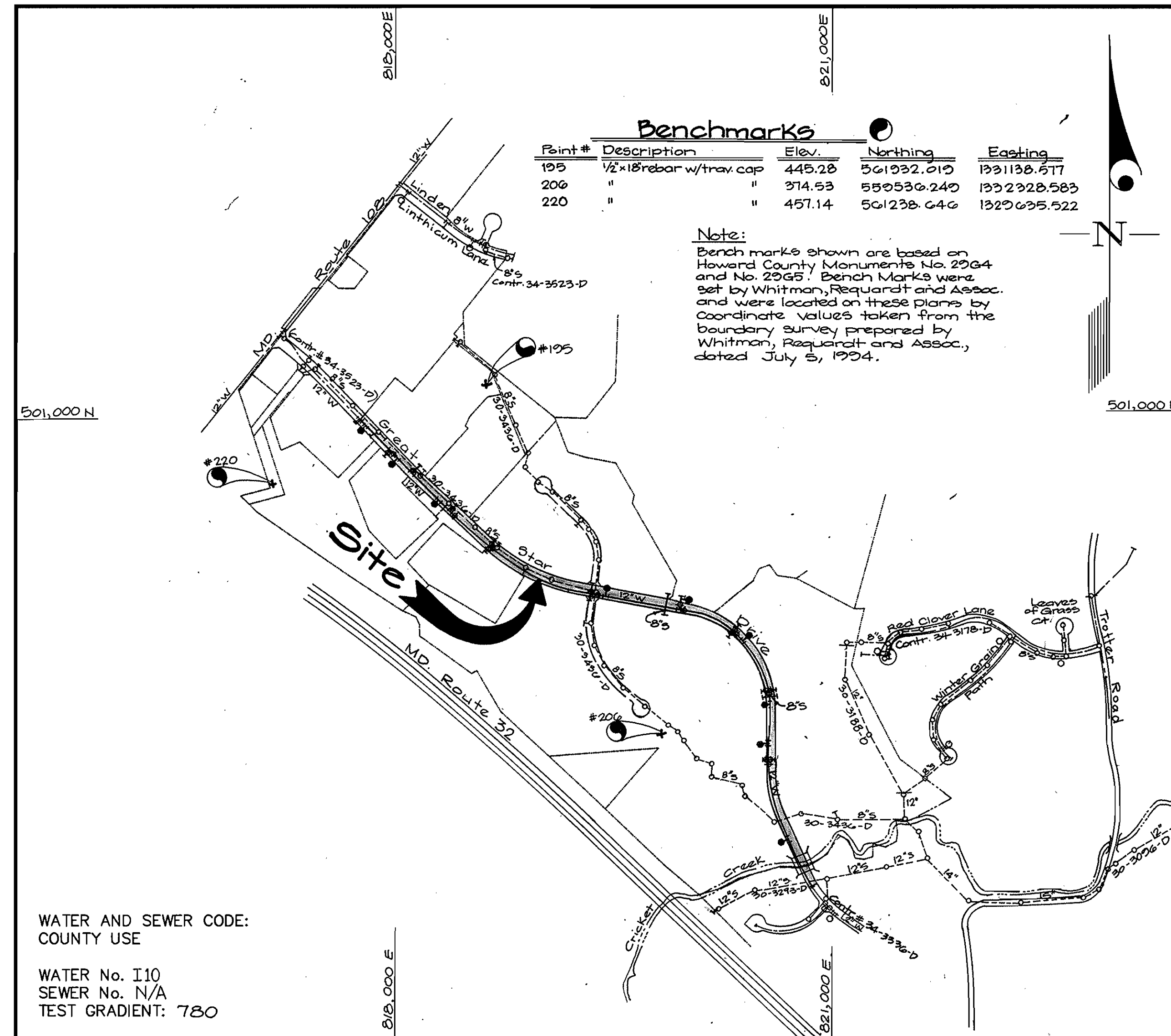


ITEMS	QUANTITIES ESTIMATED	AS-BUILT		MANUFACTURER/SUPPLIER
		QUANTITIES	TYPE	
12" Water DIP	4,237 L.F.	4,715 L.F.	CL 52	GRIFFIN PIPE PRODUCTS
8" Water	344 L.F.	348 L.F.	CL 52	GRIFFIN PIPE PRODUCTS
6" Water	303 L.F.	343 L.F.	CL 52	GRIFFIN PIPE PRODUCTS
12" Valve	11 Ea.	11 EA.	RESILIENT SEAL	U.S. PIPE DELAIR RD SUPPLY
8" Valve	8 Ea.	8 EA.	RESILIENT SEAL	MUELLER DELAIR RD SUPPLY
6" Valve	14 Ea.	14 EA.	RESILIENT SEAL	U.S. PIPE DELAIR RD SUPPLY
Fire Hydrant & Valve	9 Ea.	9 EA.	CENTURION	MUELLER DELAIR RD SUPPLY
1/2" Vert. Bend	4 Ea.	4 EA.	MJ	GRIFFIN DELAIR RD SUPPLY
12" x 6" Reducer	1 Ea.	1 EA.	MJ	GRIFFIN DELAIR RD SUPPLY
8" Sewer PVC	60 L.F.	60 L.F.	SDR35	J.M. WFG. DELAIR RD SUPPLY
8" Sewer (D.I.P.)	100 L.F.	100 L.F.	CL 52	GRIFFIN PIPE PRODUCTS
12" CARBON STEEL PIPE UNDER BRIDGE	-	133 L.F.	ASTM A993 36.0	RECTANGULAR, WILSON PRODUCTS

NAME OF UTILITY CONTRACTOR: W. F. WILSON & SONS

SURVEY AND DRAFTING DIV. CHECKBOX:  AS-BUILT DATE: 1/24/96



VICINITY MAP  
SCALE: 1"=600'

CONTRACT No. 44-3524-D  
Village of River Hill  
Section 4 - Area 1 - Phase 1  
HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS

TYPE OF BUILDING	Future Commercial and Residential (SFD, SFA, & M.F.)
NUMBER OF UNITS	N/A
NUMBER OF S.H.C.'s	0
NUMBER OF W.H.C.'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 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 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 (5) working days before starting work shown on these plans:
    - State Highway Administration 531-5533
    - BGE Contractor Services 850-4620
    - BGE Under Ground Damage Control 787-9068
    - Miss Utility 1-800-257-7777
    - Colonial Pipeline Co. 795-1390
    - Howard County Department of Public Works Bureau 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, at (410) 313-2450 at least five (5) working days before any open cut of any County road or boring/jacking operation on County roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirement per Section 18.114(a) 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 the 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 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 G5.52. Where watertight frame and cover is used, set top of frame 1'-6" above finished grade unless otherwise noted on drawings.
  - House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

WATER AS BUILT

GLW FILE No. 24050

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications and with Road Drawings Plan F-26-110; Drawings 13 through 15 of 15 for Sediment & Erosion Control.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

*Clay Simmons* / 12/4/96  
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: *Shuff* / 12/4/96  
DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Michael A. Gorman* / 11-25-96  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
*Clay Simmons* / 12/5/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

