

ITEM	ESTIMATED	QUANTITIES		ASBUILT	SUPPLIER
		QUANTITIES	TYPE		
8" WATER	612 L.F.				
8" WATER	51 L.F.				
FINE HYDRANTS	2 EACH				
12"X6" TEE	1 EACH				
12"X8" SLEEVE	1 EACH				
8" 1/16 BEND	2 EACH				
8" 1/32 BEND	2 EACH				
8"X6" TEE	3 EACH				
8"X6" REDUCER	1 EACH				
8" VALVE & VAULT	1 EACH				
6" VALVE & VAULT	3 EACH				
TYPE 'A' DROP CONN.	1 EACH				
6" SEWER HOUSE CONN.	2 EACH				
6" SEWER	16 L.F.				
STANDARD MANHOLE	2 EACH				
8"X6" SADDLE TEE	1 EACH				
8"X6" SADDLE WYE	1 EACH				

GENERAL CONSTRUCTION NOTES

- All construction shall be in accordance with the latest Standards and Specifications of Howard County plus MSHA Standards and Specifications.
- The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory sign shall be in place prior to the placement of any asphalt.
- All plan dimensions are to face of curb unless otherwise noted.
- The existing topography shown hereon is based on 2' contour interval aerial survey prepared by Photo Science, dated Feb. 12, 1994 and supplemental field run topography by KCW Engineering Technologies, Inc. in Jan. 2000.
- Horizontal and Vertical datum shown hereon is based on the following NAD'83 Howard County Control Stations.
Monument Sta. 1012 N 601060.177, E 1345336.758, EL. 445.58
Monument Sta. 16E1 N 593250.932, E 1340192.710, EL. 509.92
- Water is public. Howard County Contract 24-3600-D.
- Sewer is public. Howard County Contract 20-3692-D.
- Existing utilities shown on these plans are base upon observable field information, previous construction drawings for the site, the best available information from the or guarantee the completeness or the correctness of this existing utility information. The Contractor shall verify all such information to his own satisfaction. utility companies and Howard County. The Owner, Developer and Engineer do not warrant.
- All pipe elevations shown are invert elevations.
- Contractor shall take all necessary precautions to support and protect all existing utilities when working adjacent to or crossing existing utilities. Any damage to existing facilities shall be repaired or replaced at Contractor's expense.
- "Full Trench Compaction" shall be used for all utility construction.
- Contractor shall adhere to all Federal, State and County health, safety, and environmental laws.
- All excess excavation and other unsuitable material shall be removed from this site to an area with an approved Sediment Control plan and permit.
- No clearing, grading or construction is permitted within the required wetlands, stream or their buffers and forest conservation easement areas.
- Trees and shrubs are to be protected from damage to maximum extent.
- 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.
- Sediment Control shall be accomplished with the sediment control measures specified on the Sediment Control Plan and Detail Sheet, C-112 and C-113 respectively.
- Final grading shall be accomplished in accordance with the grades specified on Grading Plan C-103. (SDP-00-89)
- Water Service: Prop. 8" water service from Warwick Way to fire hydrant tee shall be constructed in accordance with Developer's Agreement #24-3850-D and approved plans. 6" detector check meter for fire service and 1-1/2" domestic meter shall be placed inside each building.
- 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.
- Sanitary Service: Prop. 6" sanitary connection from existing sanitary main to limits of Ex. 20' utility easement shall be constructed in accordance with Developer's Agreement #24-3850-D and approved plans.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Cheryl Simmon 5/15/00
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED: *John Robertson* 5/15/00
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL DEVICES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS SHOWN ON THESE PLANS.

Cheryl Simmon 5-5-00
SIGNATURE OF DEVELOPER DATE

HARKINS OFFICE BUILDINGS

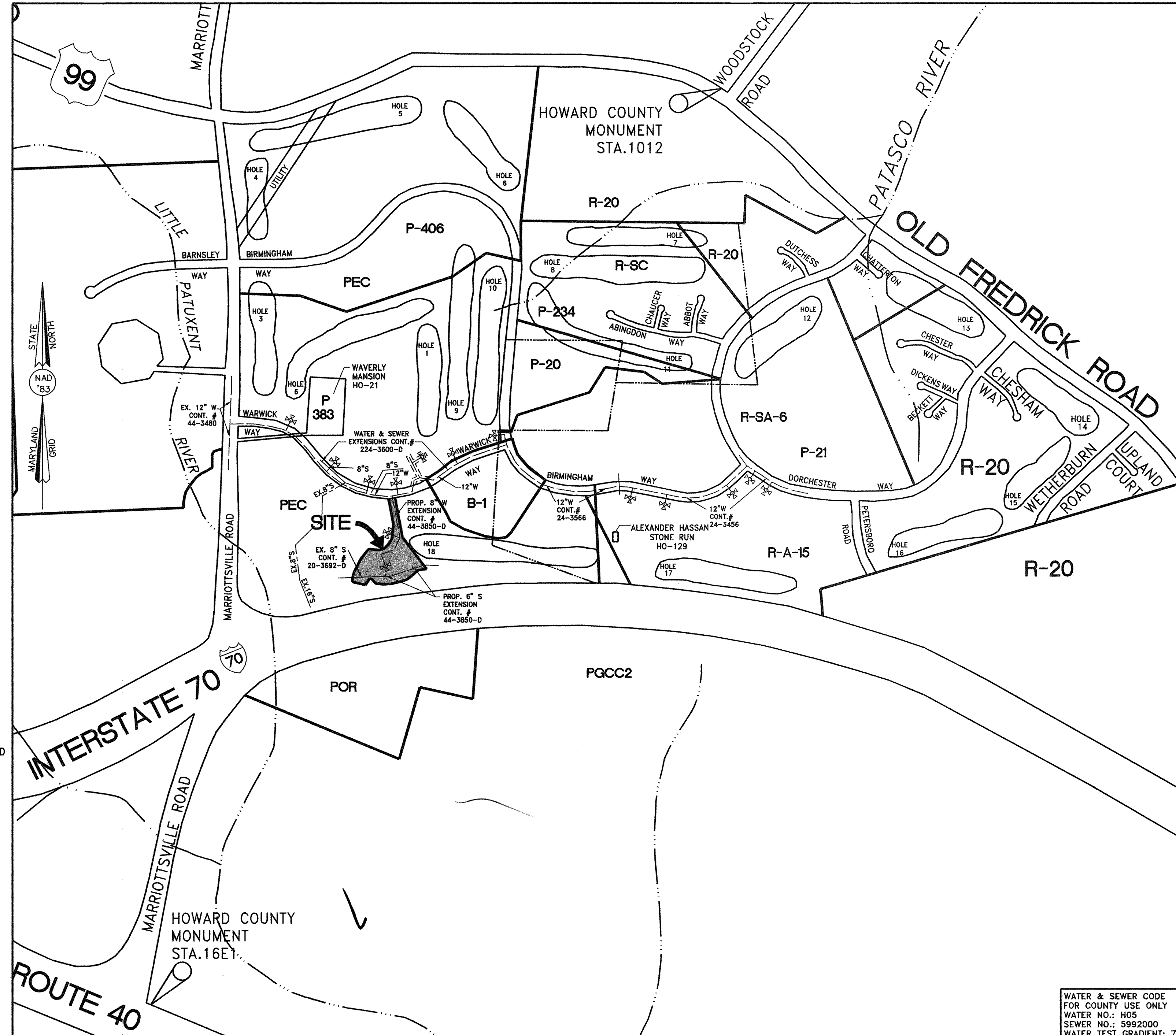
"GTW's WAVERLY WOODS " SECTION 7, PARCEL 'C'

#2201 Warwick Way

CONTRACT NO. 24-3850-D (SDP-00-89)

HOWARD COUNTY, MARYLAND

LIST OF DRAWINGS
SHEET 1 TITLE SHEET
SHEET 2 PLAN AND PROFILE



TYPE OF BUILDING:	COMMERCIAL
NUMBER OF PARCELS:	1
NO. OF WATER SERVICE CONNECTIONS:	2
NO. OF SEWER SERVICE CONNECTIONS:	2
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	PATAPSCO W.W.T.P.; CITY OF BALTIMORE, VIA ROUTE 108 PUMPING STATION

VICINITY MAP
SCALE 1"=600'

WATER & SEWER CODE FOR COUNTY USE ONLY
WATER NO.: H05
SEWER NO.: 5992000
WATER TEST GRADIENT: 780
PLAN REFERENCE NUMBERS:
F-97-180
P-87-82
SDP-00-89

DEVELOPER'S CERTIFICATION

"I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AGENTS, AS ARE DEEMED NECESSARY."

