SITE DATA ANALYSIS: A. TOTAL PROPERTY AREA: 24.76 AC.± (1,078,545.60 S.F.) B. AREA OF SITE PLAN SUBMISSION: 1.58 AC.± (61,945 S.F.) C. LIMIT OF DISTURBED AREA: 1.58 AC.± (61,945 S.F.) D. PRESENT ZONING: E. PROPOSED USE OF SITE: CLUBHOUSE & CABANA BUILDING W\SWIMMING POOL SWIMMING POOL & CLUBHOUSE F. EXISITNG USE OF SITE: G. FLOOR SPACE OF PROPOSED BUILDINGS PER USE: CLUBHOUSE: 6,089 S.F. (0.139 AC.) CABANA: 706 S.F. (0.017 AC.) POOL AREA: 3.202 S.F. (0.074 AC.) H. NUMBER OF PARKING SPACES REQUIRED ON SITE: POOL AREA (MAX. 5' DEPTH): 3,202 S.F. MAX. OCCUPANCY: 267 PERSONS REQUIRED PARKING: 1 SPACE\10 PERSONS=27 SPACES TOTAL REQUIRED: 27 SPACES I. PROP. NUMBER OF PARKING SPACES PROVIDED ON SITE: 27 SPACES (INCLUDING 2 HANDICAPPED) PROP. BUILDING COVERAGE OF PROPERTY AREA: 0.156 AC./24.76 AC. (0.63% OF PROPERTY AREA) PROP. PARKING COVERAGE OF PROPERTY AREA: 0.28 AC./24.76 AC. (1.13% OF PROPERTY AREA) PROP. POOL COVERAGE OF PROPERTY AREA: 0.07 AC./24.76 AC. (0.30% OF PROPERTY AREA) K. APPLICABLE DPZ FILE REFERENCE: SDP-81-14, SDP-69-18, SDP-68-03, F-68-51, F-69-38 **GENERAL NOTES:** 1. THE TOPOGRAPHY SHOWN IS BASED UPON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY WHITNEY, BAILEY, COX & MAGNANI, LLC ON 6/17/02 AND REFLECTS SITE CONDITIONS AS OF THAT DATE. 2. COORDINATES AND COURSES SHOWN HEREON ARE REFERRED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM, NAD 83 (1991), AS DETERMINED FROM THE FOLLOWING HOWARD COUNTY CONTROL SURVEY MONUMENTS AS PUBLISHED AS FOLLOWS: NGS HORIZONTAL CONTROL SURVEY MONUMENTS: DISK "18G1"; N 589,984.951 E 1,367,750.255 CONC.MONUMENT DISK "24C2"; N 588,648.312 E 1,366,038.195 CONC.MONUMENT 3. ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AS DETERMINED FROM THE FOLLOWING HOWARD COUNTY SURVEY CONTROL MONUMENT, PUBLISHED AS FOLLOWS; BENCH MARK 17IM2 (AKA 17TB) NAVD88 ELEV.= 324.775(feet) DECSRIPTION: CHISELED BOX @ S/W WINGWALL OF BRIDGE ON ROGERS AVENUE 100'± SOUTH OF TOWN & COUNTRY BLVD. 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF ANY WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT PRIOR TO THE START OF ANY WORK. 5. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES BEFORE COMMENCING ANY WORK. . CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE COST OF REPAIR OF ANY AND ALL DAMAGES WHICH OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES TO REMAIN. 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF ANY EXCAVATION WORK. 7. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY INVERTS AND CLEARANCES FROM NEW WORK PRIOR TO START OF ANY WORK. 8. ALL DISTURBED AREAS NOT STABILIZED WITH STRUCTURES, PAVING, AND PLANTINGS SHALL BE STABILIZED WITH FOUR INCHES OF TOPSOIL, SEED, MULCH, AND WATER TO ESTABLISH AN ADEQUATE GROWTH OF VEGETATION. 9. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS. 10. THE TOPS OF ALL FRAMES, GRATES, AND COVERS OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONTRACT AND/OR DISTURBANCE SHALL BE ADJUSTED TO THE NEW GRADES. 11. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES. 12. NUMERICAL DIMENSIONS AND ELEVATIONS SHOWN SHALL SUPERSEDE ANY DISCREPANCY IN THE SCALING ON THE DRAWINGS. 13. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND

SPECIFICATIONS OF HOWARD COUNTY AND THE MD. STATE HWY. ADMINISTRATION.

15. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH

17. ALL EXTERIOR LIGHT FIXTURES SHALL BE ORIENTED TO DIRECT LIGHT INWARDS AND

20. THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY

CONDITIONS. PRIOR TO PAYING, THE FINAL PAVEMENT SECTIONS SHALL BE

21. STORM WATER MANAGEMENT IS A PRIVATE BIORETENTION WATER QUALITY FACILITY.

25. FOREST CONSERVATION FOR THIS PROJECT IS EXEMPT UNDER SECTION 16.1203.b.1(iii)

26. TRASH REMOVAL IS PROVIDED BY PRIVATE CONTRACTOR AT THE EXISTING DUMPSTERS LOCATED ON THE SITE IN THE PARKING LOT NEAR ROGERS AVENUE. SEE SITE PLAN

OF THE HOWARD COUNTY SUBDIVIDION REGULATIONS. SITE GRADED PRIOR TO 12/31/92

DEPARTMENT OF PLANNING AND ZONING

22. THERE IS A FLOODPLAIN ON THIS SUBJECT PROPERTY AS SHOWN ON RECORDED

IN ACCORDANCE WITH THE APPROVED FINAL ROAD PLAN AND SDP-68-03.

THE ON-SITE TESTING REQUIRES PAVEMENT DESIGN TO BE CHANGED.

MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC

THE FINISHED SUBGRADE. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER. APPROVAL FROM THE COUNTY SHALL BE OBTAINED IF

DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITE TESTING OF

16. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

18. EXISTING WATER IS PUBLIC AND BASED ON CONTRACT NO. 280-W&S

19. EXISTING SEWER IS PUBLIC AND BASED ON CONTRACT NO. 150-W&S

MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE

THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

ALL STREET REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY

14. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST

(5) FIVE WORKING DAYS PRIOR TO THE START OF WORK.

COUNTY ZONING REGULATIONS.

PLATS F-68-51 AND F-69-38.

ON THIS SHEET FOR LOCATION.

Chief, Division of Land Development

Howard County Health Department

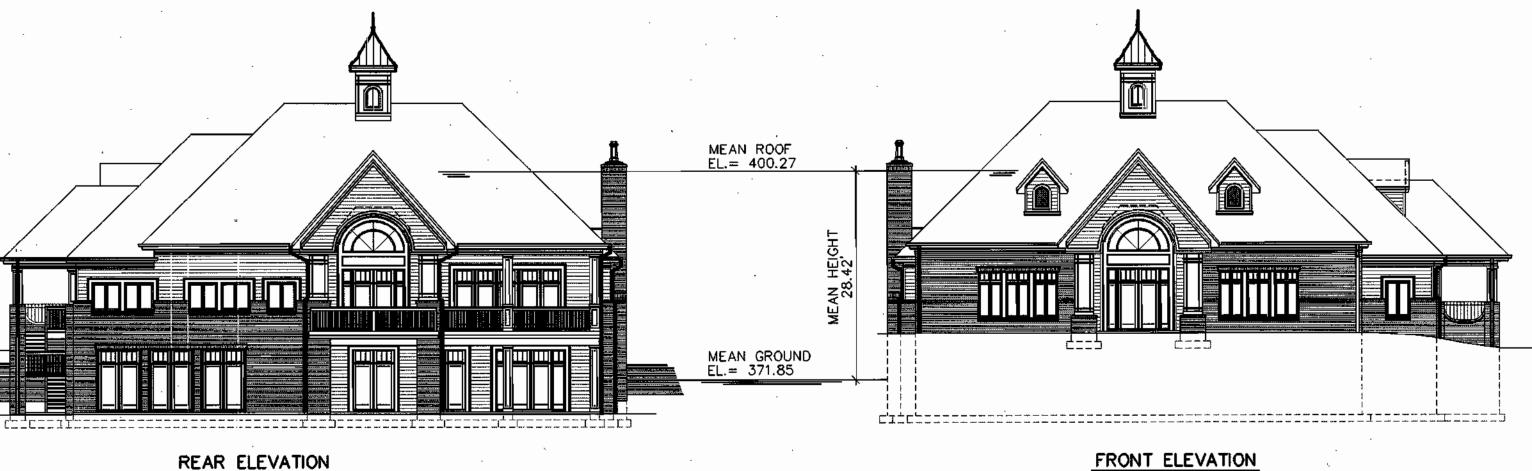
County Health Officer

23. THERE ARE NO WETLANDS ON THIS SITE.

24. NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.

LEGEND PROPOSED BUILDING EX. BLDG. NEW BLDG. BITUMINOUS PAVING BIT, PAVING CONCRETE SIDEWALK STORM DRAIN SANITARY WATER ELECTRIC TELEPHONE ELEC/TELE DUCT ----- FT -----VALVE HYDRANT MANHOLE INLET DOWNWARDS ON-SITE AWAY FROM ALL ADJOINING RESIDENTIAL USE PROPERTIES AND PUBLIC ROADS. OUTDOOR LIGHTING SHALL BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD CONTOUR ---- 160---- **---- 160---**TREE PROPERTY LINE LIMIT OF DISTURBANCE OUTDOOR LIGHT SOIL BOUNDARY ZONING BOUNDARY EASEMENT

SITE DEVELOPMENT PLAN FOR NEW CLUBHOUSE AND POOL WEST APARTMENTS HOWARD COUNTY, MARYLAND SDP-03-028



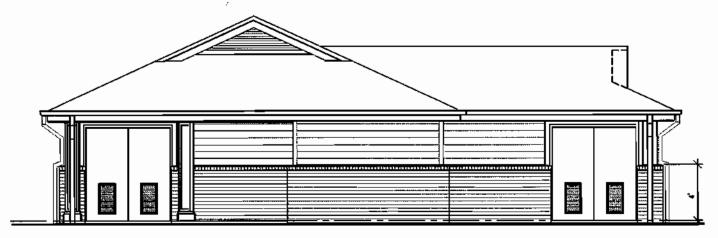
PROPOSED CLUBHOUSE BUILDING

N.T.S.

FRONT ELEVATION



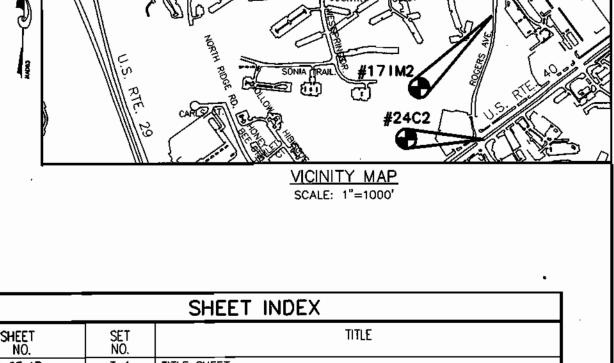
REAR ELEVATION



N.T.S.

	ADDRESS CHART
-LOT/PARCEL NO.	STREET ADDRESS
POOL/CABANA	8730 TOWN & COUNTRY BLVD.
crashonse	8732 '' " " "

PERMIT INFORMATION CHART							
SUBDIVISION NAME			SECTION/AR		PARCEL/LOT NO.		
TOWN & COUNTRY WEST			SECTION 5 & REVISED SECTION 4		PARCEL 355		
PLAT NO. OR 1/F	PLAT NO. OR L/F BLOCK NO. ZONING		TAX MAP	ELECT. DISTR.	CENSUS TRACT NO.		
PBK17, F.71	PBK17, F.71 24 RA-15			2	6026.00		
WATER CODE			SEWER CODE				
			14538	800			



SHEET INDEX						
SHEET No.	SET NO.	TITLE				
1 OF 17	T-1	TITLE SHEET				
2 OF 17	C-1	EXISITNG CONDITIONS PLAN				
3 OF 17	C-2	DEMOLITION PLAN				
4 OF 17	C-3.1	LAYOUT PLAN .				
5 OF 17	C-3.2	SITE DETAILS				
6 OF 17	C-4	GEOMETRY PLAN				
7 OF 17	C-5.1	GRADING AND UTILITY PLAN				
8 OF 17	Ç-5.2	STORM DRAIN PROFILES				
9 OF 17	C-5.3	WATER & SEWER PROFILES				
10 OF 17	C-5.4	STORM DRAIN DRAINAGE AREA MAP				
11 OF 17	C-6.1	LANDSCAPE PLAN				
12 OF 17	C-6.2	LANDSCAPE DETAILS				
13 OF 17	C-7.1	SEDIMENT & EROSION CONTROL PLAN				
14 OF 17	C-7.2	SEDIMENT & EROSION CONTROL DETAILS				
15 OF 17	C-7.3	SEDIMENT & EROSION CONTROL NOTES				
16 OF 17	C-8.1	STORM WATER MANAGEMENT PLAN				
17 OF 17	C-8.2	STORM WATER MANAGEMENT DETAILS & NOTES				

TC-WEST/GREENVIEW COMPANY 100 S. CHARLES ST., SUITE 1700 BALTIMORE, MARYLAND 21201 (410) 539-7600 DEED REFERENCE = 951/497

OWNER/DEVELOPER

TITLE SHEET

REVISIONS

TOWN & COUNTRY WEST SECTION 5 & REVISED SECTION 4 IN ELLICOTT CITY

8730 TOWN & COUNTRY BLVD. HOWARD COUNTY, MARYLAND

ENGINEERS:

MEAN GROUND

DATE

EL.= 365.50

Consulting Engineers 849 Fairmount Avenue Baltimore, Maryland 21286

(410) 512-4500 (410) 324-4100 (FAX)



WHITNEY, BAILEY, CO	OX & MAGNANI, LLC		
DESIGNED: D.J.J.	ELECTION DIST.: 2		
DRAWN: S.J.D.	CENSUS TRACT #: 6026.00		
CHECKED: P.J.C.	WATER CODE: F-03		
DATE: 4/2/03	SEWER CODE: 1453800		
SCALE: AS SHOWN	DRAWING NO:		
MAP NO.: 17	T 4		
GRID NO.: 24	T-1		
PARCEL NO.: 151 355	SHEET 1 OF 17		

