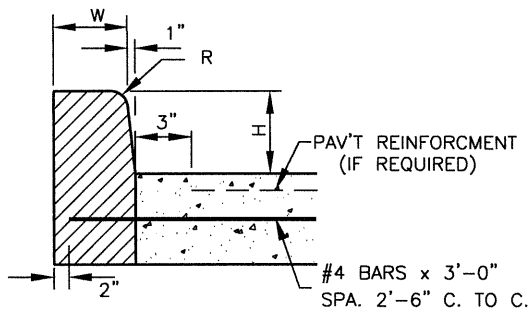
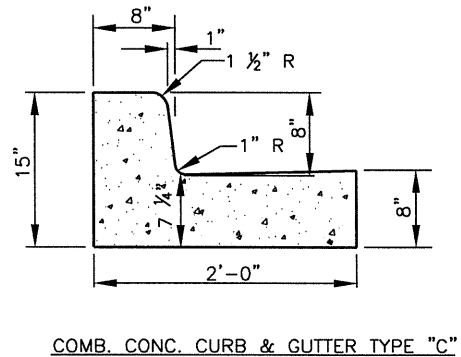
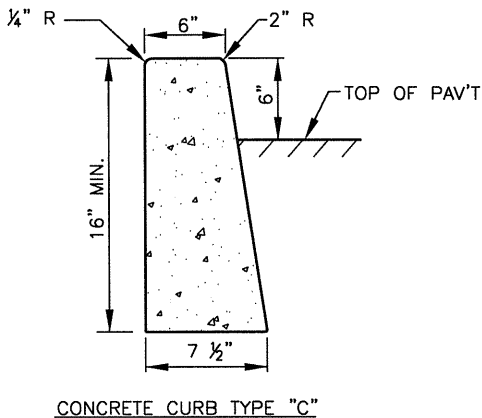
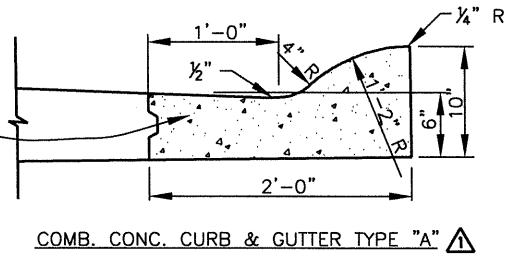
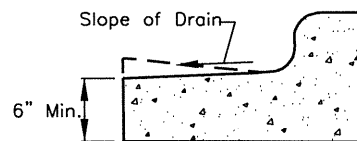


NOTE:  
FOR USE ONLY WITH  
THE APPROVAL OF THE  
CITY ENGINEER



	6" CURB	8" CURB
H	6"	8"
W	6"	7"
R	2"	1 1/2"



NOTE:  
MINIMUM CURB RADII AT STREET  
INTERSECTIONS SHALL BE 15  
FEET. ALL CONCRETE CURB AND  
SIDEWALK TO BE CONSTRUCTED  
OF CLASS "A" CONCRETE.

PREPARED BY: DLZ INDIANA, LLC



*B. K. Arterbery*  
11/1/07

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY  
EFFECTIVE DATE: APRIL 2007



CITY OF MISHAWAKA, INDIANA

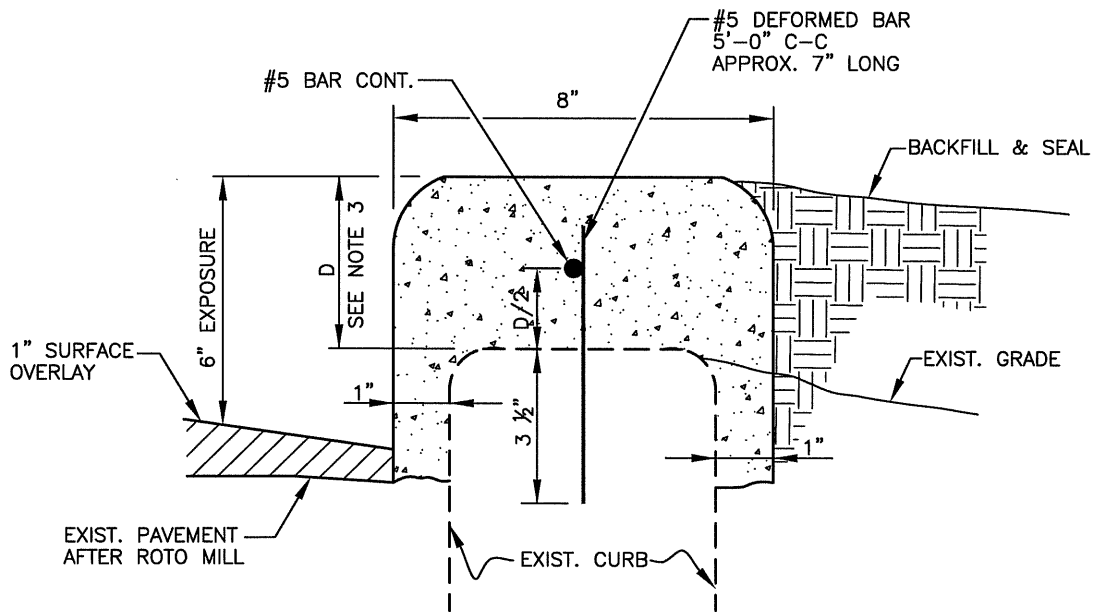
ENGINEERING STANDARDS

CURB DETAILS

SHT. NO.

III-1

ITEM	REVISION	APPROVED DATE
$\Delta$	RENAMED CURB TYPES	11-1-07



**NOTE:**

1. SAW CUT CONTROL JOINT EVERY 10'-0" C-C.
2. CLEAN TOP OF CURB BEFORE CAPPING.
3. 4" MIN. CURB CAP DEPTH, IF LESS THAN 4" REMOVE TOP OF EXISTING CURB.

