

S.H.C. INVERTS A	T PROPERTY LINE	MIN. C ELEVATION
LOT NUMBER	ELEVATION	ELEVATION
89	455.23	460.0
90	456.11	460.9
91	456.59	460.2
92	458.11	462.7
93	459.56	464.3
94	461.63	466.2
95	464.74	469.5
96	466.69	471.4
97	457.93	462.5
98	460.41	465.2
99	465.13	469.7
100	463.37	468.3

NOTE: CONTRACTOR TO CHECK SEWER HOUSE CONNECTIONS ELEVATIONS AT PROPERTY LINE PRIOR TO CONSTRUCTION. NOTE: C DENOTES CELLAR

NOTE: TYPICAL S.H.C. SIZE IS 4". TYPICAL W.H.C. SIZE IS 3/4". LOTS 4, 5, 13-15, 19, 30, 31, 36, 43-48 AND 51-54 W.H.C. SIZE IS 1". TYPICAL TWIN W.H.C. SIZE IS 1 1/2".

ADDRESS CHART		
LOT NUMBER	STREET ADDRESS	
89	3045 KATHERINE PLACE	
90	3049 KATHERINE PLACE	
91	3053 KATHERINE PLACE	
92	3057 KATHERINE PLACE	
93	3061 KATHERINE PLACE	
94	3065 KATHERINE PLACE	
95	3069 KATHERINE PLACE	
96	3073 KATHERINE PLACE	
97	3058 KATHERINE PLACE	
98	3062 KATHERINE PLACE	
99	3066 KATHERINE PLACE	
100	3070 KATHERINE PLACE	

SYMBOL DESCRIPTION

> FINISHED BASEMENT ELEVATION PROPOSED GROUND ELEVATION AT WALKOUT CONDITION

GROUND SPOT ELEVATION

NUMBER OF RISERS - 7 1/2" EACH (INCLUDING 2 RISERS INTO HOUSE)

. . . . LIMIT OF DISTURBANCE

EXISTING GROUND CONTOUR

STOP SIGN

STREET TREES

STREET LIGHT

APPROVED PLANNING BOARD

OF HOWARD COUNTY

DATE 12/18/97

OWNER / DEVELOPER

0

R S

2

24.5 24 PAV. PAV.

TERRA MARIA L.L.C. BY DAVID DEMANBO, PRESIDENT SYNERGY DEVELOPMENT VENTURE II, INC. IT'S MANAGING MEMBER 231 EAST BALTIMORE STREET 10 TH FLOOR BALTIMORE, MARYLAND 21202-3415

PLANT TYPE LIST :

"Q = QUERCUS RUBRUA (RED OAK)

A = ACER SACCHARUM (GREEN MOUNTAIN SUGAR MAPLE)

FF 483.14 ,

BSMT-474:00

FF 481.04

BSMT 472.50

726 sq. ft. +/- 5,732 sq. ft. + 5,744 sq. ft. +/- 5,744 sq. ft. +/- 60.00' B.R.L. 60.00' 60.00'

F = FRAXINUS AMERICANA (AUTUMN PURPLE ASH)

5 = PINUS STROBUS (WHITE PINE)

FF 484.14

9SMT 475.∞

SEE PLAN F-35-39 FOR LANDSCAPING REQUIREMENTS (SHEET 28 OF 30).

> PLAN SCALE: 1"=30'

PROPERTY OF JOHN D. COOK & VIRGINIA COOK LIBER No. 1016, FOILO 204

FF 479.64

BSMT 470.50

FF 477.64

BSMT 468.50

SEE SHEET 10F 3 FOR CONTINUATION

NOTE: THIS PROJECT IS SUBJECT TO ZONING CASE No. 28 925M

AND PLANNING BOARD CASE No. 201.

BSMT 465.00

FORMAL OPEN SPACE

11,273 sq. ft. +/-

BSMT Acec oci

ACCESS ESMT SE ACCESS ESMT SE ESMT SE

NOTE: USE IN COMMON ACCESS EASEMENTS ARE RECORDED IN THE HOWARD COUNTY LAND RECORDS LIBER 411 FOLIO 629.

JOI, HO7

F 473.64

BSMT 464.50

BENCH MARKS

VICINITY MAP SCALE: 1"=1000'

REBAR AND CAP SET FLUSH WITH GROUND CENTERLINE STATION 0+64 MD. ROUTE 144 75' LEFT OF CENTERLINE. ELEV. =

REBAR AND CAP SET FLUSH WITH GROUND CENTERLINE STATION 17+67 MD. ROUTE 144 422' LEFT OF CENTERLINE. ELEV. =



MORRIS & RITCHIE ASSOC., INC.

