

PROPOSED SEWER
ROUTE
NOTE: LEDGE MAY BE PRESENT AT ABOUT 4' DEPTH ALONG THE GENERAL ROUTE OF THE FORCE MAIN. LEDGE EXCAVATION SHOULD NOT BE REQUIRED UNLESS ORDERED IN THE FIELD BY THE ENGINEER. MAINTAIN REQUIRED COVER OVER PIPE BY PLACING NATIVE FILL OVER PIPE TO THE REQUIRED DEPTH. SEE TYPICAL TRENCH DETAILS ON THIS SHEET.

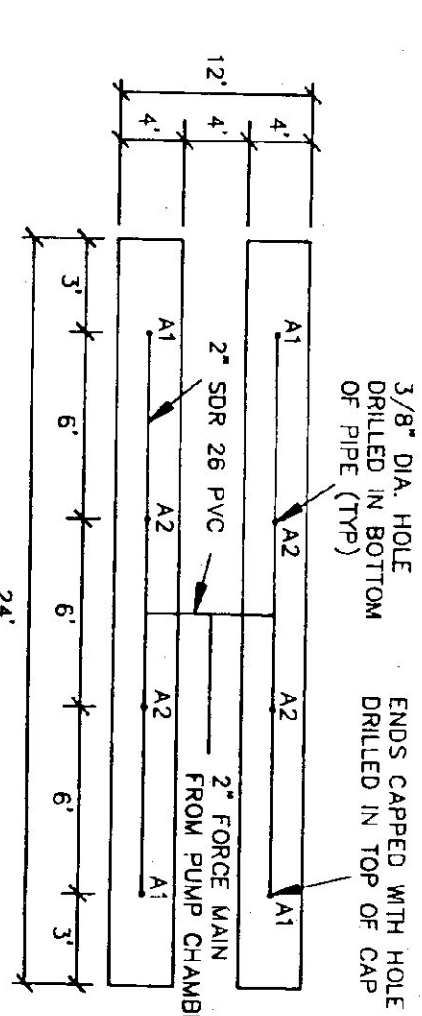
PROP. MOUND SEE DETAIL FOR MORE INFORMATION
LATERAL
INV. = 772.8

BASIS OF DESIGN

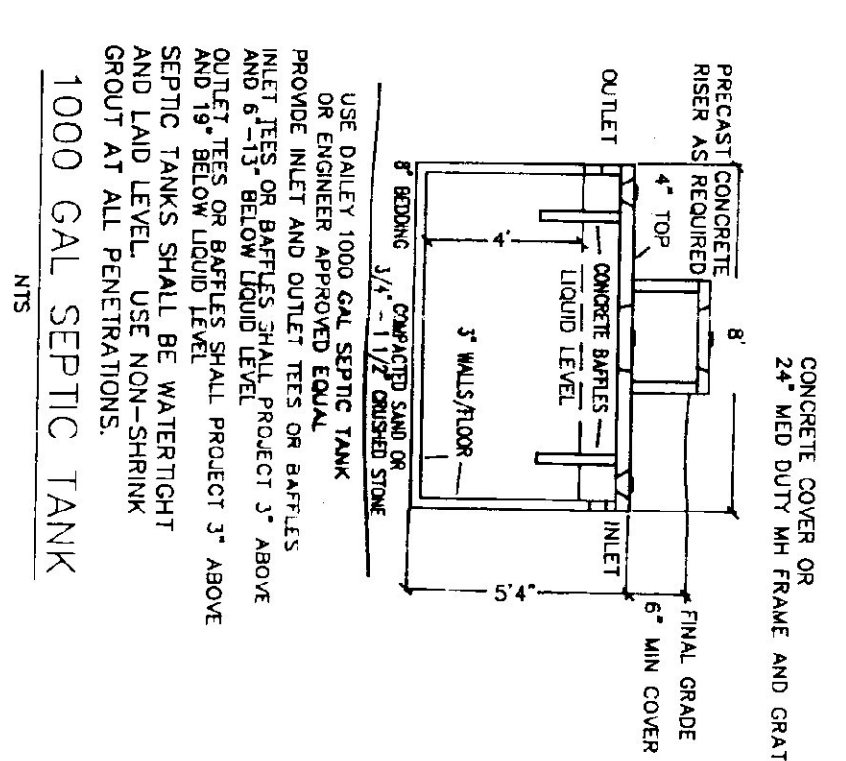
AVERAGE DAILY FLOW	10 employees @ 15 gpd each = 150 gpd									
FIELD SIZE	(150 gpd) / (1.2 gpd/ft ²) = 125 ft ² REQUIRED USE 2 @ 4'x24' = 192 ft ² AVAILABLE									
BASAL AREA	(150 gpd) / (0.75 gpd/ft ²) = 200 ft ² REQUIRED 24' x 40' = 960 ft ² AVAILABLE									
HYDRAULICS	ELEVATION HEAD 772.8 - 756.0 = 16.8 ft FRICTION HEAD 27" PVC FORCE MAIN 440' @ C=100 USE GARDUS 2885-MECON 1/2 HP PUMP OPERATING POINT = 29.7 gpm @ 38.5 TDH									
FIELD HYDRAULICS AT OPERATING POINT	<table border="1"> <tr> <th>PIPE</th> <th>FLOW (gpm)</th> <th>HEAD (ft)</th> </tr> <tr> <td>A1</td> <td>3.712</td> <td>5.015</td> </tr> <tr> <td>A2</td> <td>3.713</td> <td>5.020</td> </tr> </table>	PIPE	FLOW (gpm)	HEAD (ft)	A1	3.712	5.015	A2	3.713	5.020
PIPE	FLOW (gpm)	HEAD (ft)								
A1	3.712	5.015								
A2	3.713	5.020								
MAN FLOW	3.713 gpm									
MIN FLOW	3.712 gpm									
% DIFFERENCE	0.05%									