Cheryl Simmon 5-5-00
SIGNATURE OF DEVELOPER DATE

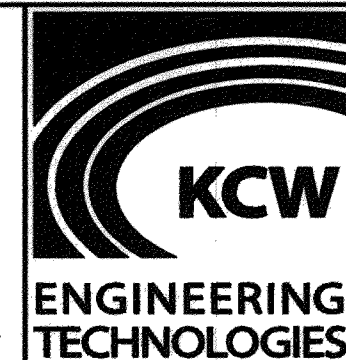
ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Douglas A. Kennedy 5-1-00
SIGNATURE OF ENGINEER DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND



KCW Engineering Technologies, Inc.
3104 Timanus Lane, Suite 101
Baltimore, MD 21224
(410) 281-0033
Fax (410) 281-1065
www.KCW-ET.com

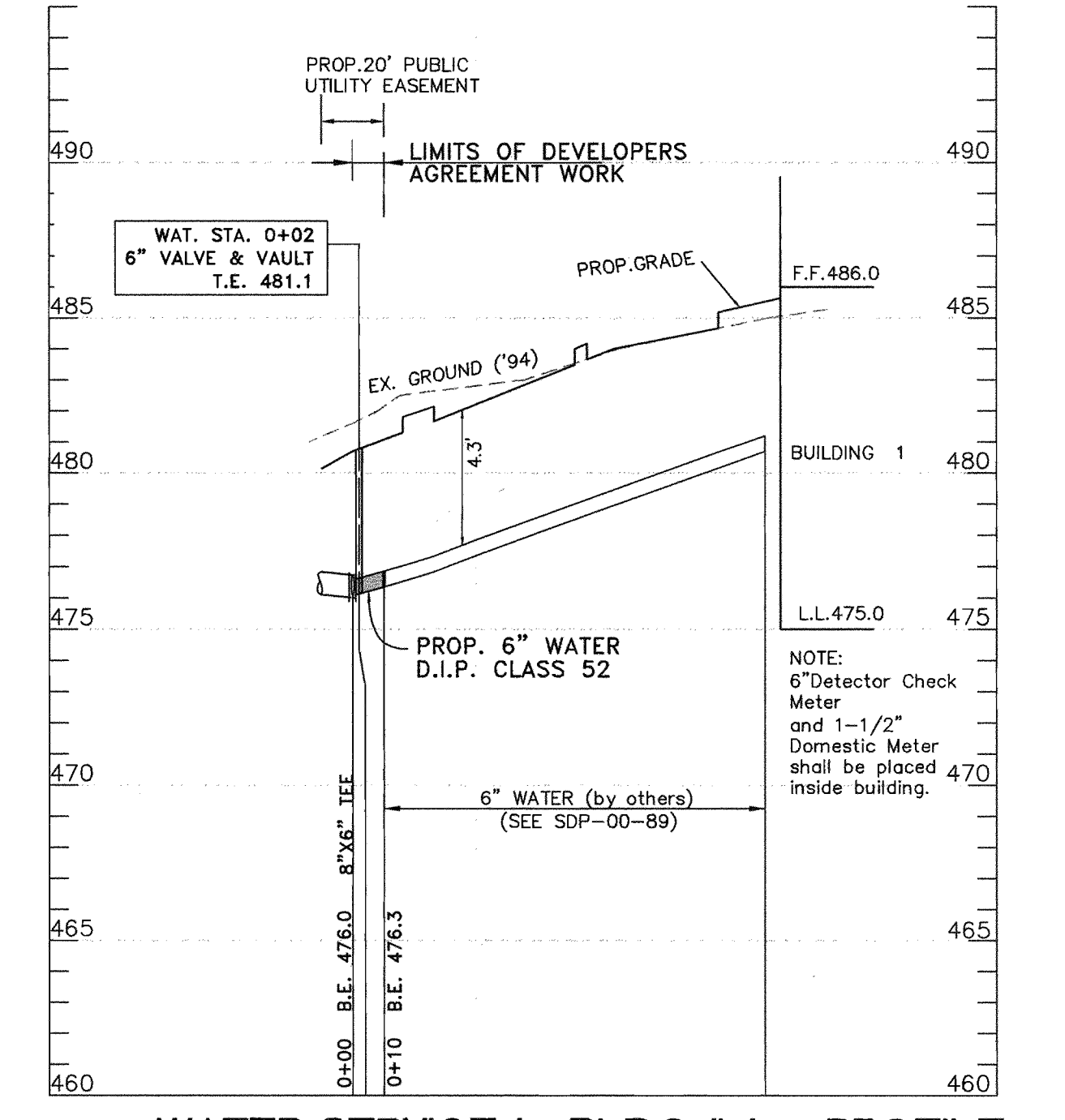
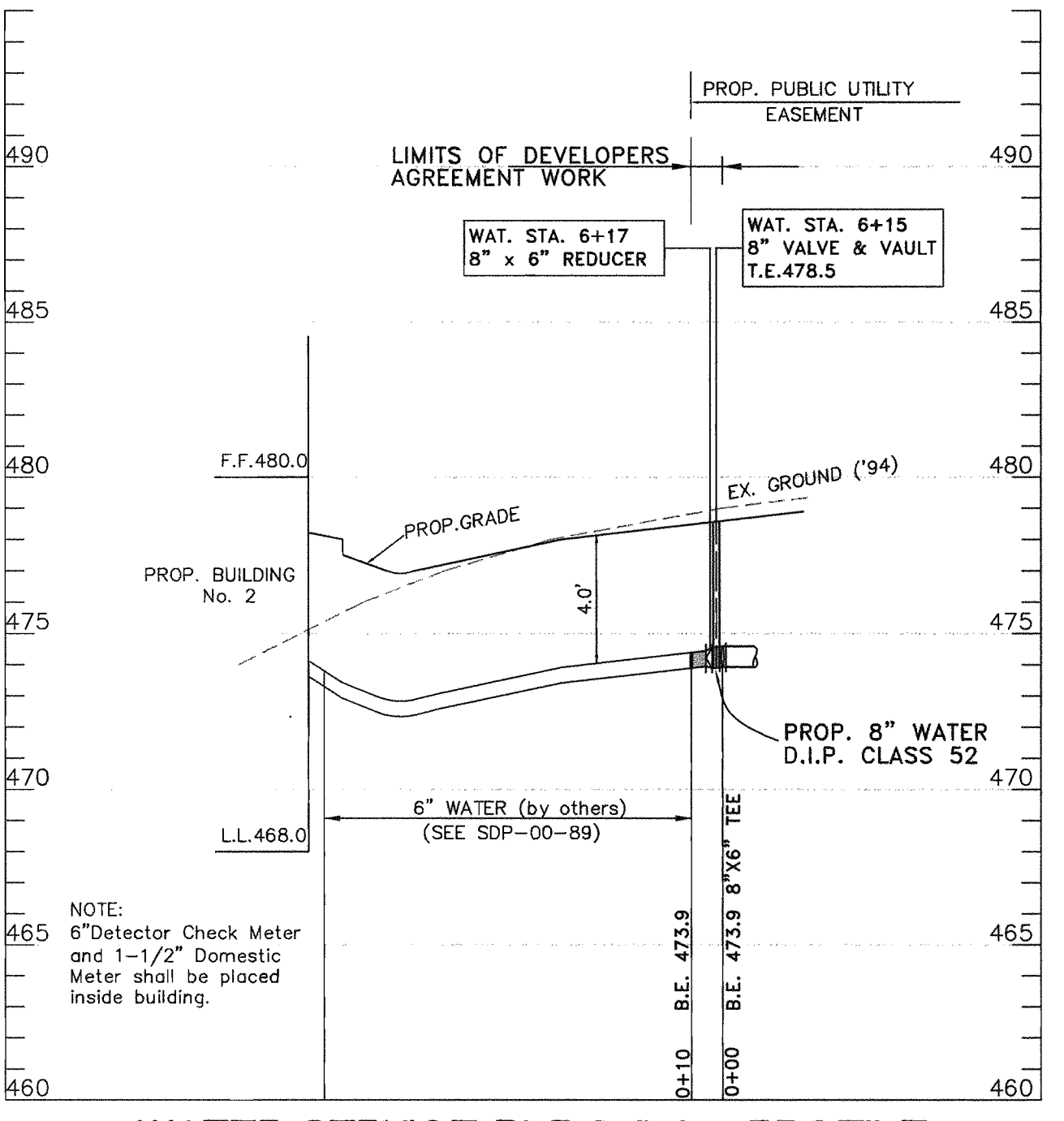
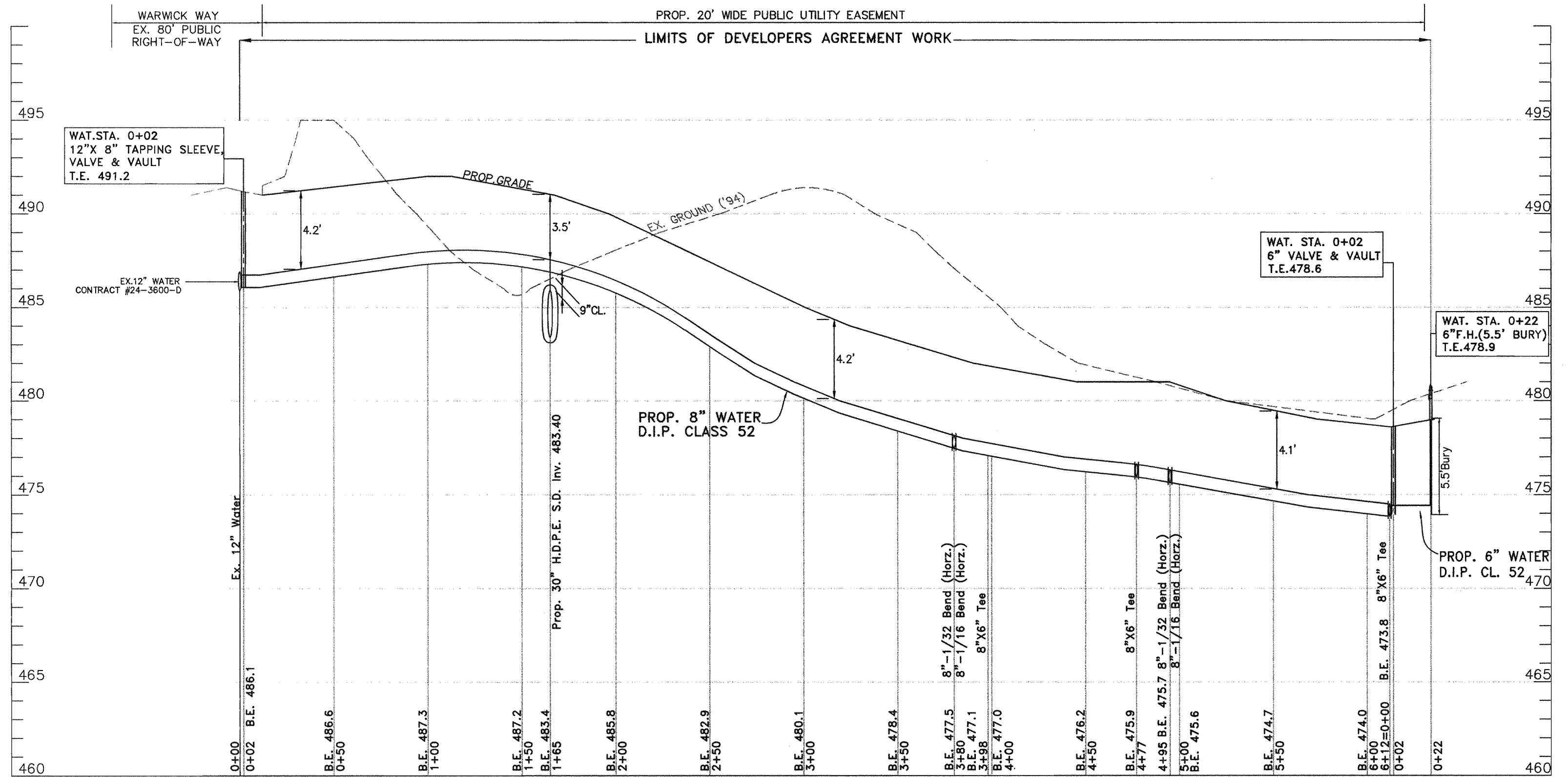
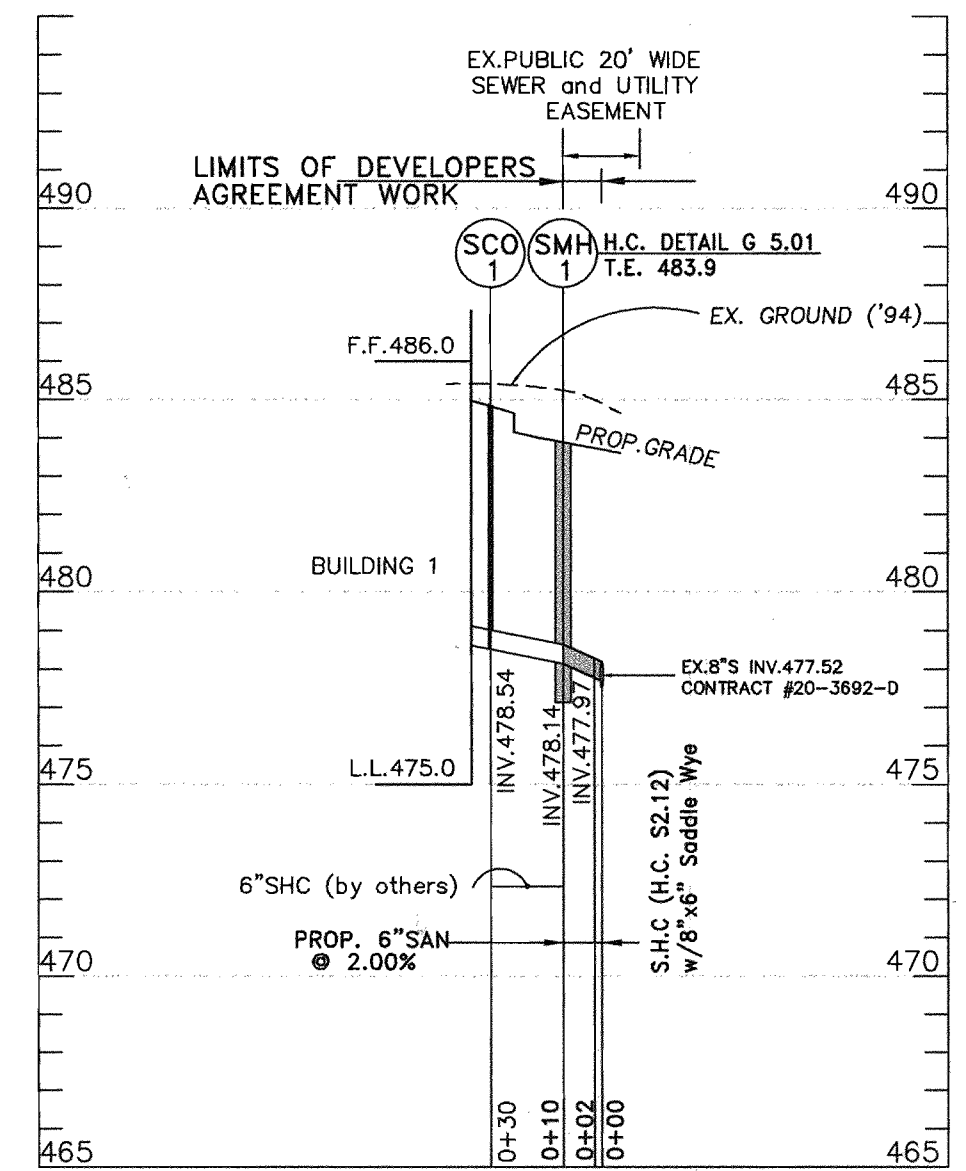
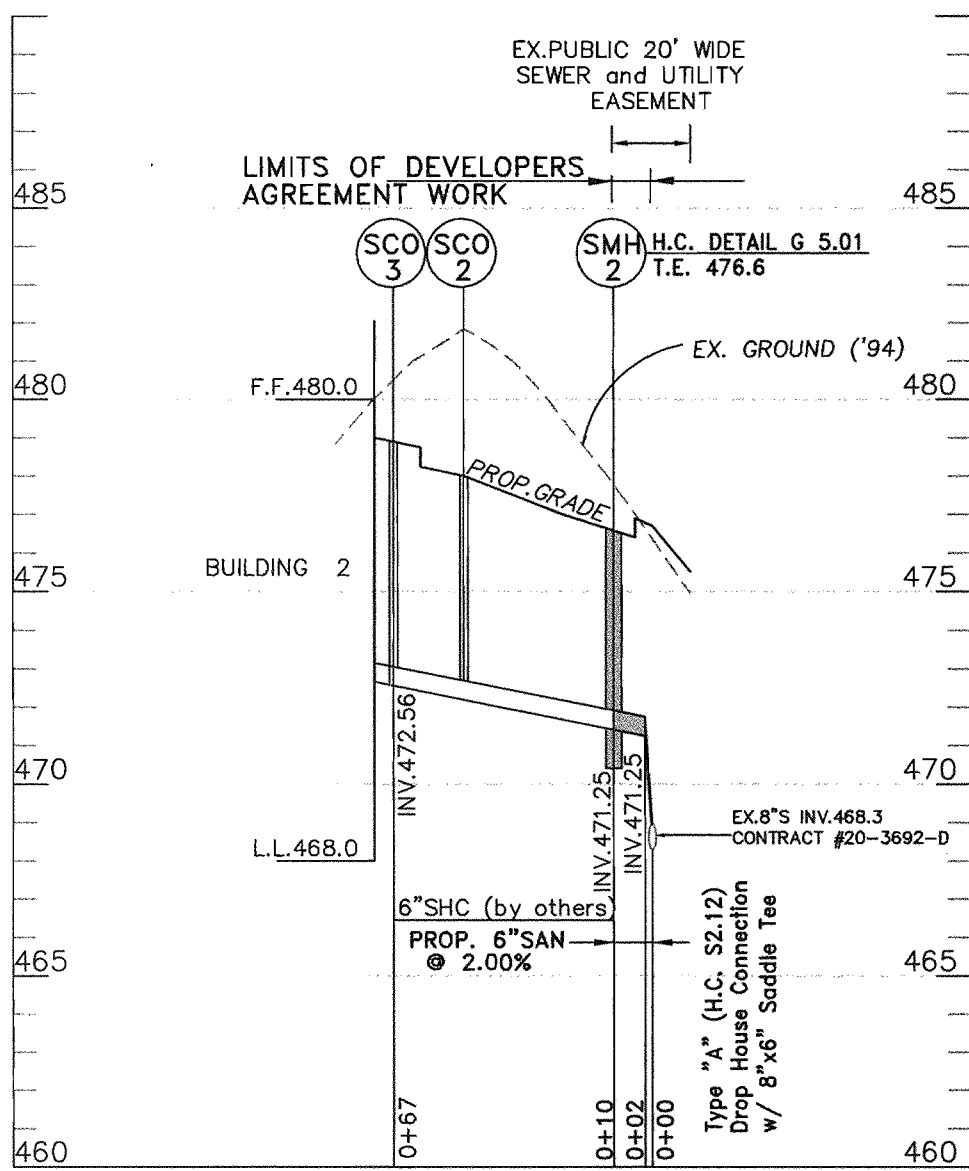
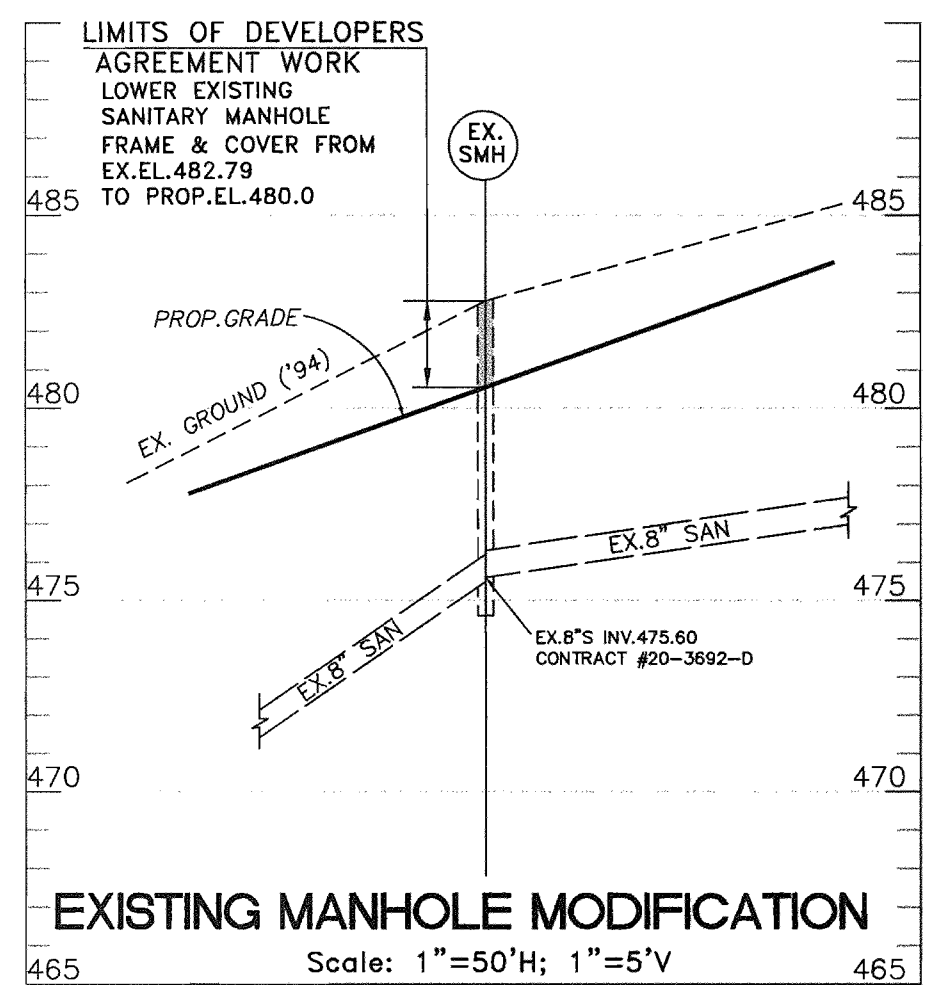
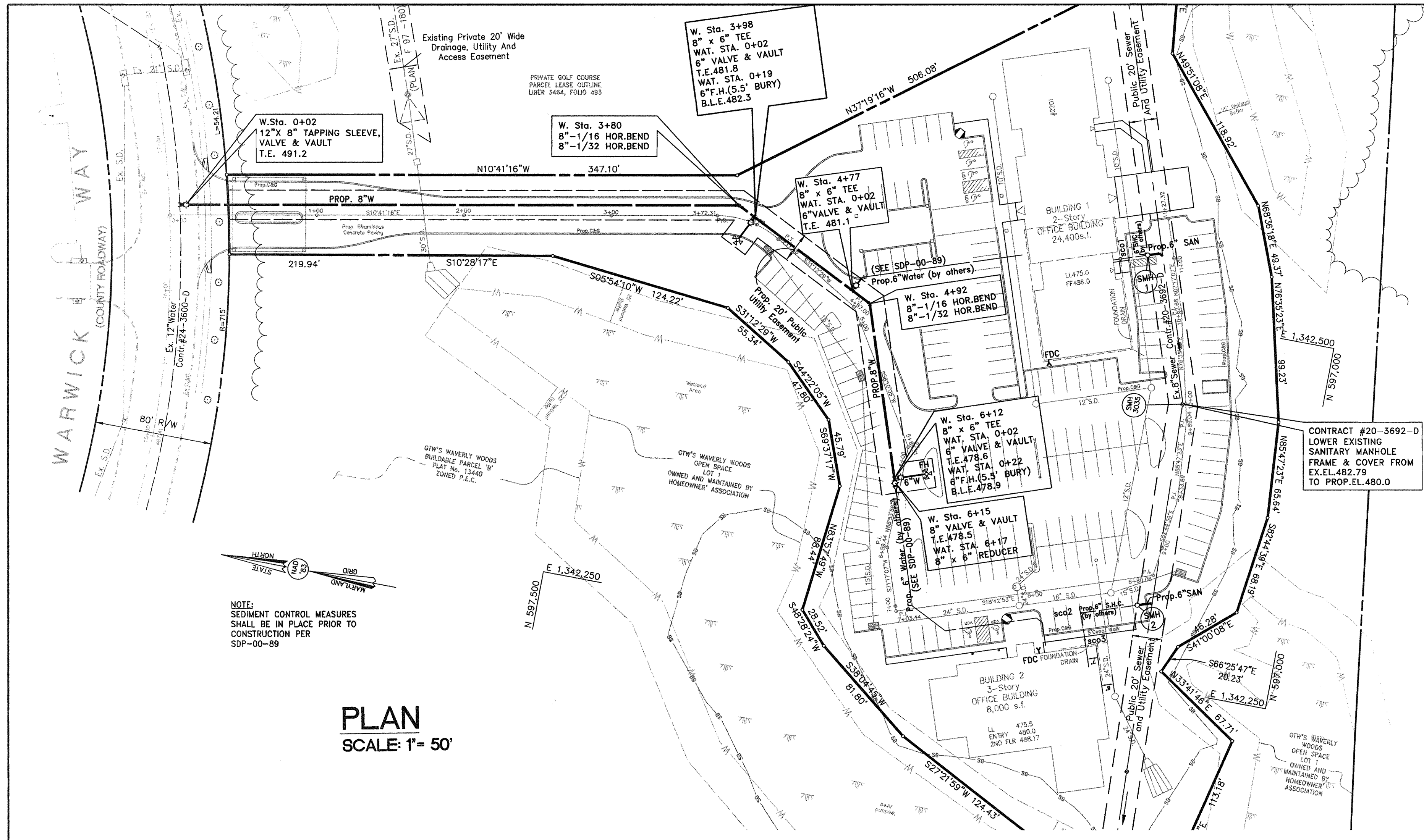


