

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARD AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - MISS UTILITY 1-800-257-7777
 - C & P TELEPHONE COMPANY 725-9976
 - HOWARD COUNTY BUREAU OF UTILITIES 331-4900
 - A T & T CABLE LOCATION DIVISION 393-3553
 - BALTIMORE GAS & ELECTRIC COMPANY 685-0123
 - STATE HIGHWAY ADMINISTRATION 531-5533
- THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
- THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 313-1880.
- PROJECT BACKGROUND:
 - LOCATION: TAX MAP #35, GRID 0, Lots 1-2 (Parcel 499), a subdivision of Lots 2-4 (Parcel 207) and Parcel 199.
 - ZONING: R-20
 - ELECTION DISTRICT: 5TH
 - SITE AREA: 17.7964 AC.
 - REC. REF.: PLAT NO. 13156
- 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.
- ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIALY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
- EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM AERIAL PHOTOGRAPHY BY P.D.S. IN 4/97 AND FROM FIELD SURVEYS BY GUTSCHICK, LITTLE & WEBER, PA.
- COORDINATES ARE BASED ON NAD 27 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STA. NOS. 35C5 AND 0025
- PUBLIC WATER AND SEWER IS TO BE UTILIZED. CONTRACT NOS 2556-B, C- 435 W, AND 44 - 1533
- STORMWATER MANAGEMENT IS BEING PROVIDED ON SITE UNDER THIS SUBMISSION. QUANTITY AND QUALITY MANAGEMENT WILL BE PROVIDED BY DETENTION WITH STORMWATER FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
- ALL STORM DRAINS PROPOSED UNDER THIS SDP ARE PRIVATE.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM BEST AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF CONSTRUCTION.
- ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK GROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A (5'X5') FIVE FOOT BY FIVE FOOT LEVEL (2% MAX.) LANDING AT THE TOP AND BOTTOM OF ALL RAMPS.
- ALL DRIVEWAYS AND PARKING TO BE PRIVATELY OWNED AND MAINTAINED.
- ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01. CLASS "C" BEDDING, UNLESS OTHERWISE NOTED.
- GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS FOR ASPHALT PAVING.
- WATER METERS ARE LOCATED INSIDE EACH UNIT FOR A COMBINATION OF DOMESTIC AND FIRE SERVICES. EACH UNIT IS EQUIPPED WITH AN AUTOMATIC FIRE PREVENTION SPRINKLER SYSTEM.
- ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. CURB SPOT ELEVATIONS ARE AT THE FLOW LINE, UNLESS NOTED OTHERWISE.
- THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE.
- ALL DOWNSPOUT DRAINS SHALL BE HANDLED BY ONE OF THESE METHODS:
 - A. DOWNSPOUT TO SPLASH AND DISCHARGE ONTO GROUND HAVING GOOD PERCOLATION.
 - B. DOWNSPOUT IN FRONT OF UNITS PIPED TO CURB.
 - C. DOWNSPOUT CONNECTED TO STORM DRAIN.
- WETLAND DELINEATION WAS PERFORMED BY EXPLORATION RESEARCH, AND VERIFIED BY ARMY CORPS OF ENGINEERS. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLAND BUFFER EXCEPT AREAS PERMITTED FOR DISTURBANCE BY THE DEPARTMENT OF NATURAL RESOURCES AND THE HCDPZ.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
- ALL WATER HOUSE CONNECTIONS SHALL BE BUILT WITH 48" OF MIN. COVER TO PROPOSED GRADES.
- ALL OUTDOOR LIGHTING SHALL COMPLY WITH ZONING SECTION 134.
- OTHER HOWARD COUNTY FILES RELATED TO THIS SITE:
 - BA - 95-60 E, BA-98-20E, S-97-09, WP 98-20 (WHICH ON 8/28/97 ALLOWED PREPARATION OF A MASS GRADING PLAN FOR A GRADING PERMIT), F 98 - 26 AND FDP - 205-A-1, Part 1, and WP 98-121 (See note #30).
- FOREST CONSERVATION FOR THIS SITE IS PROVIDED BY:
 - A. ON-SITE RETENTION ON NET TRACT OF 2.28 AC. (SURETY # \$13,068.00)
 - B. OFF-SITE FOREST PLANTING OF 0.96 AC. (SURETY # \$ 5,227.20)
 - C. FEE-IN-LIEU IN THE AMOUNT OF \$ 22,295.00 (17 acres).
 - SURETY & FEE-IN-LIEU AMOUNTS ARE BASED ON AREA ADJACENT TO 1/4 AC.
- See sheet 2 for conditions of BA 98-20E.

Site Analysis Data Chart

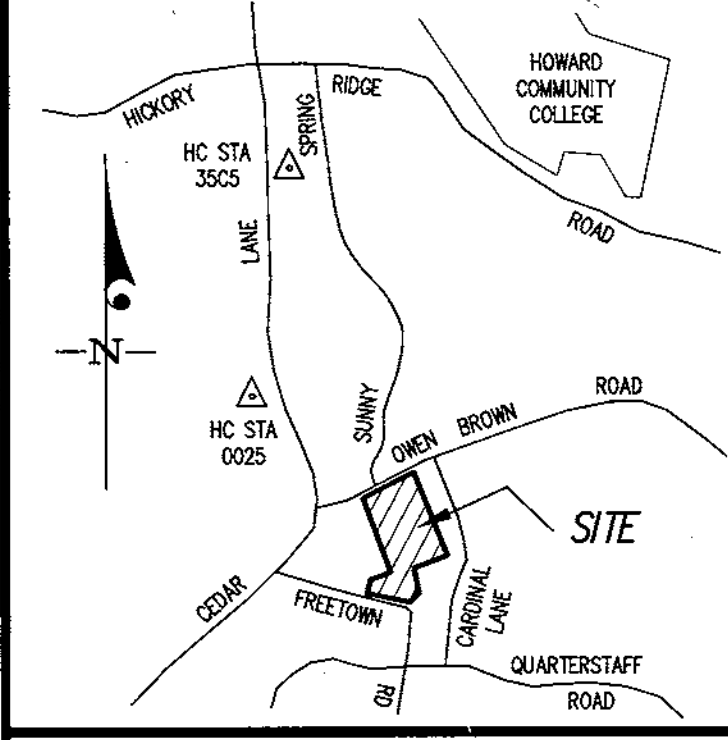
- General Site Data:
 - a. Zoning: R-20
 - b. Proposed use: Single Family Attached units + community center
 - c. Building Coverage: 10.2% (1,825 ac²) open space = 51.3% (9,175 ac²)
- Density:
 - a. 80 units allowed under BA 98-20E at a rate of 2 units per acre (17,729.7 = 800)
 - b. 80 units proposed.
- Area Tabulation: R-20 Area = 17,729.7 Ac.
 NT Area = 0.2022 Ac.
 Total = 17,729.4 Ac.
- Parking:
 - a. Parking required: 195 spaces at a rate of 2 spaces for every 5 units (80/5) x 2 = 32
 - b. Parking provided: 195 - 2 car garages = 106
 95 - 1 car garages = 95
 1 space in front of each 1 car garage = 75
 2 spaces @ comm. center (2 H.C. - Van) = 4
 195 spaces

SITE DEVELOPMENT PLAN

HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2

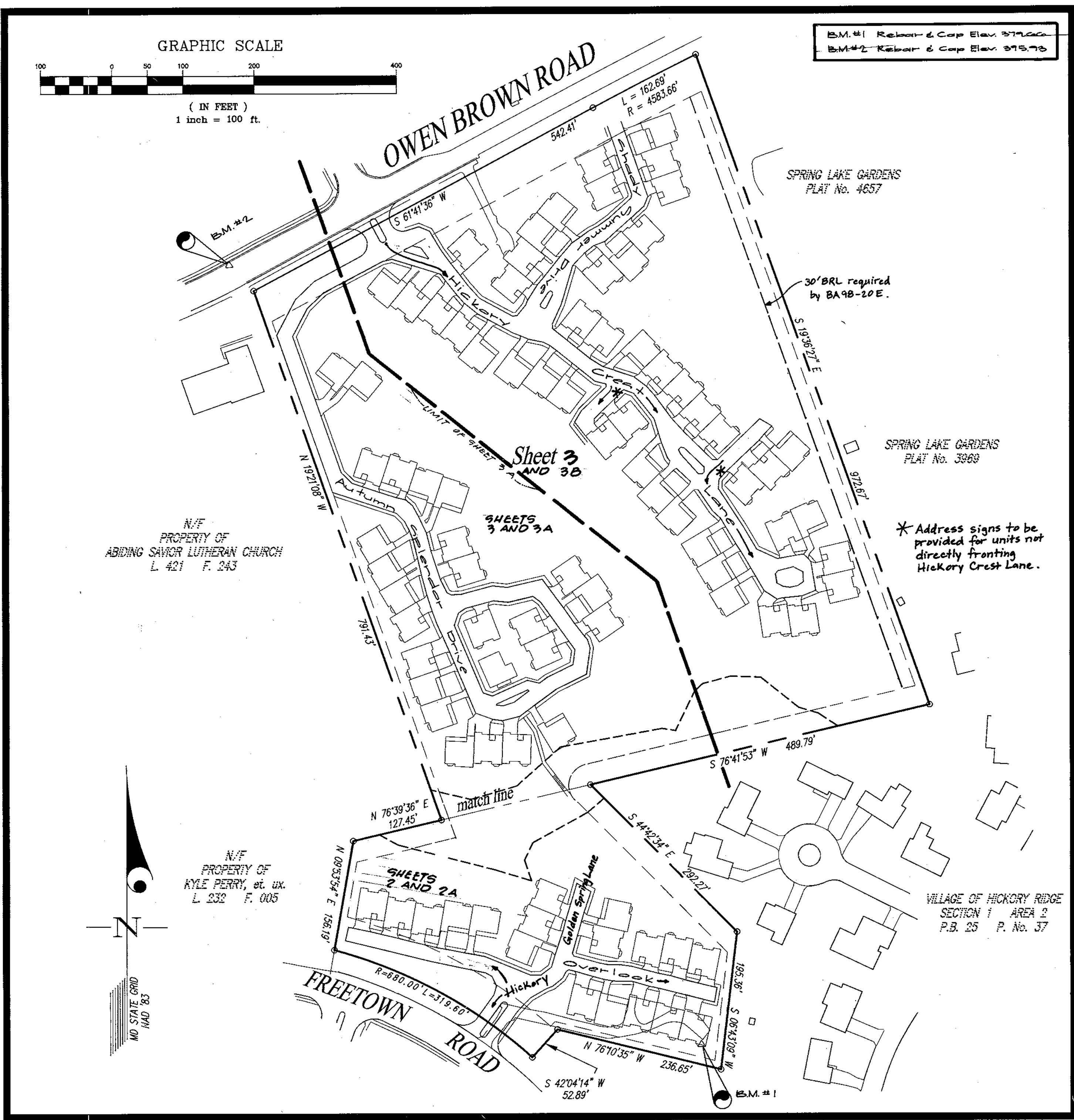
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1"=2000'

GENERAL NOTES (cont.)

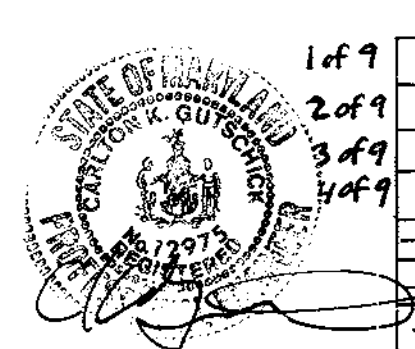
30. WP-99-101, was approved on 5/28/99, and waived Section 16.115.c.2 to allow work to be done in the floodplain; Section 16.116.a.1 to allow disturbance in the 25' wetland buffer; and Section 16.116.b.2.1 to allow disturbance to the 50' stream buffer. Approval is subject to five conditions of approval, as specified in the application file.



Unit #	Address	FF/Min elevation	Base/Spot elevation	Min. cellar elevation	Min. floor elevation
1	102116 Shady Summer Drive	322.72	X	X	X
2	10214	321.39	X	X	X
3	10212	322.72	X	X	X
4	10213	322.72	312.92	X	X
5	10211	321.97	312.49	X	X
6	10208	320.49	X	X	X
7	10204	321.12	X	X	X
8	10204	321.49	X	X	X
9	10207	321.22	313.47	X	X
10	10208	322.52	319.47	X	X
11	10205	322.02	316.14	X	X
12	10201	322.79	316.81	X	X
13	10205 Hickory Crest Lane	319.29	321.91	X	X
14	10215	321.02	312.14	X	X
15	10217	317.62	310.14	X	X
16	10221	317.79	322.81	X	X
17	10223	314.99	324.27	X	X
18	10225	319.62	324.74	X	X
19	10227	312.97	324.97	X	X
20	10229	312.97	324.97	X	X
21	10233	319.92	324.97	X	X
22	10235	319.92	324.97	X	X
23	10241	319.92	324.97	X	X
24	10241	319.92	324.97	X	X
25	10243	314.92	324.97	X	X
26	10247	314.91	X	X	X
27	10249	314.91	X	X	X
28	10244	314.70	X	X	X
29	10244	312.72	X	X	X
30	10240	312.91	X	X	X
31	10238	312.91	X	X	X
32	10234	312.89	324.97	X	X
33	10230	312.92	324.92	X	X
34	10228	312.92	324.92	X	X
35	10228	312.92	324.92	X	X
36	10222	312.92	324.92	X	X
37	10222	312.92	324.92	X	X
38	10218	312.74	312.92	X	X
39	10214	321.74	312.92	X	X
40	10214	322.79	312.92	X	X
41	10210	321.71	312.79	X	X
42	10208	321.04	312.12	X	X
43	10206	322.04	322.12	X	X
44	10204	321.04	322.12	X	X
45	10202	319.97	323.45	X	X
46	10258 Autumn Splendor Drive	319.92	X	X	X
47	10254	312.97	X	X	X
48	10254	312.97	X	X	X
49	10254	312.97	324.92	X	X
50	10249	312.49	323.92	X	X
51	10246	312.62	321.79	X	X
52	10245	320.97	311.79	X	X
53	10227	322.42	312.92	X	X
54	10225	322.42	312.92	X	X
55	10221	322.42	312.92	X	X
56	10219	322.92	312.92	X	X
57	10217	322.29	312.92	X	X
58	10215	321.12	312.92	X	X
59	10207	321.79	312.92	X	X
60	10205	321.79	312.92	X	X
61	10202	321.79	312.92	X	X
62	10202	321.79	312.92	X	X
63	10202	321.79	312.92	X	X
64	10202	321.79	312.92	X	X
65	10202	321.79	312.92	X	X
66	10202	321.79	312.92	X	X
67	10202	321.79	312.92	X	X
68	10202	321.79	312.92	X	X
69	10202	321.79	312.92	X	X
70	10202	321.79	312.92	X	X
71	10202	321.79	312.92	X	X
72	10202	321.79	312.92	X	X
73	10202	321.79	312.92	X	X
74	10202	321.79	312.92	X	X
75	10202	321.79	312.92	X	X
76	10202	321.79	312.92	X	X
77	10202	321.79	312.92	X	X
78	10202	321.79	312.92	X	X
79	10202	321.79	312.92	X	X
80	10202	321.79	312.92	X	X
81	10202	321.79	312.92	X	X
82	10202	321.79	312.92	X	X
83	10202	321.79	312.92	X	X
84	10202	321.79	312.92	X	X
85	10202	321.79	312.92	X	X
86	10202	321.79	312.92	X	X
87	10202	321.79	312.92	X	X
88	10202	321.79	312.92	X	X
89	10202	321.79	312.92	X	X
90	10202	321.79	312.92	X	X
91	10202	321.79	312.92	X	X
92	10202	321.79	312.92	X	X
93	10202	321.79	312.92	X	X
94	10202	321.79	312.92	X	X
95	10202	321.79	312.92	X	X
96	10202	321.79	312.92	X	X
97	10202	321.79	312.92	X	X
98	10202	321.79	312.92	X	X
99	10202	321.79	312.92	X	X
100	10202	321.79	312.92	X	X

Curbside trash collection shall be provided by a private contractor and is not the responsibility of Howard County.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Date: 12/13/99
 Date: 10/9/99
 Date: 11/2/97



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1	Cover Sheet	
2	Site Development Plan	
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6	Landscape Plan	
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12	Sediment Control Notes/Details	
13	Wooden Walkway Details	
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15	S.W.M. Details	

Sheet Index	Sheet	Notes
16	Forest Conservation Plan	
17	Forest Conservation Notes	
18	30 SCALE SUPPLEMENTAL SITE PLAN	
19	30 SCALE SUPPLEMENTAL SITE PLAN	

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BAL: 410-889-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
12/13/99	ADD SHEET 3A/B TO SHEET INDEX, REVISE ADDRESS CHART & SITE MAP	Jay/ter	
10/9/99	ADD SHEET 2A TO SHEET INDEX, REV. ADDRESS CHART FOR CONTINUITY	Jay/ter	

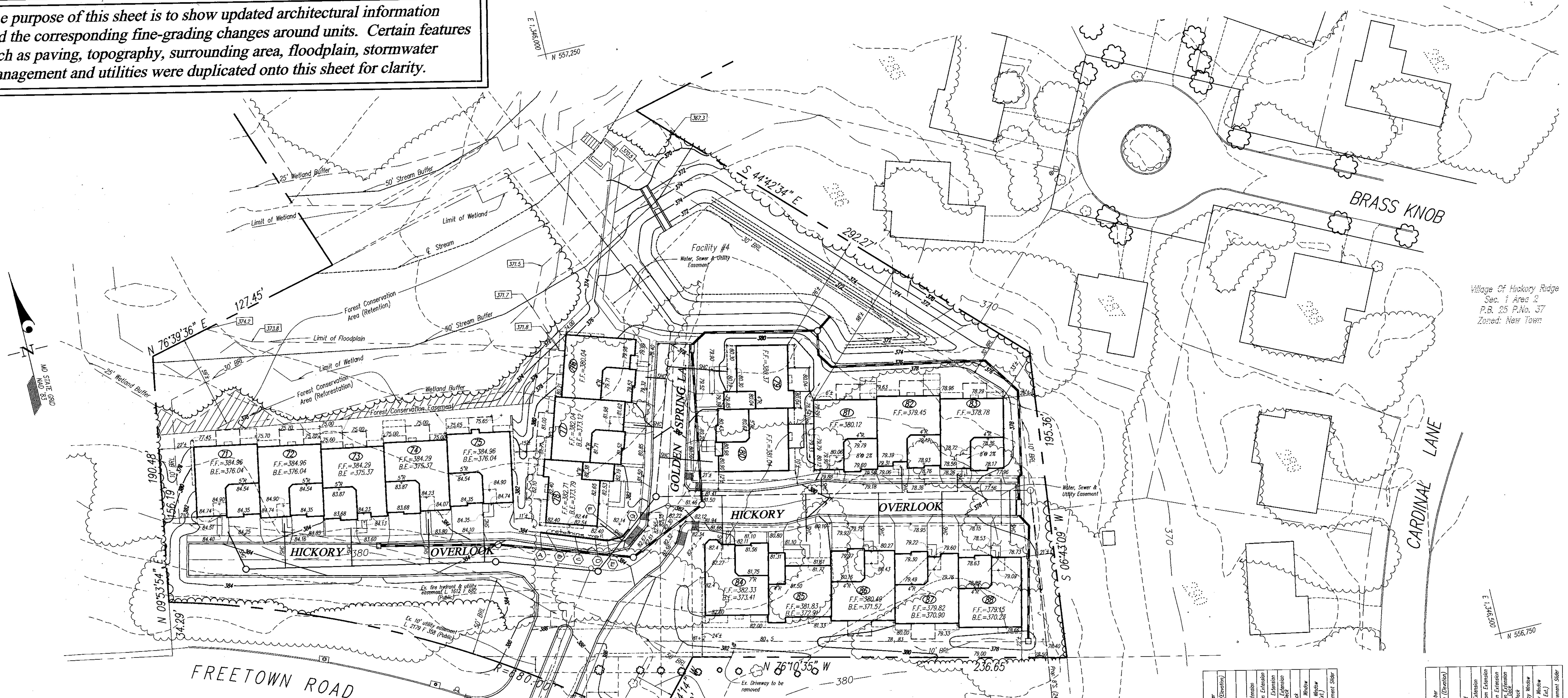
PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

COVER SHEET
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT No. 13156
 CLARKSVILLE ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

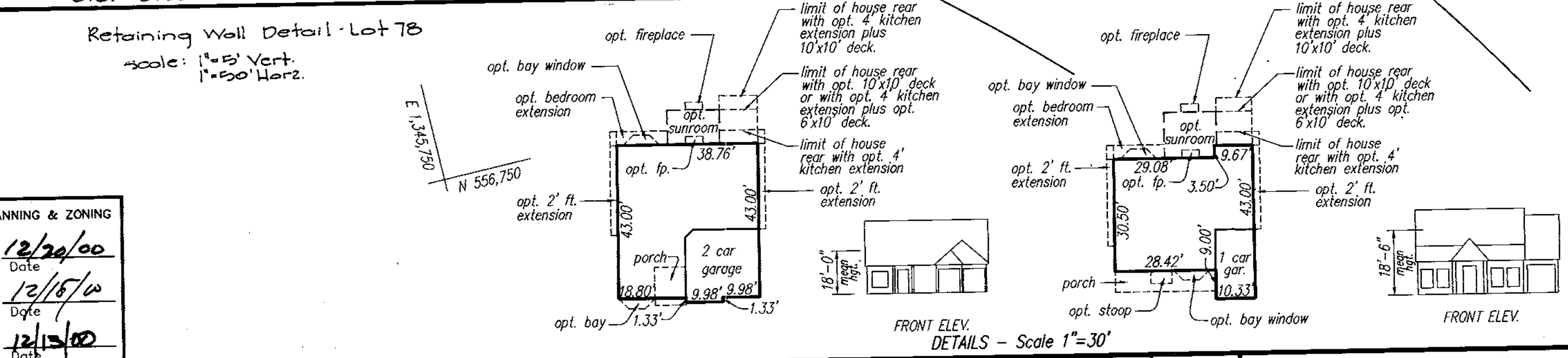
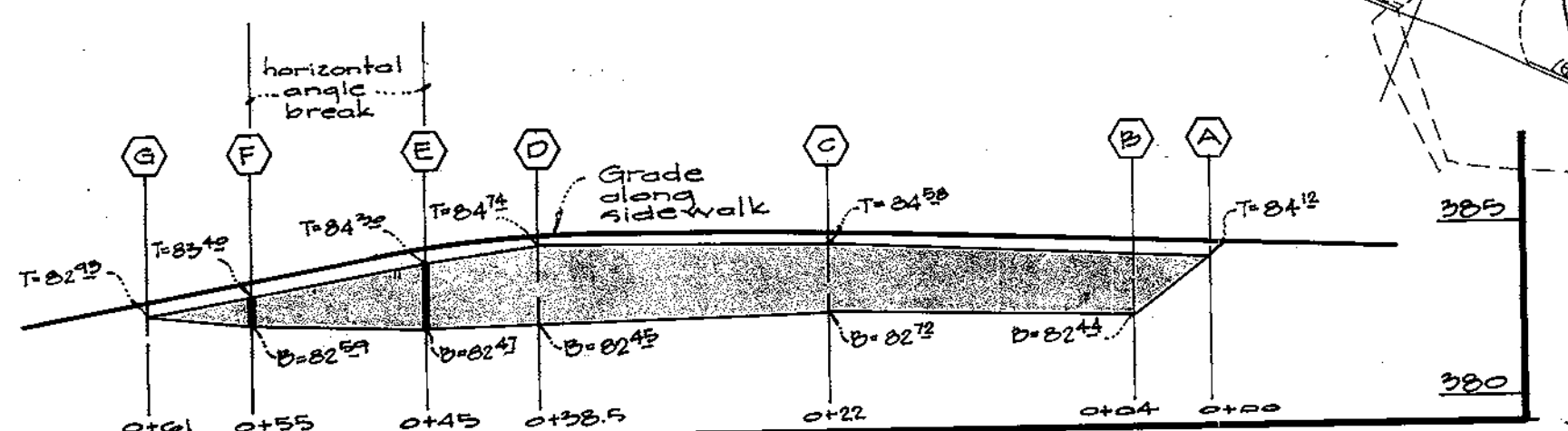
SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-20/NT	95053
TAX MAP - GRID	35 - 18	SHEET

No Asbuilt Information shown on this sheet.

The purpose of this sheet is to show updated architectural information and the corresponding fine-grading changes around units. Certain features such as paving, topography, surrounding area, floodplain, stormwater management and utilities were duplicated onto this sheet for clarity.



Village Of Hickory Ridge
 Sec. 1 Area 2
 P.B. 25 P.No. 37
 Zoned: New Town



Unit Number	Unit Type (Elevation)	Basement	2' Side Extension	4' Kitchen Extension	4' Kitchen Extension + 8' Deck	10' Deck	Front Bay Window (4' x 6' E.L.)	Side Basement Slab
71	A	Y	Y	Y	Y	Y	Y	R
71	B	Y	Y	Y	Y	Y	Y	R
71	C	Y	Y	Y	Y	Y	Y	R
71	D	Y	Y	Y	Y	Y	Y	R
72	A	Y	Y	Y	Y	Y	Y	R
72	B	Y	Y	Y	Y	Y	Y	R
72	C	Y	Y	Y	Y	Y	Y	R
72	D	Y	Y	Y	Y	Y	Y	R
73	A	Y	Y	Y	Y	Y	Y	R
73	B	Y	Y	Y	Y	Y	Y	R
73	C	Y	Y	Y	Y	Y	Y	R
73	D	Y	Y	Y	Y	Y	Y	R
74	A	Y	Y	Y	Y	Y	Y	R
74	B	Y	Y	Y	Y	Y	Y	R
74	C	Y	Y	Y	Y	Y	Y	R
74	D	Y	Y	Y	Y	Y	Y	R
75	A	Y	Y	Y	Y	Y	Y	R
75	B	Y	Y	Y	Y	Y	Y	R
75	C	Y	Y	Y	Y	Y	Y	R
75	D	Y	Y	Y	Y	Y	Y	R
76	A	Y	Y	Y	Y	Y	Y	R
76	B	Y	Y	Y	Y	Y	Y	R
76	C	Y	Y	Y	Y	Y	Y	R
76	D	Y	Y	Y	Y	Y	Y	R
77	A	Y	Y	Y	Y	Y	Y	R
77	B	Y	Y	Y	Y	Y	Y	R
77	C	Y	Y	Y	Y	Y	Y	R
77	D	Y	Y	Y	Y	Y	Y	R
78	A	Y	Y	Y	Y	Y	Y	R
78	B	Y	Y	Y	Y	Y	Y	R
78	C	Y	Y	Y	Y	Y	Y	R
78	D	Y	Y	Y	Y	Y	Y	R
79	A	Y	Y	Y	Y	Y	Y	R
79	B	Y	Y	Y	Y	Y	Y	R
79	C	Y	Y	Y	Y	Y	Y	R
79	D	Y	Y	Y	Y	Y	Y	R

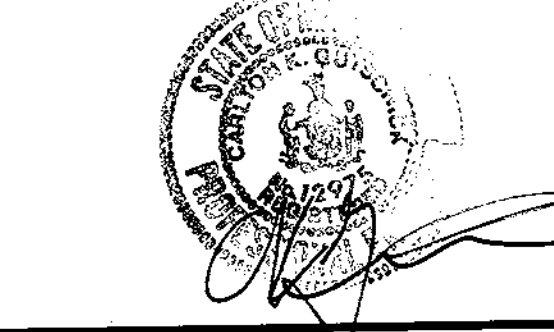
Unit Number	Unit Type (Elevation)	Basement	2' Side Extension	4' Kitchen Extension	4' Kitchen Extension + 8' Deck	10' Deck	Front Bay Window (4' x 6' E.L.)	Side Basement Slab
80	A	Y	Y	Y	Y	Y	Y	R
80	B	Y	Y	Y	Y	Y	Y	R
80	C	Y	Y	Y	Y	Y	Y	R
80	D	Y	Y	Y	Y	Y	Y	R
81	A	Y	Y	Y	Y	Y	Y	R
81	B	Y	Y	Y	Y	Y	Y	R
81	C	Y	Y	Y	Y	Y	Y	R
81	D	Y	Y	Y	Y	Y	Y	R
82	A	Y	Y	Y	Y	Y	Y	R
82	B	Y	Y	Y	Y	Y	Y	R
82	C	Y	Y	Y	Y	Y	Y	R
82	D	Y	Y	Y	Y	Y	Y	R
83	A	Y	Y	Y	Y	Y	Y	R
83	B	Y	Y	Y	Y	Y	Y	R
83	C	Y	Y	Y	Y	Y	Y	R
83	D	Y	Y	Y	Y	Y	Y	R
84	A	Y	Y	Y	Y	Y	Y	R
84	B	Y	Y	Y	Y	Y	Y	R
84	C	Y	Y	Y	Y	Y	Y	R
84	D	Y	Y	Y	Y	Y	Y	R
85	A	Y	Y	Y	Y	Y	Y	R
85	B	Y	Y	Y	Y	Y	Y	R
85	C	Y	Y	Y	Y	Y	Y	R
85	D	Y	Y	Y	Y	Y	Y	R
86	A	Y	Y	Y	Y	Y	Y	R
86	B	Y	Y	Y	Y	Y	Y	R
86	C	Y	Y	Y	Y	Y	Y	R
86	D	Y	Y	Y	Y	Y	Y	R
87	A	Y	Y	Y	Y	Y	Y	R
87	B	Y	Y	Y	Y	Y	Y	R
87	C	Y	Y	Y	Y	Y	Y	R
87	D	Y	Y	Y	Y	Y	Y	R
88	A	Y	Y	Y	Y	Y	Y	R
88	B	Y	Y	Y	Y	Y	Y	R
88	C	Y	Y	Y	Y	Y	Y	R
88	D	Y	Y	Y	Y	Y	Y	R

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *[Signature]* Date: 12/20/00
 Chief, Division of Land Development: *[Signature]* Date: 12/15/00
 Chief, Development Engineering Division: *[Signature]* Date: 12/15/00

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 FAX: 301-421-4188

NO.	DATE	DESCRIPTION	BY	APP'R.
010-01	12/04/00	Add retaining wall and detail for lot 78	MCF	
	12/04/00	Supplemental sheet added to assist in permitting	JAU	

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

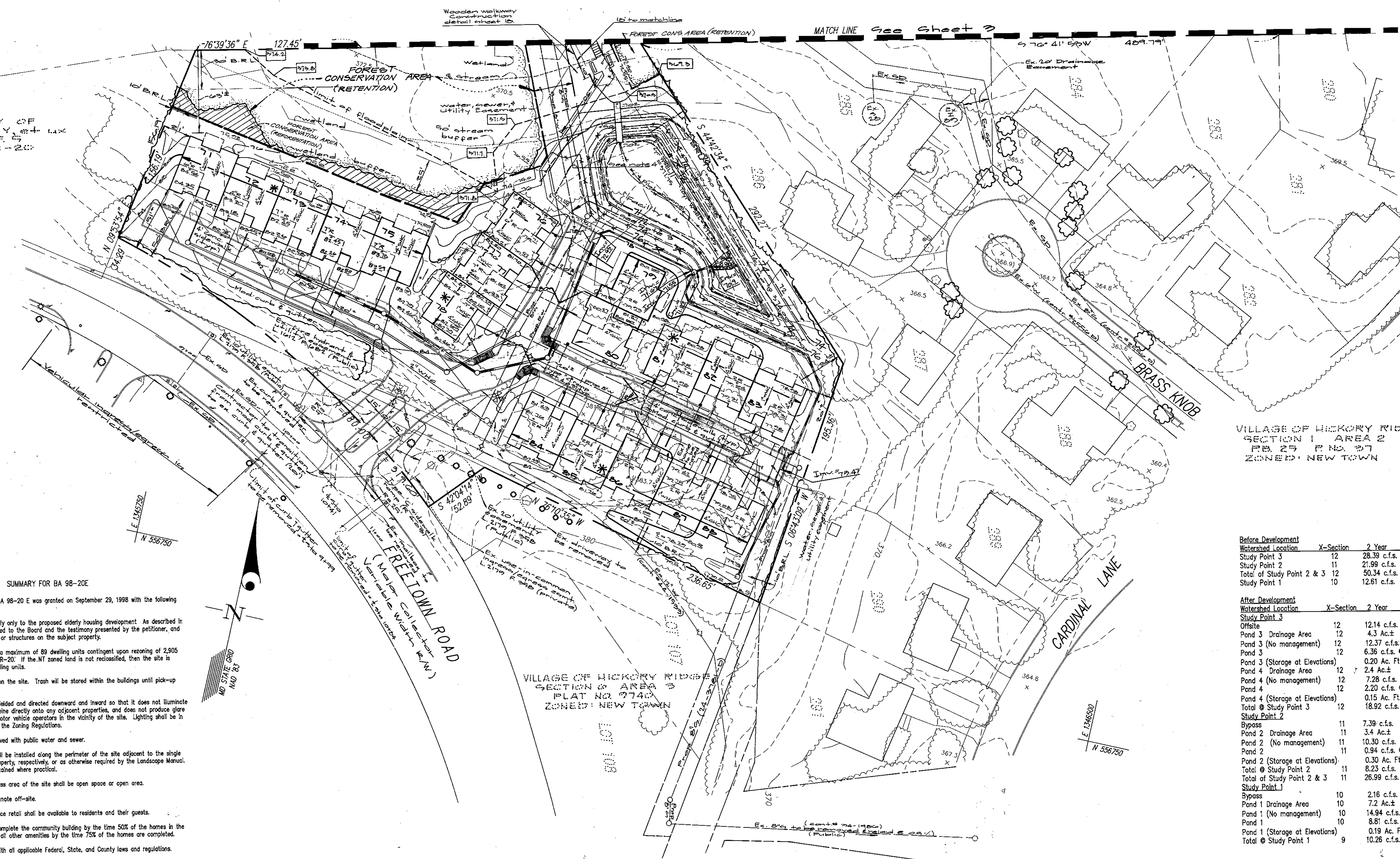


REVISED SITE DEVELOPMENT PLAN
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT NO. 13156
 CLARKSVILLE ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=30'	R-20/NT	95053
DATE	TAX MAP - GRID	SHEET
8/9/00	35-18	2a

* See sheet 2a for updated architectural information and fine grading around units. All other information on this sheet is still applicable.

PROPERTY OF
KYLE FERRY & LEX
L252 PLAT
ZONED: F-140

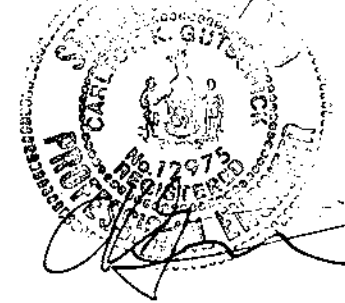


SUMMARY FOR BA 98-20E

- The Board of Appeals Case BA 98-20 E was granted on September 29, 1998 with the following conditions:
1. The Special Exception shall apply only to the proposed elderly housing development. As described in the petition and the plan submitted to the Board and the testimony presented by the petitioner, and not to any other activities, uses, or structures on the subject property.
 2. The development is limited to a maximum of 89 dwelling units contingent upon rezoning of 2,805 square feet of NT zoned land to R-20. If the NT zoned land is not reclassified, then the site is limited to a minimum of 88 dwelling units.
 3. No dumpsters will be located on the site. Trash will be stored within the buildings until pick-up days.
 4. Any exterior lighting will be shielded and directed downward and inward so that it does not illuminate residential properties, does not shine directly onto any adjacent properties, and does not produce glare that would cause a hazard for motor vehicle operators in the vicinity of the site. Lighting shall be in conformance with Section 134 of the Zoning Regulations.
 5. The development shall be served with public water and sewer.
 6. Landscape edges C and A shall be installed along the perimeter of the site adjacent to the single family houses and the church property, respectively, or as otherwise required by the Landscape Manual. Existing vegetation shall be maintained where practical.
 7. A minimum of 50% of the gross area of the site shall be open space or open area.
 8. No perceptible odors may emanate off-site.
 9. The dining area and convenience retail shall be available to residents and their guests.
 10. The Petitioner proposes to complete the community building by the time 50% of the homes in the development are completed, and all other amenities by the time 75% of the homes are completed.
 11. The Petitioner shall comply with all applicable Federal, State, and County laws and regulations.

VILLAGE OF HICKORY RIDGE
SECTION 1 AREA 2
PLAT NO. 2740
ZONED: NEW TOWN

Before Development		2 Year	10 Year	100 Year
Watershed Location	X-Section			
Study Point 3	12	28.39 c.f.s.	67.45 c.f.s.	132.28 c.f.s.
Study Point 2	11	21.99 c.f.s.	43.46 c.f.s.	67.85 c.f.s.
Total of Study Point 2 & 3	12	50.34 c.f.s.	110.91 c.f.s.	198.19 c.f.s.
Study Point 1	10	12.61 c.f.s.	30.37 c.f.s.	51.95 c.f.s.
After Development		2 Year	10 Year	100 Year
Watershed Location	X-Section			
Study Point 3	12	12.14 c.f.s.	39.12 c.f.s.	93.40 c.f.s.
Offsite	12	4.3 Ac.±		
Pond 3 (No management)	12	12.37 c.f.s.	21.28 c.f.s.	31.00 c.f.s.
Pond 3	12	6.36 c.f.s. @ 367.58	15.24 c.f.s. @ 368.39	24.62 c.f.s. @ 368.87
Pond 3 (Storage at Elevations)	12	0.20 Ac. Ft.	0.33 Ac. Ft.	0.42 Ac. Ft.
Pond 4 (No management)	12	2.4 Ac.±		
Pond 4	12	7.28 c.f.s.	13.02 c.f.s.	19.30 c.f.s.
Pond 4 (Storage at Elevations)	12	2.20 c.f.s. @ 371.75	5.05 c.f.s. @ 372.45	11.11 c.f.s. @ 372.98
Total of Study Point 2 & 3	12	18.92 c.f.s.	52.38 c.f.s.	124.95 c.f.s.
Study Point 2	11	7.39 c.f.s.	15.51 c.f.s.	24.86 c.f.s.
Bypass	11	3.4 Ac.±		
Pond 2 (No management)	11	10.30 c.f.s.	18.17 c.f.s.	26.78 c.f.s.
Pond 2	11	0.94 c.f.s. @ 365.48	4.69 c.f.s. @ 366.11	8.67 c.f.s. @ 366.63
Pond 2 (Storage at Elevations)	11	0.30 Ac. Ft.	0.48 Ac. Ft.	0.67 Ac. Ft.
Total of Study Point 2	11	8.23 c.f.s.	18.09 c.f.s.	33.24 c.f.s.
Total of Study Point 2 & 3	11	26.99 c.f.s.	70.35 c.f.s.	157.84 c.f.s.
Study Point 1	10	2.16 c.f.s.	5 c.f.s.	8.27 c.f.s.
Bypass	10	7.2 Ac.±		
Pond 1 (No management)	10	14.94 c.f.s.	30.31 c.f.s.	47.79 c.f.s.
Pond 1	10	8.81 c.f.s. @ 375.49	21.39 c.f.s. @ 376.41	37.67 c.f.s. @ 377.00
Pond 1 (Storage at Elevations)	10	0.19 Ac. Ft.	0.36 Ac. Ft.	0.51 Ac. Ft.
Total of Study Point 1	9	10.26 c.f.s.	24.91 c.f.s.	44.05 c.f.s.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 12/13/99
Director Date

[Signature] 12/9/99
Chief, Division of Land Development Date

[Signature] 1/14/99
Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-850-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

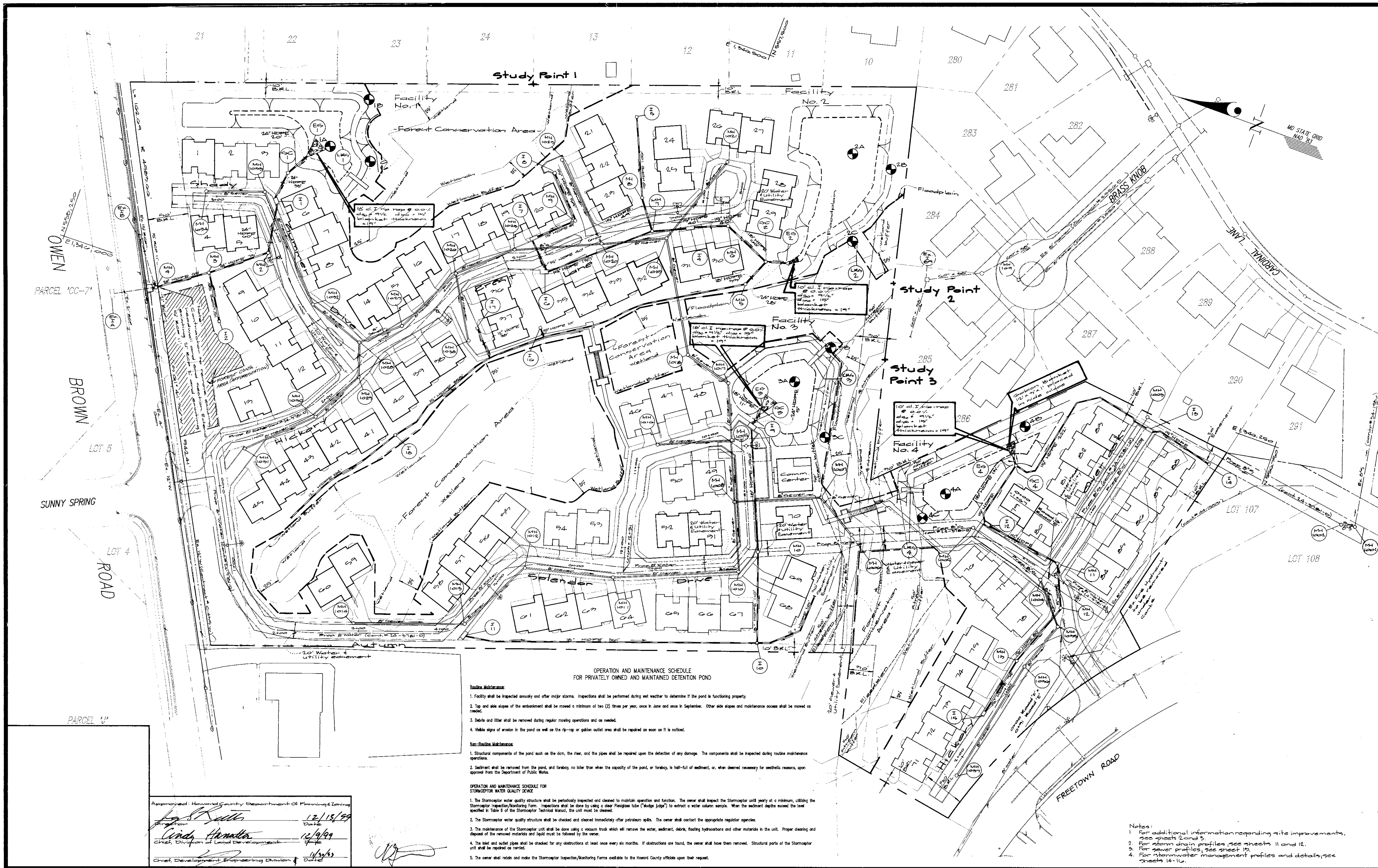
PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

Site Development Plan
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/ NT	95053
DATE	TAX MAP - GRID	SHEET
October November 1999	35 - 18	2

1. For additional information regarding existing & proposed utilities, see sheets 4 & 11-13
2. For additional information regarding stormwater management, see sheets 4 & 14-16.
3. Contractor to end macadam path & begin concrete sidewalk.
4. Contractor to end 4' wide macadam path and begin wooden walkway.
5. All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the Homeowner's Association. Quantity management is provided for the 2, 10 and 100 year storm by detention. All proposed facilities have a class 'A' hazard level. Quality management is provided using stormcatchers.

DRAWINGS/95053/BASESHTS/95053B52.DWG	DES.	DRN. SJC	CHK.	DATE	REVISION	BY	APPR.
--------------------------------------	------	----------	------	------	----------	----	-------



OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DETENTION POND

- Routine Maintenance:**
1. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
 2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times per year, once in June and once in September. Other side slopes and maintenance access shall be mowed as needed.
 3. Debris and litter shall be removed during regular mowing operations and as needed.
 4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.

- Non-Routine Maintenance:**
1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.
 2. Sediment shall be removed from the pond, and forbay, no later than when the capacity of the pond, or forbay, is half-full of sediment, or, when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.

- OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER WATER QUALITY DEVICE**
1. The Stormwater water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormwater unit yearly at a minimum, utilizing the Stormwater Inspector/Monitoring Form. Inspections shall be done by using a clear Plexiglas tube ("Wedge Jig") to extract a water column sample. When the sediment depth exceeds the level specified in Table 8 of the Stormwater Technical Manual, the unit must be cleaned.
 2. The Stormwater water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulator agencies.
 3. The maintenance of the Stormwater unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
 4. The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found, the owner shall have them removed. Structural parts of the Stormwater unit shall be repaired as needed.
 5. The owner shall retain and make the Stormwater Inspector/Monitoring Forms available to the Howard County officials upon their request.

- Notes:**
1. For additional information regarding site improvements, see sheets 2 and 3.
 2. For storm drain profiles, see sheets 11 and 12.
 3. For sewer profiles, see sheet 13.
 4. For stormwater management profiles and details, see sheets 14-16.

Approved: Howard County Department of Planning & Zoning
 Director: *[Signature]* 12/15/99
 Chief Development Engineering Division: *[Signature]* 12/9/99
 Date: 1/30/00

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BIRTONVILLE OFFICE PARK
 BIRTONVILLE, MARYLAND 21066
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-985-2524 FAX: 301-421-4186

DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.

PREPARED FOR:
 Orchard Development Corporation
 8979 Old Columbia Pike
 Ellicott City, Maryland
 21043
 (410) 750-1800

Utility Plan
Hickory Ridge Elderly Center
 Lots 1 and 2
 Plat 13150
 Clarksville Election District No. 5
 Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1" = 50'	R-20/ NT	95053
DATE	TAX MAP - GRID	SHEET
November, 1999	35-1B	4

PLANT LIST

SYMBOL	NAME (BOTANICAL/COMMON)	QUANT.	SIZE	COMMENTS
SHADE TREES				
ARA	Acer rubrum "Armstrong"/Armstrong Red Maple	27	2 1/2" Cal., 12-14' H.	B&B
ARO	Acer rubrum "October Glory"/Oct. Glory Red Maple	12	2 1/2" Cal., 12-14' H.	B&B
BN	Betula nigra "Heritage"/Heritage Birch	15	12" H. min.	Single Stem B&B
MG	Magnolia grandiflora/Southern Magnolia	3	12" H. min.	Specimen B&B
QP	Quercus palustris/Ph Oak	32	2 1/2" Cal., 12-14' H.	B&B
QR	Quercus rubra/Red Oak	15	2 1/2" Cal., 12-14' H.	B&B
SB	Salix babylonica/Weeping Willow	3	2" Cal. min., 10-12' H.	B&B
ZS	Zelkova serrata "Green Vase"/Green Vase Zelkova	60	2 1/2" Cal., 12-14' H.	B&B
EVERGREEN TREES				
CL	Cupressocyparis leylandii/Leyland Cypress	17	5-6' H.	B&B
IO	Ilex opaca/American Holly	14	5-6' H.	B&B
PA	Picea abies/Norway Spruce	88	8' H. min.	B&B
PO	Picea omorika/Serbian Spruce	7	8' H. min.	B&B
PS	Pinus strobus/Eastern White Pine	150	8' H. min.	B&B
ORNAMENTAL TREES				
CC	Cercis canadensis/Eastern Redbud	16	1 1/2" Cal.	B&B
PC	Prunus cerasifera "Thundercloud"/Purpleleaf Flowering Plum	6	1 1/2" Cal.	B&B
PY	Prunus yedoensis/Yoshino Cherry	16	1 1/2" Cal.	B&B

*can also use on-site transplants

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES	
	1	3	2	4
PERIMETER No.	C	C	A	C
LANDSCAPE TYPE	C	C	A	C
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	665'	55'	2240'	216'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, ONE SPECIMEN W/20' OAK	NONE	YES, 530' OF EX. WOODLAND RETENTION AREA	YES, 40' OF EX. WOODLAND RETENTION AREA
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET)	NONE	NONE	NONE	NONE
NUMBER OF PLANTS REQUIRED	FOR 665' AT 1:40=17 AT 1:20=33	FOR 55' AT 1:40=1 AT 1:20=3	FOR 1701' AT 1:40=43 AT 1:20=85	FOR 216' AT 1:40=3 AT 1:20=6
NUMBER OF PLANTS PROVIDED	SHADE TREES 17 EVERGREEN TREES 33 OTHER TREES (2:1 SUB.)	SHADE TREES 1 EVERGREEN TREES 3 OTHER TREES (2:1 SUB.)	SHADE TREES 27 EVERGREEN TREES 145*	SHADE TREES 1 EVERGREEN TREES 1 OTHER TREES (2:1 SUB.)

*QUANTITY IN EXCESS OF REQUIRED AMOUNT IS APPLIED TOWARDS SHADE TREE REQUIREMENT AT 2:1 SUBSTITUTION. ADDITIONAL PLANTINGS SHOWN ARE VOLUNTARY.

SCHEDULE A BOND CALCULATION FOR TREES REQUIRED
 70 X 300 = 21,000
 27 X 150 = 4,050
 SCHEDULE A TOTAL = \$25,050

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	9
NUMBER OF TREES REQUIRED	1
NUMBER OF TREES PROVIDED	1
SHADE TREES	
OTHER SHADE TREES (2:1 SUBSTITUTION)	

TOTAL BONDING FOR SCHEDULE-B: 1 X 300 = \$300

SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS	88
NUMBER OF TREES REQUIRED (1:DU SFA)	88
NUMBER OF TREES PROVIDED	84
SHADE TREES	
OTHER SHADE TREES (2:1 SUBSTITUTION)	52 @ 26 @ 2:1 sub.

TOTAL BONDING FOR SCHEDULE-C: 88 X 300 = \$26,400

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	2,595 TOTAL (725,800,455,615)
NUMBER OF TREES REQUIRED	FOR 1,095' TOTAL OF "B" BUFFER
SHADE TREES	AT 1:50=21 (5,6,3,7)
EVERGREEN TREES	AT 1:40=27 (7,7,4,9)
CREDIT FOR RETAINED VEGETATION (NO, YES AND %)	YES, 24%, 620'
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES, 33.9%, 880' OF "C" BUFFER SEE SCHEDULE "A"
NUMBER OF TREES PROVIDED	FOR 1,095' OF "B" BUFFER
SHADE TREES	POND 1 POND 2 POND 3 POND 4 TOTAL
EVERGREEN TREES	5 10 3 13 31
OTHER TREES (2:1 SUBSTITUTION)	10 20 6 26 62

NOTE: Quantities in parentheses are for SWM pond in numerical order (pond #1,2, etc.). Also see sheet titled "Landscape Edge Analysis".

SCHEDULE-D BOND CALCULATION FOR TREES REQUIRED
 21 X 300 = 6,300
 27 X 150 = 4,050
 SCHEDULE-D TOTAL = \$10,350

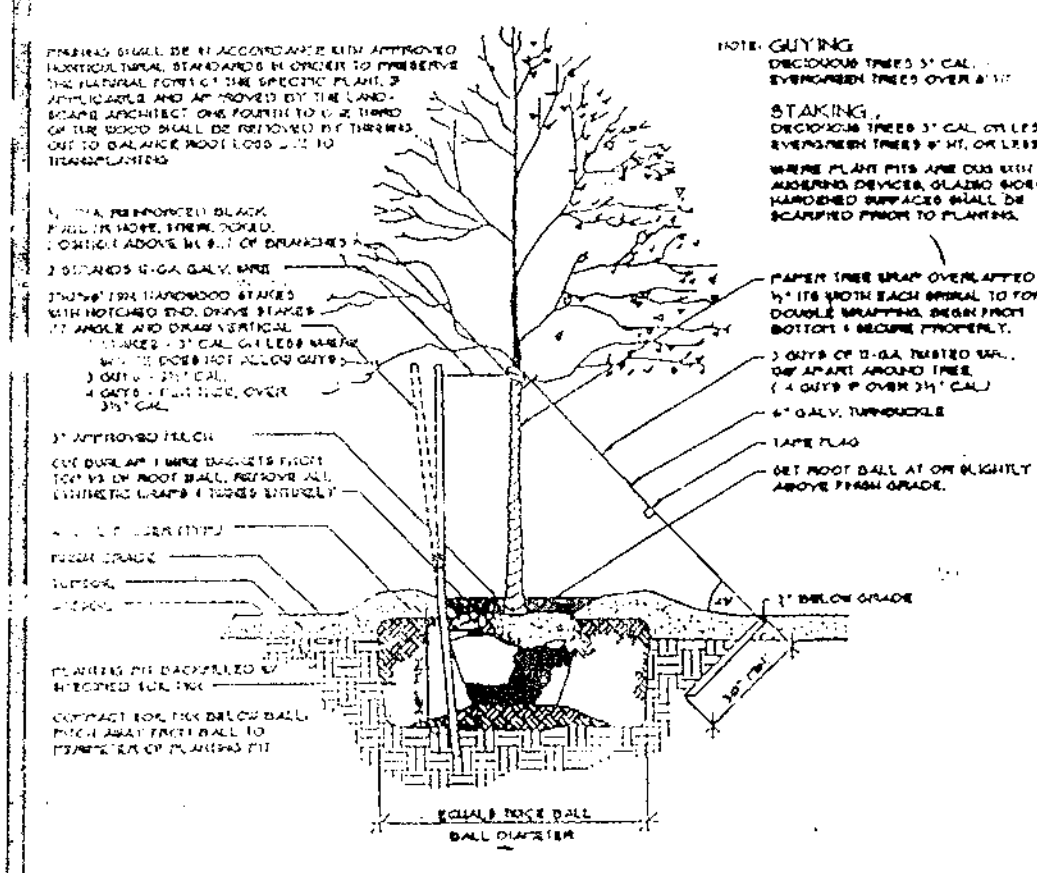
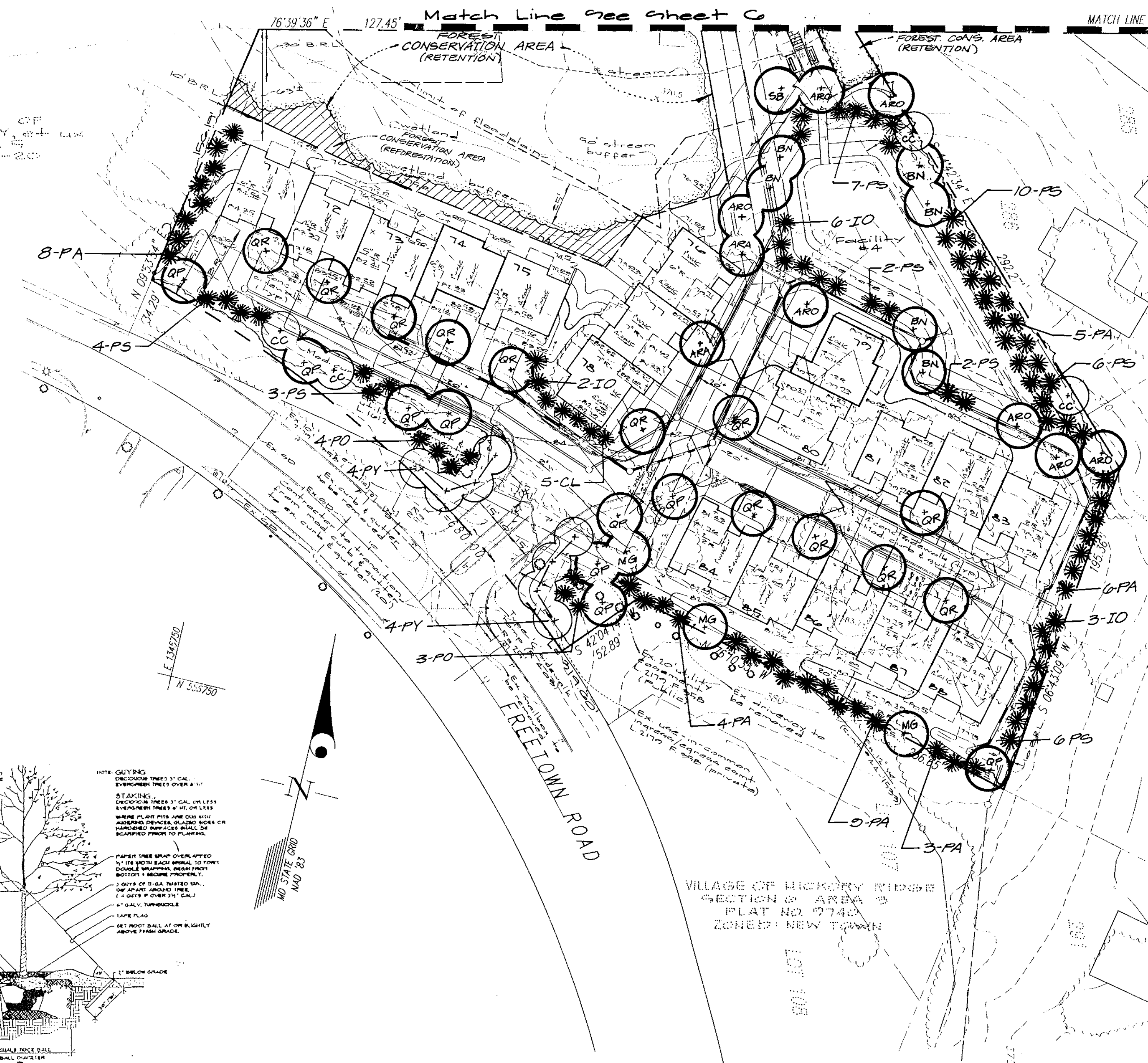
LANDSCAPING NOTES

- This plan has been prepared in accordance with Section 16.124 of the Howard County Code and of the Howard County Landscape Manual.
 - Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet C-1 shall apply.
 - Field verify underground utility locations and existing conditions before starting planting work. Contact landscape architect if any plant relocations are proposed.
- CAUTION:** Storm drain lines in the vicinity of Units 3-9, 21, 3, 4, 7, 8 and 88 are shallow. See Utility Profiles.
- Plant quantities shown on Plant List are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the Plant List and those shown on the plan list, the quantities on the plan shall take precedence.
 - All plant material shall be full, heavy, well rooted, and symmetrical and conform to the A.A.H. Specifications, and be installed in accordance with the Howard County Department of Public Works Standards and Specifications.
 - No substitution shall be made without written consent of the owner or his representative.
 - All areas disturbed by construction activities but not otherwise planted, mulched, or mulched shall be seeded or sodded in accordance with the Sediment Control Plan.
 - The contractor shall notify the owner in writing if he/she encounters soil conditions which may be detrimental to the growth of the plants.
 - All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.
 - Financial surety for the required landscaping has been posted as part of the DUV Developer's Agreement in the amount of \$ 28,000.

