

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN OF WATER AND SEWER MAINS
3	PLAN OF WATER AND SEWER MAINS
4	PLAN OF WATER AND SEWER MAINS
5	PROFILE OF WATER AND SEWER MAINS
6	PROFILE OF WATER AND SEWER MAINS
7	PROFILE OF WATER AND SEWER MAINS

CONTRACT NO. 3A-3586-D

VILLAGE OF RIVER HILL

SECTION 4 AREA 5 LOTS 1 - 141

HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

ITEM	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" SEWER	6097 LF	601130 LF	P.V.C.	Municipal Contractor
4" SEWER	6030 LF	4636 LF	P.V.C.	Municipal Contractor
MANHOLES	39 EA	39 EA		Frederick Precast
VEGETATION VALVES	182 LF	182 VE		Frederick Precast
8" WATER	302 LF	626 LF	D.I.P.	Griffen
1" WDG. TUB	4922 LF	4542 LF	D.I.P.	Griffen
8" VALVE	12 EA	12 EA		U.S. Filter/Mueller
4" VALVE	8 EA	11 EA		U.S. Filter/Mueller
3" W.C.	3732 LF	4114 LF		U.S. Filter/Reading
FIRE HYDRANTS	12 EA	12 EA		U.S. Filter/Mueller
3" BLOWOFF	4 EA	0		

NAME OF UTILITY CONTRACTOR: Utilities Unlimited
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: 2/10/99

TYPE OF BUILDING	SINGLE FAMILY
NO. OF LOTS / PARCELS	138 LOTS
NO. WATER HOUSE CONNECTIONS:	147 *
NO. OF SEWER HOUSE CONNECTIONS:	149 **
DRAINAGE AREA	MIDDLE PATUXENT
TREATMENT PLANT	LITTLE PATUXENT WATER QUALITY MANAGEMENT CENTER-SAVAGE HOWARD COUNTY

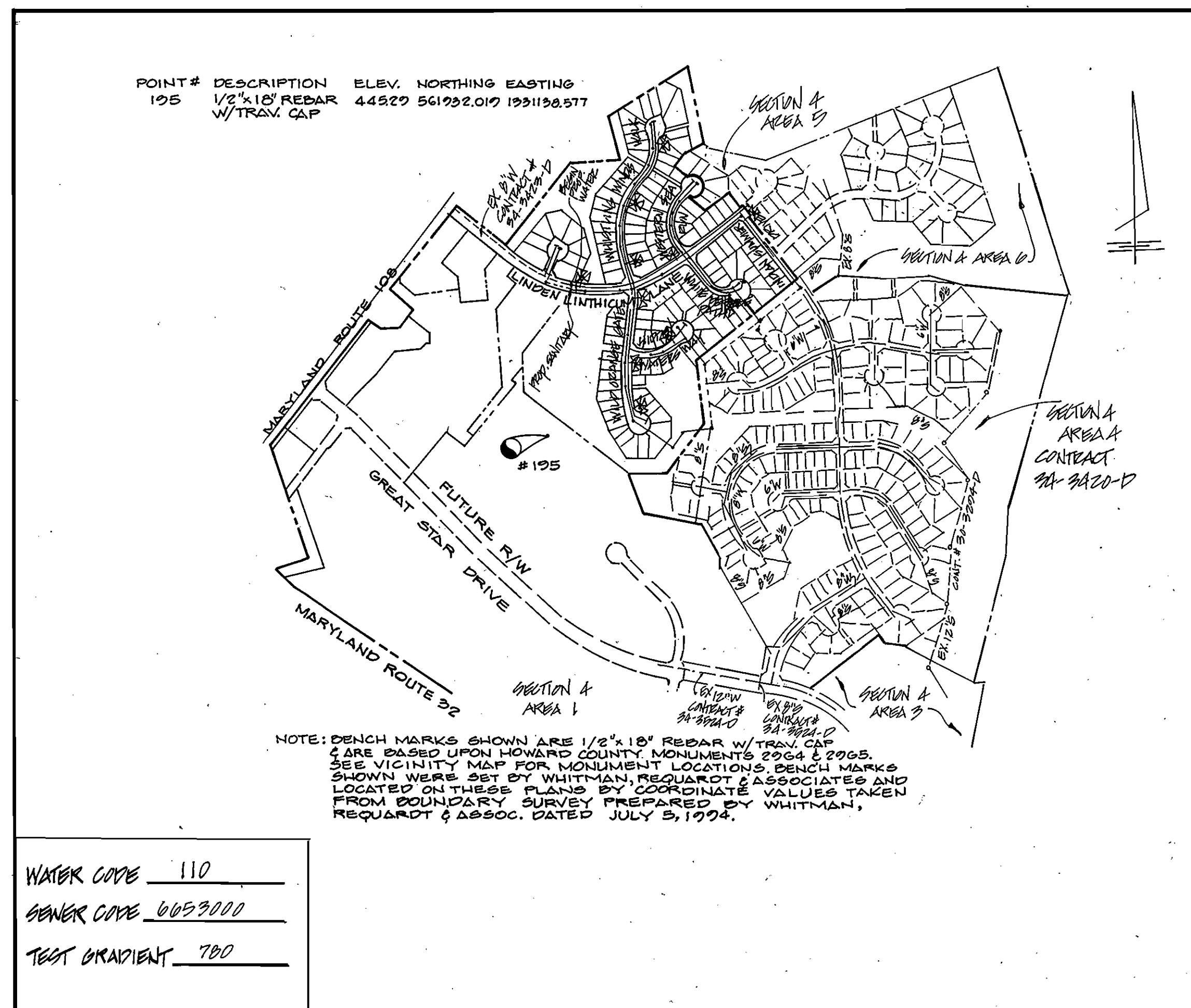
* 138 + 9 connections Section 4/Area 6
** 138 + 9 connections Section 4/Area 6 and 2 connections Section 4/Area 4

BENCHMARK

HOWARD COUNTY SURVEY CONTROL STATION: 2964
N 566866.5020 E. 1333306.168
NOTE: HOWARD COUNTY SURVEY CONTROLS ARE STAMPED BRASS OR ALUMINUM DISCS SET ON TOP OF CONCRETE BASE. INTERSECTION OF RT. 108 & MEADOW VISTA WAY.

BENCHMARK

HOWARD COUNTY SURVEY CONTROL STATION: 2965
N 568341.18 E. 1335392.4
NOTE: HOWARD COUNTY SURVEY CONTROLS ARE STAMPED BRASS OR ALUMINUM DISCS SET ON TOP OF CONCRETE BASE. 150' NE OF INTERSECTION OF MIDDLE PATUXENT CT. & RT. 108.



