

# FINAL WATER AND SEWER PLAN ECKERS HOLLOW PHASE II

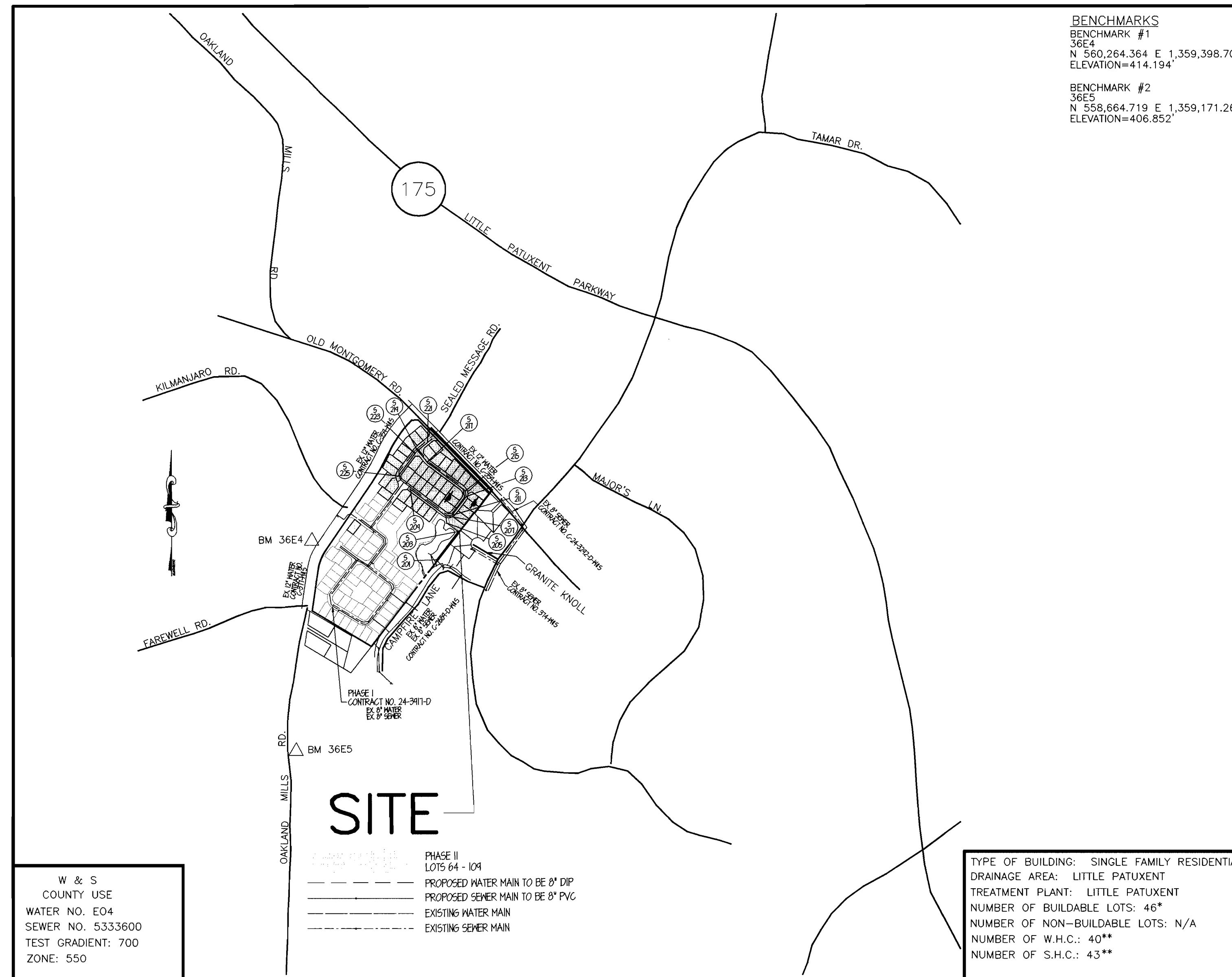
## 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

### GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, DETAILS AND SPECIFICATIONS FOR CONSTRUCTION.
2. COORDINATES SHOWN HEREON ARE BASED ON MARYLAND COORDINATE SYSTEM NAD '83 AS MONUMENTED BY HOWARD COUNTY GEODETIC CONTROL STATION 36E4 AND 36E5.
3. APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.
5. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)-313-2450 AT LEAST FIVE (5) WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(c) OF THE HOWARD COUNTY CODE.
6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARDS SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT, OR TEST PITS, IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
STATE HIGHWAY ADMINISTRATION 410-531-5533  
BALTIMORE GAS & ELECTRIC CO. CONTRACTOR SERVICES 410-850-4620  
BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL 410-291-4607  
MISS UTILITY 1-800-257-7777  
BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 410-313-4900  
VERIZON 1-800-448-5266
9. THE CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
10. ALL WATER MAINS TO BE DUCTILE IRON PIPE (D.I.P.) CLASS 52 UNLESS OTHERWISE NOTED.
11. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3.5' OF COVER UNLESS OTHERWISE NOTED.
12. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO THE TEES.
13. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
14. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
15. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
16. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
17. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
18. THE FIRE HYDRANTS SHALL BE INSTALLED AS PER STANDARD DETAIL W 2.11 UNLESS OTHERWISE NOTED.
19. FILL AREAS WITHIN THE RIGHT-OF-WAY AND UNDERNEATH PROPOSED UTILITIES IS TO BE SELECT BACKFILL, COMPACTED TO 95% COMPACTION IN ACCORDANCE WITH ASSHTO 1-180.
20. HOWARD COUNTY DPW IS HEREBY GRANTED PERMISSION TO ACCESS PRIVATE LOTS SHOWN ON THESE PLANS IN ORDER TO MAINTAIN PUBLIC WATER AND SEWER HOUSE CONNECTIONS AT THE CURB STOPS AND/OR CLEANOUTS.
21. SEWER HOUSE CONNECTIONS TO BE 4" IN SIZE, UNLESS OTHERWISE NOTED.
22. THERE ARE TO BE NO TWIN SEWER HOUSE CONNECTIONS.
23. STANDARD SLOPE FOR SEWER HOUSE CONNECTIONS IS 2%, WITH A MINIMUM SLOPE OF 1% AND A MAXIMUM SLOPE OF 5%.
24. MINIMUM SIZE WATER HOUSE CONNECTION IS 1", UNLESS OTHERWISE NOTED.
25. ALL SEWER MAINS SHALL BE POLYVINYL CHLORIDE (P.V.C.), UNLESS OTHERWISE NOTED.
26. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
27. SEE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING FILE NUMBERS WP-01-09, S-00-02, P-00-13, F-01-22, SDP-01-16.
28. CONTRACTOR SHALL LOCATE CURBSTOPS AND CLEANOUTS 3 FEET FROM THE EDGE OF THE SIDEWALK AND OUTSIDE OF DRIVEWAYS IN THE EASEMENT PROVIDED.

