

Site Data

TOTAL AREA OF SITE: 37.0812 Ac. +/-
 EXISTING ZONING: M-1
 PROPERTY REFERENCE: Parcel L, Plat # 6812 & 6813, F-86-182
 EXISTING USE: WAREHOUSE / OFFICE / RECREATION
 PROPOSED USE: WAREHOUSE / OFFICE / RECREATION / ATHLETIC CENTER
 BUILDING COVERAGE: 367,958 Sq. Ft. or 8.45 Ac. +/-
 % BUILDING COVERAGE: 22.80 %
 AREA TO BE PAVED: 920,619 Sq. Ft. or 21.13 Ac. +/-
 % PARKING LOT COVERAGE: 57 %
 OPEN SPACE: 20.2 %
 OPEN SPACE COVERAGE: 326,700 Sq. Ft. or 7.5 Ac. +/-
 TOTAL AREA OF PARKING LOT: 920,619 Sq. Ft. or 21.13 Ac. +/-
 AREA TO BE DISTURBED: 871,200 Sq. Ft. or 20.0 Ac. +/-
 AREA TO BE VEGETATIVELY STABILIZED: 204,732 Sq. Ft. or 4.7 Ac. +/-
 PREVIOUS SDP NO.: 86-258
 FINAL PLAT NO.: F 97-108

NET INCREASE OF ASPT IMPERVIOUS AREA (0.001 AC)

BUILDING AREA:
 Office

Subtotal - Office: 317,325 Sq. Ft.

RECREATION - ATHLETIC CENTER: 42,332 SQ. FT.

Warehouse: 253,648

PARKING: RECREATION - ATHLETIC CENTER: 42,332 @ 10 SPACES/1000 SF = 423 SPACES

Office: 317,325 @ 3.3 SP/1000 SF = 1,047 SPACES

Warehouse: 253,648 @ 0.15 SP/1000 SF = 190 SPACES

PARKING REQUIRED: 1,661 Spaces

PARKING PROVIDED: 1,975 Spaces

HANDICAPPED SPACES REQUIRED: 39

HANDICAPPED PARKING PROVIDED: 46

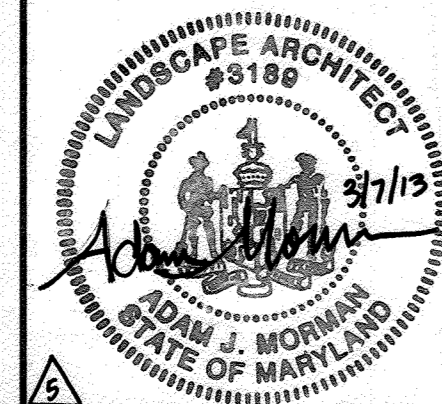
Note
 BUILDING WILL HAVE AUTOMATIC FIRE SPRINKLER SYSTEM.

Legend

- EX. 2' CONTOURS: 394
- EX. 5' CONTOURS: 395
- PROP. 2' CONTOURS: 394
- PROP. 5' CONTOURS: 395
- EX. CURB & GUTTER
- PROP. CURB & GUTTER
- BLDG. RESTRICTION LINE
- EX. SANITARY
- EX. STORM DRAIN
- EX. WATER
- EX. UG ELECTRIC: UGE
- EX. UG TELEPHONE: T
- EX. UG GAS: G
- EX. STREET LIGHT
- PROP. STORM DRAIN
- PROP. WATER
- SOILS LINE
- SPOT ELEVATION: 345.6 +
- FLOW ARROW
- EX. RAILROAD TRACKS
- PROPOSED RESURFACING
- PROPOSED NEW PAVING

NOTE:
 The owner shall provide a separate and independent sewer connection for each tenant or occupant of any building, shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120



Site Development Plans

for

The Renaissance at Columbia Gateway Howard County, Maryland

S.D.P. 99 - 59

Developer

Preferred Real Estate Investments, Inc.

555 North Lane, Suite 6101

Conshohocken, PA 19428

610 834-1969

Owner
 COLGATEDRIVE ASSOCIATES

Columbia/95 Group L.P.

6711 7125 Columbia Gateway Drive

Columbia, Maryland 21046

REVISION #15
 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED FILTERA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

THIS SEAL FOR REV. #15 ONLY

Professional Certification: 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.: 59816 Expiration Date: 8/23/2024

10.11.23

CIVIL GENERAL NOTES & LEGEND 33
 CIVIL GRADING PLAN & RETAINING WALL SECTION 34
 REVISED SITE DEVELOPMENT PLAN COVER SHEET 35
 REVISED SITE DEVELOPMENT PLAN CONCEPT PLAN 36
 REVISED SITE DEVELOPMENT PLAN DETAILS AND NOTES 37

REVISION #14
 ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING. VERIFIED EXISTING PARKING AND UPDATED EXISTING PARKING CALCULATIONS. FOR MEZZANINE ADDITION, ADDED FENCE AND GATE BY SOUTH LOADING AREA.

THIS SEAL FOR REVISION #14 ONLY

Professional Certification: 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. 25058 EXPIRATION DATE 11-17-2020

8-7-2020

REVISION #13 - REVISED PARKING, CURB CUTS AND ADD FENCE AT EXISTING TREES, REMOVE TRASH COMPACTOR AND CONCRETE, SEED AND MULCH FENCE DETAIL ADDED

THIS SEAL FOR REVISION #13 ONLY

BY: MK CONSULTING ENGINEERS, LLC

Professional Certification: 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. 25058 EXPIRATION DATE 11-17-2020.

STORMWATER MANAGEMENT EXEMPTION NOTE:
 THE CUMULATIVE LOD OF 4,836 SFT IS EXEMPT FROM PROVIDING STORM WATER MANAGEMENT. FOR ANY FUTURE REVISIONS WHERE THE CUMULATIVE LOD EXCEEDS 5,000 SFT, THEN STORMWATER MANAGEMENT SHALL BE ADDRESSED.

Construction Notes

GENERAL NOTES

* FOR ADDITIONAL CONSTRUCTION NOTES, SEE SHEET 31

- G1. THE CONTRACTOR SHALL MEET ALL EXISTING IMPROVEMENTS SMOOTHLY FOR LINE, GRADE, & FINISH.
- G2. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPT. OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880, AT LEAST 24 HOURS PRIOR TO STARTING ANY WORK HEREON. ALL WORK SHOWN ON THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND OF THE MARYLAND STATE HIGHWAY ADMINISTRATION AND THE HOWARD COUNTY PLUMBING CODE, UNLESS OTHERWISE NOTED.
- G3. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM SUCH WORK. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE BASE BID.
- G4. THE CONTRACTOR SHALL INSPECT THE SITE TO DETERMINE IF ANY TREES, PAVING, ETC. ARE TO BE REMOVED PRIOR TO PLACING A BID ON SUCH ITEMS.
- G5. THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN ANY SCALED DIMENSIONS AND THE FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- G6. THE LOCATION OF EXISTING UTILITIES SHOWN HEREON IS APPROXIMATE ONLY AND IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE LOCATIONS ARE TAKEN FROM EXISTING RECORDS AND DO NOT REPRESENT FIELD-VERIFIED LOCATIONS. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF 5 WORKING DAYS PRIOR TO DIGGING. THE CONTRACTOR SHALL CONFIRM TO HIS/HER OWN SATISFACTION THE LOCATION OF ALL UTILITIES PRIOR TO PLACEMENT OF ANY MATERIALS. IF ANY CONFLICT IS FOUND BETWEEN ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE OWNER / DEVELOPER, THE OWNER OF THE UTILITY AND G.W. STEPHENS AND ASSOC. IMMEDIATELY. ANY DAMAGE OR DISRUPTION OF SERVICE SHALL BE AT THE EXPENSE OF THE CONTRACTOR. RELOCATION OF ANY EXISTING UTILITIES, IF NECESSARY, SHALL BE AT THE EXPENSE OF THE OWNER. THE CONTRACTOR SHALL COORDINATE RELOCATION OF THESE FACILITIES, IF NECESSARY.

- G7. CONTRACTOR SHALL PROTECT ALL EXISTING TREES OUTSIDE THE LIMIT OF DISTURBANCE AT ALL TIMES DURING CONSTRUCTION. PRIOR TO BEGINNING ANY CONSTRUCTION, 3' HIGH ORANGE PLASTIC SAFETY NETTING OR WOODEN SNOW FENCE SHALL BE ERRECTED AS SHOWN AROUND EACH TREE DESIGNATED FOR PROTECTION.
- G8. CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT SCHEDULED FOR REMOVAL OR DEMOLITION. COST OF REPAIR TO EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE BASE BID. ALL EXISTING SITE FEATURES NOT BEING RETAINED SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION. ANY DAMAGE TO OFFSITE ROADS, RIGHTS OF WAY, OR ADJACENT PROPERTY SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF THE CONTRACTOR.
- G9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNER AND G.W. STEPHENS AND ASSOC. OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- G10. SUITABLE MATERIAL SHALL BE USED AS FILL AND ALL FILL SHALL BE PLACED AND COMPACTED AS SPECIFIED IN THE SOILS REPORT PREPARED FOR THIS SITE OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. ALL 2:1 SLOPES SHOWN HEREON, EXCEPTING THOSE ASSOCIATED WITH LANDSCAPE BERMING, MUST BE OBSERVED BY A GEOTECHNICAL ENGINEER DURING EARTH PLACEMENT.
- G11. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND SITE PLAN & DETAILS PLANS FOR PAVING DIMENSIONS.
- G12. CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES DURING CONSTRUCTION.
- G13. TOPOGRAPHY SHOWN WITHIN WORK AREA HEREON IS BASED ON AERIAL TOPOGRAPHY BY SDI. GEOGRAPHIC TECHNOLOGIES OF EASTON MARYLAND SUPPLEMENTED BY FIELD RUN TOPOGRAPHY. ALL PROPERTY BOUNDARY INFORMATION IS TAKEN FROM RECORDED PLATS AND DOES NOT REPRESENT A FIELD SURVEYED BOUNDARY.
- G14. THE CONTRACTOR SHALL PLACE A MINIMUM OF 4" TOPSOIL IN LANDSCAPE AREAS. TOPSOIL SHALL BE APPROVED BY LANDSCAPE ARCHITECT.
- G15. THE CONTRACTOR SHALL RESTORE ENTIRE WORK AREA TO ORIGINAL CONDITIONS, UNLESS OTHERWISE NOTED.
- G16. UNLESS OTHERWISE NOTED, THE BID LINE FOR EXCAVATION WILL BE SUBGRADE UNDER PROPOSED ROADS, ESTABLISHED GRADE UNDER TURF AREAS, AND EXISTING GRADE ALONG EXISTING PAVEMENT.

- G17. MODIFICATIONS TO EXISTING WATER LINES TO BE PERFORMED UNDER CONTRACT NO. 44-1539-D AND 24-1440-D.
- G18. MODIFICATIONS TO COLUMBIA GATEWAY AND ROBERT FULTON DRIVE AS WELL AS AFFECTED STORM DRAINS TO BE PERFORMED UNDER F 86-182 AND F 92-15.
- G19. SEE SHEET 32 OR 32 FOR ADDITIONAL CONSTRUCTION NOTES.
- G20. EXISTING CHAINLINK FENCE AND GATE FABRIC TO BE REPLACED WITH NEW FABRIC. EXISTING POSTS, GATES AND OTHER ACCESSORIES SHALL BE PAINTED W/SLIVER GALVANIZING PAINT AS MANUFACTURED BY RUSTOLEUM CO. OR APPROVED EQUAL. FENCE, GATE AND POLES SHALL BE CLEANED OF ALL LOOSE RUST AND SCALE AND PRIMED W/IZING BASED PRIMER PRIOR TO FINAL PAINTING. NEW FENCE POSTS, GATES, AND FABRIC SHALL MATCH EXISTING HEIGHT AND SHALL BE GALVANIZED. CONTRACTOR SHALL PROVIDE SEPARATE BID PRICE TO REPAIR AND REPAINT ALL FENCE FABRIC AROUND BASKETBALL COURT IN LIEU OF REPLACING EXISTING CHAIN LINK FENCE FABRIC. CONTRACTOR SHALL PROVIDE SEPARATE CREDIT FOR REPLACEMENT OF EXISTING FENCE FABRIC. REPAIR OF EXISTING POLES AND GATE SHALL BE AS NOTED ABOVE. LOCKS SHALL BE PROVIDED BY OWNER. CHAIN LINK FENCE SHALL MEET ALL SHA STANDARDS.

REVISIONS
 09/07/2011 BY: ANTHONY CHANDLER DESIGN AND GENERAL ENGINEERING P.A. CONSULTING ENGINEER, COLLABORATE WITH COUNTY PLANNING, LEAVE PARKING COUNT

REVISIONS
 01/21/13 D.W.M. REVISED CURB & GUTTER AND ISLANDS. ADDED STAIR TOWER.

12/08-REVISED PARKING TABULATION

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.

REVISIONS
 8-30-99 GWS REVISED PARKING TABULATION
 1/29/99 G.W.B. REVISED H.C. PARKING

REVISED SITE DATA 8/20/04

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.

REVISIONS
 8-30-99 GWS REVISED PARKING TABULATION
 1/29/99 G.W.B. REVISED H.C. PARKING

REVISED SITE DATA 8/20/04

09/16/16 UPDATED PARKING COUNTS FOR INDOOR RECREATIONAL USE. THIS SEAL IS FOR 12A REVISIONS MADE BY SITE RESOURCES, INC. SEE SHEETS 2, 3, 4, 5, 8, 12B & 30

REVISION
 NEW RAMP & HC PARKING. REVISED PARKING COUNT TO INCLUDE RECREATIONAL USE.

THIS SEAL IS FOR REVISIONS MADE BY SITE RESOURCES, INC.

Professional Engineer Seal for State of Maryland, License No. 23189, Exp. 11/13.

REVISION
 SLAIN DRAIN. ADDED GUMBOIL ENCLASURE, BOLLARDS, AND CONDUIT. REVISED PARKING COUNT.

Professional Engineer Seal for State of Maryland, License No. 23189, Exp. 11/13.

APPROVED: Howard County Department of Planning and Zoning

Chief, Development Engineering Division MK 6/11/99 DATE

Chief, Division of Land Development 6/11/99 DATE

Director 6/14/99 DATE

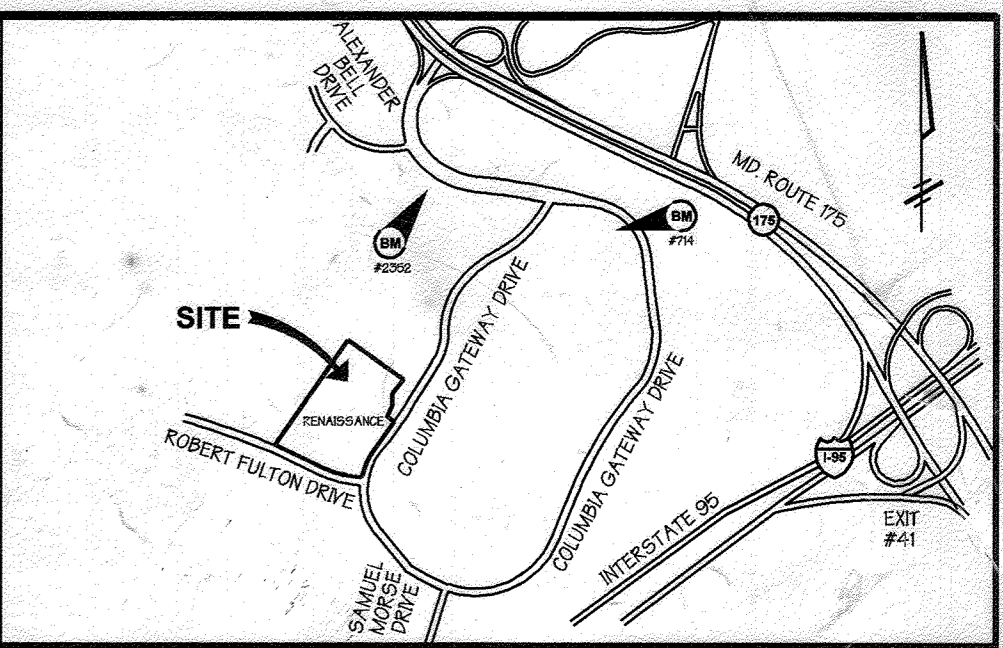
ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE
SUBDIVISION NAME: COLUMBIA GATEWAY	
SECTION NAME: N/A	PARCEL #: L, 671
PLAT #: 6812-13	BLOCK #: 1
ZONE: M-1	TAX/ZONE MAP: 43
ELECT. DIST.: 6	CENSUS TRACT: 6067.03
WATER CODE: E06	SEWER CODE: 5333000

Cover Sheet
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
 HOWARD CO., MARYLAND SHT. 1 OF 32 DATE: DECEMBER 4, 1998

SCALE: As Shown

SDP 99-59

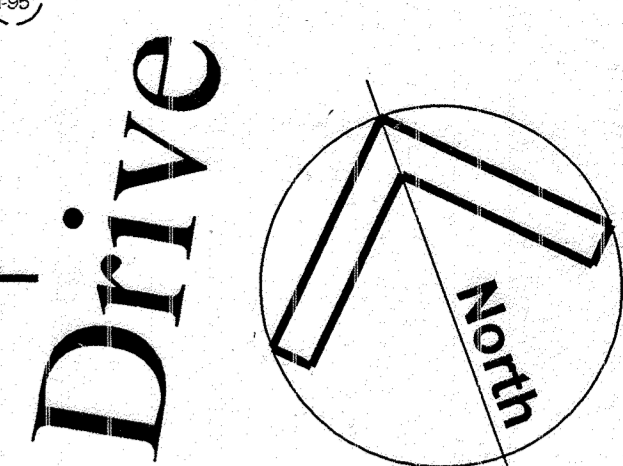
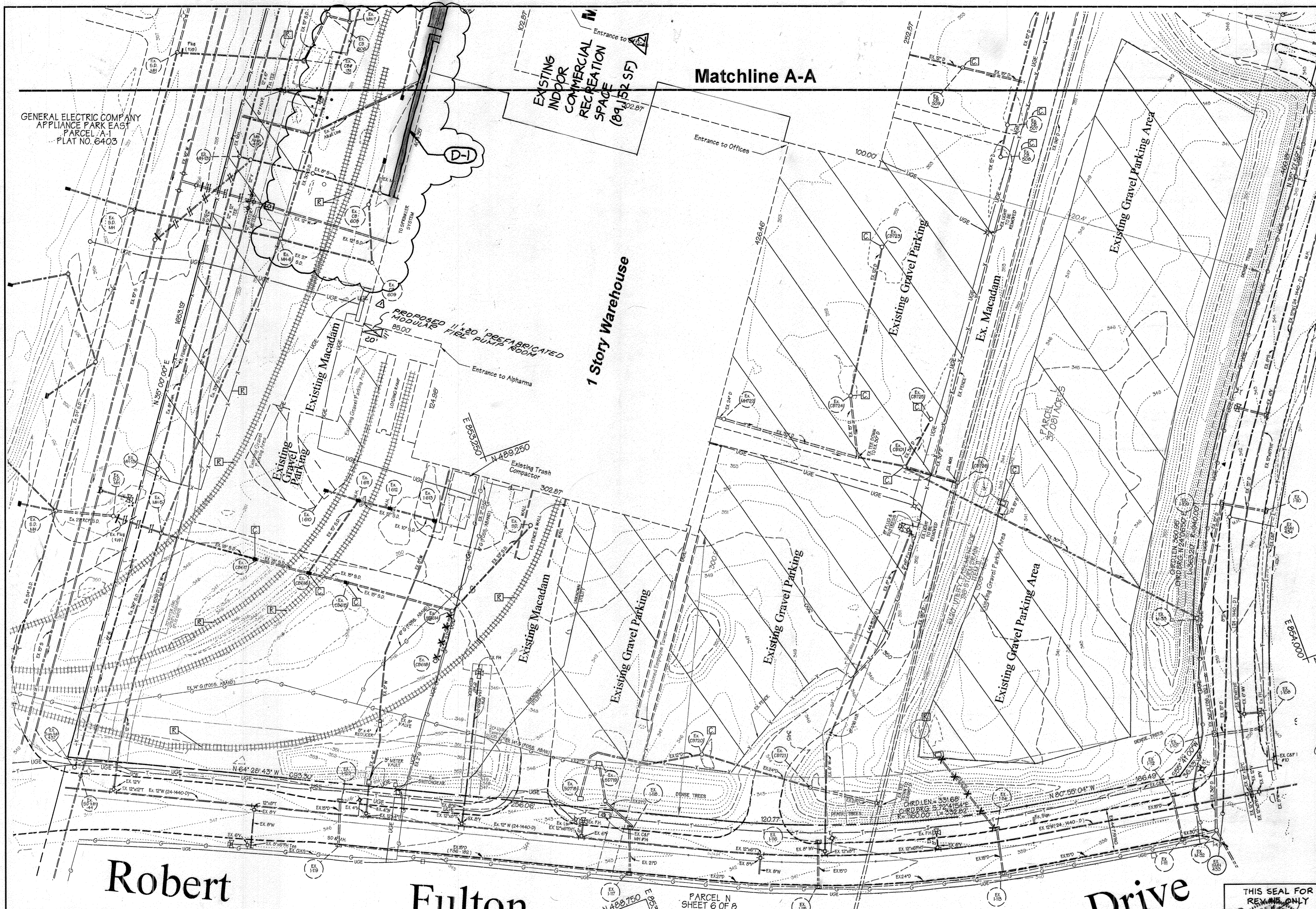


Vicinity Map
 SCALE: 1" = 500'

Benchmark
 WR&A BM #2352 ELEVATION: 338.29' IRON PIPE 240 FEET RIGHT OF CENTERLINE STATION 15+00, COLUMBIA GATEWAY DRIVE
 WR&A BM #714 ELEVATION: 315.29' - 230 FEET RIGHT OF CENTERLINE STATION 54+30 COLUMBIA GATEWAY DRIVE

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COLUMBIA GATEWAY
PARCEL M
SHEET 4 OF 8
NO. 6814

Legend

▨ LIMITS OF EXIST. GRAVEL AREA

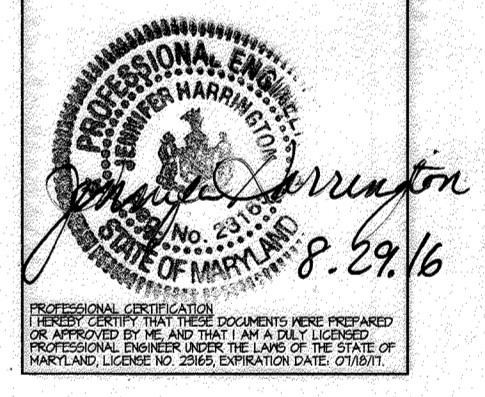
Notes :

- [R] TO BE REMOVED.
- [C] TO BE CAPPED. SEE SHEET 32 OF 32 FOR DETAIL.
- 1. ADJUST ALL EXISTING UTILITY STRUCTURES TO FINISHED GRADE. SEE STRUCTURE SCHEDULE THIS SHEET.
- 2. ALL UTILITIES SHOWN HEREON AS PREVIOUSLY ABANDONED ARE TAKEN FROM RECORD DRAWINGS AND MAY HAVE BEEN REMOVED OR ABANDONED IN PLACE.

UTILITIES TO BE ABANDONED IN PLACE OR REMOVED AS NECESSARY SHOWN THUS:
 X X X X X
 PREVIOUSLY ABANDONED UTILITIES SHOWN THUS:
 // // // //

REVISION
 Δ NEW RAMP AND HC PARKING. REVISED PARKING COUNT TO INCLUDE RECREATIONAL USE.

THIS SEAL IS FOR Δ REVISIONS MADE BY SITE RESOURCES, INC.



APPROVED: Howard County Department of Planning and Zoning
Howard W. Hamilton 6/11/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE
David Hamilton 6/11/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
David Hamilton 6/11/99
 DIRECTOR DATE

ADDRESS CHART					
PARCEL NO.	STREET ADDRESS				
L	7125 COLUMBIA GATEWAY DRIVE				
SUBDIVISION NAME SECTION NAME PARCEL #					
COLUMBIA GATEWAY	N/A	671			
PLAT # 8803	BLOCK # 1	ZONE M-1	TAX/ZONE MAP 43	ELECT. DIST. 6	CENSUS TRACT 6067.03
WATER CODE -E06	SEWER CODE 5333000				

EXISTING CONDITIONS & DEMOLITION PLAN
The Renaissance at Columbia Gateway
 ELECTION DISTRICT : 6
 HOWARD COUNTY, MARYLAND SHT. 2 OF 32 DATE : DECEMBER 4, 1998
 SCALE : As Shown
 SDP 99-59

DEMOLITION NOTES

(D-1) SAWCUT & REMOVE BITUMINOUS/CONCRETE PAVING AND BASE MATERIAL.

NOTE :
 Abandoned Utilities drawn hereon are taken from record drawings and may have been Removed or Abandoned in place.

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120



EXISTING STRUCTURE SCHEDULE				EXISTING STRUCTURE SCHEDULE				EXISTING STRUCTURE SCHEDULE			
Structure ID	Ex. Top. Elevation (ft)	Prop. Top. Elevation (ft)	NOTES	Structure ID	Ex. Top. Elevation (ft)	Prop. Top. Elevation (ft)	NOTES	Structure ID	Ex. Top. Elevation (ft)	Prop. Top. Elevation (ft)	NOTES
MH 6	351.52	352.1	VERIFY LOCATION/EX CURB	L611	349.87	NA	No Change	CR 721			No Change
MH 5	350.07	351.6	Raise Manhole, Reuse Frame and Cover	L612	349.66	NA	No Change	MH 722	353.45	353.9	Lower Manhole, Reuse Frame and Cover
MH 44	348.28	N/A	New MH 9. See Sheet 23 of 32	L613	348.14	NA	No Change	CR 723	351.2	NA	Ex. 24-inch grated cover, cap with concrete slab and pave over
MH 137	353.08	351.8	Lower Manhole, Reuse Frame and Cover	SD R14	349.67	350	Couldnt Locate in Field, Contractor to Locate and Verify Cover Requirements	CR 724	351.14	NA	Ex. 24-inch grated cover, cap with concrete slab and pave over
MH 136	353.08	352.2	Reuse Frame and Cover	CR 605		349.9	Couldnt Locate in Field, Contractor to Raise CB and Locate and Verify Cover Requirements	CR 101	351.8	351.8	Reuse Ex. 24-inch grate, provide new cover. Ex. Cover missing
Altand MH 29	351.8	NA	Reuse Frame and Cover	CR 616	347.32	349.7	Raise and Replace ex. 22-inch dome grate with manhole cover	CR 725	351.16	NA	Ex. 22-inch dome grate, cap with concrete slab and pave over
CR 606	349.79	NA	No Change	CR 617	346.92	350.18	Raise and Replace ex. 22-inch dome grate with manhole cover	MH 726	350.71	351.8	Adjust for sidewalk, reuse frame and cover
CR 609	349.08	NA	No Change	L718			No Change	11	338.24	NA	To Be Removed
L610	350.08	NA	No Change	L719			No Change	13	339.29	NA	Ex. 4 inlet with Concrete Slab, Frame, and Cover. Cap inlet using existing slab and pave over
				CR 720	344.46	347.1	Not Located in Field, Contractor to Raise CB and Locate and Verify Cover Requirements				

REVISION #15
 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERED SYSTEM WITH THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

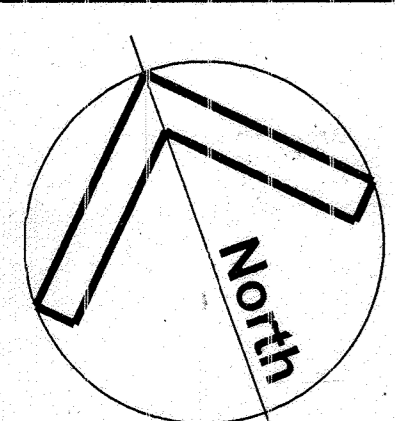
OWNER: COLUMBIA/95 GROUP L.P.
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.

DEVELOPER: PREFERRED REAL ESTATE INVESTMENTS, INC.
 555 NORTH LANE, SUITE 601
 CONSHOHOCKEN, PA 19428
 (610) 834-1959



THIS SEAL FOR REVISION ONLY
 REVISIONS
 Δ ADDED PREF. PUMP ROOM



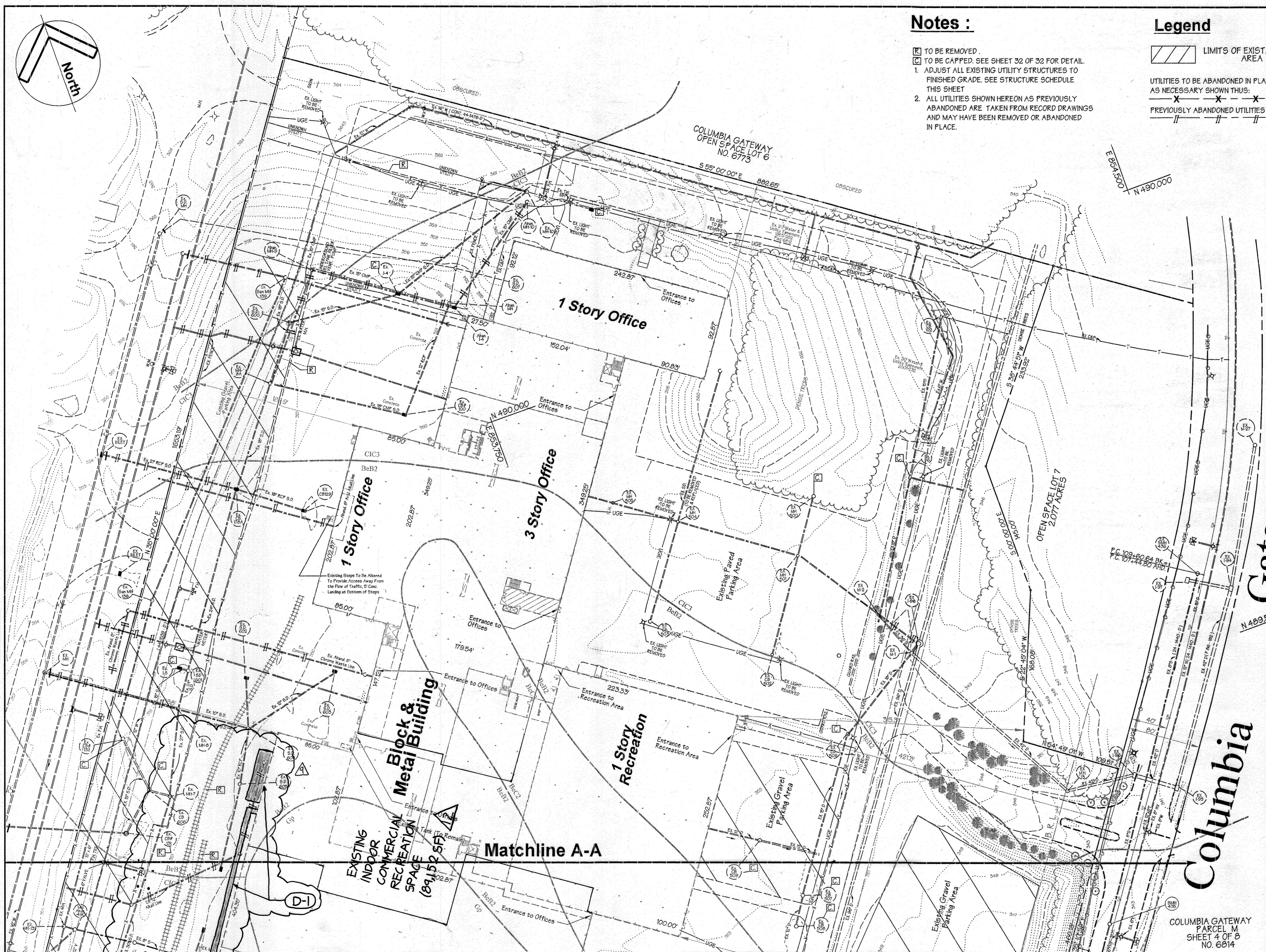
Notes :

- [R] TO BE REMOVED.
- [C] TO BE CAPPED. SEE SHEET 32 OF 32 FOR DETAIL.
- 1. ADJUST ALL EXISTING UTILITY STRUCTURES TO FINISHED GRADE. SEE STRUCTURE SCHEDULE THIS SHEET.
- 2. ALL UTILITIES SHOWN HEREON AS PREVIOUSLY ABANDONED ARE TAKEN FROM RECORD DRAWINGS AND MAY HAVE BEEN REMOVED OR ABANDONED IN PLACE.

Legend

- LIMITS OF EXIST. GRAVEL AREA
- UTILITIES TO BE ABANDONED IN PLACE OR REMOVED AS NECESSARY SHOWN THUS:
- PREVIOUSLY ABANDONED UTILITIES SHOWN THUS:

EXISTING STRUCTURE SCHEDULE			
Structure ID	Ex. Top Elevation (ft)	Prop. Top Elevation (ft)	NOTES
MH 10	380.1	380.2	Raise manhole, reuse frame and cover.
L-4	349.67	352	Couldn't locate in field. Contractor to locate and raise inlet and determine size of concrete slab frame and cover to use for manhole. Do not raise over ex. Inlet.
SD 601	352.24	353	Raise manhole, reuse frame and cover.
SDMH 8A	350.6	352.2	Raise manhole, reuse frame and cover.
CB 178A	349.88	350.7	Raise and replace ex. 22-inch dome grate with manhole cover.
IS	348.21	350.8	Cap ex. 36-inch square inlet using concrete slab and manhole cover.
SD 601	348.21	350.7	Raise manhole, reuse frame and cover.
MH 8	350.01	351.4	Raise manhole, reuse frame and cover.
MH 7		NA	No Change.
CB 100	349.45	349.6	Not located in field. Contractor to locate and raise CB and reuse existing catch basin frame and cover.
CB 129	349.64	349.9	Raise catch basin, reuse frame and grate.
SD 607	349.39	349.7	Raise inlet, reuse frame and grate.
SD 603	349.15	349.3	Raise inlet, reuse frame and grate.
SD 605	349.05	NA	No Change.
SD 605	349.3	NA	No Change.
CB 131	349.87	NA	To be removed to facilitate placement of new storm drain.
CB 132	349.13	351.6	Not located in field. Contractor to locate and raise CB and replace existing catch basin grate with frame and cover.
MH606	350.47	352.1	Raise manhole, reuse frame and cover.
SAN MH 139	352.21	354.2	Raise manhole, reuse frame and cover.
SAN MH 138	351.6	352.2	Raise manhole, reuse frame and cover.
SD 607	Not available	353	Not located in field. Contractor to locate and raise.
EX CB 102	344.78	346.5	Raise catch basin and replace 22-inch dome grate with manhole cover.
EX L-6	346.91	348.75	Raise ex. 24" square inlet. Cap with concrete slab with frame and cover.
EX M-2	350.32	350.7	Raise manhole. Replace ex. 24" manhole cover with Neenan Grate.
EX M-1	351.14	NA	No Change.
EX L-56	349.5	NA	No Change.
MH 500	350.99	351.6	Ex. 24-inch dome grate, cap with concrete slab and manhole cover.
MH 501	350.89	351	Raise manhole, replace 24" manhole cover with Neenan Grate.
CB 502	351.06	351.2	Raise catch basin, reuse frame and grate.
CB 503	352.45	352.65	Raise catch basin, reuse frame and grate.
MH 504	352.48	352.7	Raise manhole, replace 24" manhole cover with Neenan Grate.
MH 505	353.26	353.7	Raise manhole, reuse frame and cover.
CB 506	350.81	351	Raise and replace ex. 24" circle grate with manhole cover.
CB 507	351.02	352.25	Raise and replace ex. 24" circle grate with manhole cover.
CB 508	351.06	352.3	Replace ex. 24" circle grate with manhole cover.
CB 509	352.90	352.2	Replace ex. 24" circle grate with manhole cover.



Columbia Gateway Drive

REVISION
 △ NEW RAMP AND HO PARKING REVISED
 PARKING COUNT TO INCLUDE RECREATIONAL USE.

THIS SEAL IS FOR △ REVISIONS MADE BY SITE RESOURCES, INC.

APPROVED: Howard County Department of Planning and Zoning

Howard W. ... 10/11/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Chris ... 6/11/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Joseph ... 6/19/99
 DIRECTOR DATE

ADDRESS CHART	PARCEL NO.	STREET ADDRESS
	L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY	N/A	671

PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.03

WATER CODE	-E06	SEWER CODE	5333000
------------	------	------------	---------

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

DEMOLITION NOTES

D-1 SAWCUT & REMOVE BITUMINOUS/CONCRETE PAVING AND BASE MATERIAL.

REVISION # 15 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS. Professional Certification. 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.: 59816 Expiration Date: 8/23/2024

THIS SEAL FOR REV.#15 ONLY

OWNER
COLUMBIA/95 GROUP L.P.
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
 555 NORTH LANE, SUITE 610
 CONSHOHOCKEN, PA 19428
 (610) 524-1858

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.
 REVISIONS

EXISTING CONDITIONS & DEMOLITION PLAN

The Renaissance at Columbia Gateway

ELECTION DISTRICT : 6
 HOWARD CO., MARYLAND SHT. 3 OF 32 DATE : DECEMBER 4, 1998

SCALE : As Shown

SDP 99-59

GENERAL ELECTRIC COMPANY
APPLIANCE PARK EAST
PARCEL A-1
PLAT NO. 6403

Matchline A-A

Gateway Drive
Columbia Drive

COLUMBIA GATEWAY
PARCEL M
SHEET 4 OF 8
NO. 6814

THIS SEAL FOR
REVISION #14 ONLY

REVISION #14
ADDED INTERIOR MEZZANINE
TO EXISTING OFFICE BUILDING.
VERIFIED PARKING AND UPDATED
TRUCKING CIRCULARS FOR
MEZZANINE AREA. ADDED FENCE
AND GATE BY SOUTH LOADING AREA.

PROFESSIONAL CERTIFICATION: 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. 25058 EXPIRATION DATE 11-17-2020

Site Construction Notes

- 1 New Sidewalk (4' wide unless otherwise noted)
See Detail Sht. 32 of 32
- 2 New Curb & Gutter See Detail Sht. 32 Of 32
- 3 Curb Opening See Detail Sht. 32 of 32
- 4 Existing Trash Compactor Inside Building
- 5 Proposed Relocation of Existing Water Shall be
done under Howard County Contract
Number 44-1539-D.
- 6 Contractor to Relocate Existing Private Electric
Ducts as Directed by Electrical Engineer
- 7 All Storm Drains to be R.C.C.P. or H.D.P.E. or
otherwise noted. See note SDB, Sheet 32 of 32.
- 8 Prop. Road Widening and Storm Drain
Construction shall be done under
Howard County Contract No. F 86-182
and F 92-15.
- 9 New Concrete Stairs w/ Ornamental Handrail. See
How. Co. Std. Dtl.'s G.7.01 & G.7.03
- 10 All Curb RadII shall be 5' unless otherwise noted.
- 11 Place fence @ back of Eastern Curb
- 12 See sheets 32-37 for details of new construction.

REVISION
NEW RAMP AND HC PARKING. REVISED
PARKING COUNT TO INCLUDE
RECREATIONAL USE.

THIS SEAL IS FOR REVISIONS
MADE BY SITE RESOURCES, INC.

PROFESSIONAL ENGINEER
STATE OF MARYLAND
No. 25058
EXPIRATION DATE 11-17-2020

PARCEL
SHEET 5
NO. 6814

APPROVED: Howard County Department of Planning and Zoning

[Signature] 6/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 6/1/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 6/1/99
DIRECTOR DATE

ADDRESS CHART		SECTION NAME		PARCEL #
PARCEL NO.	L	COLUMBIA GATEWAY	N/A	671
STREET ADDRESS		7125 COLUMBIA GATEWAY DRIVE		
SUBDIVISION NAME	COLUMBIA GATEWAY	ZONE	M-1	ELECT. DIST.
PLAT #	8803	BLOCK #	1	6
WATER CODE	-E06	SEWER CODE	5333000	CENSUS TRACT
		6067.03		

Site Plan
**The Renaissance at
Columbia Gateway**

ELECTION DISTRICT : 6
HOWARD CO., MARYLAND SHT. 4 OF 8 DATE : DECEMBER 4, 1998

9053c_4site.s01 SDP 99-59 EAS 04/06/99

REVISION #15
THE ADDITION OF AN EXTERIOR
GENERATOR WITH ASSOCIATED
EQUIPMENT ALONG THE
SOUTHWEST PORTION OF THE
EXISTING BUILDING AND
FILTERRA SYSTEM WITHIN THE
ADJACENT PARKING LOT. THE
SHEET COUNT HAS BEEN
UPDATED FROM A TOTAL OF 32
TO 37 WITH THE ADDITION OF
FIVE (5) SHEETS.

THIS SEAL FOR
REV. #15 ONLY
10.11.23

Professional Certification: 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.: 59816 Expiration Date: 8/23/2024

Handicap
Detail #1
See Sht. 26

Handicap
Detail #4
See Sht. 26

CONSTRUCTION NOTES

- C-1 PROPOSED RAMP AND STAIRS BY ARCHITECT.
- C-2 PROPOSED OF SANITARY ASPECTS AND NUMBERS
PER HOWARD COUNTY DTP/DESIGN MANUAL.
- C-3 REPLACE STRENGTHEN / CONCRETE RAILING IN CONCP.
MEET EXISTING PAVEMENT IN LINE AND GRADE.
- C-4 PROVIDE OVERLAP STAIRING. SEE DETAIL ON SHEETS.

LEGEND
ACIP AT GRADE INLET
PROTECTION

Plan

Scale 1" = 50'

REVISION #13-REVISED
PARKING CURB CUTS
AND ADD FENCE
AND EARTH RETAINERS, REMOVE
AT TRASH COMPACTOR AND
CONCRETE SEED AND
MULCH FENCE RETAIL ADDED

THIS SEAL FOR REVISION #13
ONLY
BY MK CALCULATING ENGINEERS LLC

PROFESSIONAL CERTIFICATION: 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. 25058 EXPIRATION DATE: 11-17-2020

PREPARED BY:

GWS

GEORGE W. STEPHENS, JR.
AND ASSOCIATES, INC.

Civil Engineers and Land Surveyors

658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

PROFESSIONAL ENGINEER
STATE OF MARYLAND
No. 25058
EXPIRATION DATE 11-17-2020

OWNER
COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DEVELOPER
PREFERRED REAL
ESTATE INVESTMENTS, INC.
855 NORTHLANE SUITE 601
CONSHOHOCKEN, PA 19428
(610) 854-1969

DESIGNED BY: K.M.W.

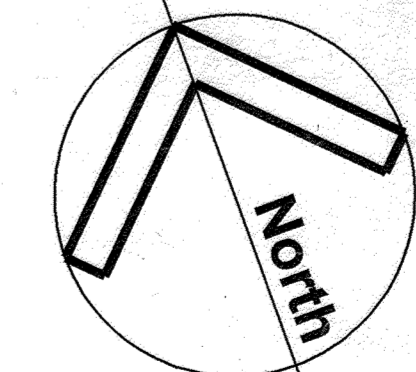
DRAWN BY: E.M.T./E.A.S.

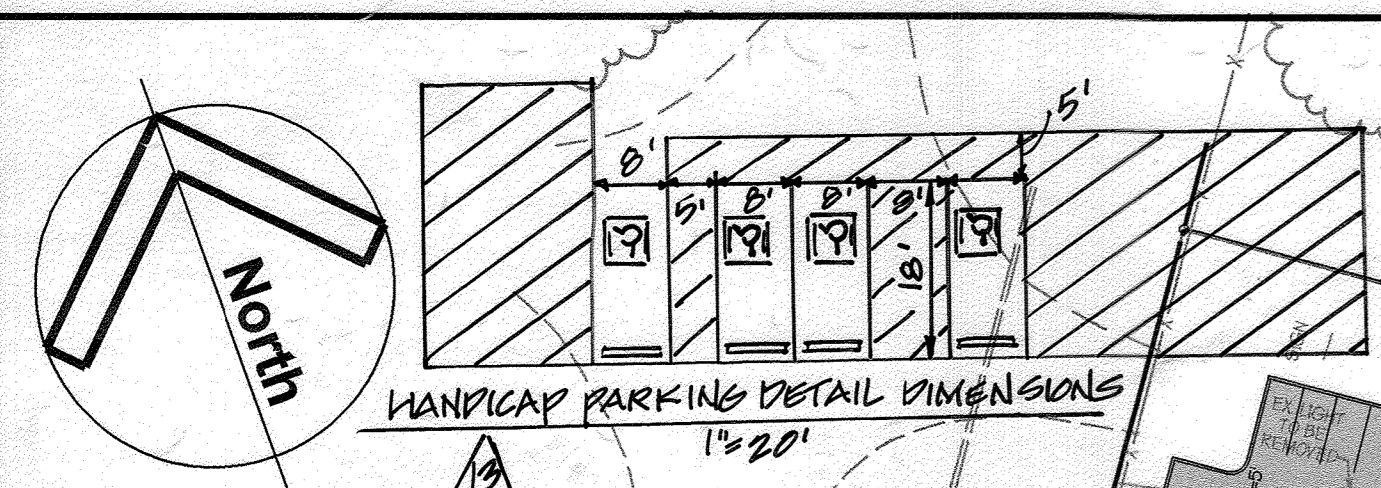
CHECKED BY: K.M.W.

REVISIONS

2/27/99 G.W.S.
REMOVE PARKING &
CURB AT REAR OF
ALPHARMA 1-STORY
WAREHOUSE REVERSE
MEDIAN & PARKING

DATE: 12/11/2020





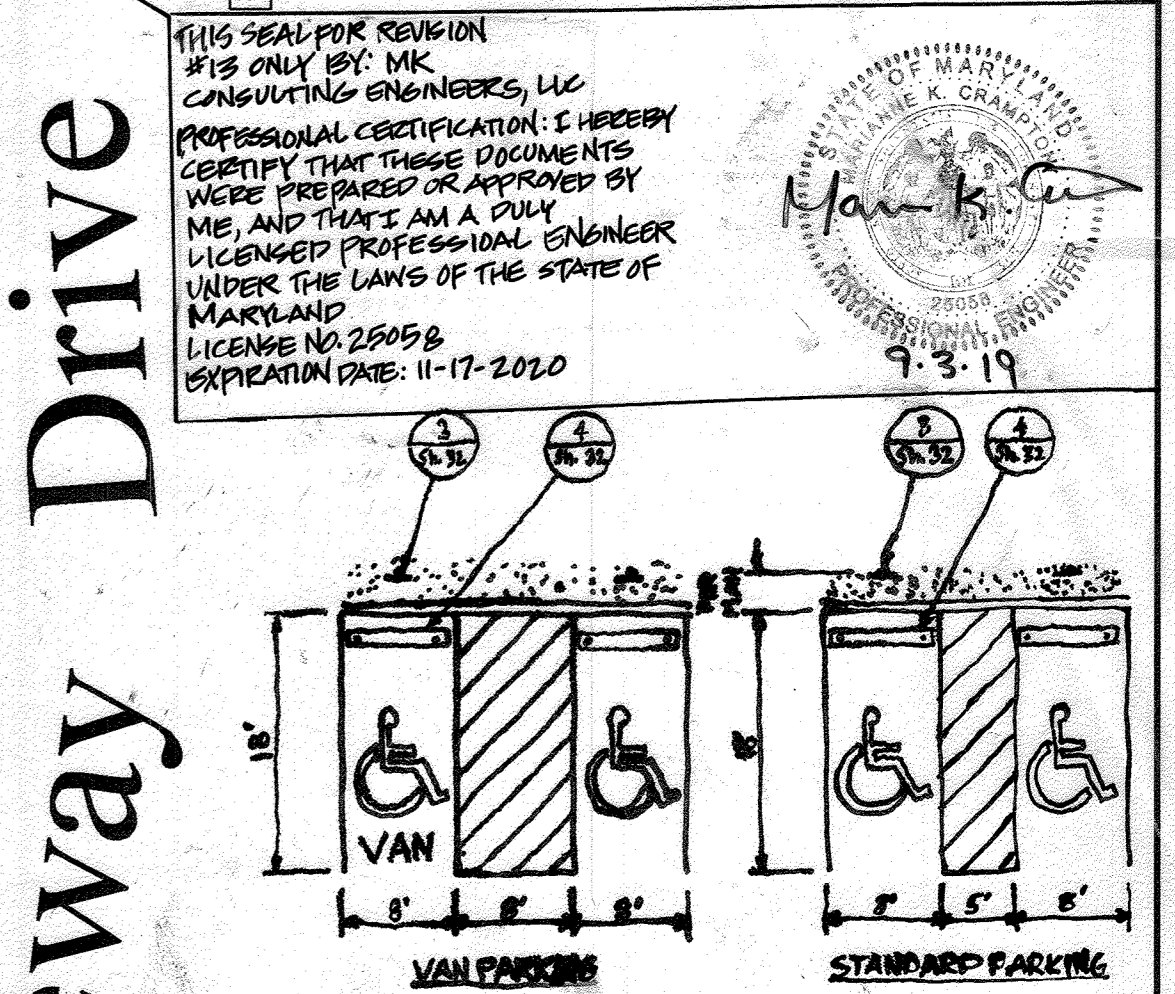
REVISION CONCRETE SIDEWALK
REVISION FOR REVISION FROM IMPROVED SITE RESOURCES, INC.
THE TOTAL LOAD FROM STORMWATER MANAGEMENT IS 1.5 LBS/SQ FT. THE TOTAL LOAD FROM STORMWATER MANAGEMENT IS 1.5 LBS/SQ FT. THE TOTAL LOAD FROM STORMWATER MANAGEMENT IS 1.5 LBS/SQ FT.

REVISION NEW VESTIBULE OF RESTROOM CONCRETE PAD.
THIS SEAL IS FOR REVISIONS MADE BY SITE RESOURCES, INC.
PROFESSIONAL CERTIFICATION: 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. 25058, EXPIRATION DATE: 11-17-2020.

REVISION NEW CONCRETE PAD FOR MECHANICAL EQUIPMENT
THIS SEAL IS FOR REVISIONS MADE BY EXP US SERVICES, INC.
PROFESSIONAL CERTIFICATION: 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. 11790, EXPIRATION DATE: 1/28/2017.

- CONSTRUCTION NOTES**
- (C-1) PROPOSED RAMP AND STAIRS BY ARCHITECT.
 - (C-2) PROPOSED 6" SANITARY - STEPS AND MATERIALS PER HOWARD COUNTY DESIGN MANUAL.
 - (C-3) REPLACE BRIMMUS / CONCRETE PAVING IN KIND. MEET EXISTING PAVEMENT IN LINE AND GRADE.
 - (C-4) PROVIDE PAVEMENT STRIPING.

- Site Construction Notes**
- 1 New Sidewalk (4' wide unless otherwise noted) See Detail Sht. 32 of 32
 - 2 New Curb & Gutter See Detail Sht. 32 Of 32
 - 3 Curb Opening See Detail Sht. 32 of 32
 - 4 Existing Trash Compactor Inside Building
 - 5 Proposed Relocation of Existing Water Shall be done under Howard County Contract Number 44-1539-D.
 - 6 Contractor to Relocate Existing Private Electric Ducts as Directed by Electrical Engineer
 - 7 All Storm Drains to be R.C.C.P. or H.D.P.E. or otherwise noted. See note SDB, Sheet 32 of 32.
 - 8 Prop. Road Widening and Storm Drain Construction shall be done under Howard County Contract No. F 86-182 and F 92-15.
 - 9 New Concrete Stairs w/ Ornamental Handrail, See How. Co. Std. Det's G.7.01 & G.7.03
 - 10 All Curb Radii shall be 5' unless otherwise noted.
 - 11 Place fence @ back of Eastern Curb



NOTES:

- 1 HANDICAP PARKING AND ACCESS SHALL COMPLY WITH THE CURRENT ADA REQUIREMENTS.
- 2 TRADING FLOOR, EOP ACCESSIBLE SURFACES ARE SHOWN AS PROVIDED.

REVISION #11: ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING. REVISION #14: ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING. REVISION #15: ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING. REVISION #16: ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING.

PROFESSIONAL CERTIFICATION: 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. 25058, EXPIRATION DATE: 11-17-2020.

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

PROFESSIONAL ENGINEER
JASON J. MORRISON
STATE OF MARYLAND
LICENSE NO. 25058
EXPIRATION DATE: 11-17-2020

PROFESSIONAL ARCHITECT
ADAM J. MORRISON
STATE OF MARYLAND
LICENSE NO. 25058
EXPIRATION DATE: 11-17-2020

REVISION 10/11/23
ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING. REVISION #14: ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING. REVISION #15: ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING. REVISION #16: ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING.

REVISION 10/11/23
ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING. REVISION #14: ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING. REVISION #15: ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING. REVISION #16: ADDED INTERIOR MEZZANINE TO EXISTING OFFICE BUILDING.

REVISION 10/11/23
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REVISION 10/11/23
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APPROVED: Howard County Department of Planning and Zoning

Chief, Development Engineering Division 10/11/23
Chief, Division of Land Development 10/11/23
Director 10/11/23

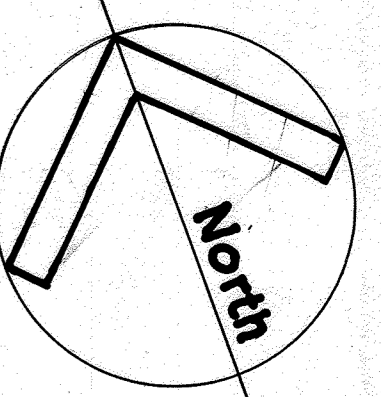
ADDRESS CHART	SECTION NAME	PARCEL #
PARCEL NO. 1	COLUMBIA GATEWAY	L, 671
STREET ADDRESS 7125 COLUMBIA GATEWAY DRIVE	SECTION NAME N/A	PARCEL # L, 671
SUBDIVISION NAME COLUMBIA GATEWAY	SECTION NAME N/A	PARCEL # L, 671
PLAT # 6812-13	BLOCK # 1	ZONE M-1
WATER CODE E06	SEWER CODE 5333000	ELECT. DIST. 6
		CENSUS TRACT 6067.03

Site Plan
The Renaissance at Columbia Gateway
ELECTION DISTRICT: 6
HOWARD Co., MARYLAND
SHT. 5 OF 38
DATE: DECEMBER 4, 1998
SCALE: As Shown
SDP 99-59
EMT 41199

GENERAL ELECTRIC COMPANY
APPLIANCE PARK EAST
PARCEL A-1
PLAT NO. 6403

Matchline A-A

Drive



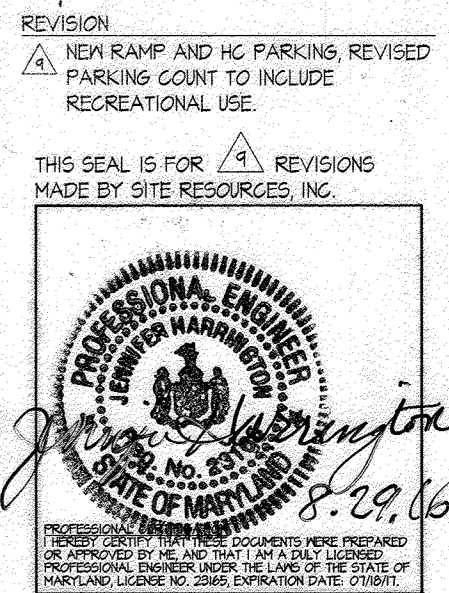
Gateway

Columbia

- NOTES:**
1. SPOT ELEVATIONS ARE PAVEMENT, SIDEWALK, OR GUTTER PANEL ELEVATIONS.
 2. AREA BEHIND PROPOSED CURB TO BE FILLED AND GRADED TO PROVIDE POSITIVE DRAINAGE AND NOT TRAP WATER.

CONSTRUCTION NOTES

(C-1) EXISTING GRADES PROVIDE A GREATER THAN 2% IN ANY DIRECTION WITHIN THE ACCESSIBLE PARKING AND ROADS TO ROOF, HILL AND WOODS ONLY IF PAVED CONDITIONS PREVAIL OTHERWISE.



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

John E. Kline
APPROVED: HOWARD SOIL CONSERVATION DISTRICT

PLAN NUMBER: *6/18/99* DATE

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Clayton Simmons
NATURAL RESOURCES CONSERVATION SERVICE DATE: *6/18/99*

APPROVED: Howard County Department of Planning and Zoning

William Dammann
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE: *6/18/99*

Smith Stantler
CHIEF, DIVISION OF LAND DEVELOPMENT DATE: *6/18/99*

David H. Smith
DIRECTOR DATE: *6/18/99*

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY	N/A	671

PLAT #	BLOCK #	ZONE	TAXZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.C.3

WATER CODE	SEWER CODE
-E06	5333000

Grading Plan
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
HOWARD CO., MARYLAND SHT. 6 OF 32 DATE: DECEMBER 4, 1998

SWM Pond No. 1
SEE SHEET 14

Robert

Fulton

Drive

SWM Pond No. 2
SEE SHEET 15

PARCEL N
SHEET 6 OF 8
NO. 6816

Plan
Scale: 1" = 50'

REVISION #15
THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

Professional Certification: 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.: 512616 Expiration Date: 8/23/2024



PREPARED BY:



**GEORGE W. STEPHENS, JR.
AND ASSOCIATES, INC.**
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120



DEVELOPER CERTIFICATION:

I 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 Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a permit plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Developer: *Michael G. Owen* Date: *4/19/99*

ENGINEER CERTIFICATION:

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 developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a permit plan of the pond within 30 days of completion.

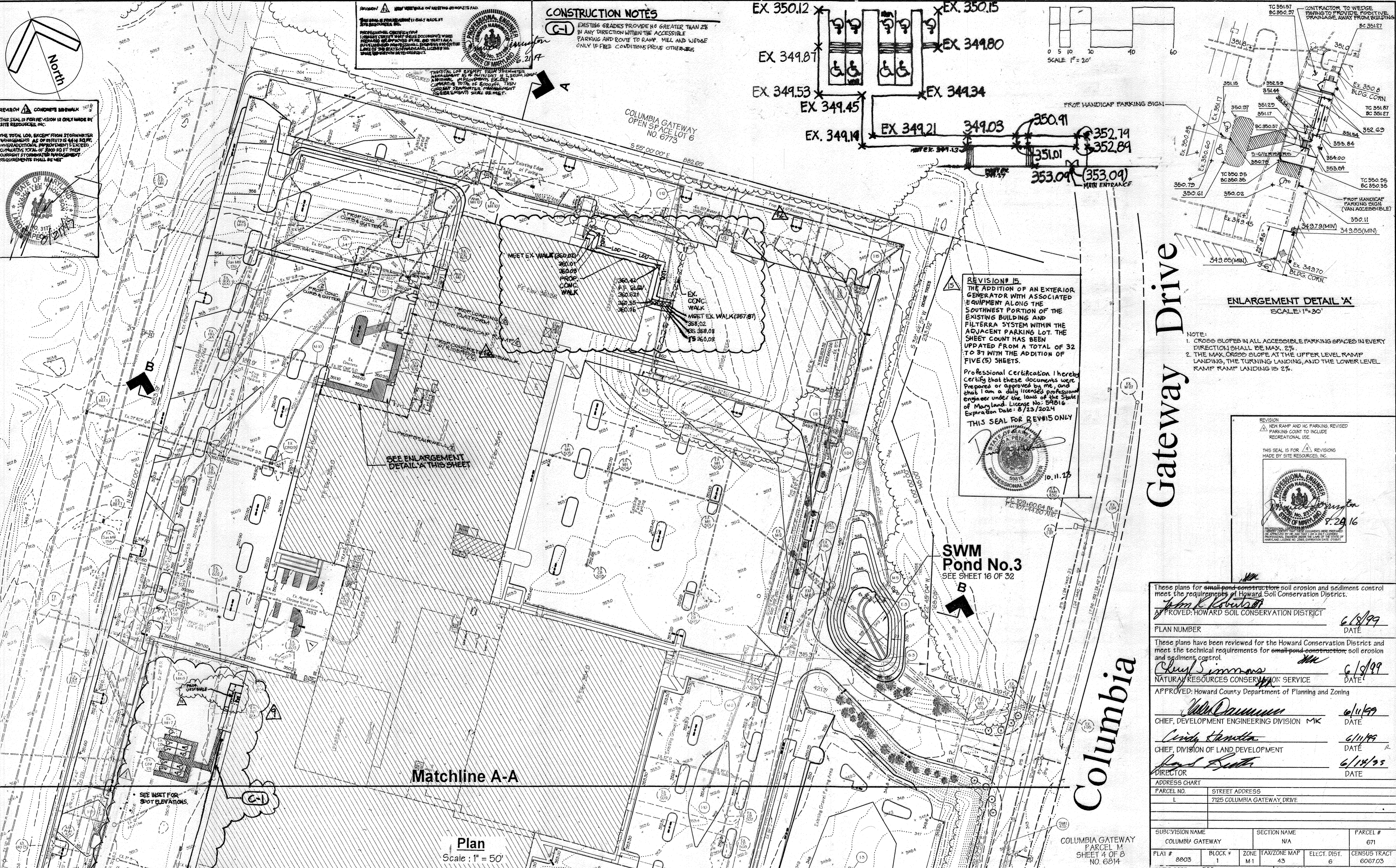
Engineer: *James A. Narusz* P.E. # *11005* Date: *4/19/99*

OWNER
COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
555 NORTH LANE, SUITE 601
CONSHOHOCKEN, PA 19348
(610) 834-1800

DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.

REVISIONS
2/27/99 G.W.S.
REMOVE PARKING & CURB AT REAR OF ALPHA MA 1-STORY WAREHOUSE



REVISION #15
 CONCRETE SIDEWALK
 THIS SEAL IS FOR REVISION 15 ONLY MADE BY SITE RESOURCES, INC.

THE TOTAL L.O.S. EXCEPT FROM STORMWATER MANAGEMENT AS OF 11/15/98 IS 3027. WITH ADDITIONAL IMPROVEMENTS TO BE COMPLETED TOTAL OF 3000 SQ FT THEN CURRENT STORMWATER MANAGEMENT REQUIREMENTS SHALL BE MET.

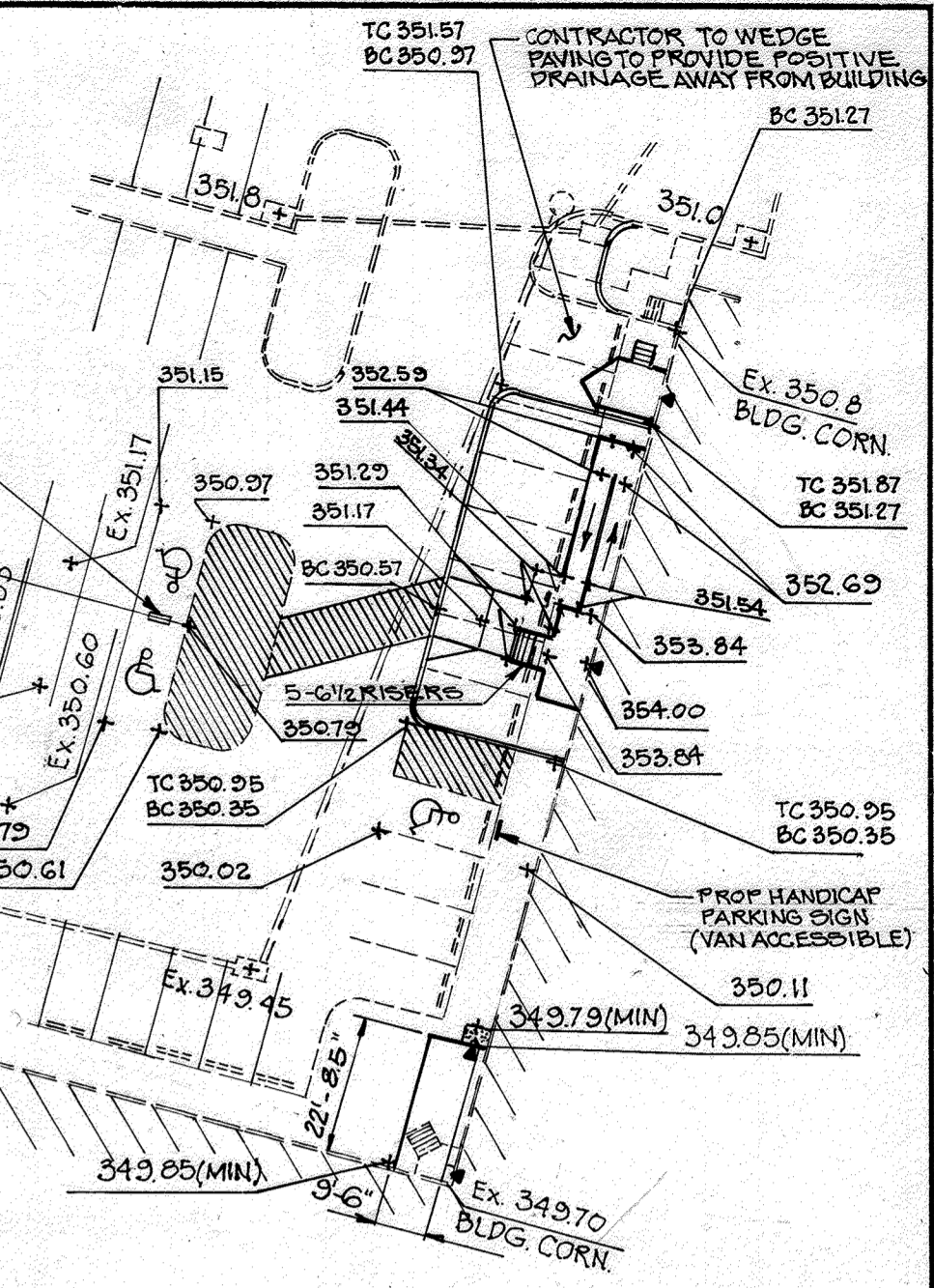
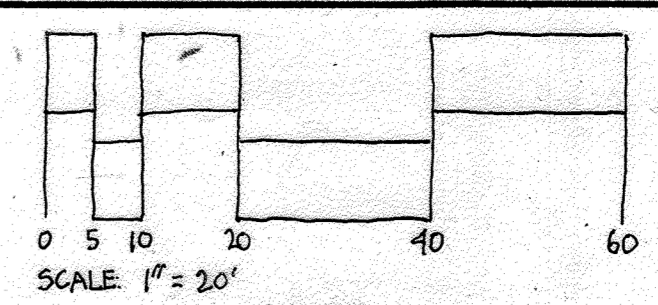
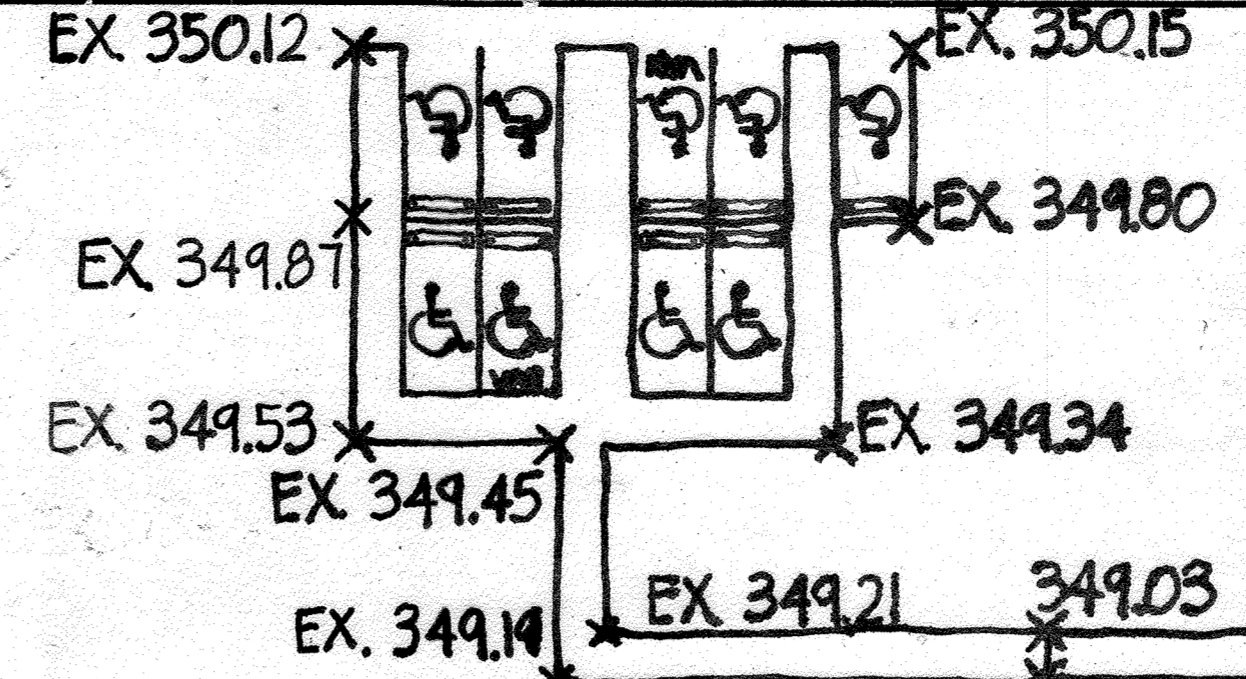
CONSTRUCTION NOTES

(C-1) EXISTING GRADES PROVIDE NO GREATER THAN 2% IN ANY DIRECTION WITHIN THE ACCESSIBLE PARKING AND ROUTE TO RAMP, MULL AND WEDGE ONLY IF FIELD CONDITIONS PROVE OTHERWISE.

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A PROFESSIONAL ENGINEER OR LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 57816, EXPIRATION DATE: 8/23/2024.

CONSTRUCTION NOTES

(C-1) EXISTING GRADES PROVIDE NO GREATER THAN 2% IN ANY DIRECTION WITHIN THE ACCESSIBLE PARKING AND ROUTE TO RAMP, MULL AND WEDGE ONLY IF FIELD CONDITIONS PROVE OTHERWISE.



REVISION # 15
 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

Professional Certification: 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. 57816, Expiration Date: 8/23/2024.

