

TYPE OF BUILDING	Future Commercial and Residential (SFD, SPA, & MF)
NUMBER OF UNITS	0
NUMBER OF SHC's	02
NUMBER OF WHC's	0
DRAINAGE AREA	Middle Patuxent
TREATMENT PLANT	Little Patuxent Water Reclamation Plant, Savage

**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 a 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 the 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  $\square$  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
BG&E Co. Contractor Services	850-4620
BG&E Co. Under Ground Damage Control	787-9068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1390
Howard County Dept. of Public Works, Bur. of Utilities	313-4900

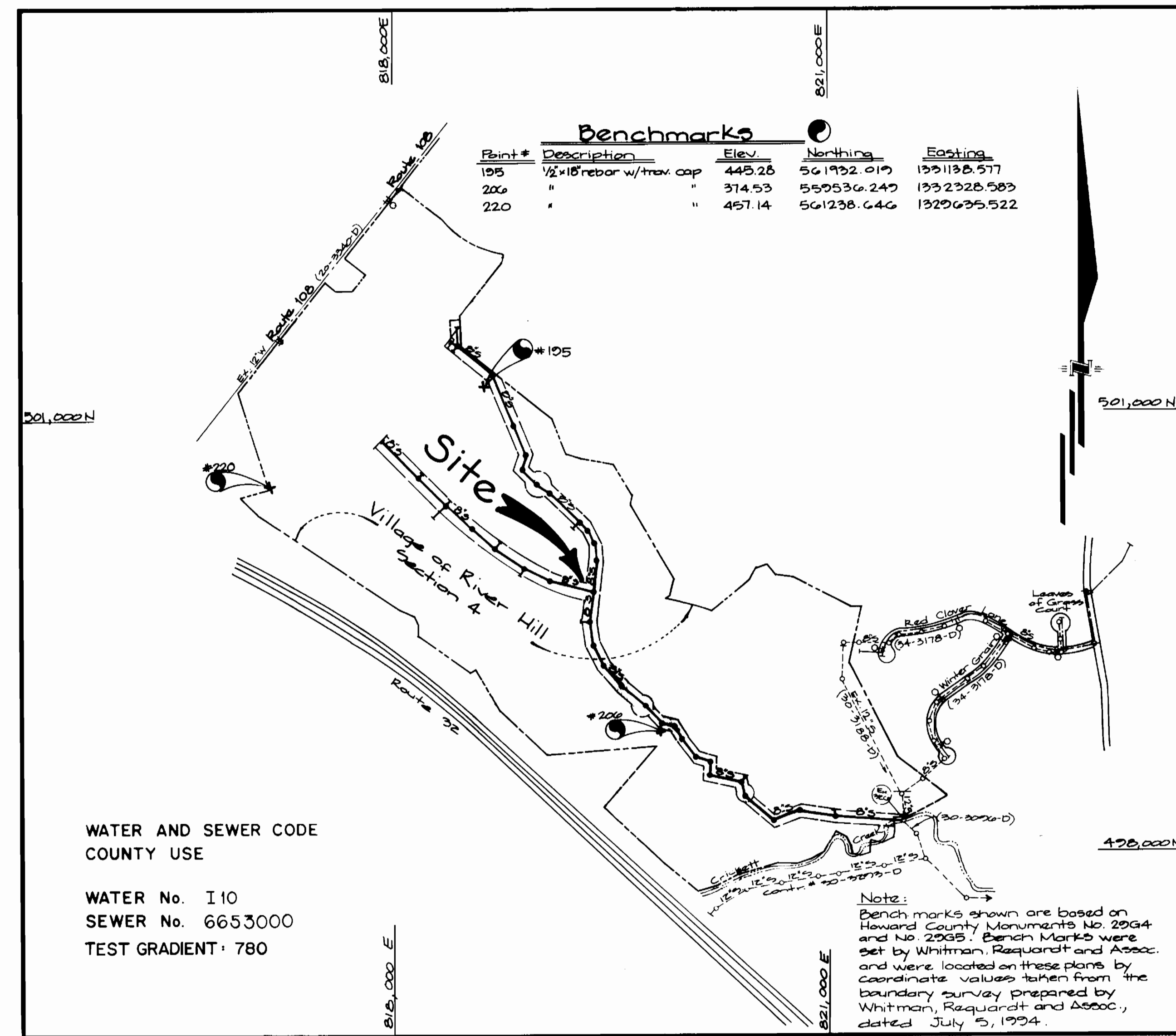
- Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
- Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
- The Contractor shall notify the Bureau of Highways, Howard County, (410) 515-2450 at least 5 days before any open cut of any county road.

**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 strapped 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.
- For sprinkler system for all townhouses or multifamily dwelling units shall have a minimum of 1" connection with a 3/4" meter.

**PART III - SEWER**

- All sewer mains shall be DIP, 300, 480, 600, 840 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 the cellar cannot be served.



WATER AND SEWER CODE COUNTY USE

WATER No. I 10  
SEWER No. 6653000  
TEST GRADIENT: 780

VICINITY MAP  
SCALE: 1" = 600'

**CONTRACT NO. 30-3436-D**  
**Village of River Hill**

Section 4  
Outfall Sewer

**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS**

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications B with Road Construction Plan F 26-85; Drawings 8 thru 14 for Sediment & Erosion Control, and this plan.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT  
*J.A. Warkentin* 8/16/96  
SIGNATURE DATE  
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE  
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

APPROVED  
*John B. Reister* 8/16/96  
HOWARD S.C.D. DATE

ITEMS	QUANTITIES ESTIMATED	AS-BUILT	
		QUANTITIES	MANUFACTURER/SUPPLIER
8" D.I.P. Sewer	1,289 L.F.	1289 L.F.	Class 52 Griffin Pipe Products
8" Sewer	6,001 L.F.	6030 L.F.	SDR 35 J-M Mfg./WaterPro
6" SHC/DHC	24 L.F.	24 L.F.	SDR 35 J-M Mfg./WaterPro
4" SHC/DHC	1,780 L.F.	2,231 L.F.	SDR 35 J-M Mfg./WaterPro
4" Manholes	34 Ea./500 V.P.	34 Ea./500 V.P.	Atlantic Concrete Products
Type B Drop Conn	11 Ea.	11 Ea.	" Atlantic Concrete Products
Type A Drop Conn	1 Ea.	1 Ea.	" Atlantic Concrete Products
Stream Crossing	1 Ea.	1 Ea.	
Silt Fence	3,380 L.F.	3,380 L.F.	
Temp Access Culvert	1 Ea.	1 Ea.	
NAME OF UTILITY CONTRACTOR: W.F. Wilton & Sons, Inc.			

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*John B. Reister* 8/16/96  
DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*John B. Reister* 8/16/96  
DATE

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
ENGINEERS, PLANNERS, SURVEYORS  
1909 NATIONAL DRIVE SUITE 200 FORT WASHINGTON, PA 19073  
PHILADELPHIA, PA 19103  
190-421-6024