DEVELOPER'S/BUILDER'S CERTIFICATE

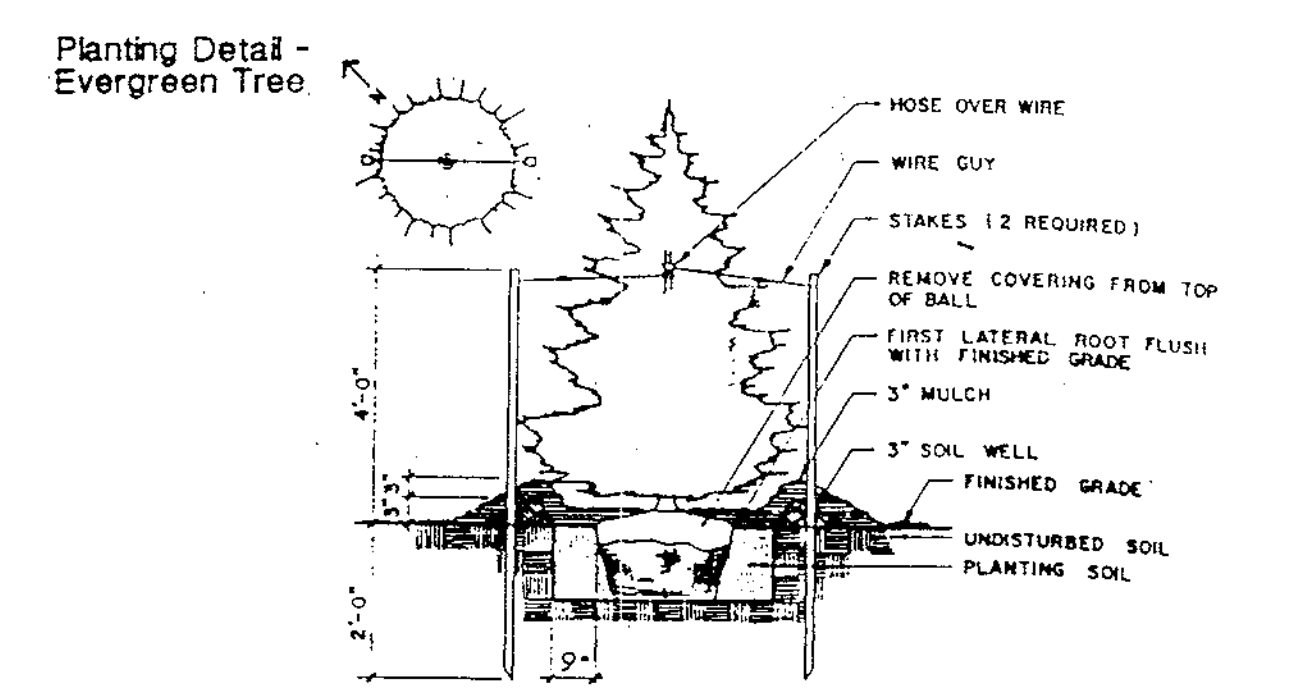
I/WE certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. If not, a certificate that upon completion, a Certification of Landscape Installation, accompanied by an acceptable guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

Name (Developer/Builder's) ASL Date 11-15-99



Detail - Deciduous Tree Planting
No Scale

THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 12/13/99
 [Signature] 12/14/99
 Chief, Department of Land Development
 Chief, Development Engineering Division

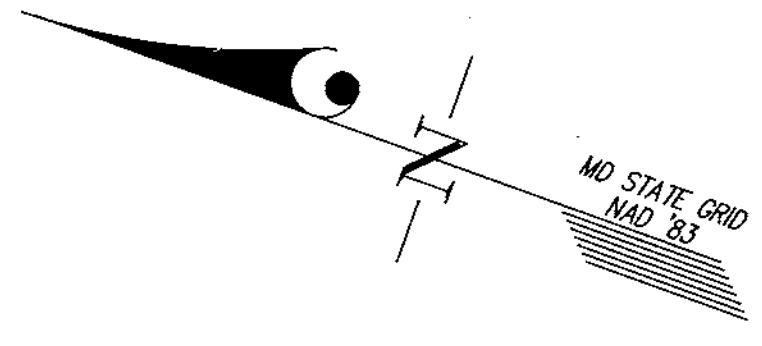
GIW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 703 NATIONAL DRIVE - SUITE 200 - BETHESDA, MARYLAND 20814
 TEL: 301-424-4224 FAX: 301-424-4224

NO.	DATE	BY	APPR.	REVISION

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-7809

LANDSCAPE PLAN, NOTES, DETAILS AND SCHEDULES
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT No. 13156

SCALE	ZONING	G. L. W. REF. NO.
1"=40'	R-20	95053
DATE November 1999	TAX MAP - GRID 35 - 1A	SHEET 5



VILLAGE OF HICKORY RIDGE SECTION I AREA I PLAT NO. 2575

SPRING LAKE GARDENS PLAT NO. 1257 ZONED R-20

SPRING LAKE GARDENS PLAT NO. 2969 ZONED R-20

OWEN ROAD
PARCEL 100-7
Major Collector (W) BROWN ROAD

VILLAGE OF HICKORY RIDGE SECTION I AREA I PLAT NO. 2575 LOT 5 O.S. LOT 5

SUNNY SPRING

VILLAGE OF HICKORY RIDGE SECTION I AREA I PLAT NO. 2575 LOT 4 O.S. LOT 4

VILLAGE OF HICKORY RIDGE SECTION I AREA I PLAT NO. 2575 LOT 4 O.S. LOT 4

NOTES CONCERNING SUPPLEMENTAL SHEETS:
1. SEE SHEET 2A/2B FOR UPDATED ARCHITECTURAL INFORMATION AND THE GRADING AND DRAINAGE PLANS. THIS INFORMATION IS STILL APPLICABLE. ANY CONFLICTS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION FOR POSSIBLE REVISION.

1. For additional information regarding existing & proposed utilities, see sheets 4 & 11-15.
2. For additional information regarding stormwater management, see sheets 4, 14, & 15.
3. Contractor to end 4' wide macadam path & begin concrete sidewalk.
4. Contractor to end 4' wide macadam path & begin wooden walkway.
5. All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the homeowners Association. Quantity management is provided for the 2, 10 and 100 year return periods. All proposed facilities have a clean A hazard level. Quality management is provided using stormceptors.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Carol Hamilton 12/18/99
Date

Carol Hamilton 12/18/99
Date

[Signature] 11/23/99
Date

Chief, Development Engineering Division

Final well
TIN = 25.0
BN = 24.0

Final well
TIN = 25.0
BN = 24.0

PROPERTY OF
SAVIOR LUTHERAN CHURCH
L 421
ZONED R-20

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONTOWN OFFICE PARK
BURTONTOWN, MARYLAND 20866
TEL. 301-421-4024 FAX: 301-421-4188

DATE	REVISION	BY	APP'R.
Nov 2002	Asbuilt Information Added		
12/18/99	ADD NOTE REFERRING TO SHEET 2A/2B FOR DETAILED INFORMATION		

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

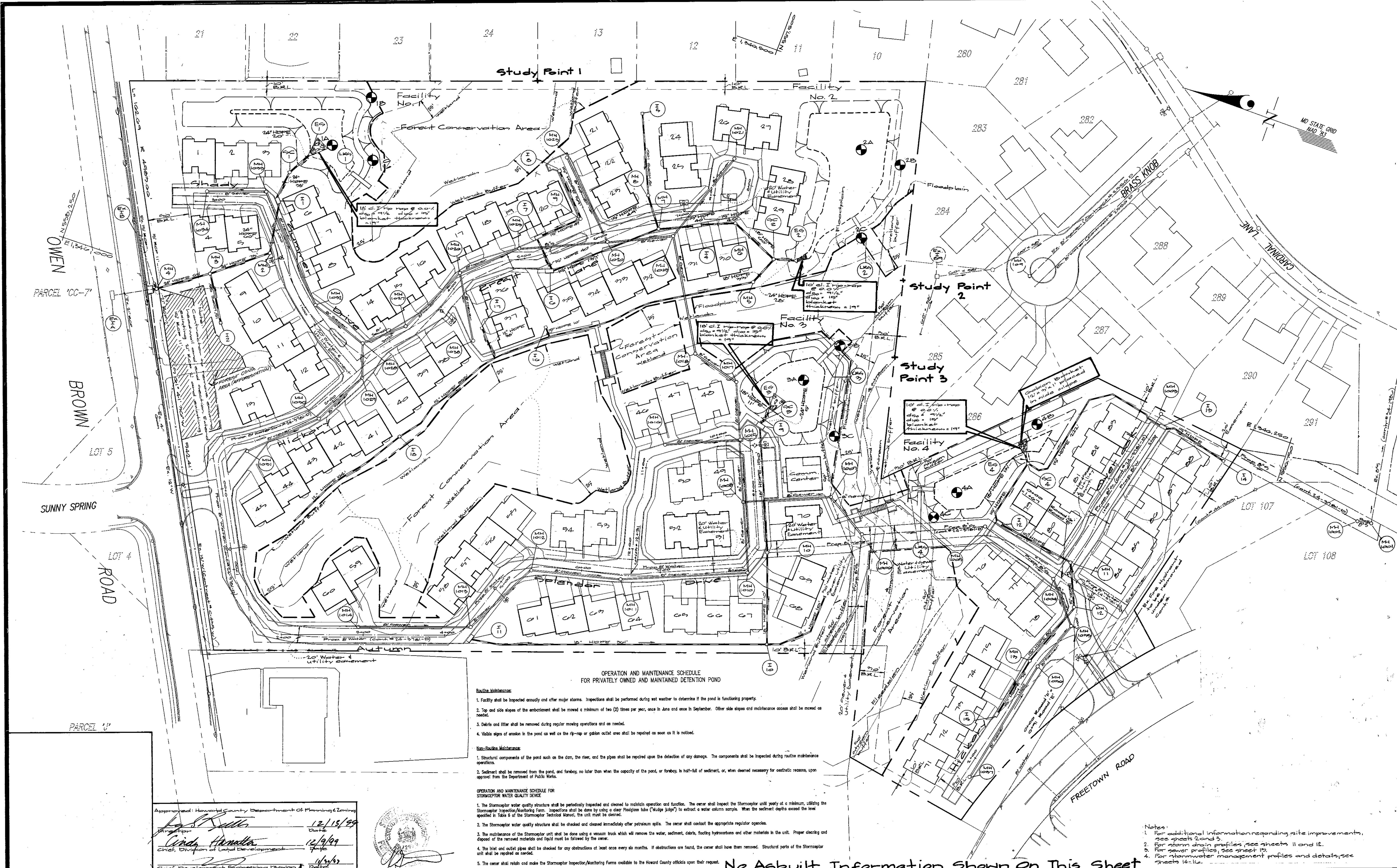
Site Development Plan
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT NO. 13156

CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/ NT	95053
DATE	TAX MAP - GRID	SHEET
October 2002	35 - 18	3

Asbuilt Sheet 7 of 9

SDP99-68



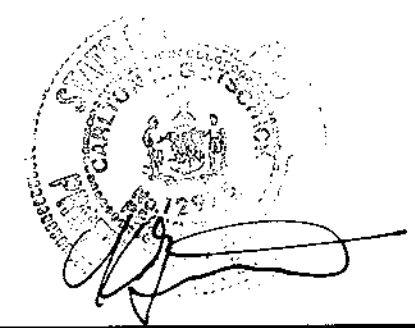
OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DETENTION POND

- Basin Maintenance:**
1. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
 2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times per year, once in June and once in September. Other side slopes and maintenance areas shall be mowed as needed.
 3. Debris and litter shall be removed during regular mowing operations and as needed.
 4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.
- Non-Structure Maintenance:**
1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.
 2. Sediment shall be removed from the pond, and forebay, no later than when the capacity of the pond, or forebay, is half-full of sediment, or, when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.

OPERATION AND MAINTENANCE SCHEDULE FOR STORMSEPTOR WATER QUALITY DEVICE

1. The Stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor unit yearly at a minimum, utilizing the Stormceptor Inspection/Monitoring Form. Inspections shall be done by using a clear Plexiglas tube ("Wedge Judge") to extract a water column sample. When the sediment depth exceeds the level specified in Table 6 of the Stormceptor Technical Manual, the unit must be cleaned.
2. The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agencies.
3. The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
4. The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found, the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.
5. The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to the Howard County officials upon their request.

Approved: Howard County Department of Planning & Zoning
 Date: 12/15/99
 Date: 12/19/99
 Date: 1/13/00



No Asbuilt Information Shown On This Sheet

- Notes:**
1. For additional information regarding site improvements, see sheets 2 and 3.
 2. For storm drain profiles, see sheets 11 and 12.
 3. For sewer profiles, see sheet 13.
 4. For stormwater management profiles and details, see sheets 14-16.

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-4196

DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.
			Nov 2002	Asbuilt Information Added		

PREPARED FOR:
 Orchard Development Corporation
 8779 Old Columbia Pike
 Ellicott City, Maryland
 21043
 (410) 750-1800

Utility Plan
Hickory Ridge Elderly Center
 Lots 1 and 2
 Plat 13156
 Clarksville Election District No. 5
 Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1" = 50'	R-20/ NT	45053
DATE	TAX MAP - GRID	SHEET
October November 2002	35-1B	4

PLANT LIST

SYMBOL	NAME (BOTANICAL/COMMON)	QUANT.	SIZE	COMMENTS
SHADE TREES				
ARA	Acer rubrum "Armstrong"/Armstrong Red Maple	27	2 1/2" Cal., 12-14' Ht.	B&B
ARO	Acer rubrum "October Glory"/Oct. Glory Red Maple	12	2 1/2" Cal.; 12-14' Ht.	B&B
BN	Betula nigra "heritage"/Heritage Birch	15	12' Ht. min.	Single Stem B&B
MG	Magnolia grandiflora/Southern Magnolia	5	12' Ht. min.	Specimen B&B
QP	Quercus palustris/Pin Oak	32	2 1/2" Cal.; 12-14' Ht.	B&B
QR	Quercus rubra/Red Oak	15	2 1/2" Cal.; 12-14' Ht.	B&B
SB	Salix babylonica/Weeping Willow	3	2" Cal. min.; 10-12' Ht.	B&B
ZS	Zelkova serrata "Green Vase"/Green Vase Zelkova	60	2 1/2" Cal.; 12-14' Ht.	B&B
EVERGREEN TREES				
CL	Cupressocyparis leylandii/Leyland Cypress	17	5-6' Ht.	B&B
IO	Ilex opaca/American Holly	14	5-6' Ht.	B&B*
PA	Picea abies/Norway Spruce	88	8' Ht. min.	B&B
PO	Picea omorika/Serbian Spruce	7	8' Ht. min.	B&B
PS	Pinus strobus/Eastern White Pine	150	8' Ht. min.	B&B
ORNAMENTAL TREES				
CC	Cercis canadensis/Eastern Redbud	16	1 1/2" Cal.	B&B
PC	Prunus cerasifera "Thundercloud"/Purpleleaf Flowering Plum	6	1 1/2" Cal.	B&B
PY	Prunus yedoensis/Yoshino Cherry	16	1 1/2" Cal.	B&B

*can also use on-site transplants

SCHEDULE A
PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES		
	1	3	2	A	4
PERIMETER No.	1	3	2	A	4
LANDSCAPE TYPE	C	C	C	A	C
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	605'	55'	2240'	516'	156'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, ONE 2" CAL. RED OAK	NONE	YES, 530' OF EX. WOODLAND RETENTION AREA	YES, 180' OF EX. WOODLAND RETENTION AREA	YES, 40' OF EX. WOODLAND RETENTION AREA
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET)	NONE	NONE	NONE	NONE	NONE
NUMBER OF PLANTS REQUIRED	FOR 605' AT 1:40=17	FOR 55' AT 1:40=1	FOR 1701' AT 1:40=43	FOR 780' AT 1:40=12	FOR 116' AT 1:40=3
SHADE TREES	17	1	27	12	OVER 1
EVERGREEN TREES	33	3	145*		OVER 10*
SHRUBS	NONE	NONE	NONE	NONE	NONE
NUMBER OF PLANTS PROVIDED	17	1	27	12	OVER 1
SHADE TREES	33	3	145*		OVER 10*
EVERGREEN TREES					
OTHER TREES (2:1 SUB.)					
SHRUBS (10:1 SUBSTITUTION)					

*QUANTITY IN EXCESS OF REQUIRED AMOUNT IS APPLIED TOWARDS SHADE TREE REQUIREMENT AT 2:1 SUBSTITUTION. ADDITIONAL PLANTINGS SHOWN ARE VOLUNTARY.

SCHEDULE-A BOND CALCULATION FOR TREES REQUIRED
70 X 300 = 21,000
127 X 150 = 19,050
SCHEDULE-A TOTAL = \$40,050

SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	9
NUMBER OF TREES REQUIRED	1
NUMBER OF TREES PROVIDED	1
SHADE TREES	
OTHER SHADE TREES (2:1 SUBSTITUTION)	

TOTAL BONDING FOR SCHEDULE-B: 1 X 300 = \$300

SCHEDULE C
RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS	88
NUMBER OF TREES REQUIRED (1:DU SFA)	88
NUMBER OF TREES PROVIDED	94
SHADE TREES	
OTHER SHADE TREES (2:1 SUBSTITUTION)	52 + 26 @ 2:1 sub.

TOTAL BONDING FOR SCHEDULE-C: 88 X 300 = \$26,400

SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	2,595 TOTAL (725,800,455,615)
NUMBER OF TREES REQUIRED	FOR 1,095' TOTAL OF "B" BUFFER
SHADE TREES	AT 1:50=21 (5,9,3,7)
EVERGREEN TREES	AT 1:40=27 (7,7,4,5)
CREDIT FOR RETAINED VEGETATION (NO, YES AND %)	YES, 24%, 62'
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES, 33.9%, 880' OF "C" BUFFER SEE SCHEDULE "A"
NUMBER OF TREES PROVIDED	FOR 1,095' OF "B" BUFFER
SHADE TREES	POND 1 POND 2 POND 3 POND 4 TOTAL
EVERGREEN TREES	5 5 5 5 20
OTHER TREES (2:1 SUBSTITUTION)	10 10 10 10 40

NOTE: Quantities in parentheses are for SWM pond in numerical order (pond #1,2,etc.). Also see sheet titled "Landscape Edge Analysis".

SCHEDULE-D BOND CALCULATION FOR TREES REQUIRED
21 X 300 = 6,300
27 X 150 = 4,050
SCHEDULE-D TOTAL = \$10,350

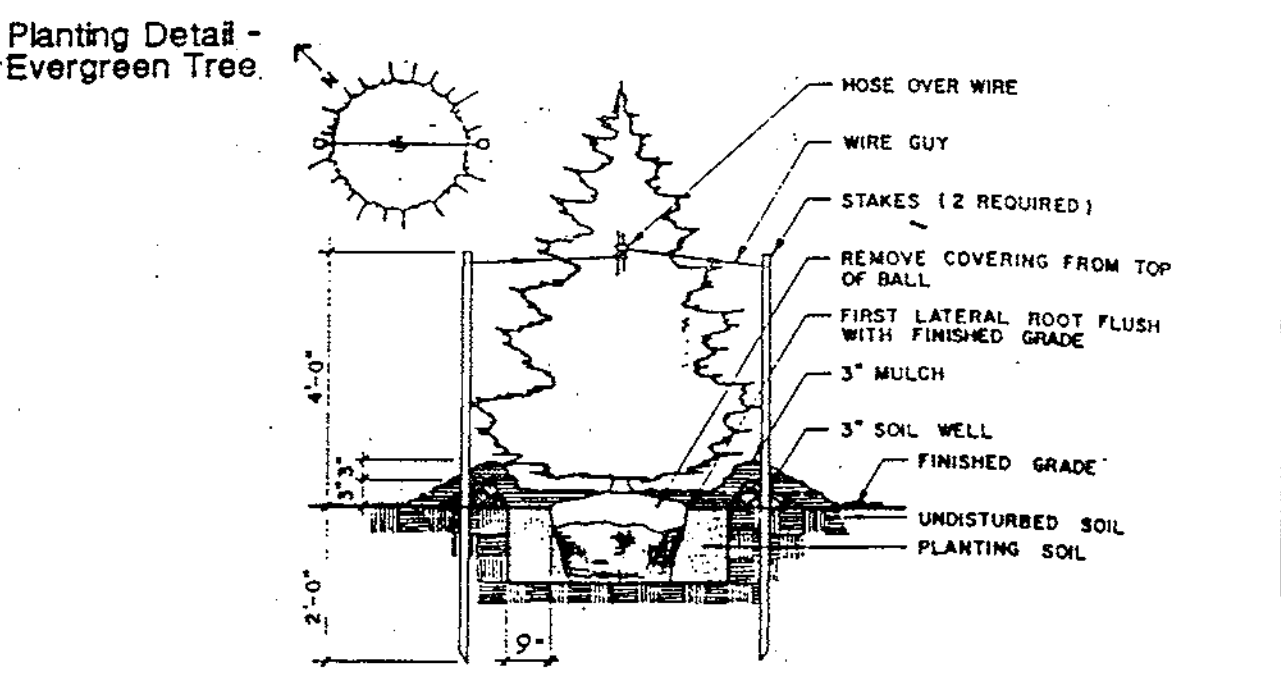
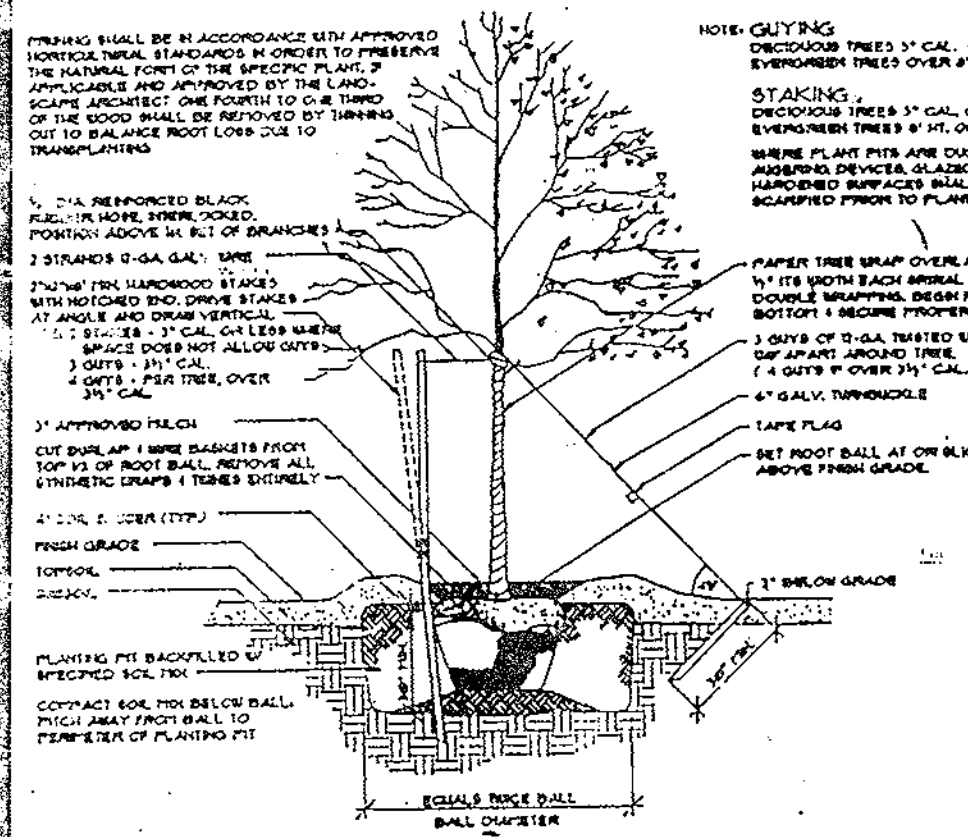
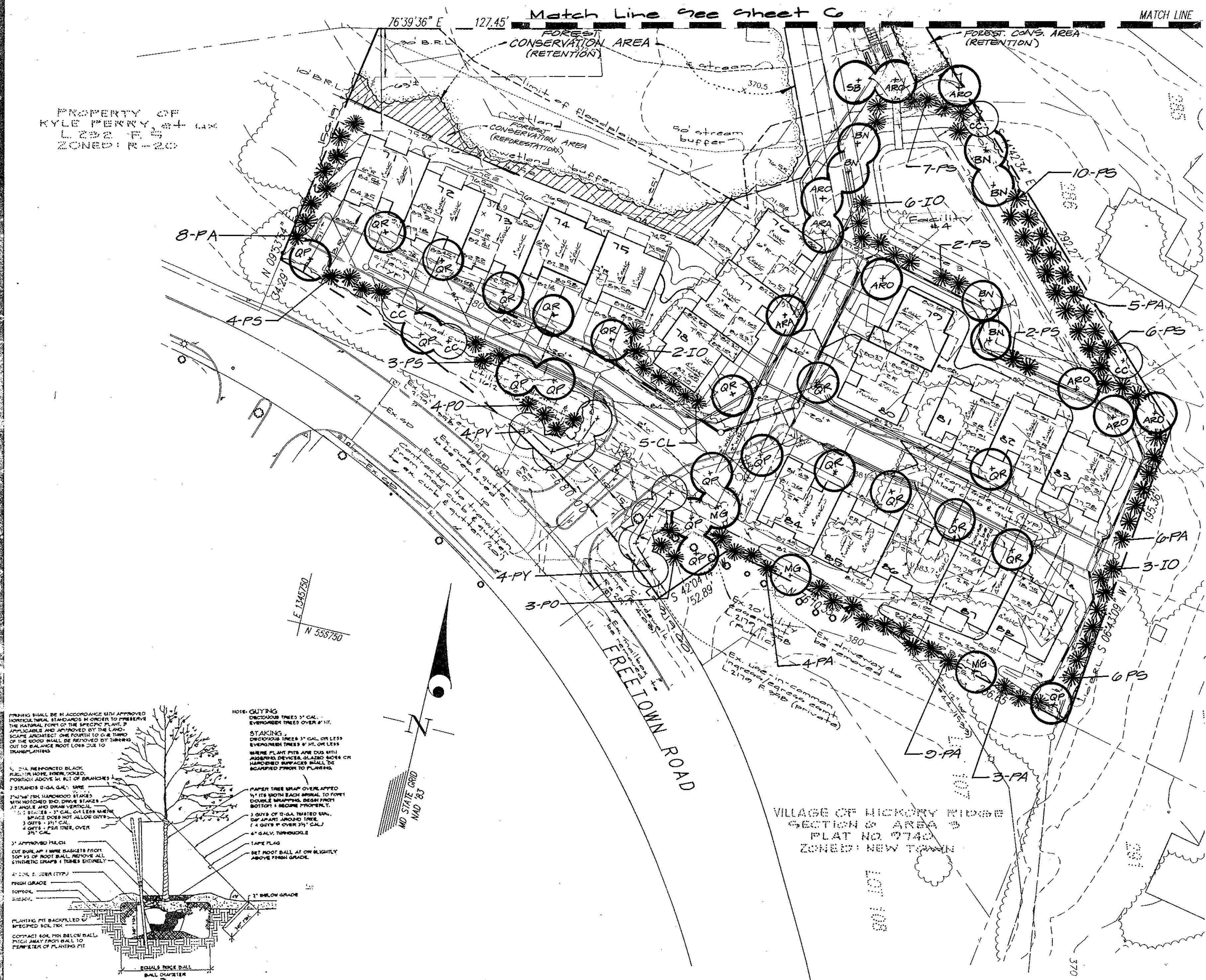
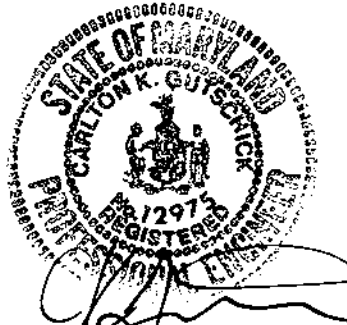
LANDSCAPING NOTES

- This plan has been prepared in accordance with Section 16.124 of the Howard County Code and of the Howard County Landscape Manual.
 - Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet C-1 shall apply.
 - Field verify underground utility locations and existing conditions before starting planting work. Contact landscape architect if any plant relocations are necessary.
- CAUTION:** Storm drain lines in the vicinity of Units 3-9, 2, 5, 65-70 and 88 are shallow. See Utility Profiles.
- Plant quantities shown on Plant List are provided for the convenience of contractor only. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
 - All plant material shall be full, heavy, well formed, and symmetrical in conformity to the A.A.N. Specifications, and be installed in accordance with the Howard County Department of Public Works Standards and Specifications.
 - No substitution shall be made without written consent of the owner or his representative.
 - All areas disturbed by construction activities but not otherwise planted, graded, or mulched shall be seeded or sodded in accordance with the Sediment Control Plan.
 - The contractor shall notify the owner in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.
 - All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.
 - Financial surety for the required landscaping has been posted as part of the DPW Developer's Agreement in the amount of \$78,000.

DEVELOPER'S/BUILDERS CERTIFICATE

I/WE certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion, a Certification of Landscape Installation, accompanied by an estimated one-year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

Name (Developer/Builder's) ASL Date 11-15-99



THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!

Detail - Deciduous Tree Planting
No Scale

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] Date: 12/13/99
 Chief, Division of Land Development: [Signature] Date: 12/9/99
 Chief, Development Engineering Division: [Signature] Date: 11/14/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3979 NATIONAL DRIVE - SUITE 250 - BURLINGAME OFFICE PARK
 BURLINGAME, MARYLAND 20866
 TEL: 301-421-4024 FAX: 301-421-4025

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

LANDSCAPE PLAN, NOTES, DETAILS AND SCHEDULES
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT NO. 13156
 CLARKVILLE ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20 NT	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35 - 18	5

SPRING LAKE GARDENS
PLAT NO. 4651
ZONED R-20

SPRING LAKE GARDENS
PLAT NO. 3969
ZONED R-20

VILLAGE OF HICKORY
RIDGE
SECTION I AREA I
PLAT NO. 3593

VILLAGE OF HICKORY
RIDGE
SECTION I AREA I
P.B. 24 P.N.O. 32
O.S. LOT 5

VILLAGE OF HICKORY
RIDGE
SECTION I AREA I
P.B. 24 P.N.O. 32
O.S. LOT 4

OWEN

BROWN

ROAD

DEVELOPER'S/BUILDERS CERTIFICATE

I/WE certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/WE further certify that upon completion, a Certification of Landscape Installation, accompanied by an executed one-year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

Name (Developer's/Builder's) ZS Lusk Date 11.15.99



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] Date: 12/13/99
 Chief, Division of Land Development: [Signature] Date: 12/9/99
 Chief, Development Engineering Division: [Signature] Date: 11/14/99

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-380-1820 DC/VA: 301-989-2524 FAX: 301-421-4123

\\DRAWINGS\95053\BASES\HITS\95053BS1.DWG

DES. DRN. SJC CHK.

DATE

REVISION

BY

APPR

PREPARED FOR:

ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

LANDSCAPE PLAN

HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT NO. 13156

CLARKSVILLE ELECTION DISTRICT No. 5

HOWARD COUNTY, MARYLAND

SCALE

1"=40'

DATE: November 1999

ZONING

R-20/NT

TAX MAP - GRID

35 - 18

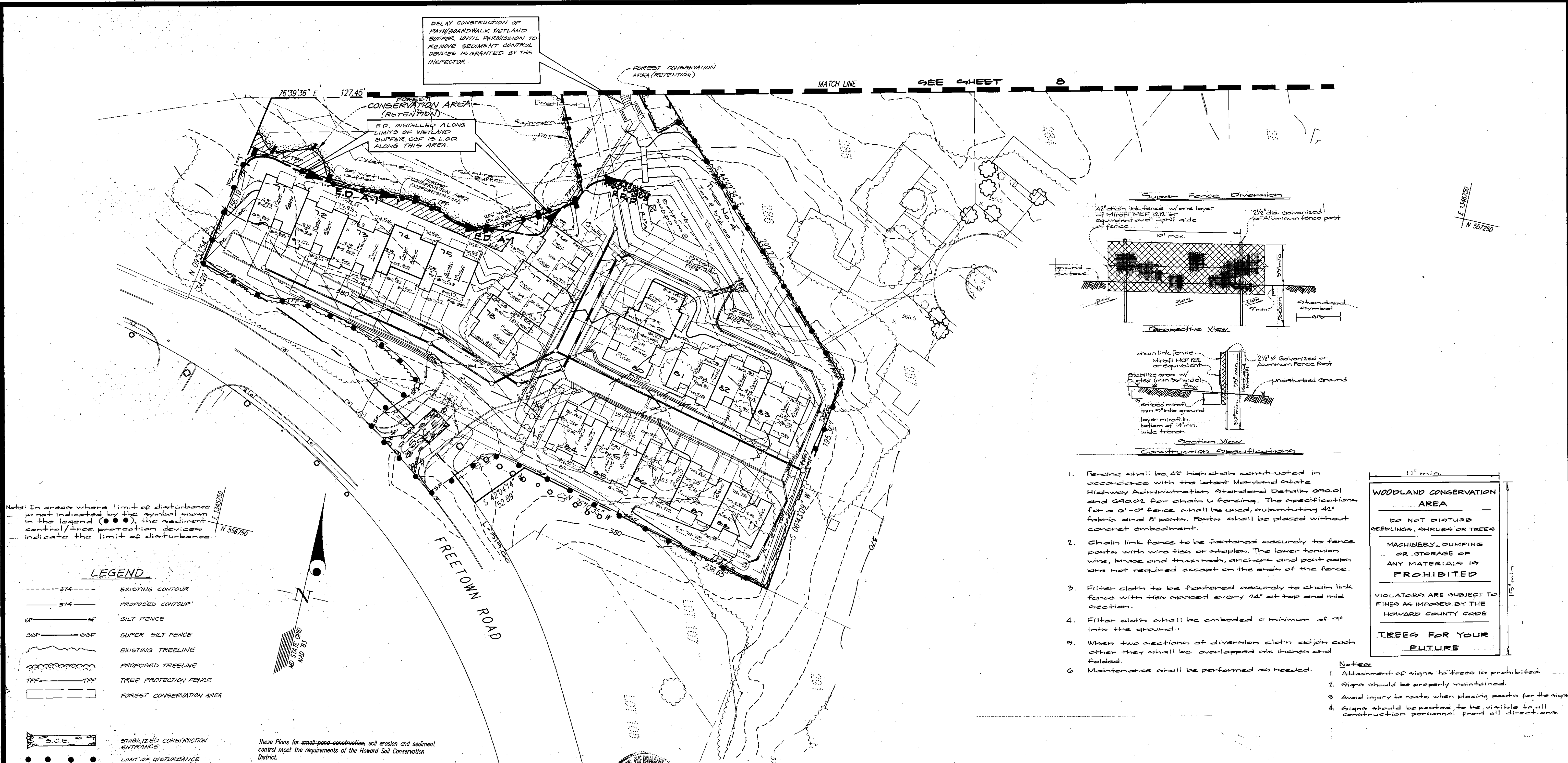
G. L. W. FILE NO.

95053

SHEET

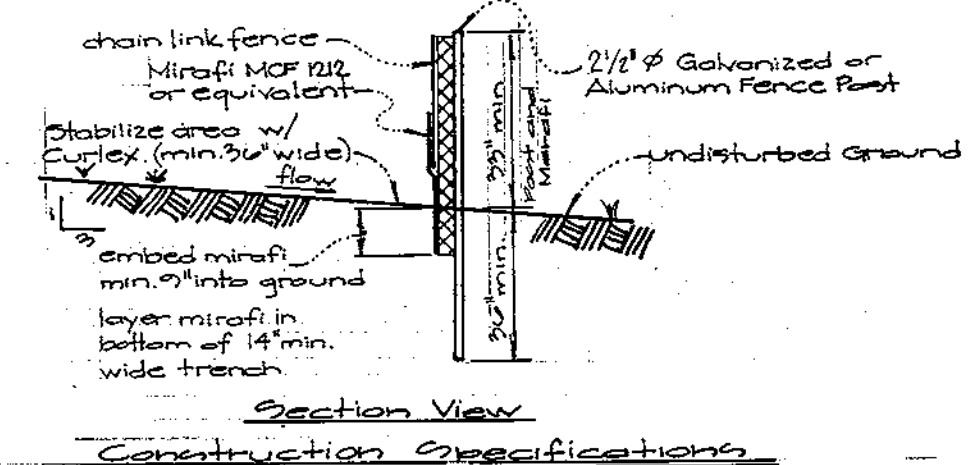
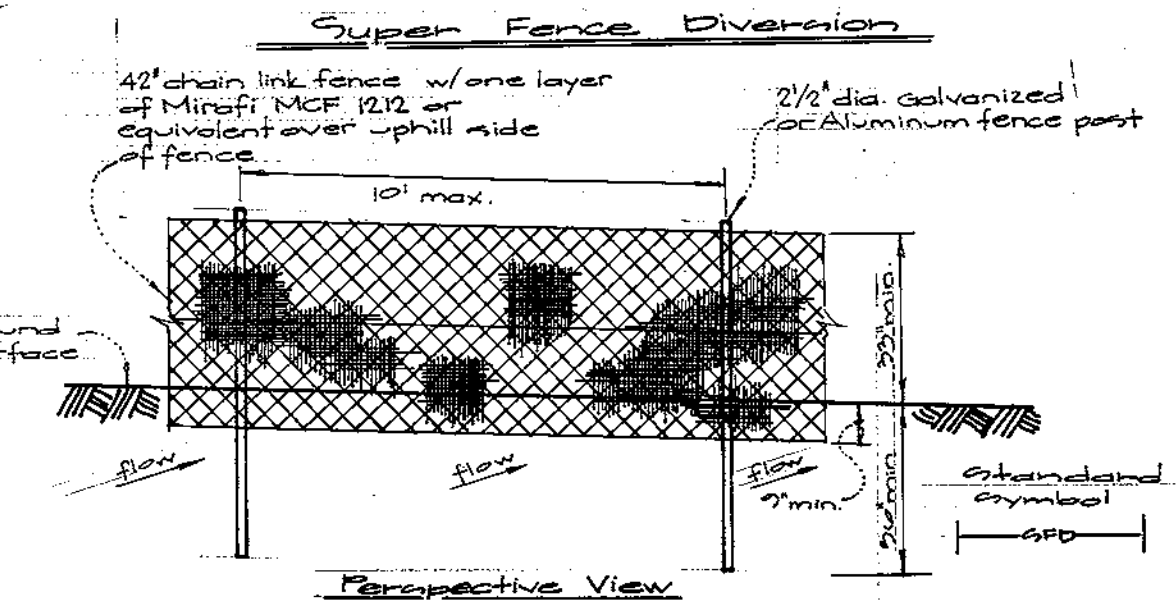
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THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!



DELAY CONSTRUCTION OF PATH/BOARDWALK/WETLAND BUFFER UNTIL PERMISSION TO REMOVE SEDIMENT CONTROL DEVICES IS GRANTED BY THE INSPECTOR.

E.D. INSTALLED ALONG LIMITS OF WETLAND BUFFER. SSF IS L.O.D. ALONG THIS AREA.



- Fencing shall be 42" high chain link constructed in accordance with the latest Maryland State Highway Administration Standard Details 890.01 and 890.02 for chain U fencing. The specifications for a 6'-0" fence shall be used, substituting 42" fabric and 8' posts. Posts shall be placed without concrete embedment.
- Chain link fence to be fastened securely to fence posts with wire ties or staples. The lower tension wire, brace and truss rods, anchors and post caps are not required except on the ends of the fence.
- Filter cloth to be fastened securely to chain link fence with ties spaced every 24" at top and mid section.
- Filter cloth shall be embedded a minimum of 4" into the ground.
- When two sections of diversion cloth adjoin each other they shall be overlapped six inches and folded.
- Maintenance shall be performed as needed.

WOODLAND CONSERVATION AREA

DO NOT DISTURB SEEDLINGS, SHRUBS OR TREES

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE HOWARD COUNTY CODE

TREES FOR YOUR FUTURE

- Notes**
- Attachment of signs to trees is prohibited.
 - Signs should be properly maintained.
 - Avoid injury to roots when placing posts for the signs.
 - Signs should be posted to be visible to all construction personnel from all directions.

Note: In areas where limit of disturbance is not indicated by the symbol shown in the legend (●●●), the sediment control/tree protection devices indicate the limit of disturbance.

LEGEND

- 374 --- EXISTING CONTOUR
- 374 — PROPOSED CONTOUR
- SF — SILT FENCE
- SSF — SUPER SILT FENCE
- EXISTING TREELINE
- PROPOSED TREELINE
- TPF --- TREE PROTECTION FENCE
- FOREST CONSERVATION AREA
- S.C.E. --- STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- ⊠ RPS REVERSIBLE PUMPING STATION
- FOREST CONSERVATION SIGN

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

John R. Rolinger 11-18-99
Howard Soil Conservation District Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Cheryl Simmons 11-18-99
Natural Resources Conservation Service Date

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

CKJ 1-8-99
Date

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

280ax 11-15-99
Signature of Developer/Builder Date

Trap Data

Trap #1	Trap #2	Trap #3	Trap #4
7.1 ac ±	3.4 ac ±	4.9 ac ±	2.4 ac ±
12780 cfs	6120 cfs	7140 cfs	4320 cfs
19040 cfs @ 915.75	8770 cfs @ 904.00	7850 cfs @ 900.00	4350 cfs @ 910.00
370.00	300.00	300.00	300.00
274.00	300.00	300.00	300.00
871 cfs*	450 cfs**	255 cfs**	175 cfs**
10.02 cfs	12.42 cfs	19.90 cfs	5.74 cfs
7.74 cfs @ 910.75	0.70 cfs @ 909.75	7.72 cfs @ 900.00	1.07 cfs @ 912.00
370.00	300.00	370.00	370.00

* Compensated value due to area which bypasses pond at design point #1
** Target release rates for each facility to provide compensated allowable discharge at design point #2.

THIS PLAN IS FOR LOCATION OF SEDIMENT CONTROL DEVICES AND TRAP GRADING ONLY. FOR SITE IMPROVEMENTS SEE SHEETS 2-6 AND 7-19.

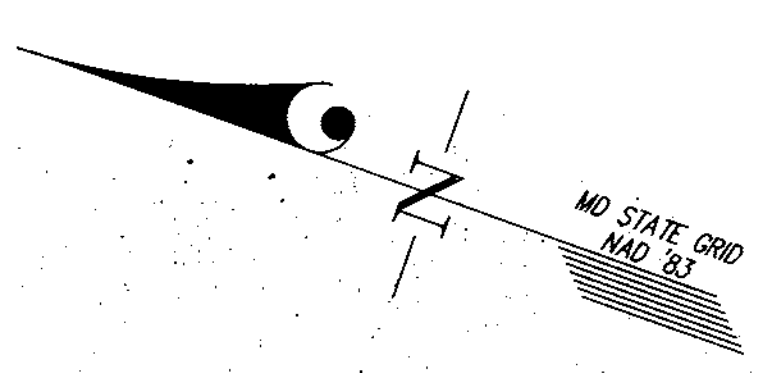
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

Grading & Sediment Control Plan
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/NT	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35 - 18	7



LEGEND

- 374 --- EXISTING CONTOUR
- 574 --- PROPOSED CONTOUR
- SF --- SF SILT FENCE
- SSF --- SSF SUPER SILT FENCE
- --- EXISTING TREELINE
- --- PROPOSED TREELINE
- TPF --- TPF TREE PROTECTION FENCE
- --- FOREST CONSERVATION AREA
- SDF --- SDF SUPER DIVERSION FENCE
- S.C.E. --- S.C.E. STABILIZED CONSTRUCTION ENTRANCE
- ● ● ● ● LIMIT OF DISTURBANCE
- ⊠ RPS REMOVABLE PUMPING STATION
- FOREST CONSERVATION SIGN

Note: In areas where limit of disturbance is not indicated by the symbol shown in the legend (●●●●), the sediment control/tree protection devices indicate the limit of disturbance.

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an as-built plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

[Signature] 11-16-99
Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an as-built plan of the pond within 30 days of completion.

[Signature] 1-8-99
Date

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

[Signature] 11/22/99
Howard Soil Conservation District Date



These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

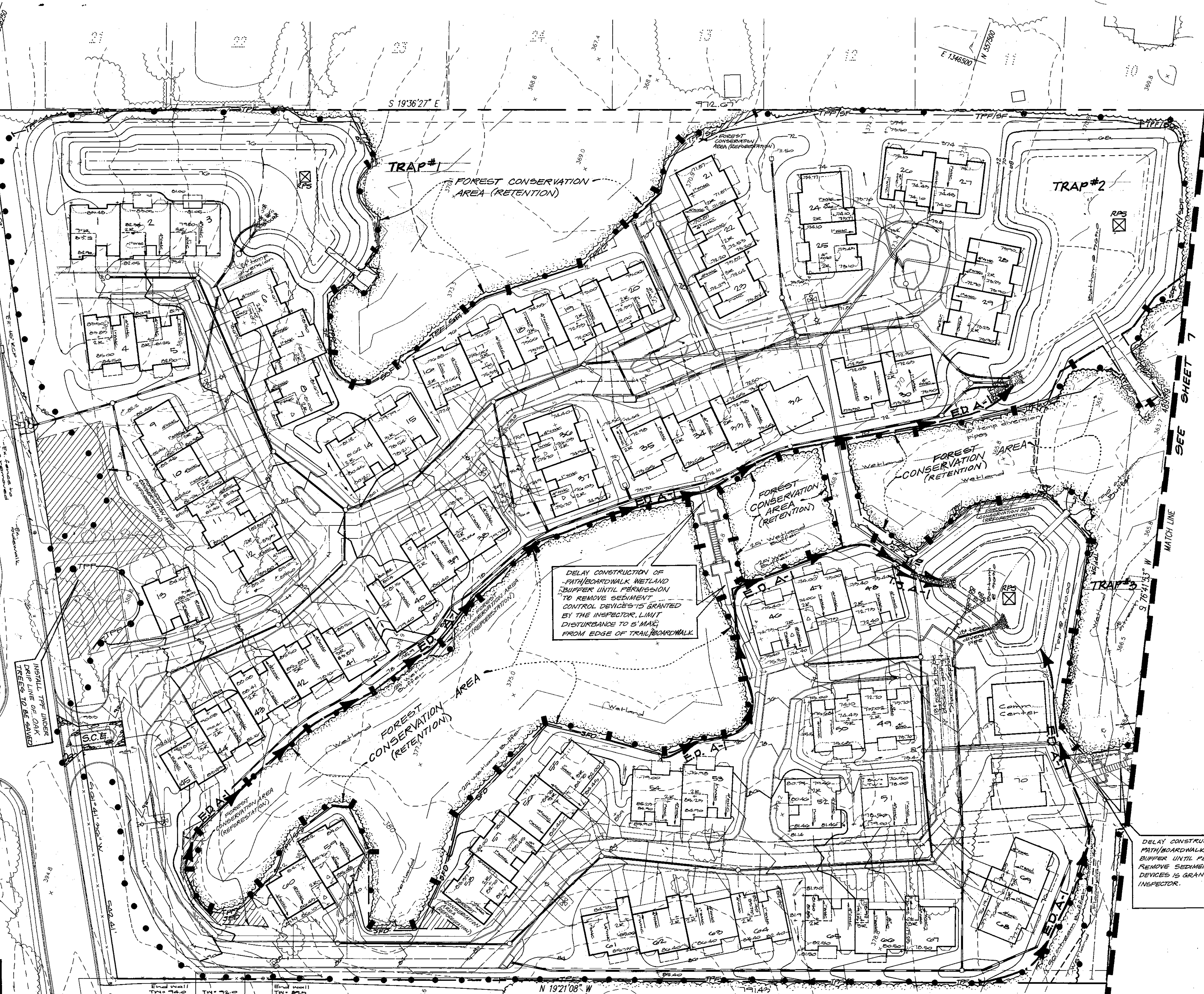
[Signature] 11-18/99
Natural Resources Conservation Services Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 12/13/99 Date
Director

[Signature] 12/14/99 Date
Chief, Division of Land Development

[Signature] 12/23/99 Date
Chief, Development Engineering Division



DELAY CONSTRUCTION OF PATH/BOARDWALK WETLAND BUFFER UNTIL PERMISSION TO REMOVE SEDIMENT CONTROL DEVICES IS GRANTED BY THE INSPECTOR. LIMIT DISTURBANCE TO 5' MAX FROM EDGE OF TRAIL/BOARDWALK.

DELAY CONSTRUCTION OF PATH/BOARDWALK WETLAND BUFFER UNTIL PERMISSION TO REMOVE SEDIMENT CONTROL DEVICES IS GRANTED BY THE INSPECTOR.

THIS PLAN IS FOR LOCATION OF SEDIMENT CONTROL DEVICES AND TRAP GRADING ONLY. FOR SITE IMPROVEMENTS SEE SHEETS 2-6 AND 7-12.

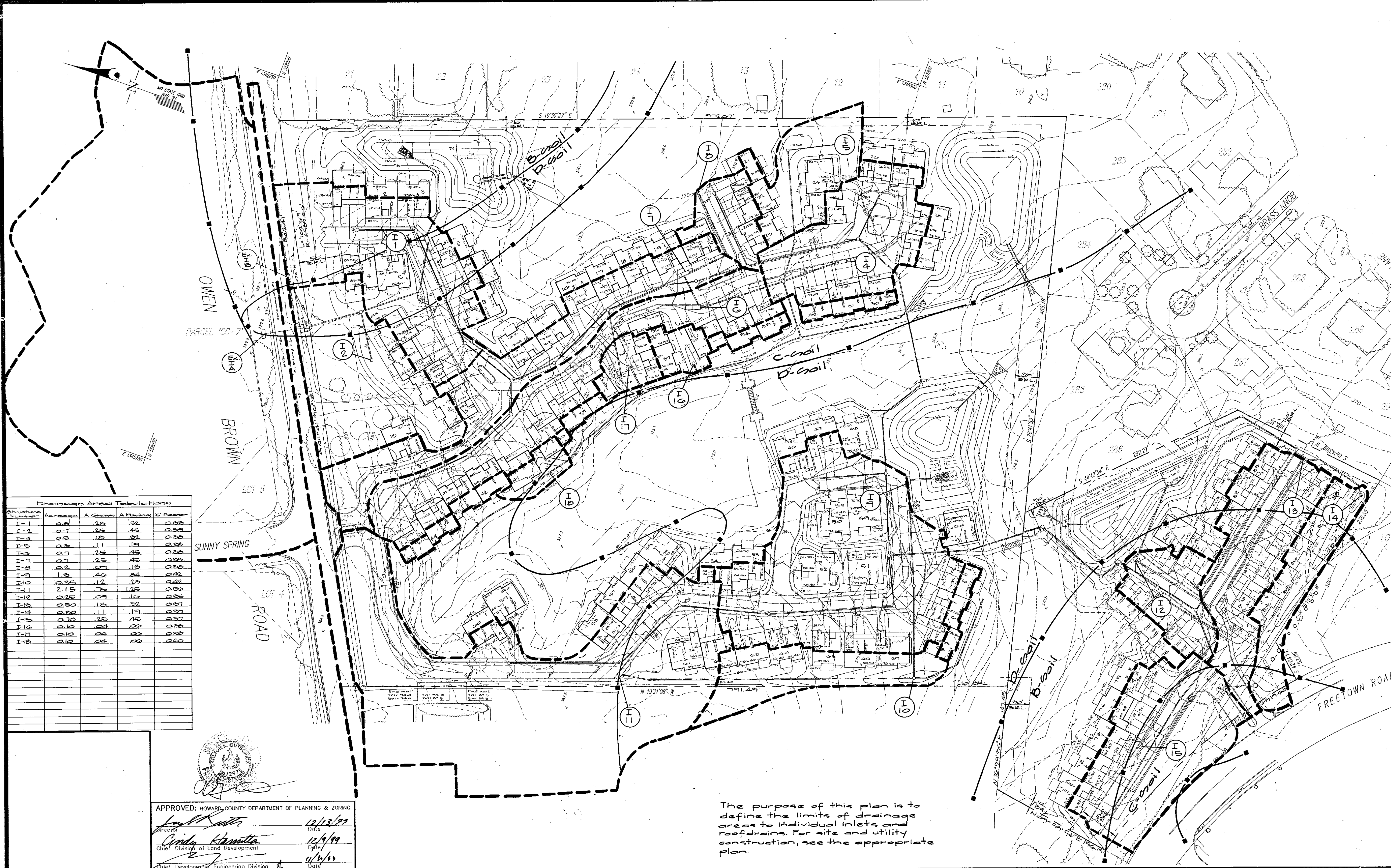
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3009 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-959-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELICOTT CITY, MARYLAND 21043
(410) 750-1800

Grading & Sediment Control Plan
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

SCALE 1"=40'	ZONING R-20/ NT	G. L. W. FILE No. 95053
DATE November 1999	TAX MAP - GRID 35 - 18	SHEET 8



Drainage Area Tabulations				
Structure Number	Area Sq. Ft.	A. Grass	A. Paving	C. Factor
I-1	0.2	25	52	0.22
I-2	0.7	25	45	0.22
I-3	0.9	18	22	0.22
I-4	0.9	11	19	0.22
I-5	0.1	25	45	0.22
I-6	0.2	07	13	0.22
I-7	1.2	46	24	0.22
I-8	0.25	17	27	0.22
I-9	2.15	75	125	0.22
I-10	0.25	09	16	0.22
I-11	0.50	18	32	0.22
I-12	0.30	11	19	0.22
I-13	0.12	25	45	0.22
I-14	0.12	24	43	0.22
I-15	0.10	24	43	0.22

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 12/13/99
 Director Date

[Signature] 12/9/99
 Cindy Hamilton Date
 Chief, Division of Land Development

[Signature] 11/24/99
 Chief, Development Engineering Division Date

The purpose of this plan is to define the limits of drainage areas to individual inlets and roofdrains. For site and utility construction, see the appropriate plan.

