
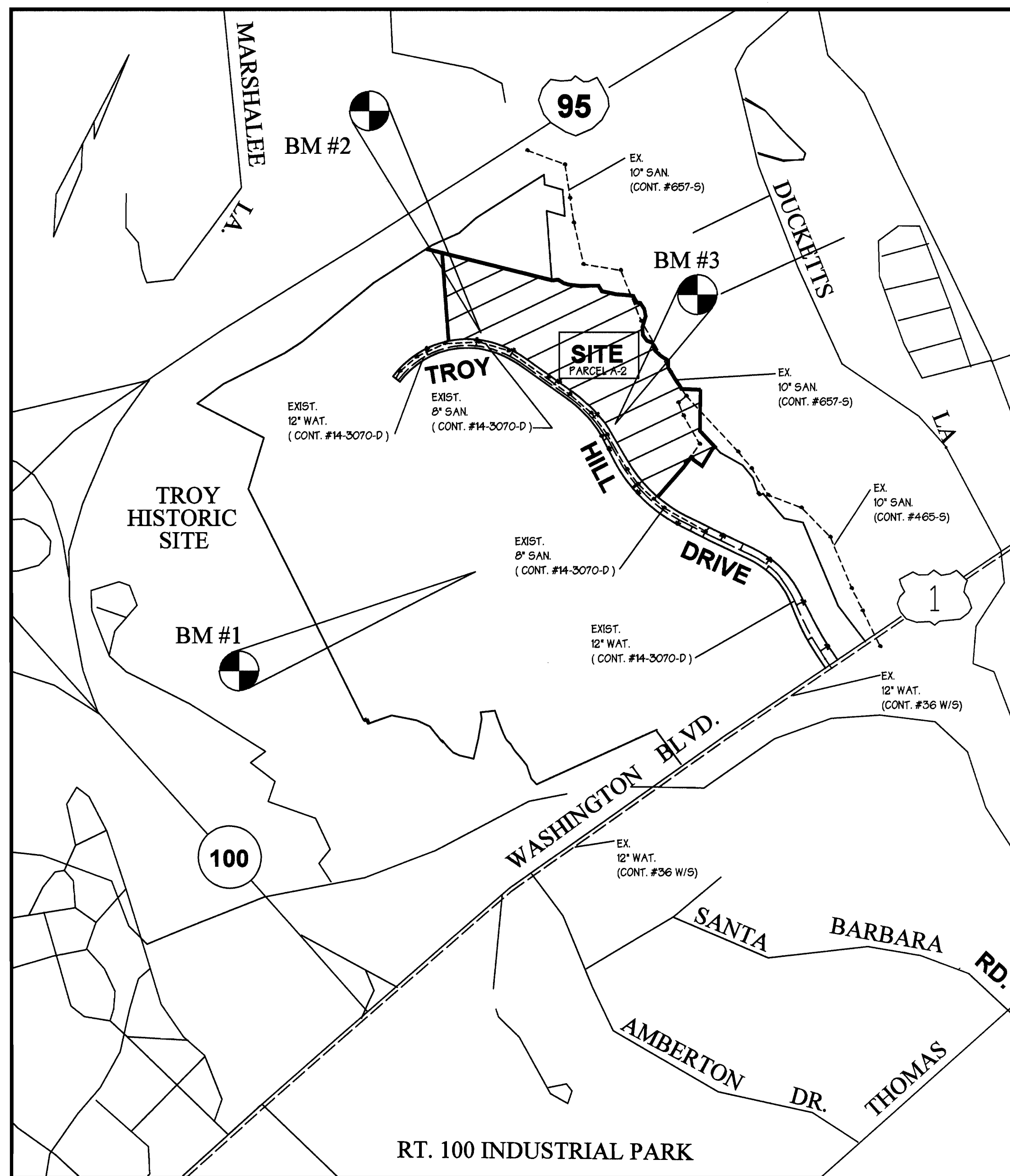


GENERAL NOTES

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

State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Services	850-4620
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 3'-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.
- All sewer mains shall be D.I.P. and P.V.C. unless otherwise noted.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- Manholes must be precast concrete structure.
- Manholes shown with 12" and 16" walls are for brick manholes only.



