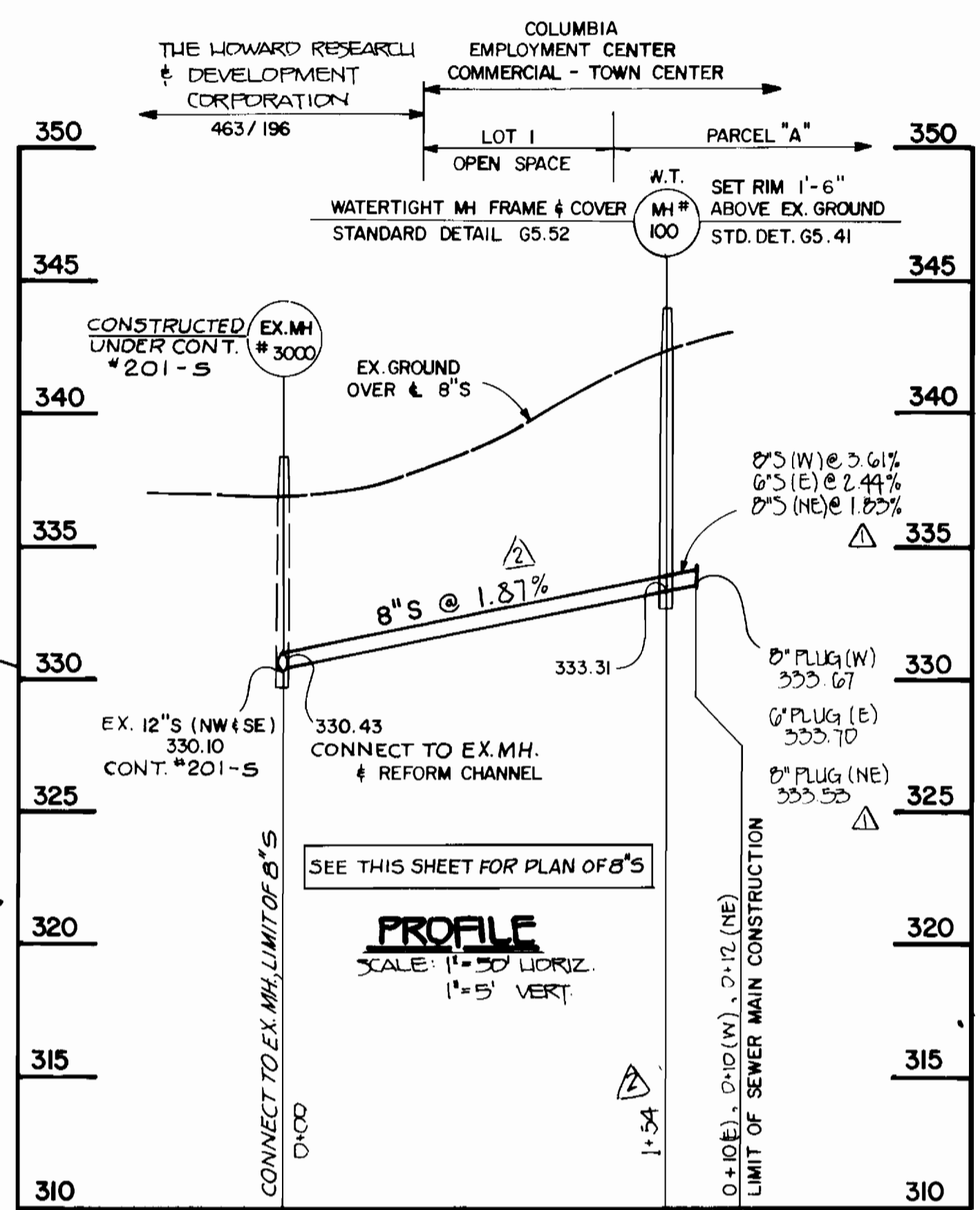


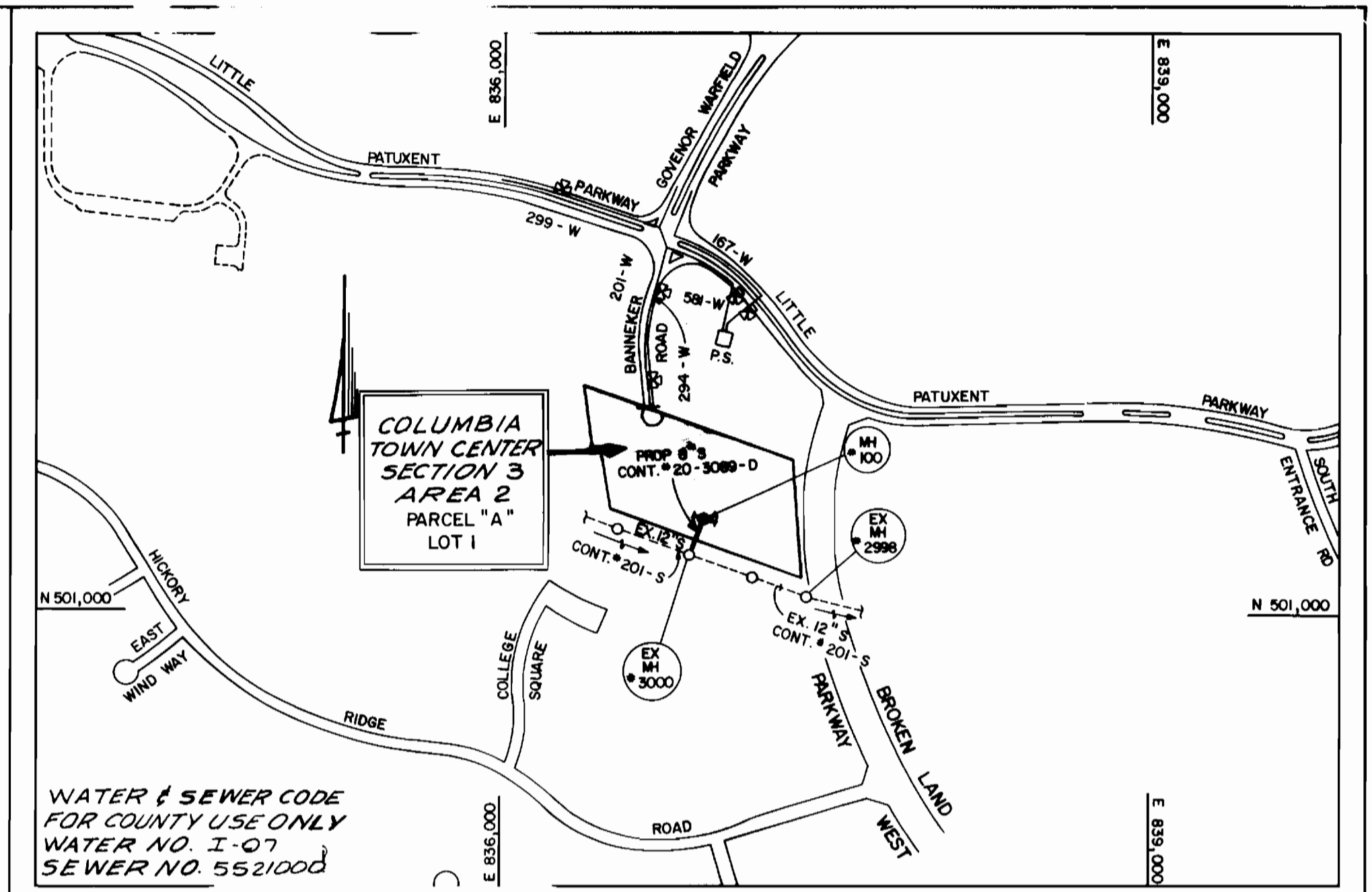
| QUANTITIES           |          |          |          |
|----------------------|----------|----------|----------|
| ITEM                 | EST'D    | AS-BUILT | SUPPLIER |
| G <sup>+</sup> SEWER | 170 L.F. |          |          |
| 8" SEWER MANHOLES    | 1 EACH   |          |          |

- STRAW BALE DIKE**
- BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
  - EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
  - BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
  - INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
  - BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.



