


HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

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 UTILITIES 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 THE 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 DETAILS FOR CONSTRUCTION. 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 UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - 531-5533
 - BALTIMORE GAS & ELECTRIC COMPANY - CONTRACTOR SERVICES - 561-2585
 - BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND DAMAGE CONTROL - 234-5621
 - BALTIMORE GAS & ELECTRIC COMPANY - TROUBLE SHOOTING - 298-9013
 - MISS UTILITY - 1-559-0100
 - COLONIAL PIPELINE COMPANY - 795-1300
 - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2366
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS 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. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.P., V.C.P.X., A.C.P. CLASS 2400 OR P.V.C. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL 51.45. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

Reviewed for Howard County S.C.D. and meets technical requirements.

James M. Belmont Date: 11/84
U.S. SOIL CONSERVATION SERVICE

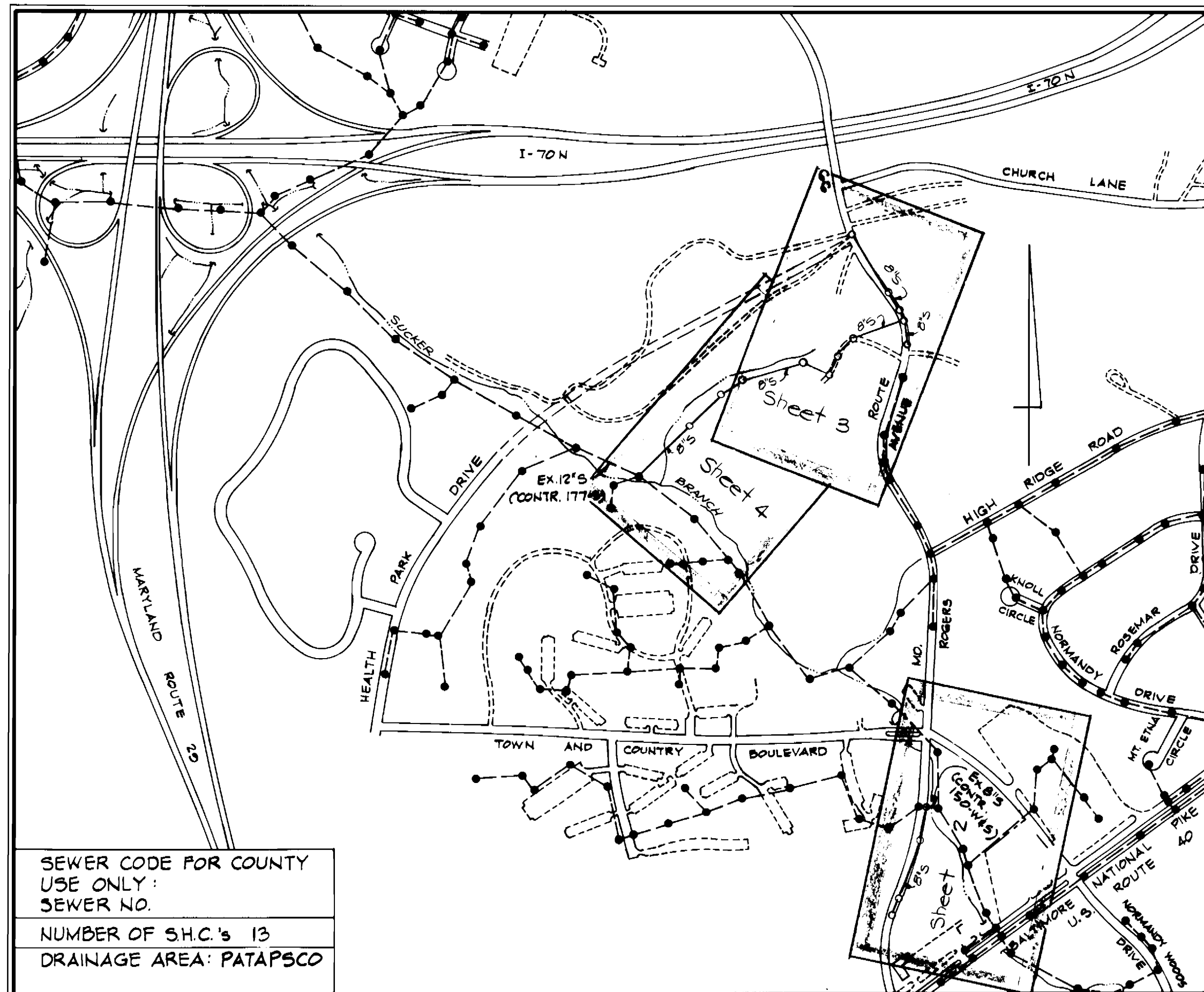
This development plan is approved for soil erosion and sediment control by The Howard County Soil Conservation District.

Approved: *[Signature]* Date: 2/16/84
HOWARD COUNTY S.C.D.

BENCH MARKS

3243002-R ELEV. 354.030
Concrete Monument at surface 3.5' south of left turn lane of Route 40 West 14' east of east edge of crossover to Route 22 South.

3443003-R ELEV. 453.136
3/4" Rebar 0.5' below surface 5' south of top bank 20' east of east edge of bridge. (MD. ROUTE 22)



SEWER CODE FOR COUNTY USE ONLY:
SEWER NO. _____
NUMBER OF S.H.C.'s 13
DRAINAGE AREA: PATAPSCO

ENGINEER'S CERTIFICATION

I certify that this plan for erosion & sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District.

Walter S. Kimmie Date: 12/1/83
KIDDE CONSULTANTS, INC.
1020 CROMWELL BRIDGE ROAD
TOWSON, MD. 21204

DEVELOPER'S CERTIFICATION

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project."

[Signature] Date: 12/1/83
BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS

ROGERS AVENUE COLLECTOR SEWERS

CAPITAL PROJECT NO. S-6114

CONTRACT NO. 10-1129

ELECTION DISTRICT NO. 2

ITEM	QUANTITIES		TYPE MATERIAL	SUPPLIERS
	ESTIMATE	AS BUILT		
8" D.I.P. CL. 52	400 L.F.			
8" SEWER	3092 L.F.			
6" SEWER	270 L.F.			
MANHOLES	17			
Manholes over 6.5'	73 V.F.			
8" Type B - Drop Conn.	1			
Mainline Y-Branch or Tees	10			



