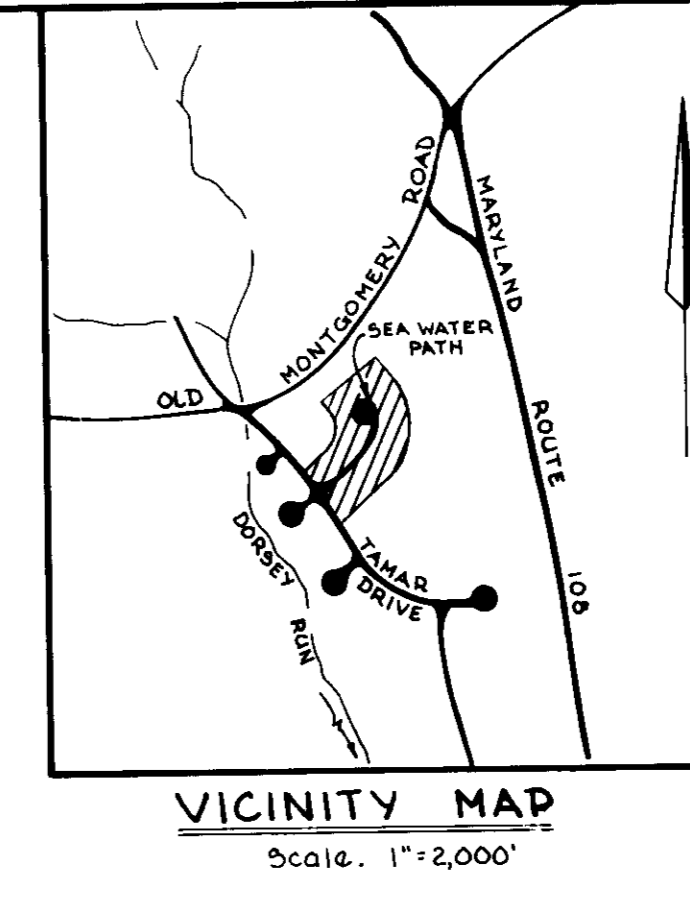
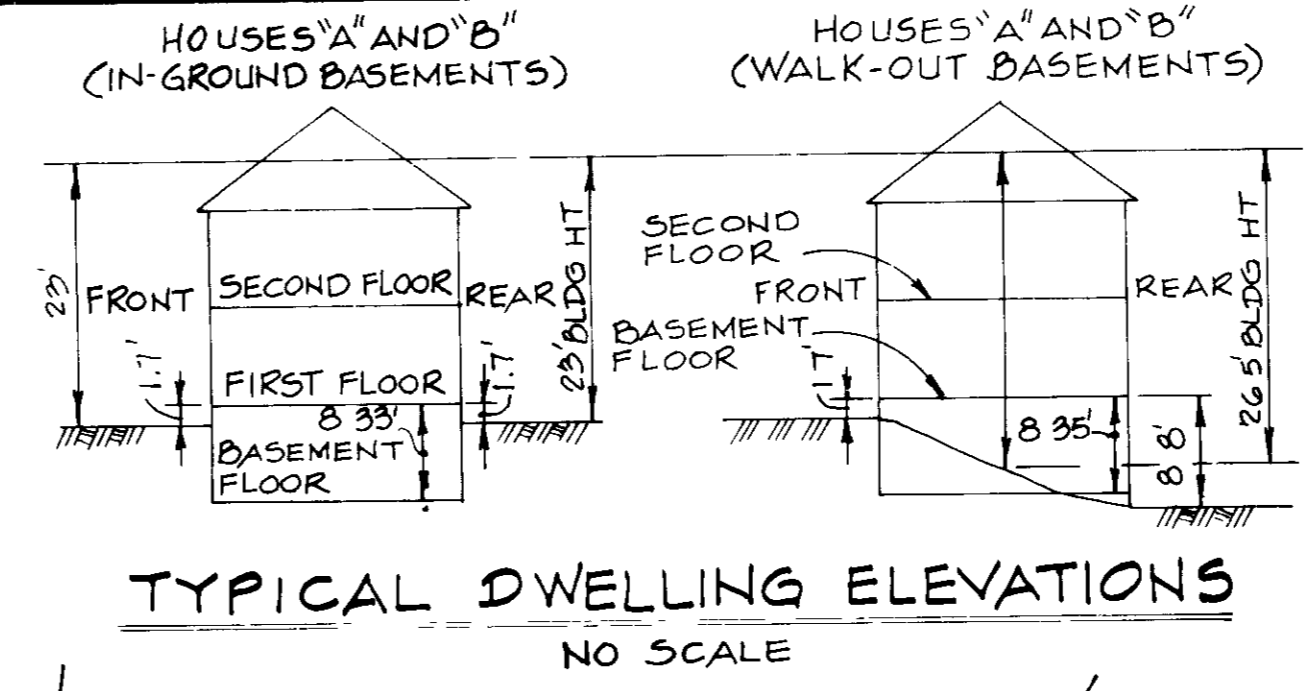


ELEVATIONS SEWER H.C.

LOT NO	INVERT	LOT NO	INVERT
6	356.58	28	341.70
7	360.84	29	347.83
8	360.65	30	345.71
9	361.57	31	342.89
10	361.57	32	342.89
11	361.40	33	338.29
27	361.70	34	338.29



APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
HOWARD COUNTY HEALTH DEPARTMENT

