

GENERAL NOTES

- 1) ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATION AND DETAILS FOR CONSTRUCTION.
- 2) ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HRS. IN ADVANCE OF ANY CONSTRUCTION.
- 3) STORM DRAINAGE TRENCHES WITHIN ROAD RIGHT-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
- 4) ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- 5) THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 792-7272.
- 6) APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION, CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
- 7) ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL CURRENT REVISED EDITION.

PLAN
DATE
BY
CHECKED
DATE
BY
DATE
BY
DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
Olan M. Longenecker 6/16/92
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED
Charles W. Crovo, Sr. 6/16/92
CHIEF, LAND DEVELOPMENT DIVISION DATE

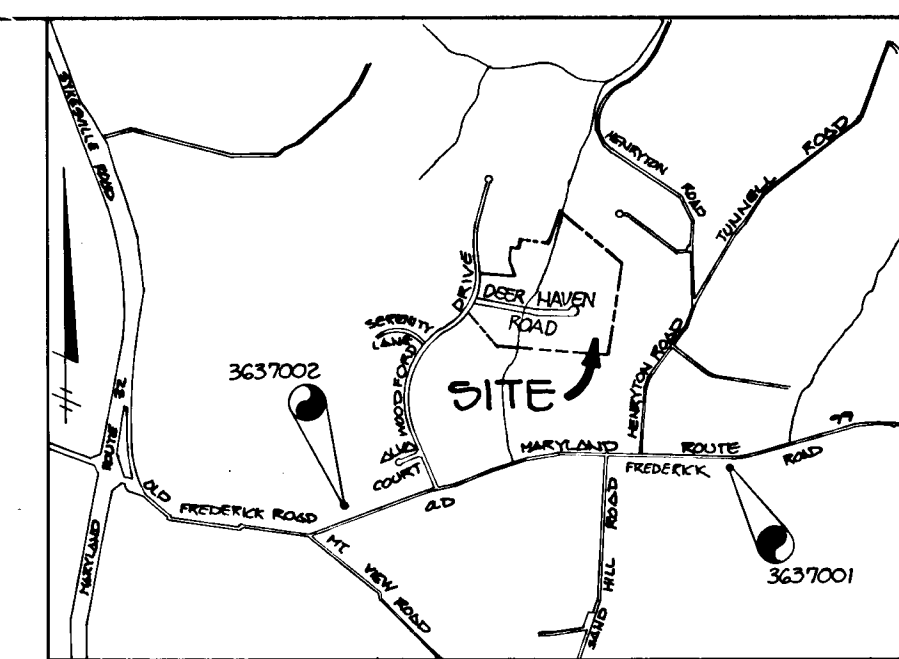
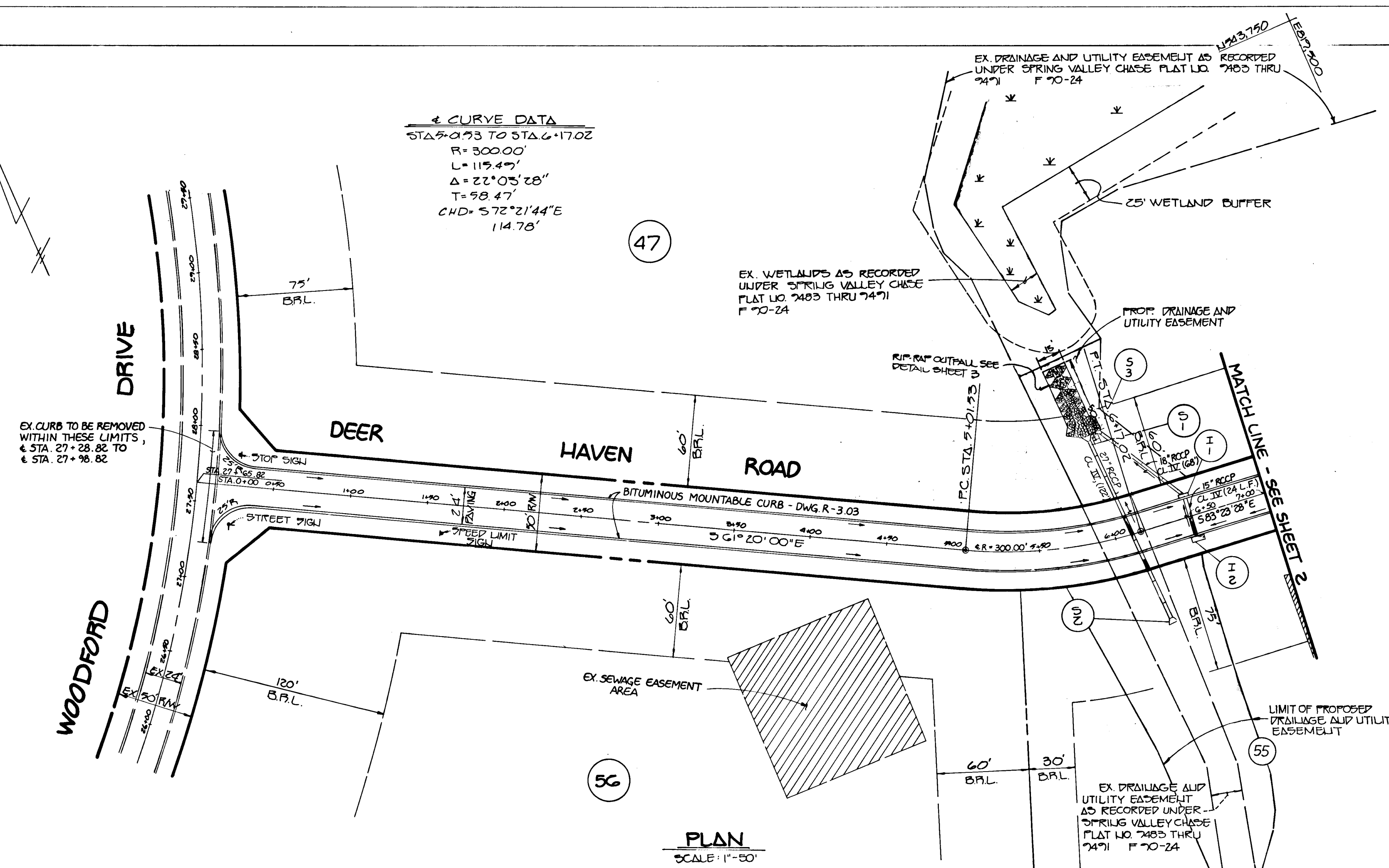
APPROVED
DEPARTMENT OF PUBLIC WORKS
William B. Ray 6-19-92
DATE

APPROVED
DEPT. OF PLANNING AND ZONING
Emma Hilmarth 6/29/92
DATE

DATE
BY
CHECKED
DATE
BY
DATE
BY
DATE

1549

CURVE DATA
STA 4+07.3 TO STA 6+17.02
R=3000.00
L=119.47'
Δ=22°05'28"
T=98.47'
CHD=572°21'44"E
114.76'



BENCH MARKS

STA. 3637001 ELEV. = 612.48
HOWARD COUNTY GEODETIC CONTROL STATION, CONCRETE MONUMENT AT TOP OF BANK LOCATED 600' ± EAST OF HENRYTON ROAD.

STA. 3637002 ELEV. = 640.89
HOWARD COUNTY GEODETIC CONTROL STATION, CONCRETE MONUMENT LOCATED APPROXIMATELY 5/4" TO CIP POLE #1 WHICH IS LOCATED JUST EAST OF MT. VIEW ROAD ALONG MD. ROUTE 99.

SPRING VALLEY CHASE
LOTS 45-56
3RD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

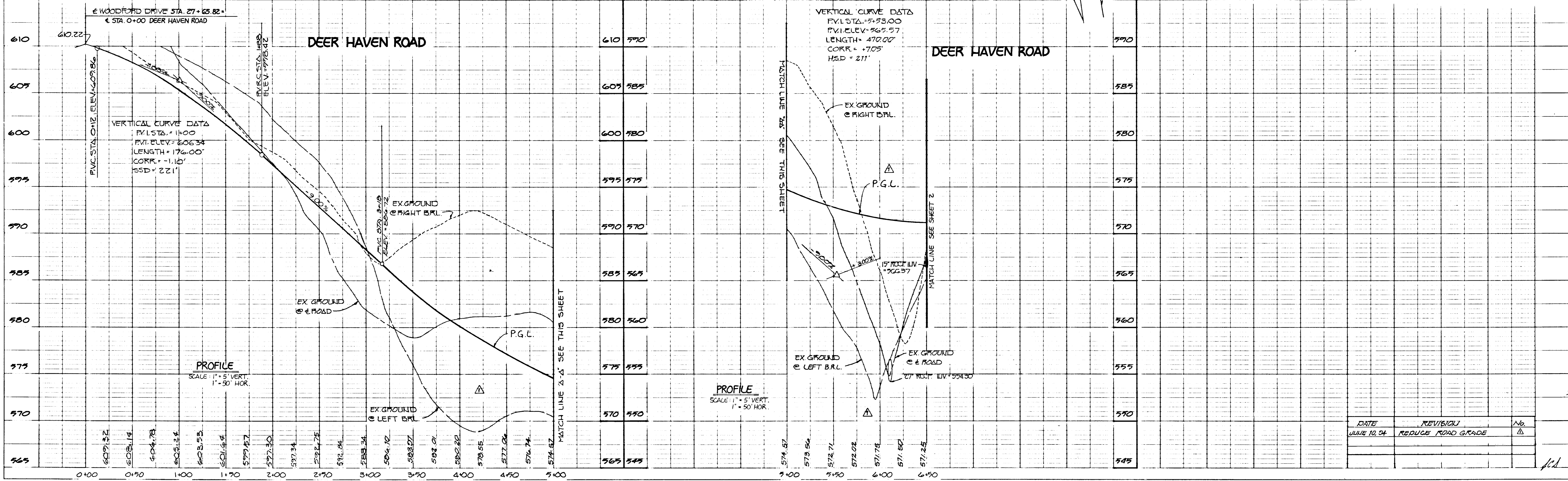
DEER HAVEN ROAD
PLAN & PROFILE

OWNER AND DEVELOPER
CHESAPEAKE FEDERAL SAVINGS & LOAN ASSOCIATION
2201 EAST JOPPA RD.
BALTIMORE, MARYLAND 21234

SCALE AS SHOWN DATE: JAN. 3, 1992 DWG. NO. 1 OF 5
DIS. R. ISAACS DRN. S. HIPPI CHK. C. CROVO

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9771 BALTIMORE NATIONAL FIRE, SUITE 100
ELLICOTT CITY, MARYLAND 21042 (410) 412-8777