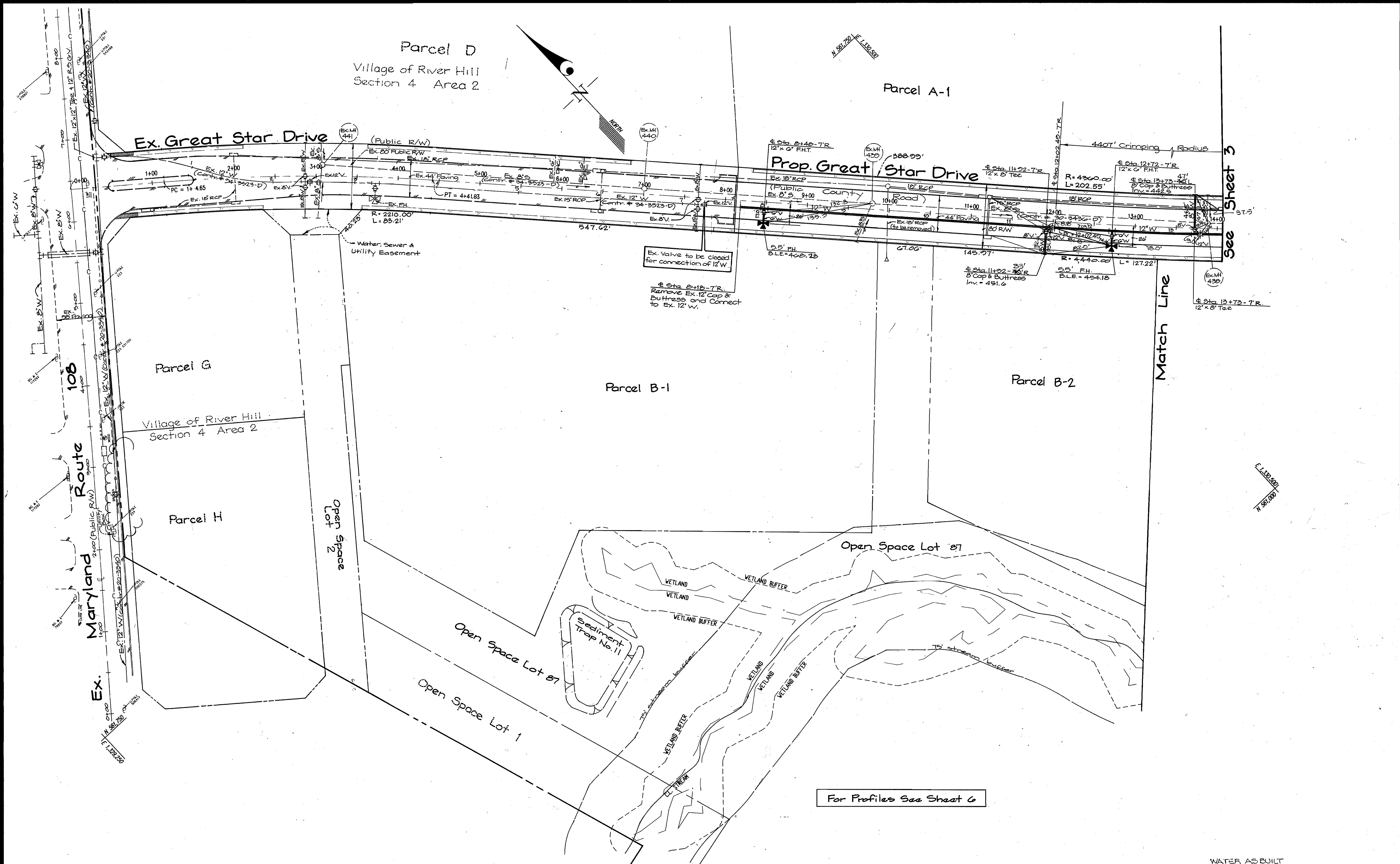
GLW GUTSCHICK LITTLE & WEBER, P.A.  
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866  
TEL: (410) 880-1820 ~ FAX: (301) 421-4186

DES: GAH					
DRN: GAH					
CHK: CKG					
DATE: Aug 1996	BY	NO	REVISION	DATE	

Public Water Extension  
Cover Sheet  
Scale: AS SHOWN  
600' SCALE MAP NO. 24 & 35 BLOCK NO. 6\*12/187

Village of River Hill  
Section 4 - Area 1 - Phase 1  
Contract No: 44-3524-D  
5th Election District, Howard County, Maryland

SCALE AS SHOWN  
SHEET 1 OF 2



Ex. Valve to be closed for connection of 12" W.

Sta. 2+10 - 7" R. Remove Ex. 12" Cap & Buttrass and Connect to Ex. 12" W.

For Profiles See Sheet 6

WATER AS BUILT

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*M. A. [Signature]* 11/28/96  
Chief, Bureau of Utilities

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]* 12/5/96  
Chief, Development Engineering Division

**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

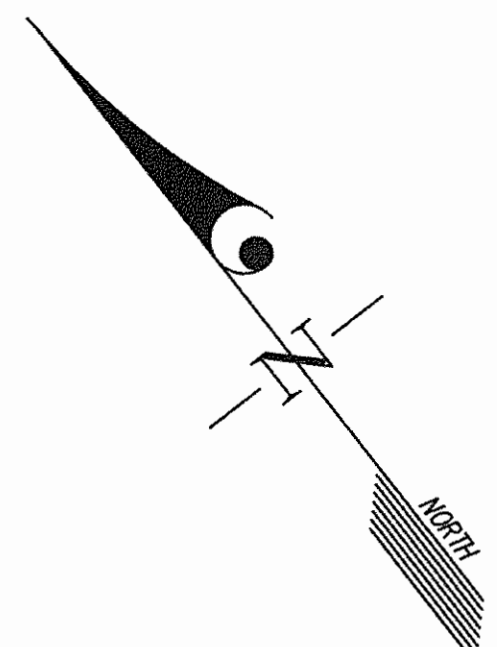


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CHK: CKG				
DATE: Aug. 1996				
BY	NO	REVISION	DATE	

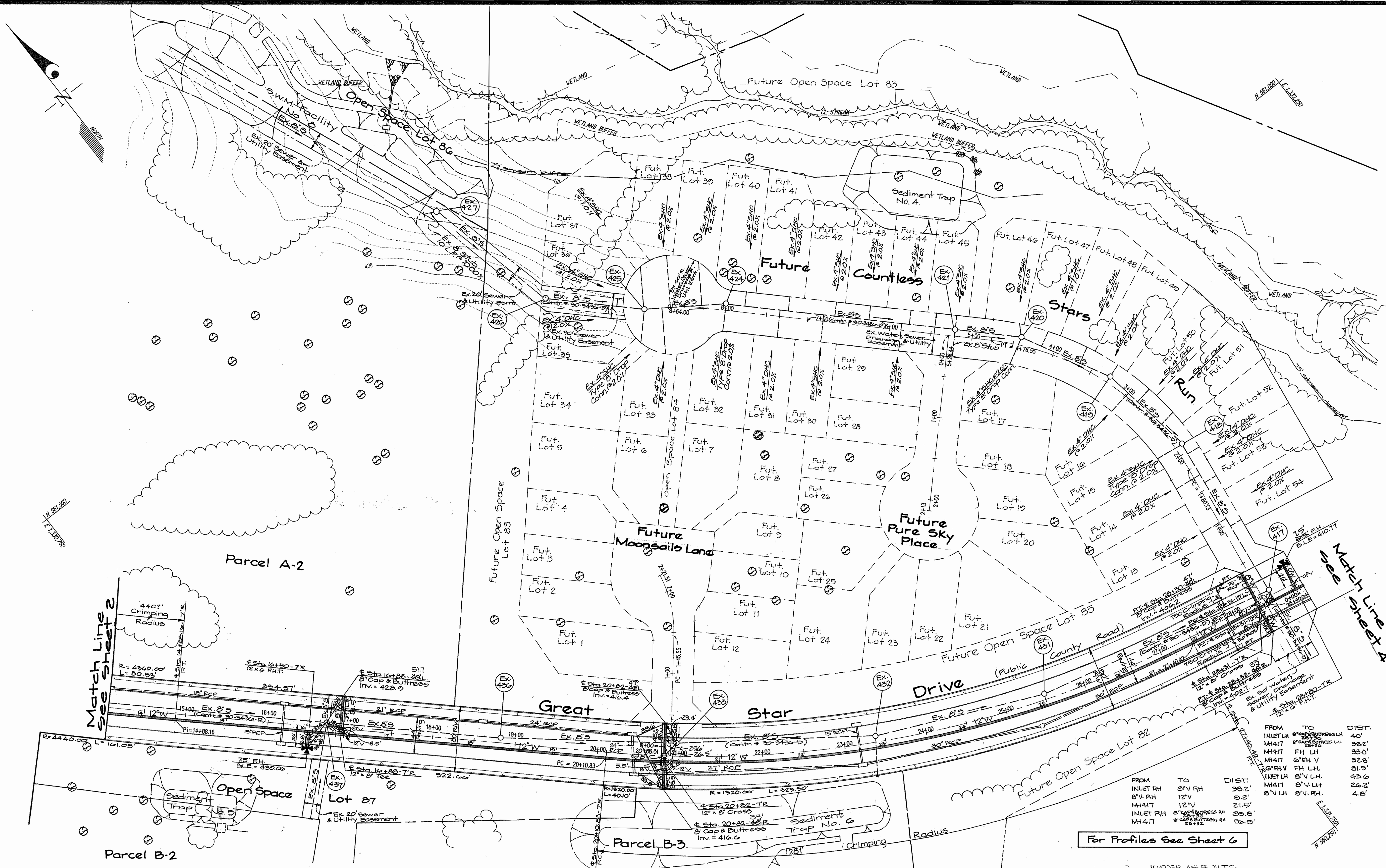
Public Water Extension Plan  
SCALE: 1" = 50'