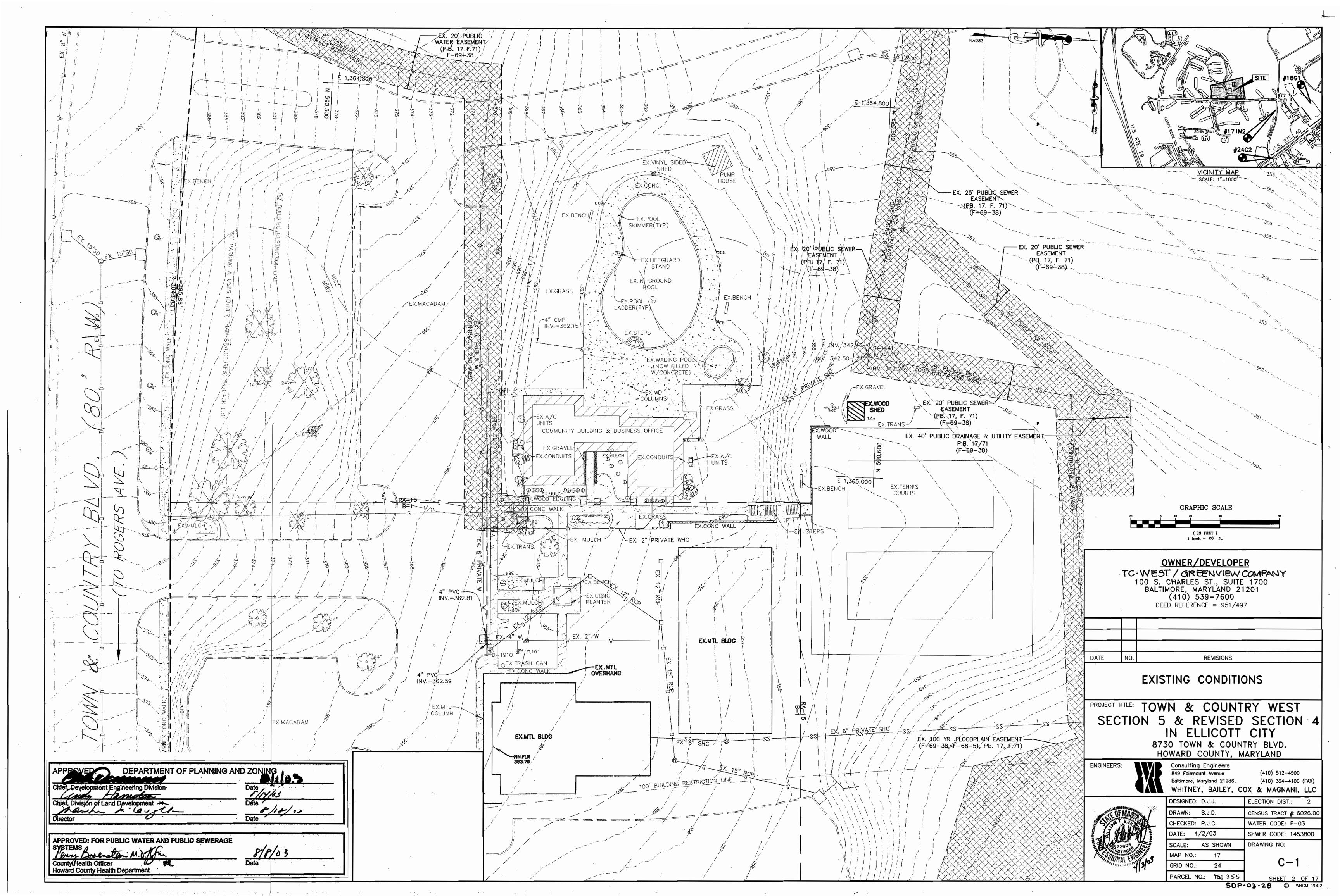
SDP-03-28

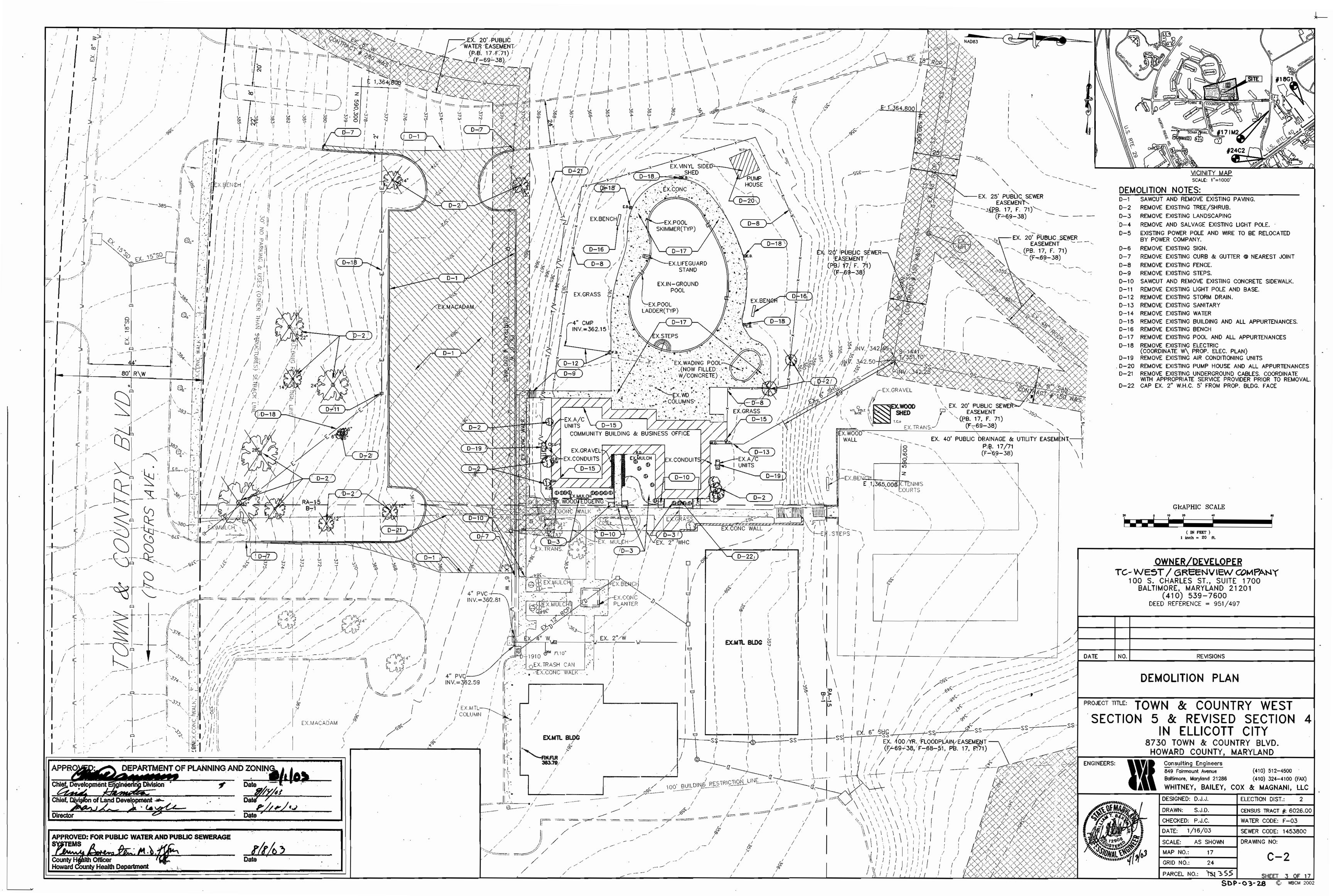
SECTION 5 & REVISED SECTION P.B. 17, F. 71 F-69-38 24.76 AC.+/--PROP. CLUBHOUSE BUILDING PROP. CABANA BUILDING -PROP. POOL

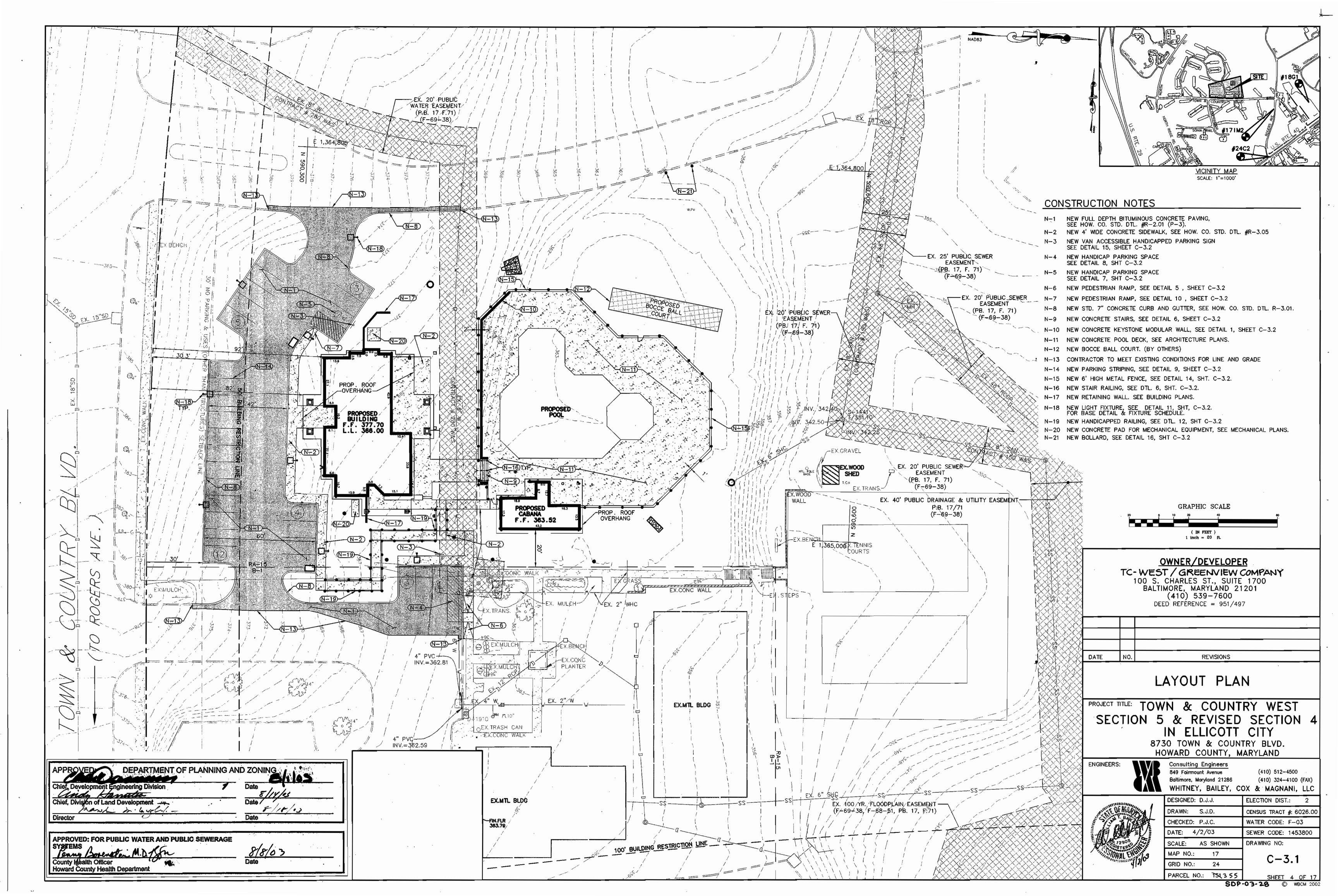
SITE PLAN SCALE 1" = 200'

