

Greater than 5' from edge of pavement

Beneath or within 5' of edge of pavement

Note:

- All bedding & initial backfill shall be installed in 6" to 12" balanced lifts
- A minimum 9" of clearance shall be provided on each side of the installed pipe

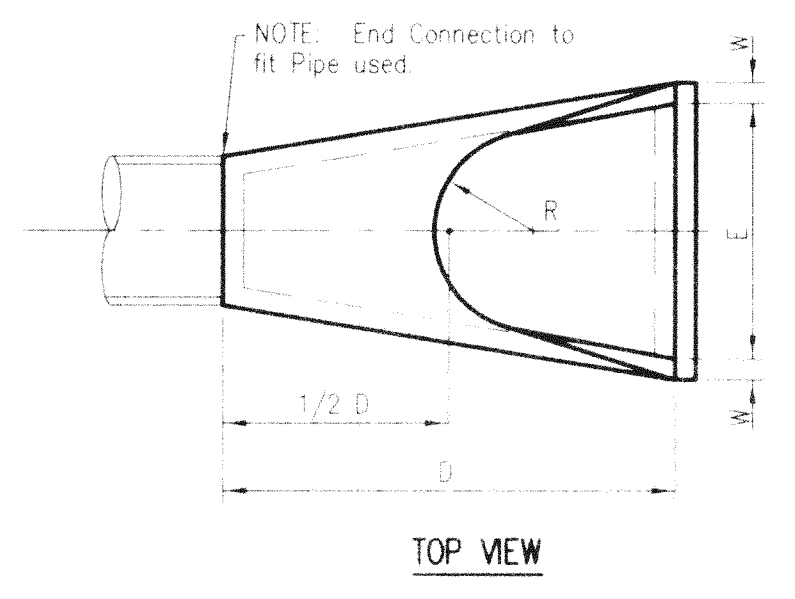
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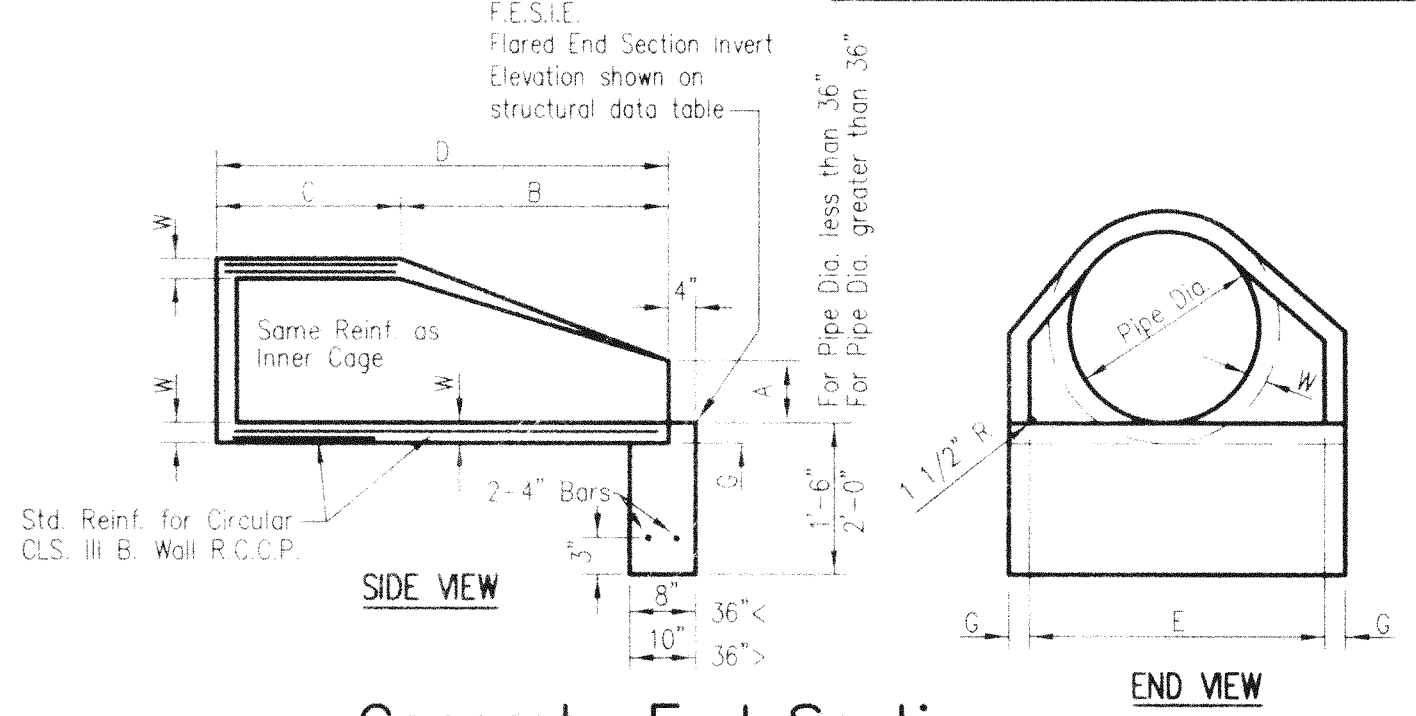
Reinforced Concrete Pipe Storm Sewer Bedding