CURB CAPPING DETAIL

PREPARED BY: DLZ INDIANA, LLC



*Brian K. Arterbery*  
4/23/07

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY  
EFFECTIVE DATE: APRIL 2007



CITY OF MISHAWAKA, INDIANA

ENGINEERING STANDARDS

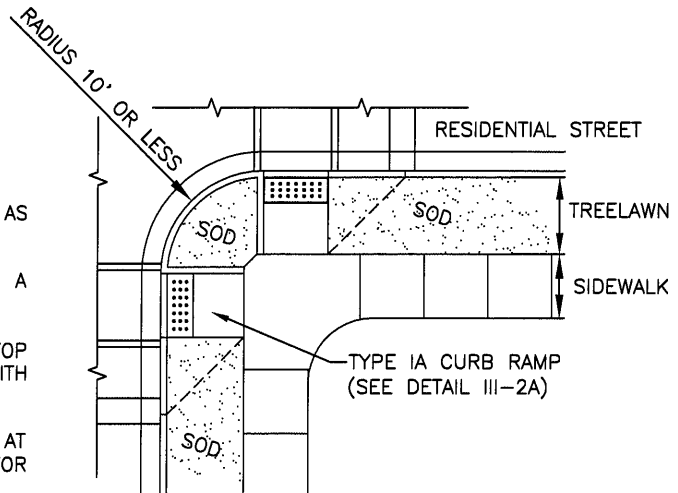
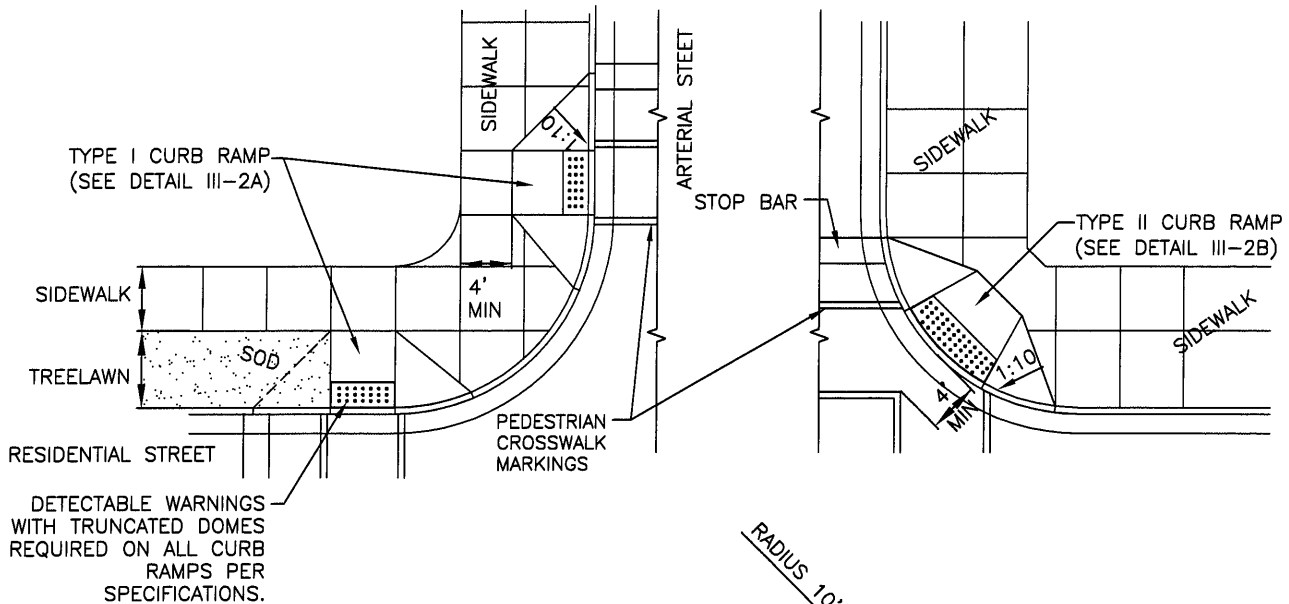
CURB CAPPING DETAIL

SHT. NO.

III-1A

ITEM	REVISION	APPROVED DATE

# SIDEWALK CURB RAMP TYPICAL LOCATION PLAN



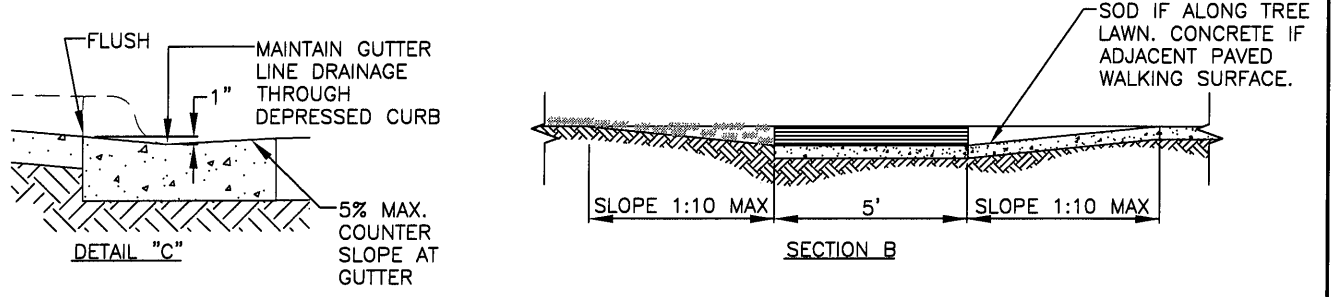
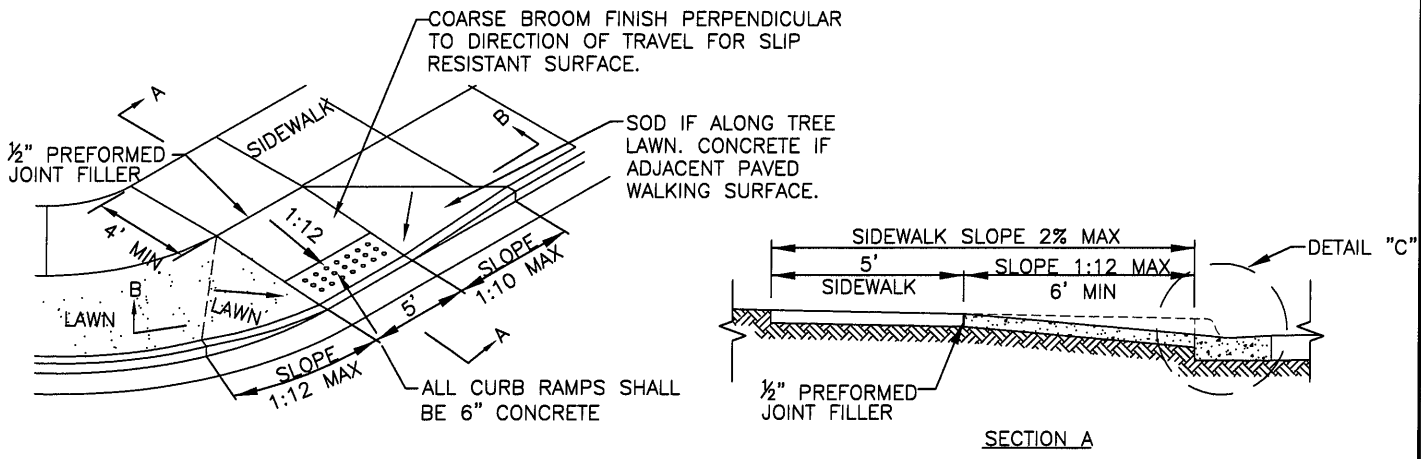
## GENERAL NOTES:

1. CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE CITY ENGINEER.
2. SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE SLOPE OF THE RAMP.
3. EXPANSION JOINTS FOR THE RAMP SHALL BE A MAX. 1/2" WIDE. THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH ADJACENT CONCRETE.
4. THE ACCEPTED QUANTITIES OF SIDEWALK RAMPS WILL BE PAID FOR AT THE CONTRACT PRICE PER SYD. FOR CLASS "A" CONCRETE FOR SIDEWALK.
5. SIDEWALKS SHALL BE RAMPED WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK, BUT NO DETECTABLE WARNINGS ARE REQUIRED AT DRIVE RAMPS. 2% MAXIMUM CROSS SLOPE SHALL EXTEND THROUGH ALL DRIVEWAY CROSSINGS AND BE A MIN. 4' WIDTH.
6. CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON ALL RAMPS, WITH NO BREAKS IN GRADE.
7. DRAINAGE STRUCTURES SHALL NOT BE PLACED IN LINE WITH RAMPS. LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER LOCATION OF DRAINAGE STRUCTURE, EXCEPT WHERE EXISTING DRAINAGE STRUCTURES ARE BEING UTILIZED IN THE NEW CONSTRUCTION.
8. THE NORMAL GUTTER LINE PROFILE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP. RAMPS SHOULD BE LOCATED TO AVOID PONDING.
9. CROSSWALK AND STOP LINE MARKINGS, IF USED, SHALL BE SO LOCATED AS TO STOP TRAFFIC 4 FEET SHORT OF RAMP CROSSINGS, IN ACCORDANCE WITH CURRENT MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES.
10. RAMPS SHALL BE PROVIDED AT ALL CORNERS OF STREET INTERSECTIONS WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. RAMPS SHALL ALSO BE PROVIDED AT MID-BLOCK WALK LOCATIONS IN THE VICINITIES OF HOSPITALS, MEDICAL CENTERS, AND ATHLETIC STADIUMS.
11. WHEN THE INTERSECTION IS NOT SIGNALIZED, SIDEWALK RAMPS SHALL BE PLACED ON THE RESIDENTIAL STREETS ONLY. WHEN INTERSECTION IS SIGNALIZED, SIDEWALK RAMPS SHALL BE PLACED ON BOTH RESIDENTIAL STREET AND ARTERIAL STREET SIDE.
12. THE AMERICAN WITH DISABILITIES ACT OF 1990 (ADA) REQUIREMENTS (AND ANY CURRENT SUPPLEMENTS THERETO) MAY EXCEED THE CITY OF MISHAWAKA ENGINEERING STANDARDS. IN CASE OF SUCH OCCURRENCES, THE AMERICAN WITH DISABILITIES ACT OF 1990 (ADA) STANDARDS SHALL SUPERCEDE THE CITY OF MISHAWAKA ENGINEERING STANDARDS.

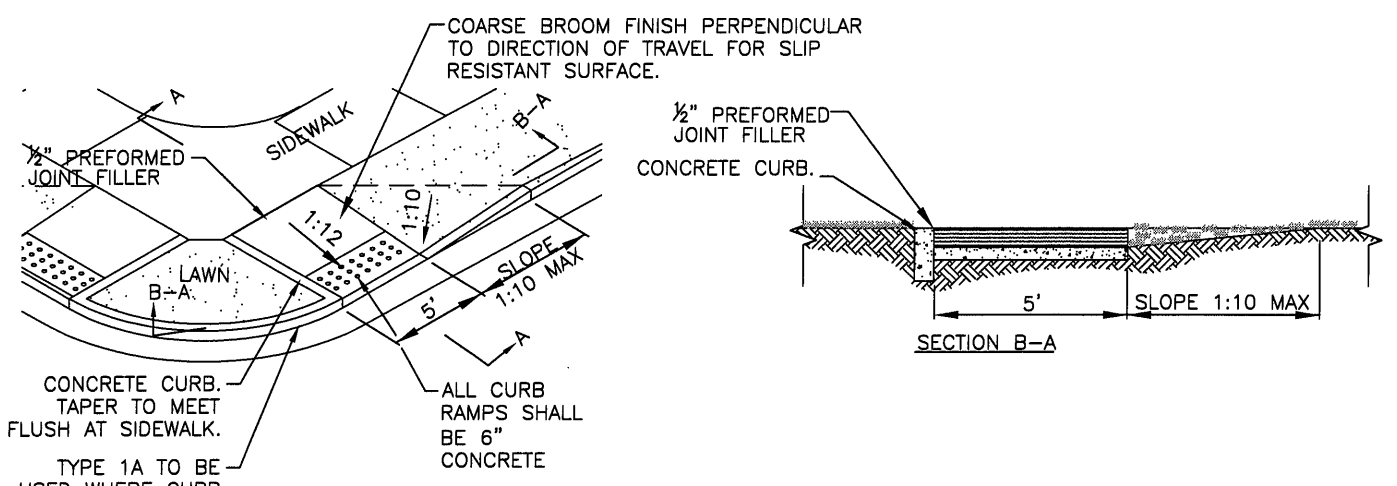
PREPARED BY: DLZ INDIANA, LLC

*B. M. S.*  
3-26-13

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY				CITY OF MISHAWAKA, INDIANA	
ITEM	REVISION	APPROVED DATE		ENGINEERING STANDARDS	
	EFFECTIVE	APRIL 2007	SIDEWALK CURB RAMP LOCATION PLAN & NOTES		
	REVISED	MARCH 2013			
			SHT. NO.		III-2



