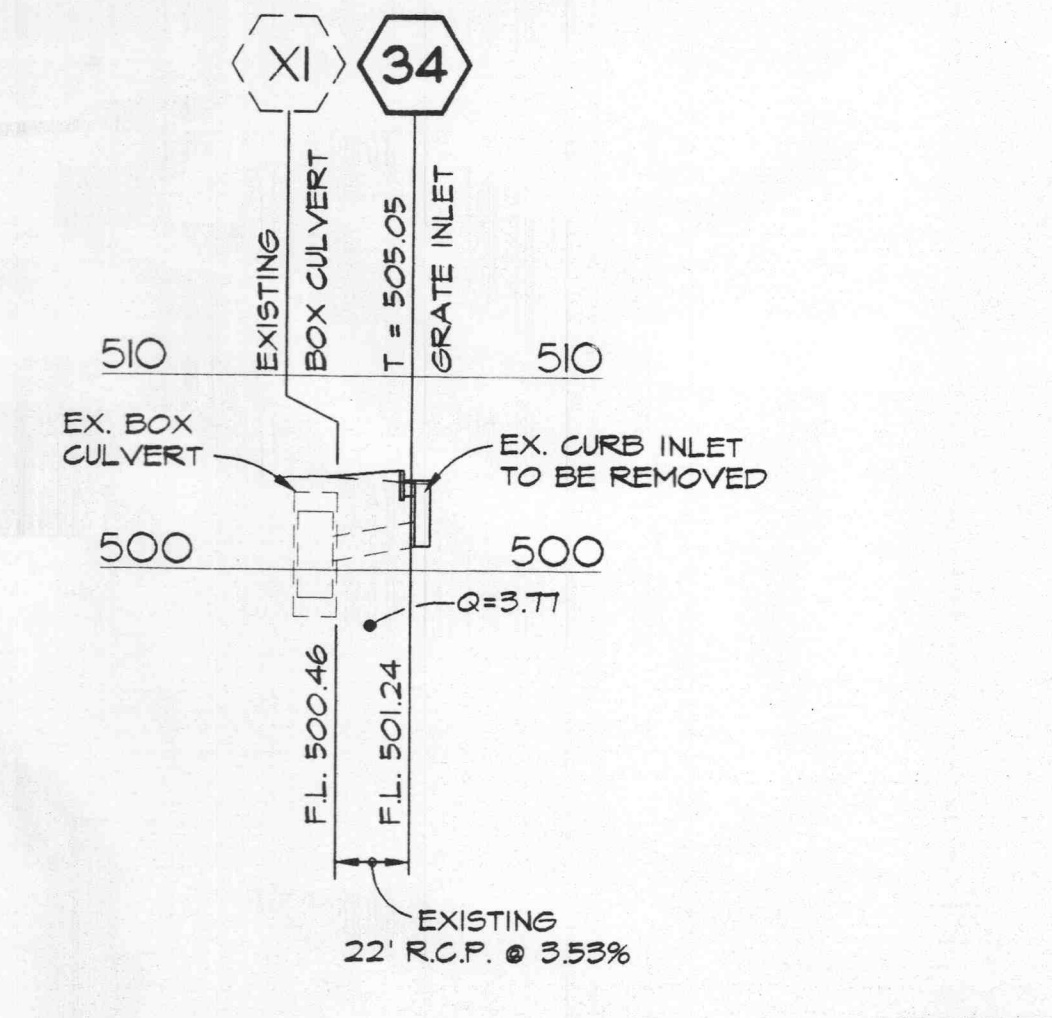


STORM SEWER PROFILES
SCALE: 1" = 50' HORIZ., 1" = 10' VERT.



