20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

TEMPORARY COVER

MULCHING ONLY MAY BE USED ON DISTURBED AREAS AS COVER WHERE VEGETATION IS NOT FEASIBLE OR WHERE SEEDING CANNOT BE COMPLETED BECAUSE OF WEATHER CONDITIONS (SEE SECTION III ON MULCHINGz)

VEGETATION - ANNUAL GRASS OF GRAIN USED TO PROVIDE COVER ON DISTURBED AREAS WHEN THE PERIOD IS MORE THAN TWO (2) MONTHS BUT LESS THAN TWELVE (12) MONTHS.

1. SITE PREPARATION:
   a. INSTALL NEEDED EROSION AND SEDIMENT CONTROL STRUCTURES (EITHER TEMPORARY OR PERMANENT) SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, WATERWAYS OR SEDIMENT CONTROL BASINS.
   b. PERFORM ALL GRADING OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
   c. FINAL GRADING AND SHAPING IS NOT USUALLY NECESSARY FOR TEMPORARY SEEDINGS.

2. SOIL AMENDMENTS:
   a. SOIL TESTS SHALL BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR BOTH LIME AND FERTILIZER. SOIL ANALYSIS MAY BE CONDUCTED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
   b. FERTILIZER APPLICATION RATES SHALL BE BASED ON SOIL TESTS.
   c. GROUND AGRICULTURAL LIMESTONE SHALL BE APPLIED ACCORDING TO SOIL TEST RECOMMENDATIONS. THE OPTIMUM pH RANGE FOR PLANT GROWTH IS 6.0-7.0. IN SITUATIONS WHERE THERE IS INSUFFICIENT TIME FOR A SOIL TEST, APPLY A MINIMUM RATE OF 100 lbs./1000 sq. ft. (2 tons/ac.) OF LIMESTONE.
   d. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

3. SEEDBED PREPARATION:
   SEEDBED PREPARATION IN ROUGH AREAS SHALL CONSIST OF LOOSENING SOIL TO A DEPTH OF 3" TO 5" BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT. A FEW EXAMPLES OF THIS EQUIPMENT ARE DISK BARROWS, CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED IT SHOULD NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPED AREAS (GREATER THAN 3:1) SHOULD BE TRACKED BY A DOZER LEAVING THE SURFACE IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. THIS WILL AVOID DESTROYING THE MICROENVIRONMENT CREATED BY THE TILLAGE EQUIPMENT.

4. SEEDING MIXTURES:
   SELECT ONE OF THE SPECIES OR MIXTURES LISTED IN TABLE 23. GRASS SEED SHALL BE COVERED WITH NO MORE THAN 1/4 INCH OF SOIL BY USE OF A CULTIPACKER OR OTHER SUITABLE EQUIPMENT, IF POSSIBLE. COVER SMALL GRAIN SEED WITH 1/2 INCH OF SOIL.

5. MULCHING:
   WHEN SEEDING IS DONE ON DISTURBED AREAS, MULCH MATERIAL WILL BE APPLIED IMMEDIATELY AFTER SEEDING. MULCHING ALONE WILL BE REQUIRED WHEN SEEDING IS IMPRACTICAL, FOR EXAMPLE, DURING WINTER WHEN THE GROUND IS FROZEN. FOLLOW MULCHING RECOMMENDATION IN SECTION III.

SEED SPECIFICATIONS:

THE MINIMUM REQUIREMENTS FOR GRASS AND LEGUME SEED USED IN THE VEGETATIVE WORK ARE AS FOLLOWS:
1. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW.
2. ALL SEED SHALL BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY.
3. ALL SEED USED SHALL HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THIS JOB.
4. INOCULANT - THE INOCULANT FOR TESTING LEGUME SEED IN THE SEED MIXTURES SHALL BE A PURE CULTURE OF NITROGEN-FIXING BACTERIA PREPARED SPECIFICALLY FORE THE SPECIES. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANT AS DIRECTED ON PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75-80 DEGREES FAHRENHEIT WEAKEN BACTERIA AND MAKE INOCULANT LESS EFFECTIVE.

EARTHWORK NOTES

1. ALL GRADING AND EXCAVATING SHALL BE CONDUCTED IN ACCORDANCE WITH THE CONTRACT SPECIFICATION.

2. VOLUMETRIC DISTRIBUTIONS SHOWN HEREON ARE SUBJECT TO GEOTECHNICAL OBSERVATION, TESTING AND CONFIRMATION TO BE PERFORMED BY THE CONTRACTORS TESTING AGENCY DURING CONSTRUCTION.

