

No.	Elevation	Offset
73+03	2' Left	
73+01	6' Left	
73+02	4' Left	
73+27	2' Right	
74+22	4' Left	
74+24	2' Left	
74+22	2' Left	
72+50	4' Left	
71+75	2' Right	
75+35	22' Left	
75+00	50' Left	
74+45	50' Left	
74+13	22' Left	
72+92	22' Left	
67+00	50' Left	
67+00	27' Left	
67+50	20' Left	
67+40	27' Left	
67+04	50' Left	
66+05	22' Left	
65+95	4' Left	
67+00	6' Left	
66+95	2' Left	
66+92	2' Left	
66+12	4' Right	
66+15	2' Right	
66+92	4' Left	
64+74	22' Left	
64+45	50' Left	
63+50	50' Left	
63+45	22' Left	

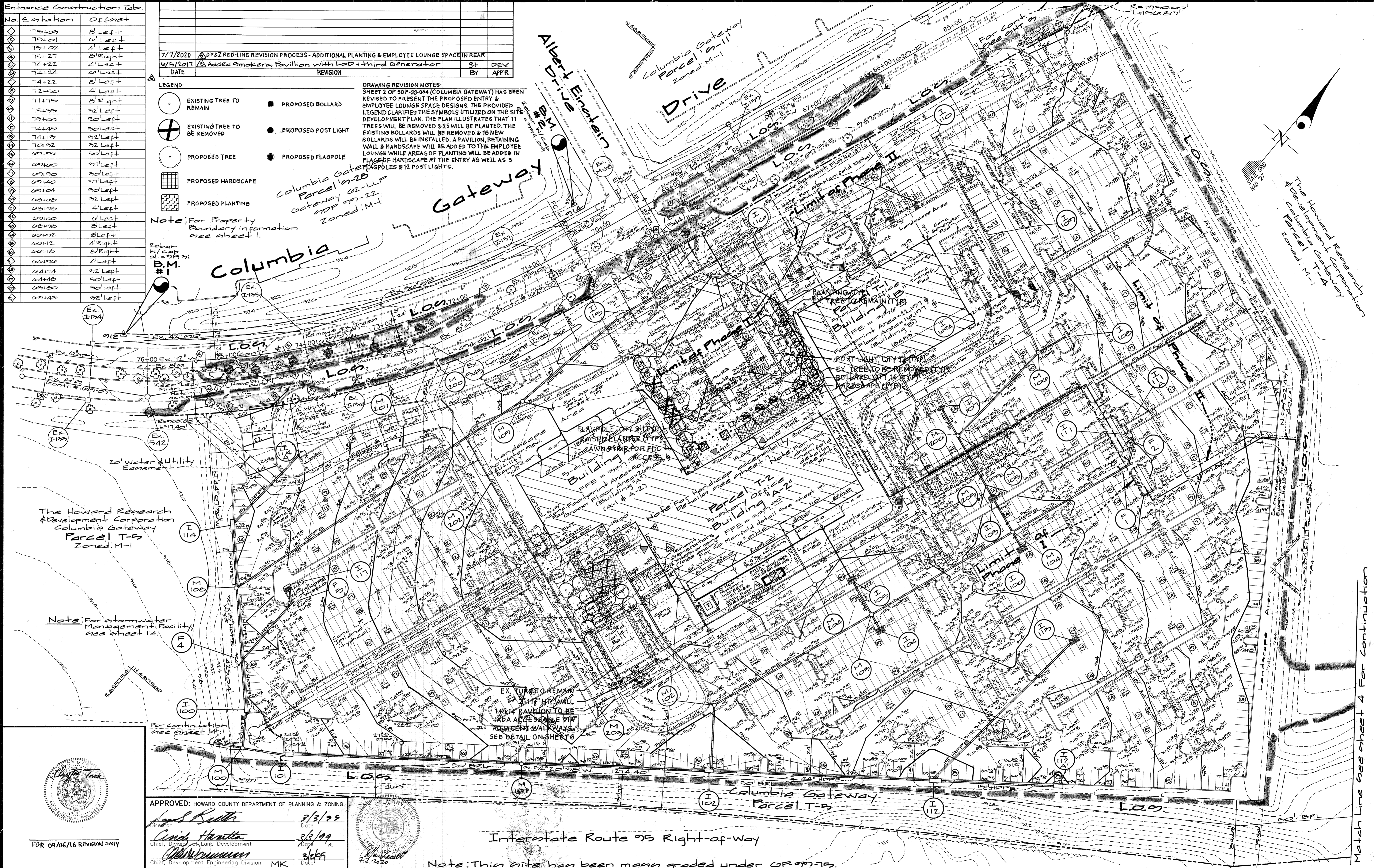
DATE	REVISION	BY	APPR.
7/7/2020	DP&Z RED-LINE REVISION PROCESS-ADDITIONAL PLANTING & EMPLOYEE LOUNGE SPACE IN REAR		
6/5/2017	Added Smokers Pavilion with LED 3rd Generator	34	DEV

LEGEND:

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- PROPOSED TREE
- PROPOSED HARDSCAPE
- PROPOSED PLANTING
- PROPOSED BOLLARD
- PROPOSED POST LIGHT
- PROPOSED FLAGPOLE

DRAWING REVISION NOTES:
SHEET 2 OF SDP-99-054 (COLUMBIA GATEWAY) HAS BEEN REVISED TO PRESENT THE PROPOSED ENTRY & EMPLOYEE LOUNGE SPACE DESIGNS. THE PROVIDED LEGEND CLARIFIES THE SYMBOLS UTILIZED ON THE DEVELOPMENT PLAN. THE PLAN ILLUSTRATES THAT 11 TREES WILL BE REMOVED & 25 WILL BE PLANTED. THE EXISTING BOLLARDS WILL BE REMOVED & 16 NEW BOLLARDS WILL BE INSTALLED. A PAVILION, RETAINING WALL & HARDSCAPE WILL BE ADDED TO THE EMPLOYEE LOUNGE WHILE AREAS OF PLANTING WILL BE ADDED IN PLACE OF HARDSCAPE AT THE ENTRY AS WELL AS 3 FLAGPOLES & 12 POST LIGHTS.

Note: For Property Boundary information see sheet 1.

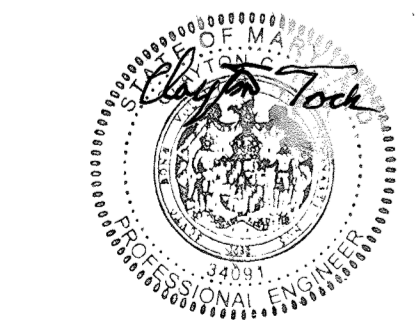


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Leah Kuttler 3/3/19
Director

Cindy Hanter 3/3/19
Chief, Division of Land Development

Michael... 3/6/19
Chief, Development Engineering Division



FOR 09/06/16 REVISION ONLY

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4136

DATE	REVISION	BY	APPR.
09/06/16	REVISED PLAN TO ELIMINATE PREVIOUSLY SHOWN GREAS TRAP AND SANITARY CONNECTION TO BUILDING A-2		
07/2/200	Rev Parcel T-1 Building, add drop-off area and loading area	WJ	
11/2/19	Rev Location of Utility Conduits, Sidewalks, Loading Deck & Generator Loc.	GT	
12/2/18	Rev Per Ho Co Comments	WJ	
12/11/18	Sidewalk revisions per HEDS ARC comments	WJ	
12/11/18	Remove & Relocate E.H.'s Per MUT mtg with Eric Marshall	WJ	

Owner Parcel T-1:
Orix Gateway Columbia, LLC
100 N. Riverside Plaza
Suite 400
Chicago, IL 60606
(312) 667-6445

SITE DEVELOPMENT PLAN
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 and T-5
Plat # 13402 thru 13404 & Plat No. 18716

ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	M-1	98067
DATE	TAX MAP - GRID	SHEET
November, 1998	43 - 1,2,7,8	2 OF 22

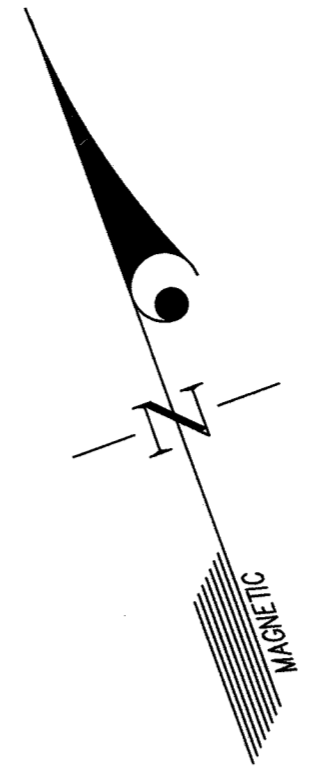
SDP 99-54

Match Line see sheet 4 For continuation

LEGEND:

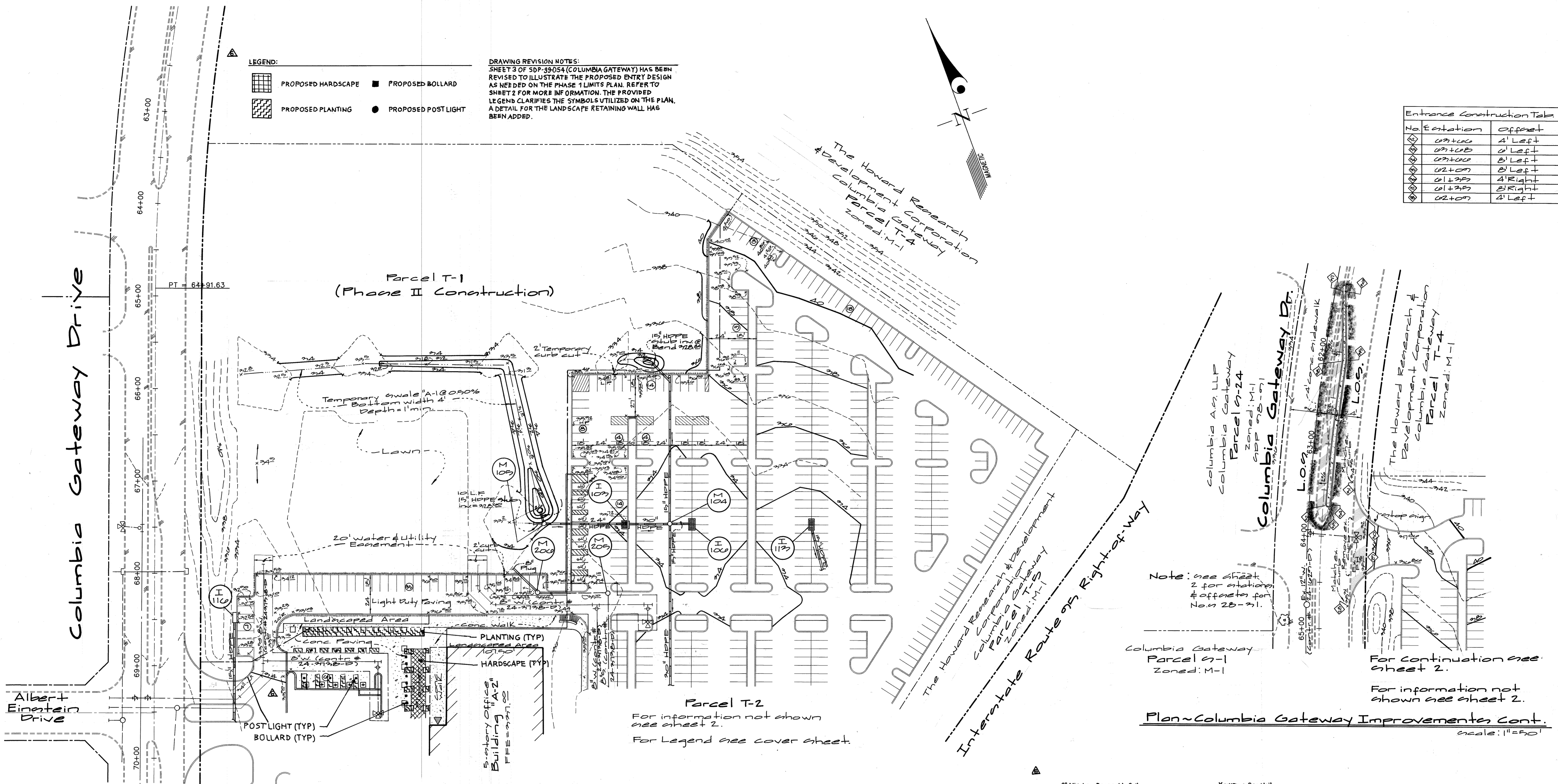
	PROPOSED HARDSCAPE		PROPOSED BOLLARD
	PROPOSED PLANTING		PROPOSED POST LIGHT

DRAWING REVISION NOTES:
 SHEET 3 OF 5DP-99-054 (COLUMBIA GATEWAY) HAS BEEN REVISED TO ILLUSTRATE THE PROPOSED ENTRY DESIGN AS NEEDED ON THE PHASE I LIMITS PLAN. REFER TO SHEET 2 FOR MORE INFORMATION. THE PROVIDED LEGEND CLARIFIES THE SYMBOLS UTILIZED ON THE PLAN. A DETAIL FOR THE LANDSCAPE RETAINING WALL HAS BEEN ADDED.



Entrance Construction Table

No.	Station	Offset
1	02+00	4' Left
2	02+00	6' Left
3	02+00	8' Left
4	02+00	8' Left
5	01+25	4' Right
6	01+25	8' Right
7	02+00	4' Left

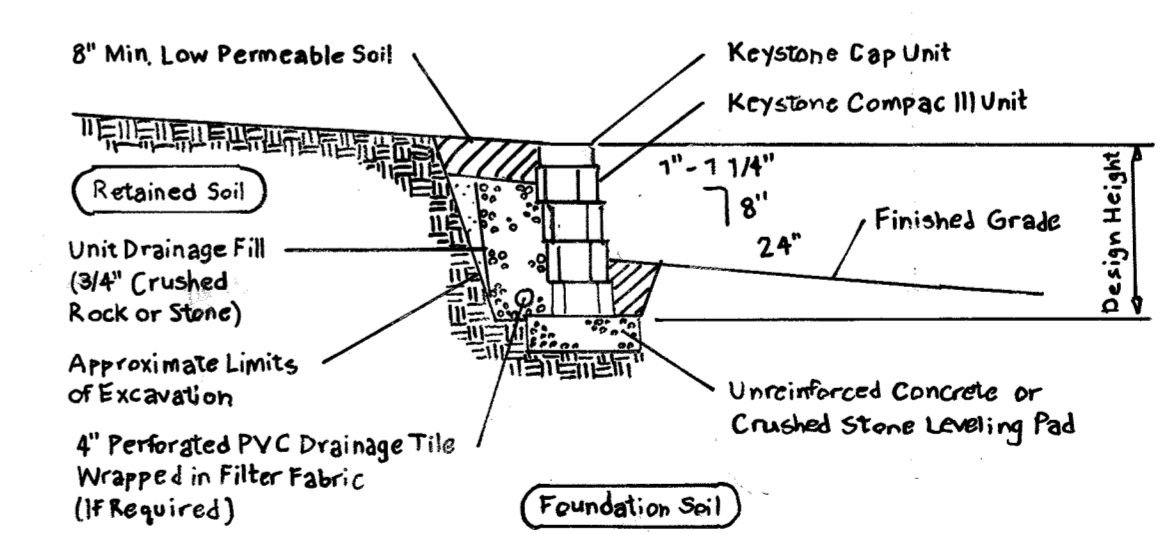


Plan - Phase I Limits
 scale: 1"=50'

Note: see sheet 2 for stationing & offsets for Non 28-21.

For Continuation see sheet 2.
 For information not shown see sheet 2.

Plan - Columbia Gateway Improvements Cont.
 scale: 1"=50'

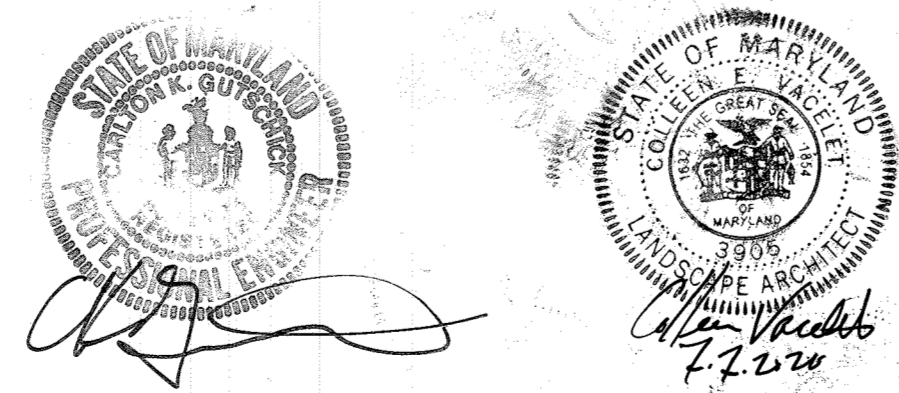


Typical Gravity Wall Section
 Compac III Unit - 1" Setback

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

	3/3/99
	3/3/99
	3/2/99

Chief, Division of Land Development
 Chief, Development Engineering Division



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

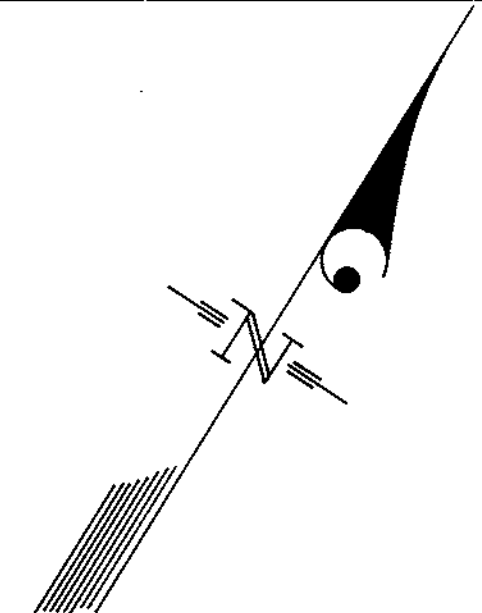
DATE	REVISION	BY	APPR.
7/7/2020	DPZ2 RED-LINE REVISION PROCESS - ADDITIONAL PLANTING & EMPLOYEE LOUNGE SPACE IN REAR	W21	
12/11/19	Change owner information	W21	
12/11/19	Rev water add FH & cont. Note	W21	

Owner Parcel T-1:
 Orix Gateway Columbia, LLC
 100 Riverside Plaza
 Suite 400
 Chicago, IL 60606
 (312) 667-1044

PHASE I SITE DEVELOPMENT PLAN LIMITS
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat # 13404 thru 13404
 & Plat No. 13710

SCALE	ZONING	G. L. W. FILE No.
1"=50'	M-1	98067
DATE	TAX MAP - GRID	SHEET
NOVEMBER 1998	43-1,2,7,8	3 OF 22

5DP 99-54



The Howard Research & Development Corp.
Columbia Gateway
Parcel T-4
Zoned: M-1

Match line see sheet 2 for continuation



Interstate Route 95 Right of Way

Note: This site has been mass graded under GP-97-75

Approved: Howard County Department of Planning & Zoning
John S. Miller 3/3/99
 Director
David K. Hester 3/3/99
 Chief, Division of Land Development
Chad D. ... 3/2/99
 Chief, Development Engineering Division



Owner Parcels T-4 & T-5
 The Howard Research & Development Corporation
 10215 Little Patuxent Pkwy.
 Columbia, Maryland 21044
 Attn: Al Edwards
 (410) 992-4027

Owner Parcels T-1 & T-2 Developer
 Orix Columbia, Inc.
 1401 H Street N.W.
 Suite 550
 Washington, DC 20005
 (202) 287-1401

GW GUTSCHICK LITTLE & WEBER, P.A.

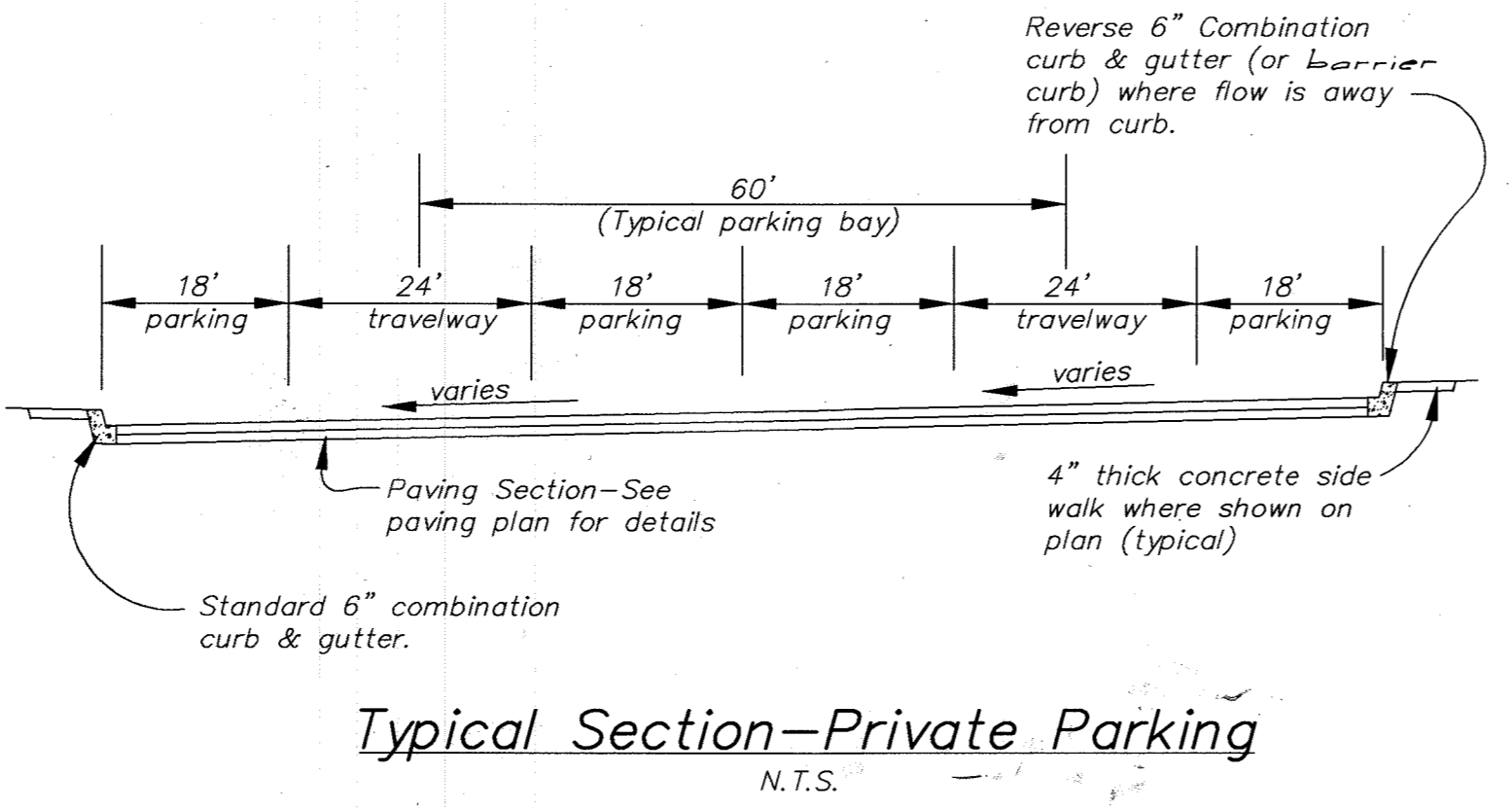
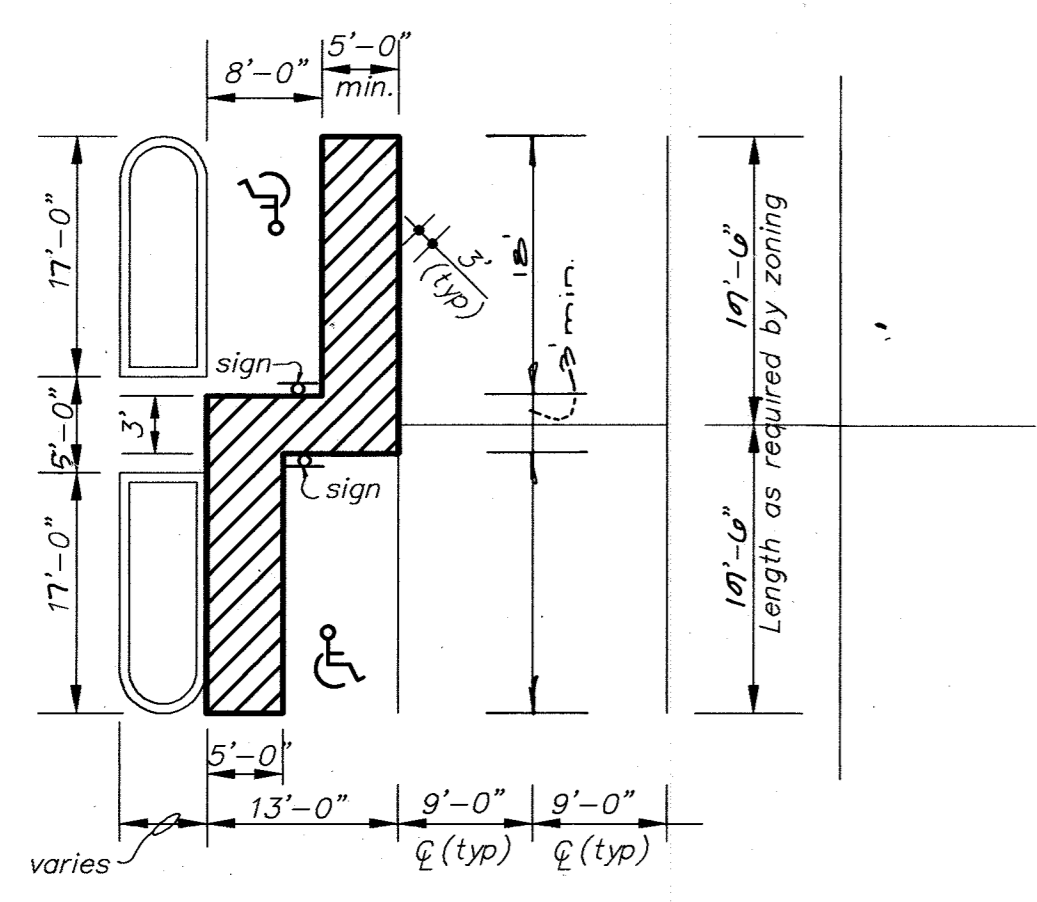
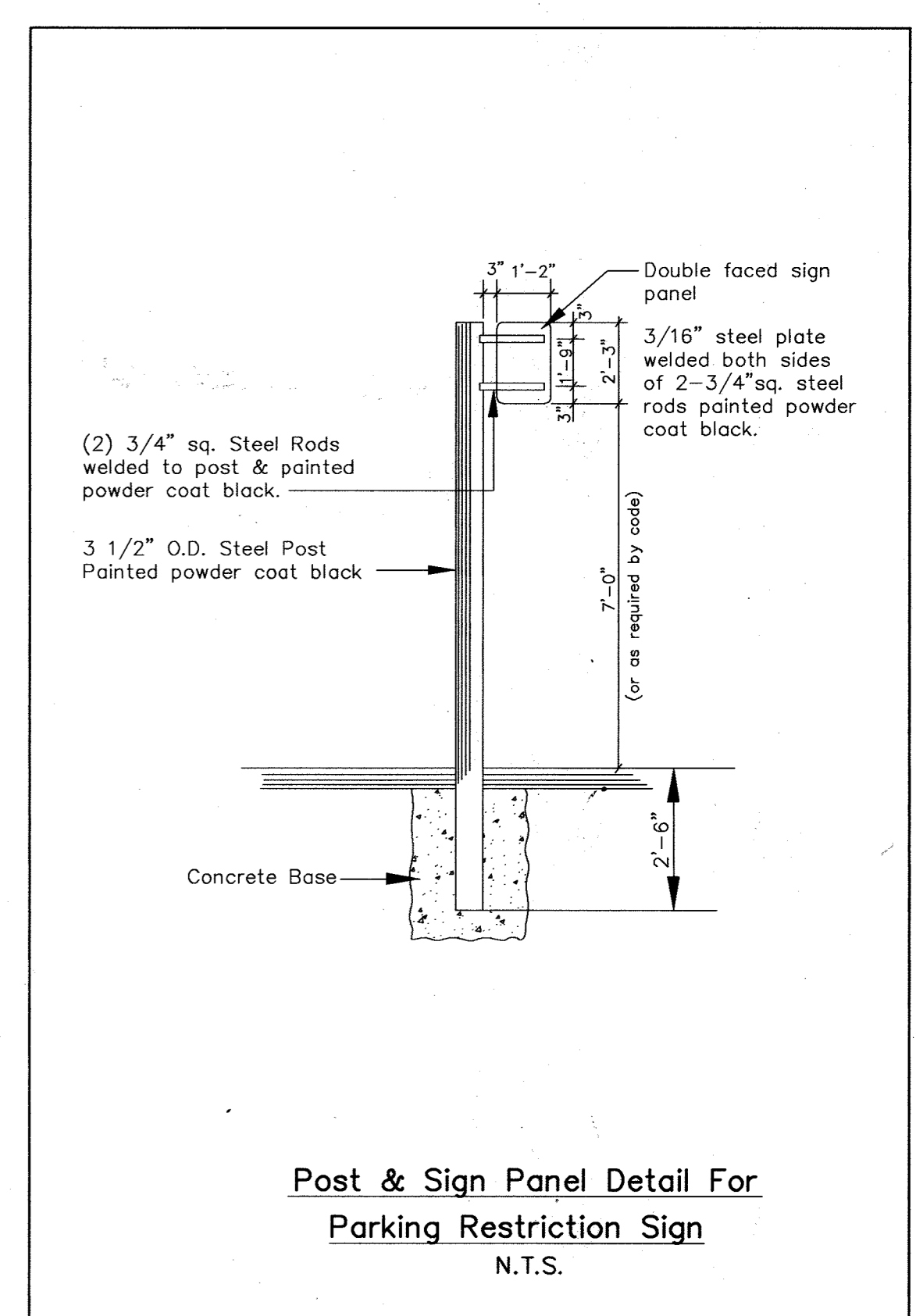
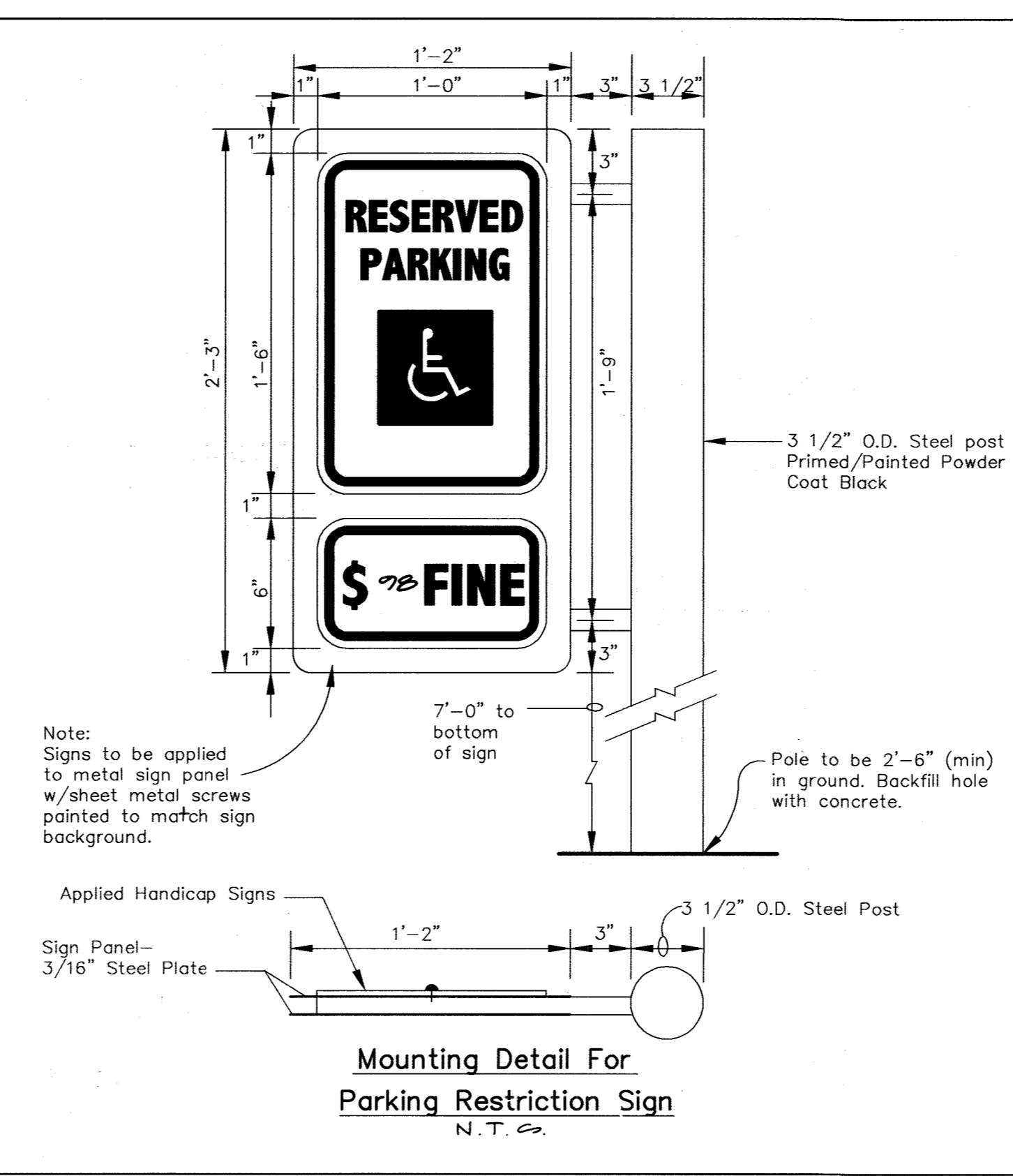
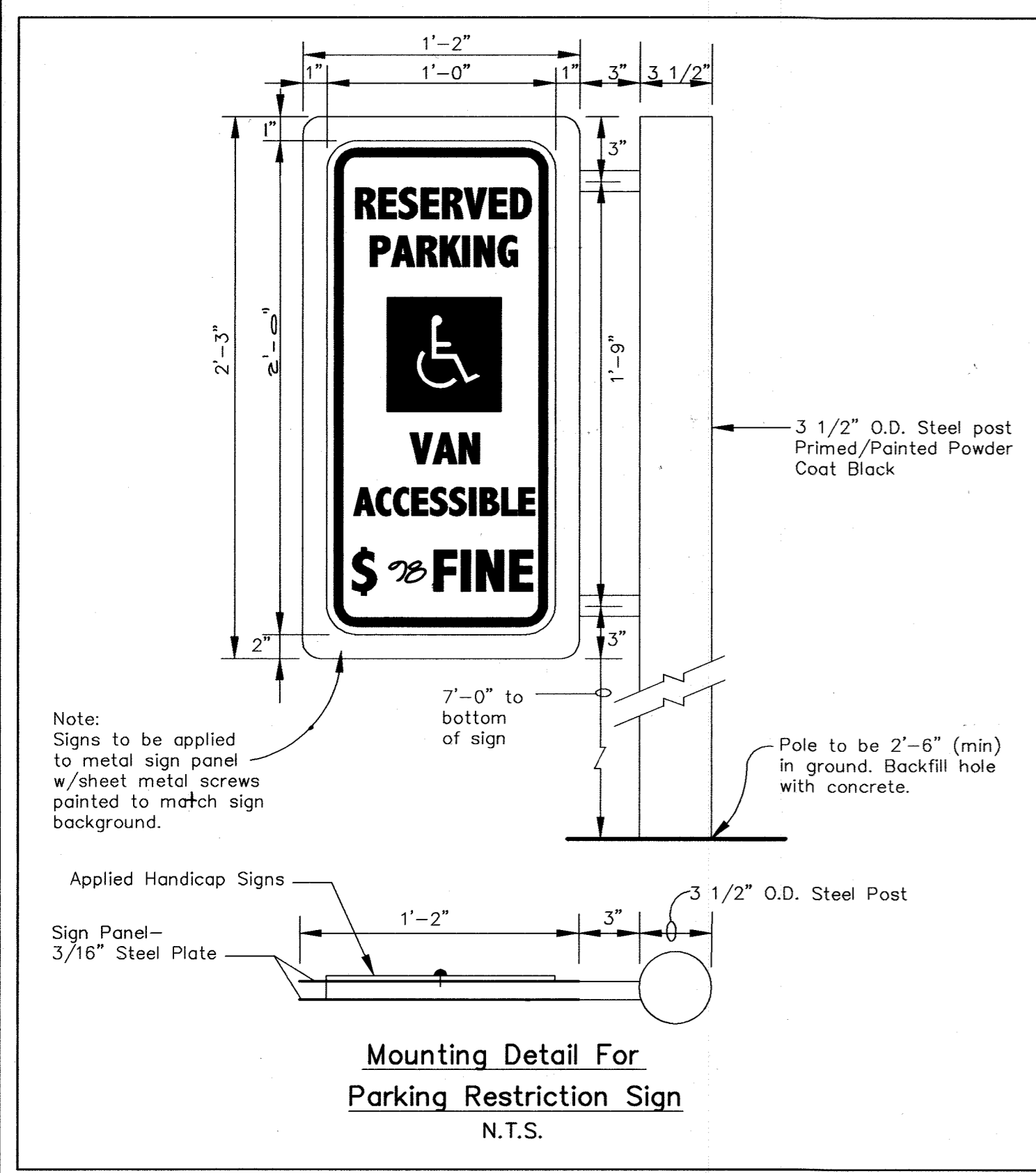
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866

TELEPHONE: (301) 421-4024 NO. VA. (301) 989-2524 BALTO. (301) 880-1820 FAX (301) 421-4186

DATE	REVISION	BY	APPR.

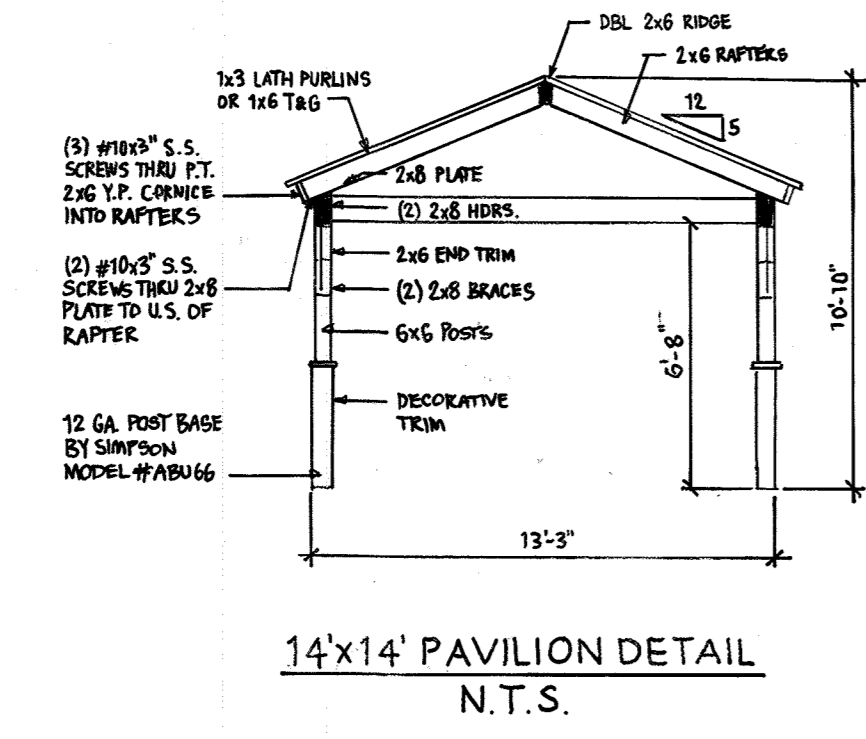
Grading Plan
Columbia Gateway
 Parcels T-1, T-2, T-4 & T-5
 Plat #13462 thru 13464
 Election District No. 4
 Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE No.
DRN.:	1" = 50'	M-1	98-067
CHK.:	DATE	TAX MAP No.	SHEET
	November, 1998	43 1,2,7,8	4 of 22



Note: 4" wide white stripes typical (unless noted otherwise)

DRAWING REVISION NOTES:
SHEET 6 OF 5DP-99-054 (COLUMBIA GATEWAY)
HAS BEEN REVISED TO INCLUDE A DETAIL
DEPICTING THE DIMENSIONS OF THE
PROPOSED PAVILION.



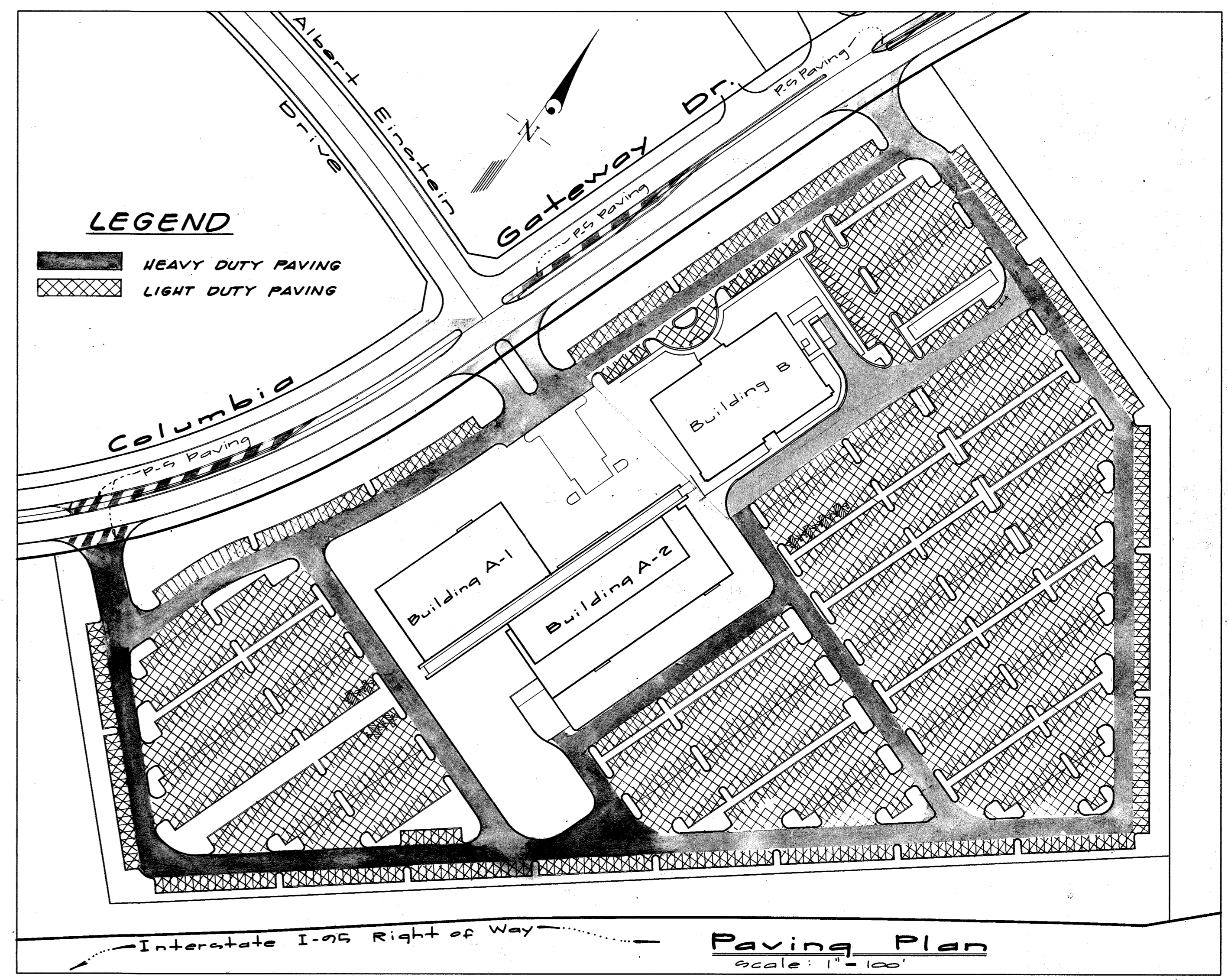
PAVING SECTIONS

PAVEMENT MATERIAL	THICKNESS (INCHES)	
	HEAVY DUTY	LIGHT DUTY
HOT MIX ASPHALT SURFACE COARSE OR FINE (SC OR SF)	2.0	3.0
HOT MIX ASPHALT BASE FINE (BF)	3.0	-
GRADED AGGREGATE - SUBBASE (GA S/B)	5.0	5.0
TOTAL PAVEMENT THICKNESS	10.0	8.0
EQUIVALENT FULL DEPTH ASPHALT	7.0*	5.0*

* FOR FULL DEPTH ASPHALT THE UPPER 2 INCHES SHOULD CONSIST OF HOT MIX ASPHALT SURFACE - COARSE OR FINE (SC OR SF), WITH THE REMAINING DEPTH CONSISTING OF HOT MIX ASPHALT BASE - FINE (BF).

PAVING SECTIONS TAKEN FROM A REPORT OF SUBSURFACE EXPLORATION & GEOTECHNICAL ENGINEERING ANALYSIS PREPARED BY ECS, LTD DATED OCTOBER 10, 1998.

NOTE: P-5 PAVING SECTION IS NOMINAL & MAY VARY DUE TO SUBGRADE CONDITIONS.



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT. 410-380-1820 DC/VA 301-589-2524 FAX: 301-421-4188

DATE	REVISION	BY	APPR.
7/7/2020	DP&Z RED-LINE REVISION PROCESS - ADDITIONAL PLANTING & EMPLOYEE LOUNGE SPACE IN REAR		
9/23/2020	change owner info. and update paving plans	W2J	

Owner Parcel T-1:
Orix Gateway Columbia, LLC
100 N. Riverside Plaza
Suite 400
Chicago, IL 60600
(312) 660-6445

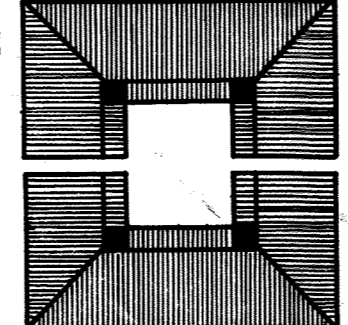
Handicap Site Details & Paving Plan
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
Plot No. 13402 Thru 13404
& Plot No. 18716
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	M-1	98067
NOV. 1998	43 1,2,7,8	6 OF 22

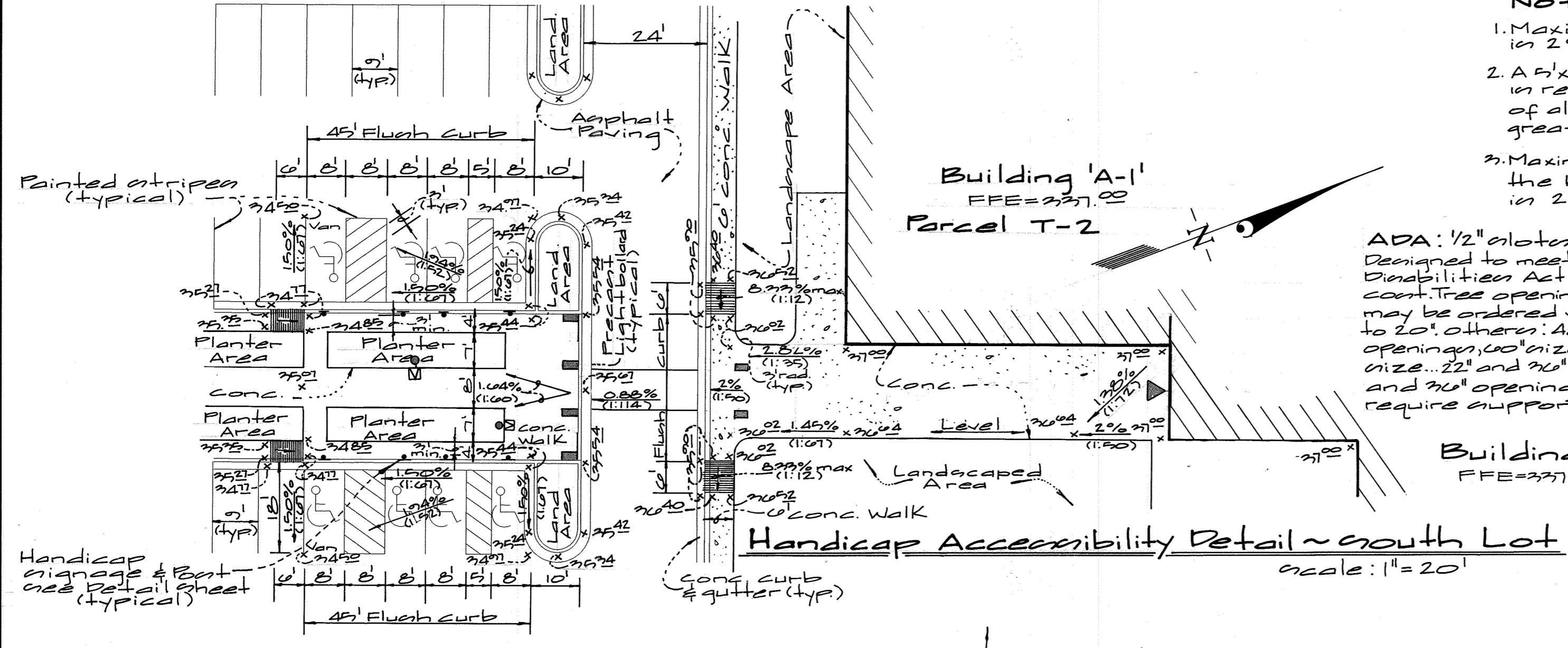
9DP 99-54

- Notes:**
1. Maximum sidewalk crosslope is 2% (1:50).
 2. A 5'x5' minimum level (2%) landing is required at the top and bottom of all ramps. Ramps are slopes greater than 5%.
 3. Maximum slope in any direction of the handicap accessible parking is 2%.

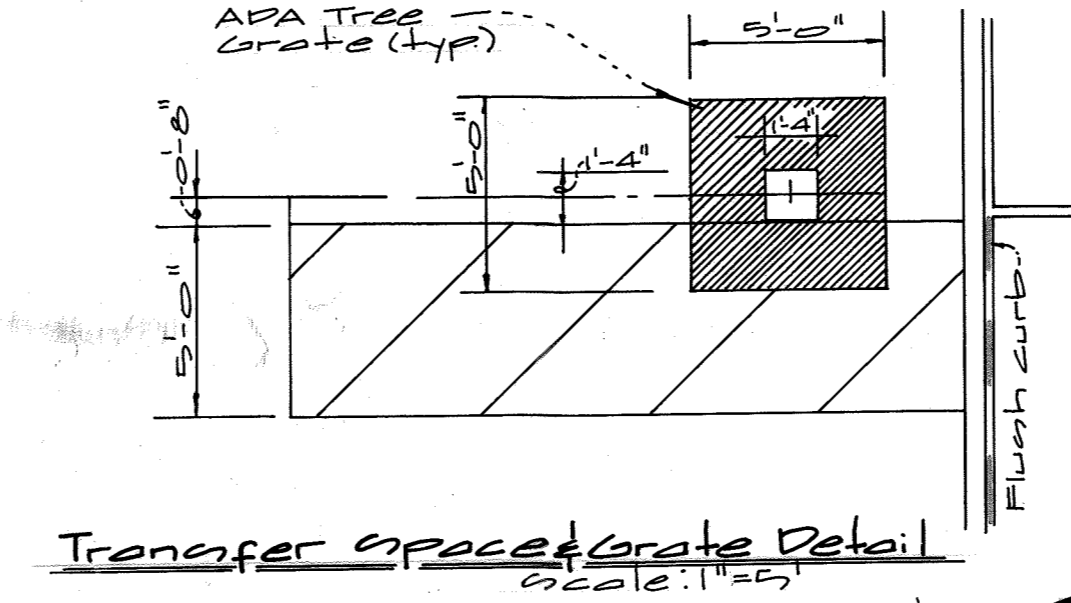
ADA: 1/2" slots designed to meet the Americans with Disabilities Act guidelines at minimum cost. Tree openings for 30" size is 12" and may be ordered with or later expanded to 20". others: 48" size offers 16" and 22" openings, 60" size...16" and 20" openings, 72" size...22" and 30" openings, 90" size...24" and 30" openings. Quarter sections require supportive frames.



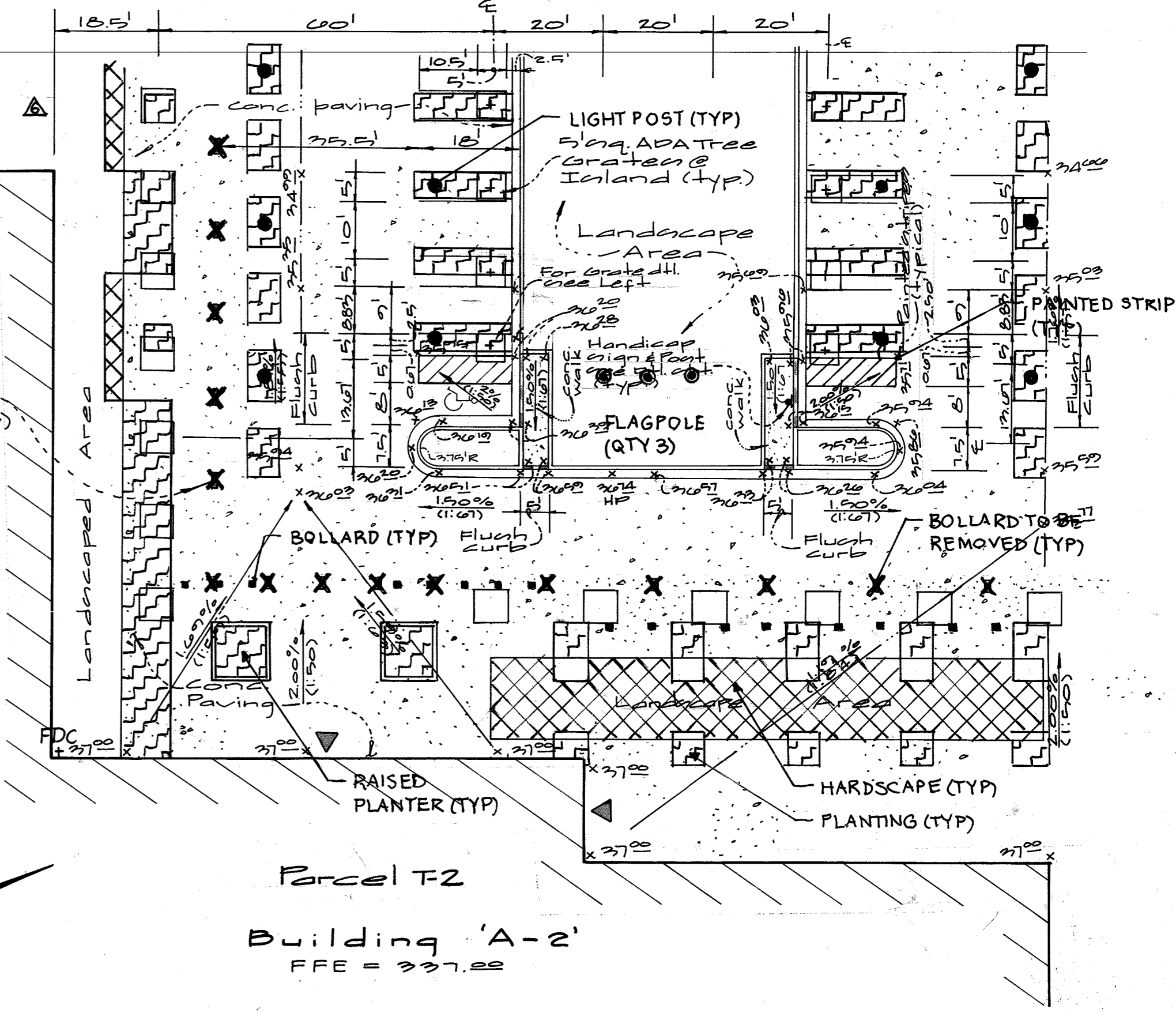
Precast Light bollards (see separate plans for details) (TYP)



Building 'A-2'
FFE = 337.00

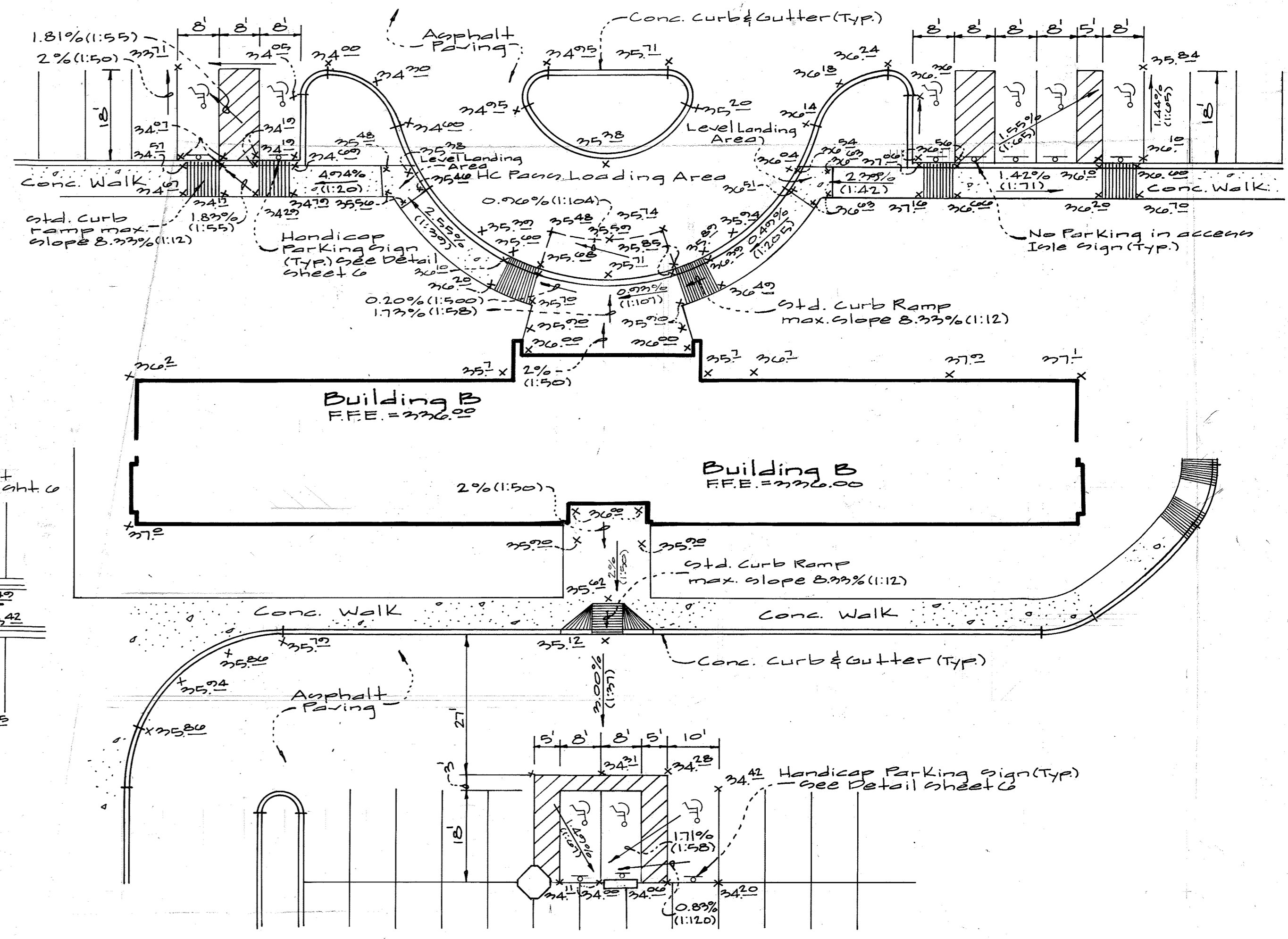
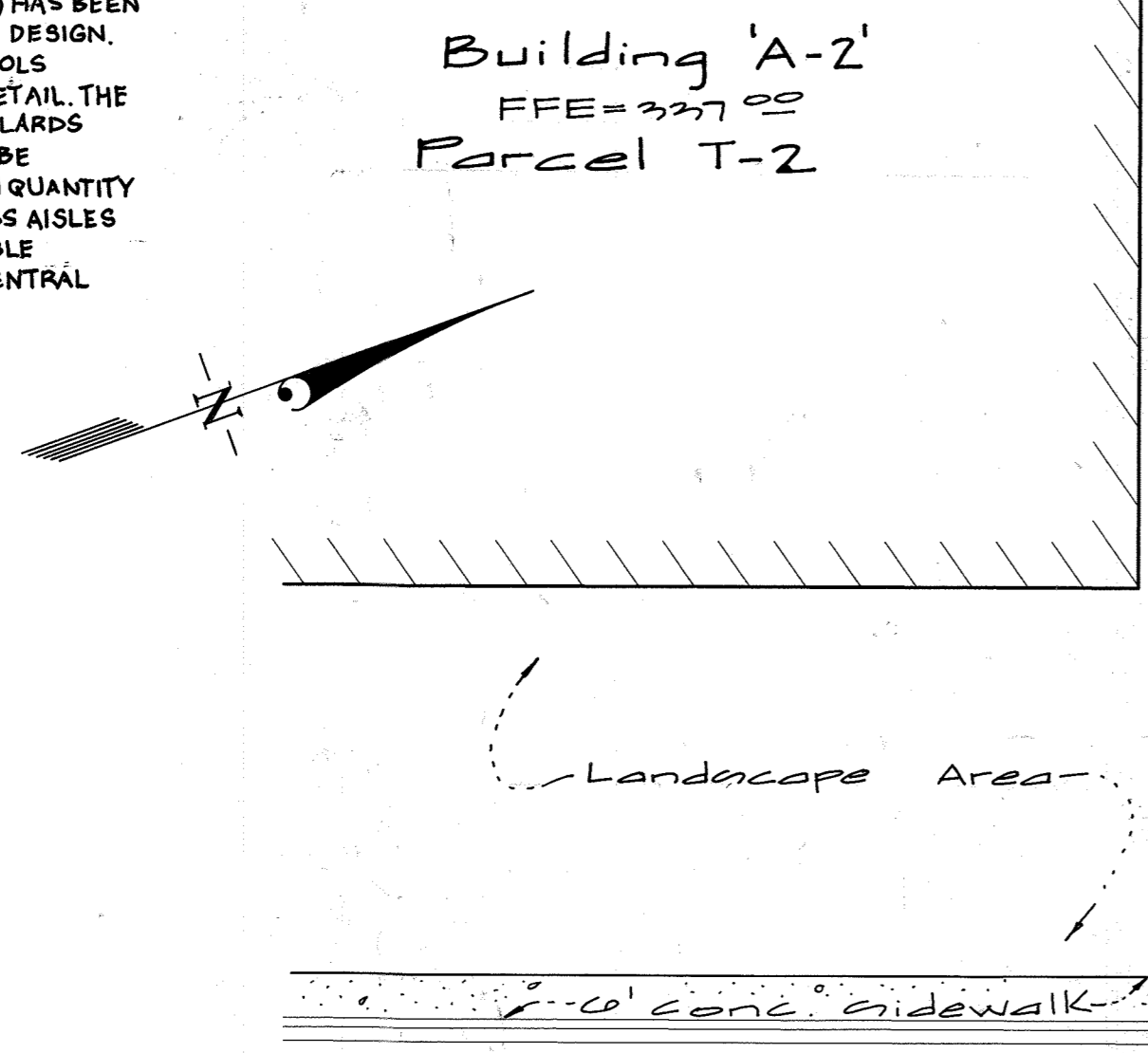


Building 'B'
FFE = 337.00
Parcel T-1



- LEGEND:**
- PROPOSED HARDSCAPE
 - PROPOSED BOLLARD
 - PROPOSED PLANTING
 - PROPOSED POST LIGHT
 - EXISTING BOLLARD TO BE REMOVED
 - PROPOSED FLAGPOLE

DRAWING REVISION NOTES:
SHEET 7 OF SDF-93-054 (COLUMBIA GATEWAY) HAS BEEN REVISED TO PRESENT THE PROPOSED ENTRY DESIGN. THE PROVIDED LEGEND CLARIFIES THE SYMBOLS UTILIZED ON THE HANDICAP ACCESSIBILITY DETAIL. THE DETAIL ILLUSTRATES THAT THE EXISTING BOLLARDS WILL BE REMOVED & 16 NEW BOLLARDS WILL BE INSTALLED. THERE WILL BE NO REDUCTION IN QUANTITY OF PARKING SPACES. 5' WIDE STRIPED ACCESS AISLES CONNECT TO THE EXISTING 5' WIDE ACCESSIBLE CONCRETE WALKS ON BOTH SIDES OF THE CENTRAL ISLAND.

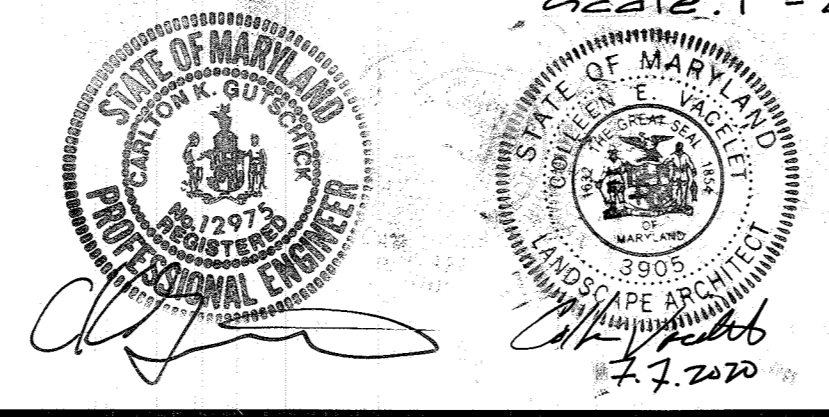


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

James R. Butler 3/3/99
Director

Chris Hamilton 3/3/99
Chief, Division of Land Development

Michael J. ... 3/2/99
Chief, Development Engineering Division MK



Owner Parcel T-1:
Orix Gateway Columbia, LLC
100 N. Riverside Plaza
Suite 400
Chicago, IL 60606
(312) 666-4444

HANDICAP ACCESSIBILITY Details
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
Plot No. 13402 thru 13404 & Plot No. 13710
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. File No.
1"=20'	M-1	98067
DATE	TAX MAP - GRID	SHEET
NOVEMBER 1998	43 1,2,7,8	7 OF 22

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
BURTNSVILLE, MARYLAND 20868
TELE: 301-297-4024 BAL: 410-880-1800 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
7/7/2020	DP&Z RED-LINE REVISION PROCESS - ADDITIONAL PLANTING & EMPLOYEE LOUNGE SPACE IN REAR		
11/11/19	Rev. access route for Parcel T-1	WJL	
11/11/19	Rev. sidewalk Bldg A-1 (2) Bldg A-2 (1)	WJL	
12/11/19	Rev. sidewalk for HEP ARE connections, handicap in courtyard & East Lot	WJL	
12/11/19	Add string of pin to bldg B Planter area & add 3min sign to walk dim.	WJL	

GDP 99-54

Developer's/Builder's Certificate

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 10.124 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.

Michael J. Williams
Name
2/9/99
Date

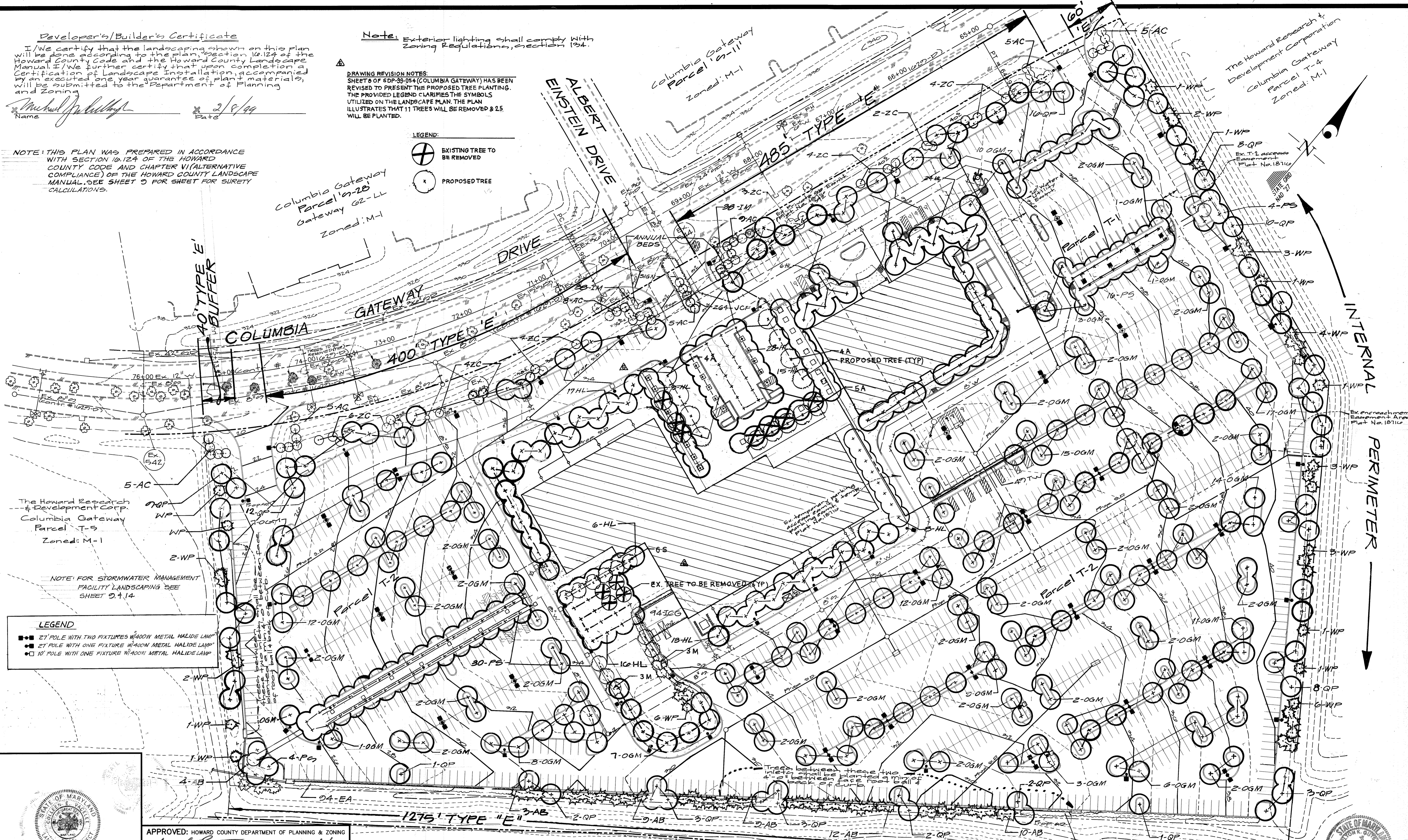
Note: Exterior lighting shall comply with Zoning Regulations, Section 10.124.

DRAWING REVISION NOTES:
SHEET 8 OF 8 DP-99-054 (COLUMBIA GATEWAY) HAS BEEN REVISED TO PRESENT THE PROPOSED TREE PLANTING. THE PROVIDED LEGEND CLARIFIES THE SYMBOLS UTILIZED ON THE LANDSCAPE PLAN. THE PLAN ILLUSTRATES THAT 11 TREES WILL BE REMOVED & 25 WILL BE PLANTED.

LEGEND:

- EXISTING TREE TO BE REMOVED
- PROPOSED TREE

NOTE: THIS PLAN WAS PREPARED IN ACCORDANCE WITH SECTION 10.124 OF THE HOWARD COUNTY CODE AND CHAPTER VI (ALTERNATIVE COMPLIANCE) OF THE HOWARD COUNTY LANDSCAPE MANUAL. SEE SHEET 3 FOR SHEET FOR SURETY CALCULATIONS.



The Howard Research & Development Corp.
Columbia Gateway Parcel T-5
Zoned: M-1

The Howard Research & Development Corporation
Columbia Gateway Parcel T-4
Zoned: M-1

NOTE: FOR STORMWATER MANAGEMENT FACILITY LANDSCAPING SEE SHEET 2.4.14

- LEGEND**
- 27' POLE WITH TWO FIXTURES WINDOW METAL HALIDE LAMP
 - 27' POLE WITH ONE FIXTURE WINDOW METAL HALIDE LAMP
 - 10' POLE WITH ONE FIXTURE WINDOW METAL HALIDE LAMP

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 3/3/99
 [Signature] 3/9/99
 [Signature] 3/2/99

Interstate Route 95 Right-of-Way
NOTE: THIS PLAN IS FOR LANDSCAPING & LIGHTING PURPOSES ONLY!

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-889-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
7/7/2020	ADD 2 RED-LINE REVISION PROCESS - ADDITIONAL PLANTING & EMPLOYEE LOUNGE SPACE IN REAR	gt	DEV.
10/5/17	Added smokers Pavilion	KJ	
12/1/20	REVISE PARCEL T-1 LANDSCAPE		
7/20/21	Revise Landscaping for certification		
1/6/99	Revise Landscaping	gt	

OWNER PARCEL T-1
 ORIX GATEWAY, COLUMBIA LLC
 100 N. RIVERSIDE PLAZA
 SUITE 400
 CHICAGO, IL 60606
 (312) 664-6445

LANDSCAPE & LIGHTING PLAN
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 13402 thru 13404
 & Plat No. 18710
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	M-1	98067
DATE	TAX MAP - GRID	SHEET
November 1998	43 - 1,2,7,8	8 OF 22

PLANT MATERIALS AND PLANTING METHODS

A. Plant Materials

The landscape contractor shall furnish and install and/or dig, ball, burlap and transplant all of the plant materials called for on drawings and/or listed in the Plant Schedule.

1. Plant Names

Plant names used in the Plant Schedule shall conform with "Standardized Plant Names," latest edition.

2. Plant Standards

All plant material shall be equal to or better than the requirements of the "ASA Standards for Nursery Stock" latest edition, as published by the American Association of Nurserymen (hereafter referred to as AAN Standards). All plants shall be typical of their species and variety, shall have a normal habit of growth and shall be first quality, sound, vigorous, well-branched and with healthy, well-furnished root systems. They shall be free of disease, insect pests and mechanical injuries.

All plants shall be nursery grown and shall have been grown under the same climate conditions as the location of this project for at least two years before planting. Neither heeled-in plants nor plants from cold storage will be accepted.

3. Plant Measurements

All plants shall conform to the measurements specified in the Plant Schedule as approved by the ARC.

a. Caliper measurements shall be taken six inches (6") above grade for trees under four-inch (4") caliper and twelve (12") above grade for trees four inches (4") in caliper and over.

b. Minimum branching height for all trees shall be six feet (6'), maximum eight feet (8').

c. Minimum size for planting shade trees shall be 3-3 1/2" caliper, 14'-16" in height.

d. Minimum size for planting minor or intermediate focus trees (pines, crabapples, etc.) shall be 3-3 1/2" caliper, 10'-12" in height.

e. Minimum size for planting shrubs shall be 18" - 24" spread unless noted otherwise.

f. Caliper, height, spread and size of ball shall be generally as follows:

Table with columns: CALIPER, HEIGHT, SPREAD, SIZE OF BALL. Rows show measurements for various caliper sizes (3"-3 1/2", 3 1/2"-4", 4"-4 1/4", 4 1/4"-5", 5"-5 1/2", 5 1/2"-6").

All plant material shall generally average the median for the size ranges indicated above as indicated in the "AAN Standards."

4. Plant Identification

Legible labels shall be attached to all shade trees, minor trees, specimen shrubs and bundles or boxes of other plant material giving the botanical and common names, size and quantity of each. Each shipment of plants shall bear certificates of inspection as required by Federal, State and County authorities.

5. Plant Inspection

The ARC may, upon request by the builder or developer, at least ten (10) days prior to the installation of any proposed plant material, inspect all proposed plant material at the source of origin.

B. Planting Methods

All proposed plant materials that meet the specifications in Section A are to be planted in accordance with the following methods during the proper planting seasons as described in the following:

1. Planting Seasons

The planting of deciduous trees, shrubs and vines shall be from March 1st to June 15th and from September 15th to December 15th. Planting of evergreen material may be continued during the winter months providing there is no frost in the ground and frost-free topsoil planting mixtures are used.

The planting of evergreen material shall be from March 15th to June 15th and from August 15th to December 1st. No planting shall be done when ground is frozen or excessively moist. No frozen or wet topsoil shall be used at any time.

2. Digging

All plant material shall be dug, balled and burlapped (B+D) in accordance with the "AAN Standards."

3. Excavation of Plant Pits

The landscaping contractor shall excavate all plant pits, wire pits, hedge trenches and shrub beds in accordance with the following schedule:

a. Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscape contractor.

b. All pits shall be generally circular in outline, vertical sides, depth shall not be less than 6" deeper than the root ball, diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.

c. If areas are designated as shrub beds or hedge trenches, they shall be staked to at least 18" depth minimum. Areas designated for ground covers and vines shall be excavated to at least 12" in depth minimum.

d. Diameter and depth of tree pits shall generally be as follows:

Table with columns: PLANT SIZE, ROOT BALL, PIT DIAMETER, PIT DEPTH. Rows show measurements for various plant sizes (3"-3 1/2", 3 1/2"-4", 4"-4 1/4", 4 1/4"-5", 5"-5 1/2", 5 1/2"-6").

A 20% compaction figure of the soil to be removed is assumed and will be allowed in calculation of extra topsoil. The tabulated pit sizes are for purposes of uniform calculation and shall not override the specified depths below the bottoms of the root balls.

4. Staking, Guying and Wrapping

All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

a. Stakes: Shall be sound wood 2" x 2" rough sawn oak or similar durable woods, or lengths, minimum 7'-0" for major trees and 5'-0" minimum for minor trees.

b. Wire and Cable: Wire shall be #10 galvanized or bethanzolized annealed steel wire. For trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4" take-up. For trees over 5" caliper, provide 3/16" 7 strand cable cadmium plated steel, with galvanized "eye" thimbles of wire and hose on trees up to 3" in caliper.

c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D. "Plastic Lock Ties" or "Paul's Trees Braces" may be used in place of wire and hose on trees up to 3" in caliper.

d. All trees under 3" in caliper are to be planted and staked in accordance with the attached Typical Tree Staking Detail. All trees over 3" in caliper are to be planted and guyed in accordance with the attached Typical Tree Guying Detail.

5. Plant Pruning, Edging and Mulching

a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice. Broken or broken branches shall be removed with clean cuts flush with the adjacent trunk or branches. All cuts over 1" in diameter shall be painted with an approved antiseptic tree wound dressing.

b. All trenches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod which has been removed and stacked shall be used to trim the edges of all excavated areas to the neat lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.

c. After cultivation, all plant materials shall be mulched with a 2" layer of fine, shredded pine bark, peat moss, or another approved material over the entire area of the bed or saucer.

6. Plant Inspection and Acceptance

The ARC shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

7. Plant Guarantee

All plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the guarantee period.

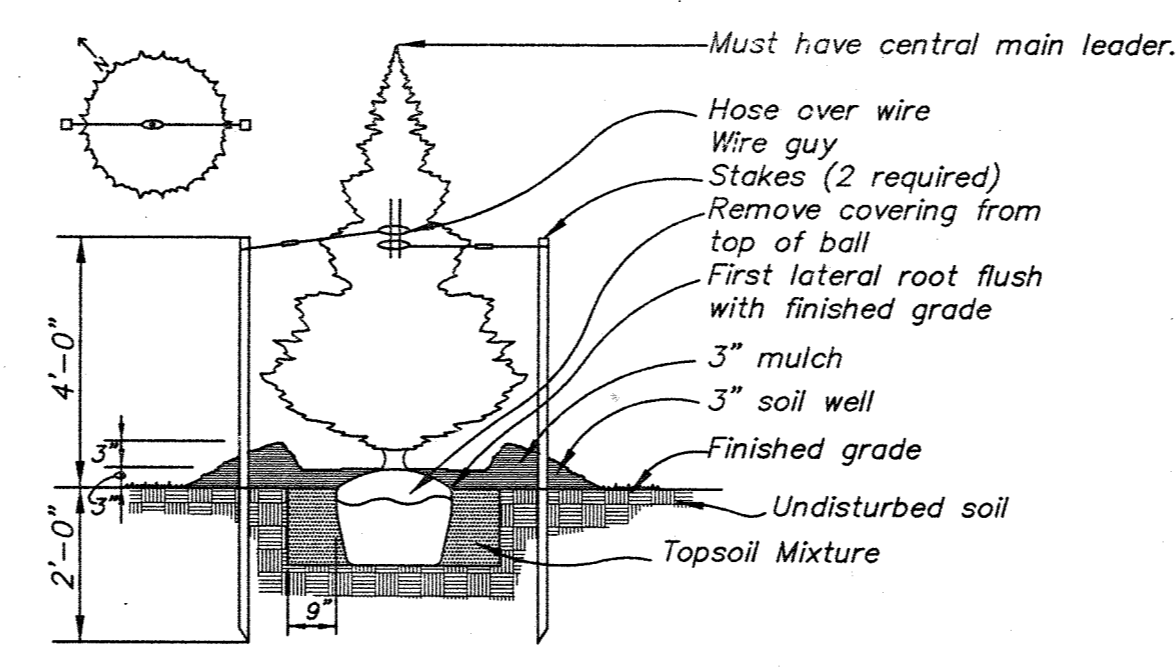
a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting season.

b. Guarantee for planting performed after the specified end of the "Spring" planting season, shall be extended through the end of the next following "Spring" planting season.

