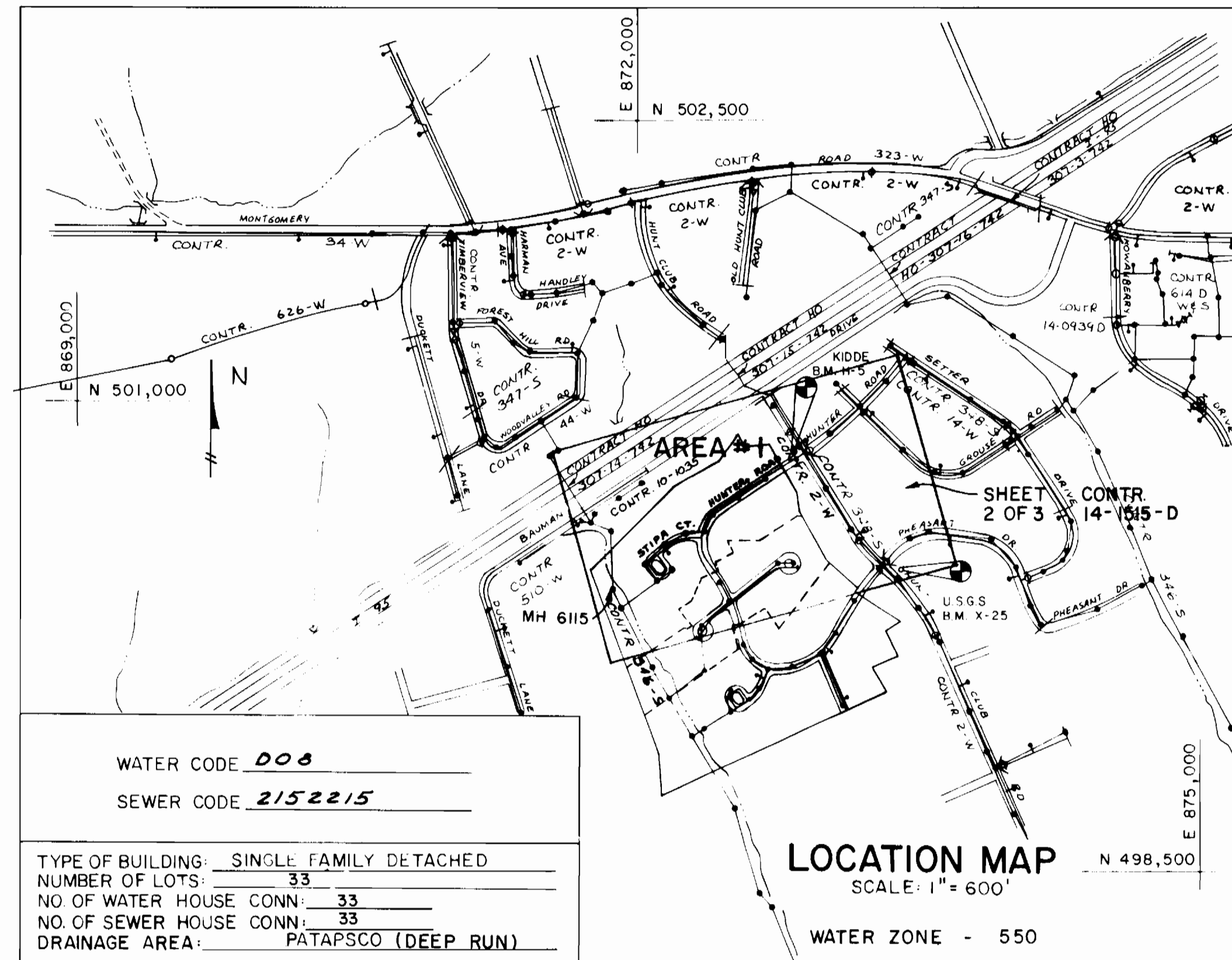


QUANTITIES :			
ITEM :	DESIGN :	AS BUILT :	MAT'L/SUPPLIER
8" SEWER	1265 LF		
6" SHC	564 LF		
MANHOLES	8		
BLOWOFF	1		
8" WATER	934 LF		
6" WATER	570 LF		
FIRE HYDRANTS	3		
1" WHC	329 LF		
3/4" WHC	335 LF		
8" VALVES	1		
6" VALVES	2		
6" F.H. VALVES	3		
TAPPING SLEEVE AND VALVE (8" x 8")	1		

