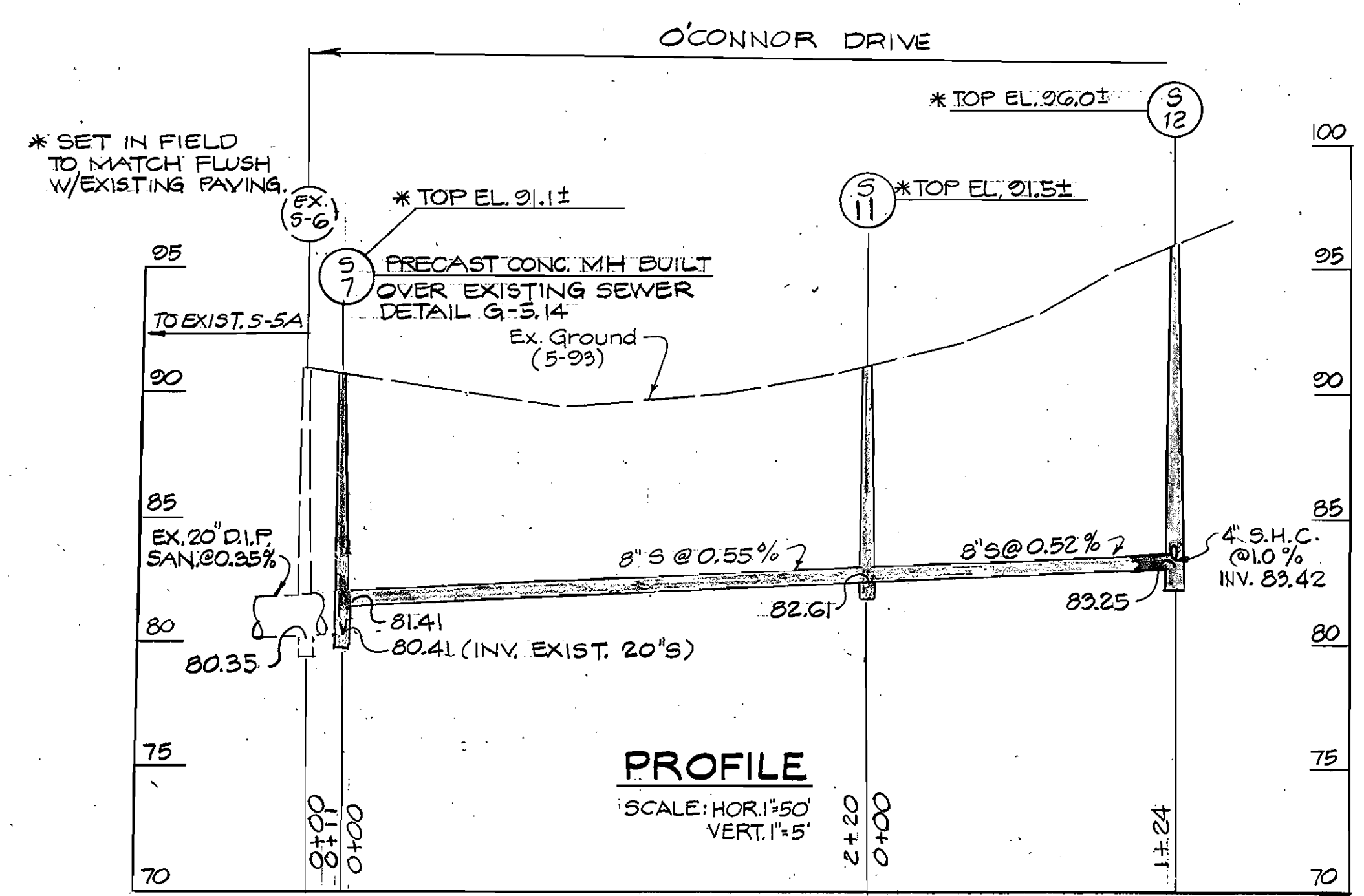
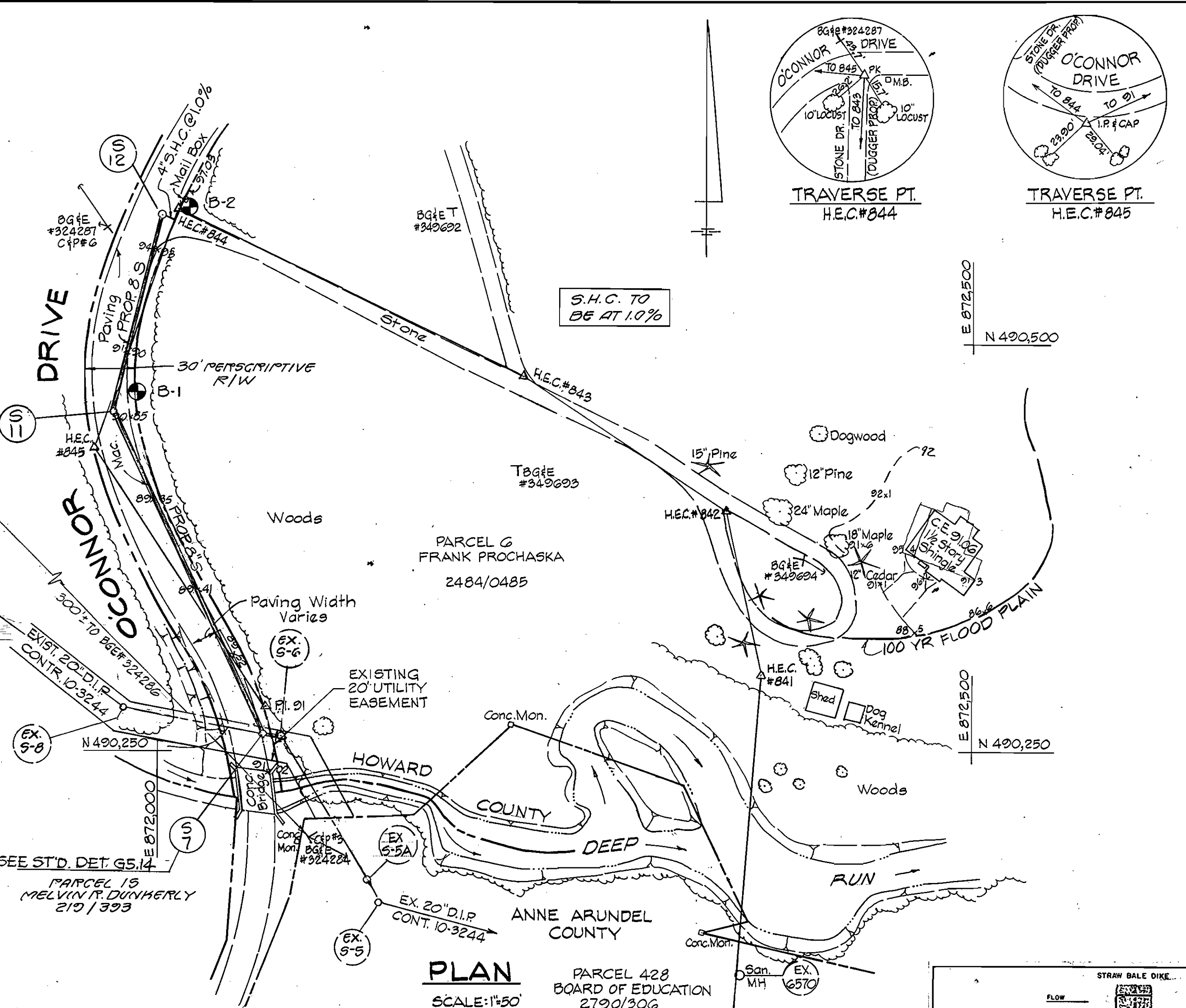


