

SEPTIC DRIP CALCULATION SHEET

Job Name: Viewmont Drive Location: Concord, Lake County, Ohio
Project No: 413/2007

1. 300 GALLONS PER DAY 3. NO. OF BEDROOMS
2. 150 FT. (Length) 10 FT. (Width) AREA FOR DISPOSAL LAYO, 1500, FT²
3. 1500 TOTAL DRAINAGE PROVIDED (Zone 1 + Zone 2)
4. 1500 SEPTIC TANK SIZE (gallons)
5. 1500 DRAINAGE TANK SIZE (gallons)
6. 30 GALLONS PER INCH IN DRAINAGE TANK (Provided From Manufacturer)

7. ZONE ONE
8. 250 TOTAL ABSORPTION AREA (FT²)
9. 500 LINEAR FEET OF DRAIN TUBING (1" Total Tubing for Zone 1)
10. 250 LONGEST LATERAL LENGTH (FT) 40.55 Minimum Dose Volume (Gals/Dose)
11. 4.58 DRAINAGE FLOW RATE (GPM) (Length of tubing 72" (6' 0") (41 Gals/Hr) / (60 Min/Hr)
12. 5 NO RETURN FLOW FIELD FLUSH CONNECTIONS (Waste)
13. 4.58 FIELD FLUSH FLOW RATE (GPM) (1.6 gpm/Connection) x (no. of field flush connections)
14. 9.38 TOTAL FLOW REQUIRED (GPM) (Dosing flow rate + Field flushing flow rate)

15. ZONE TWO
16. 250 TOTAL ABSORPTION AREA (FT²)
17. 500 LINEAR FEET OF DRAIN TUBING (1" Total Tubing for Zone 1)
18. 250 LONGEST LATERAL LENGTH (FT) 40.55 Minimum Dose Volume (Gals/Dose)
19. 4.58 DRAINAGE FLOW RATE (GPM) (Length of tubing 72" (6' 0") (41 Gals/Hr) / (60 Min/Hr)
20. 5 NO RETURN FLOW FIELD FLUSH CONNECTIONS (Waste)
21. 4.58 FIELD FLUSH FLOW RATE (GPM) (1.6 gpm/Connection) x (no. of field flush connections)
22. 9.38 TOTAL FLOW REQUIRED (GPM) (Dosing flow rate + Field flushing flow rate)

23. 10 MAXIMUM DESIGN TOTAL FLUSHING FLOW (GPM)
24. 8 FEET OF HEAD LOSS FROM HYDRAULIC UNIT (TDH) (Based Chart 2A)

25. HYDRAULIC UNIT SUPPLY LINE
26. 1.5" PIPE DIAMETER (Inches) (From pump to Hydraulic Unit)
27. 50 LENGTH SUPPLY PIPE (FT) (From pump to Hydraulic Unit)
28. 5 FEET OF STATIC LIFT (From pump to Hydraulic Unit)
29. 7 TOTAL FEET HEAD LOSS IN LINE (Dynamic Head Loss + 6' 0")

30. FORCE MAIN SUPPLY LINE PIPE SIZE & LENGTH:
31. 1" ZONE 1 SIZE 50' ZONE 1 LENGTH 3' FT. HEAD LOSS
32. 1" ZONE 2 SIZE 50' ZONE 2 LENGTH 3' FT. HEAD LOSS
33. 1" TOTAL HEAD LOSS THROUGH SUPPLY PIPING AT THE SPECIFIC SIZE, DISTANCE AND FLOW, AS LISTED ABOVE

34. RETURN FLUSH LINE SIZE & RETURN:
35. 1" ZONE 1 SIZE 50' ZONE 1 LENGTH 3' FT. HEAD LOSS
36. 1" ZONE 2 SIZE 50' ZONE 2 LENGTH 3' FT. HEAD LOSS
37. 1" TOTAL HEAD LOSS THROUGH RETURN PIPING AT THE SPECIFIC SIZE, DISTANCE AND FLOW, AS LISTED ABOVE

38. STATIC HEAD:
39. 1 FEET OF TOTAL STATIC HEAD LOSS (Vertical Lift) (From the base of the Hydraulic Unit to the highest run of dripper tubing)

40. TOTAL PRESSURE LOSS (Add Items 25, 31, 33/34, 36/37, 39 + Flushing):
41. 96 ZONE 1 HEAD LOSS, INCLUDES 36 FEET FLUSHING (Chart 3A)
42. 96 ZONE 2 HEAD LOSS, INCLUDES 36 FEET FLUSHING (Chart 3A)
43. TOTAL Head Loss Includes Friction from pump to H.U. through H.U. supply piping, return piping, Chart 3A, and Chart 3A

