

Waste Water Disposal: Savage
 Type of buildings: N/A
 No. of S.H.C.: 0
 No. of W.H.C.: 0

WATER & SEWER CODE
 County Use:
 Water: N/A
 Sewer: 6290000

CONTRACT NO. 30-0973-D

VILLAGE OF KINGS CONTRIVANCE

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

QUANTITIES			
ITEM	BID	AS-BUILT	MATERIAL/SUPPLIER
8" Sewer L.F.	2150	1200	U.S. PIPE & FOUNDRY
Manholes Ea.	10	10	ATLANTIC PRECAST
8" Water			
6" Water			
8" Valves			
6" V (Excluding F.H.V.)			
Fire Hydrants			

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

James Nelson 5-12-81
 SIGNATURE DATE
 US SOIL CONSERVATION SERVICE

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard County Conservation District

W. J. Home 5-12-81
 APPROVED DATE
 HOWARD S.C.D.

Sediment Control Measures for this Contract will be implemented in accordance with Article 15 of the Standard Specifications.

Village of Kings Contrivance
 Section 3, Area 2, Phase II, Part 5
 Contract No. 30-0973-D

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

R. W. Benjamin 5/15/81
 CHIEF-BUREAU OF UTILITIES - DATE

W. J. Home 5/15/81
 CHIEF-BUREAU OF ENGINEERS - DATE

WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 2315 ST. PAUL ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

W. J. Home 5-15-81
 DIRECTOR OF PUBLIC WORKS - DATE

W. J. Home 5-15-81
 CHIEF-LAND DEVELOPMENT DIVISION - DATE

CONTRACT NO. 30-0973-D	LOCATION MAP OF SEWER MAINS	COLUMBIA VILLAGE OF KINGS CONTRIVANCE ELECTION DISTRICT GUILFORD NO. 6	DRAWING NO. 1 OF 3	SCALE 1"=600'
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BENCH MARKS

W.R.#A. B.M.# 5-20 Elev. 237.88
 Square cut corner bridge west side GO's North of E Middle Patuxent River.

W.R.#A. B.M.# 5-21 Elev. 285.99
 R.R. Spike in power pole #308176 west side Murry Hill Road at intersection existing Vollmerhausen Rd.

H.C. B.M.# 2241008-R Elev. 308.083
 Reinforcing Bar 0.5' below surface. For location see vicinity map, and reference on this sheet.

H.C. B.M.# 2241007 Elev. 268.979
 Conc. Monument 0.2' below surface. For location see vicinity map, and reference on this sheet.

PROPERTY OF
 95-32 CORPORATION
 AND HOWARD RESEARCH &
 DEVELOPMENT CORPORATION

- 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 PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF UTILITIES AT HIS EXPENSE.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, USE HOWARD COUNTY STANDARD DETAILS.
 - FOR MATERIALS AND CONSTRUCTION REQUIREMENTS, USE HOWARD COUNTY STANDARD SPECIFICATIONS.
 - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
 - ALL VERTICAL CONTROLS ARE BASED ON USGS DATUM.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE COST FOR TUNNELING OR BRACING POLES SHALL BE INCLUDED IN APPROPRIATE UNIT PRICES BID.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.
 STATE HIGHWAY ADMINISTRATION - 531-5533
 BALTIMORE GAS & ELECTRIC COMPANY
 UNDERGROUND ELECTRIC AND GAS DISTRIBUTION-CUSTOMER SERVICE - 685-0123
 DAMAGE CONTROL - 234-5621
 "MISS UTILITY" - 1 - 559-0100
 CHEESAPEAKE & POTOMAC TELEPHONE COMPANY - 725-9976
 AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION - 393-3553
 BUREAU OF UTILITIES HOWARD COUNTY - 992-2366
 - TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES 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 AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN APPROPRIATE UNIT PRICES BID.
 - PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.
 - ALL SEWER MAINS SHALL BE C.S.P.X., V.C.P.X., A.C.P. OR P.V.C. UNLESS OTHERWISE NOTED.
 - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
 - MANHOLES DESIGNATED W.T. IN PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER.