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

William F. Nunn Date: 12/1/83
DIRECTOR OF PUBLIC WORKS

Robert M. Brown Date: 12/1/83
CHIEF, BUREAU OF UTILITIES

Walter S. Kimmie Date: 12/1/83
CHIEF, BUREAU OF ENGINEERING

Allen J. Brown Date: 12/1/83
CHIEF, UTILITY DIVISION

KIDDE CONSULTANTS, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

CONTRACT NO. 10-1129
CAPITAL PROJECT S-6114

LOCATION MAP OF
SEWER MAIN EXTENSION

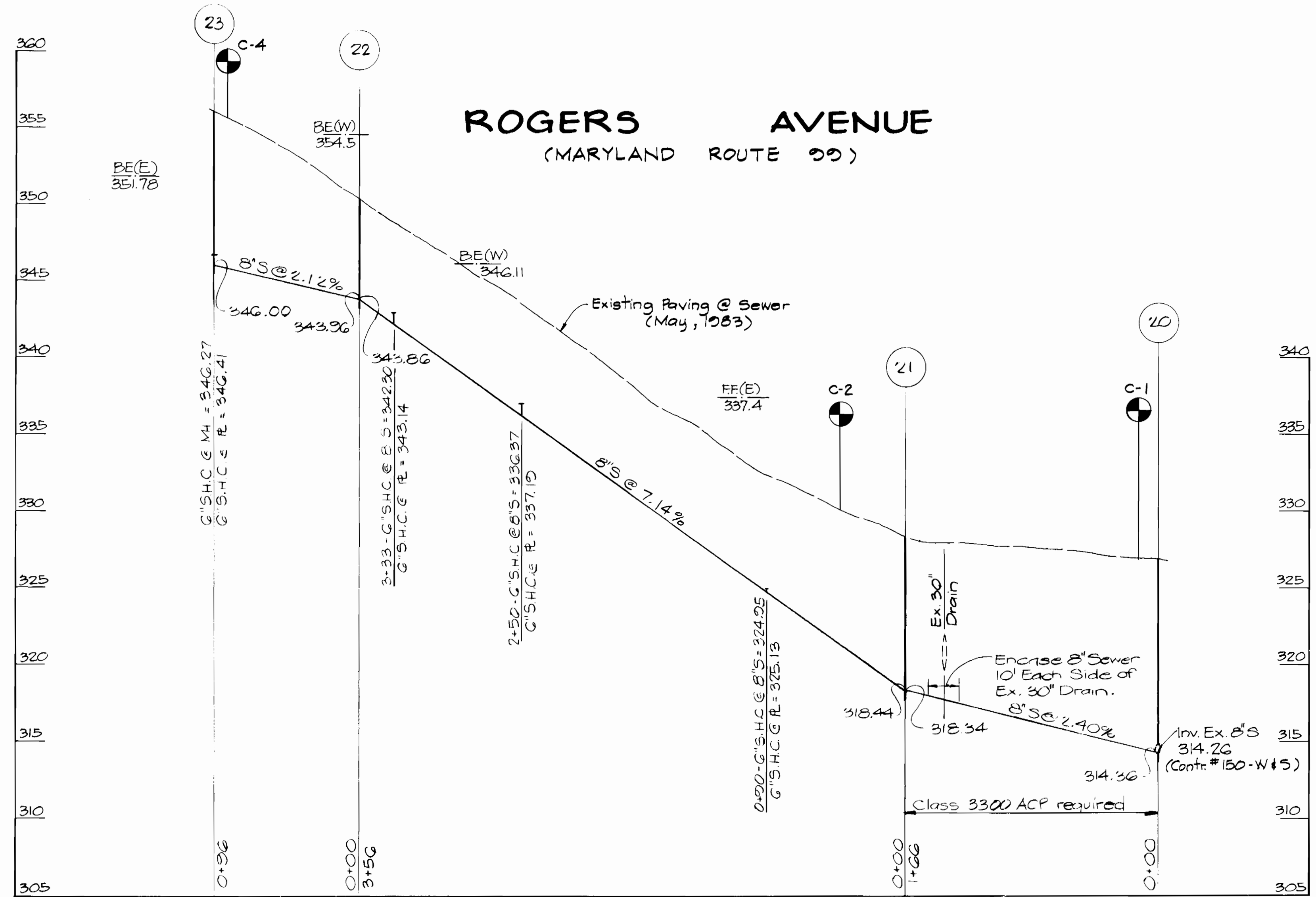
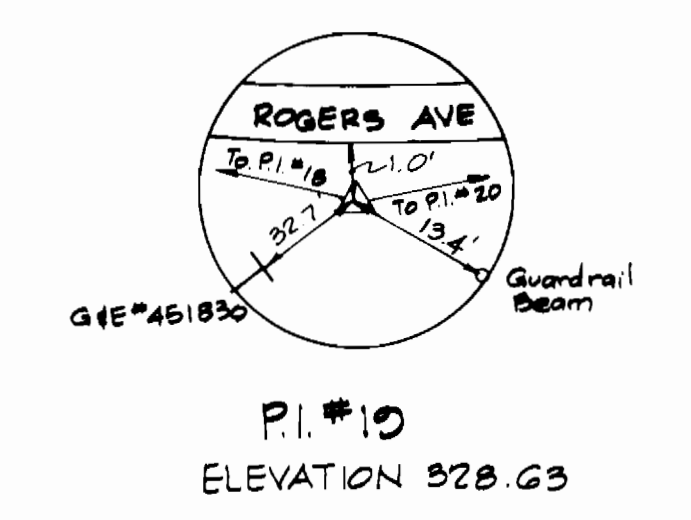
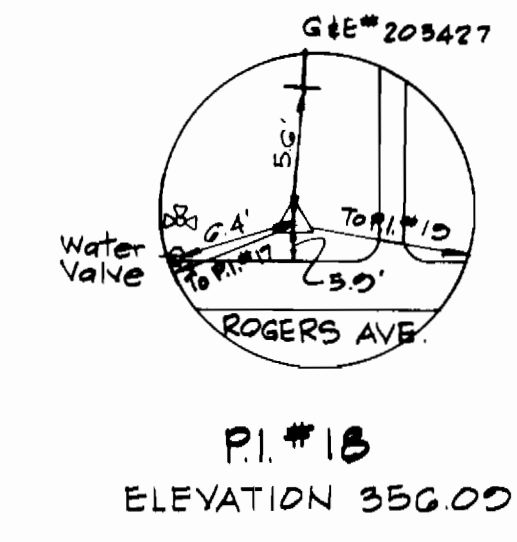
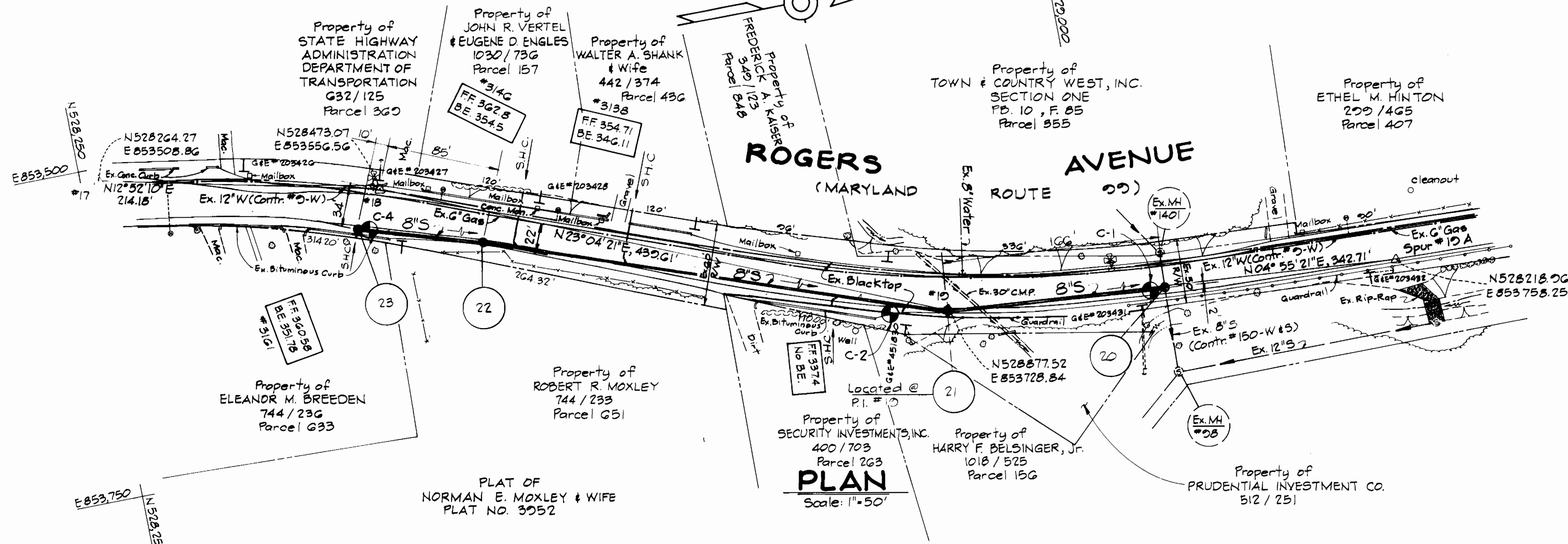
KCI Δ Revised General Notes 8-16-84
BY NO. REVISION DATE

