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4	DRAINAGE AREA MAP & LANDSCAPE PLAN
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7	STORMWATER MANAGEMENT NOTES AND DETAILS
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9	FOREST CONSERVATION PLAN
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# FINAL ROAD CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLANS

# STONE MANOR

## SECTION 2

**LOTS 1 - 14**

**ZONED: R-20**

**TAX MAP NO. 25, PARCEL NO. 70, GRID NO. 19**

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Edward J. ...* 4/4/02  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*...* 4/9/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

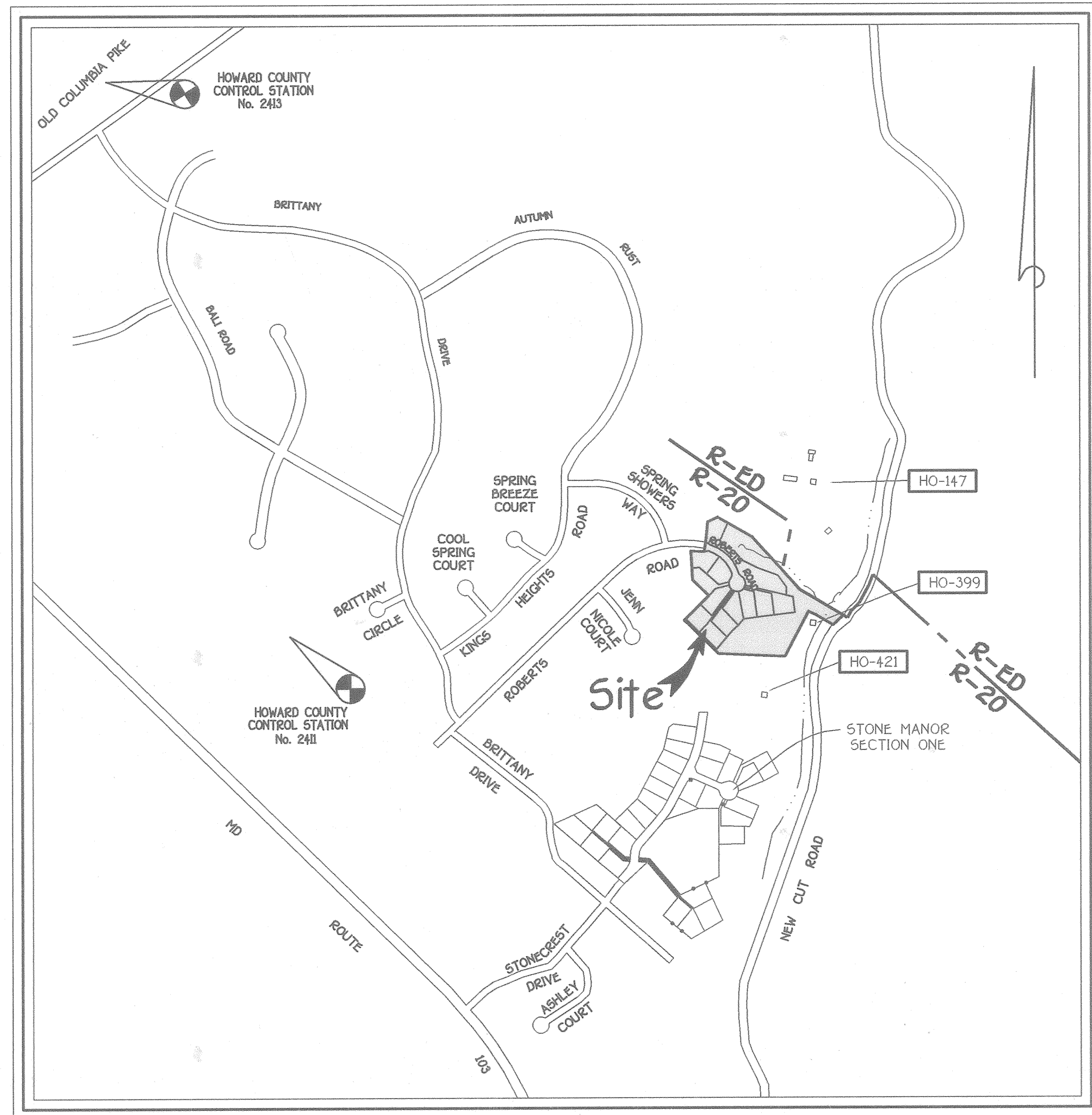
*...* 4/8/02  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

REVISIONS		
NO.	DESCRIPTION	DATE

ROAD CLASSIFICATION		
ROAD NAME	CLASSIFICATION	R/W
ROBERTS ROAD	PUBLIC ACCESS STREET	40'

STREET LIGHT CHART				
DWG. No.	STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
2	ROBERTS ROAD	C.L. STA. 13+94	ØR	100-WATT "TRADITIONAIRE" HP.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.
2	ROBERTS ROAD	L.P. STA. 0+85	2' BEHIND CURB	100-WATT "TRADITIONAIRE" HP.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.

TRAFFIC CONTROL SIGNS				
STREET NAME	C.L. STATION	OFFSET	POSTED SIGN	SIGN CODE
ROBERTS ROAD	13+50	13' R	ROAD NARROWS	W5-1
ROBERTS ROAD	14+40	13' L	ROAD NARROWS	W5-1



VICINITY MAP  
SCALE: 1" = 600'

**GENERAL NOTES**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410) 313-1280 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- 2 FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL TOPOGRAPHIC SURVEY PREPARED BY WINGS AERIAL MAPPING CO., INC., FLOWN IN JULY 1997 AND FIELD RUN DATA BY FISHER, COLLINS & CARTER, INC., OCTOBER 1997.
- THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT Nos. 21E2 AND 21E3 WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC BY CONT. No. 14-1600-D
- SEWER IS PUBLIC BY CONT. No. 44-3920-D
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY LEE CUNNINGHAM & ASSOCIATES, DATED JULY, 1997.
- BACKGROUND INFORMATION:
  - A. SUBDIVISION NAME: STONE MANOR
  - B. TAX MAP NO.: 25, GRID: 19
  - C. PARCEL NO.: 70
  - D. ZONING: R-20
  - E. ELECTION DISTRICT: SECOND
  - F. TOTAL TRACT AREA: 9.797 AC. +
  - G. NO. OF BUILDABLE LOTS: 12
  - H. NO. OF PRESERVATION PARCELS: 0
  - I. NO. OF OPEN SPACE LOTS: 2
  - J. PRELIMINARY PLAN APPROVAL DATE: MARCH 9, 2001
  - K. PREVIOUS FILE Nos.: S 99-21, P 01-14
  - L. TOTAL AREA OF OPEN SPACE REQUIRED: (9.797 AC. x 300) = 2.94 AC. +
  - M. TOTAL AREA OF OPEN SPACE PROVIDED: 5.16 AC. +
- REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE TO BE PROVIDED AT THE JUNCTION OF THE PIPE / FLAG STEM AND THE ROAD R/W AND NOT ONTO THE PIPE / FLAG STEM DRIVEWAY.
- NO CEMETERIES EXIST ON THE PROPERTY.
- ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF ASTM T-180.
- THE WETLAND AND FOREST STAND DELINEATION WAS PREPARED BY EXPLORATION RESEARCH, INC. AND APPROVED UNDER 599-21.
- THE FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- THE FOREST CONSERVATION OBLIGATION WILL BE MET BY 3.54 ACRES OF RETENTION ON OPEN SPACE LOT 13. THE SURETY AMOUNT WILL BE (Ø20 PER SQ. FT. x 154,202.4 SQ.FT.) = \$30,840.48 FOR THIS AREA.
- STORMWATER MANAGEMENT FACILITY: (PRIVATE)
  - TYPE - RETENTION FACILITY FOR QUANTITY AND QUALITY
  - OWNER - HOMEOWNER'S ASSOCIATION
  - MAINTENANCE - HOMEOWNER'S ASSOCIATION AND HOWARD COUNTY
- SOILS INFORMATION TAKEN FROM SOIL MAP NO. 20, SOIL SURVEY, HOWARD COUNTY, MARYLAND, JULY, 1968 ISSUE.
- STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT.
- "STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE PERIMETER LANDSCAPING SURETY IN THE AMOUNT OF \$10,050.00 SHOWN ON SHEET 4 WILL BE PART OF THE DEVELOPER'S AGREEMENT.
- OPEN SPACE LOT 13 TO BE OWNED AND MAINTAINED BY THE HOWARD COUNTY DEPARTMENT OF RECREATION & PARKS.
- OPEN SPACE LOT 14 TO BE OWNED AND MAINTAINED BY THE STONE MANOR HOMEOWNER'S ASSOCIATION FOR THE BENEFIT OF THE RESIDENTS OF STONE MANOR, SECTION TWO SUBDIVISION.