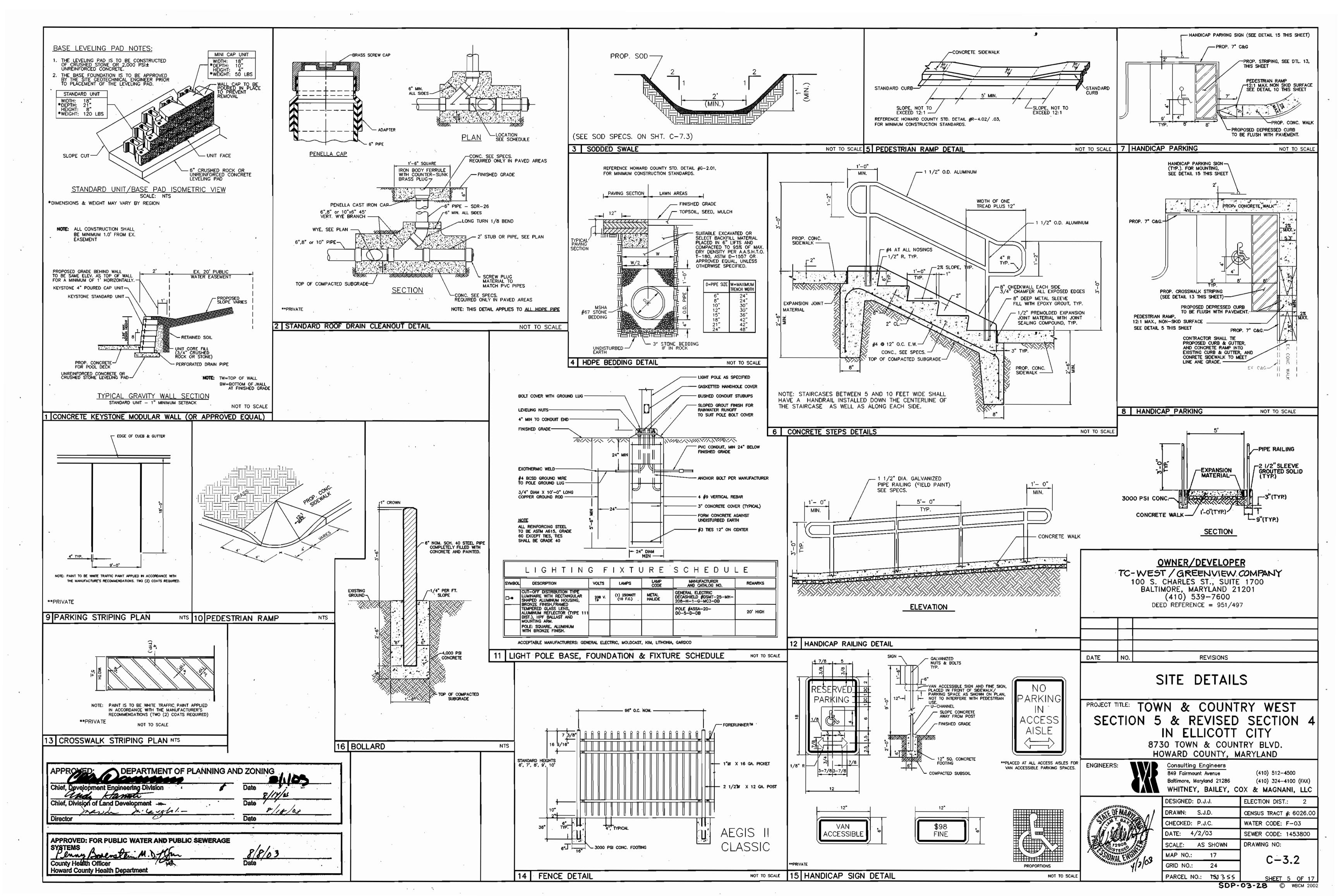
FRONT POOLSIDE ELEVATION

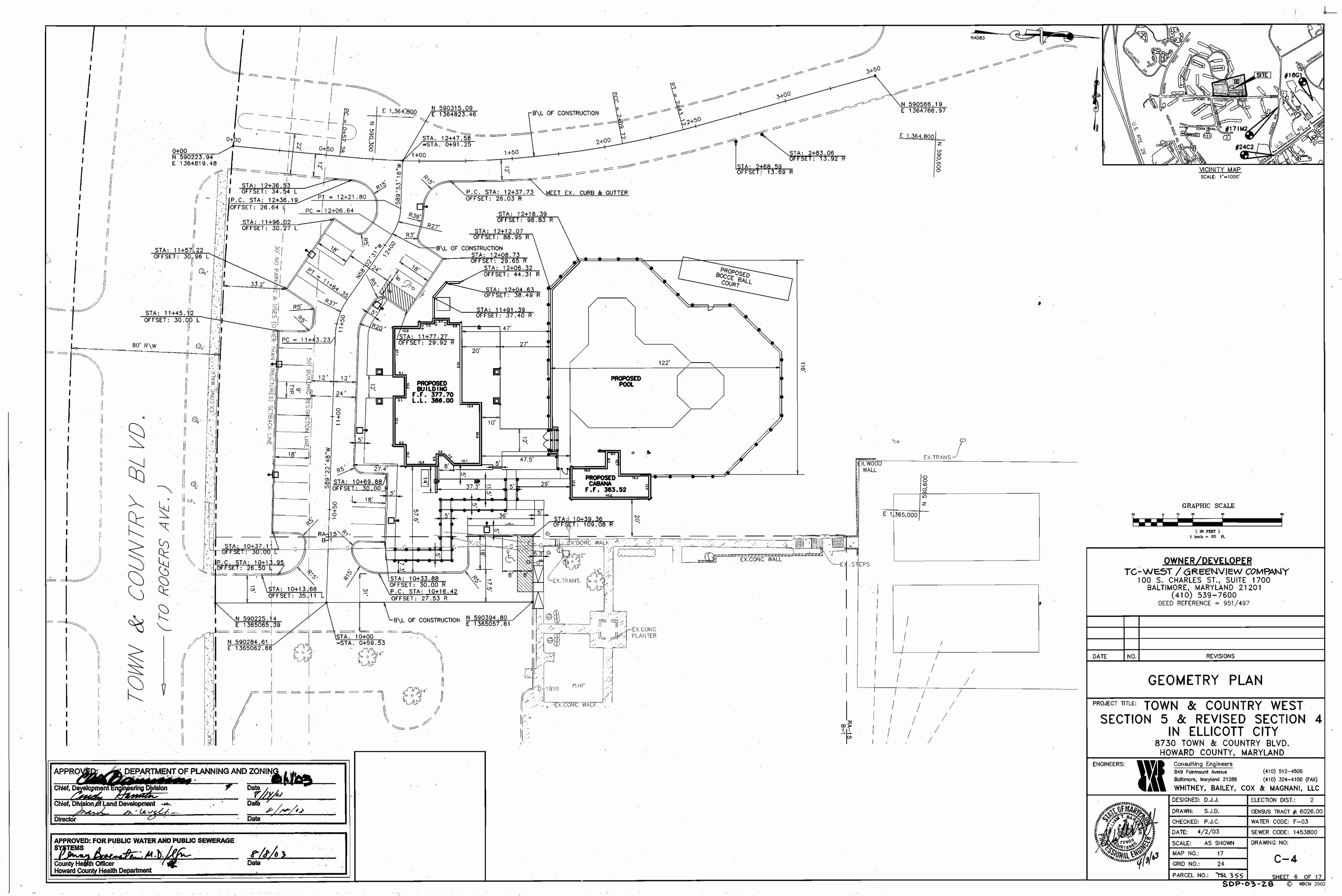
PROPOSED CABANA BUILDING

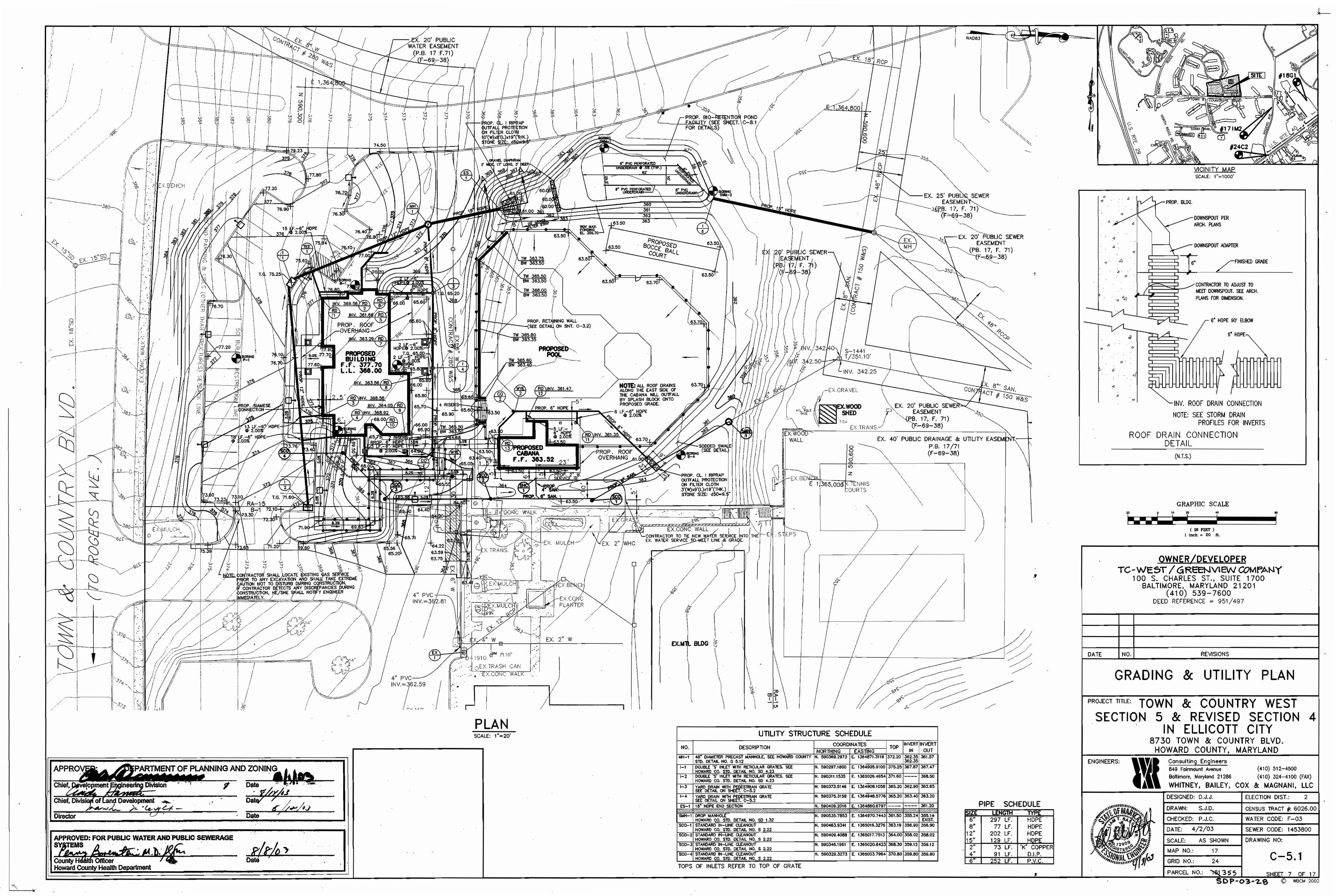


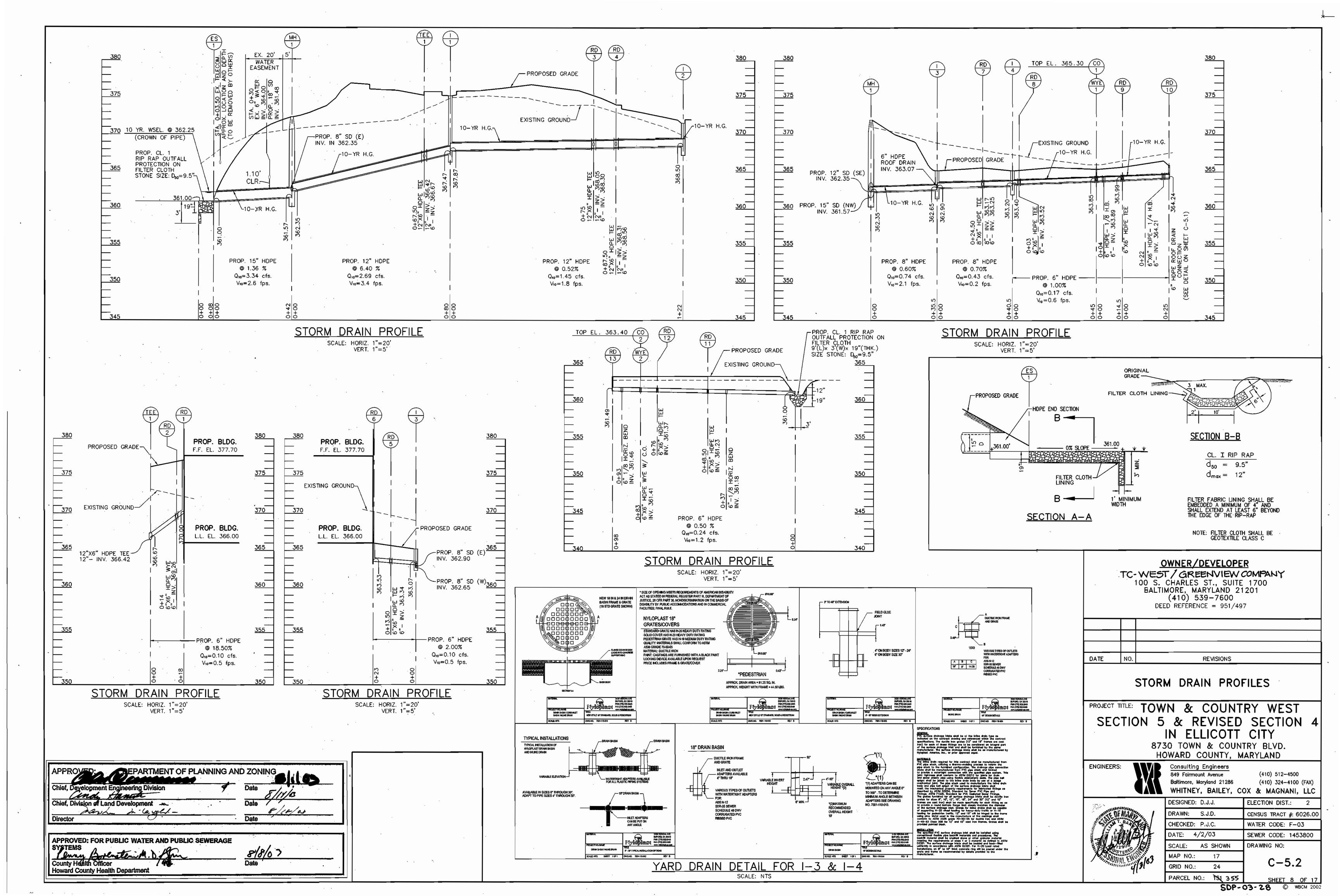


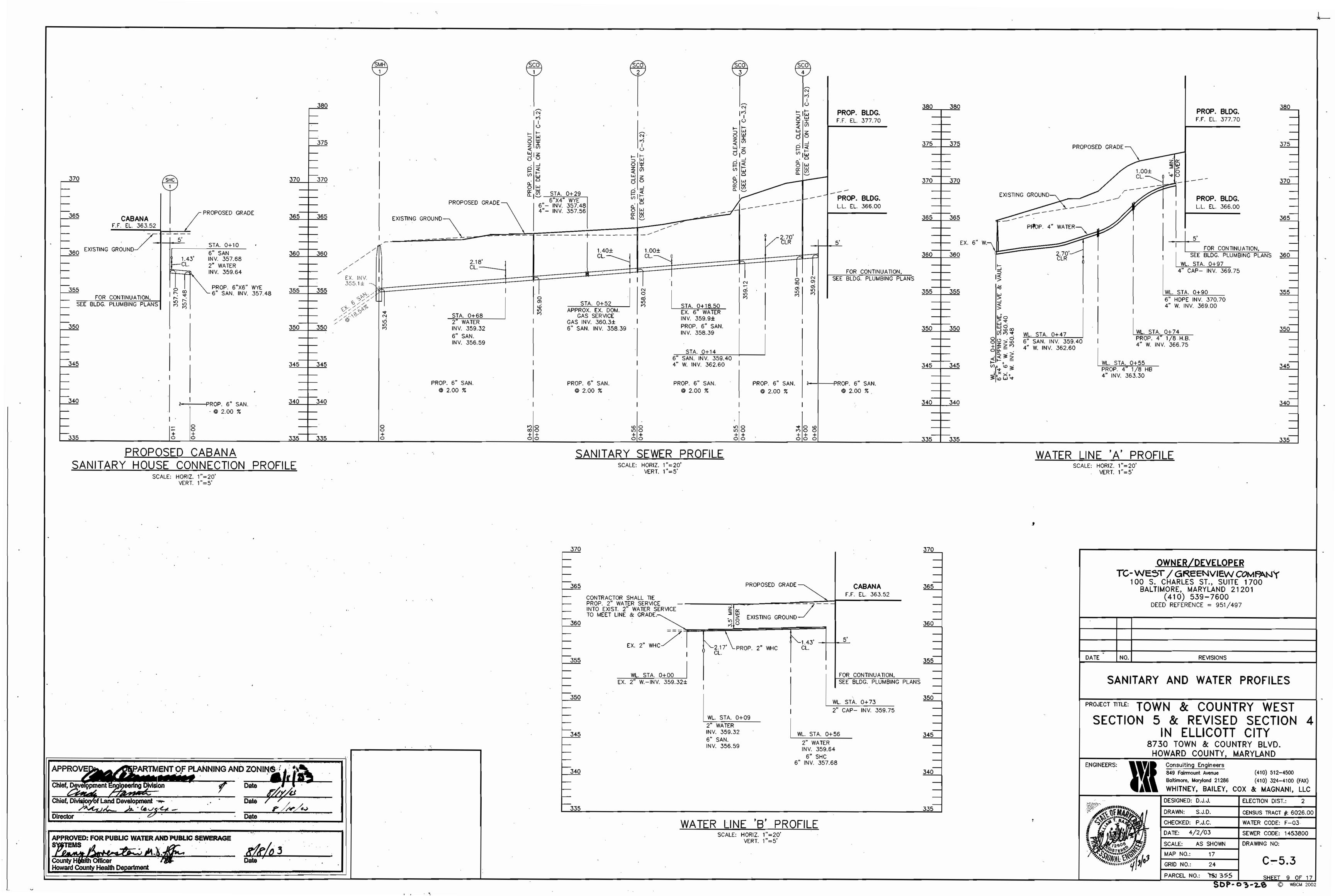


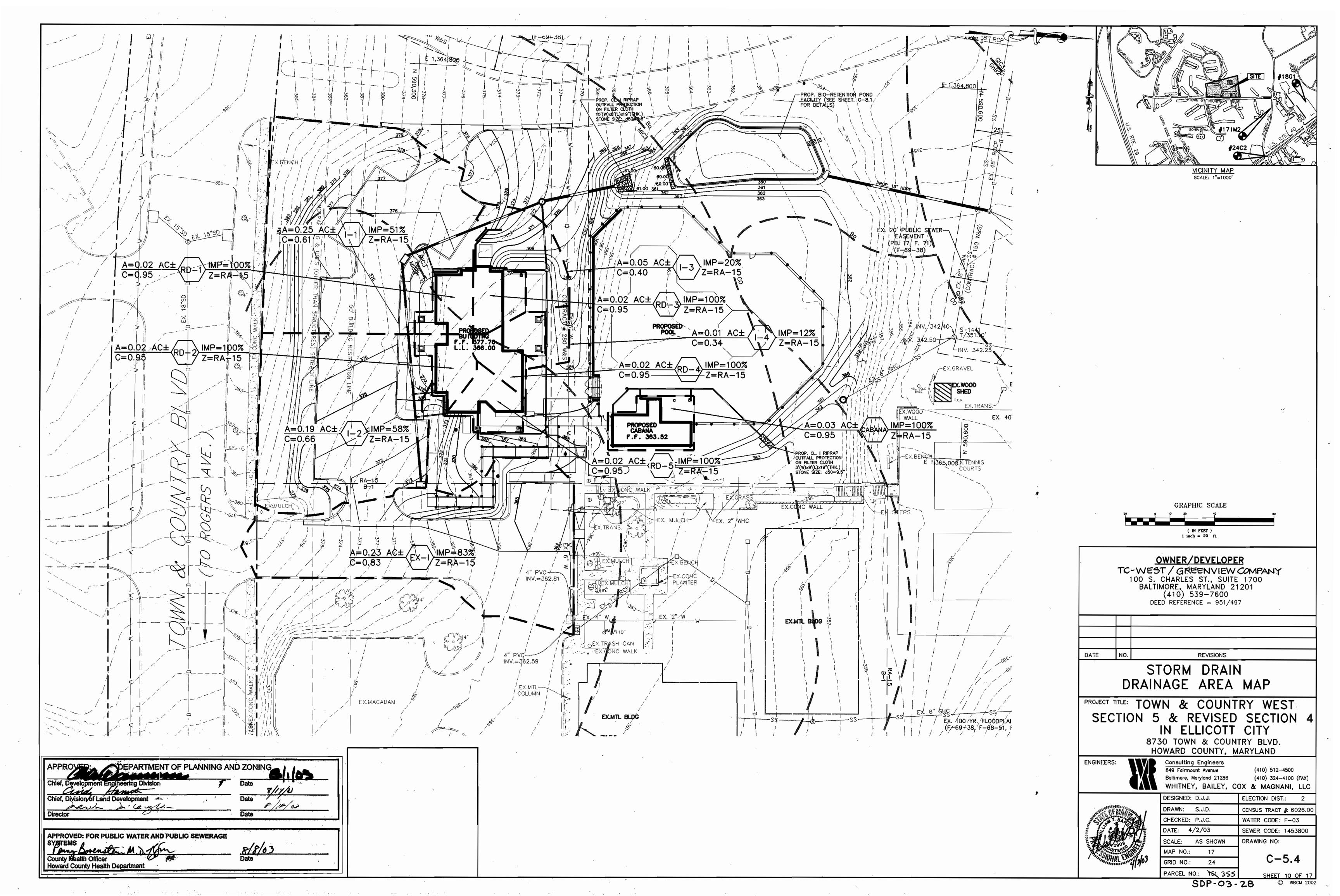


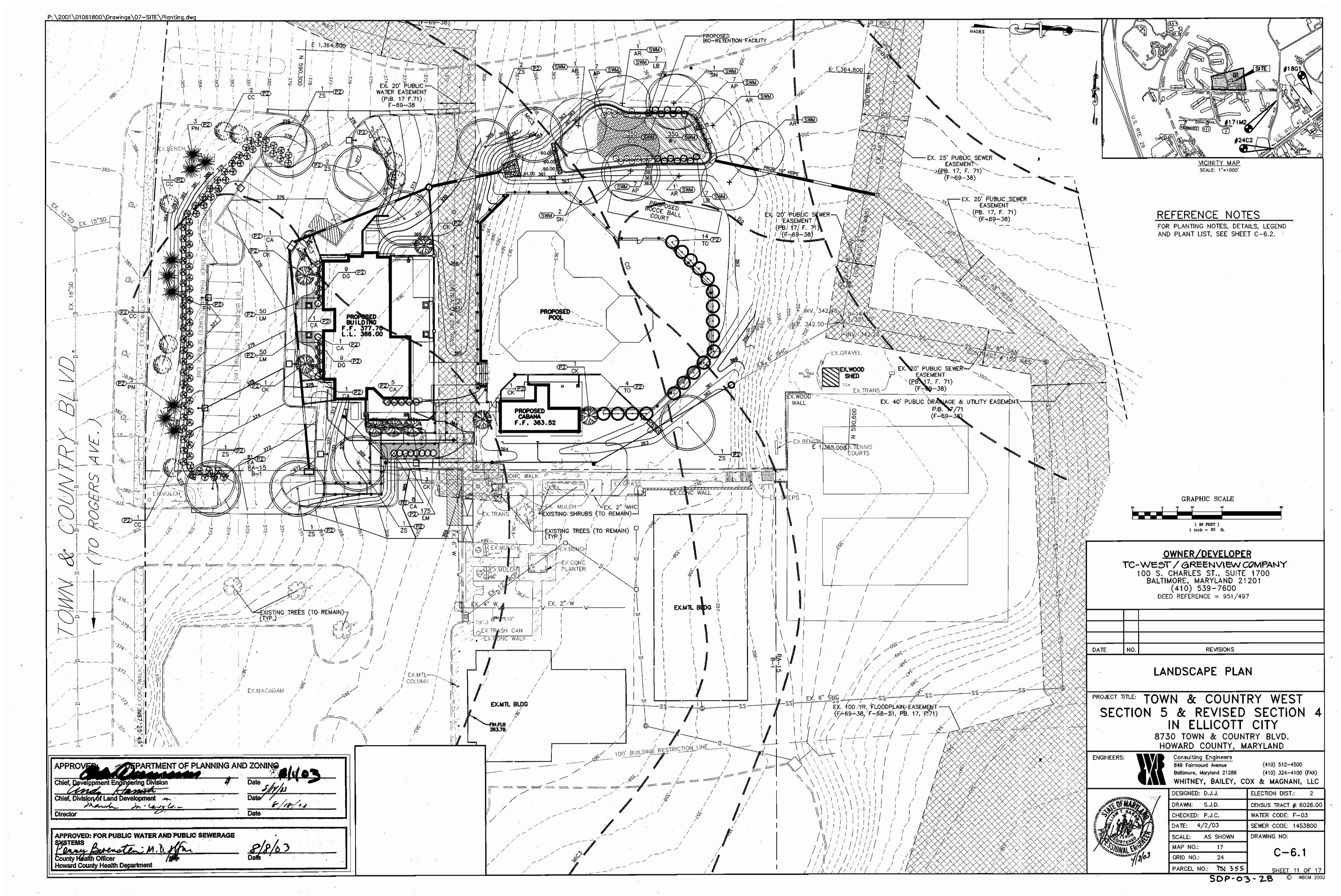


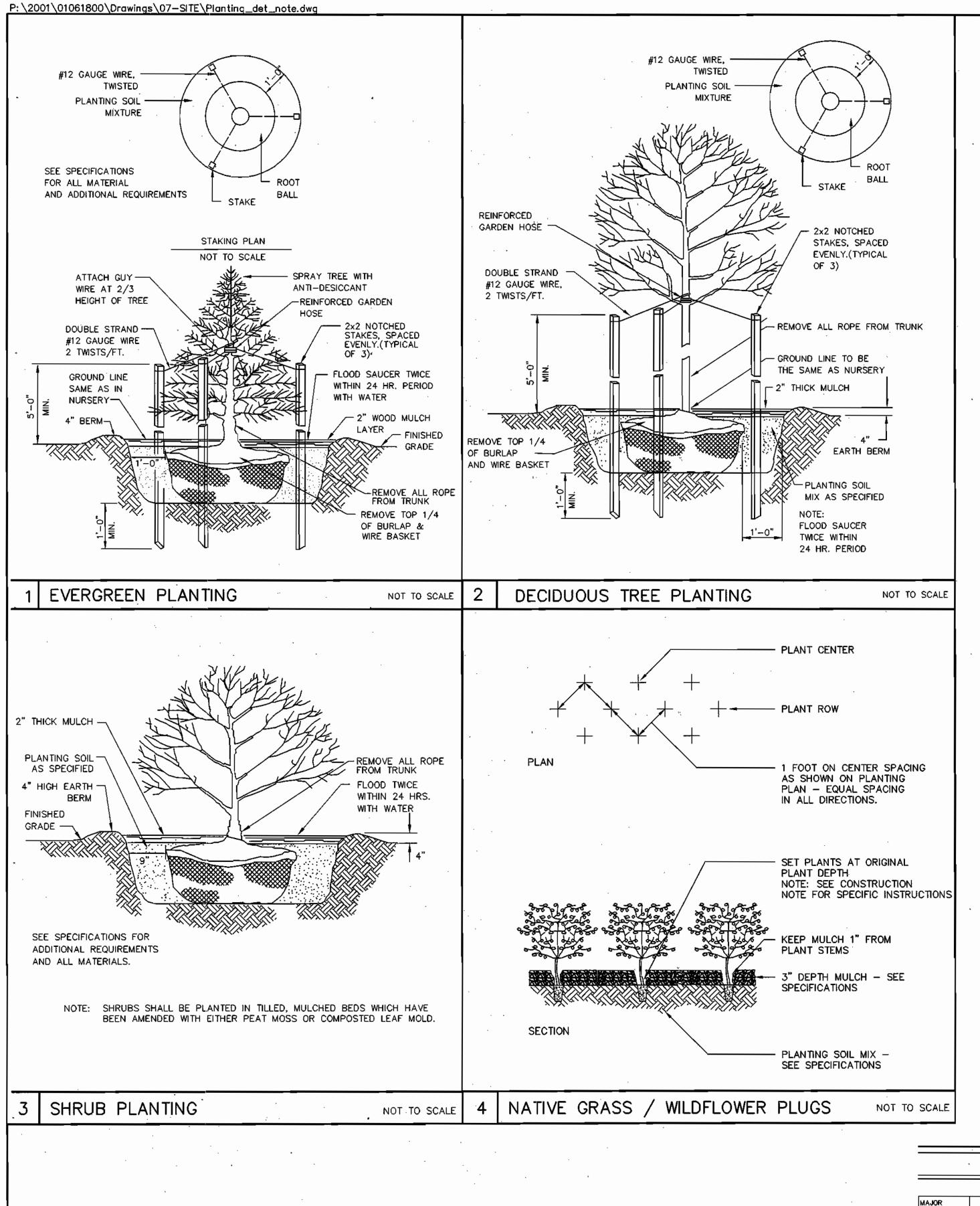












ENARTMENT OF PLANNING AND ZONING.

F/10/13

8/8/63 Date

Harush

In length -

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE

Chief, Division of Land Development

Howard County Health Department

Director

County Health Officer

NOTE:

"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. "At the time of plant installation, all shrubs and trees as listed and approved herewith, shall be of proper height requirement in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocation of the required plantings may be made without prior review and approved from the Department of Planning and Zoning. Any deviation from the approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to the applicable plans and certification".

LANDSCAPE NOTES

- 1) ALL PLANT MATERIALS SHALL BE NURSERY GROWN AND SHALL CONFORM TO THE HOWARD COUNTY LANDSCAPE MANUAL AND AMERICAN ASSOCIATION OF NURSERYMAN, INC. STANDARDS, LATEST EDITION.
- 2) ALL PLANTING PROCEDURES AND SPECIFICATIONS SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE WASHINGTON METROPOLITAN AREA" LATEST EDITION.
- 3) THE CONTRACTOR SHALL CONTACT "MISS UTILITY" FOR UNDERGROUND UTILITY LOCATIONS AT LEAST 72 HOURS PRIOR TO THE COMPLETION DATE.
- 4) ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR FOR ONE YEAR FOLLOWING THE INSTALLATION COMPLETION
- 5) FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS A PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$7,260.00.

DEVELOPER'S /BUILDER'S CERTIFICATE I/WE CERTIFY THAT THE LANDSCAPE PLANTING SHOWN ON THIS PLAN WILL BE DONE IN ACCORDANCE WITH 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.

PLANTING LEGEND ℍ SHRUBS SMALL FLOWERING TREE MINOR DECIDUOUS TREE + SHADE TREE EVERGREEN TREE EXISTING TREE/TREES (P2) DENOTES PERIMETER AREA ASSOCIATED

WITH SPECIFIC PLANTING.

INSTALLATION, SURETY AND CERTIFICATION

Plant installation must conform to the minimum standards cited in the latest edition of the "Landscape Specification Guidelines" published by the Landscape Contractors Associations.

Surety for Landscape Installation Bonding or posting of other surety for required landscaping is mandatory. The bonding for required landscaping may be added to the Developer's Agreement for road and storm drain improvements or the Developer's Agreement for the site Development Plan.

If no bond or Developer's Agreement is required for a project that requires a landscape plan, the grading permit agreement and surety shall be modified to incorporate surety for the landscape requirements.

Release of surety will not be granted until all landscaping shown on the approved final plan or site development plan has been completed in accordance with the approved landscape plan. Surety for landscaping shall be based on the total number of required new trees(Shade, ornamental and evergreen) or comparable elements shown on the landscape plan. The unit prices to be used for establishing surety requirements shall be approved by the County Council. In the interim, until the Council Has approved such unit prices, the value of each landscape tree, for the purposes of the Developer's Agreement cost estimate, shall be one hundred dollars (\$100.00). The value of as street tree for the purpose of the Developer's Agreement cost estimate shall be two hundred dollars (\$200.00). No surety is required for existing landscaping that is credited towards landscaping requirements. The cost estimate for fencing provided to meet the landscaping requirements shall be ten dollars (\$10.00) a linear foot and the value of walls shall be twenty dollars (\$20.00) a linear foot.