**VILLAGE OF RIVER HILL**  
SECTION 4, AREA 1, PHASE 1  
Contract No.: 44-3524-D  
ELLICOTT CITY ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 3



N 301.000 E 1332.350



Match Line  
See Sheet 2

Match Line  
See Sheet 4

FROM	TO	DIST.
INLET LH	8" CAP & BUTTRESS LH	40'
M417	8" CAP & BUTTRESS LH	38.2'
M417	FH LH	33.0'
M417	6" FH V	32.8'
RG' FH V	FH LH	31.9'
INLET LH	8" V LH	43.6'
M417	8" V LH	26.2'
8" V LH	8" V RH	4.8'

For Profiles See Sheet 6

WATER AS BUILT'S

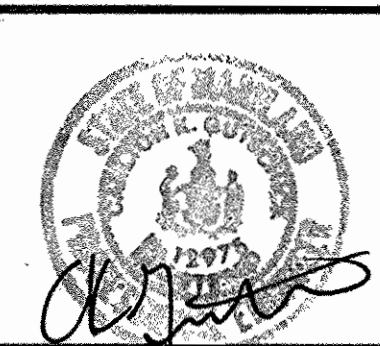
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Michael A. ...*  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**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

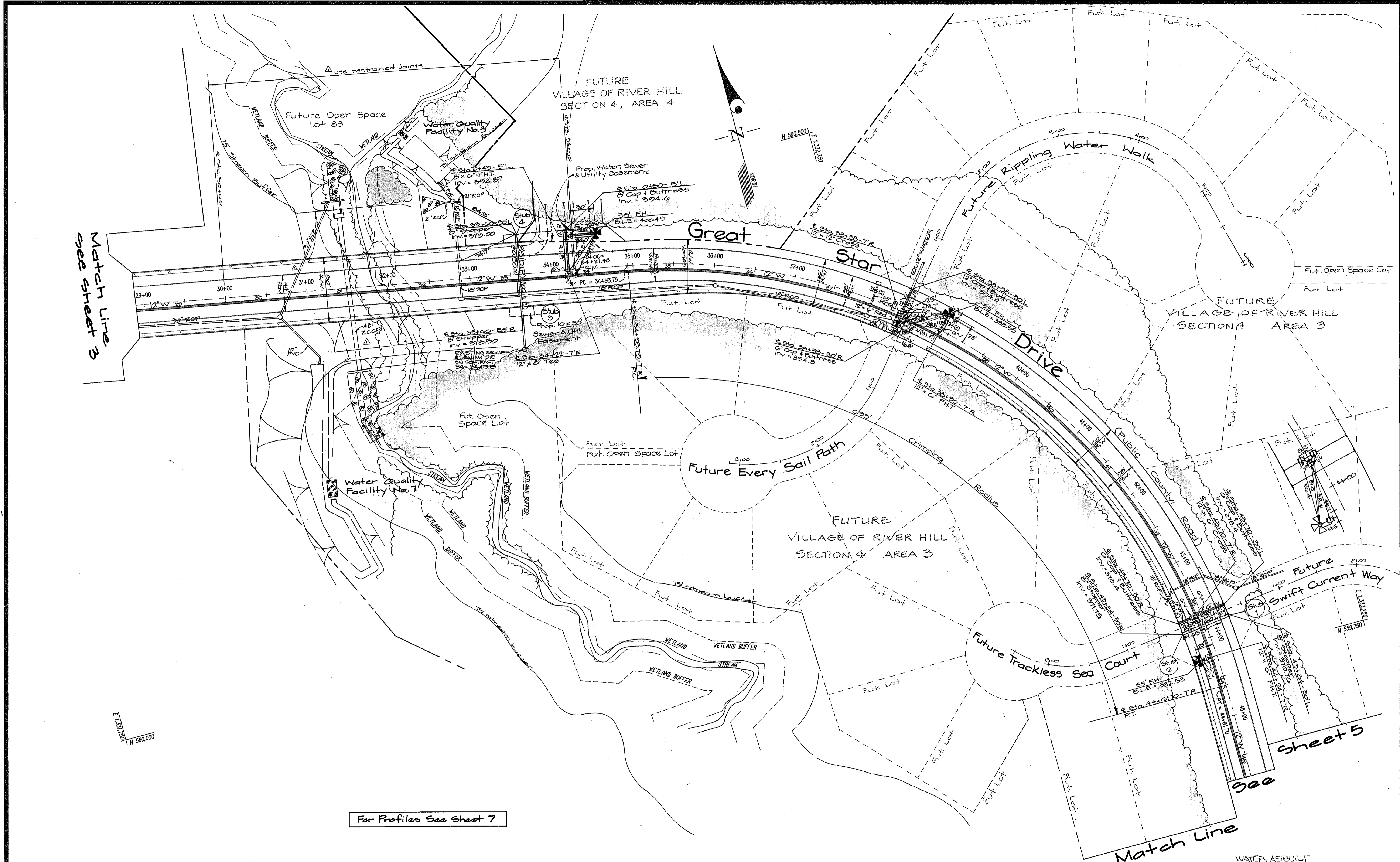


DES: GAH	BY	NO	REVISION	DATE
DRN: GAH				
CHK: CKG				
DATE: Aug. 1996				

Public Water Extension Plan  
SCALE: 1" = 50'  
600' SCALE MAP NO. 34 & 35, BLOCK NO. 6 & 12 & 17

VILLAGE OF RIVER HILL  
SECTION 4, AREA 1, PHASE 1  
Contract No.: 44-3524-D  
ELLCOTT CITY ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 2



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

**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: 10/22

MCF	Δ	rev. storm drain invert to match road plans, call out restrained joints in RL	4/24/17
BY	NO	REVISION	DATE

Public Water Extension  
Plan  
SCALE: 1" = 50'

