

EMERSON Section 2 - Area 7 Parcel B

TAX MAP 47

LOT #243,572

6th ELECTION DISTRICT


WATER & SEWER CONSTRUCTION PLANS

Howard County, Maryland Department of Public Works

CONTRACT NO. 24-4397-D

GENERAL NOTES

PART I

- Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the contractor's expense.
- The existing topography is taken from low level flight and aerial survey with 2' contour intervals prepared by 3DI dated April 8, 2002. Supplemental field run topo by DMW, dated September 2002.
- Horizontal and Vertical Controls:
The coordinates shown on the drawings are based on Maryland State Reference System NAD'83/91 as projected by Howard County Geodetic Control Stations No.#31ea and No.#37CA.
All vertical controls are based on NAVD'83. Vertical controls provided on the drawings are BM1, #31EA-Disc set in concrete, N569641.123, E1374915.935, Elev. 468.90, 2' south of sidewalk on Ilchester Road ± 47.1' from gate in fence on the transmission line R.O.W. BM2-#37CA-Disc set in concrete, N569641.123, E1382742.880, Elev. =256.965, 20.6' south of centerline of Landing Road, 0.25 miles northwest on Landing Road from intersection of Landing Road and Montgomery Road.
- All pipe elevations shown are invert elevations unless otherwise noted.
- Clear all utilities by a minimum of 12". Clear all poles by 5' - 0" minimum or tunnel as required unless otherwise noted. 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 monies 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 locations of the test pits. 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.
- The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:
AT&T 1-800-252-1133
BGE (Construction Services) 410-850-4620
BGE (Emergency) 410-685-1400
Bureau of Utilities 410-313-4900
Colonial Pipeline Co. 410-795-1390
Miss Utility 1-800-257-7777
State Highway Administration 410-531-5533
Verizon 1-800-742-0033/410-224-9210
- Trees and shrubs are to be protected from damage to the maximum extent. Trees and shrubs 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.
- The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-7450 at least five working days before any open cut of any county road or boring/jacking of any 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.

PART II - WATER

- All water main to be D.I.P. Class 52 unless otherwise noted.
- Tops of all water mains to have a minimum of 3'-6" of cover.
- 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 installed and buttressed with concrete in accordance with Standard Details. The 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.

PART III - SEWER

- All sewer mains shall be P.V.C. or DIP 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 cover. Standard Design 52. Where watertight manhole frames and covers are 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.

QUANTITIES			
ITEMS	QUANTITIES ESTIMATED	AS-BUILT	
		QUANTITIES	TYPE MANUFACTURER / SUPPLIER
8" WATER	1,115'	1,115'	D.I.P. GRIFFIN PIPE PRODUCTS CO.
6" WATER	30'	30'	D.I.P. GRIFFIN PIPE PRODUCTS CO.
8" VALVES	6	6	GATE AMERICAN /L-B WATER
6" VALVES	2	2	GATE FLOW CONTROL/SERVICE INC.
8" x 8" TEE	1	1	D.I.P. TYLER PIPE /L-B WATER
8" x 6" TEE	2	2	D.I.P. TYLER PIPE/SERVICE INC.
8" x 8" TAPPING SLEEVE AND VALVE	1	1	TAPPING VALVE AMERICAN /L-B WATER FLOW CONTROL/SERVICE INC.
8" 1/2" HORIZ. BEND	5	5	D.I.P. TYLER PIPE /L-B WATER
8" 1/2" HORIZ. BEND	7	7	D.I.P. TYLER PIPE/SERVICE INC.
FIRE HYDRANT	2	2	D.I.P. TYLER PIPE /L-B WATER
8" CAP	2	2	D.I.P. TYLER PIPE/SERVICE INC.
1" WHC	552	671'	COPPERCAMBRIDGE-LEE/L-B WATER SERVICE INC.
4" SHC	951	812'	P.V.C. J.M. PIPE/L-B WATER SERVICE INC.
8" PVC SEWER	1186	1,186'	P.V.C. J.M. PIPE/L-B WATER SERVICE INC.
STD. SEWER MH	10	10	PRECAST CONTRACTORS PRECAST CORP.
SEWER MH VERT. FT.	30	30'	CONC. CONTRACTORS PRECAST CORP.

NAME OF UTILITY CONTRACTOR:
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: AUG. 13, 2007

* 8" CAP REMOVED WHEN CONNECTED TO EXIST. WATER @ CONT. # 24-4370-D

SHEET INDEX

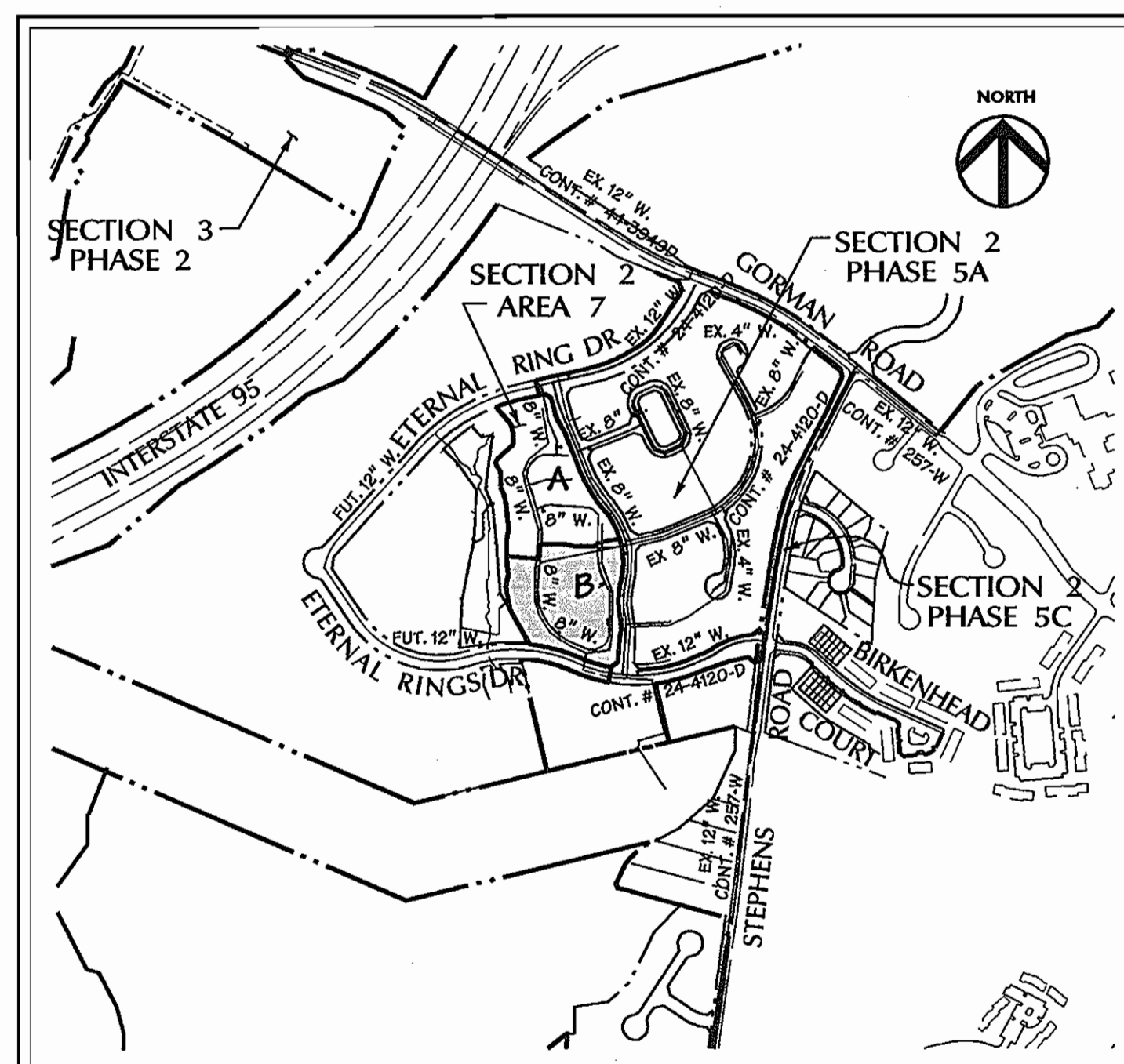
SHEET	DESCRIPTION
1	COVER SHEET
2	WATER & SEWER PLAN
3	FINAL WATER PROFILES
4	FINAL SEWER PROFILES

