

SHEET NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	SITE DEVELOPMENT PLAN
3	DRAINAGE AREA MAP
4	STORM DRAINAGE PROFILES
5	SEDIMENT CONTROL PLAN
6	SECURITY CONTROL PLAN
7	RAILROAD PROFILE
8	STANDARD DETAILS
9	SWM DETAILS

COMBINED PARKING TABULATION: SDP-74-21C & SDP-05-105

BUILDING #1

1) DOG BOARDING/TRAINING (THE COVENTRY SCHOOL)	18,118 SF	1) DOG DAYCARE (2 EMPLOYEES + 8 CUSTOMERS)	1 SPACE PER EMPLOYEE/CUSTOMER = 20 SPACES (MAX)
2) THE SHEDDING/TACKLE (CAMP BOON W/WH)	6,707 SF	1) DOG TRAINING (6 EMPLOYEES + 24 CUSTOMERS)	1 SPACE PER EMPLOYEE/CUSTOMER = 30 SPACES (MAX)
3) VACANT	3,707 SF	2) BUILDINGS	1 SPACE PER 2 BUILDINGS = 1 SPACE

BUILDING #2

1) FITNESS TRAINING	8,716 SF	2) FITNESS TRAINING	= 20 SPACES**
2) TRAMPOLINE GYM	7,926 SF	3) TRAMPOLINE GYM	= 25 SPACES**
3) BASEBALL TRAINING	5,790 SF	4) BASEBALL TRAINING	= 13 SPACES**

NOTE: ** PARKING ESTABLISHED BY PARKING NEEDS LETTERS PROVIDED BY TENANTS.

PLANNING BOARD APPROVAL NOTE:
 THE PB ON 7/17/14 APPROVED REDLINE REVISIONS TO RESTRIPE EXISTING PARKING LOT AND TO ADD NEW SPACES TO CREATE 50 PARKING SPACES IN FRONT OF BUILDING NO. 1.

BUILDING #3 (REFER TO SDP-05-105)

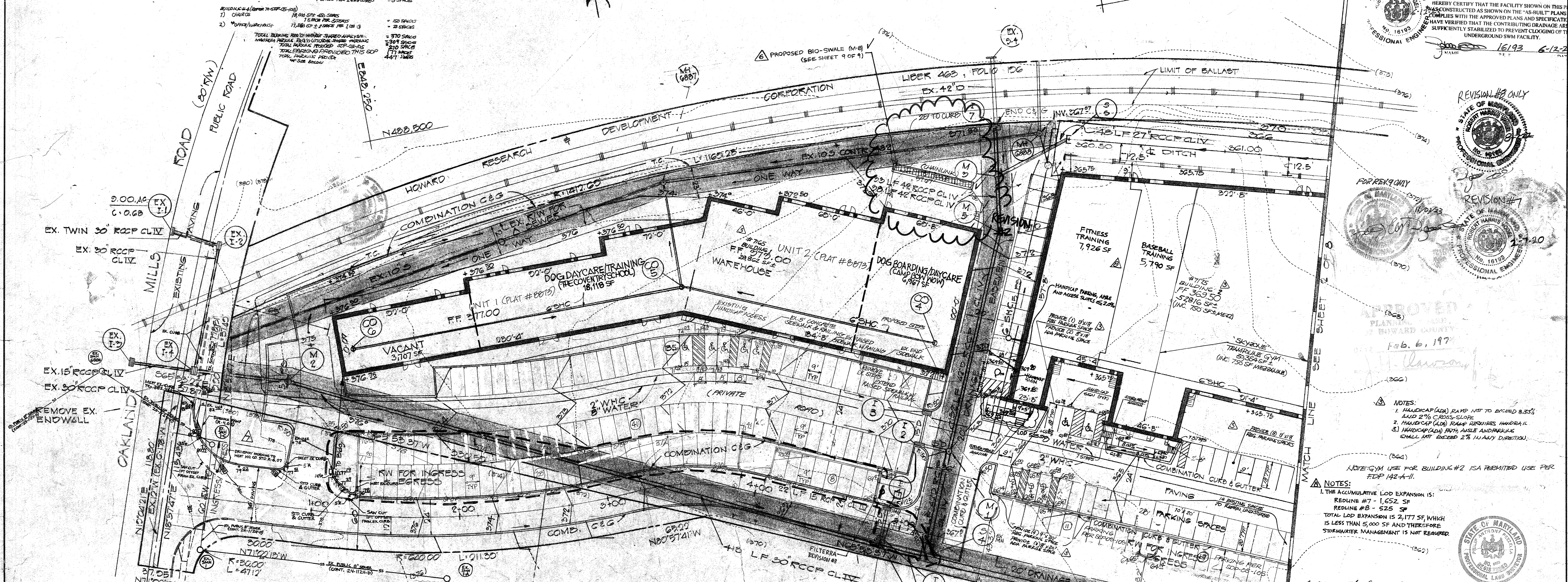
1) CHURCH	11,350 SF	2) CHURCH	1 SPACE PER 100 SF = 11 SPACES
2) CHURCH	13,948 SF	3) CHURCH	1 SPACE PER 100 SF = 14 SPACES
3) CHURCH	6,150 SF	4) CHURCH	1 SPACE PER 100 SF = 6 SPACES

TOTAL BUILDING ROAD-WIDTH SHARED ANALYSIS:
 MAXIMUM PERMITTED UTILITY SHARED PARKING SPACES: 370 SPACES
 TOTAL PARKING PROVIDED: 309 SPACES
 TOTAL PARKING PROVIDED THIS SDP: 171 SPACES
 TOTAL PARKING PROVIDED: 447 SPACES

E.G.U.
 SECTION 2, AREA 5
 PD. 23, F. 15

NO.	REVISION	DATE
1	REVISE THE PLAN TO CHANGE THE USE FOR PART OF THE EXISTING BUILDING TO REFLECT THE CURRENT TENANTS IN BUILDING #2	7-25-22

- 7 REDLINE #7 NOTE:**
1. LC RAMP NOT TO EXCEED 8.33%.
 2. LOD FOR ENTRANCE WIDENING IS 1,652 SF. IMPERVIOUS INCREASE OF 673 SF SWM NOT REQUIRED.
 3. PRIOR TO CONSTRUCTION OF THE ENTRANCE WIDENING, CONTACT DPW/BUREAU OF HIGHWAYS/TRAFFIC ENGINEERING TO DETERMINE IF AN MOT ON OAKLAND MILLS ROAD IS REQUIRED.



APPROVED FOR PUBLIC WATER AND PUBLIC BEVERAGE SYSTEMS:
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: *[Signature]* 6/4/24
 DATE: 6/4/24

APPROVED FOR PLANNING & ZONING:
 HOWARD COUNTY OFFICE OF PLANNING & ZONING
 PLANNING DIRECTOR: *[Signature]* 6-5-24
 DATE: 6/4/24

APPROVED FOR PUBLIC WATER, PUBLIC BEVERAGE AND STORM DRAINAGE SYSTEMS AND ROADS:
 DIRECTOR: *[Signature]* 5/24/24
 DATE: 5/24/24

CHIEF, BUREAU OF HIGHWAYS: *[Signature]* 5/24/24
 DATE: 5/24/24

NOTE: BLDG. WALL OPENING IN WALL FOR DOORWAY LOADING DOCK ENTRANCES DOORWAY ENTRANCES

FOR REVISION #4

ROBERT H. VOGEL
 PE NO 16193

SHARED PARKING TABULATION

USE	6-4-74M	7-14-00	0-1-00	0-1-00	0-1-00
DOG DAYCARE	20	0	0	0	0
PERCENTAGE OF MAXIMUM	100%	0%	0%	0%	0%
DOG TRAINING	2	30	30	30	0
PERCENTAGE OF MAXIMUM	0%	100%	100%	100%	0%
DOG BOARDING	27	27	27	27	27
PERCENTAGE OF MAXIMUM	100%	100%	100%	100%	100%
VACANT	1 (100%)	1 (100%)	1 (100%)	1 (100%)	1 (100%)

NOTE: CHURCH ACTIVITY INCLUDED UNDER CHURCH

USE	6-4-74M	7-14-00	0-1-00	0-1-00	0-1-00
CHURCH ACTIVITY	0	0	0	0	0
PERCENTAGE OF MAXIMUM	0%	0%	0%	0%	0%
OFFICE	40	4	4	4	4
PERCENTAGE OF MAXIMUM	100%	10%	10%	10%	10%
INDUSTRIAL	5	1	1	1	1
PERCENTAGE OF MAXIMUM	100%	20%	20%	20%	20%

TOTAL SHARED PARKING: 222 189 208 309 228

THOMAS L. COLLINS
 138/460

FOR REVISION 1 & 2 ONLY

ROBERT H. VOGEL PE NO 16193

STATE OF MARYLAND PROFESSIONAL ENGINEER

OWNER/DEVELOPER
 STANWOOD BUSINESS CENTER
 GULFORD PARTNERS GP
 301-546-0222

OWNER/DEVELOPER
 GULFORD PARTNERS GP
 301-546-0222

NO.	REVISION	DATE
1	REVISE THE PLAN TO WIDEN THE DRIVEWAY TO MEET H&O STD. DETAIL R-4 USE AND ADD HANDICAP RAMP	2/7/20
2	REVISE THE PLAN TO SHOW A M-B BIO-SWALE TO TREAT RUNOFF FROM AN OUTDOOR DOG YARD	10/28/19
3	REVISE PLAN TO REFLECT CHANGE IN USE FOR BUILDING #1	12/07/16
4	ADD PARKING IN FRONT OF BUILDING 1 AND 2 AND ASSOCIATED SWM	4/30/15

NOTE: 1) FOR VICINITY MAP SEE SHEET 2 & 3
 2) FOR GENERAL NOTES SEE SHEET 3 & 4 & 5

TITLE: (REVISED) SITE PLAN
 PROJECT: E.G.U. SUBDIVISION SECTION 2, AREA 6 PARCEL A
 LOCATION: 6TH ELECTION DISTRICT, HOWARD CO, MARYLAND
 DATE: 8/1/23 DES. BY: T.S. DRAWN BY: T.P.D. CHKD BY:
 SCALE: 1"=20' JOB NO.: 7575 DRWG. NO.: 1 of 10

ENGINEERING PLANNING SURVEYING BY: **BOENDER ASSOCIATES INC.**
 ELLICOTT CITY, MD 21043
 301-465-7777

AS-BUILT CERTIFICATION FOR SWM
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

STATE OF MARYLAND PROFESSIONAL ENGINEER
 PHILIP A. PEZZELLA
 16193 6-12-23

REVISION #8 ONLY
 STATE OF MARYLAND PROFESSIONAL ENGINEER
 PHILIP A. PEZZELLA
 16193 6-12-23

REVISION #7
 STATE OF MARYLAND PROFESSIONAL ENGINEER
 PHILIP A. PEZZELLA
 16193 6-12-23

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Feb. 6, 1977

NOTE: 1. HANDICAP (ADA) RAMP NOT TO EXCEED 8.33% AND 2% CROSS-SLOPE
 2. HANDICAP (ADA) RAMP REQUIRES HANDRAIL
 3. HANDICAP (ADA) PATH ASLE AND PARKING SHALL NOT EXCEED 2% IN ANY DIRECTION.

NOTE: GYM USE FOR BUILDING #2 IS A PERMITTED USE PER FDP 142-A-11.

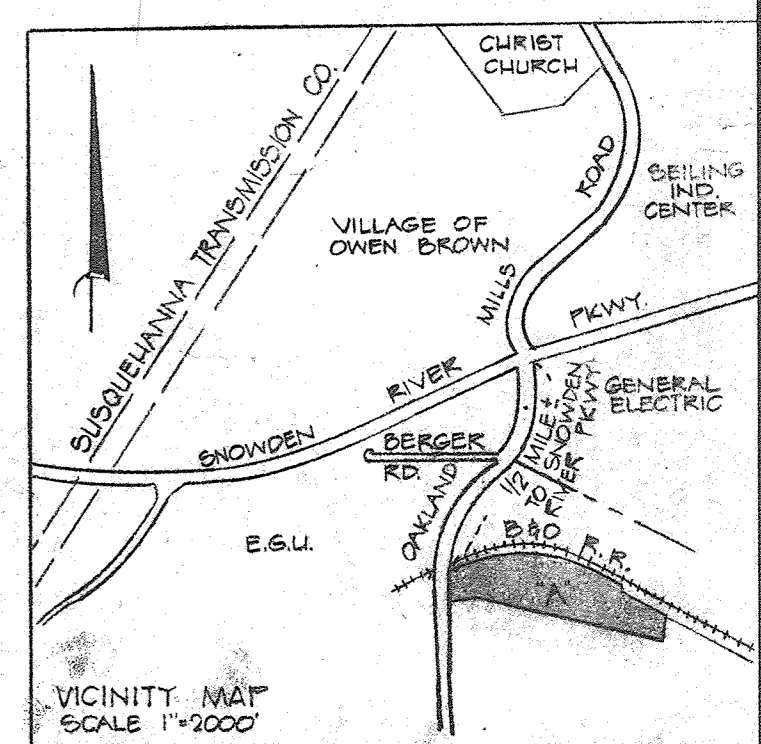
NOTE: 1. THE ACCUMULATIVE LOD EXPANSION IS:
 REDLINE #7 - 1,652 SF
 REDLINE #8 - 525 SF
 TOTAL LOD EXPANSION IS 2,177 SF, WHICH IS LESS THAN 5,000 SF AND THEREFORE STORMWATER MANAGEMENT IS NOT REQUIRED.

PHILIP A. PEZZELLA
 16193

STATE OF MARYLAND PROFESSIONAL ENGINEER

AS-BUILT SWM WORK UNDER 3-40% EXAMINATION OF 1-1/2" REPLACEMENT UNDERGROUND SWM WITH FILTERRA
 10/28/19

NO.	TYPE	INV. IN	INV. OUT	TOP EL.	REMARKS
I-1	HO. CO. STD. DBL'S COMB.		357.72	361.5	SEE HO. CO. STD. DETAILS DRWG. D-00 PG. 154
I-2	HO. CO. STD. 'S' COMB.	361.08	361.73	362.0	SEE HO. CO. STD. DETAILS DRWG. D-00 PG. 153
I-3	HO. CO. STD. 'S' COMB. DEF.		362.86	363.0	SEE HO. CO. STD. DETAILS DRWG. D-00 PG. 154
I-4	HO. CO. STD. DBL'S COMB.		364.01	368.84	SEE HO. CO. STD. DETAILS DRWG. D-00 PG. 154
I-5	HO. CO. STD. DBL'S COMB.		368.88	368.84	SEE HO. CO. STD. DETAILS DRWG. D-00 PG. 154
I-7	HO. CO. STD. DBL'S COMB.	368.00	368.50	371.8	SEE HO. CO. STD. DETAILS DRWG. D-00 PG. 154
M-1	HO. CO. STD. MANHOLE	358.32	358.12	368.0	SEE HO. CO. STD. DETAILS DRWG. D-103 PG. 158
M-2	HO. CO. STD. MANHOLE	370.27	370.21	375.4	SEE HO. CO. STD. DETAILS DRWG. D-103 PG. 158
M-3	HO. CO. STD. MANHOLE	362.23	363.46	372.0	SEE HO. CO. STD. DETAILS DRWG. D-103 PG. 158
S-1	HO. CO. STD. 'C' ENDWALL		357.30	359.0	SEE HO. CO. STD. DETAILS DRWG. D-52 PG. 107
S-4	JUNCTION CHAMBER	357.74	356.74		
M-5	HO. CO. STD. MANHOLE	352.27	352.07	372.0	SEE HO. CO. STD. DETAILS DRWG. D-103 PG. 158
S-5	HO. CO. STD. 'C' ENDWALL		300.90	304.0	SEE HO. CO. STD. DETAILS DRWG. D-52 PG. 107
M-6	HO. CO. STD. MANHOLE	350.80	350.60	365.4	SEE HO. CO. STD. DETAILS DRWG. D-103 PG. 158



AS-BUILT CERTIFICATION FOR PSWM
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.
 NAME: *Robert H. Vogel* P.E. NO. 16193 DATE: 6-12-23

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: Feb. 6, 1974
J.H. Clavin

REVISION #0 ONLY
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 NO. 16193

STATE OF MARYLAND
 PROFESSIONAL LAND SURVEYOR
 NO. 893

Philip A. Poyella 4/14/73
 COLUMBIA INDUSTRIAL DEVELOPMENT CORP.
 515/06

STATE OF MARYLAND
 PROFESSIONAL LAND SURVEYOR
 NO. 893

Philip A. Poyella 7/31/73
 OWNERS & DEVELOPERS:
 GUILFORD PARTNERS %
 VAN EB ASSOCIATES, A CORP.
 2225 P STREET N.W.
 WASHINGTON, D.C. 20007

NO AS-BUILT INFORMATION ON THIS SHEET

NO.	REVISION	DATE	TITLE
9	AS-BUILT SWM WORK UNDER J-WITKAMP UNDERGROUND SWM WITH FILTERRA	10/31/23	SITE PLAN
8	REVISE THE PLAN TO CHANGE THE USE FOR PART OF THE EXISTING BUILDING TO BE USED AS A GARAGE AND TO REVISE THE PLAN TO SHOW A TREE BED TO BE USED TO TREAT RUNOFF FROM AN OUTDOOR DOG YARD	7-25-22	
6	ADD PARKING IN FRONT OF BLDGS 1, 2, 3 AND ASSOCIATED SWM	10/23/18	PROJECT: E.G.U. SUBDIVISION, SECTION 2, AREA-G PARCEL A LOCATION: 6TH ELECTION DISTRICT, HOWARD CO., MARYLAND
4	ADD PARKING IN FRONT OF BLDGS 1, 2, 3 AND ASSOCIATED SWM	4-30-15	
3	REVISE THE PLAN TO MODIFY THE PARKING AS SHOWN	01/16/13	
1	ADD STOREFRONT MANNINGS AND DOOR LOCATIONS	12-21-07	DATE: 8/11/73 DES. BY: TFB DRAWN BY: T.F.D. CHKD BY:

AS-BUILT MARCH 2023 SDP 24-21C

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER
J. Collins 6/4/74 DATE
 APPROVED FOR HOWARD COUNTY OFFICE OF PLANNING & ZONING
 PLANNING DIRECTOR
Thomas L. Collins 6-5-74 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
W.H. Clavin 6/4/74 DATE
 APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS
 DIRECTOR
W. O. Falbert 5-24-74 DATE

