

SEDIMENT CONTROL NOTES

- 1) A minimum of 30 days must be given to the Howard County Office of Inspection and Permitting to review the plan and specifications for the proposed sediment control measures.
- 2) All sediment control structures must be installed according to the provisions of this plan and specifications and the 1993 Maryland Department of the Environment's Erosion and Sedimentation Control Manual.
- 3) Following initial soil disturbance or construction, a minimum of 30 days must be given to the Howard County Office of Inspection and Permitting to review the plan and specifications for the proposed sediment control measures.
- 4) All sediment control structures must be fenced and warning signs must be installed in accordance with the provisions of the 1993 Maryland Department of the Environment's Erosion and Sedimentation Control Manual.
- 5) All disturbed areas must be stabilized within the time period specified in the plan and specifications. The 1993 Maryland Department of the Environment's Erosion and Sedimentation Control Manual, Chapter 31, shall apply to all other areas of the site not specifically addressed in this plan and specifications.
- 6) All sediment control structures must be installed in place and not to be relocated in operative condition until approved by the Howard County Office of Inspection and Permitting.
- 7) All sediment control structures must be installed in place and not to be relocated in operative condition until approved by the Howard County Office of Inspection and Permitting.
- 8) All sediment control structures must be installed in place and not to be relocated in operative condition until approved by the Howard County Office of Inspection and Permitting.
- 9) All sediment control structures must be installed in place and not to be relocated in operative condition until approved by the Howard County Office of Inspection and Permitting.
- 10) All sediment control structures must be installed in place and not to be relocated in operative condition until approved by the Howard County Office of Inspection and Permitting.
- 11) All sediment control structures must be installed in place and not to be relocated in operative condition until approved by the Howard County Office of Inspection and Permitting.
- 12) All sediment control structures must be installed in place and not to be relocated in operative condition until approved by the Howard County Office of Inspection and Permitting.
- 13) All sediment control structures must be installed in place and not to be relocated in operative condition until approved by the Howard County Office of Inspection and Permitting.

PERMANENT SEEDING NOTES

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

Soil Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Seeding: In lieu of soil test recommendations, use one of the following seed mixes:

- 1) **Grass Seed** - Apply 2 tons per acre dolomitic limestone (2 1/2 lbs/1000 sq ft) and 500 lbs per acre 10-10-10 fertilizer (4 1/2 lbs/1000 sq ft) before seeding. Barrow or clover seed over three inches of soil. At time of seeding, apply 400 lbs per acre 10-10-10 ureaform fertilizer (9 lbs/1000 sq ft).
- 2) **Soil Preparation** - Apply 2 tons per acre dolomitic limestone (2 1/2 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (2 1/2 lbs/1000 sq ft) before seeding. Barrow or clover seed over three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 50 lbs per acre (1 1/4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 50 lbs per acre of Kentucky 31 Tall Fescue per acre and 2 lbs per acre (5 lbs/1000 sq ft) of creeping zoysia. During the period of October 1 thru February 28, process 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 seed, Option (3) seed with 50 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 untreated mulch grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 200 gallons per acre (5 gal/1000 sq ft) of mulch stabilizer 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.

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

Soil Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Seeding: Apply 60 lbs per acre 10-10-10 fertilizer (4 1/2 lbs/1000 sq ft) before seeding. For the period March 1 thru April 30, and from August 15 thru October 15, seed with 1-1/2 tons per acre of annual ryegrass (3 1/2 lbs/1000 sq ft). For the period May 1 thru August 31, seed with 2 lbs per acre of creeping zoysia (5 lbs/1000 sq ft). For the period November 1 thru February 28, process site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use seed.

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Refer to the 1993 MARYLAND STRAW MULCH AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. For use and methods not covered.

TEMPORARY SEEDING NOTES

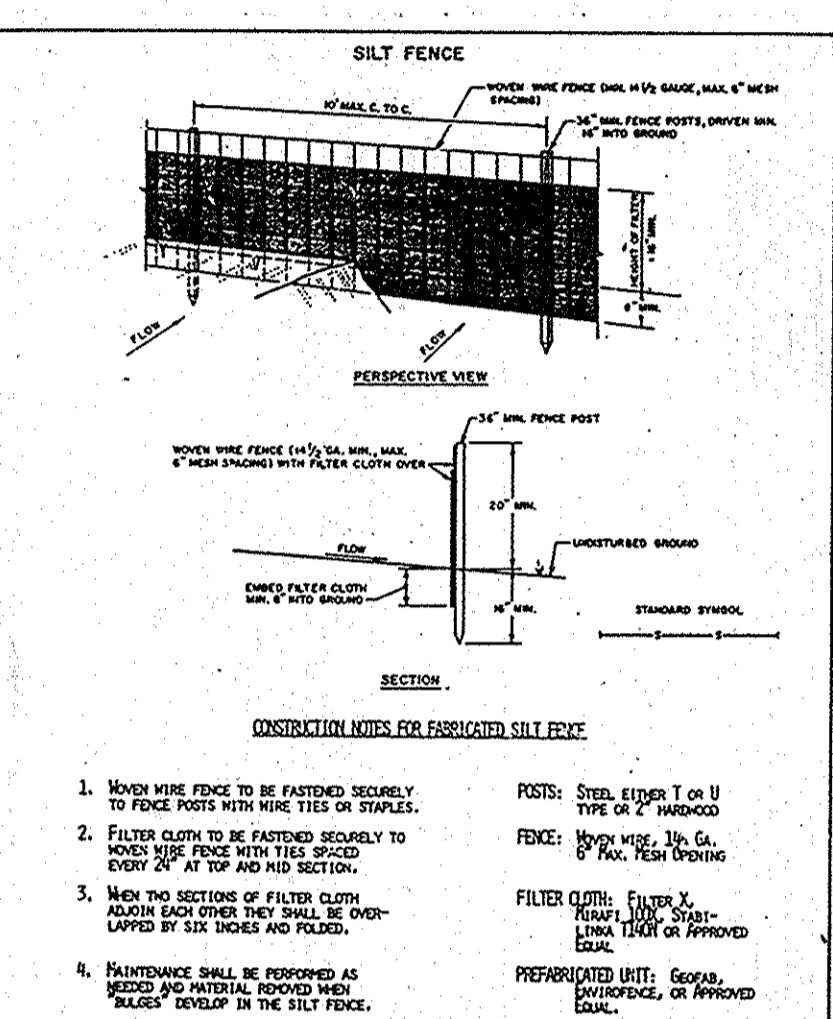
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Refer to the 1993 MARYLAND STRAW MULCH AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. For use and methods not covered.



GENERAL NOTES:

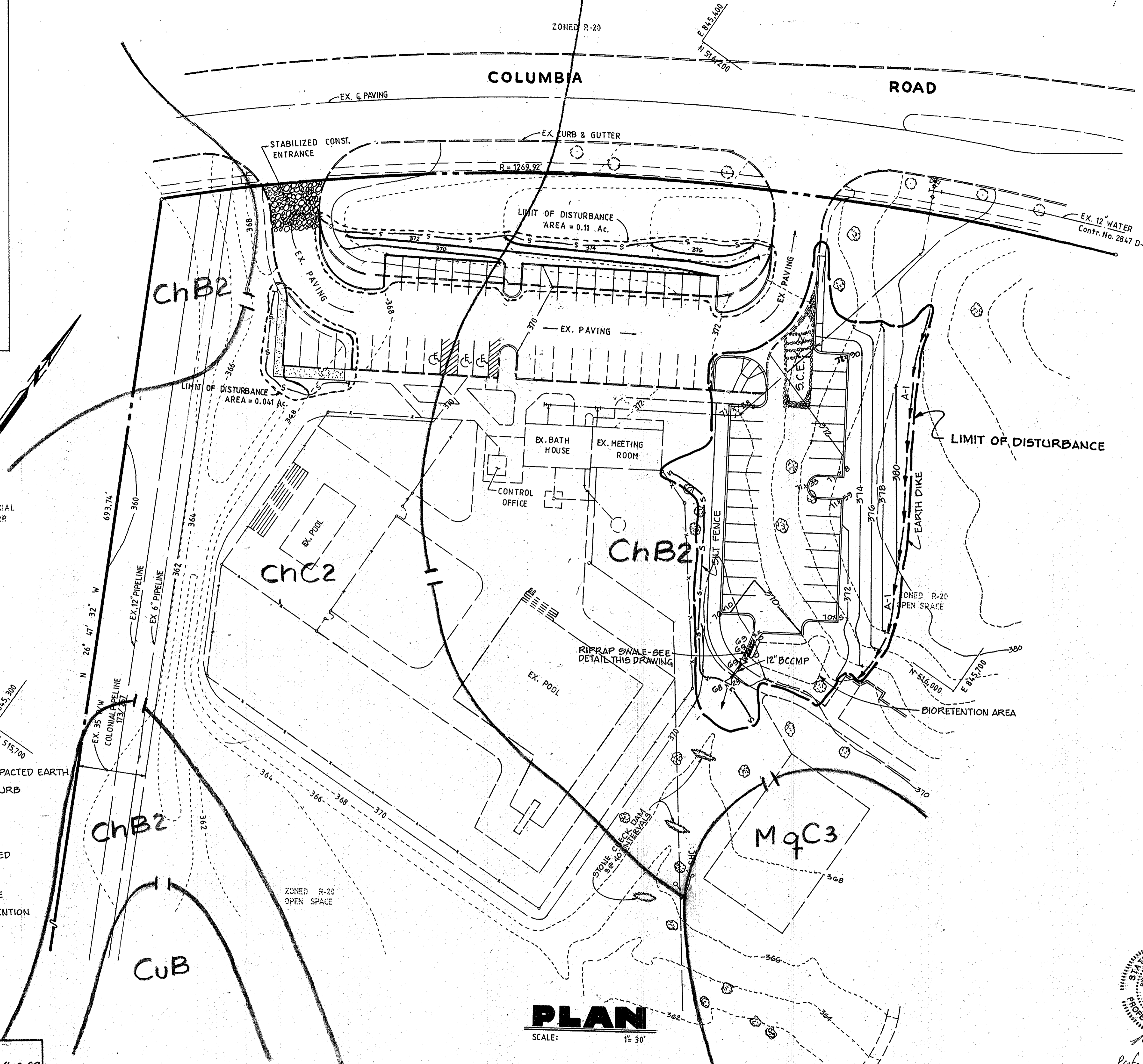
- 1) Refer to 1993 Maryland Standards and Specifications for Soil Erosion and Sedimentation Control for all details not shown on this plan.
- 2) With the approval of the sediment control supervisor, minor field adjustments may be made to the plan to correct any errors. Changes to the plan must be approved by the sediment control supervisor and the Howard County Soil Conservation District.
- 3) At the end of each working day, all sediment control practices will be inspected and care in operation conditions.
- 4) Following initial soil disturbance or construction, placement or temporary stabilization shall be completed within 72 hours unless otherwise specified in the plan and specifications. All areas with exposed soil, and all slopes greater than 1 horizontal to 1 vertical (1:1) and 1:1, must be stabilized or graded areas on the project site.
- 5) Any change to the grading prepared on this plan requires re-approval by the Howard County Soil Conservation District (see approved).
- 6) Disturbance will be required for all disturbed areas. Refer to 1993 Maryland Standards and Specifications for Soil Erosion and Sedimentation Control, Chapters 31 and 32 for all applicable methods and specifications for soil control.
- 7) Any violation from the sequence of operations stated on this plan requires the approval of the sediment control supervisor and the Howard County Soil Conservation District prior to the initiation of the change.
- 8) Excise out or remove material shall go to or come from, respectively, a site with an approved sediment control plan.
- 9) Refer to "Proprietary Substances or Processes Constituting" by the Patent Research Administration (PRA), dated January, 1984 for detailed details and data specifications of such proprietary methods for erosion control.

SEDGHI & ASSOCIATES, LTD.
Civil Engineers • Site Planners • Surveyors
3217 Corporate Court
Elliott City, MD 21043
(301) 750-9003

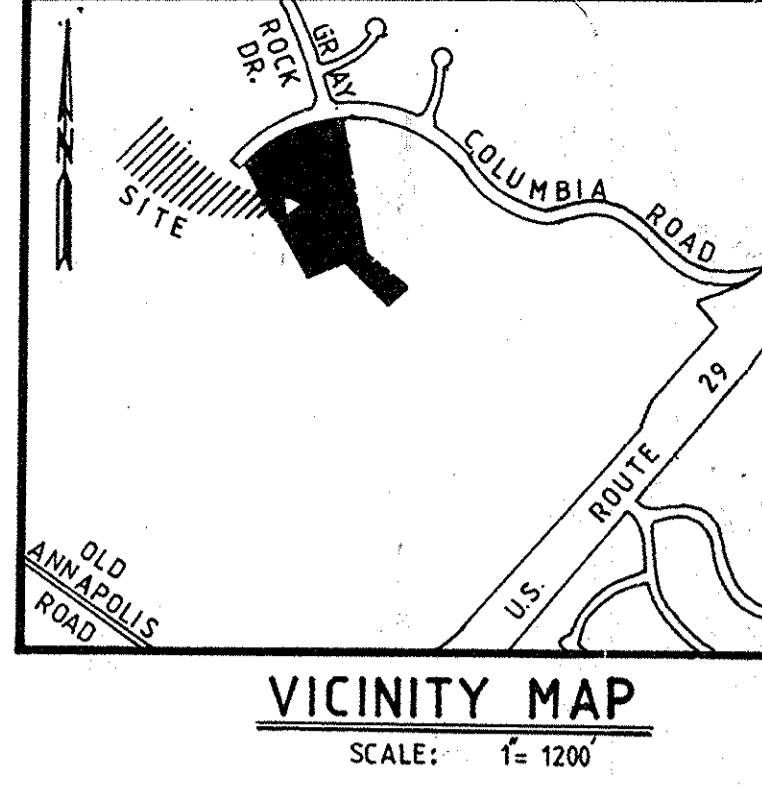
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
4-30-90
APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
5-2-90
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
4-26-90

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
3/12/90
U.S. SOIL CONSERVATION SERVICE
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
3/13/90
HOWARD SOIL CONSERVATION DISTRICT

| | | |
|-----|----------|---|
| 2 | 07/30/14 | BUILDING ADDITION SHEETS 4-16 ADDED TO SET |
| 1 | 10-15-98 | ADDED PARKING SPACES AND WATER QUALITY FACILITY |
| NO. | DATE | REVISION |



PLAN
SCALE: 1" = 30'

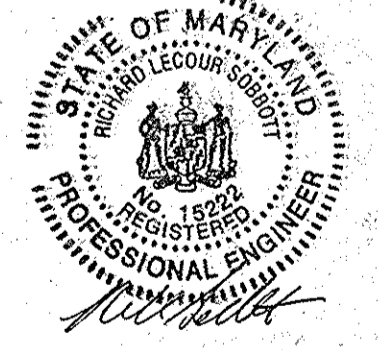


SEDIMENT & EROSION CONTROL LEGEND

- SOIL LINE
- DRAINAGE AREA
- LIMIT OF DISTURBANCE
- SILT FENCE

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. NOTIFY HOWARD COUNTY OFFICE OF INSPECTION, LICENSE AND PERMITS AT 410-313-1805 A MINIMUM OF 24 HOURS PRIOR TO THE START OF ANY WORK.
3. INSTALL SILT FENCES.
4. CLEAR AND GRADE THE SITE.
5. CONSTRUCT PAVING AND CURBS.
6. SEED AND MULCH ALL DISTURBED AREAS.
7. WITH THE PERMISSION OF SEDIMENT CONTROL INSPECTOR REMOVE ALL SEDIMENT CONTROL MEASURES.



Professional Certification:
I certify that these documents were prepared or approved by me, and that I am a duly licensed Engineer under the laws of the State of Maryland License No. 15322 Exp. Date 1/4/15
HOWARD COUNTY SOIL MAP # 19 & 20

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
4-30-90
APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
5-2-90
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
4-26-90

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3/12/90
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THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
3/13/90
HOWARD SOIL CONSERVATION DISTRICT

APPROVED PLAN REVISION
SCD John L. Robertson 4-12-99
NRCS Cheryl Summers 4-12-99
Technical Review Date

ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOILS CONSERVATION DISTRICT
2-27-1990
DATE
SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.
3-2-90
DATE
SIGNATURE OF DEVELOPER

| | | | | | |
|------------------|-------------|--|-------|------------|---------|
| SUBDIVISION NAME | DORSEY HALL | SECTION / AREA | 1 / 3 | LOT NO. | 146 |
| PLAT NO. | 4423 | BLOCK NO. | 22 | ZONE | R-20 |
| TAX / ZONE | 24 | ELEC DIST | 2 ND | CENSUS TR. | 6023.01 |
| WATER CODE | N/A | SEWER CODE | N/A | | |
| DESIGNED | V.S. | AMENDMENT TO SDP-83-155 SEDIMENT CONTROL PLAN PROPOSED PARKING ADDITION DORSEY HALL NEIGHBORHOOD POOL OPEN SPACE, LOT-146 DORSEY HALL SECTION-1, AREA-3 2ND ELECTION DISTRICT HOWARD COUNTY, MD. | | | |
| DRAWN | V.S. | OWNER COLUMBIA ASSOCIATION 92-94 DORSEY HALL PARKWAY 9450 GERWICK LN. COLUMBIA, MD. 21046 | | | |
| CHECKED | M.S. | SCALE: 1" = 30' | | | |
| DATE | 1-18-90 | DRAWING 2 OF 13 | | | |
| | | JOB NO. | | | |
| | | FILE NO. | | | |

I. BIORETENTION AREA SOIL SPECIFICATIONS

A. Planting Soil

The bioretention area shall consist of a planting soil having a composition of at least 10 to 25 percent clay and shall be of a sandy loam or loamy sand texture. Loamy soils may be utilized for the planting soil but must consist of 35% sand. In addition, the furnished planting soil shall be of uniform composition, free of stones, stumps, roots or similar objects larger than one inch, brush, or any other material or substance which may be harmful to plant growth, or a hindrance to planting or maintenance operations.