WATER CODE 110
SEWER CODE 6053000
TEST GRADIENT 780

VICINITY MAP
SCALE: 1" = 600'

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 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. NORTH AMERICAN DATUM OF 1983 (NAD 83).
 - 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 REQUIRED 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 | 1-410-531-5533 |
| BC&E CO. CONTRACTOR SERVICES | 1-410-850-4620 |
| BC&E CO. UNDER GROUND DAMAGE CONTROL | 1-410-787-9068 |
| MISS UTILITY | 1-800-257-7777 |
| COLONIAL PIPELINE CO. | 1-410-795-1390 |
| HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES | 1-410-313-4900 |
- 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.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE 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.

PART II - WATER

- 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.
- SPRINKLER SYSTEM FOR ALL TOWNHOMES OR MULTI-FAMILY DWELLING UNITS SHOULD HAVE A MINIMUM OF 1" CONNECTION WITH A 3/4" METER.

PART III - SEWER

- ALL SEWER MAINS SHALL BE DIP 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 GS. 52, WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED. SET TOP OF FRAME 1" - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSES(S) WITH THE SYMBOL "C. N. S." INDICATES THAT CELLAR CANNOT BE SERVED.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

Signature: *Cheryl Simmons* DATE: 2/16/99

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

APPROVED: Signature: *John R. Robertson* DATE: 2/16/99

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND ROAD CONSTRUCTION PLANS F96-102.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND



110 WEST ROAD, SUITE 105
TOWSON, MARYLAND, 21284
(410) 821-1690
FAX: (410) 821-1748



DESIGN BY:	KD
DRAWN BY:	EJ
CHECKED BY:	DNM
DATE:	JULY 1996
BY NO.	MCA 1
REVISION	QUANTITIES REVIEWED, SECTION 4/AREA 5 CONTRACT # 3A-3586-D 1/19/96