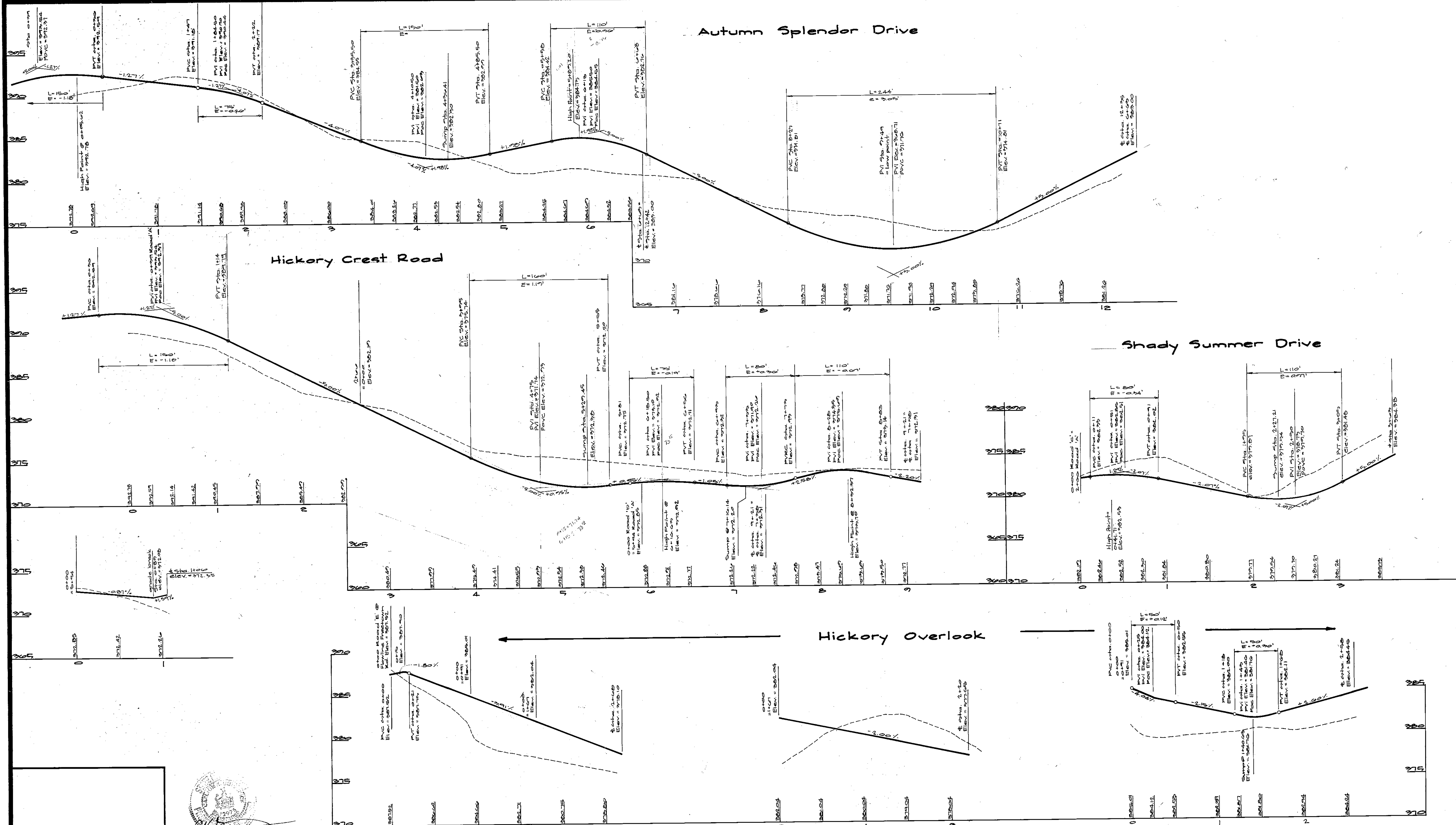
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE SUITE 250 BURTONSVILLE OFFICE PARK BURTONSVILLE, MD. 20866
 TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

Drainage Area Map
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT No. 13156
 CLARKSVILLE ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

DES:	SCALE	ZONING	G.L.W. FILE No.
basil/dev	1"=50'	R-20 / NT	95053
DRN:	DATE	TAX MAP No.	SHEET
fmm	November 1999	35-18	9
CHK:	dev		



APPROVED: Howard County Dept. of Planning & Zoning

[Signature] 12/13/99
 Director

[Signature] 12/9/99
 Cindy Kamstra
 Chief, Division of Land Development

[Signature] 1/30/00
 Chief, Development Engineering Division

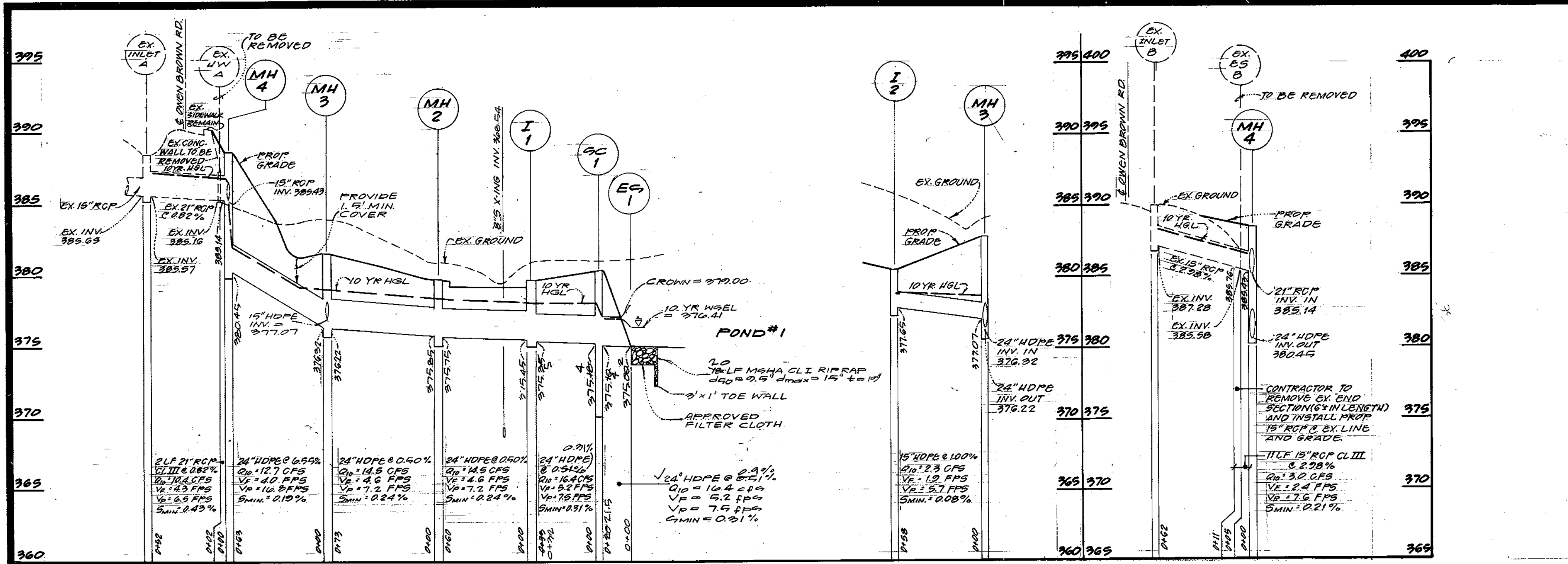
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 TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APPR.

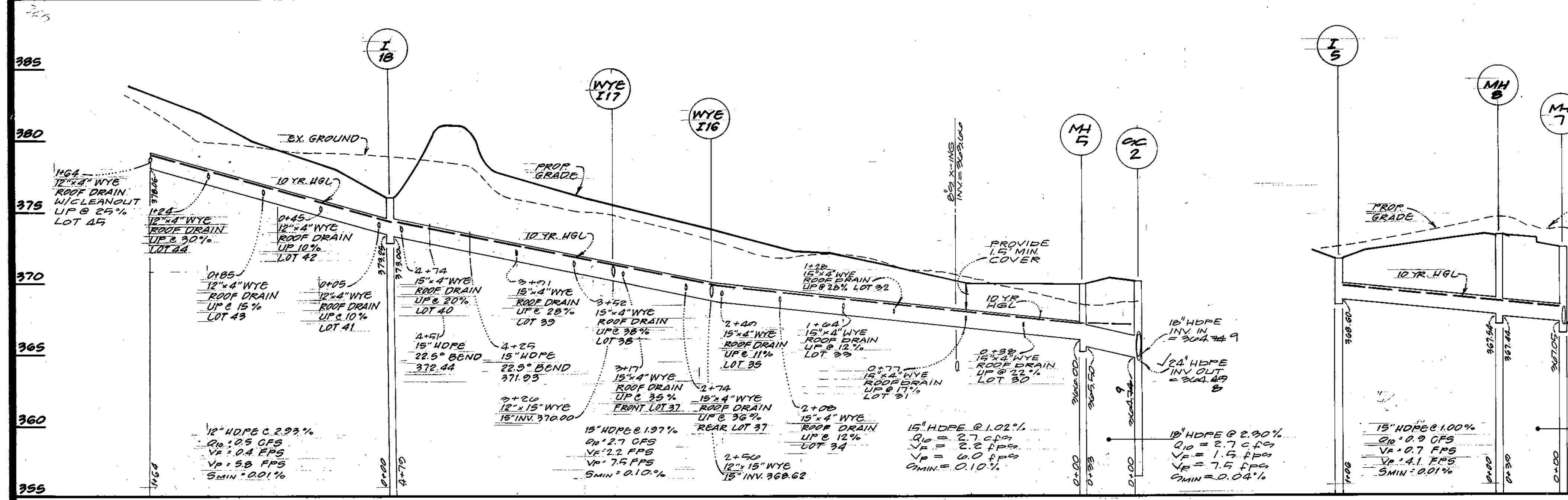
PREPARED FOR:
 Orchard Development Corp
 3979 Old Columbia Pike
 Ellicott City, Maryland 21043
 (410) 750-1800

Road Grades
Hickory Ridge Elderly Center
 Lots 1 & 2
 Being in part a re-subdivision of Lots 2-4, block 'B',
 "Edwin Bassler, South Section" as shown in plat book G at plat No. 29
 Election District No. 5
 Howard County, Maryland

DES. DEW.	SCALE as shown	ZONING R-20/NT	G.L.W. FILE No. 95053
DRN. FMM.	DATE November 1999	TAX MAP No. 35	SHEET 10
CHK. DEW.			

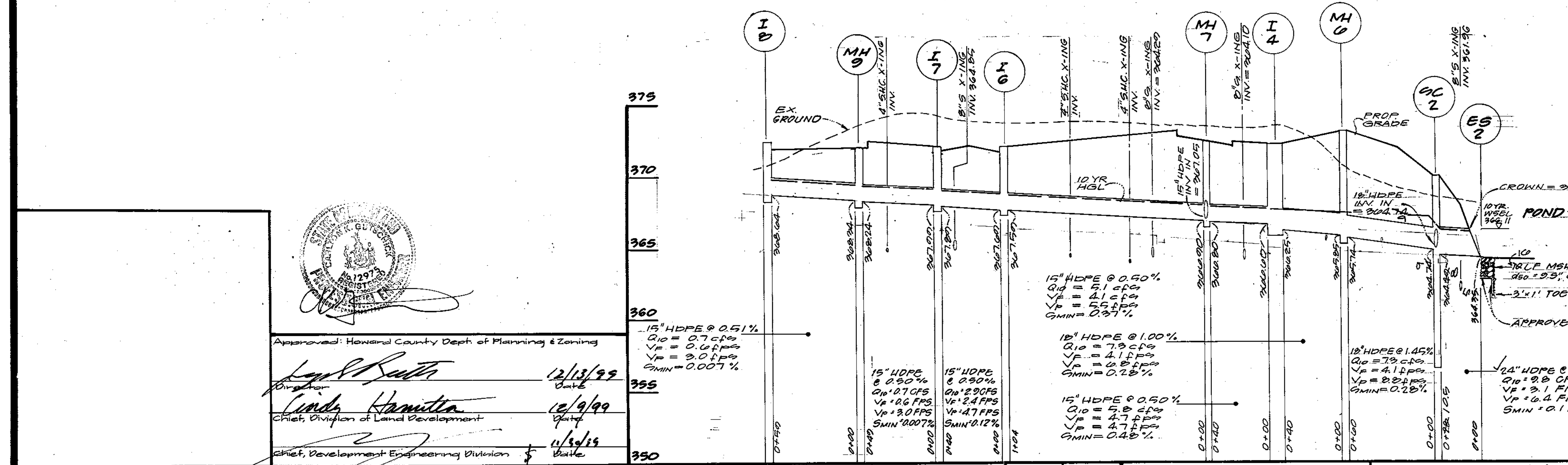


STRUCTURE SCHEDULE											
NO.	TYPE	WIDTH (DIA.)	TOP ELEVATION		INVERT ELEVATION		STD. DETAIL	LOCATIONS		REMARKS	
			UPPER	LOWER	UPPER	LOWER		N	E		
I-1	A-10 INLET	4'-0"	379.70	---	375.45	374.99	SD 4.32	558.011	1,240,190		
I-2	TYPE S INLET	2'-7"	380.50	---	377.69	---	SD 4.22	558.296	1,240,257		
I-4	A-10 INLET	2'-6"	372.22	---	366.60	366.29	SD 4.32	557.518	1,240,265		
I-5	TYPE S INLET	2'-7"	371.50	---	368.00	---	SD 4.22	557.047	1,240,271		
I-6	A-10 INLET	2'-6"	372.19	---	367.09	367.50	SD 4.41	557.009	1,240,192		
I-7	"	"	372.19	---	367.29	367.89	"	557.002	1,240,186		
I-8	TYPE S COMB. INLET	3'-5"	372.45	---	368.04	---	SD 4.32	557.009	1,240,271		
I-16	TYPE S INLET	2'-7"	371.60	---	369.00	---	SD 4.22	557.050	1,240,265		
I-17	TYPE S COMB. INLET	3'-5"	374.84	---	371.90	---	SD 4.32	557.744	1,240,257		
I-18	TYPE S INLET	2'-7"	373.90	---	373.25	373.00	SD 4.22	557.774	1,240,272		
MH2	SHALLOW PRECAST MANHOLE	4'-0"	378.00	---	375.89	375.75	G 5.12	557.778	1,240,257		
MH3	STD. PRECAST MANHOLE	4'-0"	381.00	---	377.07	376.19	"	556.059	1,240,208		
MH4	"	4'-0"	388.60	---	385.43	380.45	"	556.114	1,240,207		
MH5	"	4'-0"	370.00	---	360.00	364.50	"	557.420	1,240,222		
MH6	"	4'-0"	378.00	---	369.85	369.74	"	557.475	1,240,283		
MH7	"	5'-0"	372.50	---	367.09	366.80	"	557.561	1,240,285		
MH8	"	4'-0"	373.70	---	367.54	367.44	"	557.587	1,240,279		
MH9	"	4'-0"	372.92	---	368.34	368.24	"	557.655	1,240,284		
GC 1	STORMCEPTOR	---	380.50	---	379.18	379.10	OTC-1500	558.007	1,240,158		
GC 2	STORMCEPTOR	---	370.00	---	364.74	364.49	OTC-3000	557.416	1,240,257		
ES-1	END SECTION	2'-0"	371.00	---	---	---	* *	557.994	1,240,186		
ES 2	END SECTION	1'-5"	365.85	---	---	---	* *	557.091	1,240,264		

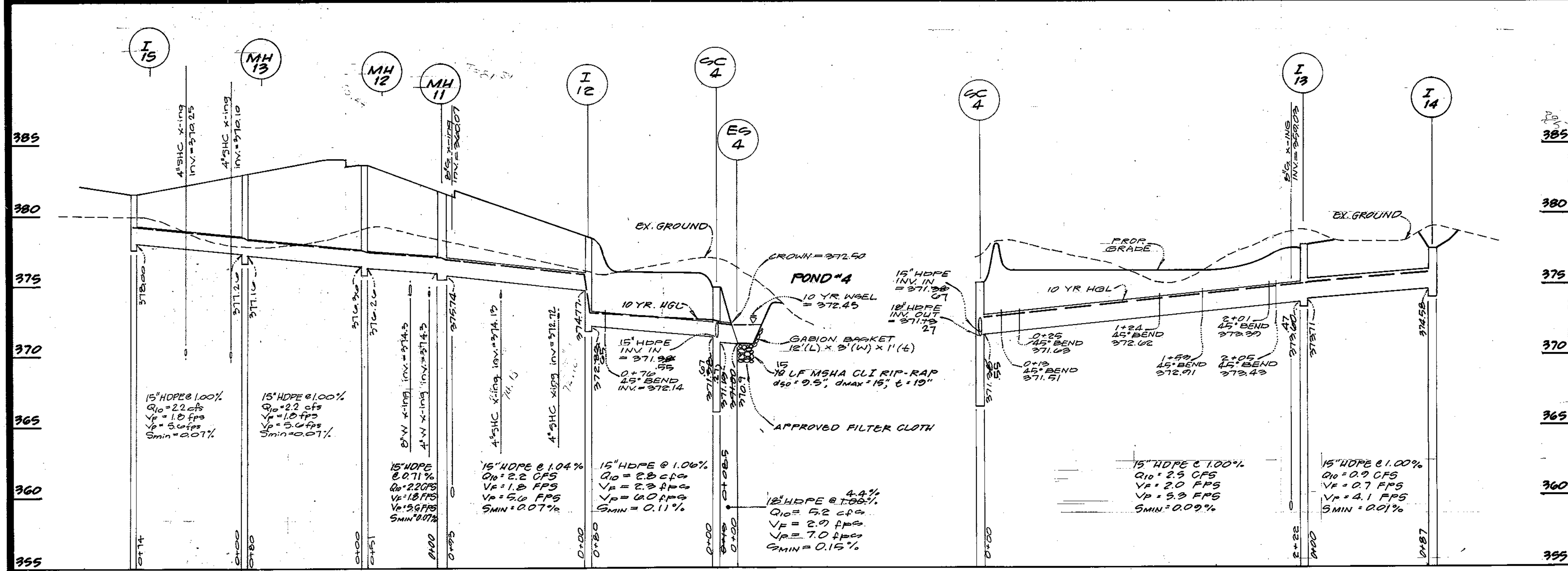


PIPE SCHEDULE			
SIZE	TYPE	QUANTITY (LF)	REMARKS
15"	ROPCL III	171	
21"	ROPCL III	2	
4"	HDPE #	224	ROOF DRAINS
12"	HDPE #	212	
15"	HDPE #	1047	
18"	HDPE #	193	
24"	HDPE #	277	

* HDPE - HIGH DENSITY POLYETHYLENE N-12 BY ADVANCED DRAINAGE SYSTEMS INC. (ADS) OR H-9 BY HANGOR LANDMAX PIPE SYSTEMS
 † LENGTH DOES NOT INCLUDE VERTICAL LENGTH OF PIPE



PROFILES			
SCALES: 1" = 5' VERTICAL 1" = 50' HORIZONTAL			
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.37%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.28%
15" HDPE @ 0.51%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.007%	15" HDPE @ 1.45%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.28%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.48%	15" HDPE @ 2.90%	Q ₁₀ = 10.2 cfs V ₁₀ = 5.4 fpm V ₂ = 47 fpm S _{MIN} = 0.11%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.12%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.04%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
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15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
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15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
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15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
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15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
15" HDPE @ 0.50%	Q ₁₀ = 5.1 cfs V ₁₀ = 2.8 fpm V ₂ = 55 fpm S _{MIN} = 0.10%	15" HDPE @ 1.00%	Q ₁₀ = 7.9 cfs V ₁₀ = 4.1 fpm V ₂ = 28 fpm S _{MIN} = 0.005%
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15" HDPE @ 0.50%			



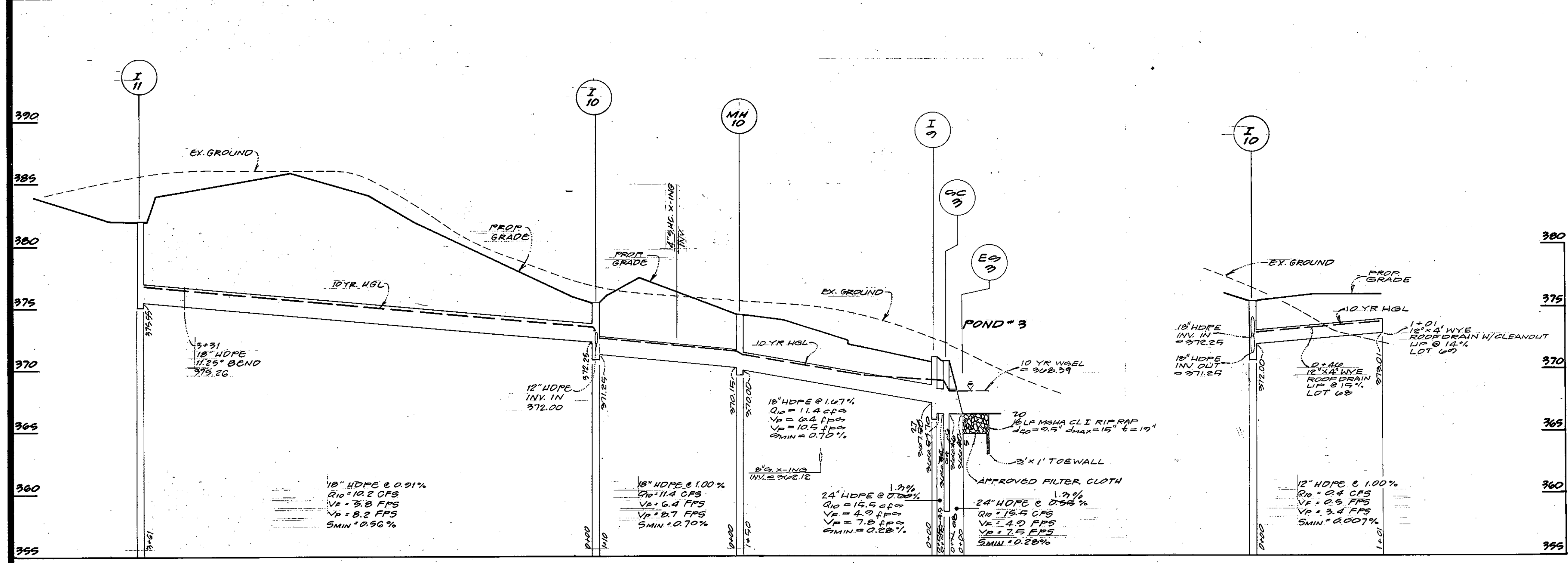
STRUCTURE SCHEDULE											
NO.	TYPE	WIDTH (DIA.)	TOP ELEVATION		INVERT ELEVATION		STR. DETAIL	LOCATIONS		REMARKS	
			UPPER	LOWER	UPPER	LOWER		N	E		
I-9	A-10 INLET	2'-6"	371.12	---	367.50	366.67	SD 4.41	557.202	1.246.000		
I-10	TYPE S INLET	2'-7"	378.40	---	372.25	371.25	SD 4.22	557.205	1.245.010		
I-11	COS-15	4'-0"	381.82	---	375.55	---	MO 374.03	557.207	1.245.014		
I-12	A-5 INLET	2'-0"	378.50	378.15	378.03	369.88	SD 4.40	557.207	1.246.045		
I-13	A-10 INLET	3'-0"	377.80	---	373.71	373.60	SD 4.32	556.877	1.246.024		
I-14	TYPE S INLET	3'-6"	377.90	---	374.58	---	SD 4.22	556.816	1.246.107		
I-15	TYPE S COMB. INLET	3'-5"	381.70	---	378.00	---	SD 4.32	556.974	1.245.013		
MH 10	STD PRECAST MANHOLE	4'-0"	374.00	---	370.15	370.00	G-5.12	557.202	1.245.910		
MH 11	"	"	381.54	---	375.90	375.74	"	557.209	1.245.025		
MH 12	"	"	382.45	---	376.90	376.26	"	556.927	1.245.979		
MH 13	"	"	382.90	---	377.20	377.10	"	556.956	1.245.078		
ES 3	15" HDPE END SECTION	2.0'	308.40	---	---	308.40	* *	557.058	1.246.079		
ES 4	15" HDPE END SECTION	1.5'	372.50	---	---	371.00	* *	557.206	1.246.106		
ES 5	STORMCEPTOR	---	370.50	---	300.51	300.40	STC-1200	557.201	1.246.028		
ES 6	STORMCEPTOR	---	375.00	---	---	371.13	STC-1800	557.077	1.246.120		

PRECAST ALTERNATES ARE ACCEPTABLE
 * * PIPE MANUFACTURE TO PROVIDE HDPE END SECTIONS FOR HDPE PIPE
 ♦ The coordinates shown are for plan purposes and must be verified prior to takeout / construction.

PROFILES
 SCALES: 1" = 5' VERTICAL
 1" = 50' HORIZONTAL

PIPE SCHEDULE			
SIZE	TYPE	QUANTITY (L.F.)	REMARKS
4"	HDPE	18	ROOF DRAINS
12"	HDPE	101	
15"	HDPE	688	
18"	HDPE	679	
24"	HDPE	125	
30"	HDPE	40	

* HDPE - HIGH DENSITY POLYETHYLENE N-12 BY ADVANCED DRAINAGE SYSTEMS INC. (ADS) OR HI-Q BY HANCOR LANDMAX PIPE SYSTEMS
 † LENGTH DOES NOT INCLUDE VERTICAL LENGTH OF PIPE



APPROVED: HOWARD COUNTY DEPT. OF PLANNING ZONING
 [Signature]
 DIRECTOR
 [Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

12/13/99
 12/9/99
 11/14/96

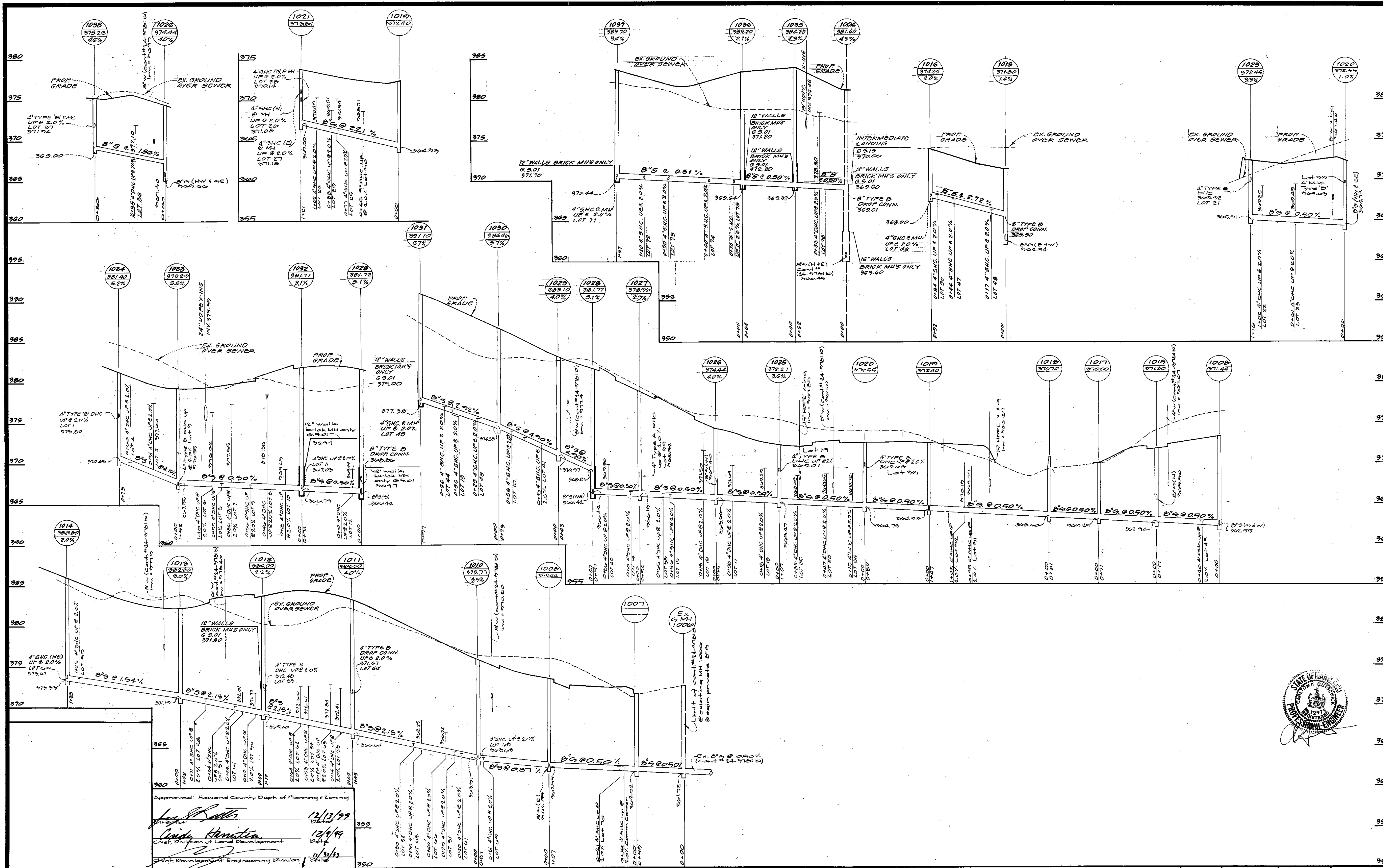
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE SUITE 250 BURTONSVILLE OFFICE PARK BURTONSVILLE, MD. 20866
 TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

NO.	DATE	REVISION	BY	APP'R.
1	Nov 2002	Asbuilt Information Added		

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3970 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21103
 (301)750-1802

STORM DRAIN PROFILES
HICKORY RIDGE ELDERLY
 LOTS 1 AND 2
 BEING IN PART A RESUBDIVISION OF LOTS 2-4, BLOCK D, EDWIN BASSLER, SOUTH SECTION AS SHOWN IN PLAT BOOK 6 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

DES.	SCALE	ZONING	G.L.W. FILE NO.
B.S.L.	AS SHOWN	R-20/NT	95-053
DRN.	DATE	TAX MAP NO.	SHEET
B.C./K.L.P.	October 1999	95-15	12
CHK.	DATE		
B.S.L.	12/22/99		



Approved: Howard County Dept. of Planning & Zoning
 12/13/99
 Cindy Hamilton
 Chief, Division of Land Development
 12/14/99
 11/30/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD. 20866
 TELEPHONE: (301) 421-4024 NO. VA. (301) 989-2524 BALTO. (301) 880-1820 FAX (301) 421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
 Orchard Development Corporation
 3979 Old Columbia Pike
 Ellicott City, Maryland
 21042
 (410) 783-1800

Sewer Profiles & Details
Hickory Ridge Elderly
 Lots 1 and 2
 Being In Part Re-division of Lots 2-4, Block D Edwin Baunier, South section, As Shown in Plat Book G, At Map No 29
 5th Election District

DES.	SCALE	ZONING	G.L.W. FILE NO.
B.S.L.	AS SHOWN	R-20/NT	95-053
DRN.	DATE	TAX MAP NO.	SHEET
B.CUSTIS	November 1999	95-18	13
CHK.	B.S.L.		

Precast Concrete Stormceptor® Order Request Form

TO BE INCLUDED ON SW PLAN BY DESIGNER

CONTRACTOR INFORMATION
 Name: to be determined
 Address: _____
 City: _____
 State: _____
 Zip Code: _____
 Contact: _____
 Phone: _____
 Fax: _____

OWNER INFORMATION
 Name: Orchard Development
 Phone: (410) 750-1800
 Fax: (410) 750-1800

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT: 1.24 ac ±

Stormceptor® Model: 900 STC 3600
 1200 4800
 1800 6000
 2400 7200

Manhole Number: 501
 Top Elevation (ft): 370.50
 Inlet Pipe Invert (ft): 371.10
 Outlet Pipe Invert (ft): 371.10
 Pipe Type: H.D.P.E. X
 Inlet Pipe Inside Diameter (ID): 24"
 Inlet Pipe Outside Diameter (OD): _____
 Outlet Pipe Inside Diameter (ID): _____
 Outlet Pipe Outside Diameter (OD): 24"

Project Name: Hickory Ridge Elderly Center
 Approximate time frame of delivery (weeks): June 1, 1999
 Delivery Address: Street: Local Over Brown Road
 City: Columbia State: Maryland Zip Code: 21044
 Designer Company: Gutschick Little & Weber, PA
 Designer Contact: Bruce Vande Kerk Phone (410) 200-1210 Fax (301) 421-4100

Precast Concrete Stormceptor® Order Request Form

TO BE INCLUDED ON SW PLAN BY DESIGNER

CONTRACTOR INFORMATION
 Name: to be determined
 Address: _____
 City: _____
 State: _____
 Zip Code: _____
 Contact: _____
 Phone: _____
 Fax: _____

OWNER INFORMATION
 Name: Orchard Development
 Phone: (410) 750-1800
 Fax: (410) 750-1800

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT: 1.24 ac ±

Stormceptor® Model: 900 STC 3600
 1200 4800
 1800 6000
 2400 7200

Manhole Number: 502
 Top Elevation (ft): 370.00
 Inlet Pipe Invert (ft): 370.40
 Outlet Pipe Invert (ft): 370.40
 Pipe Type: H.D.P.E. X
 Inlet Pipe Inside Diameter (ID): 24"
 Inlet Pipe Outside Diameter (OD): _____
 Outlet Pipe Inside Diameter (ID): _____
 Outlet Pipe Outside Diameter (OD): 24"

Project Name: Hickory Ridge Elderly Center
 Approximate time frame of delivery (weeks): June 1, 1999
 Delivery Address: Street: Local Over Brown Road
 City: Columbia State: Maryland Zip Code: 21044
 Designer Company: Gutschick Little & Weber, PA
 Designer Contact: Bruce Vande Kerk Phone (410) 200-1210 Fax (301) 421-4100

Precast Concrete Stormceptor® Order Request Form

TO BE INCLUDED ON SW PLAN BY DESIGNER

CONTRACTOR INFORMATION
 Name: to be determined
 Address: _____
 City: _____
 State: _____
 Zip Code: _____
 Contact: _____
 Phone: _____
 Fax: _____

OWNER INFORMATION
 Name: Orchard Development
 Phone: (410) 750-1800
 Fax: (410) 750-1800

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT: 0.72 ac ±

Stormceptor® Model: 900 STC 3600
 1200 4800
 1800 6000
 2400 7200

Manhole Number: 503
 Top Elevation (ft): 370.00
 Inlet Pipe Invert (ft): 370.00
 Outlet Pipe Invert (ft): 370.00
 Pipe Type: H.D.P.E. X
 Inlet Pipe Inside Diameter (ID): 24"
 Inlet Pipe Outside Diameter (OD): _____
 Outlet Pipe Inside Diameter (ID): _____
 Outlet Pipe Outside Diameter (OD): 24"

Project Name: Hickory Ridge Elderly Center
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Precast Concrete Stormceptor® Order Request Form

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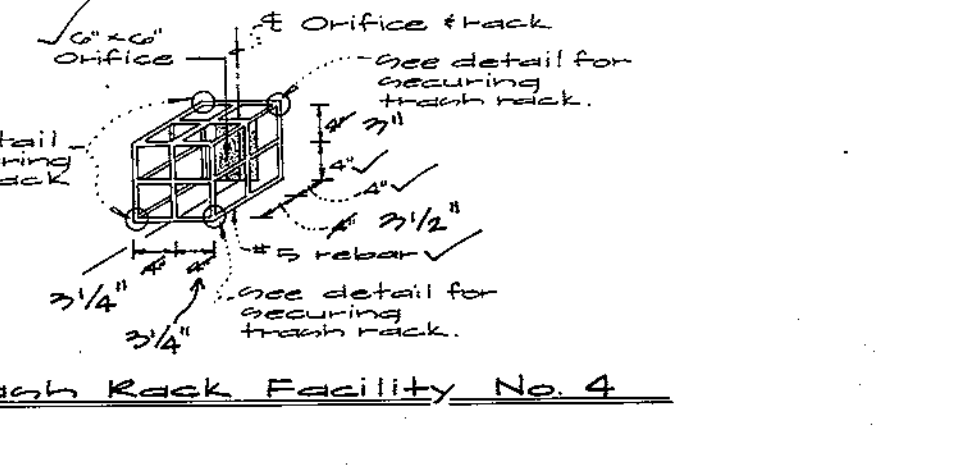
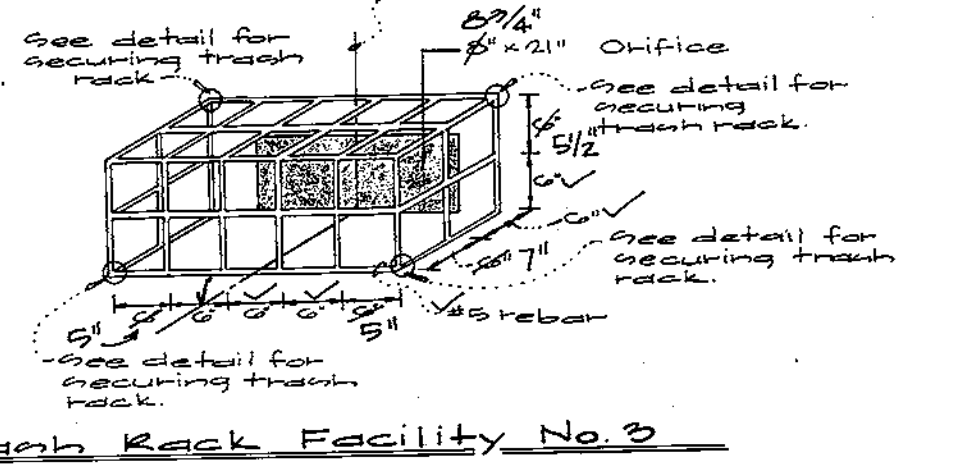
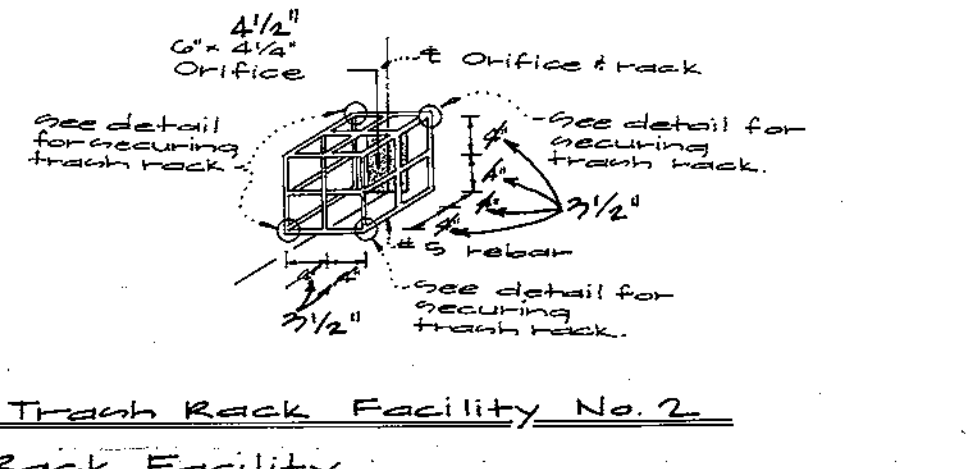
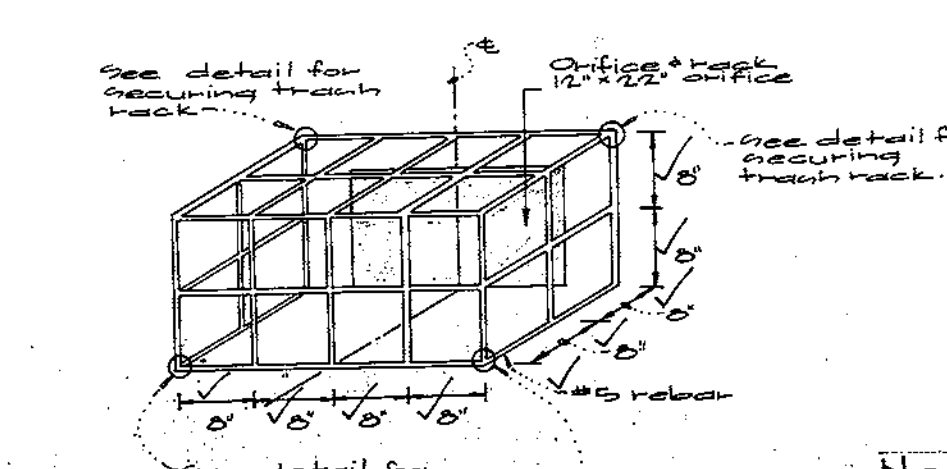
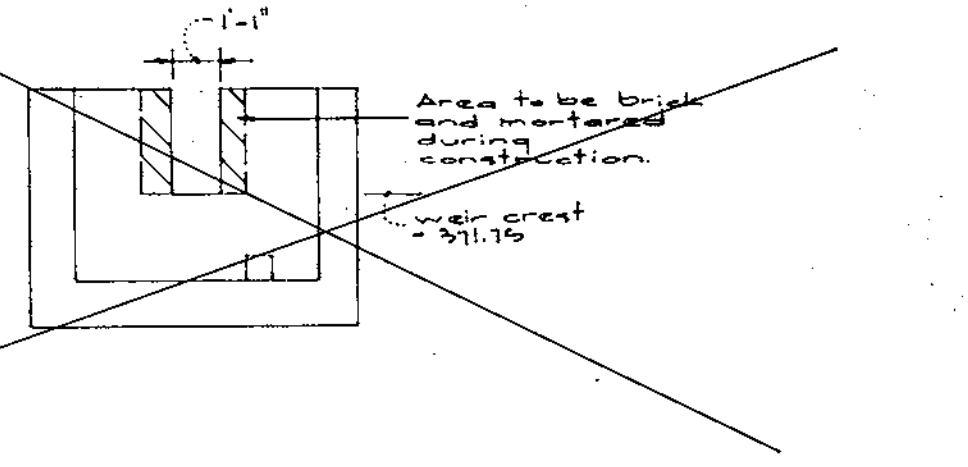
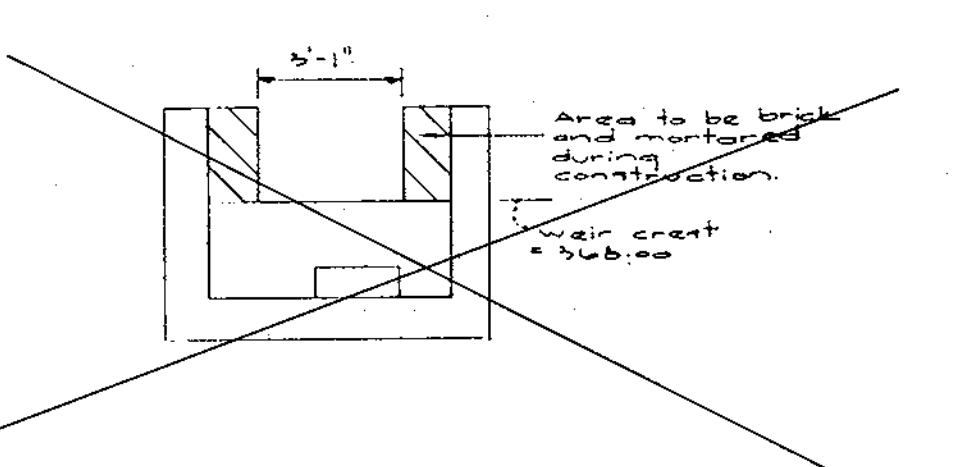
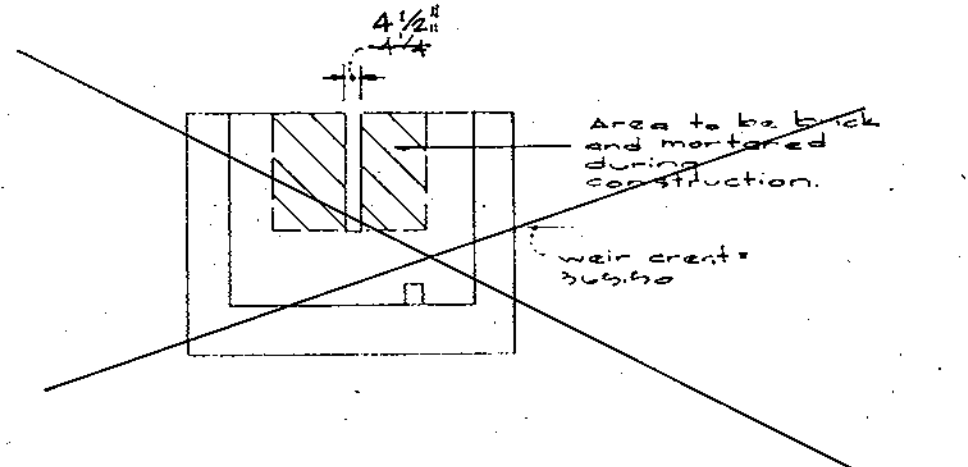
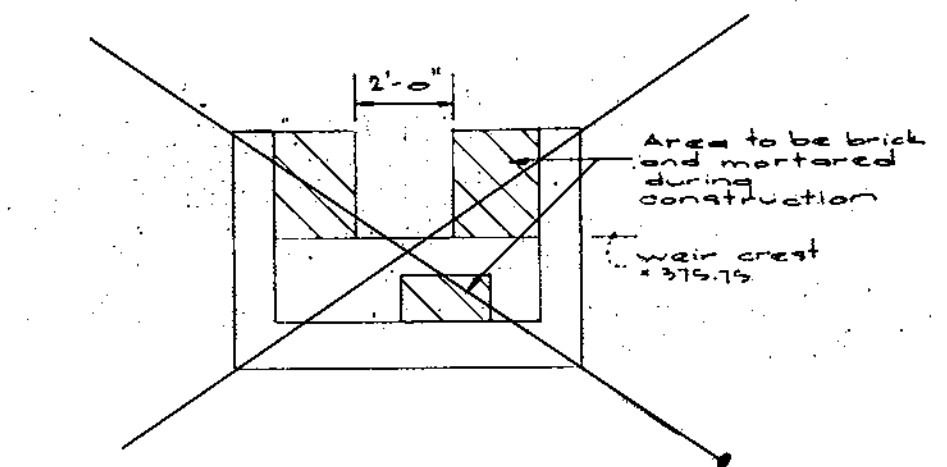
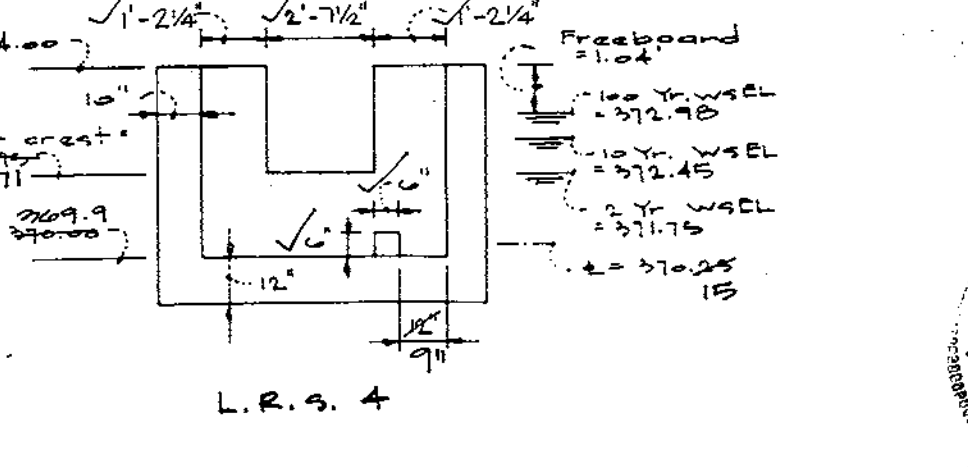
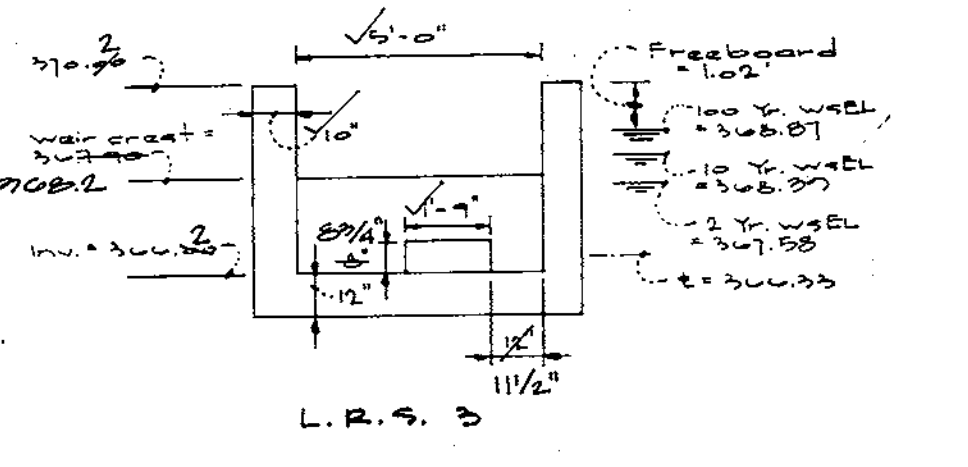
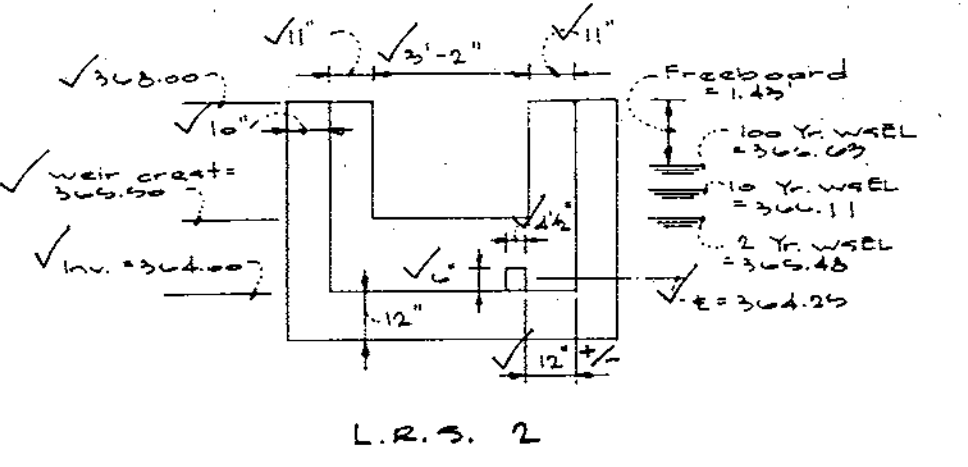
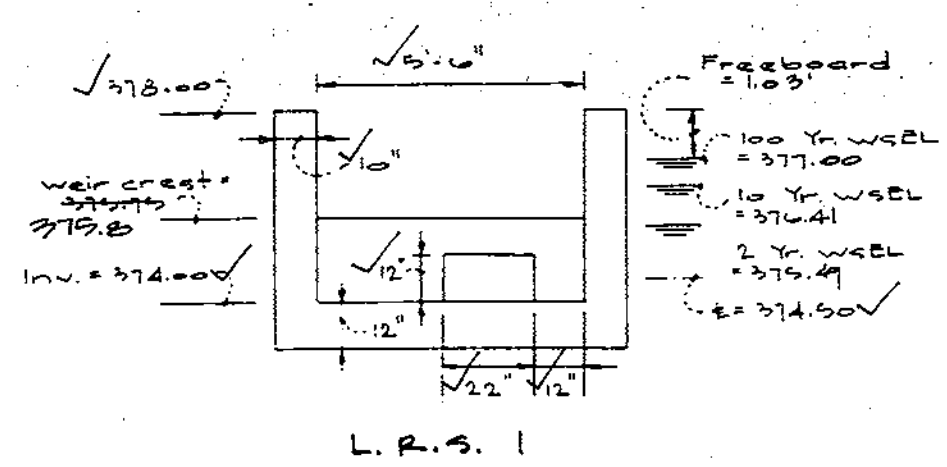
IMPERVIOUS DRAINAGE AREA FOR THIS UNIT: 1.14 ac ±

Stormceptor® Model: 900 STC 3600
 1200 4800
 1800 6000
 2400 7200

Manhole Number: 504
 Top Elevation (ft): 371.00
 Inlet Pipe Invert (ft): 371.30
 Outlet Pipe Invert (ft): 371.10
 Pipe Type: H.D.P.E. X
 Inlet Pipe Inside Diameter (ID): 24"
 Inlet Pipe Outside Diameter (OD): _____
 Outlet Pipe Inside Diameter (ID): _____
 Outlet Pipe Outside Diameter (OD): 24"

Project Name: Hickory Ridge Elderly Center
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*H.D.P.E. indicates High Density Polyethylene such as HDG by Hancox, N.12 by ABC, or an approved equal.