James P. Kelly 6-24-88
COUNTY HEALTH OFFICER DATE

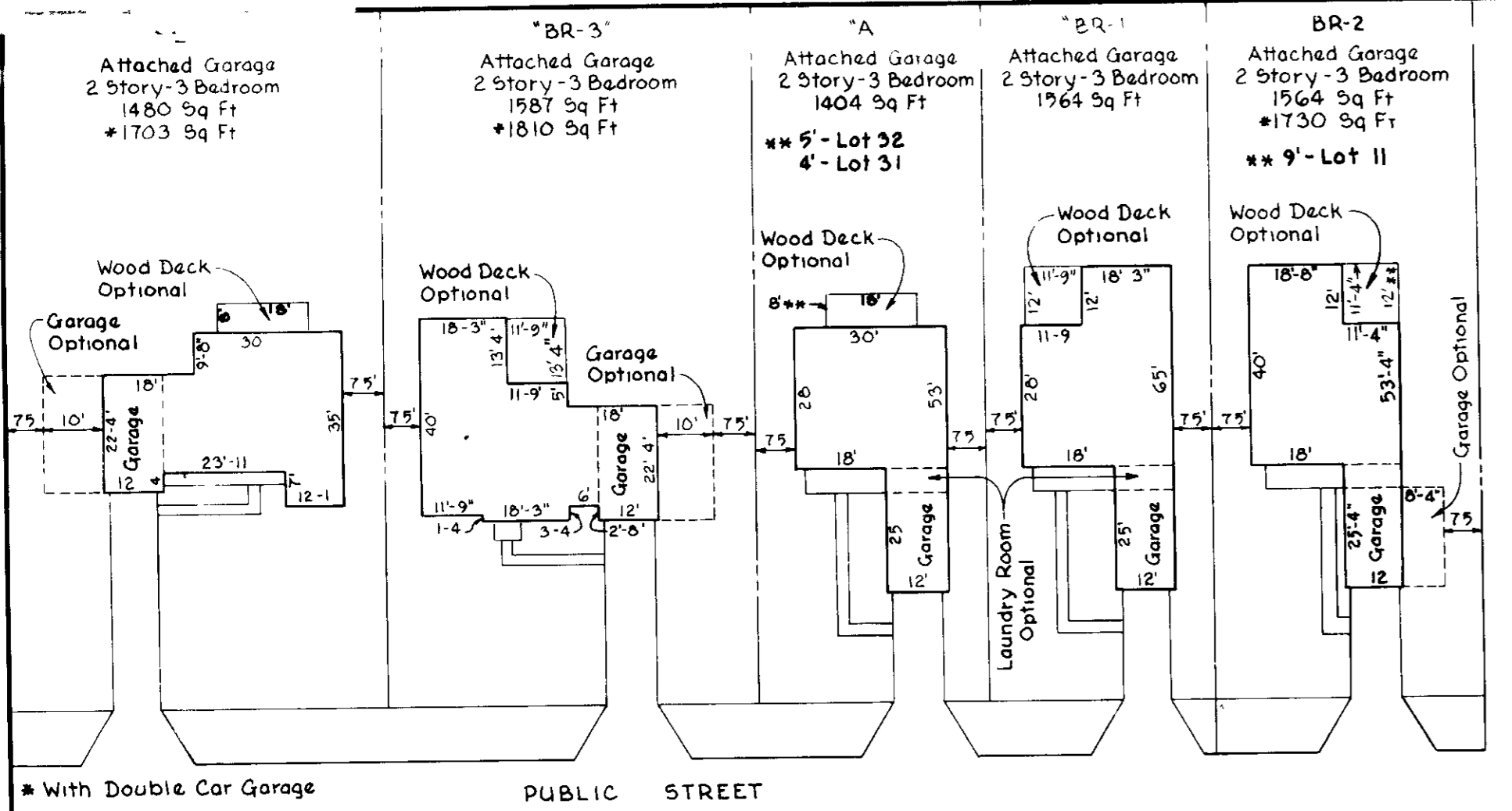
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James P. Kelly 6/21/88
DIRECTOR DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING

James P. Kelly 6-29-88
PLANNING DIRECTOR DATE

James P. Kelly 6/29/88
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



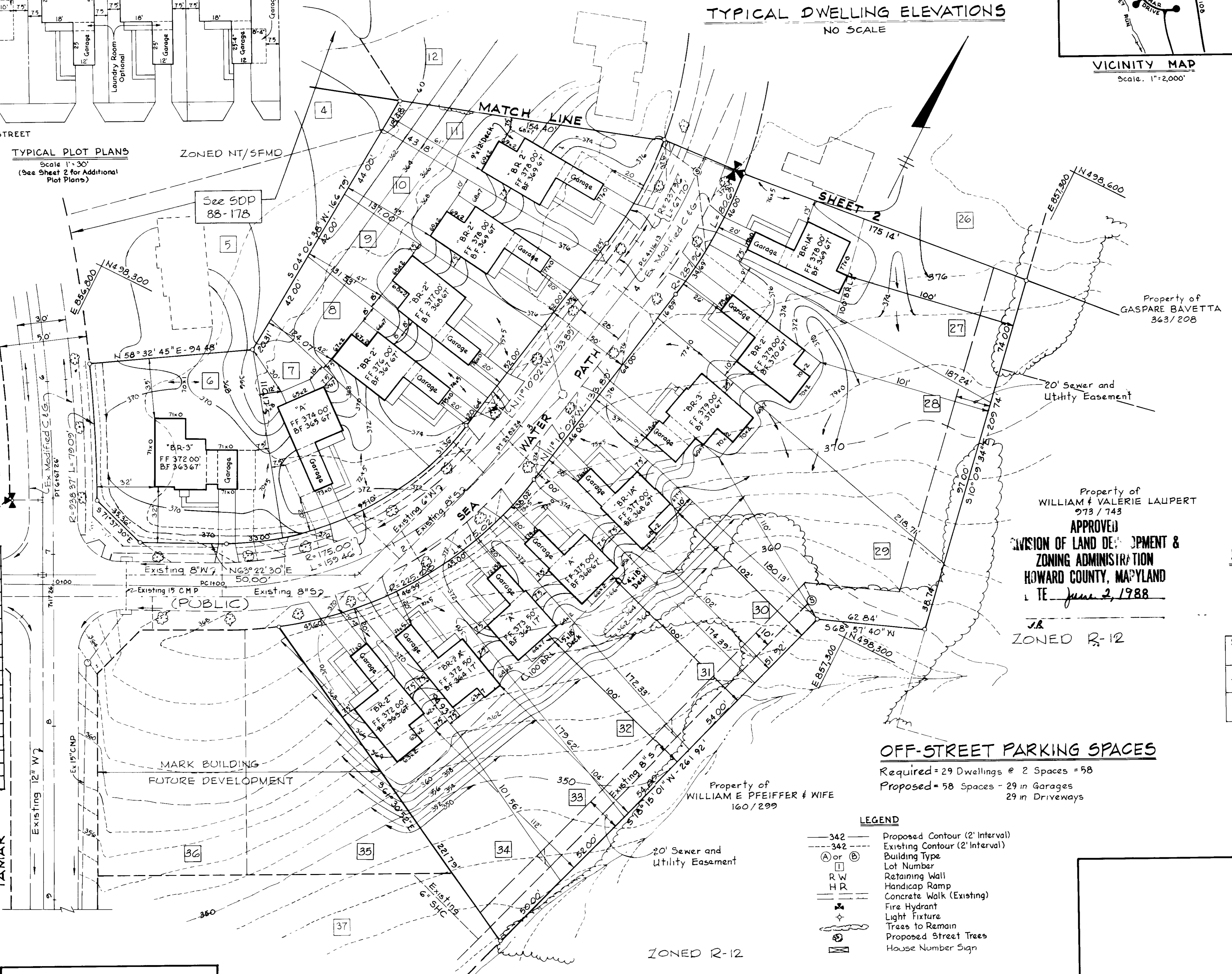
ADDRESS CHART

LOT	STREET ADDRESS
6	8401 SEA WATER PATH
7	8405 " " "
8	8409 " " "
9	8413 " " "
10	8417 " " "
11	8421 " " "
27	8436 " " "
28	8432 SEA WATER PATH
29	8428 " " "
30	8424 " " "
31	8420 " " "
32	8416 " " "
33	8412 " " "
34	8408 " " "

BUILDING COVERAGE

LOT NO	LOT AREA S.F.	HOUSE AREA S.F.	% LOT COVERAGE
6	10,538	1,810	17.2
7	6,570	1,404	21.4
8	6,000	1,730	28.8
9	6,292	1,730	27.5
10	6,704	1,730	25.8
11	6,960	1,730	24.9
27	10,730	1,414	13.2
28	14,434	1,730	12.0
29	14,755	1,587	10.8
30	8,651	1,414	16.3
31	8,526	1,404	16.5
32	8,643	1,404	16.2
33	8,741	1,414	16.2
34	9,840	1,564	15.9

