

APPROVED
DEPARTMENT OF PUBLIC WORKS

John D. ... 1/1/94
CHIEF, LAND DEVELOPMENT DIVISION DATE

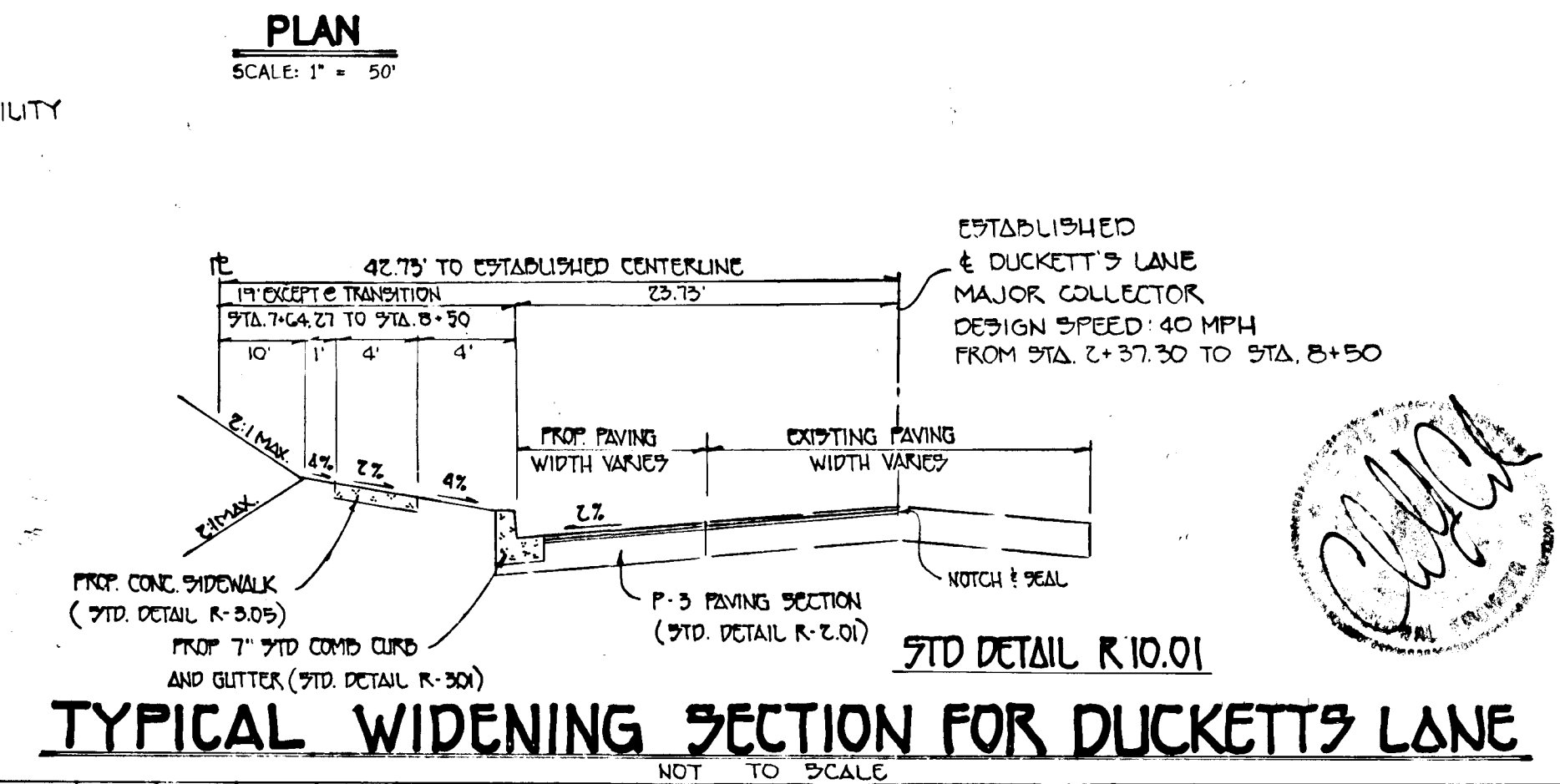
Andrew M. ... 1-3-94
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS

Paul ... 1/7/94
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
DEPARTMENT OF PLANNING AND ZONING

Gina ... 1/13/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE



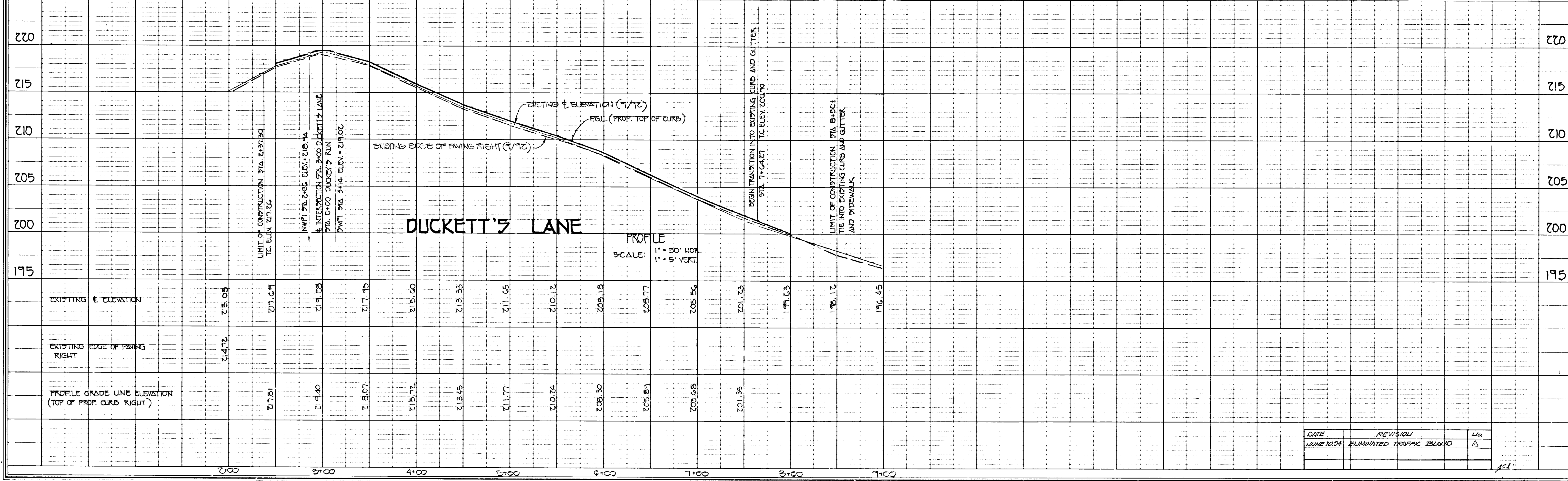
DUCKETT'S RUN
LOTS 1 - 26
TAX MAP 37 PARCELS 47B
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

PLAN AND PROFILE DUCKETT'S LANE

OWNER AND DEVELOPER
DUCKETT'S LANE JOINT VENTURE
THE RACHUDA GROUP - GREEN PARKING STATION
2350 WEST JOPPA ROAD SUITE 310
LUTHERVILLE, MARYLAND 21093

SCALE: AS SHOWN DATE: DECEMBER 1, 1993 DWG. NO. 1 OF 10
DES. M. TAYLOR DRN. L.M.A. CHK. C. CROFT

FISHER, COLLINS, AND CARTER, INC.
CIVIL ENGINEERING CONSULTANTS AND LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
TEL: 410-461-2955 FAX: 410-750-3764



DATE	REVISION	BY
JUNE 10, 94	ELIMINATED TRAFFIC ISLAND	LJA

0897

MARKLAND STATE
GRID NORTH (NAD 83)

N 560,500
170,840.76
(METRIC)

ε CURVE DATA
STA. 0+35.75 TO STA. 2+45.69
R = 450.00'
L = 209.77'
DELTA = 30° 42' 29"
T = 106.02'
CHORD = 9 50° 51' 15" W 207.81'

ε CURVE DATA
STA. 4+51.22 TO STA. 6+05.30
R = 300.00'
L = 157.08'
DELTA = 30° 00' 00"
T = 80.59'
CHORD = 9 60° 30' 00" W 155.29'

ε CURVE DATA
STA. 6+34.92 TO STA. 7+05.75
R = 109.62'
L = 69.01'
DELTA = 30° 04' 12"
T = 35.69'
CHORD = N 06° 27' 54" W 67.05'



APPROVED
DEPARTMENT OF PUBLIC WORKS
M. Taylor 1/7/94
CHIEF, LAND DEVELOPMENT DIVISION
DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
Andrew M. Daniels 1-3-94
CHIEF, BUREAU OF HIGHWAYS
DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
Donald J. Eason 1/7/94
CHIEF, BUREAU OF ENGINEERING
DATE

APPROVED
DEPARTMENT OF PLANNING AND ZONING
Gina Sumanari 1/31/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
DATE

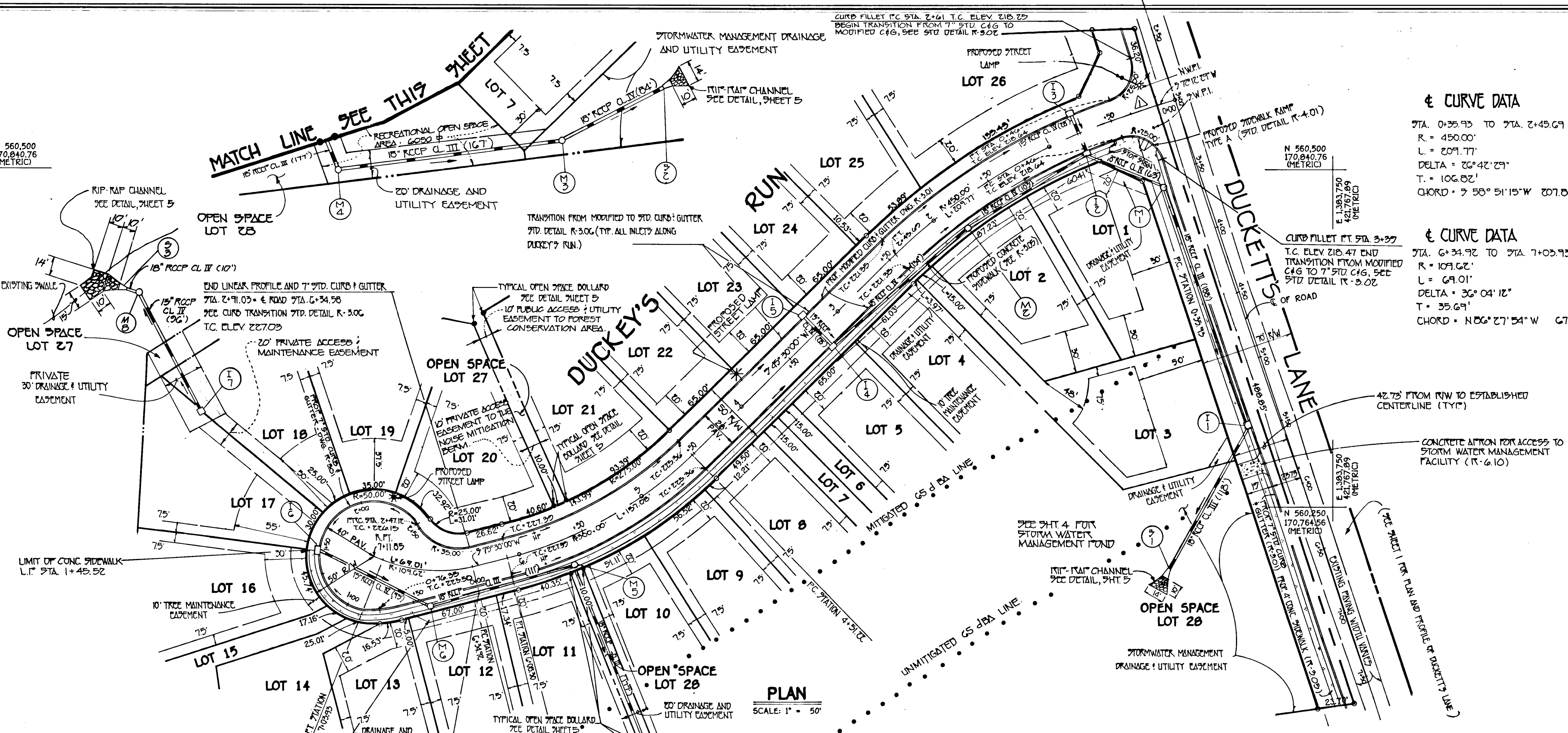
DUCKEY'S RUN
LOTS 1 - 28
TAX MAP 37 PARCEL 478
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

PLAN AND PROFILE
DUCKEY'S RUN

OWNER AND DEVELOPER
DUCKETT LANE JOINT VENTURE
THE RACHUDA GROUP - GREEN SPRING STATION
2360 WEST JOYPPA ROAD, SUITE 210
LUTHERVILLE, MARYLAND 21093

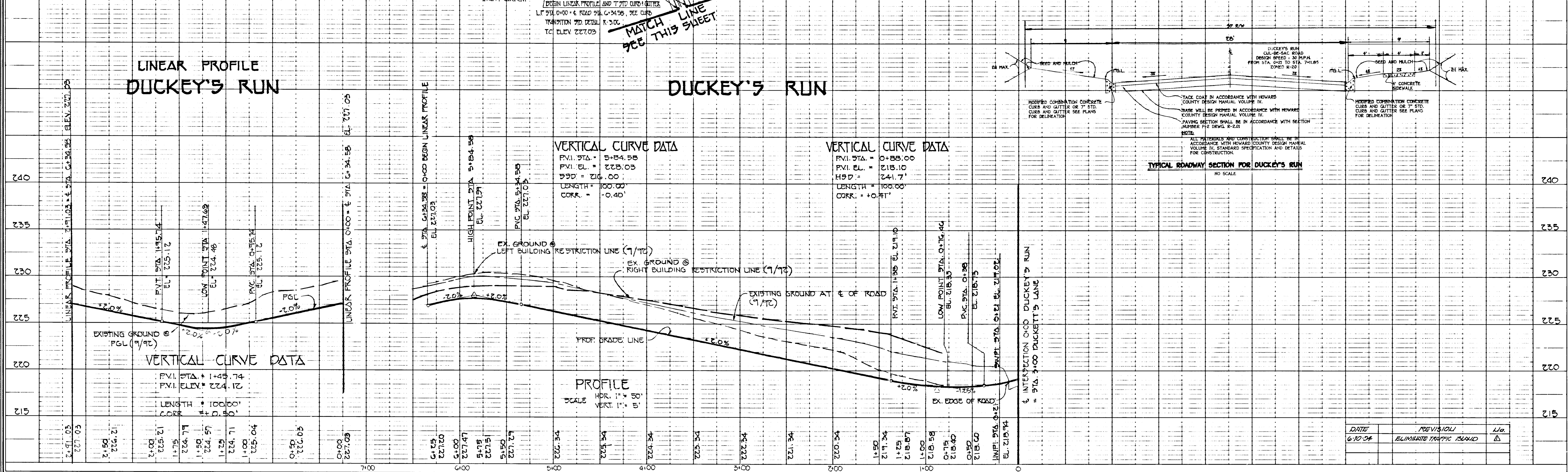
SCALE: AS SHOWN DATE: DECEMBER 1, 1993 DWG. NO. 2 OF 10
DES. M. TAYLOR DRN. L. ALUSTIN CHK. C. CROOK

FISHER, COLLINS, AND CARTER, INC.
CIVIL ENGINEERING CONSULTANTS AND LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELLICOTT CITY, MARYLAND 21042
TEL: (410) 461-2955 FAX: (410) 750-3784



LINEAR PROFILE
DUCKEY'S RUN

DUCKEY'S RUN

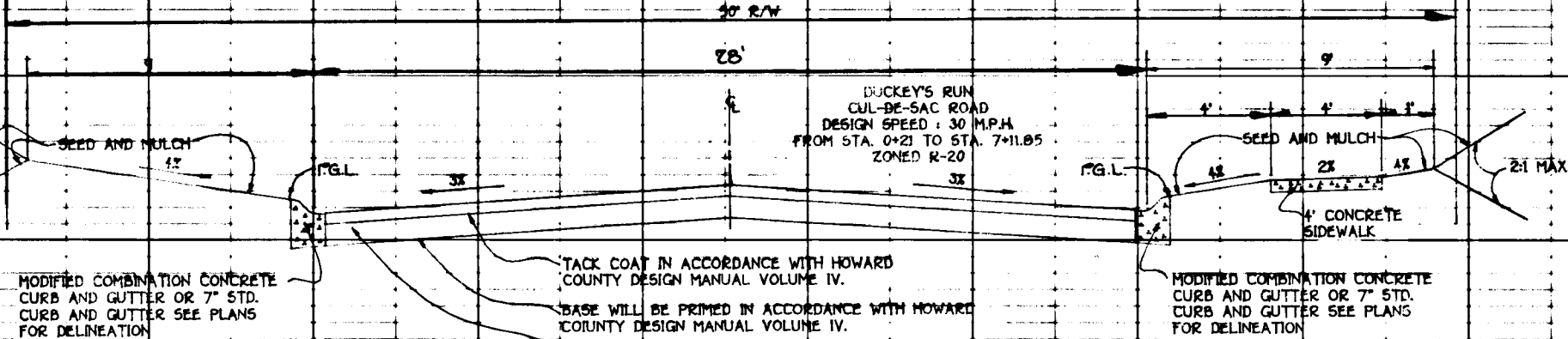


VERTICAL CURVE DATA
PVI STA. = 5+54.58
PVI ELEV. = 228.03
SLOPE = 2.00%
LENGTH = 100.00'
CORR. = -0.40'

