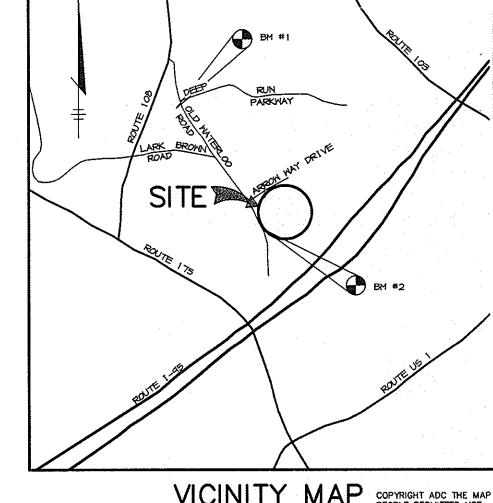
SHEET INDEX DESCRIPTION TITLE SHEET SITE DEVELOPMENT PLAN NOTES AND DETAILS GRADING AND SEDIMENT CONTROL PLAN

SITE DEVELOPMENT PLAN

FIFMENTARY SCHOOL ADDITION / RENOVATION

1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP

SCALE: 1" = 2000'

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PEOPLE PERMITTED USE
NO. 20894285

BENCHMARKS

BM#1 HO. CO. SURVEY CONTROL STATION 37GC ELEV. 331.932

N 555,250.7923 E 1,370,946.362

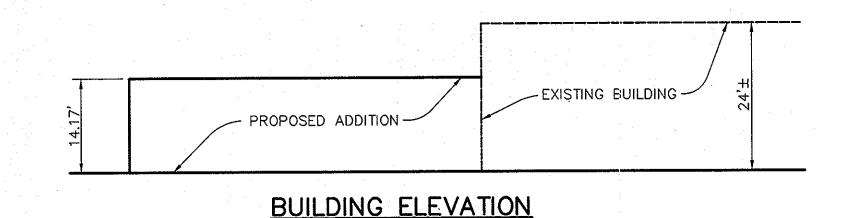
BM#2 HO. CO. SURVEY CONTROL STATION 37HC ELEV. 291.785 N 552,854.2141 E 1,372,639.499

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE & ASSOC. DATED JAN. 1997.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 37GC AND 37HC WERE USED FOR THIS PROJECT.
- 8. WATER IS PUBLIC, CONTRACT NO. 320-W
- SEWER IS PUBLIC, CONTRACT NO. 14-1390-D
- THE STORMWATER MANAGEMENT FACILITY PROPOSED FOR THIS SITE IS A PRIVATELY OWNED AND MAINTAINED INFILTRATION TRENCH DESIGNED TO MANAGE RUNOFF FROM THIS ADDITION AND PREVIOUS SITE PLAN.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE, ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- 12. THERE IS NO 100- YEAR FLOODPLAIN ON SITE.
- 13. THERE IS NO WETLANDS DISTURBANCE ANTICIPATED FOR THIS SITE.
- 14. A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT
- THE GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT IS NOT REQUIRED AS THE PROPOSED
- FACILITY IS AN EXPANSION TO AN ALREADY ESTABLISHED S.W.M. AREA. THE BOUNDARY FOR THIS PROJECT WAS DIGITIZED FROM SDP NO. 81.18.
- SUBJECT PROPERTY ZONED RSA-8 PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S .: SDP-95-105,SDP-89-98.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES,

SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.

- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT O ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILE'S STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO TI80.
- WP-96-105 A WAIVER TO SECTION 16.155 (A)(1) TO ALLOW PLACEMENT OF PORTABLE CLASSROOMS WITHOUT SITE DEVELOPMENT PLAN APPROVAL WAS APPROVED APRIL 22, 1996.



PROPERTY OF SHERWOOD CROSSING PARCEL A ZONED R-A-15 EXISTING FOOTBALL/ New Building, SOCCER Additions EXISTING FOOTBALL SOCCER ACCESS PATH New Play Arco. PHASE I CONSTRUCT ALTERNATI EXISTING SWM EXISTING HACILIT DEEP RUN ELEMENTARY EXISTING SCHOOL FF=292.0 BASKETBAL COURT 761.80 N 85°32'20" W PROPERTY OF HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS N 552500 ZONED R-A-15

> <u>PLAN</u> SCALE: 1"=100'



1. THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT.

(BY OWNER)

OPERATION AND MAINTENANCE SCHEDULE FOR INFILTRATION TRENCHES

- 2. WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL BE RECORDED OVER
- A PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE. 3. A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DEWATERS.
- 4. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN THE 72 HOUR TIME PERIOD. CORRECTIVE ACTION SHALL BE TAKEN.
- 5. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- 6. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

SITE ANALYSIS

AREA OF PARCEL DISTURBED AREA ZONING

11.67± AC. 1.00 AC RSA-8

PROPOSED USE PHASE ! FLOOR SPACE NEW BUILDING

ADDITION

ELEMENTARY SCHOOL ADDITION 8686 S.F.