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

**NOTE: SEE SHEET 2 OF 2 FOR SEQUENCE OF CONSTRUCTION, EROSION & SEDIMENT CONTROL NOTES & PERMANENT SEEDING NOTES.**



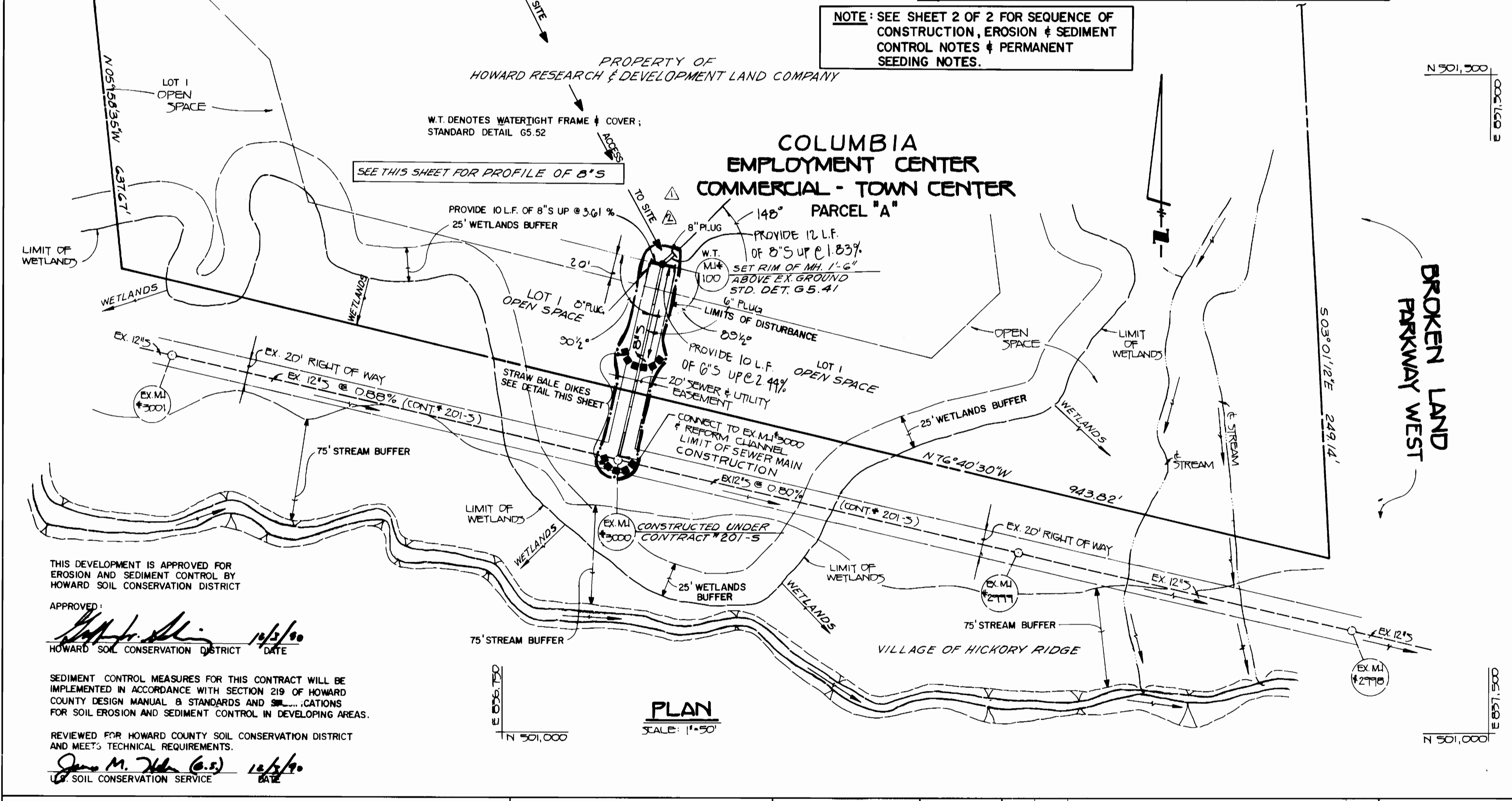
**VICINITY MAP**  
SCALE: 1" = 600'

TYPE OF BUILDING: FUTURE COMMERCIAL  
NUMBER OF LOTS: 1 PARCEL  
NO. OF WATER H: 1  
NO. OF SEWER H: 1  
DRAINAGE AREA: LITTLE PATUXENT