600' SCALE MAP NO. 34 & 35 - BLOCK NO. 6 & 12/187

VILLAGE OF RIVER HILL  
SECTION 4, AREA 1-PHASE 1

Contract No. 44-3524-D

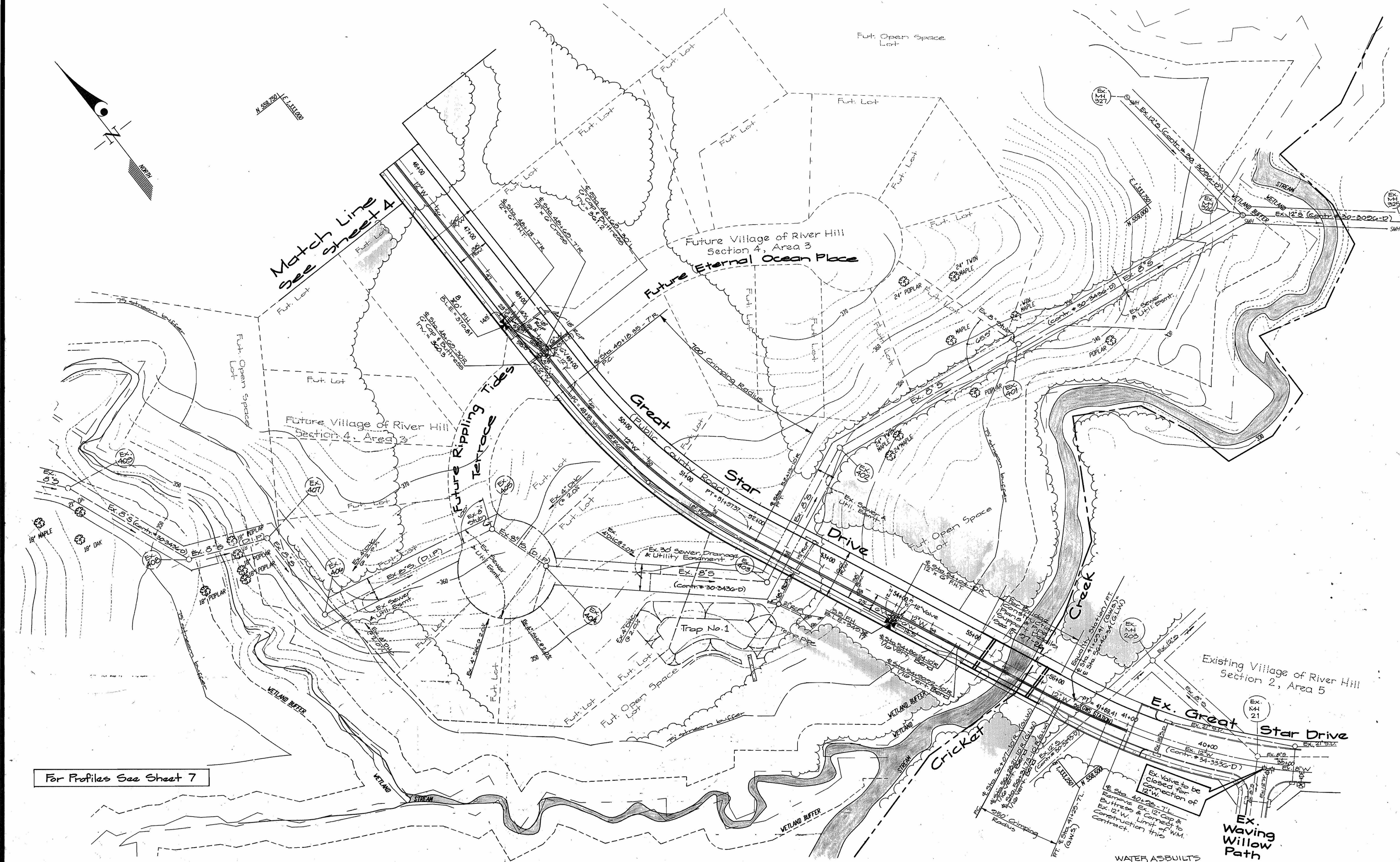
ELLICOTT CITY ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

SCALE  
AS  
SHOWN

SHEET  
4 OF 5

*Michael J. Shuman*  
Chief, Bureau of Utilities RWS Date

*Michael J. Shuman*  
Chief, Development Engineering Division Date



For Profiles See Sheet 7

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*M. A. Ross* 11/25/94  
Chief, Bureau of Utilities

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*H. J. ...* 12/5/96  
Chief, Development Engineering Division