THIS SEAL FOR REVISIONS ONLY

ENLARGEMENT DETAIL A'
 SCALE: 1" = 30'

NOTE:
 1. CROSS SLOPES IN ALL ACCESSIBLE PARKING SPACES IN EVERY DIRECTION SHALL BE MAX. 2%.
 2. THE MAX. CROSS SLOPE AT THE UPPER LEVEL RAMP LANDING, THE TURNING LANDING, AND THE LOWER LEVEL RAMP RAMP LANDING IS 2%.

REVISION
 NEW RAMP AND HC PARKING REVISED PARKING COUNT TO INCLUDE RECREATIONAL USE.

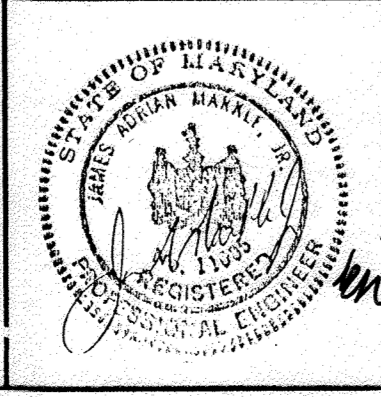
THIS SEAL IS FOR REVISIONS MADE BY SITE RESOURCES, INC.

SWM Pond No. 3
 SEE SHEET 16 OF 32

Matchline A-A

Plan
 Scale: 1" = 50'

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120



DEVELOPER CERTIFICATION:
 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 as a Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a copy of the plan within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Developer: *Clark Kolar* Date: 2/16/99
 Name: *CLARK KOLAR*

ENGINEER CERTIFICATION:
 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 developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a copy of the plan within 30 days of completion.

Engineer: *James A. Maciejka, Jr.* P.E. # 11005 Date: 2/16/99
 Name: *JAMES A. MACIEJKA, JR.*

REVISIONS

10/21/05 GWS REVISED PARKING, ADDED HANDICAP RAMP, STAIRWELL, SIDEWALK, W/RSBRS, LOADING PLATFORM AND PROPOSED GRADES.

6/21/17 SRT ADD VEGETABLE TO BUILDING ON EXISTING CONCRETE PAD

OWNER
COLUMBIA/95 GROUP L.P.
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
 555 NORTH LANE, SUITE 601
 CONSHOHOCKEY, MD 21784
 (410) 394-1850

DESIGNER: T.K.M.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.

REVISIONS
 8/2/99 GWS REMOVE PARKING 4 CURBS AT REAR OF ALPHARMA 1-STY WAREHOUSE

These plans for small pond construction soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
John K. Roberts 6/18/99 DATE

PLAN NUMBER: _____ DATE: 6/18/99

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cheryl Simmons 6/18/99 DATE
 NATURAL RESOURCES CONSERVATION SERVICE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
William Dammann 6/11/99 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK

Cindy Hamilton 6/11/99 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

David Smith 6/14/95 DATE
 DIRECTOR

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY	N/A	671

PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M 1	43	6	6067.03

VATE # CODE: EOG SWWER CODE: 5333000

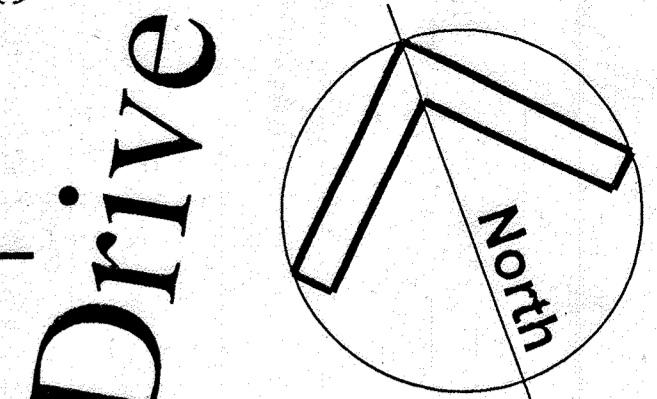
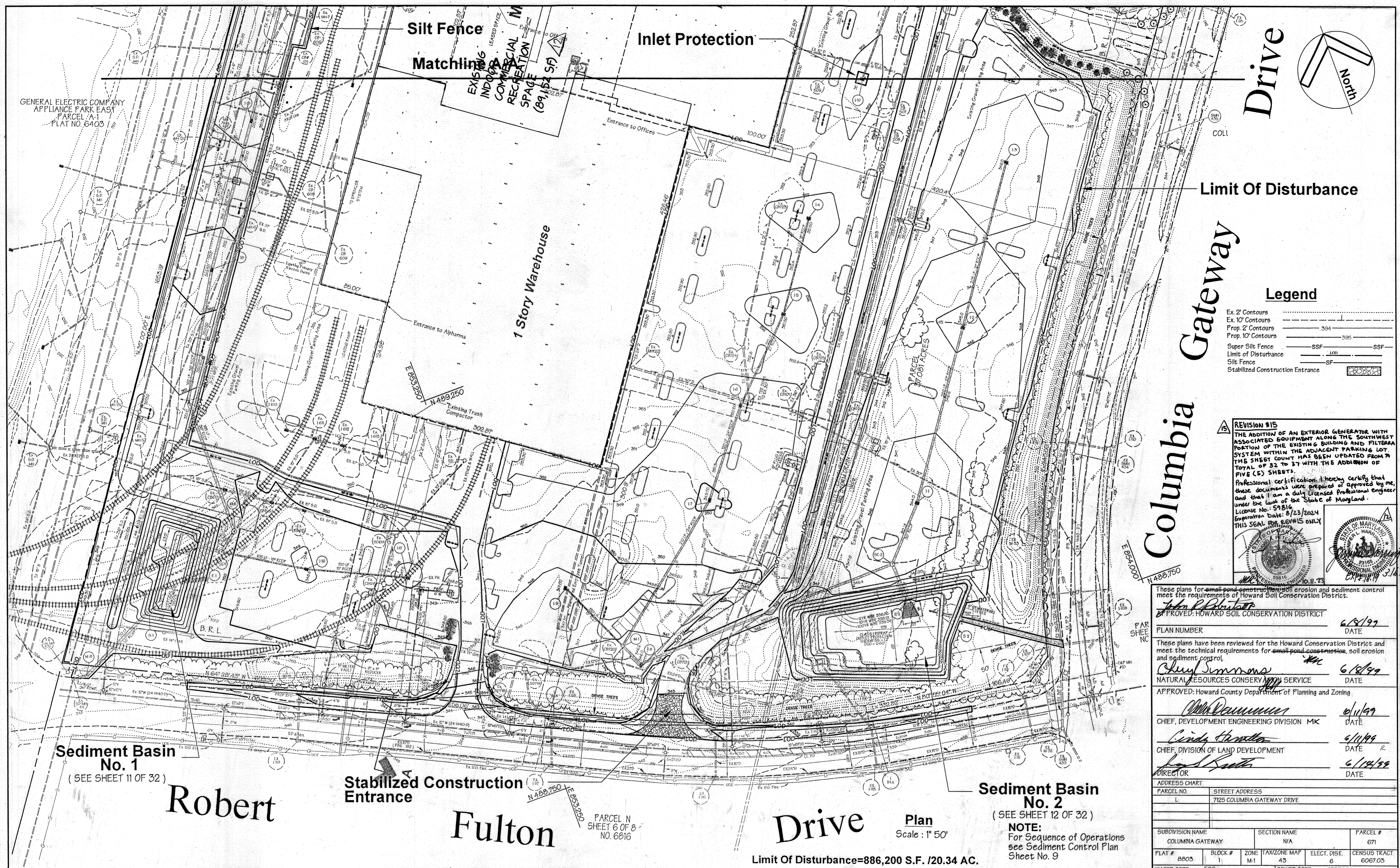
Grading Plan
The Renaissance at Columbia Gateway

ELUTION DISTRICT: 6
 HOWARD CO., MARYLAND SHT. 7 OF 32 DATE: DECEMBER 4, 1998

SCALE: As Shown
 DATE: DECEMBER 4, 1998

37 15

SDP 99-59



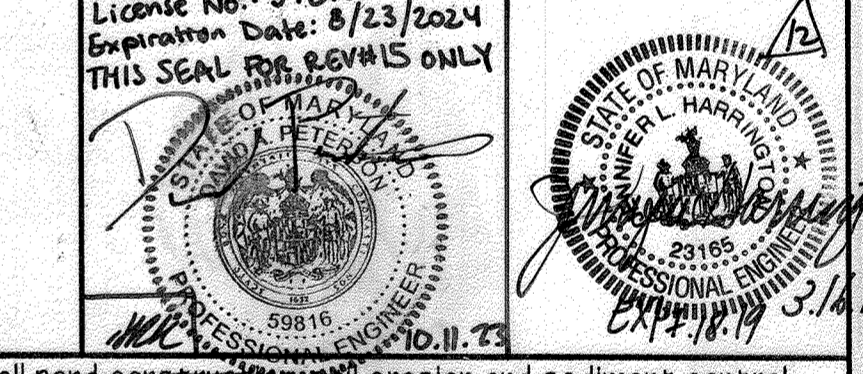
Limit Of Disturbance

Columbia Gateway Drive

Legend

Ex. 2' Contours
Ex. 10' Contours
Prop. 2' Contours
Prop. 10' Contours
Super Silt Fence	SSF
Limit of Disturbance	LOD
Silt Fence	SF
Stabilized Construction Entrance	[Symbol]

REVISION #15
 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
 DATE: 6/8/99

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DATE: 6/18/99

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK
 DATE: 6/11/99

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6/11/99

DIRECTOR
 DATE: 6/11/99

PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY	N/A	671

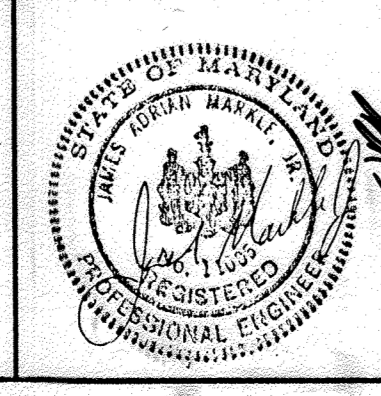
PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.03

WATER CODE	SEWER CODE
E06	5333000

Sediment Control Plan
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
 HOWARD CO., MARYLAND SHT. 8 OF 32 DATE: DECEMBER 4, 1998
 SCALE: As Shown

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120



DEVELOPER CERTIFICATION:
 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 as a Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a site plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Developer: *Eric Kolar* Date: 2/16/99
 Name: ERIC KOLAR

ENGINEER CERTIFICATION:
 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 developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a site plan of the pond within 30 days of completion.

Engineer: *James A. Marone, Jr.* P.E. # 11005
 Name: JAMES A. MARONE, JR. Date: 2/16/99

OWNER:
COLUMBIA/95 GROUP L.P.
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DEVELOPER:
PREFERRED REAL ESTATE INVESTMENTS, INC.
 555 NORTH LANE, SUITE 6101
 CONSHOHOCKEN, PA 19428
 (610) 284-1969

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T. / E.A.S.
 CHECKED BY: K.M.W.
 REVISIONS

Limit Of Disturbance=886,200 S.F. /20.34 AC.

Sediment Basin No. 2
 (SEE SHEET 12 OF 32)

Plan
 Scale: 1" = 50'

NOTE:
 For Sequence of Operations see Sediment Control Plan Sheet No. 9

Sediment Basin No. 1
 (SEE SHEET 11 OF 32)

Robert Fulton Drive

Drive

Fulton Drive

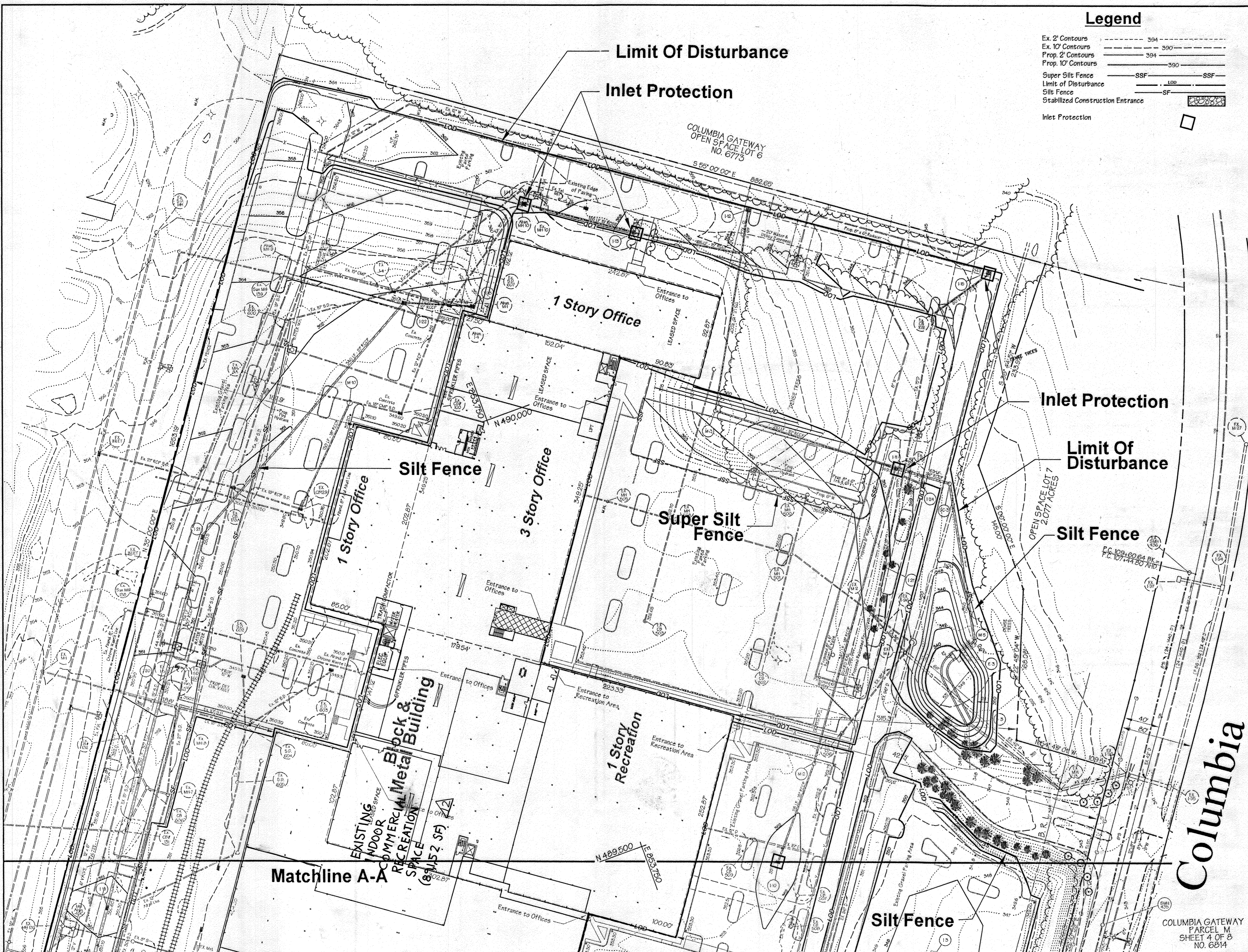
1 Story Warehouse

Silt Fence
 Matchlines

Inlet Protection

GENERAL ELECTRIC COMPANY
 APPLIANCE PARK EAST
 PARCEL A-1
 PLAT NO. 6403

PARCEL N SHEET 6 OF 8 NO. 6816



Legend

- Ex. 2' Contours --- 394
- Ex. 10' Contours --- 390
- Prop. 2' Contours --- 394
- Prop. 10' Contours --- 390
- Super Silt Fence --- SSF --- SSF
- Limit of Disturbance --- LOD --- LOD
- Silt Fence --- SF --- SF
- Stabilized Construction Entrance --- [Symbol]
- Inlet Protection --- [Symbol]

Sequence Of Operations

1. OBTAIN GRADING PERMIT (1 DAY)
2. NOTIFY THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES, & PERMITS, SEDIMENT CONTROL DIVISION @ 410-515-1855, 48 HOURS BEFORE BEGINNING WORK. (1 DAY)
3. STAKE LIMIT OF DISTURBANCE (5 DAYS)
4. BEGIN INITIAL CLEARING, GRUBBING FOR SEDIMENT CONTROL DEVICES.
 - A. INSTALL SILENT AT MAIN ENTRANCE ON ROBERT FULTON DRIVE & SILT FENCE WHERE SHOWN ON PLAN (1 DAY)
 - B. CONSTRUCT SEDIMENT BASIN #1 BASIN #2, AND POND #3 (CONSTRUCT PER SPECIFICATIONS AS SHOWN ON THE SEDIMENT BASIN PLAN AND SWM PLAN FOR INITIAL CONSTRUCTION) (45 DAYS)
 - C. CONTACT THE ENGINEER IN CHARGE @ 410-825-8920 AND THE GEOTECHNICAL ENGINEER SO THEY CAN INSPECT THE FOLLOWING:
 1. INSTALL CUTOFF TRENCH
 2. INSTALL OUTFALL PIPE, CONCRETE CRADLE, DEWATERING SYSTEM, CONCRETE END SECTION, AND OUTLET PROTECTION
 3. CONSTRUCT EMBANKMENT, STABILIZE ACCORDING TO SPECIFICATIONS SHOWN ON THESE PLANS.
5. UPON COMPLETION OF THE ABOVE INSTALLATIONS NOTIFY AND OBTAIN PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO BEGIN WORK ON SITE.

SEQUENCE FOR AREA DRAINING TO POND NO. 3

 - A. INSTALL SUPER SILT FENCE AT EXISTING EDGE OF PAVING AS SHOWN ON PLAN
 - B. CAP EXISTING INLETS, AS NOTED ON SHEETS 2 AND 3 OF 32. ALSO SEE SCHEDULE SHEET 6 AND 7 OF 32. BEGIN GRADING OPERATIONS, INSTALL STORM DRAIN AND RELOCATE FIRE HYDRANT IN THIS AREA. (15 DAYS)
 - C. PROVIDE INLET PROTECTION FOR INLETS NO. 11, 13 AND 14. (4-1/2 NOT NEEDED) (1 DAY)
 - D. INSTALL BASE COURSE AND CURB AND GUTTER (5 DAYS)
 - E. INSTALL INLET 145 TO EXISTING CATCH BASIN 122, PROVIDE INLET PROTECTION (3 DAYS)
 - F. FINE GRADE AND STABILIZE ALL DISTURBED AREAS (3 DAYS)

SEQUENCE FOR AREAS DRAINING TO SEDIMENT BASINS NO. 1 & NO. 2

 7. A. CAP EXISTING INLETS AS NOTED ON SHEETS 2 AND 3 OF 32. ALSO SEE STRUCTURE SCHEDULE SHEET 6 AND 7 OF 32 FOR AREAS DRAINING TO S.B. NO.2 CONSTRUCT I-10 TO SC2 AND OUTFALL INTO BASIN. BEGIN GRADING OPERATIONS, INSTALL REMAINING STORM DRAIN AND RELOCATE FIRE HYDRANT WHERE REQUIRED. (15 DAYS)
 - B. PROVIDE STORM DRAIN PIPE FROM SC2 (INV. 334.49) TO BOTTOM OF BASIN NO.2 (INV. 334.25) (2 DAYS)
 - C. INSTALL BASE COURSE AND CURB AND GUTTER (5 DAYS)
 - D. FINE GRADE AND STABILIZE ALL DISTURBED AREAS (3 DAYS)
 8. COMPLETE FINAL PAVING, FLUSH STORM DRAIN SYSTEM (15 DAYS)
 9. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR CONVERT SEDIMENT BASIN INTO THE PERMANENT STORMWATER MANAGEMENT (S.W.M.) FACILITY PER THE APPROVED STORMWATER MANAGEMENT PLANS FOR CONVERSION OF BASIN NO. 2 TO SWM POND NO.2. CLEAN OUT BASIN TO SWM GRADES AND ADJUST REMAINDER OF PERMANENT STORM DRAIN SYSTEM FROM SC2 TO E-2. PUMP OUT STORMCEPTOR AS NECESSARY.
 10. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE WITH PERMANENT SEEDING.
 11. COMPLETE AS-BUILT SURVEY AND STUDY OF THE S.W.M. FACILITY AND SUBMIT TO THE APPROPRIATE AGENCY WITHIN 30 DAYS OF COMPLETION OF CONVERSION.

SEQUENCE FOR ROAD WIDENING

 1. CONTRACTOR SHALL ONLY DISTURB AN AREA WHICH CAN BE STABILIZED THE SAME WORKING DAY.
 2. PROVIDE INLET PROTECTION AS DIRECTED BY INSPECTOR IN THE FIELD.

REVISION #15

THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EXISTING ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING 6 AND FILTERED SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

Professional Certification: 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.: 59816 Expiration Date: 8/23/2024

THIS SEAL FOR REVISION ONLY

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT

PLAN NUMBER: 6/8/99 DATE: 6/8/99

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE: 6/16/99

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 6/11/99

DIRECTOR DATE: 6/14/99

PARCEL NO.	STREET ADDRESS				
L	7125 COLUMBIA GATEWAY DRIVE				
SUBDIVISION NAME	SECTION NAME				
COLUMBIA GATEWAY	N/A				
PARCEL #	671				
PLAT #	BLOCK #	ZONE	TAXZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.03
WATER CODE	-E06	SEWER CODE	5333000		

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.

Civil Engineers and Land Surveyors

658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:

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 Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a 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.

Developer: Erik Kolar Date: 2/16/99

Name: Erik Kolar

ENGINEER CERTIFICATION:

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 developer that he/she must 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.

Engineer: James A. Mazurek, Jr. P.E. # 11005 Date: 2/16/99

Name: James A. Mazurek, Jr.

OWNER

COLUMBIA/95 GROUP L.P.

7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DEVELOPER

PREFERRED REAL ESTATE INVESTMENTS, INC.

555 NORTH LANE, SUITE 6101
CONSHOHOCKEN, PA 19428
(610) 834-1869

DESIGNED BY: K.M.W.

DRAWN BY: E.M.T. / E.A.S.

CHECKED BY: K.M.W.

REVISIONS

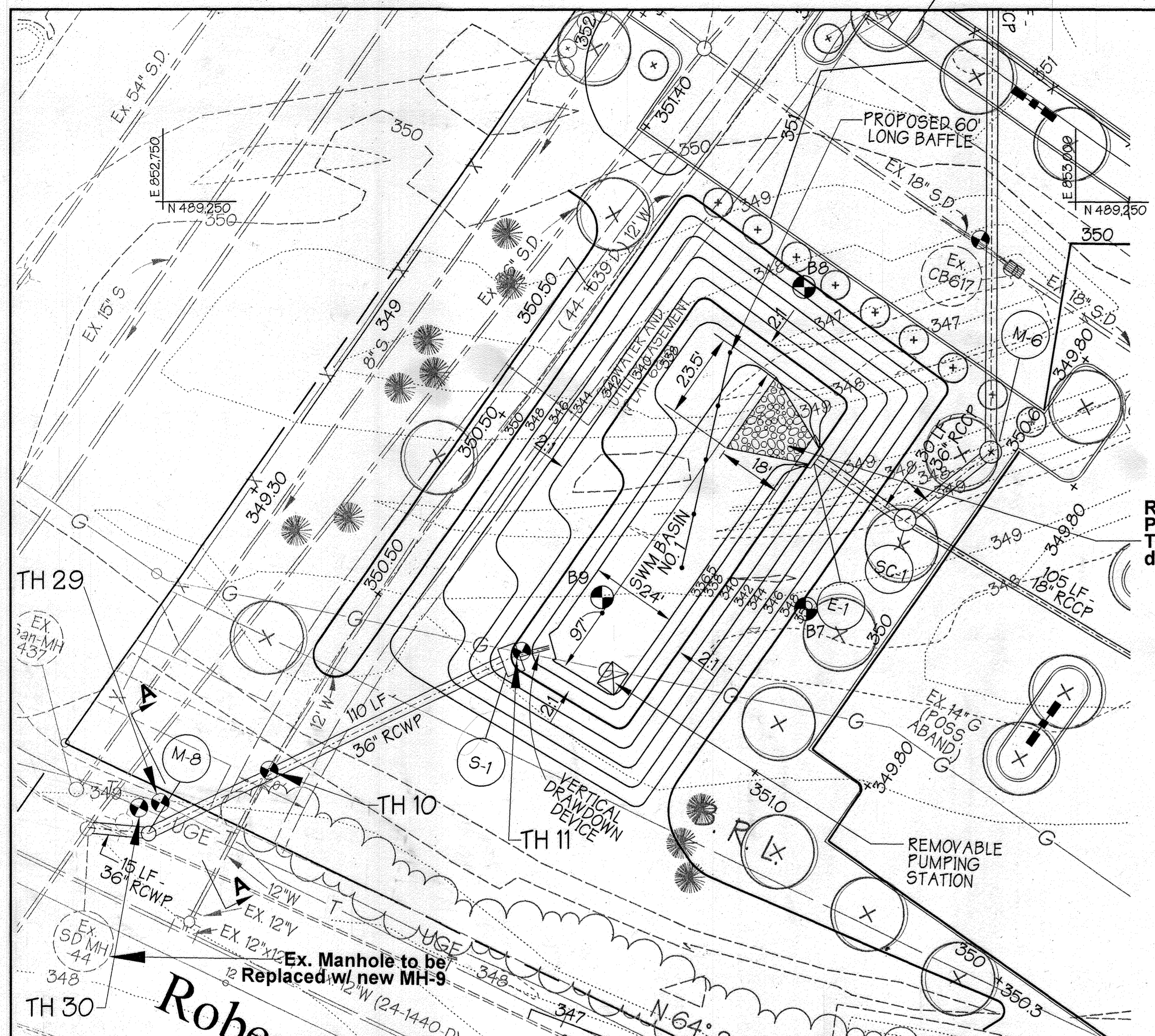
Sediment Control Plan

The Renaissance at Columbia Gateway

ELECTION DISTRICT : 6
HOWARD CO., MARYLAND SHT. 9 OF 32 DATE : DECEMBER 4, 1998

SCALE : As Shown

SDP 99-59 EMT 12/6/99



RipRap Outlet Protection - Thickness = 1.5' d = 0.70"

NOTE: NO TREES, SHRUBS OR OTHER WOODY VEGETATION WILL BE ALLOWED WITHIN 50' OF THE INLET STRUCTURE IN THE POOL AREA AND NOT ALLOWED WITHIN 20' FROM THE TOE OF THE EMBANKMENT.

NOTE: THE CONSTRUCTION MAY REQUIRE A PERMIT FROM THE ARMY CORPS OF ENGINEERS, THE WATER RESOURCES ADMINISTRATION AND/OR HOWARD COUNTY. IT IS THE RESPONSIBILITY OF THE LANDOWNER TO CONTACT THESE THREE AGENCIES TO DETERMINE IF THE PROJECT REQUIRES A PERMIT.

U.S. ARMY CORPS OF ENGINEERS - (410) 962-3620
 WRA NON-TIDAL WETLANDS AND WATERWAYS DIVISION - (410) 974-3841
 HOWARD COUNTY - (410) 887-5980

NOTE: IF REQUIRED BY THE SEDIMENT CONTROL INSPECTOR FENCING SHALL BE INSTALLED TO PREVENT ACCESS TO THE BASIN BY CHILDREN.

NOTE: THIS STORMWATER MANAGEMENT FACILITY IS DESIGNED TO MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND THE SOIL CONSERVATION DISTRICT. MAINTENANCE OF THIS FACILITY WILL BE THE RESPONSIBILITY OF THE OWNER. (THE SWM FACILITY IS PRIVATE).

NOTE: SOILS TO BE USED FOR CUT-OFF TRENCH AND IMPERVIOUS CORE SHALL CONFORM TO UNIFIED CLASSES CL, SC, CH OR GC.

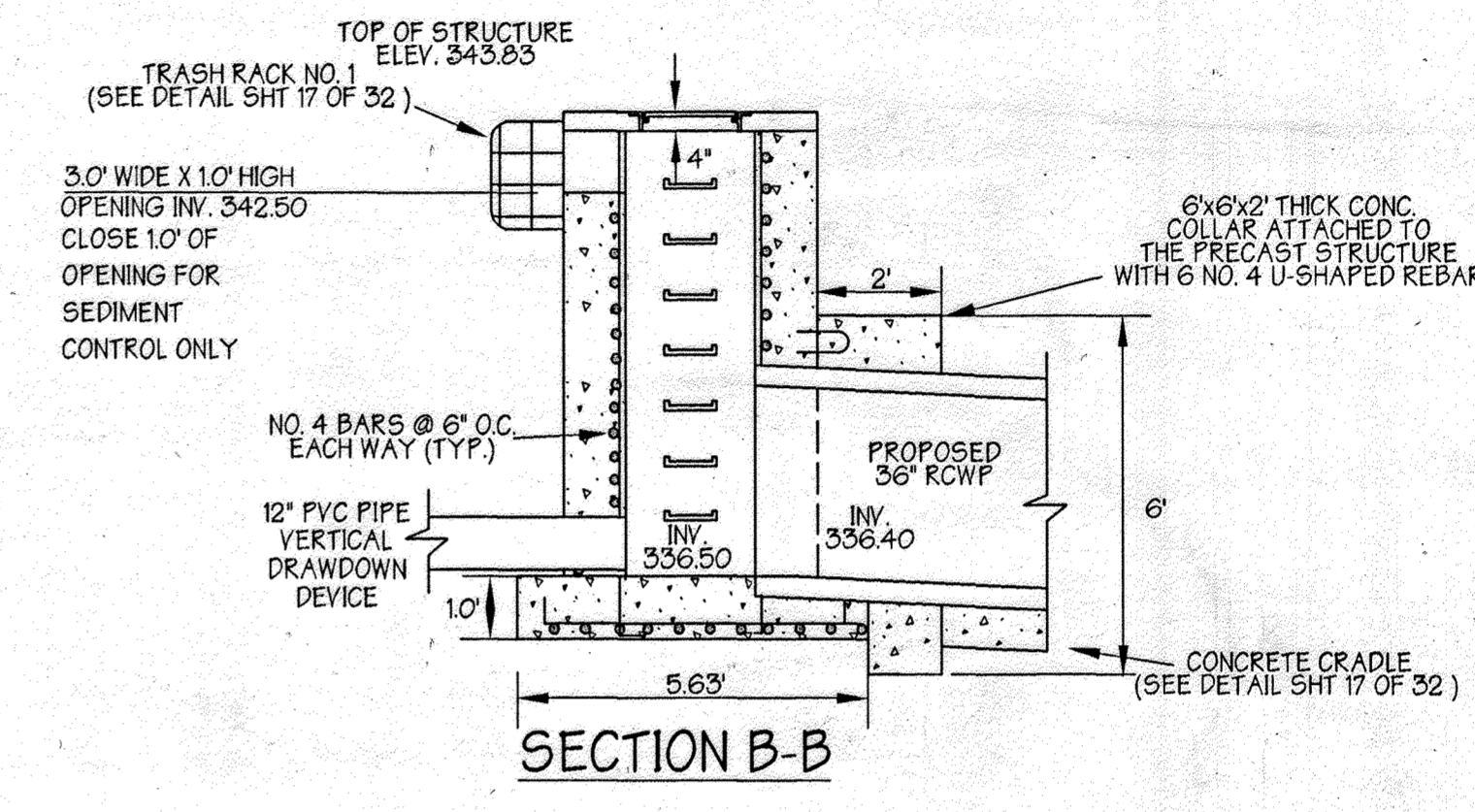
NOTE: IF UNSUITABLE (PERVIOUS) MATERIAL IS ENCOUNTERED AT TIME OF CUT-OFF TRENCH INSTALLATION DEEPER THAN 4', IT WILL BE NECESSARY TO EXTEND THE CUT-OFF TRENCH DOWN UNTIL SUITABLE MATERIAL IS ENCOUNTERED AS DETERMINED BY A GEOTECHNICAL ENGINEER. AT TIME OF CONSTRUCTION, EXISTING SOIL ADJACENT TO CUT-OFF TRENCH SHALL BE EVALUATED FOR SEEPAGE BY A GEOTECHNICAL ENGINEER, AND ADDRESSED PER RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

NOTE: REFER TO SHEET OF FOR POND SPECIFICATIONS AND RELATED DETAILS.

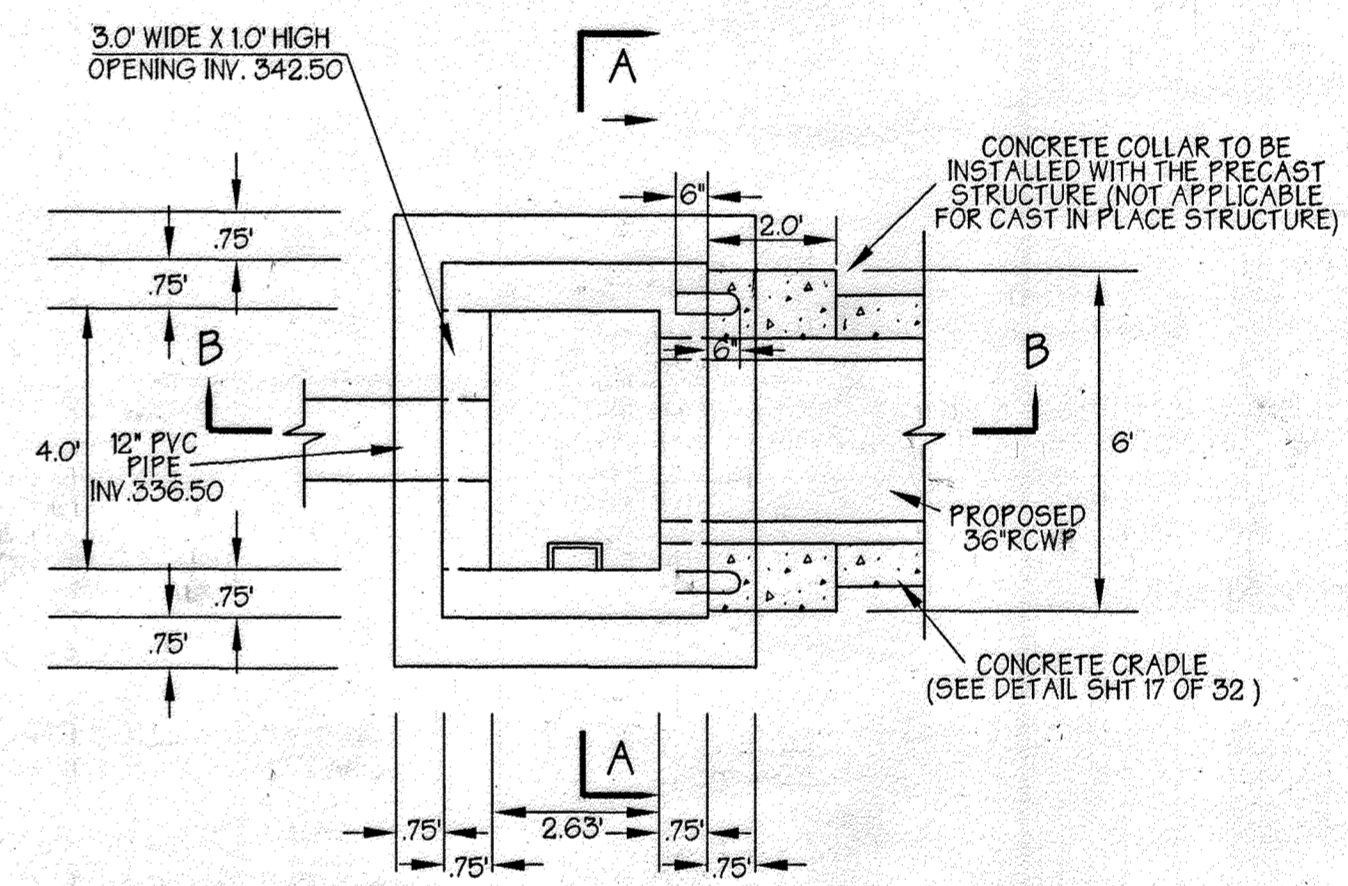
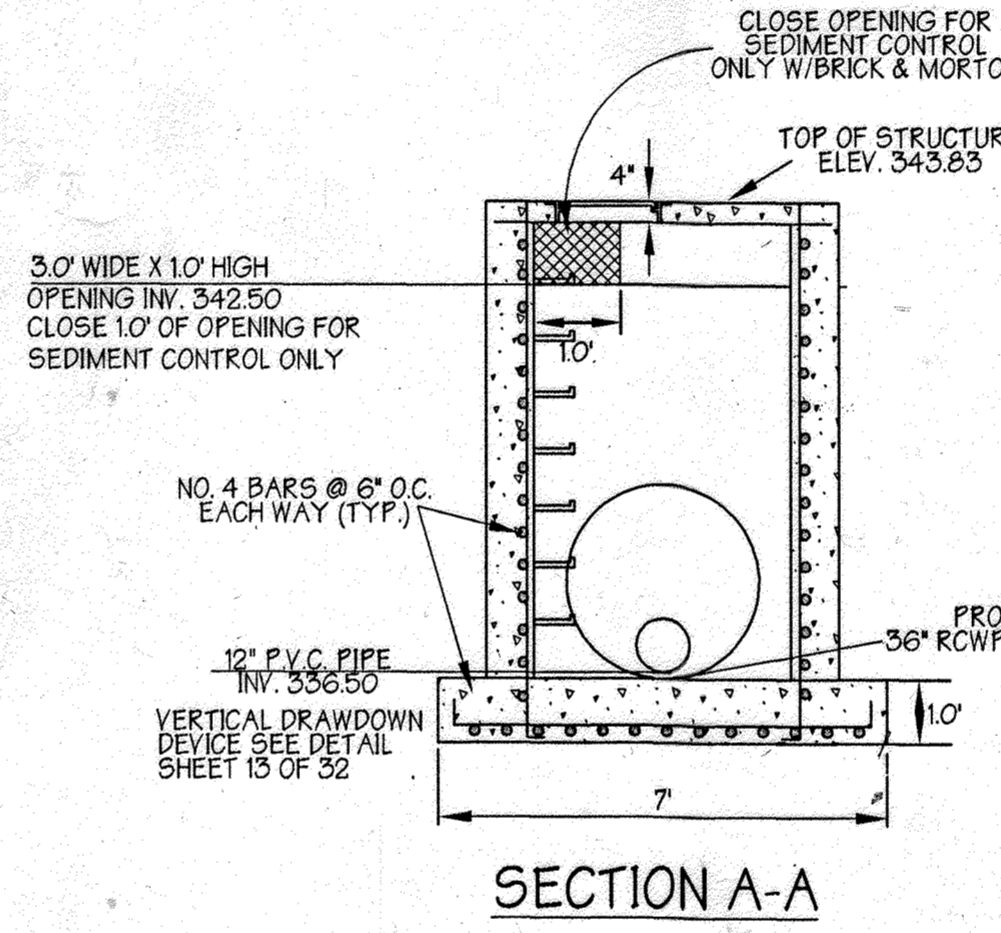
NOTE: CONTRACTOR TO PROVIDE POSITIVE DRAINAGE INTO BASIN DURING GRADING OPERATIONS.

BASIN SPECIFICATIONS FOR STORMWATER MANAGEMENT	
DESCRIPTION	DATA
STRUCTURE CLASSIFICATION	A (PRIVATE)
STORAGE X HEIGHT PRODUCT	
WATERSHED AREA TO THE POND	7.6 AC.
POND TYPE	DRY
FREEBOARD	REQUIRED/ PROVIDED 2.0' / 3.78'
IMPERVIOUS AREA	4.30 AC.
TOP OF EMBANKMENT	N/A

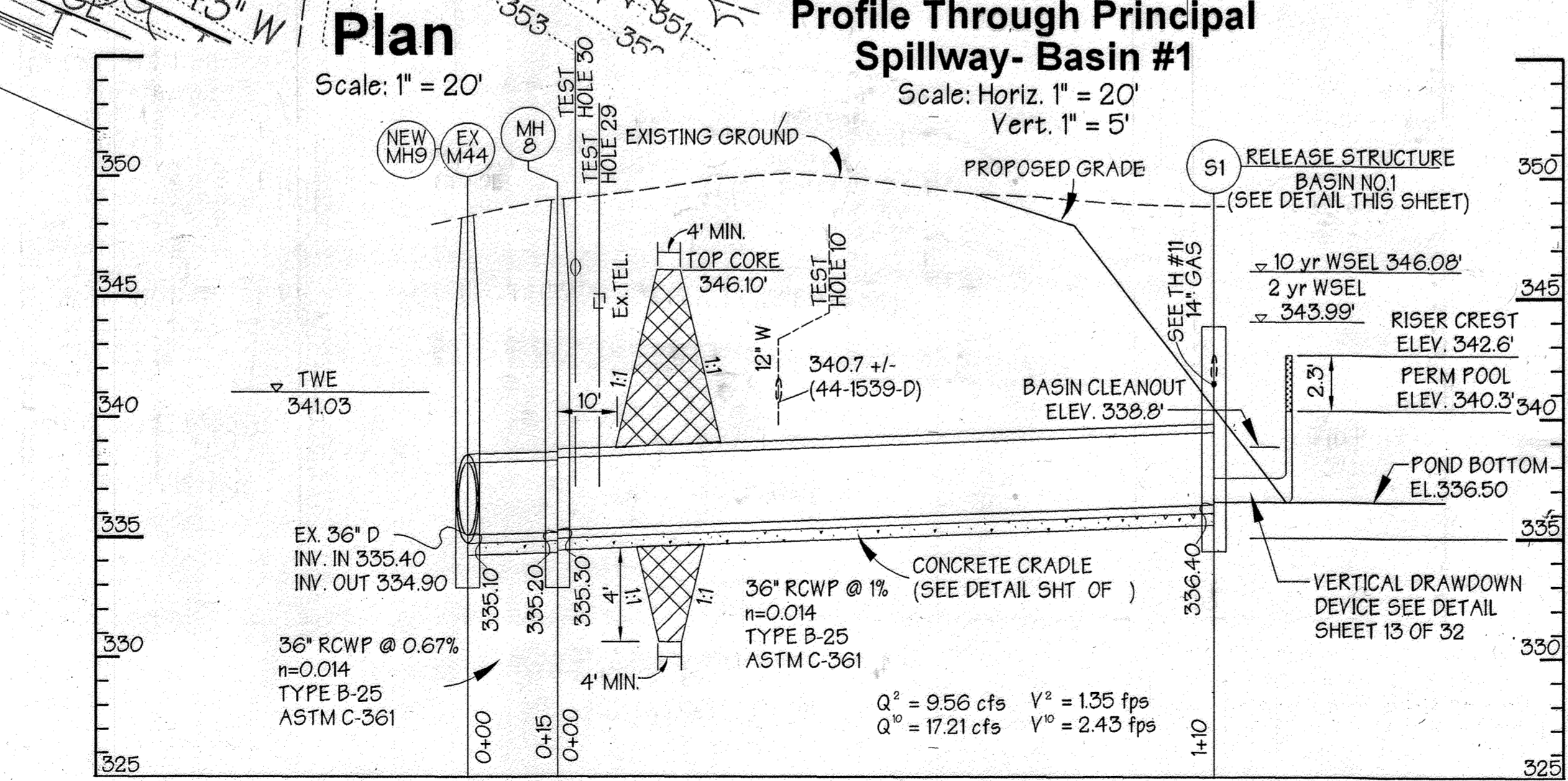
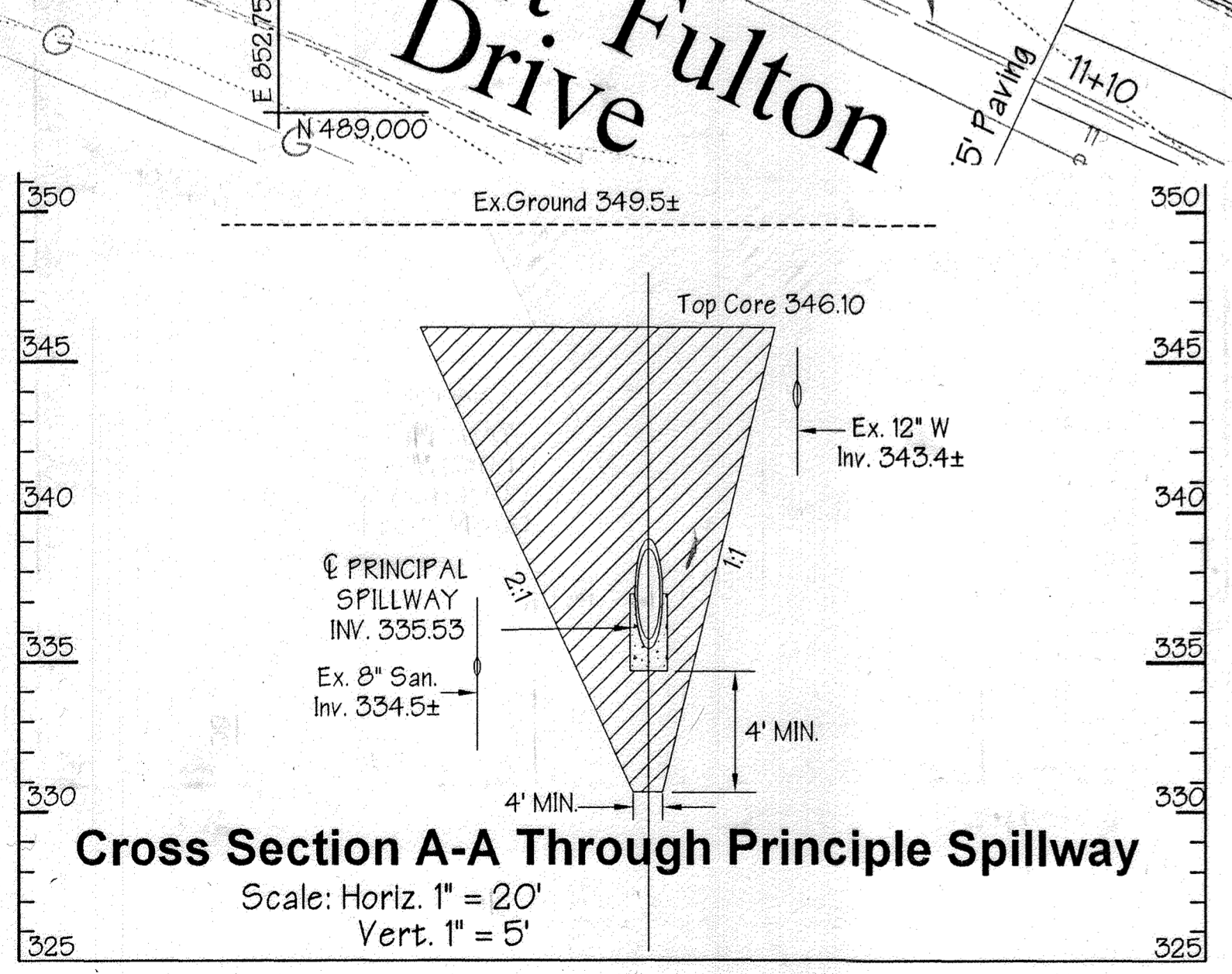
BASIN NO. 1 SUMMARY						
DESIGN STORM	ALLOWABLE RELEASE (CFS)	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	BYPASS DISCHARGE (CFS)	TOTAL DISCHARGE (CFS)	WATER SURFACE ELEVATION (FT.)
2 YR	38.07	17.47	9.56	25.17	34.39	343.99
10 YR	N/A	34.19	17.21	40.41	56.32	346.08



- RELEASE STRUCTURE NOTES
- UNLESS OTHERWISE NOTED TOP SLAB STRUCTURE SHALL BE BUILT IN ACCORDANCE TO HOWARD CO. STD. DETAIL 4-02.
 - STRUCTURE TO BE CAST-IN-PLACE REINFORCED CONCRETE WITH 3500 P.S.I. (MIN.) COMPRESSIVE STRENGTH @ 28 DAYS. DESIGN OF PRECAST CONC. STRUCTURE SHALL BE PROVIDED BY MANUFACTURER.
 - ALL REINFORCING TO BE CONTINUOUS THROUGHOUT STRUCTURE.
 - ALL REINFORCING TO HAVE 1" MIN. OVERLAPS.
 - TWO (2) INCH COVER MINIMUM FOR ALL REBARS IN WALLS AND THREE (3) INCHES FOR THE BASE.
 - PROVIDE ADDITIONAL #4 REBARS ALONG THE PERIMETER OF ALL OPENINGS WITH THE AREA OF STEEL EQUAL TO OR GREATER THAN THE AREA OF STEEL REMOVED DUE TO OPENING.
 - SHOP DRAWINGS FOR PRECAST CONCRETE RISERS WITH SUPPORTING STRUCTURAL COMPUTATIONS (SIGNED AND SEALED BY A MD. REGISTERED ENGINEER) MEETING A.S.T.M. REQUIREMENTS FOR PRECAST STRUCTURES MUST BE SUBMITTED TO THE ENGINEER, AND THE APPROVING AGENCY FOR APPROVAL PRIOR TO FABRICATION. IF ANY STRUCTURE DIMENSIONS VARY FROM WHAT WAS ORIGINALLY REVIEWED/ APPROVED, THEN THE HYDRAULICS, FLOTATION AND STRUCTURAL INTEGRITY OF THE STRUCTURE WILL HAVE TO BE REANALYZED.
 - ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS.



RELEASE STRUCTURE DETAILS
SCALE: 1" = 3'



PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120



DEVELOPER CERTIFICATION:
 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 as a Dept. of the Environment Approved Training Program for the Control of Sediments and Erosion before the beginning of the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with the "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Developer: Michael G. O'Brien Date: 4/19/99

ENGINEER CERTIFICATION:
 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 developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with the "as-built" plan of the pond within 30 days of completion.

Engineer: James A. Macke Jr. P.E. # 11005
 Name: James A. Macke Jr. Date: 4/19/99

OWNER:
COLUMBIA/95 GROUP L.P.
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DEVELOPER:
PREFERRED REAL ESTATE INVESTMENTS, INC.
 565 NORTH LANE, SUITE 601
 CONSHOHOCKEN, PA 19428
 (610) 834-1969

CONSULTANTS HAZARD CLASS CERTIFICATION:
 I certify that this pond meets all requirements for hazard class B or C. (requirements as stated in the Soil Conservation Service - Maryland Standards and Specifications for Pond, code 378, November, 1992). All necessary investigations and computations have been performed to verify this finding. A copy of said information has been supplied to Howard Soil Conservation District.

Engineer: James A. Macke Jr. Date: 4/19/99

AS-BUILT CERTIFICATION:
 I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meet the approved plans and specifications.

Signature: _____ P.E. # _____
 Date: _____

REVISION # 15
 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERA STEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 33 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS. 10.11.23

Professional Certification: 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.: 59816 Expiration Date: 8/28/2024



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
Jan K. Johnson 6/8/99 DATE

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cheryl Simmons 6/8/99 DATE
 NATURAL RESOURCES CONSERVATION SERVICE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chris DeWitt 6/1/99 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chris DeWitt 6/1/99 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
David Smith 6/14/99 DATE
 DIRECTOR

ADDRESS CHART
 PARCEL NO. L STREET ADDRESS 7125 COLUMBIA GATEWAY DRIVE

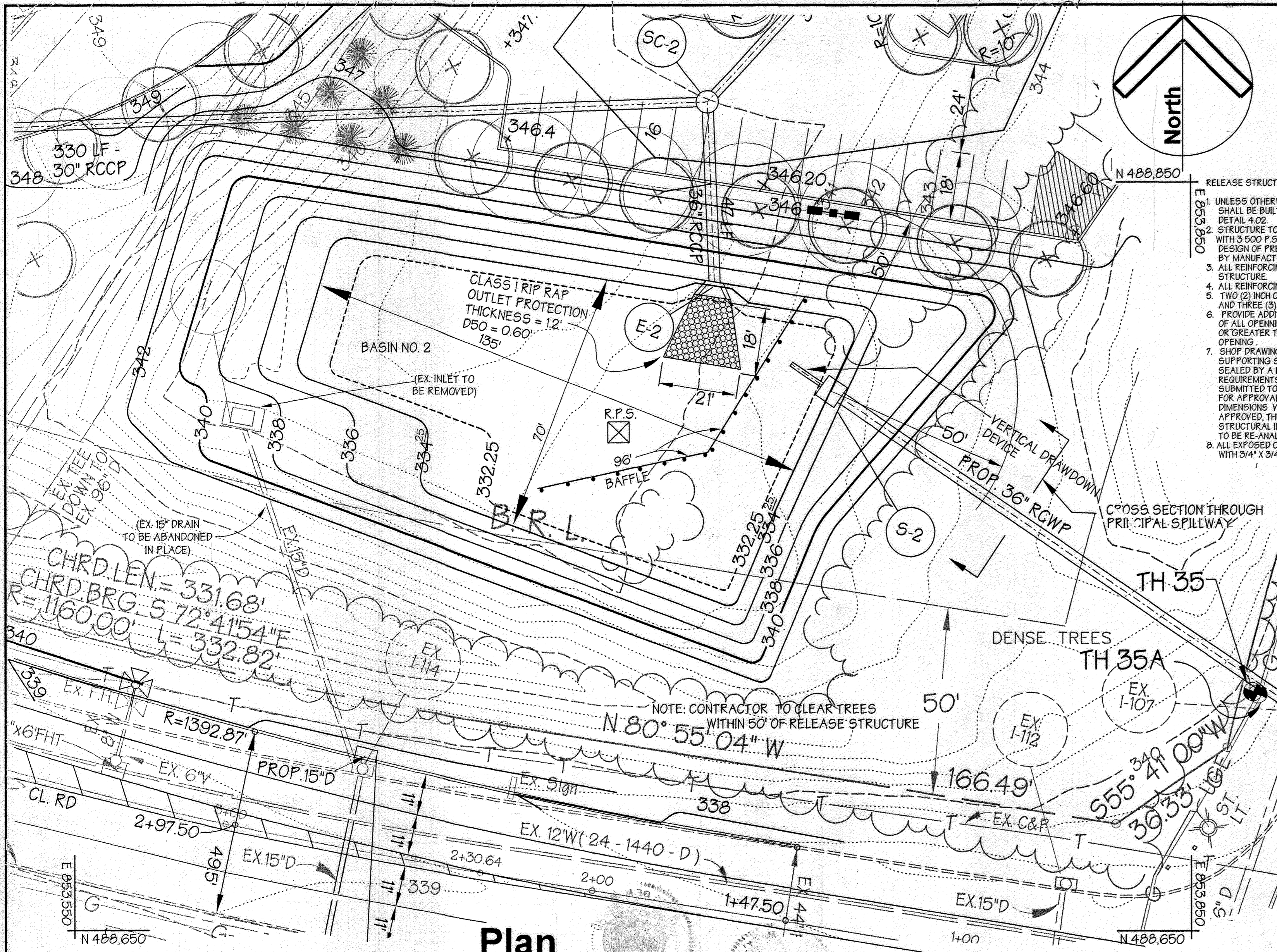
SUBDIVISION NAME: COLUMBIA GATEWAY SECTION NAME: N/A PARCEL #: 671
 PLAT #: 8803 BLOCK #: 1 ZONE: M-1 TAX/ZONE MAP: 43 ELECT. DIST.: 6 CENSUS TRACT: 6067.03
 WATER CODE: -E06 SEWER CODE: 5333000

Sediment Basin No. 1
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
 HOWARD CO., MARYLAND SHT. 11 OF 32 DATE: DECEMBER 4, 1998

SCALE: As Shown
 DATE: DECEMBER 4, 1998

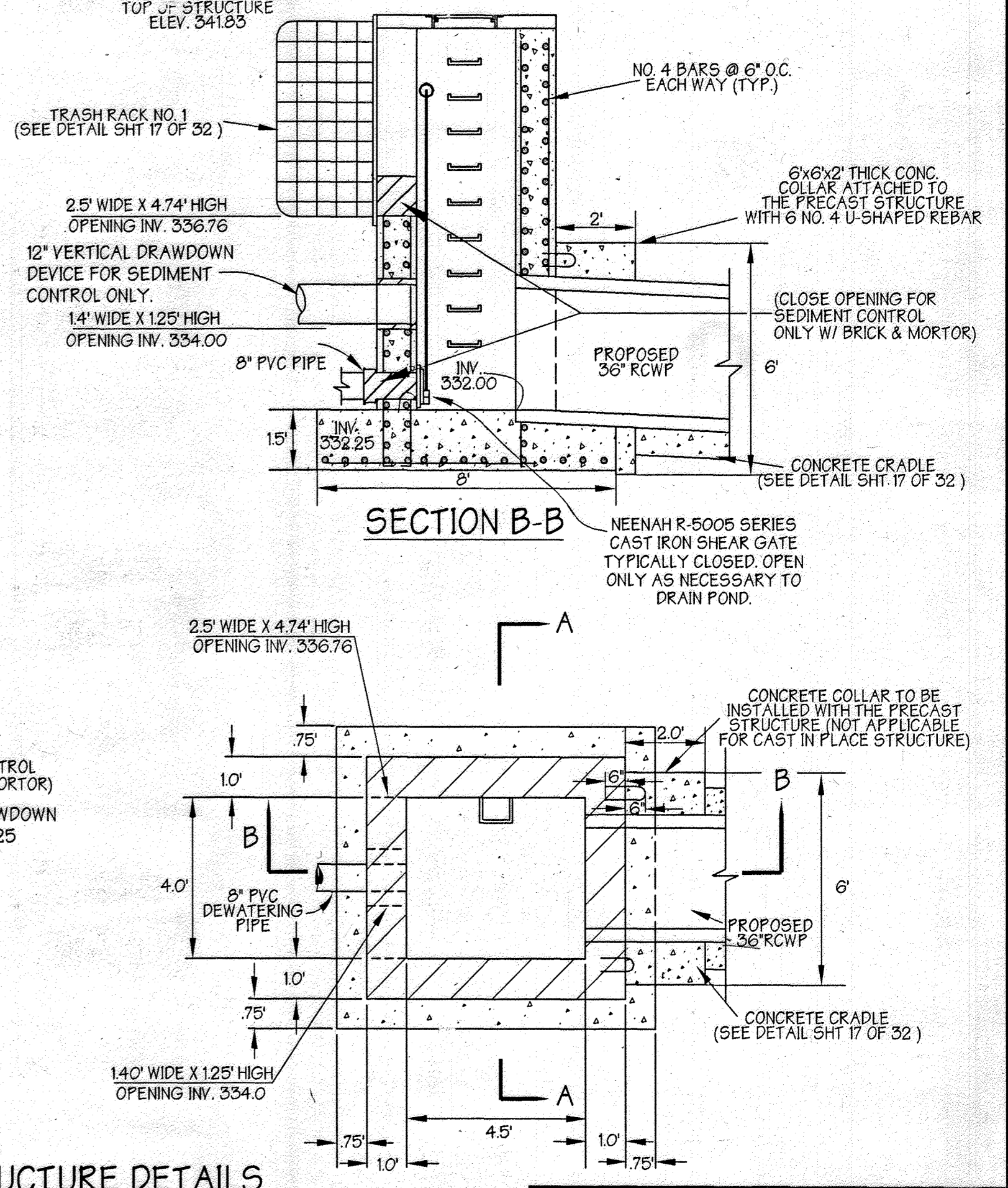
SDP 99-59



NOTE: CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE INTO BASIN DURING GRADING OPERATIONS.

DESIGN STORM	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	BYPASS DISCHARGE (CFS)	TOTAL DISCHARGE (CFS)	WATER SURFACE ELEVATION (FT)	STORAGE VOLUME (AC. FT.)
2 YR	26.17	12.55	9.01	20.14	336.87	133
10 YR	48.85	28.50	14.47	41.07	339.88	169

- RELEASE STRUCTURE NOTES
- UNLESS OTHERWISE NOTED TOP OF STRUCTURE SHALL BE BUILT IN ACCORDANCE TO HOWARD CO. STD. DETAIL 412
 - STRUCTURE TO BE CAST-IN-PLACE REINFORCED CONCRETE WITH 5000 P.S.I. (MIN) COMPRESSIVE STRENGTH @ 28 DAYS. DESIGN OF PRECAST CONC. STRUCTURE SHALL BE PROVIDED BY MANUFACTURER.
 - ALL REINFORCING TO BE CONTINUOUS THROUGHOUT STRUCTURE.
 - ALL REINFORCING TO HAVE 1" MIN. OVERLAPS.
 - TWO (2) INCH COVER MINIMUM FOR ALL REBARS IN WALLS AND THREE (3) INCHES FOR THE BASE.
 - PROVIDE ADDITIONAL #4 REBARS ALONG THE PERIMETER OF ALL OPENINGS WITH THE AREA OF STEEL EQUAL TO OR GREATER THAN THE AREA OF STEEL REMOVED DUE TO OPENING.
 - SHOP DRAWINGS FOR PRECAST CONCRETE RISERS WITH SUPPORTING STRUCTURAL COMPUTATIONS (SIGNED AND SEALED BY A MD. REGISTERED ENGINEER) MEETING A.S.T.M. REQUIREMENTS FOR PRECAST STRUCTURES MUST BE SUBMITTED TO THE ENGINEER, AND THE APPROVING AGENCY FOR APPROVAL PRIOR TO FABRICATION. IF ANY STRUCTURE DIMENSIONS VARY FROM WHAT WAS ORIGINALLY REVIEWED/ APPROVED, THEN THE HYDRAULICS, FLOTATION AND STRUCTURAL INTEGRITY OF THE STRUCTURE WILL HAVE TO BE RE-ANALYZED.
 - ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS.



RELEASE STRUCTURE DETAILS SCALE: 1" = 3'

- NOTE: NO TREES, SHRUBS OR OTHER WOODY VEGETATION WILL BE ALLOWED WITHIN 50' OF THE INLET STRUCTURE IN THE POOL AREA AND NOT ALLOWED WITHIN 20' FROM THE TOE OF THE EMBANKMENT.
- NOTE: THE CONSTRUCTION MAY REQUIRE A PERMIT FROM THE ARMY CORPS OF ENGINEERS, THE WATER RESOURCES ADMINISTRATION AND/OR HOWARD COUNTY. IT IS THE RESPONSIBILITY OF THE LANDOWNER TO CONTACT THESE THREE AGENCIES TO DETERMINE IF THE PROJECT REQUIRES A PERMIT: U.S. ARMY CORPS OF ENGINEERS - (410) 962-3620 WEA NON-TIDAL WETLANDS AND WATERWAYS DIVISION - (410) 974-3841 HOWARD COUNTY - (410) 887-3980
- NOTE: IF REQUIRED BY THE SEDIMENT CONTROL INSPECTOR FENCING SHALL BE INSTALLED TO PREVENT ACCESS TO THE BASIN BY CHILDREN.
- NOTE: THIS STORMWATER MANAGEMENT FACILITY IS DESIGNED TO MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND THE SOIL CONSERVATION DISTRICT. MAINTENANCE OF THIS FACILITY WILL BE THE RESPONSIBILITY OF THE OWNER. (THE SWM FACILITY IS PRIVATE).
- NOTE: CONTRACTOR TO REFER TO SHEET OF FOR POND SPECIFICATIONS AND RELATED DETAILS.

REVISION 15

THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 31 WITH THE ADDITION OF FIVE (5) SHEETS.

10/1/23

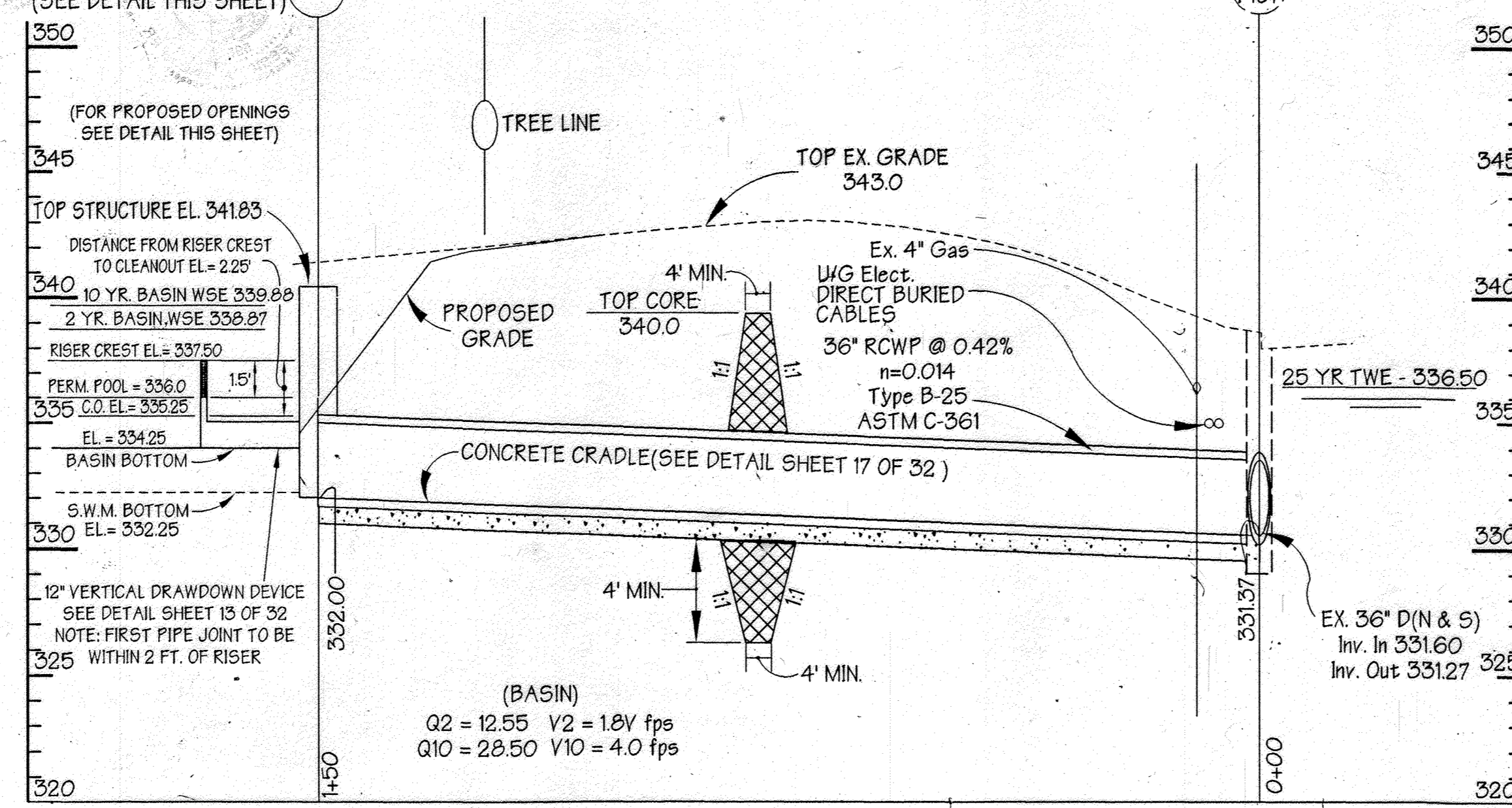
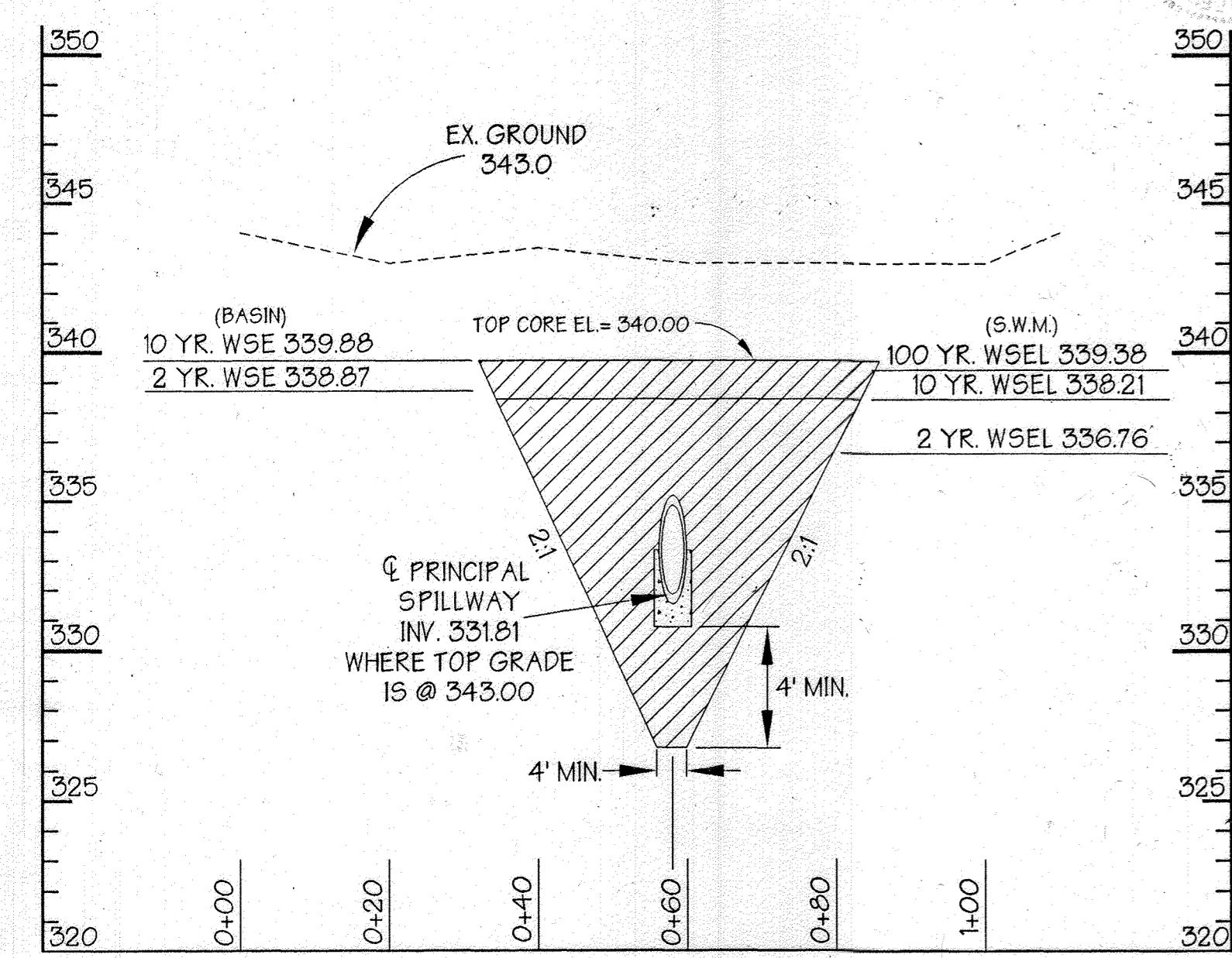
Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. 59816 Expiration Date: 8/23/2024

THIS SEAL FOR REV. #15 ONLY

Plan Scale: 1" = 20'

Profile Through Principal Spillway Scale: Horiz. 1" = 20' Vert. 1" = 5'

Profile Through Principal Spillway Scale: Horiz. 1" = 20' Vert. 1" = 5'



Cross Section Through Principal Spillway Scale: Horiz. 1" = 20' Vert. 1" = 5'

CONSULTANTS HAZARD CLASS CERTIFICATION:

I certify that this pond meets all requirements for hazard class B or C, (requirements as stated in the Soil Conservation Service - Maryland Standards and Specifications for Pond, code 378, November, 1992). All necessary investigations and computations have been performed to verify this finding. A copy of said information has been supplied to Howard Soil Conservation District.

