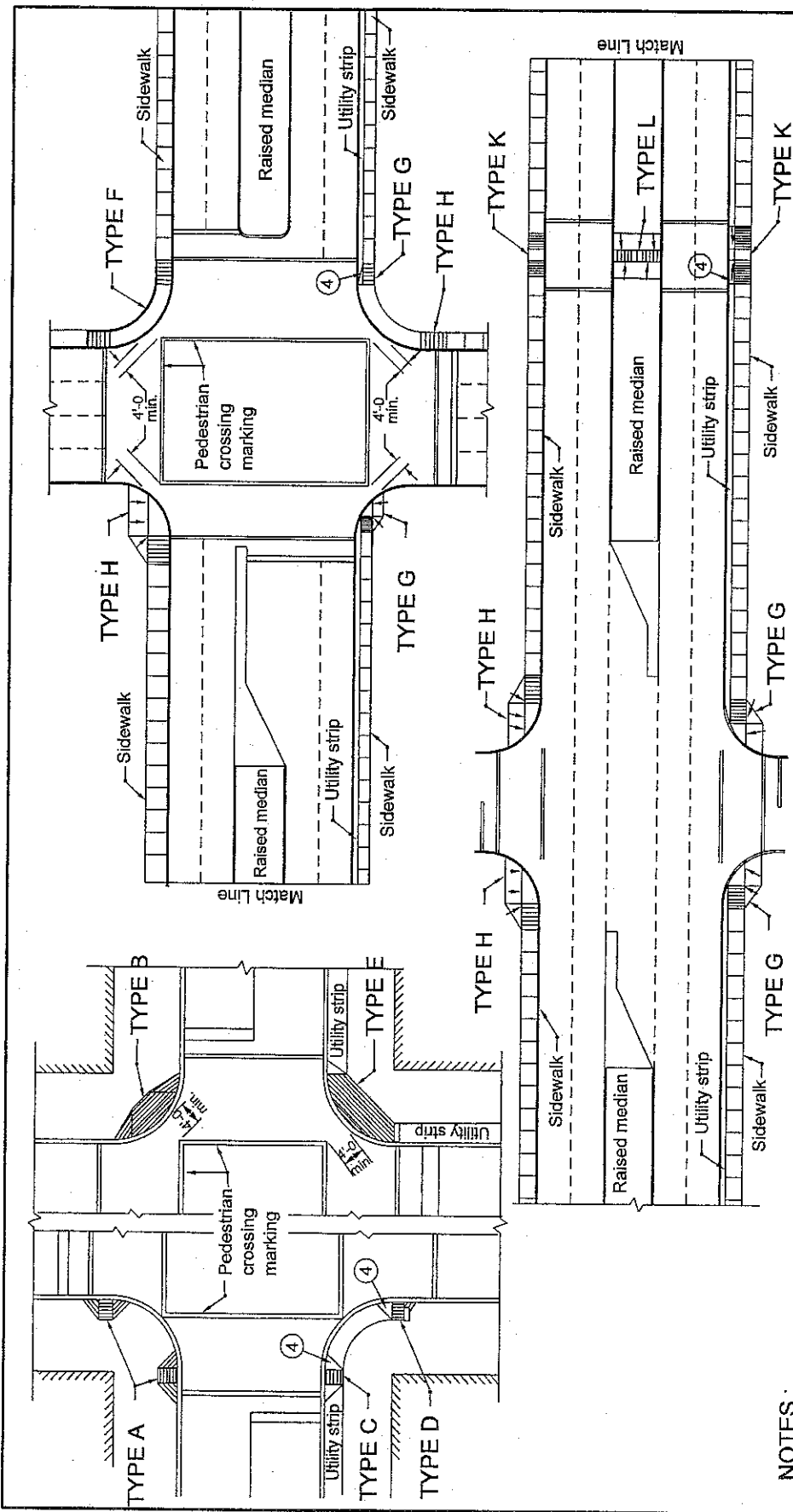
- ⑥ See Standard Drawing E 604-SWCR-02 for groove details.
- ⑦ See Standard Drawing E 604-SWCR-02 for details of detectable warning surface.
- ⑧ Indicated area denotes pay limits.
- 9. See Standard Drawing E 604-SWCR-03 for typical ramp construction details.
- 10. See Standard Drawing E 604-SWCR-01 and -02 for Plan Location and General Notes respectively.

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) A minimum 4'-0" landing area shall be provided at the bottom of the ramp for wheelchair users.
- (9) Indicated area denotes pay limits.
- (10) Curb or wall shall be used when necessary based on field conditions.
- 11. See Standard Drawings E 604-SWCR-03 for typical ramp construction details.
- 12. See Standard Drawings E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.