* INCLUDES GARAGES - SEE ARCHITECTURAL PLANS FOR DETAILS



- GENERAL NOTES**
- 1 RECORDING REFERENCE FOR LOTS 6 THRU 34 IS PLAT 7804
 - 2 WATER AND SEWER FACILITIES ARE TO BE PROVIDED (PUBLICLY OWNED)
 - 3 MINIMUM SETBACK FROM THE PUBLIC STREET SHALL BE 20' UNLESS OTHERWISE APPROVED BY THE HOWARD COUNTY PLANNING BOARD
 - 4 STORMWATER MANAGEMENT FOR THESE LOTS HAS BEEN WAIVED UNDER F-88-78
 - 5 GARAGES SHALL BE USED FOR PARKING PURPOSES ONLY IN ACCORDANCE WITH SECTION 127-B 2 D.(18) OF THE HOWARD COUNTY ZONING REGULATIONS
 - 6 REFERENCE SKETCH PLAN 87-39, PRELIMINARY PLAN 87-60, FINAL PLAN 88-78

SITE ANALYSIS

EXISTING ZONING - NEW TOWN (SFMD)
NUMBER OF LOTS - 29
TOTAL AREA - 6,940 ACRES
DENSITY - 29/6,940 = 3.98 DWELLINGS/ACRE
FINAL DEVELOPMENT PLAN PHASE
196 PLAT # 3054A-944 THRU 948

- NOTES**
1. PUBLIC WATER AND SEWER MAINS WERE CONSTRUCTED UNDER CONTRACT NO 24-1738-D
 2. PUBLIC ROAD WAS CONSTRUCTED FROM ROAD CONSTRUCTION DRAWINGS F-88-78

SUBDIVISION NAME - VILLAGE OF LONGREACH		SECT / AREA - 2 / 1	PARCEL LOTS 6 THRU 34
PLAT # - 7804	BLOCK # - 7	ZONE - NT SFMD	TAX / ZONE MAP - 37
ELEC DIST - 6		GENSUS - 6065.02	
WATER CODE - EOT		SEWER CODE - 3460000	

OFF-STREET PARKING SPACES

Required = 29 Dwellings @ 2 Spaces = 58
Proposed = 58 Spaces - 29 in Garages
29 in Driveways

- LEGEND**
- 342 - Proposed Contour (2' Interval)
 - 342 - Existing Contour (2' Interval)
 - (A) or (B) - Building Type
 - Lot Number
 - RW - Retaining Wall
 - HR - Handicap Ramp
 - Concrete Walk (Existing)
 - Fire Hydrant
 - Light Fixture
 - Trees to Remain
 - Proposed Street Trees
 - House Number Sign

WHITMAN REQUARDT AND ASSOCIATES
- ENGINEERS -
2315 SAINT PAUL STREET
BALTIMORE, MARYLAND 21218

SIGNATURE: *James P. Kelly*

MARK BUILDING COMMUNITIES INC
OWNER AND DEVELOPER
P O BOX 1272
COLUMBIA, MARYLAND 21044

1 6/2/88 As per Planning & DPW Comments
NO DATE REVISION

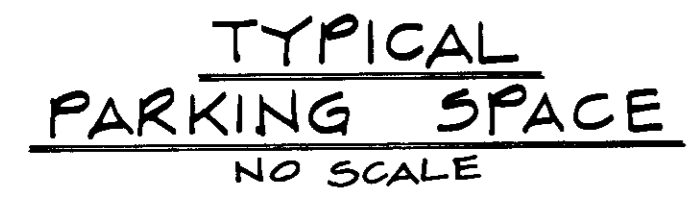
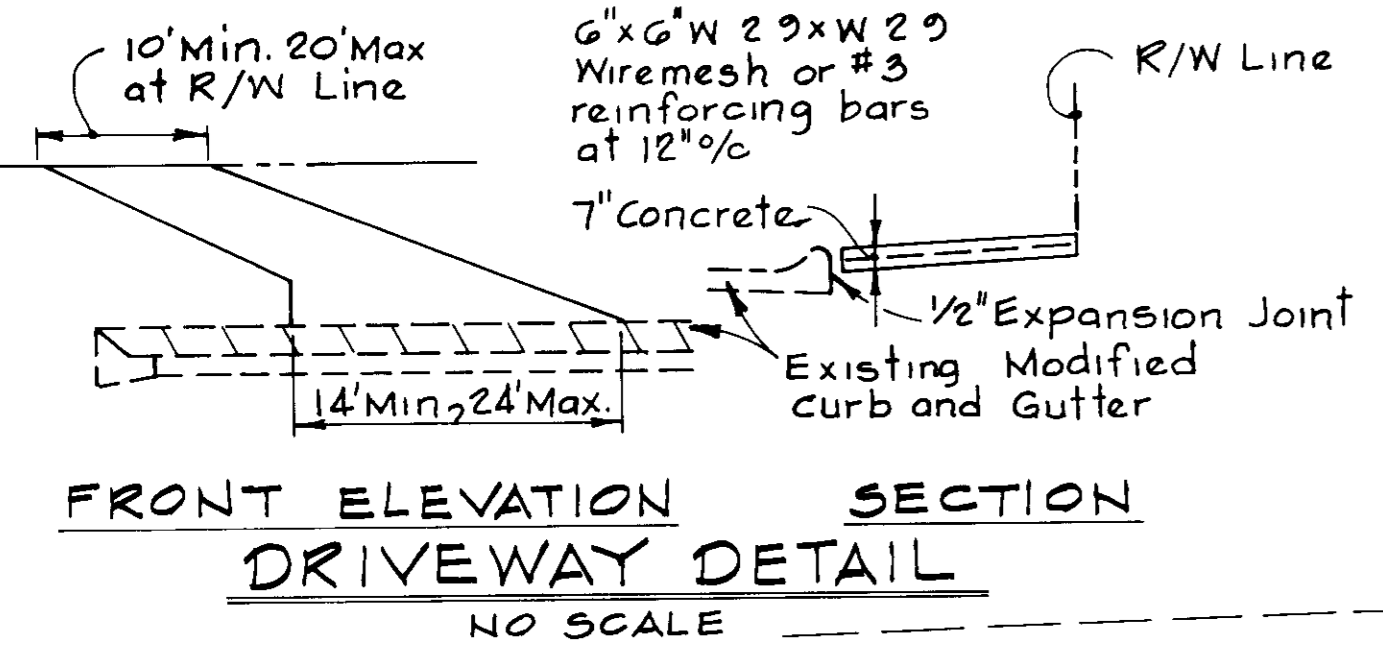
COLUMBIA
- SITE DEVELOPMENT PLANS -
FOR
VILLAGE OF LONGREACH
SECTION 2 AREA 1
LOTS 6 THRU 34
(SINGLE FAMILY DETACHED DWELLINGS)