BENCHMARK

DESCRIPTION

BM1
#31EA-DISC SET IN CONCRETE
N 569641.123
E 1374915.935
ELEVATION = 468.90
2 FT. SOUTH OF SIDEWALK ON ILCHESTER ROAD
547.1 FT. FROM GATE IN FENCE ON TRANSMISSION LINE R.O.W.

BM2
#37CA-DISC SET IN CONCRETE
N 564321.656
E 1382742.880
ELEVATION = 256.965
20.6' SOUTH OF CENTERLINE OF LANDING ROAD
.25 MILES NORTHWEST ON LANDING ROAD FROM INTERSECTION OF LANDING ROAD AND MONTGOMERY RD.



LOCATION MAP

SCALE: 1"=600'
CONTRACT NO.

SEWER CODE: 760000
WATER CODE: E-S
TEST GRADIENT: 700

AS BUILT

DATE: AUG. 13, 2007

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

Signature: *John R. Roberts* DATE: 2/1/07

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

Signature: *Jim Meyer* DATE: 2/1/07

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH SDP-06-113

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

DMW
Dart-McCune-Walker, Inc.

200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 294-8233
Fax: 294-4705



DESIGN BY:	KAD
DRAWN BY:	GMO/MDT
CHECKED BY:	
DATE:	1/5/07
BY NO.	
REVISION	
DATE	

TITLE SHEET

600 SCALE MAP NO. 31 BLOCK NO. 10.11.16.17

EMERSON
Section 2 - Area 7
Parcel B

TAX MAP 47 PARCEL B
6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-4397 LOT/PARCEL #243,572

SCALE:
As Shown
SHEET
1 of 4

LOT 10
 SHC TO SMH 109 - 84'
 SHC TO WHC LOT 10 - 13.4'
 WHC TO SMH 109 - 99'
 WHC TO 6" INLET COVER I-0-29'
 SHC TO 6" INLET COVER I-0-42'

LOT 11
 WHC TO SMH 107 - 49.5'
 WHC TO SHC LOT 11 - 12.5'
 WHC TO SMH 100 - 71.5'
 SHC TO SMH 107 - 48.0'
 SHC TO WHC LOT 12 - 13'
 SHC TO SMH 100 - 59.5'

LOT 12
 WHC TO SMH 107 - 58.0'
 WHC TO SHC LOT 12 - 10'
 WHC TO SMH 100 - 47.5'
 SHC TO SMH 100 - 40.5'
 SHC TO SMH 107 - 07.0'
 SHC TO WHC LOT 13 - 13.0'

LOT 13
 WHC TO SHC LOT 13 - 15.0'
 WHC TO SMH 100 - 32.5'
 WHC TO SMH 107 - 80.0'
 SHC TO SMH 100 - 31.0'
 SHC TO WHC LOT 14 - 11.0'
 SHC TO SMH 101 - 04.0'

LOT 14
 WHC TO SHC LOT 14 - 11.7'
 WHC TO SMH 100 - 38.0'
 WHC TO SMH 101 - 55.0'
 SHC TO SMH 100 - 47.0'
 SHC TO SMH 101 - 45.2'

LOT 15
 SHC TO 6" F.H. - 29.0'
 SHC TO SMH 102 - 31.0'
 SHC TO WHC LOT 15 - 20.0'
 WHC TO 6" F.H. VALVE - 10.3'
 WHC TO SMH 102 - 34.0'
 SHC TO 8" VALVE (V-4) - 20.7'
 SHC TO WHC LOT 16 - 0.0'

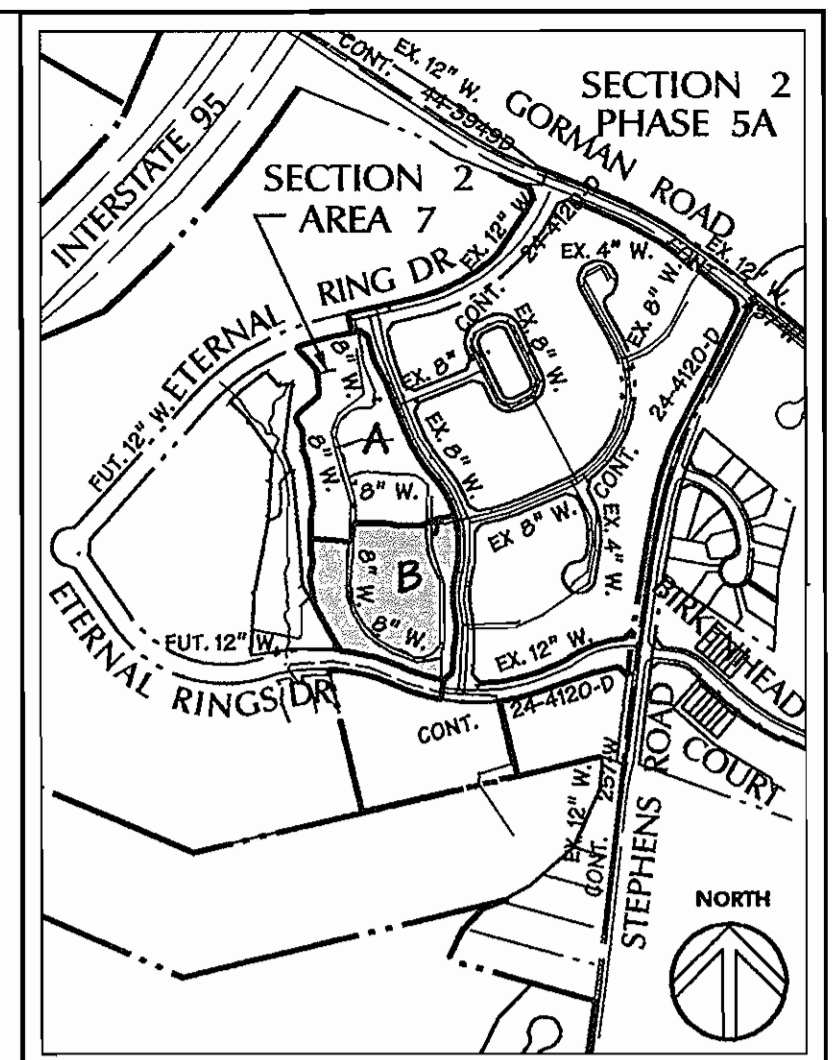
LOT 16
 WHC TO 6" F.H. - 35.8'
 WHC TO SMH 102 - 34.0'
 WHC TO SHC LOT 16 - 12.5'
 SHC TO SMH 102 - 40.0'
 SHC TO 6" F.H. - 48.0'
 SHC TO WHC LOT 17 - 10.0'