Engineer: James A. Markie Jr. Date: 4/9/99

AS-BUILT CERTIFICATION:

I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meet the approved plans and specifications.

Signature: _____ F.E. # _____ Date: _____

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT John R. Kalousos 6/8/99 DATE

PLAN NUMBER _____ DATE

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING John R. Kalousos 6/8/99 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK _____ DATE

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE

DIRECTOR _____ DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME: COLUMBIA GATEWAY SECTION NAME: N/A PARCEL #: 671

PLAT #: 8803 BLOCK #: 1 ZONE: M-1 TAX/ZONE MAP: 43 ELECT. DIST.: 6 CENSUS TRACT: 6067.03

WATER CODE: E06 SEWER CODE: 5333000

PREPARED BY:

GWS

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.

Civil Engineers and Land Surveyors

658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:

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 Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a 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.

Developer: Michael G. O'Neill Date: 4/19/99

ENGINEER CERTIFICATION:

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 developer that he/she must 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.

Engineer: James A. Markie Jr. F.E. # 11005 Date: 4/9/99

OWNER: **COLUMBIA/95 GROUP L.P.**
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.
REVISIONS

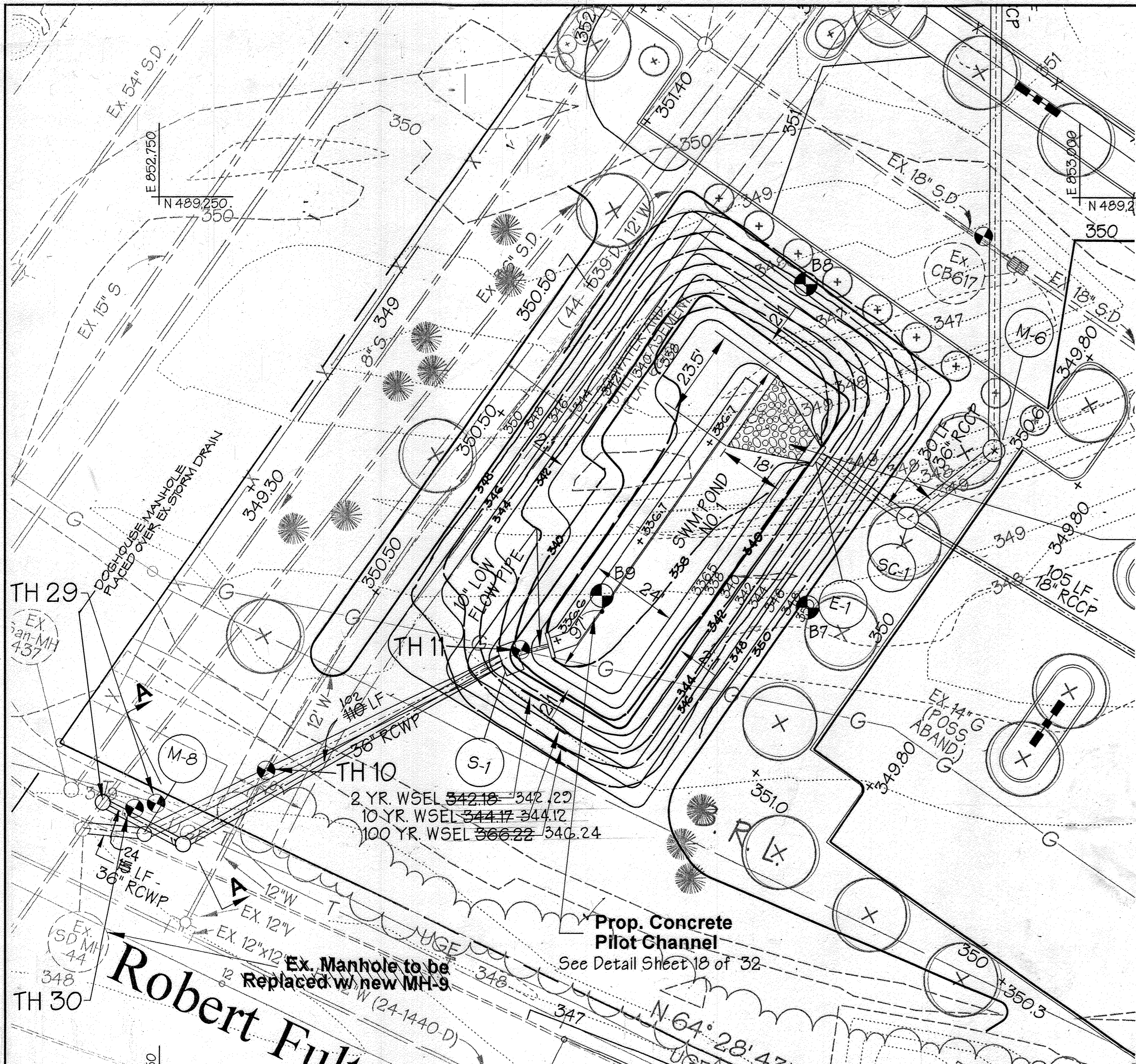
DEVELOPER: **PREFERRED REAL ESTATE INVESTMENTS, INC.**
555 NORTH LANE, SUITE 6101
CONSHOHOCKEN, PA 19348
(610) 834-1868

SEDIMENT BASIN No. 2

The Renaissance at Columbia Gateway

HOWARD COUNTY, MARYLAND SHT. 12 OF 32 SCALE: As Shown DATE: DECEMBER 4, 1998

SDP 99-59



NOTE: NO TREES, SHRUBS OR OTHER WOODY VEGETATION WILL BE ALLOWED WITHIN 50' OF THE INLET STRUCTURE IN THE POOL AREA AND NOT ALLOWED WITHIN 20' FROM THE TOE OF THE EMBANKMENT.

NOTE: THE CONSTRUCTION MAY REQUIRE A PERMIT FROM THE ARMY CORPS OF ENGINEERS, THE WATER RESOURCES ADMINISTRATION AND/OR HOWARD COUNTY. IT IS THE RESPONSIBILITY OF THE LANDOWNER TO CONTACT THESE THREE AGENCIES TO DETERMINE IF THE PROJECT REQUIRES A PERMIT.
U.S. ARMY CORPS OF ENGINEERS - (410) 962-3620
WRA NON-TIDAL WETLANDS AND WATERWAYS DIVISION - (410) 974-3841
HOWARD COUNTY - (410) 887-5980

NOTE: IF REQUIRED BY THE SEDIMENT CONTROL INSPECTOR FENCING SHALL BE INSTALLED TO PREVENT ACCESS TO THE BASIN BY CHILDREN.

NOTE: THIS STORMWATER MANAGEMENT FACILITY IS DESIGNED TO MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND THE SOIL CONSERVATION DISTRICT. MAINTENANCE OF THIS FACILITY WILL BE THE RESPONSIBILITY OF THE OWNER. (THE SWM FACILITY IS PRIVATE).

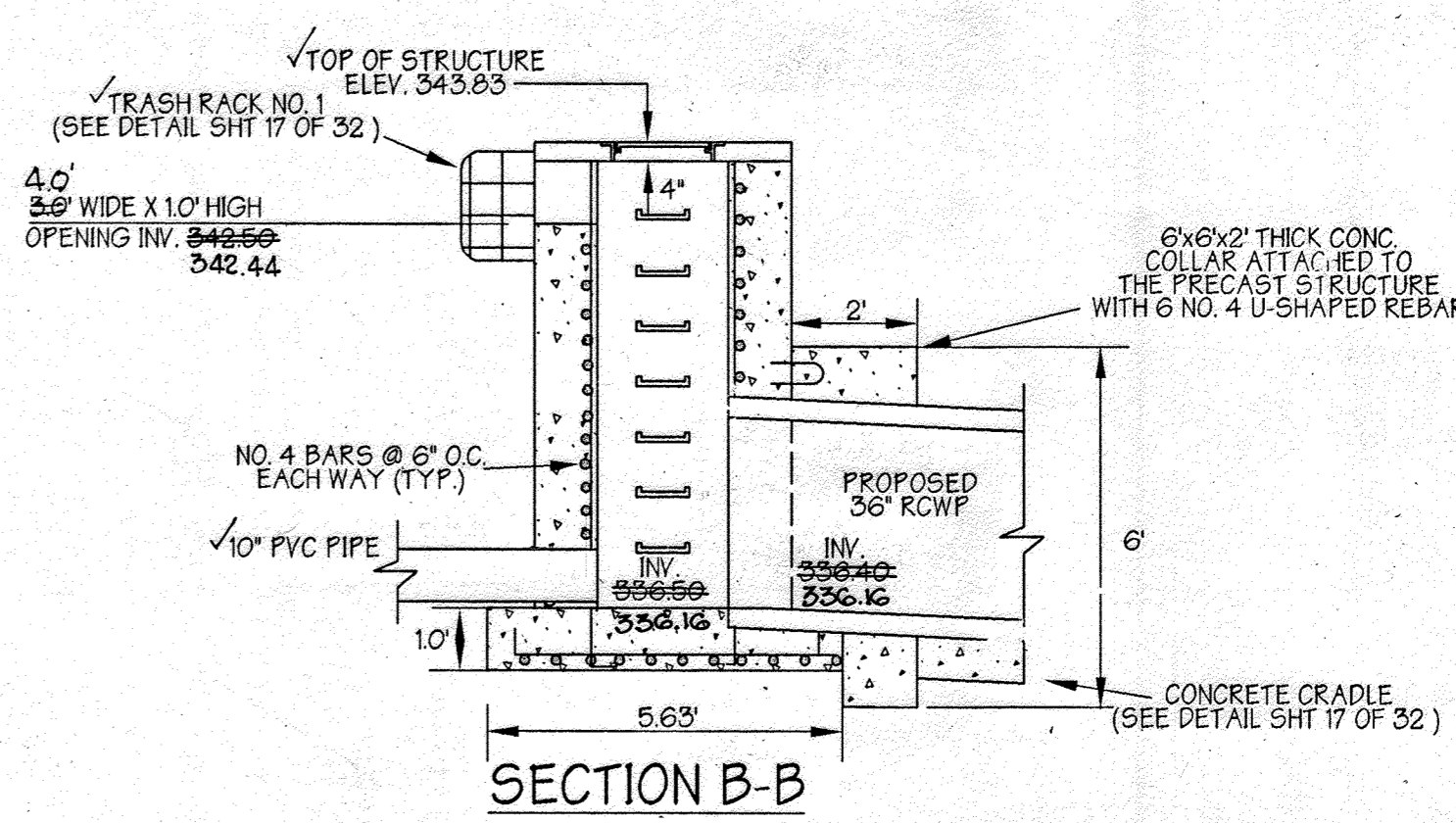
NOTE: SOILS TO BE USED FOR CUT-OFF TRENCH AND IMPERVIOUS CORE SHALL CONFORM TO UNIFIED CLASSSES CL, SC, CH OR GC.

NOTE: IF UNSUITABLE (PERVIOUS) MATERIAL IS ENCOUNTERED AT TIME OF CUT-OFF TRENCH INSTALLATION DEEPER THAN 4', IT WILL BE NECESSARY TO EXTEND THE CUT-OFF TRENCH DOWN UNTIL SUITABLE MATERIAL IS ENCOUNTERED AS DETERMINED BY A GEOTECHNICAL ENGINEER. AT TIME OF CONSTRUCTION EXISTING SOIL ADJACENT TO CUT-OFF TRENCH SHALL BE EVALUATED FOR SEEPAGE BY A GEOTECHNICAL ENGINEER, AND ADDRESSED PER RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

Class 1 Rip-Rap Outlet Protection - Thickness = 1.5' d = 0.70"

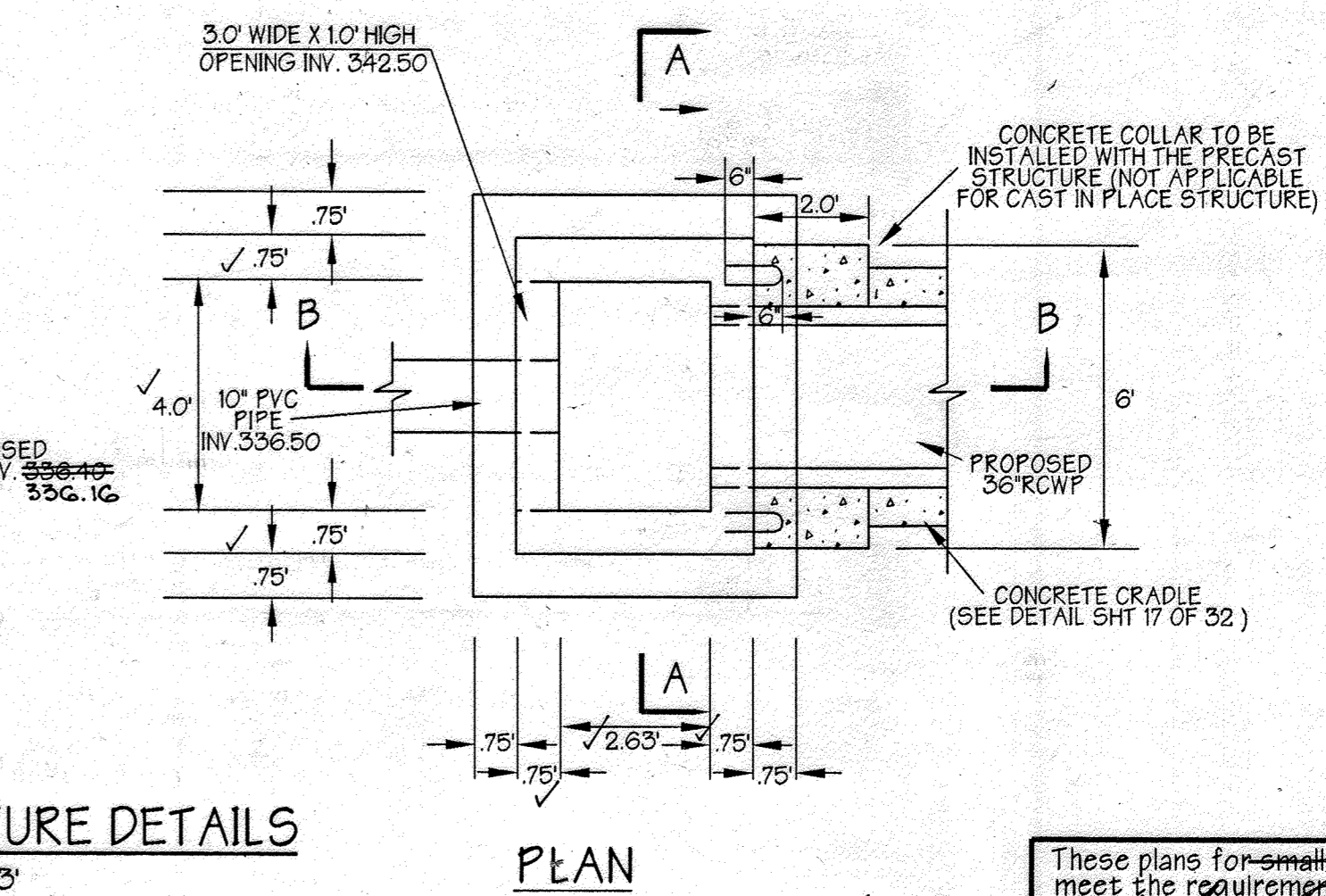
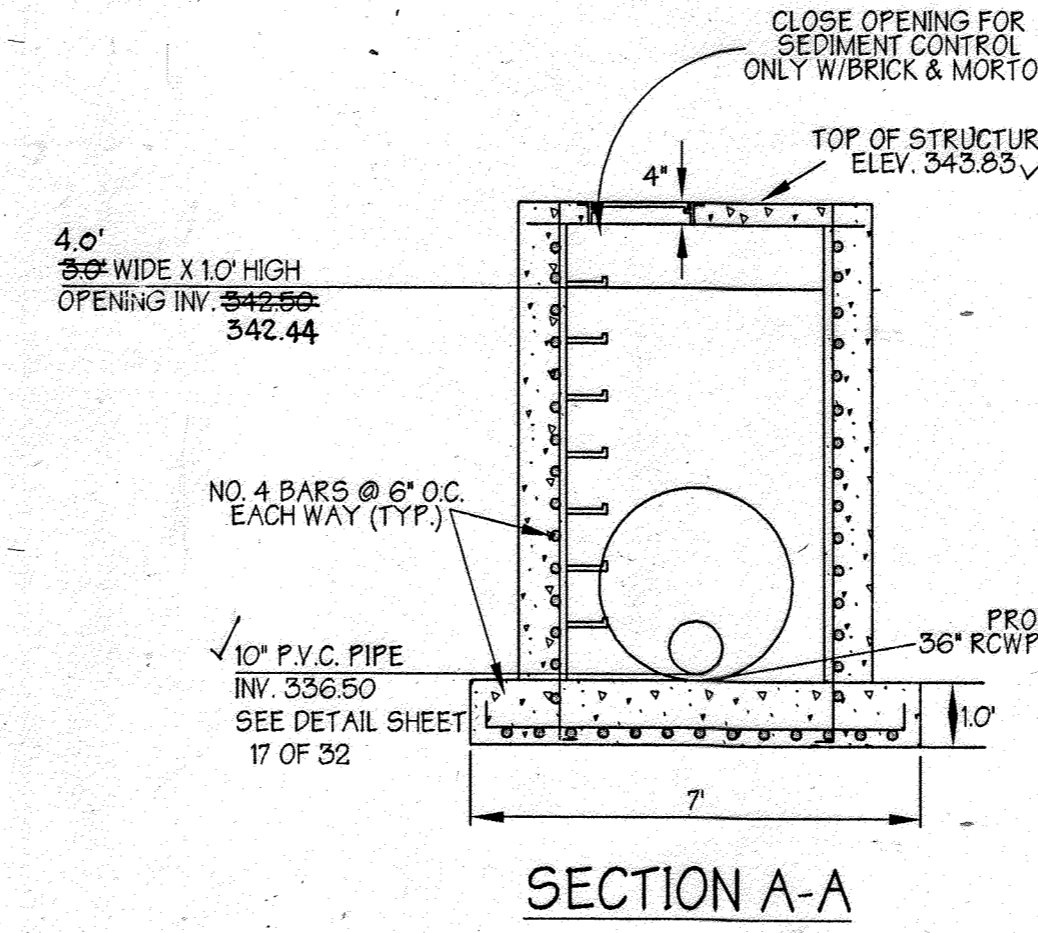
POND SPECIFICATIONS FOR STORMWATER MANAGEMENT	
DESCRIPTION	DATA
STRUCTURE CLASSIFICATION	A (PRIVATE)
STORAGE X HEIGHT PRODUCT	
WATERSHED AREA TO THE POND	7.6 AC.
POND TYPE	DRY
FREEBOARD	REQUIRED/ PROVIDED
IMPERVIOUS AREA	2.0' / 3.76
TOP OF EMBANKMENT	4.30 AC.
	N/A

POND NO1 SUMMARY						
DESIGN STORM	ALLOWABLE RELEASE (CFS)	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	BYPASS DISCHARGE (CFS)	TOTAL DISCHARGE (CFS)	STORAGE VOL. WITH WATER QUALITY (AC. FT.)
2 YR	30.07	25.43	4.99 5.02	25.17	3022 3022	342.49 2.25
10 YR	69.62	42.37	17.54	40.41	57.25 57.25	344.47 1.2
100 YR	N/A	60.86	19.64	57.20	16.13 16.13	346.22 2.4



RELEASE STRUCTURE NOTES

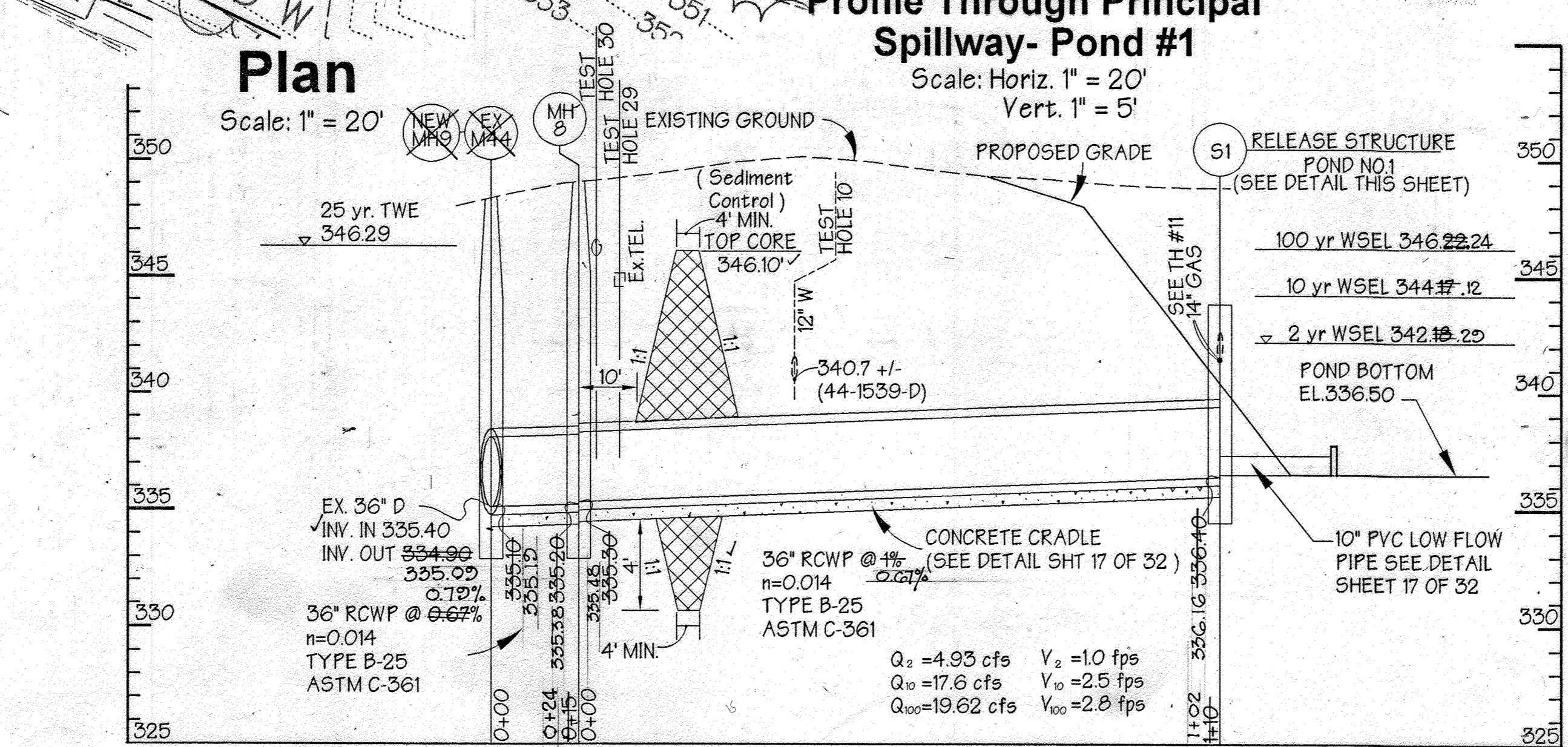
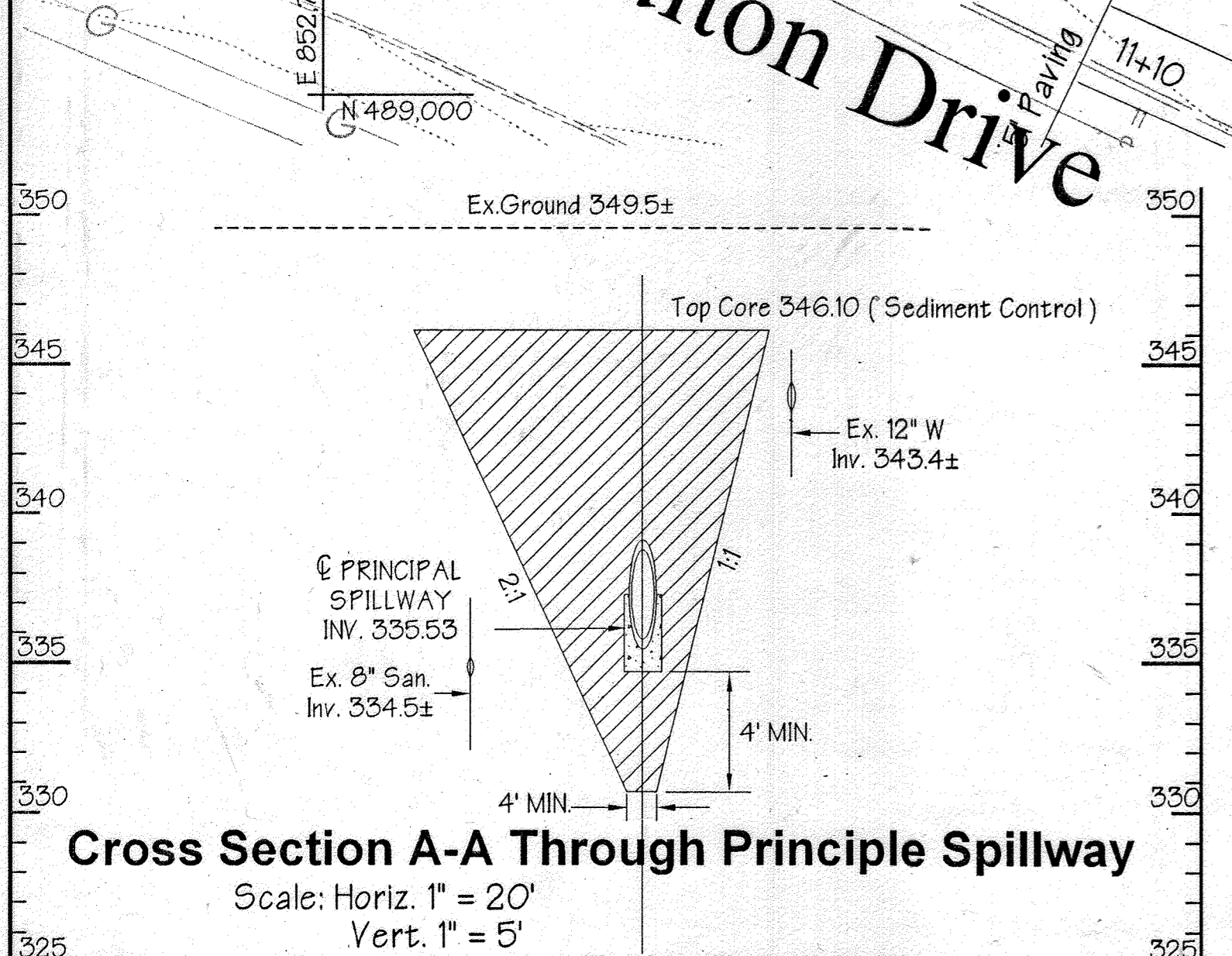
- UNLESS OTHERWISE NOTED TOP SLAB STRUCTURE SHALL BE BUILT IN ACCORDANCE TO HOWARD CO. STD. DETAIL 4.02.
- STRUCTURE TO BE CAST-IN-PLACE REINFORCED CONCRETE WITH 3,500 P.S.I. (MIN) COMPRESSIVE STRENGTH @ 28 DAYS. DESIGN OF PRECAST CONC. STRUCTURE SHALL BE PROVIDED BY MANUFACTURER.
- ALL REINFORCING TO BE CONTINUOUS THROUGHOUT STRUCTURE.
- ALL REINFORCING TO HAVE 1" MIN. OVERLAPS AND THREE (3) INCHES FOR THE BASE.
- PROVIDE ADDITIONAL #4 REBARS ALONG THE PERIMETER OF ALL OPENINGS WITH THE AREA OF STEEL EQUAL TO OR GREATER THAN THE AREA OF STEEL REMOVED DUE TO OPENING.
- SHOP DRAWINGS FOR PRECAST CONCRETE RISERS WITH SUPPORTING STRUCTURAL COMPUTATIONS (SIGNED AND SEALED BY A REGISTERED ENGINEER MEETING A.S.T.M. REQUIREMENTS FOR PRECAST STRUCTURES MUST BE SUBMITTED TO THE ENGINEER, AND THE APPROVING AGENCY FOR APPROVAL PRIOR TO FABRICATION. IF ANY STRUCTURE DIMENSIONS VARY FROM WHAT WAS ORIGINALLY REVIEWED/ APPROVED, THEN THE HYDRAULICS, FLOTATION AND STRUCTURAL INTEGRITY OF THE STRUCTURE WILL HAVE TO BE RE-EVALUATED.
- ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS.



RELEASE STRUCTURE DETAILS
SCALE: 1" = 3'

REVISION 15
THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND PLUTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 31 WITH THE ADDITION OF FIVE (5) SHEETS.

10.11.23
Professional certification. 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.: 57816 Expiration Date: 8/23/2024



CONSULTANTS HAZARD CLASS CERTIFICATION:
I certify that this pond meets all requirements for hazard class B or C. (requirements as stated in the Soil Conservation Service - Maryland Standards and Specifications for Pond code 37B, November, 1992). All necessary investigations and computations have been performed to verify this finding. A copy of said information has been supplied to Howard Soil Conservation District.

Engineer: *James A. Markie Jr.* Date: 4/9/99
Name: **JAMES A. MARKIE JR.**

AS-BUILT CERTIFICATION:
I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meet the approved plans and specifications.

Signature: *James A. Markie Jr.* Date: 6/13/00

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
John K. Howard DATE: 6/18/99

PLAN NUMBER: _____ DATE: _____

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cheryl Simmons DATE: 6/18/99
NATURAL RESOURCES CONSERVATION SERVICE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
John Deane DATE: 6/11/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK

Cindy Hamlett DATE: 6/11/99
CHIEF, DIVISION OF LAND DEVELOPMENT

James A. Markie Jr. DATE: 6/11/99
DIRECTOR

ADDRESS CHART
PARCEL NO.: L STREET ADDRESS: 7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME: COLUMBIA GATEWAY SECTION NAME: N/A PARCEL #: 671
FLAT #: 8803 BLOCK #: 1 ZONE: M-1 TAX/ZONE MAP: 43 ELEC. DIST.: 6 CENSUS TRACT: 6067.03
WATER CODE: -E06 SEWER CODE: 5333000

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
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 Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a 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.

Developer: *Michael G. Quinn* Date: 4/11/99

ENGINEER CERTIFICATION:
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 developer that he/she must 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.

Engineer: *James A. Markie Jr.* P.E. # 11005 Date: 4/9/99
Name: **JAMES A. MARKIE JR.**

OWNER:
COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

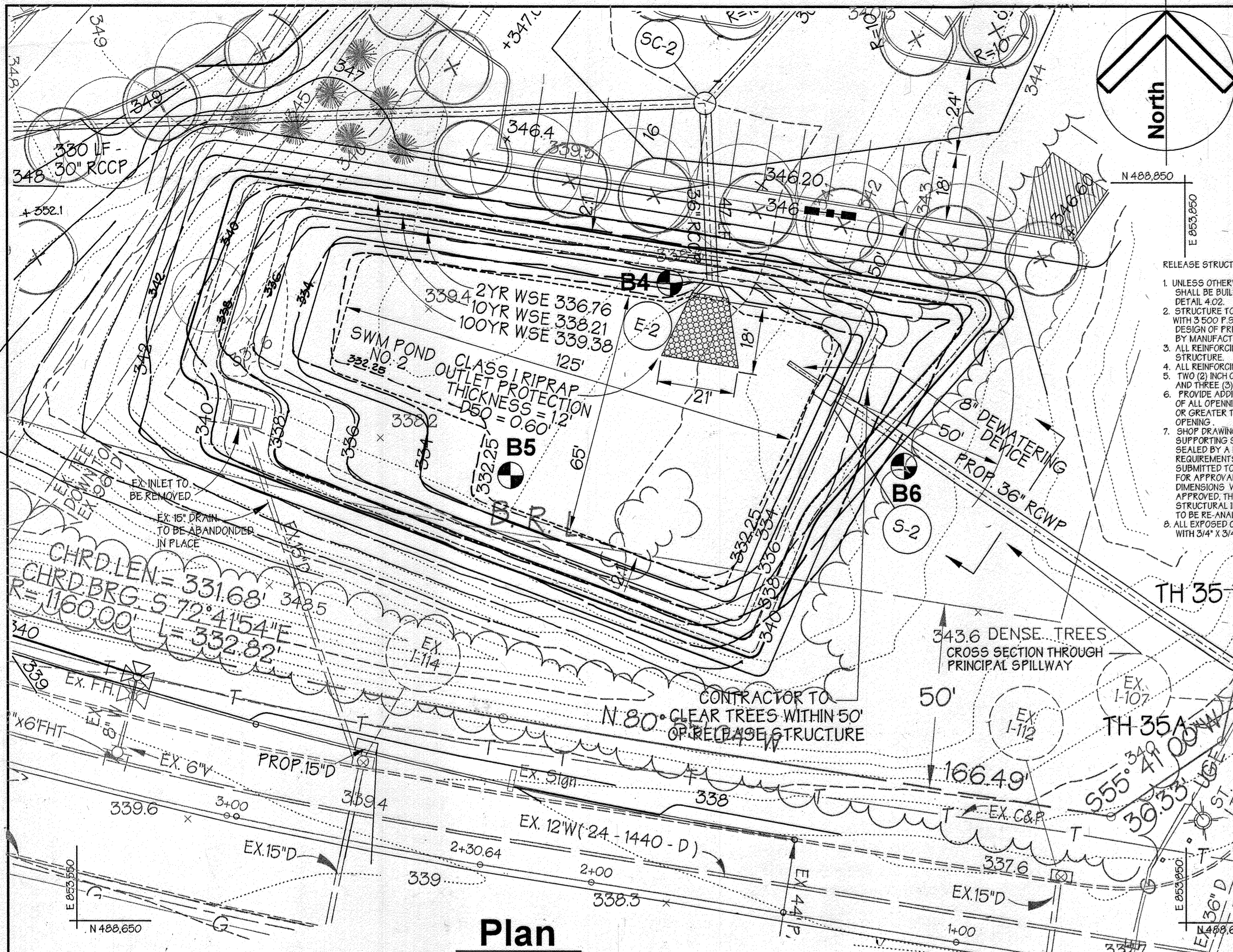
DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.

DEVELOPER:
PREFERRED REAL ESTATE INVESTMENTS, INC.
555 NORTH LANE, SUITE 601
CONSHOHOCKEN, PA 19428
(610) 834-1968

Stormwater Management Pond No. 1
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6 HOWARD COUNTY, MARYLAND SHT. 14 OF 32 DATE: DECEMBER 4, 1998

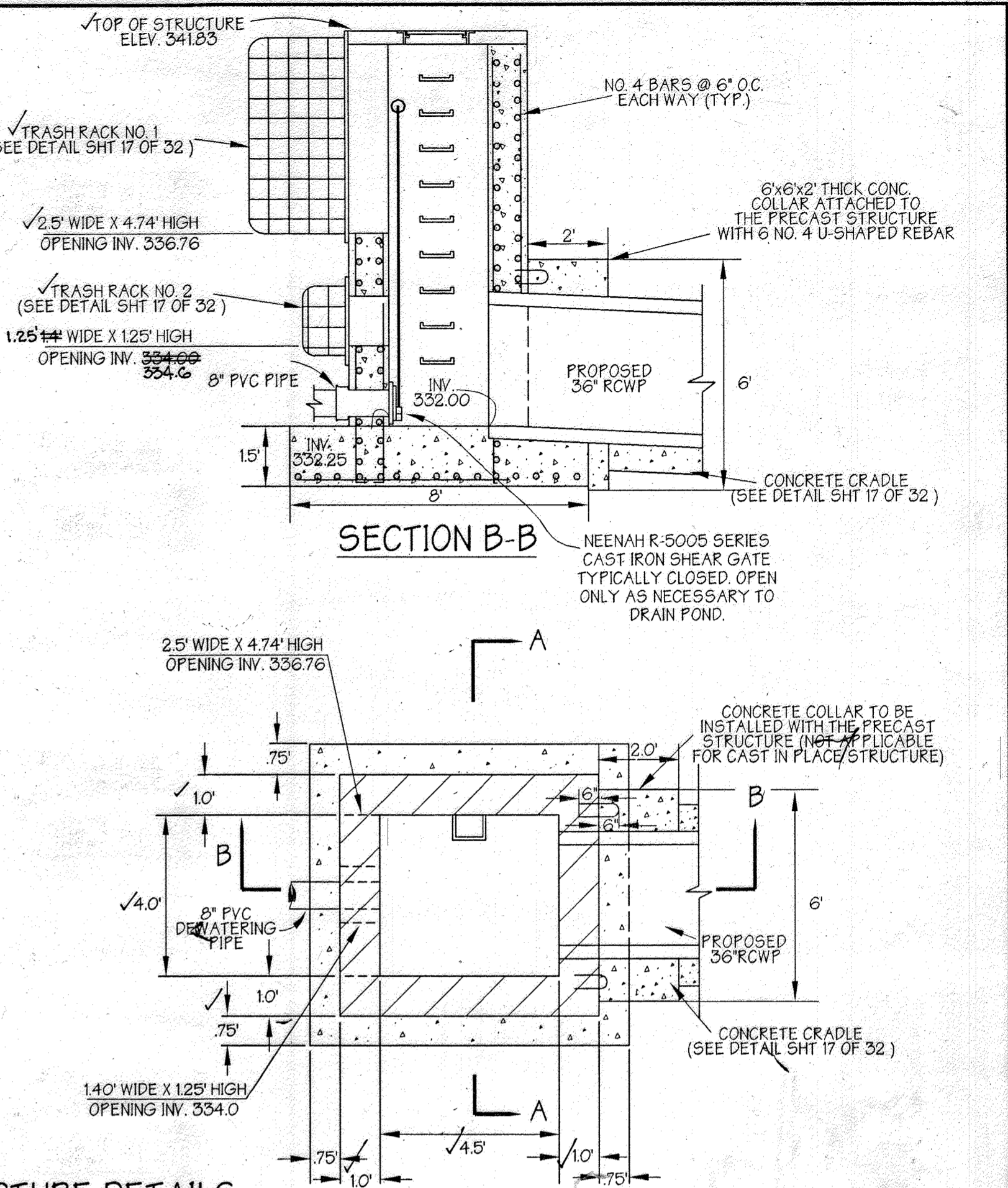
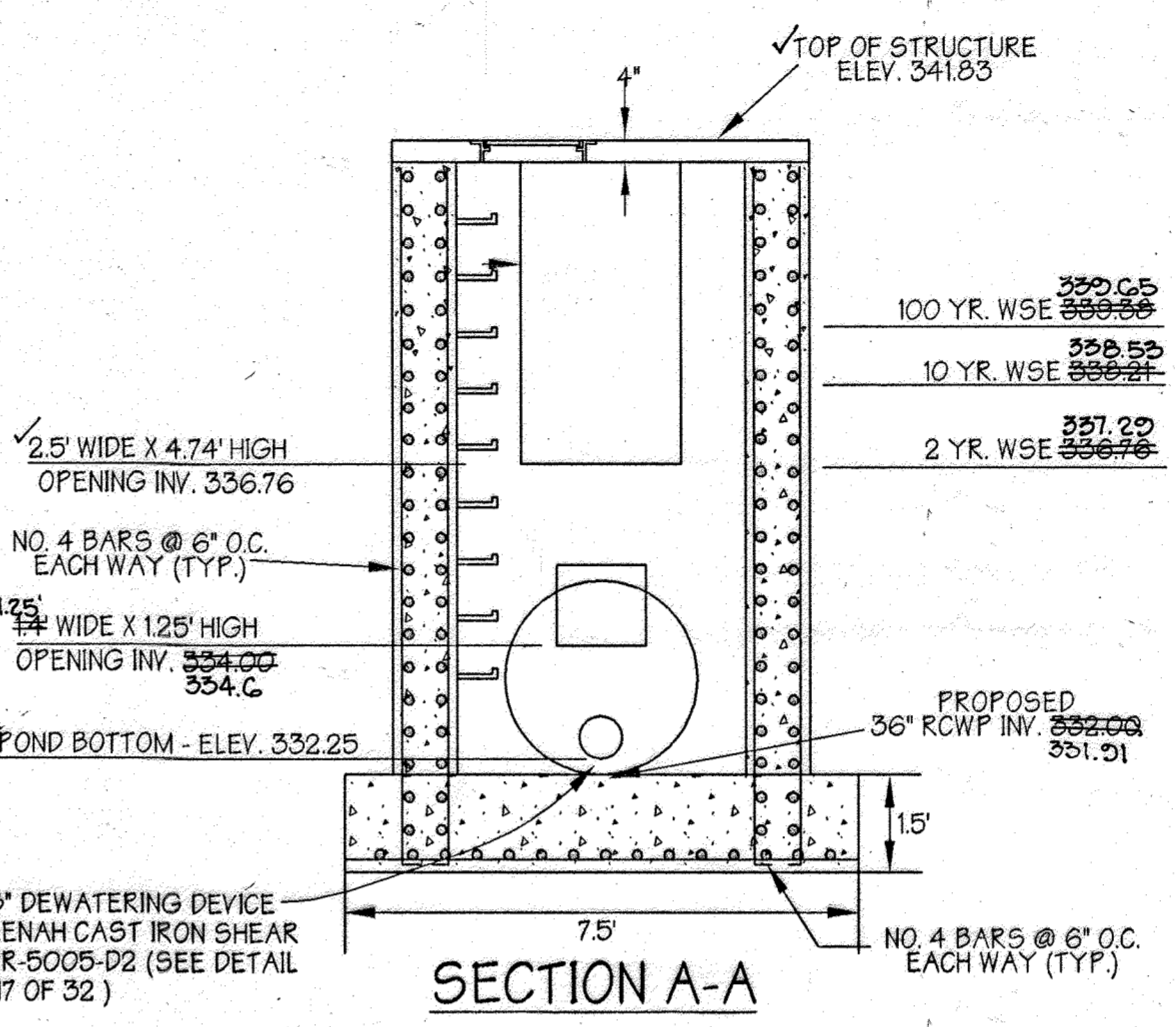
SCALE: As Shown
DATE: DECEMBER 4, 1998



POND SPECIFICATIONS FOR STORMWATER MANAGEMENT	
DESCRIPTION	DATA
STRUCTURE CLASSIFICATION	A (PRIVATE)
STORAGE X HEIGHT PRODUCT	
WATERSHED AREA TO THE POND	10.0 AC.
POND TYPE	INFILTRATION
FREEBOARD	REQUIRED/ PROVIDED
IMPERVIOUS AREA	7.70 AC.
TOP OF EXISTING GRADE	343.00

POND SUMMARY							
DESIGN STORM	ALLOWABLE RELEASE (CFS)	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	BYPASS DISCHARGE (CFS)	TOTAL DISCHARGE (CFS)	WATER SURFACE ELEVATION (FT)	STORAGE VOL. WITH WATER QUALITY (AC. FT)
2 YR	2176	33.45	3274 14.05	9.01	2094 21.2	336.76	103
10 YR	4812	55.73	3699 28.18	14.47	3722 42.9	336.76	146
100 YR	NA	80.04	4086 42.51	20.47	4292 63.0	336.76	188

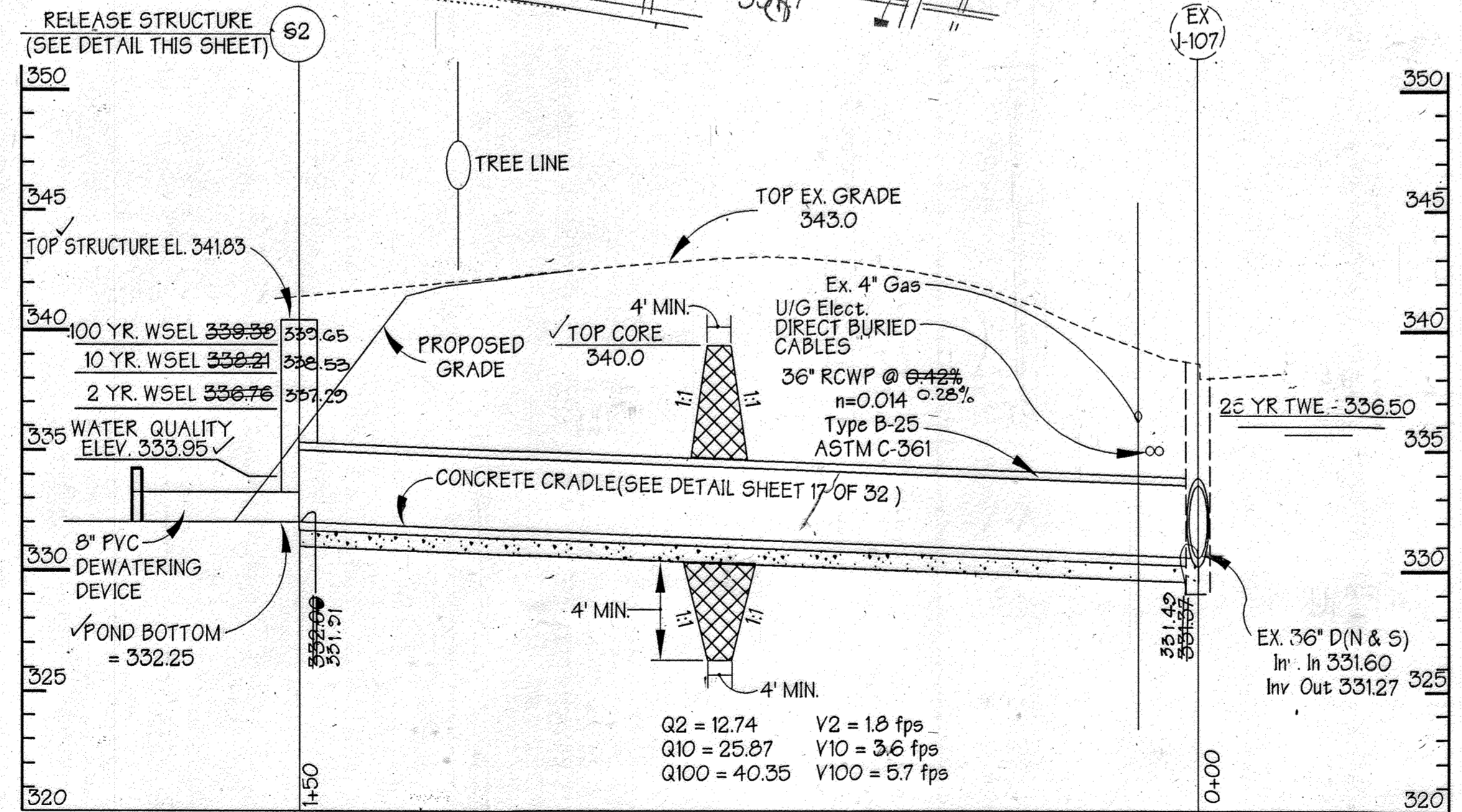
- RELEASE STRUCTURE NOTES
- UNLESS OTHERWISE NOTED TOP SLAB STRUCTURE SHALL BE BUILT IN ACCORDANCE TO HOWARD CO. STD. DETAIL 402.
 - STRUCTURE TO BE CAST-IN-PLACE REINFORCED CONCRETE WITH 3000 P.S.I. (MIN) COMPRESSIVE STRENGTH @ 28 DAYS. DESIGN OF PRECAST CONC. STRUCTURE SHALL BE PROVIDED BY MANUFACTURER.
 - ALL REINFORCING TO BE CONTINUOUS THROUGHOUT STRUCTURE.
 - ALL REINFORCING TO HAVE 1" MIN. OVERLAPS.
 - TWO (2) INCH COVER MINIMUM FOR ALL REBARS IN WALLS AND THREE (3) INCHES FOR THE BASE.
 - PROVIDE ADDITIONAL #4 REBARS ALONG THE PERIMETER OF ALL OPENINGS WITH THE AREA OF STEEL EQUAL TO OR GREATER THAN THE AREA OF STEEL REMOVED DUE TO OPENING.
 - SHOP DRAWINGS FOR PRECAST CONCRETE RISERS WITH SUPPORTING STRUCTURAL COMPUTATIONS (SIGNED AND SEALED BY A MD. REGISTERED ENGINEER) MEETING A.S.T.M. REQUIREMENTS FOR PRECAST STRUCTURES MUST BE SUBMITTED TO THE ENGINEER, AND THE APPROVING AGENCY FOR APPROVAL PRIOR TO FABRICATION. IF ANY STRUCTURE DIMENSIONS VARY FROM WHAT WAS ORIGINALLY REVIEWED/ APPROVED, THEN THE HYDRAULICS, FLOTATION AND STRUCTURAL INTEGRITY OF THE STRUCTURE WILL HAVE TO BE RE-ANALYZED.
 - ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS.



RELEASE STRUCTURE DETAILS
SCALE: 1" = 3'

Plan
Scale: 1" = 20'

Cross Section Through Principal Spillway
Scale: Horiz. 1" = 20'
Vert. 1" = 5'



Profile Through Principal Spillway S.W.M. Pond #2
Scale: Horiz. 1" = 20'
Vert. 1" = 5'

NOTE: NO TREES, SHRUBS OR OTHER WOODY VEGETATION WILL BE ALLOWED WITHIN 50' OF THE INLET STRUCTURE IN THE POOL AREA AND NOT ALLOWED WITHIN 20' FROM THE TOE OF THE EMBANKMENT.

NOTE: THE CONSTRUCTION MAY REQUIRE A PERMIT FROM THE ARMY CORPS OF ENGINEERS, THE WATER RESOURCES ADMINISTRATION AND/OR HOWARD COUNTY. IT IS THE RESPONSIBILITY OF THE LANDOWNER TO CONTACT THESE AGENCIES TO DETERMINE IF THE PROJECT REQUIRES A PERMIT:
U.S. ARMY CORPS OF ENGINEERS - (410) 962-3620
MRA NON-TIDAL WETLANDS AND WATERWAYS DIVISION - (410) 974-3341
HOWARD COUNTY - (410) 887-3880

NOTE: IF REQUIRED BY THE SEDIMENT CONTROL INSPECTOR FENCING SHALL BE INSTALLED TO PREVENT ACCESS TO THE BASIN BY CHILDREN.

NOTE: THIS STORMWATER MANAGEMENT FACILITY IS DESIGNED TO MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND THE SOIL CONSERVATION DISTRICT. MAINTENANCE OF THIS FACILITY WILL BE THE RESPONSIBILITY OF THE OWNER. (THE SWM FACILITY IS PRIVATE).

NOTE: SOILS TO BE USED FOR CUT-OFF TRENCH AND IMPERVIOUS CORE SHALL CONFORM TO UNIFIED CLASSSES CL, SC, OR GC.

NOTE: IF UNSUITABLE (PERVIOUS) MATERIAL IS ENCOUNTERED AT TIME OF CUT-OFF TRENCH INSTALLATION DEEPER THAN 4", IT WILL BE NECESSARY TO EXTEND THE CUT-OFF TRENCH DOWN UNTIL SUITABLE MATERIAL IS ENCOUNTERED AS DETERMINED BY A GEOTECHNICAL ENGINEER. AT TIME OF CONSTRUCTION EXISTING SOIL ADJACENT TO CUT-OFF TRENCH SHALL BE EVALUATED FOR SEEPAGE BY A GEOTECHNICAL ENGINEER, AND ADDRESSED PER RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

REVISION 15
THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

Professional Certification 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.: 59816 Expiration Date: 8/23/2024

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
DATE: 6/8/99

PLAN NUMBER: _____

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: Howard County Department of Planning and Zoning
DATE: 6/18/99

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK
DATE: 6/18/99

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 6/18/99

DIRECTOR
DATE: 6/18/99

ADDRESS CHART
PARCEL NO.: L
STREET ADDRESS: 7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME: COLUMBIA GATEWAY
SECTION NAME: N/A
PARCEL #: 671

PLAT #: 8803
BLOCK #: 1
ZONE: M-1
TAX/ZONE MAP: 43
ELECT. DIST.: 6
CENSUS TRACT: 6067.03

WATER CODE: E06
SEWER CODE: 5333000

CONSULTANTS HAZARD CLASS CERTIFICATION:
I certify that this pond meets all requirements for hazard class D or C. (requirements as stated in the Soil Conservation Service - Maryland Standards and Specifications for Pond, code 378, November, 1992). All necessary investigations and computations have been performed to verify this finding. A copy of said information has been supplied to Howard Soil Conservation District.

Engineer: *James A. Marquis Jr.* Date: 4/9/99
Name: James A. Marquis Jr.

AS-BUILT CERTIFICATION:
I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meet the approval plans and specifications.

Signature: *James A. Marquis Jr.* P.E. # 11005 Date: 6/13/00

Certify means to state or declare a professional opinion based upon on-site inspections and material tests which are conducted during construction. The on-site inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an engineer's certification relieve any other party from meeting requirements imposed by contract, employers, or other means, including meeting commonly accepted industry practices.

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
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 as a Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a final plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Developer: *Michael G. Capwell* Date: 4/19/99
Name: Michael G. Capwell

ENGINEER CERTIFICATION:
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 developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a final plan of the pond within 30 days of completion.

Engineer: *James A. Marquis Jr.* P.E. # 11005 Date: 4/9/99
Name: James A. Marquis Jr.

OWNER:
COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

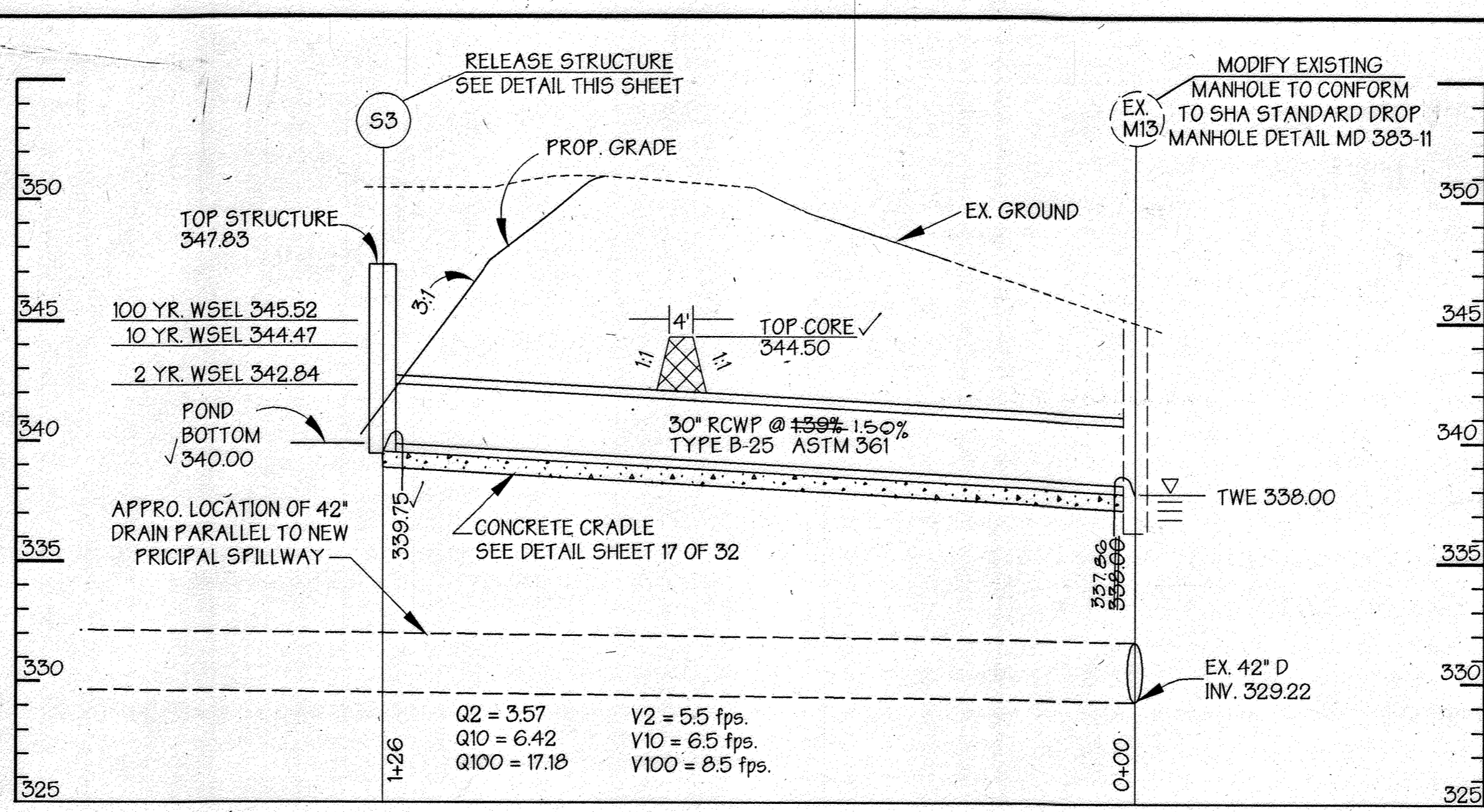
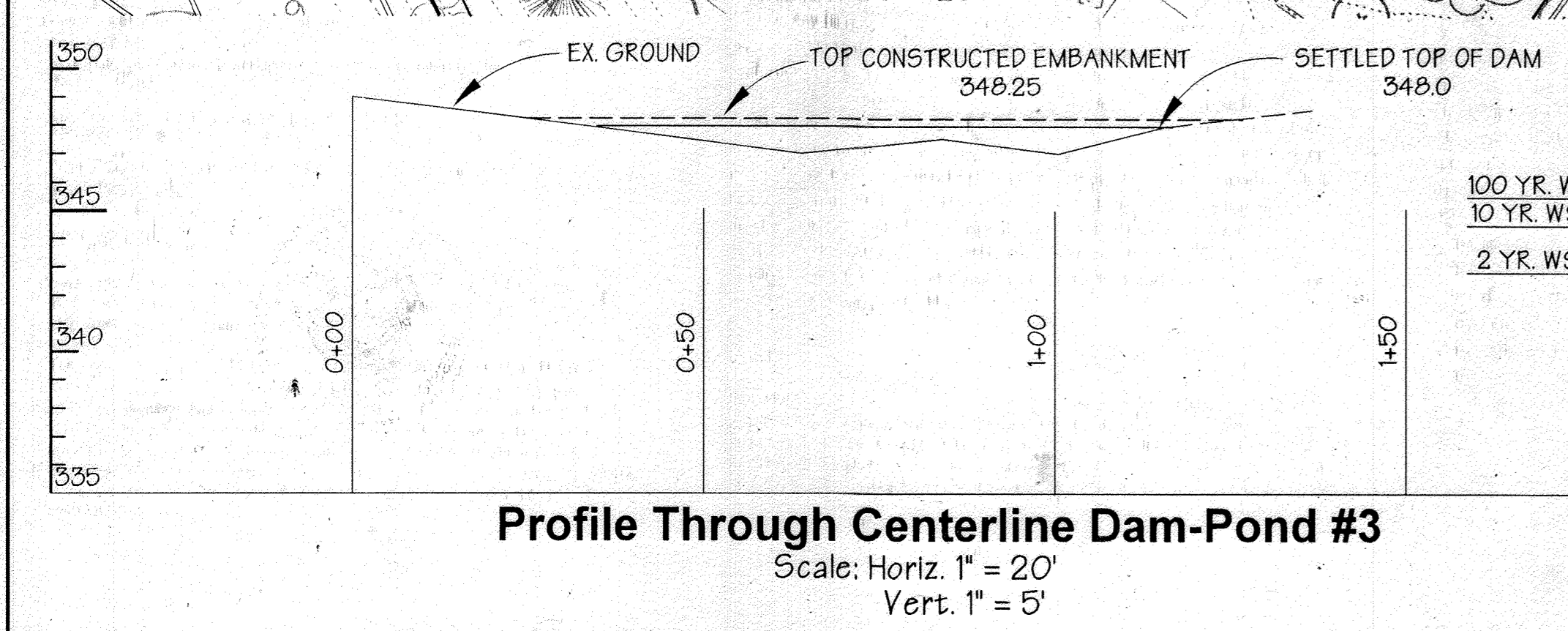
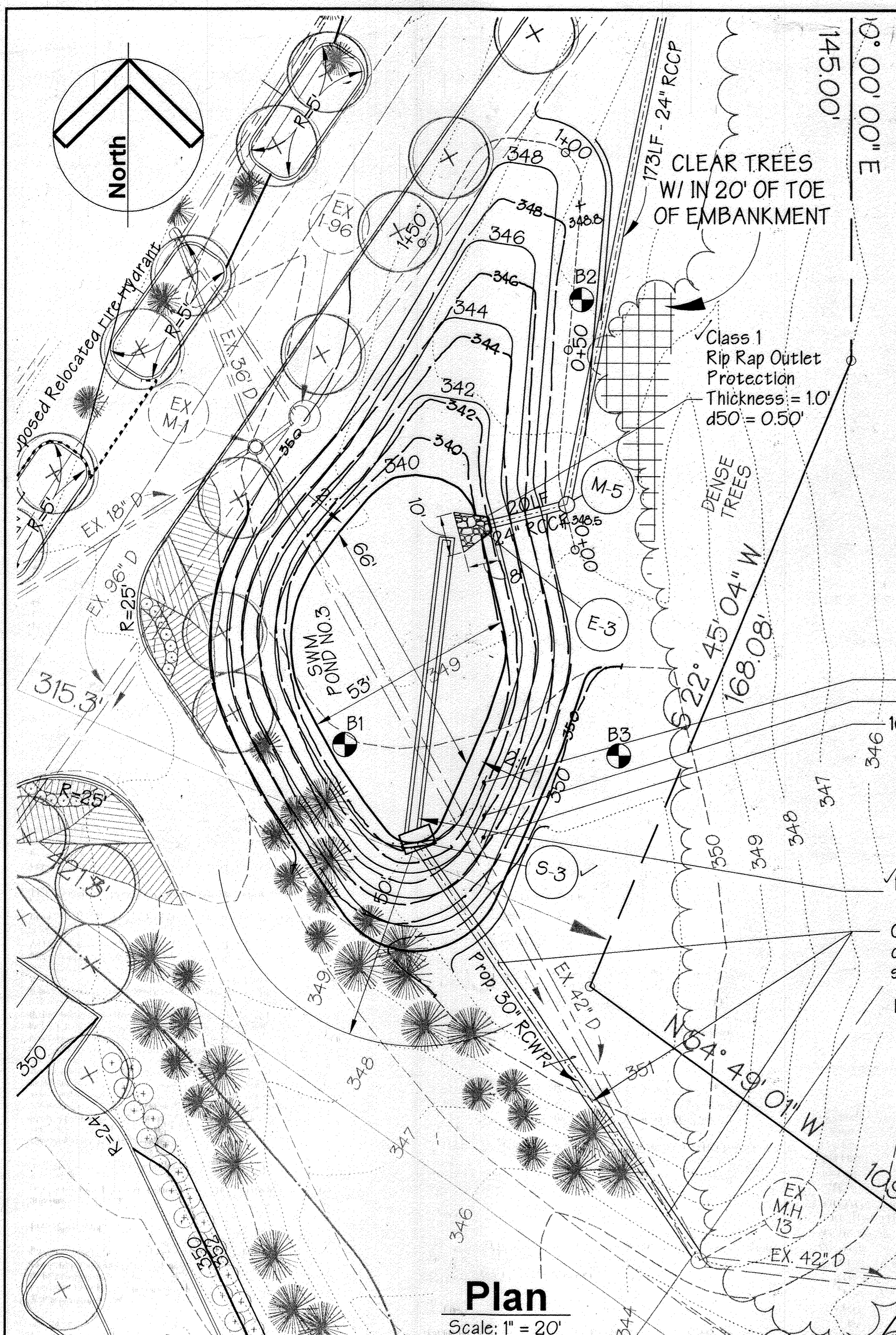
DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.

DEVELOPER:
PREFERRED REAL ESTATE INVESTMENTS, INC.
555 NORTH LANE, SUITE 6101
CONSHOHOCKEN, PA 19428
(610) 834-1669

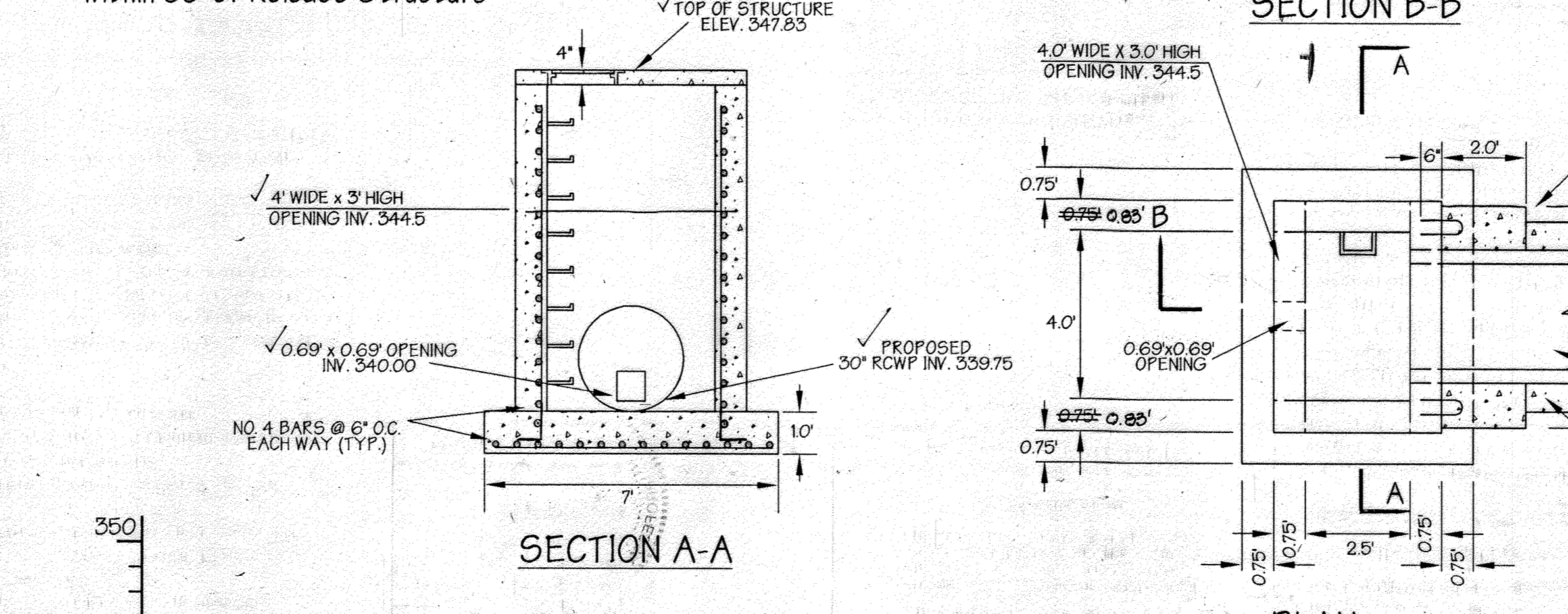
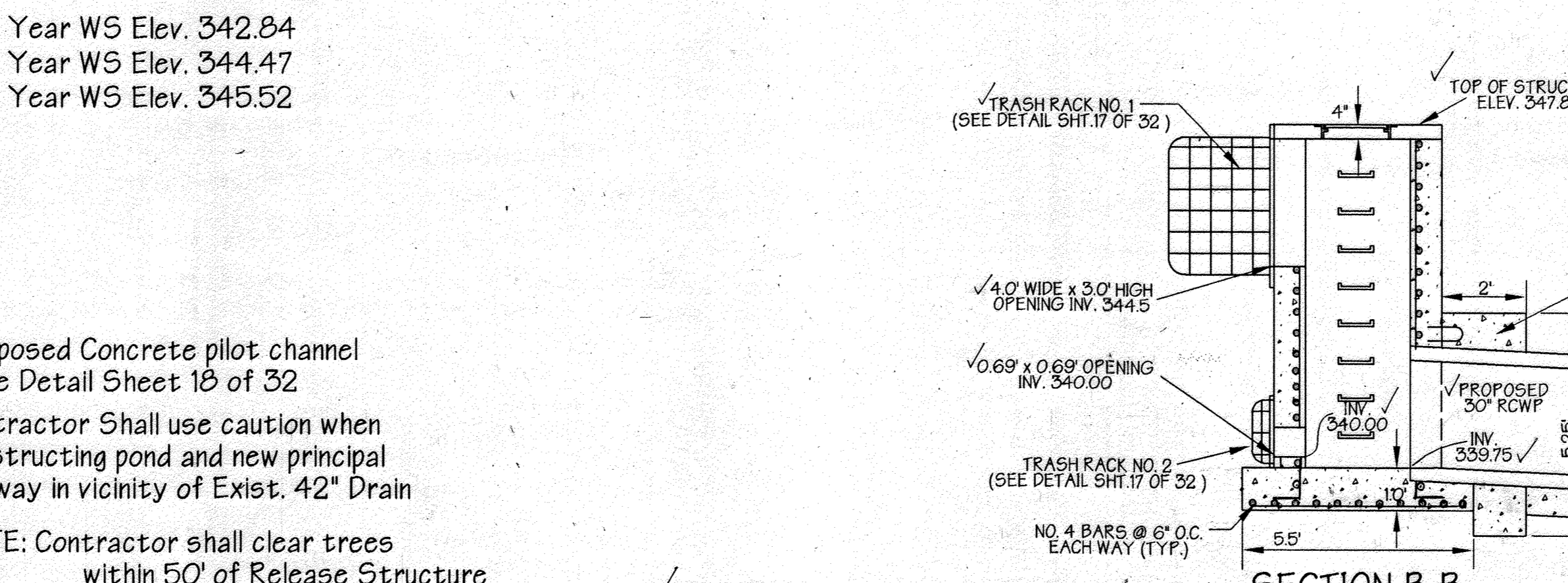
Stormwater Management Pond No. 2
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
HOWARD CO., MARYLAND SHT. 15 OF 37
SCALE: As Shown
DATE: DECEMBER 4, 1998

9053c_12awplans01 SDP 99-59 EMT 4/1/99



Profile Through Principal Spillway- Pond #3
Scale: Horiz. 1" = 20'
Vert. 1" = 5'



CONSULTANT'S HAZARD CLASS CERTIFICATION:
I certify that this pond meets all requirements for hazard class B or C. (requirements as stated in the Soil Conservation Service - Maryland Standards and Specifications for Pond, code 378, November, 1992). All necessary investigations and computations have been performed to verify this finding. A copy of said information has been supplied to Howard Soil Conservation District.