THOMAS L. COLLINS
 138/450

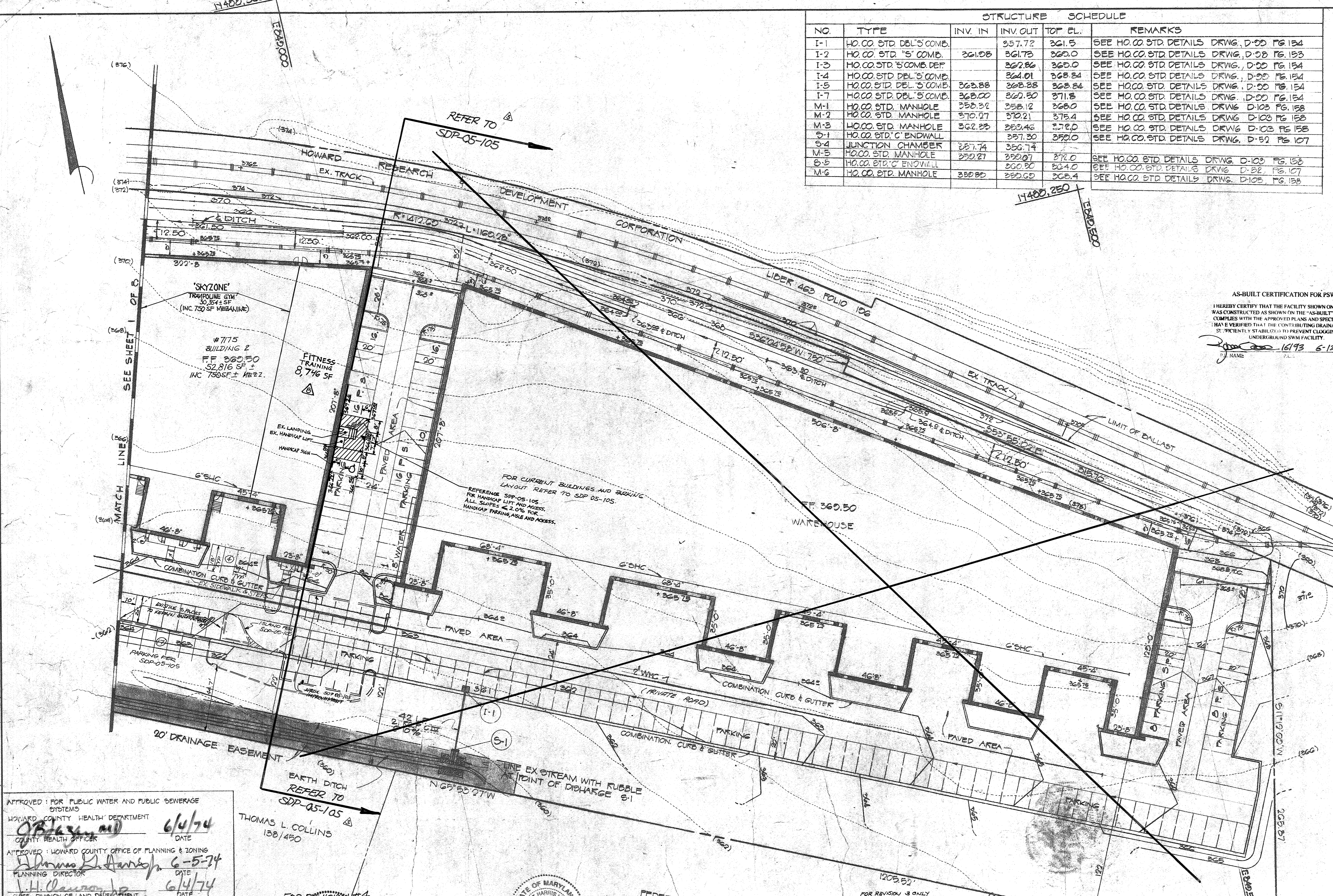
FOR REVISION #4
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 NO. 16193
 ROBERT H. VOGEL
 PE NO 16193

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 NO. 16193
 REVISION #6

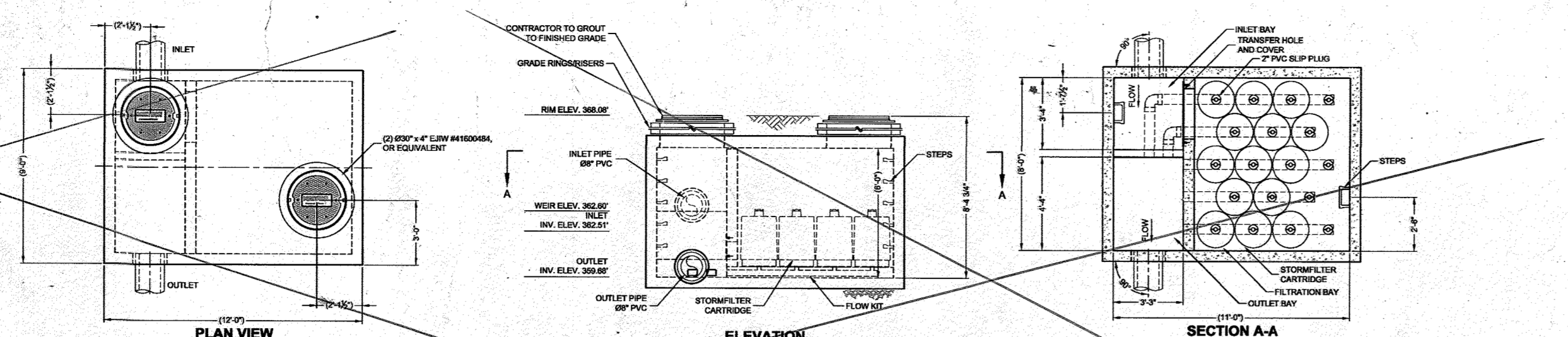
FEDERAL COMMUNICATIONS COMMISSION
 170/108
 OWNER/DEVELOPER
 STONEWOOD BUSINESS CENTER
 GUILFORD LIMITED PARTNERSHIP
 1022 LOG JUMP TRAIL
 ELLICOTT CITY, MARYLAND 21043
 301-546-0222

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 NO. 16193

ROBERT H. VOGEL PE NO 16193



PERFORMANCE SPECIFICATION
 FILTER MEDIA SHALL BE FILLER, PASSIVE, SIPON ACTIVES, RAINAL FLOW AND SELF-CLEANING. RADIAL MEDIA SHALL BE USED. THE MEDIA CONTACT SHALL BE AT LEAST 17 FEET.
 THE MEDIA SURFACE CONTACT SHALL BE AT LEAST 17 FEET.
 THE MEDIA SURFACE CONTACT SHALL BE AT LEAST 17 FEET.
 THE MEDIA SURFACE CONTACT SHALL BE AT LEAST 17 FEET.

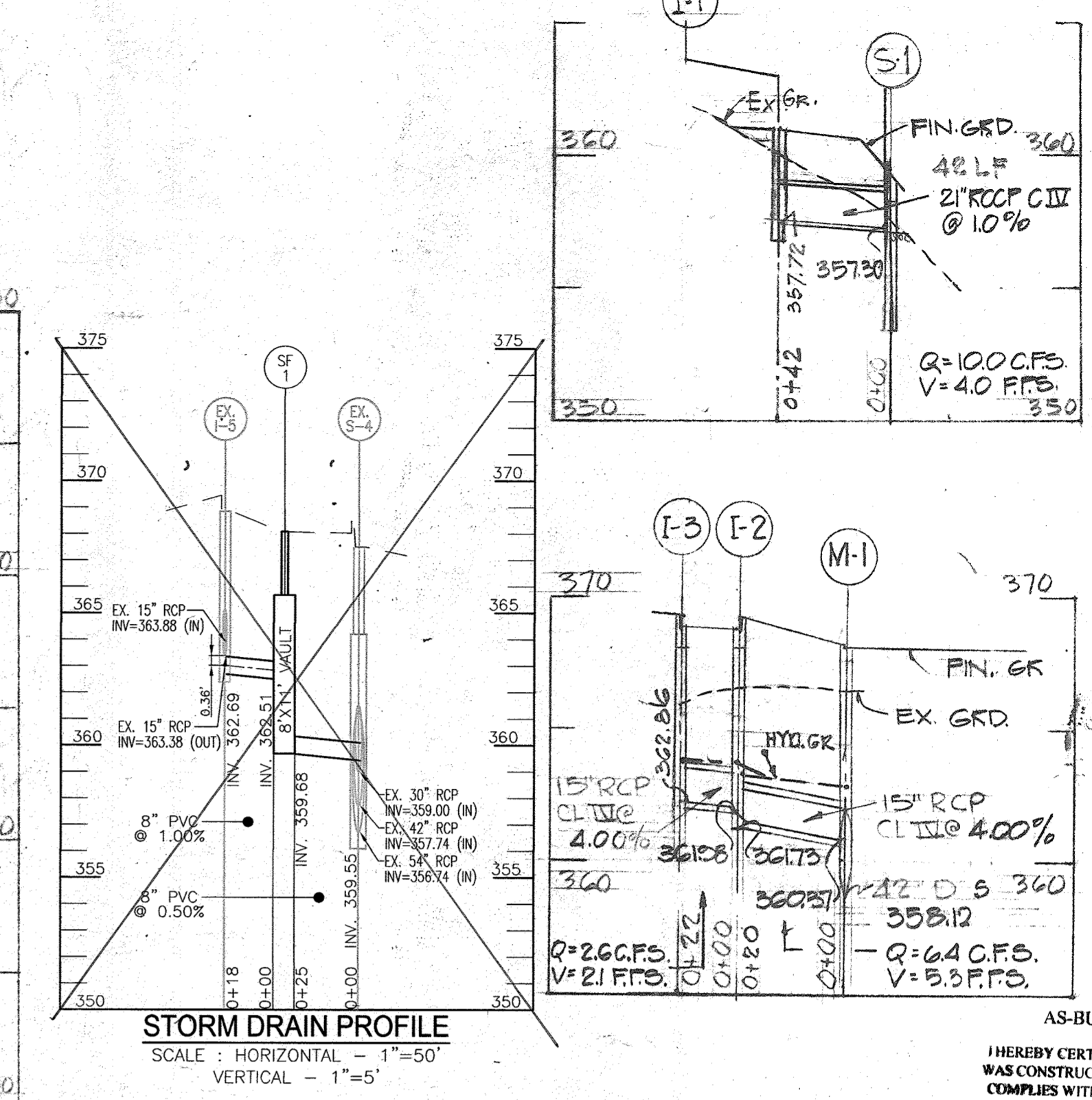
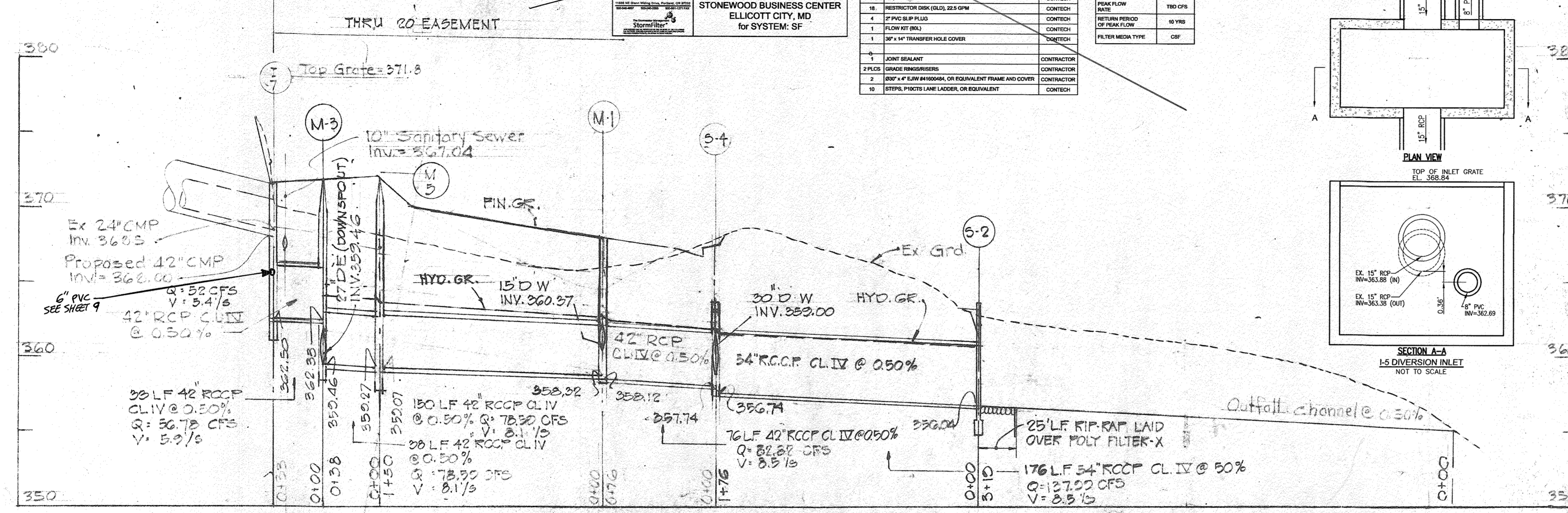


TYPICAL SECTION EARTH CHANNEL
 No Scale

A: 80
 WF: 17
 HR: 176
 SL: 0.5%
 V: 5.10/15
 Q: 153 CFS.
 Q REQ: 135 CFS.

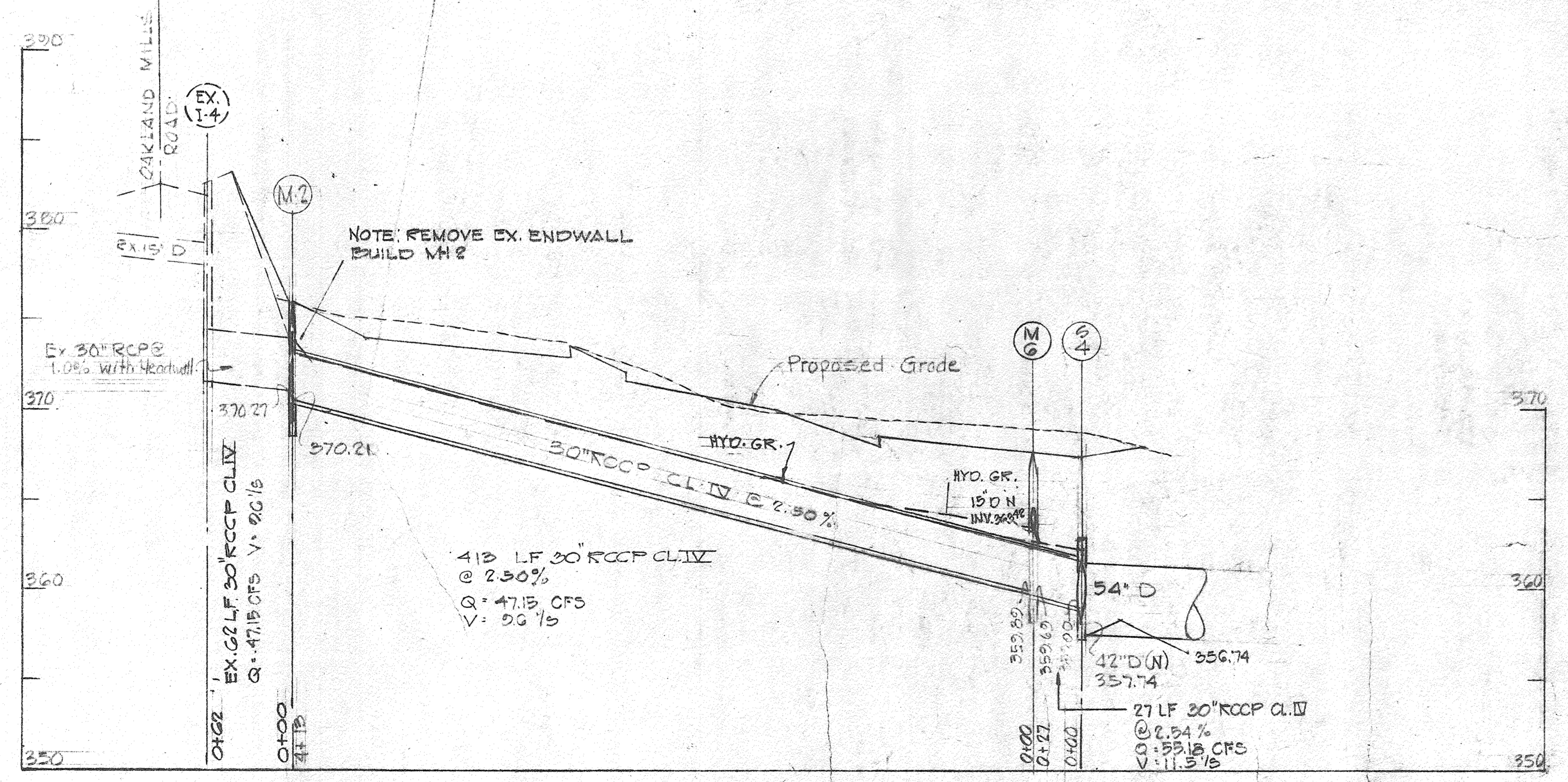
PEAK DIVERSION STORMFILTER
 SFPD0811 - 486355-10
 STONEWOOD BUSINESS CENTER
 ELLICOTT CITY, MD
 for SYSTEM: SF

NO.	DESCRIPTION	QUANTITY	UNIT	PROVIDED BY	CONTRACTOR
1	15" RCP	1	LINEAL FT.	CONTRACTOR	CONTRACTOR
2	15" RCP	1	LINEAL FT.	CONTRACTOR	CONTRACTOR
3	15" RCP	1	LINEAL FT.	CONTRACTOR	CONTRACTOR
4	15" RCP	1	LINEAL FT.	CONTRACTOR	CONTRACTOR
5	15" RCP	1	LINEAL FT.	CONTRACTOR	CONTRACTOR
6	15" RCP	1	LINEAL FT.	CONTRACTOR	CONTRACTOR
7	15" RCP	1	LINEAL FT.	CONTRACTOR	CONTRACTOR
8	15" RCP	1	LINEAL FT.	CONTRACTOR	CONTRACTOR
9	15" RCP	1	LINEAL FT.	CONTRACTOR	CONTRACTOR
10	15" RCP	1	LINEAL FT.	CONTRACTOR	CONTRACTOR



AS-BUILT CERTIFICATION FOR PSWM
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

DATE: 6-12-23
 NAME: Robert H. Vogel
 P.E. No. 16193



APPROVED FOR PUBLIC WATER AND PUBLIC SEWER SYSTEMS.
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: [Signature] DATE: 6/4/74

