

# WATER AND SEWER EXTENSIONS

## CLARKS GLEN

### SECTION 2 AREA 1

#### 5th ELECTION DISTRICT

#### HOWARD COUNTY, MARYLAND

### CONTRACT NO. 34-3507-D

SMH	LOCATION
49	BALLYMORE (E) STA 10+19.45 9.11' RT
50	N 558541.16 E 1330358.66
51	N 558595.12 E 1330340.74
52	N 557890.75 E 1330091.59
53	GALWAY STA 1+70.77 9.43' RT
53A	GUILFORD STA 17+62.91 20.20' RT
54	GALWAY STA 1+96.96 4.69' RT
55	GALWAY STA 2+95.57 8.38' RT
56	GALWAY STA 3+59.15 6.32' RT
57	GALWAY STA 4+36.23 7.00' RT
58	GALWAY STA 7+10.31 7.00' RT
59	GALWAY STA 7+88.88 3.73' RT
60	GALWAY STA 8+85.19 7.00' RT
61	GALWAY STA 9+60.83 7.00' RT
62	LIMERICK STA 2+57.82 7.13' RT
63	LIMERICK LP STA 2+67.54 3.55'
69A	SEE PLAN SHEET 2 A
69B	SEE PLAN SHEET 2 A
66	LIMERICK LP STA 1+50.83 0.20'
67	KILKENNY LP STA 1+39.41 10.45'
68	TIPPERARY STA 1+18.99 6.33' LT
69	TIPPERARY LP STA 1+12.45 12.36'
70	BALLYMORE (W) STA 1+37.53 5.94' RT
71	BALLYMORE (W) STA 2+65.34 6.10' RT
72	GALWAY STA 10+54.64 7.00' RT

RECEIVE	LOCATION
1	BALLYMORE (E) STA 9+54.75 7.11' LT
2	GALWAY STA 10+53.31 7.00' LT

#### GENERAL NOTES

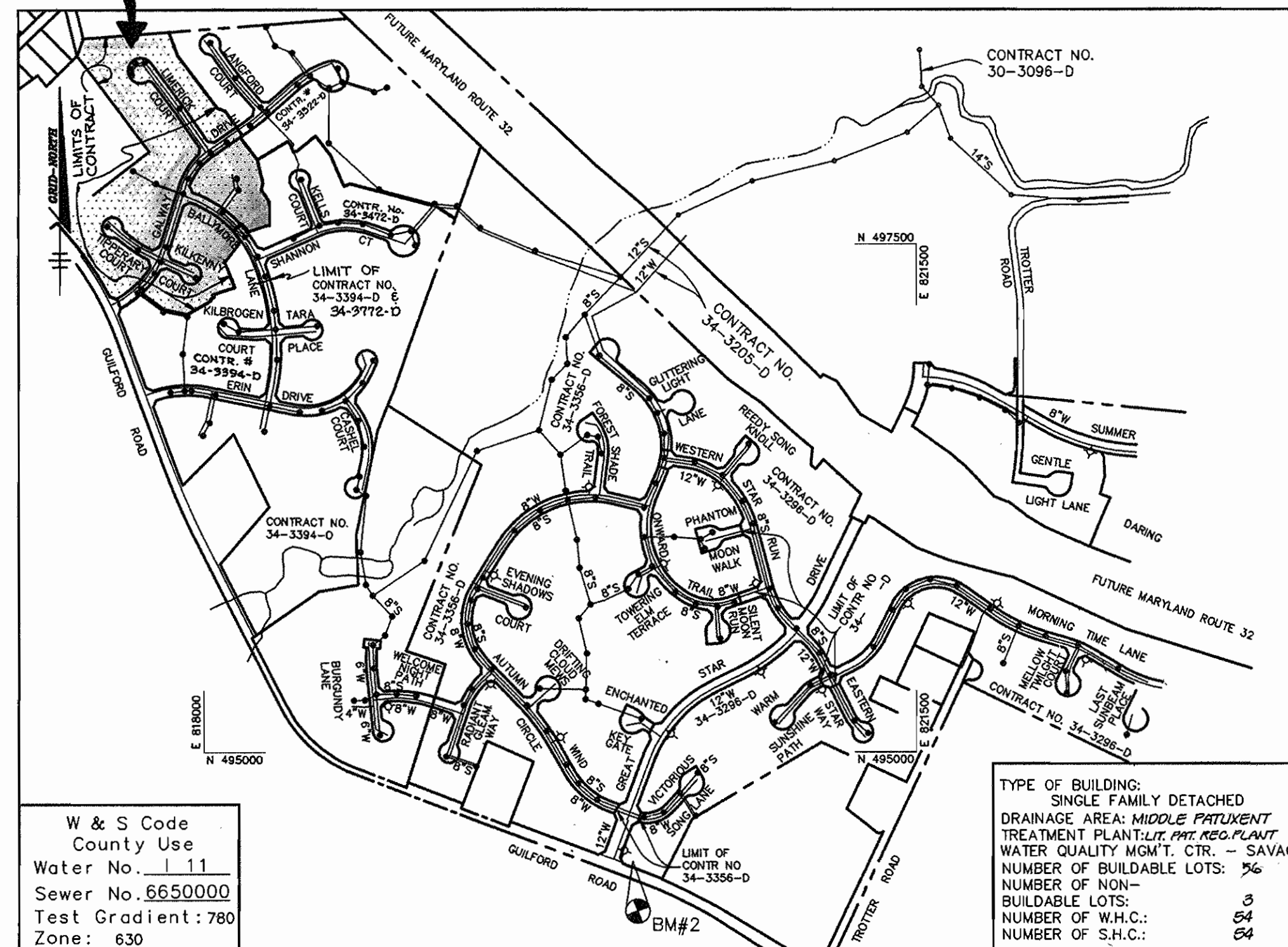
- Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
- All horizontal controls are based on Maryland State Coordinates.
- All vertical controls are based on U.S.G.S. data.
- All pipe elevations shown are invert elevations.
- Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnel as required. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. In the event the contractor's work requires the bracing of additional poles, any cost incurred by the owner for bracing of additional poles or damages shall be deducted from money owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
- For details not shown on the drawings, and for materials and construction methods use Howard County Design Manual, Volume IV, Standard Specifications and Detail for Construction. (Latest Edition). The contractor shall have a copy of Volume IV on the job.
- 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 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.
- Contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:
 