PIPE STATION LEVELS
ON/OFF 1.4' = 132 gallons
PUMP RUN TIME 132 gal / 29.7 gpm = 4.4 min
STORAGE VOLUME 2.6' = 244 gallons

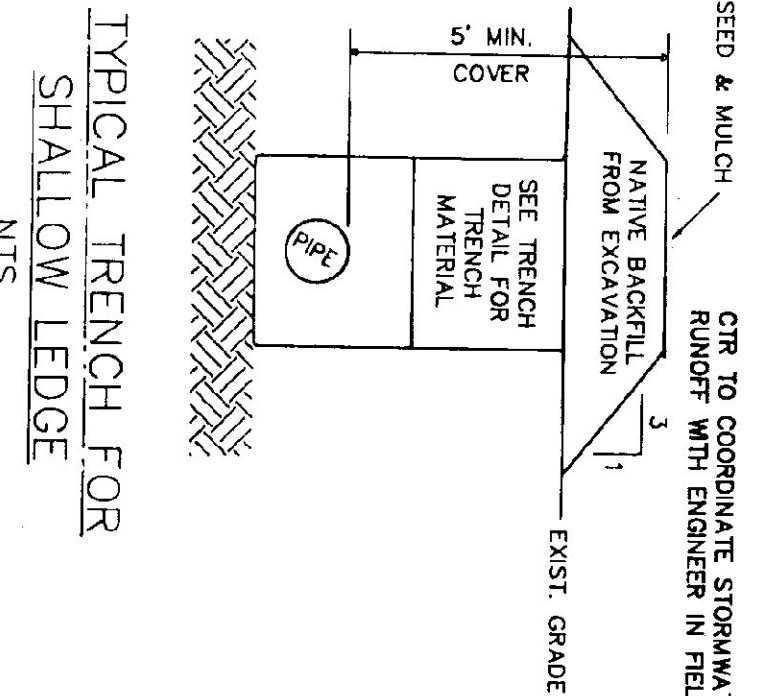
DESIGN
(132 gal/dose) - (63 gal dose back) = 69 gal/dose
(150 gal/d) / (69 gal/dose) = 2.2 doses/day