3288 WS/1 O'CONNOR DR. SEWER MN / C.P.#S-6160 (2) (MPORIG.)



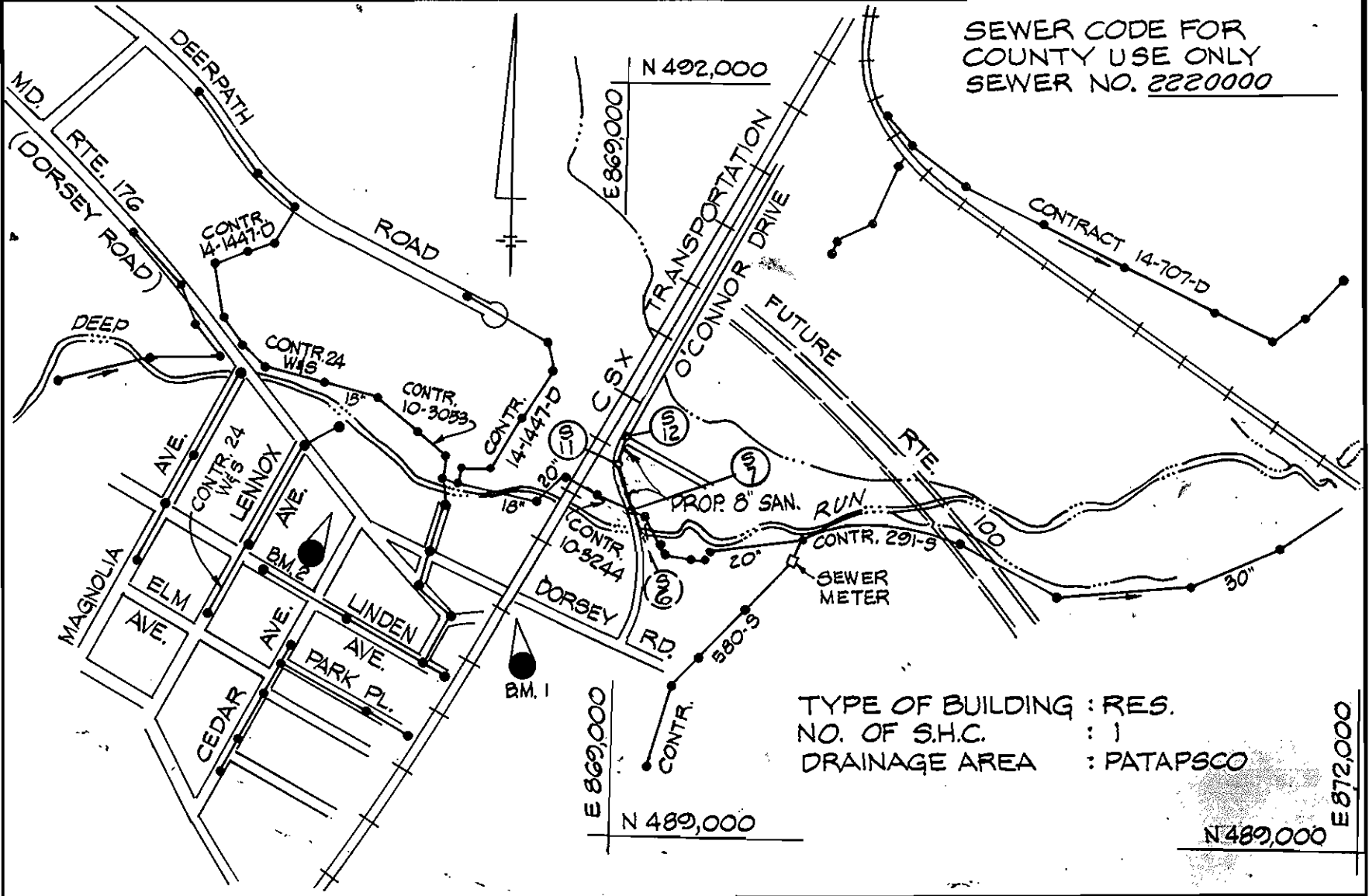
QUANTITIES				
ITEM	UNIT	ESTIMATE	AS-BUILT	SUPPLIER
8" SEWER	L.F.	336'		
STD. 4" MANHOLE	EA.	2		
4" S.H.C.	L.F.	10'		
PRECAST CONCRETE DOGHOUSE MH-GS-14	EA.	1		

