DESIGN NOTES:

BASIS OF DESIGN:
20 PEOPLE @ 15 gpd = 300 gpd
DESIGN CAPACITY = 300 gpd X 90% (WATER SAVING) = 270 gpd
DISPOSAL AREA REQUIRED = 270 gpd/1.0 gpd PER SQUARE FOOT = 270 SQUARE FEET

USE 2 – 34' x 4' PRIMARY TRENCHES
PROVIDE 2 – 34' x 4' REPLACEMENT TRENCHES

PROVIDE 1 – 3/8" DIA. HOLE PER 50 s.f. (MAX.) OF DISPOSAL AREA
TOTAL 8 – 3/8" DIA. HOLES; 4 HOLES PER LATERAL

USE 3'-0" OF TOTAL HEAD AT END OF ORIFICE
Qt = 2.87 gpm X 8 = 23 gpm.

PROVIDE: 23 gpm @ 16' TDH

SPECIFY PUMP: HYDROMATIC OSP 33, 115 VOLT/1.0, (OR EQUIVALENT APPROVED BY ENGINEER)

MOUND LOCATION

Refer to EC-4-1987 issued March 14, 1997. This mound has been located in the identical location approved for mound construction (999 gallons per day)

PERIODIC MAINTENANCE NOTES:

SEPTIC TANK

(1) The depth of sludge and scum in the septic tank shall be measured annually by the Owner. The septic tank shall be pumped if the sludge is closer than 3" to the septic tank outlet baffle.

(2) Inspect filter cartridge, rinse if needed and re-install.

(3) All interior surfaces shall be inspected for cracking after the septic tank has been pumped.

EFFLUENT PUMP STATION

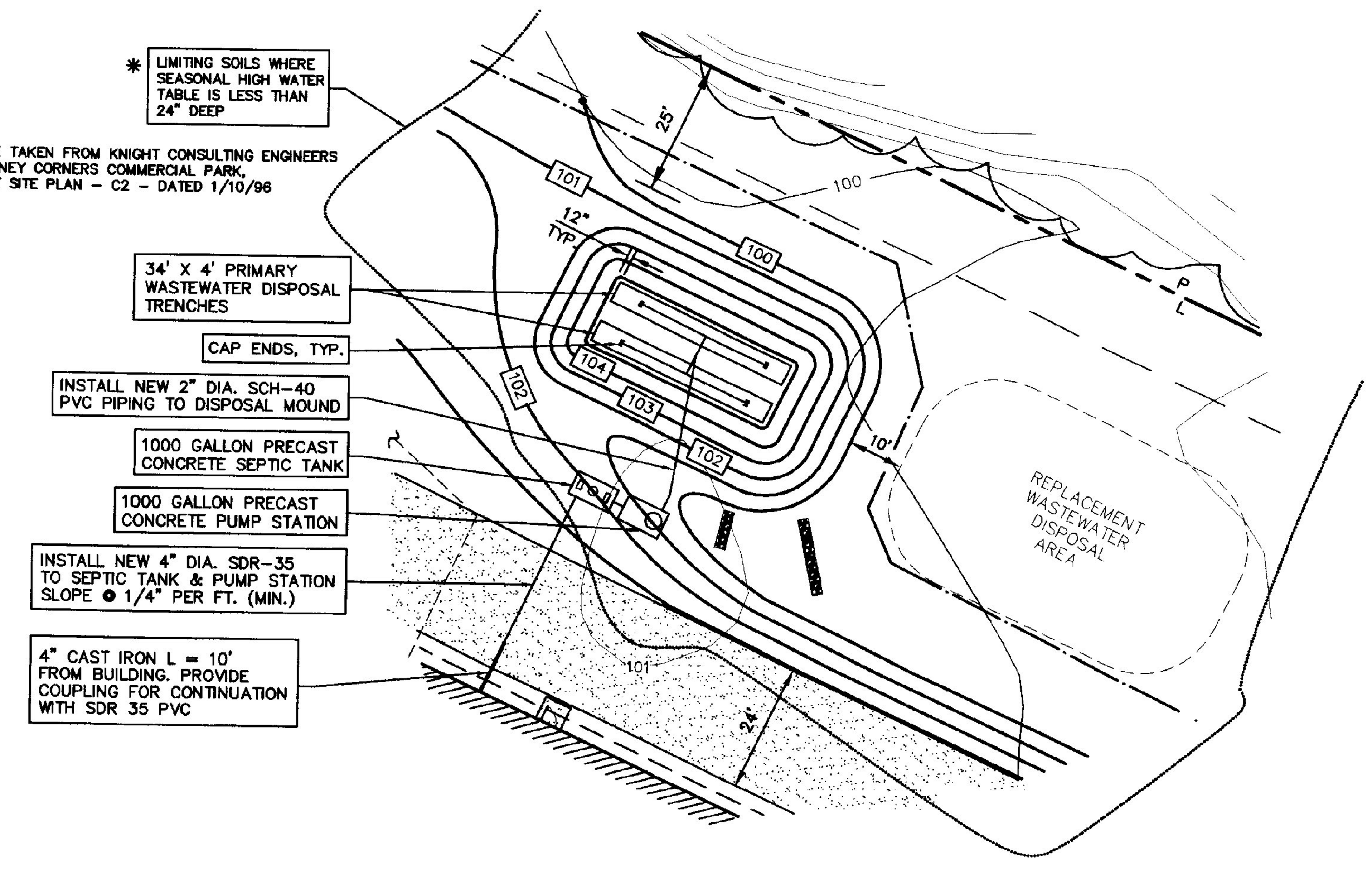
(1) The effluent pump station shall be inspected annually by the Owner, and all settled solids removed as required.