As Built 9-1-04

## SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 461-2895

**OWNER**  
 Dr. Bruce Taylor, et al  
 P.O. Box 396  
 Ellicott City, Md. 21041

**DEVELOPER**  
 Land Design And Development, Inc.  
 2000 Main Street  
 Ellicott City, Md. 21042

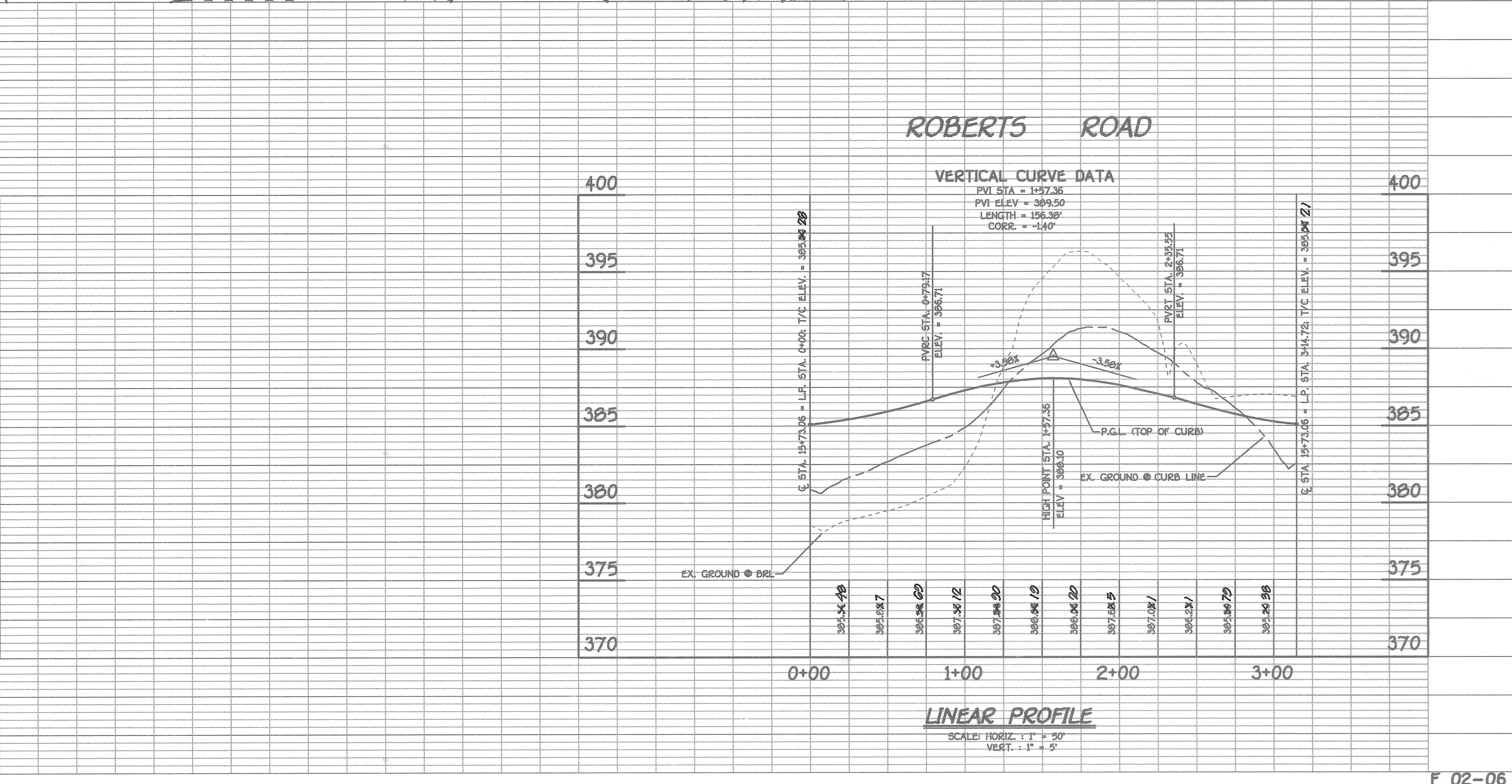
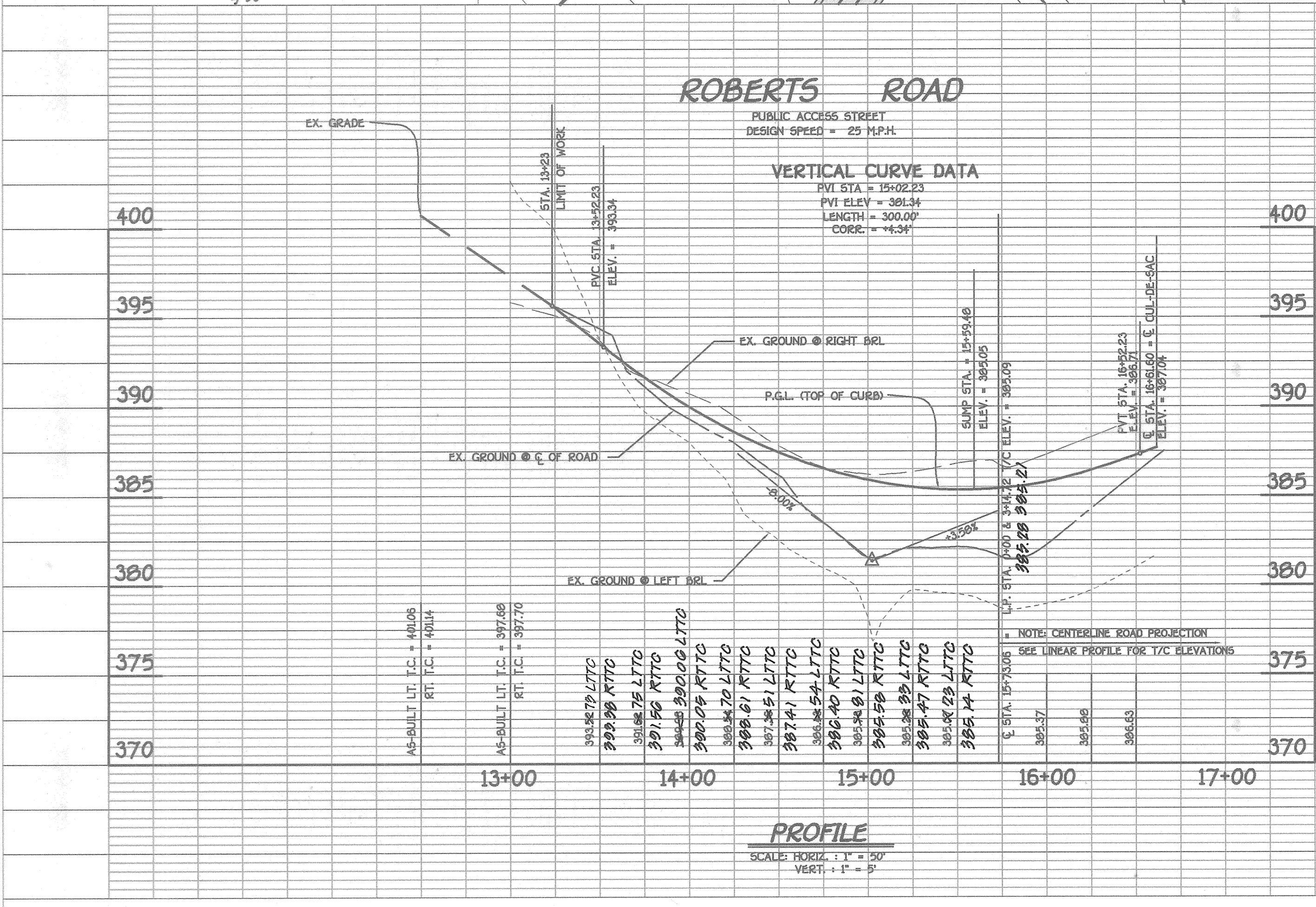
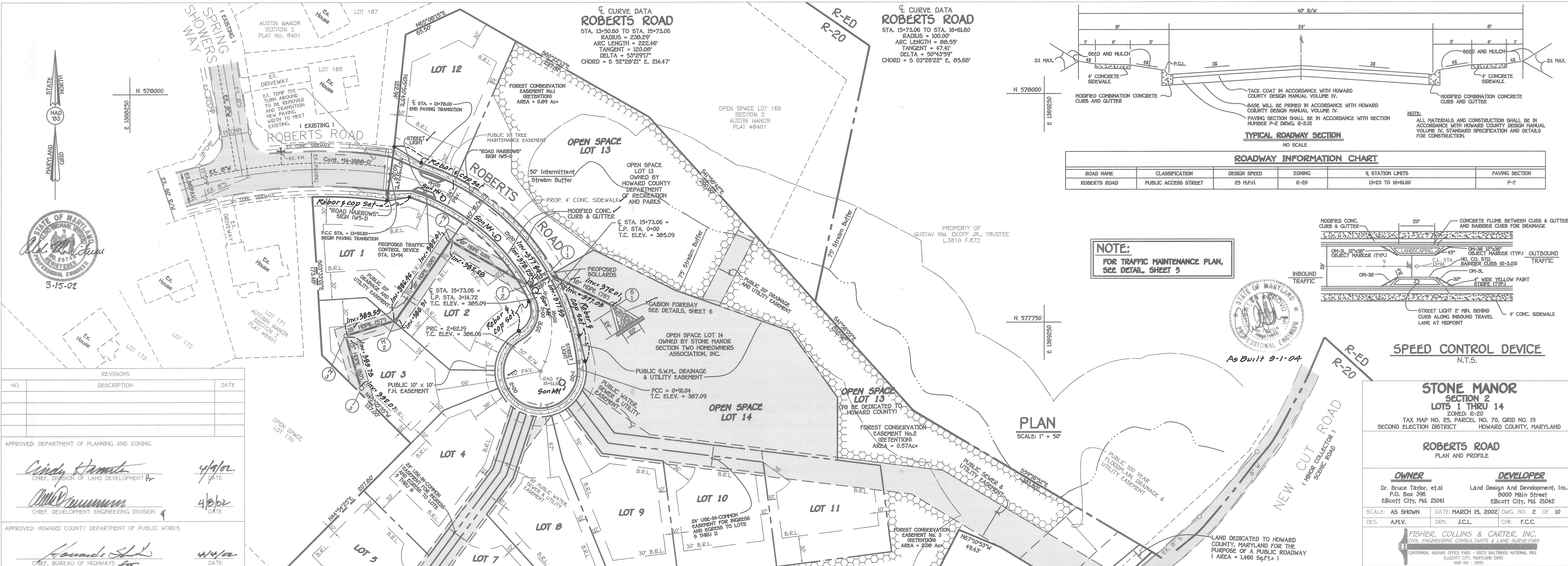


3-15-02  
DATE

**STONE MANOR**  
**SECTION 2**  
**LOTS 1 THRU 14**  
 ZONED: R-20  
 TAX MAP NO. 25, PARCEL NO. 70, GRID NO. 19  
 SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 DATE: MARCH 15, 2002  
 SHEET 1 OF 10

F 02-06

AS-BUILT 9-1-04 F 02-06



STREET TREE SCHEDULE				
SYMBOL	QUANTITY	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
	20	ACER RUBRUM 'OCTOBER GLORY' RED MAPLE	2 1/2" - 3" CAL.	40' APART ON PUBLIC R/W

NOTE: FINANCIAL SURETY FOR THE 20 REQUIRED STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$6,000.00.

**TEMPORARY S.W.M. SEDIMENT BASIN DATA**

INITIAL DRAINAGE AREA = 2.97 AC.  
 FINAL DRAINAGE AREA = 0.19 AC.  
 STORAGE REQUIRED:  
 WET = 1800 x 0.19 = 14,742 CUFT.  
 DRY = 1800 x 0.19 = 14,742 CUFT.  
 STORAGE PROVIDED:  
 WET = 14,742 @ 372.22  
 DRY = 14,997 @ 373.55  
 BOTTOM ELEV. = 368.00  
 STORAGE DEPTH = 5.55'  
 SIDE SLOPES = 3:1  
 TOP OF EMBANKMENT = 376.67  
 CLEAN-OUT ELEV. = 371.50  
 LOW FLOW WEIR CREST = 373.55  
 RISER CREST ELEV. = 374.50  
 Q2 EXISTING = 3.2 C.F.S.  
 Q2 PROPOSED = 2.9 C.F.S.

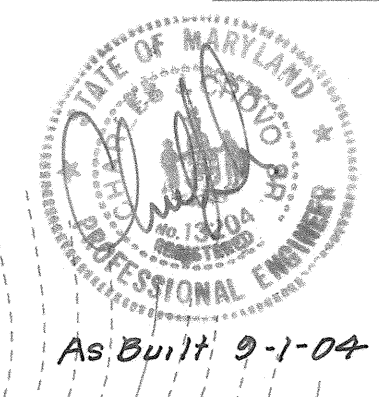
S.W.M. DESIGN SUMMARY					
DESIGN STORM	ALLOWABLE RELEASE RATE	FACILITY INFLOW	FACILITY DISCHARGE	WATER SURFACE ELEVATION	STORAGE VOLUME (AC.FT.)
2 YEAR	11.7 cfs	18.4	10.8	372.44	0.2492
10 YEAR	26.4 cfs	37.2	26.2	373.22	0.4582
100 YEAR	N/A	58.4	44.7	373.72	0.6413

STRUCTURE CLASSIFICATION: LOW HAZARD, CLASS 'A' POND  
 STORAGE HEIGHT PRODUCT 0.458 AC. FT. x 0.9' = 37  
 WATERSHED AREA TO FACILITY (ACRES): ULTIMATE 0.19 ACRES  
 LEVEL OF MANAGEMENT PROVIDED BY FACILITY: TWO, AND TEN YEAR STORMS

By The Developer:  
 I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, 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 Shall Employ A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District.