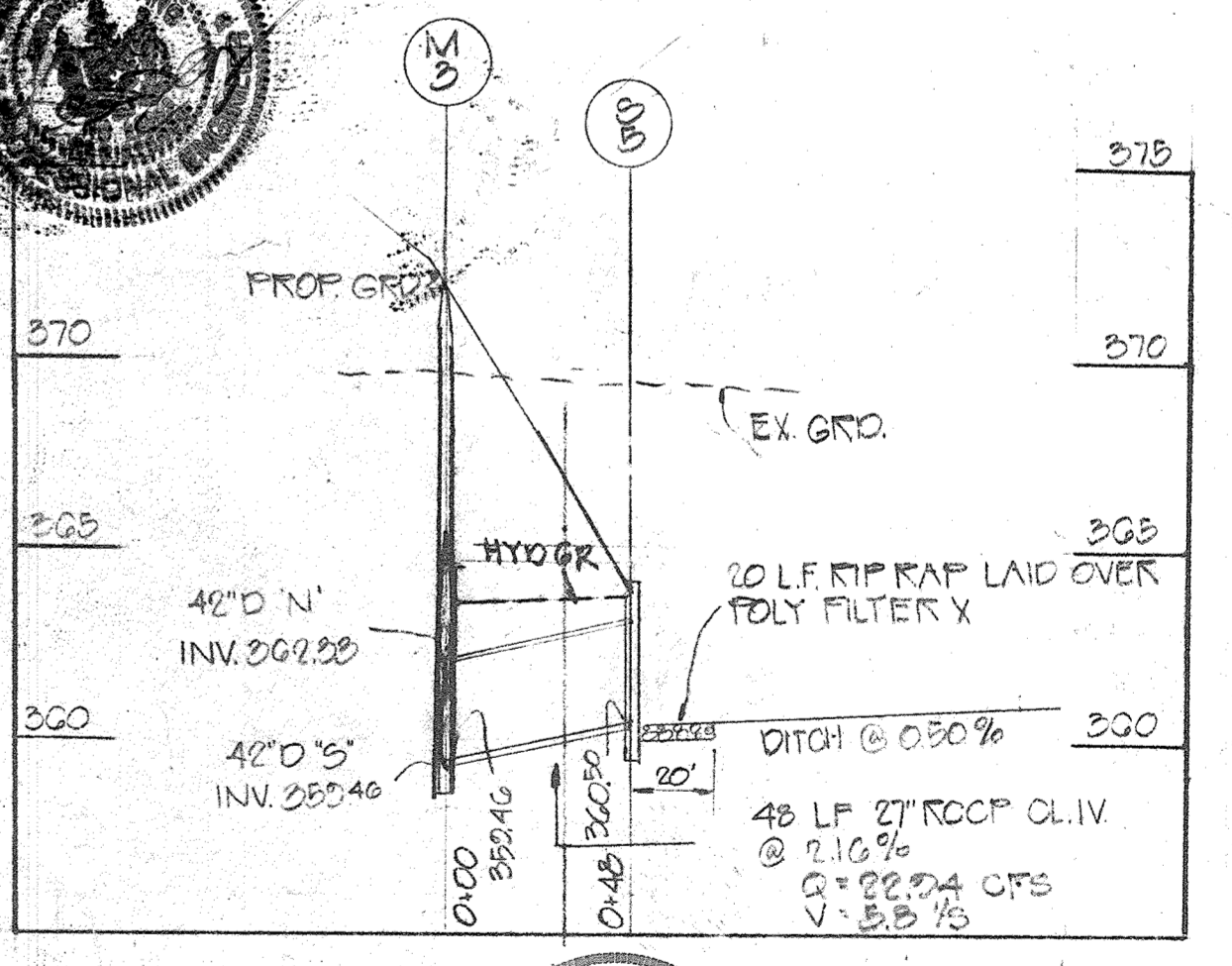
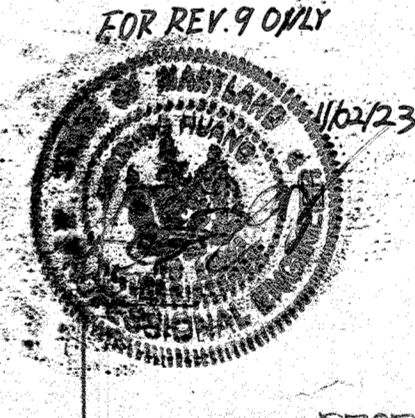
APPROVED: HOWARD COUNTY OFFICER OF PLANNING & ZONING
 PLANNING DIRECTOR: [Signature] DATE: 6-5-74

CHIEF DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 DATE: 6/4/74

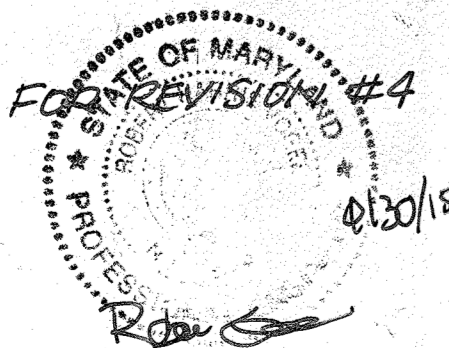
APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS
 DIRECTOR: [Signature] DATE: 5/4/74
 CHIEF BUREAU OF HIGHWAYS: [Signature] DATE: 5-27-74



APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE: Feb. 6, 1974
 J. H. Clawson

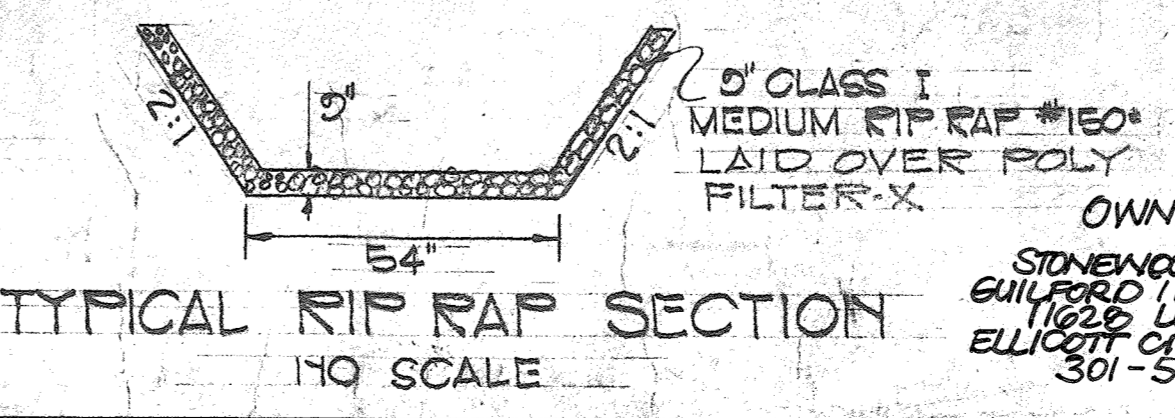
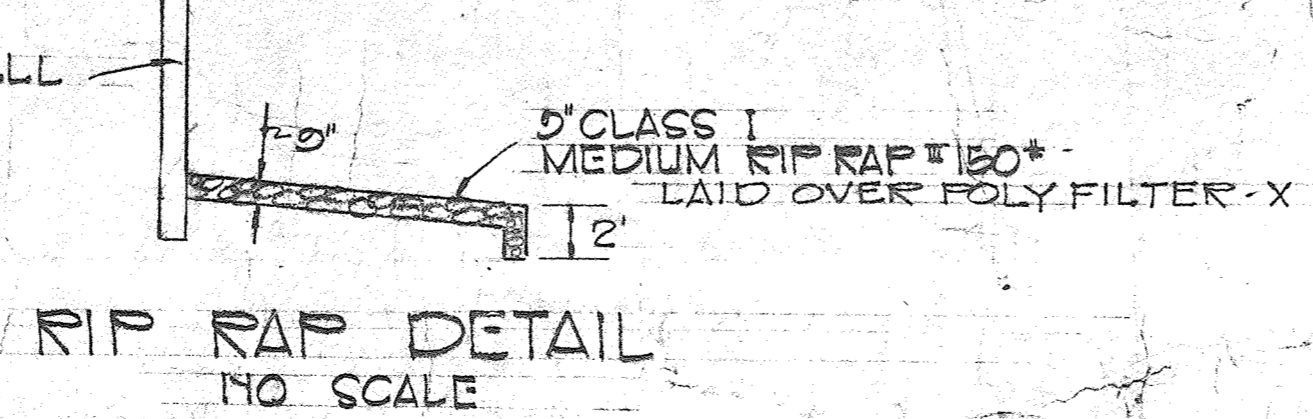


Philip A. Pappella 4/16/74



ROBERT H. VOGEL
 PE NO 16193

NO.	REVISION	DATE
1	AS-BUILT SWM WORK UNDER 3-4876, ELIMINATION OF 1-4, REPLACE UNDERGROUND SWM WITH FILTERRA	10/31/23
2	REVISE THE PLAN TO SHOW A M-B BIO-SWALE TO TREAT RUNOFF FROM AN OUTDOOR DOG YARD	10/23/18
3	REVISION	



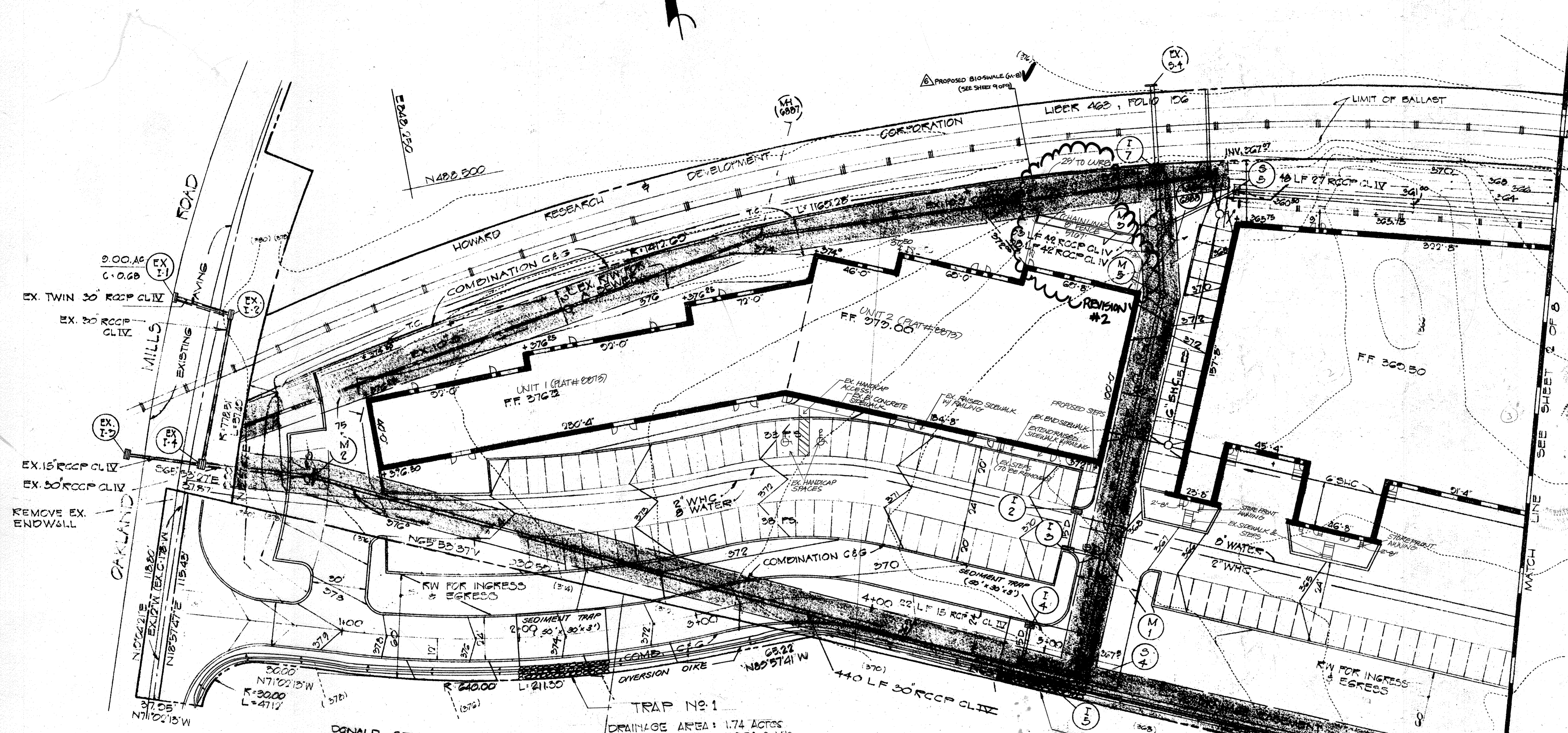
OWNER/DEVELOPER
 STONEWOOD BUSINESS CENTER
 GUYARD LIMITED PARTNERSHIP
 ELLICOTT CITY, MARYLAND 21043
 301-596-0222

TITLE		ENGINEERING	
STORM DRAINAGE PLAN		PLANNING SURVEYING	
PROJECT: E.G.U. SUBDIVISION, SECTION 2, AREA G		BY: BOENDER ASSOCIATES INC.	
LOCATION: 6TH ELECTION DISTRICT, HOWARD COUNTY, MD		ELLICOTT CITY, MD. 21043	
DATE: 7-31-73	DES. BY: TS	DRAWN BY: JAS	CHKD BY:
SCALE: AS SHOWN	JOB NO.: 7379	DRWG. NO.: 4 OF 10	301-468-7777

AS-BUILT MARCH 2023 SDP 74-21C

REVIEWED FOR Howard S.C.D.
 AND MEETS TECHNICAL REQUIREMENTS.
James M. Nelson 4-30-74
 U.S. SOIL CONSERVATION SERVICE DATE
 THIS DEVELOPMENT PLAN IS APPROVED
 FOR SOIL EROSION AND SEDIMENT CONTROL
 BY THE HOWARD SOIL CONSERVATION DISTRICT
 APPROVED Robert J. Ziegen DATE 4-30-74
 HOWARD SOIL CONSERVATION DISTRICT

E.G.U.
 SECTION 2, AREA 5
 P.D. 23, P. 15



FOR REVIEW ONLY
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 11/22/23
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 6-12-23
 AS-BUILT CERTIFICATION FOR PSWM
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN
 WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND
 COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS.
 I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS
 SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE
 UNDERGROUND SWM FACILITY.
 DE NAME: James M. Nelson 16193
 P.E.# DATE: 6-12-23

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE Feb. 6, 1974
J.H.C.H.R.

STATE OF MARYLAND
 PROFESSIONAL LAND SURVEYOR
 Philip A. Pappella 4/16/74

Philip A. Pappella 7/31/73

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 HOWARD COUNTY HEALTH DEPARTMENT
Robert J. Ziegen 6/4/74
 COUNTY HEALTH OFFICER DATE
 APPROVED FOR HOWARD COUNTY OFFICER OF PLANNING & ZONING
Thomas A. Harris 6-5-74
 PLANNING DIRECTOR DATE
H. Clouston 6/4/74
 CHIEF DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 APPROVED FOR PUBLIC WATER, PUBLIC
 SEWERAGE AND STORM DRAINAGE SYSTEMS
 AND ROADS
William A. White 5/24/74
 DIRECTOR DATE
W.O. LaVack 6-24-74
 CHIEF, BUREAU OF HIGHWAYS DATE

TRAP NO. 1
 DRAINAGE AREA: 1.74 Acres
 CU. YDS. REQUIRED: 112.83 CU. YDS.
 50' x 30' x 5' PIT: 166.67 CU. YDS.

TRAP NO. 2
 DRAINAGE AREA: 2.45 Acres
 CU. YDS. REQUIRED: 166 CU. YDS.
 50' x 30' x 5' PIT: 166.67 CU. YDS.

NOTE:
 SEDIMENT PITS TO BE CLEANED
 & MAINTAINED ONCE EVERY (3)
 THREE MONTHS.

FOR REVISION 1&2 ONLY

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 ROBERT H. VOGEL, P.E. NO. 16193
 1/79

OWNERS & DEVELOPER
 GUILFORD PARTNERS C/O
 VAN E'S ASSOCIATES A CORP
 3230 P STREET N.W.
 WASHINGTON D.C. 20007

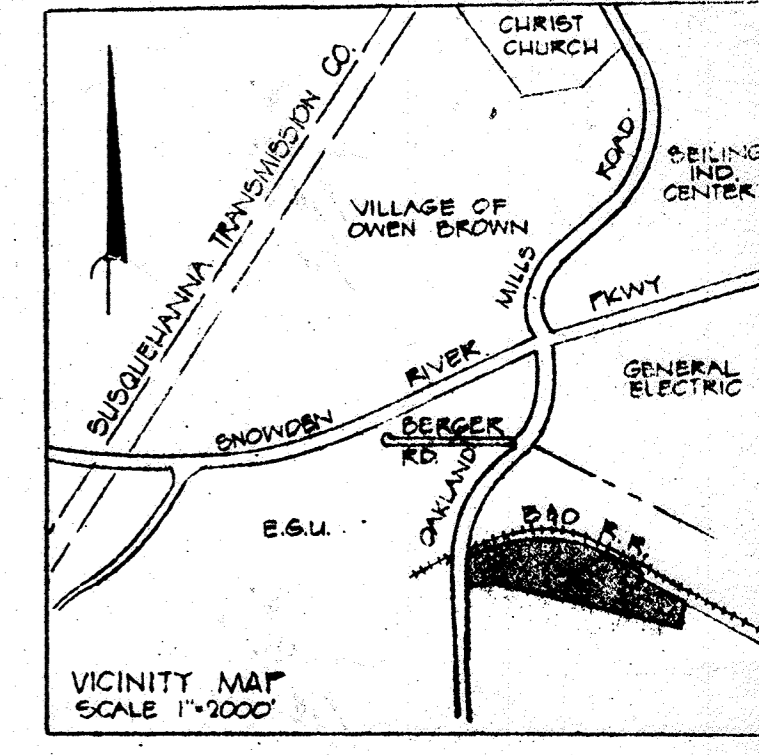
NO.	REVISION	DATE
1	AS-BUILT SWM WORK UNDER 7-9076. ELIMINATION OF I-4, REPLACE UNDERGROUND SWM WITH FILTERRA	10/31/23

NO.	REVISION	DATE
1	REVISE THE PLAN TO SHOW A 12" BIO-SWALE TO TREAT RUNOFF FROM AN OUTDOOR DOG YARD	10/23/18
2	ADD FENCE BEHIND BLDG UNIT 2	4/15/06
1	ADD STOREFRONT AWNING AND DOOR LOCATIONS	12/21/07

TITLE	SEDIMENT CONTROL PLAN			ENGINEERING PLANNING SURVEYING BY	BOENDER ASSOCIATES INC.
PROJECT	E.G.U. SUBDIVISION SECTION 2, AREA 6 PARCEL A			BY	JLS
LOCATION	6TH ELECTION DISTRICT HOWARD CO. MARYLAND			DATE	2/1/73
DATE	2/1/73	DES. BY	TS	DRAWN BY	TPD
SCALE	1"=30'	JOB NO.	7319	CHKD BY	JLS
		DRWG. NO.	5 of 10		