GRADING PLAN

- SHEET 1 OF 3
ELECTION DISTRICT NO 6
HOWARD COUNTY, MARYLAND

TAX MAP 37
DATE 5/9/88 SCALE AS SHOWN

SDP-88-201



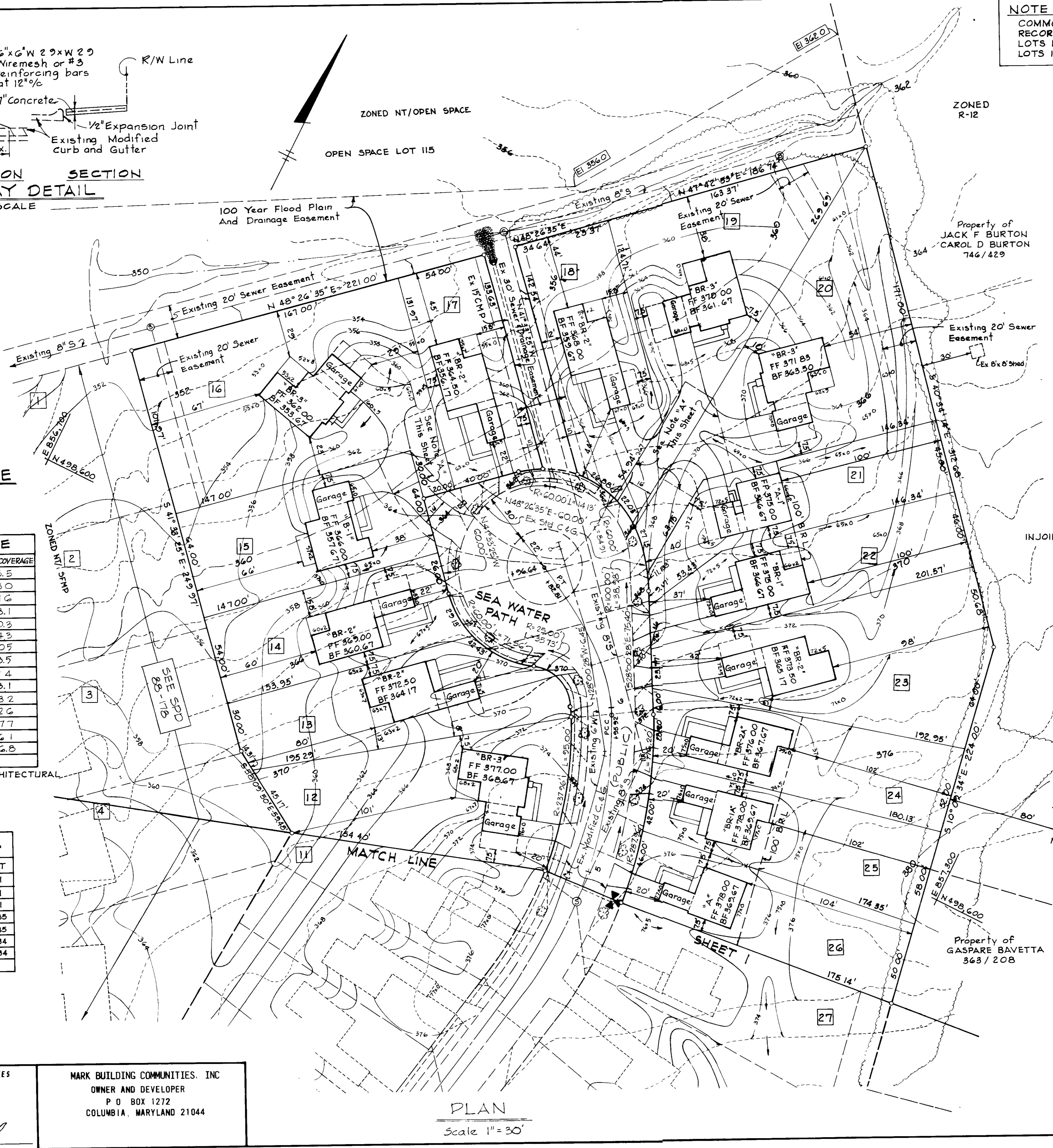
LOT NO	LOT AREA SF	HOUSE AREA SF	% LOT COVERAGE
12	11,662	1,810	15.5
13	9,588	1,730	18.0
14	8,001	1,730	21.6
15	9,408	1,730	18.1
16	17,629	1,810	10.3
17	7,134	1,730	24.3
18	8,450	1,730	20.5
19	13,418	1,810	13.5
20	13,830	1,810	11.4
21	8,078	1,464	18.1
22	8,583	1,564	18.2
23	13,728	1,730	12.6
24	8,845	1,564	17.7
25	8,788	1,414	16.1
26	8,340	1,404	16.8

* INCLUDES GARAGES - SEE ARCHITECTURAL PLANS FOR DETAILS

LOT NO	INVERT	LOT NO	INVERT
12	361.40	20	349.11
13	356.21	21	355.11
14	354.17	22	355.11
15	341.00	23	356.85
16	340.68	24	356.85
17	343.90	25	362.34
18	347.13	26	362.34
19	347.19		

WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
2315 SAINT PAUL STREET
BALTIMORE, MARYLAND 21218

MARK BUILDING COMMUNITIES, INC.
OWNER AND DEVELOPER
P O BOX 1272
COLUMBIA, MARYLAND 21044



PLAN
Scale 1" = 30'

NOTE "A"
COMMON ACCESS EASEMENTS
RECORDED AS FOLLOWS:
LOTS 15 AND 16 Liber Folio
LOTS 18 THRU 21 Liber Folio

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT.

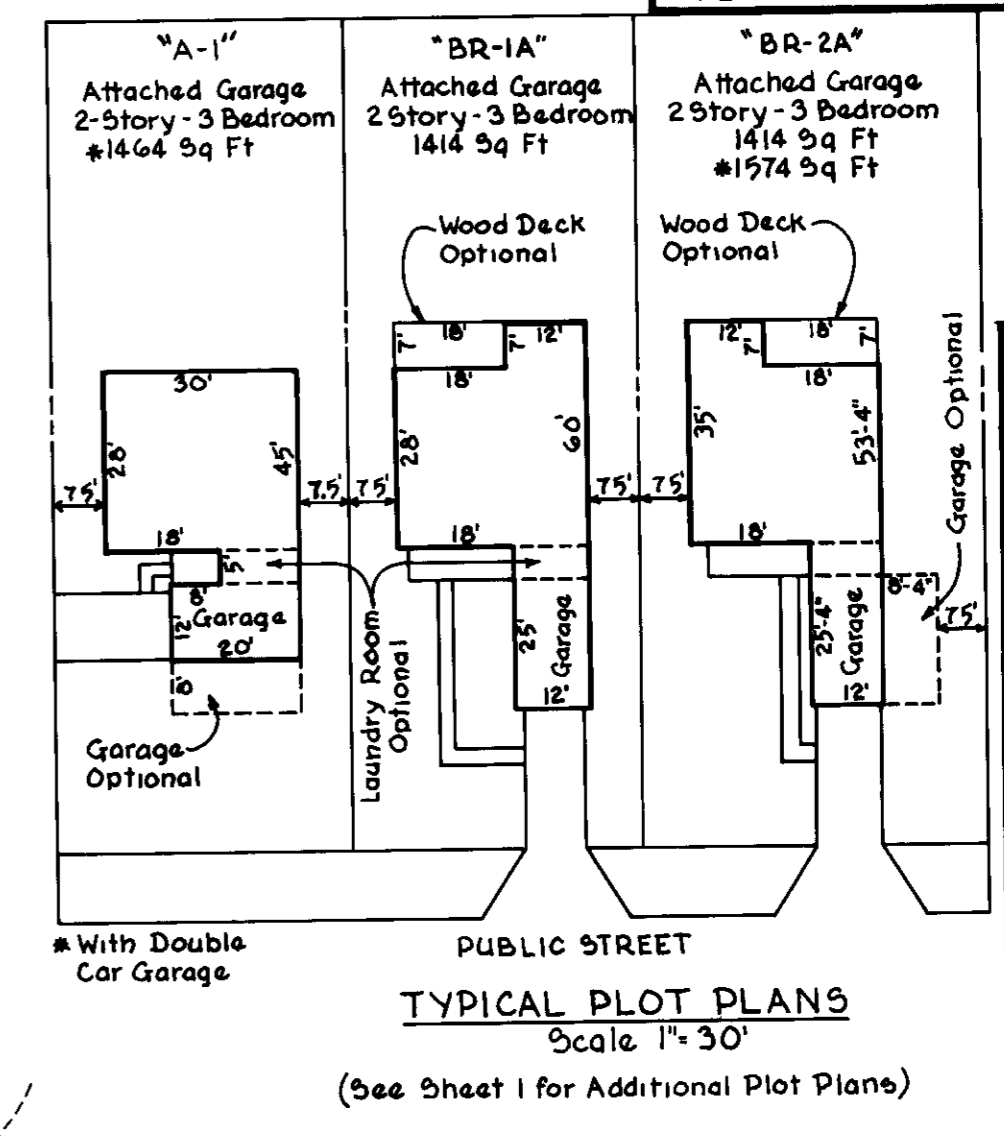
John B. ... COUNTY HEALTH OFFICER 6-24-88 DATE