LOT 17
 WHC TO SMH 102 - 49.0'
 WHC TO SMH 103 - 52.3'
 WHC TO SHC LOT 17 - 8.0'
 SHC TO SMH 102 - 50.2'
 SHC TO SMH 103 - 44.0'
 SHC TO WHC LOT 18 - 8.5'

LOT 18
 SHC TO WHC LOT 18 - 12.0'
 SHC TO SMH 103 - 20.4'
 SHC TO SMH 102 - 82.3'
 WHC TO SHC LOT 19 - 12.0'
 WHC TO SMH 103 - 33.7'
 WHC TO SMH 102 - 72.0'

LOT 19
 WHC TO SHC LOT 19 - 21.4'
 WHC TO SMH 103 - 30'
 WHC TO 8" V(V-5) - 77.5'
 WHC TO SMH 104 - 80.3'
 WHC TO SMH 103 - 40.5'
 SHC TO SMH 104 - 59.5'
 SHC TO SHC LOT 20 - 24.0'
 SHC TO 8" VALVE (V-5) - 56.4'

LOT 20
 SHC TO WHC LOT 20 - 11'
 SHC TO 8" VALVE (V-5) - 33'
 SHC TO SMH 104 - 39'
 WHC TO SMH 104 - 31.2'
 WHC TO 8" VALVE (V-5) - 23'

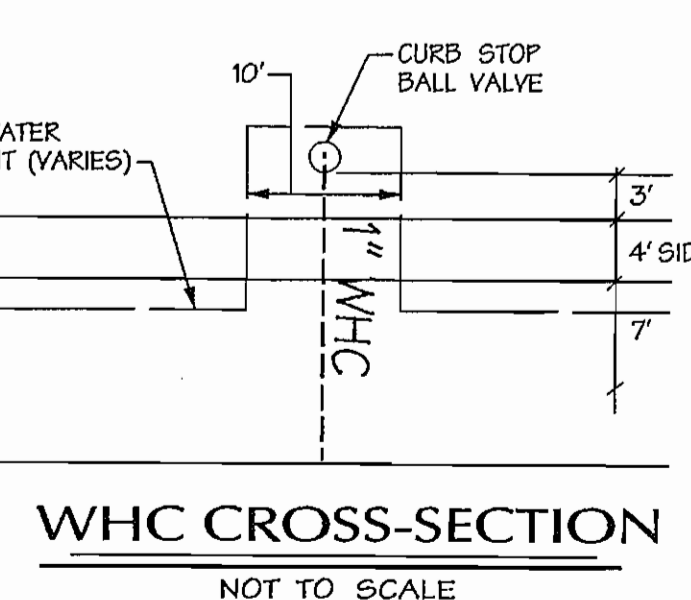


VICINITY MAP
 SCALE: 1"=600'

SHC INVERT EASEMENT CHART

STATION	UNIT	ELEVATION	MIN. CELLAR ELEV.	ACTUAL CELLAR ELEV.
SMH100 TO SMH101				
DHC 0+13	13	272.27	276.17	287.21
DHC 0+36	14	272.88	276.78	286.54
SMH102 TO SMH103				
SHC SMH102	15	276.15	280.05	287.20
DHC 0+26	16	276.64	279.54	287.87
SHC 0+34	37	276.39	278.00	278.00
DHC 0+43	17	276.48	280.38	288.54
SHC 0+51	36	276.86	278.00	279.33
SHC SMH103	18	276.30	280.20	288.54
SHC SMH103	35	275.75	279.65	280.00
SMH103 TO SMH104				
SHC 0+21	34	276.48	279.00	280.66
DHC 0+30	19	276.77	280.00	289.30
SHC 0+36	33	276.63	278.00	281.33
SHC 0+54	20	277.01	280.00	280.54
SMH104 TO SMH105				
SHC SMH104	32	277.70	281.60	281.82
SHC SMH104	31	277.80	281.70	282.49
SHC 0+35	30	278.54	282.00	283.19
DHC 0+52	21	278.95	282.85	282.20
SHC 0+59	29	279.12	282.00	283.52
DHC 0+79	22	278.40	283.30	282.87
SHC 0+80	25	279.26	283.00	283.82
DHC 1+08	23	279.96	283.82	283.54
SHC 1+13	27	280.42	284.32	284.49
SHC 1+29	24	280.43	284.33	283.54
SMH105 TO SMH106				
DHC 0+18	25	280.97	284.87	284.87
SHC 0+30	40	281.72	285.10	285.10
DHC 0+40	26	281.72	285.62	285.54
SHC 0+54	39	281.72	286.00	286.43
SMH100 TO SMH107				
DHC 0+30	12	274.92	278.82	288.54
DHC 0+53	11	275.56	279.46	289.87
SMH106 TO SMH109				
SHC 0+80	10	281.37	285.00	286.42
SHC 1+05	9	282.35	286.00	287.08
SHC 1+28	8	282.33	286.00	287.75
SHC 1+52	7	282.56	287.00	288.42
SHC 0+26	6	284.65	288.00	289.06
SMH109 TO SMH110				
SHC 0+74	5	285.69	289.00	290.42
SHC 0+97	4	285.39	290.00	291.09
SHC SMH110	3	287.17	290.00	291.76
SMH110 TO SMH111				
SHC 0+47	2	287.68	291.00	292.42
SHC 0+39	1	288.34	292.00	293.76

LOT 19
 WHC TO SHC LOT 19 - 21.4'
 WHC TO SMH 103 - 30'
 WHC TO 8" V(V-5) - 77.5'
 WHC TO SMH 104 - 80.3'
 WHC TO SMH 103 - 40.5'
 SHC TO SMH 104 - 59.5'
 SHC TO SHC LOT 20 - 24.0'
 SHC TO 8" VALVE (V-5) - 56.4'