2720 S.F.

11 General Note: The building permit for the new building addition must be applied for with the Department of Inspections, Licenses and Permits within one (1) year from the approval dote of the redline revision.

ADDRESS CHART							
PARCEL	STREET ADDRESS						
168	6925 OLD WATERLOO ROAD						

DEEP RUN	ELEM. SO	CHOOL	N/	A	168
PLAT # -	BLOCK # -	ZONING -	TAX MAP NO	ELECT. DIST	CENSUS TRACT -
252/546	20	RSA8	37	1	6011.

DEVELOPMENT ENGINEERING DIVISION HIEF, DIVISION OF LAND DEVELOPMENT DATE 12-11-07 1 Added building oddition and play area. REVISION DATE NO. OWNER / DEVELOPER BOARD OF EDUCATION OF HOWARD COUNTY 10910 ROUTE 108 ELLICOTT CITY, MD 21042

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AN

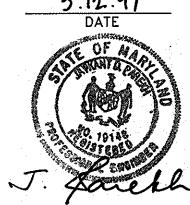
PROJECT DEEP RUN ELEMENTARY SCHOOL ADDITION/RENOVATION

1st ELECTION DISTRICT

P/O PARCEL 168 HOWARD COUNTY, MD TAX MAP 37, BLOCK 20 TITLE SHEET

RIEMER MUEGGE & ASSOCIATES, INC ENGINEERING @ ENVIRONMENTAL SERVICES @ PLANNING @ SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045

tel 410.997.8900 fax 410.997.9282 5.12.97



DESIGNED BY : C.J.R. DRAWN BY: M.A.D. PROJECT NO : 96127 SDP1.DWG DATE: MAY 12, 1997

SCALE : AS SHOWN

DRAWING NO. _ 1 _ OF _ 4 JAYKANT D. PAREKH #19148

2. Width — 10' minimum, should be flared at the existing road to provide a turning

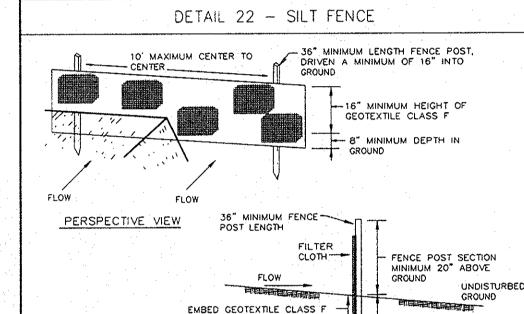
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family

4. Stone — crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving

the site must travel over the entire length of the stabilized construction entrance. MARYLAND DEPARTMENT OF ENVIRONMEN U.S. DEPARTMENT OF AGRICULTURE WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE



A MINIMUM OF 8" VERTICALLY

SECTION A STAPL P JOINING TWO ADJACENT SILT FENCE SECTIONS

for Geotextile Class F:

Construction Specifications 1. Fence posts shall be a minimum of 36" long driven 16" minimum into the

ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot. 2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements

50 lbs/in (min.) Test: MSMT 509 Tensile Strength 20 lbs/in (min.) Test: MSMT 509 Tensile Modulus 0.3 gal ft 1/ minute (max.) Test: MSMT 322 Flow Rate Test: MSMT 322 Filtering Efficiency 75% (min.) 3. Where ends of geotextile fabric come together, they shall be overlapped,

olded and stapled to prevent sediment bypass. 4. Silt Fence shall be inspected after each rainfall event and maintained when buiges occur or when sediment accumulation reached 50% of the fabric height. MARYLAND DEPARTMENT OF ENVIRONMENT

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture

content, low nutrient levels, low pH, materials taxic to plants, and/or unacceptable soil gradation

Conditions Where Practice Applies

c. The texture of the exposed subsoli/porent material is not adequate to produce vegetative growth. b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients. c. The original soil to be vegetated contains material taxic to plant growth.
 d. The soil is so acidic that treatment with ilmestone is not feasible.

