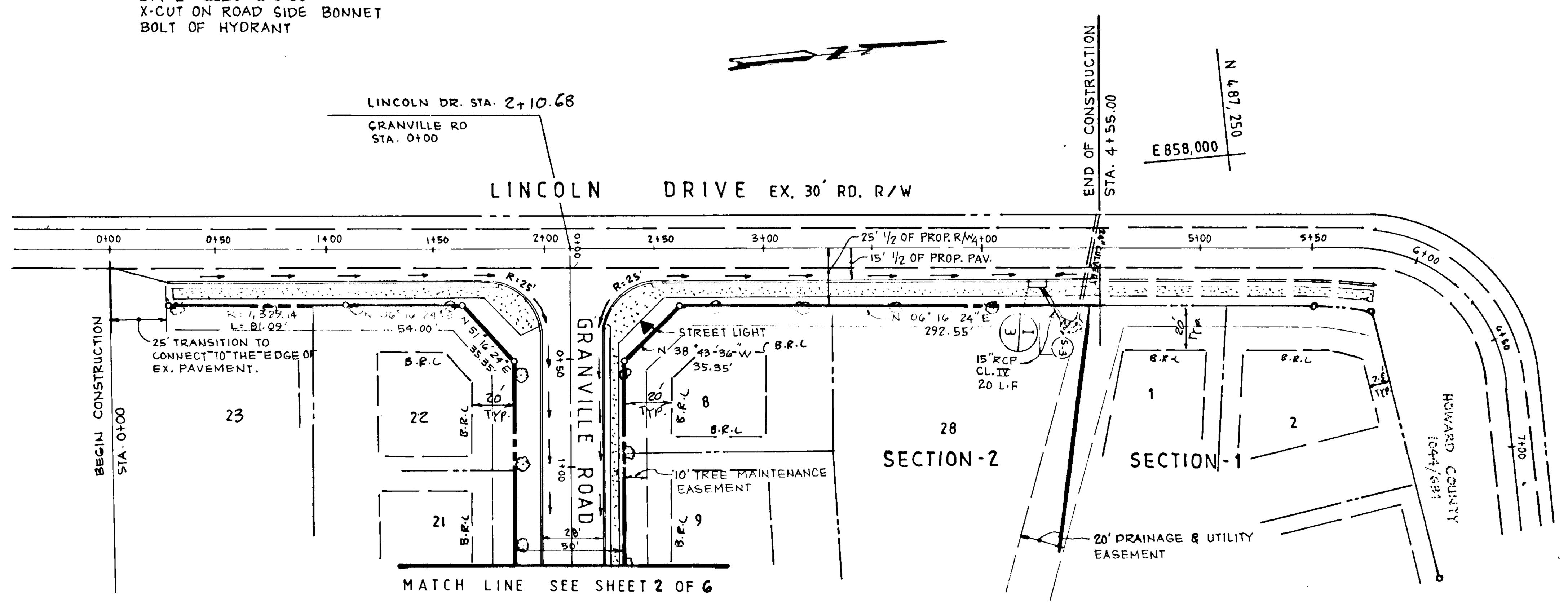
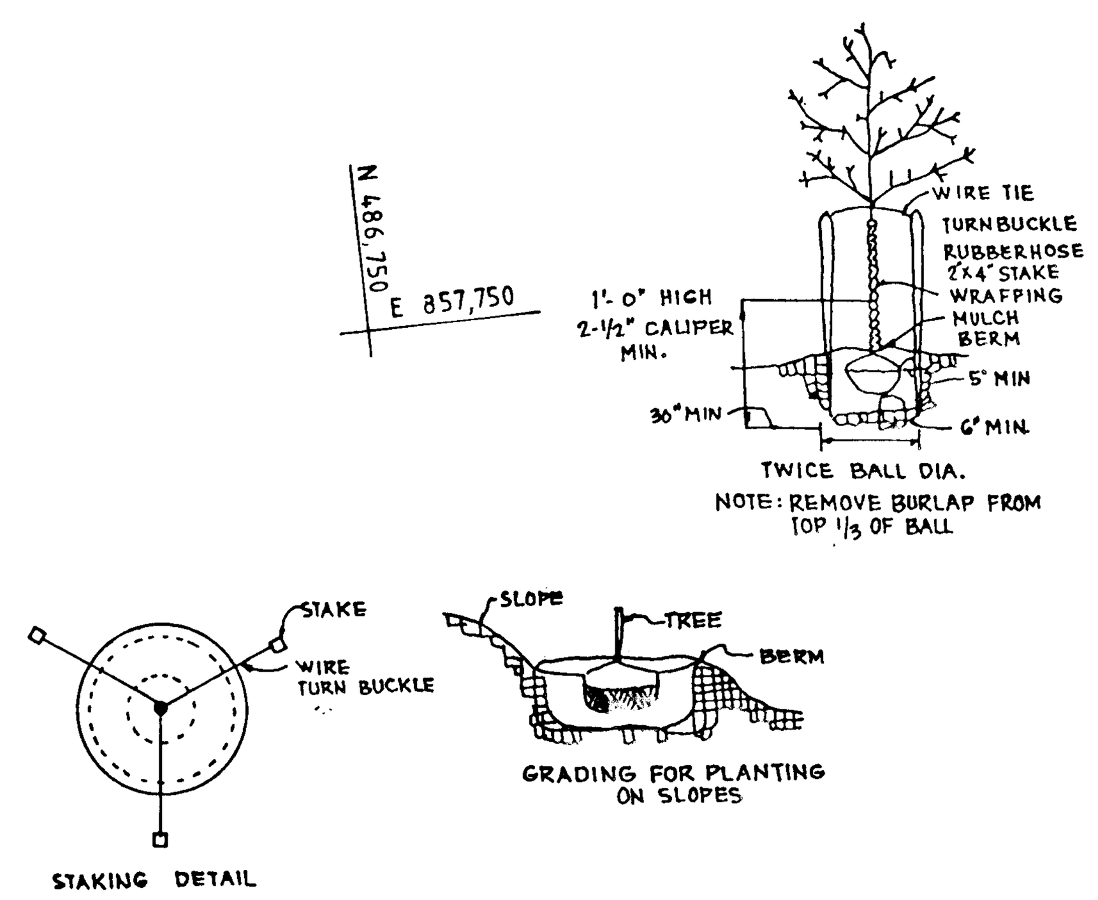
BM-1 ELEV. 260.16
X-CUT ON ROAD SIDE BONNET
BOLT OF HYDRANT
BM-2 ELEV. 272.60
X-CUT ON ROAD SIDE BONNET
BOLT OF HYDRANT



PLAN

SCALE: 1"=50'

N 487,000
E 857,750



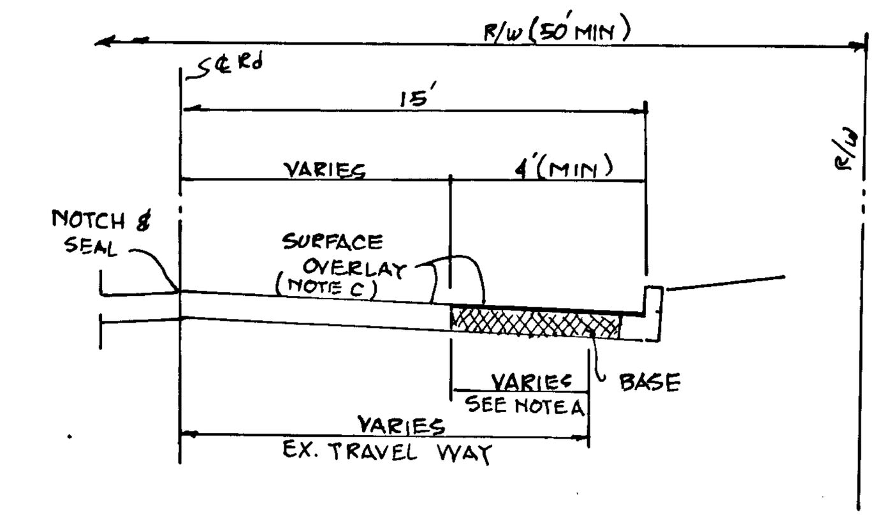
TREE PLANTING
N.T.S.