RESTORATION SCHEDULE		
LOCATION	DISTANCE	TYPE
S-7 TO S-12	235'	MAC. & STONE
S-7 TO S-12	130'	SEED & MULCH

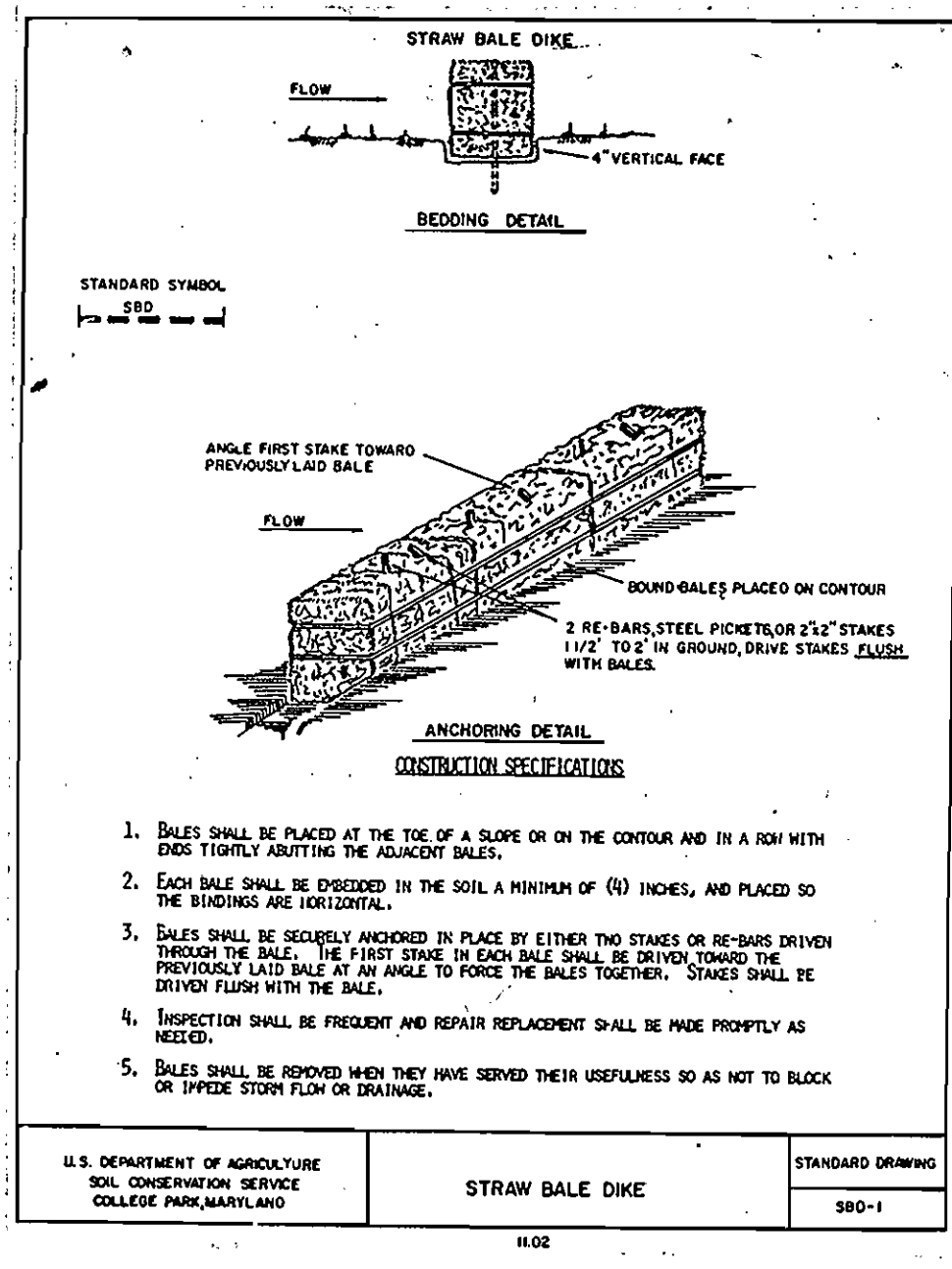
STAKEOUT TABLE		
STAKE	DESCRIPTION	TYPE
S-11	P.I. 845 TO P.I. 844, STA. 0+26	RT. 4"
S-12	P.I. 845 TO P.I. 844, STA. 1+49	LT. 3"