VERTICAL CURVE DATA
PVI STA. = 0+58.00
PVI ELEV. = 228.10
SLOPE = 2.41.7'
LENGTH = 100.00'
CORR. = +0.41'

VERTICAL CURVE DATA
PVI STA. = 1+45.74
PVI ELEV. = 224.12
LENGTH = 100.00'
CORR. = +0.50'

PROFILE
HOR. 1" = 50'
VERT. 1" = 5'



TYPICAL ROADWAY SECTION FOR DUCKEY'S RUN
NO SCALE

DATE	REVISIONS	BY
6-10-94	ELIMINATE TRAFFIC ISLAND	Δ

0891

DATE	REVISIONS	NO.
MAR 12 1994	FINALIZE TRAFFIC ISLAND	1

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: *Charles J. Grovo* DATE: 7/11/93

DEVELOPER'S CERTIFICATE
 I/WE 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 ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 SIGNATURE OF DEVELOPER: *Thomas R. Cochran* DATE: 7/30/93

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 SIGNATURE: *John E. Goss* DATE: 12/15/93
 U.S. SOIL CONSERVATION DISTRICT

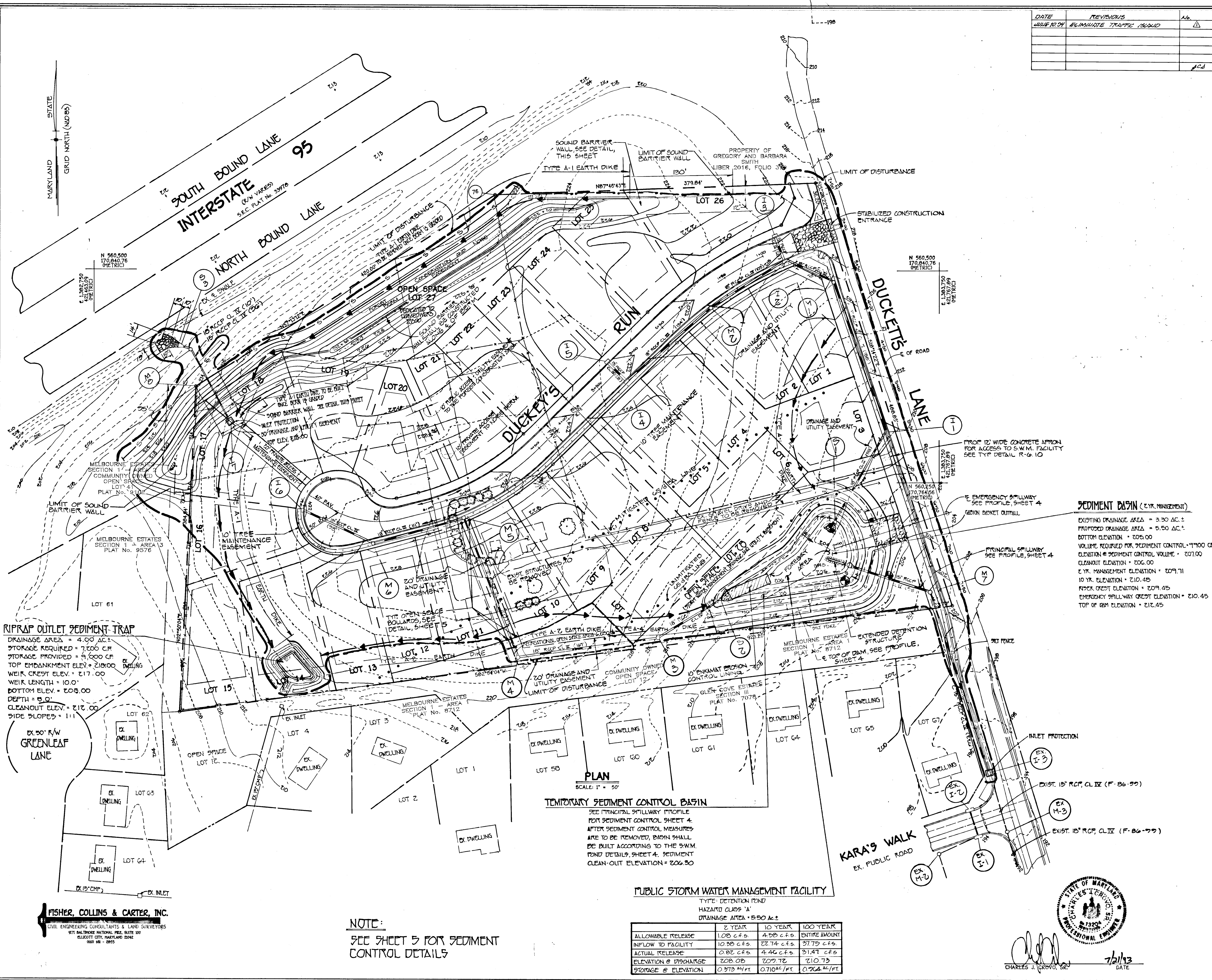
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *Robert J. Ziehm* DATE: 1/15/94
 DISTRICT HOWARD SOIL CONSERVATION DIST.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 APPROVED: *Anna Swirnam* DATE: 1/13/94
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: DEPARTMENT OF PUBLIC WORKS
 APPROVED: *Robert Eason* DATE: 1/7/94
 CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 APPROVED: *John Dammann* DATE: 1/7/94
 CHIEF, LAND DEVELOPMENT DIVISION

APPROVED: *Richard M. Dando* DATE: 1-7-94
 CHIEF, BUREAU OF HIGHWAYS



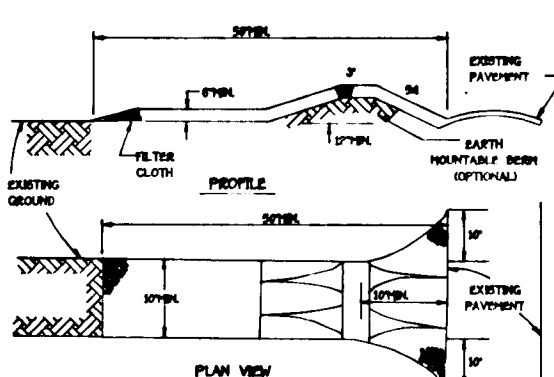
16871

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 971 BALTIMORE NATIONAL PIKE, SUITE 100
 ELLETTT CITY, MARYLAND 21114
 410-461-2955

NOTE:
 SEE SHEET 5 FOR SEDIMENT CONTROL DETAILS



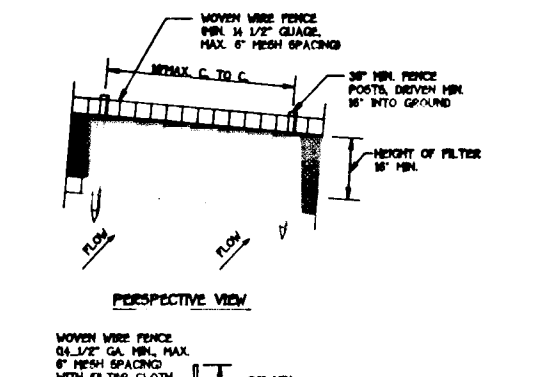
Charles J. Grovo
 CHARLES J. GROVO, SE
 DATE: 7/11/93



STABILIZED CONSTRUCTION ENTRANCE - 2
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

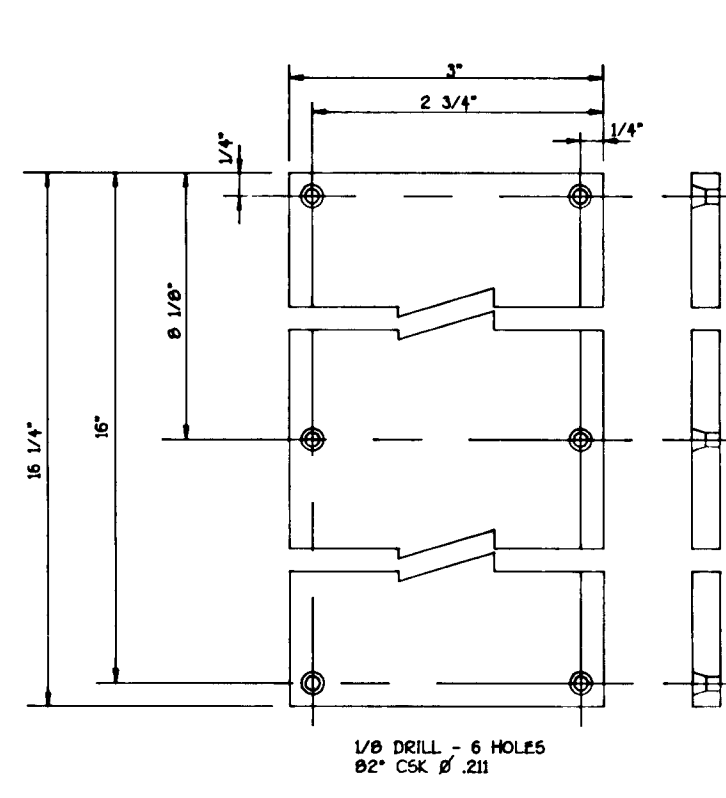
1. STONE CURB - USE OF STONE OR RECYCLED CONCRETE EQUIVALENT IS PERMITTED. ALL STONE SHALL BE WASHED AND FREE OF LIME AND OTHER CONTAMINANTS. CURB SHALL BE 18" HIGH AND 12" WIDE AT TOP.
2. FILTER CLOTH - 12" WIDE FILTER CLOTH SHALL BE PLACED OVER THE STONE CURB AND EXTEND 2' BEYOND EACH SIDE. FILTER CLOTH SHALL BE SEWED TO THE CURB WITH 12" GALVANIZED STEEL STAPLES.
3. RIP-RAP - 12" WIDE RIP-RAP SHALL BE PLACED OVER THE FILTER CLOTH AND EXTEND 2' BEYOND EACH SIDE. RIP-RAP SHALL BE 3/4" TO 1 1/2" IN SIZE.
4. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PERMIT TRAFFIC TO PASS WITHOUT CAUSING EROSION OR SEDIMENTATION. THE RIP-RAP SHALL BE REPLACED AS NECESSARY.
5. INSPECTION - THE ENTRANCE SHALL BE INSPECTED BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT BEFORE CONSTRUCTION BEGINS AND AFTER CONSTRUCTION IS COMPLETE.
6. REMOVAL - THE ENTRANCE SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETE AND THE AREA RESTORED TO ORIGINAL OR BETTER CONDITION.



SILT FENCE
NOT TO SCALE

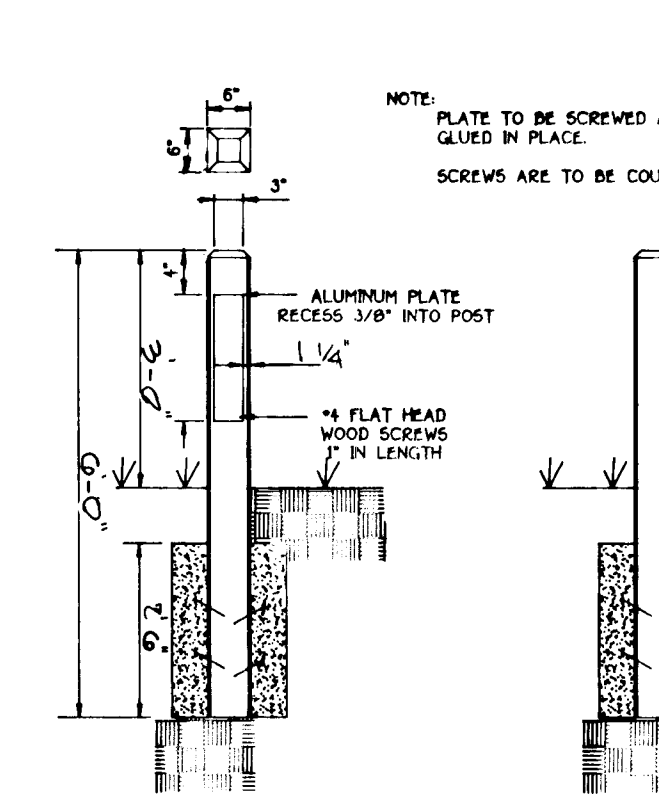
CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. SILT FENCE SHALL BE FABRICATED FROM 1/2" X 1/2" X 1/2" GALVANIZED STEEL STUDS.
2. SILT FENCE SHALL BE FABRICATED FROM 1/2" X 1/2" X 1/2" GALVANIZED STEEL STUDS.
3. SILT FENCE SHALL BE FABRICATED FROM 1/2" X 1/2" X 1/2" GALVANIZED STEEL STUDS.
4. SILT FENCE SHALL BE FABRICATED FROM 1/2" X 1/2" X 1/2" GALVANIZED STEEL STUDS.
5. SILT FENCE SHALL BE FABRICATED FROM 1/2" X 1/2" X 1/2" GALVANIZED STEEL STUDS.
6. SILT FENCE SHALL BE FABRICATED FROM 1/2" X 1/2" X 1/2" GALVANIZED STEEL STUDS.



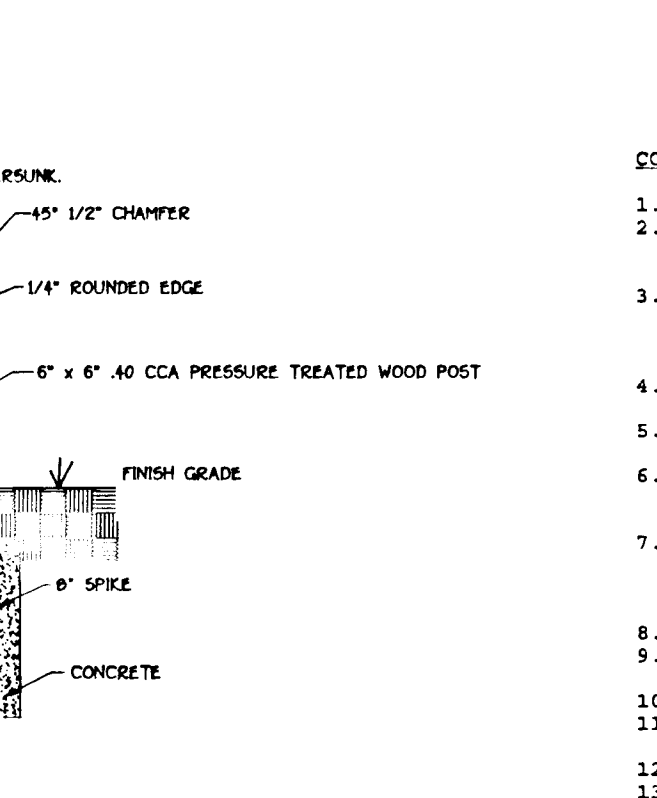
BOLLARD DETAIL
NO SCALE

NOTE: BOLLARDS WILL BE PLACED AT THE FOUR CORNERS OF THE OPEN SPACE ACCESS STOP.



ALUMINUM PLATE
NO SCALE

NOTE: BOLLARDS WILL BE PLACED AT THE FOUR CORNERS OF THE OPEN SPACE ACCESS STOP.



