
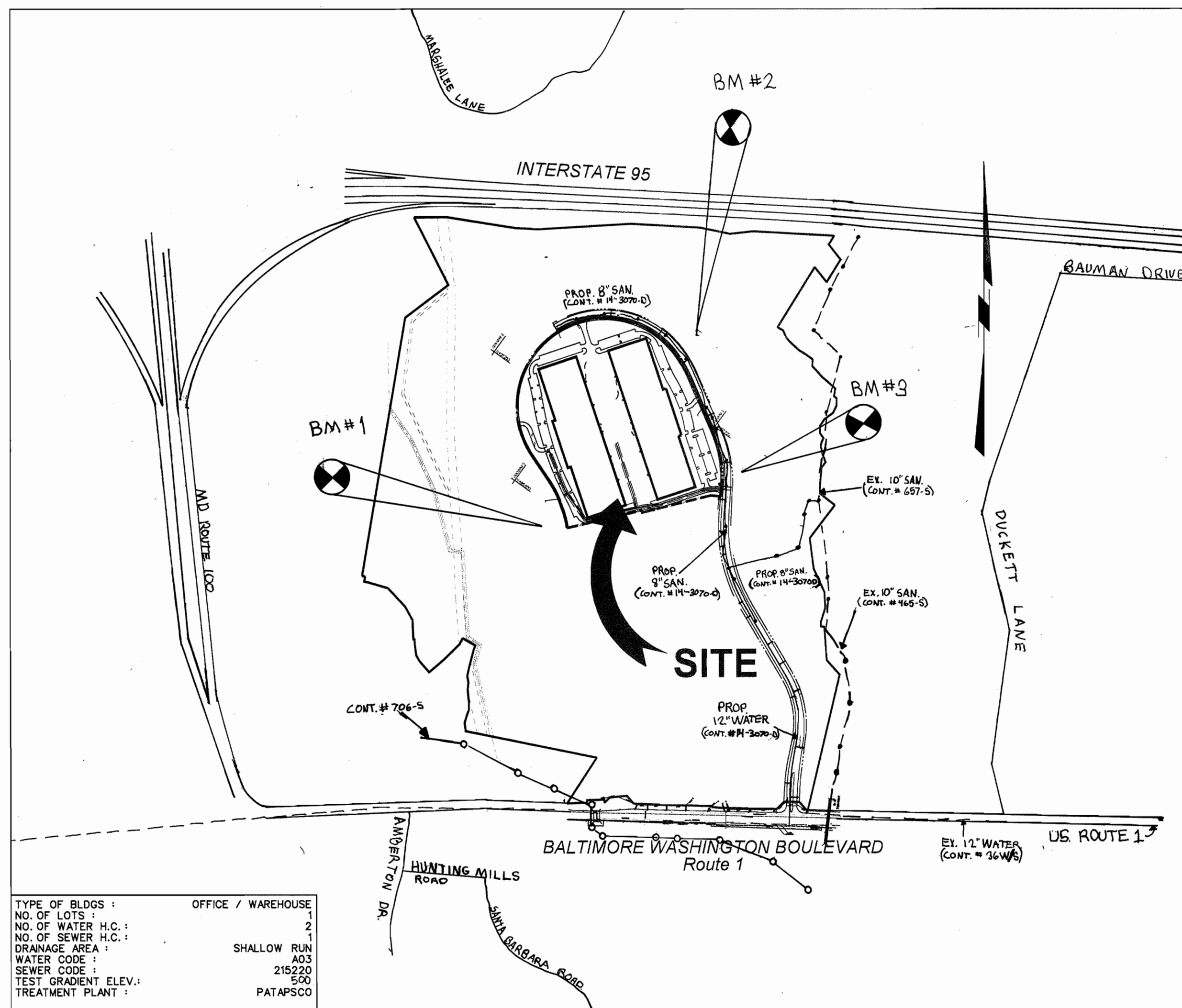


GENERAL NOTES

- 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.
- 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 tunnels 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 five working days before starting work shown on these plans:

State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Services	850-4520
Baltimore Gas & Electric Co. Underground Damage Control	787-9068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1390
Bureau of Utilities, Howard County Department of Public Works	313-4900
- 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.
- All fill areas within future roadway and under structures to be compacted to a minimum of 95% compaction as determined by AASHTO T-180.
- Valves adjacent to tees shall be strapped to tees.
- All water mains to be D.I.P. Class 52 unless otherwise noted.
- Tops of all water mains to have a minimum of 2'-1/2' cover unless otherwise noted.
- 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 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(a) of the Howard County Code.
- 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.