State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Services	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-9068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1390
Bureau of Utilities, Howard County Department of Public Works	313-4900
- Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
- Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
- All water mains to be D.I.P. Class 52 unless otherwise noted.
- Tops of all water mains to have a minimum of 3-1/2" cover unless otherwise noted.
- Valves adjacent to tees shall be strapped to tees.
- All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
- 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.
- The contractor shall not operate any water main valves on the existing water system.
- All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
- All sewer mains shall be D.I.P. and P.V.C. unless otherwise noted.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- Force mains shall be D.I.P. only.
- Manholes shown with 12" and 16" walls are for brick manholes only.
- Manholes designated W.T. in plan and profile shall have watertight frame and covers. Standard Detail G5.52. Where watertight manhole frame and cover is used, set top of frame 1"-6" above finished grade unless otherwise noted on the drawings.
- House(s) with the symbol "C.N.S." indicates that cellar cannot be served.
- Manholes can be either brick or precast concrete structures.
- Contractor is solely responsible for construction means, methods, techniques, sequences, procedures, and safety precautions and programs.
- The fire hydrant shall be installed as per standard detail W.1.11.
- Fire hydrants will be located 3' FROM BACK OF CURB unless otherwise noted.
- For sprinkler system for all townhomes or multi-family dwelling units should have a minimum of 1' connection with a 3/4" meter.
- 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(a) of the Howard County Code.

#### QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
4" C & B	1 EA.	1 EA.	D.I.P. MJ	Union Foundry Water Pro
6" C & B	3 EA.	3 EA.	D.I.P. MJ	Union Foundry Water Pro
8" C & B	2 EA.	1 EA.	D.I.P. MJ	Union Foundry Water Pro
4"X3" R	2 EA.	2 EA.	D.I.P. MJ	Union Foundry Water Pro
8"X6" R	3 EA.	1 EA.	D.I.P. MJ	Union Foundry Water Pro
6"X4" T	2 EA.	2 EA.	D.I.P. MJ	Union Foundry Water Pro
8"X4" T	1 EA.	1 EA.	D.I.P. MJ	Union Foundry Water Pro
8"X8" T	1 EA.	1 EA.	D.I.P. MJ	Union Foundry Water Pro
8"X6" T Hyd.	3 EA.	4 EA.	D.I.P. MJ	Union Foundry Water Pro
8"X8" C & 8x6 C	2 EA, 1 EA	1 EA, 1 EA.	D.I.P. MJ	Union Foundry Water Pro
6" G T Hyd.	1 EA.	1 EA.	D.I.P. MJ	Union Foundry Water Pro
6" 1/8 HB	3 EA.	3 EA.	D.I.P. MJ	Union Foundry Water Pro
4" 1/8 HB	1 EA.	3 EA.	D.I.P. MJ	Union Foundry Water Pro
6" VALVES	6 EA.	7 EA.	Res Wedge Gate Valve	Mueller Co. Water Pro
4" VALVES	3 EA.	3 EA.	Res Wedge Gate Valve	Mueller Co. Water Pro
8" VALVES	7 EA.	9 EA.	Res Wedge Gate Valve	Mueller Co. Water Pro
8" WATER	2100 LF	2125 LF	D.I.P. Class 52	A-1 Pipe Atlantic States
6" WATER	576 LF	791 LF	D.I.P. Class 52	A-1 Pipe Atlantic States
4" WATER	200 LF	259 LF	D.I.P. Class 52	A-1 Pipe Atlantic States
3/4" WHC	1440 LF	1560 LF	Type K	Reading Tube Water Pro
4" SHC PVC & DIP	1302 LF	1962 LF	PVC SDR 35	JIM MFG. Atlantic States
8" SEWER	2314 LF	2348 LF	PVC SDR 35	Water Pro Atlantic States
8" DIP CL52	884 LF	880 LF	D.I.P. Class 52	A-1 Pipe Mueller Co. Water Pro
FIRE HYDRANTS	5 EA.	5 EA.	Centurian	Water Pro
AIR RELEASE MANHOLES	2 EA.	2 EA.	Precast	Atlantic Concrete Products Inc.
SEWER MANHOLES	25 EA.	25 EA.	Precast	Atlantic Concrete Products Inc.
VERT. FEET SMH	200 LF			Kyparis Foundry Water Pro
3" BLOWOFF	2 EA.	2 EA.	#85 Flush Hydrant	Water Pro

SITE



VICINITY MAP

SCALE: 1"=600'

#### BENCHMARKS

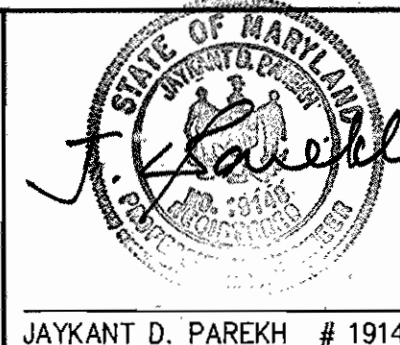
BM1  
HOWARD COUNTY MONUMENT NO. 2637003  
ELEV. 481.25  
CONCRETE MONUMENT

BM2  
HOWARD COUNTY MONUMENT NO. 2437003  
ELEV. 472.12  
CONCRETE MONUMENT

NAME OF UTILITY CONTRACTOR : <u>Gaines &amp; Co.</u>	CHECKBOX
Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on <u>F 96-48</u>	AS-BUILT DATE
Review for Howard Soil Conservation District and meets technical requirements.	SURVEY AND DRAFTING DIVISION
<u>J. A. Warkles</u> 6-18-96 NATURAL RESOURCES CONSERVATION SERVICE DATE	
This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.	
<u>John P. Polito</u> 6-18-96 HOWARD SOIL CONSERVATION DISTRICT DATE	

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND
<u>Robert B. Bunn</u> 6-12-96 CHIEF, BUREAU OF UTILITIES DATE	<u>John P. Polito</u> 6/19/96 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**RIEMER MUEGGE & ASSOCIATES, INC.**  
Planners • Engineers • Surveyors  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21046  
410-997-8900 FAX: 410-997-9282  
8002/00000 00.DWG