INDIANA DEPARTMENT OF TRANSPORTATION	
SIDEWALK CURB RAMPS TYPE F	
SEPTEMBER 2003	
STANDARD DRAWING NO. E 604-SWCR-08	
	9-02-03 DATE /s/ Andrew J. Uziomoch DESIGN STANDARDS ENGINEER
9-02-03 DATE /s/ Richard K. Smutzer CHIEF HIGHWAY ENGINEER	DESIGN STANDARDS ENGINEER



NOTES:

1. The curb ramp type includes the ramp and flared sides as indicated by the hatched lines on the details. A top level landing for every curb ramp shall be provided.
2. For details of sidewalk curb 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 Drawings E 604-SWCR-02 for General Notes.

INDIANA DEPARTMENT OF TRANSPORTATION

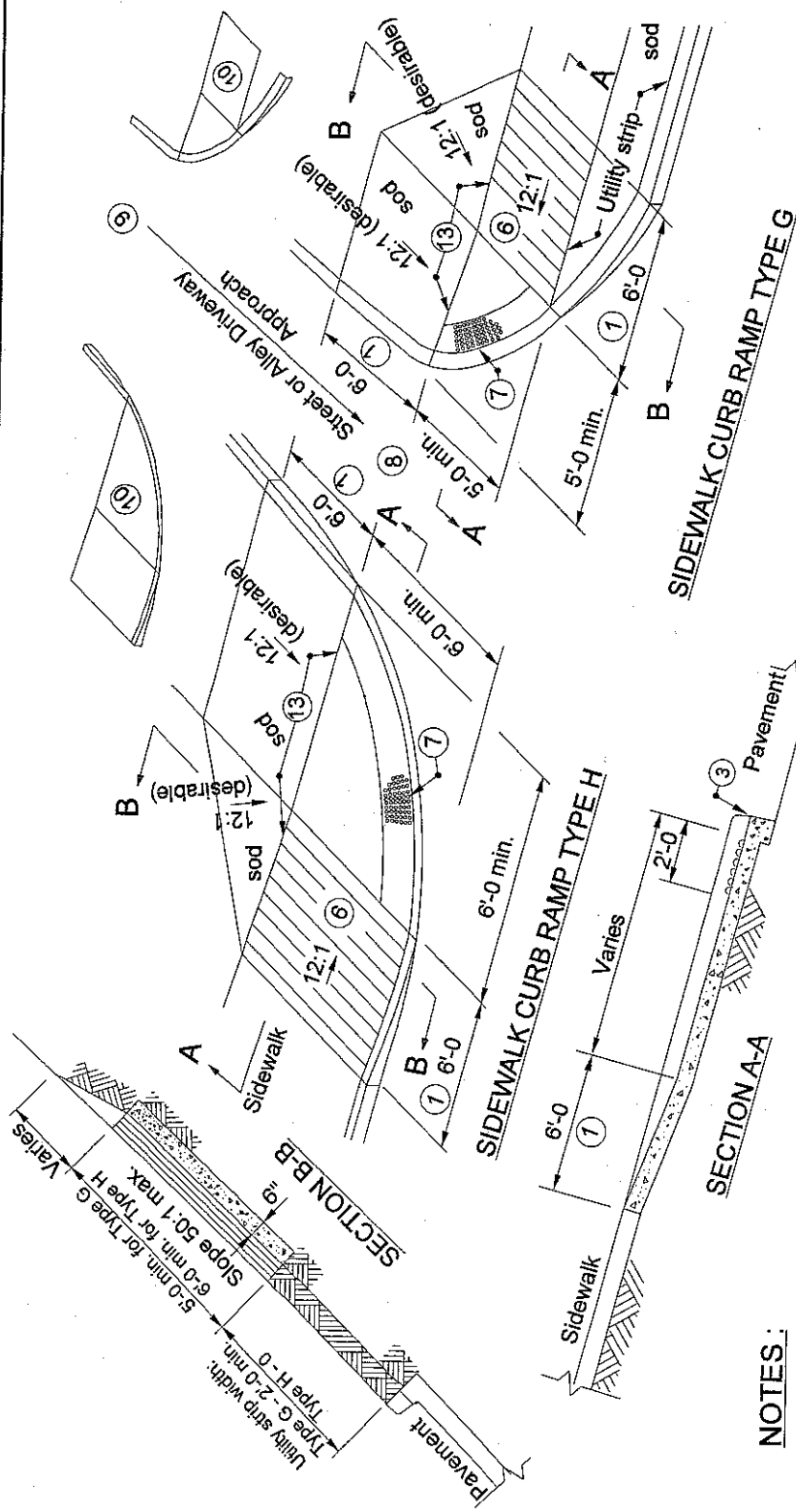
LOCATION PLAN FOR
SIDEWALK CURB RAMPS

SEPTEMBER 2003

STANDARD DRAWING NO. E 604-SWCR-01

DESIGN STANDARDS ENGINEER
ANTHONY L. UREMOVICH
NO. 18095
STATE OF INDIANA
PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER
RICHARD K. SCHWAB
NO. 90623
STATE OF INDIANA
PROFESSIONAL ENGINEER