VICINITY MAP AND GENERAL NOTES

VILLAGE OF RIVER HILL

SECTION 4, AREA 5
ELECTION DISTRICT 5

CONTRACT NO. 3A-3586-D

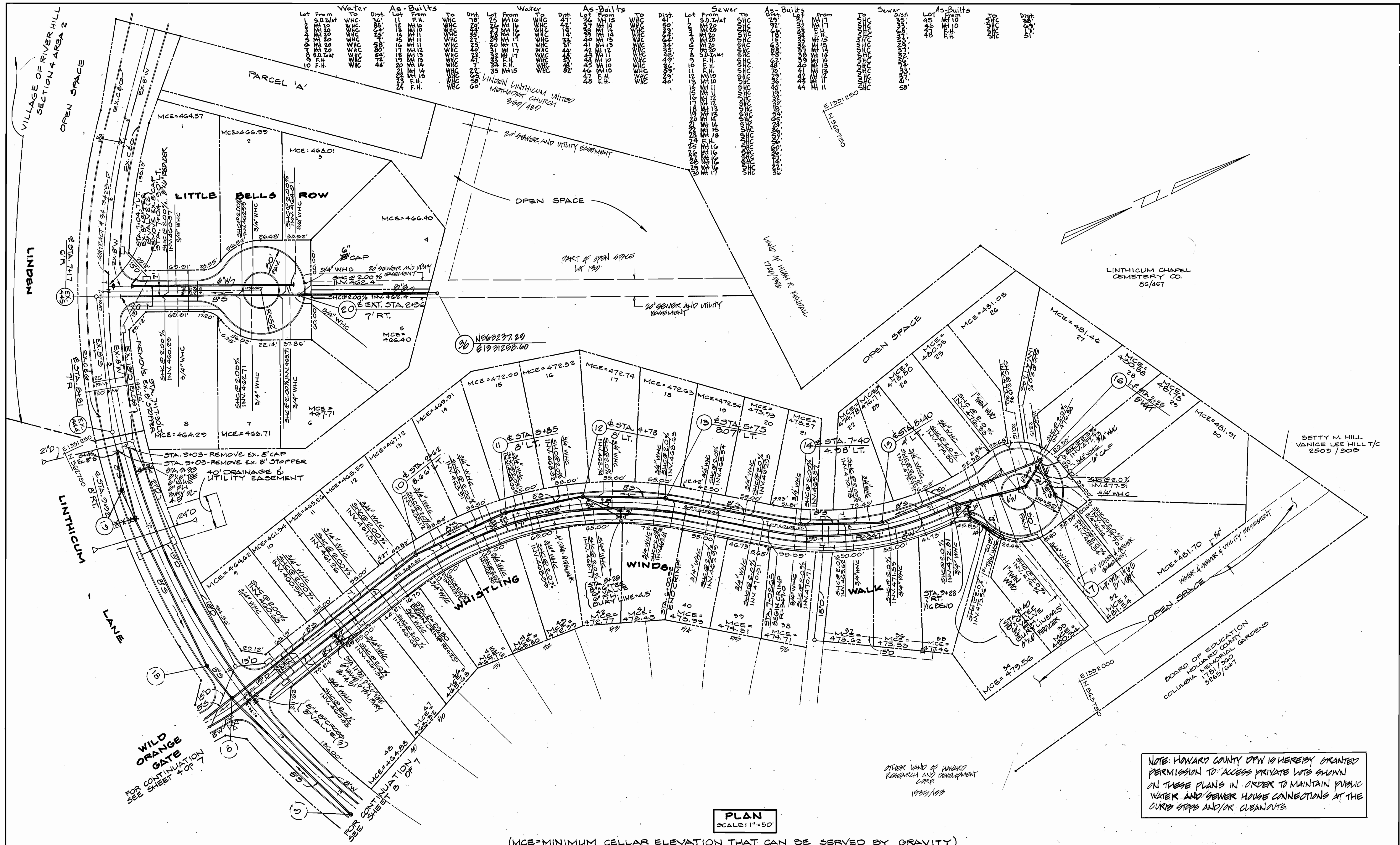
SCALE
AS SHOWN

SHEET
1 OF 7

600 SCALE MAP NO. 35 BLOCK NO. 14



Signature: *Robert Berman* 2-12-97
CHIEF - BUREAU OF UTILITIES - DATE

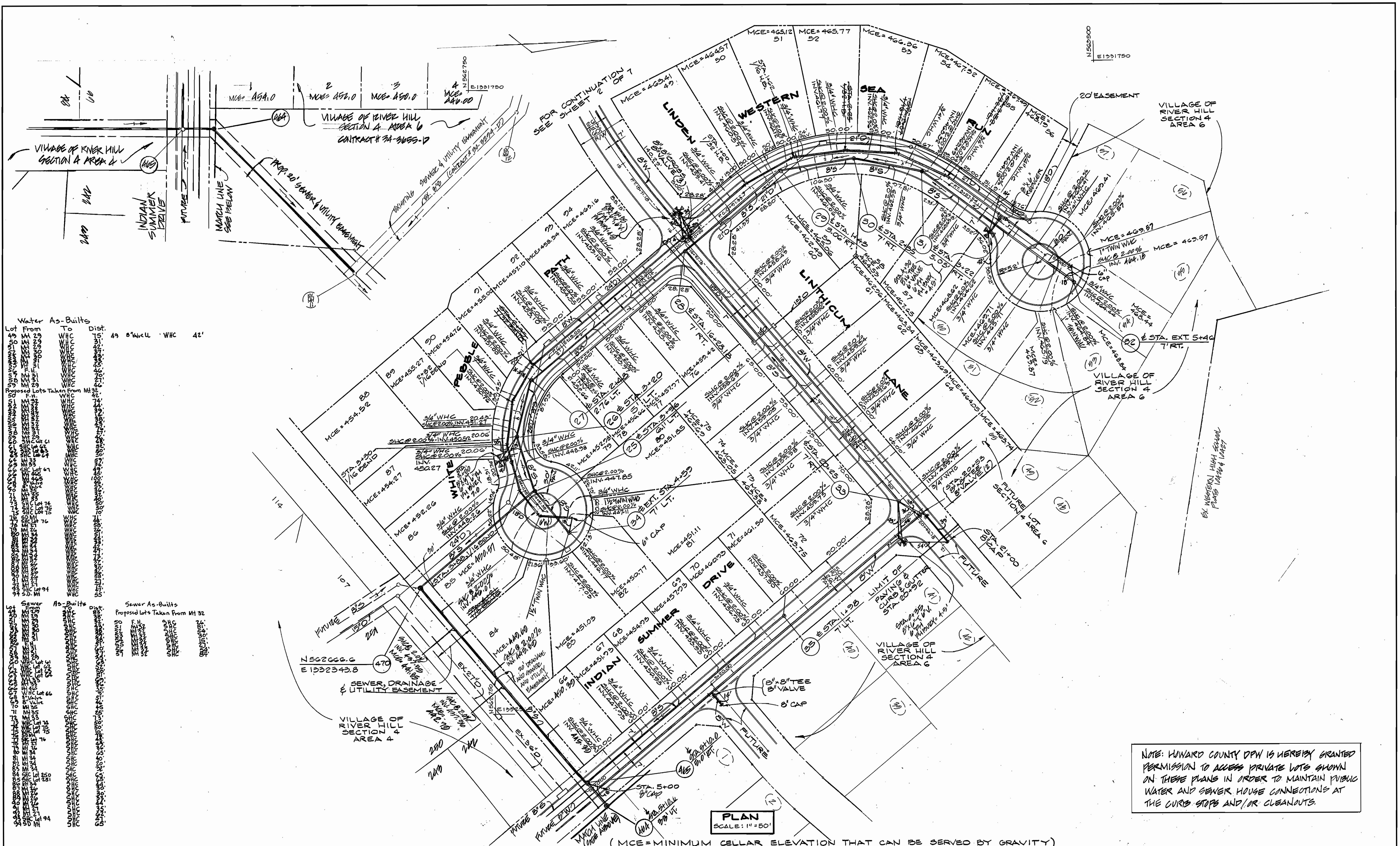
Signature: *John R. Robertson* 2/16/99
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE



PLAN
SCALE: 1" = 50'

(MCE=MINIMUM CELLAR ELEVATION THAT CAN BE SERVED BY GRAVITY)