Engineer: *James A. Markle Jr.* Date: 2/16/99
Name: James A. MARKLE JR.

AS-BUILT CERTIFICATION:
I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meet the approval plans and specifications.

Signature: *James A. Markle Jr.* P.E. # 11005 Date: 2/16/99

POND SPECIFICATIONS FOR STORMWATER MANAGEMENT	
DESCRIPTION	DATA
STRUCTURE CLASSIFICATION	A (PRIVATE)
STORAGE X HEIGHT PRODUCT	
WATERSHED AREA TO THE POND	4.0 AC.
POND TYPE	DRY
FREEBOARD	REQUIRED/ PROVIDED
IMPERVIOUS AREA	2.4 AC.
TOP OF EMBANKMENT	348.0

POND NO. 3 SUMMARY						
DESIGN STORM	ALLOWABLE RELEASE RATE	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	BY-PASS DISCHARGE (CFS)	TOTAL DISCHARGE (CFS)	STORAGE VOL. (AC. FT.)
2 YR	26.26	13.59	3.57	22.60	25.96	342.84
10 YR	49.42	22.30	6.42	37.33	41.56	344.47
100 YR	NA	32.03	17.18	53.42	67.13	345.52

NOTE: NO TREES, SHRUBS OR OTHER WOODY VEGETATION WILL BE ALLOWED WITHIN 50' OF THE INLET STRUCTURE IN THE POOL AREA AND NOT ALLOWED WITHIN 20' FROM THE TOE OF THE EMBANKMENT.

NOTE: THE CONSTRUCTION MAY REQUIRE A PERMIT FROM THE ARMY CORPS OF ENGINEERS, THE WATER RESOURCES ADMINISTRATION AND/OR HOWARD COUNTY. IT IS THE RESPONSIBILITY OF THE LANDOWNER TO CONTACT THESE THREE AGENCIES TO DETERMINE IF THE PROJECT REQUIRES A PERMIT: U.S. ARMY CORPS OF ENGINEERS - (410) 962-3620 WRA NON-TIDAL WETLANDS AND WATERWAYS DIVISION - (410) 974-3041 HOWARD COUNTY - (410) 887-3980

NOTE: IF REQUIRED BY THE SEDIMENT CONTROL INSPECTOR FENCING SHALL BE INSTALLED TO PREVENT ACCESS TO THE BASIN BY CHILDREN.

NOTE: THIS STORMWATER MANAGEMENT FACILITY IS DESIGNED TO MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND THE SOIL CONSERVATION DISTRICT. MAINTENANCE OF THIS FACILITY WILL BE THE RESPONSIBILITY OF THE OWNER. (THE SWM FACILITY IS PRIVATE).

NOTE: SOILS TO BE USED FOR CUT-OFF TRENCH AND IMPERVIOUS CORE SHALL CONFORM TO UNIFIED CLASSES CL, SC, CH OR CG.

RELEASE STRUCTURE NOTES

- UNLESS OTHERWISE NOTED TOP SLAB STRUCTURE SHALL BE BUILT IN ACCORDANCE TO HOWARD CO. STD. DETAIL 402
- STRUCTURE TO BE CAST-IN-PLACE REINFORCED CONCRETE WITH 3500 P.S.I.(MIN) COMPRESSIVE STRENGTH @ 28 DAYS. DESIGN OF PRECAST CONC. STRUCTURE SHALL BE PROVIDED BY MANUFACTURER
- ALL REINFORCING TO BE CONTINUOUS THROUGHOUT STRUCTURE
- ALL REINFORCING TO HAVE 1" MIN OVERLAPS
- TWO (2) INCH COVER MINIMUM FOR ALL REBARS IN WALLS AND THREE (3) INCHES FOR THE BASE
- PROVIDE ADDITIONAL #4 REBARS ALONG THE PERIMETER OF ALL OPENINGS WITH THE AREA OF STEEL EQUAL TO OR GREATER THAN THE AREA OF STEEL "REMOVED" DUE TO OPENING
- SHOP DRAWINGS FOR PRECAST CONCRETE RISERS WITH SUPPORTING STRUCTURAL COMPUTATIONS (SIGNED AND SEALED BY A M.D. REGISTERED ENGINEER MEETING A.S.T.M. REQUIREMENTS FOR PRECAST STRUCTURES MUST BE SUBMITTED TO THE ENGINEER, AND THE APPROVING AGENCY FOR APPROVAL PRIOR TO FABRICATION. IF ANY STRUCTURE DIMENSIONS VARY FROM WHAT WAS ORIGINALLY REVIEWED/ APPROVED, THEN THE HYDRAULICS, FLOTATION AND STRUCTURAL INTEGRITY OF THE STRUCTURE WILL HAVE TO BE RE-ANALYZED
- ALL EXPUSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CONCRETE STRIPS.

NOTE: IF UNSUITABLE (PERVIOUS) MATERIAL IS ENCOUNTERED AT TIME OF CUT-OFF TRENCH INSTALLATION DEEPER THAN 4" IT WILL BE NECESSARY TO EXTEND THE CUT-OFF TRENCH DOWN UNTIL SUITABLE MATERIAL IS ENCOUNTERED AS DETERMINED BY A GEOTECHNICAL ENGINEER. AT TIME OF CONSTRUCTION, EXISTING SOIL ADJACENT TO CUT-OFF TRENCH SHALL BE EVALUATED FOR SEEPAGE BY A GEOTECHNICAL ENGINEER, AND ADDRESSED PER RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

REVISION 15
THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

Professional Certification: 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: 59816 Expiration Date: 8/23/2024

10.11.25

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
DATE: 6/8/99

PLAN NUMBER: 6/8/99

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DATE: 6/11/99

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DATE: 6/11/99

CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DATE: 6/14/99

DIRECTOR

ADDRESS CHART
PARCEL NO. L STREET ADDRESS 7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME COLUMBIA GATEWAY SECTION NAME N/A PARCEL # 671

PLAT # 8803 BLOCK # 1 ZONE M-1 TAX/ZONE MAP 43 ELECT. DIST. 6 CENSUS TRACT 6067.03

WATER CODE E06 SEWER CODE 5333000

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
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 Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a 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.

Developer: *Carl Kolar* Date: 2/16/99
Name: CARL KOLAR

ENGINEER CERTIFICATION:
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 developer that he/she must 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.

Engineer: *James A. Markle Jr.* P.E. # 11005 Date: 2/16/99
Name: James A. MARKLE JR.

OWNER:
COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DEVELOPER:
PREFERRED REAL ESTATE INVESTMENTS, INC.
655 NORTH LANE, SUITE 6101
CONSHOHOCKEN, PA 19428
(610) 634-1969

DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.

Stormwater Management Pond No. 3
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6 HOWARD CO., MARYLAND SHT. 16 OF 32 DATE: DECEMBER 4, 1998

SCALE: As Shown

SDP 99-59

POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard Practice MD-37B. All references to ASTM and AASHTO specifications apply to the most recent version.

SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed, and stripped of topsoil. All trees, vegetation, rocks and other objectionable material shall be removed.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, utility, and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL

MATERIAL - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6" frozen or other objectionable materials.

PLACEMENT - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in a maximum 2' thick (before compaction) layers which are to be continuous over the entire length of the fill.

COMPACTON - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller.

Minimum required density shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction.

Note: See additional compaction requirements per geotechnical engineer. (Sheet 10 of 13)

STRUCTURE BACKFILL

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the containing fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment.

PIPE CONDUITS

REINFORCED CONCRETE PIPE - All pipe to be circular in cross section. All the following criteria shall apply for reinforced concrete pipe:

- 1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high strength concrete placed under the pipe and on the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
3. Laying Pipes - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material.

PERFORATED PIPE

Bituminous coated corrugated metal pipe (RCMP) shall conform to the requirements of AASHTO M35 and shall be filled to full bituminous coating in accordance with AASHTO M190. Perforated pipe is TYPE III. Pipe shall have CLASS 2 perforations 3/8" in diameter.

CONCRETE

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 915 (Portland Cement Concrete Mixture), Mix No. 3.

REINFORCING STEEL IN CONCRETE STRUCTURES

Reinforcing steel shall be ASTM A 615, Grade 60. Steel angles and anchor bars shall be ASTM 136.

ROCK RIP-RAP

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another.

Construct fencing in accordance with the State Highway Administration standard details 680.01 and 690.02. Use specifications for a 6" fence, substituting 42" fabric and 6" x 6" iron posts. Construct the gate in accordance with the S.H.A. standard detail 690.01 with 42" fabric.

CARE OF WATER DURING CONSTRUCTION

All work on permanent structures shall be carried out in areas free from water. The contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels and stream diversions necessary to protect the area to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work.

STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be seeded, limed, fertilized, mulched and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Stormwater management facility will be stabilized with permanent slope seeding as follows:

- 1. Seeded Preparation - loosen upper 3 inches of soil by raking, ditching or other acceptable means before seeding.
2. Soil Amendments - apply 2 tons per acre Dolomitic Limestone (92 lbs./1000 sq. ft.), 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.), and 400 lbs. per acre of 30-0-0 Ureaform Fertilizer (92 lbs./1000 sq. ft.).
3. Seeding - for the period March 1 through April 30 seed with 40 lbs. per acre Kentucky 31 Tall Fescue, and 15 lbs. per acre inoculated Crown Vetch. For the period May 1 through July 31 seed with 60 lbs. per acre Kentucky 31 Tall Fescue and 2 lbs. per acre inoculated Weeping Lovegrass.

EROSION AND SEDIMENT CONTROL

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

PERMANENT SLOPE SEEDING

After spreading 4" topsoil, seed with a mixture of 50% inoculated Crown Vetch and 70% Kentucky 31 Tall Fescue applied at a rate of 60 lbs./acre; 10-20-20 fertilizer shall be applied at a rate of 25 lbs./1000 sq. ft.; lime at a rate of 92 lbs./1000 sq. ft.; mulch area with unweathered small grain straw at a rate of 15 Tons/acre; anchor with a rapid curing asphalt (RC-70, R-250 or RC-800) at a rate of 0.1 gal./sq. yd.

FILTER CLOTH

Filter cloth shall meet or exceed the requirements in Section 2025.5 of the Baltimore County Standard Specifications and Details for Construction. Durable filter fabrics for drainage purposes are not limited to Mirafi 1405, DuPont TYPAC No. 3341 or 3411. Filter cloth shall be protected from punching or tearing. Any damage other than an occasional small hole shall be repaired by placing another small piece of filter cloth over the damaged area or by replacing the cloth section. All overlaps shall be a minimum of one foot.

GABIONS

Gabions shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 312 and must be CL IV, PVC coated.

OUTFALL PROTECTION

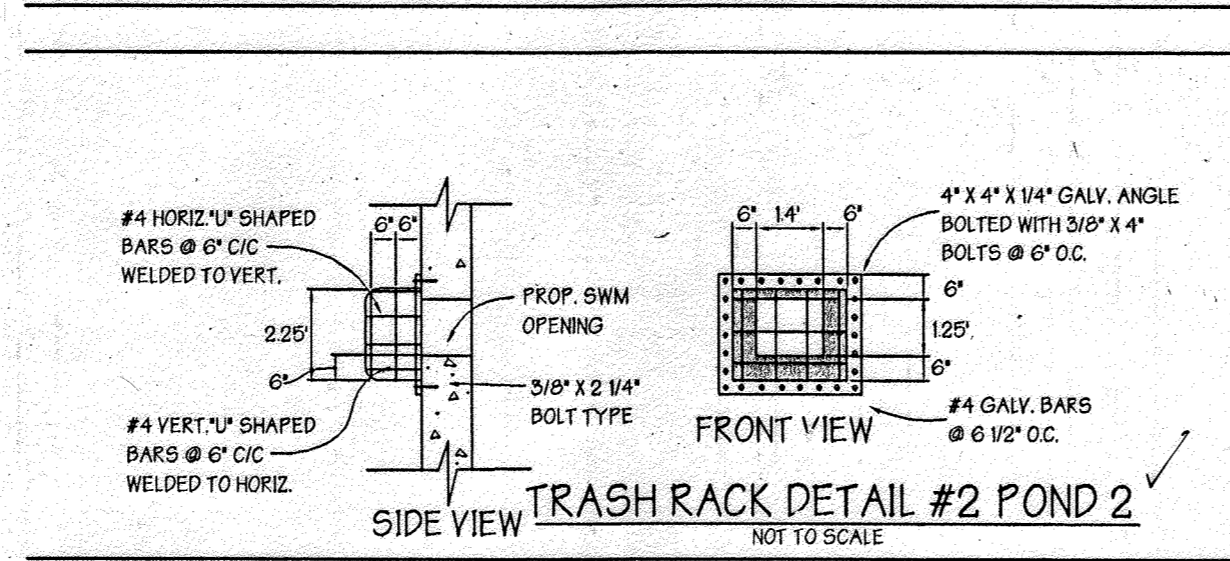
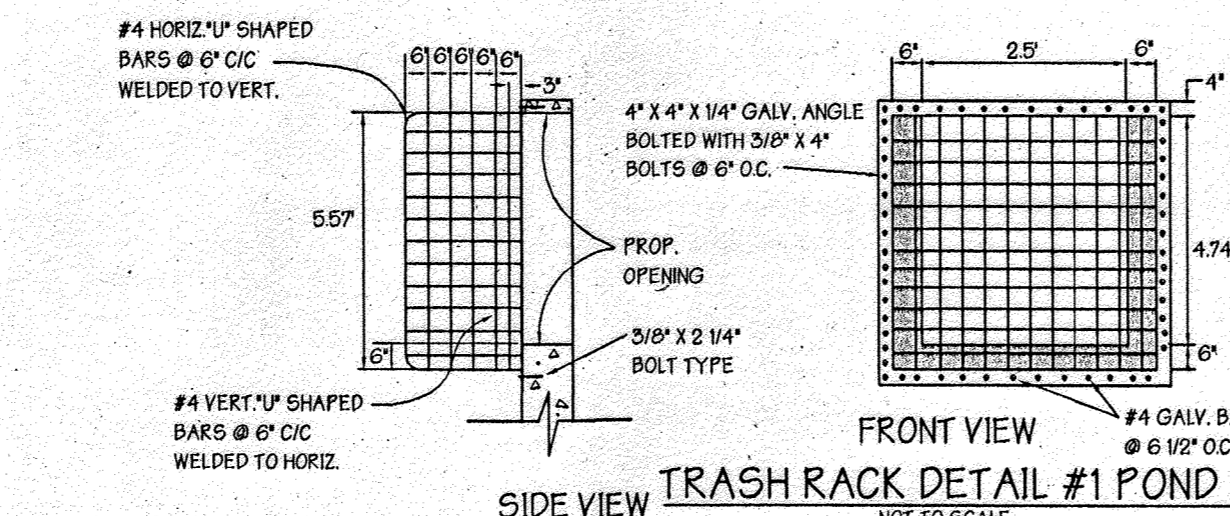
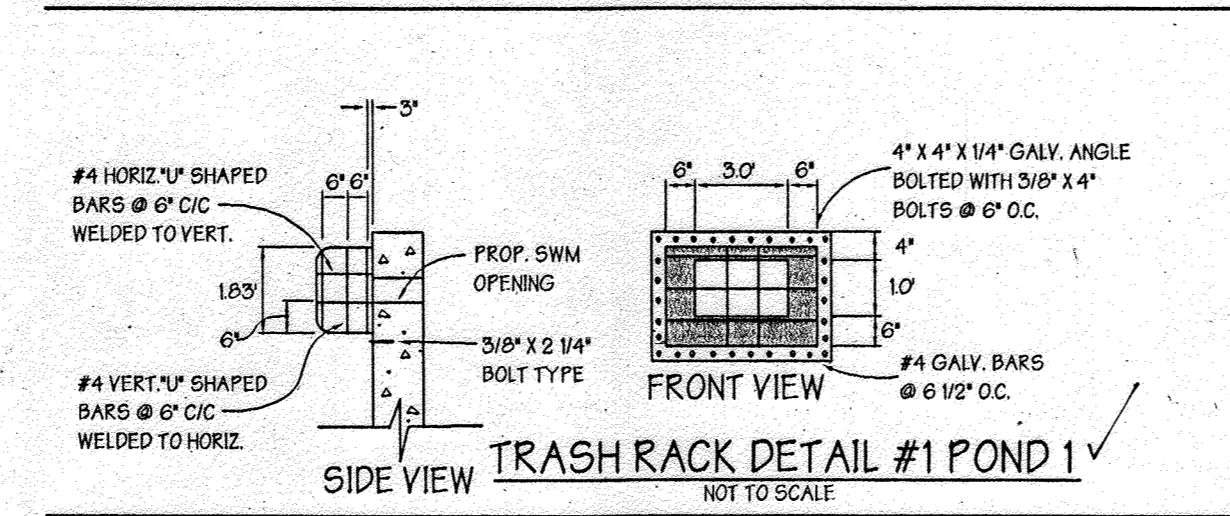
Subgrade for riprap or gabion outfalls shall be prepared to the required line and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material. All rock or gravel shall conform to the specified grading limits when installed in the riprap or gabion. All stone shall be delivered and placed in a manner that will insure the stone in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another.

FENCE

Construct fencing in accordance with the State Highway Administration standard details 680.01 and 690.02. Use specifications for a 6" fence, substituting 42" fabric and 6" x 6" iron posts. Construct the gate in accordance with the S.H.A. standard detail 690.01 with 42" fabric.

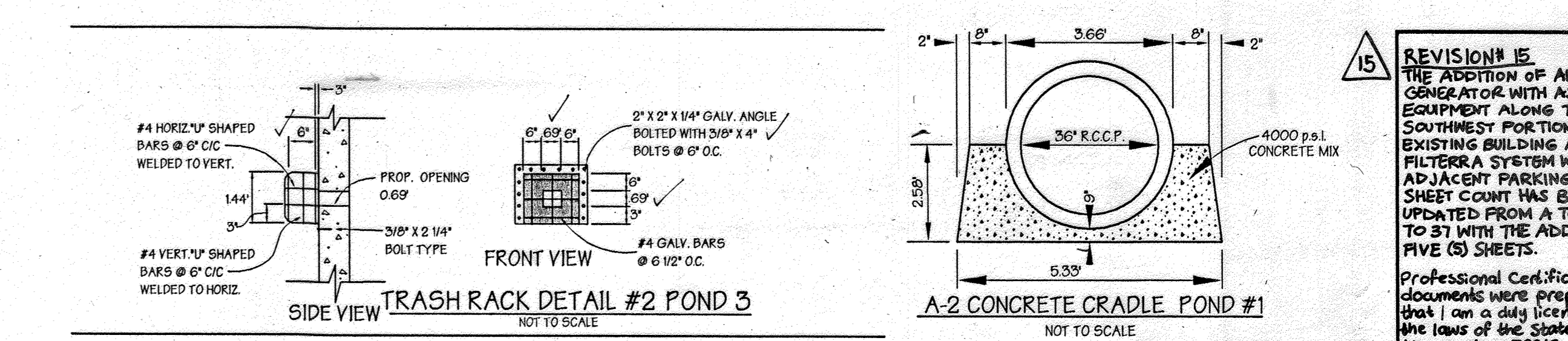
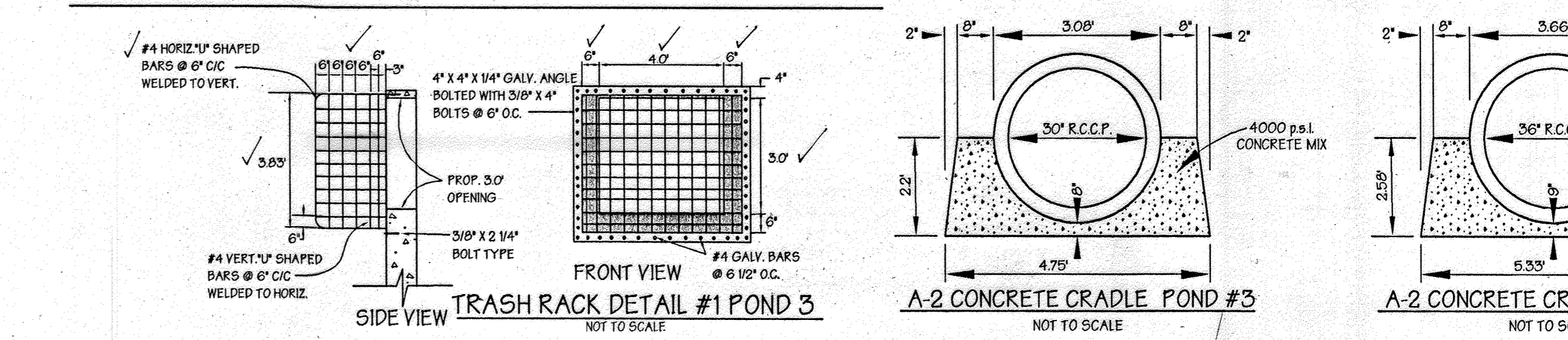
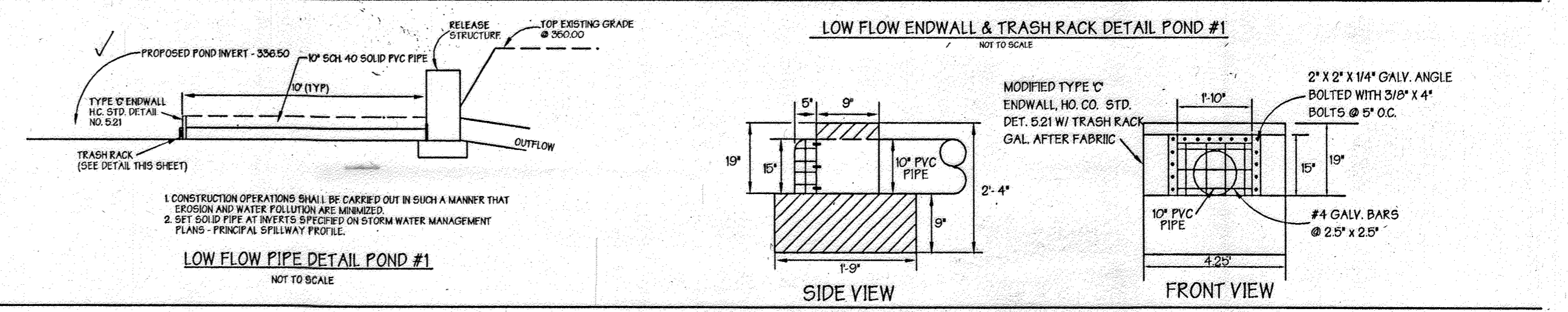
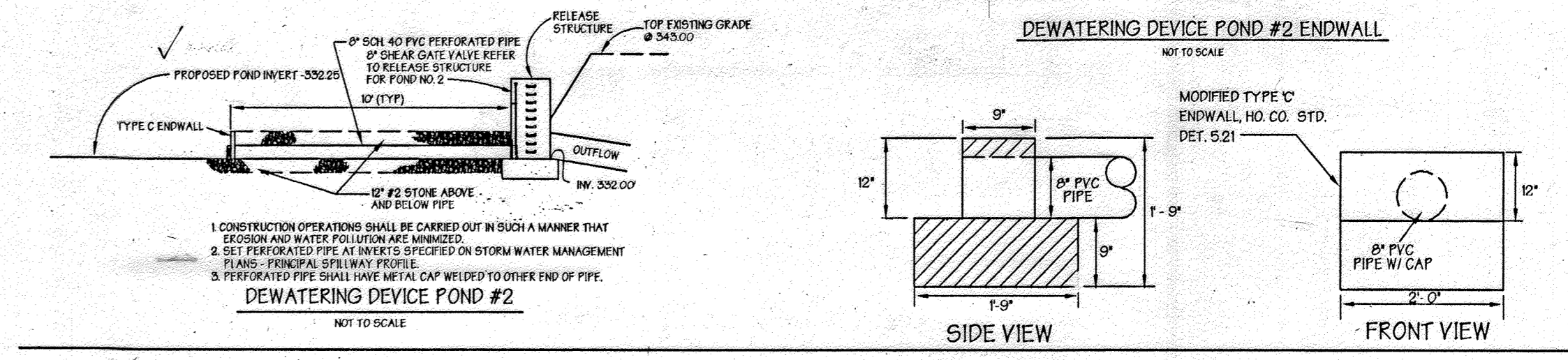
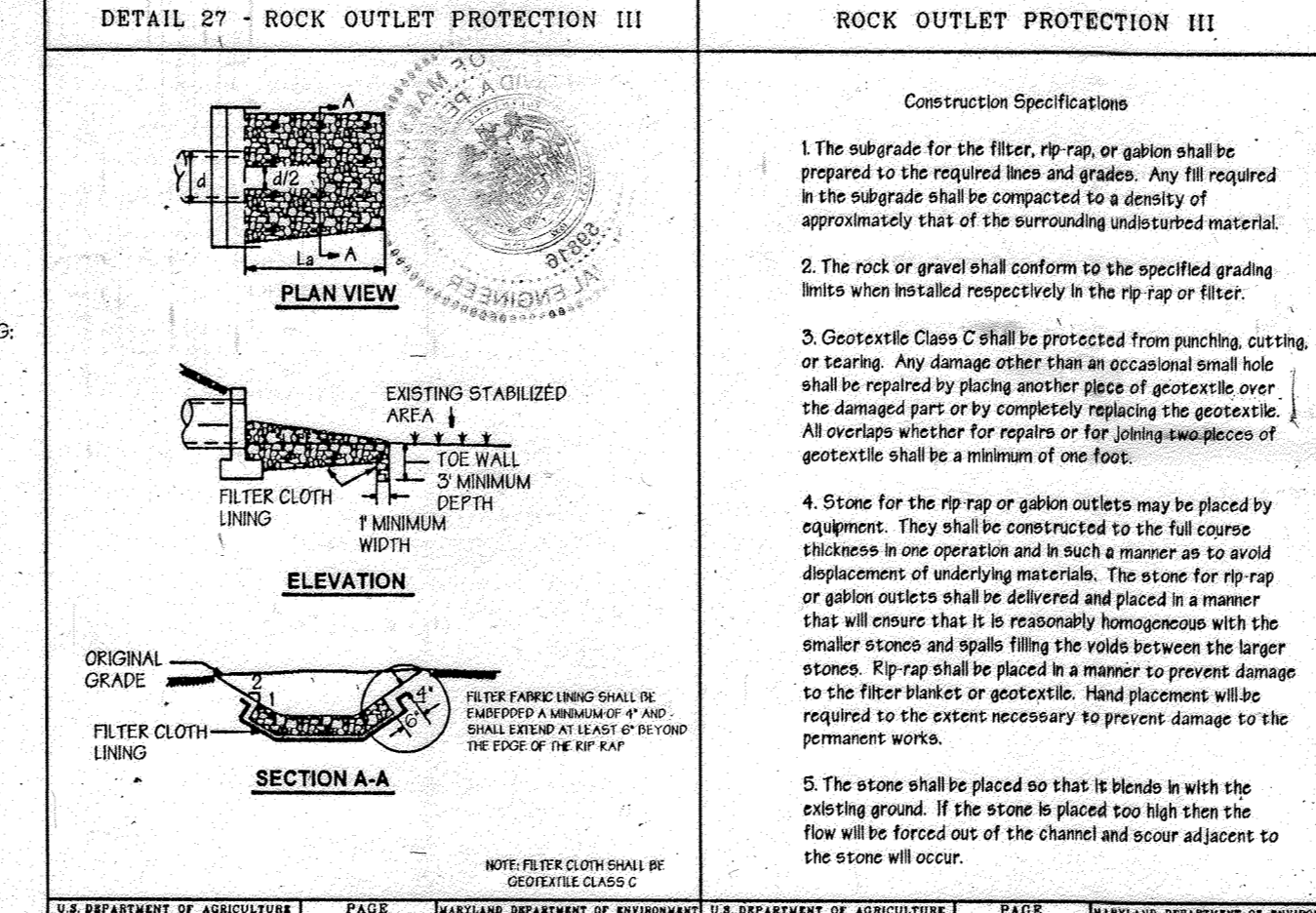
CUT-OFF TRENCH - THE CUT-OFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION. WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1:1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

IMPERVIOUS CORE - THE CORE SHALL BE FILLED ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE FILL SHALL BE GOVERNED BY THE EQUIPMENT USED. WITH THE MINIMUM WIDTH BEING FOUR FEET. THE TOP WIDTH SHALL BE SHOWN ON THE PLAN. THE SIDE SLOPES OF THE FILL SHALL BE 1:1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS OR HAND TAMPERS TO ASSURE MAX. PERMEABILITY.



STORMWATER MANAGEMENT SEQUENCE OF CONSTRUCTION

- 1. COMPLETE THE SEQUENCE OF OPERATIONS ON THE APPROVED SEDIMENT AND EROSION CONTROL PLANS.
2. NOTIFY HOWARD COUNTY, THE GEOTECHNICAL ENGINEER (410) 526-0700 AND THE ENGINEER IN CHARGE (410) 825-8020 AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. ALSO NOTIFY ENGINEER IN CHARGE FOR AS-BUILT.
3. AFTER ALL AREAS HAVE BEEN PERMANENTLY STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES AND STABILIZE WITH PERMANENT SEEDING. CONVERT SEDIMENT BASINS TO STORMWATER MANAGEMENT FACILITIES IN ACCORDANCE WITH THE APPROVED STORM WATER MANAGEMENT PLANS.



REVISION #15: THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS. 10.11.23 Professional Certification: 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: 57416 Expiration Date: 8/23/2024

OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY DETENTION POND ROUTINE MAINTENANCE

- 1. FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.
2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOVED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHOULD BE MOVED AS NEEDED.
3. DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOVING OPERATIONS AND AS NEEDED.

CONSULTANTS HAZARD CLASS CERTIFICATION:

I certify that this pond meets all requirements for hazard class (A) B or C. (requirements as stated in the Soil Conservation Service - Maryland Standards and Specifications for Pond, code 37B, November, 1992). All necessary investigations and computations have been performed to verify this finding. A copy of said information has been supplied to Howard Soil Conservation District.

AS-BUILT CERTIFICATION:

I hereby certify that the facility shown on this plan was constructed as shown on the 'as-built' plans and meet the approved plans and specifications.

Project information block including: PREPARED BY: GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.; DEVELOPER CERTIFICATION; ENGINEER CERTIFICATION; OWNER: COLUMBIA/95 GROUP L.P.; DEVELOPER: PREFERRED REAL ESTATE INVESTMENTS, INC.; DESIGNED BY: K.M.W.; DRAWN BY: E.M.T. / E.A.S.; CHECKED BY: K.M.W.; SUBDIVISION NAME: COLUMBIA GATEWAY; SECTION NAME: N/A; PARCEL #: 671; PLAT #: 8803; BLOCK #: 1; ZONE: M-1; TAX/ZONE MAP: 43; ELECT. DIST.: 6; CENSUS TRACT: 6067.03; WATER CODE: -E0G; SEWER CODE: 5335000; SDP 99-59; SCALE: As Shown; DATE: DECEMBER 4, 1998

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 1		Boring # B-1		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-17-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Brown, dry, medium dense, fine silt clay sand with some gravel and trace clay (S4) USDA-Loamy Sand		2.0	D		8-10-20	1	10*		2" Topsoil
8.0	Brown, moist, medium dense, fine silt clay sand with trace clay (S4-SP) USDA-Loam		8.0	D		8-9-11	2	10*		No groundwater encountered while drilling
10.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Loamy Sand		10.0	D		8-10-12	3	10*		** Caved in at 18.0' at Completion
13.0	Tan, moist, medium dense, fine clayey sand (S4) USDA-Loam		13.0	D		3-4-6-7	4	10*		Caved in at 13.0' after 24 hours

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 1		Boring # B-2		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-17-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Tan to brown, dry to moist, medium dense to dense, fine silt clay sand with some gravel and trace clay (S4) USDA-Loamy Sand		2.0	D		4-8-13-14	1	10*		2" Topsoil
8.0	Brown, moist, medium dense, fine silt clay sand with trace clay (S4) USDA-Loam		8.0	D		8-10-17-18	2	20*		Caved in at 18.0' at Completion
10.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Loamy Sand		10.0	D		8-7-11-12	3	10*		** Caved in at 12.0' after 24 hours
13.0	Tan, moist, silt, silt clay with trace fine sand (S4) USDA-Loam		13.0	D		3-4-10-14	4	10*		Caved in at 13.0' after 24 hours

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 1		Boring # B-3		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-17-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Light brown, dry, medium dense, fine silt clay sand with some silt and trace clay (S4) USDA-Loamy Sand		2.0	D		9-7-10-27	1	10*		2" Topsoil
8.0	Brown, moist, medium dense, fine silt clay sand with trace clay (S4) USDA-Loam		8.0	D		8-10-15-11	2	10*		No groundwater encountered while drilling
10.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Loamy Sand		10.0	D		8-9-10-10	3	10*		Caved in at 12.0' at Completion
13.0	Tan, moist, silt, silt clay with trace fine sand (S4) USDA-Loam		13.0	D		9-7-7	4	10*		** Caved in at 13.0' after 24 hours

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 2		Boring # B-4		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-17-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Brown, red brown, dry to moist, medium dense to very dense, fine sand with trace to some silt (S4-SP) USDA-Sandy Loam		2.0	D		6-7-9-4	1	10*		4" Gravel
8.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Sandy Loam		8.0	D		8-10-15-11	2	10*		No groundwater encountered while drilling
10.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Sandy Loam		10.0	D		6-15-10-3	3	10*		Caved in at 12.0' at Completion
13.0	Reddish brown, moist to very moist, medium dense to dense, fine to medium sand with trace to some silt (S4-SP) USDA-Loamy Sand		13.0	D		10-15-20-4	4	20*		Caved in at 12.0' after 24 hours

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 2		Boring # B-5		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-18-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Tan, red brown, dry to moist, medium dense to very dense, fine sand with trace to some silt (S4-SP) USDA-Sandy Loam		2.0	D		7-10-11-13	1	10*		2" Gravel
8.0	Brown, moist, medium dense, fine silt clay sand with trace to some silt (S4-SP) USDA-Loam		8.0	D		15-21-25-27	2	20*		No groundwater encountered while drilling
10.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Sandy Loam		10.0	D		15-25-28-34	3	20*		Caved in at 16.0' at Completion
13.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Sandy Loam		13.0	D		3-7-9-13	3	10*		Caved in at 16.0' at Completion

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 2		Boring # B-6		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-18-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Brown, moist, medium dense, fine silt clay sand with trace to some silt (S4-SP) USDA-Loam		2.0	D		3-10-14-16	1	10*		2" Gravel
8.0	Brown, moist, medium dense, fine silt clay sand with trace to some silt (S4-SP) USDA-Loam		8.0	D		13-12-16-18	2	10*		No groundwater encountered while drilling
10.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Sandy Loam		10.0	D		3-7-9-13	3	10*		Caved in at 16.0' at Completion
13.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Sandy Loam		13.0	D		5-8-10-12	4	20*		** Caved in at 18.0' after 24 hours

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 1		Boring # B-1		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-17-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Tan, moist, medium dense, fine clayey sand (S4) USDA-Loam		2.0	D		2-4-9-12	1	10*		
8.0	Bottom of Hole at 22.0'		8.0	D						

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 3		Boring # B-3		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-18-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Brown to tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Loamy Sand		2.0	D		8-9-9-10	1	10*		2" Topsoil
8.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Loamy Sand		8.0	D		4-8-9-9	2	10*		No groundwater encountered while drilling
10.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Loamy Sand		10.0	D		3-6-6-7	3	20*		Caved in at 10.0' at Completion

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 3		Boring # B-3		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-17-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Brown, moist, medium dense, fine silt clay sand with trace clay (S4) USDA-Loam		2.0	D		8-16-19-20	1	10*		2" Topsoil
8.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Loamy Sand		8.0	D		3-4-4-4	2	10*		Caved in at 18.0' at Completion
10.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Loamy Sand		10.0	D		4-4-9-13	3	20*		Caved in at 10.0' after 24 hours

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 2		Boring # B-4		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-17-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Reddish brown, moist to very moist, medium dense to dense, fine to medium sand with trace to some silt (S4-SP) USDA-Loamy Sand		2.0	D		8-11-11-18	1	10*		
8.0	Bottom of Hole at 22.0'		8.0	D						

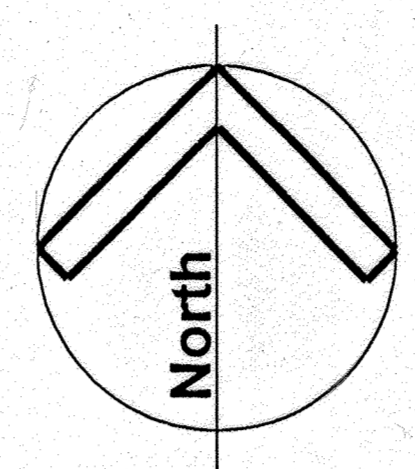
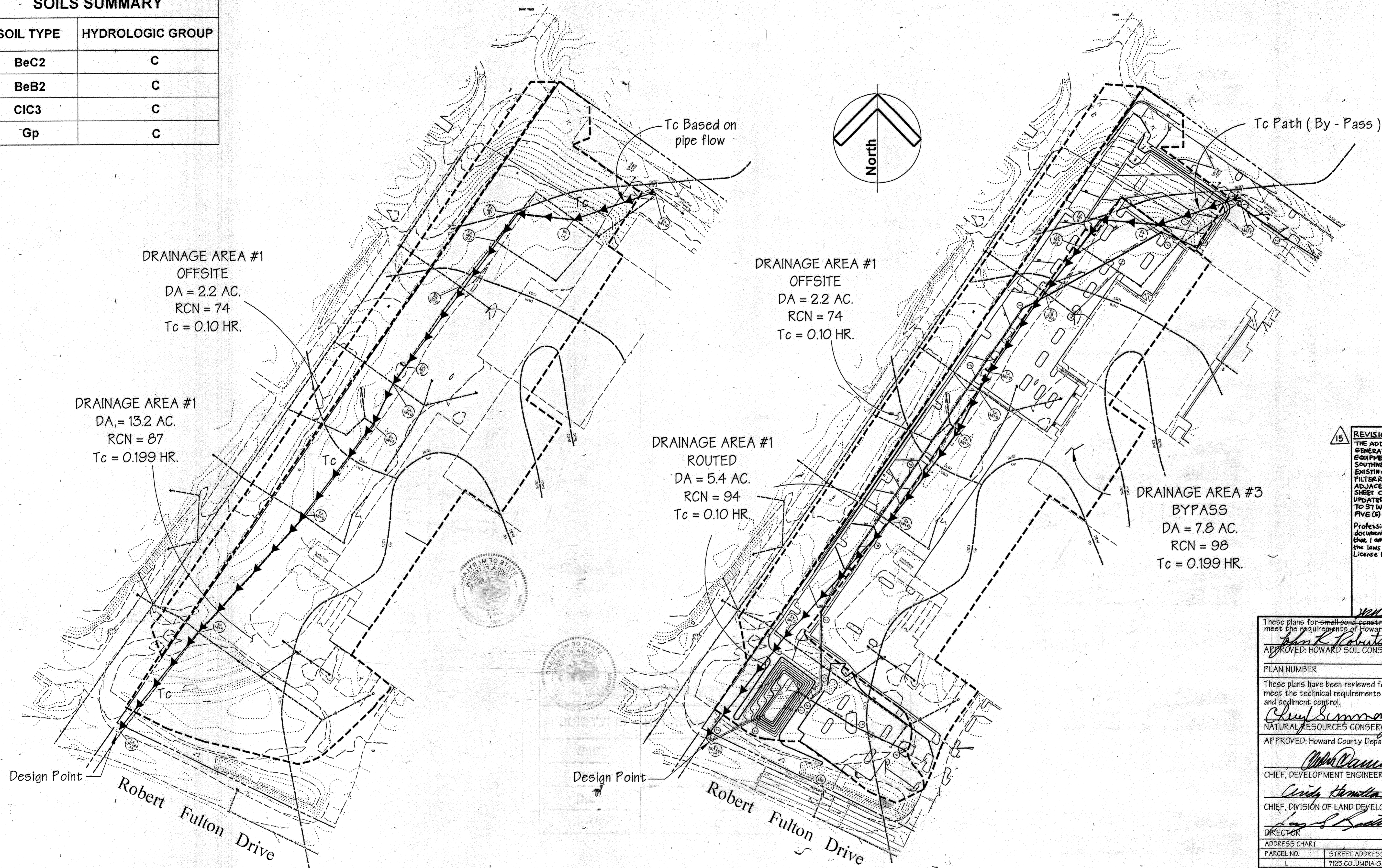
RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 2		Boring # B-5		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-18-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Tan to reddish brown, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Sandy Loam		2.0	D		8-9-11-14	1	20*		
8.0	Bottom of Hole at 22.0'		8.0	D						

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 2		Boring # B-6		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-18-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Tan to reddish brown, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Sandy Loam		2.0	D						
8.0	Bottom of Hole at 22.0'		8.0	D						

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 3		Boring # B-7		Job # 8845A						
Date	Surf. Elev.	Hammer Wt.	Hammer Drop	Hole Diameter	Rock Core Dia.	Boring Method	Inspector	Foreman	Inspector	Foreman
11-18-98	33.02	140 lbs.	30 inches	3.0 inches	3.0 inches	HSA	Lamont Smith	Lamont Smith	Lamont Smith	Lamont Smith
ELEV.	SOIL DESCRIPTION		DEPTH	SCALE	CON.	BLOWS #	NO.	REC.	BORING & SAMPLING NOTES	
	STRA.	DEPTH							NO.	REC.
0.0	SURFACE		0.0							
2.0	Brown, dry, medium dense, fine silt clay sand with trace clay, gravel, and trace silt (S4) USDA-Loam		2.0	D		8-11-13-18	1	10*		2" Topsoil
8.0	Light brown, moist, medium dense, fine to medium sand with trace silt (S4) USDA-Sandy Loam		8.0	D		7-6-7-4	2	10*		No groundwater encountered at 9.0' while drilling
10.0	Tan, moist, medium dense, fine sand with trace to some silt (S4-SP) USDA-Loamy Sand		10.0	D		1-3-4-4	3	10*		Caved in at 8.0' at Completion

RECORD OF SOIL EXPLORATION										
Project Name The Renaissance BWM Pond 3		Boring # B-3		Job # 8845A						
Date	Sur									

SOILS SUMMARY	
SOIL TYPE	HYDROLOGIC GROUP
BeC2	C
BeB2	C
CIC3	C
Gp	C



REVISION # 15
 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS. 10.11.23

Professional Certification: 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.: 59816 Expiration Date: 8/23/2024

THIS SEAL FOR REV.#15 ONLY

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
Frank Kubat 6/8/99
 DATE

PLAN NUMBER
 DATE

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cheryl Simmons 6/8/99
 NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
John Dammann 6/11/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Cindy Hemmick 6/11/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James S. Smith 6/14/99
 DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY	N/A	671

PLAT #	BLOCK #	ZONE	TAXZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.03

WATER CODE	SEWER CODE
E06	5333000

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

DEVELOPER CERTIFICATION:
 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 as a Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with the final plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Developer: *Eric Kolar* Date: 2/16/99
 Name: ERIC KOLAR

ENGINEER CERTIFICATION:
 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 developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with the final plan of the pond within 30 days of completion.

Engineer: *James A. Nagle, Jr.* P.E.# 11005 Date: 2/16/99
 Name: JAMES A. NAGLE, JR.

OWNER
COLUMBIA/95 GROUP L.P.
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.
 REVISIONS

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
 595 NORTH LANE, SUITE 6101
 CONSHOHOCKEN, PA 19028
 (610) 534-1863

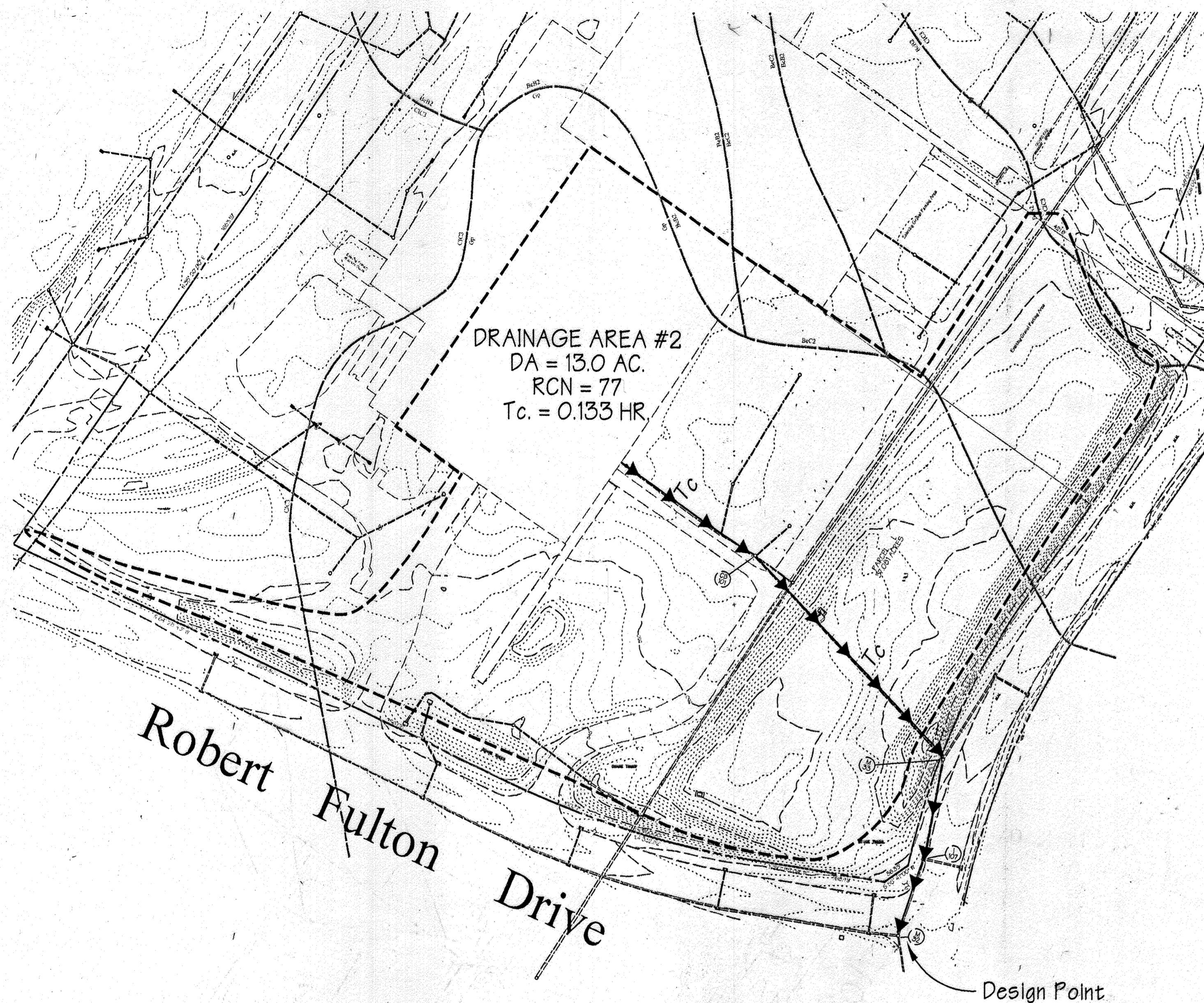
Drainage Area Map - Pond No. 1
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
 HOWARD CO., MARYLAND SHT. 19 OF 32 DATE: DECEMBER 4, 1998

SCALE: As Shown
 DATE: DECEMBER 4, 1998

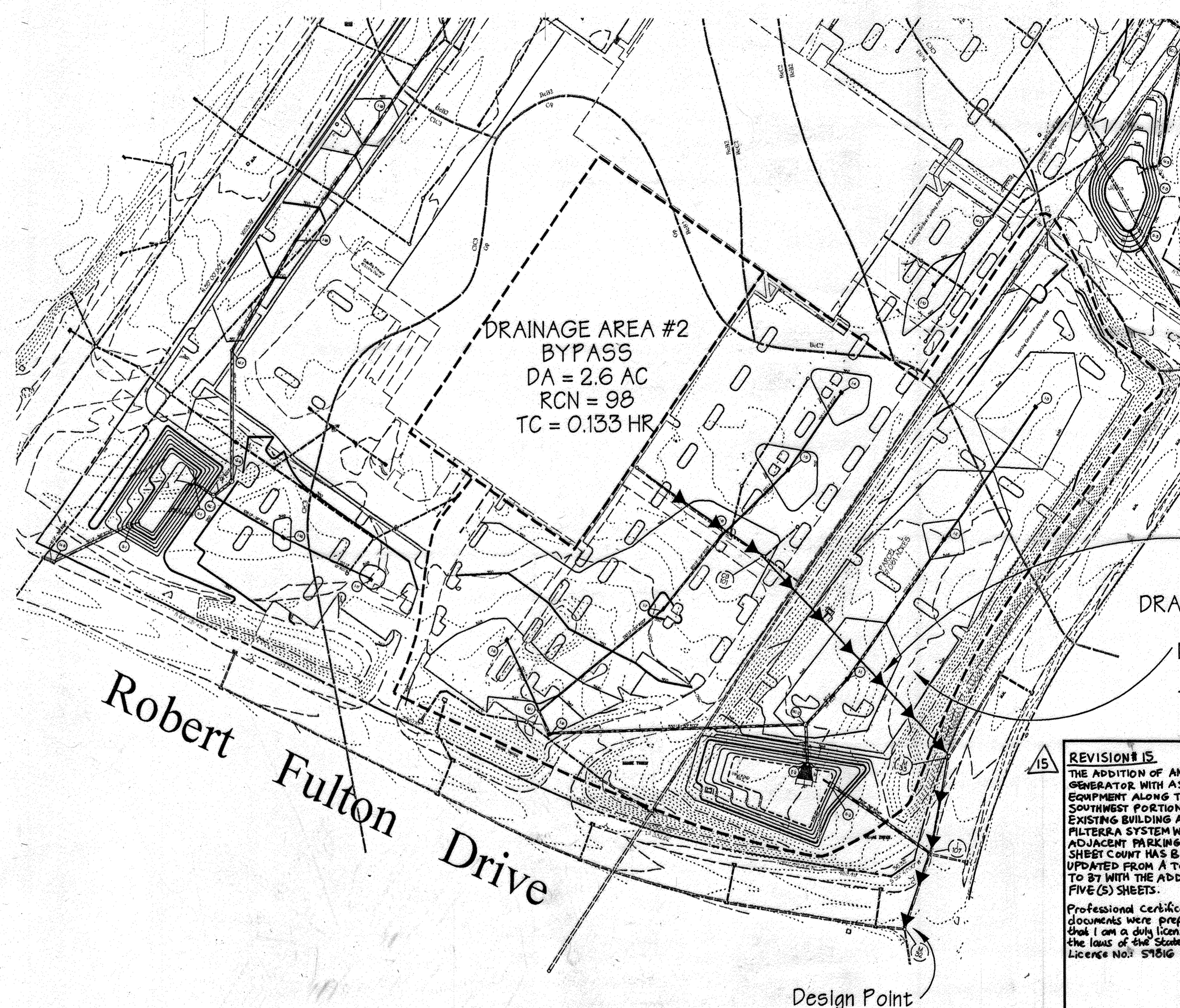
SDP 99-59

MICRO-COPY: 8053c_18damappond3.s01



Existing Drainage Area Map

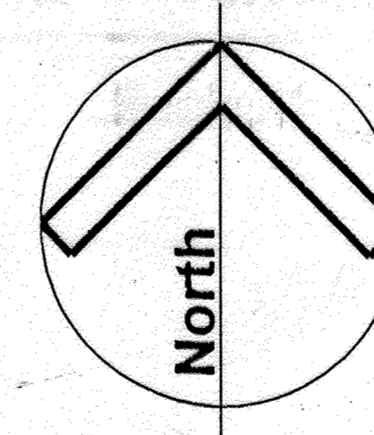
Scale: 1" = 100'



Proposed Drainage Area Map

Scale: 1" = 100'

SOILS SUMMARY	
SOIL TYPE	HYDROLOGIC GROUP
BeC2	C
BeB2	C
CIC3	C
Gp	C



REVISION 15
 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.
 10.11.23
 Professional Certification: 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: 57616 Expiration Date: 8/23/2024



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
 DATE: 6/8/99

PLAN NUMBER: [blank] DATE: 6/8/99

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
 APPROVED: [Signature] DATE: 6/8/99

NATURAL RESOURCES CONSERVATION SERVICE

APPROVED: Howard County Department of Planning and Zoning
 [Signature] DATE: 6/11/99

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE: 6/11/99

[Signature] DATE: 6/11/99

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 6/11/99

[Signature] DATE: 6/14/99

DIRECTOR DATE: 6/14/99

ADDRESS CHART
 PARCEL NO. STREET ADDRESS
 L 7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME SECTION NAME PARCEL #
 COLUMBIA GATEWAY N/A 671

PLAT # 8803 BLOCK # 1 ZONE M-1 TAX/ZONE MAP 43 ELECT. DIST. 6 CENSUS TRACT 6067.03

WATER CODE -E06 SEWER CODE 5333000

PREPARED BY:
GWS
 GEORGE W. STEPHENS, JR.
 AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120



DEVELOPER CERTIFICATION:
 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 Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a final plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.
 Developer: Erik Kolak Date: 2/16/99
 Name: Erik Kolak

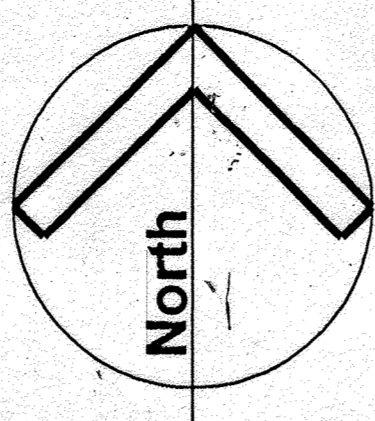
ENGINEER CERTIFICATION:
 I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a final plan of the pond within 30 days of completion.
 Engineer: James A. Mackle P.E. # 11005 Date: 2/16/99
 Name: James A. Mackle

OWNER
 COLUMBIA/95 GROUP L.P.
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.
 REVISIONS

DEVELOPER
 PREFERRED REAL ESTATE INVESTMENTS, INC.
 655 NORTH LANE, SUITE 610
 CONSHOHOCKEN, PA 19428
 (610) 834-1968

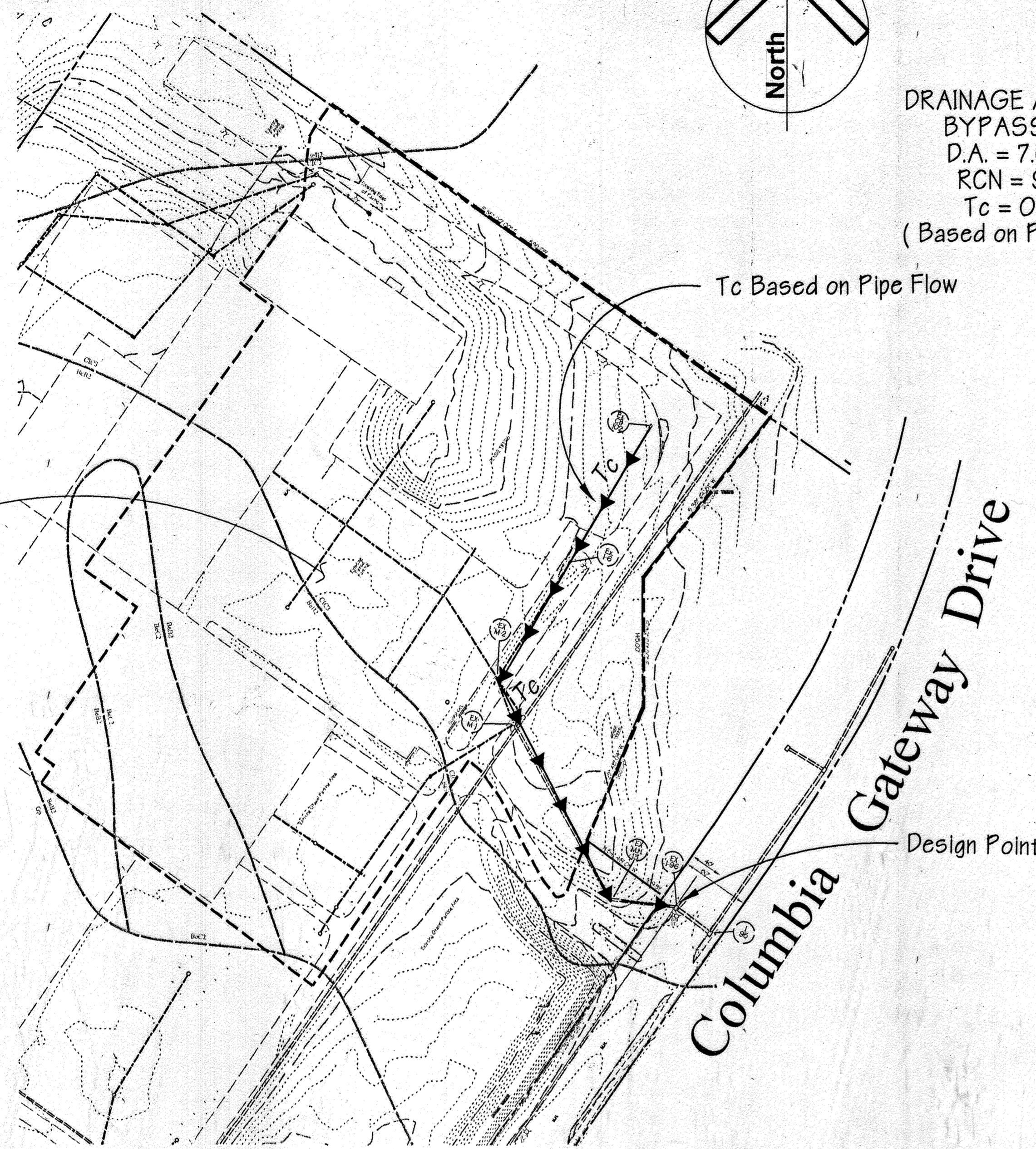
Drainage Area Map - Pond No. 2
The Renaissance at Columbia Gateway
 ELECTION DISTRICT: 6 HOWARD CO., MARYLAND SHT. 20 OF 32 DATE: DECEMBER 4, 1998
 SCALE: As Shown
 SDP 99-59



DRAINAGE AREA #3
 BYPASS = (B)
 D.A. = 7.0 AC.
 RCN = 95.0
 Tc = 0.152
 (Based on Pipe Flow)

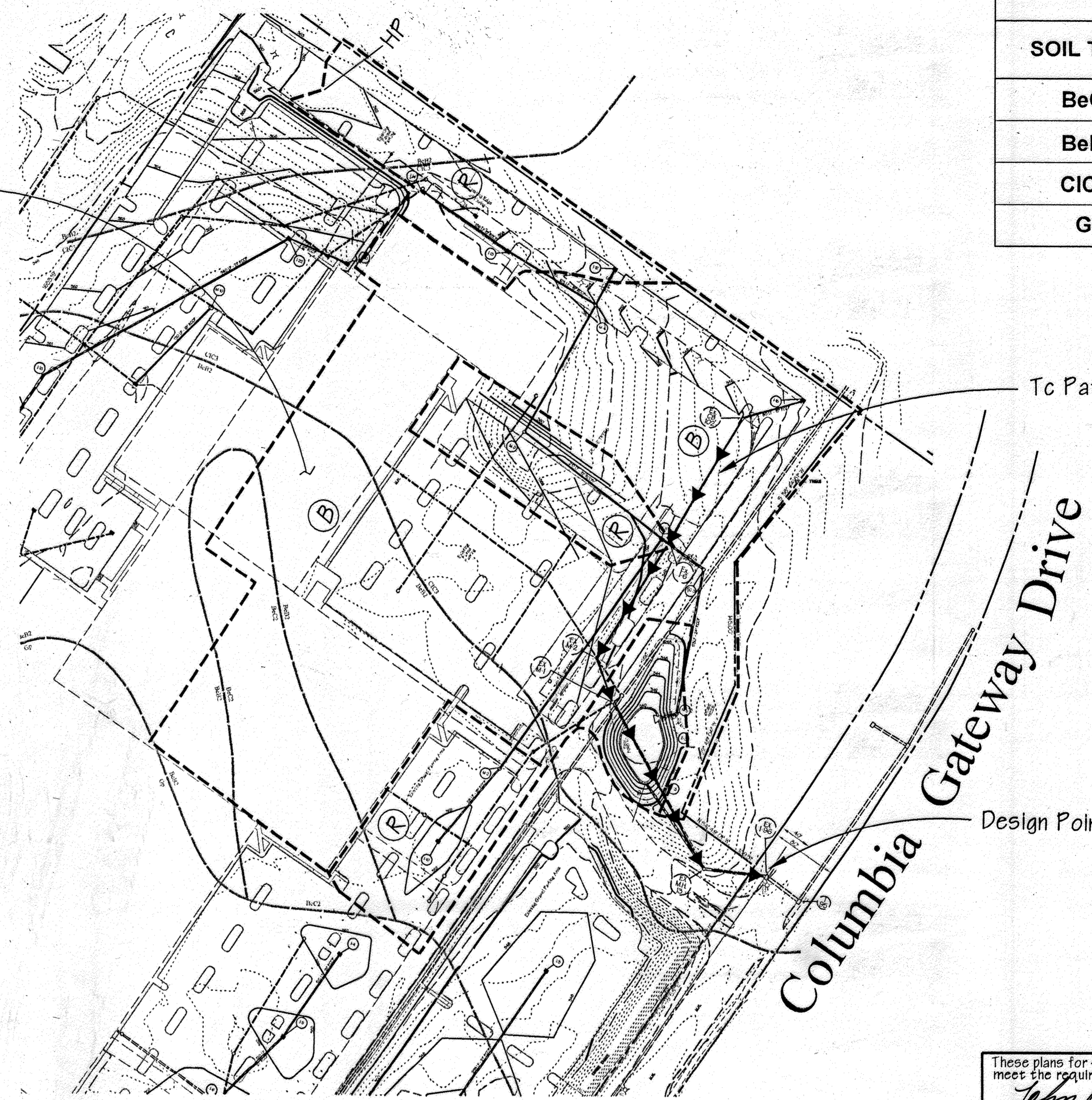
Tc Based on Pipe Flow

Drainage Area #3
 DA = 10.8 Ac
 RCN = 86
 Tc = 0.152 hr.