By The Engineer:  
 I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The District That I Employ A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Within 30 Days Of Completion.

By The Inspector:  
 I Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As-Built" Plans And Meets The Approved Plans And Specifications.



AS-BUILT CERTIFICATION  
 I Herby Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As-Built" Plans And Meets The Approved Plans And Specifications.

Signature: [Signature]  
 P.E. No. 13264  
 Date: 9-1-04

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not Mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Release Any Other Party From Meeting Requirements Imposed By Contract, Employment Or Other Means, Including Meeting Commonly Accepted Industry Practices.

**LEGEND**

	Denotes 15% to 24.9% Slopes
	Denotes Slopes Greater Than 25%
	Denotes Super-Silt Fence
	Denotes Silt Fence
	Denotes Earth Dike
	Denotes Limit of Disturbance
	Denotes Erosion Control Matting (ECM) (See Detail, Sheet 5)

**STREET TREE, GRADING AND SEDIMENT CONTROL PLAN**  
**STONE MANOR SECTION TWO**  
 LOTS 1 THRU 14  
 ZONING: R-20  
 TAX MAP NO. 25, PARCEL NO. 70, GRID NO. 19  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: MARCH 15, 2002  
 SHEET 3 OF 10



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

**OWNER**  
 Dr. Bruce Taylor, et al  
 P.O. Box 395  
 Ellicott City, Md. 21041

**DEVELOPER**  
 Land Design And Development, Inc.  
 9000 Main Street  
 Ellicott City, Md. 21042

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 461 - 2955

SCHEDULE A PERIMETER LANDSCAPE EDGE							
PERIMETER	CATEGORY (PROPERTIES/ROADWAYS)	LANDSCAPE TYPE	LINEAR FEET OF ROADWAY FRONTAGE PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NUMBER OF PLANTS REQUIRED	
						SHADE TREES	EVERGREEN TREES
P-1	ADJACENT TO PERIMETER	A	173.49'	YES (90')	NO	1	-
P-2	ADJACENT TO PERIMETER	A	137.00'	NO	NO	2	-
P-3	ADJACENT TO PERIMETER	A	207.80'	NO	NO	3	-
P-4	ADJACENT TO PERIMETER	A	297.77'	NO	NO	5	-
P-5	ADJACENT TO PERIMETER	A	400.92'	YES (400.92')	NO	0	-
P-6	ADJACENT TO PERIMETER	A	305.84'	YES (305.84')	NO	0	-
P-7	ADJACENT TO PERIMETER	A	169.63'	YES (74')	NO	2	-
P-8	ADJACENT TO ROADWAY	B	86.03'	YES (66.03')	NO	1	1
P-9	ADJACENT TO PERIMETER	A	956.53'	YES (956.53')	NO	0	-
P-10	ADJACENT TO PERIMETER	A	188.44'	YES (65')	NO	3	-

LANDSCAPE SCHEDULE				
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
10	●	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2"-3"
13	●	PINUS STROBUS	WHITE PINE	6'-8' HT.
17	●	PLATANUS OCCIDENTALIS 'BLOODGOOD'	LONDON PLANETREE	2 1/2"-3"

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*James S. ...* 4/14/02  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cathy ...* 4/9/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*...* 4/8/02  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

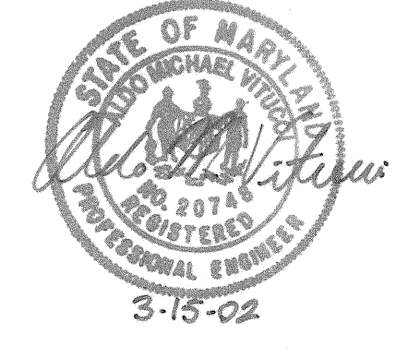
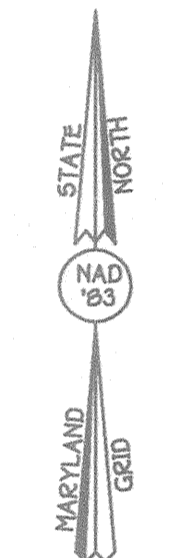
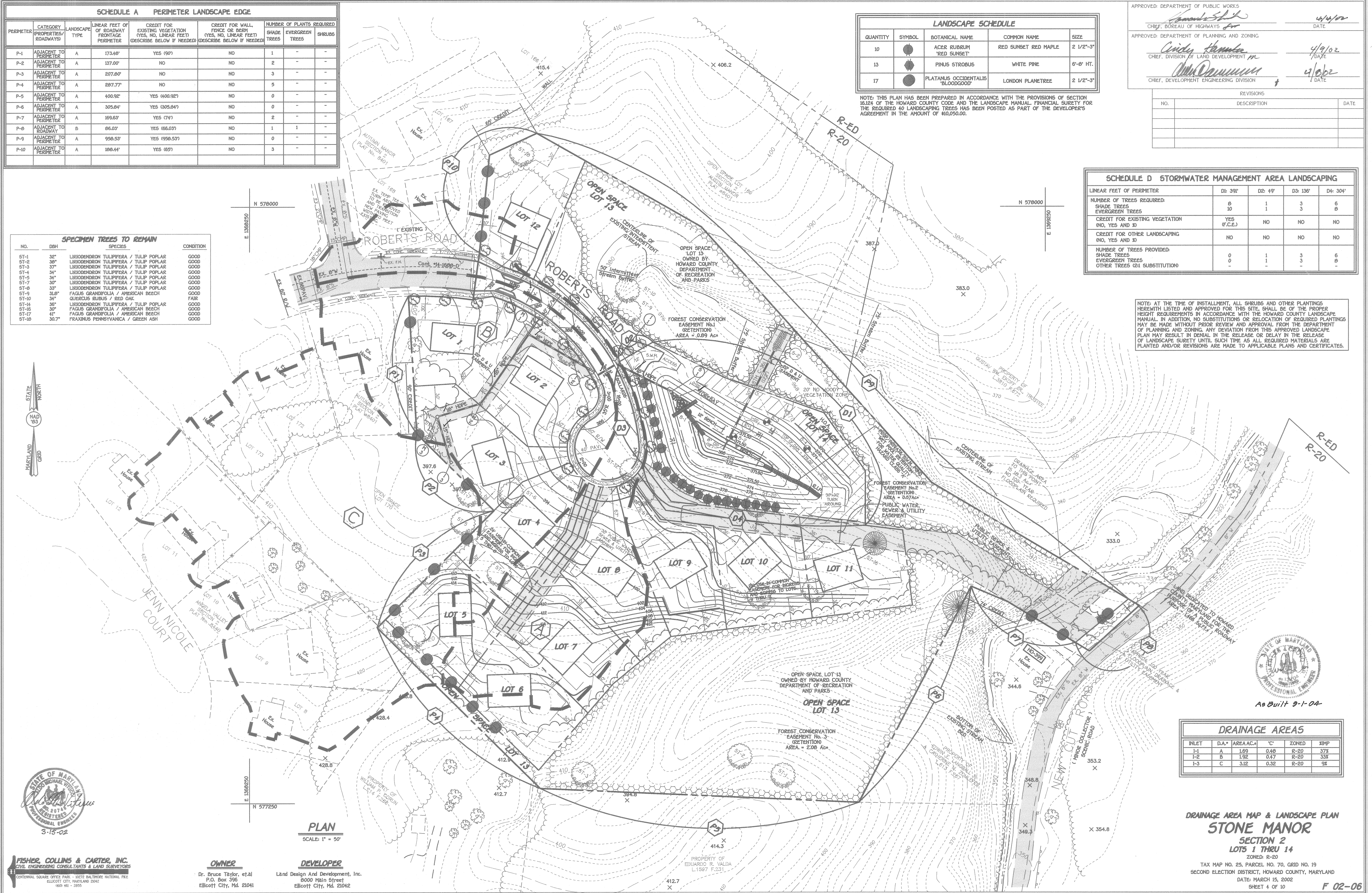
REVISIONS		
NO.	DESCRIPTION	DATE

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING				
LINEAR FEET OF PERIMETER	D1: 391'	D2: 49'	D3: 136'	D4: 304'
NUMBER OF TREES REQUIRED:				
SHADE TREES	0	1	3	6
EVERGREEN TREES	10	1	3	6
CREDIT FOR EXISTING VEGETATION (NO, YES AND X)	YES (F.C.E.)	NO	NO	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND X)	NO	NO	NO	NO
NUMBER OF TREES PROVIDED:				
SHADE TREES	0	1	3	6
EVERGREEN TREES	0	1	3	6
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-

SPECIMEN TREES TO REMAIN			
NO.	DBH	SPECIES	CONDITION
ST-1	32"	LIRIODENDRON TULIPIFERA / TULIP POPLAR	GOOD
ST-2	38"	LIRIODENDRON TULIPIFERA / TULIP POPLAR	GOOD
ST-3	37"	LIRIODENDRON TULIPIFERA / TULIP POPLAR	GOOD
ST-4	34"	LIRIODENDRON TULIPIFERA / TULIP POPLAR	GOOD
ST-5	34"	LIRIODENDRON TULIPIFERA / TULIP POPLAR	GOOD
ST-7	30"	LIRIODENDRON TULIPIFERA / TULIP POPLAR	GOOD
ST-8	33"	LIRIODENDRON TULIPIFERA / TULIP POPLAR	GOOD
ST-9	31.8"	FAGUS GRANDIFOLIA / AMERICAN BEECH	GOOD
ST-10	34"	QUERCUS RUBUS / RED OAK	FAIR
ST-14	36"	LIRIODENDRON TULIPIFERA / TULIP POPLAR	GOOD
ST-15	30"	FAGUS GRANDIFOLIA / AMERICAN BEECH	GOOD
ST-17	41"	FAGUS GRANDIFOLIA / AMERICAN BEECH	GOOD
ST-18	30.7"	FRAXINUS PENNSYLVANICA / GREEN ASH	GOOD

NOTE: THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED 40 LANDSCAPING TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$10,050.00.

NOTE: AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL IN THE RELEASE OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.