**SIDEWALK CURB RAMP - TYPE I**



**SIDEWALK CURB RAMP - TYPE IA**

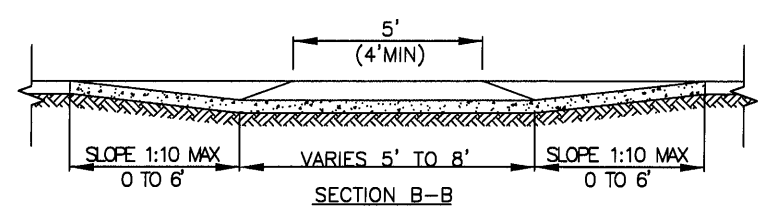
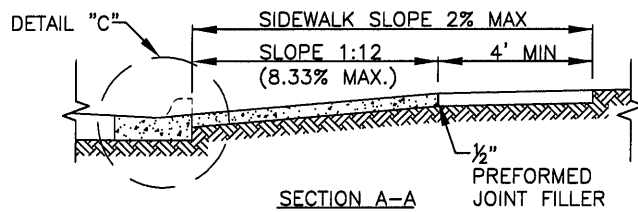
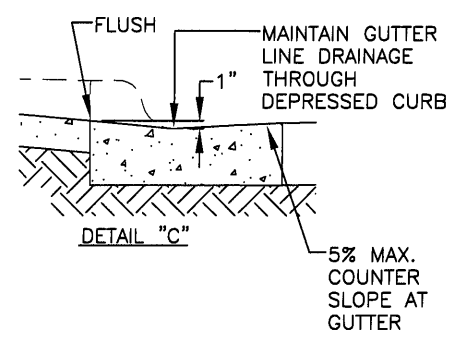
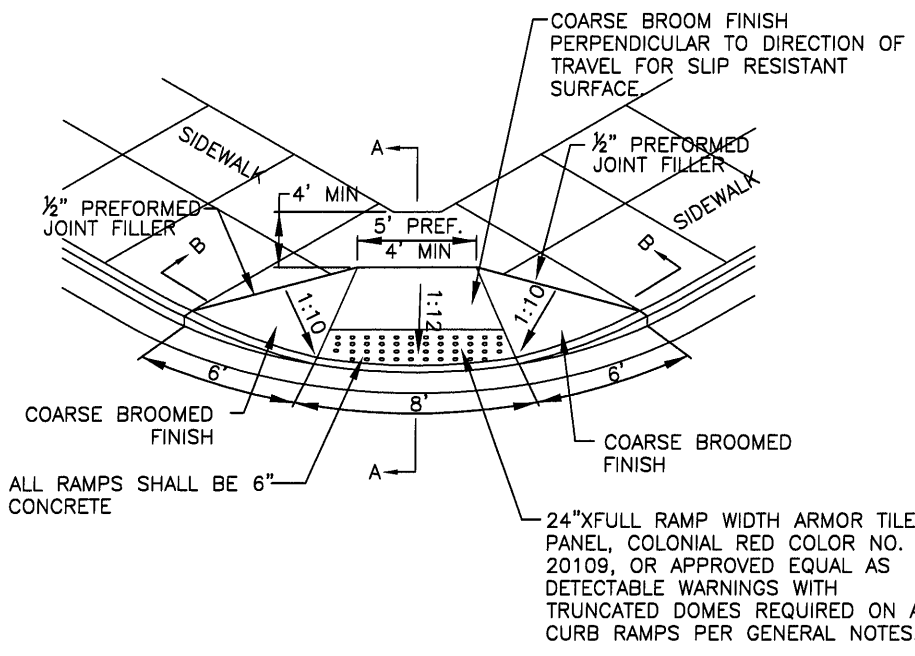
TYPE I TO BE USED FOR NEW CONSTRUCTION WHEREVER POSSIBLE. TYPE IA TO BE USED ONLY FOR EXISTING CONDITIONS AND WITH PRIOR APPROVAL BY THE CITY ENGINEER. TYPE II TO BE USED ONLY WITH PRIOR APPROVAL BY CITY ENGINEER.

PREPARED BY: DLZ INDIANA, LLC

*B. M. Smith*  
3-26-13

- NOTES:
- FOR GENERAL NOTES AND TYPICAL LOCATIONS FOR EACH CURB TYPE, SEE SHEET III-2.
  - ALL CURB RAMP DIMENSIONS BASED ON 6" CURB HEIGHT AND SHALL BE PROPORTIONALLY ADJUSTED FOR OTHER CURB HEIGHTS.
  - IF LATEST AMERICAN WITH DISABILITIES ACT (1990 ADA) REQUIREMENTS EXCEED THE CITY OF MISHAWAKA ENGINEERING, THE AMERICAN WITH DISABILITIES ACT STANDARDS SHALL SUPERCEDE THE CITY OF MISHAWAKA ENGINEERING STANDARDS.

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY				CITY OF MISHAWAKA, INDIANA	
ITEM	REVISION	APPROVED DATE		ENGINEERING STANDARDS	
	EFFECTIVE	APRIL 2007	SIDEWALK CURB RAMP TYPE I & IA		SHT. NO. III-2A
	REVISED	MARCH 2013			



**SIDEWALK CURB RAMP - TYPE II**

TYPE I TO BE USED FOR NEW CONSTRUCTION WHEREVER POSSIBLE. TYPE IA TO BE USED ONLY FOR EXISTING CONDITIONS AND WITH PRIOR APPROVAL BY THE CITY ENGINEER. TYPE II TO BE USED ONLY WITH PRIOR APPROVAL BY CITY ENGINEER.