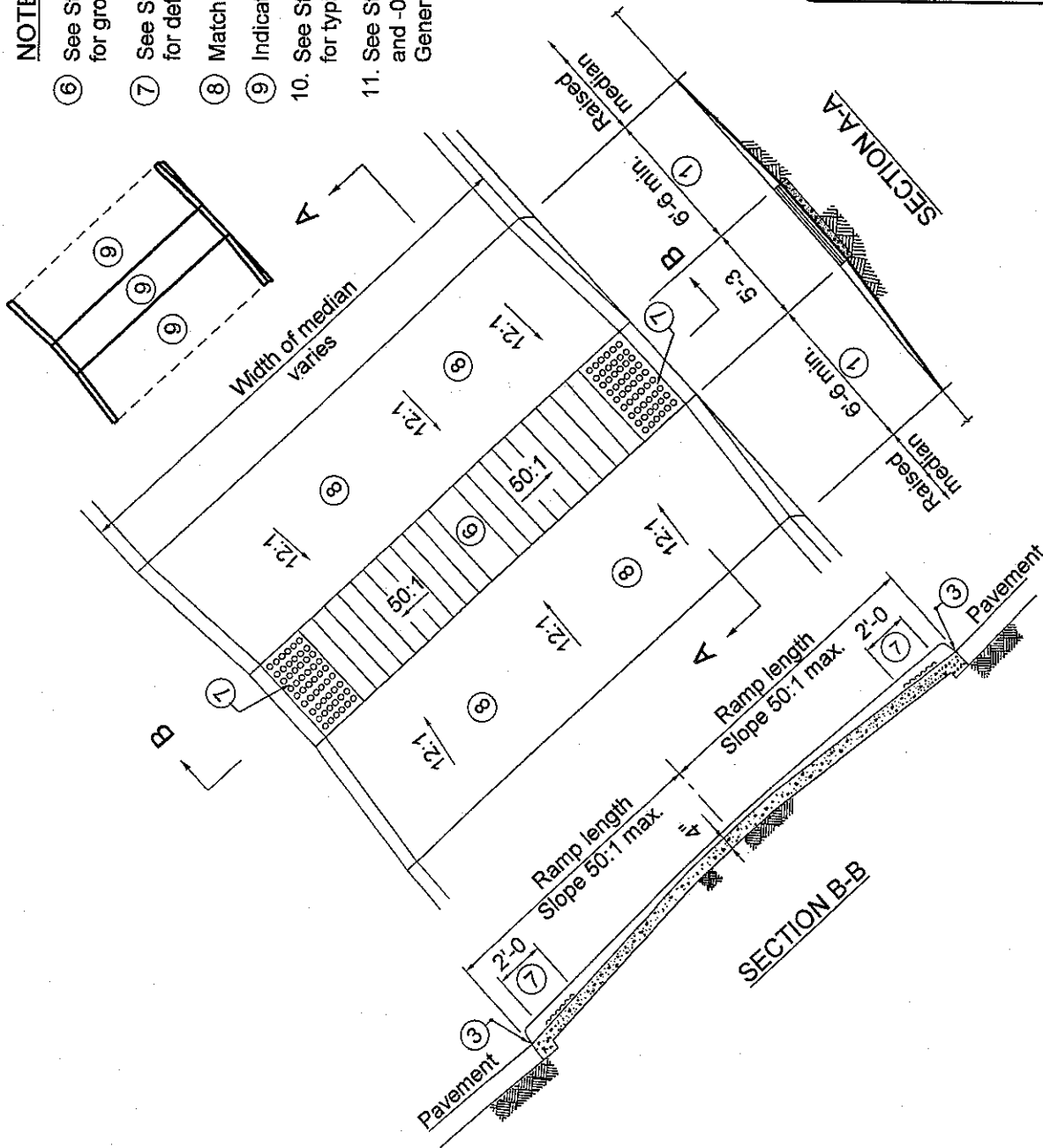
NOTES:

- 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 Sidewalk across approach shall be sloped at 50:1 maximum transversely.
- ⑨ In case of concrete driveway there will be no curbs present. This side shall be adjusted accordingly.
- ⑩ Indicated area denotes pay limits.
- ⑪ See Standard Drawing E 604-SWCR-03 for typical ramp construction details.
- ⑫ See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.
- ⑬ Vertical face curb optional.