(2) Float and alarm elevations shall be checked and readjusted as necessary.

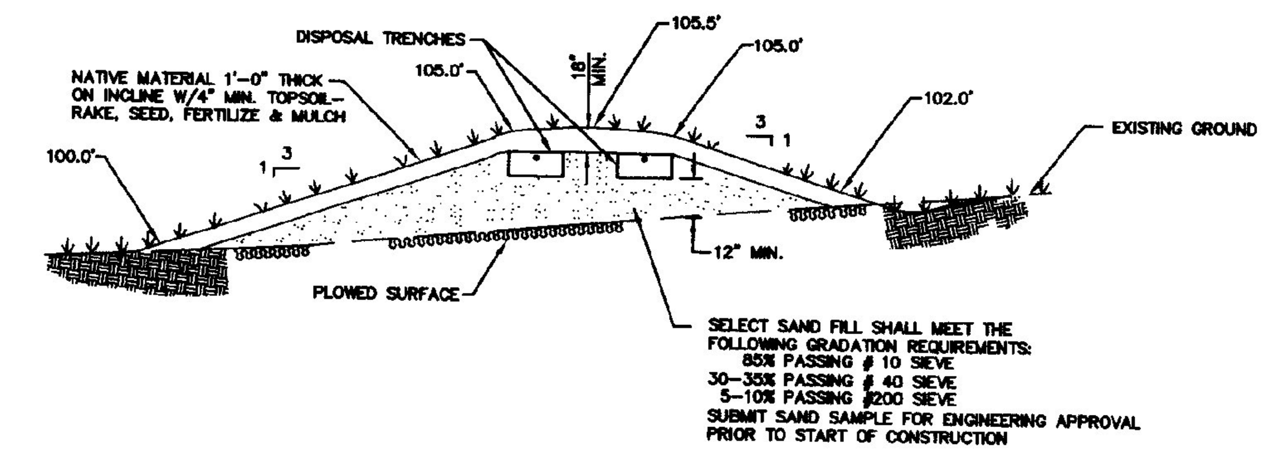
(3) All interior surfaces shall be inspected for cracking after the pump station has been cleaned.

WASTEWATER DISPOSAL AREA

Maintain turf conditions throughout the summer months by mowing the grass to 2 1/2" – 3" in length; reseed all bare spots.



① WASTEWATER DISPOSAL PLAN
SCALE: 1" = 20'



② MOUND SECTION
N.T.S.