DESIGNED BY:	K.C.A.		
DRAWN BY:	K.C.A.		
CHECKED BY:	D.L.K.		
DATE:	MAY 1, 2000		
BY:	No:	REVISION	DATE:

TITLE SHEET
600' SCALE MAP No.16 BLOCK No.10

"GTW's WAVERLY WOODS " SECTION 7, PARCEL 'C'
WATER & SEWER SERVICE
#2201 WARWICK WAY
CONTRACT No. 24-3850-D (SDP-00-89)
HOWARD COUNTY, MARYLAND ELECTION DISTRICT - 3

SCALE
1"=50' HOR.
1"= 5' VER.
SHEET
1 OF 2.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Reimer
CHIEF, BUREAU OF UTILITIES
5-5-00 DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

John J. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION
5/16/00 DATE

KCW Engineering Technologies, Inc.
3104 Timanus Lane, Suite 101
Baltimore, MD 21244
(410) 281-0033
Fax (410) 281-1065
www.KCW-ET.com



DESIGNED BY:	K.C.A.
DRAWN BY:	RD
CHECKED BY:	D.L.K.
DATE:	MAY 1, 2000
BY:	No:
REVISION	DATE:

WATER AND SEWER PLAN AND PROFILE

600' SCALE MAP No.16 BLOCK No.10

"GTW's WAVERLY WOODS" SECTION 7, PARCEL 'C' WATER & SEWER SERVICE #2201 WARWICK WAY CONTRACT No. 24-3850-D (SDP-00-89)

HOWARD COUNTY, MARYLAND ELECTION DISTRICT - 3

SCALE
1"=50' HOR.
1"=5' VER.

SHEET
2 OF 2.