LOCATION MAP

SCALE: 1" = 600'

TYPE OF BLDGS :	OFFICE / WAREHOUSE
NO. OF LOTS :	1
NO. OF WATER H.C. :	2
NO. OF SEWER H.C. :	0
DRAINAGE AREA :	SHALLOW RUN
WATER CODE :	A03
SEWER CODE :	215220
TEST GRADIENT ELEV.:	500
TREATMENT PLANT :	PATAPSCO, HOWARD COUNTY

WATER CONSTRUCTION PLANS TROY HILL CORPORATE CENTER

PARCEL A-2

1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

CONTRACT NO. 44-3691-D

INDEX OF SHEETS

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

BENCHMARKS :

BENCHMARK #1	BENCHMARK #2
IRON PIN @ TRAVERSE #1068	IRON PIN @ TRAVERSE #1061
N 496601.3697 E 869134.4576	N 498036.6946 E 868791.1602
ELEV. = 176.92	ELEV. = 242.49

BENCHMARK #3
IRON PIN @ TRAVERSE #1034
N 497636.7437 E 869836.6686
ELEV. = 214.86

QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/ SUPPLIER
12" D.I.P.	2,391 L.F.	2,396 L.F.	CL 52 D.I.P.	ATLANTIC STATES
8" D.I.P.	1,087 L.F.	1,007 L.F.	CL 52 D.I.P.	ATLANTIC STATES
6" D.I.P.	90 L.F.	114 L.F.	CL 52 D.I.P.	ATLANTIC STATES
6" FIRE HYDRANTS	7 EA.	7 EA.	5 MUELLER CO.	MUELLER CO.
12" X 8" CROSSABLE TEE	2	2 EA.	M.J. TEE	UNION FOUNDRY
12" X 12" TEE	1	1 EA.	M.J. TEE	UNION FOUNDRY
12" X 8" TEE	1	1 EA.	M.J. CROSS	UNION FOUNDRY
12" X 6" TEE	4	6 EA.	HYDR TEE	UNION FOUNDRY
8" X 6" REDUCER	1	1 EA.	M. J. REDUCER	UNION FOUNDRY
12" ROADWAY VALVE BOX	2	2 EA.	SLIDE THE R/W BOX	BINGHAM & TAYLOR
8" ROADWAY VALVE BOX	4	4 EA.	" " " "	BINGHAM & TAYLOR
6" ROADWAY VALVE BOX	7	7 EA.	" " " "	BINGHAM & TAYLOR

NAME OF UTILITY CONTRACTOR :

SURVEY AND DRAFTING DIVISION AS-BUILT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS, SDP 98-114 AND F 96-136

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

APPROVED  7/31/98
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

 07/30/98
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 : P.R.C., K.E.

DRAFTED : K.E.

CHECKED : P.R.C.