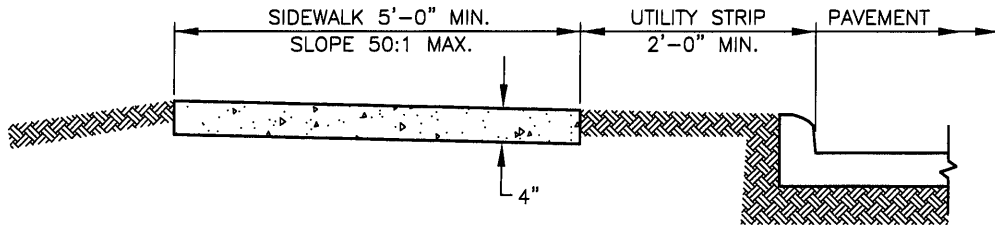
PREPARED BY: DLZ INDIANA, LLC  
  
*B. M. S.*  
 3-26-13

- NOTES:
- FOR GENERAL NOTES AND TYPICAL LOCATIONS FOR EACH CURB TYPE, SEE SHEET III-2.
  - ALL CURB RAMP DIMENSIONS BASED ON 6" CURB HEIGHT AND SHALL BE PROPORTIONALLY ADJUSTED FOR OTHER CURB HEIGHTS.
  - IF LATEST AMERICAN WITH DISABILITIES ACT (1990 ADA) REQUIREMENTS EXCEED THE CITY OF MISHAWAKA ENGINEERING, THE AMERICAN WITH DISABILITIES ACT STANDARDS SHALL SUPERCEDE THE CITY OF MISHAWAKA ENGINEERING STANDARDS.

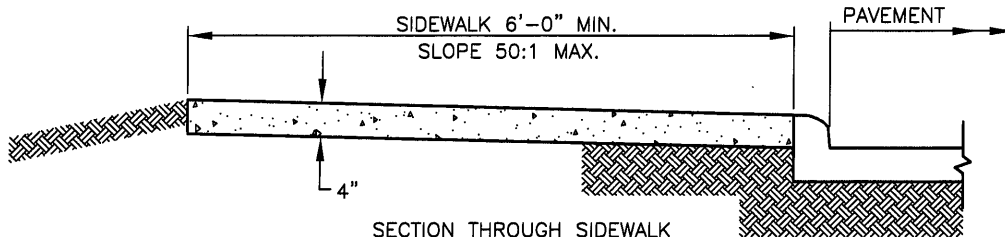
APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY		
ITEM	REVISION	APPROVED DATE
	ADOPTED: NEW	MARCH 2013



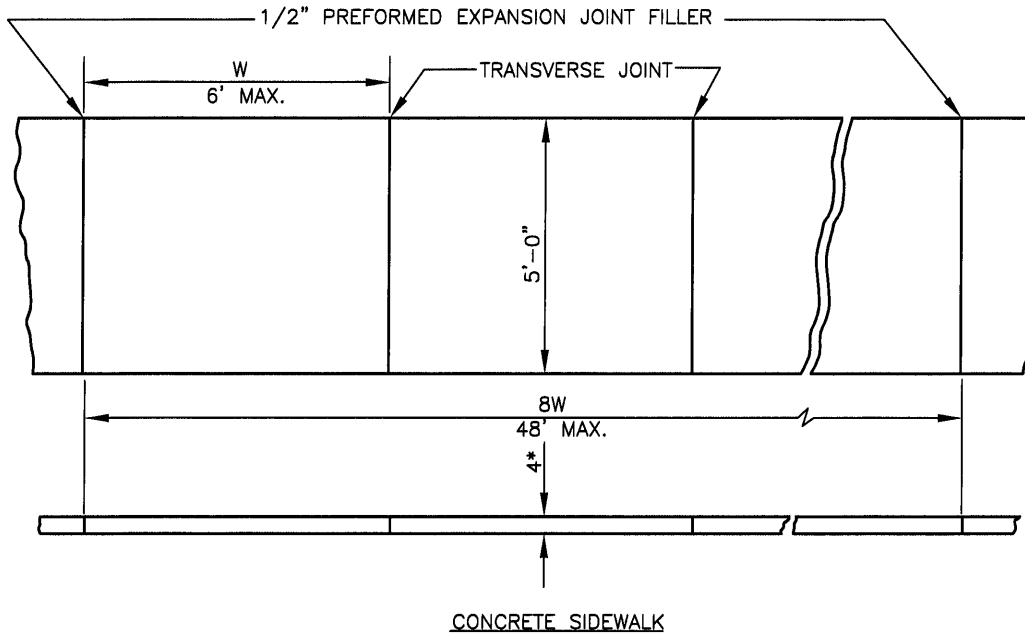
CITY OF MISHAWAKA, INDIANA  
**ENGINEERING STANDARDS**  
 SIDEWALK CURB RAMP  
 TYPE II  
 SHT. NO.  
**III-2B**



SECTION THROUGH SIDEWALK WITH UTILITY STRIP



SECTION THROUGH SIDEWALK ADJACENT TO CURB



CONCRETE SIDEWALK

**NOTES:**

1. CLASS "A" CONCRETE - 6 BAG MIX.
  2. TRANSVERSE JOINTS SHALL BE CUT WITH A JOINTER HAVING A RADIUS OF 1/4" AT SPACING AS INDICATED OR DIRECTED BY THE ENGINEER.
  3. IF LATEST AMERICAN WITH DISABILITIES ACT (1990 ADA) REQUIREMENTS EXCEED THE CITY OF MISHAWAKA ENGINEERING, THE AMERICAN WITH DISABILITIES ACT STANDARDS SHALL SUPERCEDE THE CITY OF MISHAWAKA ENGINEERING STANDARDS.
- \* SIDEWALK THICKNESS TO BE MIN. 6" THROUGH RESIDENTIAL DRIVEWAYS AND 8" THROUGH COMMERCIAL DRIVEWAYS (REFER TO DRIVEWAY APPROACH DETAILS.)