LOCATION MAP

SCALE : 1" = 600'

BENCHMARK

BENCHMARK NO. 1
IRON PIN * TRAVERSE #1066
N 496501.3597 E 069134.4576
ELEV. = 175.92'

BENCHMARK NO. 2
IRON PIN * TRAVERSE #1061
N 498036.6945 E 068791.1502
ELEV. 242.49'

BENCHMARK NO. 3
IRON PIN * TRAVERSE #1034
N 497636.7437 E 069035.6586
ELEV. = 214.85'

INDEX OF SHEETS

SHEET NO.	TITLE
1 OF 4	COVER SHEET, GENERAL NOTES & LOCATION MAP
2 OF 4	PLAN VIEW
3 OF 4	PLAN VIEW
4 OF 4	PROFILES

WATER AS-BUILTS

QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
6" D.I.P.	43 L.F.	45 L.F.	DIP	Atlantic States
8" D.I.P.	847 L.F.	847 L.F.	DIP	Atlantic States
12" D.I.P.	1177 L.F.	1189 L.F.	DIP	Atlantic States
FIRE HYDRANT	3	3 Ea.	Cast Iron	Mueller Co.
12" X 6" TEE	2	2 Ea.	DIP	Union Foundry
6" VALVE & VAULT BOX	3	3 Ea.	Cast Iron / Gate	Mueller Co.
12" X 12" TEE	2	2 Ea.	DIP	Union Foundry
12" VALVE & VAULT	3	3 Ea.	Cast Iron / Gate	Mueller Co.
12" X 8" REDUCER	1	1 Ea.	DIP	Union Foundry
8" X 6" TEE	1	1 Ea.	DIP	Union Foundry
8" CAP	1	1 Ea.	DIP	Union Foundry
12" CAP	1	1 Ea.	DIP	Union Foundry
6" SEWER (PRIVATE)		222 L.F.		

NAME OF UTILITY CONTRACTOR : Gaines & Co., Inc.
SURVEY AND DRAFTING DIVISION AS-BUILT DATE 11-21-97

BY	NO.	REVISION	DATE
K&I	1	AS BUILT CONDITION ADDED	12/13/99

WATER CONSTRUCTION PLANS
TROY HILL CORPORATE CENTER
PARCEL A-1
1st ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
CONTRACT NO. 44-3543-D

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND SDP 96-117 & F96-136

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

APPROVED
John R. Robertson 8/8/96
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

J. K. Wainwright 8/8/96
S.S. SOIL CONSERVATION SERVICE DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert S. Bennett 7-9-96
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
William J. Dunning 7/10/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson Maryland 21204
(410) 825-8120