NO SCALE

Depth of Bedding Material Below Pipe		LEGEND:	
D	(d) Min.	Bc	d
27" & Smaller	3"	Bc = Outside Diameter	d = Depth of Bedding Material Below Pipe
30" to 60"	4"		
66" & Larger	6"		



PER DIA. (IN)	WALL	A	B	C	D	E	G	R	SLOPE
12"	5/8"	5"	2'-0"	4'-7/8"	6'-7/8"	2'-0"	2"	9"	2:1
15"	7/8"	5"	2'-3"	5'-10"	8'-1"	2'-6"	2 1/4"	11"	2:1
18"	9/8"	5"	2'-5"	6'-10"	9'-3"	3'-0"	2 1/2"	12"	2:1
21"	1 1/8"	5"	2'-7"	7'-11"	10'-5"	3'-6"	2 3/4"	13"	2:1
24"	1 1/4"	5"	2'-9"	8'-11"	11'-9"	4'-0"	3"	14"	2:1
27"	1 1/2"	5"	3'-0"	9'-11"	12'-11"	4'-6"	3 1/4"	14 1/2"	3:1
30"	1 5/8"	5"	3'-1"	10'-11"	13'-11"	5'-0"	3 1/2"	15"	3:1
33"	1 3/4"	5"	3'-2"	11'-11"	14'-11"	5'-6"	3 3/4"	15 1/2"	3:1
36"	1 7/8"	5"	3'-3"	12'-11"	15'-11"	6'-0"	4"	16"	3:1
42"	2 1/8"	5"	3'-5"	14'-11"	17'-11"	6'-6"	4 1/2"	17"	3:1
48"	2 1/4"	5"	3'-6"	15'-11"	18'-11"	7'-0"	5"	18"	3:1
54"	2 3/8"	5"	3'-7"	16'-11"	19'-11"	7'-6"	5 1/2"	19"	2:1
60"	2 1/2"	5"	3'-8"	17'-11"	20'-11"	8'-0"	6"	20"	2:1
66"	2 5/8"	5"	3'-9"	18'-11"	21'-11"	8'-6"	6 1/2"	21"	2:1
72"	2 3/4"	5"	3'-10"	19'-11"	22'-11"	9'-0"	7"	22"	1.86:1
78"	2 7/8"	5"	3'-11"	20'-11"	23'-11"	9'-6"	7 1/2"	23"	1.82:1
84"	3"	5"	4'-0"	21'-11"	24'-11"	10'-0"	8"	24"	1.5:1



Concrete End Section

NO SCALE

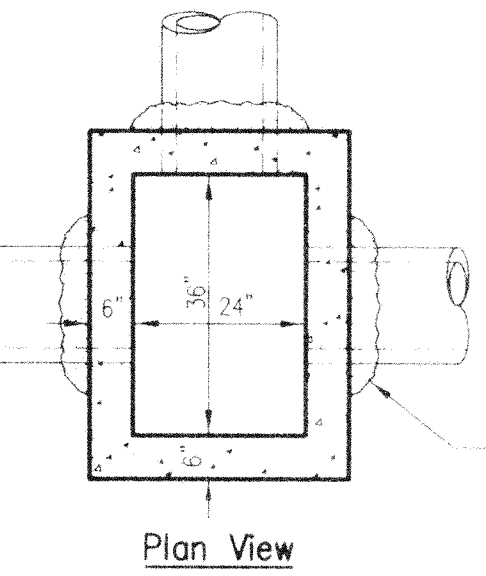
Storm Sewer General Notes:

- Contractor shall comply with all local, state and federal codes, ordinances, rules, regulations, orders and other legal requirements of municipal authorities which bear on the performance of the work.
- The contractor is cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of various utility companies, and where possible measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must contact the appropriate utility company at least 48 hours before any excavation to request exact field location of utilities.
- Material specifications shall be in conformance with applicable portions of the INDOT standard specifications, (latest edition), unless specifically stated otherwise on these plans, contract documents or local code.
- Reinforced concrete pipe (Class III min.) and precast flared end sections with rubber gaskets shall meet the requirements ASTM C-76 and C-441. Rubber gaskets shall be "Solo Seal" as manufactured by Harshed Pipe Seal Company or approved equal.

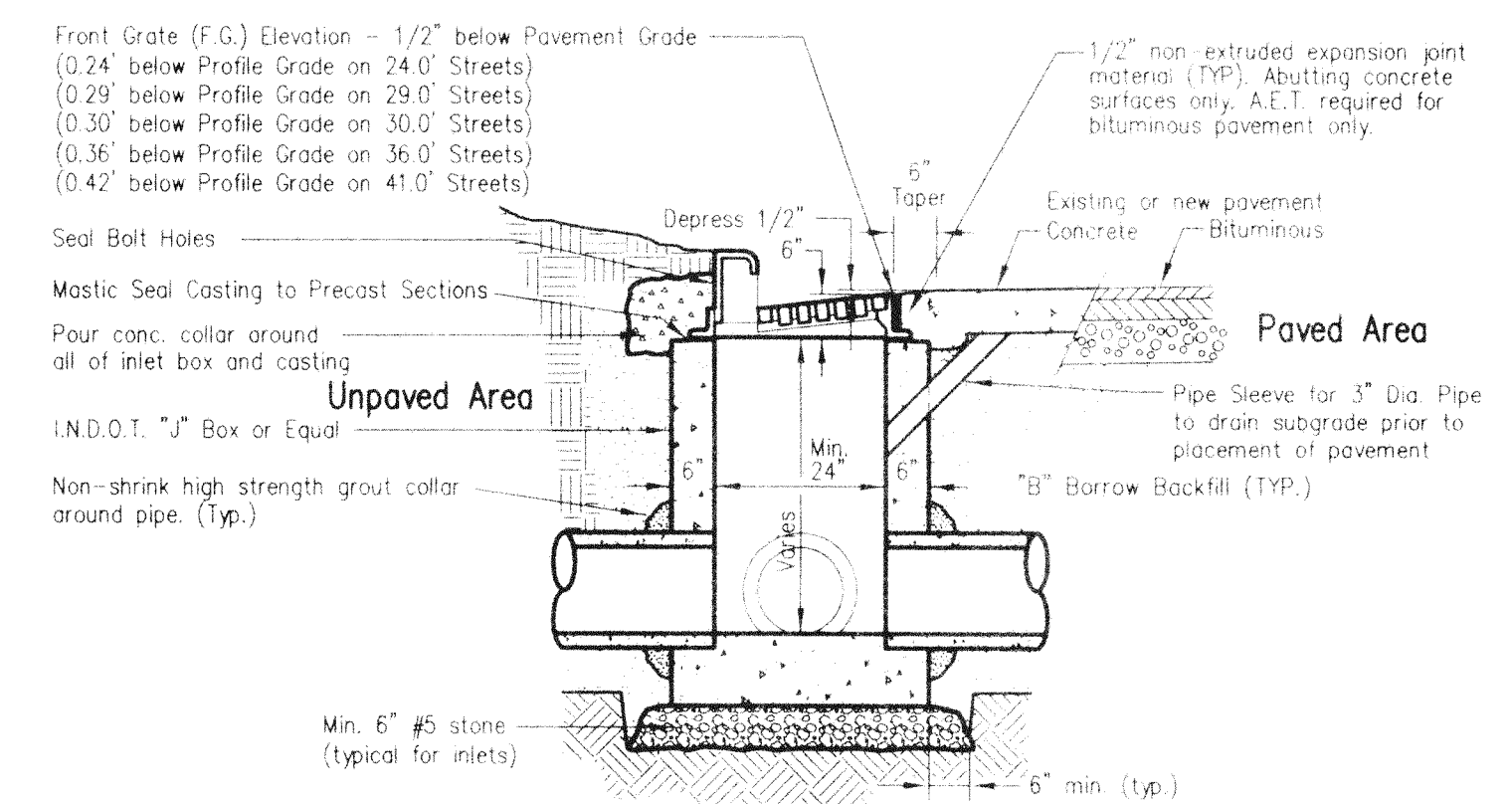
Indiana Underground Utility Locate Service, Phone 1-800-382-5544