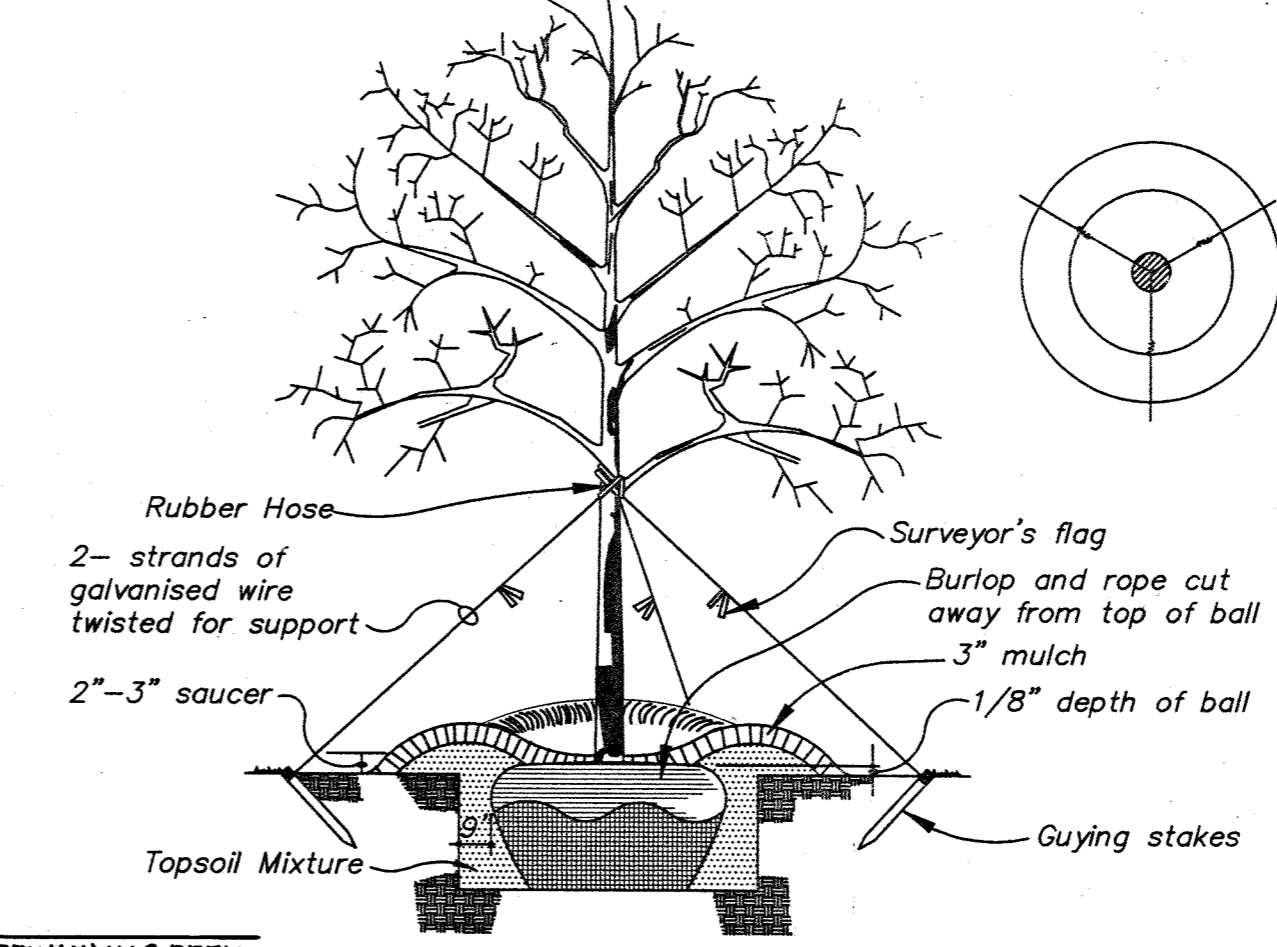
Sodding

All sodding shall be in accordance to the "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas" latest edition, approved by the Landscape Contractors Association of Metropolitan Washington and the American Society of Landscape Architects.

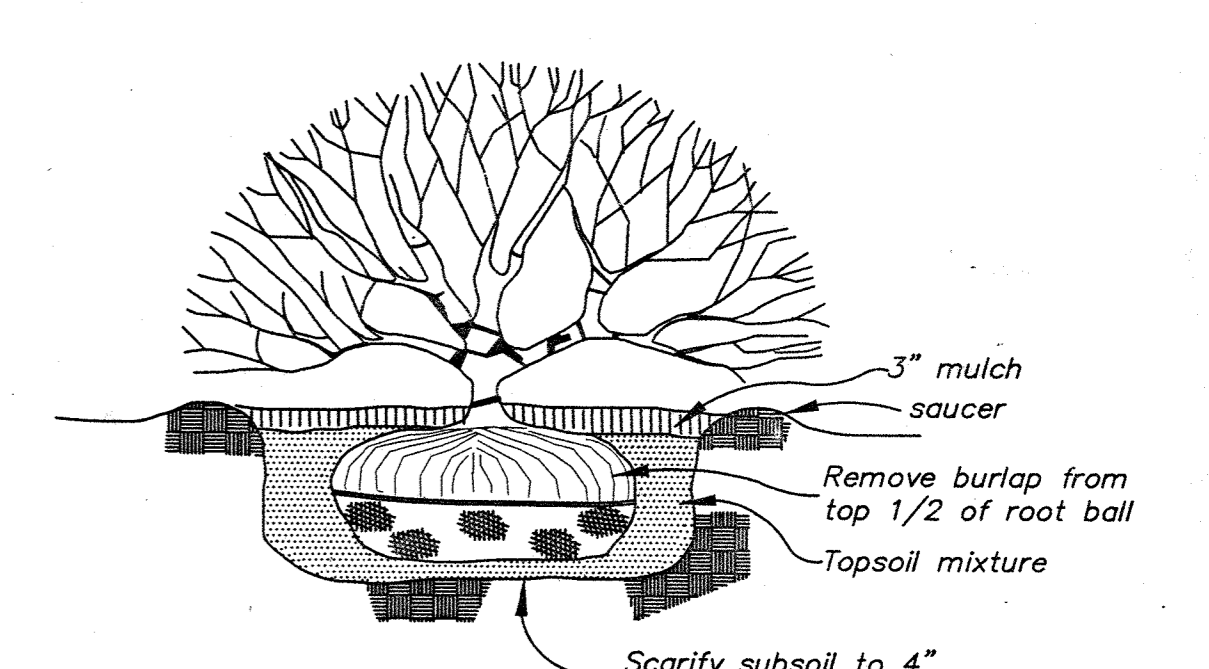
All sod shall be strongly rooted sod, not less than two years old and free of weeds and undesirable native grasses. Provide only sod capable of growth development when planted and in strips not more than 18" wide x 4" long. Provide sod composed principally of improved strain Kentucky bluegrass, such as, Columbia, Vico, or Escort.



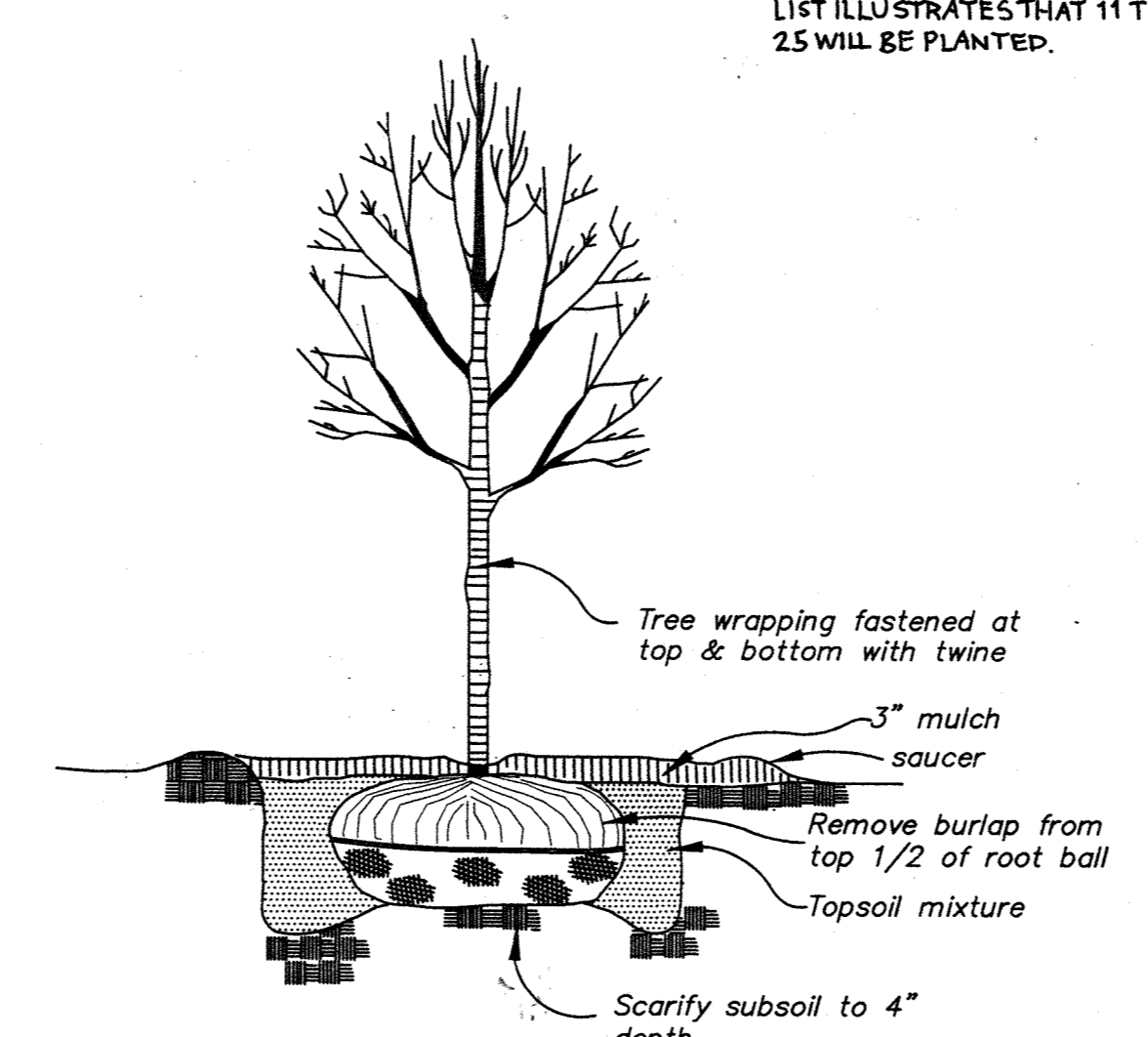
Evergreen Planting Detail N.T.S.



Typical Tree Guying Detail N.T.S.



Shrub Planting Detail N.T.S.



Typical Deciduous Tree Planting N.T.S.

DRAWING REVISION NOTES: SHEET 9 OF SDP-99-154 (COLUMBIA GATEWAY) HAS BEEN REVISED TO ACCURATELY REFLECT THE TREE QUANTITIES FOR THE PROPOSED DESIGN. THE PLANT LIST ILLUSTRATES THAT 11 TREES WILL BE REMOVED & 25 WILL BE PLANTED.

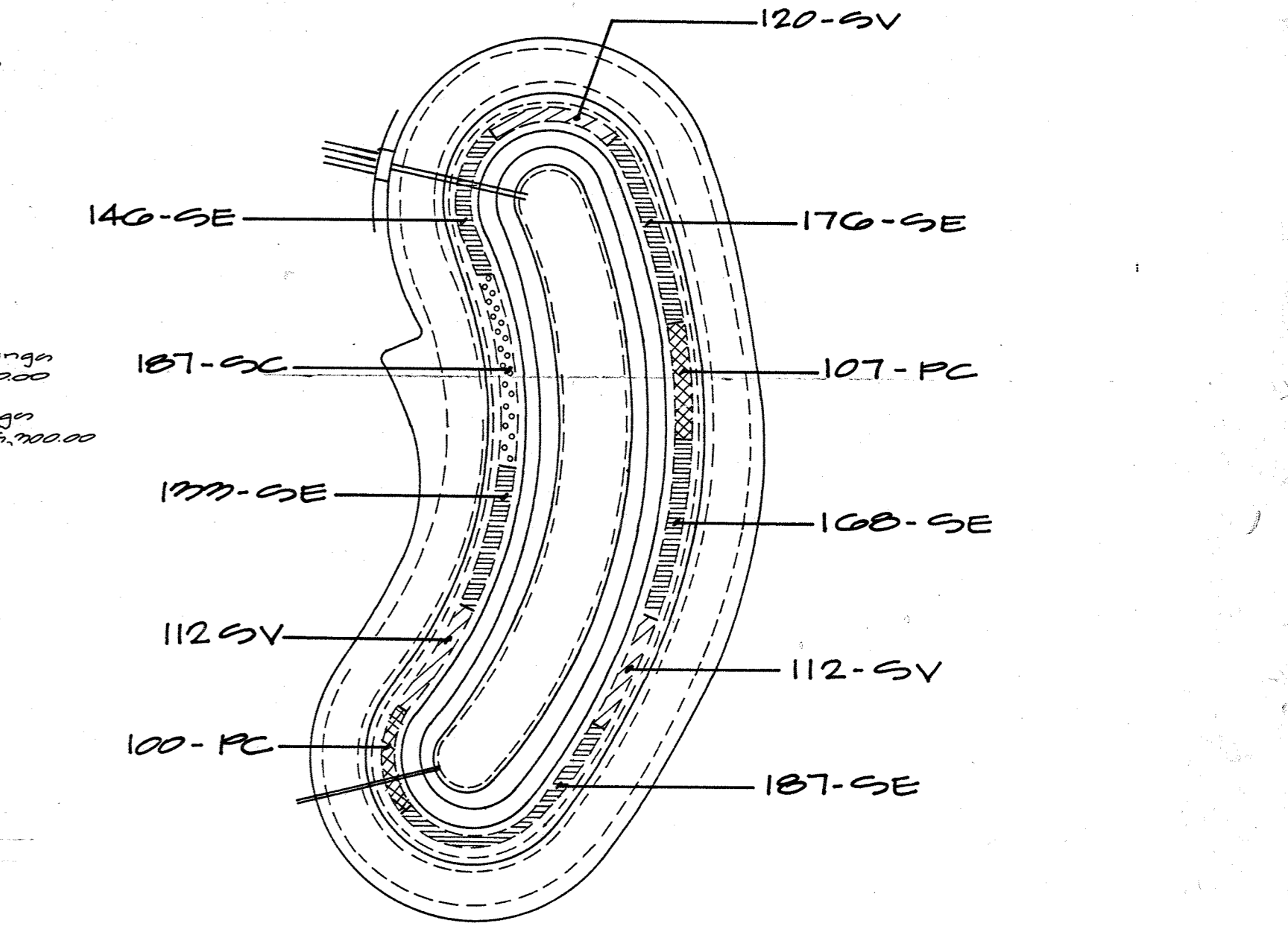
SCHEDULE A PERIMETER LANDSCAPE EDGE table with columns: CATEGORY, ADJACENT TO ROADWAYS, ADJACENT TO PERIMETER PROPERTIES. Rows include Landscape Type, Linear Feet of Roadway, Credit for Existing Vegetation, Number of Plants Required, etc.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING table with columns: NUMBER OF PARKING SPACES, NUMBER OF TREES REQUIRED, NUMBER OF TREES PROVIDED. Rows include Shade Trees, Evergreen Trees, etc.

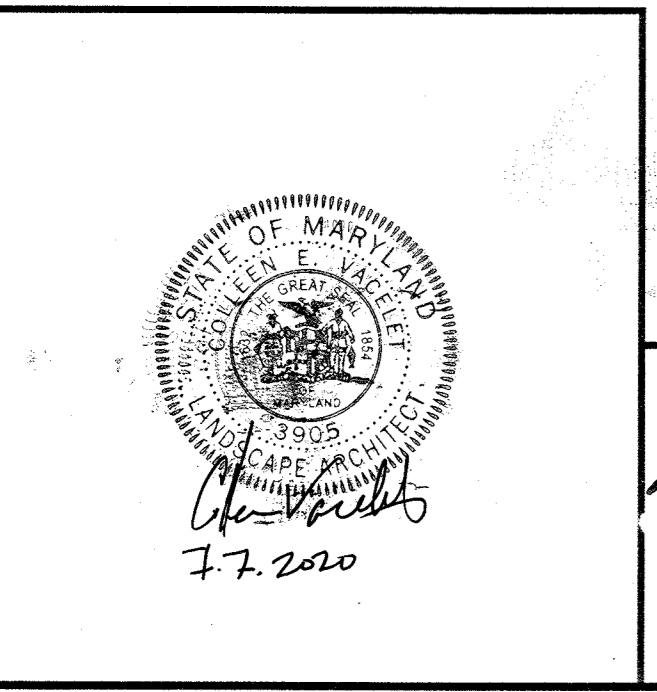
SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING table with columns: LINEAR FEET OF PERIMETER, NUMBER OF TREES PROVIDED, CREDIT FOR EXISTING VEGETATION, etc.

Plant List (Parcel T-1, T-2 & T-5) table with columns: Quan., Symbol, Botanical Name, Common Name, Remarks. Lists various tree and shrub species with their quantities and specifications.

SWM POND PLANT LIST table with columns: KEY QTY, NAME (COMMON/BOTANICAL), REMARKS. Lists plants for the stormwater pond including Pickeral Weed, Lizards Tail, etc.



Owner Parcel T-5: The Howard Research & Development Corporation, 10275 Little Belknap Rd., Columbia, Maryland 21044. Attn: Al Edwards, 410.992.0027. Owner Parcel T-1: Orix Gateway Columbia, LLC, 100 N. Riverside Plaza, Suite 400, Chicago, IL 60606, (312)600-0045.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING. Signatures and dates for approval: 3/3/99, 3/6/99, 3/2/99.



GLW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS. 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK, BURTONSVILLE, MARYLAND 20866. TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

Revision table with columns: DATE, REVISION, BY, APPR. Shows revisions for 7/7/2020, 7/12/00, 7/21/01, 1/10/99.

Owner Parcel T-1: Orix Gateway Columbia, LLC, 100 N. Riverside Plaza, Suite 400, Chicago, IL 60606, (312)600-0045.

LANDSCAPE NOTES, DETAILS & SCHEDULES. COLUMBIA GATEWAY Parcels T-1, T-2, T-4 & T-5. PLAT 13402 THRU 13404 & Plat No. 18716. ELECTION DISTRICT No. 6.

Scale, Zoning, Date, Tax Map No., Sheet information. SCALE: AS SHOWN. ZONING: M-1. DATE: NOVEMBER 1998. TAX MAP No.: 43-1,2,7,8. SHEET: 9 of 22.

SDP 99-54

SEDIMENT TRAP NO. 1 (Existing)
Rip-Rap Outlet Sediment Trap

Drainage Area = 4.4 Ac. (Pre-Development) / 10.0 Ac. (Post Development)
 Storage Required = 10 (1800) = 18000 cu. ft.
 Storage Depth = 15 Feet
 Cleanout Elevation = 712.00
 Outlet Elevation = 712.00
 Bottom Elevation = 712.00
 Side Slopes = 2:1
 Surface Area @ Elevation 712.00 (*L.O.S.) = 9800 sq. ft. (70x140)
 Surface Area @ Elevation 715.00 (bottom) = 7424 sq. ft. (58x128)
 Volume Provided = 7424 x 15 = 111,360 cu. ft.
 Outlet Length = 10'
 Embankment Elevation = 704.20
 Weir Crest Elev = 712.20
 *L.O.S. = Limit of Storage

SEDIMENT TRAP NO. 2 (Existing)
Rip-Rap Outlet Sediment Trap

Drainage Area = 0.9 Ac. (Pre-Development) / 10.4 Ac. (Post Development)
 Storage Required = 10.4 (1800) = 18720 cu. ft.
 Storage Depth = 15 Feet
 Cleanout Elevation = 712.75
 Outlet Elevation = 712.75
 Bottom Elevation = 712.00
 Side Slopes = 2:1
 Surface Area @ Elevation 712.75 (*L.O.S.) = 14,054 sq. ft.
 Surface Area @ Elevation 712.00 (bottom) = 12,742 sq. ft.
 Volume Provided = 12,742 x 15 = 191,130 cu. ft.
 Outlet Length = 10'
 Embankment Elevation = 718.00
 Weir Crest Elev = 712.25
 *L.O.S. = Limit of Storage

SEDIMENT TRAP NO. 2 (Existing)
Rip-Rap Outlet Sediment Trap

Drainage Area = 0.9 Ac. (Pre-Development) / 2.4 Ac. (Post Development)
 Storage Required = 0.9 (1800) = 1620 cu. ft.
 Storage Depth = 15 Feet
 Cleanout Elevation = 710.50
 Outlet Elevation = 720.00 (L.O.S.)
 Bottom Elevation = 717.00
 Side Slopes = 2:1
 Surface Area @ Elevation 720.00 (*L.O.S.) = 4770 sq. ft. (68x102)
 Surface Area @ Elevation 717.00 (bottom) = 3,040 sq. ft. (50x90)
 Volume Provided = 3,040 x 15 = 45,600 cu. ft.
 Outlet Length = 10'
 Embankment Elevation = 720.00
 Weir Crest Elev = 720.00
 *L.O.S. = Limit of Storage

DEVELOPER'S/BUILDER'S CERTIFICATE

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 Maryland Department of the Environment Approved Training Program for the Control of Erosion and Sedimentation before beginning the project.

I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Nancy L. Allen 11/23/98
 Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE

I certify that the plan for erosion and sediment control represents a practical and reasonable 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.

John R. Roberts 11-20-98
 Signature of Engineer Date



These Plans for erosion and sediment control meet the requirements of the Howard Soil Conservation District.

John R. Roberts 2/25/99
 Signature of Engineer Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for erosion and sediment control.

Clay Simms 2/25/99
 Signature of Engineer Date

Ex 15 LF class II Rip-Rap over Geotextile Fabric class C
 Ex Bottom elev 715
 Ex 10' PVC Barrel
 Ex 10' PVC Barrel
 Ex 10' PVC Barrel

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Paul R. Smith 3/3/99
 Date
Andy Henatta 3/6/99
 Date
Mike 3/6/99
 Date

Owner Parcels T-4 & T-5
 The Howard Research & Development Corporation
 10275 Little Belmont Pkwy
 Columbia, Maryland 21044
 Attn: Al Edwards
 410-992-0027

Interstate Route 95 Right-of-Way
NOTE: FOR LEGEND SEE SHEET 12
NOTE: FOR SEDIMENT CONTROL PURPOSES ONLY!

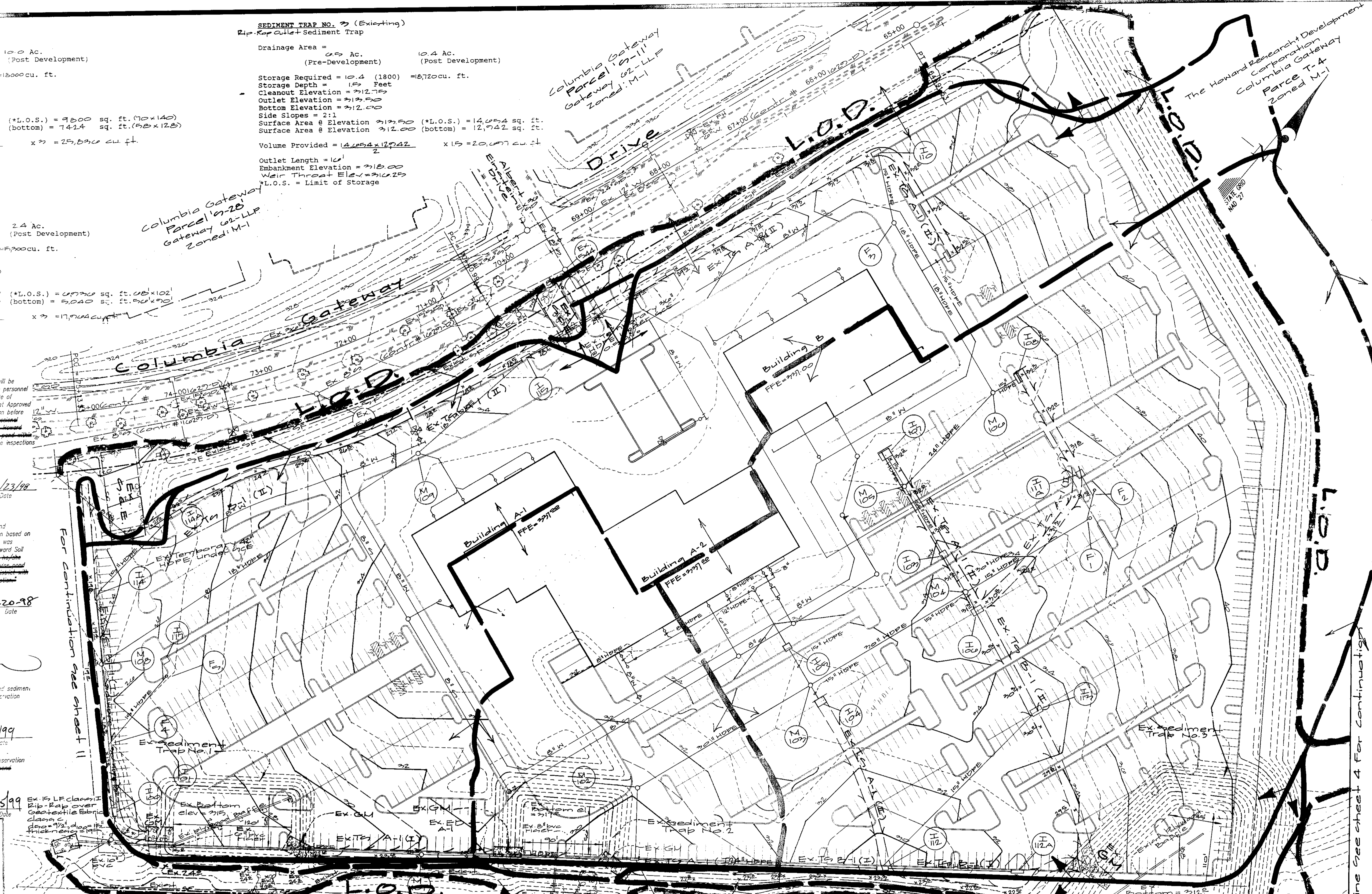
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3300 NATIONAL BLVD., SUITE 230 - BETHESDA OFFICE PARK
 BETHESDA, MARYLAND 20814
 TEL: 301-421-4200 FAX: 301-421-4186

NO.	DATE	REVISION
1	12/16/98	Rev Per H.C.C. Comments

Owner Parcels T-1 & T-2 & Developer
 Orix Columbia, Inc.
 1401 H STREET N.W.
 SUITE 550
 WASHINGTON, D.C. 20005
 (202) 289-1401

Sediment Control Plan
COLUMBIA GATEWAY
 PARCELS T-1, T-2, T-4 and T-5
 Plat No 13402 thru 13404
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	M-1	98067
DATE	TAX MAP - GRID	SHEET
November 1998	43 - 1,2,7,8	10 OF 22



Match Line See sheet 4 For Continuation

STANDARD AND SPECIFICATIONS FOR TOPSOIL DEFINITION

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

PURPOSE

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

CONDITIONS WHERE PRACTICE APPLIES

- I. This practice is limited to areas having 2:1 or flatter slopes where:
 - a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - c. The original soil to be vegetated contains material toxic to plant growth.
 - d. The soil is so acidic that treatment with limestone is not feasible.

- II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

- I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the respective soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

- i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.

- ii. Topsoil must be free of plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

- iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

- II. For sites having disturbed areas under 5 acres:

- i. Place topsoil (if required) and apply soil amendments as specified in 2.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

- III. For sites having disturbed areas over 5 acres:
 - i. On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - a. pH for topsoil shall be between 6.0 and 7.5. If

- a. the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
- b. Organic content of topsoil shall be not less than 1.5 percent by weight.
- c. Topsoil having soluble salt greater than 500 parts per mill shall not be used.
- d. No sod or seed shall be placed on soil which has been with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of photo-toxic materials.

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

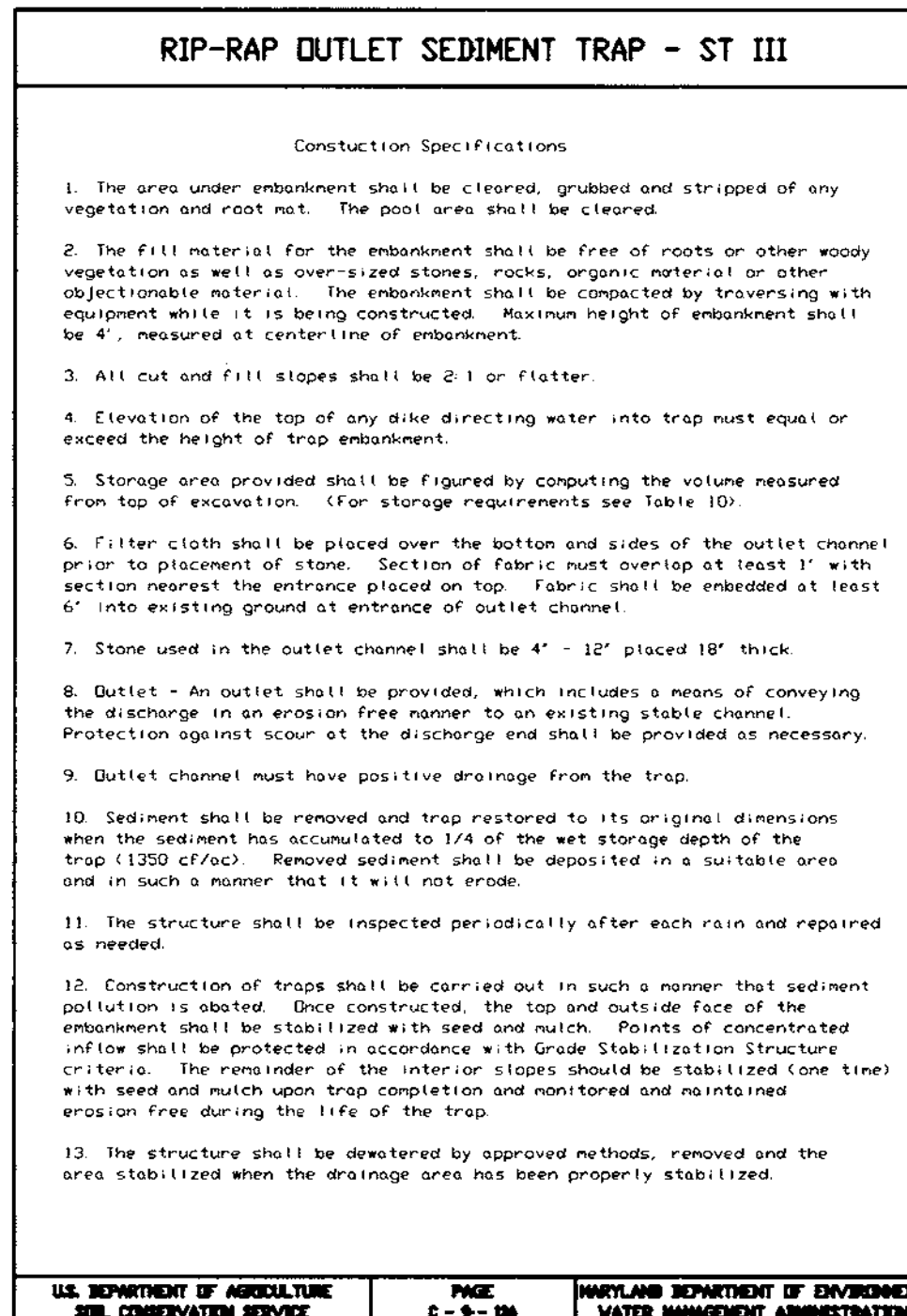
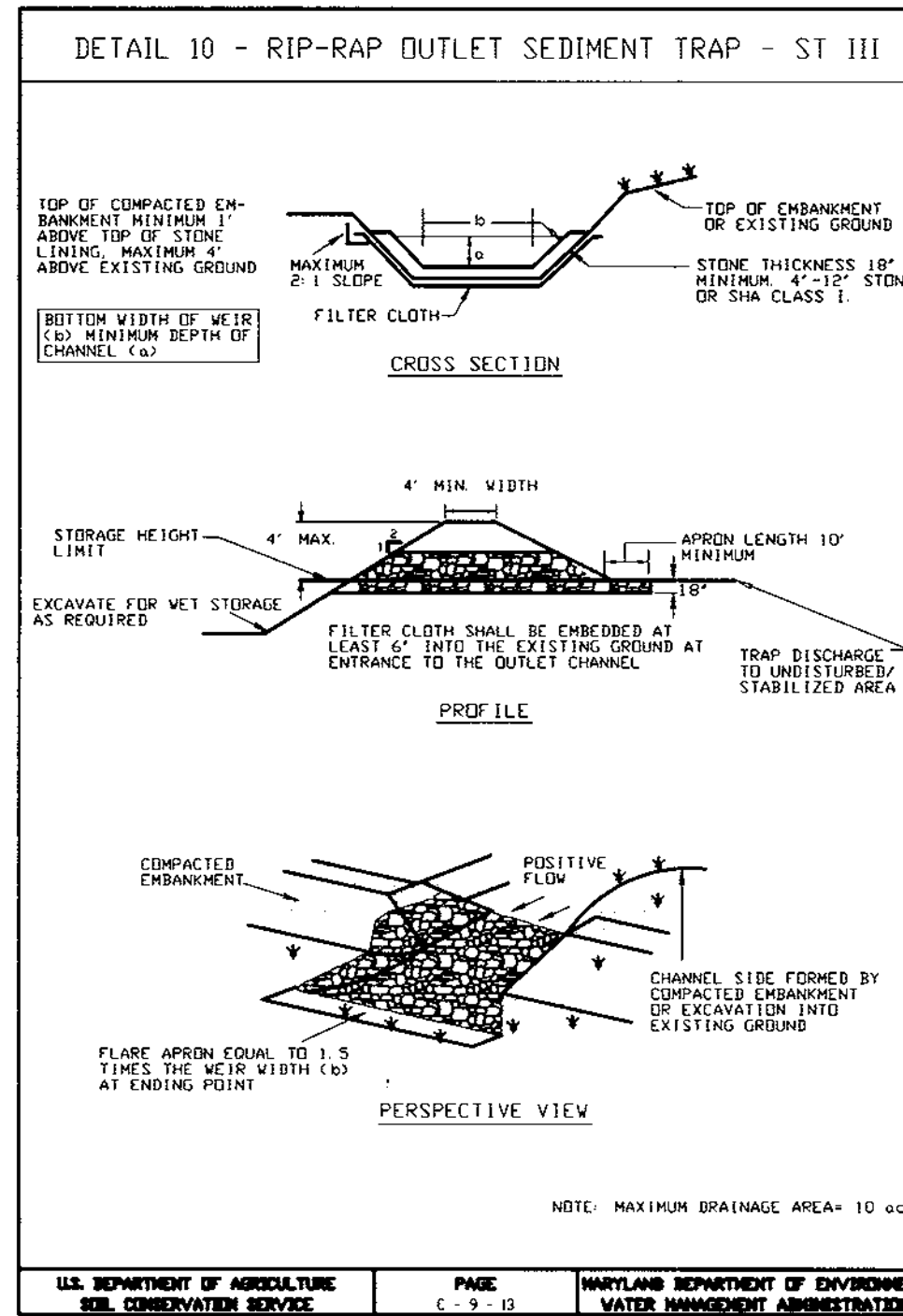
V. Topsoil Application

- i. When topsoiling, maintain needed erosion and sediment control practices such as diversion, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
- ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
- iii. Topsoil shall be uniformly distributed in a 4' - 8' layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water.
- iv. Topsoil shall not be placed while the topsoil or subsoil is frozen or muddy condition, when the soil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

VI. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

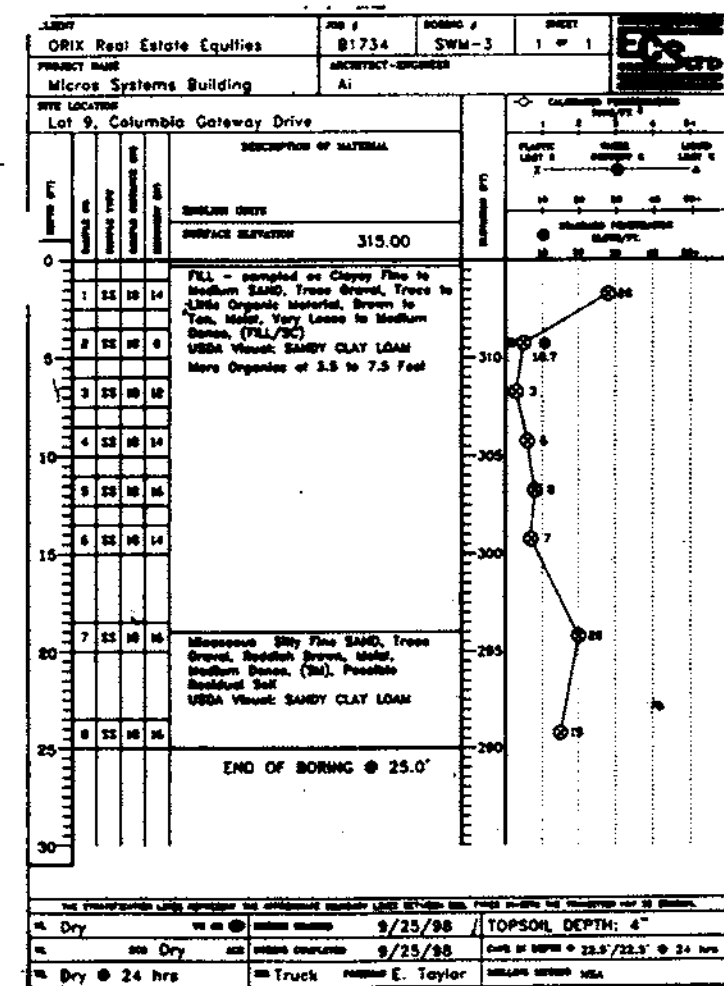
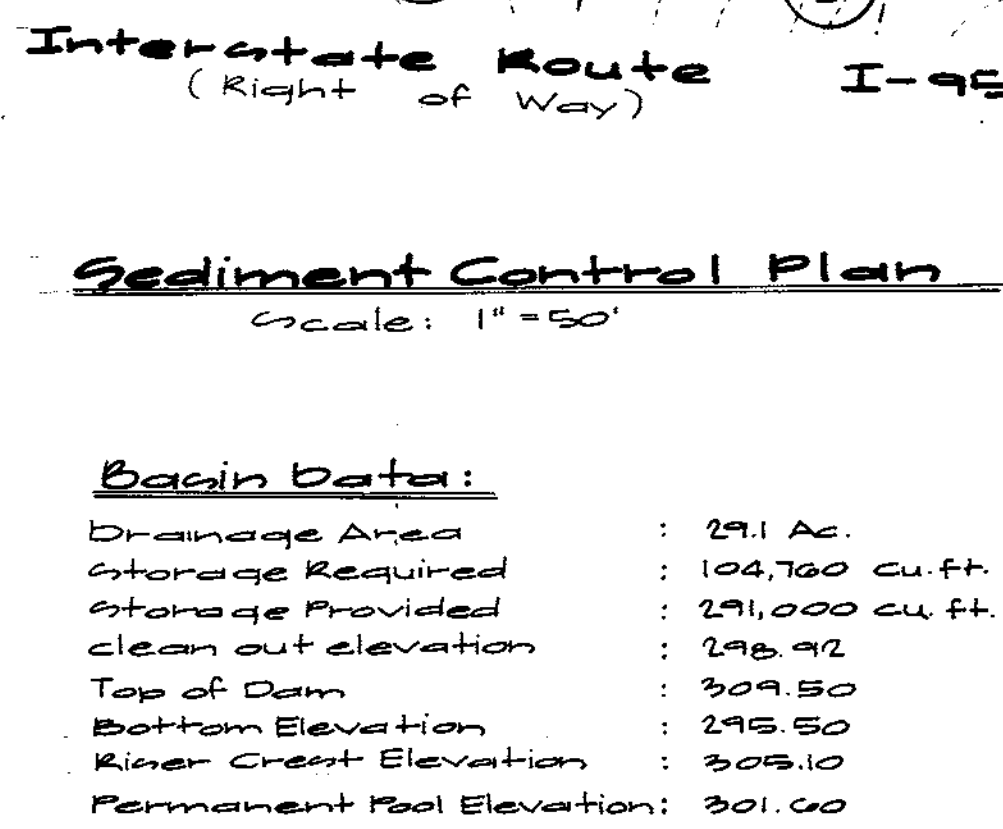
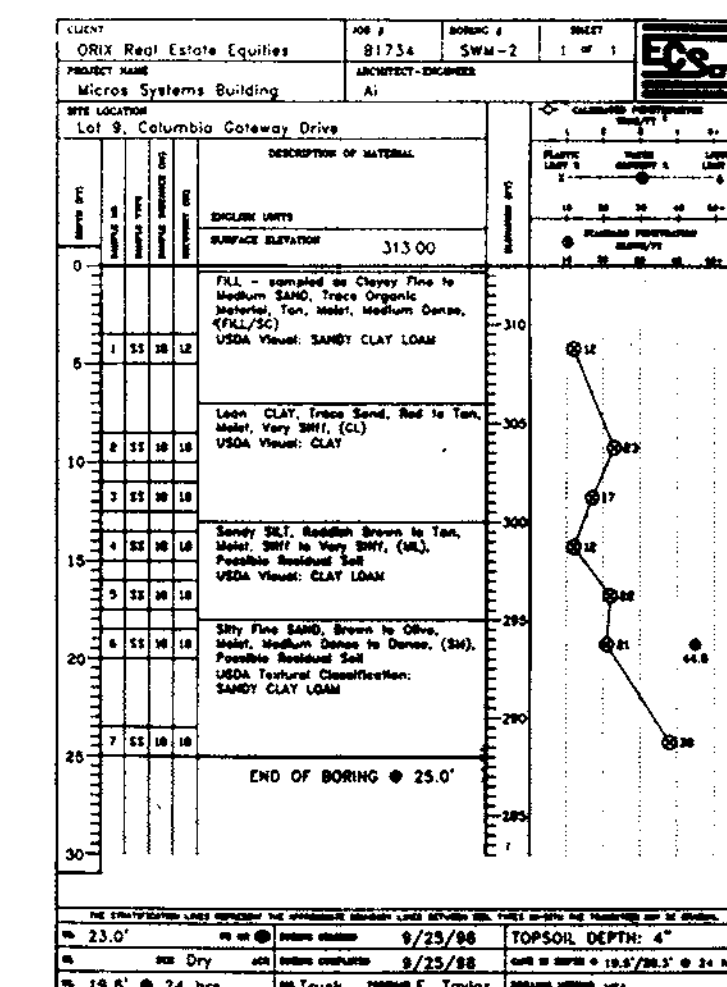
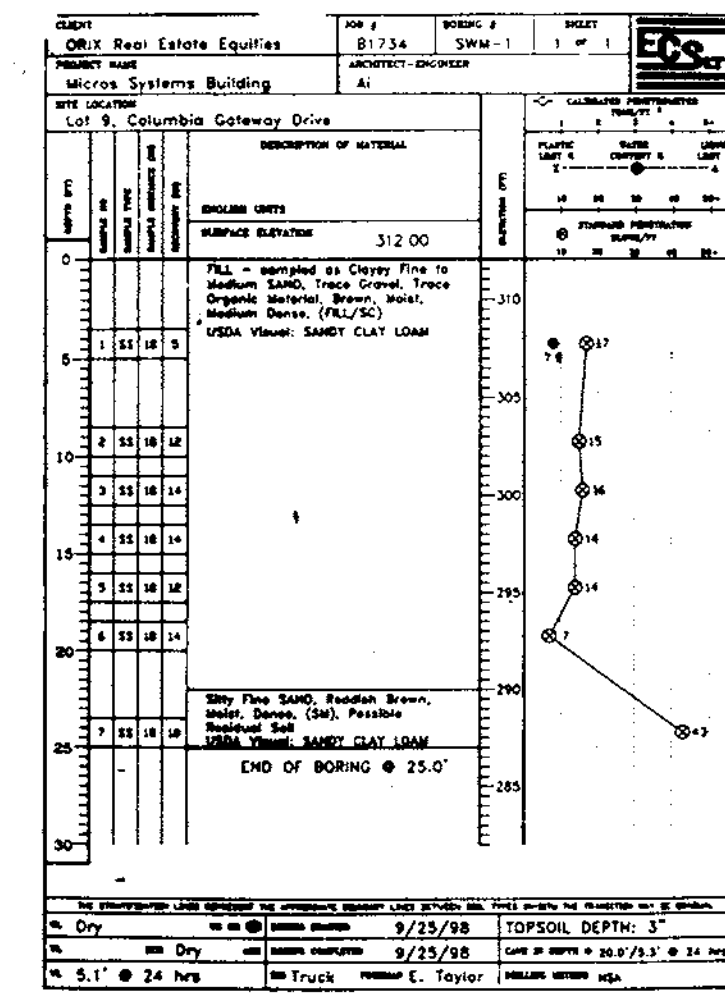
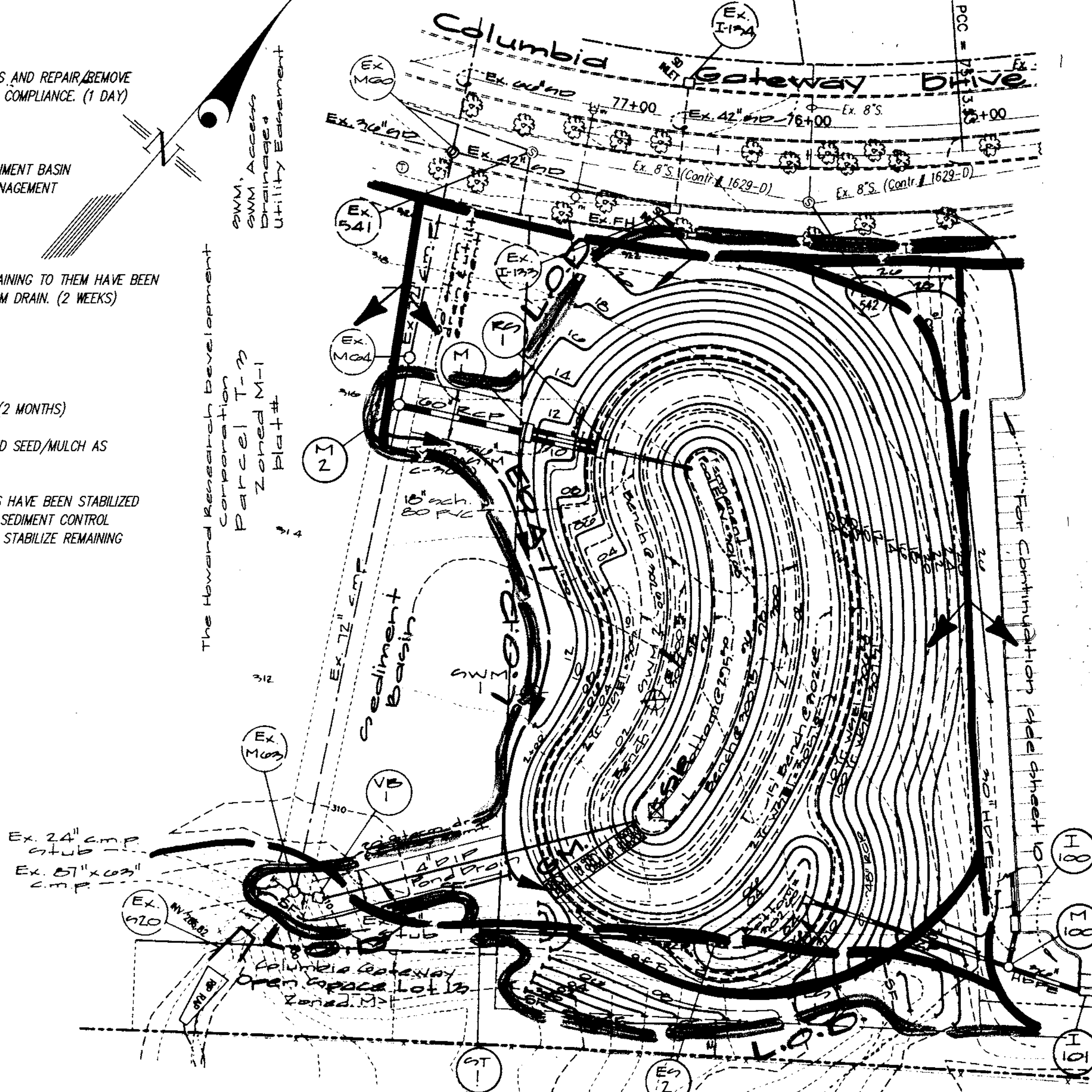
- i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
 - a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
 - iv. Composted sludge shall be amended with a potassium fertilizer applied at a rate of 4lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding, MD-VA Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.



SEQUENCE OF CONSTRUCTION

1. INSPECT EXISTING SEDIMENT CONTROL FEATURES AND REPAIR/REMOVE SILT/CONSTRUCT AS REQUIRED TO BRING INTO COMPLIANCE. (1 DAY)
2. CONSTRUCT BUILDING.
3. INSTALL SILT FENCE AND EARTH DIKE FOR SEDIMENT BASIN CONSTRUCTION. CONSTRUCT STORMWATER MANAGEMENT FACILITY/SEDIMENT BASIN. (1 MONTH)
4. INSTALL STORM DRAIN. (1 MONTH)
5. REMOVE SEDIMENT CONTROLS WHEN AREAS DRAINING TO THEM HAVE BEEN RE-ROUTED TO THE SEDIMENT BASIN BY STORM DRAIN. (2 WEEKS)
6. INSTALL REMAINING UTILITIES. (1 MONTH)
7. FINE GRADE SITE. (2 WEEKS)
8. CONSTRUCT CURB AND GUTTER. BASE PAVE. (2 MONTHS)
9. CONSTRUCT SIDEWALK, INSTALL LANDSCAPE AND SEED/MULCH AS INDICATED. (2 WEEKS)
10. WHEN AREAS DRAINING TO SEDIMENT CONTROLS HAVE BEEN STABILIZED AND PERMISSION HAS BEEN GRANTED BY THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROLS AND STABILIZE REMAINING AREAS AS REQUIRED. (1 WEEK)
11. SURFACE ALL PAVING AREAS. (1 WEEK)
12. OBTAIN OCCUPANCY PERMIT.



DEVELOPER'S/BUILDER'S CERTIFICATE

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

Signature of Developer/Builder: Michael J. ... Date: 2/8/99

ENGINEER'S CERTIFICATE

"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."

Signature: John P. ... Date: 2-8-99

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

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Signature: ... Date: 3/3/99
 Signature: ... Date: 3/6/99
 Signature: ... Date: 3/26/99



Owner: Parcels T-1 & T-2 & T-5
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATENT PKWY.
 COLUMBIA, MD 21044
 ATTN: AL EDWARDS

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 550 - BURTNSVILLE OFFICE PARK
 BURTNSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4106

DATE	REVISION	BY	APP'R
12-22-98	Change A/cmp to 6ch. 80 P/C	WES	
12-22-98	Rev. Per. Ho. Co. Comments	WES	

PREPARED FOR:
 Owner: Parcels T-1 & T-2 & T-5
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 1401 H STREET N.W.
 SUITE 550
 WASHINGTON, D.C. 20005

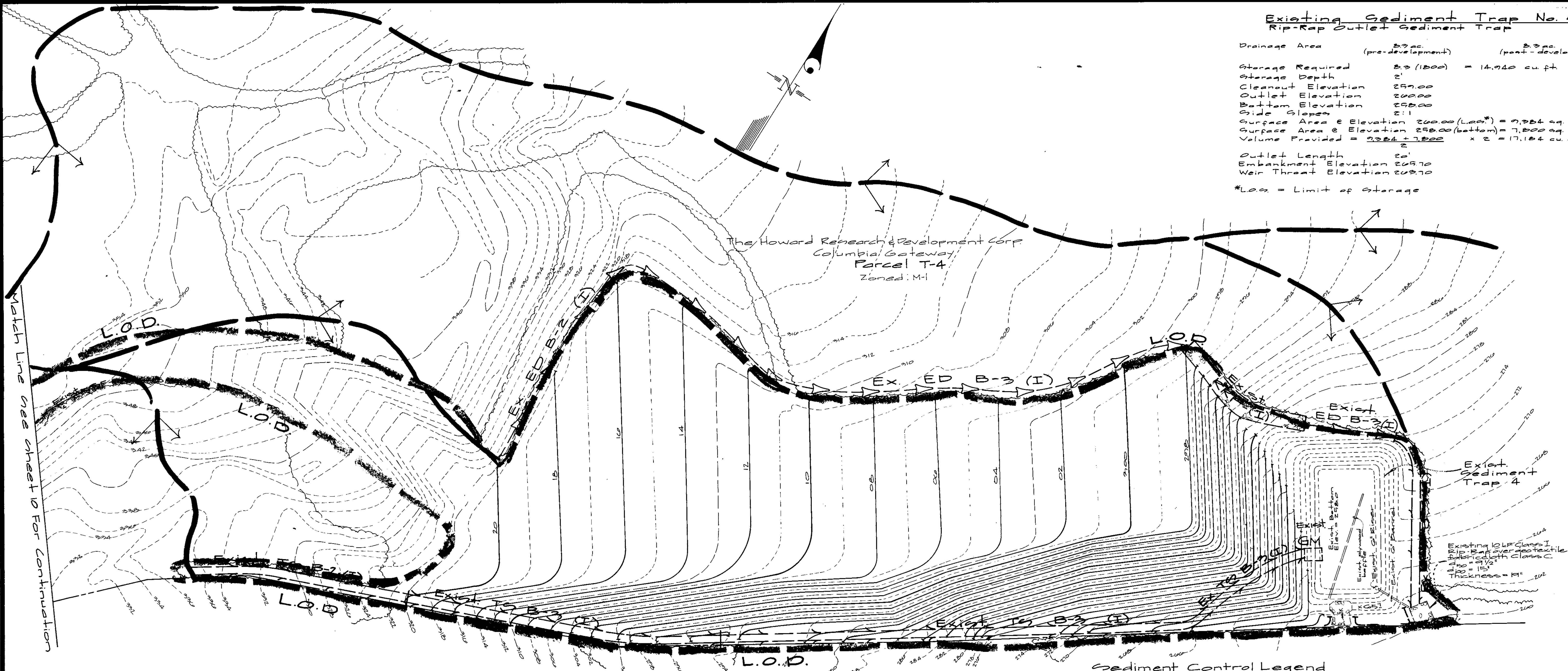
Sediment Control Plan, Details & Coils Boring Profiles
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 PLATS 13402 thru 13404
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	M-1	98067
DATE: NOVEMBER 1998	TAX MAP - GRID: 43 - 1,2,7,8	SHEET: 11 OF 24

**Existing Sediment Trap No. 4
Rip-Rap Outlet Sediment Trap**

Drainage Area	8.3 ac. (pre-development)	8.3 ac. (post-development)
Storage Required	8.3 (1800)	= 14,940 cu. ft.
Storage Depth	2'	
Cleanout Elevation	259.00	
Outlet Elevation	200.00	
Bottom Elevation	258.00	
Side Slopes	2:1	
Surface Area @ Elevation 200.00 (Loos*)	= 7,384 sq. ft.	
Surface Area @ Elevation 258.00 (bottom)	= 7,800 sq. ft.	
Volume Provided	= $\frac{7384 - 7800}{2} \times 2$	= 17,184 cu. ft.
Outlet Length	20'	
Embankment Elevation	209.70	
Weir Throat Elevation	209.70	

*Loos = Limit of Storage



Sediment Control Legend

- Limit of Disturbance
- Silt Fence
- Earth Dike
- Temporary Swale
- Existing Drainage Divide
- Gabion Inflow Protection
- Rip-Rap Protection

Interstate Route 95 Right of Way

DEVELOPER'S/BUILDER'S CERTIFICATE

"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 Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I/We also engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an on-site inspection of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

[Signature] 2-8-99
Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE

"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 on-site plan of the pond within 30 days of completion."

[Signature] 2-8-99
Date



John R. Roberts 2/25/99
Howard Soil Conservation District Date

Clayton Simmons 2/25/99
Natural Resources Conservation Service Date

Approved: Howard County Department of Planning & Zoning
[Signature] 2/3/99
[Signature] 3/2/99
[Signature] 3/2/99
 Chief, Division of Land Development
 Chief, Development Engineering Division

Note: This plan has been Masses Graded under GP 99-75A.

Owner Parcels T-4 & T-5
 The Howard Research & Development Corporation
 10275 Little Patuxent Pkwy.
 Columbia, Maryland 21044
 Attn: Al Edwards
 410-992-4027

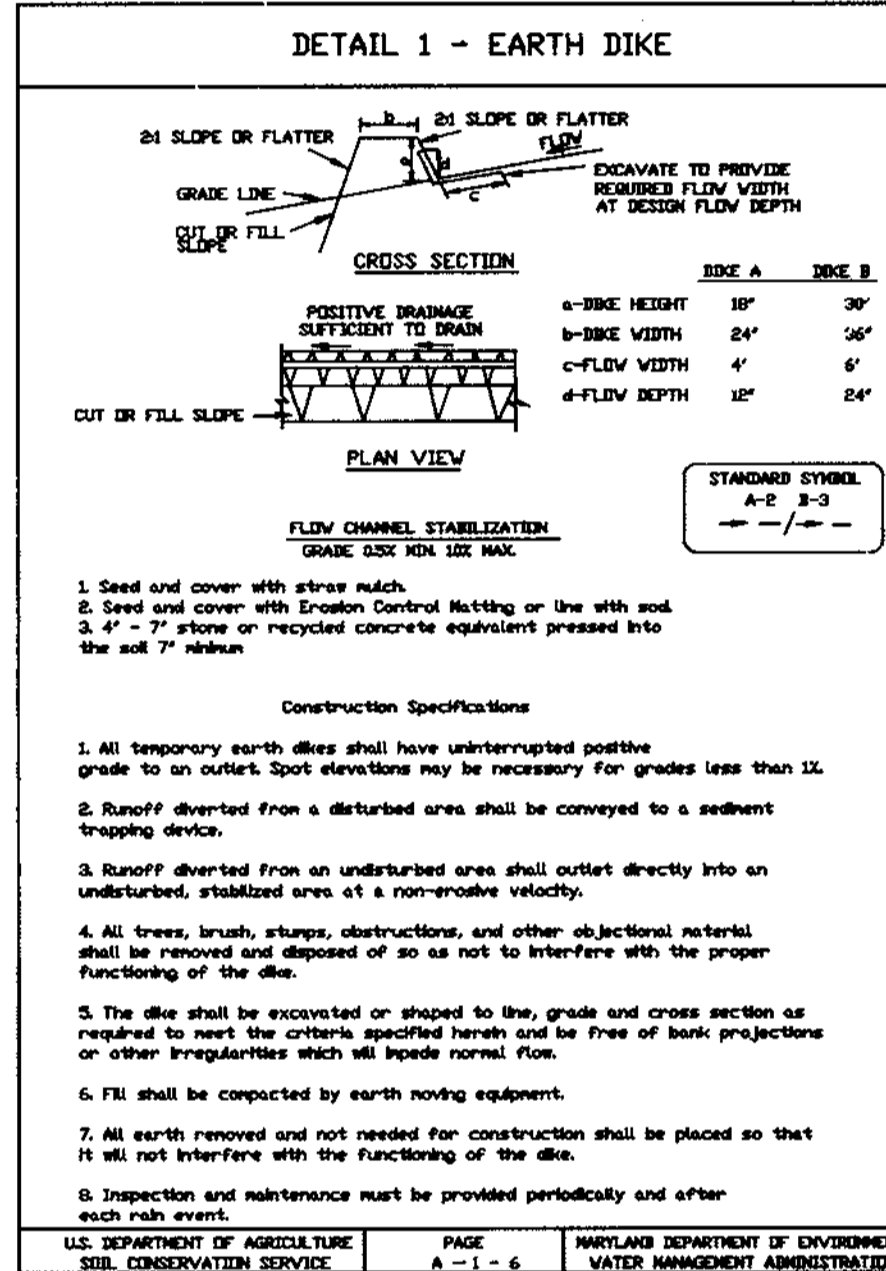
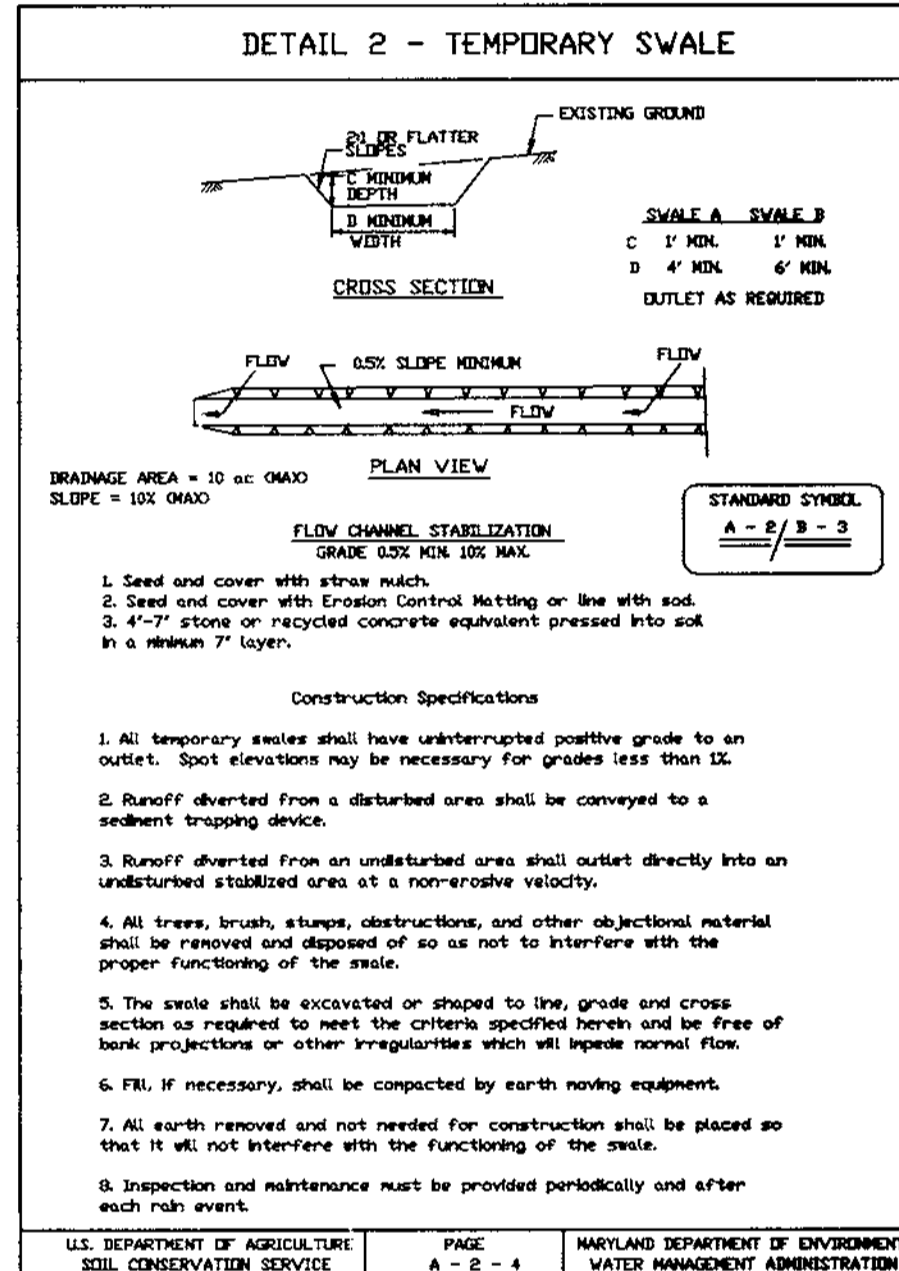
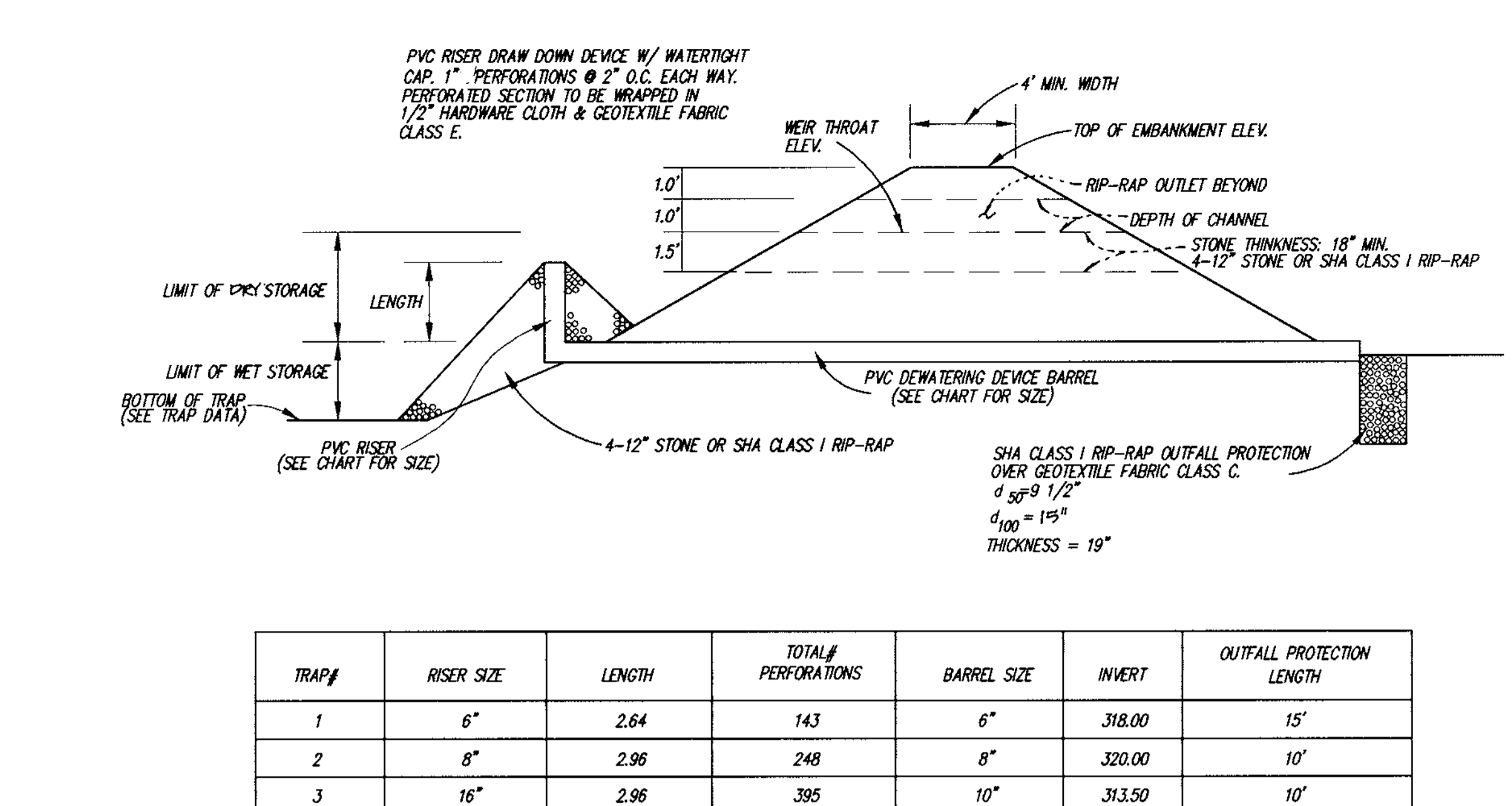
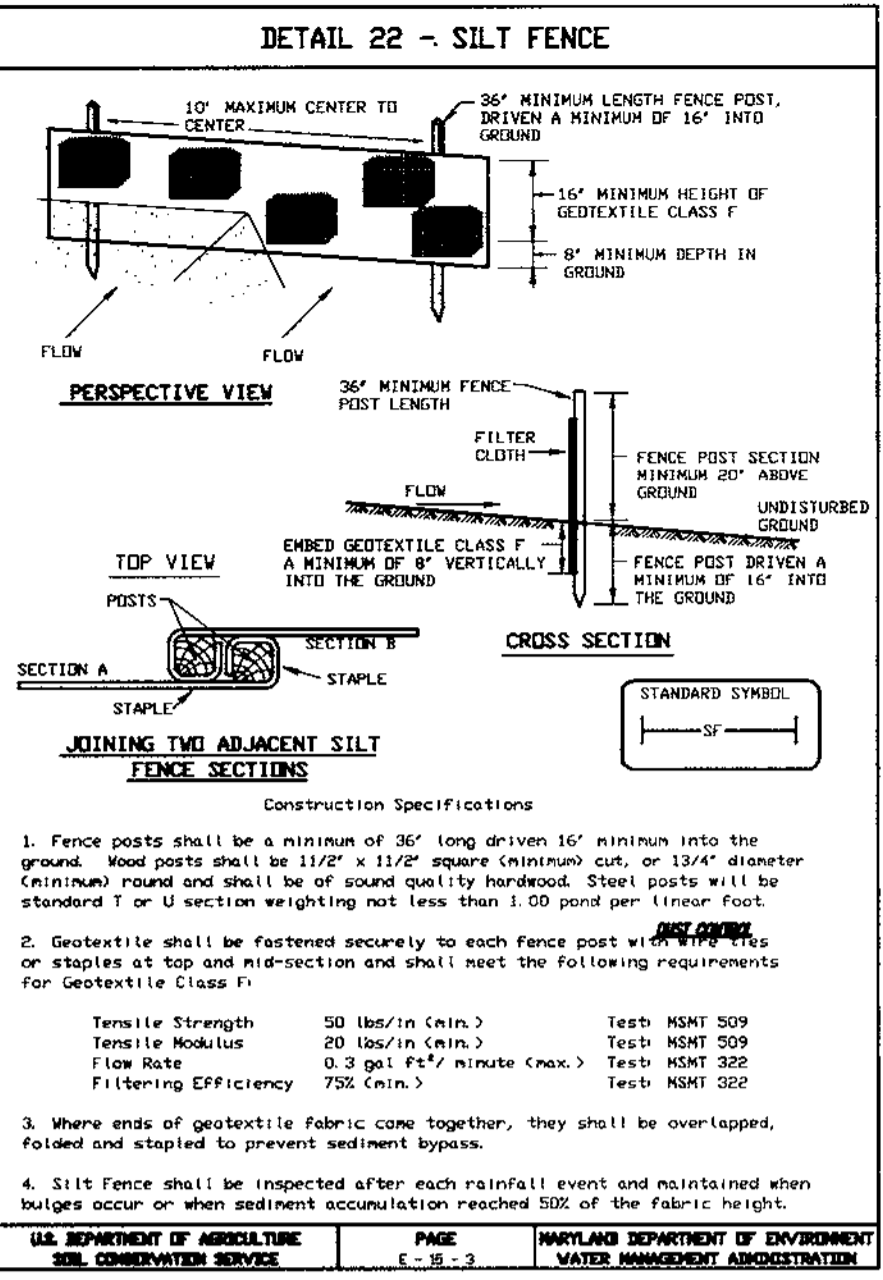
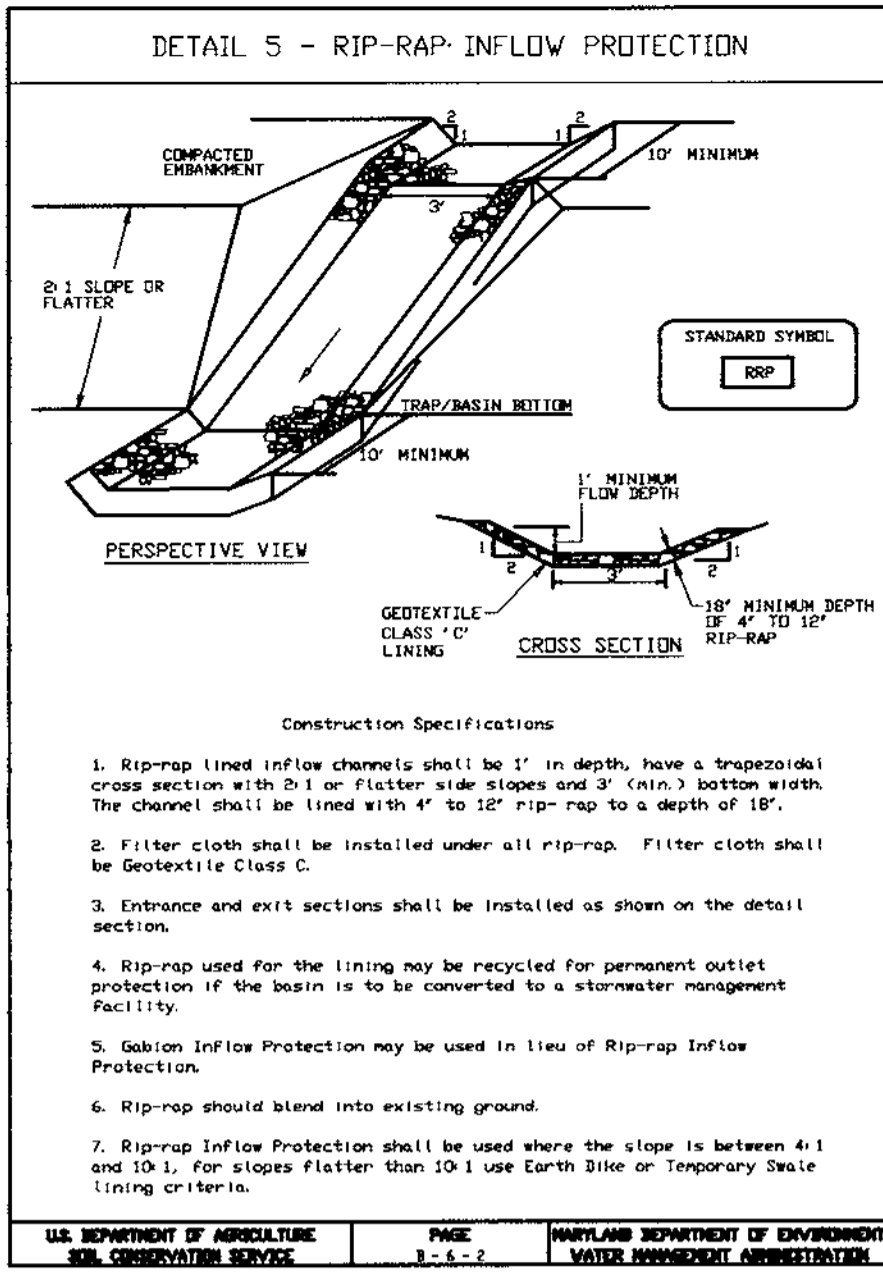
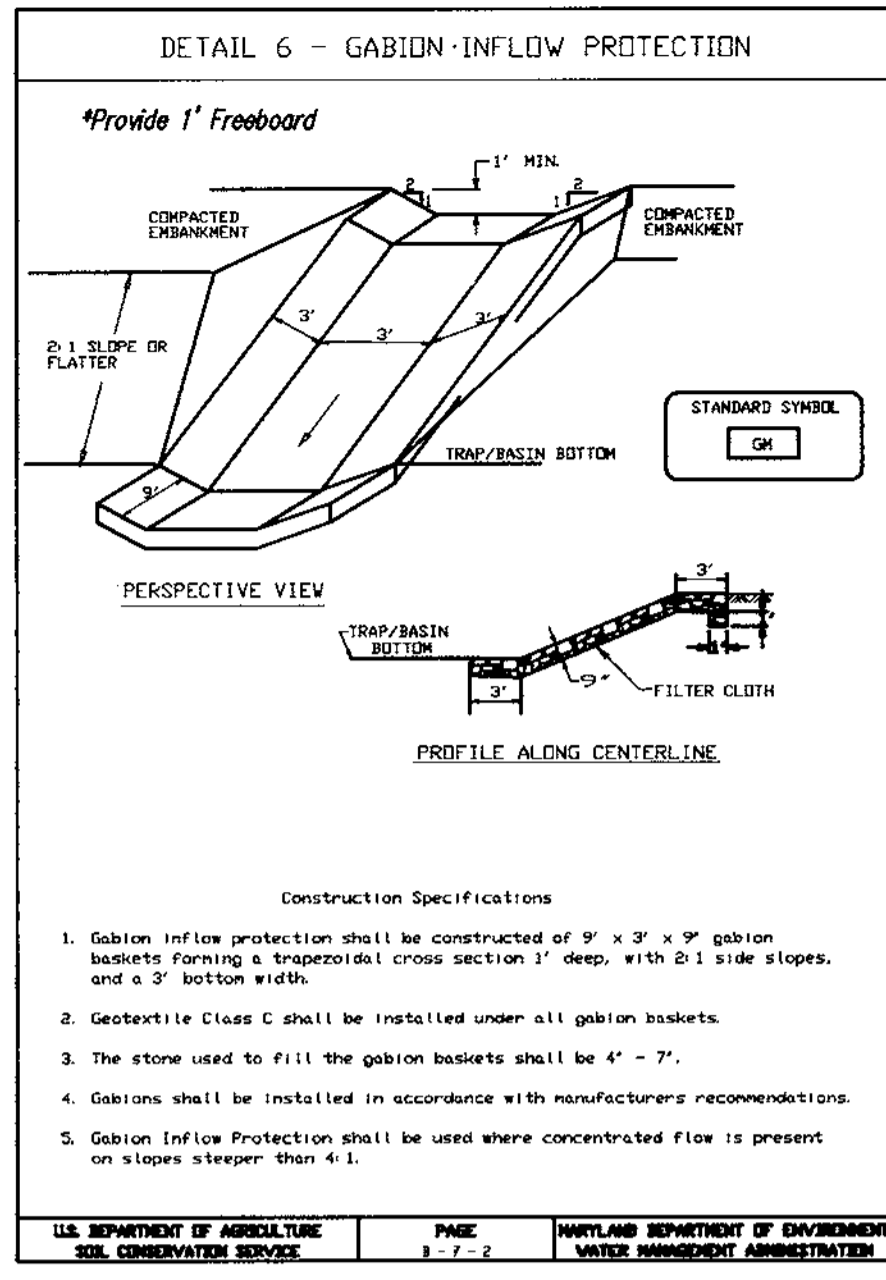
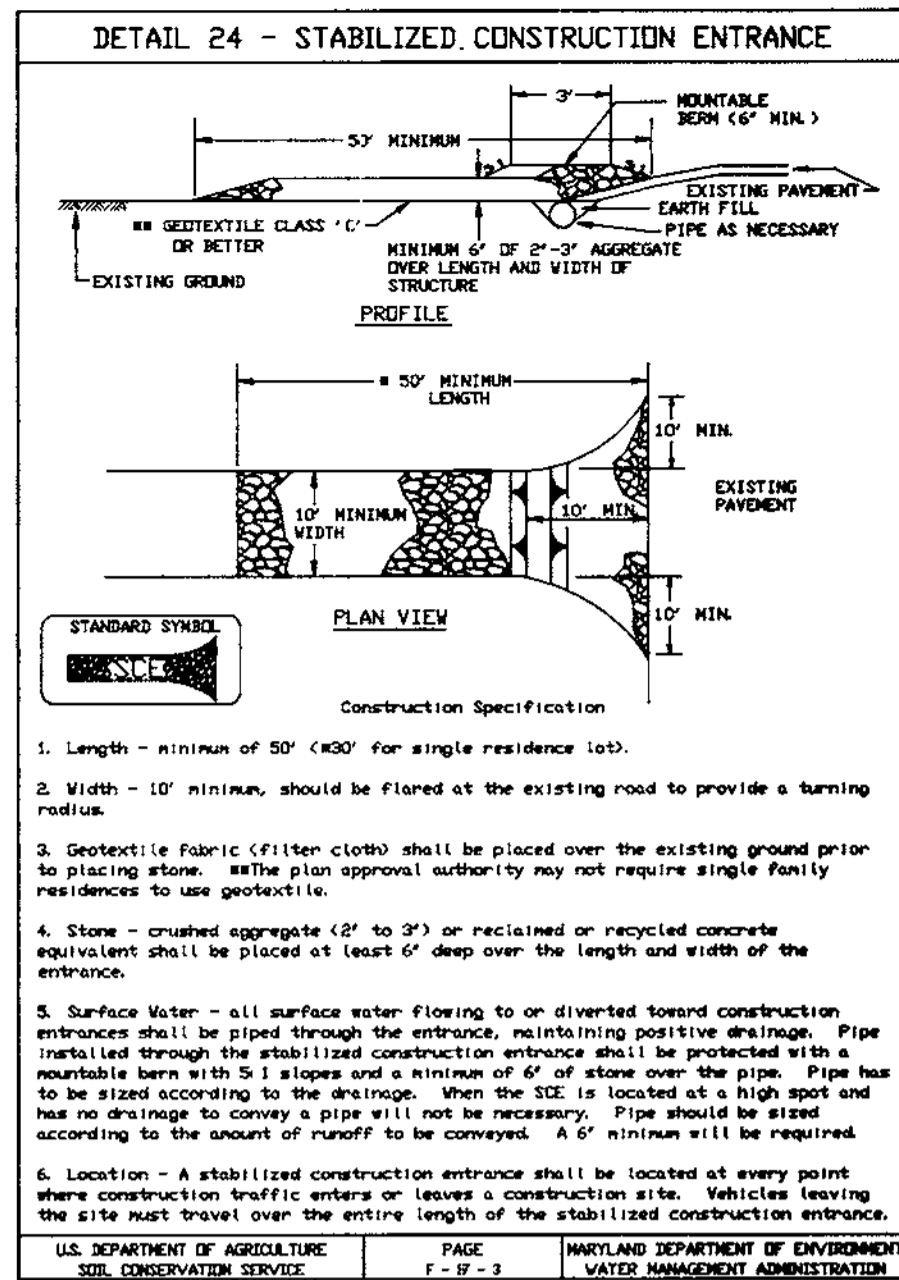
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
 TELEPHONE (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
12-22-98	Rev. Per Ho. Co. Comments	WJL	

Owner Parcels T-1, T-2, T-4 & T-5
 Orix Columbia, Inc.
 1401 H Street N.W.
 Suite 550
 Washington, DC 20005
 202-289-1401

Sediment Control Plan
Columbia Gateway
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 13402 thru 13404
 Election District No. 6
 Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE No.
DRN.:	1" = 50'	M-1	98-007
CHK.:	DATE	TAX MAP No.	SHEET
	November 1998	43	12 of 22
		1,2,7,8	



Dust Control

Definition
Controlling dust blowing and movement on construction sites and roads.