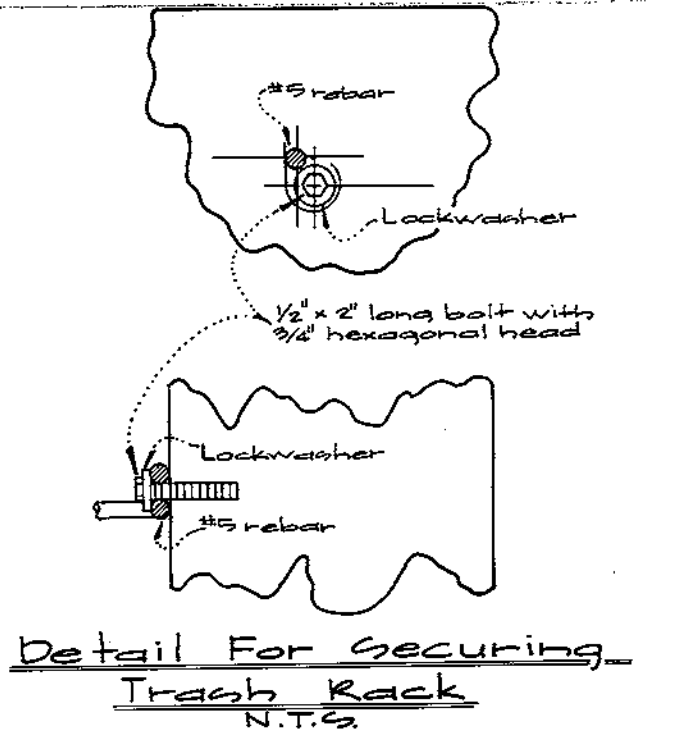
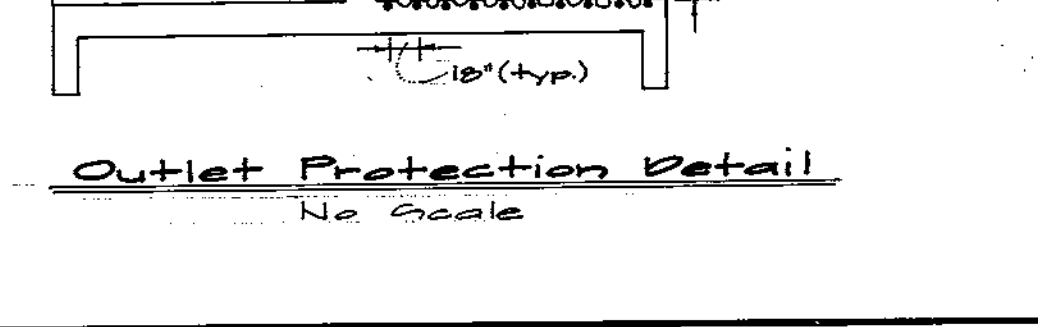
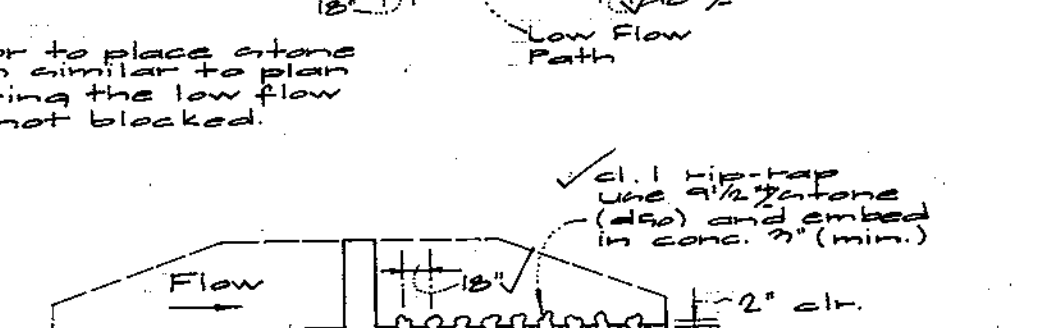
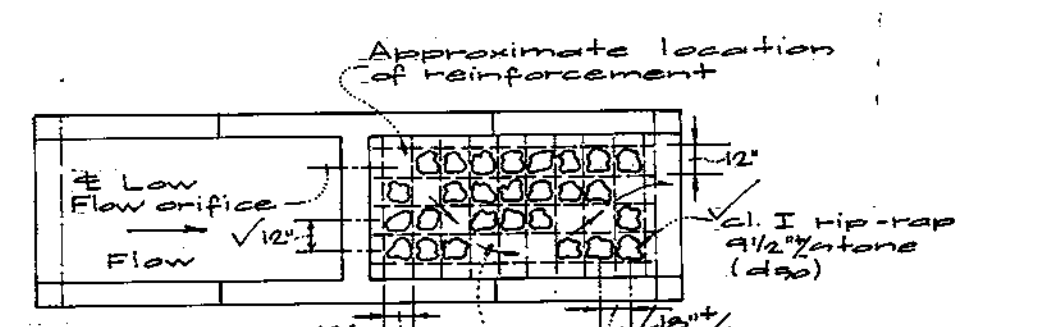
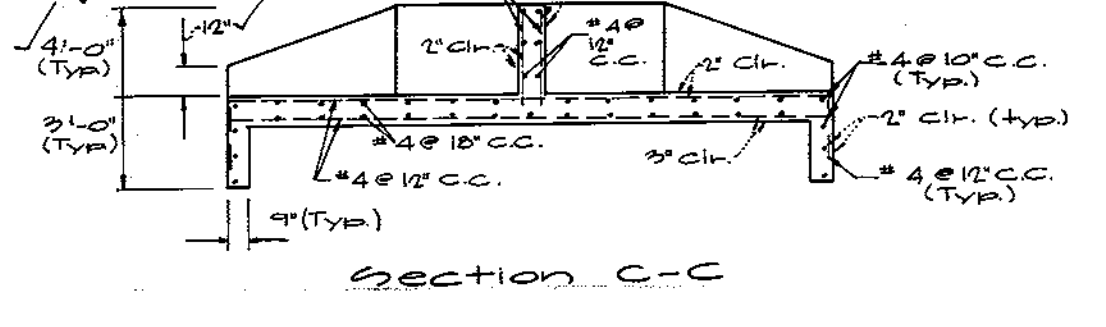
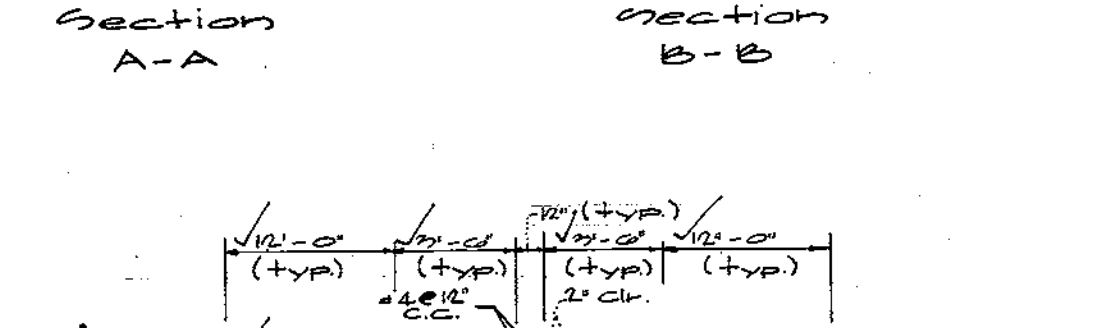
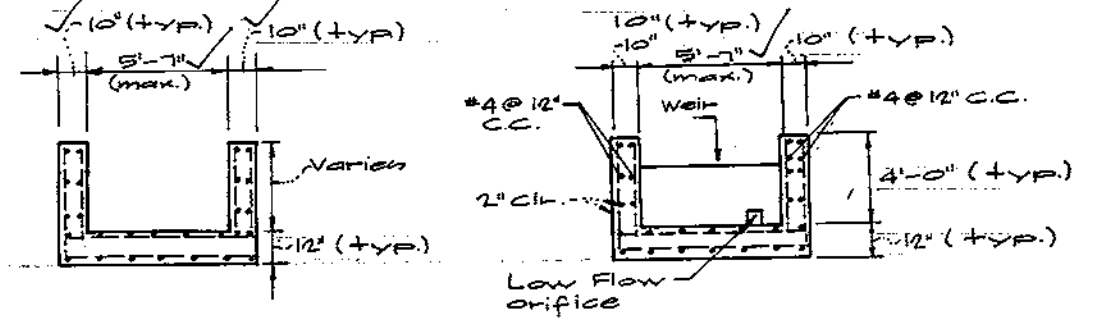
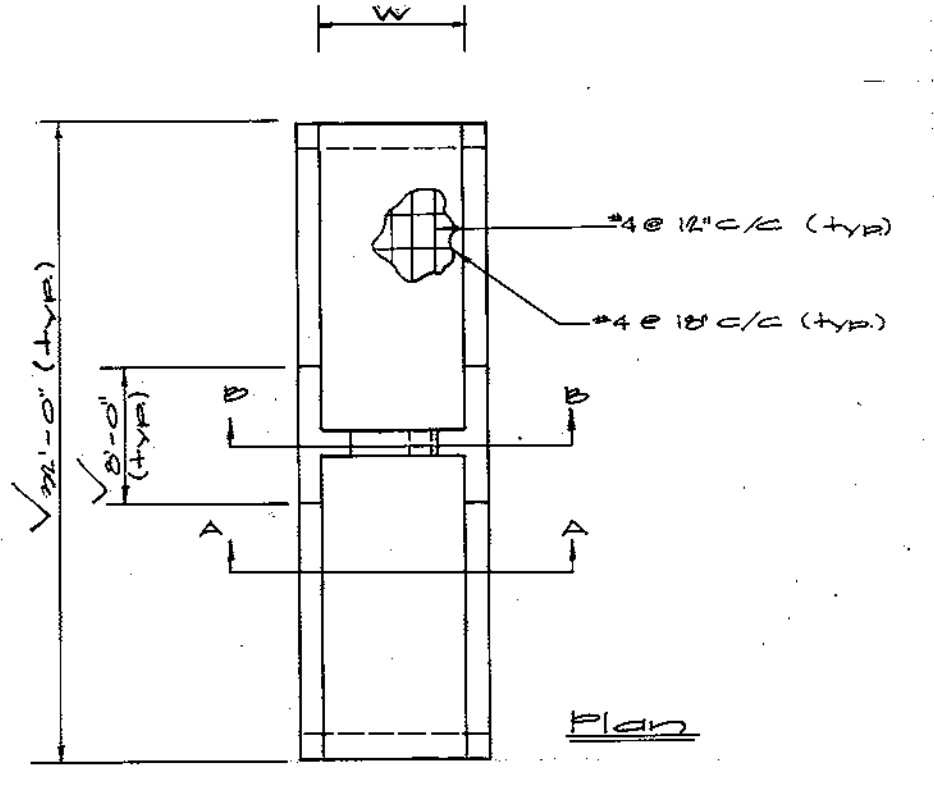


- Notes For Trash Rack Facility**
1. Bars will not be required against the floor or weir wall of the riser structure.
 2. Bolts to be placed into a concrete anchor.
 3. All exposed metal surfaces are to be galvanized after fabrication and painted with two (2) coats of battleship grey paint.

- Notes:**
1. All exposed edges to have 1/4" x 1/2" chamfer as directed.
 2. Concrete shall be SFA mix no. 3 (fc' = 3500 psi @ 28 days)
 3. Reinforcing steel shall be ASTM A-615, grade 60.
 4. Reinforcement shown is typical to all facilities.
 5. 'W' shown in plan view, sect. A-A and sect. B-B equals 5'-0" at facilities 2-4 and 5'-6" at facility 1.
 6. For weir configuration, both temporary and ultimate, see details, this sheet.
 7. For low flow orifice dimensions, see details, this sheet.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] Date: 12/13/99
[Signature] Date: 12/9/99
 Chief, Division of Land Development
 Date: 11/29/99
 Chief, Development Engineering Division



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD. 20866
 TELEPHONE: (301) 421-4024 NO. VA. (301) 989-2524 BALTO. (301) 880-1820 FAX (301) 421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

GWM Notes and Details
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT NO. 13156
 CLARKSVILLE ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
d.e.v.	N/A	R-20/NT	95053
DRN.:			
f.m.m.	DATE	TAX MAP No.	SHEET
CHK.:	October 1999	95-10	14
d.e.v.	1999		

Aabuilt Sheet 7 of 9

SPECIFICATIONS
 Even though facilities 1 through 4, as shown on these plans, have not been classified as MD-37B facilities, the contractor must adhere to these specifications.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and striped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement - Area on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 9 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated in to the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within $\pm 2\%$ of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. **Materials** - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plasti-Cote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

Material - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

2. **Coupling bands, anti-seep collars, end sections, etc.**, must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.
3. **Connections** - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe & riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hugger type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

Helically corrugated pipe shall have either continuously welded seams or have lock seams.

4. **Bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
5. **Backfilling** shall conform to "Structure Backfill".
6. **Other details** (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. **Materials** - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
2. **Bedding** - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
3. **Laying pipe** - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.
4. **Backfilling** shall conform to "Structure Backfill".
5. **Other details** (anti-seep collars, valves, etc.) shall be shown on the drawings.

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. **Materials** - PVC pipe shall be PVC - 1120 or PVC - 1220 conforming to ASTM D-1785 or ASTM D-2241.
2. **Joints and connections** to anti-seep collars shall be completely watertight.
3. **Bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. **Backfilling** shall conform to "Structure Backfill".
5. **Other details** (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standards Specifications for Construction and Materials, Section 608, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The rip rap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a silt-free condition. All exposed surfaces of the embankment, spillway, spot and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

Elev.	Soil Description	Depth
	2' topsoil	
3269	Orange brown, very dense, slight to non-plastic, silty, fine to coarse SAND (SM)	7.0
3270	Refusal at 10.0'	10.0

B-1A

Elev.	Soil Description	Depth
	2' topsoil	
3269	Light to medium brown, moist, very soft, silty CLAY trace fine sand (CL)	2.0
3270	Medium brown, moist, slightly plastic, silty, fine to medium SAND (SM)	4.5
3271	Light medium brown, dry, stiff to hard, coarse, sandy CLAY (CL)	7.0
3272	Medium orange brown to dark brown, moist, dense to very dense, micaceous, silty, fine to coarse SAND (SM)	10.0
3273	Refusal at 10.0'	10.0

B-1B

Elev.	Soil Description	Depth
	4' topsoil	
3274	Medium brown, dry to moist, fine to medium, sandy SILT (ML)	2.0
3275	Light gray, brown, dry, dense, slightly plastic, silty, fine to medium SAND (SM)	4.5
3276	Medium orange, brown, moist, micaceous, medium plastic, with fine to medium SAND (SM)	6.5
3277	Refusal at 6.5'	6.5

B-1C

Elev.	Soil Description	Depth
	5' topsoil	
3420	Yellow brown, dry to moist, stiff to hard, medium plastic, silty CLAY (CL)	7.0
3510	Yellow & green, moist to wet, medium dense, slightly plastic, silty SAND (SM) (saprillite)	10.0
3511	Refusal at 12.0'	12.0

B-2A

Elev.	Soil Description	Depth
	5' topsoil	
3421	Yellow brown to white, soft to stiff, medium plastic, micaceous, silty CLAY (CH)	6.0
3512	White to yellow brown to green & brown, moist to wet, medium dense, slightly plastic, silty SAND (SM) (saprillite)	10.5
3513	Refusal at 10.5'	10.5

B-2B

Elev.	Soil Description	Depth
	4' topsoil	
3422	Pale brown to white, dry, stiff, silty, silty CLAY (CL)	4.5
3514	Yellow, green, pink, moist, dense, silty SAND (SM) (saprillite)	8.5
3515	Refusal at 8.5'	8.5

B-2C

Elev.	Soil Description	Depth
	4' topsoil	
3423	Yellow brown, dry to moist, stiff to hard, medium plastic, sandy CLAY	2.0
3516	Gray to orange brown to pale brown, dense, plastic, silty SAND (SM) (saprillite)	10.0
3517	Refusal at 13.0'	13.0

B-3A

Elev.	Soil Description	Depth
	3' topsoil	
3424	Light gray, light brown, moist, dense, medium plastic, clayey, fine SAND SC-SM	6.5'
3518	White to green to orange brown, moist to wet, medium dense, slightly plastic, silty SAND (SM) (saprillite)	11.0'
3519	Refusal at 11.0'	11.0'

B-3B

Elev.	Soil Description	Depth
	4' topsoil	
3425	Gray brown, moist, medium stiff, slightly plastic, sandy SILT (ML)	1.0
3520	Gray, very dense, medium plastic, clayey SAND (SC)	4.5
3521	Orange, green, moist to wet, medium dense, slightly plastic, silty SAND (SM) (saprillite)	10.0
3522	Green & white, moist to wet, very dense, non-plastic, silty SAND (SM) (saprillite)	11.0
3523	Refusal at 11.0'	11.0'

B-3C

Elev.	Soil Description	Depth
	4' topsoil	
3426	Yellow brown, medium dense, slightly to medium plastic, silty SAND (SM)	1.5
3524	Yellow brown, green, pink, plastic, silty SAND (SM) (saprillite)	10.0'
3525	Refusal at 10.0'	10.0'

B-4A

Elev.	Soil Description	Depth
	4' topsoil	
3427	Yellow brown, medium dense, slightly to medium plastic, silty SAND (SM)	1.5
3526	Refusal at 10.0'	10.0'

B-4B

Elev.	Soil Description	Depth
	2' topsoil	
3428	Yellow brown, white, green, pink, medium dense to very dense, slight to non-plastic, silty SAND (SM) (saprillite)	9.0
3527	Refusal at 9.0'	9.0

B-4C



APPROVED: Howard County Dept. of Planning & Zoning
 Date: 12/19/99
 Date: 12/19/99
 Date: 1/12/00

The construction of the 4 stormwater management facilities shall be supervised by a qualified geotechnical firm throughout their construction. Although there is no requirement for an as-built submission to H&C, there will be 1 to H&C/PW involving the same level of documentation.

No Asbuilt Information Shown On This Sheet

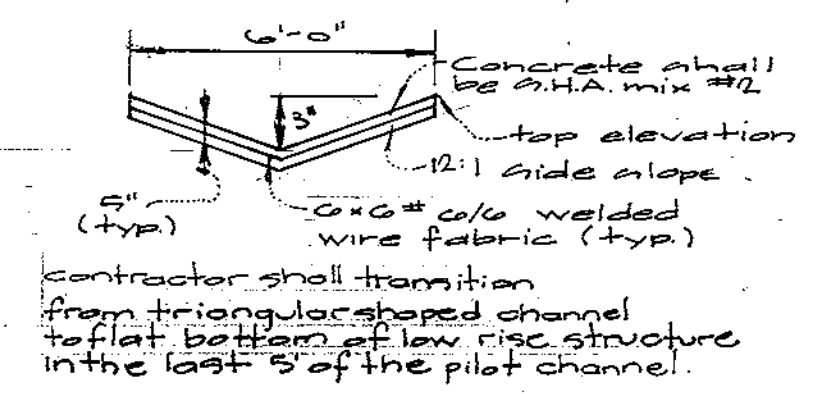
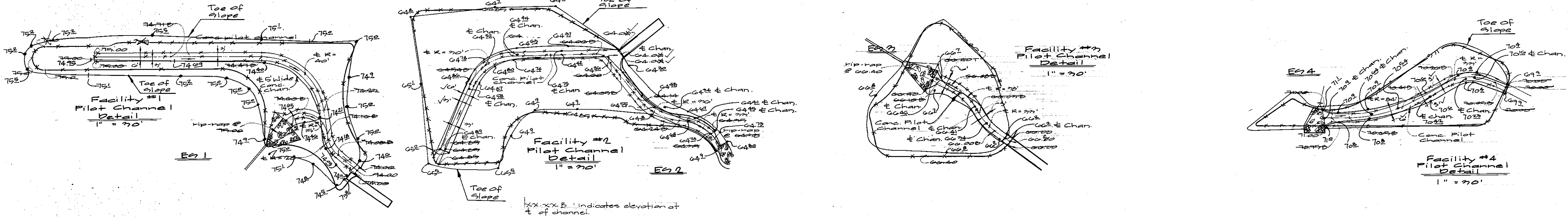
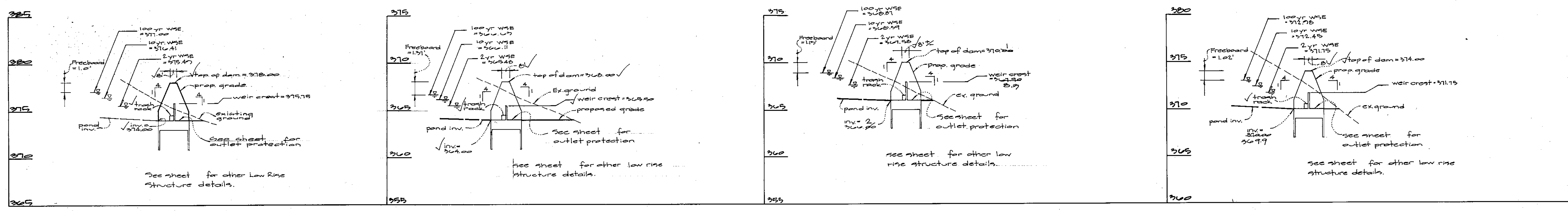
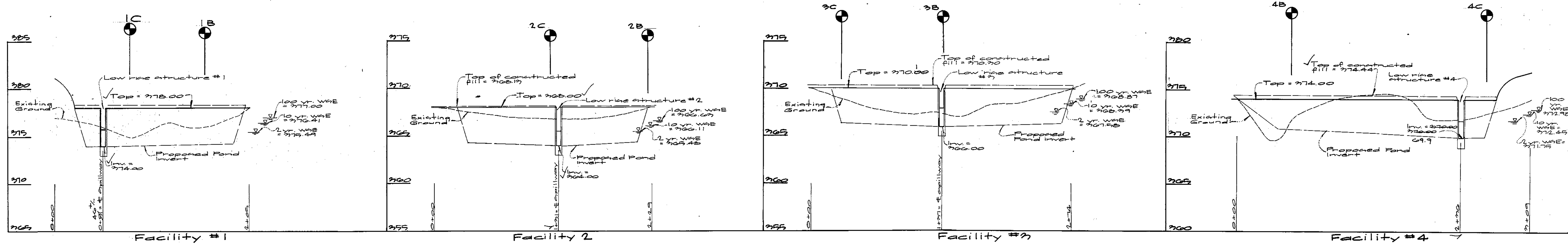
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-4024 NO. VA. (301) 989-2524 BALT. (410) 680-1820 FAX: (301) 421-4186 DES. DRN. CHK.

DATE	REVISION	BY	APPR.
Nov 2001	Asbuilt Information Added		

PREPARED FOR:
 Orchard Development Corporation
 3979 Old Columbia Pike
 Ellicott City, Maryland 21043
 (410) 750-1800

SWM Notes and Details
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT No. 13156
 CLARKSVILLE ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

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	R-10/NT	95053
DATE	TAX MAP No.	SHEET
October November 2002	25-18	15

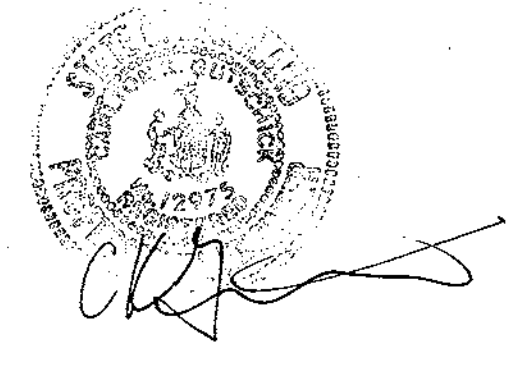


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 12/13/22
Date

[Signature] 12/14/21
Date

[Signature] 11/3/22
Date



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
Nov. 2000	Asbuilt Information Added		

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

GWM Notes and Details
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156
CLARKSVILLE ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

DES.	SCALE	ZONING	G.L.W. FILE NO.
DEV	As Shown	R-20/NT	98059
DRN.	DATE	TAX MAP No.	SHEET
CHK.	October November 2022	35-1B	16

PERIMETER - 2 (2240')

477' of perimeter adjacent to SFD use. Type 'C' Buffer required

290' to be planted * 250' of existing Woodland as 100% credit * 477' to be planted

Pond No. 1

Pond No. 2

Pond No. 3

Pond No. 4

PERIMETER - 2

488' to be planted

780' of perimeter adjacent to SFD use. Type 'C' Buffer required. 250' to be planted

FREETOWN ROAD 250' of perimeter w/ade of structure fronting on roadway. Type 'C' Buffer required.

PERIMETER - 4

918' of perimeter adjacent to church (Non residential use) Type 'A' Buffer required

188' of exist Woodland as 100% credit

40' of exist Woodland as 100% credit

PERIMETER - 3

160' of perimeter adjacent to SFD use. Type 'C' Buffer required

SWM AREA LANDSCAPE PERIMETER ANALYSIS

SWM #	PERIMETER	"C" BUFFER	CREDIT FOR RETAINED VEGETATION	"B" BUFFER
1	725'	285'	175'	265'
2	800'	345'	165'	290'
3	455'	-0'	280'	175'
4	615'	250'	-0'	365'
TOTAL	2,595'	880'	620'	1,095'

* PROJECT PERIMETER "C" BUFFER SUPERSEDES SWM "B" BUFFER.

Approved: Howard County Department of Planning & Zoning
 Date: 12/12/99
 Date: 12/9/99
 Date: 11/2/99



GLW GUTSCHICK LITTLE & WEBER, P.A.

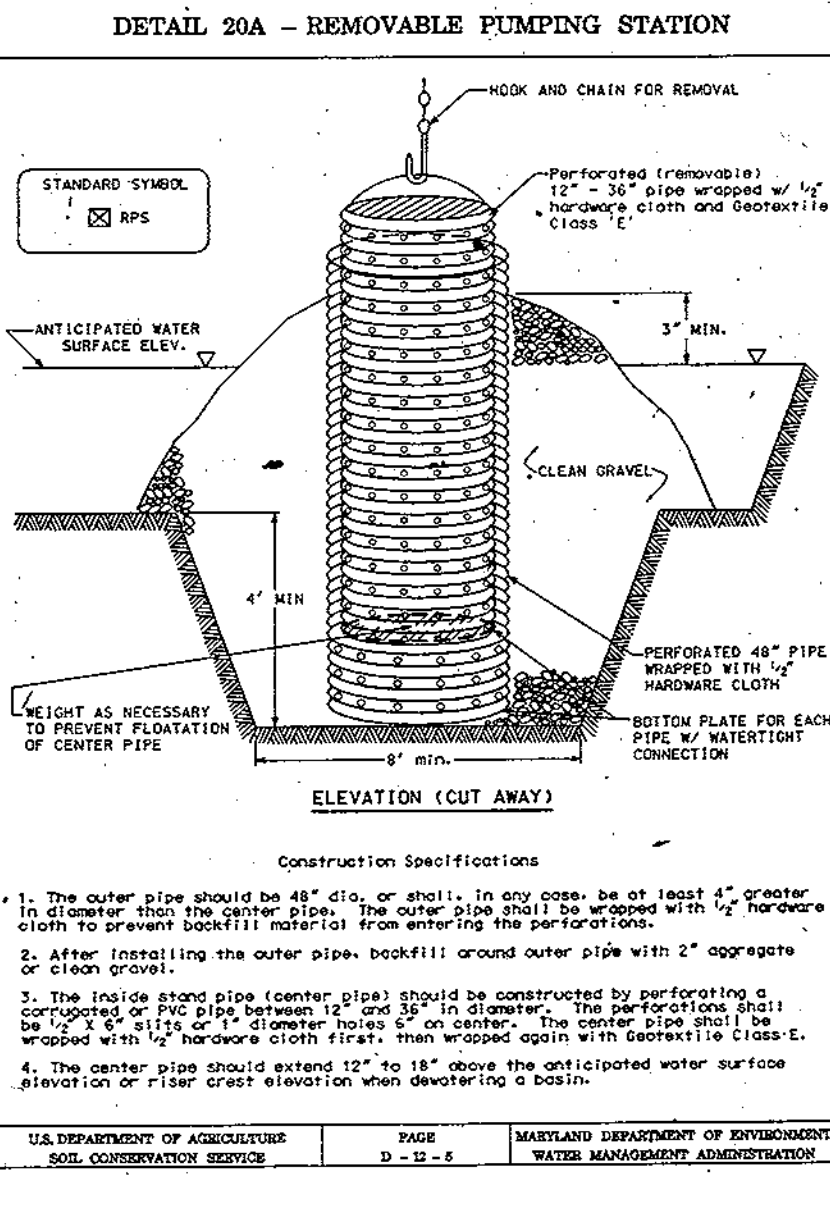
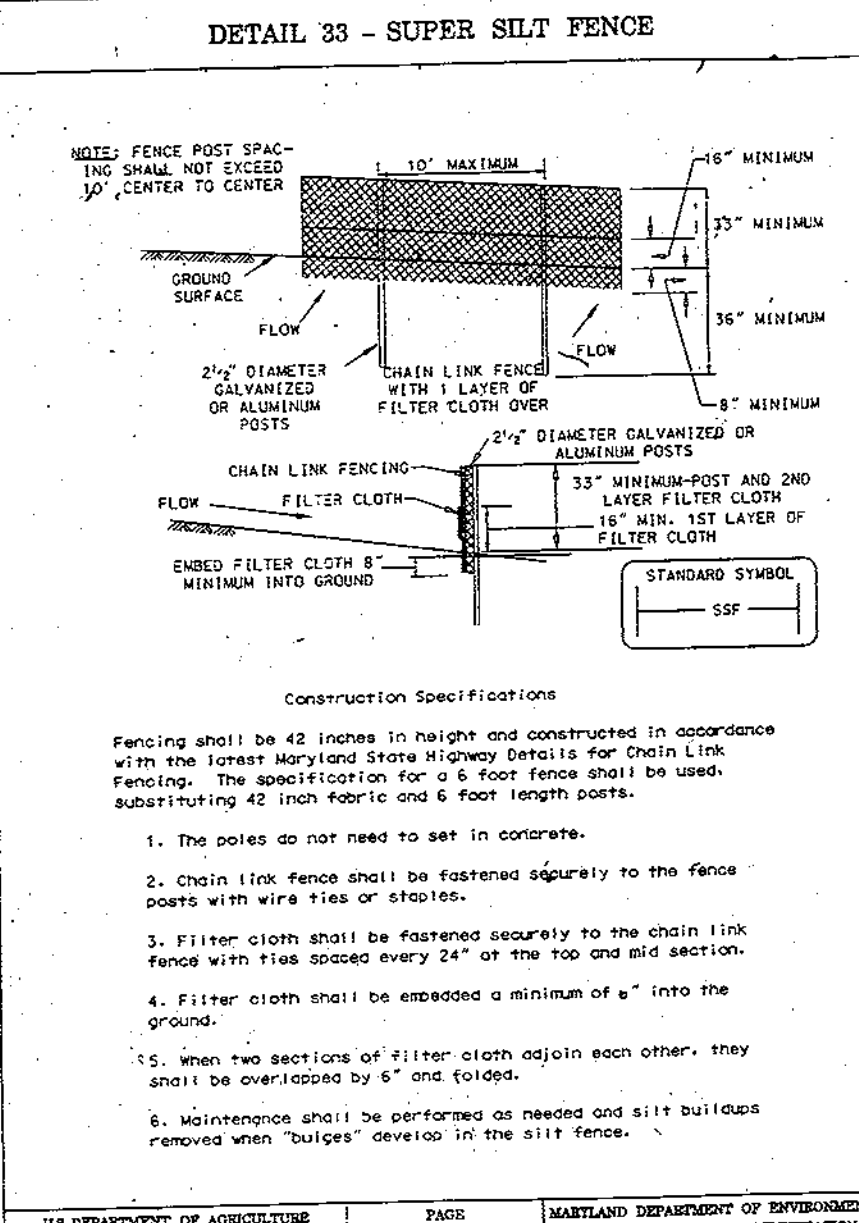
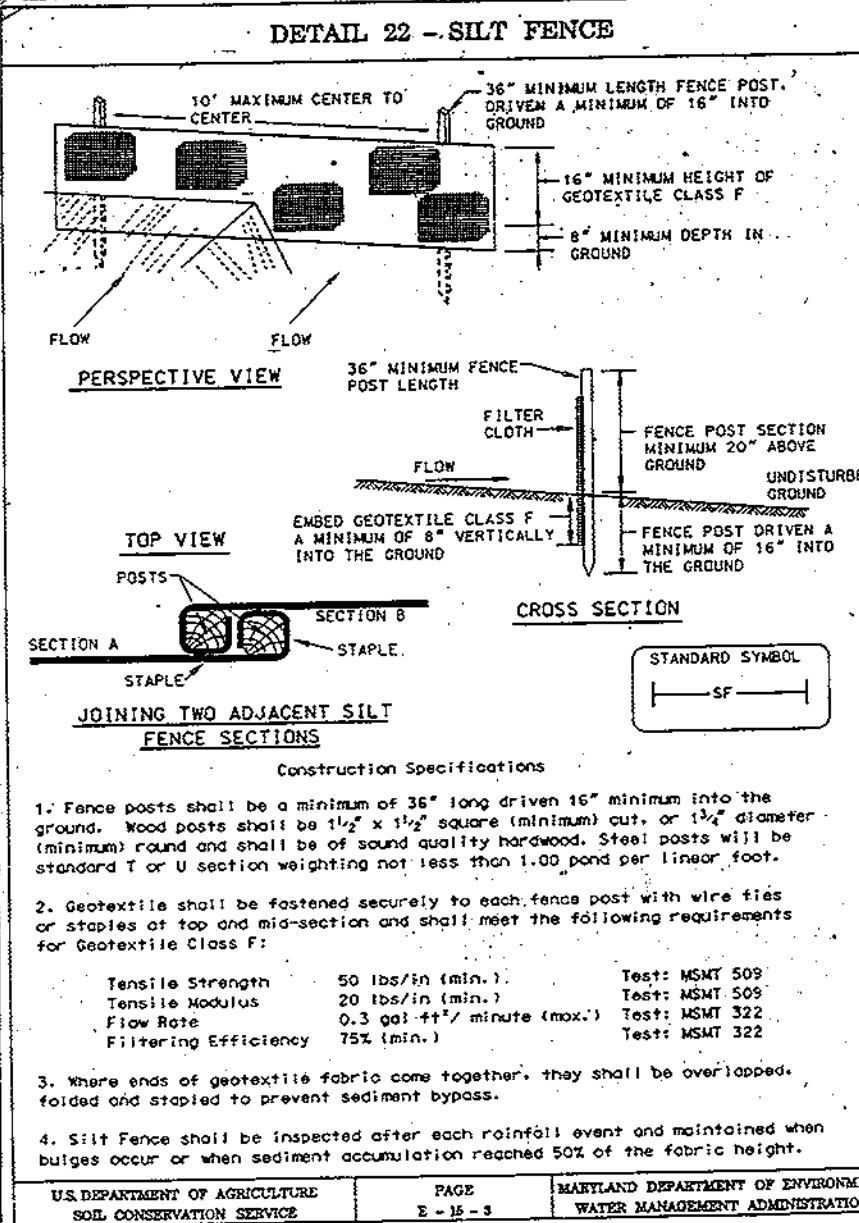
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALTO: 410-861-1800 DC/VA: 301-988-2524 FAX: 301-421-4186

PREPARED FOR:
 Orchard Development Corporation
 3774 Old Columbia Pike
 Ellicott City, Maryland 21043
 (410) 750-1800

Hickory Ridge Elderly Center
 Lots 1 and 2
 Plat 12150

SCALE	ZONING	C. L. W. FILE N.
1" = 50'	R-20/NT	45053
DATE	TAX MAP - GRID	SHEET
November 1999	35-18	17

DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.



CONSTRUCTION SEQUENCE

1. Obtain permits: grading, zoning, and M.D.E.
2. Review sediment control implementation with Inspector at on-site pre-construction meeting.
3. Stake limits of disturbance (L.O.D.) especially where it abuts a property boundary of a wetland buffer. (This can be done concurrently with Steps 1 and 2).
4. Install stabilized construction entrances (S.C.E.)
5. Install forest conservation signs, tree protection fence (TPF), silt fence (SF) and super silt fence (SSF) along L.O.D.
6. Excavate and construct Sediment Trap No. 1-4.
7. Raze existing buildings and structures to be removed.
8. Clear and grade site to appropriate subgrade for roadways and building pads.
9. Install stormdrain systems and utilities. Initiate stormdrain installation of sediment trap outfall and work up, install diversions around stormdrains.

DURATION

- 1 day
- 3-7 days
- 1-3 days each
- 3-4 days
- 1-2 weeks
- 2-3 weeks

SEDIMENT CONTROL NOTES

10. Stabilize all disturbed areas (in accordance with the Temporary Seeding Notes) that are not:
 - a. to be base paved,
 - b. undergoing building construction.
11. Install concrete curb and gutter (can be done concurrently with #10).
12. Install base paving and fill the center island at the two entrances and all interior islands with a minimum of 6\"/>

PERMANENT SEEDING NOTES

Apply to graded or cleared area 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 (unless previously loosened).

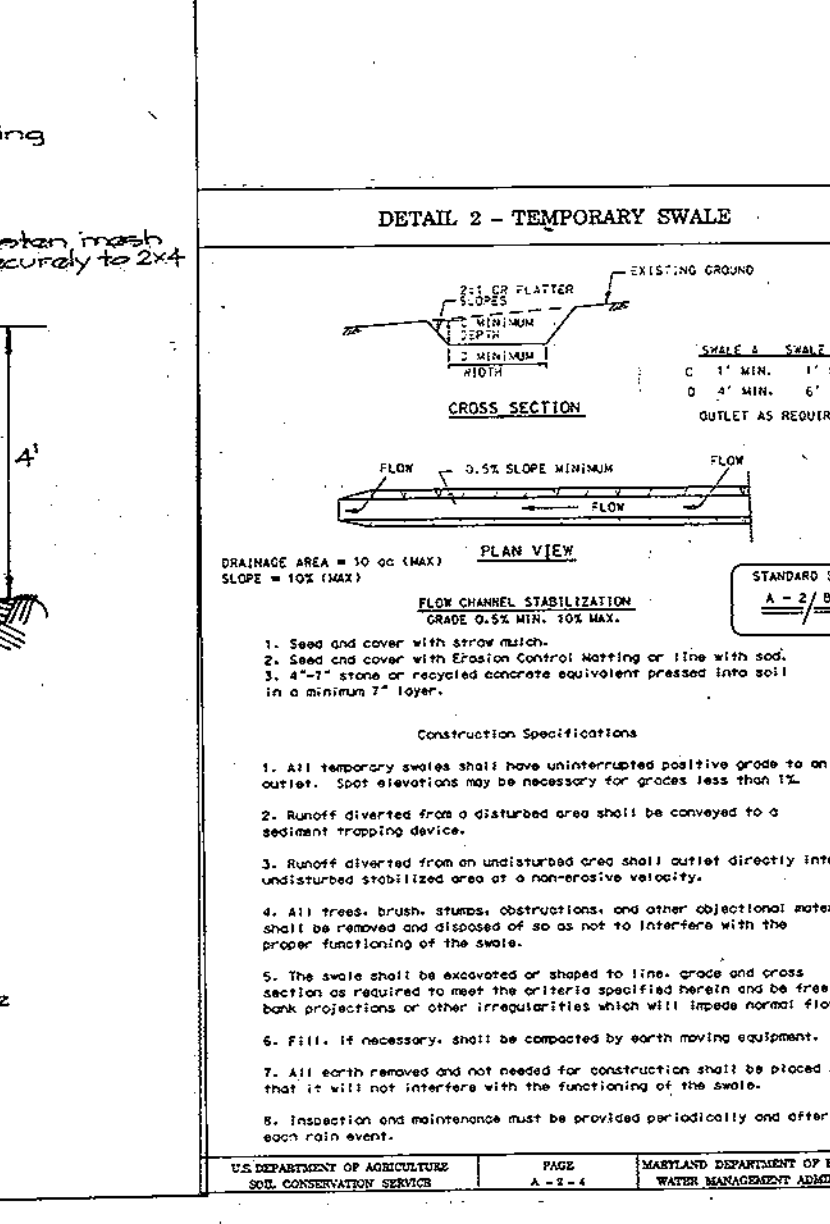
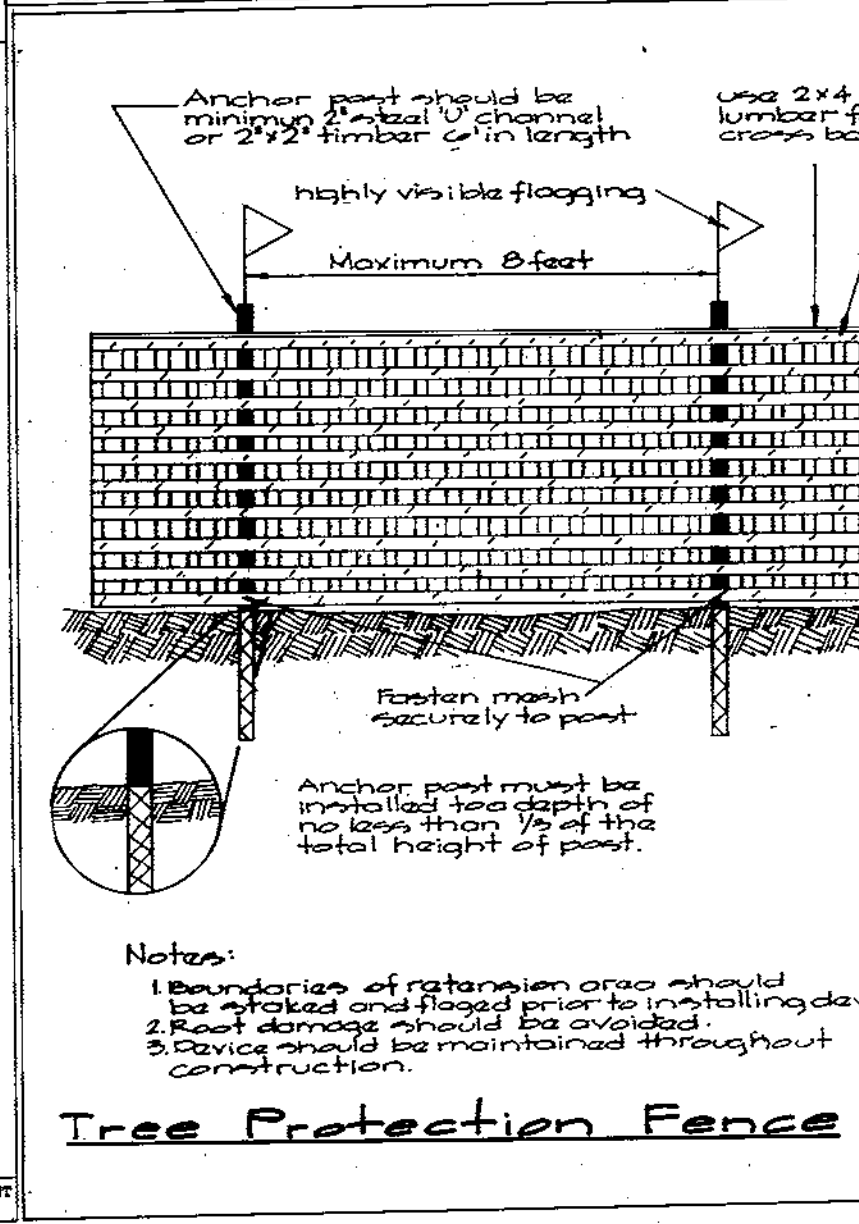
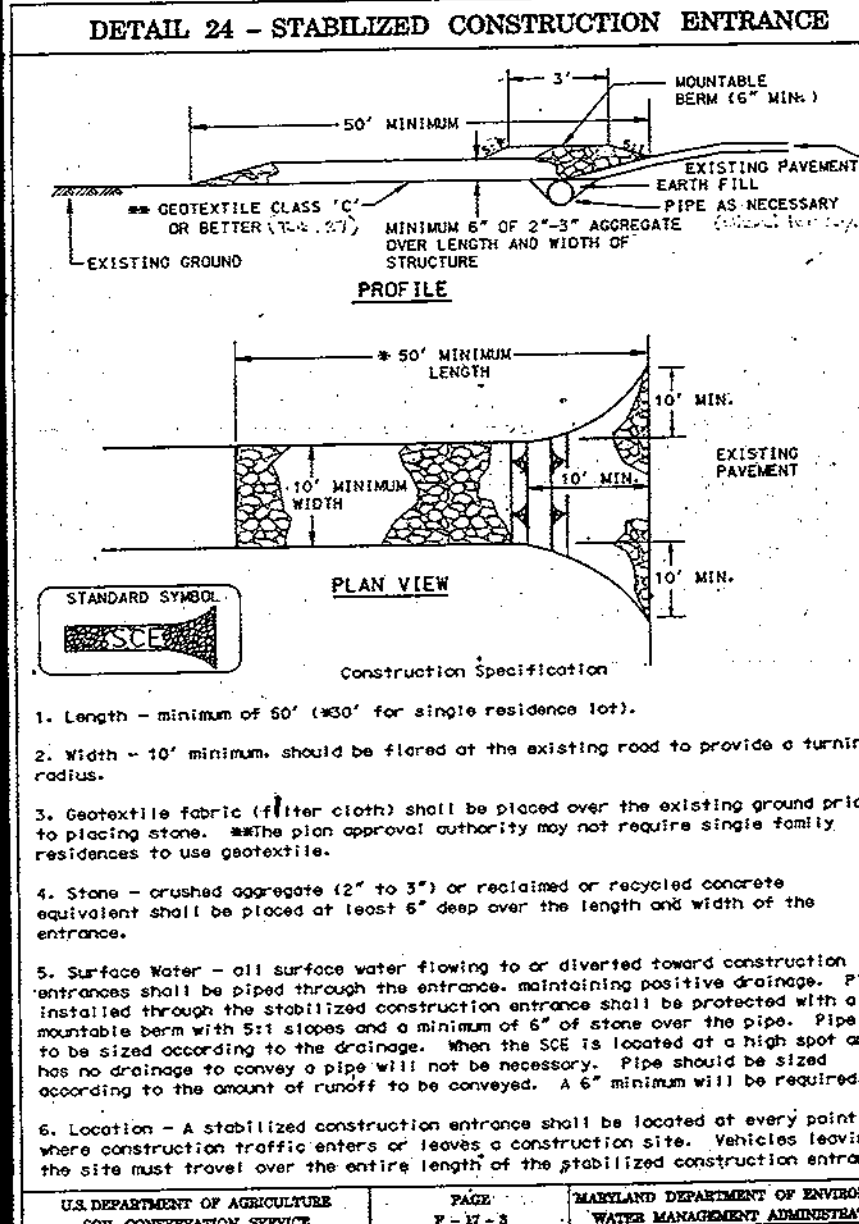
Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) 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 ureaformal 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 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 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.



Construction Specifications

1. Fence posts shall be a minimum of 36\"/>
- 2. Geotextile fabric (filter cloth) shall be fastened securely to each fence post with wire ties or staples of top and mid-section and shall meet the following requirements for Geotextile Class F:
 - Tensile Strength: 50 lbs/in. (min.)
 - Tensile Modulus: 20 lbs/in. (min.)
 - Flow Rate: 0.2 gpd per minute (max.)
 - Filtering Efficiency: 75% (min.)
- 3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- 4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

Construction Specifications

1. The outer pipe should be 48\"/>
- 2. In any case, be at least 4\"/>
- 3. The inner pipe (center pipe) should be constructed by perforating a 4\"/>
- 4. The center pipe should extend 12\"/>

Construction Specifications

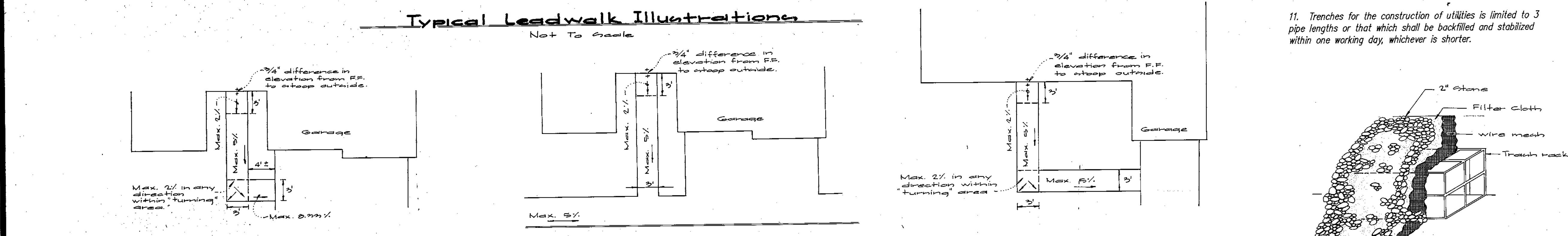
1. All temporary earth dikes shall have unimpaired positive grade 10\"/>
- 2. All earth removal and/or grading for construction shall be placed so that it will not interfere with the functioning of the dike.
- 3. Inspection and maintenance must be provided periodically and after each rain event.

Site Analysis:

Total Area of Site	17.8	Acres
Area Disturbed	18.1	Acres
Area to be roofed or paved	5.6	Acres
Area to be vegetatively stabilized	7.5	Acres
Total Cut	21,025	Cu. Yds.
Total Fill	21,025	Cu. Yds.

Off-site 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 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. Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within one working day, whichever is shorter.



DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an as-built plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, soil erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an as-built plan of the pond within 30 days of completion.

APPROVED: Howard County Dept. of Planning & Zoning

12/13/95
10/14/99
11/15/99

Signature of Developer/Builder: [Signatures]
Date: 11-15-99

Signature of Engineer: [Signatures]
Date: 1-8-99

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALT. (410) 880-1820 BALT. FAX: (301) 421-4186

PREPARED FOR:
Orchard Development Corporation
2970 Old Columbia Pike
Ellicott City, Maryland 21043
(410) 760-1800

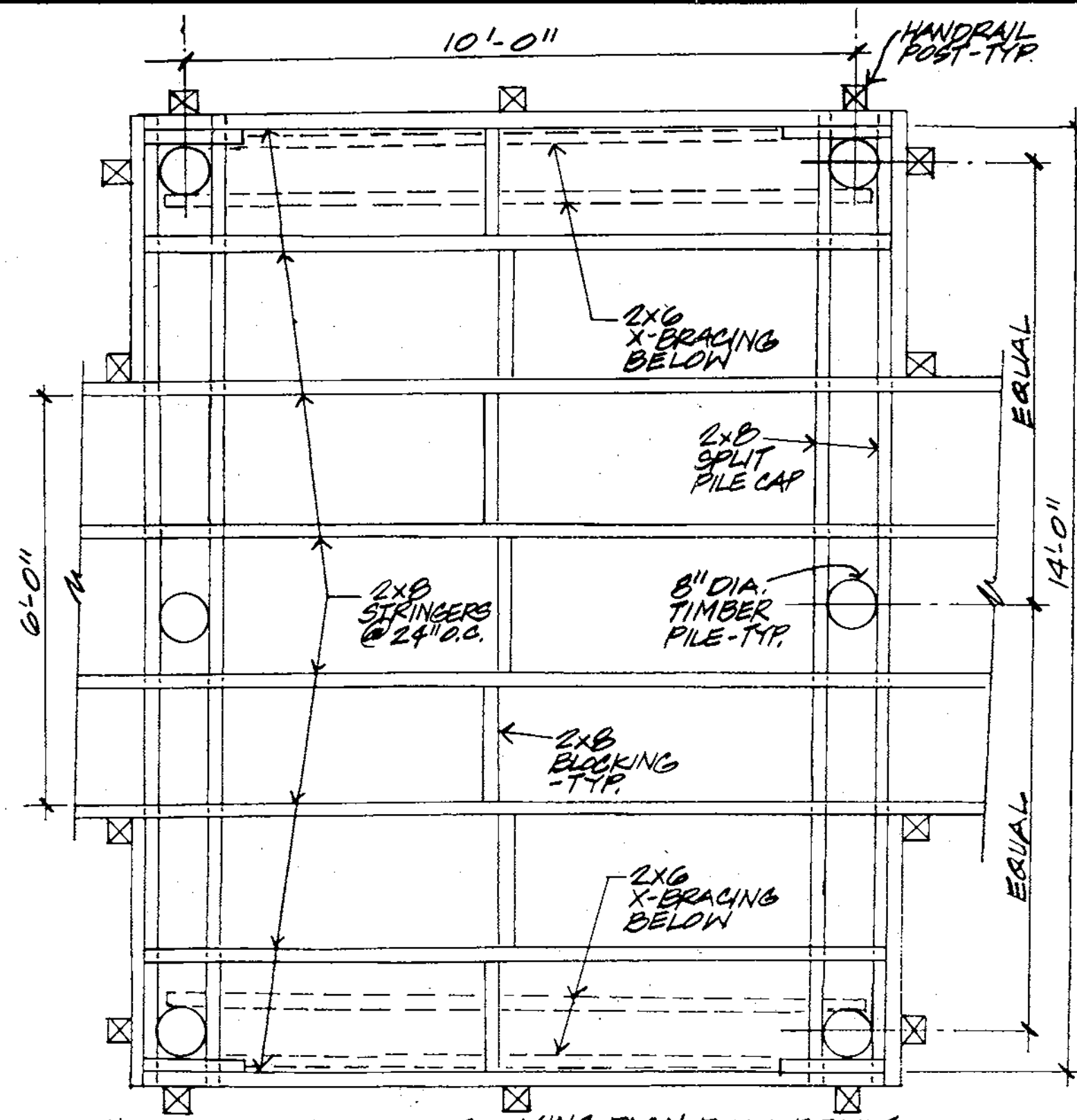
SEDIMENT CONTROL NOTES & DETAILS
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

SCALE	ZONING	G. L. W. FILE No.
—	R-20/ NT	95053
DATE	TAX MAP No.	SHEET
November 1999	35	10

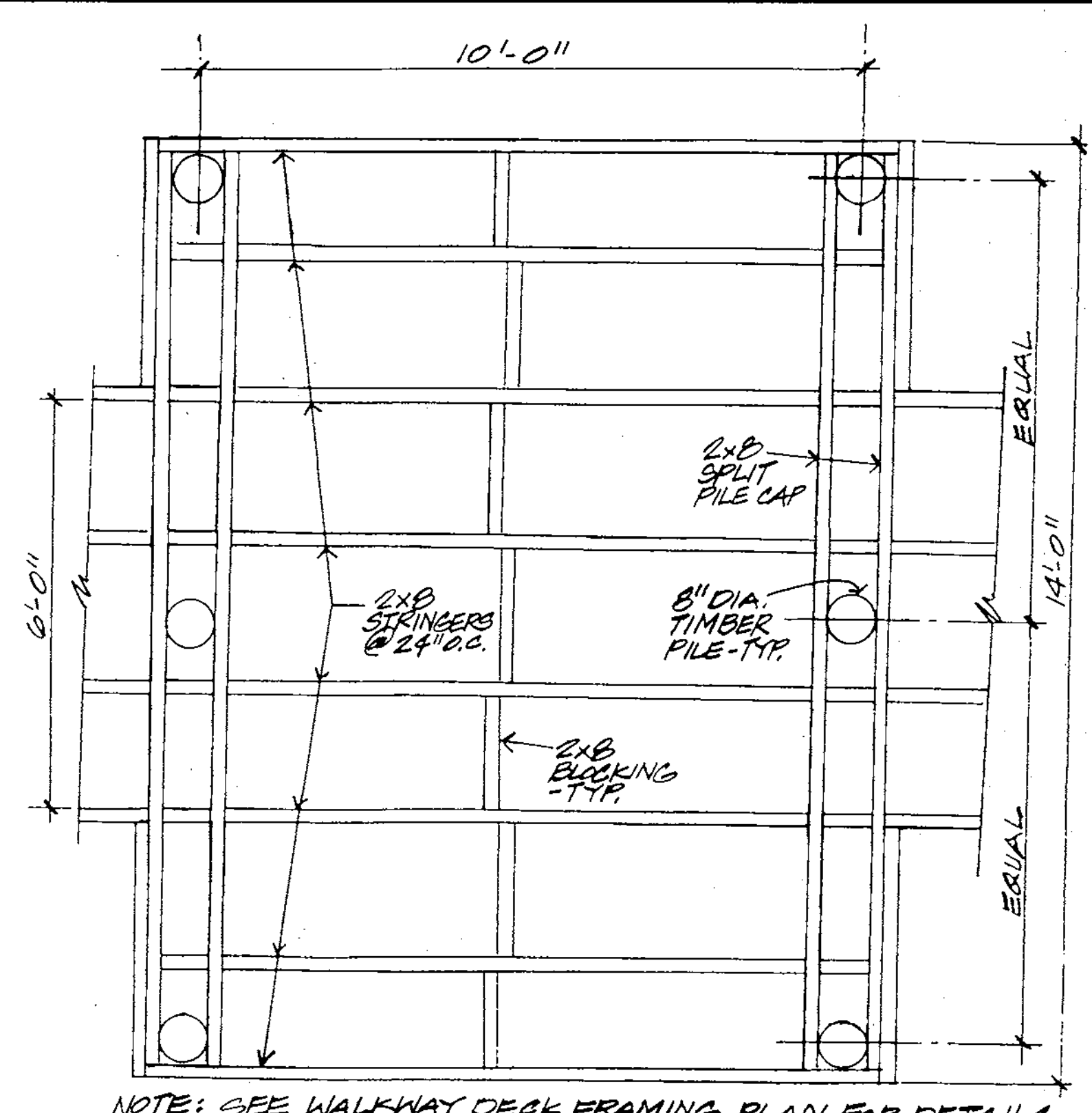
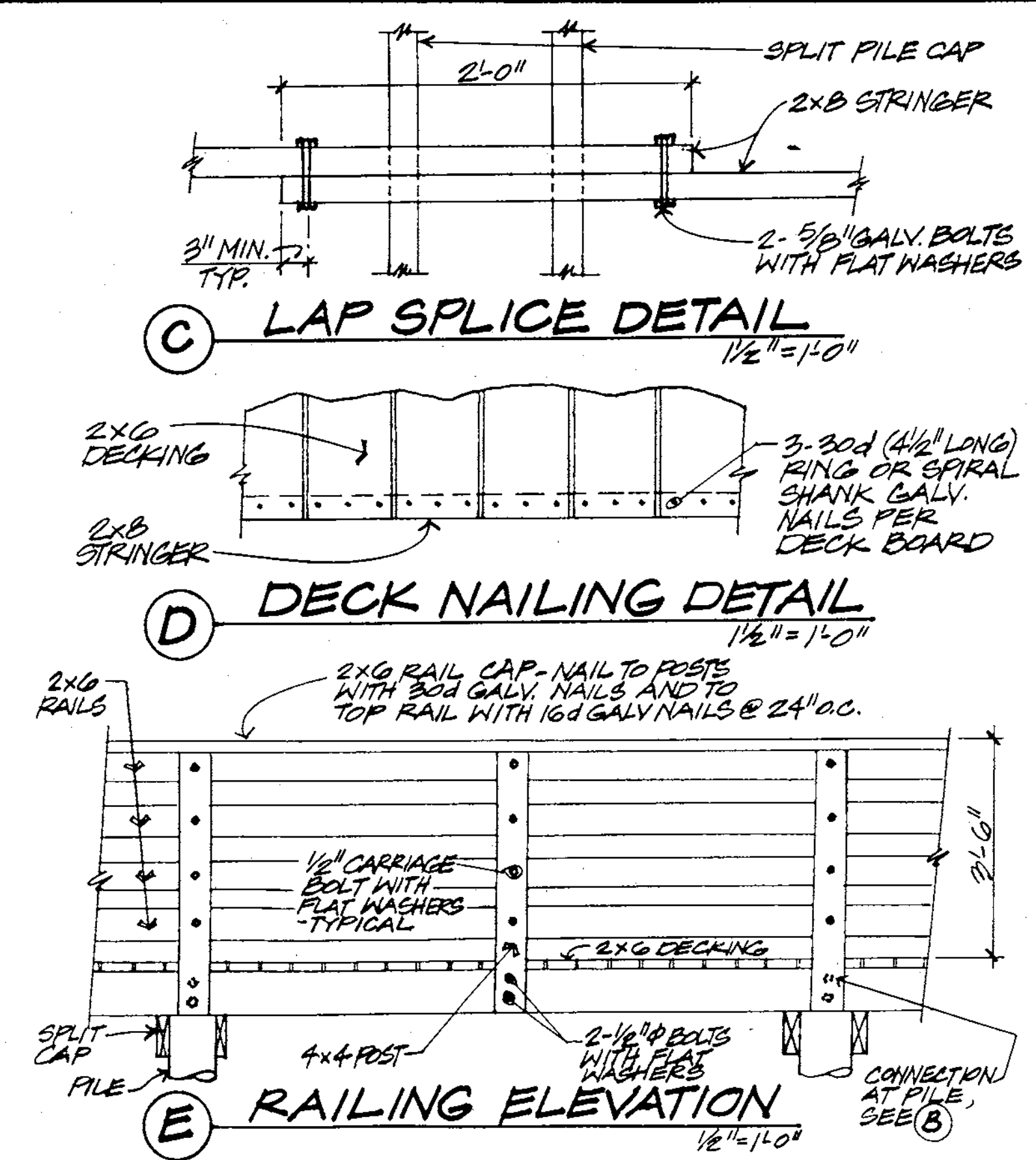
HOWARD COUNTY, MARYLAND
CLARKSVILLE ELECTION DISTRICT No. 5

GENERAL STRUCTURAL NOTES

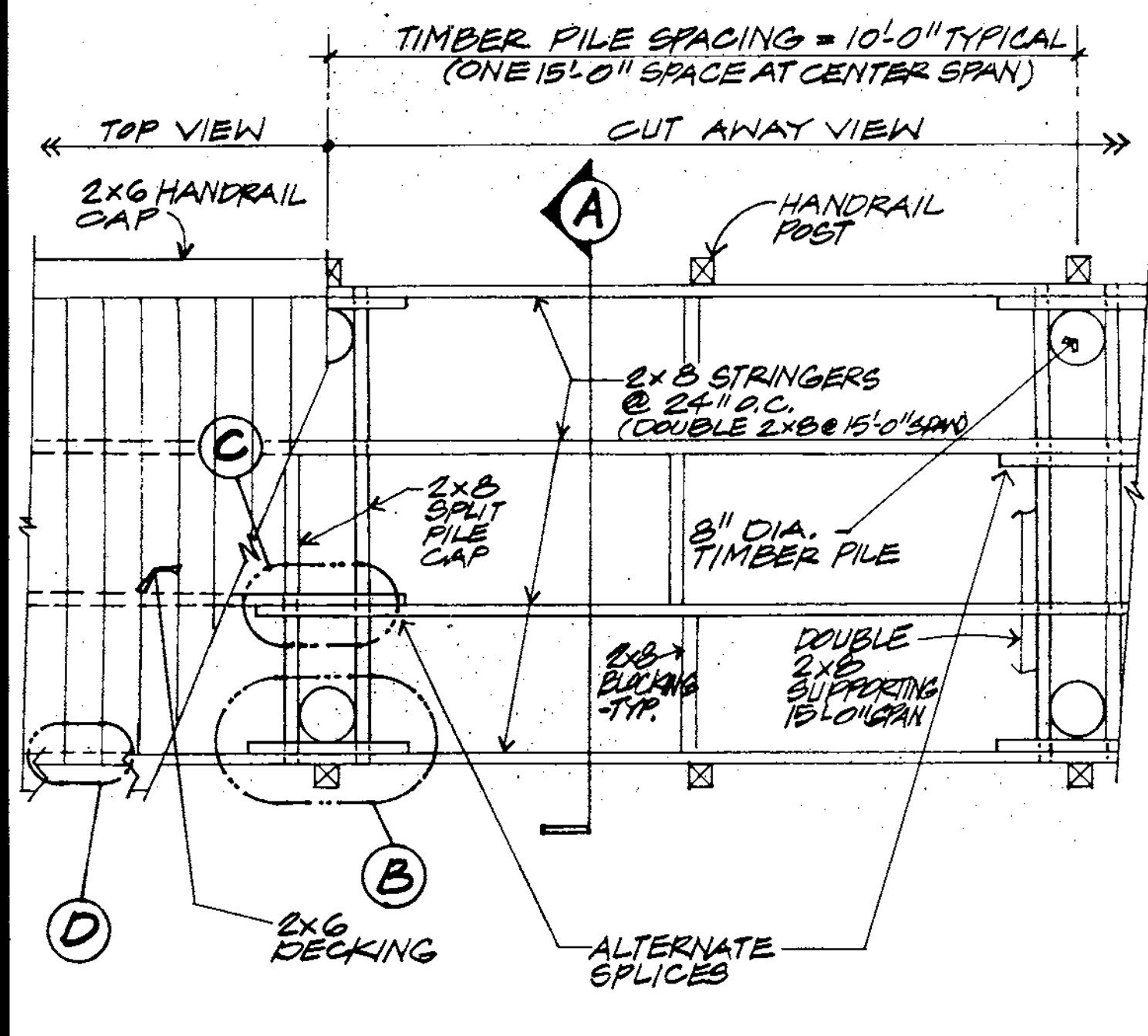
- I. DESIGN DATA:**
- A. CODES AND STANDARDS:**
- BOCA BASIC BUILDING CODE, 1996.
 - NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 1991. (WITH SUPPLEMENT), NATIONAL FOREST PRODUCTS ASSOCIATION.
- B. DESIGN LOADS:**
- DECK LIVE LOAD 50 PSF
 - TOP OF HANDRAILS 50 LBS/FT SIMULTANEOUS HORIZONTAL & VERTICAL LOAD
200 POUND POINTLOAD APPLIED IN ANY DIRECTION, ANY POINT
- C. MATERIALS:**
- GALVANIZED STEEL FRAMING HARDWARE:
 - EXCEPT AS DETAILED, ALL CONNECTIONS SHALL UTILIZE SIMPSON "STRONG-TIE" CONNECTORS OR ALTERNATIVE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
 - NAILS SHALL CONFORM TO ASTM A153 WITH 20 OUNCES OF ZINC PER SQUARE FOOT.
 - TIMBER:
 - MOISTURE CONTENT FOR ALL SAWN LUMBER - 19% MAX.
 - STRUCTURAL LUMBER - SOUTHERN PINE
 - SPLIT PILE CAPS, CROSS BRACING NO. 1 DENSE
 - STRINGERS, HANDRAILS NO. 1
 - DECKING PREMIUM NO. 1
 - PRESERVATIVE TREAT ALL MEMBERS
 - COMPLY WITH APPLICABLE REQUIREMENTS OF THE AMERICAN WOOD PRESERVERS ASSOCIATION STANDARDS.
 - AFTER TREATMENT, KILN-DRY LUMBER TO A MAXIMUM MOISTURE CONTENT OF 10 PERCENT.
 - PILING:
 - ROUND PILING SHALL CONFORM TO ASTM D25.
- II. CONSTRUCTION:**
- A. GENERAL:**
- THIS PROJECT HAS BEEN DESIGNED FOR THE WEIGHTS AND MATERIALS INDICATED ON THE DRAWINGS AND FOR THE LIVE LOADS INDICATED IN THE DESIGN DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING AND SHORING, ETC.
 - WORK NOT INCLUDED ON THE DRAWINGS BUT IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES ELSEWHERE ON THE DRAWINGS SHALL BE REPEATED.