- SEQUENCE OF CONSTRUCTION**
- CONTACT HOWARD COUNTY BUREAU OF CONSTRUCTION INSPECTION (313-1880) PRIOR TO STARTING DATE.
 - INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS PER SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL VOL. IV.
 - EXCAVATE AND INSTALL PROP 8" SEWER MAIN AND 4" S.H.C.
 - RESTORE PAVING AND EARTH TRENCHES TO THEIR ORIGINAL CONDITION AS PER HOWARD COUNTY STANDARDS.
 - UPON PERMISSION FROM HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES.
 - FINE GRADE ALL DISTURBED AREAS AND STABILIZE WITH PERMANENT SEEDING.

- SURVEY CONTROL**
- B.M. 1 HOWARD COUNTY STA. 2346004 CONC. MON. 0.5' ABOVE SURF SOUTH OF DORSEY RD. EAST OF CSX RR TRACKS N 489,849.515 ELEV. 123.409 E 871,505.086
 - B.M. 2 HOWARD COUNTY STA. 2346005 CONC. MON. 0.1' BELOW SURF SOUTH SIDE OF DORSEY RD. N 490,249,309 ELEV. 122.960 E 870,834.514
 - TRAVERSE PT. H.E.C. Δ 91 I.P. & CAP SET N 490277.15 ELEV. 89.28 E 872064.90
 - TRAVERSE PT. H.E.C. Δ 845 I.P. & CAP SET N 490496.32 ELEV. 90.88 E 871960.06
 - TRAVERSE PT. H.E.C. Δ 844 I.P. & CAP SET N 490592.68 ELEV. 96.79 E 872011.69
 - TRAVERSE PT. H.E.C. Δ 843 I.P. & CAP SET N 490480.97 ELEV. 92.79 E 872224.40
 - TRAVERSE PT. H.E.C. Δ 842 I.P. & CAP SET N 490398.02 ELEV. 91.29 E 872340.76
 - TRAVERSE PT. H.E.C. Δ 841 I.P. & CAP SET N 490297.69 ELEV. 88.89 E 872370.52



- 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 shown are based on Maryland State Coordinates.
 - All Vertical Controls are based on U.S.G.S. Datum.
 - 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.
 - For details not shown on the Drawings, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specification 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 [X] at location of 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 tests have not been dug shall be located by the Contractor two weeks in advance of Construction Operations at the Contractor's expense.
 - The Contractor shall notify the following utility companies or agencies at least five working days prior to starting work shown on this plan:
 - CAP Telephone Company 597-8585
 - State Highway Administration 531-5533
 - Baltimore Gas & Electric Co. Contractor Service 850-4620
 - Baltimore Gas & Electric Co. Underground Damage Control 859-9004
 - Baltimore Gas & Electric Co. Trouble Shooting 298-9001
 - MISS UTILITY 1-800-257-7777
 - Colonial Pipeline 795-1390
 - Bureau of Utilities, Howard County Dept. of Public Works 313-4900
 - Trees and shrubs are to be protected from damage to the 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 for construction of the main and service connections.
 - All sewer mains shall be D.I.P. or P.V.C. unless otherwise noted.
 - Manholes shown with 12" and 16" walls are for brick manholes only.
 - All manholes shall be 4'-0" inside diameter unless otherwise noted.
 - Trench repair shall be in accordance with Howard County Standard Details.
 - All work will be in accordance with Howard County Standards and Specifications for Soil Erosion and Sediment Control Section 219.
 - Length of open trench will be limited to that which can be filled and stabilized within one working day.