SHEET INDEX	
NO.	
1	TITLE SHEET
2	FINAL WATER MAIN & SEWER SYSTEM PLAN
3	WATER MAIN PROFILES
4	SEWER MAIN PROFILES

SANITARY SEWER CLEAN-OUT CHART										
LOT NO.	STATION @ MAIN	INVERT @ MAIN	INVERT @ DHC	LENGTH OF SERVICE	SLOPE OF SERVICE	INV. @ ESMT / PROP. LINE	TOP C/O ELEV.	MIN. CELLAR ELEV. (MCE)		
S203 TO S205										
109	0+91	389.35	---	10.00	2.00%	389.72	400.00	394.37		
S207 TO S209										
91	0+82.40	393.46	---	15.00	2.00%	393.93	401.91	397.53		
90	1+05.48	394.18	---	28.00	2.00%	394.91	403.21	399.55		
92	1+42.40	395.33	---	15.00	2.00%	395.80	403.62	399.40		
89	1+60.48	395.90	---	28.00	2.00%	396.62	405.01	401.26		
93	2+02.40	397.20	---	15.00	2.00%	397.67	405.71	401.27		
88	2+20.48	397.77	---	28.00	2.00%	398.50	407.10	403.14		
94	2+62.40	399.08	---	15.00	2.00%	399.54	407.80	403.14		
87	2+85.48	399.80	---	28.00	2.00%	400.52	409.36	405.17		
95	05-209	401.50	---	15.20	2.00%	402.14	410.59	405.78		
86	05-209	401.50	---	28.00	2.00%	402.39	411.28	407.03		
S211 TO S213										
108	0+05.00	392.12	---	15.00	2.00%	392.58	402.09	397.33		
97	0+17.13	392.48	---	26.40	2.00%	393.17	402.93	397.89		
107	0+64.05	393.86	---	17.00	2.00%	394.37	403.56	399.09		
98	0+72.14	394.10	---	26.00	2.00%	394.78	404.55	399.53		
106	1+29.14	395.78	---	17.00	2.00%	396.29	405.39	401.00		
99	1+62.13	396.75	---	27.51	2.00%	397.47	407.26	401.10		
105	05-213	397.20	---	12.78	2.00%	397.79	406.58	401.44		
S213 TO S215										
104	0+22.61	398.20	---	17.50	2.00%	398.72	407.27	404.25		
103	05-215	399.12	---	16.64	2.00%	399.78	408.38	404.28		
S215 TO S217										
102	0+48.66	399.71	---	23.00	2.00%	400.33	409.89	404.76		
101	1+03.66	400.26	---	23.00	2.00%	400.88	411.44	405.28		
100	1+07.45	400.29	---	20.00	2.00%	400.86	410.87	405.50		
79	1+63.66	400.86	---	23.00	2.00%	401.48	413.13	408.18		
80	1+67.45	400.89	---	20.00	2.00%	401.46	412.56	408.10		
81	2+26.66	401.49	---	20.00	2.00%	402.05	414.22	406.69		
78	2+28.66	401.51	---	23.00	2.00%	402.13	414.95	406.84		
77	2+83.66	402.06	404.81	23.00	2.00%	405.44	416.50	410.14		
82	2+87.46	402.09	405.09	20.00	2.00%	405.66	415.92	410.30		
83	3+47.45	402.69	405.69	19.74	2.00%	406.25	417.58	410.89		
S217 TO S219										
84	0+43.16	403.15	407.15	20.00	2.00%	407.72	419.17	412.47		
S219 TO S221										
72	0+16.70	404.14	409.14	34.95	2.00%	410.01	421.61	414.66		
76	0+58.00	405.44	408.44	21.00	2.00%	409.03	420.51	413.75		
73	0+71.70	405.87	408.62	35.00	2.00%	409.49	420.21	414.13		
74	1+34.57	407.85	---	35.00	2.00%	408.71	418.86	413.37		
75	05-221	408.00	---	21.00	2.00%	408.75	418.75	412.32		
S223 TO S225										
71	0+26.49	404.20	410.20	30.00	2.00%	410.97	422.45	415.64		
70	1+16.49	405.14	407.10	30.00	2.00%	407.89	419.89	413.30		
85	1+60.34	405.60	---	16.00	2.00%	406.09	418.00	409.66		
69	1+76.49	405.77	---	30.00	2.00%	405.54	417.80	411.18		
68	05-225	406.30	---	23.04	2.00%	407.09	416.38	411.85		
67	05-225	406.30	---	27.38	2.00%	407.08	415.77	412.32		
66	05-225	406.30	---	43.43	2.00%	407.50	414.96	411.07		



**BENCHMARKS**  
 BENCHMARK #1  
 36E4  
 N 560,264.364 E 1,359,398.707  
 ELEVATION=414.194'  
 BENCHMARK #2  
 36E5  
 N 558,664.719 E 1,359,171.264  
 ELEVATION=406.852'

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
12" x 8" T.S. & V.	1 EACH			
8" VALVE	3 EACH			
8"x8" TEE	1 EACH			
8" - 1/8 HB	6 EACH			
6"x8" TEE	2 EACH			
6" VALVE	2 EACH			
6" FIRE HYDRANT	2 EACH			
8" WATER	1600 LF			
6" WATER	22 LF			
1" WHC	741 LF			
WATER SERVICE CON.	40 EACH			
STD. SEWER MH	13 EACH			
8" PVC SEWER	1996 LF			
4" SHC	978 LF			
4" CLEANOUT	43 EACH			

**NOTES:**

- \* PHASE II TOTAL BUILDABLE LOTS = 33
- PHASE III TOTAL BUILDABLE LOTS = 13
- TOTAL BUILDABLE LOTS = 46

- \*\* LOTS 64, 65, 66, 85, 95, & 96 HAVE WATER HOUSE CONNECTIONS INSTALLED UNDER PHASE I.
- \*\* LOTS 64, 65, & 96 HAVE SEWER HOUSE CONNECTIONS INSTALLED UNDER PHASE I.

ALL WATER AND SEWER HOUSE CONNECTIONS FOR PHASE III WILL BE INSTALLED WITH THE PHASE II WATER AND SEWER PLANS. THESE LOTS ARE 97-109.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND AS SHOWN ON GP-01-78.