44. PUMP SIZING:
45. 96 MAXIMUM TOTAL PRESSURE LOSS (Highest 41 or 42)
46. 125 DISC FILTER BACKFLUSH PRESS = 115 PSI @ 15 GPM
47. 15 GPM @ 125 FEET 115 VOLTS 1 PHASE 0.5 HP

48. ZONE ONE:
49. 4.58 Dosing GPM 8.95 Min/Dose 40.95 Gallons Per Dose (Minimum F/R Ratio 3.5)
50. 2.5 Ave. Cycles 4.4 Peak Cycles (Run Frequencies)

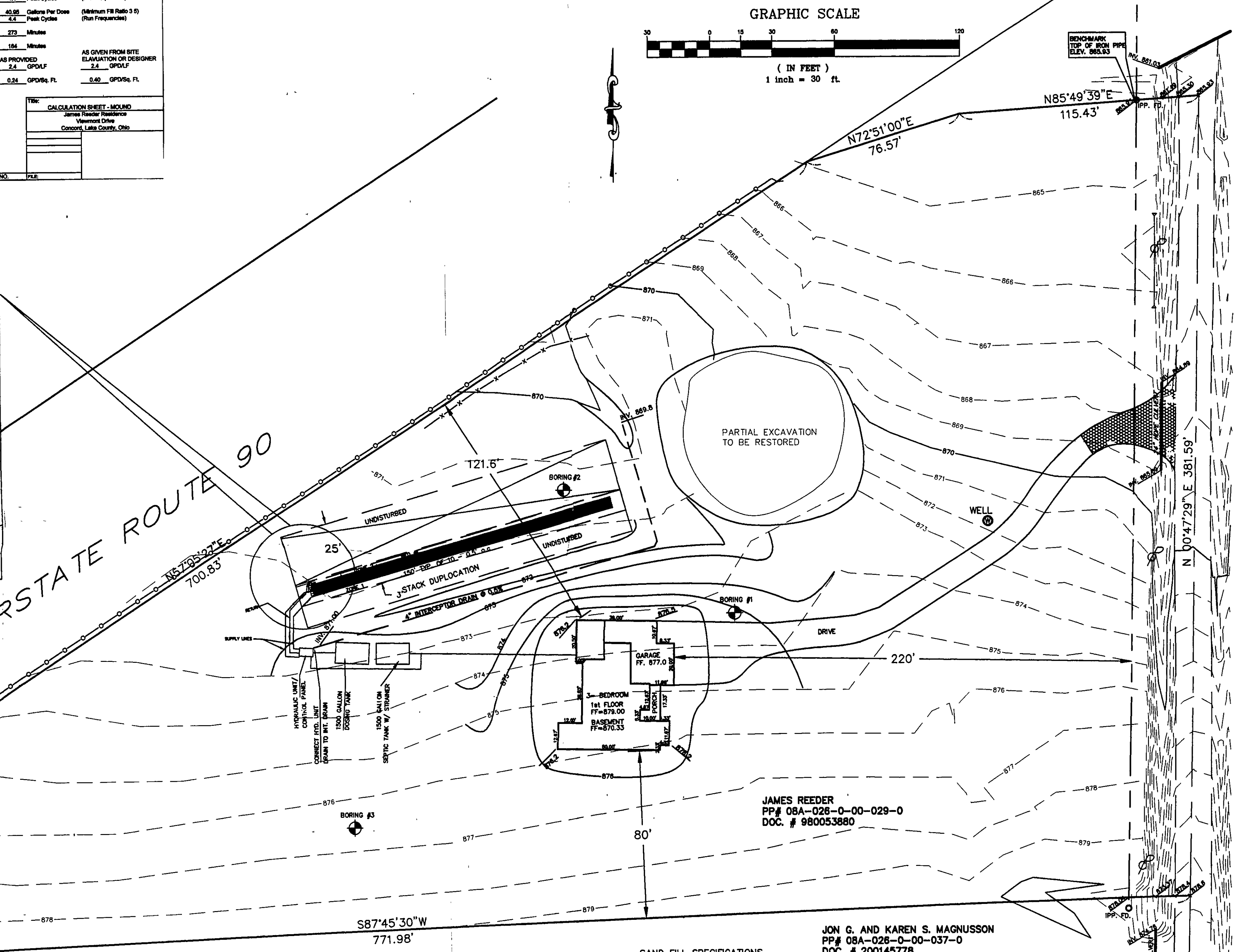
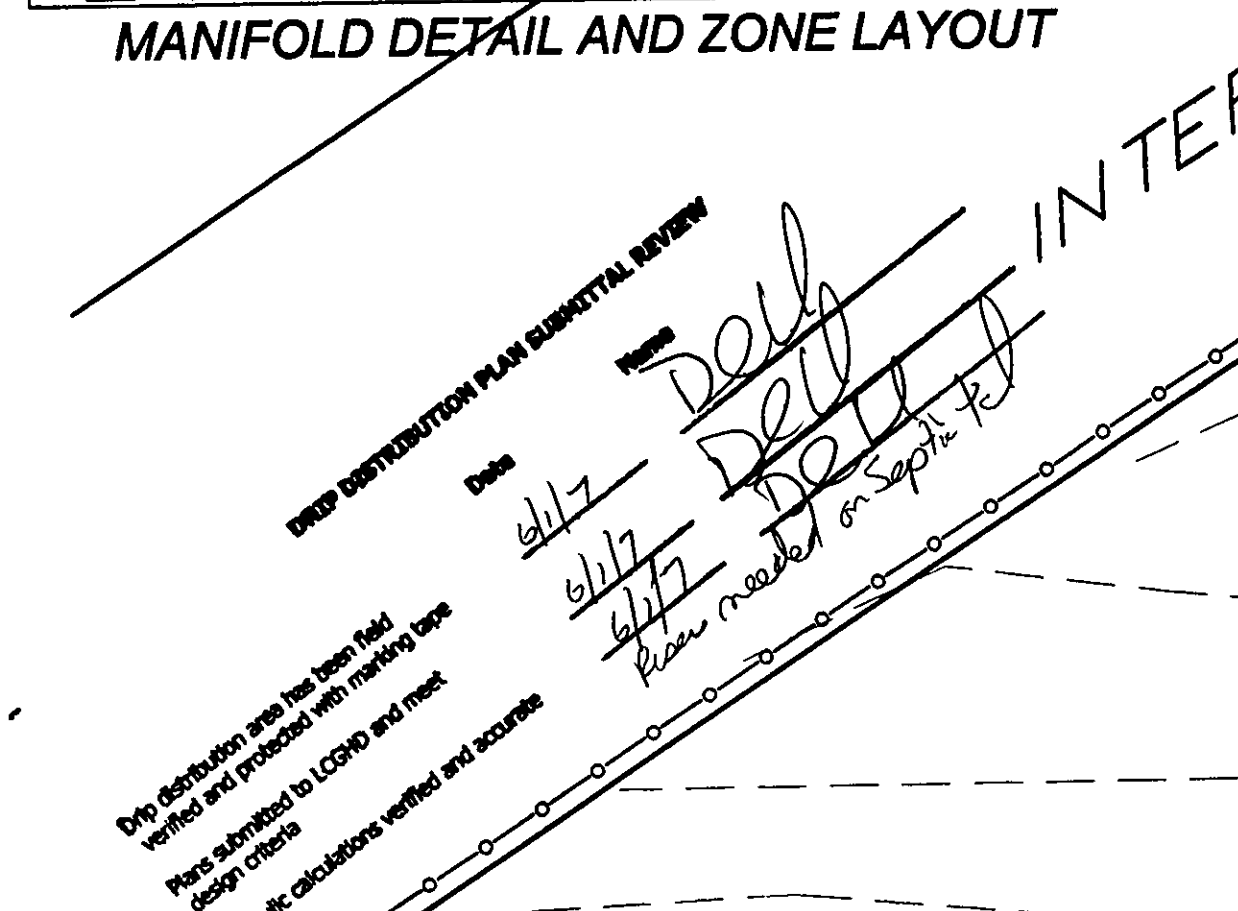