**SEDIMENT CONTROL NOTES**

- FOR SEDIMENT CONTROL FOR THIS CONTRACT, SEE THE APPROVED ROAD CONSTRUCTION PLANS.
- MATERIAL FROM TRENCH EXCAVATION TO BE PLACED ON UPHILL SIDE OF TRENCH.
- CONTRACTOR TO BACKFILL, COMPACT AND STABILIZE IMMEDIATELY AFTER INSTALLATION OF PIPE. NO TRENCHES WILL BE LEFT OPEN AT THE END OF EACH LAY, EXCEPT THAT PORTION WHERE WORK HAS STOPPED.
- ANY SEDIMENT CONTROL FACILITIES ENCOUNTERED DURING PIPE CONSTRUCTION TO BE RETURNED TO ORIGINAL CONDITION IMMEDIATELY UPON COMPLETION OF THAT PORTION OF WORK.
- SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THE HOWARD COUNTY STANDARDS SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS. (F-87-4Z)



**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 USGS DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
- FOR ALL STANDARD DETAILS, SEE STANDARDS BOUND IN SPECIFICATIONS.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
  - STATE HIGHWAY ADMINISTRATION - 531-5533
  - BALTIMORE GAS & ELECTRIC CO. UNDER GROUND DAMAGE CONTROL - 234-5621
  - BALTIMORE GAS & ELECTRIC CO. CONTRACTOR SERVICES - 561-2585
  - BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING - 238-9013
  - MISS UTILITY - 1-559-0100
  - COLONIAL PIPELINE CO. - 795-1390
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 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 & ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EXCAVATION AND BACK FILL FOR WATER AND SEWER MAINS.
- 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 WATER MAINS TO BE DIP CLASS 52 UNLESS OTHERWISE NOTED.
- TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
- ALL VALVES SHALL BE STRAPPED TO TEES IN ACCORDANCE WITH STANDARD DETAILS.
- BLOCK ALL FITTINGS WITH CONCRETE, SEE STANDARDS BOUND IN SPECIFICATIONS.
- BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE ELEVATION ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS, SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTIONS 1003 & 1008 OF STANDARD SPECIFICATIONS.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
- ALL SEWER MAINS SHALL CSPX, VCPX, ACP CLASS 2400 OR PVC 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 DIA. UNLESS OTHERWISE NOTED.
- FOR MATERIAL AND CONSTRUCTION METHODS, USE HOWARD CO. STANDARD SPECS.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- THE CONTRACTOR SHALL NOT OPERATE ANY MAIN WATER VALVES ON THE EXISTING SYSTEM.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOVE IT.
- MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER STANDARD DETAIL G 5.51.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.

# HUNT CLUB ESTATES

SECTION 5

AREA 1

ELECTION DISTRICT 1

TAX MAP 38

HOWARD COUNTY, MARYLAND

## DEPARTMENT OF PUBLIC WORKS

CONTRACT NO. 14 - 1515 - D

**BENCHMARKS:** (SEE LOCATION MAP)

KIDDE BM# H-5 ELEV. 253.5  
SAN SEWER MANHOLE, EAST CORNER OF PROPERTY  
@ NORTHERN ENTRANCE WAY, MH# 6140

U.S.G.S BM# X-25 ELEV. 236.49  
BRONZE DISK, SOUTHEAST CORNER OF THE  
INTERSECTION OF HUNT CLUB RD. & PHEASANT DR.

SHEET INDEX SCHEDULE	
SHEET #	SHEET TITLES
1	LOCATION PLAN / TITLE SHEET
2	SECTION 5 AREA 1 PLAN
3	AREA 1 WATER AND SEWER PROFILES

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
SIGNATURE: [Signature] DATE: 4-2-87  
U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.  
APPROVED: [Signature] DATE: 4-2-87  
HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
DIRECTOR OF PUBLIC WORKS: [Signature] DATE: 4-9-87  
CHIEF, BUREAU OF ENGINEERING  
CHIEF, BUREAU OF UTILITIES: [Signature] DATE: 4-8-87  
CHIEF, LAND DEVELOPMENT DIVISION