NOTE: CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITIES PRIOR TO DIGGING. FINAL LOCATIONS OF TREES MAY BE ADJUSTED SLIGHTLY TO ACCOMODATE FIELD CONDITIONS. PLANTING PROCEDURES SHALL COMPLY WITH LANDSCAPE SPECIFICATIONS FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS: SUBSTITUTION TO THE ABOVE SPECIES MAY BE PERMITTED, PROVIDED THAT THE PLANTING IS IN ACCORDANCE WITH THE STREET TREE AND LANDSCAPE REQUIREMENTS AS SPECIFIED IN SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS.

		QUANTITIES
(symbol)	DENOTES APPROXIMATE LOCATION OF ACER SACCHARUM (SUGAR MAPLE) 2 1/2" CALIPER PLANTED 40' ON CENTER	40

TREE MAINTENANCE NOTE

TREE MAINTENANCE EASEMENT, 10' IN WIDTH, RUNNING ALONG THE EDGE OF THE PUBLIC ROAD R/W AS SHOWN ON THE PLAN IS RESERVED UPON ALL LOTS FRONTING ON THE PUBLIC R/W. THIS EASEMENT GRANTS HOWARD COUNTY THE RIGHTS TO ACCESS THE PROPERTY WHEN NECESSARY, FOR THE SPECIFIC PURPOSE OF INSTALLATION, REPAIR AND MAINTENANCE OF COUNTY OWNED TREES LOCATED WITHIN THE BOUNDARIES OF PRIVATE LOTS. NO BUILDING OR STRUCTURE OF ANY KIND SHALL BE LOCATED ON AND OVER THIS EASEMENT AREA.



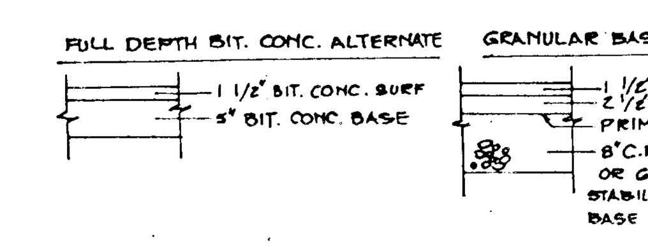
NOTE A. When existing travel lane is less than the required 12' Lane, contractor shall remove enough of the existing road bed to provide a min. base widening of 4'

NOTE B. The surface overlay shall be carried to the ℄ of the road and notched & sealed

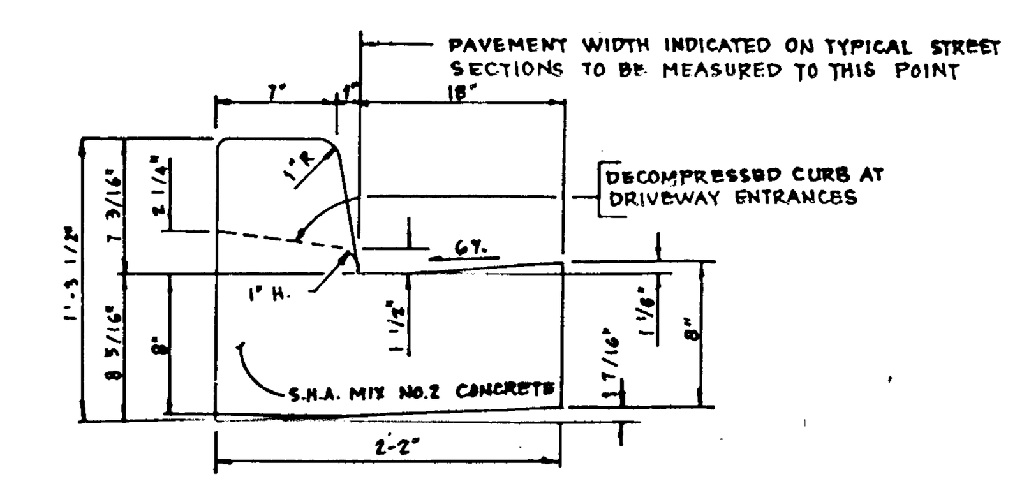
NOTE C. Surface overlay course to be equal to surface course of typical paving section of subdivision.

NOTE D. Center line of road to be milled at a depth of 1 1/2" x 1' wide using a milling machine.

WIDENING STRIPS ALONG EX. ROADWAY
NO SCALE.



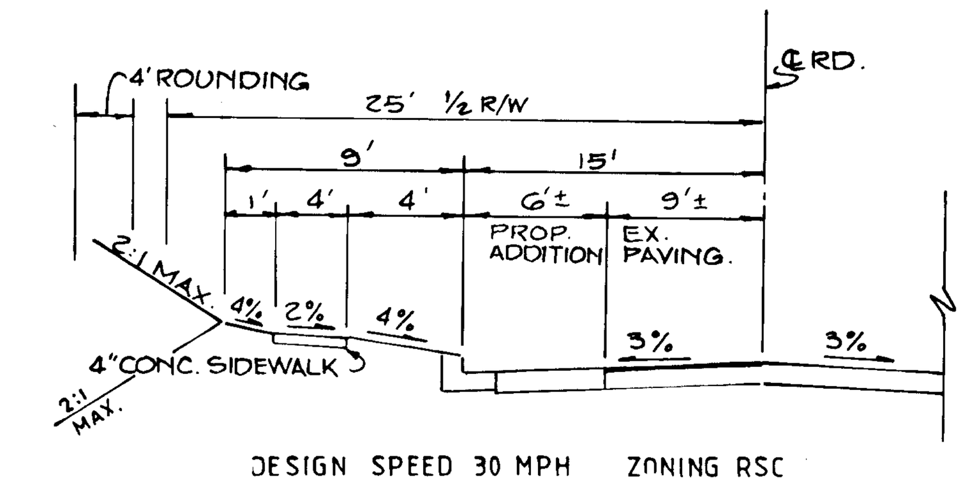
P-2 PAVING SECTION
LINCOLN DRIVE
N.T.S.



STANDARD 7" COMBINATION CURB & GUTTER
N.T.S.