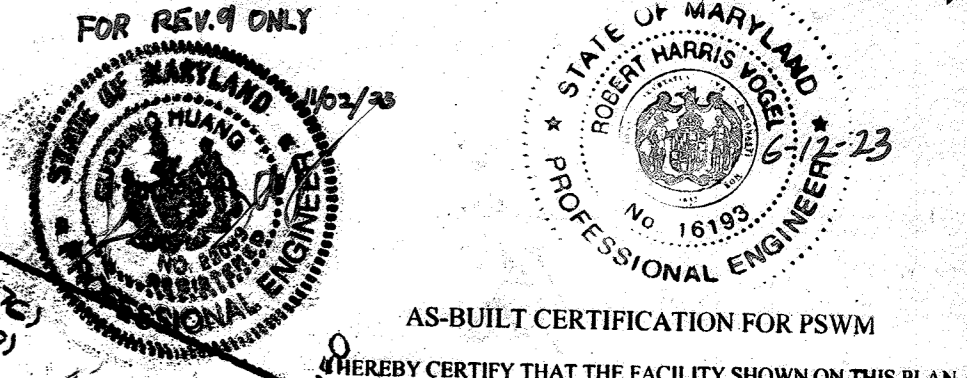
AS-BUILT MARCH 2023 SDF 74-21C

STRUCTURE SCHEDULE					
NO	TYPE	INV. IN	INV. OUT	TOP EL.	REMARKS
I-1	HO.CO STD DEL'S COMB.				SEE HO.CO STD DETAILS DRWG. D-00 PG. 154
I-2	HO.CO STD 'S' COMB.				SEE HO.CO STD DETAILS DRWG. D-00 PG. 153
I-3	HO.CO STD 'S' COMB. DEF.				SEE HO.CO STD DETAILS DRWG. D-00 PG. 154
I-4	HO.CO STD DEL'S COMB.				SEE HO.CO STD DETAILS DRWG. D-00 PG. 154
I-5	HO.CO STD DEL'S COMB.				SEE HO.CO STD DETAILS DRWG. D-00 PG. 154
I-7	HO.CO STD DEL'S COMB.				SEE HO.CO STD DETAILS DRWG. D-00 PG. 154

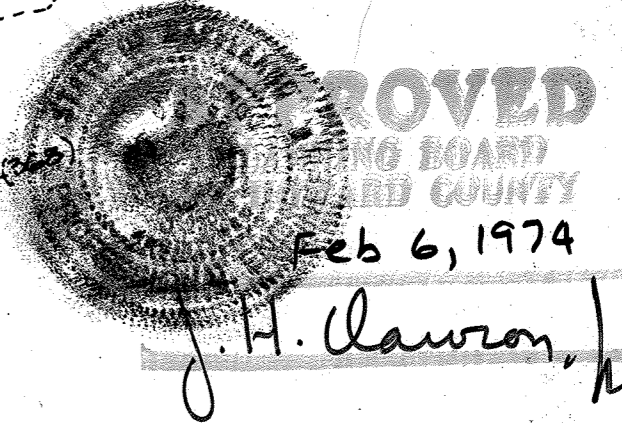


REVIEWED FOR Howard S.C.D.
 AND MEETS TECHNICAL REQUIREMENTS.
James McHale 4-30-74
 U.S. SOIL CONSERVATION SERVICE DATE
 THIS DEVELOPMENT PLAN IS APPROVED
 FOR SOIL EROSION AND SEDIMENT CONTROL
 BY THE HOWARD SOIL CONSERVATION
 DISTRICT

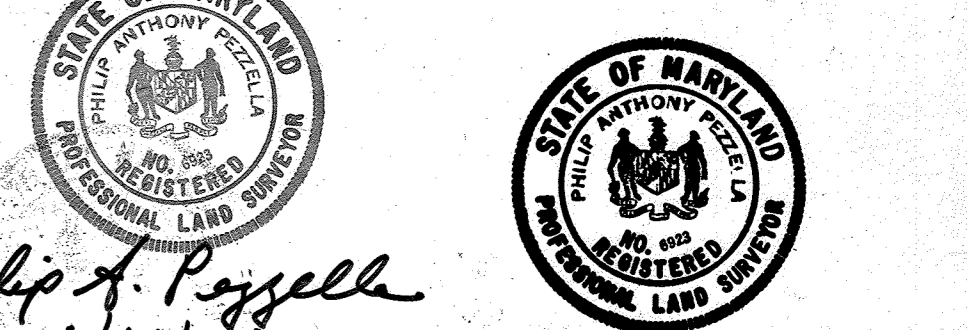
APPROVED Robert J. Zehm DATE 4-30-74
 HOWARD SOIL CONSERVATION DISTRICT



HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN
 WAS CONSTRUCTED AS SHOWN ON THE 'AS-BUILT' PLANS AND
 COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS.
 I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS
 SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE
 UNDERGROUND SUMP FACILITY.
J. H. Lawson 16193 6/12/73
 P.E. DATE



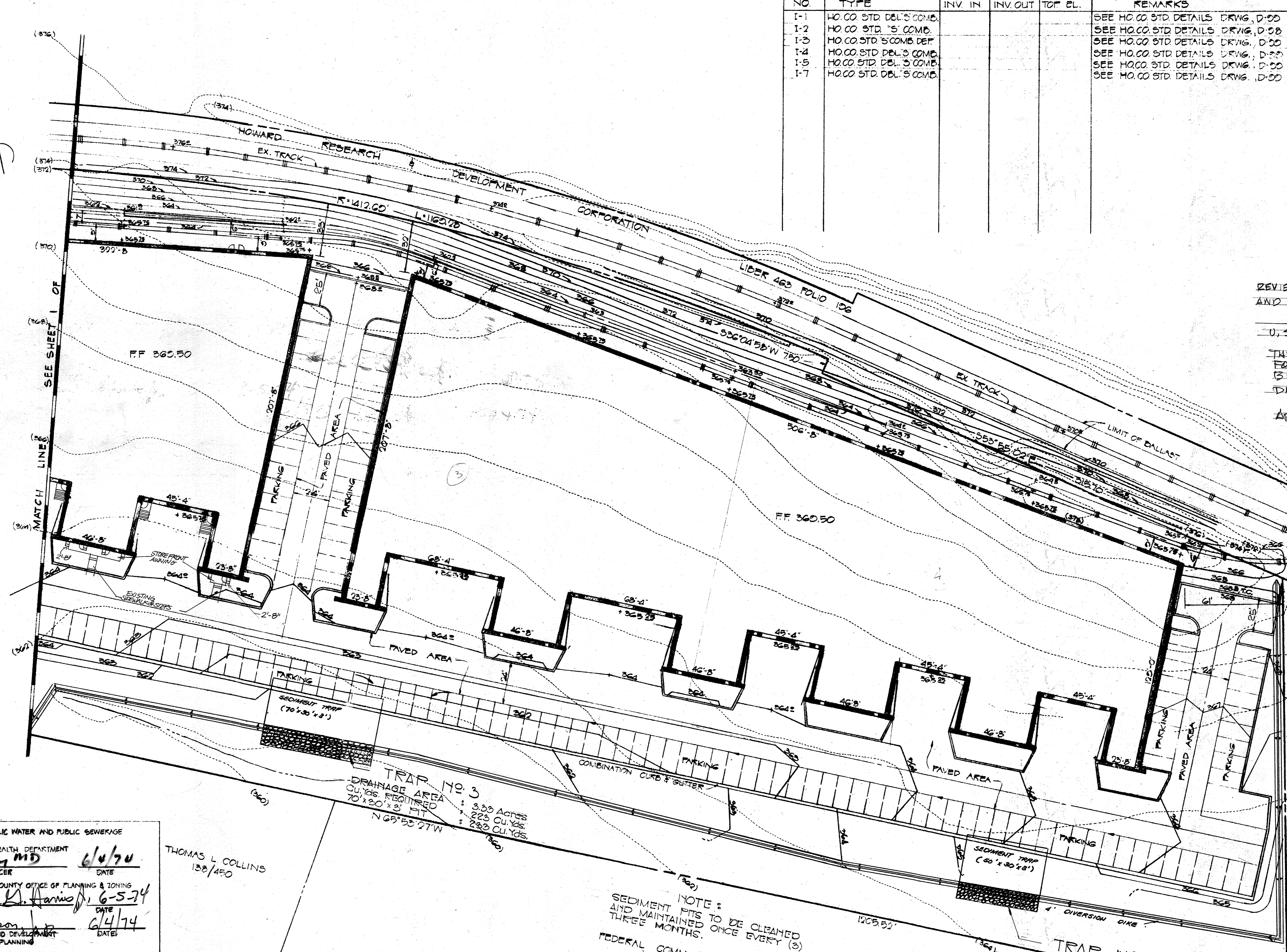
COLUMBIA INDUSTRIAL DEVELOPMENT CORP.
 5/5/76



Philip A. Pizzella 7/31/73
 OWNERS & DEVELOPERS
 GUINARD PARTNERS 90
 VAN E'S ASSOCIATES A CORP
 2020 P STREET N.W.
 WASHINGTON D.C. 20007

NO AS-BUILT INFORMATION ON THIS SHEET

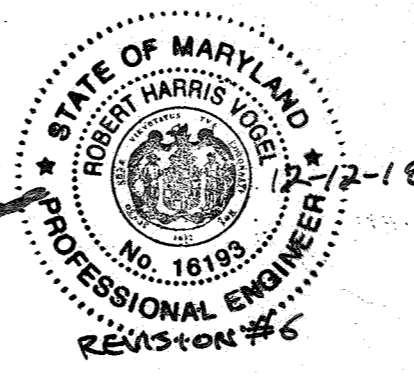
TITLE		SEDIMENT CONTROL PLAN	
PROJECT		E.G.U. SUBDIVISION SECTION 2, AREA G PARCEL A	
LOCATION		6TH ELECTION DISTRICT HOWARD CO. MARYLAND	
DATE	DES. BY	DRAWN BY	CHKD BY
8/11/75	T.S.	T.P.D.	J.L.S.
NO.	REVISION	DATE	SCALE
9	AS-BUILT SWIM UNDER 7-MIN. ELIMINATION OF L-8, REPLACE UNDERGROUND SWIM WITH FILTERRA REVISE THE PLAN TO SHOW A 1'-1/2" SLOPE TO TREAT RUNOFF FROM AN OUTDOOR DOG YARD	10/23/18	1"=30'
6		10/23/18	
1	ADD STOREFRONT AWNING & DOOR LOCATIONS (19/8/0)		
JOB NO.		7570	
DRWG. NO.		6 of 10	



TRAP NO. 3
 DRAINAGE AREA
 CU.YDS. REQUIRED
 70' x 30' x 3' PIT
 : 3.00 ACRES
 : 223 CU.YDS.
 : 283 CU.YDS.
 N 65° 55' 27" W

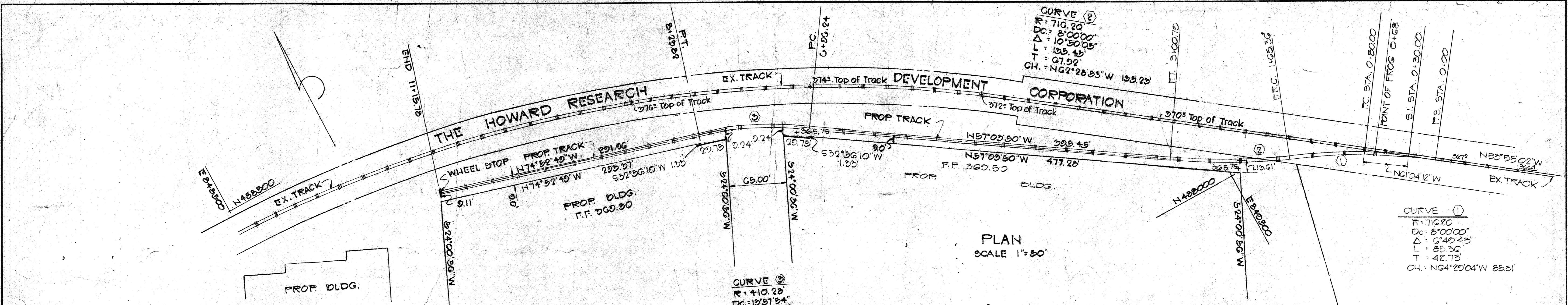
TRAP NO. 4
 DRAINAGE AREA
 CU.YDS. REQUIRED
 50' x 30' x 3' PIT
 : 2.50 ACRES
 : 167.50 CU.YDS.
 : 167 CU.YDS.

NOTE:
 SEDIMENT PITS TO BE CLEANED
 AND MAINTAINED ONCE EVERY (3)
 FEDERAL COMMUNICATIONS
 COMMISSION
 170/108

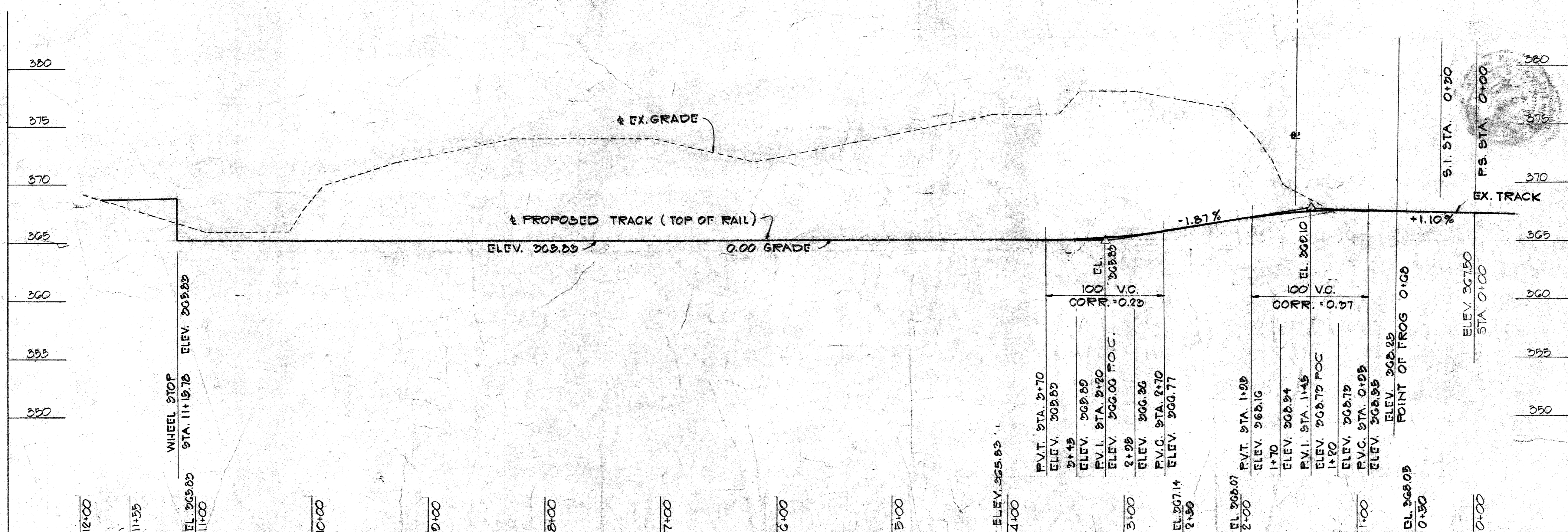


APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
 SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT
QB Barry MD 6/6/74
 COUNTY HEALTH OFFICER DATE
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
James K. Harms 6-5-74
 PLANNING DIRECTOR DATE
J. H. Lawson 6/4/74
 CHIEF, DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING DATE
 APPROVED FOR PUBLIC WATER PUBLIC SEWERAGE AND
 STORM DRAINAGE SYSTEMS AND ROADS.
William A. Altman 5/24/74
 DIRECTOR DATE
W.O. Falbert 5-24-74
 CHIEF, BUREAU OF HIGHWAYS DATE

THOMAS L COLLINS
 138/450



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.
 COUNTY HEALTH OFFICER: JP [Signature] DATE: 6/4/74
 APPROVED: OFFICE OF PLANNING AND ZONING
 PLANNING DIRECTOR: Thomas D. Harris DATE: 6-5-74
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING: J.H. Lawson DATE: 6/4/74
 APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS.
 DIRECTOR: Willie G. Alt DATE: 5/24/74
 CHIEF, BUREAU OF HIGHWAYS: W.O. Gilbert DATE: 5-24-74



PROFILE OF PROPOSED TRACK
 SCALE: HOR. 1"=50'
 VERT. 1"=5'

APPROVED: PLANNING BOARD OF HOWARD COUNTY
 DATE: Feb. 6, 1974
 J.H. Lawson
 FOR REV. ONLY
 AS-BUILT CERTIFICATION FOR PSWM
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.
 P.E. NAME: Philip A. Pugella P.E. # 16193 DATE: 6-12-23
 STATE OF MARYLAND PROFESSIONAL ENGINEER NO. 16193
 STATE OF MARYLAND PROFESSIONAL ENGINEER NO. 16193
 STATE OF MARYLAND PROFESSIONAL ENGINEER NO. 16193