ROGERS AVENUE COLLECTOR SEWERS
CAPITAL PROJECT NO. S-6114
CONTRACT NO. 10-1129

ROGERS AVENUE COLLECTOR SEWERS
TITLE SHEET

DRAWING NO. 1 OF 6
SCALE 1" = 60'
DES. T.E.S.
DRN. T.E.S.
CHK. W.B.H.

HUBBLE'S SUBDIVISION
PLAT BOOK G, FOLIO B



PROFILE
Scale: Hor. 1"=50'
Vert. 1"=5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY MARYLAND

Robert M. Brown 12-15-83
DIRECTOR OF PUBLIC WORKS DATE
CHIEF, BUREAU OF UTILITIES

Allen S. Brown 12/16/83
CHIEF, BUREAU OF ENGINEERING DATE
CHIEF, UTILITY DIVISION

KIDDE CONSULTANTS, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

CONTRACT NO. 10-1129
CAPITAL PROJECT S-6114

PLAN AND PROFILE OF SEWER MAINS

ROGERS AVENUE COLLECTOR SEWERS

DRAWING NO. 2 OF 6
SCALE AS SHOWN
DES. T.E.S.
DRN. T.E.S.
CHK. W.B.H.

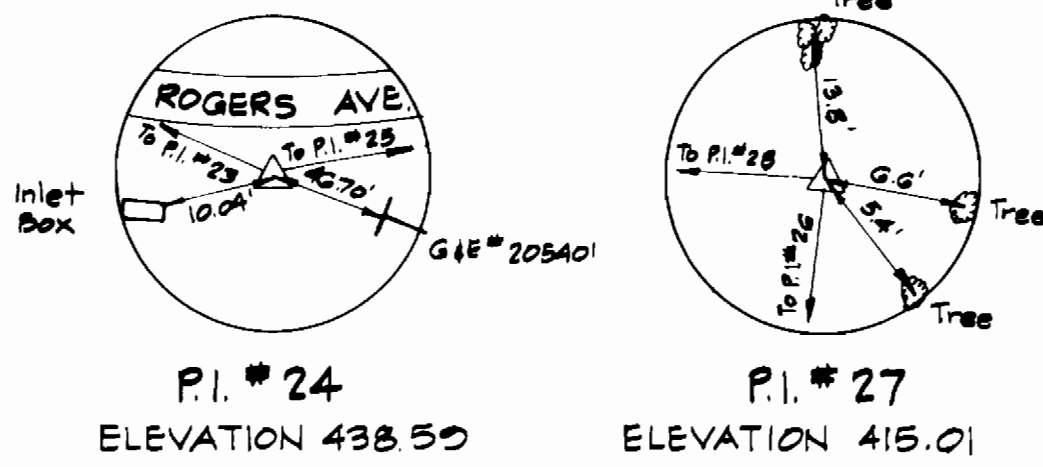
KCI	▲	GENERAL NOTES RELOCATED TO SHEET 1076	8-16-84
KCI	▲	GENERAL NOTE 1G REVISED	4-11-84
BY	NO	REVISION	DATE



TRAVERSE TIES TO MANHOLES

TRAVERSE NO.	BEARING	DISTANCE	MANHOLE NO.
20	S67°52'30"W	14.42'	4
20	N42°07'21"E	20.25'	5
20	N27°26'18"E	157.05'	6
27	S03°28'02"E	53.01'	7

NOTE:
Contractor shall place sod the full width of the Right-of-Way and Construction Strips from a point 5' Northwest of Manhole 5 to a point on the Northeast side of Ex. Manhole #2064 and from a point on the westerly Property line of Rogers Avenue to a point 57' East of Manhole 7.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY MARYLAND

[Signature]
DIRECTOR OF PUBLIC WORKS
DATE 12-15-83
CHIEF, BUREAU OF UTILITIES

[Signature]
CHIEF BUREAU OF ENGINEERING
DATE 12/16/83
CHIEF, UTILITY DIVISION

KIDDE CONSULTANTS, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

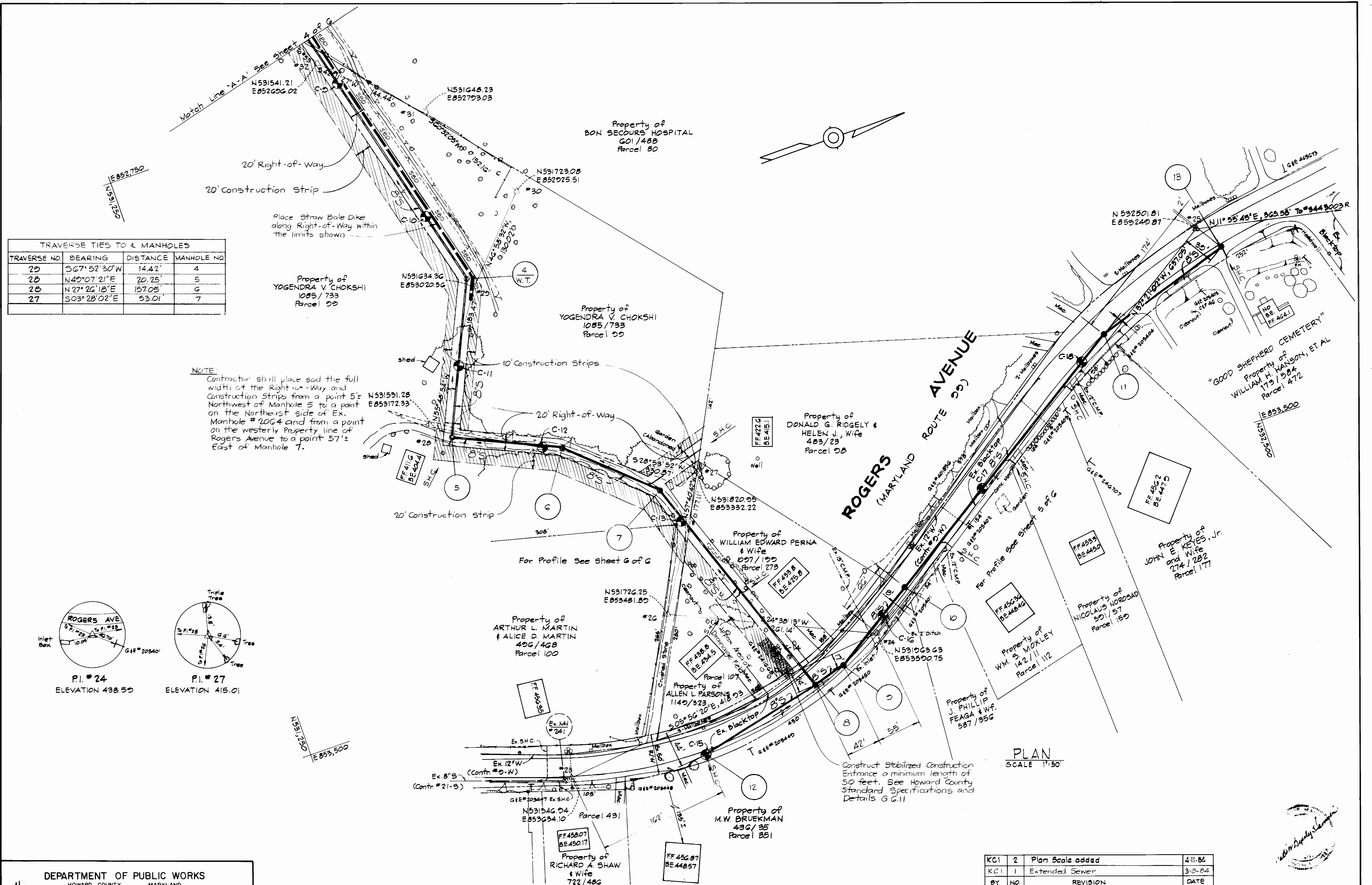
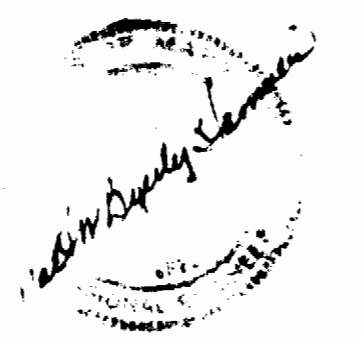
CONTRACT NO. 10-1129
CAPITAL PROJECT S-6114