Certification

To obtain a release of surety, a professional qualified to prepare a landscape plan must submit written certification to the Department of Planning and Zoning that healthy plant materials were properly installed in accordance with the approved landscape plan and that a one year guarantee has been executed. A copy of the guarantee must be included with the certification.

If the original landscape plan prepare is not able to provide the required certification, another qualified professional may be approved by the Department of planning and Zoning to submit the required certification.

Maintenance

The developer is responsible for the maintenance of the landscaping during the construction and is responsible for obtaining a one year guarantee the ensures the survival or replacement of all required plant materials for one year from the date on the landscape certification.

At the end of the maintenance period, it is the developer's responsibility to transfer formally the long term responsibility for the required landscaping to the owner, tenant, homeowners association, or other agent responsible for long term maintenance of the development. Maintenance responsibilities include, but are not limited to, pruning, fertilizing, watering, weeding, mowing, and other such activities necessary to the health and survival of the landscaping. The required plantings should be maintained in good condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with landscape regulation.

In addition to the planting, berms or other land forms, fences and walls installed as part of the landscape requirements should be permanently maintained in good condition and, whenever necessary, repaired and replaced.

To ensure public safety, plant material should not be allowed to encroach on right-of-way and easements and impede motorists' vision of vehicular traffic.

Category	Adj. to Perimeter Properties (Loading)	Parking Lot Adj. to Roadw
Landscape Type	Type C	Type E
Linear Feet of Roadway Frontage/Perimeter	400'	305'
Credit for Ex. Vegetation (Yes, No, Linear Foot) (Describe below if needed)	YES Entire length of loading perimeter is screened adequately by existing tree-line.	NO NO
Number of Plants Required Shade Trees Evergreen Trees Shrubs	10 — not applicable 20 — not applicable 0	8 0 77
Number of Plants Provided Shade Trees Evergreen Trees Other Trees (2:1 sub.) Shrubs (10:1 sub.)	0 0 0 34— To soften edge between paving and tree—line.	3 0 10 81

SCHEDULE A - PERIMETER LANDSCAPE EDGE

NOTE: PERIMETERS TO THE NORTHEAST AND SOUTHWEST DO NOT REQUIRE SCREENING B/C THESE AREAS ARE EITHER PART OF THE SAME PARCEL OR SUBDIVISION.

** NOTE: SUBSTITUTIONS OF ACCENT TREES FOR SHADE TREES WERE REQUIRED BECAUSE OF SPACE CONSTRAINTS.

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces Proposed	27
Number of Trees Required	2
Number of Trees Provided	
Shade Trees	9
Other Trees (2:1 substitution)	44

Number of Parking Spaces Proposed 27 Number of Islands Required Number of Islands Provided

STREET TREES REQUIRED

THERE ARE NO STREET TREES REQUIRED FOR THIS PLAN. - (3) EXISTING TREES AND A FEW SHRUBS (no value) ARE BEING REMOVED.