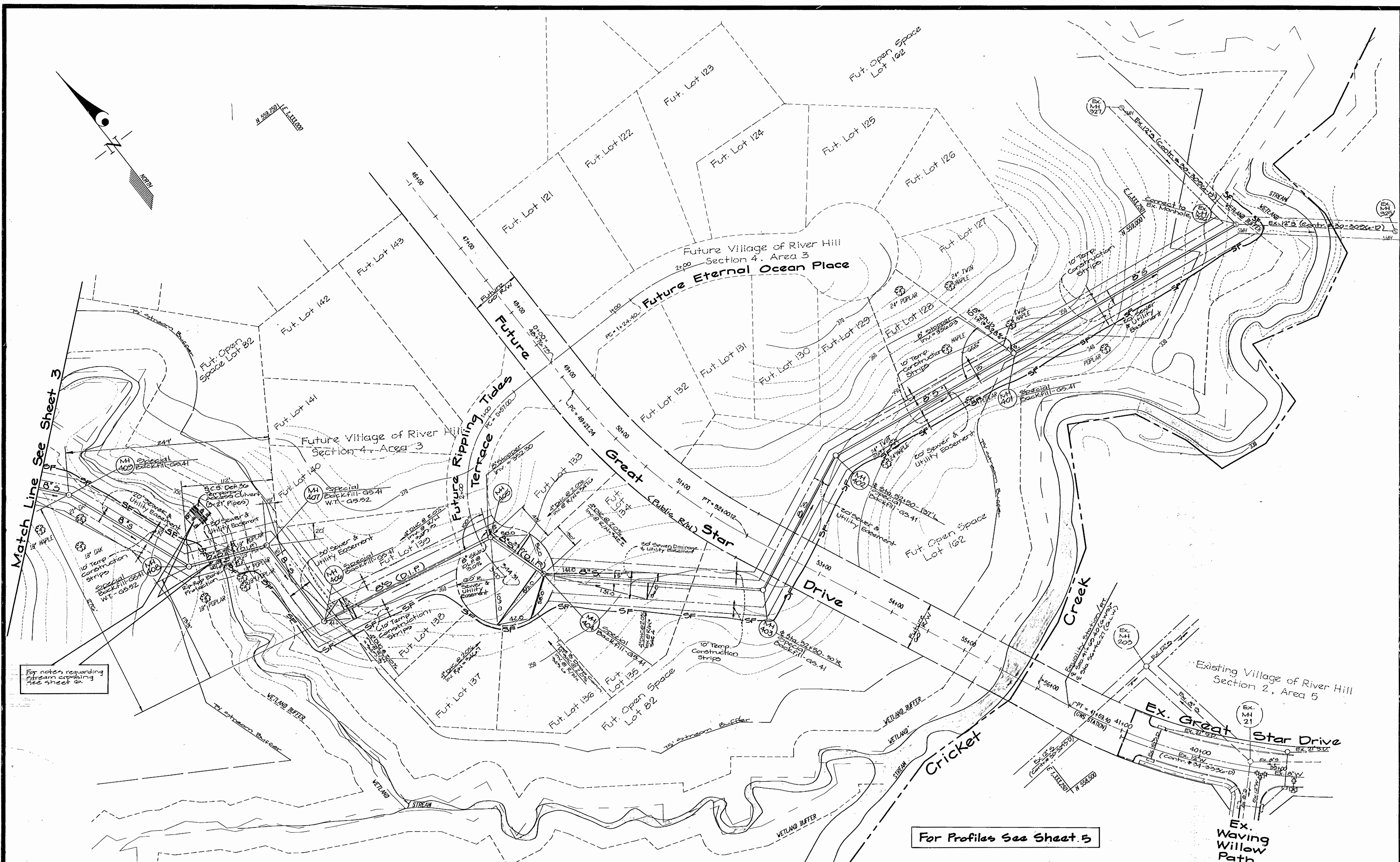
GAH  
GAH  
CKG  
DATE Aug 1996

REVISION  
DATE 600 SCALE MAP NO 24 & 35 BLOCK NO G & 12, 1&7

Public Sewer Extension  
Cover Sheet  
Scale: AS Shown

Sewer As-Built  
**Village of River Hill**  
Section 4  
Outfall Sewer  
Contract No. 30-3436-D  
Ellicott City Election District No. 5 Howard County, Maryland

SCALE AS SHOWN  
SHEET 1 OF 2

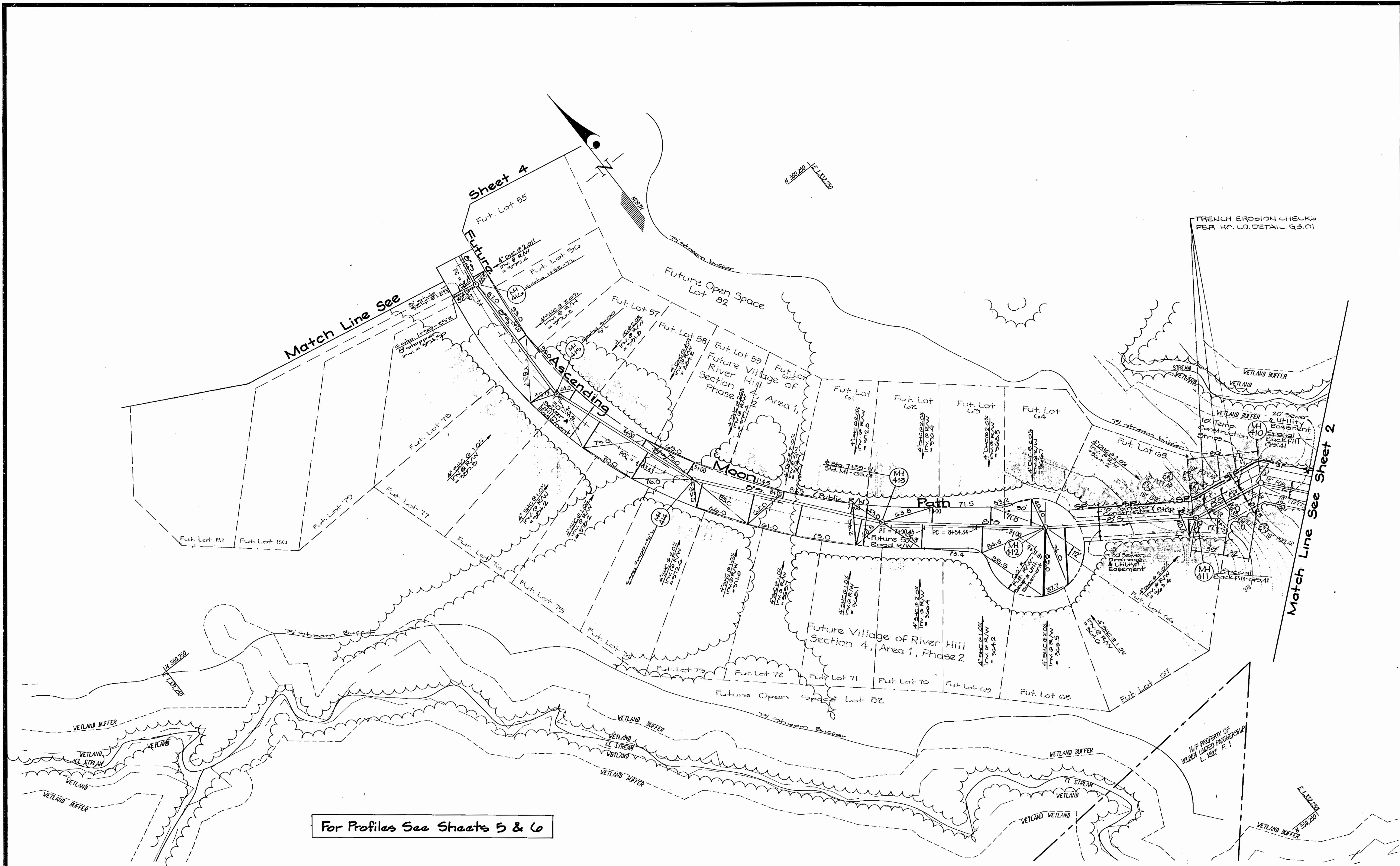


Match Line See Sheet 3

For notes regarding stream crossing see sheet 2.