PREPARED BY: DLZ INDIANA, LLC



*Brian M. Smith*  
3-26-13

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY

CITY OF MISHAWAKA, INDIANA

ENGINEERING STANDARDS

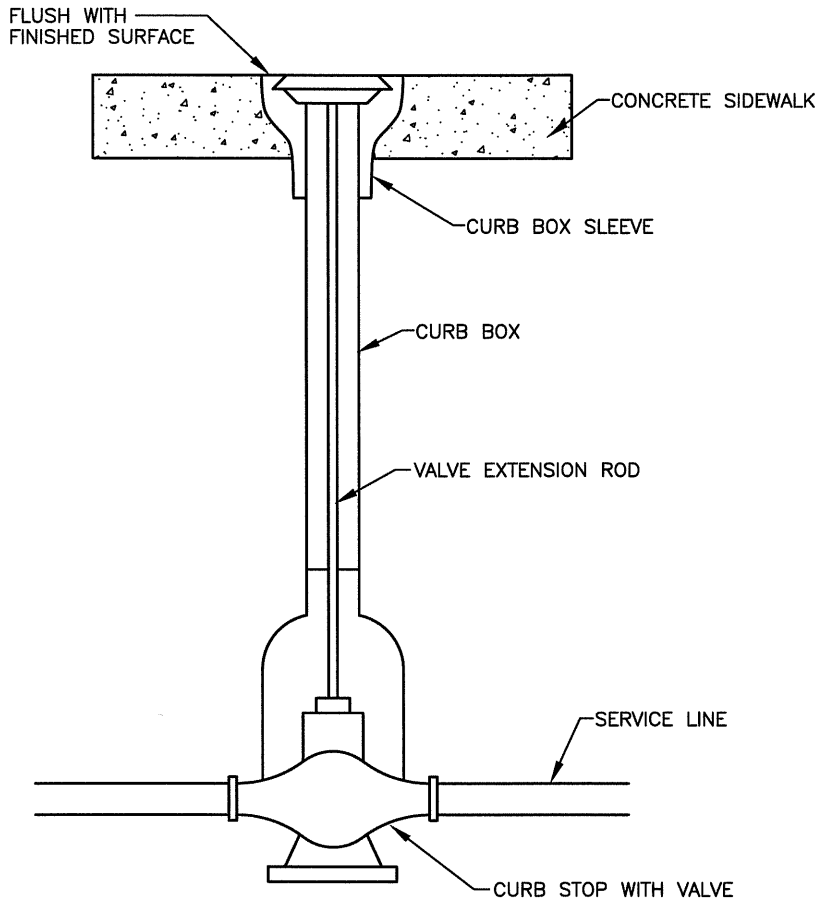
SIDEWALK DETAIL

SHT. NO.

III-3

ITEM	REVISION	APPROVED DATE
	EFFECTIVE	APRIL 2007
	REVISED	MARCH 2013

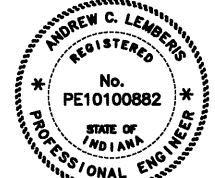




**NOTES:**

1. REMOVE CAP. (UNSCREW CAP)
2. IF REPLACEMENT OF THE CURB BOX SLEEVE IS REQUIRED, CONTACT THE MISHAWAKA UTILITIES WATER DIVISION (TEL. 574-258-1652) FOR ALLOWABLE TYPE, BRAND AND SIZE CURB BOX SLEEVE.
3. SLIDE SLEEVE OVER BOX.
4. REPLACE CAP.
5. IF BOX IS HIGH OR LOW, IT WILL SLIDE UP OR DOWN SIX INCHES (6"). IF YOU ARE UNABLE TO ADJUST, CALL THE MISHAWAKA UTILITIES WATER DIVISION FOR ASSISTANCE.
6. ONCE THE BOX IS SET, WRAP A PLASTIC BAG AROUND THE BOX SLEEVE. THIS WILL AVOID CONCRETE FROM RUNNING INTO THE BOX. WHEN CONCRETE IS DRY, CUT PLASTIC WITH KNIFE AND REMOVE.
7. IF YOU ENCOUNTER ANY PROBLEMS, CALL THE WATER DIVISION BEFORE POURING SO THEY MAY MAKE CORRECTIONS. IF SIDEWALK REMOVAL IS REQUIRED TO CORRECT OR REPLACE THE BOX SLEEVE, THE CONTRACTOR WILL BE CHARGED FOR SIDEWALK REMOVAL AND REPLACEMENT.

PREPARED BY: DLZINDIANA, LLC



*ac*  
4/24/07

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY  
EFFECTIVE DATE: APRIL 2007