CONSTRUCTION REVIEW NOTES

1. AFTER THE CRUSHED STONE (12 INCHES) HAS BEEN PLACED, THE DISTRIBUTION LINES SHALL BE TEMPORARILY ESTABLISHED WITHOUT CEMENTED JOINTS SO THAT ALL DISCHARGE HOLES ARE FACING UPWARD FOR CONSTRUCTION REVIEW AND TESTING.
2. A REPRESENTATIVE FROM CHAMPLAIN CONSULTING ENGINEERS SHALL BE NOTIFIED BY THE GENERAL CONTRACTOR A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE WHEN REVIEW OR TESTING OF THE WASTEWATER DISPOSAL SYSTEM IS REQUIRED.
3. AFTER REVIEW AND TESTING, THE GENERAL CONTRACTOR SHALL ROTATE THE DISTRIBUTION LATERALS SO THAT ALL DISCHARGE HOLES ARE FACING DOWN, AND PERMANENTLY ATTACH (GLUE) THE LINES.

CONSTRUCTION NOTES:

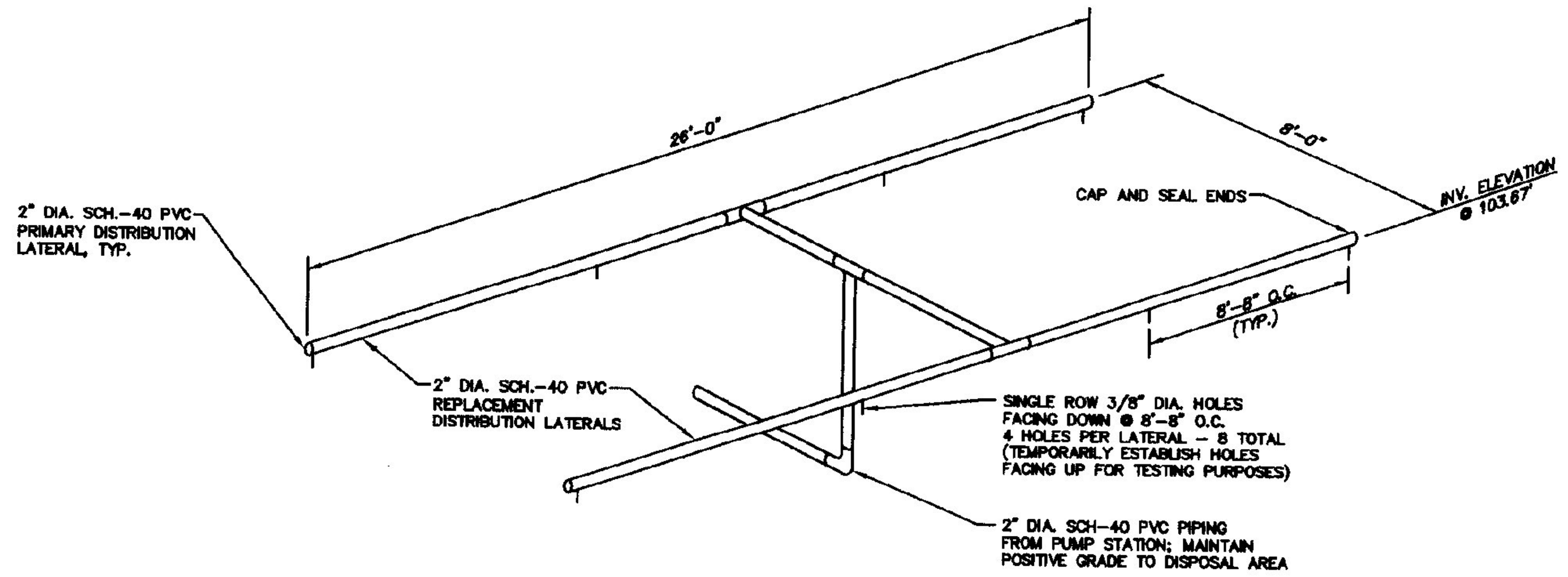
(1) The design of the wastewater disposal system shall be reviewed with the General Contractor prior to the commencement of construction and during the critical stages of construction by a representative from Champlain Consulting Engineers. The General Contractor shall be responsible for scheduling construction reviews with the Project Engineer.

(2) The above ground vegetation shall be closely cut and removed from the ground surface throughout the area to be utilized for placement of the select sand fill material. Prior to plowing the ground surface, the section of force main line from the pump station or dosing chamber to the point of connection to the piping header shall be installed. The entire down slope area shall then be plowed to a uniform depth of seven (7) to eight (8) inches parallel to the existing land contours, with the plow throwing the soil upslope to provide a proper interface between the fill materials and the native soils. Tree stumps shall be cut flush with the surface of the ground; roots should not be pulled or removed. Once plowing of the wastewater disposal area has been completed, the entire area shall be fenced to prevent vehicles from entering and disturbing the plowed area.