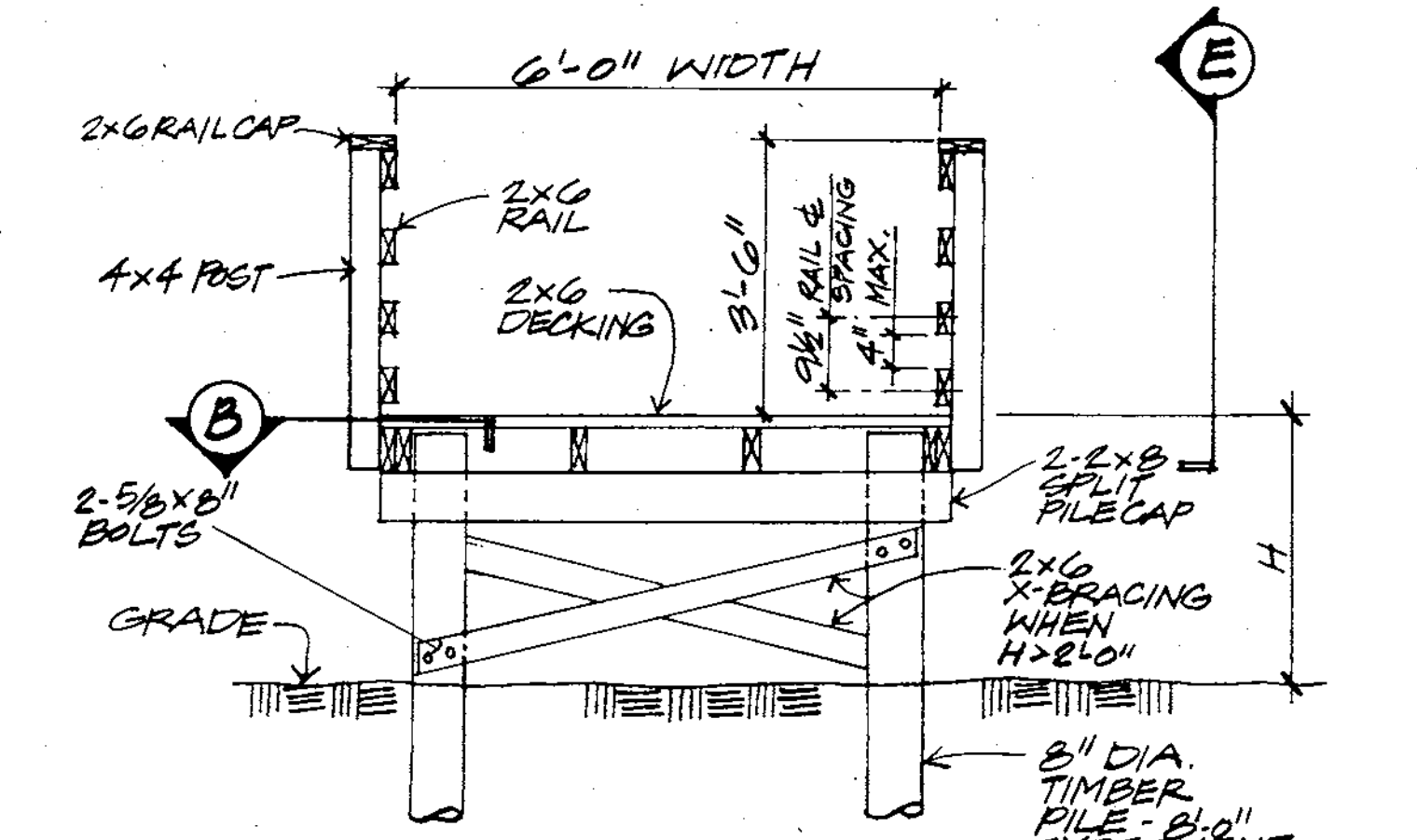
FIXED PIER - BENCH AREA FRAMING 1/2"=1'-0"



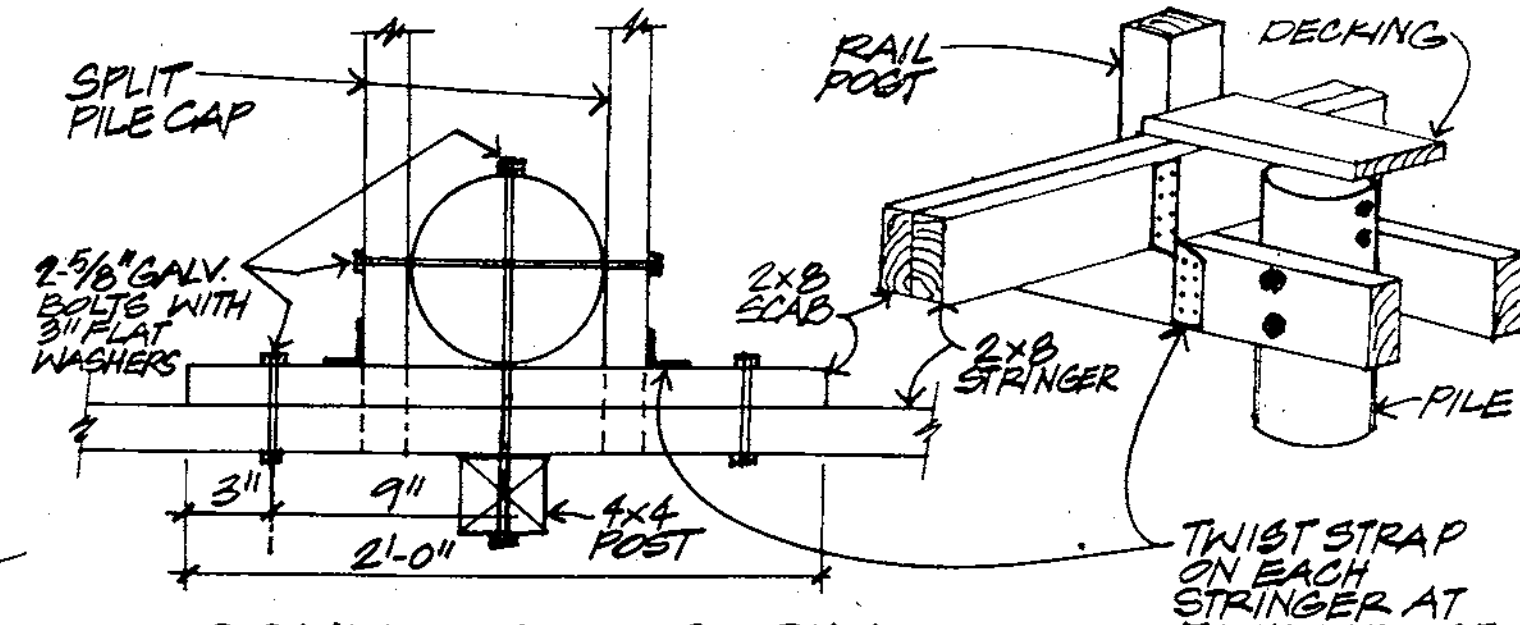
WALKWAY DECK - BENCH AREA FRAMING 1/2"=1'-0"



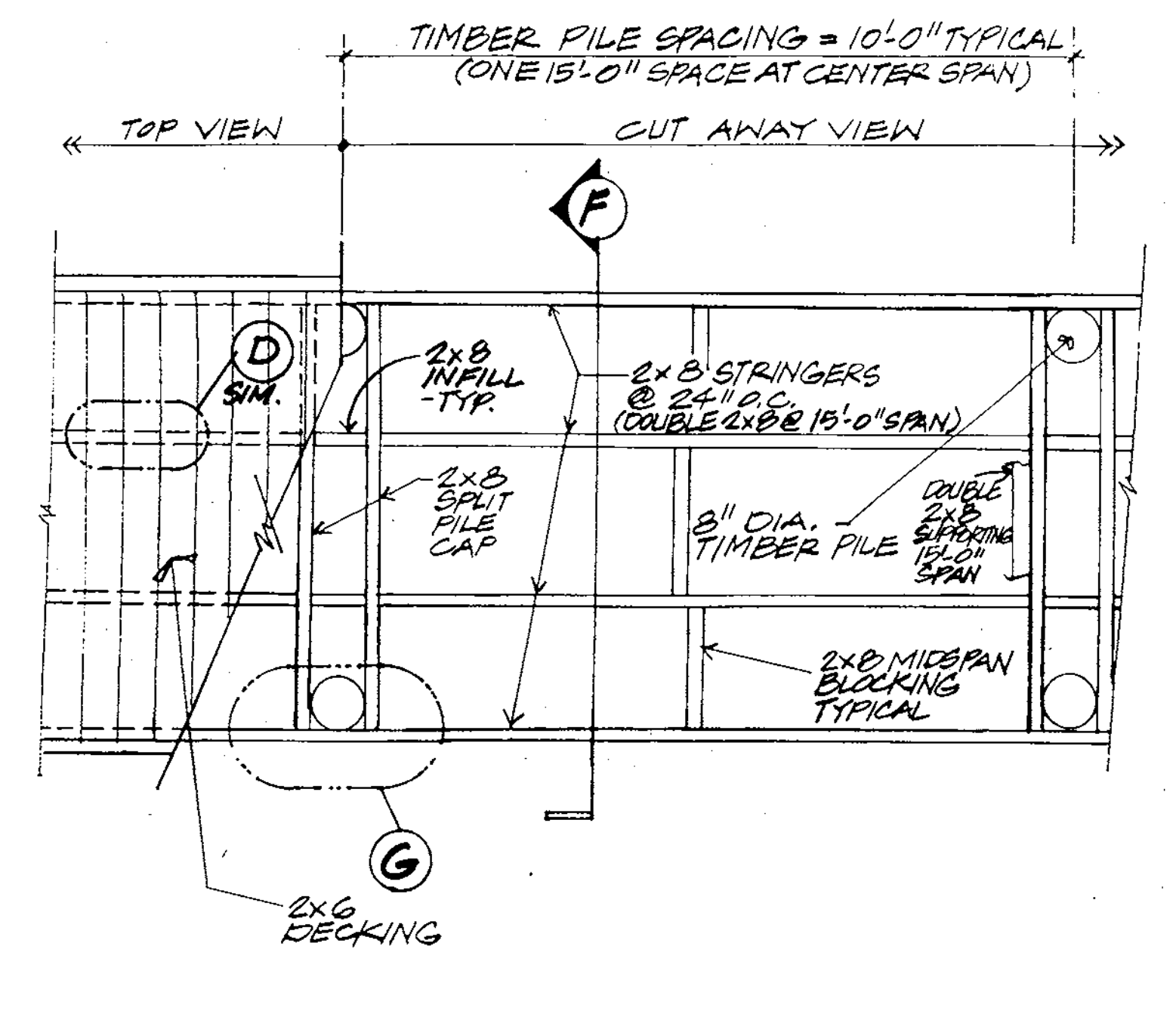
FIXED PIER FRAMING PLAN 1/2"=1'-0"



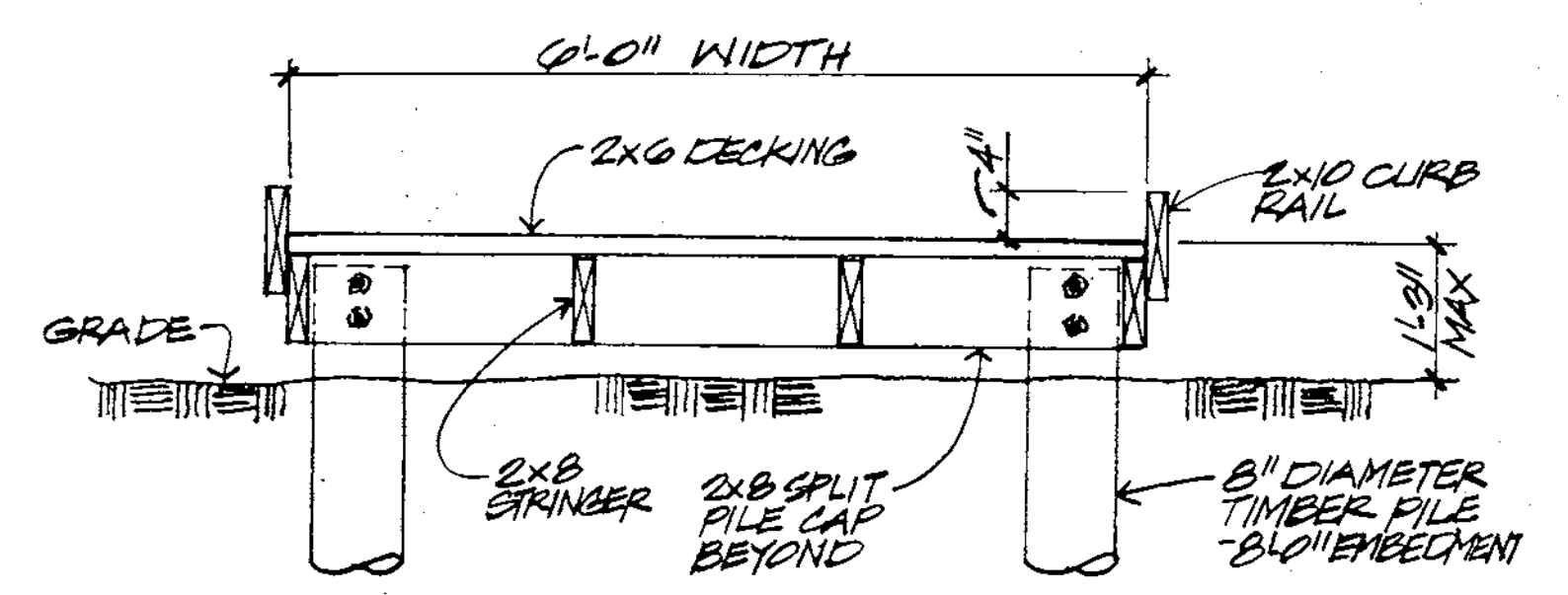
SECTION THRU FIXED PIER 1/2"=1'-0"



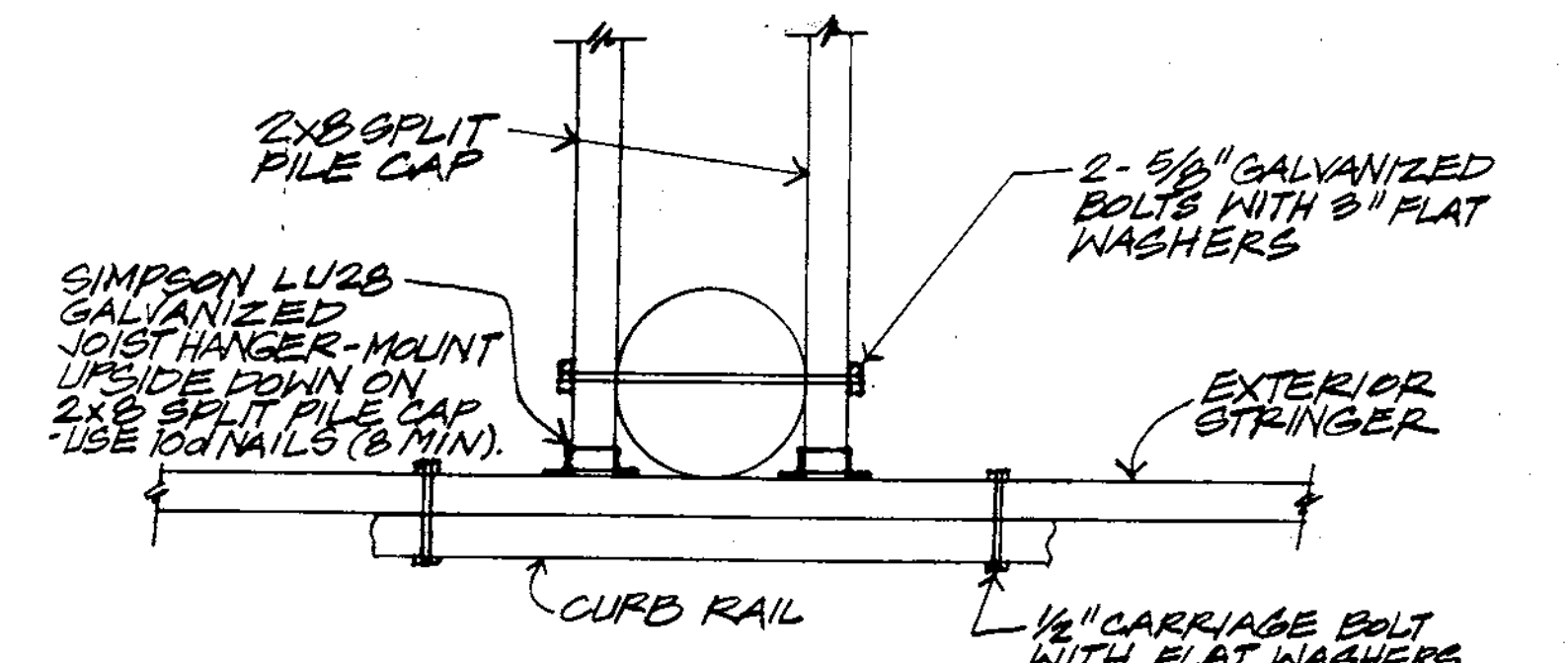
CONNECTION TO PILE 1/2"=1'-0"



WALKWAY DECK FRAMING PLAN 1/2"=1'-0"



SECTION THRU WALKWAY DECK 1/2"=1'-0"



CONNECTION TO PILE 1/2"=1'-0"

RATHGEBER/GOSS ASSOCIATES
Consulting Structural Engineers
15807 Crabbs Branch Way, Rockville, Maryland 20855
301/590-0071 Fax: 301/590-0073

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 12/13/99 Date
[Signature] 10/9/99 Date
 Chief, Division of Land Development
 Chief, Development Engineering Division

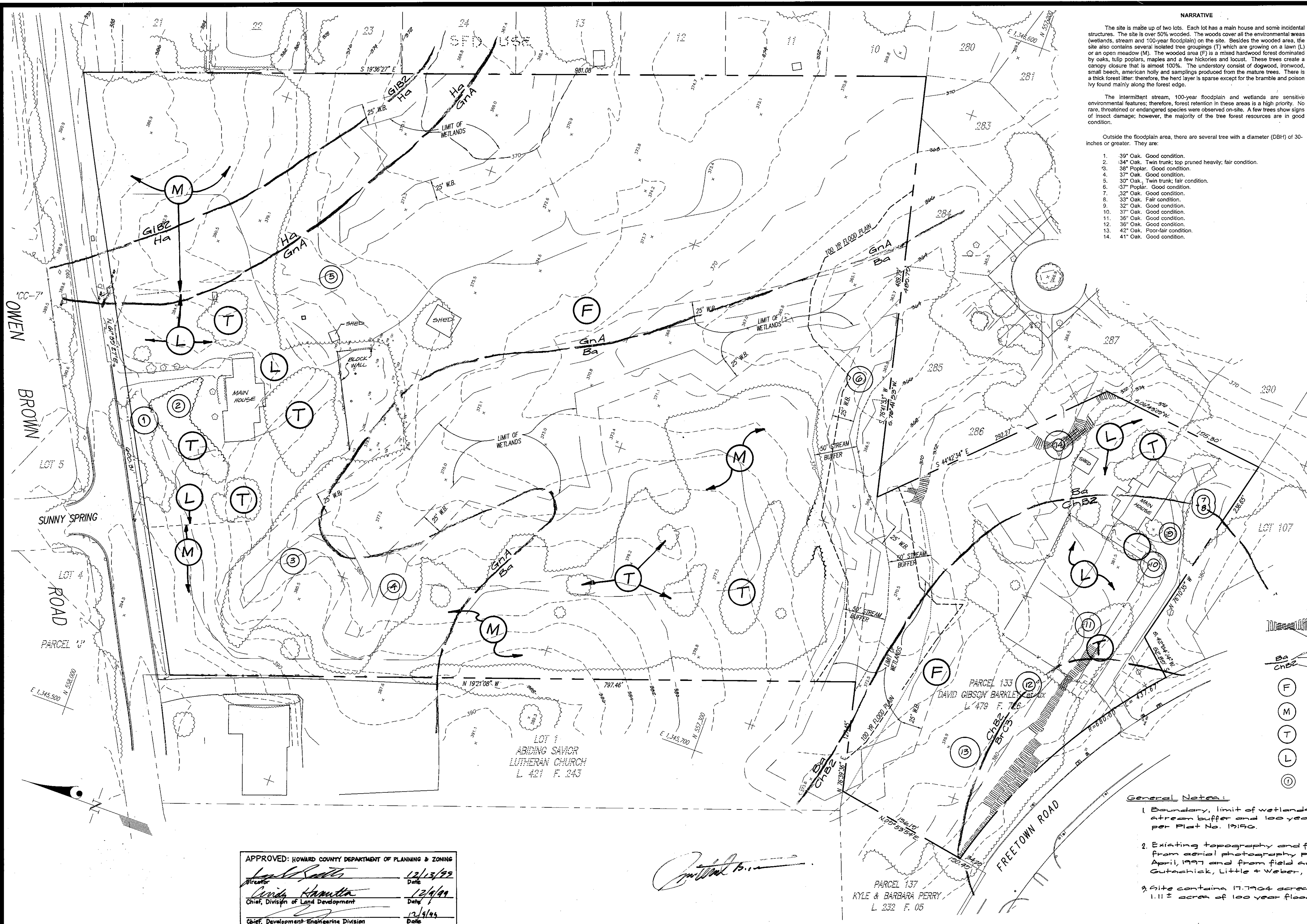
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

Details For Wooden Walkway
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156
CLARKSVILLE ELECTION DISTRICT No. 5

DES. dev.	SCALE As shown	ZONING R-20/NT	G.L.W. FILE No. 95053
DRN. f.m.m.	DATE November 1999	TAX MAP No. 99-10	SHEET 17
CHK. dev.			



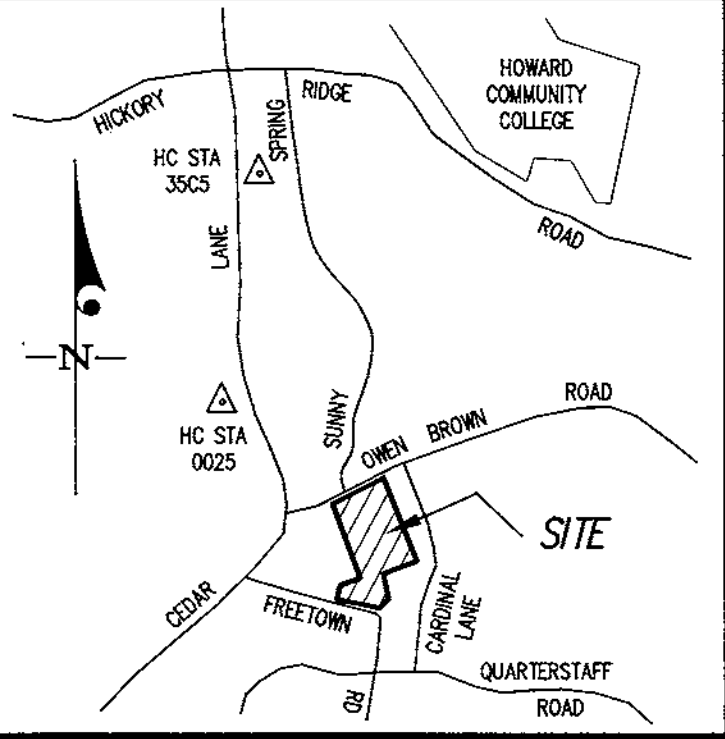
NARRATIVE

The site is made up of two lots. Each lot has a main house and some incidental structures. The site is over 50% wooded. The woods cover all the environmental areas (wetlands, stream and 100-year floodplain) on the site. Besides the wooded area, the site also contains several isolated tree groupings (T) which are growing on a lawn (L) or an open meadow (M). The wooded area (F) is a mixed hardwood forest dominated by oaks, tulip poplars, maples and a few hickories. These trees create a canopy closure that is almost 100%. The understory consist of dogwood, ironwood, small beech, american holly and samplings produced from the mature trees. There is a thick forest litter; therefore, the herb layer is sparse except for the bramble and poison ivy found mainly along the forest edge.

The intermittent stream, 100-year floodplain and wetlands are sensitive environmental features; therefore, forest retention in these areas is a high priority. No rare, threatened or endangered species were observed on-site. A few trees show signs of insect damage; however, the majority of the tree forest resources are in good condition.

Outside the floodplain area, there are several tree with a diameter (DBH) of 30-inches or greater. They are:

1. 39" Oak. Good condition.
2. 34" Oak. Twin trunk; top pruned heavily; fair condition.
3. 38" Poplar. Good condition.
4. 37" Oak. Good condition.
5. 30" Oak. Twin trunk; fair condition.
6. 37" Poplar. Good condition.
7. 32" Oak. Good condition.
8. 33" Oak. Fair condition.
9. 32" Oak. Good condition.
10. 37" Oak. Good condition.
11. 36" Oak. Good condition.
12. 36" Oak. Good condition.
13. 42" Oak. Poor-fair condition.
14. 41" Oak. Good condition.



VICINITY MAP
Scale: 1" = 2000'

Map Symbol	Soil Type	Soil Group
Ba	Baile Silt Loam	D
BrC9	Brandywine Loam	C
ChB2	Chester Silt Loam	B
GIB2	Glenelig Loam	B
GnA	Glenville Silt Loam	C
HA	Hatboro Silt Loam	D

LEGEND

- 15-25% STEEP SLOPES
- 25% AND GREATER
- SOIL BOUNDARY
- SOIL SYMBOL
- FOREST STAND
- MEADOW
- TREE GROUP
- LAWN
- TREE W/DBH ≥ 30'

- General Notes:**
1. Boundary, limit of wetlands, wetland buffer (w.b.), stream buffer and 100 year floodplain shown is per Plat No. 1950.
 2. Existing topography and features were derived from aerial photography prepared by RBS, in April, 1997 and from field surveys prepared by Gutshick, Little & Weber, PA.
 3. Site contains 17.7904 acres (gross) which includes 1.11 ± acres of 100 year floodplain easement.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 12/13/99
Director Date

[Signature] 12/14/99
Chief, Division of Land Development Date

[Signature] 12/14/99
Chief, Development Engineering Division Date

[Signature]

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 200 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

FOREST STAND DELINEATION
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT NO. 13256
CLARKSVILLE ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-20	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35	20

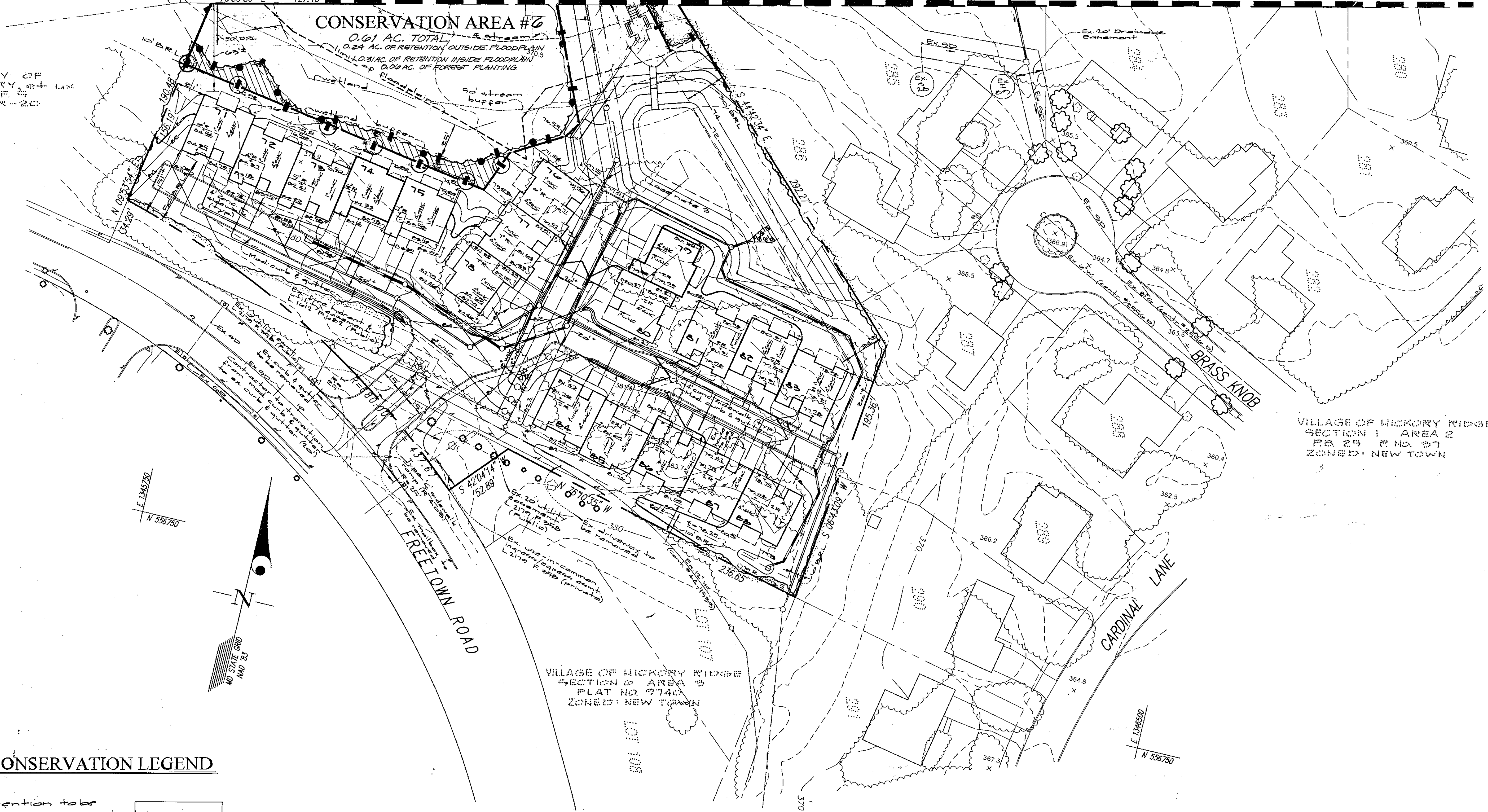
Note: Construction of closed storm drain from facility 3 and 4 requires MDE permit and offsite easement from the owner of Lot 265.

PART OF CONS. AREA 5 MATCH LINE See Sheet 2

PROPERTY OF
KYLE PERRY, et al
L 292 F 2
ZONED: R-20

CONSERVATION AREA #7

0.61 AC. TOTAL
0.24 AC. OF RETENTION OUTSIDE FLOODPLAIN
0.37 AC. OF RETENTION INSIDE FLOODPLAIN
0.06 AC. OF FOREST PLANTING



VILLAGE OF HICKORY RIDGE
SECTION 1 AREA 2
PLAT NO. 27
ZONED: NEW TOWN

VILLAGE OF HICKORY RIDGE
SECTION 5 AREA 3
PLAT NO. 274C
ZONED: NEW TOWN

FOREST CONSERVATION LEGEND

- Forest Retention to be In Conservation Easement
- Forest to be cleared
- Reforestation
- Conservation Easement
- Existing Treeline
- Proposed Treeline
- Conservation Sign (location @ Loc. Prior to grading)
- Conservation Sign (Final location after Forest Planting)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director *[Signature]* 12/13/99
Date

Chief, Division of Land Development *[Signature]* 12/9/99
Date

Chief, Development Engineering Division *[Signature]* 12/1/99
Date

[Handwritten Signature]

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-389-2524 FAX: 301-421-4186

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

FOREST CONSERVATION PLAN
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35 - 18	21

DES.	DRN.	SJC	CHK.	DATE	REVISION	BY	APPR.

CLARKSVILLE ELECTION DISTRICT No. 5

HOWARD COUNTY, MARYLAND

SPRING LAKE GARDENS
PLAT NO. 4657
ZONED R-20

SPRING LAKE GARDENS
PLAT NO. 3969
ZONED R-20

VILLAGE OF HICKORY
RIDGE
SECTION 1 AREA 1
PLAT NO. 3593

VILLAGE OF HICKORY
RIDGE
SECTION 1 AREA 1
P.B. 24 P.N.O. 32
C.S. LOTS

CONSERVATION AREA #2
0.25 AFFORESTATION

CONSERVATION AREA #1
0.87 RETENTION

CONSERVATION AREA #3
1.47 AC. TOTAL
1.43 RETENTION
0.04 FOREST PLANTING

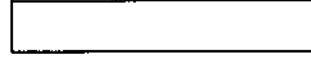
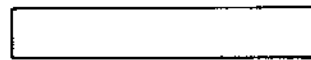
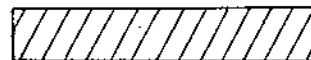
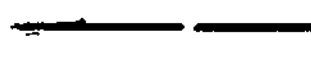




CONSERVATION AREA #4
0.18 AC. RETENTION

CONSERVATION AREA #5
0.84 AC. TOTAL
0.20 AC. OF RETENTION OUTSIDE FLOODPLAIN
0.50 AC. OF RETENTION INSIDE FLOODPLAIN
0.02 AC. OF FOREST PLANTING

0.04 AC. OF RETENTION
NOT IN FOREST CONSERVATION EASEMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 12/13/99
Date
[Signature] 12/9/99
Date
Chief, Division of Land Development
Chief, Development Engineering Division

FOREST CONSERVATION LEGEND

- FOREST RETENTION TO BE IN CONSERVATION EASEMENT 
- FOREST TO BE CLEARED 
- REFORESTATION 
- CONSERVATION EASEMENT 
- EXISTING TREELINE 
- PROPOSED TREELINE 
- CONSERVATION SIGN (LOCATION @ L.O.D. PRIOR TO GRADING) 
- CONSERVATION SIGN (FINAL LOCATION AFTER FOREST PLANTING) 

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 200 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 VA: 301-988-2524 FAX: 301-421-4186

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

FOREST CONSERVATION PLAN
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT NO. 13156

SCALE 1"=40'	ZONING R-20/ NT	G. L. W. REF. NO. 95053
DATE November 1999	TAY MAP - GRID 35 - 18	SHEET 22

DRAWINGS \95053\ASESH11\95053051.DWG DES. DRN. SUG CHK.

DATE	REVISION	BY	APPR.

CLARKSVILLE ELECTRON DISTRICT No. 3

HOWARD COUNTY, MARYLAND

GENERAL NOTES

- This reforestation plan is provided in accordance with the requirements of Subtitle 12 "Forest Conservation" of the Howard County Code. This plan is to be updated at subsequent plan stages (especially to address any off-site reforestation).
- Implementation of this plan must be performed by a contractor that is knowledgeable and experienced in afforestation/reforestation techniques and practices.
- The developer is responsible for a 2-year post-construction maintenance period which involves activities necessary to ensure survival and growth of the conservation area.

Two inspection per year by a qualified professional at beginning and end of the growing season, are recommended in order to take remedial steps as necessary. If, after one year, the possibility exists that the original planting will not meet survival standards, the applicant may choose to establish reinforcement plantings.

If plant mortality of reforestation or reforestation exceeds 10% of planting materials at the end of the first growing season, such material should be replaced to bring the total number of trees to 90% of the original total. Such material shall be installed by the beginning of the second growing season. If at the end of the second growing season, survival rate drops below 75%, such material as needed to guarantee a 75% survival rate by the end of the subsequent year shall be installed.

At the end of the post-construction management and protection period, the designated responsible professional shall convey to the administrator of Howard County Forest Conservation Program Certification that all forest conservation areas have remained intact or have been restored to the appropriate condition, and that the stipulated rates have been achieved, and that any permanent protection measures required by the plan are in place.

- To minimize soil erosion, all reforestation planting areas shall be in a stabilized condition.
- The contractor is responsible for the location of any existing utilities. The repair of any utilities damaged by the contractor shall be at the contractor's expense.

CONSTRUCTION PERIOD PROTECTION PROGRAM

- The limit of forest retention and reforestation shall be staked and flagged. Field adjustments of the edge of surviving forest stand shall be done by the detail labeled "Field Edge Determination".
- A pre-construction meeting at the site should be held to verify the limits of clearing specified. The meeting should include the owner or the owner's representative, the on-site foreman in charge of land disturbance, the environmental consultant and the appropriate Howard County inspectors.
- Forest protection devices and signs (see details) shall be installed prior to any clearing or grading. The protection devices and signs shall be maintained during the entire construction period. None of the devices shall be in any way anchored or attached to the trees to be saved.
- Equipment, vehicles and building materials shall not be allowed within the protected area. Activities strictly to implement any reforestation planting and maintenance (i.e. watering, fertilizing thinning, pruning, removal of dead and diseased trees etc.) of the conservation area are permitted. Clearing for the purpose of sodding or planting grass is not permitted within the forest conservation area.
- At the end of the construction period, the designated qualified professional shall convey to the administrator of the Howard County Forest Conservation Program certification that all forest retention areas have been preserved, all reforestation and/or afforestation plantings (where required) have been installed as required by the forest conservation plan, and that all protection measures required for the post-construction period have been put in place.

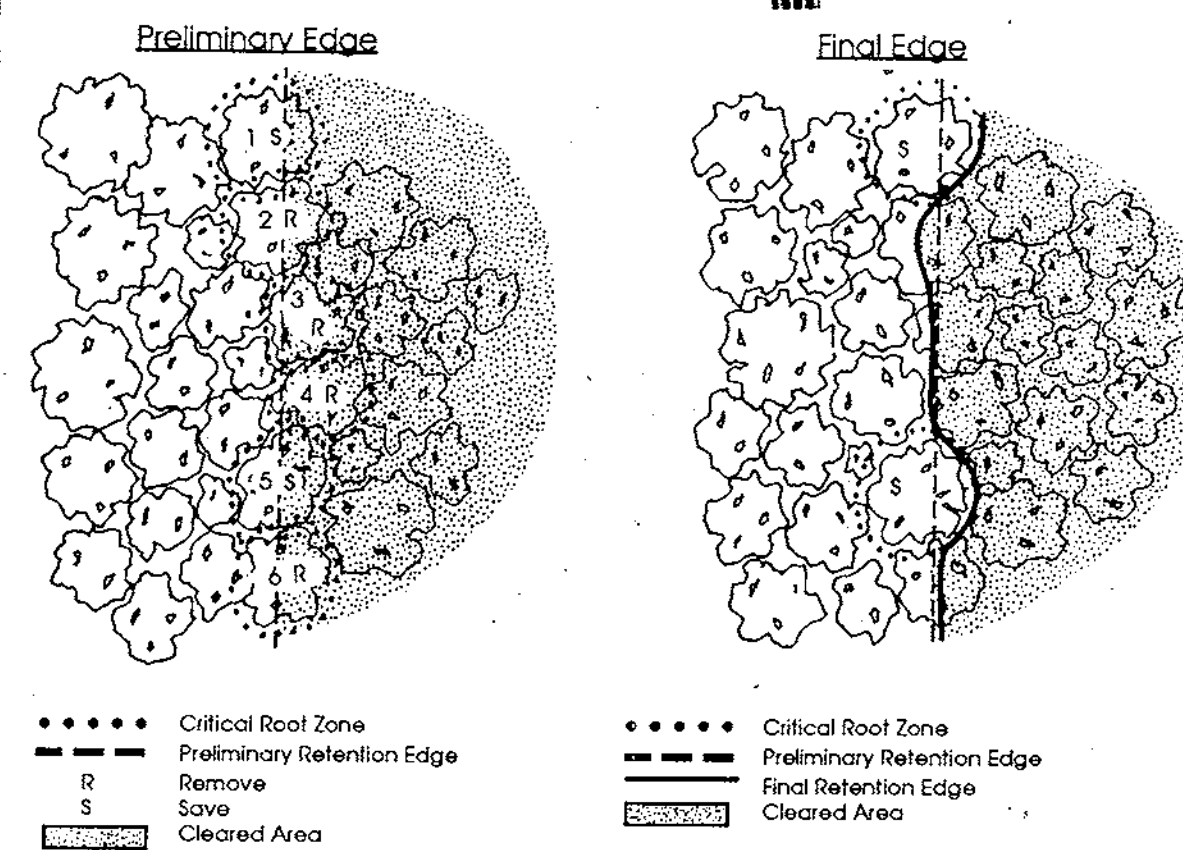
Upon review of the final certification document for completeness and accuracy, the program coordinator will notify the developer of release from all construction period obligations.

PLANT LIST FOR REFORESTATION

NAME (COMMON/BOTANICAL)	SIZE	QUANTITY	COMMENTS
Tulip Poplar/Liriodendron tulipifera	18-24" Seedlings	76	Container
Red Oaks/Quercus rubra	18-24" Seedlings	100	Container
Pin Oak/Quercus palustris	18-24" Seedlings	76	Container

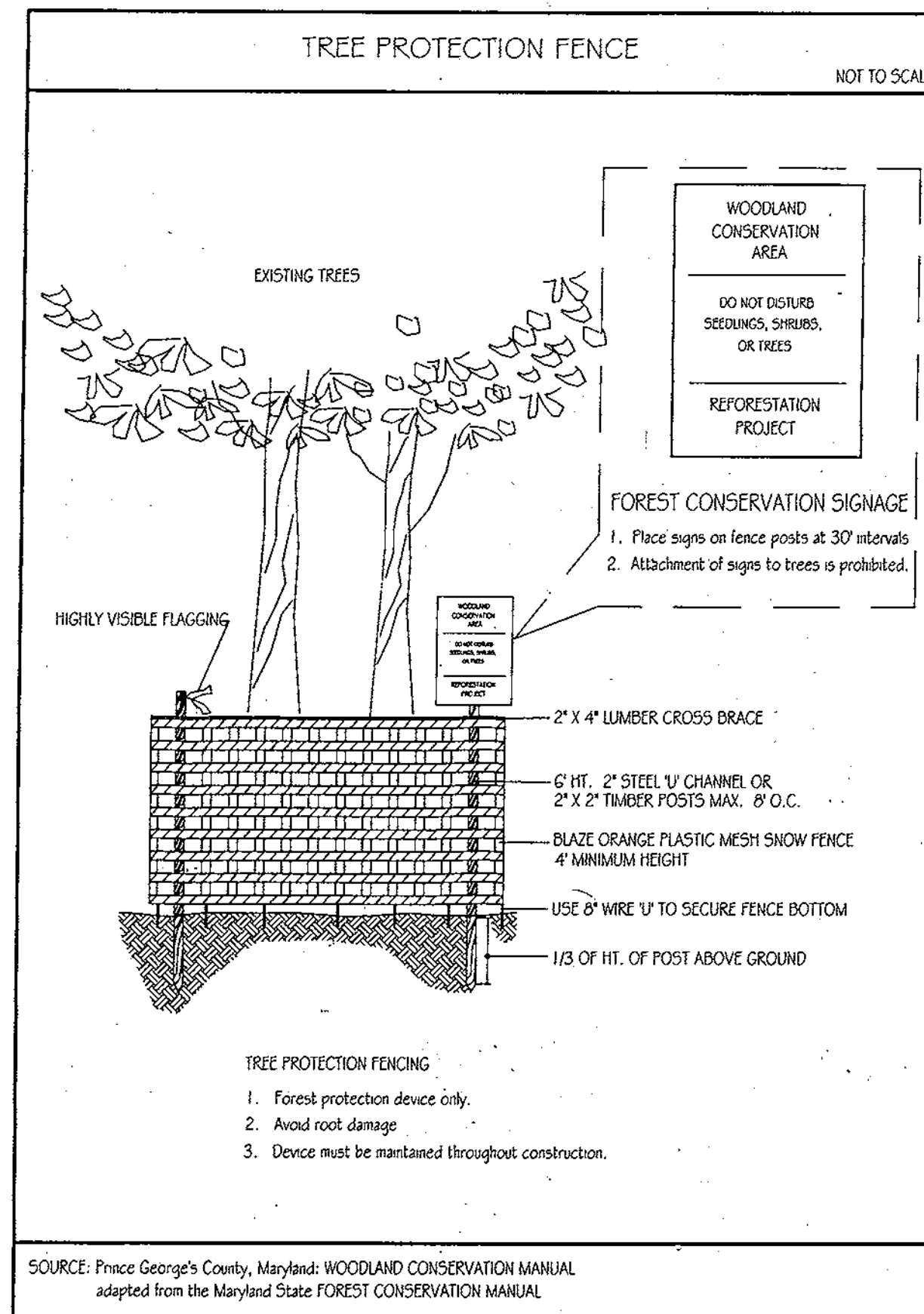
Note: Each shall be evenly distributed. Spacing between plants shall be 8 feet more or less.

Figure 3.4.7 Field Edge Determination



As a result of this process:
NO ACRES LOST FROM BUILDABLE AREA...TWO TREES SAVED

Staking Retention Edges in the field requires tree-by-tree decisions. The above example demonstrates the use of the Critical Root Zone, tree health, and tree species in laying out a final, healthy, retention line.



- TREE PROTECTION FENCING**
- Forest protection device only.
 - Avoid root damage.
 - Device must be maintained throughout construction.

SOURCE: Prince George's County, Maryland: WOODLAND CONSERVATION MANUAL adapted from the Maryland State FOREST CONSERVATION MANUAL

FOREST CONSERVATION WORKSHEET

BASIC SITE DATA

	ACRES (1/10 acre)
GROSS SITE AREA	17.59
AREA WITHIN 100 YEAR FLOODPLAIN	1.11
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	N/A
NET TRACT AREA	16.48
LAND USE CATEGORY:	R-S

INFORMATION FOR CALCULATIONS

A. NET TRACT AREA	16.48
B. REFORESTATION THRESHOLD (20% X A)	3.30
C. AFFORESTATION MINIMUM (15% X A)	2.47
D. EXISTING FOREST ON NET TRACT AREA	9.09
E. FOREST AREAS TO BE CLEARED	6.07
F. FOREST AREAS TO BE RETAINED	3.02

REFORESTATION CALCULATIONS

A. NET TRACT AREA	16.48
B. REFORESTATION THRESHOLD (20% X A)	3.30
D. EXISTING FOREST ON NET TRACT AREA	9.09
E. FOREST AREAS TO BE CLEARED	6.11
F. FOREST AREAS TO BE RETAINED	2.98
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	5.79
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	0.32
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (F-B, Retention Credit, if applicable)	0±

FOR CLEARING BELOW THE THRESHOLD

REFORESTATION FOR CLEARING ABOVE THRESHOLD (G x 25)	1.45
REFORESTATION FOR CLEARING BELOW THRESHOLD (H x 2)	0.64
TOTAL REFORESTATION REQUIRED (G x 1/4) - I	2.09

REQUIRED FOREST CONSERVATION EASEMENT AREA (RETENTION AREA + REFORESTATION AREA)

5.07

PROPOSED METHOD OF SATISFYING FOREST CONSERVATION OBLIGATIONS

RETENTION AREA: ON NET TRACT TO BE IN FC. EASEMENT	2.98 AC.
ON-SITE PLANTING: TO BE IN FC. EASEMENT	0.38 AC.
TOTAL	3.36 AC.

THE BALANCE OF THE FOREST CONSERVATION OBLIGATION (1.7 AC.) SHALL BE MET BY FEE-IN-LIEU PAYMENT.

FEE AMOUNT: *1.7 AC X \$13,068/AC. = \$22,215.00

*: ROUNDED TO NEAREST 1/10 AC.

NARRATIVE JUSTIFICATION

The proposed development shown is a result of a prolonged, highly detailed work effort, involving two Special Exception cases (BA 95-60E and BA 98-20E), the local citizens, Howard County Agencies, the developer and various consultants.

Applying forest conservation to the proposed development layout reveals the following:

- Virtually all of the wooded environmental features (floodplain, wetland, etc.) are retained. In some cases; however, there is minor impact to these features due to:

necessary vehicular crossing (in the vicinity of Units 58 and 59) and gravity utility systems (SD, sanitary sewer) which normally flow through low areas on a site where floodplains and wetlands are also located.

SWM outfalls typically must discharge into lowlands (usually floodplains and/or wetlands) for stabilization purposes as required by HSCD. For a practical and functional pond geometry, minor grading along the fringe of the buffer was necessary.

The two pedestrian bridges in the environmental areas are desired and needed features to serve this elderly community. They complete the pedestrian system by providing access to the shopping center (Hickory Ridge Village Center on Freetown Road) which is in walking distance from all the units. The pedestrian bridges are located at narrow portions of the environmental areas and are to be raised boardwalks to minimize any environmental impact. They also will be used for enjoying the environmental areas.

- For the development's density and layout shown, clearing below the reforestation threshold is unavoidable and mitigation planting will be required. On-site planting is proposed as:

supplemental planting and reforestation of pockets adjacent to the wetland buffer (in the vicinity of Units #20, 45, 60, 53, 58 and 71-75) and along the pedestrian bridge (the intent is to have trees grow up to the edge of the pedestrian path within the environmental areas). Areas (within the floodplains and wetlands) to be cleared for private utilities will be allowed to regenerate; however, these utility corridors will not be in a forest conservation easement since there is a remote chance that access for repairs and maintenance is required.

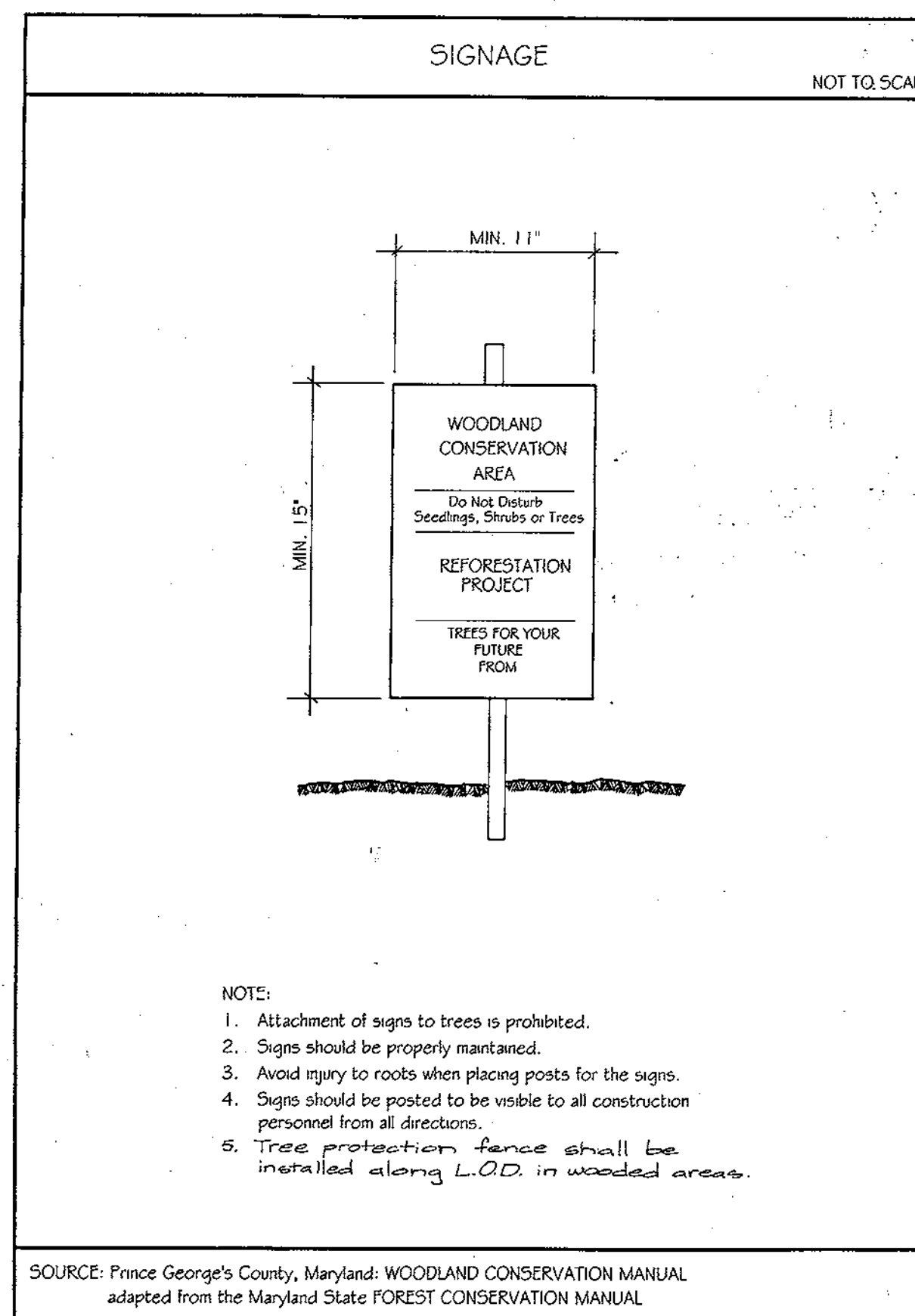
Afforestation of an area large enough (35' and greater plus at least 10,000 sf in areas) behind Units 9-11 and 13. This afforestation area contains an existing 39" oak to be retained.