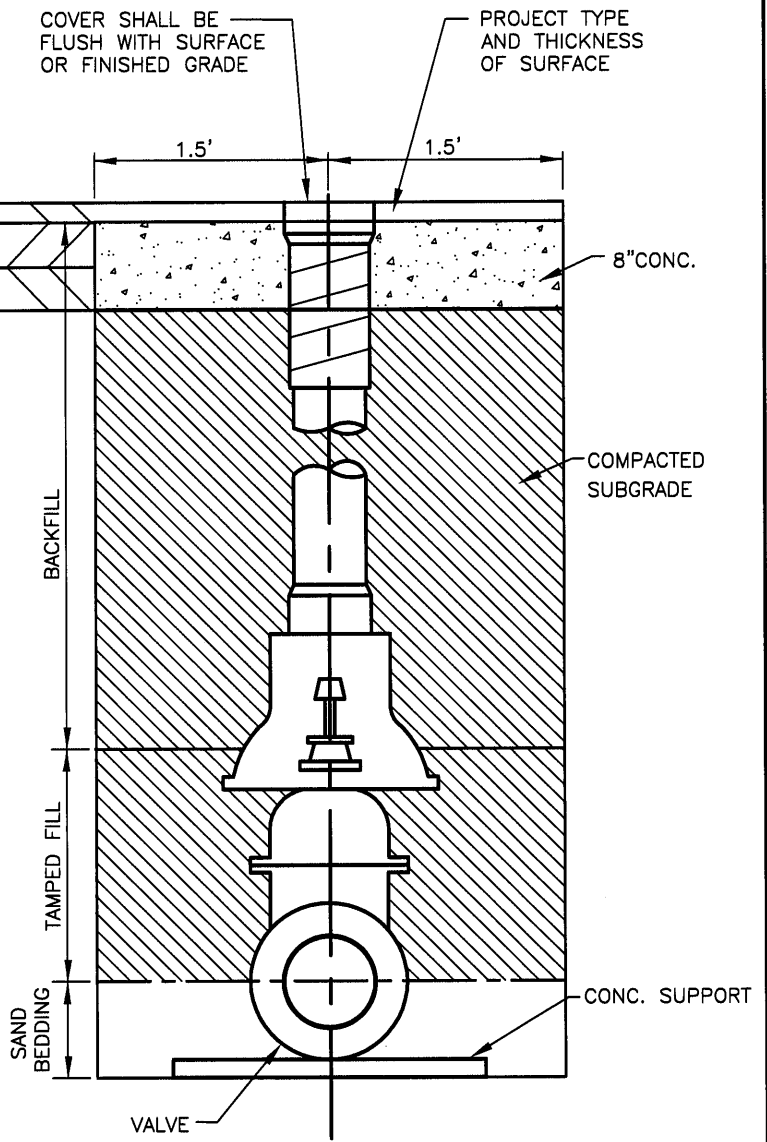
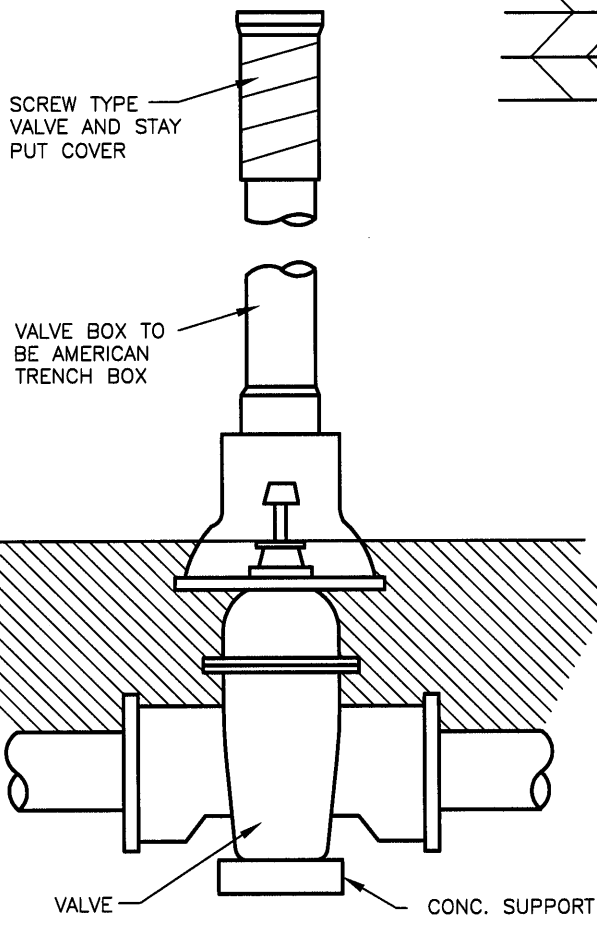
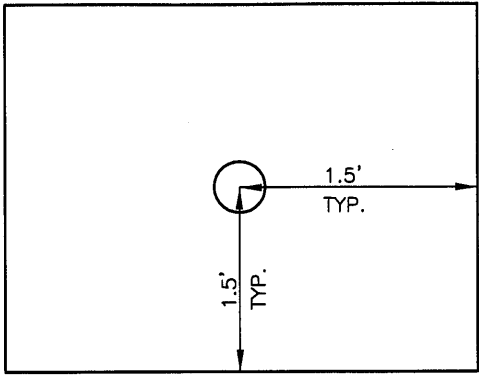
CITY OF MISHAWAKA, INDIANA

ENGINEERING STANDARDS

ITEM	REVISION	APPROVED DATE

CURB BOX SLEEVE  
ADJUSTMENT/REPLACEMENT

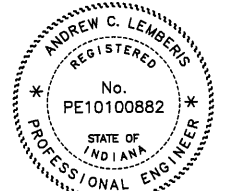
SHT. NO.  
III-4



**NOTES:**

1. IF REPLACEMENT OF THE VALVE BOX IS REQUIRED, CONTACT THE MISHAWAKA UTILITIES WATER DIVISION (TEL. 574-258-1652) FOR ALLOWABLE TYPE AND SIZE OF VALVE BOX.
2. VALVE BOX SHALL BE CAST IRON VALVE BOXES PER THE MISHAWAKA UTILITIES WATER DIVISION, NO SUBSTITUTES ARE ALLOWED.
3. CONTRACTOR SHALL VERIFY PROPER BURY DEPTH AND CORRESPONDING BOX DEPTH THAT MATCHES.
4. VALVE BOX SHALL BE FIRMLY SUPPORTED AND SHALL BE PLACED CENTER AND PLUMB OVER THE WRENCH NUT OF THE VALVE.
5. INTERIOR AND EXTERIOR SURFACES OF THE BOX SHALL BE PAINTED WITH HOT PITCH VARNISH.
6. IF YOU ENCOUNTER ANY PROBLEMS, CALL THE WATER DIVISION BEFORE POURING SO THEY MAY MAKE CORRECTIONS. IF SIDEWALK OR ROADWAY REMOVAL IS REQUIRED TO CORRECT OR REPLACE THE BOX SLEEVE, THE CONTRACTOR WILL BE CHARGED FOR THE SIDEWALK OR ROADWAY REMOVAL AND REPLACEMENT.