1). For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Topsoll salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA—SCS in cooperation with Maryland Agricultural Experimentation Station.

i. Topsol shall be a loam, sandy loam, clay loam, slit loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other moterials larger than 1?" in diameter

ii. Toosed must be free of plants or plant parts such as bermuda grass, quackgross, Johnsongrass,

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vagatative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and ilms amendments required to bring the soil into compliance with the following: o. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less

b. Organic content of topsoil shall be not less than 1.5 percent by weight. c. Topsoil having soluble sait content greater than 500 parts per million shall not be used.

than 6.0, sufficient ime shall be prescribed to raise the pH to 6.5 or higher

d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

Note: Topical substitutes to amendments, as recommended by a qualified agronomist or so scientist and approved by the appropriate approval authority may be used in lieu of natural topsoil.

ii. Piace topsoil (if required) and apply soil amendments as specified in 20.0 Vecetative

- FENCE POST DRIVEN A

STANDARD SYMBOL

WATER MANAGEMENT ADMINISTRATION

MINIMUM OF 16" INTO

When topsolling, maintain needed erosion and sediment control practices such as diversions,

58. Topsall shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sadding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres shall conform to the following requirements:

a. Composted studge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under CCMAR 26.04.06.

the appropriate constituents must be added to meet the requirements prior to use. c. Composted studge shall be applied at a rate of 1 ton/1,000 square feet. d. Composted studge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 re feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

<u>Seedbed Preparation: Loosen upper three inches of soil by raking.</u> discing or other acceptable means before seeding, if not previously

 $\underline{\mathsf{Soil}}$ Amendments : In lieu of soil test recommendations, use one of the following schedules :

lbs. per 1000 sq.ft.) before seeding. Horrow or disc into upper three inches of soil. At time of seeding, opply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.). 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 ibs per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23

lbs. per 1000 sq.ft.) before seeding. Horrow or disc into

Sceding: For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Toll Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Toll Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following

1) 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.

with 2 tons per acre well anchored straw. Mulching: Apply 1-1/2 to 2 tons par acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool

Maintenance: Inspect all seeded areas and make needed repairs.

SEDIMENT CONTROL NOTES

. A minimum of 48 hours notice must be given to the Howard County Department of Inspections and Permits prior to the start of any

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the MARYLAND STANDARDS AND SPECIFICATIONS

other disturbed or graded areas on the project site.

FOR SOIL AND EROSION CONTROL, and revisions thereto. 3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to

4. All sediment trops/basins shown must be fenced and warning signs posted around the perimeter in accordance with Vol. 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL Storm Droingge

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL for permonent seedings. (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control

11.67 gcres

1.00 acres

0.20 acres

0.80 acres

200 cu.yds

7. Site Analysis

Total Area of Site Area Disturbed Area to be roofed or poved Area to be vegetatively stabilized Total Fill

Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same

9. Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.

10. Site grading will begin only ofter all perimeter sediment control measures have been installed and are in a functioning condition 11. Sediment will be removed from traps when its depth reaches clean out elevation shown on the pions.

12. Cut and fill augntities provided under site analysis do not represent bid quantities. These quantities do not distinguish between topsoil, structural fill or embankment material, nor do they reflect consideration of undercutting or removal of unsuitable material. The contractor shall femiliarize himself with site conditions which may affect the work.

13. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this nitial approval by the inspection agency is made.

14. Trenches for the construction of utilities is limited to three pipe lengths or that which can be backfilled and stabilized within one working day, whichever is shorter.

SEQUENCE OF CONSTRUCTION

PHASE 1 1. OBTAIN A GRADING PERMIT AND BUILDING PERMIT.