COMPACTION NOTE:
THE SOILS ENGINEER SHALL VERIFY THAT ALL COMPRESSIBLE MATERIAL HAS BEEN REMOVED PRIOR TO PLACEMENT OF FILL AND THAT ALL FILL UNDER SANITARY AND STORM SEWER LINES CONSTRUCTED ABOVE GRADE HAS BEEN COMPACTED TO 90% OF "MODIFIED PROCTOR". FILL IS TO BE PLACED IN A MAXIMUM 4" LIFTS. TESTS SHALL BE TAKEN AT A MAXIMUM OF 50' INTERVALS ALONG THE ROUTE OF THE PIPE IN FILL AREAS. TEST SHALL BE TAKEN AT 2' INTERVALS VERTICALLY STARTING AT THE BOTTOM OF THE FILL AND CONTINUING THROUGH THE FILL TO THE TOP OF THE PIPE. TESTS SHALL BE TAKEN AT 6' INTERVALS HORIZONTALLY ON BOTH SIDES OF THE PIPE FOR A DISTANCE EQUAL TO THE DEPTH OF THE FILL FROM THE TOP OF PIPE TO VIRGIN SOIL. A COPY OF THESE RESULTS WILL BE SUBMITTED TO SEWER INSPECTOR PRIOR TO CONSTRUCTION.

GRADING AND DRAINAGE NOTES

- ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST.
- ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADINGS AND BE INSTALLED ACCORDINGLY.
- CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
- SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- SICP - SMOOTH INTERIOR CORRUGATED PLASTIC PIPES & FITTINGS SHALL BE: A.D.S.-N12 HFRD. OR ADVANCED DRAINAGE SYSTEMS, INC. 3300 RIVERSIDE DRIVE, COLUMBUS, OHIO 43221 (614) 457-3051
- FRENCH DRAIN SHALL BE INSTALLED IF DIRECTED BY THE GEOTECHNICAL ENGINEER OR AS SHOWN ON PLANS.