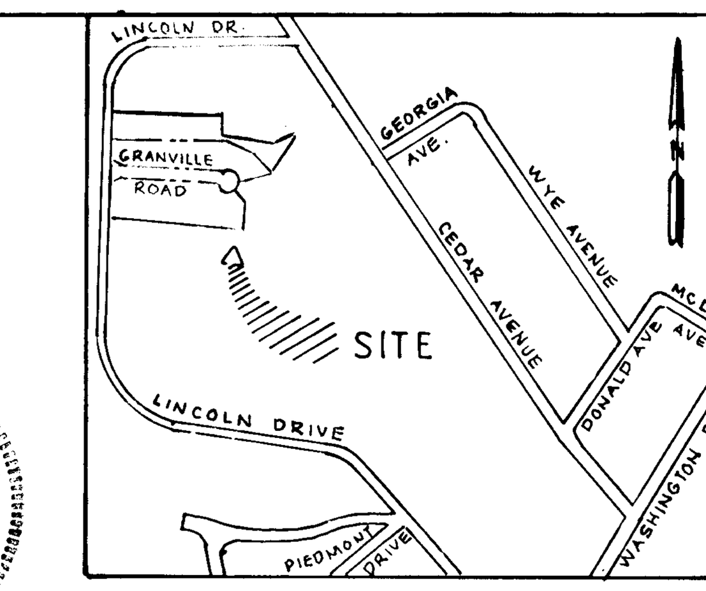
GENERAL NOTES

1. ALL STORM DRAIN AND PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST DETAILS AND SPECIFICATIONS OF HOWARD COUNTY.
2. TYPES OF STORM DRAIN STRUCTURES REFER TO THE STANDARD DETAILS OF HOWARD COUNTY.
3. TRENCH COMPACTION FOR STORM DRAINS, WITHIN ROAD OR STREET RIGHT-OF-WAY, LIMITS SHALL SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOL. IV. (CLASS C TRENCH BEDDING TO BE USED FOR ALL STORM DRAIN, UNLESS OTHERWISE SHOWN.
4. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS, BY HAND, AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF CONSTRUCTION.
5. ALL UTILITY COMPANIES SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF CONSTRUCTION.
6. ALL TRAFFIC CONTROL DEVICES, SIGNING TO BE DONE IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICE."
7. ZONING: RSC.
8. CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION / SURVEY DIVISION 24 BEFORE COMMENCING WORK AT 792-7272.
9. STREET TREES TO BE PLANTED 4' AWAY FROM THE EDGE OF THE SIDEWALK AS A PART OF THIS SUBMISSION.
10. SEE F-90-171, P-90-27, S-90-02, WP-90-138, WP-91-175 WP-91-162



DESIGN SPEED 30 MPH ZONING RSC

TYPICAL SECTION LINCOLN DRIVE
NOT TO SCALE



VICINITY MAP
SCALE: 1"=600'

SEDGHI & ASSOCIATES, LTD.
Civil Engineers · Site Planners · Surveyors
3217 Corporate Court
Ellicott City, MD 21043
(301) 750-9003

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[signature] 1/30/92
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[signature] 1/23/92
CHIEF, LAND DEVELOPMENT DIVISION — DATE

[signature] 9/16/91
CHIEF, BUREAU OF HIGHWAYS — DATE

[signature] 1-27-92
CHIEF, BUREAU OF ENGINEERING — DATE

CEDAR II
SECTION - 2
6TH ELECTION DISTRICT
HOWARD COUNTY MARYLAND

LINCOLN DRIVE
PLAN AND PROFILE

DEVELOPER
THAMES INVESTMENT GROUP LTD.
3701 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND, 21043

SCALE: AS SHOWN	DATE: 3-4-91	SHEET 1 OF 6
DESIGNED: M.S	DRAWN: V.S	CHECKED: M.S

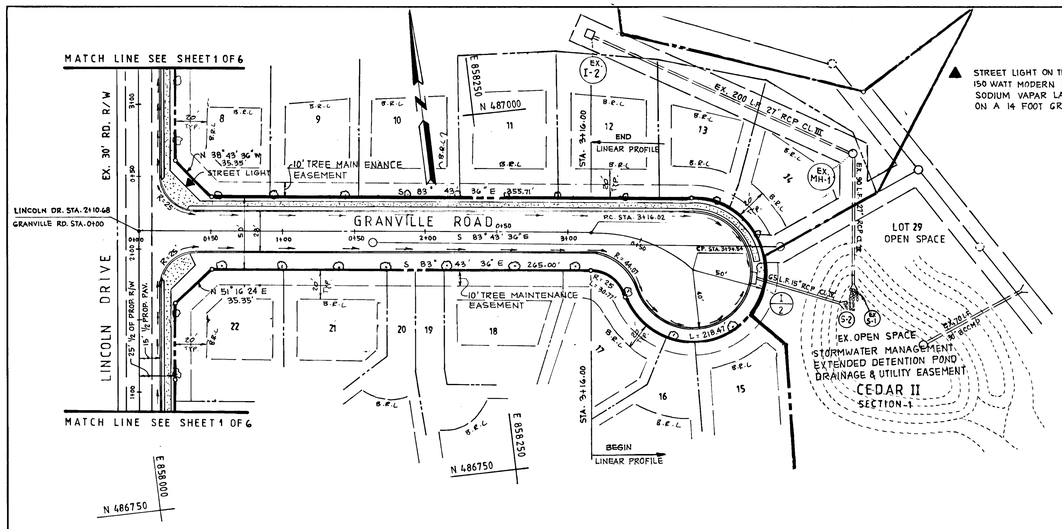
REVISION

LINCOLN DRIVE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

PLAN
PROFILE

1613

F92.28



PLAN
SCALE: 1"=50'

▲ STREET LIGHT ON THIS PLAN SHALL BE 150 WATT MODERN HIGH PRESSURE SODIUM VAPAR LAMP POST TOP FIXTURE ON A 14 FOOT GRAY FIBERGLASS POLE.

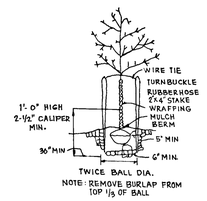
NOTE: CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITIES PRIOR TO DIGGING. FINAL LOCATIONS OF TREES MAY BE ADJUSTED SLIGHTLY TO ACCOMODATE FIELD CONDITIONS. PLANTING PROCEDURES SHALL COMPLY WITH LANDSCAPE SPECIFICATIONS FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS. SUBSTITUTION TO THE ABOVE SPECIES MAY BE PERMITTED, PROVIDED THAT THE PLANTING IS IN ACCORDANCE WITH THE STREET TREE AND LANDSCAPE REQUIREMENTS AS SPECIFIED IN SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS.

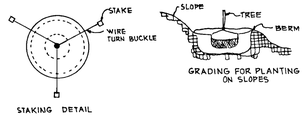
(S) DENOTES APPROXIMATE LOCATION OF ACER SACCHARUM (SUGAR MAPLE) 2½" CALIPER PLANTED 40' ON CENTER

QUANTITIES
40

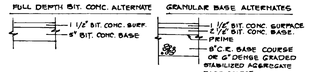
TREE MAINTENANCE NOTE

TREE MAINTENANCE EASEMENT, 10' IN WIDTH, RUNNING ALONG THE EDGE OF THE PUBLIC ROAD R/W AS SHOWN ON THE PLAN IS RESERVED UPON ALL LOTS FRONTING ON THE PUBLIC R/W. THIS EASEMENT GRANTS HOWARD COUNTY THE RIGHTS TO ACCESS THE PROPERTY WHEN NECESSARY, FOR THE SPECIFIC PURPOSE OF INSTALLATION, REPAIR AND MAINTENANCE OF COUNTY OWNED TREES LOCATED WITHIN THE BOUNDARIES OF PRIVATE LOTS. NO BUILDING OR STRUCTURE OF ANY KIND SHALL BE LOCATED ON AND OVER THIS EASEMENT AREA.

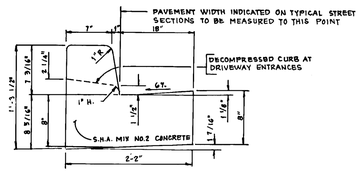




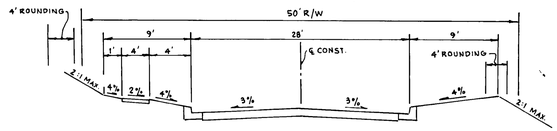
TREE PLANTING
N.T.S.



P-2 PAVING SECTION
GRANVILLE RD. & LINCOLN DR.
N.T.S.