COVER SHEET, GENERAL NOTES & LOCATION MAP

CONTRACT NO. 44-3691-D

600 SCALE MAP NO. 37

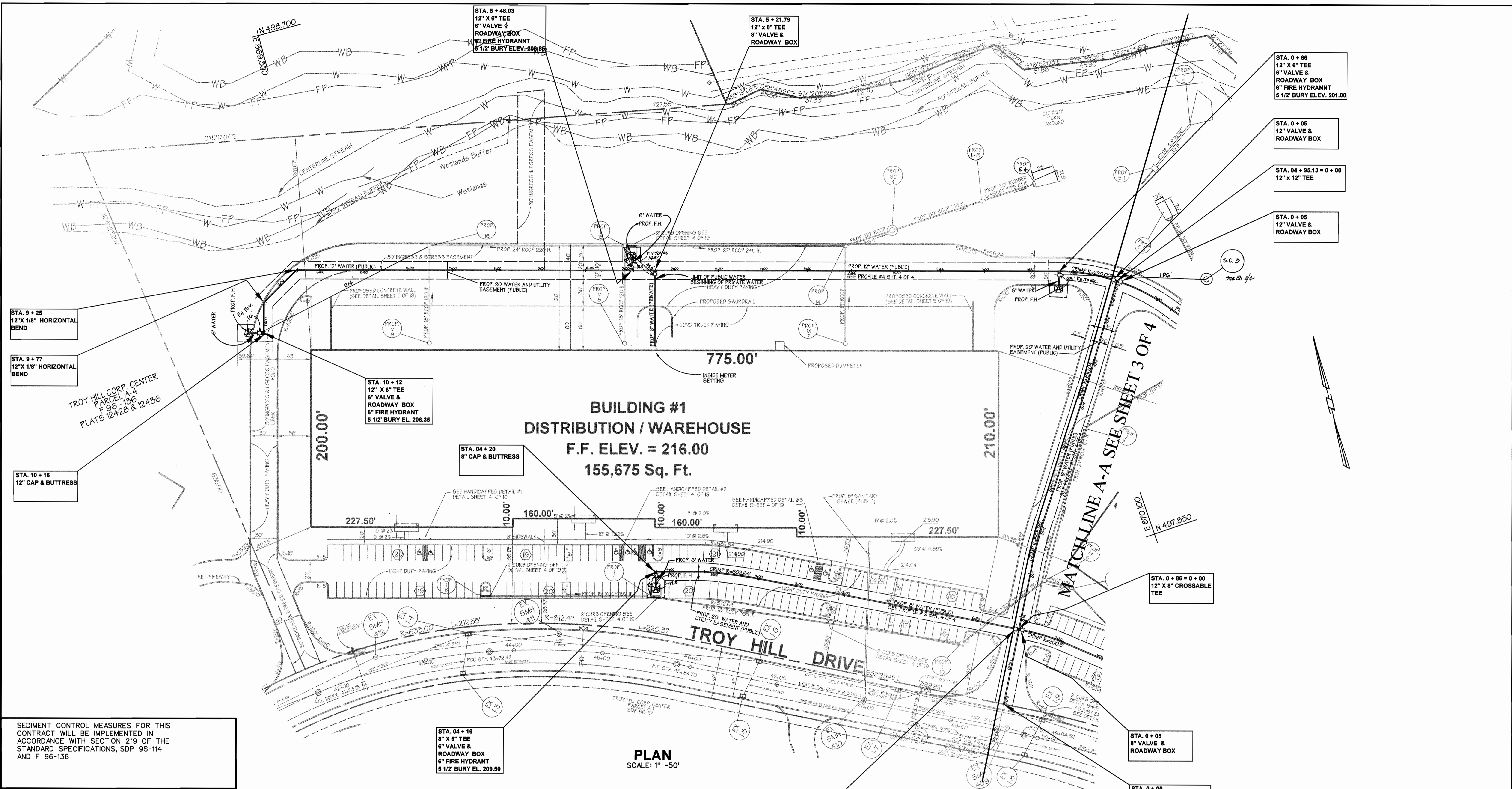
BLOCK NO. 18

PUBLIC WATERMAIN TROY HILL CORPORATE CENTER

PARCEL A-2
PHASE 1

HOWARD COUNTY, MARYLAND
ELECTION DISTRICT #1

APRIL 17, 1998
SHEET 1 OF 4



STA. 9 + 25
12" X 1/8" HORIZONTAL BEND

STA. 9 + 77
12" X 1/8" HORIZONTAL BEND

STA. 10 + 16
12" CAP & BUTTRESS

STA. 0 + 66
12" X 8" TEE
6" VALVE &
ROADWAY BOX
6" FIRE HYDRANT
6 1/2" BURY ELEV. 201.00

STA. 0 + 05
12" VALVE &
ROADWAY BOX

STA. 04 + 95.13 = 0 + 00
12" X 12" TEE

STA. 0 + 05
12" VALVE &
ROADWAY BOX

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS, SDP 95-114 AND F 96-136

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

APPROVED: *[Signature]* 7/31/98
DATE
HOWARD SOIL CONSERVATION DISTRICT

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature] 7/31/98
DATE
U.S. SOIL CONSERVATION SERVICE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 6/19/98
DATE
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

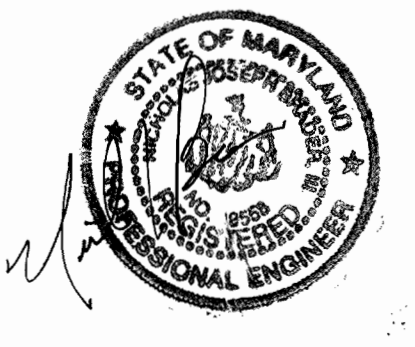
[Signature] 7/31/98
DATE
CHIEF, DEVELOPMENT
ENGINEERING DIVISION

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 : P.R.C., K.E.
DRAFTED : K.E.
CHECKED : P.R.C.