PLAN OF SEWER MAINS

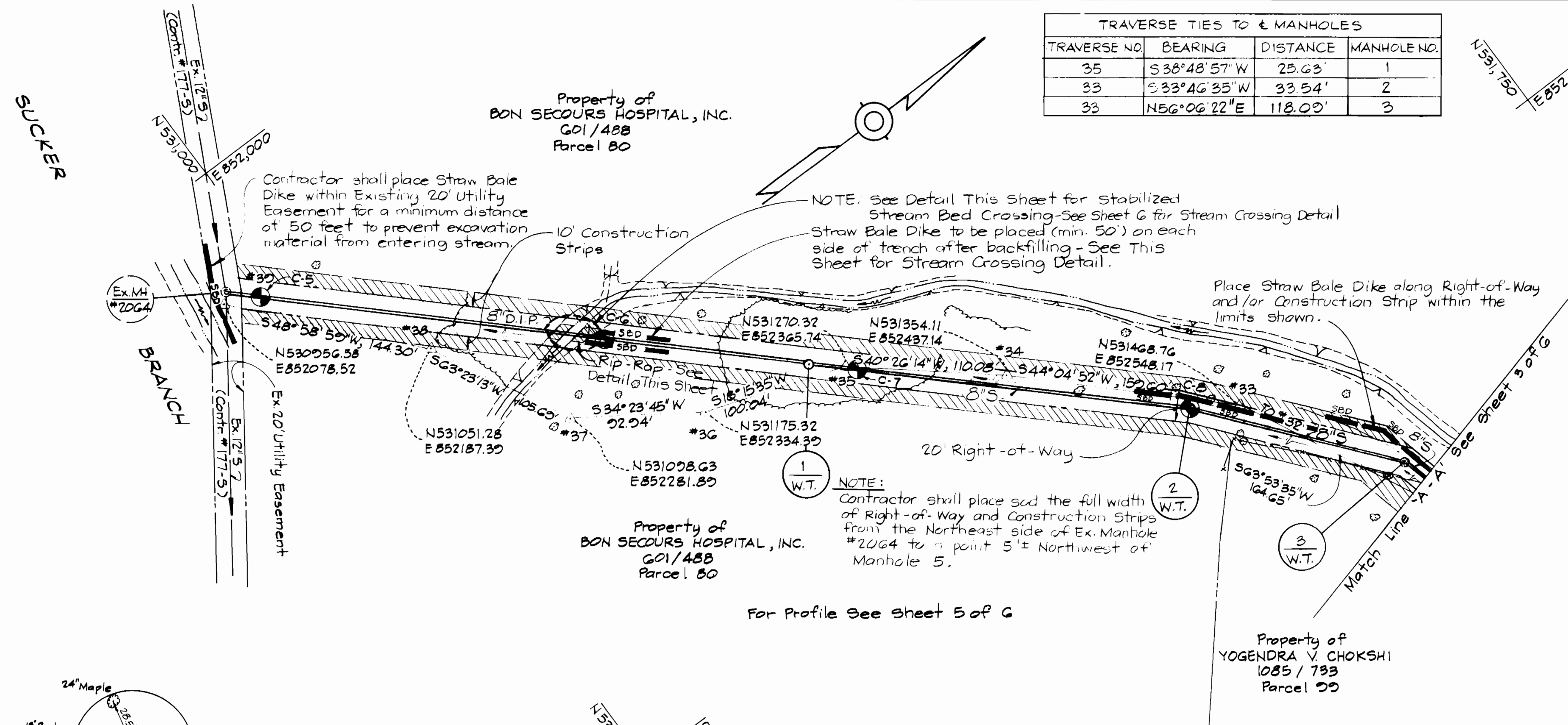
ROGERS AVENUE COLLECTOR SEWERS

DRAWING NO. 3 OF 6
SCALE AS SHOWN
DES. T.E.S.
DRN. T.E.S.
CHK. W.B.H.

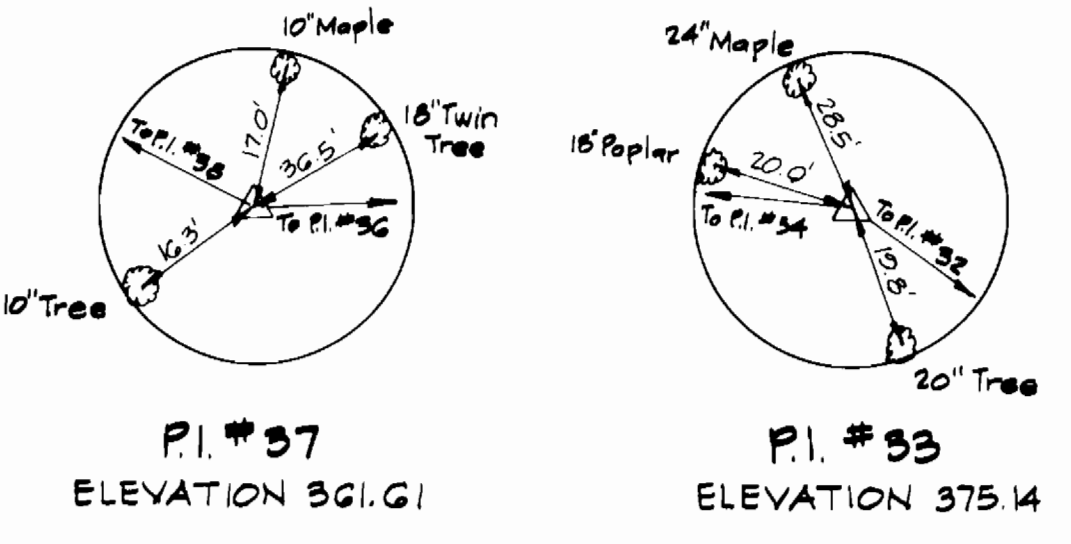
KCI	NO.	REVISION	DATE
KCI	2	Plan Scale added	4-11-84
KCI	1	Extended Sewer	3-3-84
BY	NO.	REVISION	DATE