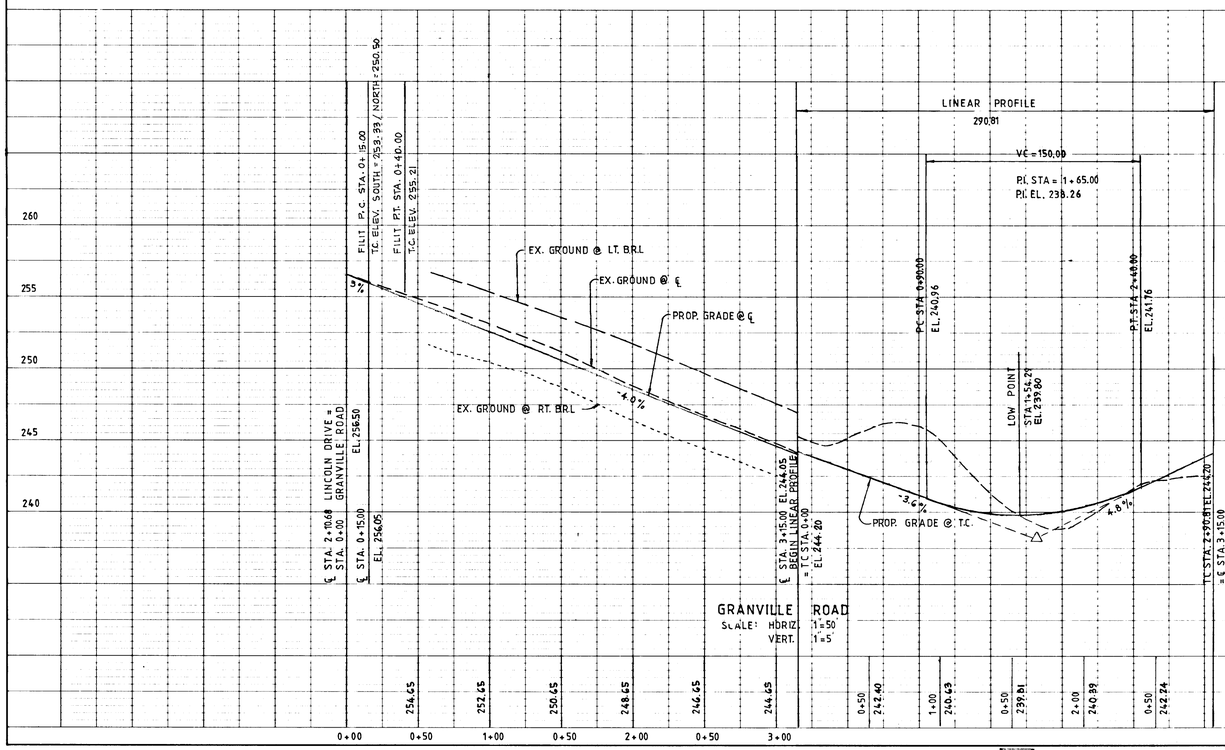


STANDARD 7" COMBINATION CURB & GUTTER
N.T.S.



DESIGN SPEED - 25 MPH ZONING: RSC

TYPICAL SECTION - GRANVILLE ROAD
NOT TO SCALE



PROFILE — SURVEYED ____ PLOTTED ____ NOTE BOOK ____ GRADES CHECKED ____ BY M.S NOTED ____ STRUCTURE LOCATIONS CHECKED ____ No. ____ BY ____ DATE ____

1613

PLAN — SURVEYED ____ PLOTTED ____ NOTE BOOK ____ ALIGNMENT CHECKED ____ BY OF MAY CHECKED ____ No. ____

3-4-1991
DATE

SEDGHI & ASSOCIATES, LTD.
Civil Engineers · Site Planners · Surveyors
3217 Corporate Court
Ellicott City, MD 21043
(301) 750-9003

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 1/30/92

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 1/23/92

CHIEF, BUREAU OF HIGHWAYS — DATE 9/16/91

CHIEF, BUREAU OF ENGINEERING — DATE 1-27-92

CEDAR II
SECTION-2
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

GRANVILLE ROAD
PLAN AND PROFILE

DEVELOPER
THAMES INVESTMENT GROUP LTD.
3701 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND. 21043