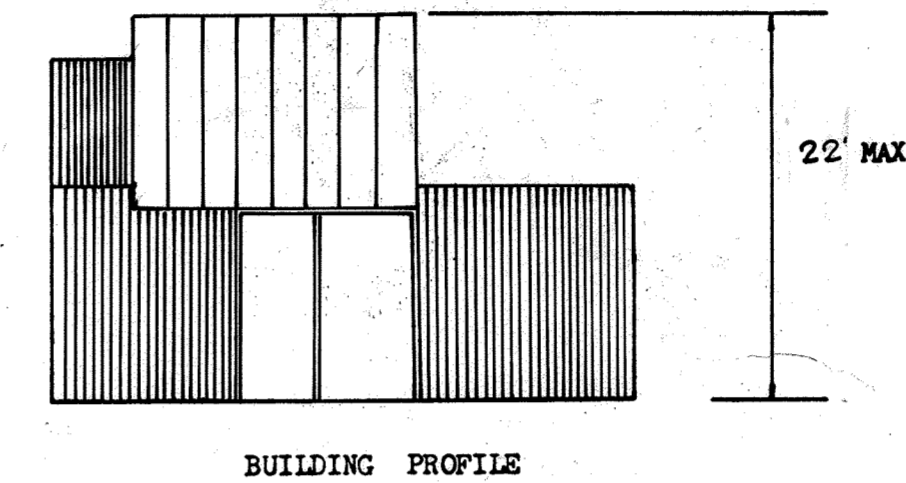
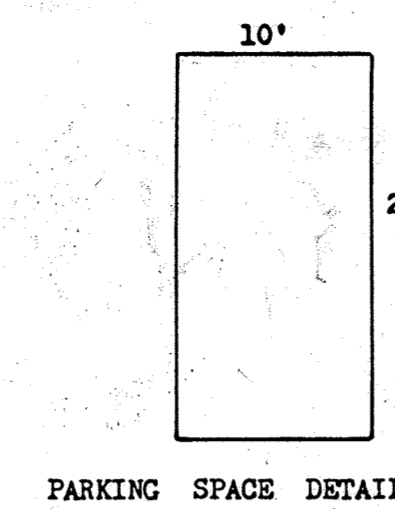
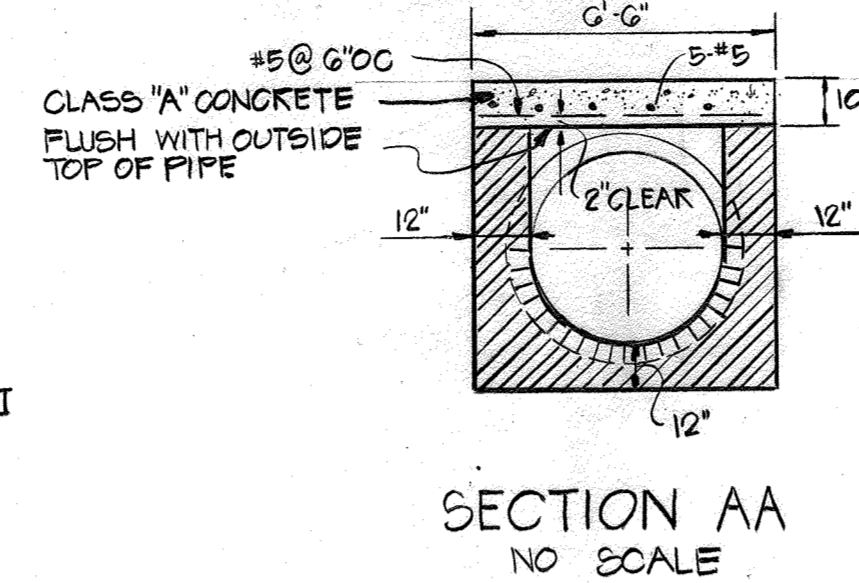
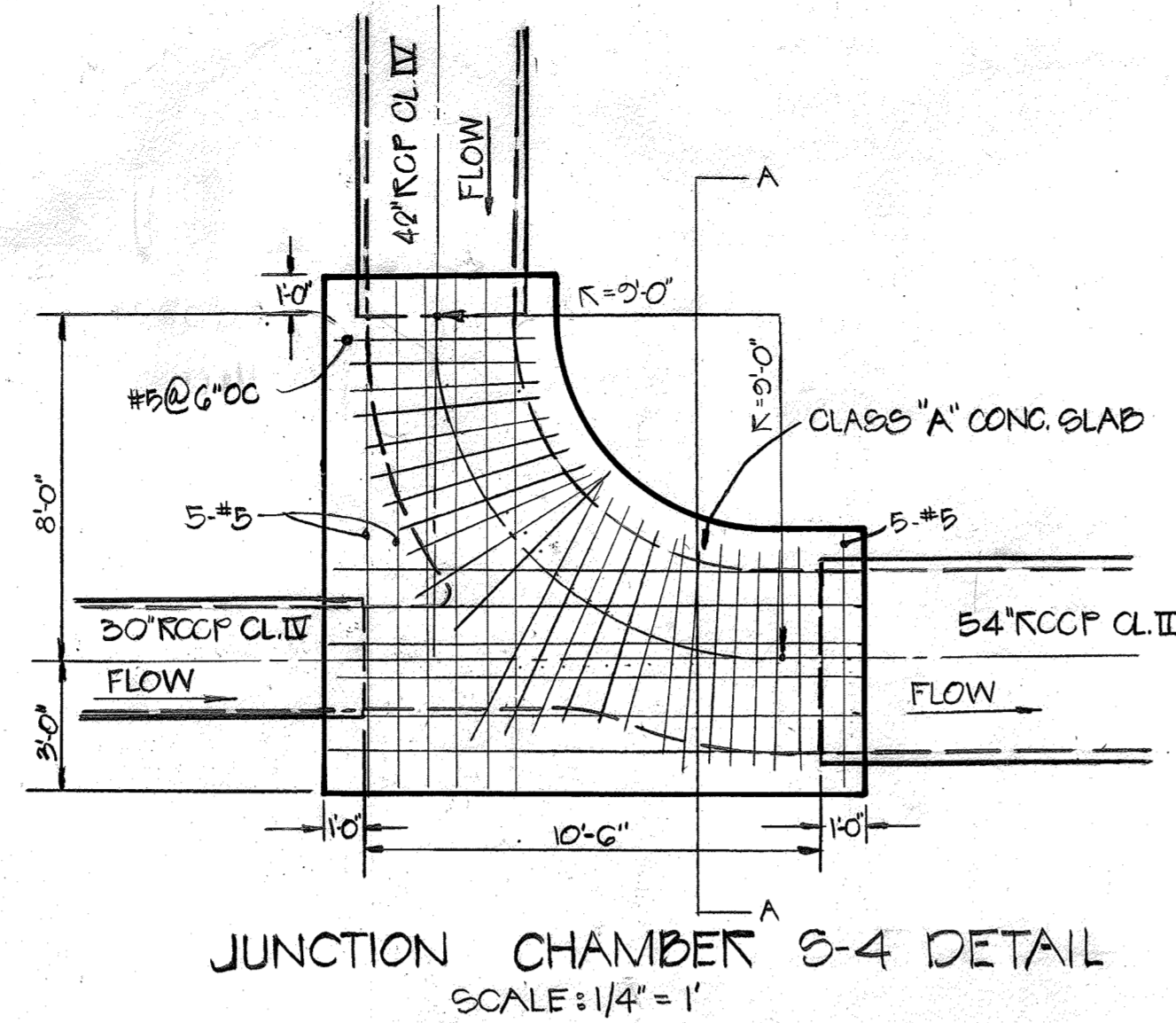
Philip A. Pugella 8/1/73
 NO AS-BUILT INFORMATION ON THIS SHEET

TITLE: RAILROAD DETAILS		ENGINEERING PLANNING SURVEYING BY: BOENDER ASSOCIATES INC.	
PROJECT: E.G.U. SUBDIVISION, SECTION 2, AREA C PARCEL A		LOCATION: 6TH ELECTION DISTRICT, HOWARD CO., MARYLAND	
DATE: JULY 31, 1973	DES. BY: T.S.	DRAWN BY: T.P.D.	CHKD BY:
SCALE: AS SHOWN	JOB NO.: 7375-01	DRWG. NO.: 7 OF 10	

AS-BUILT MARCH 2023 SDP 24-21C

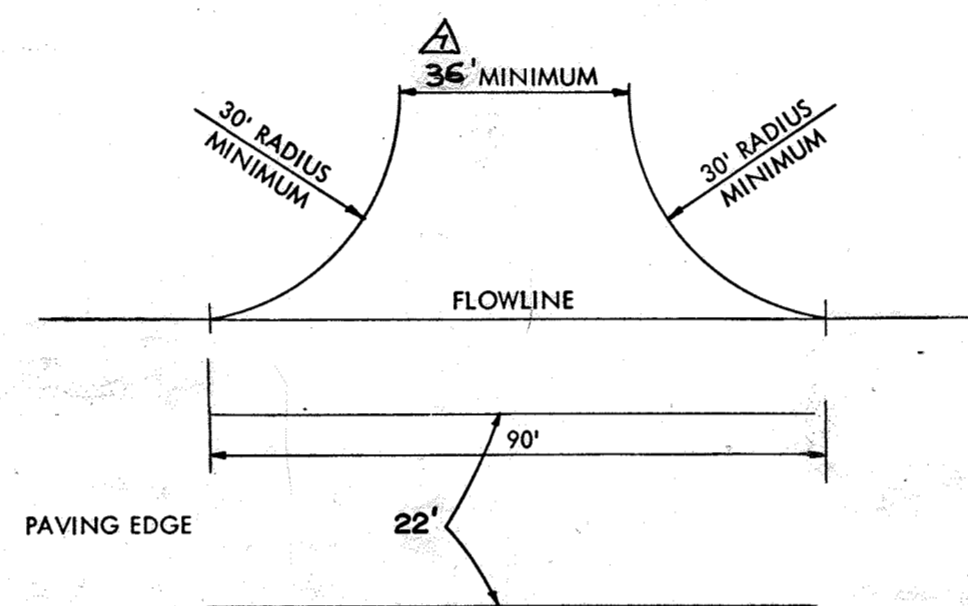
SEDIMENT CONTROL NOTES

- 1) THE H. S. C. D. AND BUREAU OF LICENSE, INSPECTION, AND PERMITS WILL BE GIVEN 24 HOURS NOTICE PRIOR TO ANY GRADING.
- 2) ALL SEDIMENT CONTROL STRUCTURES SHOWN ON THIS PLAN, UNLESS OTHERWISE SPECIFIED, WILL BE INSTALLED AND STABILIZED IN ACCORDANCE WITH NOTE #9 PRIOR TO ANY OTHER GRADING OR EARTH DISTURBANCE ON THIS SITE.
- 3) AS SOON AS ROUGH GRADING IS COMPLETED, AREA TO BE PAVED WILL BE STABILIZED WITH BASE MATERIAL.
- 4) ALL CUT AND FILL SLOPES WILL BE A MAXIMUM OF 3 : 1.
- 5) FOLLOWING THE STABILIZATION OF ALL AREAS, UPGRADE THE AREA OF THE SEDIMENT CONTROL. MEASURES MAY BE REMOVED AND GRADED TO THE FINAL GRADES PLANNED AND STABILIZED IMMEDIATELY.
- 6) ELEVATIONS MARKED THUS (X) ARE FINISHED GRADES.
- 7) IN THE EVENT OF EXCESS OF MATERIAL, THE WASTE WILL BE STOCKPILED WITH A MAXIMUM 2:1 SLOPE ON AN AREA WHICH HAS BEEN CLEARED ON THE SITE, STOCKPILED MATERIAL WILL BE STABILIZED IN ACCORDANCE WITH NOTE #9.
- 8) SEDIMENT CONTROL MEASURES WILL NOT BE REMOVED UNTIL APPROVAL IS OBTAINED FROM THE H. S. C. D..
- 9) TEMPORARY STABILIZATION:
APPLY: 2000 LBS. / ACRE OR 46 LBS. / SQ. FT. OF PULVERIZED DOLOMITIC LIMESTONE.
500 LBS. / ACRE OR 11.5 LBS. / 1000 SQ. FT. OF 5-5-5 FERTILIZER. PLANT TO RYEGRASS @ 40 LBS. / ACRE. FERTILIZE WITH 5-10-10, AND MULCH WITH STRAW @ 1 1/2 TONS / ACRE.
- 0) PERMANENT STABILIZATION:
APPLY: 2000 LBS. / ACRE OF PULVERIZED DOLOMITIC LIMESTONE.
700 LBS. / ACRE OF 0-20-0 SUPER PHOSPHATE.
1000 LBS. / ACRE OF 5-10-10 FERTILIZER.
SEED: 85 LBS. / ACRE OF KENTUCKY 31 TALL FESCUE.
40 LBS. / ACRE OF KENTUCKY BLUE GRASS.
25 LBS. / ACRE OF ANNUAL RYE GRASS.
NOTE: SEEDING MAY BE DONE BETWEEN MARCH 1 - MAY 1, OR AUGUST 1 - OCTOBER 1 ONLY.
MULCH: 2 TONS / ACRE OF UNWEATHERED WHEATSTRAW, TIE MULCH DOWN WITH 480 GAL. / ACRE OF LIQUID ASPHALT.

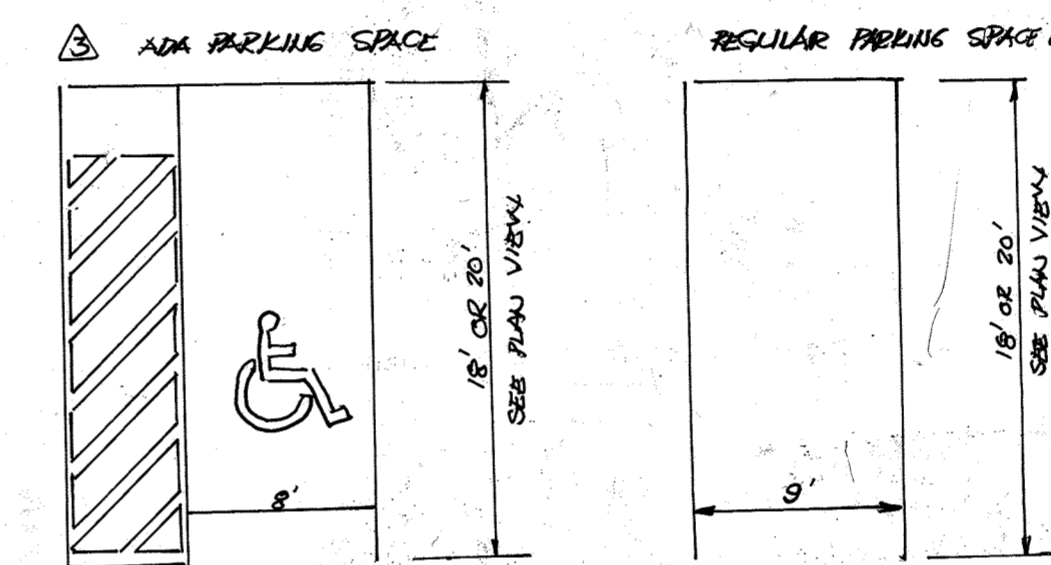


CONCRETE CURB CHANNELIZED INTERSECTION

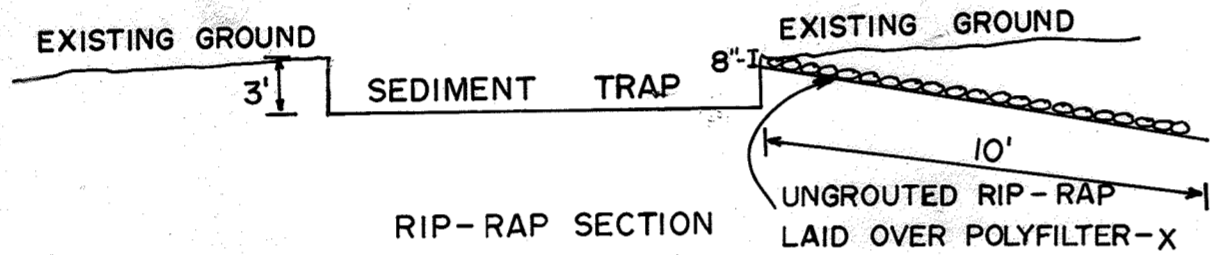
BUILDING PROFILE



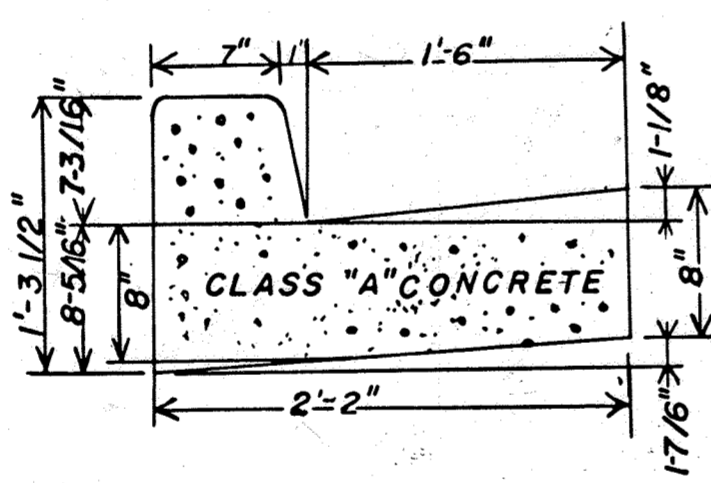
ENTRANCE DETAIL



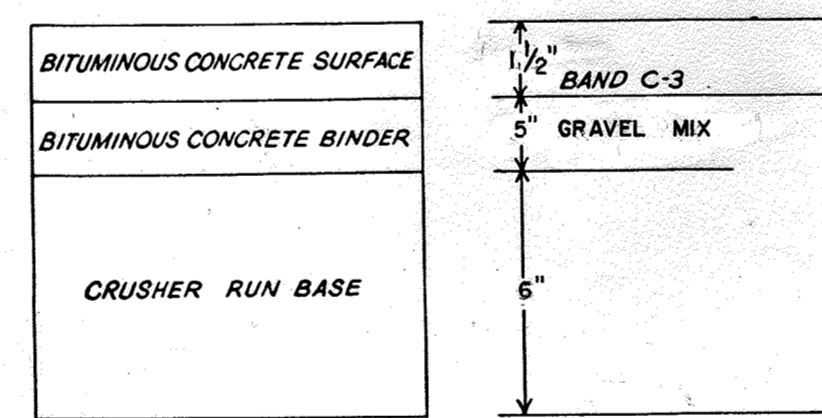
NEW PARKING SPACE DIMENSIONS H. T. S.



RIP-RAP SECTION



COMBINATION CURB & GUTTER DETAIL



CLEARING AND GRADING: ARTICLE C-1
SUBGRADE: ARTICLE C-2
BASE COURSE: ARTICLE C-25
BINDER COURSE: ARTICLE C-31 or C-33
SURFACE COURSE: ARTICLE C-31
TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS

TRUCK AREA PAVING DETAIL NO SCALE

PAVING SPECIFICATION

- 1) BASE WILL BE PRIMED IN ACCORDANCE WITH SECTION C-31-3 AS PROVIDED IN THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.
- 2) TACK COAT IS REQUIRED IN ACCORDANCE WITH SECTION C-31-4 OF THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.

REVIEWED FOR Howard S. C. D. AND MEETS TECHNICAL REQUIREMENTS
James M. Helms 4-30-74
U.S. SOIL CONSERVATION SERVICE DATE

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

APPROVED: Robert W. Zilmer 4-30-74
HOWARD SOIL CONSERVATION DIST. DATE

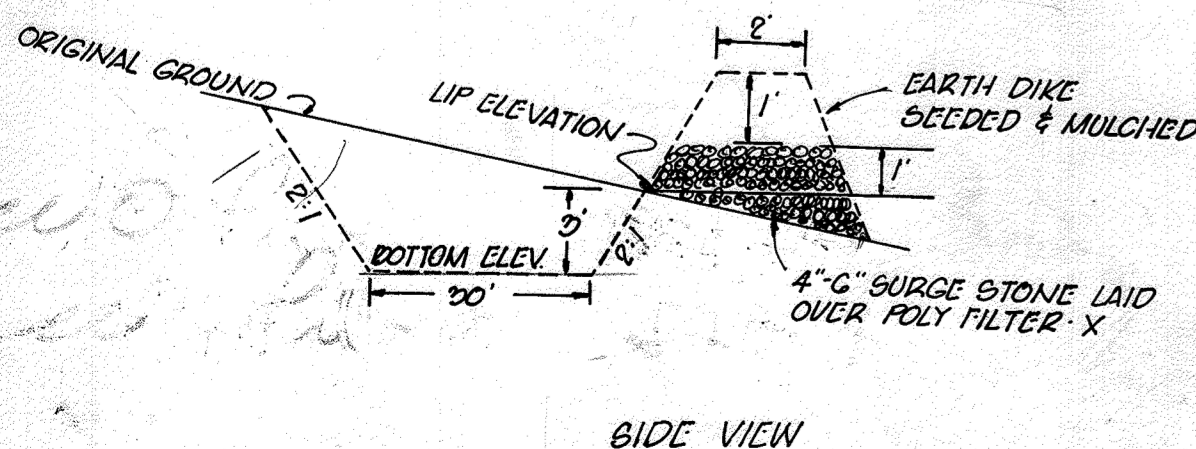
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Philip A. Papella 7/31/73
DATE

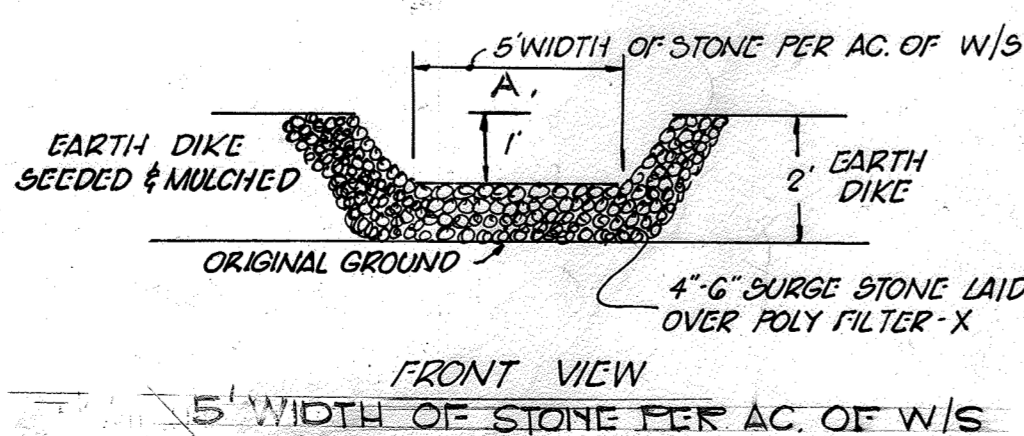


I CERTIFY THAT ALL THE DEVELOPMENT AND / OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL, AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT.