 NO REPLACEMENTS ARE REQUIRED (adequate existing and proposed landscaping reside in this area)

NDSCAPING (SWM)
180
4 5
NO
YES
9 0
_

* NOTE: BIORETENTION PLANTING IS USED AS CREDIT FOR THE REQUIRED EVERGREEN TREES.

OWNER/DEVELOPER TC-WEST / GREENVIEW COMPANY

100 S. CHARLES ST., SUITE 1700 BALTIMORE, MARYLAND 21201 (410) 539-7600 DEED REFERENCE = 951/497

DATE	NO.		REVISIONS	-

LANDSCAPE DETAILS & NOTES

TOWN & COUNTRY WEST SECTION 5 & REVISED SECTION 4 IN ELLICOTT CITY

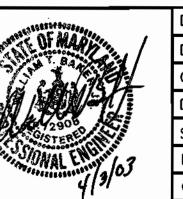
> 8730 TOWN & COUNTRY BLVD. HOWARD COUNTY, MARYLAND

ENGINEERS:



Consulting Engineers 849 Fairmount Avenue Baltimore, Maryland 21286

(410) 512-4500 (410) 324-4100 (FAX) WHITNEY, BAILEY, COX & MAGNANI, LLC

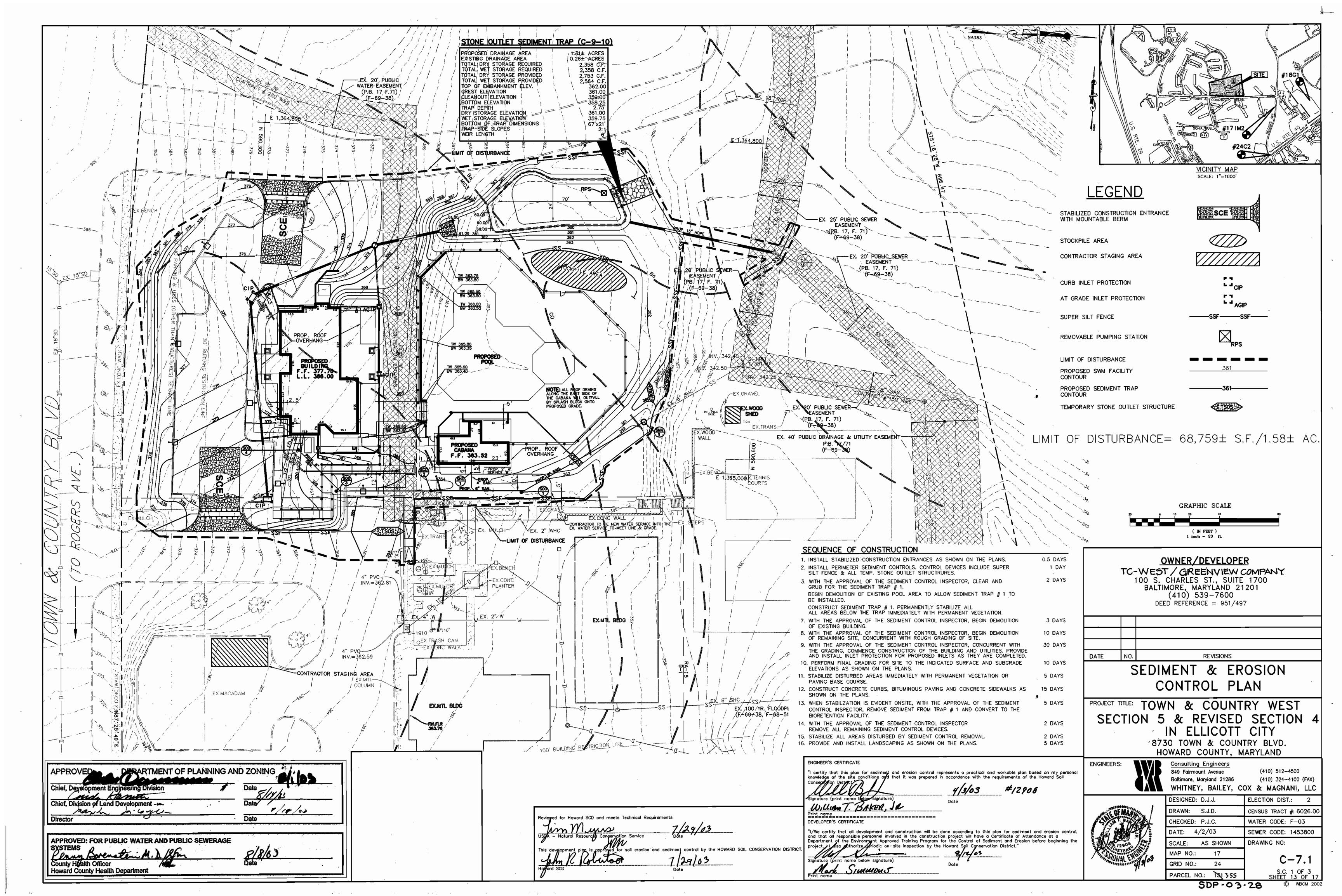


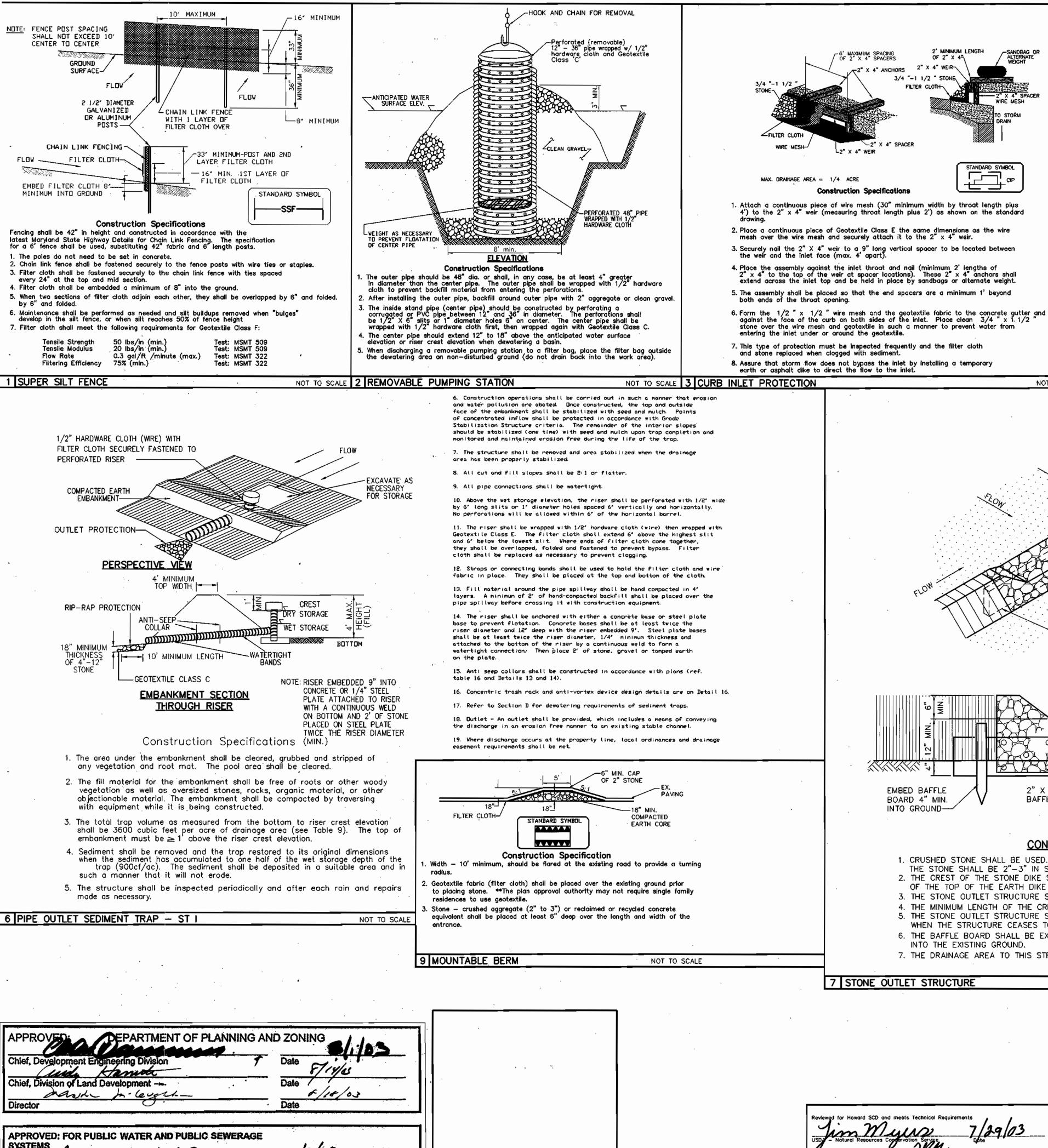
DESIGNED: D.J.J. ELECTION DIST.: DRAWN: \$.J.D. **CENSUS TRACT #: 6026.0**9 CHECKED: P.J.C. WATER CODE: F-03 DATE: 4/2/03 SEWER CODE: 1453800 SCALE: AS SHOWN DRAWING NO: MAP NO.: 17 C - 6.2GRID NO .: 24

PARCEL NO .: 181 355 SHEET 12 OF 17 SDP-03-28 © WBCM 2002

	KEY	QUANTITY	BOTANICAL NAME/COMMON NAME	<u>SIZE (MIN.)</u>	ROOT	REMARKS
MAJOR	ZS	9	ZELKOVA SERRATA/ JAPANESE ZELKOVA	2 1/2 - 3" CAL.	B&B	
MINOR	CC	9	CERCIS CANADENSIS/ REDBUD	6-8'	B&B	
LOWERING	CK	8	CORNUS KOUSA/ ORIENTAL DOGWOOD	6-8'	B&B	
	PN	9	PINUS NIGRA/ AUSTRIAN PINE	5-6'	B&B	
VERGREEN	TO	18	THUJA OCCIDENTALIS 'NIGRA'/ DARK AMERICAN ARBORVITAE	5-6'	₿&₿	
SHRUBS	EΑ	· 81	EUONYMUS ALATUS 'COMPACTA'/DWARF WINGED EUONYMUS	24-30"	CONT.	
505	CA	20	CALAMAGROSTIS ACUTIFLORA STRICTA/ FEATHER REED GRASS	18-24"	CONT.	3' OC
PERENNIAL	DG	18	DEUTZIA GRACILIIS 'NANA'/ DEUTZIA	15-18"	CONT.	2' OC
ROUNDCOVER	LM	275	LIRIOPE MUSCARI/ BIG BLUE LILYTURF	1 QUART	CONT.	12" OC

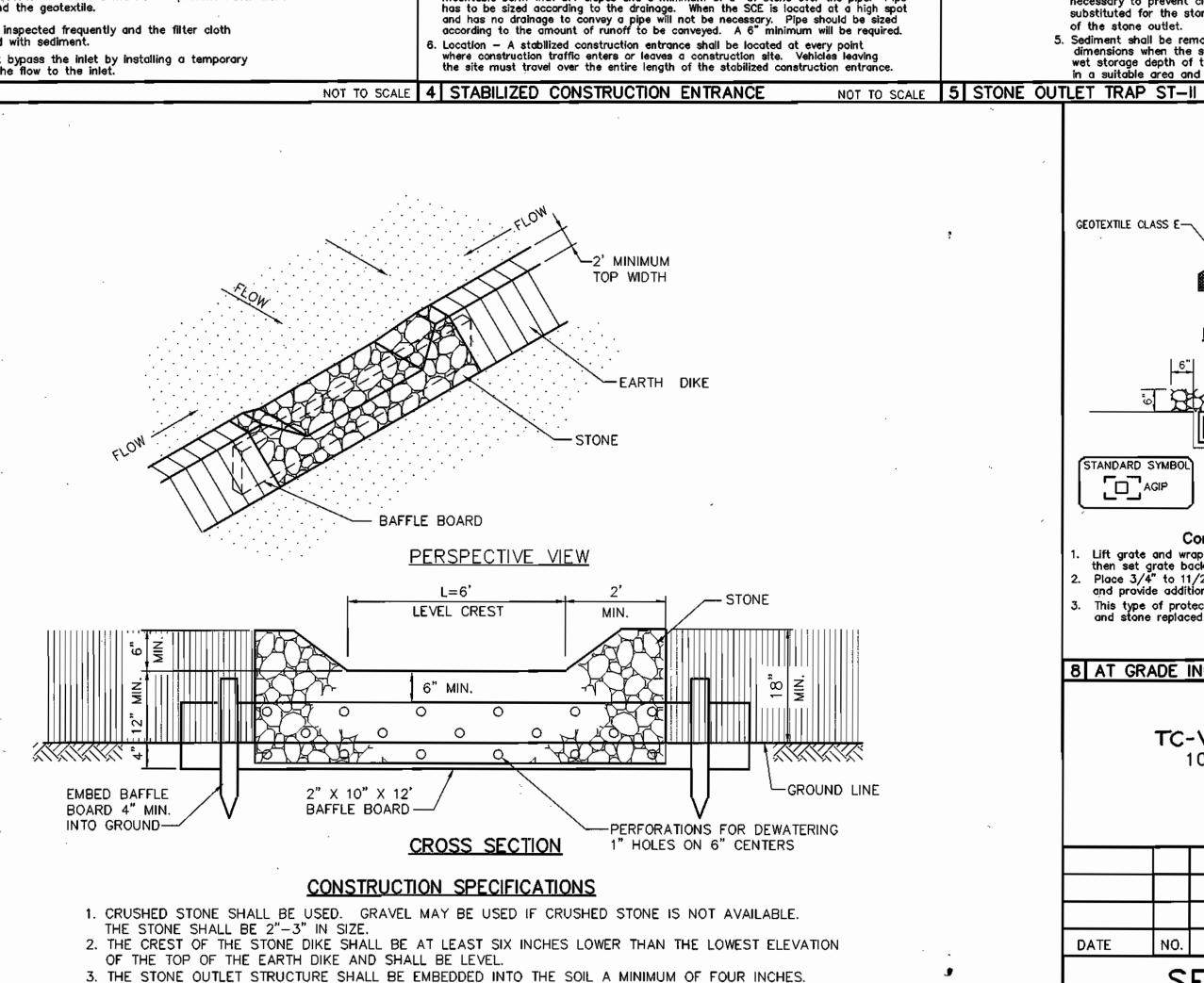
-	BIORETENTION PLANT LIST									
	KEY	QUANTITY	BOTANICAL NAME/COMMON NAME	SIZE	ROOT	REMARKS				
	SN	3	SALIX NIGRA/ BLACK WILLOW	2-2 1/2" CAL.	B&B					
MAJOR	AR	· 6	ACER RUBRUM/ RED MAPLE	2-2 1/2" CAL.	8&B					
	LB	14	LINDERA BENZOIN/ SPICEBUSH	24-30"	CONT.					
SHRUBS `	AP	21	AESCULUS PARVIFLORA/ BOTTLEBRUSH BUCKEYE	24-30"	CONT.					
PERENNIAL	PV	350	PANICUM VIRGATUM/ SWITCHGRASS	1 GAL.	CONT.	18-24" OC				
	DS	350	DICHANTHELIUM SCOPARIUM/ BROOM PANIC GRASS	1 GAL.	CONT.	18-24" OC				





County Health Officer

Howard County Health Department



4. THE MINIMUM LENGTH OF THE CREST OF THE STONE OUTLET STRUCTURE SHALL BE SIX FEET.

WHEN THE STRUCTURE CEASES TO FUNCTION AND PONDING RESULTS.

