

Plan View

For bituminous pavement provide 6" 3500 PSI conc. collar min. 12" from casting edge. Top of conc. collar should stop at top of HAC Base and be covered with HAC surface material (1" min.) For concrete pavement provide 7" 3500 PSI conc. collar min. 12" from casting edge. (If required) sawcut existing pavement for conc. collar placement

Paved Areas

Seal between casting and precast unit with 3/4" preformed butyl rubber base flexible gasket meeting Fed. Spec. SS-S-210A
Pipe sleeve for 3" dia. pipe to drain subgrade prior to placement of pavement
"B" Borrow backfill
Non-shrink high strength grout collar (typ.)

"B" Borrow backfill 6" min. (Typ.)
Min. 6" #5 stone (typical for inlets)

Notes

For Area Inlet in pavement East Jordan #8313 casting with Type M grate or equal. For area inlet in non-paved areas: East Jordan #6610 casting.

For Manhole East Jordan #8313 casting with Type A solid cover or equal. Contractor may substitute East Jordan #1022-1 casting with Type A solid cover, or equal, with adapter section.

All connecting pipes shall be grouted with a high strength non-shrink grout.

Precast box shall conform to ASTM C-478

Reinforcement shall be W3.0xW2.0 wire fabric for precast units

The inlet shall be backfilled with "B" Borrow and mechanically compacted in 6" lifts to 95% of standard density ASTM 698

1/2" non-extruded expansion joint material (TYP.) Abutting concrete surfaces only. A.E.T. req'd. for bituminous pavement only.
Non-shrink high strength grout (typ.)
Top of Box
Rim elevation shown on plans

Existing or new bituminous pavement concrete pavement

Unpaved Areas

"B" Borrow if within 5' of roadway pavement
INDOT "E" Box or equal
W3.0xW2.0 wire fabric (typ.)

**Section
Precast "E" Box**

5021.dwg Date: 09-18-00

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

Notes

1. **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.

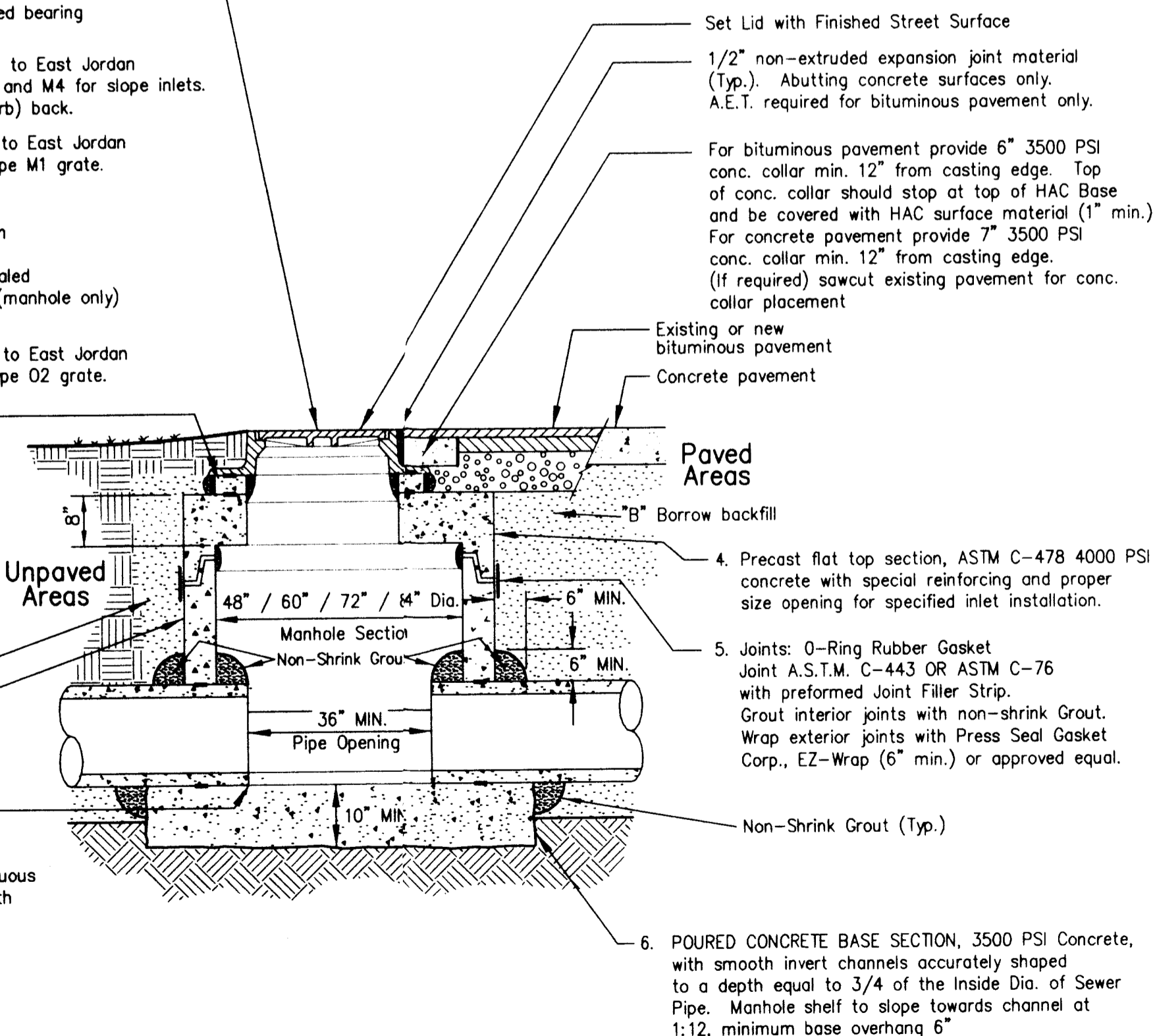
NON-TRAFFIC AREAS: 4" or 7" hgt. 255# min. wgt., equal to East Jordan 1022-1 with Heavy Duty Cover, machined bearing surface and concealed Lift Holes. Set Top 2" above Grade (manhole only) (after Earth settlement).