Purpose
To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies
This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Specifications

Temporary Methods

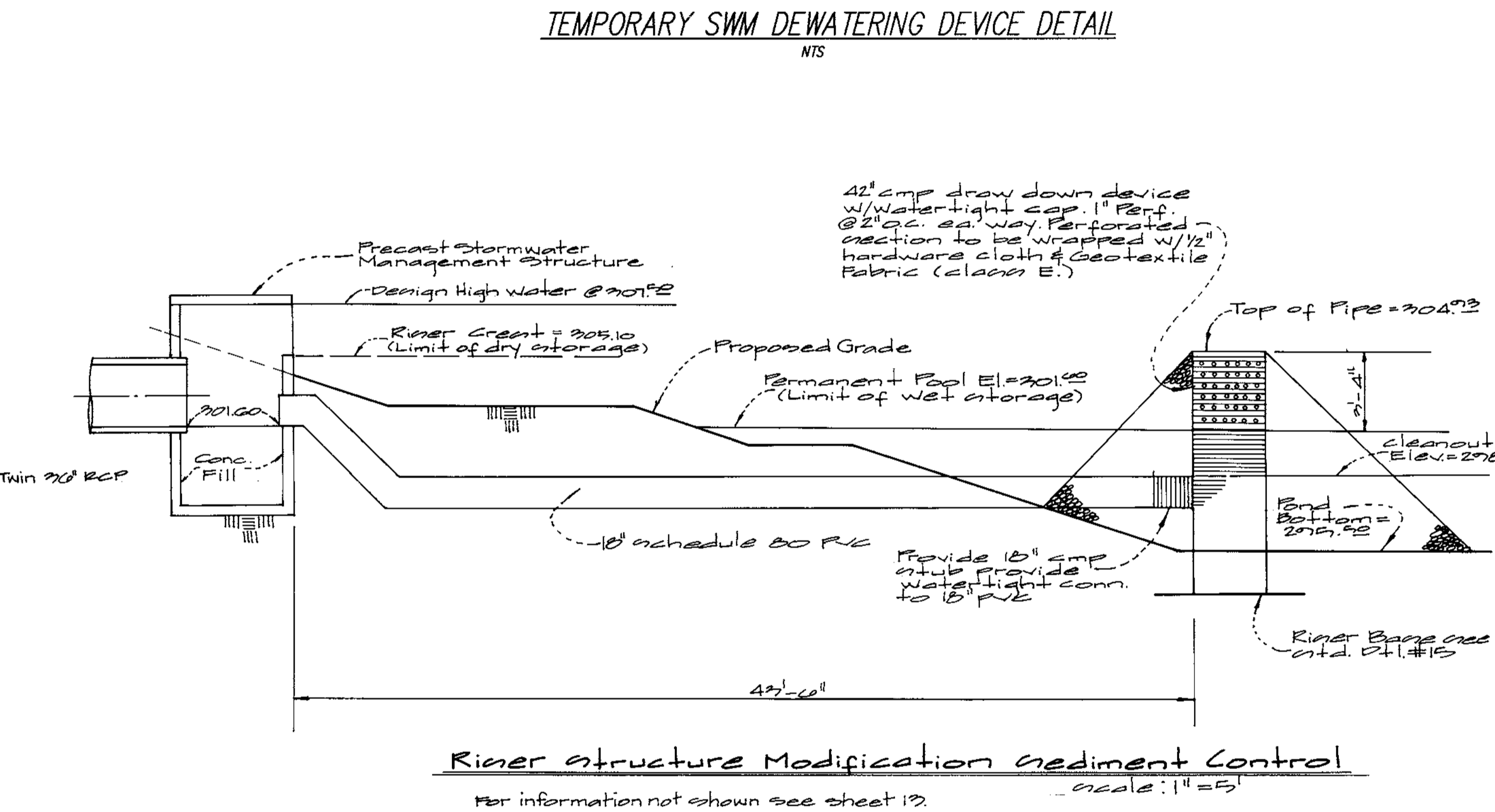
- Mulches - See standards for vegetative stabilization with mulches only. Mulches should be cropped.
- Vegetative Cover - See standards for temporary vegetative cover.
- Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar tools are examples of equipment which may produce the desired effect.
- Irrigation - This is generally done as an emergency treatment. Site is irrigated with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
- Barriers - Solid board fences, tall fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at the right angles to prevailing currents at intervals of about 10 times the height are effective in controlling soil blowing.
- Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

Permanent Methods

- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
- Topsoiling - Covering with less erosive soil materials. See standards topsoiling.
- Stone - Cover surface with crushed stone or coarse gravel.

References

- Agriculture Handbook 346. Wind Erosion Forces in the United States and Their use in Predicting Soil Loss.
- Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA-ARS.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 3/3/99
Date

[Signature] 3/6/99
Date

[Signature] 3/2/99
Date

Chief, Division of Land Development

Chief, Development Engineering Division MK

DEVELOPER'S/BUILDER'S CERTIFICATE

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

[Signature] 11/23/98
Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE

"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."

[Signature] 11-20-98
Date

[Signature] 2/25/99
Date

Owner Parcel T-1 & T-2 & Developer
Orix Columbia Inc.
1401 H STREET N.W.
SUITE 550
WASHINGTON, D.C. 20005
202-289-1401

SEDIMENT CONTROL DETAIL SHEET

COLUMBIA GATEWAY
Parcel T-1, T-2, T-4 & T-5
PLAT# 13462 THRU 13464

SCALE: AS SHOWN

DATE: NOVEMBER 1998

ZONING: M-1

TAX MAP - GRID: 43 - 1,2,7,8

G. L. W. FILE No. 98067

SHEET 13 OF 22

HOWARD COUNTY, MARYLAND

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTSMVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 FAX: 301-421-4188

DES. DRN. CHK.

DATE: 2-20-99

REVISION: 1

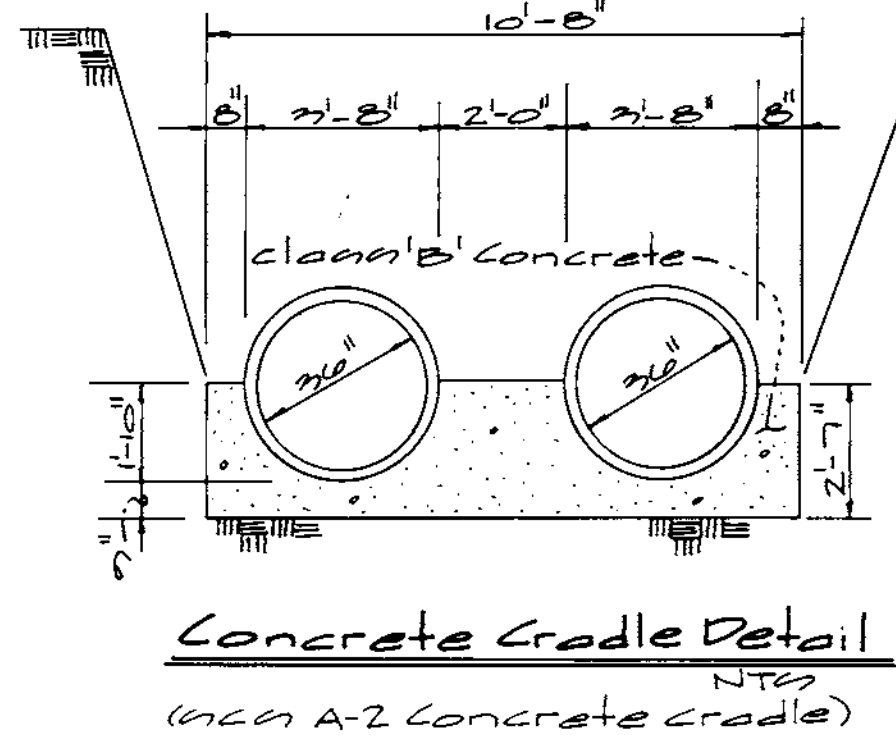
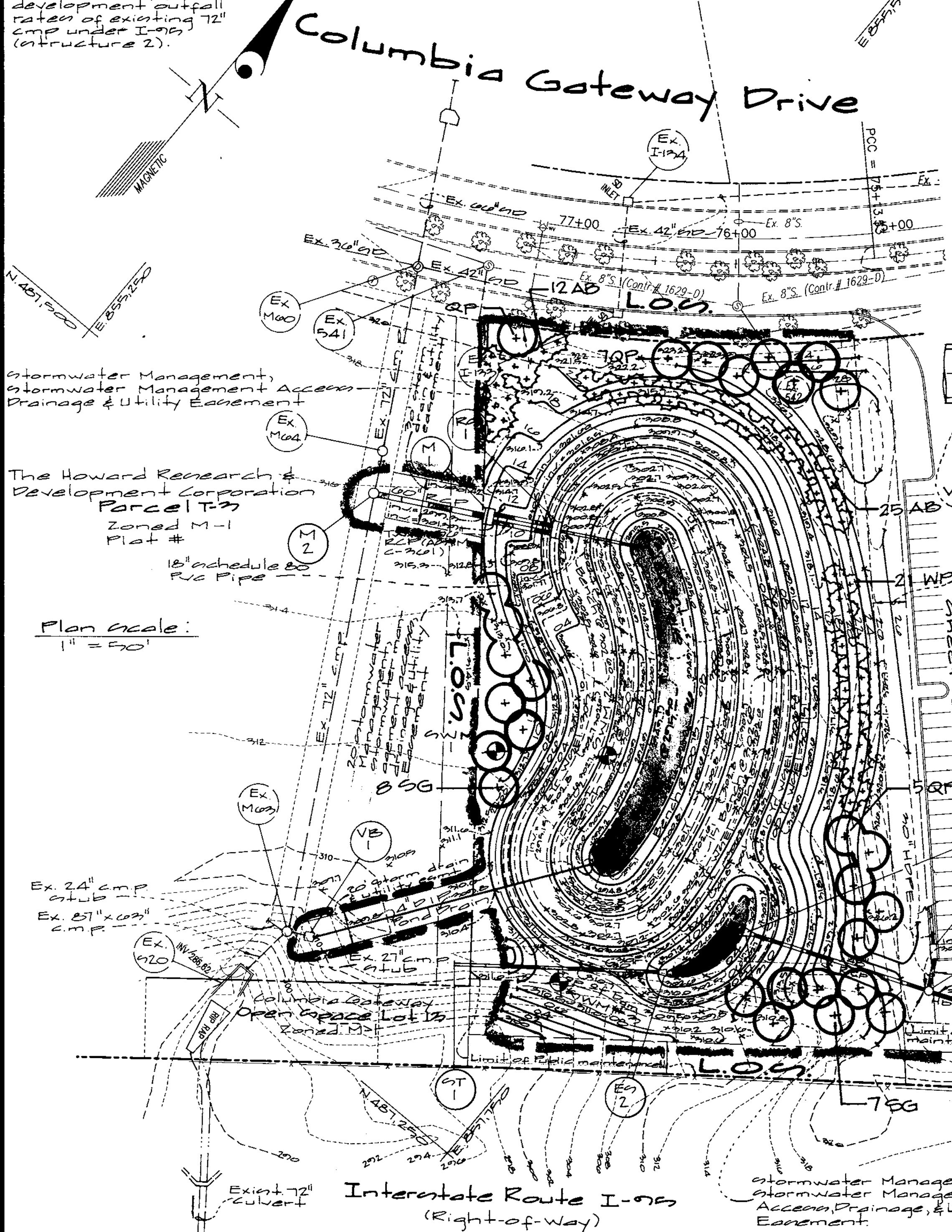
BY: [Signature]

APPR.:

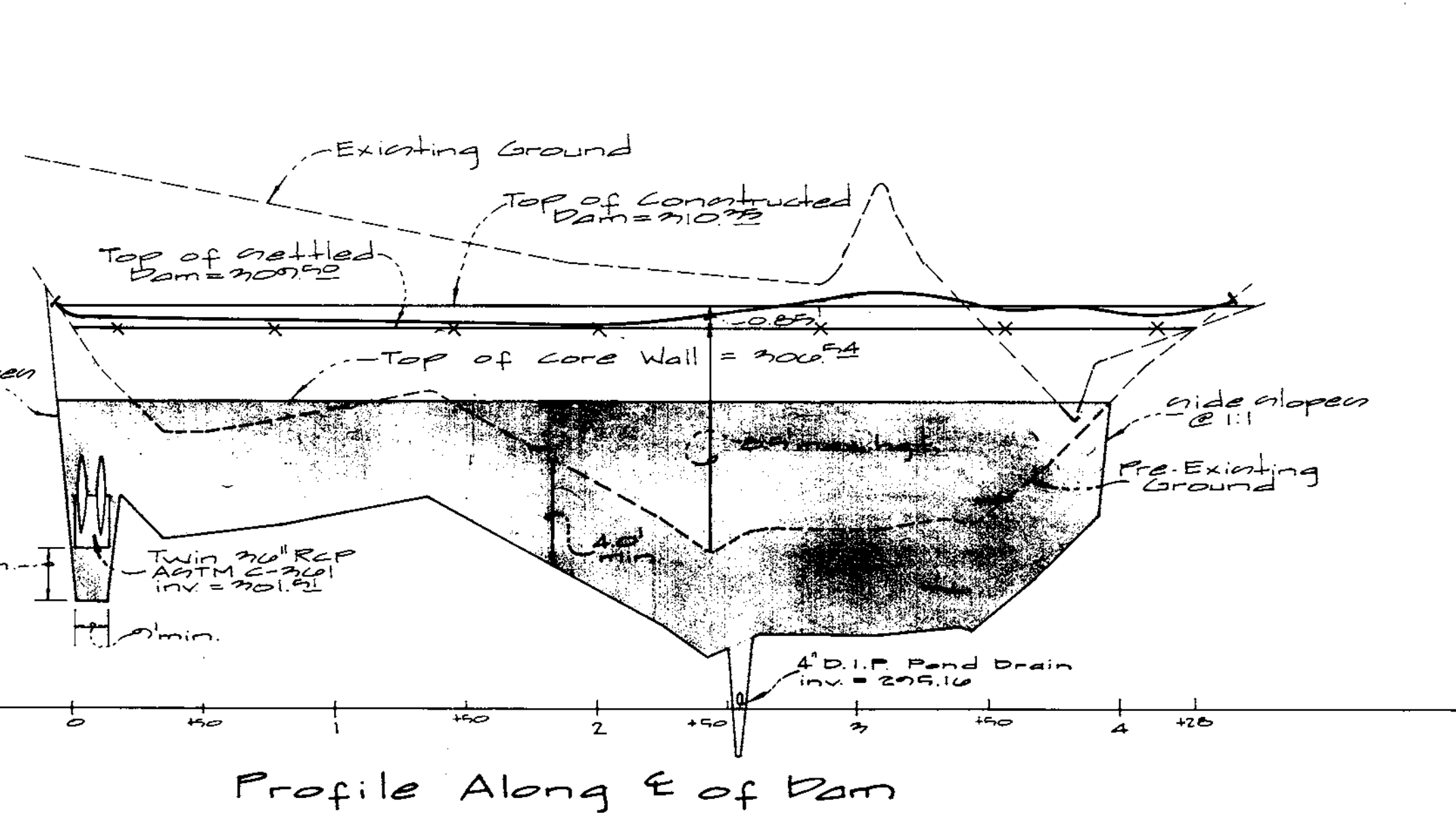
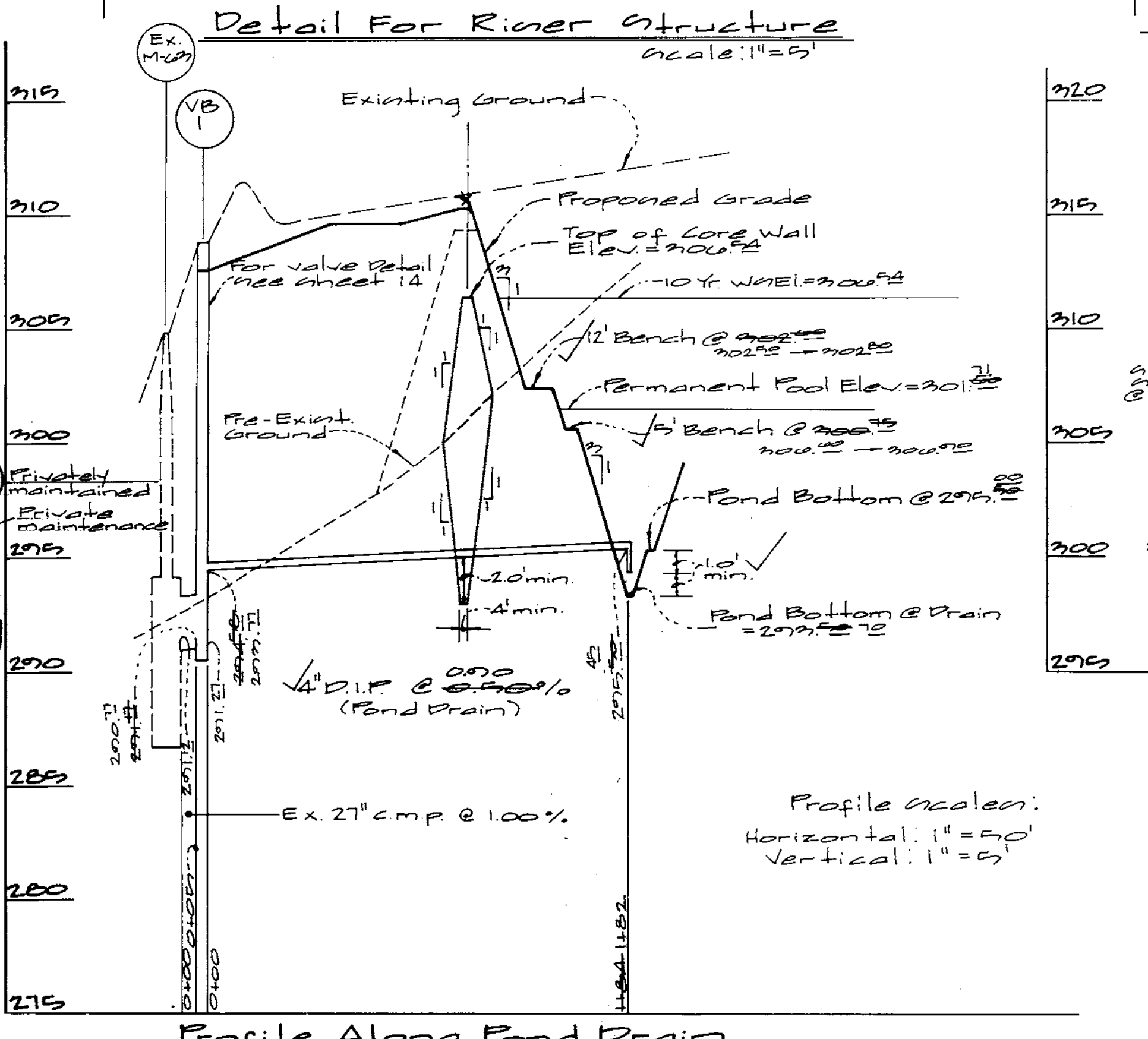
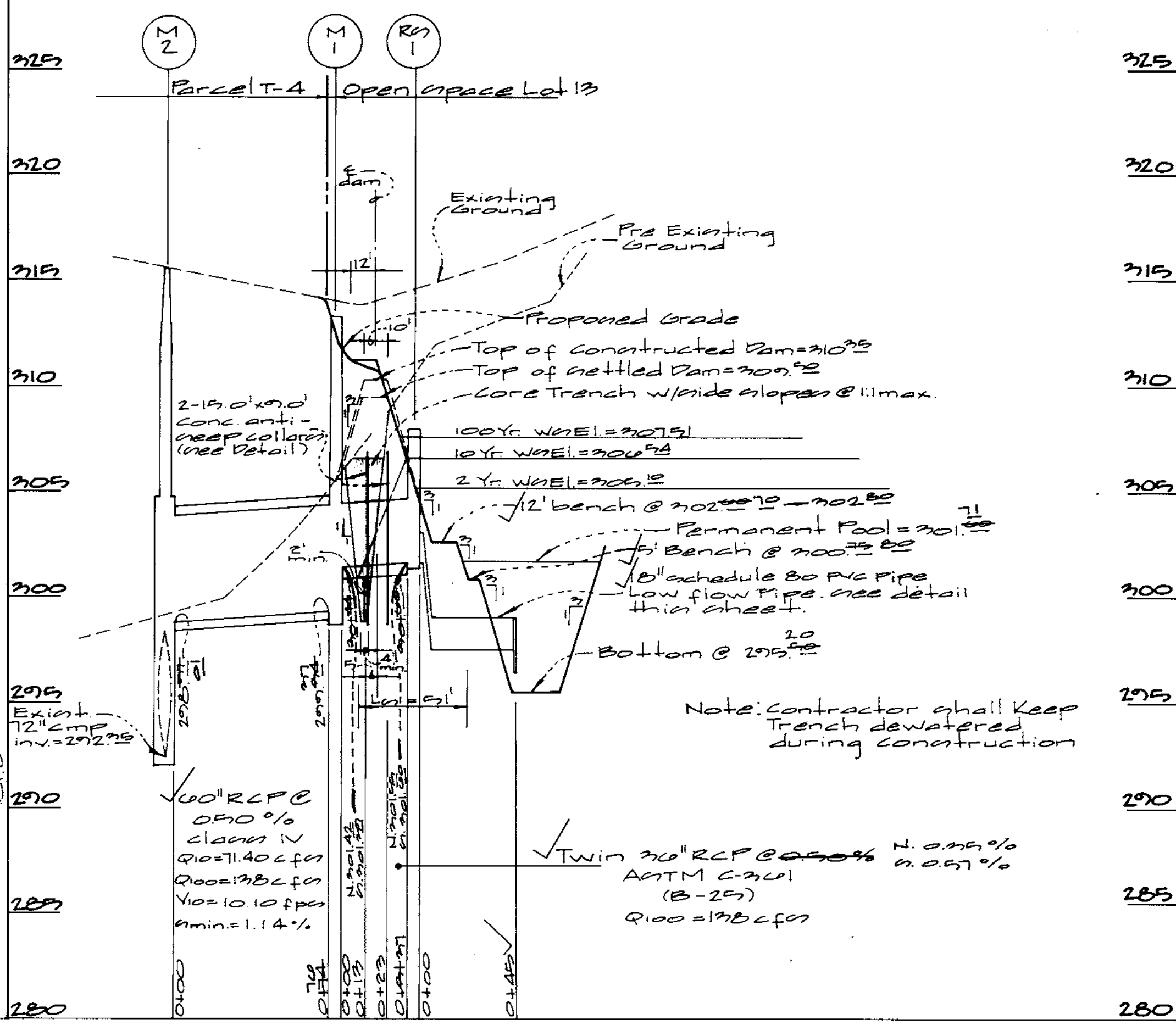
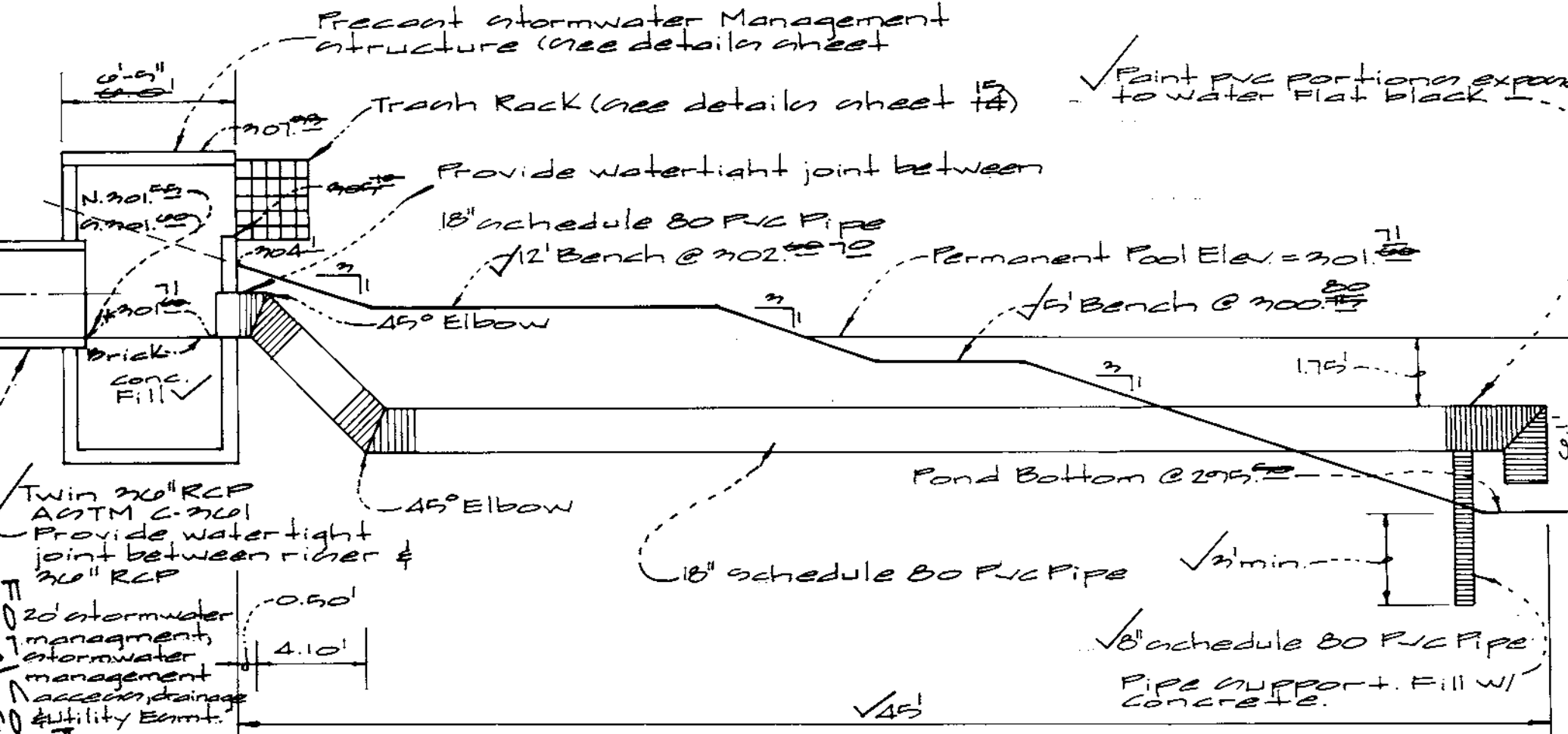
Storm	Allowable Inflow	Discharge	Elev	Storage
2 Yr	* 81 cfs	14 cfs	205.10	2.43 Ac.ft
10 Yr	* 159 cfs	71 cfs	205.94	3.72 Ac.ft
100 Yr	* 220 cfs	137 cfs	207.51	4.71 Ac.ft

*Allowable release rate determined by pre-development outfall rates of existing 72" c/s under I-95 (structure 2).

Fond Notes:
 A. Water quantity control is provided by a hazard class A retention facility.
 B. Water quality is provided by a wet pool.
 C. This facility is to be publicly maintained.



As Built
 1-18-01
 Carlton K. Goutchick
 Professional Engineer
 Registration No. 12975



Developer's/Builder's Certificate
 I/We certify that the landscaping shown on this plan will be done according to the plan section 11.1 of the Howard County Code and the Howard County Landscaping Manual. I/We further certify that upon completion of 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 J. Miller Date: 2/8/99

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: David Hunter Date: 3/3/99
 Chief, Division of Land Development: Michael J. Miller Date: 3/25/99
 Chief, Development Engineering Division: MK Date: 3/25/99

Owner Parcels T-1, T-2 & T-3
 The Howard Research & Development Corporation
 10275 Little Patuxent Pkwy.
 Columbia, Maryland 21044
 Attn: Al Edwards
 410-992-0027

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
Charles Simmons Date: 2/25/99
 Natural Resources Conservation Service

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
John P. Roberts Date: 2/25/99
 Howard Soil Conservation District

ENGINEER'S CERTIFICATE
 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.
Carlton K. Goutchick Date: 2-8-99

DEVELOPER'S/BUILDER'S CERTIFICATE
 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 Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.
Michael J. Miller Date: 2/8/99
 Signature of Developer/Builder

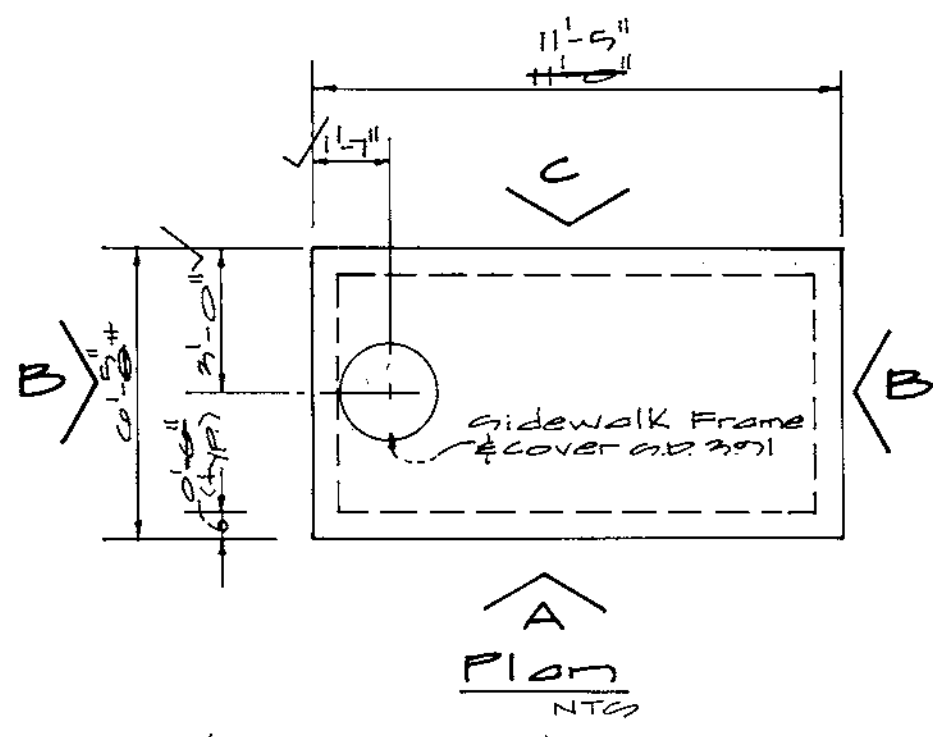
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3809 NATIONAL DRIVE - SUITE 250 - BURTONTVILLE OFFICE PARK
 BURTONTVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.

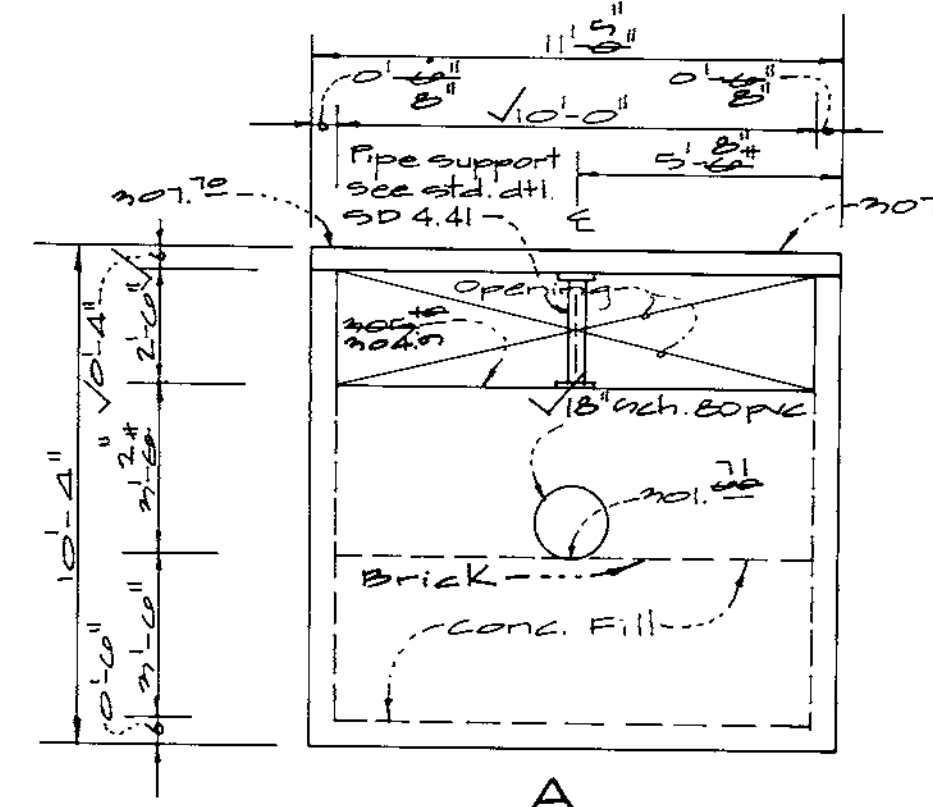
Owner Parcels T-1 & T-2 & Developer
 Orix Columbia Inc.
 1401 H STREET N.W.
 SUITE 550
 WASHINGTON, D.C. 20005
 202-289-1401

STORMWATER MANAGEMENT PLAN & DETAILS
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plot No. 13402 thru 13404
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
As shown	M-1	98067
DATE	TAX MAP - GRID	SHEET
NOVEMBER 1998	43-1,2,8	14 OF 27



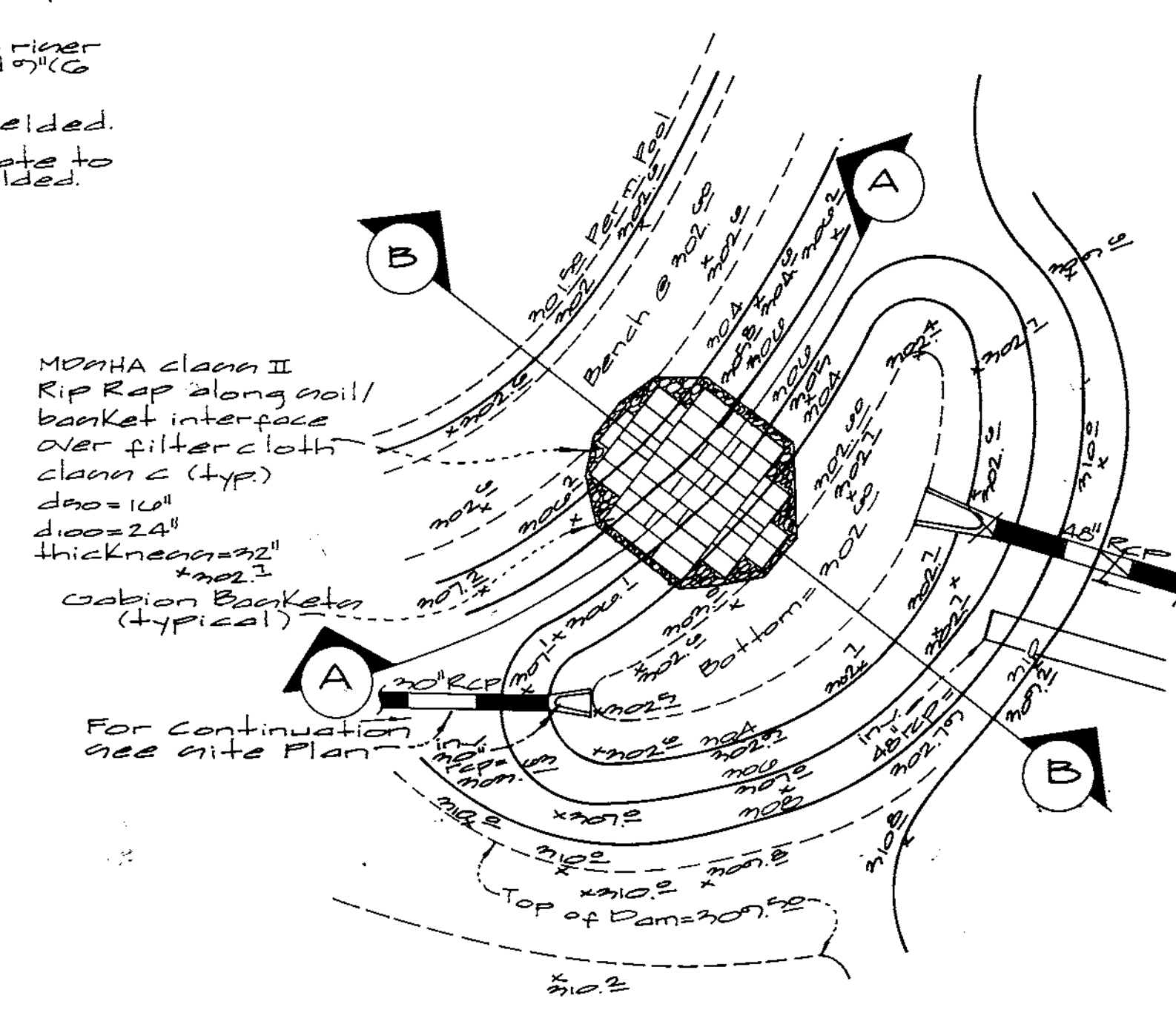
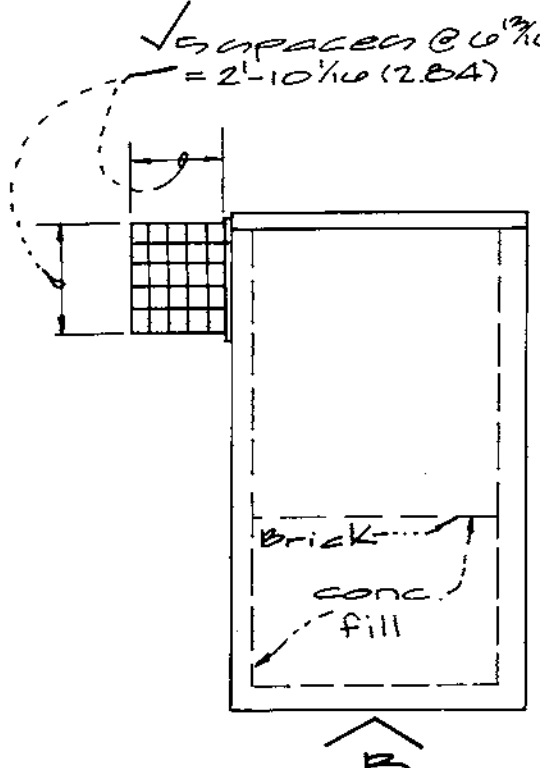
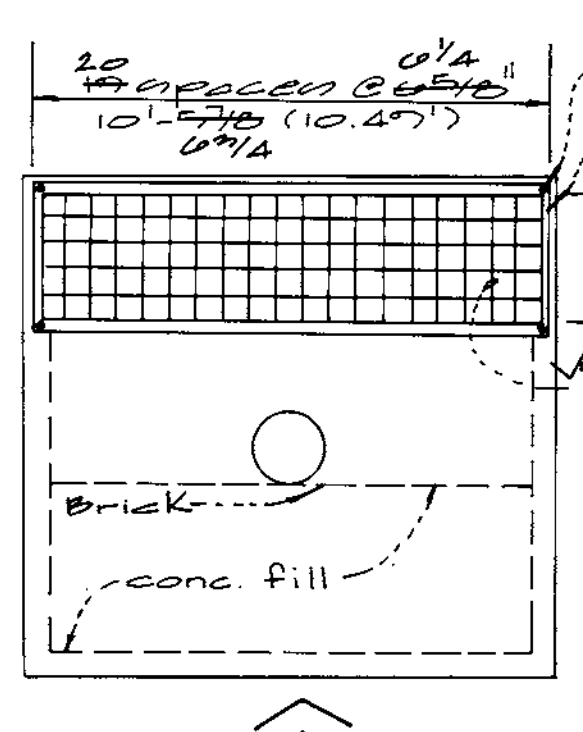
Note: Provide steps per MD 4.40



Plan - Trash Rack

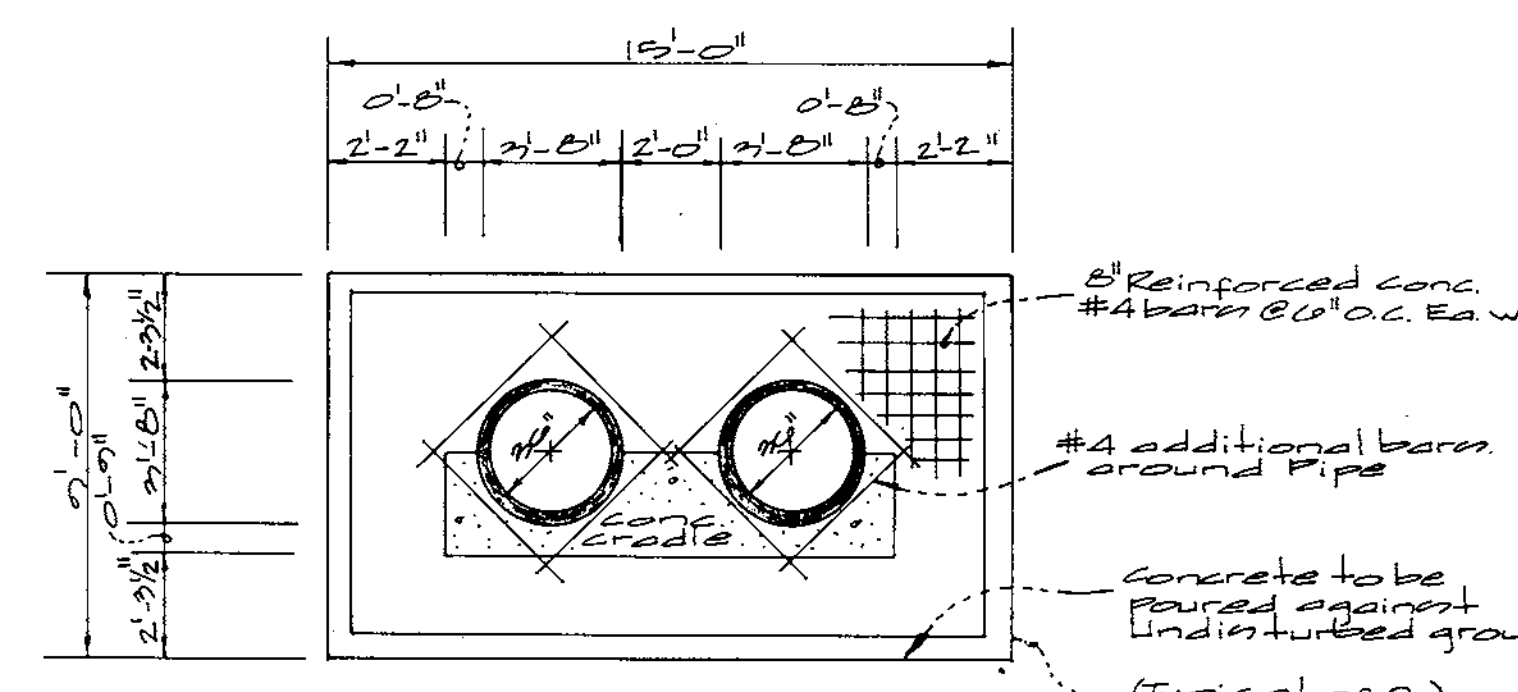
Trash Rack Notes

- 1) Trash racks to be hot dip galvanized after fabrication painted w/2 coats of black paint.
- 2) Vertical bars shall be on the outside of horizontal bars.
- 3) Trash rack to be securely bolted to river structure with 1/2" ϕ bolts embedded 6" (6 locations min. per rack).
- 4) All rebar intersections to be spot welded.
- 5) All rebar to plate intersections or plate to plate intersections to be securely welded.
- 6) Minimum opening size 6"x6"



Plan - Gabion Basket

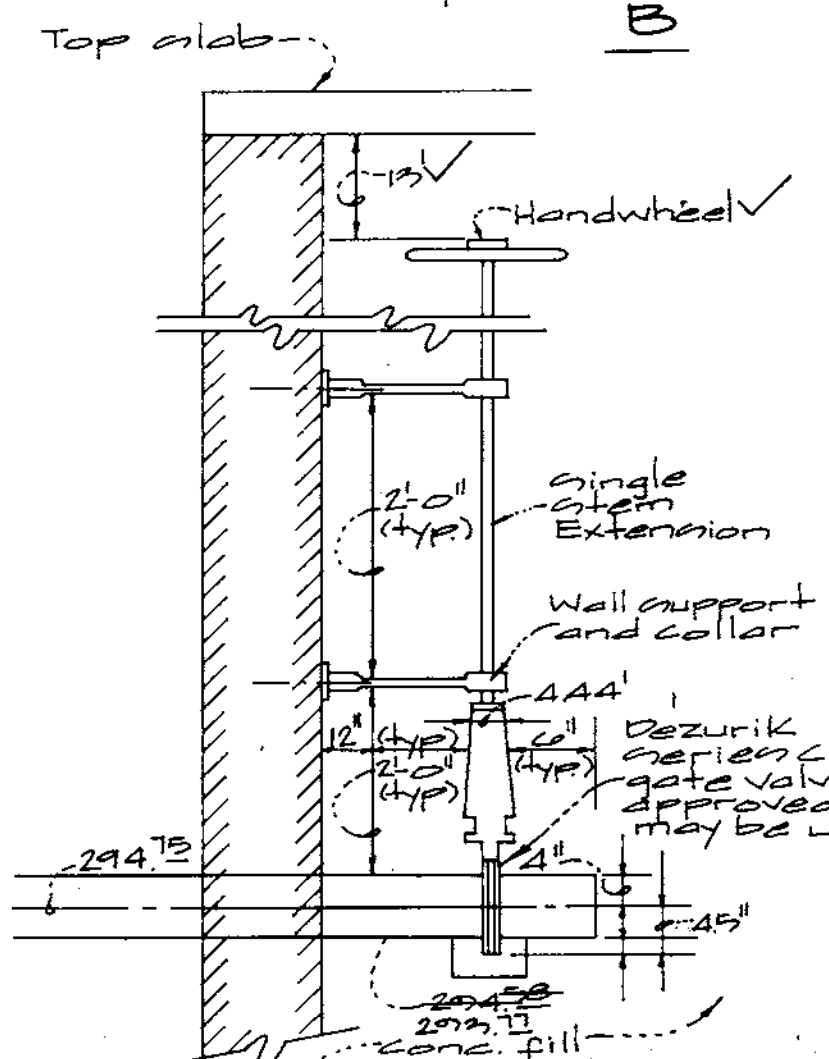
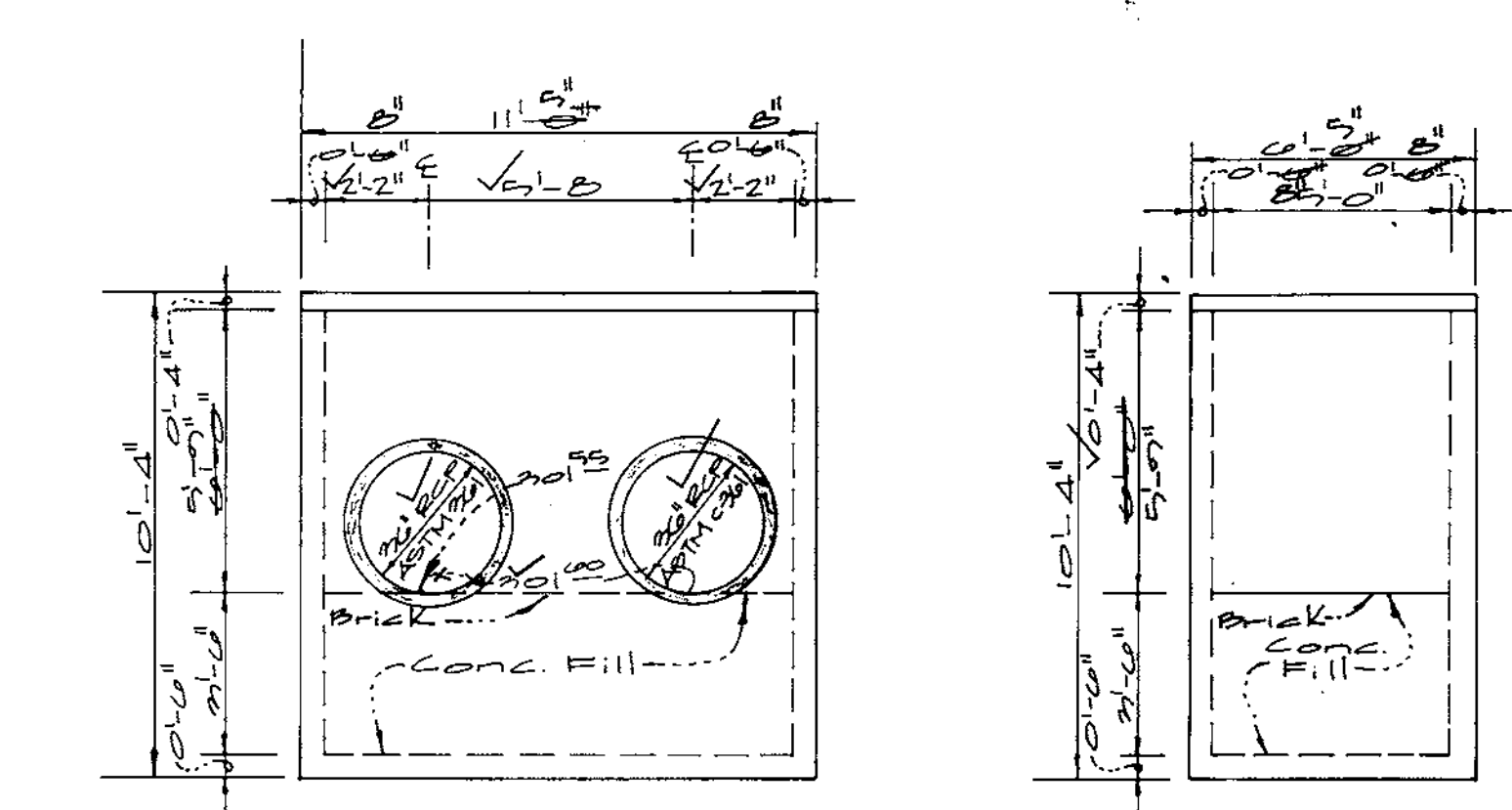
SWM structure schedule							
No.	Type	Width (ft)	Top Elev.	Inv. Elev.	Standard Detail	Remarks	
RS-1	River structure	6'-0"	207.99	205.10	MD 4.41	Facast	
M-1	Manhole	6'-0"	213.00	201.44	MD 4.41	Facast	
M-2	Manhole	10'-0"	214.90	202.07	MD 4.41	Bag House	
VB-1	Valve Box (A)	6'-0"	209.00	204.58	MD 4.41	Facast	



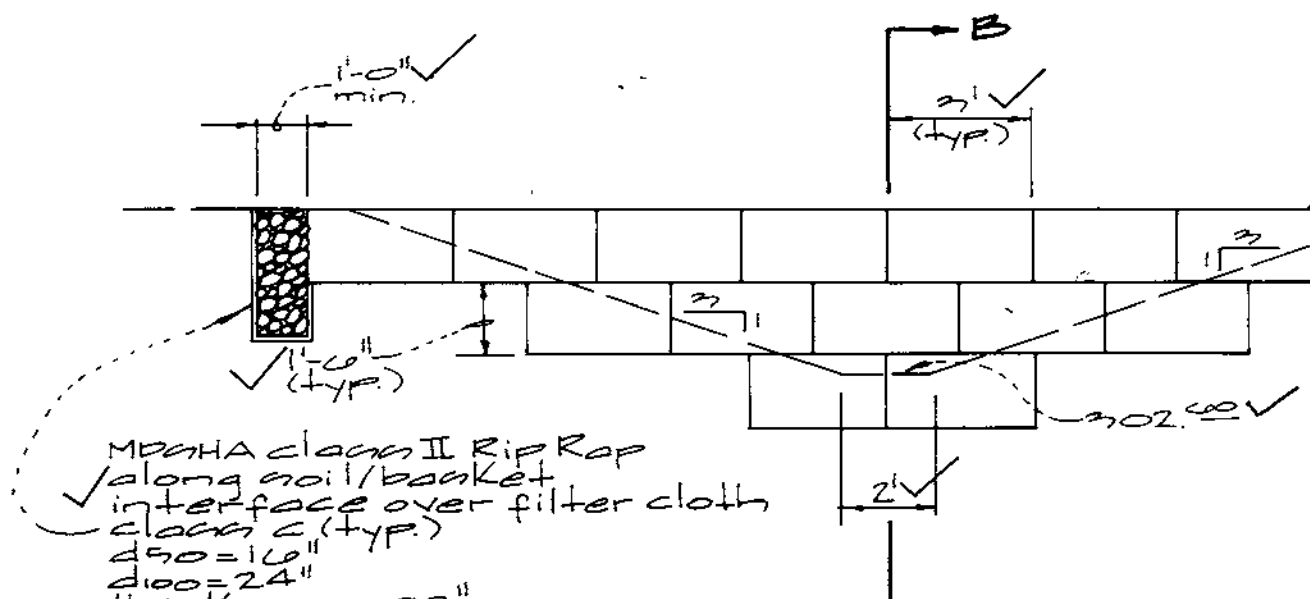
Front View

Anti-sweep Collar Detail

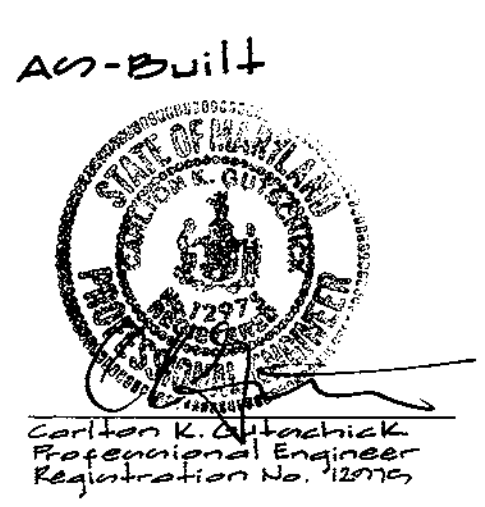
- Notes For Anti-sweep Collar
- 1) Four concrete to undisturbed earth.
 - 2) Remove sheeting before pouring concrete.
 - 3) FC #4000 psi @ 28 days.
 - 4) Four collars with pipe in place.
 - 5) Backfill evenly on both sides of collars.
 - 6) Locate collars a min. of 2' from pipe joints.



Pond Drain Valve Detail



Section A-A



DEVELOPER'S/BUILDER'S CERTIFICATE

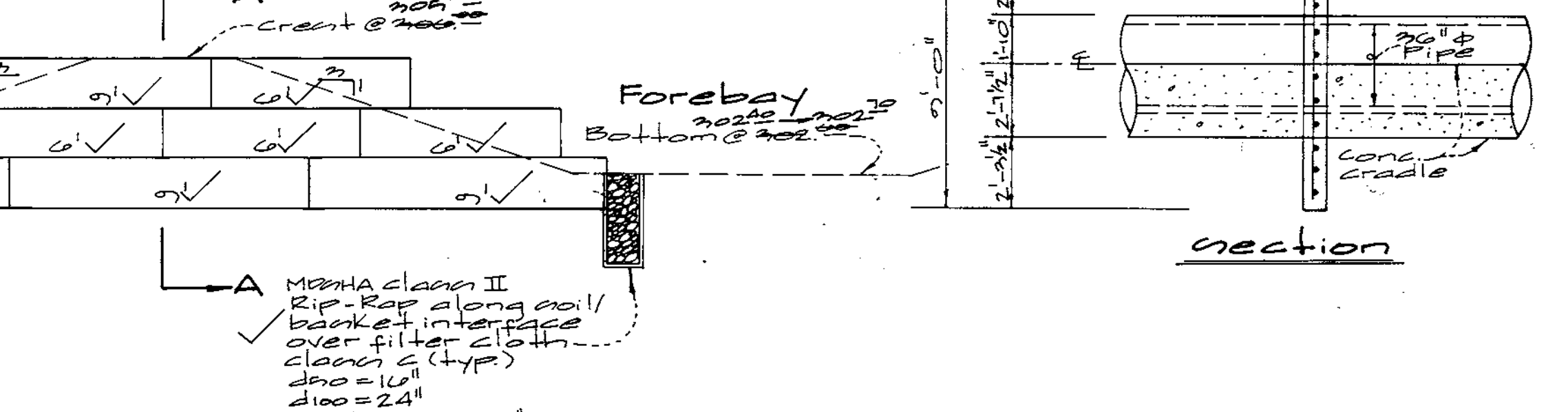
I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with a copy of the plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Developer/Builder: *Michael J. Kelly* Date: 2/18/99

ENGINEER'S CERTIFICATE

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 of the pond within 30 days of completion.

Signature: *Carlton E. O'Connell* Date: 2/18/99



Section B-B

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

Signature: *John L. Rector* Date: 2/25/99

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

Signature: *Carol Simmons* Date: 2/25/99

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Signature: *John S. Smith* Date: 3/3/99
 Signature: *Carol Amata* Date: 3/3/99
 Signature: *Mike Dammann* Date: 2/18/99

Owner Parcels T-4 & T-5
 The Howard Research & Development Corporation
 10275 Little Patuxent Pkwy.
 Columbia, Maryland 21044
 Attn: Al Edwards
 410-992-0027

Owner Parcels T-1 & T-2 & Developer
 Orix Columbia Inc.
 1401 K STREET N.W.
 SUITE 550
 WASHINGTON, D.C. 20005
 (202) 287-1401

Stormwater Management Details
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 13402 thru 13404
 ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	M-1	98067
DATE	TAX MAP - GRID	SHEET
November 1998	43 1,2,7,8	15 of 22

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTENVILLE OFFICE PARK
 BURTENVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT. 410-880-1820 DC/VA. 301-989-2524 FAX: 301-421-4186

POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of these plans. 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, roots and other objectionable material shall be removed.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans.

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.

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 - Area on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill.

Compaction - 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.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum.

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining 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

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

- 1. Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges.

Material - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges.

- 2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe.

- 3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe & riser are metal.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width.

- 4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length.

- 5. Backfilling shall conform to "Structure Backfill".

Reinforced Concrete Pipe - All of 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.

- 3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream.

- 4. Backfilling shall conform to "Structure Backfill".

- 5. Other details (anti-seep collars, valves, etc.) shall be shown on the drawings.

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

- 1. Materials - PVC pipe shall be PVC - 1120 or PVC - 1220 conforming to ASTM D-1785 or ASTM D-2241.

- 2. Joints and connections to anti-seep collars shall be completely watertight.

- 3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length.

- 4. Backfilling shall conform to "Structure Backfill".

- 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standards Specifications for Construction and Materials, Section 608, Mix No. 3.

Rock Riprap

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

The rip rap 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 with the smaller rocks filling the voids between the larger rocks.

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 areas to be occupied by the permanent works.

Helically corrugated pipe shall have either continuously welded seams or have lock seams.

- 6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a slightly condition.

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.

SEDIMENT CONTROL NOTES

- 1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction.

- 2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.

- 3. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.

- 4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

- 5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seedings and mulching (Sec. 6). Temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

- 6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

Site Analysis: Total Area of Site: 195.7 Acres, Area Disturbed: 21.5 Acres, Area to be seeded or paved: 14.7 Acres, Area to be vegetatively stabilized: 17.2 Acres, Total Cut: 20,000 Cu. Yds., Total Fill: 20,000 Cu. Yds., Off-site waste/borrow area location: N/A

- 8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

- 9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.

- 10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading.

- 11. Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within 1 working day, whichever is shorter.

PERMANENT SEEDING NOTES

Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding.

- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (14 lbs/1000 sq ft) of Kentucky 31 Tall Fescue.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrattled small grain straw immediately after seeding.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseeding.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq ft).

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrattled, weed-free, small grain straw immediately after seeding.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

STORMWATER MANAGEMENT FACILITY OPERATIONS AND MAINTENANCE GUIDELINES

Operations:

- 1. Owner shall keep accurate records of inspections and maintenance type repairs. These records should also include a copy of the "as-built" plans and small pond summary sheet.
- 2. Owner shall make a visual inspection of the facility at least twice a year.
- 3. During the extreme weather or rainfall events, the owner shall check for overtopping, seepage, or dam failure.
- 4. If a severe problem develops, the owner shall contact a Professional Engineer to assess the problem and make a suggestion to remedy the situation.

Maintenance

During the semi-annual visual inspections, the following items must be checked and documented by the owner:

- I. Spillways and Outlet Device: 1. Pipes - check for sagging, misalignment, gaps at joints, cracks, leaks, and wear along inside surface of pipes. 2. Trash Racks - inspect and replace if necessary. 3. Concrete Surfaces - check for cracks or any other signs of failure. 4. Forebay and Spillway - check for stone & wire mesh deterioration or loss and spillway failure. 5. Rip Rap Outlet - check for stone deterioration or stone loss. 6. Dewatering Device - remove blockages.
- II. Embankments: 1. Vegetation - proper vegetative cover is required on all embankments. 2. Trees and Brush - trees and brush shall be removed from the embankment. 3. Mowing - mowing is necessary to control the establishment of woody growth and to maintain the vegetative cover.

Note: All stormwater management facility construction shown on these plans shall be performed under the supervision of an approved Maryland registered geotechnical engineer who is responsible for certifying that the construction of the facilities is in accordance with these plans and specifications to the completion of the construction.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Signature of Chief, Division of Land Development and Research, dated 2/3/99, 3/3/99, 3/6/99.

Owner: Parcels T-4 & T-5, The Howard Research & Development Corporation, 10275 Little Patuxent Pkwy., Columbia, Maryland 21044.



ENGINEER'S CERTIFICATE

I certify that this plan for stormwater management, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions.

Signature of Engineer, dated 11-20-98

DEVELOPER'S/BUILDER'S CERTIFICATE

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 Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project.

Signature of Developer/Builder, dated 11/23/98

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

Signature of Howard Soil Conservation District, dated 2/25/99

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

Signature of Natural Resources Conservation Service, dated 2/25/99

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS, 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK

DES. DRN. CHK.

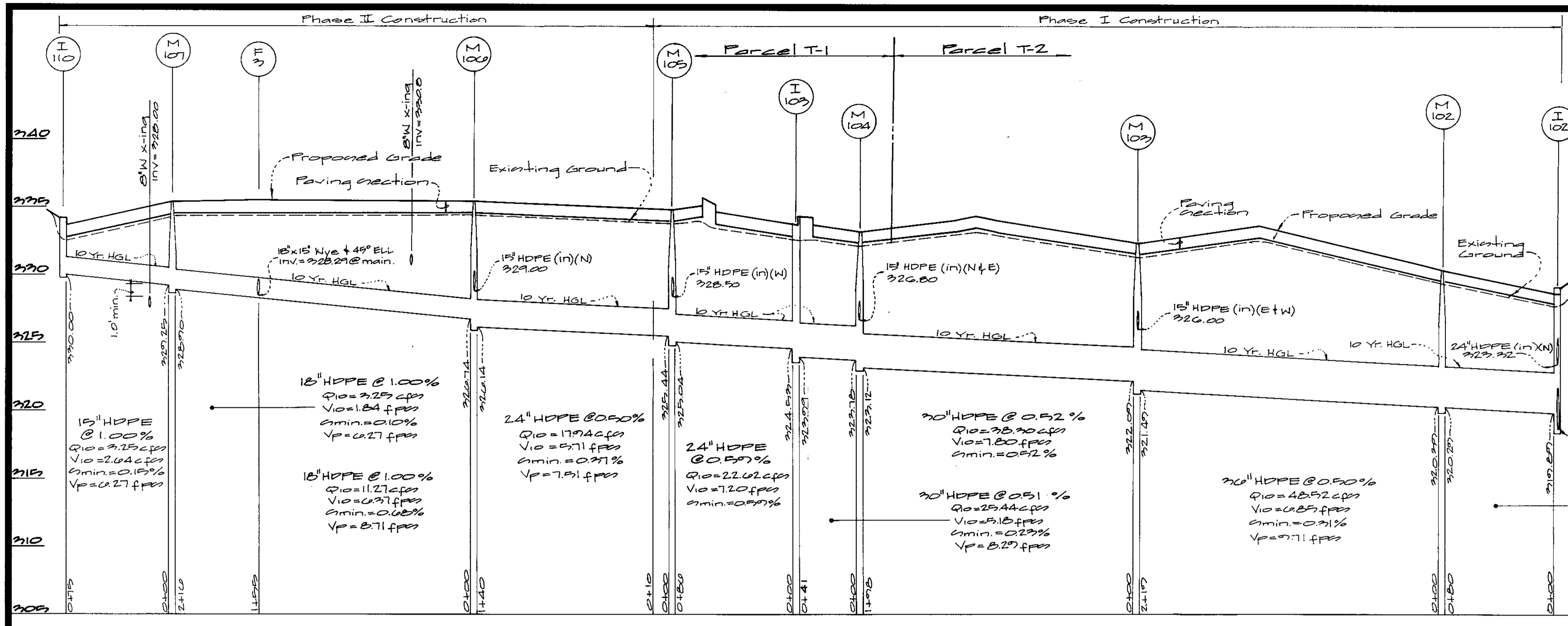
DATE: 12-22-98, REVISION: Rev. Per Ho Co. Comments

Owner: Parcels T-1 & T-2 & Developer: Orix Columbia Inc., 1401 H STREET N.W., SUITE 550, WASHINGTON, D.C. 20005

STORMWATER MANAGEMENT NOTES / SEDIMENT CONTROL NOTES

COLUMBIA GATEWAY, Parcels T-1, T-2, T-4 & T-5, Flat No. 13402 thru 13404

Table with columns: SCALE (AS SHOWN), ZONING (M-1), G. L. W. FILE NO. (98067), DATE (NOVEMBER 1998), TAX MAP - GRID (43, 1,2,7,8), SHEET (16 OF 22)

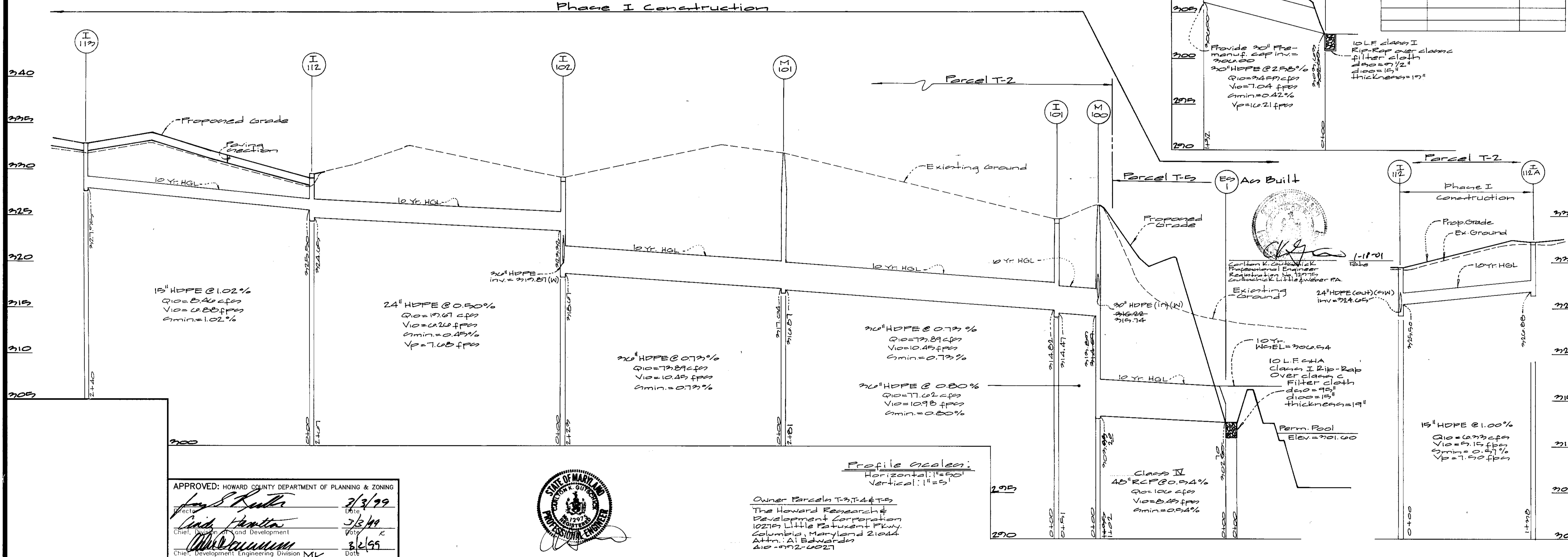


STRUCTURE SCHEDULE

NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STD. DETAIL	LOCATIONS	REMARKS
			UPPER	LOWER	UPPER	LOWER			
I-101	A-10	4'-0"	324.00	314.82	314.47	310.44		See Plan	
I-102	A-10	4'-0"	325.12	315.94	315.69	311.44			
I-103	WR	2'-0"	324.22	314.93	314.93	310.44			
I-110	A-10	2'-0"	334.14	320.00	320.00	316.44			
I-112	A-10	4'	327.50	324.65	324.65	310.44			
I-113	Triple WR	2'-0"	327.77 (each)	317.93	317.93	314.44			
M-100	Manhole	6'	324.82	316.22	316.22				
M-101		5'	331.75	317.04	316.07	G.S. 11 & G.S. 12			
M-102		5'	330.90	320.97	320.27				
M-103		5'	332.35	322.00	321.49				
M-104		5'	333.14	323.00	322.12				
M-105		5'	334.75	325.50	325.04				
M-106		4'	335.33	324.00	323.14	G.S. 11 & G.S. 12			
M-107		4'	335.30	327.25	326.90				
ES-1	Wye Fitting	15"		326.25		HDPE Wye (Manufactured)			
ES-1	End Section	48"		327.50		24" HDPE @ 0.50%			
I-112A	A-10	2'-0"	332.20	322.00	322.00	310.44			

PIPE SUMMARY

SIZE	TYPE	LENGTH
15"	HDPE	453'
18"	"	210'
24"	"	493'
30"	"	371'
30"	"	854'
48"	RP Class IV	135'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

3/3/99 Date

3/3/99 Date

3/2/99 Date



Profile created:
Horizontal: 1"=50'
Vertical: 1"=5'

Owner Parcels T-3, T-4 & T-5:
The Howard Research & Development Corporation
10275 Little Pasture Pl.
Columbia, Maryland 21044
Attn: Al Edwards
410-992-0027

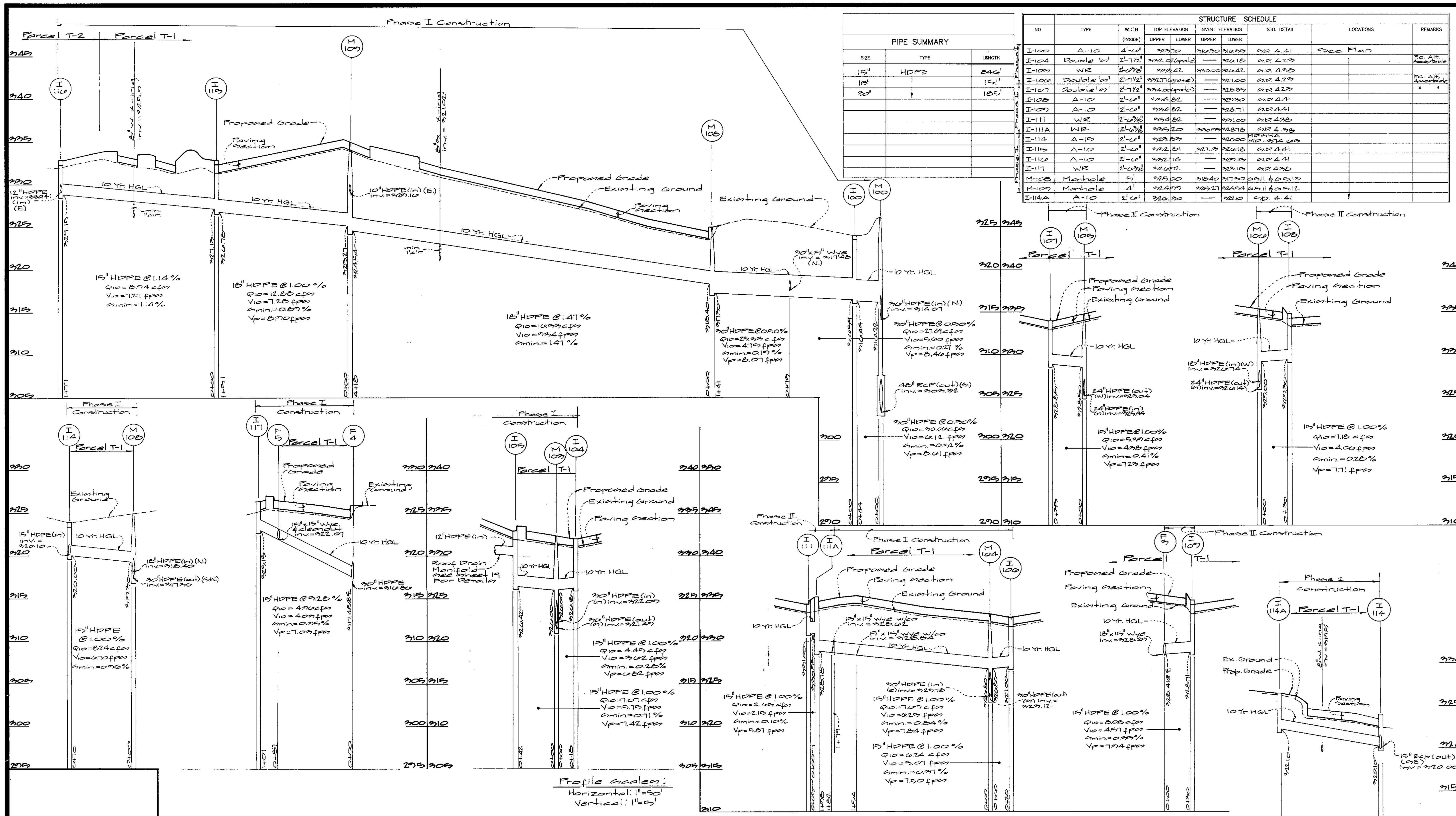
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-889-1820 DC/VA: 301-589-2524 FAX: 301-421-4186

Owner Parcels T-1, T-2 & T-4 Developer:
Orix Columbia, Inc.
1401 H STREET N.W.
SUITE 550
WASHINGTON, D.C. 20005
202-281-1401

Storm Drain Profiles
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
Plot No. 13402 thru 13404
ELECTION DISTRICT No. 6

SCALE: AS SHOWN
ZONING: M-1
G. L. W. FILE NO.: 98067
November, 1998
43 1,2,7,8
17 OF 22

GDP 99-54



STRUCTURE SCHEDULE									
NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STD. DETAIL	LOCATIONS	REMARKS
			UPPER	LOWER	UPPER	LOWER			
I-100	A-10	4'-6"	322.70	316.50	316.35	316.41	See Plan		
I-104	Double In	2'-7 1/2"	322.02 (grade)		320.15	318.42			PC Alt. Acceptable
I-105	WR	2'-6"	323.42	320.00	320.42	318.42			
I-106	Double In	2'-7 1/2"	322.70 (grade)		320.85	318.42			PC Alt. Acceptable
I-107	Double In	2'-7 1/2"	322.00 (grade)		320.85	318.42			
I-108	A-10	2'-6"	323.42	320.00	320.42	318.41			
I-109	A-10	2'-6"	323.42	320.00	320.42	318.41			
I-111	WR	2'-6"	323.42	320.00	320.42	318.41			
I-111A	WR	2'-6"	323.20	320.00	320.42	318.41			
I-114	A-15	2'-6"	323.42	320.00	320.42	318.41			
I-115	A-10	2'-6"	323.42	320.00	320.42	318.41			
I-116	A-10	2'-6"	323.42	320.00	320.42	318.41			
I-117	WR	2'-6"	323.42	320.00	320.42	318.41			
M-100	Manhole	4'	323.42	320.00	320.42	318.41			
M-105	Manhole	4'	323.42	320.00	320.42	318.41			
I-114A	A-10	2'-6"	322.90		322.10	318.41			

PIPE SUMMARY		
SIZE	TYPE	LENGTH
15"	HDPE	846'
18"		151'
20"		185'

Profile scales:
Horizontal: 1"=50'
Vertical: 1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 3/3/99
[Signature] 3/3/99
[Signature] 3/6/99

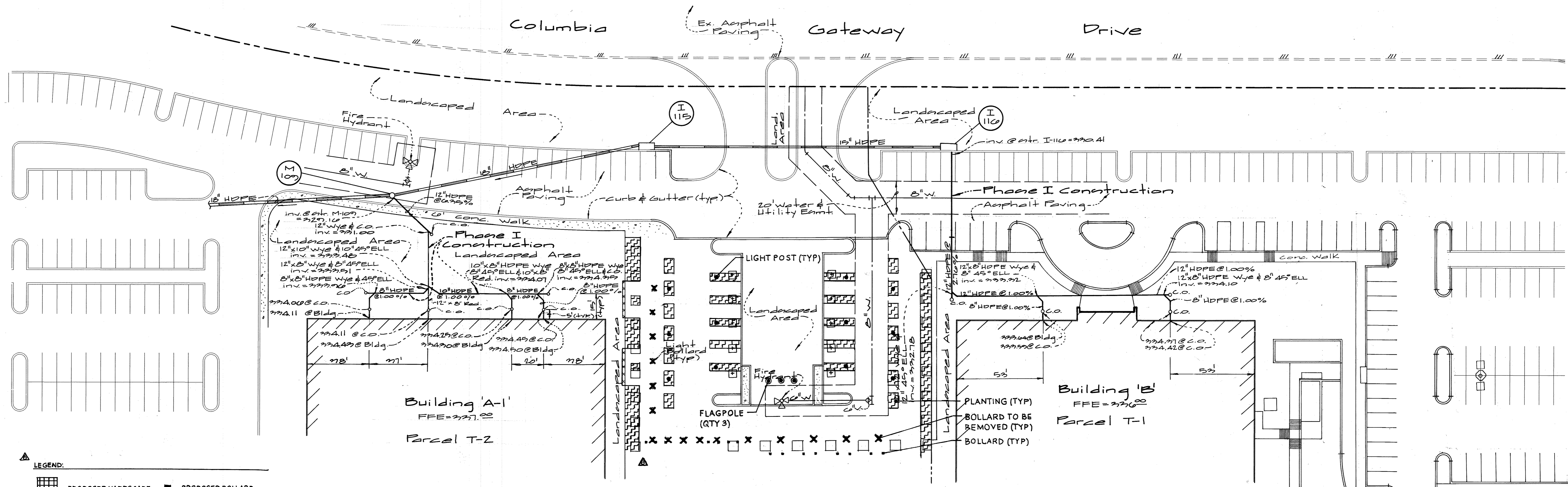


GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

Owner Parcels T-1 & T-2 & Developer
Orix Columbia Inc.
 1401 H STREET N.W.
 SUITE 550
 WASHINGTON, D.C. 20005
 202-289-1401