James ... DIRECTOR 6/21/88 DATE

James ... CHIEF, BUREAU OF ENGINEERING 6/16/88 DATE

W.R.A. PLANNING DIRECTOR 6-25-88 DATE

James ... CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT 6/25/88 DATE



LOT	STREET ADDRESS
12	8425 SEA WATER PATH
13	8429 " " " "
14	8433 " " " "
15	8437 " " " "
16	8441 " " " "
17	8445 " " " "
18	8472 " " " "
19	8468 SEA WATER PATH
20	8464 " " " "
21	8460 " " " "
22	8496 " " " "
23	8452 " " " "
24	8448 " " " "
25	8444 " " " "
26	8440 " " " "

APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE June 2, 1988

SUBDIVISION NAME		SECT./AREA	PARCEL
VILLAGE OF LONGREACH		2/1	LOTS 6 THRU 34
PLAT #	BLOCK #	TAX/ZONE MAP	ELEC. DIST.
7804	7	37	6
WATER CODE		SEWER CODE	
E07		3460000	

NO	DATE	As per Planning and DPW Comments	REVISION

COLUMBIA
-SITE DEVELOPMENT PLANS-
FOR
VILLAGE OF LONGREACH
SECTION 2 AREA 1
LOTS 6 THRU 34
(SINGLE FAMILY DETACHED DWELLINGS)

GRADING PLAN
SHEET 2 OF 3

ELECTION DISTRICT NO 6
HOWARD COUNTY, MARYLAND

TAX MAP 37
DATE 5/9/88

SCALE AS SHOWN

SDP 88-201

PERMANENT SEEDING NOTES

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

Seeded 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 sq 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 (0.5 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 seed. 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 gallons per acre (5 gal/1000 sq ft) of unrotted 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 redistributed where a short-term vegetative cover is needed.

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

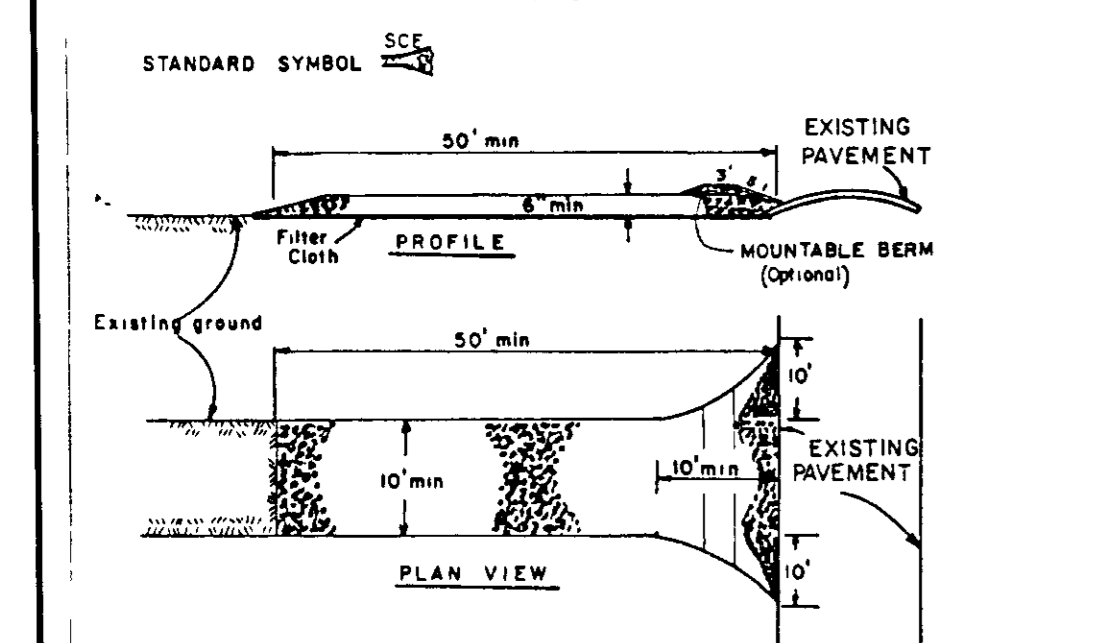
Soil Amendments Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding - For the periods March 1 thru April 30, and from August 15 thru November 15, seed with 75 lbs per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (0.7 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 seed.

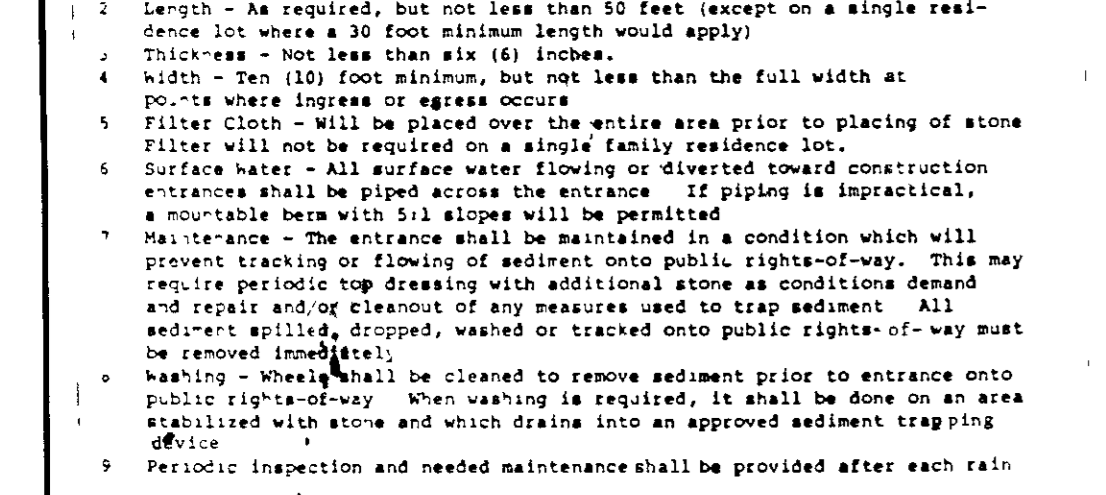
Mulching - Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of unrotted asphalt on flat areas. On slopes 8 ft or higher, use 348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

Use of Maryland Standards and Specifications for Soil Erosion and Sediment Control for site and methods not covered.