**GENERAL NOTES**

- APPROXIMATE LOCATION OF EXISTING MAINS AND UTILITIES TO THE SATISFACTION OF THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND UTILITIES FROM DISRUPTED SUPPLY. ANY DAMAGED INCURRED SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROL POINTS SHALL BE SET TO STATE COORDINATES.
- ALL VERTICAL CONTROL POINTS SHALL BE SET TO STATE COORDINATES.
- ALL PIPE ELEVATIONS SHALL BE SET TO FINISHED GRADE UNLESS OTHERWISE NOTED.
- CLEAR ALL UTILITIES AND MATERIALS FROM THE WORK AREA. FOR DETAILS NOT SHOWN ON THESE PLANS, REFER TO THE STANDARD MANUAL, VOLUME IV, FOR DETAILS FOR CONSTRUCTION (1989 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON SITE.
- WHERE TEST PITS HAVE BEEN LOCATED, THEY ARE NOTED BY THE SYMBOL [ ] AT THE LOCATION OF THE TEST PIT. A NOTE OF THE LOCATION OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE TEST PITS WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN EXPENSE. DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY ALL AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK.
- TELEPHONE COMPANY - 1-800-257-7777  
HIGHWAY ADMINISTRATION - 531-5533  
BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620  
BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 859-9004  
BALTIMORE GAS & ELECTRIC CO. - TROUBLE SHOOTING - 298-9001  
CITY OF BALTIMORE - 410-559-0100  
CITY OF BALTIMORE - 795-1390  
BUREAU OF PUBLIC WORKS - 992-2366
- TREES AND SHRUBS ARE TO BE PROTECTED TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREE, STUMPS AND ROOTS ALONG THE 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.S.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- T.B. DENOTES TEST BORING.
- MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52.
- WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED SET TOP OF FRAME 1'6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTINGS, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CAN NOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLES, FRAMES AND COVERS STANDARD DETAIL G5.15.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- 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.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 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 ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED 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.
- CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.

**NOTE: SEE SHEET 2 OF 2 FOR SEQUENCE OF CONSTRUCTION, EROSION & SEDIMENT CONTROL NOTES & PERMANENT SEEDING NOTES.**



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

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT

APPROVED: *[Signature]* 12/6/90  
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*[Signature]* 12/6/90  
SOIL CONSERVATION SERVICE DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 12/6/90  
DIRECTOR OF PUBLIC WORKS DATE

*[Signature]* 11-9-90  
CHIEF, BUREAU OF UTILITIES DATE

*[Signature]* 12/6/90  
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
SUITE 100, 9171 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21043  
(301) 461-2855

#9757  
*[Signature]*  
TERRELL A. FISHER

| DES:  | M.M.    | DATE:    | 6/13/90   |
|-------|---------|----------|---|
| DRWN: | M.M.    |          |   |
| CHK:  | PWK     |          |   |
| DATE: | 6/13/90 |          |   |
| BY:   | NO.     | REVISION | DATE  |
|       |         | MJM 2    | REVISE LOCATION OF PROPOSED MH#100 PLAN & PROFILE 11/5/90 |
|       |         | MJM 1    | REVISE PLACEMENT OF SEWER EXT. & PLUGS 2/5/92             |

SEWER MAIN  
PLAN & PROFILE

600' SCALE MAP NO. 36 BLOCK NO. L

COLUMBIA TOWN CENTER  
SECTION 3, AREA 2; PARCEL A / BANNEKER ROAD  
CONTRACT NO. 20-3089-D  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 2

AS-BUILT

STANDARD SEDIMENT CONTROL NOTES:

1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (992-2437).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:
 

|                                    |                         |
|------------------------------------|-------------------------|
| TOTAL AREA OF SITE                 | 8.15 ACRES (PARCEL 'A') |
| AREA DISTURBED                     | 0.10 ACRES              |
| AREA TO BE ROOFED OR PAVED         | 0.00 ACRES              |
| AREA TO BE VEGETATIVELY STABILIZED | 0.10 ACRES              |
| TOTAL CUT                          | N/A CU.YDS.             |
| TOTAL FILL                         | N/A CU.YDS.             |
| OFFSITE WASTE/BORROW AREA LOCATION | N/A CU.YDS.             |
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. INSTALL THE REQUIRED SEDIMENT AND EROSION CONTROL DEVICES - SEE STRAW BALE DIKE DETAILS, CONSTRUCTION SPECIFICATIONS AND LOCATIONS - SHEET 1 OF 2.
3. CLEAR AND GRUB AS NECESSARY - ONLY WITHIN 20' SEWER AND UTILITY EASEMENT SHOWN ON SHEET 1 OF 2.
4. EXCAVATE TRENCH - PLACE EXCAVATED MATERIAL ON THE UPGRADE SIDE OF THE SEWER MAIN TRENCH.
5. INSTALL SEWER MAIN AND APPURTENANCES AND BACKFILL SEWER MAIN TRENCH.
6. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN ON SHEET 1 AFTER EACH RAINFALL AND ON A DAILY BASIS.
7. FINE GRADE DISTURBED AREAS - TO ORIGINAL CONTOURS.
8. STABILIZE, SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
9. FOLLOWING SUCCESSFUL STABILIZATION OF ALL DISTURBED AREAS, AND AFTER PERMISSION HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES.