**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

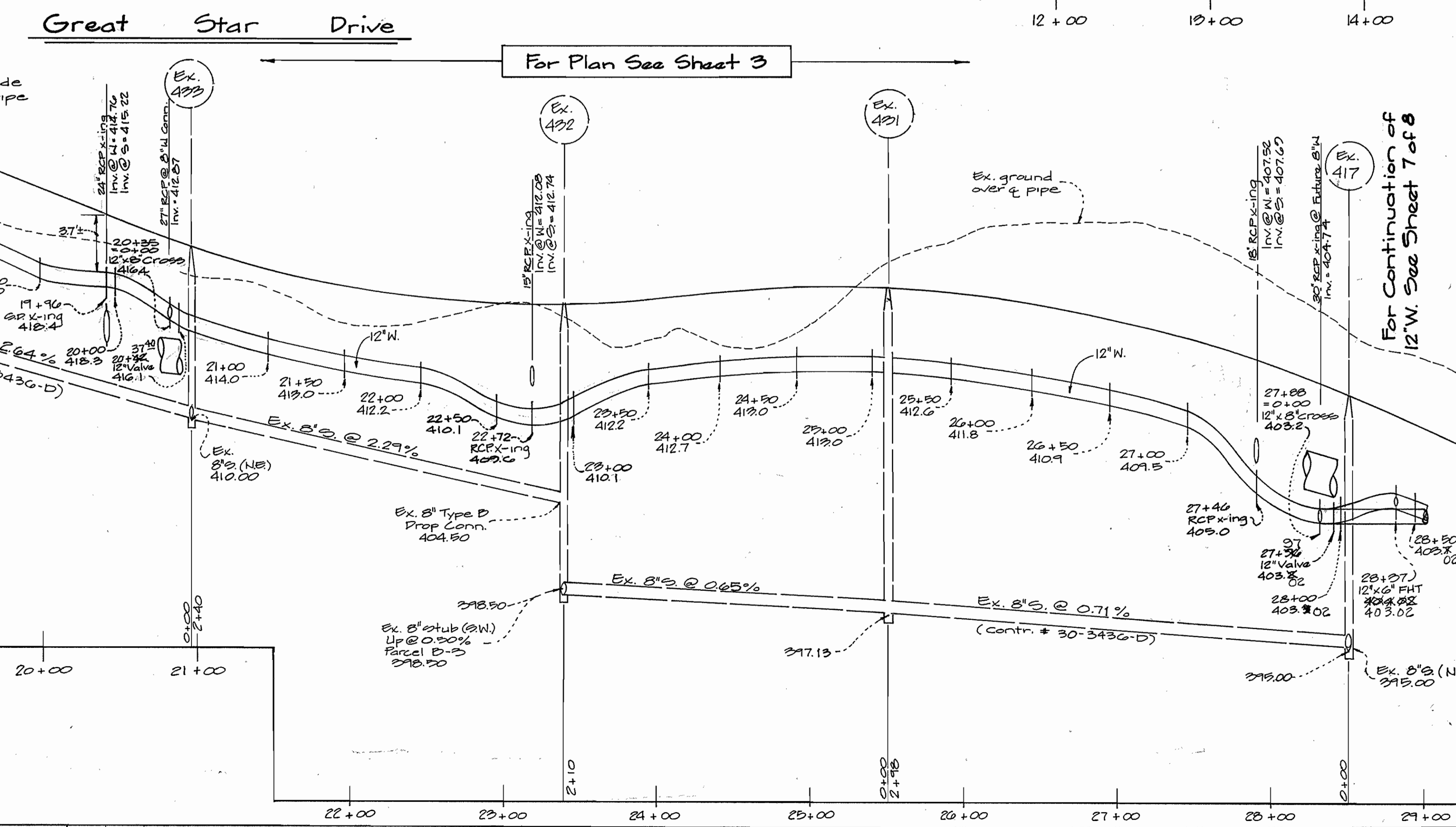
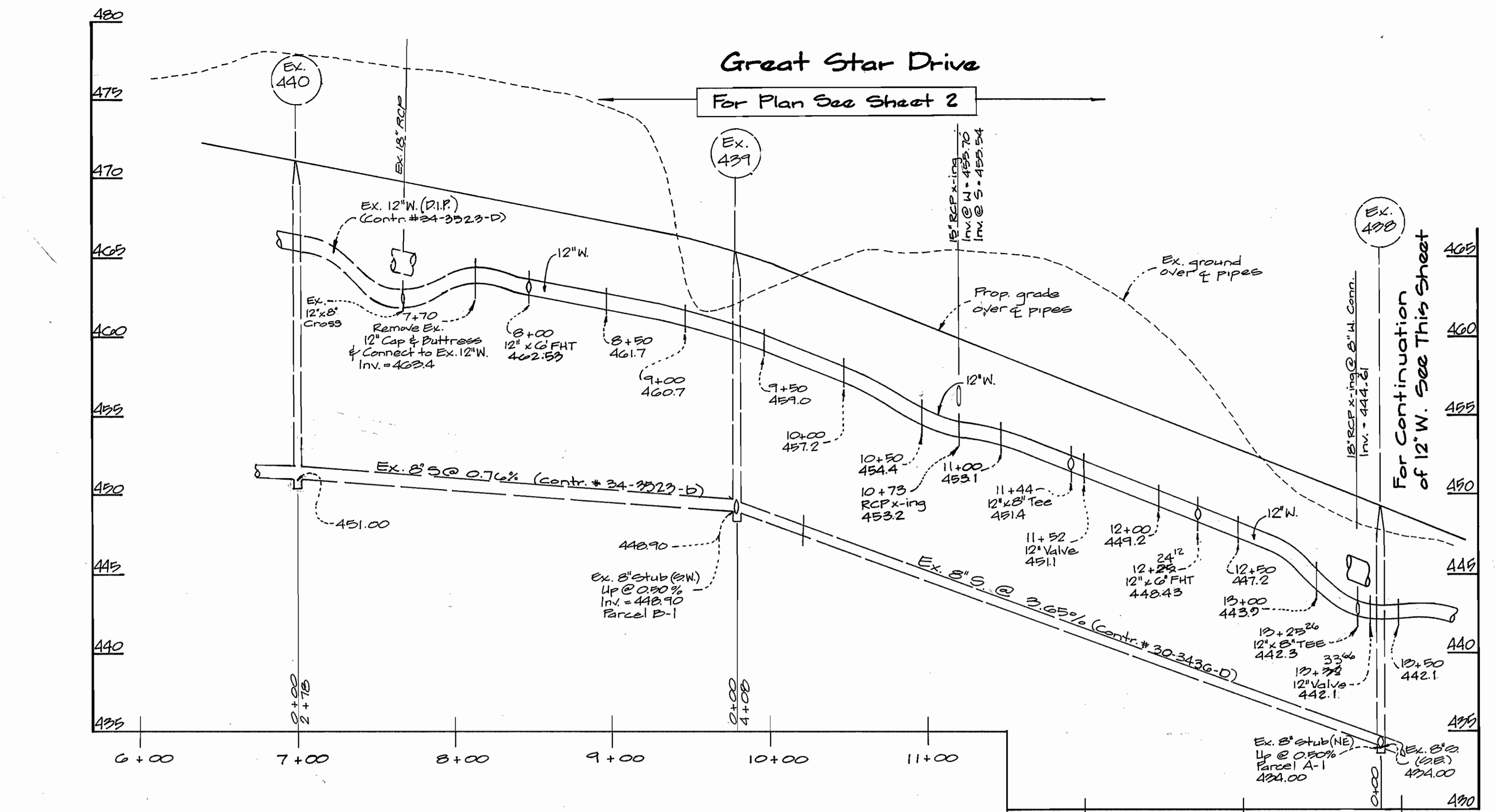
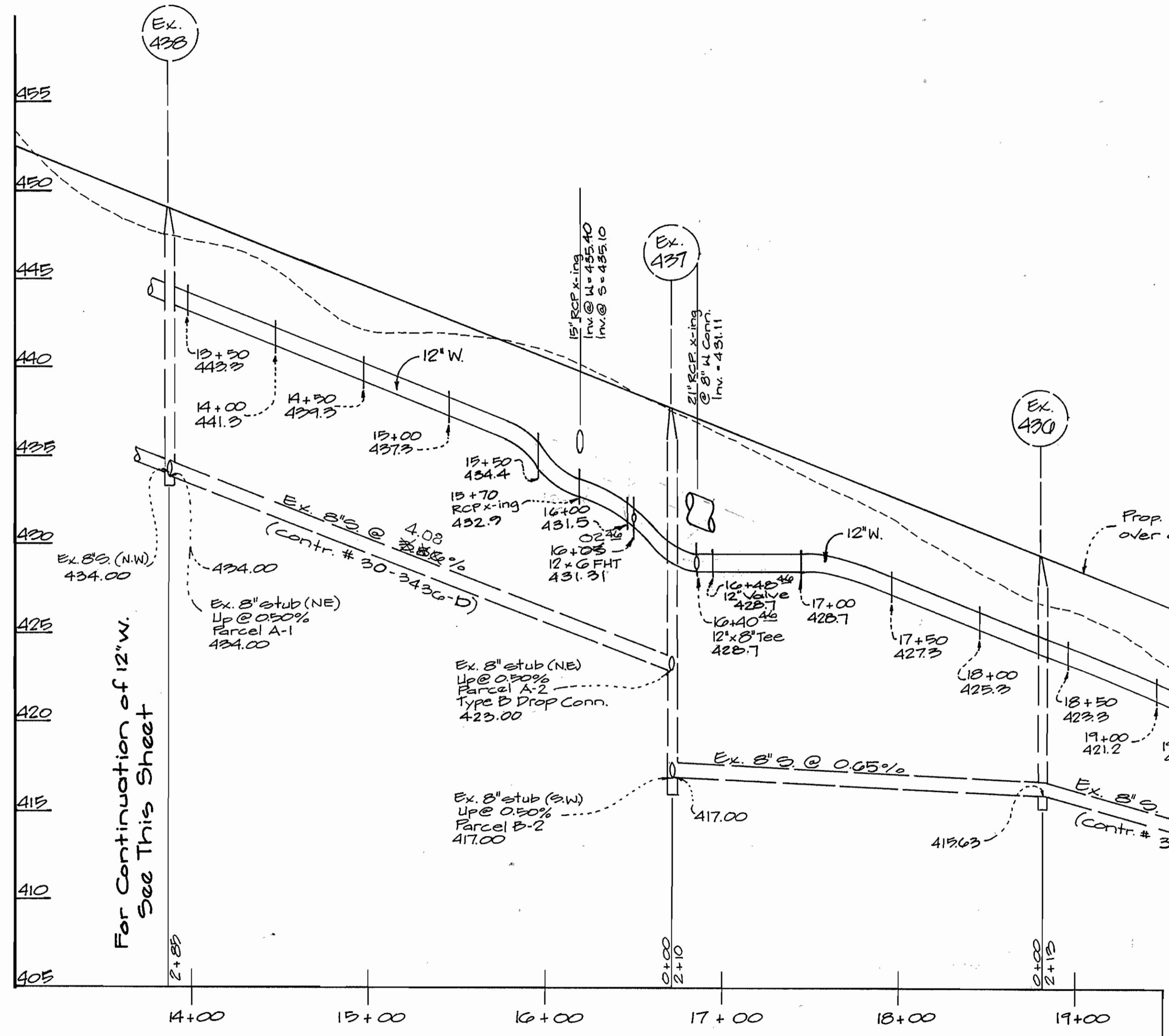


DES: GAH					
DRN: GAH					
CHK: CKG					
DATE: AUG 1996	BY: NO	REVISION:	DATE:		

Public Water Extension  
Plan  
SCALE: 1" = 50'  
600' SCALE MAP NO. 34 & 35 - BLOCK NO. 6&12/1&7

**VILLAGE OF RIVER HILL**  
SECTION 4, AREA 1, PHASE 1  
Contract No: 44-3524-D  
ELLCOTT CITY, ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 9



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

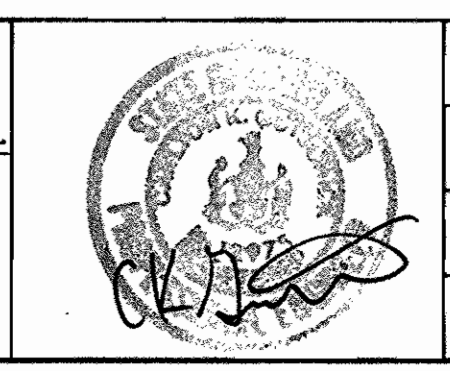
*Michael A. Gussman* 12/5/96  
Chief, Bureau of Utilities

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*Michael A. Gussman* 12/5/96  
Chief, Development Engineering Division