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

*[Signature]* 5/14/01  
 HOWARD SOIL CONSERVATION DISTRICT DATE

FINAL PLAN REFERENCE # F-01-118  
 SDP REFERENCE #

REVIEW FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REVIEW

*[Signature]* 5/14/01  
 U.S.G.A. - NATURAL RESOURCES CONSERVATION SERVICE DATE

<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND <i>[Signature]</i> 5-7-01 CHIEF, BUREAU OF UTILITIES DATE	<b>DEPARTMENT OF PLANNING &amp; ZONING</b> HOWARD COUNTY, MARYLAND <i>[Signature]</i> 5/15/01 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
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<b>MORRIS &amp; RITCHE ASSOCIATES, INC.</b> ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 9090 JUNCTION DRIVE SUITE 9 ANNAPOLIS JUNCTION, MARYLAND 20701 (410) 792-8792 or (201) 778-1890 FAX (410) 792-7395	<b>PIERO VINI MELITS</b> No. 21875 REGISTERED PROFESSIONAL ENGINEER CIVIL ENGINEERING STATE OF MARYLAND No. 21875
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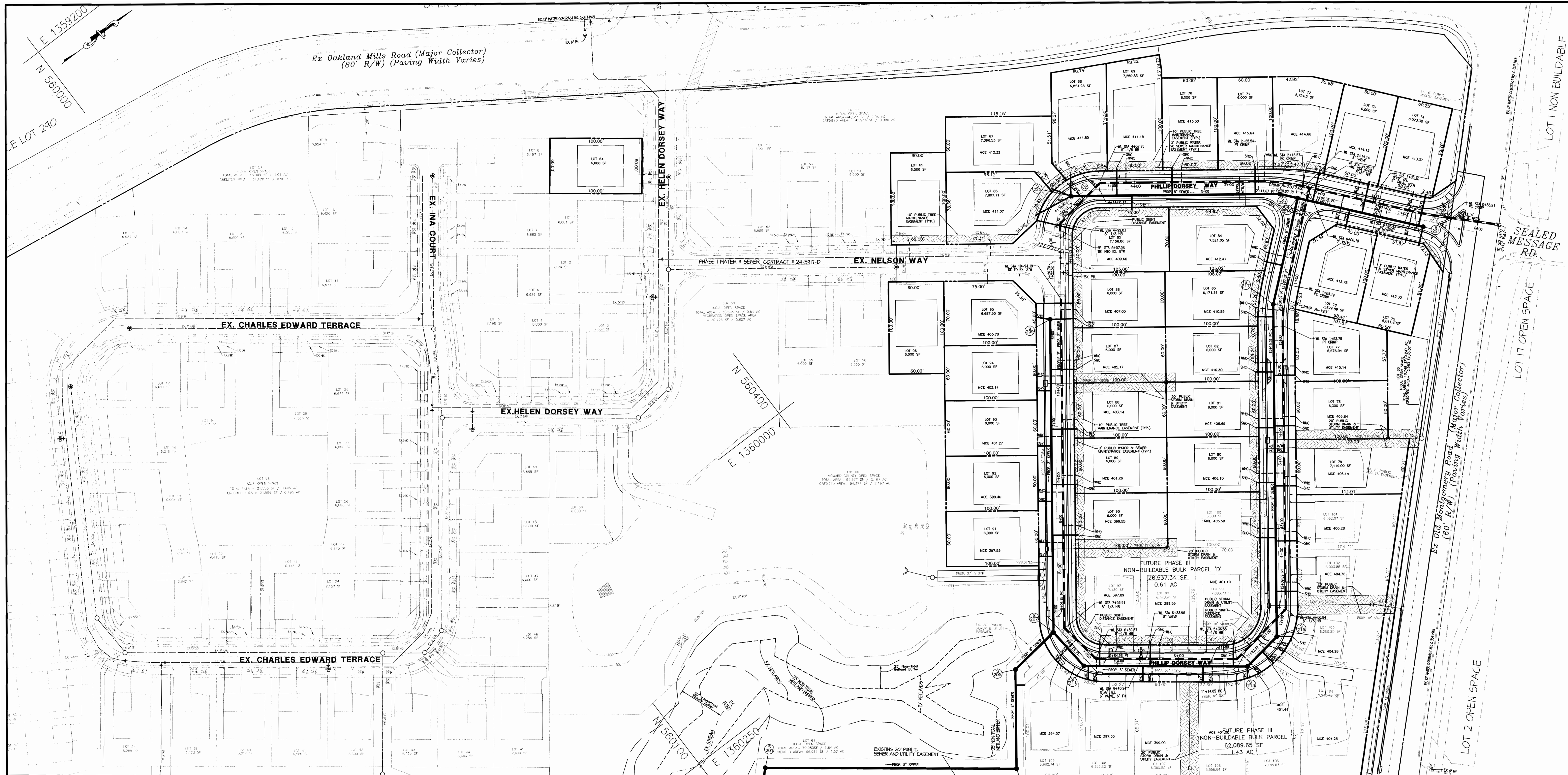
DES:	CAO/TCN	PER HOWARD COUNTY COMMENTS	DATE
DRN:	CAO/TCN		
CHK:	PVM		
DATE:	11/30/00		
BY:	NO.	REVISIONS	DATE

**FINAL WATER MAIN & SEWER SYSTEM TITLE SHEET**

600' SCALE MAP NO. 36 BLOCK NO. 10

**ECKERS HOLLOW PHASE II**  
 (LOTS 83-86, NON-BUILDABLE PARCELS C & D)  
 OAKLAND MILLS ROAD  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT # 24-3918-D

SCALE AS SHOWN  
 SHEET 1 OF 4



NOTES:  
 \* PHASE II TOTAL BUILDABLE LOTS = 33  
 \* PHASE III TOTAL BUILDABLE LOTS = 13  
 TOTAL BUILDABLE LOTS = 46

\*\* LOTS 64, 65, 66, 85, 95, & 96 HAVE WATER HOUSE CONNECTIONS INSTALLED UNDER PHASE I.  
 \*\* LOTS 64, 65, & 96 HAVE SEWER HOUSE CONNECTIONS INSTALLED UNDER PHASE I.