The planting soil shall be free of plants or plant parts of Bermuda grass, Quack grass, Johnson grass, Mugwort, Nutsedge, Poison Ivy, Canadian Thistle or others as specified.

It shall not contain toxic substances harmful to plant growth.

The planting soil shall be tested and meet the following criteria:

| | |
|--|-----------------------|
| pH range | 5.5 - 6.5 |
| Organic matter | 1.5 - 3.0% |
| Magnesium - Mg | 35 lbs./acre |
| Phosphorus - P ₂ O ₅ | 100 lbs./acre |
| Potassium - K ₂ O | 85 lbs./acre |
| Soluble salts | not to exceed 500 ppm |

The following testing frequencies shall apply to the above soil constituents:

pH, Organic Matter: 1 test per 90 cubic yards, but no more than 1 test per Bioretention Area

Magnesium, Phosphorus, Potassium, Soluble Salts: 1 test per 500 cubic yards, but no less than 1 test per borrow source

One grain size analysis shall be performed per 90 cubic yards of planting soil, but no less than 1 test per Bioretention Area.

B. Mulch Layer Specifications

A mulch layer shall be provided on top of the planting soil. An acceptable mulch layer shall include shredded hardwood or shredded wood chips or other similar product.

Of the approved mulch products all must be well aged, uniform in color, and free of foreign material including plant material. Well aged mulch is defined as mulch that has been stockpiled or stored for at least twelve (12) months.

C. Sand Specifications

The sand shall be free of deleterious material and rocks greater than 1 inch in diameter.

D. Compaction

Soil shall be placed in lifts less than 18 inches and lightly compacted (minimal compactive effort) by tamping with a bucket from a dozer or a backhoe.

General Planting Specifications

- Root stock of the plant material shall be kept moist during transport from the source to the job site and until planted.
- Walls of planting pit shall be dug so that they are vertical.
- The diameter of the planting pit must be a minimum of six inches (6") larger than the diameter of the ball of the tree.
- The planting pit shall be deep enough to allow 1/4" of the ball to be above the existing grade. Loose soil at the bottom of the pit shall be tamped by hand.
- The appropriate amount of fertilizer is to be placed at the bottom of the pit (see below for fertilization rates).
- The plant shall be removed from the container and placed in the planting pit by lifting and carrying the plant by its ball (never lift by branches or trunk).
- Set the plant straight and in the center of the pit so that the top of the ball is approximately 1/4" above the final grade.
- Backfill planting pit with existing soil.
- Make sure plant remains straight during backfilling procedure.
- Never cover the top of the ball with soil. Mound soil around the exposed ball (1/4").
- Trees shall be braced by using 2" by 2" white oak stakes. Stakes shall be placed parallel to walkways and buildings. Stakes are to be equally spaced on the outside of the tree ball. Utilizing rope and wire the tree is braced to the stakes.

Fertilization

- Tree and Shrub fertilizer shall be a 21 gm. tightly compressed, long lasting, slow release (2 year) fertilizer tablet with a minimum guaranteed analysis of 20-10-5:
- | | |
|--|-------|
| Total Nitrogen (N) | - 20% |
| Water Soluble Organic Nitrogen | - 7% |
| Water in Soluble Organic Nitrogen | - 13% |
| Available Phosphoric Acid (P ₂ O ₅) | - 10% |
| Soluble Potash (K ₂ O) | - 5% |
- For containerized trees and shrubs, place the specified fertilizer tablet(s) in the bottom of the planting pit according to the following rates:
- | | |
|------------------|----------------------|
| 1 gal. Container | 1 ea. 21 gm. Tablets |
| 3 gal. Container | 2 ea. 21 gm. Tablets |
| 5 gal. Container | 3 ea. 21 gm. Tablets |
| 7 gal. Container | 5 ea. 21 gm. Tablets |

Planting Non-Grass Ground Cover

- The ground cover planting holes shall be dug through the mulch with one of the following: hand trowel, shovel, bulb planter, or hoe (this does not apply to grasses or legumes).
- Before planting biodegradable pots shall be split, and non-biodegradable pots shall be removed. Root systems of all potted plants shall be split or crumbled.
- The ground cover shall be planted so that the roots are surrounded by the soil below the mulch. Potted plants shall be set so that the top of the pot is even with the existing grade. The roots of bare root plants shall be covered to the crown.
- The mulched and planted ground cover bed with a pre-emergent herbicide.
- The entire ground cover bed shall be thoroughly watered.

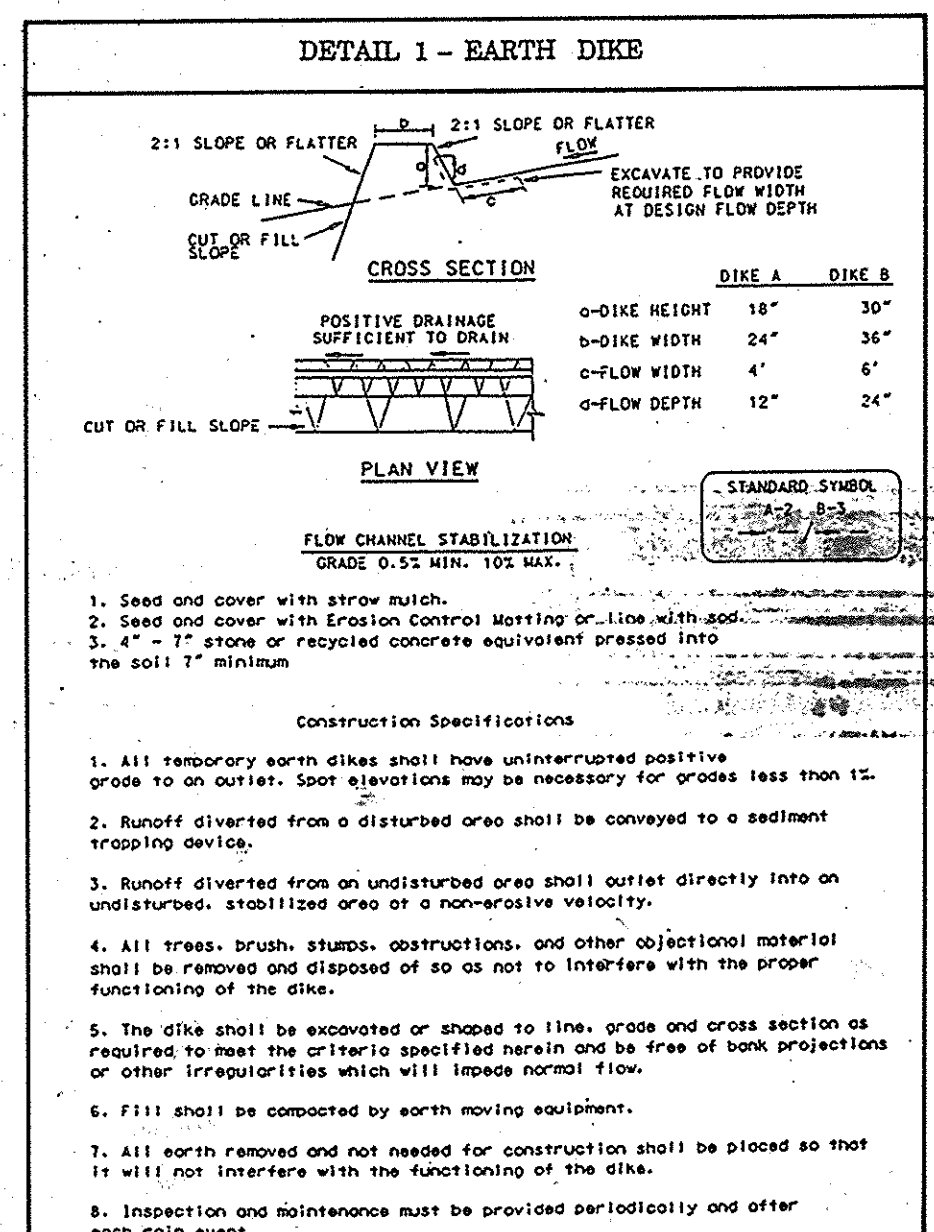
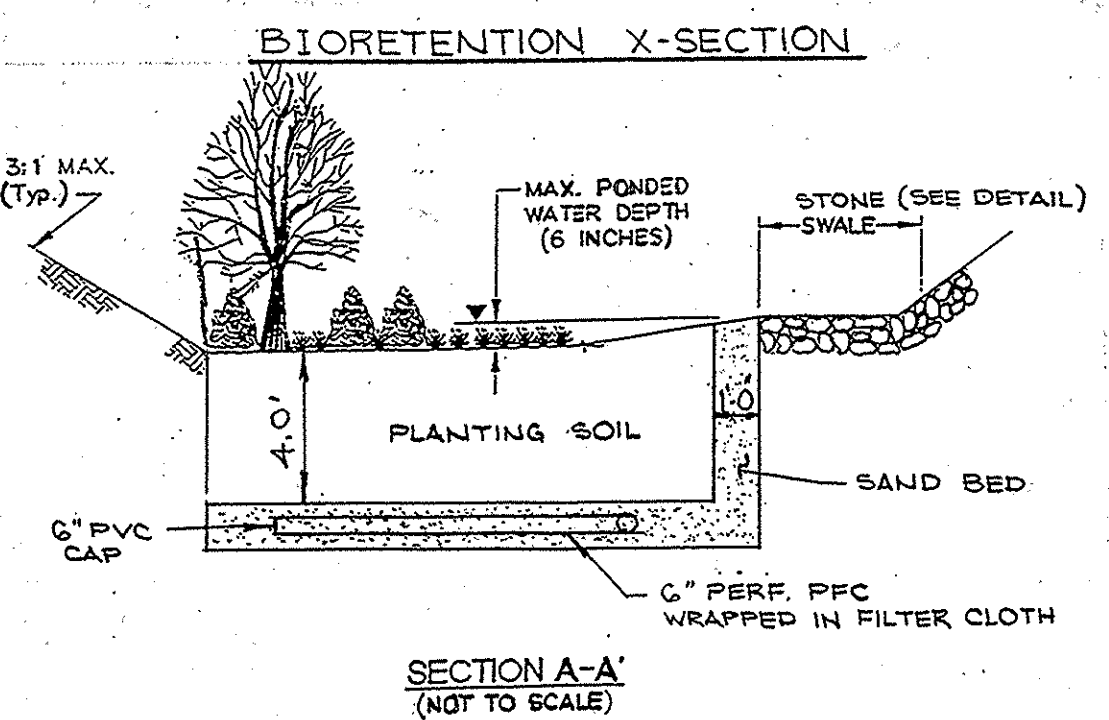
Bioretention Area Sequence of Construction

- Install Phase I Silt Fence as shown on the plan.
 - Construction time: 1/2 Day
- Grade each site to elevations shown on plan. Construct curb openings, and/or remove and replace existing concrete as specified on the plan. Curb openings shall be blocked or other measures taken to prohibit drainage from entering construction area.
 - Construction time: 1 Day
- Stabilize grading within Limit of Disturbance except for Bioretention Area.
 - Construction time: 1/2 Day
- Remove Phase I sediment control devices at direction of DER inspector.
 - Construction time: 1/2 Day
- Install Phase II silt fence.
 - Construction time: 1/2 Day
- Excavate Bioretention Area to proposed depth.
 - Construction time: 1/2 Day
- Fill Bioretention Area with planting soil and sand, as shown in the plans and detailed in the specifications.
 - Construction time: 1 Day
- Plant vegetation specified in the planting plan for Bioretention Area.
 - Construction time: 1/2 Day
- Upon authorization from DER inspector, remove all sediment controls and stabilize all disturbed areas. Unblock curb openings, and provide drainage to the Bioretention Areas.
 - Construction time: 1/2 Day

Total Estimated Construction Time: 5.5 Days

OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION AREAS

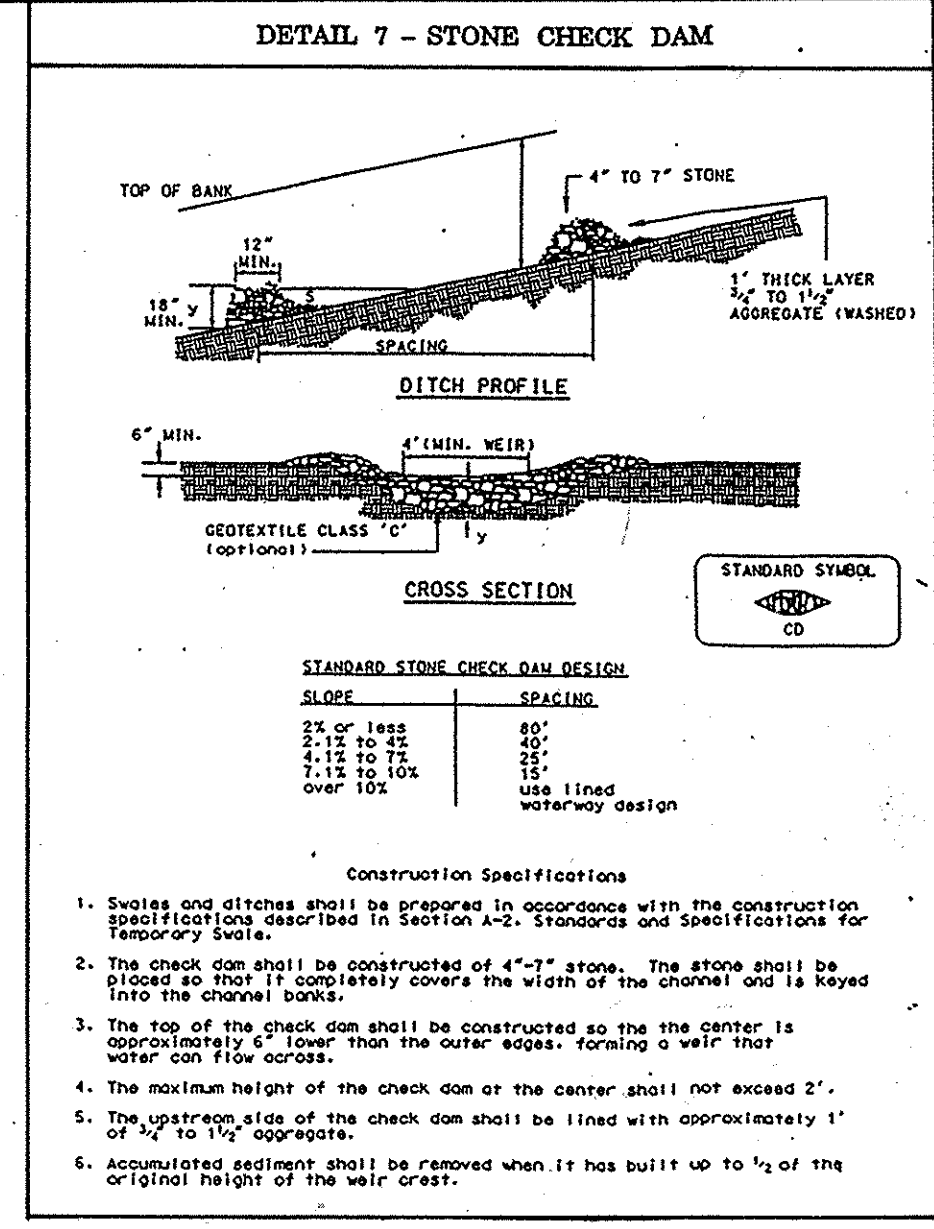
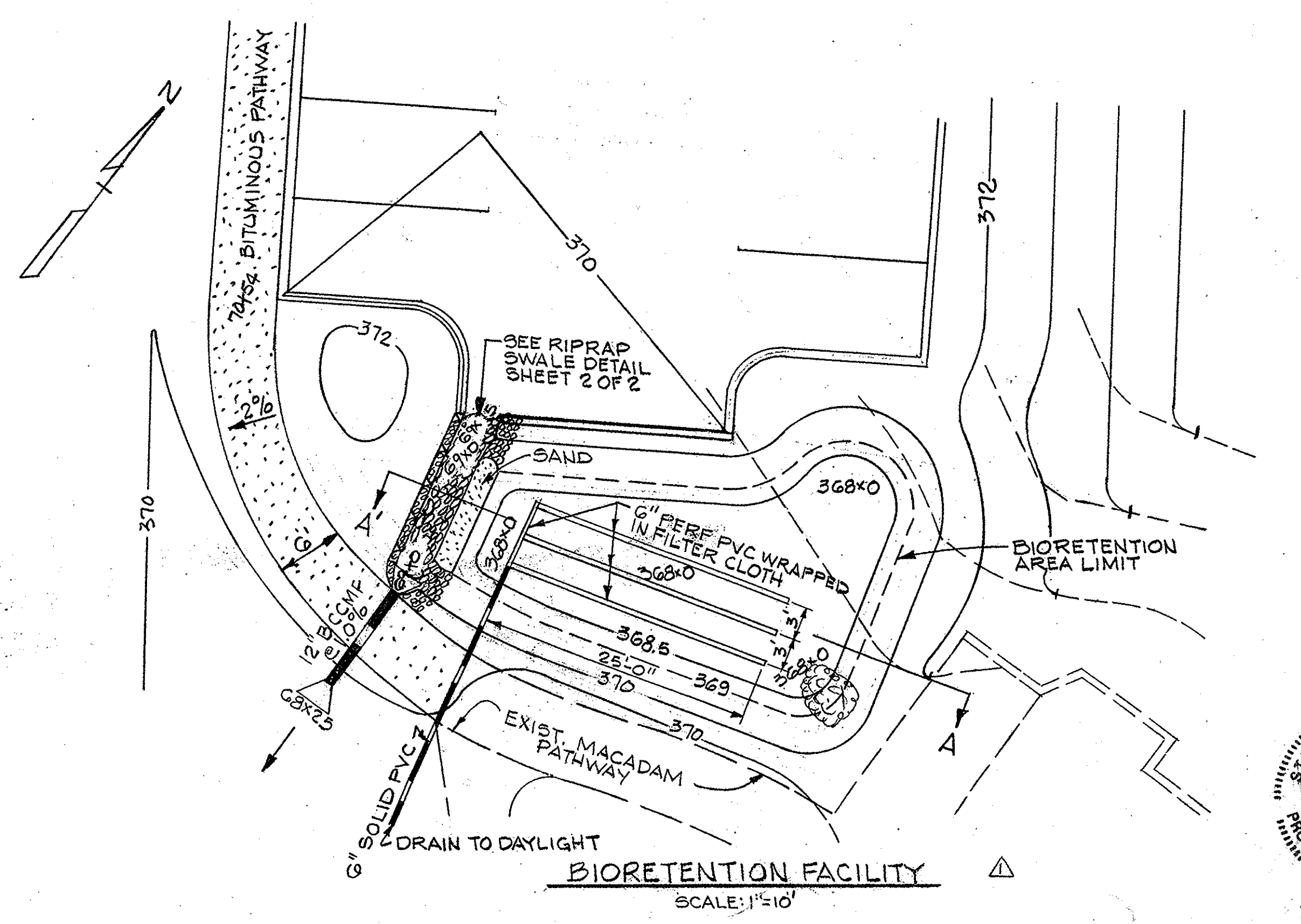
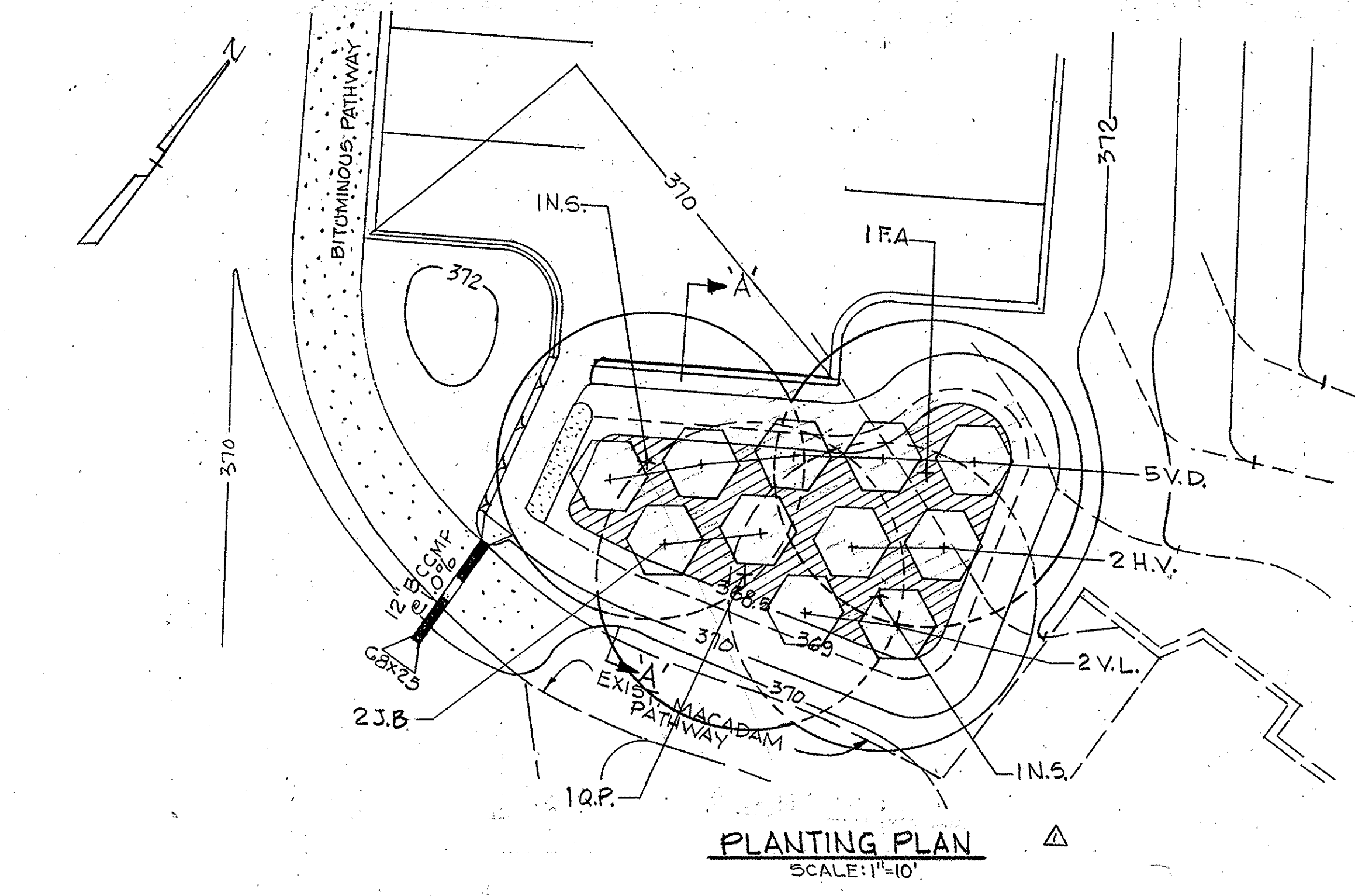
- Annual maintenance of plant material, mulch layer and soil layer is required. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning.
- Schedule of plant inspection will be twice a year in spring and fall. This inspection will include removal of dead and diseased vegetation considered beyond treatment, treatment of all diseased trees and shrubs and replacement of all deficient stakes and wires.
- Mulch shall be inspected each spring. Remove previous mulch layer before applying new layer once every 2 to 3 years.
- Soil erosion to be addressed on an as needed basis, with a minimum of once per month and after heavy storm events.