Arthur C. Moadley 8/8/73
DATE



SIDE VIEW

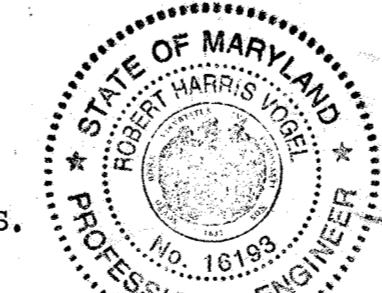


FRONT VIEW

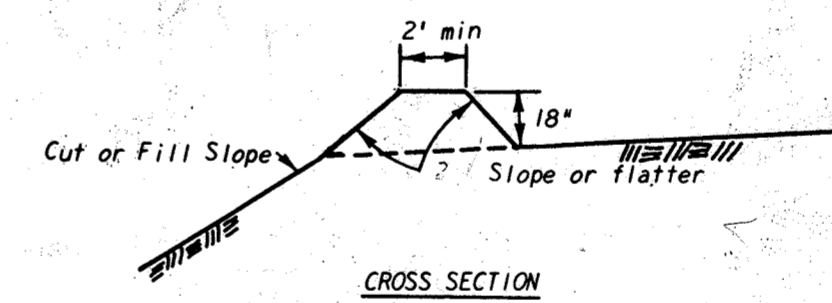
5' WIDTH OF STONE PER AC. OF W/S

- Trap #1 A = 8.70'
- Trap #2 A = 12.45'
- Trap #3 A = 16.25'
- Trap #4 A = 13.25'

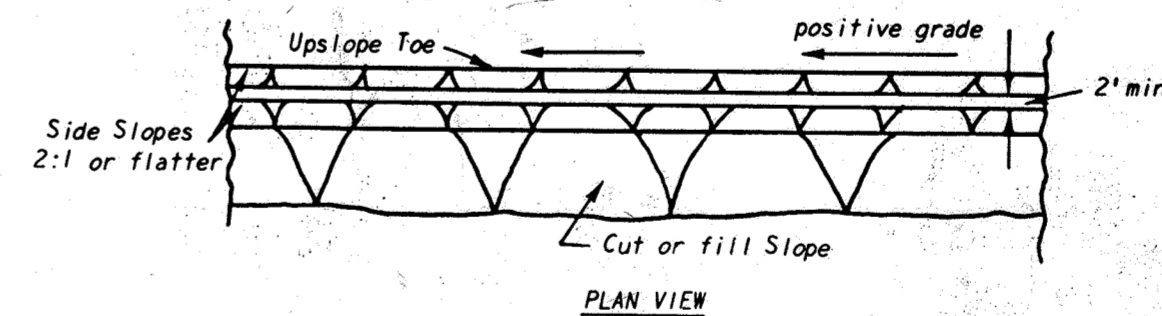
NO.	REVISION	DATE
1	AS-BUILT SWM WORK UNDER J-4016, ELIMINATION OF I-9, REPLACE UNDERGROUND SWM WITH FILTERRA	10/31/23
2	REVISE THE PLAN TO WIDEN THE DRIVEWAY TO MEET HQ. CO. STD.	2/7/20
3	DETAIL R-4.05 AND ADD HANDICAP RAMP AS SHOWN	11/16/13
4	REVISION	



Robert H. Vogel 2/26/13
ROBERT H. VOGEL PE No. 16793



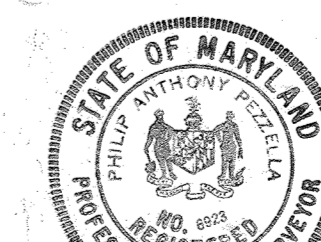
DIVERSION DIKE



PLAN VIEW

General Notes:

1. All drawings Not to Scale.
2. All dikes must be machine compacted.
3. All diversion dikes must have positive grade draining to a stabilized outlet.
4. Diverted runoff will outlet onto a stabilized undisturbed area, a prepared level spreader, or into a grade stabilization structure.
5. Periodic inspection and required maintenance must be provided.



Philip A. Papella 4/16/74

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
HOWARD COUNTY HEALTH DEPARTMENT

J. Thomas L. Harris 6/4/74
COUNTY HEALTH OFFICER DATE
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING.
J. Thomas L. Harris 6-5-74
PLANNING DIRECTOR DATE
J. H. Clawson 6/4/74
CHIEF, DIVISION OF LAND DEVELOPMENT & TRANSPORTATION PLANNING DATE
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS.
William A. Altman 5/24/74
DIRECTOR DATE
W. O. Felbert 5-24-74
CHIEF, BUREAU OF HIGHWAYS DATE



AS-BUILT CERTIFICATION FOR PSWM

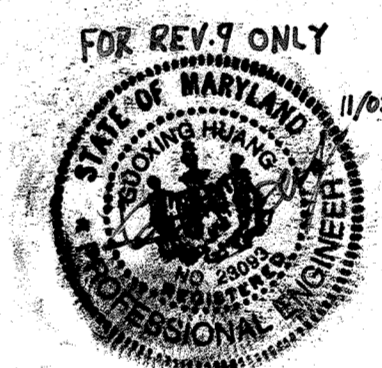
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

J. H. Clawson 16/93 6-12-23
P.E. NAME P.E.# DATE

SITE ANALYSIS:

- 1) TAX MAP NUMBER - 42
 - 2) PARCEL NUMBER - PARCEL A
 - 3) TOTAL AREA OF SITE - 10.381 AC.
 - 4) PRESENT ZONING - NT (INDUSTRIAL)
 - 5) TOTAL NUMBER OF EMPLOYEES - 137
 - 6) TOTAL FLOOR SPACE - 153,000 SQ. FT.
 - 7) SUBDIVISION PLAT REFERENCE - E.G.U. SUBDIVISION SEC. 2, AREA 6 (25/38)
- 8) FINAL DEVELOPMENT PLAN PHASE 142, PLAT BOOK 20 FOLIOS 259 TO 261

APPROVED PLANNING BOARD OF HOWARD COUNTY
Feb. 6, 1974

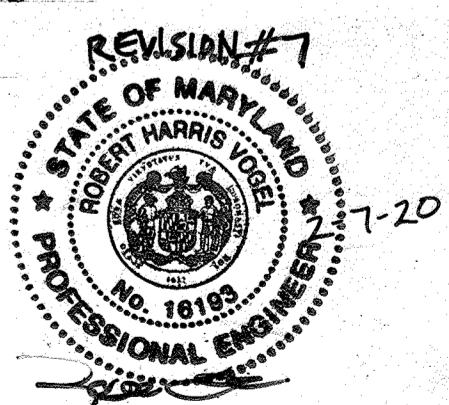


DITUMINOUS CONCRETE SURFACE	BAND C-3	1"
DITUMINOUS CONCRETE BASE	BAND C-2 OR C-3	4"

CLEARING & GRADING	ARTICLE C-1
SUBGRADE	ARTICLE C-2
BASIS COURSE SURFACE	ARTICLE C-31 OR C-33

TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.
DRWG. D-117, PG. 165 g

PARKING LOT DETAIL NO SCALE



NO AS-BUILT INFORMATION ON THIS SHEET

TITLE		ENGINEERING PLANNING SURVEYING	
DETAIL SHEET		BY	
PROJECT E.G.U. SUBDIVISION - SECTION 2, AREA 6 - PARCEL A		BOEDASSOCIATES INC.	
LOCATION 6TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND		ELLICOTT CITY, MD. 21043	
DATE: JULY 1973	DES. BY: -	DRAWN BY: DR	CHKD BY: -
SCALE: AS SHOWN	JOB NO.: 7379	DRWG. NO.: 8 OF 9	301-486-7177

AS-BUILT MARCH 2023

SDP 74-21C

OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, TABLE A.4.1 AND 2.
2. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL. TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
3. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.
2. FILTERING MEDIA OR PLANTING SOIL
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS SHALL BE MIXED OR DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMIUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05. THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:
* SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION)
* ORGANIC CONTENT - MINIMUM 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35% TO 40%) OR SANDY LOAM (30%), COARSE SAND (30%), AND COMPOST (40%).
* CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.
* PH RANGE - SHOULD BE BETWEEN 5.5 - 7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED IN TO THE SOIL TO INCREASE OR DECREASE PH.
THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL, IF TOPSOIL IS IMPORTED. THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

3. COMPACTION
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LOADERS, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TIRE TIRES. USE OF EQUIPMENT WITH TREAD PATTERNS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.
COMPACTION CAN BE ALLEVATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRATURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

4. PLANT MATERIAL
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.

5. PLANT INSTALLATION
COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN ACCORDANCE TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE. ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL. GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.
THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDS THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL USE FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
* PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F758, TYPE PS 28, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OR HDPE).
* PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4x4) GALVANIZED HARDWARE CLOTH.
* GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
* THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.
* A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER.
* A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".
THIS MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).
7. MISCELLANEOUS
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

SOIL TABLE

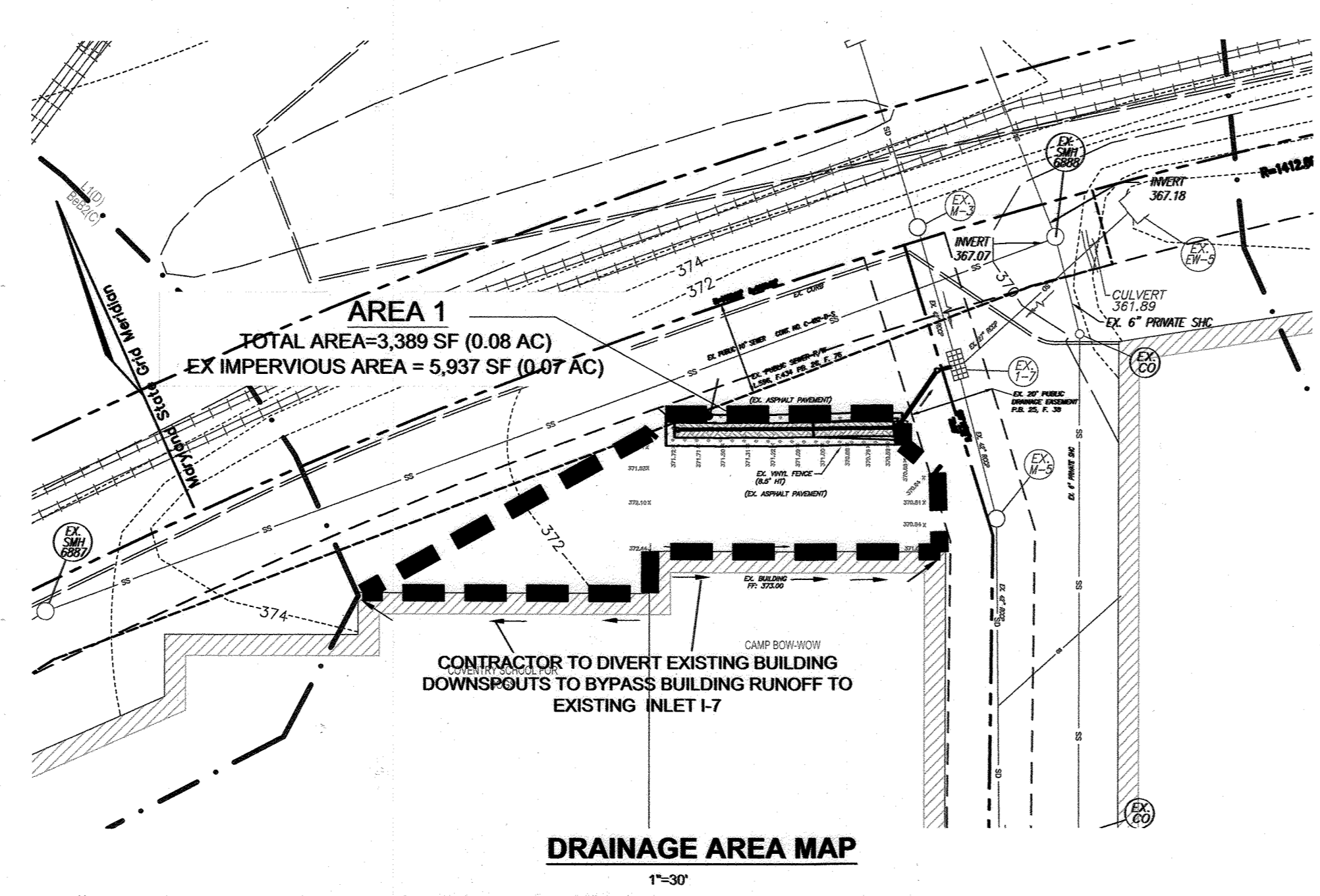
LABEL DESIGNATION	DESCRIPTION	CLASSIFICATION
B62	Beltville Silty Loam, 1 to 5% slopes, moderately eroded	C
L1	Leonardtown Silty Loam	D
SIC2	Sassafras Loam, 5 to 10% slopes, moderately eroded	B

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 7.18.19
CHIEF, DEVELOPMENT ENGINEERING DIVISION & DATE

[Signature] 7-22-19
CHIEF, DIVISION OF LAND DEVELOPMENT & DATE

[Signature] 7-22-19
DIRECTOR & DATE



Appendix B.4. Construction Specifications for Environmental Site Design Practices

Table B.4.1 Materials Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	See Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil [2" to 4" deep]	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" TO 3/4")	
Underdrain piping	F 758, TYPE PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4-inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; $f_c = 3500$ psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-G15-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350.8R/89; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures); and analysis of potential cracking Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.
Sand	AASHTO M-6 or ASTM-C-33	0.02" to 0.04"	

BIOSWALE PLANTING SCHEDULE NOTES

1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT ANNUAL SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HOWARD COUNTY PLANTING SPECIFICATIONS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. FINAL LOCATION OF PLANT MATERIAL MAY VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLANT DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.
4. MICROBIORETENTION AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (0.229 STEMS PER SQUARE FOOT). ABOVE PLANTING RATIOS ARE TO BE APPLIED TO THE AREAS PROVIDED IN THE ESD SUMMARY.
5. FILTER AREA SHALL BE 50% COVERED BY PLANTINGS AT FULL GROWTH

BIOSWALE PLANTING SCHEDULE (SHRUB/ORNAMENTAL GRASSES)

LEGEND KEY	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
IG	2	ILEX GLABRA 'SHAMROCK' / INKBERY HOLLEY	1 GALLON	
HQ	2	HYDRANGEA QUERCIFOLIA / OAKLEAF HYDRANGEA	1 GALLON	

BIOSWALE PERENNIALS/GROUND COVER PLANTING SCHEDULE

LEGEND	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
21	42	PANICUM VIRGATUM SWITCHGRASS	1 GALLON	12"-15" O.C. FOR SIDES AND BOTTOM OF BIOSWALE. MIX ALL VARIETIES IN A NATURALIZED RANDOM PATTERN THROUGHOUT. PLANT IN GROUPS OF NO LESS THAN 9 PLANTS PER CLUMP
41	21	IRIS 'VERSCOLOR' BLUE FLAG	2" POT	
21	21	LIRIODIUM 'MAESTIC' MAESTIC LILY TURF	2" POT	

1. BIO SWALE AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (0.229 STEMS PER SQ. FT).
2. 90 SF WASHED LUTITE / BLUE CLAY - 1 PLANTING UNIT
3. PLANTINGS SHALL BE AS DENIED ABOVE OR WITH EQUAL SUBSTITUTION

Stormwater Management Information

Lot/Parcel Number	Facility Name & Number	Practice Type (Quantity)	Public	Private	HOA Maintains	Misc.
PARCEL A-2	BIO-SWALE (M-8)	1		X	YES	

ESD FACILITY

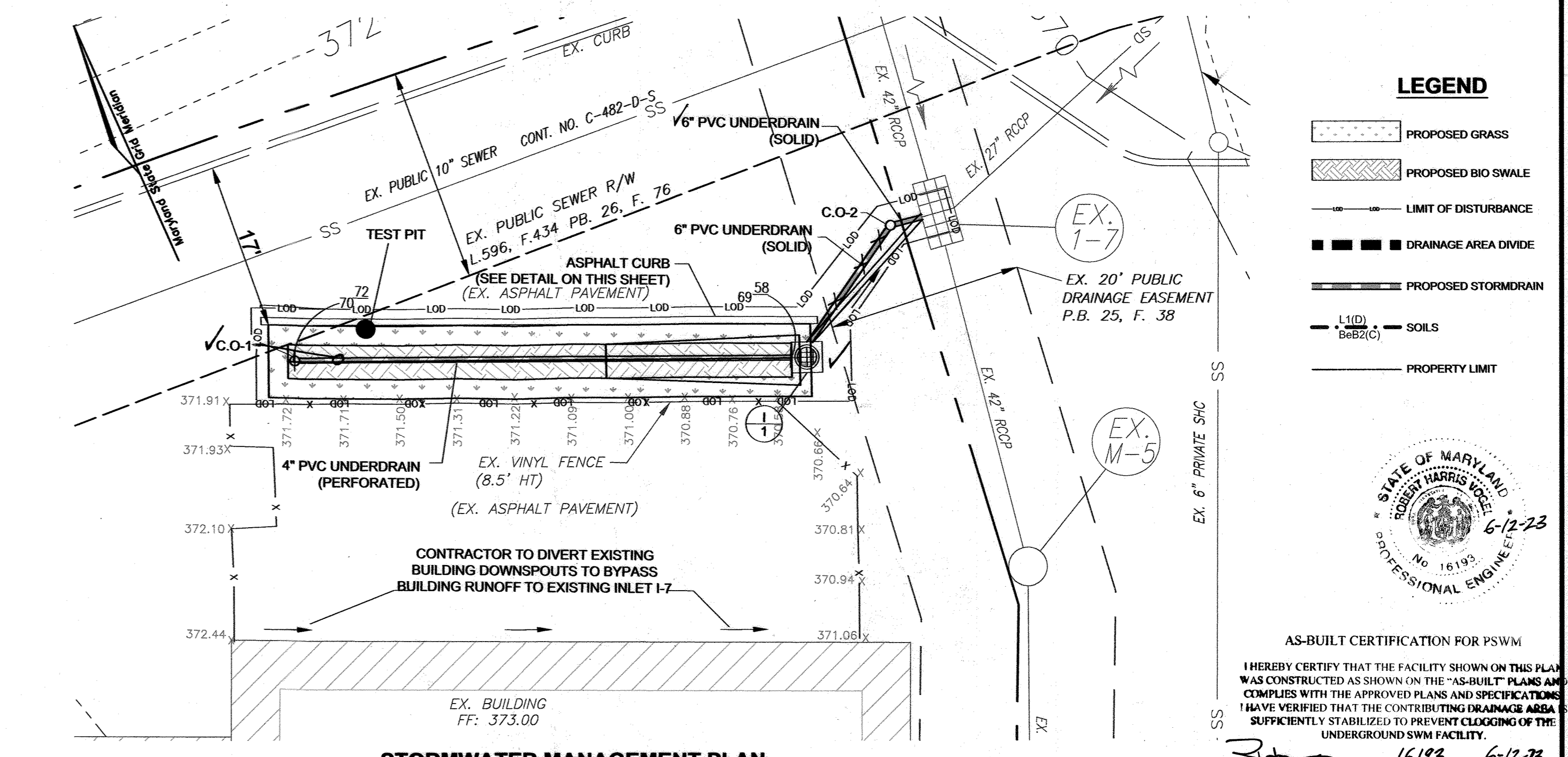
PONDING DEPTH (ft.)	PONDING ELEVATION	TOP OF MULCH ELEV. B	BOTTOM OF MULCH ELEV. C	BOTTOM OF PLANTING SOIL ELEV. D	BOTTOM OF PEA GRAVEL ELEV. E	DEPTH OF STONE (ft.)	SIZE OF UNDERDRAIN (ft.)	INVERT OF UNDERDRAIN	BOTTOM OF STONE ELEV. F	DEPTH OF REV STONE (ft.)	BOTTOM OF REV STONE ELEV. G
1	470.33	469.58	469.33	467.33	467.00	1.41	√0.33	466.42	466.00	0.83	465.59