7. THE DRAINAGE AREA TO THIS STRUCTURE SHALL BE LESS THAN 1/2 ACRE.

INTO THE EXISTING GROUND.

5. THE STONE OUTLET STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN. STONE SHALL BE REPLACED

6. THE BAFFLE BOARD SHALL BE EXTENDED ONE FOOT INTO THE DIKE, STAKED AND EMBEDDED FOUR INCHES

** GEOTEXTILE CLASS 'C'-

6" OF 2"-3" AGGREGATE"

PAVEMENT

SCE DE

<u>PROFILE</u>

Construction Specification

. Geotextile fabric (filter cloth) shall be placed over the existing ground prior

to placing stone. **The plan approval authority may not require single family residences to use geotextile.

. Surface Water - all surface water flowing to or diverted toward construction

Width - 10' minimum, should be flared at the existing road to provide a turning radius.

Stone – crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a

mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe

Length - minimum of 50' (*30' for single residence lot).

OR BETTER

-EXISTING GROUND

TOP OF EMBANKMENT--GEOTEXTILE APRON (SEE NOTE) LEXCAVATE FOR ∠SMALL RIP-RAP 4" TO 7" REQUIRED WET STORAGE NOTE: 5' MINIMUM LENGTH UP TO LBOTTOM ELEVATION Construction Specifications 1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared. 2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. 3. All cut and fill slopes shall be 2:1 or flatter. 4. The stone used in the outlet shall be small rip-rap 4" to 7" in size with a 1' thick layer of 3/4" to 11/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clagging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet. 5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.



GEOTEXTILE CLASS E-PLAN/CUT AWAY VIEW _3/4" - 11/2" STONE BERERERE GEOTEXTILE CLASS E STANDARD SYMBOL AGIP 6" OVERLAP CROSS SECTION MAX. DRAINAGE AREA = 1/4 ACRE **Construction Specifications** Lift grate and wrap with Geotextile Class E to completely cover all openings then set grate back in place. Place 3/4" to 11/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.

8 AT GRADE INLET PROTECTION NOT TO SCALE OWNER/DEVELOPER

NOT TO SCALE

TC-WEST / GREENVIEW COMPANY 100 S. CHARLES ST., SUITE 1700 BALTIMORE, MARYLAND 21201 (410) 539-7600 DEED REFERENCE = 951/497

DATE **REVISIONS**

SEDIMENT & EROSION CONTROL DETAILS

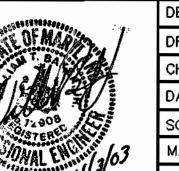
TOWN & COUNTRY WEST SECTION 5 & REVISED SECTION 4 IN ELLICOTT CITY

8730 TOWN & COUNTRY BLVD. HOWARD COUNTY, MARYLAND

ENGINEERS:

Consulting Engineers 849 Fairmount Avenue Baltimore, Maryland 21286

(410) 512-4500 (410) 324-4100 (FAX) WHITNEY, BAILEY, COX & MAGNANI, LLC



DESIGNED: D.J.J. **ELECTION DIST.:** CENSUS TRACT #: 6026.00 CHECKED: P.J.C. WATER CODE: F-03 4/2/03 DATE: SEWER CODE: 1453800 DRAWING NO: SCALE: AS SHOWN MAP NO .: 17 C - 7.2

SDP-03-28

GRID NO .: S.C. 2 OF 3

PARCEL NO.: 151 355

SHEET 14 OF 17 © WBCM 2003

and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning t

SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- A. SITE PREPARATION I. NSTALL EROSION AND SEDIMENT CONTROL STRUCTURES (EITHER TEMPORARY OR PERMANENT) SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES. BERMS, WATERWAYS, OR SEDIMENT CONTROL BASINS.
- ii. PERFORM ALL GRADING OPERATIONS AT RIGHT ANGLES TO THE SLOPE. FINAL GRADING AND SHAPING IS NOT USUALLY NECESSARY FOR TEMPORARY SEEDING. iii. SCHEDULE REQUIRED SOIL TESTS TO DETERMINE SOIL AMENDMENT COMPOSITION AND APPLICATION RATES FOR SITES HAVING DISTURBED AREA
- B. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS) i. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OVER 5 ACRES. SOIL ANALYSIS MAY BE PERFORMED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
- ii. FERTILIZERS SHALL BE UNIFORM IN COMPOSITION, FREE FLOWING, AND SUITABLE FOR ACCURATE APPLICATION BY APPROVED EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS SHALL BE DELIVERED TO THE SITE, FULLY LABELED ACCORDING TO APPLICABLE STATE FERTILIZER LAWS AND SHALL BEAR THE NAME, TRADE NAME OR TRADEMARK, AND WARRANTY OF THE PRODUCER.
- iii. LIME MATERIALS SHALL BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED) WHICH CONTAINS AT LEAST 50% TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT AT LEAST 50% WILL PASS THROUGH A #100 MESH SIEVE, AND 98 TO 100%, WILL PASS THROUGH A #20 MESH SIEVE.
- iv. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 5" OF SOIL BY DISKING OR

OTHER SUITABLE MEANS. C. SEEDBED PREPARATION

- i. TEMPORARY SEEDING SEEDBED PREPARATION SHALL CONSIST OF LOOSENING SOIL TO A DEPTH OF 3 INCHES TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS, CHISEL PLOWS, OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT SHOULD NOT BE ROLLED OR DRAGGED SMOOTH, BUT LEFT IN THE ROUGHENED CONDITION. SLOPED AREAS (GREATER THAN 3:1) SHOULD BE TRACKED BY A DOZER LEAVING THE SURFACE IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
- b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS. c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- ii. PERMANENT SEEDING
- a. MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT:
- 1. SOIL PH SHALL BE BETWEEN 6.0 AND 7.0.
- 2. SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM). 3. THE SOIL SHALL CONTAIN LESS THAN 40% CLAY, BUT ENOUGH FINE GRAINED MATERIAL (>30% SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION IS IF LOVEGRASS OR SERECIA LESPEDEZA IS TO BE PLANTED, THEN A SANDY SOIL (<30% SILT PLUS CLAY) WOULD BE
- 4. SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT. 5. SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
- 6. IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH SECTION 21 "STANDARD AND SPECIFICATION FOR TOPSOIL" OF THE 1994 MD STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT. b. AREAS PREVIOUSLY GRADED IN CONFORMANCE WITH THE DRAWINGS SHALL
- BE MAINTAINED IN A TRUE AND EVEN GRADE, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES TO PERMITBONDING OF THE TOPSOIL TO THE SURFACE AREA AND TO CREATEHORIZONTAL EROSION CHECK HORIZONTAL SLOTS TO PREVENT TOPSOIL FROM SLIDING DOWN A SLOPE. c. APPLY SOIL AMENDMENTS AS PER SOIL TEST OR AS INCLUDED IN THE CONTRACT DOCUMENTS.
- d. MIX SOIL AMENDMENTS INTO THE TOP 3 5 INCHES OF TOPSOIL BY DISKING OR OTHER SUITABLE MEANS. LAWN AREAS SHOULD BE RAKED TO SMOOTH THE SURFACE; REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES. AND READY THE AREA FOR SEED APPLICATION. WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION, LOOSEN SURFACE SOIL . BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE. STEEP SLOPES (STEEPER THAN 3:1) SHOULD BE TRACKED BY A DOZER LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. THE TOP 1 -3 INCHES OF SOIL SHOULD BE LOOSE AND FRIABLE. SEEDBED LOOSENING MAY NOT BE NECESSARY ON NEWLY DISTURBED AREAS.

D. SEED SPECIFICATIONS

- I. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED SHALL BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED SHALL HAVE BEEN TESTED WITHIN 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THIS JOB.
- NOTE: SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED.
- ii. INOCULANT THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES SHALL BE A PURE CULTURE OF NITROGEN-FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANT AS DIRECTED ON PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 - 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE INOCULANT LESS EFFECTIVE.

E. METHODS OF SEEDING

- i. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER), BROADCAST OR DROP SEEDER, OR A CULTIPACKER SEEDER.
- a. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES AMOUNTS WILL NOT EXCEED THE FOLLOWING: NITROGEN - MAXIMUM OF 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS): 200 POUNDS/ACRE; K20 (POTASSIUM): 200 POUNDS/ACRE DONE IMMEDIATELY WITHOUT INTERRUPTION. b. LIME - USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER
- ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING. C. SEED AND FERTILIZER SHALL BE MIXED ON SITE, AND SEEDING SHALL BE
- ii. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST a. SEED SPREAD SHALL BE INCORPORATED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON THE TEMPORARY OR PERMANENT SEEDING SUMMARIES. THE SEEDED AREA SHALL THEN BE ROLLED WITH A WEIGHTED ROLLER TO
- b. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN

PROVIDE GOOD SEED TO SOIL CONTACT.

- iii. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 - a. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
- b. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
- F. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE) STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE OR OAT STRAW, REASONABLY BRIGHT IN COLOR, AND SHALL NOT BE MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY, AND SHALL BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW.
- ii. WOOD CELLULOSE FIBER MULCH (WCFM)
- a. WCFM SHALL CONSIST OF SPECIALLY PREPARED WOOD CELLULOSE
- PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE. b. WCFM SHALL BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
- c. WCFM, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
- d. WCFM SHALL BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER, AND OTHER ADDITIVES TO FORM A HOMOGENOUS SLURRY. THE MULCH MATERIAL SHALL FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND SHALL COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDINGS.
- e. CFM SHALL CONTAIN NO ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
- f. WOOD CELLULOSE FIBER MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH TO APPROXIMATELY 10 MM., DIAMETER APPROXIMATELY 1 MM., pH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6% MAXIMUM, AND WATER HOLDING CAPACITY OF 90% MINIMUM.
- NOTE: ONLY STERILE STRAW MULCH SHOULD BE USED IN AREAS WHERE A STAND OF ONE SPECIES OF GRASS IS DESIRED.
- G. MULCHING SEEDED AREAS MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
- i. IF GRADING IS COMPLETED OUTSIDE OF THE SEEDING SEASON, MULCH ALONE SHALL BE APPLIED AND PRESCRIBED IN THIS SECTION AND MAINTAINED UNTIL THE SEEDING SEASON RETURNS, AND SEEDING CAN BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS.
- ii. WHEN STRAW MULCH IS USED, IT SHALL BE SPREAD OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS/ACRE. MULCH SHALL BE APPLIED TO A UNIFORM LOOSE DEPTH OF BETWEEN 1 AND TWO INCHES. MULCH APPLIED SHALL ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. IF A MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHOULD BE INCREASED TO 2.5 TONS/ACRE.
- iii. WOOD CELLULOSE FIBER USED AS A MULCH SHALL BE APPLIED AT A NET DRY WEIGHT OF 1,500 LBS, PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- H. SECURING STRAW MULCH (MULCH ANCHORING): MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON SIZE OF AREA AND EROSION HAZARD.
 - i. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS IS THE MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD BE USED ON THE CONTOUR, IF POSSIBLE.
 - II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LBS./ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS. OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- iii. APPLICATIONS OF LIQUID BINDERS SHOULD BE APPLIED HEAVIER AT EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. THE REMAINDER OF AREA SHOULD BE UNIFORM AFTER BINDER APPLICATION. SYNTHETIC BINDERS - SYNTHETIC BINDERS SUCH AS ACRYLIC DRL (AGRO-TACK). DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR, OR OTHER APPROVED EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH. iv. LIGHTWEIGHT: PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN

SECTION II: TEMPORARY SEEDING

ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

SEEDING IS REQUIRED.

VEGETATION - ANNUAL GRASS OR GRAIN USED TO PROVIDE COVER ON DISTURBED AREAS FOR UP TO TWELVE MONTHS. FOR LONGER DURATION OF VEGETATIVE COVER, PERMANENT

APPROVED DEPARTMENT OF PLANNING AN	ND ZONING	
Chief, Development Engineering Division Chief, Division of Land Development Director	Date F/15/03 Date Date	
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS County Health Officer Howard County Health Deportment	8/8/8 3 Date	

SECTION IV - SOD

TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER)

A. GENERAL SPECIFICATIONS

- i. CLASS OF TURFGRASS SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED OR APPROVED. SOD LABELS SHALL BE MADE AVAILABLE TO THE JOB FOREMAN AND
- ii. SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4", PLUS OR MINUS 1/4", AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH. INDIVIDUAL PIECES OF SOD SHALL BE CUT TO THE SUPPLIER'S WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE 5 PERCENT. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
- iii. STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.

(EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.

- iv. OD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT
- v. SOD SHALL BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD SHALL BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

B. SOD INSTALLATION i. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, THE SUBSOIL SHALL BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO

- ii. THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. · LATERAL JOINTS SHALL BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
- iii. WHEREVER POSSIBLE, SOD SHALL BE LAID WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. SOD SHALL BE ROLLED AND TAMPED, PEGGED, OR OTHERWISE SECURED TO PREVENT SLIPPAGE ON SLOPES AND TO ENSURE SOLID CONTACT BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
- IV. SOD SHALL BE WATERED IMMEDIATELY FOLLOWING ROLLING OR TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. THE OPERATIONS OF LAYING, TAMPING, AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN EIGHT HOURS.

C. SOD MAINTENANCE

LAYING THE SOD.

- i. IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF 4". WATERING SHOULD BE DONE DURING THE HEAT OF THE DAY TO PREVENT WILTING.
- ii. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
- iii. THE FIRST MOWING OF SOD SHOULD NOT BE ATTEMPTED UNTIL THE FINAL SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF SHALL BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2" AND 3", UNLESS OTHERWISE SPECIFIED.

SECTION V - TURFGRASS ESTABLISHMENT

AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. AREAS TO RECEIVE SEED SHALL BE TILLED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVELED, AND RAKED TO PREPARE A PROPER SEEDBED. STONES AND DEBRIS OVER 1-1/2 INCHES IN DIAMETER SHALL BE REMOVED. THE RESULTING SEEDBED SHALL BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.