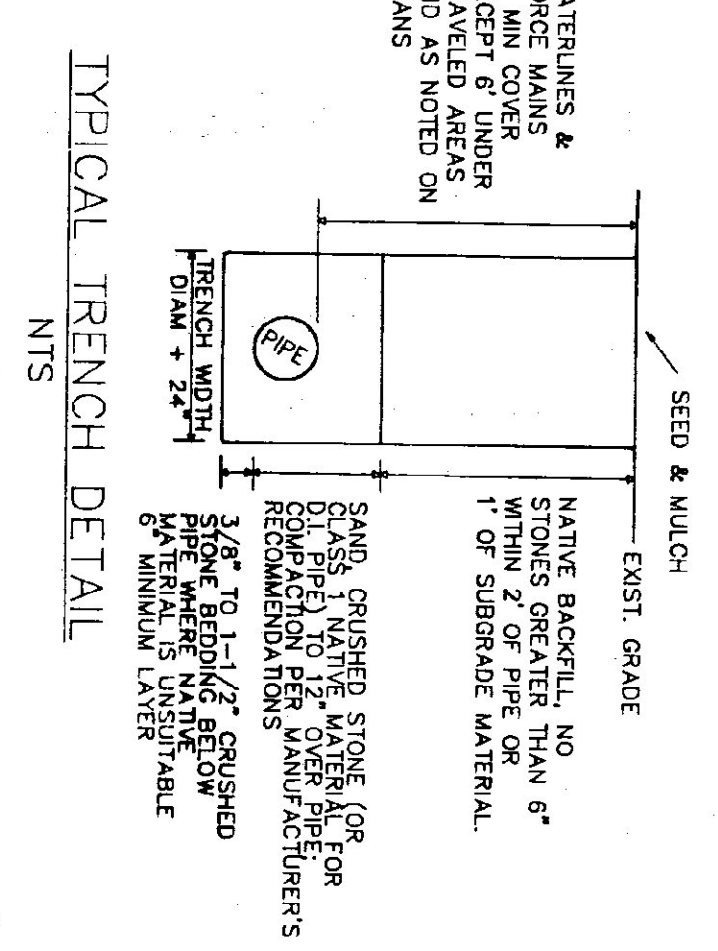
FIELD PLAN
NTS



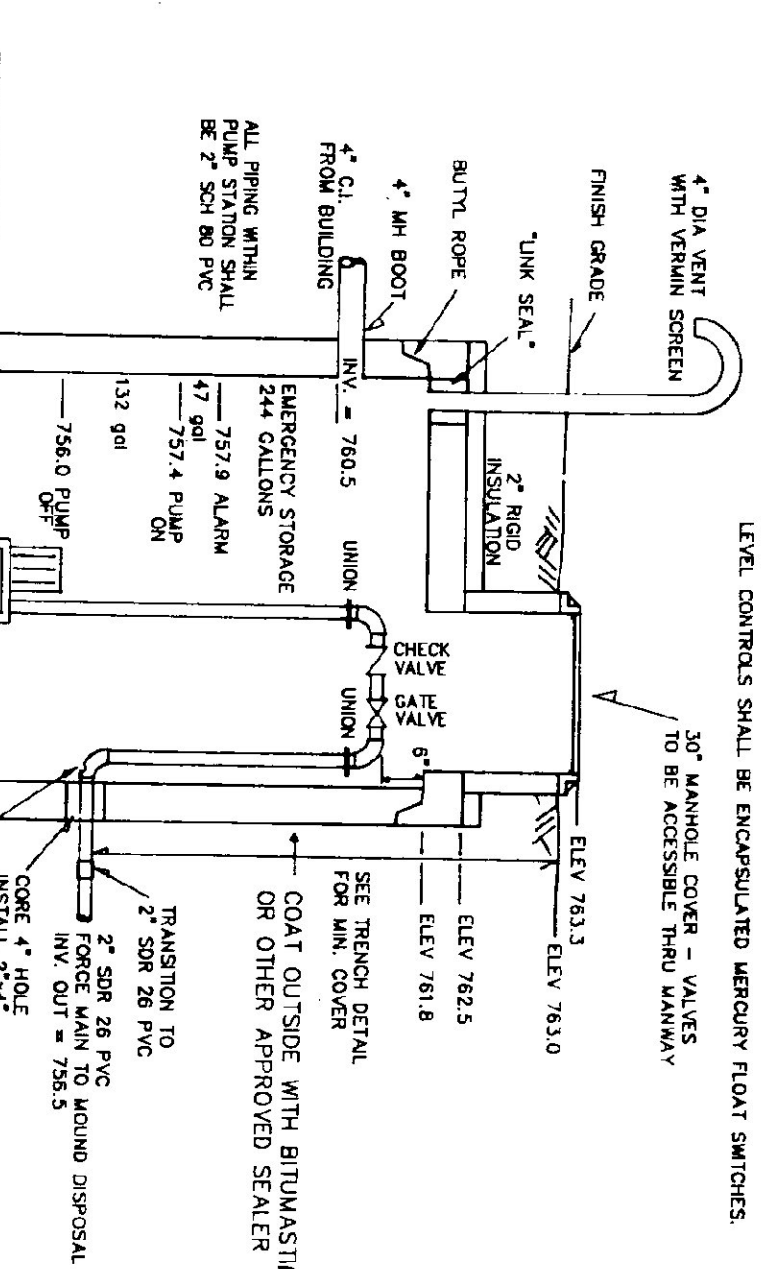
1000 GAL SEPTIC TANK
NTS



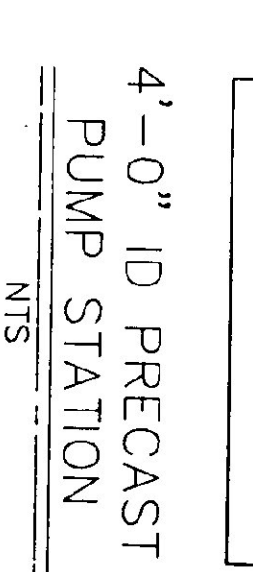