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

3909 NATIONAL DRIVE, SUITE 200 - BURTONTVILLE OFFICE PARK  
BURTONTVILLE, MD 20866  
(301) 421-4024



DES: G.A.H.	BY	NO.	REVISION	DATE
DRN: E.N.B.				
CHK: G.A.H.				
DATE: AUG 1996				

**Public Water Extension Profiles**

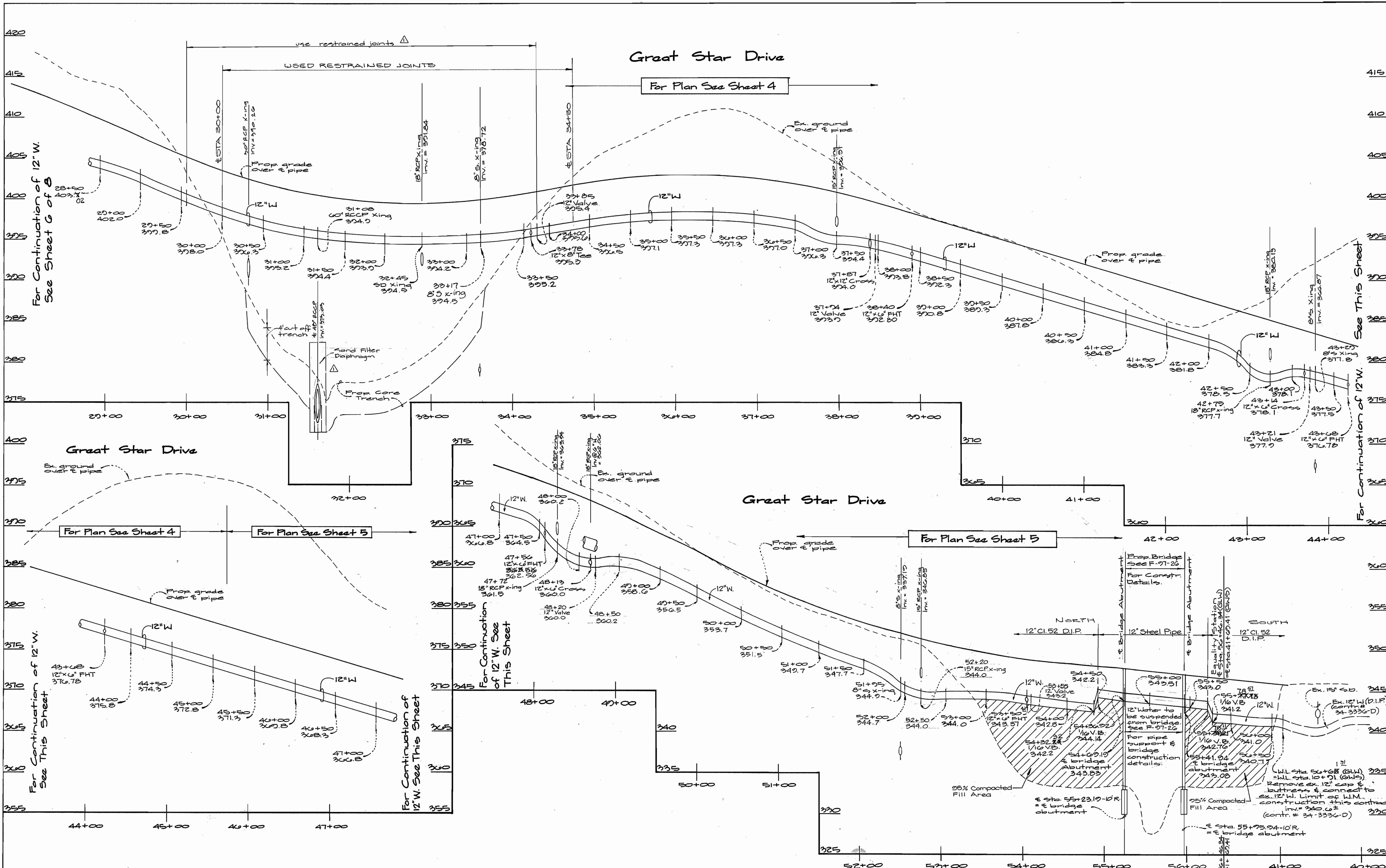
SCALE: 1" = 50' HORIZ.  
1" = 5' VERT.

600' SCALE MAP NO. 34 & 35. BLOCK NO. 6 & 12/1 & 7

**VILLAGE OF RIVER HILL**  
SECTION 4, AREA 1, PHASE 1

Contract No: 44-3524-D  
ELLCOTT CITY ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 6 OF 8



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Michael A. [Signature]  
Chief, Bureau of Utilities  
Date: 12/5/16

