

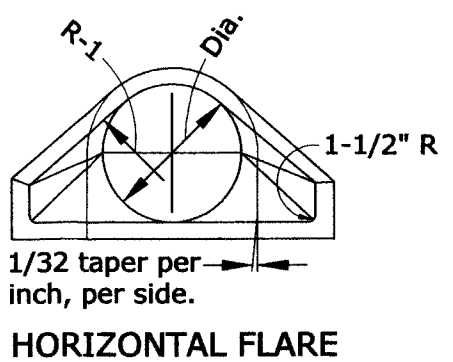
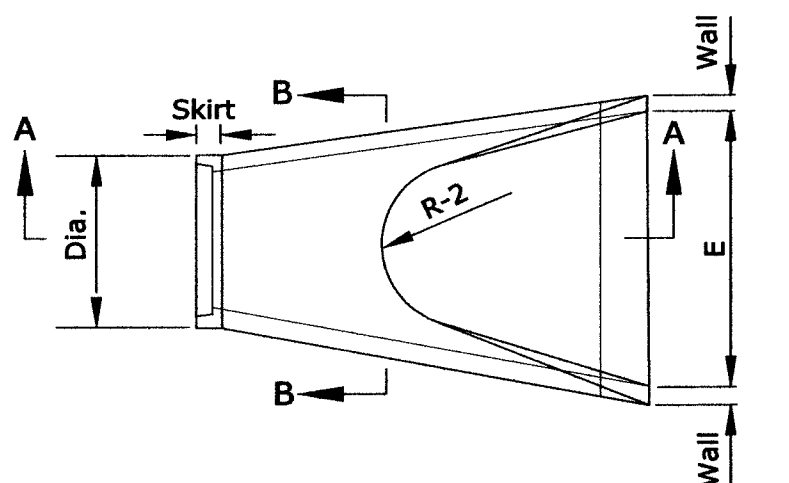
TRENCH WIDTH TABLE

PIPE Ø	MIN WIDTH
12"	2'-6"
15"	2'-9"
18"	3'-0"
24"	3'-6"
30"	4'-1 1/2"
36"	4'-9"
42"	5'-4 1/2"

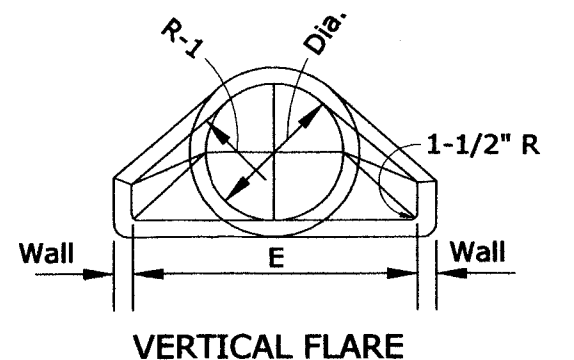
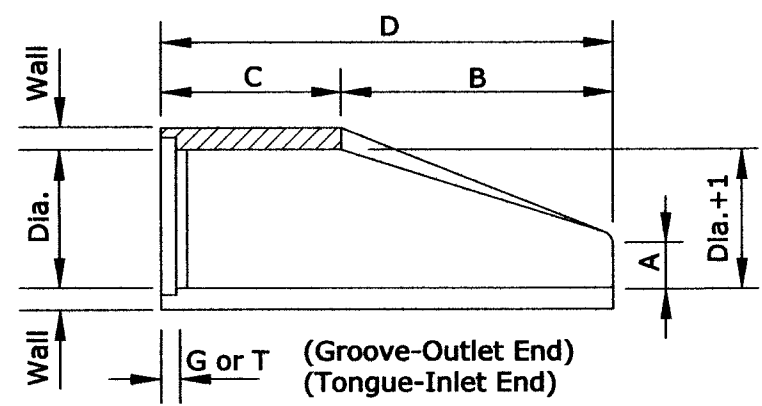
Notes:
1. New street surface shall comply with local authority jurisdiction.

REINFORCED CONCRETE PIPE BEDDING

Scale: N.T.S.