RIP-RAP CHANNEL DETAIL
NO SCALE

- CONSTRUCTION SEQUENCE**
1. OBTAIN GRADING PERMIT.
 2. NOTIFY MESS UTILITY 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY HOWARD COUNTY OFFICE OF PERMITS AND INSPECTION (313-1855) 24 HOURS BEFORE STARTING ANY WORK.
 3. INSTALL PERIMETER CONTROL MEASURES, STONE CONSTRUCTION ENTRANCE, RIP-RAP OUTLET SEDIMENT TRAP, TEMPORARY SEDIMENT CONTROL BASIN, EARTH DIKES AND SILT TRENCHES, STABILIZED TRAPS AND DIKES WITH TEMPORARY SEEDING.
 4. CONSTRUCT INLET STRUCTURE 1-1 TO OUTFALL STRUCTURE S-1 IN ORDER TO CAPTURE SEDIMENT ALONG POCKETT'S LANE.
 5. GRADE SITE TO SUBGRADE, STABILIZE AND INSTALL STORM DRAINS, AND INLET PROTECTION.
 6. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION CONTROL STRUCTURES THROUGHOUT THE PROJECT. INSPECTION SHALL BE ON A DAILY BASIS. SEDIMENT SHALL BE REMOVED FROM THE RIP-RAP OUTLET SEDIMENT TRAP AND TEMPORARY SEDIMENT CONTROL BASIN ONCE THE CLEAN-OUT ELEVATIONS HAVE BEEN REACHED. SEDIMENT MUST BE PLACED UP HILL FROM THE TRAPS.
 7. REMOVE SEDIMENT FROM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED.
 8. INSTALL ROAD BASE COURSE.
 9. REMOVE SEDIMENT FORM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED.
 10. APPLY TACK COAT TO SUB-BASE AND LAY SURFACE COURSE.
 11. REMOVE ALL SEDIMENT FROM BASIN AND RIP-RAP OUTLET SEDIMENT TRAP.
 12. STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEEDING.
 13. SEDIMENT CONTROL INSPECTOR SHALL INSPECT ALL SEDIMENT CONTROL MEASURES FOR STABILITY. ALL SEDIMENT CONTROL MEASURES ARE TO REMAIN FOR USE DURING SITE DEVELOPMENT PLAN.

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: *[Signature]* DATE: 7/20/93

DEVELOPER'S CERTIFICATE

I/WE 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 ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Signature: *[Signature]* DATE: 7/20/93

REVISIONS FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Signature: *[Signature]* DATE: 12/15/93

Signature: *[Signature]* DATE: 1/13/94

Signature: *[Signature]* DATE: 1/7/94

Signature: *[Signature]* DATE: 1-3-94

STABILIZED CONSTRUCTION ENTRANCE - 2
NOT TO SCALE

SILT FENCE
NOT TO SCALE

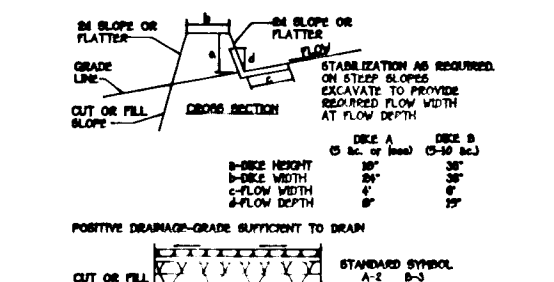
ALUMINUM PLATE
NO SCALE

BOLLARD DETAIL
NO SCALE

RIP-RAP CHANNEL DETAIL
NO SCALE

CONSTRUCTION SPECIFICATIONS FOR RIP-RAP OUTFALLS

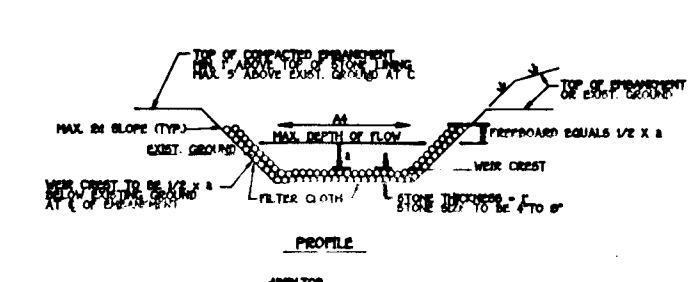
1. The subgrade for the filter, riprap or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
3. Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.
4. Stone for the riprap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for riprap or gabion outlets shall be delivered and placed in a manner that will insure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.



EARTH DIKE
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

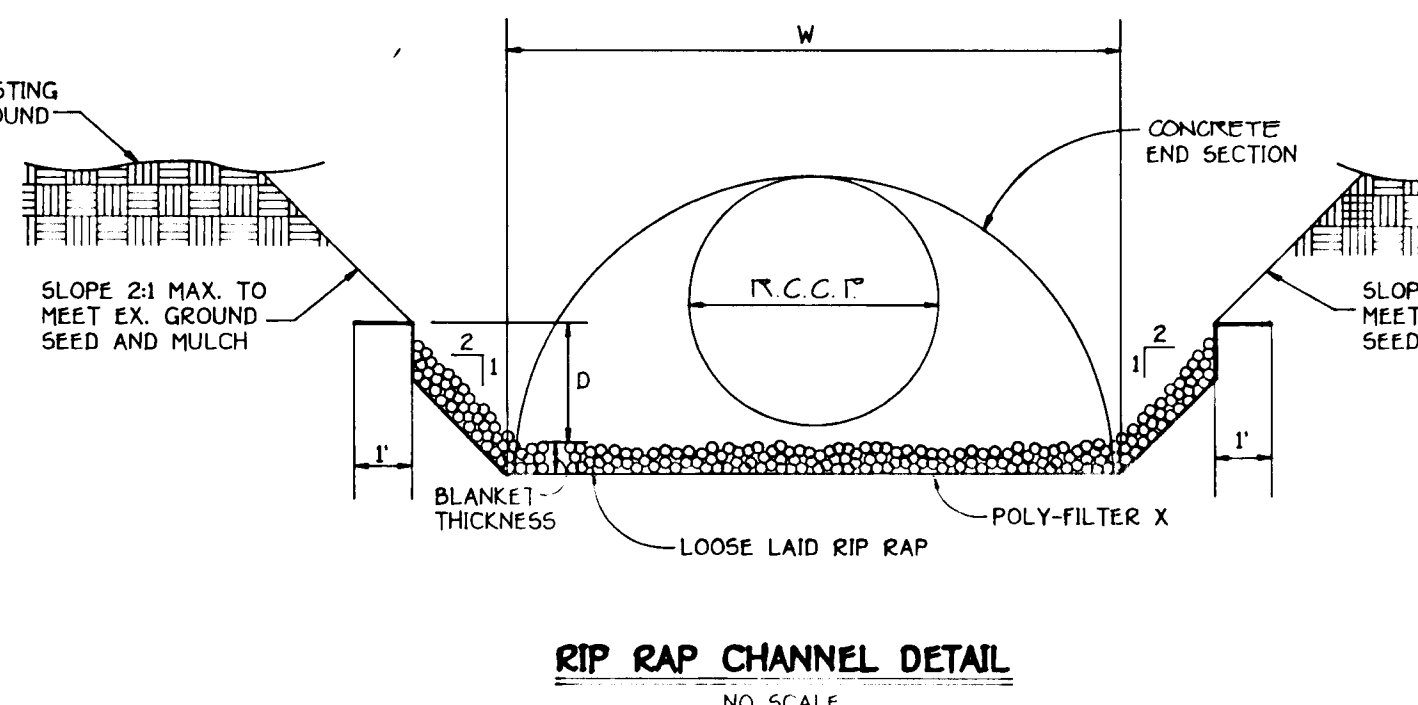
1. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
2. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
3. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
4. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
5. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
6. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
7. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
8. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
9. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
10. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.



RIPRAP OUTLET SEDIMENT TRAP ST-VI
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
2. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
3. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
4. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
5. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
6. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
7. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
8. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
9. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.
10. ALL DIKES SHALL BE CONSTRUCTED BY EACHING AND BACKFILLING WITH A 2:1 SLOPE.



RIP-RAP CHANNEL DETAIL
NO SCALE

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 GREATER THAN 31, 31 1/4 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: 9.50 ACRES
 - AREA DISTURBED: 9.05 ACRES
 - AREA TO BE ROOFED OR PAVED: 2.60 ACRES
 - AREA TO BE VEGETATIVELY STABILIZED: 7.05 ACRES
 - TOTAL CUT: 8000 CU.YDS.
 - TOTAL FILL: 5000 CU.YDS.
 - OFFSITE WASTE/BORROW AREA LOCATION: [Location]
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 PERIMETER EROSION AND SEDIMENT CONTROL MEASURES, 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.

PERMANENT SEEDING NOTES

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

SEEDBED PREPARATION:

LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS:

APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1,000 SQ.FT.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (14 LBS./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 38-0-0 UREAFORM FERTILIZER (9 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE (115 LBS./1,000 SQ.FT.) OF 10-20-20 FERTILIZER.

SEEDING:

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS./ACRE (1.4 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1,000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 29, PROJECT SITE BY: OPTION (1) - TWO 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 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEEDED.

MULCHING:

APPLY 11 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GALL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER USE 380 GALLONS PER ACRE (18 GALL./1,000 SQ.FT.) FOR ANCHORING.

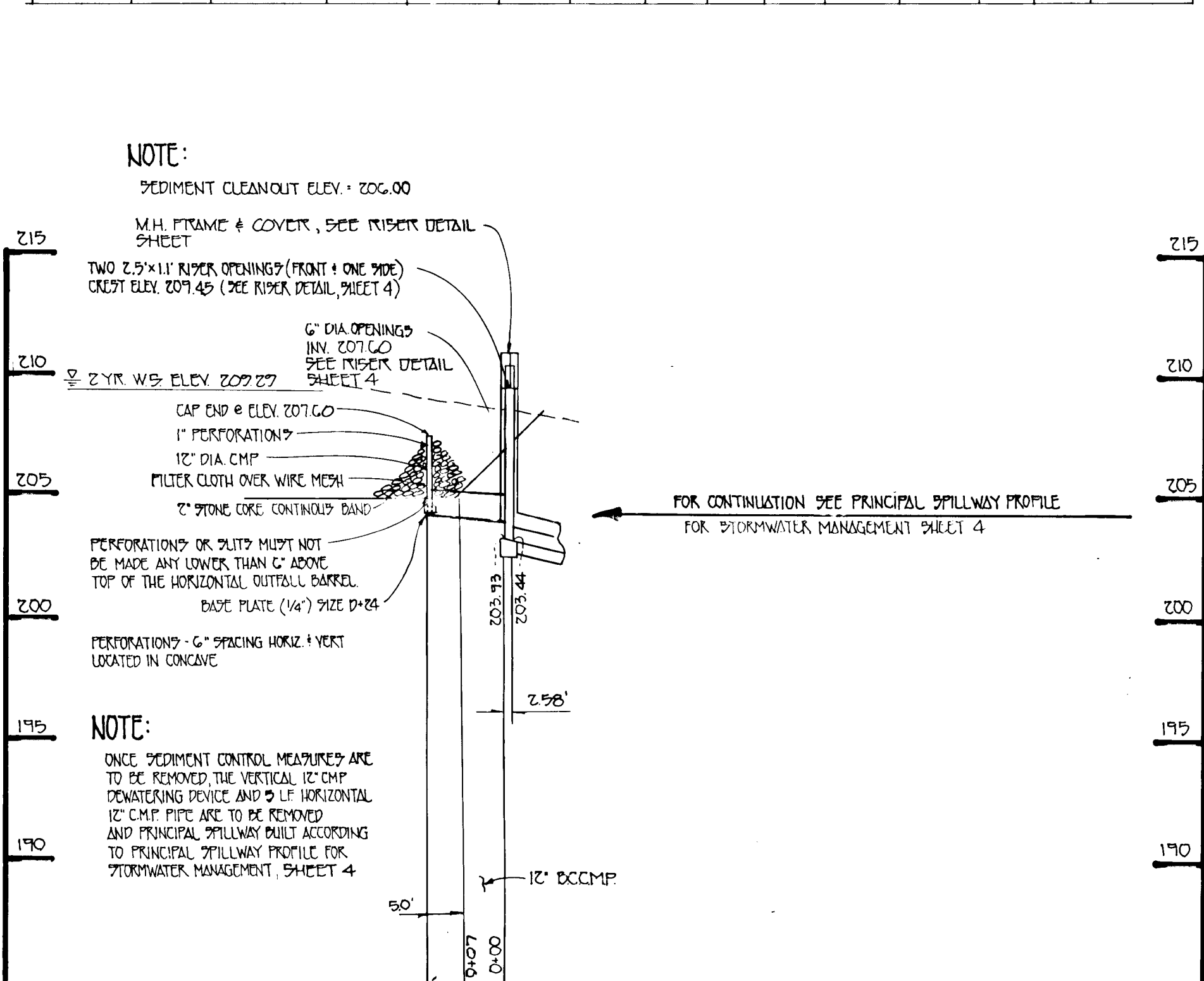
MAINTENANCE:

INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

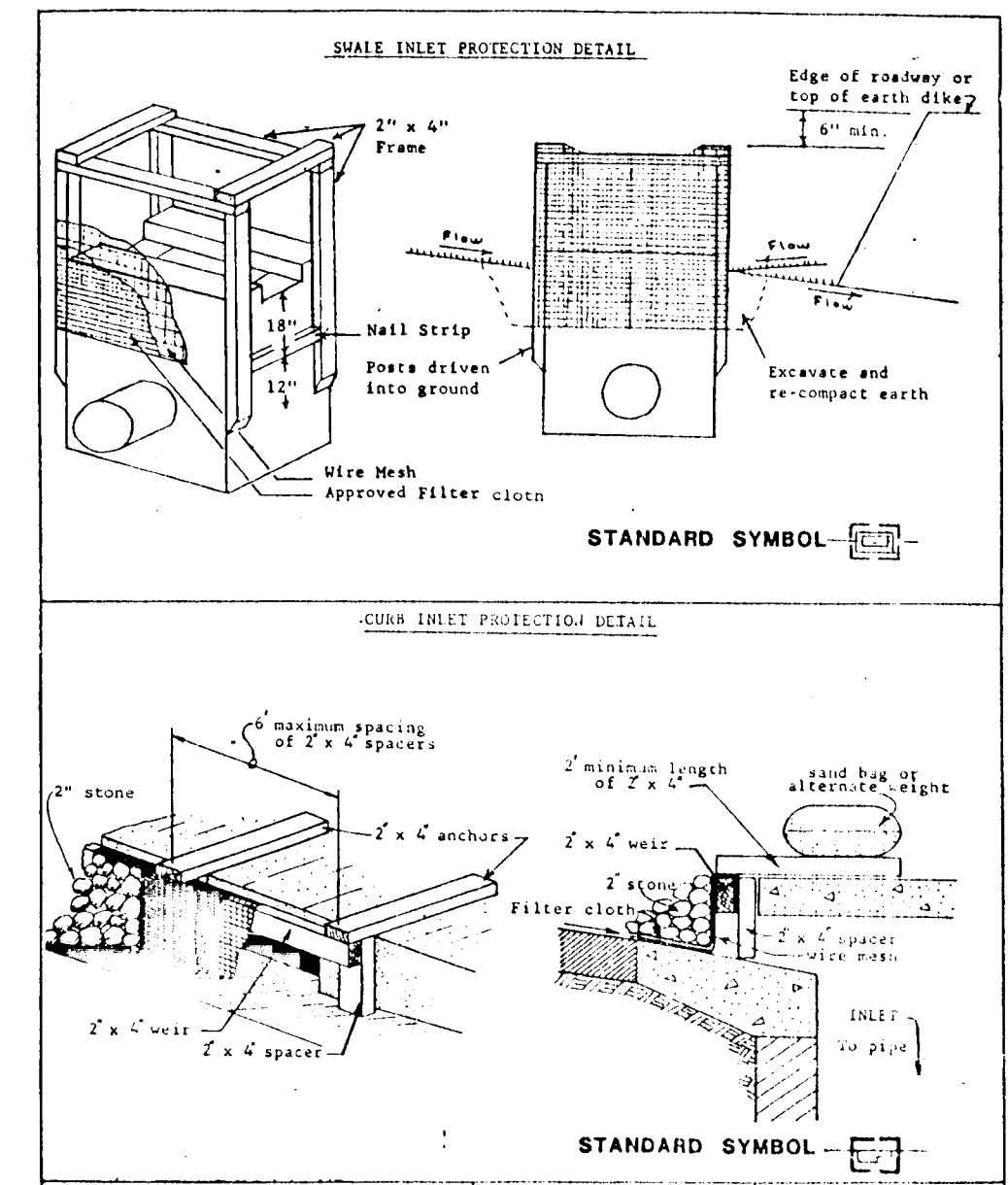
* FOR PUBLIC PONDS SUBSTITUTE CHEMUNG CROWNVECH AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS./ACRE AS THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.