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>John P. ...</i> 2-12-97 CHIEF - BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>...</i> 2/12/97 CHIEF - DEVELOPMENT ENGINEERING DIVISION	 MORRIS & RITCHIE ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 110 WEST ROAD SUITE 105 TOWSON, MARYLAND 21284 (410) 821-1800 FAX (410) 821-1748		DES: KO DRN: E J CHK: DNM DATE: JULY 1996	WATER AND SEWER PLAN 600' SCALE MAP NO. 33 BLOCK NO. 14	VILLAGE OF RIVER HILL SECTION 4 AREA 5 LOTS 1 THRU 141 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 94-3586D SCALE AS SHOWN SHEET 2 OF 7
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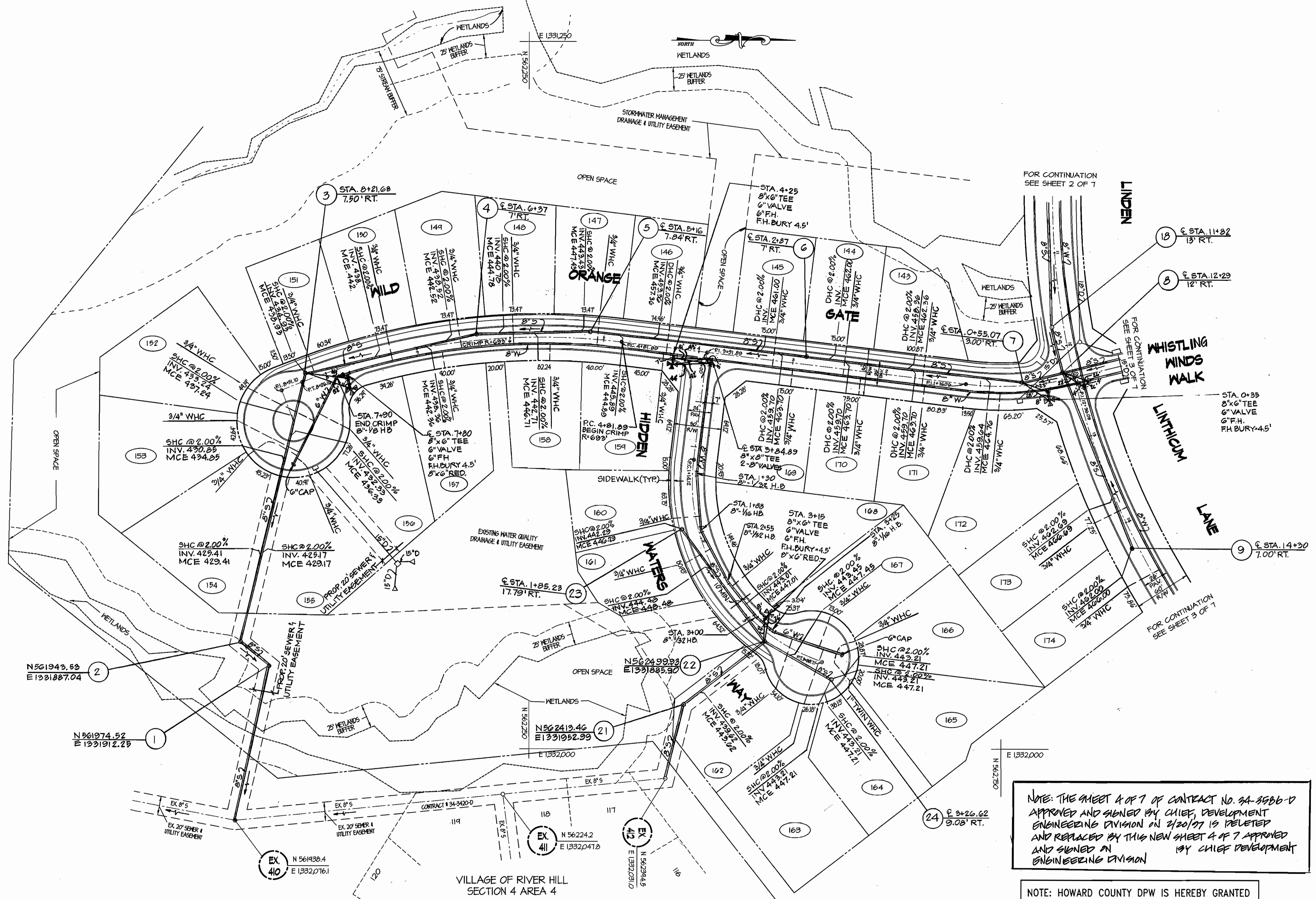
Water As-Builts	To	Dist.
1. 49" W.C. 42'	1. 49" W.C. 42'	42'
2. 49" W.C. 42'	2. 49" W.C. 42'	42'
3. 49" W.C. 42'	3. 49" W.C. 42'	42'
4. 49" W.C. 42'	4. 49" W.C. 42'	42'
5. 49" W.C. 42'	5. 49" W.C. 42'	42'
6. 49" W.C. 42'	6. 49" W.C. 42'	42'
7. 49" W.C. 42'	7. 49" W.C. 42'	42'
8. 49" W.C. 42'	8. 49" W.C. 42'	42'
9. 49" W.C. 42'	9. 49" W.C. 42'	42'
10. 49" W.C. 42'	10. 49" W.C. 42'	42'
11. 49" W.C. 42'	11. 49" W.C. 42'	42'
12. 49" W.C. 42'	12. 49" W.C. 42'	42'
13. 49" W.C. 42'	13. 49" W.C. 42'	42'
14. 49" W.C. 42'	14. 49" W.C. 42'	42'
15. 49" W.C. 42'	15. 49" W.C. 42'	42'
16. 49" W.C. 42'	16. 49" W.C. 42'	42'
17. 49" W.C. 42'	17. 49" W.C. 42'	42'
18. 49" W.C. 42'	18. 49" W.C. 42'	42'
19. 49" W.C. 42'	19. 49" W.C. 42'	42'
20. 49" W.C. 42'	20. 49" W.C. 42'	42'
21. 49" W.C. 42'	21. 49" W.C. 42'	42'
22. 49" W.C. 42'	22. 49" W.C. 42'	42'
23. 49" W.C. 42'	23. 49" W.C. 42'	42'
24. 49" W.C. 42'	24. 49" W.C. 42'	42'
25. 49" W.C. 42'	25. 49" W.C. 42'	42'
26. 49" W.C. 42'	26. 49" W.C. 42'	42'
27. 49" W.C. 42'	27. 49" W.C. 42'	42'
28. 49" W.C. 42'	28. 49" W.C. 42'	42'
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31. 49" W.C. 42'	31. 49" W.C. 42'	42'
32. 49" W.C. 42'	32. 49" W.C. 42'	42'
33. 49" W.C. 42'	33. 49" W.C. 42'	42'
34. 49" W.C. 42'	34. 49" W.C. 42'	42'
35. 49" W.C. 42'	35. 49" W.C. 42'	42'
36. 49" W.C. 42'	36. 49" W.C. 42'	42'
37. 49" W.C. 42'	37. 49" W.C. 42'	42'
38. 49" W.C. 42'	38. 49" W.C. 42'	42'
39. 49" W.C. 42'	39. 49" W.C. 42'	42'
40. 49" W.C. 42'	40. 49" W.C. 42'	42'
41. 49" W.C. 42'	41. 49" W.C. 42'	42'
42. 49" W.C. 42'	42. 49" W.C. 42'	42'
43. 49" W.C. 42'	43. 49" W.C. 42'	42'
44. 49" W.C. 42'	44. 49" W.C. 42'	42'
45. 49" W.C. 42'	45. 49" W.C. 42'	42'
46. 49" W.C. 42'	46. 49" W.C. 42'	42'
47. 49" W.C. 42'	47. 49" W.C. 42'	42'
48. 49" W.C. 42'	48. 49" W.C. 42'	42'
49. 49" W.C. 42'	49. 49" W.C. 42'	42'
50. 49" W.C. 42'	50. 49" W.C. 42'	42'
51. 49" W.C. 42'	51. 49" W.C. 42'	42'
52. 49" W.C. 42'	52. 49" W.C. 42'	42'
53. 49" W.C. 42'	53. 49" W.C. 42'	42'
54. 49" W.C. 42'	54. 49" W.C. 42'	42'
55. 49" W.C. 42'	55. 49" W.C. 42'	42'
56. 49" W.C. 42'	56. 49" W.C. 42'	42'
57. 49" W.C. 42'	57. 49" W.C. 42'	42'
58. 49" W.C. 42'	58. 49" W.C. 42'	42'
59. 49" W.C. 42'	59. 49" W.C. 42'	42'
60. 49" W.C. 42'	60. 49" W.C. 42'	42'
61. 49" W.C. 42'	61. 49" W.C. 42'	42'
62. 49" W.C. 42'	62. 49" W.C. 42'	42'
63. 49" W.C. 42'	63. 49" W.C. 42'	42'
64. 49" W.C. 42'	64. 49" W.C. 42'	42'
65. 49" W.C. 42'	65. 49" W.C. 42'	42'
66. 49" W.C. 42'	66. 49" W.C. 42'	42'
67. 49" W.C. 42'	67. 49" W.C. 42'	42'
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79. 49" W.C. 42'	79. 49" W.C. 42'	42'
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100. 49" W.C. 42'	100. 49" W.C. 42'	42'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND R. J. ... 2-12-97 CHIEF - BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND H. ... 2/12/97 CHIEF - DEVELOPMENT ENGINEERING DIVISION	MORRIS & RITCHE ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 110 WEST ROAD SUITE 105 TOWSON, MARYLAND 21284 (410) 521-1992 FAX (410) 821-1748	DES: KD DRN: EJ CHK: DNM DATE: JULY 1996	PLAN SCALE: 1" = 50' (MCE=MINIMUM CELLAR ELEVATION THAT CAN BE SERVED BY GRAVITY)	WATER AND SEWER PLAN 600' SCALE MAP NO. 35 - BLOCK NO. 14	VILLAGE OF RIVER HILL SECTION 4 AREA 5 LOTS 1 THRU 141 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 34-3586-D	SCALE AS SHOWN SHEET 3 OF 7
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Water As-Builts
 1. 12" WVC @ 2.00% SLOPE
 2. 12" WVC @ 2.00% SLOPE
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 87. 12" WVC @ 2.00% SLOPE
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 90. 12" WVC @ 2.00% SLOPE
 91. 12" WVC @ 2.00% SLOPE
 92. 12" WVC @ 2.00% SLOPE
 93. 12" WVC @ 2.00% SLOPE
 94. 12" WVC @ 2.00% SLOPE
 95. 12" WVC @ 2.00% SLOPE
 96. 12" WVC @ 2.00% SLOPE
 97. 12" WVC @ 2.00% SLOPE
 98. 12" WVC @ 2.00% SLOPE
 99. 12" WVC @ 2.00% SLOPE
 100. 12" WVC @ 2.00% SLOPE