CURVE NO. 1
 $\Delta = 31^{\circ}06'20"$
 $R = 220.00'$
 $T = 61.23'$
 $L = 119.44'$
 $D = 26^{\circ}18'36"$

PROPERTY OF
 HOWARD RESEARCH AND
 DEVELOPMENT CORPORATION

PROPERTY OF
 BALTIMORE GAS AND ELECTRIC COMPANY

PROPERTY OF
 95-32 CORPORATION
 AND
 HOWARD RESEARCH AND
 DEVELOPMENT CORPORATION

- EROSION CONTROL NOTES**
- Disturbed area shall be minimized.
 - Silt Fence shall be placed immediately upon completion of pipe laying in area. Silt Fence and/or other erosion control devices at locations other than shown may be required.
 - Rip-Rap construction and seeding and mulching shall follow as soon as practicable after construction of each manhole section.
 - See details of Silt Fence in Special Provisions.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Richard Benign 5/13/81
 CHIEF-BUREAU OF UTILITIES - DATE

William J. Reilly 5/15/81
 CHIEF-BUREAU OF ENGINEERING - DATE

WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 2315 ST. PAUL ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John F. Neuman 5-15-81
 DIRECTOR OF PUBLIC WORKS - DATE

William J. Reilly 5-15-81
 CHIEF-LAND DEVELOPMENT DIVISION - DATE

CONTRACT NO. 30-0973-D

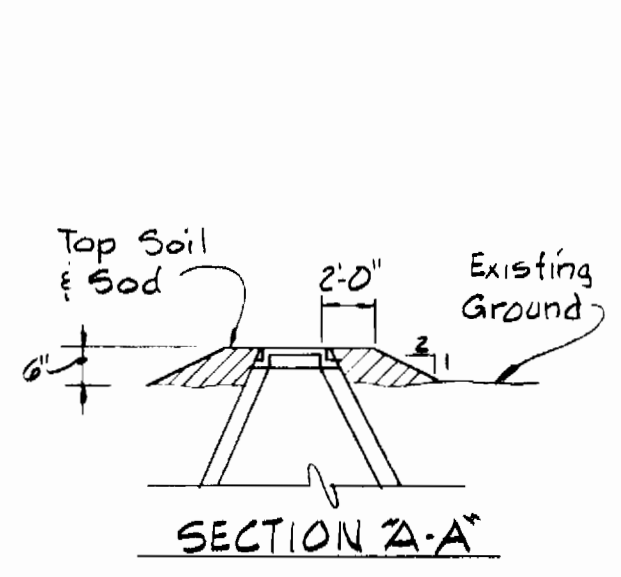
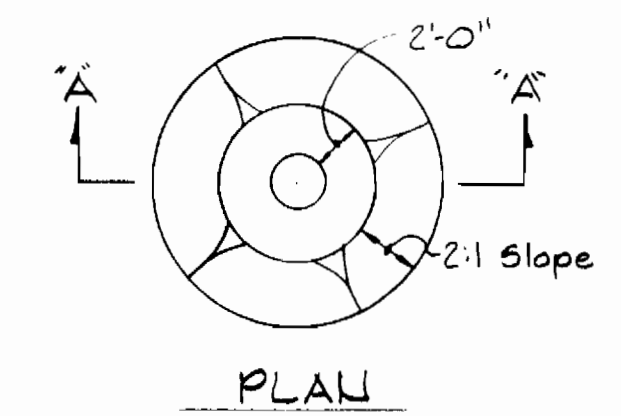
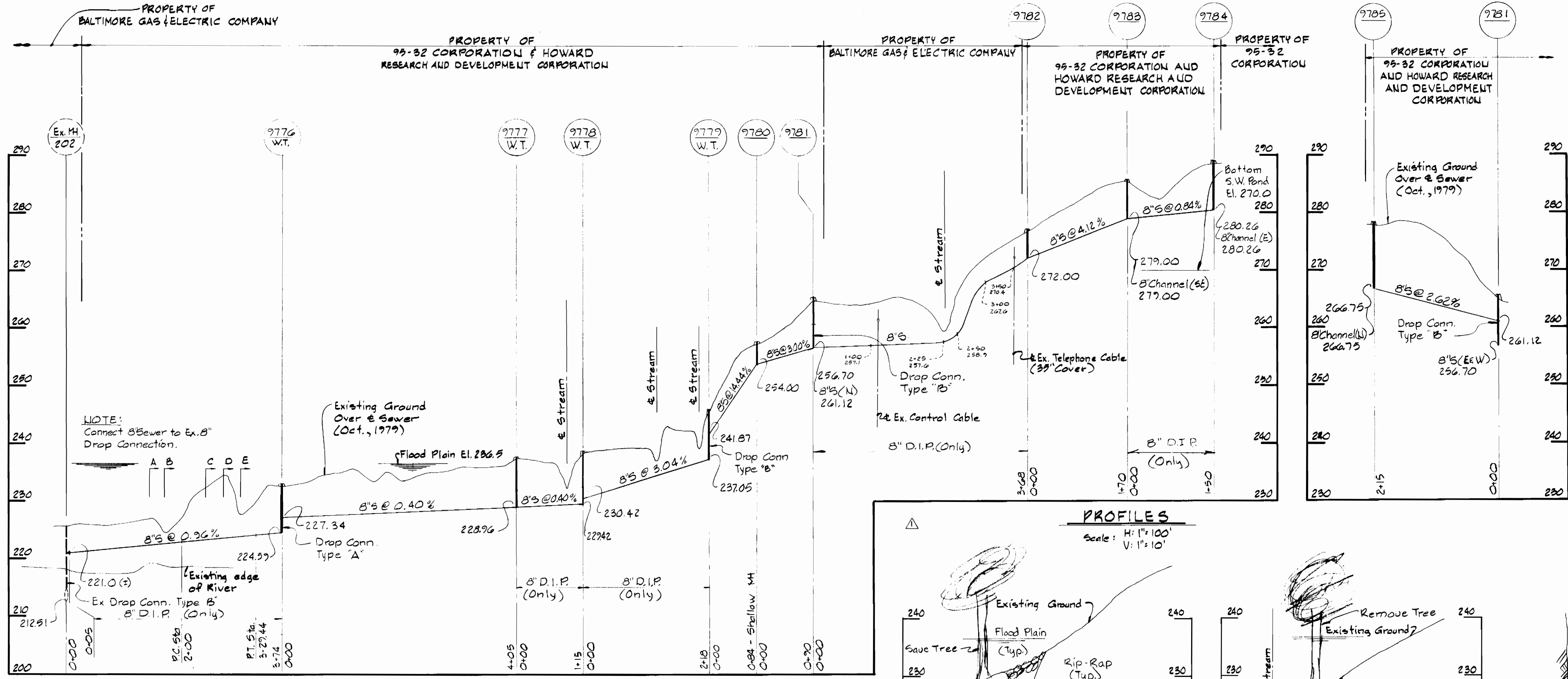
PLAN OF
 SEWER MAINS