HORIZONTAL FLARE



VERTICAL FLARE SECTION B-B

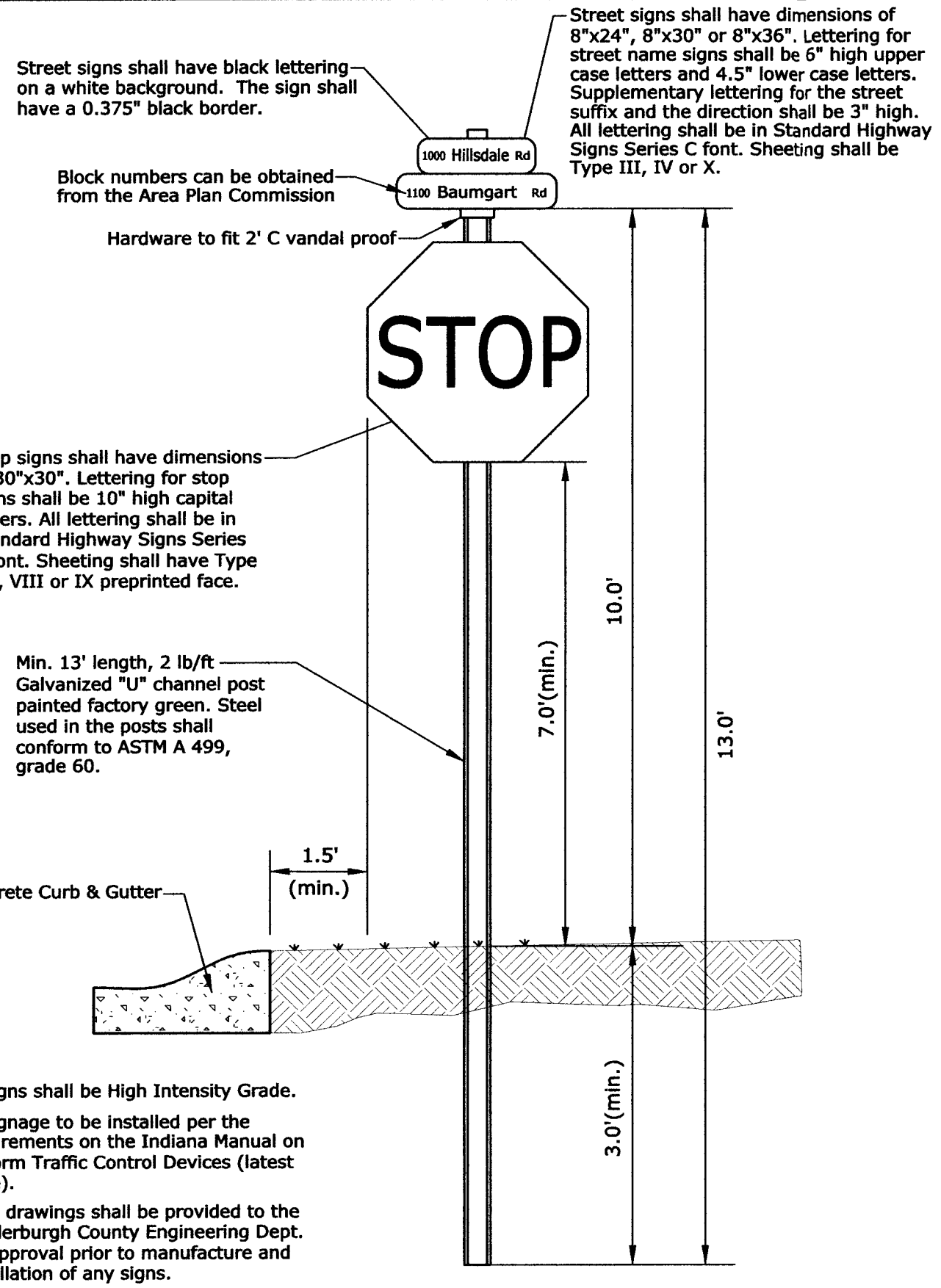
SECTION A-A

DIA.	WALL	G or T	WT. SEC.	A	B	C	D	E	DIA.+1	R-1	R-2	SKIRT
12	2	1 1/2	530	4	24	48 7/8	72 7/8	24	13	10 1/16	9	3 1/2
15	2 1/4	2	740	6	27	46	73	30	16	12 1/2	11	3 1/2
18	2 1/2	2 1/2	990	9	27	46	73	36	19	15 1/2	12	4
21	2 3/4	2 1/4	1280	9	35	38	73	42	22	16 1/8	13	4
24	3	2 1/2	1520	9 1/2	43 1/2	30	73 1/2	48	25	16 11/16	14	4 1/2
27	3 1/4	2 1/2	1930	10 1/2	48	25 1/2	73 1/2	54	28	17 3/4	14 1/2	4 1/2
30	3 1/2	3	2190	12	54	19 3/4	73 3/4	60	31	18 5/16	15	5
33	3 3/4	3 3/8	3150	13 1/2	58 1/2	39 1/4	97 3/4	66	34	23 3/4	17 1/2	5 1/2
36	4	3 1/2	4100	15	63	34 3/4	97 3/4	72	37	24 1/16	20	5 1/2
42	4 1/2	3 3/4	5380	21	63	35	98	78	43	27 1/4	22	5 1/2