PLAN VIEW

CONTRACT NO. 44-3691-D
600 SCALE MAP NO. 37
BLOCK NO. 18

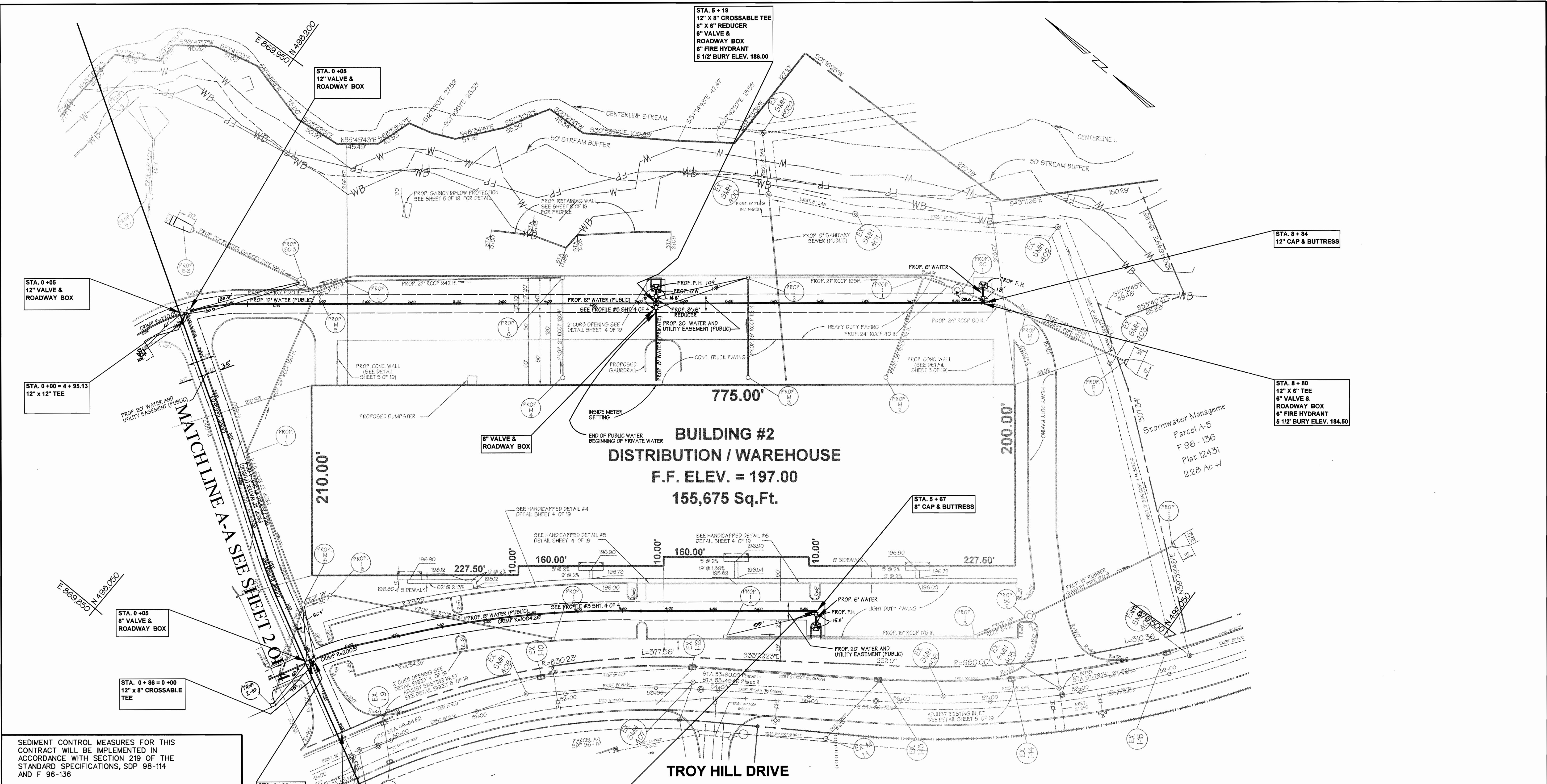
**PUBLIC WATERMAIN
TROY HILL CORPORATE CENTER**