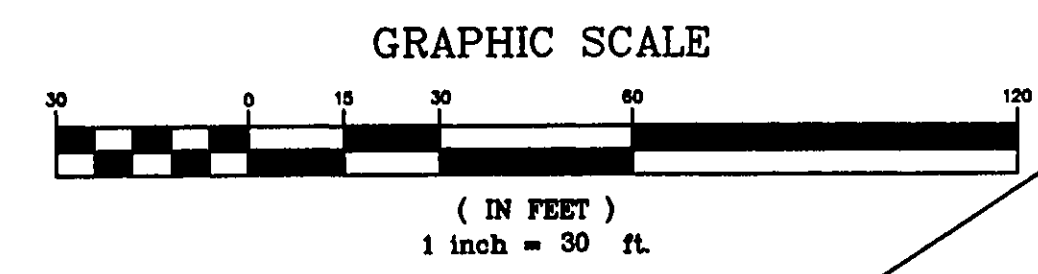
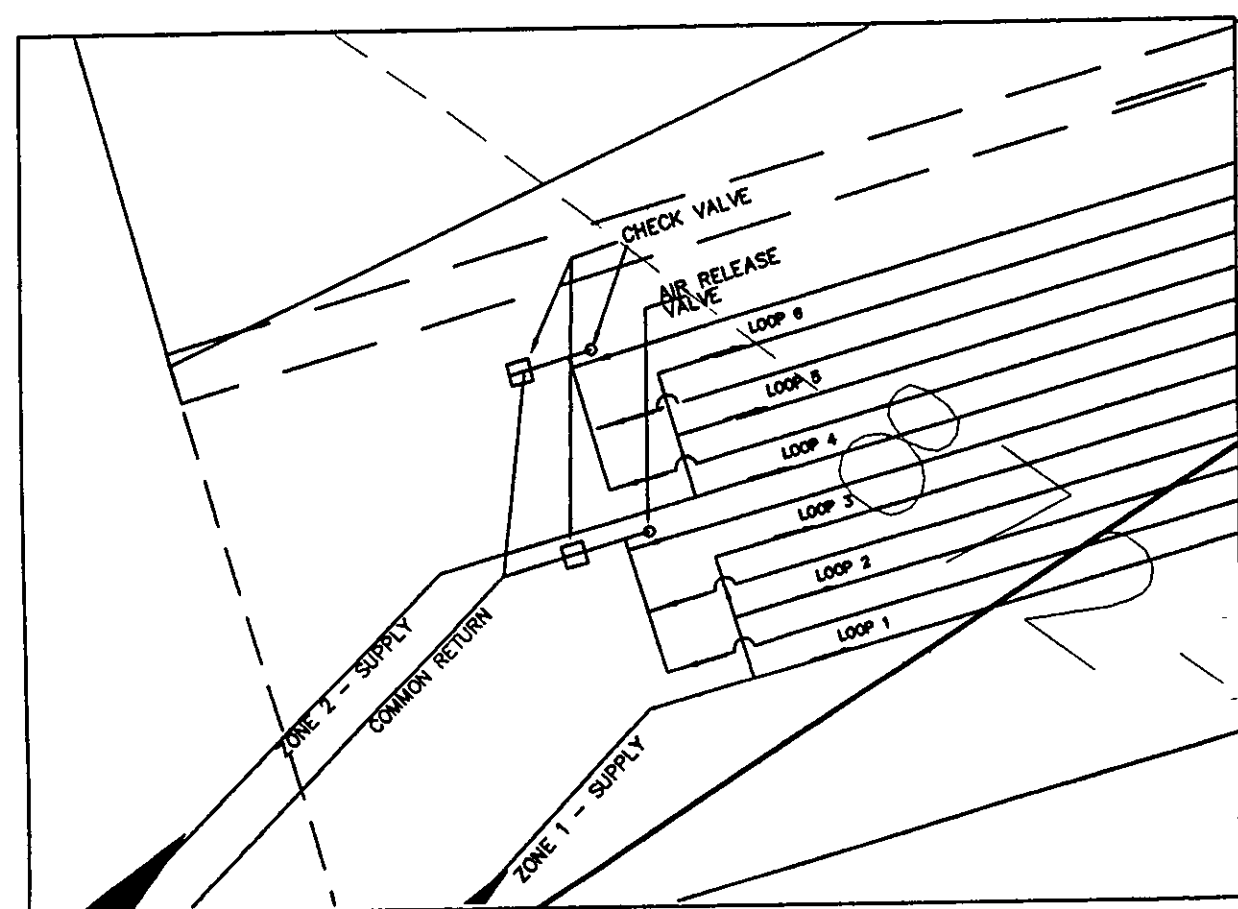
49. ZONE TWO:
51. 4.58 Dosing GPM 8.95 Min/Dose 40.95 Gallons Per Dose (Minimum F/R Ratio 3.5)
52. 2.5 Ave. Cycles 4.4 Peak Cycles (Run Frequencies)