ATTENTION SEWER CONTRACTOR

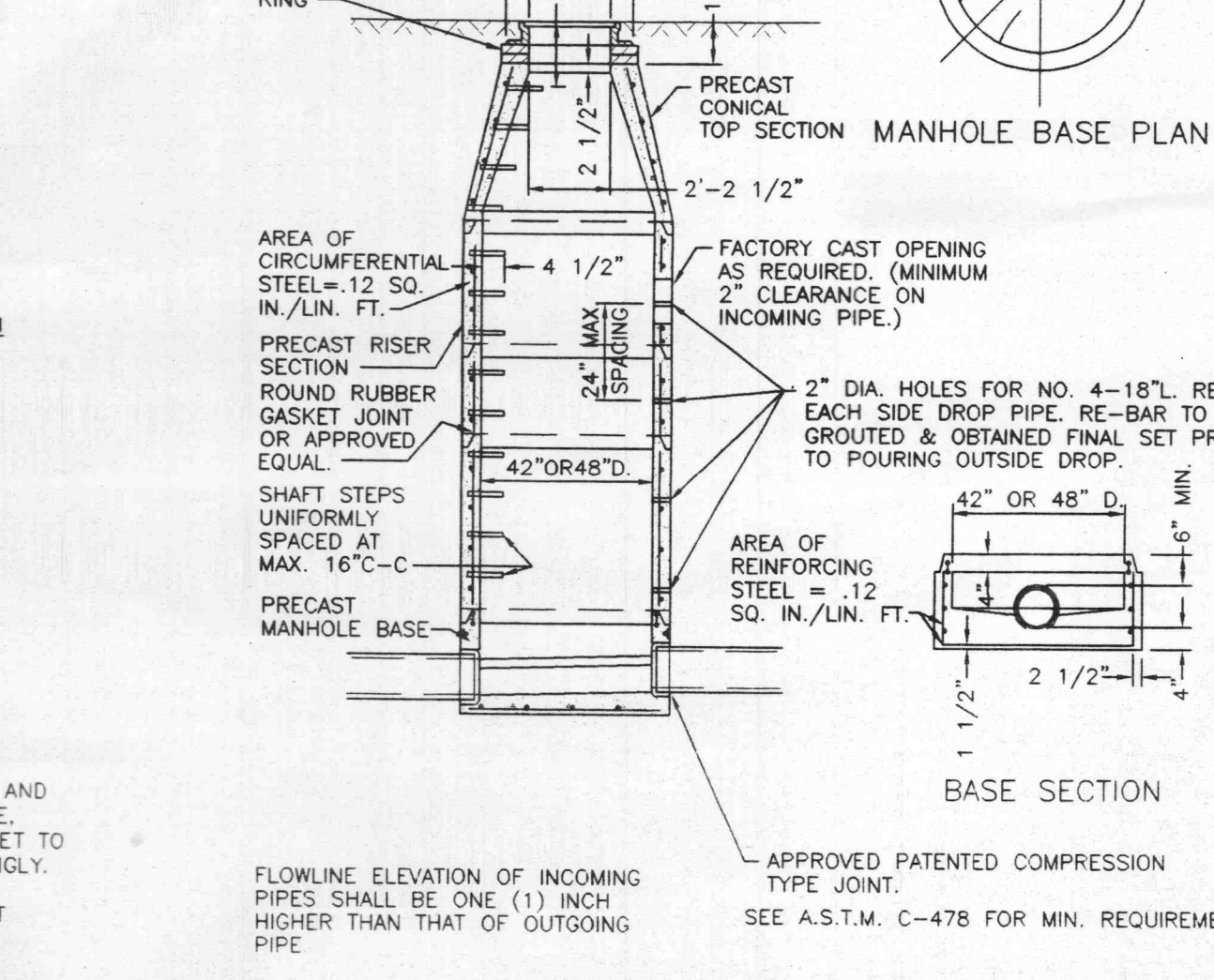
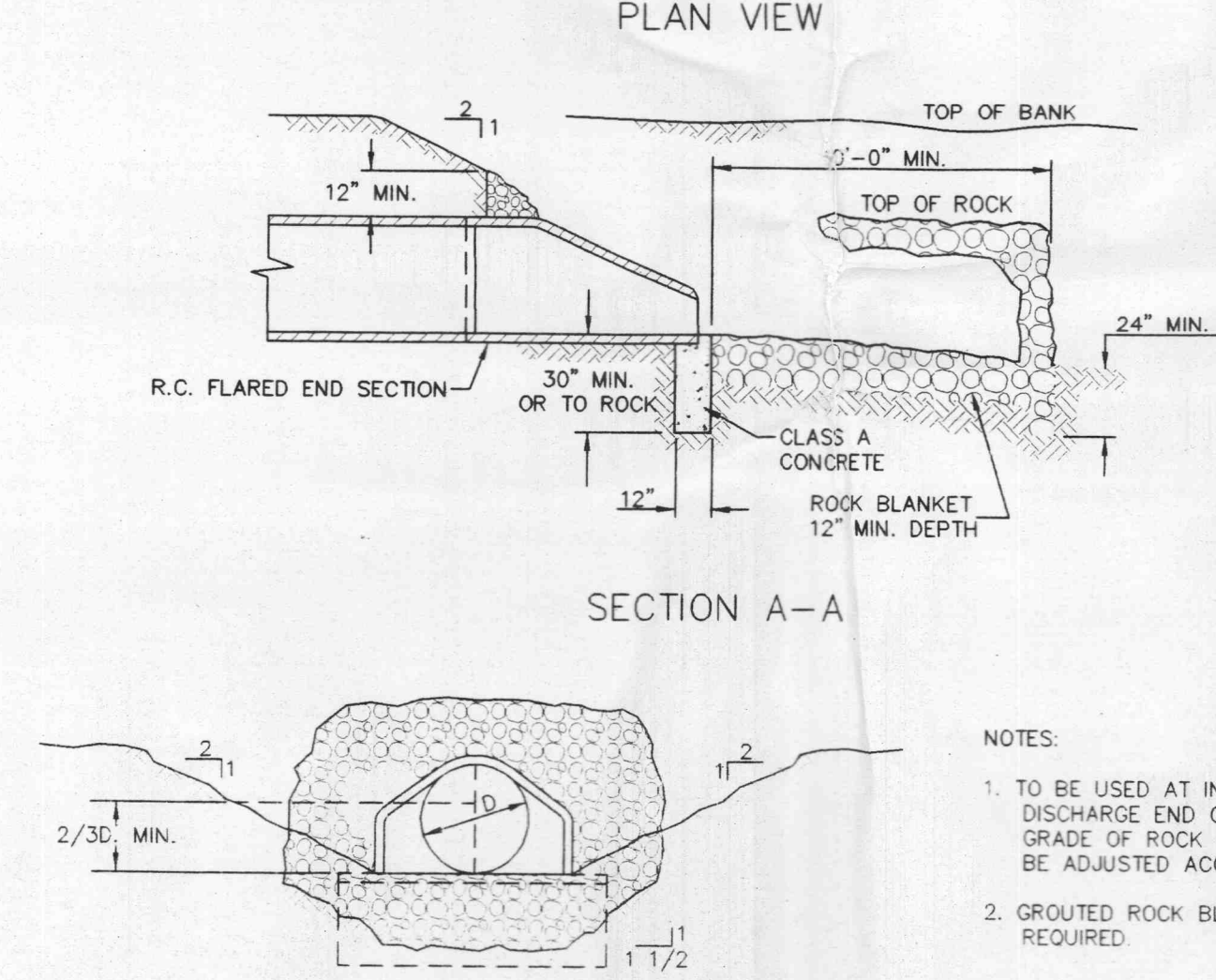
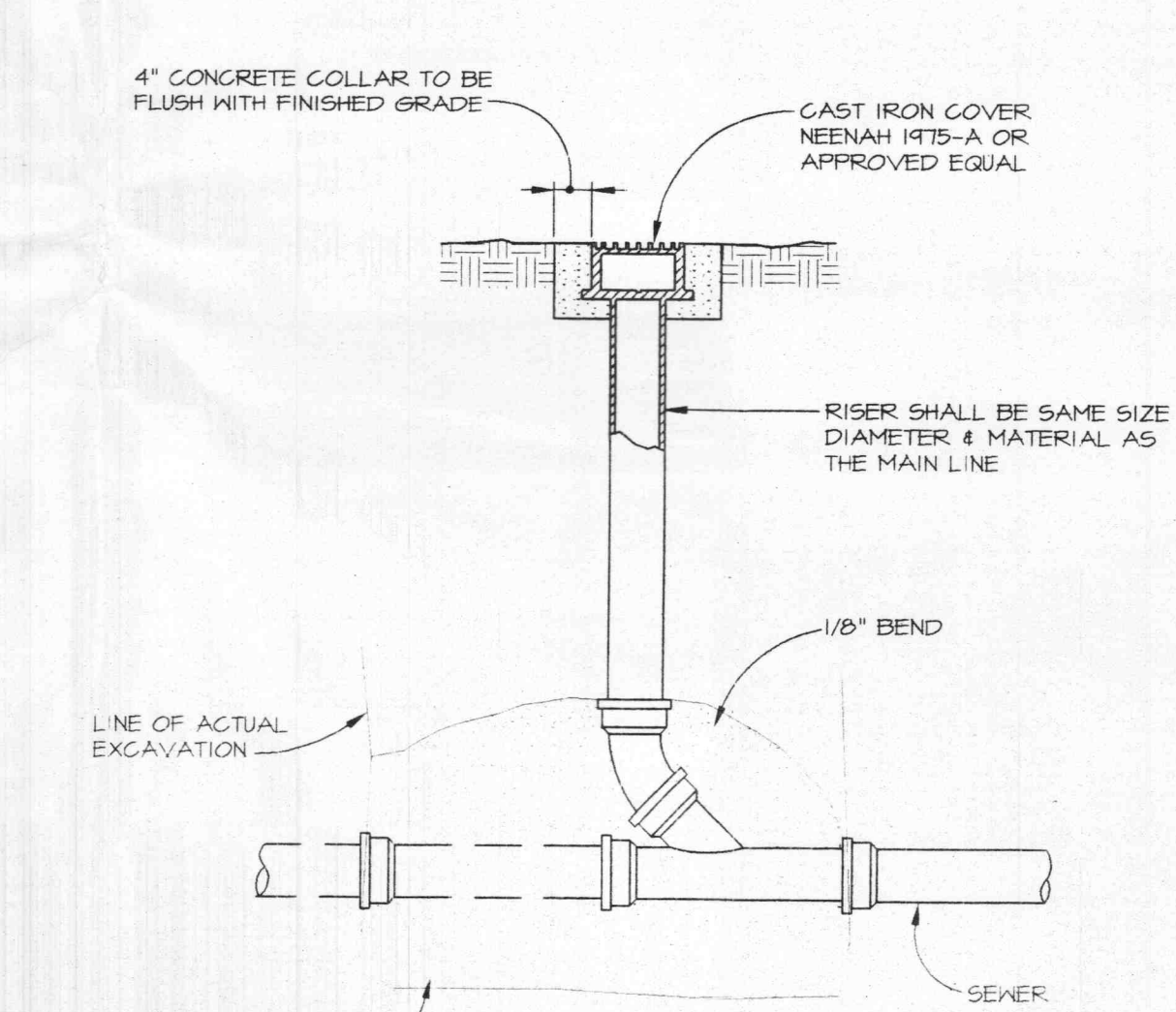
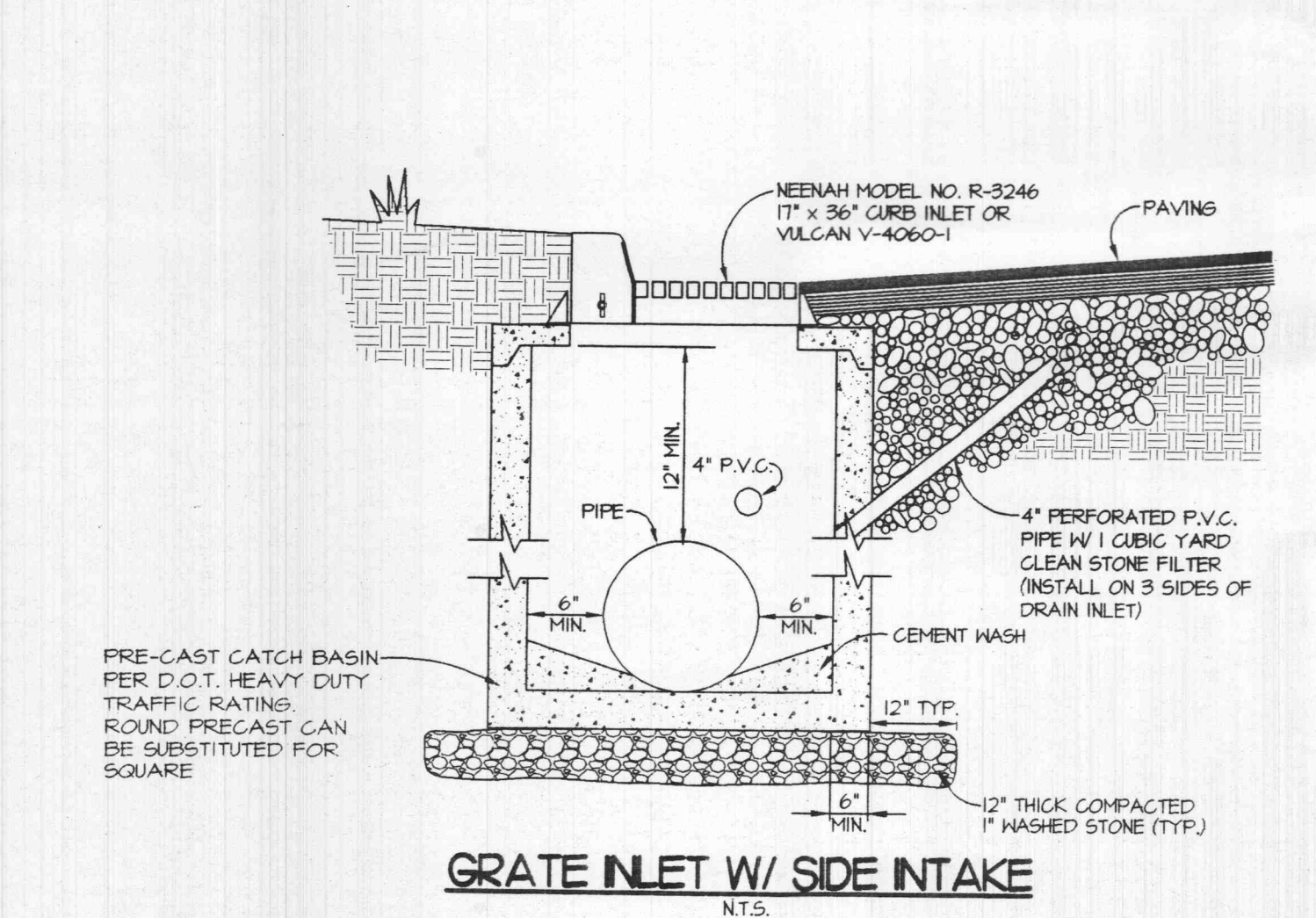
For sewer pipe (storm, sanitary and combined) with a design grade less than one percent (1%), verification of the pipe grade will be required for each installed reach of sewer pipe to any manhole, drop or reduction of any surface imperviousness. The Contractor's field supervisor will be required to provide daily documentation verifying that the sewer pipe grade meets the design grade through the submittal of signed out sheets to the Sewer Inspector upon request.