For Profiles See Sheet 5

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>John K. Wadley, Jr.</i> Chief, Bureau of Utilities</p>	<p>DEPARTMENT OF PLANNING &amp; ZONING HOWARD COUNTY, MARYLAND</p> <p><i>John J. Dammann</i> Chief, Development Engineering Division</p>	<p><b>GLW GUTSCHICK LITTLE &amp; WEBER, P.A.</b> CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866 TEL: (410) 880-1820 ~ FAX: (301) 421-4186</p>		<table border="1"> <tr> <td>DES:GAH</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DRN:GAH</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHK:CKG</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DATE: AUG 1976</td> <td>BY: NO</td> <td>REVISION:</td> <td>DATE: 07/30/94</td> </tr> </table> <p>Add sheet reference for Management Practice notes</p>	DES:GAH				DRN:GAH				CHK:CKG				DATE: AUG 1976	BY: NO	REVISION:	DATE: 07/30/94	<p>OUTFALL SEWER PLAN SCALE: 1" = 50'</p> <p>600' SCALE MAP NO. 34 &amp; 35 - BLOCK NO. 6 &amp; 12</p>	<p>SEWER AS BUILT <b>VILLAGE OF RIVER HILL</b> SECTION 4 OUTFALL SEWER CONTRACT NO. 30-3436-D</p> <p>ELLCOTT CITY ELECTION DISTRICT NO. 5</p>	<p>SCALE AS SHOWN</p> <p>SHEET 2 OF 9</p>
DES:GAH																							
DRN:GAH																							
CHK:CKG																							
DATE: AUG 1976	BY: NO	REVISION:	DATE: 07/30/94																				



For Profiles See Sheets 5 & 6

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*J. J. Welby* for *Aug 9/13/00*  
BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Alan D. ...* *3/17/00*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

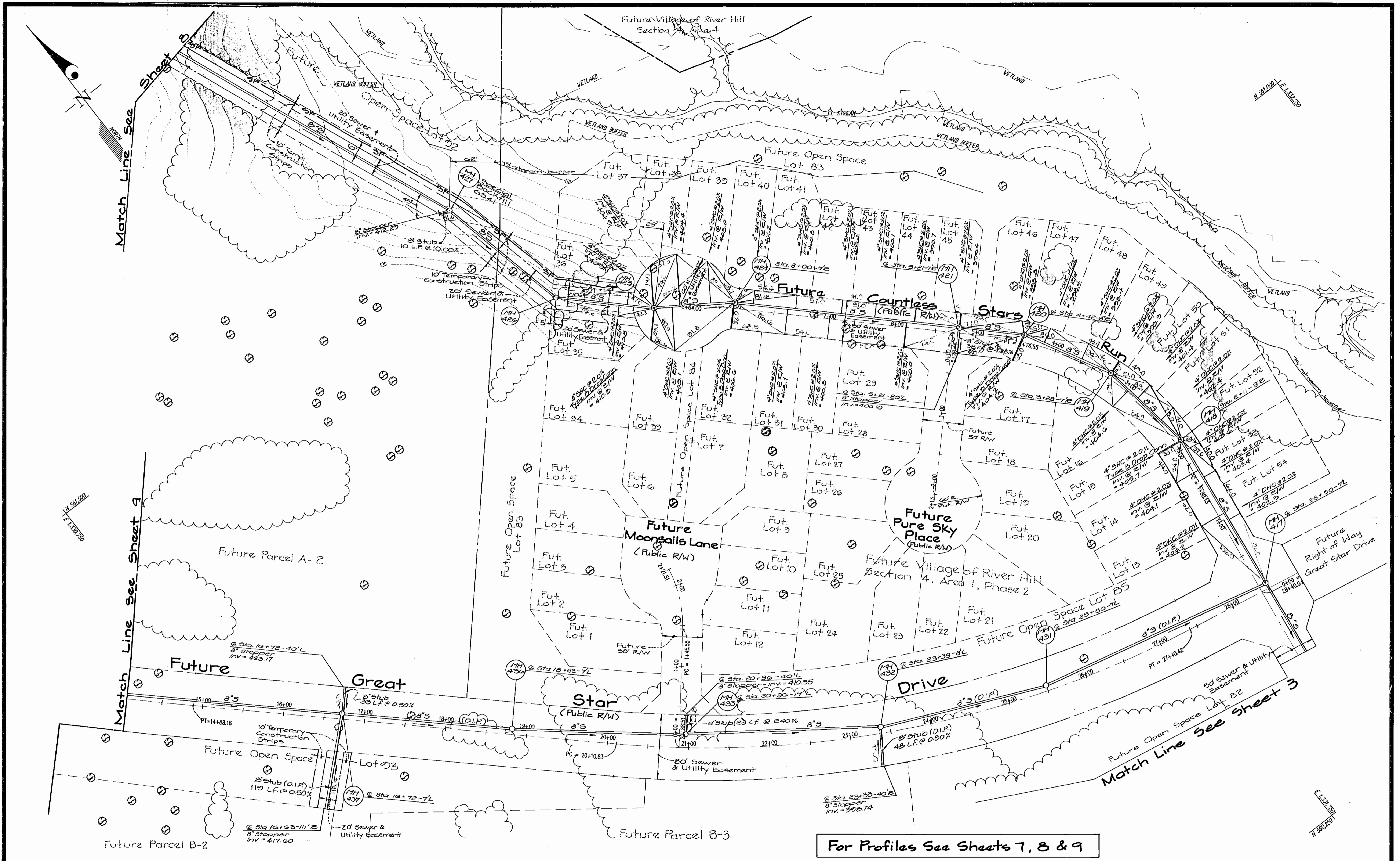
**GLW** GUTSCHICK LITTLE & WEBER, P.A.  
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866  
TEL: (410) 880-1820 ~ FAX: (301) 421-4186

DES: GAH					
DRN: GAH					
CHK: CKG					
DATE: Aug 1999					
BY	NO	REVISION	DATE		

OUTFALL SEWER PLAN  
SCALE: 1" = 50'  
600' SCALE MAP NO. 34 & 35 BLOCK NO. G212/1&7

Sewer As Built  
**VILLAGE OF RIVER HILL**  
SECTION 4  
Outfall Sewer  
Contract No: 30-3436-D  
ELLCOTT CITY ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