KIDDE CONSULTANTS INC.  
ENGINEERS, PLANNERS & SURVEYORS  
1100 WEST STREET/SUITE 100  
LAUREL, MD 20707  
(301) 792-8086  
(301) 953-1821  
JOHN E.C. PATMORE MD. PE. NO. 8978

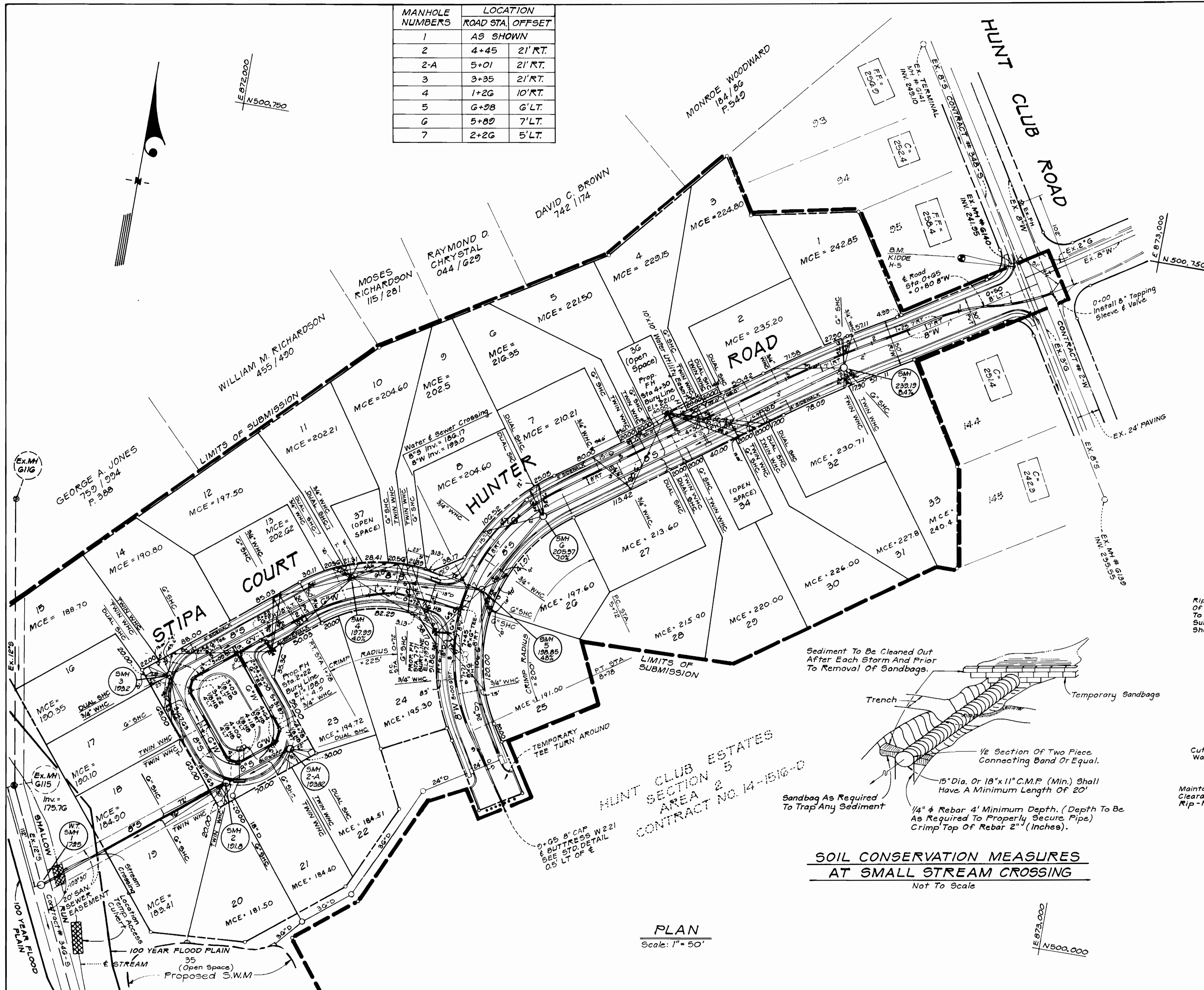
DES: M.S.S.  
DRN: M.W.G.  
CHK: D.C.W.  
DATE: 6/11/86