LOT 7
 SHC TO WHC LOT 7 - 7.0'
 SHC TO SMH 109 - 29.4'
 SHC TO 6" F.H. - 49.0'
 WHC TO SMH 109 - 35.0'
 WHC TO SHC LOT 8 - 15.8'

LOT 8
 SHC TO WHC LOT 8 - 10.3'
 SHC TO SMH 109 - 44'
 SHC TO 6" F.H. - 70'
 WHC TO 6" F.H. - 80'
 WHC TO SMH 109 - 53.4'
 WHC TO SHC LOT 9 - 14'

LOT 9
 SHC TO SMH 109 - 03.0'
 SHC TO WHC LOT 9 - 11.2'
 WHC TO SMH 109 - 74.0'
 WHC TO SHC LOT 10 - 13.2'

Corresponding Centerline Stationing
 NORTHERN LAKES LANE

STRUCTURE	WATERLINE STATION	CENTERLINE STATION/COORDINATES
8" CAP	13+55	5+49
8" 1/2 BEND	15+33	7+38
8" VALVE	15+34	7+40
8" 1/2 BEND	15+80	7+86
8" 1/2 BEND	16+28	8+35
8" 1/2 BEND	16+77	8+85
8" 1/2 BEND	17+26	9+34
8" x 6" TEE	17+30	9+36
8" 1/2 BEND	17+45	9+55
8" 1/2 BEND	17+73	9+84
8" 1/2 BEND	18+66	10+79
8" 1/2 BEND	18+94	11+09
8" 1/2 BEND	19+20	11+36
8" 1/2 BEND	19+47	11+67
8" 1/2 BEND	19+78	12+00
8" 1/2 BEND	21+53.33	13+75
8" x 8" BEND	23+33	15+56
8" VALVE	23+47	15+71
8" CAP	23+52	15+75
8" x 6" TEE	22+00	14+18

LOT 1
 SHC TO 8" VALVE (V-1) - 20.4'
 SHC TO WHC LOT 1 - 11.0'
 WHC TO 8" VALVE (V-1) - 30.4'
 WHC TO SMH 110 - 41.0'
 WHC TO SMH 110 - 47.0'

LOT 2
 SHC TO WHC LOT 1 - 11.5'
 SHC TO WHC LOT 2 - 12.0'
 SHC TO 8" VALVE (V-1) - 40.0'
 SHC TO SMH 110 - 27.0'
 WHC TO SMH 110 - 29.0'
 WHC TO SHC LOT 3 - 13.8'
 WHC TO 8" VALVE (V-3) - 52.2'

LOT 3
 SHC TO WHC LOT 3 - 10.0'
 SHC TO SMH 110 - 27.8'
 SHC TO 8" VALVE (V-1) - 05.0'
 WHC TO 8" VALVE (V-1) - 75.0'
 WHC TO SMH 110 - 31.8'
 WHC TO SHC LOT 4 - 14.0'

LOT 4
 SHC TO WHC LOT 4 - 12.8'
 SHC TO SMH 110 - 30.0'
 SHC TO 8" VALVE (V-1) - 80.0'
 WHC TO 8" VALVE (V-1) - 99.1'
 WHC TO SHC LOT 5 - 11.4'
 WHC TO SMH 110 - 47.4'
 WHC TO 6" F.H. - 40.0'

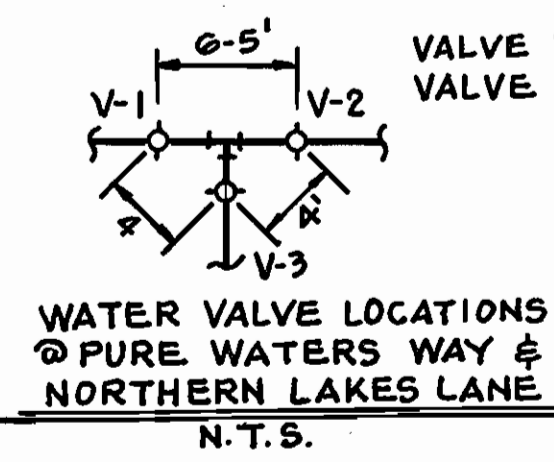
LOT 5
 SHC TO SMH 110 - 55.0'
 SHC TO WHC LOT 5 - 10.8'
 SHC TO 6" F.H. - 35.0'
 WHC TO 6" F.H. - 19.0'
 WHC TO SHC LOT 6 - 38.4'
 WHC TO 6" F.H. VALVE - 23.2'
 WHC TO SMH 110 - 09.2'

LOT 6
 SHC TO 6" F.H. - 20.0'
 SHC TO 6" F.H. VALVE - 20.0'
 SHC TO WHC LOT 6 - 12.8'
 SHC TO SMH 109 - 38.0'
 WHC TO SMH 109 - 30.0'
 WHC TO 6" F.H. - 32.5'
 WHC TO SHC LOT 7 - 10.4'

NOTE: FOR ADDITIONAL AS-BUILT LOCATIONS SEE SHEET 3 OF 4

Notes

- All sewer house connections shall be 4" PVC.
- Twin sewer house connections are not permitted.
- All water house connections shall be 1" copper pipe and located on the high side of the property. All water meters shall be 3/4" with inside setters.
- All water mains shall be 8" PVC Sewer Mains greater than 16' deep shall be 8" D.I.P.
- All sewer manholes shall be Standard Sewer Manholes in accordance with Howard County Standard Details.
- All fire hydrants laterals to be 6" D.I.P. All fire hydrant laterals to be connected to the 8" main with a 8" x 6" tee with a 6" valve unless otherwise noted.
- All fire hydrants to have a maximum spacing of 500'.
- All tees to be 8" x 8" unless otherwise noted.
- All valves to be 8" unless otherwise noted.



WATER VALVE LOCATIONS @ PURE WATERS WAY & NORTHERN LAKES LANE
 N.T.S.