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE



STABILIZED CONSTRUCTION ENTRANCE



WHITMAN REARD AND ASSOCIATES
ENGINEERS
2315 SAINT PAUL STREET
BALTIMORE, MARYLAND 21218

MARK BUILDING COMMUNITIES, INC.
OWNER AND DEVELOPER
P O BOX 1272
COLUMBIA, MARYLAND 21044

SEDIMENT CONTROL NOTES

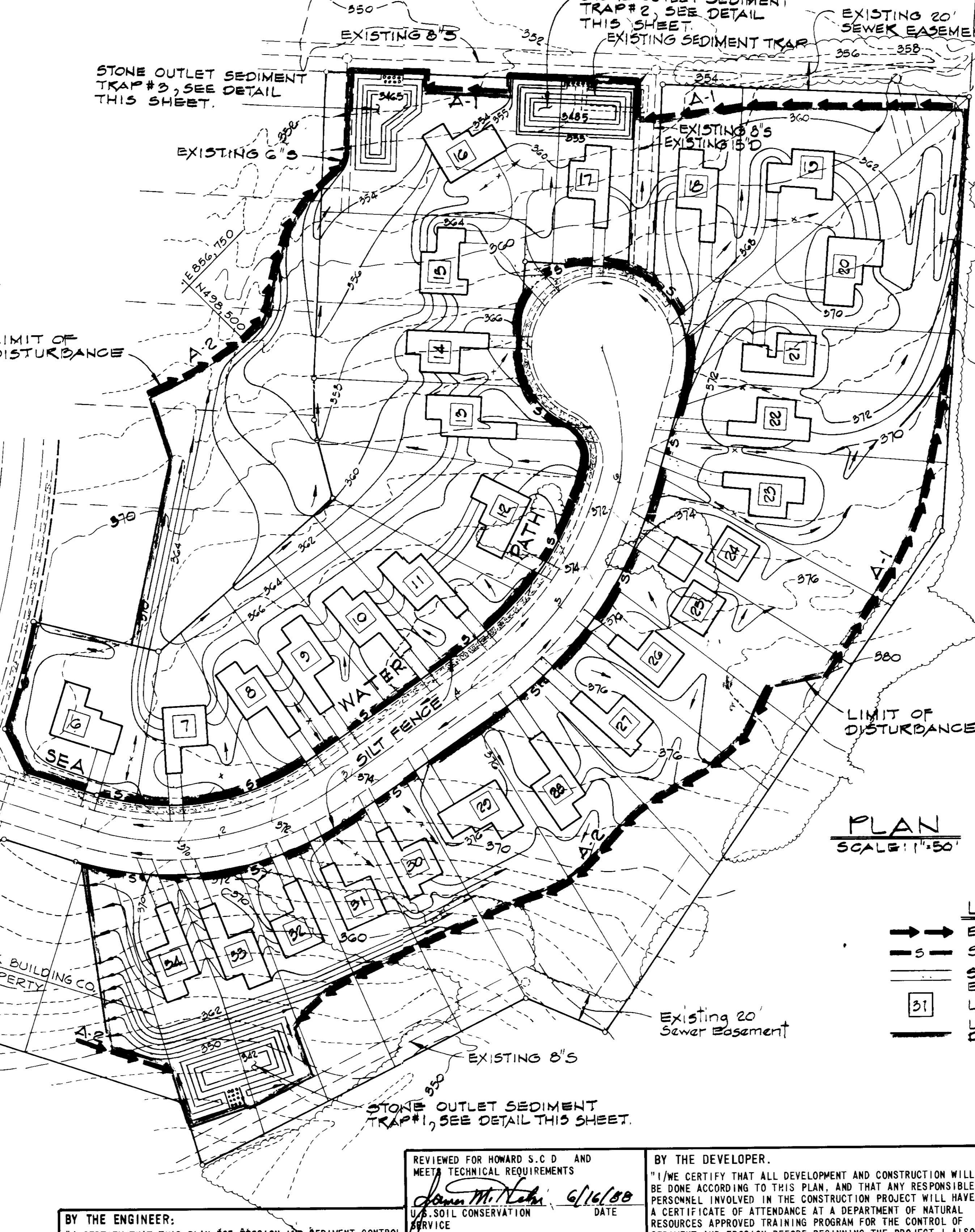
- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (1992-24-37)
- 2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) Following initial soil disturbance or redistribution, 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 for 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. 53) 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: 6.4 Acres
Area Disturbed: 2.4 Acres
Area to be roofed or paved: 1.4 Acres
Area to be vegetatively stabilized: 5.0 Acres
Total Cut: 75,000 Cu. Yds.
Total Fill: 2,000 Cu. Yds.
Offsite waste/borrow area location: NONE
- 8) Any sediment control practice which is disturbed by grading activity shall be replaced or repaired on the same day of disturbance.
- 9) Additional sediment controls must be provided, if deemed necessary by the Howard County DPM 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 the 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.

SEDIMENT TRAP #3
DESIGN DATA
DRAINAGE AREA: 2.4 ACRES
DISTURBED AREA: 2.4 ACRES
VOLUME REQ'D: 241,671,100 B.C.T.
VOLUME AVAILABLE: 165,000
TOP DEKM ELEV: 352.0
WEIR ELEV: 350.5, WIDTH: 10'
STORAGE ELEV: 349.5
BOTTOM ELEV: 346.5

SEDIMENT TRAP #1
DESIGN DATA
DRAINAGE AREA: 1.0 ACRES
DISTURBED AREA: 1.0 ACRES
VOLUME REQ'D: 1,076,127.3 C.T.
VOLUME AVAILABLE: 130,000
TOP DEKM ELEV: 348.0
WEIR ELEV: 346.5, WIDTH: 8'
STORAGE ELEV: 345.5
BOTTOM ELEV: 342.0
SIZE AT BOTTOM: 10'x52'