ENGINEERS, PLANNERS, SURVEYORS, AND LANDSCAPE ARCHITECTS 139 N. Main Street, Suite 200 Bel Air, Maryland 21014 (410) 879-1690 - (410) 836-7560

Fax: (410) 879-1820



ENGINEER'S CERTIFICATE "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 REPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

OF ENGINEER (PRINT NAME BELOW SIGNATURE) DEVELOPER'S CERTIFICATE

Charles O'Dorovan
SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE)

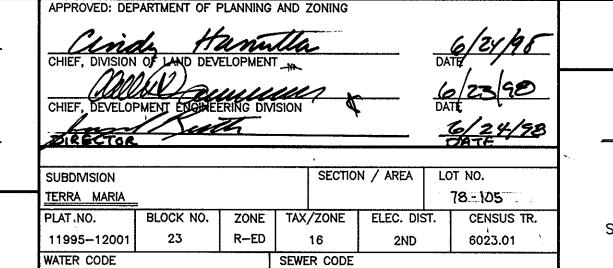
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE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

BUILDER THE RYLAND GROUP, INC GALLERIA TOWERS 1447 YORK ROAD, SUITE 705

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

CHARL STATE OF THE DEVELOPMENT PLAN IS APPROPRIED FOR SOIL EROSION AND SEDIMENT CONTROL BY

LUTHERVILLE, MARYLAND 21093



5992000

PUBLIC OPEN SPACE

TOTAL AREA = 8.546 Ac. +/-

AND UTILITY EASEMENT

EXIST. TREE LILLE

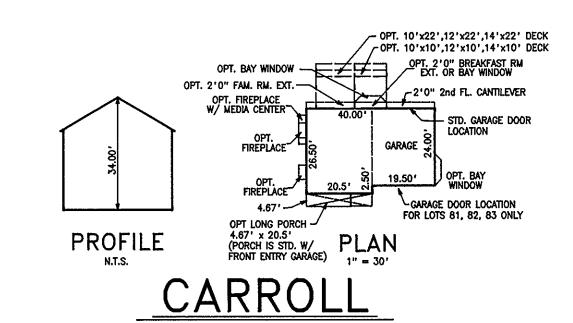
(GENERIC) SITE DEVELOPMENT PLAN

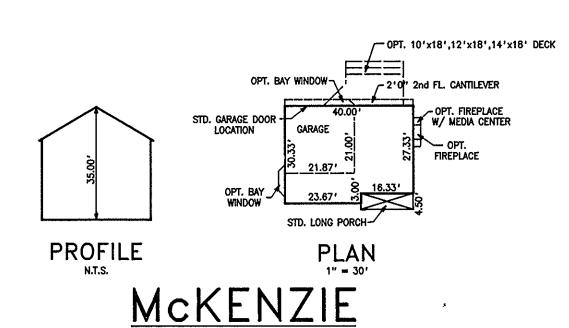
TERRA MARIA

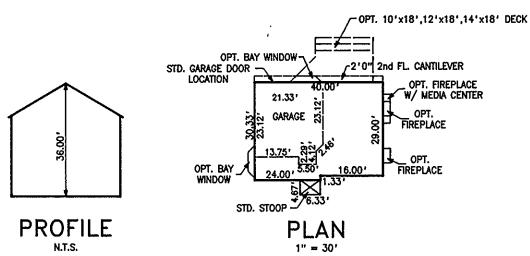
> LOTS: 78 - 105 PLAT #11998

TAX MAP NO: 16 PART OF PARCEL 114 AND 547 SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND SCALE: 1"=30' DATE: 10/08/97
SHEET 2 OF 3

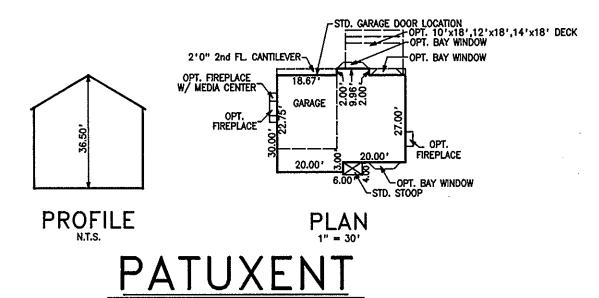
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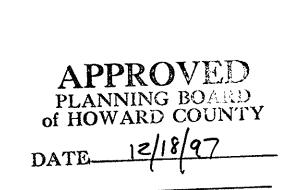