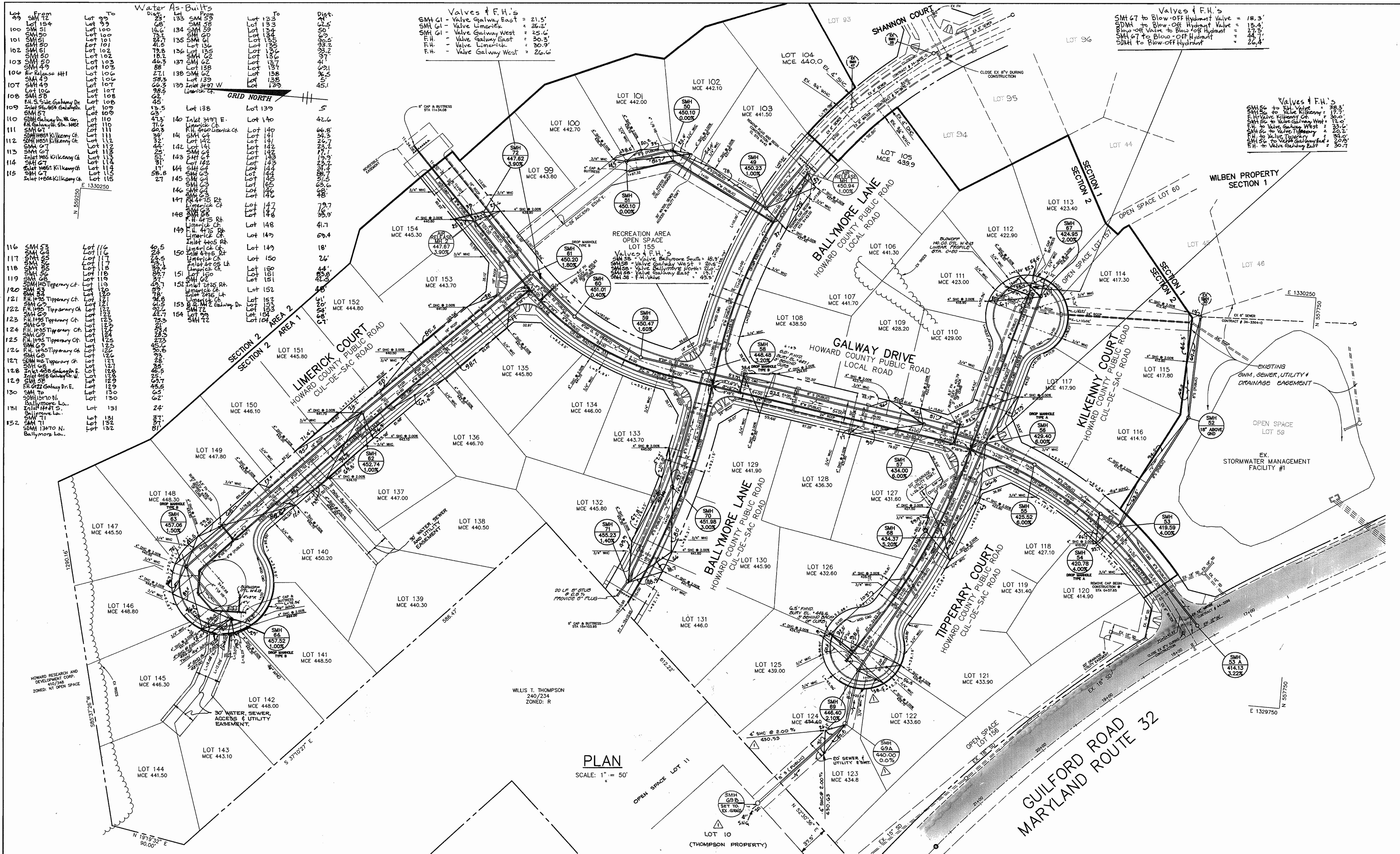


DES: BLW			
DRN: BLW			
CHK: JTD			
DATE: <u>June 4, 1996</u>	RJC	ADDED MH'S 69A & 69B TO LOCATION CHART. ADJUSTED QUANTITIES: 4" SHC, 8" SEWER, 3 MH'S & 4 VERT. FT. SMH	11/22/96
BY NO.	REVISION	DATE	

600' SCALE MAP NO. <u>35</u>	BLOCK NO. <u>13</u>
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Sewer & Water As-Built  <b>CLARKS GLEN</b> SECTION 2 AREA 1 LOTS 99 THRU 157 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT <u>34-3507-D</u>	TITLE SHEET  SCALE AS SHOWN  SHEET 1 OF 4
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From

99	SMH 72	447.62	3.90%
100	SMH 51	447.62	3.90%
101	SMH 50	447.62	3.90%
102	SMH 51	447.62	3.90%
103	SMH 50	447.62	3.90%
104	SMH 49	447.62	3.90%
105	SMH 48	447.62	3.90%
106	SMH 47	447.62	3.90%
107	SMH 46	447.62	3.90%
108	SMH 45	447.62	3.90%
109	SMH 44	447.62	3.90%
110	SMH 43	447.62	3.90%
111	SMH 42	447.62	3.90%
112	SMH 41	447.62	3.90%
113	SMH 40	447.62	3.90%
114	SMH 39	447.62	3.90%
115	SMH 38	447.62	3.90%

Water As-Built

116	SMH 52	447.62	3.90%
117	SMH 51	447.62	3.90%
118	SMH 50	447.62	3.90%
119	SMH 49	447.62	3.90%
120	SMH 48	447.62	3.90%
121	SMH 47	447.62	3.90%
122	SMH 46	447.62	3.90%
123	SMH 45	447.62	3.90%
124	SMH 44	447.62	3.90%
125	SMH 43	447.62	3.90%
126	SMH 42	447.62	3.90%
127	SMH 41	447.62	3.90%
128	SMH 40	447.62	3.90%
129	SMH 39	447.62	3.90%
130	SMH 38	447.62	3.90%
131	SMH 37	447.62	3.90%
132	SMH 36	447.62	3.90%

Dist.

133	SMH 72	447.62	3.90%
134	SMH 58	447.62	3.90%
135	SMH 57	447.62	3.90%
136	SMH 56	447.62	3.90%
137	SMH 55	447.62	3.90%
138	SMH 54	447.62	3.90%
139	SMH 53	447.62	3.90%
140	SMH 52	447.62	3.90%
141	SMH 51	447.62	3.90%
142	SMH 50	447.62	3.90%
143	SMH 49	447.62	3.90%
144	SMH 48	447.62	3.90%
145	SMH 47	447.62	3.90%
146	SMH 46	447.62	3.90%
147	SMH 45	447.62	3.90%
148	SMH 44	447.62	3.90%
149	SMH 43	447.62	3.90%
150	SMH 42	447.62	3.90%
151	SMH 41	447.62	3.90%
152	SMH 40	447.62	3.90%
153	SMH 39	447.62	3.90%
154	SMH 38	447.62	3.90%
155	SMH 37	447.62	3.90%
156	SMH 36	447.62	3.90%
157	SMH 35	447.62	3.90%