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

[Signature]  
Chief, Development Engineering Div.  
Date: 12/5/16

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

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



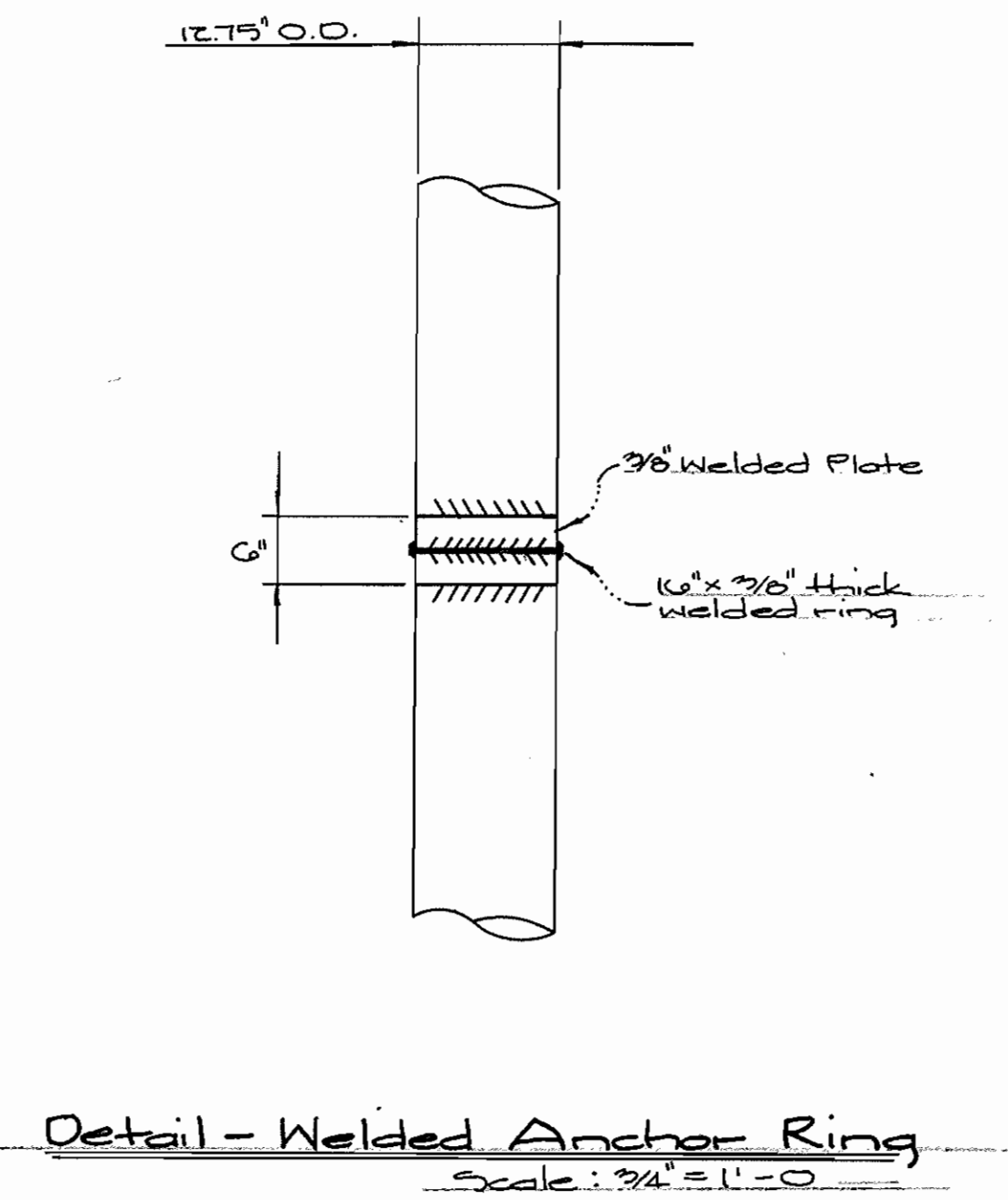
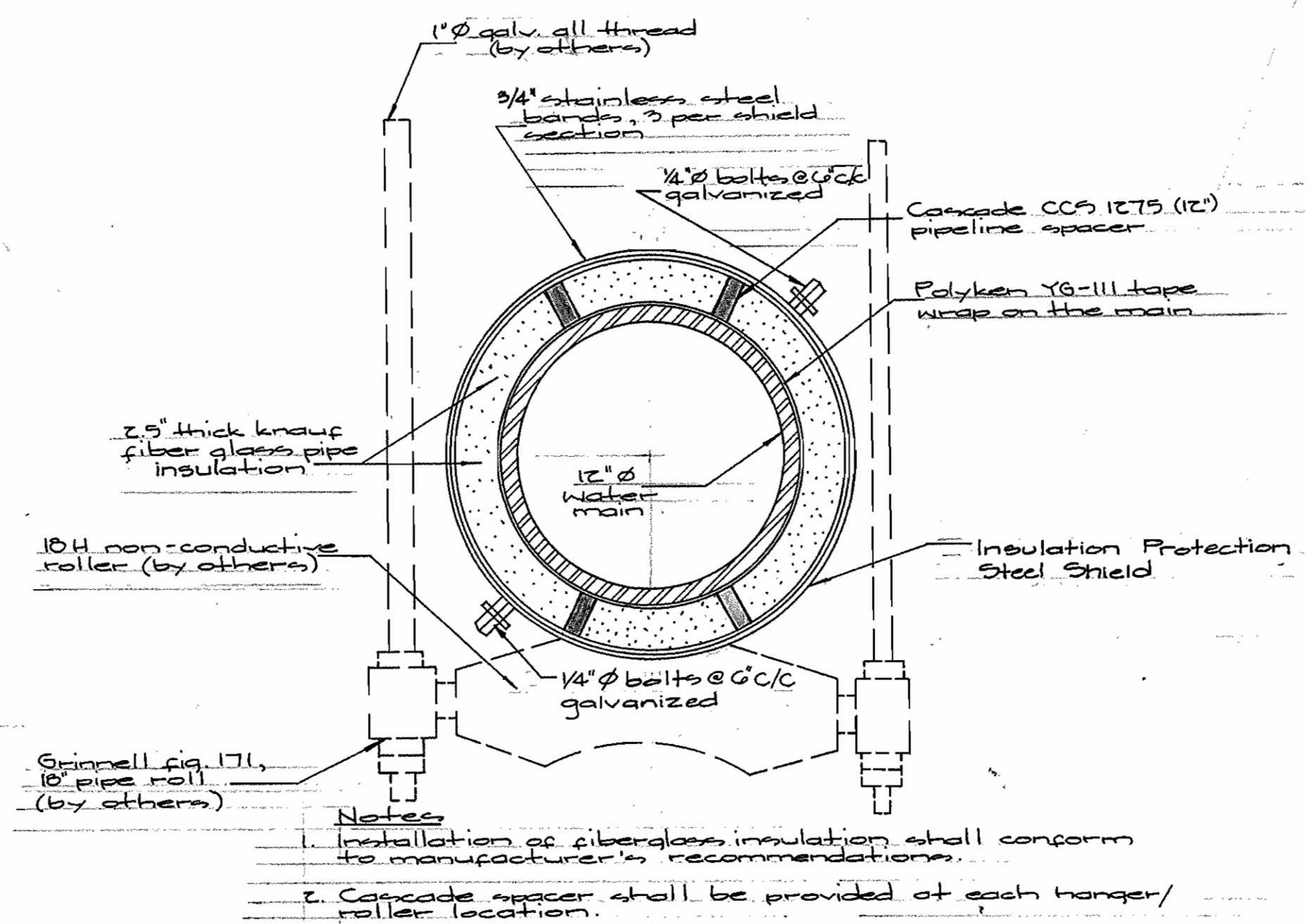
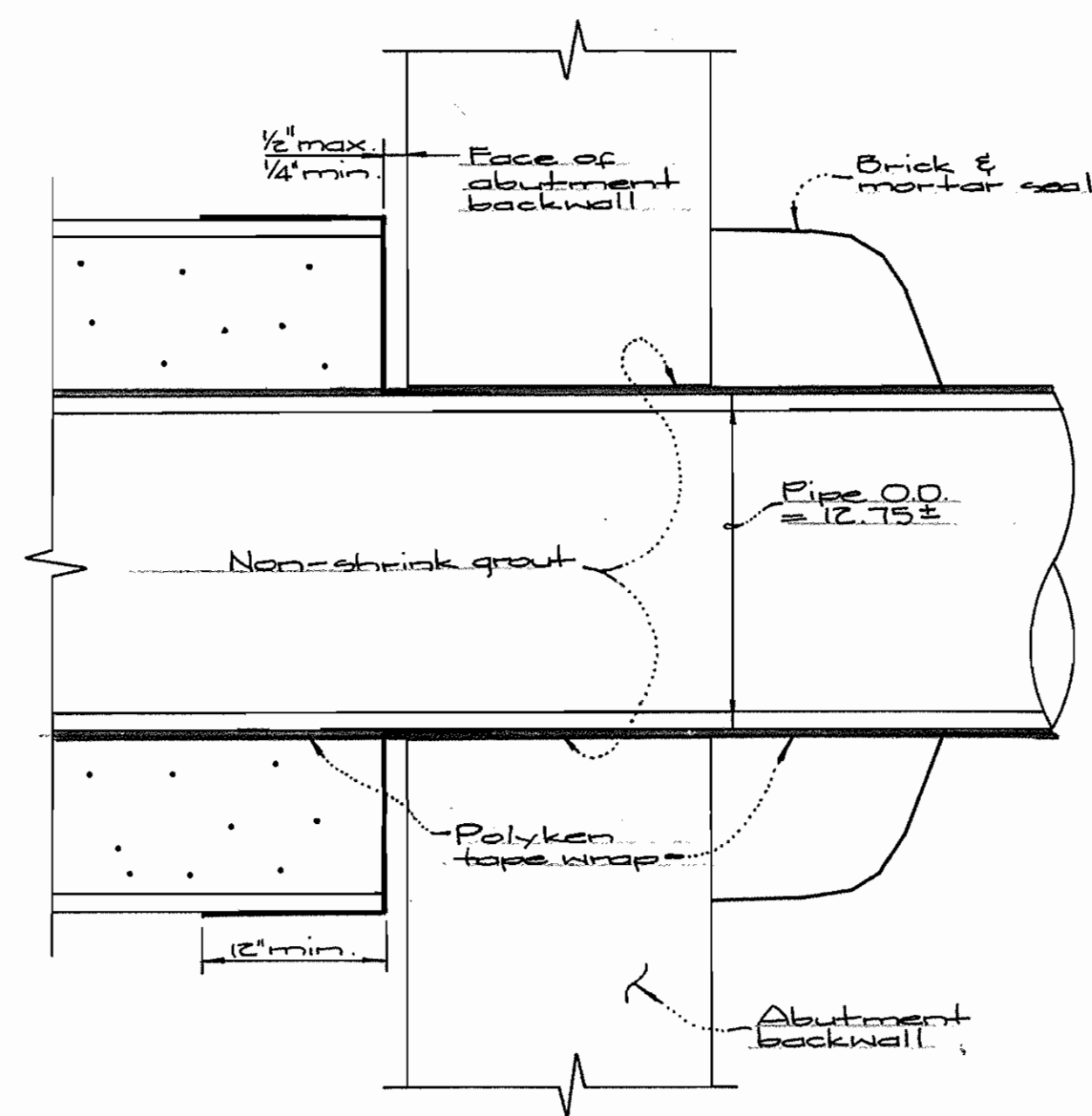
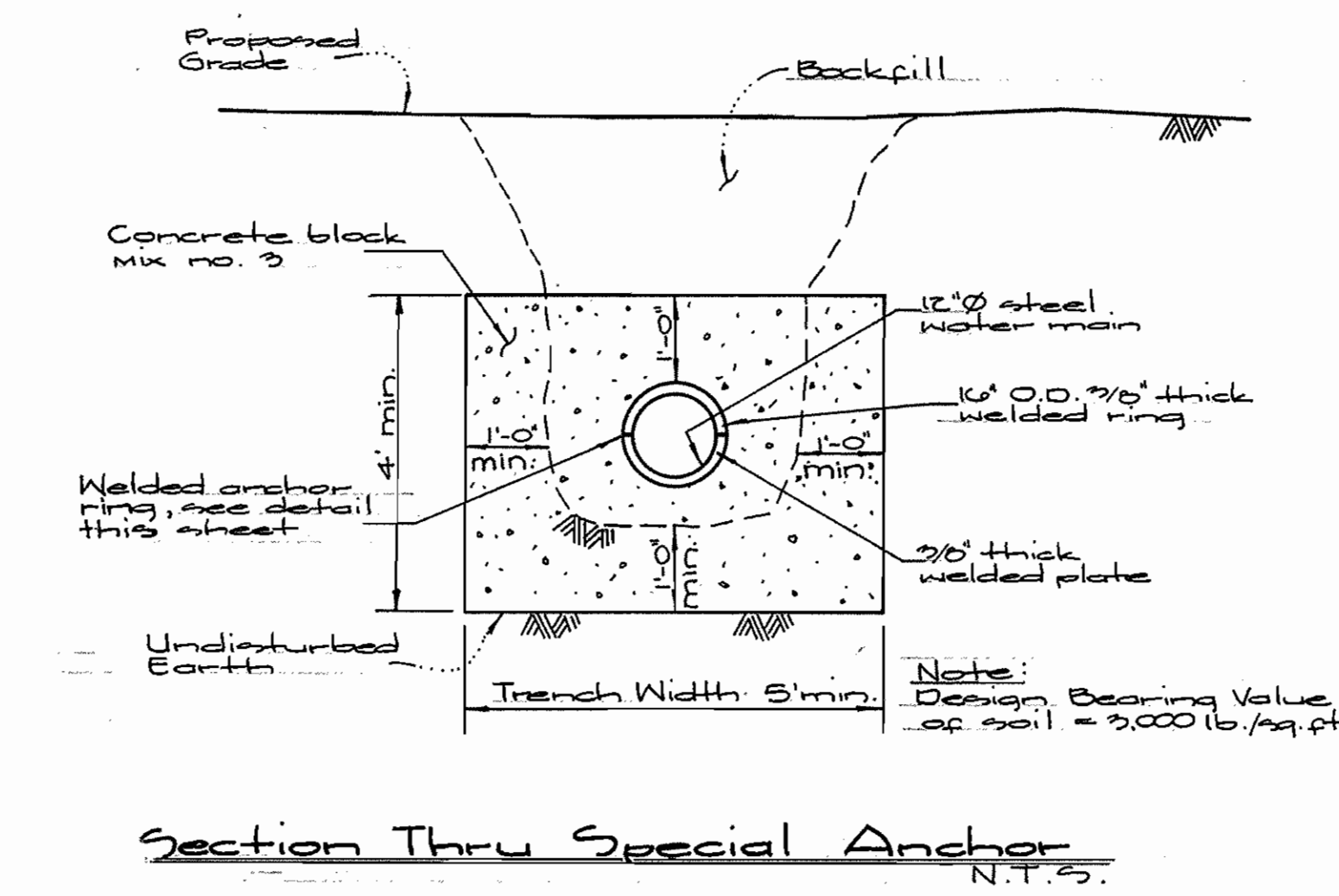
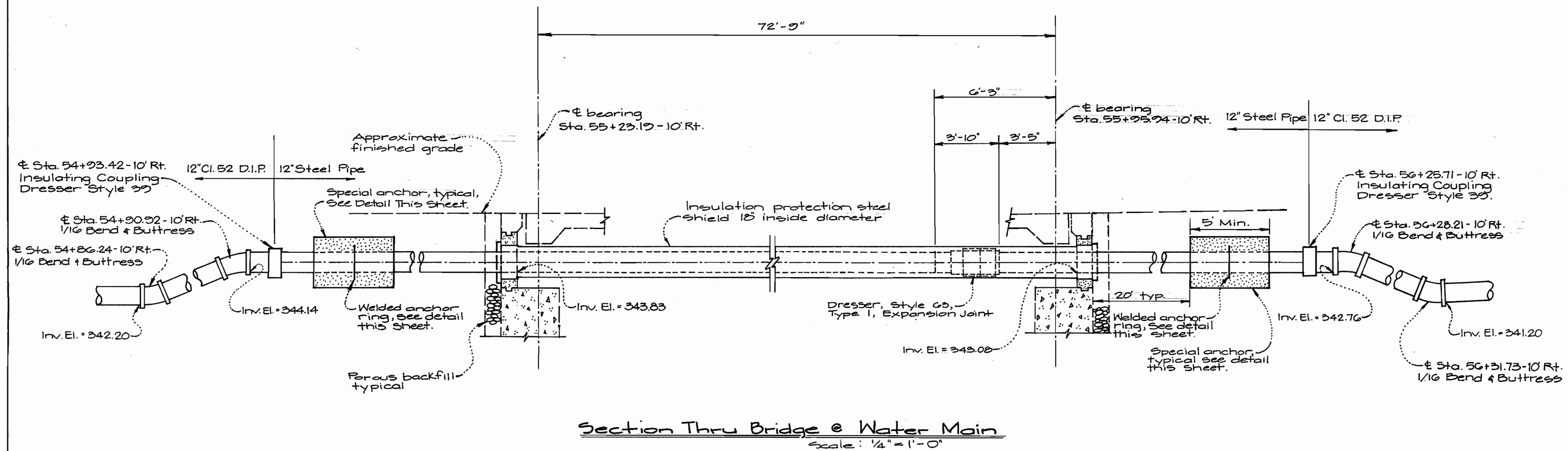
DES:	GAH.		
DRN:	HLC.		
CHK:	GAH.		
DATE:	AUG 1996		
MCF:	Call out restrained joints between water main & 15" RCCP thru 33+25, rev. callout to be 48" RCCP	4/24/17	
BY:		NO.	REVISION