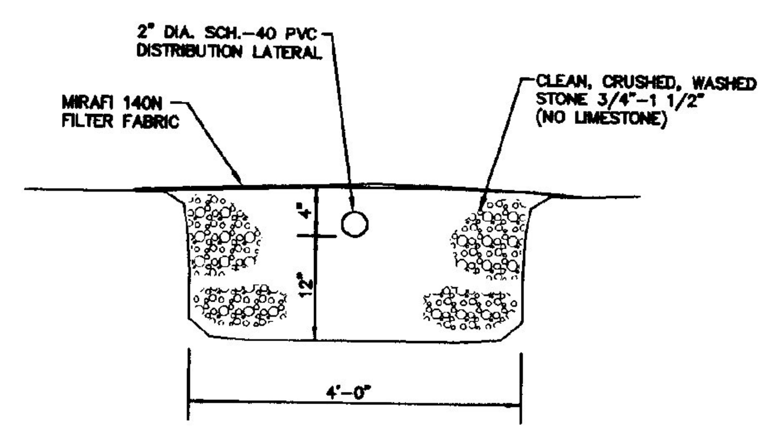
(3) To prevent soil compaction, construction equipment shall not be moved across the plowed surface of the effluent dispersal (basal) area. However, after placement of a minimum of six (6) inches of select sand fill over the plowed area, construction equipment may be driven over the protected surface to expedite construction of the mound wastewater disposal system. Construction and/or plowing shall not be initiated by the General Contractor when the soil moisture content is too high, or during inclement weather.

(4) Construction of the wastewater disposal system shall be initiated immediately after preparation of the soil interface by placing all of the sand fill required to a minimum depth of twenty-one (24) inches. This depth of sand fill will permit excavation of trenches to accommodate the crushed stone (12 inches) necessary for the distribution piping. After hand leveling of the absorption area has been completed, the crushed stone shall be placed into the trench, hand leveled and the distribution piping for the wastewater disposal system installed. After installation and testing of the entire distribution system, crown the entire system with a cover of soil less permeable than the sand fill, covering the disposal area with a minimum of twelve (12) inches on the sideslopes and a minimum of eighteen (18) inches over the center of the disposal area. Soil from the site is normally suitable for cover, provided it is less permeable than the select sand fill material. The top four (4) inches of cover shall be clean topsoil. The entire wastewater disposal area shall be raked, seeded, fertilized and mulched to provide vegetative cover to insure stability of the installation. Install erosion control netting to minimize loss of the mulch on steep and/or windy sites.

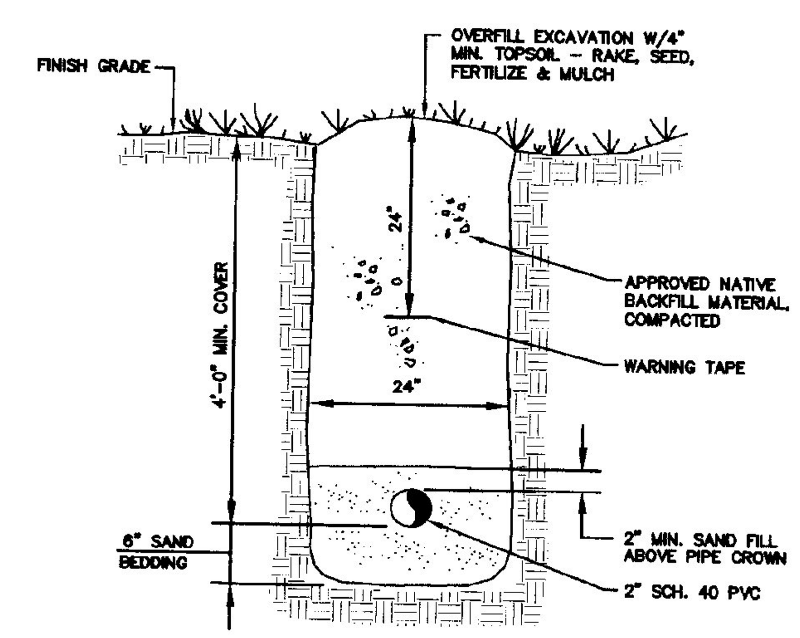
(5) The area around the wastewater disposal area shall be graded to provide diversion of surface runoff water from the disposal area.