STATE OF MARYLAND
CHARLES W. CROVO, SR.
PROFESSIONAL ENGINEER
13204
REGISTERED
DATE: 2/19/92



DATE	REVISION	NO.
JULIE 10, 04	REDUCE ROAD GRADE	1

DATE	
BY	
SURVEYED	
PLOTTED	
GRADES CHECKED	
STRUCTURE NOTATIONS CHKD	
NOTE BOOK NO.	

APPROVED
DEPARTMENT OF PUBLIC WORKS

Charles J. Crovo 6/19/92
CHIEF, BUREAU OF HIGHWAYS

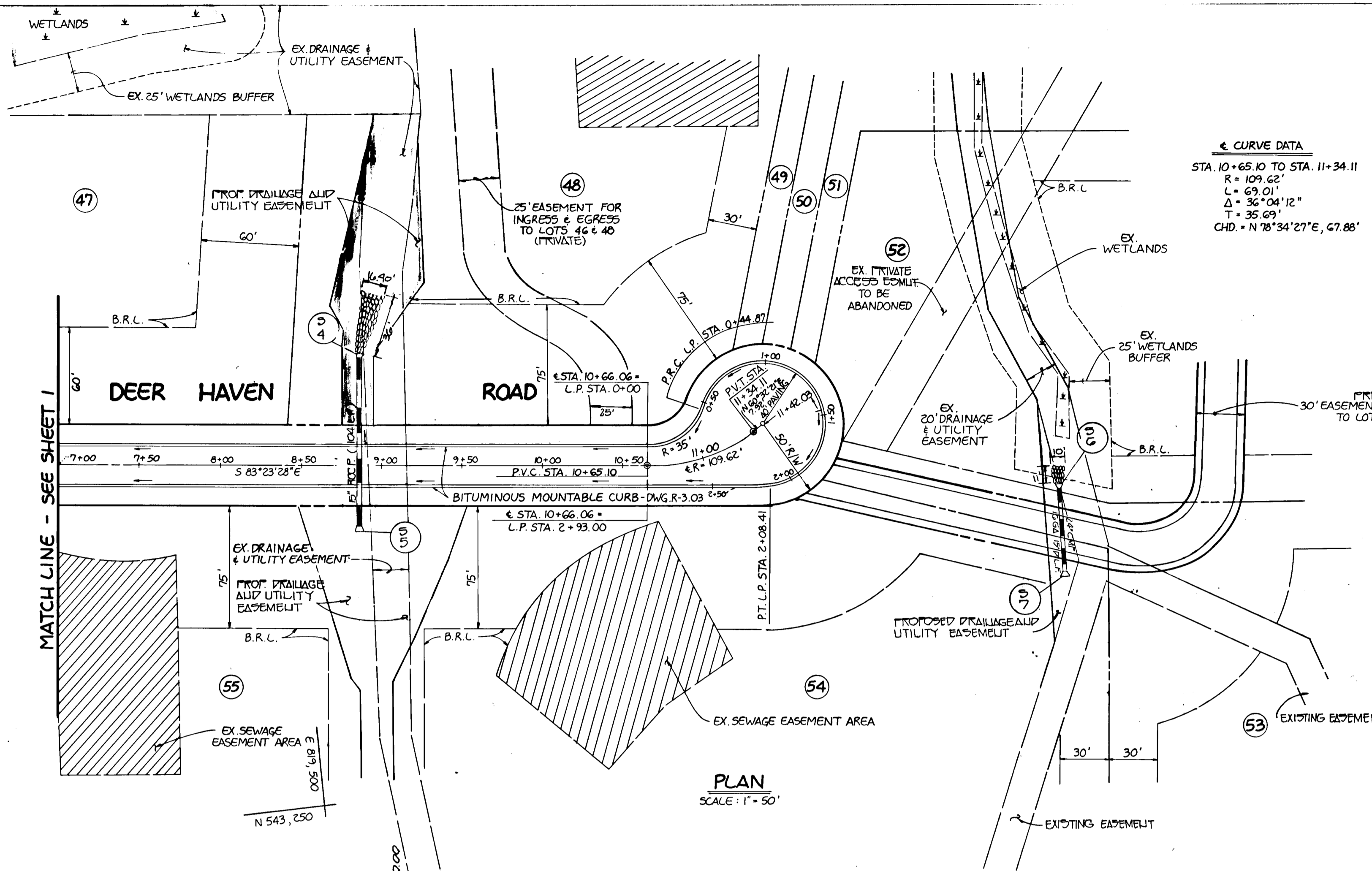
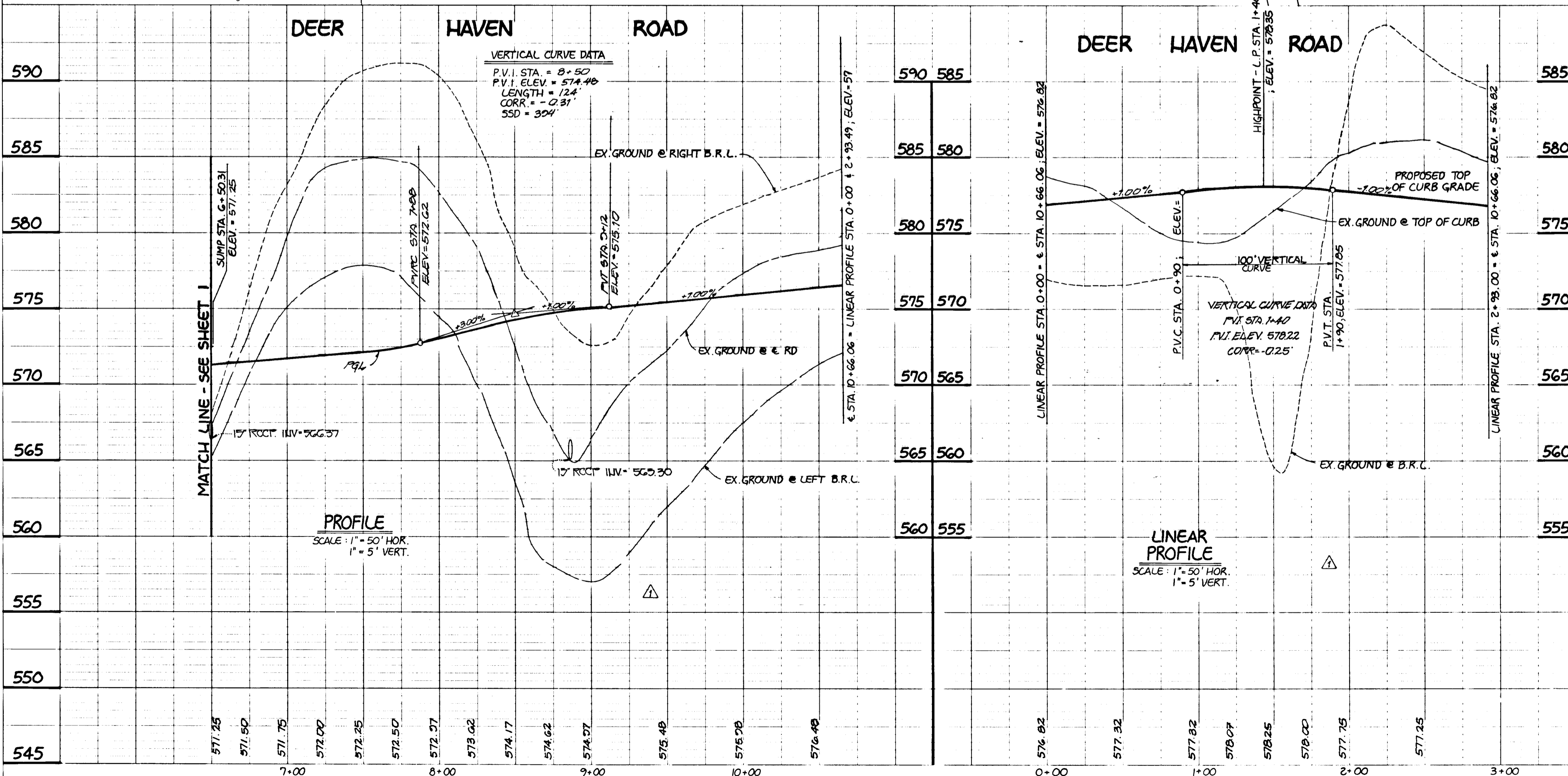
APPROVED
DEPARTMENT OF PUBLIC WORKS

Oliver M. Thompson 6/16/92
CHIEF, BUREAU OF HIGHWAYS

APPROVED
DEPT. OF PLANNING AND ZONING

Anna J. Helmuth 6/29/92
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

DATE	
BY	
SURVEYED	
PLOTTED	
GRADES CHECKED	
STRUCTURE NOTATIONS CHKD	
NOTE BOOK NO.	