LOCATION MAP  
6" AND 8" WATER  
8" SANITARY SEWER  
PLAN AND PROFILES  
600' SCALE MAP NO. 38 BLOCK NO. 7

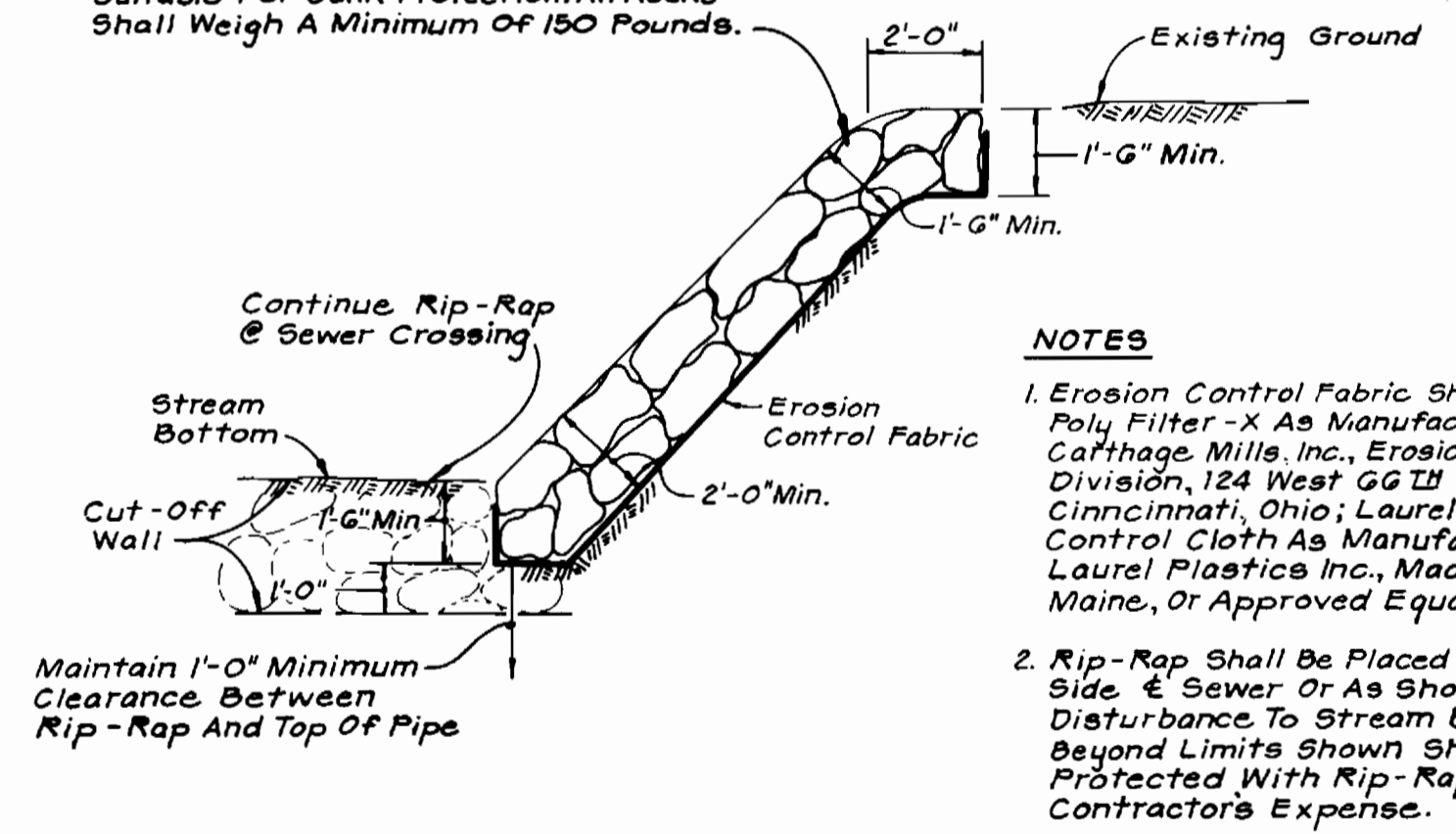
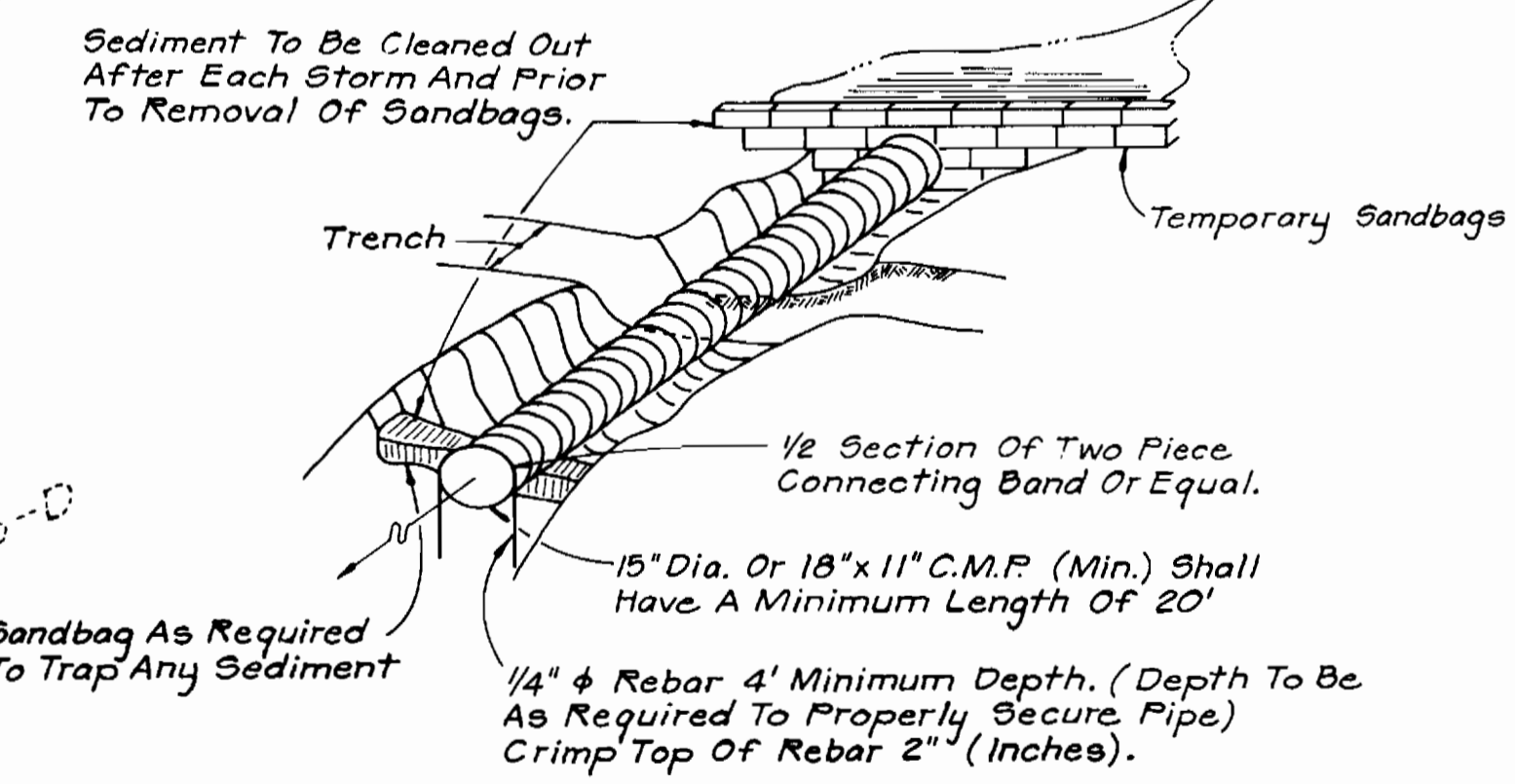
HUNT CLUB ESTATES  
SECTION 5 AREA 1  
TAX MAP NO. 38 PARCEL 515  
1ST ELECTION DISTRICT HOWARD CO, MD  
SCALE AS SHOWN  
SHEET 1 OF 3

MANHOLE NUMBERS	LOCATION	
	ROAD STA.	OFFSET
1	AS SHOWN	
2	4+45	21' RT.
2-A	5+01	21' RT.
3	3+35	21' RT.
4	1+26	10' RT.
5	6+28	6' LT.
6	5+80	7' LT.
7	2+26	5' LT.