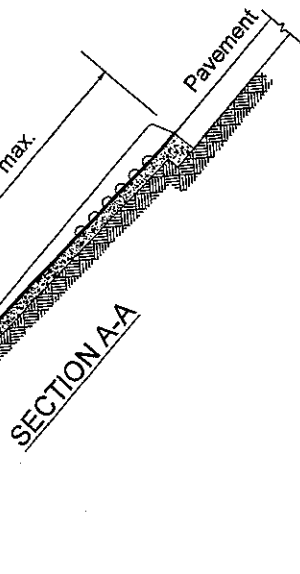
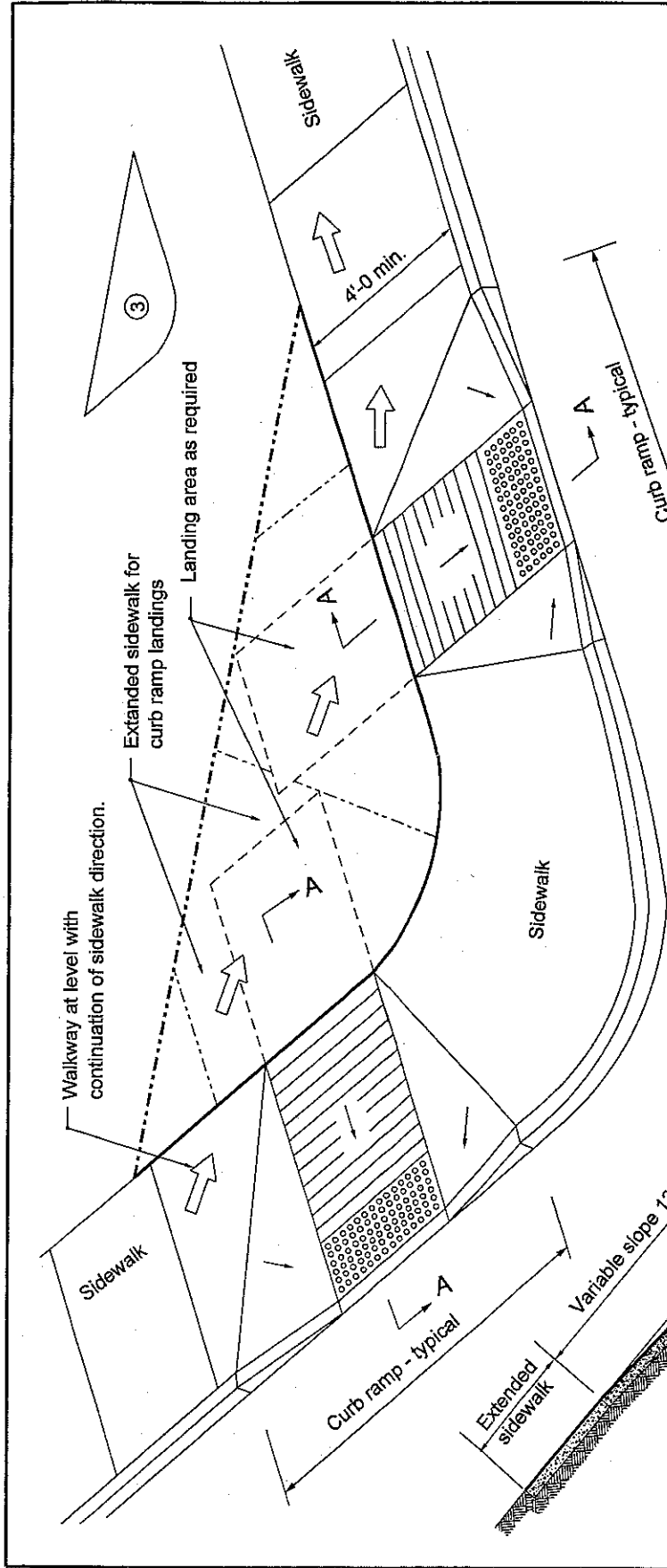
INDIANA DEPARTMENT OF TRANSPORTATION	
SIDEWALK CURB'S RAMPS TYPE G AND TYPE H	
MARCH 2005	
STANDARD DRAWING NO. E 604-SWCR-09	
	L. VonClake REGISTERED PROFESSIONAL ENGINEER NO. 9750 STATE OF INDIANA
	Richard L. VonClake DESIGN STANDARDS ENGINEER DATE 3-06-05
	Richard K. Smulzer CHIEF HIGHWAY ENGINEER DATE 3-9-05

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 Match material in place.
- ⑨ Indicated area denotes pay limits.
- 10. See Standard Drawing E 604-SWCR-03 for typical ramp construction details.
- 11. See Standard Drawing E 604-SWCR-01 and -02 for Location Plan and General Notes respectively.