48	5	4 1/4	6550	24	72	26	98	84	49	28 1/8	22	5 3/4
54	5 1/2	4 3/4	8040	27	65	35	100	90	55	32 7/8	24	6 1/4
60	6	5	8750	30	60	39	99	96	61	36 3/4	24	6 3/4
66	6 1/2	5 1/2	10630	24	78	21	99	102	67	35 11/16	24	7 1/4
72	7	6	12520	34	78	21	99	108	73	38 5/8	24	7 3/4
78	7 1/2	6 1/2	14430	24	78	21	99	114	79	41 15/16	24	8 1/2
84	8	7	16350	24	78	21	99	120	85	44 13/16	24	9

Note:
Manufacture of end section is in accordance with applicable portions of A.S.T.M. specification C76.

PRECAST CONCRETE END SECTION

Scale: N.T.S.



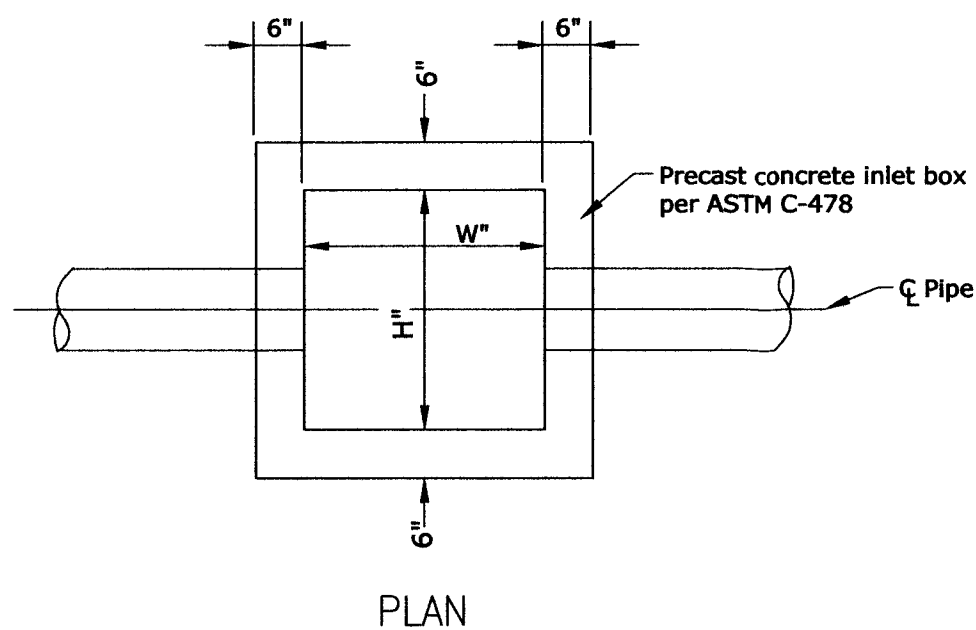
Stop signs shall have dimensions of 30"x30". Lettering for stop signs shall be 10" high capital letters. All lettering shall be in Standard Highway Signs Series C font. Sheeting shall have Type VII, VIII or IX preprinted face.