- NOTES**
- Lots 23, 24, 25, 144 & 145 Provided With Sewer Service By Contract # 348-S And Water Service By Contract # 2-W.
  - Lots Adjoining Northwestern Property Boundary Provided With Sewer Service By Contract # 10-1035 And Water Service By Contract # 510-W.
  - Contractor Shall Install 8" Tapping Sleeve & Valve In Location Shown. Contractor Shall Test Fit Area Prior To Construction To Verify Location Of 8"W & 3" Gas Line.
  - Prior To Construction Of SMH #1, Contractor Shall Construct A Temporary Access Culvert (See Detail Provided).
  - Contractor Shall Construct SMH #1 Over Existing 12" Dia. Sanitary Sewer In Location Shown And In Accordance With Howard Co. (Standard Detail G5.14).
  - Following Construction Of Stream Crossing, The Contractor Shall Extend Rip-Rap Across Shallow Run, 6' Each Side & Sewer. Provide Cutoff Wall On Up Stream Side (See Detail Provided).



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 150 Pounds.



- NOTES**
- Erosion Control Fabric Shall Be Poly Filter-X As Manufactured By Calfage Mills, Inc., Erosion Control Division, 124 West GG III Street, Cincinnati, Ohio; Laurel Erosion Control Cloth As Manufactured By Laurel Plastics Inc., Madison, Maine, Or Approved Equal.
  - Rip-Rap Shall Be Placed 6' Each Side, & Sewer Or As Shown. Any Disturbance To Stream Banks Beyond Limits Shown Shall Be Protected With Rip-Rap At Contractor's Expense.

**PLAN**  
Scale: 1" = 50'

**SOIL CONSERVATION MEASURES AT SMALL STREAM CROSSING**  
Not To Scale

**RIP-RAP DETAIL**  
Not To Scale

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.	
SIGNATURE	DATE
U.S. SOIL CONSERVATION SERVICE	
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.	
APPROVED:	DATE
HOWARD S.C.D.	

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

Director of Public Works: *Robert M. Brinson* 4-8-87  
 Chief, Bureau of Engineering: *John E. Patmore* 4-8-87  
 Chief, Land Development Division: *John E. Patmore* 4-8-87

**KIDDE CONSULTANTS INC.**  
ENGINEERS, PLANNERS & SURVEYORS  
1100 WEST STREET/SUITE 100  
LAUREL, MD. 20707  
(301) 792-8086  
(301) 953-1821