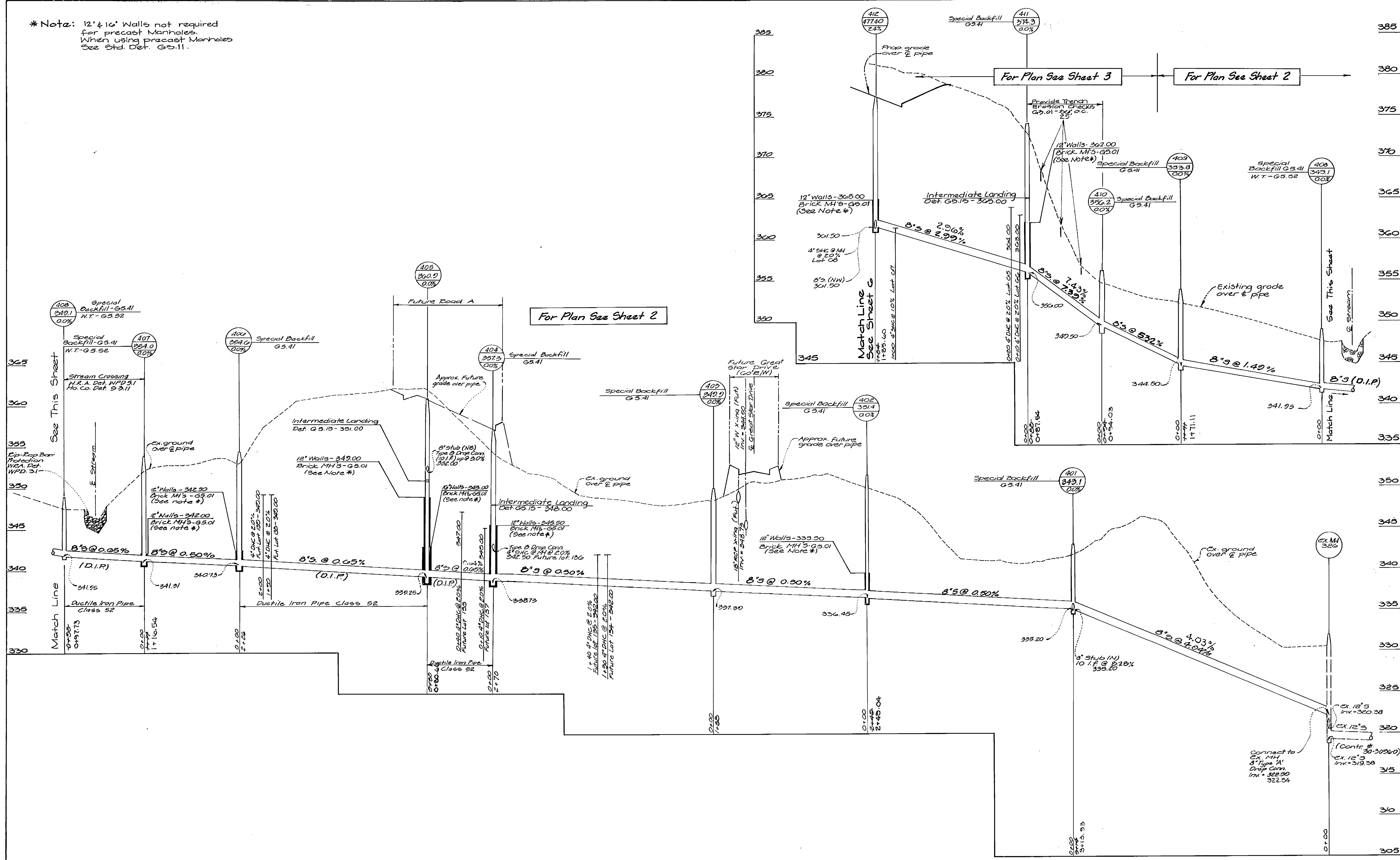
SCALE AS SHOWN  
SHEET 2 OF 7



For Profiles See Sheets 7, 8 & 9

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>J. Kelly</i> CHIEF, BUREAU OF UTILITIES</p>	<p>DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND</p> <p><i>Alan Summers</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION</p>	<p><b>GLW</b> GUTSCHICK LITTLE &amp; WEBER, P.A. CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866 TEL: (410) 880-1820 ~ FAX: (301) 421-4186</p>		<table border="1"> <tr><td>DES: GAH</td><td></td></tr> <tr><td>DRN: ETV</td><td></td></tr> <tr><td>GAH</td><td></td></tr> <tr><td>CHK: CKG</td><td></td></tr> <tr><td>DATE: Aug. 1996</td><td></td></tr> <tr><td>BY: NO</td><td></td></tr> <tr><td>REVISION</td><td></td></tr> <tr><td>DATE</td><td></td></tr> </table>	DES: GAH		DRN: ETV		GAH		CHK: CKG		DATE: Aug. 1996		BY: NO		REVISION		DATE		<p>OUTFALL SEWER PLAN SCALE: 1" = 50'</p> <p>600' SCALE MAP NO. 34 &amp; 35, BLOCK NO. 6421/147</p>	<p>Sewer As-Builts <b>VILLAGE OF RIVER HILL</b> SECTION 4, Outfall Sewer Contract No: 30-3436-D ELLIOTT CITY ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN SHEET 4 OF 9</p>
DES: GAH																							
DRN: ETV																							
GAH																							
CHK: CKG																							
DATE: Aug. 1996																							
BY: NO																							
REVISION																							
DATE																							

\* Note: 12" & 16" Walls not required for precast Manholes. When using precast Manholes See Std. Det. G5.11.



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

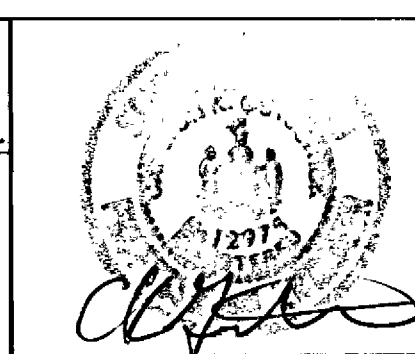
*Jeff K. Wilby for BUD 8/18/96*  
BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*John W. Hamman*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GOW** GUTSCHICK LITTLE & WEBER, P.A.  
ENGINEERS, PLANNERS, SURVEYORS

2909 NATIONAL DRIVE SUITE 250 BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MD 20816  
(301) 421-4024



DES: GAH			
DRN: EVT			
CHK: GAH			
DATE: AUG-1996	BY: NO.	REVISION	DATE

Sewer Profile  
Scale: 1" = 5' (Horiz.)  
1" = 5' (Vert.)

600' SCALE MAP NO. 34 & 35 BLOCK NO. 52 & 12 / L & 7

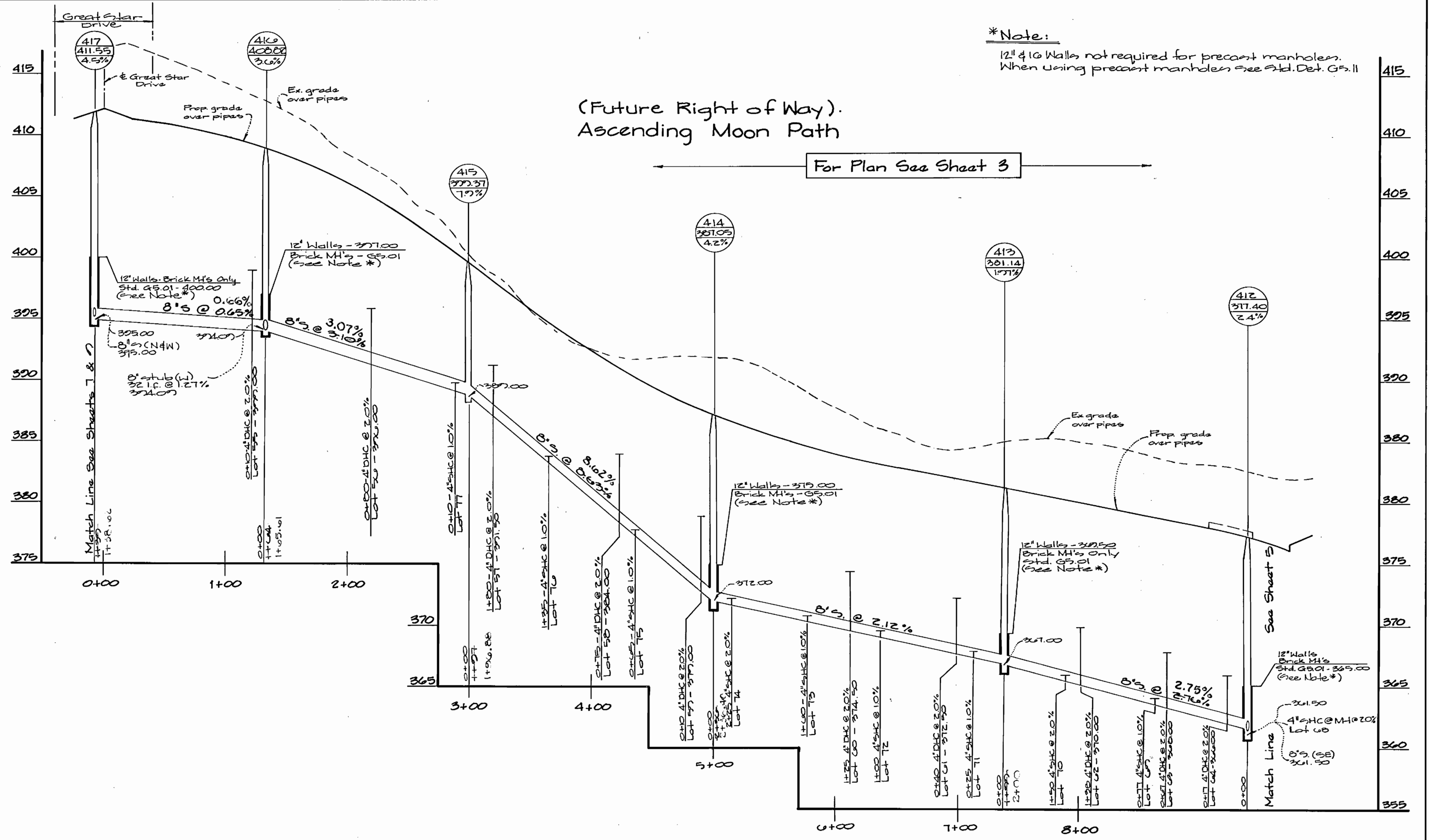
Sewer As-Built  
**Village of River Hill**  
Section 4  
Outfall Sewer  
Contract No: 30-3436-0  
Ellicott City Election District No. 5 .. Howard County, Maryland