- Additional on-site planting (and retention) is not possible without affecting the number of units and layout concept approved under BA98-20E. An off-site planting location within the same drainage area as this development has not been secured by the developer; therefore, fee-in-lieu payment is requested for the balance of forest conservation obligation indicated in the worksheet.

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAINS

- No excess fill, construction material, or debris shall be stockpiled or stored in nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- Do not use the excavated material as backfill if it contains waste metal products, unsightly debris, toxic material, or any other deleterious substance. If additional backfill is required, use clean material free of waste metal products, unsightly debris, toxic material, or any other deleterious substance.
- Place heavy equipment on mats or suitably operate the equipment to prevent damage to nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- Repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands, nontidal wetland buffers, or waterways, or permanent modification of the 100-year floodplain in excess of that lost under the originally authorized structure or fill.
- Rectify any nontidal wetlands, wetland buffers, waterways, or 100-year floodplain temporarily impacted by any construction.
- All stabilization in the nontidal wetland and nontidal wetland buffer shall consist of the following species: Annual Ryegrass (*Lolium multiflorum*), Millet (*Setaria italica*), Barley (*Hordeum* sp.), Oats (*Avena* sp.), and/or Rye (*Secale cereale*). These species will allow for the stabilization of the site while also allowing for the voluntary revegetation of natural wetland species. Other non-persistent vegetation may be acceptable, but must be approved by the Nontidal Wetlands and Waterways Division. Kentucky 31 fescue shall not be utilized in wetland or buffer areas. The area should be seeded and mulched to reduce erosion after construction activities have been completed.
- After installation has been completed, make post-construction grades and elevations the same as the original grades and elevations in temporarily impacted areas.
- To protect aquatic species, in-stream work is prohibited as determined by the classification of the stream:

Use 1 waters: In-stream work shall not be conducted during the period March 1 through June 15, inclusive, during any year.
- Stormwater runoff from impervious surfaces shall be controlled to prevent the washing of debris into the waterway.
- Culverts shall be constructed and any riprap placed so as not to obstruct the movement of aquatic species, unless the purpose of the activity is to impound water.



- NOTE:**
- Attachment of signs to trees is prohibited.
 - Signs should be properly maintained.
 - Avoid injury to roots when placing posts for the signs.
 - Signs should be posted to be visible to all construction personnel from all directions.
 - Tree protection fence shall be installed along L.O.D. in wooded areas.

SOURCE: Prince George's County, Maryland: WOODLAND CONSERVATION MANUAL adapted from the Maryland State FOREST CONSERVATION MANUAL

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signatures]
Date: 12/17/99
Date: 12/19/99
Date: 1/16/00

GLW GUTSCHICK LITTLE & WEBER, PA.

CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD. 20866

TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

FOREST CONSERVATION NOTES & TABULATIONS

HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35 - 18	29

HOWARD COUNTY, MARYLAND

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARD AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 MISS UTILITY 1-800-257-7777
 C & P TELEPHONE COMPANY 725-9978
 HOWARD COUNTY BUREAU OF UTILITIES 331-4900
 A T & T CABLE LOCATION DIVISION 393-3553
 BALTIMORE GAS & ELECTRIC COMPANY 685-0123
 STATE HIGHWAY ADMINISTRATION 531-5533
- THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
- THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 313-1880.
- PROJECT BACKGROUND:
 LOCATION: TAX MAP #35, GRID 10, Lots 1-2 (Parcel 459), as renumbered, of Lots 2-4 (Parcel 2-4) and Parcel 199.
 ZONING: R-20
 ELECTION DISTRICT: 5TH
 SITE AREA: 17,796.4 AC.
 REC. REF.: PLAT NO. 13156
- 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.
- ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIALY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
- EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM AERIAL PHOTOGRAPHY BY P.D.S. IN 4/97 AND FROM FIELD SURVEYS BY GUTSCHICK, LITTLE & WEBER, PA.
- COORDINATES ARE BASED ON NAD 27 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STA. NOS. 3505 AND 0025
- PUBLIC WATER AND SEWER IS TO BE UTILIZED. CONTRACT NOS 2556-B, C- 435 W, AND 44 - 1533
- STORMWATER MANAGEMENT IS BEING PROVIDED ON SITE UNDER THIS SUBMISSION. QUANTITY AND QUALITY MANAGEMENT WILL BE PROVIDED BY DETENTION WITH PROMPT REMOVAL. THE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
- ALL STORM DRAINS PROPOSED UNDER THIS SDP ARE PRIVATE.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM BEST AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF CONSTRUCTION.
- ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A (5'X5') FIVE FOOT BY FIVE FOOT LEVEL (2% MAX.) LANDING AT THE TOP AND BOTTOM OF ALL RAMPS.
- ALL DRIVEWAYS AND PARKING TO BE PRIVATELY OWNED AND MAINTAINED.
- ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01. CLASS "C" BEDDING, UNLESS OTHERWISE NOTED.
- GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS FOR ASPHALT PAVING.
- WATER METERS ARE LOCATED INSIDE EACH UNIT FOR A COMBINATION OF DOMESTIC AND FIRE SERVICES. EACH UNIT IS EQUIPPED WITH AN AUTOMATIC FIRE PREVENTION SPRINKLER SYSTEM.
- ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. CURB SPOT ELEVATIONS ARE AT THE FLOW LINE, UNLESS NOTED OTHERWISE.
- THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE.
- ALL DOWNSPOUT DRAINS SHALL BE HANDLED BY ONE OF THESE METHODS:
 A. DOWNSPOUT TO SPLASH AND DISCHARGE ONTO GROUND HAVING GOOD PERCOLATION.
 B. DOWNSPOUT IN FRONT OF UNITS PIPED TO CURB.
 C. DOWNSPOUT CONNECTED TO STORM DRAIN.
- WETLAND DELINEATION WAS PERFORMED BY EXPLORATION RESEARCH, AND VERIFIED BY ARMY CORPS OF ENGINEERS. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLAND BUFFER EXCEPT AREAS PERMITTED FOR DISTURBANCE BY THE DEPARTMENT OF NATURAL RESOURCES AND THE HCDPZ.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
- ALL WATER HOUSE CONNECTIONS SHALL BE BUILT WITH 48" OF MIN. COVER TO PROPOSED GRADES.
- ALL OUTDOOR LIGHTING SHALL COMPLY WITH ZONING SECTION 134.
- OTHER HOWARD COUNTY FILES RELATED TO THIS SITE:
 BA - 95-80 E, BA-98-20E, S-97-09, WP 98-20 (WHICH ON 8/28/97 ALLOWED PREPARATION OF A MASS GRADING PLAN FOR A GRADING PERMIT), F 98 - 26 AND FDP - 205-A-1, Part 1, and WP99-101 (see note #30).
- FOREST CONSERVATION FOR THIS SITE IS PROVIDED BY:
 A. ON-SITE RETENTION ON NET TRACT OF 2.70 AC. (SURETY #13,06600)
 B. ON-SITE FOREST PLANTING OF 0.70 AC. (SURETY #8,22720)
 C. FEE-IN-LIEU IN THE AMOUNT OF \$22,213.00 (17 acres).
 SURETY & FEE-IN-LIEU AMOUNT ARE BASED ON AREA ROUNDED TO 1/10 AC.
 See sheet 2 for conditions of BA 98-20E.

Site Analysis Data Chart

- General Site Data:
 a. Zoning: R-20
 b. Proposed use: Single Family Attached units + 1 community center
 c. Building Coverage = 10.2% (19,296 sq ft) open space = 77.8% (13,500 sq ft)
- Density:
 a. 88 units allowed under BA 98-20E at a rate of 2 units per acre (17,796 / 200)
 b. 88 units proposed
- Area Tabulation: R-20 Area = 17,729.7 AC.
 NT Area = 0.022 AC.
 Total = 17,751.9 AC.
- Parking:
 a. Parking required: 25 spaces at a rate of 2 spaces for every Sunit (88/4) x 2 = 44 spaces
 b. Parking provided:
 59 - 2 car garages = 118 spaces
 25 - 1 car garages = 25 spaces
 1 space in front of each 1 car garage = 25 spaces
 7 spaces @ Comm. Center (2 H.C. - van) = 14 spaces
 Total = 182 spaces

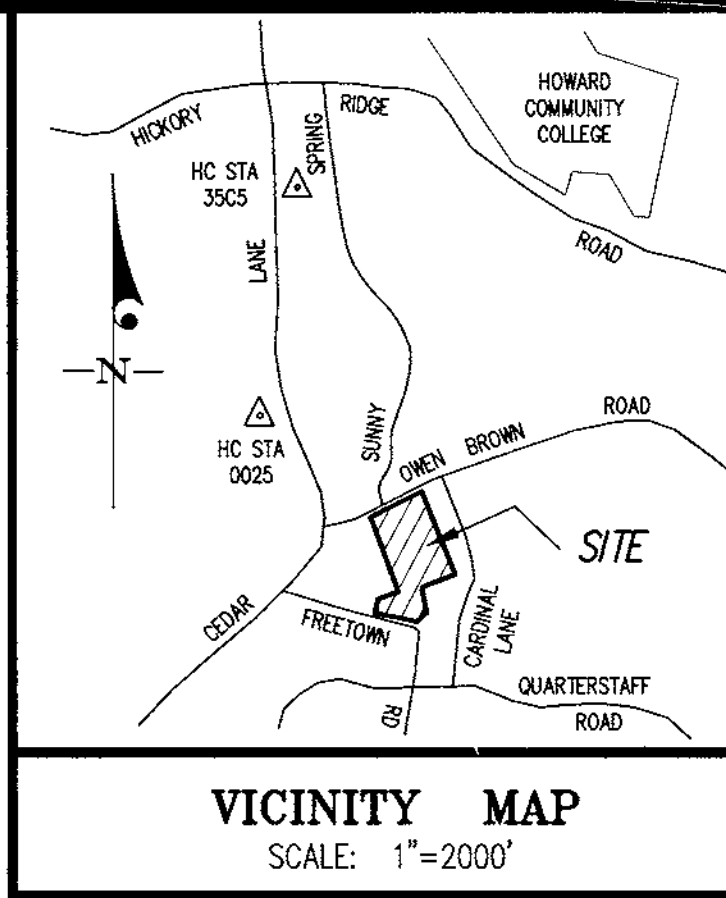
SITE DEVELOPMENT PLAN

HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2

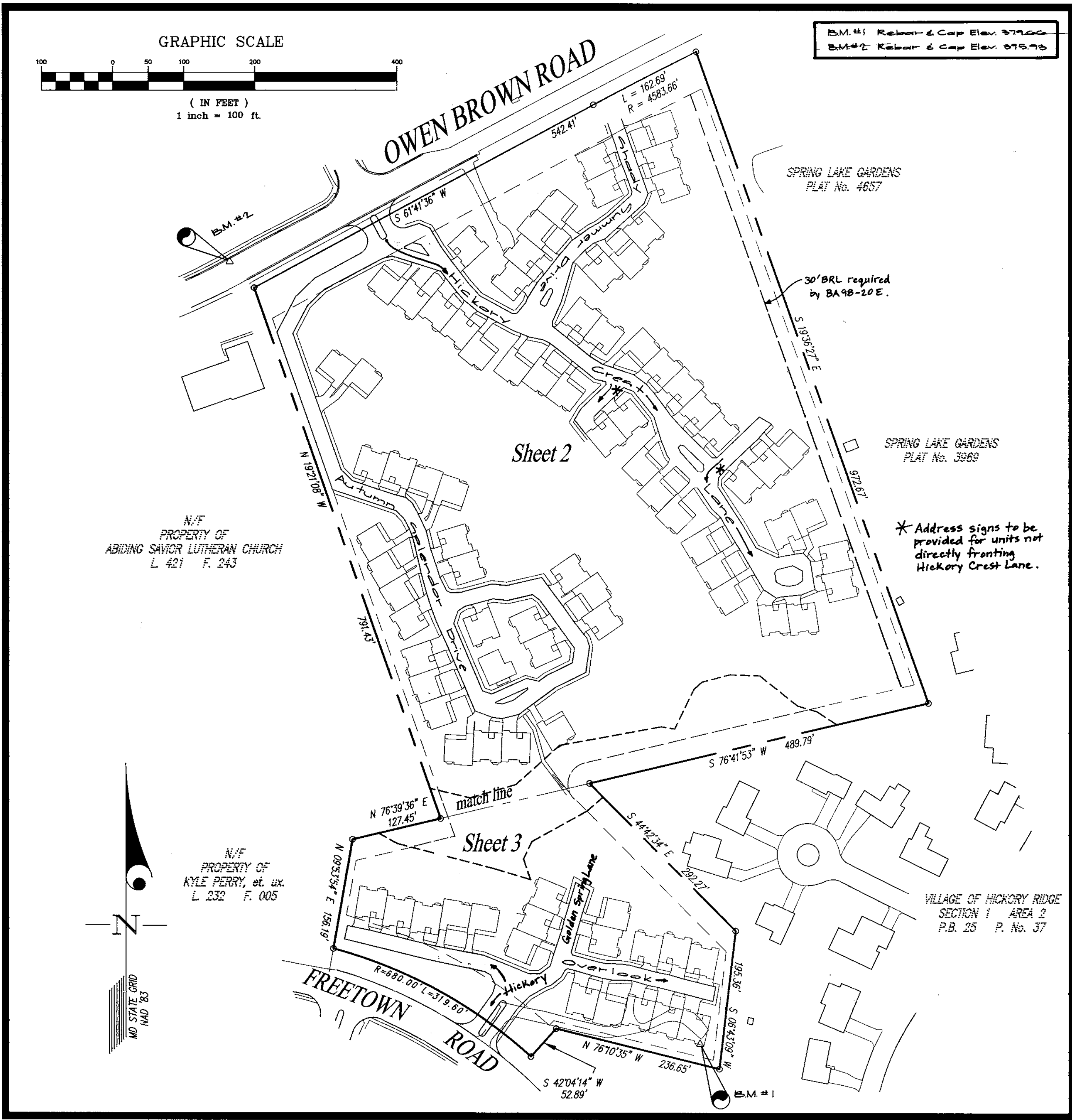
FIFTH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



GENERAL NOTES (cont.)

30. WP-99-101, was approved on 5/28/99, and waived Section 16.115.C.2 to allow work to be done in the floodplain; Section 16.115.a.2 to allow disturbance in the 25' wetland buffer; and Section 16.116.g.2.1 to allow disturbance to the 50' stream buffer. Approval is subject to five conditions of approval, as specified in the application file.



Unit #	Address	FF (ft) elev.	AS (ft) elev.	MS (ft) elev.	Min. elev.	Max. elev.
1	10216 Shady Summer Drive	302.09	X			X
2	10214	301.60	X			X
3	10212	302.27	X			X
4	10213	302.19	312.47			X
5	10211	301.19	312.47			X
6	10208	302.52	X			X
7	10206	301.85	X			X
8	10204	302.52	X			X
9	10203	302.07	312.45			X
10	10202	302.04	312.12			X
11	10201	302.04	312.12			X
12	10201	302.04	312.12			X
13	10605 Hickory Crest Lane	312.77	301.65			X
14	10615	300.22	311.70			X
15	10617	317.47	310.57			X
16	10621	317.47	302.57			X
17	10623	319.09	304.79			X
18	10625	314.29	302.41			X
19	10627	319.79	302.57			X
20	10629	312.79	302.07			X
21	10633	319.09	302.07			X
22	10635	319.47	304.37			X
23	10637	319.47	302.57			X
24	10641	317.47	302.57			X
25	10643	318.90	302.50			X
26	10647	319.10	302.50			X
27	10649	312.10	X			X
28	10644	314.00	X			X
29	10644	312.70	X			X
30	10640	312.51	X			X
31	10638	312.51	X			X
32	10636	312.57	X			X
33	10634	312.57	302.57			X
34	10630	312.42	302.50			X
35	10628	312.42	302.50			X
36	10622	312.14	302.22			X
37	10624	312.14	302.22			X
38	10618	312.14	310.22			X
39	10616	302.14	312.22			X
40	10614	302.14	312.22			X
41	10610	302.37	311.45			X
42	10608	302.70	310.70			X
43	10606	302.70	302.70			X
44	10604	311.70	302.70			X
45	10602	312.37	302.45			X
46	10602	312.45	X			X
47	10758 Autumn Splendor Drive	312.81	X			X
48	10756	312.40	X			X
49	10755	312.75	302.09			X
50	10757	312.42	302.50			X
51	10745	312.10	302.00			X
52	10745	302.10	302.00			X
53	10745	302.10	302.00			X
54	10745	302.10	302.00			X
55	10745	302.10	302.00			X
56	10745	302.10	302.00			X
57	10745	302.10	302.00			X
58	10745	302.10	302.00			X
59	10745	302.10	302.00			X
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67	10745	302.10	302.00			X
68	10745	302.10	302.00			X
69	10745	302.10	302.00			X
70	10744	312.75	X			X
71	10744	312.75	X			X
72	10744	312.75	X			X
73	10744	312.75	X			X
74	10744	312.75	X			X
75	10744	312.75	X			X
76	10744	312.75	X			X
77	10744	312.75	X			X
78	10744	312.75	X			X
79	10744	312.75	X			X
80	10744	312.75	X			X
81	10744	312.75	X			X
82	10744	312.75	X			X
83	10744	312.75	X			X
84	10744	312.75	X			X
85	10744	312.75	X			X
86	10744	312.75	X			X
87	10744	312.75	X			X
88	10744	312.75	X			X
89	10744	312.75	X			X
90	10744	312.75	X			X
91	10744	312.75	X			X
92	10744	312.75	X			X
93	10744	312.75	X			X
94	10744	312.75	X			X
95	10744	312.75	X			X
96	10744	312.75	X			X
97	10744	312.75	X			X
98	10744	312.75	X			X
99	10744	312.75	X			X
100	10744	312.75	X			X

Curbside trash collection shall be provided by a private contractor and is not the responsibility of Howard County.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] Date: 12/13/99
 Chief, Division of Land Development: [Signature] Date: 12/19/99
 Chief, Development Engineering Division: [Signature] Date: 11/26/97



Sheet Index		Sheet Index		Sheet Index		Sheet Index	
1. Cover Sheet	5. Sediment Control Plan	9. S.W.M. Details	13. Forest Conservation Plan	17. Landscape Edge Analysis	21. Forest Conservation Plan		
2. Site Development Plan	6. Drainage Area Map	10. S.W.M. Notes	22. Forest Conservation Notes	18. Sediment Control Notes/Details	22a. 30 Scale Supplemental Site Plan		
3. Site Development Plan	7. Road Grades	11. Landscape Edge Analysis		19. Wooden Walkway Details			
4. Utility Plan	8. Storm Drain Profiles	12. Storm Drain Profiles		20. Forest Stand Delineation			
5. Landscape Plan	9. Sewer Profiles	13. S.W.M. Details					
6. Landscape Plan							
7. Sediment Control Plan							

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3908 NATIONAL DRIVE - SUITE 250 - BURTONTVILLE OFFICE PARK
 BURTONTVILLE, MARYLAND 20986
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT NO. 13156

WATER CODE: E-20	SEWER CODE: 9724900	SECTION/AREA: K-20/NT	LOTS: 1 and 2
PLAT: 13156	ZONE: R-20/NT	TAX MAP: 35	BLOCK: 1b
SCALE: AS SHOWN	ZONING: K-20/NT	TAX MAP - GRID: 35-18	G. L. W. FILE NO.: 95053
DATE: November, 1999			SHEET: 1 of 23

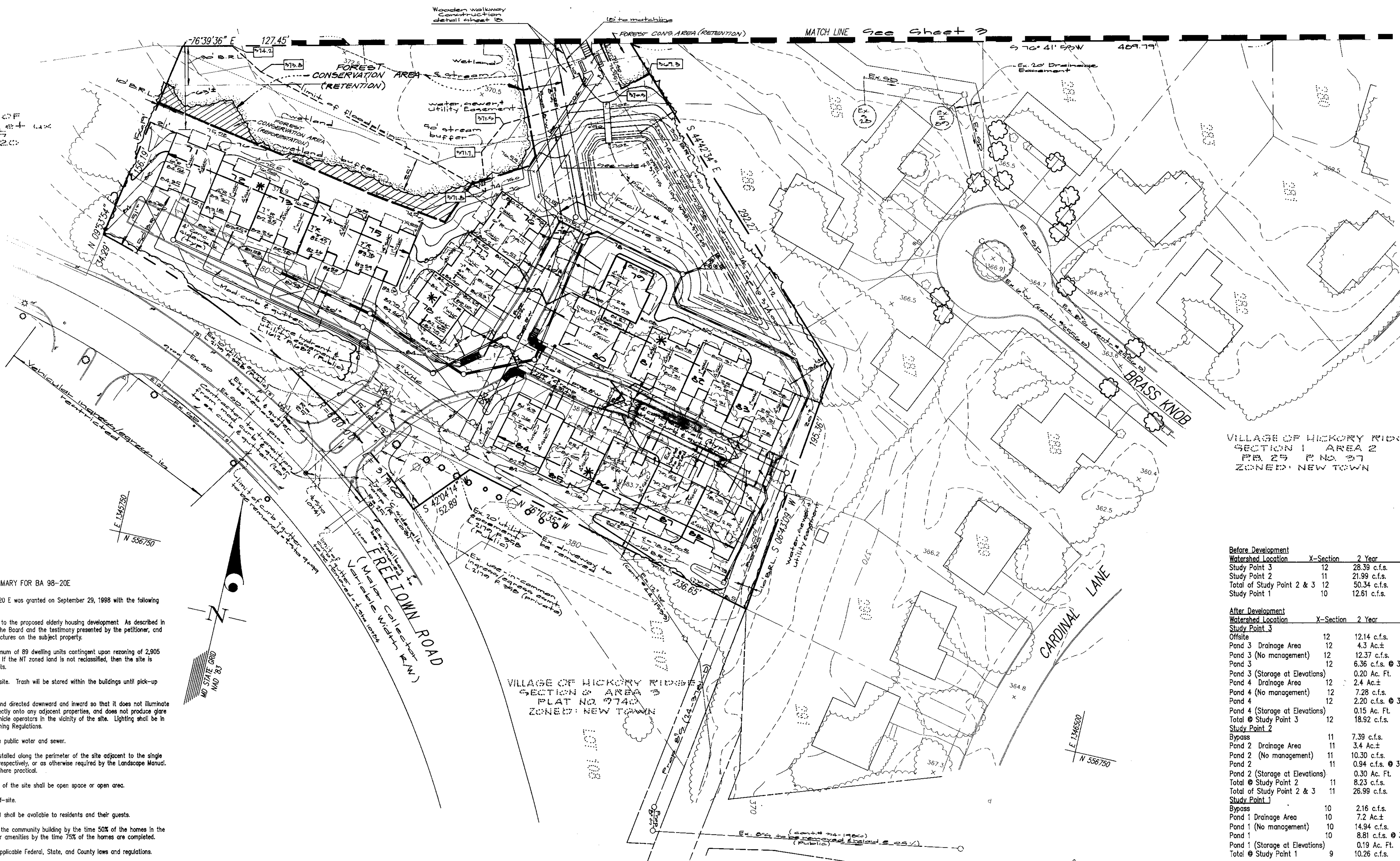
DES.	DRN.	CHK.	DATE: 12/4/00	REVISION: add sheet 2a to sheet index, rev. address chart for continuity	BY: JAW/UCF	APPR.
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CLARKSVILLE ELECTION DISTRICT No. 5

HOWARD COUNTY, MARYLAND

* See sheet 2a for updated architectural information and fine grading around units. All other information on this sheet is still applicable.

PROPERTY OF
KYLE PERRY & LAW
L 292 P 4
ZONED: R-20



VILLAGE OF HICKORY RIDGE
SECTION 1 AREA 2
PA 25 P NO 97
ZONED: NEW TOWN

SUMMARY FOR BA 98-20E

The Board of Appeals Case BA 98-20 E was granted on September 29, 1998 with the following conditions:

- The Special Exception shall apply only to the proposed elderly housing development. As described in the petition and the plan submitted to the Board and the testimony presented by the petitioner, and not to any other activities, uses, or structures on the subject property.
- The development is limited to a maximum of 89 dwelling units contingent upon rezoning of 2,905 square feet of NT zoned land to R-20. If the NT zoned land is not reclassified, then the site is limited to a maximum of 89 dwelling units.
- No dumpsters will be located on the site. Trash will be stored within the buildings until pick-up days.
- Any exterior lighting will be shielded and directed downward and inward so that it does not illuminate residential properties, does not shine directly onto any adjacent properties, and does not produce glare that would cause a hazard for motor vehicle operators in the vicinity of the site. Lighting shall be in conformance with Section 134 of the Zoning Regulations.
- The development shall be served with public water and sewer.
- Landscape edges C and A shall be installed along the perimeter of the site adjacent to the single family houses and the church property, respectively; or as otherwise required by the Landscape Manual. Existing vegetation shall be maintained where practical.
- A minimum of 50% of the gross area of the site shall be open space or open area.
- No perceptible odors may emanate off-site.
- The dining area and convenience retail shall be available to residents and their guests.
- The Petitioner proposes to complete the community building by the time 50% of the homes in the development are completed, and all other amenities by the time 75% of the homes are completed.
- The Petitioner shall comply with all applicable Federal, State, and County laws and regulations.

Before Development				
Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3	12	28.39 c.f.s.	67.45 c.f.s.	132.28 c.f.s.
Study Point 2	11	21.99 c.f.s.	43.46 c.f.s.	67.65 c.f.s.
Total of Study Point 2 & 3	12	50.34 c.f.s.	110.81 c.f.s.	199.93 c.f.s.
Study Point 1	10	12.61 c.f.s.	30.37 c.f.s.	51.95 c.f.s.

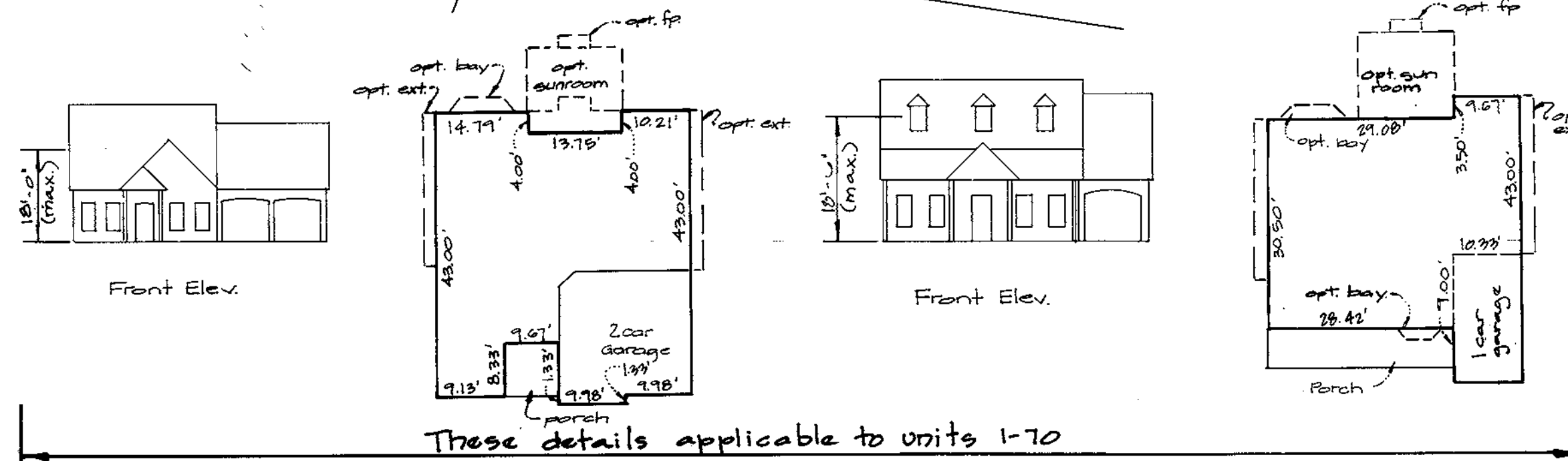
After Development				
Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3				
Offsite	12	12.14 c.f.s.	39.12 c.f.s.	93.40 c.f.s.
Pond 3 Drainage Area	12	4.3 Ac.±		
Pond 3 (No management)	12	19.37 c.f.s.	21.28 c.f.s.	31.00 c.f.s.
Pond 3	12	6.36 c.f.s. @ 367.58	15.24 c.f.s. @ 368.39	24.62 c.f.s. @ 368.87
Pond 3 (Storage at Elevations)	12	0.20 Ac. Ft.	0.33 Ac. Ft.	0.42 Ac. Ft.
Pond 4 Drainage Area	12	2.4 Ac.±		
Pond 4 (No management)	12	7.28 c.f.s.	13.02 c.f.s.	19.30 c.f.s.
Pond 4	12	2.20 c.f.s. @ 371.75	5.05 c.f.s. @ 372.45	11.11 c.f.s. @ 372.98
Pond 4 (Storage at Elevations)	12	0.15 Ac. Ft.	0.26 Ac. Ft.	0.35 Ac. Ft.
Total @ Study Point 3	12	18.92 c.f.s.	52.38 c.f.s.	124.95 c.f.s.
Study Point 2				
Bypass	11	7.39 c.f.s.	15.51 c.f.s.	24.86 c.f.s.
Pond 2 Drainage Area	11	3.4 Ac.±		
Pond 2 (No management)	11	10.30 c.f.s.	18.17 c.f.s.	26.78 c.f.s.
Pond 2	11	0.94 c.f.s. @ 365.48	4.89 c.f.s. @ 366.11	11.29 c.f.s. @ 366.63
Pond 2 (Storage at Elevations)	11	0.30 Ac. Ft.	0.48 Ac. Ft.	0.67 Ac. Ft.
Total @ Study Point 2	11	8.23 c.f.s.	18.09 c.f.s.	33.24 c.f.s.
Total of Study Point 2 & 3	11	26.99 c.f.s.	70.35 c.f.s.	157.84 c.f.s.
Study Point 1				
Bypass	10	2.16 c.f.s.	5 c.f.s.	8.27 c.f.s.
Pond 1 Drainage Area	10	7.2 Ac.±		
Pond 1 (No management)	10	14.94 c.f.s.	30.31 c.f.s.	47.79 c.f.s.
Pond 1	10	8.81 c.f.s. @ 375.49	21.39 c.f.s. @ 376.41	37.67 c.f.s. @ 377.00
Pond 1 (Storage at Elevations)	10	0.19 Ac. Ft.	0.36 Ac. Ft.	0.51 Ac. Ft.
Total @ Study Point 1	9	10.26 c.f.s.	24.91 c.f.s.	44.05 c.f.s.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *Howard W. Smith* Date: 12/13/99

Chief, Division of Land Development: *Cindy Hamilton* Date: 12/9/99

Chief, Development Engineering Division: *[Signature]* Date: 11/19/99

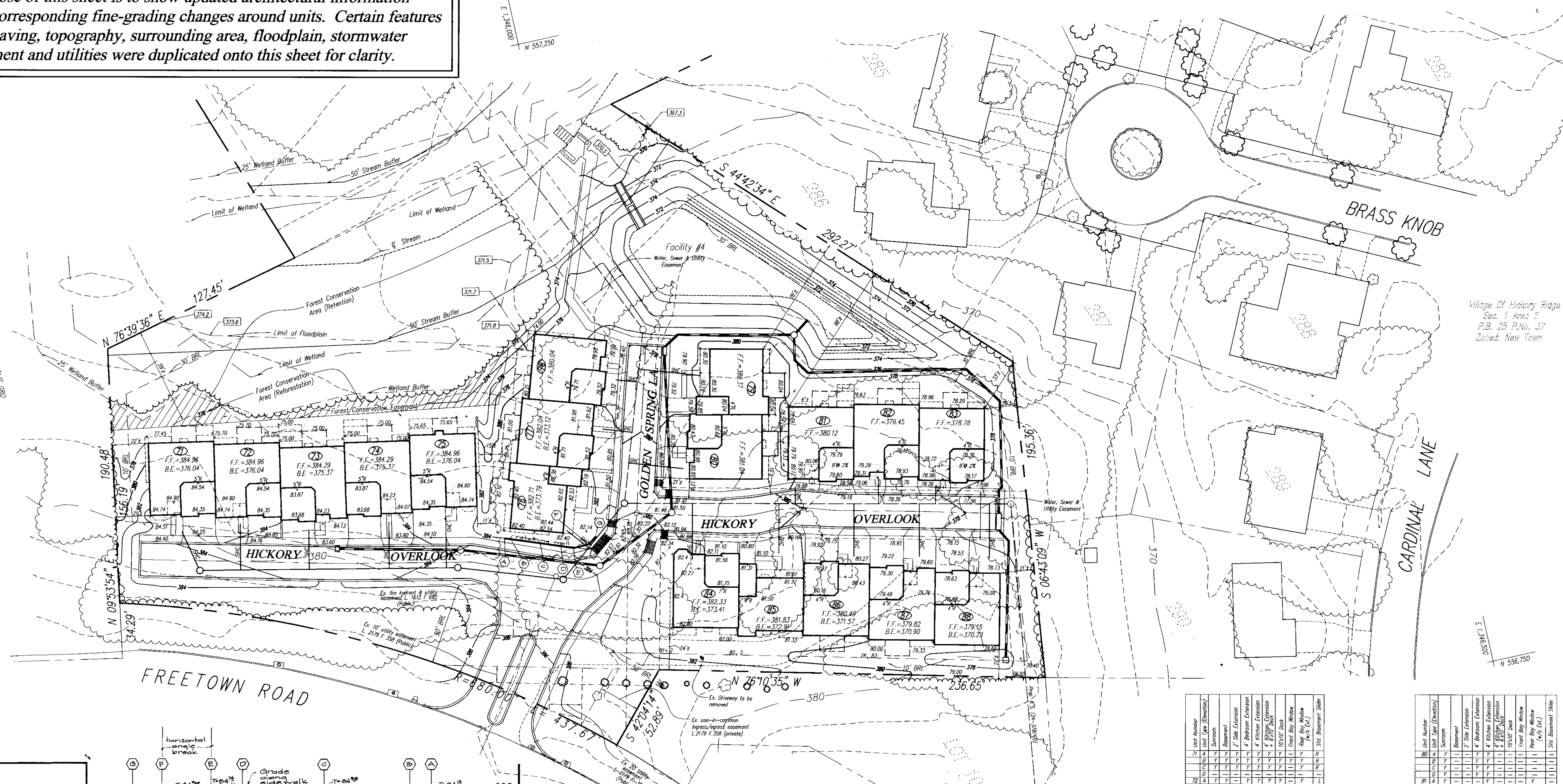
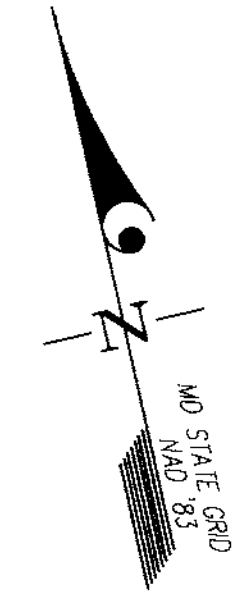


These details applicable to units 1-70

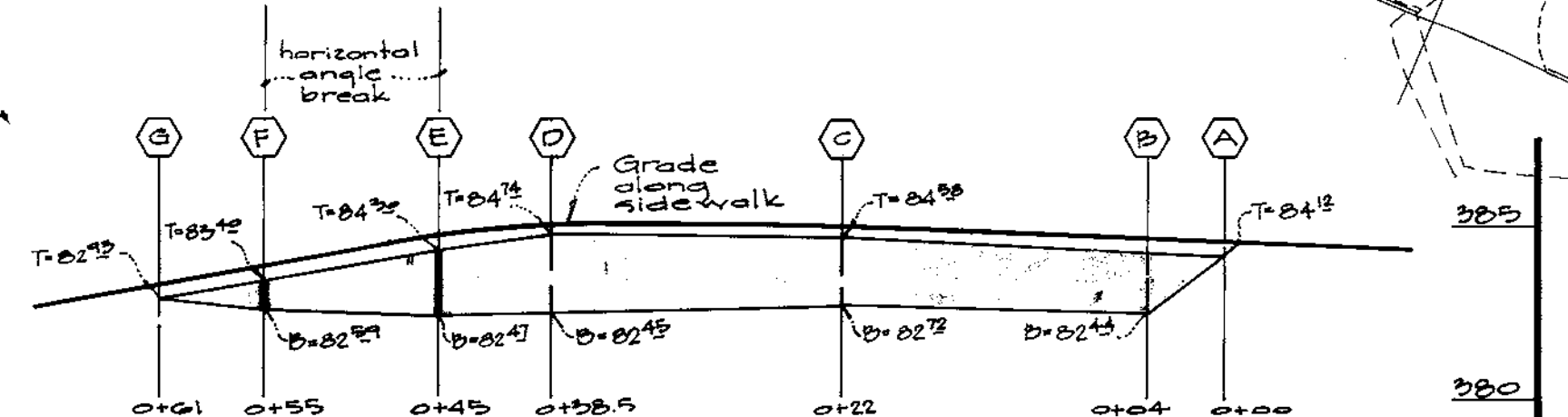
- For additional information regarding existing & proposed utilities, see sheets 4 & 11-13
- For additional information regarding stormwater management, see sheets 4 & 14-16.
- Contractor to end macadam path & begin concrete sidewalk.
- Contractor to end 4' wide macadam path and begin wooden walkway.
- All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the Homeowner's Association. Quantity management is provided for the 2, 10 and 100 year storm by detention. All proposed facilities have a class 'A' hazard level. Quality management is provided using stormceptors.

GLW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3809 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BALT: 410-886-1820 DC/VA: 301-989-2524 FAX: 301-421-4186	PREPARED FOR: ORCHARD DEVELOPMENT CORPORATION 3979 OLD COLUMBIA PIKE ELLICOTT CITY, MARYLAND 21043 (410) 750-1800	Site Development Plan HICKORY RIDGE ELDERLY CENTER LOTS 1 AND 2 PLAT No. 13156	SCALE 1"=40' DATE November, 1999	ZONING R-20/ NT TAX MAP - GRID 35 - 18	G. L. W. FILE No. 95053 SHEET 2 of 23
	12/14/00 Notations added to reference 2a, remove sunroom from unit 80 DES. DRN. SAC CHK. DATE REVISION BY APPR.	CLARKSVILLE ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND	SDP99-68		

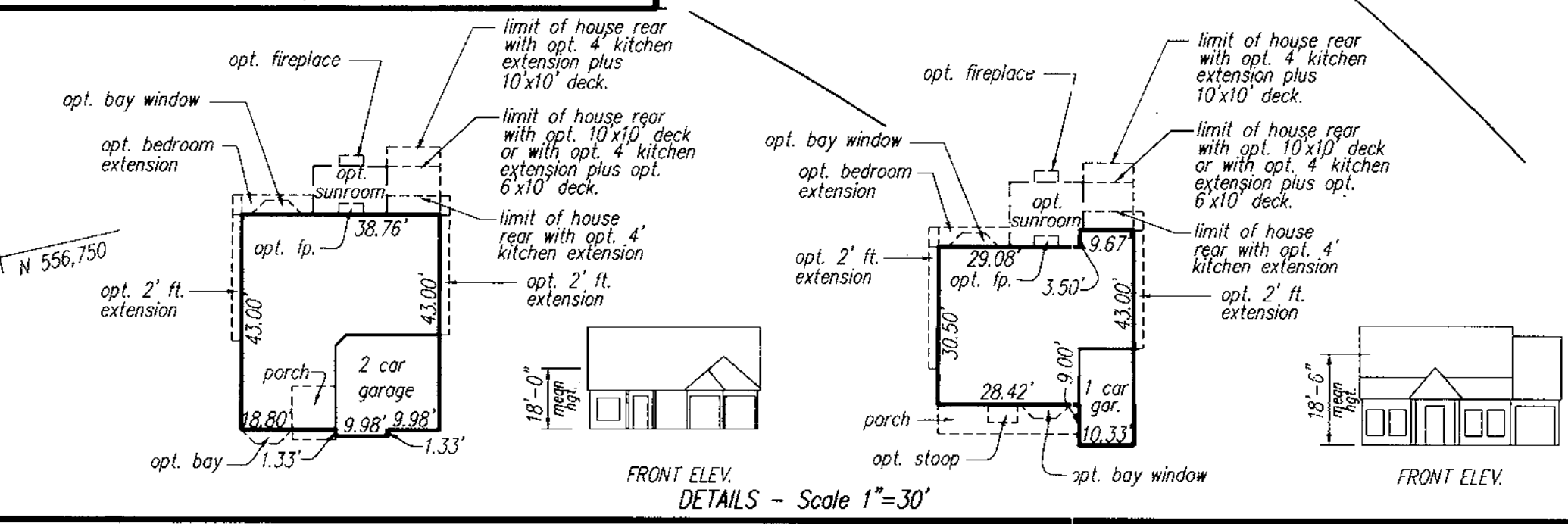
The purpose of this sheet is to show updated architectural information and the corresponding fine-grading changes around units. Certain features such as paving, topography, surrounding area, floodplain, stormwater management and utilities were duplicated onto this sheet for clarity.



Village Of Hickory Ridge
 Sec. 1 Area 2
 P.B. 25 P.A. 37
 Zoned: New Town



Retaining Wall Detail - Lot 78
 scale: 1"=5' Vert.
 1"=50' Horiz.



FRONT ELEV. DETAILS - Scale 1"=30'

Unit Number	Unit Type (Extension)	Basement	2' Side Extension	4' Backyard Extension	4' Kitchen Extension	4' Porch Extension	10x10 Deck	Front Bay Window	Rear Bay Window	1 1/2' St. Basement	Slide
71	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
71	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
71	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
71	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
72	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
72	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
72	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
72	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
73	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
73	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
73	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
73	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
74	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
74	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
74	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
74	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
75	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
75	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
75	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
75	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
76	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
76	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
76	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
76	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
77	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
77	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
77	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
77	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
78	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
78	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
78	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
78	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
79	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
79	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
79	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
79	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
80	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
80	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
80	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
80	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Unit Number	Unit Type (Extension)	Basement	2' Side Extension	4' Backyard Extension	4' Kitchen Extension	4' Porch Extension	10x10 Deck	Front Bay Window	Rear Bay Window	1 1/2' St. Basement	Slide
80	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
80	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
80	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
80	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
81	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
81	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
81	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
81	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
82	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
82	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
82	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
82	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
83	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
83	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
83	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
83	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
84	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
84	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
84	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
84	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
85	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
85	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
85	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
85	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
86	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
86	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
86	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
86	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
87	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
87	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
87	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
87	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
88	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
88	B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
88	C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
88	D	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

*Left and/or Right established by front of buildings.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *[Signature]* Date: 12/20/00
 Chief, Division of Development: *[Signature]* Date: 12/18/00
 Chief, Development Engineering Division: *[Signature]* Date: 12/15/00

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

NO.	DATE	REVISION	BY	APPR.
510-01	12/04/00	Add retaining wall and detail for lot 78	MCF	
		Supplemental sheet added to assist in permitting	JAW	

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

REVISED SITE DEVELOPMENT PLAN
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT NO. 13156

SCALE	ZONING	G. L. W. FILE NO.
1"=30'	R-20/NT	95053
DATE	TAX MAP - GRID	SHEET
8/9/00	35-18	2a

DRAWINGS: 95053.DESIGN\COUNTY\95532a.DWG DES. DRN. CHK.

CLARKVILLE ELECTION DISTRICT NO. 5

HOWARD COUNTY, MARYLAND

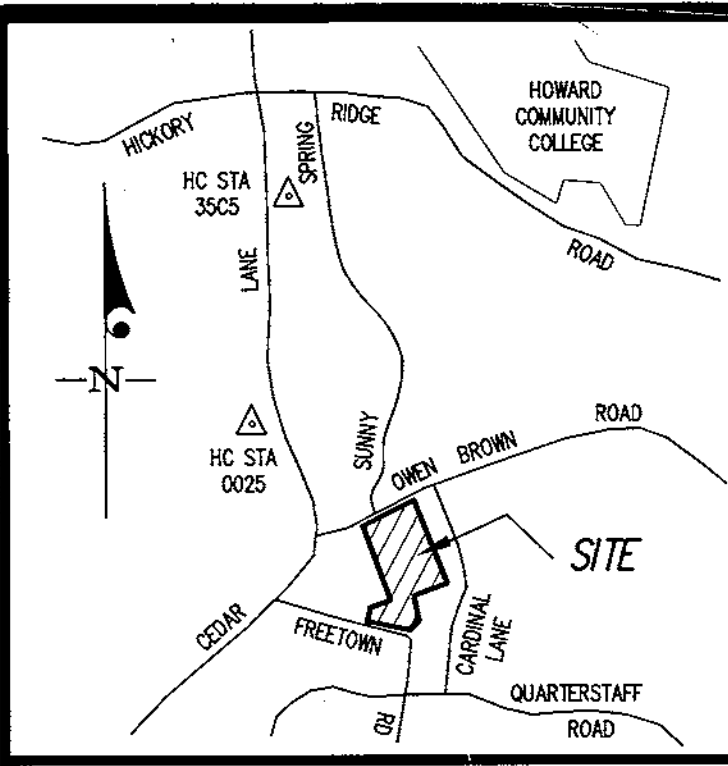
GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARD AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 MISS UTILITY 1-800-257-7777
 C & P TELEPHONE COMPANY 725-9976
 HOWARD COUNTY BUREAU OF UTILITIES 331-4900
 A T & T CABLE LOCATION DIVISION 393-3553
 BALTIMORE GAS & ELECTRIC COMPANY 685-0123
 STATE HIGHWAY ADMINISTRATION 531-5533
- THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
- THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 313-1880.
- PROJECT BACKGROUND:
 LOCATION: TAX MAP #35, GRID 10, Lots 1-2 (Parcel 497),
 a reconfiguration of Lots 2-4 (Parcel 207) and Parcel 193.
 ZONING: R-20
 ELECTION DISTRICT: 5TH
 SITE AREA: 17.7964 AC.
 REC. REF.: PLAT NO. 13156
- 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.
- ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIALY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
- EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM AERIAL PHOTOGRAPHY BY P.D.S. IN 4/97 AND FROM FIELD SURVEYS BY GUTSCHICK, LITTLE & WEBER, P.A.
- COORDINATES ARE BASED ON NAD 27 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STA. NOS. 3505 AND 0025
- PUBLIC WATER AND SEWER IS TO BE UTILIZED. CONTRACT NOS 2556-B, C- 435 W, AND 44 - 1533
- STORMWATER MANAGEMENT IS BEING PROVIDED ON SITE UNDER THIS SUBMISSION. QUANTITY AND QUALITY MANAGEMENT WILL BE PROVIDED BY DETENTION WITH STORAGE TRENCHES. THE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
- ALL STORM DRAINS PROPOSED UNDER THIS SDP ARE PRIVATE.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM BEST AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF CONSTRUCTION.
- ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A (5'x5') FIVE FOOT BY FIVE FOOT LEVEL (2% MAX.) LANDING AT THE TOP AND BOTTOM OF ALL RAMPS.
- ALL DRIVEWAYS AND PARKING TO BE PRIVATELY OWNED AND MAINTAINED.
- ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01. CLASS "C" BEDDING, UNLESS OTHERWISE NOTED.
- GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS FOR ASPHALT PAVING.
- WATER METERS ARE LOCATED INSIDE EACH UNIT FOR A COMBINATION OF DOMESTIC AND FIRE SERVICES. EACH UNIT IS EQUIPPED WITH AN AUTOMATIC FIRE PREVENTION SPRINKLER SYSTEM.
- ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. CURB SPOT ELEVATIONS ARE AT THE FLOW LINE, UNLESS NOTED OTHERWISE.
- THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE.
- ALL DOWNSPOUT DRAINS SHALL BE HANDLED BY ONE OF THESE METHODS:
 A. DOWNSPOUT TO SPLASH AND DISCHARGE ONTO GROUND HAVING GOOD PERCOLATION.
 B. DOWNSPOUT IN FRONT OF UNITS PIPED TO CURB.
 C. DOWNSPOUT CONNECTED TO STORM DRAIN.
- WETLAND DELINEATION WAS PERFORMED BY EXPLORATION RESEARCH, AND VERIFIED BY ARMY CORPS OF ENGINEERS. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLAND BUFFER EXCEPT AREAS PERMITTED FOR DISTURBANCE BY THE DEPARTMENT OF NATURAL RESOURCES AND THE HCDPZ.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
- ALL WATER HOUSE CONNECTIONS SHALL BE BUILT WITH 48" OF MIN. COVER TO PROPOSED GRADES.
- ALL OUTDOOR LIGHTING SHALL COMPLY WITH ZONING SECTION 13.4.
- OTHER HOWARD COUNTY FILES RELATED TO THIS SITE:
 BA - 95-60 E, BA-98-20E, S-97-09, WP 98-20 (WHICH ON 8/28/97 ALLOWED PREPARATION OF A MASS GRADING PLAN FOR A GRADING PERMIT), F 98 - 26 AND FDP - 205-A-1, Part 1, and WP99-101 (see note #30).
- FOREST CONSERVATION FOR THIS SITE IS PROVIDED BY:
 A. ON-SITE RESTRICTION ON WEST TRACT OF 2.98 AC. (SURETY = \$13,000.00)
 B. ON-SITE RESTRICTION ON EAST TRACT OF 0.98 AC. (SURETY = \$5,227.20)
 C. FEE-IN-LIEU IN THE AMOUNT OF \$22,215.00 (1.7 acres).
 SURETY & FEE-IN-LIEU AMOUNTS ARE BASED ON AREA ROUNDED TO 1/10 AC.
- See sheet 2 for conditions of BA 98-20E.

Site Analysis Data Chart

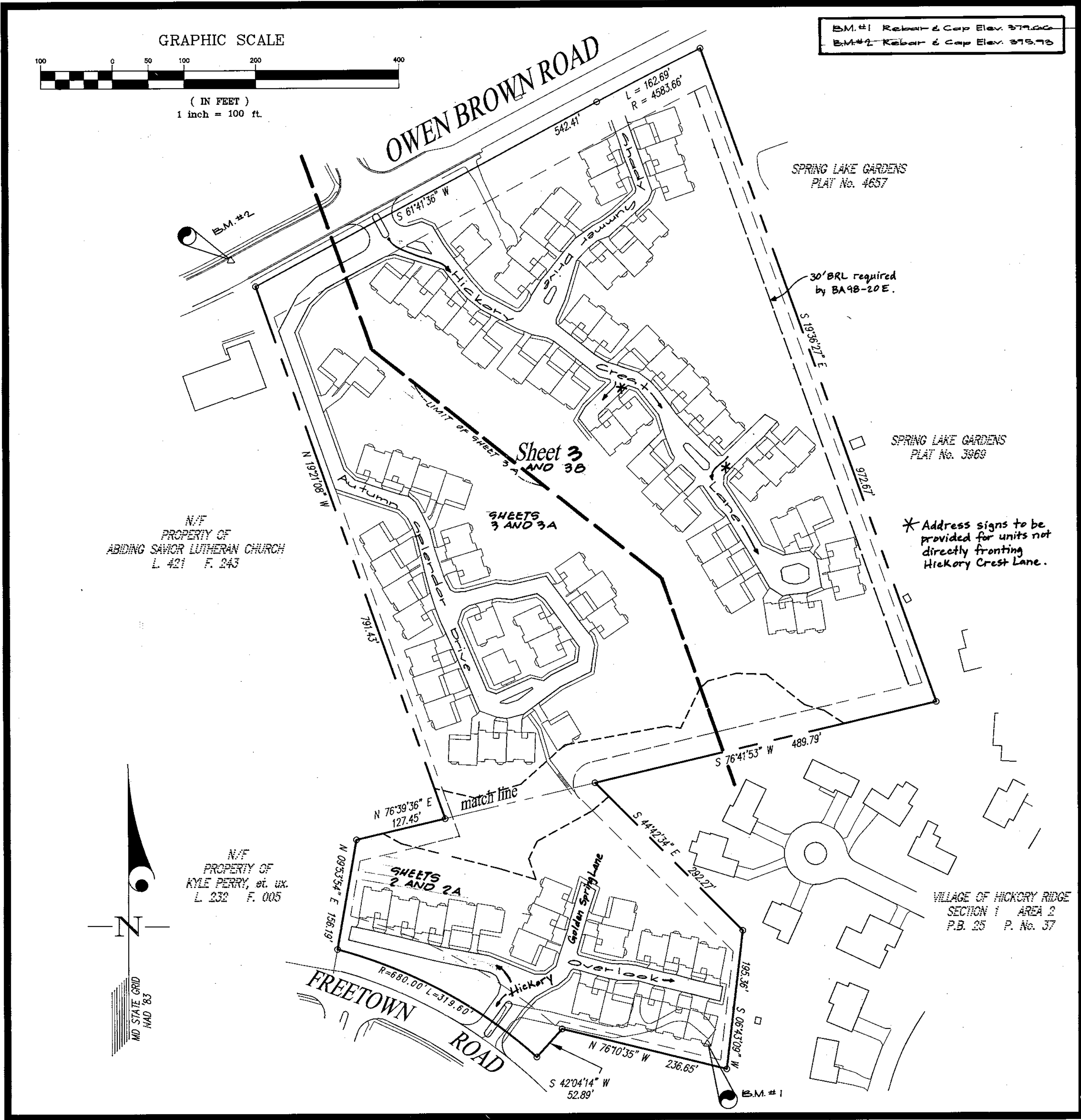
- General Site Data:
 a. Zoning: R-20
 b. Proposed use: Single Family Attached units + community center
 c. Building Coverage: 10.2% (2.23 ac.) open space = 51.3% (7.19 ac.)
- Density:
 a. 88 units allowed under BA 98-20E at a rate of 2 units per acre (for 17.7964 = 35)
 b. 88 units proposed.
- Area Tabulation: R-20 Area = 17.7297 ac.
 NT Area = 0.0667 ac.
 Total = 17.7964 ac.
- Parking:
 a. Parking required: 25 spaces at a rate of 2 spaces for every 5 units (88/5) x 2 = 35
 b. Parking provided:
 25 - car garages = 25
 25 - car garages = 25
 1 - space in front of each car garage = 25
 2 spaces @ comm. center (2 H.C. vans) = 4
 125 spaces

SITE DEVELOPMENT PLAN
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND



GENERAL NOTES (cont.)

30. WP-99-101, was approved on 5/28/99, and waived Section 16.115.C.2 to allow work to be done in the Floodplain; Section 16.116.a.1 to allow disturbance in the 25' wetland buffer; and Section 16.116.a.2.1 to allow disturbance to the 50' stream buffer. Approval is subject to five conditions of approval, as specified in the application file.