Sewer As-Builts
 1. 12" WVC @ 2.00% SLOPE
 2. 12" WVC @ 2.00% SLOPE
 3. 12" WVC @ 2.00% SLOPE
 4. 12" WVC @ 2.00% SLOPE
 5. 12" WVC @ 2.00% SLOPE
 6. 12" WVC @ 2.00% SLOPE
 7. 12" WVC @ 2.00% SLOPE
 8. 12" WVC @ 2.00% SLOPE
 9. 12" WVC @ 2.00% SLOPE
 10. 12" WVC @ 2.00% SLOPE
 11. 12" WVC @ 2.00% SLOPE
 12. 12" WVC @ 2.00% SLOPE
 13. 12" WVC @ 2.00% SLOPE
 14. 12" WVC @ 2.00% SLOPE
 15. 12" WVC @ 2.00% SLOPE
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 93. 12" WVC @ 2.00% SLOPE
 94. 12" WVC @ 2.00% SLOPE
 95. 12" WVC @ 2.00% SLOPE
 96. 12" WVC @ 2.00% SLOPE
 97. 12" WVC @ 2.00% SLOPE
 98. 12" WVC @ 2.00% SLOPE
 99. 12" WVC @ 2.00% SLOPE
 100. 12" WVC @ 2.00% SLOPE

VILLAGE OF RIVER HILL
 SECTION 4 AREA 4



PLAN
 Scale: 1" = 60'

(M.C.E. = MINIMUM CELLAR ELEVATION THAT CAN BE SERVED BY GRAVITY)

NOTE: THE SHEET 4 OF 7 OF CONTRACT NO. 34-3586-D APPROVED AND SIGNED BY CHIEF DEVELOPMENT ENGINEERING DIVISION ON 2/20/97 IS DELETED AND REPLACED BY THIS NEW SHEET 4 OF 7 APPROVED AND SIGNED ON [DATE] BY CHIEF DEVELOPMENT ENGINEERING DIVISION

NOTE: 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.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 [Signature]
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

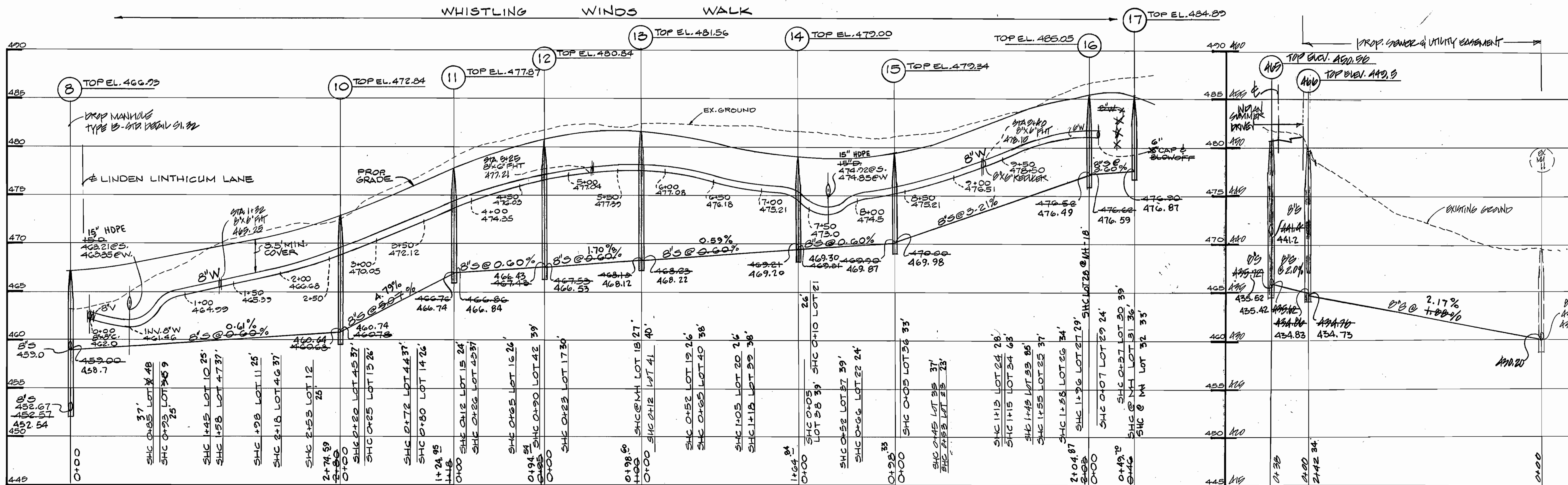
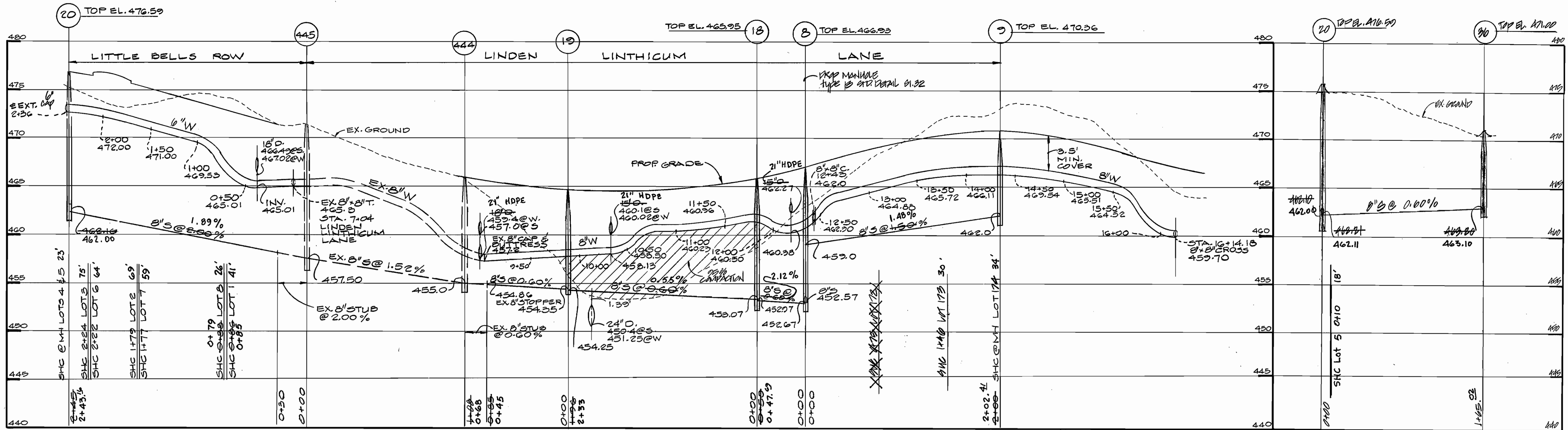
MRA
MORRIS & RITCHE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS
 AND LANDSCAPE ARCHITECTS
 110 WEST ROAD SUITE 105
 TOWSON, MARYLAND 21204
 (410) 821-1690
 FAX (410) 821-1748