SCALE AS SHOWN  
SHEET 5 OF 9

**Conditions and Management Practices for Working in Nontidal Wetlands and Buffers**

- a) For utility line installation, strip, stockpile and maintain separately the top 4" of soil material from the nontidal wetlands and buffers, to be replaced as the top layer of the backfilled material.
- b) Use previously excavated material as utility line backfill, unless it contains waste metal products, unrightly debris, toxic material or any other deleterious substance. Use clean borrow material when excavated material is not suitable for use as backfill.
- c) Remove excess fill or construction material material or debris to an upland disposal area outside of any floodplain, water-way, wetland or buffer.
- d) Rectify any nontidal wetlands and buffers temporarily impacted by the proposed activity. All stabilization in the wetland and buffer shall be of the following recommended species: Annual Ryegrass (*Lolium multiflorum*), Millet (*Pennisetum glaucum*), and/or Rye (*Secale cereale*). Other nonpersistent vegetation may be acceptable, but must be approved by the Nontidal Wetlands and Waterways Division, Kentucky, if feasible shall not be used in the Wetland or buffer. All temporary fills shall be removed in their entirety on or before the completion of construction.
- e) After utility line installation has been completed, make post construction grades and elevations of nontidal wetlands the same as the original grades and elevations.
- f) Place heavy equipment on mats or suitably operate the equipment to prevent damage to the nontidal wetlands.
- g) To protect important aquatic species, in-stream work is prohibited as determined by the classification of the stream as follows:  
 Class I Waters: In-stream work may not be conducted during the period March 1 through June 15, inclusive, during any year.
- h) No removal of vegetation, grading, filling, draining or other alteration of the nontidal wetlands or buffer outside the limits of disturbance shall occur without written authorization from the Water Management Administration.

**\*Note:**  
 12" 410 Walls not required for precast manholes.  
 When using precast manholes See Std. Det. G-11



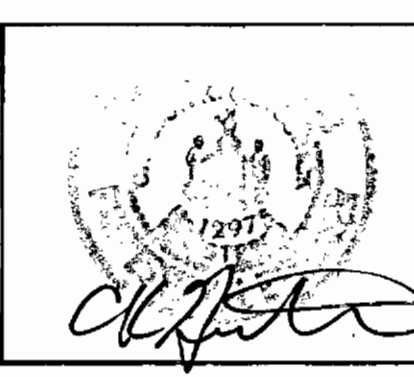
(Future Right of Way).  
 Ascending Moon Path

For Plan See Sheet 3

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Jeffrey K. Wilby, P.E. 8/10/96  
 Chief, Bureau of Utilities

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 [Signature] 8/10/96  
 Chief, Development Engineering Division

**GOW** GUTSCHICK LITTLE & WEBER, P.A.  
 ENGINEERS, PLANNERS, SURVEYORS  
 3909 NATIONAL DRIVE, SUITE 250 - BURTENVILLE OFFICE PARK  
 BURTENVILLE, MD. 20868  
 (301) 421-4024

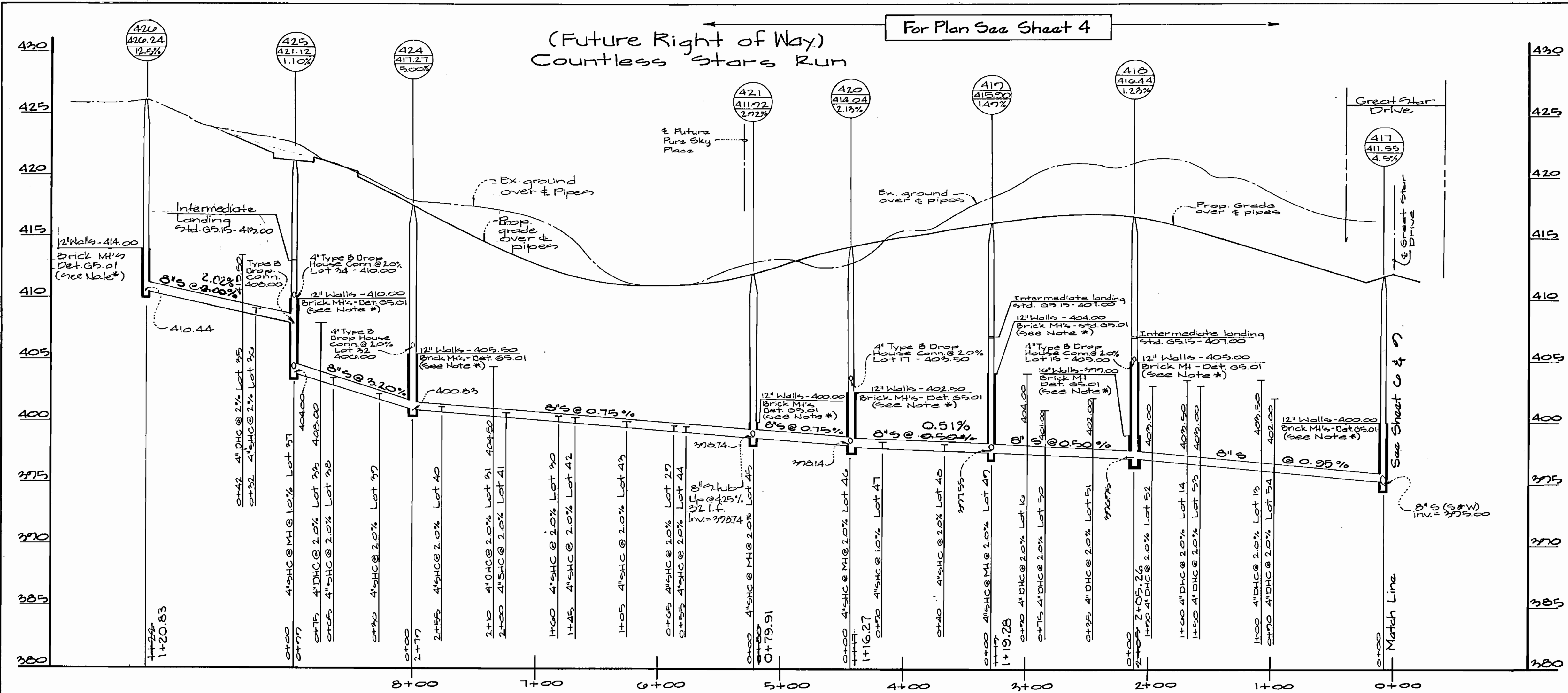


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CHK:	CKG				
DATE:	AUG. 1996				
MCP BY:	1 NO.	Add Management Practice Notes			
REVISION					

**Sewer Profiles**  
 Scale: 1" = 50' (Horiz.)  
 1" = 5' (Vert.)  
 600' SCALE MAP NO. 34 & 35 BLOCK NO. 6 & 12/1 & 7

Sewer As-Built  
**Village of River Hill**  
 Section 4  
**Outfall Sewer**  
 Contract No: 30-3436-D  
 Ellicott City Election District No. 5  
 Howard County, Maryland

SCALE AS SHOWN  
 SHEET 2 OF 9



\* Note: 12" & 16" Walls not required for precast Manholes. When using precast Manholes see Std. Det. G5.11

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Jeffrey K. Willey* R. Eng. 8/10/96  
Chief, Bureau of Utilities

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*Alan W. Summers* R. Eng. 8/19/96  
Chief, Development Engineering Division

**GLW** GUTSCHICK LITTLE & WEBER, P.A.  
ENGINEERS, PLANNERS, SURVEYORS

3909 NATIONAL DRIVE SUITE 250 BURTONTOWNE OFFICE PARK  
BURTONTOWNE, MD. 20868  
(301) 421-4024



DES: GAH					
DRN: KLP/AT					
CHK: CKG					
DATE: Aug. 1996	BY: NO.	REVISION	DATE		

Sewer Profiles  
Scale: 1" = 50' (Horiz.)  
1" = 5' (Vert.)