Existing Drainage Area Map

Scale: 1" = 100'



Proposed Drainage Area Map

Scale: 1" = 100'

SOILS SUMMARY	
SOIL TYPE	HYDROLOGIC GROUP
BeC2	C
BeB2	C
CIC3	C
Gp	C

DRAINAGE AREA #3
 ROUTED = (R)
 D.A. = 4 AC.
 RCN = 94.0
 Tc = 0.10

Tc Path (By - Pass)

Design Point

15 REVISION IS THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS. 10.11.23

THIS SEAL FOR REV.#15 ONLY

Professional Certification: 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: 59816 Expiration Date: 8/23/2024

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
John K. Kubiak 6/8/99
 DATE

PLAN NUMBER
 DATE

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
 APPROVED: NATURAL RESOURCES CONSERVATION SERVICE
Cheryl Simmons 6/8/99
 DATE

APPROVED: Howard County Department of Planning and Zoning
William Dammann 6/11/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MKC DATE

Cindy Hamilton 6/11/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Frank Smith 6/14/99
 DIRECTOR DATE

ADDRESS CHART	STREET ADDRESS
PARCEL NO.	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #			
COLUMBIA GATEWAY	N/A	671			
PLAT #	BLOCK #	ZONE	TAXZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.03
WATER CODE	E-06	SEWER CODE	5333000		

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

DEVELOPER CERTIFICATION:
 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 as a Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a 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.
 Developer: *George W. Stephens* Date: 2/16/99
 Name: *George W. Stephens*

ENGINEER CERTIFICATION:
 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 developer that he/she must 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.
 Engineer: *James A. Marquez* P.E. # 11005 Date: 2/16/99
 Name: *James A. Marquez*

OWNER
COLUMBIA/95 GROUP L.P.
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
 655 NORTH LANE, SUITE 6101
 CONSHOHOCKEN, PA 19428
 (610) 634-1869

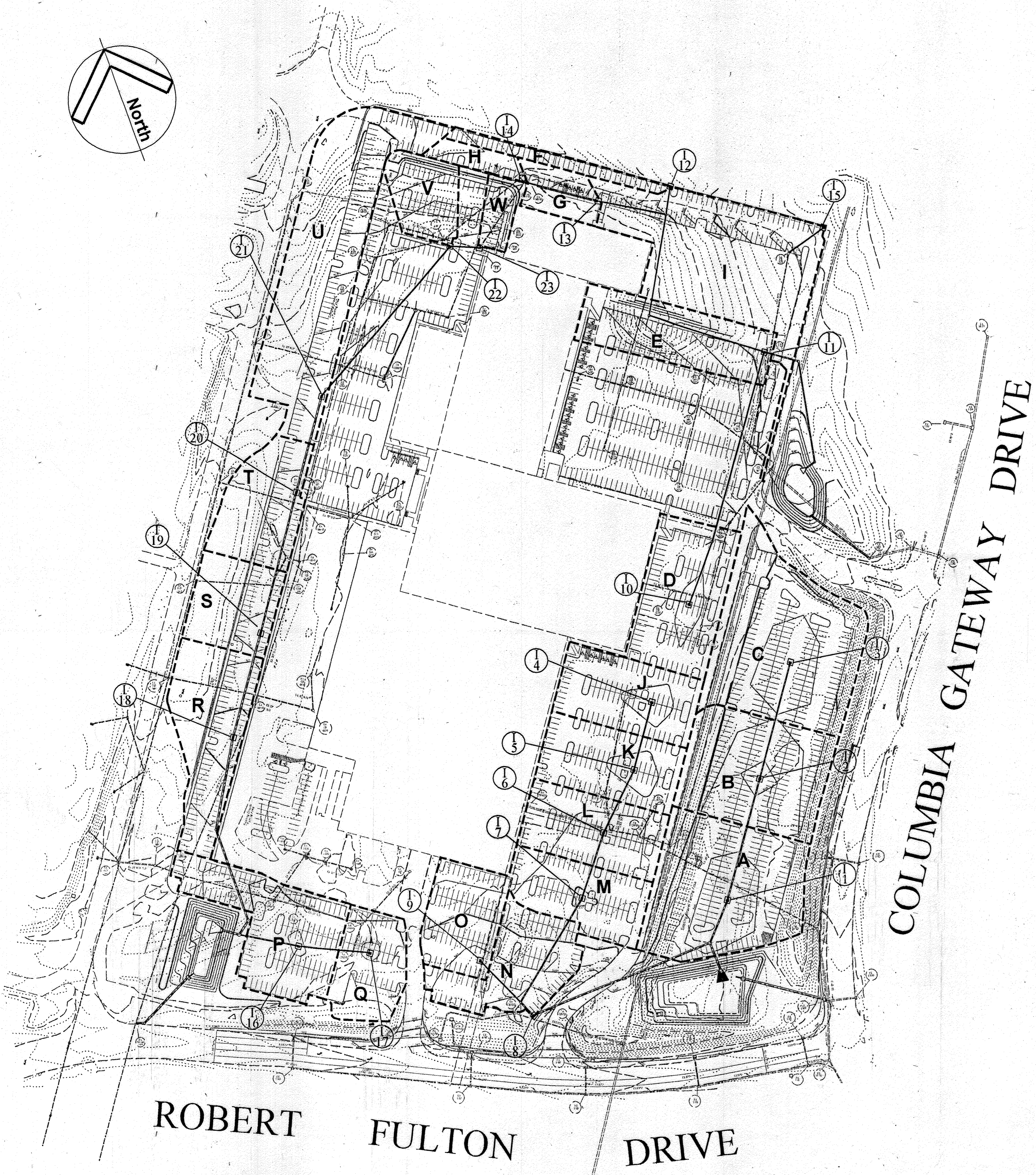
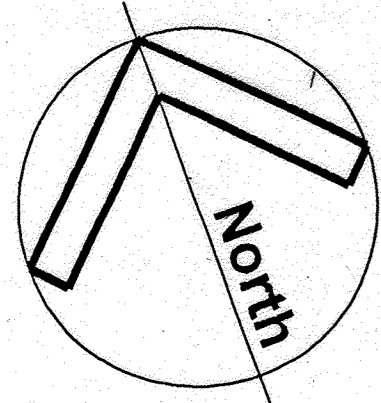
DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.
 REVISIONS

Drainage Area Map - Pond No. 3
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
 HOWARD CO., MARYLAND SHT. 21 OF 32 DATE: DECEMBER 4, 1998

SCALE: As Shown

SDP 99-59



AREA	ACREAGE	'C'	% IMP.
A	1.46 AC.±	0.73	64
B	1.10 AC.±	0.77	69
C	1.5 AC.±	0.72	62
D	0.90 AC.±	0.96	100
E	0.80 AC.±	0.72	63
F	0.22 AC.±	0.96	100
G	0.25 AC.±	0.64	50
H	0.15 AC.±	0.96	100
I	1.62 AC.±	0.61	44
J	0.67 AC.±	0.91	93
K	0.70 AC.±	0.91	93
L	0.68 AC.±	0.91	93
M	0.60 AC.±	0.90	92
N	0.72 AC.±	0.91	93
O	0.53 AC.±	0.91	93
P	0.89 AC.±	0.91	93
Q	0.50 AC.±	0.77	73
R	0.99 AC.±	0.70	58
S	0.69 AC.±	0.59	42
T	0.44 AC.±	0.65	52
U	1.65 AC.±	0.60	43
V	0.75 AC.±	0.91	92
W	0.16 AC.±	0.64	50

ROBERT FULTON DRIVE

COLUMBIA GATEWAY DRIVE

Plan
SCALE: 1" = 100'

PREPARED BY:

GWS

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

OWNER
COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.
REVISIONS

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
655 NORTH LANE, SUITE 6101
CONSHOHOCKEN, PA 19428
(610) 654-1969

REVISION # 15
THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS. 10.11.23

THIS SEAL FOR REV.#15 ONLY

Professional Certification: 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.: 59816 Expiration Date: 8/23/2024

APPROVED: Howard County Department of Planning and Zoning

Howard County 6/11/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Howard County 6/11/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Howard County 6/14/99
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY,	N/A	671

PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.03

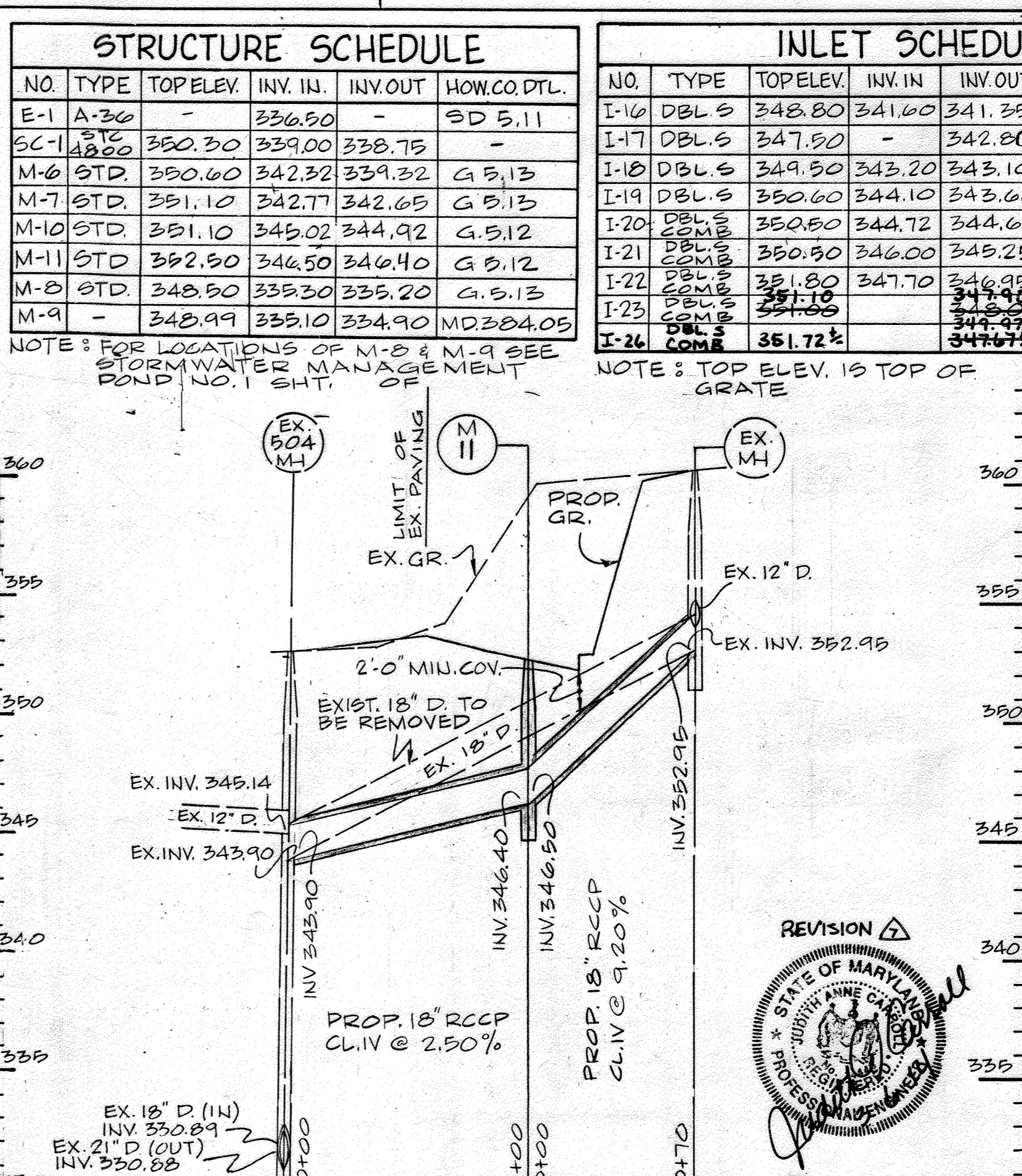
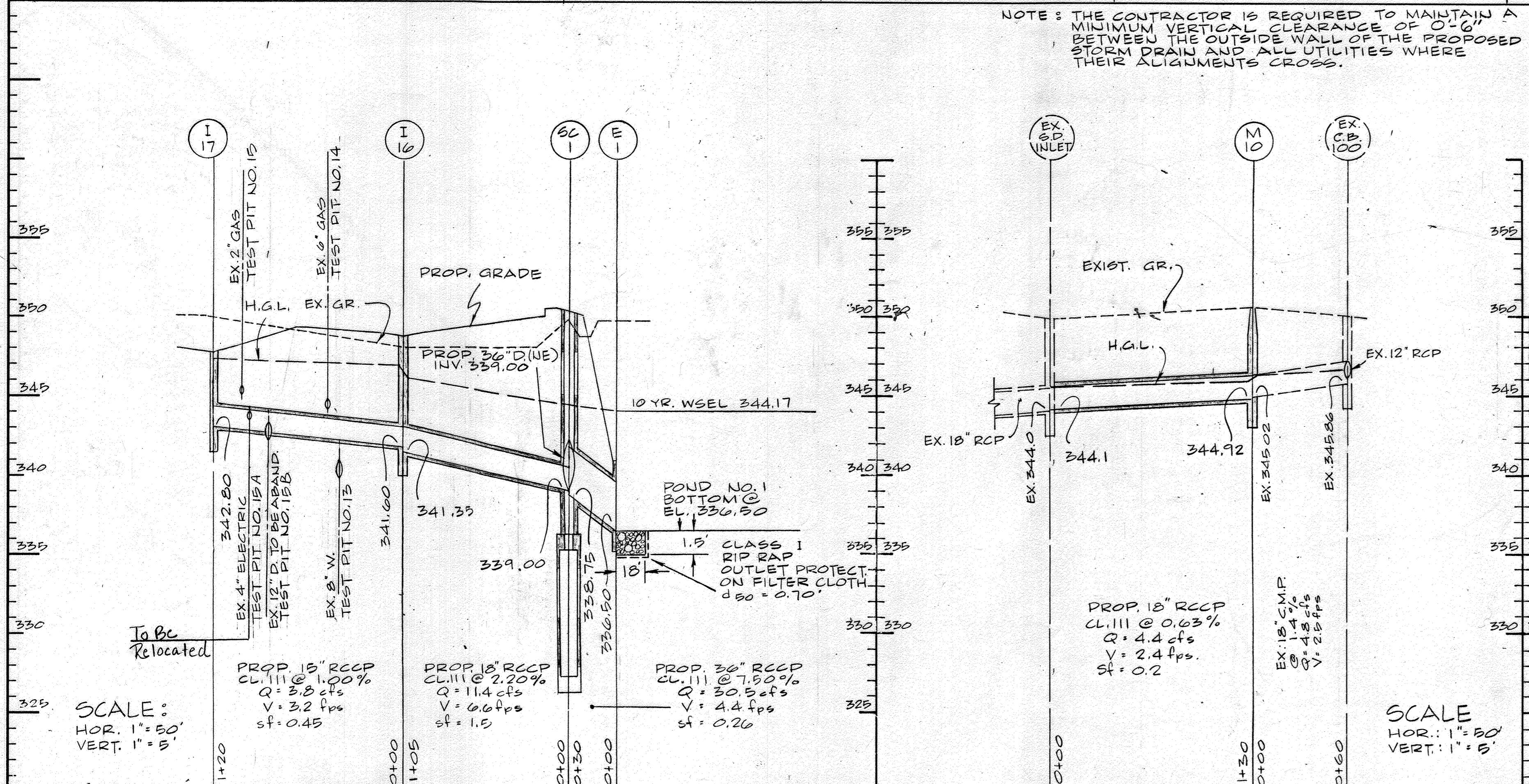
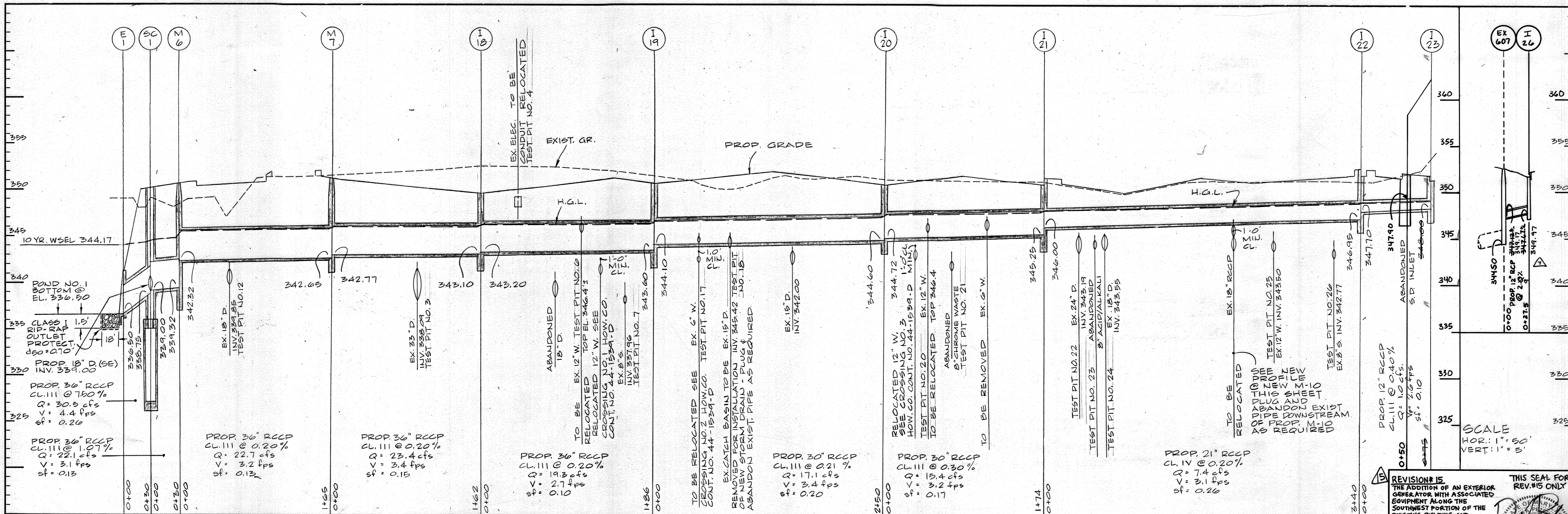
WATER CODE -E06 SEWER CODE 5333000

Storm Drainage Area Map
The Renaissance at Columbia Gateway

ELECTION DISTRICT : 6
HOWARD CO., MARYLAND SHT.22 OF 32 DATE : DECEMBER 4, 1998

SCALE : As Shown

SDP 99-59



NOTE: THE CONTRACTOR IS REQUIRED TO MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 0'-6\"/>

STRUCTURE SCHEDULE					
NO.	TYPE	TOPELEV.	INV. IN.	INV. OUT.	HOW.CD.PTL.
E-1	A-36		336.90	-	SD 5.11
EC-1	STC	350.30	339.00	338.75	-
M-6	STD	350.60	342.32	339.32	G 5.13
M-7	STD	351.10	342.77	342.65	G 5.13
M-10	STD	351.10	345.02	344.92	G 5.12
M-11	STD	352.50	346.50	346.40	G 5.12
M-8	STD	348.50	338.30	338.20	G 5.13
M-9	-	348.99	335.10	334.90	MD 304.05

INLET SCHEDULE						
NO.	TYPE	TOPELEV.	INV. IN.	INV. OUT.	Q _{eff}	HOW.CD.PTL.
I-16	DBLS	348.80	341.60	341.25	7.9	SD 4.23
I-17	DBLS	347.50	-	342.80	3.8	SD 4.23
I-18	DBLS	349.50	343.20	343.10	6.8	SD 4.23
I-19	DBLS	350.60	344.10	343.60	4.0	SD 4.23
I-20	DBLS	350.50	344.12	344.60	2.83	SD 4.34
I-21	DBLS	350.50	346.00	345.25	9.66	SD 4.34
I-22	DBLS	351.80	347.70	346.95	1.00	SD 4.34
I-23	DBLS	351.00	347.00	346.95	34.45	SD 4.34
I-24	DBLS	351.00	347.00	346.95	34.45	SD 4.34
I-26	DBLS	351.72	-	346.75	-	SD 4.34

NOTE: FOR LOCATIONS OF M-8 & M-9 SEE STORMWATER MANAGEMENT PLAN SHEET 10.

NOTE: TOP ELEV. IS TOP OF GRATE

REVISION #15
 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERBA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 31 WITH THE ADDITION OF FIVE (5) SHEETS.
 10.11.23
 Professional Certification. 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.: 59816 Expiration Date: 8/23/2024

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 655 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

DEVELOPER CERTIFICATION:
 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 projects will have a Certificate of Attendance as a Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a 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.
 Developer: *Erik Kolar* Date: 12-04-98
 Name: *Erik Kolar*

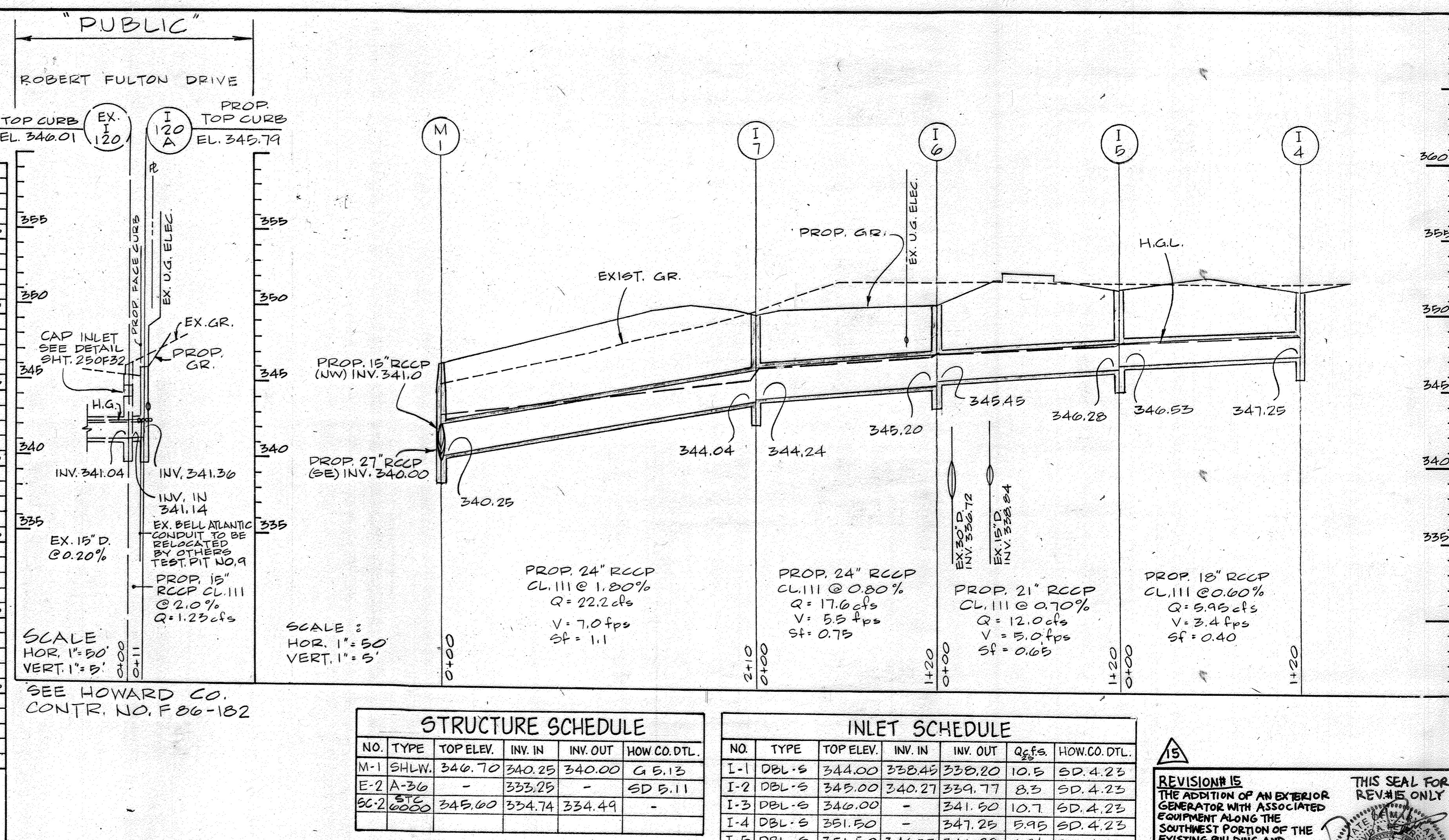
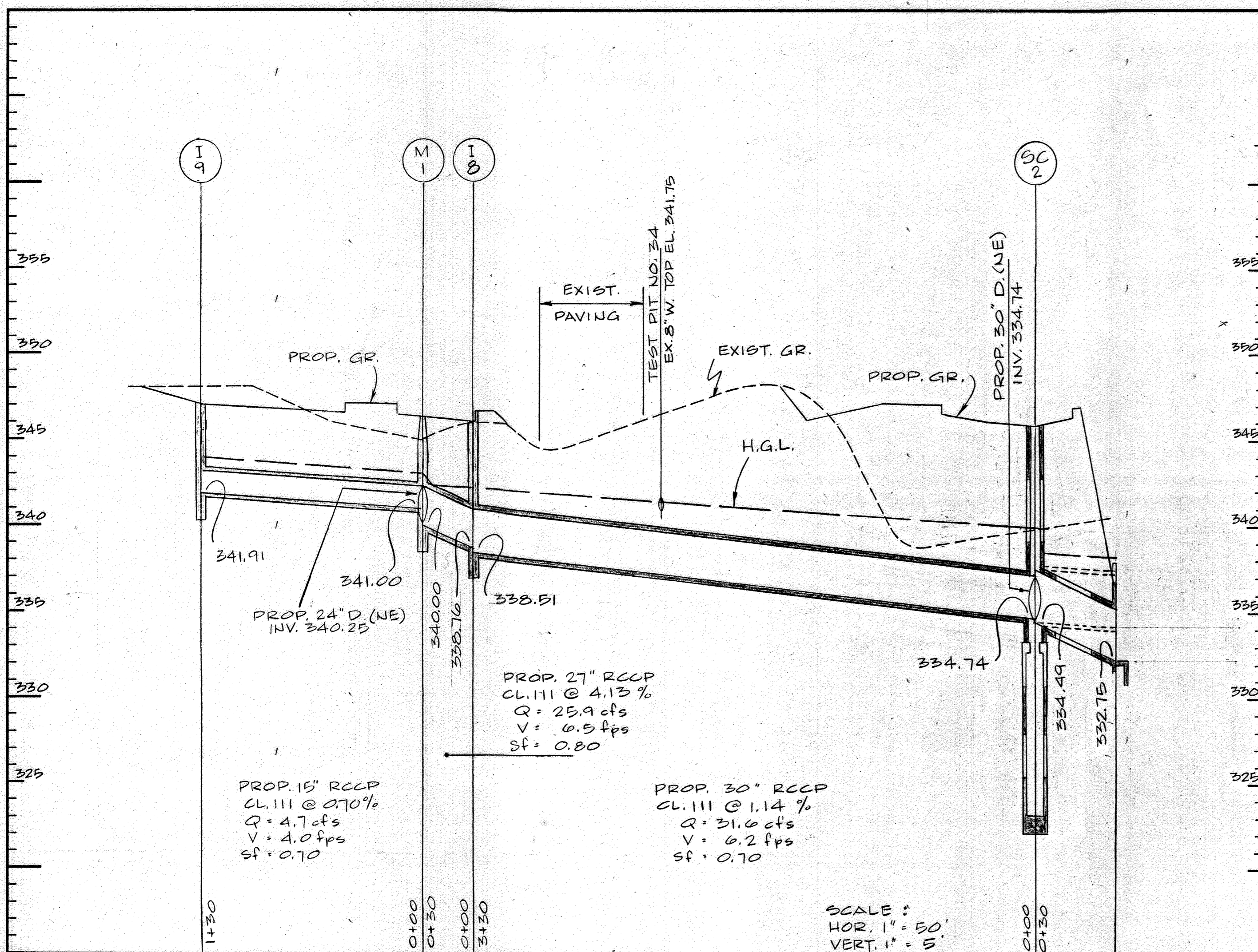
ENGINEER CERTIFICATION:
 I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must 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.
 Engineer: *Karen Watsic* P.E. # 23096
 Name: *KAREN WATSLIC* Date: 12-4-98

DATE	REVISIONS	BY
1/15/98	ADD PUBLIC STORM DRAIN	G.J.D.
1/21/98	REVISED CURB & GUTTER AND INLETS. ADDED STAR TOWER	D.W.M.
1/31/98	REVISED SD PIPE INVERTS	D.W.M.

OWNER
COLGATEDRIVE ASSOC. L.P. PREFERRED REAL ESTATE INVESTMENTS, INC.
 655 NORTH LANE, SUITE 6104
 GOSHENHOCKEN, PA 19428
 (610) 834-1909
 6711 COLUMBIA GATEWAY DRIVE, SUITE 300
 COLUMBIA, MD 21046-2104
 (410) 285-5400

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.

Storm Drain Profiles
The Renaissance at Columbia Gateway
 ELECTION DISTRICT: 6
 HOWARD CO., MARYLAND SHT. 23 OF 38 DATE: OCTOBER 21, 1998
 SCALE: As Shown
 SDP 99-59



STRUCTURE SCHEDULE

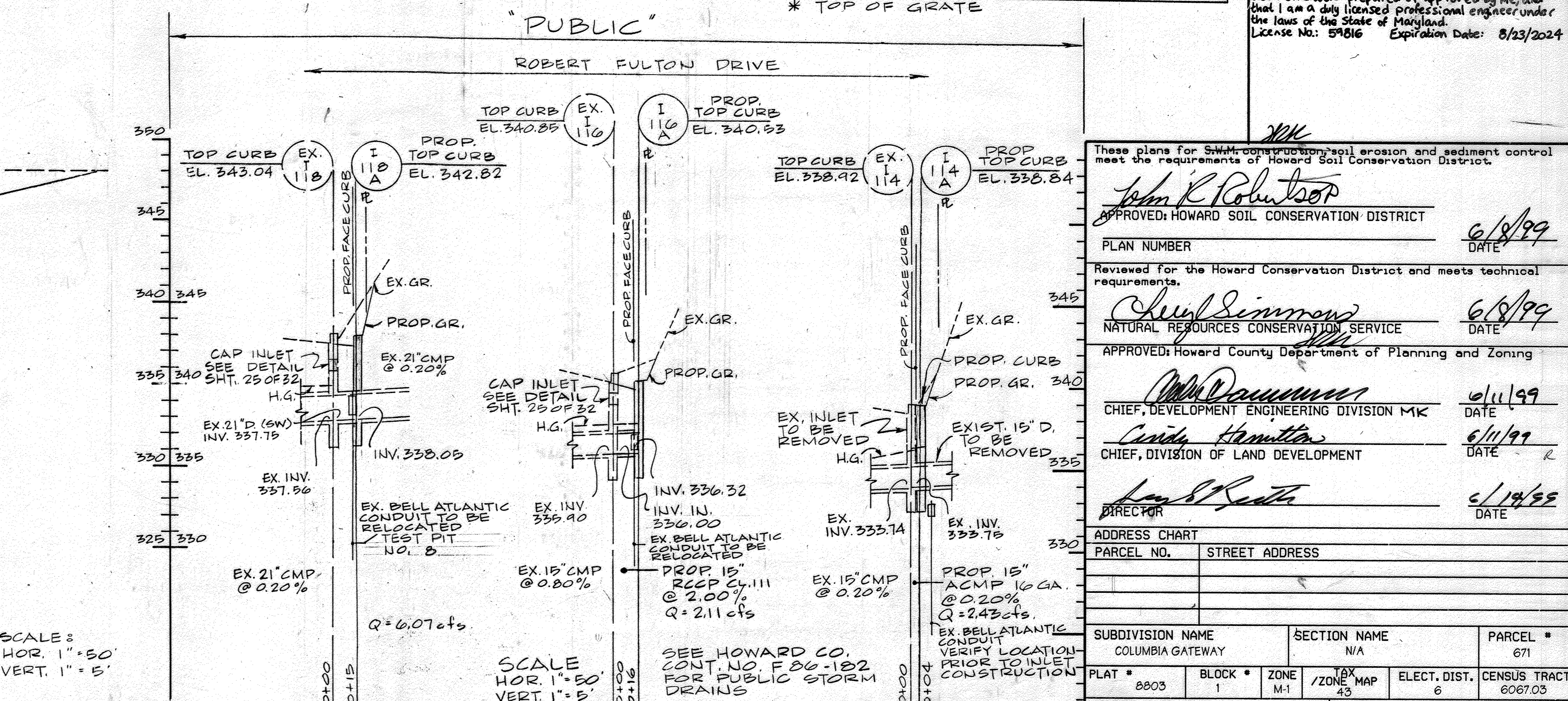
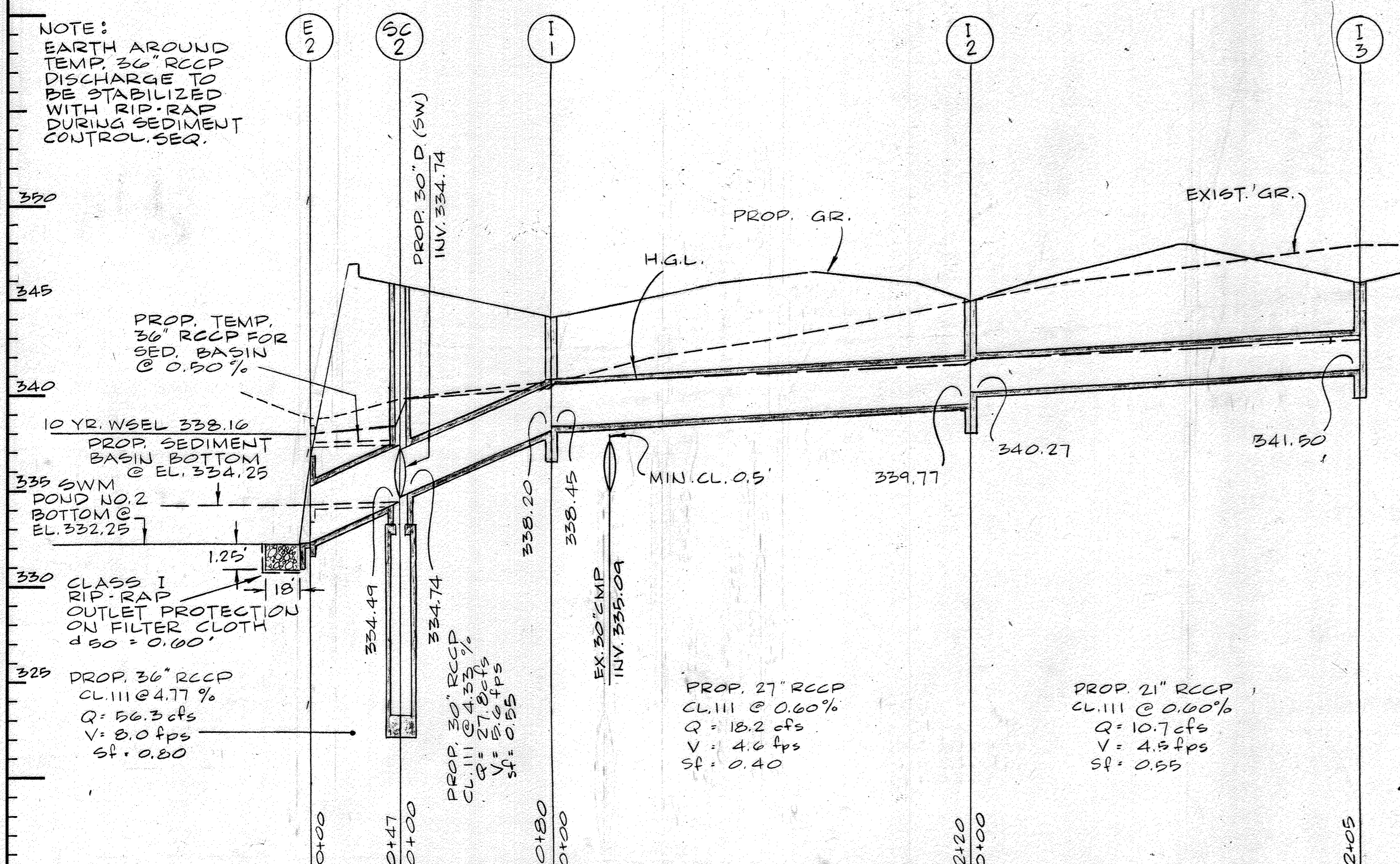
NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	HOW. CO. DTL.
M-1	SHLN.	340.70	340.25	340.00	G 5.13
E-2	A-36	-	333.25	-	SD 5.11
SC-2	STC	345.00	334.74	334.49	-

INLET SCHEDULE

NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	Q cfs.	HOW. CO. DTL.
I-1	DBL-S	344.00	338.45	338.20	10.5	SD. 4.23
I-2	DBL-S	345.00	340.27	339.77	8.3	SD. 4.23
I-3	DBL-S	346.00	-	341.50	10.7	SD. 4.23
I-4	DBL-S	351.50	-	347.25	5.95	SD. 4.23
I-5	DBL-S	351.50	346.53	346.28	6.24	SD. 4.23
I-6	DBL-S	350.50	345.45	345.20	6.05	SD. 4.23
I-7	DBL-S	349.70	344.24	344.04	5.40	SD. 4.23
I-8	DBL-S	346.00	338.76	338.51	6.40	SD. 4.23
I-9	DBL-S	347.00	-	341.91	4.70	SD. 4.23

* TOP OF GRATE

NOTE: THE CONTRACTOR IS REQUIRED TO MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 0'6" BETWEEN THE OUTSIDE WALL OF THE PROPOSED STORM DRAIN AND ALL UTILITIES WHERE THEIR ALIGNMENTS CROSS.



REVISION #15
THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 31 WITH THE ADDITION OF FIVE (5) SHEETS.

10.11.23
Professional Certification, 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.: 57816 Expiration Date: 8/23/2024

THIS SEAL FOR REVIEW ONLY

These plans for SWM, construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
DATE: 6/8/99

PLAN NUMBER: _____

Reviewed for the Howard Conservation District and meets technical requirements.
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DATE: 6/8/99

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK
DATE: 6/11/99

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 6/11/99

DIRECTOR
DATE: 6/11/99

ADDRESS CHART
PARCEL NO. _____ STREET ADDRESS _____

SUBDIVISION NAME: COLUMBIA GATEWAY SECTION NAME: N/A PARCEL #: 671

PLAT #: 8803 BLOCK #: 1 ZONE: M-1 /ZONE: MAP 43 ELECT. DIST.: 6 CENSUS TRACT: 6067.03

WATER CODE: E06 SEWER CODE: 5333000

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
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 Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a "no-kill" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Developer: Erik Kolar Date: 12.04.98
Name: ERIC KOLAR

ENGINEER CERTIFICATION:
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 developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a "no-kill" plan of the pond within 30 days of completion.

Engineer: Karen Watsic P.E. # 23096 Date: 12.4.98
Name: KAREN WATSLIC

OWNER: PREFERRED REAL ESTATE INVESTMENTS, INC.
555 NORTH LANE, SUITE 601
CONSHOHOCKEN, PA 19428
(610) 834-1969

DATE	REVISIONS	BY
11/18/98	ADD PUBLIC STORM DRAINS	G.J.D.

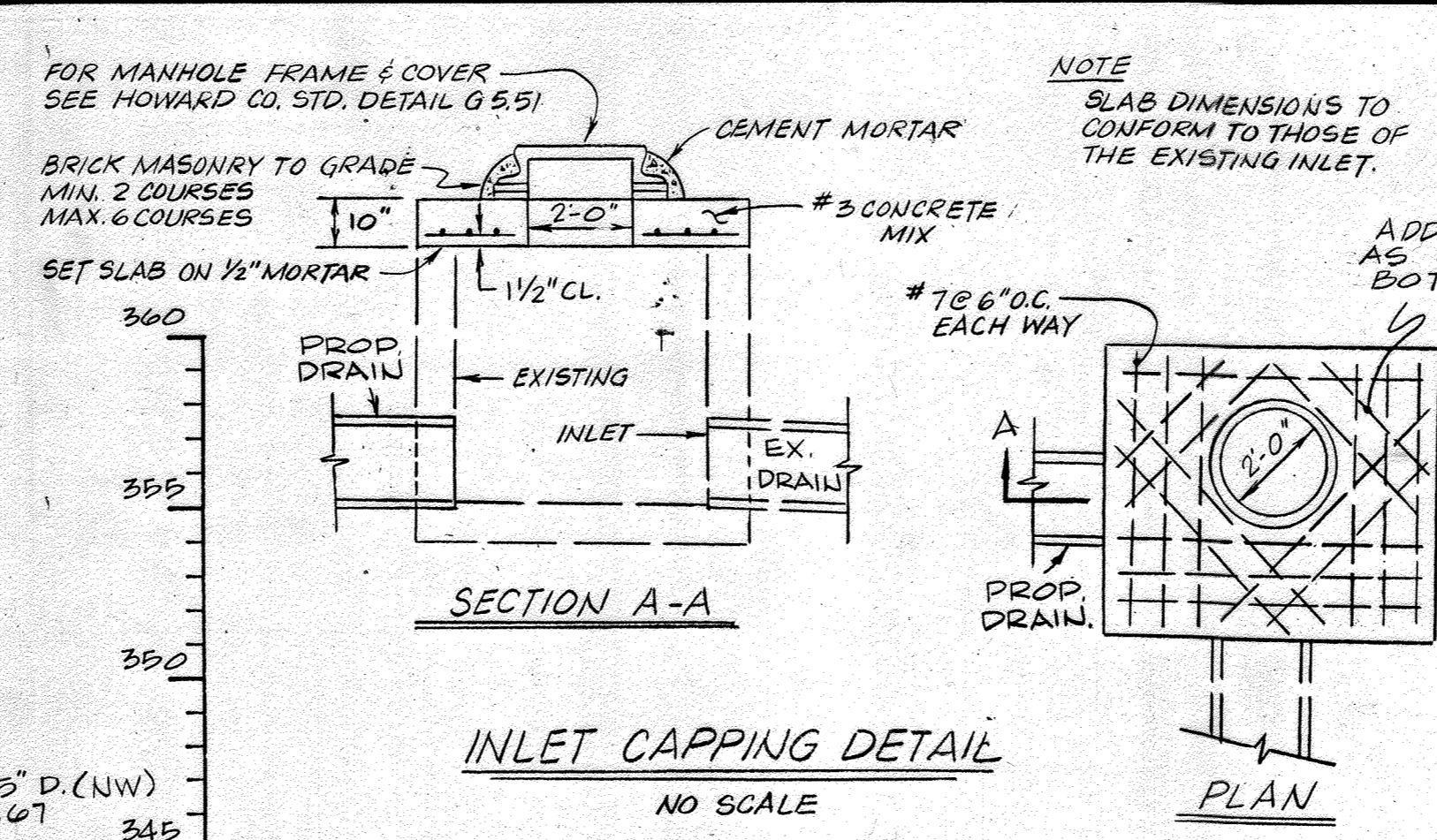
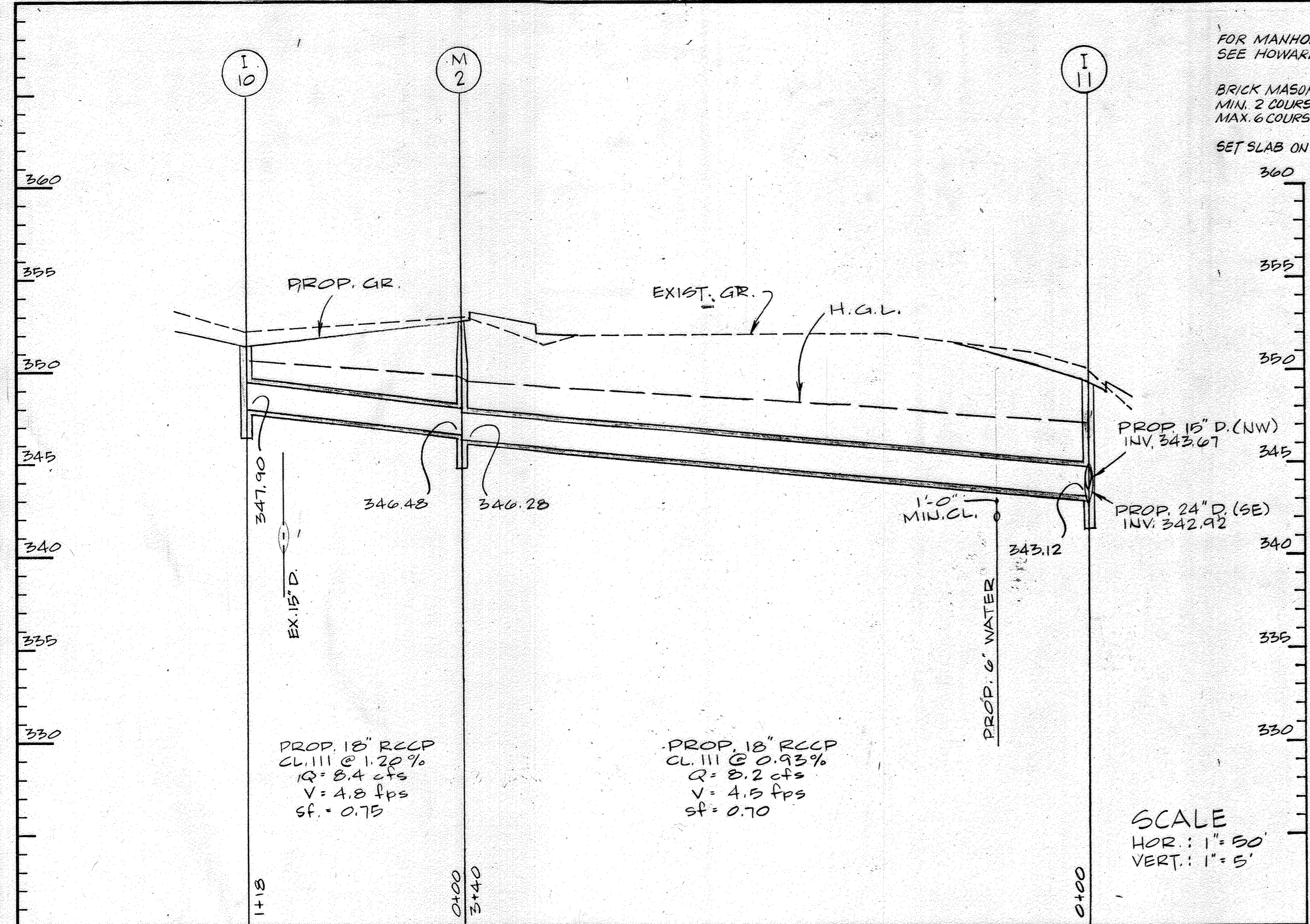
DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.

Storm Drain Profiles
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6 HOWARD CO., MARYLAND SHT. 810F38 DATE: OCTOBER 21, 1998

SCALE: As Shown

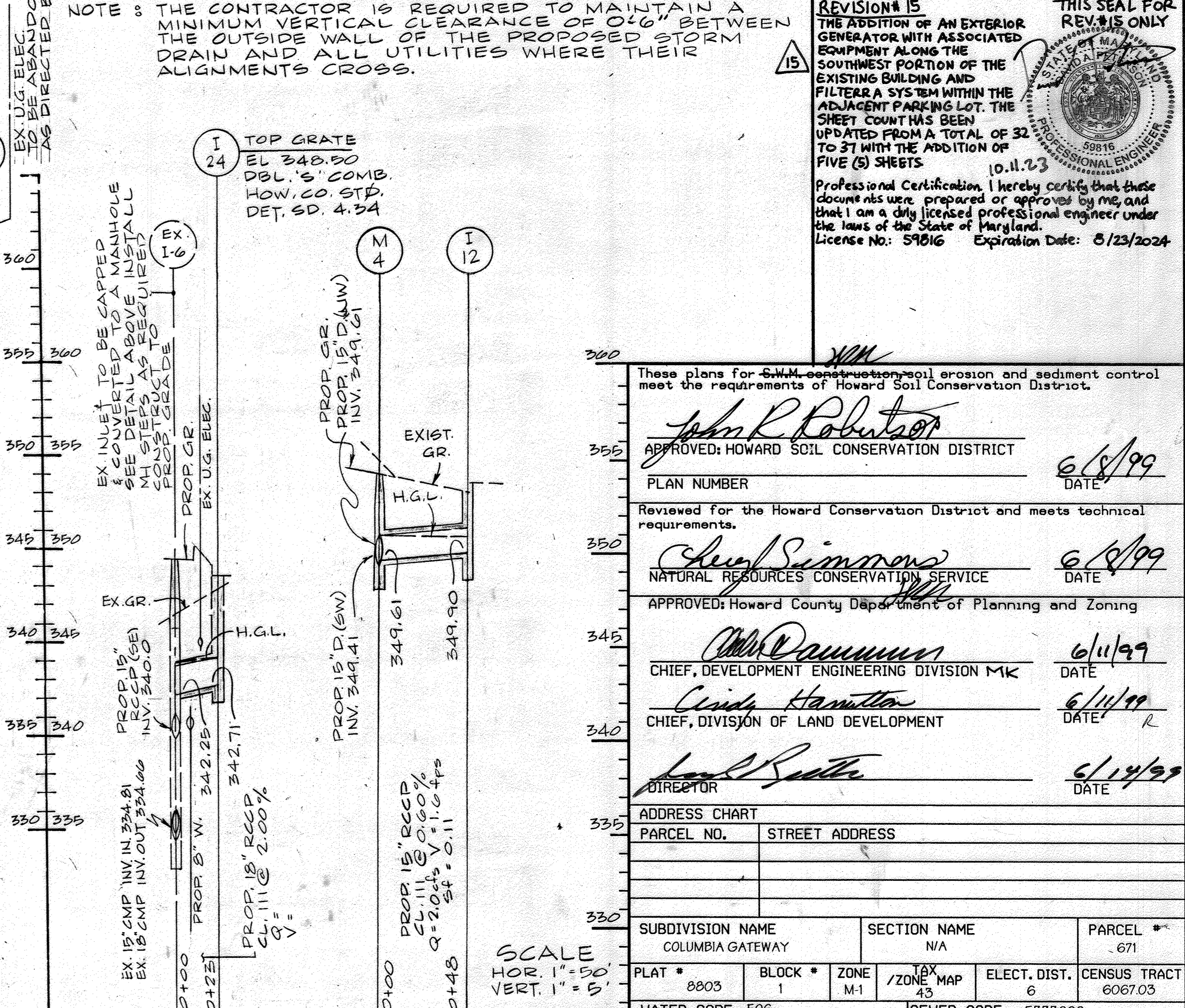
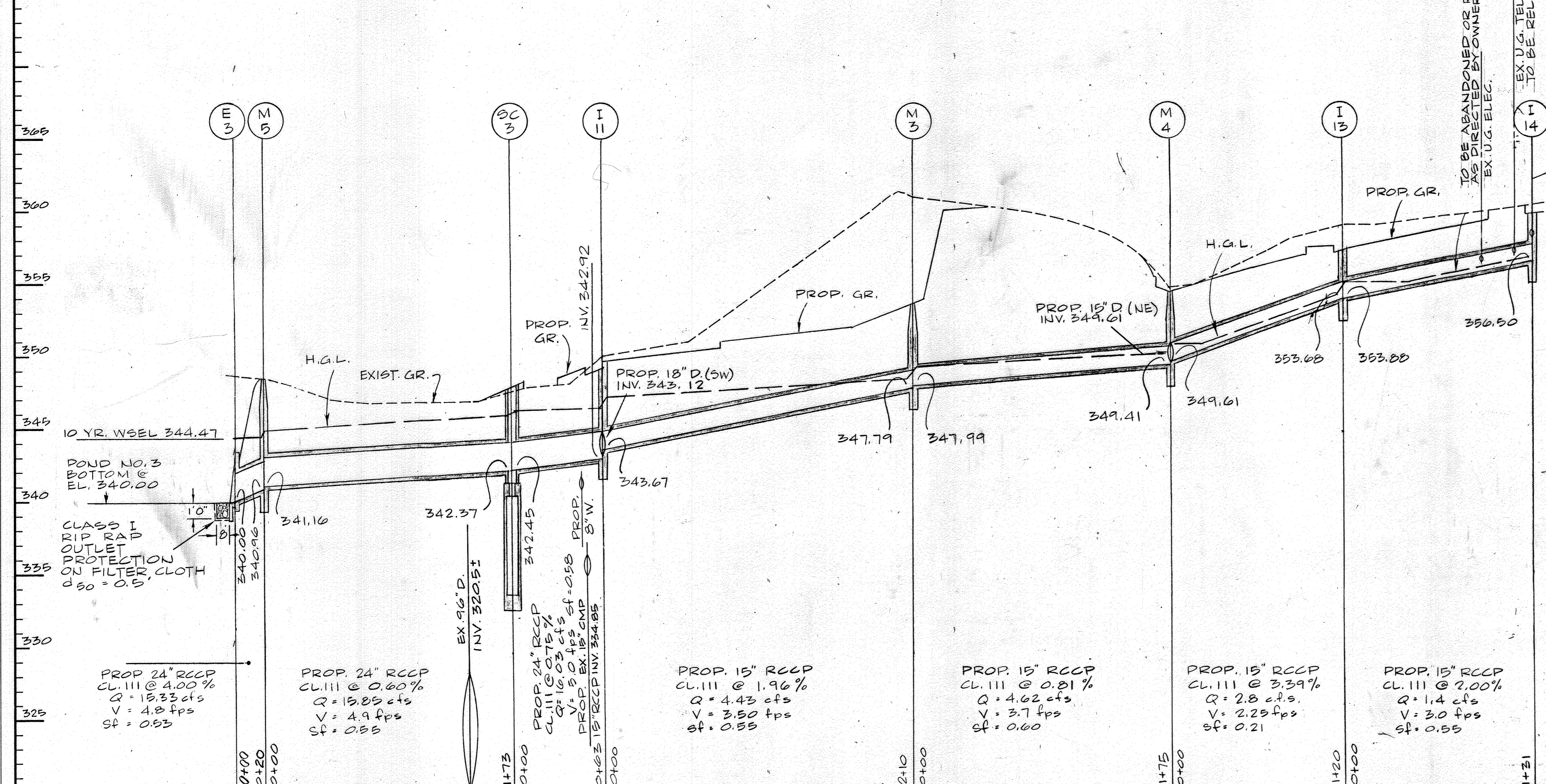
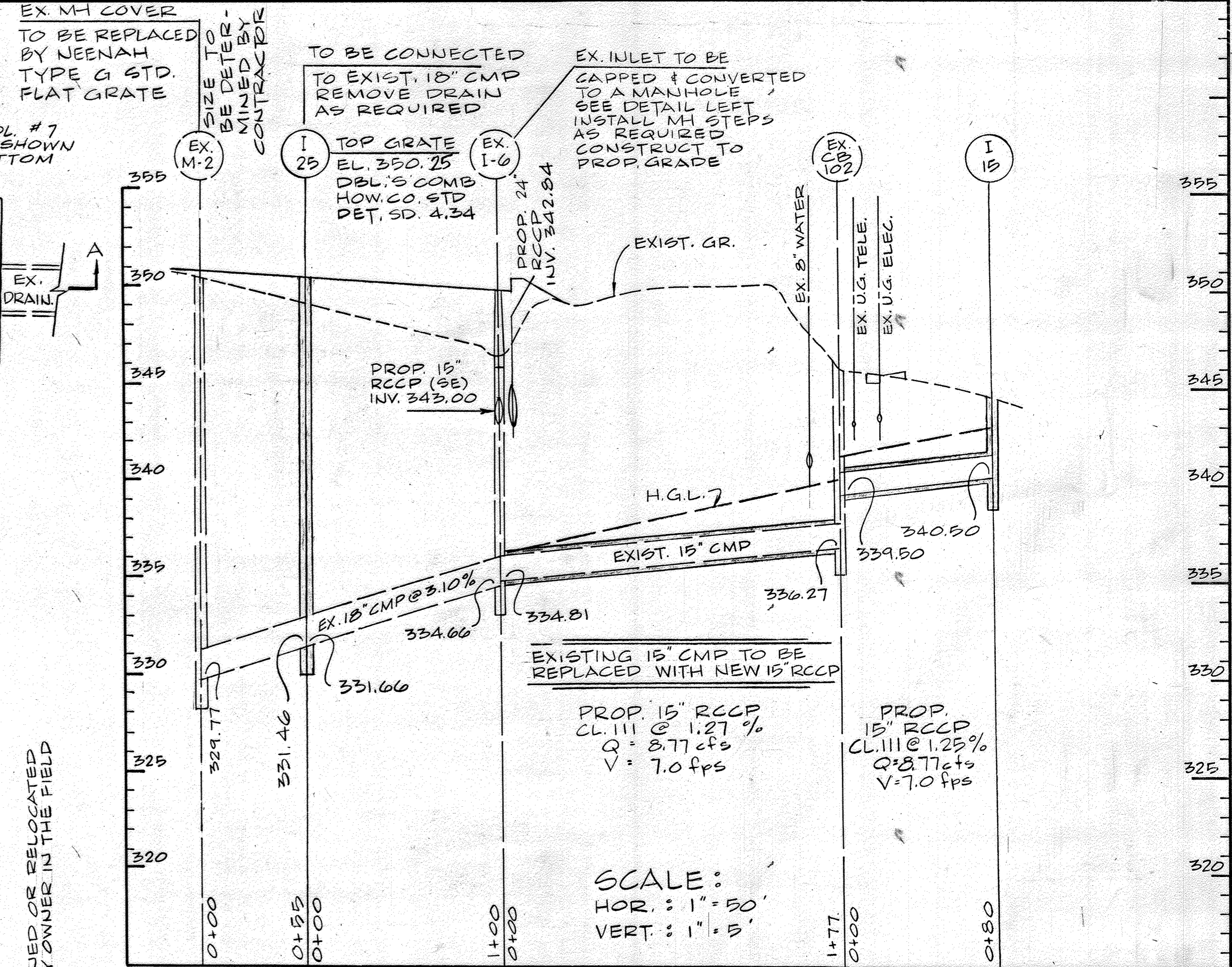
SDP 99-59



NOTE: TOP ELEV. IS TOP OF GRATE

INLET SCHEDULE						
NO.	TYPE	TOPELEV.	INV. IN.	INV. OUT.	Q _{sf}	HOW. CO. DTL.
I-10	DBL'S	351.40	-	347.90	8.4	SD. 4.23
I-11	DBL'S	349.50	343.12	342.92	5.7	SD. 4.34
I-12	DBL'S	353.20	-	349.90	2.0	SD. 4.34
I-13	DBL'S	357.30	353.88	353.68	1.6	SD. 4.34
I-14	DBL'S	354.70	-	350.50	1.4	SD. 4.34
I-15	DBL'S	344.50	-	340.50	8.77	SD. 4.34
I-24	DBL'S	348.50	-	342.71	-	SD. 4.34
I-25	DBL'S	350.25	331.66	331.40	-	SD. 4.34

STRUCTURE SCHEDULE					
NO.	TYPE	TOPELEV.	INV. IN.	INV. OUT.	HOW. CO. DTL.
M-2	STD.	352.70	346.48	346.28	G. S. 12
M-3	SHLW.	353.50	347.99	347.79	G. S. 12
M-4	SHLW.	354.20	349.61	349.41	G. S. 12
E-3	A-24	-	340.00	-	SD. S. 11
E-3	E-15	348.00	342.45	342.37	-



PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

DEVELOPER CERTIFICATION:
 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 Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a site-built plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Developer: *Erik Kolar* Date: 12-04-98
 Name: **ERIK KOLAR**

ENGINEER CERTIFICATION:
 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 developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a site-built plan of the pond within 30 days of completion.

Engineer: *Karen Watsic* P.E. # 23096
 Name: **KAREN WATSIC** Date: 12-4-98

DATE: 1/15/99
 REVISIONS:
 1. ADD INLET CAPPING DETAIL

OWNER:
PREFERRED REAL ESTATE INVESTMENTS, INC.
 555 NORTH LANE, SUITE 6101
 CONSHOHOCKEN, PA 19428
 (610) 834-1969

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.

Storm Drain Profiles
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
 HOWARD CO., MARYLAND SHT. 250 (38)
 SCALE: As Shown
 DATE: OCTOBER 21, 1998

SDP 99-59

REVISION # 15
 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTER A SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

Professional Certification, 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: 59816 Expiration Date: 8/23/2024

These plans for S.W.M., construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: *John R. Roberts*
 HOWARD SOIL CONSERVATION DISTRICT
 DATE: 6/8/99

PLAN NUMBER: _____ DATE: 6/8/99

Reviewed for the Howard Conservation District and meets technical requirements.

APPROVED: *Sheep Simmons*
 NATURAL RESOURCES CONSERVATION SERVICE
 DATE: 6/11/99

APPROVED: Howard County Department of Planning and Zoning

APPROVED: *Chris Pannunzio*
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MKK
 DATE: 6/11/99

APPROVED: *Andy Hamilton*
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6/11/99

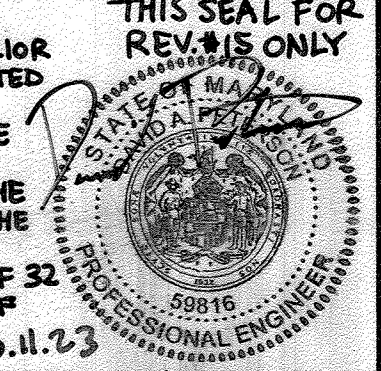
APPROVED: *Paul Suter*
 DIRECTOR
 DATE: 6/14/99

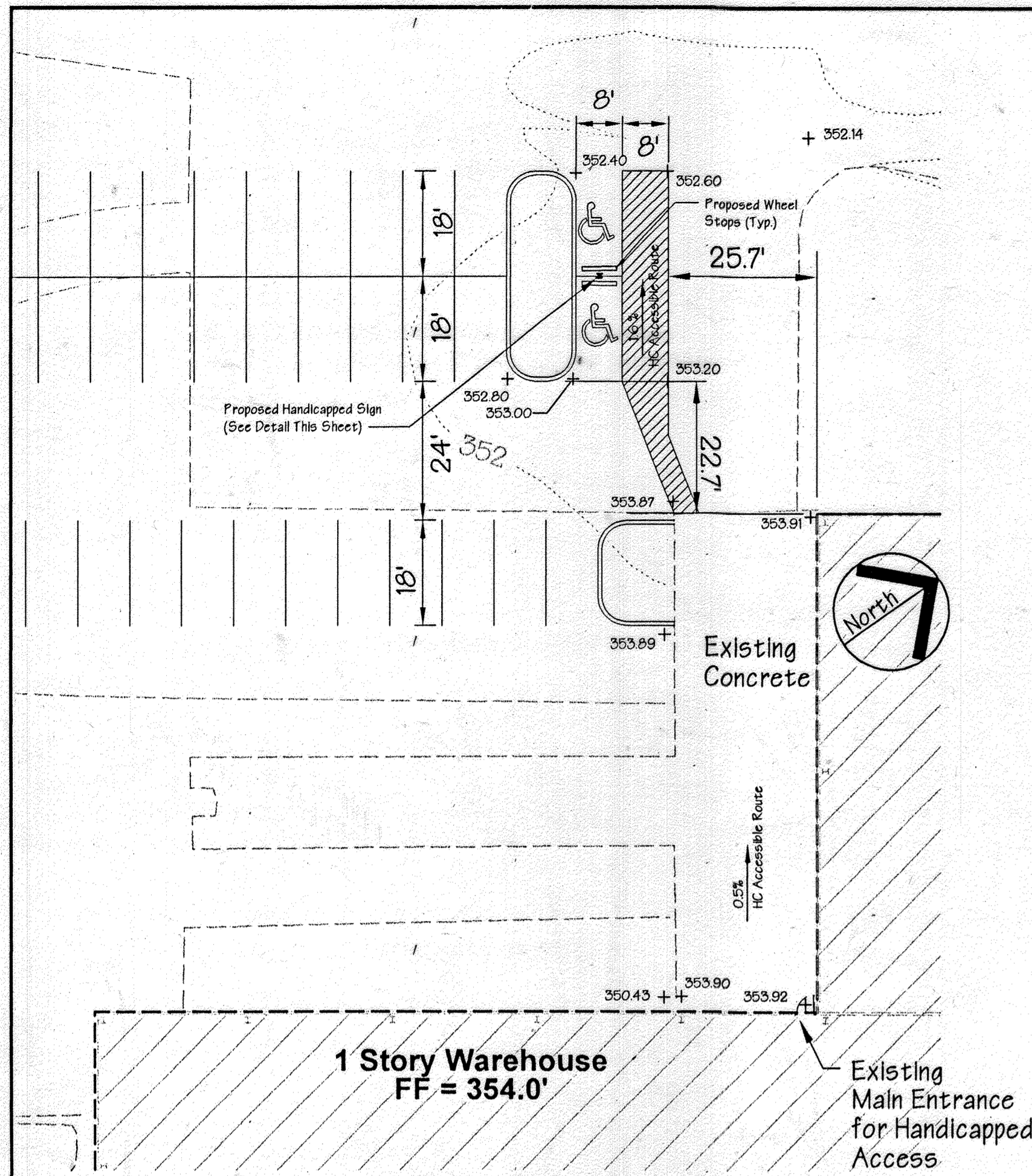
ADDRESS CHART
 PARCEL NO. _____ STREET ADDRESS _____

SUBDIVISION NAME: COLUMBIA GATEWAY SECTION NAME: N/A PARCEL #: 671

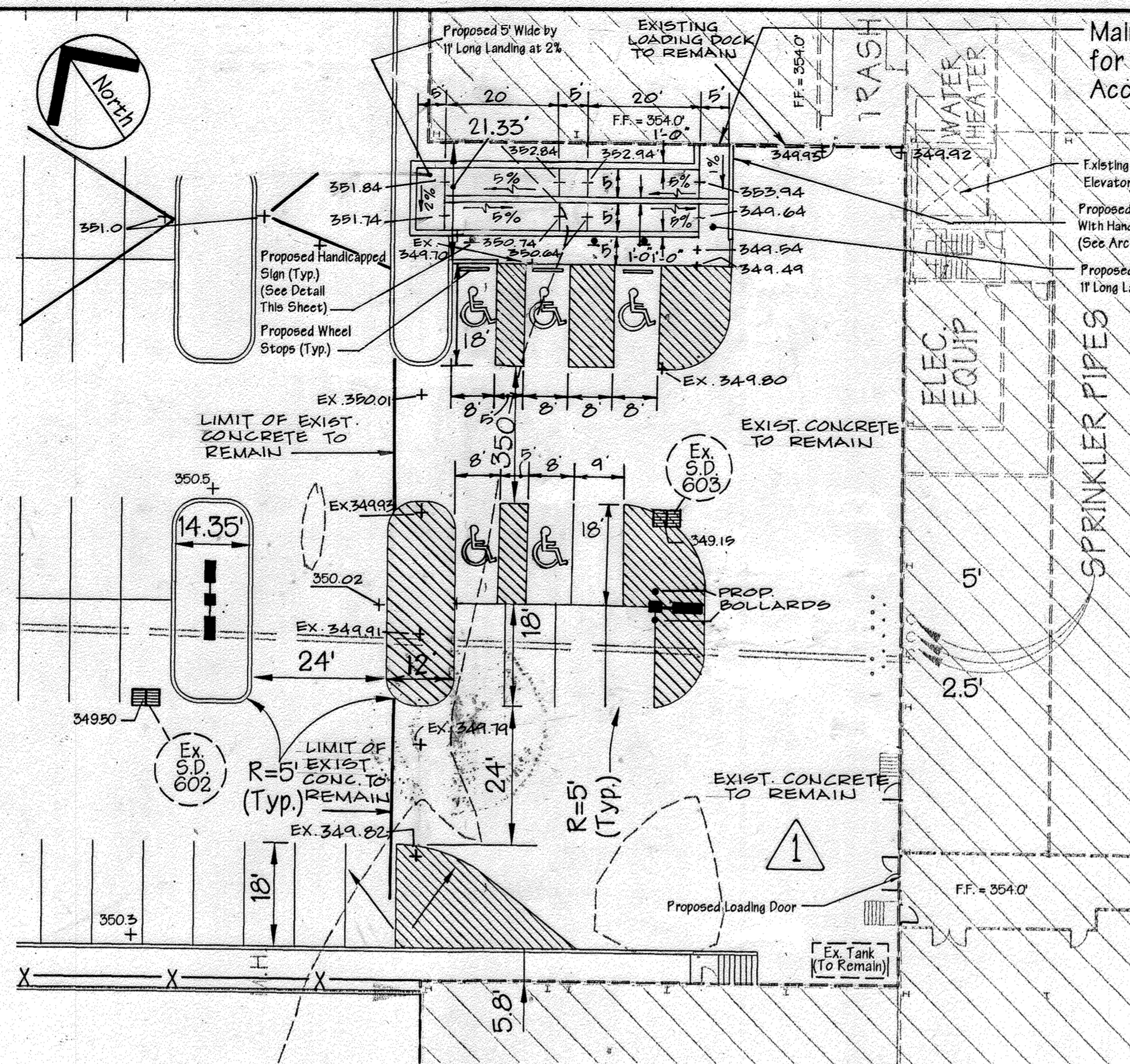
PLAT #: 8803 BLOCK #: 1 ZONE: M-1 TAX MAP: 43 ELECT. DIST.: 6 CENSUS TRACT #: 6067.03

WATER CODE: E06 SEWER CODE: 5333000

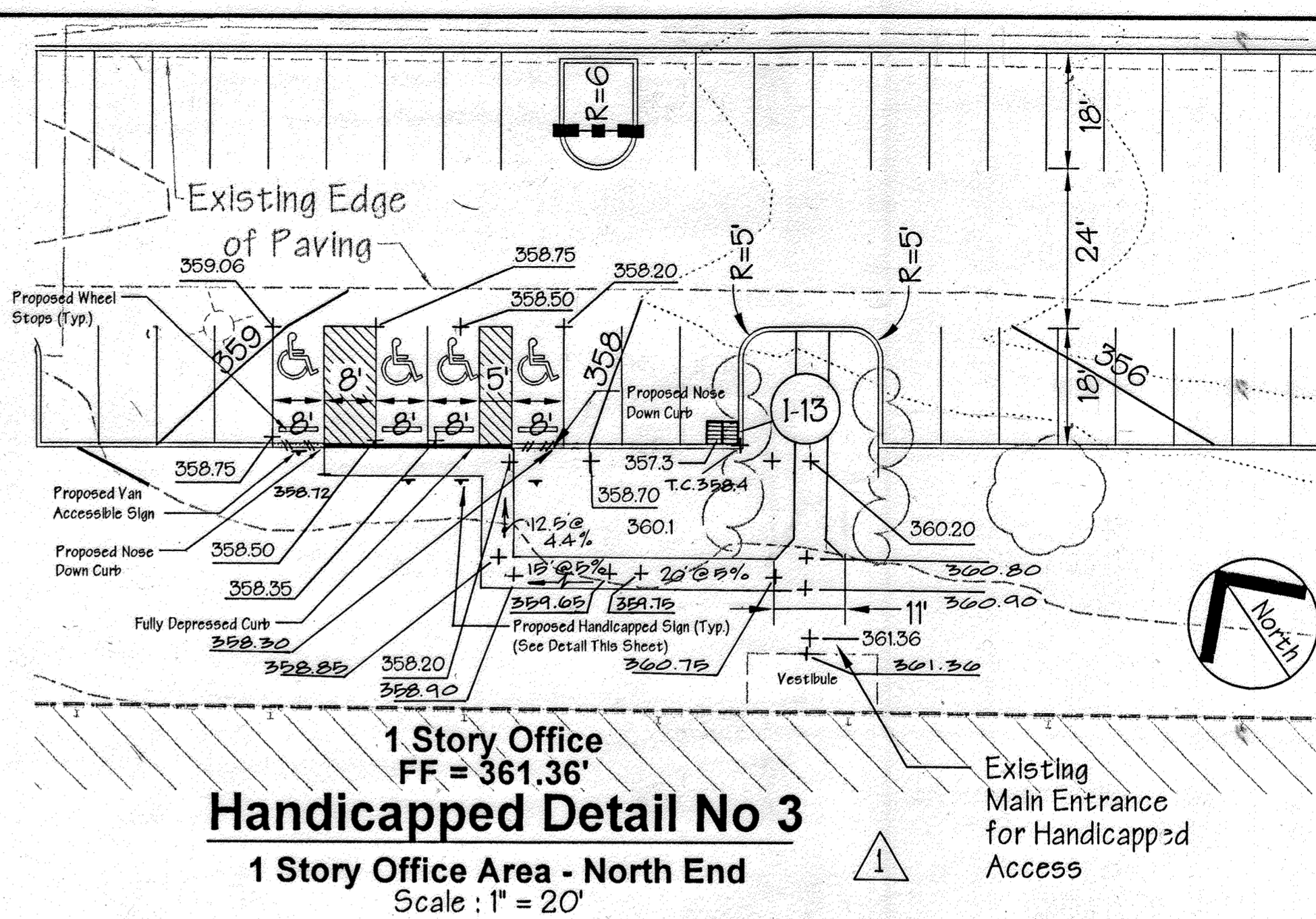




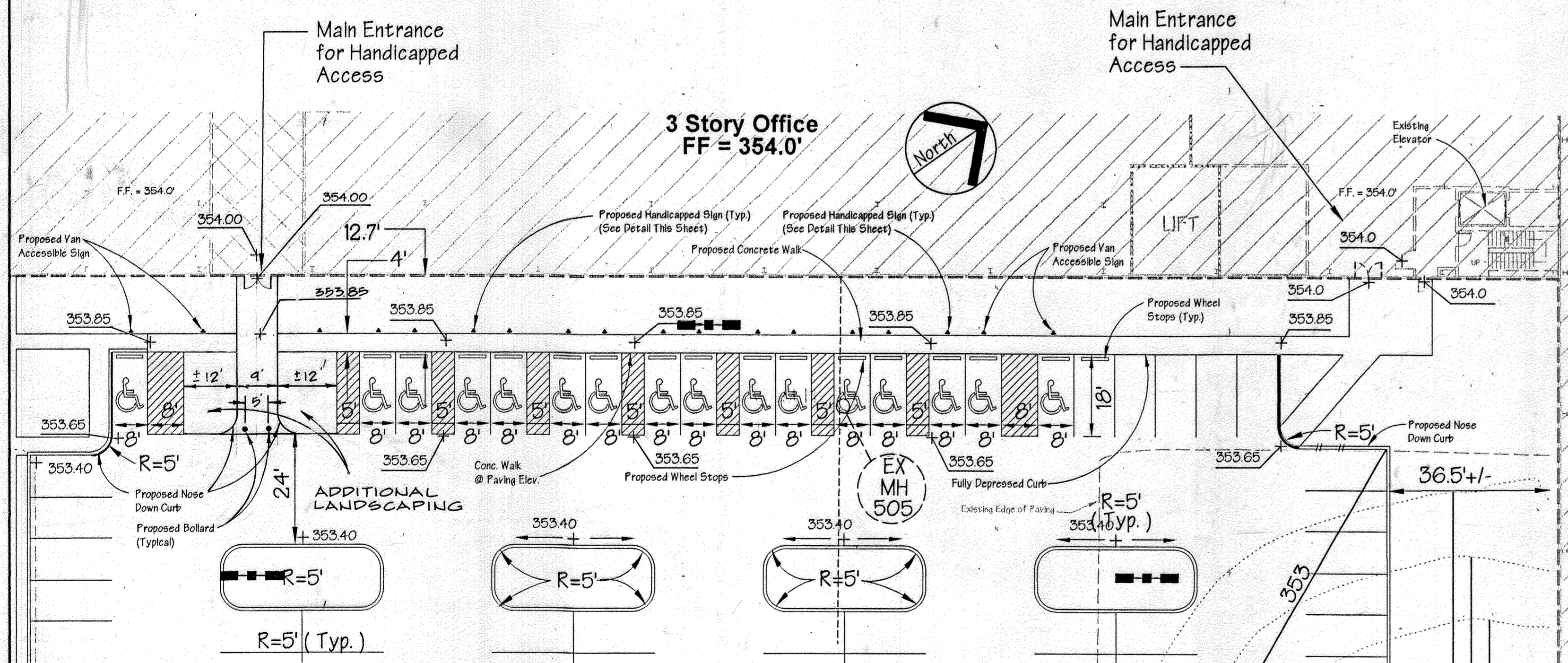
Handicapped Detail No 1
Warehouse Area - South End
Scale : 1" = 20'