DRAINAGE AREA CALCULATION

ID	TOTAL (SF)	PERVIOUS AREA (SF)	IMPERVIOUS AREA (SF)	TOTAL (AC)	PERVIOUS AREA (AC)	IMPERVIOUS AREA (AC)	% IMPV	Rv
AREA 1	3,290	377	2,913	0.08	0.01	0.07	89	√0.85

ESDv CALCULATION

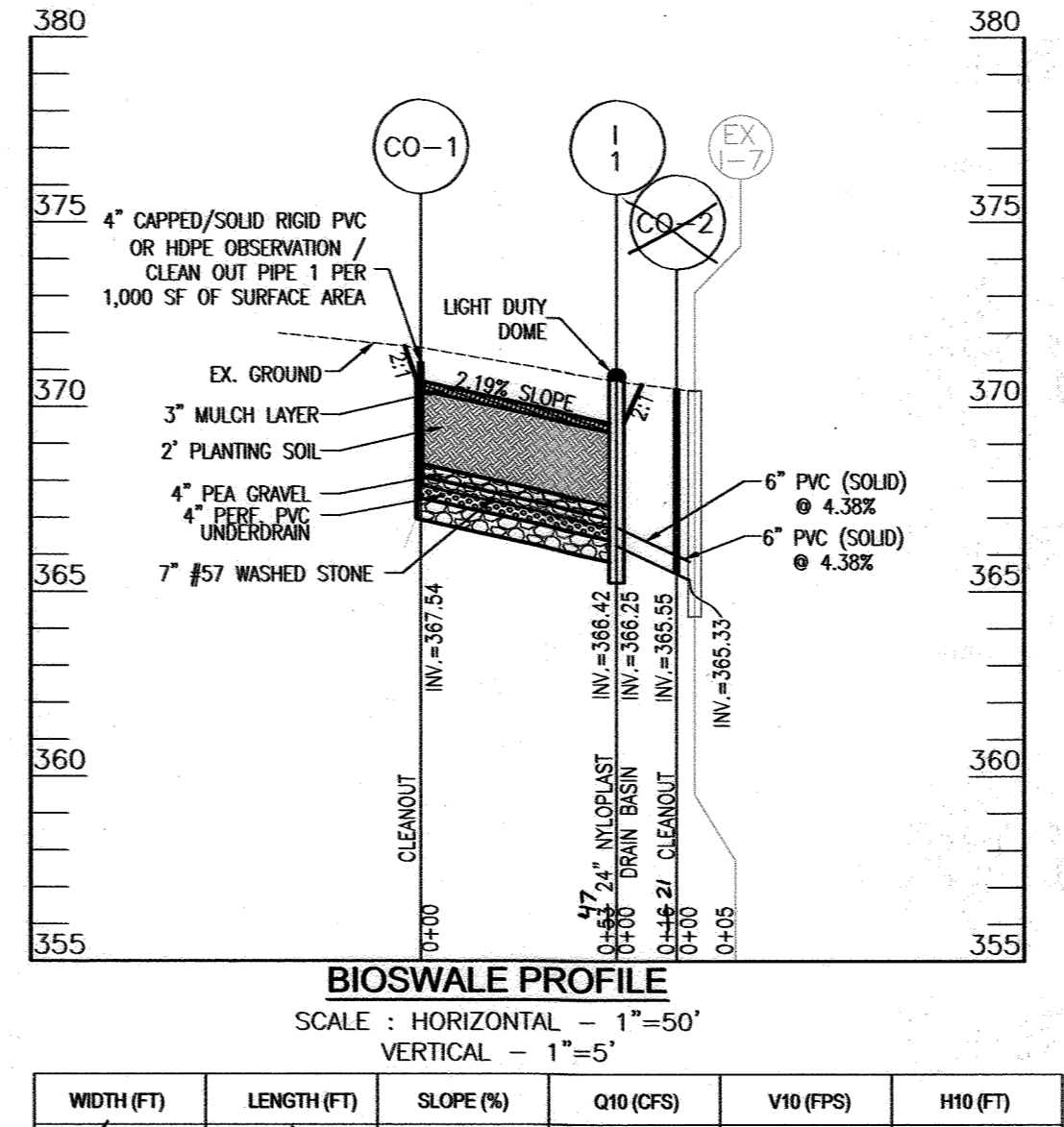
MIN ESDv (CF)	MAX ESDv (CF)	PROVIDED (CF)	PE (IN)	FACILITY TYPE	FACILITY SURFACE AREA (SF)	PONDING DEPTH (in)	Rev Stone Provided (CF)	Rev Stone Depth (FT)
√232	604	√243	1.05	BIO SWALE (M-8)	182	9	114	0.83



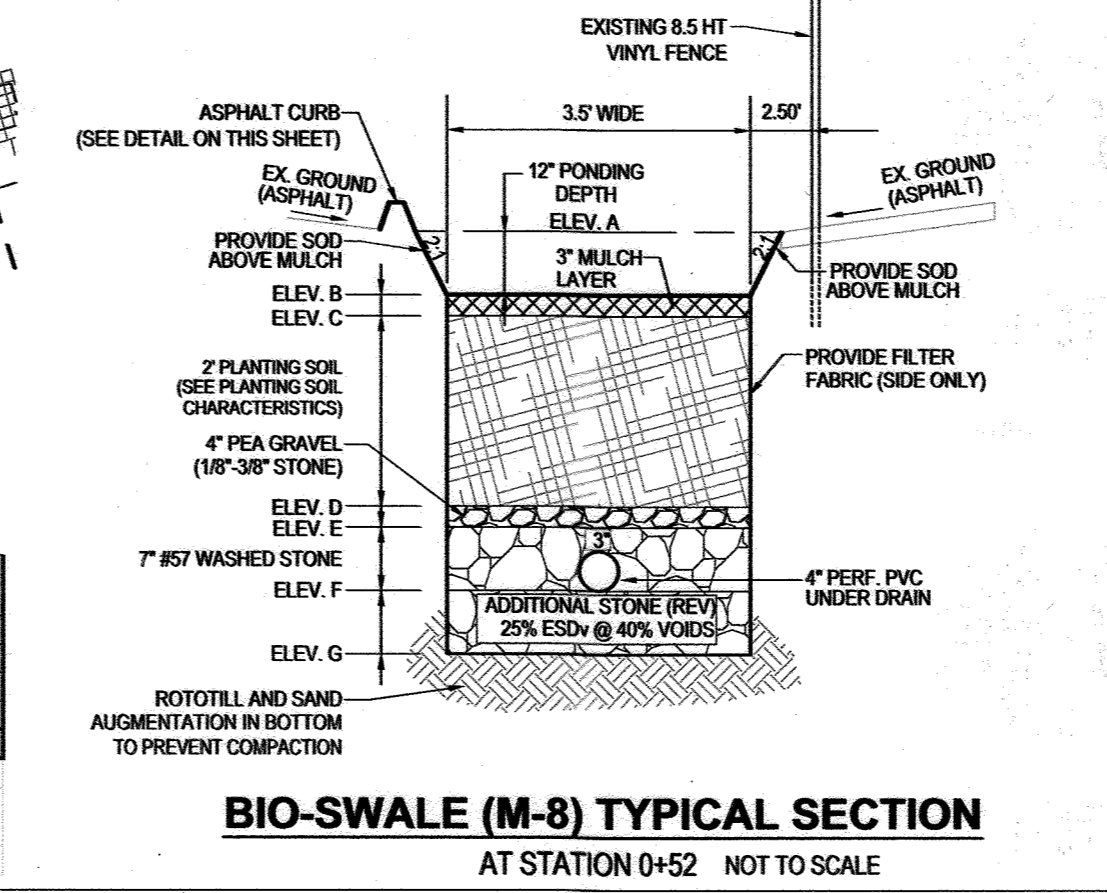
AS-BUILT CERTIFICATION FOR PSWM

HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOSING OF THE UNDERGROUND SWM FACILITY.

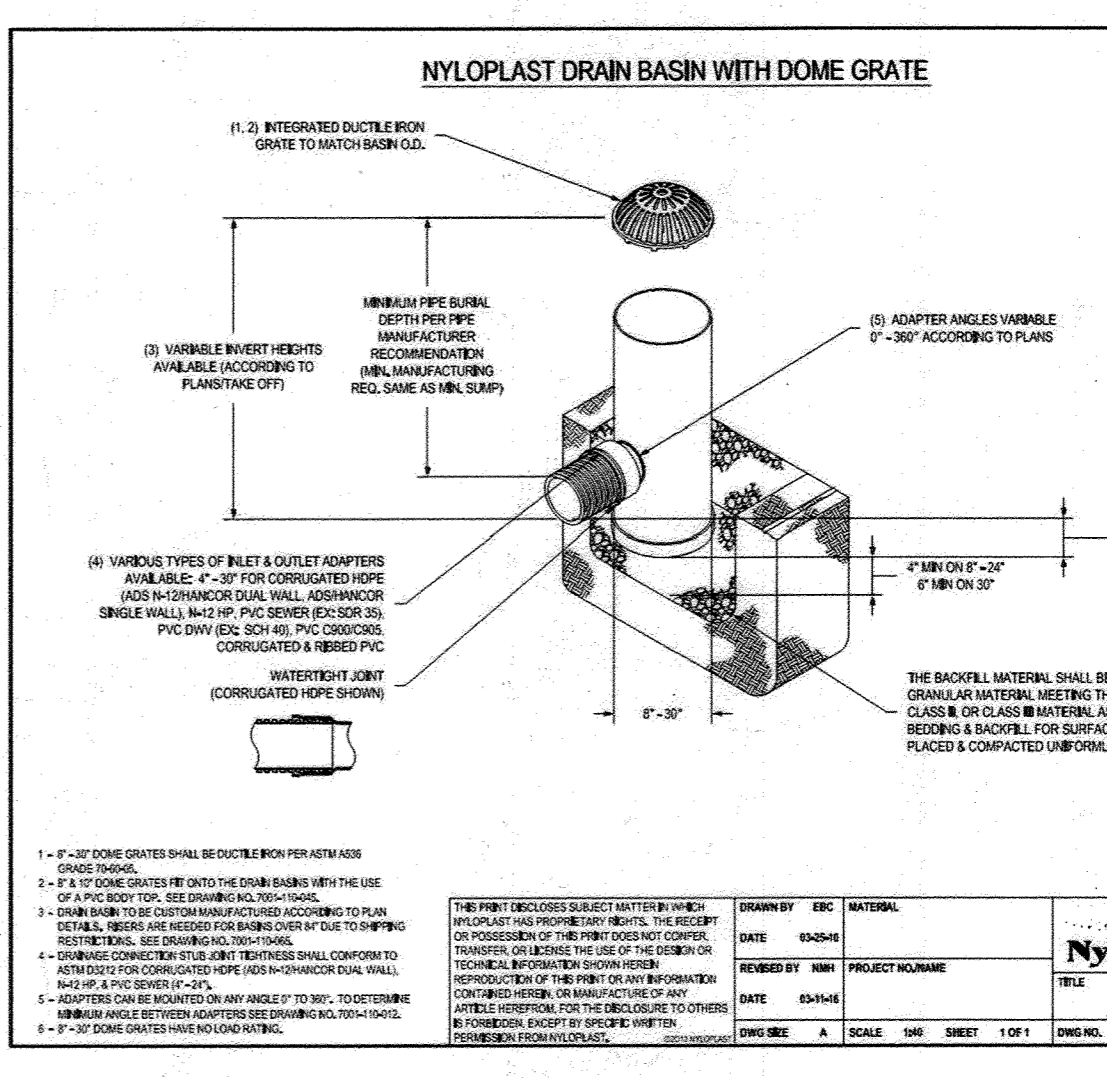
NAME: [Signature] P.E. NO. 16193 DATE: 6-12-23



BIOSWALE PROFILE SCALE: HORIZONTAL - 1"=50' VERTICAL - 1"=5'



TYPICAL ASPHALT CURB NOT TO SCALE



NYLOPLAST DRAIN BASIN WITH DOME GRATE

OWNER/DEVELOPER STONEWOOD BUSINESS CENTER GULFORD 1 LIMITED PARTNERSHIP 1128 LOC JUMP TRAIL ELLICOTT CITY, MARYLAND 21043 301-596-0222

PURPOSE NOTE REVISE THE PLAN TO SHOW AN M-8 BIO-SWALE TO TREAT RUNOFF FROM AN OUTDOOR DOG YARD

NO.	REVISION	DATE
9	AS-BUILT SWM WORK UNDER 3-10% ELIMINATION OF 2-4" REPLACE UNDERGROUND SWM WITH FILTERS	10/31/23
6	REVISE THE PLAN TO SHOW A M-8 BIO-SWALE TO TREAT RUNOFF FROM AN OUTDOOR DOG YARD	10/27/18

REVISED SITE DEVELOPMENT PLAN

SWM DETAILS

STONEWOOD BUSINESS CENTER

TAX MAP 42 BLOCK 11 PARCEL 'A-2' 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
3302 NORTH RIDGE ROAD SUITE 110 ELLICOTT CITY, MD 21043 TEL: 410.461.7566 FAX: 410.461.8961

DESIGN BY: JPR
DRAWN BY: JPR
CHECKED BY: RHV
DATE: OCTOBER 2018
SCALE: AS SHOWN
W.O. NO.: 02-79

LEGEND

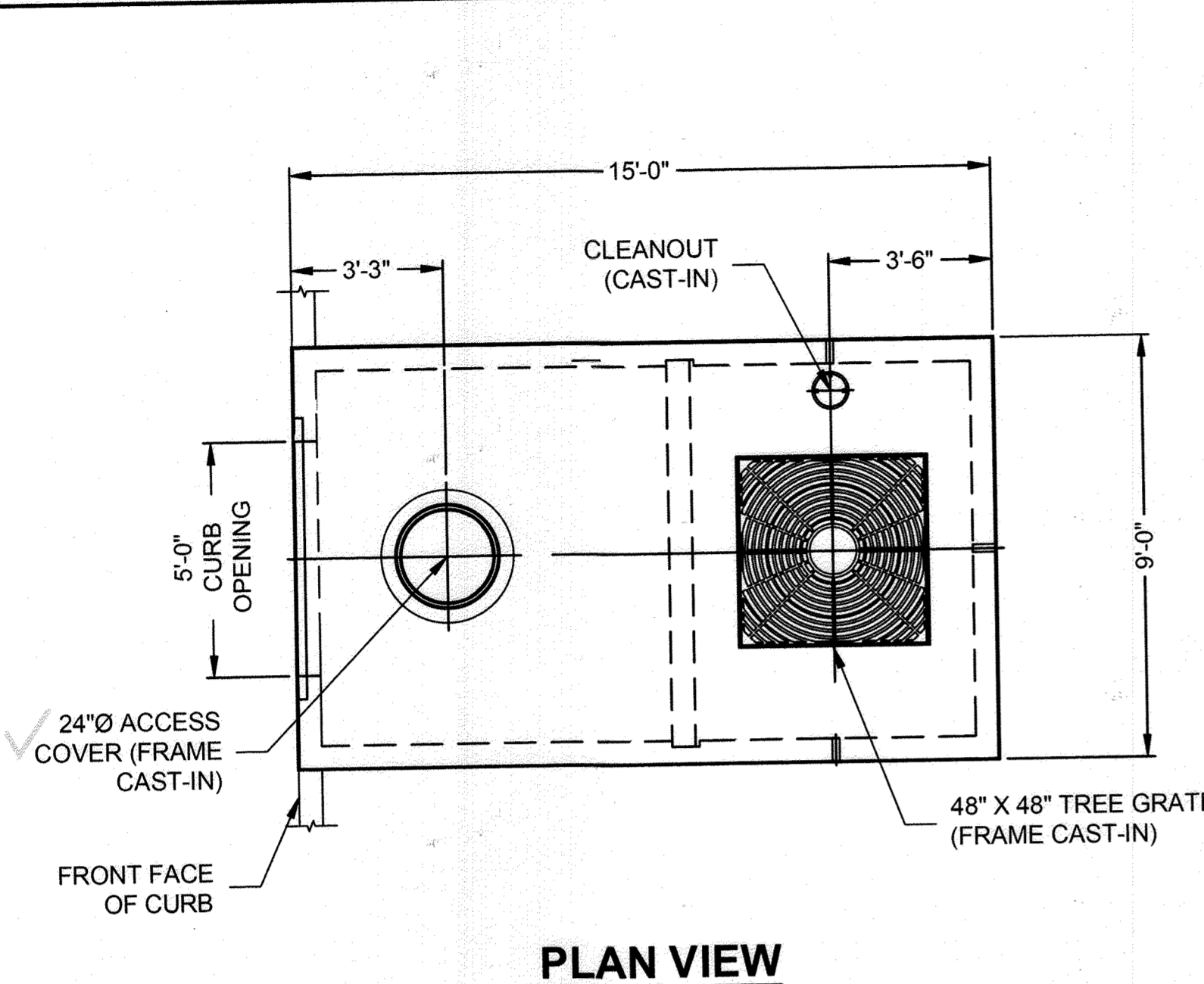
- PROPOSED GRASS
- PROPOSED BIO SWALE
- LIMIT OF DISTURBANCE
- DRAINAGE AREA DIVIDE
- PROPOSED STORMDRAIN
- SOILS (L1(D) B62(C))
- PROPERTY LIMIT