DES: K.D.
 DRN: T.P.D./J.A.G.
 CHK: D.M.
 DATE: 5/20/98
 MRA | REVISED LOT LAYOUT | 7-7-98
 BY NO. REVISION DATE

WATER AND SEWER PLAN
 600' SCALE MAP NO. 35 BLOCK NO. 14

VILLAGE OF RIVER HILL
 SECTION 4, AREA 5
 LOTS 1 THRU 141
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CONTRACT NO. 34-3586-D
 SCALE AS SHOWN
 SHEET 4 OF 7



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Ruth Design 2-12-97
DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

H...
DATE

MRA
MORRIS & RITCHIE
ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21284
(410) 821-1800
FAX (410) 821-1748



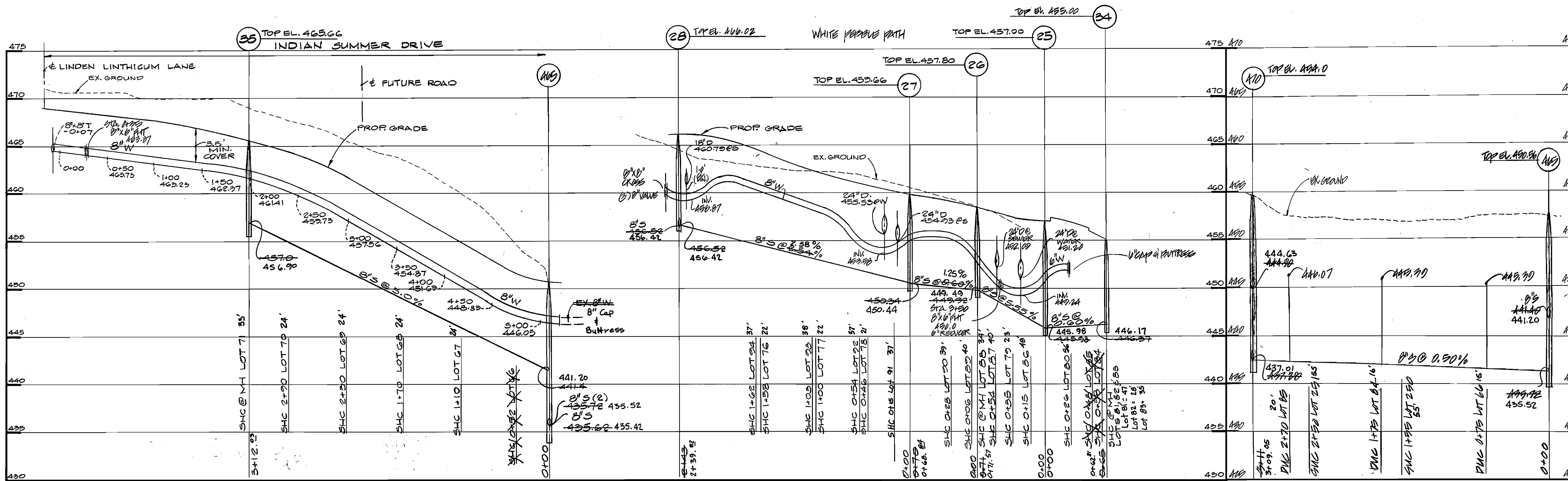
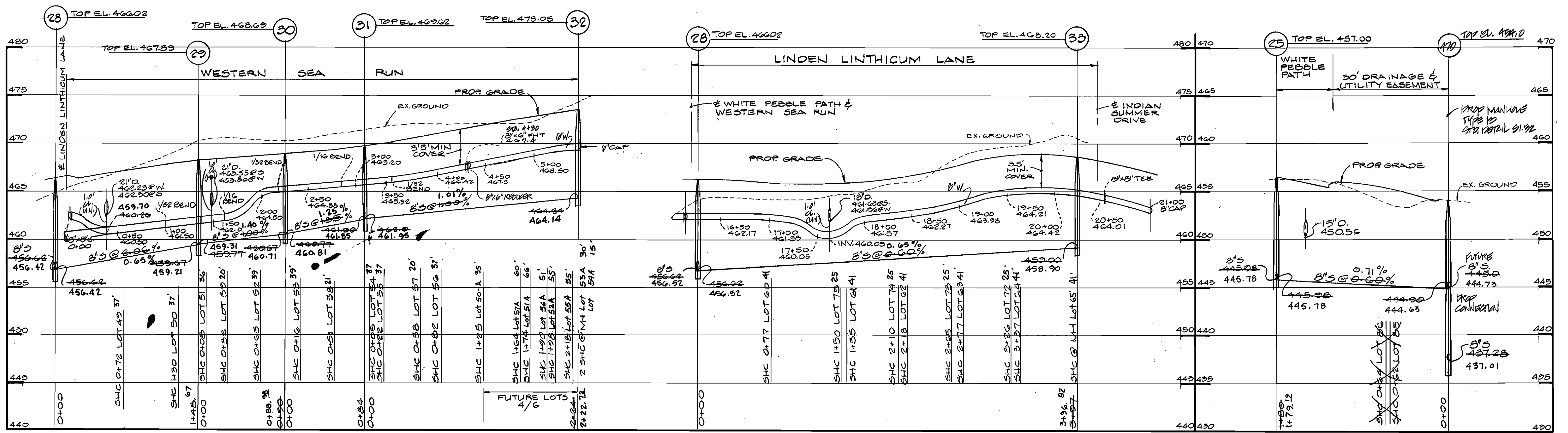
DES:	KO
DRN:	EJ
CHK:	DNM
DATE:	JULY 1996
BY:	MCA
NO.:	1
REVISION:	ADDED PROFILE FOR 11111 TO EX. MH 11
DATE:	7/1/96