Field surveyed verification must be made under the direction of a licensed land surveyor or registered engineer. The Contractor will be required to remove and replace any sewer reach having an overall grade which is flatter than the design grade by more than 0.03%. Sewers with grades greater than the design slope may be left in place, provided no other sewer grade is reduced by this variance in the as-built grade.

Sewer Inspector also reserves the right to require the Contractor to remove and replace any sewer (at any time prior to construction approval) for which the as-built grade does not comply with the grade tolerance stated in the above paragraph.

The Sewer Contractor shall be responsible for any costs associated with the field verification of the sewer grade, or removal and replacement of the sewer pipe or associated appurtenances.

THE SEAL OF STANLEY F. VISHNIVSKY ON THIS DRAWING APPLIES ONLY TO THE CIVIL/SITE ENGINEERING SHOWN. IT DOES NOT APPLY, NOR IS ANY RESPONSIBILITY TAKEN FOR GEOTECHNICAL (INCLUDING BUT NOT LIMITED TO SOILS STABILITY), STRUCTURAL, HVAC, PLUMBING, ELECTRICAL, FIRE PROTECTION, TRAFFIC ENGINEERING, SURVEYING (BOUNDARY AND TOPOGRAPHIC), OR ARCHITECTURAL (BUILDINGS OR LANDSCAPE).

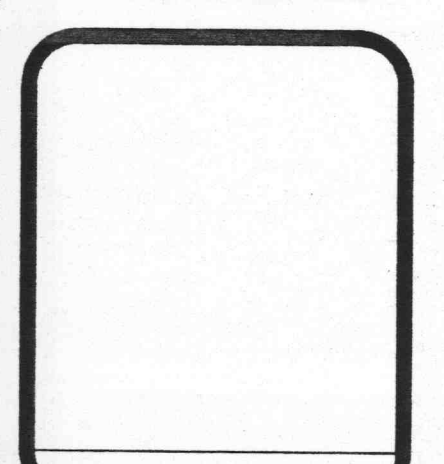


PRE-CAST CONCRETE MANHOLE FOR SEWERS 8" THROUGH 12"

NOTES:
1. TO BE USED AT INTAKE AND DISCHARGE END OF PIPE. GRADE OF ROCK BLANKET TO BE ADJUSTED ACCORDINGLY.
2. GROUTED ROCK BLANKET REQUIRED.

Heideman & Associates, Inc.
13545 Barrett Parkway Drive
Suite 200
St. Louis, Missouri 63021
Phone: 314-922-2217
Fax: 314-922-7858

Consulting
Civil Surveying
Electrical
Mechanical
Engineers



Storm Sewer Profiles / Details
LOWE'S of O'FALLON
O'Fallon, Missouri

DATE	REVISIONS
11/24/98	REVISED PER COMMENTS
12/23/98	REVISED PER COMMENTS
3/1/99	REVISED RET. WALL
4/6/99	REV. ENTRANCES
7/28/99	COMMENTS
7/27/99	REV. SAN SEWER
8/7/99	REV. SAN SEWER
8/30/99	COMMENTS
9/22/99	COMMENTS

DATE: 11-10-98
CHECKED BY: DRAM
DESIGNED BY: DPE
SHEET NO.: C-7
JOB NO.: 98293