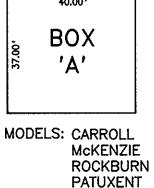


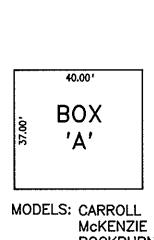


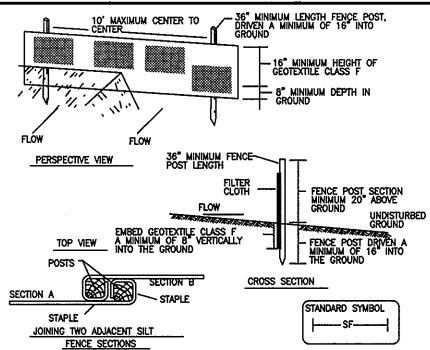
ROCKBURN



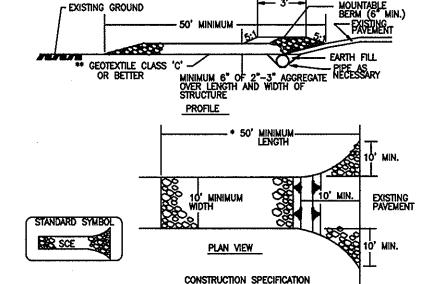








CONSTRUCTION SPECIFICATIONS 1. FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 11/2" X 11/2" SQUARE (MINIMUM) CUT, OR 13/4" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SQUAND QUALITY HARDWOOD, STEEL POSTS WILL BE

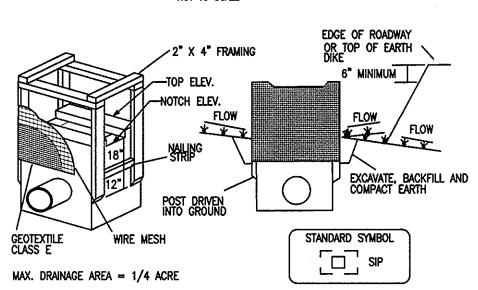


 LENGTH -- MINIMUM OF 50' (*30' FOR SINGLE RESIDENCE LOT).
 WIDTH -- 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS. 3. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.

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. 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.

STABILIZED CONSTRUCTION ENTRANCE NOT TO SCALE



CONSTRUCTION SPECIFICATIONS 1. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18" BELOW THE 2. DRIVE THE 2" X 4" CONSTRUCTION GRADE LUMBER POSTS 1' INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2" X 4" FRAME USING THE OVERLAP JOINT SHOWN ON DETAIL 23A. THE TOP OF THE FRAME (WEIR) MUST BE 6" BELOW ADJACENT ROADWAYS WHERE FLOODING AND SAFETY ISSUES MAY ARISE.

3. STRETCH THE 1/2" X 1/2" WIRE MESH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. THE ENDS MUST MEET AND OVERLAP AT A POST. . STRETCH THE GEOTEXTILE CLASS E TIGHTLY OVER THE WIRE MESH_WITH THE GEOTIXTILE EXTENDING FROM THE TOP OF THE FRAME TO 18" BELOW THI NLET NOTCH ELEVATION. FASTEN THE GEOTEXTILE FIRMLY TO THE FRAME. HE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND

FOLDED, THEN FASTENED DOWN. 5. BACKFILL AROUND THE INLET IN COMPACTED 6" LAYERS UNTIL THE LAYER OF EARTH IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.

6. IF THE INLET IS NOT IN A SUMP, CONSTRUCT A COMPACTED EARTH DIKE ACROSS THE DITCH LINE DIRECTLY BELOW IT. THE TOP OF THE EARTH DIKE SHOULD BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME. THE STRUCTURE MUST BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND THE GEOTEXTILE REPLACED WHEN IT BECOMES CLOGGED.

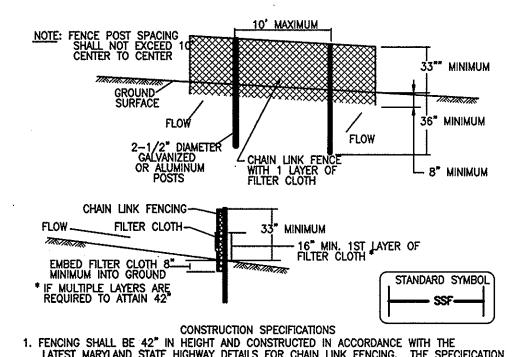
STANDARD **INLET PROTECTION**

SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION 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 MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND
- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES. PERIMETER SLOPES AND ALL SLOPES STEEPER IAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED
- 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM

areas on the project site.

- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (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.
- 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 INSPECTOR.
- 7. SITE ANALYSIS: TOTAL AREA OF SITE AREA DISTURBED 4.46 ACRES 3.68 ACRES 1.55 ACRES AREA TO BE ROOFED OR PAVED
 AREA TO BE VEGETATIVELY STABILIZED
 TOTAL CUT OFFSITE WASTE/BORROW AREA LOCATION
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 10. 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 INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- 11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.



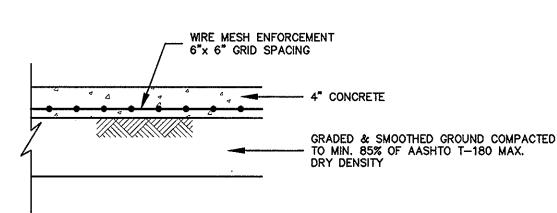
- LATEST MARYLAND STATE HIGHWAY DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6' FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6' LENGTH POSTS.
- 2. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.
- 3. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
- 4. FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND. 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED
- 6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT 7. FILTER CLOTH SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR

STAPLES AT TOP AND MID SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR

GEOTEXTILE CLASS F: TENSILE STRENGTH 20 LBS/IN (MIN.) TEST: MSMT 5'
0.3 GAL/FT²/MINUTE (MAX.)TEST: MSMT 322 TENSILE MODULUS FLOW RATE TEST: MSMT 509 FILTERING EFFICIENCY DESIGN CRITERIA SLOPE SLOPE LENGTH SILT FENCE LGTH (MAXIMUM) 0 - 10% 0 - 10:UNLIMITED UNLIMITED 10 - 20% 10:1 -5:1 200 FEET 1.500 FEET 20 - 33% 5:1 - 3:1 100 FEET 1,000 FEET 500 FEET

33 - 50% 3:1 - 2:1 100 FEET 50% + 2:1 + 50 FEET 250 FEET | MM. MAX. | STRE | F (SILT FENCE) | 0.40 - 0.80* | 90 | US STD. SIEVE CW-02215

DETAIL H-26-3 SUPER SILT FENCE NOT TO SCALE



TYPICAL PAVING SECTION RESIDENTIAL DRIVEWAY

PERMANENT SEEDING NOTES

ALL DISTURBED AREA SHALL BE STABILIZED AS FOLLOWS:

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1,000 SQ.F.T. AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (14 LBS./1,000 SQ.F.T) BÉFORE SEEDING HARROW OR DISC. INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING APPLY 400 LBS PER ACRE 38-0-0 UREAFORM FERTILIZER (9 LBS/1,000 SQ. F.T.) AND 500 LBS. PER ACRE (11.5 LBS/1,000 SQ.F.T.) OF 10-20-20

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS PER ACRE (2.3 LBS/1,000 SQ.F.T.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE (1.4 LBS./1,000 SQ.F.T.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1,000 SQ.F.T.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28. PROJECT SITE BY: OPTION (1) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OPTION (2) - USE 500; OPTION (3) - SEED WITH 100 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE

APPLY 1 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.F.T.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL/1.000 SQ.F.T) OF EMULSIFIED ASPHALT ON FLAT ACRES ON SLOPES 8 FEET OR HIGHER USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ. F.T.) FOR

MAINTENANCE INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS

*FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVETCH AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS/ACRE AS THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO

SIONS, GRADE STABILIZATION STRUCTURES, BERMS, WATERWAYS, OR SEDIMENT CONTROL BASINS

PERFORM ALL GRADING OPERATIONS AT RIGHT ANGLES TO THE SLOPE. FINAL GRADING AND SHAPING IS

SCHEDULE REQUIRED SOIL TESTS TO DETERMINE SOIL AMENDMENT COMPOSITION AND APPLICATION

1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH

LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OVER 5 ACRES. SOIL ANALYSIS MAY BE PERFORMED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. SOIL

FERTILIZERS SHALL BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION

BY APPROVED EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled

according to the applicable state fertilizer laws and shall bear the name, trade name or

WHICH CONTAINS AT LEAST 50% TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT AT LEAST 50% WILL PASS THROUGH A ∯100 MESH SIEVE AND 98 - 100% WILL PASS THROUGH A ∯20 MESH SIEVE.

4. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 - 5" OF SOIL BE DISKING OR OTHER SUITABLE MEANS.

. SEEDBED PREPARATION SHALL CONSIST OF LOOSENING SOIL TO A DEPTH OF 3" TO 5" BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL

IT SHOULD NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPED AREAS (GREATER THAN 3:1) SHOULD BE TRACKED LEAVING THE SURFACE IN AN

C. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 - 5" OF SOIL BY DISKING OR OTHER SUITABLE

SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM).
THE SOIL SHALL CONTAIN LESS THAN 40% CLAY BUT ENOUGH FINE GRAINED MATERIA

PLANTED, THEN A SANDY SOIL (< 30% SILT PLUS CLAY) WOULD BE ACCEPTABLE

(> 30% SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT

A. MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT:

4. SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT

5. SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT

EROSION CHECK SLOTS TO PREVENT TOPSOIL FROM SLIDING DOWN A SLOPE.

C. APPLY SOIL AMENDMENTS AS PER SOIL TEST OR AS INCLUDED ON THE PLANS.

NECESSARY ON NEWLY DISTURBED AREAS.

can weaken bacteria and make the inoculant less effective.

WATER CODE

6. IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH SECTION 21 STANDARD AND SPECIFICATION FOR

B. AREAS PREVIOUSLY GRADED IN CONFORMANCE WITH THE DRAWINGS SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 - 5"

D. MIX SOIL AMENDMENTS INTO THE TOP 3-5" OF TOPSOIL BY DISKING OR OTHER SUITABLE

TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREA AND TO CREATE HORIZONTAL

MEANS. LAWN AREAS SHOULD BE RAKED TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION, LOOSEN SURFACE SOIL BY

SLOPES (STEEPER THAN 3:1) SHOULD BE TRACKED BY A DOZER LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. THE TOP $1-3^\circ$ OF SOIL SHOULD BE LOOSE AND FRIABLE. SEEDBED LOOSENING MAY NOT BE

DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE. STEEF

ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED SHALL BE

NOTE: SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED. INOCULANT - THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES SHALL BE A PURE

PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY

IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75-80%F.

Subject to re-testing by a recognized seed laboratory. All seed used shall have been

TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THIS

CULTURE OF NITROGEN-FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANT AS DIRECTED ON

IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.

SOIL PH SHALL BE BETWEEN 6.0 AND 7.0

plows or rippers mounted on construction equipment. After the soil is loosened

SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.

LIME MATERIALS SHALL BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED)

VEGETATIVE STABILIZATION METHODS AND MATERIALS

NOT USUALLY NECESSARY FOR TEMPORARY SEEDING

B. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

C. SEEDBED PREPARATION

D. SEED SPECIFICATIONS

PERMANENT SEEDING

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1,000 SQ. F.T.)

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 17 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/ACRE OF WEEPING LOVEGRASS (.07 LBS./1.000 SQ.F.T. 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 POSSIBLE IN THE SPRING OR USE SOD.

APPLY 1 TO 2 TONS PER ACRE (70 TO 90 LBS/1,000 SQ.F.T.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GA. 1,000 SQ. F.T.) OF EMULSIFIED ASPHALT ON FLAT ACRE ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1,000 SQ.F.T.) FOR ANCHORING.