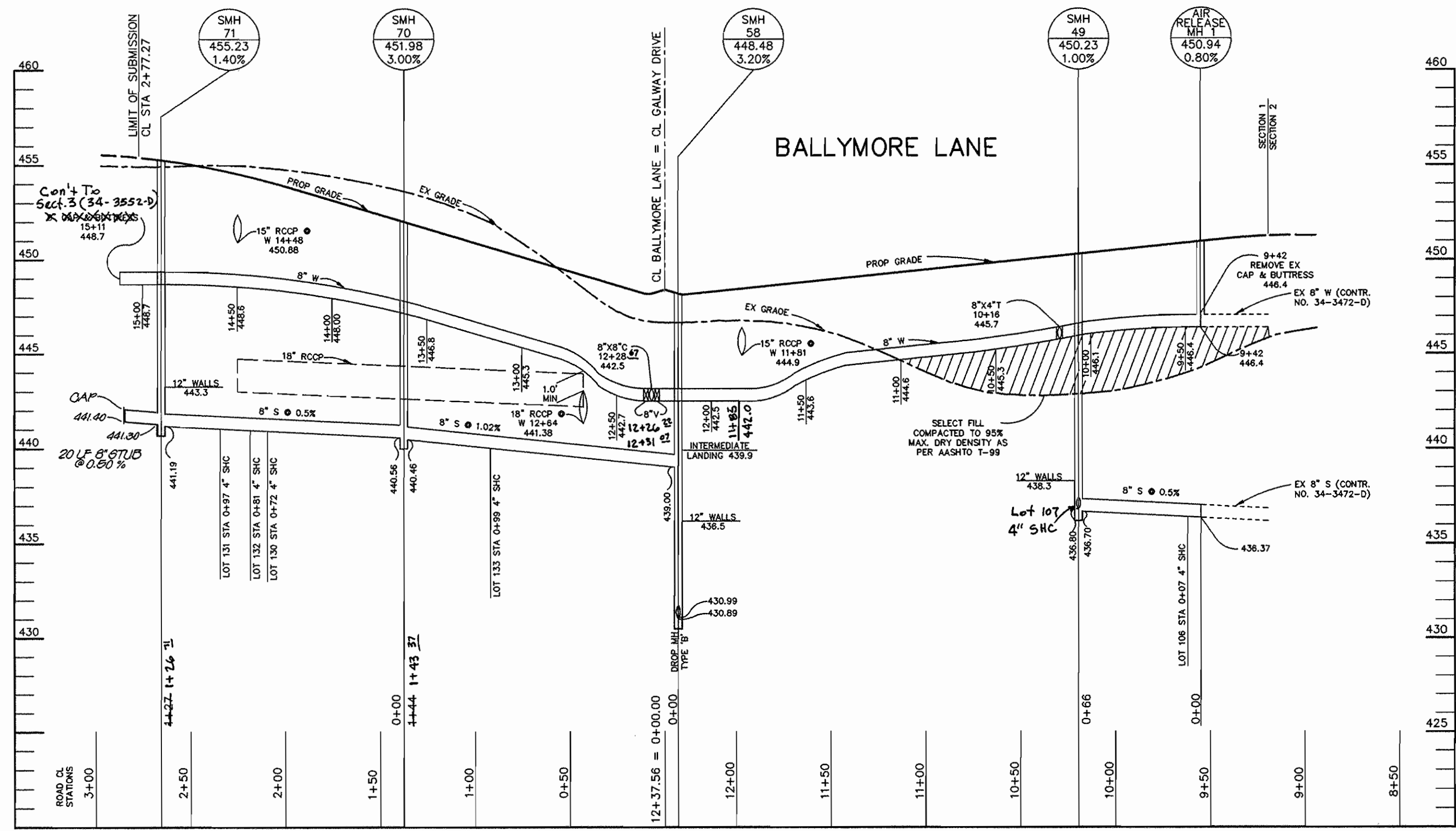
Valves & F.H.'s  
 SMH G1 - Valve Galway East = 21.5'  
 SMH G1 - Valve Limerick = 26.2'  
 SMH G1 - Valve Galway West = 25.6'  
 F.H. - Valve Galway East = 30.3'  
 F.H. - Valve Limerick = 30.9'  
 F.H. - Valve Galway West = 26.6'

Valves & F.H.'s  
 SMH G7 to Blow-off Hydrant Valve = 18.3'  
 SDMH to Blow-off Hydrant Valve = 15.4'  
 Blow-off Valve to Blow-off Hydrant = 27.3'  
 SMH G7 to Blow-off Hydrant = 44.1'  
 SDMH to Blow-off Hydrant = 26.4'

Valves & F.H.'s  
 SMH 50 to SMH 51 = 28.3'  
 F.H. Valve Kilkenny Ct = 17.7'  
 SMH 50 to Valve Galway West = 13.0'  
 F.H. to Valve Galway West = 23.6'  
 SMH 50 to Valve Tipperary = 20.2'  
 SMH 50 to Valve Galway East = 30.9'  
 F.H. to Valve Galway East = 30.7'