JOHN E.C. PATMORE MD. PE. NO. 8978

DES: M.S.S.			
DRN: D.M.C.			
CHK: D.C.W.			
DATE: 6/11/86	BY: NO.	REVISION	DATE

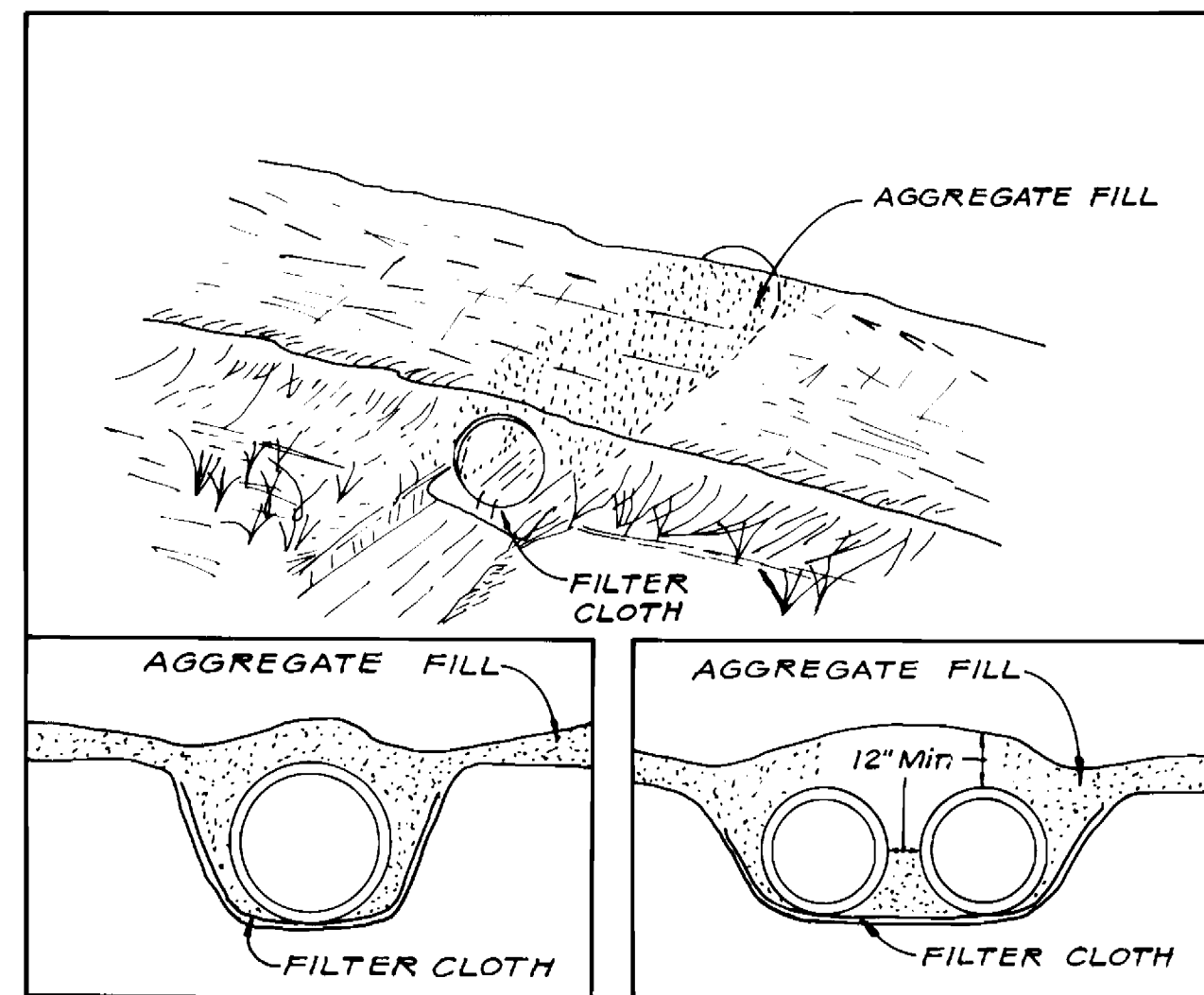
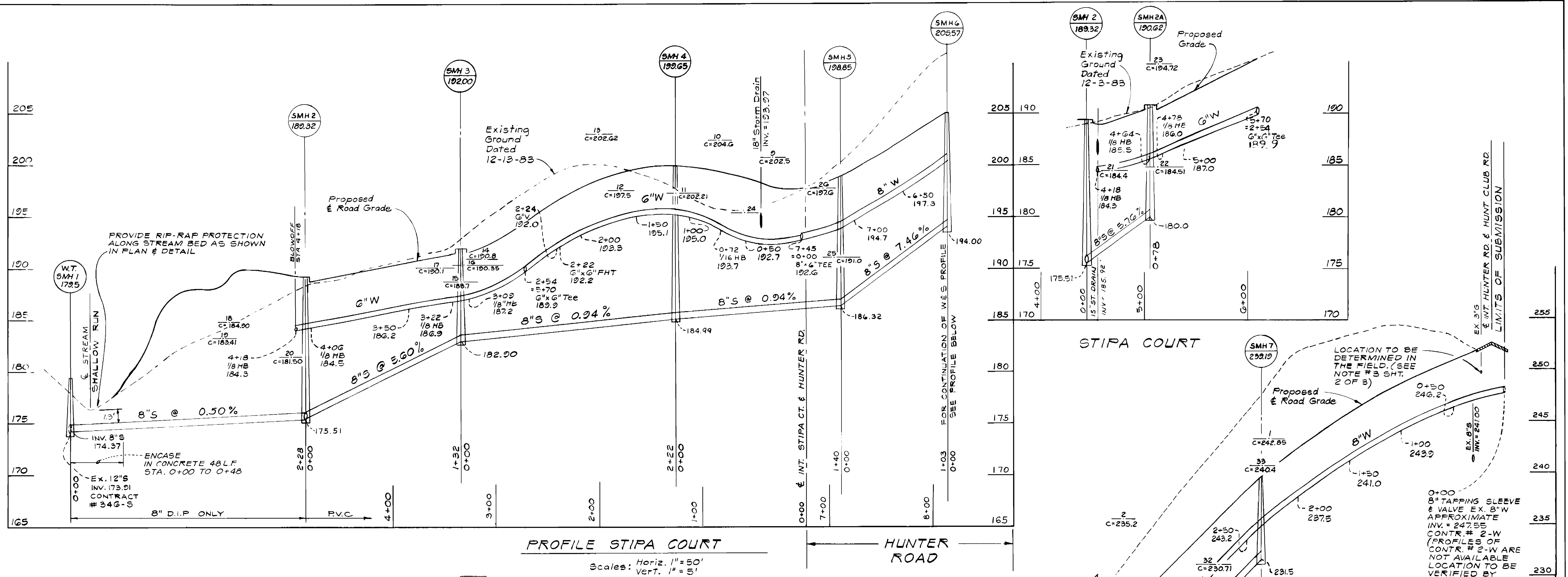
**AREA I PLAN OF**  
6" AND 8" WATER  
8" SANITARY SEWER  
CONTRACT NO. 14-1515-D