RIP-RAP CHANNEL DESIGN DATA

STRUCTURE	AREA	WETTED PERIMETER	R	R ^{2/3}	S	S ^{1/2}	W	D	N	V	Q	Q/CFS	Q/D ^{3/2}	Q/D ^{3/4}	BLANKET THICKNESS
9-1	6.0	8.47	0.708	0.79	0.005	0.071	4.0	1.00	0.035	2.38	11.23	4'	4'	14"	
9-2	2.50	3.24	0.401	0.54	0.005	0.071	3.0	0.50	0.035	1.43	3.00	4'	4'	14"	
9-3	1.72	2.29	0.325	0.47	0.005	0.071	3.5	0.40	0.035	1.42	1.58	4'	4'	20"	



PRINCIPAL SPILLWAY PROFILE FOR SEDIMENT CONTROL
SCALE: HOR. 1" = 20' VERT. 1" = 5'



CURB INLET AND SWALE INLET PROTECTION DETAIL
NOT TO SCALE

- II. Procedure**
- A. Swale, ditchline or yard inlet protection.
1. Excavate completely around inlet to a depth of 18" below notch elevation.
 2. Drive 2 x 4 post 1' into ground at four corners of inlet. Assemble top section of frame over inlet. Assemble top section of frame (weir) must be 6" below edge of roadway adjacent to inlet.
 3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
 4. Stretch filter cloth tightly over wire mesh. The cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
 5. Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
 6. If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (weir).
 7. This structure must be inspected frequently and the filter fabric replaced when clogged.
- B. Curb Inlet Protection.
1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 4") as shown on the standard drawing.
 2. Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
 3. Securely nail the 2" x 4" weir to 9" long vertical anchors to be located between the weir and inlet face (max. 6" apart).
 4. Place the assembly against the inlet throat and nail (minimum 2" length of 2" x 4" to the top of the weir at anchor locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
 5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
 6. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
 7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 8. Assume that storm flow does not bypass inlet by installing temporary earth or asphalt dike directing flow into inlet.

OWNER/DEVELOPER
DUCKETT'S LANE JOINT VENTURE
C/O THE RACHUBA GROUP
GREEN SPRING STATION
2360 WEST JOFFA ROAD, SUITE 310
LUTHERVILLE, MARYLAND 21093



SEDIMENT CONTROL DETAILS
DUCKETT'S RUN
LOTS 1 - 28
TAX MAP 07
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER 1, 1993
SHEET 5 OF 10

0897

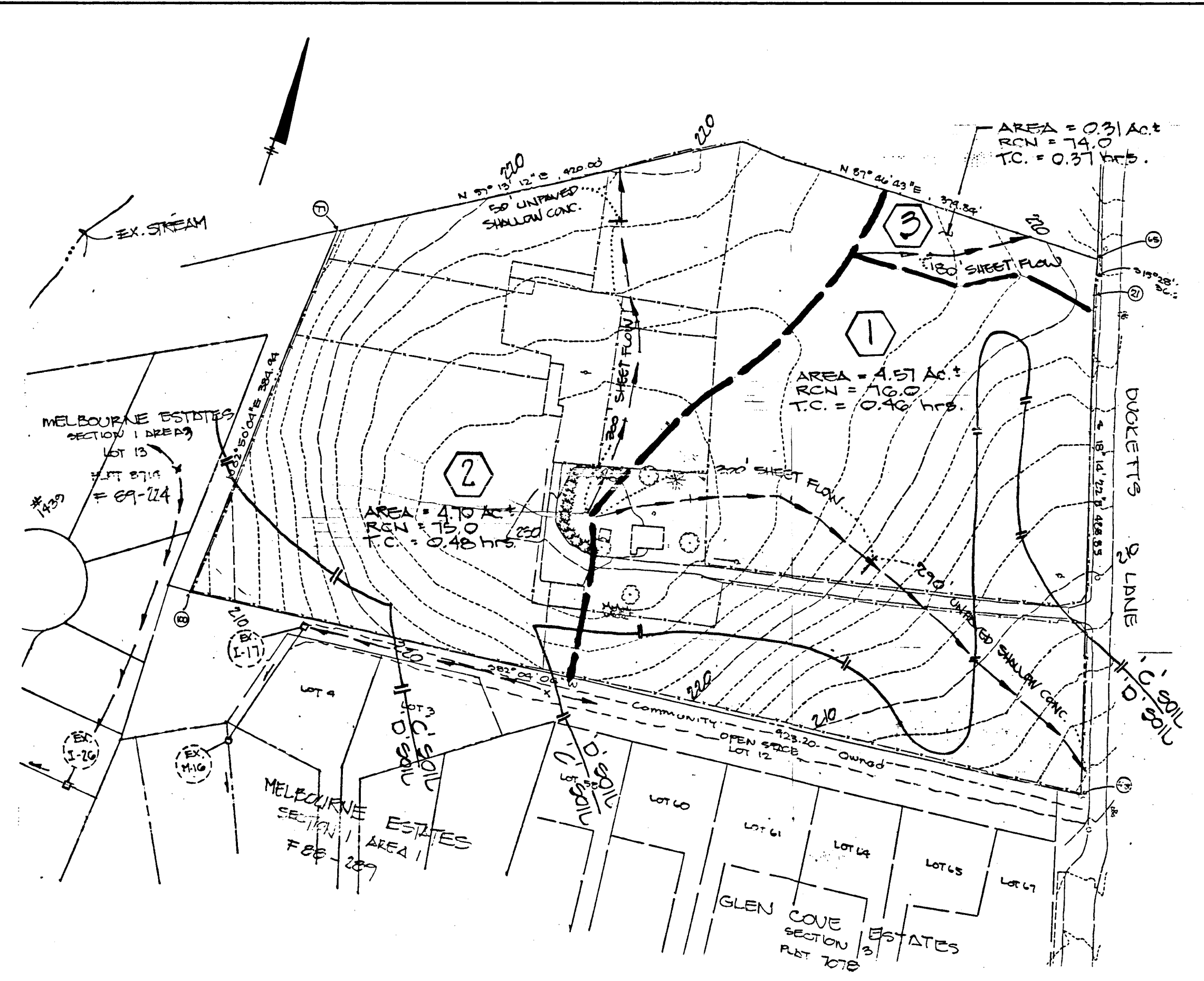
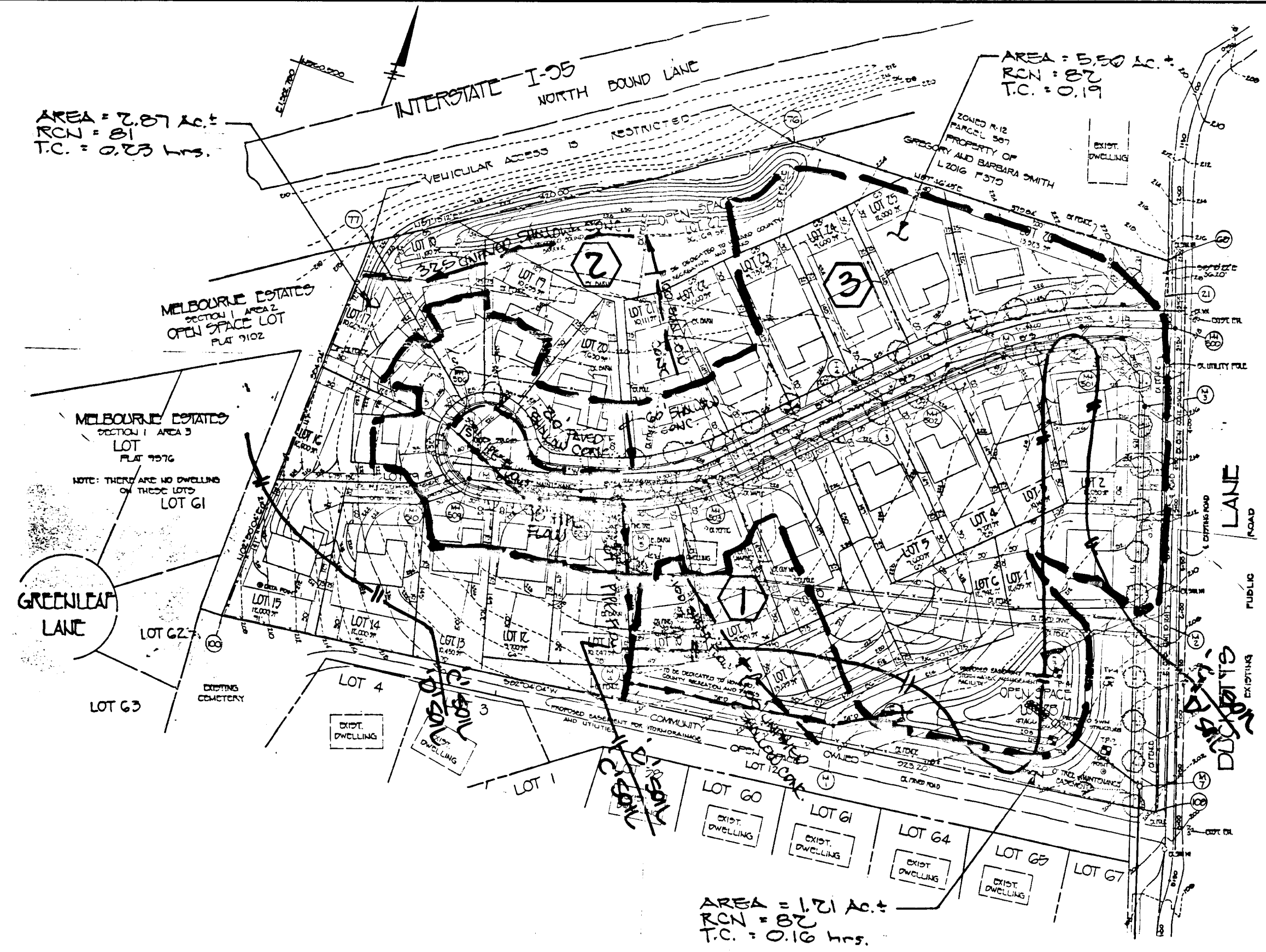
FISHER, COLLINS & CARTER, INC.
9171 BALTIMORE NATIONAL PIKE, SUITE 100
ELICOTT CITY, MARYLAND 21042
(410) 461-2855

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highway Andrew M. Daniels 1-3-94
 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division Chris Danvers 1/7/94
 DATE

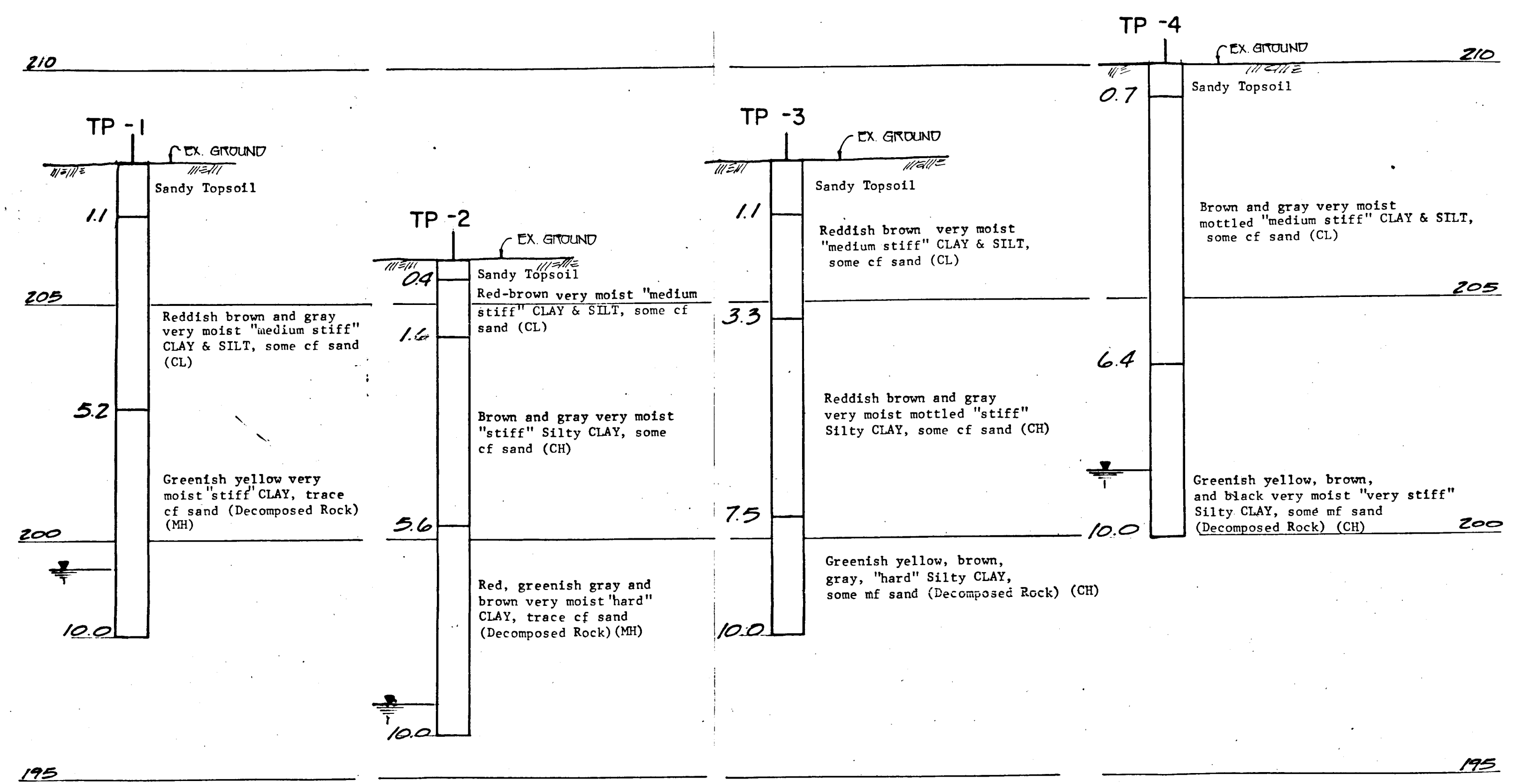
APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Planning Paul D. Sapon 1/7/04
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development and Research Jim Surmann 1/13/94
 DATE



PROPOSED CONDITION S.W.M. HYDROLOGY DRAINAGE AREA MAP
 SCALE: 1"=100'

EXISTING CONDITION S.W.M. HYDROLOGY DRAINAGE AREA MAP
 SCALE: 1"=100'



STORM WATER MANAGEMENT POND

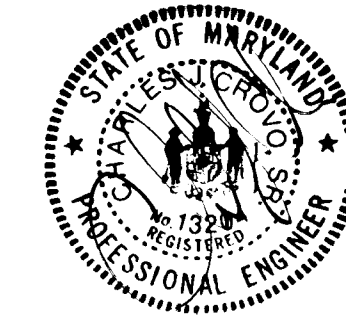
SOIL BORING PROFILES

SCALE: HORIZ: N/A
 VERT: 1"=4'

1680

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 9171 BALTIMORE NATIONAL PARK, SUITE 100
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2855

OWNER/DEVELOPER
 DUCKETT'S LANE JOINT VENTURE
 c/o THE RACHUBA GROUP
 GREEN SPRING STATION
 2360 WEST JOPPA ROAD, SUITE 310
 LUTHERVILLE, MARYLAND 21093



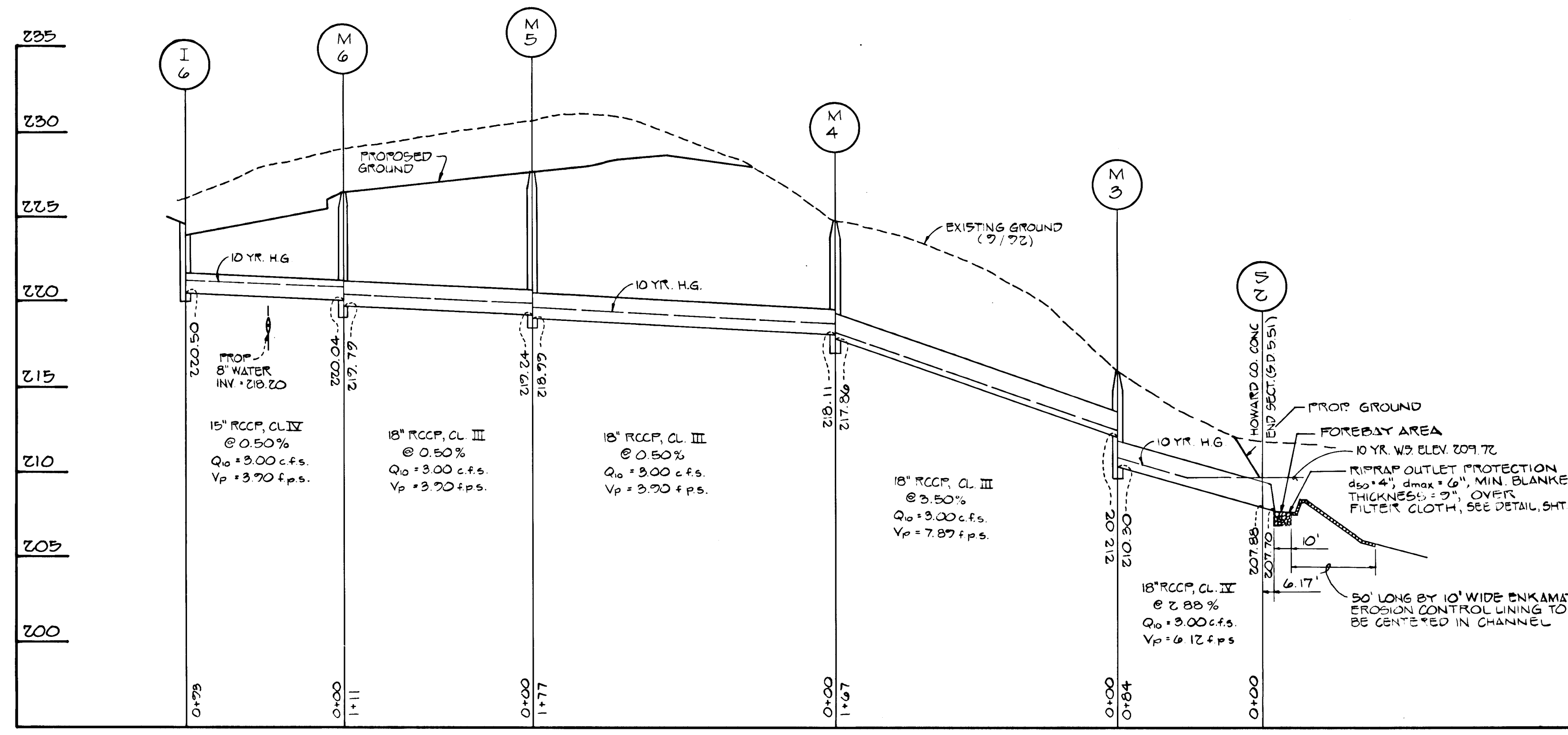
STORM WATER MANAGEMENT DRAINAGE AREA MAP
 AND SOIL BORING PROFILES
DUCKETT'S LANE
 LOTS 1 - 28
 TAX MAP 37 PACEL 47B
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER 1, 1993
 SHEET 6 OF 10