Min. 13' length, 2 lb/ft Galvanized "U" channel post painted factory green. Steel used in the posts shall conform to ASTM A 499, grade 60.

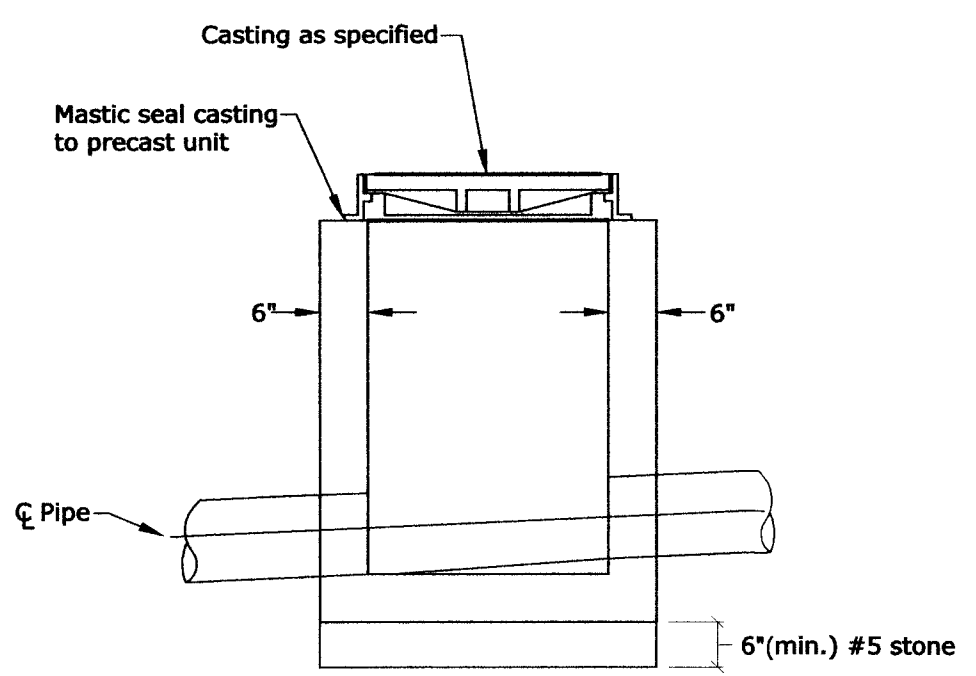
- Notes:
- All signs shall be High Intensity Grade.
 - All signage to be installed per the requirements on the Indiana Manual on Uniform Traffic Control Devices (latest issue).
 - Shop drawings shall be provided to the Vanderburgh County Engineering Dept. for approval prior to manufacture and installation of any signs.

STREET SIGNS

Scale: N.T.S.