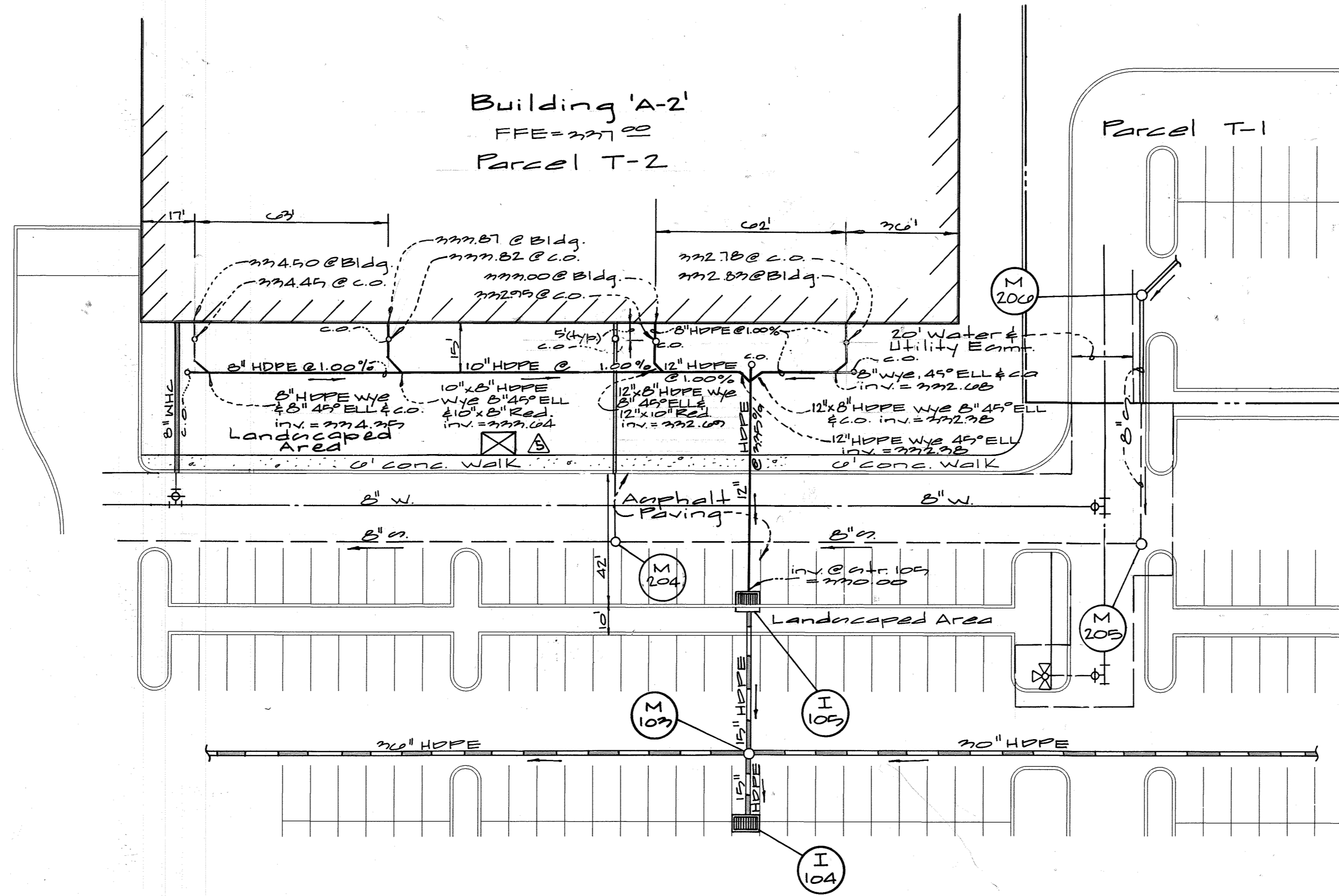
Storm Drain Profiles
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 134c2 thru 134c4
 ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	M-1	98067
November, 1998	43 1,2,7,8	18 OF 22



- LEGEND:**
- PROPOSED HARDSCAPE
 - PROPOSED BOLLARD
 - PROPOSED PLANTING
 - PROPOSED POST LIGHT
 - EXISTING BOLLARD TO BE REMOVED
 - PROPOSED FLAGPOLE

DRAWING REVISION NOTES:
 SHEET 19 OF SDP-99-054 (COLUMBIA GATEWAY) HAS BEEN REVISED TO PRESENT THE PROPOSED ENTRY DESIGN. THE PROVIDED LEGEND CLARIFIES THE SYMBOLS UTILIZED ON THE STORM DRAIN MANIFOLD PLAN. THE PLAN ILLUSTRATES THAT THE EXISTING BOLLARDS WILL BE REMOVED & 16 NEW BOLLARDS WILL BE INSTALLED. AREAS OF PLANTING WILL BE ADDED IN PLACE OF HARDSCAPE AT THE ENTRY AS WELL AS 9 FLAGPOLES & 12 POST LIGHTS.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Log S. Rutter 3/19/99
 Director

Chris Hamstra 3/19/99
 Chief, Division of Land Development

Chris Hamstra 3/19/99
 Chief, Development Engineering Division MK



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT. 410-880-1820 DC/VA 301-988-2524 FAX: 301-421-4186

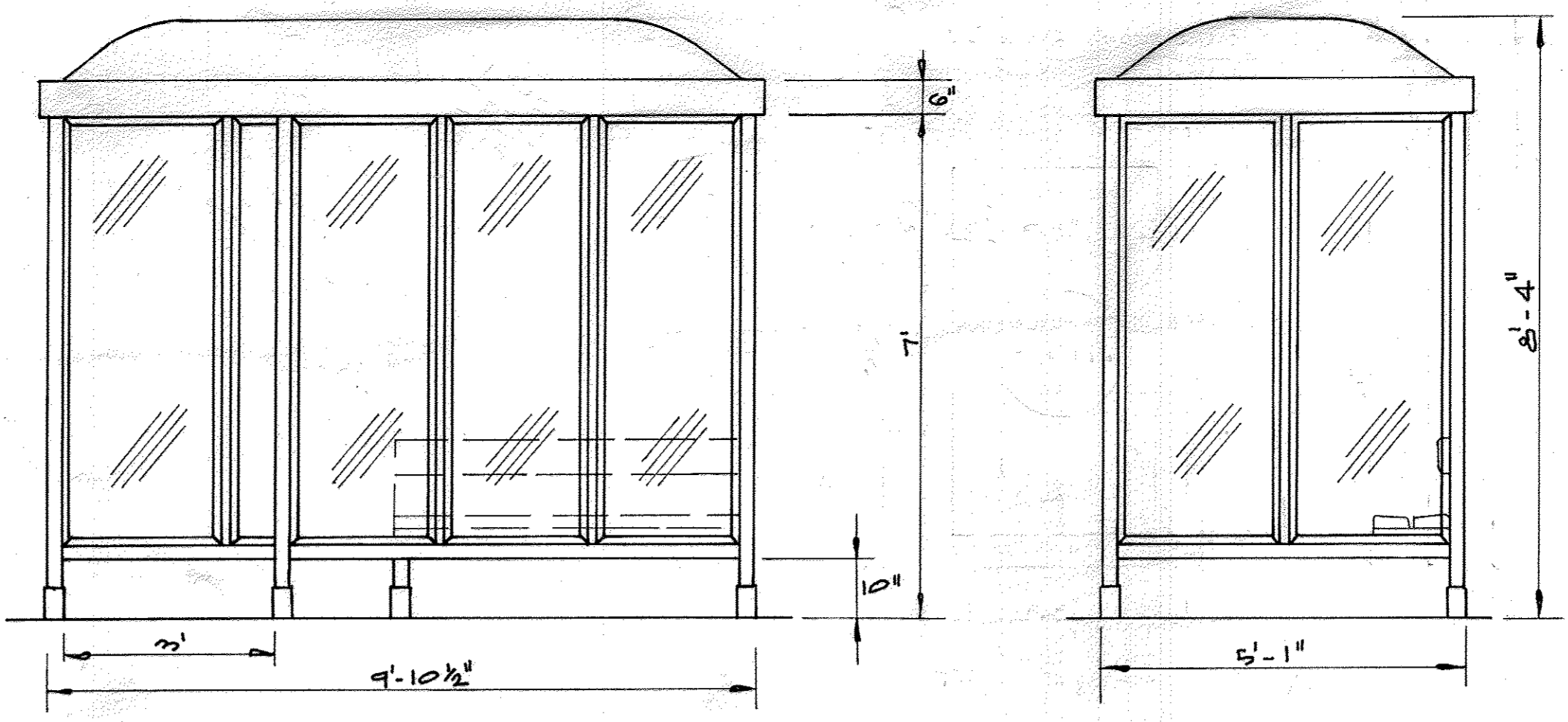
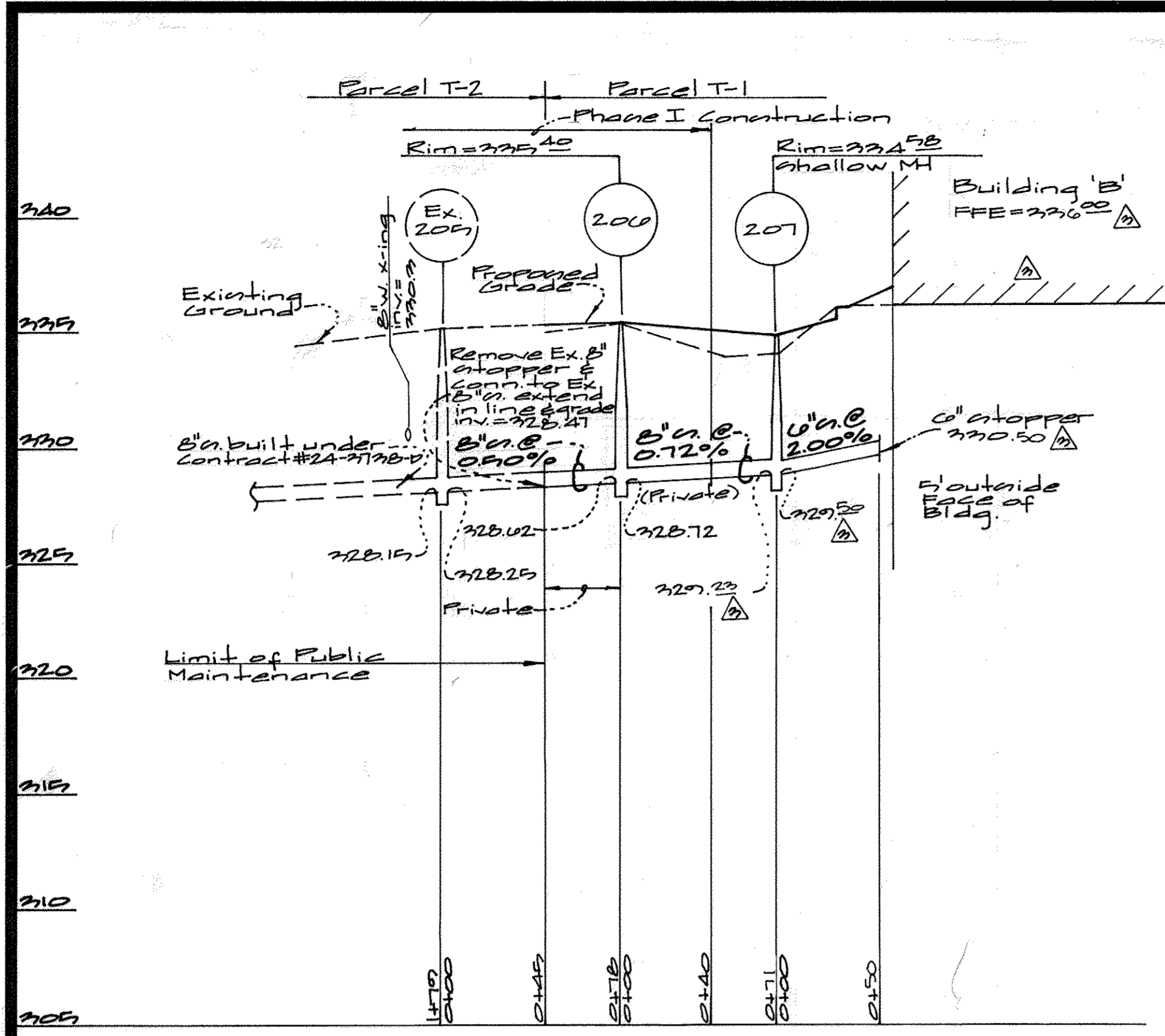
DATE	REVISION	BY	APPR.
7/7/2020	DP&Z RED-LINE REVISION PROCESS- ADDITIONAL PLANTING & EMPLOYEE LOUNGE SPACE IN REAR	gt	DEX
10/5/17	Added smokers Pavilion	WJW	
01/21/10	Rev. Manifold for T-1	GT	
11/8/14	Rev. C. D. & Water Locations, Bldg. A-1 & A-2	WJW	
12/8/12	Rev. Water remove FH & Add FH		

Owner Parcel T-1:
 Orix Gateway Columbia, LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago, IL 60606
 (312) 607-0445

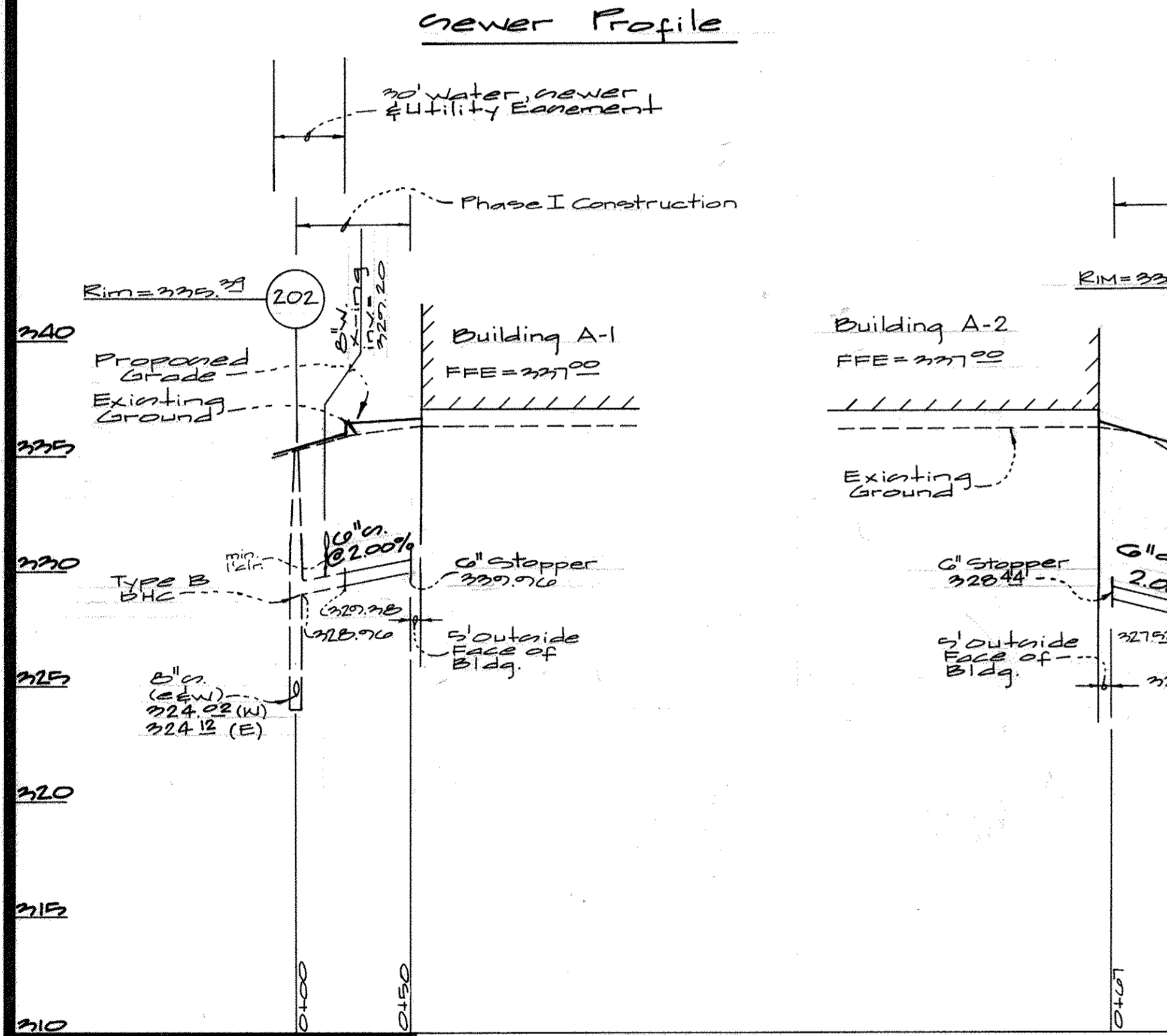
STORM DRAIN MANIFOLD PLAN
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 PLAT No. 19402 thru 19464
 & Plat No. 18716

SCALE	ZONING	G. L. W. FILE No.
1" = 30'	M-1	98067
DATE	TAX MAP - GRID	SHEET
Nov, 1998	43 1,2,7,8	17 of 22

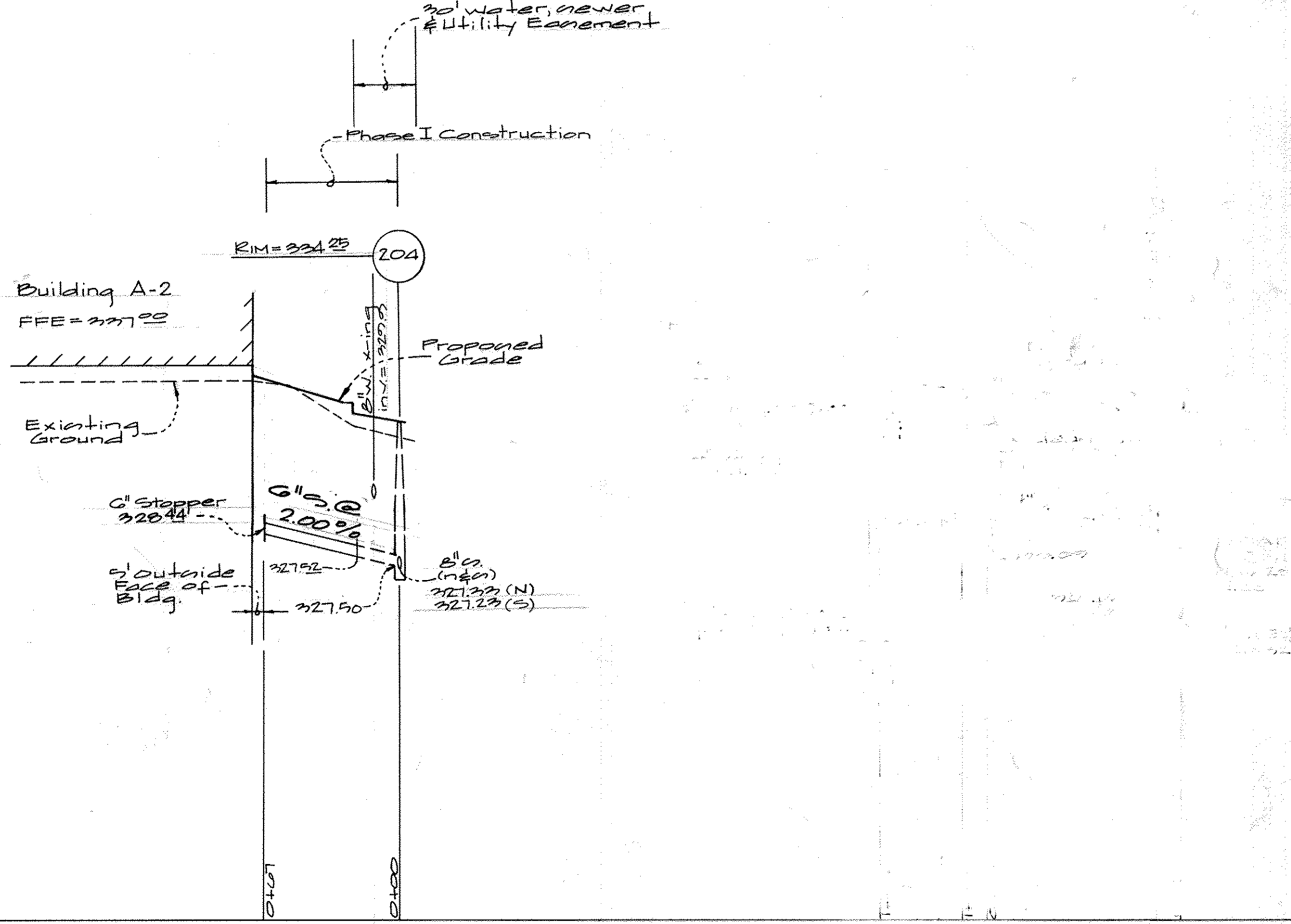
SDP 99-54



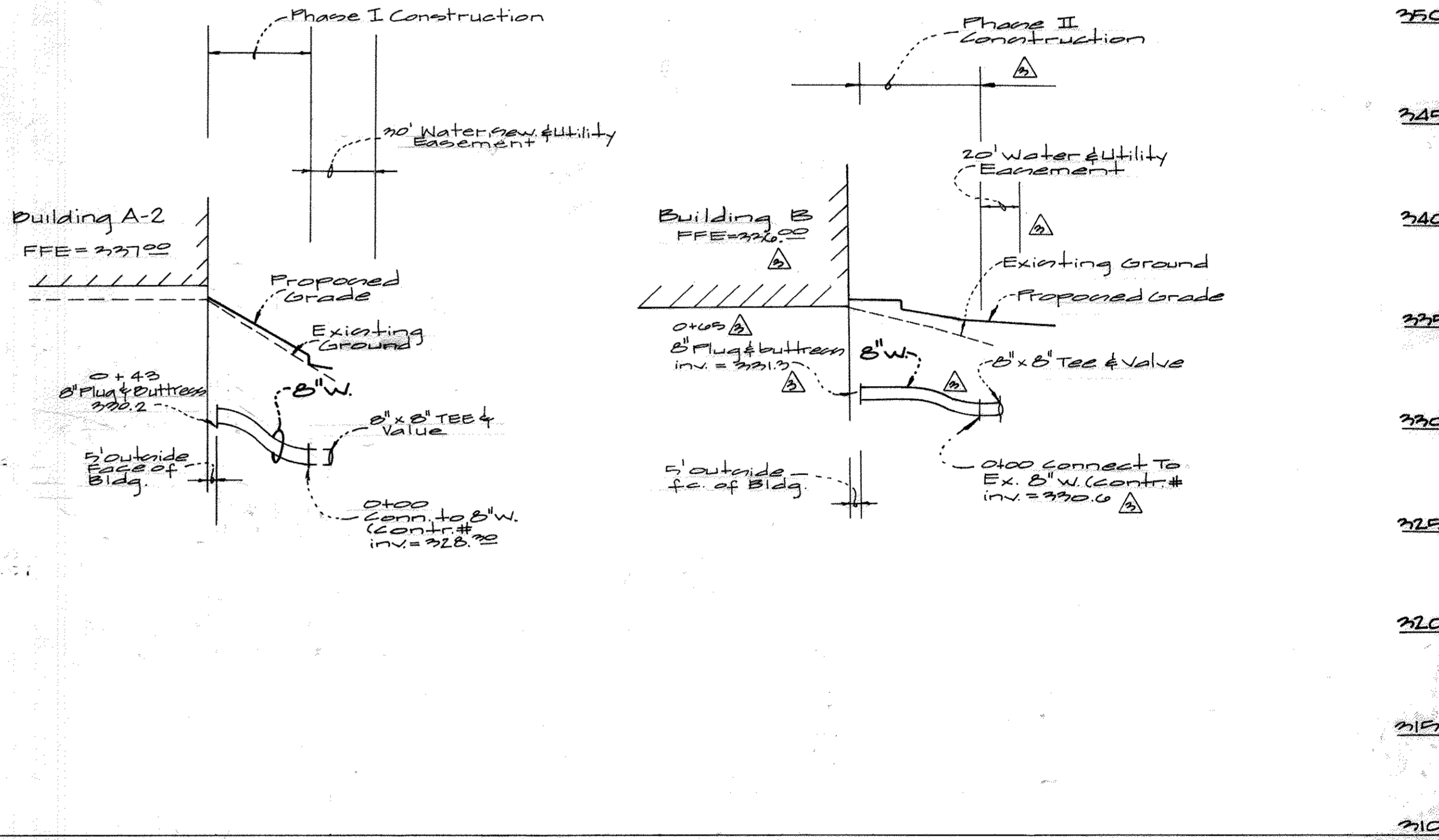
Front Elevation
Side Elevation
Smokers Pavilion Elevations
Scale: 1" = 2'



Sewer Profile



Sewer Profile



Water Profile

Profile scales:
Horizontal: 1" = 30'
Vertical: 1" = 5'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 3/3/99
 [Signature] 3/3/99
 [Signature] 3/2/99

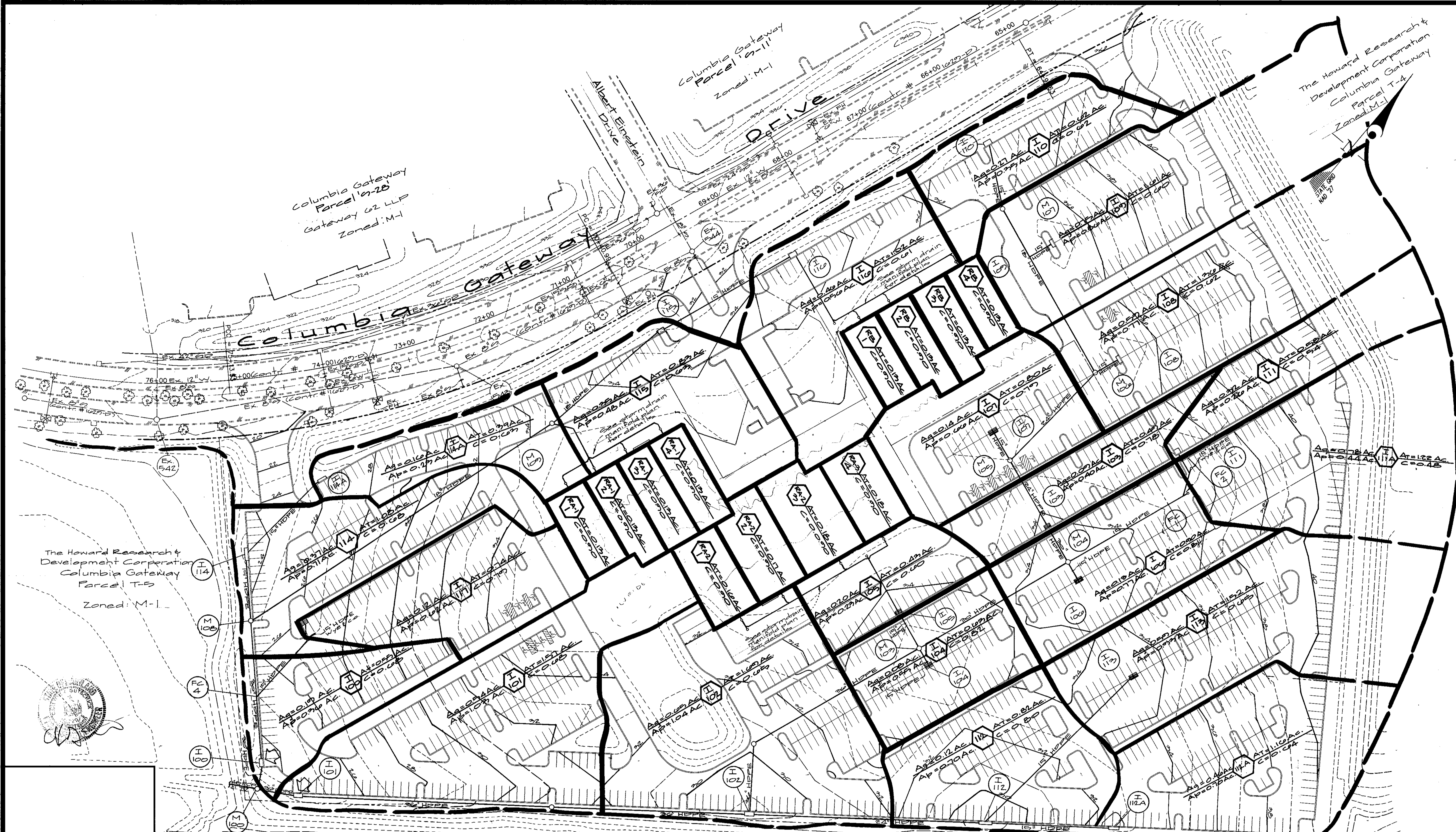
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE SUITE 220 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-980-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
01/10/17	Added smokers Pavilion Elevations	gt	DEV.
09/06/16	REVISED PLAN TO ELIMINATE PREVIOUSLY SHOWN GREASE TRAP NOTES AND DETAILS AND SANITARY PROFILE OF THE CONNECTION TO BUILDING A-2	WJW	
02/11/00	Rev Water & Sewer Profile For T-1	WJW	
11/03/99	Remove sewer Profile that will be Public	WJW	
11/03/99	Rev MH 202 Location to accommodate revised Loc. of Sewer Line	GT	
12/01/98	Add Water & Sewer & 2" x 10" & Lower Sew. MH 201 to MH 202	WJW	

Owner Parcel T-1:
 Orix Gateway Columbia, LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago, IL 60600
 (312) 600-6445

Utility Profiles
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 13462 thru 13464
 & Plat No. 18710
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	M-1	98067
November 1998	43 1,2,7,8	20 OF 22



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 3/3/99
Date

[Signature] 3/1/99
Date

[Signature] 3/2/99
Date

Chief, Development Engineering Division MK

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3009 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-968-2524 FAX: 301-421-4108

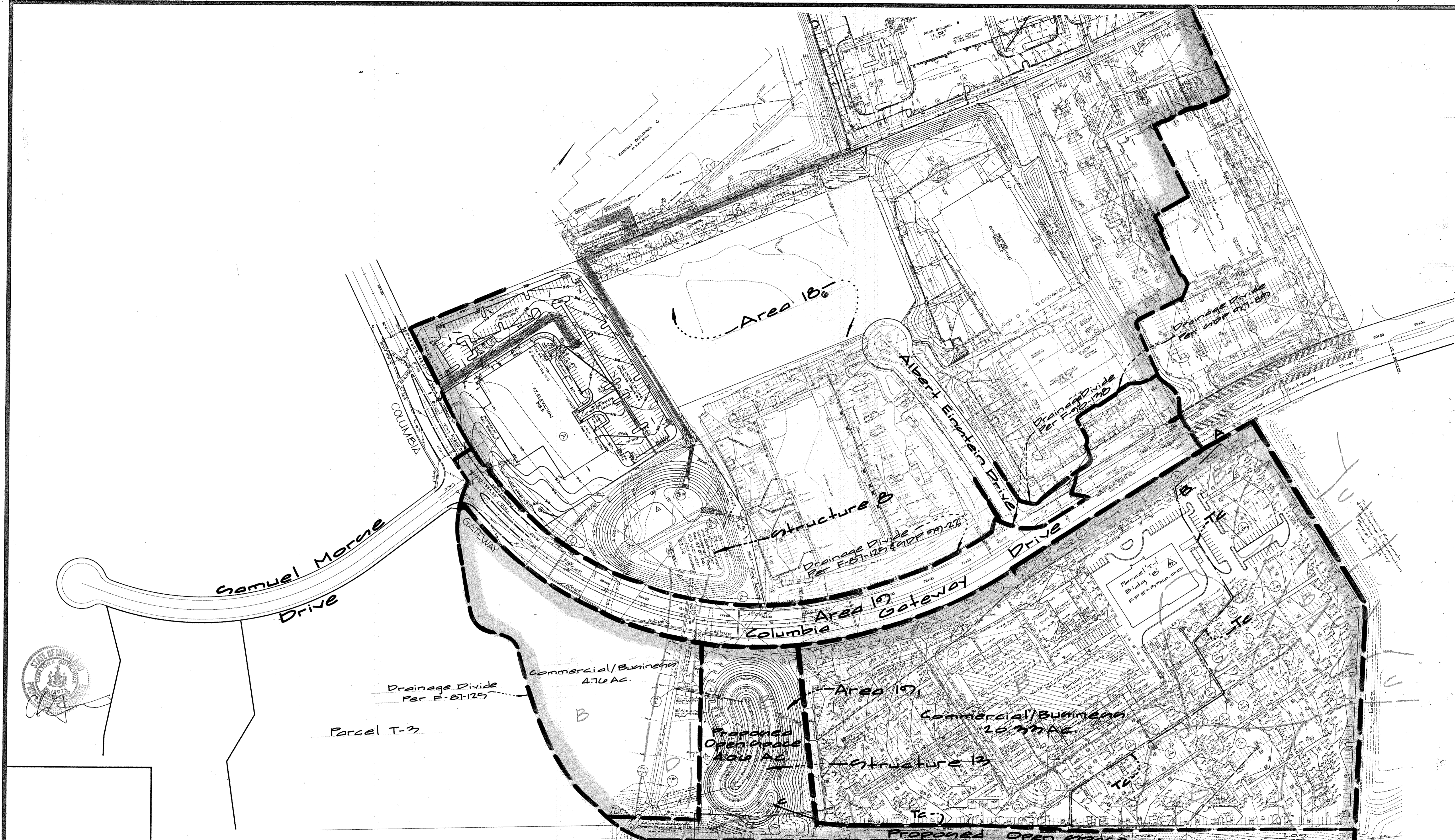
DATE	REV	PER	NO.	COMMENTS	BY	APP'R.
12/22/98	1	WJL		Rev Per No. Co. Comments	WJL	

Owner Parcels T-1, T-2, T-4 & T-5
 Orix Columbia, Inc.
 1401 Hestrest NW,
 SUITE 550
 WASHINGTON, D.C. 20005
 202-281-1401

Storm Drain Drainage Area Map
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plot No. 13402 thru 13404
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	M-1	98067
DATE	TAX MAP - GRID	SHEET
November 1998	43 - 1,2,7,8	21 OF 22

GDP 99-54



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Paul S. Butts 3/3/99
Director Date

Lynda Hamilton 3/3/99
Chief, Division of Land Development Date

Mark Dammann 3/2/99
Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
BURTNSVILLE, MARYLAND 20866
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
06/17/17	Added Amekera Pavilion	gt	DEV
01/10/10	change owner info.	WESJ	

Owner Parcel T-1:
Orix Gateway Columbia, LLC
100 N. Riverside Plaza
Suite 400
Chicago, IL 60606
(312) 607-0445

Proposed
STORMWATER MANAGEMENT DRAINAGE AREA MAP
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 and T-5
Plat No. 13462 thru 13464
& Plat No. 18710

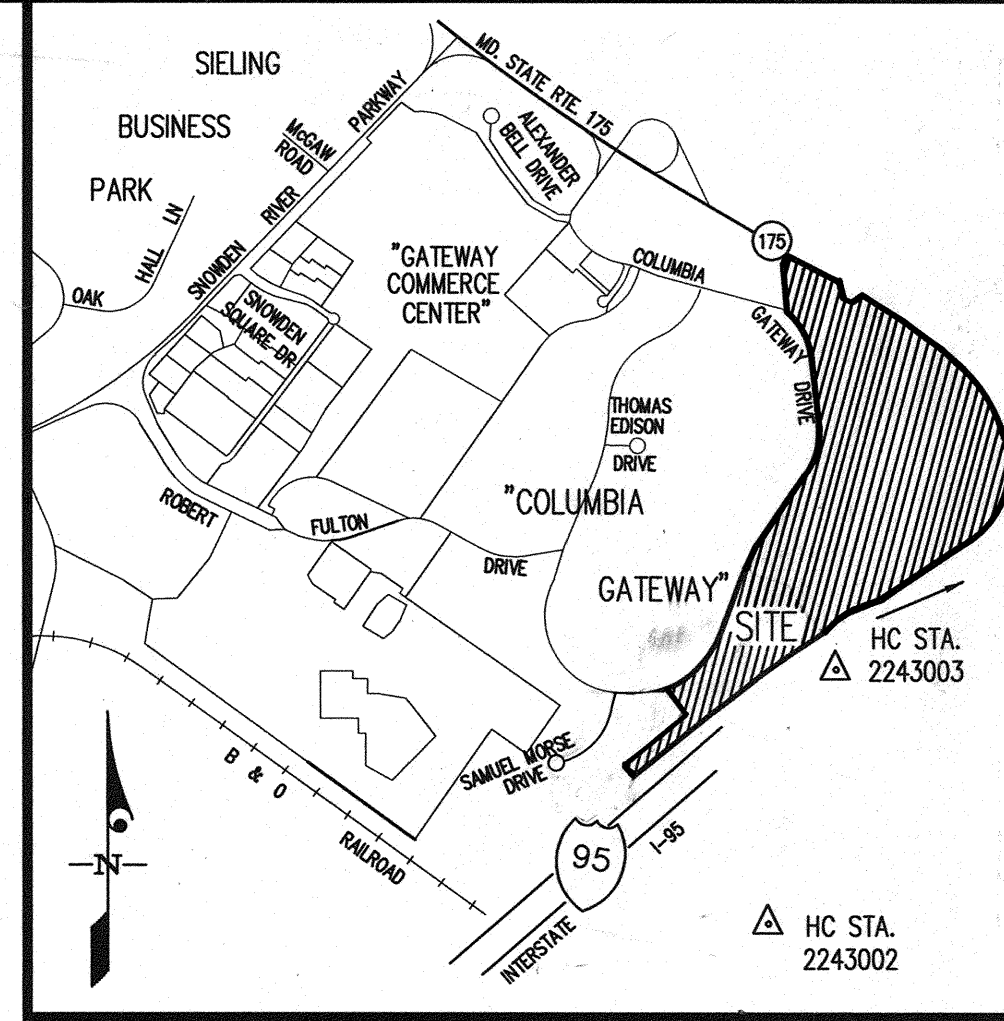
SCALE	ZONING	G. L. W. FILE No.
1"=100'	M-1	98067
DATE	TAX MAP - GRID	SHEET
NOVEMBER 1998	43-1,2,8	22 OF 22

GDP 99-54

GENERAL NOTES

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Department of Public Works, Bureau of Engineering, Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
- The contractor shall notify the Howard County Department of Public Works, Bureau of Utilities at (410) 313-4900 at least five (5) working days prior to starting any excavation work.
- Site area: Parcel T-1 = 9.7586 acres
Parcel T-2 = 14.5674 acres
- All plan dimensions are to face of curb unless otherwise noted.
- Existing topography is shown per field run survey information by Gutschick, Little Weber, P.A. August 1998
- Coordinates and bearings are based upon the MD State plane system (NAD '27).
- Water and sewer shown is public.
- Stormwater management for this site is proposed on Parcel T-5
- All existing water and sewer is per Contracts 24-1629-D and 24-3742-D.
- All existing public storm drain is per F-87-125 and F-86-182.
- All curb radii is 5' unless noted otherwise.
- Sidewalks adjacent to perpendicular parking shall be 6' wide. All other sidewalks shall be 4' wide except where dimensioned otherwise.
- Contractor shall utilize PVC pipe for all sewer house connections. Contractor shall utilize D.I.P. (Cl 51) for water house connections.
- Use trench bedding class "C" for storm drains.
- Paved areas indicated are private except as noted.
- Project background: See Dept. of Planning & Zoning File Numbers: VP-84-102, VP-85-22, VP-85-23, VP-84-44, P-85-109, P-85-110, VP-85-21, VP-85-22, VP-85-23, VP-85-24, P-85-102, VP-85-119, VP-85-47, P-87-125 & VP-87-24
- Recording reference: Plat Nos. 13402 thru 13404
- All proposed ramps shall be in accordance with current A.D.A. standards. Maximum sidewalk cross slope shall be two percent. Provide a five-foot by five-foot level (2 percent max.) landing at the top and bottom of all ramps and building entrances and exits.
- All proposed water meters shall be located inside buildings.
- All proposed site utilities are to terminate 5' from the building. The building plumber shall connect to and extend these utilities to the inside of the building.
- Existing utilities are based on approved design plans for construction and field location by Gutschick, Little & Weber, P.A.
- There is no floodplain on Parcel T-1 or Parcel T-2.
- There are no wetlands on Parcel T-1 or Parcel T-2.
- All exterior lighting will comply with Zoning Regulations section 134.
- On February 20, 2001, WF 01-02, a waiver of section 10.150(m)(1) which requires that within 2 years of signature approval of the site development plan original, the developer shall apply to the Department of Inspections, Licenses & Permits for building permits for all construction on the site and section 10.150(m)(2) which states that if the developer does not apply for building permits within 2 years of signature approval of the site development plan, the plan shall expire and a new site development plan will be required was approved. Subject to one condition on the approval letter.
- On March 22, 2002, WF 02-70, a waiver of section 10.150(m)(2) to reactivate SDP 99-54 & grant a one year extension to apply for building permit(s) for Parcel T-1 was approved. Subject to two conditions in the approval letter.

COLUMBIA GATEWAY PARCELS T-1, T-2, T-4 & T-5 SITE DEVELOPMENT PLAN



Site Analysis

- Site Area: 1589114 Ac.
Parcel T-1: 9.7586 Ac.
Parcel T-2: 14.5674 Ac.
Combined Total: 209222 Ac. (T-1 and T-2)
- Site Zoning: M-1
- Limit of Submission Area: 315 Ac.
- Building Coverage:
Parcel T-1: 7.84%
Parcel T-2: 7.95%
Combined: 7.85%
- Floor Area Ratio:
Parcel T-1: 0.4178
Parcel T-2: 0.2930

*Net Building Area Parcel T-1: 104,803 sq ft
**Net Building Area Parcel T-2: 247,408 sq ft

Parking Tabulation:

Parcel T-1
Gross Floor Area: 110,192 sq. ft.
Req'd. Parking Spaces: 771 (1000 x 110,192 / 14,300) spaces
Req'd. Handicap Spaces: 77 spaces
Req'd. Handicap Van Spaces: 20 spaces
Proposed Parking Spaces (Total): 400 spaces
Proposed Handicap Spaces: 77 spaces
Proposed Handicap Van Spaces: 1 space

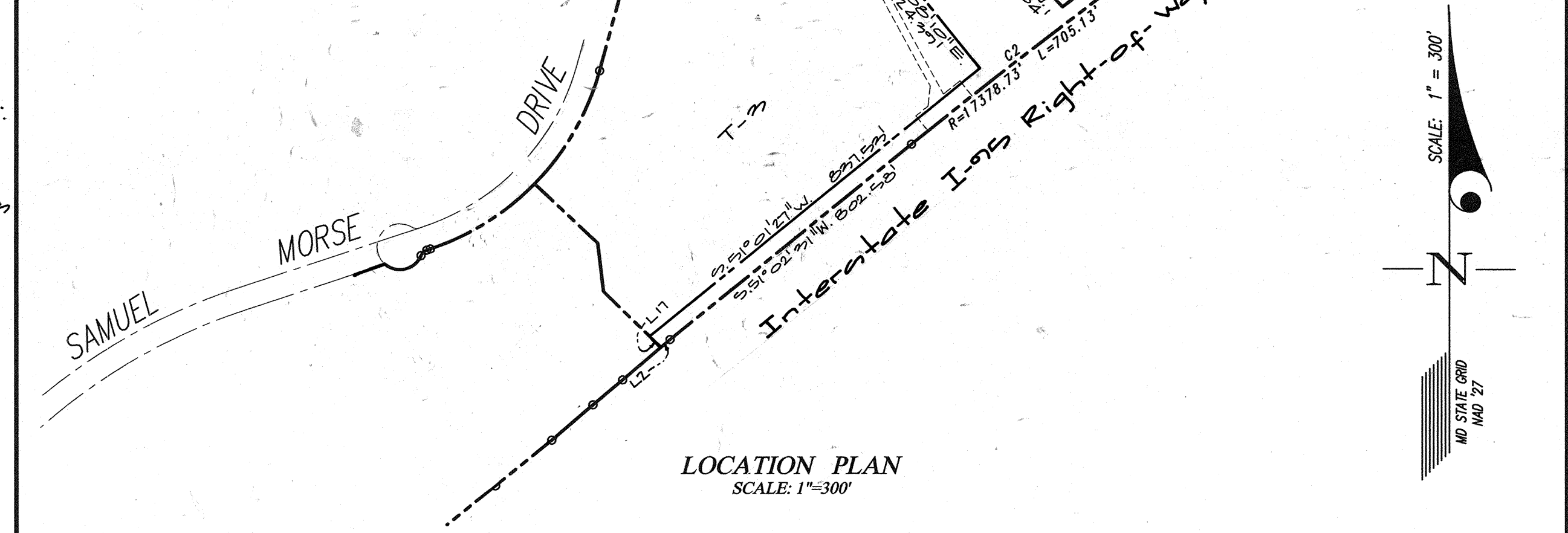
Parcel T-2
Gross Floor Area: 209,000 sq. ft.
Req'd. Parking Spaces: 1463 (1000 x 209,000 / 14,300) spaces
Req'd. Handicap Spaces: 146 spaces
Req'd. Handicap Van Spaces: 36 spaces
Proposed Parking Spaces (Total): 1010 spaces
Proposed Handicap Spaces: 20 spaces
Proposed Handicap Van Spaces: 3 spaces

Phase I Proposed Parking Spaces:
(Total): 1040 spaces
Phase I Proposed Handicap Spaces:
20 spaces
Phase I Proposed Handicap Van Spaces:
3 spaces

Combined:
Gross Floor Area: 319,201 sq. ft.
Req'd. Parking Spaces: 1977 (1000 x 319,201 / 16,180) spaces
Req'd. Handicap Spaces: 200 spaces
Req'd. Handicap Van Spaces: 49 spaces
Proposed Parking Spaces (Total): 1,410 spaces
Proposed Handicap Spaces: 20 spaces
Proposed Handicap Van Spaces: 4 spaces

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	17388.73'	758.73'	378.41'	758.67'	S 55°35'55" W	02°30'00"
C2	17378.73'	705.13'	352.61'	705.08'	S 52°11'11" W	02°19'29"

LINE	BEARING	LENGTH
L1	S 88°21'55" W	242.92'
L2	S 49°36'36" W	20.00'



Benchmark #1
Traverse Station 912
Elevation = 310.91

Benchmark #2
Traverse Station 914
Elevation = 334.00

Owner/Parcels T-3, T-4 & T-5
The Howard Research and Development Corporation
10215 Little Patuxent Parkway
Columbia, Maryland 21044
Attn: Al Edwards
(410) 772-0027

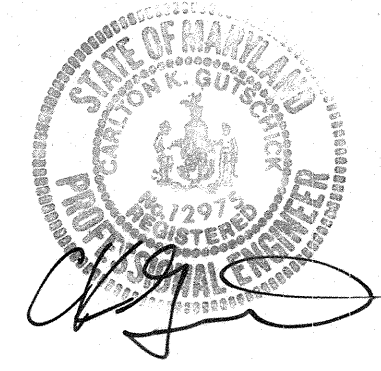
Owner/Parcels T-1 & T-2 and Developer
Orix Columbia Inc.
1401 H STREET N.W.
SUITE 550
WASHINGTON, D.C. 20005
(202)-267-1401

- Legend**
- Standard curb & gutter
 - Reverse curb & gutter
 - Depressed curb Entrance (Flush curb & gutter)
 - Header curb
 - Proposed sidewalk (conc.)
 - Proposed Paving in Right of Way (P&S Paving)
 - Existing Paving
 - Proposed screen Wall
 - Patron Access
 - Proposed spot Elev.
 - Existing Contour
 - Proposed Contour
 - Proposed Water Connection
 - Proposed Sewer Connection
 - Proposed storm Drain
 - Proposed Landscape Area
 - Proposed Tree Grates
 - Proposed Bollard Light
 - Proposed Light Pole
 - Limit of Submission

- Sheet Index**
- Cover sheet
 - Site Development Plan
 - Partial Site Development Plan
 - Grading Plan
 - Site Details
 - Handicap/site Details & Paving Plan
 - Handicap Accessibility Details
 - Landscape Plan
 - Landscape Detail sheet
 - Sediment Control Plan (site Plan)
 - Sediment Control Plan (Grading Plan)
 - Sediment Control Detail sheet
 - Stormwater Management Plan & Details
 - Stormwater Management Details
 - Stormwater Management/Sediment Control Notes
 - Storm Drain Profiles
 - Storm Drain Profiles
 - Storm Drain Manifold Plan
 - Utility Profiles
 - Drainage Area Map (Storm Drain)
 - Drainage Area Map (SWM)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 3/3/99 Date
[Signature] 3/2/99 R
[Signature] 3/2/99
Chief, Development Engineering Division MK



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20885
TEL: 301-421-4024 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
5/8/02	Add detailed notes for WF 01-02 & WF 02-70		

COVER SHEET
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
Plat No. 13402 thru 13404

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	M-1	98067
DATE	TAX MAP - GRID	SHEET
November, 1998	43	1 OF 22

ADDRESS CHART	
PARCEL NUMBER	STREET ADDRESS
T-1	Block 15 1021 Columbia Gateway Dr.
T-2	Block A1 7041 Columbia Gateway Dr. Block A2 1029 Columbia Gateway Dr.

WATER CODE	SEWER CODE	SECTION/AREA	PARCELS
100	330000	M-1	T-1 & T-2

CDP 99-54

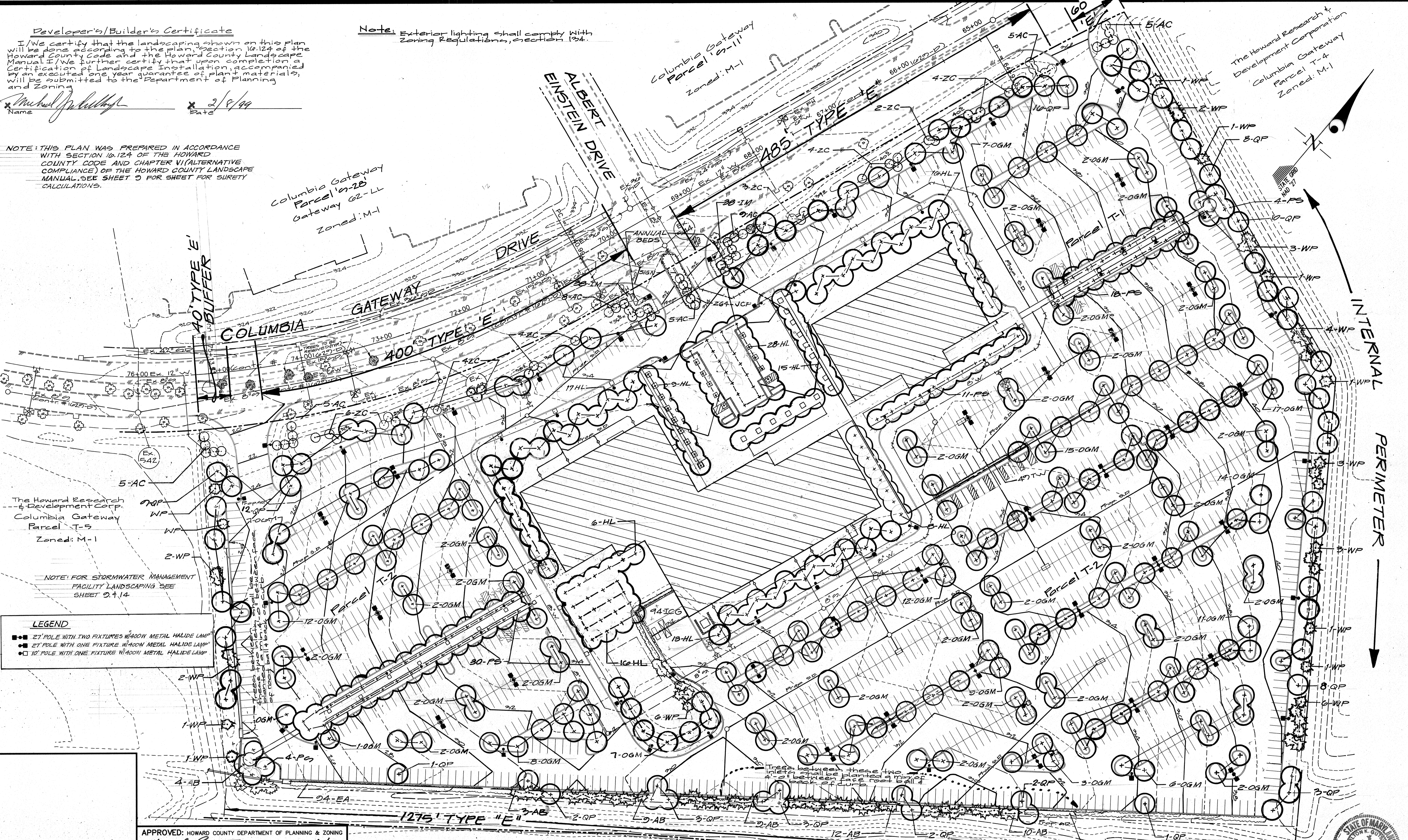
Developer's/Builder's Certificate

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a Certification of Landscape Installation, accompanied by an executed one year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

Michael J. ... Name Date 2/8/99

Note: Exterior lighting shall comply with Zoning Regulations, Section 134.

NOTE: THIS PLAN WAS PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND CHAPTER VI (ALTERNATIVE COMPLIANCE) OF THE HOWARD COUNTY LANDSCAPE MANUAL. SEE SHEET 3 FOR SHEET FOR SURETY CALCULATIONS.



The Howard Research & Development Corp. Columbia Gateway Parcel T-5 Zoned: M-1

NOTE: FOR STORMWATER MANAGEMENT FACILITY LANDSCAPING SEE SHEET 3 & 14

- LEGEND: 27' POLE WITH TWO FIXTURES W/400W METAL HALIDE LAMP, 27' POLE WITH ONE FIXTURE W/400W METAL HALIDE LAMP, 10' POLE WITH ONE FIXTURE W/400W METAL HALIDE LAMP

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING. Includes signatures and dates for approval.

Interstate Route 95 Right-of-Way NOTE: THIS PLAN IS FOR LANDSCAPING & LIGHTING PURPOSES ONLY!

GLW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

Owner: Parcels T-1 & T-2 & Developer: Orix Columbia, Inc. 1401 H STREET N.W. SUITE 550 WASHINGTON, D.C. 20005

LANDSCAPE & LIGHTING PLAN COLUMBIA GATEWAY Parcels T-1, T-2, T-4 & T-5 Plot No. 13402 thru 13404

Table with columns: SCALE (1"=50'), ZONING (M-1), G. L. W. FILE No. (98067), DATE (November 1998), TAX MAP - GRID (43-1,2,7,8), SHEET (8 OF 22)



PLANT MATERIALS AND PLANTING METHODS

A. Plant Materials

The landscape contractor shall furnish and install and/or dig, ball, burlap and transplant all of the plant materials called for on drawings and/or listed in the Plant Schedule.

1. Plant Names

Plant names used in the Plant Schedule shall conform with "Standardized Plant Names," latest edition.

2. Plant Standards

All plant material shall be equal to or better than the requirements of the "USA Standard for Nursery Stock" latest edition, as published by the American Association of Nurserymen (hereafter referred to as AAN Standards).

All plants shall be nursery grown and shall have been grown under the same climate conditions as the location of this project for at least two years before planting.

3. Plant Measurements

All plants shall conform to the measurements specified in the Plant Schedule as approved by the ARC.

a. Caliper measurements shall be taken six inches (6") above grade for trees under four-inch (4") caliper and twelve (12") above grade for trees four inches (4") in caliper and over.

b. Minimum branching height for all trees shall be six feet (6'), maximum eight feet (8').

c. Minimum size for planting shade trees shall be 3-3 1/2" caliper, 14'-16" in height.

d. Minimum size for planting minor or intermediate focus trees (pines, crabapples, etc.) shall be 3-3 1/2" caliper, 10'-12" in height.

e. Minimum size for planting shrubs shall be 18" - 24" spread unless noted otherwise.

f. Caliper, height, spread and size of ball shall be generally as follows:

Table with columns: CALIPER, HEIGHT, SPREAD, SIZE OF BALL. Lists requirements for various caliper sizes from 3" to 5 1/2".

All plant material shall generally average the median for the size ranges indicated above as indicated in the "AAN Standards".

4. Plant Identification

Legible labels shall be attached to all shade trees, minor trees, specimen shrubs and bundles or boxes of other plant material giving the botanical and common names, size and quantity of each.

5. Plant Inspection

The ARC may, upon request by the builder or developer, at least ten (10) days prior to the installation of any proposed plant material, inspect all proposed plant material at the source of origin.

B. Planting Methods

All proposed plant materials that meet the specifications in Section A are to be planted in accordance with the following methods during the proper planting seasons as described in the following:

1. Planting Seasons

The planting of deciduous trees, shrubs and vines shall be from March 1st to June 15th and from September 15th to December 15th.

The planting of evergreen material shall be from March 15th to June 15th and from August 15th to December 1st.

2. Digging

All plant material shall be dug, balled and burlapped (B+B) in accordance with the "AAN Standards".

3. Excavation of Plant Pits

The landscaping contractor shall excavate all plant pits, vine pits, hedge trenches and shrub beds in accordance with the following schedule:

a. Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscape contractor.

b. All pits shall be generally circular in outline, vertical sides; depth shall not be less than 6" deeper than the root ball, diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.

c. If areas are designated as shrub beds or hedge trenches, they shall be excavated to at least 18" depth minimum.

d. Diameter and depth of tree pits shall generally be as follows:

Table with columns: PLANT SIZE, ROOT BALL, DIAMETER, PIT DIAMETER, PIT DEPTH. Lists requirements for various plant sizes and their corresponding pit dimensions.

A 20% compaction figure of the soil to be removed is assumed and will be allowed in calculation of extra topsoil.

4. Staking, Guying and Wrapping

All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

a. Stakes: Shall be sound wood 2" x 2" rough sawn oak or similar durable woods or legittie, minimum 7'-0" for major trees and 5'-0" minimum for minor trees.

b. Wire and Cable: Wire shall be #10 galvanized or galvanized annealed steel wire. For trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4" take-up.

c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D. "Plastic Lock Ties" or "Paul's Trees Branches" may be used in place of wire and hose on trees up to 3" in caliper.

d. All trees under 3" in caliper are to be planted and staked in accordance with the attached "Typical Tree Staking Detail".

All trees over 3" in caliper are to be planted and guyed in accordance with the attached "Typical Tree Guying Detail".

5. Plant Pruning, Edging and Mulching

a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice.

b. All trenches and shrub beds shall be edged and cultivated to the full diameter of the pit.

c. After cultivation, all plant materials shall be mulched with a 2" layer of fine, shredded pine bark, peat moss, or another approved material over the entire area of the bed or saucer.

6. Plant Inspection and Acceptance

The ARC shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

7. Plant Guarantee

All plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project.

a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting season.

b. Guarantee for planting performed after the Spring planting season, shall be extended through the end of the next following "Spring" planting season.

Sodding All sodding shall be in accordance to the Landscape Specification Guidelines for Baltimore-Washington Metropolitan Area's latest edition, approved by the Landscape Contractors Association of Metropolitan Washington and the American Society of Landscape Architects.

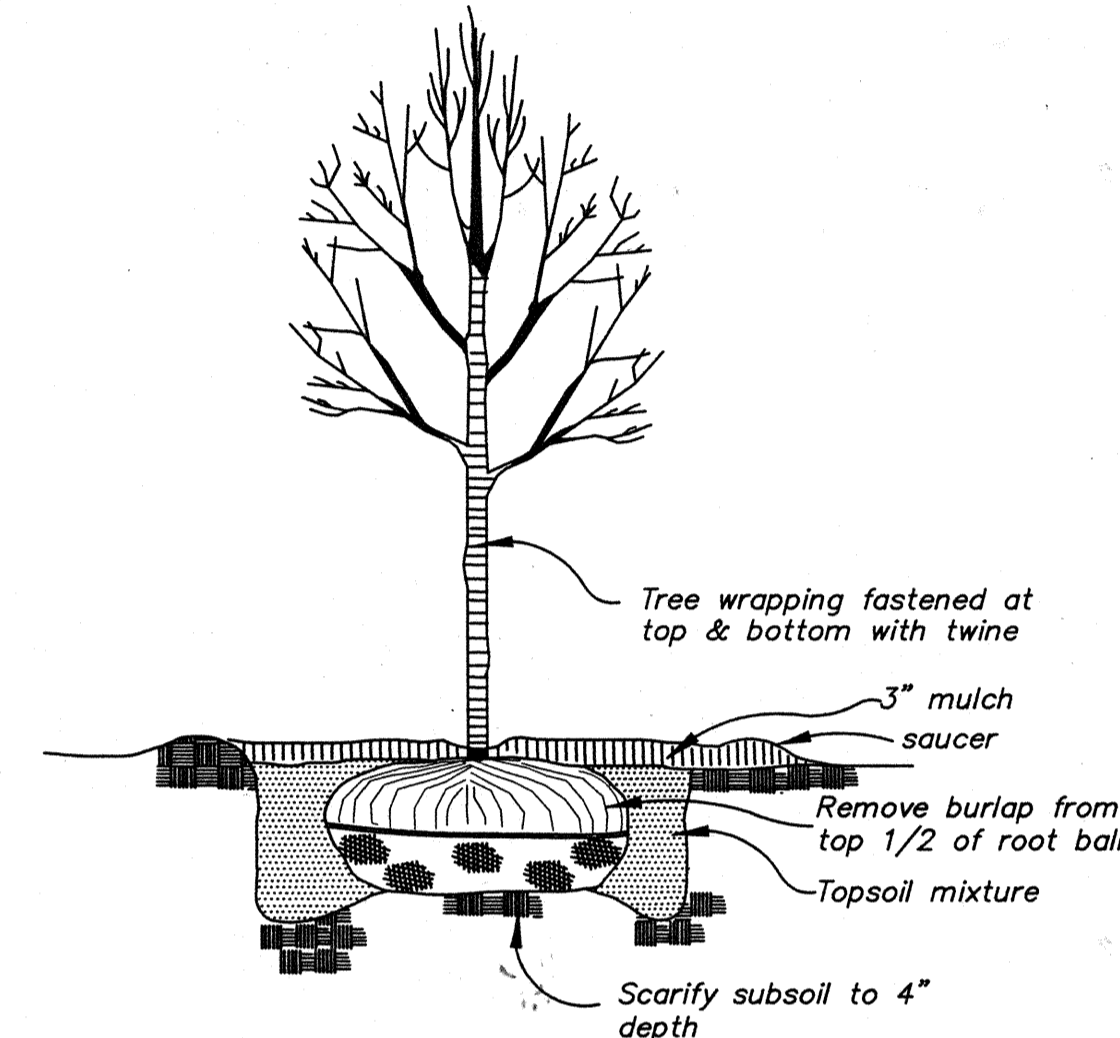
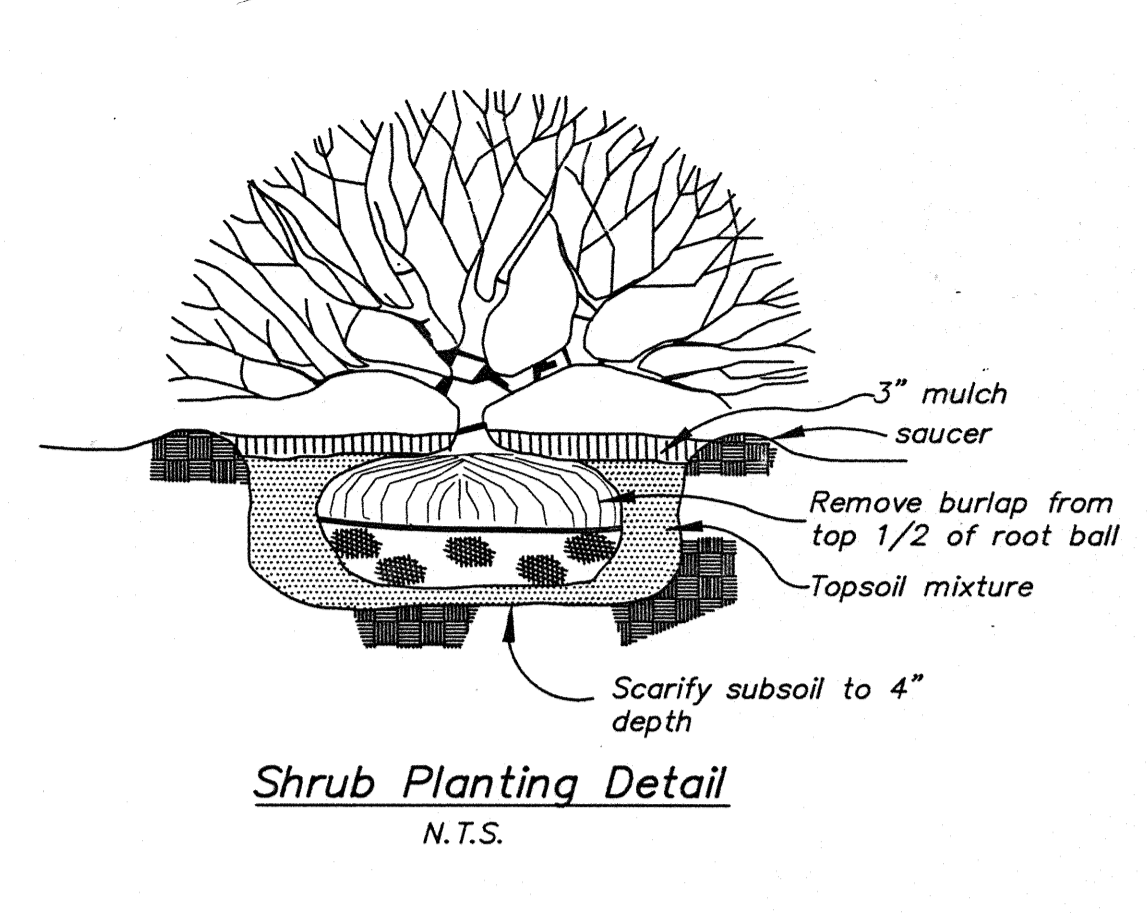
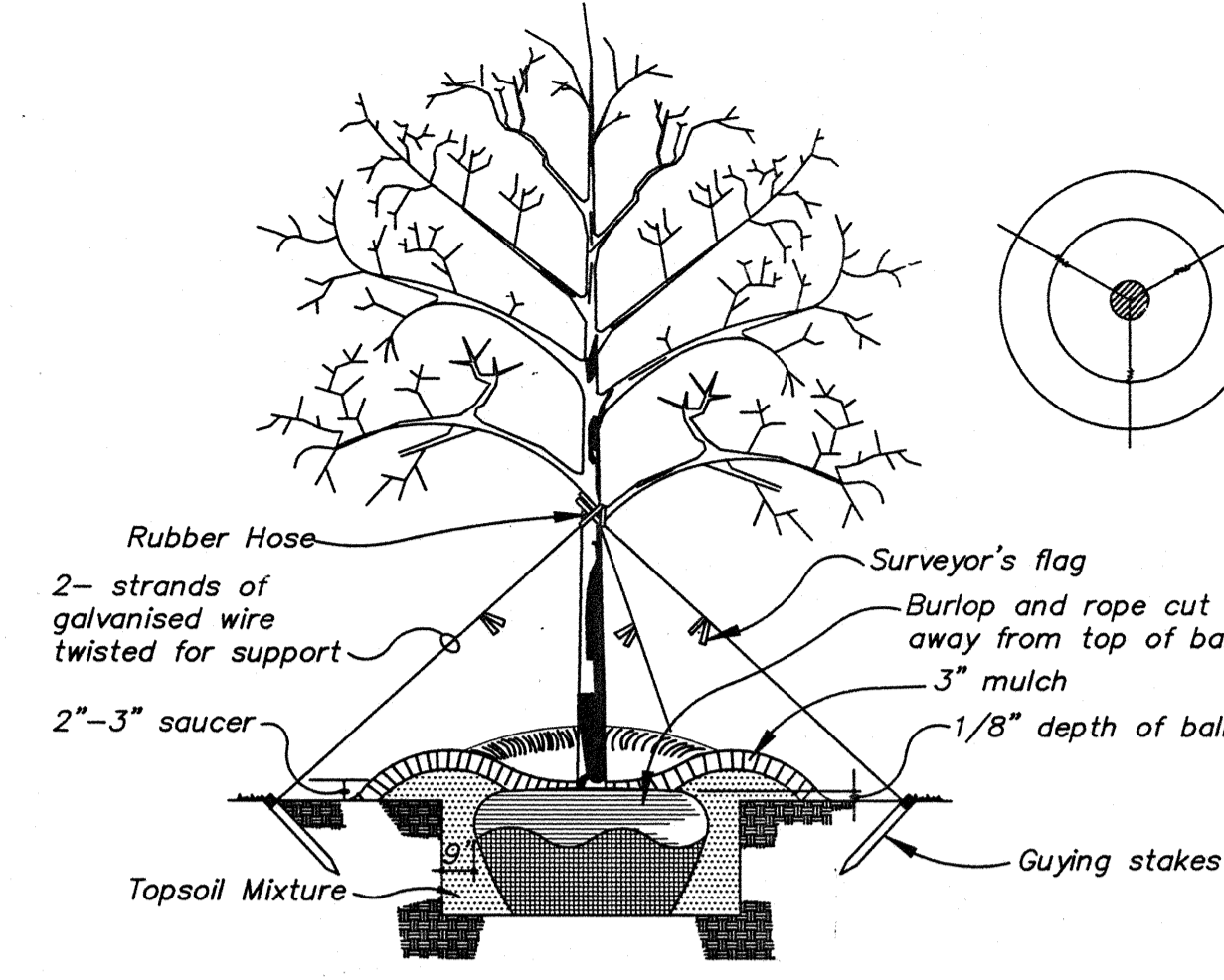
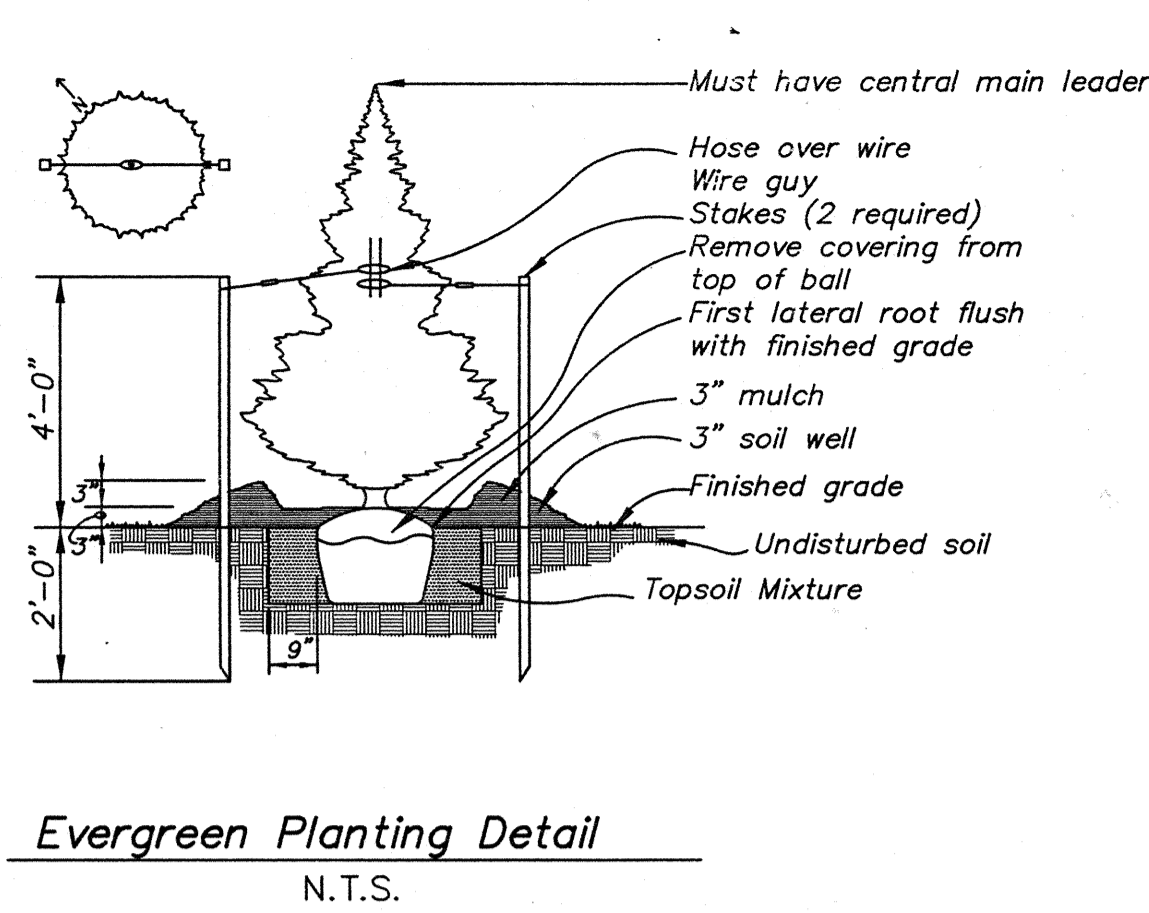
All sod shall be strongly rooted sod, not less than two years old and free of weeds and undesirable native grasses. Provide only sod capable of growth development when planted and in strips not more than 18" wide x 4" long.

LANDSCAPING NOTES

- List of 11 landscaping notes covering plan preparation, field verification, planting specifications, and substitution rules.

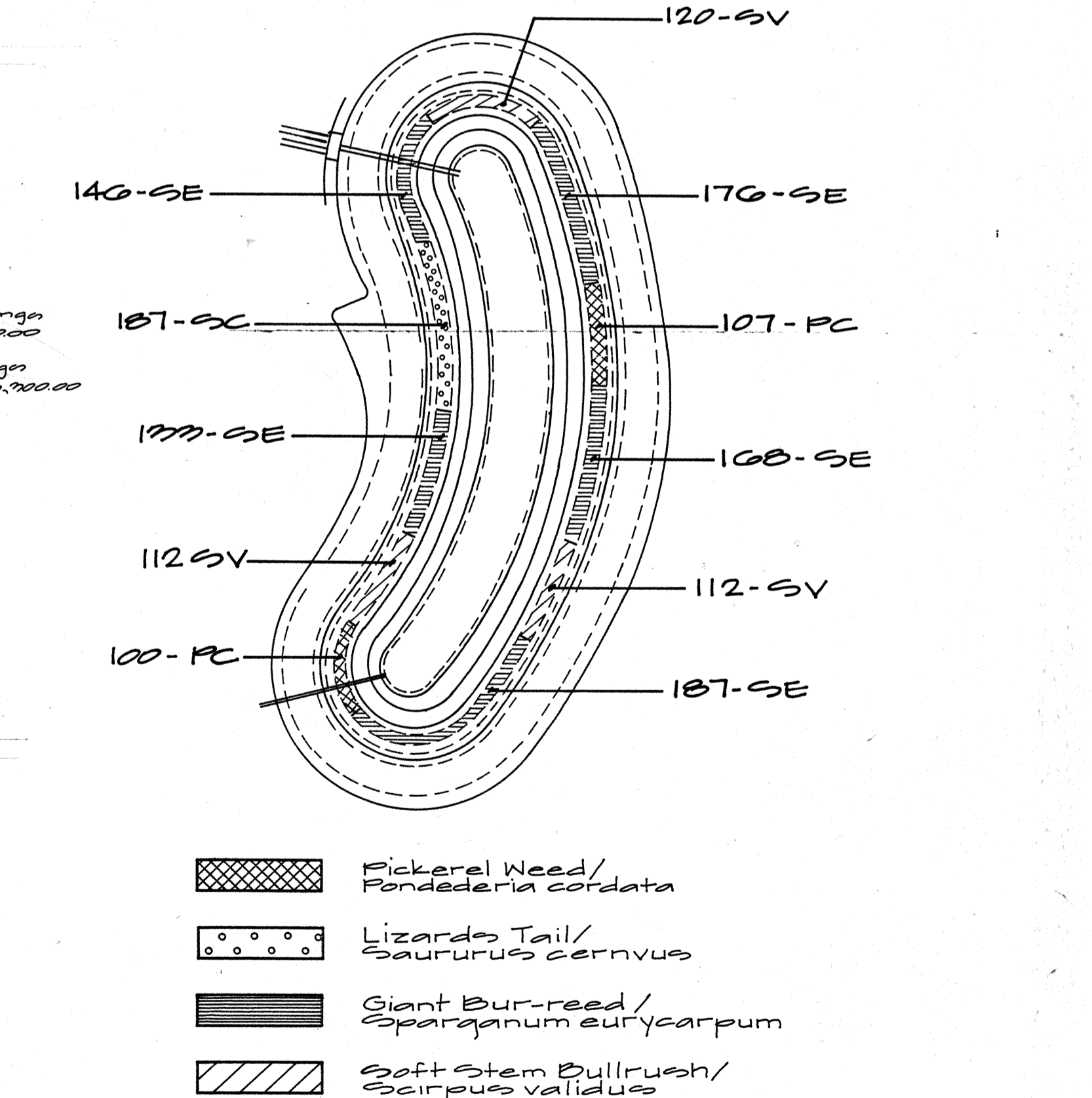
Required planting by HRO for 48,925 sq. ft. of RBD use at 12 shade trees = 925 shade trees (or equivalent). Planting provided: shade trees 425, ornamental trees 142, evergreen trees 142.

E.S.T. - Equivalent Shade Trees. The proposed shrubs and ground covers are counted towards a portion of the required planting by HRO.



SCHEDULE A PERIMETER LANDSCAPE EDGE and SCHEDULE B PARKING LOT INTERNAL LANDSCAPING tables with columns for category, quantity, and cost.

Plant List (Parcels T-1, T-2 & T-5) table listing botanical names, common names, and remarks for various trees and shrubs.



Typical Deciduous Tree Planting

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING table with columns for number of parking spaces, trees, and other vegetation.

Total LANDSCAPE SURETY FOR SCHEDULE B REQUIRED PLANTINGS: 71 x \$300.00 = \$21,300.00. Landscape surety for schedule B required plantings for Parcel T-1: 10 x \$2,000.00 = \$20,000.00.

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING table with columns for linear feet of perimeter, number of trees, and other vegetation.

LANDSCAPE SURETY FOR SCHEDULE D REQUIRED PLANTINGS: 22 x \$300 = \$6,600.00. 99 x 150 = \$14,850.00. 17 x 650.00 = \$11,050.00.

SWM POND PLANT LIST table with columns for key, quantity, name, and remarks for various pond plants like Pickerel Weed and Lizard Tail.

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.

- List of 6 SWM Pond Planting Notes covering pond conversion, fertilizer application, and maintenance requirements.

- List of 6 SWM Pond Planting Notes covering maintenance, plant selection, and site preparation.

Owner Parcel T-5 The Howard Research & Development Corporation 10215 Little Patuxent Pkwy. Columbia, Maryland 21044. Attn: Al Edwards 410-792-0027

Financial surety for Parcel T-1 & T-2 has been posted as a part of the DPW Developer's Agreement in the amount of \$48,920.00 (Schedule A & B).

Financial surety for Parcel T-5 has been posted as a part of the DPW Developer's Agreement in the amount of \$13,050.00 (Schedule D).

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING. Signatures and dates for approval.



Financial surety for Parcel T-1 & T-2 has been posted as a part of the DPW Developer's Agreement in the amount of \$48,920.00 (Schedule A & B).

Financial surety for Parcel T-5 has been posted as a part of the DPW Developer's Agreement in the amount of \$13,050.00 (Schedule D).