VALVE V-3 TO SMH 111 - 21.0'
 VALVE V-2 TO SMH 111 - 20.4'

AS BUILT
 DATE: AUG. 13, 2007

AS-BUILT LEGEND

LEGEND	DESCRIPTION
(---)	EX. TREE LINE
(---)	EX. 2' CONTOUR
(---)	EX. 10' CONTOUR
(---)	EX. STRUCTURE
(---)	PROPERTY BOUNDARY
(---)	EX. UTILITIES & CONTR.
(---)	RIGHT OF WAY LINE
(---)	PROP. LOT NUMBER
(---)	ADJACENT LOT LINE
(---)	PROP. LOT LINE
(---)	PROP. W&S UTILITIES

DEVELOPER:
 Lennar Baltimore Land
 10211 Wincopter Circle
 Suite 150
 Columbia, MD 21044
 410-715-1196

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Chief - Bureau of Utilities - DATE	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND Chief - Development Engineering Division - DATE	DMW Daft-McCune-Walker, Inc. A Team of Land Planners, Landscape Architects, Golf Course Architects, Engineers, Surveyors & Environmental Professionals 200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 286-3333 Fax 286-4705	DESIGN BY: KAD/CVS DRAWN BY: MDT CHECKED BY: DATE: 11/5/07	FINAL WATER AND SEWER PLAN SCALE: 1"=50' SHEET 2 of 4	EMERSON Section 2 - Area 7 Parcel B TAX MAP 47 PARCEL B 6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND CONTRACT NO. 24-4397-D LOT/PARCEL # 037
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LOT 21
 WHC TO 8" VALVE (V-5) - 41.0'
 WHC TO SMH 104 - 00.0'
 WHC TO SHC LOT 21 - 12.4'
 SHC TO 8" VALVE (V-5) - 53.0'
 SHC TO SMH 104 - 40.4'
 SHC TO WHC LOT 22 - 11.0'

LOT 22
 SHC TO WHC LOT 22 - 13.5'
 SHC TO SMH 104 - 83.4'
 SHC TO SMH 105 - 59.0'
 WHC TO SMH 105 - 73.7'
 WHC TO SMH 104 - 71.2'
 SHC TO WHC LOT 23 - 19.0'

LOT 23
 WHC TO SHC LOT 23 - 17.0'
 WHC TO SMH 105 - 47.0'
 WHC TO SMH 104 - 97.0'
 SHC TO WHC LOT 24 - 7.5'
 SHC TO SMH 105 - 35.7'

LOT 24
 WHC TO SHC LOT 24 - 17.0'
 WHC TO SMH 105 - 32.0'
 SHC TO WHC LOT 25 - 11.0'
 SHC TO SMH 105 - 27.2'
 SHC TO SMH 100 - 08.4'

LOT 25
 WHC TO SHC LOT 25 - 13.0'
 WHC TO SMH 105 - 30.5'
 WHC TO SMH 100 - 00.0'
 SHC TO SMH 100 - 48.0'
 SHC TO SMH 105 - 34.8'
 SHC TO WHC LOT 26 - 12.0'

LOT 26
 WHC TO SHC LOT 26 - 8.5'
 WHC TO SMH 105 - 45.0'
 WHC TO SMH 100 - 40.5'
 SHC TO SMH 100 - 33.8'
 SHC TO SMH 105 - 50.7'

LOT 27
 WHC TO SMH 105 - 13.0'
 WHC TO WHC LOT 40 - 19.0'
 WHC TO SHC LOT 27 - 14.0'
 SHC TO SMH 105 - 22.5'
 SHC TO WHC LOT 28 - 11.5'

LOT 28
 WHC TO SHC LOT 28 - 9.8'
 WHC TO SMH 105 - 33.5'
 SHC TO SMH 105 - 42.0'
 SHC TO WHC LOT 29 - 19.0'
 SHC TO WHC LOT 23 - 41.0'

LOT 29
 SHC TO WHC LOT 29 - 10.7'
 SHC TO SMH 105 - 71.0'
 SHC TO SMH 104 - 00.3'
 WHC TO SMH 105 - 00.7'
 WHC TO SMH 104 - 74.8'

LOT 30
 WHC TO SMH 105 - 82.7'
 WHC TO SHC LOT 30 - 13.2'
 WHC TO SMH 104 - 53.0'
 SHC TO WHC LOT 31 - 11.4'
 SHC TO SMH 105 - 95.7'
 SHC TO SMH 104 - 41.8'

LOT 31
 WHC TO SHC LOT 31 - 11.7'
 WHC TO SMH 104 - 31.0'
 WHC TO 8" VALVE (V-5) - 30.0'
 SHC TO 8" VALVE (V-5) - 35.0'
 SHC TO SMH 104 - 20.8'
 SHC TO SHC LOT 32 - 19.0'

LOT 32
 SHC TO SMH 104 - 10.2'
 SHC TO 8" VALVE (V-5) - 20.4'
 SHC TO WHC LOT 32 - 18.4'
 WHC TO 8" VALVE (V-5) - 31.7'
 WHC TO SMH 104 - 20.7'
 WHC TO WHC LOT 33 - 24.2'

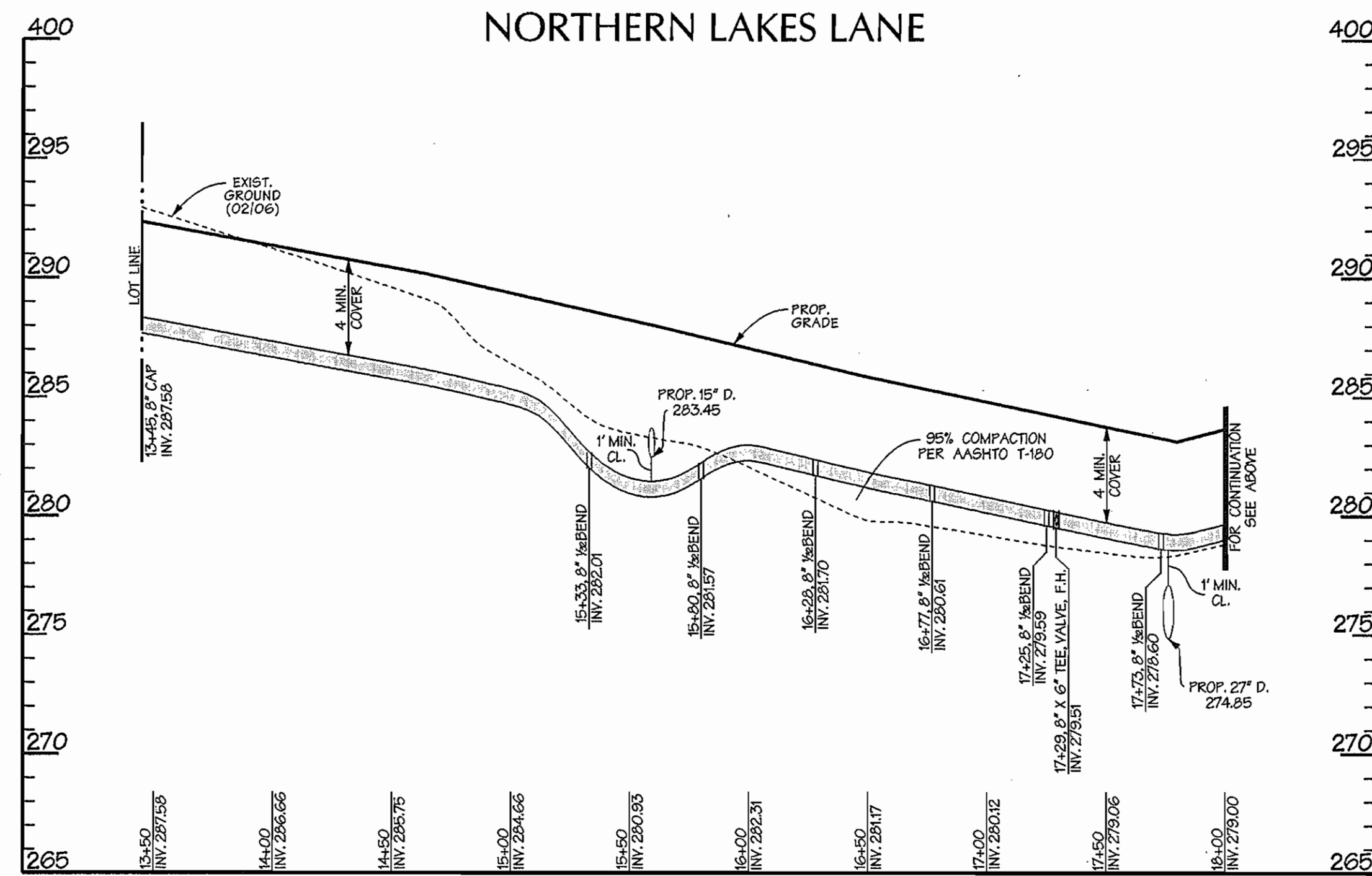
LOT 33
 WHC TO SMH 104 - 41.5'
 WHC TO 8" VALVE (V-5) - 48.7'
 WHC TO SHC LOT 33 - 12.3'
 SHC TO SHC LOT 34 - 10.0'
 SHC TO SMH 104 - 53.0'
 SHC TO SMH 103 - 41.5'