WATER AND SEWER PROFILES

600' SCALE MAP NO. 35 BLOCK NO. 14

VILLAGE OF RIVER HILL
SECTION 4 AREA 5
LOTS 1 THRU 141
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 34-3586-D

SCALE AS SHOWN
SHEET 6 OF 7



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

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert B. Berman 2-12-97
DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

H...
DATE

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21284
(410) 821-1580
FAX (410) 821-1748

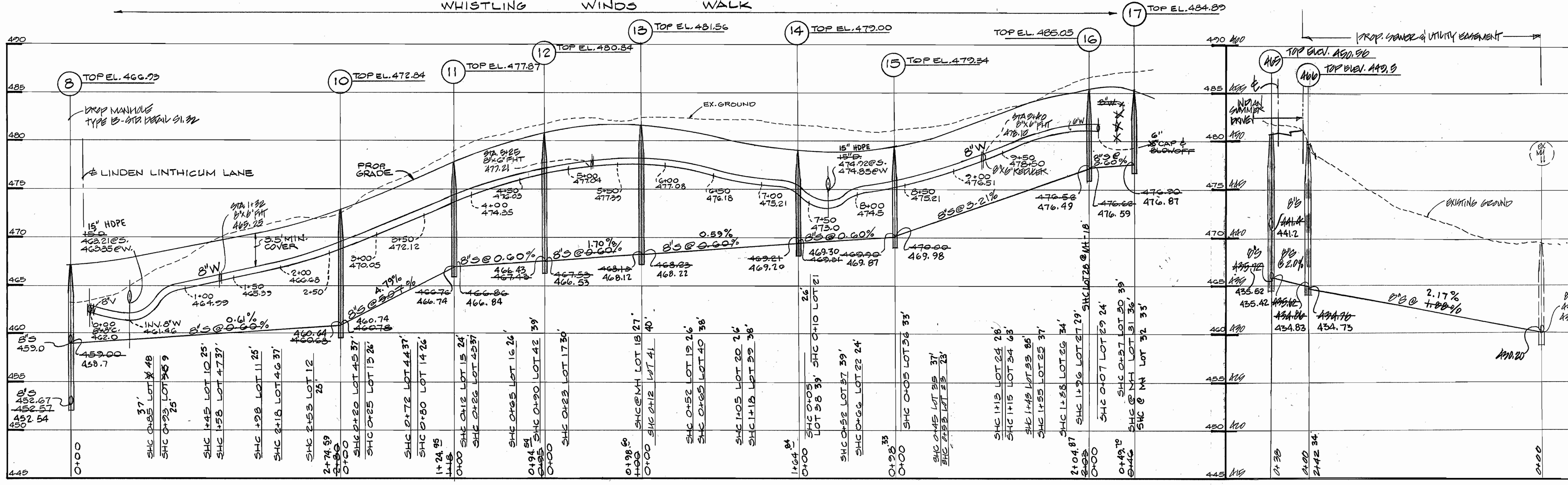
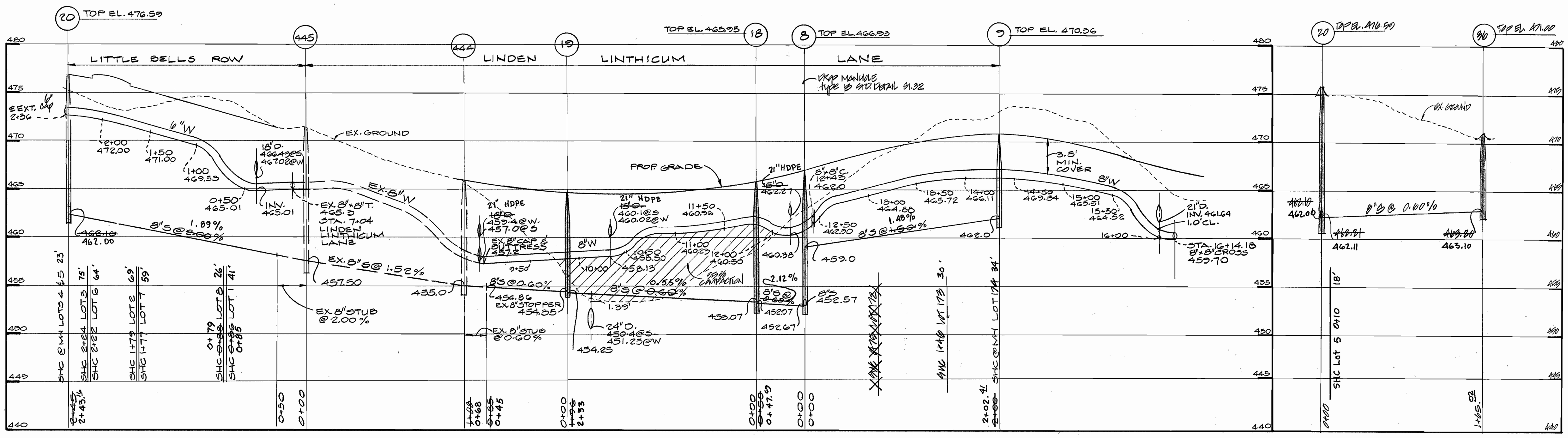


DES: KO					
DRN: EJ					
CHK: DNM					
DATE: JULY 1996	MRA	1	NO. 11000	REVISION	DATE

WATER AND SEWER PROFILES
600' SCALE MAP NO. 35 BLOCK NO. 14

VILLAGE OF RIVER HILL
SECTION 4 AREA 5
LOTS 1 THRU 141
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 34-9586-D

SCALE AS SHOWN
SHEET 1 OF 1

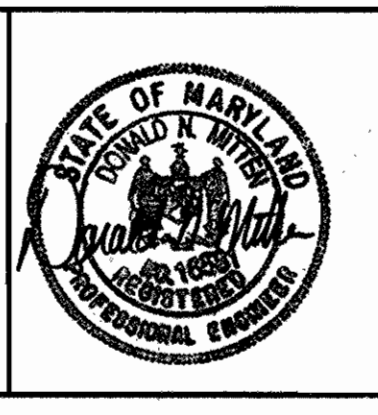


PROFILES
SCALE: HOR. 1"=50', VERT. 1"=5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Ruth Design 2-12-97
DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Haas
DATE