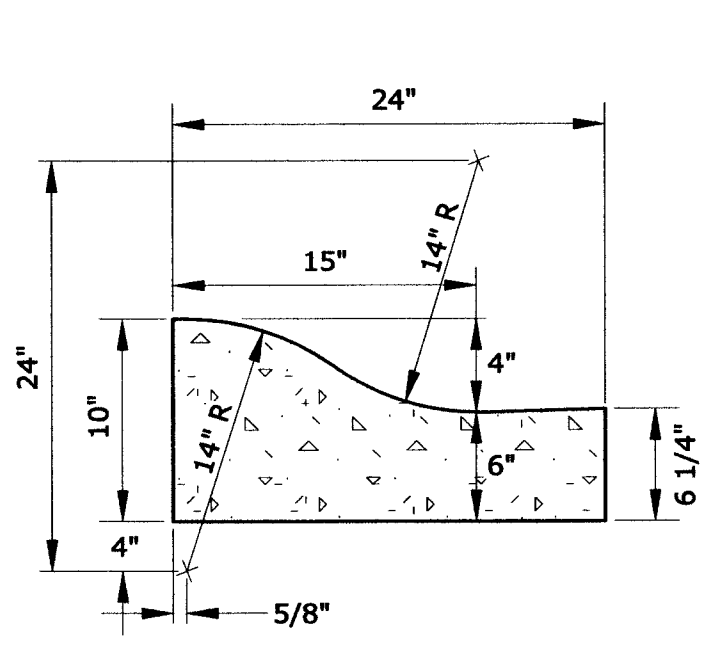


PLAN



SECTION

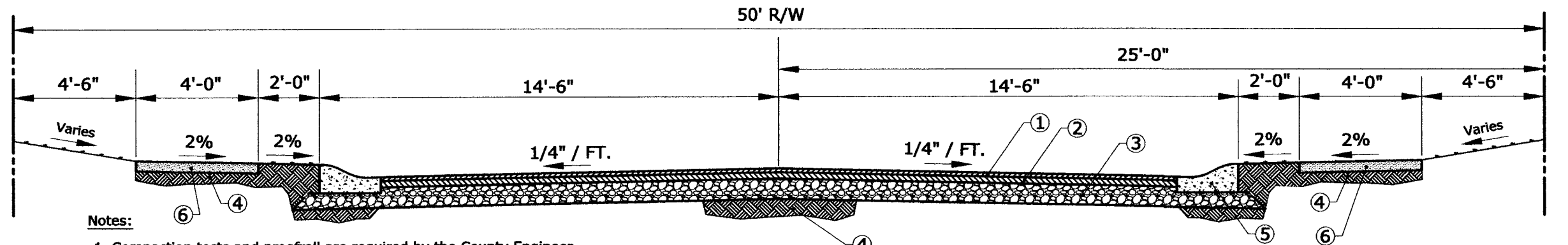
AREA DRAIN/MANHOLE



- Notes:
- 1/2" preformed expansion joint material at all P.C. and P.T. curb radii.
 - Tooled contraction joints at 10 ft. centers. Contraction joints to be a minimum 2" deep and 1/8" to 1/4" wide.

CONCRETE ROLL CURB AND GUTTER

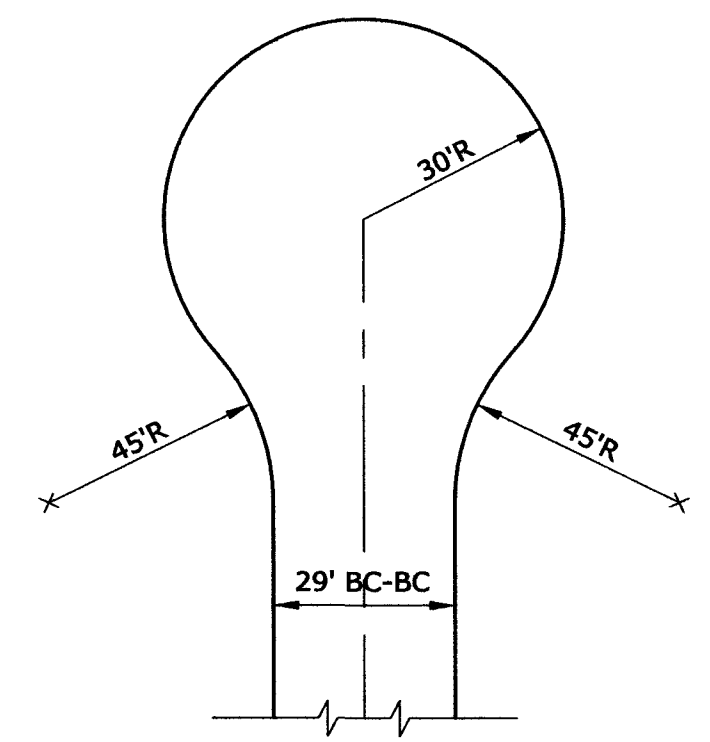
Scale: N.T.S.