LOT 34
 SHC TO SMH 104 - 00.7'
 SHC TO SMH 103 - 20.0'
 SHC TO WHC LOT 34 - 8.0'
 WHC TO SHC LOT 35 - 21.4'
 WHC TO SMH 104 - 74.1'
 WHC TO SMH 103 - 20.0'

LOT 35
 SHC TO SMH 103 - 12.4'
 SHC TO SMH 104 - 94.2'
 SHC TO WHC LOT 35 - 11.0'
 WHC TO SMH 103 - 18.0'
 WHC TO SHC LOT 36 - 35.0'
 WHC TO SMH 102 - 74.0'

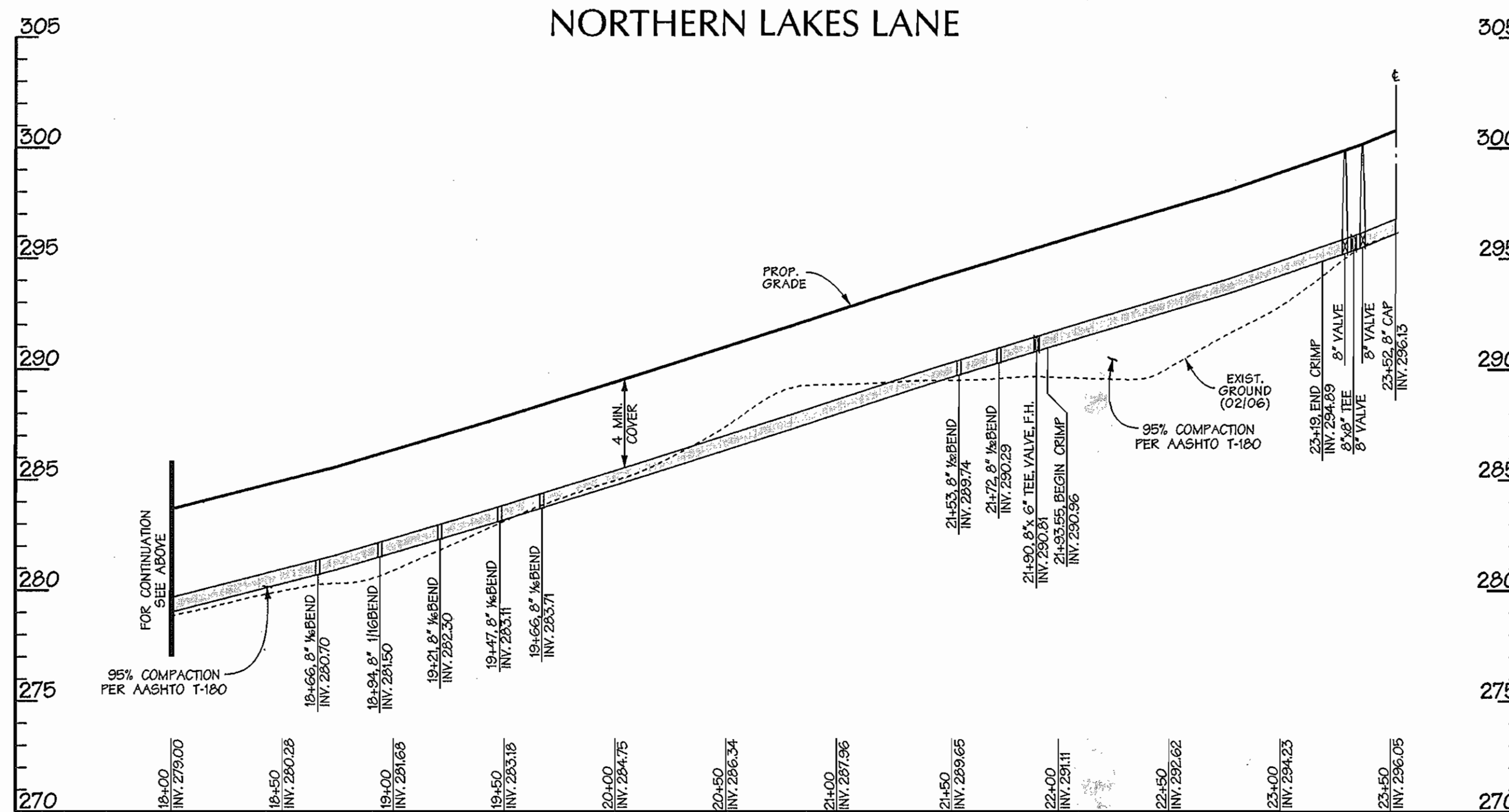
LOT 36
 SHC TO WHC LOT 36 - 5.0'
 SHC TO SMH 103 - 31.0'
 SHC TO SMH 102 - 60.4'
 WHC TO SMH 103 - 33.0'
 WHC TO SMH 102 - 55.8'
 WHC TO SHC LOT 37 - 15.3'

LOT 37
 SHC TO SMH 103 - 48.3'
 SHC TO SMH 102 - 41.3'
 SHC TO WHC LOT 37 - 14.3'
 WHC TO SMH 102 - 28.0'
 WHC TO E.F.H. - 03.2'