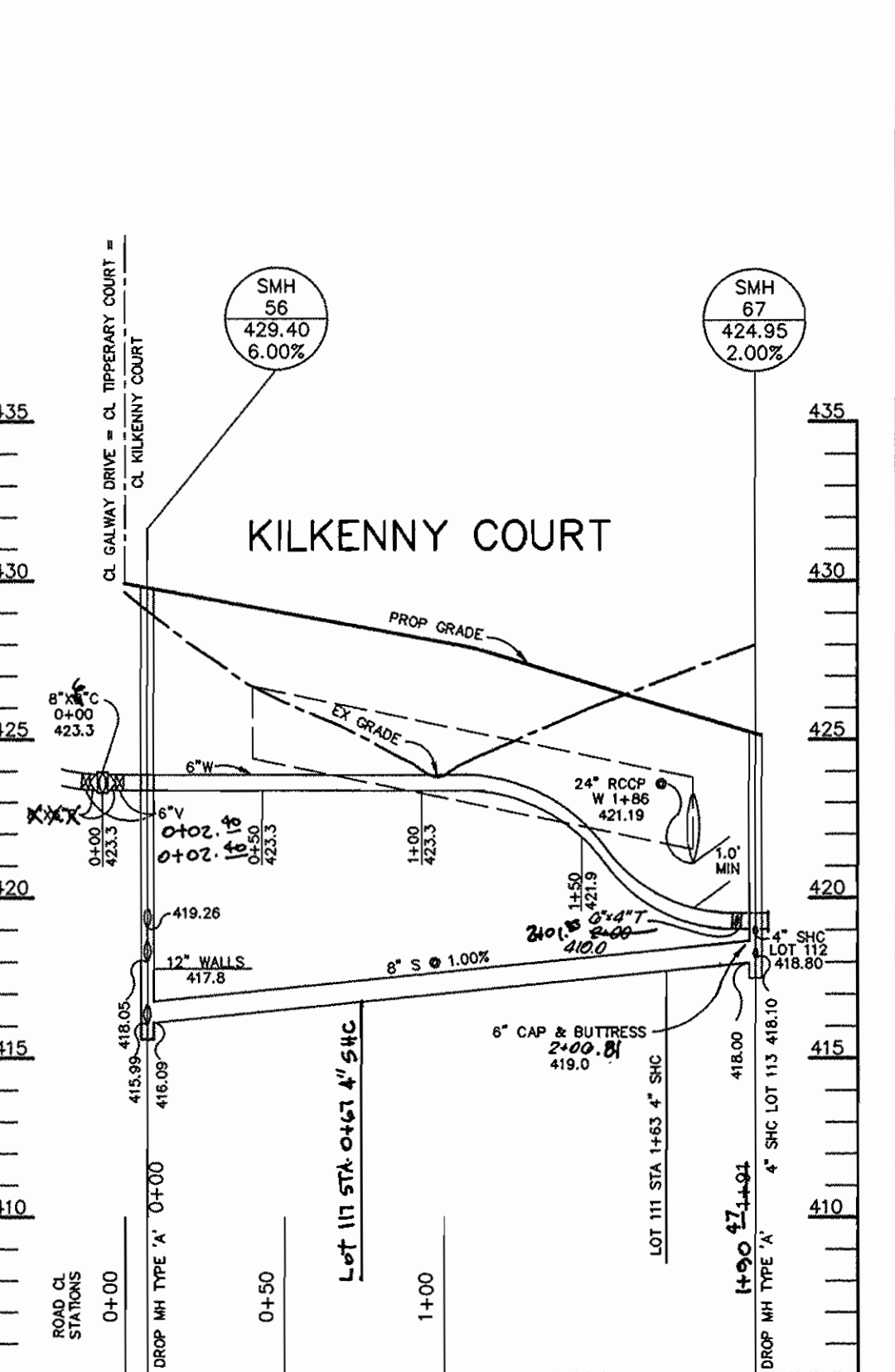
PLAN  
 SCALE: 1" = 50'





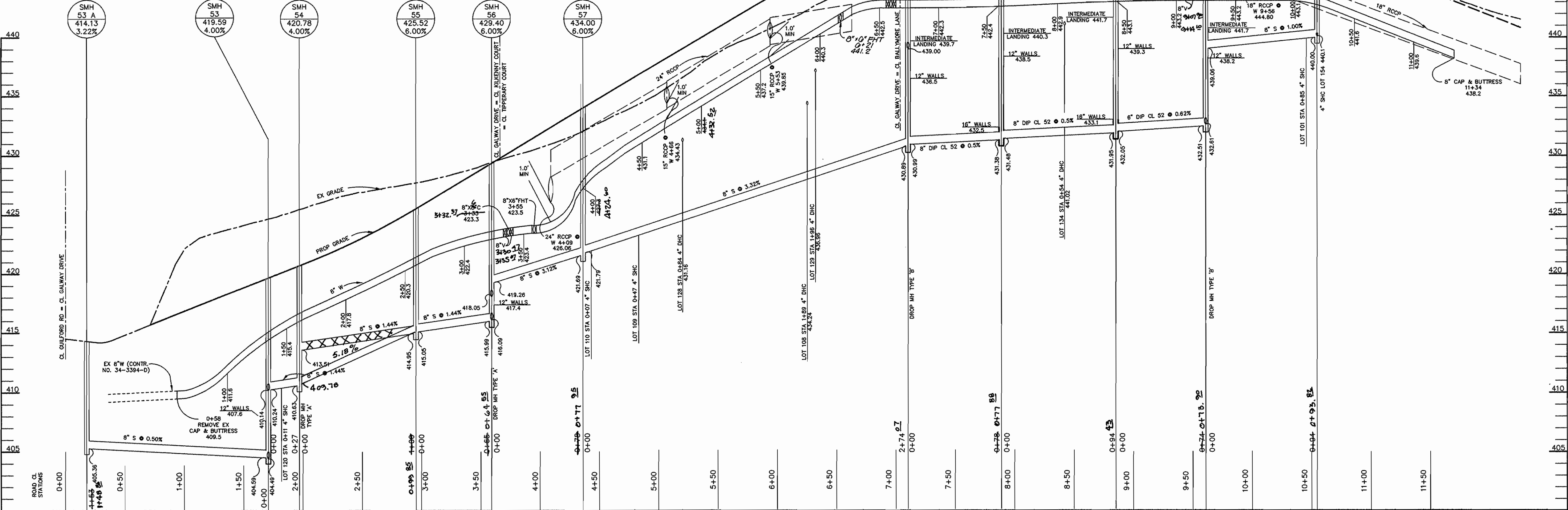
**PROFILE**

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



**PROFILE**

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



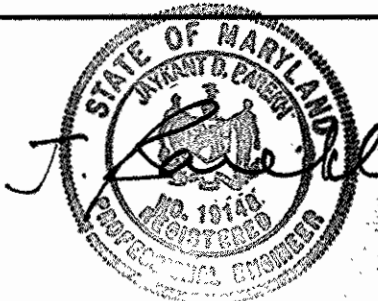
**PROFILE**

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

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
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RCCO/00000 00.DWG