PLAN  
 SCALE: 1" = 50'

**OWNER**  
 Dr. Bruce Taylor, et al  
 P.O. Box 396  
 Ellicott City, Md. 21041

**DEVELOPER**  
 Land Design And Development, Inc.  
 8000 Main Street  
 Ellicott City, Md. 21042

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10722 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 410.461.2895

DRAINAGE AREAS					
INLET	D.A.#	AREA AC.#	"C"	ZONED	XIMP
I-1	A	1.69	0.48	R-20	37%
I-2	B	1.92	0.47	R-20	33%
I-3	C	3.12	0.32	R-20	9%

**DRAINAGE AREA MAP & LANDSCAPE PLAN**  
**STONE MANOR**  
 SECTION 2  
 LOTS 1 THRU 14  
 ZONED: R-20  
 TAX MAP NO. 25, PARCEL NO. 70, GRID NO. 19  
 SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 DATE: MARCH 15, 2002  
 SHEET 4 OF 10

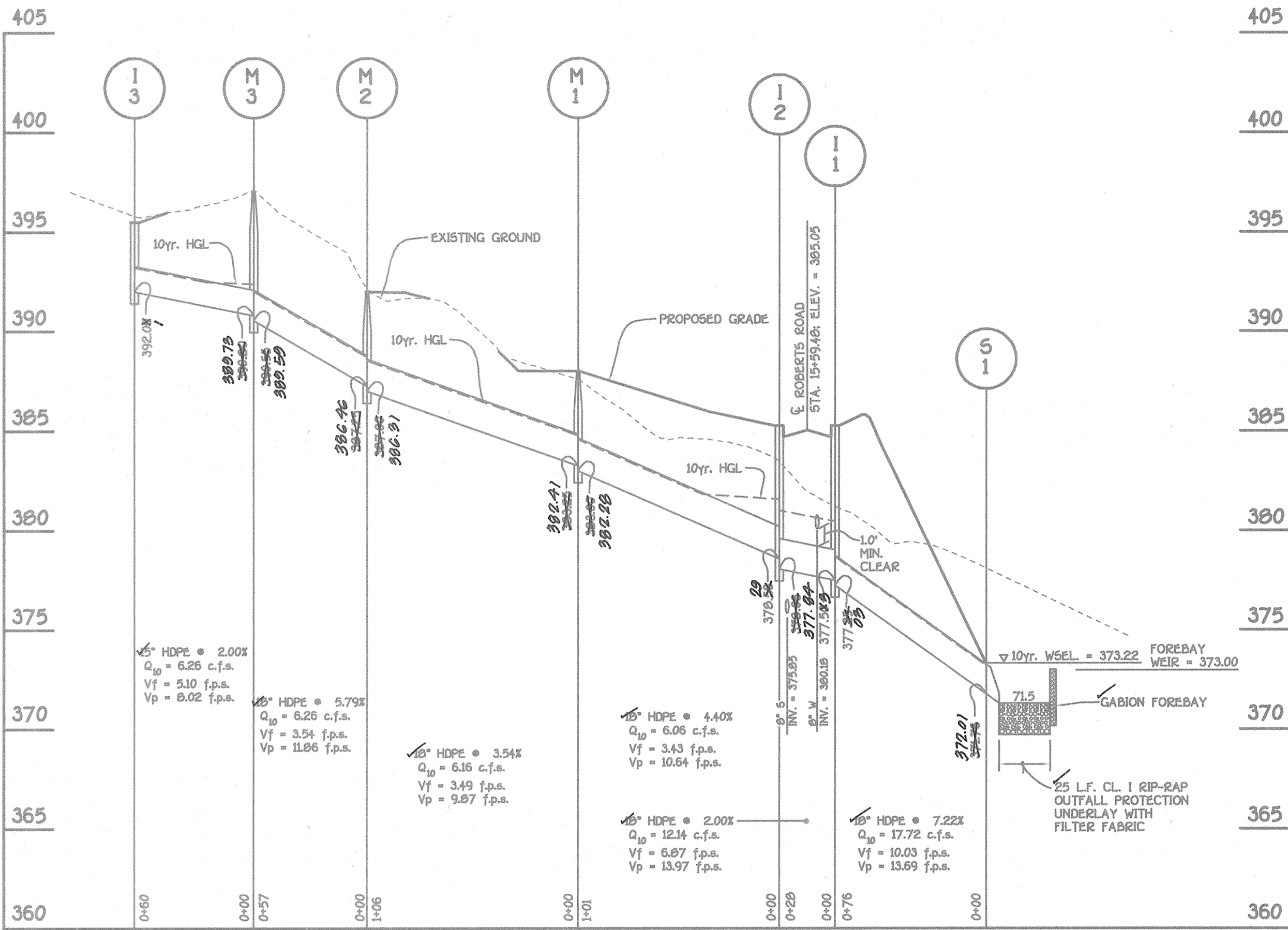


AS-BUILT 9-1-04 F02-06

**STRUCTURE SCHEDULE**

STRUCTURE NO.	TOP ELEVATION	INV.IN	INV.OUT	ROAD NAME	ROAD STA.	OFFSET	TYPE	W	REMARKS
I-1	385.2X0	377.58 9	377.56 09	ROBERTS ROAD	15+59.46	* 12.43'	A-10 INLET	2.5'	S.D. 4.41
I-2	385.28 16	378.58 29	378.57 04	ROBERTS ROAD	15+59.46	* 12.43'	A-10 INLET	2.5'	S.D. 4.41
I-3	395.36 19		392.08 1		N 577678.54 29 E 1366929.54 27		5' INLET		S.D. 4.22
M-1	388.80 26	388.45 282.41	388.45 282.28		N 577735.34 29 E 1366929.54 27		STD. MANHOLE		G - 5.01
M-2	388.80 291.91	388.45 286.46	388.45 286.21		N 577735.34 29 E 1366929.54 27		STD. MANHOLE		G - 5.01
M-3	388.80 296.38	388.45 291.78	388.45 291.59		N 577735.34 29 E 1366929.54 27		STD. MANHOLE		G - 5.01
S-1	373.28 91	372.01	372.01		N 577701.54 27 E 1366929.54 27		HDPE END SECTION		
S-2	365.38 91	363.4 91	363.4 91		N 577701.54 27 E 1366929.54 27		CONC. END SECT.		S.D. 5.51
R-1	376.08 9	368.98 91	367.58 92		N 577701.54 27 E 1366929.54 27		CONC. RISER		

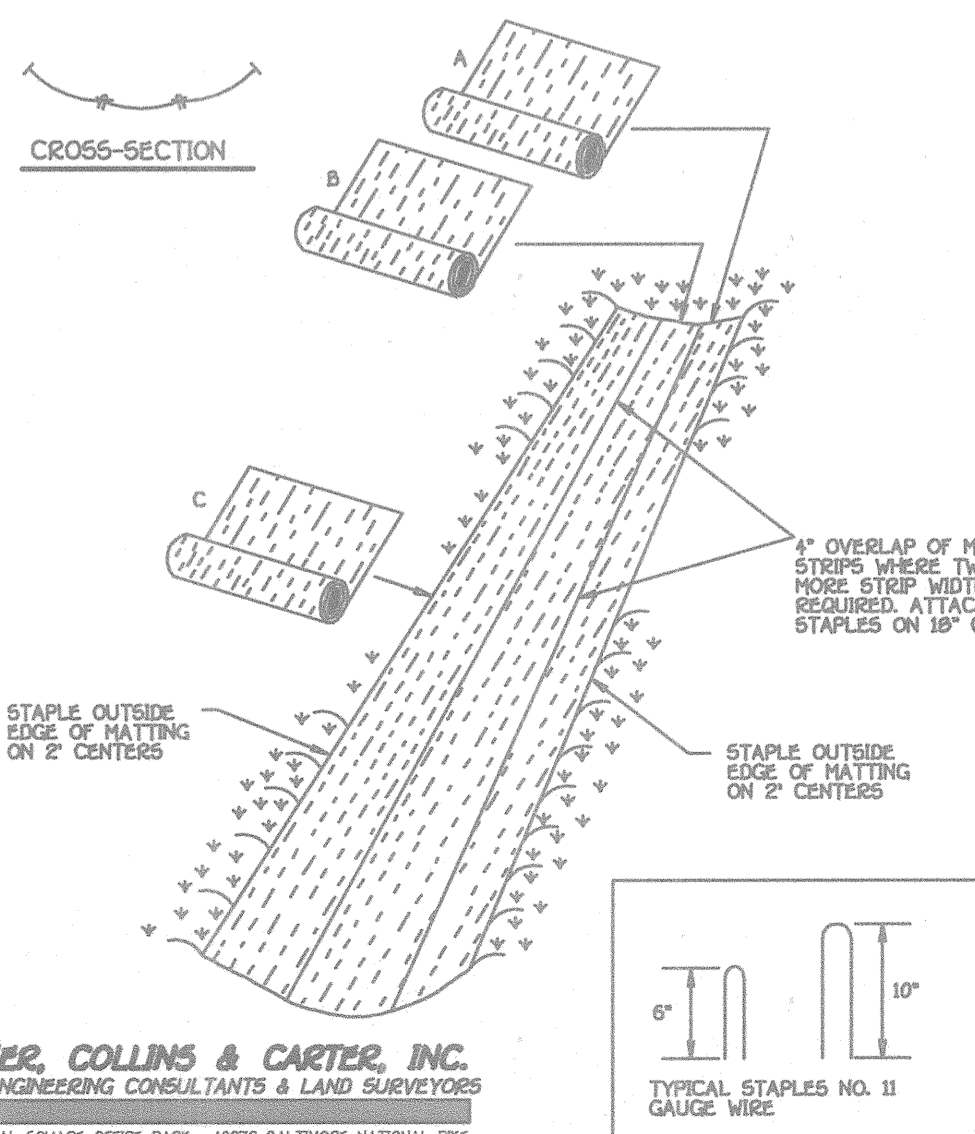
\* - DENOTES DISTANCE FROM CENTERLINE OF ROAD TO FACE OF INLET



**PROFILE**

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

**EROSION CONTROL MATTING**



- Construction Specifications**
- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
  - Staple the 4" overlap in the channel center using an 18" spacing between staples.
  - Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
  - Staples shall be placed 2" apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
  - Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
  - The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be key-in.

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENAL SQUARE OFFICE PARK - 18272 BALTIMORE NATIONAL PIKE  
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410.461.2955

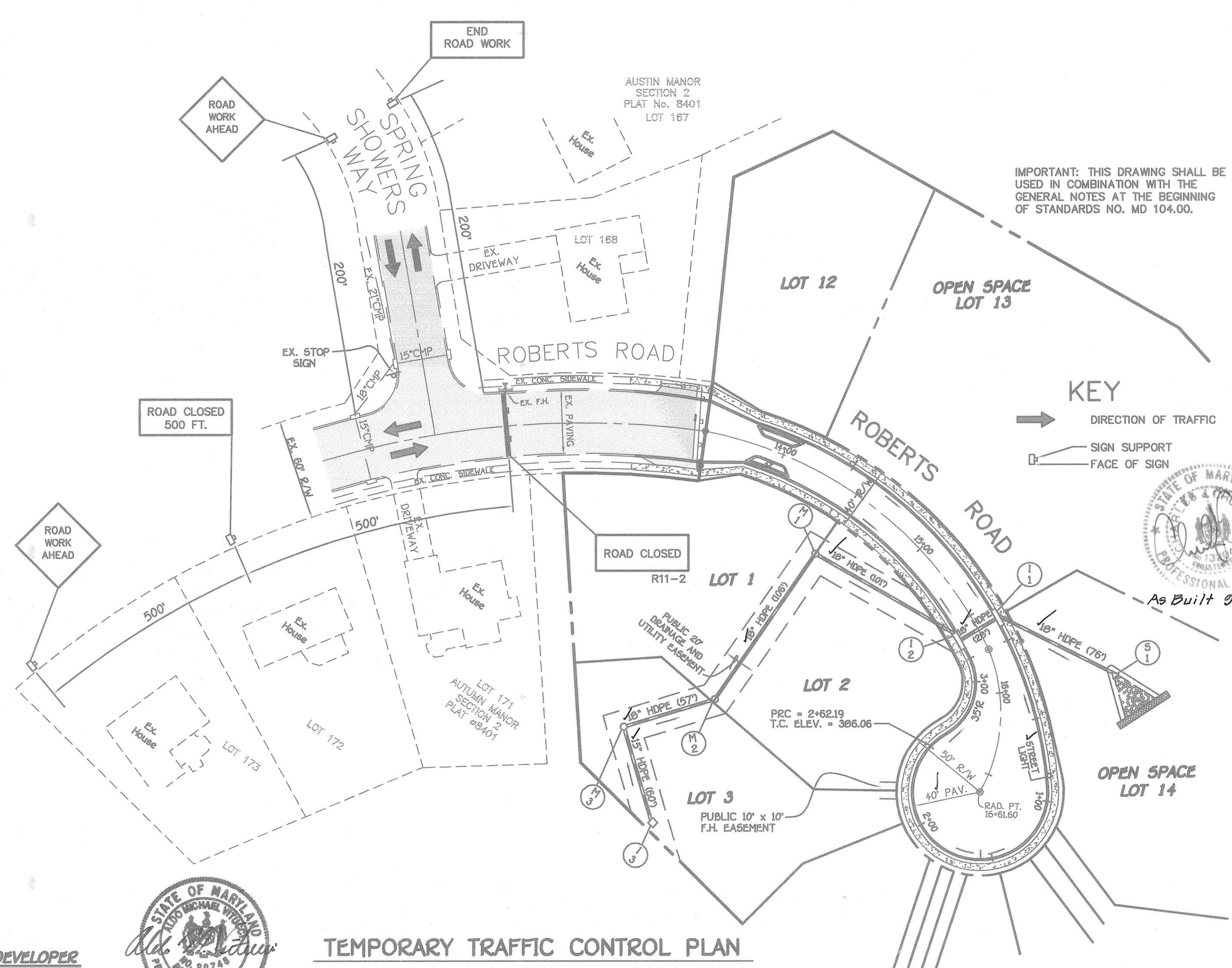
**OWNER**  
Dr. Bruce Taylor, et al  
P.O. Box 395  
Ellicott City, Md. 21041

