STORM DRAINS & STORMWATER FINAL PLAN

THE GABLES AT NEW YEARS GIFT

SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
2. 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.
3. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
4. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

MISS UTILITY–	1–800–257–7777
BELL TELEPHONE SYSTEM–	393–3649
LONG DISTANCE CABLE DIVISION–	393–3553 or 3553
BALTIMORE GAS AND ELECTRIC CO.–	539–8000 ext. 691
COLONIAL PIPELINE–	795–1390
HOWARD COUNTY BUREAU OF UTILITIES–	313–2366
HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION– (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)	313-1880

5. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
6. ALL STREET CURB RETURNS SHALL HAVE A 35.0' RADIUS UNLESS OTHERWISE NOTED.
7. STORM DRAIN TRENCHES WITHIN THE ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
8. 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.
9. 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.
10. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS.

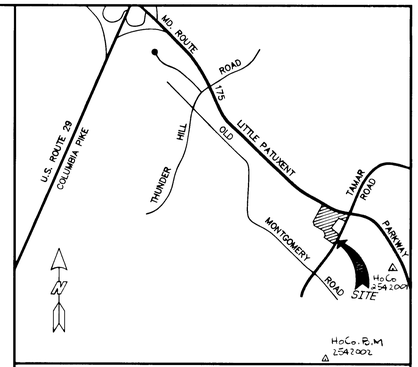
    ALL PRIVATE ROADS = 25 M.P.H.
11. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929
12. ALL FILL AREAS WITHIN THE ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
13. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
14. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
15. SUBJECT PROPERTY ZONED NT & RSA-8 PER COMPREHENSIVE ZONING PLAN DATED 8-2-85
16. TOPOGRAPHY WAS FIELD RUN BY CLARK, FINEFROCK, AND SACKETT, INC. ON OCTOBER 7, 1991.
17. NO PIPE SHALL BE LAID UNTILL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
18. ALL STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN IN FIG. 11.4 VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
19. SEE DEPARTMENT OF PLANNING AND ZONING FILE Nos.: S-91-01, P-92-10 WP-91-20
20. LIGHT POLES AND FIXTURES FOR STREET LIGHTS SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III, ROADS AND BRIDGES.
21. ALL SIDEWALKS AND SIDEWALK RAMPS SHALL COMPLY WITH ADA REQUIREMENTS

STRUCTURE SCHEDULE

STRUCTURE No.	STRUCTURE TYPE	INVERT IN	INVERT OUT	TOP ELEVATION	REMARKS	LOCATION	
I–1	A–5	409.00	408.70	416.07	HO. CO. STD. SD–4.01	STA 7+17 12' LEFT	
I–2	A–5	413.60	412.85	419.09	HO. CO. STD. SD–4.01	STA 13+72 12' LEFT	
I–3	A–5	–	414.55	416.35	HO. CO. STD. SD–4.01	STA 14+67 12' LEFT	
I–4	A–5	–	414.30	418.19	HO. CO. STD. SD–4.01	N 501060.55	E 849083.92
I–5	A–5	386.90	386.80	393.56	HO. CO. STD. SD–4.01	N 500220.17	E 849074.31
I–6	A–5	389.55	–	395.76	HO. CO. STD. SD–4.01	N 500327.11	E 849197.81
I–7	YARD INLET	–	408.85	411.60	HO. CO. STD. SD–4.14	N 500824.22	E 848563.29
I–8	MODIFIED SHALLOW MH	–	406.75	410.33	HO. CO. STD. G–5.05	N 500575.21	E 848842.01
I–9	A–10	390.45	390.41	396.83/396.53	HO. CO. STD. SD–4.02	STA 0+72 12' LEFT	
M–1	STANDARD	409.95	409.70	419.76	HO. CO. STD. G–5.12	STA 8+60 5' LEFT	
M–2	STANDARD	411.95	411.70	424.38	HO. CO. STD. G–5.12	EXISTING STRUCTURE	
M–3	STANDARD	386.5+	385.9+	393.10	HO. CO. STD. G–5.12	EXISTING STRUCTURE	
M–4	STANDARD	389.4+	389.3+	395.50	HO. CO. STD. G–5.12	N 500714.28	E 848624.91
M–5	STANDARD	408.20	407.70	414.00	HO. CO. STD. G–5.12	N 500700.28	E 848732.58
S–1	CONCRETE END SECTION	–	407.00	–	HO. CO. STD. SD–5.52	N 500678.82	E 848652.58
S–2	CONCRETE END SECTION	–	407.00	–	HO. CO. STD. SD–5.52	N 500627.82	E 848676.29
S–3	CONCRETE END SECTION	–	405.50	–	HO. CO. STD. SD–5.52	N 500535.12	E 848856.43

BENCHMARK TABLE NAD 27'

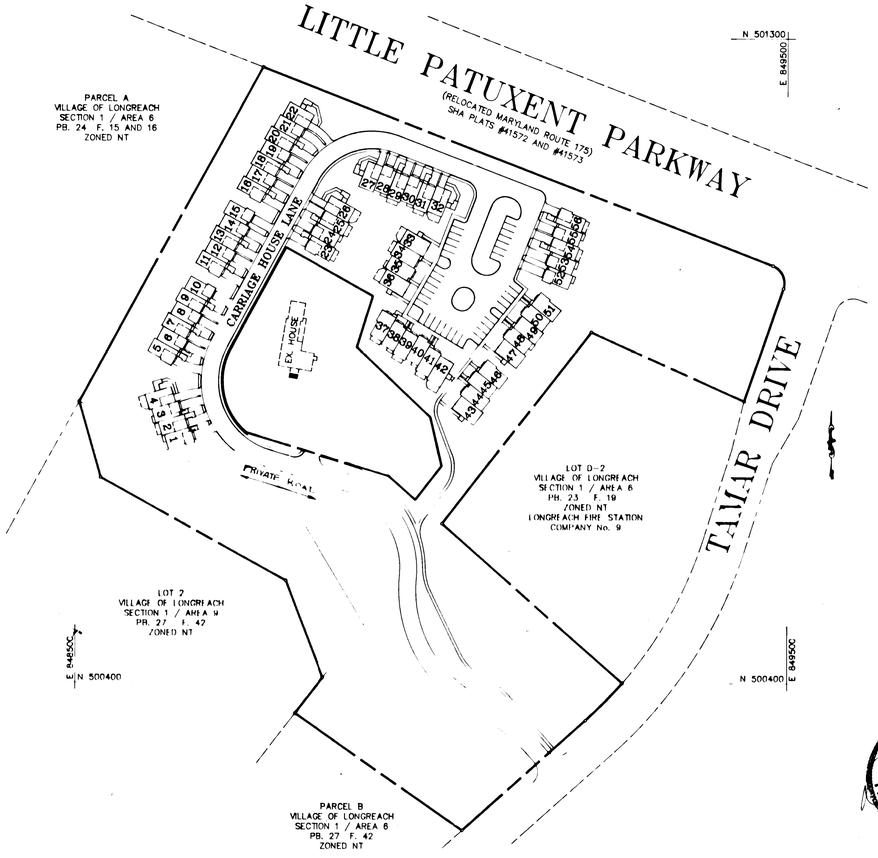
HO CO 2542001 ELEVATION 426.971 CONCRETE MONUMENT MD RTE 175 AT OLD MONTGOMERY RD.
HO CO 2542002 ELEVATION 363.638 CONCRETE MONUMENT MD RTE 175 AT DOBBIN RD.



VICINITY MAP
SCALE: 1" = 2000'

SHEET INDEX

SHT. NO.	DESCRIPTION
1 OF 9	TITLE SHEET
2 OF 9	STORM DRAIN PLAN
3 OF 9	STORM DRAIN PROFILE
4 OF 9	GRADING + SEDIMENT CONTROL PLAN
5 OF 9	EXIST DRAINAGE AREA MAP
6 OF 9	PROPOSED DRAINAGE AREA MAP
7 OF 9	SOILS MAP
8 OF 9	DETAIL SHEET
9 OF 9	SEDIMENT CONTROL DETAIL SHEET



PLAN
Scale 1"= 100'

NO.	BY	REVISION	DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/26/93

CHIEF, BUREAU OF HIGHWAYS — DATE 5/26/93

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF ENGINEERING — DATE 6-1-93

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 6/10/93

TITLE
TITLE SHEET

PROJECT NAME
THE GABLES AT NEW YEARS GIFT
LOT 3,VLR 1\9; LOTS 18,D-1, D-3, VLR 1\6; & PARCELS B-1 THRU B-5
A RESUBDIVISION OF PARCEL B, VLR 1\6 , SECTON 1\AREA 6 & LOT 3
COLUMBIA – VILLAGE OF LONGREACH SECTION 1\AREA 9
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND.