SCALE: AS SHOWN	DATE: 3-4-91	SHEET: 2 OF 6
DESIGNED: M.S	DRAWN: V.S	CHECKED: M.S

REVISION

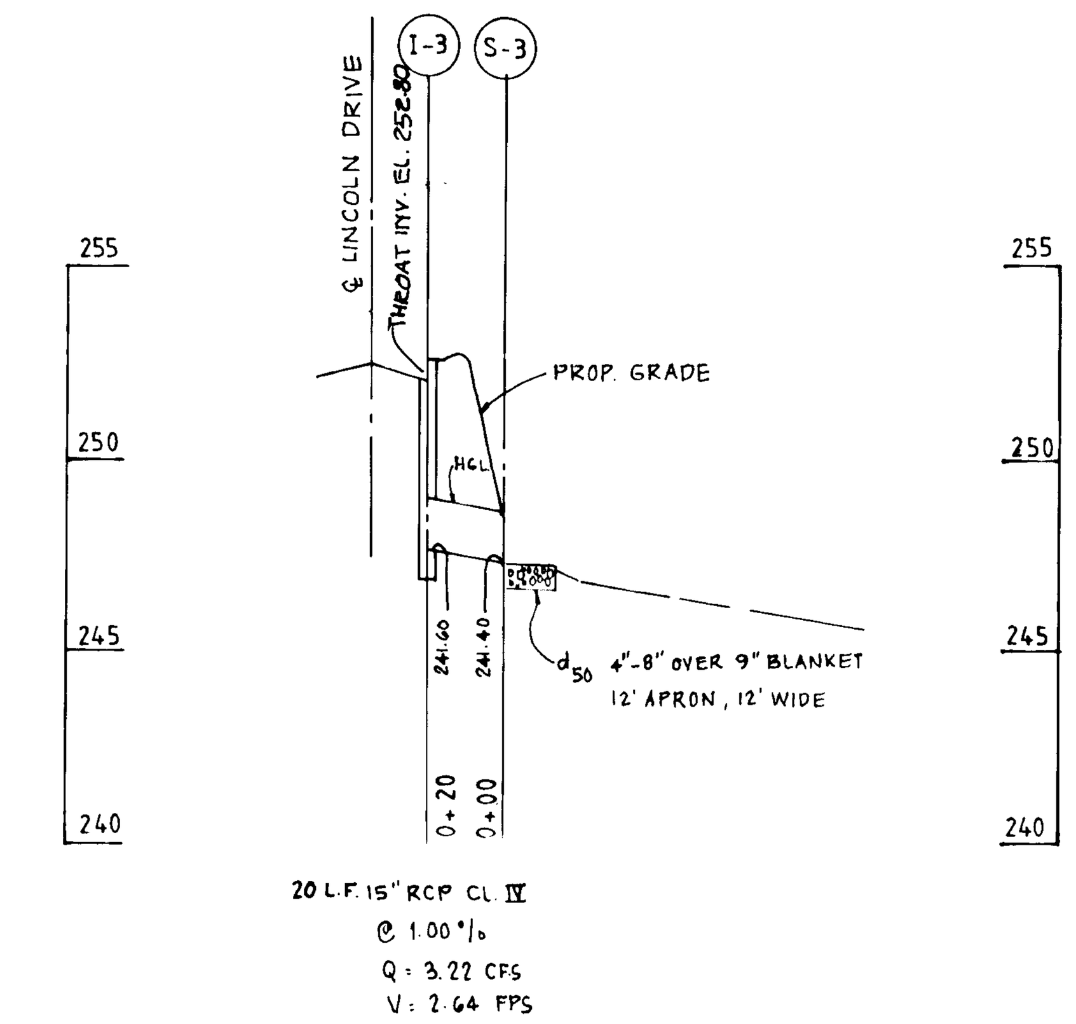
F 91-126
F 92-28
145

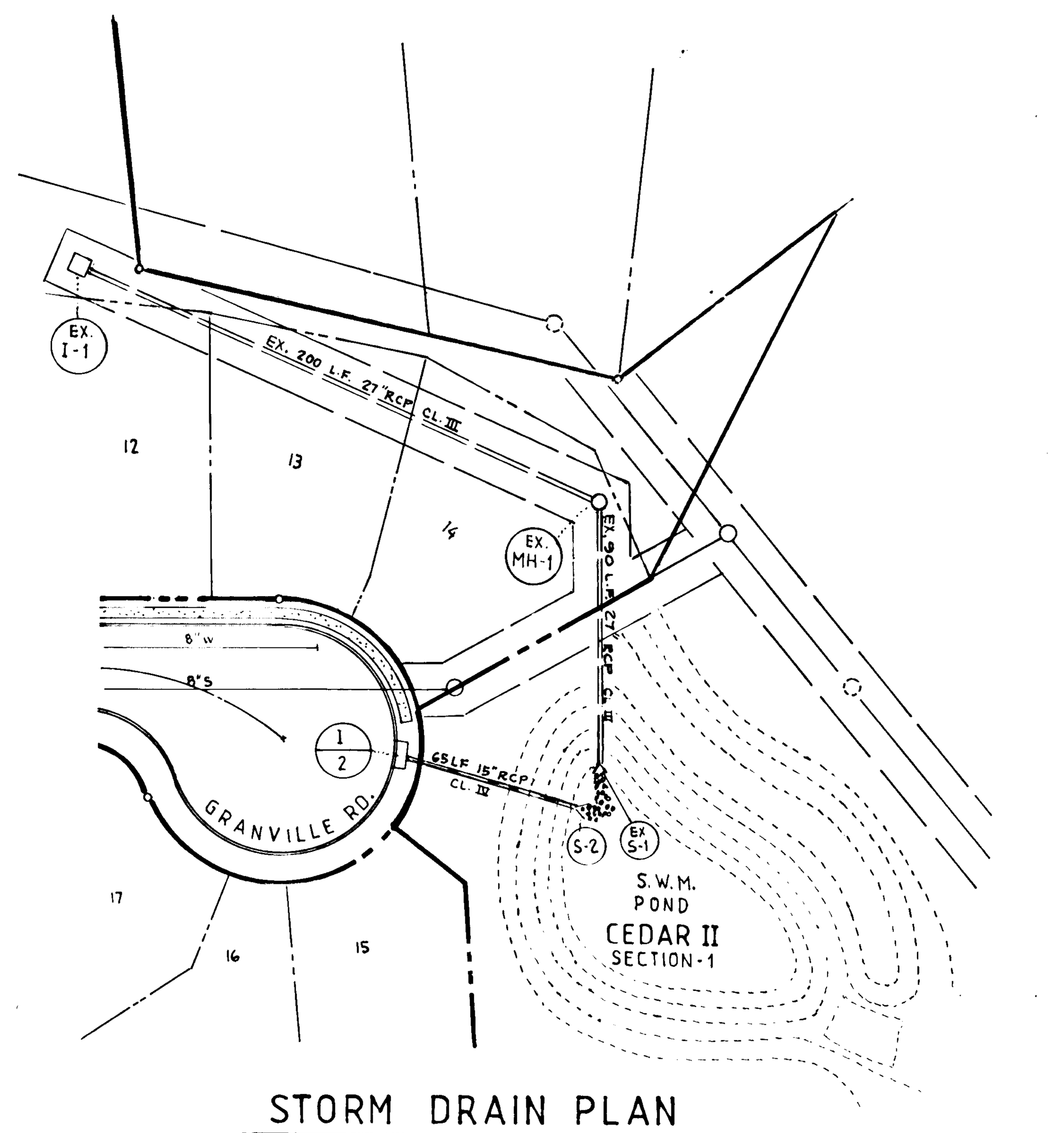
I-1	19.80 Ac. / 0.24	1	RSC	8%
I-2	2.06 Ac. / 0.49	2	RSC	38%
I-3	0.62 Ac. / 0.80	3	RSC	80%
AREA-4	5.00 Ac. / 0.30	4	RSC	15%
AREA-5	2.50 Ac. / 0.25	5	RSC	10 %

STORM DRAIN DRAINAGE AREA MAP

SCALE: 1"=100'

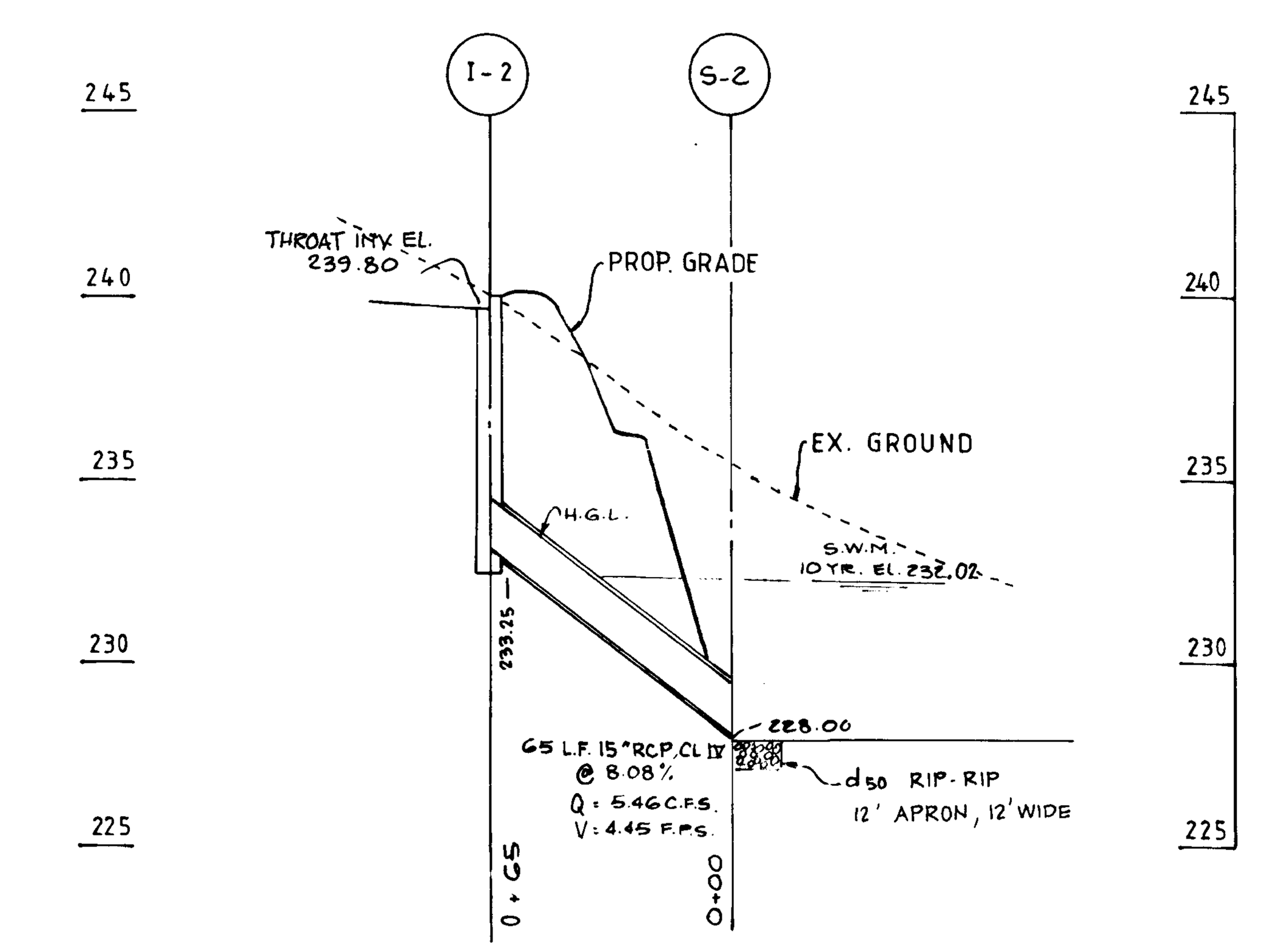
STORM DRAIN STRUCTURE SCHEDULE					
NO	TYPE	TOP EL	INV IN	INV OUT	REMARKS
I-2	A-10 INLET, HOWARD COUNTY S.D. 4.02	2.39.80	—	233.25	40' FROM ℄ OF CUL DE SAC STA 3+90±
S-2	STANDARD END SECTION	229.40	228.00	—	IN S.W.M POND
I-3	A-10 INLET HOWARD COUNTY S.D. 4.02	252.00	—	241.60	15' FROM LINCOLN DR.℄ STA. 4+25±
S-3	STANDARD ENDWALL	242.65	241.40	—	—