DES: BLW			
DRN: BLW			
CHK: JTD			
DATE: JUNE 4, 1996	BY NO.	REVISION	DATE

**WATER AND SEWER PROFILE SHEET**

600' SCALE MAP NO. 35 BLOCK NO. 13

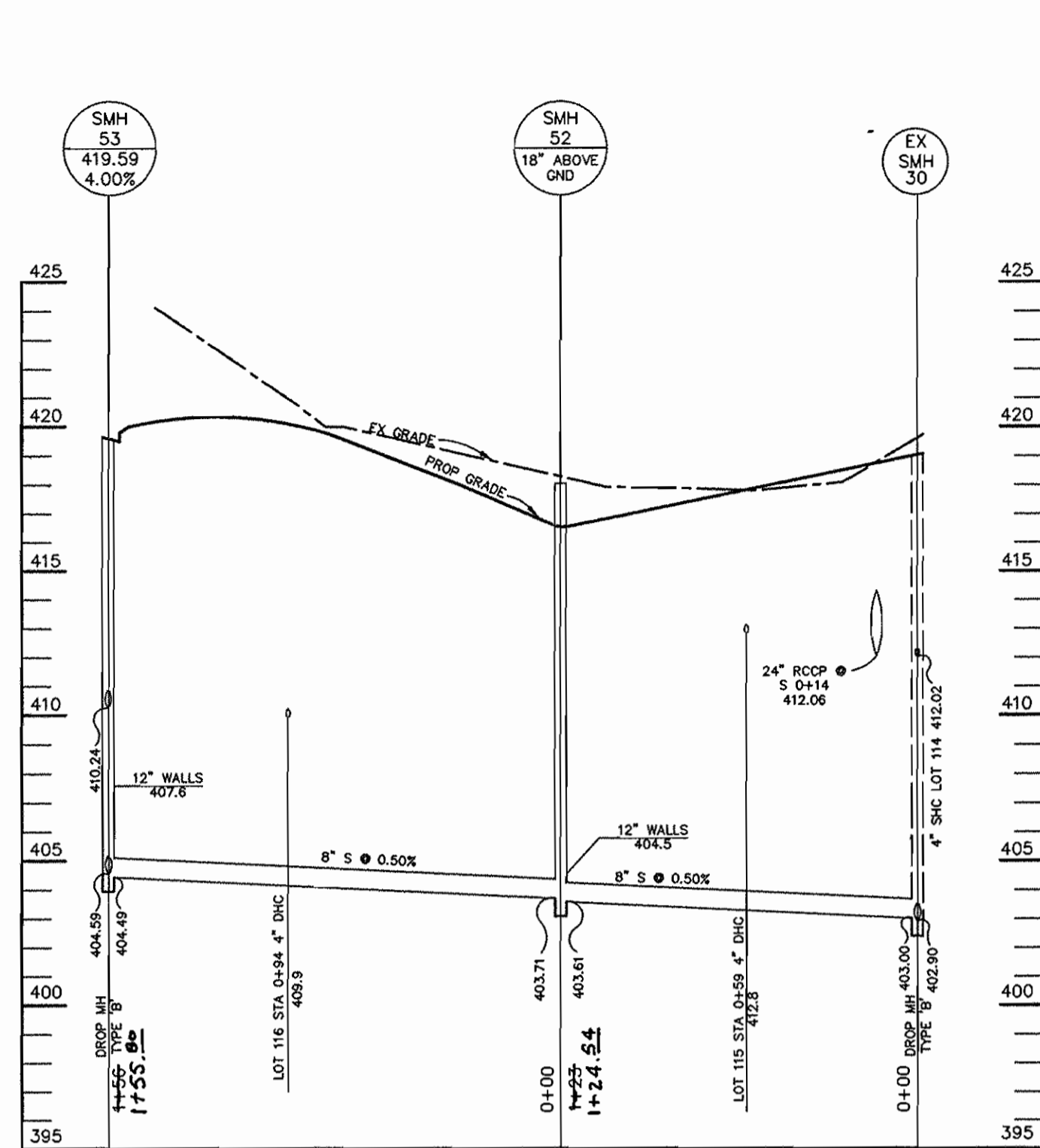
Water & Sewer As-Builts  
**CLARKS GLEN**  
SECTION 2 AREA 1  
LOTS 99 THRU 157  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT 34-3507-D

SCALE AS SHOWN  
SHEET 3 OF 4

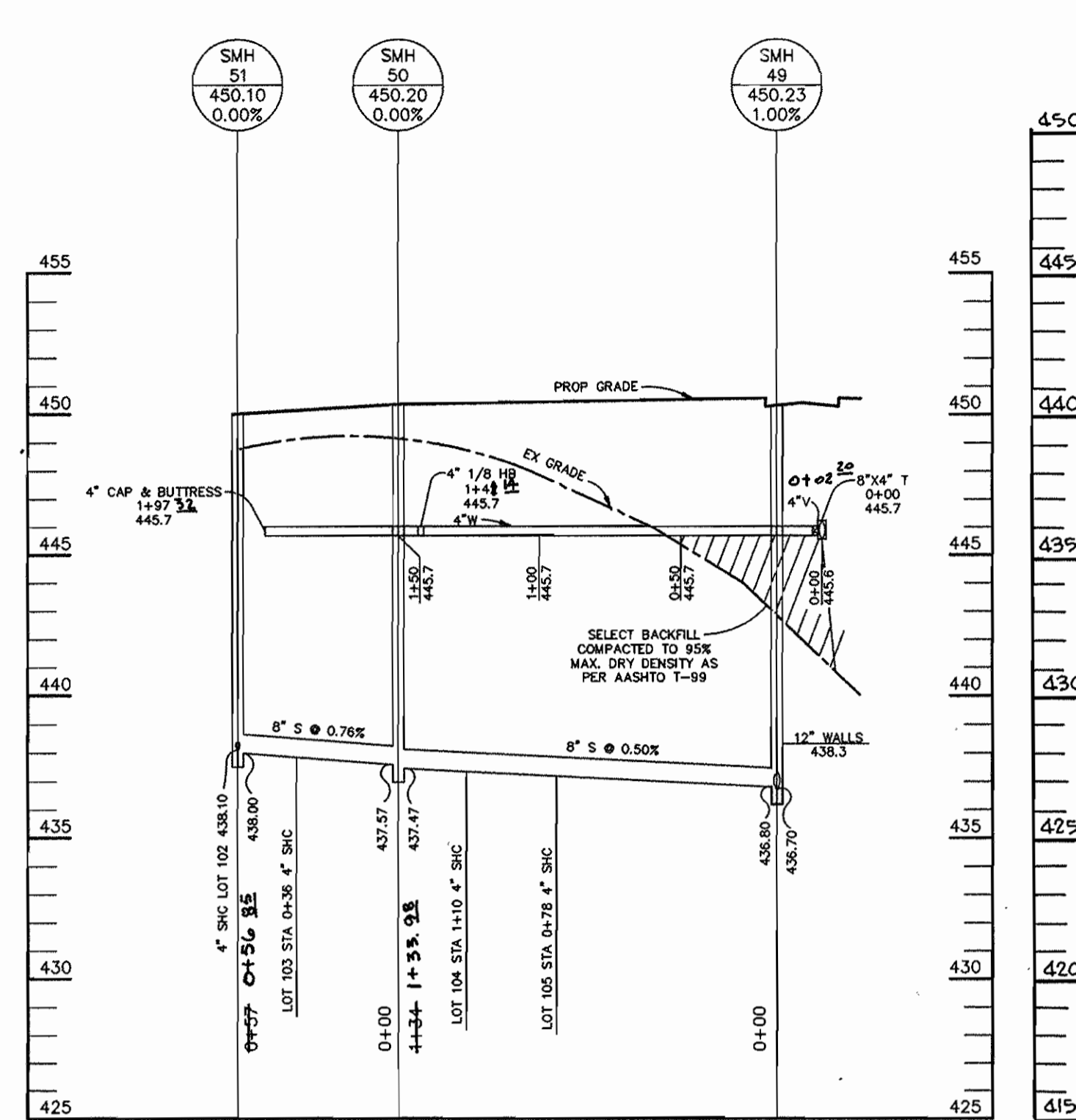
Robert J. ... 6-12-96  
CHIEF, BUREAU OF UTILITIES DATE