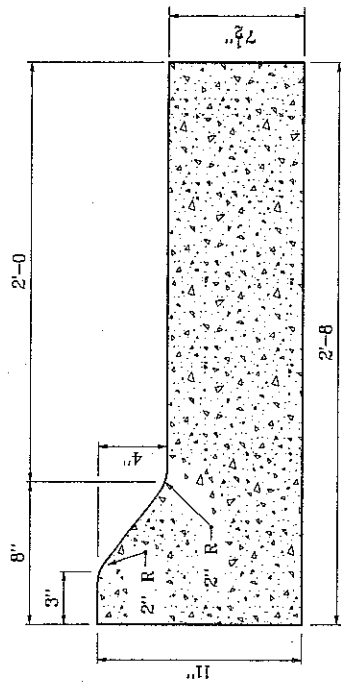
INDIANA DEPARTMENT OF TRANSPORTATION	
SIDWALK CURB RAMPS TYPE L	
SEPTEMBER 2003	
STANDARD DRAWING NO. E 604-SWCR-11	
DESIGNED BY L. Dierker, L.L.C. License No. 18095 DESIGN STANDARDS ENGINEER	DATE 9-02-03
CHECKED BY Richard K. Smither CHIEF HIGHWAY ENGINEER	DATE 9-02-03



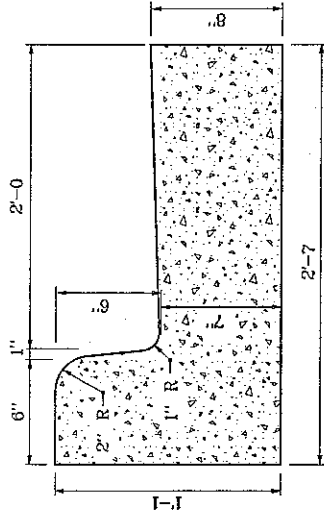
NOTES:

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.
- ③ Indicated area denotes additional pay limits for improved access.

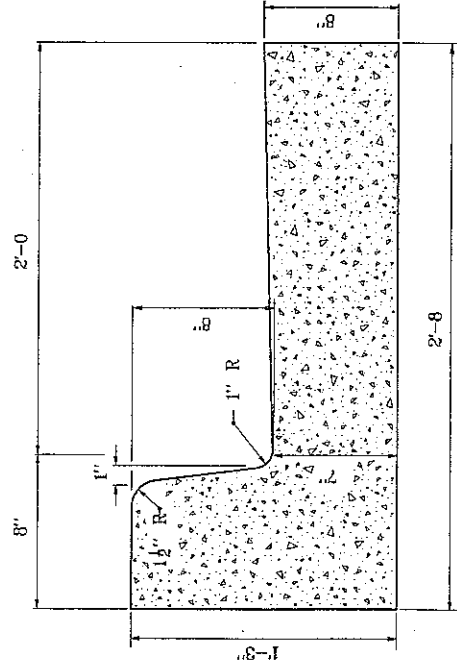
INDIANA DEPARTMENT OF TRANSPORTATION	
SIDEWALK CURB RAMP'S IMPROVED ACCESS	
SEPTEMBER 2003	
STANDARD DRAWING NO. E 604-SWCR-12	
	/s/ Anthony J. Urago DESIGN STANDARDS ENGINEER DATE 9-02-03
	/s/ Richard K. Smutzer CHIEF HIGHWAY ENGINEER DATE 9-02-03



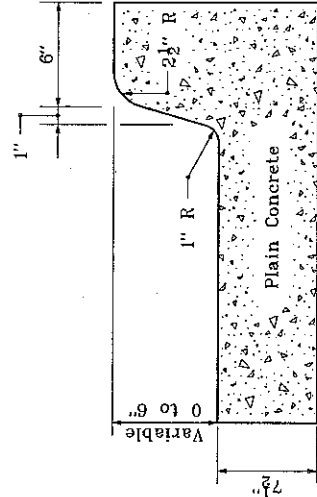
COMBINED CONCRETE CURB
AND GUTTER, TYPE B
(MOUNTABLE)



COMBINED CONCRETE CURB
AND GUTTER
(BARRIER)