SWM LANDSCAPING
 LINEAR FEET OF PERIMETER = 160 L.F.
 NUMBER OF TREES REQUIRED @ 1/60 = 3
 NUMBER OF TREES PROVIDED = 4
 SHRUBS = 11

PLANTING PLAN LEGEND

| TREE | | | | SHRUB | | | |
|------|--------|--------------------|-------------|-------|--------|---------------------|-------------------|
| NO. | SYMBOL | SCIENTIFIC NAME | COMMON NAME | NO. | SYMBOL | SCIENTIFIC NAME | COMMON NAME |
| 2 | N.S. | Nyssa sylvatica | black gum | 5 | V.D. | Viburnum dentatum | arrowwood |
| 1 | Q.P. | Quercus palustris | pin oak | 2 | H.V. | Hamamelis virginica | witch hazel |
| 1 | F.A. | Fraxinus americana | white ash | 2 | J.B. | Berberis thunbergii | Japanese barberry |
| | | | | 2 | V.L. | Viburnum lentago | nannyberry |



REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

4-12-99 DATE

BY THE ENGINEER: 2-1-99 DATE

BY THE DEVELOPER: 4-12-99 DATE

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

4/15/99 DATE

4/20/99 DATE

4/22/99 DATE

COLUMBIA ASSOCIATION

10221 WINGOPIN CIRCLE, SUITE 100
 COLUMBIA, MARYLAND 21044-3410
 (410) 312-6826

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 613 MARDEN CHURCH LANE, SUITE 300
 BALTIMORE, MARYLAND 21228
 (410) 547-8833 FAX 247-8307

AREA: DORSEY HALL
 SECTION - 1. AREA-3 OPEN SPACE LOT
 2nd ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND 146

TITLE: SEDIMENT CONTROL PLAN

Des By: J.B. Scale: AS SHOWN Proj No: 98-021
 Drn By: EMP Date: DECEMBER 1998 DRAWING NO:
 Chk By: J.R.H. SDP- 3 OF 18

9450 GERWIG LANE,
 COLUMBIA, MD 21046
 410.381.0287



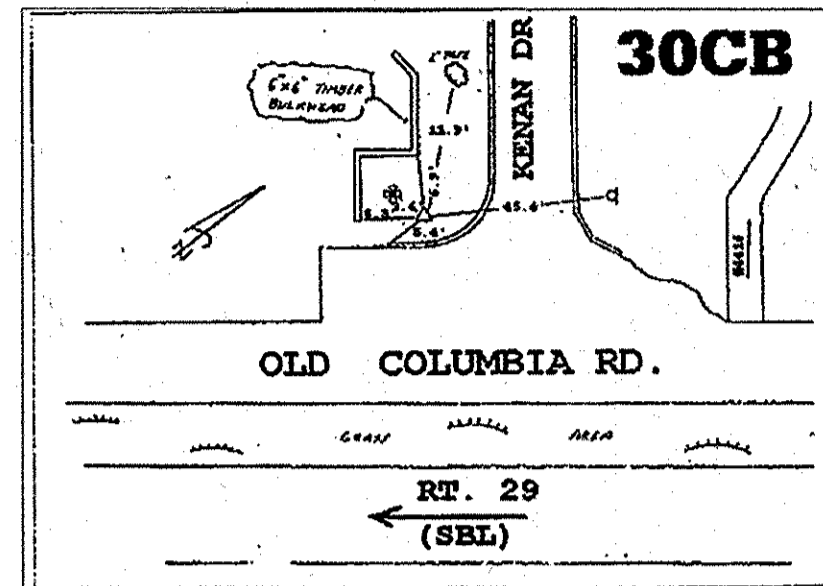
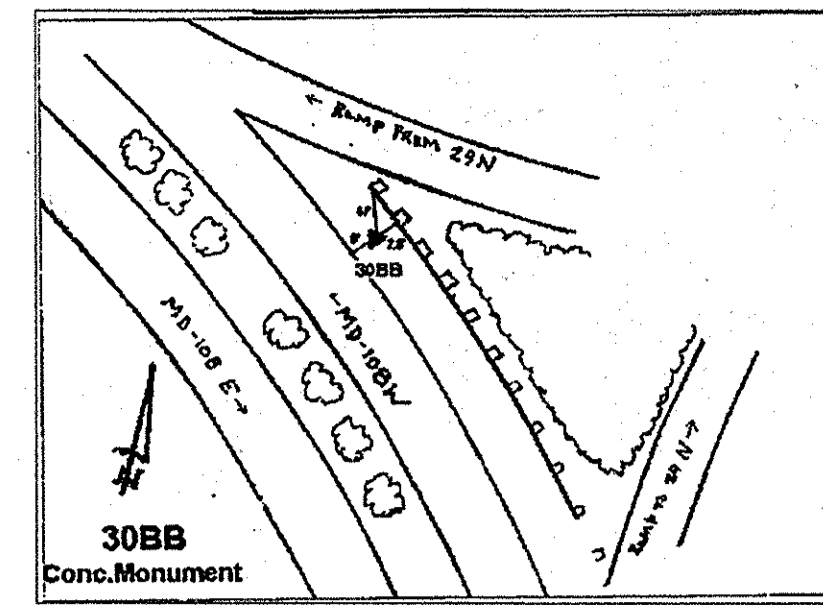
Professional Certification
 I certify that these documents were prepared or approved by me and that I am a duly licensed Engineer under the laws of the State of Maryland Lic No. 15222 Expiration Date 12/31/00

2/1/99 Date
 JOHN R. HEINRICHS
 Professional Engr. No. 14920

GENERAL NOTES

- THE SUBJECT PROPERTY IS ZONED R-20 PER THE 10/6/13 COMPREHENSIVE ZONING PLAN FOR HOWARD COUNTY.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
- THIS PLAN IS PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- THERE ARE NO BURIAL GROUNDS OR CEMETERY SITES LOCATED ON THE PROJECT SITE.
- REFERENCE NUMBER OF OTHER APPROVED PLANS: SDP 90-127.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY AND 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 ANY EXCAVATION WORK BEING DONE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 5 DAYS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE COORDINATES SHOWN HEREON ARE BASED ON HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. BENCHMARKS SHOWN HEREON WERE PROVIDED BY HOWARD COUNTY SURVEY DIVISION.
- WATER IS PUBLIC CONTRACT NO. 2847 D-W&S.
- SEWER IS PUBLIC CONTRACT NO. 24-1761-D.
- STORMWATER MANAGEMENT IS REQUIRED AT THE SITE AND ADDRESSED USING MICROBIORETENTION (MDE M-6) AND PERMEABLE PAVERS (MDE A-2). THE COLUMBIA ASSOCIATION AS THE OWNER WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THESE FACILITIES.
- EXISTING UTILITIES ARE BASED ON AVAILABLE RECORD DRAWINGS OBTAINED FROM HOWARD COUNTY AND OTHER UTILITY OWNERS AND FIELD SURVEY.
- THERE ARE NO WETLANDS ON THIS SITE WITHIN 100' OF THE LOD LINE.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY (1 FOOT CONTOUR INTERVAL) WITHIN THE LIMITS OF DISTURBANCE AND AERIAL SURVEY (2 FOOT CONTOUR INTERVAL) OUTSIDE OF THE LIMITS OF DISTURBANCE, PREPARED BY DANIEL CONSULTANTS INC. IN JANUARY 2013.
- THE INFORMATION SHOWN ON THESE PLANS IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND DANIEL CONSULTANTS INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY SUCH INFORMATION TO HIS OWN SATISFACTION.
- SHOULD THE CONTRACTOR DISCOVER ANY DISCREPANCIES BETWEEN THE PLANS AND THE FIELD CONDITIONS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY. REFER TO THE SITE PLAN FOR EXISTING UTILITY LOCATIONS.
- EXISTING GROUND AND/OR VEGETATION DISTURBED BY THE PROPOSED WORK SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION OR BETTER BY CONCLUSION OF THE PROJECT.
- THE PROPOSED PROJECT IS LOCATED AT 4649 COLUMBIA ROAD.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY USING OFF SITE BANKING. SEE SITE DEVELOPMENT PLAN 14 SDP 005. FOREST CONSERVATION OBLIGATION HAS ONLY BEEN FULFILLED FOR THE IMPROVEMENTS APPROVED UNDER THIS RED-LINE. ALL FUTURE EXPANSIONS MUST SATISFY FOREST CONSERVATION REQUIREMENTS.
- THE SUBJECT PROJECT IS NOT EXEMPT FROM THE FOREST CONSERVATION REQUIREMENT, AND THIS REQUIREMENT MUST BE SATISFIED FOR THE PROPOSED IMPROVEMENTS UNDER THIS ECP.
- THE PROPOSED IMPROVEMENTS THAT FORM THE WORK OF THE CONTRACT ARE SUBJECT TO CONDITIONAL USE APPROVAL CASE NO. BA-13-034C.
- THERE IS NO FLOODPLAIN ON THIS SITE.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY DANIEL CONSULTANTS INC. ON SEPTEMBER 2013 AND WAS APPROVED ON 10/16/14
- PERMIT APPLICATION DEADLINE FOR THIS RED-LINE IS ONE YEAR FROM THE SIGNATURE DATE OF THE RED-LINE PLANS.
- THE PURPOSE OF THIS REDLINE IS TO EXPAND THE MULTIPURPOSE ROOM TO ALLOW THE DAYCARE TO EXPAND TO 30 STUDENTS AND TO PROVIDE ADDITIONAL SPACE FOR OTHER EVENTS. THE SHOWER AND MECHANICAL ROOMS ARE ALSO BEING EXPANDED. A SPA POOL HAS BEEN ADDED AND THE EXISTING CHILDREN'S POOL IS BEING REPLACED.

| TRAVERSE LINE COORDINATES | | | |
|---------------------------|-------------|--------------|-----------|
| NO | NORTHING | EASTING | ELEVATION |
| 30 BB | 572837.3927 | 1359172.6349 | 409.972 |
| 30 CB | 576541.3735 | 1361211.2561 | 379.481 |
| 30 EC | 571963.0073 | 1360059.8946 | 399.190 |
| DCI-110 | 5766774500 | 1357563.1600 | 365.290 |
| DCI-111 | 576817.5000 | 1357729.9300 | 373.730 |
| DCI-112 | 576580.3600 | 1357844.6100 | 370.970 |
| DCI-113 | 576681.4200 | 1357930.0800 | 370.940 |
| DCI-114 | 576951.8400 | 1357962.9000 | 378.860 |



NOTES:
FOR COORDINATES AND ELEVATIONS
SEE TRAVERSE LINE COORDINATES TABLE

| PROJECT ADDRESS CHART | | OWNER | |
|-----------------------|--|--|--------------|
| LOT/PARCEL | STREET ADDRESS | COLUMBIA ASSOCIATION | PHONE NO. |
| 146/1147 | 4649 COLUMBIA ROAD ELLCOTT CITY, MD 21042 | 9450 GERWIG LANE COLUMBIA MD, 21046 | 410-381-0287 |

| SITE ANALYSIS | |
|---|--------------------------------|
| TOTAL AREA OF SITE | = 10.39 ACRES |
| LIMIT OF DISTURBED AREA | = 0.6 ACRES |
| PRESENT ZONING DESIGNATION | = R-20 |
| PROPOSED USES FOR SITE AND STRUCTURES | = DORSEY HALL - SHOWER BLDG. |
| DAYCARE STAFF | = 4 |
| ADDITIONAL TOTAL | 10 |
| DAYCARE STUDENTS | = 18 |
| ADDITIONAL TOTAL | 30 |
| BATHERS | = 8 |
| ADDITIONAL TOTAL | 490 |
| PARKING SEE SHARED PARKING TABLE BELOW | |
| DAYCARE/MULTIPURPOSE ROOM AREA | = 1,409 SF |
| FOREST AREA IMPACTED | = 0 SQ. FT. |
| BUILDING COVERAGE OF SITE | 0.07 ACRES AND 0.7% GROSS AREA |
| APPLICABLE DPZ FILE REFERENCE: | SDP-90-127 AND SDP-83-155 |
| CONDITIONAL USE CASE NO. | BA 02-15C AND BA 13-034C |