COLUMBIA
 VILLAGE OF KINGS CONTRIVANCE
 ELECTION DISTRICT GUILFORD NO. 6

DRAWING
 NO. 2
 OF 3

SCALE
 1" = 50'

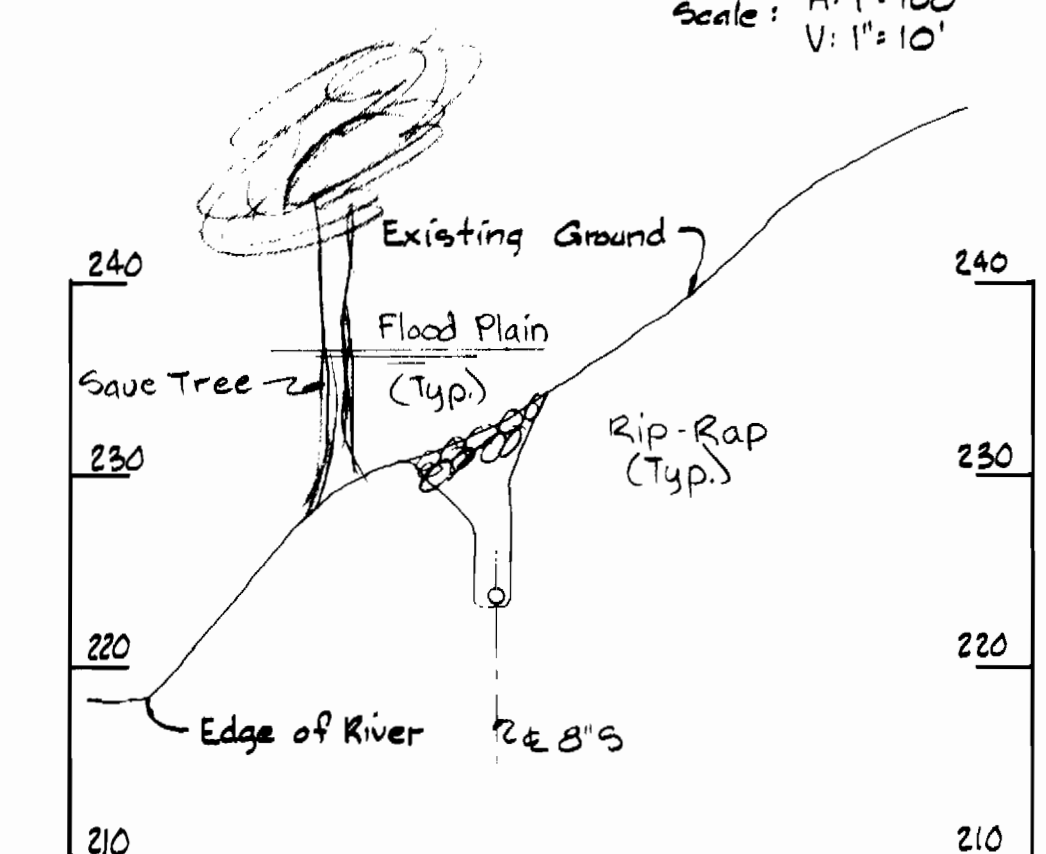
Village of Kings Contrivance
 Section 3, Area 2, Phase II, Part 5
 Contract No. 30-0973-D