APPROVED: DEPARTMENT OF PUBLIC WORKS
Robert M. Daniels 1-3-98
 CHIEF, BUREAU OF HIGHWAYS DATE

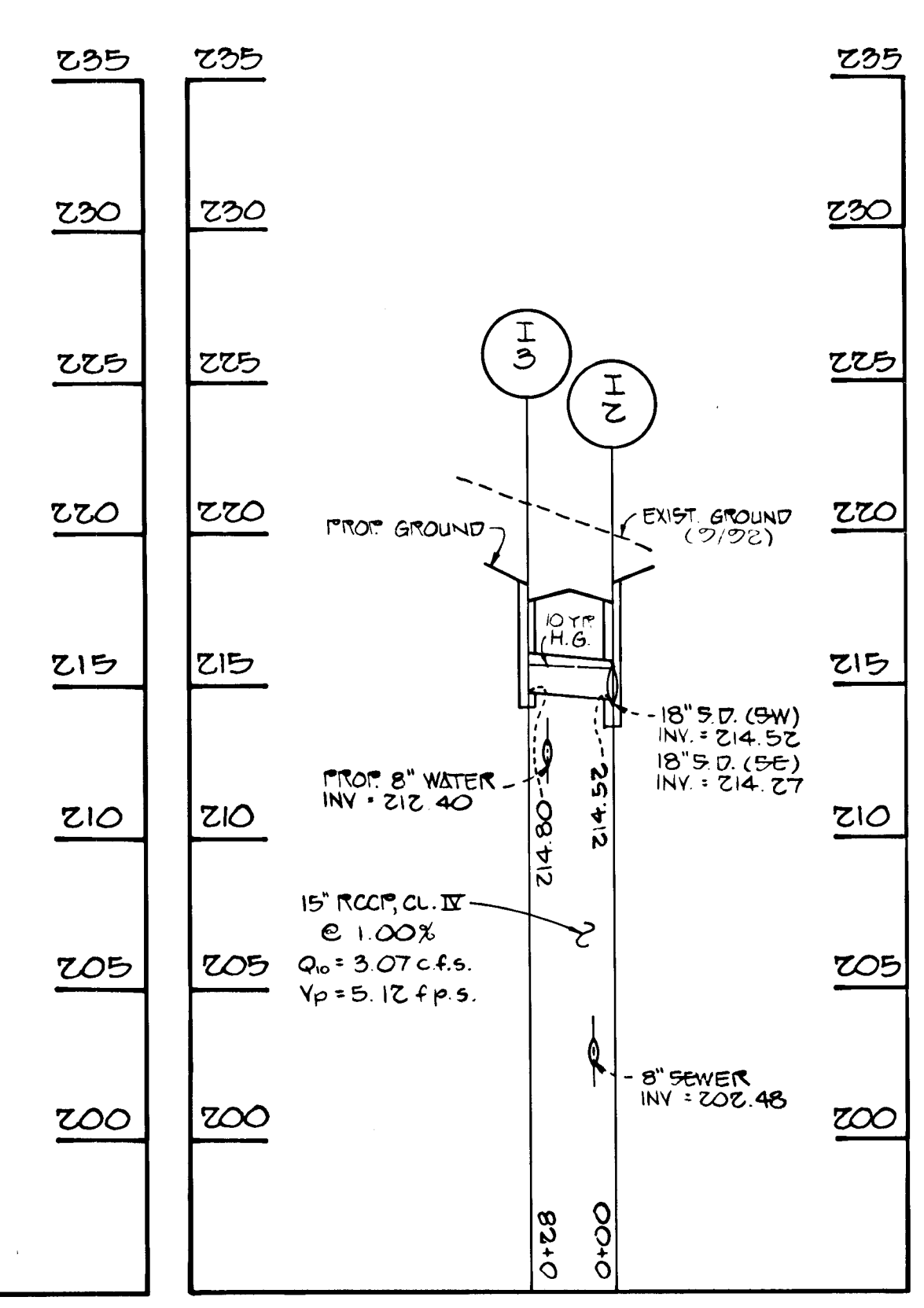
APPROVED: DEPARTMENT OF PUBLIC WORKS
John Drummer 1/7/94
 CHIEF, LAND DEVELOPMENT DIVISION DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
Donald J. Sporn 1/7/94
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Jim Swann 1/13/94
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE



PROFILE
 SCALE: HOR. 1" = 50'
 VER. 1" = 5'

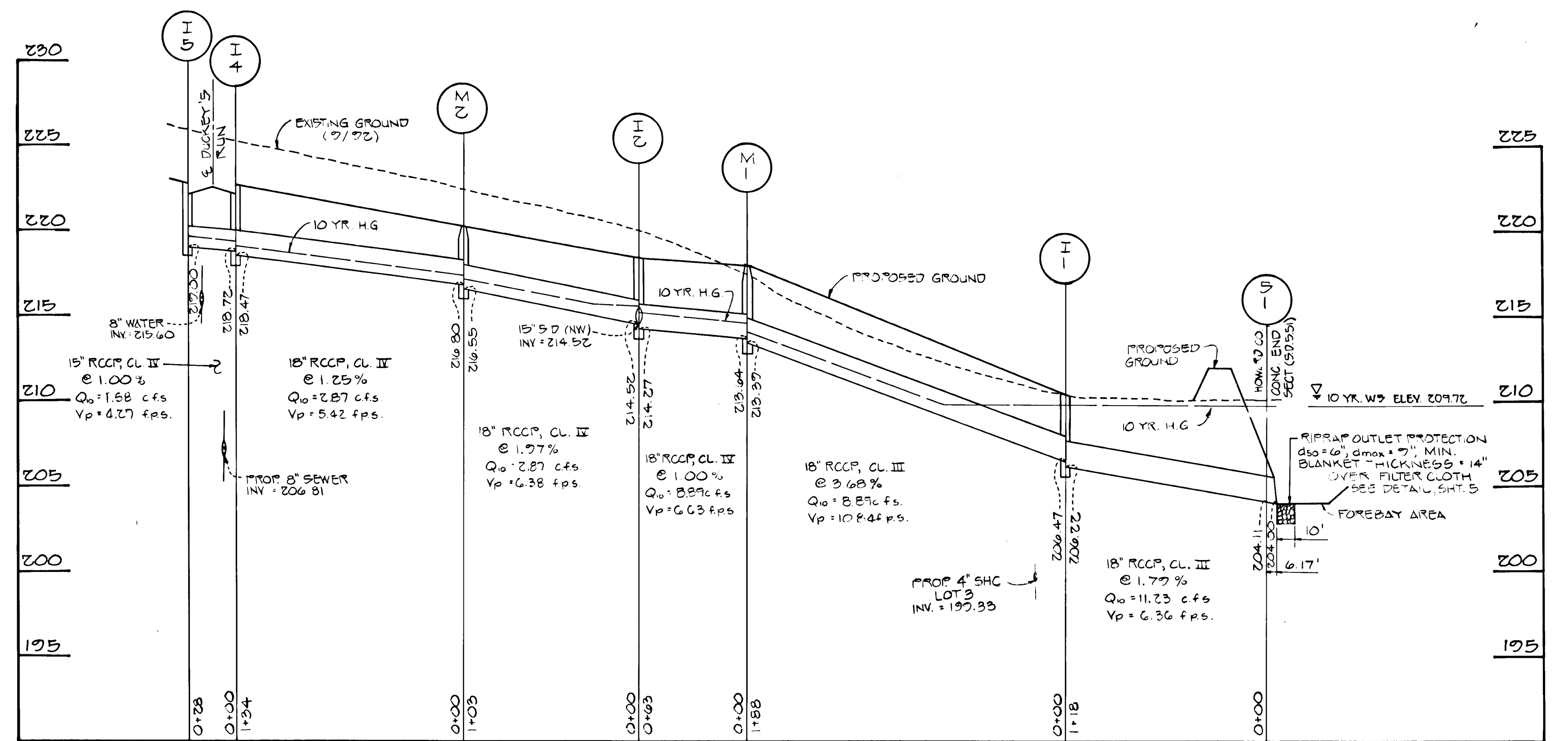


PROFILE
 SCALE: HOR. 1" = 50'
 VER. 1" = 5'

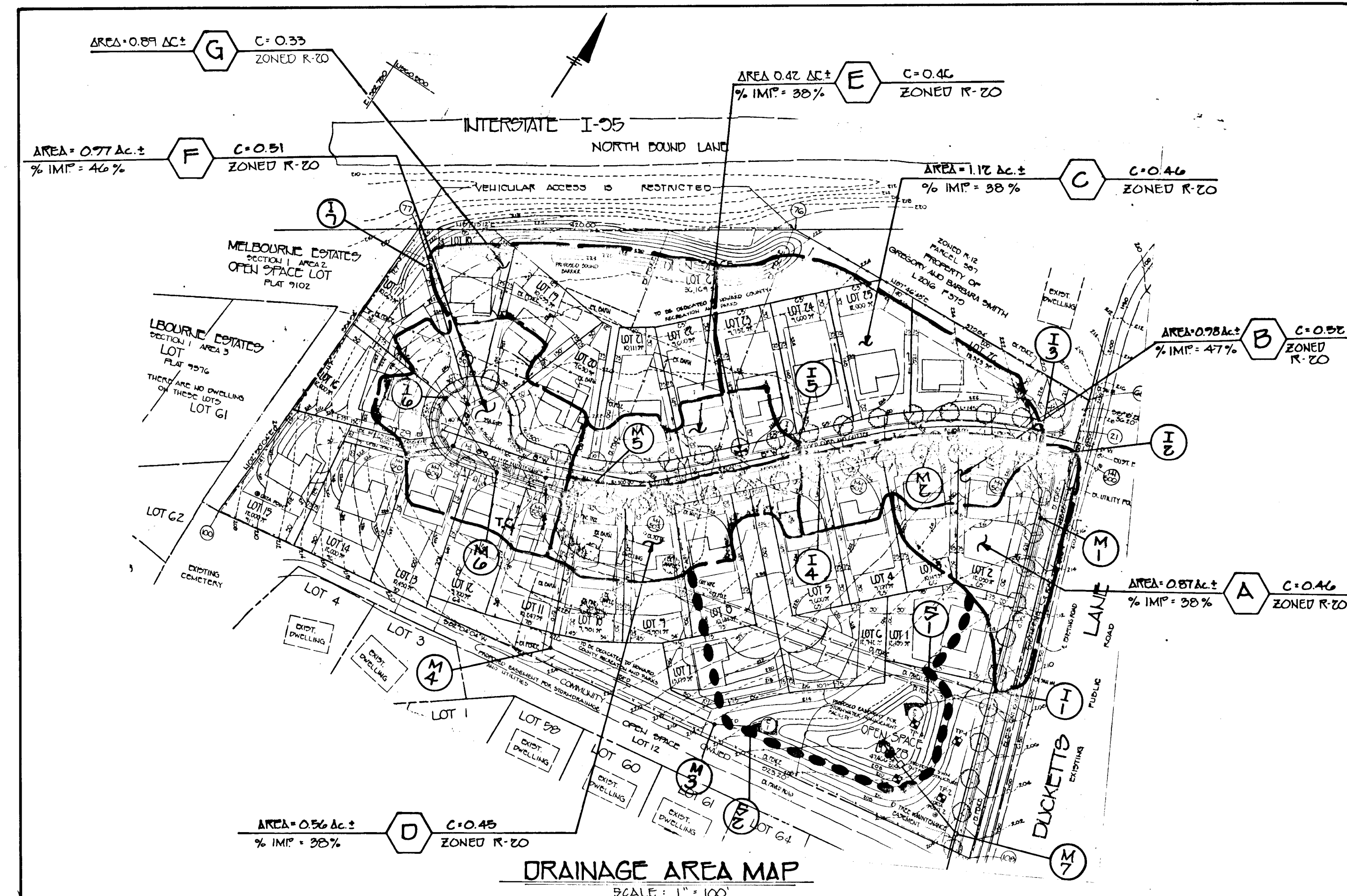
STRUCTURE SCHEDULE

STRUCTURE	TOP ELEV.	INV. IN	INV. OUT	ROAD NAME	ROAD STATION	OFFSET	TYPE	REMARKS
I-1	*210.37	206.47	206.22	DUCKETT'S LANE	E STA. 5+45	23.73 FT	A-5 w/ deflectors	50' x 40'
I-2	*218.33	214.52	214.27	DUCKETT'S RUN	E STA. 0+76.46	14' LT.	A-5	50' x 40'
I-3	*218.33	—	214.80	DUCKETT'S RUN	E STA. 0+76.46	14' RT.	A-5	50' x 40'
I-4	*222.76	218.72	218.47	DUCKETT'S RUN	E STA. 3+21.22	14' LT.	A-5 w/ deflectors	50' x 40'
I-5	*222.76	—	217.00	DUCKETT'S RUN	E STA. 3+21.22	14' RT.	A-5 w/ deflectors	50' x 40'
I-6	*224.46	—	220.90	DUCKETT'S RUN	L STA. 1+47.63	N/A	A-5	50' x 40'
M-1	*217.83	213.64	213.39	DUCKETT'S LANE	E STA. 3+39.34	27.73 RT	SHALLOW M.H.	G 5' x 12'
M-2	*220.20	216.80	216.55	DUCKETT'S RUN	E STA. 1+83	20' LT.	SHALLOW M.H.	G 5' x 12'
M-3	*216.00	212.02	210.30	SEE PLAN	N 560,067.00 E 1,303,417.00	SEE PLAN	SHALLOW M.H.	G 5' x 12'
M-4	*225.00	218.11	217.86	SEE PLAN	N 560,049.00 E 1,303,292.00	SEE PLAN	STD M.H.	G 5' x 12'
M-5	*227.65	217.24	218.77	DUCKETT'S RUN	E STA. 5+66.46	20' LT.	STD M.H.	G 5' x 12'
M-6	*226.45	220.04	217.73	DUCKETT'S RUN	L STA. 0+37	6' LT. CURB	STD M.H.	G 5' x 12'
M-7	*203.09	197.48	197.23	DUCKETT'S LANE	E STA. 7+43	33' RT	SHALLOW M.H.	G 5' x 12'
S-1	205.61	204.11	204.00	SEE PLAN	N 560,206.00 E 1,303,627.00	SEE PLAN	CONC. END SECT.	50' x 51'
S-2	207.38	207.88	207.70	SEE PLAN	N 560,111.00 E 1,303,488.00	SEE PLAN	CONC. END SECT.	50' x 51'
I-7	218.00	—	210.93	SEE PLAN	N 560,391.00 E 1,303,712.35	SEE PLAN	VALD INLET	50' x 14'
S-3	203.33	203.83	203.70	SEE PLAN	N 560,428.50 E 1,303,855.00	SEE PLAN	CONC. END SECT.	50' x 51'

* DENOTES ELEVATION AT TOP OF CURB
 ** DENOTES ELEVATION AT TOP OF MANHOLE COVER, THAT IS RIM ELEV. OF MANHOLE.
 Δ DENOTES TOP OF RIM ELEVATION.