**DEVELOPER**  
Land Design And Development, Inc.  
800 Main Street  
Ellicott City, Md. 21042



**TEMPORARY TRAFFIC CONTROL PLAN**

NO SCALE



IMPORTANT: THIS DRAWING SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES AT THE BEGINNING OF STANDARDS NO. MD 104.00.

**MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS**

**GENERAL**

- THE PURPOSE OF THIS PORTION OF THE SPECIAL PROVISION IS TO SET FOR THE TRAFFIC CONTROL REQUIREMENTS NECESSARY FOR THE SAFE AND EFFICIENT MAINTENANCE TO TRAFFIC WITHIN WORK AREAS, AND TO MINIMIZE ANY INCONVENIENCES TO THE TRAVELING PUBLIC AND THE CONTRACTOR AND/OR PERMITTEE.
- PROPERTY TRAFFIC CONTROL THROUGH WORK AREAS IS ESSENTIAL FOR INSURING THE SAFETY AND THAT OF HIGHWAY WORKERS HAS THE HIGHEST PRIORITY OF ALL TASKS WITHIN THIS PROJECT. THE PROPERTY APPLICATION OF THE APPROVED TRAFFIC CONTROL PLAN (TCP) WILL PROVIDE THE DESIRED LEVEL OF SAFETY.
- THROUGHOUT THESE SPECIAL PROVISIONS, ANY MENTION OF THE TCP SHALL BE IMPLIED TO INCLUDE ANY COMBINATION OF TYPICAL TRAFFIC CONTROL STANDARDS WHICH FORM THE OVERALL TCP FOR THIS PROJECT WHICH HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER.
- THE CONTRACTOR AND/OR PERMITTEE SHALL BE REQUIRED TO ADHERE TO THE PROVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 1989 EDITION, ESPECIALLY PART VI, AND TO SECTION 814 OF THE MARYLAND DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JANUARY, 1995), INCLUDING ALL REVISIONS AND SUPPLEMENTS TO EACH.
- THE CONTRACTOR AND/OR PERMITTEE SHALL BE REQUIRED TO ADHERE TO THE REQUIREMENTS SET FOR IN THE TCP AND THESE SPECIAL PROVISIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY REQUESTS TO MAKE MINOR CHANGES TO THE TCP OR THE SPECIAL PROVISIONS WITH REGARD TO TRAFFIC CONTROL ITEMS SHALL BE MADE IN WRITING TO THE ENGINEER A MINIMUM OF THREE WORKING DAYS PRIOR TO THE PROPOSED SCHEDULING CHANGE. THE CONTRACTOR AND/OR PERMITTEE SHALL HAVE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO THE IMPLEMENTATION OF ANY CHANGE.
- NO WORK SHALL BEGIN ON ANY WORK ACTIVITY OR WORK PHASE UNTIL ALL REQUIRED TRAFFIC CONTROL PATTERNS AND DEVICES INDICATED ON THE TCP FOR THAT ACTIVITY OR PHASE ARE COMPLETELY AND CORRECTLY IN PLACE TO HAVE BEEN CHECKED FOR APPROVED USAGE.
- GENERAL AND SPECIFIC WARNING SIGNS SHALL ONLY BE IN PLACE WHEN SPECIFIC WORK TASKS AND ACTIVITIES ARE ACTUALLY UNDERWAY OR CONDITIONS EXIST THAT POSE A POTENTIAL HAZARD TO THE PUBLIC, AND ANY ADDITIONAL SIGNING HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER. NOTE: THE PRACTICE OF PLACING SIGNING AND OTHER TRAFFIC CONTROL DEVICES IN ADDITION TO THOSE INDICATED ON THE APPROVED TCP IS NOT PERMITTED.
- THE CONTRACTOR AND/OR PERMITTEE SHALL PROVIDE, MAINTAIN IN NEW CONDITION, AND MOVE WHEN NECESSARY, OR AS DIRECTED BY THE ENGINEER, ALL TRAFFIC CONTROL DEVICES USED FOR THE GUIDANCE AND PROTECTION OF MOTORISTS, PEDESTRIANS, AND WORKERS.
- ALL TRAFFIC CONTROL DEVICES REQUIRED BY THE TCP SHALL BE KEPT IN GOOD CONDITION, FULLY PERFORMING AS SET FORTH IN THE TCP. THE MUTCD AND/OR SECTION 814 OF THE SPECIFICATIONS, FOR REFLECTIVE DEVICES, A PARTICULAR DEVICE IS ASSURED TO HAVE FAILED TO MEET MINIMUM OPERATIONAL STANDARDS WHEN THE DEVICE NO LONGER HAS RETRO-REFLECTANCE CAPABILITY OF AT LEAST 60% OF THE SPECIFIED MINIMUM VALUE OVER AT LEAST ONE OF THE VISIBLE REFLECTIVE SURFACES.
- ALL TRAFFIC CONTROL DEVICES NOT REQUIRED FOR THE CONDUCT OF TRAFFIC SHALL BE PROMPTLY REMOVED, COMPLETELY COVERED, TURNED AWAY FROM TRAFFIC, OR OTHERWISE TAKEN OUT OF SERVICE. IT IS INTENDED THAT NO TRAFFIC CONTROL DEVICE IS TO BE IN SERVICE WHEN THERE IS NO CLEAR CUT REASON FOR THE DEVICE.
- THROUGHOUT THE PERIODS OF WORK ACTIVITIES, TRAFFIC SHALL BE MAINTAINED BY IMPLEMENTING THE APPROVED TCP, IN LIEU OF THE TCP PREPARED FOR THIS PROJECT, AND/OR INDIVIDUAL TYPICAL TRAFFIC CONTROL STANDARDS. THE CONTRACTOR AND/OR PERMITTEE HAS THE OPTION OF PREPARING AND SUBMITTING A TCP, WHOLLY OR IN PART, OF HIS OWN DESIGN, FOLLOWING GUIDELINES SET FORTH IN THE MUTCD AND PRESCRIBED BY THE ADMINISTRATION. A TCP DEVELOPED BY THE CONTRACTOR AND/OR PERMITTEE SHALL NOT BE IMPLEMENTED UNTIL ADVANCED WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. TOPS MAY BE IMPLEMENTED WITHIN A SINGLE PROJECT OR JOINTLY BETWEEN TWO OR MORE PROJECTS. IN SITUATIONS WHERE TOPS JOINTLY IMPLEMENTED CASE SHALL BE EXERCISED TO PRESENT CORRECT AND NON-CONFLICTING GUIDANCE TO THE TRAVELING PUBLIC.
- THROUGHOUT THESE SPECIAL PROVISIONS, WHERE SPEED OF TRAFFIC IS NOTED, THIS MEANS THE POSTED SPEED OR PREVAILING TRAVEL SPEED, WHICHEVER IS HIGHER, UNLESS OTHERWISE NOTED.
- TRAFFIC SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT, UNLESS OTHERWISE NOTED. NO TRAVEL LANE OTHER THAN THOSE DESIGNATED FOR POSSIBLE CLOSURE IN THE TCP SHALL BE CLOSED WITHOUT OBTAINING PRIOR APPROVAL FROM THE ENGINEER. ALL INGRESS AND EGRESS TO THE WORK AREAS BY THE CONTRACTOR AND/OR PERMITTEE SHALL BE PERFORMED WITH THE FLOW OF TRAFFIC.

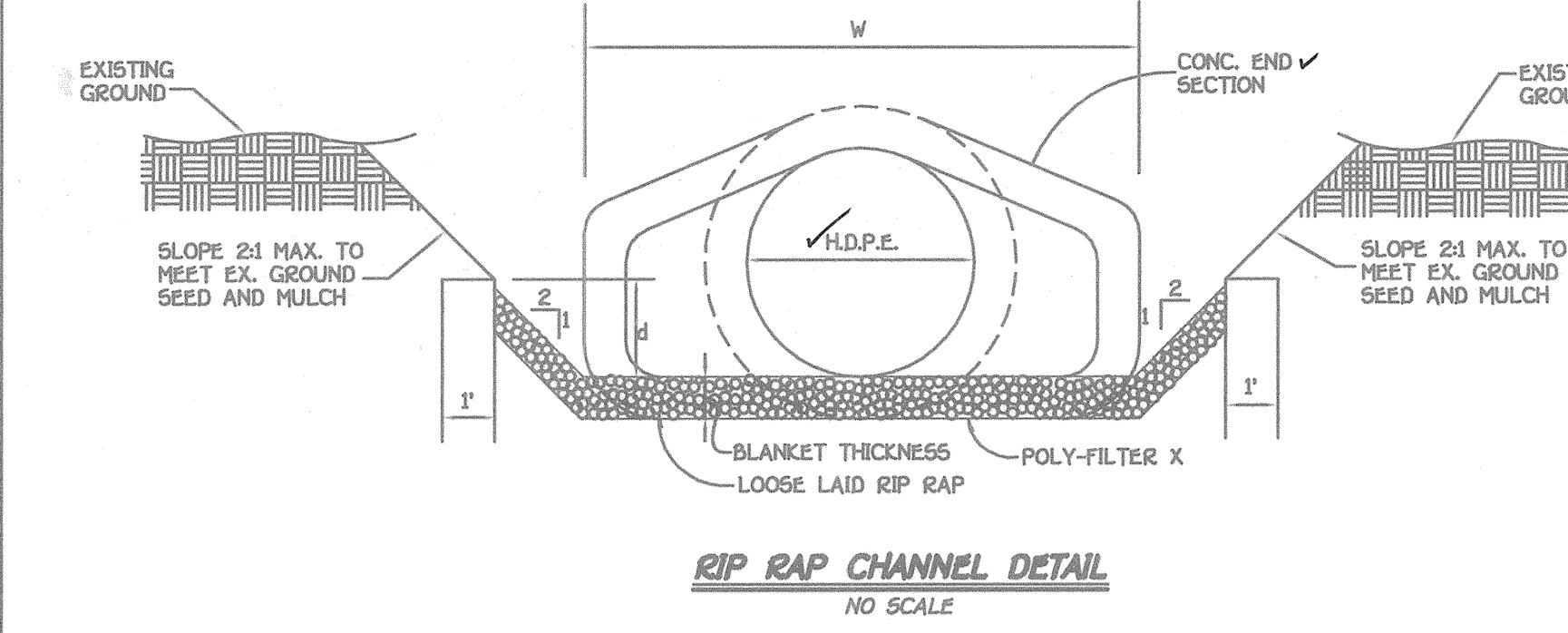
**STORM DRAIN PROFILES SECTION TWO LOTS 1 THRU 14**

ZONING: R-20  
TAX MAP NO. 25, PARCEL NO. 70, GRID NO. 19  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: MARCH 15, 2002  
SHEET 5 OF 10

AS-BUILT 9-1-04 F02-06

**CONSTRUCTION SPECIFICATIONS FOR RIP-RAP OUTFALLS**

- 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.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
- Filter cloth shall be protected from puncturing, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged cloth 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.
- Stones for the riprap or gabion outlets may be placed by equipment. Both shall 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.