MAXIMUM NUMBER OF EMPLOYEES = 4 ADDITIONAL STAFF
18 ADDITIONAL STUDENTS
8 ADDITIONAL BATHERS (SPA POOL ADDS
12 BUT NEW WADING POOL REMOVES 4)

| SHARED PARKING USAGE SUMMARY | | | | |
|--|---------------|-------------------------------------|---------------------|----------|
| BASE ON THE PARKING REQUIREMENT DETAILED ABOVE THE PARKING REQUIREMENT FOR EACH OF THE USERS ARE AS FOLLOWS: | | | | |
| 1. COMMUNITY POOL: | 49 SPACES | (10 SPACES/PER BATHER, 490 BATHERS) | | |
| 2. DAYCARE ROOM: | 5 SPACES | (3 SPACES PER 1000 SF, 1450 SF) | | |
| 3. MULTIPURPOSE ROOM: | 15 SPACES | (10 SPACES PER 1000 SF, 1450 SF) | | |
| THE SHARED USE OF THE PARKING FACILITY WILL THEREFORE BE AS FOLLOWS: | | | | |
| TABLE 1: PARKING LOT USAGE MEMORIAL DAY TO LABOR DAY | | | | |
| DAY | MONDAY-FRIDAY | | SATURDAY | SUNDAY |
| TIMES | 6AM-12PM | 12PM-6:30PM | 7AM-11AM | 7AM-11PM |
| MULTIPURPOSE | 0 | 0 | 15 | 0 |
| DAYCARE | 5 | 5 | 0 | 0 |
| POOL | 0 | 49 | 0 | 49 |
| TOTAL | 5 | 54 | 15 | 49 |
| TABLE 2: PARKING LOT USAGE LABOR DAY TO MEMORIAL DAY | | | | |
| DAY | MONDAY-FRIDAY | | SATURDAY AND SUNDAY | |
| TIMES | 6AM-6:30PM | 7:00PM-11PM | 7AM-11PM | |
| MULTIPURPOSE | 0 | 15 | 15 | |
| DAYCARE | 5 | 0 | 0 | |
| POOL | 0 | 0 | 0 | |
| TOTAL | 5 | 15 | 15 | |

ENGINEER'S CERTIFICATION

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

SIGNATURE OF ENGINEER: RICHARD SOBBOTT
DATE: 6/27/14

DEVELOPER'S CERTIFICATION

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER: [Signature]
DATE: 6/27/14

INDEX OF SHEETS

| SHEET NO. | DESCRIPTION |
|-----------|--|
| 1. | ORIGINAL SDP # 90-127, SHEET 1 OF 3 |
| 4. | COVER SHEET |
| 5. | ENVIRONMENTAL CONSERVATION PLAN |
| 6. | DEMOLITION PLAN |
| 7. | SITE PLAN I |
| 8. | SITE PLAN II |
| 9. | SITE PLAN III |
| 10. | SITE DETAILS I |
| 11. | SITE DETAILS II |
| 12. | WATER AND SEWER PLANS |
| 13. | STORMWATER DRAINAGE AREA MAP |
| 14. | STORMWATER DETAILS I |
| 15. | STORMWATER DETAILS II |
| 16. | EROSION & SEDIMENT CONTROL PLAN |
| 17. | EROSION & SEDIMENT CONTROL NOTES AND DETAILS |
| 18. | EROSION & SEDIMENT CONTROL NOTES |

SYMBOLS

- TO BE ABANDONED
- TO BE REMOVED
- TREE PROTECTION FENCE
- BORING
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- GAS VALVE
- CLEAN OUT
- SANITARY/SEWER MANHOLE
- STORM DRAIN MANHOLE
- TELEPHONE MANHOLE
- EXISTING TREE
- EXISTING TREELINE
- EXISTING BUSH
- EXISTING CONTOUR
- EXISTING SIGN
- METAL FENCE
- WOOD FENCE
- PROPOSED CONCRETE WALK
- PROPOSED BUILDING ADDITION
- PROPOSED PAVEMENT
- WEDGE LEVELING AND OVERLAY
- PROPERTY LINE
- ABANDONED SEWER
- ABANDONED WATER
- EXISTING STORM DRAIN
- EXISTING WATER
- EXISTING SAN. SEWER
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND CONDUIT
- EXISTING PRESSURE SEWER
- STORM DRAIN
- PROPOSED OHE
- PROPOSED UGE
- PROPOSED SHC
- PROPOSED WHC
- PROPOSED CONTOUR
- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- BORING
- EXISTING UTILITY POLE
- EXISTING GUY WIRE

REVISIONS

PERMIT INFORMATION CHART

| SUBDIVISION NAME | SECTION/AREA | LOT/PARCEL |
|-----------------------------|--------------|-------------|
| DORSEY HALL-SHOWER BUILDING | 1/3 | 146/1147 |
| PLAT NO. OR L/F | GRID NO. | ZONING |
| 03324/0191 | 0021 | R-20 |
| ELECT. DISTR. | CENSUS TRACT | TAX MAP NO. |
| 02 | 6023.01 | 0024 |

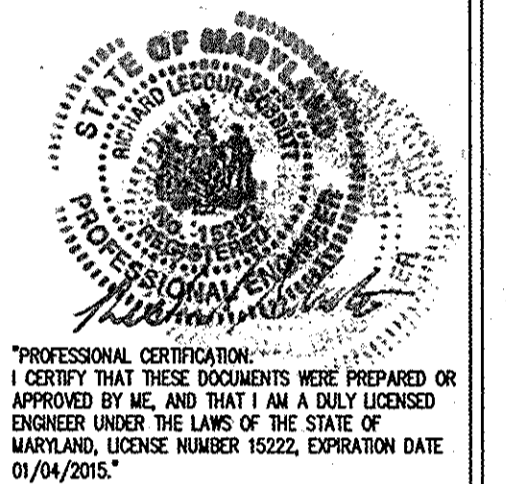
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ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA MD, 21046
410-381-0287

(C) GANT BRUNNETT ARCHITECTS
ALL REPRODUCTION IS PROHIBITED

CONSULTANTS:

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DANIEL CONSULTANTS INC.
CONSULTING ENGINEERS AND PLANNERS
8950 Rt. 108 E., Suite 229, Columbia, MD 21046
Phone: 410-956-9599 Fax: 410-956-7038



PROJECT:

**DORSEY HALL, SECTION 1, AREA 3
COMMUNITY POOL, CHILD DAY CARE
AND COMMUNITY HALL
4649 COLUMBIA ROAD
ELLCOTT CITY, MARYLAND 21042**

PROJ. NO.: 20423

DATE: 08/08/2014

SCALE: AS SHOWN

REVISION:

COVER SHEET

4 OF 18

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 2/24/15
Chief, Development Engineering Division Date

[Signature] 3-09-15
Chief, Division of Land Development Date

[Signature] 4/9/15
Director Date

APPROVED: FOR PUBLIC WATER AND
PUBLIC SEWER SYSTEM
Howard County Health Department
[Signature] 3/3/2015
Howard County, Health Officer Date

SITE PLAN NTS

REVISED SITE DEVELOPMENT PLAN

SDP # 90-127

LEGEND:

- TRACT BOUNDARY
- LOT OR PARCEL BOUNDARY
- EXISTING CONTOUR/SPOT ELEVATIONS
- PROP. CONTOUR/SPOT ELEVATIONS
- EXISTING STREAMS
- STREAM BANK BUFFER
- APROX. EDGE OF NON-TIDAL WETLANDS
- WETLANDS 25' BUFFER
- PROP. LIMIT OF DISTURBANCE
- EXISTING STORM DRAIN
- PROP. STORM DRAIN W/ OUTFALL
- PROPOSED CONCRETE PAVEMENT/ASPHALT PAVING
- PROPOSED PERVIOUS CONCRETE PAVING
- EXISTING DEDICATED RIGHT-OF-WAYS OR EASEMENT
- EXISTING STRUCTURE
- PROPOSED STRUCTURE
- 100 - YEAR FLOOD PLAIN (FEMA)
- 10' PUBLIC UTILITY EASEMENT SETBACK
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING WATER MAIN W/FIRE HYDRANT
- PROPOSED WATER MAIN W/ FIRE HYDRANT
- EXISTING SAN. SEWER
- PROPOSED SAN. SEWER
- 15% - 25% SLOPES
- > 25% SLOPES
- EXISTING SPECIMEN TREE
- SOILS

SITE ANALYSIS DATA CHART:

| | |
|--|--|
| A. TOTAL PROJECT AREA | 0.5 ACRES |
| B. AREA OF PARCEL: | 10.39 ACRES |
| C. LIMIT OF DISTURBANCE: | 0.5 ACRES |
| D. PRESENT ZONING DESIGNATION: | R20 |
| E. PROPOSED USES FOR SITES AND STRUCTURES: | COMMUNITY POOL/DAYCARE |
| F. FLOOR SPACE ON EACH LEVEL OF BUILDING PER USE: | 1409 SF ADDITION |
| G. TOTAL NUMBER OF UNITS ALLOWED: | N/A |
| H. BLDG HEIGHT: | 19' EX. AND PROP. |
| I. MAXIMUM NUMBER OF EMPLOYEES, TENANTS ON SITE PER USE: | 6 ADDITIONAL 10 TOTAL STAFF 12 ADDITIONAL 30 TOTAL DAYCARE STUDENTS 8 ADDITIONAL 490 TOTAL BATHERS |
| J. NUMBER OF PARKING SPACES REQUIRED PER HOWARD COUNTY ZONING REGULATIONS AND/OR FDP CRITERIA: | SHARED USE, 54 SPACES MAX SEE SHEET 4, TIMES OF USE |
| K. NUMBER OF PARKING SPACES PROVIDED PER SITE: NO. PARKING SPACES EXISTING: 60 | 5 ADDITIONAL SPACES NO. PARKING SPACES PROP.: 65 |
| L. OPEN SPACE REQUIRED: 0.1 ACRES (20% OF BUILDING ENVELOPE) OPEN SPACES PROVIDED: | 8 ACRES PROVIDED |
| LOT AREA FOR DAYCARE REQUIRED: | 0.34 ACRES |
| LOT AREA FOR DAYCARE PROVIDED: | 10.39 ACRES |
| M. BUILDING COVERAGE OF SITE: | 3164 SF OR 0.07% OF SITE |
| N. APPLICABLE DPZ FILE REFERENCES: | SDP-90-127, SDP-83-155 |
| O. MINIMUM LOT FRONTAGE: | 50' |
| MINIMUM LOT WIDTH: | 60' |
| P. STREAM BUFFER AREA: | N/A |
| Q. AREA OF FLOODPLAIN: | 0.00 ACRES |
| R. WETLAND BUFFER AREA: | 0.14 ACRES |
| S. AREA OF NON-TIDAL WETLANDS: | 0.00 ACRES |
| T. AREA OF LIMITS OF DISTURBANCE: | 0.5 ACRES |
| U. SETBACKS: | BRL: FRONT 20' REQ. 125' EXIST REAR 30' REQ. 563' PROP. SIDE 10' REQ. 335' EAST 170' |
| WEST | |
| V. STEEP SLOPES >25% | 0.26 AC. |
| W. FOREST CONSERVATION AREA: | N/A |
| X. ERODIBLE SOILS: | 0.25 ACRES |
| Y. IMPERVIOUS AREAS: | 1548 SF ADDITIONAL |
| Z. LAND DEDICATED TO HOWARD COUNTY FOR PURPOSES OF A PUBLIC ROAD: | N/A |

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chris Cant 2/24/15
Chief, Development Engineering Division Date

Walter Dunde 3/09/15
Chief, Division of Land Development Date

Martha M. Ayler 3/9/15
Director Date

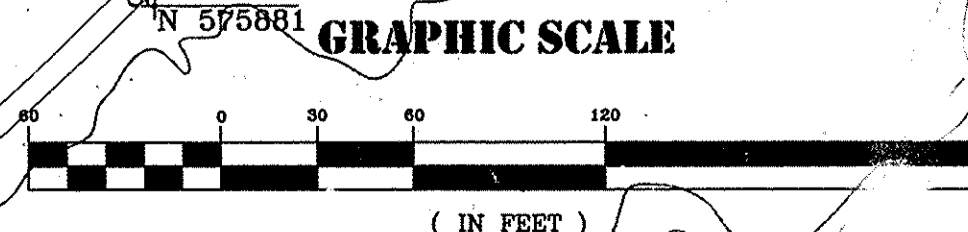
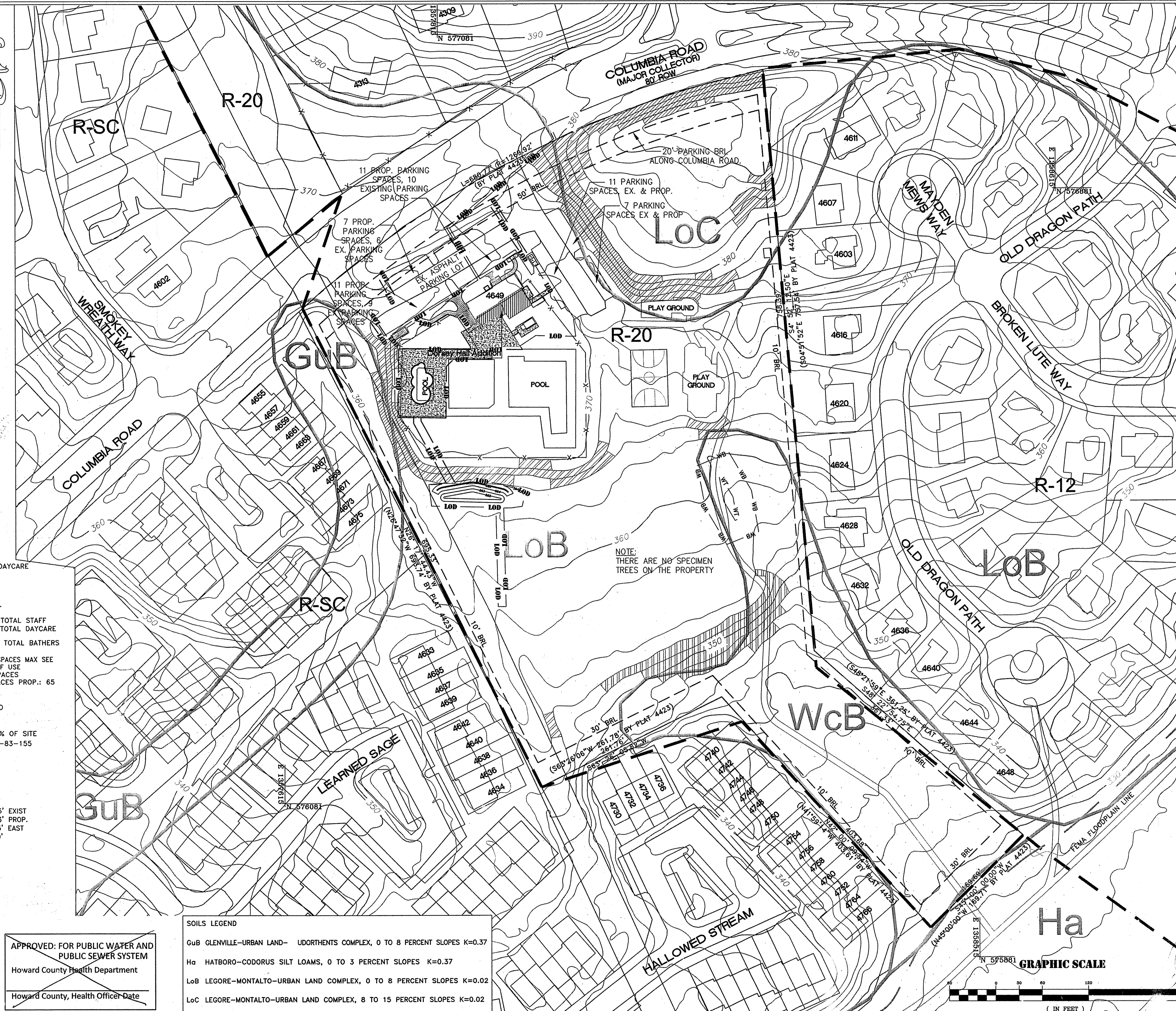
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM

Howard County Health Department

Howard County, Health Officer Date

SOILS LEGEND

| | |
|-----|--|
| Gub | GLENVILLE-URBAN LAND- UDORHTENTS COMPLEX, 0 TO 8 PERCENT SLOPES K=0.37 |
| Ha | HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES K=0.37 |
| LoB | LEGORE-MONTALTO-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES K=0.02 |
| LoC | LEGORE-MONTALTO-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES K=0.02 |
| WcB | WATCHUNG SILT LOAM, 3 TO 8 PERCENT SLOPES, STONY K=0.28 |



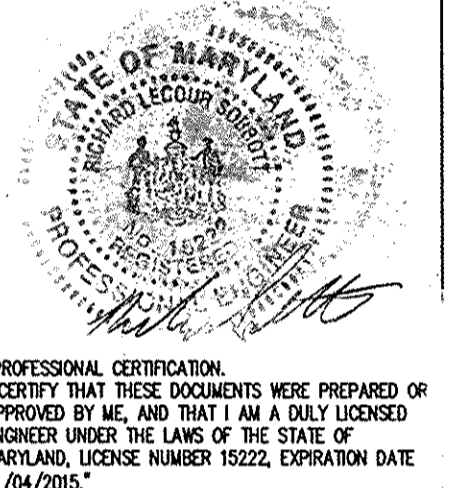
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gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA MD, 21046
410-381-0287

(C) GANT BRUNETT ARCHITECTS
ALL REPRODUCTION IS PROHIBITED

CONSULTANTS:

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DANIEL CONSULTANTS INC.
CONSULTING ENGINEERS AND PLANNERS
8500 Rt. 108 E., Suite 239, Columbia, MD 21045
Phone: 410-995-0099 Fax: 410-995-7038



PROJECT:

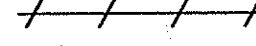
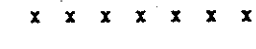


**DORSEY HALL, SECTION 1, AREA 3
COMMUNITY POOL, CHILD DAY CARE
AND COMMUNITY HALL
4649 COLUMBIA ROAD
ELLCOTT CITY, MARYLAND 21042**

| | |
|-----------|------------|
| PROJ. NO: | 20423 |
| DATE: | 08/08/2014 |
| SCALE: | AS SHOWN |
| REVISION: | |

**ENVIRONMENTAL
CONSERVATION
PLAN**

5 OF 18

FILE NAME: H:\PROJECTS\11\12-21-14-01_Dorsey SearchPoint Files\Without Cloud\9-30-2014\Environmental Concept Plan.dwg PLOTTED: Tuesday, September 30, 2014 - 4:36pm

- DEMO LEGEND:**
- TO BE ABANDONED 
 - TO BE REMOVED 
 - TREE PROTECTION 
 - DEMOLISH EXISTING PAVING 
- (REFER TO SPECIFICATIONS FROM SITE CLEARING REQUIREMENTS)
- DEMOLITION NOTES**
- 0-1 EXISTING TREE /BUSH TO BE REMOVED
 - 0-2 EXISTING BIKE RACK TO BE REMOVED AND SALVAGED FOR RELOCATION
 - 0-3 EXISTING DRY WELL TO BE REMOVED; REMOVE PIPE BACK TO THE BUILDING
 - 0-4 EXISTING SHELTER TO BE REMOVED INCLUDING FOUNDATIONS
 - 0-5 SAW CUT EXISTING SIDEWALK
 - 0-6 PORTION OF FENCE TO BE REMOVED TO ALLOW FOR CONSTRUCTION OF BUILDING ADDITION AND TRASH ENCLOSURE
 - 0-7 SHADE STRUCTURE TO BE REMOVED INCLUDING FOUNDATIONS
 - 0-8 REMOVE EXISTING CHAIN LINK FENCE
 - 0-9 REMOVE EXISTING DRAINS IN THE CONCRETE SLAB REMOVAL AREA
 - 0-10 REMOVE EXISTING POOL AND ALL ASSOCIATED ELECTRICAL AND PLUMBING CONNECTIONS WITHIN 10 FEET OF NEW POOL. REMOVE ALL OTHER PLUMBING AND ELECTRICAL CONNECTIONS WHERE THEY INTERFERE WITH NEW WORK
 - 0-11 TRENCH DRAIN TO REMAIN, CAREFULLY REMOVE CONCRETE SLAB SO THIS TRENCH DRAIN CAN BE REUSED.
 - 0-12 REMOVE CURB ADJACENT TO PARKING SPACE
 - 0-13 EXISTING SHADE STRUCTURE TO REMOVED INCLUDING FOUNDATIONS. ANY RESULTING HOLES SHALL BE REPAIRED USING THE SAME BASE AND PAVERS AS IS CURRENTLY USED
 - 0-14 EXISTING 8" TALL CHAINLINK FENCE TO REMAIN CONTRACTOR SHALL REMOVE AND RESTORE CHAIN LINK FABRIC TO POUR NEW CONCRETE SLAB
 - 0-15 REMOVE EXISTING SANITARY SEWER
 - 0-16 REMOVE PORTION OF EXISTING FENCE TO CONSTRUCT NEW GATED OPENING.
 - 0-17 ABANDON EXISTING UTILITY

MATCH LINE 'A'

- GENERAL DEMOLITION NOTES:**
1. ALL WORK BE PERFORMED IN STRICT ACCORDANCE WITH THE MOST CURRENT APPLICABLE EPA AND OSHA REGULATIONS AND MUST COMPLY WITH THE MOST CURRENT FEDERAL, STATE AND/OR LOCAL REGULATIONS AND CODES APPLICABLE TO SAID WORK.
 2. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER IMMEDIATELY UPON ENCOUNTERING ANY HAZARDOUS AND CONTAMINATED MATERIALS. THE CONTRACTOR SHALL DOCUMENT SAME TO THE OWNER TO OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
 3. CARE SHALL BE TAKEN TO PROTECT ALL EXISTING ADJACENT SURFACES AND AREAS FROM DAMAGE. ANY AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL SHEET/SHORE AND BRACE ANY AND ALL STRUCTURES EXPOSED BY EXCAVATION/CONSTRUCTION AS NECESSARY.
 4. ALL SAWCUTS ARE TO BE STRAIGHT AND EVEN, JAGGED EDGES WILL NOT BE ACCEPTED.
 5. ALL UNDERGROUND UTILITIES ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION SHALL BE ASSUMED TO BE LIVE UNTIL DETERMINED OTHERWISE.
 6. SURVEY CONTROL SHOWN HEREON IS FOR THE CONVENIENCE OF THE CONTRACTOR. ADDITIONAL CONTROL IS REQUIRED, THE CONTRACTOR SHALL ESTABLISH HIS OR HER OWN CONTROL PRIOR TO DEMOLITION OF EXISTING CONTROLS AT HIS OR HER OWN COST.
 7. STRIPPING/EXCAVATION OPERATIONS BY THE CONTRACTOR WILL INCLUDE THE FOLLOWING:
 - A. REMOVE DEBRIS AND WASTE FROM SITE
 - B. EXISTING STRUCTURAL FEATURES SHALL BE ENTIRELY REMOVED FROM WITHIN THE PROPOSED BUILDING FOOTPRINT AND EXTENDED TO LIMITS OF DISTURBANCE.

4. ALL SAWCUTS ARE TO BE STRAIGHT AND EVEN, JAGGED EDGES WILL NOT BE ACCEPTED.
5. ALL UNDERGROUND UTILITIES ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION SHALL BE ASSUMED TO BE LIVE UNTIL DETERMINED OTHERWISE.
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gba
gant:brunnett
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Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA MD, 21046
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890 Rt. 100 E. Suite 225, Columbia, MD 21046
Phone: 410-995-0099 Fax: 410-995-7038



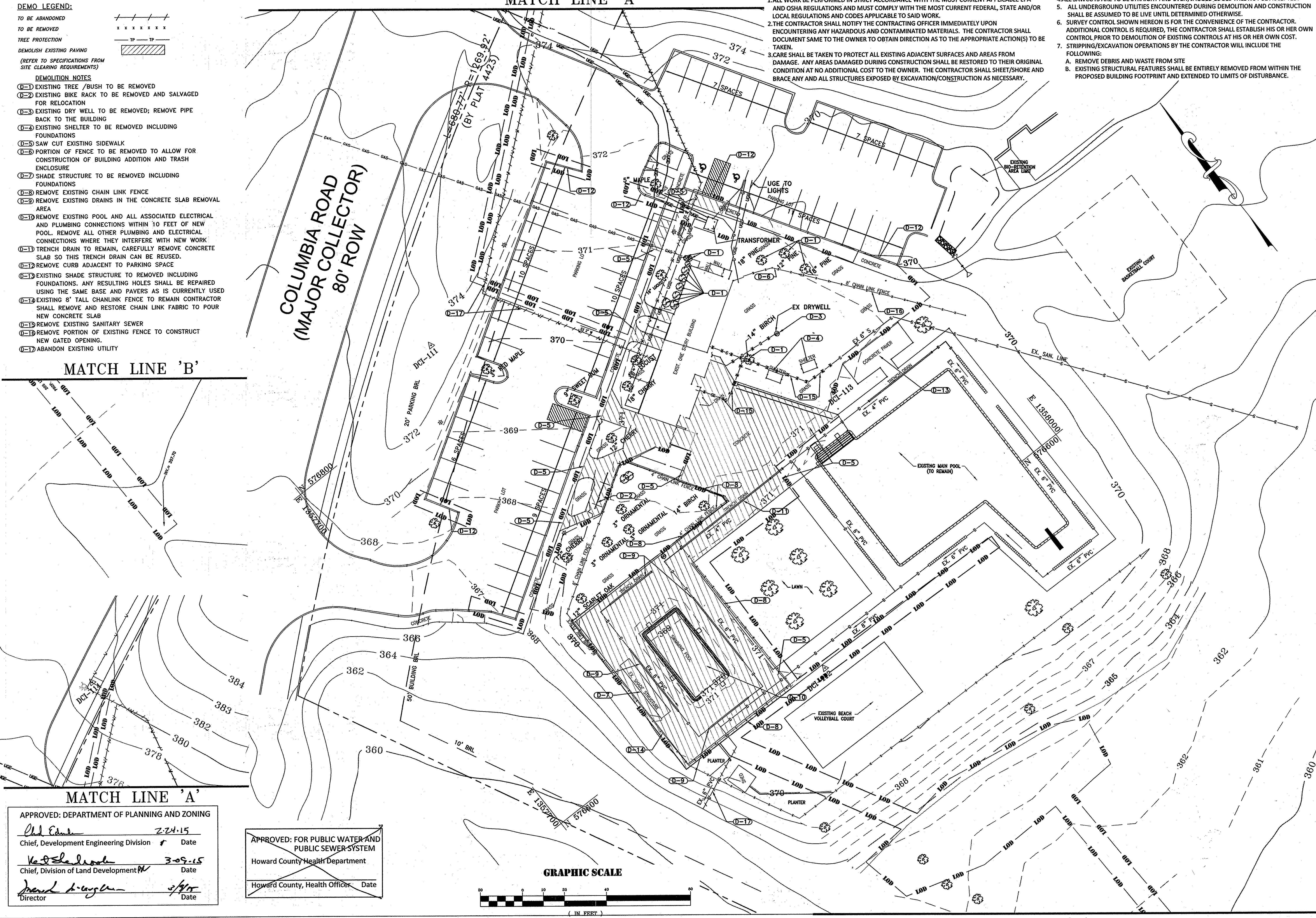
PROFESSIONAL CERTIFICATION:
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 15222, EXPIRATION DATE 01/04/2015.

PROJECT:
**DORSEY HALL, SECTION 1, AREA 3
COMMUNITY POOL, CHILD DAY CARE
AND COMMUNITY HALL
4649 COLUMBIA ROAD
ELICOTT CITY, MARYLAND 21042**

| | |
|-----------|------------|
| PROJ. NO: | 20423 |
| DATE: | 08/08/2014 |
| SCALE: | AS SHOWN |
| REVISION: | |

DEMOLITION PLAN

6 OF 18

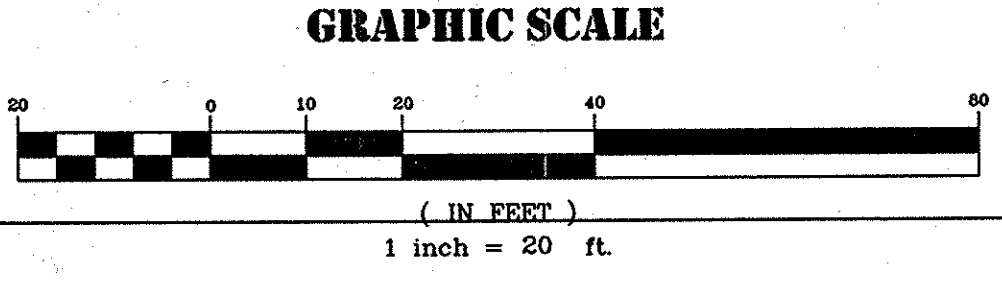


MATCH LINE 'B'

MATCH LINE 'A'

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chad Edme 2-24-15
Chief, Development Engineering Division Date
Kevin Shalinski 3-09-15
Chief, Division of Land Development Date
David Langston 3/4/15
Director Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM
Howard County Health Department
Howard County, Health Officer Date



DEMOLITION PLAN SCALE: 1" = 20'

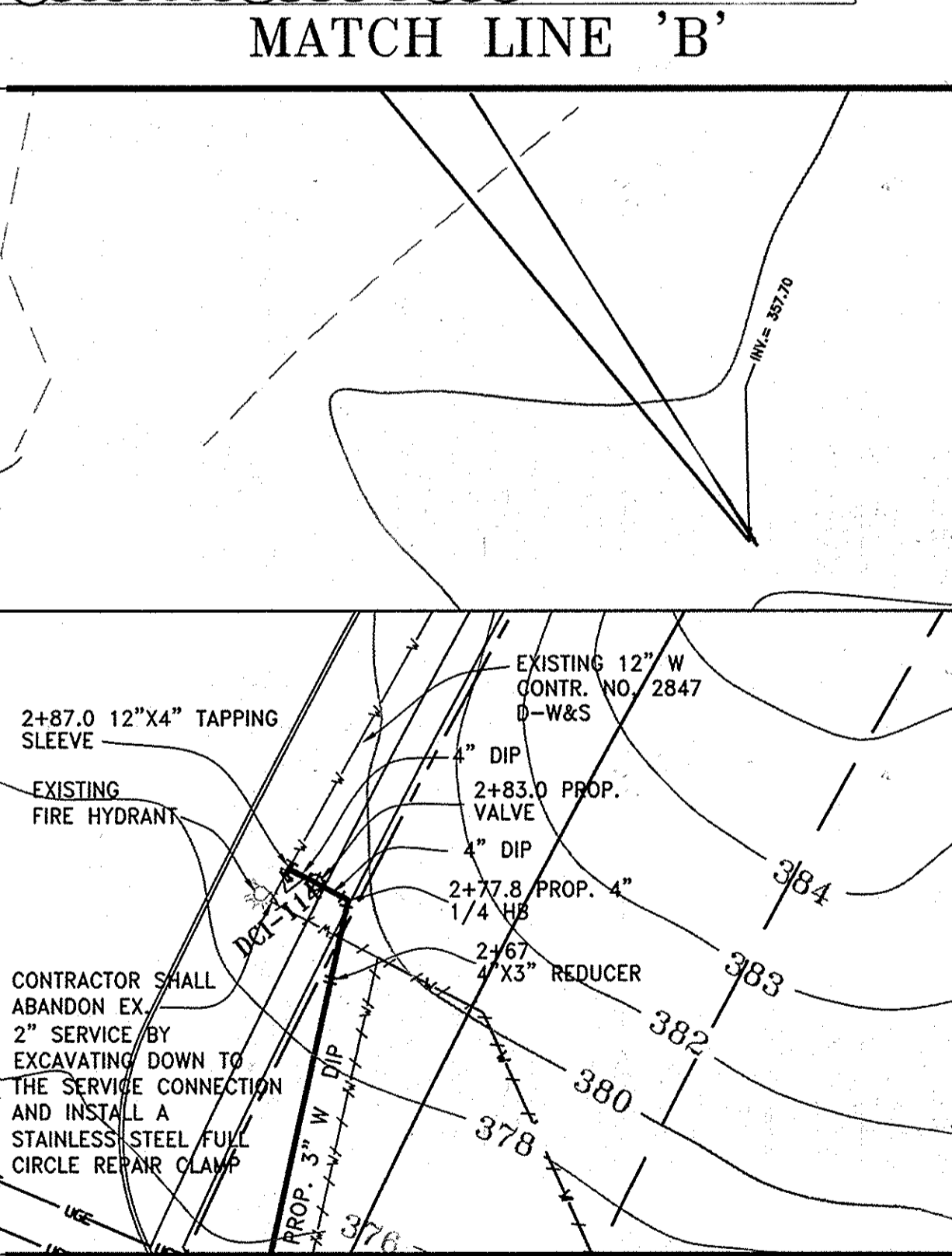
MATCH LINE 'B' REVISED SITE DEVELOPMENT PLAN SDP # 90-127