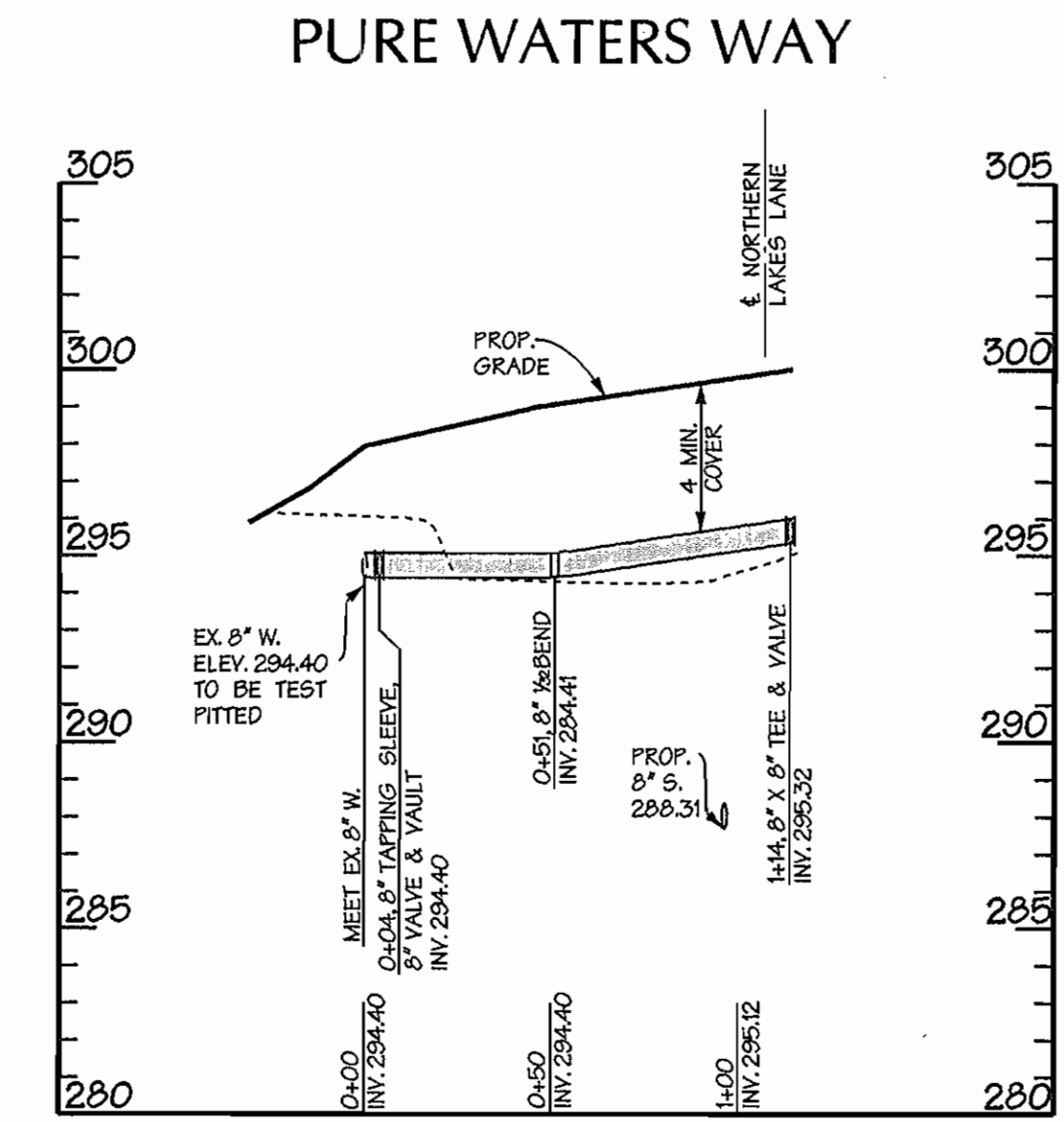
WATER PROFILE
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'

WATER LINE STATIONING



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

WATER LINE STATIONING



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

WATER LINE STATIONING

AS BUILT
 DATE: AUG. 13, 2007

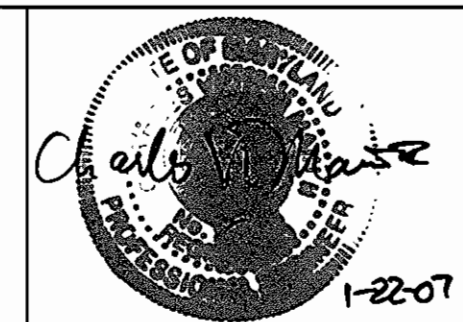
DEVELOPER:
 Lennar Baltimore Land
 10211 Winthrop Circle
 Suite 150
 Columbia, MD 21044

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND



A Team of Land Planners,
 Landscape Architects,
 Towns, Maryland 21286
 (410) 296-3333
 Fax 296-4705