- NOTE: CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.
- A. TURFGRASS MIXTURES
- i. KENTUCKY BLUEGRASS FULL SUN MIXTURE FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND THE EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS/1000 SQUARE FEET. A MINIMUM OF THREE BLUEGRASS CULTIVARS SHOULD BE CHOSEN, RANGING
- FROM A MINIMUM OF 10% TO A MAXIMUM OF 35% OF THE MIXTURE BY WEIGHT. ii. KENTUCKY BLUEGRASS/PERENNIAL RYE - FULL SUN MIXTURE - FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE /1000 SQUARE FEET. A MINIMUM OF 3 KENTUCKY BLUEGRASS CULTIVARS MUST BE CHOSEN, WITH EACH CULTIVAR RANGING FROM 10% TO 35% OF THE
- iii. TALL FESCUE/KENTUCKY BLUEGRASS FULL SUN MIXTURE FOR USE IN DROUGHT PRIME AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95% - 100%; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 - 5% SEEDING RATE: 5 TO 8 POUNDS/1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
- iv. KENTUCKY BLUEGRASS/FINE FESCUE SHADE MIXTURE FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30-40% AND CERTIFIED FINE FESCUE AND 60 - 75%. SEEDING RATE: 1-1/2 TO 3 POUNDS/1000 SQUARE FEET. A MINIMUM OF 3 KENTUCKY BLUEGRASS CULTIVARS MUST BE CHOSEN, WITH EACH CULTIVAR RANGING FROM A MINIMUM OF 10% TO A MAXIMUM OF 35% OF THE MIXTURE BY WEIGHT.
- NOTE: TURFGRASS VARIETIES SHOULD BE SELECTED FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MIMEO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND."
- B. IDEAL TIMES OF SEEDING WESTERN MARYLAND: MARCH 15 - JUNE 1; AUGUST 1 - OCTOBER 1 (HARDINESS ZONES -5b, 6a) CENTRAL MARYLAND: MARCH 1 - MAY 15; AUGUST 15 - OCTOBER 15 (HARDINESS ZONES -66) SOUTHERN MARYLAND, EASTERN SHORE: MARCH 1 - MAY 15, AUGUST 15 - OCTOBER 15 (HARDINESS ZONES - 7a, 7b)
- C. IRRIGATION
- IF SOIL MIXTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2" - 1" EVERY 3 TO 4 DAYS, DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASON, OR ON ADVERSE SITES.
- D. REPAIRS AND MAINTENANCE INSPECT ALL SEEDED AREAS FOR FAILURES AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RESEEDINGS WITHIN THE PLANTING SEASON. i. ONCE THE VEGETATION IS ESTABLISHED, THE SITE SHALL HAVE 95%
 - GROUNDCOVER TO BE CONSIDERED ADEQUATELY STABILIZED. ii. IF THE STAND PROVIDES LESS THAN 40% GROUND COVERAGE, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER, SEEDBED PREPARATION, AND SEEDING RECOMMENDATIONS.
 - iii. IF THE STAND PROVIDES BETWEEN 40% AND 94% GROUND COVERAGE, OVERSEEDING AND FERTILIZING USING HALF OF THE RATES ORIGINALLY APPLIED MAY BE NECESSARY.
- iv. MAINTENANCE FERTILIZER RATES FOR PERMANENT SEEDINGS ARE SHOWN IN TABLE 24. FOR LAWNS AND OTHER MEDIUM TO HIGH MAINTENANCE TURFGRASS AREAS, REFER TO THE UNIVERSITY OF MARYLAND PUBLICATION. "LAWN CARE IN MARYLAND", BULLETIN NO. 171.

TOPSOILING SPECIFICATIONS

OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

- SECTION I SITE PREPARATION (WHERE TOPSOIL IS TO BE ADDED) A. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, DIKES, WATERWAYS
- B. GRADING: GRADES ON THE AREAS TO BE TOPSOILED WHICH HAVE BEEN PREVIOUSLY ESTABLISHED SHALL BE MAINTAINED.
- LIMING: WHERE THE SUBSOIL IS EITHER HIGHLY ACID 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). LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE
- D. TILLING: AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO DUMPING AND SPREADING THE TOPSOIL. THE SUBGRADE SHALL BE LOOSENED BY DISCING OR BY SCARIFYING TO A DEPTH OF AT LEAST 3 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SUBSOIL. PACK BY PASSING A BULLDOZER UP AND DOWN OVER THE ENTIRE SURFACE AREA OF THE SLOPE TO CREATE HORIZONTAL EROSION CHECK SLOTS TO PREVENT TOPSOIL FORM SLIDING DOWN THE SLOPE.
- SECTION II TOPSOIL MATERIAL AND APPLICATION TOPSOIL SALVAGED FROM THE EXISTING SITE MAY OFTEN BE USED BUT IT SHOULD MEET THE SAME STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. THE DEPTH OF TOPSOIL TO BE SALVAGED SHALL BE NO MORE THAN THE DEPTH DESCRIBED AS A REPRESENTATIVE PROFILE FOR THAT PARTICULAR SOIL TYPE AS DESCRIBED IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- A. MATERIALS: TOPSOIL 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 FRAGMENT, GRAVEL, STICKS, ROOTS, TRASH OR OTHER EXTRANEOUS MATERIALS LARGER THAN 1-1/2 INCHES IN DIAMETER. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, NUTSEDGE, POISON IVY, THISTLES, OR OTHERS AS SPECIFIED. ALL TOPSOIL 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 1.5 PERCENT BY WEIGHT IS REQUIRED. IF PH VALUE IS LESS THAN 6.0, LIME SHALL BE APPLIED AND INCORPORATED WITH THE TOPSOIL TO ADJUST THE PH TO 6.5 OR HIGHER. TOPSOIL CONTAINING SOLUBLE SALTS GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED ..
- NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED TO PERMIT DISSIPATION OF TOXIC MATERIALS.
- TOPSOIL SUBSTITUTES OR AMENDMENTS AS APPROVED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST MAY BE USED IN LIEU OF NATURAL TOPSOIL. B. GRADING: THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED AND COMPACTED TO A MINIMUM OF FOUR (4) INCHES. 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 POCKETS. TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
- ALTERNATIVE FOR PERMANENT SEEDING AS AN OPTION TO APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER. APPLY COMPOSTED SLUDGE AS SPECIFIED BELOW, A POTASSIUM FERTILIZER AT THE RATE OF 4 POUNDS PER 1,000 SQUARE FOOT AND 1/3 THE NORMAL LIME APPLICATION RATE.
- COMPOSTED SLUDGE FOR USE AS A SOIL AMENDMENT OR CONDITIONER SHALL CONFORM T THE FOLLOWING REQUIREMENTS:
- 1. BE SUPPLIED BY OR ORIGINATE FROM A PERSON OR PERSONS THAT ARE PERMITTED THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE UNDER REGULATION 10.17.10.
- 2. SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS AND 2% POTASSIUM AND HAVE A PH OF 7.0 AND 8.0.
- IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED SO THAT THE REQUIREMENTS ARE MET PRIOR TO USE OF THE COMPOST. 3. BE APPLIED AT A RATE OF 2,000 POUNDS PER 1,000 SQUARE FEET.

REFERENCES

1. GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

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

- 1. Mulches See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
- 2. Vegetative Cover See standards for temporary vegetative cover.
- 3. 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 plows are examples of equipment which may produce the desired effect. 4. 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. 5. 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 right angles to prevailing currents at intervals of about 10 times their height
- are effective in controlling soil blowing. 6. Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

References

- 1. Permanent Vegetation See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if
- 2. Topsoiling Covering with less erosive soil materials. See standards for topsoiling. Stone — Cover surface with crushed stone or coarse gravel.
- 1. Agricultural Handbook 345. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
- 2. Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA-ARS.

TEMPORARY SEEDING SUMMARY- TABLE 26

	SEED MIXTUR	RE (HARDINE	SS ZONE	7A)	FERTILIZER	
	(F	ROM TABLE	26)		RATE	LIME RATE
NO.	I SPECIES I LA		SEEDING DEPTHS	V		
	RYE	140	2/1-4/30 8/15-11/30	1"-2"	600 lb/ac	2 tons/ac
	RYE PLUS FOXTAIL MILLET	150	2/1-4/30 5/1-8/14 8/15-11/30	1"	(15 lb/1000 st)	(100 lb/1000 st)

PERMANENT SEEDING SUMMARY-TABLE 25

SEED MIXTURE (HARDINESS ZONE 7A) (FROM TABLE 25)						FERTILIZER RATE (10-20-20-)		
NÔ.	SPECIES	APPLICATION RATE (lb/gc)	DATES	SEEDING DEPTHS	N:	P205	K20	RATE
	TALL FESCUE (85%) PERENNIAL BLUEGRASS (10%) KENTUCKY BLUEGRASS (5%)	125 15 10	3/1-5/15 8/15-11/15	1/4"	90 lb/ac	175 lb/ac	175 lb/ac	2 tons/ac
8	REED CANARYGRASS (75%) REDTOP (6%) PLUS BIRDSFOOT TREEFOIL (19%)	40 3 10	3/1-5/15 8/15-11/15	1/4"	(2.0 lb/ 1000 st)	(4 lb/ 1000 st)	(4 lb/ 1000 st)	(100 lb/ 1000 st)

GRAPHIC SCALE

(IN FEET)

1 inch = 20 ft.

OWNER/DEVELOPER

TC-WEST / GREENVIEW COMPANY

100 S. CHARLES ST., SUITE 1700

BALTIMORE, MARYLAND 21201

(410) 539-7600

DEED REFERENCE = 951/497

REVISIONS

TOWN & COUNTRY WEST

IN ELLICOTT CITY

8730 TOWN & COUNTRY BLVD.

SEDIMENT & EROSION

SECTION 5 & REVISED SECTION 4

CONTROL NOTES

STANDARD SEDIMENT CONTROL NOTES

- 1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and
- Permits, Sediment Control Division prior to the start of any construction (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
- 3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes steeper 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 7 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 seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall 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 = 9.36 Acres±
- Area Disturbed = 1.42 Acres± Area to be roofed or paved = 0.23 Acres±

within one working day, whichever is shorter.

'rint nome --------

DEVELOPER'S CERTIFICATE

- Area to be vegetatively stabilized = 1.19 Acres± Total Cut = 5,500 Cu. Yds. Total Fill = 6,000 Cu. Yds.
- Offsite waste/borrow area location = N/A8. 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 provided, if deemed necessary by the Howard County Sediment Control
- 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 erasion 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.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be backfilled and stabilized

and sediment control by the HOWARD SOIL CONSERVATION DISTRICT. ENGINEER'S CERTIFICATE

certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal mowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil

"I/We certify that all development and construction will be done according to this plan for sediment and erosion control.

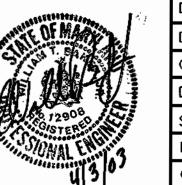
Conservation District."

and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the o authorize periodic on—site inspection by the Howard Soil Conservation District."

DATE

ENGINEERS:

HOWARD COUNTY, MARYLAND Consulting Engineers 849 Fairmount Avenue (410) 512-4500 Baltimore, Maryland 21286 (410) 324-4100 (FAX) WHITNEY, BAILEY, COX & MAGNANI, LLC

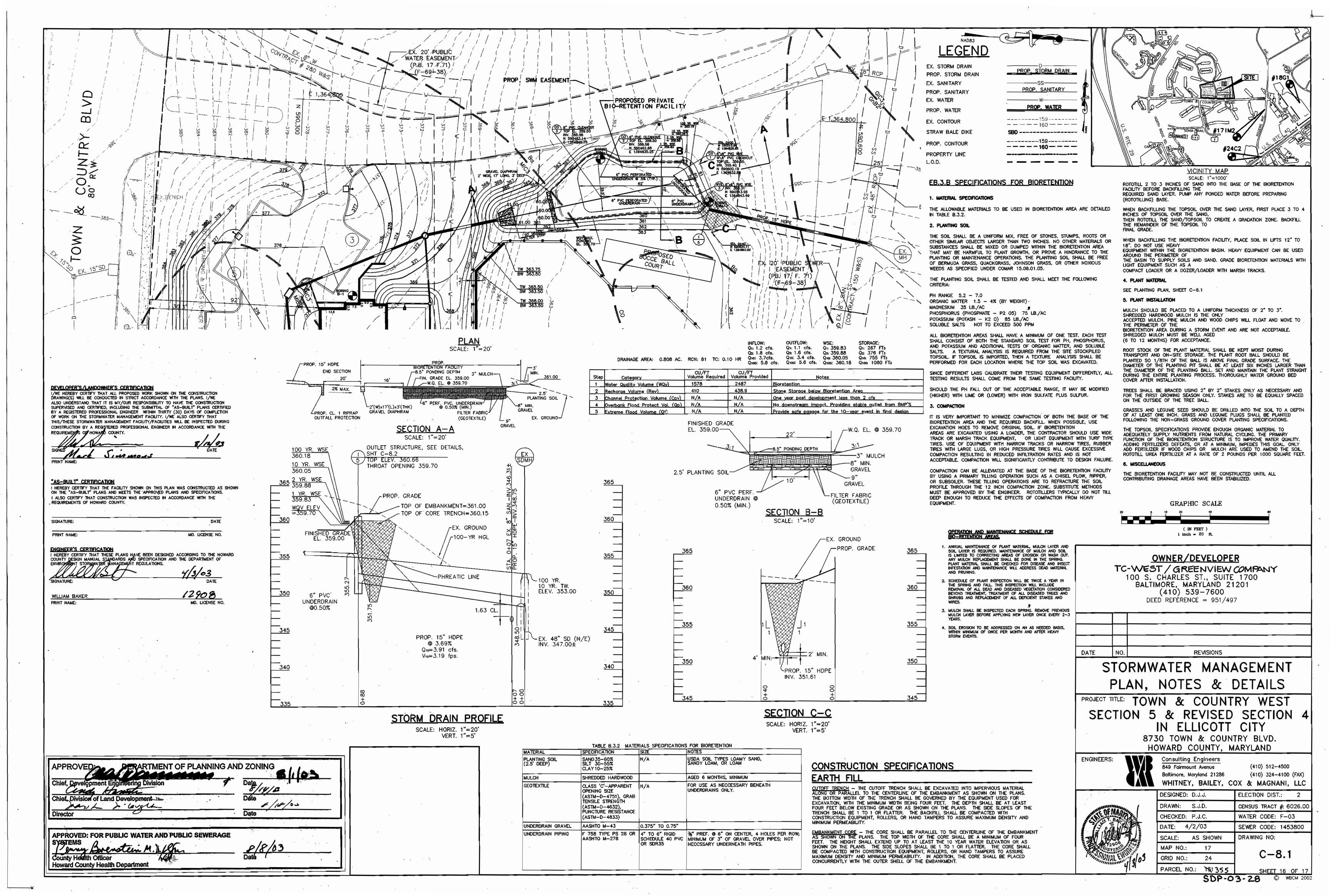


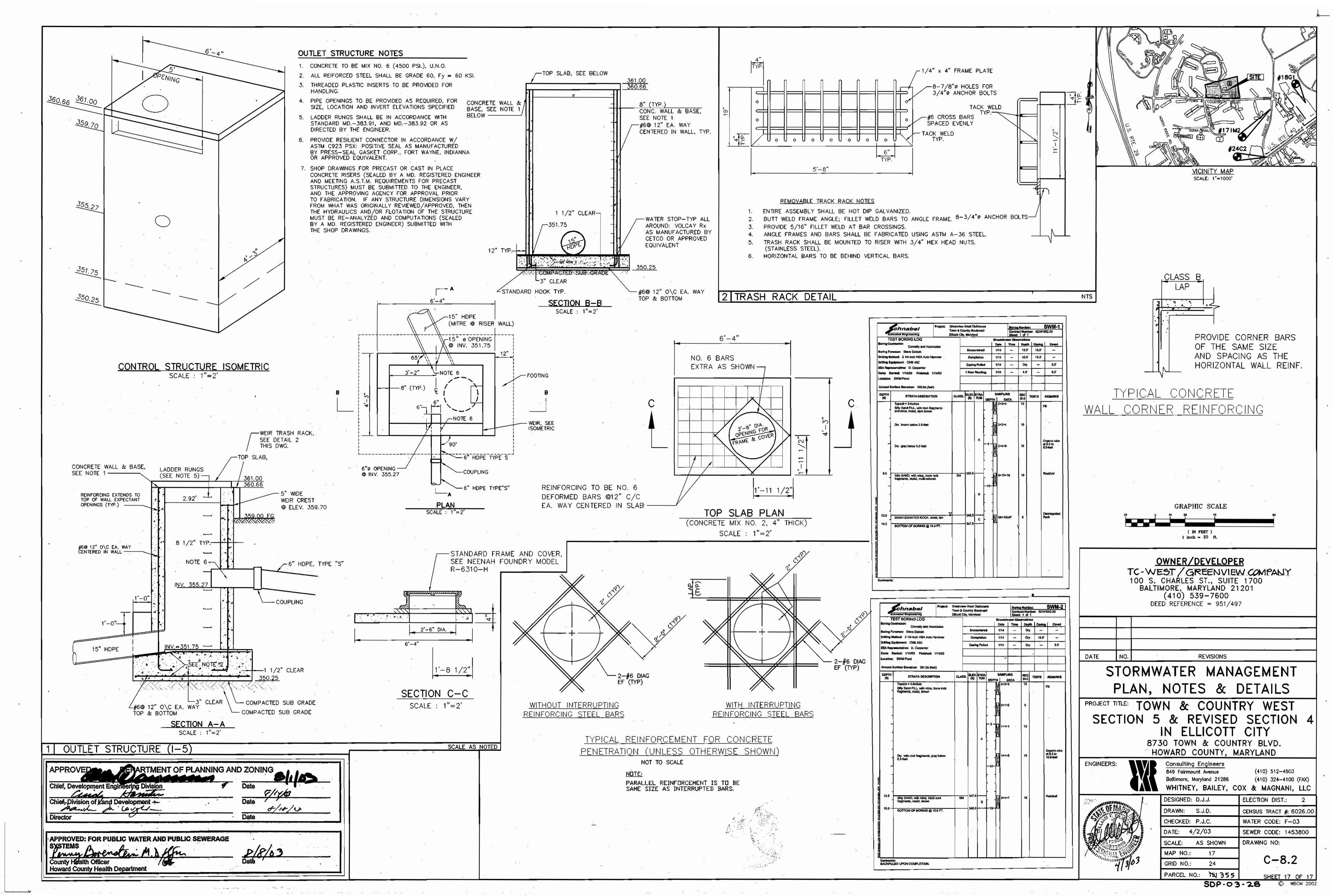
DESIGNED: D.J.J. ELECTION DIST.: 2 DRAWN: S.J.D. CENSUS TRACT #: 6026.00 CHECKED: P.J.C. WATER CODE: F-03 DATE: 4/2/03 SEWER CODE: 1453800 SCALE: AS SHOWN DRAWING NO: MAP NO .: GRID NO.: 24