2. BEGIN IMPROVEMENT WITHIN EXISTING SCHOOL NEEDED TO PREVENT ANY DELAY IN SCHOOL ACTIVITIES.

3. INSTALL STABILIZED CONSTRUCTION ENTRANCES AND SILT FENCE. (2 DAYS)

4. ROUGH GRADE FOR BUILDING CONSTRUCTION AND INSTALL STORM DRAIN AND SEWER LINES (5 DAYS)

5. EXPAND INFILTRATION TRENCH PER DETAIL AND PLAN. (1 WEEK)

6. COMPLETE BUILDING CONSTRUCTION, REFURBISH PLAY AREAS AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (3 MONTHS)

PHASE 2

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES AND SILT FENCE AND CONSTRUCTION FENCE. (2 DAYS)

2. REMOVE PORTABLE CLASSROOMS AND ROUGH GRADE FOR BUILDING

4. BEGIN BUILDING CONSTRUCTION.

- 285 . 00

15" ADS N-12

o 0 50%

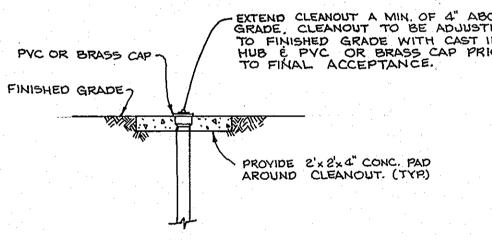
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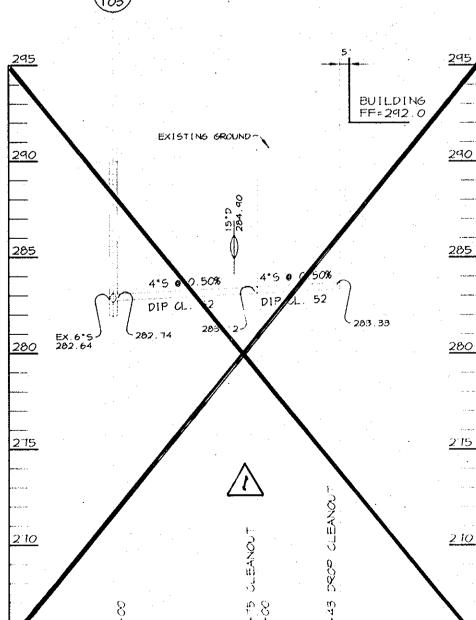
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5. COMPLETE BUILDING CONSTRUCTION AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (3 MONTHS)

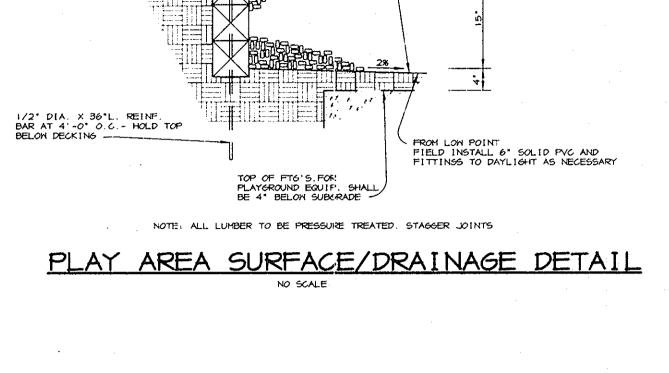
(M-2)

6. UPON APPROVAL OF HOWARD COUNTY D.I.L.P. SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (1 DAY)





PROFILE SCALE HOR. -1" -50" VERT . ~ 1"=5"



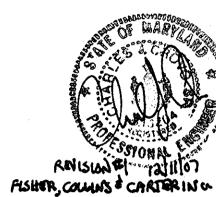
-3-6"X6"X8"-0" PRESSURE TREATED TIMBERS

COMPACTED WOOD CARPET SYSTEM

SLOPE SUBGRADE OF WOOD CARPET SYSTEM FROM 15' DEPTH AT PERIMETER

TO PVC AREA DRAIN AT LOW POIN

INSTALLED FLUSH WITH ADJACENT GRADE-ROUND ALL CORNERS AT TOP TIMBER



INFILTRATION TRENCH CONSTRUCTION SPECIFICATIONS

3.3.6.1. Timing

An infiltration trench shall not be constructed or placed in service until all of the contributing drainage area has been stabilized and approved by the responsible inspector.

3.3.6.2. Trench Preparation

Excavate the trench to the design dimensions. Excavated materials shall be placed away from the trench sides to enhance trench wall stability. Large tree roots must be trimmed flush with the trench sides in order to prevent fabric puncturing or tearing during subsequent installation procedures. The side walls of the trench shall be roughened where sheared and sealed by heavy

3.3.6.3. Fabric Laydown

The filter fabric roll must be cut to the proper width prior to installation. The cut width must include sufficient material to conform to trench perimeter irregularities and for a 6-inch minimum top overlap. Place the fabric roll over the trench and unroll a sufficient length to allow placement of the fabric down into the trench. Stones or other anchoring objects should be placed on the fabric at the edge of the trench to keep the lined trench open during windy periods. When overlaps are required between rolls, the upstream roll should lap a minimum of 2 feet over the downstream roll in order to provide a shingled effect. The overlap ensures fabric continuity or to ensure that the fabric conforms to the excavation surface during aggregate placement and compaction.