← CURVE DATA
STA. 10+65.10 TO STA. 11+34.11
R = 109.62'
L = 69.01'
Δ = 36°04'12"
T = 35.69'
CHD = N 78°34'27" E, 47.88'

DATE: JAN. 3, 1992
DES. R. ISACCS
DRN. S. HIPPI
CHK. C. CROVO

SPRING VALLEY CHASE
LOTS 45-56
3RD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DEER HAVEN ROAD
PLAN & PROFILE

OWNER AND DEVELOPER
CHESAPEAKE FEDERAL SAVINGS & LOAN ASSOCIATION
2301 EAST JOPPA ROAD
BALTIMORE, MARYLAND 21234

FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
9171 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042



DATE	REVISION	LOG
JUNE 19, 1991	REDUCED ROAD GRADE	Δ

1549

DATE	REVISION	By	Chk
JULIE 12/94	REDUCED ROAD GRADE		

APPROVED DEPARTMENT OF PUBLIC WORKS

Ola M. Tangam 6/16/92
CHIEF, BUREAU OF HIGHWAYS DATE

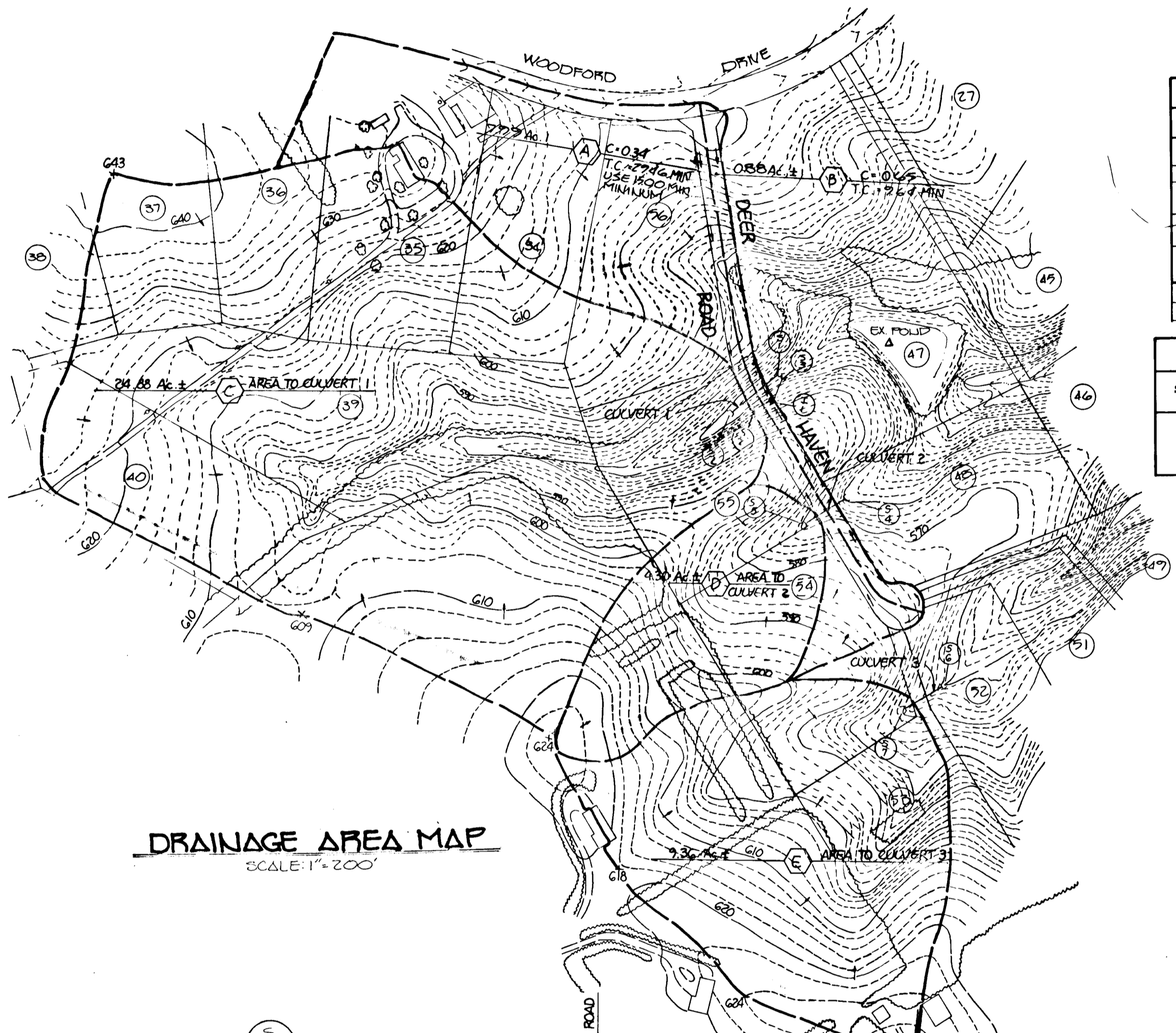
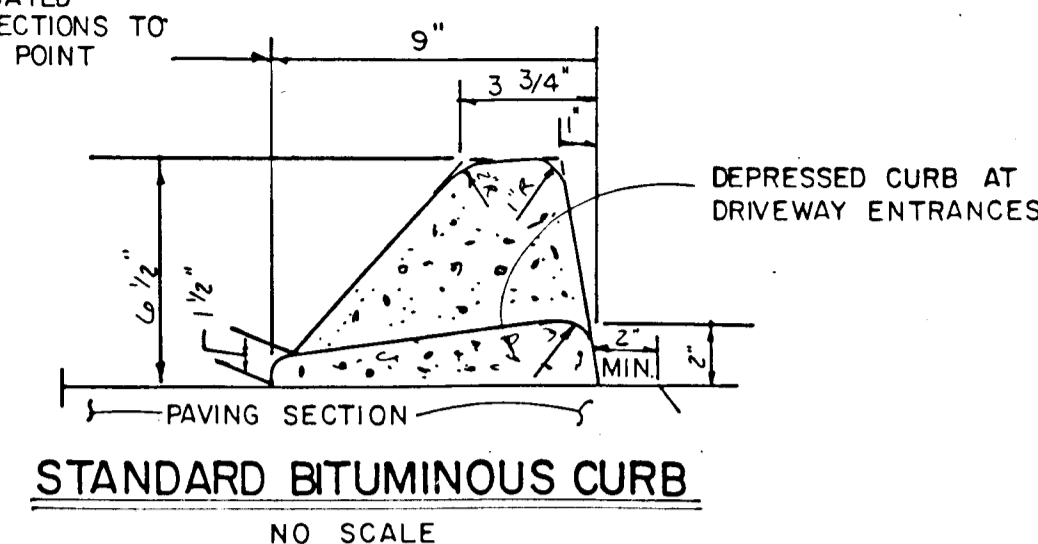
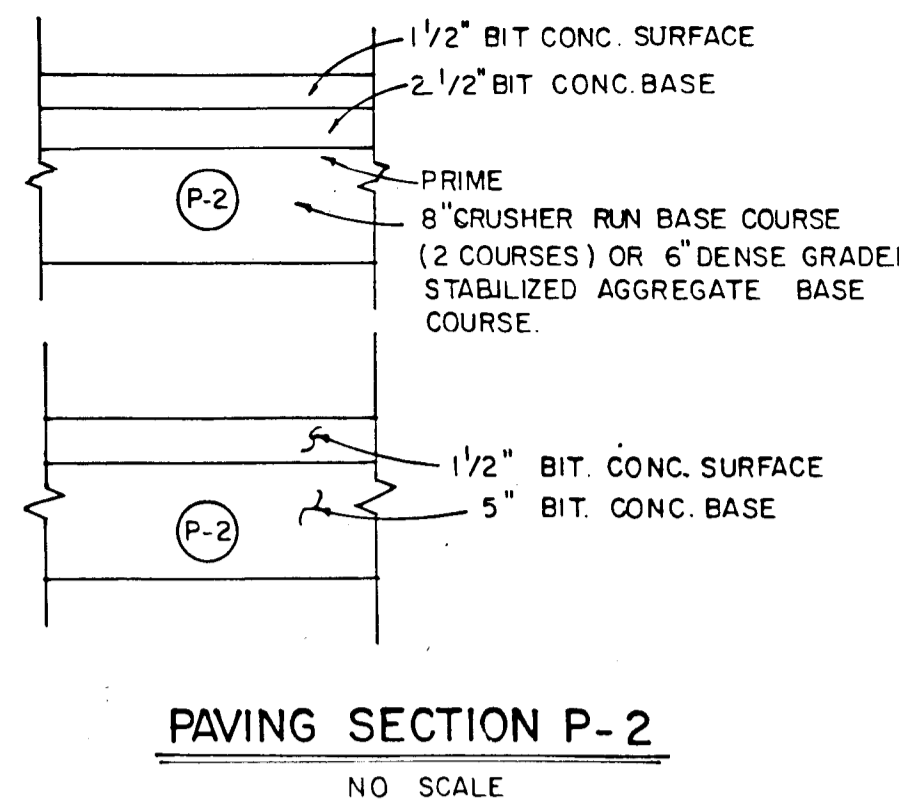
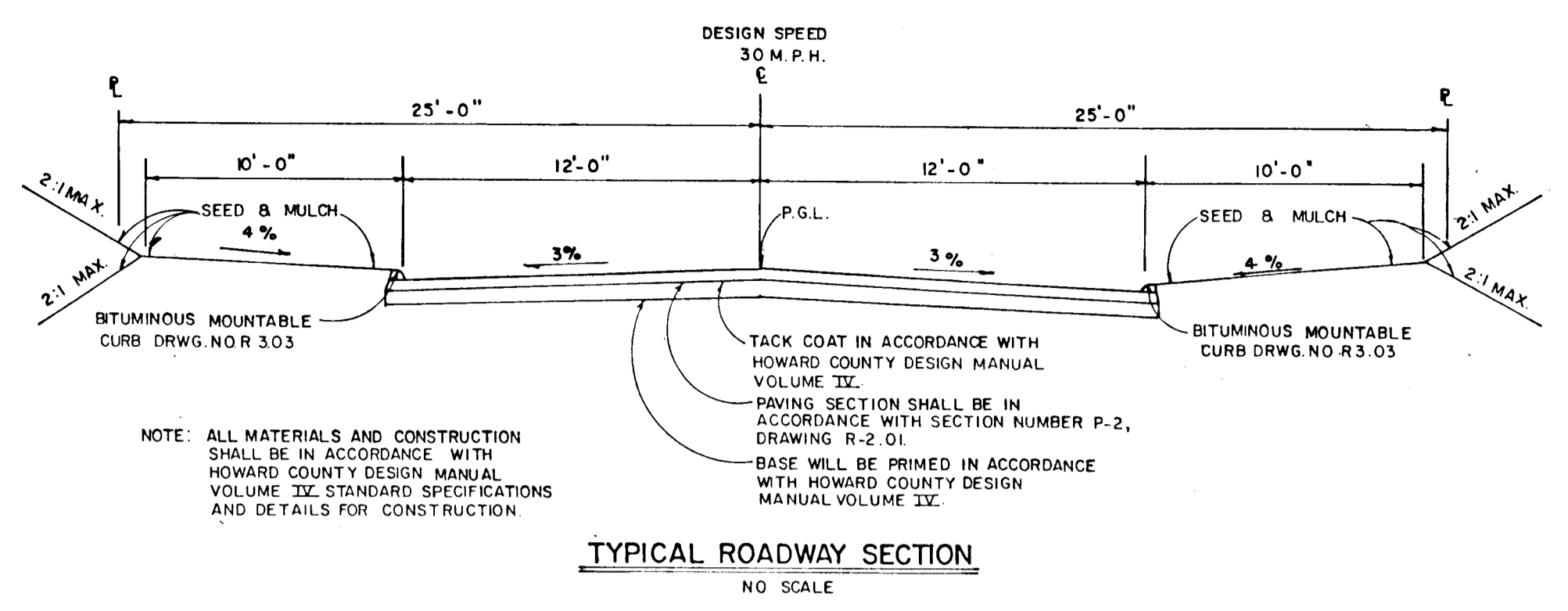
John J. ... 6/19/92
CHIEF, LAND DEVELOPMENT DIVISION DATE