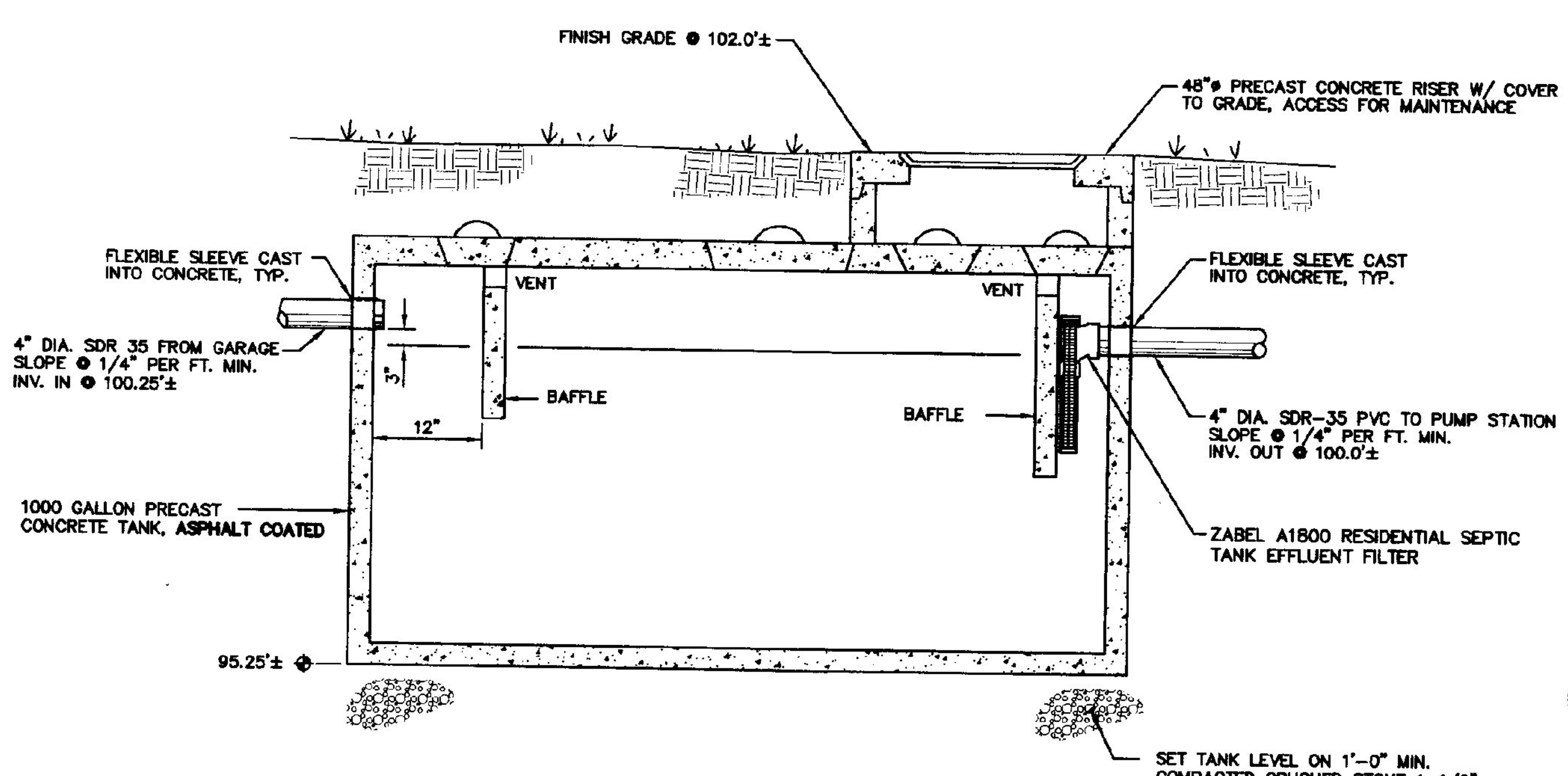
③ DISPOSAL AREA PIPING
N.T.S.