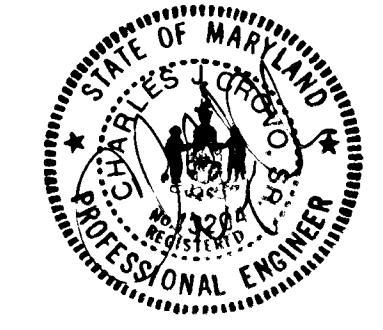


PROFILE
 SCALE: HOR. 1" = 50'
 VER. 1" = 5'



DRAINAGE AREA MAP
 SCALE: 1" = 100'

OWNER/DEVELOPER
 DUCKETT'S LANE JOINT VENTURE
 c/o THE RACHUBA GROUP
 GREEN SPRING STATION
 2360 WEST JOPPA ROAD, SUITE 310
 LUTHERVILLE, MARYLAND 21093



STORM DRAIN PROFILES AND DRAINAGE AREA MAP
DUCKETT'S RUN
 LOTS 1 - 28
 TAX MAP 37, PAVEL 47B
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER 1, 1993
 SHEET 7 OF 10

0897

INTERSTATE I-95
NORTH BOUND LANE

PLANTING SPECIFICATIONS AND NOTES

LEGEND

- EXISTING FOREST
- AREA 'A' (0.56Ac)
- AREA 'B' (0.20Ac)
- LIMIT OF DISTURBANCE
- ROOTZONE PROTECTION FENCE EXISTING FOREST (SEE DETAIL)
- LIMIT OF PLANTING WITH SIGNS POSTED / 25' (SEE DETAIL)

SOILS

- Silt fences for sediment control and tree protection fences are to be installed as a first order of business.
- Topsoil shall be salvaged from within the project limits of work as indicated on the Plan. Salvaged topsoil shall be stockpiled for ultimate application to the Afforestation area.
- The fill material used in the planting site should be clean fill topped with 12 inches of native topsoil mixture.
- Native topsoil mixture for all plant material: 200 lb. dehydrated raw manure and ten 5.5 cu. ft. bales humus to 12 cu. yds. furnished topsoil. Composted sludge in the amount of 4.0 cu. yds. may be substituted for the raw manure, peat moss or peat humus.
- Soil mix for ericaceous material: Soil mix shall consist of existing topsoil mixture at each planting field location into which the contractor shall thoroughly incorporate a minimum of 25% by volume peat moss.
- All mixing in 5 above shall be limited to tree ball and burlap or container grown stock only and confined to the planting field and immediate adjacent soil surface area and shall be accomplished to the satisfaction of the designated Qualified Professional or Engineer.

TREE PRESERVATION PROCEDURES

- THE EDGE OF WOODS TO BE PROTECTED WILL BE MARKED IN THE FIELD PER THE APPROVED SITE DEVELOPMENT PLAN PRIOR TO THE START OF CONSTRUCTION ACTIVITY.
- PROTECTIVE FENCING SHALL BE INSTALLED AT THE DRIP LINE OF THE EDGE OF WOODS. ALL AREAS WITHIN PROTECTIVE FENCES ARE TO BE CONSIDERED "OFF LIMITS" FOR ANY CONSTRUCTION ACTIVITIES.
- PROTECTIVE FENCING WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR WILL AFFIX SIGNS TO THE FENCING INDICATING THAT THESE AREAS ARE "TREE PRESERVATION AREAS". THE GENERAL CONTRACTOR SHALL TAKE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING THE CONSTRUCTION CYCLE. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE, AND DRAINAGE OF SOLUTIONS CONTAINING MATERIALS HAZARDOUS TO TREE ROOTS.
- REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED. THE GENERAL CONTRACTOR SHALL BE PROHIBITED FROM PARKING ANY CONSTRUCTION EQUIPMENT, OR FROM STORING BUILDING SUPPLIES OR EARTH STOCKPILES WITHIN THE TREE PRESERVATION AREAS.
- FOOT TRAFFIC, AS WELL AS VEHICULAR TRAFFIC, IN THE TREE PRESERVATION AREAS SHALL BE KEPT TO A MINIMUM. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TREE DAMAGED OR DESTROYED WITHIN THE TREE PRESERVATION AREAS, WHETHER CAUSED BY THE CONTRACTOR, HIS AGENTS, EMPLOYEES, SUB-CONTRACTORS OR LICENSEES.
- CONSTRUCTION ACTIVITIES EXPRESSLY RESTRICTED WITHIN THE TREE PRESERVATION AREAS:
 - PLACING BACKFILL IN PROTECTED AREAS;
 - PELLING TREES INTO PROTECTED AREAS;
 - DRIVING CONSTRUCTION EQUIPMENT INTO OR THROUGH PROTECTED AREAS;
 - BURNING IN OR IN CLOSE PROXIMITY TO PROTECTED AREAS;
 - STACKING OR STORING SUPPLIES IN PROTECTED AREAS;
 - CONDUCTING TRENCHING OPERATIONS IN PROTECTED AREAS;
 - GRADING BEYOND THE LIMITS OF DISTURBANCE.

PLANT STORAGE AND INSPECTION

- Planting should occur within 24 hours of delivery to the site. Plant materials left unplanted for more than 24 hours should be protected from direct sun and weather and kept moist. Nursery stock should be planted within 2 weeks.
- Planting stock should be inspected prior to planting. Plants not conforming to standard nurseryman specifications for size, form, vigor, roots, trunk wounds, insects and disease should be replaced.

PLANT INSTALLATION

- Container Grown Stock: The plant should be removed from the container and roots gently loosened from the soil. If the roots encircle the root ball, substitution is strongly recommended. J-shaped or kinked root systems should also be noted, and the plants replaced if necessary.
- DO NOT TRIM ROOTS ON-SITE, due to the increased chances of soil borne diseases.
- Balled and Burlapped Trees: Trees should not be picked up by the trunk or dropped. These practices may separate the trunk from the root ball.
- The Evergreen Planting Detail shown on plan will work for both planting areas with adjustments for steep slope plantings as mentioned earlier.
- Planting Fields: The planting field should be prepared and the native stockpiled soils mixture, mentioned above, should be used to backfill the planting field. Rake soils evenly over the planting field and cover with 4 to 6 inches of mulch. Use watering to settle soil backfilled around trees.

LIMITS OF WORK

- The construction procedure shall not damage any forest outside of the grading limits or damage areas designated to be retained or undisturbed on the Plans that occur within the project limits. Any damage shall be restored by the Contractor at his expense and to the satisfaction of the designated Qualified Professional or Engineer.

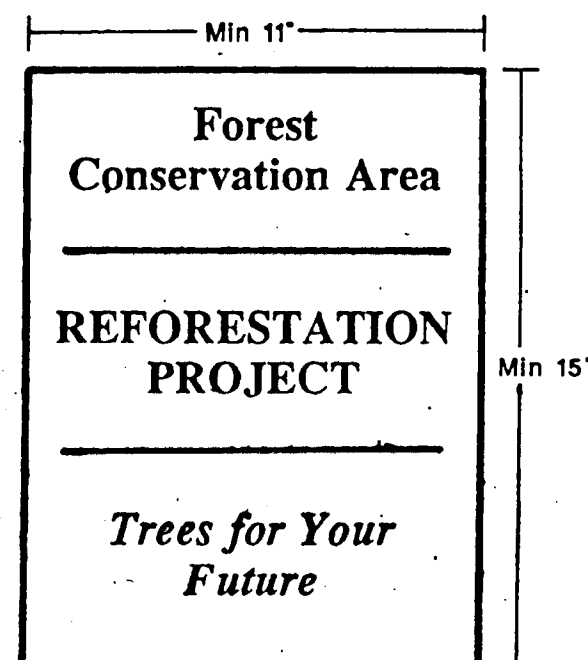
PROCEDURES AND ESTABLISHMENT

- AREA 'A' is all that area found within Open Space Lot 27, approximately 0.56 Acres. This area shall be planted according to sizes and spacings as shown in the Plant List on this sheet.
- On steep slopes or erodible soils, soil disturbance should be limited to the planting field whose radius is equal to 2.5 times the diameter of the root ball or container.
- Avoid planting in a straight grid pattern.
- For trees planted in #1 (AREA A), Contractor shall evenly disperse species in groups of two (2) to four (4), per species, over the entire designated area to be planted.
- All trees planted in Area A shall be planted using Tubex Tree Shelters to aid in their growth and as a deterrent to animal predation and public disturbance.
- Area B shall be planted according to specifications found in the Plant List on this sheet. These trees will serve as a buffer to the smaller planting stock in Area A and as visual screening from I-95 and highway traffic noise attenuation.

STABILIZATION

PERMANENT SEEDING NOTES

- LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING, OR OTHER ACCEPTABLE MEANS IF NOT PREVIOUSLY LOOSENED.
- APPLY 2 TONS/ACRE OF DOLOMITIC LIMESTONE (92 LBS./1000 SQ. FT.) AND 1000 LBS./ACRE OF 10-10-10 FERTILIZER (23 LBS./1000 SQ. FT.) BEFORE SEEDING. BARROR OR DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING: MARCH 1 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH LOVEGRASS. DURING OCTOBER 14 THROUGH FEBRUARY 28, USE 2 TONS/ACRE OF WELL-ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING.
- MULCHING: APPLY 1-1/2 TO 2 TONS/ACRE OF UNWETTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH AFTER APPLICATION WITH AN ANCHORING TOOL OR 218 GALLONS/ACRE OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER USE 348 GALLONS/ACRE.
- MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.



SIGN DETAIL

DATE	NO.	REVISION
OWNER/DEVELOPER		
PROJECT: DUCKEY'S RUN		
AREA TAX MAP 37	GRID 12	PANEL 47B
FIRST ELECTION DIST.	HOWARD COUNTY, MARYLAND	
SCALE: 1" = 50'	DATE: OCTOBER 17, 1972	
TITLE: FOREST CONSERVATION AFFORESTATION PLAN		
M.A. DIRCKS & CO., INC. Environmental Consulting Services (301) 750-2058 2505 PEBBLE BEACH DRIVE ELLIOTT CITY, MD. 21043 <i>May Dircks</i>		

DESIGNED BY: **RBW**
DRAWN BY: **RBW**
PROJECT NO:
DATE: DECEMBER 1, 1973
SCALE: AS SHOWN
DRAWING NO. **B** OF **10**

*NOTE: REMAINING AFFORESTATION REQUIREMENT TO BE DONE OFF-SITE OR PAYMENT IN LIEU OF SHALL BE MADE TO THE FUND.

OPEN SPACE LOT 27 AFFORESTATION AREA 'A'

PLANT LIST

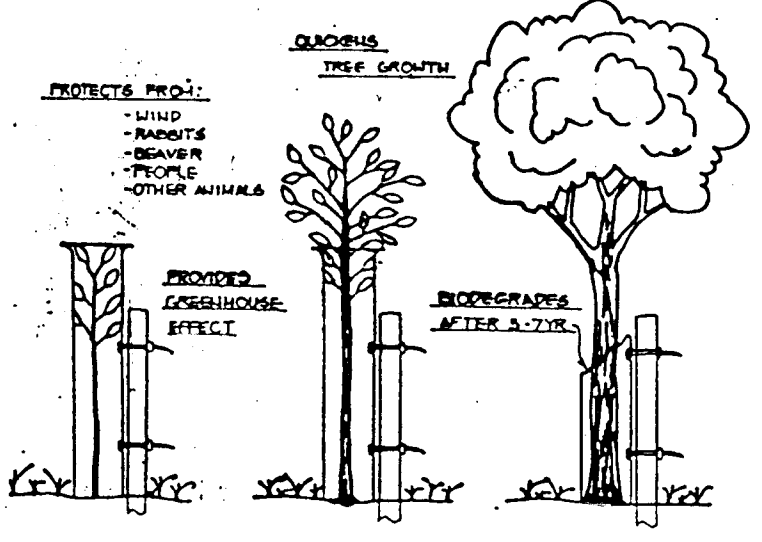
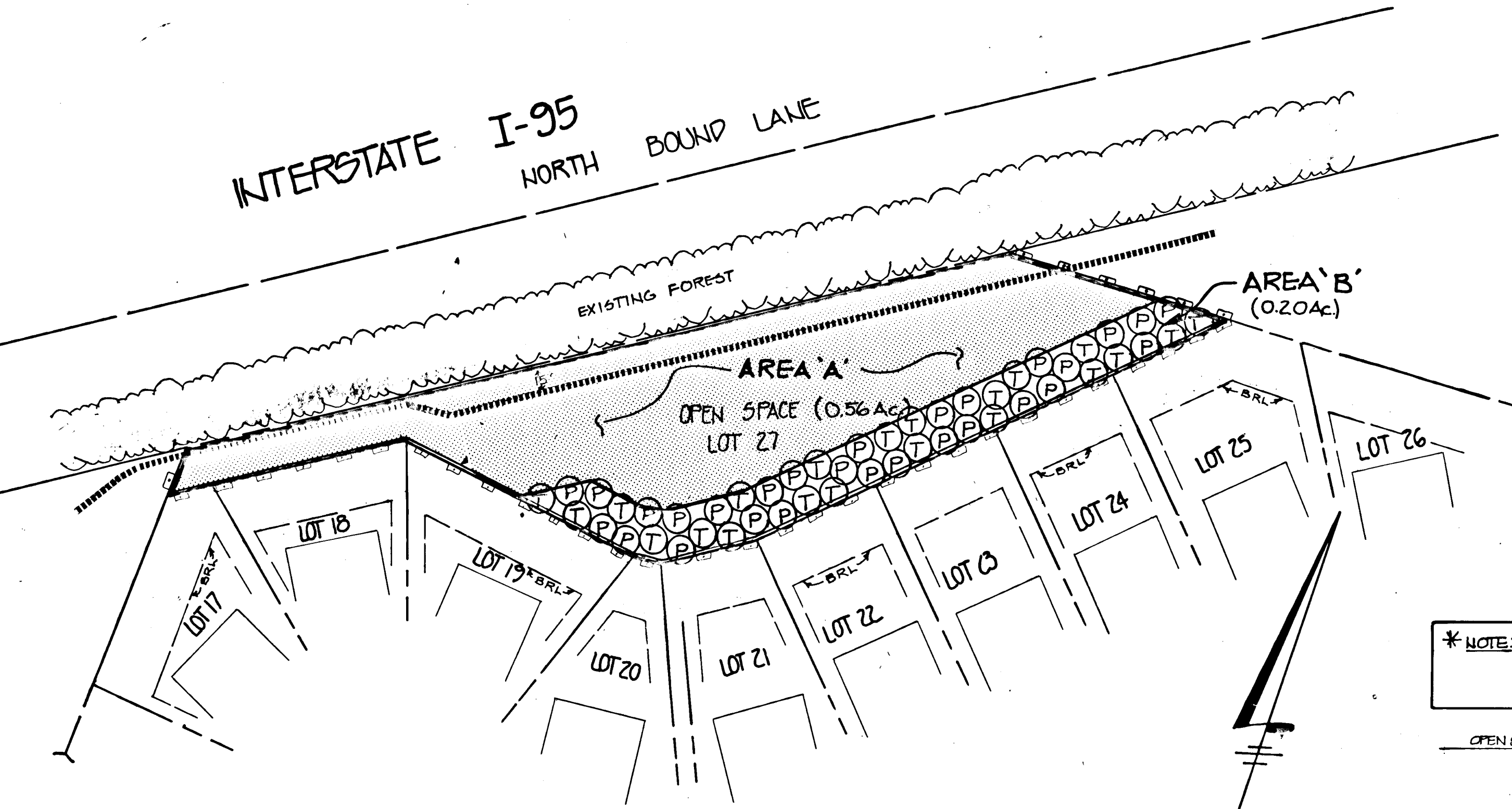
QTY.	SYMBOL	SPECIES	SIZE	AVERAGE SPACING	REMARKS
20	(P)	Pinus strobus White Pine	6-8' HT. 2"Cal.+	15'	B & B or Container Full Shape
21	(T)	Tsuga canadensis Eastern Hemlock	6-8' HT. 2"Cal.+	15'	B & B or Container Full Shape

OPEN SPACE LOT 27 AFFORESTATION AREA 'A'

PLANT LIST

QTY.	SYMBOL	SPECIES	SIZE	AVERAGE SPACING	REMARKS
36	(W)	Liriodendron tulipifera Tulip Poplar	Whips 3-4'HT.	11'	Container W/Shelter
38	(S)	Liquidambar styraciflua Sweet Gum	Whips 3-4'HT.	11'	Container W/Shelter
38	(A)	Acer rubrum Red Maple	Whips 3-4'HT.	11'	Container W/Shelter
38	(Q)	Quercus prinus Chestnut Oak	Whips 3-4'HT.	11'	Container W/Shelter
38	(R)	Robinia pseudo-acacia Black Locust	Whips 3-4'HT.	11'	Container W/Shelter
38	(F)	Fagus grandifolia American Beech	Whips 3-4'HT.	11'	Container W/Shelter

PLANTING PLAN
SCALE: 1" = 50'