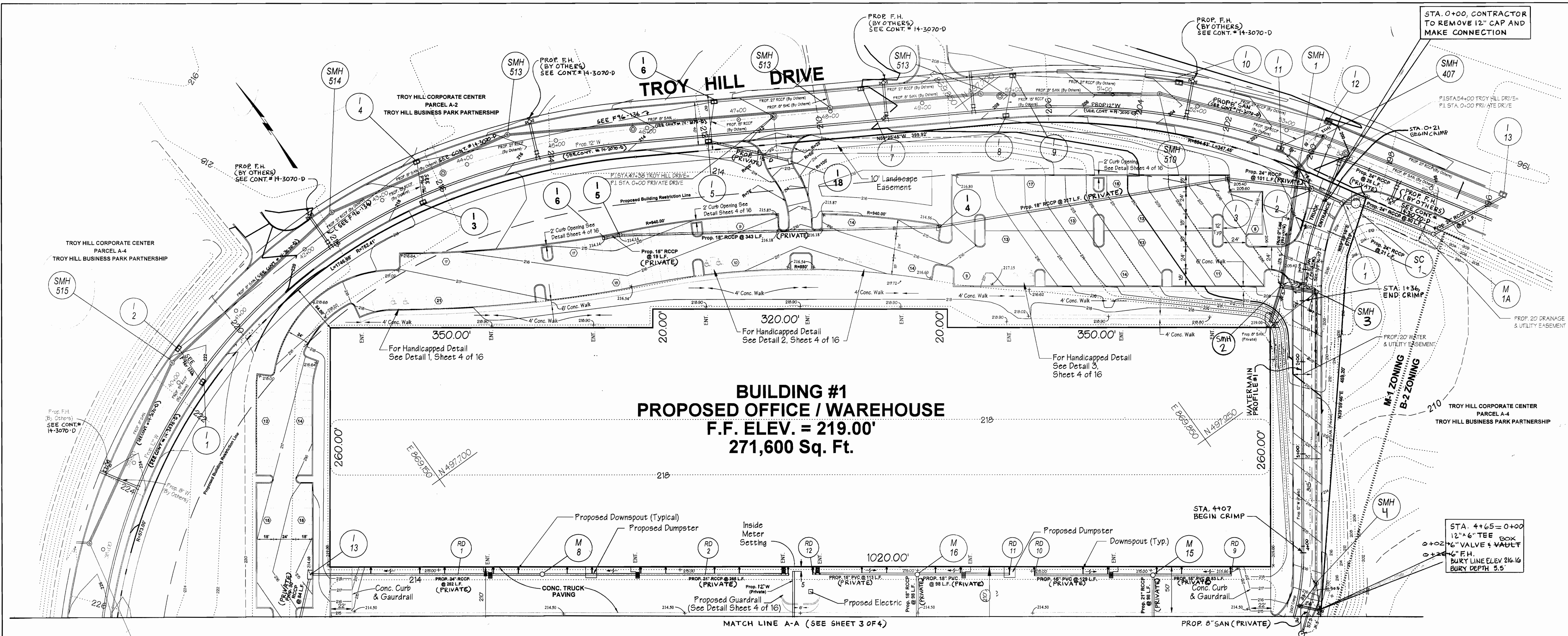
DESIGNED : RAM
DRAFTED : EMT
CHECKED : PRC

COVER SHEET
GENERAL NOTES & LOCATION MAP
for
PUBLIC WATER MAIN

600 SCALE MAP NO. 37 BLOCK NO. 18

TROY HILL CORPORATE CENTER
PARCEL A-1 - PHASE 1
CONTRACT NO. 44-3543-D

HOWARD COUNTY, MARYLAND
ELECTION DISTRICT #1
APRIL 04, 1996
SHEET 1 OF 4



**BUILDING #1
PROPOSED OFFICE / WAREHOUSE**
F.F. ELEV. = 219.00'
271,600 Sq. Ft.

Plan
SCALE: 1"=50'
WATER AS-BUILT

FROM:	TO:	DIST.
F.H.	6" VALVE	24'
M+ 4	6" VALVE	37'
F.H.	12" VALVE	47'
F.H. VALVE	12" VALVE	45'
F.H.	6" VALVE	7'
0+02	F.H. TEE 14+17	45'
F.H.	12" VALVE	8'
6" F.H. VALVE	12" VALVE	3'
F.H.	6" VALVE	10'
M+ 3	F.H. TEE 14+22	50'
9C-5	12" VALVE	61'
M+ 14	12" VALVE	21'

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND SDP 96-117

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

APPROVED: *John R. Robertson* 8/18/96
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

J. A. Wayfield 8/18/96
U.S. SOIL CONSERVATION SERVICE DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert H. Beiser 7-9-96
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
William Dammus 7/10/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GWS
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson Maryland 21204
(410) 825-8120