PREPARED BY :
American Engineering Inc.
CIVIL ENGINEERING CONSULTANTS
AND LAND PLANNERS
671-A MAIN STREET
LAUREL, MARYLAND 20707
WASH. (301) 953 – 1221
BALT. (301) 880 – 3039

OWNER
THOMAS & VALERIE NELSON
5970 TAMAR DRIVE
COLUMBIA, MARYLAND 21044

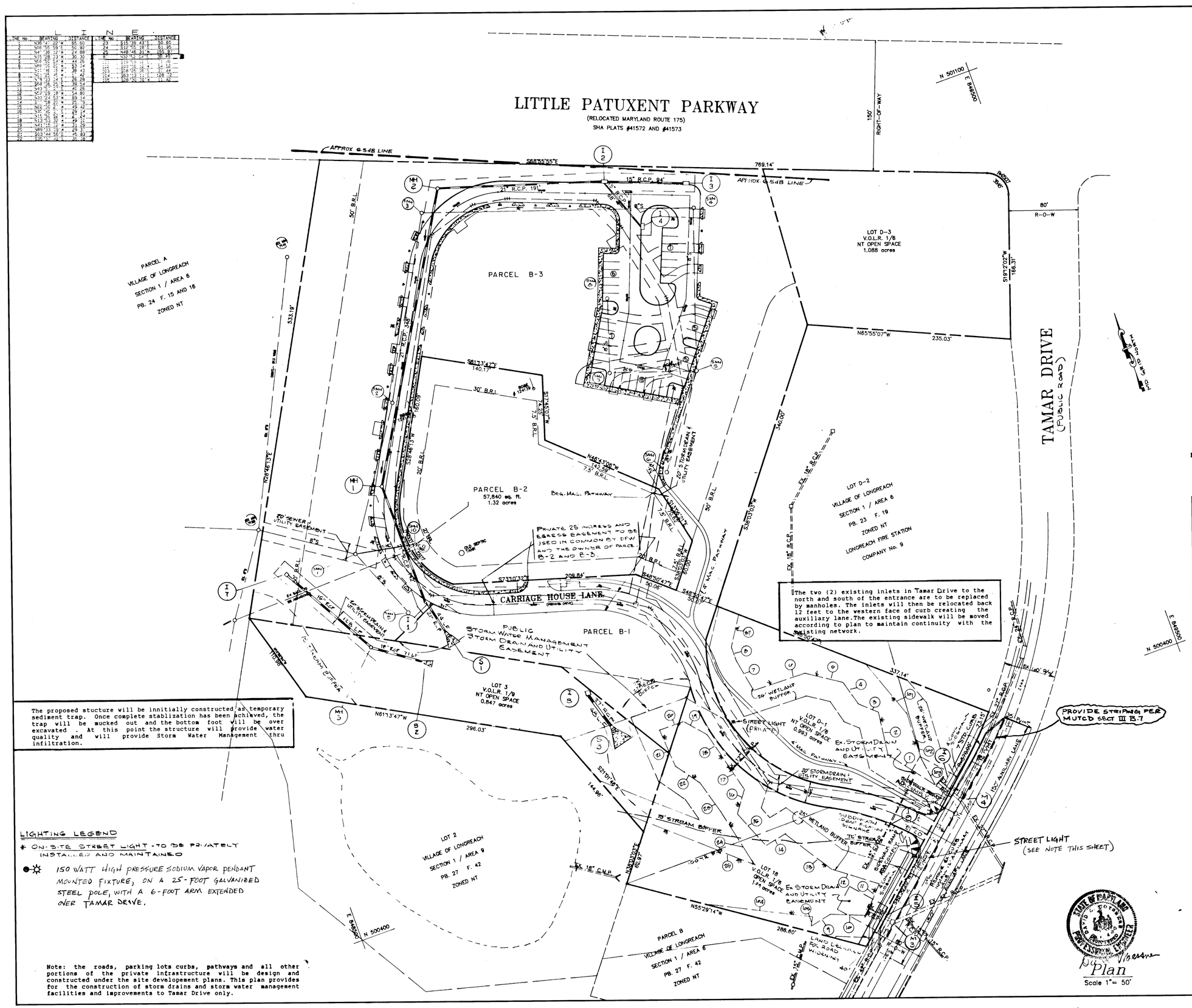
DEVELOPER
CENTEX HOMES
2127 ESPEY COURT, SUITE 210
CROFTON, MARYLAND 21114

DES. : W.D.F.	JOB : 92105	SCALE : AS SHOWN	SHEET 1 OF 9
DRW. : W.D.F.	FILE : GIFTFC		
CHK. : D.C.W.	DATE : 9–18–92		

F-93-51

1661

LINE No.	BEARING	DISTANCE	LINE No.	BEARING	DISTANCE
1	N39°41'20"W	35.80	23	S15°38'49"E	39.85
2	N56°56'56"E	54.80	24	S15°15'18"E	61.35
3	S41°38'17"E	64.88	25	N48°46'31"W	155.81
4	S41°48'13"E	30.30	26	N30°52'24"E	38.20
5	S41°48'13"E	42.00	27	[illegible]	[illegible]
6	N68°14'00"W	53.14	28	[illegible]	[illegible]
7	N21°45'47"E	34.42	29	[illegible]	[illegible]
8	N21°45'47"E	34.42	30	[illegible]	[illegible]
9	N21°45'47"E	34.42	31	[illegible]	[illegible]
10	N21°45'47"E	34.42	32	[illegible]	[illegible]
11	N21°45'47"E	34.42	33	[illegible]	[illegible]
12	N21°45'47"E	34.42	34	[illegible]	[illegible]
13	N21°45'47"E	34.42	35	[illegible]	[illegible]
14	N21°45'47"E	34.42	36	[illegible]	[illegible]
15	N21°45'47"E	34.42	37	[illegible]	[illegible]
16	N21°45'47"E	34.42	38	[illegible]	[illegible]
17	N21°45'47"E	34.42	39	[illegible]	[illegible]
18	N21°45'47"E	34.42	40	[illegible]	[illegible]
19	N21°45'47"E	34.42	41	[illegible]	[illegible]
20	N21°45'47"E	34.42	42	[illegible]	[illegible]
21	N21°45'47"E	34.42	43	[illegible]	[illegible]
22	N21°45'47"E	34.42	44	[illegible]	[illegible]



The proposed stucture will be innitially constructed as temporary sediment trap. Once complete stabilization has been achieved, the trap will be mucked out and the bottom foot will be over excavated . At this point the structure will provide water quality and will provide Storm Water Management thru infiltration.

LIGHTING LEGEND

* ON-SITE STREET LIGHT - TO BE PRIVATELY INSTALLED AND MAINTAINED

150 WATT HIGH PRESSURE SODIUM VAPOR PENDANT MOUNTED FIXTURE, ON A 25-FOOT GALVANIZED STEEL POLE, WITH A 6-FOOT ARM EXTENDED OVER TAMAR DRIVE.

Note: the roads, parking lots curbs, pathways and all other portions of the private infrastructure will be design and constructed under the site developement plans. This plan provides for the construction of storm drains and storm water management facilities and improvements to Tamar Drive only.

NOTE: THIS DRAWING IS FOR THE CONSTRUCTION OF STORM DRAINS AND STORM WATER MANAGEMENT ONLY , AND IS NOT FOR THE CONSTRUCTION OF ROADS OR OTHER UTILITIES. ALL ROADS ARE PRIVATE AND WILL BE CONSTRUCTED PER THE SITE DEVELOPMENT PLAN.

NO.	BY	REVISION	DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/26/93

CHIEF, BUREAU OF HIGHWAYS — DATE 5/14/93

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF ENGINEERING — DATE 6.1.93

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 6/10/93

TITLE

STORM DRAIN PLAN

PROJECT NAME

THE GABLES AT NEW YEARS GIFT

LOT 3, VLR 1\9; LOTS 18, D-1, D-3, VLR 1\6; & PARCELS B-1 THRU B-3, A RESUBDIVISION OF PARCEL B, VLR 1\6 , SECTON 1\ AREA 6 & LOT 3 COLUMBIA – VILLAGE OF LONGREACH SECTION 1\AREA 9

6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND.

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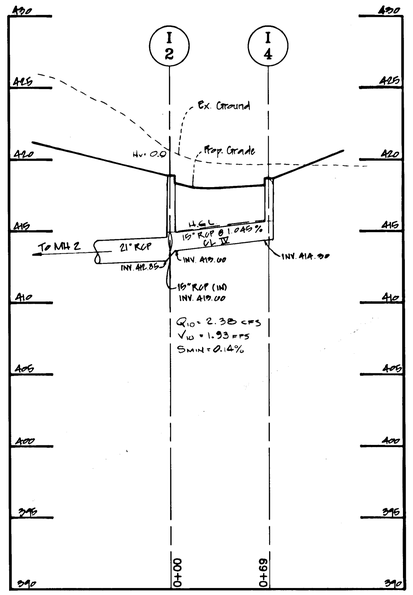
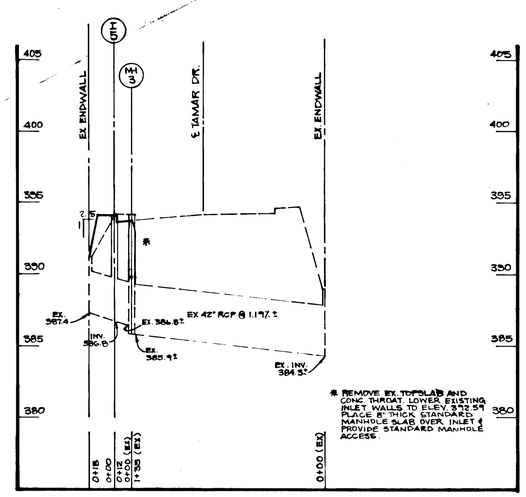
DES. : W.D.F.	JOB : 92105	SCALE : 1" = 50'	SHEET 2 OF 8
DRW. : W.D.F.	FILE : GIFTSP		
CHK. : D.C.W.	DATE : 9-13-92		