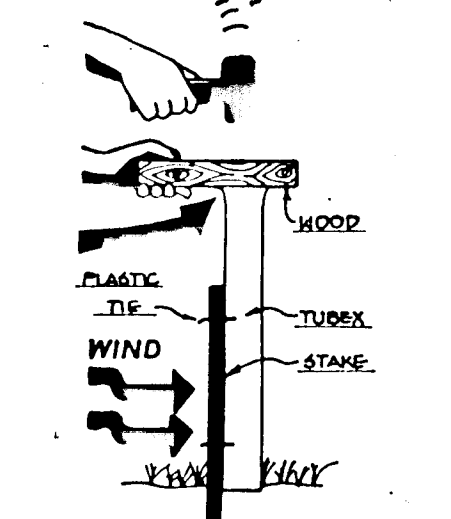
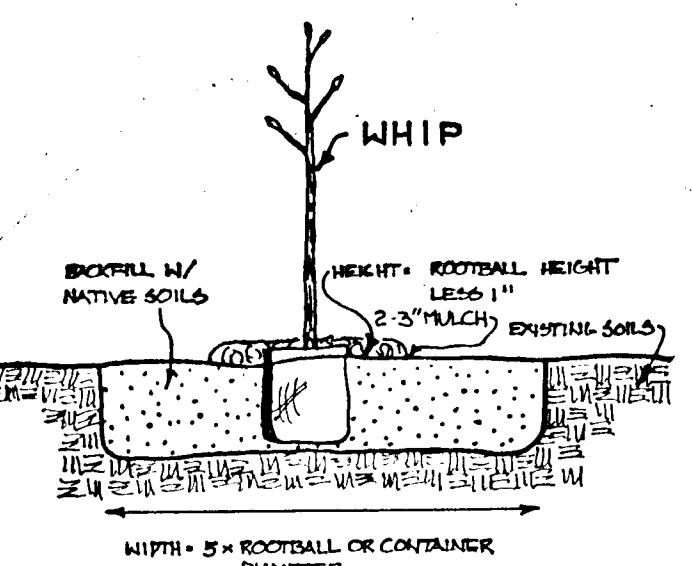


TUBEX PROCEDURES AND SPECIFICATIONS

- Drive the stake into the ground 1.5" from the tree to a depth of 12-14". In open fields, drive the stake on the windward side of the seedling for added support. In shady areas, drive the stake on the north side to prevent the stake from shading the tree.
- Guide the TUBEX down the stake, making sure to loop the tie(s) over the stake as you go.
- Gently slip the TUBEX over the tree. Be sure to keep the tree free of the ties as you lower the TUBEX into place.
- Drive the base of the TUBEX 1" into the ground. This is critical. It forms an air-tight seal, to capture transpired water vapor. The easiest way to do this is by placing a 5x5" or bigger board over the shelter and wrapping it with a mallet. When pounding TUBEX into the soil, first loosen the ground and matted roots.
- Pull the ties tight.
- Place protective mesh over the top of the TUBEX to prevent entry by birds. They can become trapped and die inside the tubes without the mesh covering.

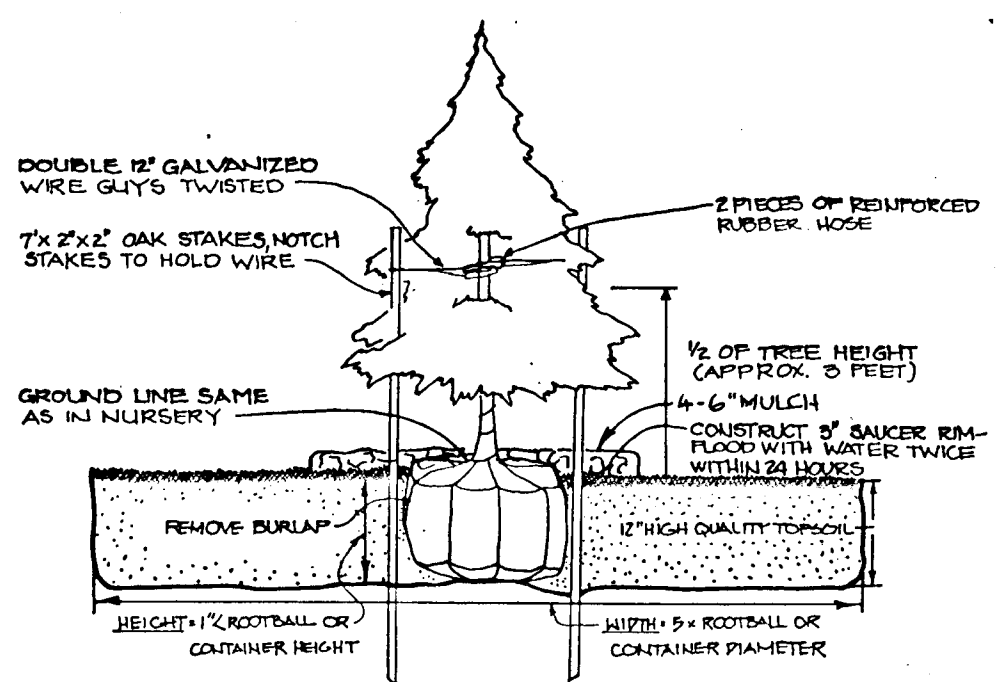
MAINTENANCE SCHEDULE

- Annual maintenance during the growing season, for a two year period.
- Assess tree mortality of planting stock, remove and replace any dead or diseased plantings.
- Volunteer seeding of native, local and endemic vegetation is to be expected. Do not discourage this effort unless it is negatively affecting the planted stock.
- Remove through manual means (grubbing, pulling, cutting) aggressive, noxious, invasive species and all herbaceous vegetation within a 3-foot radius surrounding the planted woody nursery stock.
- Remove and dispose of man-made trash, including items contained within entire planting area. Do not remove down and dead material naturally occurring or accumulating, unless it is smothering planting stock.



PLANTING FIELD DETAIL

TUBEX INSTALLATION



EVERGREEN PLANTING DETAIL

* THE FOREST CONSERVATION AFFORESTATION OBLIGATION INCURRED BY THIS SUBDIVISION HAS BEEN MET IN PART BY PAYMENT OF \$2,800.24 TO THE HOWARD COUNTY FOREST CONSERVATION FUND. SUCH PAYMENT IS TO SUBSTITUTE FOR 27,620 OF THE TOTAL AFFORESTATION OBLIGATION OF THIS SUBDIVISION. THE REMAINDER OF THE AFFORESTATION OBLIGATION HAS BEEN MET BY THE 30,109 # OF FOREST CONSERVATION EASEMENT RECORDED AS PART OF OPEN SPACE LOT 27.

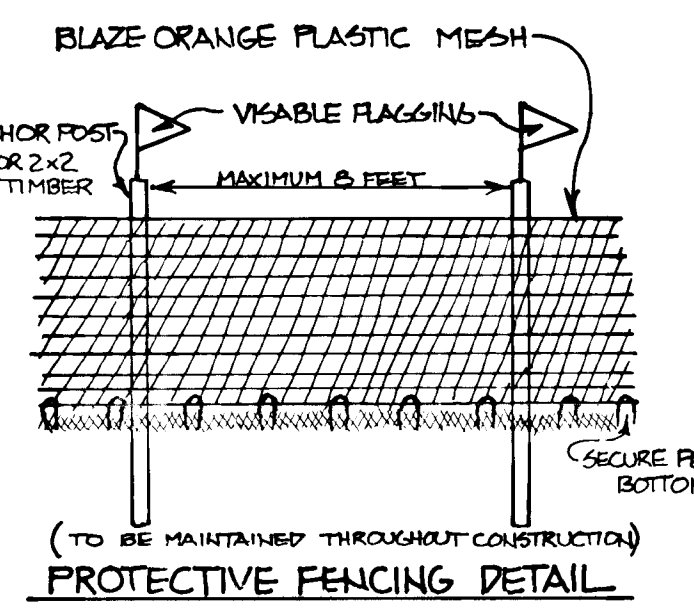
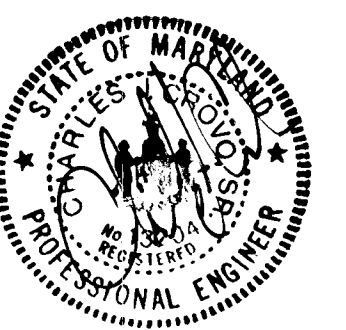
OWNER/DEVELOPER
DUCKETT & LANE JOINT VENTURE
5/0 THE RACHUDA GROUP
GREEN SPRING STATION
2360 WEST JOPPA ROAD, SUITE 310
LUTHERVILLE, MARYLAND 21093

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Nina Shrivastava 1/3/74
CHIEF, DIVISION OF LAND USE AND ZONING

APPROVED: DEPARTMENT OF PUBLIC WORKS
Paul W. Sporn 1/7/74
CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Mr. [Signature] 1/7/74
CHIEF, LAND DISTRICTS DIVISION

Andrew M. [Signature] 1-3-74
CHIEF, BUREAU OF HIGHWAYS



PROTECTIVE FENCING DETAIL

1680
MARYLAND BLUEPRINT CO. INC.

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	B	A
Linear Feet of Roadway Frontage/Perimeter	285	2145 **
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	NO	NO
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	-	YES 285
Number of Plants Required		
Shade Trees	6	12
Evergreen Trees	0	0
Shrubs	0	0
Number of Plants Provided		
Shade Trees	6	12*
Evergreen Trees	0	0
Other Trees (2:1 substitution)	0	0
Shrubs (10:1 substitution)	0	0
(Describe plant substitution credits below if needed)		

**SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING**

Linear Feet of Perimeter	760 **
Number of Trees Required	
Shade Trees	12
Evergreen Trees	14
Credit for Existing Vegetation (No, Yes and %)	-
Credit for Other Landscaping (No, Yes and %)	-
Number of Trees Provided	
Shade Trees	12*
Evergreen Trees	14
Other Trees (2:1 substitution)	-

* ALTERNATIVE COMPLIANCE OF 110 LF. FOR SAFETY CONSIDERATION (NO PLANTING IN SLOPE OF DAM.)
 ** TOTAL LINEAR FEET BEFORE ALTERNATIVE COMPLIANCE IS APPLIED.

* TREES ARE PLANTED AS AFFORESTATION IN OPEN SPACE LOT 27.
 ** TOTAL LINEAR FEET BEFORE CREDIT IS APPLIED.

LANDSCAPE LEGEND

SYMBOL	DESCRIPTION	SIZE	QUANTITY
(Symbol: Circle with a dot)	QUERCUS ACUTISSIMA SAWTOOTH OAK	2 1/2" - 3" CAL.	41
(Symbol: Circle with a vertical line)	GLEDITSIA TRIACANTHOS INERMIS SHADENMASTER PHAEODACTYLUS THORNLESS HONEYLOCUST	2 1/2" - 3" CAL.	23
(Symbol: Circle with a horizontal line)	PINUS STROBUS EASTERN WHITE PINE	6" - 8" HT.	15
(Symbol: Circle with a diagonal line)	TREES TO BE PLANTED AS PART OF AFFORESTATION		49

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Anna J. ...
 CHIEF, BUREAU OF LAND DEVELOPMENT AND RESEARCH
 DATE: 1/13/94

APPROVED: DEPARTMENT OF PUBLIC WORKS

Paul ...
 CHIEF, BUREAU OF PUBLIC WORKS
 DATE: 1/7/94

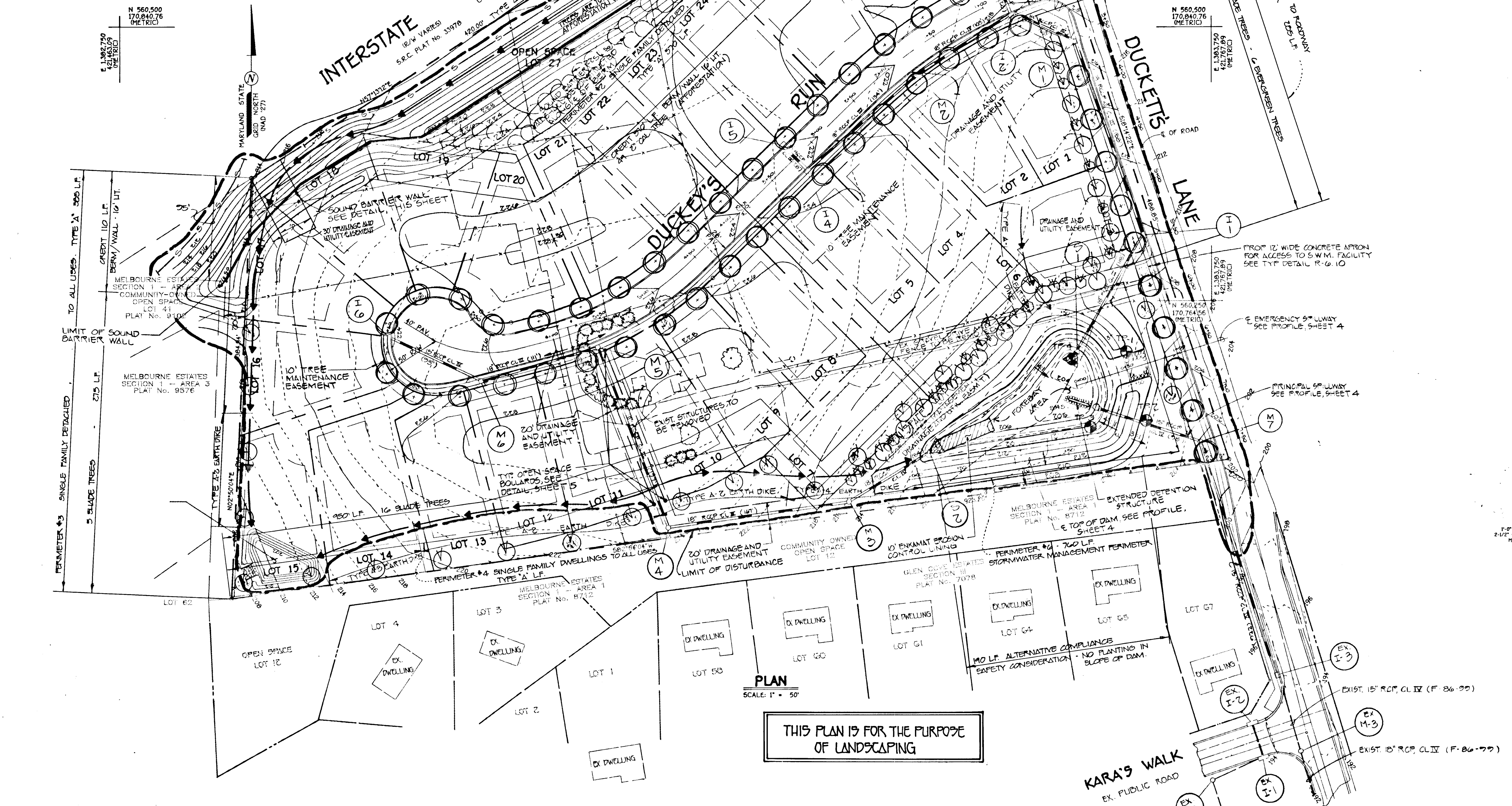
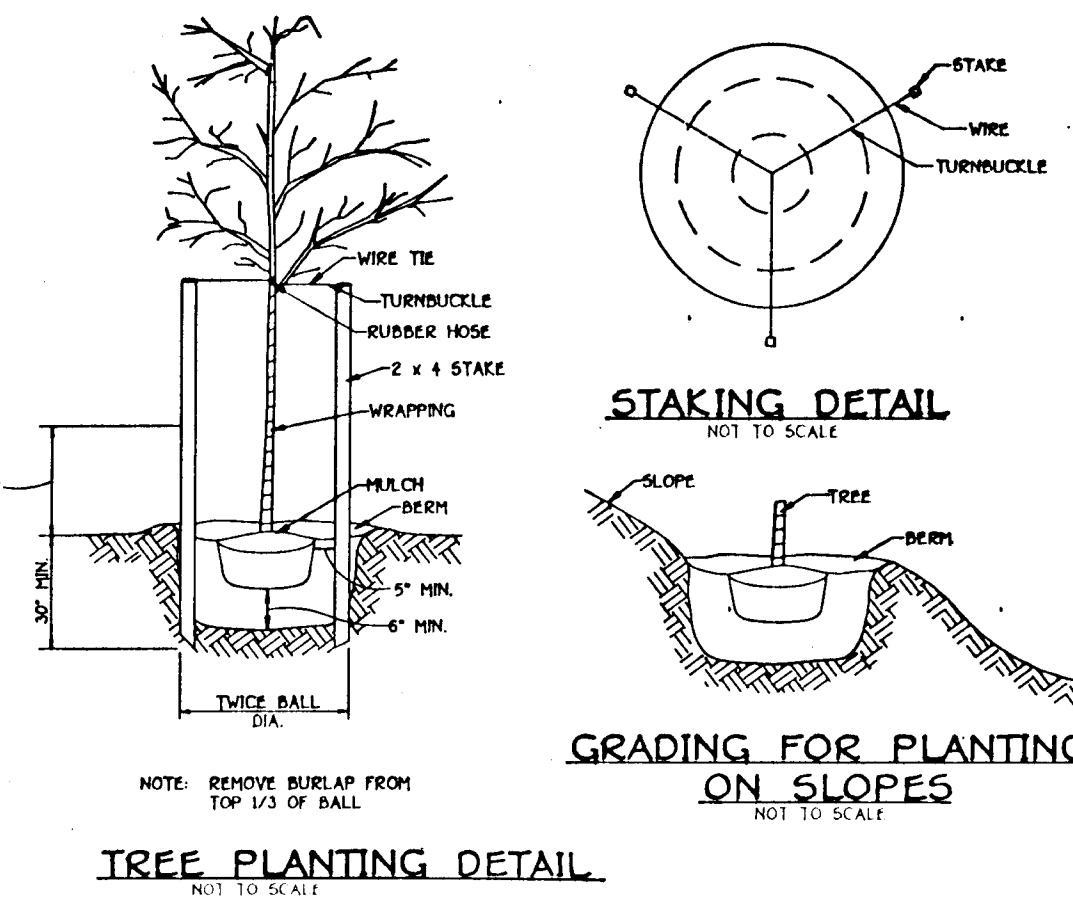
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Andrew M. ...
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE: 1/7/94
Andrew M. ...
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 1-3-94

DATE	REVISION/	BY
1/13/94	REVISION	...