3.3.6.4. Stone Aggregate Placement and Compaction

The stone aggregate should be placed in lifts and compacted using plate compactors. As a rule of thumb, a maximum loose lift thickness of 12 inches is recommended. The compaction process ensures fabric conformity to the excavation sides, thereby reducing the potential for soil piping, fabric clogging, and settlement problems.

3.3.6.5. Overlapping and Covering

Following the stone aggregate placement, the filter fabric shall be folded over the stone aggregate to form a 6" minimum longitudinal lap. The desired fill soil or stone aggregate shall be placed over the lap at sufficient intervals to maintain the lap during subsequent backfilling.

3.3.6.6. Contamination

Care shall be exercised to prevent natural or fill soils from intermixing with the stone aggregate. All contaminated stone aggregate shall be removed and replaced with uncontaminated stone aggregate.

3.3.6.7. Voids Behind Fabric

Voids can be created between the fabric and excavation sides and shall be avoided. Removing boulders or other obstacles from the trench walls is one source of such voids. Natural soils should be placed in these voids at the most convenient time during construction to ensure fabric conformity to the excavation sides. Soil piping, fabric clogging, and possible surface subsidence will be avoided by this remedial process.

3.3.6.8. Unstable Excavation Sides

Vertically excavated walls may be difficult to maintain in areas where the soil moisture is high or where soft cohesive or cohesionless soils predominate. These conditions may require laying back of the side slopes to maintain stability; trapezoidal rather than rectangular cross sections may

A vegetative buffer of at least 20 feet (wider, if possible) shall be used to intercept surface runoff from all impervious areas.

3.3.6.9. Vegetative Buffer

3.3.6.10. Traffic Control Heavy equipment and traffic shall be restricted from travelling over the

infiltration areas to minimize compaction of the soil. 3.3.6.11. Observation Well

An observation well, as described in subsection 3.3.4.8 and Figure 3-5 shall be provided. The depth of the well at the time of installation will be clearly marked on the well cap.

3.3.7. Maintenance

Infiltration trenches shall be designed to minimize maintenance. However, it is recognized that all infiltration facilities are subject to clogging by sediment, oil, grease, grit and other debris. In addition, the performance and longevity of these structures is not well documented. Consequently, a monitoring observation well is required for all infiltration

The observation well shall be monitored periodically. For the first year after completion of construction, the well should be monitored on a quarterly basis and after every large storm. It is recommended that a log book be maintained indicating the rate at which the facility dewaters after large storms and the depth of the well for each observation. Once the performance characteristics of the structure have been verified, the monitoring schedule can be reduced to an annual basis, unless the performance data indicate that a more frequent schedule is required.

Sediment build-up in the top foot of stone aggregates or the surface inlet should be monitored on the same schedule as the observation well. A monitoring well in the top foot of stone aggregate will be required when the trench has a stone surface. Sediment deposited shall not be allowed to build up to the point where it will reduce the rate of infiltration into the trench.

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE ENGINEER

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

5/12/97

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DEVELOPMENT ENGINEERING DIVISION DATE

12.11.07 1 Removed Sewer profile

BOARD OF EDUCATION OF HOWARD COUNTY

10910 ROUTE 108

ELLICOTT CITY, MD 2:042 PROJECT

ADDITION/RENOVATION

RIEMER MUEGGE & ASSOCIATES, INC ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045



DESIGNED BY: C.J.R. DRAWN BY: DAM PROJECT NO: 96127 SDP3.DWG

SCALE: AS SHOWN DRAWING NO. 3 OF 4

I. This practice is limited to areas having 2:1 or flatter slopes where:

Construction and Material Specifications

. Topsoil Specifications — Soil to be used as topsoil must meet the following:

nutsedge, poison ivy, thistie, or others as specified. iii. Where subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4—8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated acress and wacked into the soil in conjunction with tillage operations as described in the following procedures.

For sites having disturbed areas under 5 acres:

Iti. For sites having disturbed great over 5 acres:

Grade Stabilization Structures, Earth Dikes, Slope Slit Fence and Sediment Traps and Basins. ii. Grades on the areas to be topsoiled, which have been previously established, shall be mointained, albeit 4" - 8" higher in elevation.