DESIGNED : RAM
DRAFTED : EMT
CHECKED : PRC

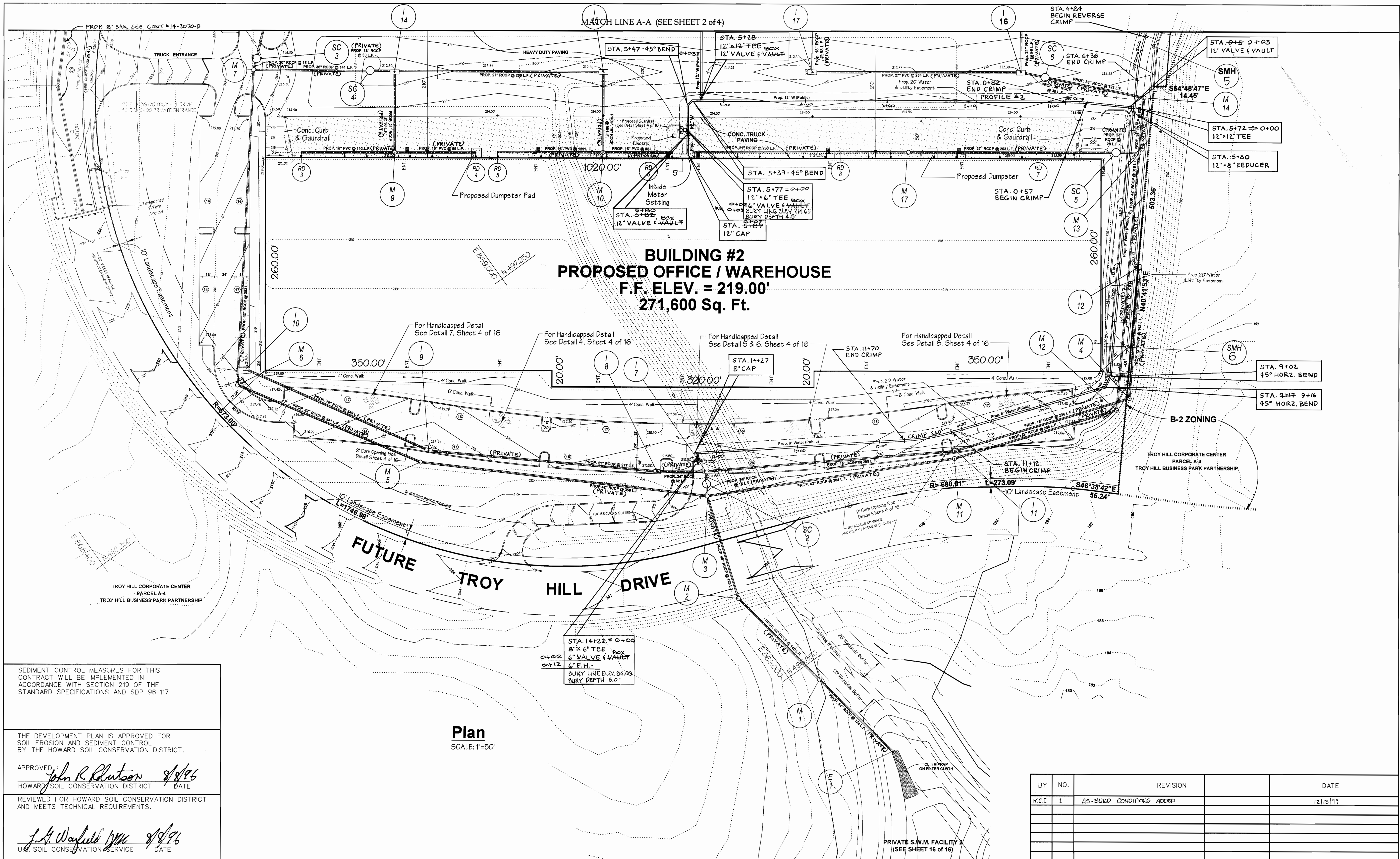
PROFILES FOR PUBLIC WATER MAIN

CONTRACT NO. 44-3543-D
600 SCALE MAP NO. 37
BLOCK NO. 18

TROY HILL CORPORATE CENTER
PARCEL A-1 - PHASE 1

HOWARD COUNTY, MARYLAND
ELECTION DISTRICT #1
APRIL 04, 1996
SHEET 2 OF 4

BY	NO.	REVISION	DATE
K.E.I.	1	AS-BUILT CONDITION ADDED	12/13/99



**BUILDING #2
PROPOSED OFFICE / WAREHOUSE
F.F. ELEV. = 219.00'
271,600 Sq. Ft.**

Plan
SCALE: 1"=50'

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND SDP 96-117

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

APPROVED: *John R. Robertson* 8/8/96
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