DUCKETT'S RUN - PERIMETER LANDSCAPE EDGE CALCULATIONS

PERIMETER	NUMBER OF TREES	EDGE TYPE
PERIMETER 1 SFD TO ALL USES 65 LF 1 SHADE TREE / 60 LF	2	A
PERIMETER 2 SFD TO ALL USES 175 LF AFFORESTATION AND WALL/BERM	0	CREDIT
PERIMETER 3 SFD TO ALL USES 570 LF PROPOSED WALL, AFFORESTATION AND 0 BERM	0	CREDIT
PERIMETER 4 SFD TO ALL USES 270 LF 1 SHADE TREE / 60 LF	5	A
PERIMETER 5 SFD TO ALL USES 110 LF WALL/BERM	0	CREDIT
PERIMETER 6 SFD TO ALL USES 350 LF 1 SHADE TREE / 60 LF	16	A
PERIMETER 7 SFD TO ALL USES 205 LF 1 SHADE TREE / 60 LF 1 EVERGREEN TREE / 40 LF	6	B
PERIMETER 8 S.W.M. PERIMETER 1 SHADE TREE / 60 LF 1 EVERGREEN TREE / 40 LF OR 10 SHRUBS / 1 EVERGREEN TREE	12	B



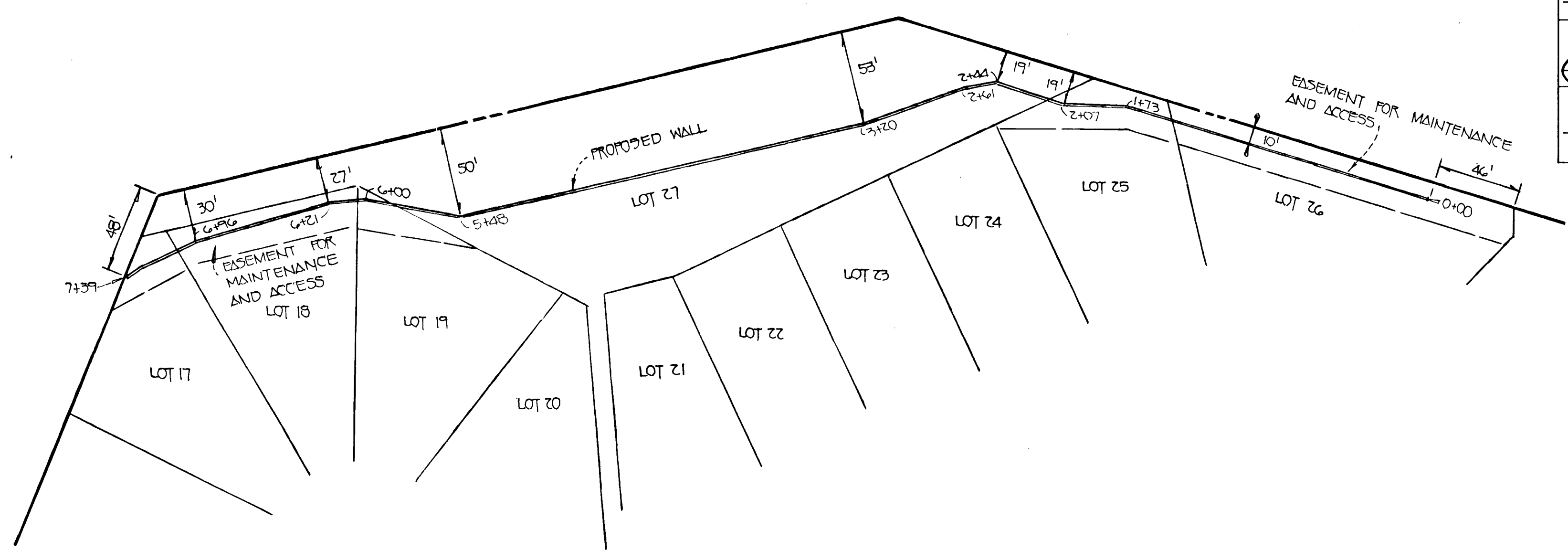
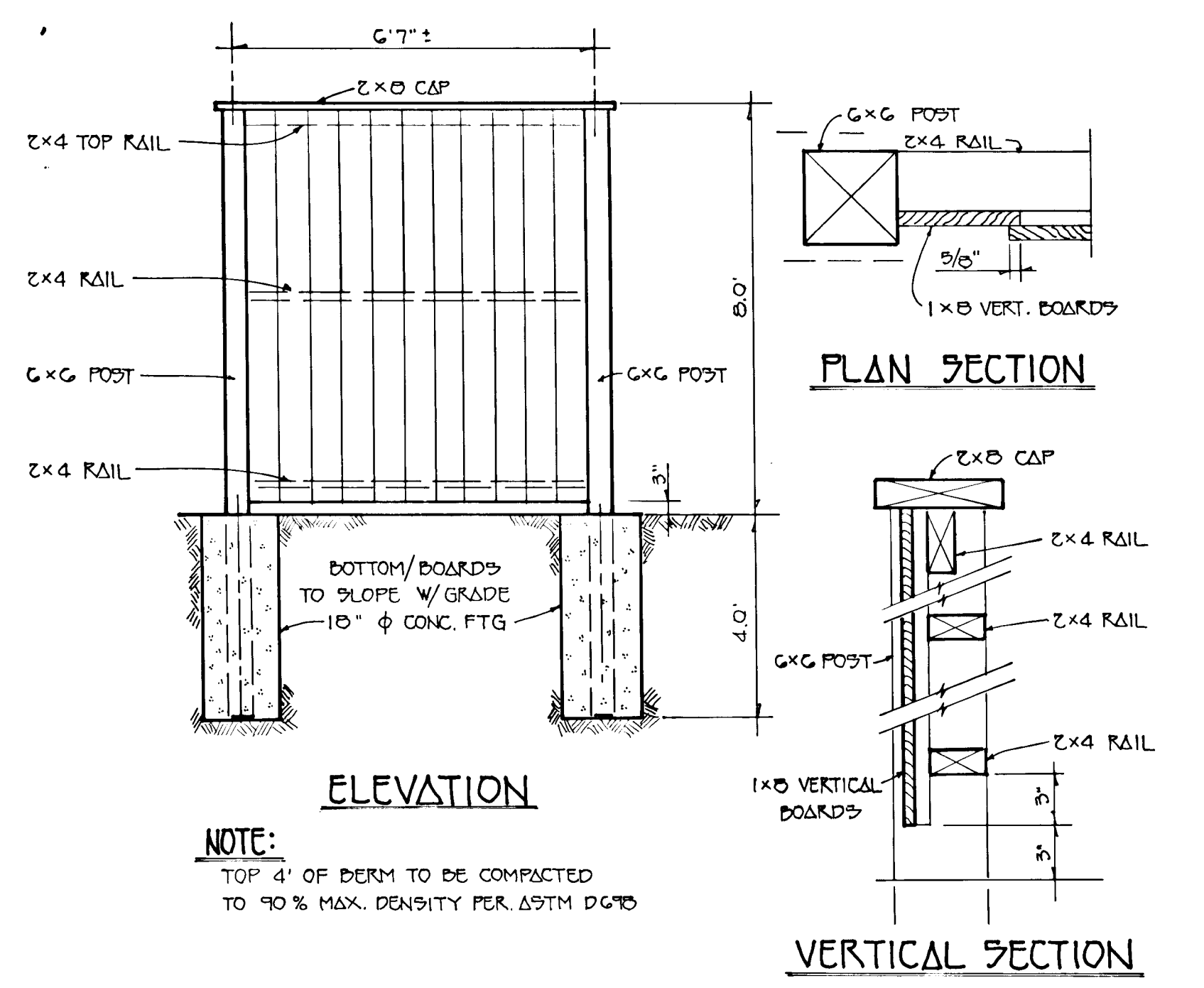
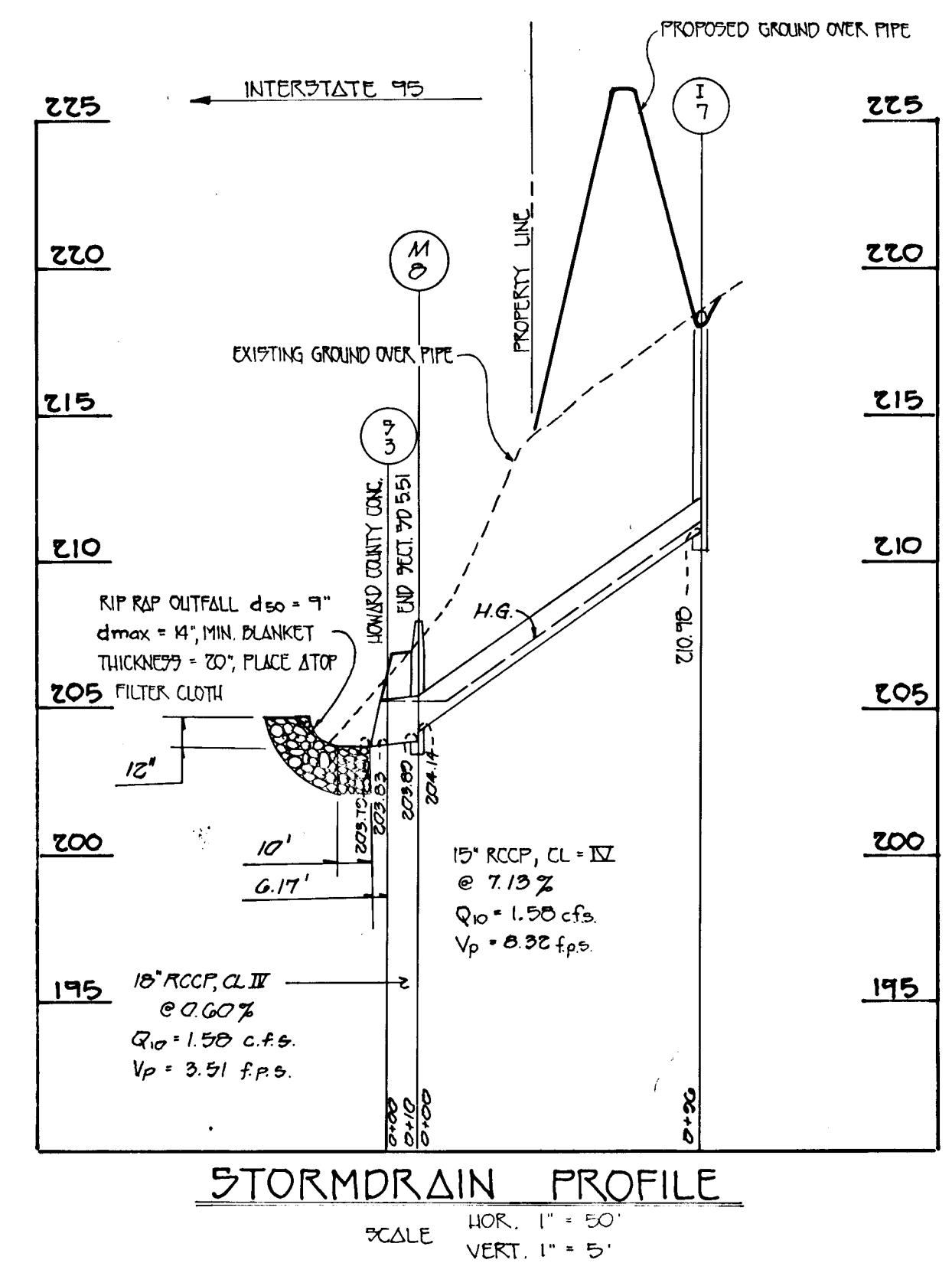
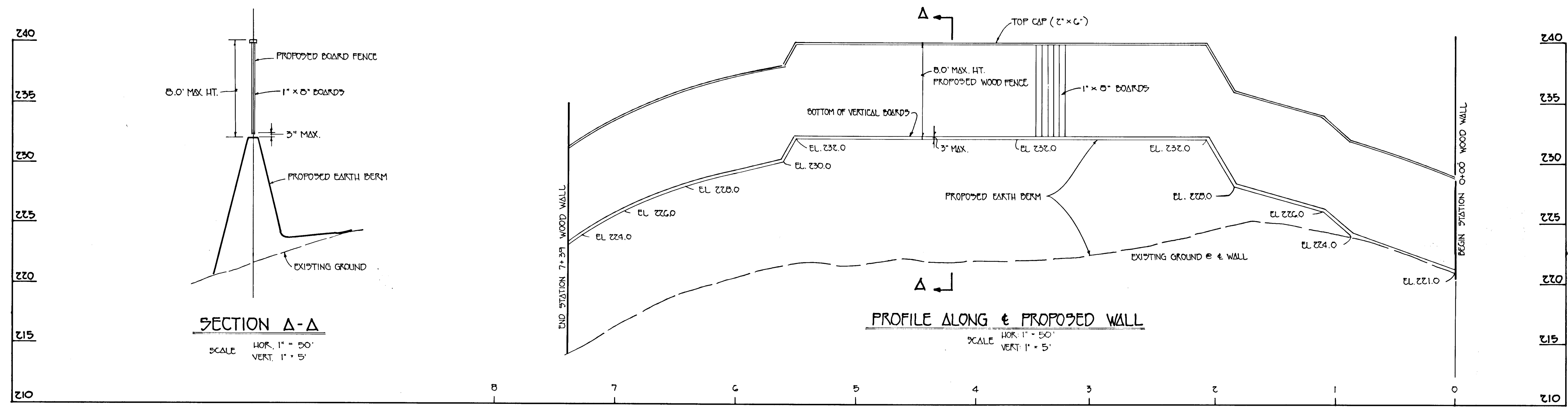
THIS PLAN IS FOR THE PURPOSE OF LANDSCAPING

DEVELOPER'S BUILDER'S CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN. SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
 Laurence Machuba
 7/20/93
 DATE

Charles J. Crovo
 CHARLES J. CROVO, P.E.
 7/21/93
 DATE

**LANDSCAPE PLAN
DUCKETT'S RUN
LOTS 1-29**
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 JULY 20, 1993
 SHEET 9 OF 10

1687

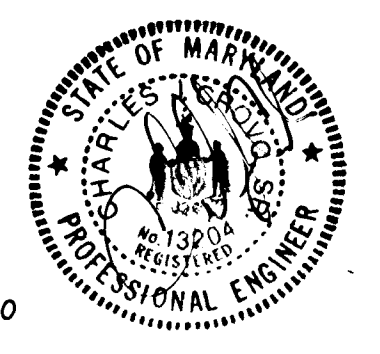


APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>Andrew M. Jencks</i>	1-3-94
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>John D. Summers</i>	1/7/94
CHIEF, LAND DEVELOPMENT DIVISION	DATE
APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>Samuel S. Spang</i>	1/7/94
CHIEF, BUREAU OF ENGINEERING	DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Olga J. Jaraman</i>	1/13/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE

SOUND BARRIER WALL DETAILS
NOT TO SCALE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERS, SURVEYORS & LAND SURVEYORS
971 BALTIMORE NATIONAL PIKE, SUITE 100
ELLCOTT CITY, MARYLAND 21042
(410) 461-2855

OWNER/DEVELOPER
DUCKETT'S LANE JOINT VENTURE
C/O THE RAGHUBA GROUP
GREEN SPRING STATION
2360 WEST JOPPA ROAD, SUITE 310
LUTHERVILLE, MARYLAND 21093



PROFILES AND DETAILS
DUCKETT'S RUN
LOTS 1 - 28
TAX MAP 37 PAVEL 47B
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER 1, 1993
SHEET 10 OF 10