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 THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 HOWARD SOIL CONSERVATION DISTRICT  
 [Signature] 5/14/01 DATE

FINAL PLAN REFERENCE # F-01-118  
 SDP REFERENCE #  
 REVIEW FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REVIEW  
 [Signature] 5/14/01 DATE  
 U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE

OWNER: Samuel A. Ecker & Wife  
 DAYTIME TELEPHONE: \_\_\_\_\_  
 COMPANY: Samuel A. Ecker & Wife  
 ADDRESS: 6001 Oakland Mills Road  
 CITY: Columbia STATE: MD. ZIP: 21045

DEVELOPER/CONTRACT PURCHASER: Doug Eshelman  
 DAYTIME TELEPHONE: 410-712-7012  
 COMPANY: Ryland Homes  
 ADDRESS: 7250 Parkway Drive, Suite 520  
 CITY: Hanover STATE: MD. ZIP: 21076

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 [Signature] 5-7-01 DATE  
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 [Signature] 5/15/01 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

MORRIS & RITCHE ASSOCIATES, INC.  
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
 9090 JUNCTION DRIVE SUITE 9  
 ANNAPOLIS JUNCTION, MARYLAND 20701  
 (410) 792-8782 or (301) 778-1890  
 FAX (410) 792-7395

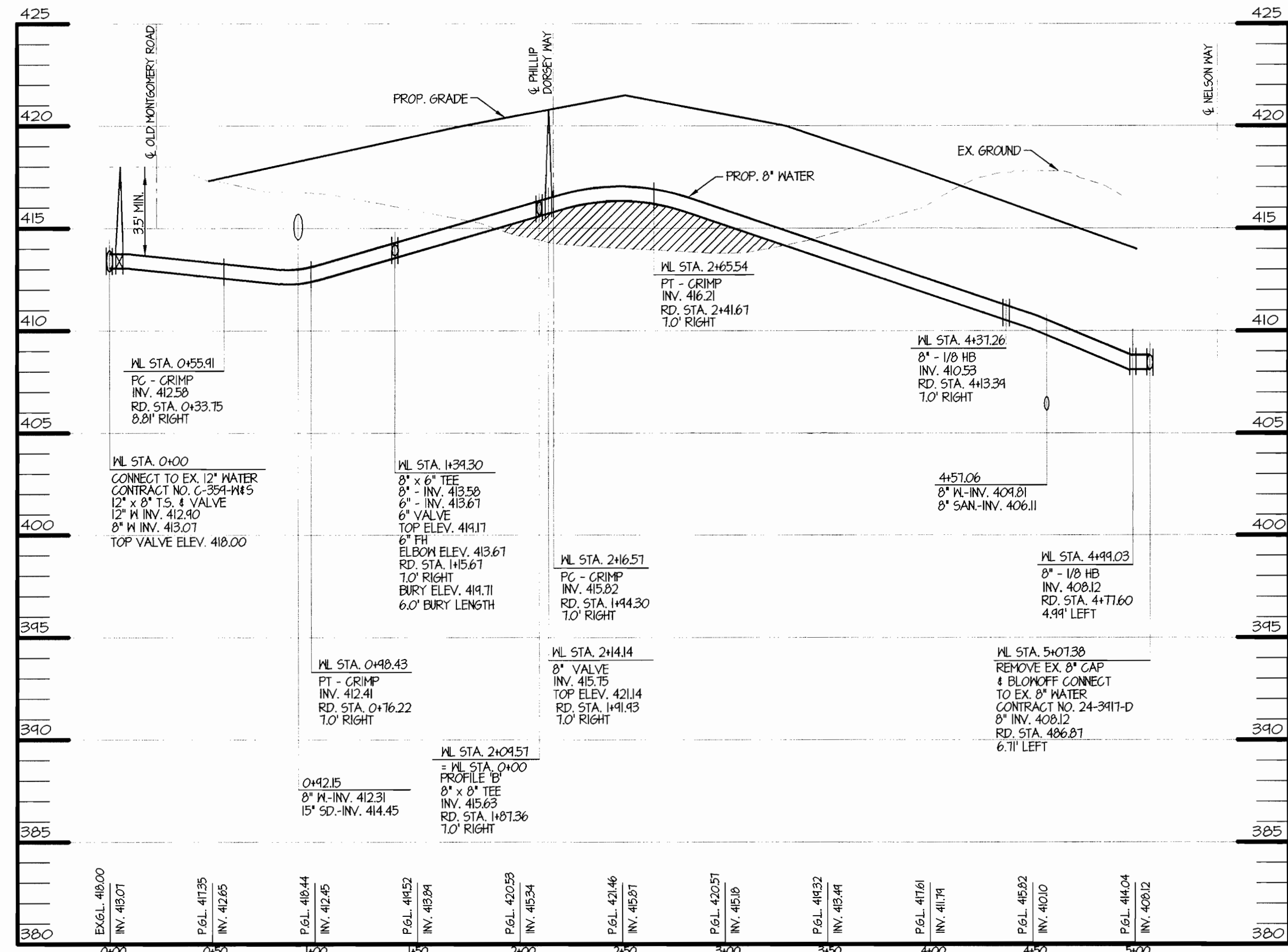
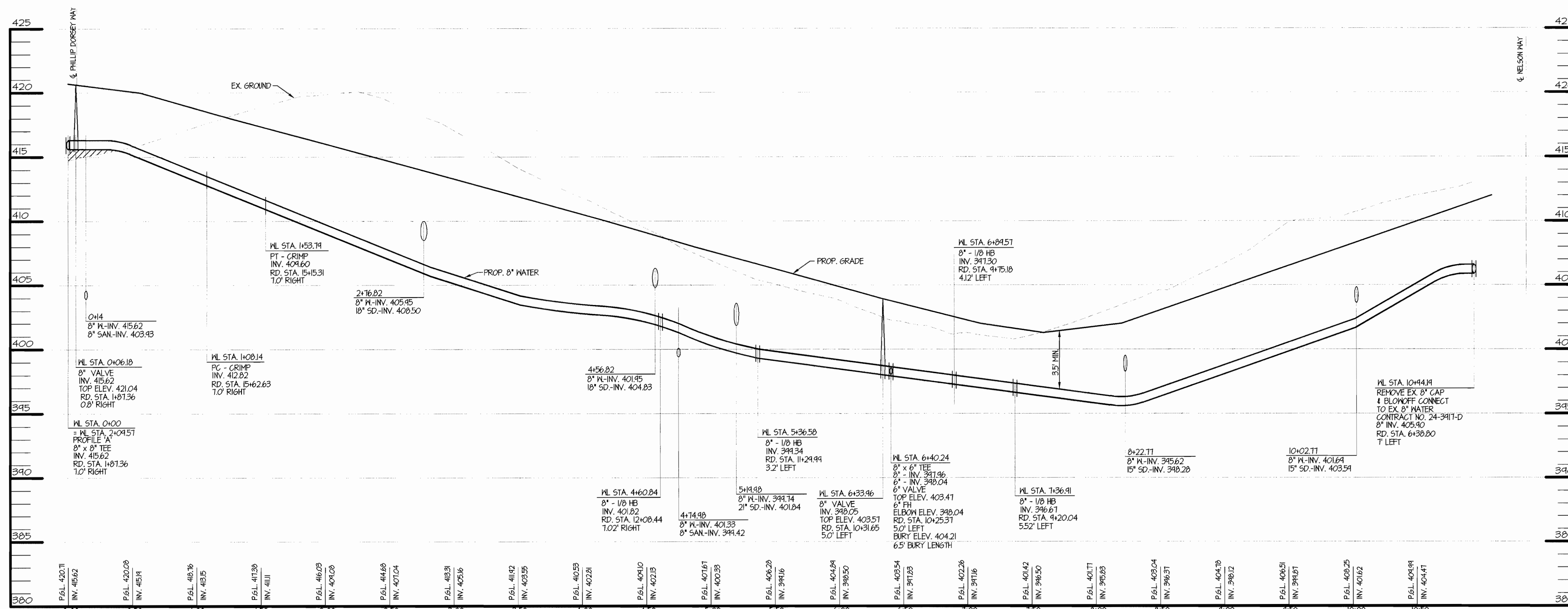
STATE OF MARYLAND  
 PIERO VAN HELLITS  
 No. 21875  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL ENGINEERING  
 21875