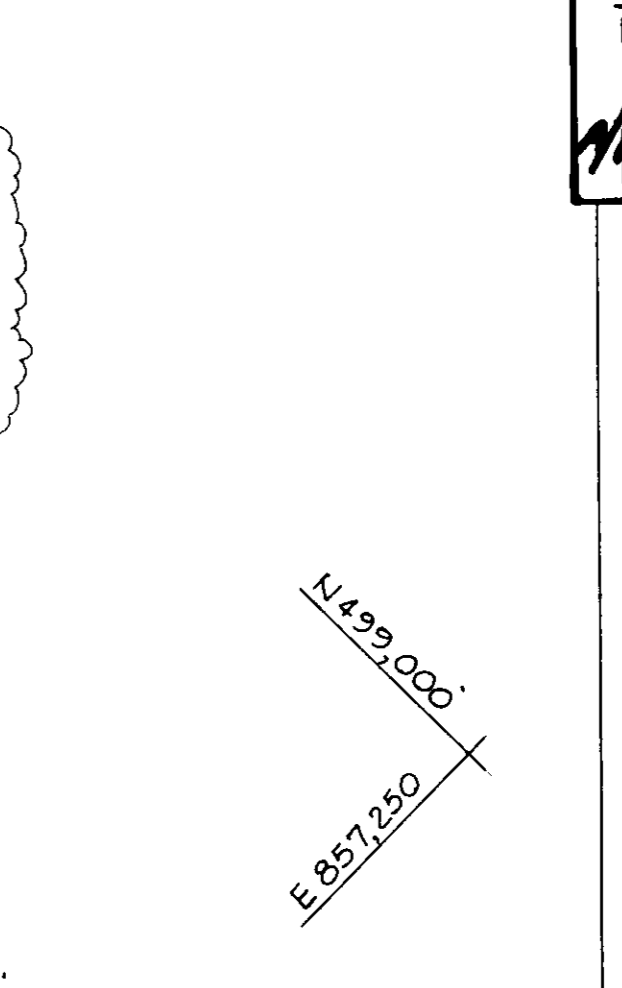
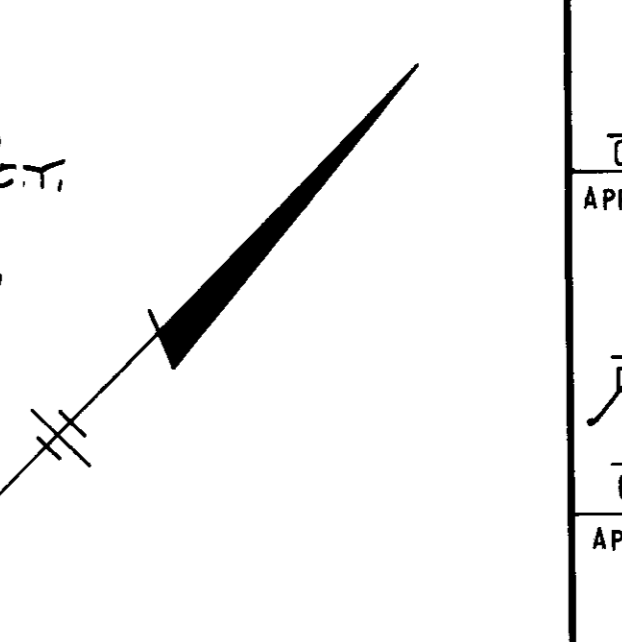
SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. CLEAR AND GRUB AREAS FOR SEDIMENT CONTROL FACILITIES ONLY.
3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES, SEDIMENT TRAPS 1, 2 AND 3, EARTH DIKES AND SILT FENCE.
4. GRADE LOTS.
5. CONSTRUCT DWELLINGS AND APPURTENANCES AND SEED YARDS.
6. AFTER GRASS IS ESTABLISHED IN THE CONTRIBUTING DRAINAGE AREAS AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, ALL SEDIMENT CONTROL FACILITIES MAY BE REMOVED, STABILIZE "SEDIMENT TRAP REMOVAL AREA" WITH PERMANENT SEEDING.



SEDIMENT TRAP #2
DESIGN DATA

DRAINAGE AREA: 2.1 ACRES
DISTURBED AREA: 2.1 ACRES
VOLUME REQ'D: 211,671,100 B.C.T.
VOLUME AVAILABLE: 148,000
TOP DEKM ELEV: 355.0
WEIR ELEV: 353.0, WIDTH: 10'
STORAGE ELEV: 352.0
BOTTOM ELEV: 348.5
SIZE AT BOTTOM: 10'x60'



CONSTRUCTION SPECIFICATIONS

1. All dikes shall be completed by earthmoving equipment. All dikes shall have positive drainage to an outlet. Dikes shall be wider and higher than slopes to be stabilized. Earth dikes shall have an outlet that functions with a minimum of erosion. Earth dikes shall be constructed on the drainage area above the dike and not on the drainage area below the dike.
2. Stabilization shall be (A) in accordance with standard specifications for seed and straw mulch or (B) in accordance with standard specifications for seed and straw mulch if not in seeding season. (C) flow channel as per the chart below.

TYPE OF SLOPE	CHANNEL SIZE	DUNE A	DUNE B
1	3-3' 0"	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3-3' 0"	SEED AND STRAW MULCH	SEED WITH 2" STONE
3	5-1-8' 0"	SEED WITH MULCH, OR SEED, STONE	LINED RIP-RAP 4-8"
4	8-1-2' 0"		ENGINEERING DESIGN

NOTE: STONE TO BE 2" INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 2" THICK. RIP-RAP TO BE 4-8" INCHES IN A LAYER AT LEAST 8" INCHES THICKNESS AND PRESSED INTO SOIL. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS. SOIL TO BE 2% SILT, INSPECTED, AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.



APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE: June 2, 1988

LEGEND

- EARTH DIKE
- S- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- 31 LOT NUMBER
- LIMIT OF DISTURBANCE

CONSTRUCTION SPECIFICATIONS FOR STONE

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil area shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as uncrushed stones, rocks, organic material or other objectionable material. The embankment shall be completed 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 upstream side on the small trap or embedded filter cloth on the trap.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 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 drainage and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

NO	DATE	REVISION
1	6-3-88	As per S.C.S. Comments

COLUMBIA
-SITE DEVELOPMENT PLANS-
FOR
VILLAGE OF LONGREACH
SECTION 2 AREA 1
LOTS 6 THRU 34
(SINGLE FAMILY DETACHED DWELLINGS)
SEDIMENT CONTROL PLAN
AND DETAILS
SHEET 3 OF 3

ELECTION DISTRICT NO 6
HOWARD COUNTY, MARYLAND

TAX MAP 37
DATE 5/9/88 SCALE AS SHOWN

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

Kenneth M. Wood 5-9-88 DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
U.S. SOIL CONSERVATION SERVICE
James M. Voth 6/16/88 DATE

BY THE DEVELOPER:
"I WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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"

Stephen L. Fisher 5-9-88 DATE
Sawrence Rosenberg 5-9-88 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