APPROVED DEPARTMENT OF PUBLIC WORKS

... 6-19-92
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED DEPT. OF PLANNING AND ZONING

... 6/29/92
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



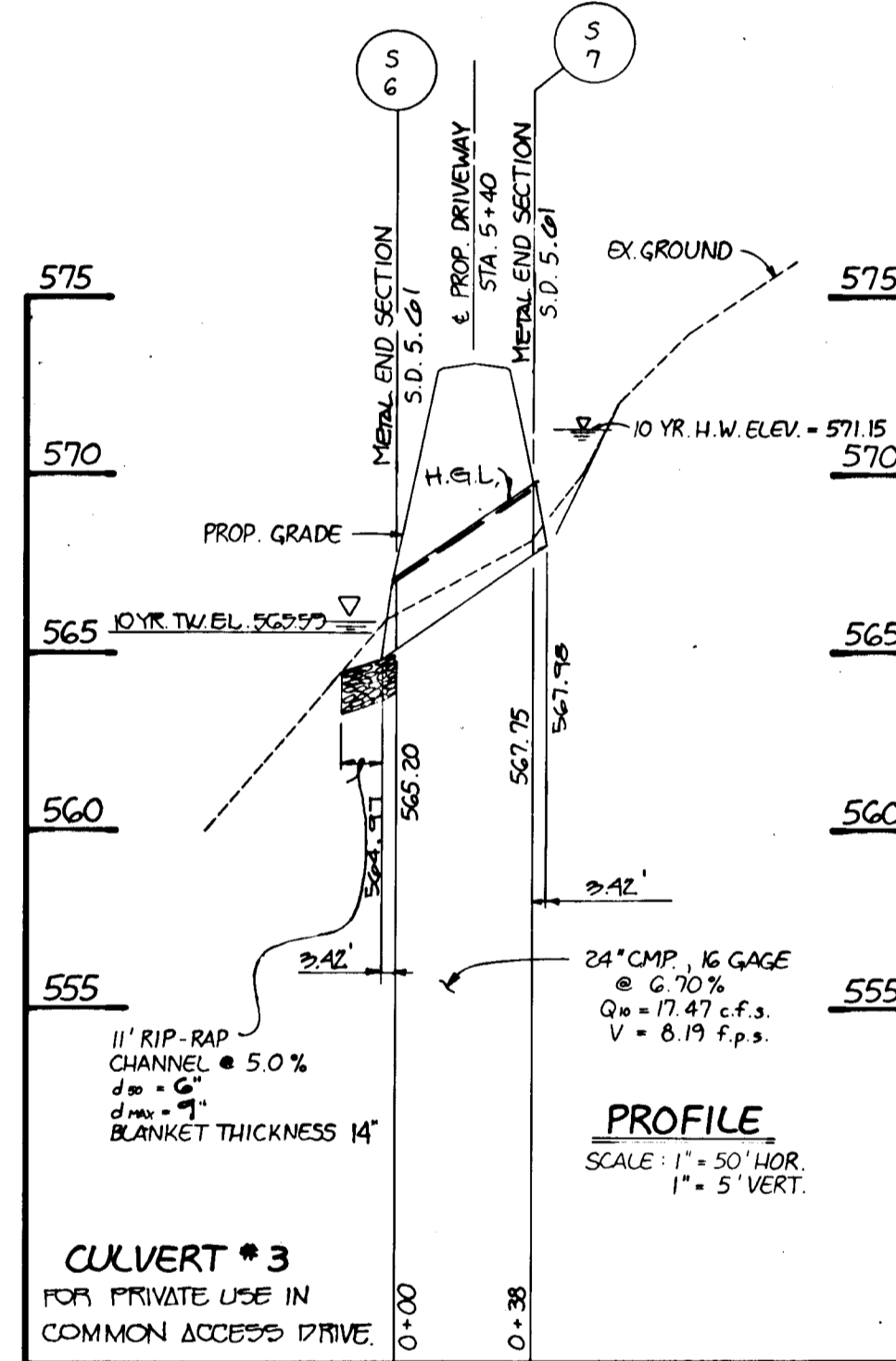
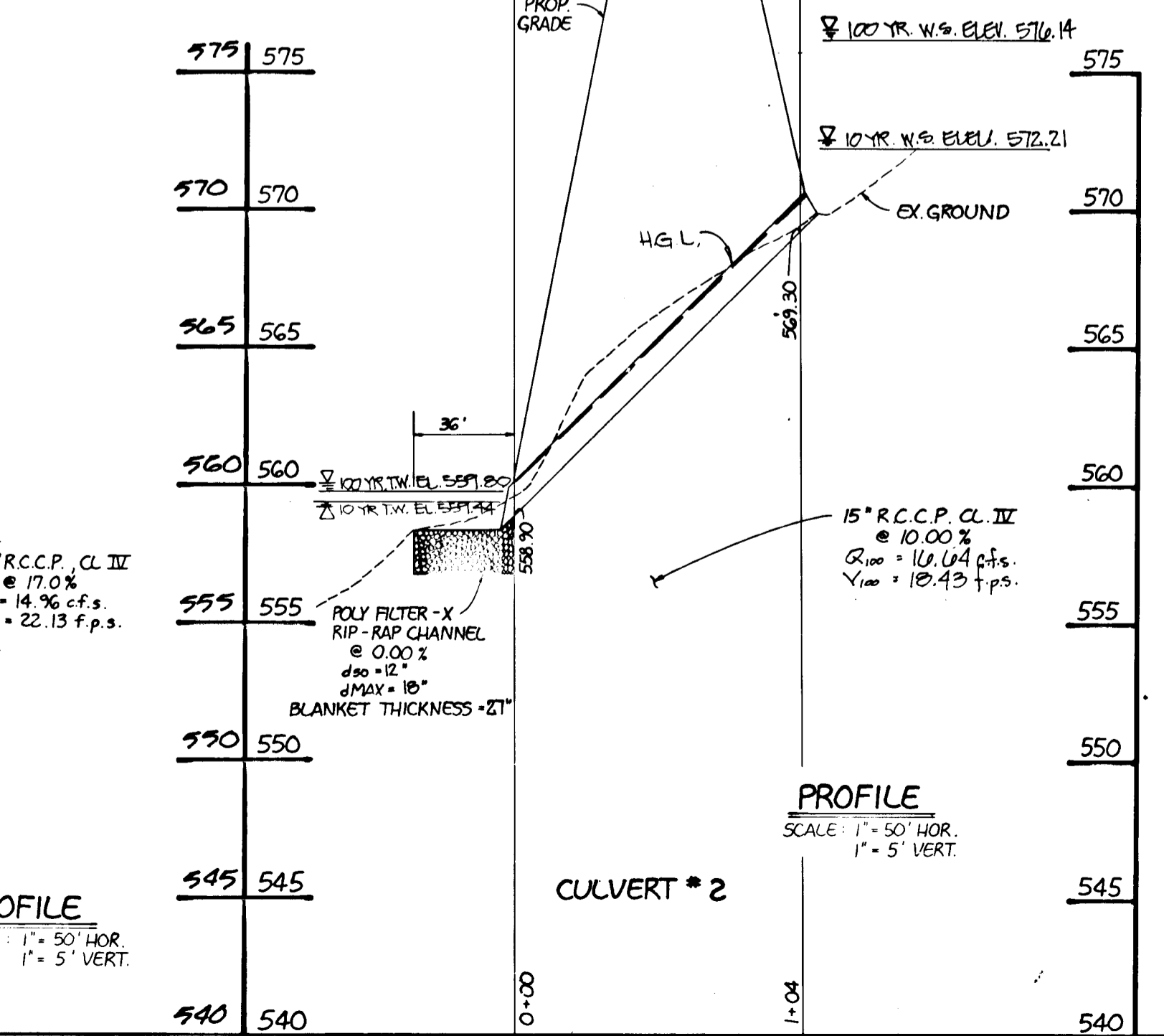
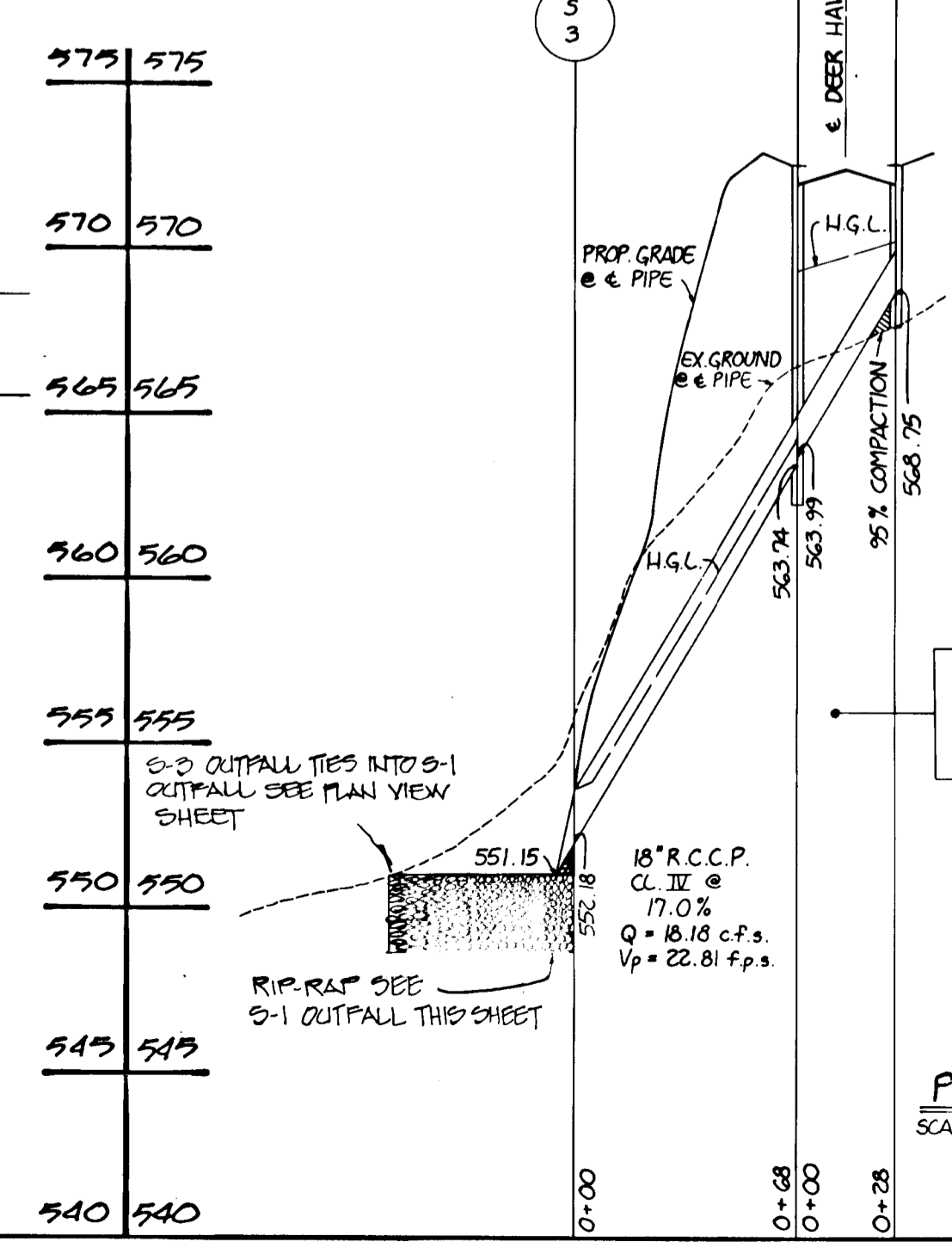
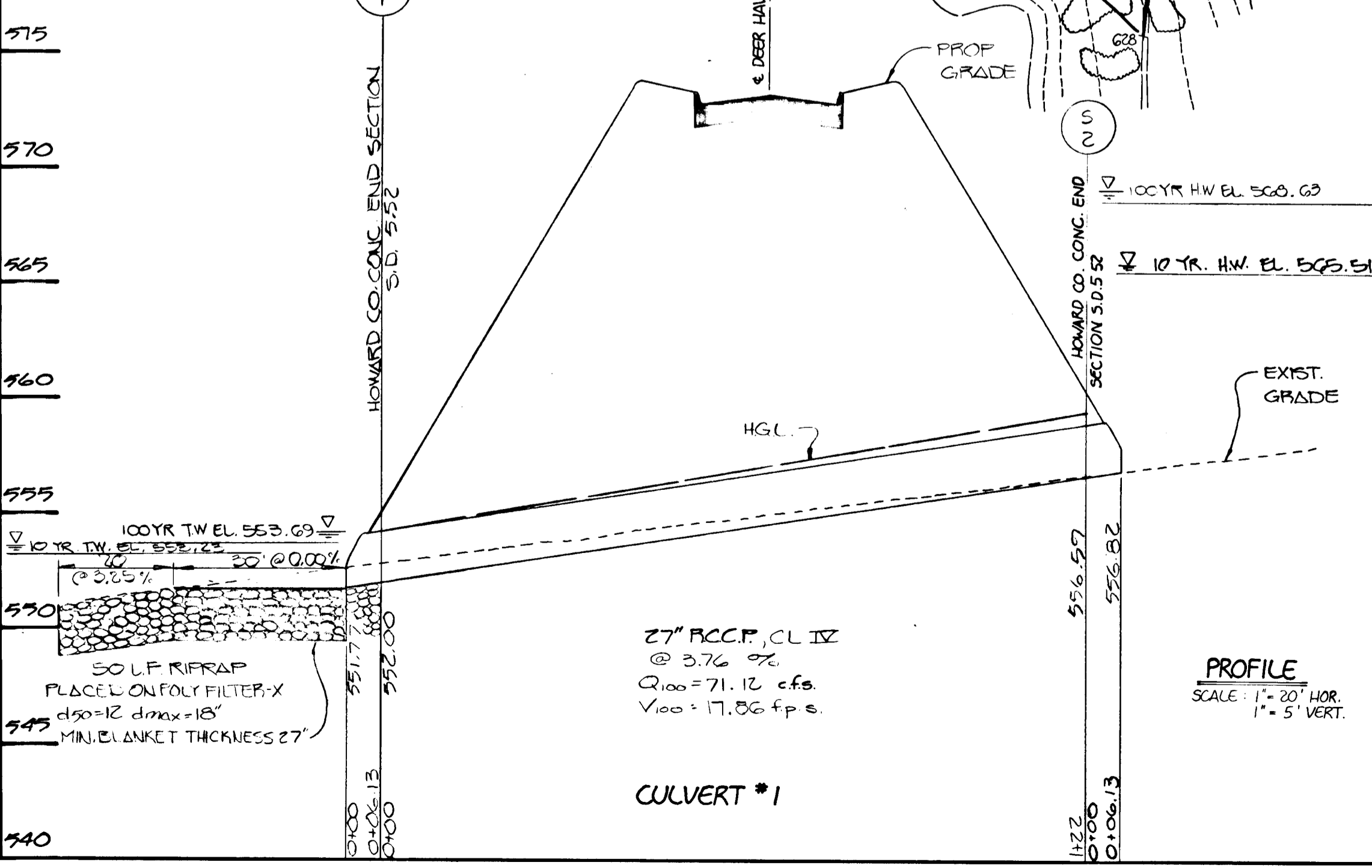
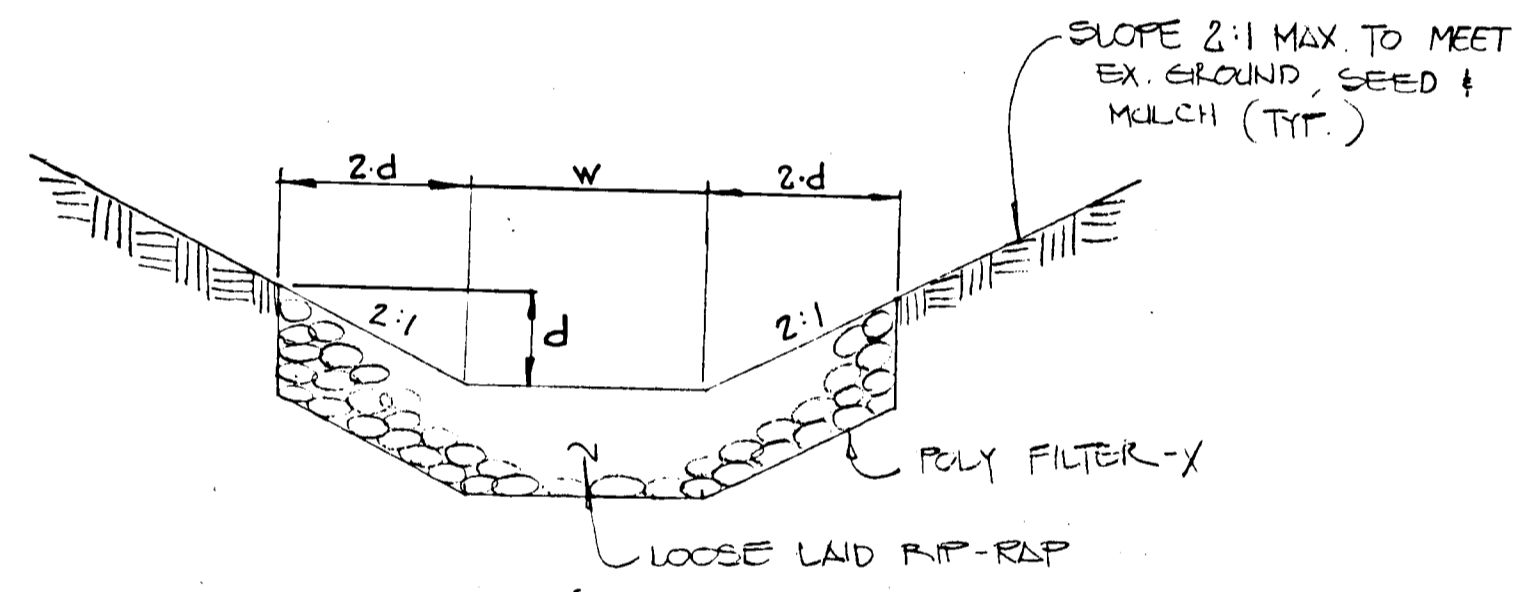
STRUCTURE SCHEDULE