DES: CAO/TCN	CAO 1	PER HOWARD COUNTY COMMENTS	05/03/01
DRN: CAO/TCN			
CHK: PVM			
DATE: 11/30/00	BY NO.	REVISIONS	DATE

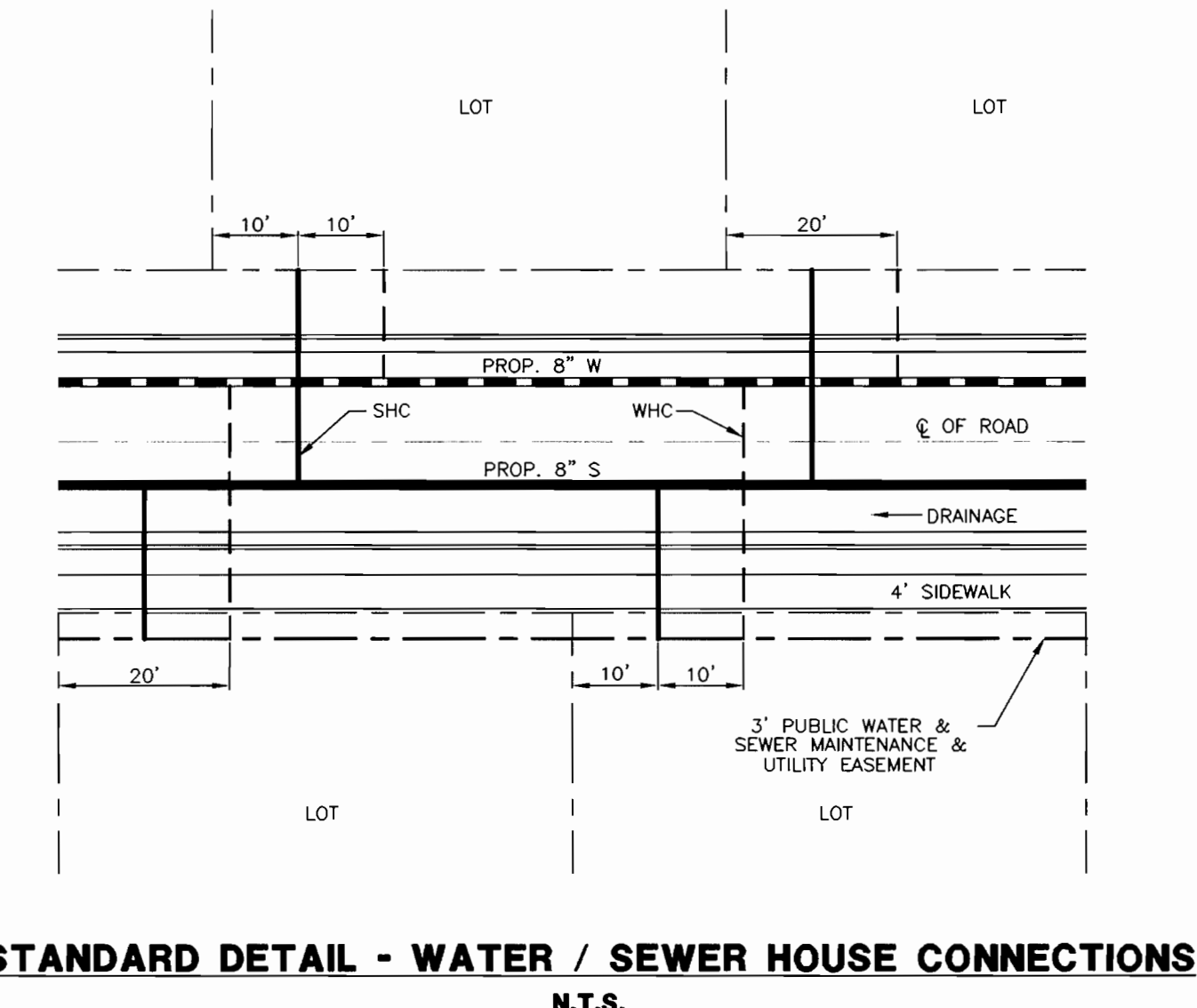
FINAL WATER MAIN & SEWER SYSTEM PLAN SHEET  
 600' SCALE MAP NO. 36 BLOCK NO. 10

ECKERS HOLLOW SECTION I  
 (LOTS 63-96, NON-BUILDABLE PARCELS C & D)  
 OAKLAND MILLS ROAD  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT # 24-3918-D