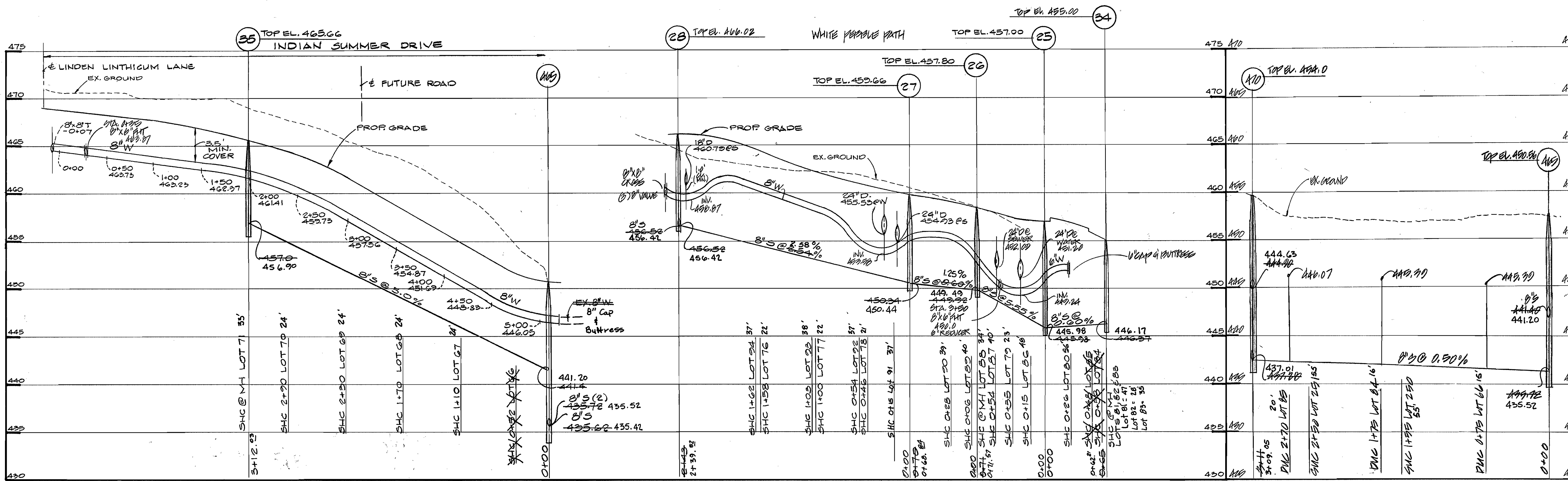
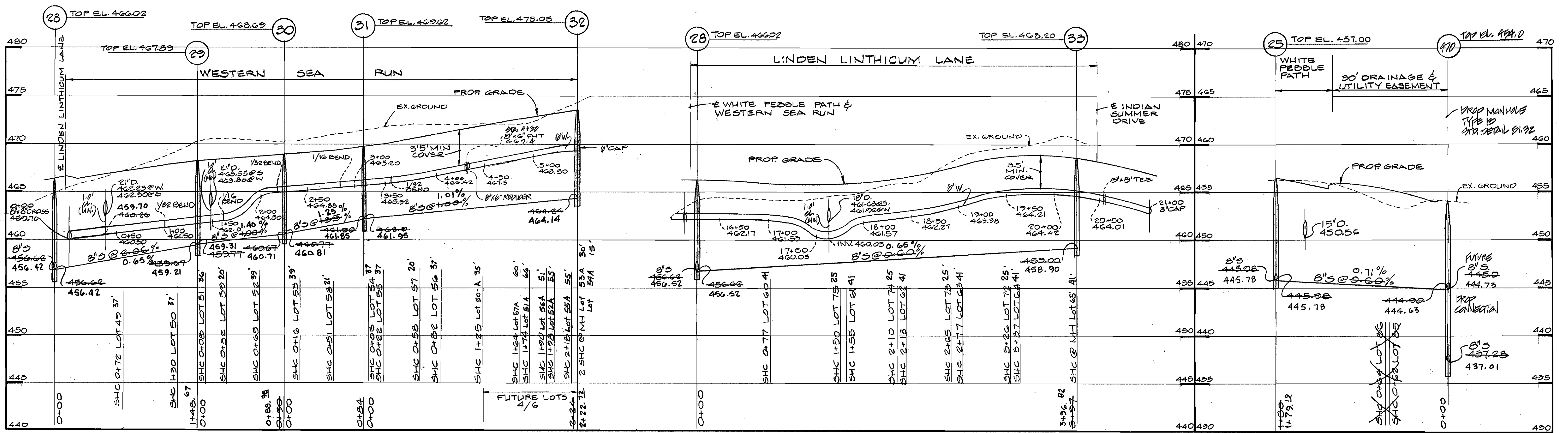
MRA MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21284
(410) 821-1880
FAX (410) 821-1748



DES:	KO		
DRN:	EJ		
CHK:	DNM		
DATE:	JULY 1996		
BY:	NO.	REVISION	DATE
		1. REV. PROFILES TO ADD SP CROSSING @ 8"W	8/4/97
		2. ADDED PROFILE FOR 15" HDPE @ 1.0% CL	7/1/96

WATER AND SEWER PROFILES
600' SCALE MAP NO. 35 BLOCK NO. 14

VILLAGE OF RIVER HILL
SECTION 4 AREA 5
LOTS 1 THRU 141
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 34-3586-D
SCALE AS SHOWN
SHEET 5 OF 7



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

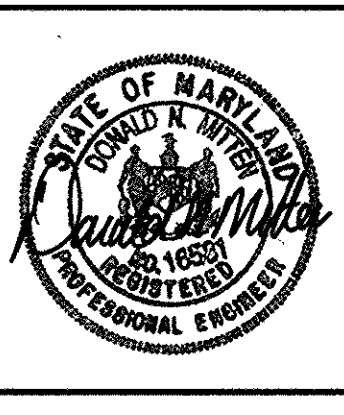
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert B. Beatty 2-12-97
DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

[Signature] 4/16/97
DATE

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21284
(410) 821-1890
FAX (410) 821-1748



DES:	KO		
DRN:	EJ		
CHK:	DNM	MRA	2
DATE:	JULY 1996	BY NO.	NO. 1
REVISION:		REVISION:	

WATER AND SEWER PROFILES

600' SCALE MAP NO. 35 BLOCK NO. 14

VILLAGE OF RIVER HILL
SECTION 4 AREA 5
LOTS 1 THRU 141
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 3A-9506-D

SCALE AS SHOWN
SHEET 1 OF 1