NO.	TYPE	INV. IN	INV. OUT	TOP Δ	LOCATION	REMARKS
I-1	A-5	563.99	563.74	571.43*	RD. STA. 6+50.31 12' LT.	S.D. 4.01
I-2	A-10 (DEPRESSED)	568.75	571.43*	RD. STA. 6+50.31 12' RT.	S.D. 4.07	
S-1	CONC. RND SECT.	552.00	551.77	554.25	RD. STA. 5+99, 63' LT.	S.D. 5.52
S-2	CONC. RND SECT.	556.82	556.59	558.84	RD. STA. 6+19, 56' RT.	S.D. 5.52
S-3	CONC. RND SECT.	552.18	551.15	553.68	RD. STA. 6+05, 70' LT.	S.D. 5.52
S-4	CONC. END SECT.	558.90	558.29	560.15	RD. STA. 8+06, 67' LT.	S.D. 5.52
S-5	CONC. END SECT.	561.71	561.20	570.55	RD. STA. 8+06, 37' RT.	S.D. 5.52

* DENOTES TOP OF CURB
 ** OPTIONAL PRECAST A-5 INLET CAN BE USED S.D. 4.40
 *** OPTIONAL PRECAST A-10 INLET CAN BE USED S.D. 4.41

RIP-RAP CHANNEL DESIGN DATA

STRUCTURE	A	WP	R	R2/3	S	S1	n	Q	V	d	w	RIP-RAP SIZE	b
												d50 dMAX	
S-1	18	13.94*	1.291	1.186	0.005	0.070	0.035	60.00	3.52	2.15'	5'	12" 18"	27"
S-3	18	13.94*	1.291	1.186	0.005	0.070	0.035	15.10	3.52	2.15'	5'	12" 18"	27"
S-4	5	8.58*	0.503	0.697	0.005	0.070	0.035	16.64	2.07	0.80'	5'	9" 14"	20"
S-6	3.4	7.46*	0.456	0.591	0.050	0.2236	0.035	17.47	5.61	0.55'	5'	7" 14"	14"



- NOTE:
- HGL, PELLOTES ELEVATION OF 10 YEAR HYDRAULIC GRADIENT LILE.
 - STORM DRAIN BEETING CLASS 'C' WALL DE USED
 - V_p PELLOTES PARTIAL FLOW VELOCITY.
 - V_f PELLOTES FULL FLOW VELOCITY.
 - FOR STORMWATER MANAGEMENT MODIFICATIONS TO THE EX. TOLIP SEE 170-24 ROAD DRG. PLANS.

SPRING VALLEY CHASE
 LOTS 45-56
 3RD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

DRAINAGE AREA MAP, PROFILES AND DETAILS

OWNER AND DEVELOPER
 CHESAPEAKE FEDERAL SAVINGS & LOAN ASSOCIATION
 2001 EAST JORTIS RD
 BALTIMORE, MARYLAND 21254

SCALE AS SHOWN DATE: JAN 3, 1992 DWG. NO. 3 OF 5
 DES. R. ISAACS DRN. S. HIPP CHK. C. CROUD

FISHER, COLLINS AND CARTER, INC.
 CIVIL ENGINEERS & LAND SURVEYORS
 9711 BALTIMORE NATIONAL PIKE, SUITE 100
 ELLICOTT CITY, MARYLAND 21114-2875

1549

1549

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING, CONSULTANTS & LAND SURVEYORS
971 BALTIMORE NATIONAL PIKE, SUITE 100
ELICOTT CITY, MARYLAND 21242
M402 461 - 2555

OWNER AND DEVELOPER
CHESAPEAKE FEDERAL
SAVINGS & LOAN ASSOCIATION
2001 EAST JOPPA ROAD
BALTIMORE, MARYLAND 21234

STONE OUTLET SEDIMENT TRAP #1 DATA

DRAINAGE AREA = 1.00 AC.
STORAGE REQUIRED = 1,800 CU.YDS.
STORAGE PROVIDED = 2,048 CU.YDS.
WEIR CREST ELEVATION = 571.00
CLEANOUT ELEVATIONS = 569.00
BOTTOM ELEVATIONS = 568.00
DEPTH = 2'
SIDE SLOPES = 2:1
TOP EMBANKMENT = 572.00
WEIR LENGTH = 6'
BOTTOM DIMENSIONS = 60' X 12'

STONE OUTLET SEDIMENT TRAP #2 DATA

DRAINAGE AREA = 0.53 AC.
STORAGE REQUIRED = 954 CU.YDS.
STORAGE PROVIDED = 1248 CU.YDS.
WEIR CREST ELEVATION = 563.00
CLEANOUT ELEVATIONS = 561.00
BOTTOM ELEVATIONS = 560.00
DEPTH = 2'
SIDE SLOPES = 1:1
TOP EMBANKMENT = 564.00
WEIR LENGTH = 6'
BOTTOM DIMENSIONS = 50' X 10'

STONE OUTLET SEDIMENT TRAP #3 DATA

DRAINAGE AREA = 1.07 AC.
STORAGE REQUIRED = 71.33 CU.YDS.
STORAGE PROVIDED = 79.11 CU.YDS.
WEIR CREST ELEVATION = 560.00
CLEANOUT ELEVATIONS = 558.50
BOTTOM ELEVATIONS = 557.00
DEPTH = 3'
SIDE SLOPES = 2:1
TOP EMBANKMENT = 561.00
WEIR LENGTH = 6'
BOTTOM DIMENSIONS = 34' X 16'
TOP DIMENSIONS = 40' X 22'

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.

THOMAS JEFFERSON
SIGNATURE OF ENGINEER
6/1/92
DATE

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

THOMAS JEFFERSON
SIGNATURE OF DEVELOPER
2/28/92
DATE

JOHN R. ROBERTSON
SIGNATURE OF HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
6/12/92
DATE

JOHN R. ROBERTSON
SIGNATURE OF HOWARD COUNTY SOIL CONSERVATION DISTRICT
6/12/92
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
JIMMY J. KILMARTIN
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
6/29/92
DATE