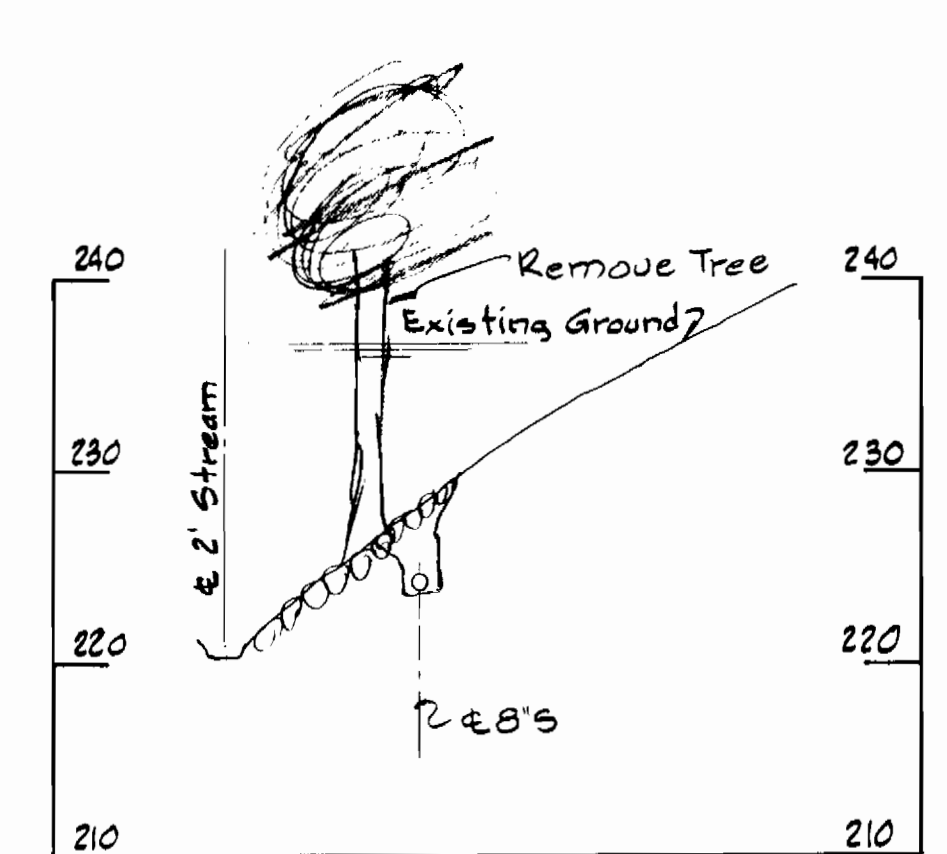
FILL AROUND MANHOLES
Scale: 1/8\"/>

NOTE:
Connect 8\"/>

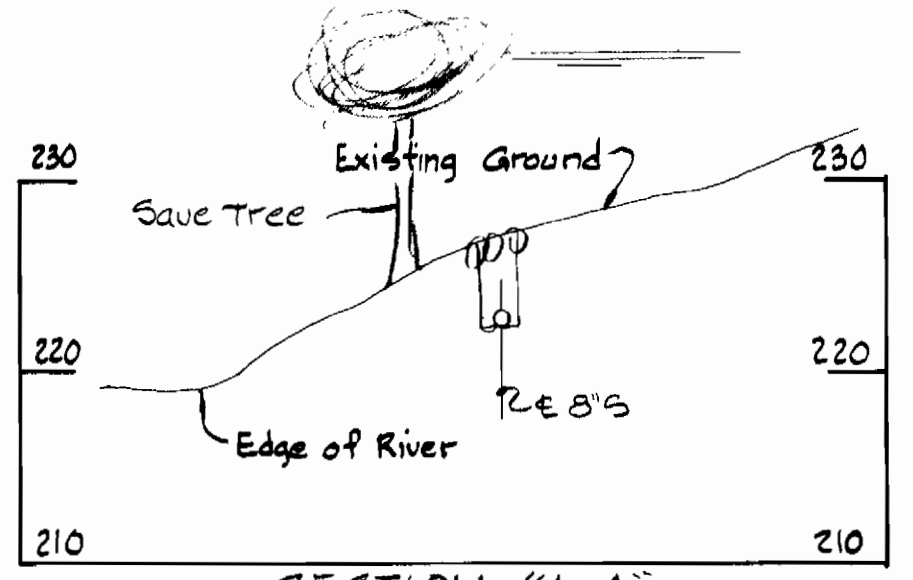
PROFILES
Scale: H: 1\"/>



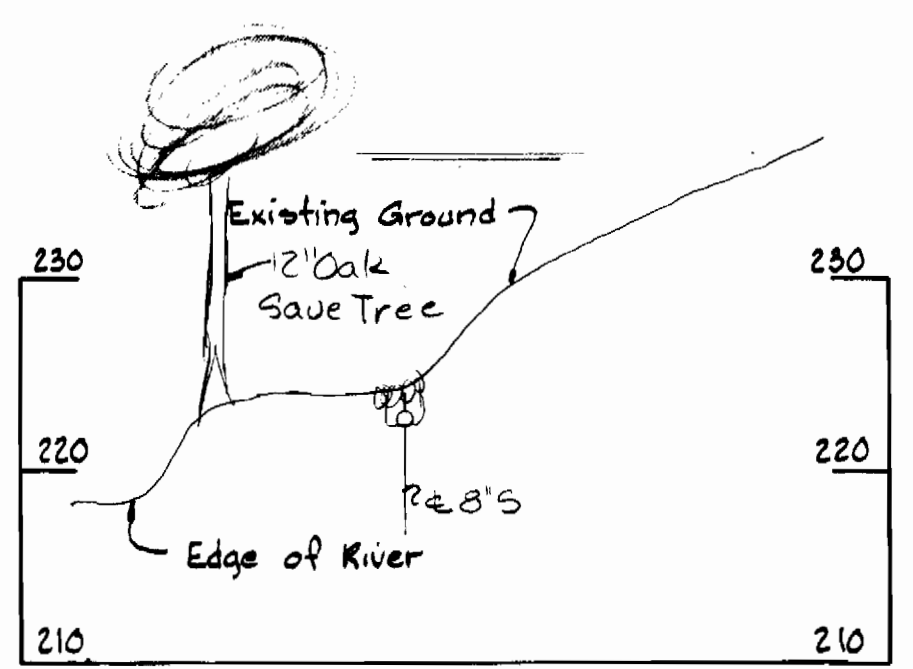
SECTION C-C
Sta. 2+47



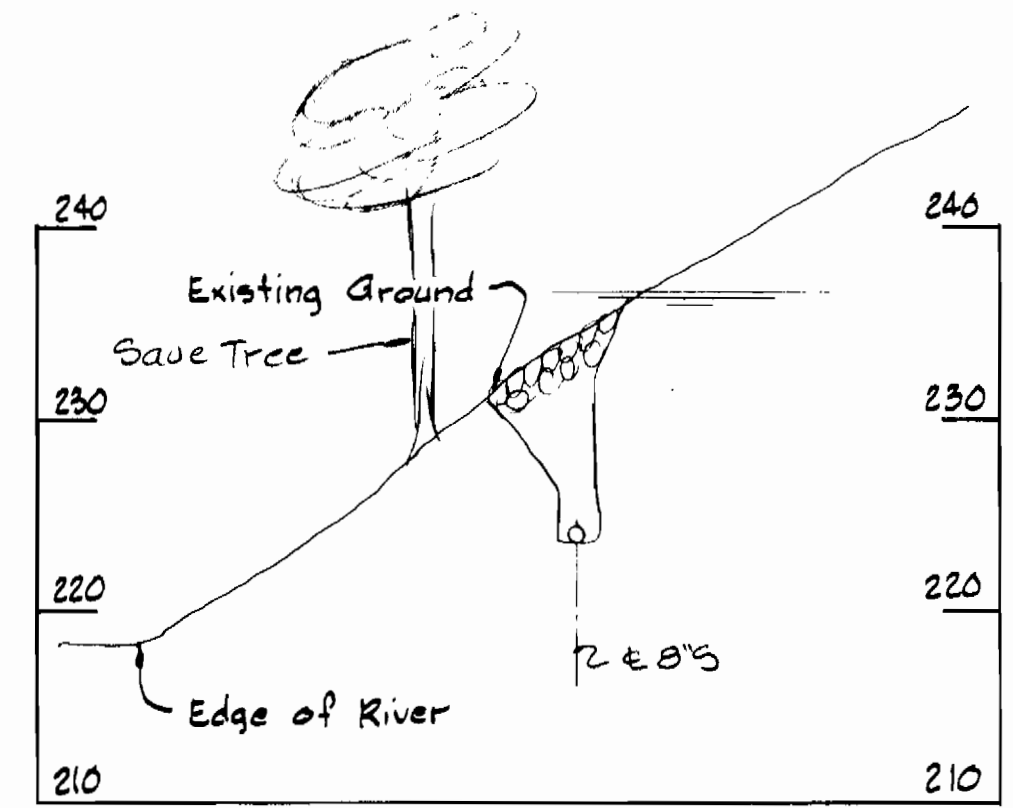
SECTION E-E
Sta. 3+10



SECTION A-A
Sta. 1+47



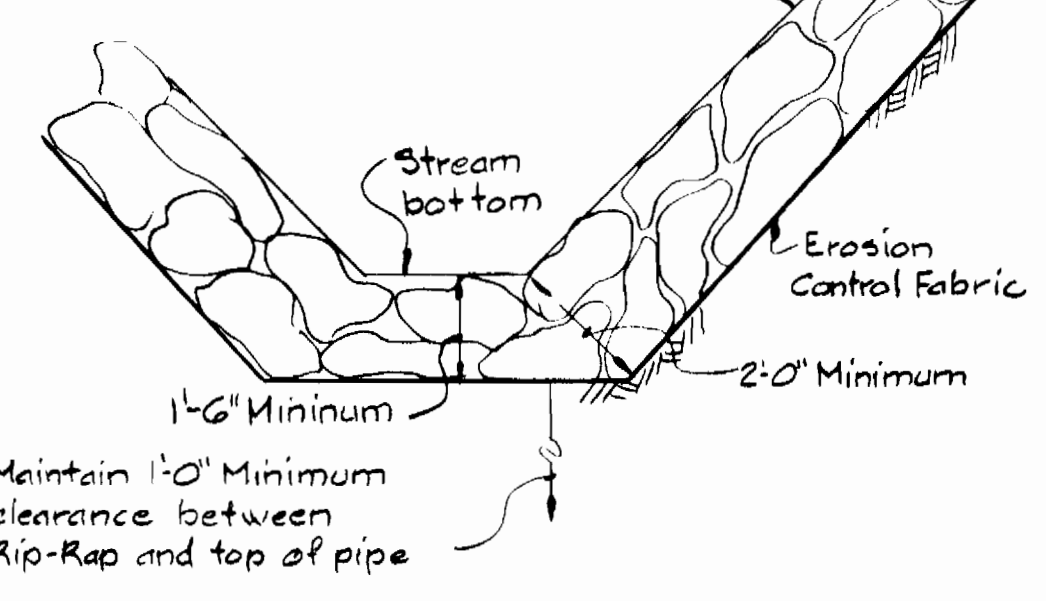
SECTION B-B
Sta. 1+75



SECTION D-D
Sta. 2+75

CROSS-SECTIONS
Scale: 1\"/>

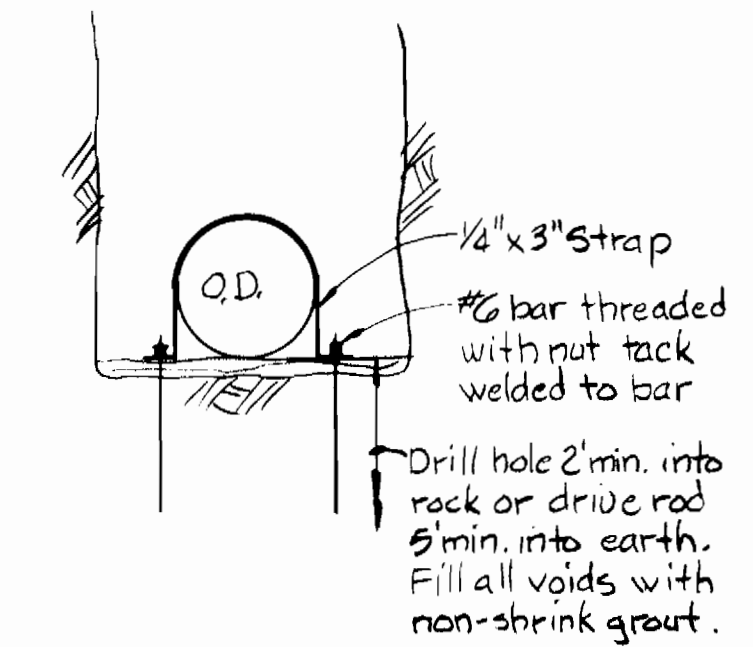
Rip-Rap shall consist of dense rocks of random shapes and sizes, resistant to the action of air and water and suitable for bank protection. All rocks shall weigh a minimum of 100 pounds.