SITE LEGEND

- BUILDING ADDITION
- PERMEABLE PAVERS
- NEW CONCRETE

CONSTRUCTION NOTES

- C-1 A-2 PERMEABLE PAVERS SEE DETAIL 1 SHEET 15
- C-2 HANDICAP RAMP SEE DETAIL 7 SHEET 10. REPLACE EXISTING CURB AS PER DETAIL 1 ON SHEET 10. THE CURB IS TO BE DEPRESSED BETWEEN THE TWO ACCESS AISLES.
- C-3 NEW SPA POOL SEE POOL PLANS FOR DETAILS
- C-4 NEW HANDICAP PARKING SEE DETAIL 2 SHEET 10
- C-5 PARKING AREA TO BE RESTRIPTED
- C-6 RELOCATE CURB AS NEEDED TO PROVIDE THE INDICATED NUMBER OF PARKING SPACES. SEE SHEET 10 DETAIL 1
- C-7 PROPOSED HAND HYDRANT. SEE DETAIL ON SHEET 12
- C-8 SAW CUT AT EXISTING JOINT LINE
- C-9 NEW 4" CONCRETE SLAB, SEE DETAIL 5 SHEET 10
- C-10 NOT USED
- C-11 RELOCATE CURB 6 INCHES TO PROVIDE THE INDICATED NUMBER OF PARKING SPACES, SEE SHEET 10 DETAIL 1
- C-12 4" PVC SCH 40 SHC. CONTRACTOR TO TEST PIT DOWNSTREAM AND UPSTREAM POINTS OF CONNECTION 8" PVC BACKWASH DISCHARGE SANITARY AND MAINTAIN A CONSTANT SLOPE BETWEEN THOSE TWO POINTS
- C-13 NEW PAD CONSTRUCTED USING PAVERS FOR BIKE RACK. SEE DETAIL 1 ON SHEET 15 RELOCATE SALVAGED BIKE RACK TO NEW PAVED AREA
- C-14 SANITARY CLEANOUT. SEE DETAIL 8 ON SHEET 10
- C-15 POOL BACKWASH DISCHARGE LINE REFER TO PLUMBING PLANS FOR SIZE AND TYPE. MIN. GRADE 2%
- C-16 EXISTING 8" CHAIN LINK FENCE TO REMAIN
- C-17 PROPOSED 8"x6" PVC TEE
- C-18 PROPOSED 6"x6" TEE
- C-19 PROPOSED CLEANOUT SEE DETAIL 9 ON SHEET 10
- C-20 1500 GALLON HOLDING TANK. TANK SHALL BE ABLE TO SUPPORT A HS-20 VEHICLE. PROVIDE GRAVITY DRAIN THAT CANNOT CONVEY MORE THAN 50 GPM. PROVIDE AT LEAST 1 FOOT OF COVER OVER TANK. SEE PROFILE SHEET 12
- C-21 PROVIDE 8' TALL 12" WIDE DOUBLE LEAF CHAINLINK GATE SEE SHEET 11 FOR DETAIL G7.23
- C-22 PROVIDE TIMBER SCREEN AROUND TRASH AREA, SEE DETAIL 4 SHEET A504
- C-23 4' ORNAMENTAL FENCE, SEE POOL PLANS
- C-24 DOUBLE LEAF ORNAMENTAL GATE, SEE POOL PLANS
- C-25 SINGLE LEAF ORNAMENTAL GATE, SEE POOL PLANS
- C-26 PROPOSED M-8 MICRO BIoretention, SEE SHEET 14
- C-27 EXISTING PARKING LOT AND ENTRANCES TO BE SEAL COATED
- C-28 REPLACE EXISTING CONCRETE CURB RESIDENTIAL DRIVEWAY ENTRANCE 12 FEET WIDE. SEE STD. R-6.02 SHEET 11 WITH NEW 12" MOUNTABLE CONCRETE CURB
- C-29 GRAVITY FLOW METER AND VAULT SEE SHEET 11 FOR VAULT DETAILS. REFER TO SPECIFICATIONS FOR FLOW METER DETAILS, SEE PROFILE SHEET 12
- C-30 4" PVC SCH 40 ROOF LEADER AT A MIN SLOPE OF 1%
- C-31 NO PARKING ALLOWED BETWEEN 5:00 PM AND 6:30 PM ON WEEKDAYS TO ALLOW FOR STUDENT PICKUP SEE SIGN DETAIL SHEET 10
- C-32 WHEEL STOP
- C-33 NO PARKING IN ACCESS AISLE SEE SIGN DETAIL SHEET 10
- C-34 DASHED OUTLINE OF FRONT PORTICO ROOF



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Ed. [Signature] 2-24-15
Chief, Development Engineering Division & Date

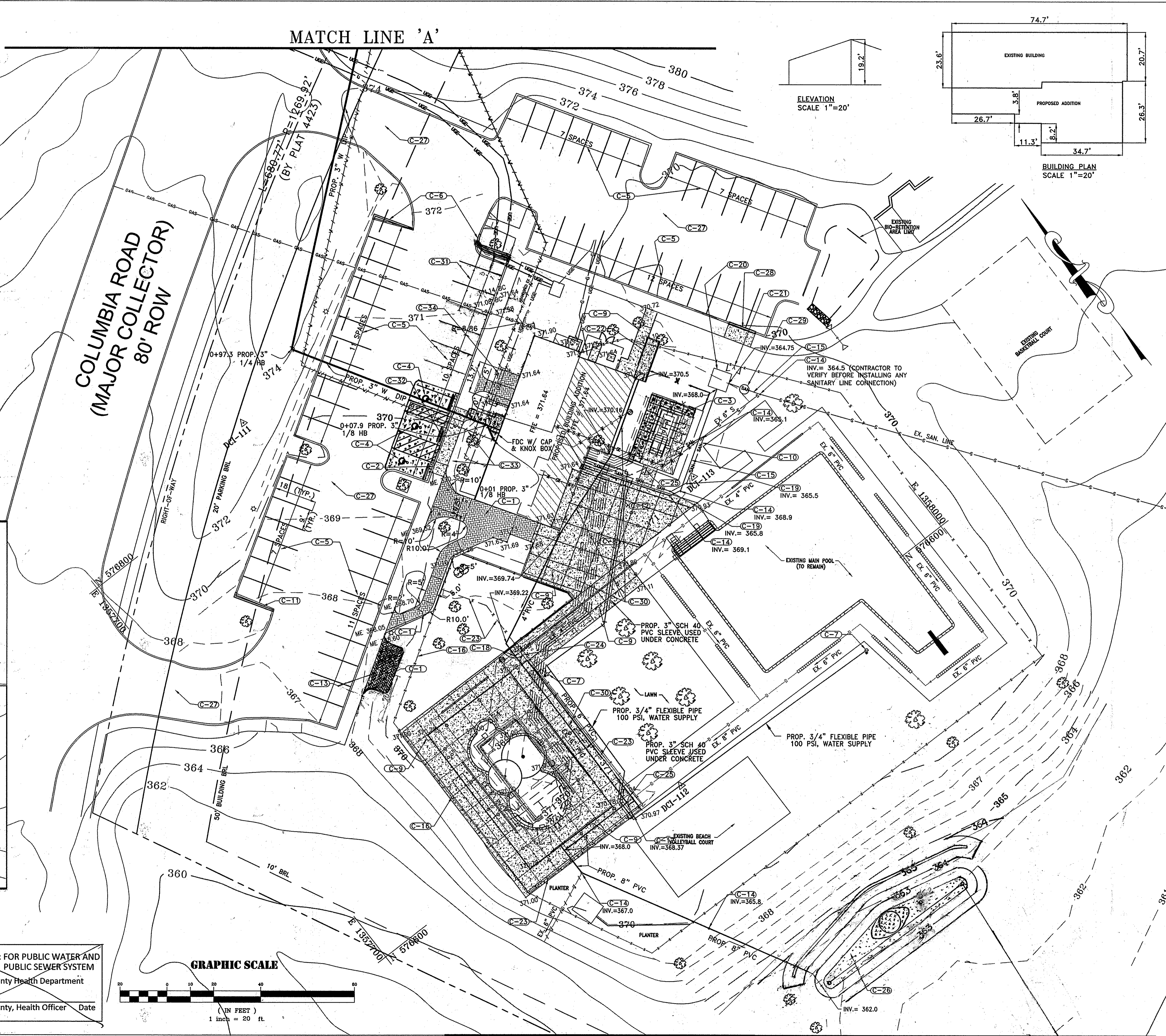
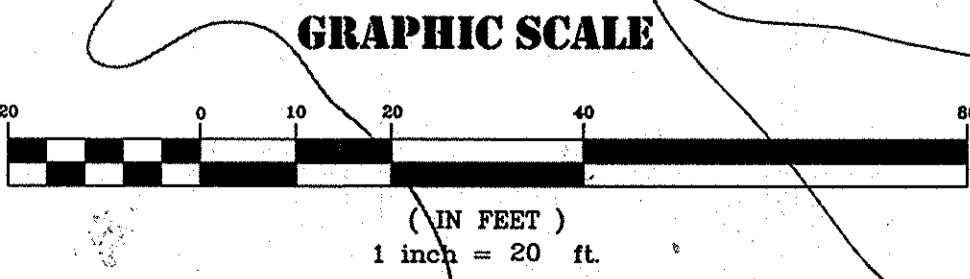
K. [Signature] 3-09-15
Chief, Division of Land Development & Date

H. [Signature] 2/1/15
Director & Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM

Howard County Health Department

Howard County, Health Officer & Date



SITE PLAN I SCALE: 1" = 20'

MATCH LINE B REVISED SITE DEVELOPMENT PLAN SDP # 90-127

gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA MD, 21046
410-381-0287

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ALL REPRODUCTION IS PROHIBITED

CONSULTANTS:
DCI
DANIEL CONSULTANTS INC.
CONSULTING ENGINEERS AND PLANNERS
8900 W. 101 E., Suite 226, Columbia, MD 21046
Phone: 410-995-0090 Fax: 410-995-7038

PROFESSIONAL CERTIFICATION:
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 15222, EXPIRATION DATE 01/04/2015.

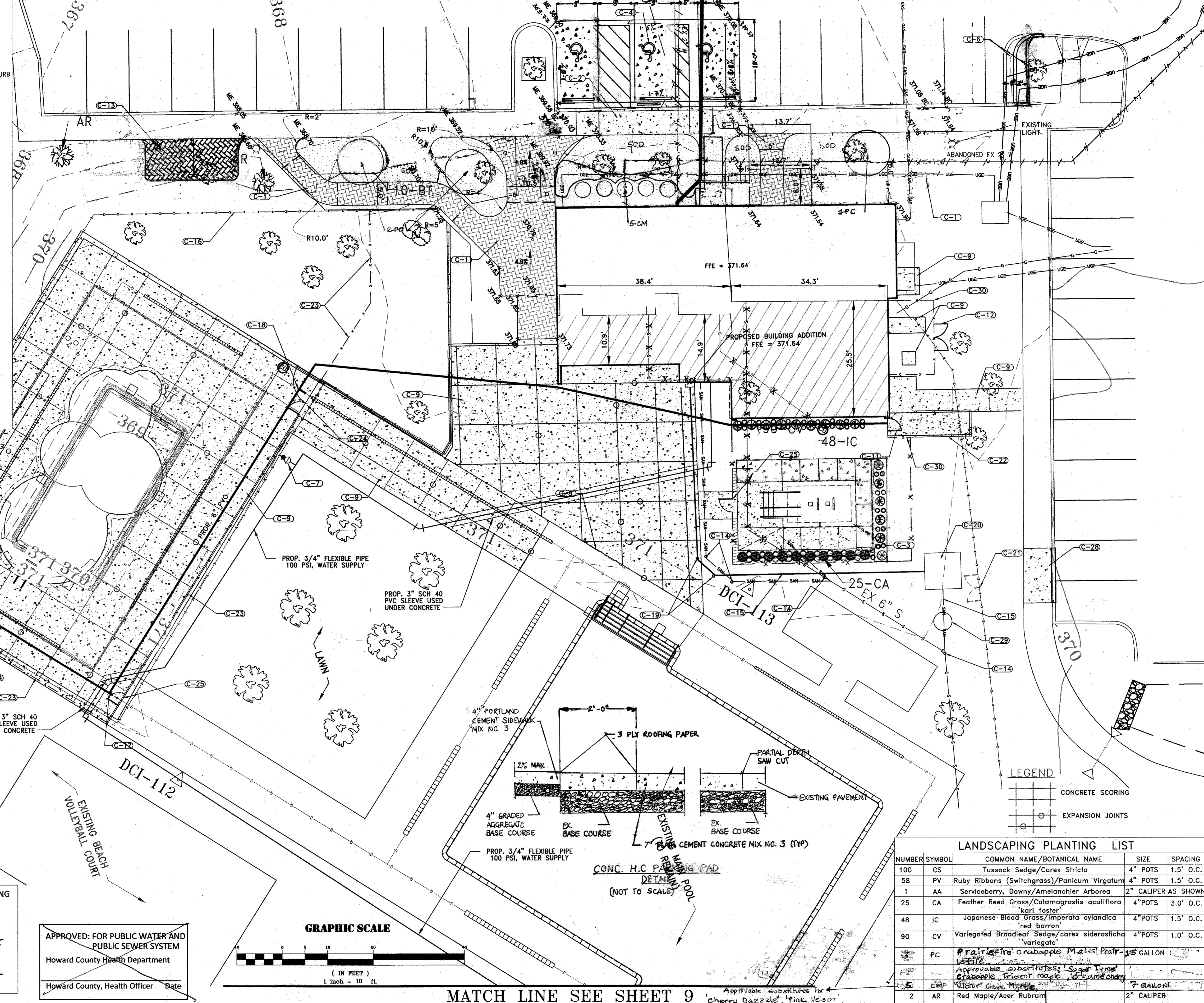
PROJECT:
**DORSEY HALL, SECTION 1, AREA 3
COMMUNITY POOL, CHILD DAY CARE
AND COMMUNITY HALL
4649 COLUMBIA ROAD
ELLCOTT CITY, MARYLAND 21042**

| | |
|-----------|------------------|
| PROJ. NO: | 20423 |
| DATE: | 08/08/2014 |
| SCALE: | AS SHOWN |
| REVISION: | 4/26/16 RED LINE |

SITE PLAN I

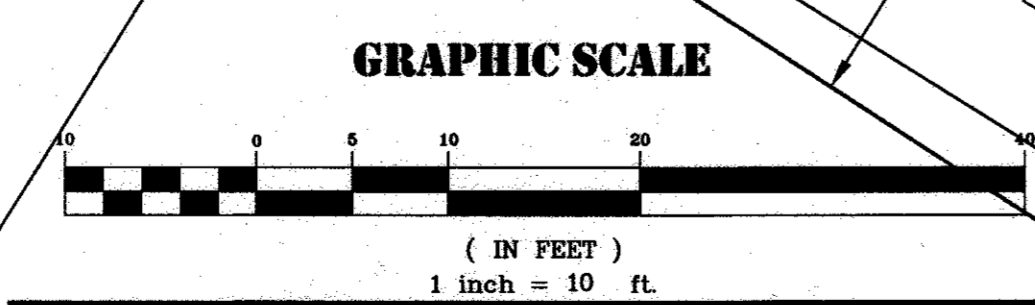
7 OF 18

- SITE LEGEND**
- BUILDING ADDITION
 - PERMEABLE PAVERS
 - NEW CONCRETE
- C-1 PAVERS SEE DETAIL 1 SHEET 15
 C-2 HANDICAP RAMP SEE DETAIL 7 SHEET 10. REPLACE EXISTING CURB PER DETAIL 1 ON SHEET 10. THE CURB IS TO BE DEPRESSED BETWEEN THE TWO ACCESS AISLES
 C-3 NEW SPA POOL SEE POOL PLANS FOR DETAILS
 C-4 NEW HANDICAP PARKING SEE DETAIL 2 SHEET 10
 C-5 PARKING AREA TO BE RESTRIPTED
 C-6 RELOCATE CURB ONE FOOT TO PROVIDE THE INDICATED NUMBER OF PARKING SPACES. SEE SHEET 10 DETAIL 1
 C-7 PROPOSED HAND HYDRANT. SEE DETAIL ON SHEET 12
 C-8 SAW CUT AT EXISTING JOINT LINE
 C-9 NEW 4" CONCRETE SLAB, SEE DETAIL 5 SHEET 10. MATCH EXISTING JOINT PATTERN
 C-10 NOT USED
 C-11 PROVIDE 6" TALL 3" WIDE SINGLE LEAF CHAINLINK GATE. SEE 11 FOR DETAIL G7.23
 C-12 PROVIDE 8" TALL 6" WIDE DOUBLE LEAF CHAINLINK GATE. SEE 11 FOR DETAIL G7.23
 C-13 NEW PAD CONSTRUCTED USING PAVERS FOR BIKE RACK. SEE DETAIL 1 ON SHEET 15. RELOCATE SALVAGED BIKE RACK TO NEW PAVED AREA
 C-14 SANITARY CLEANOUT. SEE DETAIL 8 ON SHEET 10.
 C-15 POOL BACKWASH DISCHARGE LINE REFER TO 12 FOR PROFILE. MIN GRADE 2%
 C-16 EXISTING 8" CHAIN LINK FENCE TO REMAIN
 C-17 PROPOSED 8"x6" PVC TEE
 C-18 PROPOSED 8"x6" TEE
 C-19 PROPOSED CLEANOUT SEE DETAIL 9 ON SHEET 12
 C-20 1500 GALLON HOLDING TANK. TANK SHALL BE ABLE TO SUPPORT A HS-20 VEHICLE. PROVIDE GRAVITY DRAIN THAT CANNOT CONVEY MORE THAN 50 GPM. PROVIDE AT LEAST 1 FOOT OF COVER OVER TANK, SEE PROFILE SHEET 12
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 C-23 4' ORNAMENTAL FENCE, SEE POOL PLANS
 C-24 DOUBLE LEAF ORNAMENTAL GATE, SEE POOL PLANS
 C-25 SINGLE LEAF ORNAMENTAL GATE, SEE POOL PLANS
 C-26 NOT USED
 C-27 NOT USED
 C-28 REPLACE EXISTING CONCRETE CURB RESIDENTIAL DRIVEWAY ENTRANCE 12 FEET WIDE. SEE STD. R-6.02 SHEET 11 WITH NEW 12" MOUNTABLE CONCRETE CURB
 C-29 GRAVITY FLOW METER AND VAULT SEE SHEET 11 FOR VAULT DETAILS. REFER TO SPECS FOR FLOW METER DETAILS, SEE PROFILE SHEET 12
 C-30 6" CHAIN LINK FENCE



APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chad Clark 2/24/15 Date
 Chief, Development Engineering Division
Vicki Anderson 3/09/15 Date
 Chief, Division of Land Development
Wanda A. Leyle 5/13/15 Date
 Director

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM
 Howard County Health Department
 _____ Date
 Howard County, Health Officer



LEGEND

- CONCRETE SCORING
- EXPANSION JOINTS

LANDSCAPING PLANTING LIST

| NUMBER | SYMBOL | COMMON NAME/BOTANICAL NAME | SIZE | SPACING |
|--------|--------|---|---------------------|-----------|
| 100 | CS | Tussock Sedge/Carex Stricta | 4" POTS | 1.5' O.C. |
| 58 | PV | Ruby Ribbons (Switchgrass)/Panicum Virgatum | 4" POTS | 1.5' O.C. |
| 1 | AA | Serviceberry, Downy/Amelanchier Arborea | 2" CALIPER AS SHOWN | |
| 25 | CA | Feather Reed Grass/Calamagrostis acutiflora 'karl foster' | 4" POTS | 3.0' O.C. |
| 48 | IC | Japanese Blood Grass/Imperata cylindrica 'red barron' | 4" POTS | 1.5' O.C. |
| 90 | CV | Variegated Broadleaf Sedge/carex siderosticha 'variegata' | 4" POTS | 1.0' O.C. |
| | PC | Prairie Fire crabapple Malus Prair- fire | 1/2 GALLON | |
| | | Appropriate substitutes: Sugar Maple Crabapple Trident maple, 'Kamecherry' | | |
| | OMP | Witcher Crabapple 'Witcher' Crabapple | 7 GALLON | |
| 2 | AR | Red Maple/Acer Rubrum | 2" CALIPER | |