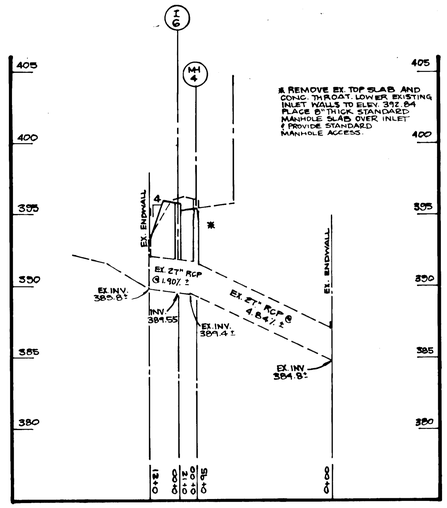
1061

F-93-51



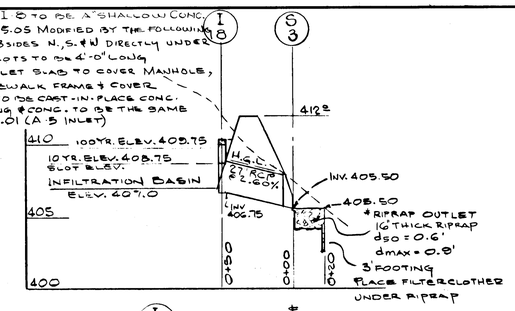


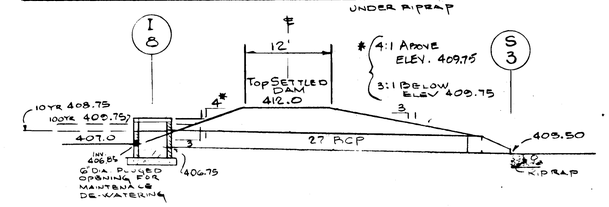
RELOCATED S.D. INLET ALONG
TAMAR DRIVE - DUE TO 12' WIDENING



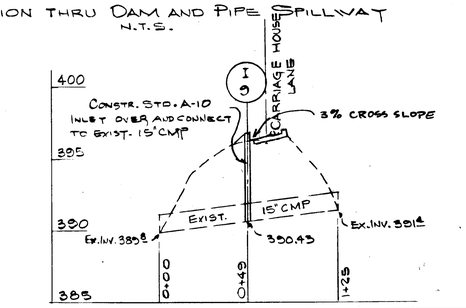
RELOCATED S.D. INLET ALONG
TAMAR DRIVE - DUE TO 12' WIDENING

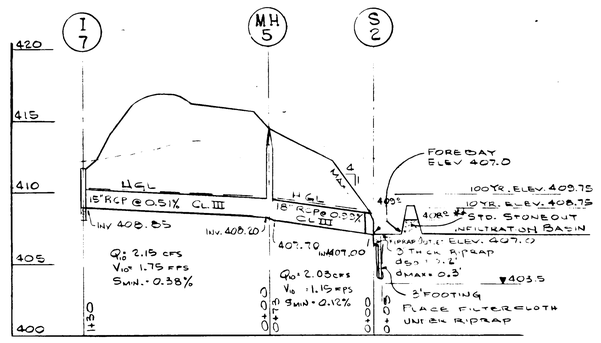
INLET I 8 TO BE A "SHALLOW CONC. MANHOLE" @ S.D. MODIFIED BY THE FOLLOWING:
1. 12" HIGH SLOT 3 SIDES N., S. & W. DIRECTLY UNDER TOP SLAB, SLOTS TO BE 4'-0" LONG
2. USE A-5 INLET SLAB TO COVER MANHOLE, PROVIDE SIDEWALK FRAME & COVER.
3. MANHOLE TO BE CAST-IN-PLACE CONC. REINFORCING & CONC. TO BE THE SAME AS S.D.-4.01 (A-5 INLET)

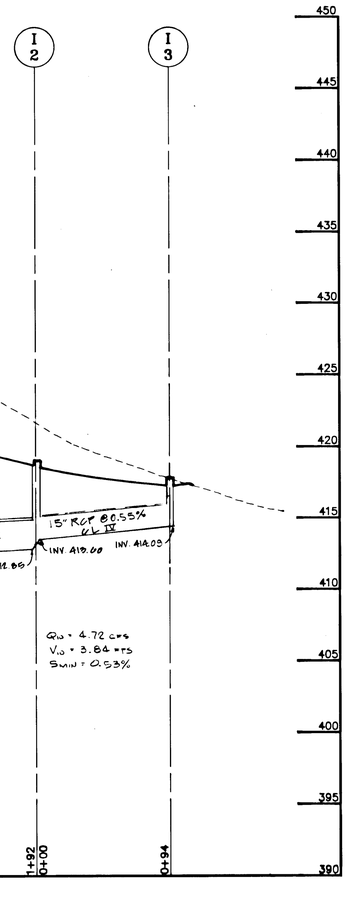




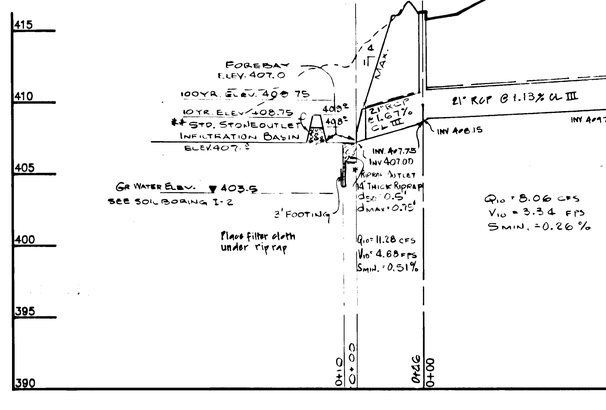
SECTION THRU DAM AND PIPE SPILLWAY
N.T.S.







*RIPRAP OUTLET - TO BE U.S.D.A.-S.C.S. STANDARD ROP-1 - RIPRAP OUTLET PROTECTION-I.
** STD. STONE OUTLET - TO BE U.S.D.A.-S.C.S. STANDARD ST-V - STONE OUTLET SEDIMENT TRAP. SEE SHEET 3 OF 9



Profile
Scale—
Horz: 1" = 50'
Vert: 1" = 5'

NO.	BY	REVISION	DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/20/93

CHIEF, BUREAU OF HIGHWAYS — DATE 5/14/93

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF ENGINEERING — DATE 6-1-93

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 6/10/93

TITLE
STORM DRAIN PROFILES

PROJECT NAME
THE GABLES AT NEW YEARS GIFT
LOT 3, VLR 1\9; LOTS 18, D-1, D-3, VLR 1\6; & PARCELS B-1 THRU B-3,
A RESUBDIVISION OF PARCEL B, VLR 1\6, SECTON 1\AREA 6 & LOT 3
COLUMBIA – VILLAGE OF LONGREACH SECTION 1\AREA 9
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OWNER
THOMAS & VALERIE NELSON
5970 TAMAR DRIVE
COLUMBIA, MARYLAND 21044