RIP-RAP DETAIL
Scale: 3/8\"/>

- RIP-RAP**
- Erosion Control Fabric shall be Poly Filter-X as manufactured by Carthage Mills, Inc. Erosion Control Division, 124 West 66th Street, Cincinnati, Ohio; Laurel Erosion Control Cloth as manufactured by Laurel Plastics, Inc., Madison, Maine, or approved equal.
 - Rip-Rap shall be placed 6\"/>

DETAIL OF PIPE ANCHOR
No Scale



- NOTES:**
- Provide Anchors for each pipe, at 1/4 points, Sta. 1+25 to Sta. 3+29, MH 202 to MH 9776.
 - Paint all exposed steel with 2 coats coal tar protective coating per AWWA C-203.
 - Provide Rip-Rap in areas shown. Use excess rock for stabilization as directed.
 - Fill between rocks with top soil and plant with broad-leaved Cattail or other approved plantings which have a well developed root stock.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
R. M. Reardon 5/15/81
CHIEF - BUREAU OF UTILITIES - DATE
Whitman, Reardon & Associates
ENGINEERS
2315 ST. PAUL ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
W. E. Neumann 5-15-81
DIRECTOR OF PUBLIC WORKS - DATE
M. L. ... 1-15-81
CHIEF - LAND DEVELOPMENT DIVISION - DATE

CONTRACT NO. 30-0973-D

PROFILES & DETAILS OF SEWER MAINS

COLUMBIA VILLAGE OF KINGS CONTRIVANCE ELECTION DISTRICT GUILFORD NO. 6

DRAWING NO. 3 OF 3 SCALE AS SHOWN