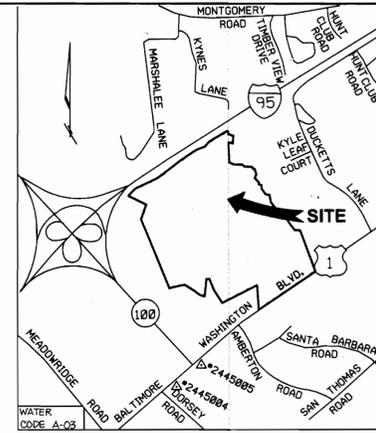


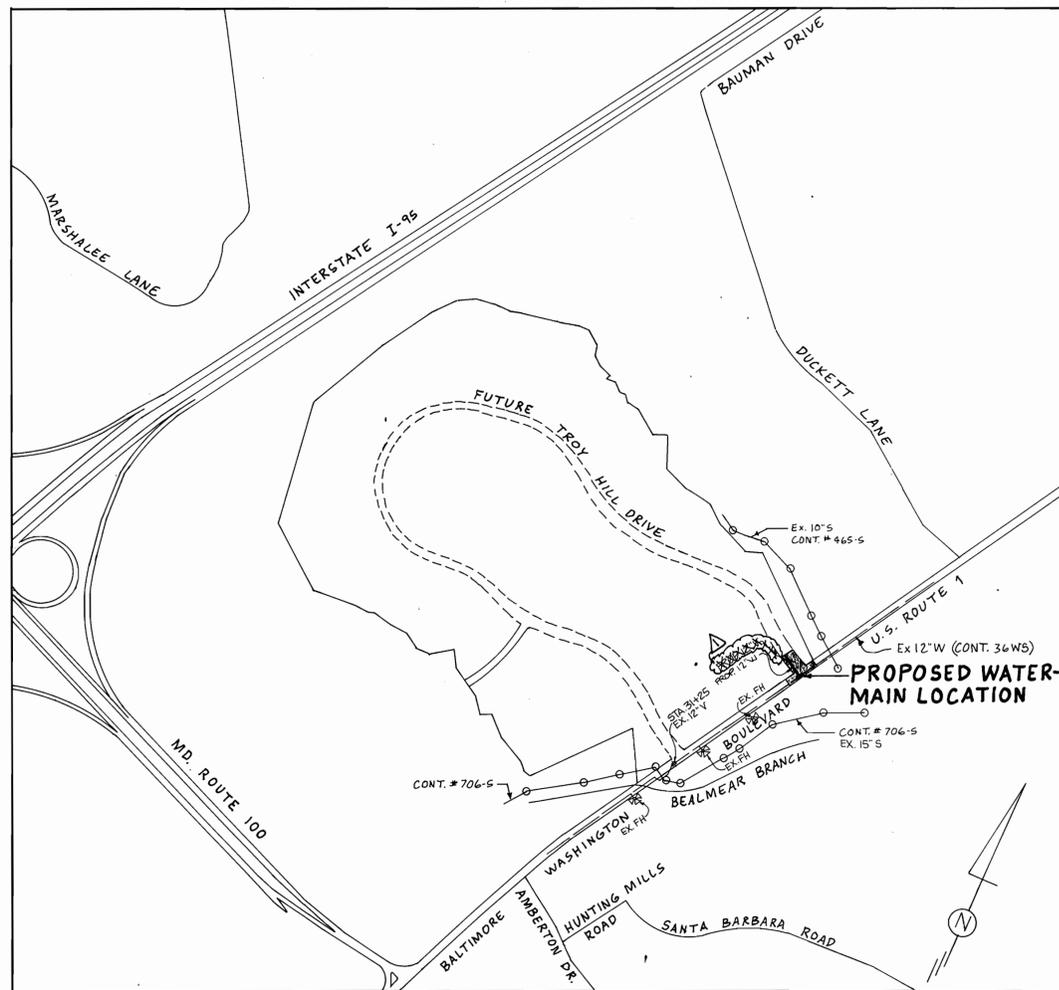
GENERAL NOTES

- 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 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.



VICINITY MAP
SCALE: 1" = 2000'
COORDINATES BASED ON NAD 27, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS #2445804 AND #2445805



LOCATION MAP
SCALE: 1" = 600'

TYPE OF BLDGS :	COMMERCIAL	0
NO. OF LOTS :		0
NO. OF WATER H.C. :		0
NO. OF SEWER H.C. :		0
DRAINAGE AREA :	SHALLOW RUN	A03
WATER CODE :		N/A
SEWER CODE :		550
TEST GRADIENT ELEV. :		PATAPSCO
TREATMENT PLANT :		

QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/ SUPPLIER
12" O.P. MECHANICAL RESTRAINING JOINT & M.J. PIPE	(15)	168	ATLANTIC STATES 6-8	ATLANTIC STATES/A-1 PIPE, INC.
12" CAP	1	1	TYLER	TYLER PIPE/A-1 PIPE, INC.
1 1/2" DRAIN FOR WATERMAIN	1	1	SMITH-BLAIR/MERIT	SMITH-BLAIR MERIT/A-1 PIPE, INC.
12" x 12" TAPPING SLEEVE, VALVE & VAULT	1	1	MUELLER	MUELLER/A-1 PIPE, INC.