- Notes:
- Compaction tests and proofroll are required by the County Engineer. A copy of the compaction tests shall be delivered to the owner and the County Engineer's office.
 - Sidewalks shall have sawed contraction joints every 5 feet on center and expansion joints every 50 feet on center and at all intersections.
 - All sidewalks and ADA ramps to be constructed per current INDOT and County standards.
 - Subgrade must be proof rolled prior to the placement of any stone or pavement. Proof rolling shall be done by a fully legally loaded tri-axle dump truck. There shall be 1 or 2 complete coverages as directed. Roller marks, irregularities or failures shall be corrected. Proof rolling must be completed in the presence of a county inspector.
 - All fill must be constructed in lifts not to exceed six inches.

29' RESIDENTIAL BITUMINOUS PAVEMENT WITH CONCRETE ROLL CURB & GUTTER

Scale: N.T.S.



TYPICAL RESIDENTIAL CUL-DE-SAC

Scale: N.T.S.

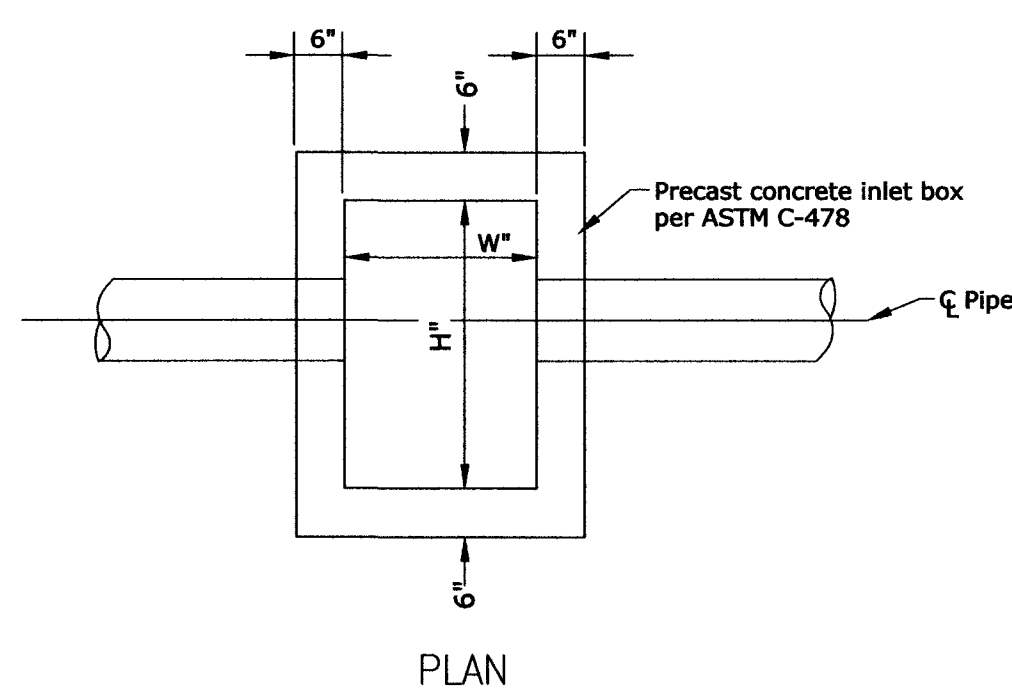
INLET BOX TABLE

	INLET TYPE	CURB INLET	CURB INLET	MANHOLE	AREA DRAIN	AREA DRAIN
BOX SIZE	"W"	24"	30"	30"	30"	30"
	"H"	36"	46"	30"	30"	46"
CASTING	Paved Areas	EJIW #7030	EJIW #7030			
	Grate	Type M2	Type M2			
	Non-Paved Areas			EJIW #1022-1	EJIW #1020	EJIW #1020
				Type A	Type M2	Type M2