DEVELOPER
CENTEX HOMES
2127 ESPEY COURT, SUITE 210
CROFTON, MARYLAND 21114

DES. : W.D.F.	JOB : 92105	SCALE : AS SHOWN	SHEET 3 OF 9
DRW. : W.D.F.	FILE : GIFTSDPR		
CHK. : D.C.W.	DATE : 9-18-92		

F-93-51

1661

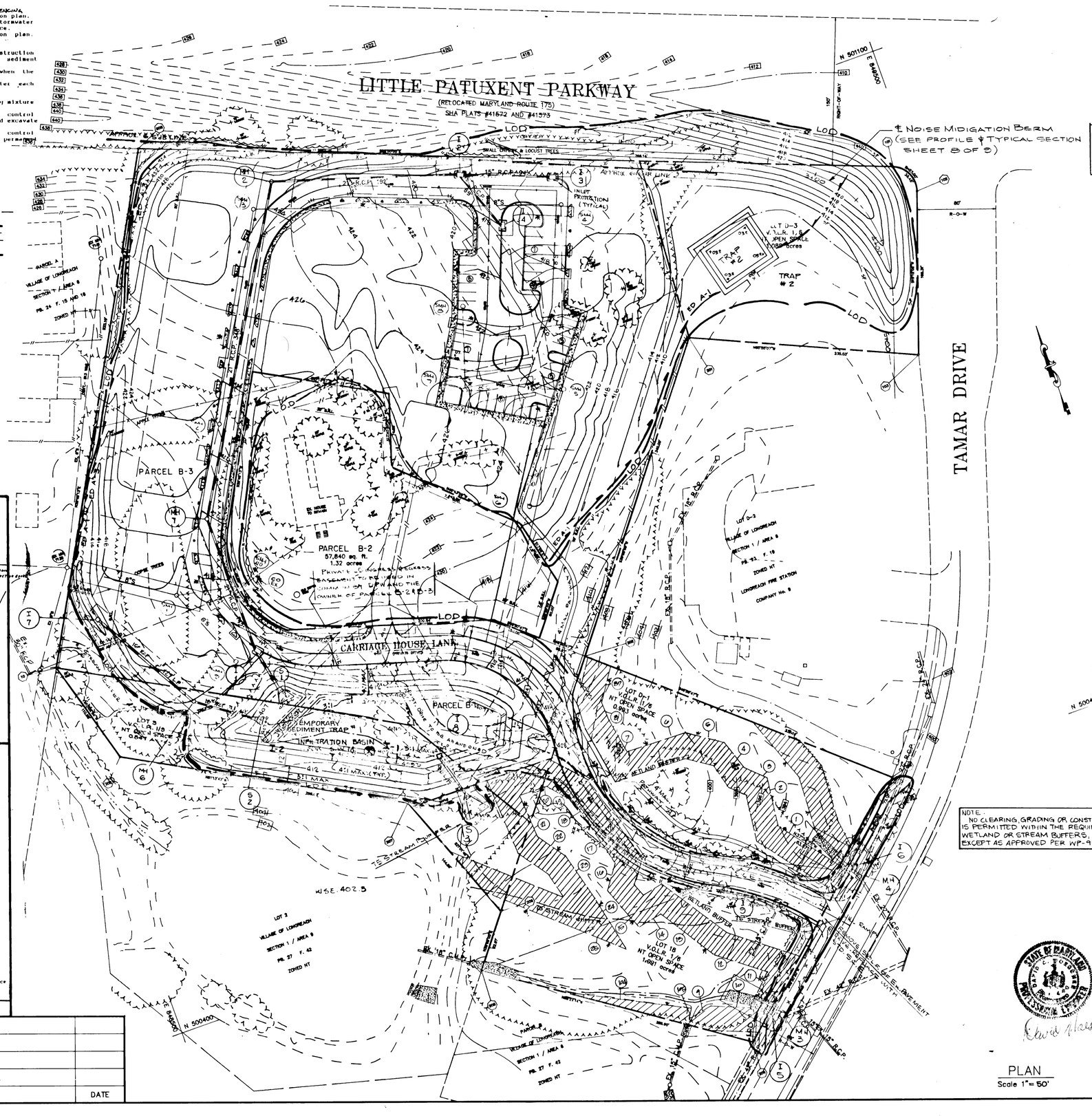
SEQUENCE OF CONSTRUCTION

1. Obtain grading permit AND INSTALL TREE PROTECTION FENCING.
2. Construct stabilized construction entrance as shown on plan.
3. Install all sediment control devices, including stormwater management / sediment trap #2 using dewatering device.
4. Construct storm drains as shown on plan.

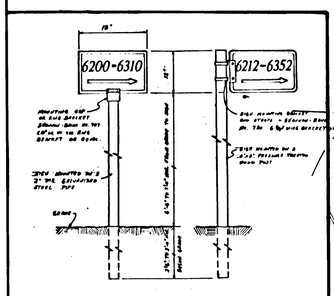
   Place inlet protection at all inlets.
5. Grade roads and construct paving. Stabilized construction entrance may be removed with the approval of sediment control inspector to facilitate paving activities.
6. All sediment shall be removd from sediment trap when the cleanout elevation has been reached.
7. Inspect all sediment control devices daily and after each rainfall. Repair as necessary.
8. Grade the site as per plans.
9. Stabilize all disturbed areas with permanent seeding mixture and straw mulch.
10. After permission has been given by the sediment control inspector, remove all sediment control features and excavate remainder of SWM pond.
11. All disturbed areas due to removal of sediment control measures shall be graded and stabilized with permanent seeding mixture.

LEGEND

EXISTING CONTOUR	---- OR ----
PROPOSED CONTOUR	
EARTHDIKE	
SILTFENCE	SF SF
TREE PROTECTION FENCE	TF TF
SPOT ELEVATION	x38.0 x S
LIMITS OF DISTURBANCE	LOD
STABILIZED CONSTRUCTION ENTRANCE	SCE
INLET PROTECTION	I

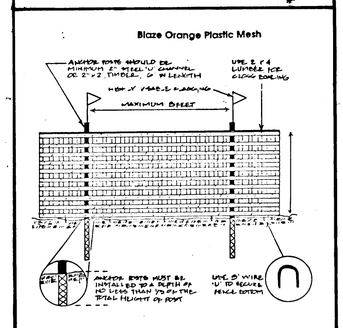


PLAN
Scale 1" = 50'



SIGN OPTION NUMBER 1 AND NUMBER 2

SIGN DESIGN AND INSTALLATION DETAIL



Notes
1. Forest protection device only.
2. Extension Posts will be left as part of the review process.
3. Boundaries of Extension Area should be staked and flagged prior to installing device
4. Root damage should be avoided.
5. Protective signage may also be used.
6. Device should be maintained throughout construction.

TREE PROTECTION FENCE DETAIL

NO.	BY	REVISION	DATE

TRAP DATA

	TRAP #1	TRAP#2
EX. DRAINAGE AREA	3.85 AC.	4.22 AC
PROP. DRAINAGE AREA	5.78 AC.	4.50 AC.
STORAGE REQUIRED	10,314 CF.	8100 CF.
STORAGE PROVIDED	15,947 CF.	8480 CF.
CREST ELEVATION	410.00 FT.	407.00 FT.
CLEANOUT ELEVATION	409.50 FT.	406.00 FT.
BOTTOM ELEVATION	409.00 FT.	403.00 FT.
TRAP DIMENSIONS	52 FT. X 140 FT.	34 FT. X 44 FT.

NOTE: - FOR TRAP #1, EXCAVATE THE INFILTRATION BASIN TO ELEVATION 409.0. CONSTRUCT EMBANKMENT TO ELEVATION 412.0

NOTE: THIS DRAWING IS FOR GRADING AND SEDIMENT CONTROL ONLY AND IS NOT FOR THE CONSTRUCTION OF ROADS OR OTHER UTILITIES.

NOTE: NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLAND OR STREAM BUFFERS, EXCEPT AS APPROVED PER WP-91-20.

ENGINEER'S CERTIFICATE

I HEREBY 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.

SIGNATURE OF ENGINEER — DATE 4/13/93

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 MD. 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

SIGNATURE OF DEVELOPER — DATE 4/13/93
RICHARD KOZWLSKI

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

U.S. SOIL CONSERVATION DISTRICT — DATE 5/4/93

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

DISTRICT HOWARD SOIL CONSERVATION DISTRICT — DATE 5/5/93

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/14/93

CHIEF, BUREAU OF HIGHWAYS — DATE 5/14/93

CHIEF, BUREAU OF ENGINEERING — DATE 6.1.93

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 6/10/93

TITLE
GRADING & SEDIMENT CONTROL

PROJECT NAME
THE GABLES AT NEW YEARS GIFT

LOT 3, VLR 1\9; LOTS 18, D-1, D-3, VLR 1\6; & PARCELS B-1 THRU B-3,
A RESUBDIVISION OF PARCEL B, VLR 1\6, SECTON 1\AREA 6 & LOT 3
COLUMBIA – VILLAGE OF LONGREACH SECTION 1\AREA 9
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND.

PREPARED BY :
American Engineering Inc.
CIVIL ENGINEERING CONSULTANTS AND LAND PLANNERS
671-A MAIN STREET
LAUREL, MARYLAND 20707
WASH. (301) 953 – 1221
BALT. (410) 880 – 3039

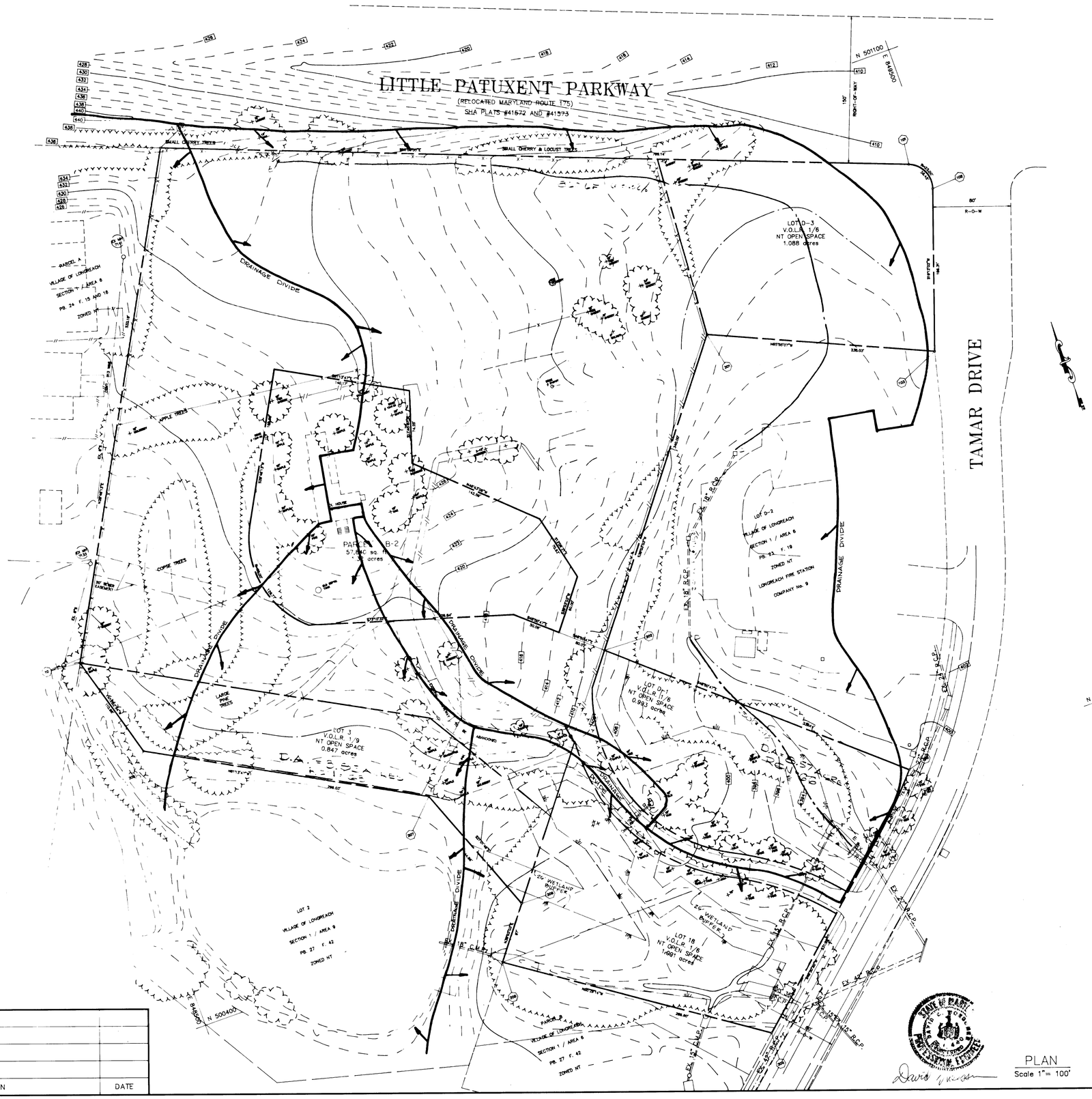
OWNER
THOMAS & VALERIE NELSON
5970 TAMAR DRIVE
COLUMBIA, MARYLAND 21044

DEVELOPER
CENTEX HOMES
2127 ESPEY COURT, SUITE 210
CROFTON, MARYLAND 21114

DES. : R.T.T.Jr.	JOB : 92105	SCALE : 1" = 50'	SHEET 4 OF 9
DRW. : W.D.F.	FILE : GIFTGSC		
CHK. : D.C.W.	DATE : 9-18-92		

F-93-51

1661



PLAN
Scale 1"= 100'

NO.	BY	REVISION	DATE

ENGINEER'S CERTIFICATE

I HEREBY 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.