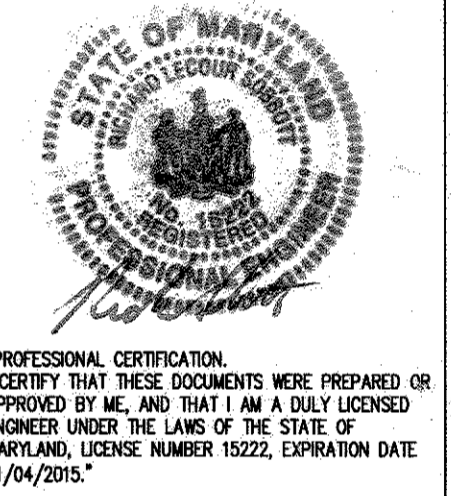
gba
 gant-brunnett
 ARCHITECTS
 15 West Mulberry Street
 Baltimore, Maryland 21201-4406
 Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
 9450 GERWIG LANE
 COLUMBIA MD, 21046
 410-381-0287

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CONSULTANTS:

DCI
 DANIEL CONSULTANTS INC.
 CONSULTING ENGINEERS AND PLANNERS
 8900 W. 106th, Suite 225, Columbia, MD 21046
 Phone: 410-995-0090 Fax: 410-995-7038



PROJECT:

**DORSEY HALL, SECTION 1, AREA 3
 COMMUNITY POOL, CHILD DAY CARE
 AND COMMUNITY HALL
 4649 COLUMBIA ROAD
 ELICOTT CITY, MARYLAND 21042**

| | |
|------------|------------|
| PROJ. NO.: | 20423 |
| DATE: | 08/08/2014 |
| SCALE: | AS SHOWN |
| REVISION: | |
| 4/26/16 | RED LINE |

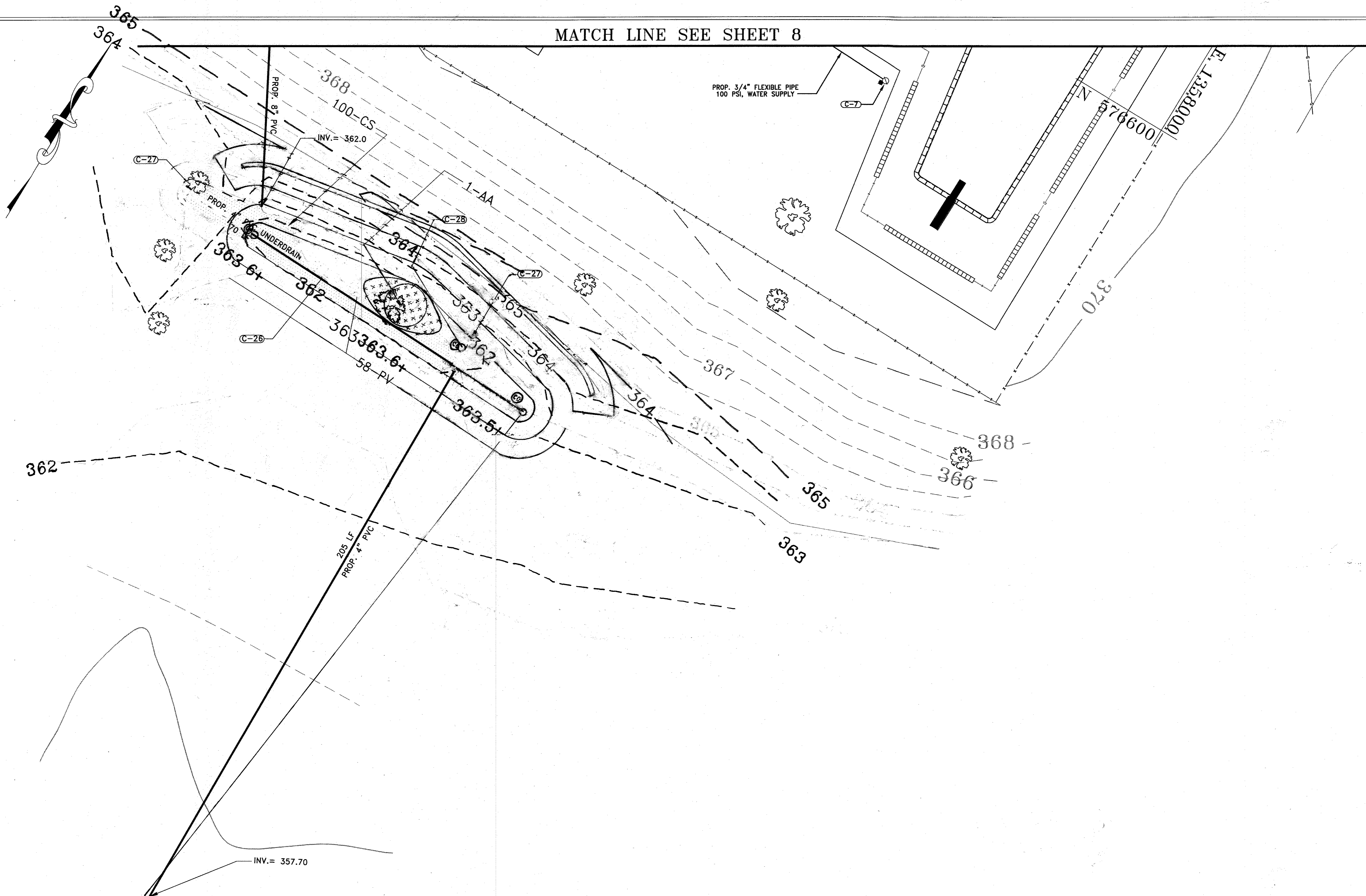
SITE PLAN II

8 OF 18

SITE PLAN II SCALE: 1" = 10'

REVISED SITE DEVELOPMENT PLAN SDP # 90-127

MATCH LINE SEE SHEET 8



APPROVED: DEPARTMENT OF PLANNING AND ZONING
Ch. Ch. 2/24/15
 Chief, Development Engineering Division Date

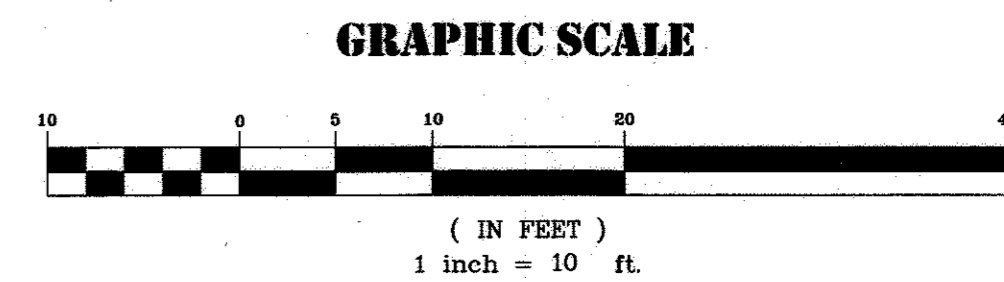
Neil S. ... 3-09-15
 Chief, Division of Land Development Date

Paul ... 2/19/15
 Director Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM
 Howard County Health Department

 Howard County, Health Officer Date

- (C-7) PROPOSED HAND HYDRANT, SEE DETAIL ON SHEET 12
- (C-26) PROPOSED MICRO BIORETENTION, SEE SHEET 14
- (C-27) PROPOSED CLEANOUT, SEE SHEET 14
- (C-28) PROPOSED OBSERVATION WELL, SEE SHEET 14



SITE PLAN III SCALE: 1" = 10'

REVISED SITE DEVELOPMENT PLAN SDP # 90-127

gba
 gant-brunnett
 ARCHITECTS
 15 West Mulberry Street
 Baltimore, Maryland 21201-4406
 Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
 9450 GERWIG LANE
 COLUMBIA MD, 21046
 410-381-0287

(C) GANT BRUNNETT ARCHITECTS
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CONSULTANTS:

 DANIEL CONSULTANTS INC.
 CONSULTING ENGINEERS AND PLANNERS
 8700 Rd. 100 E., Suite 227, Columbia, MD 21046
 Phone: 410-995-0090 Fax: 410-992-7038



PROFESSIONAL CERTIFICATION
 I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR
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 ENGINEER UNDER THE LAWS OF THE STATE OF
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 03/04/2015.

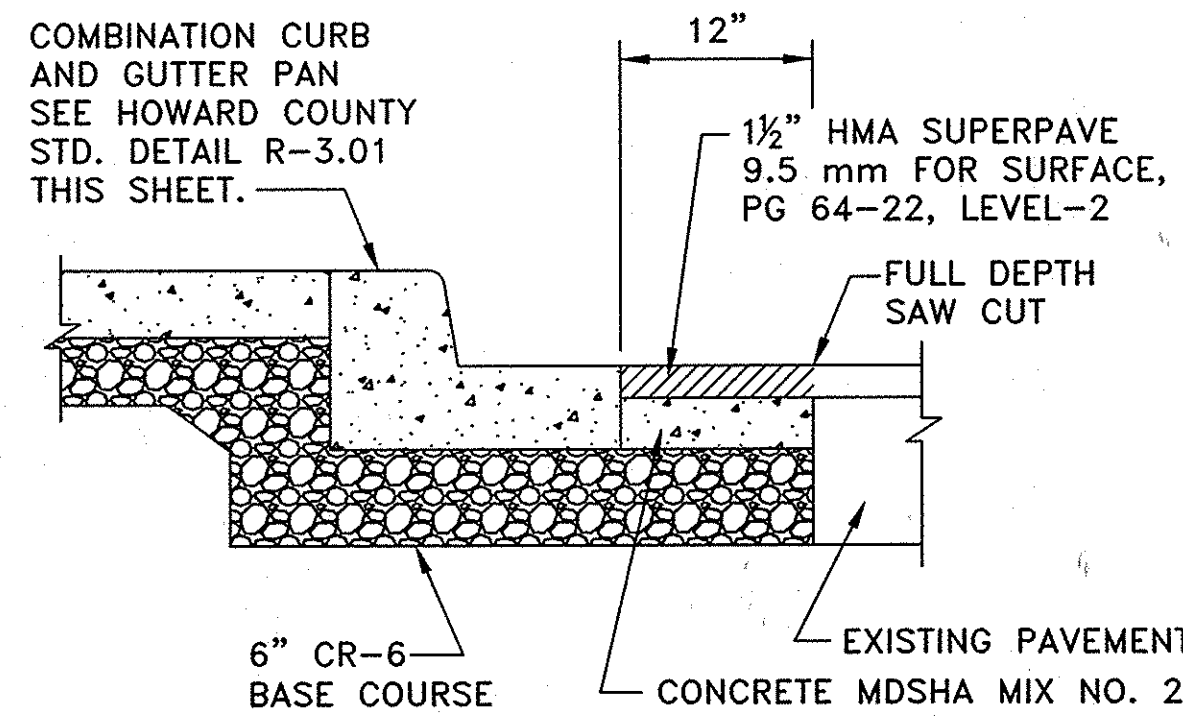
PROJECT:

**DORSEY HALL, SECTION 1, AREA 3
 COMMUNITY POOL, CHILD DAY CARE
 AND COMMUNITY HALL
 4649 COLUMBIA ROAD
 ELLICOTT CITY, MARYLAND 21042**

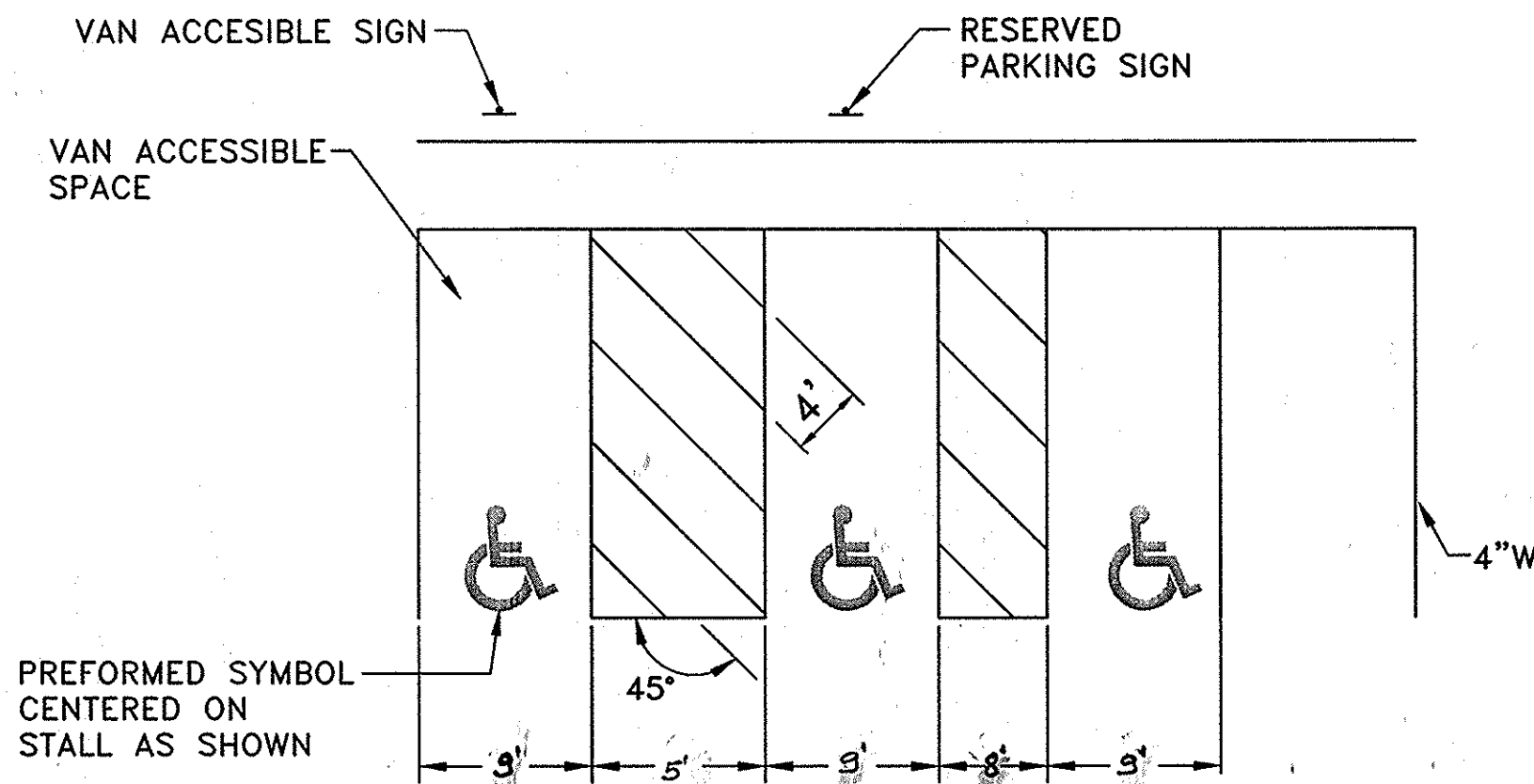
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|-----------|------------|
| PROJ. NO: | 20423 |
| DATE: | 08/08/2014 |
| SCALE: | AS SHOWN |
| REVISION: | |
| 4/26/16 | RED LINE |
| 7/20/16 | AS-BUILT |