STATE OF MARYLAND
ROBERT H. VOGEL
PROFESSIONAL ENGINEER
NO. 16193
6-12-23

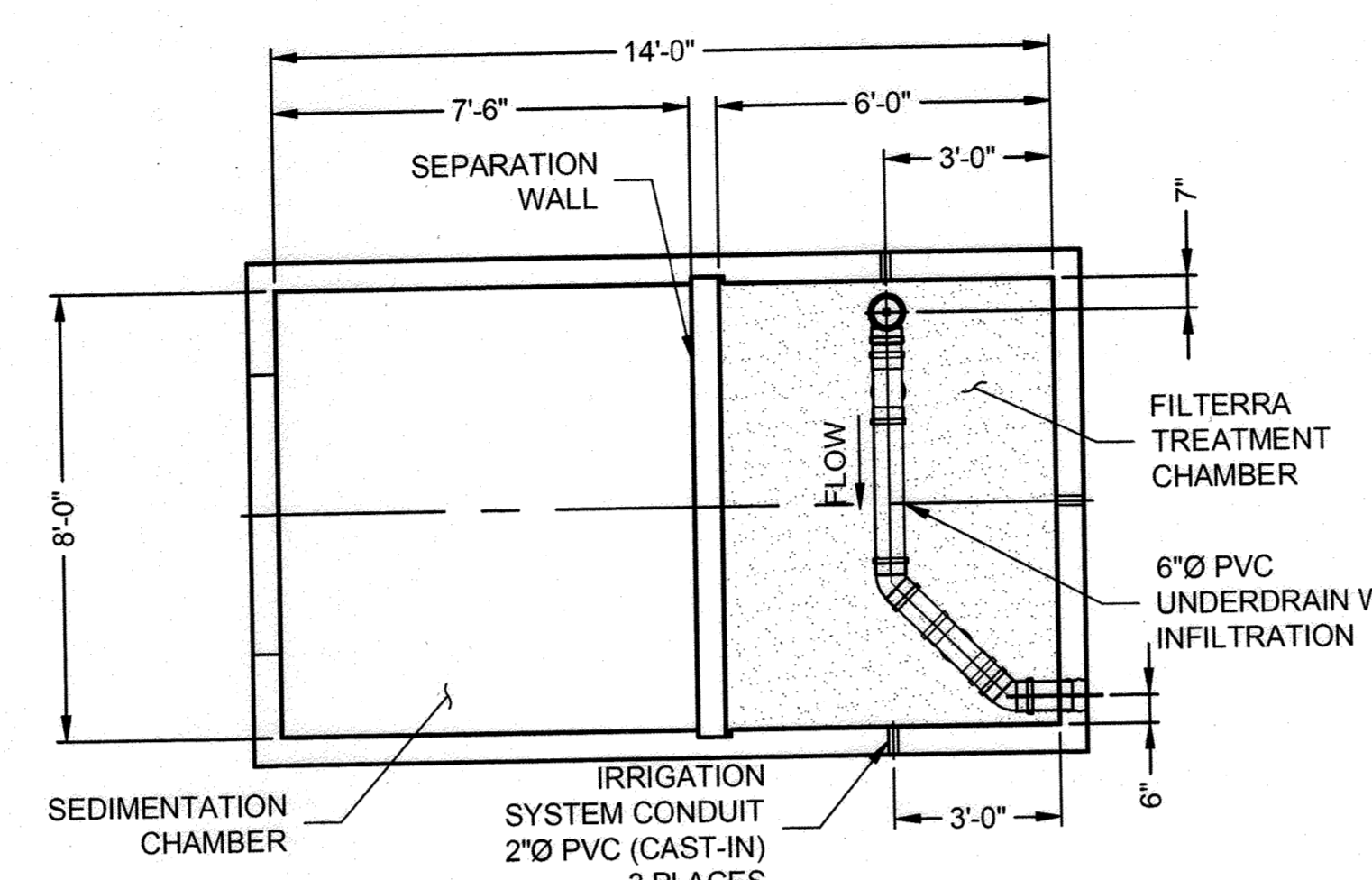
FOR REV. 9 ONLY

STATE OF MARYLAND
ROBERT H. VOGEL
PROFESSIONAL ENGINEER
NO. 16193
11/01/23

I:\MERLIN\PROJECTS\ACTIVE\4863355-20\FILTERRA\DRAWINGS\486355-20-FTSC0806-CONFAB.DWG 11/13/2023 10:58 AM



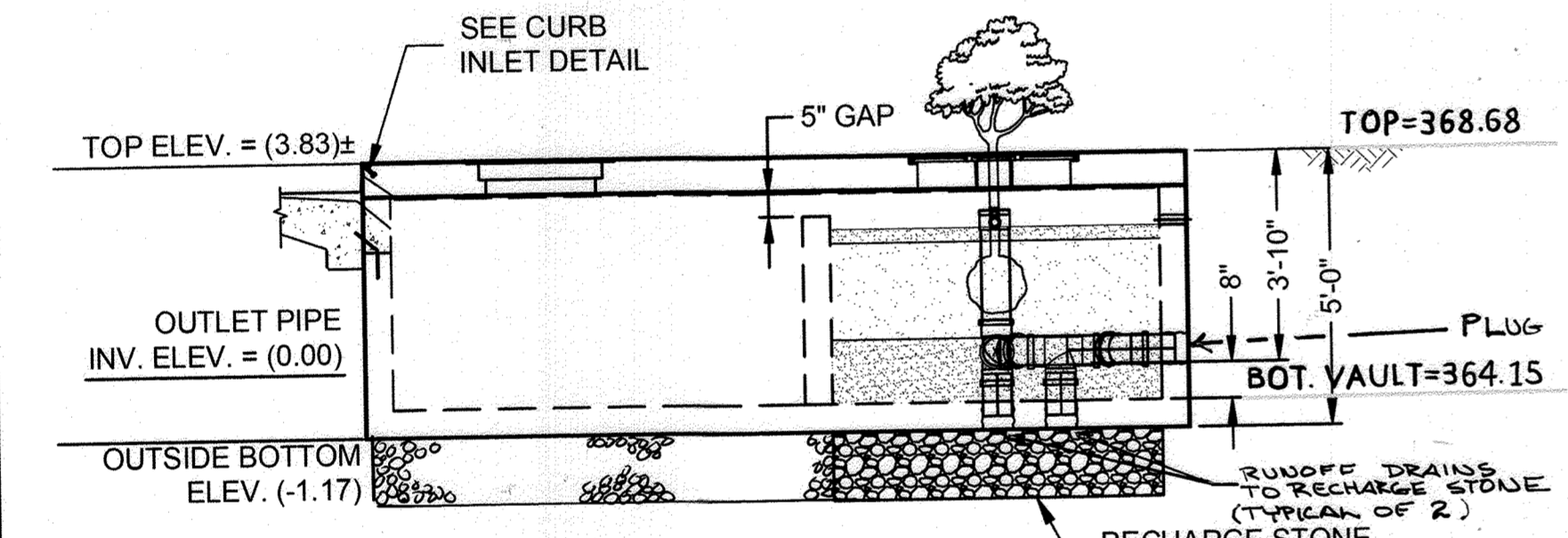
PLAN VIEW



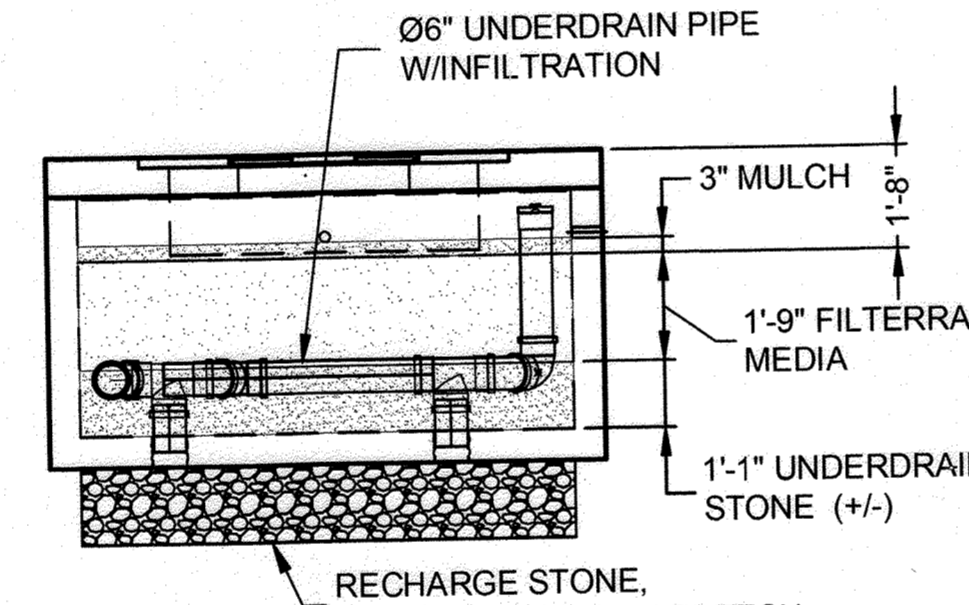
**PLAN VIEW
(TOP SLAB NOT SHOWN)**

MATERIALS LIST		
COUNT	DESCRIPTION	INSTALLED BY
1	PLANT. SEE INSTALLATION NOTE F	CONTECH
12 CF	MULCH. SEE INSTALLATION NOTE F	CONTECH
1	ENERGY DISSIPATION ROCK LAYER	CONTECH
84 CF	STANDARD FILTERRA MEDIA (4.20 T)	CONTECH
24 CF	1/2" #4 ROUND AGGREGATE UNDERDRAIN STONE (1.14 T)	CONTECH
1	FILTERRA FLOWKIT 608B-S-INF	CONTECH
1	TREE GRATE FRAME (CAST-IN), GALV.	CONTECH
1	48" X 48" TREE GRATE WITH 6" OPG.	CONTECH
1	7"Ø X 8" CLEANOUT (CAST-IN)	CONTECH
1	24"Ø X 4" ACCESS FRAME AND COVER EJ #41600389	CONTECH
3	2"Ø PVC IRRIGATION CONDUIT	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
6 LF	2-1/2" X 2-1/2" X 1/4" (CAST-IN)	CONTECH

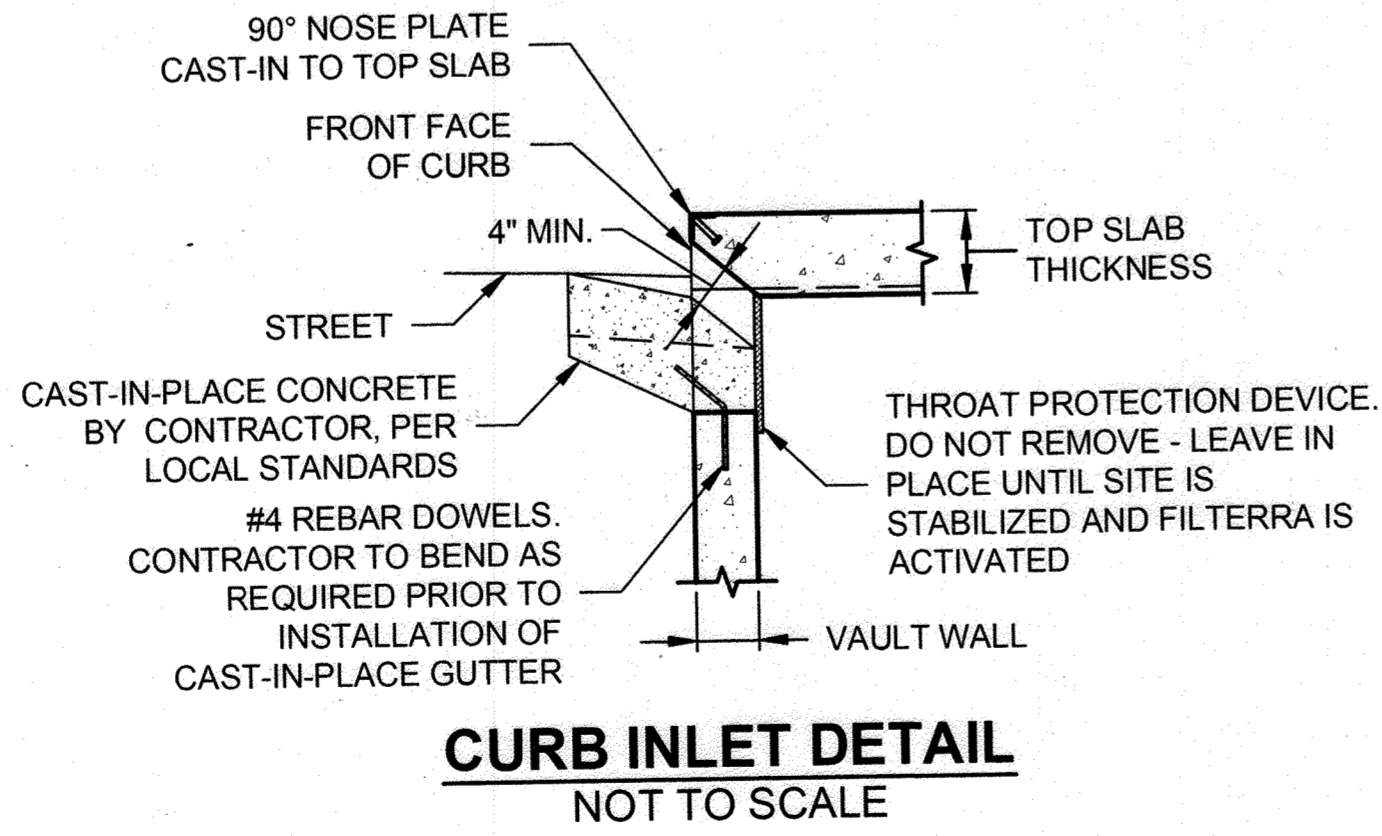
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ELEVATION VIEW



RIGHT END VIEW



**CURB INLET DETAIL
NOT TO SCALE**

- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE
 - FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
 - FILTERRA WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING
 - STRUCTURE SHALL MEET PEDESTRIAN (300 PSF) LIVE LOAD WITH HS-20 SURCHARGE AND H-5 LOAD AT THE CURB INLET, ASSUMING EARTH COVER OF 0'-4" AND GROUNDWATER ELEVATION AT OR BELOW FINISH GRADE ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION
 - FILTERRA STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C857, ASTM C918 AND ACI-318 LOAD FACTOR DESIGN METHOD
 - TOP SLABS WITH EXPOSED SURFACES TO HAVE A BROOM FINISH WITH TOOLING AROUND THE PERIMETER (~2" SMOOTH TROWELED EDGE)
 - PLANT, MULCH AND DISSIPATION ROCKS SUPPLIED BY CONTECH AND DELIVERED AT TIME OF SYSTEM ACTIVATION. PLANT SELECTION SHALL BE DONE BY THE ENGINEER OF RECORD IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS

- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE FILTERRA STRUCTURE. SPREADER BAR WITH SUFFICIENT CABLE IS REQUIRED FOR SAFETY AND REDUCTION OF DAMAGE TO CONCRETE STRUCTURE
 - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE
 - CONTRACTOR TO SUPPLY AND INSTALL INLET PROTECTION BAR IF REQUIRED BY LOCAL JURISDICTION
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT FILTERRA MEDIA BAY FROM CONSTRUCTION-RELATED EROSION RUNOFF
 - CONTECH IS RESPONSIBLE FOR ACTIVATION OF THE SYSTEM WHICH INCLUDES PLANTING OF THE SPECIFIED PLANT, MULCH INSTALLATION, AND PLACING OF DISSIPATION ROCK. ACTIVATION ONLY OCCURS WHEN THE SITE IS FULLY STABILIZED WITH FINAL PAVEMENT INSTALLED AND SWEEPED CLEAN OF CONSTRUCTION SEDIMENT
 - CONTACT CONTECH MAINTENANCE AND FIELD OPERATIONS AT 513-645-7770 TO SCHEDULE ACTIVATION
 - IT IS RECOMMENDED THAT ALL FILTERRA UNITS BE WATERED BY IRRIGATION LINES OR SPRINKLER SYSTEMS ON A REGULAR BASIS. FILTERRA UNITS MAY BE EQUIPPED WITH IRRIGATION HOLES FOR NEW OR EXISTING IRRIGATION LINES UPON REQUEST

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 32,500 LBS.
BASE SECTION SHIPPED WITH STONE AND FILTERRA MEDIA INSTALLED
STRUCTURE DELIVERED IN 2 PIECE(S)
MAX. FOOTPRINT = 9' x 15'

CONTECH
CONTRACT
DRAWING

GILLESPIE PRECAST
LAYOUT 2
FTSC0806V8X14

FILTERRA SEDIMENTATION CHAMBER
 FTSC 6 x 8 486355-020
 STONEWOOD BUSINESS CENTER
 FILTERRA RETROFIT
 ELLICOTT CITY, MD
 for SYSTEM: FILTERRA (1-4)

CONTECH
 ENGINEERED SOLUTIONS LLC
 www.ContechES.com
 4863355-020
 11/13/2023

filterra
 THE PRODUCT LINE IS REGISTERED TO THE COMPANY OF
 CONTECH ENGINEERED SOLUTIONS LLC, 11501 W. 130TH ST., OVERLAND PARK, KS 66209

DATE: 11/11/23
 DESIGNED: MAK
 DRAWN: DWB
 CHECKED: MAK
 APPROVED: MAK
 PROJECT No.: 486355
 SEQUENCE No.: 020
 SHEET: 1 OF 1

ENDESCO, INC.
ENGINEERS, DESIGNERS & CONSULTANTS
15245 SHADY GROVE RD
SUITE 335
ROCKVILLE, MD 20850
TEL: (301) 987-8776
FAX: (301) 987-8777

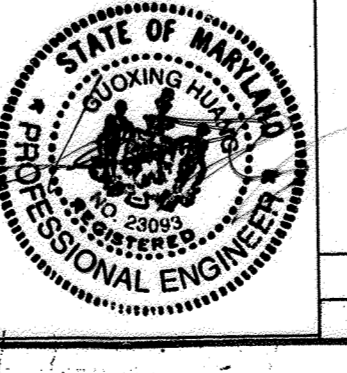
APPROVED BY: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

KEVIN GUOXING HUANG
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/4/23

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 12/18/23

KEVIN GUOXING HUANG
 FOR ENDESCO, INC.
 DATE: 10/31/2023

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 230993, EXPIRATION DATE: MAY 06, 2025



8	AS-BUILT SWM WORK UNDER J-4076, ELIMINATION OF I-4, REPLACE UNDERDRAINING SWM WITH FILTERRA	10/31/23
NO	REVISION	DATE

TITLE: FILTERRA SYSTEM DETAILS

PROJECT: E.G.U. SUBDIVISION SECTION 2 AREA C PARCEL A AS-BUILT

LOCATION: 6TH ELECTION DISTRICT, HOWARD CO, MARYLAND

DATE: 9/11/23 | DES. BY: T.S. | DRAWN BY: TPD | CHKD BY:

SCALE: 1"=20' | JOB NO.: 7379 | DRWG. NO.: 10 of 10

ENGINEERING PLANNING SURVEYING
BOENDER ASSOCIATES INC.
ELLICOTT CITY, MD 21043
301-465-7777

SDP 74-021C