Has ... 6/14/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

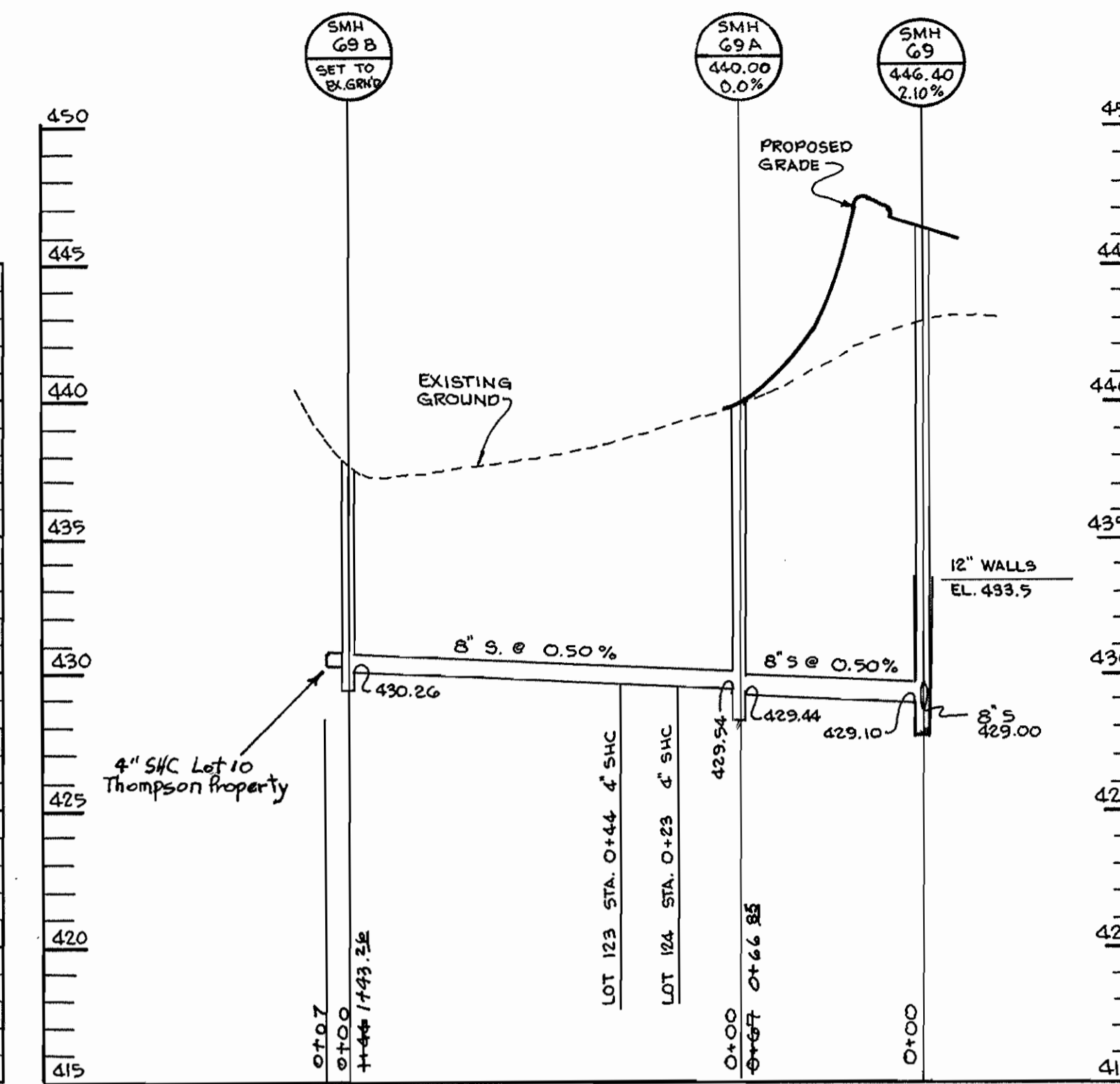
JAYKANT D. PAREKH # 19148



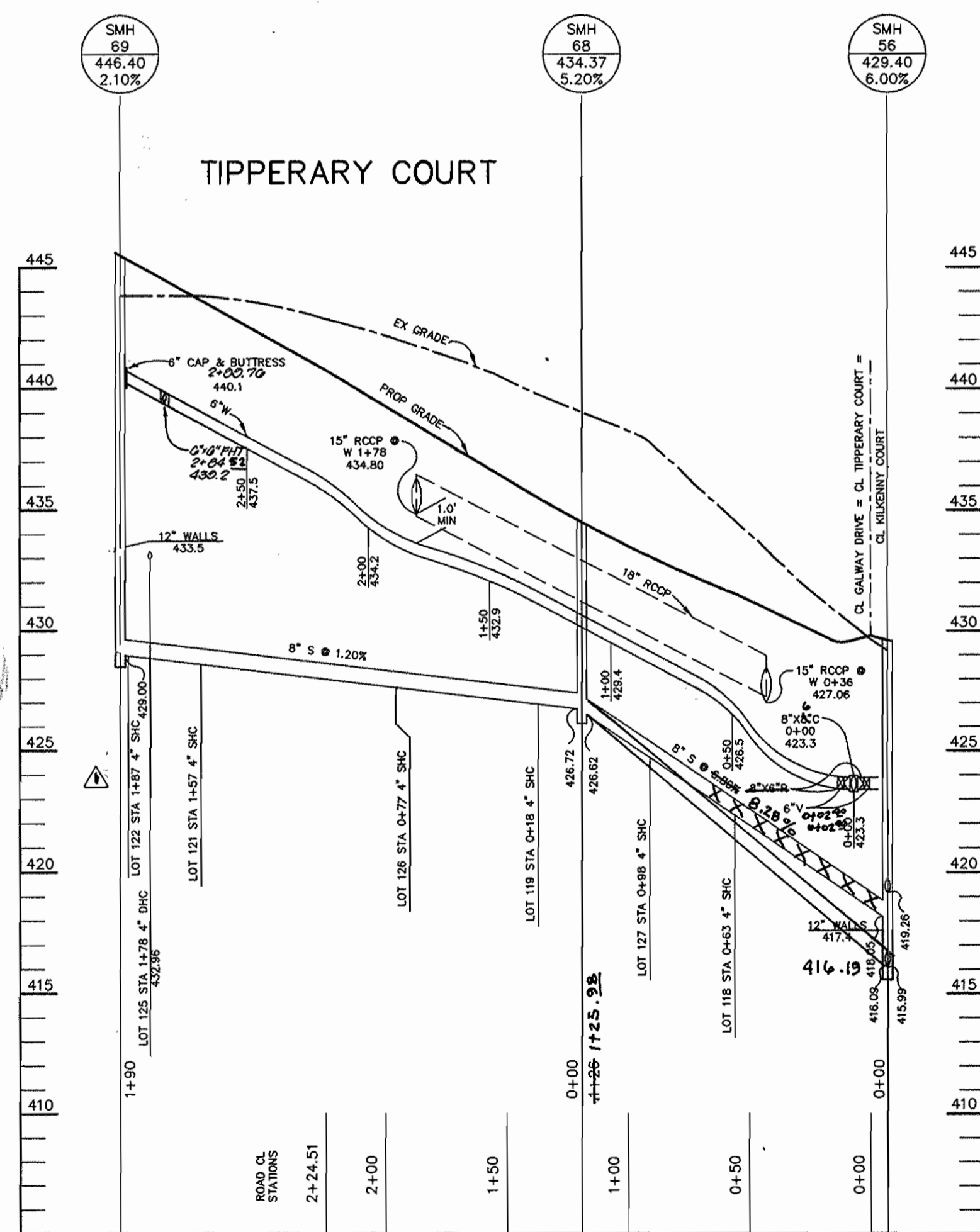
**PROFILE**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