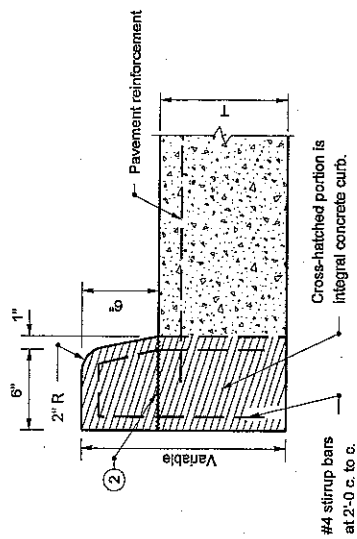


COMBINED CONCRETE CURB
AND GUTTER, TYPE C
(BARRIER)

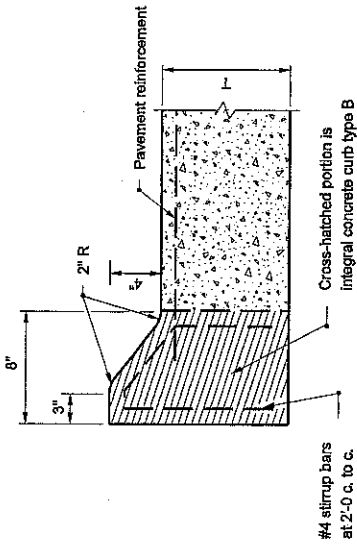


MONOLITHIC CURB

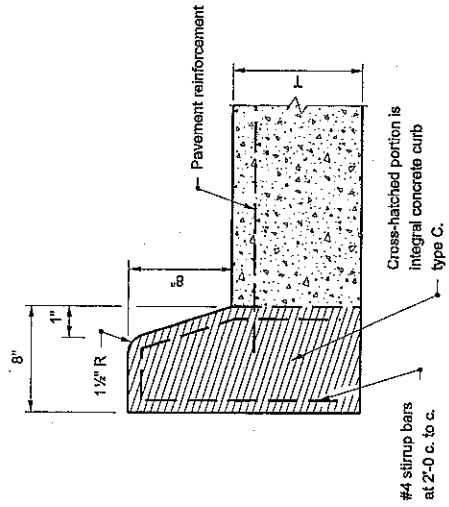
INDIANA DEPARTMENT OF TRANSPORTATION	
COMBINED CONCRETE CURB AND GUTTER	
SEPTEMBER 1939	
STANDARD DRAWING NO. E 605-CCCC-01	
DETAILS PLACED IN THIS FORM 11-5-39	
	/s/ Anthony L. Uremovich, 11-5-39 DESIGN STANDARDS ENGINEER DATE
	/s/ Ferooz Zandi, 11-5-39 CHIEF HIGHWAY ENGINEER DATE
DESIGN STANDARDS ENGINEER OCCASIONALLY APPROVED 9-01-39	



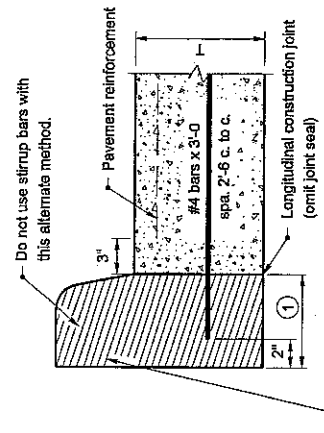
**INTEGRAL CONCRETE CURB
(BARRIER)**



**INTEGRAL CONCRETE CURB
TYPE B
(MOUNTABLE)**



**INTEGRAL CONCRETE CURB
TYPE C
(BARRIER)**



**ALTERNATE METHOD
OF CONSTRUCTION FOR ALL TYPES
OF INTEGRAL CONCRETE CURB**

- NOTES**
- 8" for integral concrete curb type B or C and 7" for integral concrete curb.
 - Concrete below this line may be poured with the pavement.
- LEGEND**
- T = Nominal pavement thickness

INDIANA DEPARTMENT OF TRANSPORTATION
INTEGRAL CONCRETE CURB

SEPTEMBER 2004
STANDARD DRAWING NO. E 605-CCIN-01

Richard L. Vancleave
DESIGN STANDARDS ENGINEER
9/01/04
DATE

Richard K. Smither
CHIEF HIGHWAY ENGINEER
9/01/04
DATE

Richard L. Vancleave
No. 9750
STATE OF INDIANA
PROFESSIONAL ENGINEER

**MISCELLANEOUS REPAIR TO
CURB, CURB AND GUTTER, HANDICAP RAMPS AND
OTHER CONCRETE FLATWORK
FOR THE CITY OF TERRE HAUTE, INDIANA**