James M. Voth 6-21-88 DATE
COUNTY HEALTH OFFICER

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

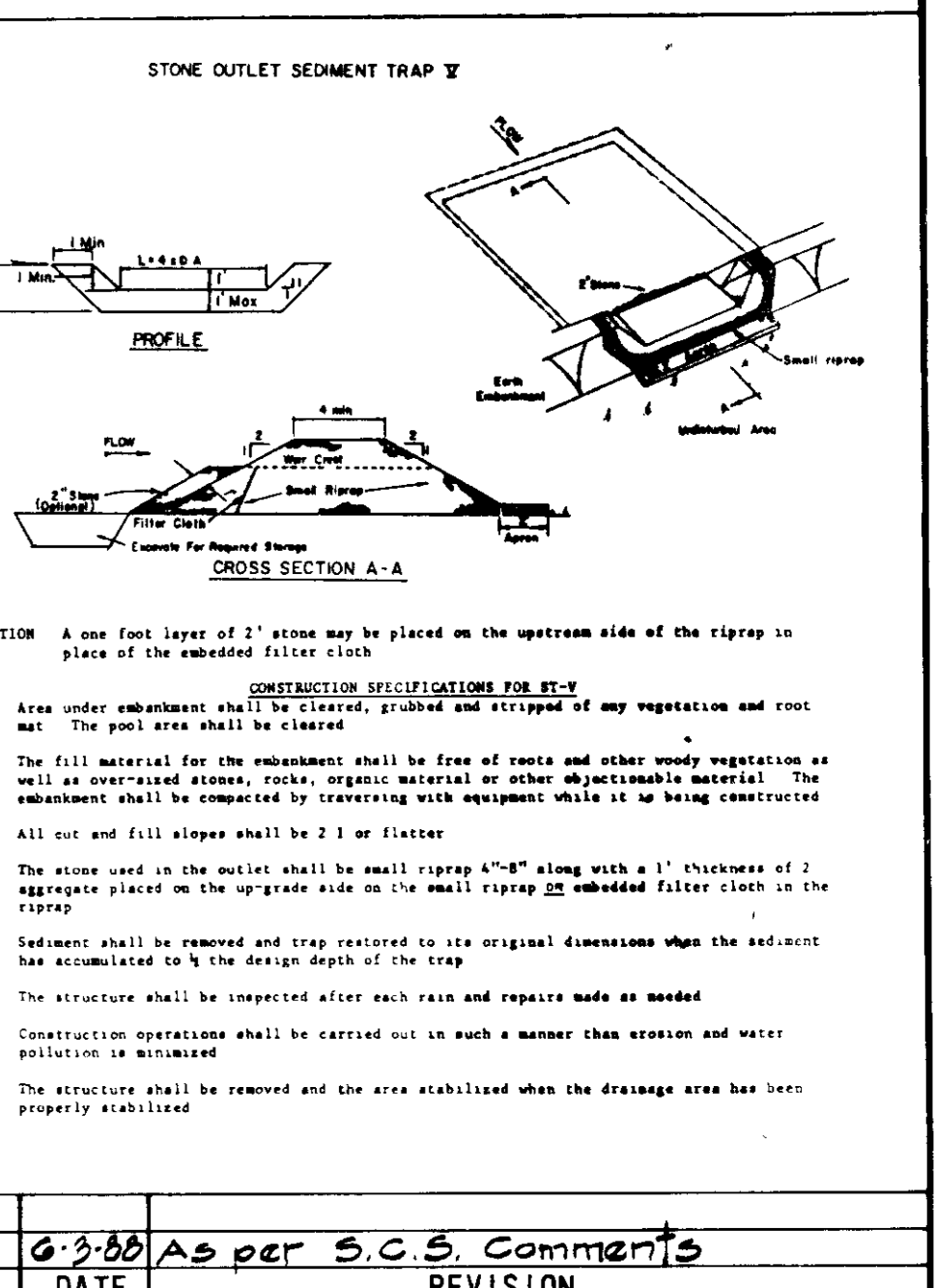
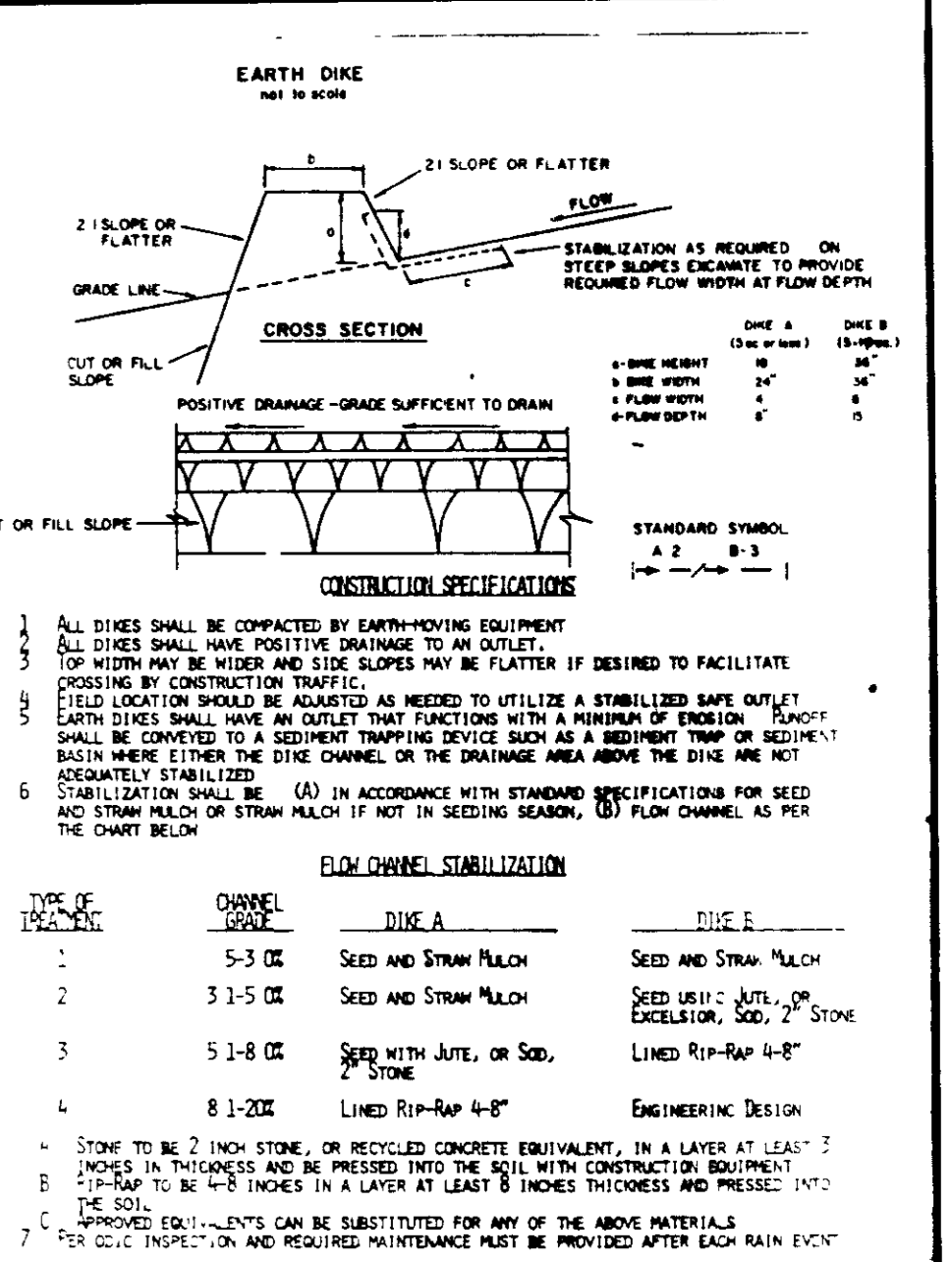
James M. Voth 6/16/88 DATE
DIRECTOR

James M. Voth 6-21-88 DATE
CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

James M. Voth 6-21-88 DATE
PLANNING DIRECTOR

James M. Voth 6-21-88 DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT



SDP-88-201