STORM DRAIN PLAN

SCALE: 1"=50'



PROFILES

SCALE: HORIZ. 1"=50'
VERT. 1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[signature] 1/30/92
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[signature] 1/23/92
CHIEF, LAND DEVELOPMENT DIVISION — DATE

Granville W. Wehland 9/16/91
CHIEF, BUREAU OF HIGHWAYS — DATE

[signature] 1-27-92
CHIEF, BUREAU OF ENGINEERING — DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[signature] (O-S) 9/6/91
U.S. SOIL CONSERVATION SERVICE — DATE

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

John R. Robertson 9/5/91
HOWARD COUNTY SOIL CONSERVATION DISTRICT — DATE

NUMBER	REVISION	DATE	BY

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENT 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 SOILS CONSERVATION DISTRICT.

Mike Sedghi 3-4-91
SIGNATURE OF ENGINEER — DATE

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTPUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CEPTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHOPIZE PERICDIC ONSITE INSPECTOR BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS DEEMED NECESSARY.

[signature] 3-4-91
SIGNATURE OF DEVELOPER — DATE

SEDGHI & ASSOCIATES, LTD.
Civil Engineers · Site Planners · Surveyors
3217 Corporate Court
Ellicott City, MD 21043
(301) 750-9003

DRAINAGE AREA MAP AND STORM DRAIN

CEDAR II
SECTION-2
LOTS 8 TO 23
TAX MAP 43 PARCEL 337 & 452
6TH ELECTION DISTRICT
HOWARD COUNTY, MD.
SCALE: 1"=50' SHEET 3 OF 6
DATE: 3-4-91

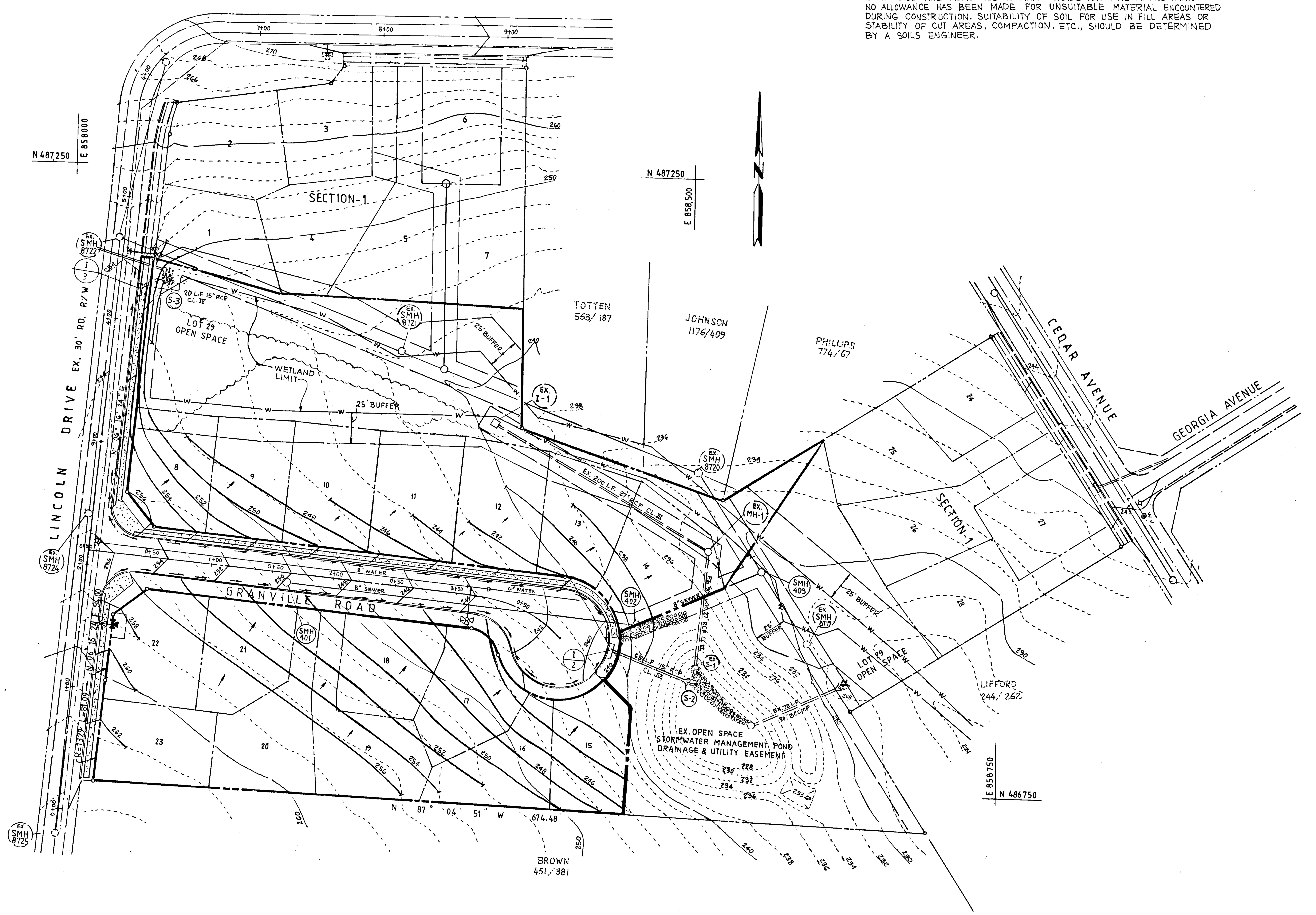
DEVELOPER
THAMES INVESTMENT GROUP LTD.
3701 COURT HOUSE DRIVE
ELLICOTT CITY, MD. 21043

~~S-91-120~~ F-92-28

1613

NOTE:

ALL GRADES, ELEVATIONS, EARTH QUANTITIES, ETC., ARE TO BE VERIFIED BY THE CONTRACTOR. ANY EARTH QUANTITIES SHOWN OR IMPLIED ARE MEASURED TO FINAL GRADE AND ARE APPROXIMATE. NO ALLOWANCE HAS BEEN MADE FOR UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION. SUITABILITY OF SOIL FOR USE IN FILL AREAS OR STABILITY OF CUT AREAS, COMPACTION, ETC., SHOULD BE DETERMINED BY A SOILS ENGINEER.



PLAN

SCALE: 1"=50'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 1/30/92

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 1/23/92

CHIEF, BUREAU OF HIGHWAYS — DATE 9/16/91

CHIEF, BUREAU OF ENGINEERING — DATE 1-27-92

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION SERVICE — DATE 9/6/91

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

HOWARD COUNTY SOIL CONSERVATION DISTRICT — DATE 9/3/91

NUMBER	REVISION	DATE	BY

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENT 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 SOILS CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER — DATE 3.4.91

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTOR BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS DEEMED NECESSARY.