SIGNATURE OF ENGINEER — DATE 4/7/93

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 M.D.E. 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

SIGNATURE OF DEVELOPER
RICHARD KOBYLORI — DATE 4/7/93

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

U.S. SOIL CONSERVATION DISTRICT SCS/VICE — DATE 5/5/93

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

DISTRICT CHAIRMAN
HOWARD SOIL CONSERVATION DISTRICT — DATE 5/5/93

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/24/93

CHIEF, BUREAU OF HIGHWAYS — DATE 5/12/93

CHIEF, BUREAU OF ENGINEERING — DATE 6.1.93

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 6/10/93

TITLE
EXISTING DRAINAGE AREA MAP

PROJECT NAME
THE GABELS AT NEW YEARS GIFT
LOT 3,VLR 1\9; LOTS 18,D-1, D-3, VLR 1\6; & PARCELS B-I THRU B-3, A RESUBDIVISION OF PARCEL B, VLR 1\6 , SECTON 1\AREA 6 & LOT 3 COLUMBIA – VILLAGE OF LONGREACH SECTION 1\AREA 9
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND.

PREPARED BY :
American Engineering Inc.
CIVIL ENGINEERING CONSULTANTS
AND LAND PLANNERS
671-A MAIN STREET
LAUREL, MARYLAND 20707
WASH. (301) 953 – 1221
BALT. (410) 880 – 3039

OWNER
THOMAS & VALERIE NELSON
5970 TAMAR DRIVE
COLUMBIA, MARYLAND 21044

DEVELOPER
CENTEX HOMES
2127 ESPEY COURT, SUITE 210
CROFTON, MARYLAND 21114

DES. : B.I.S.	JOB : 92105	SCALE : 1" = 50'	SHEET 5 OF 9
DRW. : W.D.F.	FILE : GIFTDAMX		
CHK. : D.C.W.	DATE : 9-18-92		

F-93-51

1661

NOTE : THIS DRAWING IS FOR DRAINAGE AREA STUDY ONLY , AND IS NOT FOR CONSTRUCTION.

ENGINEER'S CERTIFICATE

I HEREBY 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.

SIGNATURE OF ENGINEER — DATE 4/16/93

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 MD. 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

SIGNATURE OF DEVELOPER RICHARD KOBYLSKI — DATE 4/13/93

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

U.S. SOIL CONSERVATION ~~DISTRICT~~ SERVICE — DATE 5/4/93

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

DISTRICT HOWARD SOIL CONSERVATION DISTRICT — DATE 5/4/93

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/26/93

CHIEF, BUREAU OF HIGHWAYS — DATE 5/19/93

CHIEF, BUREAU OF ENGINEERING — DATE 6-1-93

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 6/10/93

TITLE: PROPOSED
DRAINAGE MAP

PROJECT NAME
THE GABLES AT NEW YEARS GIFT
LOT 3,VLR 1\9; LOTS 18,D-1, D-3, VLR 1\6; & PARCELS B-1 THRU B-3,
A RESUBDIVISION OF PARCEL B, VLR 1\6 , SECTON 1\AREA 6 & LOT 3
COLUMBIA – VILLAGE OF LONGREACH SECTION 1\AREA 9
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND.

PREPARED BY :
American Engineering Inc.
CIVIL ENGINEERING CONSULTANTS AND LAND PLANNERS
671-A MAIN STREET
LAUREL, MARYLAND 20707
WASH. (301) 953 – 1221
BALT. (410) 880 – 3038

OWNER
THOMAS & VALERIE NELSON
5970 TAMAR DRIVE
COLUMBIA, MARYLAND 21044

DEVELOPER
CENTEX HOMES
2127 ESPEY COURT, SUITE 210
CROFTON, MARYLAND 21114

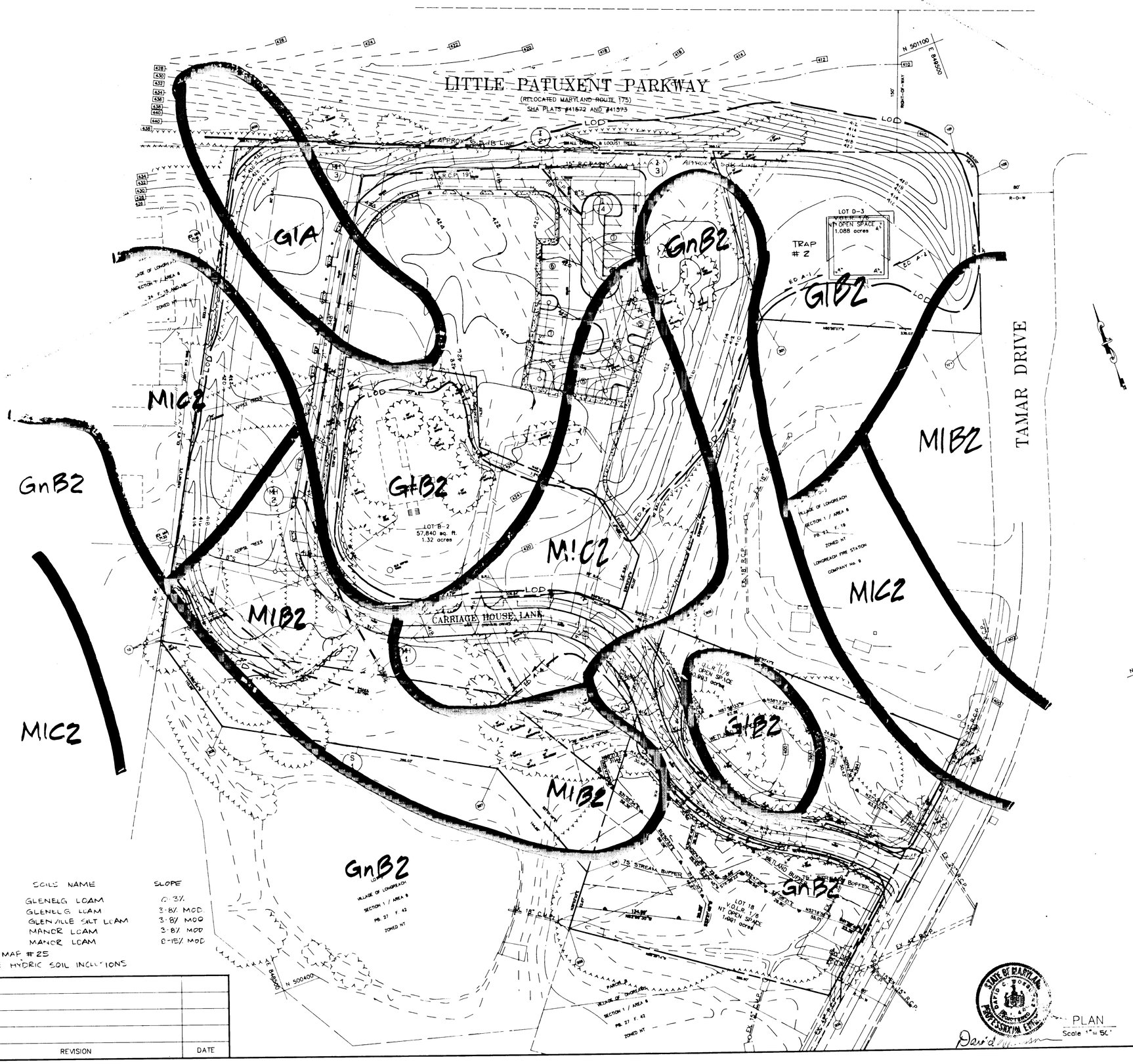
DES. : R.T.T.Jr.	JOB : 92105
DRW. : W.D.F.	FILE : GIFTGSC
CHK. : D.C.W.	DATE : 9-18-92

SCALE : 1" = 50'
SHEET 6 OF 9

NO.	BY	REVISION	DATE

1662

F-93-51



SYMBOL	SOILS NAME	SLOPE
GlA	GLENELG LOAM	0-3%
GlB2	GLENELG LOAM	3-8% MOD.
* GnB2	GLENVILLE SILT LOAM	3-8% MOD
MIB2	MANOR LOAM	3-8% MOD
MIC2	MANOR LOAM	8-15% MOD

SEE SOILS MAP #25

* POSSIBLE HYDRIC SOIL INCLUSIONS

NO.	BY	REVISION	DATE

ENGINEER'S CERTIFICATE

I HEREBY 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.