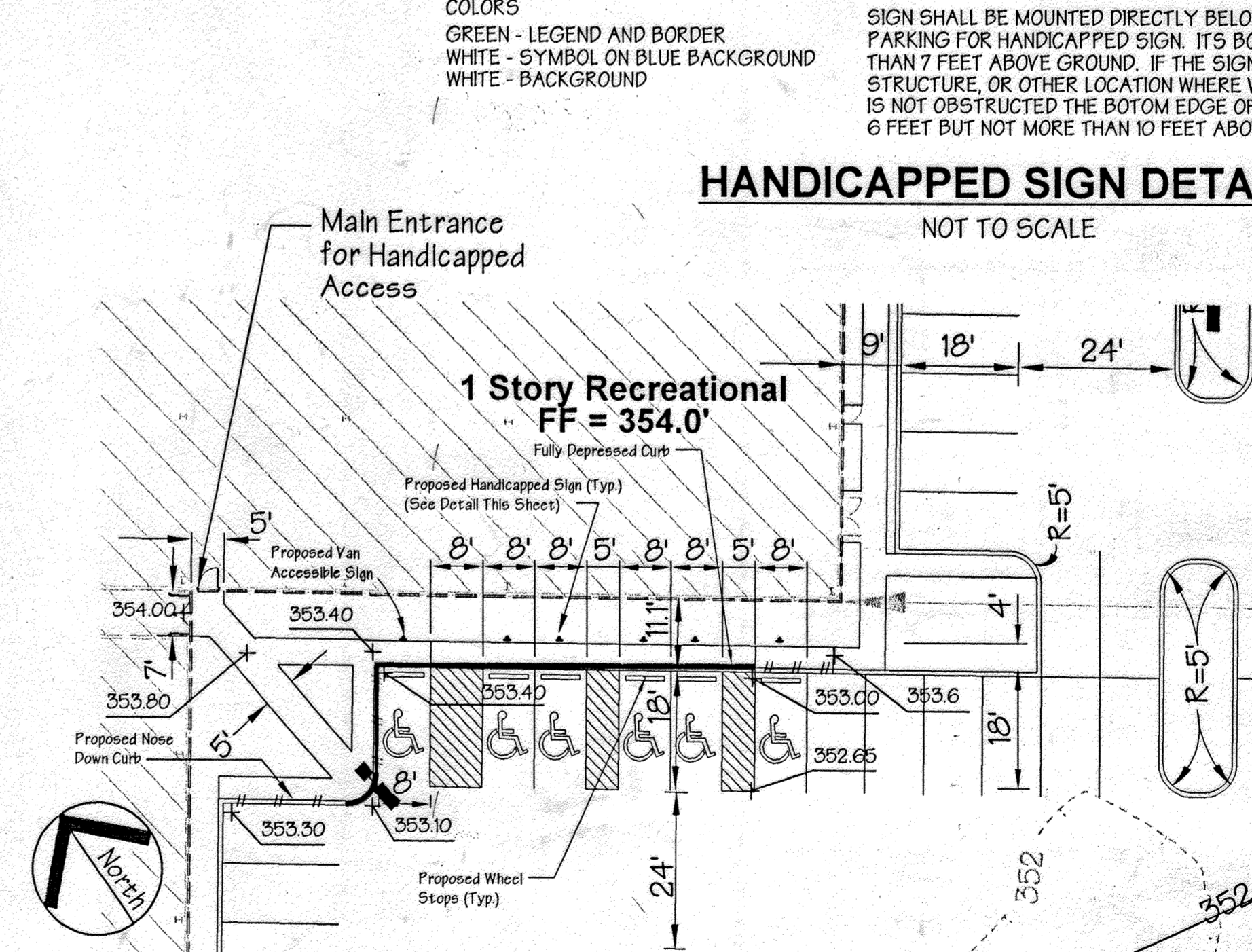
Handicapped Detail No 2
Warehouse Area - Middle, West Side
Scale : 1" = 20'



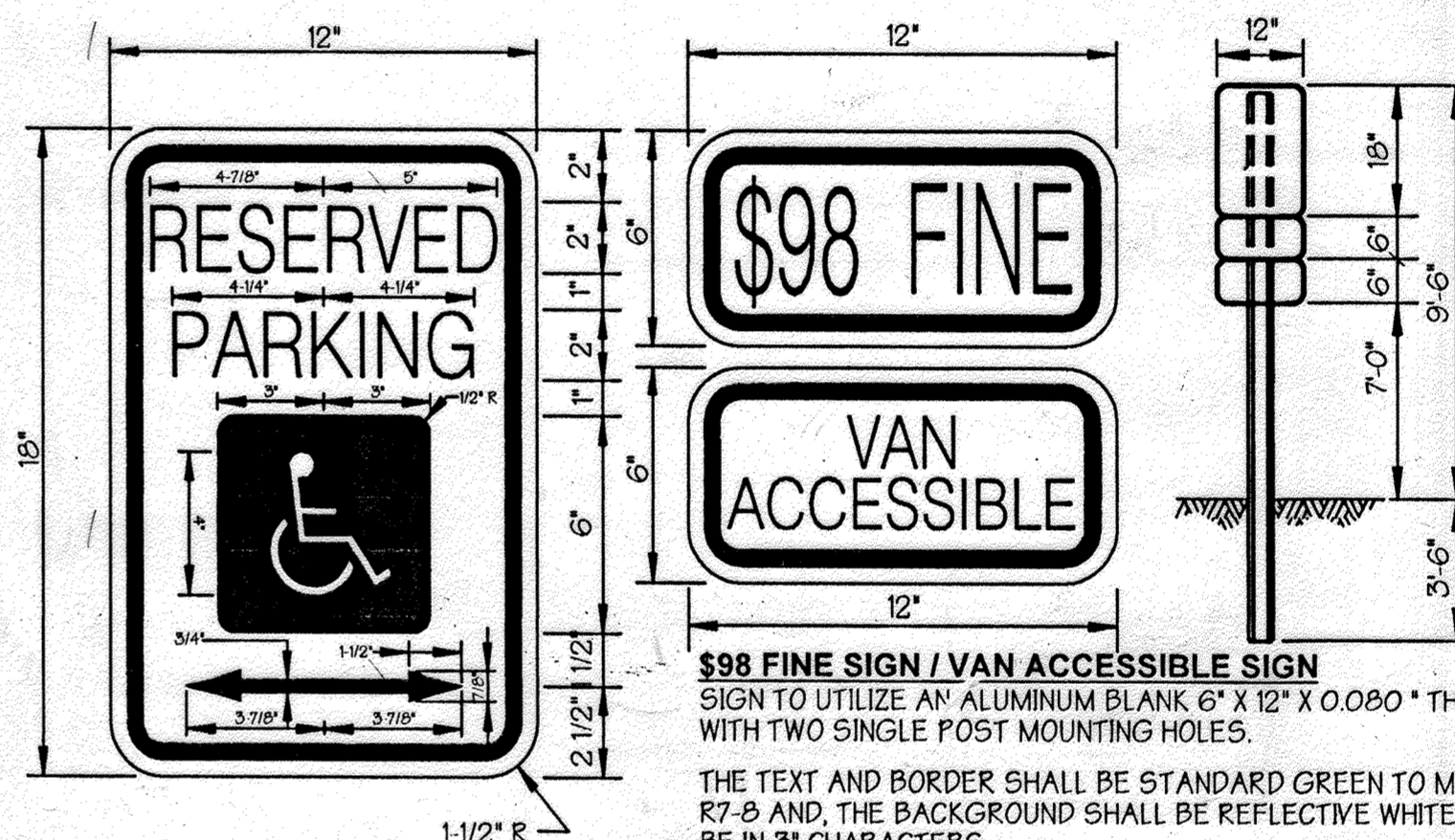
1 Story Office
FF = 361.36'
Handicapped Detail No 3
1 Story Office Area - North End
Scale : 1" = 20'



Handicapped Detail No 5
3 Story Office Middle
Scale : 1" = 20'



1 Story Recreational
FF = 354.0'
Handicapped Detail No 4
Recreation Area Middle - East Side
Scale : 1" = 20'



HANDICAPPED SIGN DETAIL
NOT TO SCALE

REVISION 15
THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.
10.11.23
Professional Certification: 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: 59816 Expiration Date: 8/23/2024

APPROVED: Howard County Department of Planning and Zoning

<i>Howard Hamilton</i>	6/11/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	DATE
<i>David Hamilton</i>	6/11/99
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>David Hamilton</i>	6/14/99
DIRECTOR	DATE

ADDRESS CHART	STREET ADDRESS				
PARCEL NO.	7125 COLUMBIA GATEWAY DRIVE				
L					
SUBDIVISION NAME	SECTION NAME	PARCEL #			
COLUMBIA GATEWAY	N/A	671			
PLAT #	BLOCK #	ZONE	TAXZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.03
WATER CODE	E-06	SEWER CODE	5333000		

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

OWNER
COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
1525 NORTH LANE, SUITE 6101
CONSHOHOCKEN, PA 19428
(610) 834-1969

REVISIONS

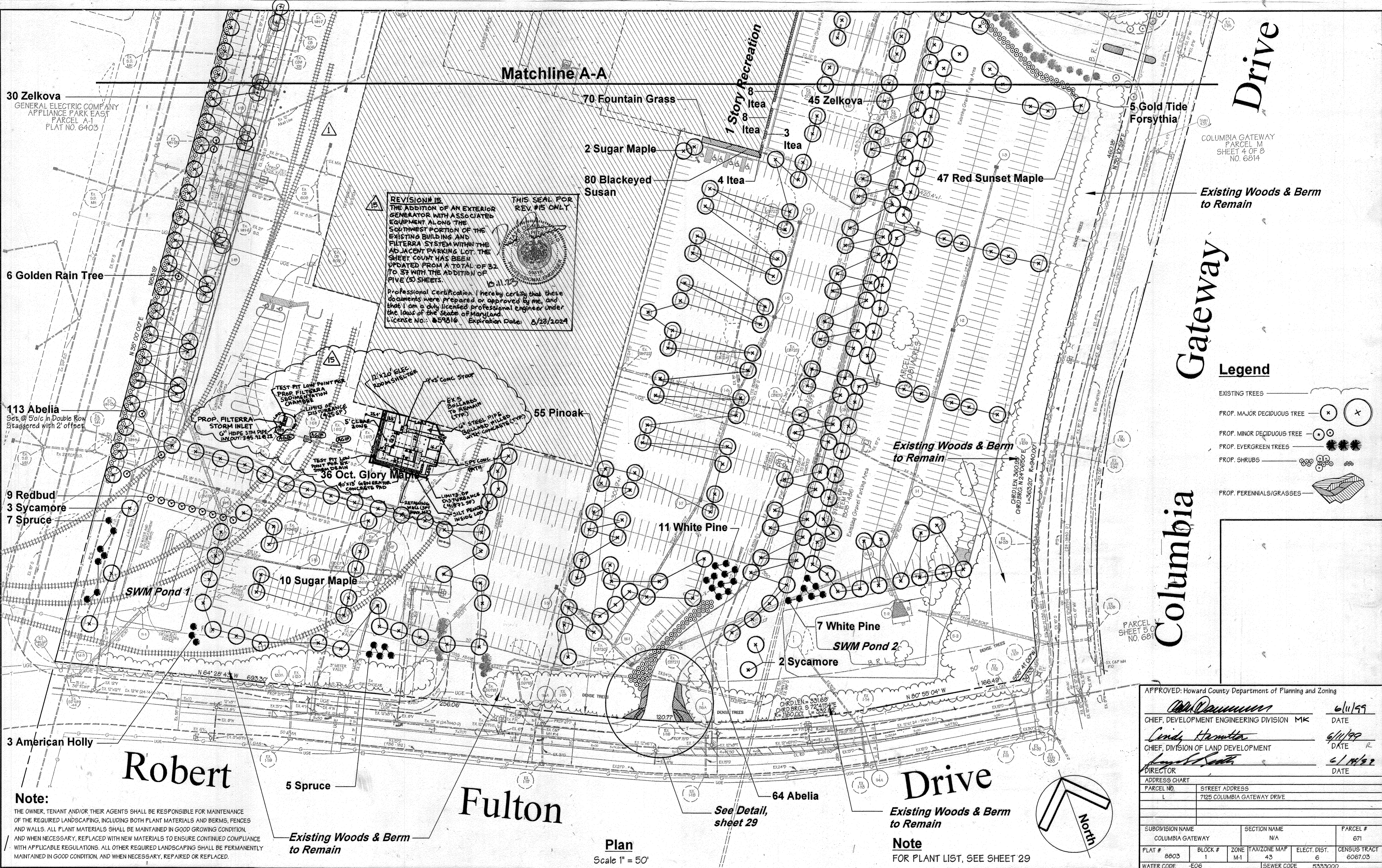
1	8/19/99	G.W.S.
2	REVISION HANDICAPPED DETAILS NO. 2 & 3	
3	1/29/99	G.W.S.
4	REVISION H.C. DETAIL NO. 5	

Handicapped Details The Renaissance at Columbia Gateway

ELECTION DISTRICT : 6
HOWARD CO., MARYLAND SHT 26 OF 32 DATE : DECEMBER 4, 1998

SCALE : As Shown

SDP 99-59



REVISION #15
 THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITH THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

THIS SEAL FOR REV. #15 ONLY

Professional Certification: 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.: 859516, Expiration Date: 8/28/2024

- Legend**
- EXISTING TREES
 - PROP. MAJOR DECIDUOUS TREE
 - PROP. MINOR DECIDUOUS TREE
 - PROP. EVERGREEN TREES
 - PROP. SHRUBS
 - PROP. PERENNIALS/GRASSES

Note:
 THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

Notes:

- A. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- B. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$40,000.00 FOR 150 SHADE TREES AND 20 EVERGREEN TREES PER COUNTY REQUIREMENTS.
- C. SEE SHEETS 34-37 FOR DETAILS OF NEW CONSTRUCTION.

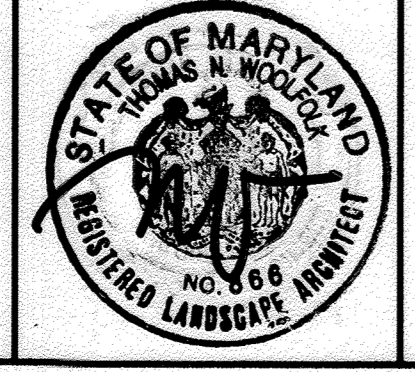
APPROVED: Howard County Department of Planning and Zoning

<i>Howard</i>	6/11/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	DATE
<i>Condy Hamilton</i>	6/11/99
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>Joseph Smith</i>	6/11/99
DIRECTOR	DATE

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY	N/A	671
PLAT #	BLOCK #	ZONE
8803	1	M-1
WATER CODE	ELECT. DIST.	CENSUS TRACT
E06	6	6067.03
SEWER CODE	5333000	

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120



DEVELOPER'S / BUILDER'S CERTIFICATION

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME: *Michael G. O'Neill* DATE: 4/19/99

OWNER
COLUMBIA/95 GROUP L.P.
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
 655 NORTH LANE, SUITE 6101
 CONSHOHOCKEN, PA 19428
 (610) 834-1868

REVISIONS

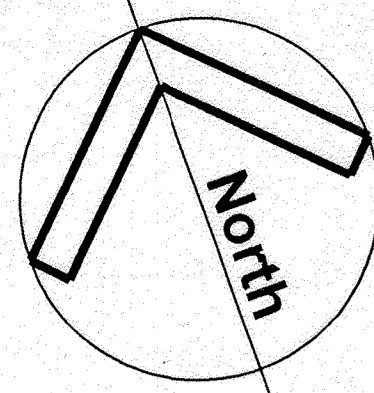
1. 8/27/99 G.W.S. RELOCATE ZELKOVA FOR ADJUSTMENTS

LANDSCAPE PLAN
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
 HOWARD CO., MARYLAND SHT. 27 OF 32 DATE: DECEMBER 4, 1998

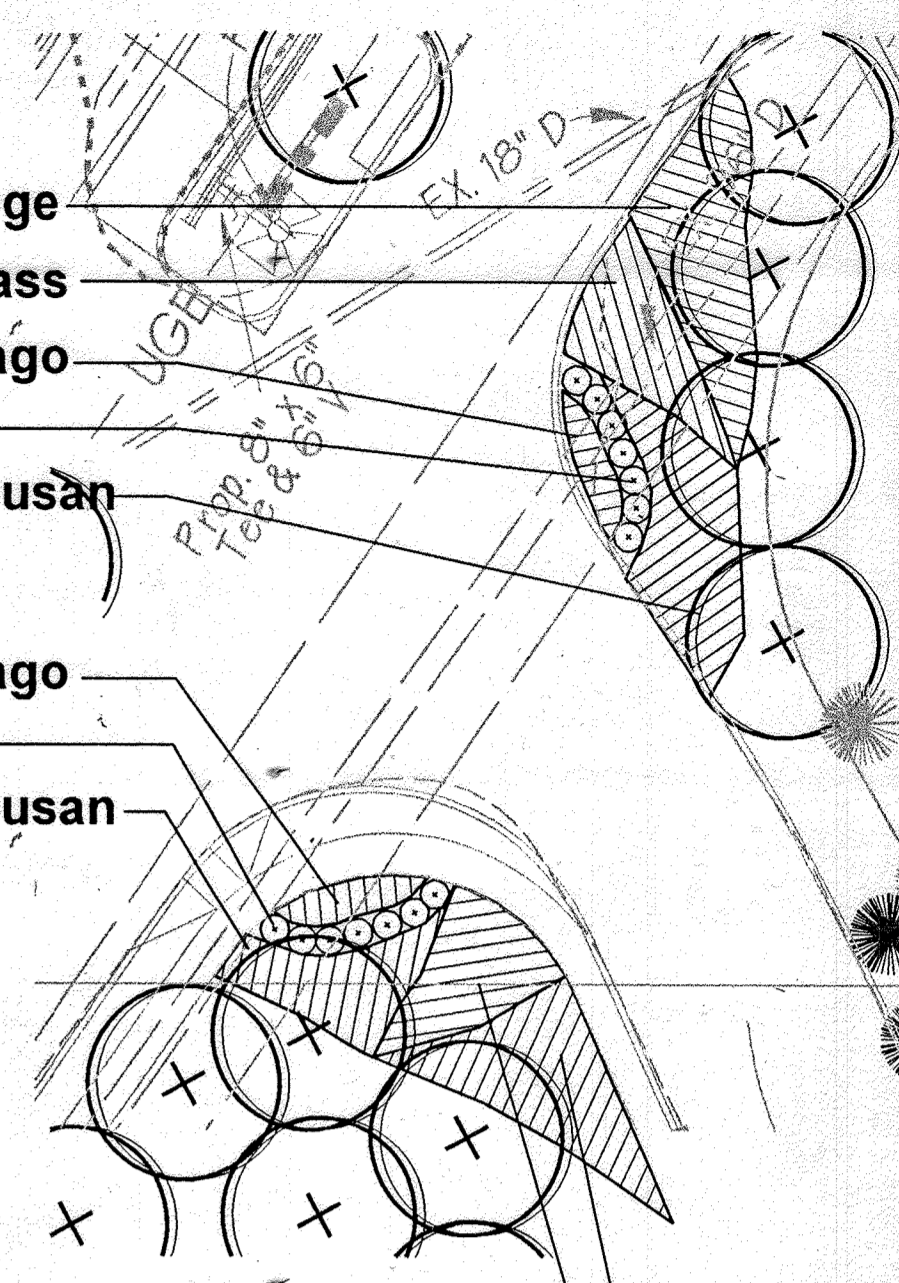
SCALE: As Shown

9053c_27landscape.s01 SDP 99-59 EAS 4/06/99



Note:
 THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

Detail
 SCALE: 1" = 20'

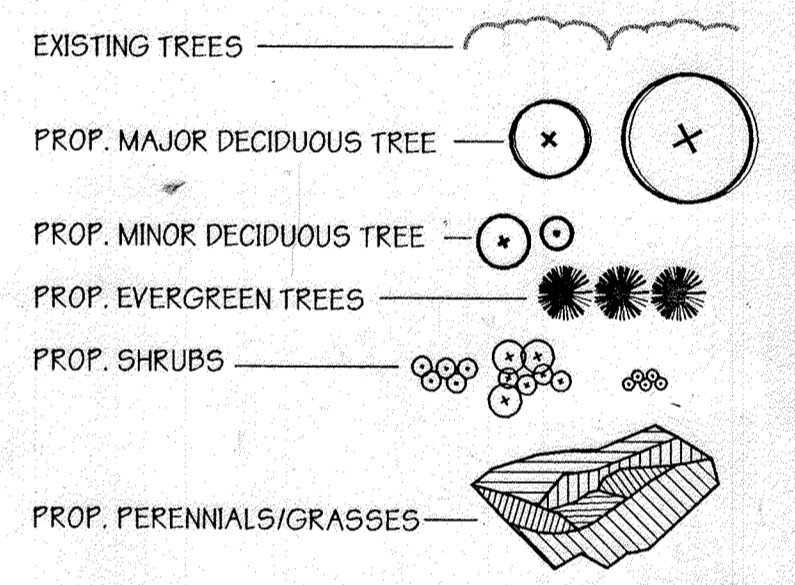


- 135 Russian Sage
- 50 Fountain Grass
- 25 Blue Plumbago
- 7 Juniper
- 75 Blackeyed Susan

- 25 Blue Plumbago
- 7 Juniper
- 75 Blackeyed Susan

- 50 Fountain Grass
- 130 Russian Sage

Legend



REVISIONS
 THE ADDITION OF AN EXTERIOR GENERATOR WITH AN ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERBA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

Professional Certification:
 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.: 59816
 Expiration Date: 8/23/2024

THIS SEAL FOR REV. IS ONLY

APPROVED: Howard County Department of Planning and Zoning

<i>Howard</i>	6/11/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	DATE
<i>Condy Hamilton</i>	6/11/99
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>Paul R. ...</i>	6/11/99
DIRECTOR	DATE

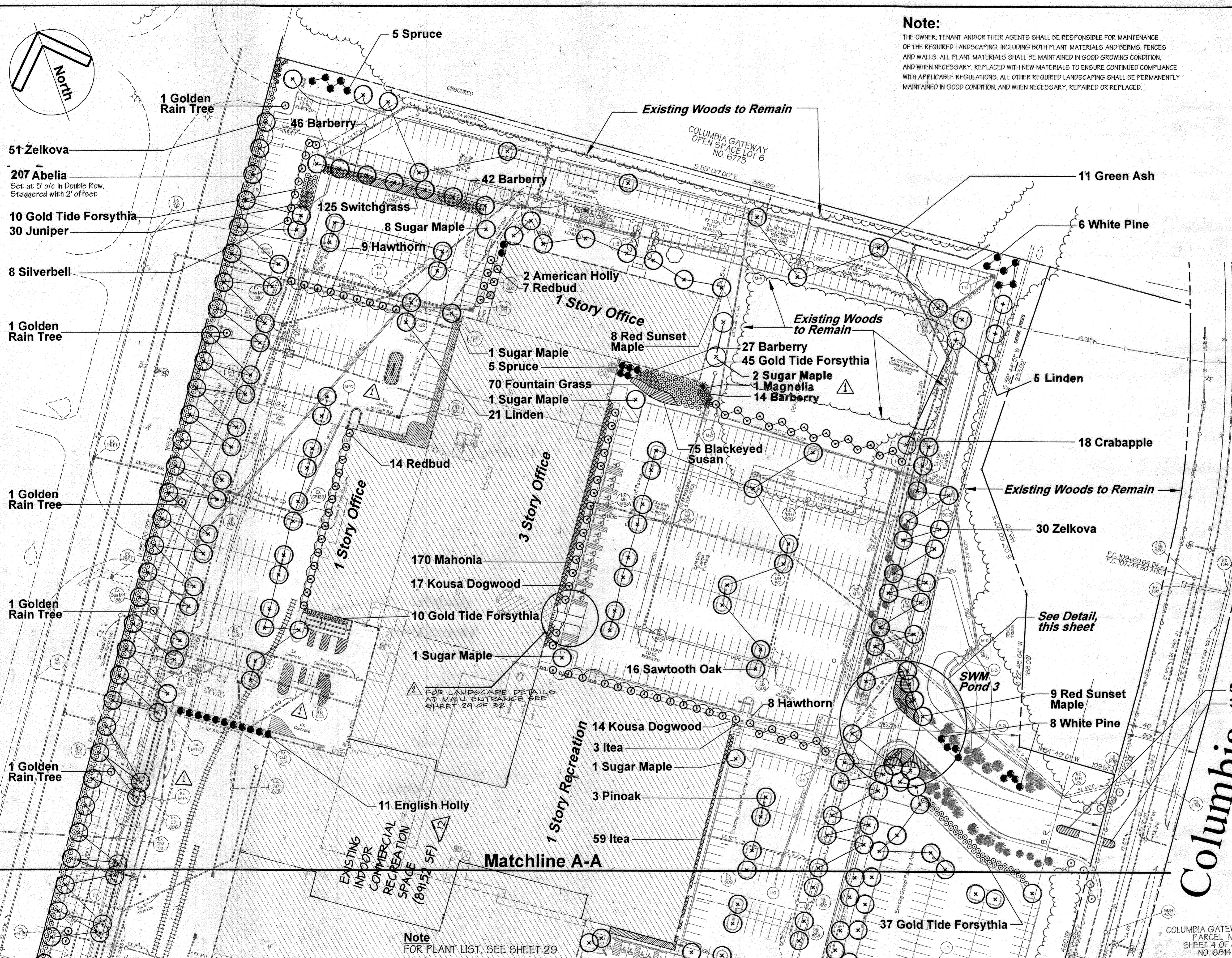
ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
6-19	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY	N/A	671
PLAT #	BLOCK #	ZONE / TAXZONE MAP
8803	1	M-1 43
ELECT. DIST.	CENSUS TRACT	
6	6067.03	
WATER CODE	SEWER CODE	
E06	5339000	

LANDSCAPE PLAN
The Renaissance at Columbia Gateway

HOWARD DISTRICT: 6
 HOWARD CO., MARYLAND SHT 28 OF 32 DATE: DECEMBER 4, 1998

9053c_28landscape.s01 **SDP 99-59** KMW 4/1/99



- 51 Zelkova
- 207 Abelia
Set at 5' o/c in Double Row, Staggered with 2' offset
- 10 Gold Tide Forsythia
- 30 Juniper

- 8 Silverbell

- 1 Golden Rain Tree

- 1 Golden Rain Tree

- 1 Golden Rain Tree

- 1 Golden Rain Tree

- 1 Golden Rain Tree

- 125 Switchgrass

- 8 Sugar Maple
- 9 Hawthorn

- 2 American Holly
- 7 Redbud

- 1 Sugar Maple
- 5 Spruce
- 70 Fountain Grass
- 1 Sugar Maple
- 21 Linden

- 14 Redbud

- 170 Mahonia
- 17 Kousa Dogwood

- 10 Gold Tide Forsythia
- 1 Sugar Maple

- 11 English Holly

- 14 Kousa Dogwood
- 3 Itea
- 1 Sugar Maple
- 3 Pinoak

- 59 Itea

Existing Woods to Remain

Existing Woods to Remain

Existing Woods to Remain

FOR LANDSCAPE DETAILS AT MAIN ENTRANCE SEE SHEET 29 OF 32

Note
 FOR PLANT LIST, SEE SHEET 29

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

DEVELOPER'S / BUILDER'S CERTIFICATION

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. UNLESS OTHERWISE CERTIFIED THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME: *Michael G. Ordell* DATE: 4/19/99

Notes:

A. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

B. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$48,000.00 FOR 150 SHADE TREES AND 20 EVERGREEN TREES PER COUNTY REQUIREMENTS.

Plan
 Scale: 1" = 50'

OWNER
COLUMBIA/95 GROUP L.P.
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
 555 NORTH LANE, SUITE 601
 CONSHOHOCKEN, PA 19428
 (610) 834-1969

DESIGNED BY: K.M.W.
 DRAWN BY: E.M.T./E.A.S.
 CHECKED BY: K.M.W.

REVISIONS

1 8/27/99 G.W.S. RELOCATE VARIOUS SHRUBS & TREES AFFECTED BY SITE ADJUSTMENTS

2 11/29/99 G.W.S. LANDSCAPE REV. @ MAIN ENTRANCE

Landscape Notes

I. GENERAL

- THESE PLANS SHALL BE USED FOR PLANTING INSTALLATION ONLY.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM SUCH WORK. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE BASE BID.
- THE CONTRACTOR SHALL NOTE THAT IN THE CASE OF ANY DISCREPANCY BETWEEN ANY SCALED DIMENSIONS AND THE FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT SCHEDULED FOR REMOVAL OR DEMOLITION. COST OF REPAIR TO EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE BASE BID.

II. UTILITIES

- THE LOCATION OF EXISTING UTILITIES SHOWN HEREON IS APPROXIMATE ONLY AND IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE LOCATIONS ARE TAKEN FROM EXISTING RECORDS AND DO NOT REPRESENT FIELD-VERIFIED LOCATIONS. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF 5 WORKING DAYS PRIOR TO DIGGING. THE CONTRACTOR SHALL CONFIRM TO HIS OWN SATISFACTION THE LOCATION OF ALL UTILITIES PRIOR TO PLACEMENT OF ANY MATERIALS. IF ANY CONFLICT IS FOUND BETWEEN UNDERGROUND UTILITIES AND THE PROPOSED LOCATION OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT G. W. STEPHENS AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE OR DISRUPTION OF SERVICE SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

III. LANDSCAPING

A. STANDARDS:

- ALL PLANT MATERIAL, CONSTRUCTION METHODS AND MATERIAL PLACEMENT SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF "AMERICAN STANDARD FOR NURSERY STOCK," AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., THE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS," AS PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION, THE "HOWARD COUNTY LANDSCAPE MANUAL," AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS" OF THE MARYLAND STATE DEPARTMENT OF TRANSPORTATION.
- ALL TREES SHALL BE DELIVERED TO THE SITE BALLED AND BURLAPPED. ALL SHRUBS SHALL BE BALLED AND BURLAPPED OR IN CONTAINERS. ALL GRASSES & PERENNIALS

B. MAINTENANCE:

- AFTER THE PLANTING HAS BEEN APPROVED BY THE LANDSCAPE ARCHITECT AND THE OWNER, THE MAINTENANCE OF WATERING AND WEEDING OF SUCH PLANTS AND PLANTED AREAS SHALL BE PROVIDED BY THE OWNER. SINCE THE PLANTS ARE TO BE GUARANTEED BY THE CONTRACTOR, THE CONTRACTOR SHALL PERIODICALLY CHECK THE MAINTENANCE CONDUCTED BY THE OWNER. IF THE CONTRACTOR IS NOT SATISFIED WITH THE MAINTENANCE OF THE PLANTS, A WRITTEN REPORT, IN TRIPPLICATE, STATING APPROPRIATE CHANGES SHALL BE GIVEN IMMEDIATELY TO THE LANDSCAPE ARCHITECT; TWO COPIES WILL BE FORWARDED TO THE OWNER. BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.

- MAINTAIN TREES UNTIL FINAL ACCEPTANCE, BUT IN NO CASE, LESS THAN 60 DAYS AFTER FINAL ACCEPTANCE OF PLANTING. MAINTAIN ALL PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS, TIGHTEN AND REPAIR STAKE, AND GUY SUPPORTS AND RESET TREES TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY AS REQUIRED TO KEEP ALL PLANTS FREE OF INSECTS AND DISEASE.

C. WATERING

- IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATERING SHALL NOT BE DONE DURING THE HEAT OF THE DAY. CONTRACTOR SHALL PROVIDE A SEPARATE LUMP SUM PRICE IN THE OVERALL LANDSCAPE BID FOR WATERING TO ALL NEW PLANTINGS DURING ONE GROWING SEASON.

D. EXCAVATION:

- DEPTH AND WIDTH OF EXCAVATION FOR PLANTING OF ALL PLANTS SHALL BE TO TWICE THE DEPTH AND WIDTH OF ROOT BALL OR CONTAINER OF PLANT TO BE INSTALLED, EXCEPT AS NOTED ON DETAILS.

E. TOPSOIL, PLANTING MIX, FERTILIZER, MULCH AND SOIL AMENDMENTS:

- ALL TOPSOIL SHALL BE WELL GRADED LOAM OF GOOD UNIFORM QUALITY AND SHALL BE A NATURAL FRIABLE SOIL FREE OF OBJECTS LARGER THAN ONE INCH IN ANY DIMENSION, AND FREE OF TOXIC SUBSTANCES, WEEDS AND ANY MATERIAL OF SUBSTANCES THAT MAY BE HARMFUL TO PLANT GROWTH. TOPSOIL SHALL CONTAIN AT LEAST ORGANIC MATTER. IF SUFFICIENT TOPSOIL IS NOT AVAILABLE ON THE SITE TO MEET THE DEPTH AS SPECIFIED HEREIN, THE CONTRACTOR SHALL FURNISH ADDITIONAL TOPSOIL PRIOR TO TOPSOIL DELIVERY. THE CONTRACTOR SHALL OBTAIN THE LANDSCAPE ARCHITECT'S APPROVAL OF THE SOURCE FROM WHICH TOPSOIL IS TO BE

- FOR PLANTING MIX, MIX THOROUGHLY 2/3 APPROVED TOPSOIL (SEE "TOPSOIL") AND 1/3 APPROVED ORGANIC MATTER.

- FERTILIZER TABLETS OR SPIKES TO BE PLACED AT EACH TREE AND SHRUB AT A RATE OF 1 PER 2" OF TRUNK CALIPER OR GALLON OF ROOTBALL. TABLETS OR SPIKES SHALL NOT BE IN CONTACT WITH THE ROOTBALL.

- MULCH MATERIAL SHALL BE OF UNIFORM SIZE, FINE SHREPPED TANBARK HARDWOOD MULCH OR APPROVED EQUAL. MULCH SHALL BE A REDDISH DARK BROWN COLOR AND SHALL BE LAID TO A UNIFORM MINIMUM DEPTH OF 2 INCHES. MULCH AREAS AROUND TREES AT THE RATE OF 1 OF DIAMETER PER OF TRUNK CALIPER.

- HYDROGEL ABSORBENT MATERIAL SHALL BE ADDED TO THE PLANTING HOLE FOR EACH TREE AND SHRUB AT THE RATE OF 4 OUNCES PER 2-1/2" CALIPER OR GALLON OF ROOTBALL. HYDROGEL MATERIAL SHALL BE VITERRA "GELSCAPE," "TERRASORB," OR APPROVED EQUAL.

F. SUBSTITUTIONS:

- IF A PLANT IS FOUND NOT TO BE SUITABLE OR AVAILABLE, THE LANDSCAPE CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT BEFORE BIDDING. THE OWNER OR LANDSCAPE ARCHITECT WILL THEN SELECT A REASONABLE ALTERNATE OR INFORM ALL LANDSCAPE CONTRACTORS OF THE AVAILABILITY OF THE ORIGINAL PLANT.

G. PRUNING, CLEANUP, PROTECTION OF EXISTING MATERIALS AND RESTORATION

- THE CONTRACTOR SHALL PRUNE PLANT MATERIAL WITHIN TWO (2) DAYS OF INSTALLATION IN ACCORDANCE WITH THE DETAILS AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

- DURING COURSE OF PLANTING, EXCESS AND WASTE MATERIALS SHALL BE CONTINUOUSLY AND PROMPTLY REMOVED. LAWN AREAS KEPT CLEAR, AND ALL REASONABLE PRECAUTIONS TAKEN TO AVOID DAMAGE TO ANY EXISTING LAWNS, PAVING, ETC. NOT SCHEDULED FOR REMOVAL. WHEN PLANTING IN AN AREA HAS BEEN COMPLETED, THE AREA SHALL BE CLEANED UP THOROUGHLY. DEBRIS, RUBBISH, SUBSOIL AND WASTE MATERIALS SHALL BE CLEANED UP AND REMOVED FROM THE PROPERTY. EXISTING GRASS AREAS WHICH HAVE BEEN INJURED BY THE WORK SHALL BE REGRADED AND SODDED TO MATCH THE EXISTING LAWN; THE ENTIRE AREA SHALL BE NEAT AND CLEAN TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT.

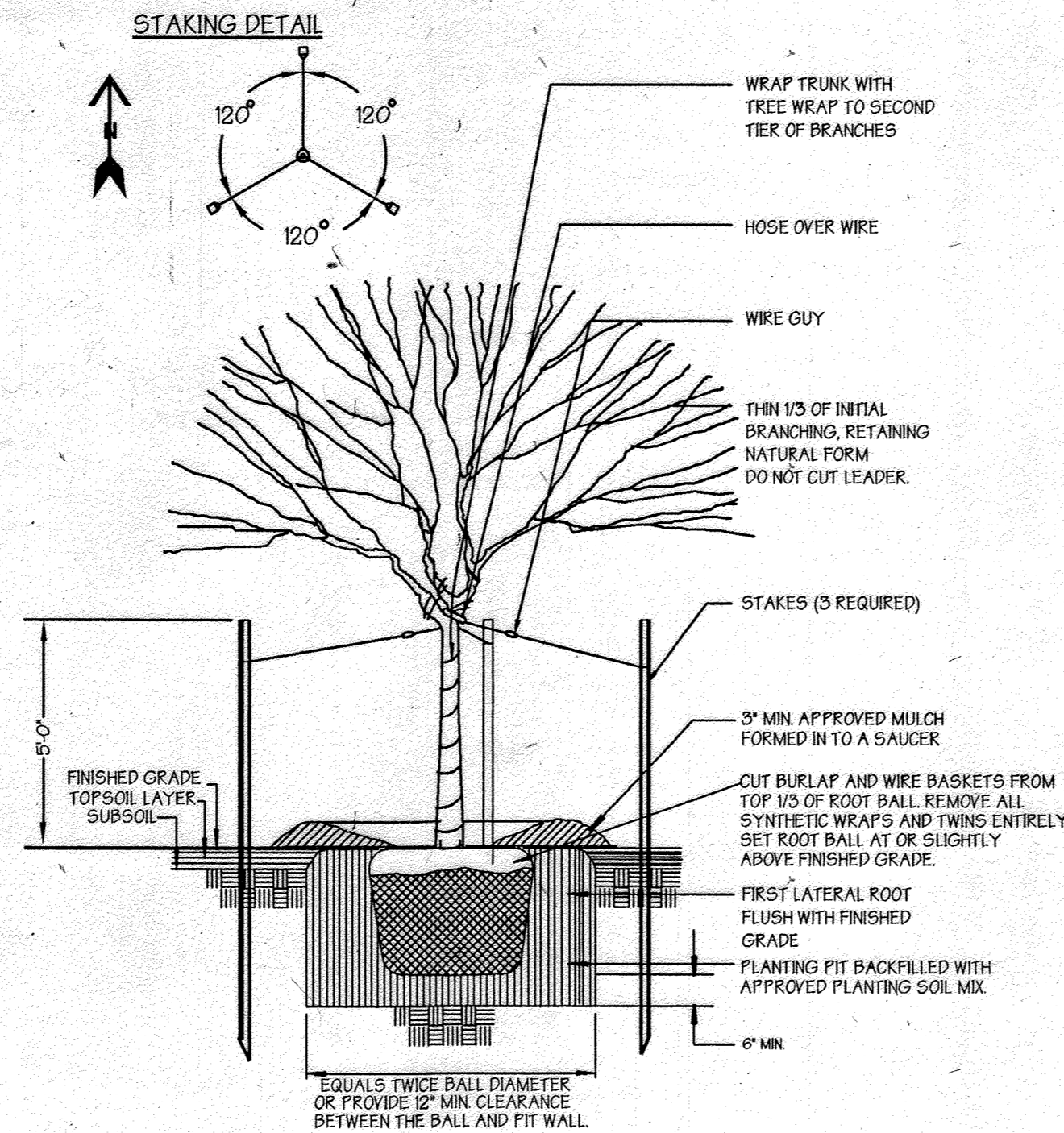
- CONTRACTOR SHALL, AT ALL TIMES, PROTECT ALL PLANTS AND LAWNS FROM DAMAGE. THE MOVING OF HEAVY EQUIPMENT OR MATERIAL OVER THE LAWN AREAS SHALL BE DONE ON PLANKS OR PONTOONS.

- THE CONTRACTOR SHALL RESTORE TO THEIR ORIGINAL CONDITION ALL PAVEMENTS, SODDED OR PLANTED AREAS, STRUCTURES OR SUBSTRUCTURES, NOT SCHEDULED FOR REMOVAL, WHICH ARE DISTURBED BY THE CONTRACTOR DURING PLANTING OPERATIONS. SUCH RESTORATION SHALL BE IN A MANNER SATISFACTORY TO THE LANDSCAPE ARCHITECT AND AT NO ADDITIONAL COST TO THE OWNER.

H. FINAL INSPECTION AND GUARANTEE:

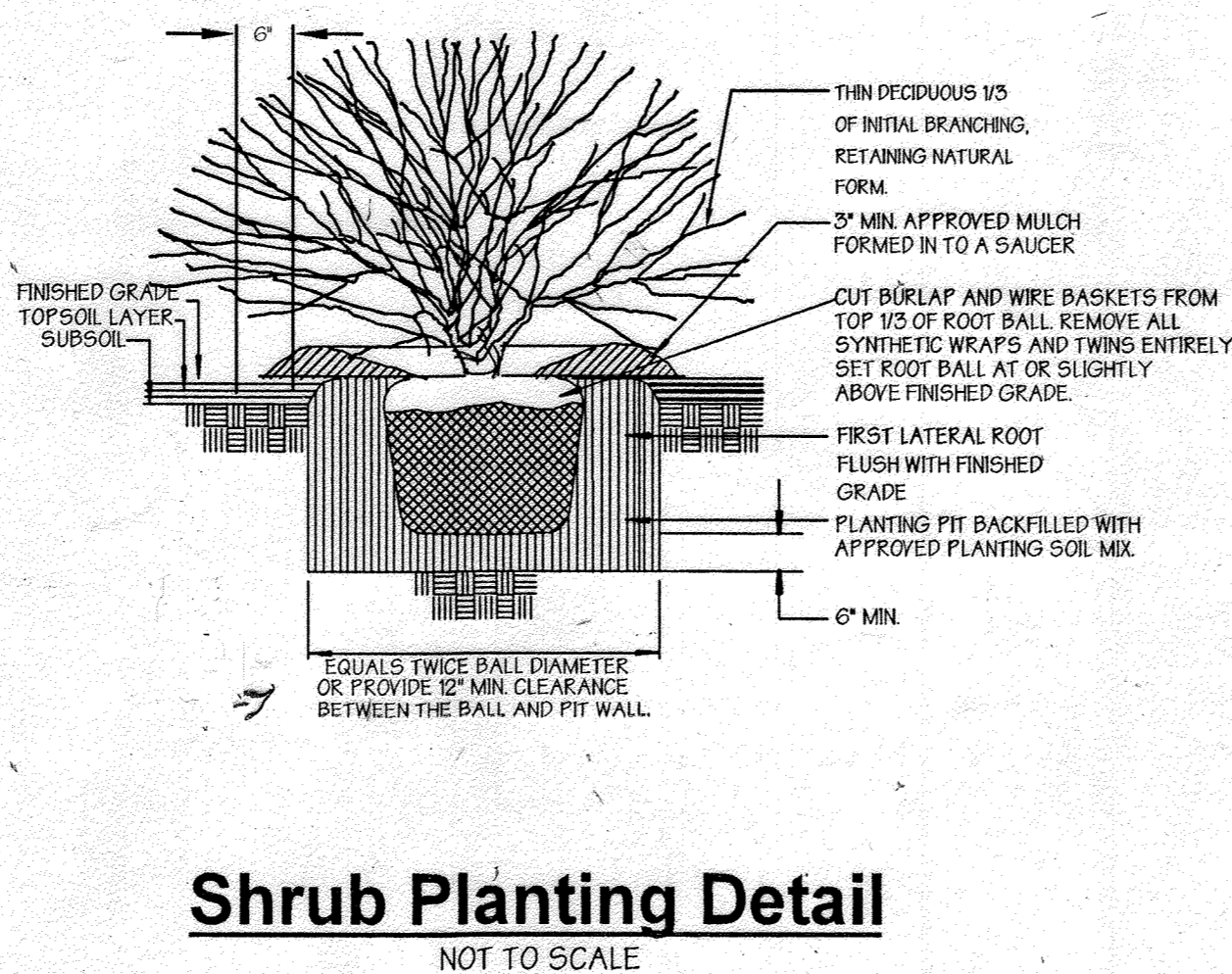
- AFTER PLANTING IS COMPLETED (INCLUDING MULCHING AND CLEANUP) THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING TO REQUEST FINAL INSPECTION OF THE TOTAL PLANTING. THE LANDSCAPE ARCHITECT SHALL MAKE A FINAL INSPECTION VISIT AS SOON AS POSSIBLE. LANDSCAPE ARCHITECT SHALL NOTIFY THE LANDSCAPE CONTRACTOR, IN WRITING, WHEN ALL WORK IS SATISFACTORILY COMPLETE. IF WORK IS NOT SATISFACTORILY COMPLETE, THE LANDSCAPE ARCHITECT WILL NOTIFY THE LANDSCAPE CONTRACTOR, IN WRITING, AS TO THE DEFICIENCIES IN THE WORK AND THE NECESSARY CORRECTIVE MEASURES. THE LANDSCAPE CONTRACTOR WILL BE GIVEN A REASONABLE AMOUNT OF TIME TO CORRECT THE DEFICIENCIES, AND ANOTHER FINAL INSPECTION WILL BE SCHEDULED BY THE LANDSCAPE ARCHITECT.

- ALL PLANT MATERIAL AND LAWN AREAS SHALL BE GUARANTEED TO BE IN A VIGOROUS GROWING CONDITION ONE YEAR FROM THE DATE OF FINAL INSPECTION AND ACCEPTANCE. AT THE TERMINATION OF THIS PERIOD, THE CONTRACTOR SHALL HAVE COMPLETED THE PRECEDING MAINTENANCE SCHEDULE. ANY PLANTS INFECTED WITH DISEASE OR INSECTS WILL BE REMOVED OR TREATED. ALL DEAD OR UNACCEPTABLE PLANTS WILL BE REPLANTED IN THE SAME PLANTS AND SIZES DESIGNATED ON THE PLANT LIST. THESE PLANTS SHALL BE PLANTED, MULCHED AND GUYED AS SPECIFIED HEREIN AND WITHOUT EXTRA COMPENSATION TO THE CONTRACTOR. AT THE COMPLETION OF ALL SUCH WORK AND WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT, THE CONTRACT WILL BE CONSIDERED COMPLETE.



Deciduous Tree Planting Detail

NOT TO SCALE



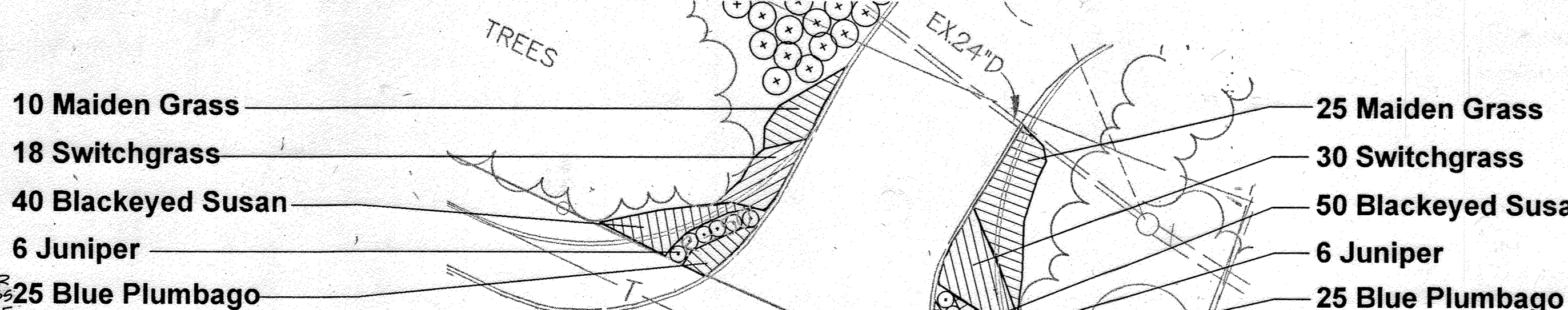
Shrub Planting Detail

NOT TO SCALE

Entrance Planting Detail

SCALE: 1" = 20'

SEE SHEET 27



Evergreen Tree Planting Detail

NOT TO SCALE

Plant List

COMMON NAME	BOTANICAL NAME	SIZE	NOTES	QTY
PINOAK	Quercus palustris	2-1/2" - 3" CAL		58
SUGAR MAPLE	Acer Saccharum 'GREEN MOUNTAIN'	2-1/2" - 3" CAL		26
LITTLELEAF LINDEN	Tilia cordata 'GREENSPICE'	2-1/2" - 3" CAL		26
OCT. GLORY MAPLE	Acer rubrum 'OCTOBER GLORY'	2-1/2" - 3" CAL		36
RED SUNSET MAPLE	Acer rubrum 'RED SUNSET'	2-1/2" - 3" CAL		64
SYCAMORE BLOODGOOD	Platanus occidentalis 'BLOODGOOD'	2-1/2" - 3" CAL		5
GREEN ASH	Fraxinus pennsylvanica 'PATMORE'	2-1/2" - 3" CAL		11
ZELKOVA	Zelkova serrata 'VILLAGE GREEN'	2-1/2" - 3" CAL		156
SAWTOOTH OAK	Quercus acutissima	2-1/2" - 3" CAL		16
WINTER KING HAWTHORN	Crataegus viridis 'WINTER KING'	2" - 2-1/2" CAL.	15' O/C	17
GOLDEN RAIN TREE	Koeleruteria paniculata	2" - 2-1/2" CAL.		11
REDBUD	Cercis canadensis 'FOREST PANSY'	2" - 2-1/2" CAL.	15' O/C	30
KOUSA DOGWOOD	Cornus kousa 'MILKY WAY'	2" - 2-1/2" CAL.	15' O/C	32
TWO-WINGED SILVERBELL	Halesia diptera 'MAGNIFLORA'	2" - 2-1/2" CAL.	15' O/C	8
CRABAPPLE	Malus huphensis 'INDIAN MAGIC'	2" - 2-1/2" CAL.	15' O/C	15
ITEA	Itea japonica 'LITTLE HENRY'	18" - 24" HGT.	3' O/C	85
SAN JOSE JUNIPER	Juniperus chinensis 'SAN JOSE'	18" - 24" HGT.	3' O/C	56
GOSSY ABELIA	Abelia grandiflora	24" - 30" HGT.	5' O/C	384
FORSYTHIA	Forsythia 'GOLD TIDE'	24" - 30" HGT.	5' O/C	107
CRIMSON PYGMY BARBERRY	Berberis thunbergii 'CRIMSON PYGMY'	18" - 24" HGT.	3' O/C	129
MAHONIA (Oregon Grape Holly)	Mahonia aquifolium	18" - 24" HGT.	3' O/C	170
WHITE PINE	Pinus strobus	6'-8" HGT		32
SERBIAN SPRUCE	Picea omorika	6'-8" HGT		25
ENGLISH HOLLY	Ilex x 'NELLIE STEVENS'	6'-8" HGT		5
AMERICAN HOLLY	Ilex opaca	6'-8" HGT		11
MAGNOLIA	Magnolia virginiana	6'-8" HGT		1
FOUNTAIN GRASS	Pennisetum alopecuroides	1 Gallon	24" O/C	290
SWITCHGRASS	Panicum virgatum 'HAENSE HERMS'	1 Gallon	30" O/C	173
MAIDEN GRASS	Miscanthus gracillimus	1 Gallon	36" O/C	35
BLACKEYED SUSAN	Rudbeckia fulgida 'GOLDSTURM'	1 Gallon	24" O/C	425
RUSSIAN SAGE 'BLUE SPIRE'	Perovskia atriplicifolia 'BLUE SPIRE'	1 Gallon	18" O/C	265
BLUE PLUMBAGO	Ceratostigma plumbagoides	1 Gallon	18" O/C	100

SCHEDULE A PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	I/E	2/A
Linear Feet of Roadway Frontage/Perimeter	2050 LF	3180 LF
Credits for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	YES 2050 LF	YES 530 LF
Credits for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	YES 2050 LF	NO
Number of Plants Required		
Shade Trees	0	28
Evergreen Trees	0	-
Shrubs	0	-
Number of Plants Provided		
Shade Trees	0	52
Evergreen Trees (2 substitution)	0	18 = 9
Other Trees (21 substitution)	0	10 = 5
Shrubs (121 substitution)	0	311 = 31

(Describe plant substitution credits below if needed)

Comments: Existing Trees and Berm to remain as shown on Plan.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces	2009
Number of Trees Required	101
Number of Trees Provided	447
Shade Trees	367
Other Trees (21 substitution)	60 = 79

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

Linear Feet of Perimeter	1710 LF
Credits for Existing Vegetation (No, Yes and %)	YES, 665 LF., 39%
Credits for Other Landscaping (No, Yes and %)	YES, 8 EXIST FINES TO REMAIN AT POND'S
Number of Trees Required	21
Shade Trees @ 1 per 50 LF	20
Evergreen Trees @ 1 per 40 LF	2
Number of Trees Provided	22
Shade Trees	22
Evergreen Trees	0
Other Trees (21 substitution)	0

LANDSCAPE CALCULATIONS:

REQUIRED TREES PER DEED RESTRICTIONS APPLYING HRD COMMERCIAL AND INDUSTRIAL GUIDELINES

26 SHADE TREES PER GROSS ACRE OF OFFICE SITE AREA
37,081 AC. x .12 = 445 SHADE TREES

TREES PROVIDED	EXISTING	NEW	TOTAL
SHADE TREES @ 11	0	435	435
FLOWERING TREES @ 21	121	605	726
EVERGREEN TREES @ 21	74	37	111
SHRUBS @ 101	937	937	1874
TOTAL SHADE TREES PROVIDED		626	626

15 REVISIONS
THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

Professional certification. 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: 57816 Expiration Date: 8/23/2024

APPROVED: Howard County Department of Planning and Zoning

Chief, Development Engineering Division MKK
Chief, Division of Land Development
Director

DATE: 6/1/99
DATE: 6/1/99
DATE: 6/1/99

ADDRESS CHART		SECTION NAME	PARCEL #
PARCEL NO.	STREET ADDRESS		
L	7125 COLUMBIA GATEWAY DRIVE		
SUBDIVISION NAME	COLUMBIA GATEWAY	SECTION NAME	N/A
PLAT #	8803	BLOCK #	1
WATER CODE	-E06	SEWER CODE	5333000
		ELECT. DIST.	6
		CENSUS TRACT	6067.03

LANDSCAPE DETAILS & SPECIFICATIONS

The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
HOWARD CO., MARYLAND SHT. 29 OF 38 DATE: DECEMBER 4, 1998

SDP 99-59

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120



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

NAME: Michael G. O'Neill
DATE: 4/19/99

OWNER: COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.

DEVELOPER: PREFERRED REAL ESTATE INVESTMENTS, INC.
555 NORTH LANE, SUITE 601
CONSHOHOCKEN, PA 19382
(610) 254-1869

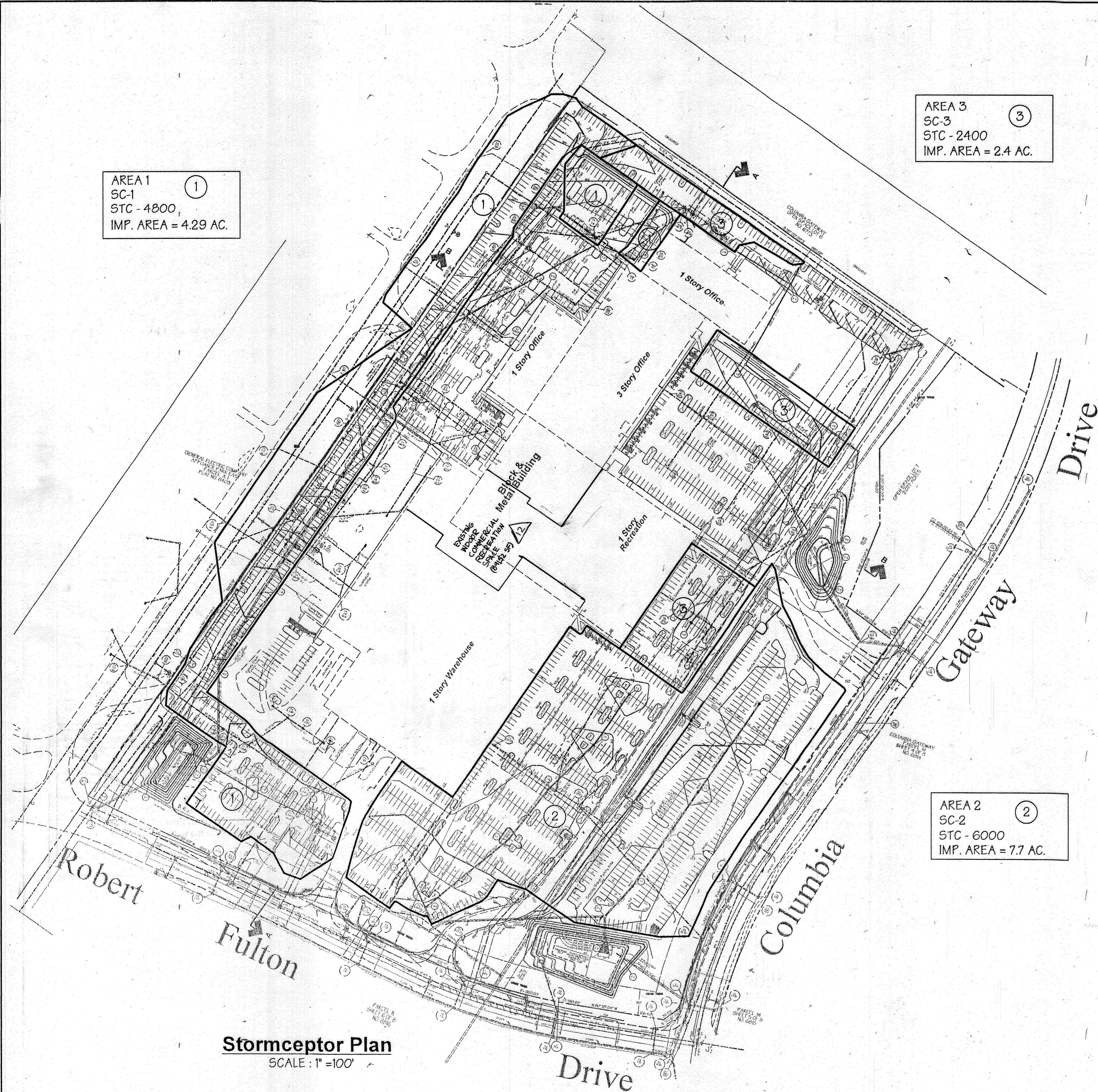
REVISIONS
1/1/29/99
2/1/29/99
GWS
ADDITIONAL LANDSCAPING @ MAIN ENTRANCE

37/38

SCALE: As Shown

DATE: DECEMBER 4, 1998

SDP 99-59



AREA 1
SC-1
STC - 4800
IMP. AREA = 4.29 AC.

AREA 3
SC-3
STC - 2400
IMP. AREA = 2.4 AC.

AREA 2
SC-2
STC - 6000
IMP. AREA = 7.7 AC.

Stormceptor Plan
SCALE: 1" = 100'

10 Installation Procedures

11 Concrete Stormceptor® Installation

The installation of the concrete Stormceptor® should conform in general to state highway or local specifications for the construction of manholes. Selected sections of a general specification that are applicable are summarized in the following sections.

Excavation

Excavation for the installation of the Stormceptor® should conform to state highway or local specifications. Topsoil that is removed during the excavation for the Stormceptor® should be stockpiled in designated areas and should not be mixed with subsoil or other materials. Topsoil stockpiles, and the general site preparation for the installation of the Stormceptor® should conform to state highway or local specifications.

The Stormceptor® should not be installed on frozen ground. Excavation should extend a minimum of 12 inches from the precast concrete surfaces plus an allowance for shoring and bracing where required. If the bottom of the excavation provides an unsuitable foundation additional excavation may be required. In areas with a high water table, continuous dewatering should be provided to ensure that the excavation is stable and free of water.

Leveling

A 6 to 12 inch layer of granular material (conforming to local or state highway backfill specifications) should be installed, compacted, and leveled at the bottom of the excavation to the proper elevation for the installation of the interceptor base.

Backfilling

Backfill material should conform to state highway or local specifications. Generally, backfill material should be placed in uniform layers not exceeding 12 inches in depth. Each layer should be compacted to 95% of the maximum dry density. Backfill is not to contain topsoil.

Stormceptor® Construction Sequence

The concrete Stormceptor® is installed in sections in the following sequence:

1. aggregate base
2. base slab
3. treatment chamber section(s)
4. transition slab (if required)
5. by-pass section
6. connect inlet and outlet pipes
7. transition slab
8. maintenance access way
9. frame and access cover

The precast base should be placed level at the specified grade. The entire base should be in contact with the underlying compacted granular material. Subsequent sections, complete with joint seals, should be installed in accordance with the precast concrete manufacturer's recommendations.

Adjustment of the Stormceptor® can be performed by lifting the upper sections free of the excavated area, re-leveling the base, and re-installing the sections. Damaged sections and gaskets should be replaced. Once the Stormceptor® has been constructed, the lift-holes should be plugged with mortar.

Down Pipe and Riser Pipe

Once the by-pass section has been attached to the treatment chamber the down pipe and riser pipe can be attached. To install these pipes a worker enters the treatment chamber through the central access way in the by-pass section.

STC 2400, STC 4800, STC 6000

The inlet pipe (pipe with the tee at the end) is installed by coating the outside of the end of the pipe with lubricant and pushing the pipe into the pressure coupling provided on the underside of the by-pass section. The tee must be oriented such that water which enters the treatment chamber is directed tangentially around the inside walls of the chamber.

The outlet riser pipe (straight pipe without the tee) is installed in a similar fashion using pipe lubricant and a pressure coupling provided underneath the by-pass section near the downstream pipe.

Inlet and Outlet Pipes

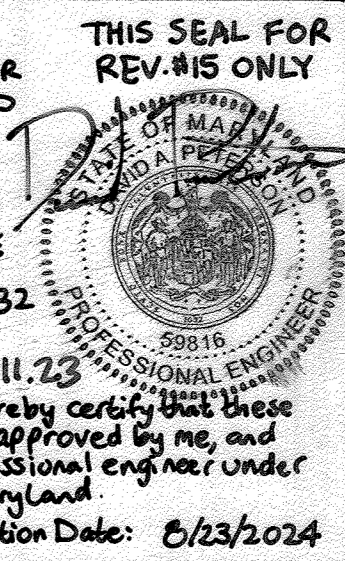
Inlet and outlet pipes should be securely set into the by-pass chamber using grout or approved pipe seals so that the structure is watertight. Kor-N-Seal® boots are normally used and installed at the precast concrete plant prior to shipping. The Kor-N-Seal® boots are applicable for pipes with an outside diameter up to 48 inches. Stormceptor Corporation should be notified if the pipe is to be grouted in the field at the time of ordering (i.e. Kor-N-Seal® boots will not be used) since the boots are generally included in the price quotations.

Installation of the Kor-N-Seal® boots should follow the manufacturer's recommendations. As previously mentioned, the boots will already be attached to the Stormceptor® at the concrete plant. Accordingly, the following procedure should be followed to attach the inlet and outlet pipes to the Stormceptor® in the field:

1. Center the pipe in the boot opening
2. Lubricate the outside of the pipe and/or inside of the boot if the pipe outside diameter is the same as the inside diameter of the boot
3. Position the pipe clamp in the groove of the boot with the screw at the top
4. Tighten the pipe clamp screw to 60 inch pounds
5. On minimum outside diameter installations lift the boot such that it contacts the bottom of the pipe while tightening the pipe clamp to ensure even contraction of the rubber.
6. Move the pipe horizontally and/or vertically to bring it to grade

Precast concrete adjustment units should be installed to set the frame and cover at the required elevation. The adjustment units should be laid in a full bed of mortar with successive units being joined using sealant recommended by the manufacturer. Frames for the cover should be set in a full bed of mortar at the elevation specified.

15 REVISIONS IS THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS. 10.11.23 Professional Certification: 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.: 59816 Expiration Date: 6/23/2024



OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE

1. The Stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor unit yearly at a minimum, utilizing the Stormceptor Inspection Monitoring Form. Inspections shall be done by using a clear Plexiglas tube ("sludge judge") to extract a water column sample. When the sediment depths exceed the level specified in Table G of the Stormceptor Technical Manual, the unit must be cleaned.
2. The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contract the appropriate regulatory agencies.
3. The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
4. The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.
5. The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to the Howard County Officials upon their request.