VI. Alternative for Permanent Seeding — instead of applying the full amounts of lime and commercial

b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements,

Soil Amendments: Apply 600 lbs. per gcre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).

possible in the spring, or use sod.

PERMANENT SEEDING NOTES Apply to graded or cleared areas not subject to immediate further disturbance where a permonent long-lived vegetative cover is needed

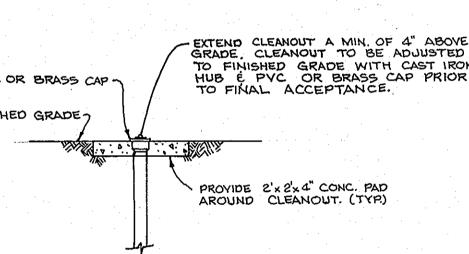
1) Preferred - Apply 2 tons per acre dolomitic filmestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14

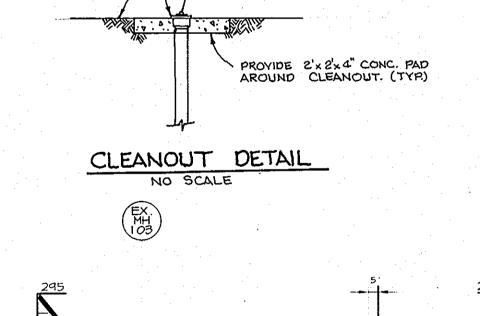
upper three inches of soil.

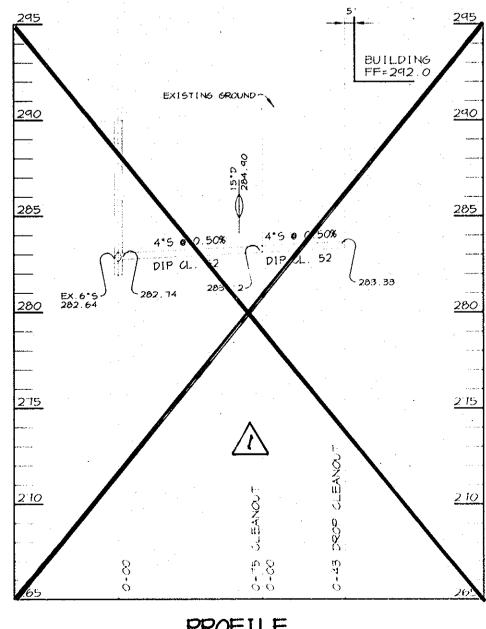
3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch

or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified aspholt on flot areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.









M-1.

-EXISTING GROUN

EX. 15*RCP~

PROFILE SCALE : HOR. -1" =50" VERT. -1"=5"

15" ADS N-12

o 3.34%

Q =10.96cfs

V = 8.93fps

DATE NO.

AREA

TITLE

JAYKANT:

HIEF, DIVISION OF LAND DEVELOPMENT

REVISION OWNER/DEVELOPER

DEEP RUN ELEMENTARY SCHOOL

HOWARD COUNTY, MD TAX MAP 37, BLOCK 20

NOTES AND DETAILS

1st ELECTION DISTRICT

P/O PARCEL 168

tel 410.997.8900 fax 410.997.9282

DATE: MAY 12, 1997

6" COURSE SAND ALONG TRENCH BOTTOM

6' MDE

UNLESS OTHERWISE NOTED

PROVIDE LATITUDINAL EXPANSION JOINTS AT 15' O.C. (MAX. PROVIDE CONTRACTION (DUMMY) JOINT AT 5' O.C. INTERVAL:
BETWEEN EXPANSION JOINTS. SIDEWALK TO BE SCRIBED IN
5' MAX. SQUARES.

SIDEWALK DETAIL

Which shake which which was harden as

S.H.A. MIX NO. 2 CONCRETE, STIFF BROOM FINISH. REMO EDGEING TOOL MARKS IN FINISHING.

-50'x7.5'x6.0'DEEP

AGGREGATE

CLEAN #2

STONE

COMPACTED SUBGRADE

INFILTRATION TRENCH DETAIL

TO FINISHED GRADE WITH CAST IRON HUB & PVC OR BRASS CAP PRIOR TO FINAL ACCEPTANCE.

GRASS OR PAVED PLAY AREA