PARCEL A-2
PHASE 1

HOWARD COUNTY, MARYLAND
ELECTION DISTRICT #1

APRIL 17, 1998
SHEET 2 OF 4

BY	NO.	REVISION	DATE
K.E.I.	1	ASBUILT CONDITIONS ADDED TO PLAN	6/98



PLAN
SCALE: 1"=50'

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS, SDP 98-114 AND F 96-136

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

APPROVED *Charles Z. Jones* 7/31/98
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Charles K. Jones 8/13/98
U.S. SOIL CONSERVATION SERVICE DATE

BY	NO.	REVISION	DATE
KCI	1	AS-BUILT CONDITIONS ADDED TO PLAN	6/99

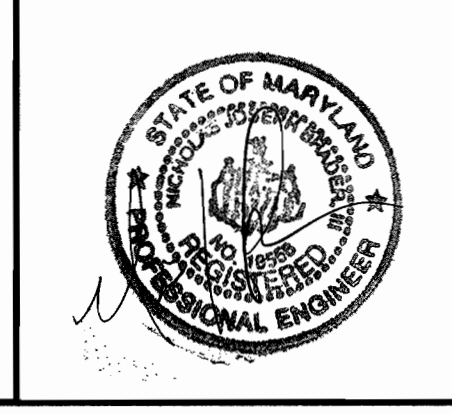
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Richard S. ... 6/1/98
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

... 7/31/98
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 : P.R.C., K.E.
DRAFTED : K.E.
CHECKED : P.R.C.

PLAN VIEW

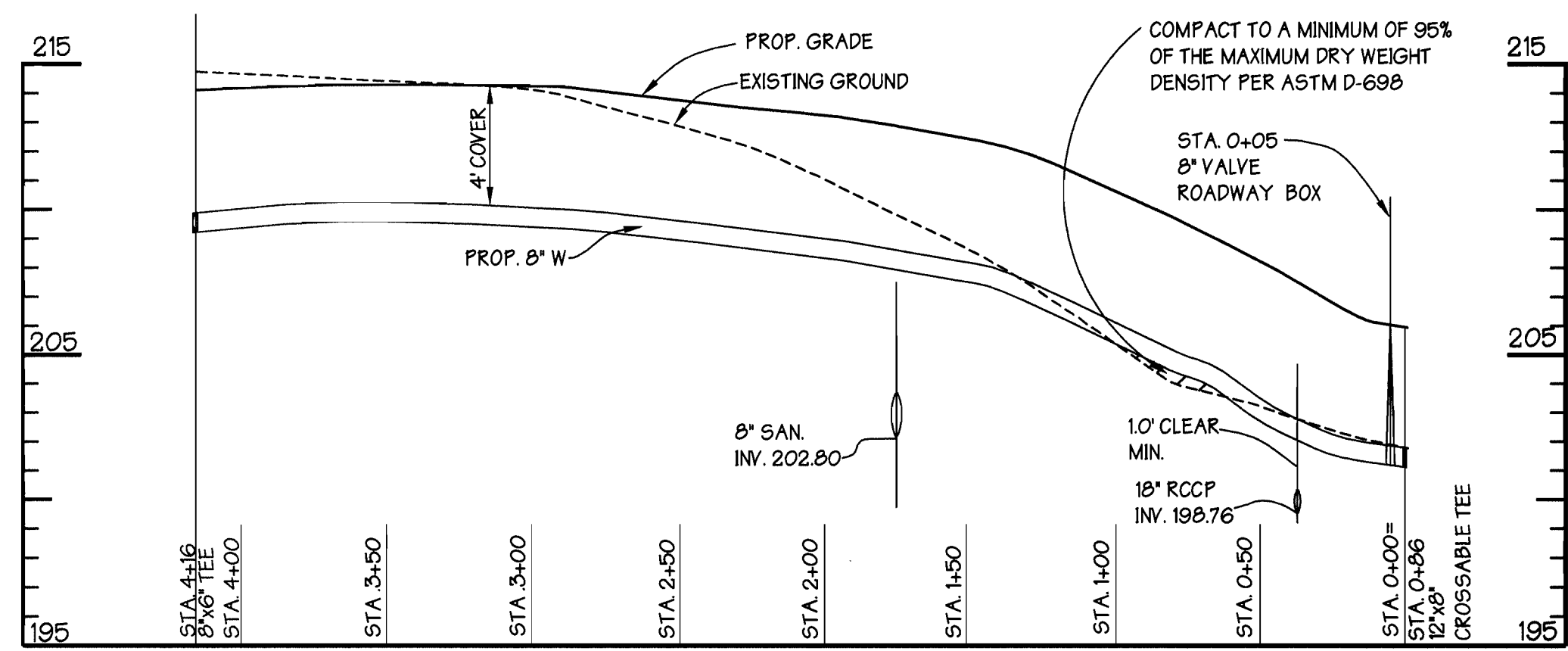
CONTRACT NO. 44-3691-D
600 SCALE MAP NO. 37