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
6/18/99 DATE

PLAN NUMBER
6/18/99 DATE

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
6/18/99 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK
6/11/99 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT
6/1/99 DATE

DIRECTOR
6/14/99 DATE

ADDRESS CHART
PARCEL NO. L
STREET ADDRESS
7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME
COLUMBIA GATEWAY
SECTION NAME
N/A
PARCEL #
671

PLAT #	BLOCK #	ZONE	TAX ZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.03
WATER CODE		SEWER CODE		5333000	
-E06					

PREPARED BY:
GWS
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

OWNER
COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.
REVISIONS

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
655 NORTH LANE, SUITE 601
CONSHOHOCKEN, PA 19428
(610) 834-1589

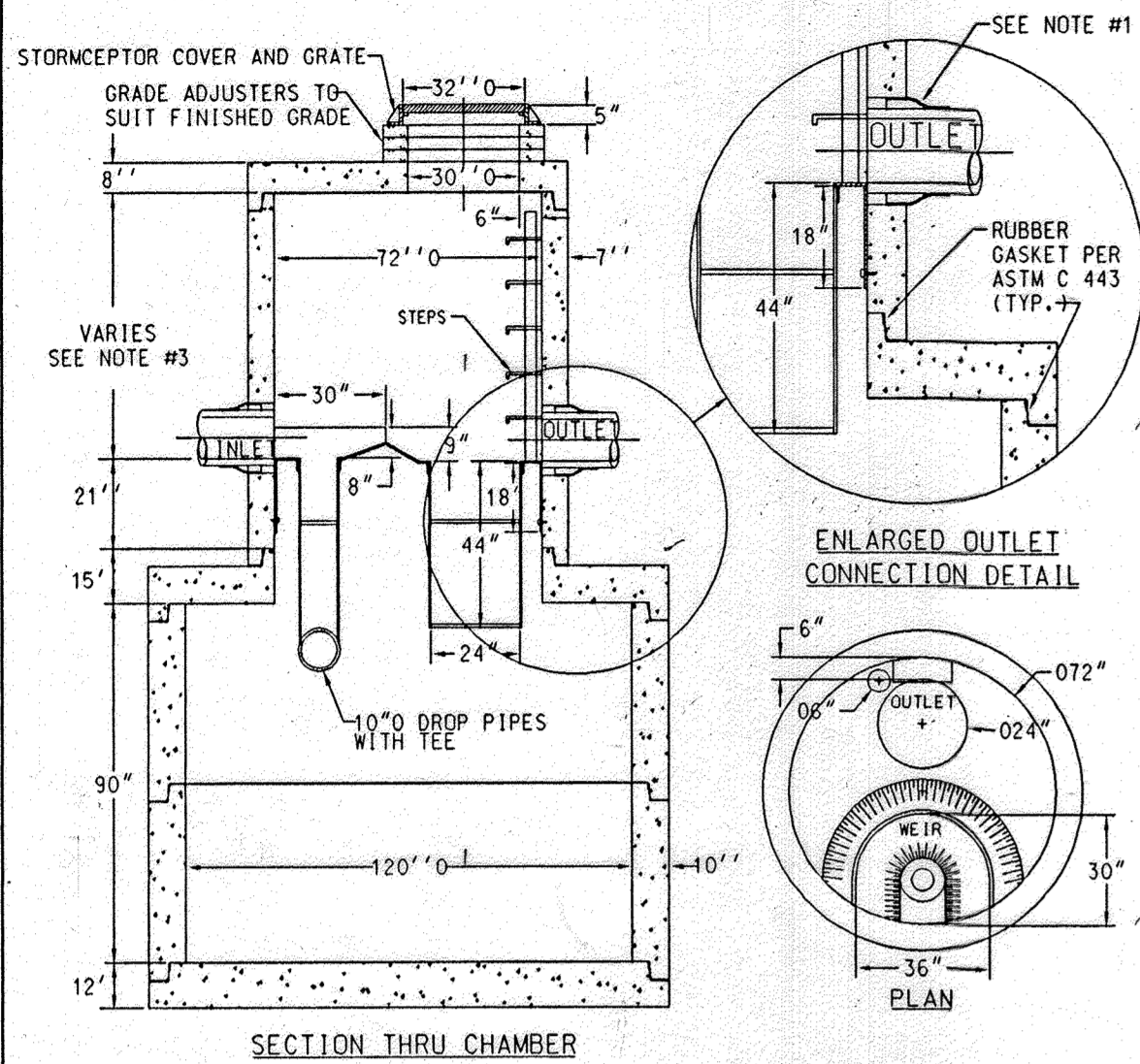
Stormceptor Drainage Area Map
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
HOWARD CO., MARYLAND SHT. 300633 DATE: DECEMBER 4, 1998

SCALE: As Shown

SDP 99-59

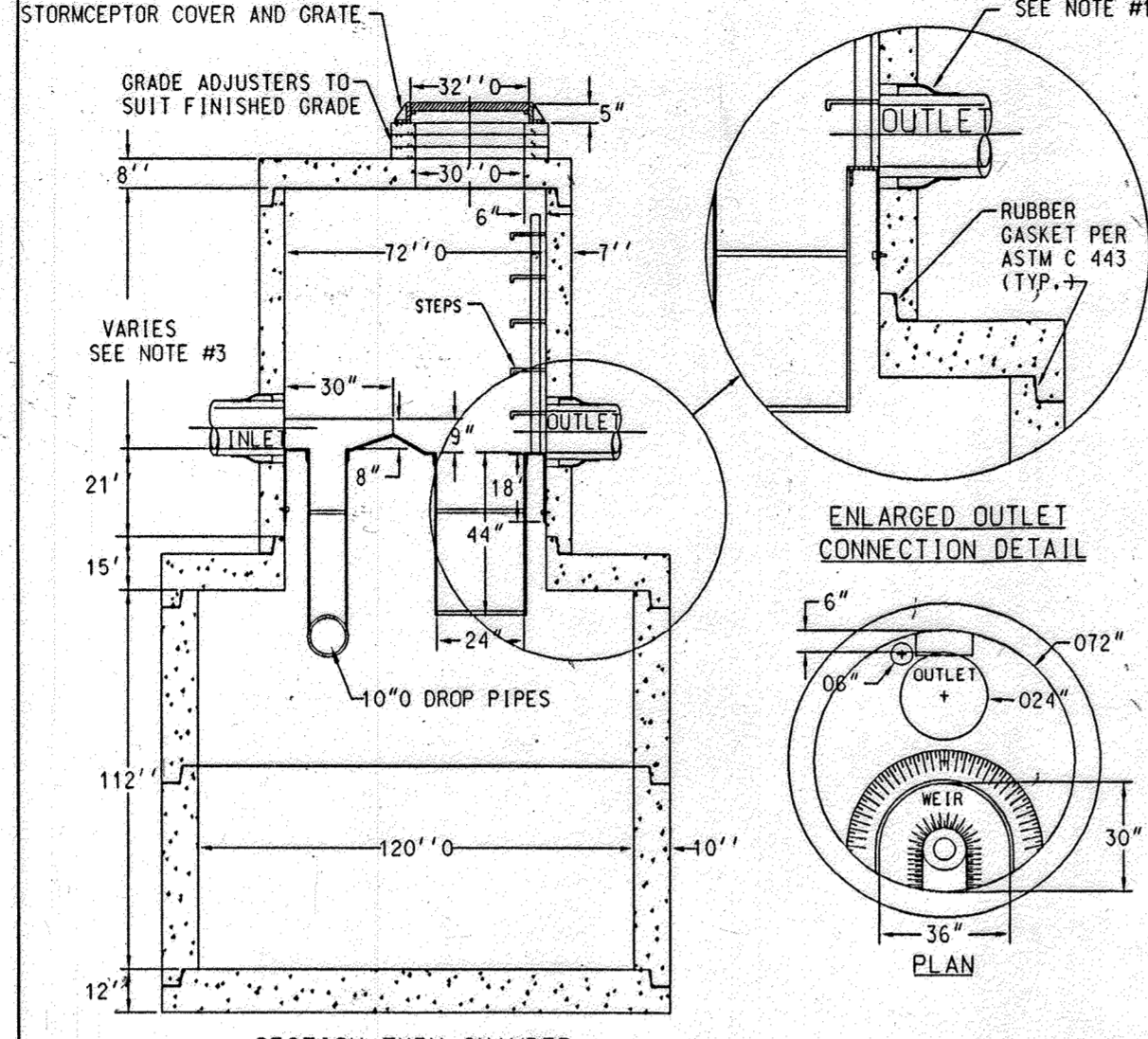
SC-1
STC 4800 Precast Concrete Stormceptor[®]
(4800 US Gallon Capacity)
(Disc Design)



NOTE 1:
1. FLEXIBLE CONNECTIONS ARE RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
2. COVER TO BE POSITIONED OVER OUTLET AND VENT PIPE.
3. THIS IS A GENERAL ARRANGEMENT DRAWING. CONSULT LOCAL REPRESENTATIVE FOR SPECIAL CONDITIONS.
4. INLET DROP PIPE WILL BE EITHER 10" OR 12" WITH A 10" DRIFTEE PLATE.
5. ALL CONCRETE JOINTS HAVE RUBBER GASKETS THAT CONFORM TO ASTM C 443.
6. U.S. PATENT NO. 4,385,148

DESIGN SPECIFICATIONS:
1. ASTM C 478
2. BASE WEIGHT = 16.53 TONS
3. STC-4800
REVISED 10/98

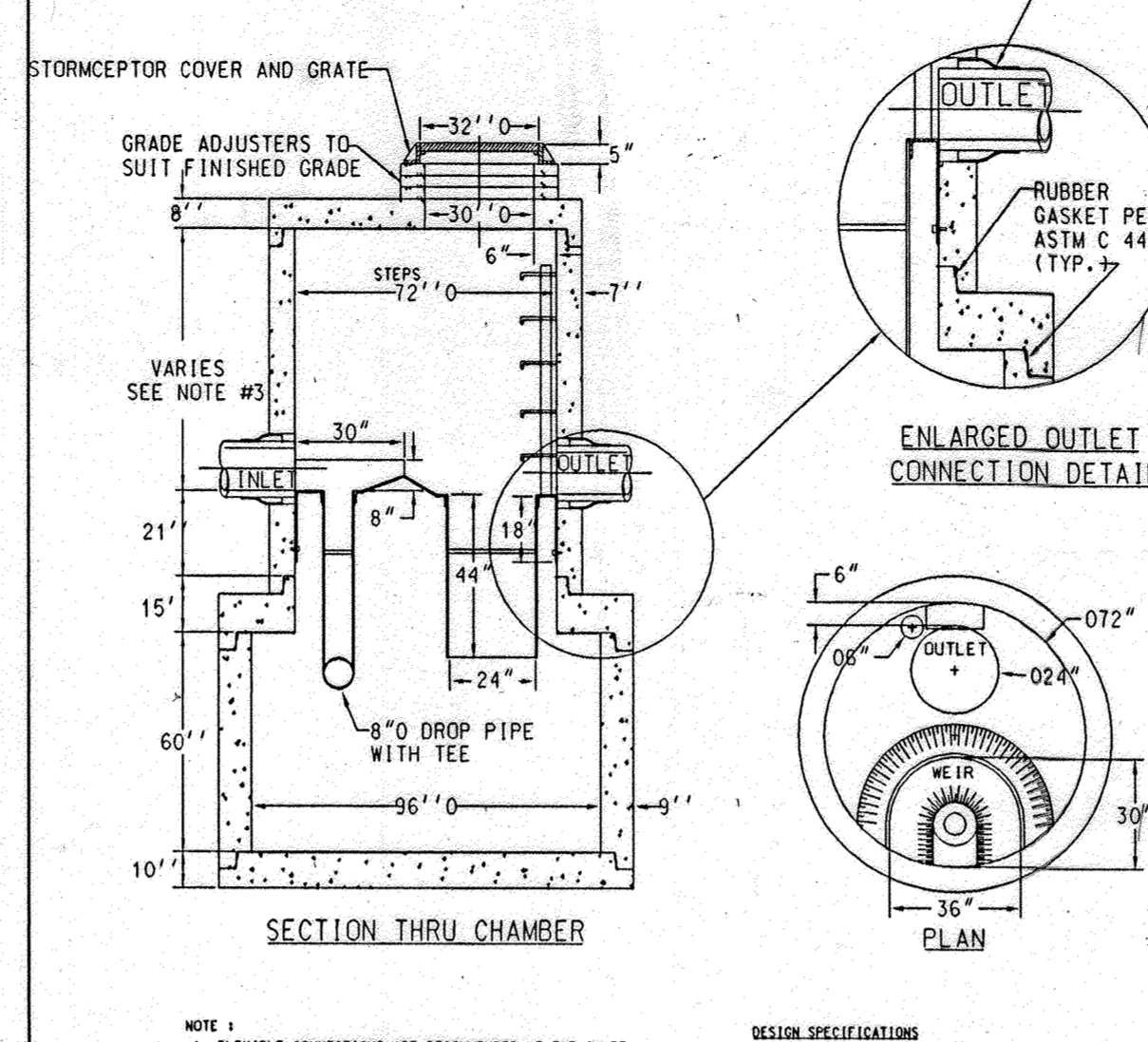
SC-2
STC 6000 Precast Concrete Stormceptor[®]
(6000 US Gallon Capacity)
(Disc Design)



NOTE 1:
1. FLEXIBLE CONNECTIONS ARE RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
2. COVER TO BE POSITIONED OVER OUTLET AND VENT PIPE.
3. THIS IS A GENERAL ARRANGEMENT DRAWING. CONSULT LOCAL REPRESENTATIVE FOR SPECIAL CONDITIONS.
4. INLET DROP PIPE WILL BE EITHER 10" OR 12" WITH A 10" DRIFTEE PLATE.
5. ALL CONCRETE JOINTS HAVE RUBBER GASKETS THAT CONFORM TO ASTM C 443.
6. U.S. PATENT NO. 4,385,148

DESIGN SPECIFICATIONS:
1. ASTM C 478
2. BASE WEIGHT = 19.72 TONS
3. STC-6000
REVISED 10/98

SC-3
STC 2400 Precast Concrete Stormceptor[®]
(2400 US Gallon Capacity)
(Disc Design)



NOTE 1:
1. FLEXIBLE CONNECTIONS ARE RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
2. COVER TO BE POSITIONED OVER OUTLET AND VENT PIPE.
3. THIS IS A GENERAL ARRANGEMENT DRAWING. CONSULT LOCAL REPRESENTATIVE FOR SPECIAL CONDITIONS.
4. INLET DROP PIPE WILL BE EITHER 8" OR 12" WITH A 8" DRIFTEE PLATE.
5. ALL CONCRETE JOINTS HAVE RUBBER GASKETS THAT CONFORM TO ASTM C 443.
6. U.S. PATENT NO. 4,385,148

DESIGN SPECIFICATIONS:
1. ASTM C 478
2. BASE WEIGHT = 12.82 TONS
3. STC-2400
REVISED 10/98

Concrete Stormceptor[®] Order Request Form **SC-1**

Contractor Information
Name _____
Address _____
City _____
State _____
Zip Code _____
Contract _____
Phone _____
Fax _____

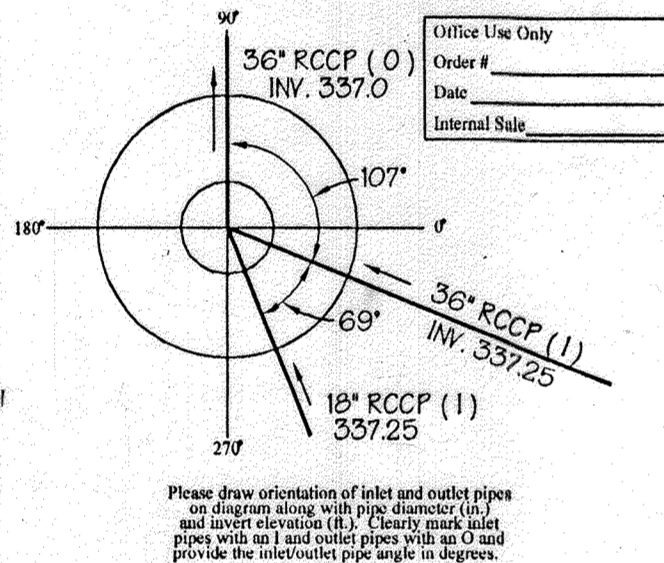
Owner Information
Name _____
Phone _____
Fax _____

Stormceptor Model
900 3600
1200 4800
1800 6000
2400 7200

Insert Size
22"
32"
44"
Custom

Machale Number
Top Elevation (ft) **360.3**
Inlet Pipe Invert (ft) **337.25**
Outlet Pipe Invert (ft) **337.0**
Pipe Type: **RCCP**
Pipe Inside Diameter (in) (ID) _____
Pipe Outside Diameter (in) (OD) _____

Project Name: Renaissance @ Columbia Gateway
Approximate time these units required delivery (weeks): _____
Delivery Address: Street _____
City _____ State _____ Zip Code _____
Designer Company: George W. Stephens Jr. and Associates, Inc.
Designer Contact: Karen Watsic Phone (410) 825-8120 Fax (410) 583-0288



Concrete Stormceptor[®] Order Request Form **SC-2**

Contractor Information
Name _____
Address _____
City _____
State _____
Zip Code _____
Contract _____
Phone _____
Fax _____

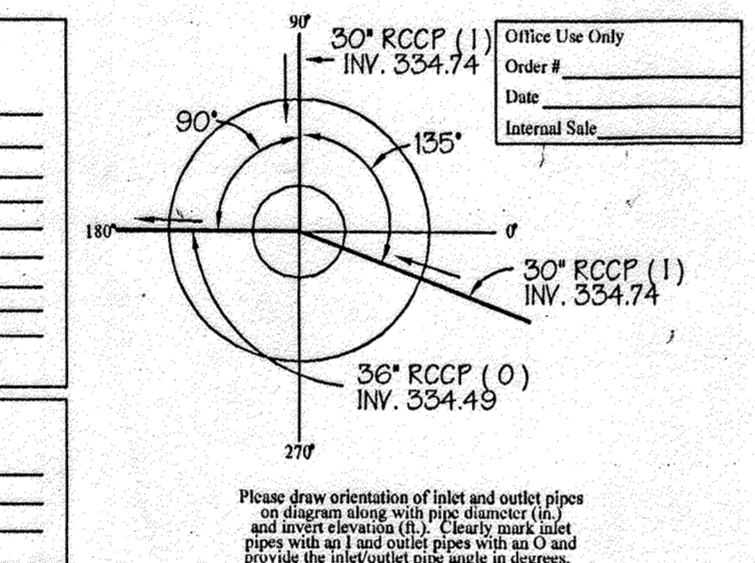
Owner Information
Name _____
Phone _____
Fax _____

Stormceptor Model
900 3600
1200 4800
1800 6000
2400 7200

Insert Size
22"
32"
44"
Custom

Machale Number
Top Elevation (ft) **345.6**
Inlet Pipe Invert (ft) **334.74**
Outlet Pipe Invert (ft) **334.49**
Pipe Type: **RCCP**
Pipe Inside Diameter (in) (ID) _____
Pipe Outside Diameter (in) (OD) _____

Project Name: Renaissance @ Columbia Gateway
Approximate time these units required delivery (weeks): _____
Delivery Address: Street _____
City _____ State _____ Zip Code _____
Designer Company: George W. Stephens Jr. and Associates, Inc.
Designer Contact: Karen Watsic Phone (410) 825-8120 Fax (410) 583-0288



Concrete Stormceptor[®] Order Request Form **SC-3**

Contractor Information
Name _____
Address _____
City _____
State _____
Zip Code _____
Contract _____
Phone _____
Fax _____

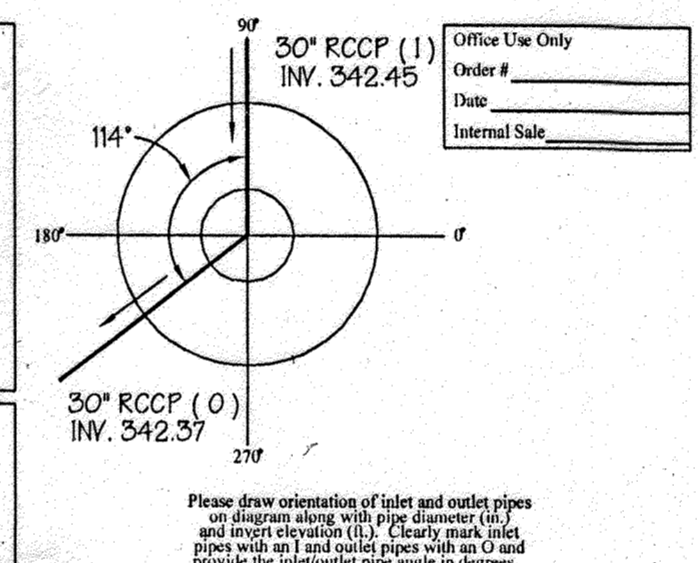
Owner Information
Name _____
Phone _____
Fax _____

Stormceptor Model
900 3600
1200 4800
1800 6000
2400 7200

Insert Size
22"
32"
44"
Custom

Machale Number
Top Elevation (ft) **348.0**
Inlet Pipe Invert (ft) **342.45**
Outlet Pipe Invert (ft) **342.37**
Pipe Type: **RCCP**
Pipe Inside Diameter (in) (ID) _____
Pipe Outside Diameter (in) (OD) _____

Project Name: Renaissance @ Columbia Gateway
Approximate time these units required delivery (weeks): _____
Delivery Address: Street _____
City _____ State _____ Zip Code _____
Designer Company: George W. Stephens Jr. and Associates, Inc.
Designer Contact: Karen Watsic Phone (410) 825-8120 Fax (410) 583-0288



REVISION 15
THIS SEAL FOR REV #15 ONLY

THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

Professional Certification: 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: 59816 Expiration Date: 8/23/2024

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
John R. Kharstrop DATE: 6/8/99

PLAN NUMBER _____ DATE _____

These plans have been reviewed for the Howard Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DeeJay Simmons DATE: 6/8/99
NATURAL RESOURCES CONSERVATION SERVICE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
William R. ... DATE: 6/11/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK

Cindy Hamilton DATE: 6/11/99
CHIEF, DIVISION OF LAND DEVELOPMENT

James A. ... DATE: 6/11/99
DIRECTOR

CONSULTANT'S HAZARD CLASS CERTIFICATION:
I certify that this pond meets all requirements for hazard class (A), (B) or (C). (requirements as stated in the Soil Conservation Service - Maryland Standards and Specifications for Pond, code 378, November, 1992). All necessary investigations and computations have been performed to verify this finding. A copy of said information has been supplied to Howard Soil Conservation District.

Engineer: *James A. ...* Date: 2/16/99
Name: *JAMES A. ...*

ADDRESS CHART
PARCEL NO. 1 STREET ADDRESS 7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME COLUMBIA GATEWAY SECTION NAME N/A PARCEL # 671

PLAT # 8803 BLOCK # 1 ZONE M-1 TAX/ZONE MAP 45 ELECT. DIST. 6 CENSUS TRACT 6067.03

WATER CODE -E06 SEWER CODE 6333000

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
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 as a Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a certificate of completion within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Developer: *Eric Kolan* Date: 2-16-99
Name: *ERIC KOLAN*

ENGINEER CERTIFICATION:
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 developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a certificate of completion within 30 days of completion.

Engineer: *James A. ...* P.E. # 1100.5
Name: *JAMES A. ...* Date: 2/16/99

OWNER: COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
DRAWN BY: E.M.T./E.A.S.
CHECKED BY: K.M.W.

DEVELOPER: PREFERRED REAL ESTATE INVESTMENTS, INC.
655 NORTH LANE, SUITE 6101
CONSHOHOCKEN, PA 19388
(610) 334-1829

Stormceptor Details
The Renaissance at Columbia Gateway

ELECTION DISTRICT: 6
HOWARD CO., MARYLAND SHT. 31 OF 32 DATE: DECEMBER 4, 1998

SCALE: As Shown
DATE: DECEMBER 4, 1998

Construction Notes

UTILITY NOTES

- UT1. CONTRACTOR TO VERIFY SIZE, LOCATION, AND ELEVATION OF ALL WATER, SEWER, GAS, STORM DRAIN, LIGHTING AND ELECTRICAL @ THE BUILDING WITH THE MECHANICAL CONTRACTOR BEFORE BEGINNING CONSTRUCTION OF SERVICE CONNECTIONS TO SERVE THE BUILDING.
- UT2. THE CONTRACTOR SHALL ADJUST ALL EXISTING UTILITY BOXES, MANHOLES, ETC., WHICH ARE TO REMAIN TO CONFORM TO FINAL GRADE.
- UT3. THE CONTRACTOR SHALL COORDINATE RELOCATION OF ALL UTILITIES WITH PROPER UTILITY COMPANY, BRACING OF POLES TO BE PROVIDED DURING CONSTRUCTION AS NEEDED.
- UT4. THE CONTRACTOR SHALL PLACE WITNESS POST AT TERMINUS OF ALL UTILITY STUBS.
- UT5. THE CONTRACTOR SHALL PROVIDE FULL TRENCH COMPACTION FOR ALL SITE UTILITIES, UNLESS OTHERWISE NOTED.
- UT6. BOTTOM OF ALL TRENCHES SHALL BE EXCAVATED FOR PIPE BELLS TO ENSURE LENGTH OF MAIN IS SUPPORTED BY TRENCH BOTTOM.
- UT7. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 12" VERTICAL MINIMUM CLEARANCE BETWEEN ALL SEWER AND WATER SERVICES AND STORM DRAINS WHERE MINIMUM CLEARANCE REQUIREMENTS FOR SEWER AND WATER MAINS AND SERVICES CANNOT BE MET, 6" CONCRETE ENCASEMENT SHALL BE PROVIDED FOR A LENGTH OF 10' EACH SIDE OF WATER MAIN.
- UT8. TRENCH REPAIR AS PER HOWARD COUNTY STD. DETAIL G4.01

STORM DRAIN NOTES

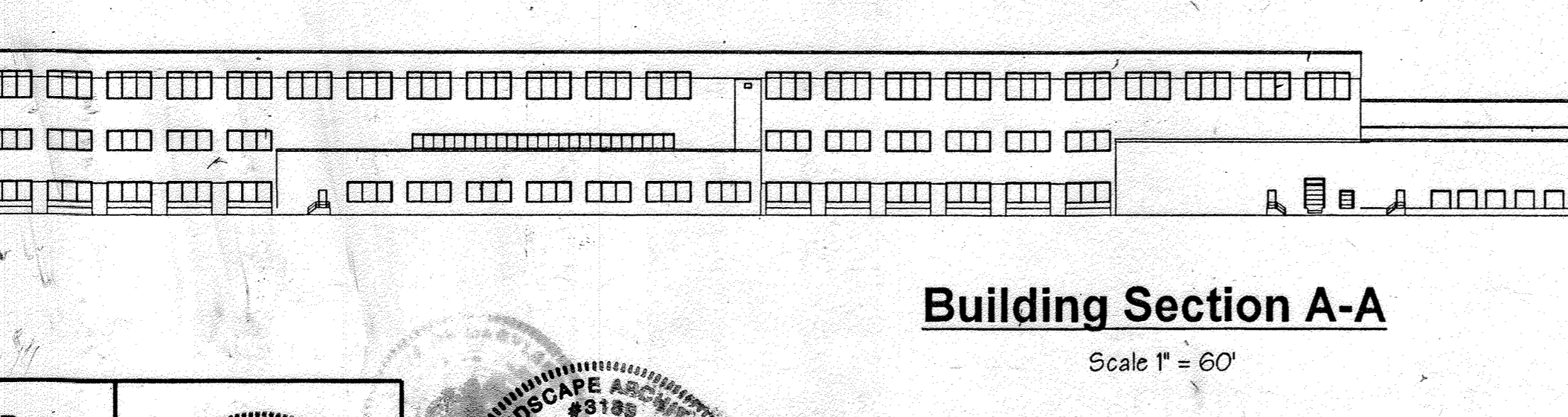
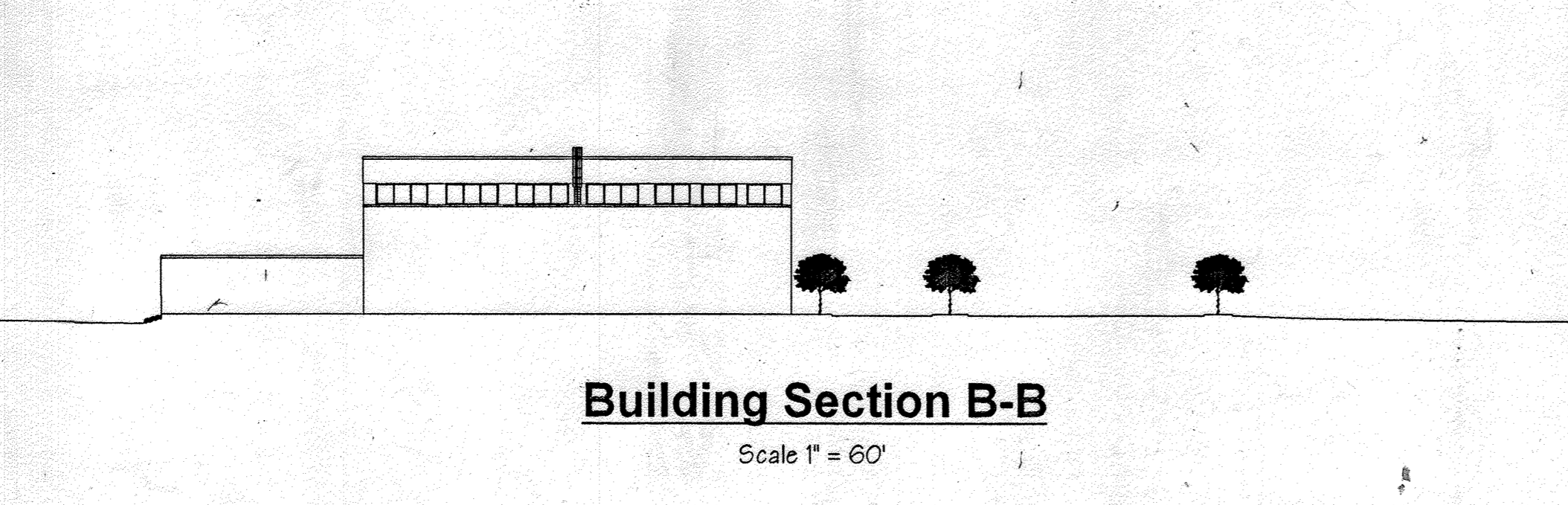
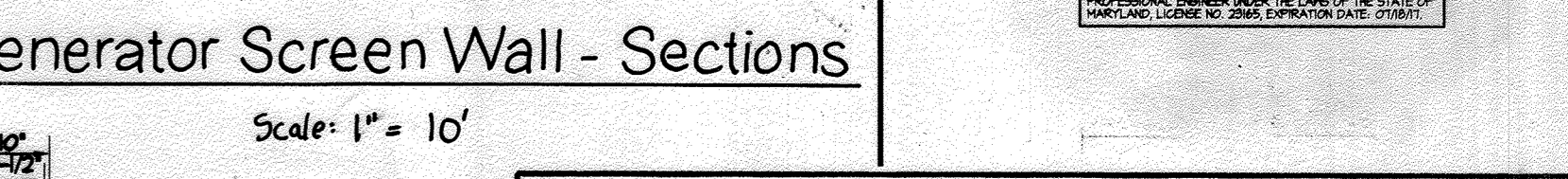
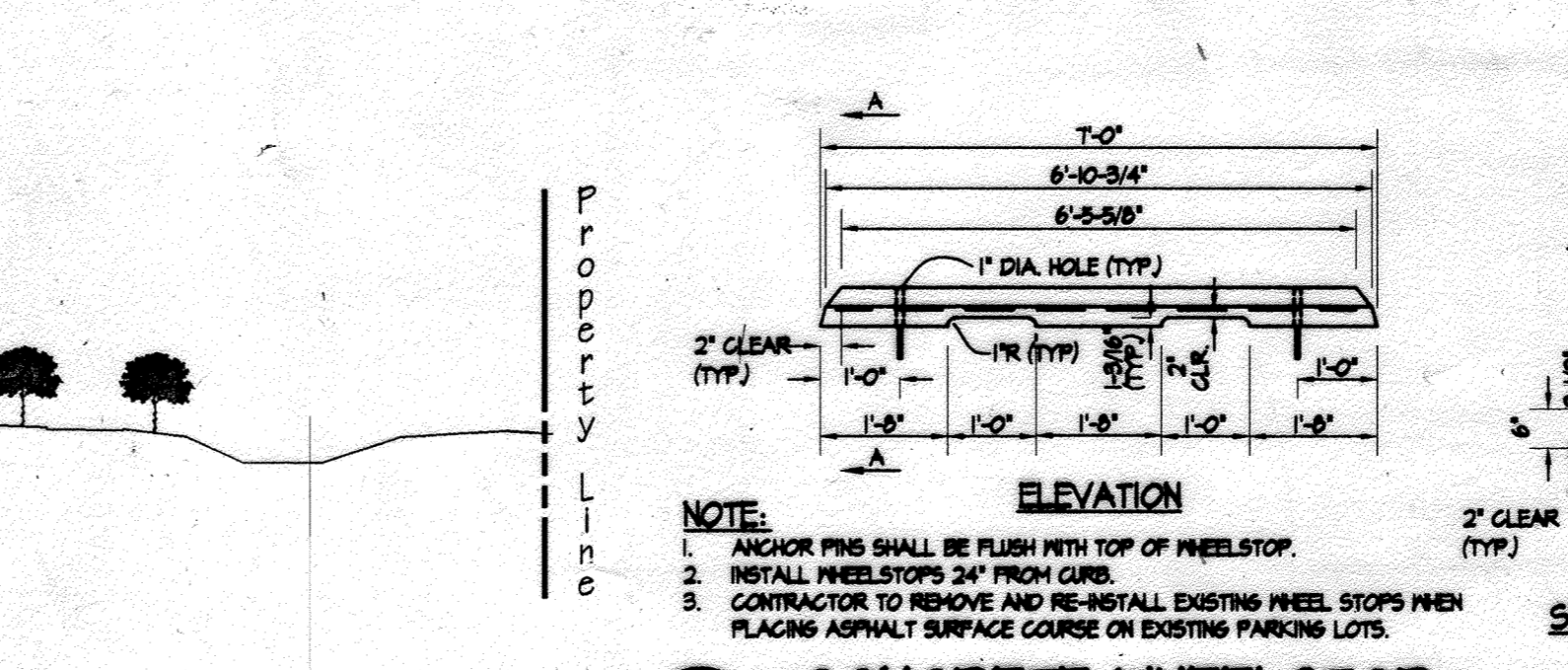
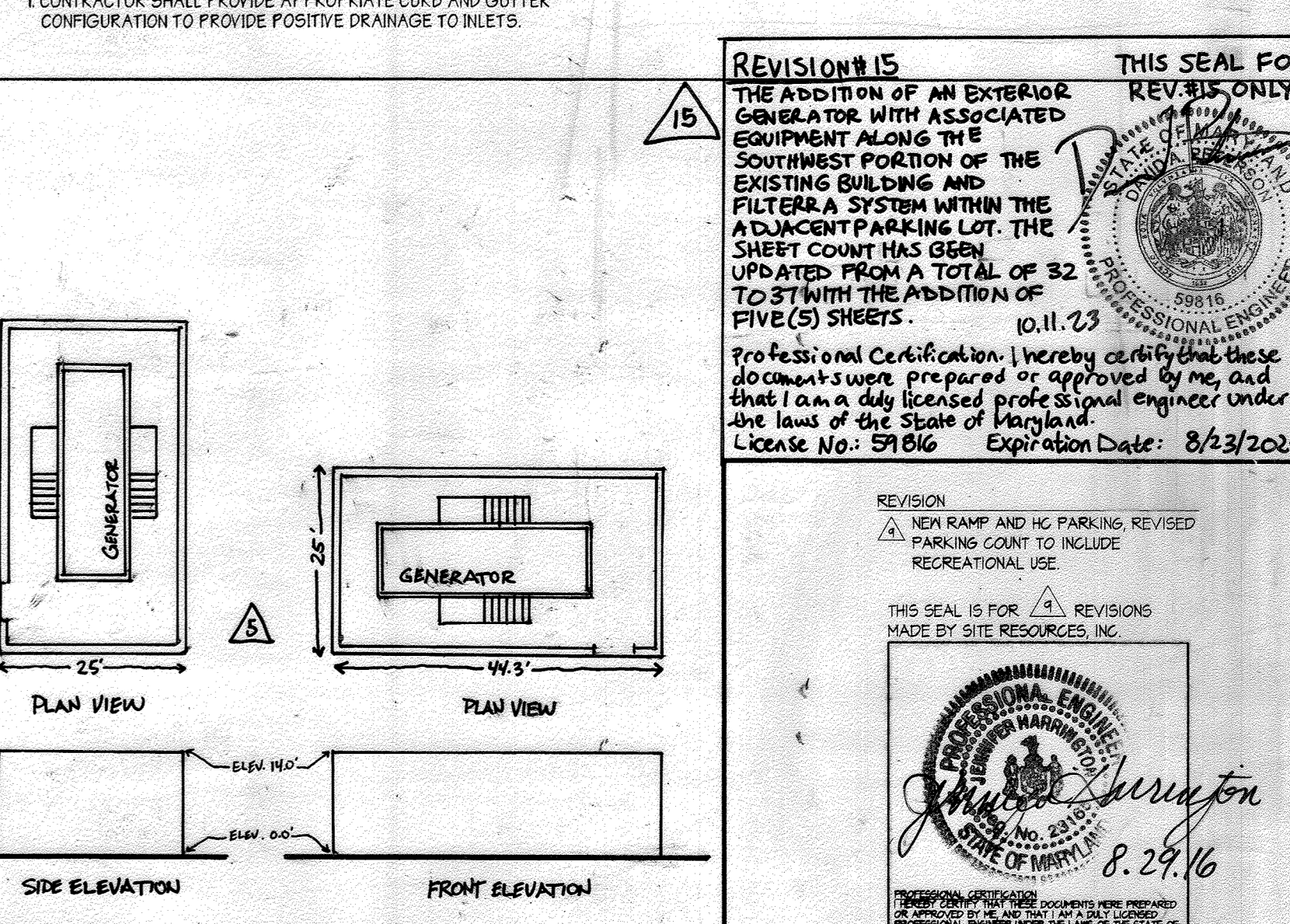
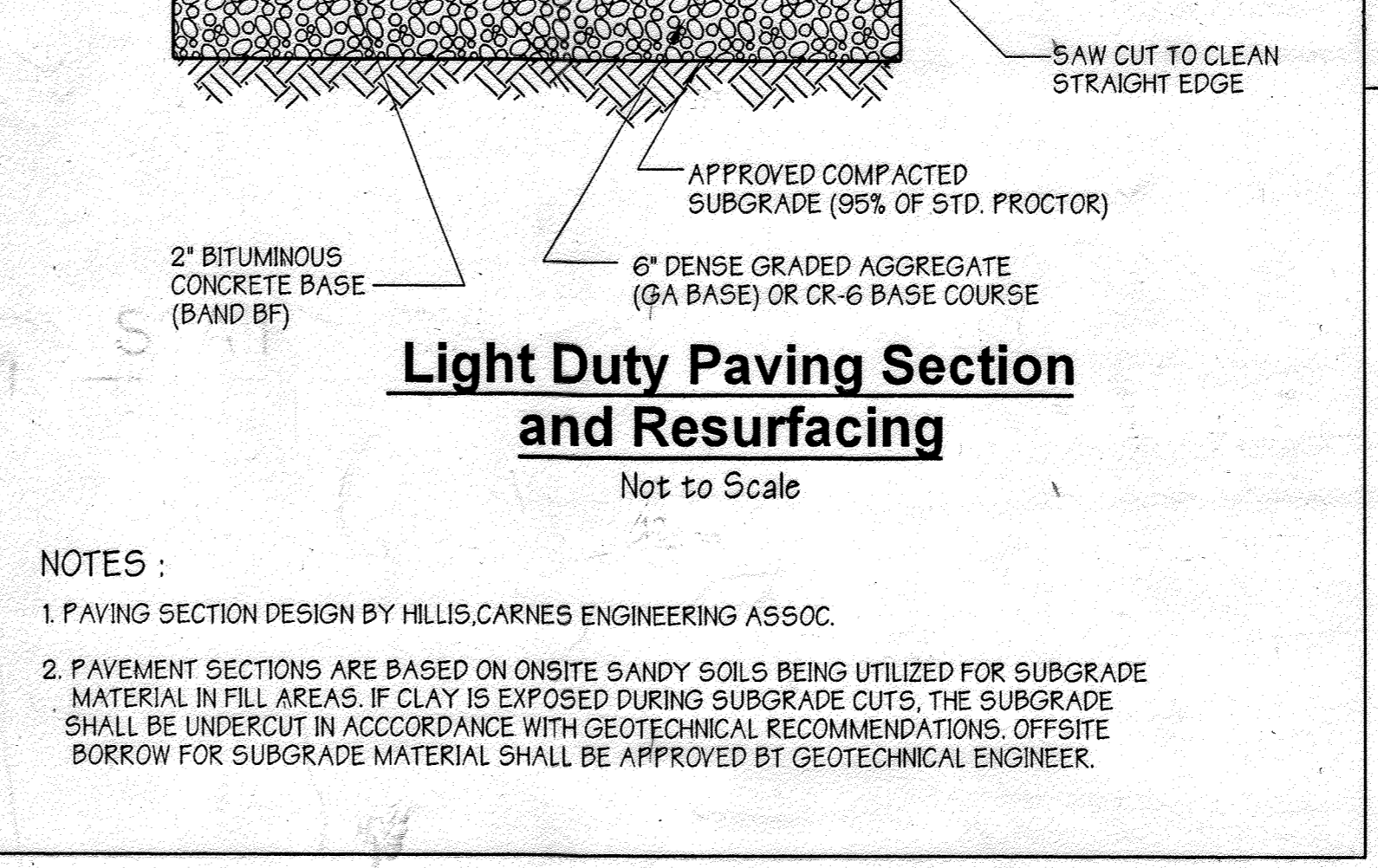
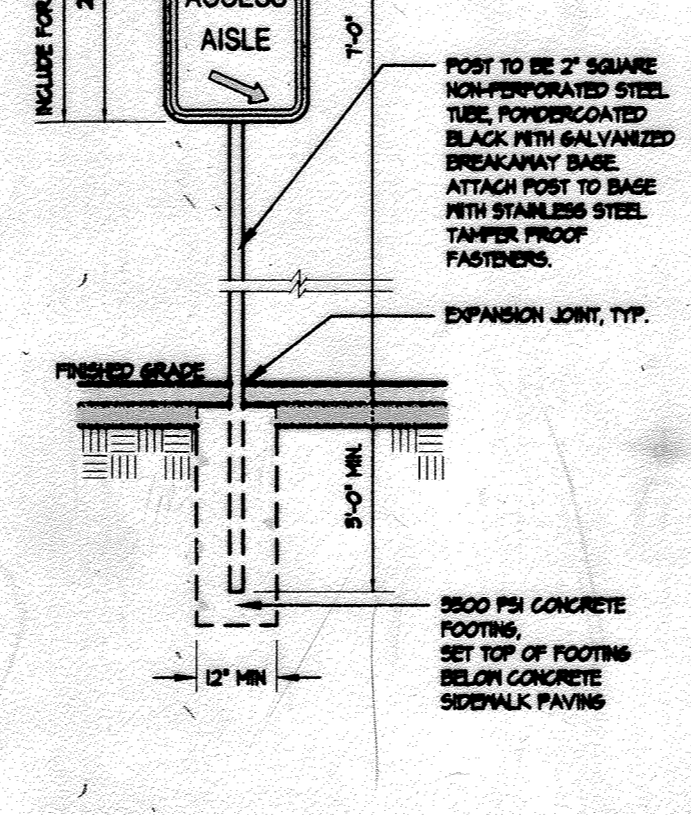
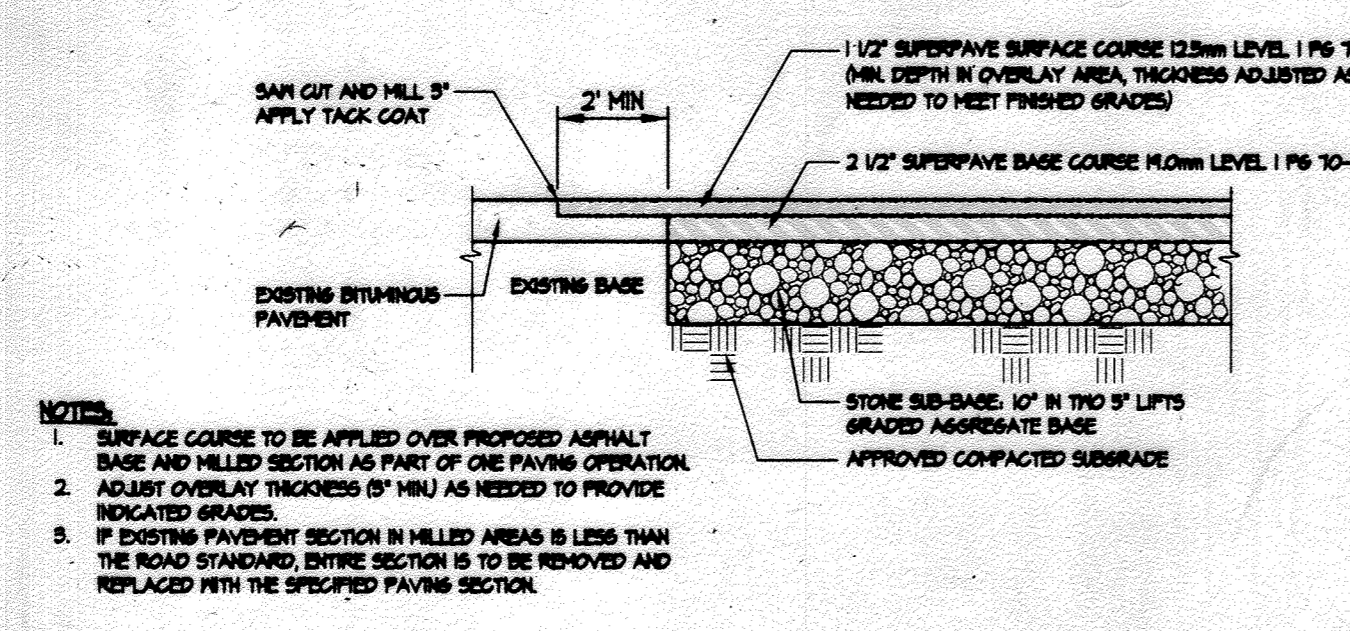
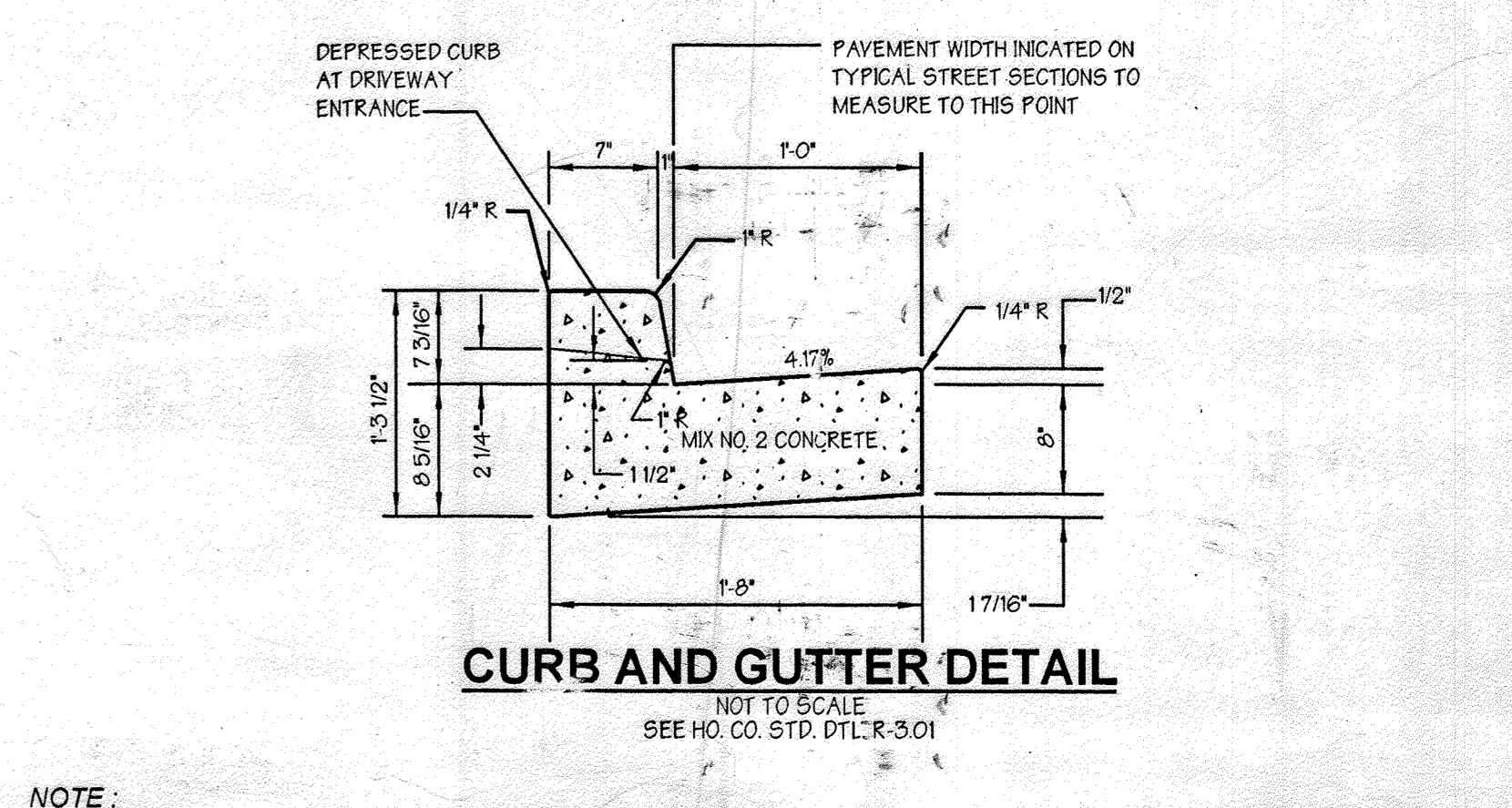
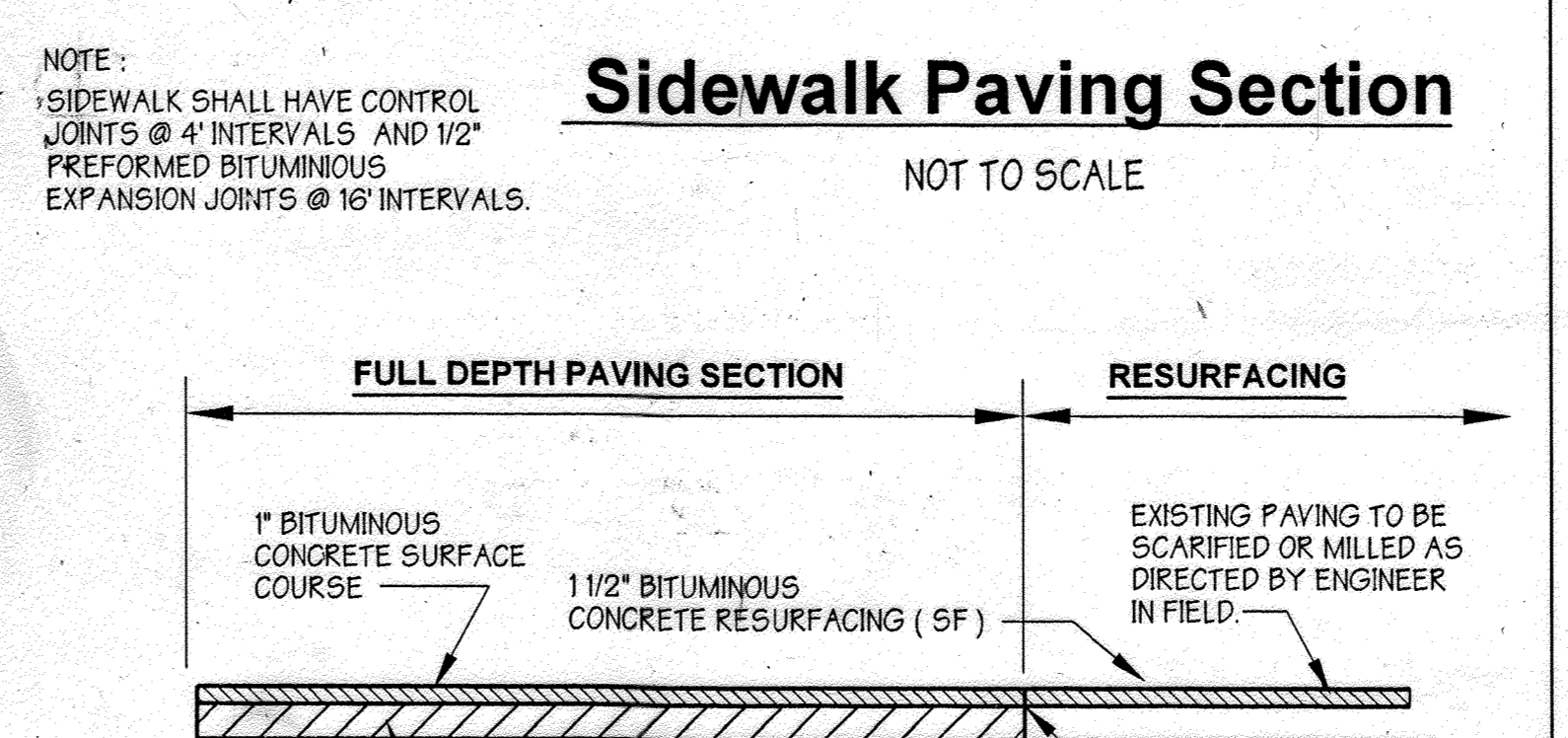
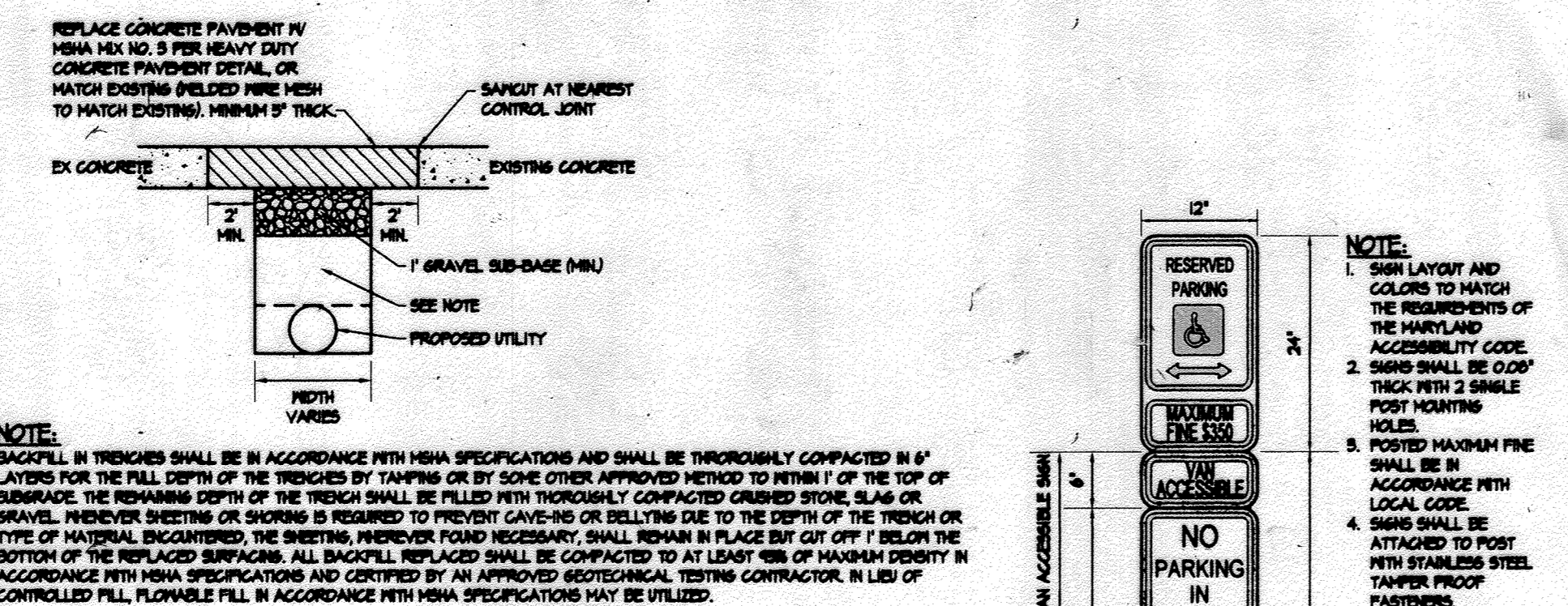
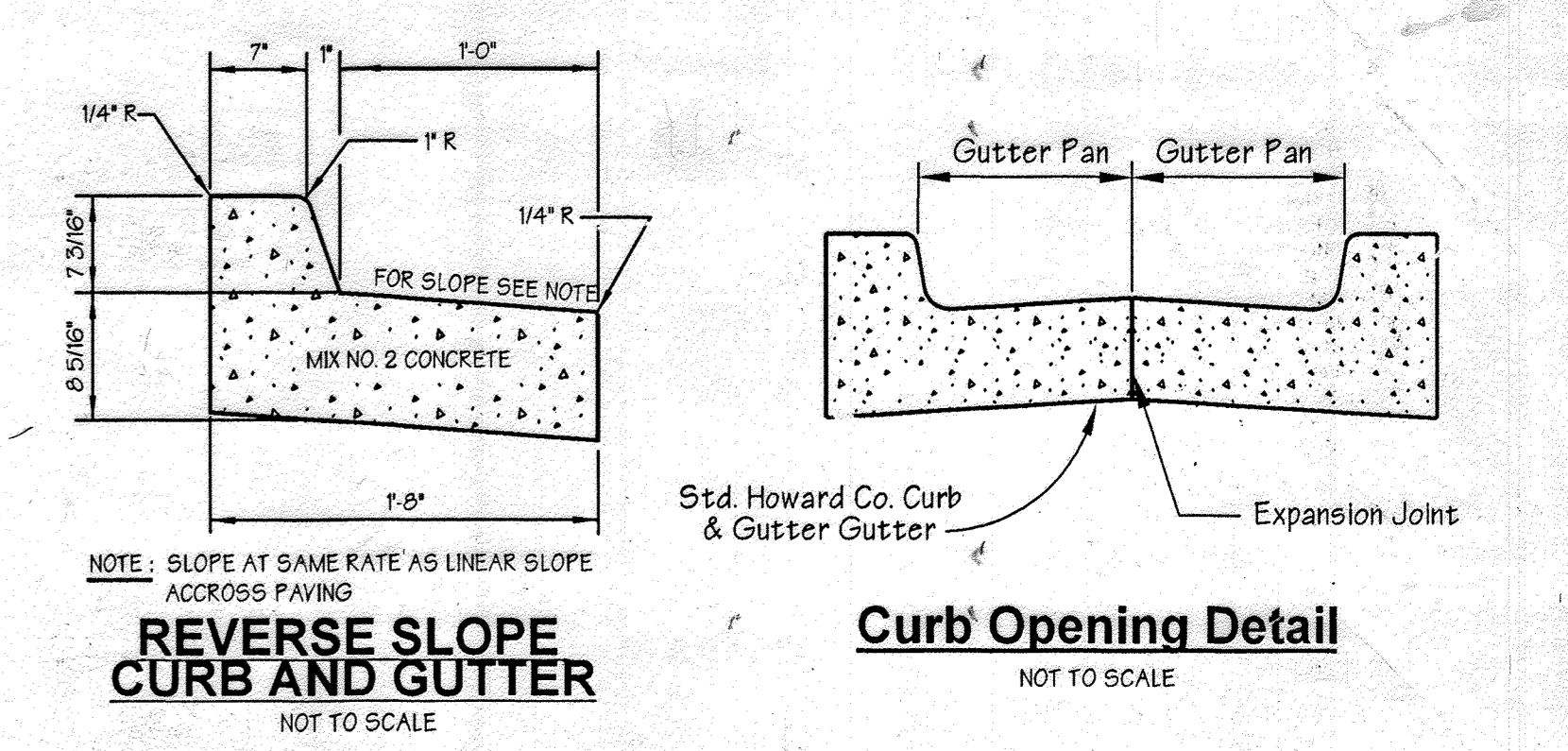
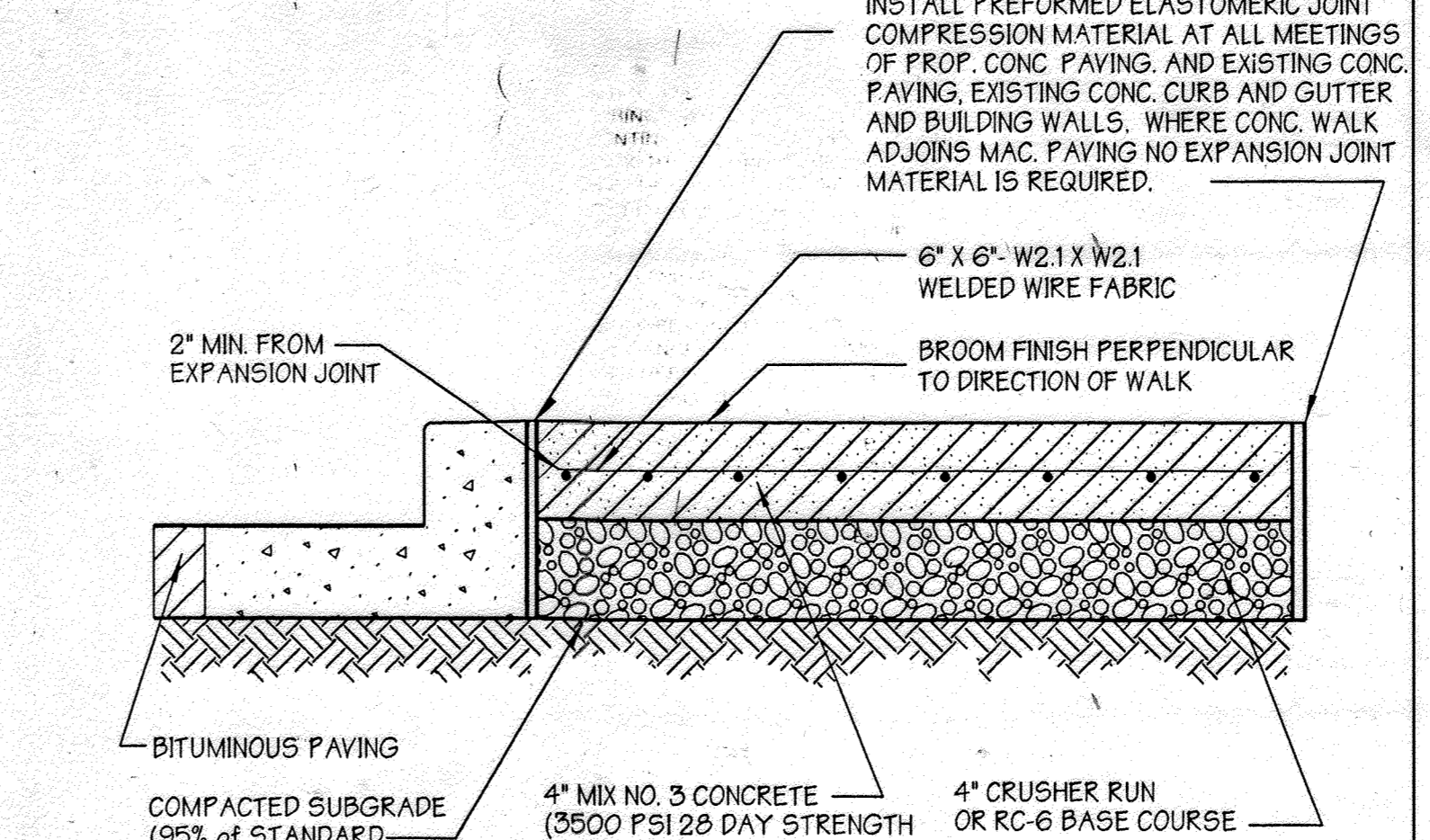
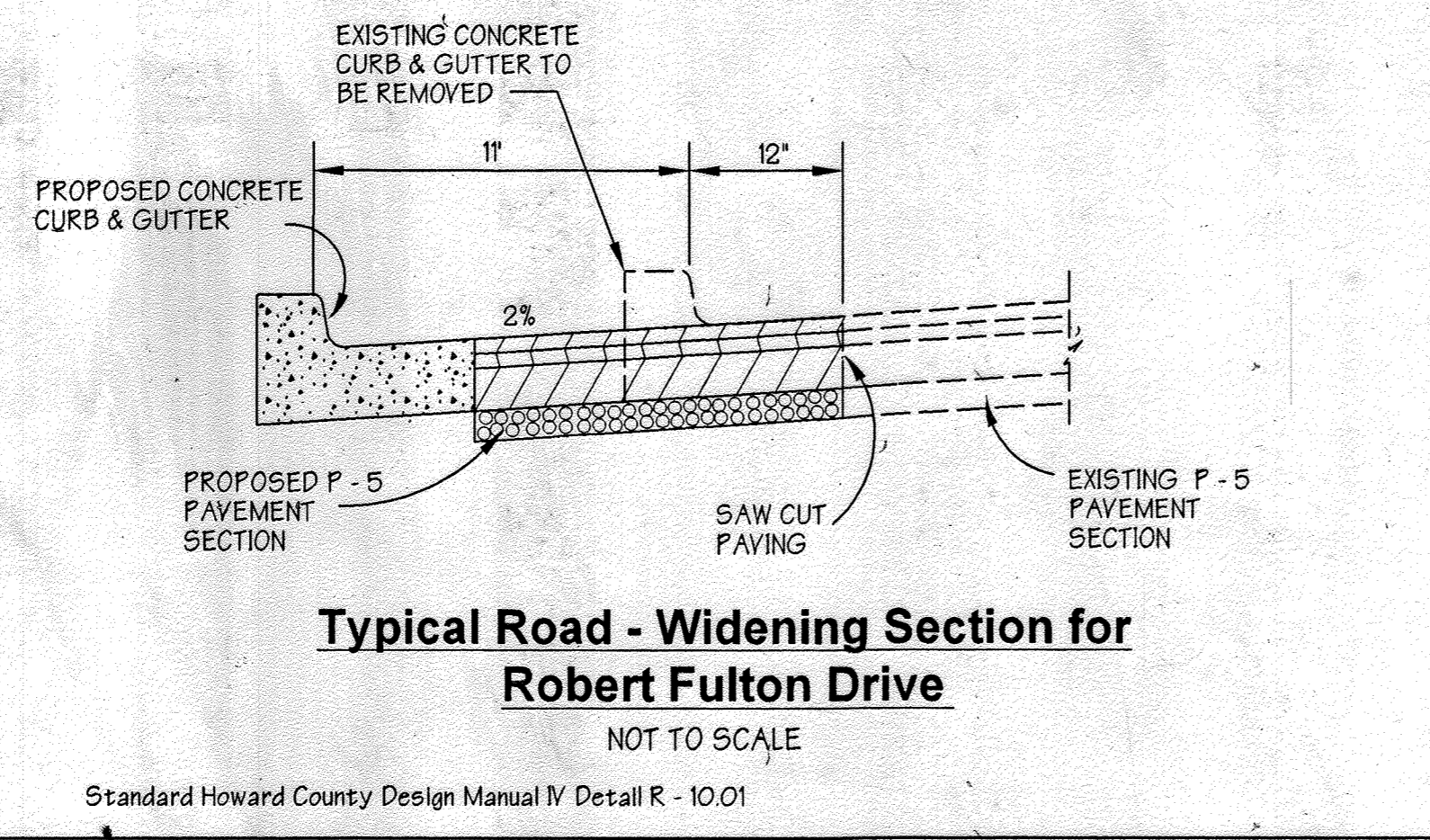
- SD1. TOP ELEVATION OF ALL INLETS ARE GIVEN TO GRATE ELEVATION, UNLESS OTHERWISE NOTED.
- SD2. REFER TO INLET AND STRUCTURE SCHEDULES FOR TYPE.
- SD3. STORMCEPTORS SHALL BE AS MANUFACTURED BY THE STORMCEPTOR CORPORATION 600 E. JEFFERSON STREET, ROCKVILLE, MD. PHONE 301-762-8361.
- SD4. RIFRAP SHALL MEET ALL REQUIREMENTS OF THE MARYLAND SOIL CONSERVATION SERVICE AND THE MARYLAND STATE HIGHWAY ADMINISTRATION.
- SD5. FILTER CLOTH SHALL BE MIRAFT 1005 OR APPROVED EQUAL.
- SD6. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 1" OF PROTECTIVE FILL OVER ALL STORM DRAIN PIPES DURING CONSTRUCTION.
- SD7. CONTRACTOR SHALL FIELD VERIFY DIMENSION / TYPE OF MANHOLE CAP TO BE UTILIZED TO CAP EXISTING GRATED INLETS AS NOTED ON THE PLANS.
- SD8. HIGH DENSITY POLYETHYLENE SMOOTH INTERIOR PIPE MAY BE SUBSTITUTED FOR RCP AS FOLLOWS: HIGH DENSITY POLYETHYLENE PIPE SHALL CONFORM TO AASHTO M252 (3" - 10"), M234 (12" - 36") OR M16-95 (42" - 48"). CONNECTIONS SHALL BE LIMITED TO BELL - AND - SPIGOT OR BELL / BELL COUPLINGS WITH GASKETS. COUPLINGS MUST BE INTERCHANGEABLE WITH DIFFERENT MANUFACTURERS' PIPE AND PROVIDE A SATISFACTORY CONNECTION. INSTALLATION SHALL BE IN CONFORMANCE WITH ASTM D2321 PARTICULAR ATTENTION SHALL BE PAID TO SECTION 5 AND SECTION 7 OF ASTM D2321. SECTION 5 PROVIDES GUIDANCE ON ACCEPTABLE BACKFILL MATERIAL AND SECTION 7 FOR MINIMUM DEPTH OF COVER REQUIREMENTS. HDPE PIPE SHALL NOT BE UTILIZED WHERE WATERTIGHT, GASKETED CONCRETE PIPE IS SPECIFIED.

GRADING NOTES

- GR1. CONTRACTOR SHALL CONFORM TO ALL GRADES AND DIMENSIONS SHOWN WITHIN A TOLERANCE OF 0.1 FOOT.
- GR2. PLACEMENT OF ALL FILL MATERIAL SHALL BE RECOMMENDED BY GEOTECHNICAL ENGINEER.
- GR3. THE CONTRACTOR SHALL GRADE ALL AREAS WITHIN THE LIMITS OF CONSTRUCTION AND SHALL WARP ALL PAVING AS NECESSARY TO ENSURE POSITIVE DRAINAGE IN THE DIRECTION INDICATED BY THE ARROWS SHOWN.
- GR4. THE CONTRACTOR SHALL PROVIDE A MINIMUM 5' WIDE BENCH BEYOND EDGE OF PAVING IN FILL AREAS. MAXIMUM SLOPE OF BENCH SHALL BE 4% (1/2" PER FOOT) UNLESS OTHERWISE NOTED.
- GR5. MAXIMUM SLOPE SHALL BE 2% HORIZONTALLY TO VERTICAL.
- GR6. ALL AREAS NOT BEING PAVED OR RECEIVED BUILDING COVERAGE SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.

PAVING NOTES

- P1. PREFORMED ELASTOMERIC COMPRESSION JOINT MATERIAL SHALL BE INSTALLED AT ALL MEETINGS OF EXISTING AND PROPOSED CONCRETE PAVING AND SIDEWALKS.
- P2. THE CONTRACTOR SHALL REPLACE ANY EXISTING BITUMINOUS PAVING OR SUB-BASE WHICH IS DAMAGED OR REMOVED DURING CONSTRUCTION TO MATCH ORIGINAL CONDITIONS. ALL EXCAVATED AREAS SHALL BE BACKFILLED AND COMPACTED AS DIRECTED BY GEOTECHNICAL ENGINEER OUTLINED IN GEOTECHNICAL REPORT. ANY AREAS TO BE PAVED WHICH EXHIBIT UNSTABLE SUBGRADE CONDITIONS SHALL BE EXCAVATED TO BEARING SOIL, REFILLED AND COMPACTED.
- P3. CONTRACTOR SHALL PLACE PROPOSED SURFACE COURSE OVERLAY 5' BEYOND LIMITS OF REPLACEMENT PAVING, UNLESS DIRECTED OTHERWISE BY THE ENGINEER IN THE FIELD. ALL OVERLAYS SHALL HAVE SMOOTH, STRAIGHT EDGES. STRIP AND RESURFACE EXISTING PAVING AS NEEDED TO PROVIDE SMOOTH TRANSITION.
- P4. SIDEWALK TO CONFORM TO DETAIL SHOWN HEREON. SLOPE, WIDTH, AND LOCATION AS SHOWN HEREON.
- P5. CONTRACTOR SHALL PROVIDE ALL PAVEMENT MARKINGS AND SIGNAGE FOR HANDICAP PARKING SPACES INDICATED HEREON IN ACCORDANCE WITH ALL APPLICABLE CODES. PAVEMENT MARKINGS TO BE TRAFFIC WHITE, PER SHA STD6.
- P6. ALL SIGNAGE SHALL COMPLY WITH THE LATEST REQUIREMENTS OF ADAAG (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES) AND COMAR 05.02.02 (MARYLAND ACCESSIBILITY CODE).
- P7. ALL TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". ALL STREET AND REGULATORY SIGNS SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF THE FINISHED PAVING.



PREPARED BY:

GWS

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

PROFESSIONAL ENGINEER

LANDSCAPE ARCHITECT

ADAM J. MORROW

STATE OF MARYLAND

OWNER
COLUMBIA/95 GROUP L.P.
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DESIGNED BY: K.M.W.
DRAWN BY: E.M.T. / E.A.S.
CHECKED BY: K.M.W.