④ TYPICAL DISPOSAL TRENCH SECTION
N.T.S.

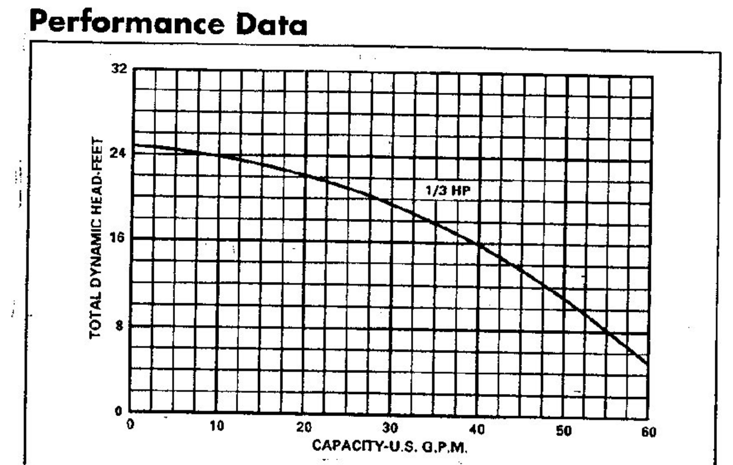


⑤ FORCE MAIN TRENCH DETAIL
N.T.S.



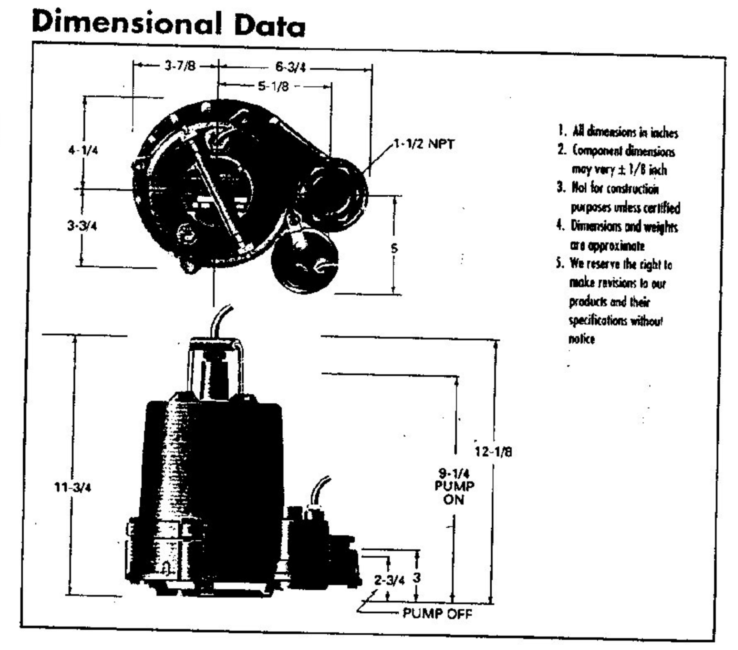
⑥ TYPICAL 1000 GALLON SEPTIC TANK WITH EFFLUENT FILTER
N.T.S.