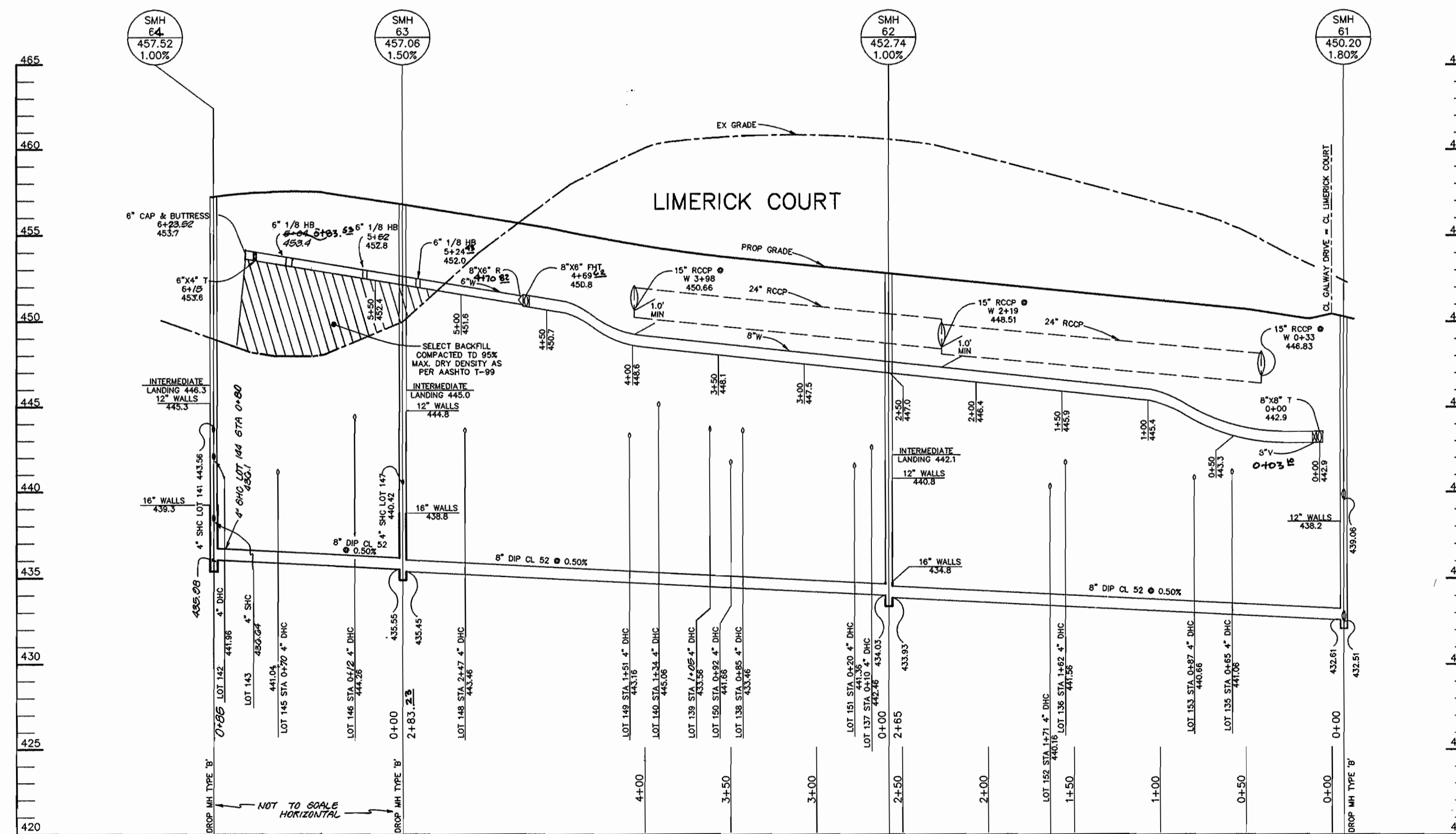
**PROFILE**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



**PROFILE**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



**PROFILE**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



**PROFILE**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'

Water & Sewer As-Built

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HOWARD COUNTY, MARYLAND

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1000/0000 00/00



JAYKANT D. PAREKH # 19148

DES:	BLW
DRN:	BLW
CHK:	JTD
RJC:	REMOVED SMC'S FOR LOTS 123 & 124 TIPPERARY CT. PROFILE. ADDED NEW PROFILE. M/C 1 - 6/28-1996
DATE:	JUNE 4, 1996
BY:	NO.
REVISION:	
DATE:	11/22/96

**WATER AND SEWER PROFILES**

600' SCALE MAP NO. 35 BLOCK NO. 13

CLARKS GLEN  
SECTION 2 AREA 1  
LOTS 99 THRU 157  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT 34-3507 -D

SCALE  
AS  
SHOWN

SHEET  
4 OF 4

*Robert D. Danner* 6-12-96  
DATE

*Chris Danner* 6/12/96  
DATE