600' SCALE MAP NO. 34 & 35 BLOCK NO. G612/1&7

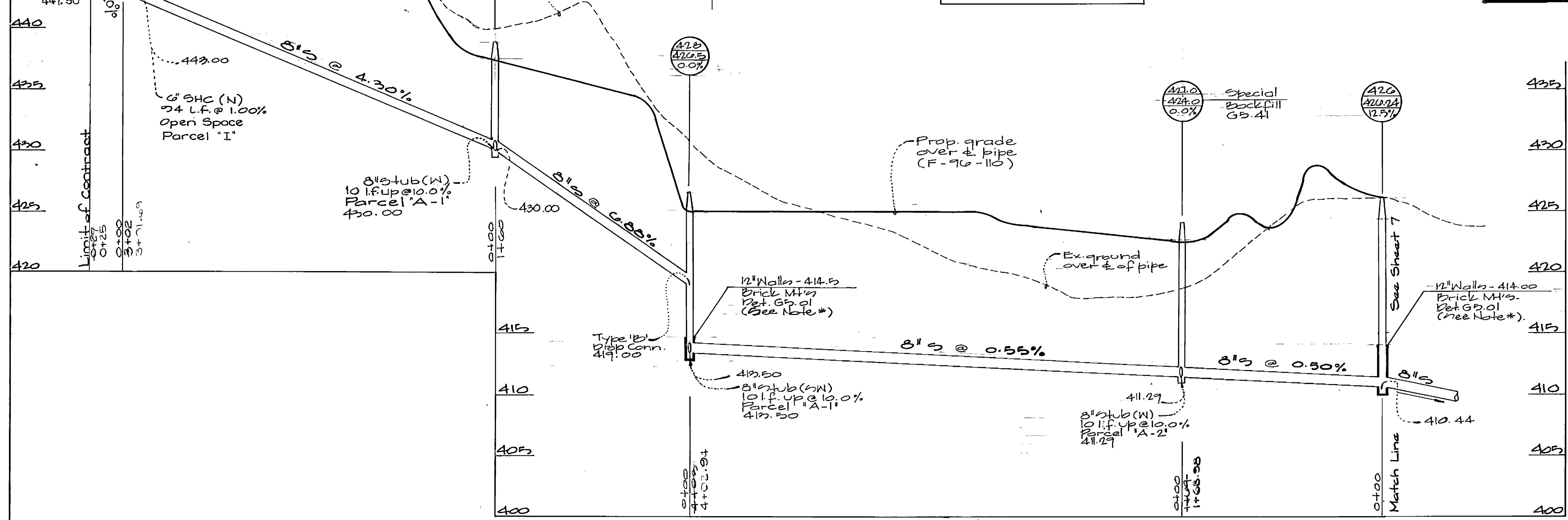
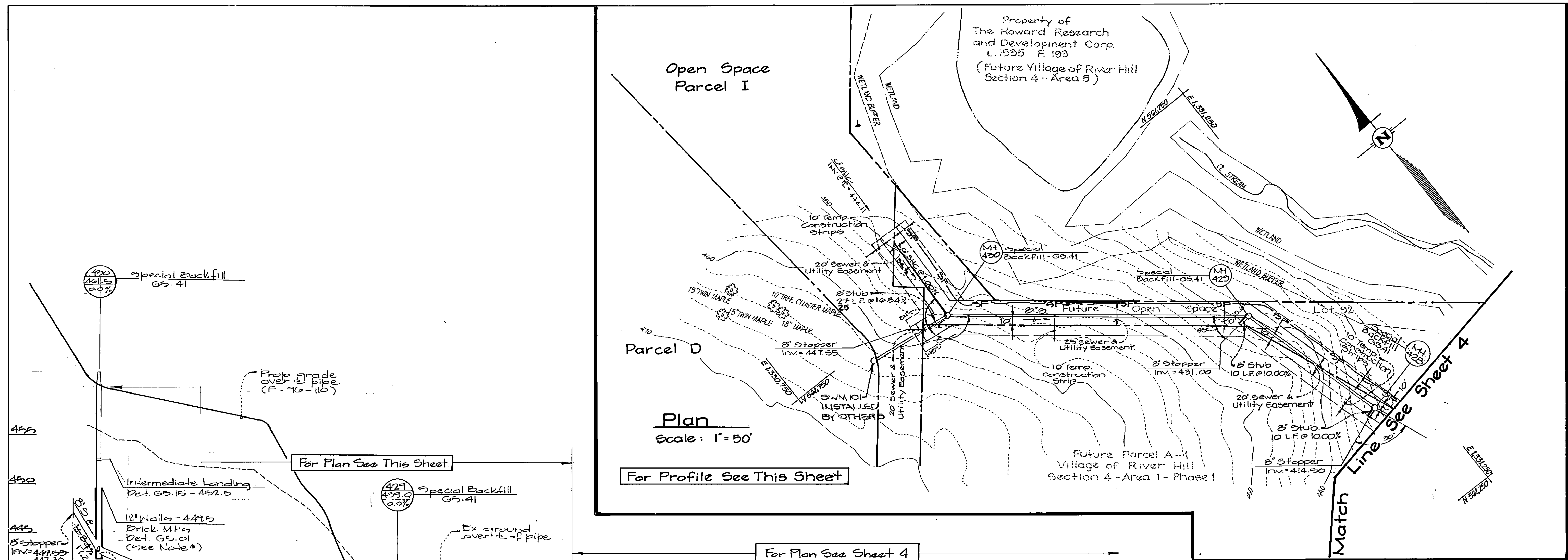
Sewer As-Builts  
Village of River Hill

Section 4  
Outfall Sewer  
Contract No: 30-3436-D

Ellicott City Election District No. 5  
Howard County, Maryland

SCALE AS SHOWN

SHEET 7 OF 9



\*Note: 12" & 16" Walls not required for precast manholes. When using precast manholes see Std. Det. G5.11

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

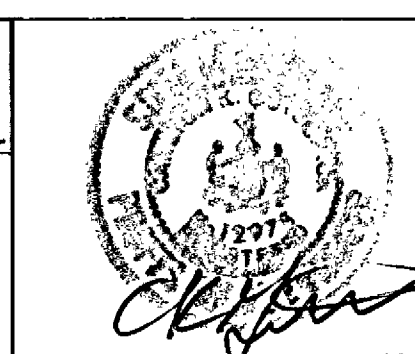
*John K. Willey* for *David S. P. / JKW*  
Chief, Bureau of Utilities Date

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*Allen J. ...* 8/19/96  
Chief, Development Engineering Division Date