Owner Parcel T-1 & T-2 & Developer Orix Columbia, Inc. 1401 H STREET N.W. SUITE 550 WASHINGTON, D.C. 20005 202-289-1401

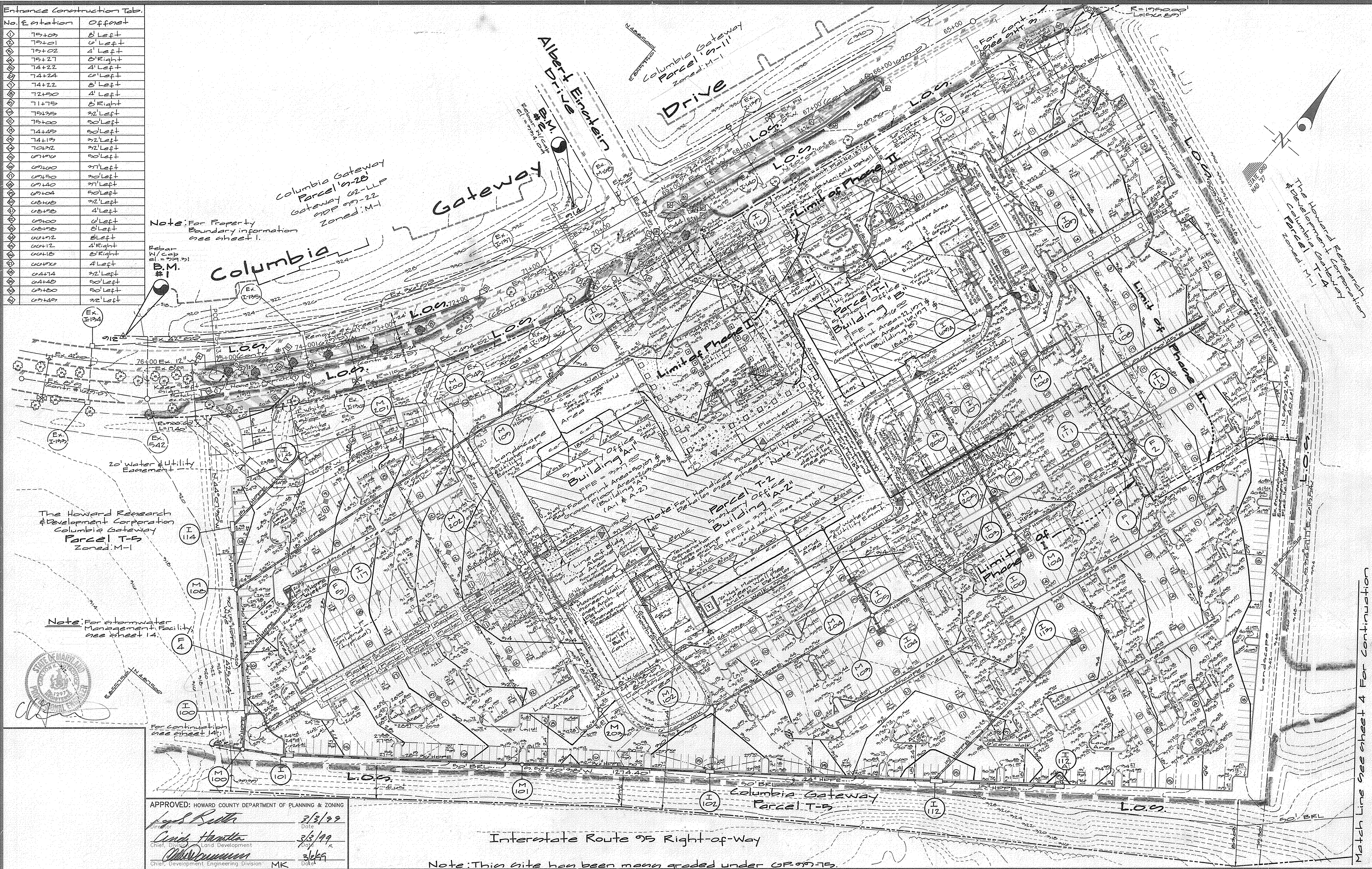
Revision table with columns for date, description, and initials for the landscape plan and schedule.

LANDSCAPE NOTES, DETAILS & SCHEDULES, COLUMBIA GATEWAY Parcels T-1, T-2, T-4 & T-5. SCALE AS SHOWN, ZONING M-1, G. L. W. FILE No. 98067, DATE NOVEMBER 1998, TAX MAP No. 43-1,2,7,8, SHEET 9 of 22.

No.	Elevation	Offset
75+09	8' Left	
75+21	6' Left	
75+22	4' Left	
75+27	8' Right	
74+22	4' Left	
74+24	6' Left	
74+22	8' Left	
72+50	4' Left	
71+75	8' Right	
75+25	2' Left	
75+00	50' Left	
74+45	50' Left	
74+13	2' Left	
70+22	2' Left	
67+76	50' Left	
67+00	27' Left	
67+50	50' Left	
67+40	27' Left	
67+04	50' Left	
66+45	2' Left	
66+75	4' Left	
67+00	4' Left	
66+75	8' Left	
66+72	8' Left	
66+12	4' Right	
66+15	8' Right	
66+20	4' Left	
64+14	2' Left	
64+45	50' Left	
63+50	50' Left	
63+45	2' Left	

Note: For Property Boundary information see sheet 1.

Rebar W/ cap el. = 719.71
B.M. #1



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Agnes Kuttler 2/3/99 Date
David Hamilton 2/3/99 Chief, Division of Land Development
Michael M. K... 2/3/99 Chief, Development Engineering Division MK

Note: This site has been man graded under CR 99-75.

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 301-421-4156
 BALT. 410-880-1820 DC/VA 301-989-2524

DATE	REVISION	BY	APPR.
11/2/90	Rev Parcel T-1 Building, add drop-off area and loading area	WGL	
11/2/91	Rev. Location of Utility conn., sidewalks, loading dock & generator loc.	WGL	
12/12/92	Rev. Per Ho. Co. Comments	WGL	
12/12/92	Sidewalk relocations per HCR's AG comments	WGL	
12/12/92	Remove & Relocate ETL for MUT mls. with Fire Marshall	WGL	

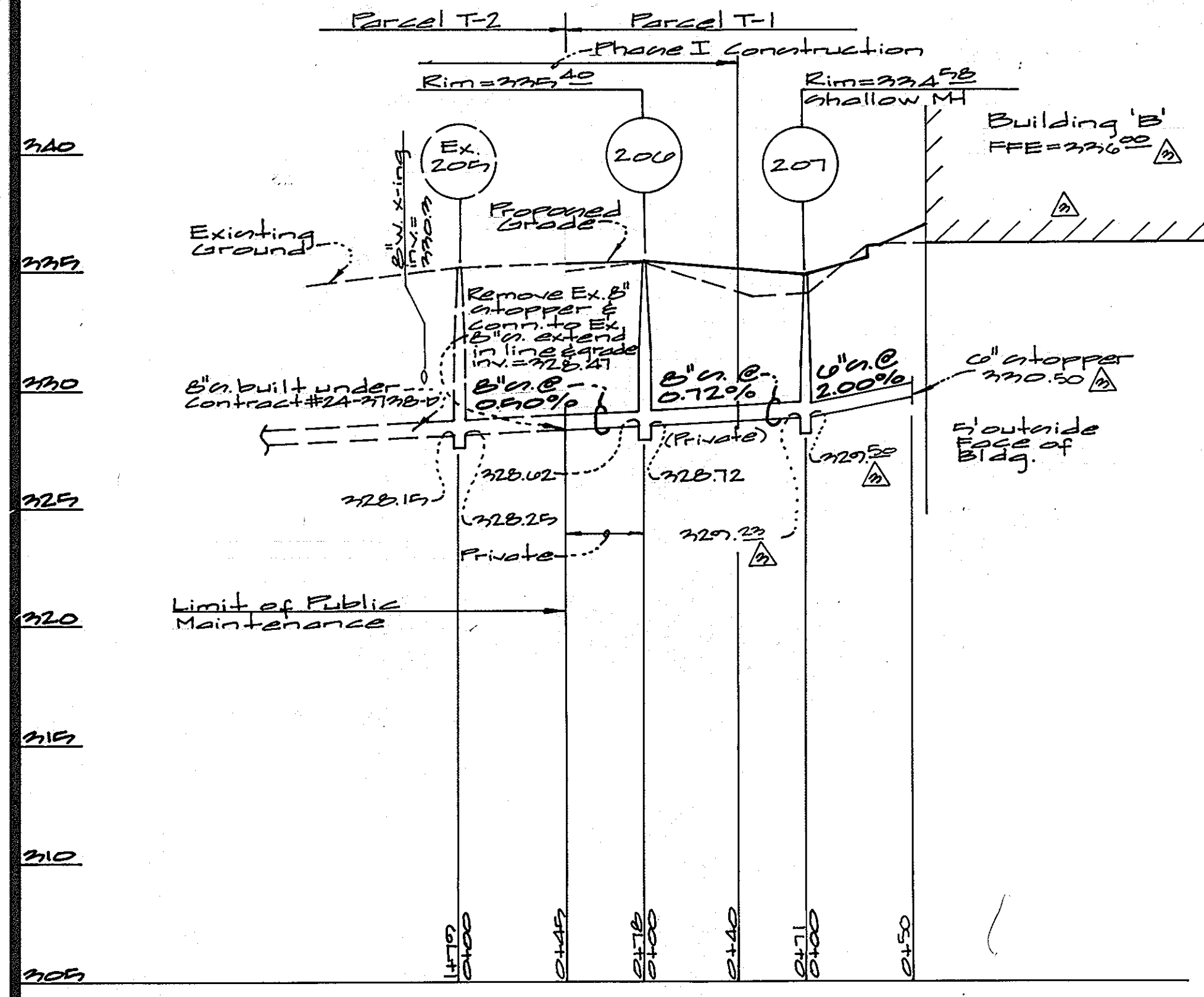
Owner Parcel T-1:
 Orix Gateway Columbia, LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago, IL 60606
 (312) 667-0445

SITE DEVELOPMENT PLAN
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 and T-5
 Plat # 13A02 thru 13A04
 & Plat No. 10710

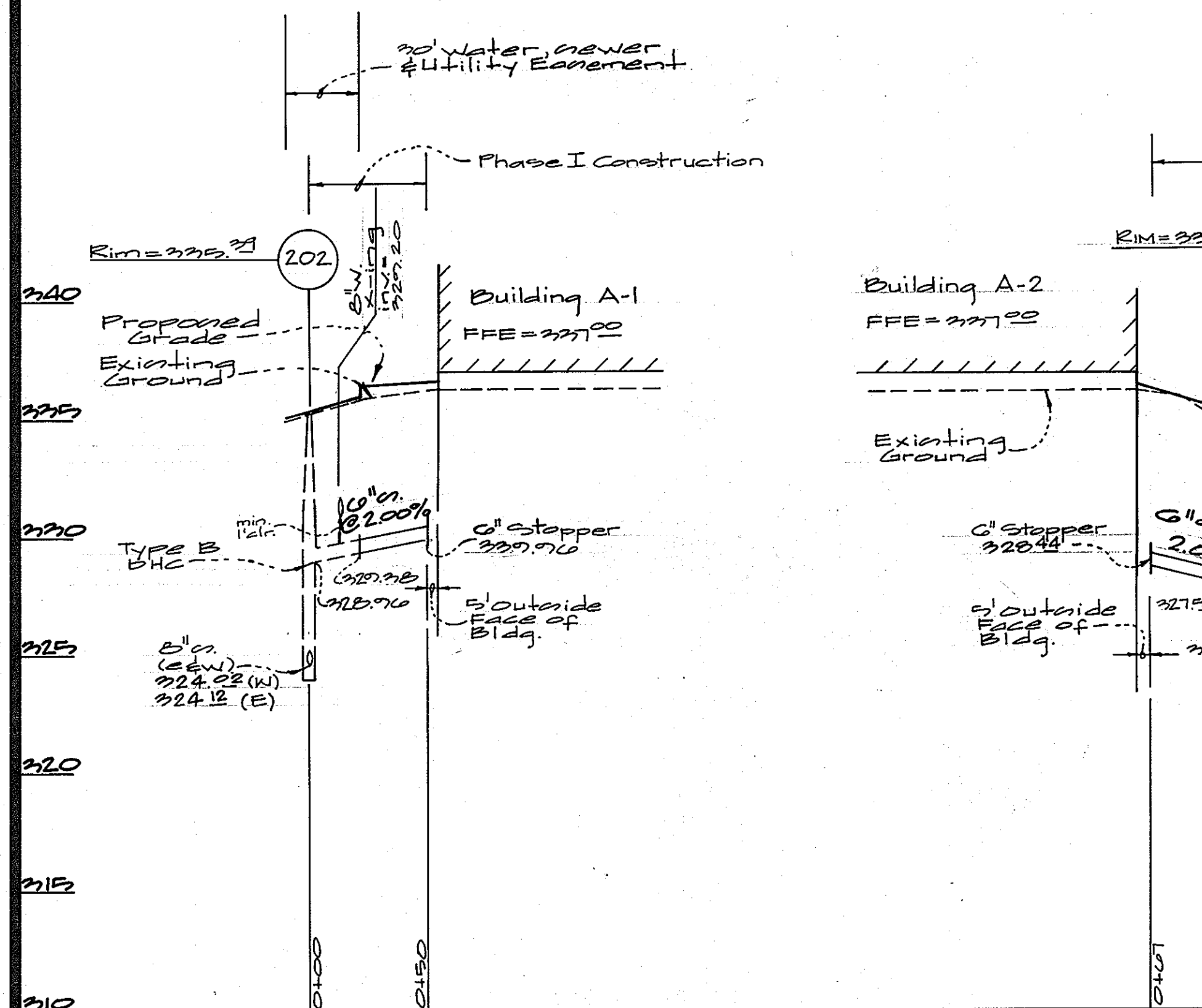
SCALE	ZONING	G. L. W. FILE NO.
1"=50'	M-1	98067
DATE	TAX MAP - GRID	SHEET
November, 1998	43 - 1,2,7,8	2 OF 22

Match Line See sheet 4 For continuation

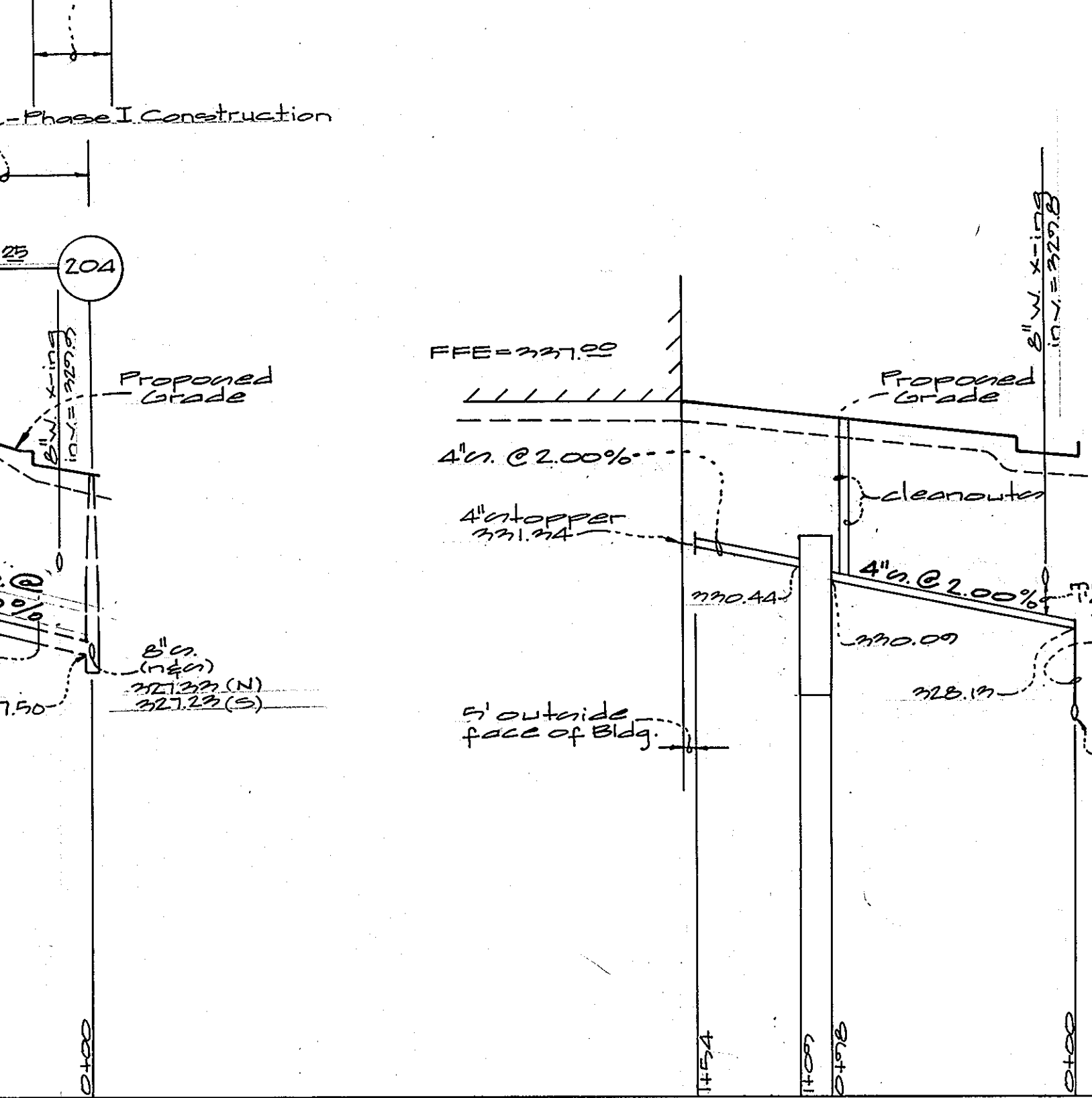
SDP 99-54



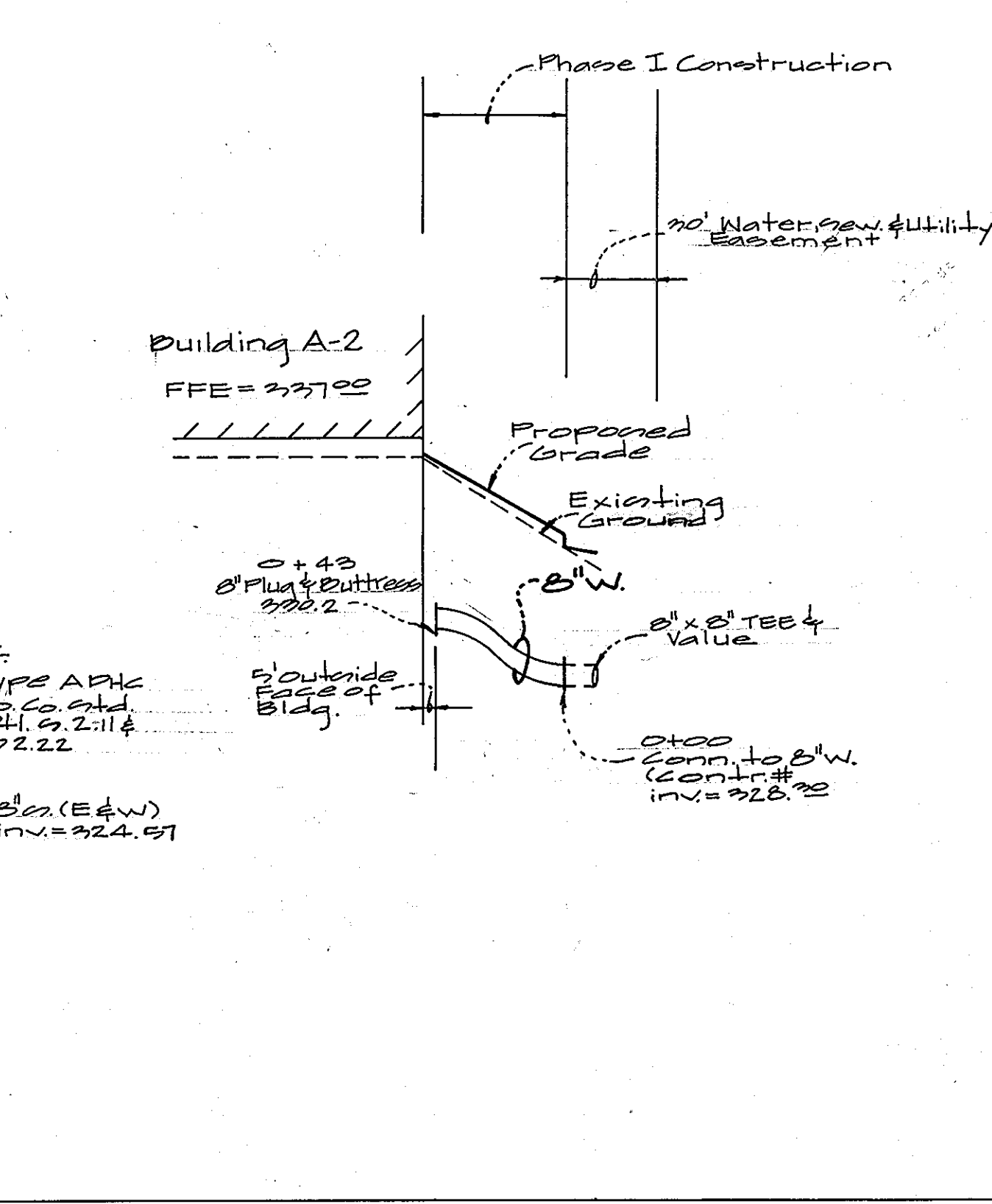
Sewer Profile



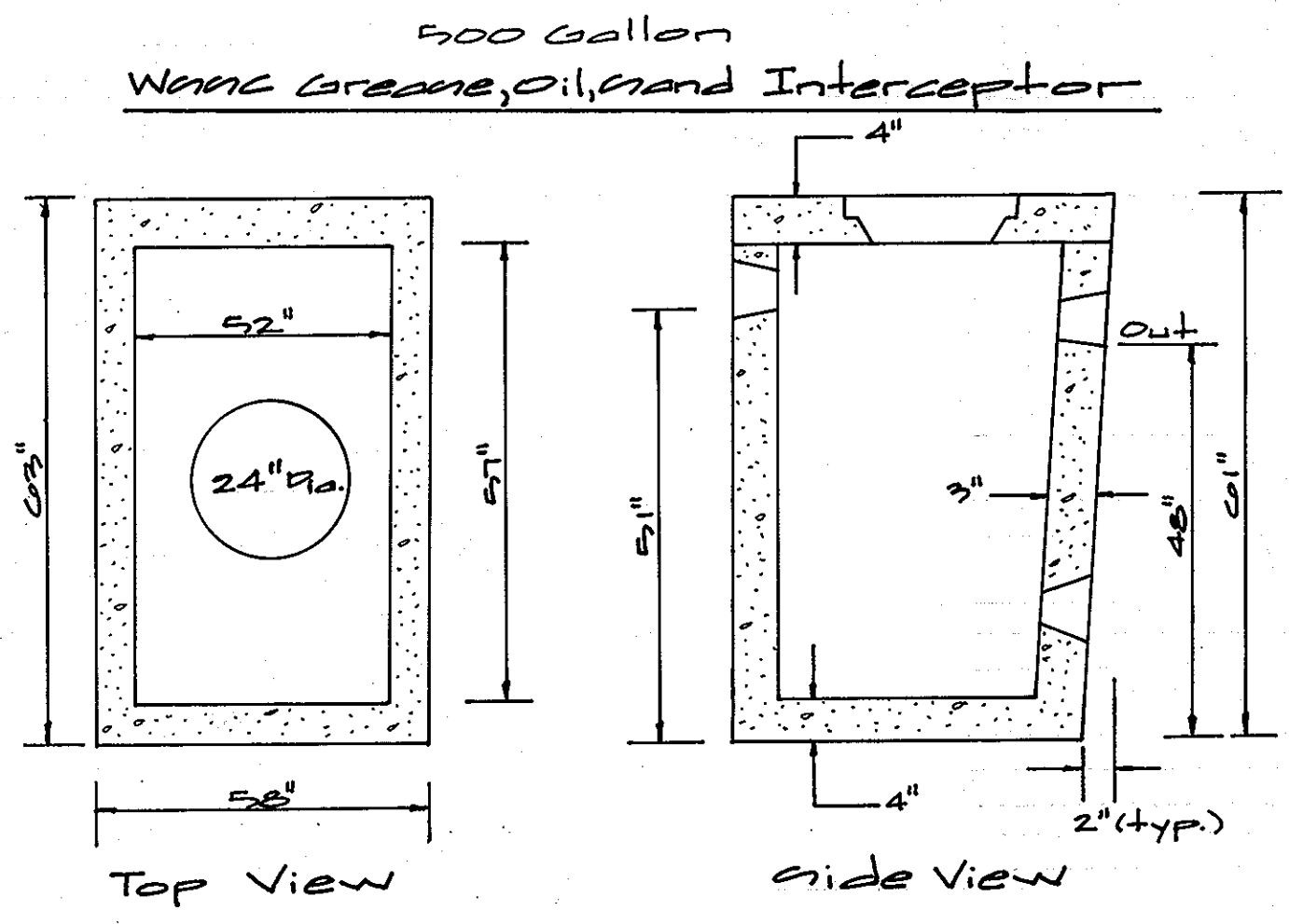
Sewer Profile



Sewer Profile



Water Profile



This interceptor is precast with 5000 lb. psi concrete and reinforced with (6"x6") #8 gauge wire mesh. The top has #3 reinforcement rods 6" on center. The sides and bottom have #3 reinforcement rods 12" on center. The side walls taper from 4" thick at the bottom to 3" thick at the top.

The lower outlet is located 24" from the bottom for use as a SAND and OIL INTERCEPTOR - 12" for use as a GREASE and OIL INTERCEPTOR.

Traffic Bearing: The top slab is 8" thick with a double mat of reinforcement rods and the floor is 4" thick.

- Tanks in traffic-bearing locations shall meet or exceed H20 (SHA) loading design.
- Bedding shall be MD #0 or smaller aggregate, min. 6" in depth.
- Tank shall be backfilled with aggregate (MD #0 or smaller) on all sides to level with top of tank.
- Inlet and outlet baffles shall be 16 gauge (0.075") or heavier. Type 302 or Type 304 stainless steel, formed from 24"x92" stock.
- Inlet and outlet baffle tracks shall be 3/4" or 1" stainless steel or aluminum; track anchors shall be welded to back of track to anchor in the wall casting.
- Manhole openings shall be per WMC std. D.H. in-6/1.0, 1.2 & 1.2.
- Manhole frame and covers shall meet or exceed H20 (SHA) loading design. The assembly shall be galvanized and the cover shall be cast iron with the word "INTERCEPTOR" cast in.
- No auxiliary cleanouts are required, other than those required by Code Section 507.7. The outlet baffle shall serve as the outlet cleanout.
- A two (2) inch vent shall be connected to the inlet (inside the building). See Approved Plans.

- Variation for Sand/Oil Interceptor
- When sand/oil interceptor serves a drainage system containing no traps (typically a parking garage), the manufacturer and plumber shall make the following adjustments:
- Manufacturer shall not install the inlet baffle.
 - Plumber shall field install a 90° on the inlet pipe just inside the tank, and down with a pipe 24" long.
 - Plumber shall relocate the required vent in one of two ways:
 - A. The relocated vent may connect to tank directly through either manhole riser.
 - B. Alternately, the vent may also connect to the outlet pipe.
 - Refer to Approved Plans for additional details.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Paul R. Rutter 3/3/99 Date
 Chief, Division of Land Development

Cindy Hamilton 3/6/99 Date
 Chief, Development Engineering Division

Mark 3/2/99 Date

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 No. 12078

Profile scales:
 Horizontal: 1" = 50'
 Vertical: 1" = 5'

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DATE	REVISION	BY	APPR.
02/11/00	Rev. Water & Sewer Profile For T-1	WBJ	
11/15/99	Remove Sewer Profile that will be Public	WBJ	
11/15/99	Rev. MH 202 Location to accommodate revised Loc. of Sewer Line	EST	
12/18/98	Add Water & Sewer Profile & Lower Sew. MH 201 to MH 202	WBJ	

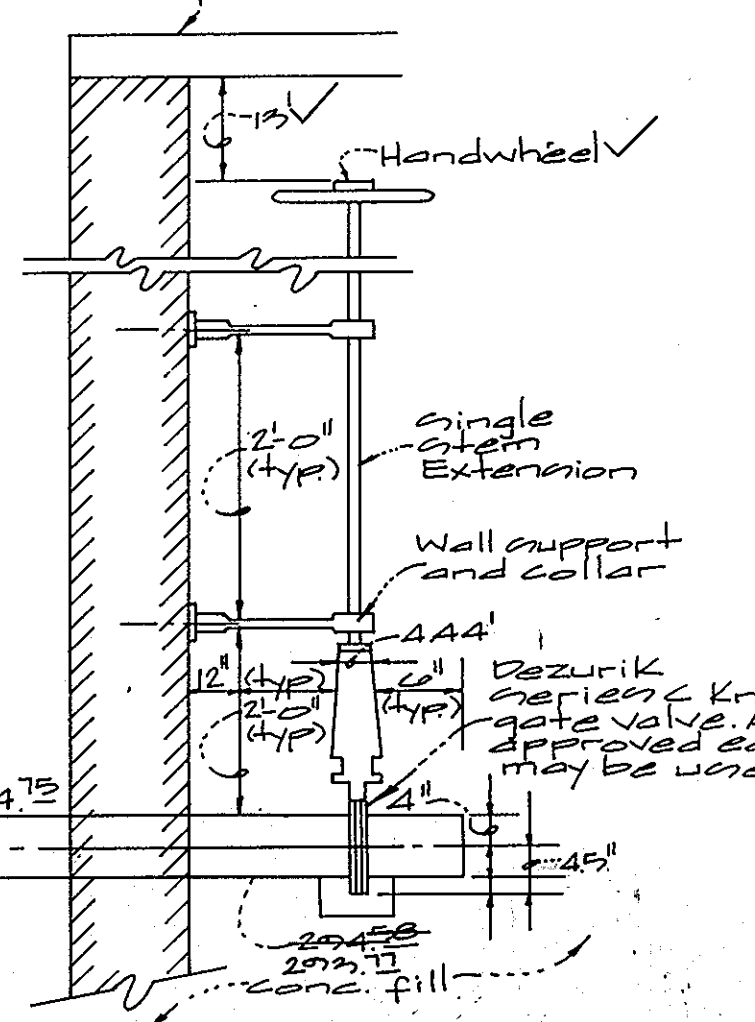
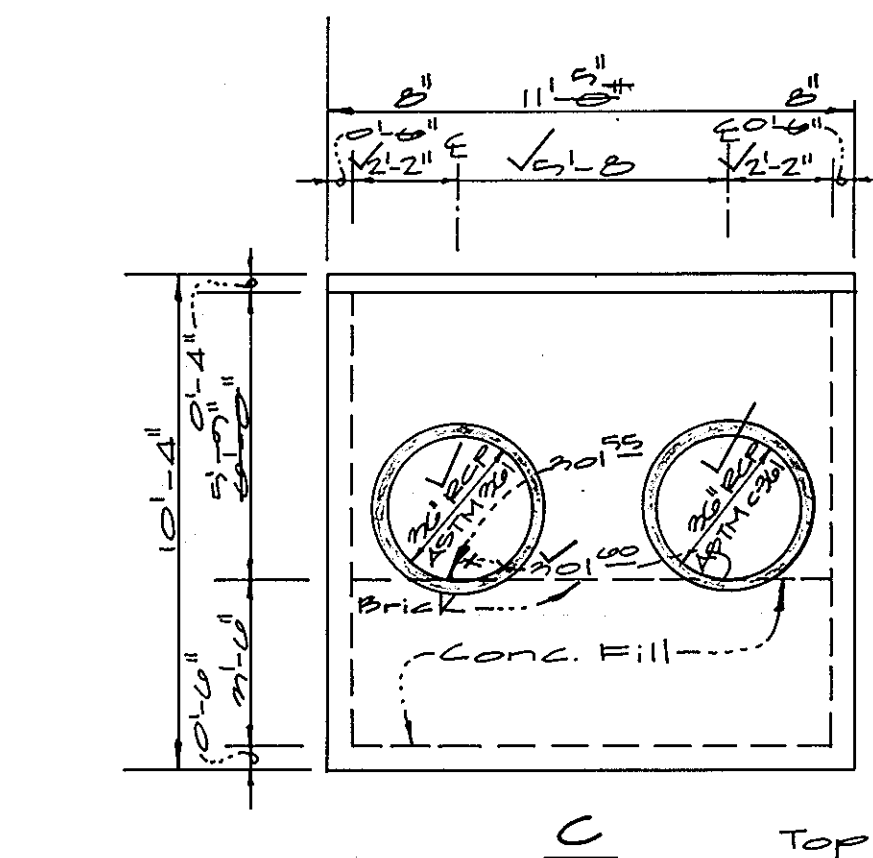
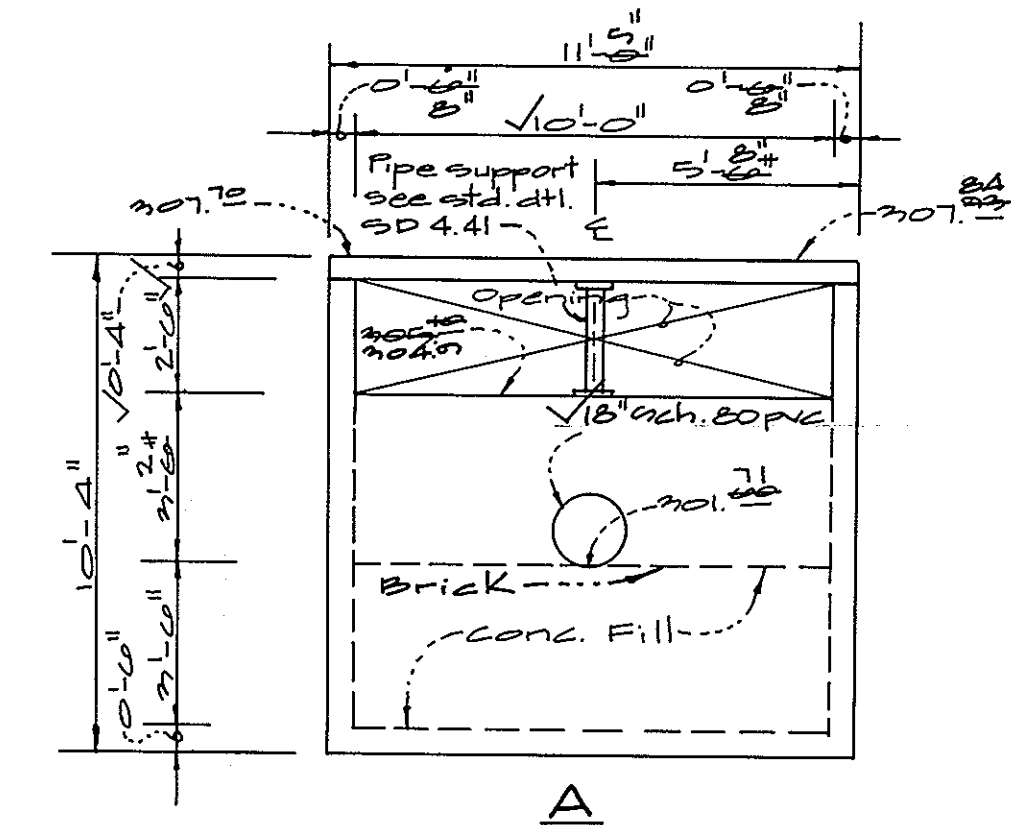
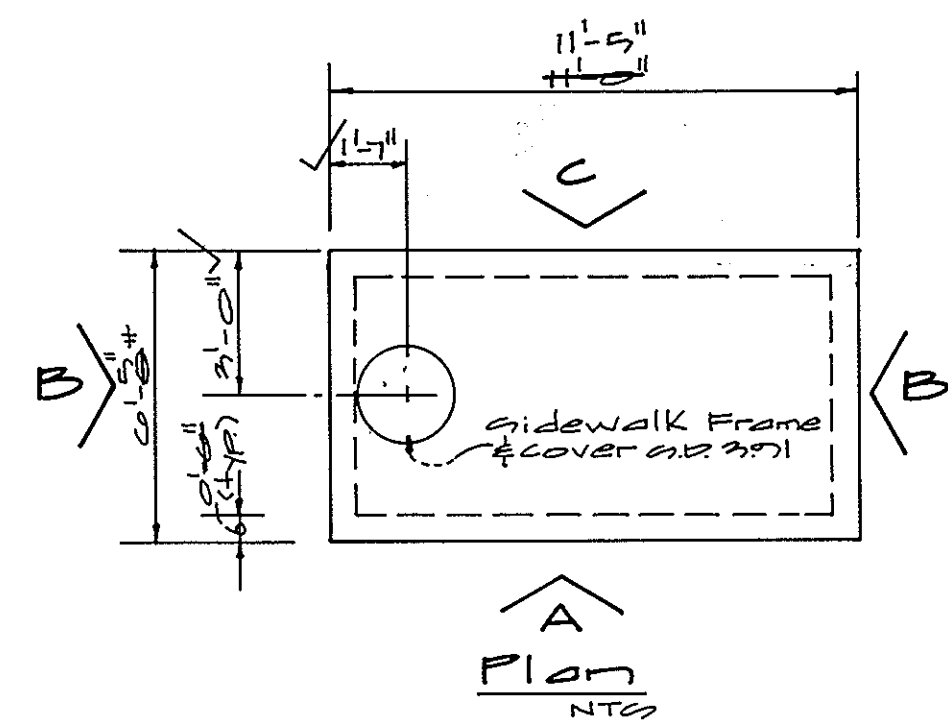
Owner Parcel T-1:
 Columbia Gateway Columbia, LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago, IL 60606
 (312) 467-6445

UTILITY PROFILES
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 13402 thru 13404
 & Plat No. 18710

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	M-1	98067
November, 1998	43 1,2,7,8	2.0 OF 2.2



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 3/3/99
Date

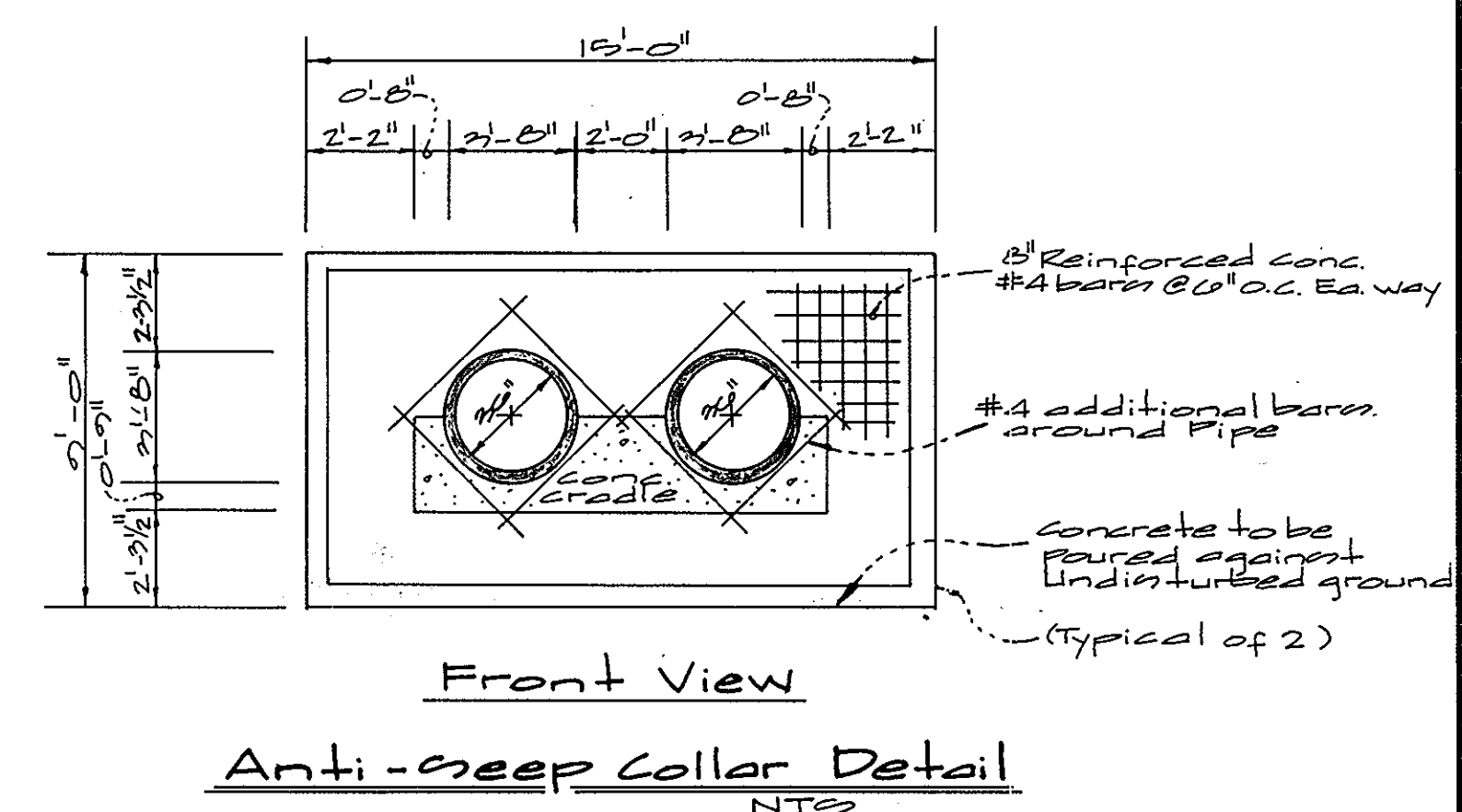
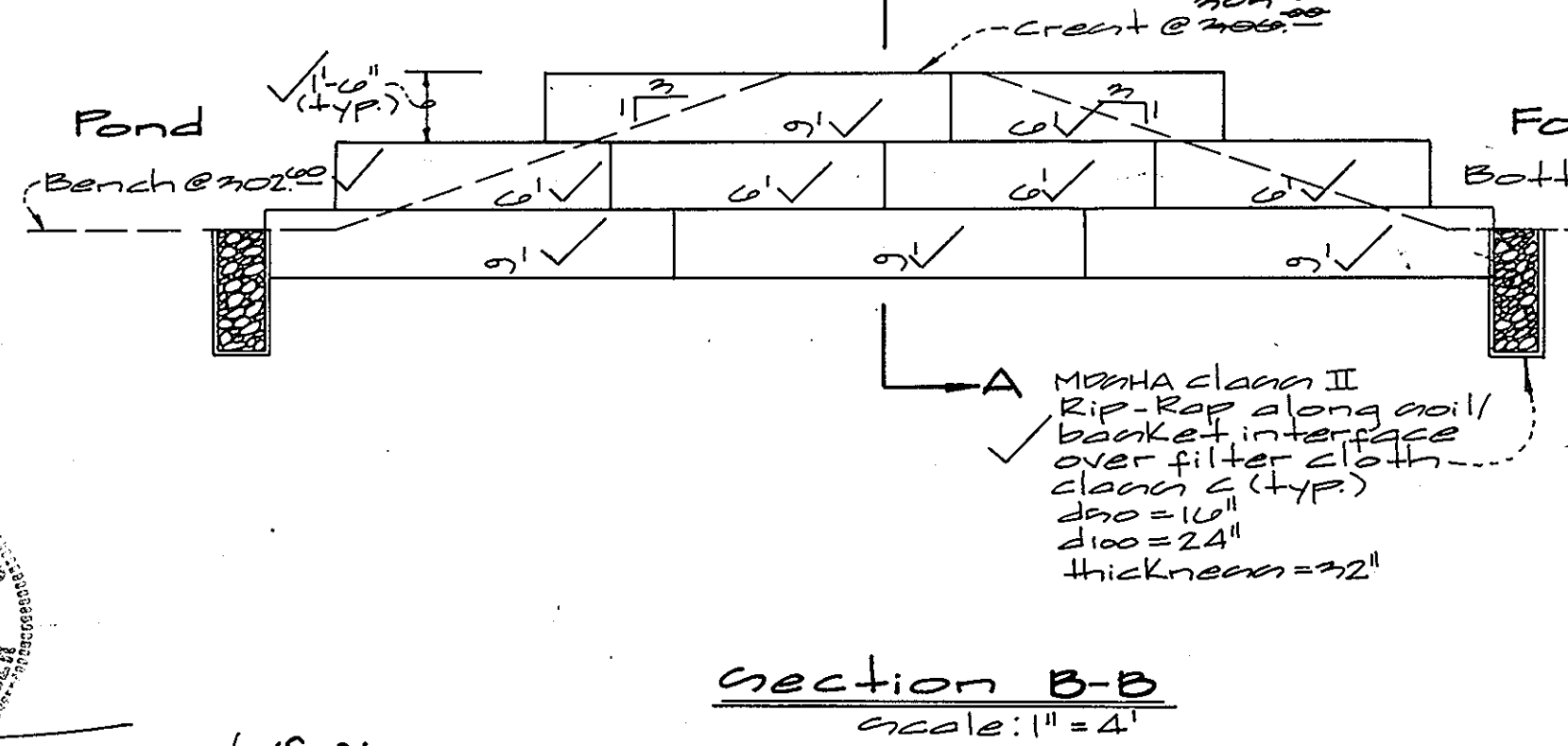
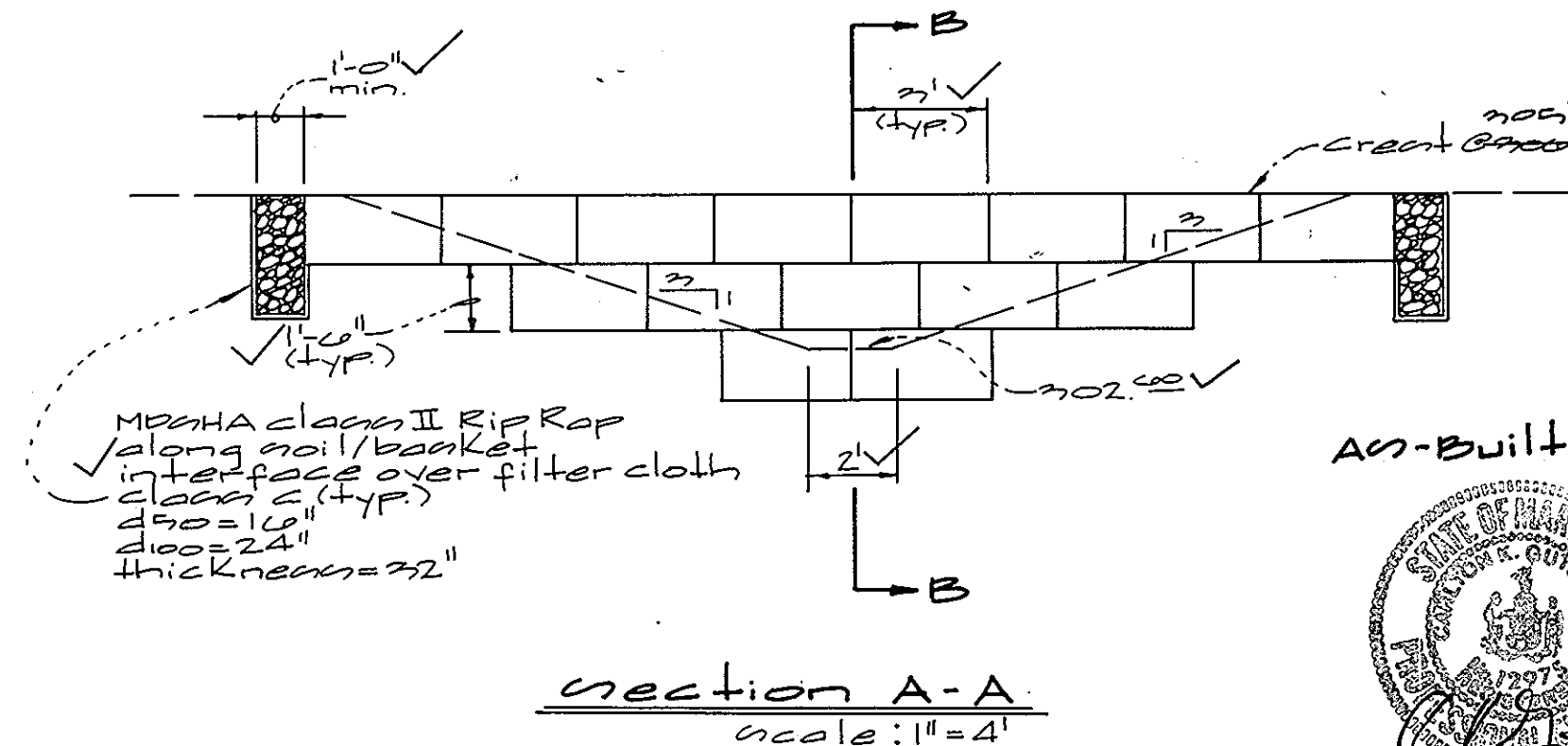
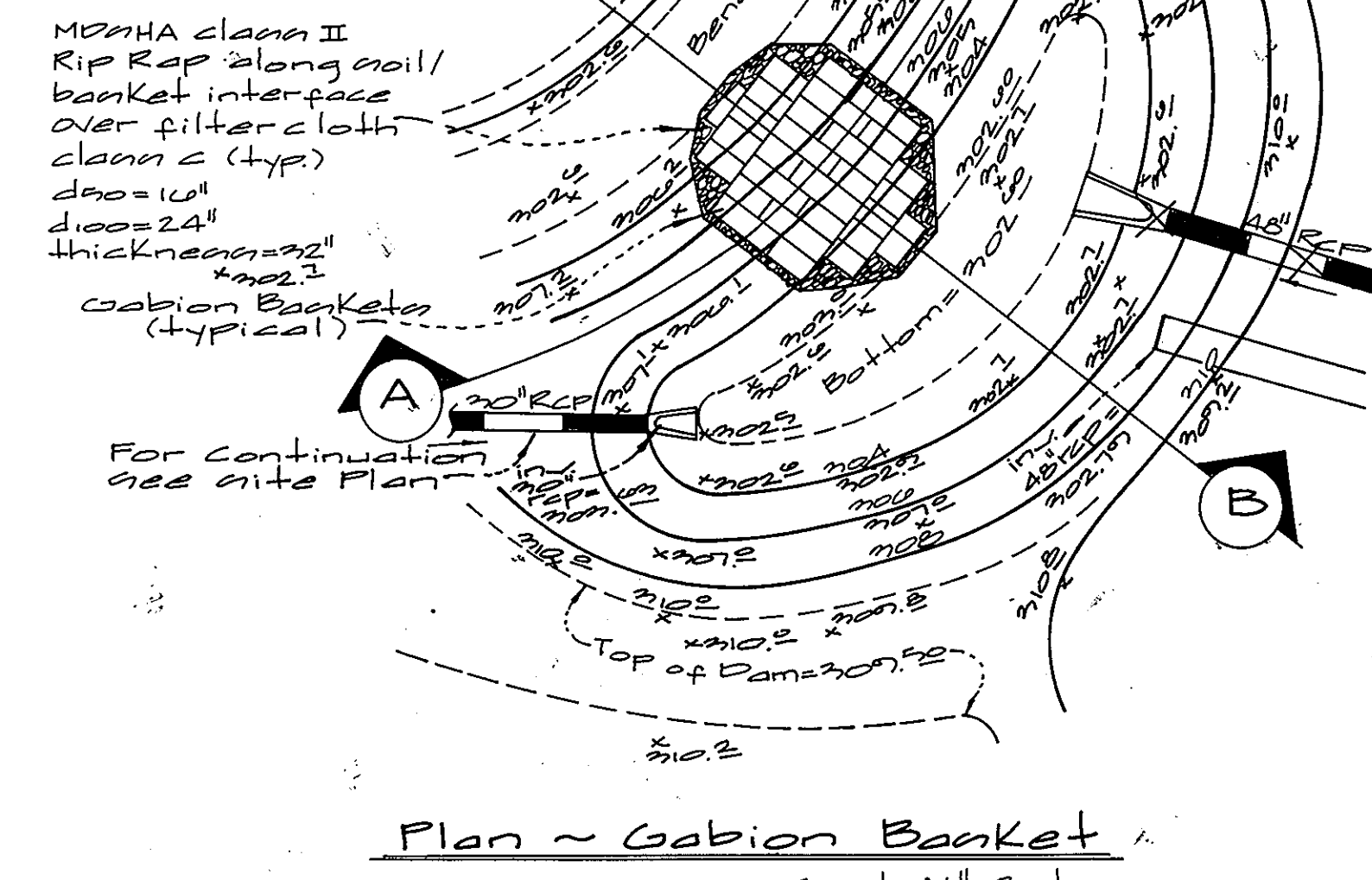
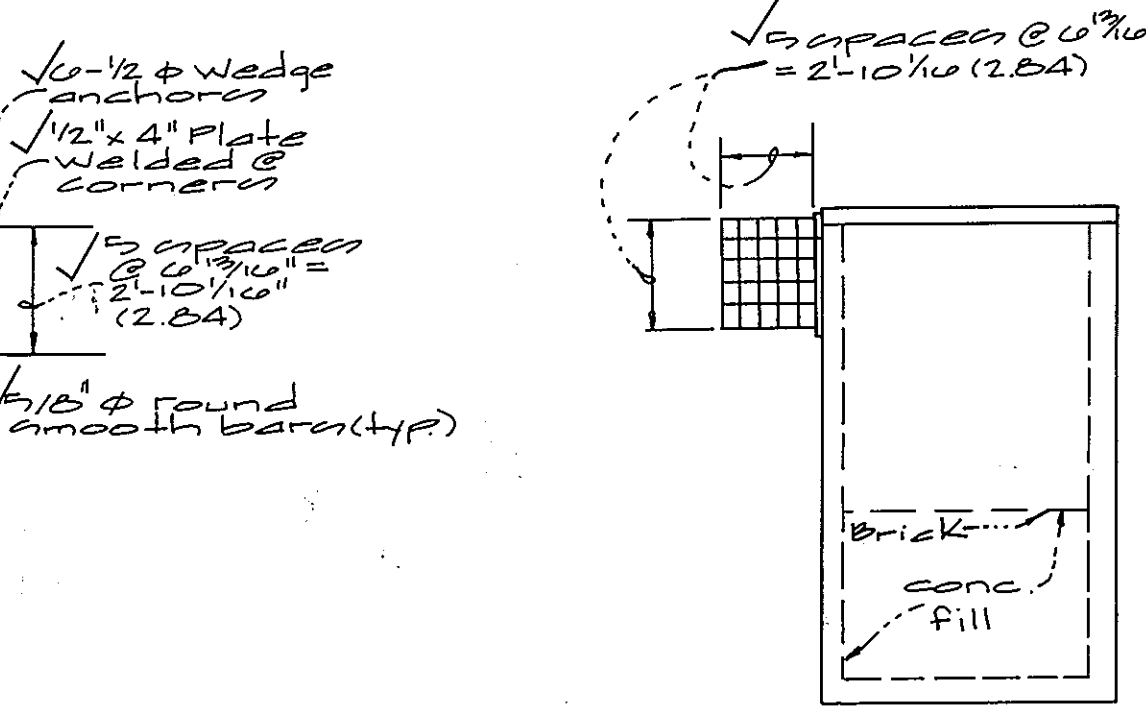
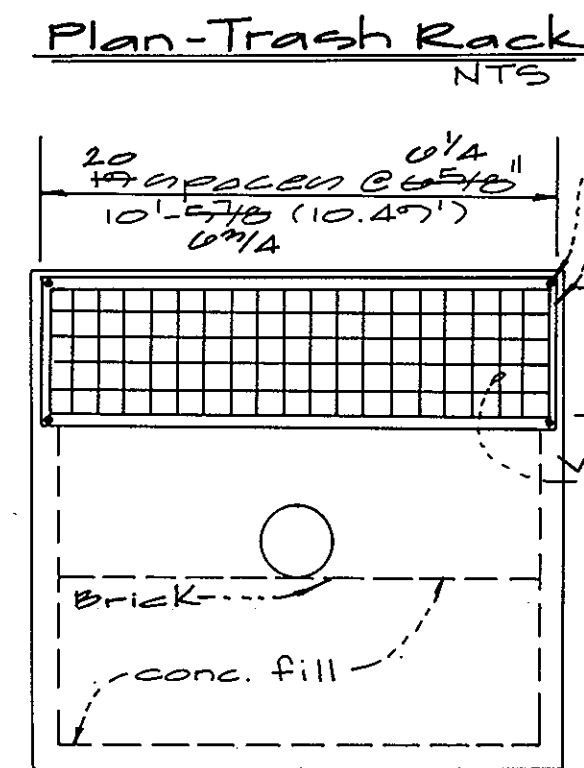
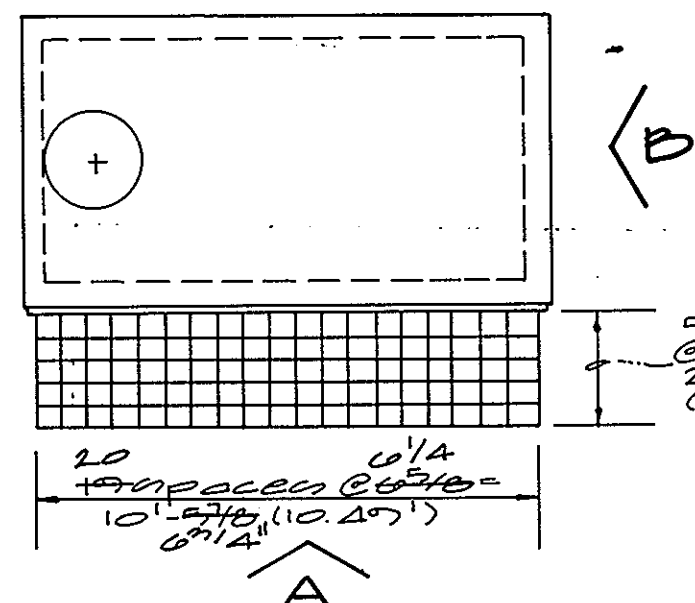
[Signature] 3/3/99
Date

[Signature] 3/3/99
Date

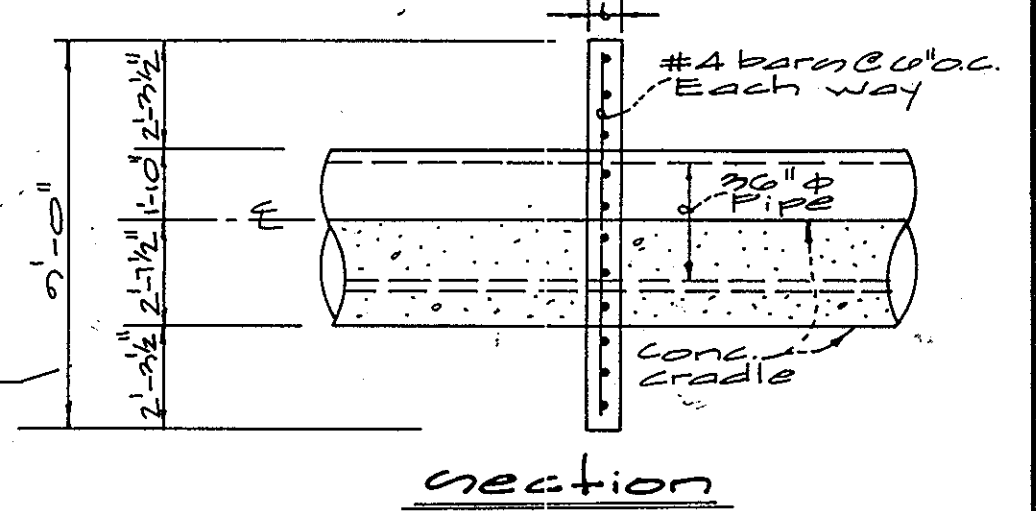
Chief, Development Engineering Division MK

Trash Rack Notes

- 1) Trash racks to be hot dip galvanized after fabrication painted w/2 coats of black paint.
- 2) Vertical bars shall be on the outside of horizontal bars.
- 3) Trash rack to be securely bolted to riser structure with 1/2" φ bolts embedded 3" (6 locations min. per rack).
- 4) All rebar intersections to be spot welded.
- 5) All rebar to plate intersections or plate to plate intersections to be securely welded.
- 6) Minimum opening size 6"x6"



- Notes For Anti-weep Collar**
- 1) Four concrete to undisturbed earth.
 - 2) Remove sheeting before pouring concrete.
 - 3) FC #4000 psi @ 28 days
 - 4) Four collars with pipe in place.
 - 5) Backfill evenly on both sides of collars.
 - 6) Locate collars a min. of 2' from pipe joints.



AS-BUILT

[Signature]
Carlton K. Gutierrez
Professional Engineer
Registration No. 12825

1-18-01
Date

ENGINEER'S CERTIFICATE

"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."

[Signature] 2/18/99
Date

DEVELOPER'S/BUILDER'S CERTIFICATE

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

[Signature] 2/18/99
Date

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

[Signature] 2/25/99
Date

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

[Signature] 2/25/99
Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 FAX: 410-983-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
01/22/00	Change owner info.	WJL	
11/19/01	As Built	WJL	
2/27/02	Change Allow to each bar	WJL	
12-22-02	Rev. Per Ho. Co. Comments	WJL	

Owner Parcel T-1:
Orix Gateway Columbia, LLC
100 N. Riverside Plaza
Suite 400
Chicago, IL 60606
(312) 600-0045

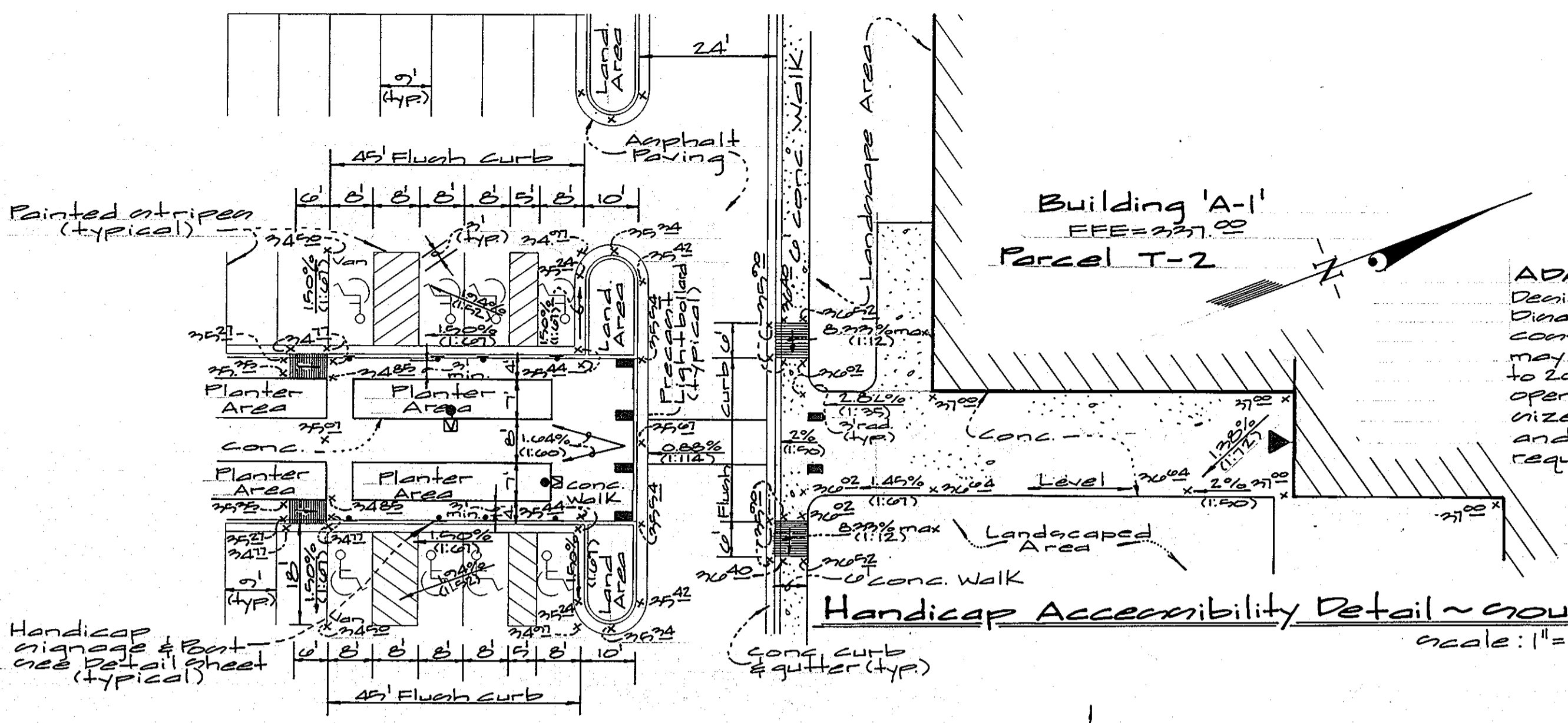
Stormwater Management Details

COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
Plot No. 13402 thru 13404
& Plot No. 13710

ELECTION DISTRICT No. 6

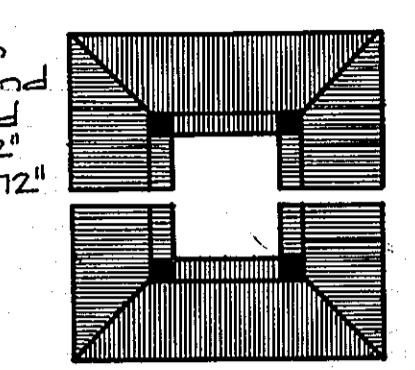
SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	M-1	98067
DATE	TAX MAP - GRID	SHEET
November 1998	43 1,2,7,8	15 of 22

GDP 99-54

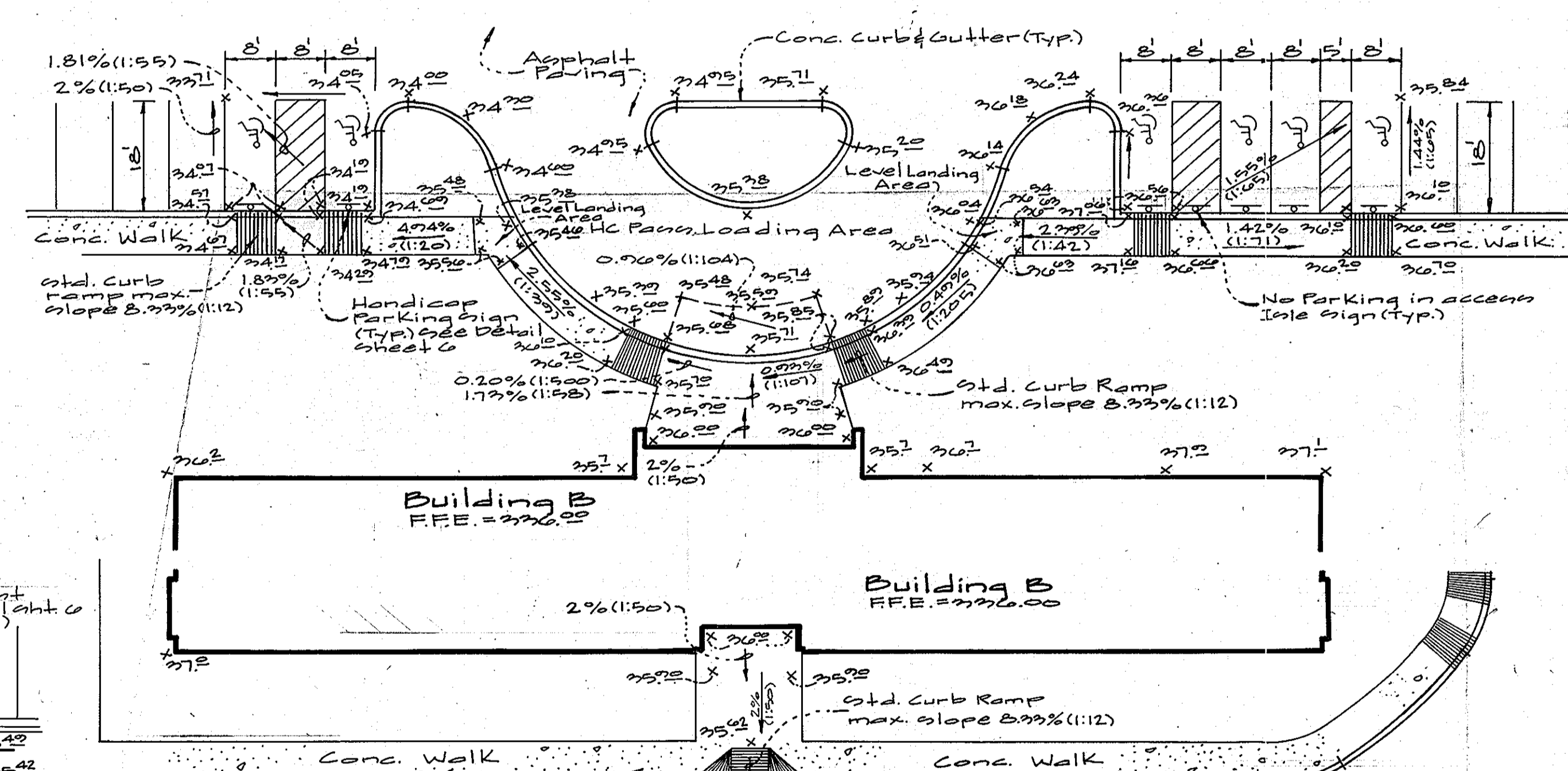
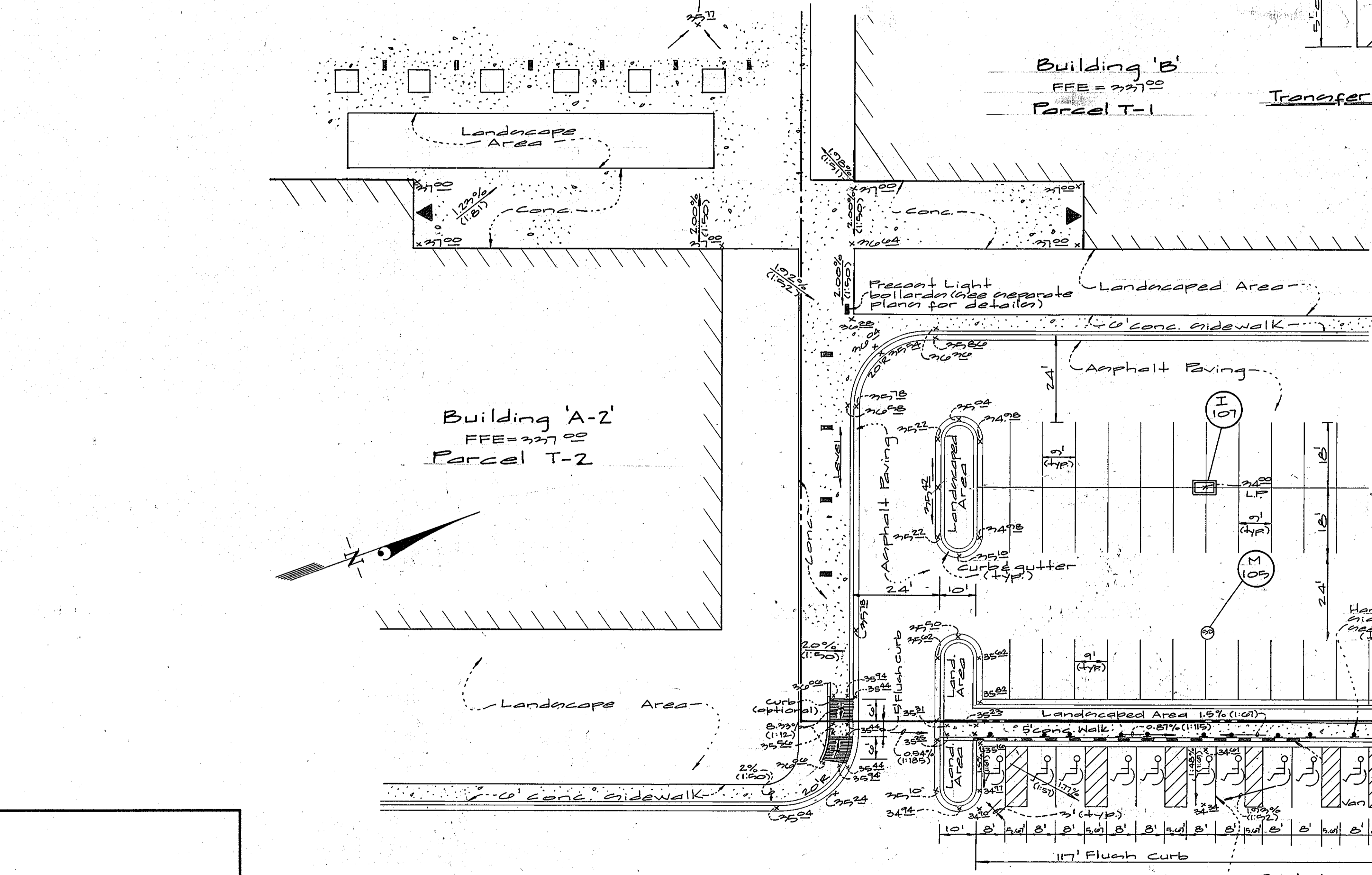
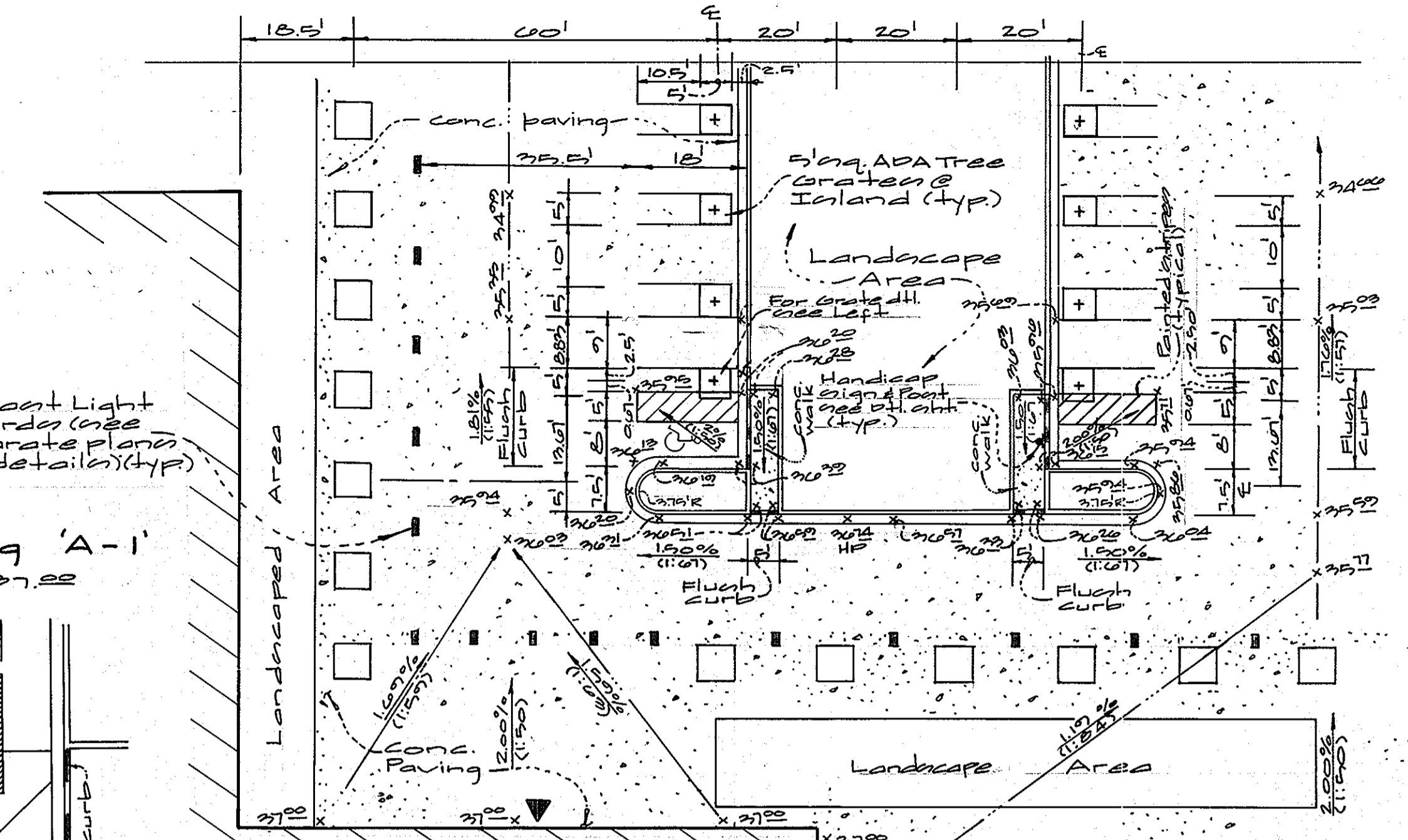


- Notes:**
1. Maximum sidewalk crosslope is 2% (1:50).
 2. A 6' x 6' minimum level (2%) landing is required at the top and bottom of all ramps. Ramps are slopes greater than 5%.
 3. Maximum slope in any direction of the handicap accessible parking is 2%.

ADA: 1/2" slots
 Designed to meet the Americans with Disabilities Act guidelines at minimum cost. Tree openings for 36" size is 12" and may be ordered with or later expanded to 20". Others: 48" size openings 14" and 22" openings 10", 22", 16" and 24" openings 12" size, 24" and 36" openings 20" size. 24" and 36" openings. Quarter sections require supportive frames.