- PERMANENT SEEDING NOTES**
- APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
- SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.
- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT).
 - ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE (1.4 LBS/1000 SQ FT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.
- MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (6 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.
- MAINTENANCE - INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

By the Developer:
 "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 the Environment Approved Training Program for the Control of Sediment and Erosion Program for the Control of Sediment and Erosion Program before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."
 Signature of Developer: [Signature] Date: 7/14/93

By the Engineer:
 "I 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."
 Signature of Engineer: [Signature] Date: 6/18/93
 MD. REG. NO. B67E

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 [Signature] 7/21/93
 U.S. SOIL CONSERVATION SERVICE DATE

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
 APPROVED: [Signature] 7/21/93
 HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 [Signature] 7/21/93
 DIRECTOR OF PUBLIC WORKS DATE
 [Signature] 7-19-93
 CHIEF, BUREAU OF UTILITIES DATE

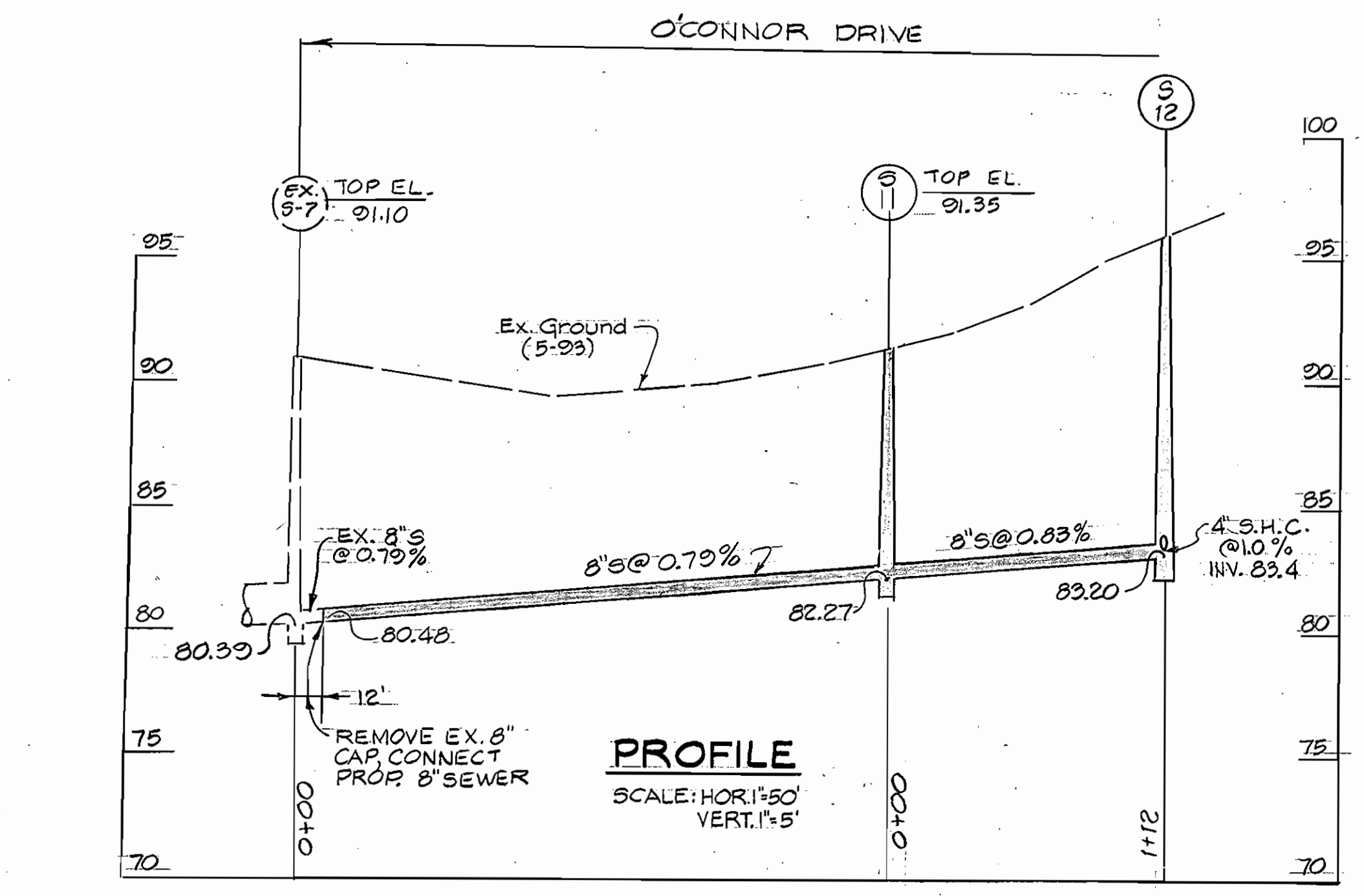
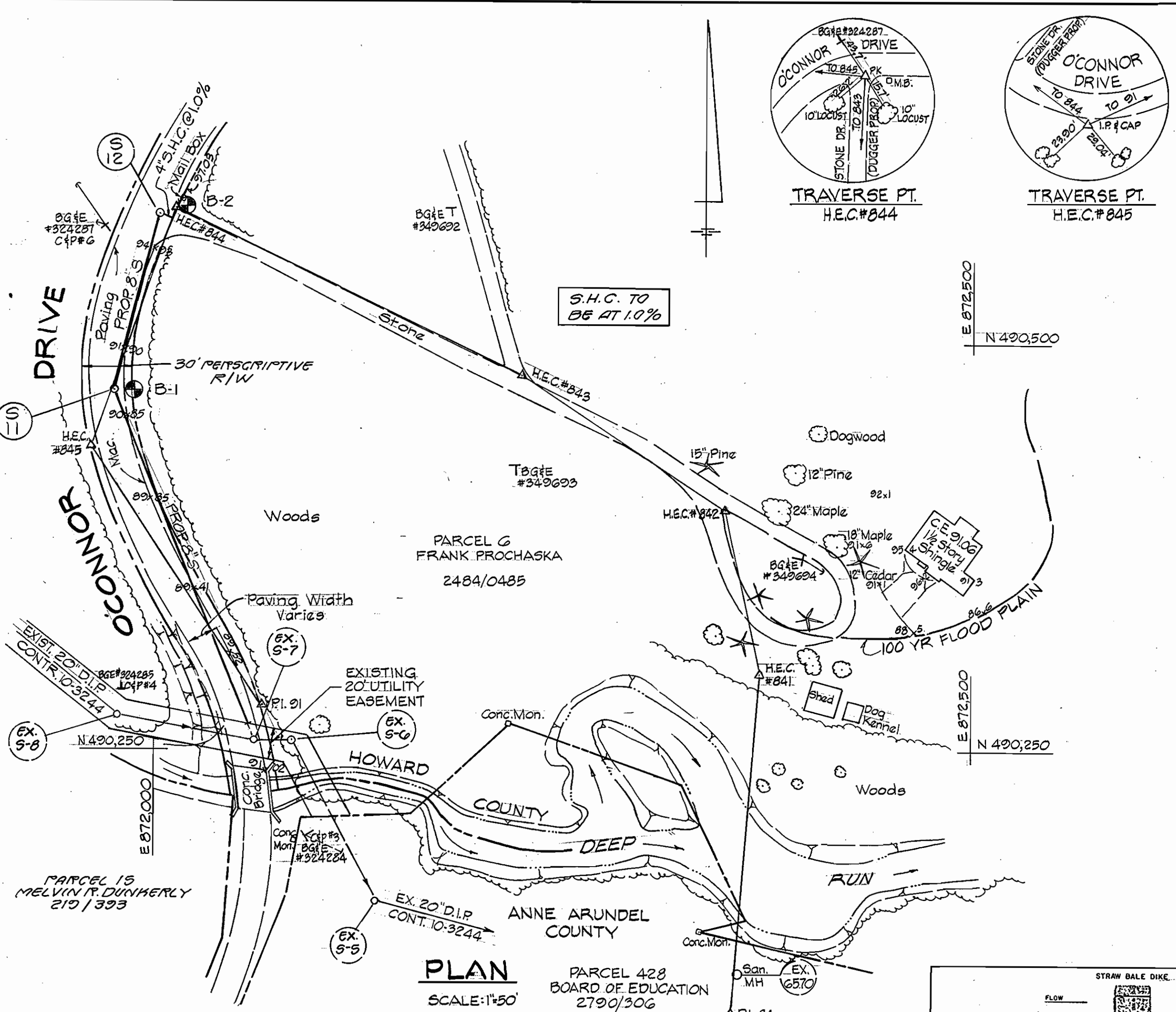
HICKS ENGINEERING CO., INC.
 ENGINEERS - SURVEYORS - PLANNERS
 200 E. JOPPA ROAD - SUITE 402
 TOWSON MARYLAND 21286
 [Seal]