BLOCK NO. 18

PUBLIC WATERMAIN
TROY HILL CORPORATE CENTER
PARCEL A-2
PHASE 1

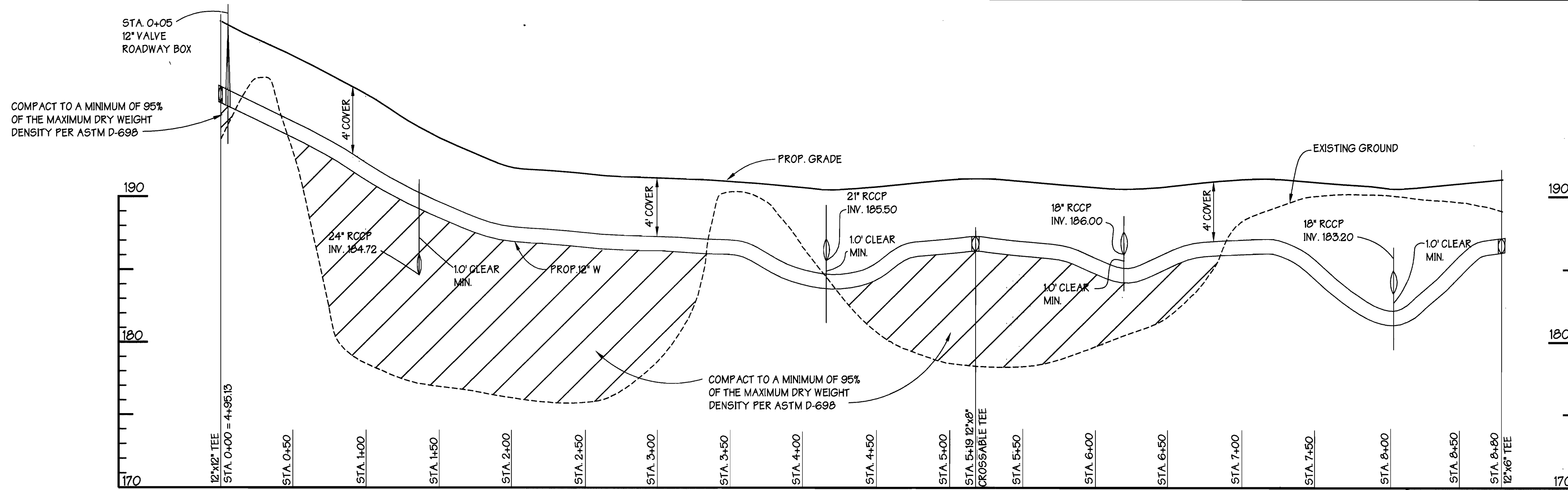
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT #1