Precast Light bollard (see separate plans for details) (typ)



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

James R. Smith 3/3/99
 Director Date

Conrad Hamilton 2/3/99
 Chief, Division of Land Development Date

Mark 2/2/99
 Chief, Development Engineering Division Date



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-899-2524 FAX: 301-421-4186

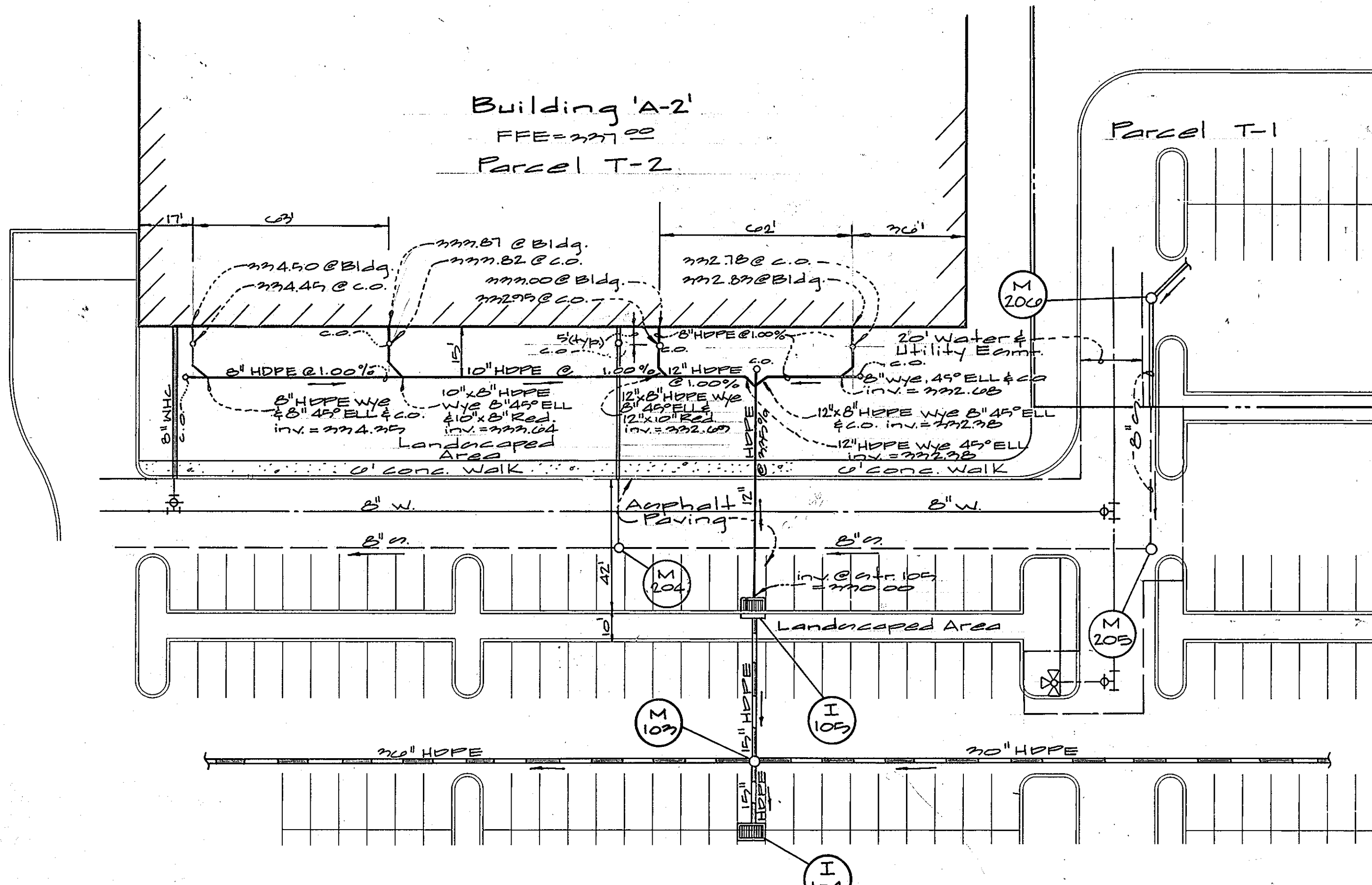
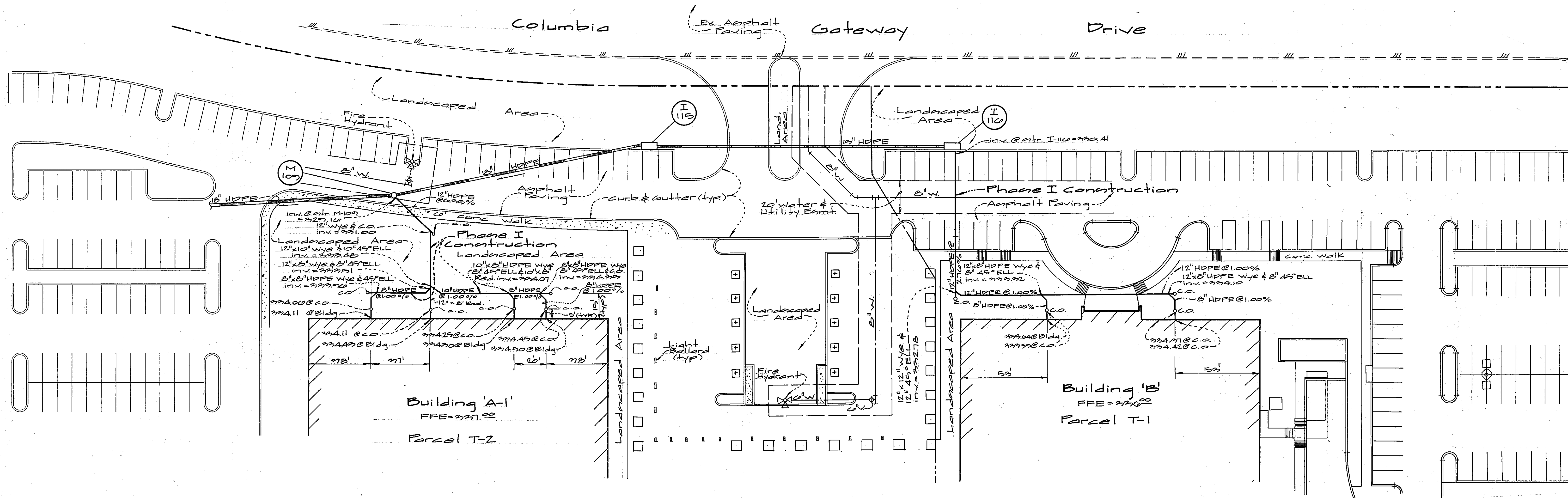
DATE	REVISION	BY	APP'R.
01/21/98	Rev. access route for Parcel T-1	WEL	
11/21/98	Rev. sidewalk Bldg. A-1 & Bldg. A-2 (N)	WEL	
12/16/98	Rev. sidewalk for HEB2 ARE comments re handicap in courtyard & East Lot	WEL	
12/18/98	Add string of 6' to bldg. B Planter area & add 3' min sign to walk dim.	WEL	

Owner Parcel T-1:
 Criz Gateway Columbia, LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago, IL 60600
 (312) 667-4444

HANDICAP ACCESSIBILITY Details
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 13462 thru 13464
 & Plat No. 18716
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 20'	M-1	98067
DATE	TAX MAP - GRID	SHEET
NOVEMBER 1998	43 1,2,7,8	7 OF 22

GDP 99-54



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 3/13/98
Date

[Signature] 3/1/98
Date

[Signature] 3/2/98
Date



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

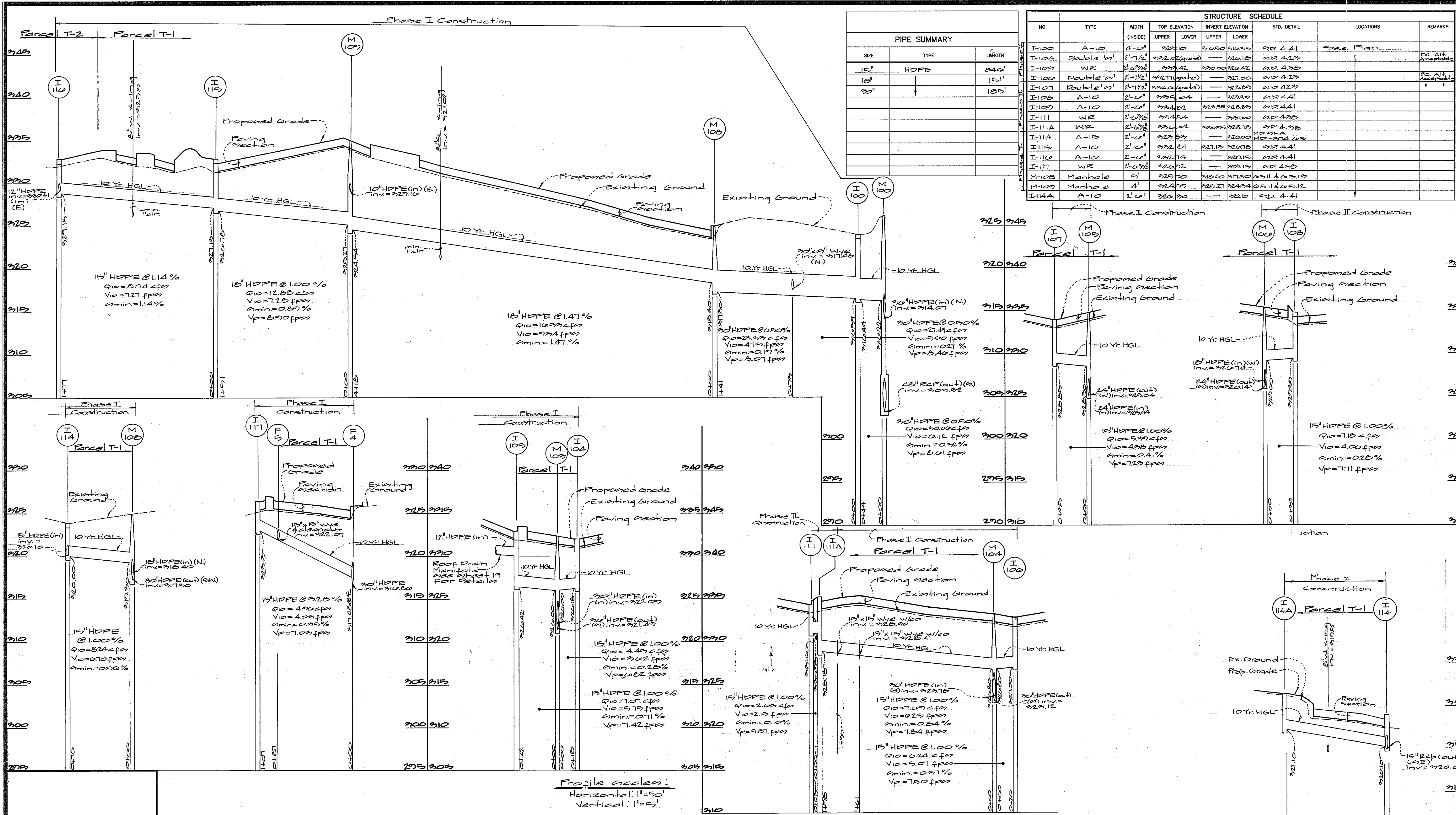
DATE	REVISION	BY	APPR.
12/11/97	Rev. Manifold For T-1A	WJ	
11/21/97	Rev. S.D. + Water Locations Bldg. A-1 & A-2	GT	
12/18/97	Rev. Water remove FH & Add FH	WJ	

Owner Parcel T-1:
Orix Gateway Columbia, LLC
100 N. Riverside Plaza
Suite 400
Chicago, IL 60600
(312) 667-0445

STORM DRAIN MANIFOLD PLAN
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
PLAT No. 13462 thru 13464
& Plat No. 13716

SCALE	ZONING	G. L. W. FILE No.
1" = 30'	M-1	98067
DATE	TAX MAP - GRID	SHEET
Nov, 1998	43 1,2,7,8	17 of 22

SDP 99-54



STRUCTURE SCHEDULE									
NO.	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STD. DETAIL	LOCATIONS	REMARKS
			UPPER	LOWER	UPPER	LOWER			
I-100	A-10	4'-0"	322.70	316.50	322.70	316.50	SD 4.41	See Plan	
I-104	Double In	2'-7 1/2"	322.02 (grate)		326.15	322.02	SD 4.23		FC Alt. Acceptable
I-105	WR	2'-0 3/8"	322.42	320.00	322.42	320.00	SD 4.35		
I-106	Double In	2'-7 1/2"	322.77 (grate)		327.00	322.77	SD 4.23		FC Alt. Acceptable
I-107	Double In	2'-7 1/2"	324.00 (grate)		328.85	324.00	SD 4.23		
I-108	A-10	2'-0"	322.04		322.04	322.04	SD 4.41		
I-109	A-10	2'-0"	322.82		326.55	322.82	SD 4.41		
I-111	WR	2'-0 3/8"	322.54		321.00	322.54	SD 4.35		
I-111A	WR	2'-0 3/8"	322.02		320.75	322.02	SD 4.35		
I-114	A-15	2'-0"	322.53		320.00	322.53	ME-37A (2)		
I-115	A-10	2'-0"	322.51		327.13	322.51	SD 4.41		
I-116	A-10	2'-0"	322.74		322.15	322.74	SD 4.41		
I-117	WR	2'-0 3/8"	322.72		322.15	322.72	SD 4.35		
M-105	Manhole	6'	325.20	318.40	317.30	325.11 & 325.13			
M-107	Manhole	4'	324.77	323.27	324.54	323.11 & 323.12			
I-114A	A-10	2'-0"	322.30		322.10	322.30	SD 4.41		

PIPE SUMMARY		
SIZE	TYPE	LENGTH
15"	HDPE	84'
18"		151'
30"		185'

Profile scales:
Horizontal: 1"=50'
Vertical: 1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *[Signature]* Date: 2/3/99
 Chief, Development: *[Signature]* Date: 3/2/99
 Chief, Development Engineering Division: *[Signature]* Date: 3/1/99



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

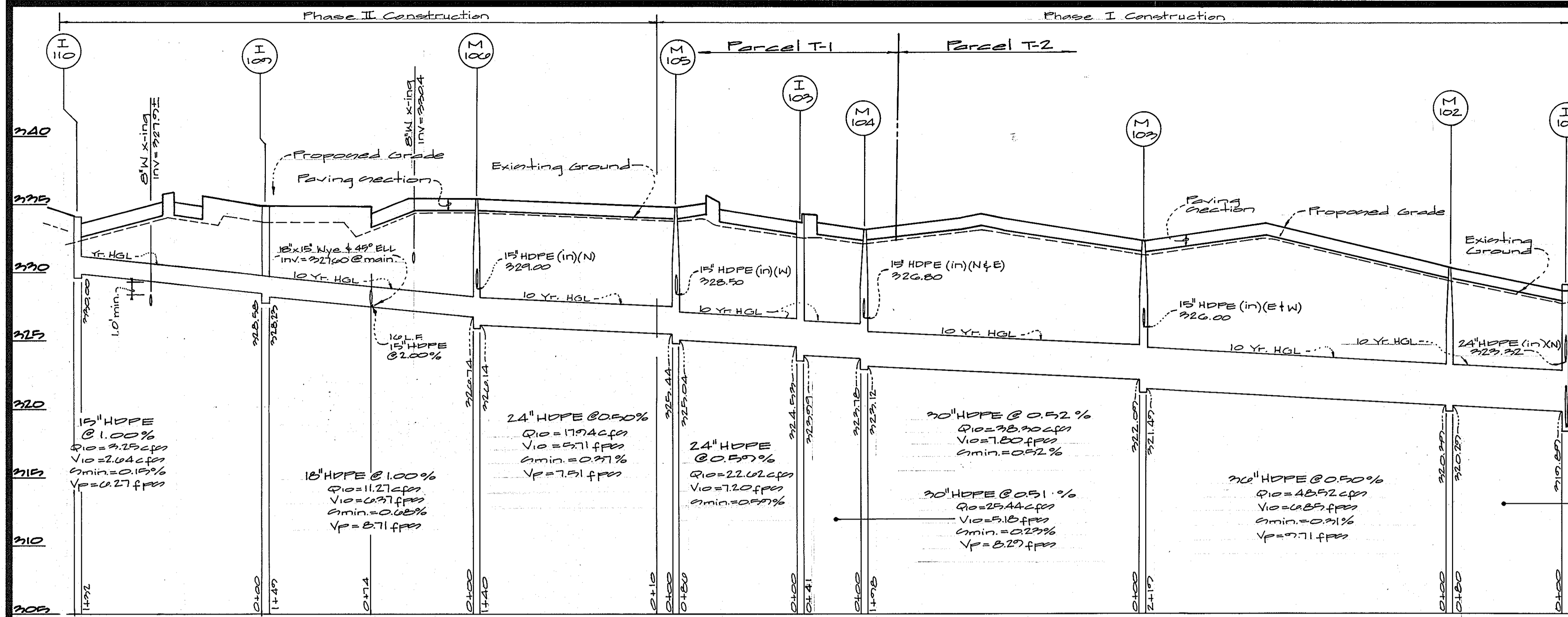
DATE	REVISION	BY	APPR.
12-21-98	Rev. 0.2 Profile lines to I-111, Remove Profile P-2 between Rev. Profile 1 and 2	WJL	
12-22-98	Rev. For Ho Co. Comments	WJL	
12-29-98	Added water crossings & sewer x-ing	WJL	

Owner Parcel T-1:
 Orix Gateway Columbia, LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago, IL 60600
 (312) 667-6445

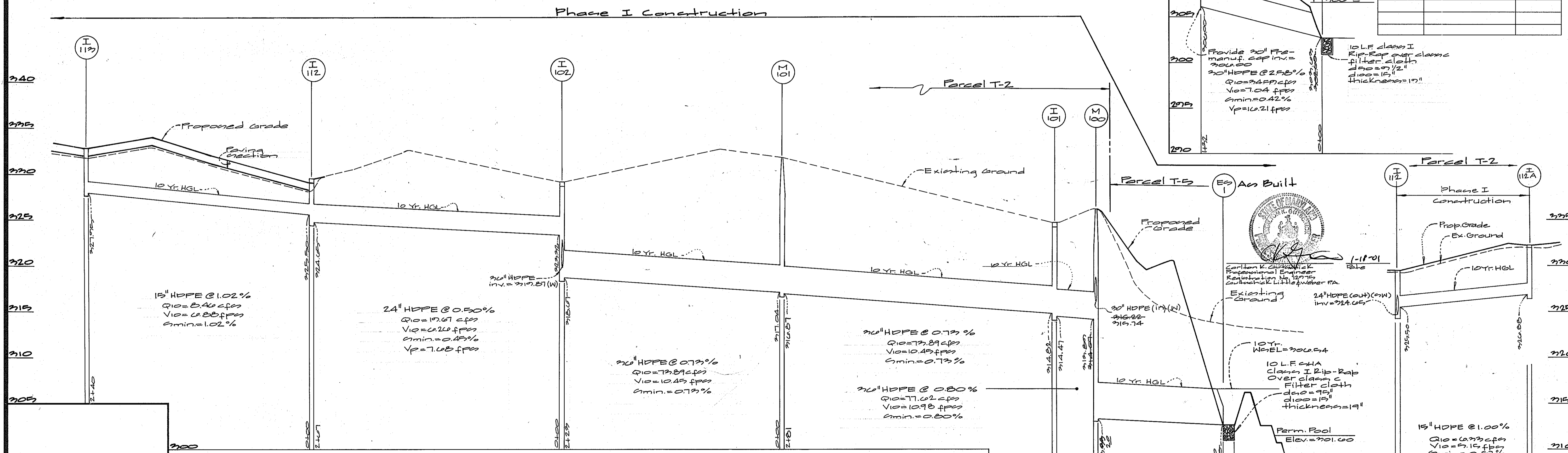
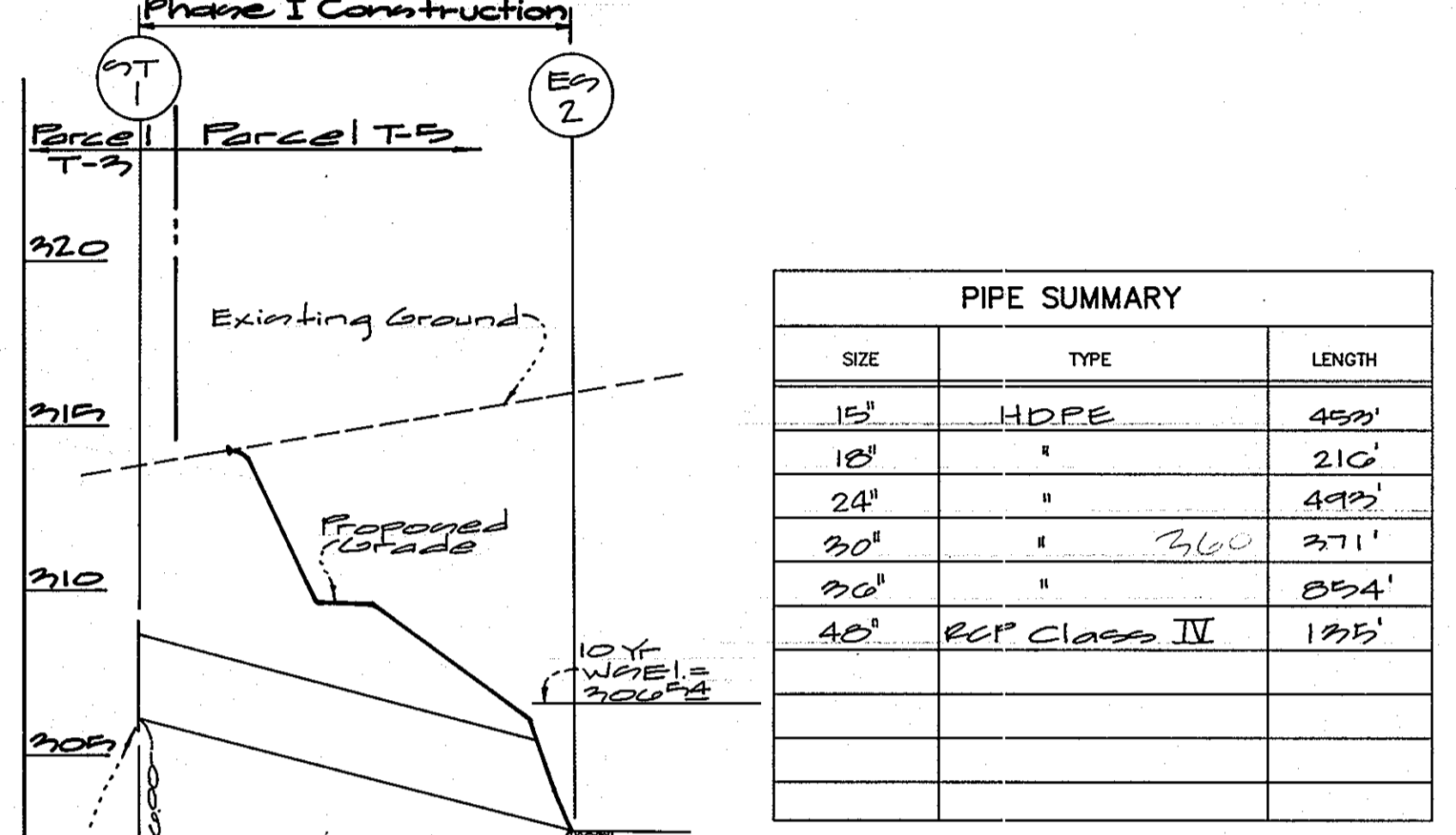
Storm Drain Profiles
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 13402 thru 13404
 & Plat No. 18716
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	M-1	98067
November, 1998	43 1,2,7,8	18 OF 22

GDP 99-54



NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STD. DETAIL	LOCATIONS	REMARKS
			UPPER	LOWER	UPPER	LOWER			
I-101	A-10	4'-6"	324.00	314.82	314.47	312.44		See Plan	
I-102	A-10	4'-6"	323.12	313.00	313.00	312.44			
I-103	WR	2'-0"	324.22	324.53	323.73	312.44			
I-110	A-10	2'-6"	324.14	320.00	320.00	312.44			
I-112	A-10	4'	322.50	325.50	324.05	312.44			
I-113	Triple WR	2'-0"	322.71 (Grade)	322.71	322.71	312.44			
M-100	Manhole	6'	326.82	316.22	323.92				
M-101		5'	321.75	317.04	316.07	0.5.11 & 0.5.13			
M-102		5'	320.90	320.90	320.27				
M-103		5'	322.35	322.00	321.49				
M-104		5'	322.14	322.00	322.12				
M-105		5'	324.78	322.50	323.04				
M-106		4'	325.33	324.00	323.14	0.5.11 & 0.5.12			
I-100A	Single WR	2'-3/4"	324.26	322.72	322.72	312.44			
E-1	End section	48"	320.50	320.50	315.51 or 315.52				
I-112A	A-10	2'-6"	322.22	322.22	322.22	312.44			



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Howard County Seal

3/3/99
3/5/99
3/2/99



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

NO.	DATE	REVISION	BY	APPR.
1	12/22/98	Rev Profile from M-100 to I-110	WJL	
2	12/22/98	Rev For H.C. Comments	WJL	

Owner Parcel T-1:
Orix Gateway Columbia LLC
100 N Riverside Plaza
Suite 400
Chicago, IL 60606
(312) 600-6445

Storm Drain Profiles
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
Plot No. 13404 thru 13404
& Plot No. 12710
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	M-1	98067
November, 1998	43 1,2,7,8	17 OF 22

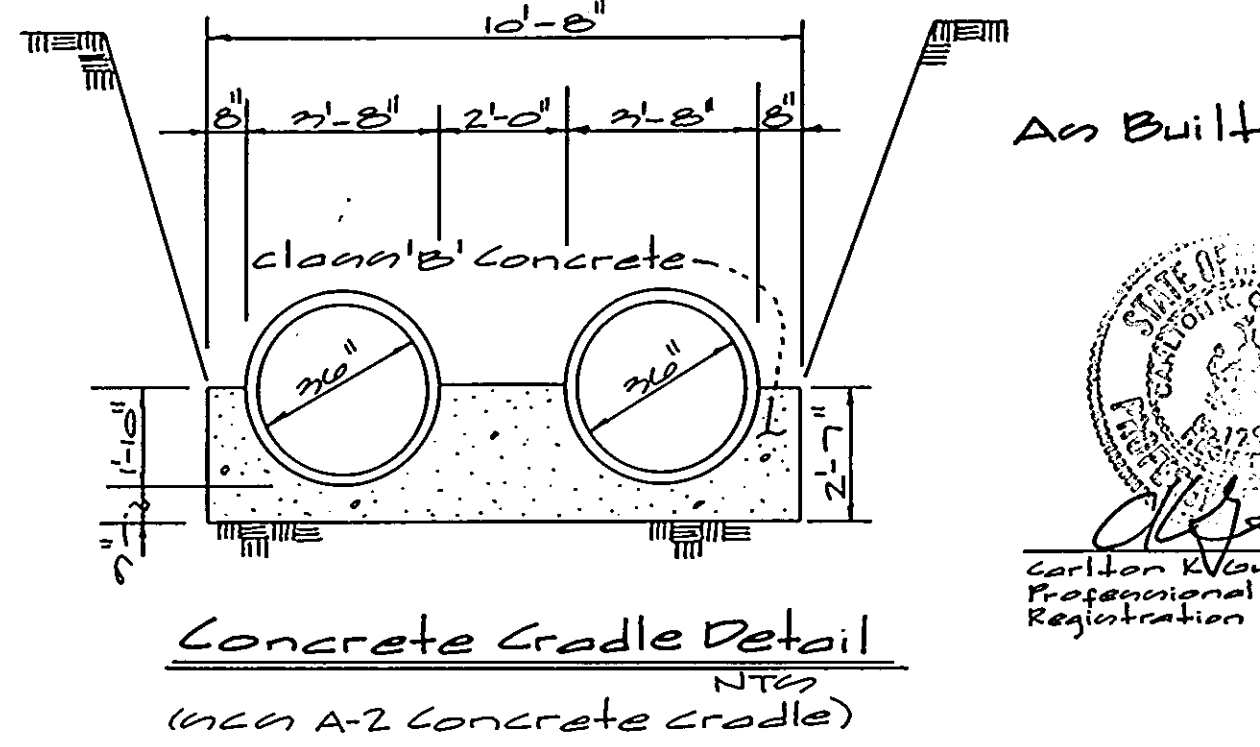
GDP 99-54

Summary Table

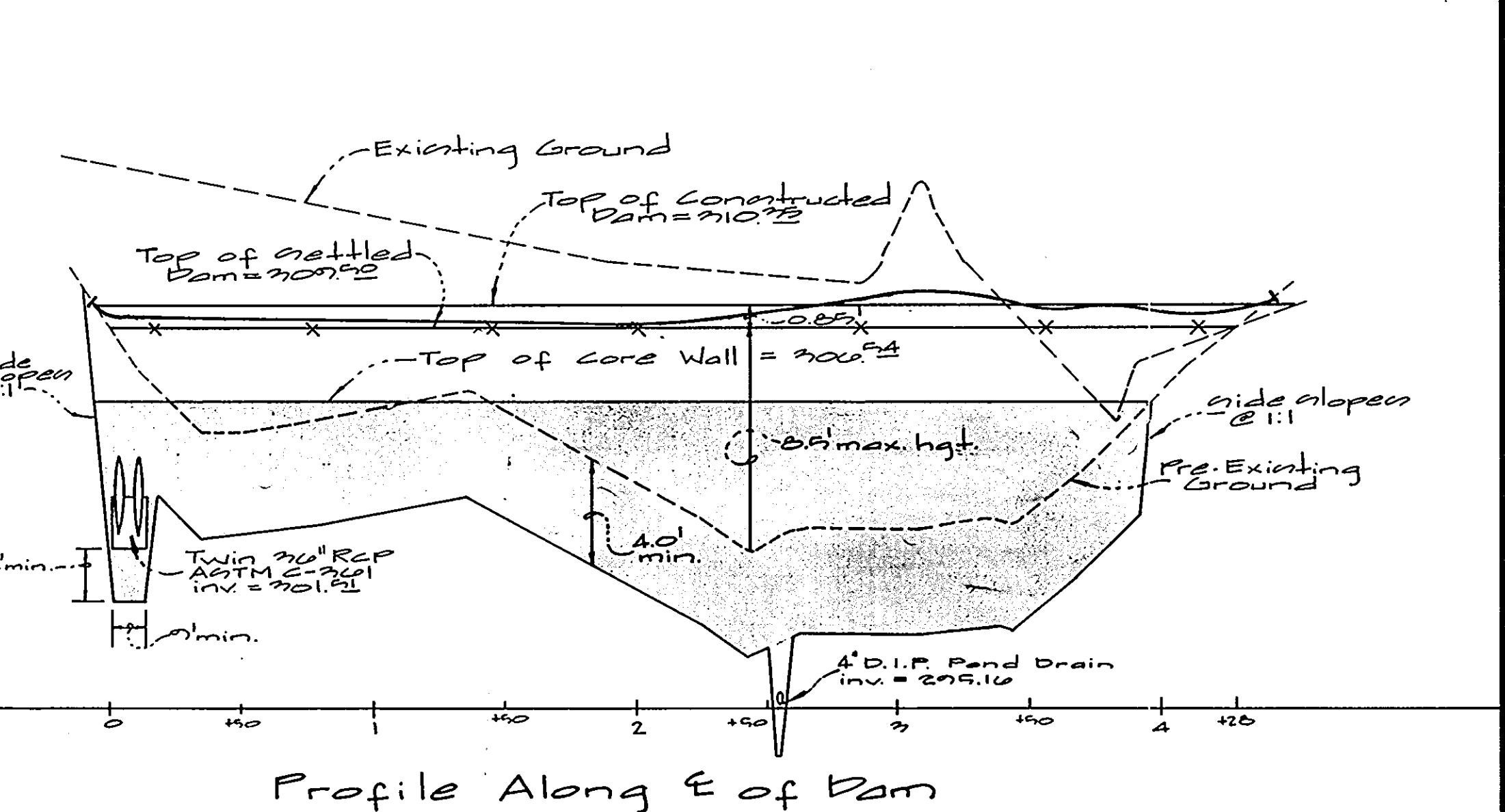
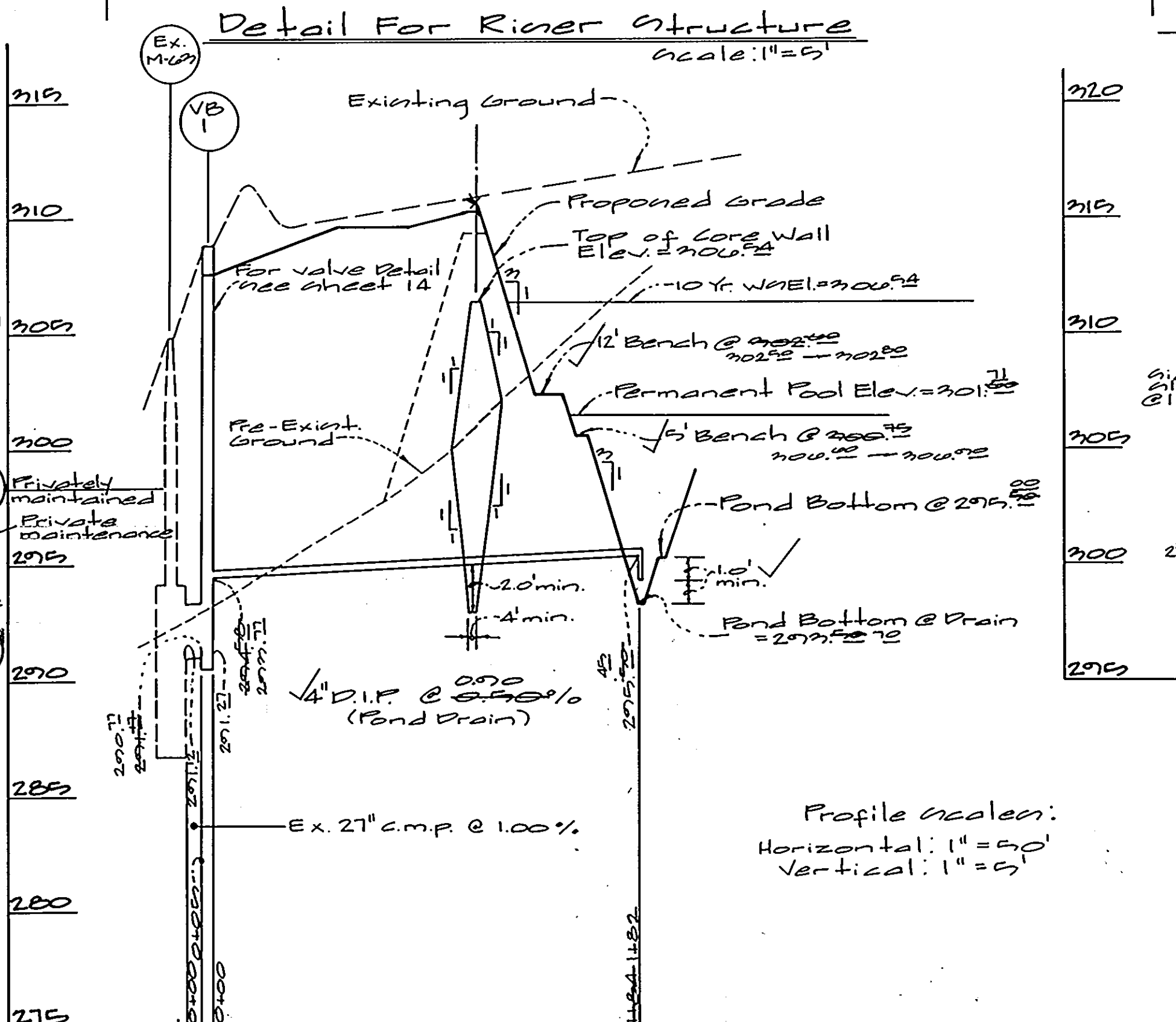
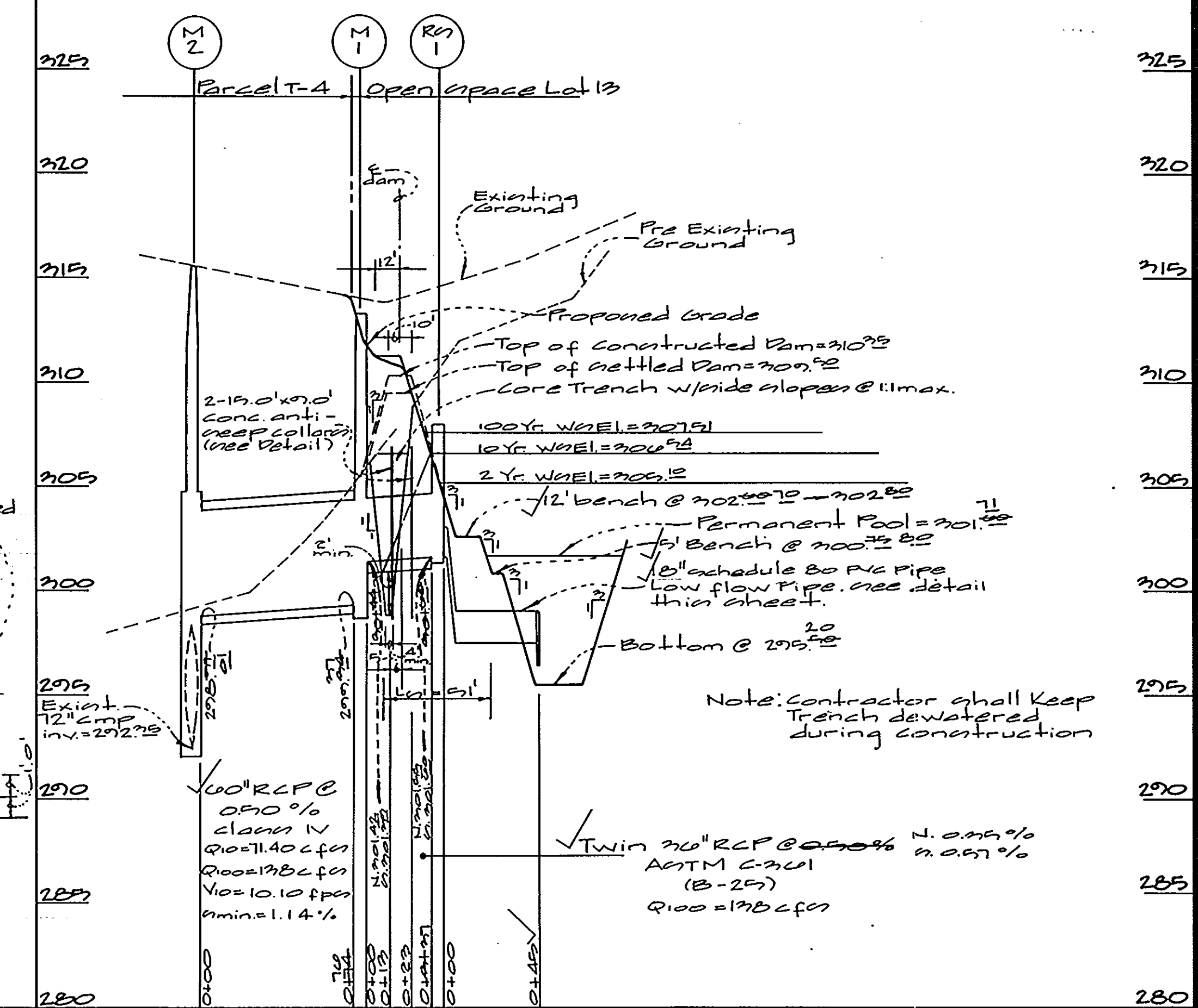
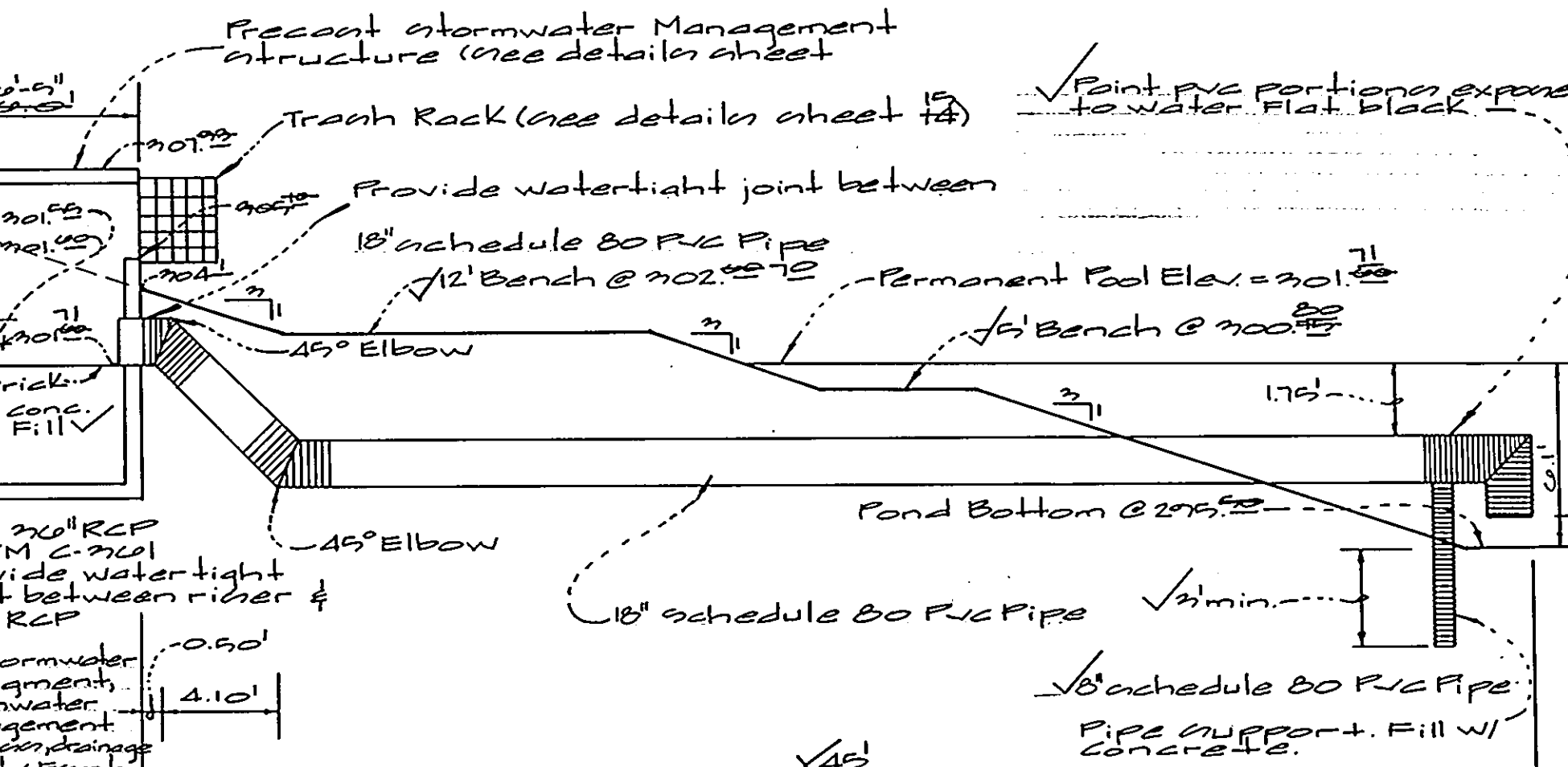
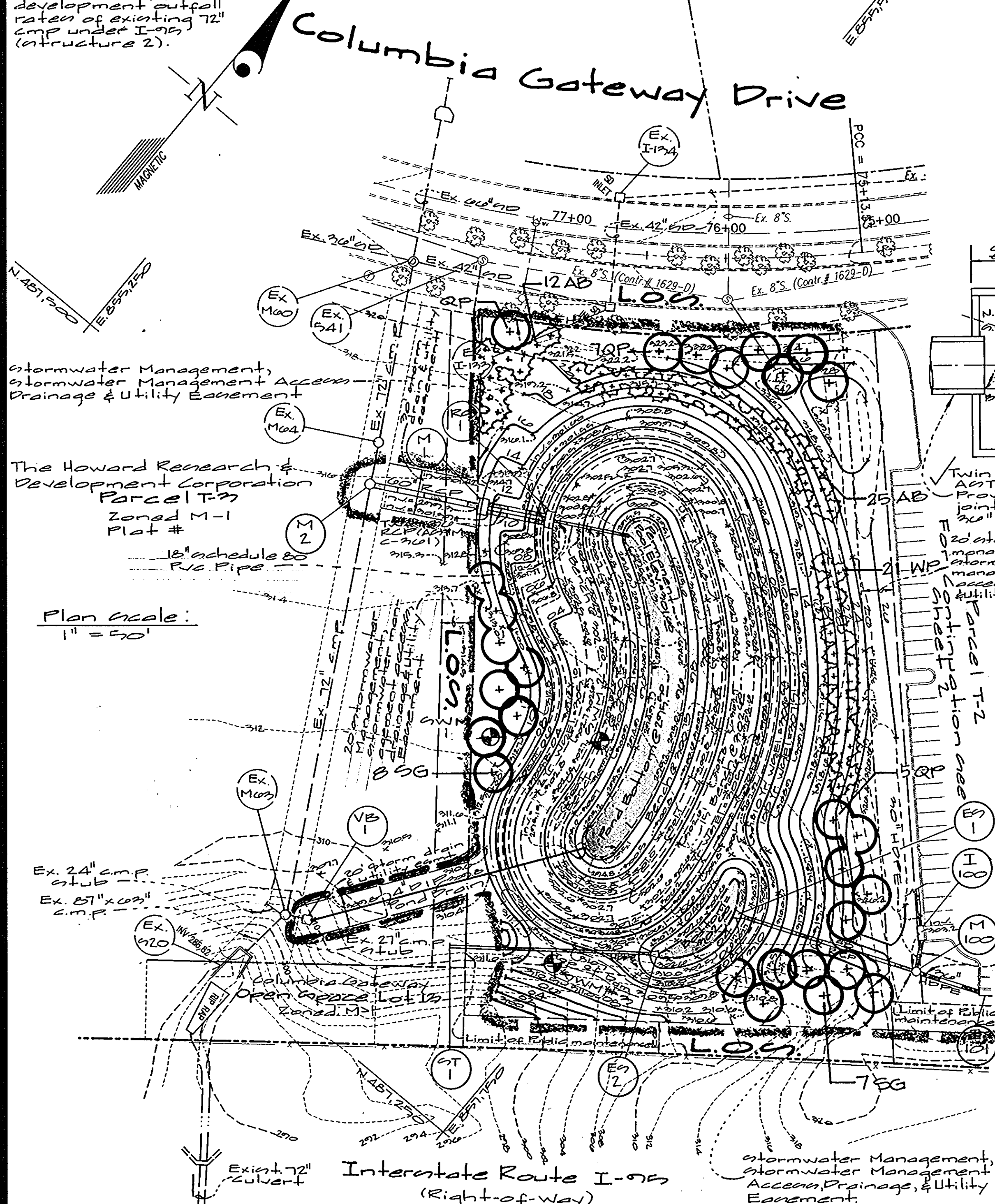
Storm Release	Allowable Inflow	Discharge	Elev. Storage
2Yr	* 87 cfs	14 cfs	205.10 2.43 Ac.ft.
10Yr	* 159 cfs	71 cfs	200.54 3.72 Ac.ft.
100Yr	* 220 cfs	137 cfs	201.51 4.71 Ac.ft.

* Allowable release rate determined by pre-development outfall rates of existing 72" c.m.p. under I-95 (structure 2).

Pond Notes:
 A. Water quantity control is provided by a hazard class A retention facility.
 B. Water quality is provided by a wet pool.
 C. This facility is to be publicly maintained.



As Built
 Carleton K. Vukobratich
 Professional Engineer
 Registration No. 12975
 1-18-01 Date



Developer's/Builder's Certificate
 I/We certify that the landscaping shown on this plan will be done according to the plan section 10.124 of the Howard County code and the Howard County Landscaping Manual. I/We further certify that upon completion of a certification of Landscaping Installation, accompanied by an executed one guarantee of plant materials, will be submitted to the Department of Planning and Zoning.
 Name: Michael J. Miller Date: 2/18/99

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Supervisor: [Signature] Date: 3/3/99
 Chief, Division of Land Development: [Signature] Date: 3/3/99
 Chief, Development Engineering Division: [Signature] Date: 3/2/99

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small-pond construction, soil erosion and sediment control.
[Signature] Date: 2/25/99
 Natural Resources Conservation Service

These Plans for small-pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
[Signature] Date: 2/25/99
 Howard Soil Conservation District

ENGINEER'S CERTIFICATE
 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.
[Signature] Date: 2-2-99

DEVELOPER'S/BUILDER'S CERTIFICATE
 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 Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.
[Signature] Date: 2/8/99
 Signature of Developer/Builder

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONTVILLE OFFICE PARK
 BURTONTVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
11/21/98	As Built	WJ	WJ
11/21/98	Add maint. notes & change pipe from c.m.p. to sch. 80 pvc	WJ	WJ

Owner Parcel T-1:
 Orix Gateway Columbia, LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago, IL 60600
 (312) 600-0445

STORMWATER MANAGEMENT PLAN & DETAILS
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 13462 thru 13464 & Plat No. 18710
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
As shown	M-1	98067
DATE	TAX MAP - GRID	SHEET
NOVEMBER 1998	43-1,2,8	14 OF 22

STANDARD AND SPECIFICATIONS FOR TOPSOIL DEFINITION

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

PURPOSE

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

CONDITIONS WHERE PRACTICE APPLIES

- I. This practice is limited to areas having 2:1 or flatter slopes where:
 - a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplied of moisture and plant nutrients.
 - c. The original soil to be vegetated contains material toxic to plant growth.
 - d. The soil is so acidic that treatment with limestone is not feasible.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

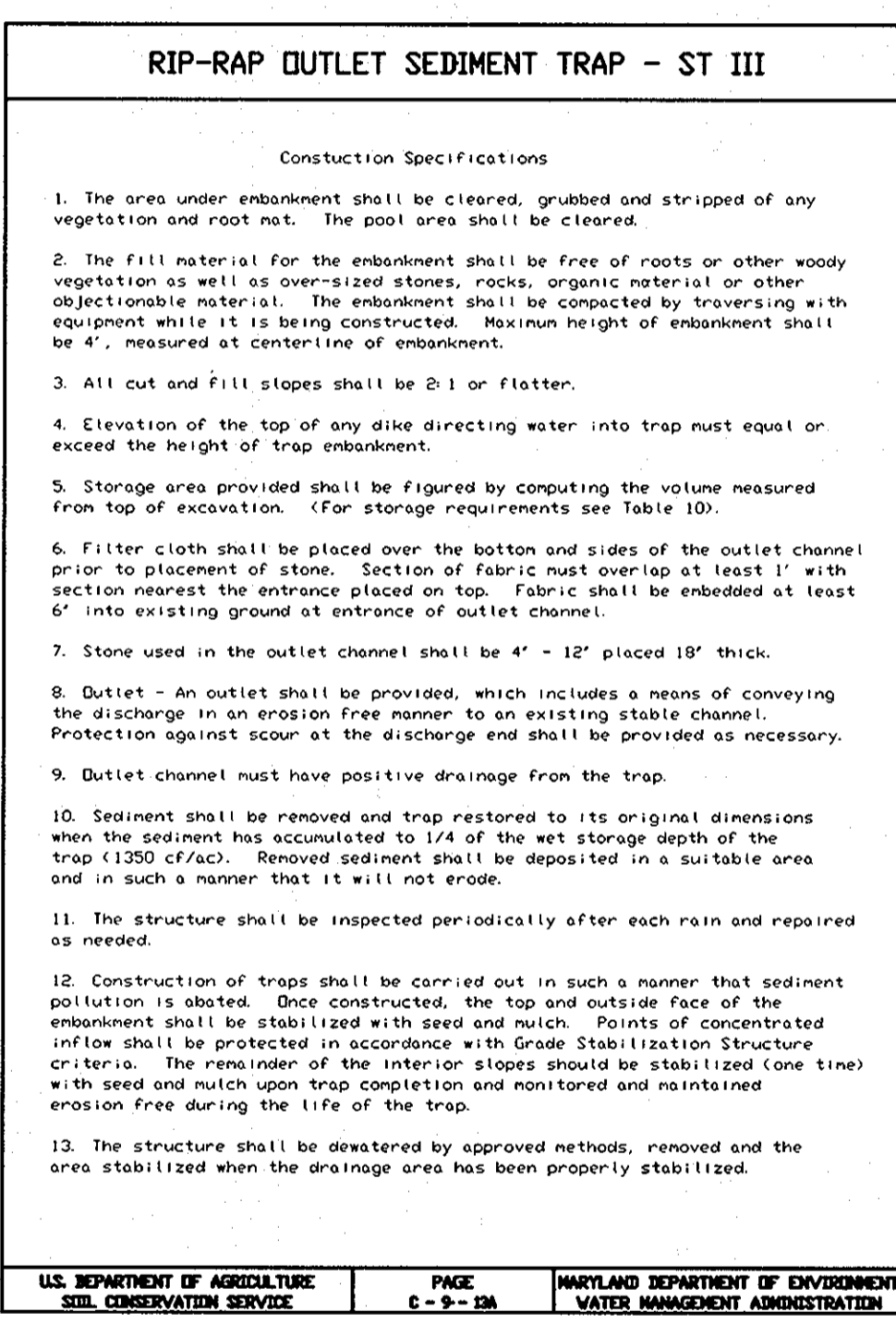
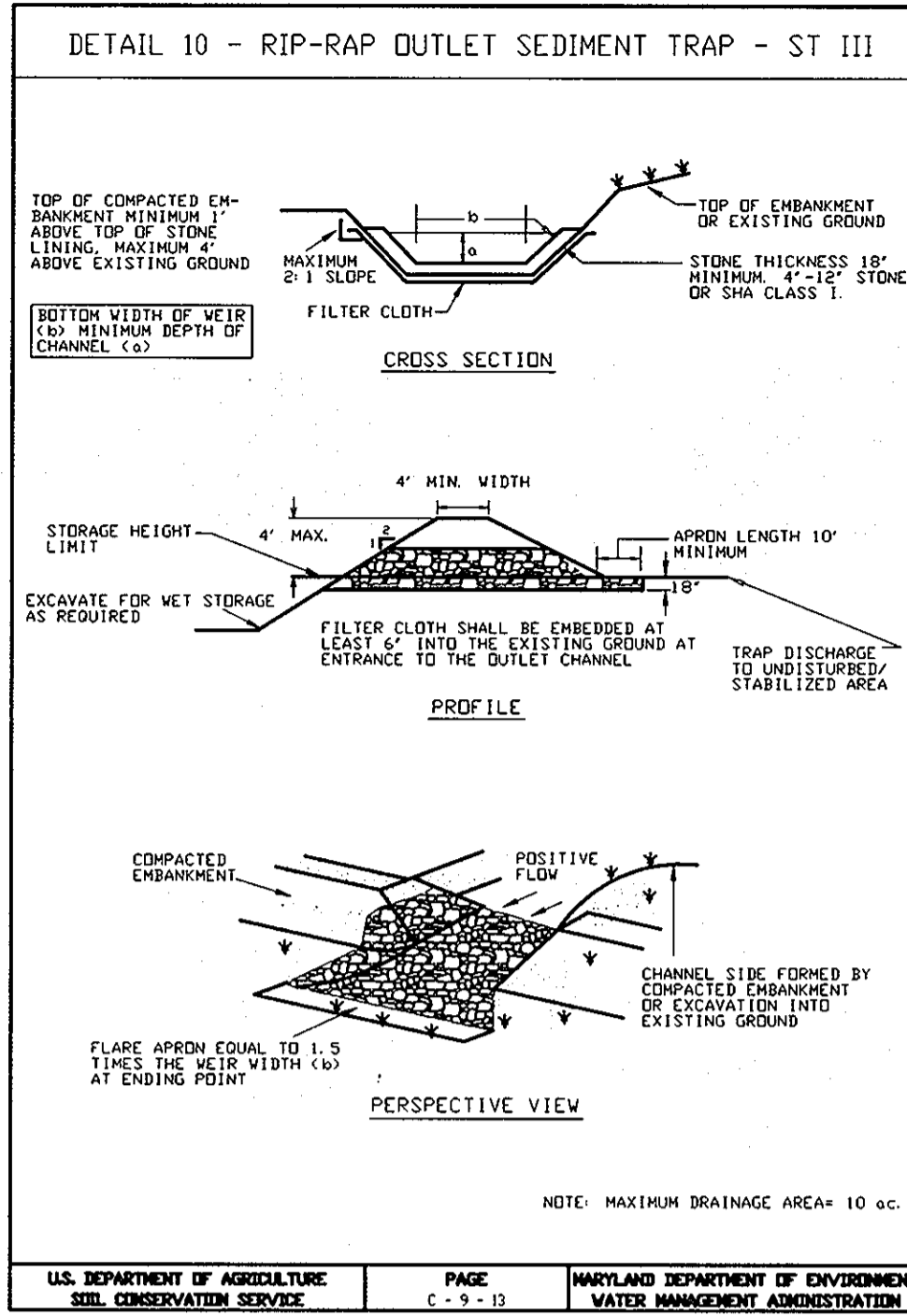
- I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the respective soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.
 - i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - ii. Topsoil must be free of plant parts such as bermuda grass, quackgrass, johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
 - iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- II. For sites having disturbed areas under 5 acres:
 - i. Place topsoil (if required) and apply soil amendments as specified in 2.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
- III. For sites having disturbed areas over 5 acres:
 - i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - a. pH for topsoil shall be between 6.0 and 7.5. If

- b. Organic content of topsoil shall be not less than 1.5 percent by weight.
 - c. Topsoil having soluble salt greater than 500 parts per mill shall not be used.
 - d. No sod or seed shall be placed on soil which has been with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of photo-toxic materials.
- Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
- ii. Place topsoil (if required) and apply soil amendments as specified in 2.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

- V. Topsoil Application
- i. When topsoiling, maintain needed erosion and sediment control practices such as diversion, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
 - ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
 - iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water.
 - iv. Topsoil shall not be placed while the topsoil or subsoil is frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

- VI. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
- i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
 - a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
 - ii. Composted sludge shall be amended with a potassium fertilizer applied at a rate of 4lb/1,000 square feet, and 1/3 the normal lime application rate.

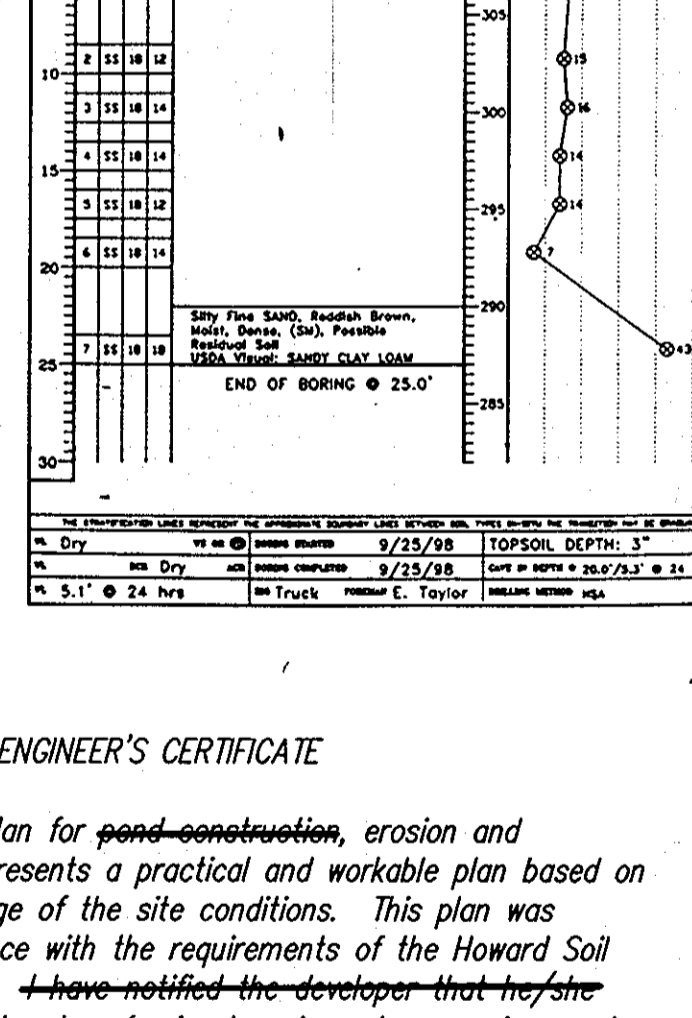
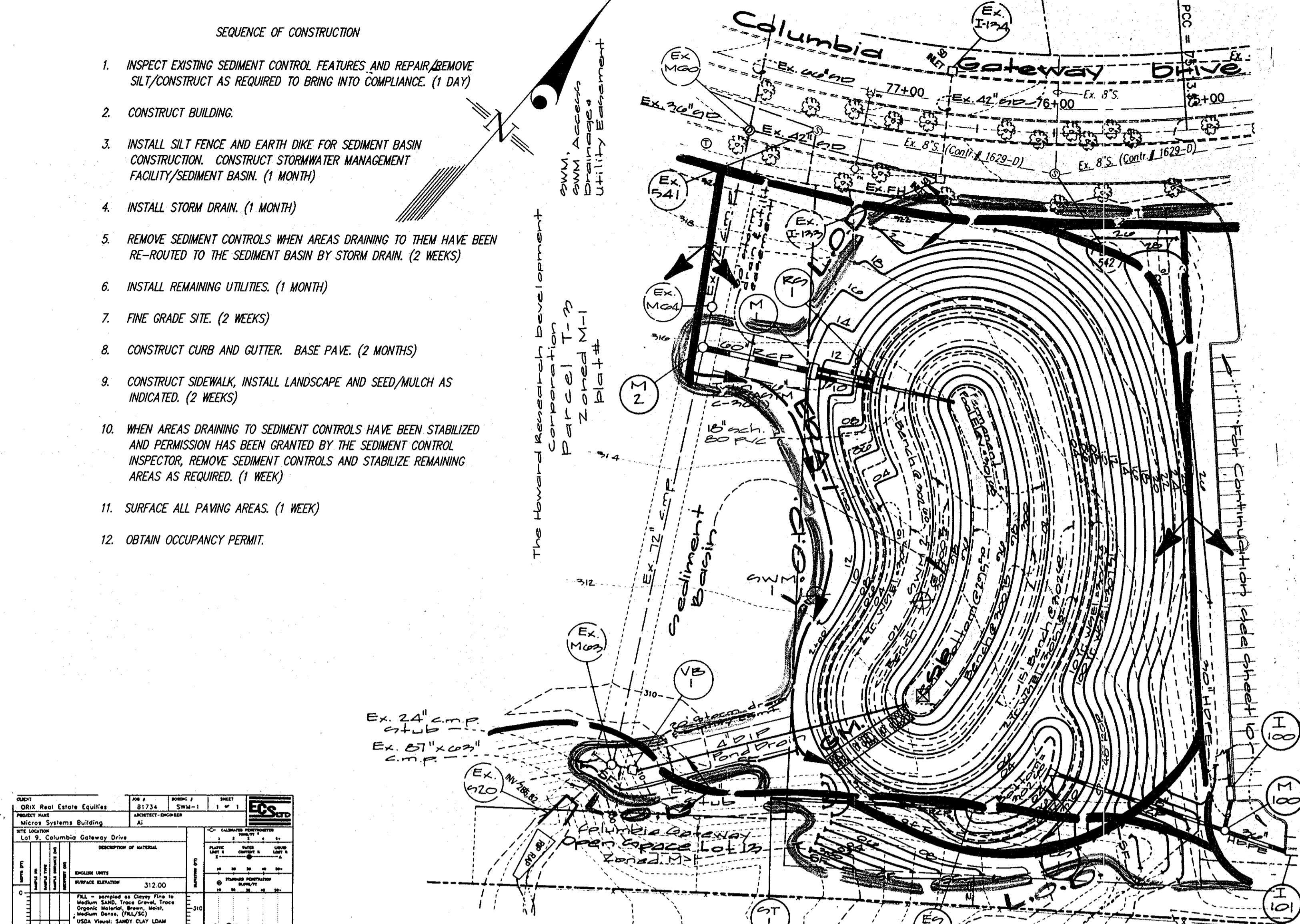
References: Guideline Specifications, Soil Preparation and Sodding, MD-VA Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.



DEVELOPER'S/BUILDER'S CERTIFICATE

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

Signature of Developer/Builder: *Michael J. ...* Date: 2/8/99



ENGINEER'S CERTIFICATE

"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."

Signature: *John P. ...* Date: 2/25/99

Basin Data:

Drainage Area	29.1 Ac.
Storage Required	104,760 cu. ft.
Storage Provided	291,000 cu. ft.
clean out elevation	298.92
Top of Dam	309.50
Bottom Elevation	295.50
River Crest Elevation	305.10
Permanent Pool Elevation	301.00

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

Signature: *John P. ...* Date: 2/25/99

Signature: *Paul ...* Date: 2/25/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-885-1820 DC/VA: 301-959-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
12-22-98	Rev. Per. To Co. Comments	WSJ	WSJ
01-10-99	Change owner info. added ONE Ph. II sequence of construction	WSJ	WSJ
2-20-99	Change Allowance to 200.00	WSJ	WSJ

PREPARED FOR: Owner Parcel T-1, Columbia Gateway, LLC, 100 N. Riverside Plaza, Suite 400, Chicago, IL 60606

Sediment Control Plan, Details & Soils Boring Profiles

COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
PLAT 13402 thru 13404
& Plat No. 18710

SCALE: AS SHOWN ZONING: M-1 G. L. W. FILE No.: 98067

DATE: NOVEMBER 1998 TAX MAP - GRID: 43-1,2,7,8 SHEET: 11 OF 24

ELECTION DISTRICT No. 6 HOWARD COUNTY, MARYLAND

PLANT MATERIALS AND PLANTING METHODS

A. Plant Materials

The landscape contractor shall furnish and install and/or dig, ball, burlap and transport all of the plant materials called for on drawings and/or listed in the Plant Schedule.

1. Plant Names

Plant names used in the Plant Schedule shall conform with "Standardized Plant Names," latest edition.

2. Plant Standards

All plant material shall be equal to or better than the requirements of the "USA Standard for Nursery Stock" latest edition, as published by the American Association of Nurserymen (hereafter referred to as AAN Standards). All plants shall be typical of their species and variety, shall have a normal habit of growth and shall be first quality, sound, vigorous, well-branched and with healthy, well-furnished root systems. They shall be free of diseases, insect pests and mechanical injuries.

All plants shall be nursery grown and shall have been grown under the same climate conditions as the location of this project for at least two years before planting. Neither heeled-in plants nor plants from cold storage will be accepted.

3. Plant Measurements

All plants shall conform to the measurements specified in the Plant Schedule as approved by the ARC.

a. Caliper measurements shall be taken six inches (6") above grade for trees under four-inch (4") caliper and twelve (12") above grade for trees four inches (4") or over.

b. Minimum branching height for all trees shall be six feet (6), maximum eight feet (8).

c. Minimum size for planting shade trees shall be 3-3 1/2" caliper, 14'-16" in height.

d. Minimum size for planting minor or intermediate focus trees (vines, crabapples, etc.) shall be 3"-3 1/2" caliper, 10'-12" in height.

e. Minimum size for planting shrubs shall be 18" - 24" spread unless noted otherwise.

f. Caliper, height, spread and size of ball shall be generally as follows:

CALIPER	HEIGHT	SPREAD	SIZE OF BALL
3"	3'-1/2"	14'-16"	6"-8" diameter
3 1/2"	4'	14'-16"	8"-10" diameter
4"	4 1/4"	16'-18"	8"-10" diameter
4 1/2"	5'	16'-17"	10"-12" diameter
5"	5 1/2"	16'-20"	10"-12" diameter
5 1/2"	6'	18'-20"	12'-14" diameter

All plant material shall generally average the median for the size ranges indicated above as indicated in the "AAN Standards".

4. Plant Identification

Legible labels shall be attached to all shade trees, minor trees, specimen shrubs and bushes or boxes of other plant material giving the botanical and common names, size and quantity of each. Each shipment of plants shall bear certificates of inspection as required by Federal, State and County authorities.

5. Plant Inspection

The ARC may, upon request by the builder or developer, at least ten (10) days prior to the installation of any proposed plant material, inspect all proposed plant material at the source of origin.

B. Planting Methods

All proposed plant materials that meet the specifications in Section A are to be planted in accordance with the following methods during the proper planting seasons as described in the following:

1. Planting Seasons

The planting of deciduous trees, shrubs and vines shall be from March 1st to June 15th and from September 15th to December 15th. Planting of deciduous material may be continued during the winter months providing there is no frost in the ground and frost-free topsoil planting mixtures are used.

The planting of evergreen material shall be from March 15th to June 15th and from August 15th to December 1st. No planting shall be done when ground is frozen or excessively moist. No frozen or wet topsoil shall be used at any time.

2. Digging

All plant material shall be dug, balled and burlapped (B+B) in accordance with the "AAN Standards".

3. Excavation of Plant Pits

The landscaping contractor shall excavate all plant pits, vine pits, hedge trenches and shrub beds in accordance with the following schedule:

a. Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscape contractor.

b. All pits shall be generally circular in outline, vertical sides; depth shall not be less than 6" deeper than the root ball, diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.

c. If areas are designated as shrub beds or hedge trenches, they shall be excavated to at least 18" depth minimum. Areas designated for ground covers and vines shall be excavated to at least 12" in depth minimum.

d. Diameter and depth of tree pits shall generally be as follows:

PLANT SIZE	ROOT BALL	PIT DIAMETER	PIT DEPTH
3" - 3 1/2" cal.	32"	64"	28"
3 1/2" - 4"	36"	72"	32"
4" - 4 1/2" cal.	40"	80"	36"
4 1/2" - 5"	44"	88"	40"
5" - 5 1/2" cal.	48"	96"	44"
5 1/2" - 6"	52"	104"	48"

A 20% compaction figure of the soil to be removed is assumed and will be allowed in calculation of extra topsoil. The tabulated pit sizes are for purposes of uniform calculation and shall not override the specified depths below the bottoms of the root balls.

4. Staking, Guying and Wrapping

All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

a. Stakes: Shall be sound wood 2" x 2" rough sawn oak or similar durable woods, or lengths, minimum 7'-0" for major trees and 5'-0" minimum for minor trees.

b. Wire and Cable: Wire shall be #10 galvanized or burlapped galvanized steel wire. For trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4" take-up. For trees over 5" caliper, provide 3/16" 7 strand cable, cadmium plated steel, with galvanized "eye" thimbles of wire and hose on trees up to 3" in caliper.

c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D. "Plastic Lock Ties" or "Paul's Trees Braces" may be used in place of wire and hose on trees up to 3" in caliper.

d. All trees under 3" in caliper are to be planted and staked in accordance with the attached "Typical Tree Staking Detail". All trees over 3" in caliper are to be planted and guyed in accordance with the attached "Typical Tree Guying Detail".

5. Plant Pruning, Edging and Mulching

a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice. Broken or bruised branches shall be removed with clean cuts flush with the adjacent trunk or branches. All cuts over 1" in diameter shall be painted with an approved antiseptic tree wound dressing.

b. All trenches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod which has been removed and stacked shall be used to trim the edges of all excavated areas to the neat lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.

c. After cultivation, all plant materials shall be mulched with a 2" layer of fine, shredded pine bark, peat moss, or another approved material over the entire area of the bed or saucer.

6. Plant Inspection and Acceptance

The ARC shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

7. Plant Guarantee

All plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the guarantee period.

a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting season.

b. Guarantee for planting performed after the specified end of the "Spring" planting season, shall be extended through the end of the next following "Spring" planting season.

Sodding

All sodding shall be in accordance to the "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas" latest edition, approved by the Landscape Contractors Association of Metropolitan Washington and the American Society of Landscape Architects.

All sod shall be strongly rooted sod, not less than two years old and free of weeds and undesirable native grasses. Provide only sod capable of growth development when planted and in strips not more than 18" wide x 4" long. Provide sod composed principally of improved strain Kentucky bluegrass, such as, Columbia, Yecto, or Escort.

LANDSCAPING NOTES

- This plan has been prepared in accordance with Section 16.124 of the Howard County Code and Chapter VI (Alternative Compliance) of the Howard County Landscape Manual.
- Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet 1 shall apply.
- Field verify underground utility locations and existing conditions before starting planting work. Contact owner or his representative if any relocations are required.
- Plant quantities shown on Plant List are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
- All plant material shall be full, heavy, well formed, and symmetrical, and conform to the A.A.N. Specifications, and be installed in accordance with project specifications.
- No substitution shall be made without written consent of the owner or his representative.
- All areas disturbed by construction activities but not otherwise planted, paved, or mulched shall be seeded or sodded in accordance with project specifications.
- The contractor shall notify the owner in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.
- All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.
- "Schedule A - Perimeter Landscape Edge", "Schedule B - Parking Lot Internal Landscaping" and "Schedule D - Stormwater Management Area Landscaping" is provided for landscape surety calculation purposes only. Financial surety for the required landscaping has been posted as part of the DPW Developer's Agreement in the amount of \$~~22,222.00~~ \$48,570.00.
- Tabulation for landscape show:

Required planting by HRD for	Provided:	Remaining:
482± sq of R4D use at E. treeless = 525 shade trees (or equivalent)	482± sq of R4D use at E. treeless = 525 shade trees (or equivalent)	0±
Planting provided:	482± sq of R4D use at E. treeless = 525 shade trees (or equivalent)	0±
shade trees	482± sq of R4D use at E. treeless = 525 shade trees (or equivalent)	0±
ornamental trees	482± sq of R4D use at E. treeless = 525 shade trees (or equivalent)	0±
evergreen trees (existing and proposed):	482± sq of R4D use at E. treeless = 525 shade trees (or equivalent)	0±

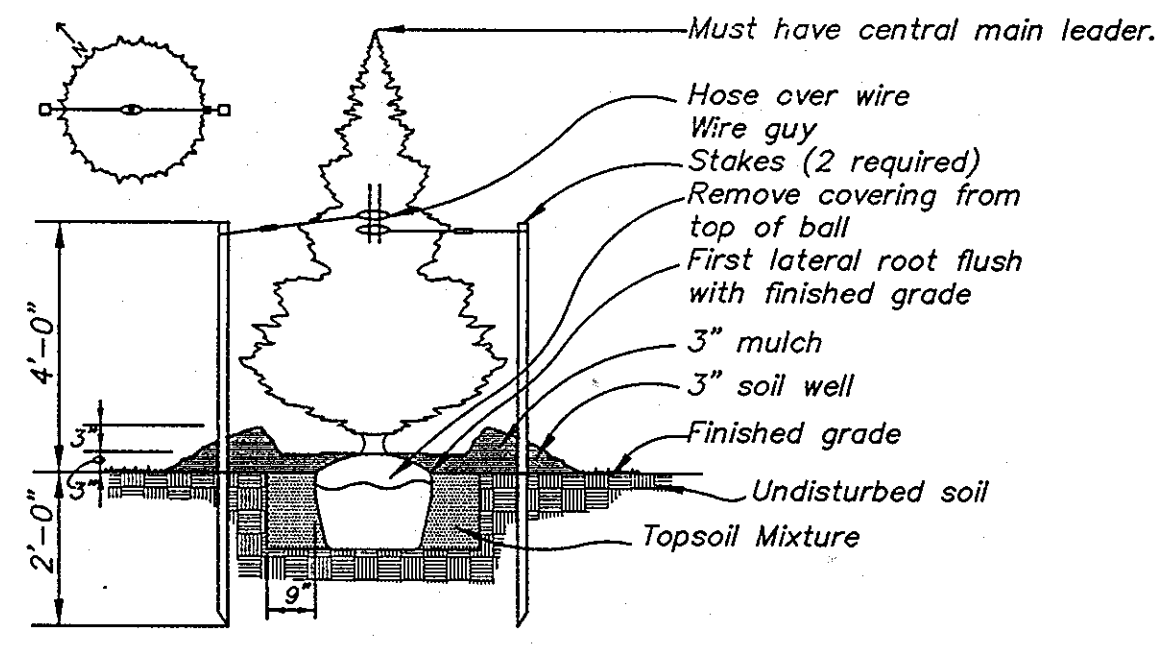
E.S.T. - Equivalent Shade Trees
The proposed shrubs and ground covers are counted towards a portion of the required planting by HRD.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

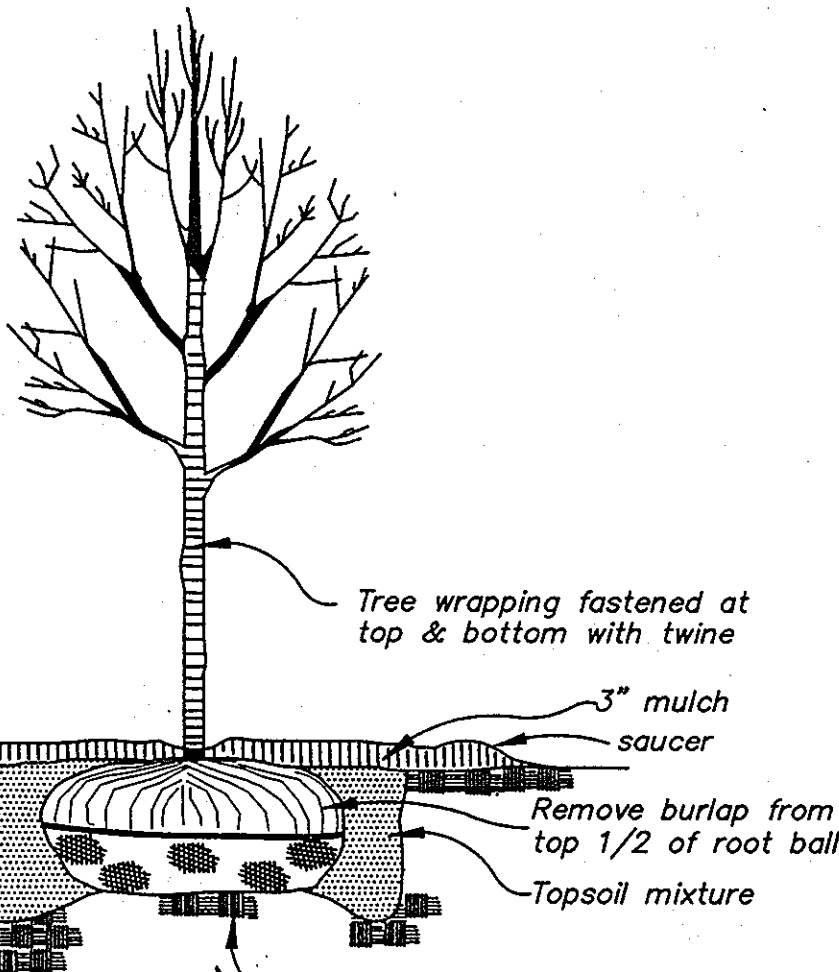
[Signatures and Dates]
Date: 3/3/99
Date: 3/6/99
Date: 3/6/99



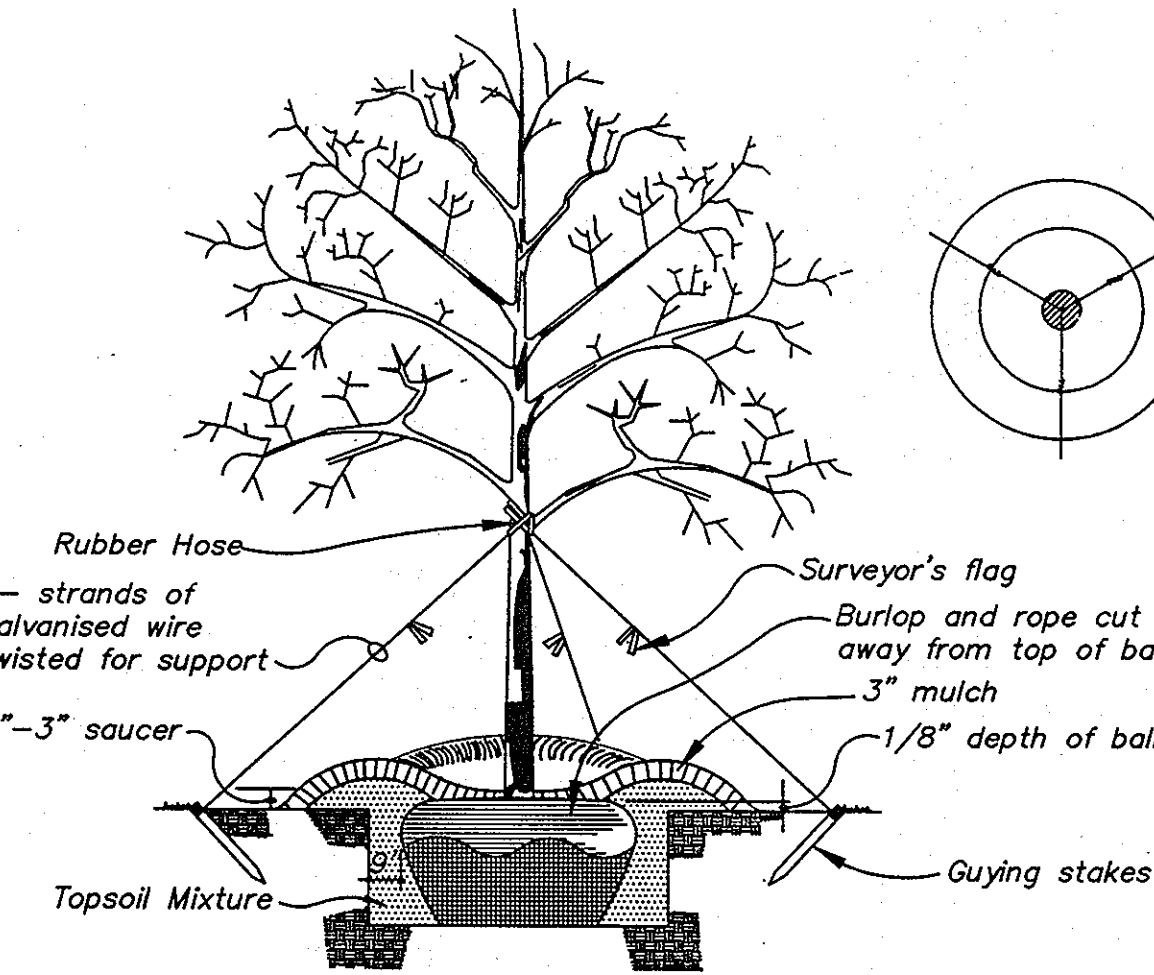
Financial surety for Parcels T-1 & T-2 has been posted as a part of the DPW Developer's Agreement in the amount of \$48,570.00 (Schedule A & B).
Financial surety for Parcel T-5 has been posted as a part of the DPW Developer's Agreement in the amount of \$19,050.00 (Schedule D).