N:\9510658\DWG\9510658A.dwg Wed May 03 11:24:33 2000

QUANTITIES		ASBUILT	
ITEM	ESTIMATED	QUANTITIES	TYPE
8" WATER	612 L.F.	0/5	DUCTILE IRON
6" WATER	51 L.F.	38/5	DUCTILE IRON
FIRE HYDRANTS	2 EACH	2	SUPER-CONTRON
12" WWT TEE	1 EACH	1	STRAINLESS STEEL
12" X8" SLEEVE	1 EACH	1	STRAINLESS STEEL
8" 1/4" BEND	2 EACH	0	
8" 1/2" BEND	2 EACH	0	
8" X6" TEE	3 EACH	3	DUCTILE IRON
8" X6" REDUCER	1 EACH	2	DUCTILE IRON
8" VALVE & VAULT	1 EACH	2	RESILIENT SERV.
6" VALVE & VAULT	3 EACH	3	
TYPE 'A' DROP CONN.	1 EACH	1	P.V.C.
6" SEWER HOUSE CONN.	2 EACH	2	P.V.C.
6" SEWER	16 L.F.	16	
STANDARD MANHOLE	2 EACH	2	PRE CAST
8" X6" SADDLE TEE	1 EACH	2	DUCTILE
8" X6" SADDLE WYE	1 EACH	2	DUCTILE
8" 1/8" BEND	2 EACH	2	DUCTILE

NAME OF UTILITY CONTRACTOR: C.C.S.
SURVEY & DRAFTING DIVISION AS-BUILT DATE:

HARKINS OFFICE BUILDINGS

"GTW's WAVERLY WOODS " SECTION 7, PARCEL 'C'

#2201 Warwick Way

CONTRACT NO. 24-3850-D (SDP-00-89)

HOWARD COUNTY, MARYLAND

LIST OF DRAWINGS
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SHEET 2 PLAN AND PROFILE

GENERAL CONSTRUCTION NOTES

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- Sewer is public. Howard County Contract 20-3692-D.
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- Sanitary Service: Prop. 6" sanitary connection from existing sanitary main to limits of Ex. 20' utility easement shall be constructed in accordance with Developer's Agreement #24-3850-D and approved plans.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

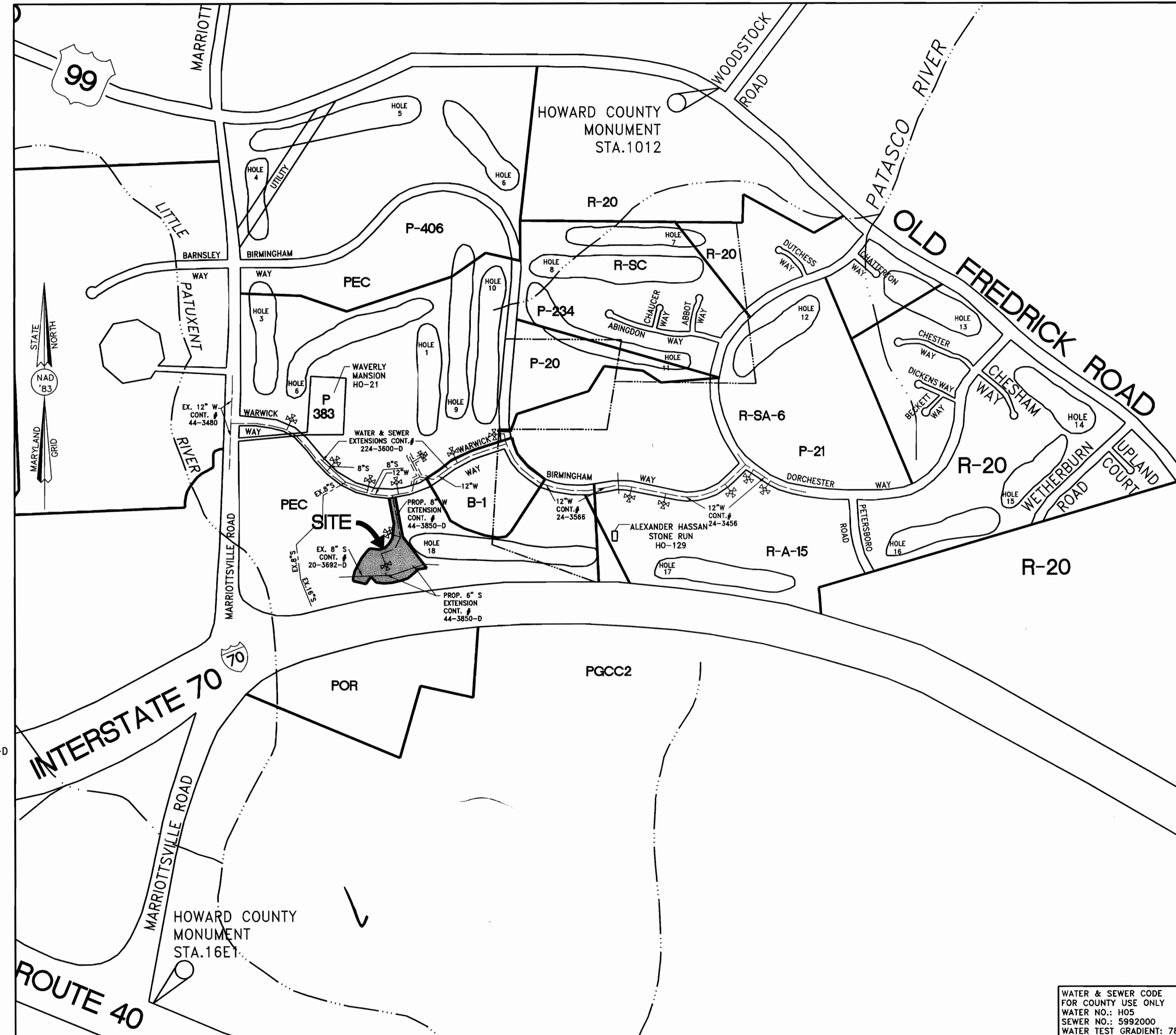
Cheryl Simmons 5/15/00
 U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED: *John Robertson* 5/15/00
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDDIMENT CONTROL DEVICES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS SHOWN ON THESE PLANS.

Cheryl Simmons 5-5-00
 SIGNATURE OF DEVELOPER DATE



TYPE OF BUILDING: COMMERCIAL
 NUMBER OF PARCELS: 1
 NO. OF WATER SERVICE CONNECTIONS: 2
 NO. OF SEWER SERVICE CONNECTIONS: 2
 DRAINAGE AREA: LITTLE PATUXENT RIVER, PATAPSCO W.W.T.P.; CITY OF BALTIMORE, VIA ROUTE 108 PUMPING STATION
 TREATMENT PLANT:

VICINITY MAP
 SCALE 1"=600'

WATER & SEWER CODE FOR COUNTY USE ONLY
 WATER NO.: H05
 SEWER NO.: 5992000
 WATER TEST GRADIENT: 780
 PLAN REFERENCE NUMBERS:
 F-87-180
 P-87-82
 SDP-00-89

DEVELOPER'S CERTIFICATION

"I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AGENTS, AS ARE DEEMED NECESSARY."

Cheryl Simmons 5-5-00
 SIGNATURE OF DEVELOPER DATE

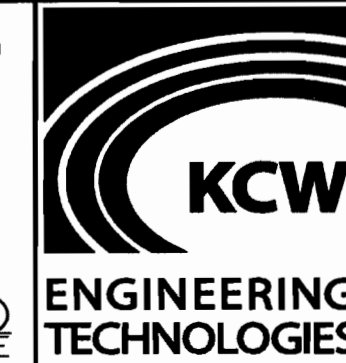
ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Douglas L. Kennedy 5-1-00
 SIGNATURE OF ENGINEER DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND



KCW Engineering Technologies, Inc.
 3104 Timanus Lane, Suite 101
 Baltimore, MD 21244
 (410) 281-0033
 Fax (410) 281-1065
 www.KCW-ET.com



DESIGNED BY:	K.C.A.		
DRAWN BY:	K.C.A.		
CHECKED BY:	D.L.K.		
DATE:	MAY 1, 2000	K.C.I. 1	AS-BUILT CONDITIONS ADDED TO PLAN
BY:	No.	REVISION	DATE:

TITLE SHEET

600' SCALE MAP No.16 BLOCK No.10

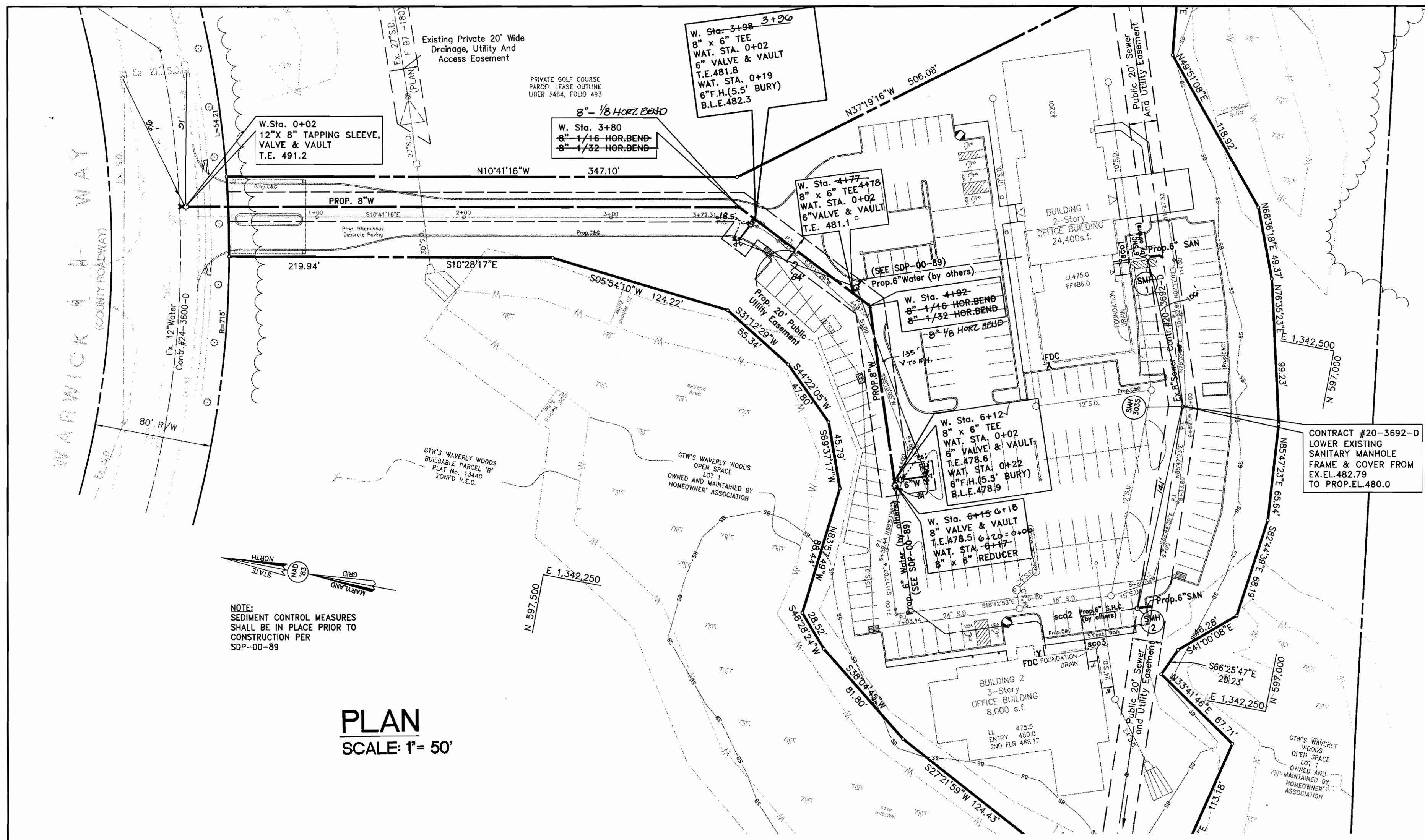
"GTW's WAVERLY WOODS " SECTION 7, PARCEL 'C'
 WATER & SEWER SERVICE
 #2201 WARWICK WAY
 CONTRACT No. 24-3850-D (SDP-00-89)
 HOWARD COUNTY, MARYLAND ELECTION DISTRICT - 3

SCALE
 1"=50' HOR.
 1"= 5' VER.

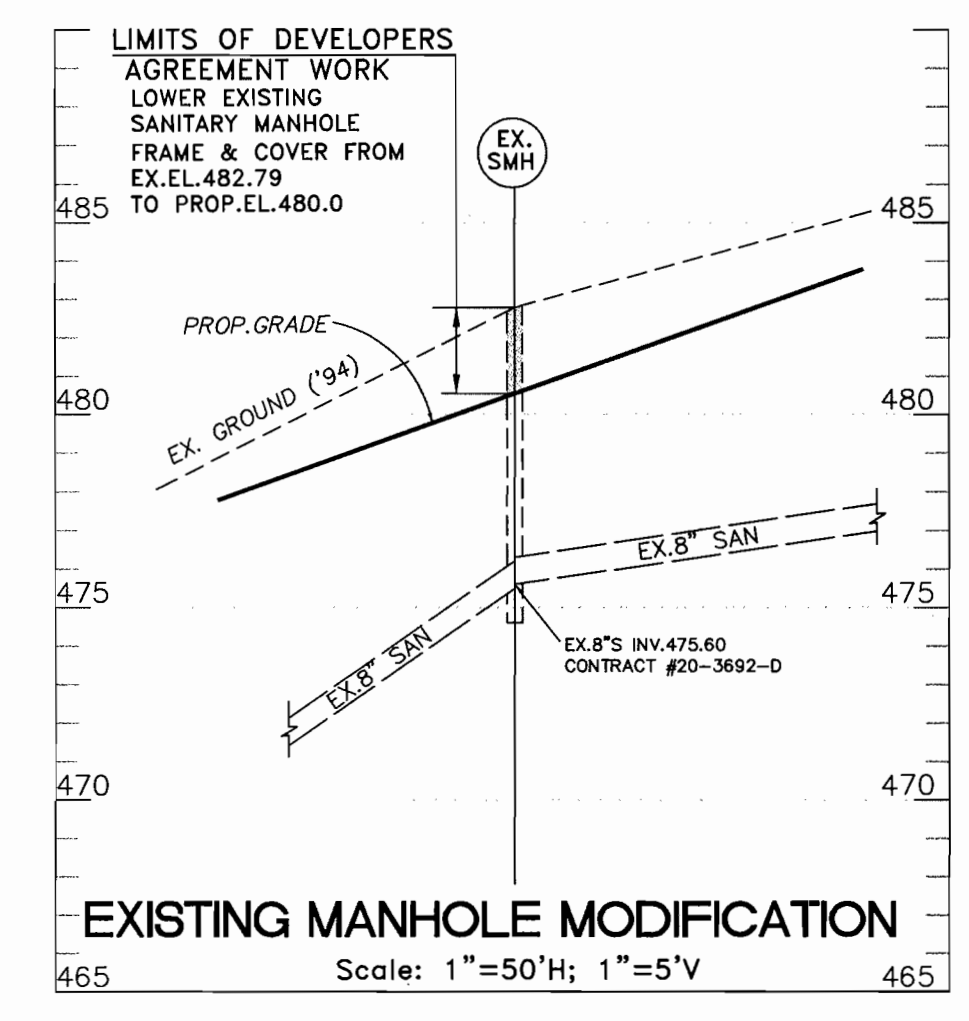
SHEET
 1 OF 2.

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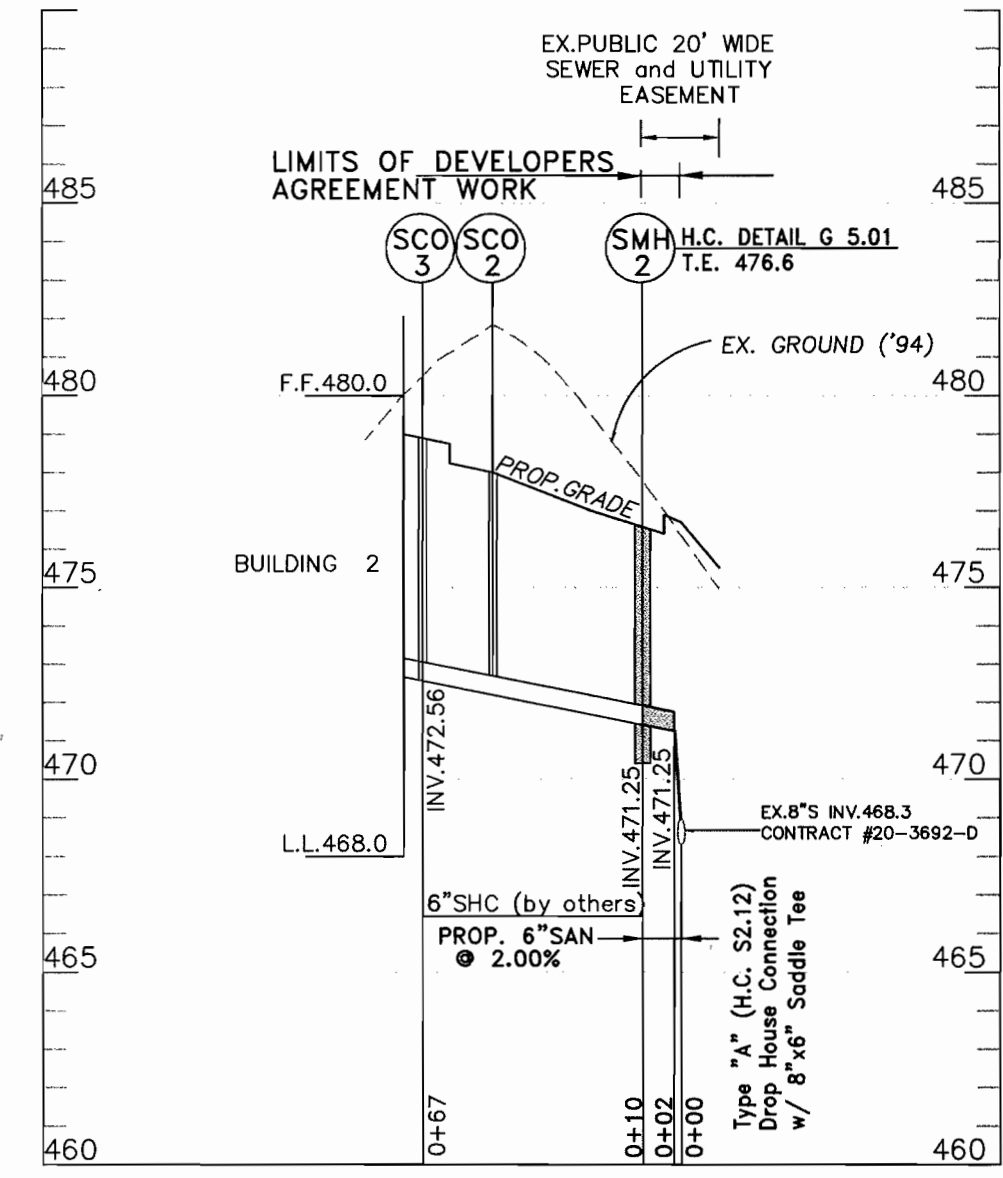
3850