SCALE: 1" = 50'  
 SHEET 2 OF 4



LOT NO.	ROAD STATION	OFFSET FROM C	TOP CURB STOP ELEV.	LENGTH OF SERVICE	TYPE OF SERVICE
WATER PROFILE 'A' - PHILLIP DORSEY WAY					
75	0+72.80	28.00' LT	419.07	35.00'	1" W-3.21
74	0+76.42	28.00' RT	419.15	21.00'	1" W-3.21
73	1+35.67	28.00' RT	420.43	21.00'	1" W-3.21
76	1+49.36	28.00' LT	420.72	35.00'	1" W-3.21
72	1+94.52	27.08' RT	422.00	20.05'	1" W-3.21
71	2+37.55	22.29' RT	422.51	16.09'	1" W-3.21
70	3+25.19	23.00' RT	420.23	16.00'	1" W-3.21
69	3+85.19	23.00' RT	418.15	16.00'	1" W-3.21
68	4+29.19	23.00' RT	416.61	24.85'	1" W-3.21
67	4+42.37	23.00' RT	416.16	31.44'	1" W-3.21
66	CONSTRUCTED UNDER PHASE I				
65	CONSTRUCTED UNDER PHASE I				
WATER PROFILE 'B' - PHILLIP DORSEY WAY					
96	CONSTRUCTED UNDER PHASE I				
95	CONSTRUCTED UNDER PHASE I				
85	CONSTRUCTED UNDER PHASE I				
86	5+72.57	23.00' LT	411.62	16.00'	1" W-3.21
87	6+27.57	23.00' LT	409.71	16.00'	1" W-3.21
94	6+44.66	20.00' RT	408.36	27.00'	1" W-3.21
88	6+92.57	23.00' LT	407.45	16.00'	1" W-3.21
93	7+10.66	20.00' RT	406.06	27.00'	1" W-3.21
89	7+52.57	23.00' LT	405.36	16.00'	1" W-3.21
92	7+70.66	20.00' RT	403.97	27.00'	1" W-3.21
90	8+07.57	23.00' LT	403.49	16.00'	1" W-3.21
91	8+25.66	20.00' RT	402.24	27.00'	1" W-3.21
FUT. 109	9+43.19	20.00' RT	401.57	31.40'	1" W-3.21
FUT. 108	9+79.38	20.00' RT	402.24	24.57'	1" W-3.21
FUT. 97	9+90.27	23.00' LT	403.29	16.00'	1" W-3.21
FUT. 107	10+37.19	20.00' RT	403.84	25.00'	1" W-3.21
FUT. 98	10+45.28	23.00' LT	404.83	18.00'	1" W-3.21
FUT. 106	11+02.28	20.00' RT	405.67	25.00'	1" W-3.21
FUT. 105	11+44.56	20.00' RT	406.86	28.00'	1" W-3.21
FUT. 99	11+48.27	23.00' LT	407.73	12.59'	1" W-3.21
FUT. 104	11+71.60	20.00' RT	407.86	32.58'	1" W-3.21
FUT. 103	11+76.85	20.00' RT	408.05	32.18'	1" W-3.21
FUT. 102	12+37.23	20.00' RT	410.17	13.00'	1" W-3.21
FUT. 101	12+42.23	20.00' RT	411.72	13.00'	1" W-3.21
FUT. 100	12+96.02	23.00' LT	411.15	30.00'	1" W-3.21
79	13+52.23	20.00' RT	413.41	13.00'	1" W-3.21
80	13+56.02	23.00' LT	412.84	30.00'	1" W-3.21
81	14+15.23	23.00' LT	414.50	30.00'	1" W-3.21
78	14+17.23	20.00' RT	415.23	13.00'	1" W-3.21
77	14+72.23	20.00' RT	416.78	13.00'	1" W-3.21
82	14+76.02	23.00' LT	416.20	30.00'	1" W-3.21
83	15+33.88	23.00' LT	417.83	30.00'	1" W-3.21
84	15+91.60	23.00' LT	419.45	30.00'	1" W-3.21



SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND AS SHOWN ON GP-01-78. FINAL PLAN REFERENCE # F-01-118 SDP REFERENCE #

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

HOWARD SOIL CONSERVATION DISTRICT DATE: 5/14/01 U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE DATE: 5/14/01

OWNER: A. NAME: Samuel A. Ecker & Wife B. DAYTIME TELEPHONE: C. COMPANY: Samuel A. Ecker & Wife D. ADDRESS: 6001 Oakland Mills Road E. CITY: Columbia STATE: MD. ZIP: 21045

DEVELOPER/CONTRACT PURCHASER: A. NAME: Doug Eshelman B. DAYTIME TELEPHONE: 410-712-7012 C. COMPANY: Ryland Homes D. ADDRESS: 7250 Parkway Drive, Suite 520 E. CITY: Hanover STATE: MD. ZIP: 21076

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND

5-7-01 DATE: 5/15/01 DATE:

MORRIS & RITCHE ASSOCIATES, INC.  
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

9090 JUNCTION DRIVE SUITE 9  
 ANNAPOLIS JUNCTION, MARYLAND 20780  
 (410) 792-9792 or (301) 778-1890  
 FAX (410) 792-7395

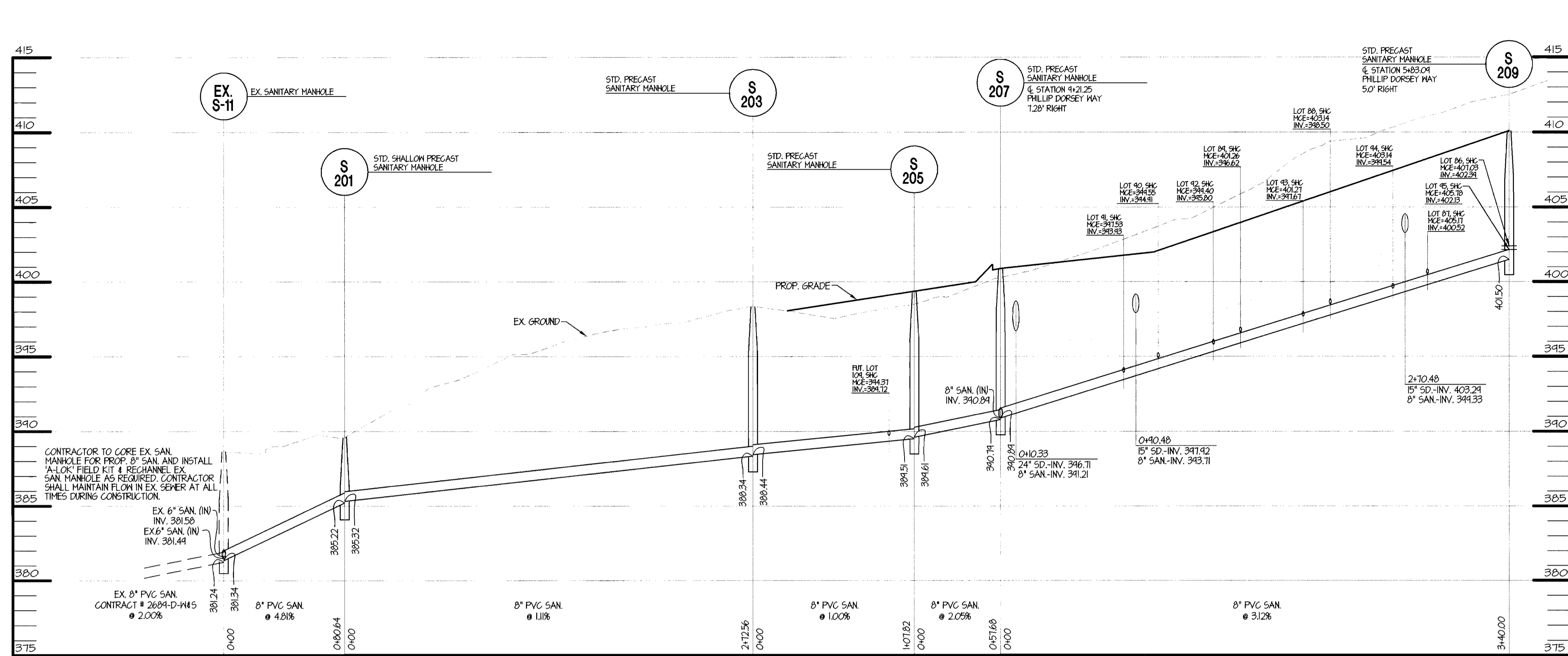
DES:	CAO/TCN	CAO	1	PER HOWARD COUNTY COMMENTS	05/03/01
DRN:	CAO/TCN				
CHK:	PVM				
DATE:	11/30/00				