Notes

- East Jordan Iron Works, Inc. (or approved equal) No. 7030 catch basin curb inlet with M3 grate for valley inlets or M4 grate for slope inlets. Type T-1 back for straight curbs. Type T-2 back for roll curbs.
- All connecting pipes shall be grouted with a high strength non-shrink grout.
- Precast units shall conform to ASTM C-478.
- The inlet shall be backfilled with "B" Borrow and mechanically compacted in 6" lifts to 95% of standard density ASTM-698.



Plan View

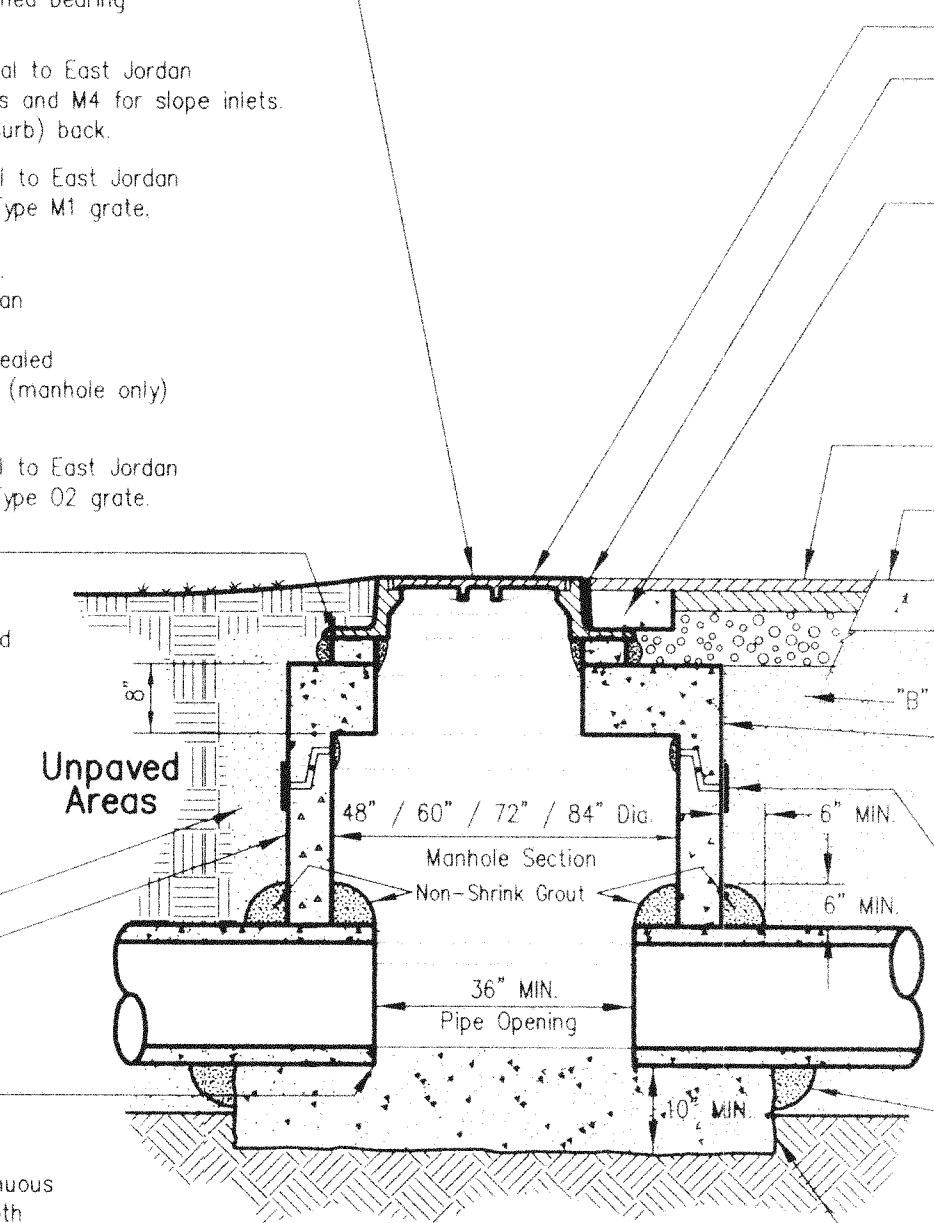


Section Curb Inlet

Scale: 1/2" = 1'-0"

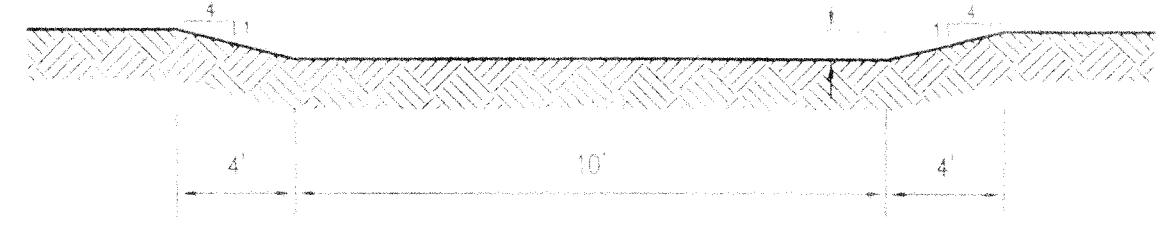
Notes

- TRAFFIC AREAS:** Manhole Frame & Cover: ASTM-48, Latest Edition, Class 35 With 24" Diameter lid. 7" Min. Height 290# Min. Wgt. Equal to East Jordan 