SIGNATURE OF DEVELOPER — DATE 3.4.91

SEDGHI & ASSOCIATES, LTD.
Civil Engineers · Site Planners · Surveyors
3217 Corporate Court
Ellicott City, MD 21043
(301) 750-9003

GRADING PLAN
CEDAR II
SECTION - 2
LOTS 8 TO 23
TAX MAP 43 PARCEL 337 & 452
6TH ELECTION DISTRICT
HOWARD COUNTY MD
SCALE 1"=50' SHEET 4 OF 6
DATE: 3.4.91

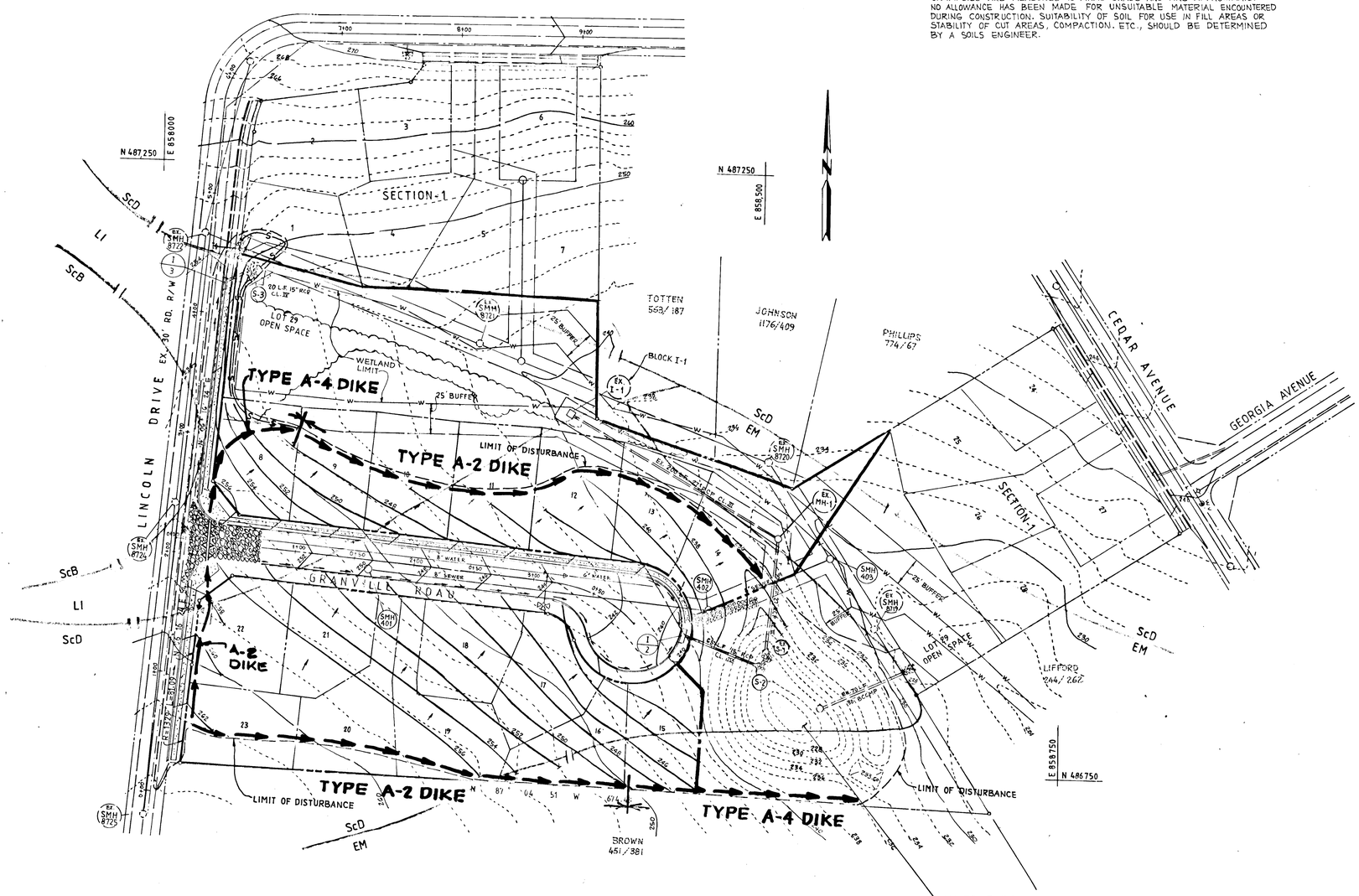
DEVELOPER
THAMES INVESTMENT GROUP LTD.
3701 COURT HOUSE DRIVE
ELLICOTT CITY, MD. 21043

1613

F-92-28

NOTE:

ALL GRADES, ELEVATIONS, EARTH QUANTITIES, ETC., ARE TO BE VERIFIED BY THE CONTRACTOR. ANY EARTH QUANTITIES SHOWN OR IMPLIED ARE MEASURED TO FINAL GRADE AND ARE APPROXIMATE. NO ALLOWANCE HAS BEEN MADE FOR UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION. SUITABILITY OF SOIL FOR USE IN FILL AREAS OR STABILITY OF CUT AREAS, COMPACTION, ETC., SHOULD BE DETERMINED BY A SOILS ENGINEER.



EX. TRAP # 1
DRAINAGE AREA = 2.70 Ac.
STORAGE REQUIRED = 4,860 C.F.
STORAGE PROVIDED = 5,750 C.F.
BOTTOM ELEVATION = 224 (S.W.M. POND ORIFICE)
CREST ELEVATION = 228
STORAGE ELEVATION = 227
CLEANOUT ELEVATION = 225.5
SIDE SLOPE = 2:1 MIN.

PLAN

SCALE: 1"=50'

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. NOTIFY HOWARD COUNTY, OFFICE OF INSPECTION AND PERMITS AT 792-7272, A MINIMUM OF 24 HOURS PRIOR TO THE START OF ANY WORK.
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
4. CLEAN THE EXISTING SEDIMENT TRAP IN THE BOTTOM OF THE EXISTING STORMWATER MANAGEMENT POND, SEE F-90-171
5. INSTALL DIKES AND SILT FENCES.
6. CLEAR AND GRADE THE SITE.
7. CONSTRUCT STORM DRAINS AND UTILITIES.
8. BLOCK I-1 ONLY AND PROVIDE INLET PROTECTION AT I-4.
9. DURING THE CONSTRUCTION AND AFTER EACH RAINFALL, THE CONSTRACTOR SHALL INSPECT ANY PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON, SEE F-90-171
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL REMOVE THE SEDIMENT FROM THE SEDIMENT TRAP WHEN THE CLEANOUT ELEVATIONS HAVE BEEN REACHED.
11. CONSTRUCT CURB AND GUTTER AND LAY BASE COURSE.
12. CLEAN BASE COURSE, APPLY TACK COAT TO BASE COURSE AND LAY SURFACE COURSE, STABILIZE ALL REMAINING OF DISTURBED AREAS.
13. WHEN THE WHOLE SITE IS PERMANENTLY STABILIZED, CONVERT THE TEMPORARY STORMWATER MANAGEMENT POND AND SEDIMENT TRAP IN THE BOTTOM OF IT TO PERMANENT STORMWATER MANAGEMENT FACILITY AS SHOWN ON THE STORMWATER MANAGEMENT PLANS. THE GRADES IN THE BOTTOM OF THE POND WILL BE BROUGHT TO 228.
14. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTORS, REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES ONCE ALL THE AREAS DRAINING TO THEM ARE PERMANENTLY STABILIZED.

SEDIMENT & EROSION CONTROL LEGEND

- STABILIZED CONSTRUCTION ENTRANCE
- S — SILT FENCE
- SOIL LINES
- LIMIT OF DISTURBANCE
- DIKE
- INLET PROTECTION

HOWARD COUNTY SOIL MAP # 30

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 1/30/92

APPROVED HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 1/27/92

CHIEF, BUREAU OF HIGHWAYS — DATE 9/16/91

CHIEF, BUREAU OF ENGINEERING — DATE 1-27-92

1613

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION SERVICE — DATE 9/6/91

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

HOWARD COUNTY SOIL CONSERVATION DISTRICT — DATE 9/5/91

NUMBER	REVISION	DATE	BY

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENT 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 SOILS CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER — DATE 3.4.91

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTOR BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS DEEMED NECESSARY.