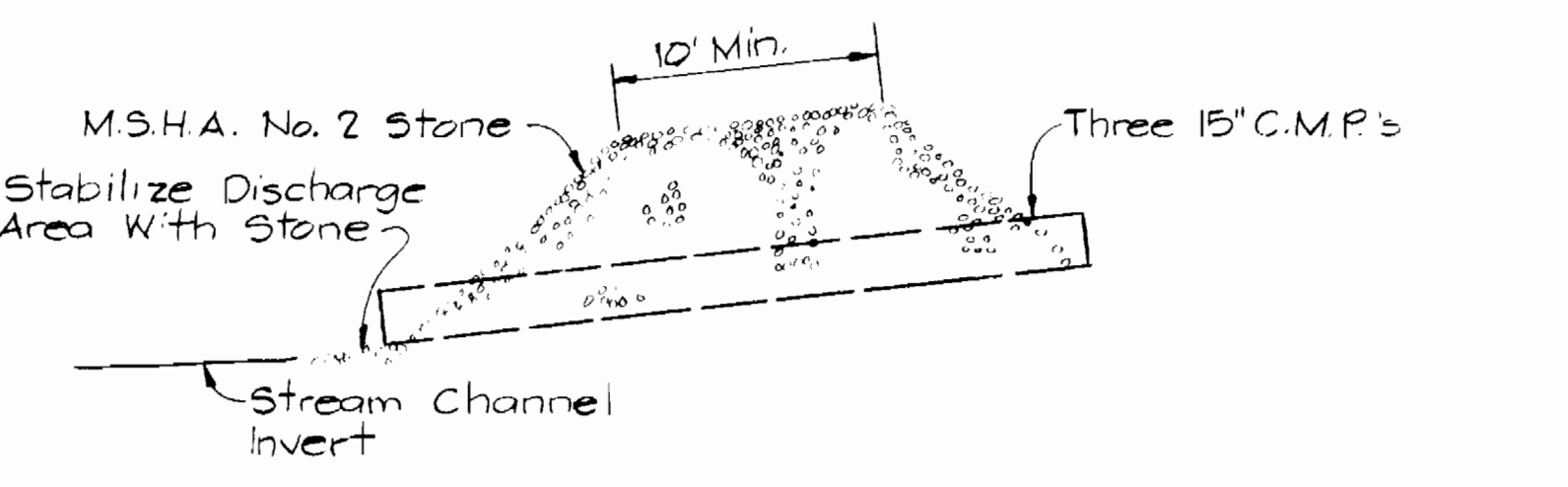
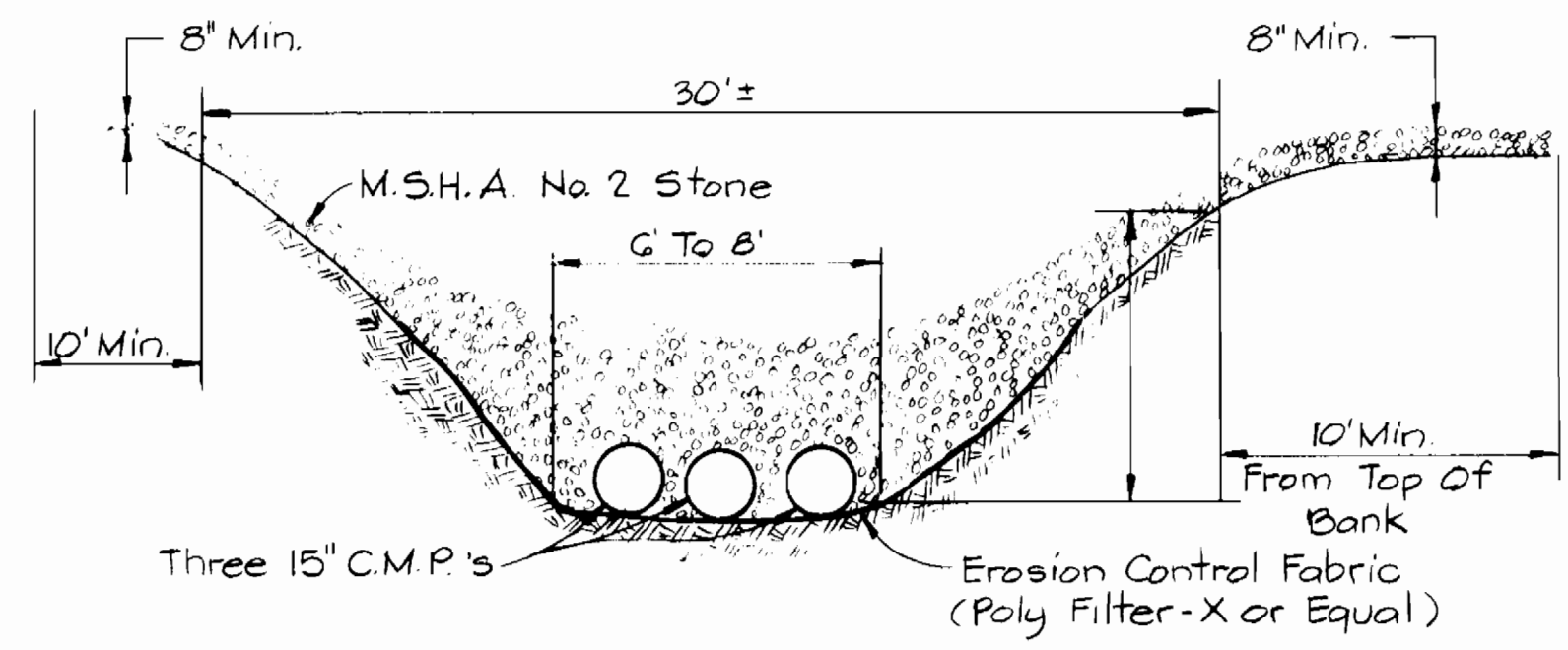
TRAVERSE NO.	BEARING	DISTANCE	MANHOLE NO.
35	S 38° 48' 57" W	25.63'	1
33	S 33° 46' 35" W	33.54'	2
32	N 56° 06' 22" E	118.00'	3