Area Drain (A.D.) installations equal to East Jordan Iron Works, Inc., No. 1022-1 with Type O2 grate.

2. Minimum of one Concrete Grading Ring. (Seal between Casting and Each Ring with 1 1/4" Preformed Butyl Rubber Base Flexible Gasket meeting Fed. Spec. SS-S-210A. Minimum Size 3/4" Grout Interior and Exterior Joints with Non-Shrink Grout.)

3. Precast Riser Section ASTM-C-478, 4000 PSI Conc.

Pipes less than 36" Dia. must start and stop. No knockout in Top of Continuous Pipe Allowed. Pipes 36" and larger if run continuous through the M.H. shall have smooth sawed 36" min. access hole.



Shallow Storm Manhole, Curb Inlet or Area Drain

5003.dwg Date: 09-18-00

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

Front Grate (F.G.) Elevation - 1/2" below Pavement Grade (0.29' below Profile Grade on 29.0' Streets)

Gutterline grade at face of curb - G.L.

East Jordan Iron Works, Inc. No. 7030 catch basin curb inlet w/M3 grate for valley inlets and w/M4 grate for slope inlets. Type T-2 back for roll curbs.

Seal bolt holes with mastic

Mastic casting to riser ring
Pour conc. collar around all inlet box and casting.

Unpaved Area

"B" Borrow

2'x3' opening
48" dia. Manhole section
Mortar exposed edges of pipe
36" min.
10" min.

Combination Manhole and Curb Inlet

5008.dwg Date: 9-14-00

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

Notes

East Jordan Iron Works, Inc. (or approve: equal) NO. 7030 catch basin curb inlet, with M3 grate for valley inlets or M4 grate for slope inlets. 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

Front Grate (F.G.) Elevation - 1/2" below Pavement Grade (0.29' below Profile Grade on 29.0' Streets)

Seal Bolt Holes

Mastic Seal Casting to Precast Sections

I.N.D.O.T. "J" Box or Equal

Non-shrink high strength grout collar around pipe. (Typ.)

1/2" non-extruded expansion joint material (TYP.) Abutting concrete surfaces only. A.E.T. required for bituminous pavement only.

Existing or new pavement Concrete Bituminous

Pipe Sleeve for 3" Dia. Pipe to drain subgrade prior to placement of pavement

"B" Borrow Backfill (TYP.)