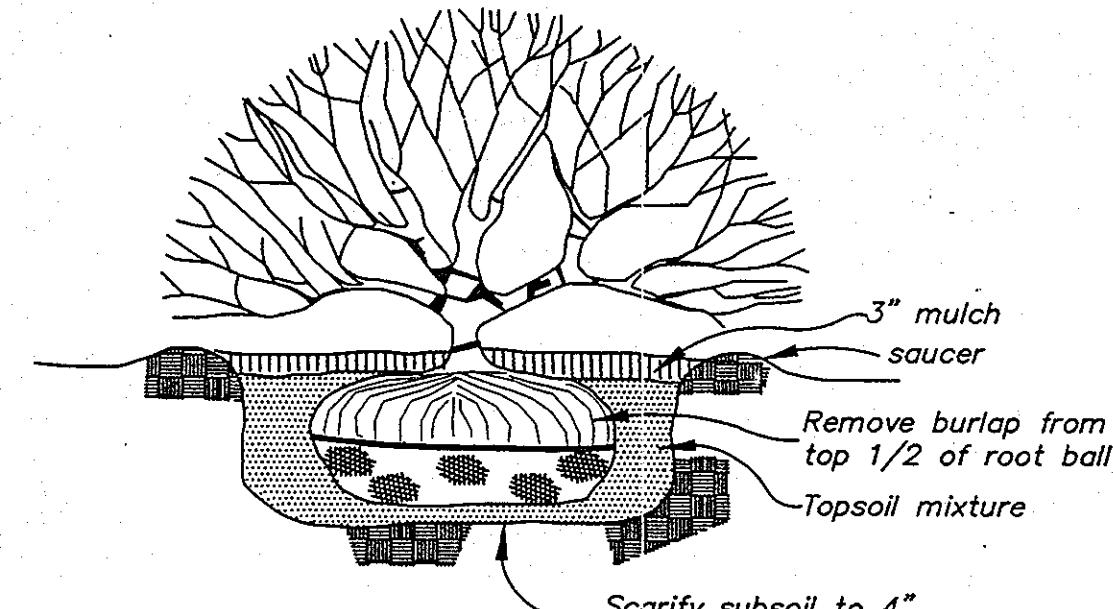
Evergreen Planting Detail



Typical Deciduous Tree Planting



Typical Tree Guying Detail



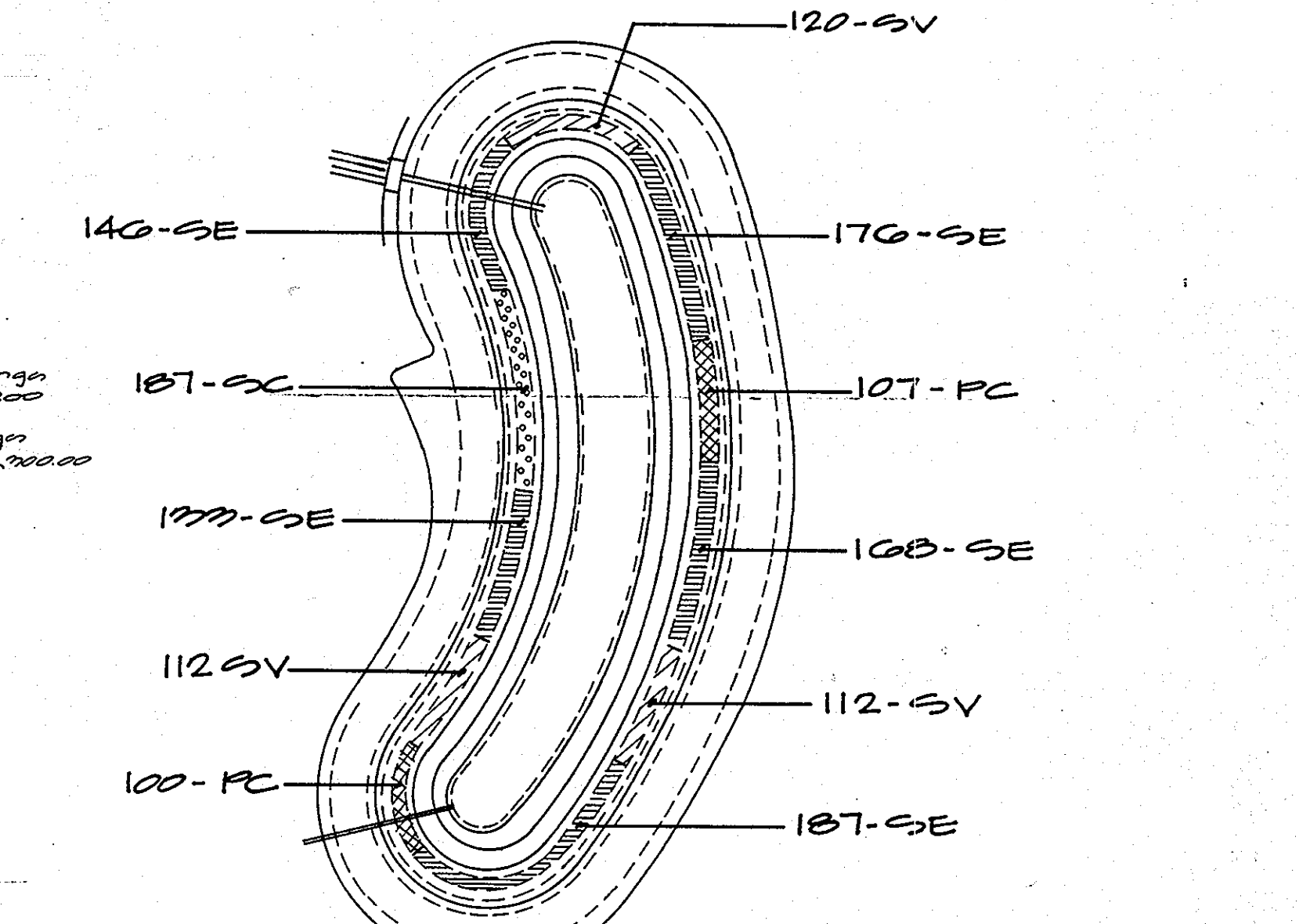
Shrub Planting Detail

SCHEDULE A PERIMETER LANDSCAPE EDGE			
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	REMARKS
LANDSCAPE TYPE	E	N/A	
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	1,075 LF	1,275 LF	N/A
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	No	No	N/A
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	Yes, Berm @ 1/4\"/>		

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING			
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	REMARKS
NUMBER OF PARKING SPACES	400 (T-1)	1210 (T-2)	
NUMBER OF TREES REQUIRED @ 1/2000'	20	61	
NUMBER OF TREES PROVIDED	20	61	
SHADE TREES (2:1 SUBSTITUTION)	0	0	
SHRUBS (10:1 SUBSTITUTION)	20	61	
OTHER TREES (2:1 SUBSTITUTION)	0	0	
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	0	0	
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	0	0	
NUMBER OF TREES PROVIDED	20	61	
SHADE TREES	0	0	
OTHER TREES (2:1 SUBSTITUTION)	20	61	
SHRUBS (10:1 SUBSTITUTION)	0	0	
OTHER TREES (2:1 SUBSTITUTION)	0	0	

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING			
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	REMARKS
LINEAR FEET OF PERIMETER	1200		
NUMBER OF TREES PROVIDED (TYPE B)	0	0	
SHADE TREES (1:50)	0	0	
EVERGREEN TREES (1:40)	0	0	
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	0	0	
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	0	0	
NUMBER OF TREES PROVIDED	0	0	
SHADE TREES	0	0	
OTHER TREES (2:1 SUBSTITUTION)	0	0	

Plant List (Parcels T-1, T-2 & T-5)				
Quan.	Symbol	Botanical Name	Common Name	Remarks
Trees				
180	OGM	Acer saccharum 'Green Mountain'	Green Mountain Maple	2 1/2 - 3" cal., 13-15' hgt.
120	HL	Gleditsia triacanthos inermis 'haloka'	Halka Honeylocust	2 1/2 - 3" cal., 12-14' hgt.
27	ZC	Malus sieboldi zumi	Zumi Crabapple	2 - 2 1/2" cal., 6-8' hgt.
84	AB	Picea abies	Norway Spruce	6-8' hgt. (not sheared)
62	WP	Pinus strobus	White Pine	6-8' hgt.
42	AC	Prunus subhirtella 'Autumnalis'	Autumn Flowering Cherry	2 - 2 1/2" cal., 8-10' hgt.
92	QP	Quercus palustris	Pin Oak	2 1/2 - 3" cal., 12-14' hgt.
15	SG	Liquidambar styraciflua	Sweet Gum	2 1/2 - 3" cal., 13-15' hgt.
67	PO	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	2 1/2 - 3" cal., 12-14' hgt.
Shrubs				
188	EA	Euonymus alatus	Winged Euonymus	18-24" plant 3' oc.
94	IOC	Ilex glabra compacta 'Shamrock'	'Shamrock' Inkberry Holly	18-24" plant 3' oc.
76	IM	Ilex meserriana 'Blue Girl'	'Blue Girl' Holly	18-24" plant 3' oc.
264	JCF	Juniperus conferta 'Blue Pacific'	'Blue Pacific' Shore Juniper	15-18" plant 3' oc.
49	TW	Taxus Wardii	Wardii Yew	15-18" plant 2'-6" o.c.
Groundcover				



KEY	QTY	NAME (COMMON/BOTANICAL)	REMARKS
PC	207	Pickeral Weed/ Ponderosa cordata	Bar Root @ 18" O.C.
SC	187	Lizards Tail/ Saururus cernuus	Bar Root @ 18" O.C.
SE	810	Giant Bur-reed/ Sparganium eurycarpum	Bar Root @ 18" O.C.
SV	344	Soft Stem Bullrush/ Scirpus validus	Bar Root @ 18" O.C.

SWM Planting Detail

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
BURTNSVILLE, MARYLAND 20886
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186
DRAWINGS: 198067, 198067L.DWG

DATE	REVISION	BY	APPR.
11/20/01	Revise owner information	WBJ	
1/20/02	Revise Landscape Plant List & Schedule B	WBJ	
1/20/02	Revise Landscape Schedule B and Coordinate Plant List	GT	

LANDSCAPE NOTES, DETAILS & SCHEDULES

COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
PLAT 13462 thru 13464 & Plat No. 18716
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
ZONING M-1
G. L. W. FILE No. 98067
DATE NOVEMBER 1998
TAX MAP No. 43-1,2,7,8
SHEET 7 of 22

ELECTION DISTRICT No. 6

98067 99-54

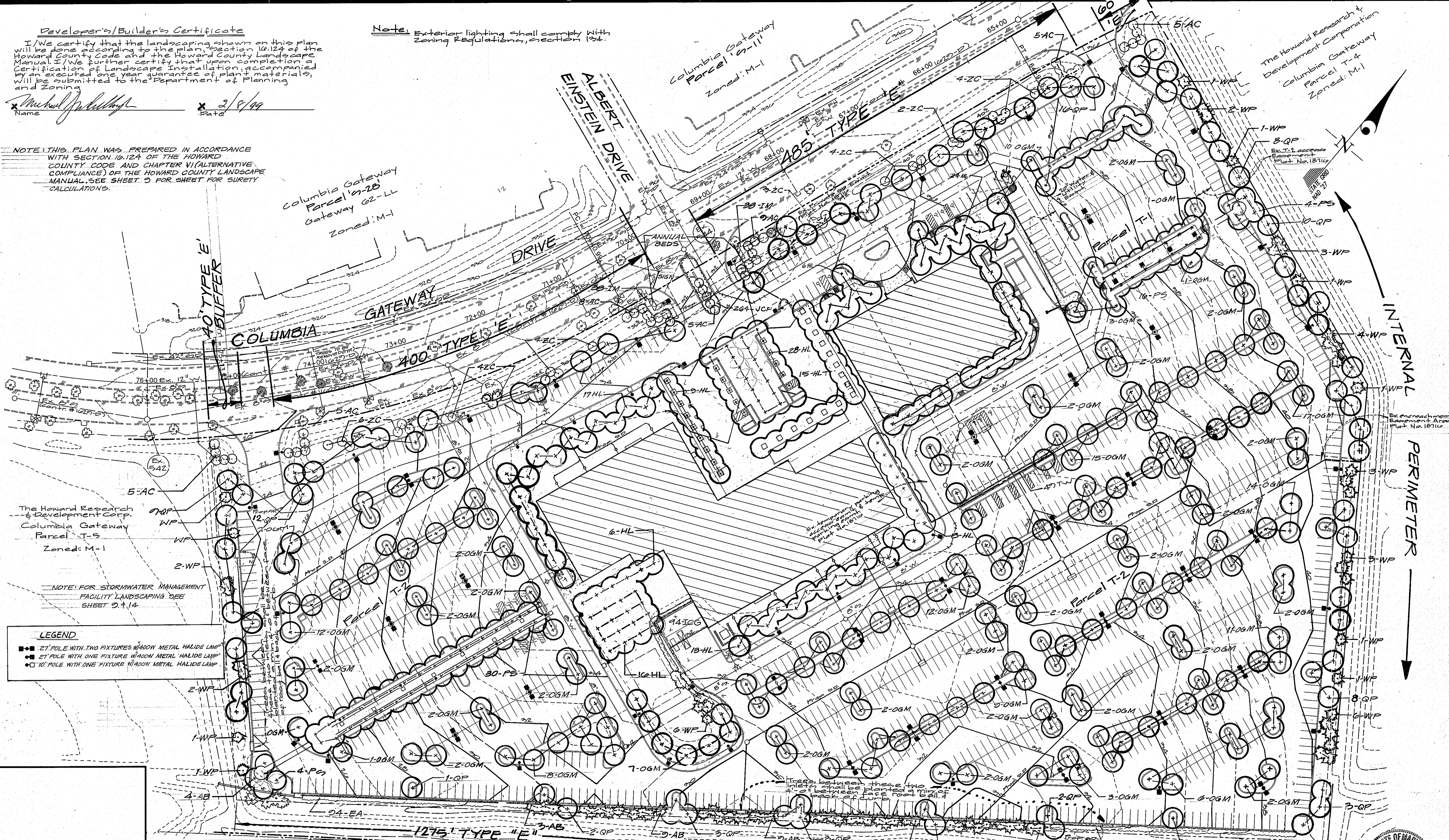
Developer's/Builder's Certificate

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a Certification of Landscape Installation, accompanied by an executed one year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

Michael J. [Signature] Name Date 2/8/99

Note: Exterior lighting shall comply with Zoning Regulations, Section 134.

NOTE: THIS PLAN WAS PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND CHAPTER VI (ALTERNATIVE COMPLIANCE) OF THE HOWARD COUNTY LANDSCAPE MANUAL. SEE SHEET 3 FOR SHEET FOR SURETY CALCULATIONS.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 3/3/99 Date
 [Signature] 3/2/99 Date
 [Signature] 3/2/99 Date

Interstate Route 95 Right-of-Way
 NOTE: THIS PLAN IS FOR LANDSCAPING & LIGHTING PURPOSES ONLY!

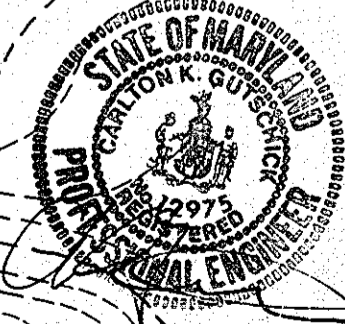
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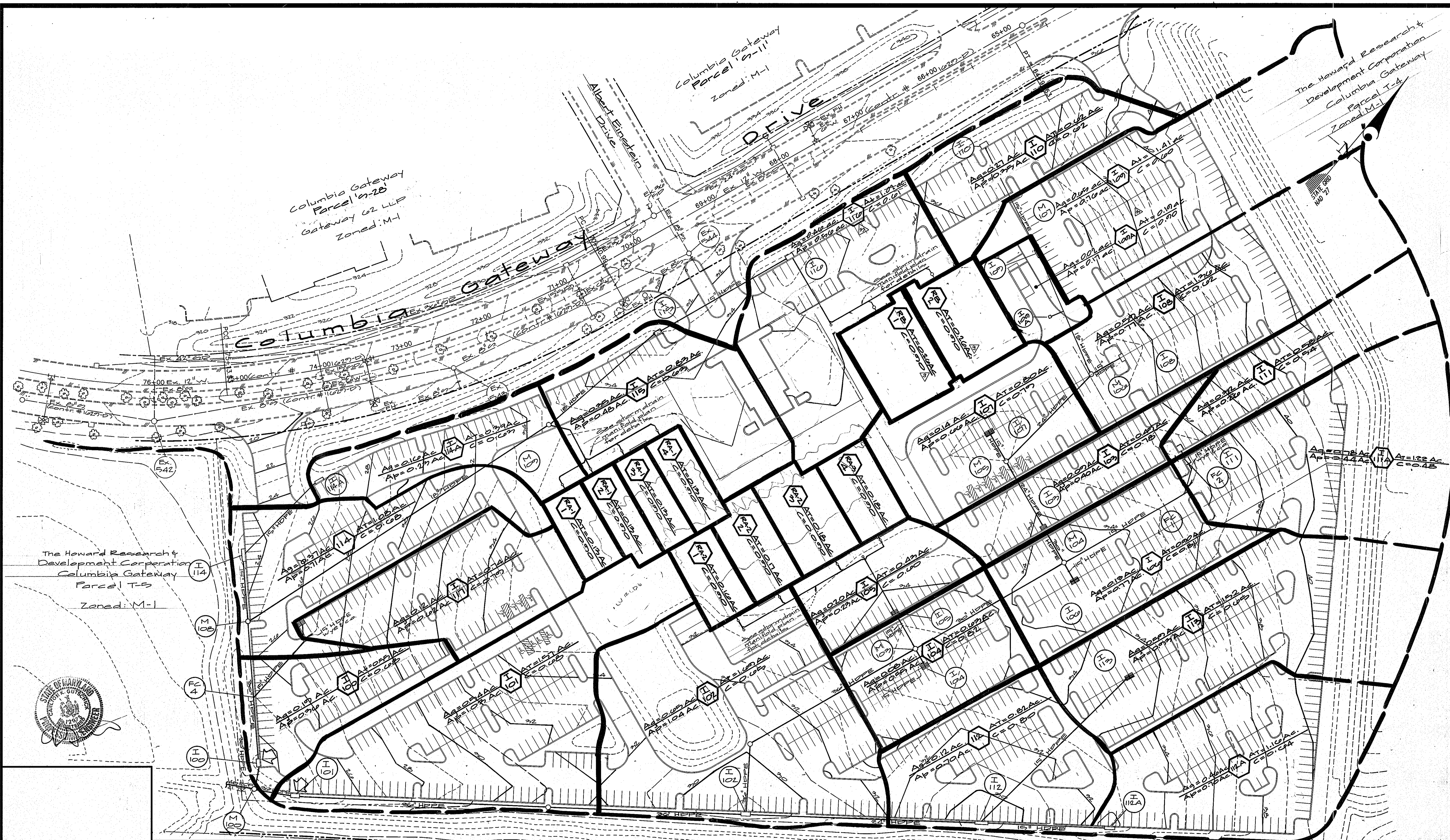
DATE	REVISION	BY	APPR.
7/21/00	REVISE PARCEL T-1 LANDSCAPE		
7/21/01	REVISE LANDSCAPING FOR CERTIFICATION		
1/6/99	REVISE LANDSCAPING		

OWNER PARCEL T-1
 ORIG. GATEWAY, COLUMBIA, LLC
 100 N. RIVERSIDE PLAZA
 SUITE 400
 CHICAGO, IL 60606
 (312) 664-6445

LANDSCAPE & LIGHTING PLAN
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 13462 thru 13464
 & Plat No. 18716
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	M-1	98067
DATE	TAX MAP - GRID	SHEET
November, 1998	43 - 1,2,7,8	8 OF 22





APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

James Butler 3/3/99
Director Date

Chris Hanta 3/3/99
Chief, Division of Land Development Date

Mike Vanaman 3/2/99
Chief, Development Engineering Division Date

Interstate Route 95 Right-of-Way

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
02/1/99	Rev drainage divides for T-1 building and loading area	wj	
12/22/98	Rev Per Ho Co Comments	wj	

Owner Parcel T-1
Orix Gateway Columbia, LLC
100 N. Riverside Plaza
Suite 400
Chicago, IL 60606
(312) 669-0445

Stem Drain Drainage Area Map
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
Flat No. 13402 thru 13404
& Flat No. 18710

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	M-1	98067
DATE	TAX MAP - GRID	SHEET
November 1998	43 - 1,2,7,8	21 OF 22

GDP 99-54

POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of these plans. 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, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

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, slumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification Cc, Sc, Ch or Cl. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement - Area on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated in to the embankment.

Compaction - 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 sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it 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. All compaction is to be determined by AASHTO Method T-99.

Cut Off Trench - The cutoff 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 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining 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. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. **Materials** - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plasti-Cote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Material - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. **Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe.** Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. **Connections** - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe & riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled on adequate number of corrugations to accommodate the band width. The following pipe connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hugger type band with 0-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

4. **Bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. **Backfilling shall conform to "Structure Backfill".**
6. **Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.**

Reinforced Concrete Pipe - All of 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-301.
2. **Bedding** - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up 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 pipe** - 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. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.

Structure Backfill

4. Backfilling shall conform to "Structure Backfill".
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. **Materials** - PVC pipe shall be PVC - 1120 or PVC - 1220 conforming to ASTM D-1785 or ASTM D-2241.
2. **Joints and connections to anti-seep collars shall be completely watertight.**
3. **Bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. **Backfilling shall conform to "Structure Backfill".**
5. **Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.**

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

Rock Riprap

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

The rip rap 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 with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

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 areas 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. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

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 stabilized by seeding, liming, fertilizing 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.

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.

SEDIMENT CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (410) 313-1855
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
3. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seedings and mulching (Sec. G). Temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. **Site Analysis:**
Total Area of Site : 15.77 Acres
Area Disturbed : 31.5 Acres
Area to be roofed or paved : 14.7 Acres
Area to be vegetatively stabilized : 17.2 Acres
Total Cut : 20,000 Cu. Yds.
Total Fill : 20,000 Cu. Yds.
Off-site waste/borrow area location: N/A
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
11. Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within 1 working day, whichever is shorter.

PERMANENT SEEDING NOTES

Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaformal fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (14 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs/1000 sq ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted, weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

STORMWATER MANAGEMENT FACILITY OPERATIONS AND MAINTENANCE GUIDELINES

Operations:

1. Owner shall keep accurate records of inspections and maintenance type repairs. These records should also include a copy of the "as-built" plans and small pond summary sheet.
2. Owner shall make a visual inspection of the facility at least twice a year. Once in the summer after the facility has been mowed and during the winter when the vegetation is inactive. Additional inspections shall be made during and after extreme rainfalls.
3. During the extreme weather or rainfall events, the owner shall check for overtopping, seepage, or dam failure. In order to avoid overtopping, either place sandbags on top of the embankment or lower the water elevation by using a dewatering device.
4. If a severe problem develops, the owner shall contact a Professional Engineer to assess the problem and make a suggestion to remedy the situation. The Howard Soil Conservation District or Maryland Dam Safety Division shall be contacted before major repairs are made.

Maintenance

During the semi-annual visual inspections, the following items must be checked and documented by the owner:

I. Spillways and Outlet Device

1. Pipes - check for sagging, misalignment, gaps at joints, cracks, leaks, and wear along inside surface of pipes. Also remove any blockages.
2. Trash Racks - inspect and replace if necessary. Actual time for removal of trash racks should be limited. Trash racks shall be painted once a year.
3. Concrete Surfaces - check for cracks or any other signs of failure.
4. Forebay and Spillway - check for stone & wire mesh deterioration or loss and spillway failure.
5. Rip Rap Outlet - check for stone deterioration or stone loss.
6. Dewatering Device - remove blockages.

II. Embankments

1. Vegetation - proper vegetative cover is required on all embankments. The owner shall follow proper seeding specifications for reseeding.
2. Trees and Brush - trees and brush shall be removed from the embankment. Stumps can be removed using silvicide.
3. Mowing - mowing is necessary to control the establishment of woody growth and to maintain the vegetative cover. The embankment, a 25-foot wide (except in wetland/stream buffers) strip adjacent to the toe, upstream and downstream of the embankment, and the area within 50 feet of the control structures need to be mowed. Mowing shall be done at least once a year (mid to late summer) but may be done more often.
4. Seepage - the following warning signs should be looked for when inspecting for seepage problems: cracks (longitudinal and vertical), soft spots or boggy areas on downstream embankment, seepage along downstream toe of embankment.
5. Stability - large cracks, slides, sloughing and excessive settlement are signs of embankment instability and a need for repair. Repairs must be approved by Howard Soil Conservation District.
6. Rodents - check for burrows, which can lead to seepage, and remove rodents when encountered.

Note: All stormwater management facility construction shown on these plans shall be performed under the supervision of an approved Maryland Registered Professional Engineer who is responsible for certifying that the construction of the facilities is in accordance with these plans and specifications at the completion of the construction. Gutwirth, Little & Weber will provide the as-built survey of the surface features of the facilities.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signatures and Dates for Planning & Zoning Department]



ENGINEER'S CERTIFICATE

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 verified the design and construction of the facilities shown on these plans and specifications. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

[Signature] 11-20-98
 Date

DEVELOPER'S/BUILDER'S CERTIFICATE

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 Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I/We engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

[Signature] 11/23/98
 Date

These Plans for all pond construction, erosion and sediment control meet the requirements of the Howard Soil Conservation District.

[Signature] 2/25/99
 Date
 Howard Soil Conservation District

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

[Signature] 2/25/99
 Date
 Natural Resources Conservation Service

GLW GUTSWIRTH, LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VAC: 301-889-2524 FAX: 301-421-4186

DES.	DRN.	CHK.	DATE	REVISION	BY	APP'R.
			12-22-98	Rev. Per. Ho. Co. Comments		

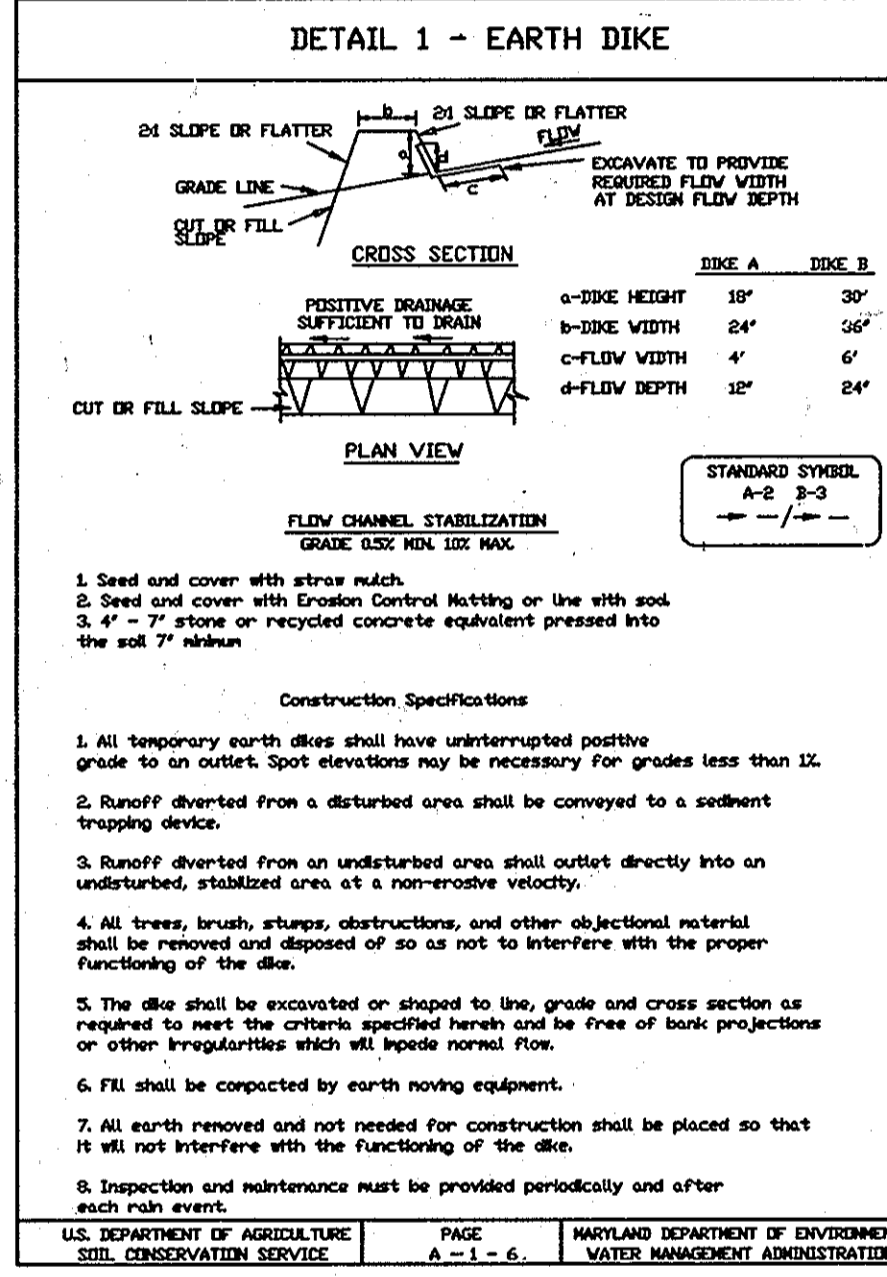
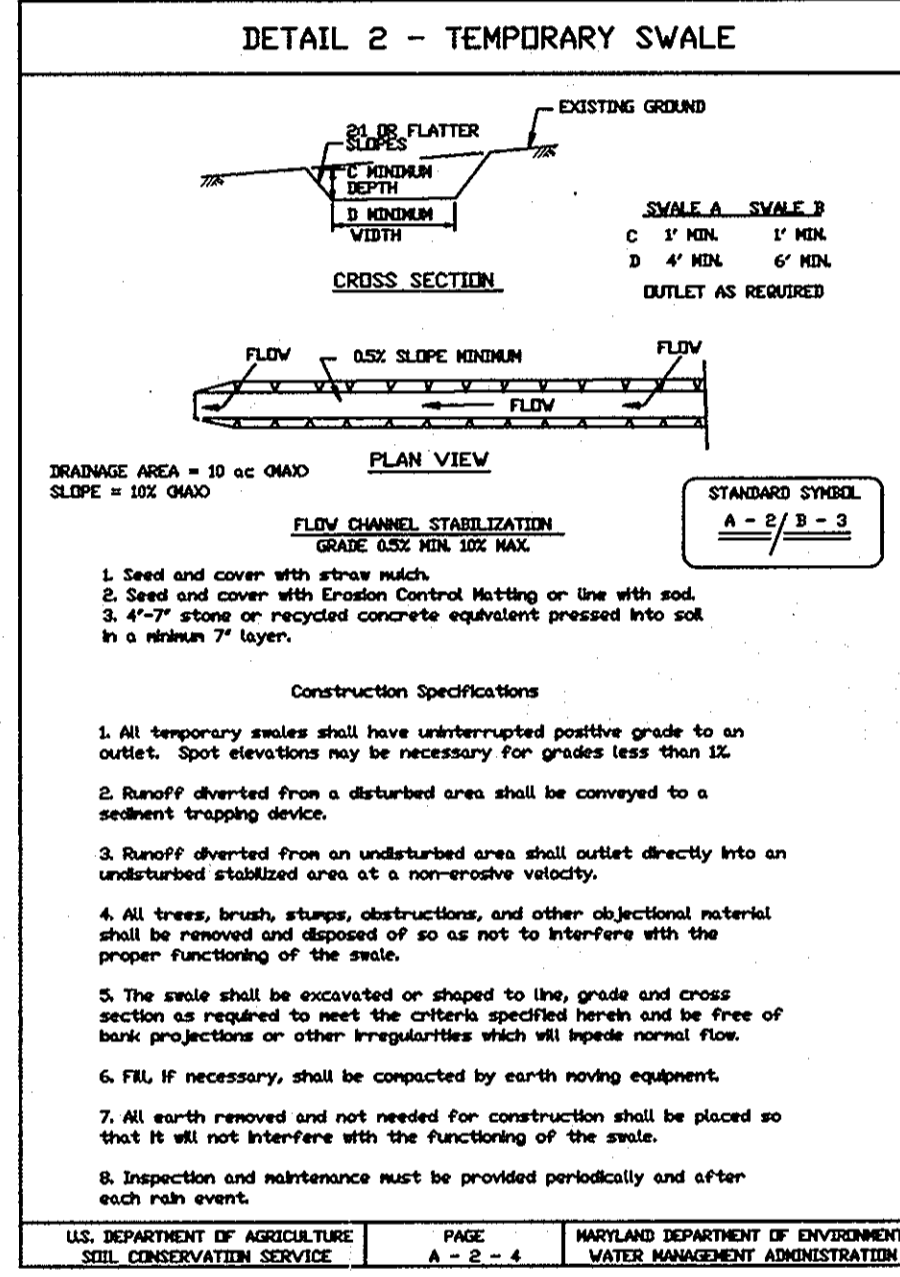
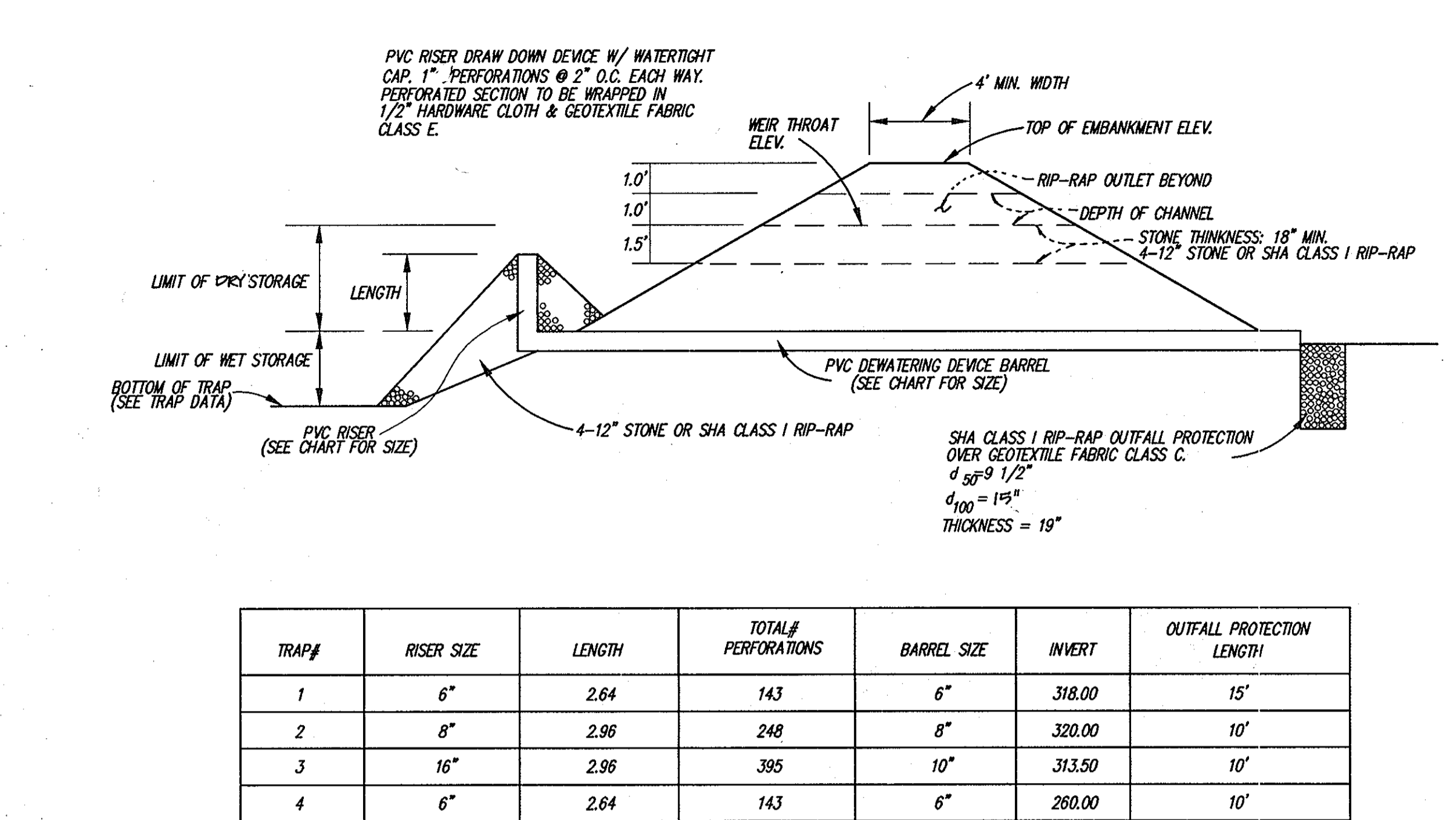
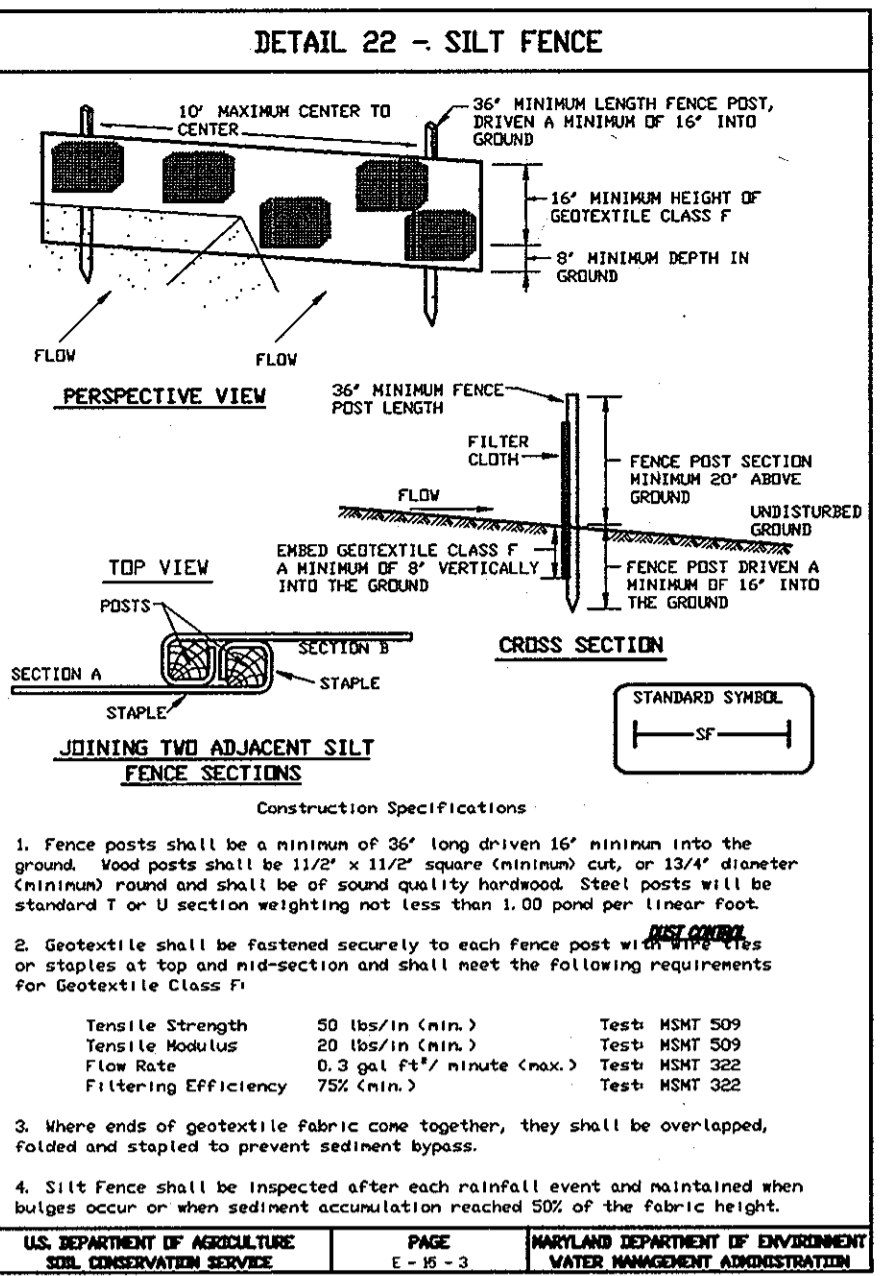
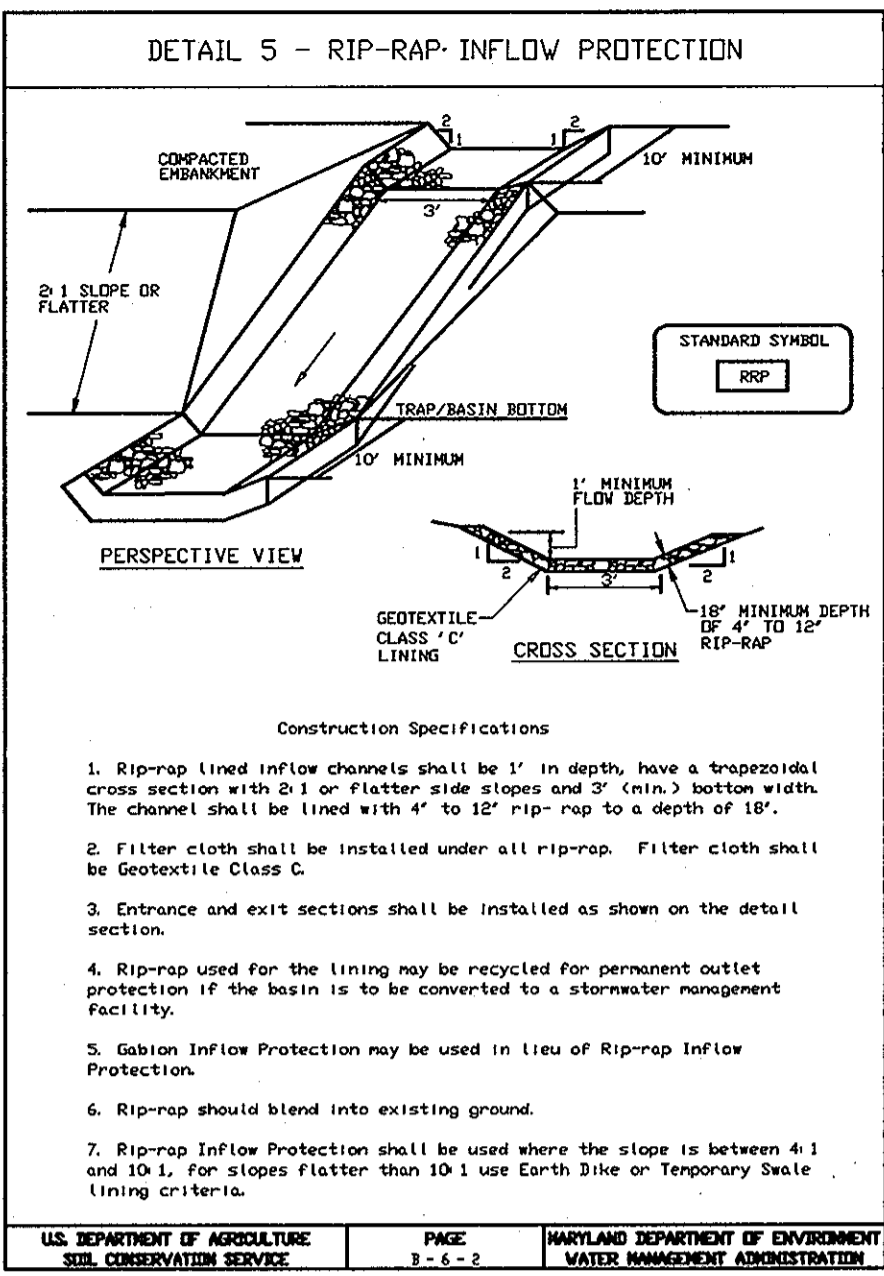
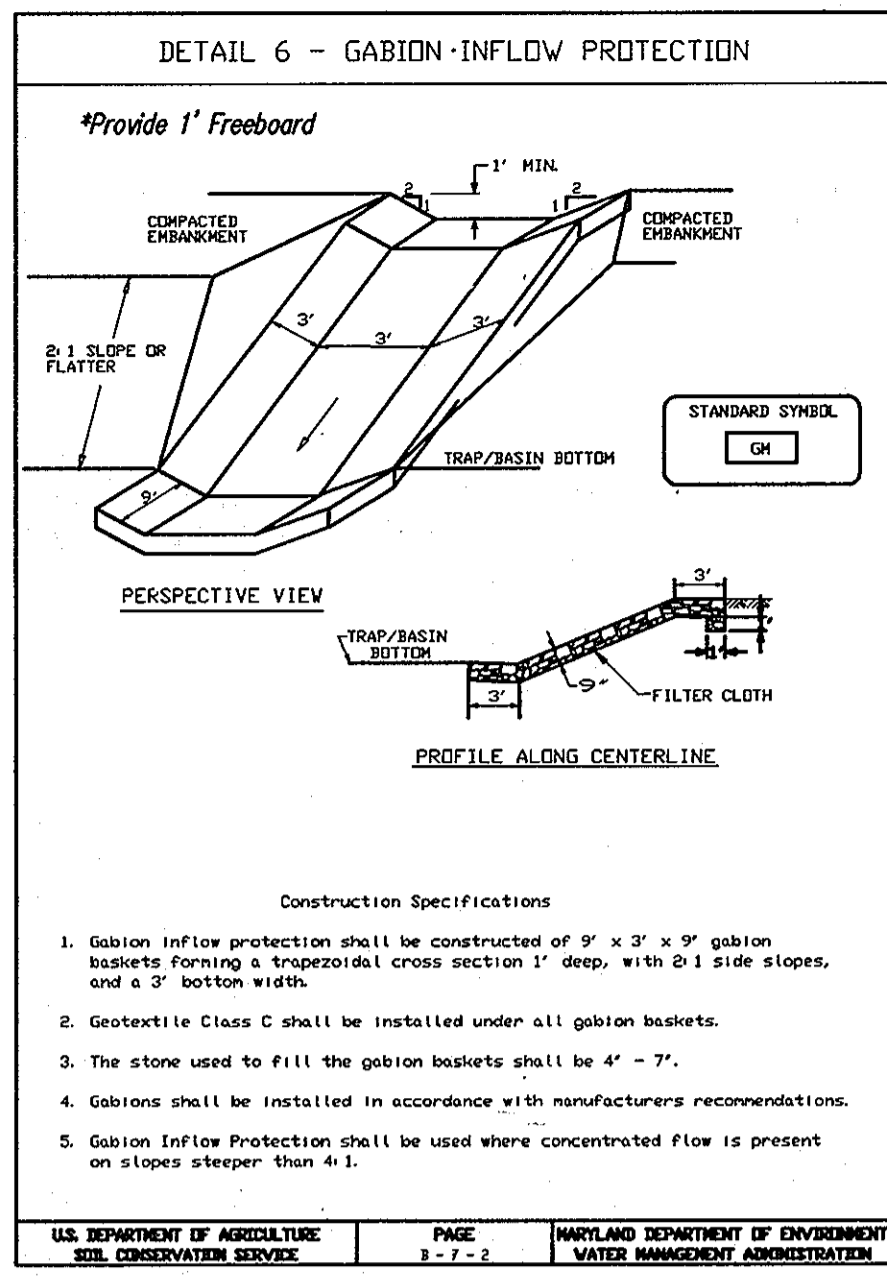
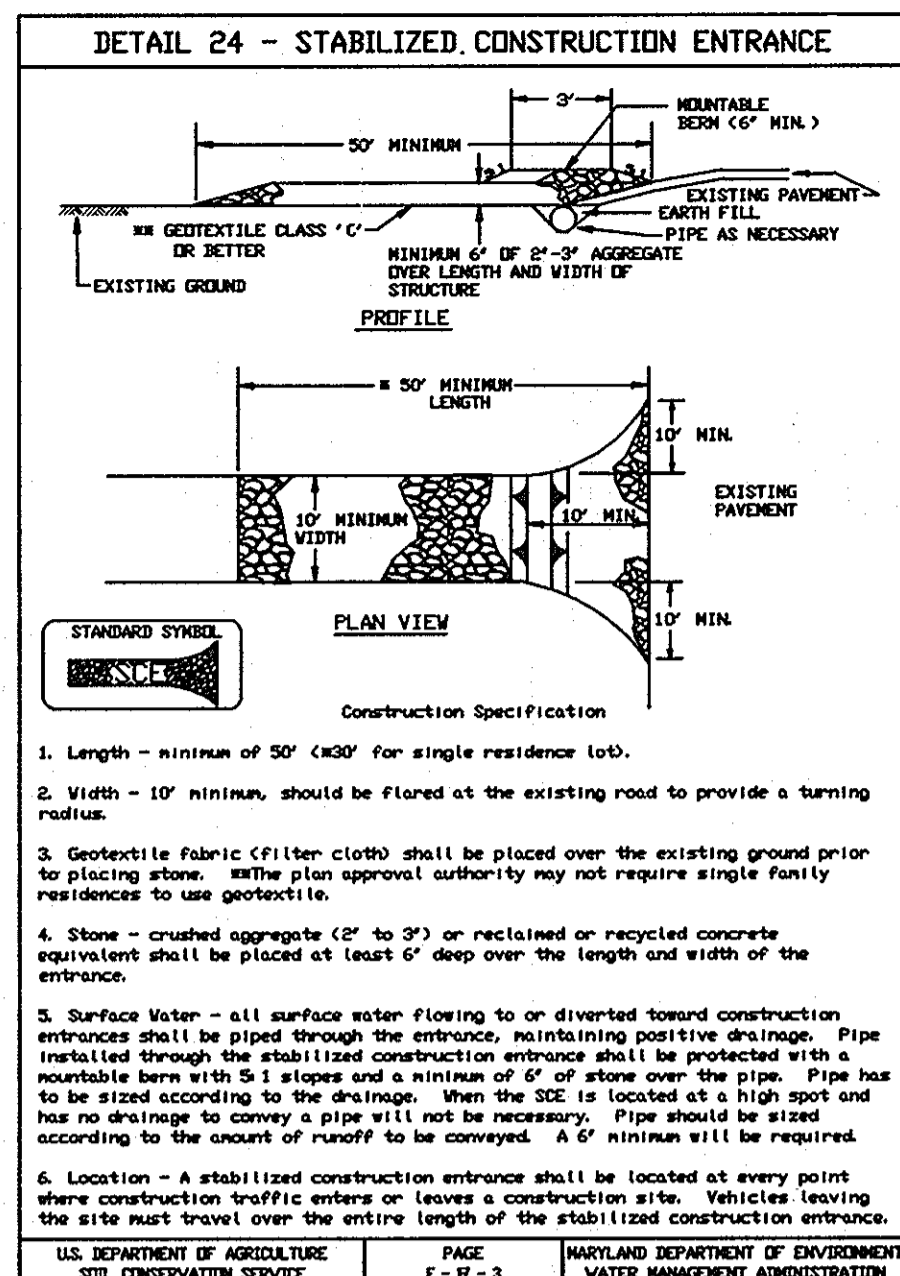
STORMWATER MANAGEMENT NOTES / SEDIMENT CONTROL NOTES

Owner Parcel T-1:
 Orix Gateway Columbia, LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago, IL 60606
 (312) 660-6665

COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat. No. 13402 thru 13404
 & Plat. No. 12116
 HOWARD COUNTY, MARYLAND

ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	M-1	98067
DATE	TAX MAP - GRID	SHEET
NOVEMBER 1998	43 1,2,7,8	16 OF 22



Dust Control

Definition
Controlling dust blowing and movement on construction sites and roads.

Purpose
To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies
This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Specifications

Temporary Methods

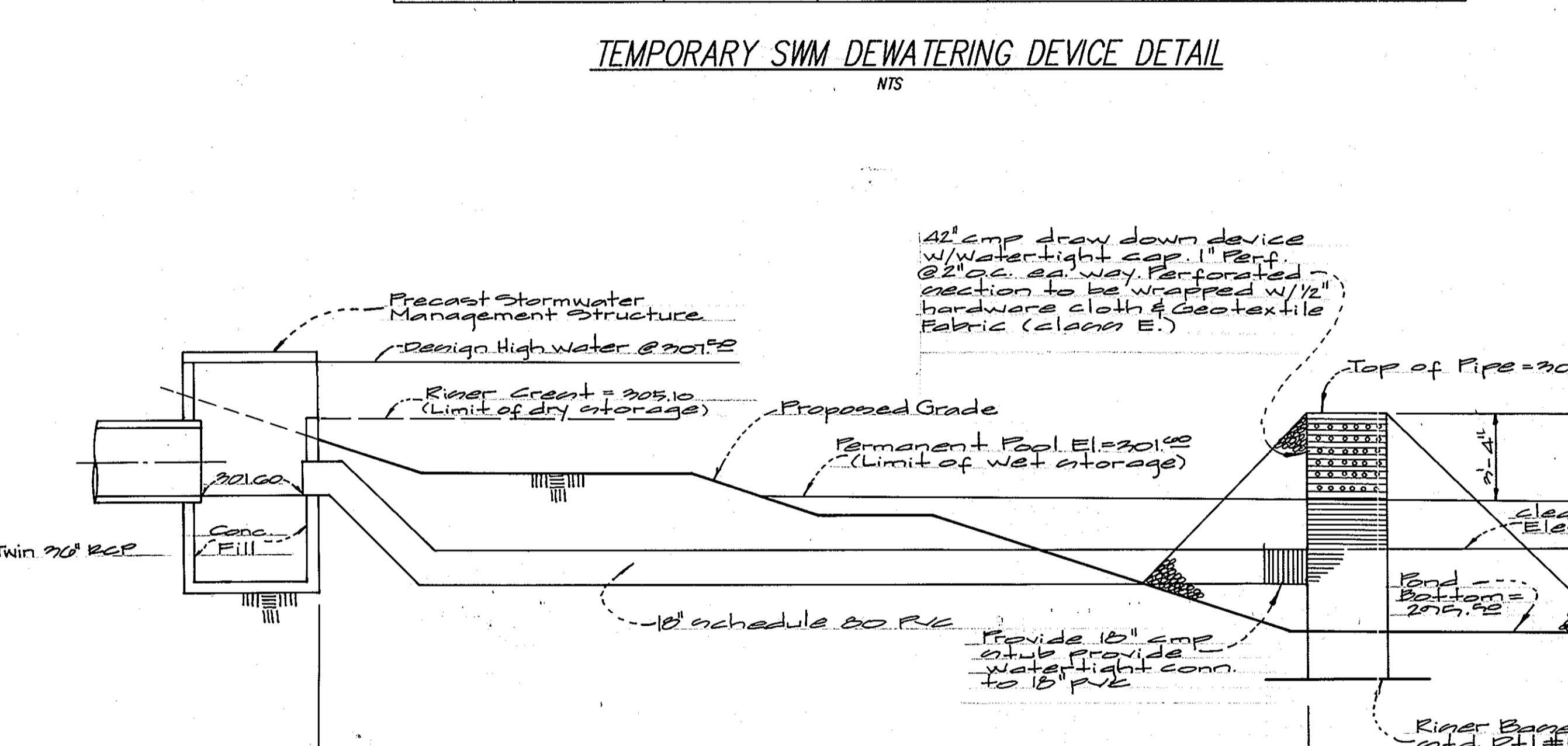
- Mulches - See standards for vegetative stabilization with mulches only. Mulches should be applied.
- Vegetative Cover - See standards for temporary vegetative cover.
- Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar tools are examples of equipment which may produce the desired effect.
- Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
- Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at the right angles to prevailing currents at intervals of about 10 lines their height are effective in controlling soil blowing.
- Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

Permanent Methods

- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with soil. Existing trees or large shrubs may afford valuable protection if left in place.
- Topsoiling - Covering with less erosive soil materials. See standards topsoiling.
- Stone - Cover surface with crushed stone or coarse gravel.

References

- Agriculture Handbook 346. Wind Erosion Forces in the United States and Their use in Predicting Soil Loss.
- Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA-ARS.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 3/13/99 Date
[Signature] 3/6/99 Date
 Chief, Division of Land Development
[Signature] 2/2/99 Date
 Chief, Development Engineering Division MK

DEVELOPER'S/BUILDER'S CERTIFICATE

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

[Signature] 11/23/98 Date
 Signature of Developer/Builder

ENGINEER'S CERTIFICATE

"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.

[Signature] 11-20-98 Date
 Howard Soil Conservation District

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

[Signature] 2/25/99 Date
 Howard Soil Conservation District

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

[Signature] 2/25/99 Date
 Natural Resources Conservation Service

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 301-421-4188
 BALTIMORE: 410-880-1820 DC/MG: 301-589-2524

OWNER: COLUMBIA GATEWAY
 100 N. RIVERSIDE PLAZA
 SUITE 400
 CHICAGO, IL 60606
 (312) 763-0000

SEDIMENT CONTROL DETAIL SHEET

COLUMBIA GATEWAY
 PARCELS T-1, T-2, T-4 & T-5
 PLATS 12402 THRU 12404
 & Plat No. 18710

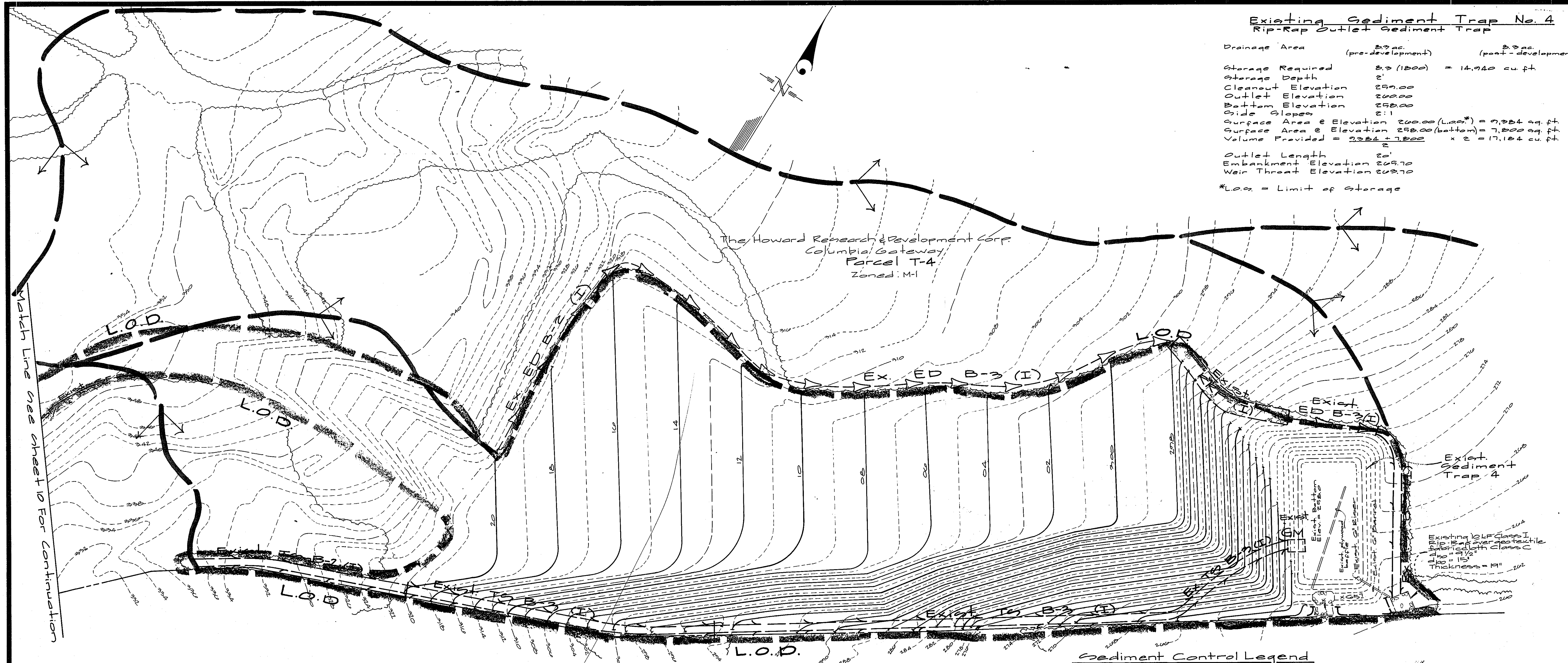
SCALE AS SHOWN
 ZONING M-1
 G. L. W. FILE NO. 98067
 DATE NOVEMBER 1998
 TAX MAP - GRID 43 - 1,2,7,8
 SHEET 13 OF 22

HOWARD COUNTY, MARYLAND
 ELECTION DISTRICT No. 6

Existing Sediment Trap No. 4
Rip-Rap Outlet Sediment Trap

Drainage Area	5.9 ac. (pre-development)	5.9 ac. (post-development)
Storage Required	5.9 (1800) = 14,940 cu. ft.	
Storage Depth	2'	
Cleanout Elevation	259.00	
Outlet Elevation	260.00	
Bottom Elevation	258.00	
Side Slopes	2:1	
Surface Area @ Elevation 260.00 (L.O.S.)*	9,384 sq. ft.	
Surface Area @ Elevation 258.00 (bottom)	7,800 sq. ft.	
Volume Provided	$(9,384 - 7,800) \times 2 = 3,168 \times 2 = 6,336$	
Outlet Length	20'	
Embankment Elevation	260.70	
Weir Throat Elevation	260.70	

*L.O.S. = Limit of Storage



Sediment Control Legend

- Limit of Disturbance
- Silt Fence
- Earth Dike
- Temporary Swale
- Existing Drainage Divide
- Gabion Inflow Protection
- Rip-Rap Protection

DEVELOPER'S/BUILDER'S CERTIFICATE

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

[Signature] 2-8-99
Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE

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 shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an as-built plan of the pond within 30 days of completion.

[Signature] 2-8-99
Date



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

[Signature] 2/25/99
Howard Soil Conservation District Date

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

[Signature] 2/25/99
Natural Resources Conservation Service Date

Approved: Howard County Department of Planning & Zoning

[Signature] 2/3/99
Director

[Signature] 3/2/99
Chief, Division of Land Development

[Signature] 3/2/99
Chief, Development Engineering Division

Note: This plan has been Mass Graded under GP 99-75A.

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
02/11/99	Change owner info	WJL	
12-22-98	Rev. Per Ho Co. Comments	WJL	

Owner Parcel T-1:
Orix Gateway Columbia, LLC,
100 N. Riverside Plaza
Suite 200
Chicago, IL 60606
(312)667-0445

Sediment Control Plan
Columbia Gateway
Parcels T-1, T-2, T-4 & T-5
Plot No. 13462 thru 13464
& Plot No. 12716
Election District No. 4
Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE NO.
WJL	1" = 50'	M-1	98-001
DRN.:	DATE	TAX MAP No.	SHEET
WJL	November 1998	43 1,2,7,8	12 of 22

SEDIMENT TRAP NO. 1 (Existing)
Rip-Rap Outlet Sediment Trap

Drainage Area = 9.4 Ac. (Pre-Development) / 10.0 Ac. (Post Development)
 Storage Required = 10 (1800) = 18000 cu. ft.
 Storage Depth = 3 Feet
 Cleanout Elevation = 316.50
 Outlet Elevation = 315.00
 Bottom Elevation = 315.00
 Side Slopes = 2:1
 Surface Area @ Elevation 315.00 (*L.O.S.) = 9800 sq. ft. (70x140)
 Surface Area @ Elevation 315.00 (bottom) = 7424 sq. ft. (58x128)
 Volume Provided = $\frac{7424 + 9800}{2} \times 3 = 25,624$ cu. ft.

SEDIMENT TRAP NO. 2 (Existing)
Rip-Rap Outlet Sediment Trap

Drainage Area = 6.5 Ac. (Pre-Development) / 10.4 Ac. (Post Development)
 Storage Required = 10.4 (1800) = 18720 cu. ft.
 Storage Depth = 1.5 Feet
 Cleanout Elevation = 312.75
 Outlet Elevation = 313.50
 Bottom Elevation = 312.00
 Side Slopes = 2:1
 Surface Area @ Elevation 313.50 (*L.O.S.) = 14,054 sq. ft.
 Surface Area @ Elevation 312.00 (bottom) = 12,742 sq. ft.
 Volume Provided = $\frac{14,054 + 12,742}{2} \times 1.5 = 20,477$ cu. ft.

SEDIMENT TRAP NO. 3 (Existing)
Rip-Rap Outlet Sediment Trap

Drainage Area = 6.5 Ac. (Pre-Development) / 2.4 Ac. (Post Development)
 Storage Required = 6.5 (1800) = 11700 cu. ft.
 Storage Depth = 3 Feet
 Cleanout Elevation = 315.50
 Outlet Elevation = 320.00 (L.O.S.)
 Bottom Elevation = 317.00
 Side Slopes = 2:1
 Surface Area @ Elevation 320.00 (*L.O.S.) = 4770 sq. ft. (68x102)
 Surface Area @ Elevation 317.00 (bottom) = 5,040 sq. ft. (70x92)
 Volume Provided = $\frac{4770 + 5040}{2} \times 3 = 17,704$ cu. ft.

DEVELOPER'S/BUILDER'S CERTIFICATE

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 Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project.

Nathu Llan 11/23/98
Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, soil 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 "so built" plan of the pond within 30 days of completion.

John R. Roberts 11-20-98
Signature Date



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

John R. Roberts 2/25/99
Signature Date

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

Clay Simms 2/5/99
Signature Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
David R. Hooten 3/3/99 Date
 Director
Chris Hamilton 3/5/99 Date
 Chief, Division of Land Development
Clay Simms 3/2/99 Date
 Chief, Development Engineering Division MK

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 410-800-1820 DC/VA: 301-988-2524 FAX: 301-421-4188

DATE	REVISION	BY	APPR.
09/21/98	change owner info. & rev one to accommodate Parcel Development	WJD	
12/18/98	Rev Per Ho Co. Comments	WJD	

Interstate Route 95 Right-of-Way
NOTE: FOR LEGEND SEE SHEET 12
NOTE: FOR SEDIMENT CONTROL PURPOSES ONLY!

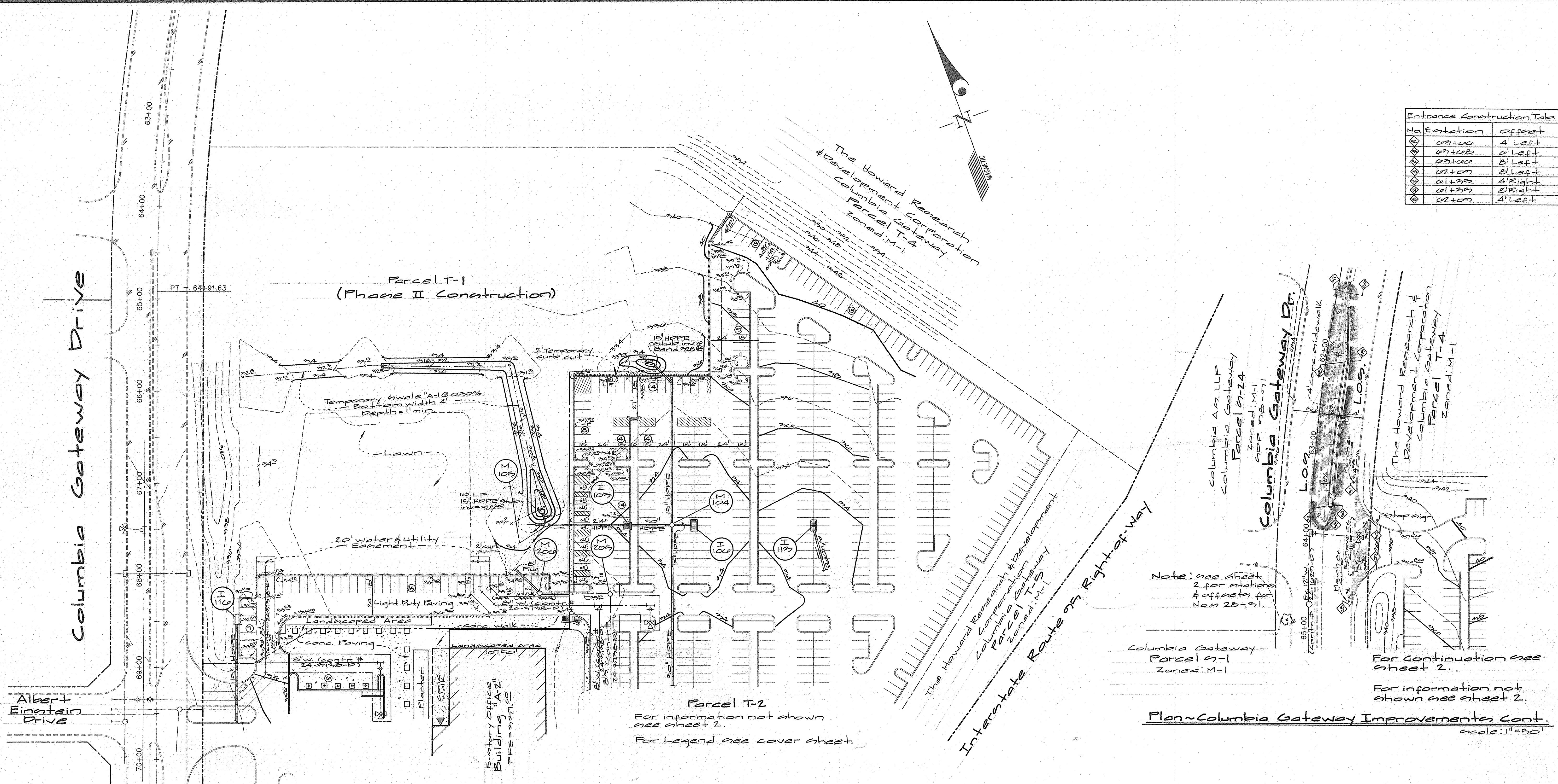
Owner Parcel T-1:
 Orix Gateway Columbia, LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago, IL 60606
 (312) 600-6445

Sediment Control Plan
COLUMBIA GATEWAY
 PARCELS T-1, T-2, T-4 and T-5
 Plat No. 13462 thru 13464
 & Plat No. 18716

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	M-1	98067
DATE	TAX MAP - GRID	SHEET
November 1998	43 - 1,2,7,8	10 OF 22

HOWARD COUNTY, MARYLAND

No.	Station	Offset
1	07+00	4' Left
2	07+00	8' Left
3	07+00	8' Left
4	07+00	4' Right
5	07+00	8' Right
6	07+00	4' Left



Note: see sheet 2 for stationing & offsets for Nos. 28-31.

Columbia Gateway Parcel 9-1 Zoned: M-1

For Continuation see sheet 2.

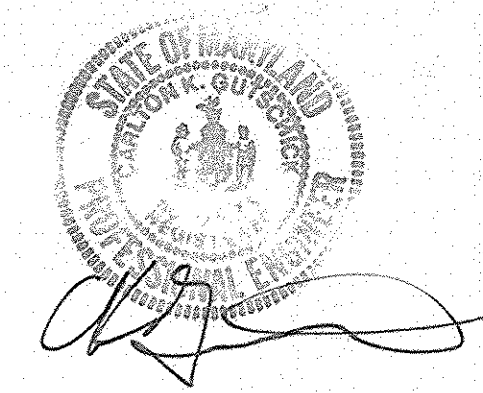
For information not shown see sheet 2.

Plan ~ Columbia Gateway Improvements Cont. scale: 1"=50'

Plan ~ Phase I Limits scale: 1"=50'

Parcel T-2
For information not shown see sheet 2.
For Legend see cover sheet.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	
<i>[Signature]</i>	3/3/99
Chief, Division of Land Development	Date
<i>[Signature]</i>	3/2/99
Chief, Development Engineering Division	Date
<i>[Signature]</i>	3/2/99
Chief, Development Engineering Division	Date



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-680-1820 DC/VA: 301-959-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
12/18/98	Change owner information	WJL	
12/18/98	Rev water add FH & Contr. No's	WJL	

Owner Parcel T-1:
Oriz Gateway Columbia, LLC
100 Riverside Plaza
Suite 400
Chicago, IL 60606
(312) 667-6445

PHASE I SITE DEVELOPMENT PLAN LIMITS
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
Plot # 13404 thru 13404
& Plot No. 18710
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	M-1	98067
DATE	TAX MAP - GRID	SHEET
NOVEMBER 1998	43-1,2,7,8	3 OF 22

GDP 99-54

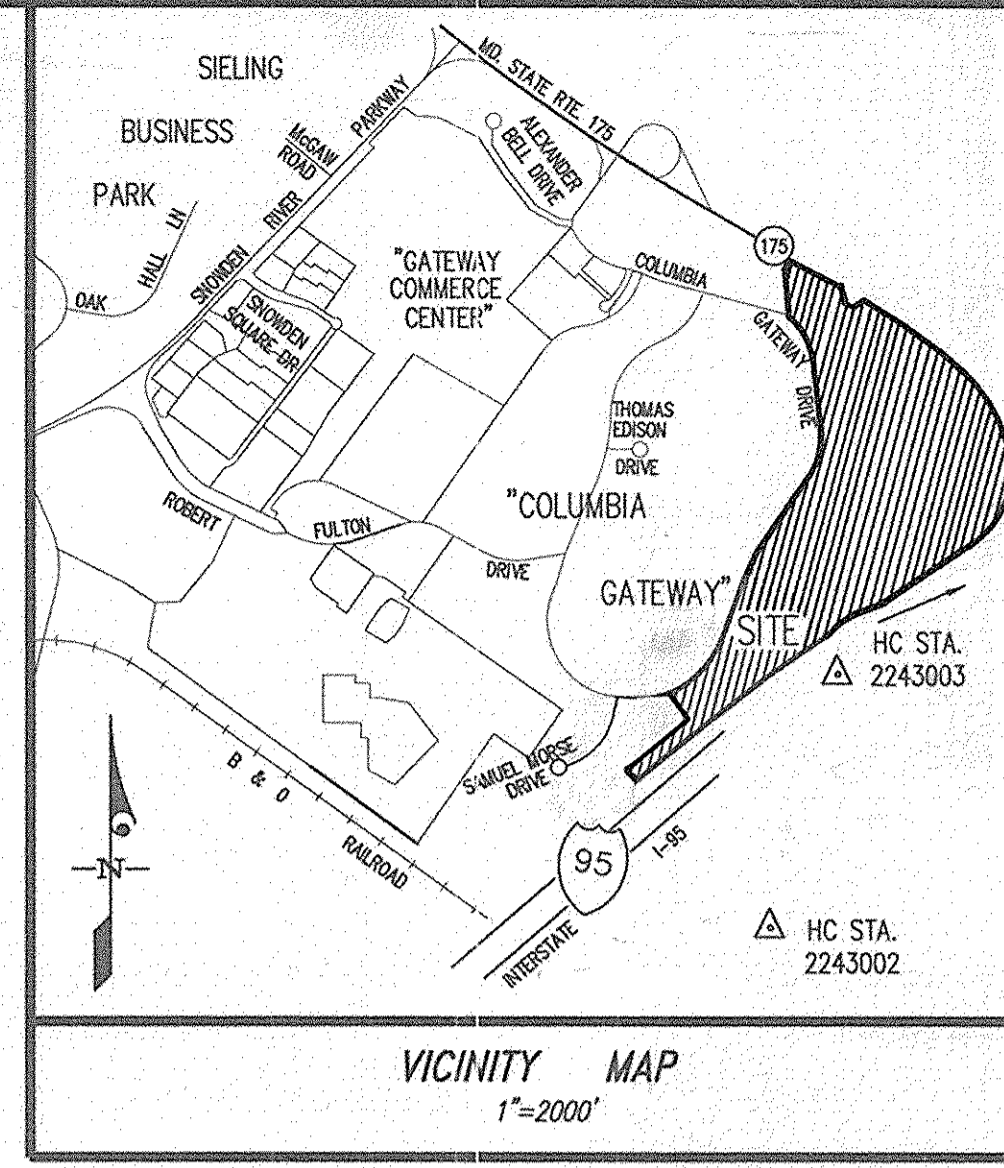
GENERAL NOTES

- 1. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
2. The contractor shall notify the Department of Public Works, Bureau of Engineering, Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
3. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
4. The contractor shall notify the Howard County Department of Public Works, Bureau of Utilities at (410) 313-4900 at least five (5) working days prior to starting any excavation work.
5. Site area: Parcel T-1 = 5,156.88 acres; Parcel T-2 = 14,574.4 acres.
6. All plan dimensions are to face of curb unless otherwise noted.
7. Existing topography is shown per field run survey information by Gutschick, Little Weber, P.A. August 1998.
8. Coordinates and bearings are based upon the MD State plane system (NAD 27).
9. Water and sewer shown is public.
10. Stormwater management for this site is proposed on Parcel T-5.
11. All existing water and sewer is per Contracts 24-1629-D and 24-1748-D.
12. All existing public storm drain is per F-87-125 and F-86-182.
13. All curb radii is 5' unless noted otherwise.
14. Sidewalks adjacent to perpendicular parking shall be 6' wide. All other sidewalks shall be 4' wide except where dimensioned otherwise.
15. Contractor shall utilize PVC pipe for all sewer house connections. Contractor shall utilize D.I.P. (CL 51) for water house connections.
16. Use trench bedding class "C" for storm drains.
17. Paved areas indicated are private except as noted.
18. Project background: See Dept. of Planning & Zoning File Numbers: WF 01-02, WF 01-04, WF 01-05, WF 01-06, WF 01-07, WF 01-08, WF 01-09, WF 01-10, WF 01-11, WF 01-12, WF 01-13, WF 01-14, WF 01-15, WF 01-16, WF 01-17, WF 01-18, WF 01-19, WF 01-20, WF 01-21, WF 01-22, WF 01-23, WF 01-24, WF 01-25, WF 01-26, WF 01-27, WF 01-28, WF 01-29, WF 01-30, WF 01-31, WF 01-32, WF 01-33, WF 01-34, WF 01-35, WF 01-36, WF 01-37, WF 01-38, WF 01-39, WF 01-40, WF 01-41, WF 01-42, WF 01-43, WF 01-44, WF 01-45, WF 01-46, WF 01-47, WF 01-48, WF 01-49, WF 01-50, WF 01-51, WF 01-52, WF 01-53, WF 01-54, WF 01-55, WF 01-56, WF 01-57, WF 01-58, WF 01-59, WF 01-60, WF 01-61, WF 01-62, WF 01-63, WF 01-64, WF 01-65, WF 01-66, WF 01-67, WF 01-68, WF 01-69, WF 01-70, WF 01-71, WF 01-72, WF 01-73, WF 01-74, WF 01-75, WF 01-76, WF 01-77, WF 01-78, WF 01-79, WF 01-80, WF 01-81, WF 01-82, WF 01-83, WF 01-84, WF 01-85, WF 01-86, WF 01-87, WF 01-88, WF 01-89, WF 01-90, WF 01-91, WF 01-92, WF 01-93, WF 01-94, WF 01-95, WF 01-96, WF 01-97, WF 01-98, WF 01-99, WF 01-100.
19. Recording reference: Plat No. 13402-13404.
20. All proposed ramps shall be in accordance with current A.D.A. standards. Maximum sidewalk cross slope shall be two percent. Provide a five-foot by five-foot level (2 percent max.) landing at the top and bottom of all ramps and building entrances and exits.
21. All proposed water meters shall be located inside buildings.
22. All proposed site utilities are to terminate 5' from the building. The building plumber shall connect to and extend these utilities to the inside of the building.
23. Existing utilities are based on approved design plans for construction and field location by Gutschick, Little & Weber, P.A.
24. There is no floodplain on Parcel T-1 or Parcel T-2.
25. There are no wetlands on Parcel T-1 or Parcel T-2.
26. All exterior lighting will comply with Zoning Regulations section 134.
27. On February 26, 2001, WF 01-02, a waiver of section 10.150(m)(1) which requires that within 2 years of signature approval of the site development plan original, the developer shall apply to the Department of Inspections, Licenses & Permits for building permits for all construction on the site and section 10.150(m)(2) which states that if the developer does not apply for building permits within 2 years of signature approval of the site development plan, the plan shall expire and a new site development plan will be required was approved. Subject to one condition on the approval letter.
28. On March 22, 2002, WF 02-10, a waiver of section 10.150(m)(2) to reactivate SDP 99-54 & grant a one year extension to apply for building permit(s) for Parcel T-1 was approved. Subject to two conditions in the approval letter.
29. On July 2, 2004, WF 04-11, A waiver of section 10.150(m)(1)(i) to grant a one year extension to apply for a building permit to initiate construction on Parcel T-1 in accordance with SDP 99-54 was approved. The new deadline date to apply for building permits to initiate construction on Parcel T-1 shall be made in March 22, 2005. Approval is subject to three conditions in the approval letter.

31. On April 27, 2005, WF 05-104, A waiver of section 10.150(m)(1) which requires that within 2 years of signature approval of the site development plan original, the developer shall apply to the Department of Inspections, Licenses & Permits for building permits to initiate construction of the site, and section 10.150(m)(2) which states that if the Developer does not apply for building permits within 2 years of signature approval of the site development plan, the plan shall expire and a new site development plan will be required was approved. Application for the permits necessary to start construction must be made by April 27, 2007. Approval is subject to two conditions in the approval letter.
32. On May 30, 2006, WF 06-109, a waiver of section 10.150(m)(1) which requires that within 2 yrs. of signature approval of the site development plan original, the developer shall apply to the department of Inspections, Licenses and Permits for building permits to initiate construction on the site, and section 10.150(m)(2) which states that if the developer does not apply for building permits within 2 yrs. of signature approval of the site development plan, the plan shall expire and a new site development plan will be required, was approved. Application for the permits necessary to start construction must be made by May 30, 2007. Approval is subject to three conditions in the approval letter.