J. L. Wayland 8/8/96
U.S. SOIL CONSERVATION SERVICE DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND



**GEORGE W. STEPHENS, JR.
AND ASSOCIATES, INC.**

Civil Engineers and Land Surveyors

658 Kenilworth Drive, Suite 100
Towson Maryland 21204
(410) 825-8120



DESIGNED : RAM
DRAFTED : EMT
CHECKED : PRC

**PLAN AND PROFILE
FOR
PUBLIC WATER MAIN**

CONTRACT NO. 44-3543-D
600 SCALE MAP NO. 37

BLOCK NO. 18

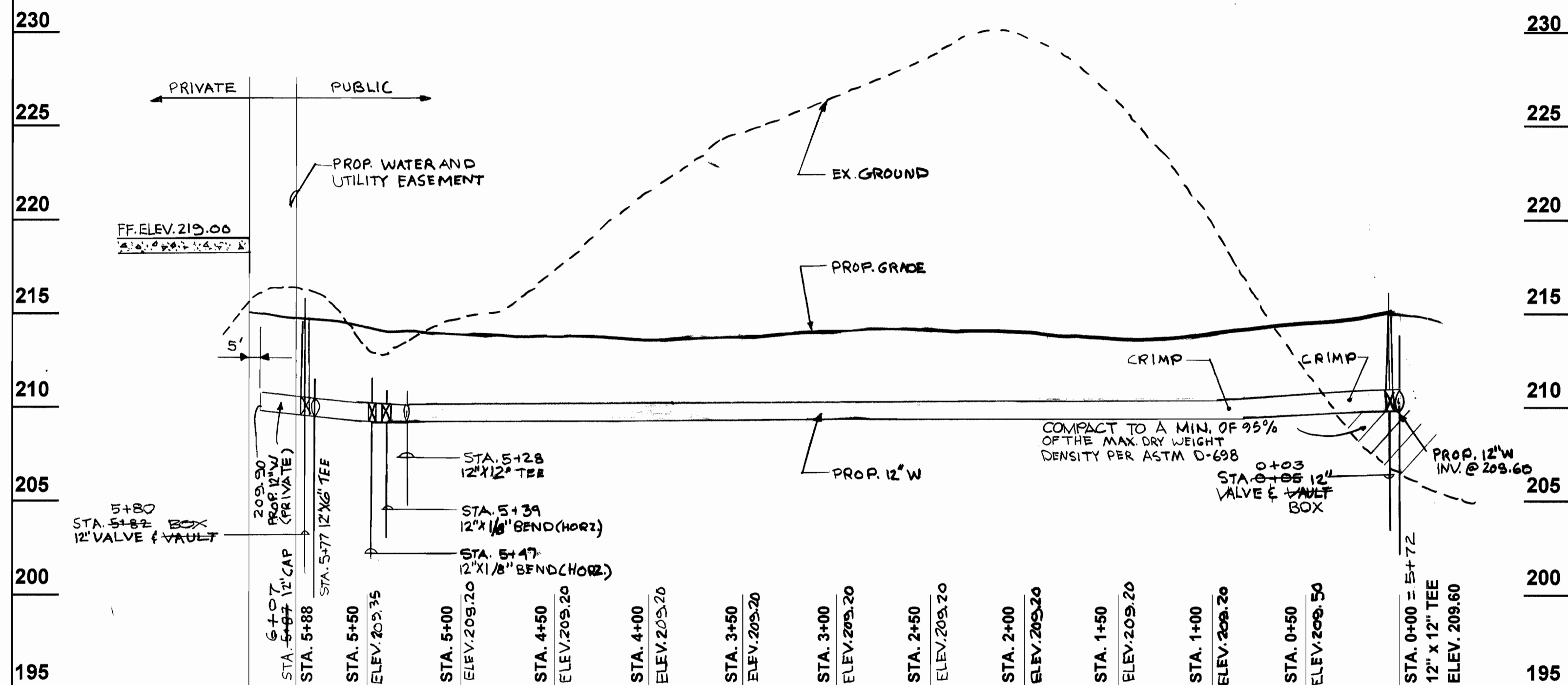
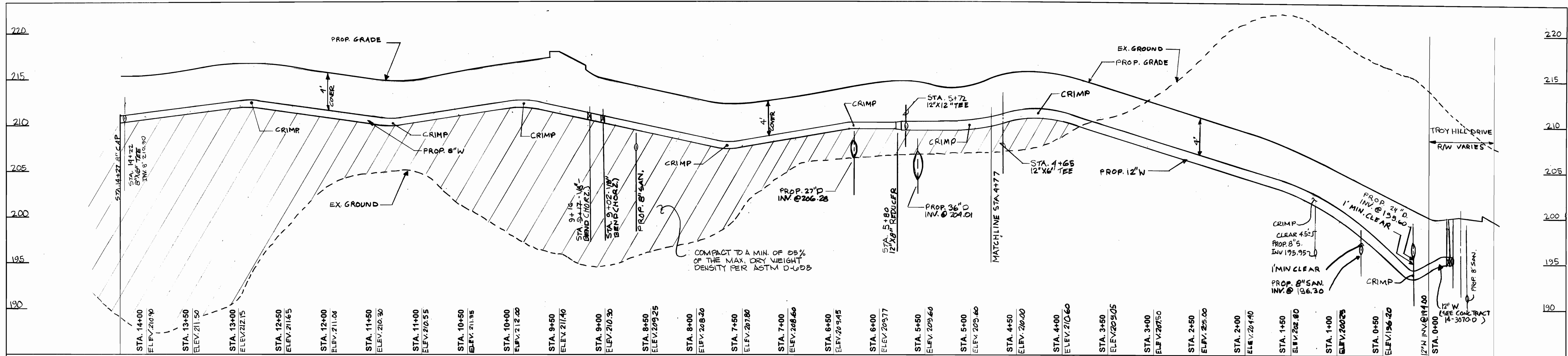
TROY HILL CORPORATE CENTER

PARCEL A-1 - PHASE 1

HOWARD COUNTY, MARYLAND
ELECTION DISTRICT #1

APRIL 04, 1996
SHEET 3 OF 4

BY	NO.	REVISION	DATE
K.C.I.	1	AS-BUILD CONDITIONS ADDED	12/13/99



PUBLIC WATER MAIN PROFILE

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

PUBLIC WATER MAIN PROFILE #2

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

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND SDP 96-117

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

APPROVED: *John R. Robertson* 8/8/96
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
J. A. Wayfield 8/8/96
U.S. SOIL CONSERVATION SERVICE DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert B. Switzer 7-9-96
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Chris Vanman 7/10/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson Maryland 21204
(410) 825-8120



DESIGNED: RAM
DRAFTED: EMT
CHECKED: PRC

PROFILES FOR PUBLIC WATER MAIN
CONTRACT NO. 44-3543-D
600 SCALE MAP NO. 37 BLOCK NO. 18

BY	NO.	REVISION	DATE

TROY HILL CORPORATE CENTER
PARCEL A-1 - PHASE 1
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT #1
APRIL 04, 1996
SHEET 4 OF 4