SIGNATURE OF ENGINEER — DATE 4/13/93

DEVELOPER'S CERTIFICATE

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SIGNATURE OF DEVELOPER — DATE 4/13/93

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

U.S. SOIL CONSERVATION DISTRICT — DATE

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

DISTRICT
HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/20/93

CHIEF, BUREAU OF HIGHWAYS — DATE 5/4/93

CHIEF, BUREAU OF ENGINEERING — DATE 6-1-93

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 6/10/93

TITLE

SOILS MAP

PROJECT NAME

THE GABLES AT NEW YEARS GIFT

LOT 3,VLR 1\9; LOTS 18,D-1, D-3, VLR 1\6; & PARCELS B-1 THRU B-3, A RESUBDIVISION OF PARCEL B, VLR 1\6 , SECTON 1\AREA 6 & LOT 3 COLUMBIA – VILLAGE OF LONGREACH SECTION 1\AREA 5
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND.

PREPARED BY :
American Engineering Inc.
CIVIL ENGINEERING CONSULTANTS AND LAND PLANNERS
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DEVELOPER
CENTEX HOMES
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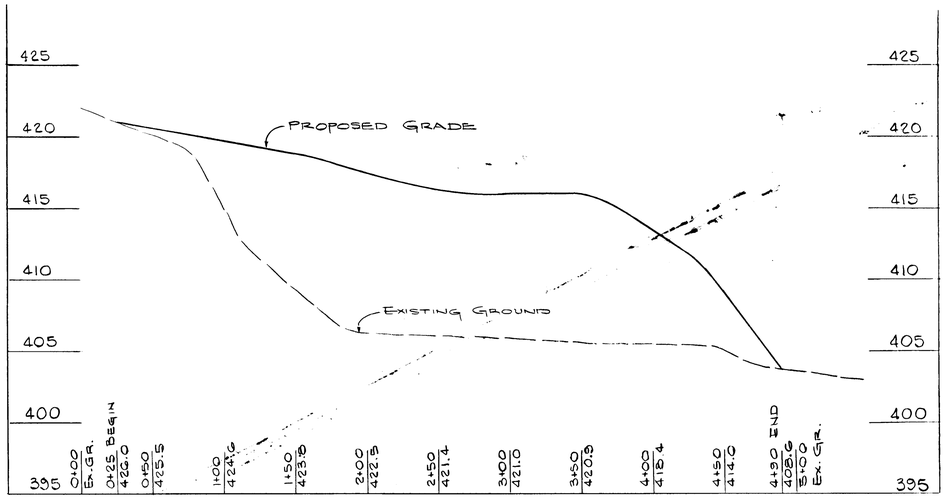
CROFTON, MARYLAND 21114

DES. : R.T.T.Jr.	JOB : 92105	SCALE : 1" = 50'	SHEET 7 OF 9
DRW. : W.D.F.	FILE : GIFTGSC		
CHK. : D.C.W.	DATE : 9-18-92		

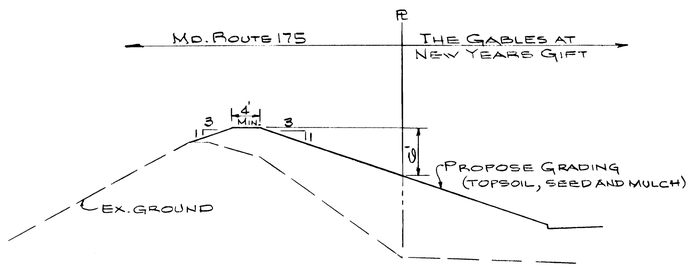
F-93-51

1661

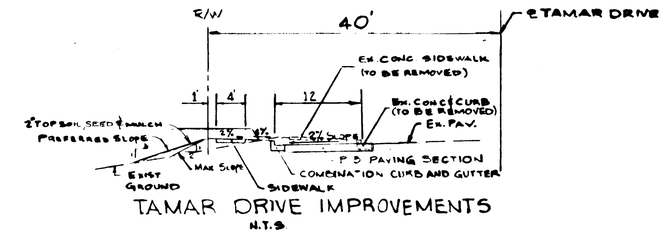


CENTERLINE PROFILE ALONG NOISE MIDIGATION BERM

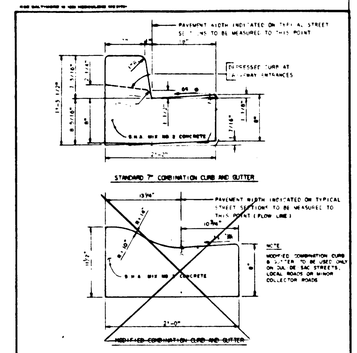
PROFILE SCALE: 1"=50' HORIZ.
1"=5' VERT.



TYPICAL SECTION THRU NOISE MIDIGATION BERM
SCALE: 1"=10'



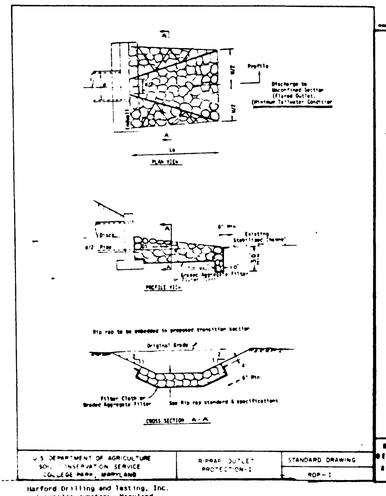
TAMAR DRIVE IMPROVEMENTS
N.T.S.



TAMAR DRIVE

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved
Chief Bureau of Engineering

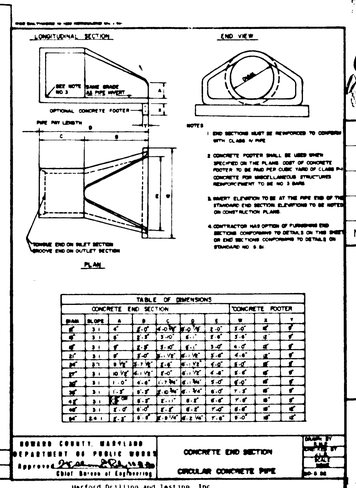
COMBINATION CURB AND GUTTER



U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COLLEGE PARK, MARYLAND

RIPRAP OUTLET PROTECTION-I

STANDARD DRAWING
ROP-I



NOTES

1. END SECTIONS MUST BE REINFORCED TO CONFORM WITH CLASS IV PIPE
2. CONCRETE FOOTER SHALL BE USED WHEN SPECIFIED ON THE PLANS. COST OF CONCRETE FOOTER TO BE PAID PER CUBIC YARD OF CLASS B CONCRETE FOR MISCELLANEOUS STRUCTURES. REINFORCEMENT TO BE NO 3 BARS.
3. INVERT ELEVATION TO BE AT THE PIPE END OF THE STANDARD END SECTION. ELEVATIONS TO BE NOTED ON CONSTRUCTION PLANS.
4. CONTRACTOR HAS OPTION OF FURNISHING END SECTIONS CONFORMING TO DETAILS ON THIS SHEET OR END SECTIONS CONFORMING TO DETAILS ON STANDARD NO. 5.9.

TABLE OF DIMENSIONS

	CONCRETE END SECTION							CONCRETE FOOTER		
DIAM.	SLOPE	A	B					W	X	Y
18"	3:1	6"	6'-0"	4'-0"	8'-0 1/4"	3'-0"	3'-0"	6"	6"
24"	3:1	8"	8'-0"	5'-0"	8'-0"	4'-0"	4'-0"	6"	6"
30"	3:1	9"	9'-0"	5'-6"	8'-0"	4'-6"	4'-6"	6"	6"
36"	3:1	9"	9'-0"	6'-0"	8'-0 1/4"	4'-6"	4'-6"	6"	6"
42"	3:1	9 1/2"	9'-1 1/2"	6'-6"	8'-0 1/4"	4'-6"	4'-6"	6"	6"
48"	3:1	10"	10'-0"	7'-0"	8'-0 1/4"	5'-0"	5'-0"	6"	6"
54"	3:1	10 1/2"	10'-1 1/2"	7'-6"	8'-0 1/4"	5'-6"	5'-6"	6"	6"
60"	3:1	11"	11'-0"	8'-0"	8'-0 1/4"	6'-0"	6'-0"	6"	6"
66"	3:1	11 1/2"	11'-1 1/2"	8'-6"	8'-0 1/4"	6'-6"	6'-6"	6"	6"
72"	3:1	12"	12'-0"	9'-0"	8'-0 1/4"	7'-0"	7'-0"	6"	6"

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved
Chief Bureau of Engineering

CONCRETE END SECTION
CIRCULAR CONCRETE PIPE

NO.	BY	REVISION	DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/20/93

CHIEF, BUREAU OF HIGHWAYS — DATE 5/17/93

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF ENGINEERING — DATE 6-1-93

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 6/10/93

TITLE

DETAIL SHEET

PROJECT NAME

THE GABELS AT NEW YEARS GIFT

LOT 3,VLR 1\9; LOTS 18,D-1, D-3, VLR 1\6; & LOTS B-1 THRU B-3, A RESUBDIVISION OF PARCEL B, VLR 1\6 , SECTON 1\AREA 6 & LOT 3
COLUMBIA – VILLAGE OF LONGREACH SECTION 1\AREA 9
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND.