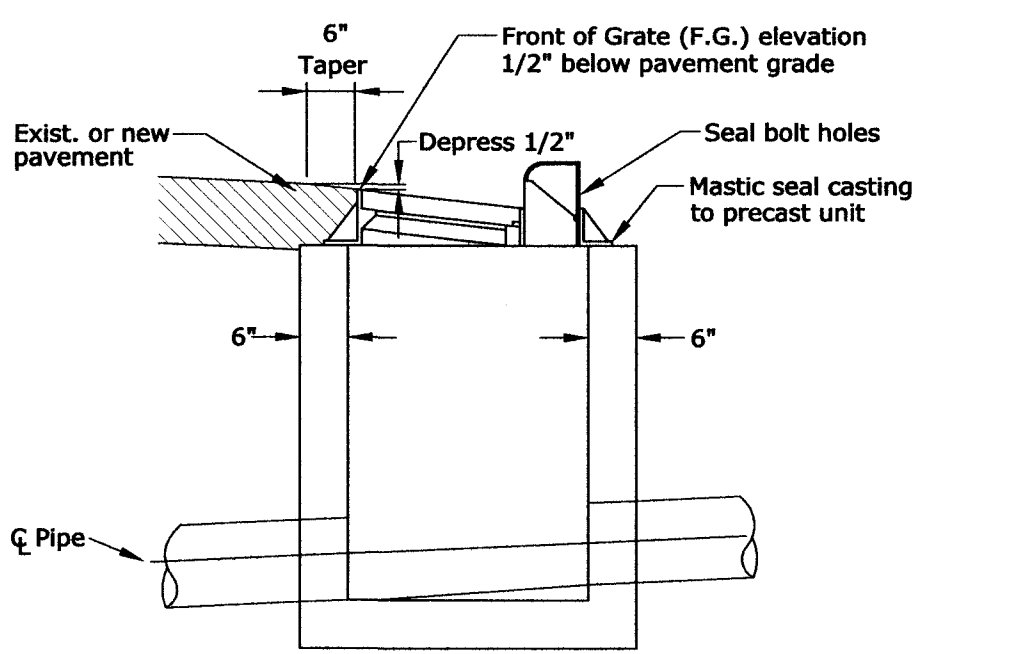
- INLET NOTES:
- All precast units shall conform to ASTM C-478.
 - Inlets shall be backfilled with granular material and compacted in 8" loose lifts to 95% Standard Density per ASTM D698.
 - Casting shall be mastic sealed to precast unit.
 - All connecting pipes shall be grouted with a high strength, non-shrink grout.
 - Frame & castings shown are the type & size required for the given box dimensions. Alternates shall be equal to those shown, including grate & opening sizes.

PRECAST INLET BOX

Scale: N.T.S.



PLAN



SECTION

CURB INLET

RECEIVED BY THE VANDERBURGH COUNTY SURVEYOR'S OFFICE
5/2/16 CA

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Written dimensions shown hereon shall take precedence over scaled dimensions. Contractors shall calculate and measure required dimensions. Notify Cash Wagner & Associates, PC with any variations in dimensions or conditions from those indicated on these drawings. This drawing was based on available information. Commencement of Work constitutes verification and acceptance of existing conditions.

Application of a material or equipment to Work installed by others constitutes acceptance of that Work and assumption of responsibility for satisfactory installation.

GLEN A. MERTZ, JR.
REGISTERED PROFESSIONAL ENGINEER
No. PE10403870
STATE OF INDIANA

G. A. Mertz
SIGNATURE

28 April 16
DATE

CASH WAGNER & ASSOCIATES, PC
CONSULTING ENGINEERS • LAND SURVEYORS

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NO.	DATE	BY	DESCRIPTION

PROJECT NO.: 15-2184
DESIGNED BY:
DRAWN BY: G.A.M.
FILENAME: 2184 Road Storm Dts
LAYOUT TAB:
SCALE: As Shown

PROJECT: SADDLE CREEK ESTATES
ADDRESS: BAUMGART ROAD
EVANSVILLE, INDIANA

SHEET TITLE: ROAD & STORM SEWER DETAILS

DATE: 04.28.16
DRAWING NO.: C-111
OF: 18