**FINAL WATER MAIN PROFILES**

600' SCALE MAP NO. 36 BLOCK NO. 10

**ECKERS HOLLOW PHASE II**  
 (LOTS 63-96, NON-BUILDABLE PARCELS C & D)  
 OAKLAND MILLS ROAD  
 6TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT # 24-3918-D

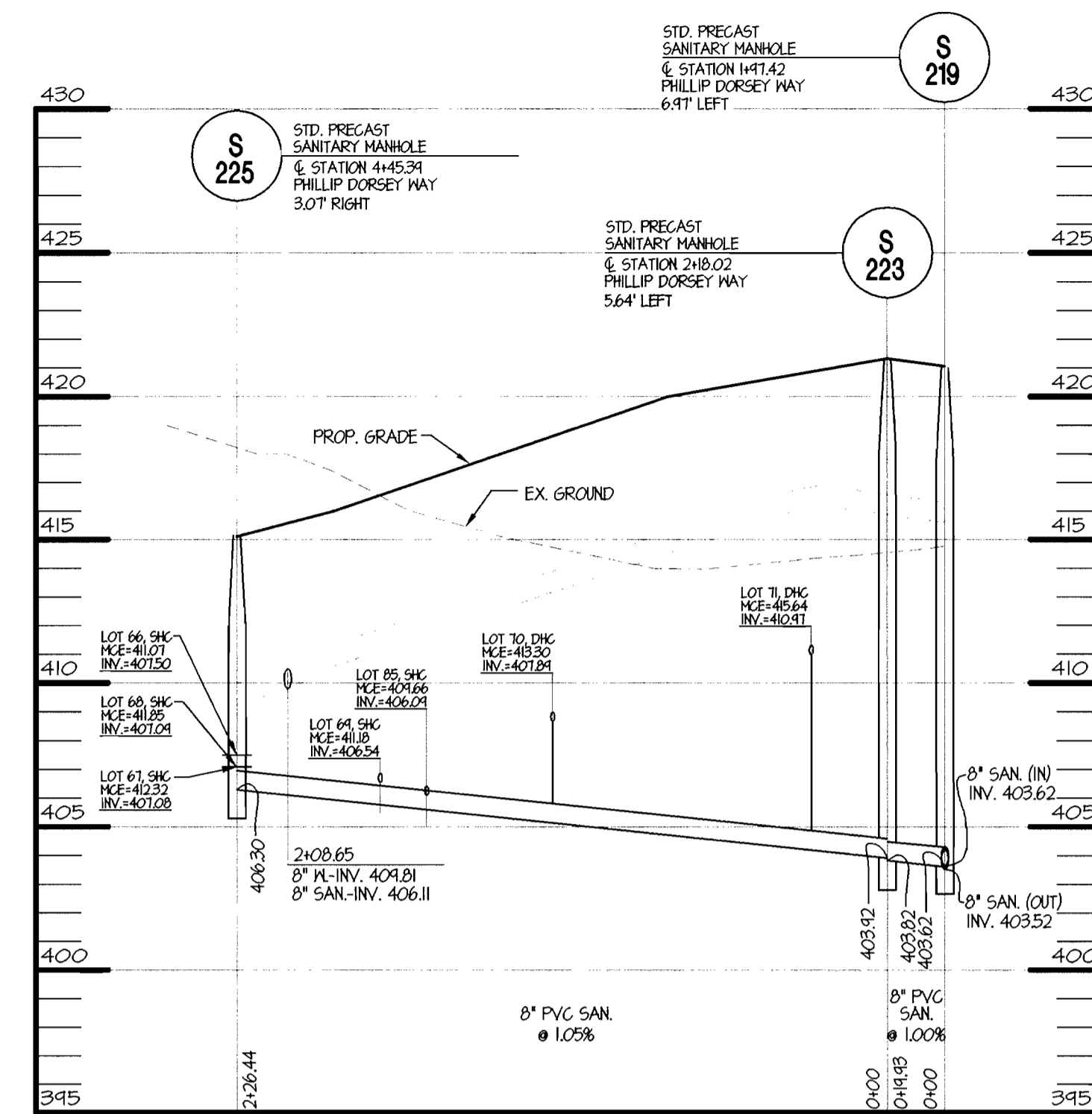
SCALE: AS SHOWN  
 SHEET 3 OF 4



**SANITARY SEWER PROFILE**

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

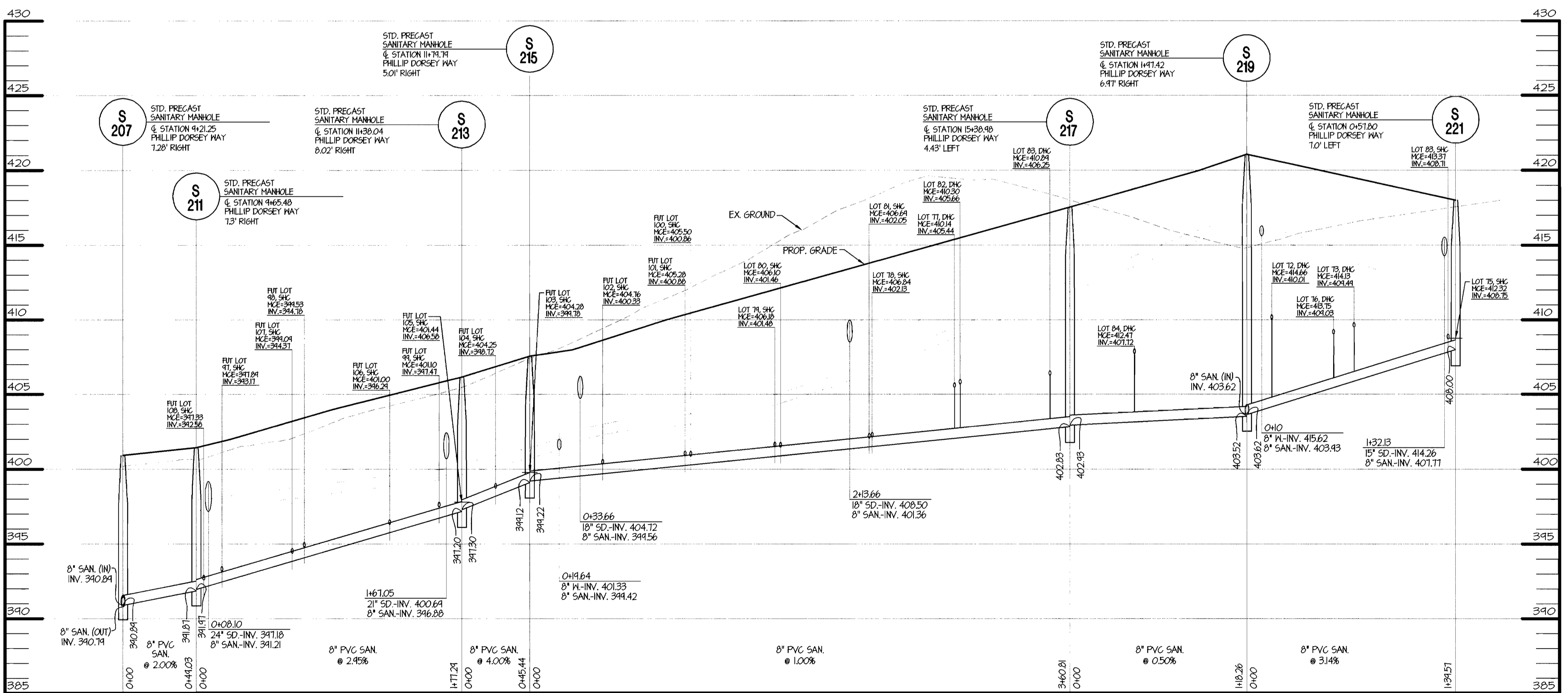
PROVIDE CONTROL FILL TO 95%  
COMPACTION PER AASHTO T-100.  
PLACEMENT TO BE APPROVED  
BY THE GEOTECHNICAL ENGINEER.



**SANITARY SEWER PROFILE**

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PROVIDE CONTROL FILL TO 95%  
COMPACTION PER AASHTO T-100.  
PLACEMENT TO BE APPROVED  
BY THE GEOTECHNICAL ENGINEER.

SANITARY SEWER PIPE SCHEDULE		
SIZE	TYPE	QUANTITY
8"	PVC, ASTM D-3034	1,996'
4"	CLEANOUTS	43'
4"	SHC	978'
4"	DHC	9

SEWER STRUCTURE SCHEDULE				LOCATION	
STR. NO.	TOP ELEV.	INV. OUT.	TYPE	NORTHING	EASTING
S-201	389.57	385.22	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,154.55	1,360,296.90
S-203	398.35	388.34	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,370.73	1,360,462.90
S-205	399.37	389.51	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,435.26	1,360,376.52
S-207	400.93	390.79	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,492.51	1,360,369.49
S-209	410.09	401.50	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,695.99	1,360,097.10
S-211	401.45	391.87	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,496.60	1,360,418.35
S-213	406.16	397.20	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,637.22	1,360,526.33
S-215	407.56	399.12	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,682.21	1,360,519.91
S-217	417.54	402.83	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,898.15	1,360,230.85