PREPARED BY :
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DEVELOPER
CENTEX HOMES
2127 ESPEY COURT, SUITE 210
CROFTON, MARYLAND 21114

DES. : W.D.F.	JOB : 92105	SCALE : AS SHOWN	SHEET 8 OF 9
DRW. : W.D.F.	FILE : GIFTFC		F93-51
CHK. : D.C.W.	DATE : 9-18-92		

SIDEWALK AND SIDEWALK RAMPS TO CONFORM TO ADA REQUIREMENTS

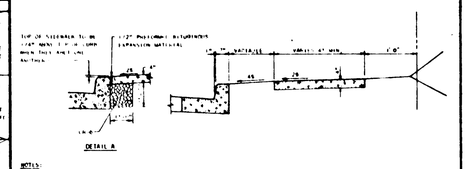
TAMAR DRIVE
IMPROVEMENT

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS: FULL DEPTH BIT. CONC. ALTERNATE	PAVEMENT MATERIALS: TRADITIONAL BASE ALTERNATES
P-1	TRAVELWAYS FOR APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	1 1/2" BIT. CONC. SURFACE; 4" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE; 4" BIT. CONC. BASE
P-2	RESIDENTIAL ZONES: LOCAL CUL DE SAC STS. ALLEYS AND PRIVATE ROADS SERVING RESIDENCES	1 1/2" BIT. CONC. SURFACE; 4" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE; 4" BIT. CONC. BASE
P-3	RESIDENTIAL ZONES: MINOR AND MAJOR COLLECTORS; COMMERCIAL-INDUSTRIAL ZONES; LOCAL AND COLLECTOR STREETS ABOVE TRAVELWAYS FOR APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH MORE THAN 10 HEAVY TRUCKS PER DAY	1 1/2" BIT. CONC. SURFACE; 4" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE; 4" BIT. CONC. BASE
P-4	MINOR COLLECTORS	1 1/2" BIT. CONC. SURFACE; 4" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE; 4" BIT. CONC. BASE

TRAVELWAYS ARE DEFINED AS THE ROADWAYS LEADING TO THE PARKING BAYS.
HEAVY TRUCKS ARE DEFINED AS THOSE WITH 6 WHEEL OR MORE INCLUDING GARBAGE TRUCKS

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved
Chief Bureau of Engineering — Date

PAVING SECTIONS
P-1 THROUGH P-4



NOTES:
1. SIDEWALK TO BE SCORED ON 5' MAXIMUM SQUARES.
2. EXPANSION JOINTS ACROSS THE SIDEWALK MUST TO BE MORE THAN 15' APART.
3. 1/2" PRE-FORMED FIBERGLASS EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT 1/4" BELOW SURFACE OF SIDEWALK.
4. CONCRETE TO BE MIX NO.2.
5. BACK FORMS ABUTTING ANY WALK SHALL BE 1/4" ABOVE CURB WITH 1/2" PRE-FORMED BITUMINOUS EXPANSION MATERIAL BETWEEN CURBS AND WALK AND BETWEEN ON & COMPACTED BUSHEL STONE BASE. SEE DETAIL A THIS SHEET.
6. ON CONTINUOUS SIDEWALK WHICH IS 10' OR WIDER, A CONCRETE HEADER, 8" THICK AND 6" DEEP BELOW THE NORMAL 4" SIDEWALK THICKNESS, SHALL BE CONTRACTED FOR THE FULL WIDTH OF THE SIDEWALK AT INTERVALS OF 40 FEET. THE HEADERS SHALL BE PER AS AT EXPANSION JOINT LOCATIONS AND SHALL BE IMMEDIATELY WITH THE SIDEWALK.

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved
Chief Bureau of Engineering — Date

CONCRETE SIDEWALK

Harford Drilling and Testing, Inc.
Annapolis Junction, Maryland

Project Name: The Gables at New Year's Gift — GTA Job No. 93004.D
Date Started: 1-22-93 — Date Completed: 1-22-93 — Boring #: 1-2
Boring Location:
Elevation: 410.4' — Total Depth: 15.0' — Ground Water @ 0 Hrs. 8.9', caved 11.6' — Ground Water @ 24 Hrs.: 8.9'
Drilled by: Dale Price — Equipment: ATV
Water encountered @ 13.0' — Topsoil: 6"

Strata Depth	Sample Depth	SAMPLE No.	Blows/6"			Rec./Att	DESCRIPTION (Color, Moisture, Proportions, etc.)
2.0	0.0-2.0	1	3	5	8	15/24"	Brown, moist, loose, micaceous silt and sand, trace clay (ML)
	2.5-4.0	2	4	9	20	20/24"	USDA: Loam
	3.0-3.0	3	10	14	6	16/24"	Orange brown to gray-brown, moist to very moist, loose to medium dense sand and silt, trace to little rock fragments (SM) USDA: Loam
			6	8			
	3.5-5.5	4	3	4	6	13/24"	
			4	3			
	10.0-12.0	5	3	5	5	14/24"	
			5	9			
	13.0-15.0	6	3	4	5	14/24"	
15.0			4	5			B.O.H. - 15.0'

Standard Penetration Test: Driving 2-inch O.D. Sampler with 140 pound hammer freely falling 30 inches.

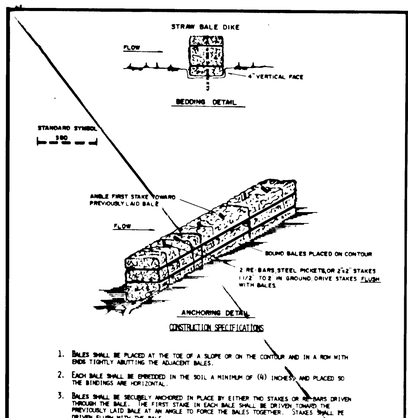
Harford Drilling and Testing, Inc.
Annapolis Junction, Maryland

Project Name: The Gables at New Year's Gift — GTA Job No. 93004.D
Date Started: 1-22-93 — Date Completed: 1-22-93 — Boring #: 1-1
Boring Location:
Elevation: 409.3' — Total Depth: 15.0' — Ground Water @ 0 Hrs. 12.1', caved 12.7' — Ground Water @ 24 Hrs.: 7.4'
Drilled by: Dale Price — Equipment: ATV
Water encountered @ 13.0' — Topsoil: 5"

Strata Depth	Sample Depth	SAMPLE No.	Blows/6"			Rec./Att	DESCRIPTION (Color, Moisture, Proportions, etc.)
	0.0-2.0	1	2	3	5	15/24"	Brown, moist to very moist, very loose to medium dense, silt and sand, trace clay (ML)
	2.5-4.0	2	3	5	6	16/24"	USDA: Loam
8.0			6	9			
	5.0-7.0	3	11	10	6	16/24"	White and brown to orange-brown, very moist, medium dense, sand and silt, trace rock fragments (SM)
			11	12			USDA: Loam
	7.5-9.5	4	9	11	7	14/24"	
			7	5			
	10.0-12.0	5	5	5	8	13/24"	
			7	9			
	13.0-15.0	6	5	9	10	12/24"	
15.0			8	10			B.O.H. - 15.0'

Standard Penetration Test: Driving 2-inch O.D. Sampler with 140-pound hammer freely falling 30 inches.

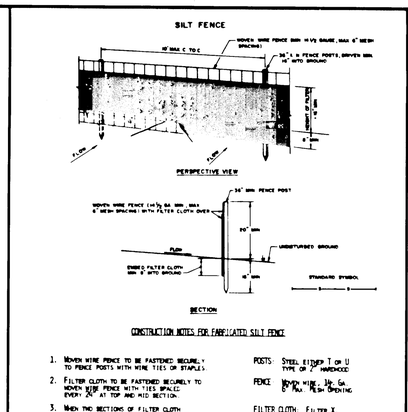
1661



CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	STRAW BALE DIKE	STANDARD DRAWING SBD - I



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.

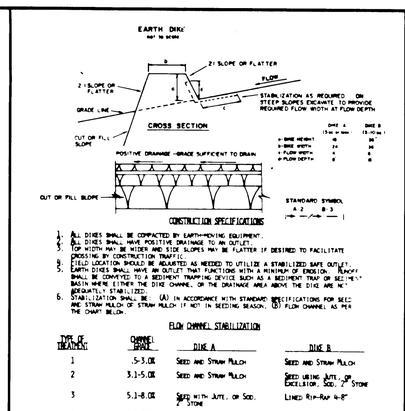
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 14½ GA. 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 140N, STABILINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	SILT FENCE	STANDARD DRAWING SF - I



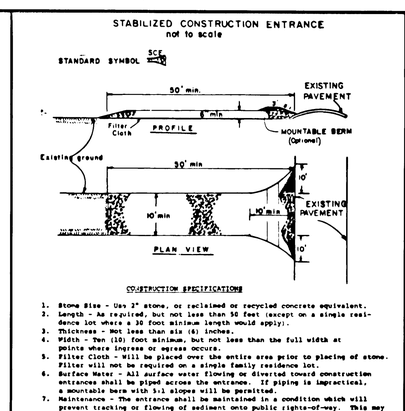
1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED 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 OF 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	EARTH DIKE	STANDARD DRAWING ED - I



CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED, STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE CHART BELOW.

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 ac or less)	B (5 ac - 10 ac)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1-8.0%	SEED WITH JUTE OR EXCELSIOR, SOD	LINED RIP-RAP 4-8" RECYCLED CONCRETE EQUIVALENT
4	8.1-20%	LINED 4-8" RIP-RAP	ENGINEERED DESIGN

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

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	TEMPORARY SWALE	STANDARD DRAWING TS - I

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, discing 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 acre 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 disc 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 or disc 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 an' mulch with 2 tons/acre well anchored straw.