NAME OF UTILITY CONTRACTOR : GAINES & Co.
SURVEY AND DRAFTING DIVISION AS-BUILT DATE

Sequence Of Construction Water Main Relocation U.S. Route 1

- Contractor Shall Meet With Howard County Department Of Public Works Bureau Of Utilities, To Review The Matters In Which The Contractor Proposes To Execute The Relocation Work.
- Contractor Shall Notify Howard County Department Of Public Works Bureau Of Utilities At (301) 313-4900 A Minimum Of 5 Days In Advance Of Beginning Any Work And For Coordinating Shut-Off Of The Existing 12-inch Waterline In U.S. Route 1 (Washington Boulevard).
- Contractor Shall Notify Residents At 6896, 6901, 6906, 6940, 6945 And 6961 Washington Boulevard (U.S. Route 1) A Minimum Of 48 Hours In Advance Of Shutting-Off Water Service.
- Contractor Shall Install New 12-inch Waterline From Station 0+00 TO 75+60. A Plug Shall Be Installed At The Watermain At Station 0+00 And The Flap Valve Upstream VALVE Shall Remain Closed On the Plug.
- Contractor Shall Determine If Any Service Connections Are Located Within The Existing Waterline To Be Relocated. If Any Service Connections Are Found Within The Path Of Waterline To Be Relocated, The Contractor Shall Be Responsible For The Protection Of Affected Services In Accordance With Howard County Department Of Public Works Standards.
- Contractor Shall Install Drainage/Dewatering Facilities With Appropriate Sediment Controls To Provide Positive Drainage Of Water Drained From System.
- Contractor Shall Install The Plug In The Existing 12-inch Waterline (U.S. Route 1) Between Stations 18+93 And 19+00 Via Installation Of 12-inch Hydra-Stop At Station 18+93, And Closing The Existing Valve As Approximately U.S. Route 1 Station 31+25.
- Contractor Shall Cut, Pipe And Drain. Contractor Shall Provide Equipment And Methodology Such That Draining Operations Are Completed Within A Minimum Period Of Two (2) Hours.
- Contractor Shall Lower 12-inch Waterline In U.S. Route 1 From Station 18+93 To Station 19+36 Connect To Waterline, Reconnect Any Services, Disinfect, Test And Place Into Service.
- Shutdown Time Shall Be Minimized And As Approved By Howard County Department Of Public Works, Bureau Of Utilities.
- The Above Sequence Is To Be Used As A Guideline Only. The Exact Methodology Is To Be Presented By The Contractor To The Howard County Department Of Public Works, Bureau Of Utilities For Review And Approval.

BY	NO.	REVISION	DATE
G.W.S.	1	ELIMINATED 24" STEEL SLEEVE, ADDED 12" x 12" TAPPING SLEEVE, VALVE & VAULT, 1/2" BENDS, ELIMINATED 12" V. @ STA. 1+00	4-30-96

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND F-91-24

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

APPROVED: *John P. Rhoads* 3/1/96
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

APPROVED: *J.A. Wainfield* 3/1/96
U.S. SOIL CONSERVATION SERVICE DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert B. Brown 2-26-96
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
John P. Rhoads 3/1/96
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