DEVELOPER
PREFERRED REAL ESTATE INVESTMENTS, INC.
655 NORTH LANE, SUITE 6101
CONSHOHOCKEN, PA 19428
(610) 834-1969

APPROVED: Howard County Department of Planning and Zoning

Michael D. ... 10/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Andy Hamilton 6/11/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

David ... 6/14/99
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY	N/A	671

PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
	1	M-1	45	6	6067.03

WATER CODE -E06 SEWER CODE 5333000

Site Details/Constr Notes/Sections

The Renaissance at Columbia Gateway

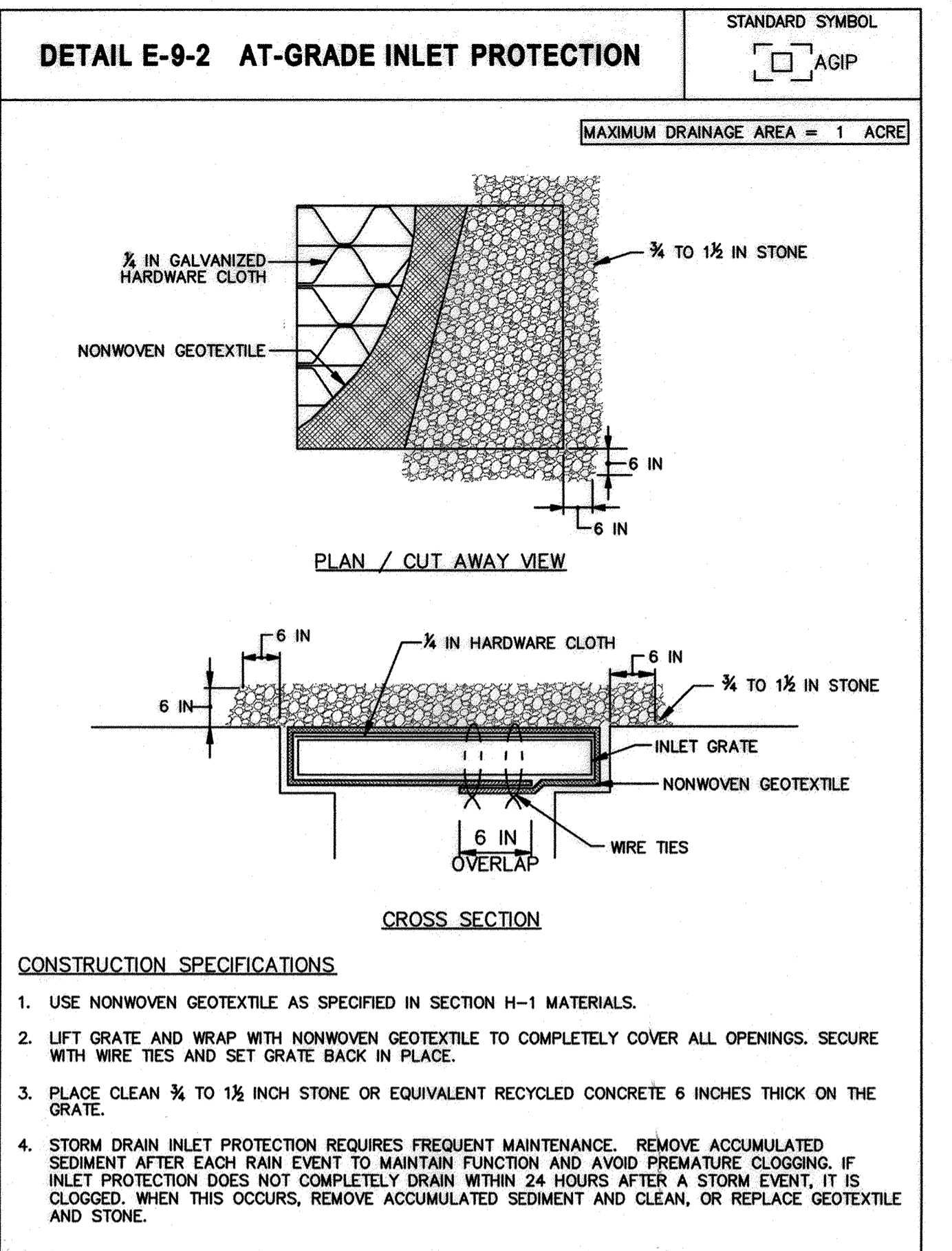
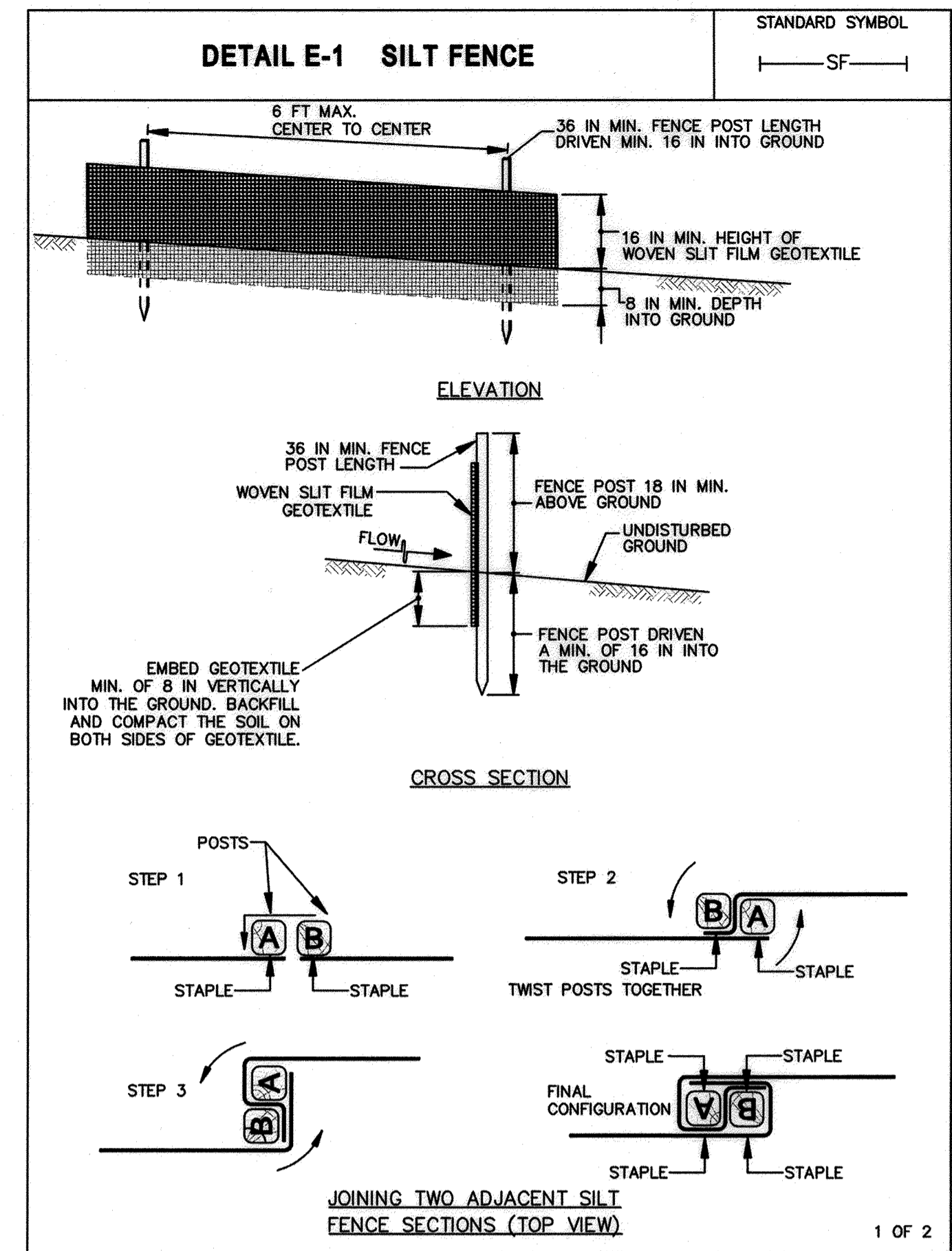
ELECTION DISTRICT: 6
HOWARD CO., MARYLAND SHT. 32 OF 32 DATE: DECEMBER 4, 1998

SCALE: As Shown

SDP 99-59

EXISTING	LEGEND DESCRIPTION	PROPOSED
	INDEX CONTOUR	
	INTERMEDIATE CONTOUR	
	EDGE OF PAVEMENT	
	CURB AND GUTTER	
	TRANSITION FROM CG-6R TO CG-6	
	PROPOSED HEADER CURB	
	PROPERTY LINE	
	DEPARTING PROPERTY LINE	
	LOT LINE	
	RIGHT-OF-WAY	
	CENTERLINE	
	FLOOD PLAIN	
	CLEARING AND GRADING	
	TREE LINE	
	FLOW LINE OF SWALE	
	STREAM	
	OVERLAND RELIEF PATHWAY	
	FENCE LINE	
	EASEMENT	
	WATER LINE	
	WATER VALVE	
	REDUCER	
	SANITARY SEWER	
	STORM SEWER	
	CABLE TV	
	ELECTRIC SERVICE	
	TELEPHONE SERVICE	
	GAS LINE	
	SPOT ELEVATION	
	UTILITY POLE	
	SIGN	
	SANITARY SEWER IDENTIFIER	
	STORM DRAIN IDENTIFIER	
	EASEMENT IDENTIFIER	
	WATER METER	
	FIRE HYDRANT	
	PARKING INDICATOR INDICATES THE NUMBER OF TYPICAL PARKING SPACES	
	STREET LIGHT	
	YARD LIGHT	
	VEHICLES PER DAY (TRAFFIC COUNT)	
	TEST PIT LOCATION RECOMMENDED/REQUIRED	
	HANDICAP RAMP (CG-12) DENOTES LOCATION OF STD VDOT CG-12 AND/OR JURISDICTIONAL STANDARD RAMP CONSTRUCTION	
	TREE	
	BENCHMARK	
	ASPHALT TRAIL	
	CONCRETE SIDEWALK	
	END WALLS	
	END SECTIONS	
	STOP SIGN	
	STREET SIGN	
	OVERHEAD ELECTRIC	
	OVERHEAD TELEPHONE	
	HANDICAP PARKING SPACE (VAN)	
	RIP RAP	

ABBREVIATIONS	
A	AREA OF ARC
AAASHTO	AMERICAN ASSOCIATION OF STATE HWY & TRANSP OFFICIALS
AC	ACRE
ADJ	ADJACENT
AGGR	AGGREGATE
AHD	AHEAD
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
B	BREADTH
BC	BACK OF CURB
BF	BASEMENT FLOOR
BLDG	BUILDING
BM	BENCHMARK
BMP	BEST MANAGEMENT PRACTICES (WATER QUALITY)
BOV	BLOW OFF VALVE
BRC	BEARING
BRL	BUILDING RESTRICTION LINE
BVCE	BEGINNING VERTICAL CURVE ELEVATION
BVCS	BEGINNING VERTICAL CURVE STATION
BW	BOTTOM OF WALL
c,e	CENTER CORRECTION ON VERTICAL CURVE
C	RUNOFF COEFFICIENT
CATV	CABLE TELEVISION
C&G	CURB AND GUTTER
CB	CATCH BASIN
CBR	CALIFORNIA BEARING RATIO
CC	CENTER TO CENTER
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CG(R)	CURB AND GUTTER (REVERSE SLOPE)
CH	CHORD
CHBRG	CHORD BEARING
CIP	CAST IRON PIPE
CL	CENTERLINE OR CLASS
CL	CENTERLINE
C/L	CENTERLINE
CLR	CLEAR
CM	CUBIC METERS
CMP	CORRUGATED METAL PIPE
CMS	CUBIC METERS PER SECOND
CN	RUNOFF CURVE NUMBER
CONT	CONTINUOUS
CO	CLEAN OUT
CONC	CONCRETE
CS	CURB STOP
CT	COURT
CTR	CENTERLINE
CY	CUBIC YARD
D	DEPTH
DA	DRAINAGE AREA
DB	DEED BOOK
DEQ	VA. DEPARTMENT OF ENVIRONMENTAL QUALITY
DET	DETAIL
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DI	DROP INLET
DIST	DISTANCE
DL	DOMESTIC LINE
DM	DROP MANHOLE
DOM	DOMESTIC
DR	DRIVE
DRN	DRAINAGE AREA
DS	DOWN SPOUT
DU	DWELLING UNITS
DWG	DRAWING
D/W	DRIVEWAY
Δ	DELTA
E	RATE OF SUPER ELEVATION
EA	EACH
EBL	EAST BOUND LANE
EC	EROSION CONTROL
EG	EDGE OF GUTTER
EGL	ENERGY GRADIENT LINE
EL	ELEVATION
ELEC	ELECTRIC
ELEV	ELEVATION
ENGR	ENGINEER
ENT	ENTRANCE
EP	EDGE OF PAVEMENT
EQUIP	EQUIPMENT
ES	END SECTION
ESMT	EASEMENT
ETD	EXISTING TO BE DEMOLISHED
ETR	EXISTING TO REMAIN
ETRL	EXISTING TO BE RELOCATED
ETRP	EXISTING TO BE REPLACED
EVCE	ENDING VERTICAL CURVE ELEVATION
EVCS	ENDING VERTICAL CURVE STATION
EW	END WALL
EX	EXISTING
EQC	ENVIRONMENTAL QUALITY CORRIDOR
F	FIRE LINE
FAR	FLOOR AREA RATIO
FC	FACE OF CURB
FCPA	FAIRFAX COUNTY PARK AUTHORITY
FCWA	FAIRFAX COUNTY WATER AUTHORITY
FD	FLOOR DRAIN
FF	FIRST FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FND	FOUNDATION
Foyer	FOYER
FP	FLOOD PLAIN
FPS	FEET PER SECOND
FS	FIRE SERVICE OR FACTOR OF SAFETY
FT	FOOT / FEET
G	GAS
GAR	GARAGE
GFA	GROSS FLOOR AREA
GR	GUARD RAIL OR GRATE INLET
H	HEAD
HC	HANDICAP
HB	HORIZONTAL BEND
HGL	HYDRAULIC GRADE LINE
HORZ	HORIZONTAL
HP	HIGH POINT
HR	HAND RAIL
I	RAINFALL INTENSITY
ID	INSIDE DIAMETER OR IDENTIFICATION
IN	INCH
INV	INVERT
IP	IRON PIPE
IPF	IRON PIPE FOUND
IPS	IRON PIPE SET
JB	JUNCTION BOX
JNT	JOINT
K	SIGHT DISTANCE COEFFICIENT
Ke	CULVERT ENTRANCE LOSS COEFFICIENT
L	LENGTH
LAT	LATERAL
LCG	LIMITS OF CLEARING & GRADING
LF	LINEAR FEET
LL	LOWER LEVEL
LOS	LINE OF SIGHT
LP	LOW POINT
LS	LOADING SPACE
LT	LEFT
M	MONUMENT FOUND
MAX	MAXIMUM
MECH	MECHANICAL
MH	MANHOLE
MI	MILE
MIN	MINIMUM
MISC	MISCELLANEOUS
MPH	MILES PER HOUR
MS	MEDIA STRIP
MSL	MEAN SEA LEVEL
NA OR N/A	NOT APPLICABLE
NBL	NORTH BOUND LANE
N/F	NOW OR FORMERLY
NFA	NET FLOOR AREA
NO. OR #	NUMBER
OC	ON CENTER
OBJ	OBJECT
OD	OUTSIDE DIAMETER
OH	OVERHANG
O/H	OVERHEAD
OHC	OVERHEAD CABLE
OHE	OVERHEAD ELECTRIC
OHT	OVERHEAD TELEPHONE
P	PERIMETER
P&P	PLAN AND PROFILE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE
PCEC	POINT OF CURVATURE TOP OF CURB
PCEP	POINT OF CURVE EDGE OF PAVEMENT
PFM	PUBLIC FACILITIES MANUAL
PG	PAGE
PGL	POINT OF GRADE LINE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVE
PRELIM	PRELIMINARY
PROP	PROPOSED
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVRC	POINT OF VERTICAL REVERSE CURVE
PVT	POINT OF VERTICAL TANGENT
Q (cfs)	AMOUNT OF RUNOFF (FLOW RATE)
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROAD OR ROOF DRAIN
REINF	REINFORCED
REQD	REQUIRED
RET	RETAINING
REV	REVISION
RGP	ROUGH GRADING PLAN
RMA	RESOURCE MANAGEMENT AREA
ROM	REMOTE OUTSIDE MONITOR
RPA	RESOURCE PROTECTION AREA
RR	RAILROAD
RT	RIGHT
RTE	ROUTE
R/W	RIGHT OF WAY
S	SPEED OR SLOPE
SAN	SANITARY
SBL	SOUTH BOUND LANE
SCH	SCHEDULE
SD	SIGHT DISTANCE
SEC	SECTION
SECT	SECTION
SEW	SEWER
SF	SQUARE FEET
SH	SHOULDER
SP	SPACE OR SITE PLAN
SPEC	SPECIFICATIONS
STA	STATION
STD	STANDARD
STK	STACK
STM	STORM
STR	STRUCTURE
SVC	SERVICE
S/W	SIDEWALK
SWM	STORM WATER MANAGEMENT
Sx	CROSS SLOPE
SY	SQUARE YARD
T	TANGENT
TB	TOP OF BANK OR TEST BORING
TC	TOP OF CURB
Tc	TIME OF CONCENTRATION
TEL	TELEPHONE
TEMP	TEMPORARY
TH	TEST HOLE
TP	TEST PIT OR TREE PROTECTION
TRANSP	TRANSPORTATION
TW	TOP OF WALL OR TAILWATER
TYP	TYPICAL
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UGT	UNDERGROUND TELEPHONE
UL	UPPER LEVEL
UP	UTILITY POLE
USGS	US GEOLOGICAL SURVEY
V OR VOL	VOLUME
V OR VEL	VELOCITY
VA	VIRGINIA
VAN	HANDICAPPED VAN PARKING SPACE
VB	VERTICAL BEND
VC	VERTICAL CURVE
VDOT	VA DEPT OF TRANSPORTATION
VF	VERTICAL FOOT
W	WEIGHT OR WIDTH
WBL	WEST BOUND LANE
WL	WATER LINE
WM	WATER METER
W/M OR WM	WATER MAIN
WQA	WATER QUALITY IMPACT ASSESSMENT
WV	WATER VALVE
Y	YARD
YI	YARD INLET
YR	YEAR
Z	SIDE SLOPES



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011
E.2		E.26	

15 ADDITIONAL SHEET

APPROVED: Howard County Department of Planning and Zoning

John P. ... 12.12.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 12/12/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Dymde Estory 12/12/23
DIRECTOR DATE

ADDRESS CHART	STREET ADDRESS
PARCEL NO. L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME COLUMBIA GATEWAY	SECTION NAME N/A	PARCEL # 671
PLAT # 8803	BLOCK # 1	ZONE M-1
TAX/ZONE MAP 43	ELECT. DIST. 6	CENSUS TRACT 6067.03
WATER CODE -F06	SEWER CODE 5333000	

OWNER
COLGATEDRIVE ASSOCIATES, LLC
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DESIGNED BY: EK
DRAWN BY: EK
CHECKED BY: DP

DEVELOPER
AHEARN
HOLTZMAN, INC

REVISIONS

THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

CIVIL GENERAL NOTES & LEGEND

The Renaissance at
Columbia Gateway

ELECTION DISTRICT: 6
HOWARD CO., MARYLAND SHT. 33 OF 37 DATE: 8/16/2023

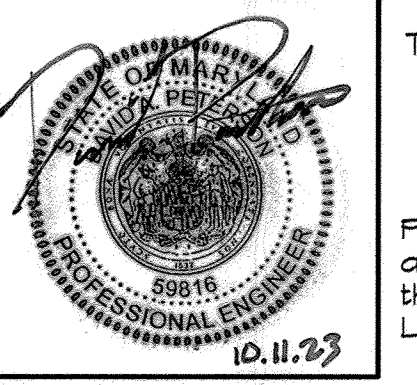
SCALE: AS SHOWN

PREPARED BY:

Bowman

Bowman Consulting Group, Ltd.
13461 Sunrise Valley Dr, Suite 500
Herndon, Virginia 20171
© 2021 Bowman Consulting Group, Ltd.

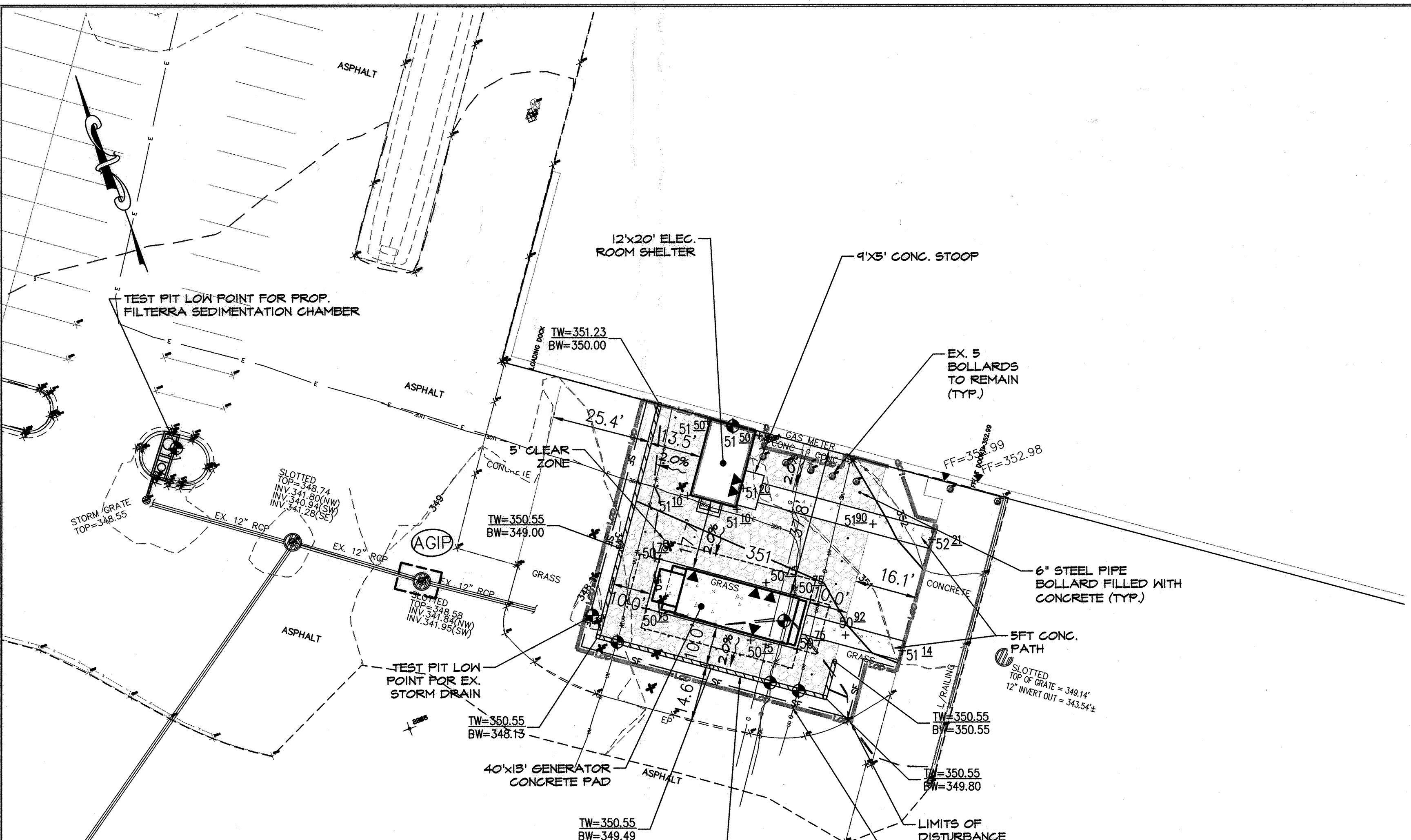
Phone: (703) 464-1000
Fax: (703) 461-9720
www.bowman.com



THIS SEAL FOR REV.#15 ONLY

Professional Certification. 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.: 54816 Expiration Date: 8/23/2024

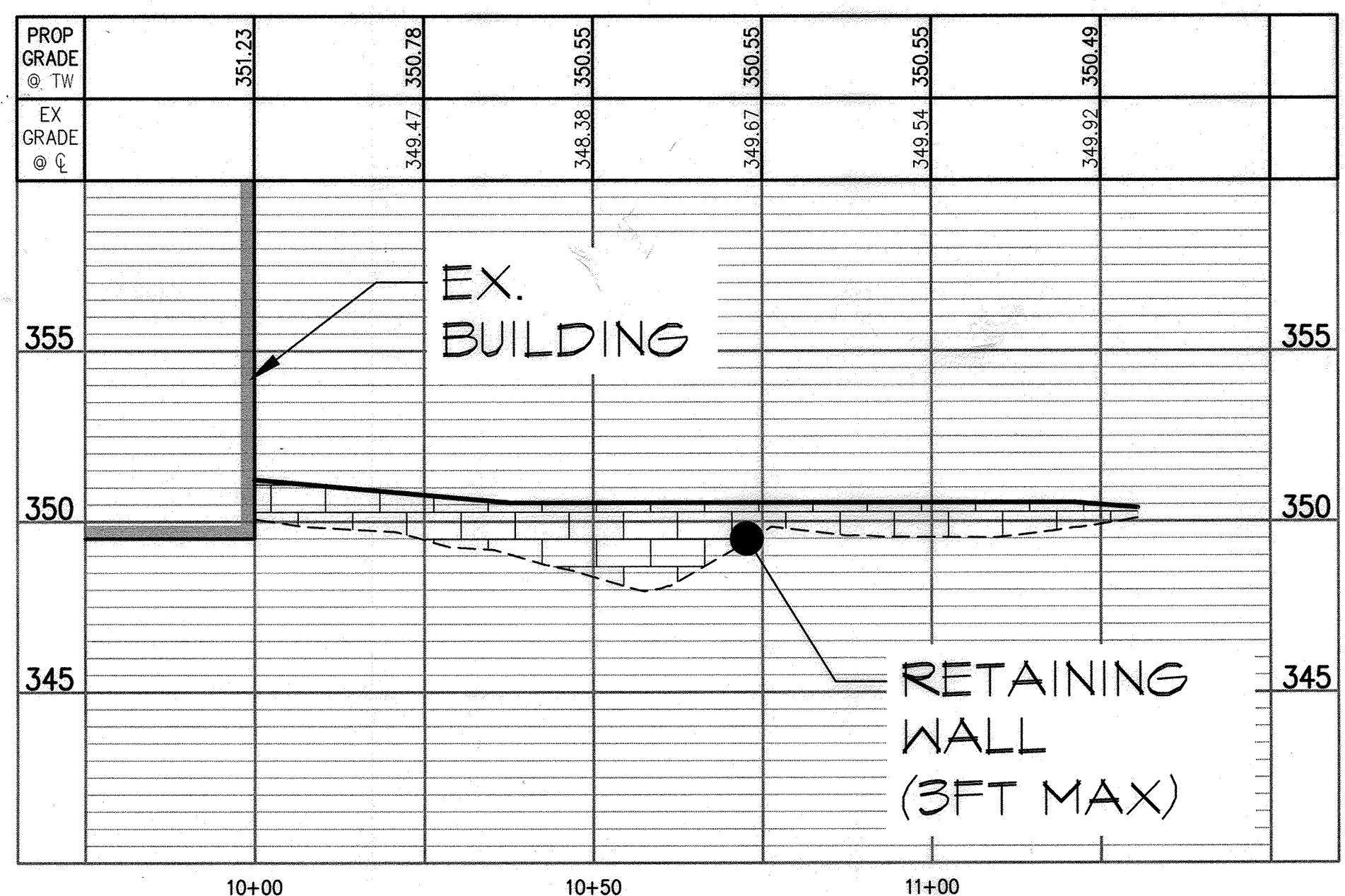
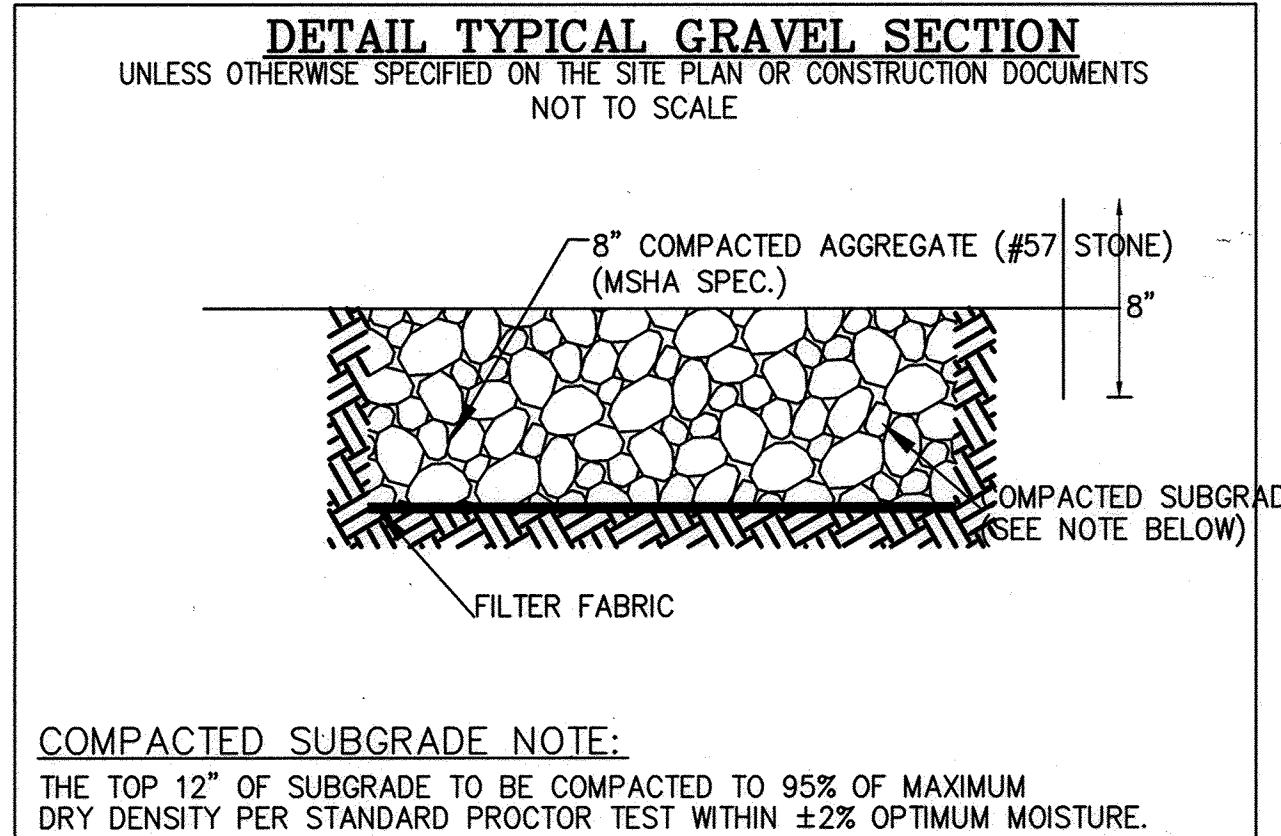
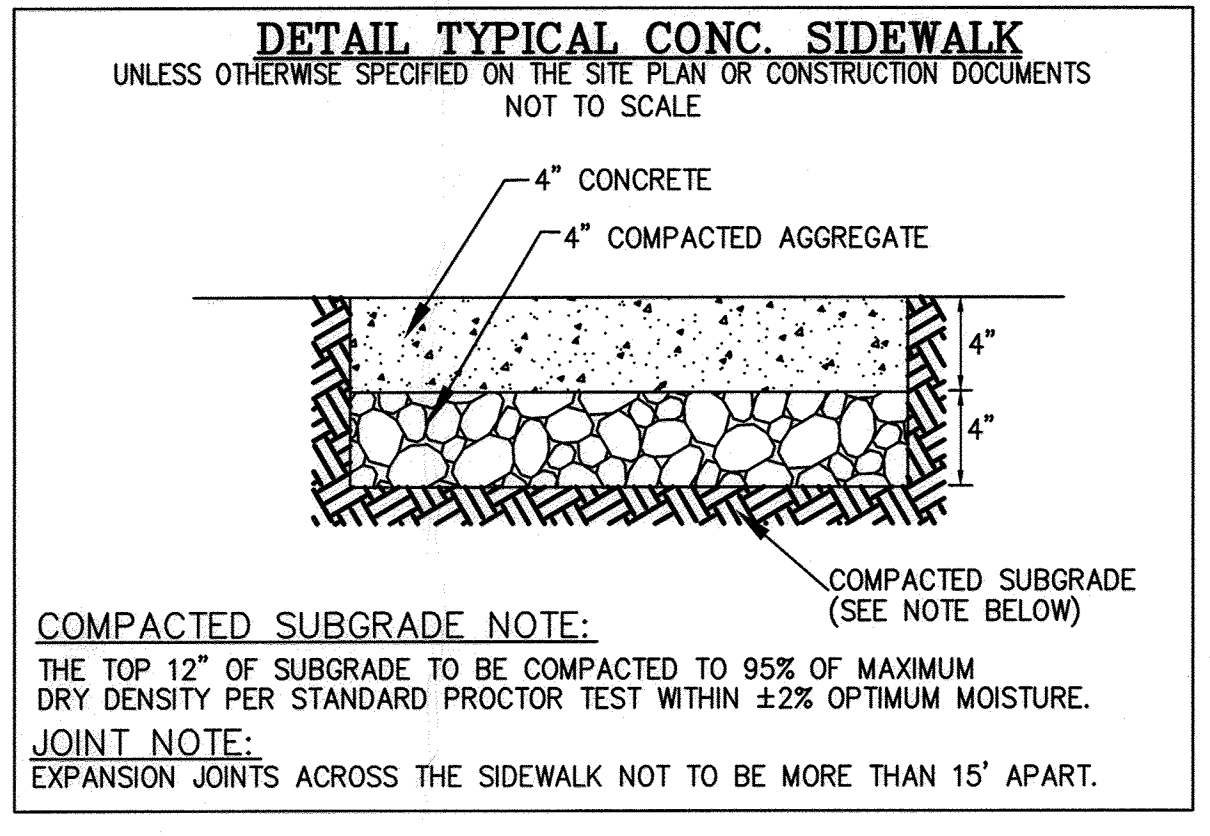
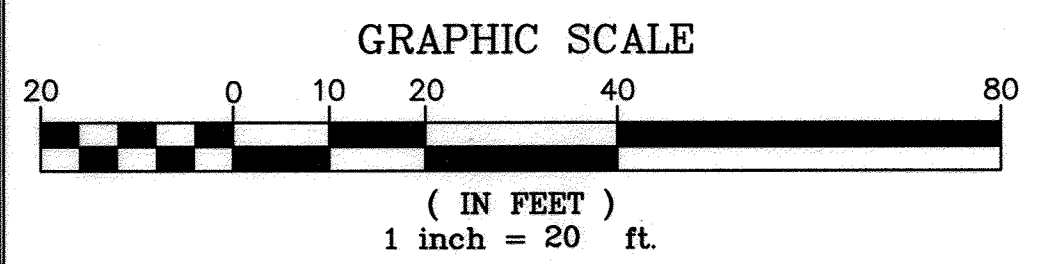
NOTES:
1. THIS IS A STANDARD SHEET, THEREFORE SOME ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT BE USED ON THE PROJECT.



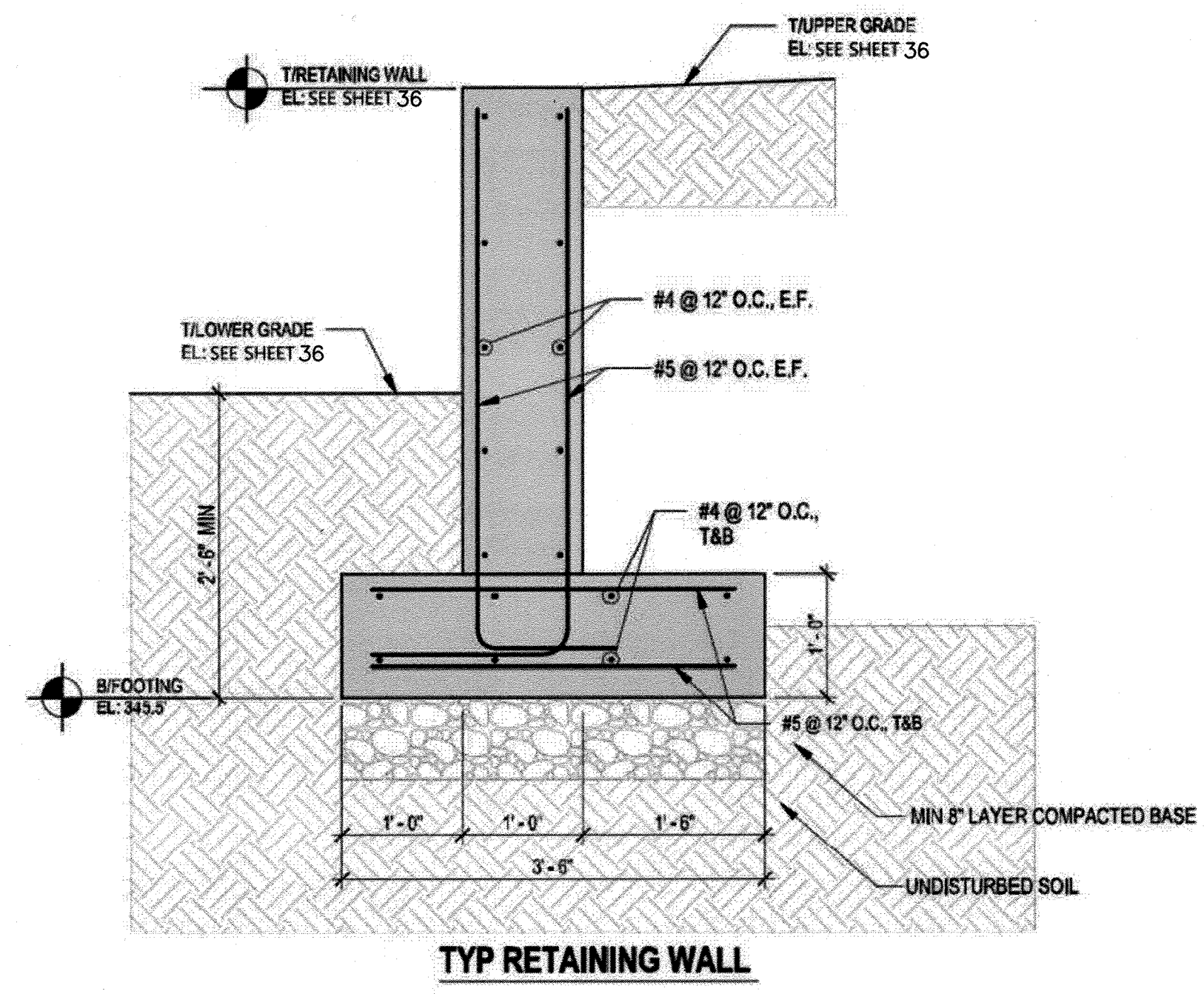
LEGEND

- TEST PIT FOR UNDERGROUND UTILITY
- LIMITS OF DISTURBANCE (5.91' SF)

TOTAL EXISTING IMPERVIOUS AREA = 0 SF
 TOTAL PROP. IMPERVIOUS AREAS = 3,215 SF (19%)
 AREA OF CONCRETE PAVEMENT/PAD (944 SF)
 AREA OF GRAVEL (2,560 SF)
 BUILDING AREA (240 SF)
 RETAINING WALL (131 SF)



RETAINING WALL PROFILE VIEW
 HORIZONTAL SCALE: 1"=20'
 VERTICAL SCALE: 1"=4'



ADDITIONAL SHEET

APPROVED: Howard County Department of Planning and Zoning

[Signature] 12.12.23
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12/21/23
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/21/23
 DIRECTOR DATE

ADDRESS CHART	STREET ADDRESS
PARCEL NO. L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY	N/A	671

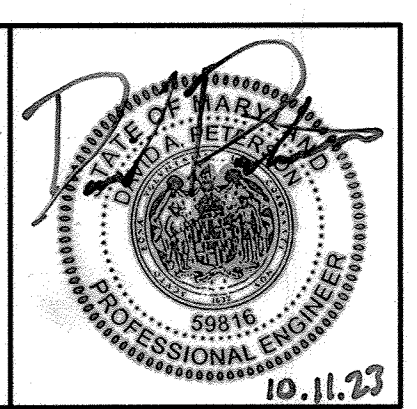
PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.03

WATER CODE -E06 SEWER CODE 5333000

CIVIL GRADING PLAN & RETAINING WALL SECTION
The Renaissance at Columbia Gateway
 ELECTION DISTRICT: 6 SCALE: AS SHOWN
 HOWARD CO., MARYLAND SHT. 34 OF 37 DATE: 8/16/2023

PREPARED BY:

Bowman Consulting Group, Ltd.
 13481 Sunrise Valley Dr, Suite 500
 Herndon, Virginia 20171
 Phone: (703) 464-1000
 Fax: (703) 481-9720
 www.bowman.com



THIS SEAL FOR REV.#15 ONLY

Professional Certification. 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.: 54916 Expiration Date: 8/23/2024

OWNER
 COLGATEDRIVE ASSOCIATES, LLC
 7125 COLUMBIA GATEWAY DRIVE
 COLUMBIA, MARYLAND 21046

DEVELOPER
AHEARN HOLTZMAN, INC

DESIGNED BY: EK
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REVISIONS

THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

~~SIMPLIFIED ENVIRONMENTAL CONCEPT PLAN~~ FOR THE RENAISSANCE AT COLUMBIA GATEWAY

HOWARD COUNTY, MARYLAND
7125 COLUMBIA GATEWAY DRIVE,
COLUMBIA, MARYLAND 21046



VICINITY MAP
SCALE 1" = 2000'
Copyright ADC The Map People

NARRATIVE

THE PURPOSE OF THIS SIMPLIFIED ENVIRONMENTAL CONCEPT PLAN IS TO PRESENT THE STORMWATER MANAGEMENT FACILITY DESIGNED TO TREAT RUNOFF AT 7125 COLUMBIA GATEWAY DRIVE. ENVIRONMENTAL SITE DESIGN WILL BE ACHIEVED VIA A PROPOSED 4'X12' FILTERRA SEDIMENTATION CHAMBER.

SITE DATA		
Total Area of Site	37.1 AC +/-	1,616,07 SF
Proposed Site Use	N/A	
Green Open Area	0.09 AC +/-	3920 SF
Impervious Area	N/A	
Wetlands	N/A	
Floodplains	N/A	
Forests	N/A	
Steep Slopes 15% & Greater	N/A	
Previous LOD (redline revisions 8/9/2016 to 8/13/2019)	0.11 AC +/-	4,836 SF
Proposed LOD	0.12 AC +/-	5,397 SF
Cumulative LOD	0.23 AC +/-	10,233 SF

GEODETIC SURVEY CONTROL:

STATION 42CC
NORTHING: 167602.591 MTS
EASTING: 416014.146 MTS
ELEVATION: 105.456 MTS

LATITUDE: 39°10'34.960" N
LONGITUDE: 76°48'52.805" W

STATION 42CB
NORTHING: 167433.323 MTS
EASTING: 416457.404 MTS
ELEVATION: 335.482 MTS

LATITUDE: 39°10'29.442" N
LONGITUDE: 76°48'34.352" W

STORMWATER MANAGEMENT INFORMATION CHART

Lot/Parcel Number	Facility Name & Number	Practice Type (Quantity)	Public	Private	HOA Maintains	Misc.
L	Filterra Sedimentation Chamber (FTSC-1)	Storage Inlet	No	Yes	Yes	

EXISTING	LEGEND DESCRIPTION	PROPOSED
	INDEX CONTOUR	
	INTERMEDIATE CONTOUR	
	EDGE OF PAVEMENT	
	CURB AND GUTTER	
	TRANSITION FROM CG-6R TO CG-6	
	PROPOSED HEADER CURB	
	PROPERTY LINE	
	DEPARTING PROPERTY LINE	
	LOT LINE	
	RIGHT-OF-WAY	
	CENTERLINE	
	FLOOD PLAIN	
	CLEARING AND GRADING	
	TREE LINE	
	FLOW LINE OF SWALE	
	STREAM	
	OVERLAND RELIEF PATHWAY	
	FENCE LINE	
	EASEMENT	
	WATER LINE	
	WATER VALVE	
	REDUCER	
	SANITARY SEWER	
	STORM SEWER	
	CABLE TV	
	ELECTRIC SERVICE	
	TELEPHONE SERVICE	
	GAS LINE	
	SPOT ELEVATION	
	UTILITY POLE	
	SIGN	
	SANITARY SEWER IDENTIFIER	
	STORM DRAIN IDENTIFIER	
	EASEMENT IDENTIFIER	
	WATER METER	
	FIRE HYDRANT	
	PARKING INDICATOR	
	INDICATES THE NUMBER OF TYPICAL PARKING SPACES	
	STREET LIGHT	
	YARD LIGHT	
	VEHICLES PER DAY (TRAFFIC COUNT)	
	TEST PIT LOCATION	
	RECOMMENDED/REQUIRED	
	CRITICAL SLOPE	
	SLOPES TO BE STABILIZED PURSUANT TO VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK	
	HANDICAP RAMP (CG-12)	
	DENOTES LOCATION OF STD VDOT CG-12 AND/OR JURISDICTIONAL STANDARD RAMP CONSTRUCTION	
	DENOTES CLEAR SIGHT TRIANGLE	
	TREE	
	BENCHMARK	
	ASPHALT TRAIL	
	CONCRETE SIDEWALK	
	END WALLS	
	END SECTIONS	
	STOP SIGN	
	STREET SIGN	
	OVERHEAD ELECTRIC	
	OVERHEAD TELEPHONE	
	HANDICAP PARKING SPACE (VAN)	
	REP RAP	

NOTES

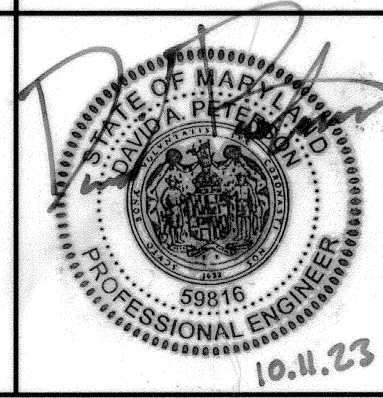
- APPROVAL OF THIS SIMPLIFIED ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION OR SITE DEVELOPMENT PLAN, BUILDING, AND/OR GRADING PERMIT
- NO WETLANDS, STREAMS, FLOODPLAIN, FORESTS, STEEP SLOPES OR ASSOCIATED BUFFERS EXIST WHICH MAY AFFECT CONSTRUCTION OF THE GENERATOR PAD AND ASSOCIATED SITE FEATURES.
- THIS LOT IS EXEMPT FROM THE REQUIREMENTS FOR FOREST CONSERVATION IN ACCORDANCE WITH SECTION 16.1202.b.1.vi OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION WITH FILING OF A DECLARATION OF INTENT WITH THE OWNERS BUILDING PERMIT.
- STORMWATER MANAGEMENT FOR THIS PROPOSAL IS PROVIDED WITH THE APPROVAL OF THE SIMPLIFIED ENVIRONMENTAL CONCEPT PLAN.

PREPARED BY:

Bowman

Bowman Consulting Group, Ltd.
13461 Sunrise Valley Dr, Suite 500
Herndon, Virginia 20171
© 2021 Bowman Consulting Group, Ltd.

Phone: (703) 464-1000
Fax: (703) 481-9720
www.bowman.com



THIS SEAL FOR
REV.#15 ONLY

Professional Certification. 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: 59816 Expiration Date: 8/23/2024

OWNER
COLGATEDRIVE ASSOCIATES, LLC
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DESIGNED BY: EK
DRAWN BY: EK
CHECKED BY: DP
REVISIONS

DEVELOPER
**AHEARN
HOLTZMAN, INC**

THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

15 ADDITIONAL SHEET

APPROVED: Howard County Department of Planning and Zoning

[Signature] 12.12.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12/21/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/21/23
DIRECTOR DATE

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME		SECTION NAME		PARCEL #
COLUMBIA GATEWAY		N/A		671
PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.
8803	1	M-1	43	6
WATER CODE -E06			SEWER CODE 5333000	

REVISED SITE DEVELOPMENT PLAN
- COVER SHEET
The Renaissance at
Columbia Gateway

ELECTION DISTRICT: 6 SCALE: AS SHOWN
HOWARD CO., MARYLAND SHT. 35 OF 37 DATE: 10/4/2023

OPERATIONS AND MAINTENANCE SCHEDULE

Basic Operations

Filterra is a bioretention system in a concrete box. Contaminated stormwater runoff enters the filter box through the curb inlet spreading over the 3-inch layer of mulch on the surface of the filter media. As the water passes through the mulch layer, most of the larger sediment particles and heavy metals are removed through sedimentation and chemical reactions with the organic material in the mulch. Water passes through the soil media where the finer particles are removed and other chemical reactions take place to immobilize and capture pollutants in the soil media. The cleansed water passes into an underdrain and flows to a pipe system or other appropriate discharge point. Once the pollutants are in the soil, the bacteria begin to break down and metabolize the materials and the plants begin to uptake and metabolize the pollutants. Some pollutants such as heavy metals, which are chemically bound to organic particles in the mulch, are released over time as the organic matter decomposes to release the metals to the feeder roots of the plants and the cells of the bacteria in the soil where they remain and are recycled. Other pollutants such as phosphorus are chemically bound to the soil particles and released slowly back to the plants and bacteria and used in their metabolic processes. Nitrogen goes through a very complex variety of biochemical processes where it can ultimately end up in the plant/bacterial biomass, turned to nitrogen gas or dissolves back into the water column as nitrates depending on soil temperature, pH and the availability of oxygen. The pollutants ultimately are retained in the mulch, soil and biomass with some passing out of the system into the air or back into the water.

Design and Installation

Each project presents different scopes for the use of Filterra systems. To ensure the safe and specified function of the stormwater BMP, Intrinsic reviews each application before supply. Information and help may be provided to the design engineer during the planning process. Correct Filterra box sizing (by rainfall region) is essential to prevent pollutant removal rates for a given area. The engineer shall submit calculations for approval by the local jurisdiction. The contractor is responsible for the correct installation of Filterra units as shown in approved plans. A comprehensive installation manual is available at www.intrinsic-systems.com.

Maintenance

Why Maintain?

All stormwater treatment systems require maintenance for effective operation. This necessity is often incorporated in your property's permitting process as a legally binding BMP maintenance agreement.

- Avoid legal challenges from your jurisdiction's maintenance enforcement program.

Exclusion of Services

It is the responsibility of the owner to provide adequate irrigation when necessary to the plant of the Filterra system.

Clean up due to major contamination such as oils, chemicals, toxic spills, etc. will result in additional costs and are not covered under the Supplier maintenance contract. Should a major contamination event occur the Owner must block off the outlet pipe of the Filterra (where the cleaned runoff drains to, such as drop inlet) and block off the throat of the Filterra. The Supplier should be informed immediately.

Maintenance Visit Summary

Each maintenance visit consists of the following simple tasks (detailed instructions below).

- Inspection of Filterra and surrounding area
- Removal of tree grate and erosion control stones
- Removal of debris, trash and mulch
- Mulch replacement
- Plant health evaluation and pruning or replacement as necessary
- Clean area around Filterra
- Complete paperwork

Maintenance Tools, Safety Equipment and Supplies

Ideal tools include: camera, bucket, shovel, broom, trimmers, hoe/rope, and tape measure. Appropriate Personal Protective Equipment (PPE) should be used in accordance with local or company procedures. This may include impervious gloves where the type of trash is unknown, high visibility clothing and barricades when working in close proximity to traffic and also safety hats and shoes. A 18"bar or crowbar should be used for moving the tree grates (up to 170 lbs ea.). Most visits require minor trash removal and a full replacement of mulch. See below for actual number of bagged mulch that is required in each unit size. Mulch should be a double shredded, hardwood variety; do not use colored or dyed mulch. Some visits may require additional Filterra engineered soil media available from the Supplier.

- Prolong the expected lifespan of your Filterra media.
- Avoid more costly media replacement.
- Help reduce pollutant loads leaving your property.

Simple maintenance of the Filterra is required to continue effective pollutant removal from stormwater runoff before discharge into downstream waters. This procedure will also extend the longevity of the living biofilter system. The unit will recycle and accumulate pollutants within the biomass, but is also subjected to other materials entering the throat. This may include trash, silt and leaves etc. which will be contained within the void below the top grate and above the mulch layer. Too much silt may inhibit the Filterra flow rate, which is the reason for site stabilization before activation. Regular replacement of the mulch stops accumulation of such sediment.

When to Maintain?

A one year maintenance plan with each system purchase. Annual included maintenance consists of a maximum of two (2) scheduled visits. Additional maintenance may be necessary depending on sediment and trash loading (by Owner or at additional cost). The start of the maintenance plan begins when the system is activated for full operation. Full operation is defined as the unit installed, curb and gutter and transoms in place and activation (by Supplier) when mulch and plant are added and temporary throat protection removed.

Activation cannot be carried out until the site is fully stabilized (full landscaping, grass cover, final paving and street sweeping completed). Maintenance visits are scheduled seasonally; the spring visit aims to clean up after winter loads including salts and sands while the fall visit helps the system by removing excessive leaf litter.

It has been found that in regions which receive between 30-50 inches of annual rainfall, (2) two visits are generally required; regions with less rainfall often only require (1) one visit per annum. Varying land uses can affect maintenance frequency; e.g. some fast food restaurants require more frequent trash removal. Contributing drainage areas which are subject to new development wherein the recommended erosion and sediment control measures have not been implemented may require additional maintenance visits.

Some sites may be subjected to extreme sediment or trash loads, requiring more frequent maintenance visits. This is the reason for detailed notes of maintenance actions per unit, helping the Supplier and Owner predict future maintenance frequencies, reflecting individual site conditions.

Owners must promptly notify the (maintenance) Supplier of any damage to the plant(s), which constitute(s) an integral part of the bioretention technology. Owners should also advise other landscape or maintenance contractors to leave all maintenance to the Supplier (i.e. no pruning or fertilizing).

Maintenance Visit Procedure

Keep sufficient documentation of maintenance actions to predict location specific maintenance frequencies and needs. An example Maintenance Report is included in this manual.

1. Inspection of Filterra and surrounding area

- Record individual unit before maintenance with photograph (numbered). Record on Maintenance Report (see example in this document) the following:

Record on Maintenance Report the following:		
Standing Water	yes no	
Damage to Box Structure	yes no	
Damage to Grate	yes no	
Is Bypass Clear	yes no	

If yes answered to any of these observations, record with close-up photograph (numbered).

2. Removal of tree grate and erosion control stones

- Remove cast iron grates for access into Filterra box.
- Dig out silt (if any) and mulch and remove trash & foreign items.

Record on Maintenance Report the following:		
Silt/Clay	yes no	
Cup/Bags	yes no	
Leaves	yes no	
# of Buckets Removed		

3. Removal of debris, trash and mulch

- After removal of mulch and debris, measure distance from the top of the Filterra engineered media soil to the bottom of the top slab. If this distance is greater than 12" (300 mm), add Filterra media (not top soil or other) to recharge to a 9" (229 mm) distance

Record on Maintenance Report the following:		
Distance of Bottom of Top Slab (inches)		
# of Buckets of Media Added		

4. Mulch replacement

- Please see mulch specifications.
- Add double shredded mulch evenly across the entire unit to a depth of 3" (75 mm).
- Ensure correct repositioning of erosion control stones by the Filterra inlet to allow for entry of trash during a storm event.
- Replace Filterra grates correctly using appropriate lifting or moving tools, taking care not to damage the plant.

5. Plant health evaluation and pruning or replacement as necessary

- Examine the plant's health and replace if dead.
- Prune as necessary to encourage growth in the correct directions

Record on Maintenance Report the following:		
Height above Grate	(Feet)	
Width at Widest Point	(feet)	
Health	alive dead	
Damage to Plant	yes no	
Plant Replaced	yes no	

6. Clean area around Filterra

- Clean area around unit and remove all refuse to be disposed of appropriately.

7. Complete paperwork

- Deliver Maintenance Report and photographs to appropriate location (normally during maintenance contract period).
- Some jurisdictions may require submission of maintenance reports in accordance with approvals. It is the responsibility of the Owner to comply with local regulations.

MAINTENANCE CHECKLIST

Drainage System Failure	Problem	Conditions to Check	Condition that Should Exist	Actions
Inlet	Excessive sediment or trash accumulation.	Accumulated sediments or trash impair free flow of water into Filterra.	Inlet should be free of obstructions allowing free distributed flow of water into Filterra.	Sediments and/or trash should be removed.
Mulch Cover	Trash and floatable debris accumulation.	Excessive trash and/or debris accumulation.	Minimal trash or other debris on mulch cover.	Trash and debris should be removed and mulch cover raked level. Ensure bark nugget mulch is not used.
Mulch Cover	"Ponding" of water on mulch cover.	"Ponding" in unit could be indicative of clogging due to excessive fine sediment accumulation or spill of petroleum oils.	Stormwater should drain freely and evenly through mulch cover.	Recommend contact manufacturer and replace mulch as a minimum.
Vegetation	Plants not growing or in poor condition.	Silt/mulch too wet; evidence of spill; Incorrect plant selection; Pest infestation; Vandalism to plants.	Plants should be healthy and pest free.	Contact manufacturer for advice.
Vegetation	Plant growth excessive.	Plants should be appropriate to the species and location of Filterra.		Trim/prune plants in accordance with typical landscaping and safety needs.
Structure	Structure has visible cracks.	Cracks wider than 1/2 inch or evidence of soil particles entering the structure through the cracks.		Vault should be repaired.

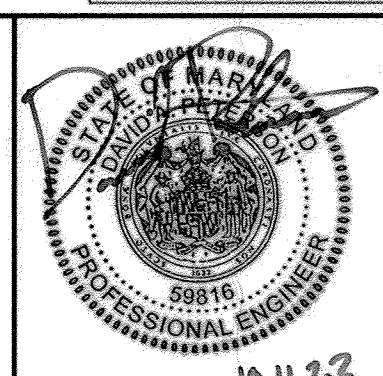
Maintenance is ideally to be performed twice annually.

PREPARED BY:



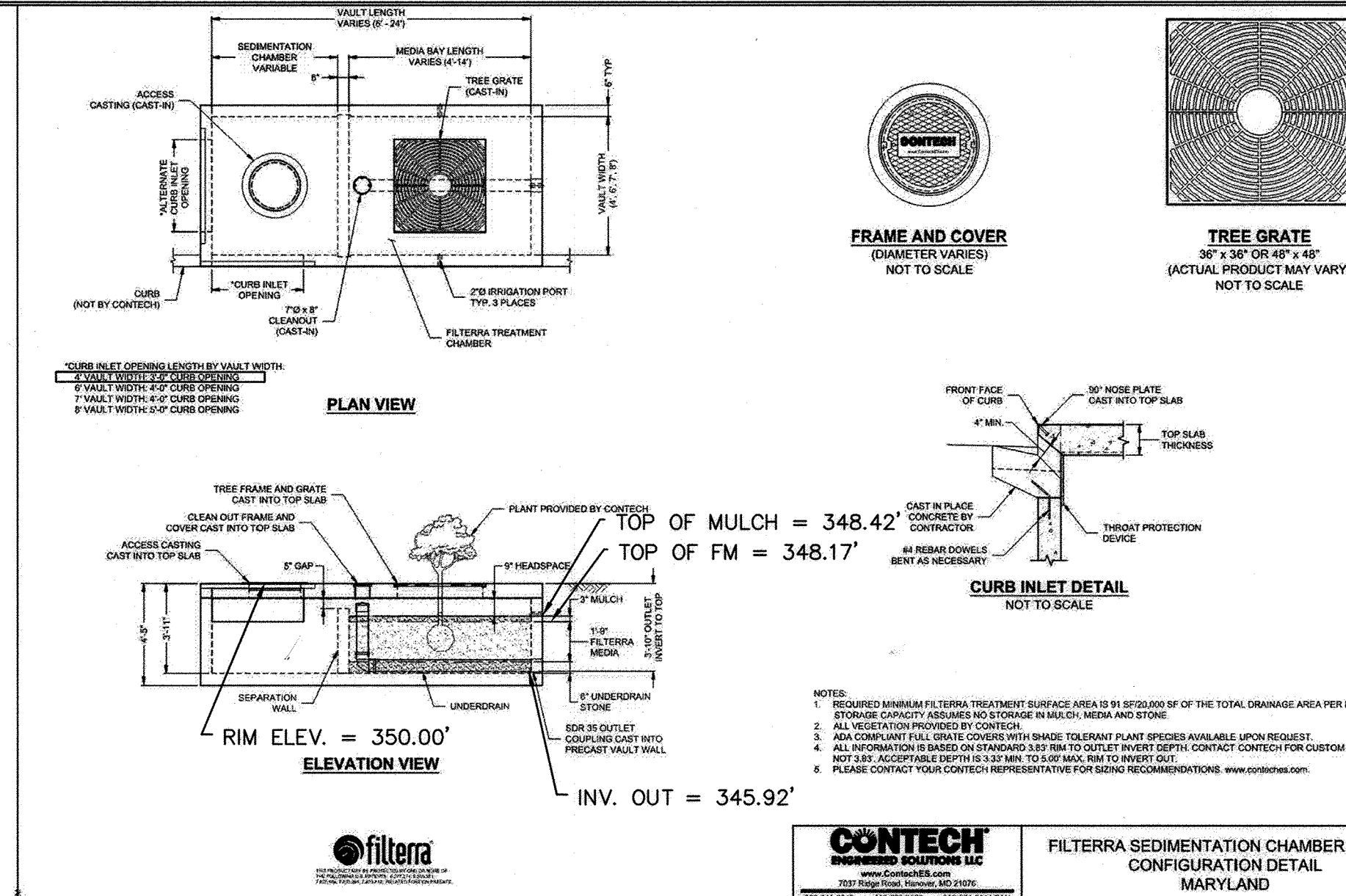
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13461 Sunrise Valley Dr, Suite 500
Herndon, Virginia 20171
© 2021 Bowman Consulting Group, Ltd.

Phone: (703) 464-1000
Fax: (703) 481-9720
www.bowman.com



THIS SEAL FOR REV.#15 ONLY

Professional Certification, 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.: 59816 Expiration Date: 8/23/2024



FILTERRA SPECIFICATIONS

1.0 GENERAL

- This item shall govern the furnishing and installation of the Filterra[®] Bioscape Bioretention System by Contech Engineered Solutions LLC, complete and operable as shown and as specified herein, in accordance with the requirements of the plans and contract documents.
- Contractor shall furnish all labor, materials, equipment and incidentals necessary to install and/or prepare the site for placement of the bioretention system, appurtenances and incidentals in accordance with the Drawings and as specified herein.
- Bioretention system shall utilize the physical, chemical and biological mechanisms of an engineered biofiltration media, plant and microbe complex to remove pollutants typically found in urban stormwater runoff. The treatment system shall be a fully equipped, pre-constructed, drop-in-place unit designed for applications in the urban landscape to treat contaminated runoff from impervious surfaces.
- Bioretention plants shall be incorporated into the system with plant material extending into the treatment zone of the engineered media at time of Activation.
- The bioretention system shall be of a type that has been installed and in use for a minimum of five (5) consecutive years preceding the date of installation of the system. The Manufacturer shall have been, during the same consecutive five (5) year period, engaged in the engineering design and production of systems deployed for the treatment of storm water runoff and which have a history of successful production, acceptable to the Engineer of Record and/or the approving Jurisdiction. The Manufacturer of the Filterra Bioscape Bioretention System shall be, without exception:

Contech Engineered Solutions LLC
9100 Centre Pointe Drive
West Chester, OH, 45069
Tel: 1 800 338 1122

- Applicable provisions of any Division shall govern work in this section.

- Manufacturer or authorized supplier to submit shop drawings for bioretention system with engineered biofiltration media and accessory equipment. Drawings shall include principal dimensions, engineered biofiltration media placement, and location of piping.

- Manufacturer or authorized supplier shall submit site preparation and installation instructions to the contractor.
- Manufacturer or authorized supplier shall submit Operations and Maintenance Manual to the contractor.
- Before installation of the bioretention system, Contractor shall obtain the written approval of the Engineer of Record for the system drawings.

- No product substitutions shall be accepted unless submitted 10 days prior to project bid date, or as directed by the Engineer of Record. Substitutions require review and approval by the Engineer of Record, for hydraulic performance, impact to project designs, equivalent treatment performance, and any required project plan and report (hydrology/hydraulic, water quality, stormwater pollution) modifications that would be required by the approving jurisdictions/agencies. Contractor to coordinate with the Engineer of Record any applicable modifications to the project estimates of cost, bonding amount determinations, plan check fees for changes to approved documents, and/or any other regulatory requirements resulting from the product substitution.

2.0 MATERIALS

- All system components including engineered biofiltration media, underdrain stone, PVC underdrain piping, and mulch must be included as part of the bioretention system and shall be provided by Contech Engineered Solutions LLC.
 - Engineered biofiltration media shall consist of both organic and inorganic components. Stormwater shall be directed to flow vertically through the media profile, saturating the full media depth without downstream flow control.
 - Underdrain stone shall be of size and shape to provide adequate bridging between the media and stone for the prevention of migration of fine particles. Underdrain stone must also be able to convey the design flow rate of the system without restriction and be approved for use in the Filterra Bioscape Bioretention System by Contech Engineered Solutions LLC.
 - PVC Underdrain Piping shall be SDR35 with perforation pattern designed to convey system design flow rate without restriction.
 - Mulch shall be double shredded wood or bark mulch approved for use with the Filterra Bioscape Bioretention System by Contech Engineered Solutions LLC.
- Vegetation shall be provided by the contractor and comply with the type and size required by the site plans and shall be alive and free of obvious signs of disease.

- Vegetation shall be provided by the contractor and comply with the type and size required by the site plans and shall be alive and free of obvious signs of disease.
- Filterra Bioscape containment basin or structure shall be provided by the contractor in accordance with the Engineer of Record site plans.

3.0 PERFORMANCE

- Treatment Capabilities shall be verified via third-party report following either TAPE or TARP protocols.
 - Engineered biofiltration media minimum treatment flow rate shall be 140"/hr. The system shall be designed to ensure that high flow events shall bypass the engineered biofiltration media preventing erosion and resuspension of pollutants.
 - The system shall remove a minimum of 85% Total Suspended Solids (TSS).
 - The system shall remove a minimum of 62% Total Phosphorus (TP).
 - The system shall remove a minimum of 34% Total Nitrogen (TN).
- Quality Assurance and Quality Control procedures shall be followed for all batches of engineered biofiltration media produced. Engineered biofiltration media shall be certified by the Manufacturer for performance and composition.
 - Media particle size distribution and composition shall be verified as per relevant ASTM Standards.
 - Media pollutant removal performance shall be verified as per relevant ASTM Standards as well as a minimum of one scientific method approved by the USEPA.
 - Media hydraulic performance shall be verified as per relevant ASTM Standards.
 - Media fertility shall be verified as per a minimum of one published scientific method.
- The Manufacturer shall ensure through third party full scale field testing of installed units that the design flow rate of the system is not reduced over time. Studies shall be performed on a minimum of 10 systems of various ages, maintenance frequencies, and land uses. At least 80% of the tested systems shall have been installed 2.5 or more years. At least 50% of the systems shall have previous maintenance intervals greater than 2 times the manufacturer's recommendation.

4.0 EXECUTION

- Contractor to prepare site for installation of the Filterra Bioscape Bioretention system as per the "Filterra Bioscape Activation Guide for Contractors" provided by the Manufacturer.
 - Excavation of basin or installation of Cast-in-Place vault for the placement of system components shall be completed by contractor.
 - Inlet and outlet pipes shall be provided to the edge of the extents of the Engineered Media for connection of underdrain during system installation by contractor.
 - All bypass structures, piping, or other mechanisms should be installed and in place by contractor prior to Filterra Bioscape System Activation.
- The bioretention system shall not be placed in operation (activated) until the project site is clean and stabilized (construction erosion control measures no longer required). The project site includes any surface that contributes storm drainage to the system. All impermeable surfaces shall be clean and free of dirt and debris. All catch basins, manholes and pipes shall be free of dirt and sediment.
- Activation consists of the placement of all system components identified in Section 2. Activation must be provided by the contractor under supervision by Contech Engineered Solutions, LLC, or a Contech certified 3rd Party Activation provider.
- To ensure long term performance of the bioretention system, continuing annual maintenance programs should be performed or purchased by the owner per the latest Filterra Bioscape Bioretention System Operation and Maintenance manual.

OWNER
COLGATEDRIVE ASSOCIATES, LLC
7125 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046

DESIGNED BY: EK
DRAWN BY: EK
CHECKED BY: DP

DEVELOPER
AHEARN
HOLTZMAN, INC

THE ADDITION OF AN EXTERIOR GENERATOR WITH ASSOCIATED EQUIPMENT ALONG THE SOUTHWEST PORTION OF THE EXISTING BUILDING AND FILTERRA SYSTEM WITHIN THE ADJACENT PARKING LOT. THE SHEET COUNT HAS BEEN UPDATED FROM A TOTAL OF 32 TO 37 WITH THE ADDITION OF FIVE (5) SHEETS.

CONTECH ENGINEERED SOLUTIONS Sizing per MDE ESD Approval filterra

Project Name: Renaissance at Columbia Gateway
Site Designation: Filterra
County or Independent City: Howard
State: MD
Date: 5/18/23
Design Engineer: JLW

Site Characteristic Input

Target Rainfall Event, P (inches)	1.00	
Total Drainage Area	0.117	ac
ImperVIOUS Area	0.117	ac
Rim to Invert Out Depth (ft)	4.083	OK
Percent of ESDv to be Stored in Filterra	25%	

Volume Computations

% Impervious, I	100%
Volumetric Runoff Coefficient, Rv	0.95
ESD Volume, ESDv (ac-ft)	0.0093
ESD Volume, ESDv (cft)	405

Filterra Sizing (Per MDE ESD Approval Letter)

Minimum Filterra Planted Surface Area (sf)	(9%/20,000 of the Drainage Area)*P	23	
Minimum ESDv Required Storage (cft)	25% of the ESDv	101	
Recommended Filterra Size	FTSC Configuration 4 x 6 (4 x 12)		
Filterra Planted Surface Area Provided (sf)		24	103%
ESDv Storage Provided (cft)		102	101%

SEQUENCE OF CONSTRUCTION

- Notify owner, Howard County Sediment Control Enforcement Authority and Miss Utility 1-800-257-7777 a minimum of 72 hours before the start of any earth work and/or demolition. Contact Department of Inspections, Licenses, and Permits to schedule a Pre-Construction Meeting. Contractor or Owner is responsible for scheduling.
- Install inlet protection and silt fence on the site as shown.
- Prepare temporary parking and storage areas.
- Begin grading the site.
- Begin installation of proposed Filterra Sedimentation Chamber; Begin construction of utilities.
- Begin subgrade preparation and construction of structures.
- Begin construction of curb, gutter, and concrete paving.
- Complete final grading and installation of permanent stabilization over all areas.
- Contact Howard County Sediment Control Enforcement Authority after site has been stabilized for permission to remove temporary SEC devices and re-stabilize as necessary.

Contractor may complete construction related activities concurrently only if all preceding bmps have been completely installed.

The actual schedule for implementing pollutant control measures will be determined by the project construction progress and recorded by the general contractor on these plans.

ADDITIONAL SHEET

APPROVED: Howard County Department of Planning and Zoning

Chad Edwards 12/12/23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Lyndee Haskins 12/12/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
DIRECTOR DATE

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
L	7125 COLUMBIA GATEWAY DRIVE

SUBDIVISION NAME	SECTION NAME	PARCEL #
COLUMBIA GATEWAY	N/A	671

PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
8803	1	M-1	43	6	6067.03

WATER CODE -E06 SEWER CODE 5333000

REVISED SITE DEVELOPMENT PLAN
- DETAILS & NOTES
The Renaissance at
Columbia Gateway

ELECTION DISTRICT: 6 SCALE: NTS
HOWARD CO., MARYLAND SHT. 37 OF 37 DATE: 10/4/2023