SEE SHEET 1 OF 2 FOR PLAN & PROFILE OF 8" SEWER MAIN

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND 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 SOIL CONSERVATION DISTRICT

DEVELOPER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL 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. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*James P. Fisher* 11/28/90  
SIGNATURE OF ENGINEER DATE

*J. H. Nelson* 11/28/90  
SIGNATURE OF DEVELOPER DATE

Permitted For **HOWARD** COUNTY  
and would require a permit from  
*James M. Nelson* Date 12/1/90  
M.D. Soil Conservation Service

PERMANENT STABILIZATION AND SEEDING NOTES

1. REFERENCE SECTION 701 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS FOR COMPLETE REQUIREMENTS REGARDING PERMANENT STABILIZATION AND SEEDING OF ALL DISTURBED AREAS.
2. REFERENCE SUBSECTION 701.03 FOR CONSTRUCTION REQUIREMENTS REGARDING PERMANENT SEEDING.
3. LIMESTONE: APPLY LIMESTONE AT THE RATE OF 1 1/2 TONS PER ACRE ON SANDY AND SILTY SOILS AND 2.3 TONS PER ACRE ON CLAY OR CLAY LOAM SOILS.
4. FERTILIZER: APPLY FERTILIZER AT THE RATE OF 600 POUNDS OF 0-20-20 PER ACRE WITH LIMESTONE APPLICATION (SEE ABOVE). IMMEDIATELY PRIOR TO SEEDING, APPLY 400 POUNDS OF 38-0-0 UREAFORM AND 500 POUNDS OF 10-20-20 PER ACRE.
5. PERMANENT SEED SHALL CONFORM TO THE REQUIREMENTS, MIXTURES AND APPLICATION RATES AS SPECIFIED IN SUBSECTION 701.02 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS.
6. MULCH SHALL BE CLEAN, WEED-FREE, UNROTTED STRAW APPLIED AT THE RATE OF NOT LESS THAN 1 1/2 TONS PER ACRE OR WOOD CHIPS WITH A COVERAGE OF 1 1/2 INCHES IN DEPTH.
7. MULCH SHALL BE ANCHORED WITH CUT BACK AND EMULSIFIED ASPHALT APPLIED AT A RATE OF 5 GALLONS PER 1000 SQUARE FEET. REFERENCE SUBSECTION 701.03.03 FOR MULCH ANCHORING ALTERNATIVES.

*John H. Nelson* 12/1/90  
HOWARD COUNTY

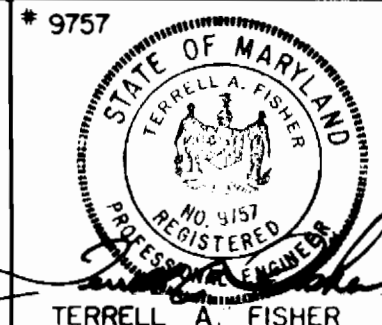
CONTRACT NO. 20-3089-D  
COLUMBIA TOWN CENTER  
SECTION 3, AREA 2; PARCEL "A"  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James P. Fisher* 12/1/90  
DIRECTOR OF PUBLIC WORKS DATE  
*John M. Nelson* 12/1/90  
CHIEF, BUREAU OF UTILITIES DATE  
*John M. Nelson* 12/1/90  
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS

8388 COURT AVENUE  
ELLCOTT CITY, MARYLAND 21043



|      |          |    |     |          |      |
|------|----------|----|-----|----------|------|
| DES  | PWK      |    |     |          |      |
| DRN  | SFH      |    |     |          |      |
| CHK  | PWK      |    |     |          |      |
| DATE | 11/26/90 | BY | NO. | REVISION | DATE |

EROSION & SEDIMENT CONTROL  
DETAILS

600 SCALE MAP NO. 36 BLOCK NO.

COLUMBIA TOWN CENTER  
SECT. 3, AREA 2; PARCEL "A"/BANNEKER ROAD  
CONTRACT NO. 20-3089-D  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 2

AS-BUILT