SCOPE OF WORK:

A unit price contract will be awarded for the construction of the associated work illustrated on Attachment "A". The attachment outlines the scope of work for the project by address. The area associated with the address may or may not represent continuous sidewalk construction. A City of Terre Haute representative will mark the sections to be removed and replaced. Also shown on Attachment "A" are areas that require tree removal or root pruning. Tree removal will be conducted under a separate contract. The City requires all equipment, materials and labor needed for the repair, replacement and installation of curb, curb and gutter, handicap ramps and miscellaneous flatwork as directed. All work must comply with the City of Terre Haute Standards and Specifications where applicable and the requirements of the Americans With Disability Act where applicable. Production rates must be acceptable to the Department of Engineering. Bidders shall submit State Board of Accounts Form 96 (Questionnaire and Financial Statement). Bidders shall submit a list of similar concrete repair projects completed.

EMERGENCY REPAIR OPERATIONS:

Bidders will be required to have at least ten years of similar experience, and a list of similar projects. No work shall be performed on a project without written work order from the Department of Engineering signed by the City Engineer or his authorized agent. The contractor will be on call twenty-four (24) hours per day and have the ability to effect repairs immediately listed below to insure uninterrupted availability, and the contractor will also provide a twenty-four hour emergency contact number and contact person in the bid package. Failure to begin work on any emergency project, within one day of notification, will result in a \$200.00 fine per day. This fine will continue until the contractor starts the work. The contractor will also be required to provide written proof of ownership or copies of lease agreements with the bid package of the following required equipment:

Rubber-Tired Backhoe

Concrete Saw

Plate Compactor

8 ton Capacity Single-Axle Dump Truck

All equipment must be in good operating condition.

METHOD OF BID EVALUATION:

Bids will be awarded to the lowest responsive and responsible bidder. The Board of Public Works and Safety reserves the right to reject any or all bid items.

Mobilization is payable per work order, not per location. The scope of work will be divided into work orders that will be assigned dividing the city into four quadrants: NE, NW, SE, and SW. Four to six work orders are expected for the year.

The advertisement for bids and Notice to Bidders are a part of these specifications.

The contractor agrees not to discriminate against any employee or applicant for employment, to be employed in the performance of a contract awarded as a result of this Request For Bids, with respect to hire, tenure, terms, conditions or privileges of employment, or any other matter directly or indirectly related to employment, because of race, religion, sex, handicap, national origin or ancestry.

The contractor must comply with the prevailing wage scale requirements of State law. A schedule of wages to be paid to laborers, workmen, and mechanics must be filed with the Board of Public Works and Safety prior to the performance of any work.

MATERIALS:

The contractor must supply all material necessary to complete each work order. Ready-mix concrete will be supplied by the contractor, and the batch plant must be located within Vigo County. Items incidental to construction such as, but not limited to, sand, seed, and straw, shall be included in the unit price for sidewalk replacement. Contractor shall provide all necessary hand tools and miscellaneous tools necessary to complete the project.

PAYMENT:

The Department of Engineering reserves the right to determine the method of payment used. The method of payment shall be monthly for work completed.

The City of Terre Haute reserves the right to bid individual projects separately at its discretion.

WORKMANSHIP AND QUALITY

Concrete sidewalks, curbs, and curb ramps shall meet or exceed INDOT specification 604.03. Sidewalk shall be 5 feet in width or match existing. Construction joints will be every 5 feet and expansion joints shall be every 40 feet and/or against any abutting masonry or structure. Sidewalks under commercial drives or alleys shall be 8", under standard drives 6", and 4" for all other applications. Subgrade for proposed sidewalks shall be free of spongy, soft, or any other unstable material. Tree roots shall be cleanly cut with a saw at the edge or bottom of the excavation. If unsuitable material is encountered once existing sidewalk has been removed, the subgrade shall be excavated 6", and replaced by b-borrow placed in 3" lifts with a plate compactor. Cost for b-borrow shall be included in the pay item sidewalk replacement. Once forms have been placed, the contractor shall contact the City Engineer's Office 3 hours prior to placement of sidewalk for inspection of subgrade. After the concrete has been placed a white membrane curing compound type 2 shall be mechanically applied in accordance with AASHTO M 148. The contractor shall mark the new sidewalk using a suitable stamp. The stamp shall include the Contractor's name and year in which the work was completed. The stamp shall be placed at the beginning and end of each pour and at 100-foot intervals if applicable. The stamp will be limited to 2 inches in height by 2 feet in width, unless approved by the City Engineer's Office. The contractor shall protect the surface of the concrete from defect during the initial set. After removal of the forms, all debris, excess material, tools and equipment shall be removed from the site within the 48 hours. The sides of the sidewalk shall be backfilled with suitable material thoroughly compacted and finished flush with the top of the sidewalk. All work shall be completed at a specified address within 5 days. Work on holidays and weekends will not be permitted.