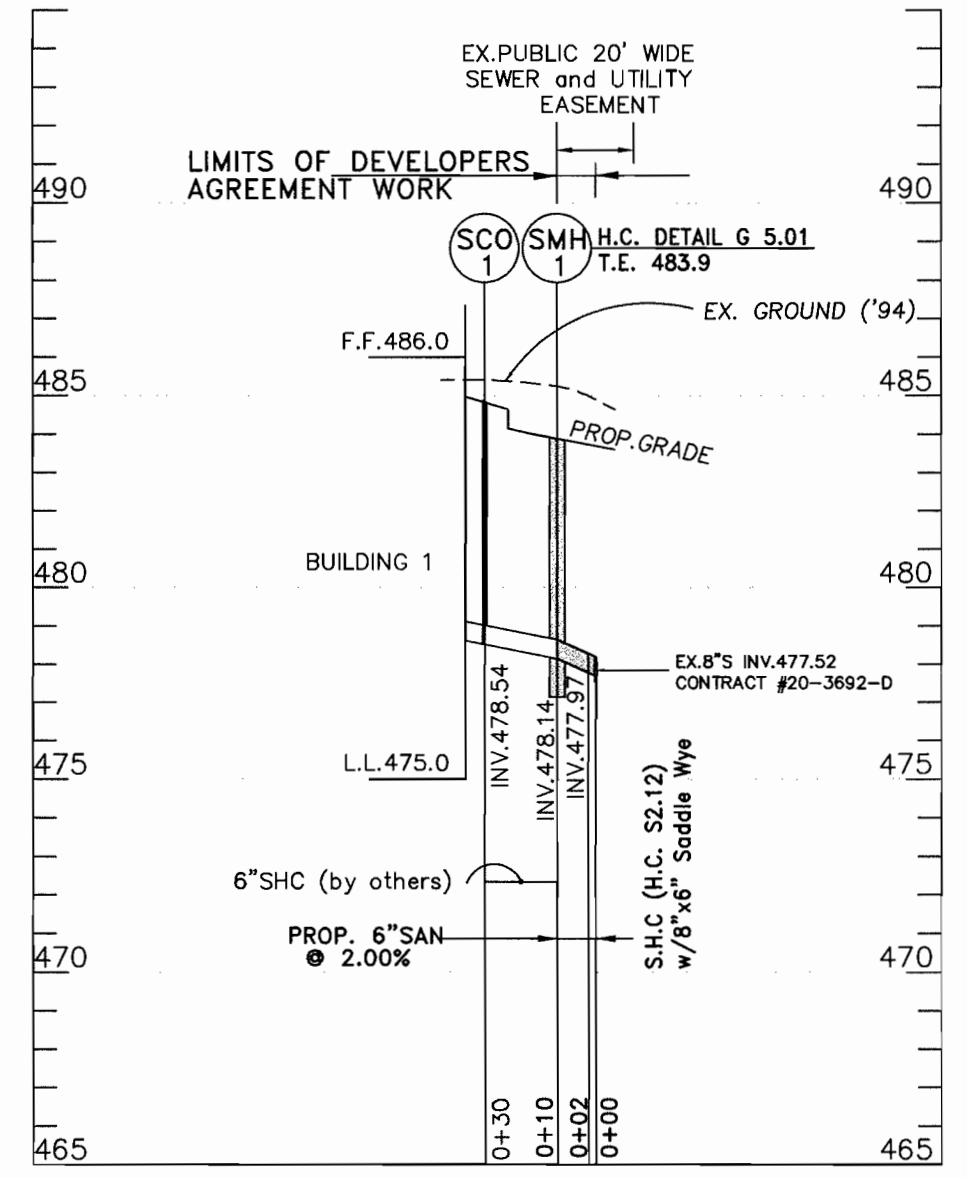
PLAN
SCALE: 1"=50'



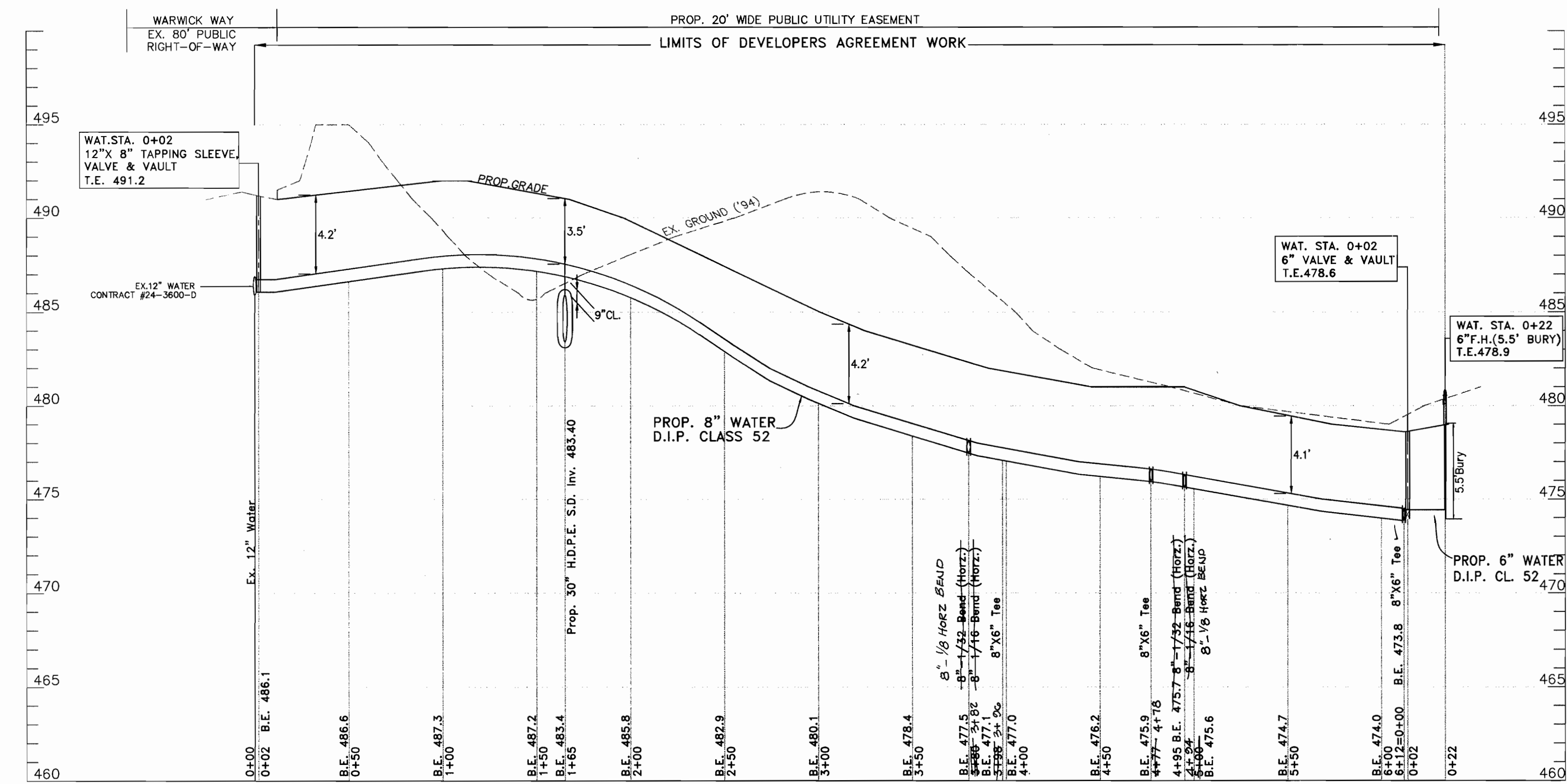
EXISTING MANHOLE MODIFICATION
Scale: 1"=50'H; 1"=5'V