DES: E.A.S.	
DRN: F.W.	
CHK: E.A.S.	
DATE: 6-17-93	BY NO.
REV. 8" SAN-S7 TO S12 PER AS-BUILT FOR CONT. 10-3244	7/93
REVISION	DATE

CONTRACT NO. 10-3288
 600' SCALE MAP NO. 43.4.4 BLOCK NO.

O'CONNOR DRIVE SEWER MAIN
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT S-6160
 SCALE AS SHOWN
 SHEET OF 1

3288 WS/1 O'CONNOR DR. SEWER MN. / C.P.#S-6160 (2ND ORIG.)



QUANTITIES				
ITEM	UNIT	ESTIMATE	AS-BUILT	SUPPLIER
8" SEWER	L.F.	328'		
STD. 4' MANHOLE	EA.	2		
4" S.H.C.		10'		

RESTORATION SCHEDULE		
LOCATION	DISTANCE	TYPE
S-7 TO S-12	220'	MULCH & STONE
S-7 TO S-12	130'	SEED & MULCH

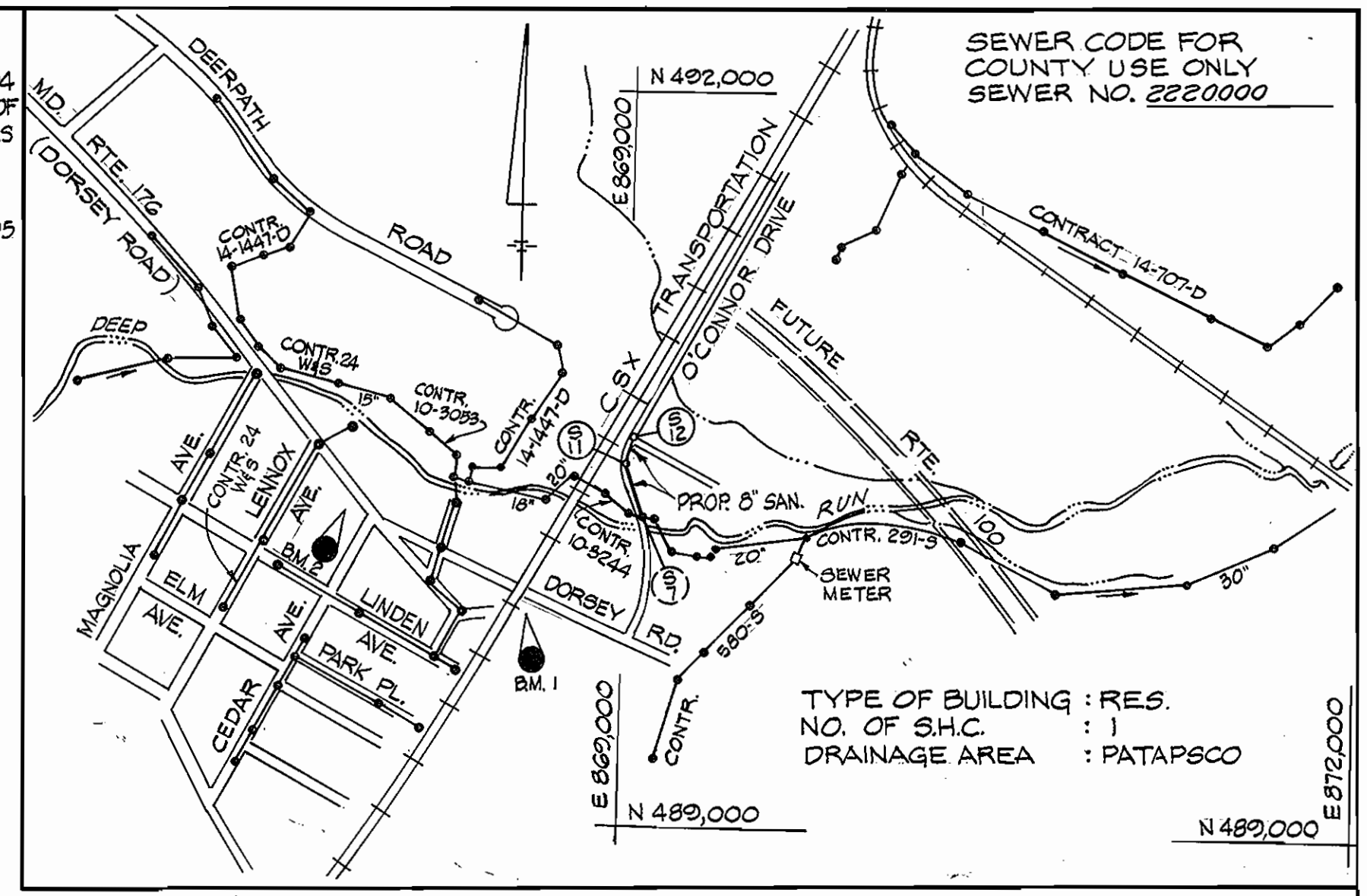
STAKEOUT TABLE		
S-11	P.I. 845 TO P.I. 844, STA. 0+38	RT 2'
S-12	S-11 TO S-12, N 13° 15' 15" E	112'