600' SCALE MAP NO. 38 BLOCK NO. 7

**HUNT CLUB ESTATES**  
SECTION 5 AREA I  
TAX MAP NO. 38 PARCEL 515  
1ST ELECTION DISTRICT HOWARD CO, MD

SCALE AS SHOWN  
SHEET 2 OF 3

SEWER HOUSE CONNECTIONS INVERT ELEV'S @ PROP LINES		
STATIONS	LOT	INVERT
<b>SMH 1 TO SMH 2</b>		
1+48 RIGHT	19	175.11
1+52 LEFT	18	175.13
2+20 RIGHT	20	175.47
<b>SMH 2 TO SMH 2-A</b>		
0+53 RIGHT	21	178.93
0+78 RIGHT	22	180.52
0+78 RIGHT	23	180.52
<b>SMH 2 TO SMH 3</b>		
1+03 LEFT	17	181.70
1+32 LEFT	16	183.44
1+32 LEFT	15	183.44
<b>SMH 3 TO SMH 4</b>		
0+35 LEFT	14	183.61
1+38 LEFT	13	184.62
2+22 LEFT	12	185.29
2+22 LEFT	11	185.29
<b>SMH 4 TO SMH 5</b>		
0+48 LEFT	10	185.83
0+62 RIGHT	24	186.21
0+70 LEFT	9	186.01
1+40 RIGHT	26	186.82
1+40 RIGHT	25	186.82
<b>SMH 5 TO SMH 6</b>		
1+03 LEFT	8	194.62
1+03 LEFT	7	194.62
<b>SMH 6 TO SMH 7</b>		
1+20 LEFT	6	207.09
1+44 RIGHT	27	209.28
1+44 RIGHT	28	209.28
1+48 LEFT	5	210.01
1+72 RIGHT	29	182.50
2+00 LEFT	4	215.40
2+26 RIGHT	30	217.74
2+30 LEFT	3	218.49
2+30 LEFT	2	218.49
2+62 RIGHT	31	221.47
2+62 RIGHT	32	221.47
3+62 LEFT	1	232.12
3+62 RIGHT	33	231.90



REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

4-2-87  
DATE

SIGNATURE: [Signature]  
US SOIL CONSERVATION SERVICE

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APPROVED: [Signature]  
HOWARD S.C.D. DATE: 4-2-87

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

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DES.	M.S.S.	BY	NO.	DATE
DRN.	D.M.C.			
CHK.	D.C.W.			
DATE:	6/11/86			

**AREA I PROFILES OF**  
6" AND 8" WATER  
8" SANITARY SEWER  
CONTRACT NO. 14-1513-D  
600 SCALE MAP NO. 3 BLOCK NO. 7

**HUNT CLUB ESTATES**  
SECTION 5 AREA I  
TAX MAP NO. 38 PARCEL 515  
1ST ELECTION DISTRICT HOWARD CO, MD

SCALE AS SHOWN  
SHEET 3 OF 3