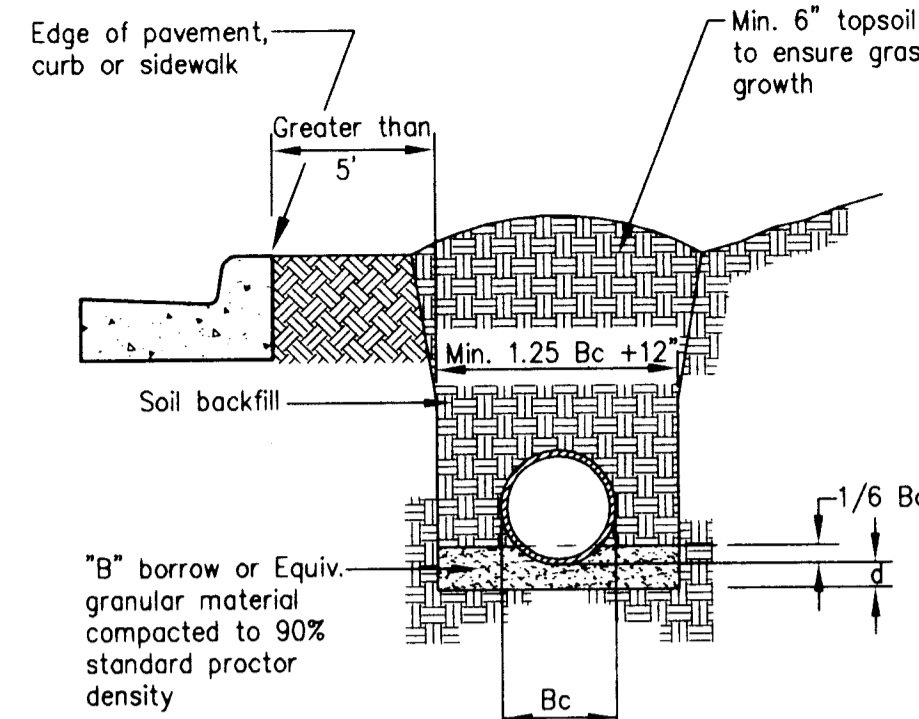
Min. 6" #5 stone (typical for inlets)

6" min. (typ.)

Curb Inlet

5004.dwg Date: 09-14-00

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



Greater than 5' from 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

Depth of Bedding Material Below Pipe

D	(d) Min.
27" & Smaller	3"
30" to 60"	4"
66" & Larger	6"

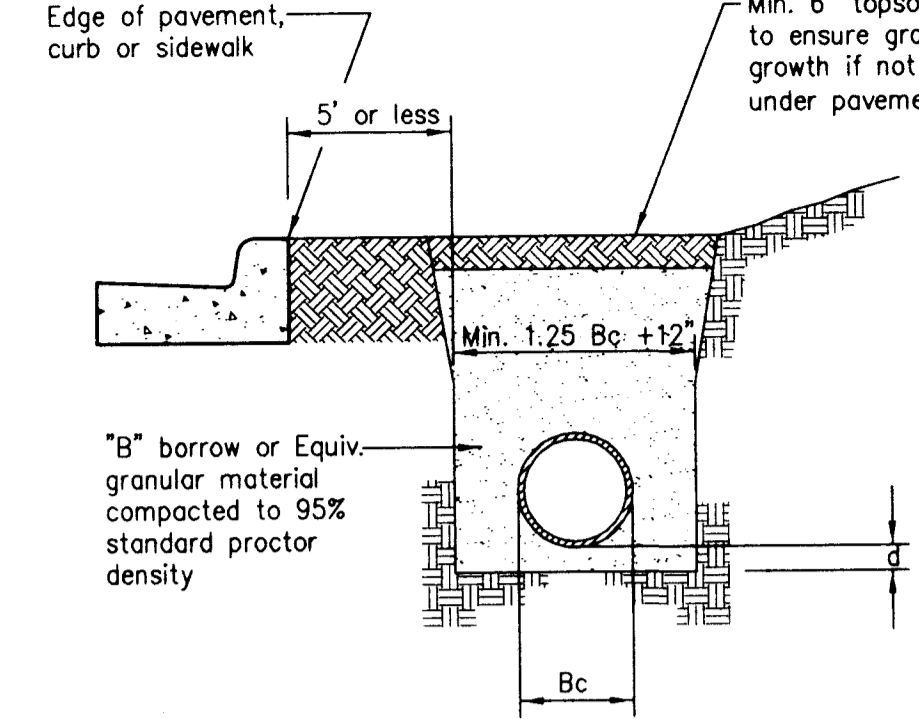
Reinforced Concrete Pipe Storm Sewer Bedding