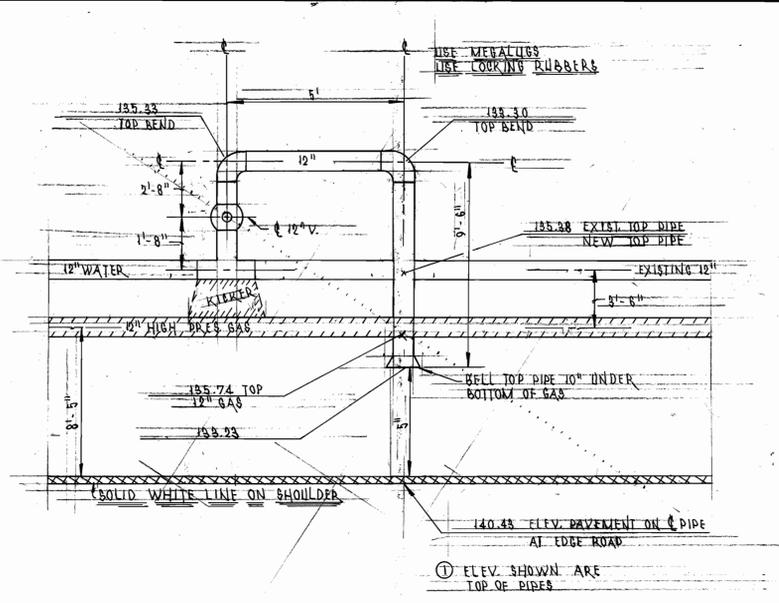
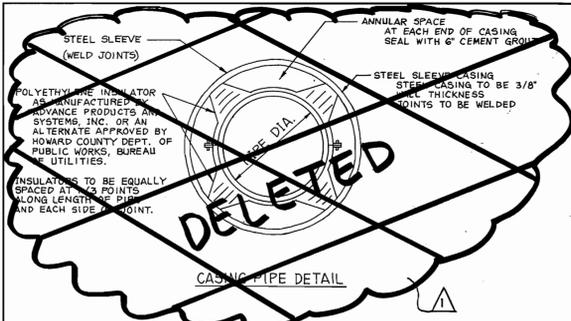


DESIGNED : RAM
DRAFTED : EMT/KE/mt
CHECKED : PRC

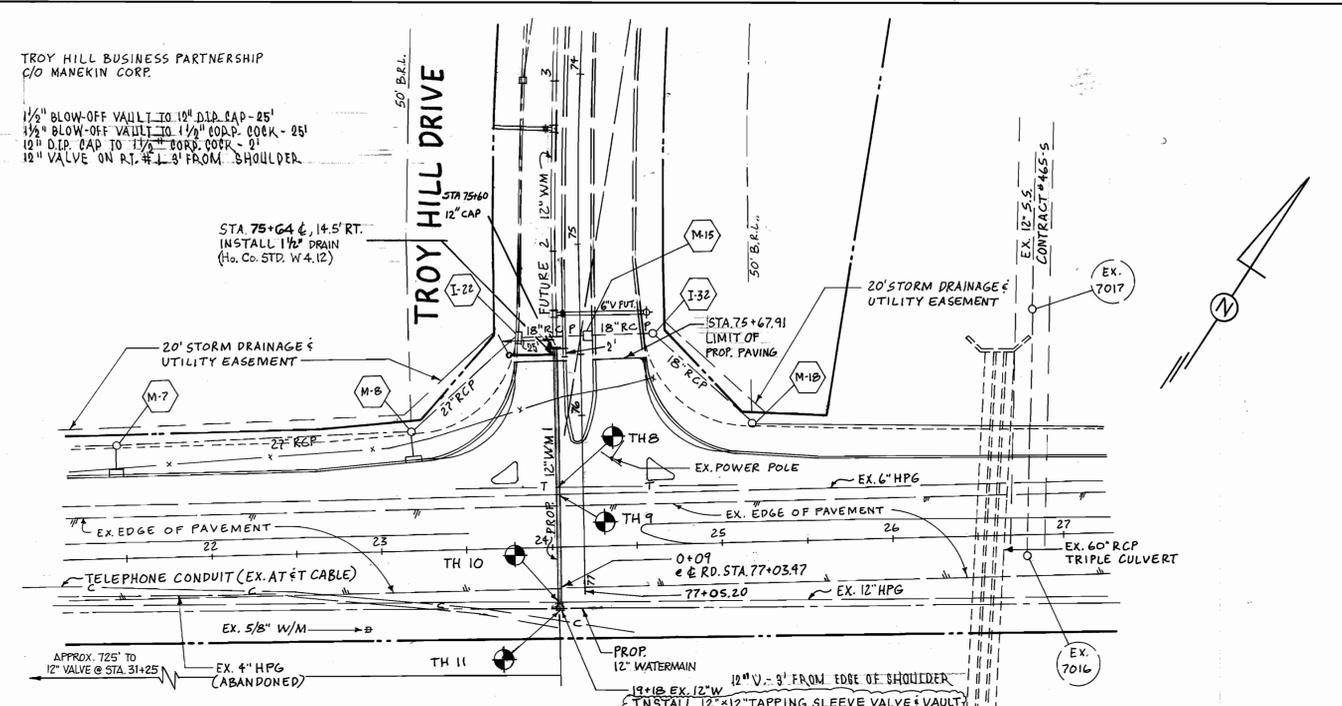
GENERAL NOTES & LOCATION MAP FOR PUBLIC WATER MAIN
CONTRACT NO. 44-3502-D
600 SCALE MAP NO. 37
BLOCK NO. 18

TROY HILL CORPORATE CENTER
PARCEL A - PHASE 1
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT #1
NOVEMBER 08, 1995
SHEET 1 OF 2