**G&W** GUTSCHICK LITTLE & WEBER, P.A.  
ENGINEERS, PLANNERS, SURVEYORS

2909 NATIONAL DRIVE - SUITE 250 - HURTONSVILLE OFFICE PARK  
BURTONSVILLE, MD. 20868  
(301) 421-4024



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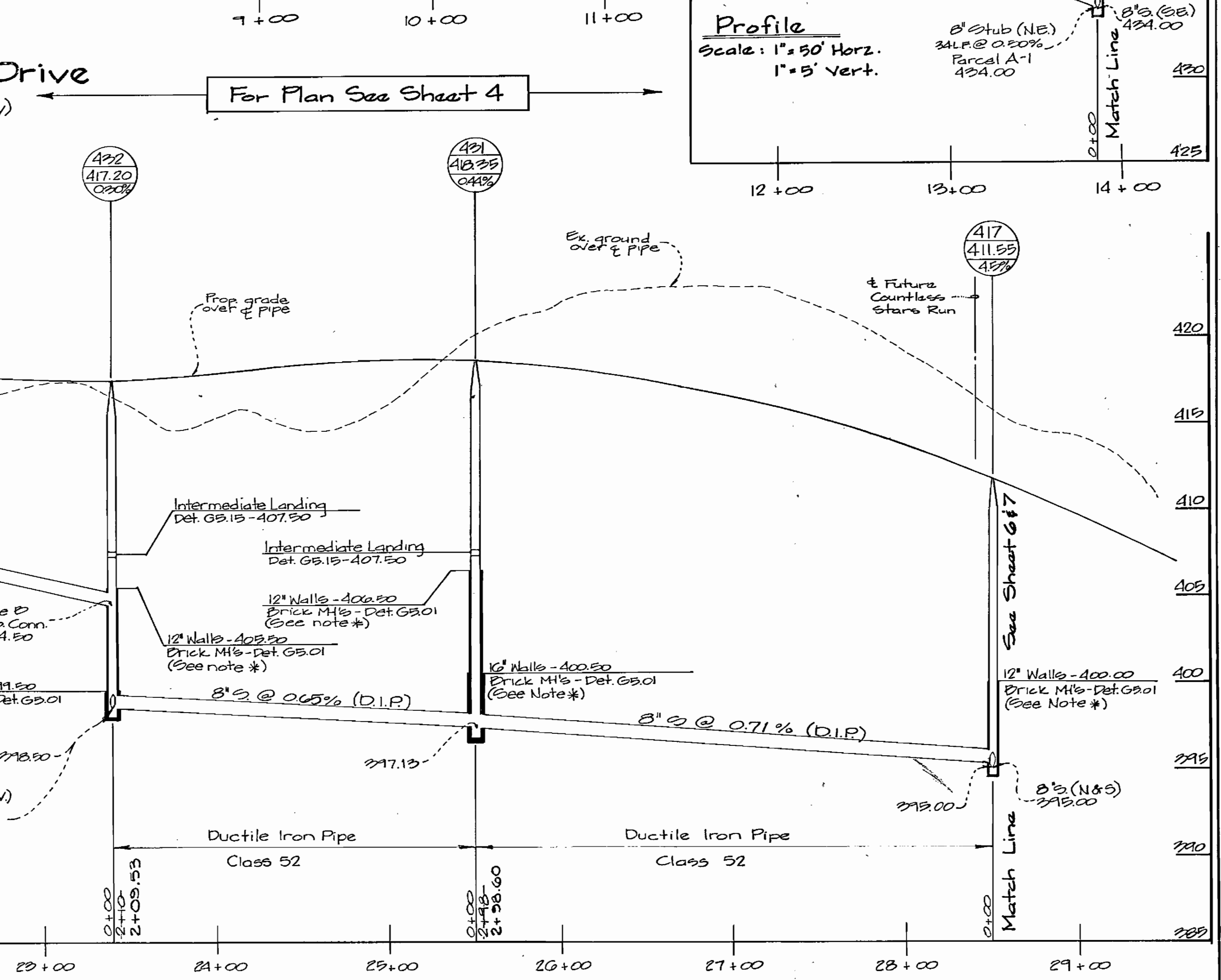
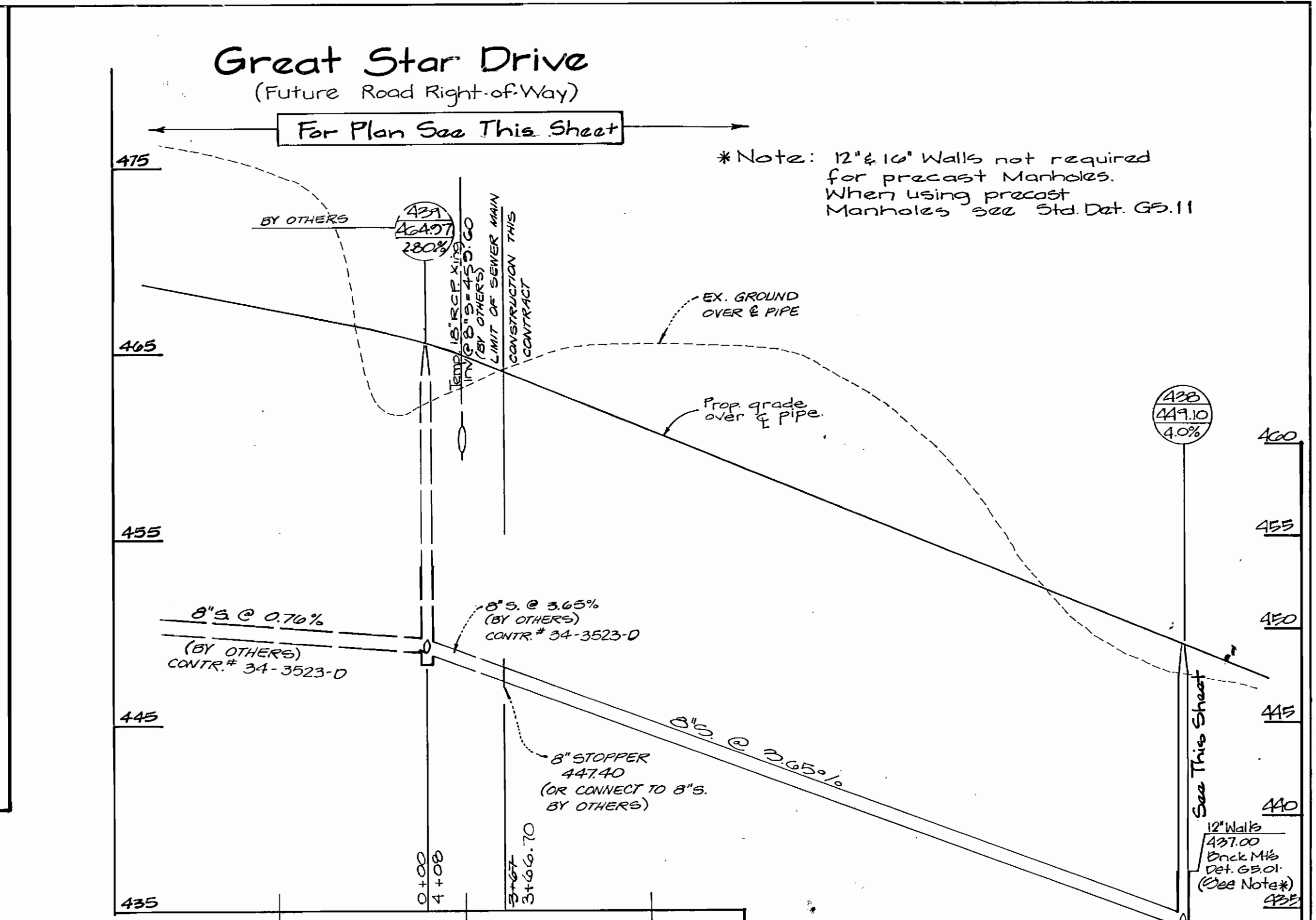
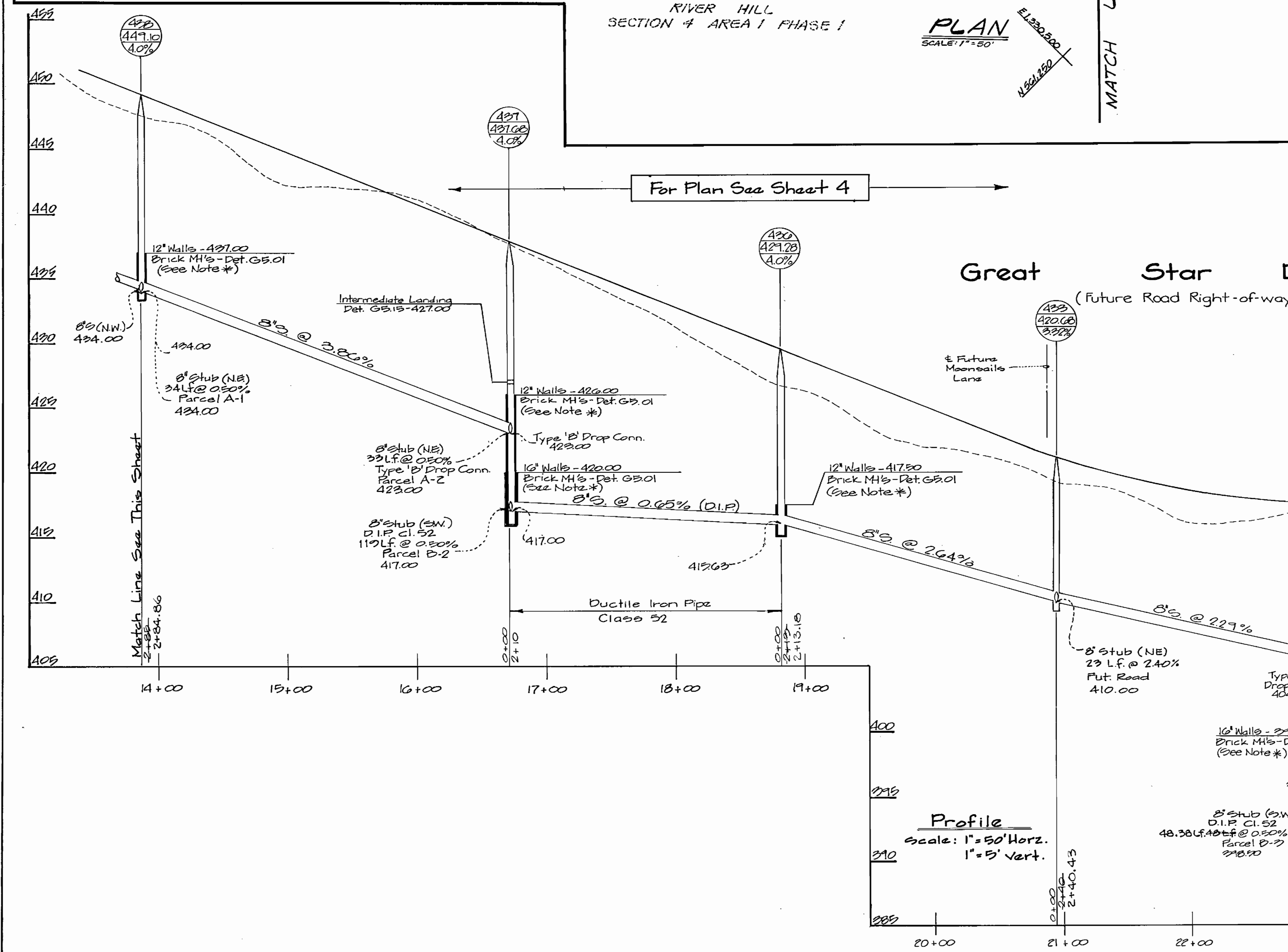
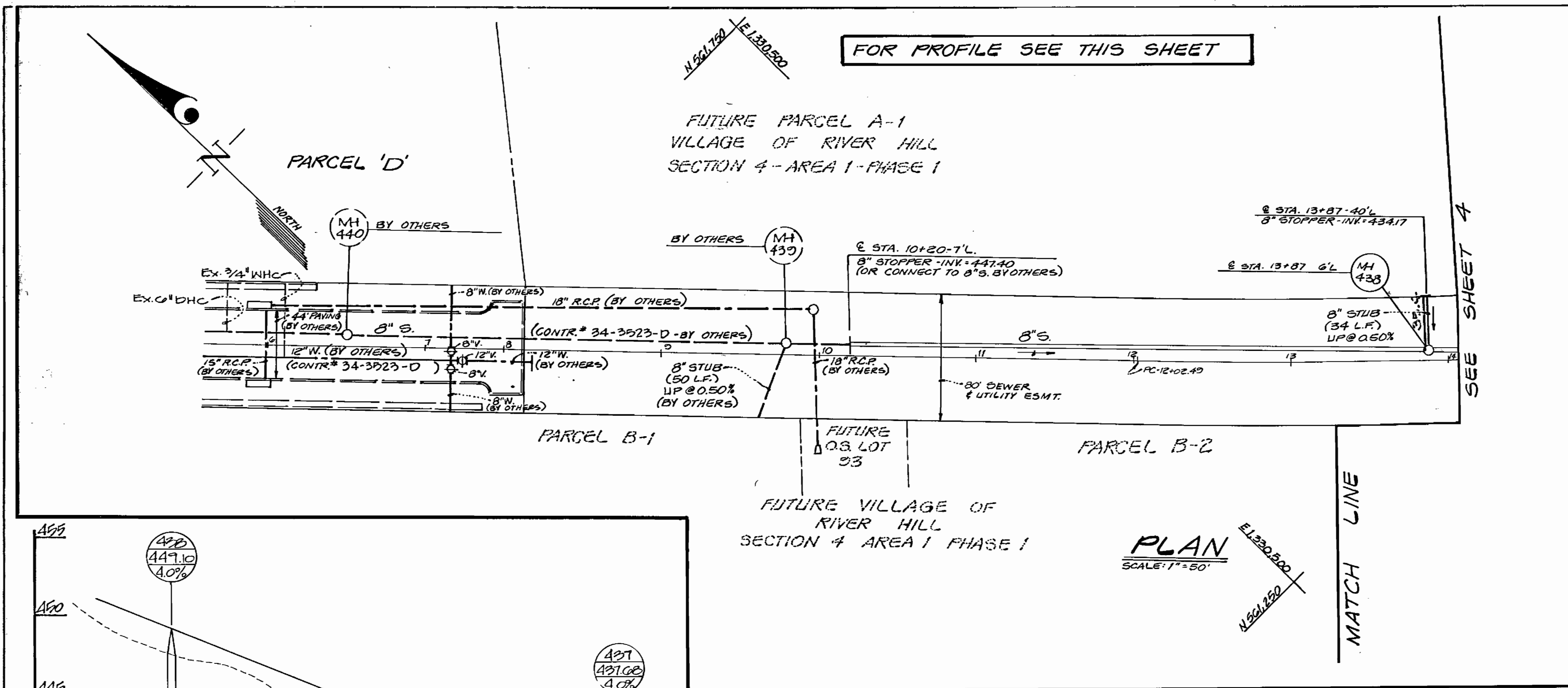
Sewer Plan & Profiles  
Scale: AS SHOWN