Mulching - Apply 1½ 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 gallons 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, discing or other acceptable means before seeding, if not previously loosened

Soil Amendments: Apply 600 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 November 15, seed with 2½ 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 1½ 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.

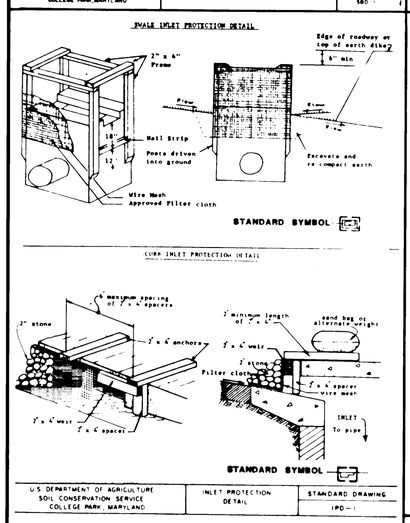
Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

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. (992-2477) 313-1855
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, Chaper 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) 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 Inspector
7) Site Analysis:
   Total Area of Site 11.517 Acres
   Area Disturbed 7.5 Acres
   Area to be roofed or paved 2.6 Acres
   Area to be vegetatively stabilized 5.9 Acres
   Total Cut 37,714 Cu. yds
   Total Fill 34,218 Cu. yds
   Offsite waste/borrow area location —
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's must be provided, if deemed necessary by the Howard County DPW sediment control inspector.

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.

NOTE: FOR SEQUENCE OF CONSTRUCTIONS, SEE SHEET 4 OF 9



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	INLET PROTECTION DETAIL	STANDARD DRAWING IPD - I

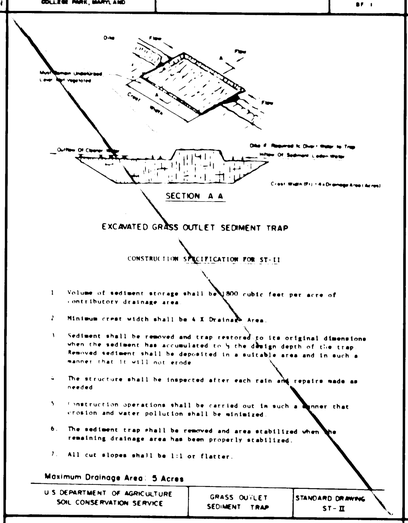
Construction Specifications

Materials

A. Wooden frame is to be constructed of 2"x4" construction grade lumber.
B. Plywood is to be a minimum thickness of 1/4" construction grade lumber.

Installation

1. Cut plywood to extend a minimum of 6" past throat along curb.
2. Attach to anchors in a secure manner which will insure a water tight fit against throat.
3. Brace securely using sandbag or alternate weight. If not watertight, use approved filter cloth under plywood and attach securely.

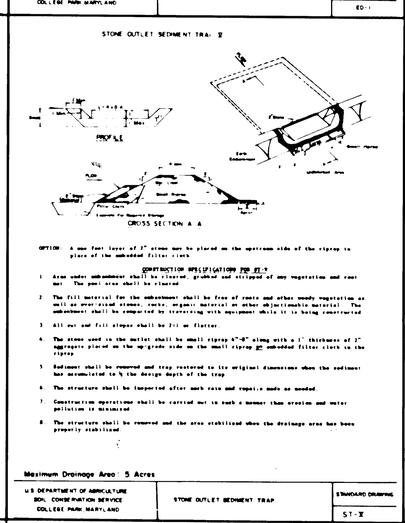


CONSTRUCTION SPECIFICATION FOR ST-II

1. Volume of sediment storage shall be 1,800 cubic feet per acre of contributory drainage area.
2. Minimum crest width shall be 4 X Drainage Area.
3. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to ½ the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
4. The structure shall be inspected after each rain and repairs made as needed.
5. Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
6. The sediment trap shall be removed and area stabilized when the remaining drainage area has been properly stabilized.
7. All cut slopes shall be 1:1 or flatter.

Maximum Drainage Area: 5 Acres

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	GRASS OUTLET SEDIMENT TRAP	STANDARD DRAWING ST - II



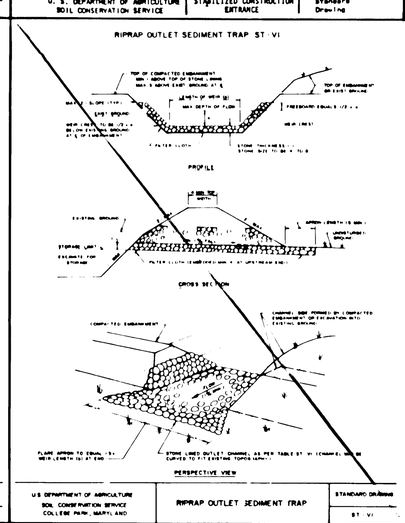
OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

CONSTRUCTION SPECIFICATIONS FOR ST-II

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 up grade 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 than erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

Maximum Drainage Area: 5 Acres

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	STONE OUTLET SEDIMENT TRAP	STANDARD DRAWING ST - II



CONSTRUCTION SPECIFICATIONS FOR ST-VI

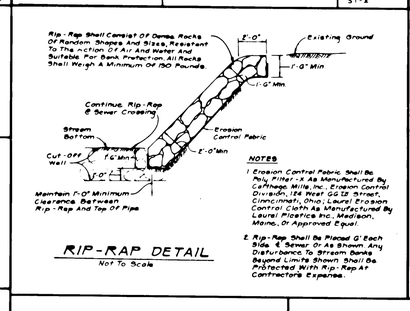
1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
4. Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
5. Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level weir crest.
6. Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
7. Stone used in the outlet channel shall be four (4) to eight(8) inches (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
8. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
9. The structure shall be inspected after each rain and repaired as needed.
10. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
11. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
12. Drainage area for this practice is limited to 15 acres or less.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	RIPRAP OUTLET SEDIMENT TRAP	STANDARD DRAWING ST - VI

Riprap Outlet Sediment Trap

ST-VI for Stone Lined Channel)

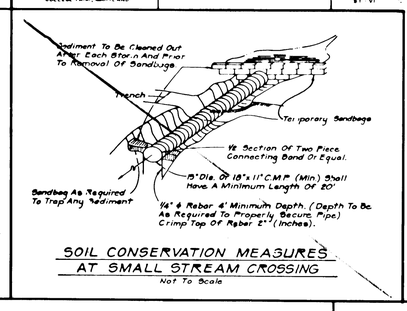
Contributing Drainage Area (Acres)	Depth of Channel (Feet)	Length of Weir (b) (Feet)
1	1.5	4.0
2	1.5	5.0
3	1.5	6.0
4	1.5	10.0
5	1.5	12.0
6	1.5	14.0
7	1.5	16.0
8	2.0	10.0
9	2.0	10.0
10	2.0	12.0
11	2.0	14.0
12	2.0	14.0
13	2.0	16.0
14	2.0	16.0
15	2.0	18.0



RIP-RAP DETAIL
Not To Scale

NOTES

1. Erosion Control Fabric Shall Be Poly Filter-X As Manufactured By Celfibe Mills, Inc. Erosion Control Division, 124 West 66 St. Street, Cincinnati, Ohio; Laurel Erosion Control Cloth As Manufactured By Laurel Plastics Inc. Madison, Maine, Or Approved Equal.
2. Rip-Rap Shall Be Placed 6" Each Side & Sewer Or As Shown. Any Disturbance To Stream Banks Beyond Limits Shown Shall Be Protected With Rip-Rap At Contractors Expense.



SOIL CONSERVATION MEASURES AT SMALL STREAM CROSSING
Not To Scale

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 6/10/93

APPROVED: FOR PUBLIC WATER AND SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, LAND DEVELOPMENT DIVISION — DATE 5/26/93

CHIEF, BUREAU OF HIGHWAYS — DATE 5/29/93

CHIEF, BUREAU OF ENGINEERING — DATE 6-1-93

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

SIGNATURE — DATE 5/4/93

U.S. SOIL CONSERVATION SERVICE

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

Approved Howard S.C.D. — DATE 5/4/93

PREPARED BY:
American Engineering Inc.
CIVIL ENGINEERING CONSULTANTS AND LAND PLANNERS
671-A MAIN STREET
LAUREL, MARYLAND 20707
WASH. (301) 953 - 1221
BALT. (410) 880 - 3039

SEDIMENT CONTROL DETAIL SHEET

OWNER'S / DEVELOPER'S CERTIFICATION

"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 Maryland Department of 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."

Signature _____ Date 4/16/93
Name RICHARD KOBERSKI Title DIV PRES Phone No. 410-992-41
Firm CENTEX HOMES Complete Address 6217 ESPEY CT CROFTON MD 21114

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".

Registered Professional Engineer # 17440 — Date

OWNER
THOMAS & VALERIE NELSON
5970 TAMAR DRIVE
COLUMBIA, MARYLAND 21044

DEVELOPER
CENTEX HOMES
2127 ESPEY COURT, SUITE 210
CROFTON, MARYLAND 21114

PROJECT NAME
THE GABLES AT NEW YEARS GIFT
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND.
LOT 3, VLR 1\9; LOTS 18,D-1, D-3, VLR 1\6; & PARCELS B-1 THRU B-3
A RESUBDIVISION OF PARCEL B, VLR 1\6, SECTON 1\AREA 6 & LOT 3
COLUMBIA VILLAGE OF LONGREACH SECTION 1\AREA 9

Drafting	DATE	REVISIONS	SHEET	DATE	JOB NUMBER
Check			9		
Design			OF	SCALE	
Check			9	F-93-51	

1661