AS-BU-117 7-13-96

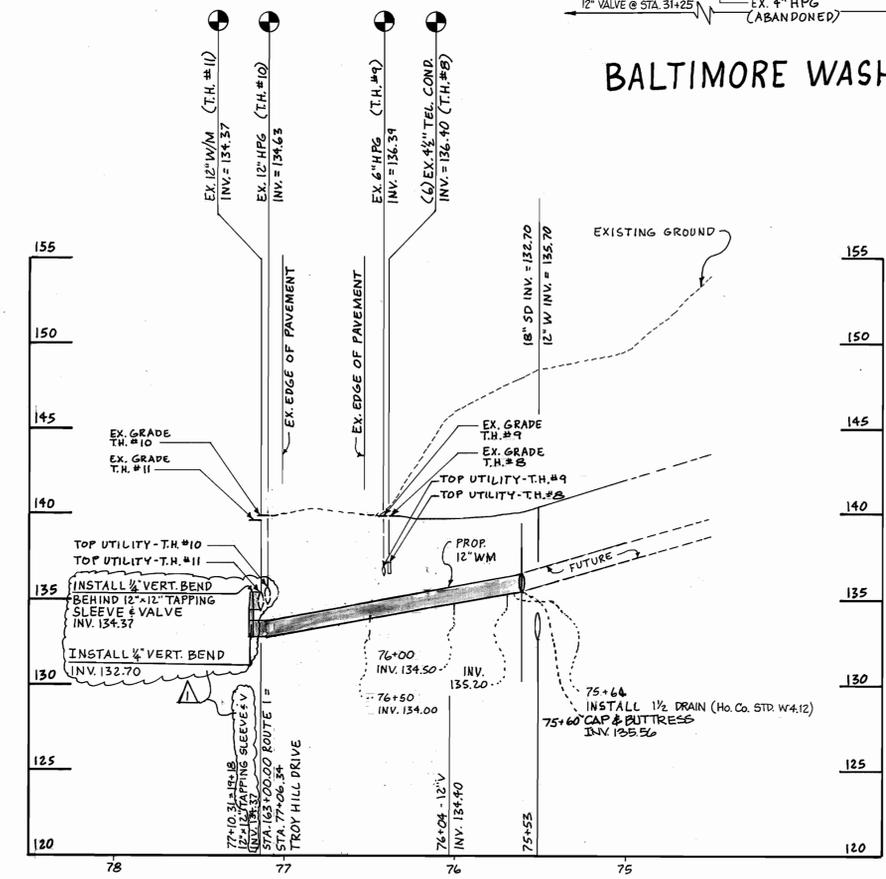


GAINEST CO.



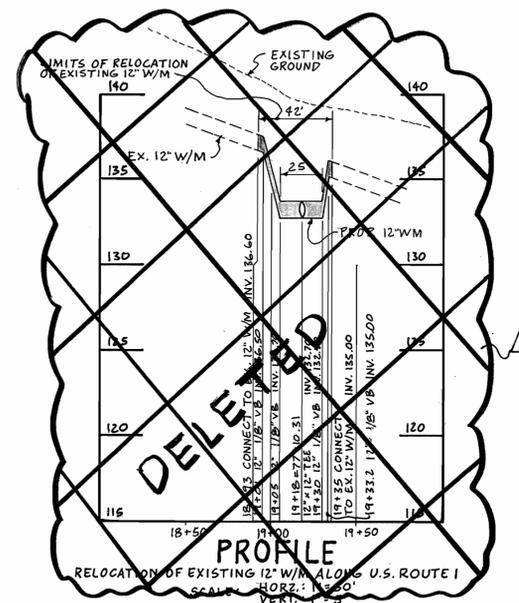
BALTIMORE WASHINGTON BOULEVARD U.S. ROUTE 1

PLAN
SCALE: 1"=50'



TROY HILL DRIVE PROFILE

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



BY	NO.	REVISION	DATE
G.W.S.	1	ELIMINATED 24" STEEL SLEEVE, ADDED 12" x 12" TAPPING SLEEVE & VALVE & VAULT, 4" VERT. BENDS. ELIMINATED 12" V AT STA. 1+00	4-30-96

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND F01-24.

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

APPROVED
John R. Robertson 3/1/96
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

J.S. Warfield JPH 3/1/96
S. SOIL CONSERVATION SERVICE DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert Benjamin 2-26-96
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Howard C. ... 3/1/96
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/K/E/mm
CHECKED : PRC

PLAN AND PROFILE FOR PUBLIC WATER MAIN
CONTRACT NO. 44-3502-D
600 SCALE MAP NO. 37

TROY HILL CORPORATE CENTER
PARCEL A - PHASE 1
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT #1
NOVEMBER 6, 1995
SHEET 2 OF 2