TEMPORARY SEEDING SUMMARY

SEED MIXTURE (HARDINESS ZONE 7a) FROM TABLE 26					FERTILIZER RATE (10-10-10)	LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS		
1	BARLEY OR RYE PLUS FOXTAIL MILLET	150	2/1-10/15 2/1-11/30		600 lb/AC (15 lb/1000 sf)	2 tons/ac (100 lb/1000 sf)
2	ANNUAL RYEGRASS	50	2/1-4/30 8/15-11/1			
3	WEEPING LOVEGRASS	4	5/1-8/14			

VEGETATION-ANNUAL GRASS OR GRAIN USED TO PROVIDE COVER ON DISTURBED AREAS FOR UP TO TWELVE MONTHS FOR LONGER DURATION OF VEGETATIVE COVER, PERMANENT SEEDING IS REQUIRED.

26. SITE INFORMATION:

TOTAL AREA OF SITE	0.47	ACRES
AREA DISTURBED	0.53	ACRES
AREA TO BE ROOFED OR PAVED	0.53	ACRES
TOTAL CUT	850	CUBIC YARDS
REUSABLE CUT	0.00	CUBIC YARDS
WASTE CUT	850	CUBIC YARDS
TOTAL FILL	1,750	CUBIC YARDS
OFF-SITE WASTE/BORROW ARE LOCATION	TBD	CUBIC YARDS

GENERAL NOTES (FOR EROSION AND SEDIMENT CONTROL PLANS ONLY)

1. REFER TO "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN.
2. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MINOR FIELD ADJUSTMENTS CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT. CHANGES IN SEDIMENT CONTROL PRACTICES REQUIRE PRIOR APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE CITY DPW ENVIRONMENTAL ENGINEERING SECTION.
3. AT THE END OF EACH WORKING DAY, ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT IN OPERATIONAL CONDITION.
4. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A.) SEVEN CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1), AND B.) FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE WHICH WILL REMAIN IDLE OVER FOURTEEN DAYS.
5. ANY CHANGE TO THE GRADING PROPOSED ON THIS PLAN REQUIRES RE-SUBMISSION TO THE BALTIMORE CITY DPW ENVIRONMENTAL ENGINEERING SECTION.
6. DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. REFER TO "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PG. H-30-1, FOR ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL.
7. ANY VARIATIONS FROM THE SEQUENCE OF OPERATIONS STATED ON THIS PLAN REQUIRES THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE CITY DPW ENVIRONMENTAL ENGINEERING SECTION PRIOR TO THE INITIATION OF THE CHANGE.
8. EXCESS CUT OR BORROW MATERIAL SHALL GO TO, OR COME FROM, RESPECTIVELY, A SITE WITH AN OPEN GRADING PERMIT.

INLET PROTECTION NOTE

THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:

*1) ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.
2) INLETS ON PRIVATE OR PUBLIC PAVED ROADWAYS OPEN TO THE PUBLIC.
ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PAGE E-16-5A OR E-16-5B. THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.

*STORM DRAINS TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

UTILITY CONSTRUCTION NOTE

A) CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
B) PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
C) ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

OWNER'S / DEVELOPER'S CERTIFICATION

I / WE DO HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED PLAN AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT AN APPROVED MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) SEDIMENT AND EROSION CONTROL TRAINING PROGRAM PRIOR TO THE BEGINNING OF WORK.

PRINT NAME	SIGNATURE DATE
ADDRESS	TELEPHONE NUMBER

ENGINEER'S CERTIFICATION

I DO HEREBY CERTIFY THAT THIS PLAN FOR EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED UPON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BALTIMORE CITY ENVIRONMENTAL ENGINEERING SECTION.

JUDITH A. CARROLL, PE PRINT NAME	SIGNATURE DATE
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HEALTH CARE FOR THE HOMELESS, INC.
NEW CLINIC & HEADQUARTERS BUILDING
421 FALLSWAY
BALTIMORE, MD 21202

Milestone Description	Date
-	-
90% CONSTRUCTION DRAWINGS	07/25/08
PERMIT SET	07/08/08
DESIGN DEVELOPMENT	04/18/08
SCHEMATIC DESIGN	01/11/08

Mark	Revision Description	Date

KA Project Number:	06-026
SM	CG
PM	VT
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