S-219	421.06	403.52	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,989.16	1,360,155.33
S-221	418.02	408.00	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	561,078.28	1,360,262.74
S-223	421.32	403.82	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,976.43	1,360,139.99
S-225	415.12	406.30	PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.11	560,795.02	1,360,004.47

● COORDINATES TO CENTERLINE OF STRUCTURE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND AS SHOWN ON GP-01-78.

FINAL PLAN REFERENCE # F-01-118  
SDP REFERENCE #

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

REVIEW FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REVIEW.

*John S. Ecker*  
HOWARD SOIL CONSERVATION DISTRICT  
DATE: 5/14/01

*Joni M. ...*  
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE  
DATE: 5/14/01

OWNER: Samuel A. Ecker & Wife B. DAYTIME TELEPHONE: ...  
DEVELOPER/CONTRACT PURCHASER: Doug Eshelman B. DAYTIME TELEPHONE: 410-712-7012  
C. COMPANY: Samuel A. Ecker & Wife  
D. ADDRESS: 6001 Oakland Mills Road  
E. CITY: Columbia STATE: MD. ZIP: 21045

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
5-7-01

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
5/15/01

MORRIS & FITCHE ASSOCIATES, INC.  
9090 JUNCTION DRIVE SUITE 9  
ANNAPOLIS JUNCTION, MARYLAND 20701  
(410) 792-8792 or (301) 778-1890  
FAX (410) 792-7395

PIERO VAN MELLITS  
REGISTERED PROFESSIONAL ENGINEER  
No. 21875

DES:	CAO/TCN	CAO	1	PER HOWARD COUNTY COMMENTS	05/03/01
DRN:	CAO/TCN				
CHK:	PVM				
DATE:	11/30/00	BY NO.		REVISIONS	

**FINAL SEWER MAIN PROFILES**  
600' SCALE MAP NO. 36 BLOCK NO. 10

**ECKERS HOLLOW PHASE II**  
(LOTS 63-66, NON-BUILDABLE PARCELS C & D)  
OAKLAND MILLS ROAD  
6th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT # 24-3918-D  
SCALE: AS SHOWN  
SHEET 4 OF 4