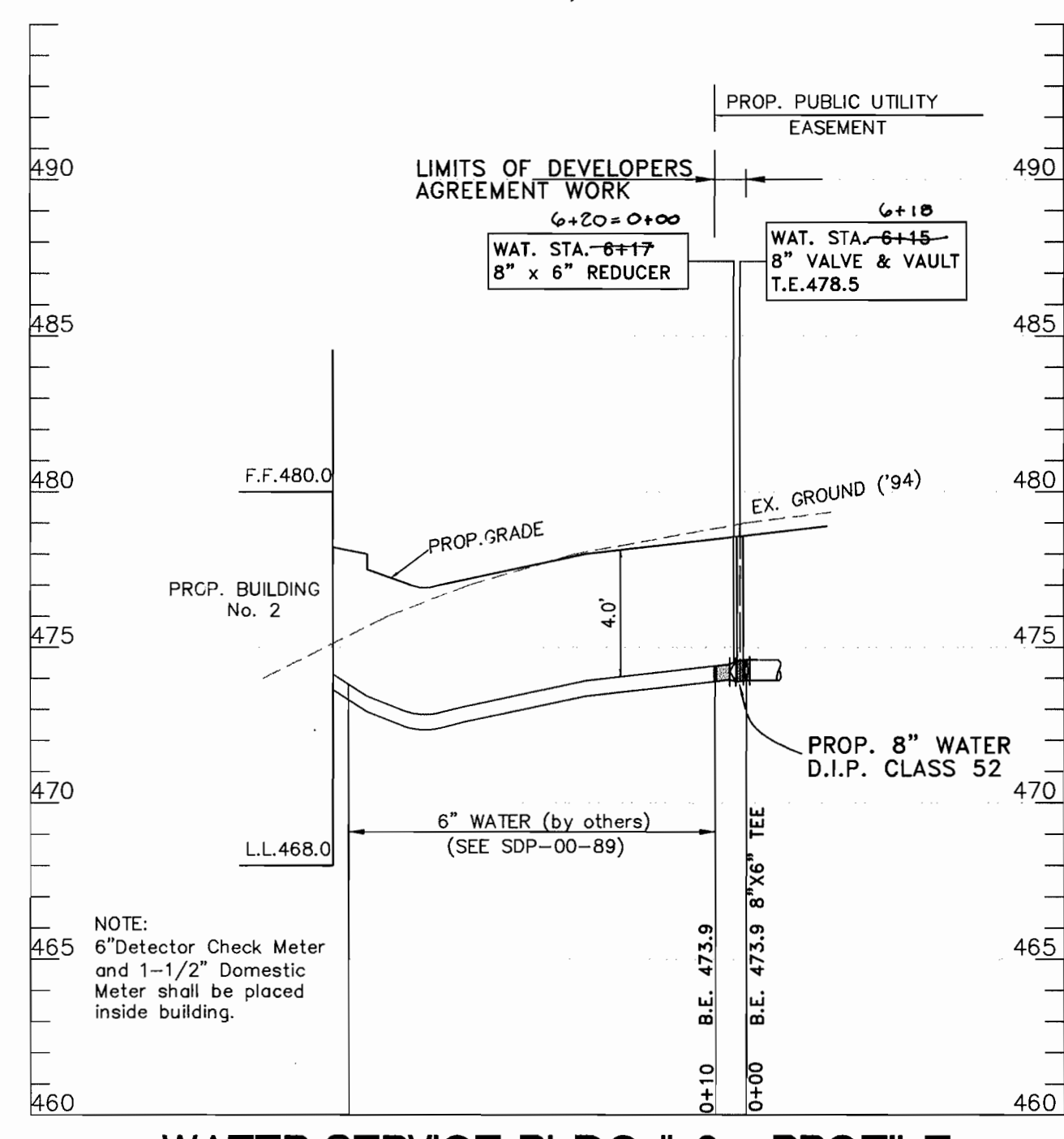
S.H.C. BLDG # 2 PROFILE
Scale: 1"=50'H; 1"=5'V



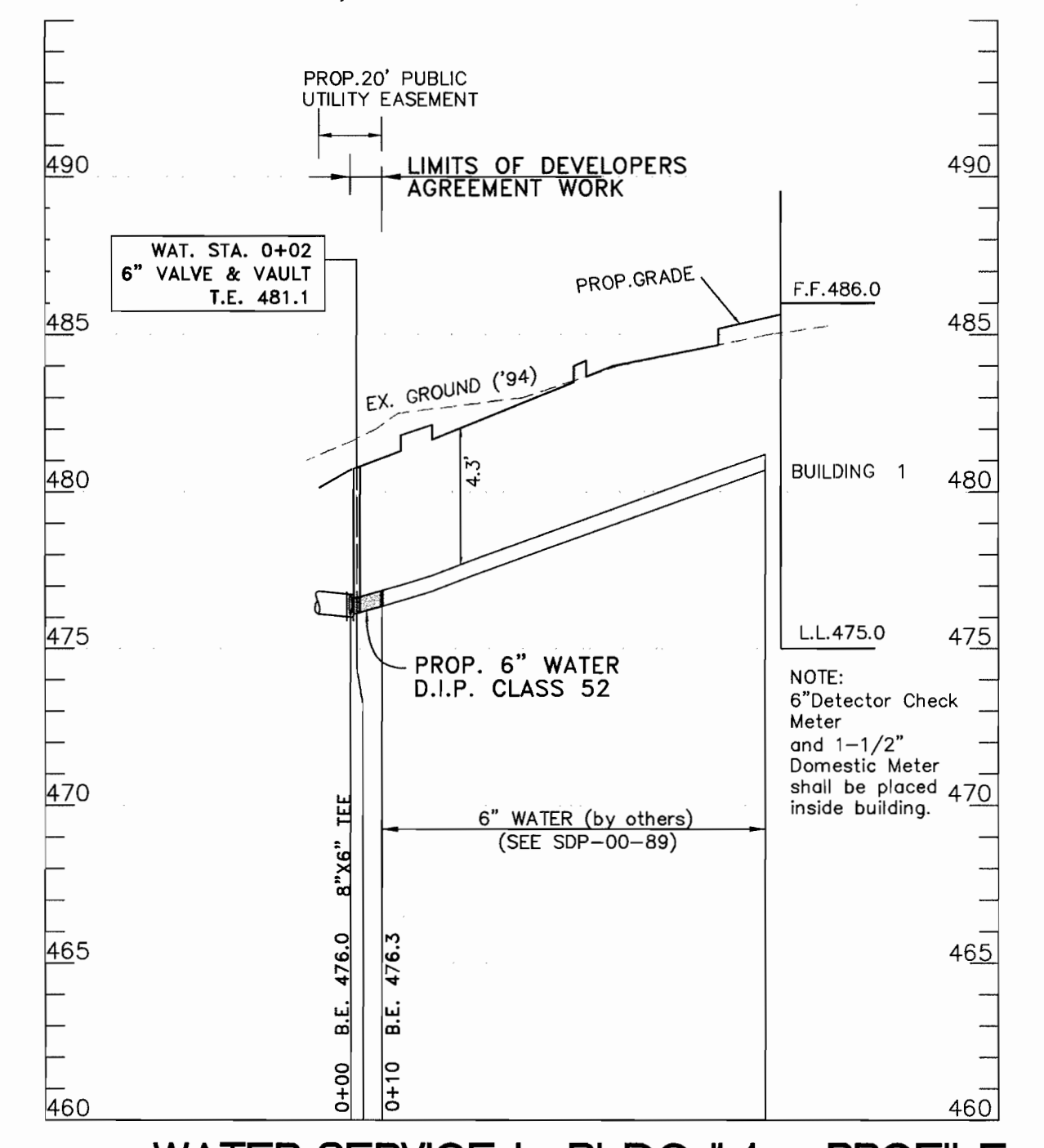
S.H.C. BLDG # 1 PROFILE
Scale: 1"=50'H; 1"=5'V




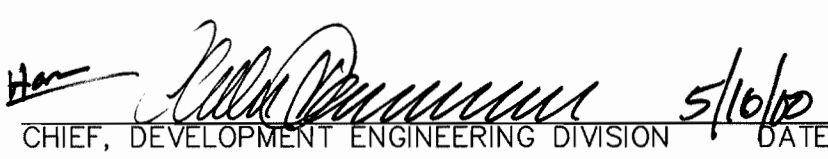
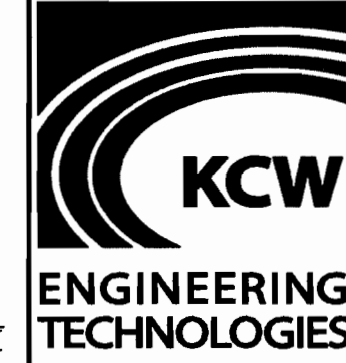

WATER MAIN PROFILE Scale: 1"=50'H; 1"=5'V



WATER SERVICE BLDG # 2 - PROFILE
Scale: 1"=50'H; 1"=5'V



WATER SERVICE to BLDG # 1 - PROFILE
Scale: 1"=50'H; 1"=5'V

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND  5-5-00 DATE	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND  5/10/00 DATE	 KCW ENGINEERING TECHNOLOGIES	KCW Engineering Technologies, Inc. 3104 Timanus Lane, Suite 101 Baltimore, MD 21244 (410) 281-0033 Fax (410) 281-1065 www.KCW-ET.com	DESIGNED BY: K.C.A.	 REGISTERED PROFESSIONAL ENGINEER No. 10788 State of Maryland Douglas R. Kennedy	DRAWN BY: RDW	WATER AND SEWER PLAN AND PROFILE	"GTW's WAVERLY WOODS" SECTION 7, PARCEL 'C' WATER & SEWER SERVICE #2201 WARWICK WAY CONTRACT No. 24-3850-D (SDP-00-89)	SCALE 1"=50' HOR. 1"=5' VER. SHEET 2 OF 2.
				CHECKED BY: D.L.K.		DATE: MAY 1, 2000			

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 3850