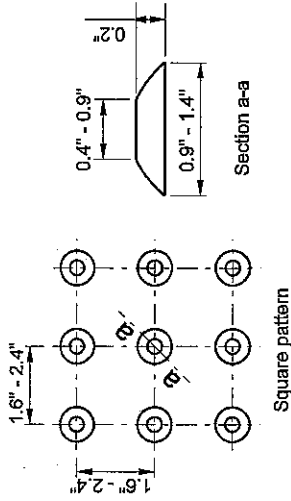
A right of way permit with each location detailed will be required for each work order. The permit fee will be waived and the permit will be prepared by the City Engineer's Office.

2005 Misc. Concrete Repair Bid Sheet

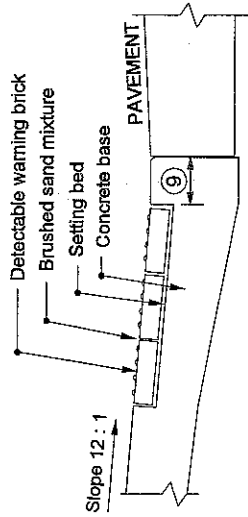
<u>Item</u>	<u>Quant.</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Curb & Gutter Removal	1090	LFT	_____	_____
Sidewalk Removal	23166	SYS	_____	_____
Curb & Gutter Replacement	740	LFT	_____	_____
Sidewalk Replacement	23027	SYS	_____	_____
6" Driveway Removal & Replacement	120	SYS	_____	_____
Handicap Ramps	50	EA	_____	_____
Monolithic Curb	150	LFT	_____	_____
8" Concrete Patch <i>DRIVEWAY</i> Removal & Replacement	120	SYS	_____	_____
Integral Curb	200	LFT	_____	_____
Bituminous Wedge	80	TON	_____	_____
Top Soil	523	TON	_____	_____
Mobilization	6	EA	_____	_____
TOTAL			_____	_____

GENERAL NOTES :

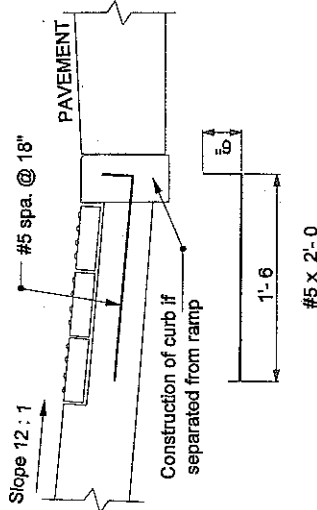
- 1 These dimensions are based on a 6 in. curb height. They shall be proportionally adjusted for other curb heights.
- 2 Where site infeasibility precludes construction to the width shown, such width may be decreased to a minimum of 3'-0".
- 3 The bottom edge of the curb ramp shall be flush with the 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 The detectable warning surface shall be located so that the near edge to the curb line is 6" min. and 8" max.



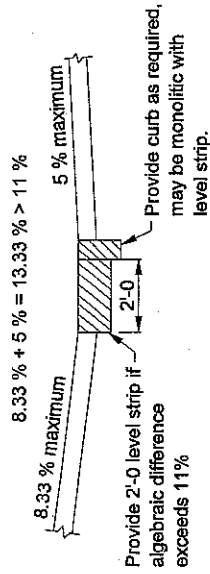
TRUNCATED DOMES USED IN DETECTABLE WARNINGS



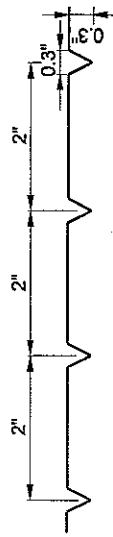
BRICK SURFACE CONSTRUCTION



ALTERNATE CURB CONSTRUCTION



CHANGE OF GRADE



DETAIL OF RAMP GROOVES

INDIANA DEPARTMENT OF TRANSPORTATION	
SIDEWALK CURB RAMPS GENERAL NOTES & DETAILS	
MARCH 2005	
STANDARD DRAWING NO. E 604-SWCR-02	
	/s/ Richard L. VanCleave DESIGN STANDARDS ENGINEER DATE 3-01-05
	/s/ Richard K. Smutzer CHIEF HIGHWAY ENGINEER DATE 3-01-05