DESIGN BY:
 CV5
 DRAWN BY:
 WDE/MDT
 CHECKED BY:
 DATE:
 1/5/07

FINAL WATER PROFILES

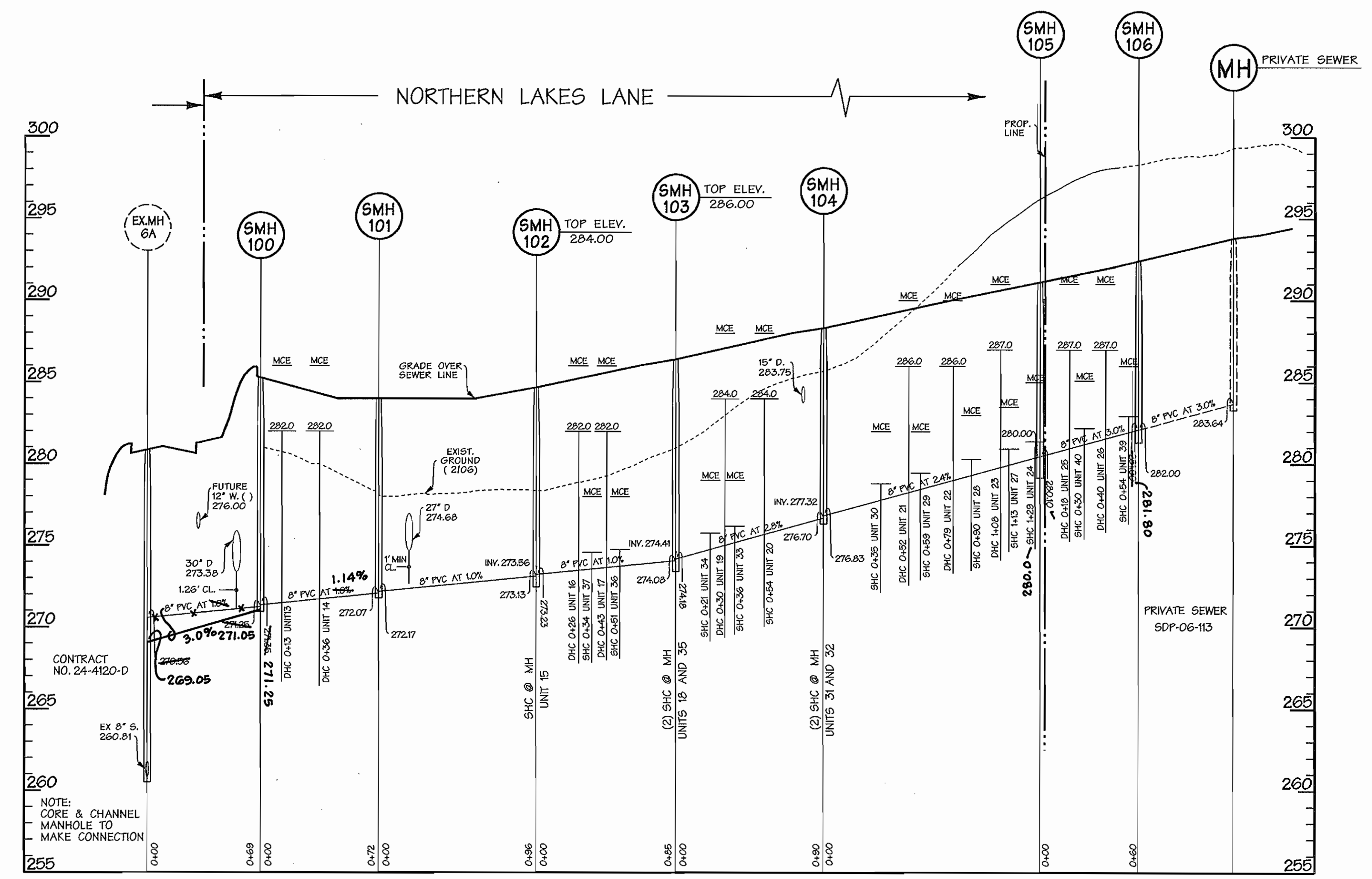
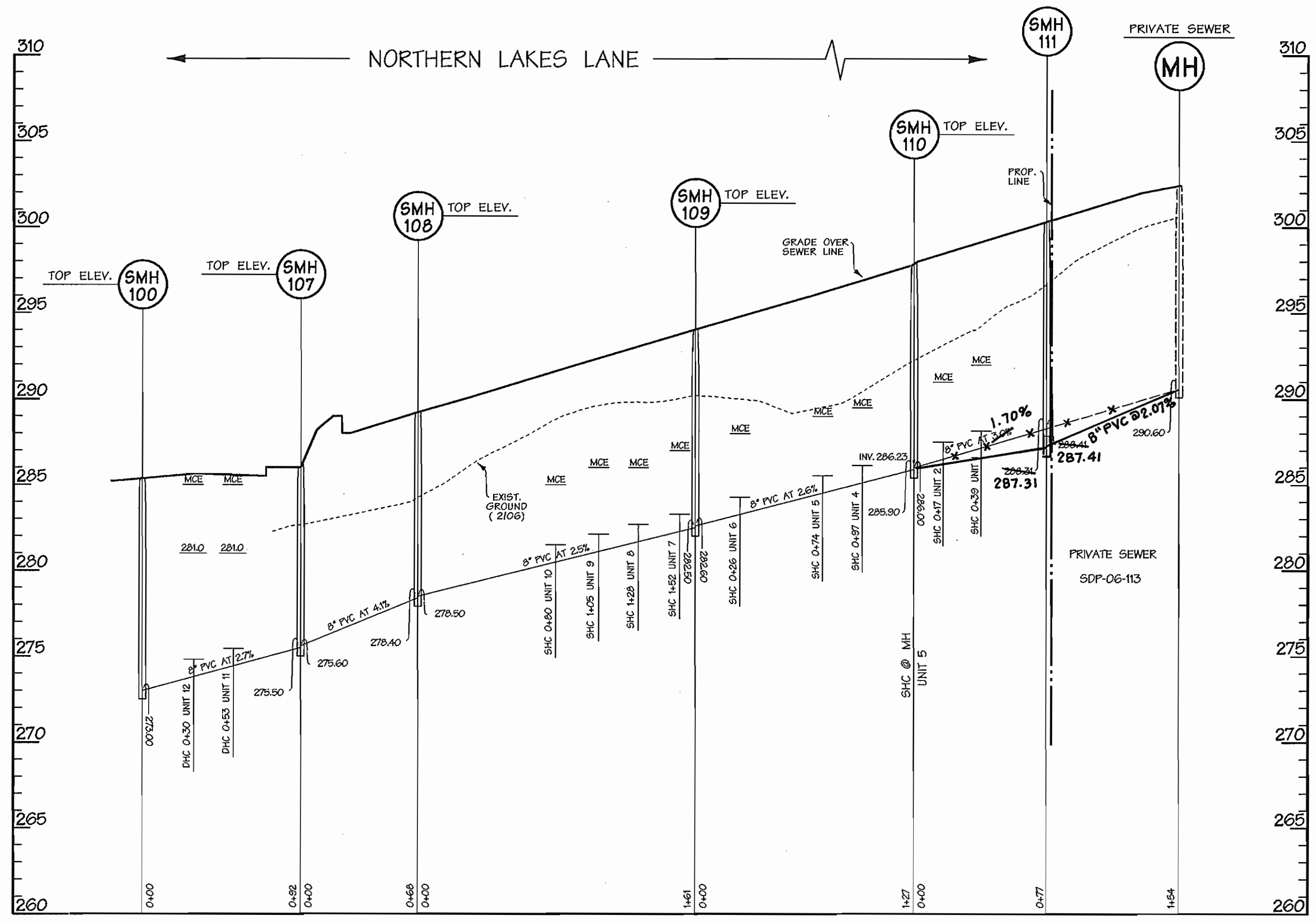
BY	NO.	REVISION	DATE

600 SCALE MAP NO. _____ BLOCK NO. _____

EMERSON
 Section 2 - Area 7
 Parcel B

TAX MAP 47 PARCEL B
 6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND
 CONTRACT NO. 24-4397-D LOT/PARCEL #245,572

SCALE:
 1"=50'
 SHEET
 3 of 4



SANITARY PROFILES
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

AS BUILT
DATE: AUG. 13, 2007

DEVELOPER:
Lennar Baltimore Land
10211 Winocoin Circle
Suite 150
Columbia, MD 21044

Fri Jan 5 13:48:27 2006 05:49:55:4R05054Rw04

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
R. H. Berman 1-26-07
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
W. J. ... 2/20/07
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

DMW
Daft-McCune-Walker, Inc.
A Team of Land Planners,
Landscape Architects,
Townson, Maryland 21286
(410) 296-3333
Fax 296-4705



DESIGN BY:	CVS		
DRAWN BY:	MDT		
CHECKED BY:			
DATE:	1/5/07		
BY NO.		REVISION	DATE

FINAL SEWER PROFILES

600 SCALE MAP NO. _____ BLOCK NO. _____

EMERSON
Section 2 - Area 7
Parcel B
TAX MAP 47 PARCEL B
6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-4397-D LOT/PARCEL #243,572

SCALE: 1"=50'
SHEET 4 of 4

Fri Jan 5 13:48:27 2006 05:49:55:4R05054Rw04