PARCEL NO .: 151 355 SDP-03-28

S.C. 3 OF 3

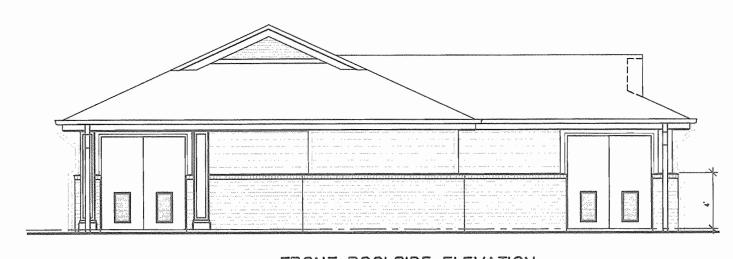
SHEET 15 OF 17





SITE DATA ANALYSIS: SITE DEVELOPMENT PLAN A. TOTAL PROPERTY AREA: 24.76 AC.± (1,078,545.60 S.F.) B. AREA OF SITE PLAN SUBMISSION: 1.58 AC.± (61,945 S.F.) C. LIMIT OF DISTURBED AREA: 1.58 AC.± (61,945 S.F.) D. PRESENT ZONING: E. PROPOSED USE OF SITE: CLUBHOUSE & CABANA BUILDING W\SWIMMING POOL F. EXISITNG USE OF SITE: SWIMMING POOL & CLUBHOUSE G. FLOOR SPACE OF PROPOSED BUILDINGS PER USE: CLUBHOUSE: 6,089 S.F. (0.139 AC.) CABANA: 706 S.F. (0.017 AC.) POOL AREA: 3.202 S.F. (0.074 AC.) H. NUMBER OF PARKING SPACES REQUIRED ON SITE: POOL AREA (MAX. 5' DEPTH): 3,202 S.F. MAX. OCCUPANCY: 267 PERSONS REQUIRED PARKING: 1 SPACE\10 PERSONS=27 SPACES HOWARD COUNTY, MARYLAND 27 SPACES TOTAL REQUIRED: I. PROP. NUMBER OF PARKING SPACES PROVIDED ON SITE : BUILDING: 27 SPACES (INCLUDING 2 HANDICAPPED) SDP-03-028 J. PROP. BUILDING COVERAGE OF PROPERTY AREA: 0.156 AC./24.76 AC. (0.63% OF PROPERTY AREA) PROP. PARKING COVERAGE OF PROPERTY AREA: 0.28 AC./24.76 AC. (1.13% OF PROPERTY AREA) PROP. POOL COVERAGE OF PROPERTY AREA: 0.07 AC./24.76 AC. (0.30% OF PROPERTY AREA) K. APPLICABLE DPZ FILE REFERENCE: SDP-81-14, SDP-69-18, SDP-68-03, F-68-51, F-69-38 **GENERAL NOTES:** 1. THE TOPOGRAPHY SHOWN IS BASED UPON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY WHITNEY, BAILEY, COX & MAGNANI, LLC ON 6/17/02 AND REFLECTS SITE CONDITIONS AS OF THAT DATE. MEAN ROOF EL.= 400.27 2. COORDINATES AND COURSES SHOWN HEREON ARE REFERRED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM, NAD 83 (1991), AS DETERMINED FROM THE FOLLOWING HOWARD COUNTY CONTROL SURVEY MONUMENTS AS PUBLISHED AS FOLLOWS; NGS HORIZONTAL CONTROL SURVEY MONUMENTS: DISK "18G1"; N 589,984.951 E 1,367,750.255 CONC.MONUMENT DISK "24C2"; N 588,648.312 E 1,366,038.195 CONC.MONUMENT 3. ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AS DETERMINED FROM THE FOLLOWING HOWARD COUNTY SURVEY CONTROL MONUMENT, PUBLISHED AS FOLLOWS; BENCH MARK 17IM2 (AKA 17TB) NAVD88 ELEV.= 324.775(feet) MEAN GROUND DECSRIPTION: CHISELED BOX @ S/W WINGWALL OF BRIDGE ON ROGERS AVENUE 100'± SOUTH OF TOWN & COUNTRY BLVD. EL.= 371.854. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF ANY WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT PRIOR TO THE START OF ANY WORK. FRONT ELEVATION REAR ELEVATION 5. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXACT LOCATION OF ALL EXISTING UNDERGROUND PROPOSED CLUBHOUSE BUILDING UTILITIES BEFORE COMMENCING ANY WORK. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE COST OF REPAIR OF ANY AND ALL DAMAGES WHICH N.T.S. OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES TO REMAIN. 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF ANY EXCAVATION WORK. 7. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY INVERTS AND CLEARANCES FROM NEW WORK PRIOR TO START OF ANY WORK. **LEGEND** 8. ALL DISTURBED AREAS NOT STABILIZED WITH STRUCTURES, PAVING, AND PLANTINGS SHALL BE STABILIZED WITH FOUR INCHES OF TOPSOIL, SEED, MULCH, AND WATER TO ESTABLISH AN ADEQUATE GROWTH OF VEGETATION. EXISTING PROPOSED 9. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS. BUILDING EX. BLDG. NEW BLDG. 10. THE TOPS OF ALL FRAMES, GRATES, AND COVERS OF ALL EXISTING BITUMINOUS PAVING BIT, PAVING UTILITIES WITHIN THE LIMITS OF CONTRACT AND/OR DISTURBANCE SHALL BE ADJUSTED TO THE NEW GRADES. CONCRETE SIDEWALK 11. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES. SECTION 5 & REVISED SECTION 4 CURB 12. NUMERICAL DIMENSIONS AND ELEVATIONS SHOWN SHALL SUPERSEDE ANY P.B. 17, F. 71 F-69-38 STORM DRAIN = 2 10.50,30. M = 518.01. DISCREPANCY IN THE SCALING ON THE DRAWINGS. 24.76 AC.+/-

EL.= 375.70 MEAN GROUND EL = 364.50 / REAR ELEVATION



S 04'30'00"

N 1445 32° W - 450.24

-PROP. CLUBHOUSE BUILDING

ROGERS AVENUE

PROP. CABANA BUILDING

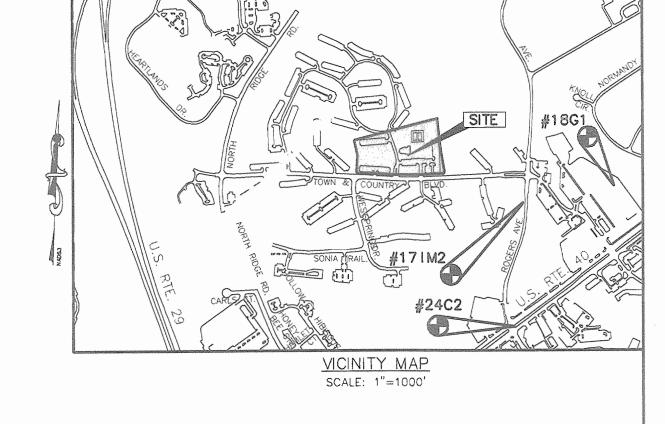
-PROP. POOL

FRONT POOLSIDE ELEVATION

PROPOSED CABANA BUILDING N.T.S.

ADDRESS CHART							
-LOT/PARCEL NO.	STREET ADDRESS						
POOL/CABANA	8730	TOWN	28	COUNTRY	BLVD.		
CLUBHOUSE	8732	11	11	11)1		

		PERM	IT INFORM	IATION CHAP	RT		
SUBDIVISION NAME TOWN & COUNTRY WEST			SECTION 5 & REVISED SECTION 4		PARCEL/LOT NO. PARCEL 355		
PLAT NO. OR 1/F	PLAT NO. OR 1/F BLOCK NO. ZONING		TAX MAP	ELECT, DISTR.	CENSUS TRACT NO.		
PBK17, F.71	24	RA-15	17	2	6026.00		
WATER CODE			SEWER CODE				
		1453800					



	SHEET INDEX					
	SHEET NO.	SET NO.	TITLE			
	1 OF 17	T-1	TITLE SHEET			
	2 OF 17	C-1	EXISITNG CONDITIONS PLAN			
	3 OF 17 C-2 DEMOLITION PLAN					
	4 OF 17	C-3.1	LAYOUT PLAN			
	5 OF 17	C-3.2	SITE DETAILS			
	6 OF 17	C-4	GEOMETRY PLAN			
	7 OF 17	C-5.1	GRADING AND UTILITY PLAN			
	8 OF 17	C-5.2 STORM DRAIN PROFILES				
Perfectorate	9 OF 17	C-5.3	C-5.3 WATER & SEWER PROFILES			
01270	10 OF 17	C-5.4	STORM DRAIN DRAINAGE AREA MAP			
	11 OF 17	C-6.1	LANDSCAPE PLAN			
	12 OF 17	C-6.2	LANDSCAPE DETAILS			
	13 OF 17	C-7.1	SEDIMENT & EROSION CONTROL PLAN			
	14 OF 17	C-7.2	SEDIMENT & EROSION CONTROL DETAILS			
	15 OF 17	C-7.3 SEDIMENT & EROSION CONTROL NOTES				
16 OF 17 C-8.1 STORM WATER MANAGEMENT PLAN			STORM WATER MANAGEMENT PLAN			
	17 OF 17	C-8.2	STORM WATER MANAGEMENT DETAILS & NOTES			

SANITARY WATER GAS STEAM ELECTRIC TELEPHONE ELEC/TELE DUCT VALVE HYDRANT MANHOLE ____159 ____ CONTOUR _____160 ____ FENCE TREE PROPERTY LINE LIMIT OF DISTURBANCE OUTDOOR LIGHT SOIL BOUNDARY

ZONING BOUNDARY EASEMENT _ _ _ _ _

24. NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT. 25. FOREST CONSERVATION FOR THIS PROJECT IS EXEMPT UNDER SECTION 16.1203.b.1(iii) OF THE HOWARD COUNTY SUBDIVIDION REGULATIONS. SITE GRADED PRIOR TO 12/31/92 IN ACCORDANCE WITH THE APPROVED FINAL ROAD PLAN AND SDP-68-03. 26. TRASH REMOVAL IS PROVIDED BY PRIVATE CONTRACTOR AT THE EXISTING DUMPSTERS LOCATED ON THE SITE IN THE PARKING LOT NEAR ROGERS AVENUE, SEE SITE PLAN ON THIS SHEET FOR LOCATION. DEPARTMENT OF PLANNING AND ZONING Chief, Development Engineering Division Chief, Division of Land Development Director

13. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND

14. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF

(5) FIVE WORKING DAYS PRIOR TO THE START OF WORK.

COUNTY ZONING REGULATIONS.

PLATS F-68-51 AND F-69-38.

23. THERE ARE NO WETLANDS ON THIS SITE.

ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST

15. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH

17. ALL EXTERIOR LIGHT FIXTURES SHALL BE ORIENTED TO DIRECT LIGHT INWARDS AND

20. THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY

CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE

THE ON-SITE TESTING REQUIRES PAVEMENT DESIGN TO BE CHANGED.

MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC

THE FINISHED SUBGRADE. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE

21. STORM WATER MANAGEMENT IS A PRIVATE BIORETENTION WATER QUALITY FACILITY.

22. THERE IS A FLOODPLAIN ON THIS SUBJECT PROPERTY AS SHOWN ON RECORDED

FURNISHED BY THE OWNER. APPROVAL FROM THE COUNTY SHALL BE OBTAINED IF

DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITE TESTING OF

16. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

18. EXISTING WATER IS PUBLIC AND BASED ON CONTRACT NO. 280-W&S

19. EXISTING SEWER IS PUBLIC AND BASED ON CONTRACT NO. 150-W&S

MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER.

THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY

DOWNWARDS ON-SITE AWAY FROM ALL ADJOINING RESIDENTIAL USE PROPERTIES AND PUBLIC

ROADS. OUTDOOR LIGHTING SHALL BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD

SPECIFICATIONS OF HOWARD COUNTY AND THE MD. STATE HWY. ADMINISTRATION.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SXSTEMS Date County Health Officer Howard County Health Department

TC-WEST / GREENVIEW COMPANY
100 S. CHARLES ST., SUITE 1700 BALTIMORE, MARYLAND 21201 (410) 539-7600 DEED REFERENCE = 951/497

-			
	5/26/04		REVISED ELEVATIONS
	DATE	NO.	REVISIONS
1			

OWNER/DEVELOPER

TITLE SHEET

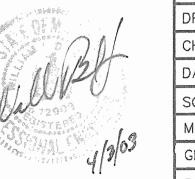
TOWN & COUNTRY WEST SECTION 5 & REVISED SECTION 4 IN ELLICOTT CITY

8730 TOWN & COUNTRY BLVD. HOWARD COUNTY, MARYLAND

ENGINEERS:

Consulting Engineers 849 Fairmount Avenue Baltimore, Maryland 21286

(410) 512-4500 (410) 324-4100 (FAX) WHITNEY, BAILEY, COX & MAGNANI, LLC



DESIGNED: D.J.J. ELECTION DIST.: 2 DRAWN: S.J.D. CENSUS TRACT #: 6026.00 CHECKED: P.J.C. WATER CODE: F-03 DATE: 4/2/03SEWER CODE: 1453800 SCALE: AS SHOWN DRAWING NO: MAP NO .: 17 GRID NO .: 24 PARCEL NO.: 751 35

SDP-03-28 © WBCM 2002