TYPICAL TRENCH FOR SHALLOW LEDGE
NTS



TYPICAL TRENCH DETAIL
NTS



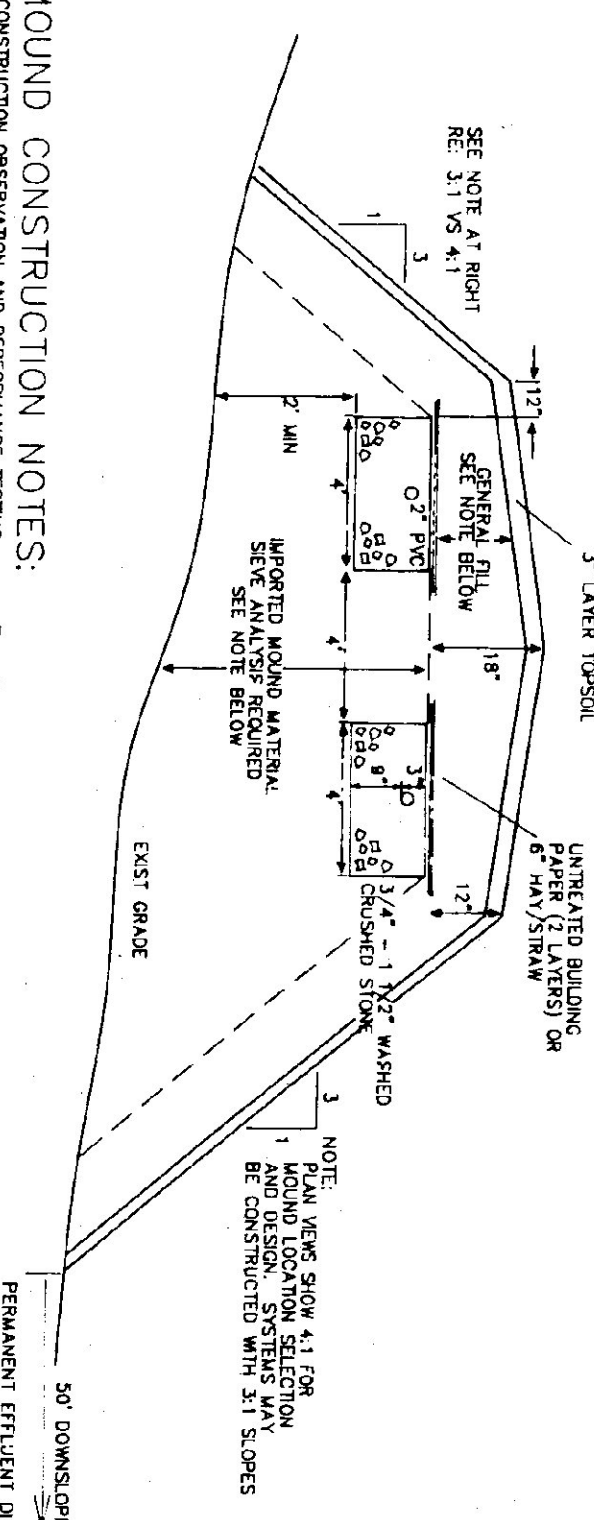
WELL DETAIL
NOT TO SCALE



4'-0" ID PRECAST PUMP STATION
NTS

MOUND CONSTRUCTION NOTES:

1. CONSTRUCTION OBSERVATION AND PERFORMANCE TESTING RULES REQUIRE THE REMOVAL OF NON-ENVIRONMENTAL DIVISIONS IN WRITING AND THE CONSULTANT OBSERVING THE CONSTRUCTION SHALL REVIEW OBSERVATION SCHEDULE TO COMMENCEMENT OF CONSTRUCTION.
2. PRIOR TO ANY CONSTRUCTION ACTIVITY.
3. ALL TRENCHES WITHIN 10' OF THE DISPOSAL AREA AND THE MOUND SHALL BE PROTECTED BY A 2' HIGH FENCE OR FURNISH WITH THE GROUND SURFACE AND ROOTS SHALL NOT BE ALLOWED.
4. THE SOIL MOISTURE CONTROL SHALL BE INSTALLED WHEN THE SOIL MOISTURE CONTROL IS BELOW THE SURFACE CAN CONTENT IS TOO HIGH. A MIN. THE SOIL MOISTURE CONTROL SHALL BE INSTALLED BEFORE.
5. PORTIONS OF THE FORECASTING THAT WILL BE INSTALLED PRIOR TO PLACING FILL, THE GROUND SURFACE SHALL BE FLOORED. CULIVATION SHALL BE PARALLEL TO THE 6" TO 8" DEEP.
6. EQUIPMENT SHALL NOT BE OPERATED ON THE PAVED SURFACE AND/OR ON THE EFFLUENT DISPOSAL AREA (THE DUMP OR DOWNHOLE) OF THE MOUND.
7. AFTER THE 3" OF FILL IS PLACED ON THE FLOORED SURFACE THE AREA SURROUNDING THE MOUND SHALL BE GRADED TO PROVIDE DRAINAGE OF SURFACE RUNOFF AROUND THE MOUND.
8. MOUNDING MATERIAL SHALL BE SAND TEXTURE WITH A SEVE ANALYSIS 30% - 50% PASSING THE NO. 20 SIEVE FOR PROSPECTIVE MATERIAL AND SHALL FIT TO THE NUMBER FOR NUMBER AND STATE APPROVAL BEFORE BRONCO MATERIAL ON SITE ANY SHARP AND OR CORNER THAT THE ENGINEER MAY SHARP AND OR CORNER THAT THE ENGINEER MATERIAL CONTRACTOR TO REMOVE AND REPLACE GENERAL FILL SHALL BE MATERIAL SIMILAR TO NATIVE SOILS.
9. THE OUTER 3" OF THE ENTIRE MOUND SHALL BE TOPSOIL. TOPSOIL SHALL BE PLACED ON THE COMPLETION OF MOUND CONSTRUCTION.
10. PERFORMANCE TESTING OF THE PRESSURE DISTRIBUTION NETWORK IS REQUIRED TO DETERMINE EVEN DISTRIBUTION.
11. TRENCH MANS SHALL BE TESTED IN ACCORDANCE WITH APPENDIX A OF THE ENVIRONMENTAL PROTECTION RULES.



TYPICAL MOUND SECTION
NTS

REVISIONS:
03/15/93
ADD DDC CAP DETAIL
ADD TRENCH W/LENG DETAIL
REVISION BASED ON DESIGN
04/14/93
REVISION BASED ON DESIGN
REVISION PUMP STATION LEVELS
REVISION MOUND CONSTRUCTION NOTES

VERMONT AGENCY OF TRANS.

CLARENDON, VT

Ennon Engineering
Environmental & Civil - Sanitary
Route 78 # P.O. Box 127
North Clarendon, Vermont 05758
(802)775-3437

THE SIGNATURE BELOW INDICATES MY APPROVAL FOR SUBMITTAL TO THE REVIEW AGENCIES FOR THEIR REVIEW AND PERMIT APPROVALS ONLY. CONSTRUCTION SHALL BE PERMITTED ONLY IF PERMITS ARE ISSUED. APPROPRIATE APPROVALS ARE GRANTED, AND BY PROFESSIONAL ENGINEERING STAMP IS AFFIXED ON THIS DOCUMENT.

REGULATORY APPROVAL STAMP
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Approved By: *David E. Smith*
Permit #: 03-1-0387
DATE: Apr 2 15 1993

MISC. DETAILS

SCALE: AS NOTED
DATE: 03/01/93
DESIGN BY: BUE
DRAWN BY: JBT

SHEET NO: P-3
PROJECT NO: 9228

APR 15 1993

Ennon Engineering, Inc.
North Clarendon, VT 05758
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