- SOIL EROSION AND SEDIMENT CONTROL NOTES**
- The Contractor will comply with all requirements of sediment and erosion control as set forth in the contract drawings, the USDA Soil Conservation Service Manual, "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas", and Volume IV - Article 15 of the Howard County Design Manual, Volume IV.
 - The Contractor shall not pump from excavated areas directly into the Howard County Storm Drainage System or any natural water course. Where groundwater is encountered during construction, the Contractor shall provide portable or excavated sediment traps to prevent silted trench water from entering storm drainage systems or natural waterways.
 - All excavated material shall be placed on the high side of the trench whenever possible, and confined to an area where it will not obstruct the normal flow of drainage courses.
 - All swales shall be equipped with a sediment retention device to trap sediment and filter water leaving the right-of-way prior to entering any running streams.
 - The Contractor shall provide straw bale dikes normal to surface water flow around all vehicle and equipment staging areas as shown in "Detail of a Straw Bale Dike" enclosed in specifications.
 - Roadside ditches and drainage pipes shall be restored to a condition equal to or better than the original condition following completion of construction.
 - The Contractor shall dispose of spoils in accordance with good soil conservation practice and in such a manner that none can be carried into any drainage facility or water course. The Contractor shall be responsible for disposing of all spoil or excess excavated material on a site approved by the Soil Conservation District. Documentation of approval and site shall be provided to the Engineer prior to beginning work.
 - The Howard County Soil Conservation District must be notified in writing by the Contractor as to where excess material will be disposed or borrow material will be obtained. Prior to beginning any work on this project, copies shall be provided to the Engineer.
 - Continuous inspection and maintenance of all sediment and erosion control devices will be required.
 - The Contractor shall provide additional soil erosion and sediment control as required by the Sediment Control Inspector, as the work progresses or requires.
 - The Contractor shall notify in writing, a Howard County Sediment Control Division Representative at least three (3) days prior to starting work. Please contact: Howard County - 992-2436. Copies shall be provided to the Engineer.
 - The Contractor shall place a Stabilized Construction Entrance as shown in the Howard County Standard Details, G.G.11, where shown on the Plans unless otherwise directed by the Engineer.
 - Sediment Removal - All trapped sediment is to be removed and disposed of at the authorized landfills prior to removal of sediment control structures.



PLAN
Scale: 1" = 50'



SECTION ACROSS CHANNEL
SECTION ALONG CHANNEL
STABILIZED STREAM BED CROSSING
FOR TEMPORARY ACCESS
Not to Scale

NOTES:

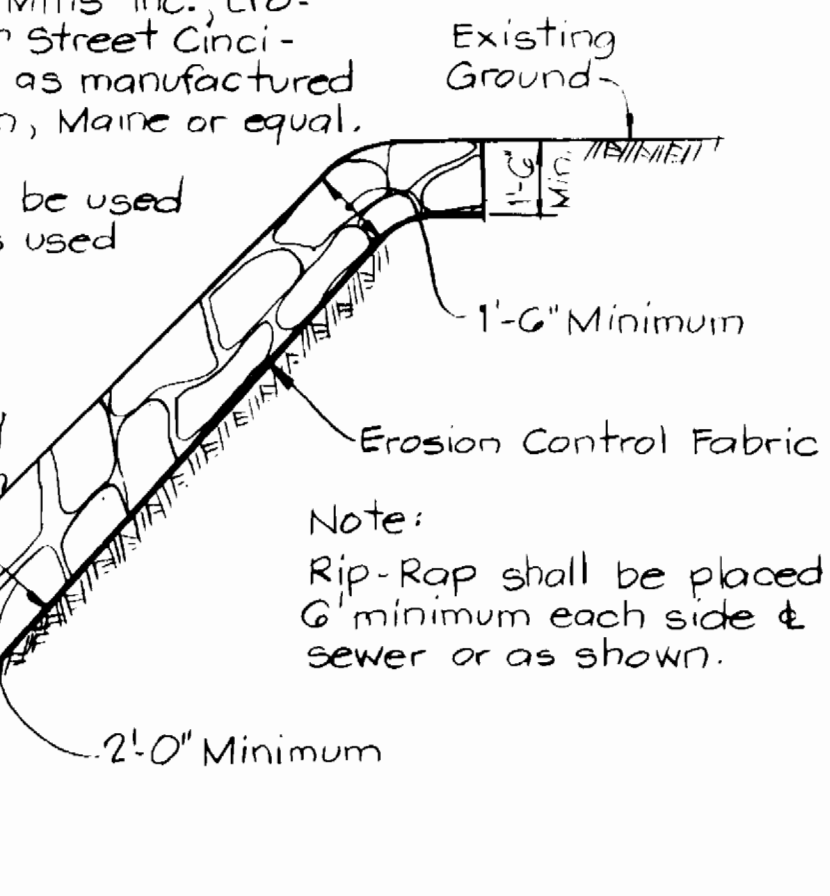
Erosion Control Fabric shall be Poly Filter X as manufactured by Carthage Mills Inc., Erosion Control Division, 124 W. 66th Street Cincinnati, Ohio. Laurel Erosion Cloth as manufactured by Laurel Plastics, Inc. Madison, Maine or equal.

Rock excavated from trench may be used for Rip-Rap provided the rocks used conform to the following:

Rip-Rap shall consist of dense rocks of random shapes and sizes resistant to the action of air and water suitable for bank protection. All rocks shall weigh a minimum of 150 pounds.

Note: Rip-Rap shall be placed 6' minimum each side of sewer or as shown.

Maintain 1' minimum clearance between Rip-Rap and Top of pipe.