**RIP-RAP CHANNEL DESIGN DATA**

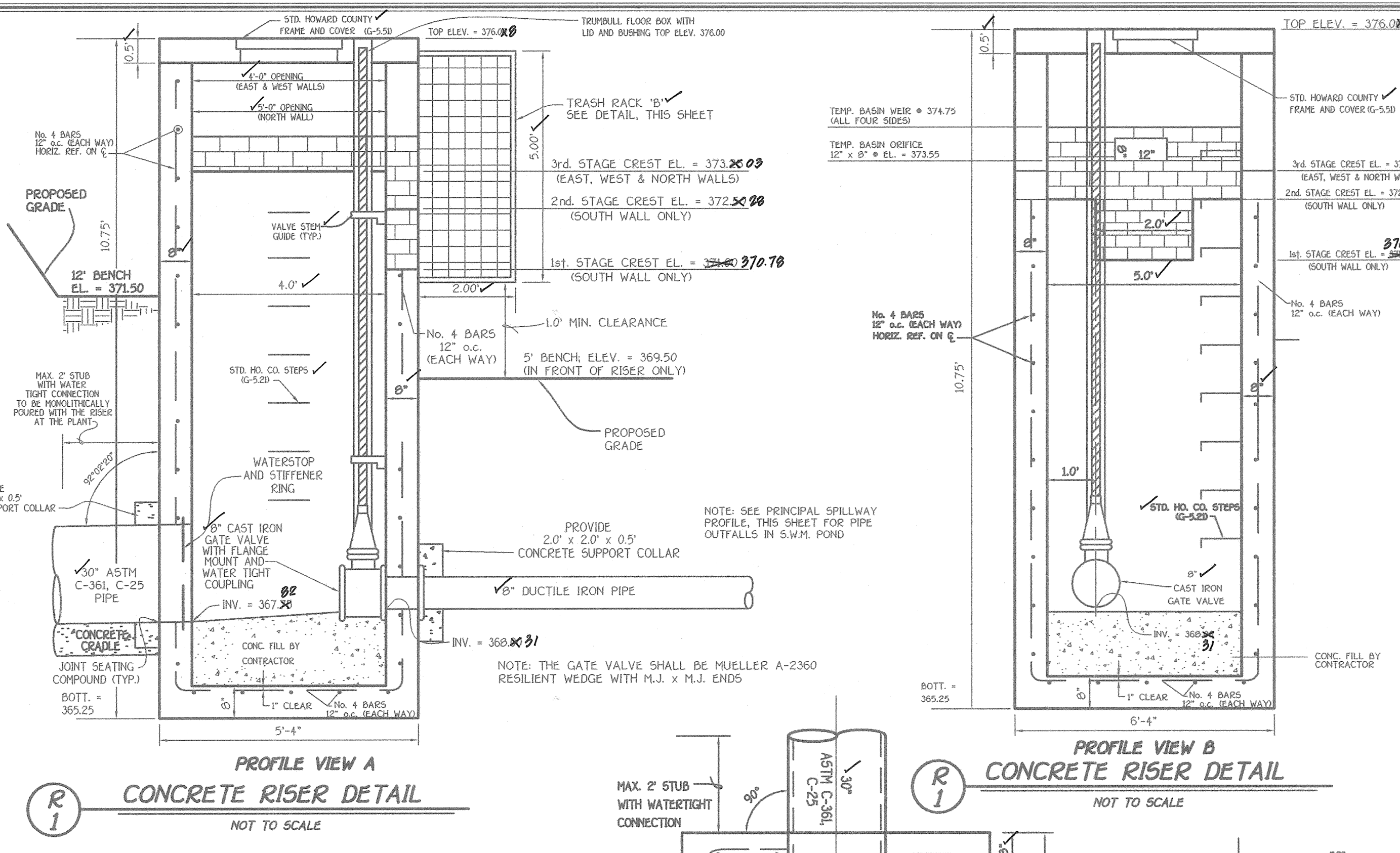
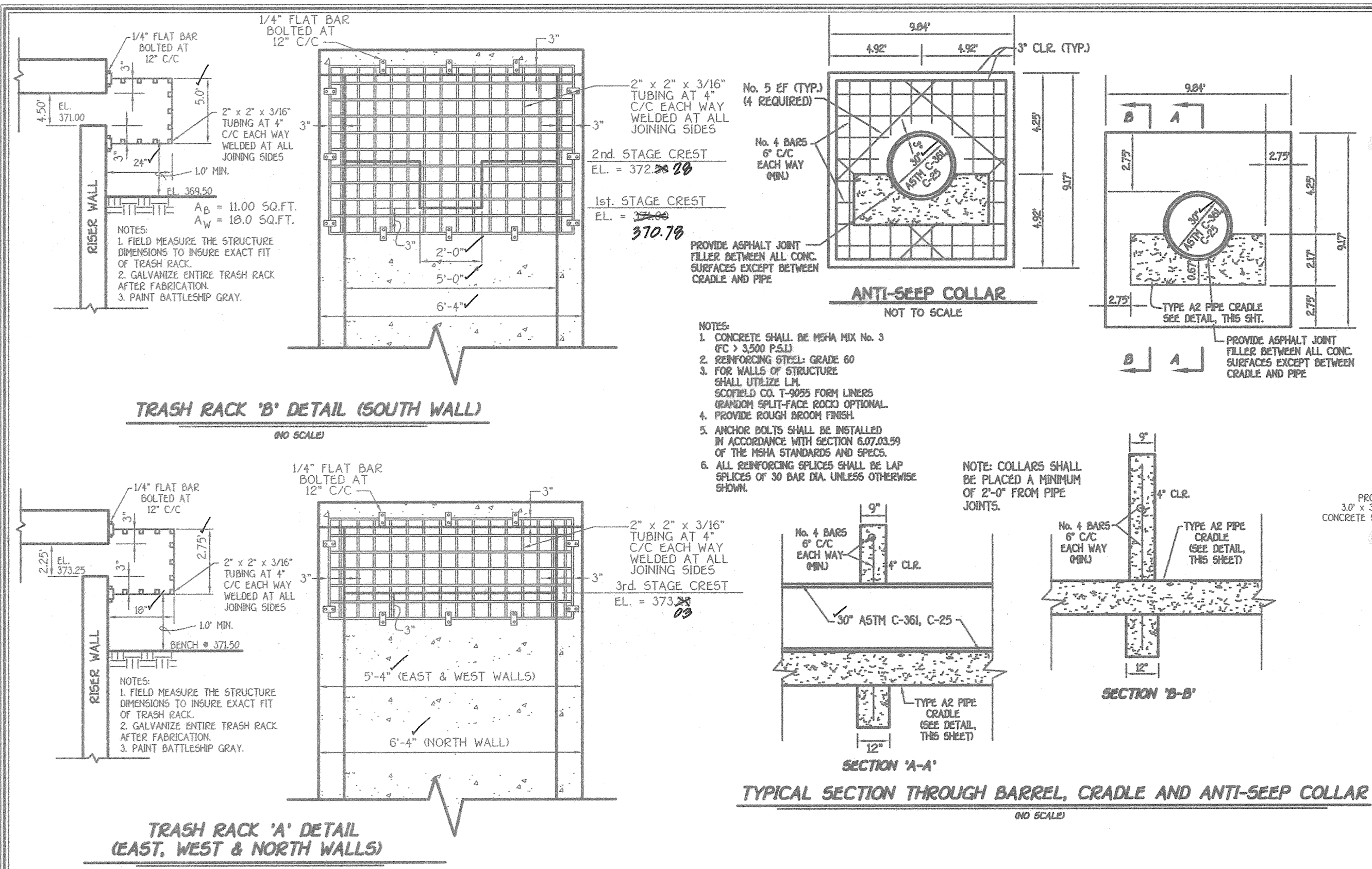
STRUCTURE	AREA	WETTED PERIMETER	R	R 2/3	S	S 1/2	W	d	N	V (f.p.s.)	Q (c.f.s.)	RIP-RAP SIZE D30	D MAX	BLANKET THICKNESS
S-1	7.56	8.96	0.8438	0.8929	0.0050	0.0707	3.0'	1.33'	0.04	2.34	17.72	9.5"	15"	19"