600' SCALE MAP NO. 24 & 35 BLOCK NO. 6 & 12 / 1 & 7

Sewer AS-BUILT  
**Village of River Hill**  
Section 4  
Outfall Sewer  
Contract No: 30-3436-D  
Ellicott City Election District No. 5, Howard County, Maryland

SCALE AS SHOWN  
SHEET 2 OF 2





DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

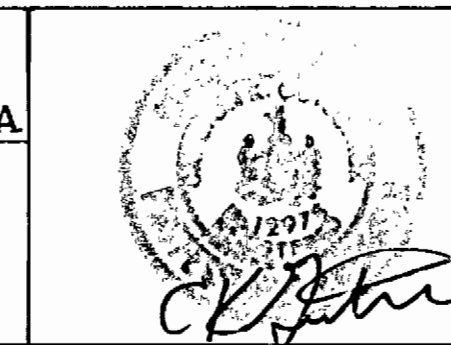
*[Signature]* 8/1/96  
Bureau of Utilities Date

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]* 8/1/96  
Chief, Development Engineering Division Date

**GW GUTSCHICK LITTLE & WEBER, P.A.**  
ENGINEERS, PLANNERS, SURVEYORS

3909 NATIONAL DRIVE SUITE 250 BURTONTVILLE OFFICE PARK  
BURTONTVILLE, MD 20866  
(301) 421-4024



DES: GAH					
DRN: END					
CHK: GAH					
DATE: AUG. 1996					
BY NO.					
REVISION					

**Sewer Plan & Profiles**  
Scale: AS SHOWN

600' SCALE MAP NO. 24 & 25 BLOCK NO. G&12/L&7

Sewer As-Builts  
**Village of River Hill**  
Section 4  
Outfall Sewer  
Contract No. 30-343G-D  
Ellicott City Election District No. 5 Howard County, Maryland

SCALE AS SHOWN  
SHEET 2 OF 2