RIP-RAP DETAIL
No Scale

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY MARYLAND

John R. Nimm 12-16-83
DIRECTOR OF PUBLIC WORKS DATE

Allen J. Brown 12/6/83
CHIEF, BUREAU OF UTILITIES DATE

Allen J. Brown 12/6/83
CHIEF, BUREAU OF ENGINEERING DATE

Allen J. Brown 12/6/83
CHIEF, UTILITY DIVISION DATE

KIDDE CONSULTANTS, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

CONTRACT NO. 10-1129
CAPITAL PROJECT S-6114

PLAN OF SEWER MAINS

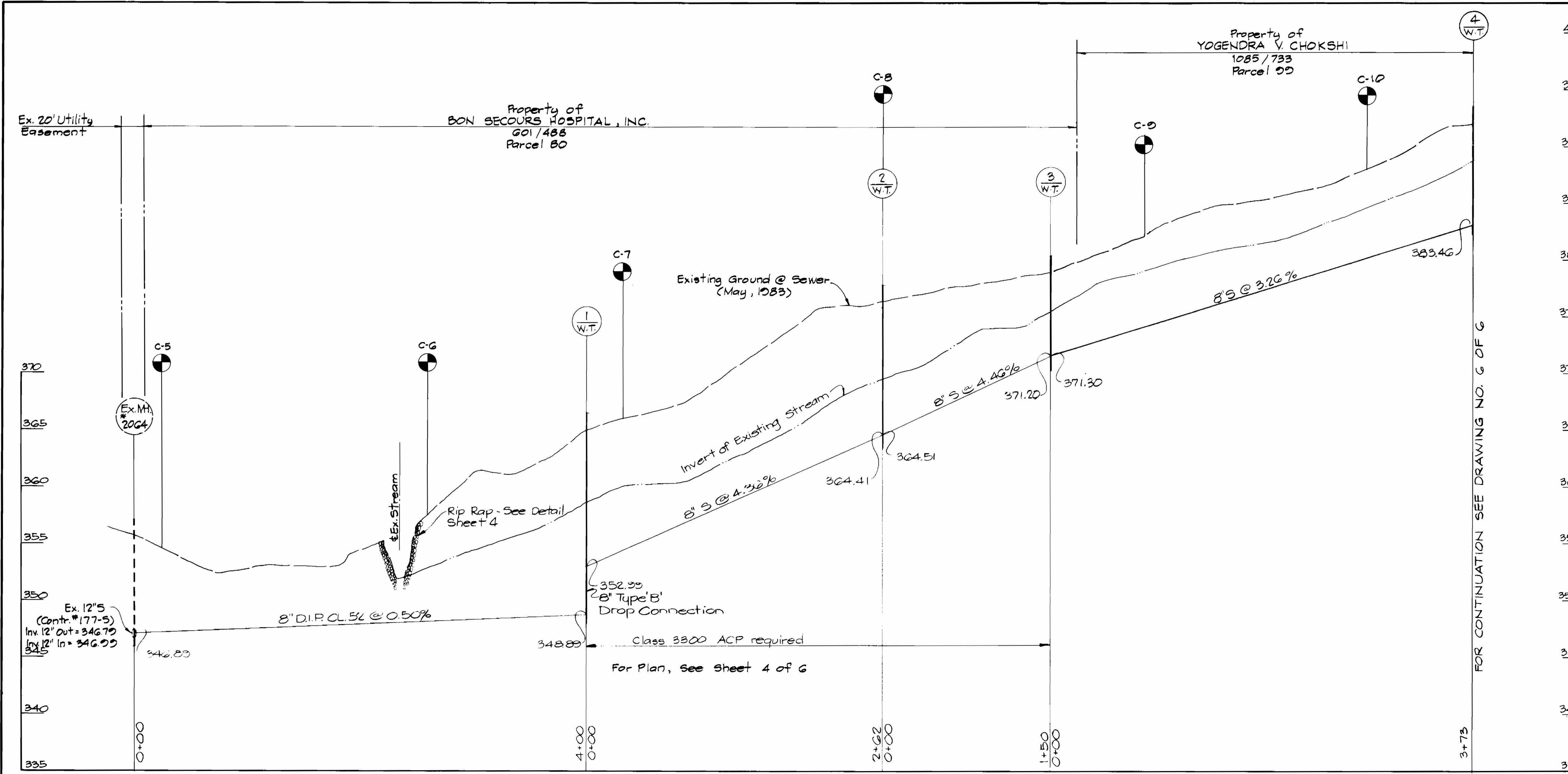
ROGERS AVENUE COLLECTOR SEWERS

DRAWING NO. 4 OF 6
SCALE AS SHOWN
DES. T.E.S.
DRN. T.E.S.
CHK. W.B.H.

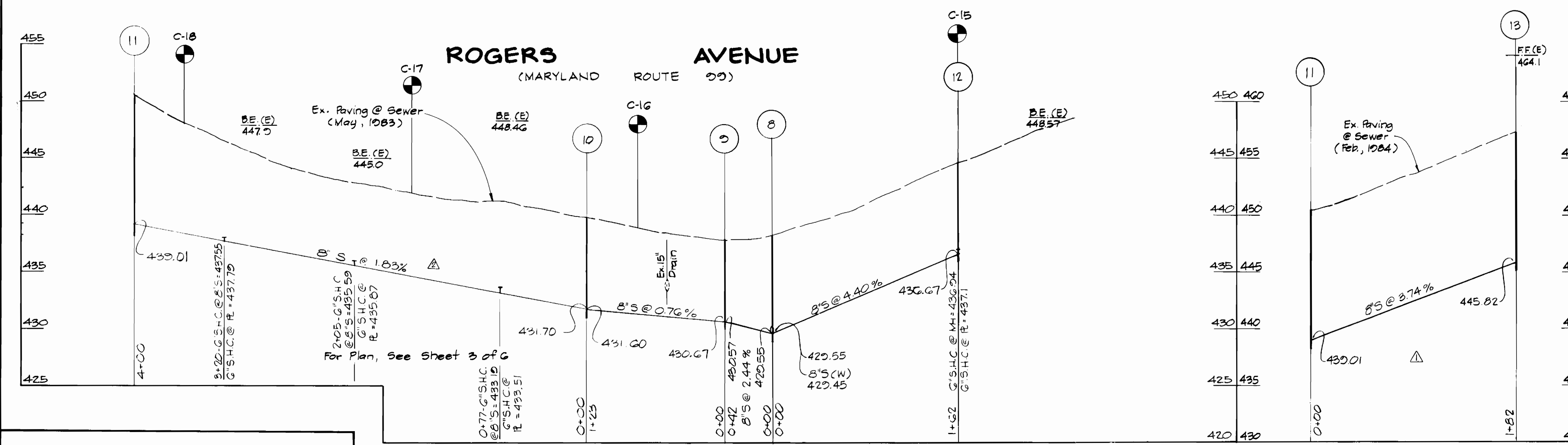
KCI	REVISION	DATE
KCI	REVISSED SEDIMENT CONTROL NOTES	8-16-84
BY	SEDIMENT CONTROL NOTE IS REVISED	4-11-84
NO	REVISION	DATE



BY	NO.	REVISION	DATE
KCI	1	Extended Sewer	3-8-84
KCI	2	Grade Between MH 10411 REVISED	4-11-84



FOR CONTINUATION SEE DRAWING NO. G OF G



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY MARYLAND
 Director of Public Works: *[Signature]* 12-16-83
 Chief, Bureau of Engineering: *[Signature]* 12/16/83
 Chief, Bureau of Utilities: *[Signature]* 12/15/83
 Chief, Utility Division: *[Signature]* 12/16/83

PROFILES Scale: Hor. 1" = 50' Vert. 1" = 5'
KIDDE CONSULTANTS, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND
 CONTRACT NO. 10-1129
 CAPITAL PROJECT S-6114

PROFILE OF SEWER MAINS
 ROGERS AVENUE COLLECTOR SEWERS

DRAWING NO. 5 OF 6
 SCALE AS SHOWN
 DES. T.E.S.
 DRN. T.E.S.
 CHK. W.B.H.