**PIPE SCHEDULE**

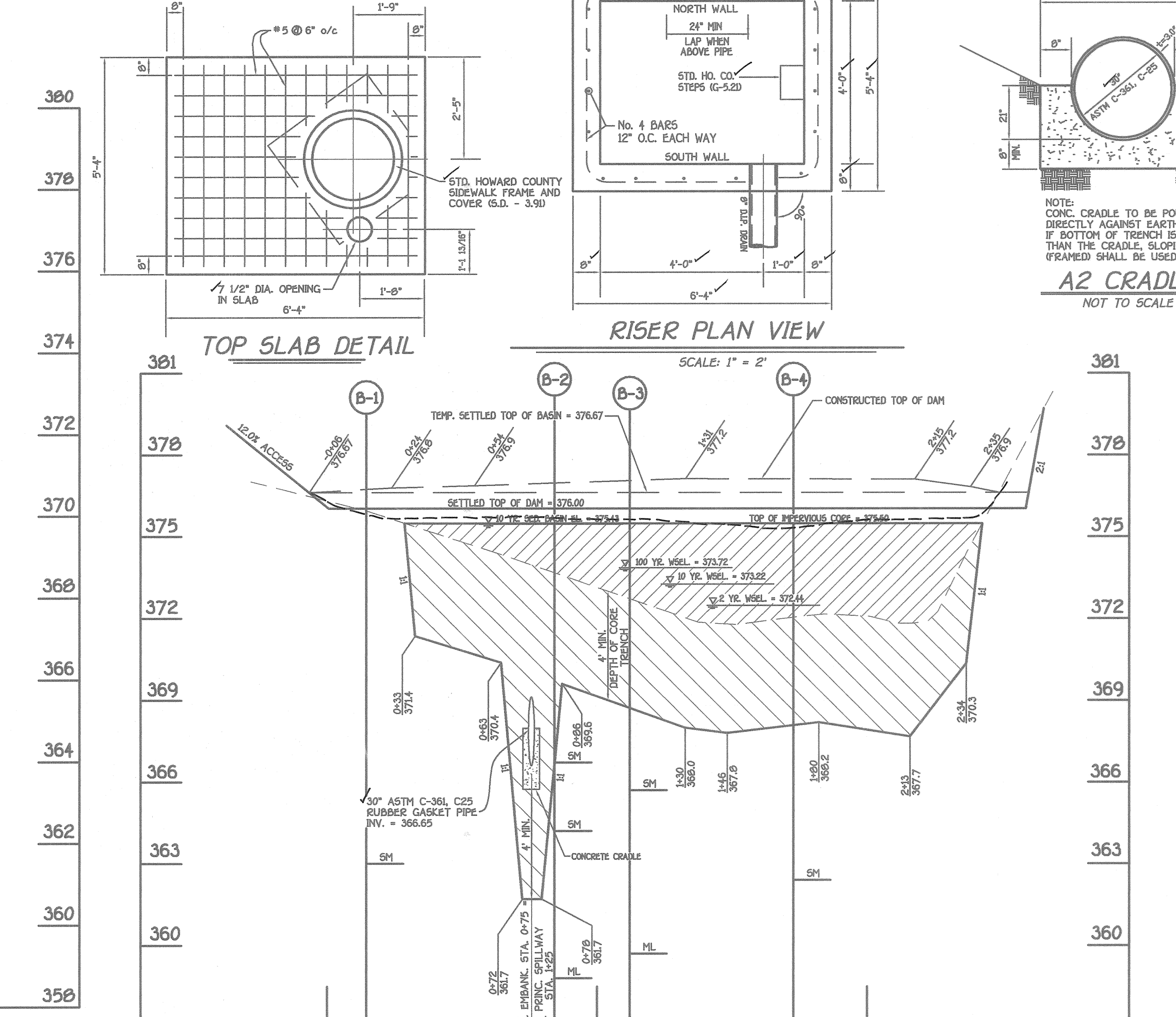
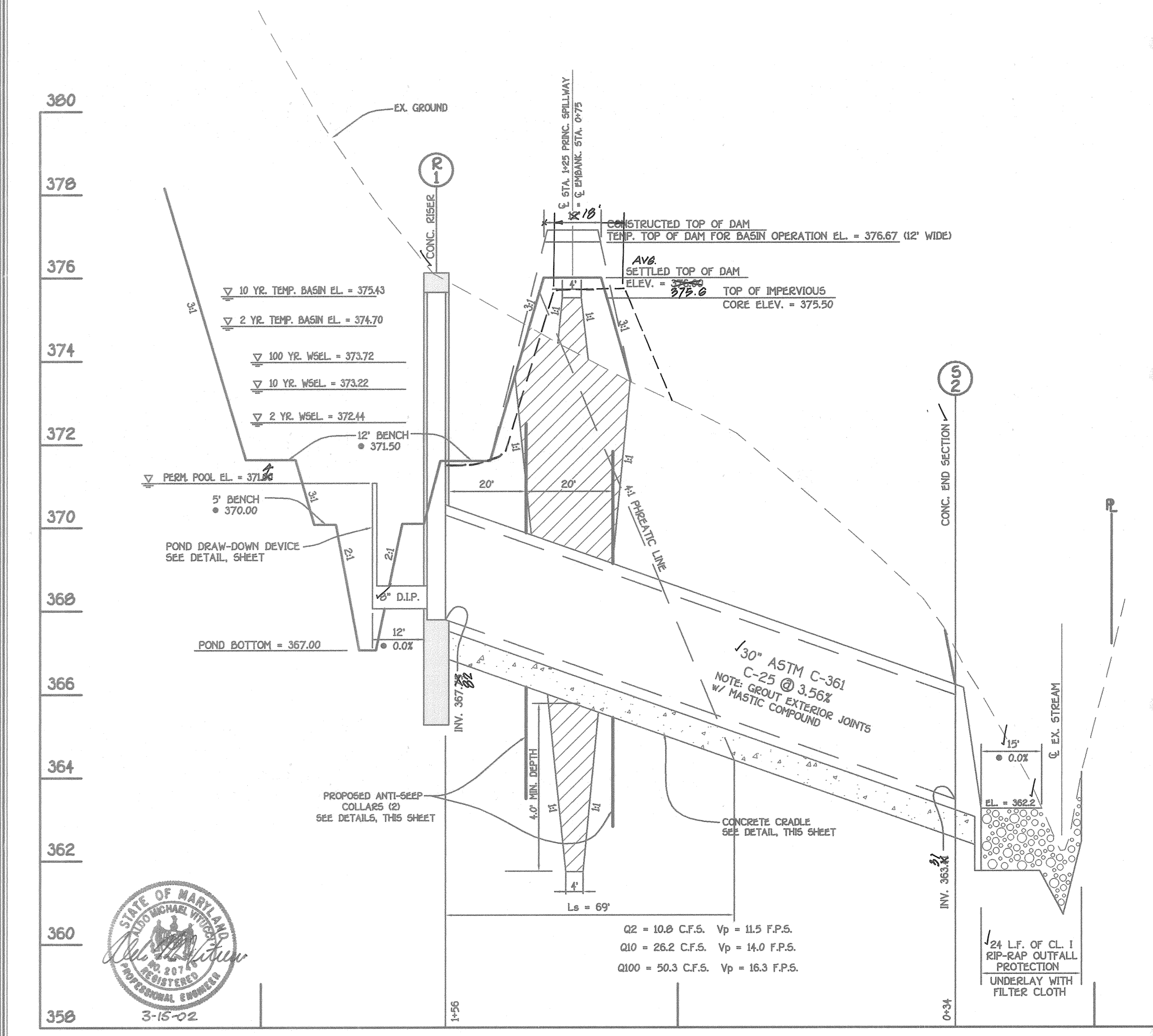
SIZE	MATERIAL	LENGTH
15"	HDPE	60'
18"	HDPE	360'

Approved: Department Of Planning And Zoning  
*Cindy Hamlin* 4/9/02  
Chief, Division Of Land Development Date  
*John Damman* 4/8/02  
Chief, Development Engineering Division Date  
Approved: Howard County Department Of Public Works  
*Howard's Sign* 4/4/02  
Chief Bureau Of Highways Date





By the Developer:  
 I/We Certify That All Development And/or Construction Will Be Done According To These Plans, 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 Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District.  
 Bruce Taylor, Manager  
 Signature of Developer: *Bruce Taylor* Date: 3-15-02  
 Printed Name of Developer: Bruce Taylor, Manager  
 By the Engineer:  
 I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Viable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Agency That No/She Must Engage A Registered Professional Engineer To Supervise Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion.  
 Signature of Engineer: *John J. ...* Date: 3-15-02  
 Printed Name of Engineer: John J. ...  
 These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.  
 Signature of Engineer: *John J. ...* Date: 4/1/02  
 USDO Natural Resources Conservation Service  
 These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.  
 Signature of Engineer: *John J. ...* Date: 4/1/02  
 Approved Department Of Public Works  
 Chief, Bureau Of Highways  
 Signature of Engineer: *John J. ...* Date: 4/9/02  
 Approved Department Of Planning And Zoning  
 Chief, Division Of Land Development  
 Signature of Engineer: *John J. ...* Date: 4/8/02  
 Chief, Development Engineering Division



AS-BUILT CERTIFICATION  
 I Herby Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As-Built" Plans And Meets The Approved Plans And Specifications.  
 Signature: *John J. ...* Date: 10-24-04  
 Signature: *John J. ...* Date: 11-14-04  
 Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not Mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Release Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.  
 STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 As Built 9-1-04  
 BACKFILL W/IMPERVIOUS MATERIAL CL OR SCL. COMPACT TO ASSURE 95% DENSITY.  
 CORE TRENCH DETAIL  
 NOTE: CORE SHALL BE KEPT PLUMPED DRY DURING CONSTRUCTION.  
 NOT TO SCALE

**STORMWATER MANAGEMENT POND MAINTENANCE SCHEDULE**  
 A. ROUTINE MAINTENANCE  
 Facility Shall Be Inspected Annually And After Major Storms. Inspections Should Be Performed During Wet Weather To Determine If The Pond Is Functioning Properly.  
 Top And Side Slopes Of The Embankment Shall Be Mowed A Minimum Of Two (2) Times A Year, Once In June And Once In September. Other Side Slopes, The Bottom Of The Pond, And Maintenance Access Should Be Mowed As Needed.  
 Debris And Litter Next To The Outlet Structure Shall Be Removed During Regular Mowing Operations And As Needed.  
 Visible Signs Of Erosion In The Pond As Well As Rip-Rap Outlet Area Shall Be Repaired As Soon As It Is Noticed.  
 B. NON-ROUTINE MAINTENANCE  
 Structural Components Of The Pond Such As The Dam, Riser Structure And The Pipes Shall Be Repaired Upon The Detection Of Any Damage. The Components Should Be Inspected During Routine Maintenance Operations.  
 Sediment Should Be Removed When Its Accumulation Significantly Reduces The Design Storage, Interfere With The Function Of The Riser, When Deemed Necessary For Aesthetic Reasons, Or When Deemed Necessary By The Howard County Department Of Public Works.

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10372 BALTIMORE NATIONAL PIKE  
 CLIKKOTT CITY, MARYLAND 21042  
 4100 461 - 2955

S.W.M. FACILITY  
 PRINCIPAL SPILLWAY PROFILE  
 SCALE: HORIZ. 1" = 20'  
 VERT. 1" = 2'

OWNER  
 Dr. Bruce Taylor, et al  
 P.O. Box 396  
 Ellicott City, Md. 21041

DEVELOPER  
 Land Design And Development, Inc.  
 8000 Main Street  
 Ellicott City, Md. 21042

S.W.M. FACILITY PROFILE ALONG EMBANKMENT  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 3'

STONE MANOR  
 SECTION 2  
 LOTS 1 THRU 14  
 ZONED: R-20  
 TAX MAP NO. 25, PARCEL NO. 70, GRID NO. 19  
 SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 DATE: MARCH 15, 2002  
 SHEET 7 OF 10  
 F 02-06

AS-BUILT 9-1-04 F02-06





Approved Department of Public Works  
 Chief, Bureau of Highways *[Signature]* 4/14/02  
 Date

Approved Department of Planning and Zoning  
 Chief, Division of Land Development *[Signature]* 4/9/02  
 Chief, Development Engineering Division *[Signature]* 4/8/02  
 Date



N 578000  
 E 1369250

N 578000  
 E 1369250

N 577250  
 E 1369250

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

**EXPLORATION RESEARCH, INC.**  
 ENVIRONMENTAL CONSULTANTS  
 LANDSCAPE ARCHITECTS  
 5331 FORREST STREET  
 ELLICOTT CITY, MARYLAND 21043  
 TEL: (410) 750-1150 FAX: (410) 750-7350

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 P.O. Box 396  
 Ellicott City, Md. 21041

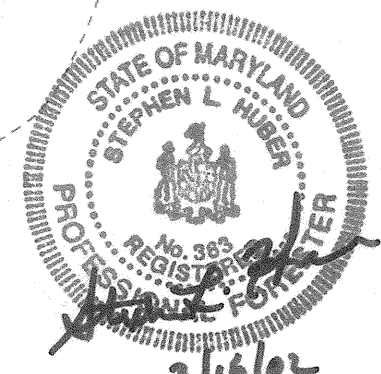
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As Built 9-1-04

**LEGEND**

- Denotes 15% to 24.9% Slopes
- Denotes Slopes Greater Than 25%
- Denotes Limit of Disturbance
- Denotes Tree Protection Fence
- Denotes Forest Conservation Easement Sign
- Denotes Specimen Tree Sign (to be removed after all construction is completed)
- Denotes Forest Conservation Easement



**FOREST CONSERVATION PLAN**  
**STONE MANOR**  
 SECTION TWO  
 LOTS 1 THRU 14

ZONING: R-20  
 TAX MAP NO. 25, PARCEL NO. 70, GRID NO. 19  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: JANUARY 2, 2002  
 SHEET 9 OF 10

F 02-06

AS-BUILT 9-1-04 F 02-06

**FOREST CONSERVATION WORKSHEET  
VERSION 1.0**

NET TRACT AREA:

A. TOTAL TRACT AREA....."	9.80
B. AREA WITHIN 100 YEAR FLOODPLAIN....."	0.09
C. AREA TO REMAIN IN AGRICULTURAL PRODUCTION....."	0.0
D. NET TRACT AREA....."	9.71

LAND USE CATEGORY: (from table 3.2.1., page 40, manual)

INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY.