PREPARED BY: DLZ INDIANA, LLC



*all*  
3-26-13

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY



CITY OF MISHAWAKA, INDIANA

ITEM	REVISION	APPROVED DATE
	EFFECTIVE	APRIL 2007
	REVISED	MARCH 2013

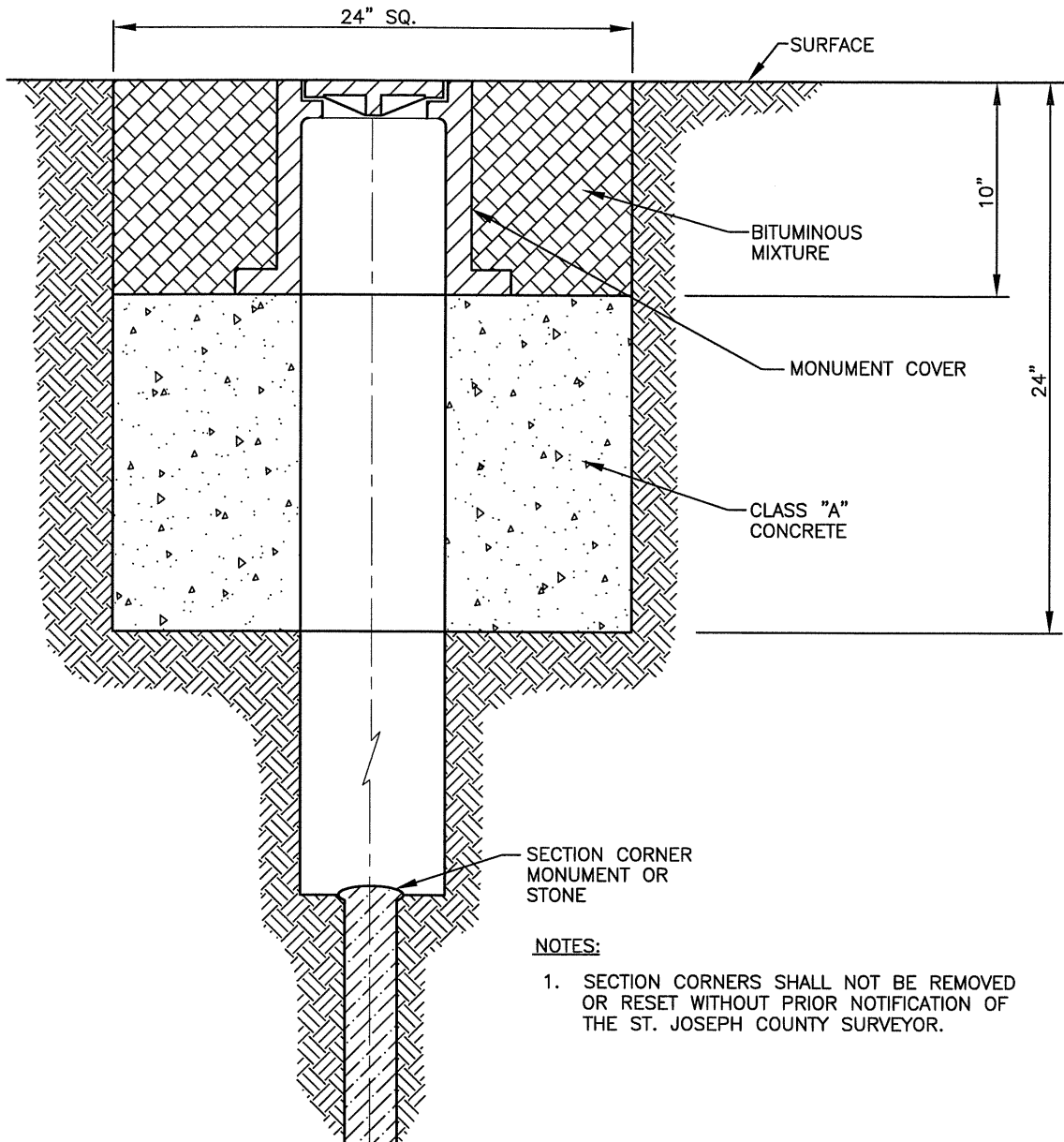
ENGINEERING STANDARDS

VALVE BOX  
ADJUSTMENT/REPLACEMENT

SHT. NO.

III-5

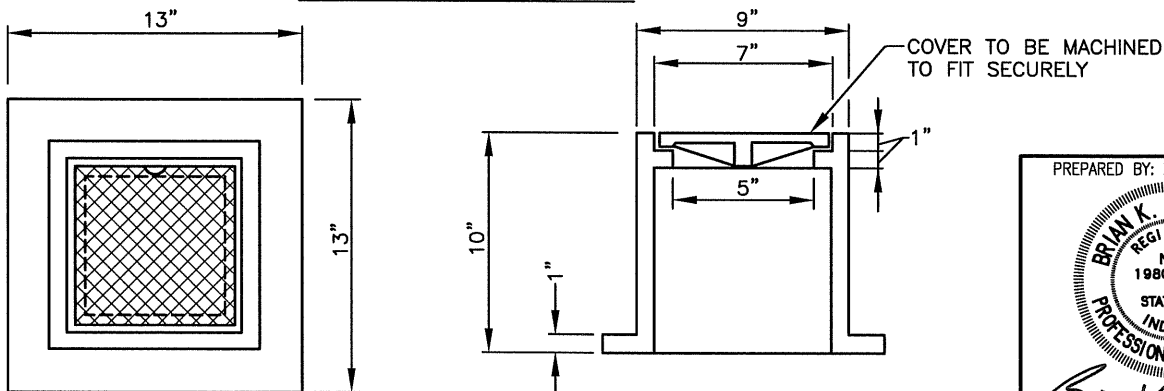




**NOTES:**

1. SECTION CORNERS SHALL NOT BE REMOVED OR RESET WITHOUT PRIOR NOTIFICATION OF THE ST. JOSEPH COUNTY SURVEYOR.

**MOMUMENT COVER INSTALLATION**



**MOMUMENT COVER DETAIL**

PREPARED BY: DLZ INDIANA, LLC

*Brian K. Arterbery*  
4/23/07

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS & SAFETY  
EFFECTIVE DATE: APRIL 2007



CITY OF MISHAWAKA, INDIANA

ENGINEERING STANDARDS

ITEM	REVISION	APPROVED DATE

SURVEY LINE MONUMENT

SHT. NO.  
**III-6**