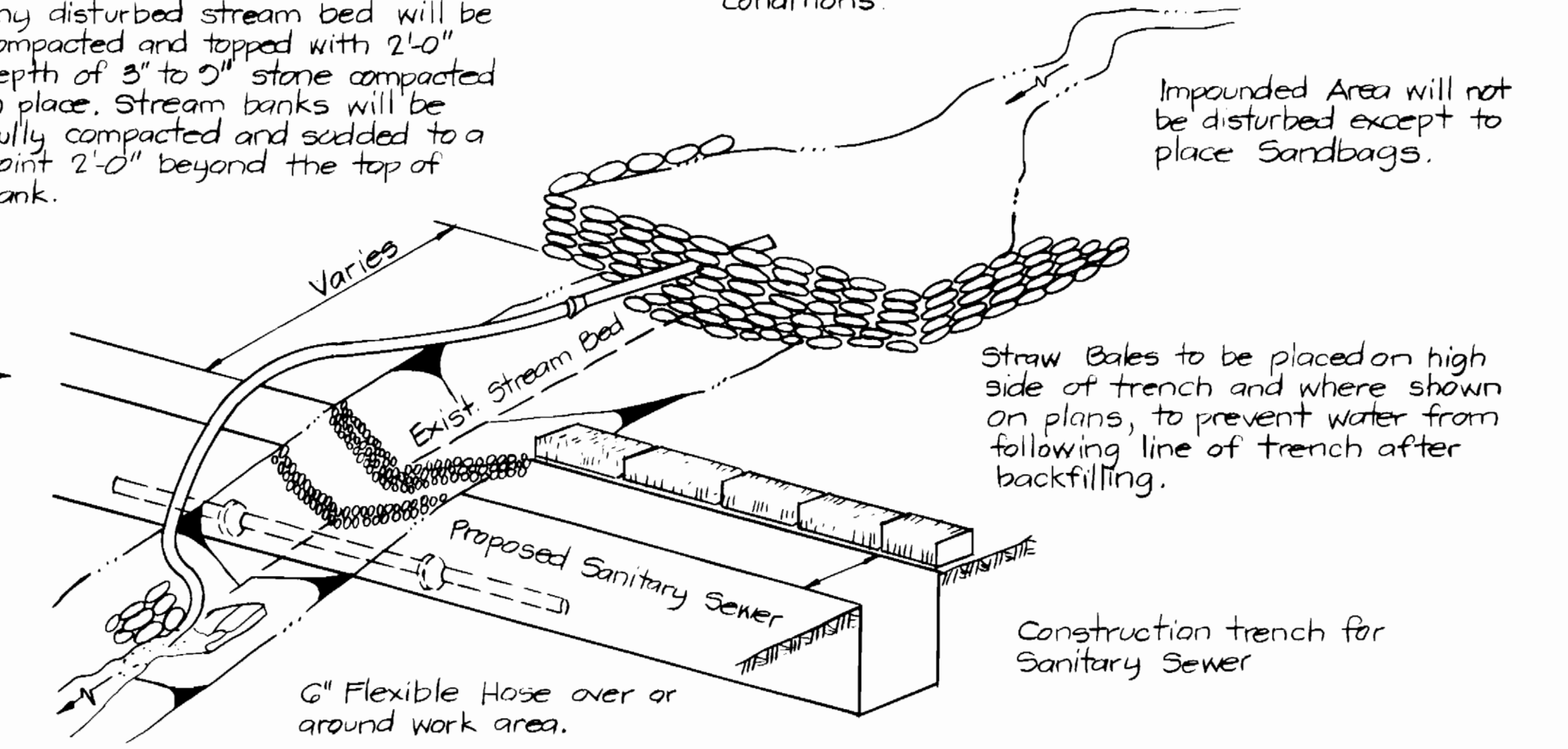
Temporary Sandbag Cofferdam shall be constructed and in an approved operating condition prior to beginning the trenching operation.

6" Rigid Overflow Pipe, one or more, as required by stream flow. Minimum pipe length 4'-0". Support ends as necessary.

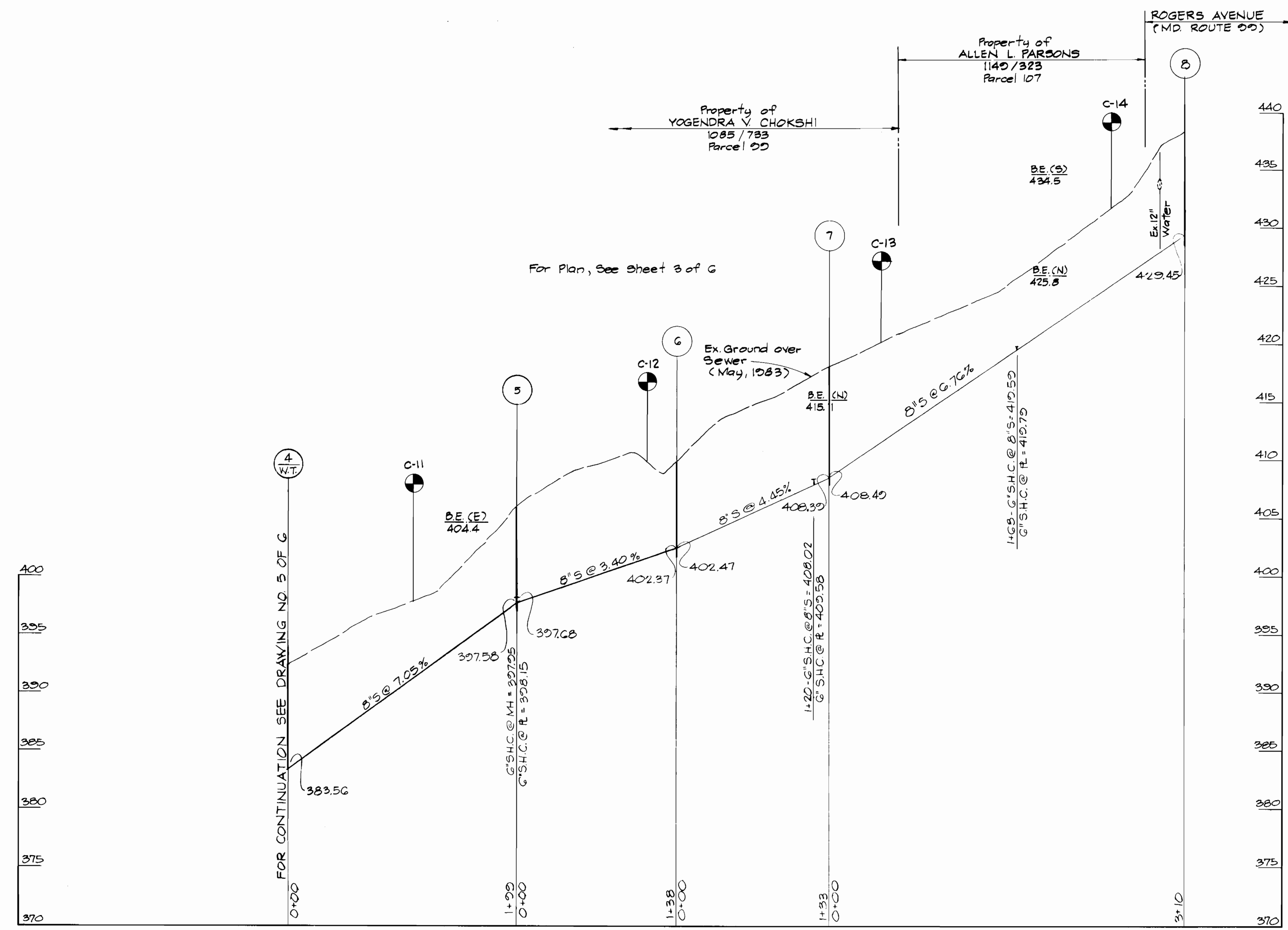
Any disturbed stream bed will be compacted and topped with 2'-0" depth of 3" to 5" stone compacted in place. Stream banks will be fully compacted and seeded to a point 2'-0" beyond the top of bank.

Temporary Sandbag Cofferdam Size and Shape as required by Stream Conditions

Impounded Area will not be disturbed except to place Sandbags.



STREAM CROSSING DETAIL
Not to Scale



PROFILE
Hor. 1" = 50'
Scale: Vert. 1" = 5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY MARYLAND
Director of Public Works: *[Signature]*
Chief, Bureau of Utilities: *[Signature]*

KIDDE CONSULTANTS, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

CONTRACT NO. 10-1129
CAPITAL PROJECT S-6114

PROFILE OF SEWER MAINS

ROGERS AVENUE COLLECTOR SEWERS

KCI	BY	NO	GRADES REVISED	REVISION	DATE
					4-11-84

DRAWING NO. 6 OF 6
SCALE AS SHOWN
DES. T.E.S.
DRN. T.E.S.
CHK. W.B.H.