5012.dwg Date: 10-14-96

NO SCALE

LEGEND:

Bc = Outside Diameter
D = Inside Diameter
d = Depth of Bedding Material Below Pipe



Beneath or within 5' of edge of pavement

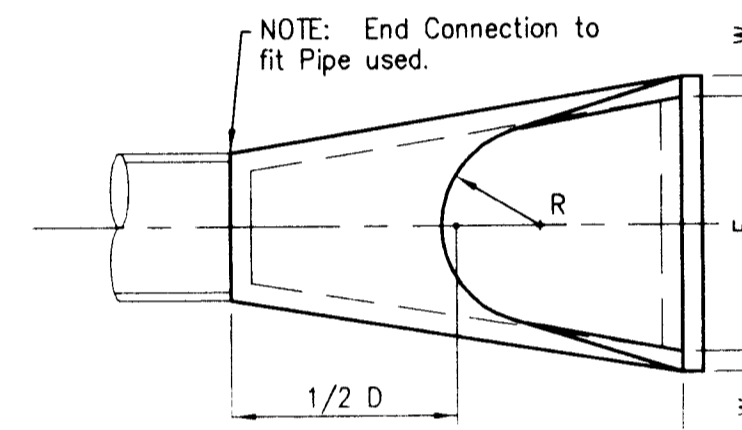
Note:

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

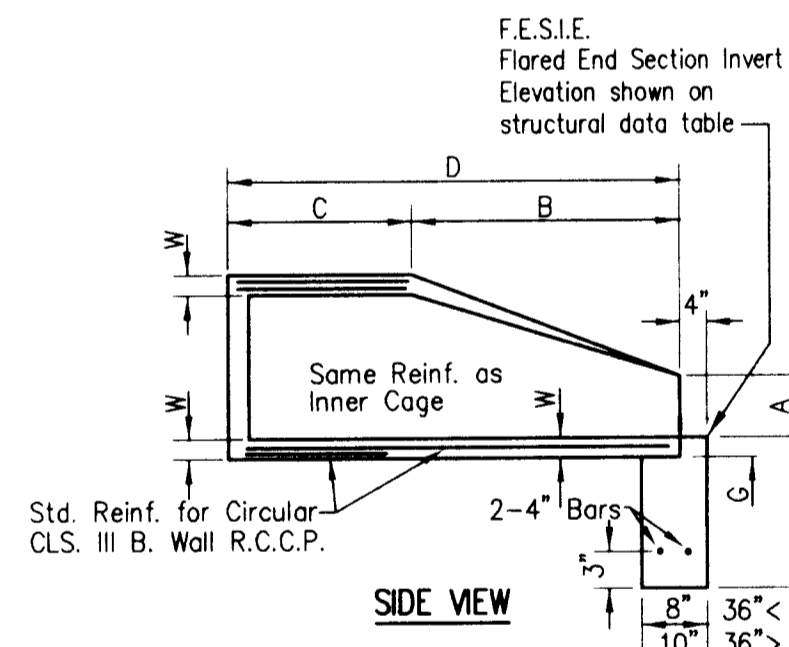
"B" borrow or Equiv. granular material compacted to 90% standard proctor density

"B" borrow or Equiv. granular material compacted to 95% standard proctor density



NOTE: End Connection to fit Pipe used.

TOP VIEW



SIDE VIEW

Concrete End Section

5005.dwg Date: 3-16-01

END VIEW

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.

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

3. 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.

4. Reinforced concrete pipe (Class III min.) and precast flared end sections with rubber gaskets shall meet the requirements ASTM C-76 and C-443. Rubber gaskets shall be "Grip Seal" as manufactured by Forsheda Pipe Seal Company or approved equal.

Morley and Associates, Inc.
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No.	By	Date	Description



Project: Windham Hill Subdivision - Section 2
Windham Hill LLC
Sheet Title: Storm Sewer Details

Scale: AS SHOWN
Designed By: LAM
Job Number: 4076-4 (J)
Drawn By: MTC
Date: 04/11/03
Filename: SECTION 2\4780det-sec2.dwg
Sheet Number: C-43