Performance Data

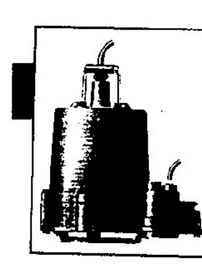


Total Head (feet)	4	8	12	16	20	24	25
GPM 1/3 HP	60	55	48	39	28	7	0

Dimensional Data

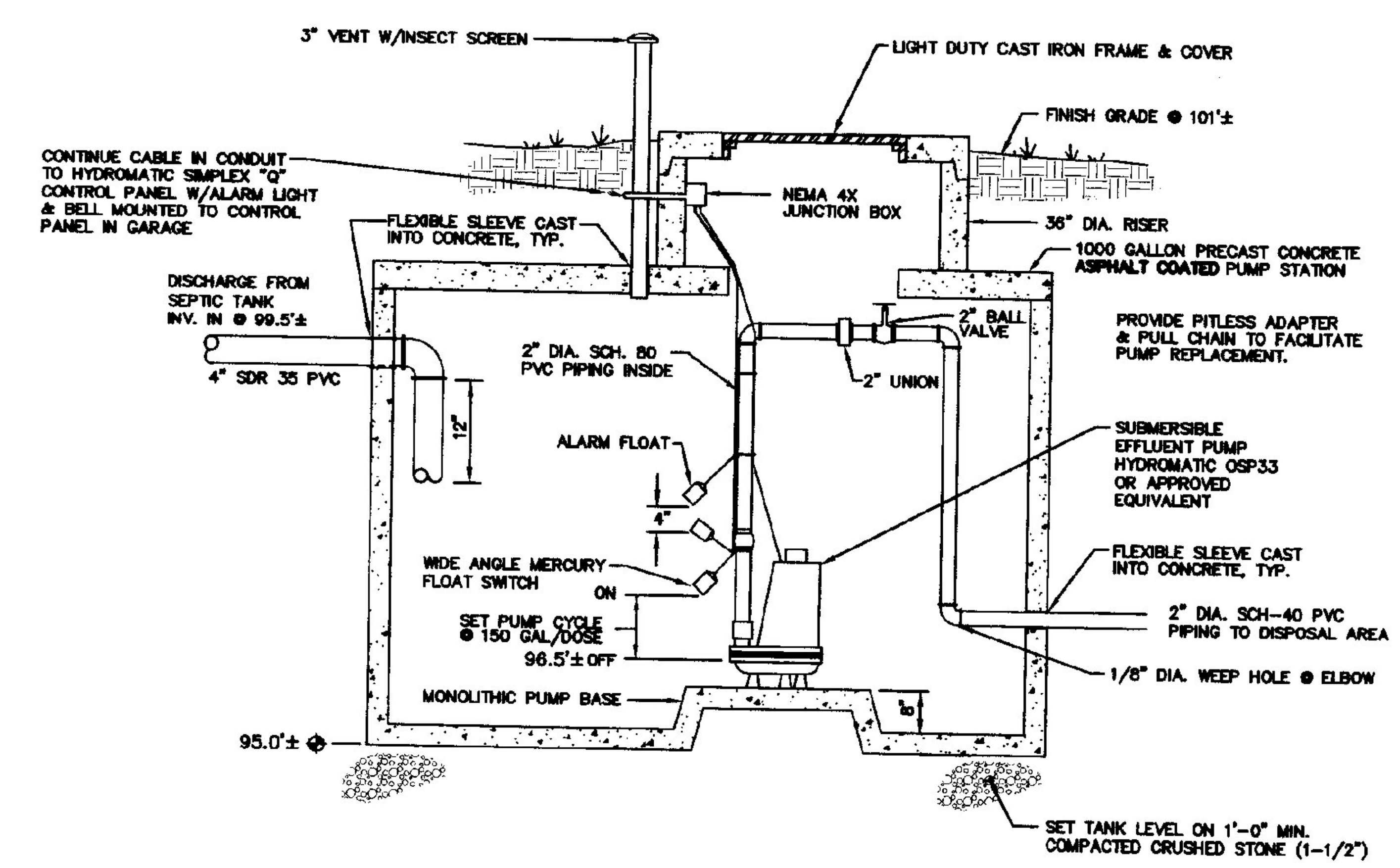


1. All dimensions in inches
2. Component dimensions may vary ± 1/8 inch
3. Not for construction purposes unless certified
4. Dimensions and weights are approximate
5. We reserve the right to make revisions to our products and their specifications without notice



ENGINEERING DETAILS - OSP33

⑦ SUBMERSIBLE EFFLUENT PUMP
N.T.S.



⑧ PUMP STATION DETAIL
N.T.S.

STATE OF VERMONT
PAUL DUCHESNEAU
No.3567
REGISTERED
PROFESSIONAL ENGINEER

DORE AND WHITTIER INC.
ARCHITECTS • PROJECT MANAGERS
1795 WILLISTON ROAD • SOUTH BURLINGTON • VERMONT

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STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
COLCHESTER MAINTENANCE FACILITY
CHIMNEY CORNERS
COLCHESTER, VERMONT

REVISIONS
11/30/99 EROSION CONTROL REVISIONS
1/18/00 GENERAL REVISIONS

SCALE:	AS NOTED
DATE:	OCT. 15, 1999
DRAWN BY:	CCE
APPR. BY:	

COLCHESTER
MAINTENANCE GARAGE
WASTEWATER DISPOSAL

C-2
3 OF 36

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