Unit #	Address	FF/above elevation	basepoint elevation	min. cellar plate level	min. finished floor level
1	10216	322.72	X	X	X
2	10214	321.39	X	X	X
3	10212	322.70	X	X	X
4	10213	322.90	372.98	X	X
5	10211	321.47	372.49	X	X
6	10208	322.49	X	X	X
7	10204	321.10	X	X	X
8	10204	322.47	X	X	X
9	10207	322.27	373.47	X	X
10	10208	322.39	373.47	X	X
11	10209	322.62	374.14	X	X
12	10201	322.79	374.81	X	X
13	10605 Hickory Crest Lane	370.89	321.91	X	X
14	10615	321.88	372.14	X	X
15	10617	377.66	370.14	X	X
16	10621	371.75	322.81	X	X
17	10623	374.99	322.81	X	X
18	10625	377.69	322.74	X	X
19	10627	376.97	324.07	X	X
20	10629	372.77	324.07	X	X
21	10633	372.92	322.09	X	X
22	10635	372.92	322.09	X	X
23	10637	372.27	322.57	X	X
24	10641	374.27	322.59	X	X
25	10643	374.30	322.59	X	X
26	10647	374.91	X	X	X
27	10649	374.91	X	X	X
28	10644	374.70	X	X	X
29	10644	372.69	X	X	X
30	10640	372.91	X	X	X
31	10638	372.91	X	X	X
32	10636	372.92	324.97	X	X
33	10632	372.87	324.97	X	X
34	10630	372.42	324.92	X	X
35	10628	372.42	324.92	X	X
36	10622	372.92	327.38	X	X
37	10618	372.92	327.38	X	X
38	10618	372.74	370.22	X	X
39	10616	321.74	372.22	X	X
40	10614	322.73	374.22	X	X
41	10610	322.71	376.79	X	X
42	10608	321.84	376.12	X	X
43	10606	322.84	322.12	X	X
44	10604	321.84	322.12	X	X
45	10602	372.97	323.45	X	X
46	10758 Autumn Splendor Drive	372.37	X	X	X
47	10754	372.97	X	X	X
48	10754	372.29	X	X	X
49	10755	372.72	324.26	X	X
50	10757	372.45	322.99	X	X
51	10746	372.42	322.79	X	X
52	10745	320.97	371.79	X	X
53	10727	322.42	372.92	X	X
54	10725	322.42	372.92	X	X
55	10724	322.84	372.32	X	X
56	10719	322.97	374.28	X	X
57	10717	322.97	374.28	X	X
58	10715	322.27	373.91	X	X
59	10707	321.12	372.92	X	X
60	10705	321.72	372.87	X	X
61	10720	324.96	372.24	X	X
62	10722	324.96	372.24	X	X
63	10724	324.96	372.24	X	X
64	10726	322.82	374.28	X	X
65	10730	321.20	372.28	X	X
66	10732	371.20	322.28	X	X
67	10734	371.20	322.28	X	X
68	10738	371.17	X	X	X
69	10740	371.17	X	X	X
70	10742	371.17	X	X	X
71	4432 Hickory Overlook	324.46	372.04	X	X
72	4434	324.46	372.04	X	X
73	4436	324.29	372.27	X	X
74	4438	324.27	372.57	X	X
75	4440	324.26	372.04	X	X
76	4501 Golden Spring Lane	322.04	372.12	X	X
77	4503	322.11	372.79	X	X
78	4505	322.37	X	X	X
79	4506	321.04	X	X	X
80	4504	322.12	X	X	X
81	4402 Hickory Overlook	371.45	X	X	X
82	4404	372.18	X	X	X
83	4406	322.33	372.41	X	X
84	4408	321.83	372.71	X	X
85	4410	322.47	372.71	X	X
86	4403	372.82	372.72	X	X
87	4401	371.19	372.23	X	X
88	10750 Autumn Splendor Drive	372.42	X	X	X

Curbside trash collection shall be provided by a private contractor and is not the responsibility of Howard County.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 12/13/99
 [Signature] 10/9/99
 [Signature] 11/3/97



Sheet Index

1 of 9	1. Cover Sheet	8/29/99
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6 of 9	6. Landscape Plan	1/27/99
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12 of 9	12. Storm Drain Profiles	1/27/99
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18 of 9	18. Sediment Control Notes/Details	1/27/99
19 of 9	19. Wooden Walkway Details	1/27/99
20 of 9	20. Forest Stand Delineation	1/27/99
21 of 9	21. Forest Conservation Plan	1/27/99
22 of 9	22. Forest Conservation Plan	1/27/99
23 of 9	23. Forest Conservation Notes	1/27/99
24 of 9	24. 30 SCALE SUPPLEMENTAL SITE PLAN	1/27/99
25 of 9	25. 30 SCALE SUPPLEMENTAL SITE PLAN	1/27/99

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

COVER SHEET
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT No. 13156

No Asbuilt Information shown on this sheet.

WATER CODE: E-20	SEWER CODE: 97LAP20
SUBDIVISION NAME: HICKORY RIDGE ELDERLY CENTER	SECTION/AREA: 1 and 2
PLAT: 13156	ZONE: R-20/NT
TAX MAP: 35	BLOCK: 15
ELEC. DIST.: 5	CENSUS TRACT: 4000
SCALE: AS SHOWN	ZONING: R-20/NT
G. L. W. FILE No.: 95053	SHEET: 35-18

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

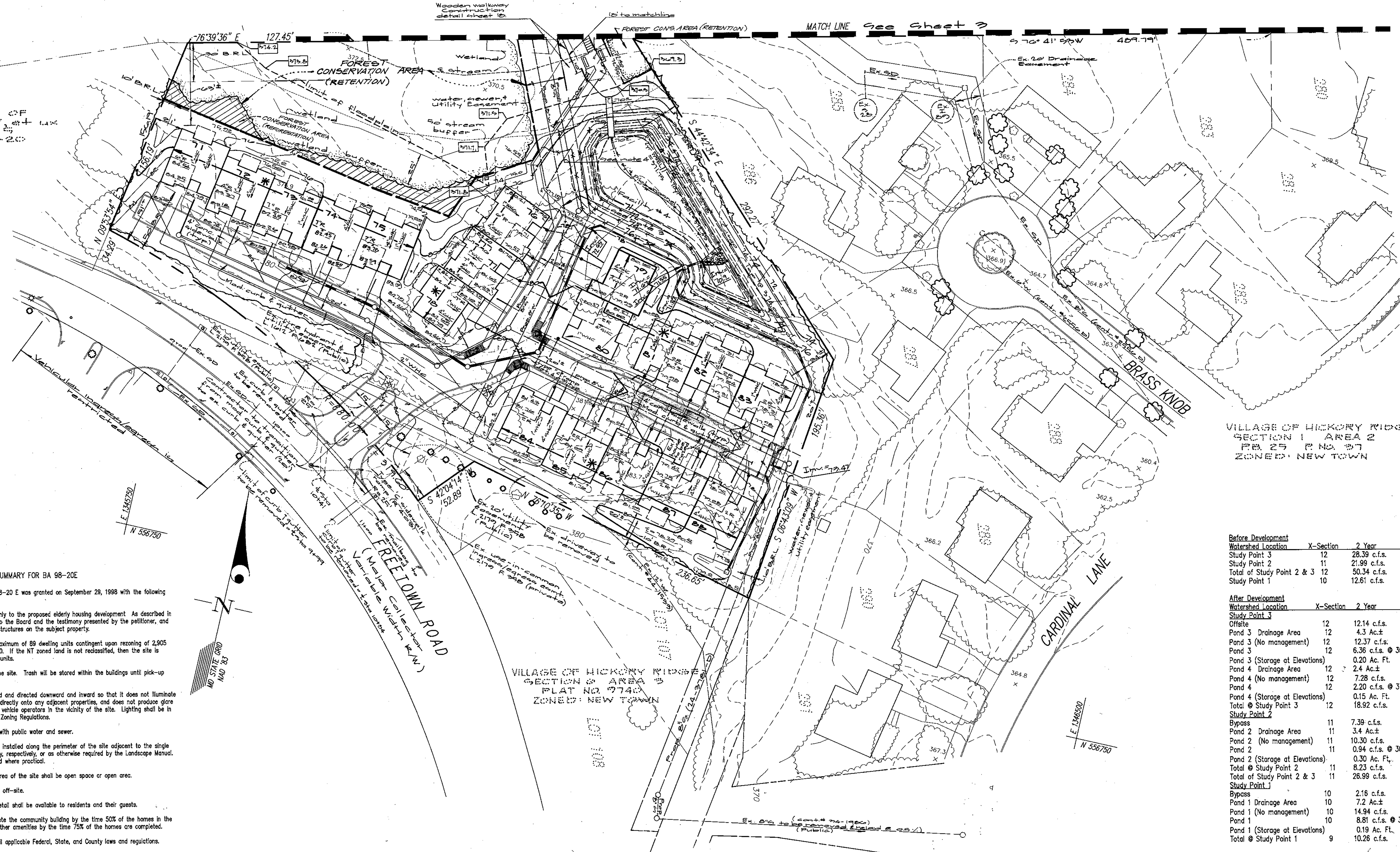
DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.
			12/13/99			
			10/9/99			
			11/3/97			

CLARKSVILLE ELECTION DISTRICT No. 5

Asbuilt Sheet 1 of 9
 SDP99-68

* See sheet 2a for updated architectural information and fire grading around units. All other information on this sheet is still applicable.

PROPERTY OF
KYLE PERRY et al
L 292 F 2
ZONED: R-20



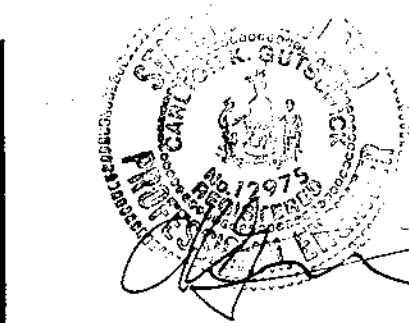
VILLAGE OF HICKORY RIDGE
SECTION 1 AREA 2
PA 25 P. NO. 97
ZONED: NEW TOWN

SUMMARY FOR BA 98-20E

The Board of Appeals Case BA 98-20 E was granted on September 29, 1998 with the following conditions:

- The Special Exception shall apply only to the proposed elderly housing development. As described in the petition and the plan submitted to the Board and the testimony presented by the petitioner, and not to any other activities, uses, or structures on the subject property.
- The development is limited to a maximum of 89 dwelling units contingent upon rezoning of 2,905 square feet of NT zoned land to R-20. If the NT zoned land is not reclassified, then the site is limited to a maximum of 88 dwelling units.
- No dumpsters will be located on the site. Trash will be stored within the buildings until pick-up day.
- Any exterior lighting will be shielded and directed downward and inward so that it does not illuminate residential properties, does not shine directly onto any adjacent properties, and does not produce glare that would cause a hazard for motor vehicle operators in the vicinity of the site. Lighting shall be in conformance with Section 134 of the Zoning Regulations.
- The development shall be served with public water and sewer.
- Landscape edges C and A shall be installed along the perimeter of the site adjacent to the single family houses and the church property, respectively, or as otherwise required by the Landscape Manual. Existing vegetation shall be maintained where practical.
- A minimum of 50% of the gross area of the site shall be open space or open area.
- No perceptible odors may emanate off-site.
- The dining area and convenience retail shall be available to residents and their guests.
- The Petitioner proposes to complete the community building by the time 50% of the homes in the development are completed, and all other amenities by the time 75% of the homes are completed.
- The Petitioner shall comply with all applicable Federal, State, and County laws and regulations.

Before Development				
Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3	12	28.39 c.f.s.	67.45 c.f.s.	132.28 c.f.s.
Study Point 2	11	21.99 c.f.s.	43.46 c.f.s.	67.65 c.f.s.
Total of Study Point 2 & 3	12	50.34 c.f.s.	110.81 c.f.s.	199.19 c.f.s.
Study Point 1	10	12.61 c.f.s.	30.37 c.f.s.	51.95 c.f.s.
After Development				
Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3	12	12.14 c.f.s.	39.12 c.f.s.	93.40 c.f.s.
Offsite	12	4.3 Ac.±		
Pond 3 (No management)	12	12.37 c.f.s.	21.28 c.f.s.	31.00 c.f.s.
Pond 3	12	6.36 c.f.s. @ 367.58	15.24 c.f.s. @ 368.39	24.62 c.f.s. @ 368.87
Pond 3 (Storage at Elevations)	12	0.20 Ac. Ft.	0.33 Ac. Ft.	0.42 Ac. Ft.
Pond 4 (No management)	12	2.4 Ac.±		
Pond 4	12	7.28 c.f.s.	13.02 c.f.s.	19.30 c.f.s.
Pond 4 (Storage at Elevations)	12	2.20 c.f.s. @ 371.75	5.05 c.f.s. @ 372.45	11.11 c.f.s. @ 372.98
Total @ Study Point 3	12	18.92 c.f.s.	52.38 c.f.s.	124.95 c.f.s.
Study Point 2				
Bypass	11	7.39 c.f.s.	15.51 c.f.s.	24.86 c.f.s.
Pond 2 (No management)	11	3.4 Ac.±		
Pond 2	11	10.30 c.f.s.	18.17 c.f.s.	26.78 c.f.s.
Pond 2	11	0.94 c.f.s. @ 365.48	4.89 c.f.s. @ 366.11	11.29 c.f.s. @ 366.63
Pond 2 (Storage at Elevations)	11	0.30 Ac. Ft.	0.48 Ac. Ft.	0.67 Ac. Ft.
Total @ Study Point 2	11	8.23 c.f.s.	18.09 c.f.s.	33.24 c.f.s.
Total of Study Point 2 & 3	11	26.99 c.f.s.	70.35 c.f.s.	157.84 c.f.s.
Study Point 1				
Bypass	10	2.15 c.f.s.	5 c.f.s.	8.27 c.f.s.
Pond 1 (No management)	10	7.2 Ac.±		
Pond 1	10	14.94 c.f.s.	30.31 c.f.s.	47.79 c.f.s.
Pond 1	10	8.81 c.f.s. @ 375.49	21.39 c.f.s. @ 376.41	37.67 c.f.s. @ 377.00
Pond 1 (Storage at Elevations)	10	0.19 Ac. Ft.	0.36 Ac. Ft.	0.51 Ac. Ft.
Total @ Study Point 1	9	10.26 c.f.s.	24.91 c.f.s.	44.05 c.f.s.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *[Signature]* Date: 12/13/99

Chief, Division of Land Development: *[Signature]* Date: 12/9/99

Chief, Development Engineering Division: *[Signature]* Date: 11/23/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 230 - BURTOWNSVILLE OFFICE PARK
BURTOWNSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT. 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

Site Development Plan
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

SCALE 1"=40'	ZONING R-20/ NT	G. L. W. FILE No. 95053
DATE October 1, 2002	TAX MAP - GRID 35 - 18	SHEET 2

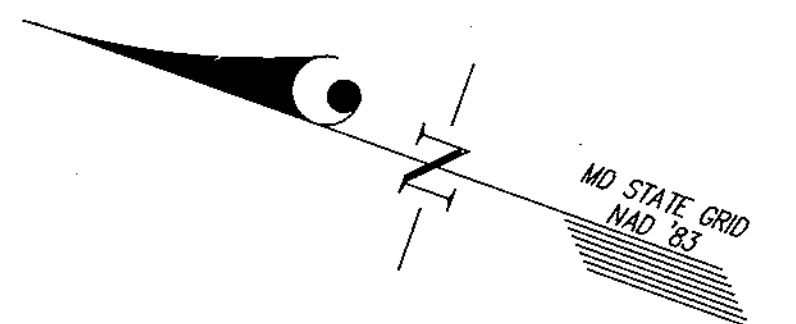
DRAWINGS\95053\BASES\95053BS2.DWG DES. DRN. SJC CHK. DATE REVISION BY APPR.

Asbuilt Sheet 2 of 9

SDP99-68

SPRING LAKE GARDENS
PLAT NO. 1367
ZONED R-20

SPRING LAKE GARDENS
PLAT NO. 2969
ZONED R-20



VILLAGE OF HICKORY
RIDGE
SECTION I AREA
PLAT NO. 2575

OWEN

PARCEL 00-7

VILLAGE OF HICKORY
RIDGE
SECTION I AREA
PB. 24 P. NO. 32
O.S. LOT 5

SUNNY SPRING

VILLAGE OF HICKORY
RIDGE
SECTION I AREA
PB. 24 P. NO. 32
O.G. LOT 4

ROAD



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

John B. Smith 12/18/99
Date
Cheryl Hamilton 12/19/99
Date
Chief, Development Engineering Division

NOTES CONCERNING SUPPLEMENTAL SHEETS:
1. SEE SHEET 3A/3B FOR UPDATED ARCHITECTURAL INFORMATION AND FIVE GRADING AREAS UNITS THROUGHOUT TO ALL OTHER INFORMATION ON THIS SHEET IS STILL APPLICABLE. ANY CONFLICTS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION FOR POSSIBLE REDESIGN.
2. For additional information regarding existing & proposed utilities, see sheets 4, 14, & 15.
3. Contractor to end 4' wide macadam path & begin concrete sidewalk.
4. Contractor to end 4' wide macadam path & begin wooden walkway.
5. All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the homeowners Association. Quantity management is provided for the 2, 10 and 100 year storm by detention. All proposed facilities have a class 'A' hazard level. Quality management is provided using stormcatchers.

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONTOWNE OFFICE PARK
BURTONTOWNE, MARYLAND 20866
TEL. 301-421-4024 FAX: 301-989-2524

DATE	REVISION	BY	APP'R.
Nov 2 2002	Asbuilt Information Added		
6/16/19	ADD NOTE REFERRING TO SHEET 3A/3B FOR DETAILED INFORMATION		

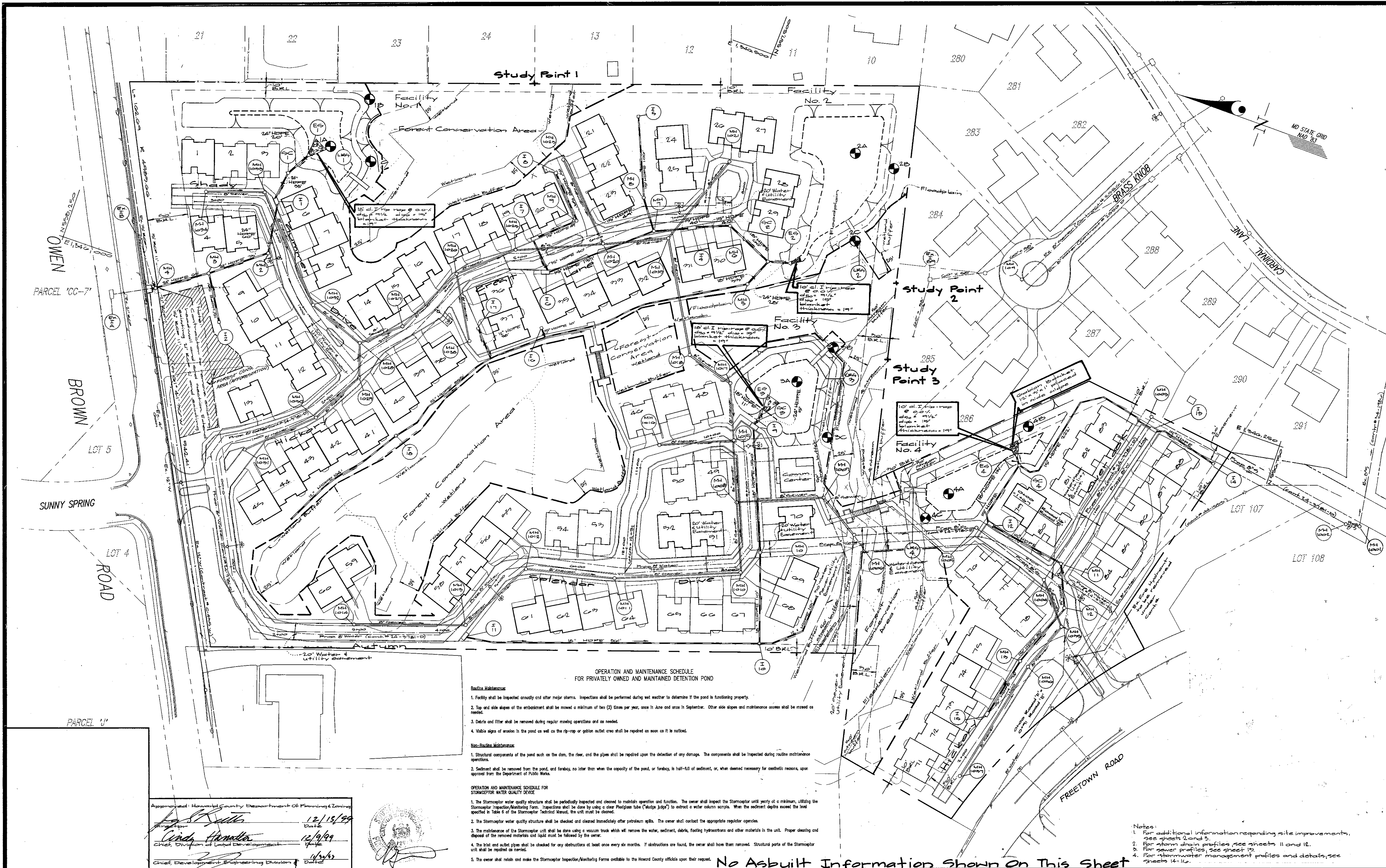
PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

Site Development Plan
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/ NT	95053
DATE	TAX MAP - GRID	SHEET
October November 1999	35 - 18	3

Asbuilt Sheet 7 of 9

SDP99-68



OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DETENTION POND

- Baseline Maintenance:**
1. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
 2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times per year, once in June and once in September. Other side slopes and maintenance access shall be mowed as needed.
 3. Debris and litter shall be removed during regular mowing operations and as needed.
 4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.

- Non-Routine Maintenance:**
1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.
 2. Sediment shall be removed from the pond, and forebay, no later than when the capacity of the pond, or forebay, is half-full of sediment, or when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.

OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE

1. The Stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor unit yearly at a minimum, utilizing the Stormceptor Inspection/Monitoring Form. Inspections shall be done by using a clear Plexiglas tube ("sludge judge") to extract a water column sample. When the sediment depth exceeds the level specified in Table 6 of the Stormceptor Technical Manual, the unit must be cleaned.
2. The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulator agencies.
3. The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
4. The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found, the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.
5. The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to the Howard County officials upon their request.

No Asbuilt Information Shown On This Sheet

Approved: Howard County Department of Planning & Zoning
 [Signature] 12/15/99
 [Signature] 12/9/99
 [Signature] 11/29/99
 Chief, Division of Land Development
 Chief, Development Engineering Division of Date

- Notes:**
1. For additional information regarding site improvements, see sheets 2 and 3.
 2. For storm drain profiles (see sheets 11 and 12).
 3. For sewer profiles, see sheet 13.
 4. For stormwater management profiles and details, see sheets 14-16.

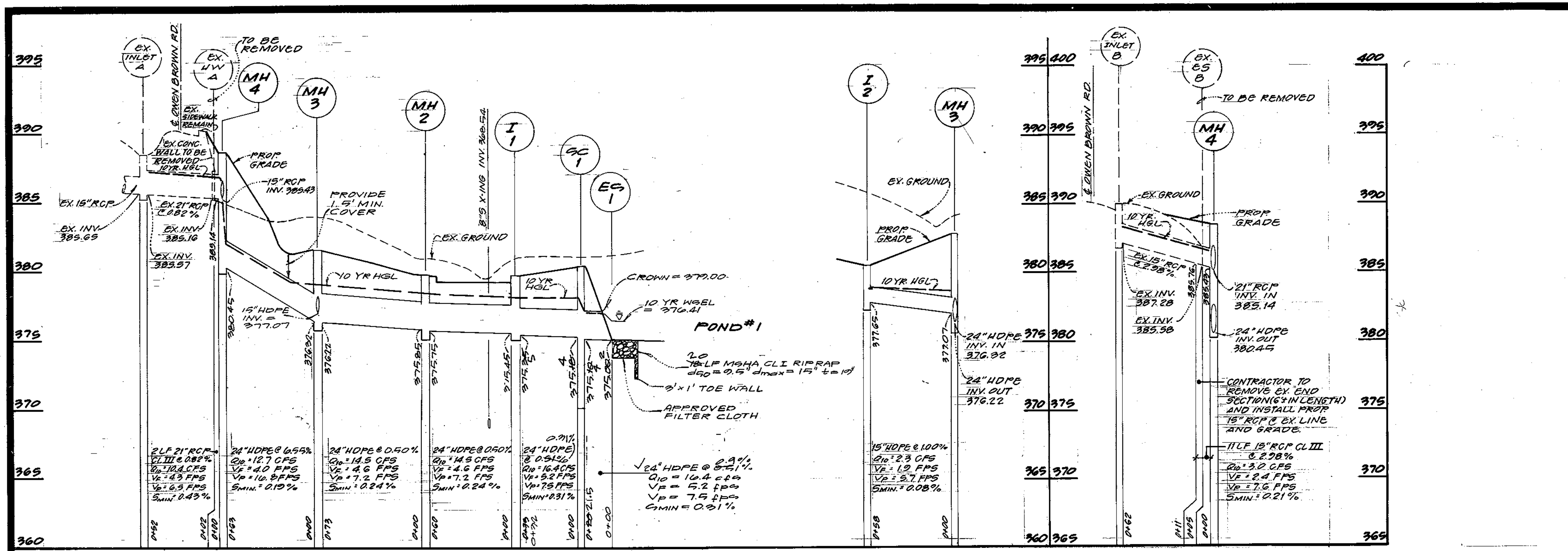
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-889-2524 FAX: 301-421-4186

DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.
			Nov 2002	Asbuilt Information Added		

PREPARED FOR:
 Orchard Development Corporation
 3979 Old Columbia Pike
 Ellicott City, Maryland
 21043
 (410) 750-1800

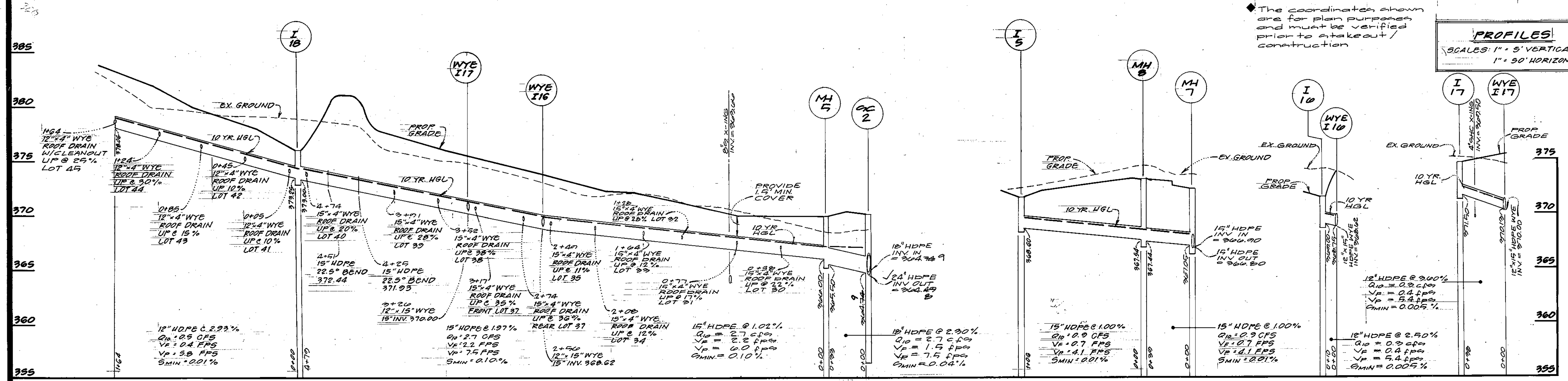
Hickory Ridge Elderly Center
 Lots 1 and 2
 Plat 1315G
 Clarksville Election District No. 6
 Howard County, Maryland

SCALE	ZONING	G. L. W. FILE NO.
1" = 50'	R-20/ NT	75053
DATE	TAX MAP - GRID	SHEET
October November 1999 2002	35-18	4



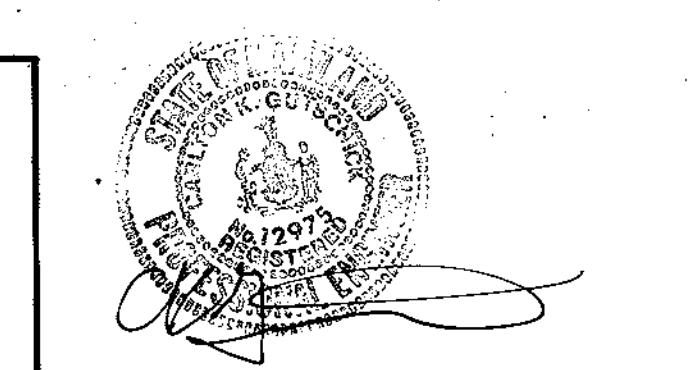
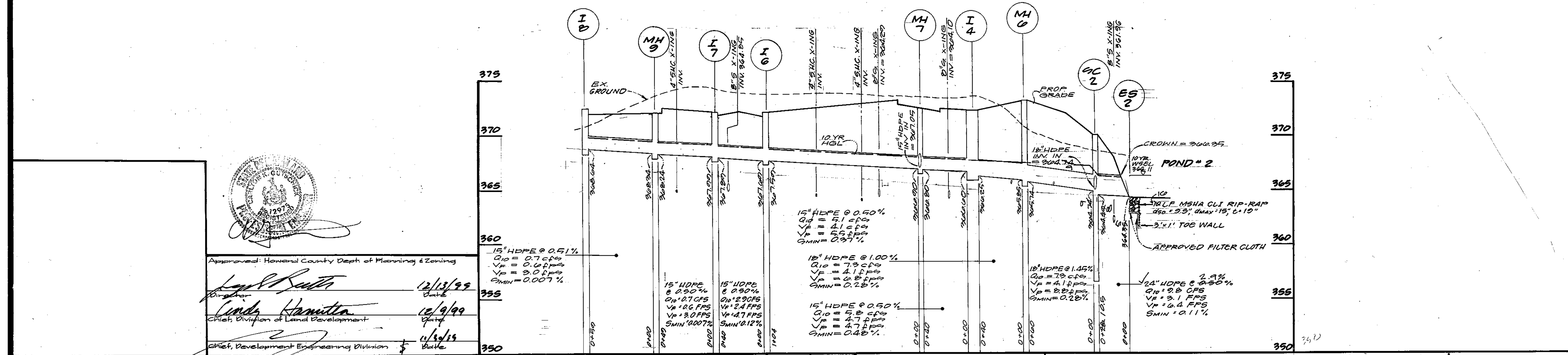
STRUCTURE SCHEDULE											
NO.	TYPE	WIDTH (DIA.)	TOP ELEVATION		INVERT ELEVATION		STR. DETAIL	LOCATIONS	E	REMARKS	
			UPPER	LOWER	UPPER	LOWER					
I-1	A-10 INLET	4'-0"	379.70	---	375.45	376.95	SD 4.32	558,211	1,240,120		
I-2	TYPE S INLET	2'-7 1/2"	380.50	---	377.05	---	SD 4.22	558,098	1,240,957		
I-4	A-10 INLET	2'-0"	372.22	---	366.00	366.25	SD 4.32	557,518	1,240,065		
I-5	TYPE S INLET	2'-7 1/2"	371.50	---	368.00	---	SD 4.22	557,047	1,240,971		
I-6	A-10 INLET	2'-0"	372.13	---	367.60	367.50	SD 4.41	557,009	1,240,152		
I-7	"	"	372.19	---	367.30	367.80	"	557,000	1,240,180		
I-8	TYPE S COMB. INLET	3'-5"	372.45	---	368.04	---	SD 4.32	557,009	1,240,271		
I-16	TYPE S INLET	2'-7 1/2"	371.00	---	369.00	---	SD 4.22	557,050	1,240,088		
I-17	TYPE S COMB. INLET	3'-5"	374.80	---	371.30	---	SD 4.32	557,744	1,240,059		
I-18	TYPE S INLET	2'-7 1/2"	373.30	---	373.25	373.00	SD 4.22	557,774	1,240,228		
MH2	SHALLOW PRECAST MANHOLE	4'-0"	378.00	---	375.85	375.75	G 5.12	557,978	1,240,057		
MH3	STD. PRECAST MANHOLE	4'-0"	381.00	---	377.07	376.15	"	558,059	1,240,088		
MH4	"	4'-0"	388.60	---	383.43	380.45	"	558,114	1,240,009		
MH5	"	4'-0"	370.00	---	360.00	365.50	"	557,430	1,240,222		
MH6	"	4'-0"	370.00	---	364.85	365.74	"	557,415	1,240,180		
MH7	"	5'-0"	372.50	---	367.05	366.80	"	557,561	1,240,245		
MH8	"	4'-0"	373.20	---	367.54	367.44	"	557,587	1,240,279		
MH9	"	4'-0"	372.32	---	368.34	368.24	"	557,655	1,240,224		
QC 1	STORMCEPTOR	---	380.50	---	375.18	379.10	OTC - 1800	558,007	1,240,158		
QC 2	STORMCEPTOR	---	370.00	---	364.74	364.40	OTC - 3600	557,416	1,240,257		
EQ-1	END SECTION	2'-0"	377.00	---	---	375.00	* *	557,994	1,240,180		
ES 2	END SECTION	1'-5"	365.85	---	---	364.35	* *	557,971	1,240,264		

PRECAST ALTERNATES ARE ACCEPTABLE
 * * PIPE MANUFACTURE TO PROVIDE HDPE END SECTIONS FOR HDPE PIPE
 The coordinates shown are for plan purposes and must be verified prior to stakeout / construction



PIPE SCHEDULE			
SIZE	TYPE	QUANTITY (L.F.)	REMARKS
15"	RFCPLIII	11	
21"	RFCPLIII	2	
4"	HDPE #	224	(1) ROOF DRAINS
12"	HDPE #	212	
15"	HDPE #	1047	
18"	HDPE #	133	
24"	HDPE #	277	

* HDPE = HIGH DENSITY POLYETHYLENE N-12 BY ADVANCED DRAINAGE SYSTEMS INC (ADS) OR H1-G BY HANGOR LANDMAX PIPE SYSTEMS
 (1) LENGTH DOES NOT INCLUDE VERTICAL LENGTH OF PIPE



Approved: Howard County Dept of Planning & Zoning
 Cindy Hamstra
 Chief, Division of Land Development
 12/13/99
 12/9/99
 11/19/99

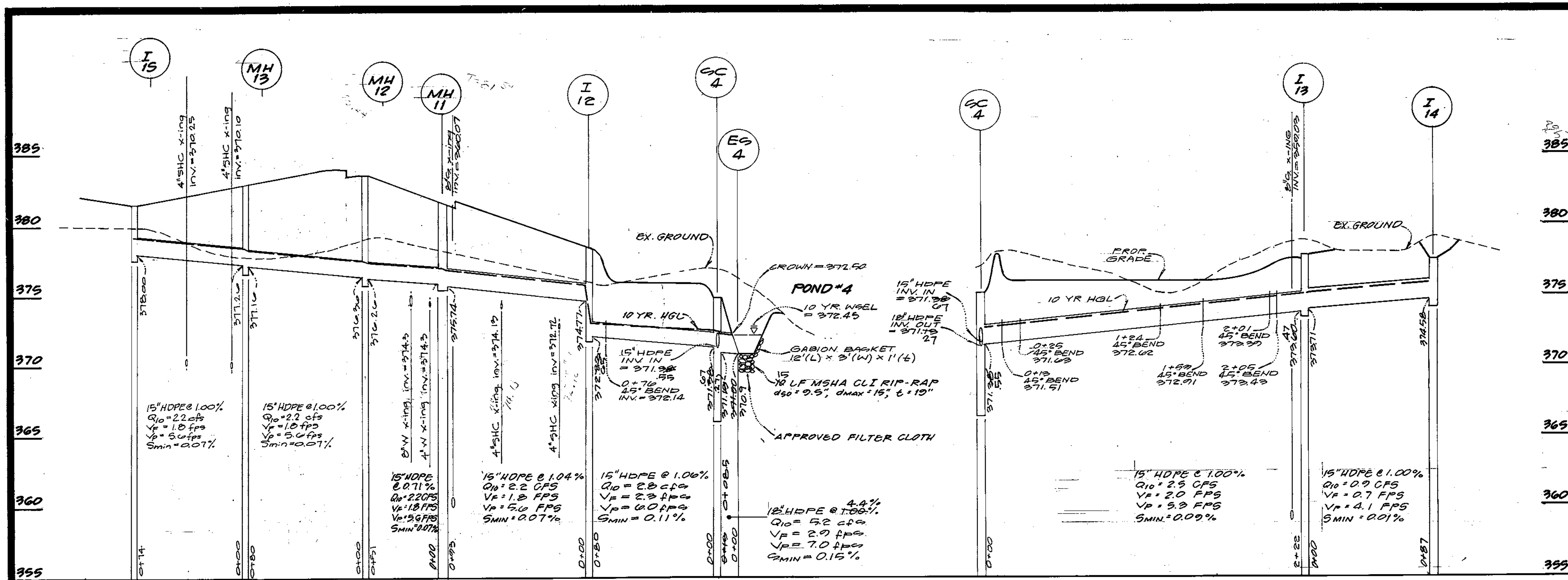
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
 TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

NO.	DATE	REVISION	BY	APP'R.
1	Nov 2001	Asbuilt Information Added		

PREPARED FOR:
 Orchard Development Corporation
 3779 Old Columbia Pike
 Ellicott City, Maryland 21043
 (410) 750-1800

Storm Drain Profiles & Details
Hickory Ridge Elderly
 Lots 1 and 2
 Being in Part A Re-subdivision of Lots 2-4, Block B, Edinburg, south section as shown in Plat Book C at Plat No. 27
 5th Election District
 Howard County, Maryland

DES.	SCALE	ZONING	G.L.W. FILE NO.
B.S.L.	AS SHOWN	R-20/NT	99-093
DRN.	TAX MAP NO.	SHEET	
BC/KLP	35-18	H	
CHK.	DATE		
B.S.L.	October 1999		

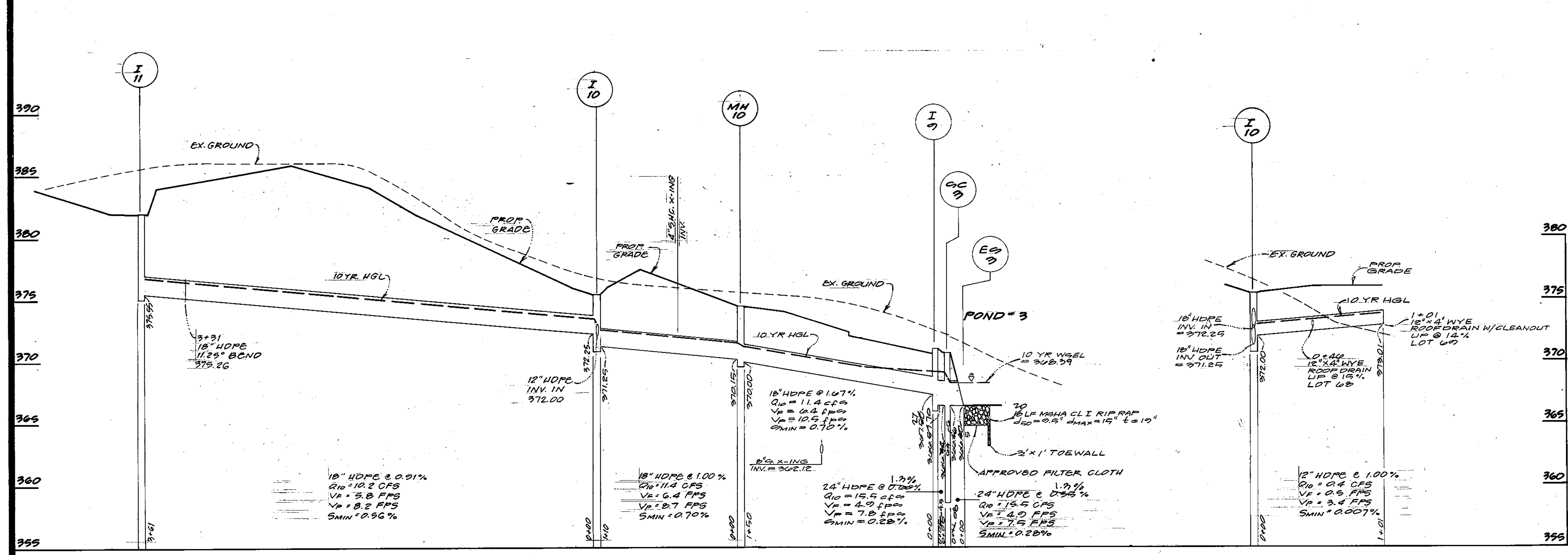


STRUCTURE SCHEDULE											
NO.	TYPE	WIDTH (DIA.)	TOP ELEVATION		INVERT ELEVATION		STR. DETAIL	LOCATIONS		REMARKS	
			UPPER	LOWER	UPPER	LOWER		N	E		
I-9	A-10 INLET	2'-6"	371.12		367.50	366.57	SD 4.41	557.202	1.246.000		
I-10	TYPE S INLET	2'-7 1/2"	378.40		372.25	371.25	SD 4.22	557.202	1.245.010		
I-11	COS-15	4'-0"	381.82		375.55		MD 374.03	557.202	1.245.014		
I-12	A-5 INLET	2'-6"	378.50	378.10	372.03	369.88	SD 4.40	557.202	1.245.014		
I-13	A-10 INLET	3'-0"	377.80		373.71	373.60	SD 4.32	556.899	1.246.024		
I-14	TYPE S INLET	3'-6"	377.90		374.58		SD 4.22	556.810	1.246.009		
I-15	TYPE S COMB. INLET	3'-5"	381.70		378.00		SD 4.32	556.972	1.245.023		
MH 10	STD PRECAST MANHOLE	4'-0"	374.00		370.13	370.00	G-5.12	557.202	1.245.910		
MH 11	"	"	381.54		375.90	375.74	"	556.949	1.245.023		
MH 12	"	"	383.45		376.90	376.26	"	556.927	1.245.979		
MH 13	"	"	382.90		377.26	377.10	"	556.950	1.245.276		
ES 2	24" HDPE END SECTION	2'-0"	308.40			308.40	* *	557.250	1.246.079		
ES 4	18" HDPE END SECTION	1'-5"	372.50			371.00	* *	557.200	1.246.176		
ES 5	STORMCEPTOR		370.50		308.64	308.40	STC-1200	557.301	1.246.040		
ES 14	STORMCEPTOR		375.00		371.50	371.13	STC-1800	557.099	1.246.110		

PRECAST ALTERNATES ARE ACCEPTABLE
 ** PIPE MANUFACTURE TO PROVIDE HDPE END SECTIONS FOR HDPE PIPE

The coordinates shown are for plan purposes and must be verified prior to takeout / construction.

PIPE SCHEDULE			
SIZE	TYPE	QUANTITY	REMARKS
4"	HDPE	18	ROOF DRAINS
12"	HDPE	101	
15"	HDPE	688	
18"	HDPE	679	
24"	HDPE	125	
30"	HDPE	40	



APPROVED: HOWARD COUNTY DEPT. OF PLANNING ZONING

[Signature] 12/13/99
 DIRECTOR DATE

[Signature] 12/14/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 11/14/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD. 20866
 TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

NO.	DATE	REVISION	BY	APP'R.
1	Nov 2002	Asbuilt Information Added		

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 13970 OLD COLUMBIA PIKE
 BELLICOTT CITY, MARYLAND 21043
 (301)750-1800

STORM DRAIN PROFILES
HICKORY RIDGE ELDERLY
 LOTS 1 AND 2
 BEING IN PART A RESUBDIVISION OF LOTS 2-4, BLOCK D, EDWIN BASSLER, SOUTH SECTION AS SHOWN IN PLAT BOOK G 5TH ELECTION DISTRICT
 UPWARD COUNTY, MARYLAND

DES.	SCALE	ZONING	G.L.W. FILE NO.
B.S.L.	AS SHOWN	R-20/NT	95-053
DRN.	DATE	TAX MAP NO.	SHEET
B.C./K.L.P.	October 2002	95-18	12
CHK.	B.S.L.		
	2002		

Precast Concrete Stormceptor® Order Request Form
TO BE FILLED OUT BY THE PLUMBER

CONTRACTOR INFORMATION
 Name: To be determined
 Address: _____
 City: _____
 State: _____
 Zip Code: _____
 Contact: _____
 Phone: _____
 Fax: _____

OWNER INFORMATION
 Name: Orchard Development
 Phone: (410) 750-1800
 Fax: (410) 750-1800

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT: 1.24 ac ±

Stormceptor® Model	Insert Size	Manhole Number	Top Elevation (ft)	Inlet Pipe Invert (ft)	Outlet Pipe Invert (ft)	Pipe Type	Inlet Pipe Inside Diameter (in)	Inlet Pipe Outside Diameter (in)	Outlet Pipe Inside Diameter (in)	Outlet Pipe Outside Diameter (in)
STC		5C-1	370.30	370.10	370.10	22"	24"	24"	24"	24"
900	<input type="checkbox"/> 3600									
1200	<input type="checkbox"/> 4800									
1800	<input checked="" type="checkbox"/> 6000									
2400	<input type="checkbox"/> 7200									
	CUSTOM									

Project Name: Hickory Ridge Elderly Center
 Approximate time frame of delivery (weeks): June 1, 1999
 Delivery Address: Street: Local Owen Brown Road
 City: Columbia State: Maryland Zip Code: 21044
 Designer Company: Gutschick Little & Weber, PA.
 Designer Contact: Bugs Vande Kerk Phone (410) 260-1270 Fax (202) 421-4100

Precast Concrete Stormceptor® Order Request Form
TO BE FILLED OUT BY THE PLUMBER

CONTRACTOR INFORMATION
 Name: To be determined
 Address: _____
 City: _____
 State: _____
 Zip Code: _____
 Contact: _____
 Phone: _____
 Fax: _____

OWNER INFORMATION
 Name: Orchard Development
 Phone: (410) 750-1800
 Fax: (410) 750-1800

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT: 1.24 ac ±

Stormceptor® Model	Insert Size	Manhole Number	Top Elevation (ft)	Inlet Pipe Invert (ft)	Outlet Pipe Invert (ft)	Pipe Type	Inlet Pipe Inside Diameter (in)	Inlet Pipe Outside Diameter (in)	Outlet Pipe Inside Diameter (in)	Outlet Pipe Outside Diameter (in)
STC		5C-2	370.00	369.70	369.70	22"	24"	24"	24"	24"
900	<input type="checkbox"/> 3600									
1200	<input type="checkbox"/> 4800									
1800	<input type="checkbox"/> 6000									
2400	<input type="checkbox"/> 7200									
	CUSTOM									

Project Name: Hickory Ridge Elderly Center
 Approximate time frame of delivery (weeks): June 1, 1999
 Delivery Address: Street: Local Owen Brown Road
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Precast Concrete Stormceptor® Order Request Form
TO BE FILLED OUT BY THE PLUMBER

CONTRACTOR INFORMATION
 Name: To be determined
 Address: _____
 City: _____
 State: _____
 Zip Code: _____
 Contact: _____
 Phone: _____
 Fax: _____

OWNER INFORMATION
 Name: Orchard Development
 Phone: (410) 750-1800
 Fax: (410) 750-1800

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT: 0.72 ac ±

Stormceptor® Model	Insert Size	Manhole Number	Top Elevation (ft)	Inlet Pipe Invert (ft)	Outlet Pipe Invert (ft)	Pipe Type	Inlet Pipe Inside Diameter (in)	Inlet Pipe Outside Diameter (in)	Outlet Pipe Inside Diameter (in)	Outlet Pipe Outside Diameter (in)
STC		5C-3	370.00	369.70	369.70	22"	24"	24"	24"	24"
900	<input type="checkbox"/> 3600									
1200	<input checked="" type="checkbox"/> 4800									
1800	<input type="checkbox"/> 6000									
2400	<input type="checkbox"/> 7200									
	CUSTOM									

Project Name: Hickory Ridge Elderly Center
 Approximate time frame of delivery (weeks): June 1, 1999
 Delivery Address: Street: Local Owen Brown Road
 City: Columbia State: Maryland Zip Code: 21044
 Designer Company: Gutschick Little & Weber, PA.
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Precast Concrete Stormceptor® Order Request Form
TO BE FILLED OUT BY THE PLUMBER

CONTRACTOR INFORMATION
 Name: To be determined
 Address: _____
 City: _____
 State: _____
 Zip Code: _____
 Contact: _____
 Phone: _____
 Fax: _____

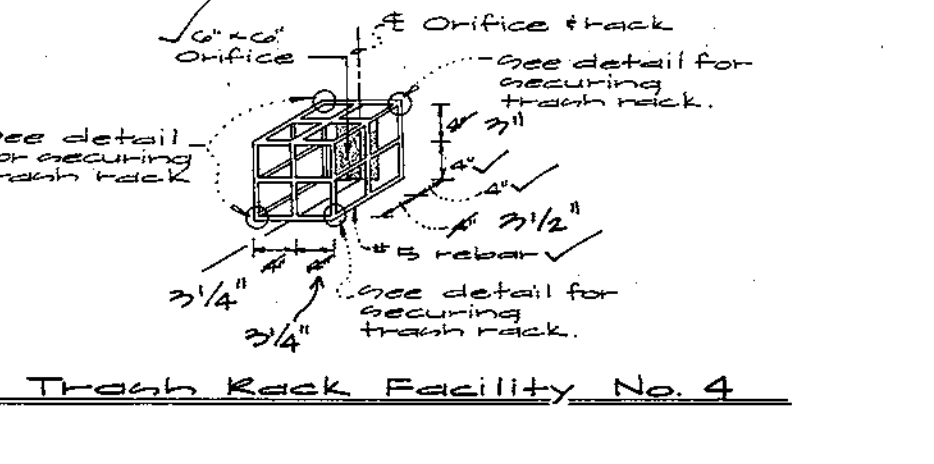
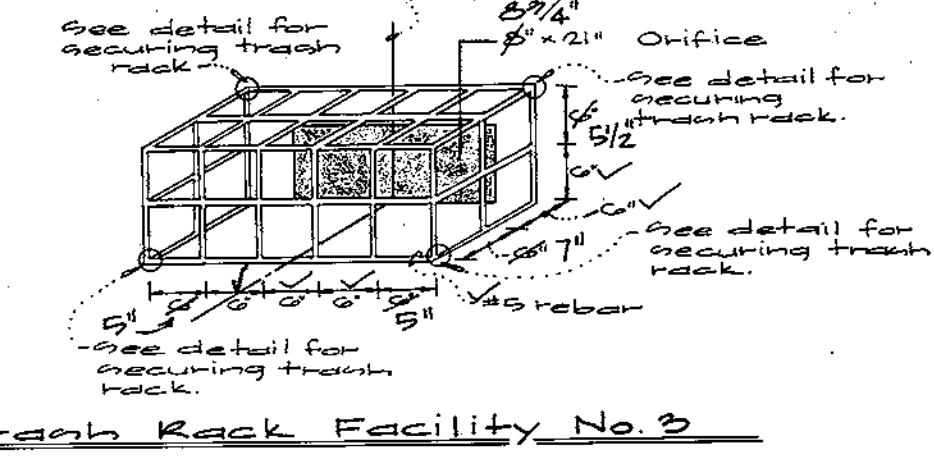
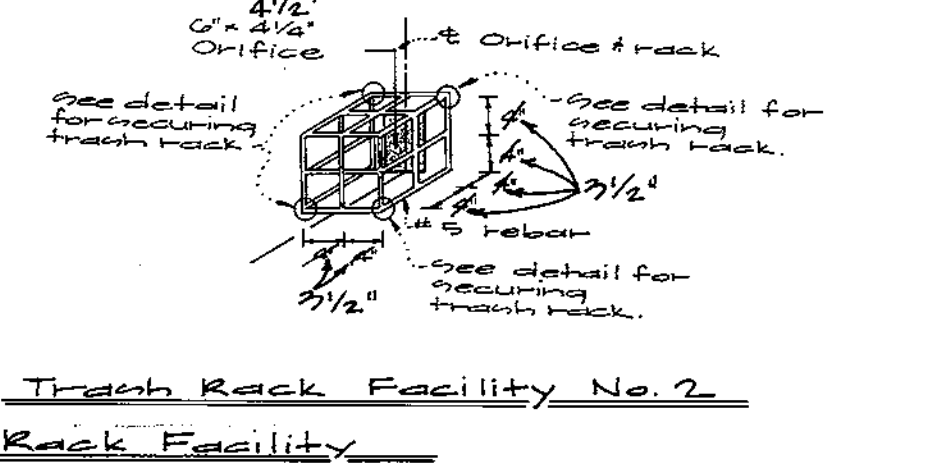
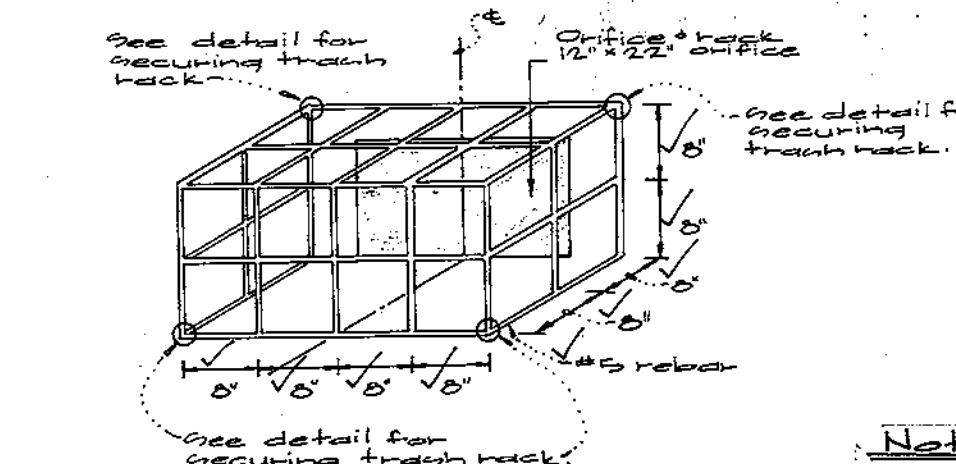
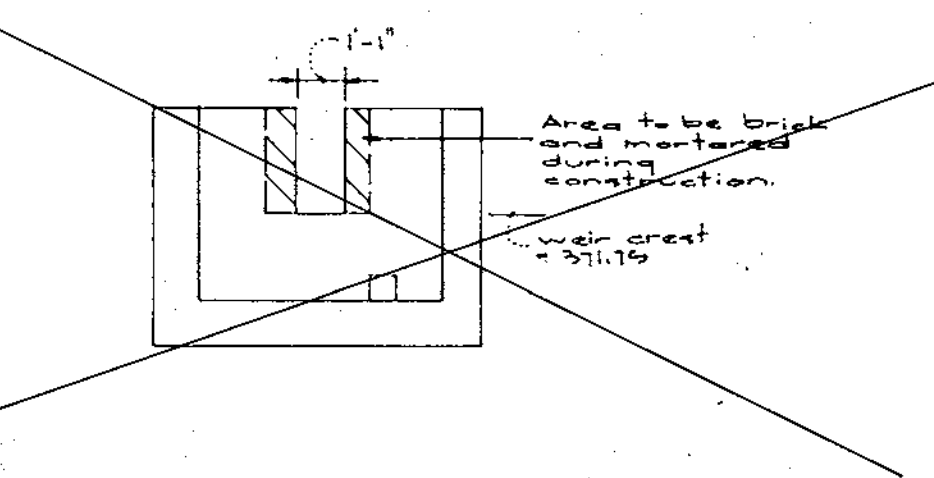
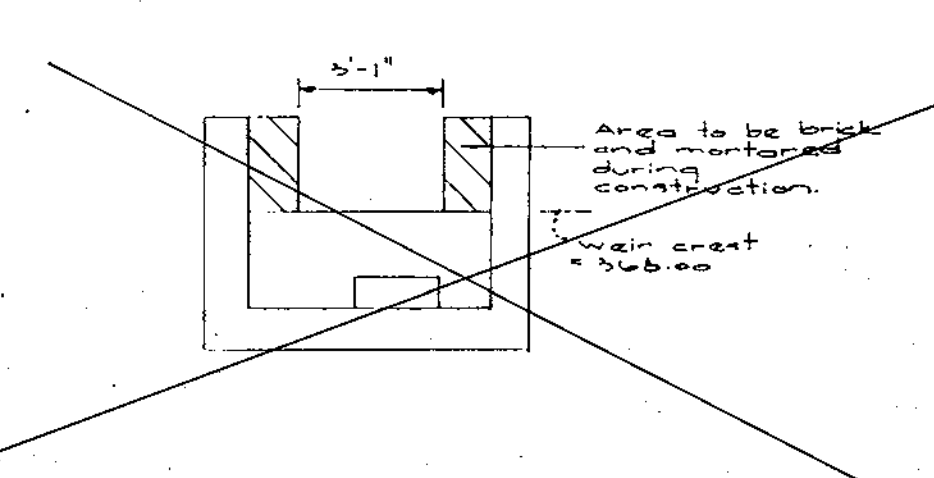
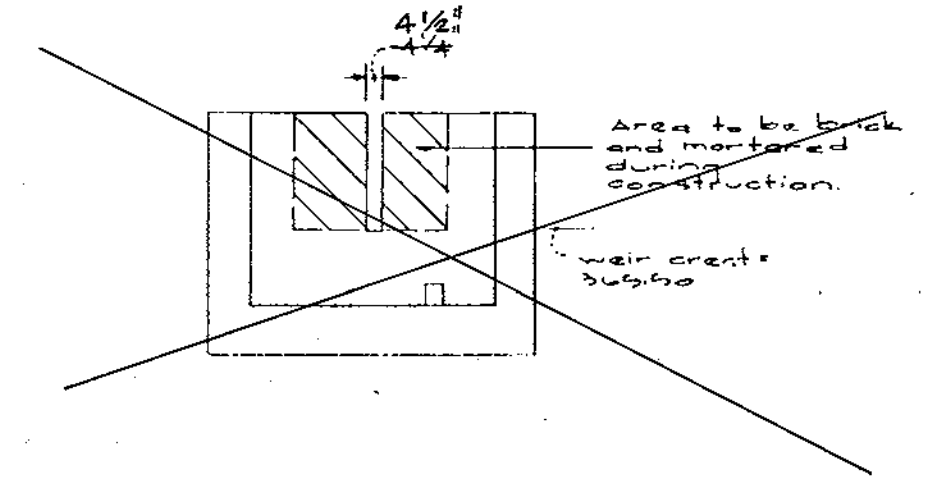
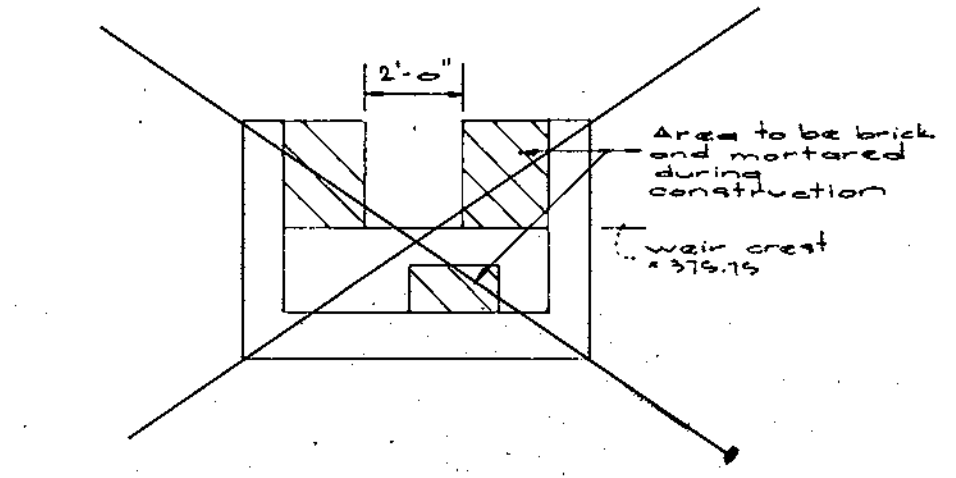
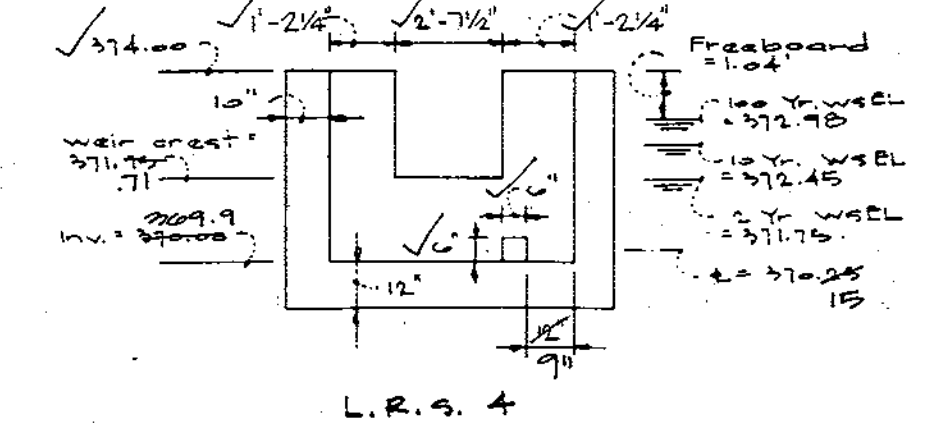
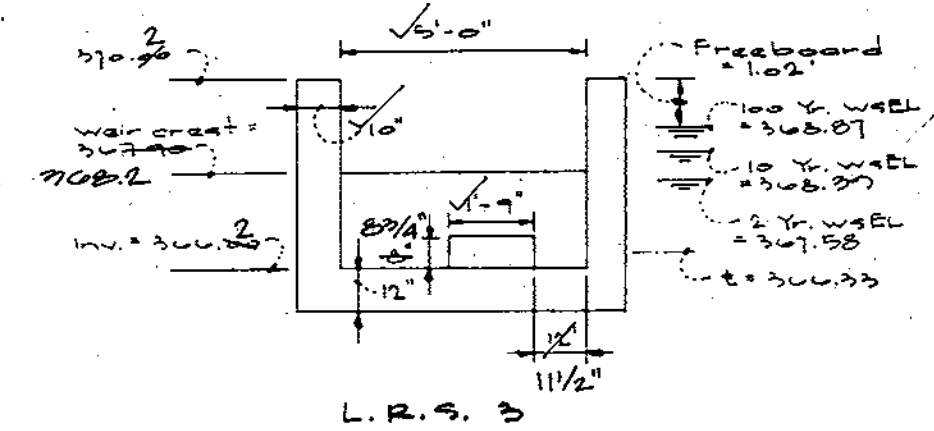
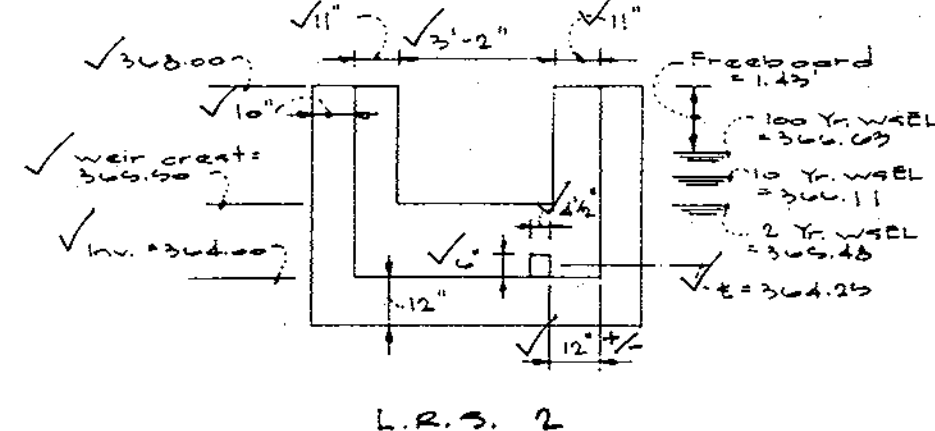
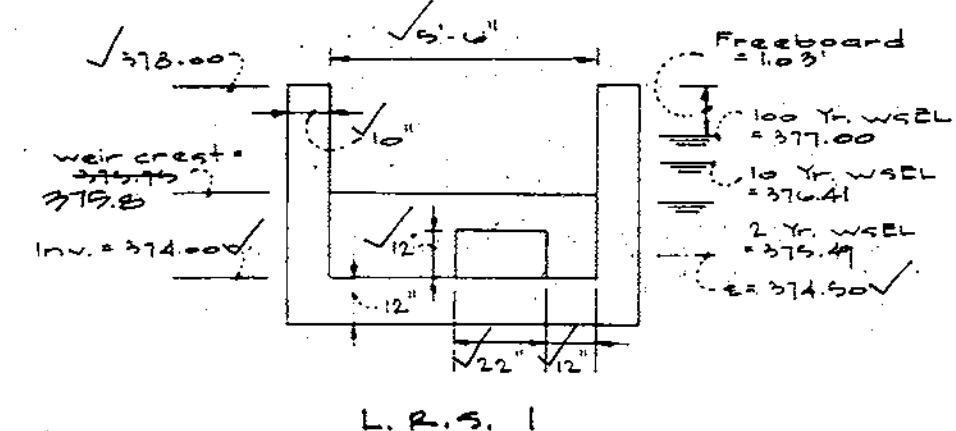
OWNER INFORMATION
 Name: Orchard Development
 Phone: (410) 750-1800
 Fax: (410) 750-1800