REFER TO THE 1988 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

- HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER), BROADCAST OR DROP SEEDER, OR A CULTIPACKER SEEDER.
- A. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES AMOUNTS WILL NOT EXCEED THE FOLLOWING: NITROGEN; MAXIMUM OF 100 LBS. PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS); 200 LBS/AC; K20 (POTASSIUM); 200 LBS/AC.
- B. LIME USE ONLY GROUND AGRICULTURAL LIMESTONE, (UP TO 3 TONS PER ACRE WAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN
- SEED AND FERTILIZER SHALL BE MIXED ON SITE AND SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.
- 2. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS. SEED SPREAD DRY SHALL BE INCORPORATED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON
- THE TEMPORARY OR PERMANENT SEEDING SUMMARIES OR TABLES 25 OR 26. THE SEEDED AREA SHALL THEN BE ROLLED WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL
- B. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
- 3. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL CULTIPACKING SEEDERS ARE REQUIRED TO BURY TO SEED IN SUCH A FASHION AS TO PROVIDE
- AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH
- OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
- F. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE) STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE OR OAT STRAW, REASONABLY BRIGHT II
- COLOR, AND SHALL NOT BE MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY AND SHALL BE
- 2. WOOD CELLULOSE FIBER MULCH (WCFM)
- A. WCFM SHALL CONSIST OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
- B. WCFM SHALL BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE
- AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY WCFM, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS. D. WCFM MATERIALS SHALL BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE
- WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER agitation and will blend with seed, fertilizer and other additives to form a HOMOGENEOUS SLURRY. THE MULCH MATERIAL SHALL FORM A BLOTTER-LIKE GROUND COVER, on application, having moisture absorption and percolation properties and shall COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF
- WCFM MATERIAL SHALL CONTAIN NO ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
- WOFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH TO APPROXIMATELY 10 MM., DIAMETER APPROXIMATELY 1 MM., PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6% MAXIMUM AND WATER HOLDING CAPACITY OF 90% MINIMUM.
- NOTE: ONLY STERILE STRAW MULCH SHALL BE USED IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
- G. MULCHING SEEDED AREAS MULCH SHALL BE APPLIED TO ALL SEED AREA IMMEDIATELY AFTER SEEDING.
- IF GRADING IS COMPLETED OUTSIDE OF THE SEEDING SEASON, MULCH ALONE SHALL BE APPLIED AS PRESCRIBED IN THIS SECTION AND MAINTAINED UNTIL THE SEEDING SEASON RETURNS AND SEEDING CAN BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS.
- WHEN STRAW MULCH IS USED, IT SHALL BE SPREAD OVER ALL SEEDED AREAS AT THE RATE OF 2
 TONS/ACRE. MULCH SHALL BE APPLIED TO A UNIFORM LOOSE DEPTH OF BETWEEN 1" AND 2". MULCH APPLIED SHALL ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. IF A MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHOULD BE INCREASED TO 2.5
- 3. WOOD CELLULOSE FIBER USED AS A MULCH SHALL BE APPLIED AT A NET DRY WEIGHT OF 1,500 LBS. PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A
- WAXIMUM OF 50 LBS. OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER. H. SECURING STRAW MULCH (MULCH ANCHORING): MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE CONE BY ONE OF THE
- FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON SIZE OF AREA AND EROSION HAZARD: A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF TWO (2) INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON

SLOPING LAND, THIS PRACTICE SHOULD BE USED ON THE CONTOUR IF POSSIBLE.

- 2. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 POUNDS/ACRE. THE WOOD CELLULOSE FIBER S HALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER
- APPLICATION OF LIQUID BINDERS SHOULD BE HEAVER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. THE REMAINDER OF AREA SHOULD BE APPEAR UNIFORM AFTER BINDER APPLICATION. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO—TACK),
- ica—70, petroset, terra tax II, terra tack ar or other approved equal may be used at RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S
- RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4' TO 15' FEET WIDE AND 300 3,000



MORRIS & RITCHIE ASSOC., INC. ENGINEERS, PLANNERS, SURVEYORS, AND LANDSCAPE ARCHITECTS 139 N. Main Street, Suite 200 Bel Air, Maryland 21014 (410) 879-1690 - (410) 836-7560 Fax: (410) 879-1820



ENGINEER'S CERTIFICATE 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. *6/18/98* SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DEVELOPER'S CERTIFICATE DAYID G. TAYLOR "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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT." charles O'Donovan 10-31-97 SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE)

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS SIMMON TURAL RESOURCES CONSERVATION SERVICE DATE

OPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT. 6/18/98 MAKOWARD SÕ

BUILDER THE RYLAND GROUP, INC. GALLERIA TOWERS
1447 YORK ROAD, SUITE 705 LUTHERVILLE, MARYLAND 21093

PPROVED: DEPARTMENT OF PLANNING AND ZONING 6/23/98 DATE CHIEF, DEVELOPMENT ENGINEERING DIVISION SECTION / AREA LOT NO. SUBDIVISION TERRA MARIA 2/3 & 4 78-105 CENSUS TR. PLAT NO. BLOCK NO. ZONE TAX/ZONE | ELEC. DIST. R-ED 199🕏 💝 1200 2ND

SEWER CODE

5992000

SITE DEVELOPMENT PLAN

LOTS: 78-105

PLAT #11998 & 12001 TAX MAP NO: 16 PART OF PARCEL 114 SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND SCALE: 1"=30' DATE: 8/25/97
SHEET 3 OF 3