SEQUENCE OF CONSTRUCTION

- CONTACT HOWARD COUNTY BUREAU OF CONSTRUCTION INSPECTION (313-1800) PRIOR TO STARTING DATE.
- INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS PER SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL VOL. IV.
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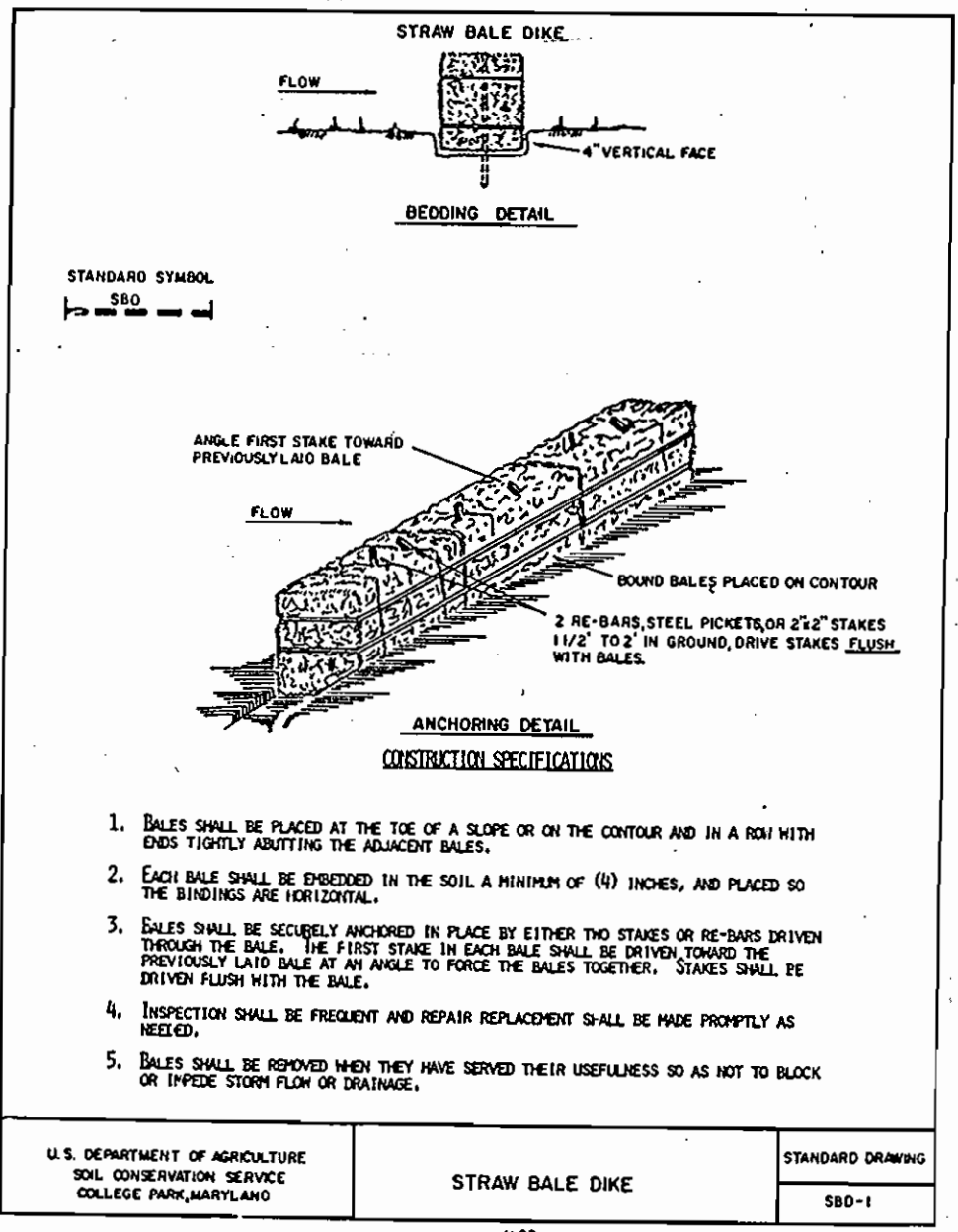
SURVEY CONTROL

- B.M. 1 HOWARD COUNTY STA. 2346004 CONC. MON. 0.3' ABOVE SURF SOUTH OF DORSEY RD. EAST OF CSX RR TRACKS N 489,849.515 ELEV. 123.409 E 871,808.088
- B.M. 2 HOWARD COUNTY STA. 2346005 CONC. MON. 0.1' BELOW SURF SOUTH SIDE OF DORSEY RD. N 490,243.399 ELEV. 129.960 E 870,834.314
- TRAVERSE PT. H.E.C. Δ 81 I.P. & CAP SET N 490277.15 ELEV. 89.28 E 872064.90
- TRAVERSE PT. H.E.C. Δ 845 I.P. & CAP SET N 490486.92 ELEV. 90.88 E 871960.06
- TRAVERSE PT. H.E.C. Δ 844 P.K. SET N 490582.69 ELEV. 96.79 E 872011.69
- TRAVERSE PT. H.E.C. Δ 843 I.P. & CAP SET N 490480.97 ELEV. 92.79 E 872224.40
- TRAVERSE PT. H.E.C. Δ 842 I.P. & CAP SET N 490598.02 ELEV. 91.29 E 872348.76
- TRAVERSE PT. H.E.C. Δ 841 I.P. & CAP SET N 490297.69 ELEV. 88.89 E 872370.52



GENERAL NOTES

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- All Vertical Controls are based on U.S.G.S. Datum.
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 - Baltimore Gas & Electric Co. Underground Damage Control 859-9004
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 - MISS UTILITY 1-800-277-7777
 - Colonial Pipeline 795-1390
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- All work will be in accordance with Howard County Standards and Specifications for Soil Erosion and Sediment Control Section 219.
- Length of open trench will be limited to that which can be filled and stabilized within one working day.



By the Developer:
 "I 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 the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."
 Signature of Developer: *Randall J. ...* Date: 7/14/93

By the Engineer:
 "I 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."
 Signature of Engineer: *...* Date: 6/18/93

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 Jane M. ... 7/21/93
 U.S. SOIL CONSERVATION SERVICE

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
 APPROVED: *...* 7/21/93
 HOWARD S.C.D.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *...* 7/21/93
 Chief, Bureau of Utilities: *...* 7-19-93

HICKS ENGINEERING CO., INC.
 ENGINEERS · SURVEYORS · PLANNERS
 200 E. JOPPA ROAD · SUITE 402
 TOWSON MARYLAND 21286

DES: E.A.S.			
DRN: F.W.			
CHK: E.A.S.			
DATE: 6-17-93	BY	NO.	REVISION

CONTRACT NO. 10-3288
 600' SCALE MAP NO. 43.44 BLOCK NO.

O'CONNOR DRIVE SEWER MAIN
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT S-6160

SCALE AS SHOWN
 SHEET OF 1

RECORD COPY AS APPROVED. 2ND ORIGINAL MADE 7/95 AND REVISED DUE TO AS-BUILT INFO. REC'D ON DEEP RUN. RW