ARA	MOR	IDA	ARA	MPD	CIA
0	0	0	0	0	0

E. AFFORESTATION THRESHOLD..... 15% x D = 1.46

F. CONSERVATION THRESHOLD..... 20% x D = 1.94

EXISTING FOREST COVER:

G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN)....."	9.05
H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD....."	7.59
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD....."	7.11

BREAK EVEN POINT:

J. FOREST RETENTION ABOVE THRESHOLD WITH NO MITIGATION....."	3.36
K. CLEARING PERMITTED WITHOUT MITIGATION....."	5.69

PROPOSED FOREST CLEARING:

L. TOTAL AREA OF FOREST TO BE CLEARED....."	5.51
M. TOTAL AREA OF FOREST TO BE RETAINED....."	3.54

PLANTING REQUIREMENTS:

N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD....."	1.22
P. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD....."	0.00
Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD....."	1.60
R. TOTAL REFORESTATION REQUIRED....."	0.00
S. TOTAL AFFORESTATION REQUIRED....."	0.00
T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED....."	0.00

**FOREST CONSERVATION EASEMENT TABLE**

EASEMENT NO. 1	0.89 AC.
EASEMENT NO. 2	0.57 AC.
EASEMENT NO. 3	2.08 AC.
TOTAL	3.54 AC.

**FOREST CONSERVATION NARRATIVE**

THIS FOREST CONSERVATION PLAN HAS BEEN DEVELOPED IN ACCORDANCE WITH THE HOWARD COUNTY FOREST CONSERVATION MANUAL AND THE FOREST CONSERVATION ACT OF 1991.

THE SITE CONSISTS OF 9.80 AC. OF LAND, OF WHICH 9.05 AC. ARE FORESTED. A 0.09 AC. AREA OF FLOODPLAIN WAS TAKEN OUT TO BRING THE NET TRACT AREA TO 9.71 AC. AN AREA OF 5.24 AC. OF FOREST WILL BE REMOVED LEAVING 3.81 AC. WHICH IS ABOVE THE BREAK EVEN POINT, SO NO MITIGATION WILL BE REQUIRED. THE 3.81 ACRES OF RETENTION WILL BE PLACED INTO THREE EASEMENTS. THESE EASEMENTS ARE LOCATED IN THE STEEPEST 0.25X SLOPE PARTS OF THE SITE, AS WELL AS IN THE STREAM BUFFER.

**FOREST TREE PROTECTION AND MANAGEMENT NOTES**

- TREE PROTECTION DEVICES SHALL BE INSTALLED PRIOR TO ANY GRADING OR LAND CLEARING.
- AFTER THE BOUNDARIES OF THE RETENTION AREAS HAVE BEEN STAKED AND FLAGGED AND BEFORE ANY DISTURBANCE HAS TAKEN PLACE, A PRE-CONSTRUCTION MEETING WITH THE HOWARD COUNTY INSPECTOR IS REQUIRED.
- NO GRADING, STORAGE OF EQUIPMENT, STAGING OR DUMPING IS PERMITTED WITHIN FOREST CONSERVATION EASEMENT AREAS.
- PROVIDE MAINTENANCE TO TREE PROTECTION DEVICES AND SIGNAGE TO MAINTAIN THEIR INTEGRITY THROUGHOUT THE DURATION OF THE PROJECT.
- ATTACHMENT OF SIGNS OR ANY OTHER OBJECTS TO TREES IS PROHIBITED.
- ROOT PRUNING WILL BE PERFORMED WITH ROTARY DITCHING EQUIPMENT OR VIBRATORY KNIFE AS CONDITIONS WARRANT.
- ANY SIGNIFICANT CHANGES MADE TO THE FOREST CONSERVATION PLAN SHALL BE MADE WITH THE PRIOR CONSENT OF THE HOWARD COUNTY INSPECTOR.
- NO BURIAL OF DISCARDED MATERIAL IS PERMITTED WITHIN FOREST CONSERVATION AND PLANTING AREAS.
- NO OPEN BURNING WITHIN 100 FEET OF WOODED AREAS IS PERMITTED.
- POST CONSTRUCTION PHASE:
  - INSPECT EXISTING TREES AROUND PERIMETER OF SITE FOR SIGNS OF ROOT OR TRUNK DAMAGE AND EXCESSIVE SOIL COMPACTION.
  - REMOVE DEAD OR DYING TREES AND EVALUATE FOR HAZARD TREE REMOVAL.
  - ALL TEMPORARY FOREST PROTECTION DEVICES WILL BE REMOVED AFTER CONSTRUCTION.
  - FOLLOWING COMPLETION OF CONSTRUCTION, PRIOR TO USE, THE COUNTY INSPECTOR SHALL INSPECT THE ENTIRE SITE FOR COMPLIANCE WITH THIS FOREST CONSERVATION PLAN.

\* A LICENSED ARBORIST OR FORESTER SHOULD BE RETAINED FOR THIS SERVICE AS NEEDED.



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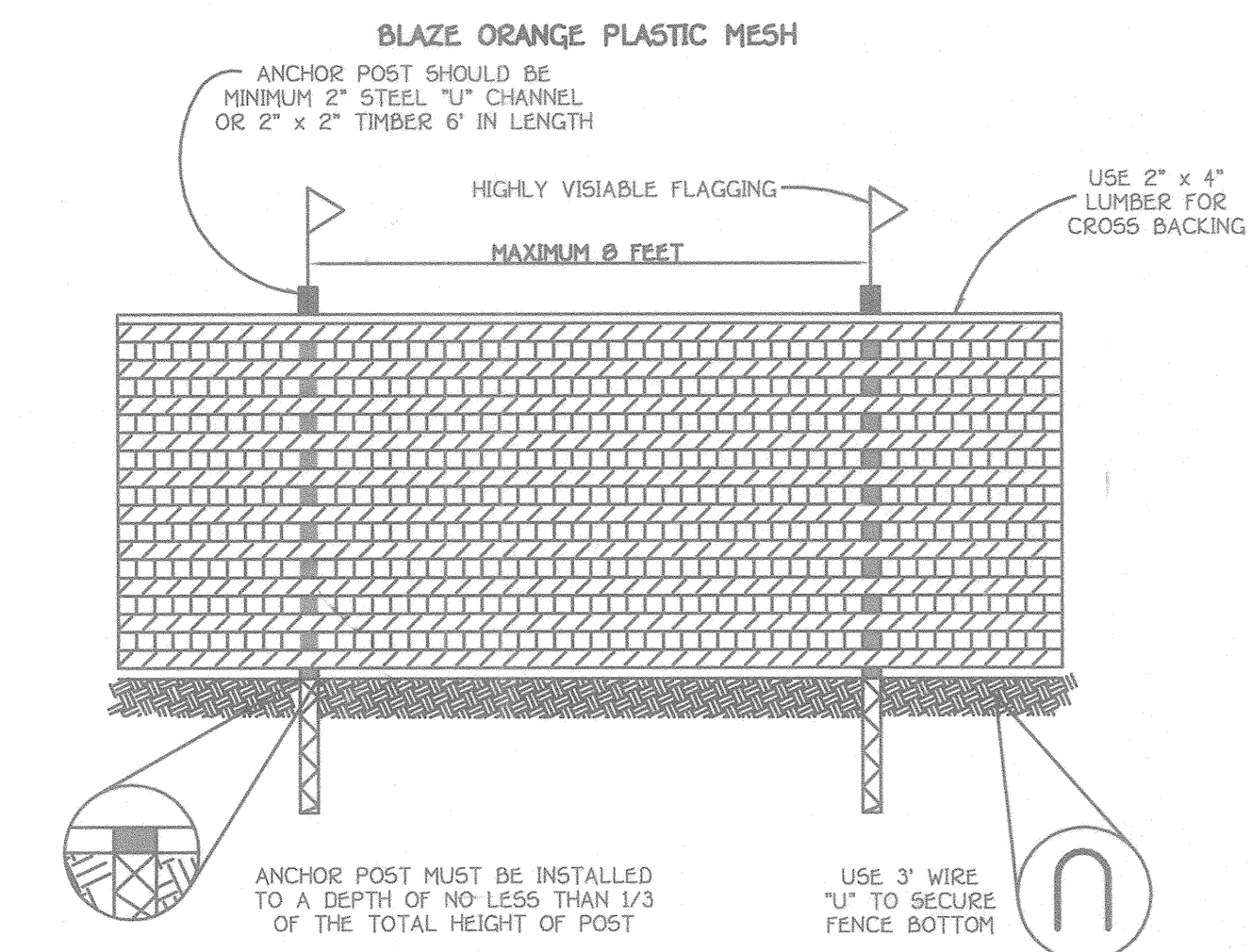
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410 451 - 2955



Approved: Department Of Planning And Zoning  
Cindy Hamel 4/9/02  
Chief, Division Of Land Development Date

Approved: Howard County Department Of Public Works  
4/9/02  
Chief, Development Engineering Division Date

Approved: Howard County Department Of Public Works  
4/9/02  
Chief, Bureau Of Highways Date



- NOTES:
- FOREST PROTECTION DEVICE ONLY.
  - RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
  - BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
  - ROOT DAMAGE SHOULD BE AVOIDED.
  - PROTECTIVE SIGNAGE MAY ALSO BE USED.
  - DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

**TREE PROTECTION DETAIL**  
NOT TO SCALE



FOREST CONSERVATION DETAIL SHEET  
**STONE MANOR**  
SECTION TWO  
LOTS 1 THRU 14  
ZONING: R-20  
TAX MAP NO. 25, PARCEL NO. 70, GRID NO. 19  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: JANUARY 2, 2002  
SHEET 10 OF 10

**OWNER**  
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P.O. Box 395  
Elicott City, Md. 21041

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Land Design And Development, Inc.  
9000 Main Street  
Elicott City, Md. 21042