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT: 1.16 ac ±

Stormceptor® Model	Insert Size	Manhole Number	Top Elevation (ft)	Inlet Pipe Invert (ft)	Outlet Pipe Invert (ft)	Pipe Type	Inlet Pipe Inside Diameter (in)	Inlet Pipe Outside Diameter (in)	Outlet Pipe Inside Diameter (in)	Outlet Pipe Outside Diameter (in)
STC		5C-4	370.00	371.20	371.20	22"	24"	24"	24"	24"
900	<input type="checkbox"/> 3600									
1200	<input type="checkbox"/> 4800									
1800	<input checked="" type="checkbox"/> 6000									
2400	<input type="checkbox"/> 7200									
	CUSTOM									

Project Name: Hickory Ridge Elderly Center
 Approximate time frame of delivery (weeks): June 1, 1999
 Delivery Address: Street: Local Owen Brown Road
 City: Columbia State: Maryland Zip Code: 21044
 Designer Company: Gutschick Little & Weber, PA.
 Designer Contact: Bugs Vande Kerk Phone (410) 260-1270 Fax (202) 421-4100

*H.D.P.E. indicates High Density Polyethylene such as HD by Hanco, N.12 by ABS, or an approved equal.



- Notes For Trash Rack Facility**
1. Bars will not be required against the floor or weir wall of the riser structure.
 2. Deltas to be placed into a concrete anchor.
 3. All exposed metal surfaces are to be galvanized after fabrication and painted with two (2) coats of battleship grey paint.

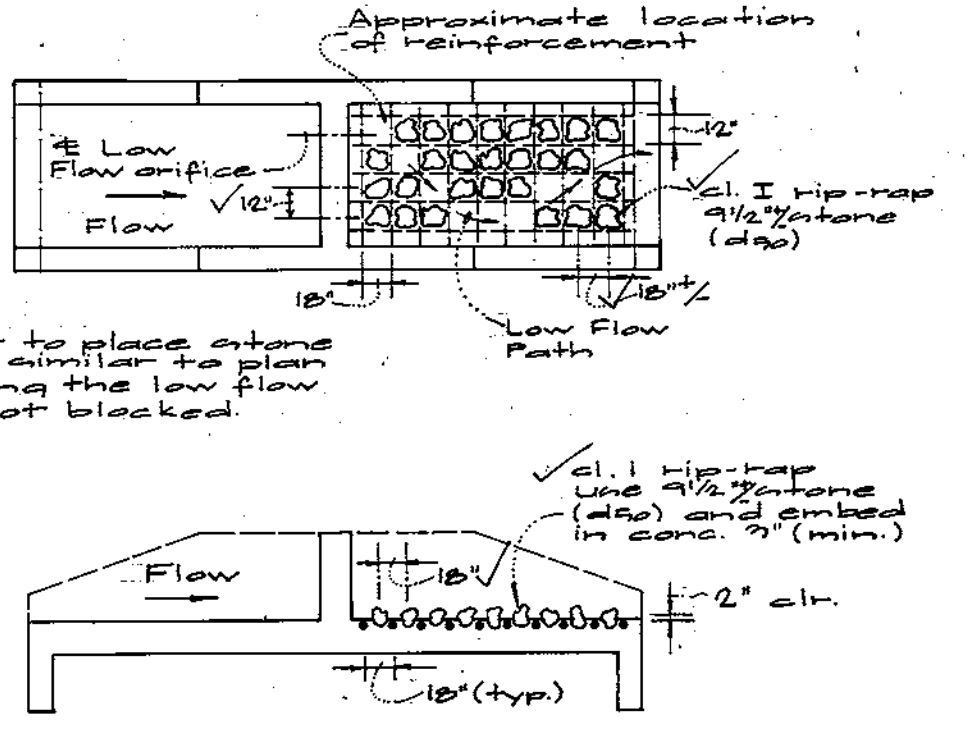
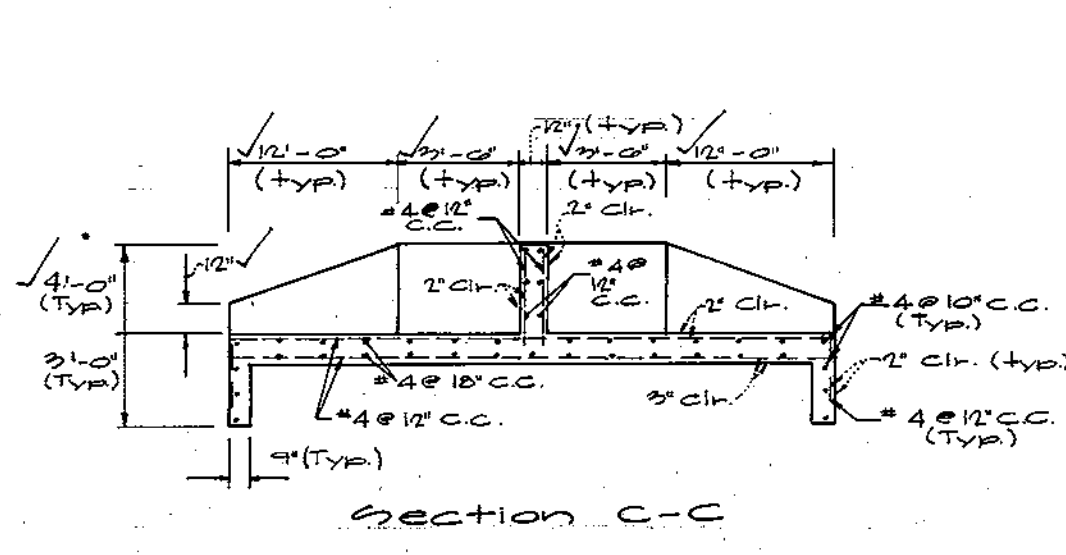
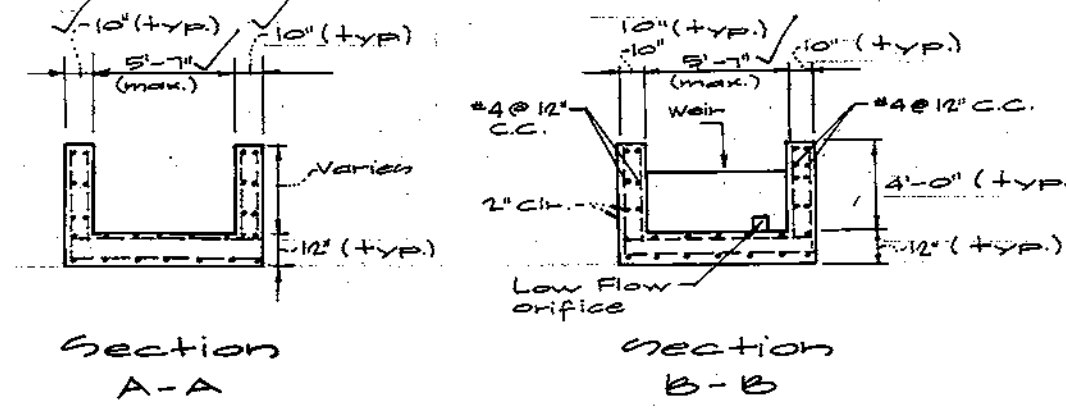
- Notes:**
1. All exposed edges to have 3/4" x 3/4" chamfer as directed.
 2. Concrete shall be 34A mix no. 3 (42' x 7500 psi @ 28 days).
 3. Reinforcing steel shall be ASTM A-615 grade 60.
 4. Reinforcement shown is typical to all facilities.
 5. 'W' shown in plan view, sect. A-A and sect. B-B equals 5'-0" at facilities 2-4 and 5'-0" at facility 1.
 6. For weir configuration, both temporary and ultimate, see details this sheet.
 7. For low flow orifice dimensions, see details this sheet.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

David Rutter 12/13/99
 Date

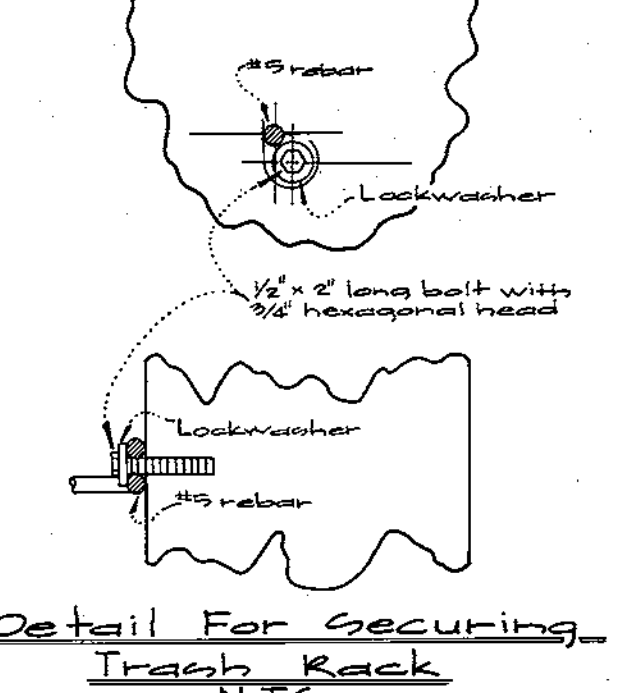
Cindy Hanatta 12/14/99
 Date
 Chief, Division of Land Development

[Signature] 11/30/99
 Date
 Chief, Development Engineering Division



- Notes:**
1. Contractor to place orifice in pattern similar to plan view, insuring the low flow orifice is not blocked.

Outlet Protection Detail
 No Scale



GLW GUTSCHICK LITTLE & WEBER, PA.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE SUITE 250 BURTONSVILLE OFFICE PARK BURTONSVILLE, MD. 20866
 TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

AWM Notes and Details
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT NO. 13156

DES:	SCALE	ZONING	G.L.W. FILE NO.
d.e.v.	N/A	R-20/NT	95093
DRN:			
f.m.m.	DATE	TAX MAP NO.	SHEET
CHK.:	October 1999	35-1B	14
d.e.v.	11/22/99		

SPECIFICATIONS
 Even though facilities 1 through 4, as shown on these plans, have not been classified as MD-37B facilities, the contractor must adhere to these specifications.

Site Preparation
 Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill
 Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement - Area on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated in to the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Structure Backfill
 Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

- Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plastico-Cote, Blac-Klad, and Bell-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Material - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-198 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

- Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

- Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe & riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hugger type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

Helically corrugated pipe shall have either continuously welded seams or have lock seams.

- Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

- Backfilling shall conform to "Structure Backfill".

- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

- Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.

- Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.

- Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.

- Backfilling shall conform to "Structure Backfill".

- Other details (anti-seep collars, valves, etc.) shall be shown on the drawings.

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

- Materials - PVC pipe shall be PVC - 1120 or PVC - 1220 conforming to ASTM D-1785 or ASTM D-2241.
- Joints and connections to anti-seep collars shall be completely watertight.
- Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
- Backfilling shall conform to "Structure Backfill".
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standards Specifications for Construction and Materials, Section 608, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The rip rap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

Elev.	Soil Description	Depth
	2" topsoil	
324.0	Orange brown, very dense, slight to non-plastic, silty, fine to coarse SAND (SM)	2.0
323.4	Medium brown, moist, slightly plastic, silty, fine to medium SAND (SM)	4.5
322.9	Light to medium brown, dry, stiff, fine to coarse, sandy CLAY (CL)	7.0
322.0	Medium orange brown to dark brown, moist, dense to very dense, micaceous, silty, fine to coarse SAND (SM)	10.0
	Refusal at 10.0'	

B-1A

Elev.	Soil Description	Depth
	2" topsoil	
324.0	Light to medium brown, moist, very stiff, silty, CLAY trace fine sand (CL)	2.0
323.4	Medium brown, moist, slightly plastic, silty, fine to medium SAND (SM)	4.5
322.9	Light to medium brown, dry, stiff, fine to coarse, sandy CLAY (CL)	7.0
322.0	Medium orange brown to dark brown, moist, dense to very dense, micaceous, silty, fine to coarse SAND (SM)	10.0
	Bottom of hole at 10.0'	

B-1B

Elev.	Soil Description	Depth
	2" topsoil	
324.0	Medium brown, dry to moist, fine to medium, sandy SILT (ML)	2.0
323.4	Light gray, brown, dry, dense, slightly plastic, silty, fine to medium SAND (SM)	4.5
322.9	Medium orange brown, moist, micaceous, medium plastic, silty, fine to medium SAND (SM)	6.5
	Bottom of hole at 6.5'	

B-1C

Elev.	Soil Description	Depth
	2" topsoil	
324.0	Yellow brown, dry to moist, stiff to hard, medium plastic, silty CLAY (CL)	2.0
323.0	Yellow & green, moist to wet, medium dense, slightly plastic, silty SAND (SM)	7.0
322.0	Yellow & green, moist to wet, medium dense, slightly plastic, silty SAND (SM) (sapprolite)	10.0
	Bottom of hole at 12.0'	

B-2A

Elev.	Soil Description	Depth
	2" topsoil	
324.0	Yellow brown to white, soft to stiff, medium plastic, micaceous, silty CLAY (CL)	2.0
323.0	White to yellow brown to green & white, moist to wet, medium dense, loamy, slightly plastic, silty SAND (SM) (sapprolite)	6.0
322.0	White to yellow brown to green & white, moist to wet, medium dense, loamy, slightly plastic, silty SAND (SM) (sapprolite)	10.0
	Bottom of hole at 10.5'	

B-2B

Elev.	Soil Description	Depth
	4" topsoil	
324.0	Pale brown to white, dry, moist, stiff, silty CLAY (CL)	4.5
323.0	Yellow, green, pink, moist, dense, silty SAND (SM)	8.5
322.0	Bottom of hole at 8.5'	

B-2C

Elev.	Soil Description	Depth
	4" topsoil	
324.0	Yellow brown, dry to moist, stiff to hard, medium plastic, silty CLAY (CL)	2.0
323.0	Gray to orange brown to pale brown, dense, plastic, silty SAND (SM) (sapprolite)	4.5
322.0	Yellow & green, moist to wet, medium dense, slightly plastic, silty SAND (SM) (sapprolite)	10.0
	Bottom of hole at 13.0'	

B-3A

Elev.	Soil Description	Depth
	2" topsoil	
324.0	Light gray, light brown, moist, dense, medium plastic, clayey, fine SAND (SC-1)	2.0
323.0	White to green to orange brown, moist to wet, medium dense, slightly plastic, silty SAND (SM) (sapprolite)	4.5
322.0	White to green to orange brown, moist to wet, medium dense, slightly plastic, silty SAND (SM) (sapprolite)	11.0
	Bottom of hole at 11.0'	

B-3B

Elev.	Soil Description	Depth
	4" topsoil	
324.0	Gray brown, moist, medium stiff, slightly plastic, sandy SILT (ML)	1.0
323.0	Gray, very dense, medium plastic, clayey SAND (SC)	4.5
322.0	Orange, green, moist to wet, medium dense, slightly plastic, silty SAND (SM) (sapprolite)	10.0
321.0	Green & white, moist to wet, very dense, non-plastic, silty SAND (SM)	11.0
	Bottom of hole at 11.0'	

B-3C

Elev.	Soil Description	Depth
	2" topsoil	
324.0	Yellow brown, loamy, slight to medium plastic, silty SAND (SM) (sapprolite)	5.0
	Refusal at 5.0'	

B-4A

Elev.	Soil Description	Depth
	4" topsoil	
324.0	Yellow brown, medium dense, slight to medium plastic, silty SAND (SM)	1.5
323.0	Yellow brown, green, pink, plastic, silty SAND (SM) (sapprolite)	10.0
	Refusal at 10.0'	

B-4B

Elev.	Soil Description	Depth
	2" topsoil	
324.0	Yellow brown, white, green, pink, medium dense to very dense, slight to non-plastic, silty SAND (SM) (sapprolite)	3.0
	Refusal at 3.0'	

B-4C



APPROVED: Howard County Dept. of Planning & Zoning
 [Signature] 12/18/99
 [Signature] 14/4/99
 [Signature] 4/25/00

The construction of the 4 stormwater management facilities shall be supervised by a qualified geotechnical firm throughout their construction. Although there is no requirement for an as-built submission to HCCD, there will be 1 to HCCBPW involving the same level of documentation.

No Asbuilt Information Shown On This Sheet

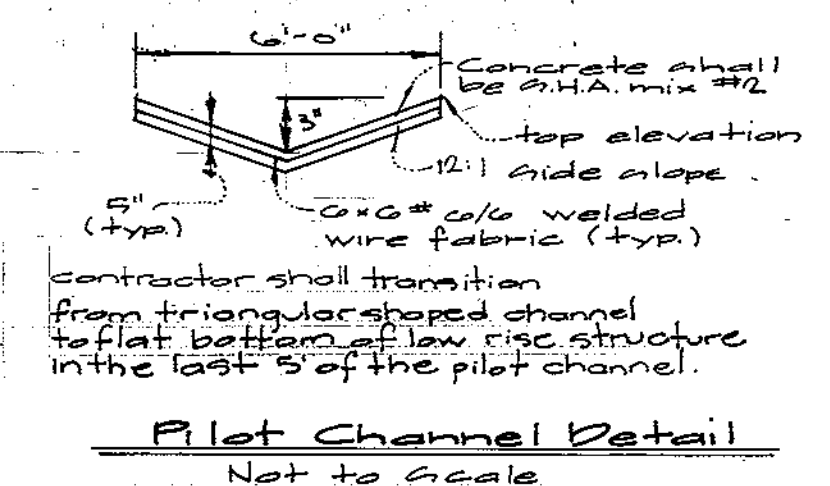
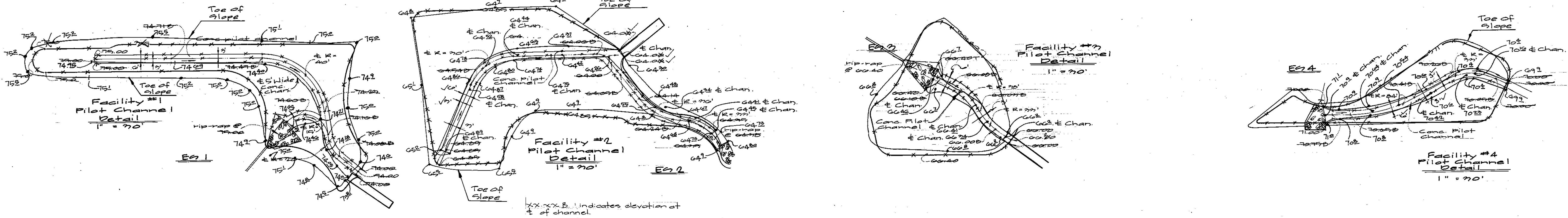
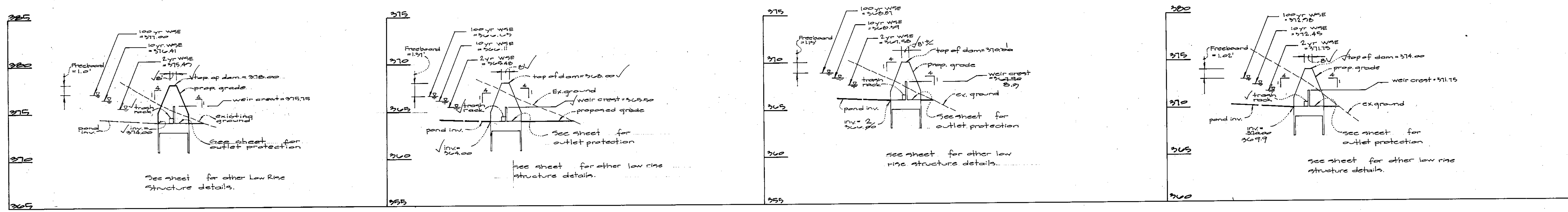
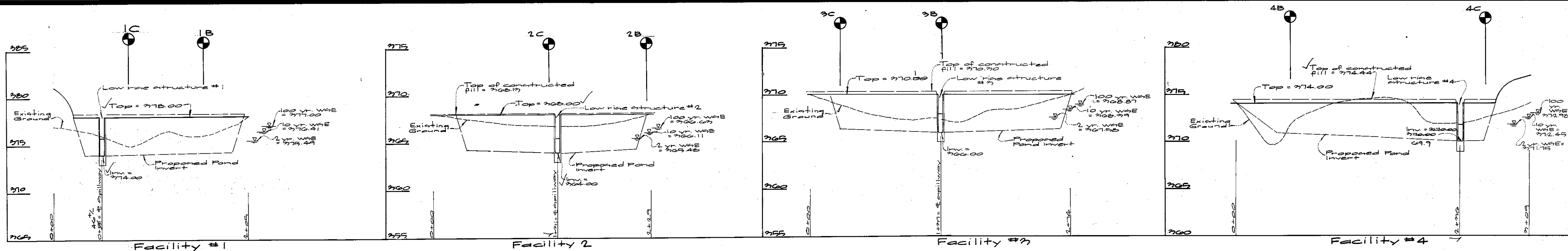
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-4024 NO. VA: (301) 989-2524 BALT: (410) 880-1820 FAX: (301) 421-4186 DES. DRN. CHK.

DATE	REVISION	BY	APPR.
Nov 2002	Asbuilt Information Added		

PREPARED FOR:
 Orchard Development Corporation
 2979 Old Columbia Pike
 Ellicott City, Maryland 21043
 (410) 750-1200

SWM Notes and Details
HICKORY RIDGE ELDERLY CENTER
 LOTS 1 AND 2
 PLAT No. 13156
 CLARKSVILLE ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
	R-20/NT	95053
DATE	TAX MAP No.	SHEET
October 2002	35-18	19



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 12/13/99
Date

[Signature] 10/9/99
Date
Chief, Division of Land Development

[Signature] 11/2/99
Date
Chief, Development Engineering Division



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE, SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
Nov. 2000	Asbuilt Information Added		

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

GWM Notes and Details
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5

DES.:	SCALE	ZONING	G.L.W. FILE No.
DEV	As Shown	R-20/NT	93057
DRN.:			
	DATE	TAX MAP No.	SHEET
CHK.:	October November 2002	35-18	16

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 MISS UTILITY 1-800-257-7777
 C & P TELEPHONE COMPANY 725-9978
 HOWARD COUNTY BUREAU OF UTILITIES 331-4900
 A T & T CABLE LOCATION DIVISION 393-3553
 BALTIMORE GAS & ELECTRIC COMPANY 685-0123
 STATE HIGHWAY ADMINISTRATION 531-5533
- THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
- THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 313-1880.
- PROJECT BACKGROUND:
 LOCATION: TAX MAP #35, GRID 12, Lots 1-2 (Parcel A59), a subdivision of Lot 2-6 (Parcel 2-6) and Parcel 13-2.
 ZONING: R-20
 ELECTION DISTRICT: 5TH
 SITE AREA: 17.7964 AC.
 REC. REF.: PLAT NO. 13156
- 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.
- ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIIALLY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
- EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM AERIAL PHOTOGRAPHY BY P.D.S. IN 4/97 AND FROM FIELD SURVEYS BY GUTSCHICK, LITTLE & WEBER, PA.
- COORDINATES ARE BASED ON NAD 27 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STA. NOS. 35C5 AND 0025
- PUBLIC WATER AND SEWER IS TO BE UTILIZED. CONTRACT NOS 2556-B, C- 435 W, AND 44 - 1533
- STORMWATER MANAGEMENT IS BEING PROVIDED ON SITE UNDER THIS SUBMISSION. QUANTITY AND QUALITY MANAGEMENT WILL BE PROVIDED BY DETENTION WITH STORMWATER TREATMENT FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
- ALL STORM DRAINS PROPOSED UNDER THIS SDP ARE PRIVATE.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM BEST AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF CONSTRUCTION.
- ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A (5'X5') FIVE FOOT BY FIVE FOOT LEVEL (2% MAX.) LANDING AT THE TOP AND BOTTOM OF ALL RAMPS.
- ALL DRIVEWAYS AND PARKING TO BE PRIVATELY OWNED AND MAINTAINED.
- ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01. CLASS "C" BEDDING, UNLESS OTHERWISE NOTED.
- GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS FOR ASPHALT PAVING.
- WATER METERS ARE LOCATED INSIDE EACH UNIT FOR A COMBINATION OF DOMESTIC AND FIRE SERVICES. EACH UNIT IS EQUIPPED WITH AN AUTOMATIC FIRE PREVENTION SPRINKLER SYSTEM.
- ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. CURB SPOT ELEVATIONS ARE AT THE FLOW LINE, UNLESS NOTED OTHERWISE.
- THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE.
- ALL DOWNSPOUT DRAINS SHALL BE HANDLED BY ONE OF THESE METHODS:
 A. DOWNSPOUT TO SPLASH AND DISCHARGE ONTO GROUND HAVING GOOD PERCOLATION.
 B. DOWNSPOUT IN FRONT OF UNITS PIPED TO CURB.
 C. DOWNSPOUT CONNECTED TO STORM DRAIN.
- WETLAND DELINEATION WAS PERFORMED BY EXPLORATION RESEARCH, AND VERIFIED BY ARMY CORPS OF ENGINEERS. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLAND BUFFER EXCEPT AREAS PERMITTED FOR DISTURBANCE BY THE DEPARTMENT OF NATURAL RESOURCES AND THE HCDPZ.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
- ALL WATER HOUSE CONNECTIONS SHALL BE BUILT WITH 48" OF MIN. COVER TO PROPOSED GRADES.
- ALL OUTDOOR LIGHTING SHALL COMPLY WITH ZONING SECTION 134.
- OTHER HOWARD COUNTY FILES RELATED TO THIS SITE:
 BA - 95-80 E, BA-98-20E, S-97-09, WP 98-20 (WHICH ON 8/28/97 ALLOWED PREPARATION OF A MASS GRADING PLAN FOR A GRADING PERMIT), F 98 - 26 AND FDP - 205-A-1, Part 1, and WP 99-101 (See note #30).
- FOREST CONSERVATION FOR THIS SITE IS PROVIDED BY:
 A. ON-SITE RESTRICTION ON WEST TRACT OF 2.78 AC. (SURETY # \$13,068.00)
 B. ON-SITE FOREST PLANTING OF 0.78 AC. (SURETY # \$3,227.20)
 C. FEE-IN-LIEU IN THE AMOUNT OF \$22,215.00 (17 acres)
 SURETY & FEE-IN-LIEU AMOUNTS ARE BASED ON AREA ROUNDED TO 1/10 AC.
 27. See sheet 2 for conditions of BA 98-20E.

Site Analysis Data Chart

- General Site Data:
 a. Zoning: R-20
 b. Proposed use: Single family attached units, 11 community center
 c. Building coverage: @ 21% (2,996 sq ft) open space @ 79% (11,190 sq ft)
- Density:
 a. 88 units allowed under BA 98-20E at a rate of 5 units per acre (21.7297 x 80)
 b. 88 units proposed
- Area Tabulation: R-20 Area = 17,797 sq. ft.
 NT Area = 0.0022 ac.
 Total = 17,794.78 ac.
- Parking:
 a. Parking required: 25 spaces at a rate of 2 spaces for every 5 units (80/5) x 2 = 32
 b. Parking provided: 53 - 2 car garages = 106
 25 - 1 car garages = 25
 1 space in front of each 1 car garage = 25
 2 spaces @ comm. center (2 H.C. - van) = 4
 185 spaces

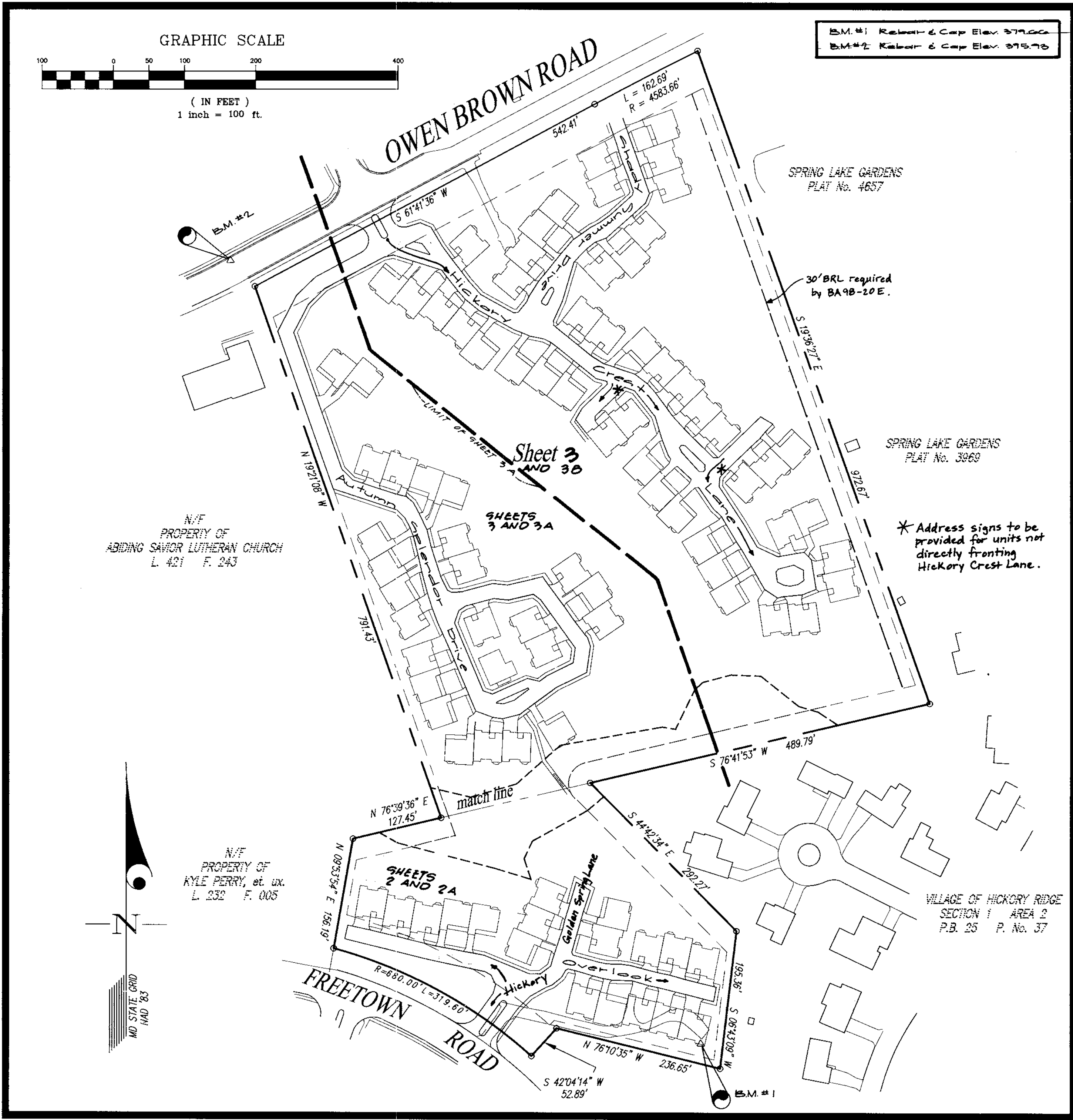
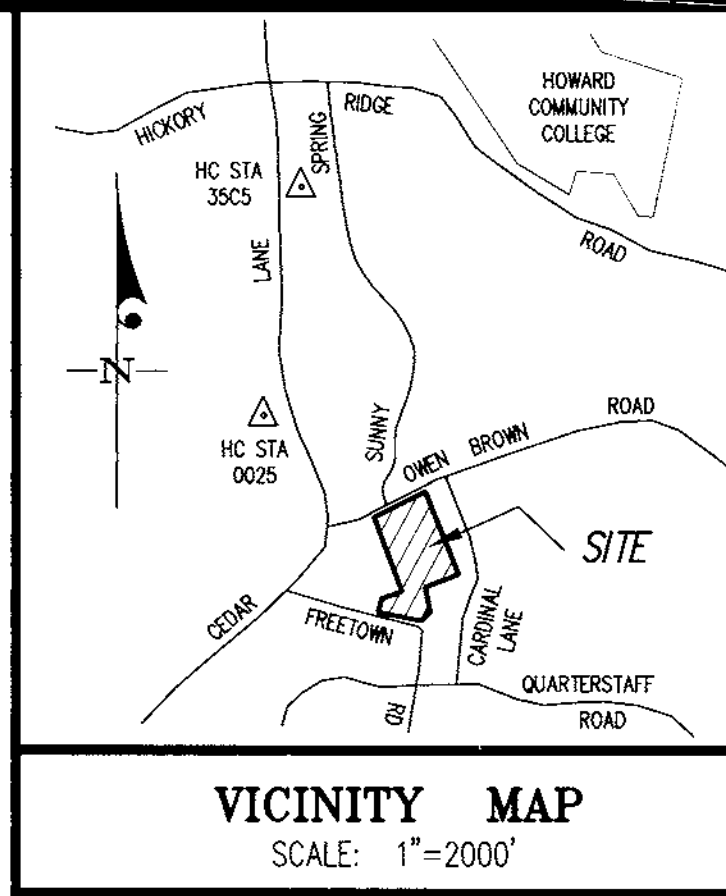
SITE DEVELOPMENT PLAN

HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2

FIFTH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



GENERAL NOTES (cont.)

30. WP-99-101, was approved on 5/28/99, and waived Section 16.115 c. 2. To allow work to be done in the floodplain; Section 16.116 a. 2. to allow disturbance in the 25' wetland buffer; and Section 16.116 a. 2. i to allow disturbance to the 50' stream buffer. Approval is subject to five conditions of approval, as specified in the application file.

Unit #	Address	FF/Job elevation	Basement elevation	Min. cellar elevation	Professional Disturbance
1	102116 Shady Summer Drive	382.78	X	X	X
2	102114	381.39	X	X	X
3	102112	380.72	X	X	X
4	102113	382.70	379.90	X	X
5	102111	381.57	378.49	X	X
6	102108	380.49	X	X	X
7	102106	381.10	X	X	X
8	102104	382.49	X	X	X
9	102107	382.50	379.47	X	X
10	102105	382.50	379.47	X	X
11	102103	382.56	378.14	X	X
12	102102	382.29	378.41	X	X
13	10605 Hickory Great Lane	379.83	381.91	X	X
14	10615	381.88	378.14	X	X
15	10617	379.86	378.14	X	X
16	10621	377.75	380.81	X	X
17	10623	374.98	380.87	X	X
18	10625	379.99	380.78	X	X
19	10627	379.99	380.87	X	X
20	10629	378.79	380.87	X	X
21	10633	379.56	380.87	X	X
22	10635	379.57	380.87	X	X
23	10637	379.57	380.87	X	X
24	10641	374.77	380.87	X	X
25	10643	378.90	380.87	X	X
26	10645	378.91	X	X	X
27	10649	374.01	X	X	X
28	10644	374.70	X	X	X
29	10644	379.69	X	X	X
30	10640	379.81	X	X	X
31	10638	379.51	X	X	X
32	10638	379.87	380.87	X	X
33	10632	379.82	380.87	X	X
34	10630	379.82	380.87	X	X
35	10628	379.82	380.87	X	X
36	10622	378.90	380.87	X	X
37	10624	378.90	380.87	X	X
38	10618	379.74	380.87	X	X
39	10616	381.74	379.87	X	X
40	10614	382.79	378.92	X	X
41	10610	382.71	378.92	X	X
42	10608	380.84	378.12	X	X
43	10606	380.84	380.18	X	X
44	10604	381.04	382.12	X	X
45	10602	380.37	380.87	X	X
46	10358 Autumn Splendor Drive	378.92	X	X	X
47	10356	378.97	X	X	X
48	10354	379.45	X	X	X
49	10355	379.78	380.86	X	X
50	10357	374.45	380.87	X	X
51	10346	378.67	380.75	X	X
52	10345	380.97	371.79	X	X
53	10347	382.42	378.92	X	X
54	10348	382.42	378.92	X	X
55	10321	383.24	378.92	X	X
56	10319	380.47	379.69	X	X
57	10317	382.00	378.98	X	X
58	10315	382.70	378.31	X	X
59	10303	381.12	380.22	X	X
60	10305	381.79	380.87	X	X
61	10320	380.96	380.87	X	X
62	10322	380.4.16	380.84	X	X
63	10324	380.76	380.84	X	X
64	10326	380.80	378.96	X	X
65	10330	381.20	378.88	X	X
66	10332	379.30	380.87	X	X
67	10334	379.80	380.87	X	X
68	10338	379.19	X	X	X
69	10340	379.17	X	X	X
70	10344	378.78	X	X	X
71	6428 Hickory Overlook	384.98	378.04	X	X
72	6426	384.78	378.04	X	X
73	6424	384.29	378.37	X	X
74	6422	384.27	378.57	X	X
75	6420	384.96	378.04	X	X
76	6509 Golden Spring Lane	380.84	X	X	X
77	6507	382.04	378.12	X	X
78	6505	382.71	378.79	X	X
79	6508	380.37	X	X	X
80	6506	381.04	X	X	X
81	6404 Hickory Overlook	382.12	X	X	X
82	6402	378.45	X	X	X
83	6400	378.78	X	X	X
84	6409	382.33	378.41	X	X
85	6407	381.83	378.71	X	X
86	6405	380.47	378.57	X	X
87	6403	379.82	378.70	X	X
88	6401	379.19	380.23	X	X
89	10750 Autumn Splendor Drive	378.46	X	X	X

Curbaide trash collection shall be provided by a private contractor and is not the responsibility of Howard County.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	Date
<i>[Signature]</i>	12/13/99
<i>[Signature]</i>	12/19/99
<i>[Signature]</i>	11/30/97

Sheet Index	
1. Cover Sheet	15. S.W.M. Details
2. Site Development Plan	16. Drainage Area Map
3. Site Development Plan	17. Road Grades
4. Utility Plan	18. Landscape Edge Analysis
5. Landscape Plan	19. Storm Drain Profiles
6. Landscape Plan	20. Sediment Control Notes/Details
7. Sediment Control Plan	21. Storm Drain Profiles
	22. Forest Stand Delineation
	23. Forest Conservation Plan
	24. Forest Conservation Notes
	25. 30 Scale Supplemental Site Plan
	26. 30 SCALE SUPPLEMENTAL SITE PLAN
	27. 30 SCALE SUPPLEMENTAL SITE PLAN

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURLINGAME OFFICE PARK
 BURLINGAME, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
 ORCHARD DEVELOPMENT CORPORATION
 3979 OLD COLUMBIA PIKE
 ELLICOTT CITY, MARYLAND 21043
 (410) 750-1800

COVER SHEET

HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
 PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

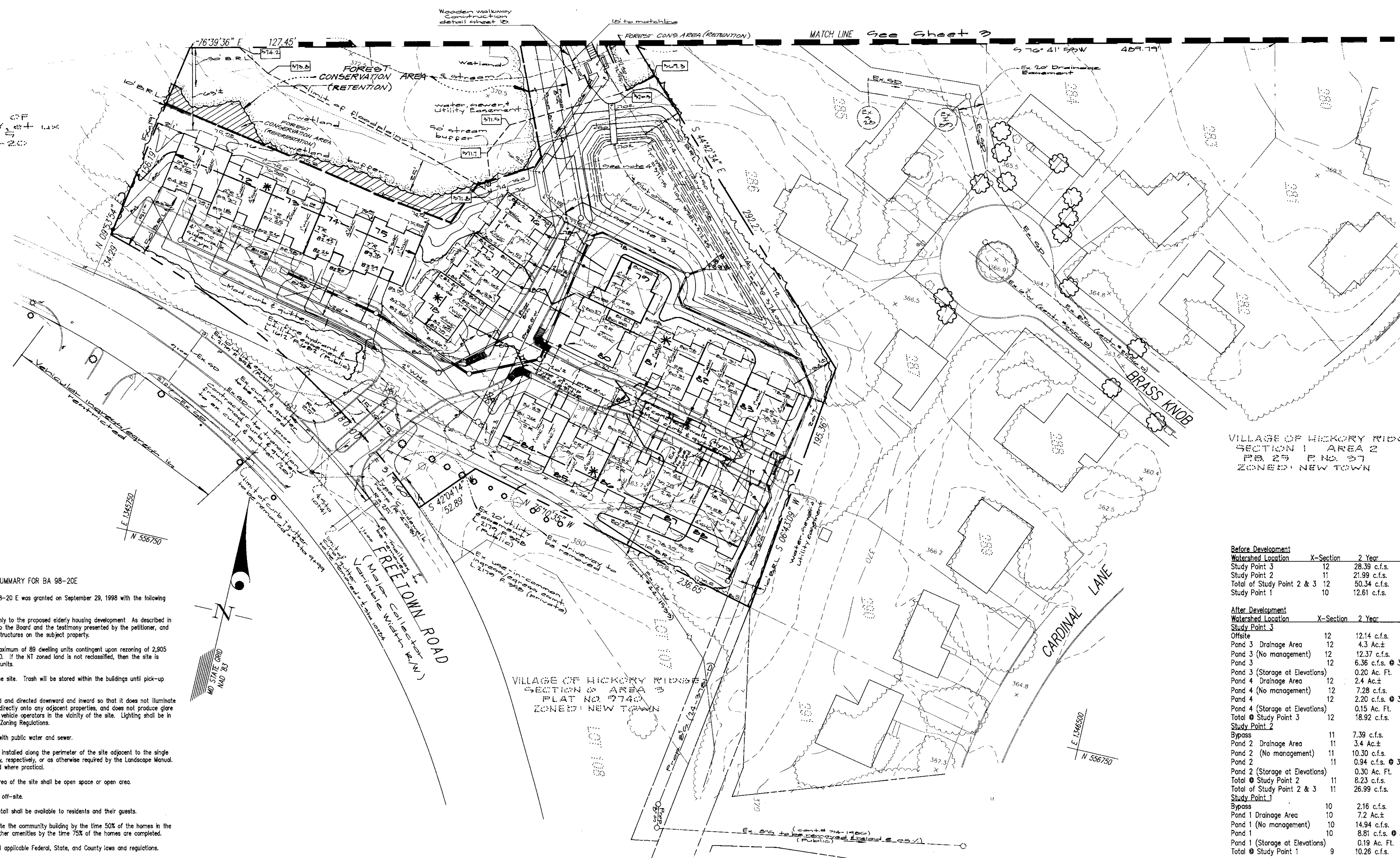
SCALE: AS SHOWN	ZONING: R-20/NT	G. L. W. FILE No.: 95053
DATE: November, 1999	TAX MAP - GRID: 35-18	SHEET: 1

DES.	DRN.	CHK.

DATE	REVISION	BY	APP'R.
9/21/01	ADD SHEET 3A/D TO SHEET INDEX, REVISE ADDRESS CHART & SITE MAP		
12/4/00	add sheet 2a to sheet index, rev. address chart for continuity	JAW/mcf	

* See sheet 2a for updated architectural information and fine grading around units. All other information on this sheet is still applicable.

PROPERTY OF
KYLE PERRY et al
L 292 F 20
ZONED: R-20



VILLAGE OF HICKORY RIDGE
SECTION 1 AREA 2
PB. 29 P. NO. 27
ZONED: NEW TOWN

SUMMARY FOR BA 98-20E

The Board of Appeals Case BA 98-20 E was granted on September 29, 1998 with the following conditions:

1. The Special Exception shall apply only to the proposed elderly housing development. As described in the petition and the plan submitted to the Board and the testimony presented by the petitioner, and not to any other activities, uses, or structures on the subject property.
2. The development is limited to a maximum of 89 dwelling units contingent upon rezoning of 2,905 square feet of NT zoned land to R-20. If the NT zoned land is not reclassified, then the site is limited to a minimum of 88 dwelling units.
3. No dumpsters will be located on the site. Trash will be stored within the buildings until pick-up day.
4. Any exterior lighting will be shielded and directed downward and inward so that it does not illuminate residential properties, does not shine directly onto any adjacent properties, and does not produce glare that would cause a hazard for motor vehicle operators in the vicinity of the site. Lighting shall be in conformance with Section 134 of the Zoning Regulations.
5. The development shall be served with public water and sewer.
6. Landscape edges C and A shall be installed along the perimeter of the site adjacent to the single family houses and the church property, respectively, or as otherwise required by the Landscape Manual. Existing vegetation shall be maintained where practical.
7. A minimum of 50% of the gross area of the site shall be open space or open area.
8. No perceptible odors may emanate off-site.
9. The dining area and convenience retail shall be available to residents and their guests.
10. The Petitioner proposes to complete the community building by the time 50% of the homes in the development are completed, and all other amenities by the time 75% of the homes are completed.
11. The Petitioner shall comply with all applicable Federal, State, and County laws and regulations.

Before Development				
Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3	12	28.39 c.f.s.	67.45 c.f.s.	132.28 c.f.s.
Study Point 2	11	21.99 c.f.s.	43.46 c.f.s.	67.65 c.f.s.
Total of Study Point 2 & 3	12	50.34 c.f.s.	110.81 c.f.s.	199.93 c.f.s.
Study Point 1	10	12.61 c.f.s.	30.37 c.f.s.	51.95 c.f.s.

After Development				
Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3				
Offsite	12	12.14 c.f.s.	39.12 c.f.s.	93.40 c.f.s.
Pond 3 Drainage Area	12	4.3 Ac.±		
Pond 3 (No management)	12	12.37 c.f.s.	21.28 c.f.s.	31.00 c.f.s.
Pond 3	12	6.36 c.f.s. @ 367.58	15.24 c.f.s. @ 368.39	24.62 c.f.s. @ 368.87
Pond 3 (Storage at Elevations)		0.20 Ac. Ft.	0.33 Ac. Ft.	0.42 Ac. Ft.
Pond 4 Drainage Area	12	2.4 Ac.±		
Pond 4 (No management)	12	7.28 c.f.s.	13.02 c.f.s.	19.30 c.f.s.
Pond 4	12	2.20 c.f.s. @ 371.75	5.05 c.f.s. @ 372.45	11.11 c.f.s. @ 372.98
Pond 4 (Storage at Elevations)		0.15 Ac. Ft.	0.26 Ac. Ft.	0.35 Ac. Ft.
Total @ Study Point 3	12	18.92 c.f.s.	52.38 c.f.s.	124.95 c.f.s.
Study Point 2				
Bypass	11	7.39 c.f.s.	15.51 c.f.s.	24.86 c.f.s.
Pond 2 Drainage Area	11	3.4 Ac.±		
Pond 2 (No management)	11	10.30 c.f.s.	18.17 c.f.s.	26.78 c.f.s.
Pond 2	11	0.94 c.f.s. @ 365.48	4.89 c.f.s. @ 366.11	11.29 c.f.s. @ 366.63
Pond 2 (Storage at Elevations)		0.30 Ac. Ft.	0.48 Ac. Ft.	0.67 Ac. Ft.
Total @ Study Point 2	11	8.23 c.f.s.	18.09 c.f.s.	33.24 c.f.s.
Total of Study Point 2 & 3	11	26.99 c.f.s.	70.35 c.f.s.	157.84 c.f.s.
Study Point 1				
Bypass	10	2.16 c.f.s.	5 c.f.s.	8.27 c.f.s.
Pond 1 Drainage Area	10	7.2 Ac.±		
Pond 1 (No management)	10	14.94 c.f.s.	30.31 c.f.s.	47.79 c.f.s.
Pond 1	10	8.81 c.f.s. @ 375.49	21.39 c.f.s. @ 376.41	37.67 c.f.s. @ 377.00
Pond 1 (Storage at Elevations)		0.19 Ac. Ft.	0.36 Ac. Ft.	0.51 Ac. Ft.
Total @ Study Point 1	9	10.26 c.f.s.	24.91 c.f.s.	44.05 c.f.s.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Howard County Seal

John R. Smith 12/13/99
Director

Cindy Hamilton 12/14/99
Chief, Division of Land Development

[Signature] 1/14/00
Chief, Development Engineering Division

1. For additional information regarding existing & proposed utilities, see sheets 4 & 11-13
2. For additional information regarding existing stormwater management, see sheets 4 & 14-16.
3. Contractor to end macadam path & begin concrete sidewalk.
4. Contractor to end 4' wide macadam path and begin wooden walkway.
5. All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the Homeowners Association. Quantity management is provided for the 2, 10 and 100 year storm by detention. All proposed facilities have a class 'A' hazard level. Quality management is provided using stormceptors.

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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TEL: 301-421-4024 BALTO: 410-380-1820 DC/VA: 301-388-2524 FAX: 301-421-4186

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLCOTT CITY, MARYLAND 21043
(410) 750-1800

Site Development Plan
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13136

SCALE 1"=40'	ZONING R-20/ NT	G. L. W. FILE No. 95053
DATE November, 1999	TAX MAP - GRID 35 - 18	SHEET 2

DATE	REVISION	BY	APPR.
12/14/99	Remove unit details	JA	LACE
12/14/99	Notations added to reference 2a, remove surpasm from unit 82	JA	LACE

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