**Public Water Extension Plan**  
Scale: 1" = 50' Horiz.  
1" = 5' Vert.

600' SCALE MAP NO. 34-35 BLOCK NO. 0412/1&7

WATER ASBUILT  
**Village of River Hill**  
Section 4 - Area 1 - Phase 1  
Contract No: 44-3524-D  
Elicott City Election District No. 5  
Howard County, Maryland

SCALE AS SHOWN  
SHEET 7 OF 9



- GENERAL NOTES**
- Hangers shall be placed at a maximum of 10' spacing.
  - After the installation of the pipeline on the bridge, the Contractor shall provide access for County personnel to inspect the tape coating system. Any damage to the tape coating system shall be repaired by the Contractor to the satisfaction of the Engineer prior to the Contractor installing the pipe fiberglass insulation system and shield. The Contractor shall provide access to the steel pipeline for inspection purposes until the acceptance of the tape coating and insulation system.
  - The fiberglass insulation between the 12" steel water main and the 18" diameter 24" long shield sections shall be Knauf Fiber Glass Pipe Insulation.
  - Three stainless steel bands shall be provided to secure each section of 18" diameter shield.

**WALLACE, MONTGOMERY & ASSOCIATES**  
 ENGINEERS  
 110 WEST ROAD  
 TOWSON, MARYLAND 21204

Dept. of Public Works Howard County, Maryland Michael A. Rosamondo CHIEF, BUREAU OF UTILITIES 11/25/96	Dept. of Planning & Zoning Howard County, Maryland Chief, Development Engineering Div. 12/5/96	<b>GW</b> GUTSCHICK LITTLE & WEBER, P.A. ENGINEERS, PLANNERS, SURVEYORS 3909 NATIONAL DRIVE - SUITE 250 BURTONSVILLE OFFICE PARK BURTONSVILLE, MD. 20866 (301) 421-4024	STATE OF MARYLAND Professional Engineer John C. Wallace No. 10887	DES: G.A.H. DRN: K.L.P. CHK: CKG DATE: Aug 1996	BY: NO. REVISION	DATE: 600' SCALE MAP NO. 34 & 35 BLOCK NO. 6612/167	Public Water Extension Detail Sheet Scale: As Shown	Village of River Hill Section 4 - Area 1 - Phase 1 Contract No.: 44-3524-D 5 <sup>th</sup> Election District Howard County, Maryland	SCALE AS SHOWN SHEET 8 OF 9
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WATER AS BUILT