1022-1 with extra heavy duty cover, machined bearing surface and concealed lift holes. For curb inlet (CI) installations equal to East Jordan No. 7030, M3 Grate for valley inlets and M4 for slope inlets. Type T-1 (Straight) or T-2 (Roll Curb) back. Area Drain (A.D.) installations equal to East Jordan Iron Works, Inc., No. 1022-1 with Type M1 grate.
- NON-TRAFFIC AREAS:** 4" or 7" hgt. 255# min. wgt. equal to East Jordan 1022-1 with Heavy Duty Cover, machined bearing surface and concealed Lift Holes. Set Top 2" above Grade (manhole only) (after Earth settlement). Area Drain (A.D.) installations equal to East Jordan Iron Works, Inc., No. 1022-1 with Type O2 grate.



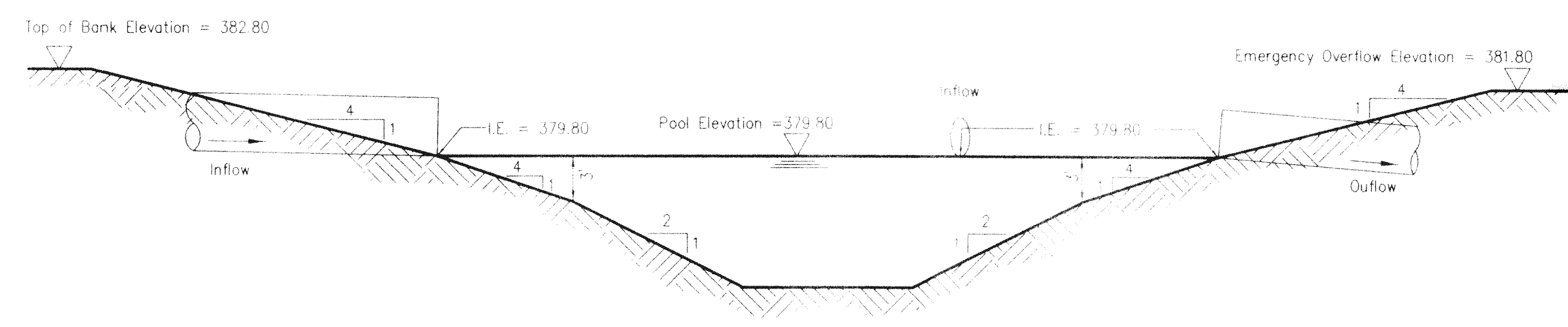
Shallow Storm Manhole, Curb Inlet or Area Drain