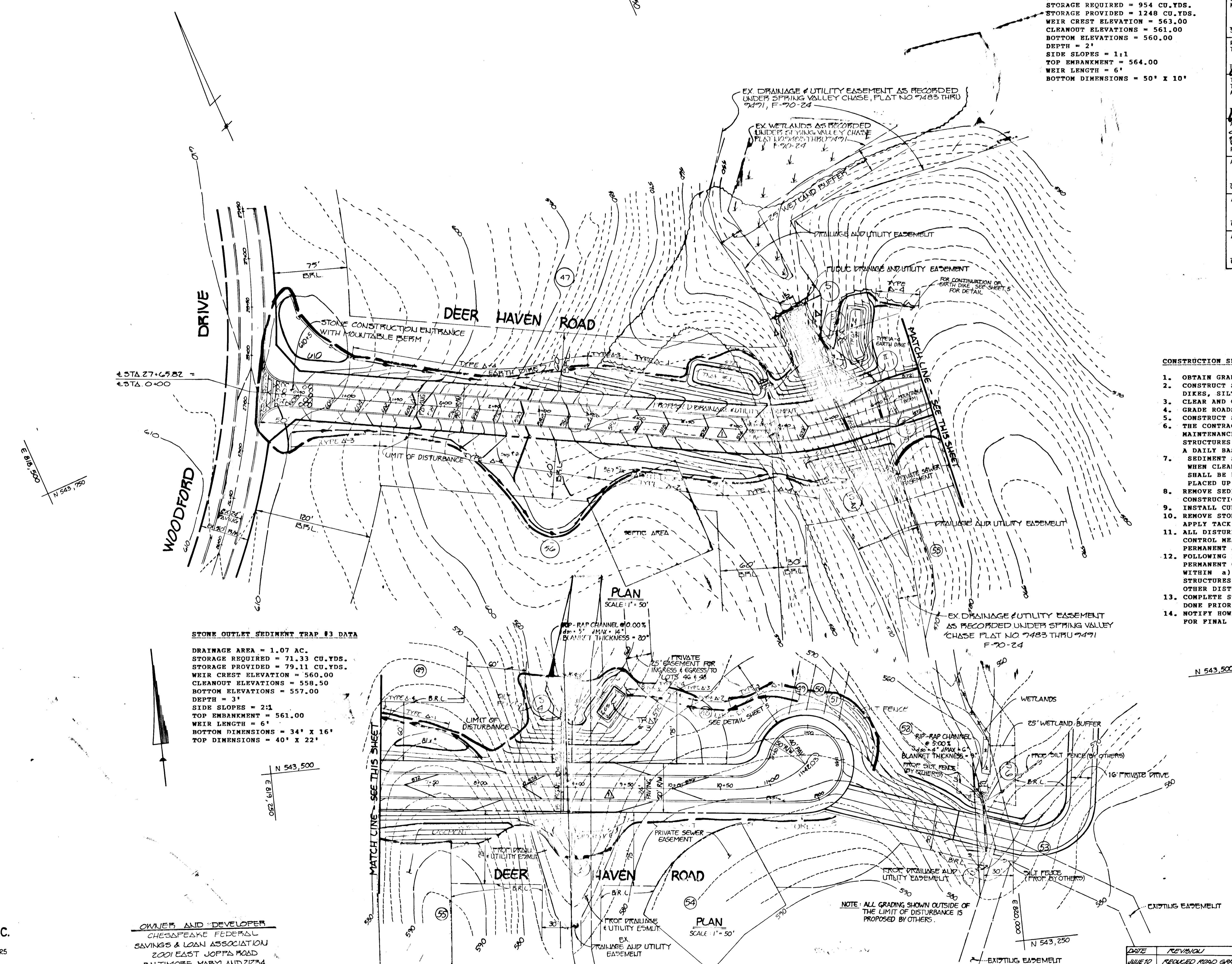
APPROVED: DEPARTMENT OF PUBLIC WORKS
JACOBSON & RILEY
CHIEF, BUREAU OF ENGINEERING
6-19-92
DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
OLIVER M. TAYLOR
CHIEF, BUREAU OF HIGHWAYS
6/18/92
DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
C. R. ROBERTSON
CHIEF, LAND DEVELOPMENT DIVISION (acting)
6/18/92
DATE

CONSTRUCTION SEQUENCE

1. OBTAIN GRADING PERMIT.
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE, EARTH DIKES, SILT FENCE AND STONE OUTLET SEDIMENT TRAPS.
3. CLEAR AND GRUB SITE TO LIMITS OF DISTURBANCE.
4. GRADE ROADS TO SUBGRADE.
5. CONSTRUCT STORM DRAINS.
6. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON, AFTER EACH RAINFALL AND ON A DAILY BASIS.
7. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAPS WHEN CLEANOUT ELEVATION HAS BEEN REACHED. TRAP SHALL BE DEWATERED BY PUMPING. SEDIMENT SHALL BE PLACED UP HILL FROM SITE.
8. REMOVE SEDIMENT FROM EX-ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED.
9. INSTALL CURB AND GUTTER AND SUB-BASE ON ROADS.
10. REMOVE STONE CONSTRUCTION ENTRANCE. CLEAN BASE COURSE. APPLY TACK COAT AND LAY SURFACE COURSES.
11. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
12. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN a) 7 CALENDAR DAYS FOR PERIMETER SEDIMENT CONTROL STRUCTURES, SLOPES GREATER THAN 3:1; b) 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
13. COMPLETE STABILIZATION OF ALL DISTURBED AREAS SHALL BE DONE PRIOR TO REMOVAL OF ALL SEDIMENT CONTROLS.
14. NOTIFY HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS FOR FINAL INSPECTION AT DURATION OF PROJECT (410) 792-7272.



GRADING AND SEDIMENT CONTROL
SPRING VALLEY CHASE
LOTS 47-56
3RD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JANUARY 3, 1992
SHEET 4 OF 5

DATE	REVISION	BY
JULIE 10	REMOVED ROAD GRADE	Δ

PERMANENT SEEDING NOTES:
 APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENEED, SOIL AMENDMENTS IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) 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 30-0-0 UREA FORM FERTILIZER (9 LBS/1000 SQ.FT.)
- 2) 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 AND 2 LBS. PER ACRE (.05 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 WILL ANCHORED STRAW.
MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OR UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 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 SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES:
 APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

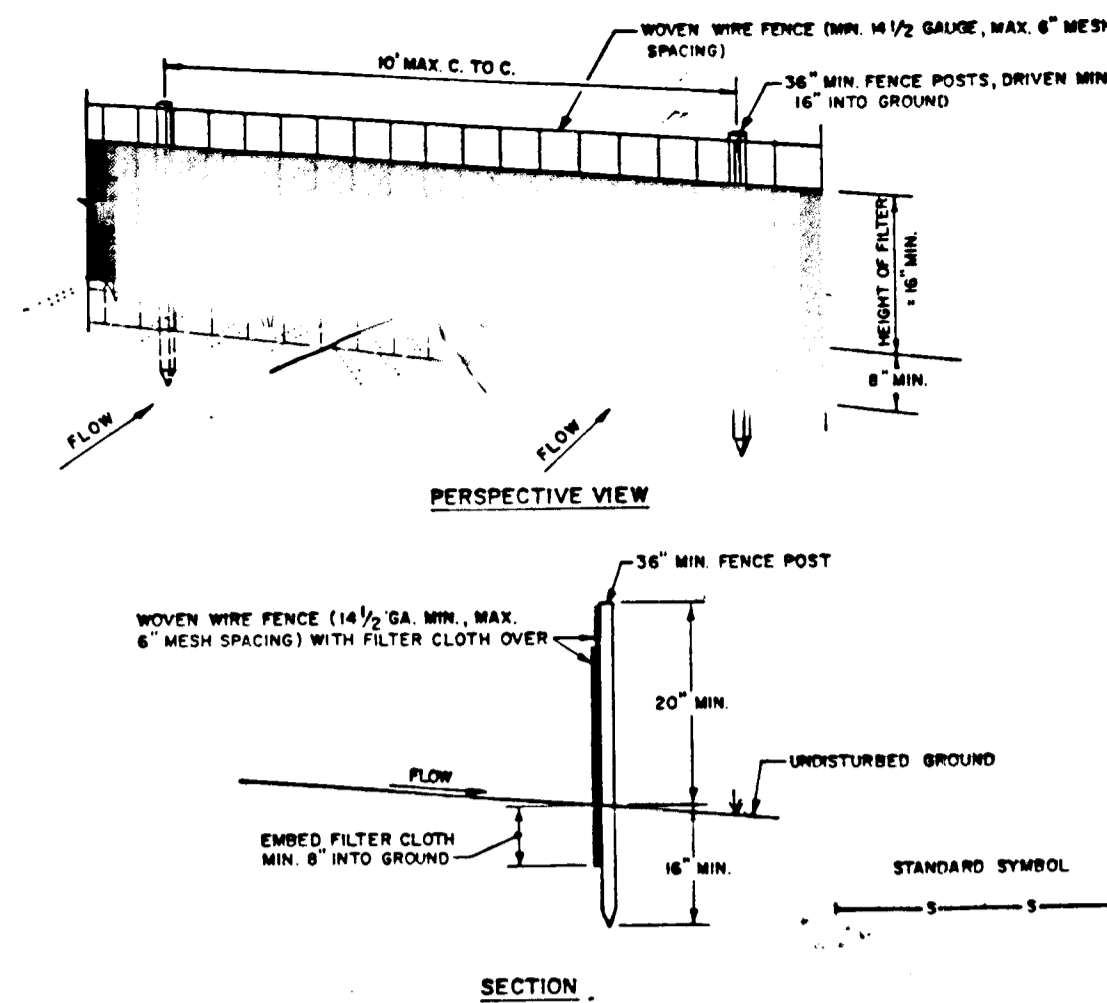
SEEDBED PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENEED, SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.)
SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.
MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

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 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. 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.
- 4) 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.
- 5) 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.
- 6) SITE ANALYSIS:

TOTAL AREA OF SITE	52.123 ACRES
AREA DISTURBED	3.526 ACRES
AREA TO BE ROOFED OR PAVED	0.749 ACRES
AREA TO BE VEGETATIVELY STABILIZED	2.577 ACRES
TOTAL CUT	7,000 CU.YDS.
TOTAL FILL	7,000 CU.YDS.
- 7) OFFSITE WASTE/BORROW AREA 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 DPM 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.