MARCH 17, 1998
SHEET 3 OF 4



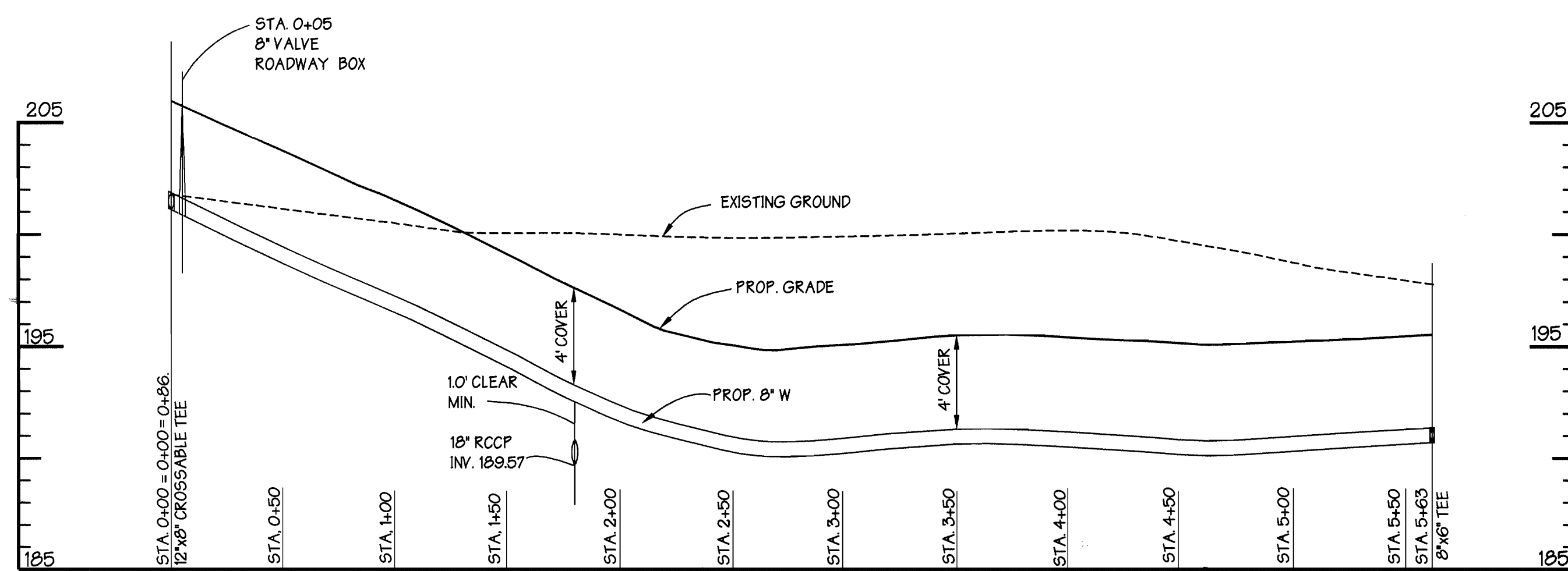
WATERMAIN PROFILE #2

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



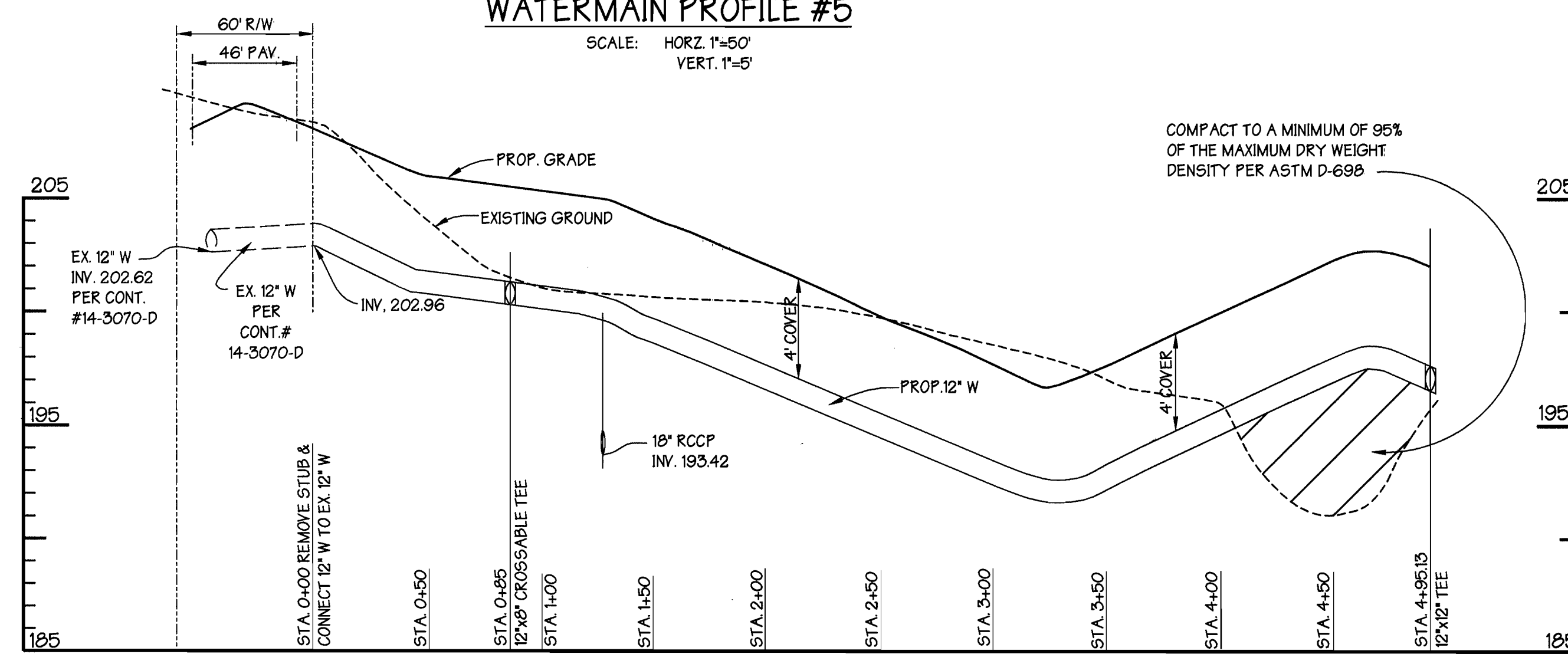
WATERMAIN PROFILE #5

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



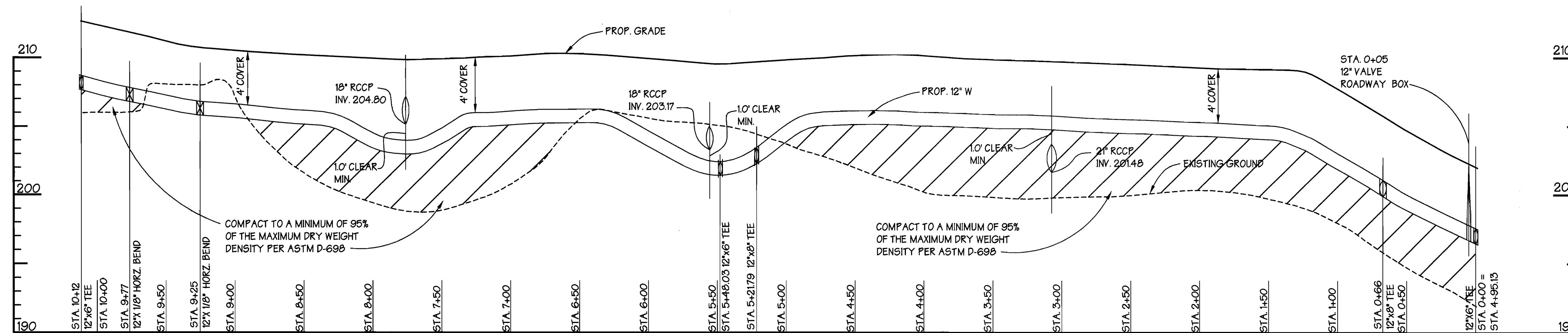
WATERMAIN PROFILE #3

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



WATERMAIN PROFILE #1

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



WATERMAIN PROFILE #4

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

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

APPROVED: [Signature] 7/31/98
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature]
U.S. SOIL CONSERVATION SERVICE DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

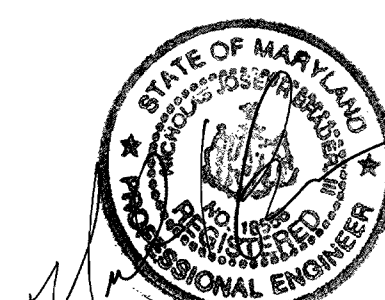
DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND



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DESIGNED : P.R.C., K.E.

DRAFTED : A.S.

CHECKED : P.R.C., K.E.

PROFILES

CONTRACT NO. 44-3691-D

600 SCALE MAP NO. 37

BLOCK NO. 18

**PUBLIC WATERMAIN
TROY HILL CORPORATE CENTER**

PARCEL A-2
PHASE 1

HOWARD COUNTY, MARYLAND
ELECTION DISTRICT #1

APRIL 17, 1998
SHEET 4 OF 4