SIGNATURE OF DEVELOPER — DATE

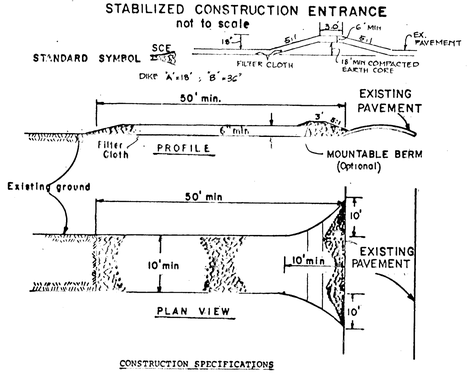
SEDGHI & ASSOCIATES, LTD.
Civil Engineers • Site Planners • Surveyors
3217 Corporate Court
Ellicott City, MD 21043
(301) 750-9003

SEDIMENT CONTROL PLAN
CEDAR II
SECTION - 2
LOTS 8 TO 23
TAX MAP 43 PARCEL 337 & 452
6TH ELECTION DISTRICT
HOWARD COUNTY MD
SCALE 1"=50' SHEET 5 OF 6
DATE: 3.4.91

DEVELOPER
THAMES INVESTMENT GROUP LTD.
3701 COURT HOUSE DRIVE
ELLICOTT CITY, MD. 21043

F92-28

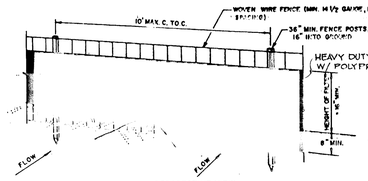
STABILIZED CONSTRUCTION ENTRANCE
not to scale

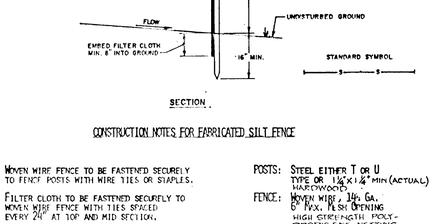


CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

SILT FENCE





CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

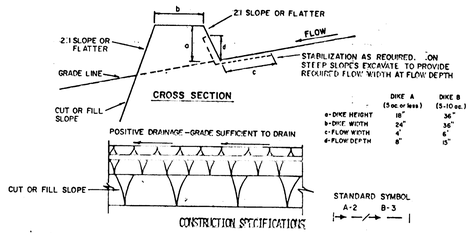
POSTS: STEEL EITHER T OR U TYPE OR 1¼"x1¼" MIN (ACTUAL) HARDWOOD.

FENCE: WOVEN WIRE, 14½ GA. 6" MAX. MESH OPENING HIGH STRENGTH POLYPROPYLENE MESTING.

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, LAYFIELD FENCE, OR APPROVED EQUAL.

EARTH DIKE
not to scale



	DIKE A (3 ac or less)	DIKE B (5-10 ac.)
a-DIKE HEIGHT	18"	36"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	8"	15"

CONSTRUCTION SPECIFICATIONS

1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

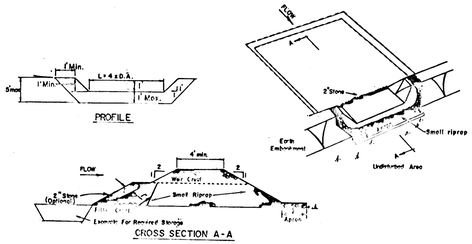
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

STONE OUTLET SEDIMENT TRAP V



OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

CONSTRUCTION SPECIFICATIONS FOR ST-V

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. All cut and fill slopes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small riprap 4"-8" along with a 1' thickness of 2" aggregate placed on the upgrade side on the small riprap OR embedded filter cloth in the riprap.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to ½ the design depth of the trap.
6. The structure shall be inspected after each rain and repairs made as needed.
7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

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

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

1) Preferred -- Apply 2 tons per acres dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.)
2) Acceptable -- Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq. ft) before seeding. Harrow of disk into upper three inches of soil.

Seeding -- For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching -- Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal.ons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance -- Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: -- Apply 60 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft). Seeding: - For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/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 possible in the spring, or use sod.

Mulching: -- Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

GENERAL NOTES

(1) Refer to "1983 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 County Soil Conservation District.

(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, water, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3 : 1) and (b) fourteen days as to all other disturbed or graded areas on the project site.

(5) Any change to the grading proposed on this plan requires re-submission to County Soil Conservation District for approval.

(6) Dust control will be provided for all disturbed areas. Refer to 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control, pp 67.01 and 67.02 for acceptable methods and specifications for dust control.

(7) Any variation from the sequence of operations stated on this plan requires the approval of the sediment control inspector and the County Soil Conservation District prior to the initiation of the change.

(8) Excess cut or borrow material shall go to or come from respectively, a site with an approved sediment control plan.

The following item may be uses as applicable:

(9) Refer to "Maryland's Guidelines to Waterway Construction" by the Water Resources Administration (WRA), dated January, 1986 for standard details and detailed specifications of each practice specified herein for waterway construction.

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION WITH SOD

SPECIFICATIONS

1. Class of turfgrass sod shall be Maryland or Virginia State Certified, or Maryland or Virginia State approved sod.
2. Sod shall be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness shall exclude top growth and thatch.
3. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
4. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5%. Broken pads and torn or uneven ends will not be acceptable.
5. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
6. Sod shall be harvested, delivered and installed within a period of 36 hours. Sod not transplanted within this period shall be inspected and approved prior to its installation.

I. SITE PREPARATION

Fertilizer and lime application rates shall be determined by soil tests. Under unusual circumstances where there is insufficient time for a complete soil test, fertilizer and lime materials may be applied in amounts shown under B, below.

A. Prior to sodding, the surface shall be cleared of all trash, debris, and of all roots, brush, wire, grade stakes and other objects that would interfere with planting, fertilizing or maintenance operations.

B. Where the soil is acid or composed of heavy clays, ground limestone shall be spread at the rate of 2 tons/acre or 100 pounds per 1,000 square feet. In all soils 1,000 pounds per acre or 25 pounds per 1,000 square feet of 10-10-10 fertilizer or equivalent shall be uniformly applied and mixed into the top 3 inches of soil with the required lime.

C. All areas receiving sod shall be uniformly fine graded. Hard-packed earth shall be scarefied prior to placement of sod.

SEDIMENT CONTROL NOTES

(1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)

(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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

(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 all other disturbed or graded areas on the project site.

(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 Drainage.

(5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (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 Inspector.

(7) Site Analysis:

Total Area of Site	7.144B	Acres
Area Disturbed	2.87	Acres
Area to be roofed or paved	0.50	Acres
Area to be vegetatively stabilized	2.37	Acres
Total Cut	3,000	Cu.Yds
Total Fill	3,000	Cu. Yds
Offsite waste/borrow area location	N/A	

(8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

(9) Additional sediment control must be provided, if deemed necessary by the Howard County DPW 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) The total amount of ~~straw bale~~/dikes ~~silt fence~~ equals 1,200 L.F.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 1/30/92

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE 1/29/92

CHIEF, BUREAU OF HIGHWAYS — DATE 9/16/91

CHIEF, BUREAU OF ENGINEERING — DATE 1-27-92

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION SERVICE — DATE 9/6/91

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

HOWARD COUNTY SOIL CONSERVATION DISTRICT — DATE 9/5/91

NUMBER	REVISION	DATE	BY

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENT 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 SOILS CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER — DATE 3.4.91

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTOR BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS DEEMED NECESSARY.

SIGNATURE OF DEVELOPER — DATE 3.4.91

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