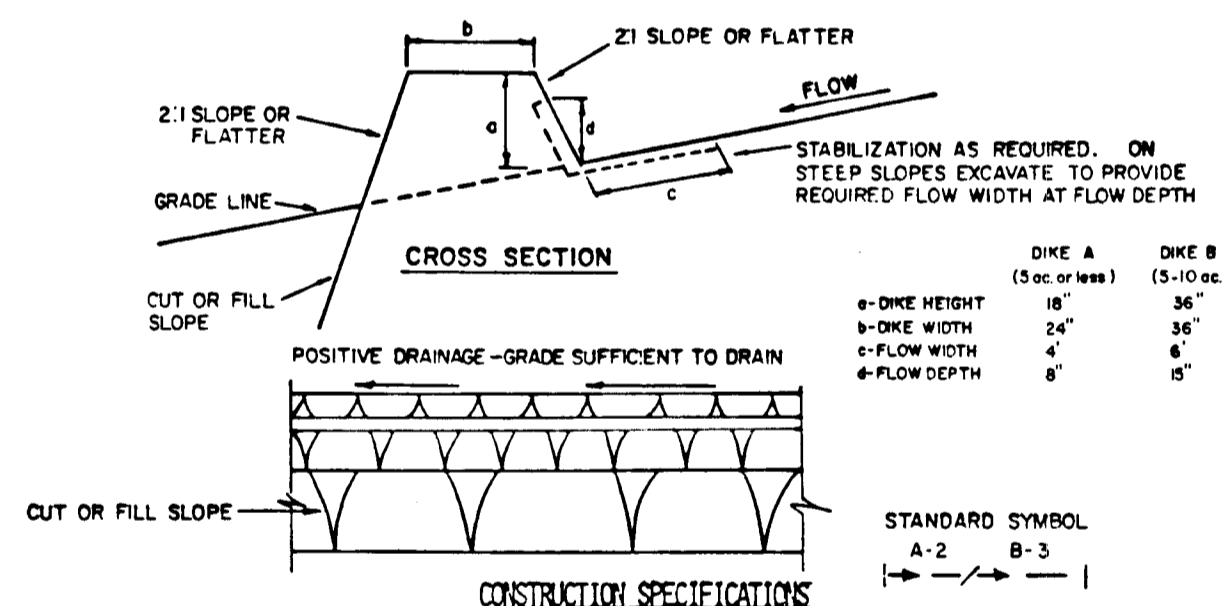


CONSTRUCTION NOTES FOR FABRICATING SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
 FENCE: WOVEN WIRE, 14- GA. 6" MAX. MESH OPENING
 FILTER CLOTH: FILTER X, HURF, LIND, STABIL-LINKA 1/4" OR APPROVED EQUAL
 PREFABRICATED UNIT: GEOPAB, ENVIROFENCE, OR APPROVED EQUAL

SILT FENCE

NOT TO SCALE



1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

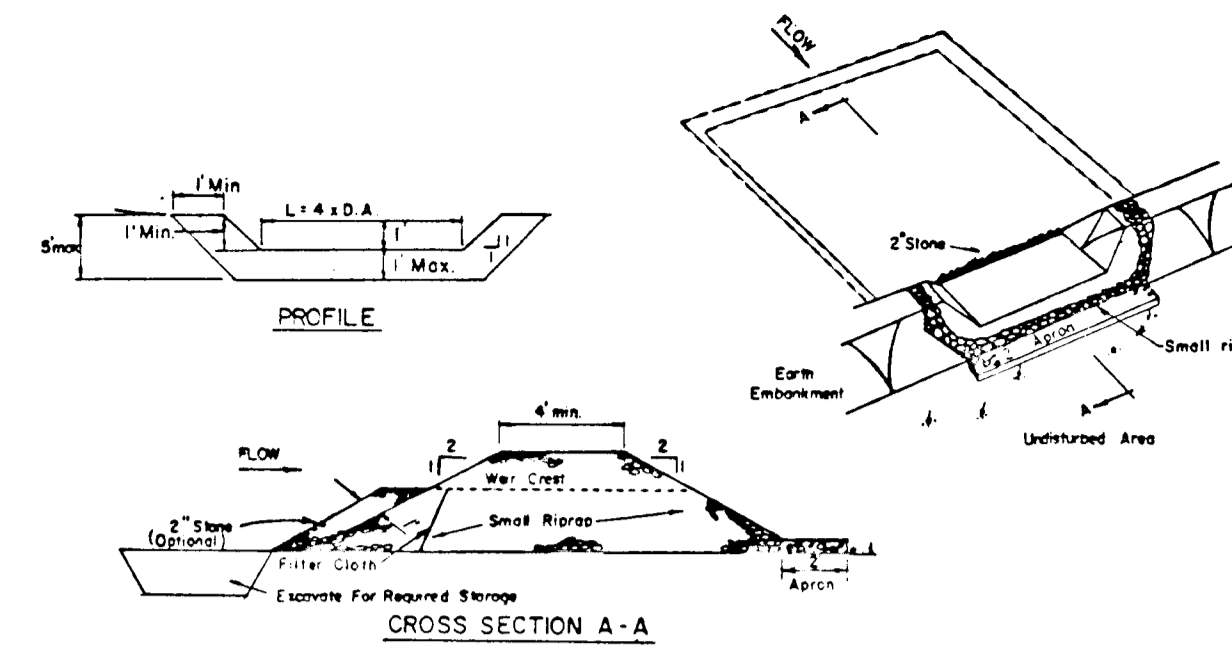
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELISOR; SOD; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

- A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
 - B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
 - C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE

NOT TO SCALE



OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

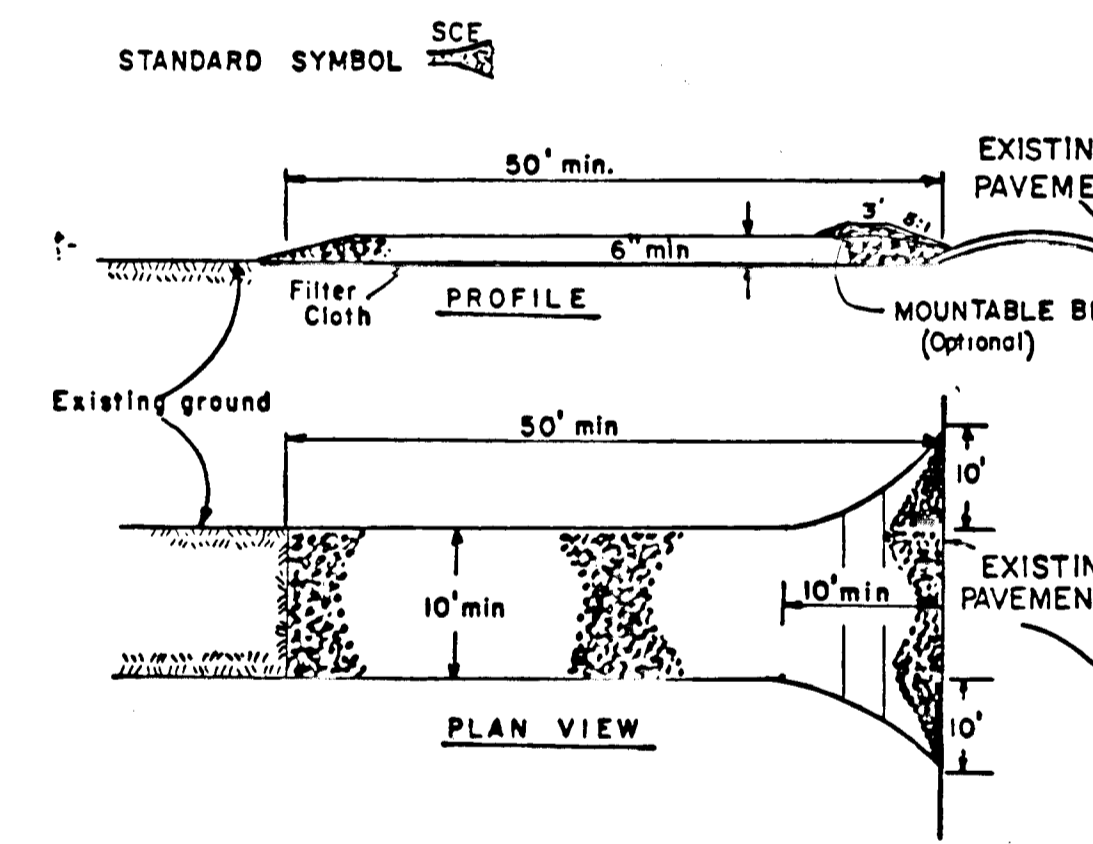
CONSTRUCTION SPECIFICATIONS FOR ST-V

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. All cut and fill slopes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small riprap 4"-8" along with a 1" thickness of 2" aggregate placed on the upgrade side on the small riprap on embedded filter cloth in the riprap.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap.
6. The structure shall be inspected after each rain and repairs made as needed.
7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

Maximum Drainage Area: 5 Acres

STONE OUTLET SEDIMENT TRAP

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment applied, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

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: *Clifford C. ...*
 DATE: 2/28/92

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: *R. Thomas Jefferson*
 DATE: 2/28/92

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

SIGNATURE OF DISTRICT: *James M. Helm*
 DATE: 6/12/92

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

SIGNATURE OF DISTRICT: *John M. Robertson*
 DATE: 6/12/92

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT: *Anna M. ...*
 DATE: 6/29/92

APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING: *William E. ...*
 DATE: 6-19-92

APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS: *Alan M. ...*
 DATE: 6/16/92

APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, LAND DEVELOPMENT DIVISION (acting): *Clifford C. ...*
 DATE: 6/16/92

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FISHER, COLLINS & CARTER, INC.

1001 EMBLETTOWN ROAD, SUITE 100
 ELLICOTT CITY, MARYLAND 21114
 (410) 481-2955

OWNER AND DEVELOPER
 CHESSPEAKE FEDERAL SAVINGS & LOAN ASSOCIATION
 2201 EAST JOPPA ROAD
 BALTIMORE, MARYLAND 21234



GRADING AND SEDIMENT CONTROL NOTES AND DETAILS
SPRING VALLEY CHASE
 LOTS 47-46
 3RD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: JANUARY 3, 1992
 SHEET 5 OF 5