53. AVERAGE DOSING REST TIMES: 273 Minutes
54. PEAK DOSING REST TIMES: 184 Minutes AS GIVEN FROM SITE ELEVATION OR DESIGNER

55. LANDSCAPE LINEAR LOADING RATE: 2.4 GPD/FT 2.4 GPD/FT
56. SOIL LOADING RATE: 0.24 GPD/Sq. Ft. 0.40 GPD/Sq. Ft.

TSR: CALCULATION SHEET - MOUND
James Reeder
Viewmont Drive
Concord, Lake County, Ohio

SHEET NO. FILE



Erosion and Sediment Control Schedule

Ingress-Egress
A stone access drive complete with under lying geo-textile fabric (20 feet wide and 50 feet long) for ingress and egress at the site shall be installed. This drive shall be the only entrance and exit to the site.

Silt Fence
All silt fence shall be installed prior to any earthwork activities at the site in the locations shown on the site plan as well as along the front of any lot that slopes towards the street.

Temporary Seeding
Disturbed areas of the site that are to remain idle for more than Twenty-one (21) days shall be properly seeded and straw mulched within seven (7) days of completion of initial grading. Temporary seeding and mulching of a thirty (30) foot strip of the entire front of the lot shall be maintained on the site once initial grading is complete.

Stabilization of critical areas within fifty (50) feet of any stream or wetland shall be complete within two (2) days of the disturbance if the site is to remain inactive for longer than fourteen (14) days.

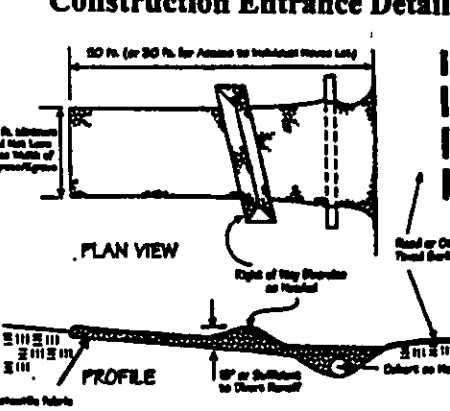
Mulching
Straw-mulch shall be applied at a rate of 1 bale per every ten (10) feet of curb, at a width of thirty (30) feet of the entire length of the lot. Wood chips may also be used but must be spread at a minimum depth of four inches over the thirty-foot width and must be accompanied by a properly installed silt fence.

Maintenance
Erosion and sediment controls shall be inspected every seven (7) days or within 24 hours of a 0.5" or greater rainfall event. Necessary repairs shall be made at this time.

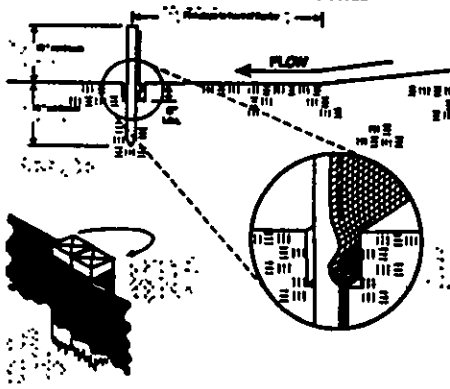
Note:
All erosion and sediment control specifications, applications, and timetables are based on the descriptions and standards of The Ohio Department of Natural Resources "Rainwater and Land Development Manual" and can be found in the Lake County Erosion and Sediment Control Rules as adopted December 21, 1999.

The specified erosion and sediment control standards are general guidelines and shall not limit the right of the county to impose, at any time, additional, more stringent requirements. Nor shall the standards limit the right of the county to

Construction Entrance Detail



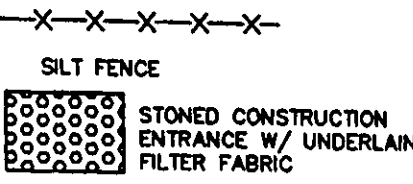
Silt Fence Detail



Temporary Seeding Specifications

Seeding Date	Seeder	Seeds	13.7,000 L ²	Per Ac.
March 1 to August 15	On	100 Pounds	1	1 seeded
	Off	100 Pounds	1	1 seeded
August 16 to November 1	On	100 Pounds	1	1 seeded
	Off	100 Pounds	1	1 seeded
November 1 to Spring Seeding	On	100 Pounds	1	1 seeded
	Off	100 Pounds	1	1 seeded

Lake County Soil & Water Conservation District
125 East Erie Street Phone: (440) 350-2730
Painesville, Ohio 44077 Fax: (440) 350-2730
www.lakecountyohio.org/soil



Hor. Scale	Vert. Scale
27014	27014
SHEET No.	OF
1	2

Stormwater Management Plan
Approved as shown and/or noted
James R. Cillis, P.E.
County Drainage Engineer
By J.S. Date 6-7-07

David Rapp Services

JAMES REEDER
PP# 08A-026-0-00-029-0
VIEWMONT DRIVE, CONCORD

SITE PLAN