COLUMBIA GATEWAY PARCELS T-1, T-2, T-4 & T-5

SITE DEVELOPMENT PLAN



Legend

- Standard curb & gutter
Reverse curb & gutter
Depressed curb Entrance (Flush curb & gutter)
Header curb
Proposed sidewalk (conc.)
Proposed Paving in Right of Way (P-5 Paving)
Existing Paving
Proposed screen Wall
Patron Access
Proposed spot Elev.
Existing Contour
Proposed Contour
Proposed Water Connection
Proposed Sewer Connection
Proposed Storm Drain
Proposed Landscape Area
Proposed Tree Grates
Proposed Bollard Lights
Proposed Light Pole
Limit of submission

Site Analysis

- 1. Site Area: 158,114 Ac.
Parcel T-1: 9,758.88 Ac.
Parcel T-2: 14,574.4 Ac.
Combined Total: 20,322.28 Ac. (T-1 and T-2)
2. Site Zoning: M-1
3. Limit of Submission Area: 21.5 Ac.
4. Building Coverage:
Parcel T-1: 8.85%
Parcel T-2: 7.92%
Combined: 8.17%
5. Floor Area Ratio:
Parcel T-1: 0.4165
Parcel T-2: 0.3990

*Net Building Area Parcel T-1: 104,470
**Net Building Area Parcel T-2: 249,408

Parking Tabulation:

- Parcel T-1:
Gross Floor Area: 110,197 sq. ft.
Req'd. Parking Spaces: 201/1000 x 110,197 = 221 spaces
Req'd. Handicap Spaces: 8 spaces
Req'd. Handicap Van Spaces: 2 spaces
Proposed Parking Spaces (Total): 209 spaces
Proposed Handicap Spaces: 7 spaces
Proposed Handicap Van Spaces: 4 spaces
Parcel T-2:
Gross Floor Area: 249,408 sq. ft.
Req'd. Parking Spaces: 249/1000 x 249,408 = 249 spaces
Req'd. Handicap Spaces: 20 spaces
Req'd. Handicap Van Spaces: 3 spaces
Proposed Parking Spaces (Total): 262 spaces
Proposed Handicap Spaces: 20 spaces
Proposed Handicap Van Spaces: 3 spaces
Phase I Proposed Parking Spaces (Total): 1040 spaces
Phase I Proposed Handicap Spaces: 20 spaces
Phase I Proposed Handicap Van Spaces: 3 spaces
Combined:
Gross Floor Area: 379,205 sq. ft.
Req'd. Parking Spaces: 379/1000 x 379,205 = 1232 spaces
Req'd. Handicap Spaces: 25 spaces
Req'd. Handicap Van Spaces: 7 spaces
Proposed Parking Spaces (Total): 1,414 spaces
Proposed Handicap Spaces: 25 spaces
Proposed Handicap Van Spaces: 7 spaces

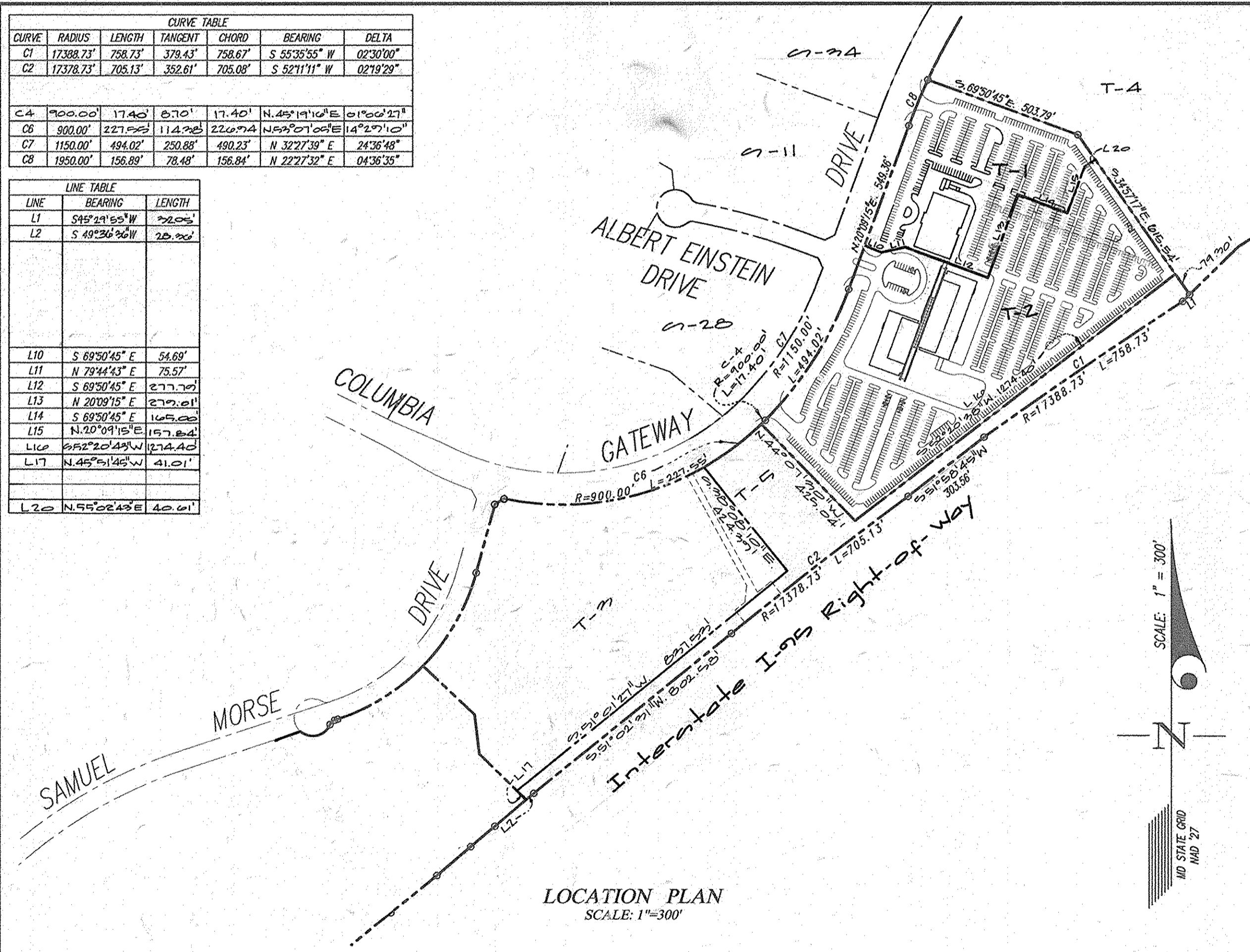


Table with columns: CURVE, RADIUS, LENGTH, TANGENT, CHORD, BEARING, DELTA. Contains data for curves C1, C2, C4, C6, C7, C8.

Table with columns: LINE, BEARING, LENGTH. Contains data for lines L1 through L17.

Benchmark #1
Traverse Station 912
Elevation = 319.31

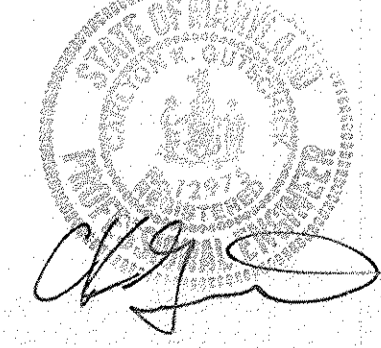
Benchmark #2
Traverse Station 914
Elevation = 334.09

Owner Parcel T-2:
Columbia Gateway Office Corp
c/o Lassalle Investment Mgmt.
100 E. Pratt Street
Baltimore, Md. 21202

Owner/Parcels T-5, T-12, & T-13
The Howard Research and Development Corporation
10215 Little Patuxent Parkway
Columbia, Maryland 21044
Attn: Al Edwards
(410) 992-0027
(T-12 and T-13 formerly part of T-4)

Owner Parcel T-11:
Zest T-11 LLC
2215 Centre Park Drive
Suite 400
Columbia, Md. 21045
(Formerly T-9)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Cindy Hamstra
Chief, Division of Land Development
Date: 3/3/99



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-589-2524 FAX: 301-421-4186

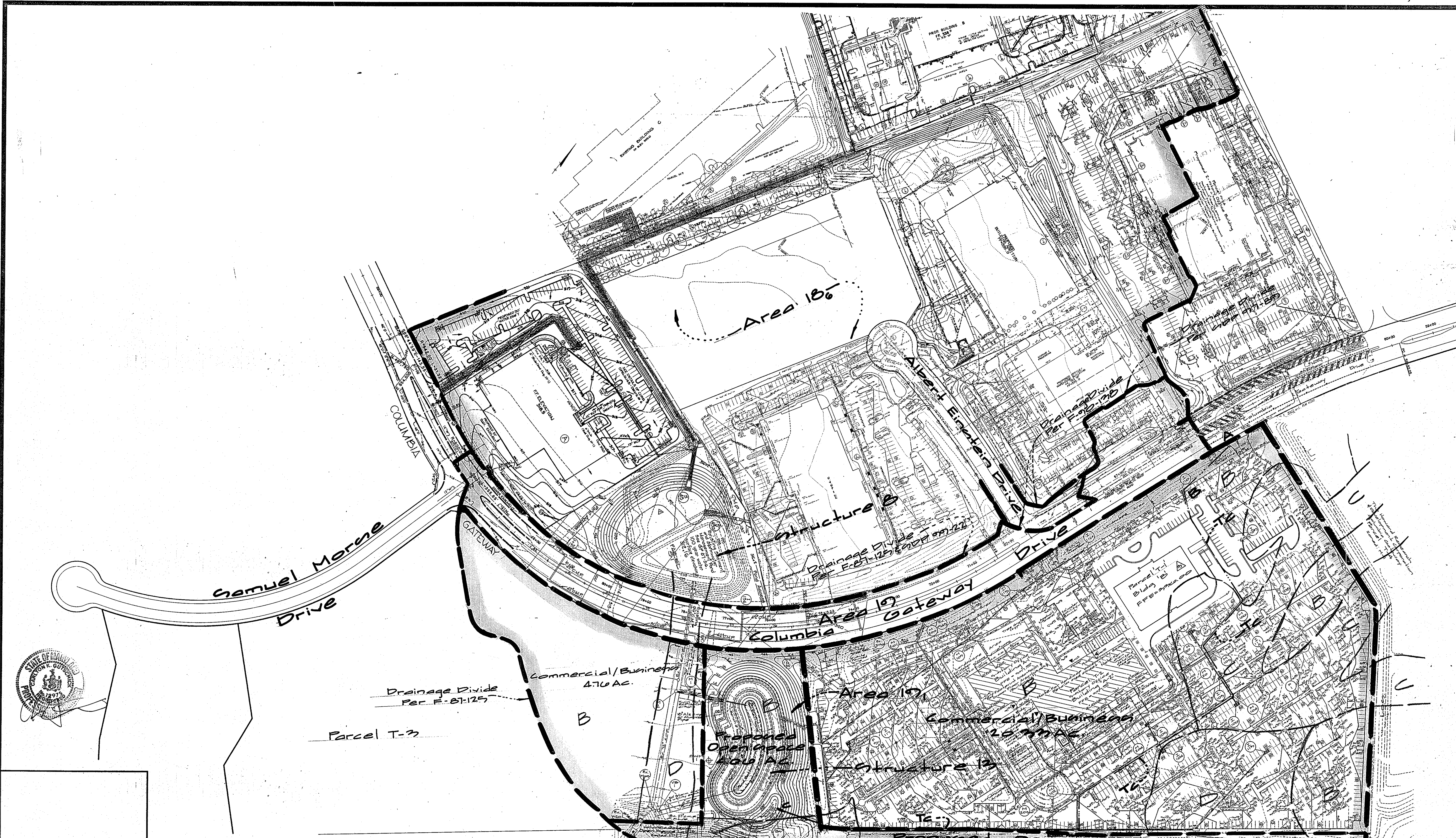
Table with columns: DATE, REVISION, BY, APPR. Contains revision history for the site development plan.

Owner Parcel T-1:
Orix Gateway Columbia, LLC
100 N. Riverside Plaza
Suite 400
Chicago, IL 60606
(712) 607-0445

COVER SHEET
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 & T-5
Plat No. 13402 thru 13404 & Plat No. 12716

ADDRESS CHART table showing parcel numbers and street addresses for parcels T-1 and T-2.

Table with columns: SCALE, ZONING, G.L.W. FILE No., DATE, TAX MAP - GRID, SHEET. Shows scale as AS SHOWN, zoning as M-1, file number as 98067, date as November 1998, tax map as 43, and sheet as 1 OF 22.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Joseph R. Kutz 3/3/99
Director Date

Cindy Hamilton 3/3/99
Chief, Division of Land Development Date

William J. Miller 3/2/99
Chief, Development Engineering Division Date

MK

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-680-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
01/10/00	change owner info.	WJL	

Owner Parcel T-1:
Crix Gateway Columbia, LLC
100 N. Riverside Plaza
Suite 400
Chicago, IL 60600
(312) 627-6445

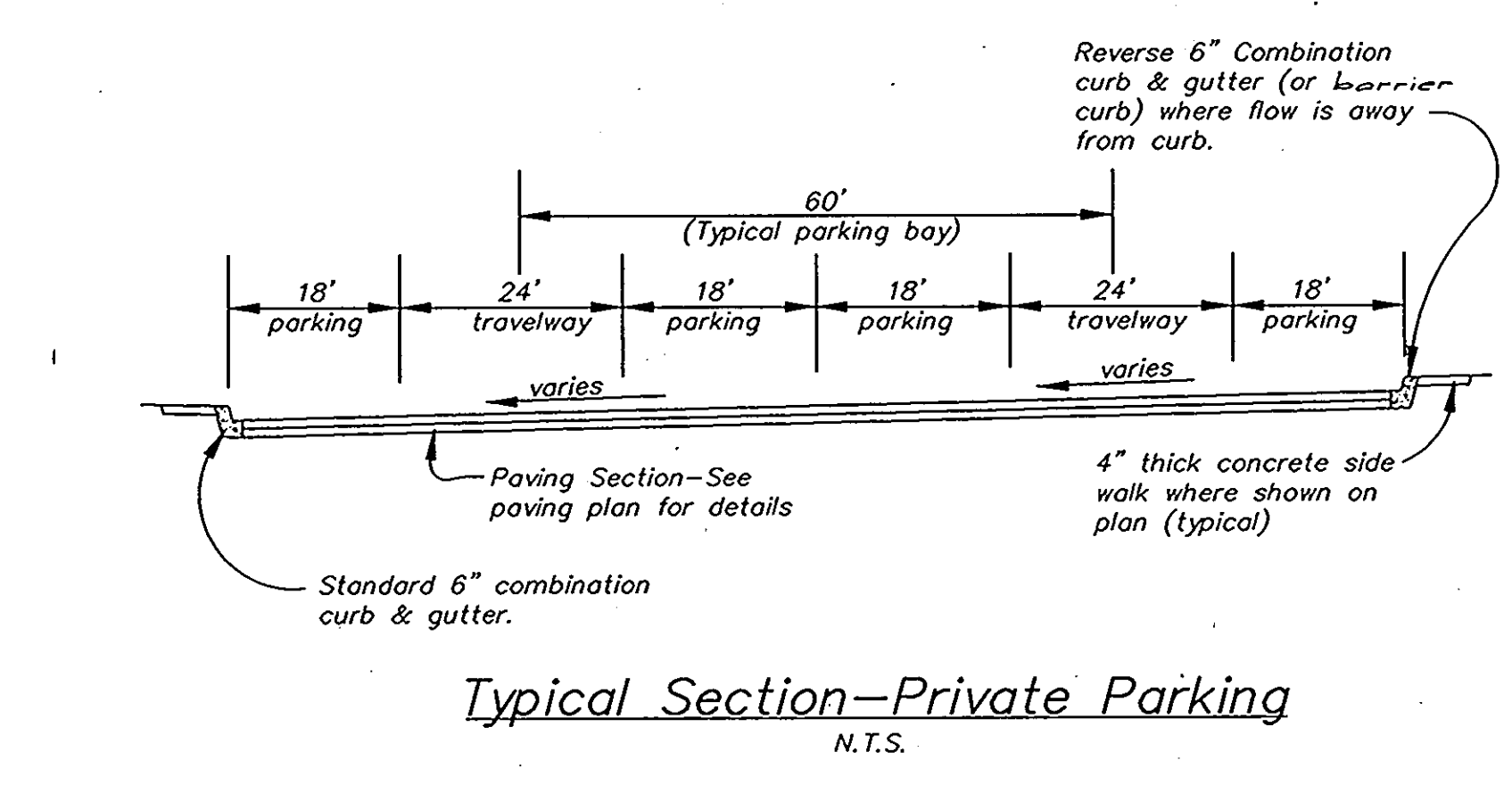
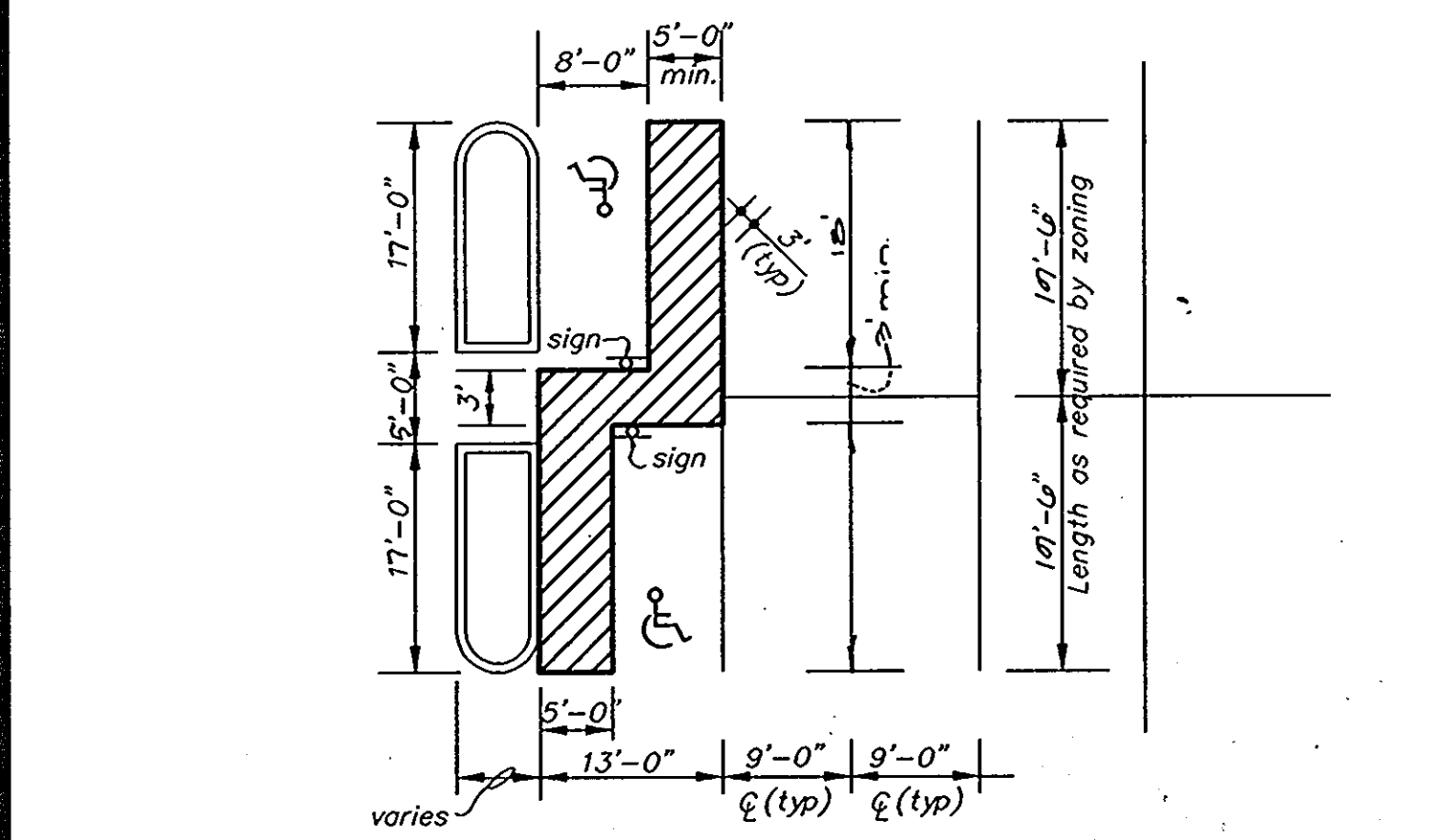
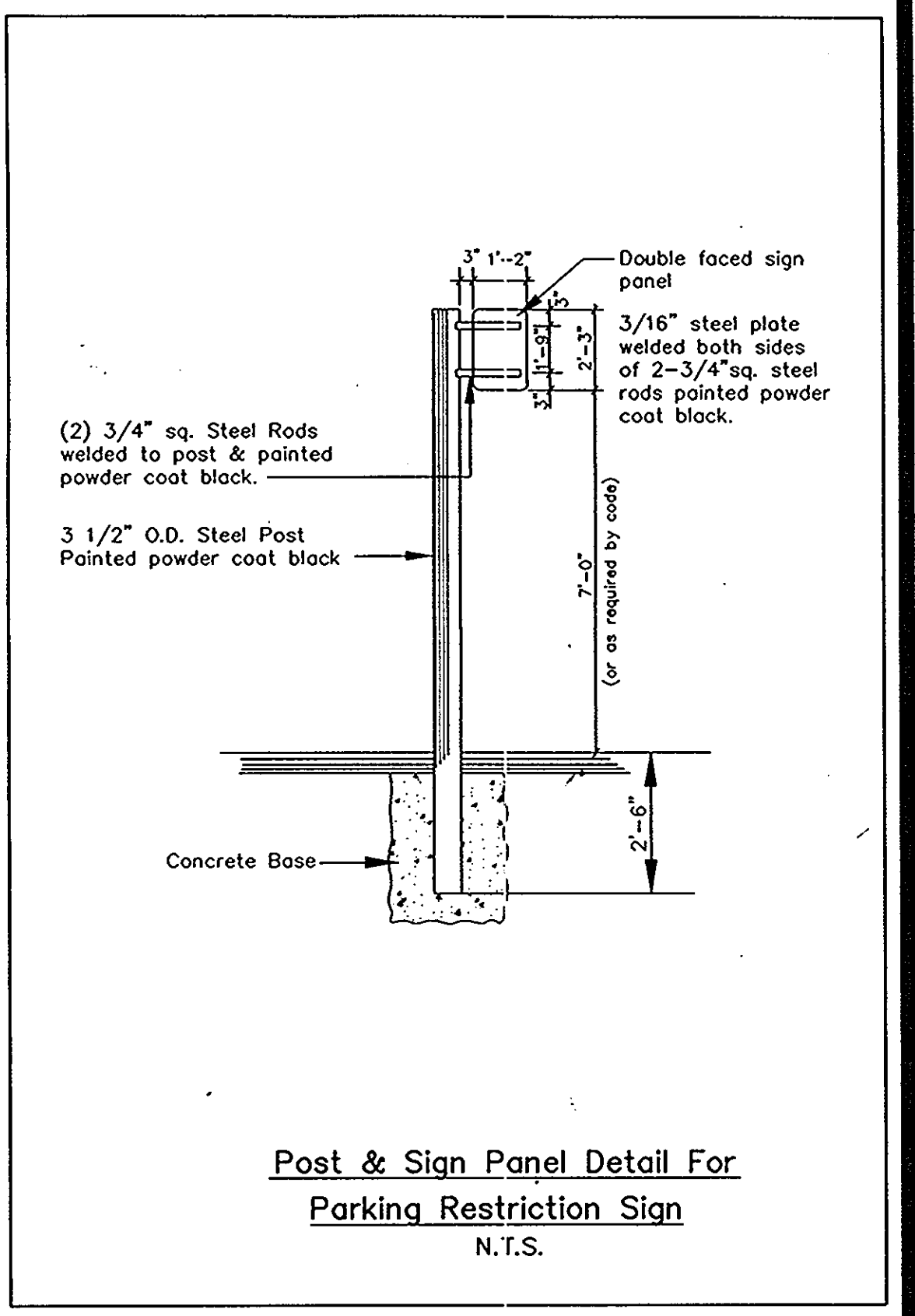
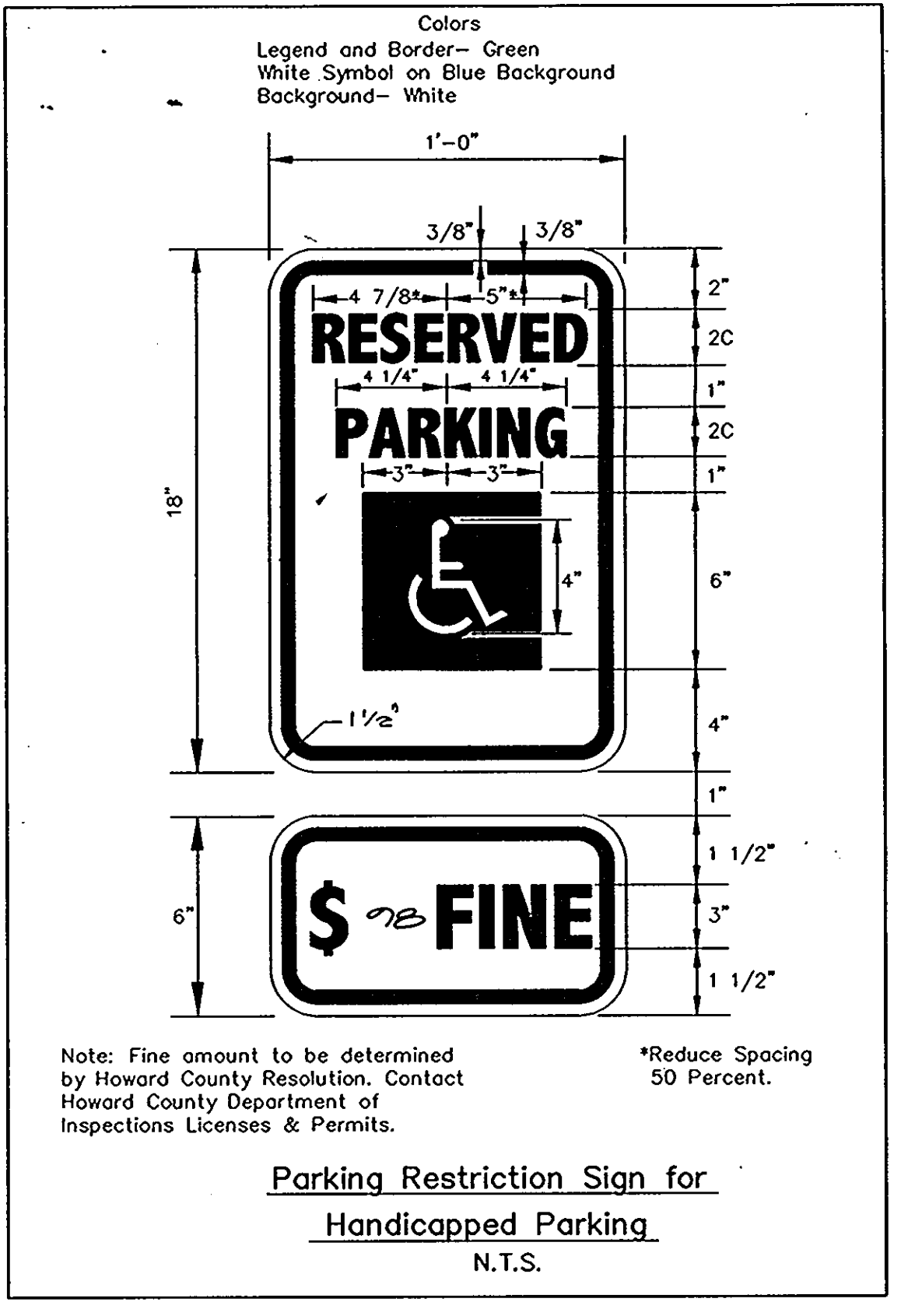
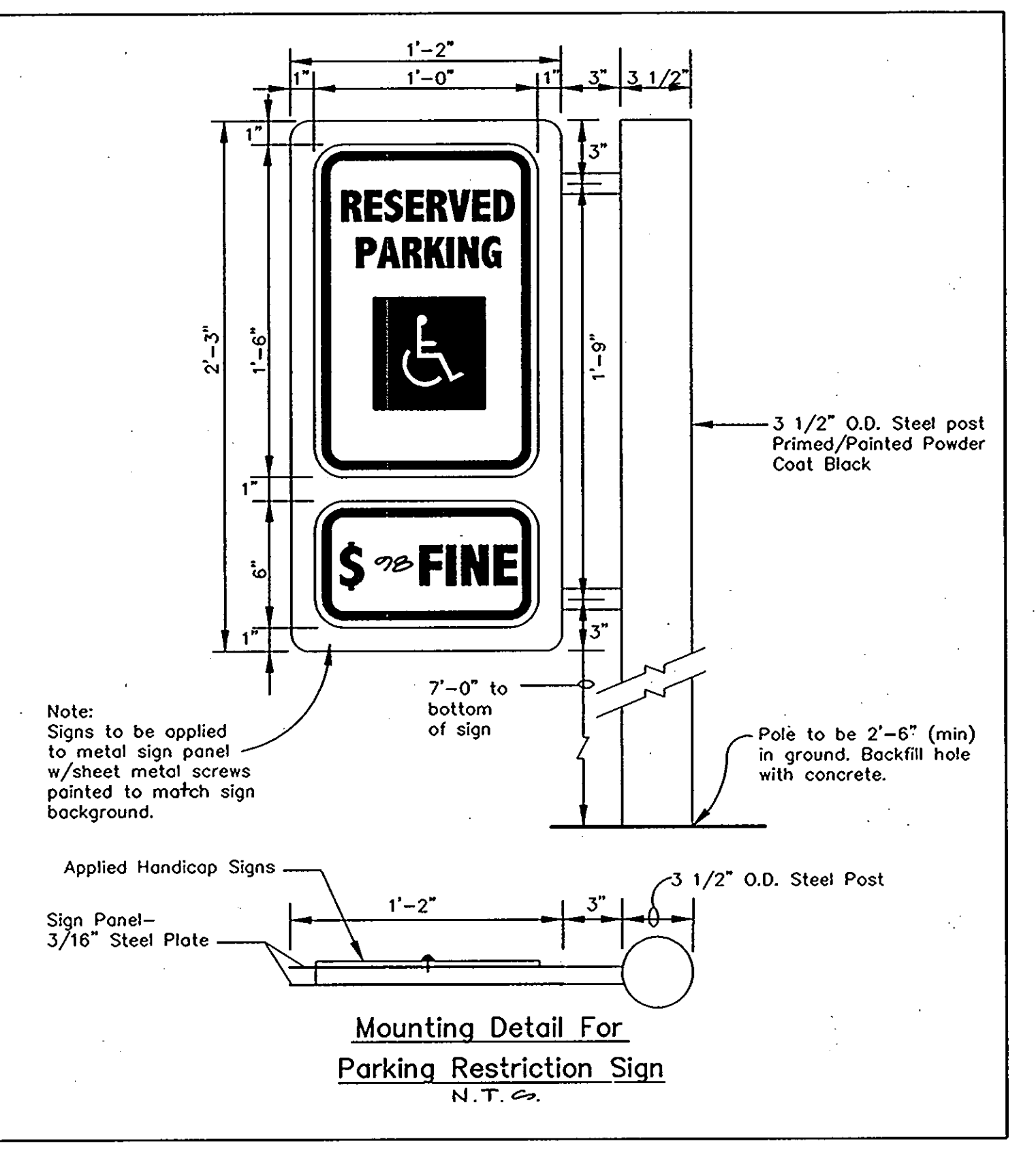
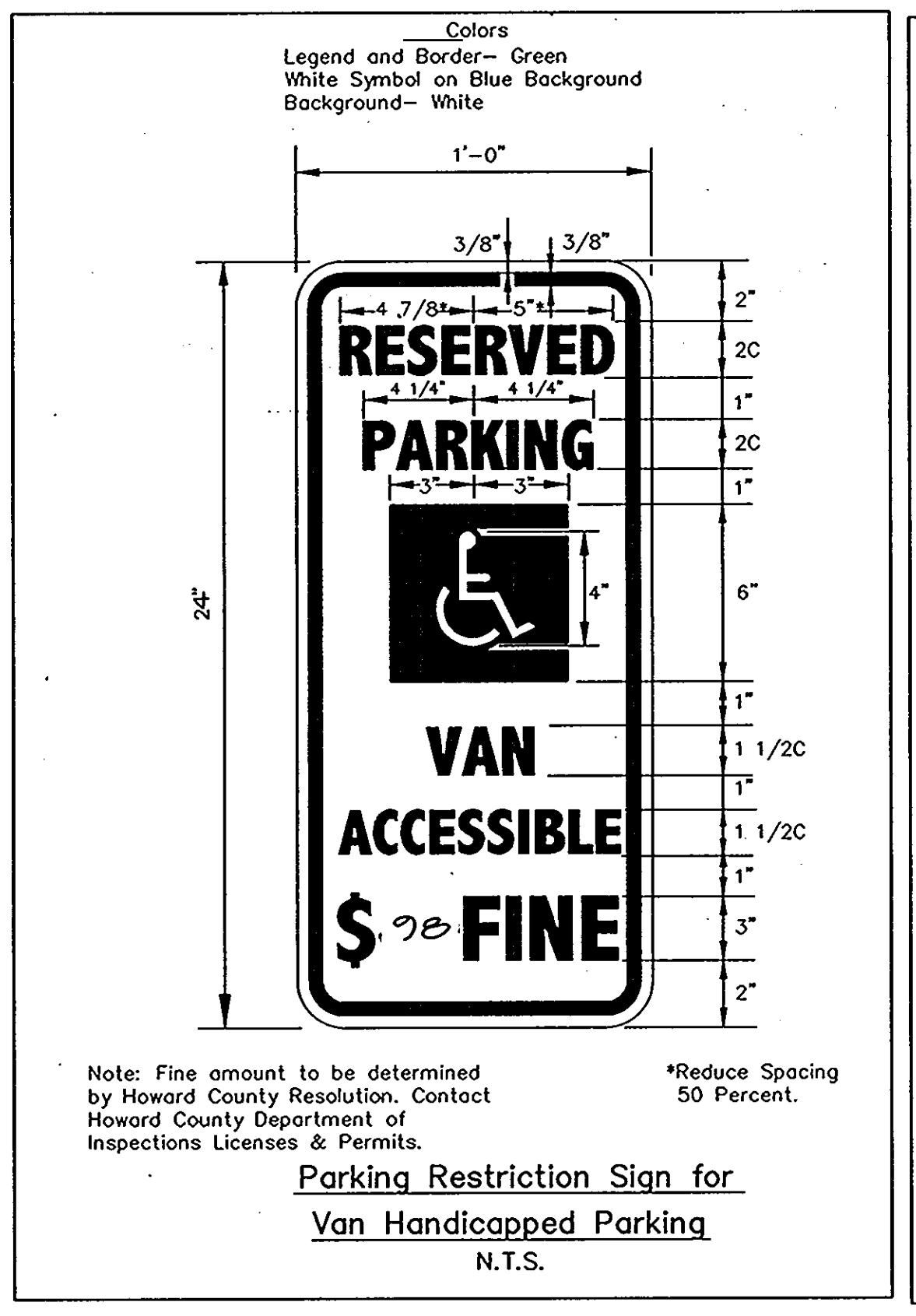
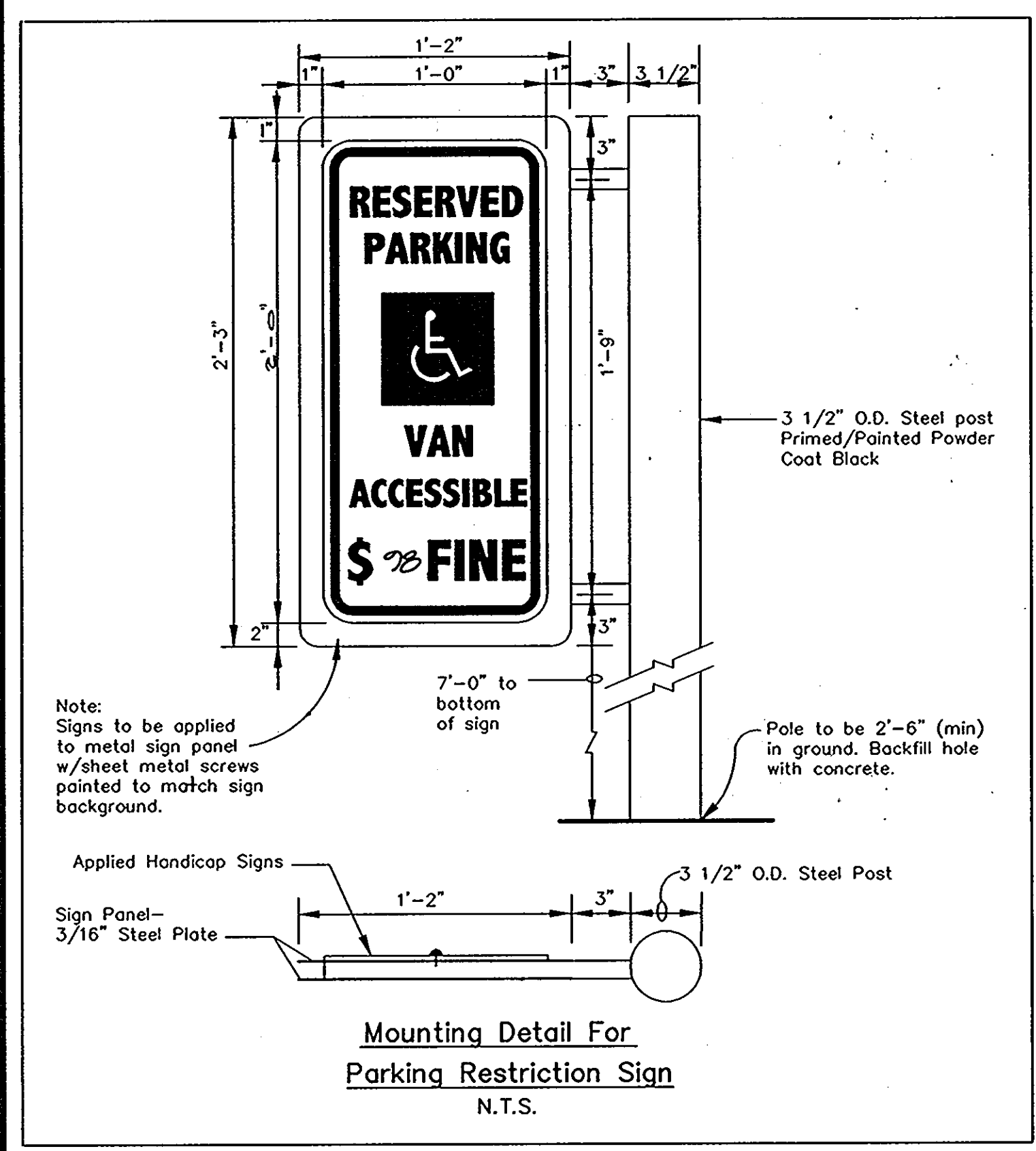
Proposed
STORMWATER MANAGEMENT DRAINAGE AREA MAP
COLUMBIA GATEWAY
Parcels T-1, T-2, T-4 and T-5
Plat No. 13462 thru 13464
& Plat No. 13710

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=100'	M-1	98067
DATE	TAX MAP - GRID	SHEET
NOVEMBER 1998	43-1,2,7,8	22 OF 22

GDP 99-54

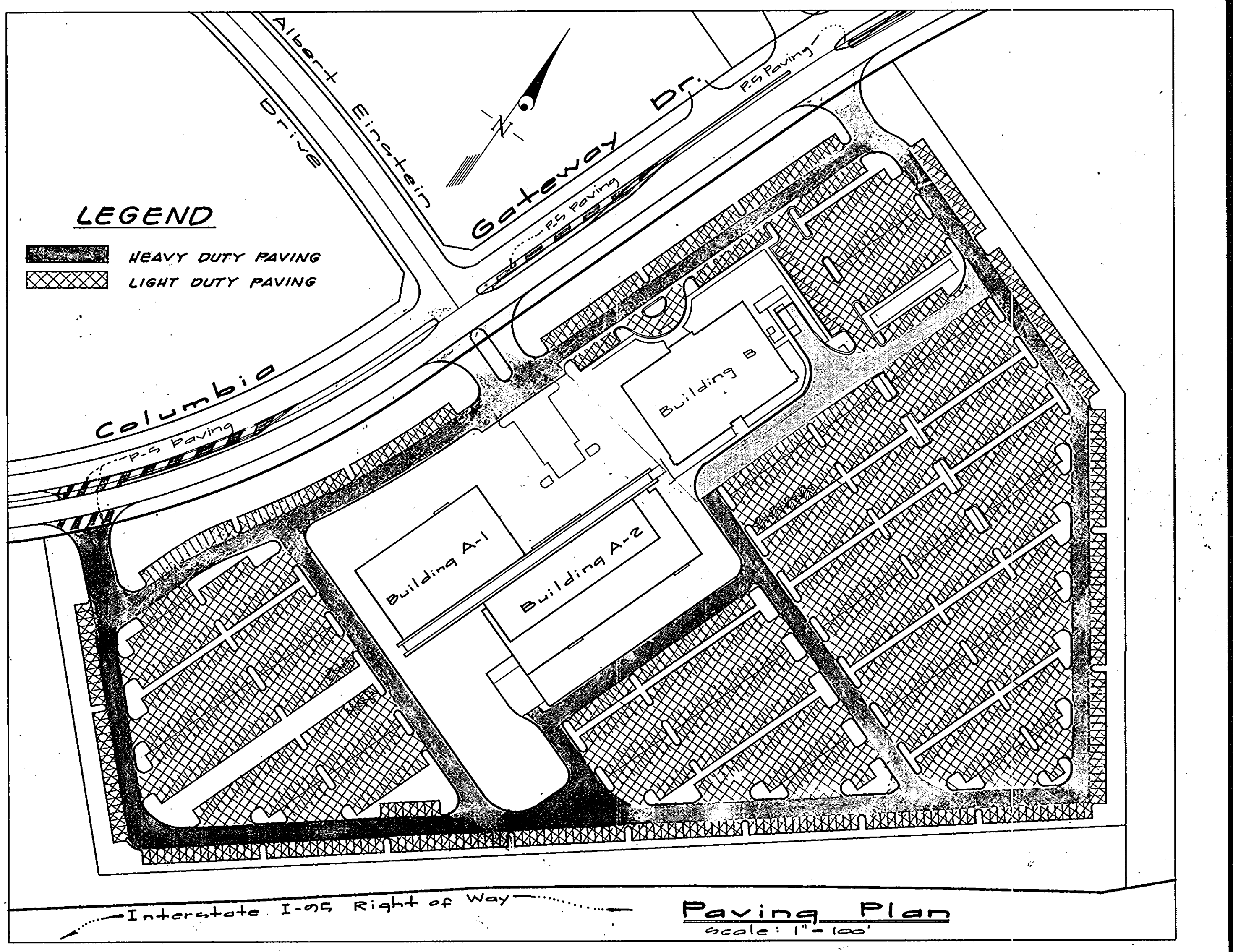


PAVING SECTIONS

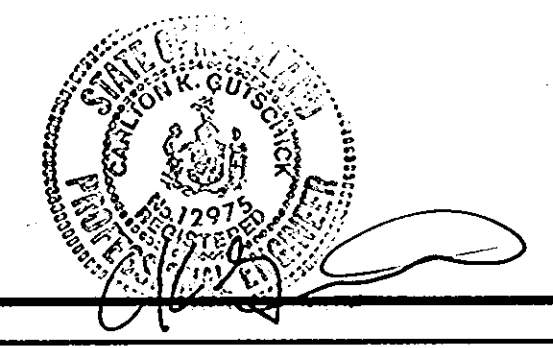
PAVEMENT MATERIAL	THICKNESS (INCHES)	
	HEAVY DUTY	LIGHT DUTY
HOT MIX ASPHALT SURFACE COARSE OR FINE (SC OR SP)	2.0	3.0
HOT MIX ASPHALT BASE FINE (BF)	3.0	-
GRADED AGGREGATE - SUBBASE (GA SIB)	5.0	5.0
TOTAL PAVEMENT THICKNESS	10.0	8.0
EQUIVALENT FULL DEPTH ASPHALT	7.0*	5.0*

*FOR FULL DEPTH ASPHALT THE UPPER 2 INCHES SHOULD CONSIST OF HOT MIX ASPHALT SURFACE - COARSE OR FINE (SC OR SP) WITH THE REMAINING DEPTH CONSISTING OF HOT MIX ASPHALT BASE - FINE (BF).
PAVING SECTIONS TAKEN FROM A REPORT OF SUBSURFACE EXPLORATION & GEOTECHNICAL ENGINEERING ANALYSIS PREPARED BY ECG, LTD DATED OCTOBER 10, 1992.

NOTE: P-5 PAVING SECTION IS NOMINAL & MAY VARY DUE TO SUBGRADE CONDITIONS.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *[Signature]* Date: 3/3/99
 Chief, Division of Land Development: *[Signature]* Date: 3/6/99
 Chief, Development Engineering Division: *[Signature]* Date: 3/6/99



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20868
 TEL: 301-421-4024 BALT: 410-800-1520 DC/VA: 301-969-2524 FAX: 301-421-4188

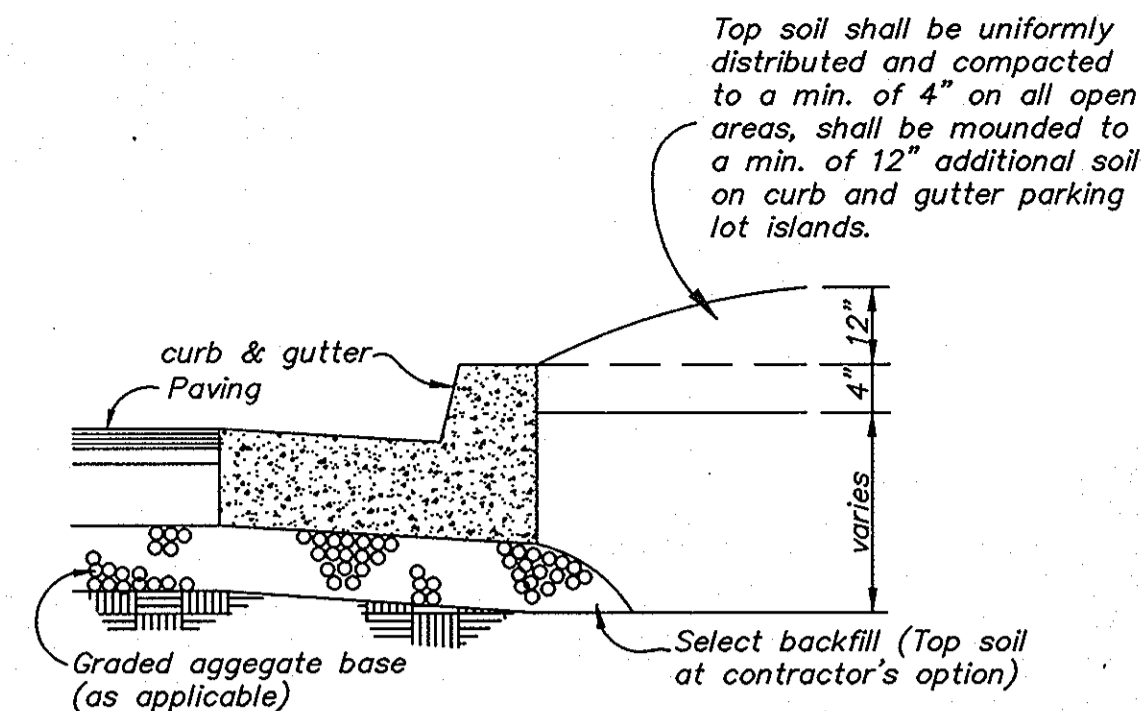
DATE	REVISION	BY	APPR.
02/25/00	change owner info and update paving plan	WesJ	

Owner Parcel T-1:
 Arix Gateway Columbia, LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago, IL 60600
 (312) 607-0445

Handicap/Plate Details & Paving Plan
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 Plat No. 13402 thru 13404
 & Plat No. 13110
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	M-1	98067
NOV. 1998	43 1,2,7,8	6 OF 22

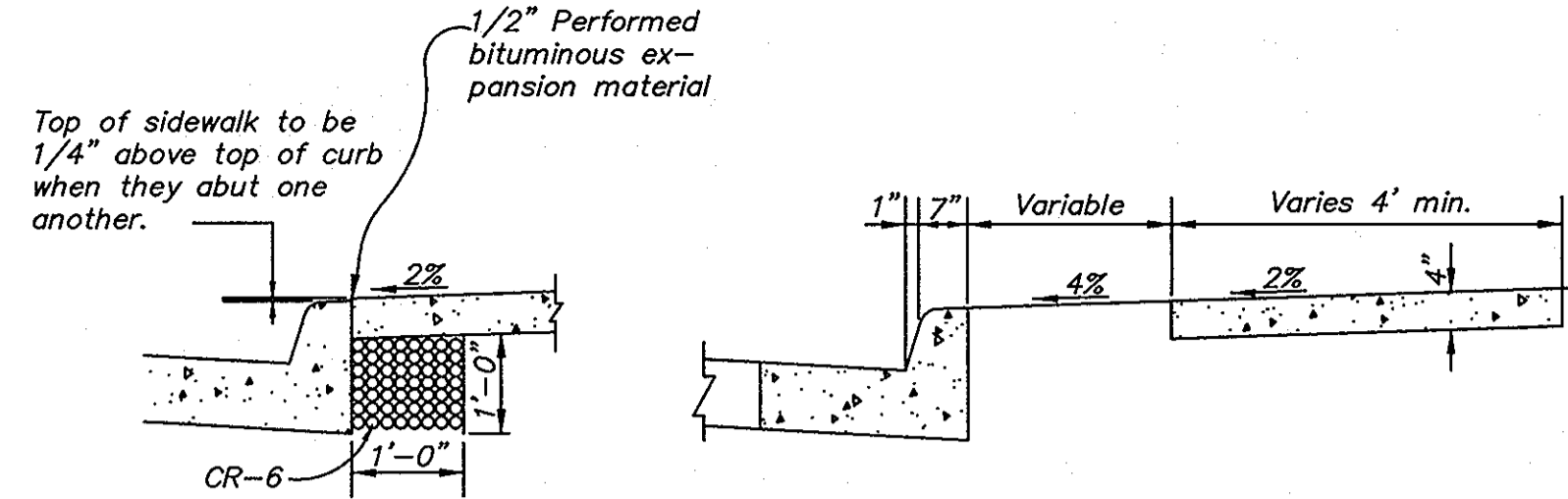
SDF 99-54



Topsoiling Detail
N.T.S.

Materials:

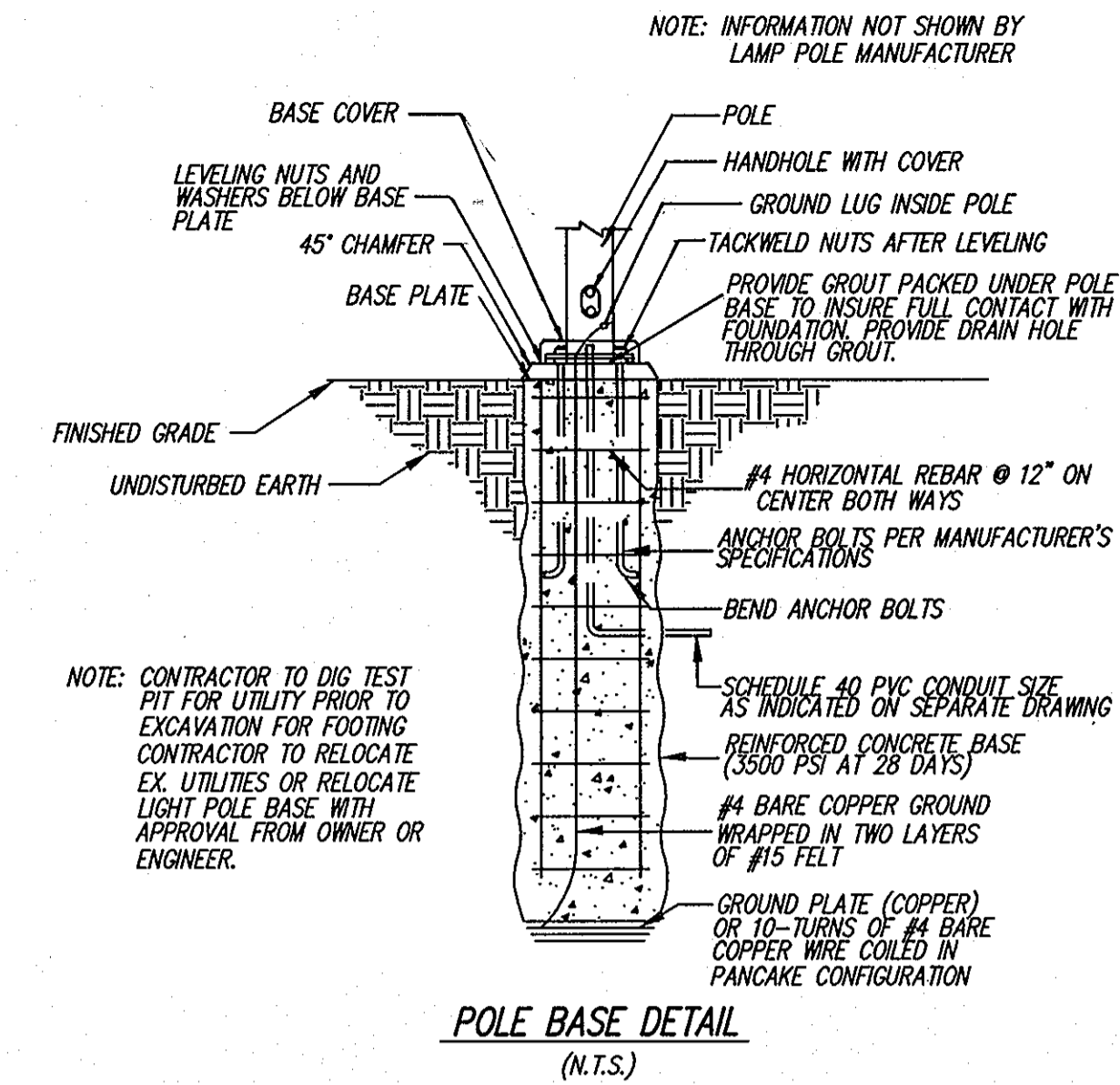
Top soil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand or other soil as approved by an Agronomist or soil scientist. It shall not have a mixture of contrasting textured subsoil and contain no more than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash or other extraneous materials larger than 1 1/2" in dia. Top soil must be free of plants or plant parts of bermuda grass, quack grass, Johnson grass, nutsedge, poison ivy, thistles, or others as specified. All top soil shall be tested by a recognized laboratory for organic matter content, pH and soluble salts. A pH of 6.0 to 7.5 and an organic content of not less than 6.0, lime shall be applied and incorporated with the top soil to adjust the pH to 6.5 or higher. Top soil containing soluble salts greater than 500 parts per million shall not be used.



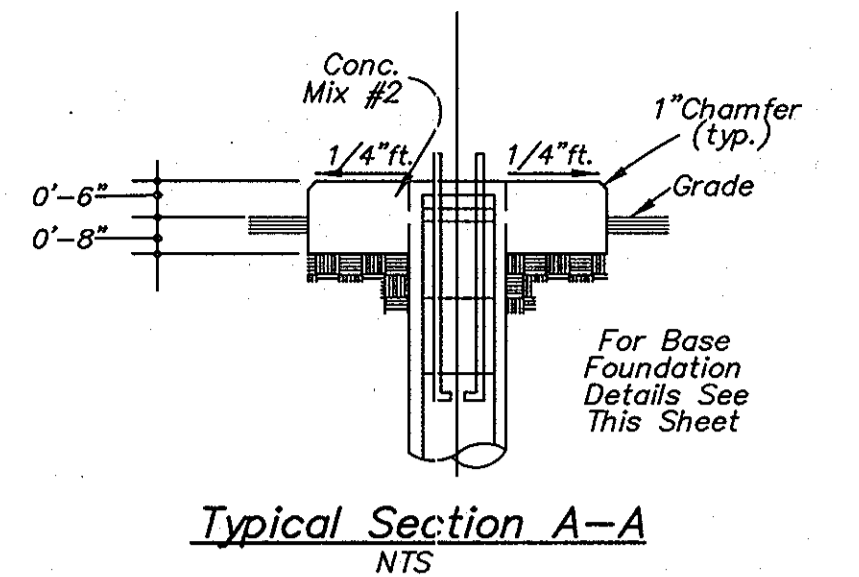
Detail A
N.T.S.

Sidewalk Detail
N.T.S.

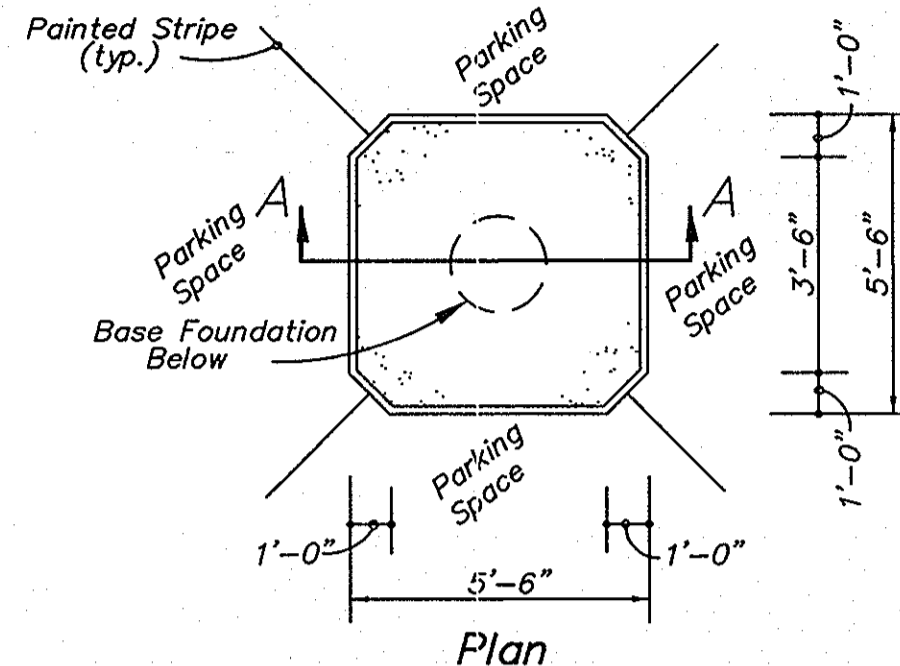
- Notes:
- Sidewalk to be scribed in 5' maximum squares.
 - Expansion joints across the sidewalk not to be more than 15' apart.
 - 1/2" preformed bituminous expansion material in expansion joints to be kept 1/4" below surface of sidewalk.
 - Concrete to be mix No.2
 - When sidewalk abuts curb, walk shall be 1/4" above curb with performed bituminous expansion material between sidewalk and curb and resting on a compacted crushed stone base. See detail A this sheet.
 - On longitudinal sidewalk grades of 5% or greater, a concrete header, 6" thick and 6" deep below the normal 4" sidewalk thickness shall be constructed for the full width of the sidewalk at intervals of 48'. The headers shall be placed at expansion joint locations and shall be monolithic with the sidewalk.



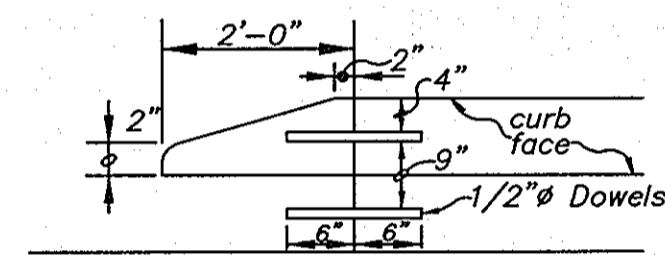
POLE BASE DETAIL
(N.T.S.)



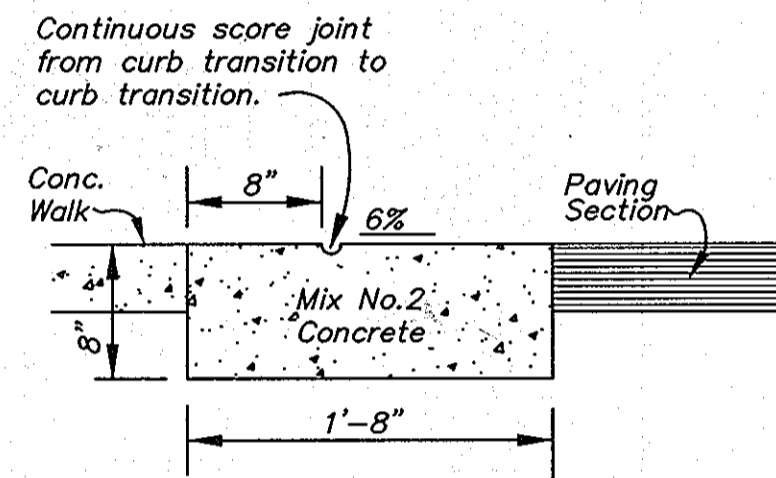
Typical Section A-A
NTS



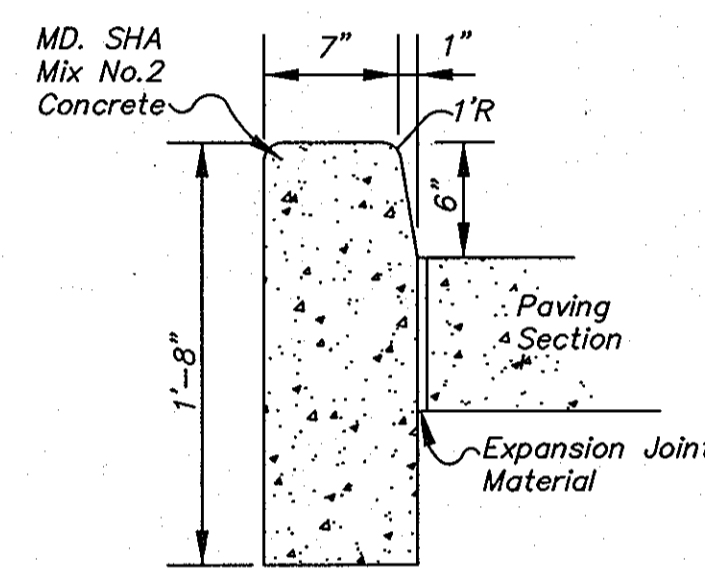
Concrete Light Pole Island Detail
NTS



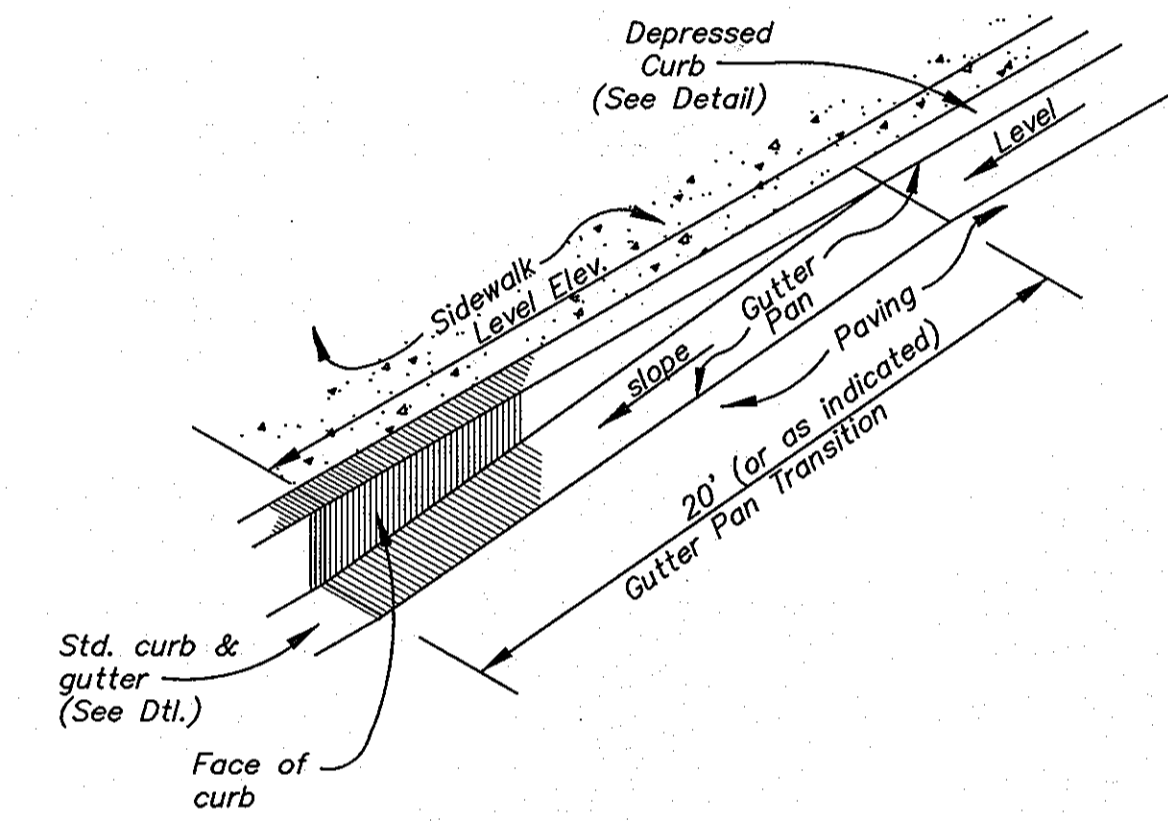
Nose Down Curb Detail
N.T.S.



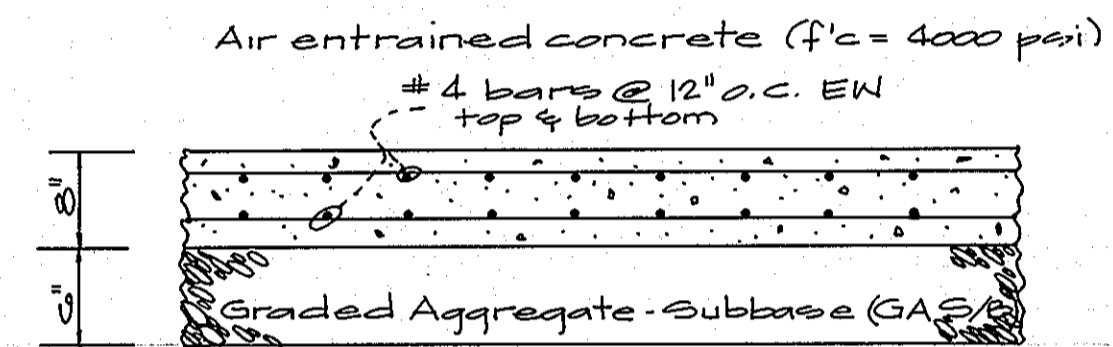
Depressed Curb Entrance
N.T.S.
(FLUSH CURB)



Barrier Curb
(on-site)
N.T.S.
(HEADER CURB)

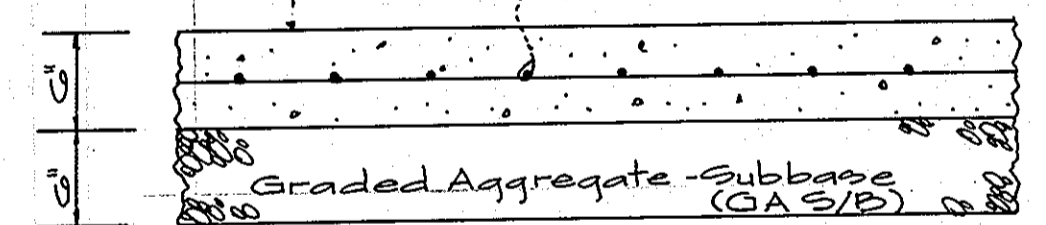


Gutter Transition - Isometric
N.T.S.



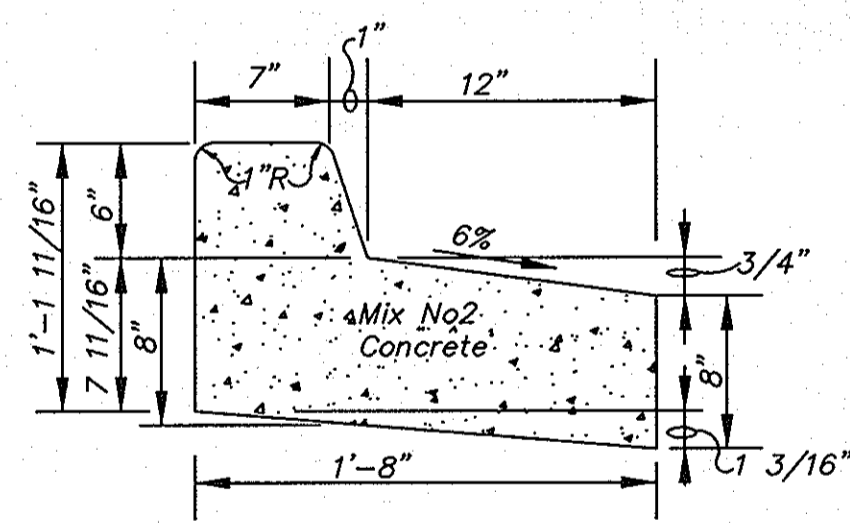
Conc. Paving Section - Loading Area

- Notes:
- Provide contraction joints @ 15'-20' intervals maximum.
 - Provide sawed construction joints w/ #4 smooth bars @ 12" o.c. (one side wrapped in bldg. paper)
 - Provide preformed isolation joint fillers as required
 - Air entrained concrete (f'c = 4000 psi)
 - 6" x 6" NWF G-G

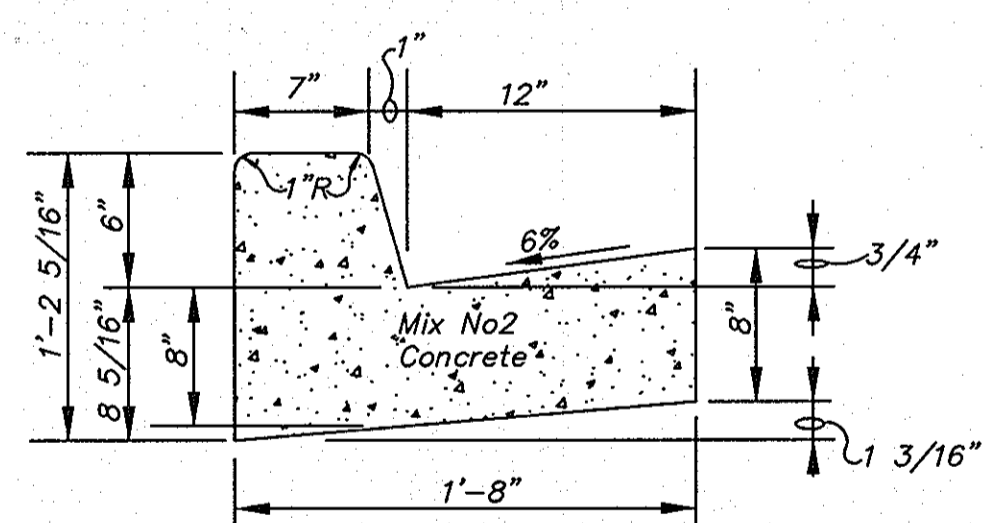


Conc. Paving Section - Entry Court Area

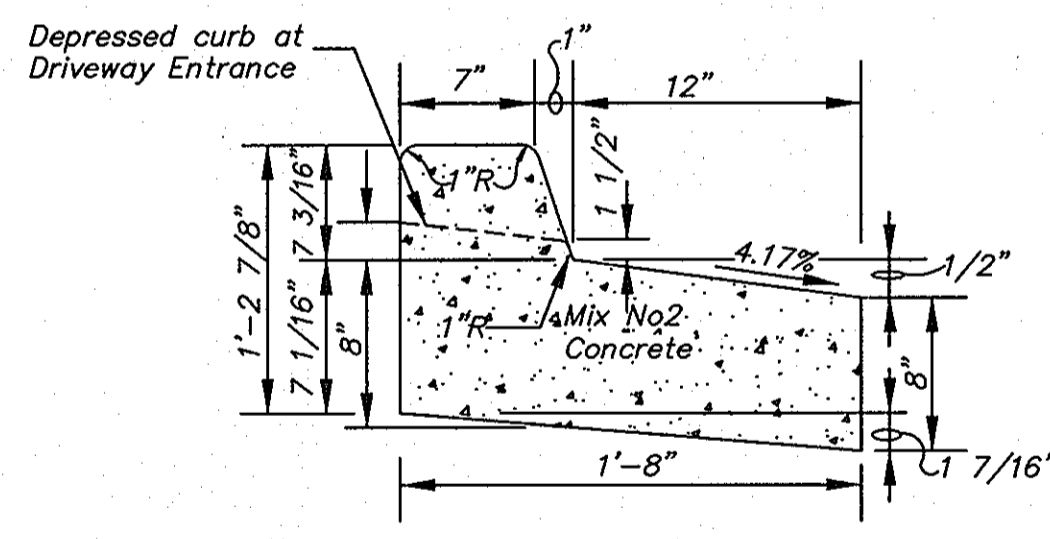
- Notes:
- Provide contraction joints @ 12' to 15' intervals maximum.
 - Provide keyed construction joints
 - Provide preformed isolation joint filler as required.
 - Coordinate joint pattern w/ Arch. & Landscape.



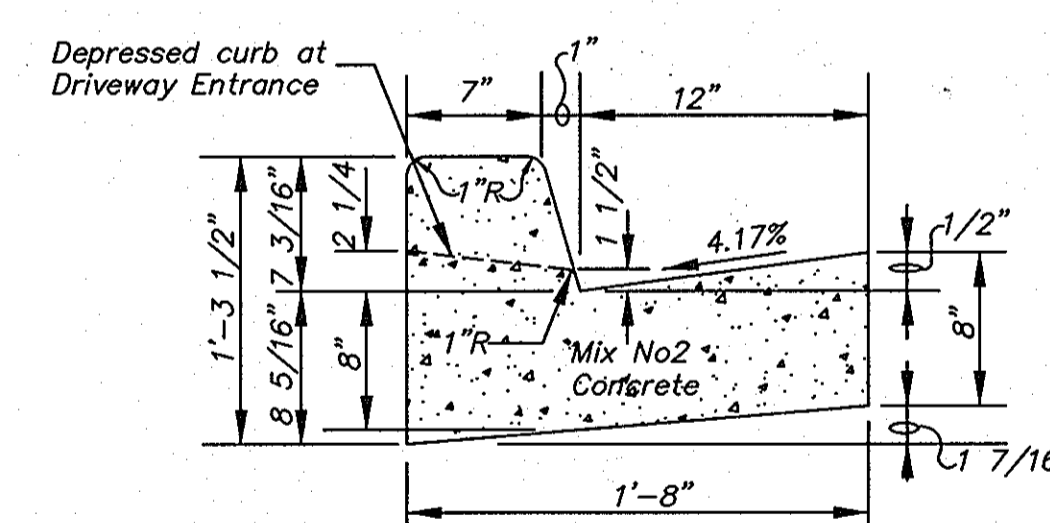
Reverse 6" Combination Curb & Gutter
N.T.S.



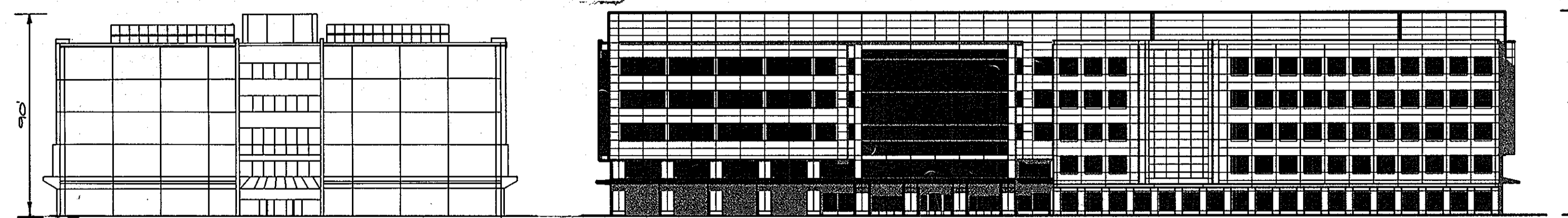
Standard 6" Combination Curb & Gutter
N.T.S.



Reverse 7" Combination Curb & Gutter
N.T.S.
(FOR RIGHT-OF-WAY ONLY)

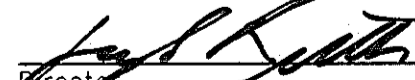
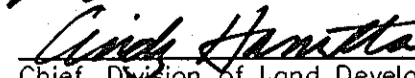



Standard 7" Combination Curb & Gutter
N.T.S.
(FOR RIGHT-OF-WAY ONLY)



SCHEMATIC BUILDING ELEVATION
NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

 3/3/99
 Date
 3/3/99
 Date
 3/2/99
 Date



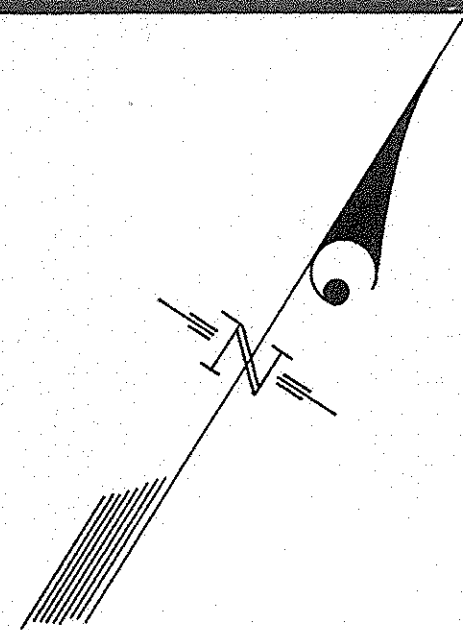
Owner Parcel T-1:
 Crix Gateway Columbia LLC
 100 N. Riverside Plaza
 Suite 400
 Chicago IL 60606
 (312) 667-4444

SITE DETAILS
COLUMBIA GATEWAY
 Parcels T-1, T-2, T-4 & T-5
 PCAT No. 19A02 thru 19A04
 & Plat No. 10716

SCALE	ZONING	G. L. W. FILE No.
1"=20'	M-1	98067
DATE	TAX MAP - GRID	SHEET
NOVEMBER 1998	43 1,2,7,8	5 OF 22

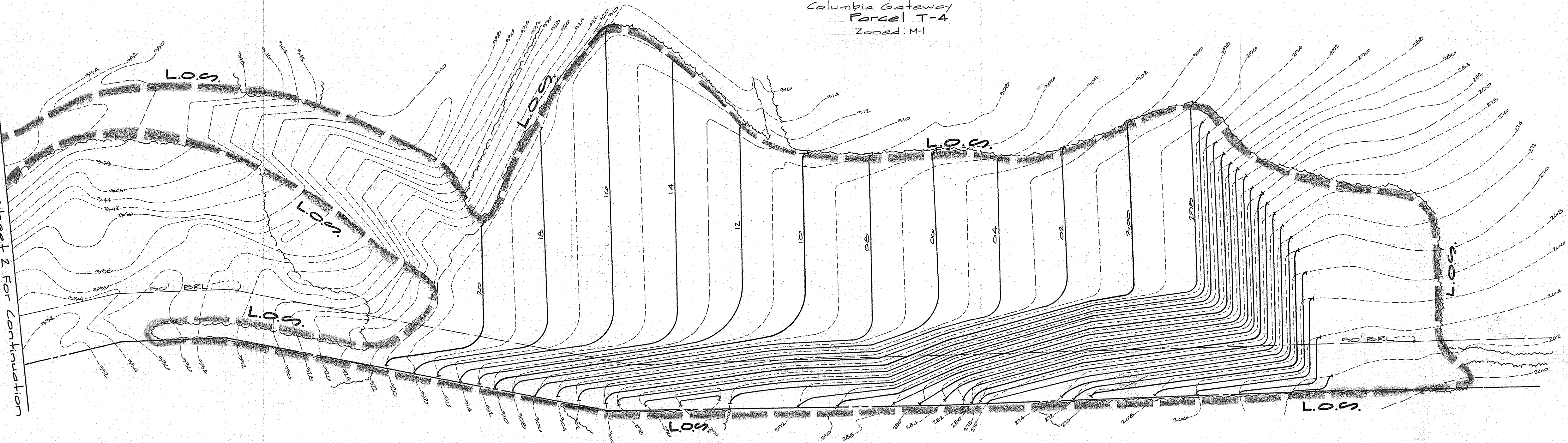
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-680-1820 DC/VA: 301-389-2524 FAX: 301-421-4186

DES.	DRN.	CLB	CHK.	DATE	REVISION	BY	APP'R.



The Howard Research & Development Corp
 Columbia Gateway
 Parcel T-4
 Zoned: M-1

Match Line See Sheet 2 For Continuation



Interstate Route 95 Right of Way

Note: This site has been mass graded under GP-99-75

Approved: Howard County Department of Planning & Zoning
 Date: 3/3/99
 Signature: [Signature]
 Chief, Division of Land Development
 Date: 2/2/99
 Signature: [Signature]
 Chief, Development Engineering Division



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866

TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
	allow change owner information	WGL	

Owner Parcel T-1:
 Columbia Gateway Columbia, LLC
 100 Riverside Plaza
 Suite 400
 Chicago, IL. 60606
 (312) 669-6445

Grading Plan
Columbia Gateway
 Parcels T-1, T-2, T-4 & T-5

Plat # 13402 thru 13404
 & Plat No. 13716

Election District No. 6

Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE No.
DRN.:	1" = 50'	M-1	98-007
CHK.:	DATE	TAX MAP No.	SHEET
	November, 1998	47 1,2,7,8	4 of 22

GDP 99-54