Scale: 1/2" = 1'-0"



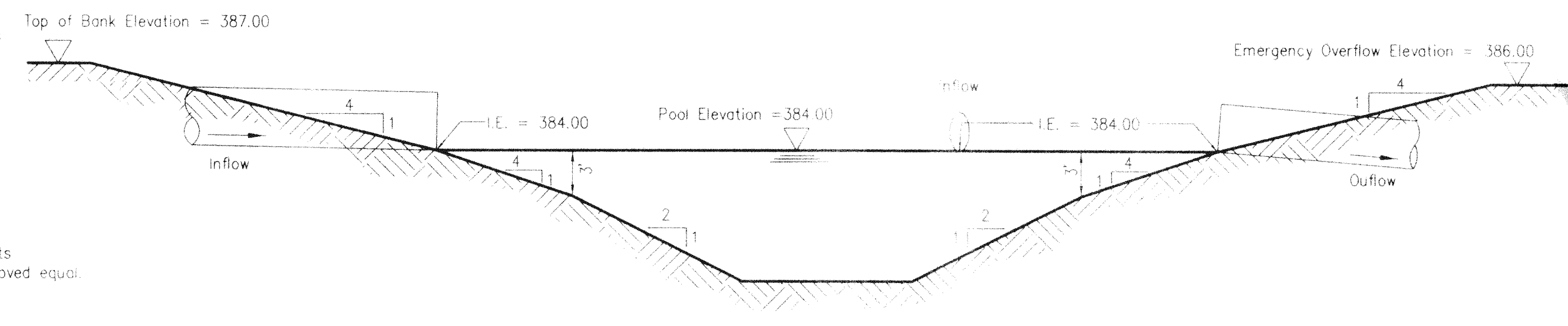
Drainage Basin Emergency Spillway

No Scale



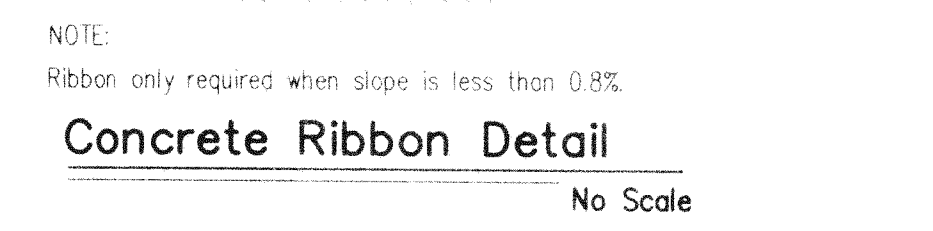
Northeast Retention Basin

No Scale



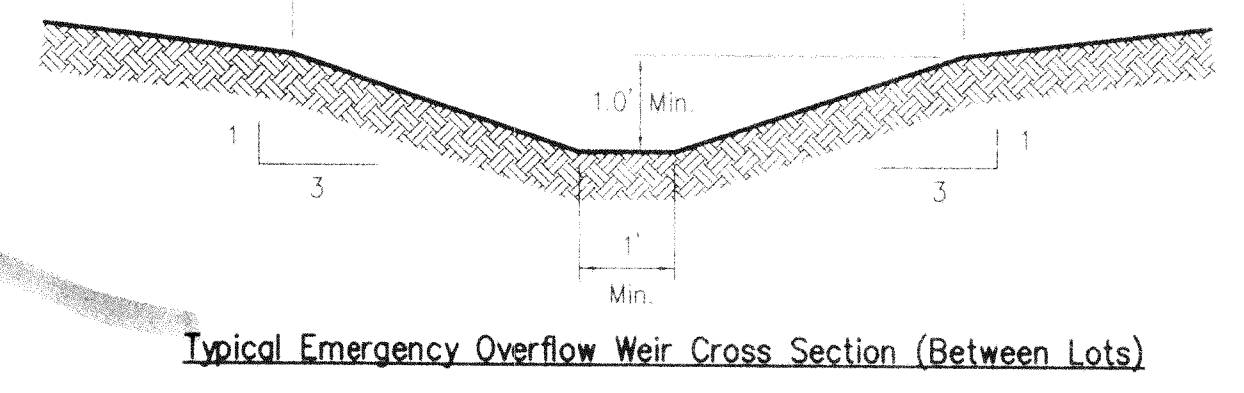
Southwest Retention Basin

No Scale

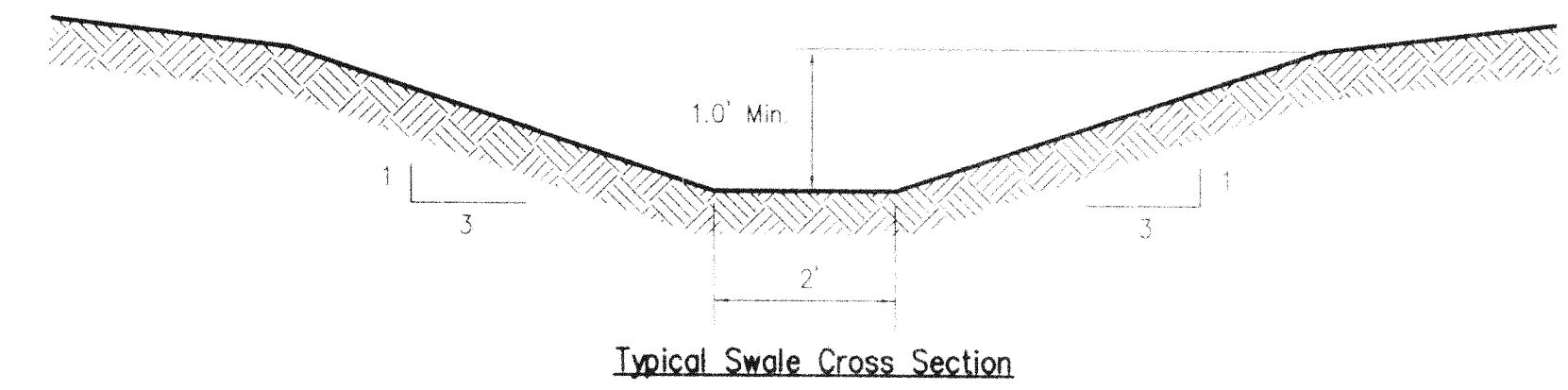


Concrete Ribbon Detail

No Scale



Typical Emergency Overflow Weir Cross Section (Between Lots)



Typical Swale Cross Sections

Typical Swale Cross Sections

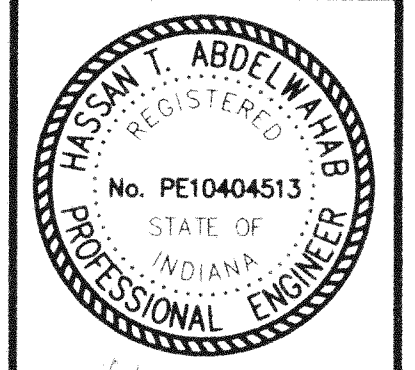
No Scale

- Notes:**
- 16"V8" CONCRETE RIBBON REQUIRED IF LONGITUDINAL SLOPE IS LESS THAN 0.8%
 - STAKED SOD OR NORTH AMERICAN GREEN TEMPORARY EROSION CONTROL BLANKET SC-150 OR APPROVED EQUAL IF LONGITUDINAL SLOPE IS 2% TO 6%.
 - RIP-RAP OR NORTH AMERICAN GREEN PERMANENT EROSION CONTROL BLANKET C-350 OR APPROVED EQUAL REQUIRED ON SLOPES GREATER THAN 6% AND ON SIDE SLOPES GREATER THAN 3:1. REFER TO EROSION/SEDIMENT CONTROL PLAN.

Morley and Associates, INC.
Consulting Engineers/Surveyors/Architects
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Evansville, Indiana 47713
(812) 464-8585

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No.	By	Date	Description



Project: Blue Heron LLC
Blue Heron Estates
Sheet Title: Storm Sewer Details, Basin Details

Scale: As Shown	
Designed By: JEM	Job Number: 5911-4(B)
Drawn By: DWN	Date: 4/11/05
Checked By: JEM	Filename: 105115.DWG