**SITE
 PLAN III**

9 OF 18

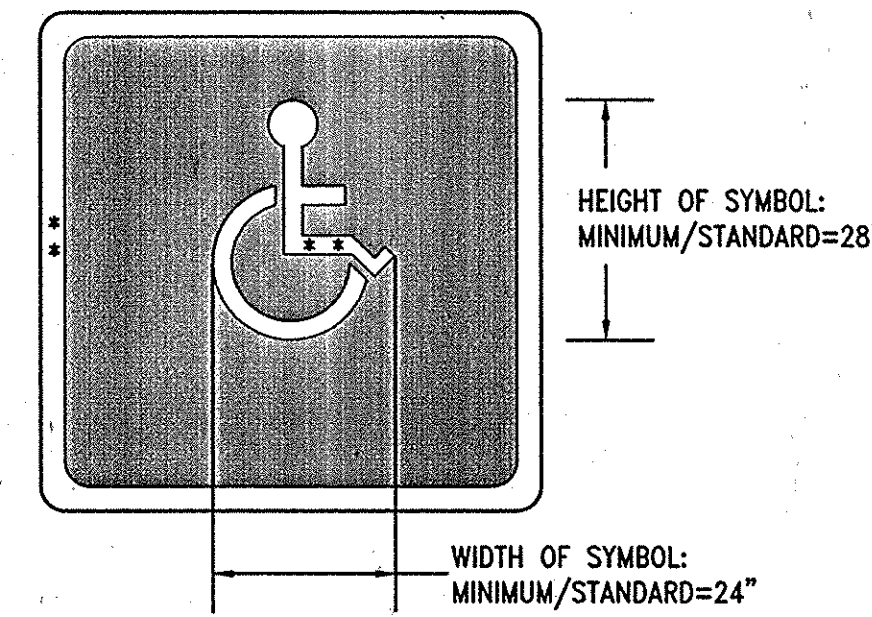


1 CONC. CURB AND GUTTER PLACEMENT FOR MILL AND OVERLAY PAVEMENT (NOT TO SCALE)

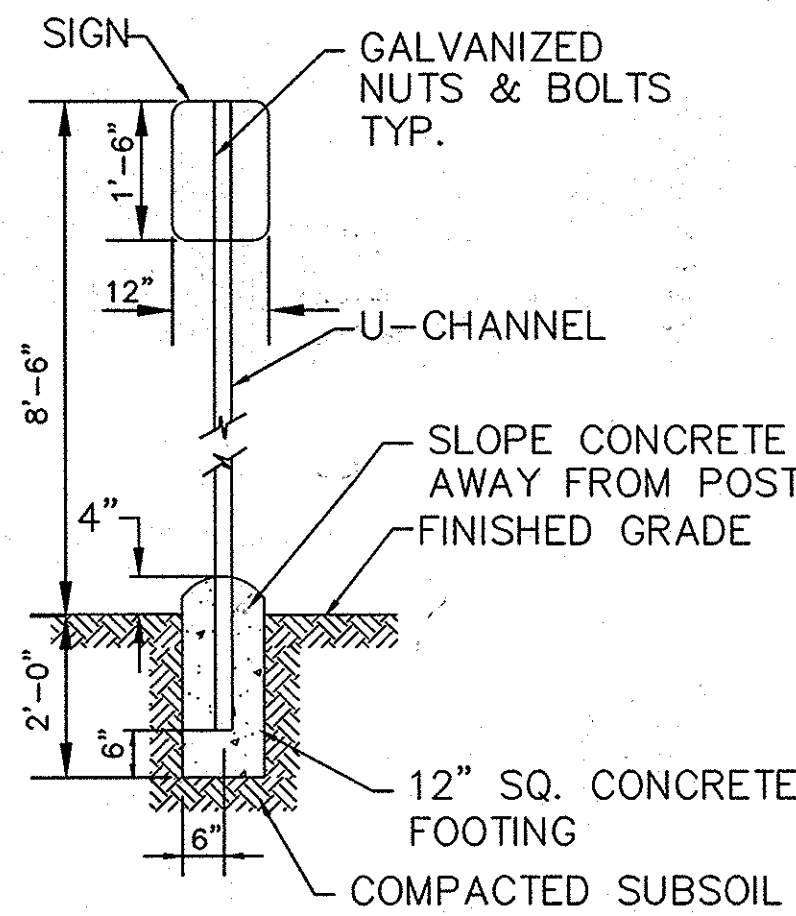
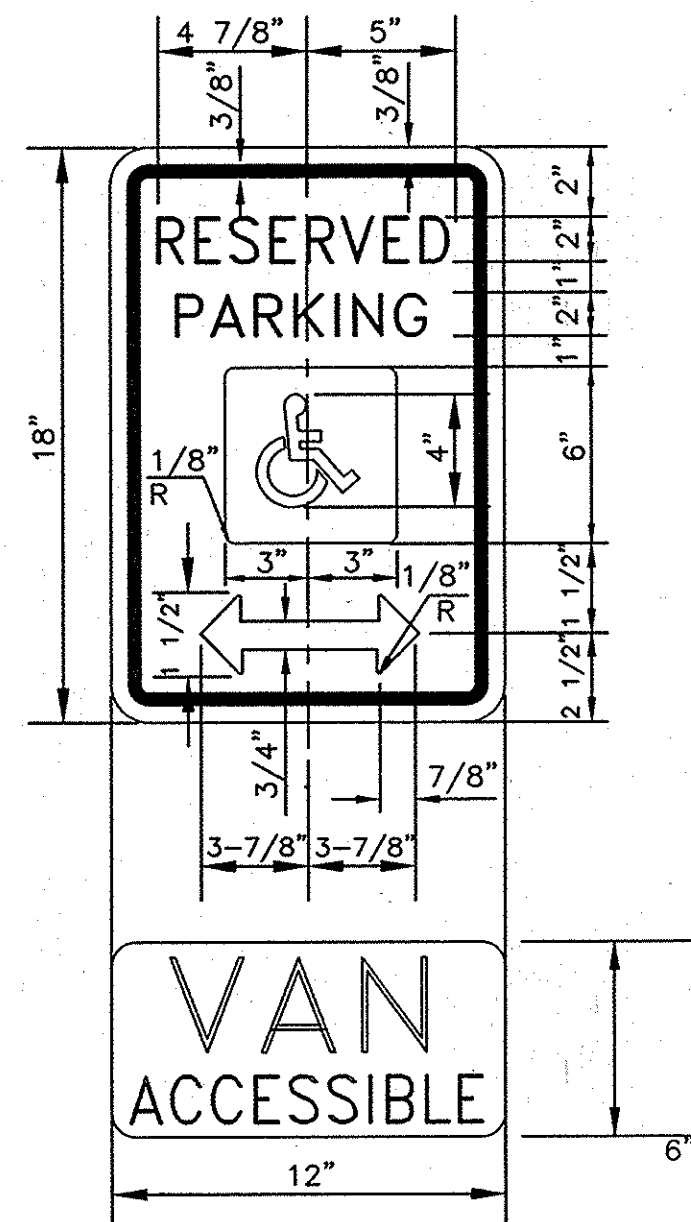


2 PARKING SPACE DETAIL NOT TO SCALE

NOTE: ALL SIGNAGE TO CONFORM TO AMERICANS WITH DISABILITY ACT ACCESSIBILITY GUIDELINES (ADAAG) 4.6.4 AND COMAR 05.02.02



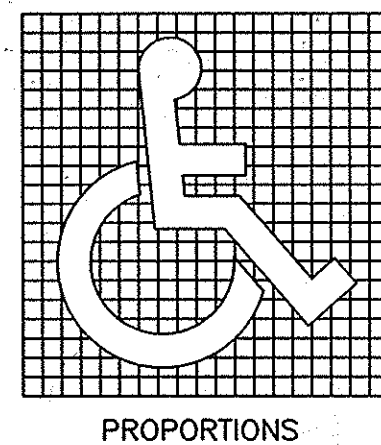
3 ACCESSIBILITY PARKING SPACE MARKING WITH BLUE BACKGROUND AND WHITE BORDER NOT TO SCALE



4 HANDICAP PARKING SIGN NOT TO SCALE

REDUCE SPACING 50%
SEE PROPORTIONS FOR SYMBOL DESIGN (ALL DIMENSIONS FOR SIGN IN INCHES)

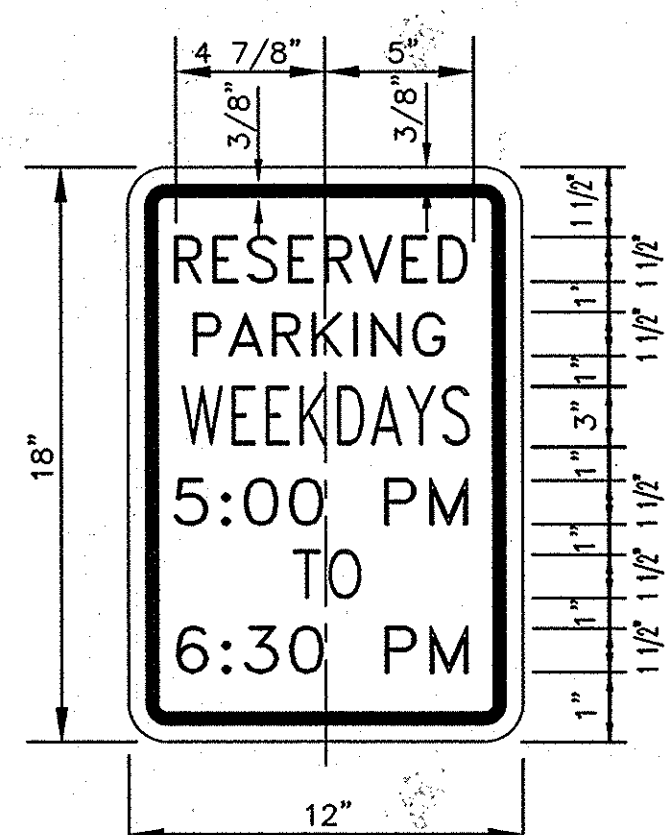
COLORS:
LEGEND & BORDER - WHITE SYMBOL ON BLUE BACKGROUND



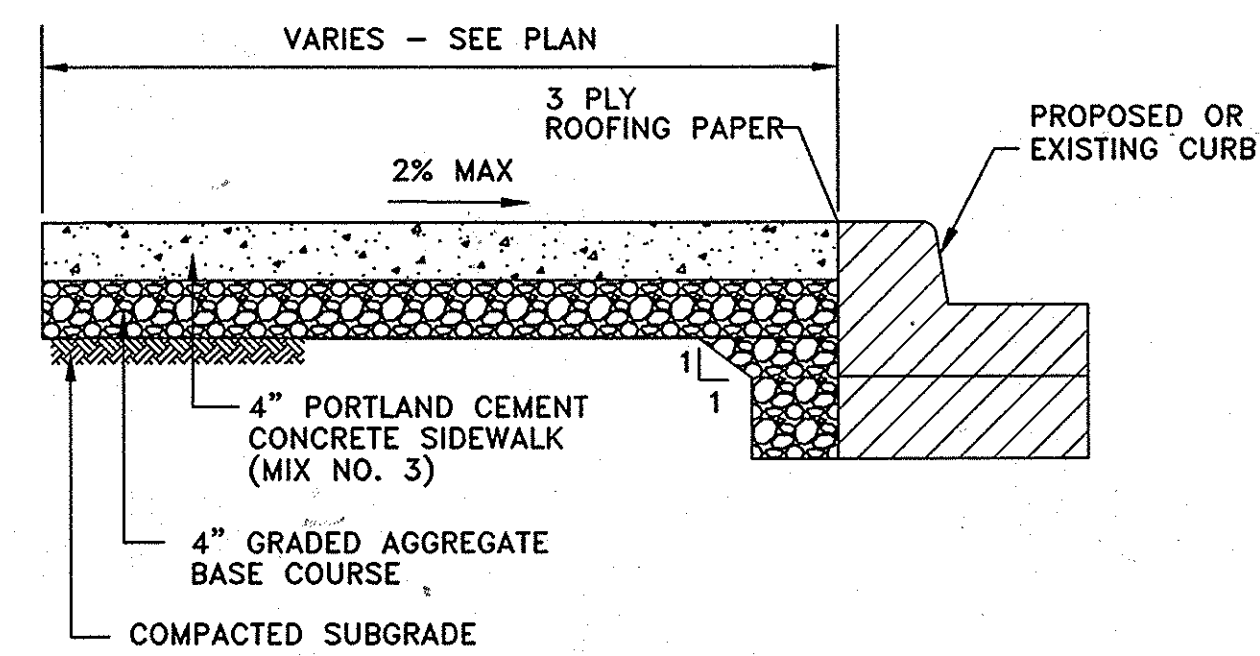
PROPORTIONS



11 ACCESS AISLE NO PARKING SIGN NOT TO SCALE

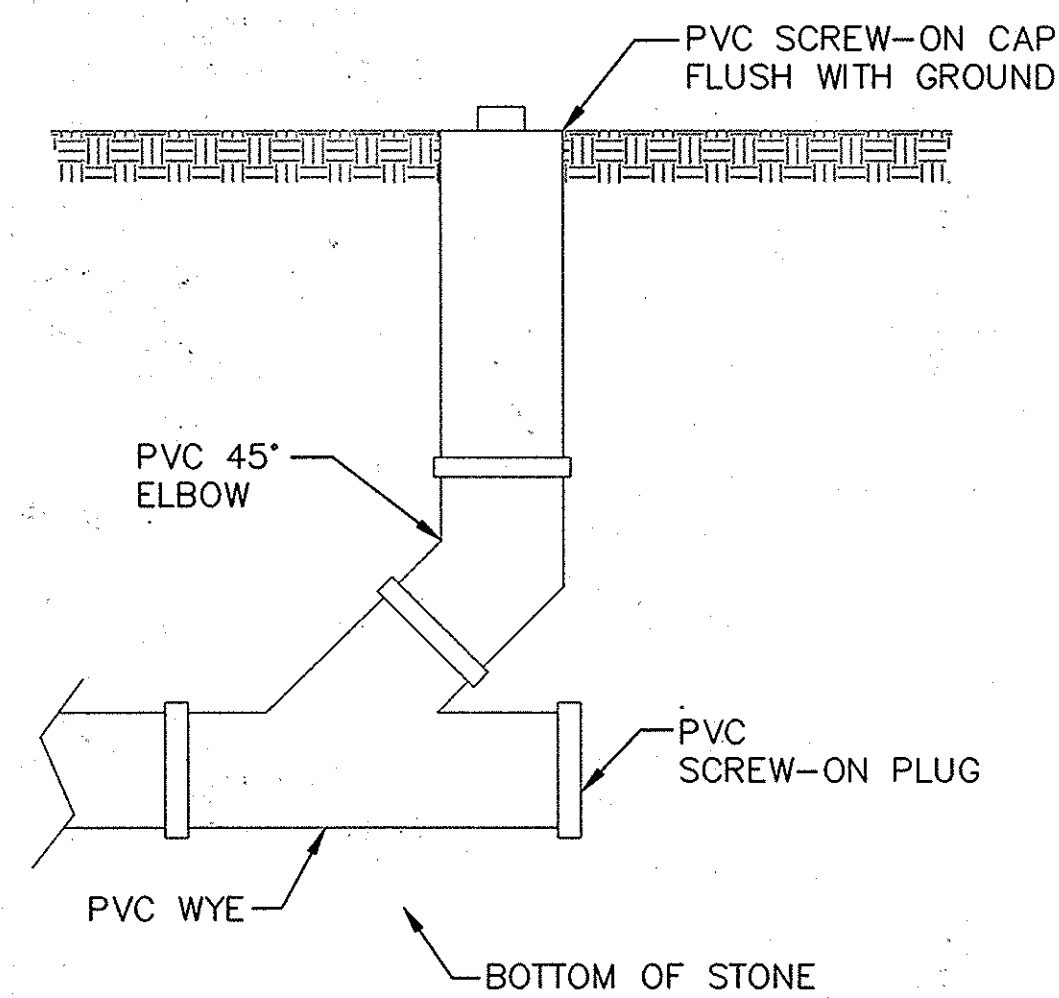


10 WEEKDAYS PARKING SIGN NOT TO SCALE

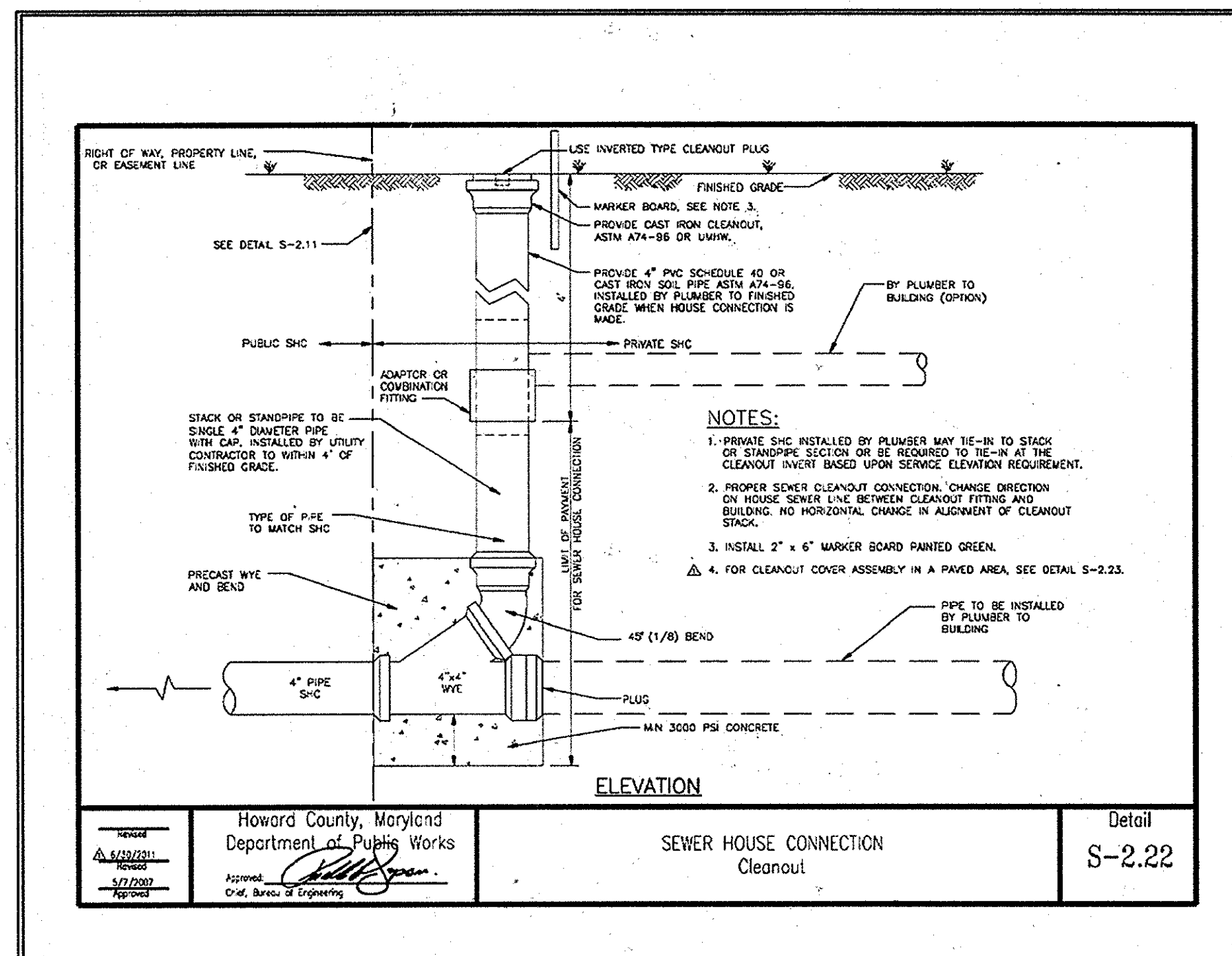


5 PORTLAND CEMENT CONCRETE SIDEWALK (NOT TO SCALE)

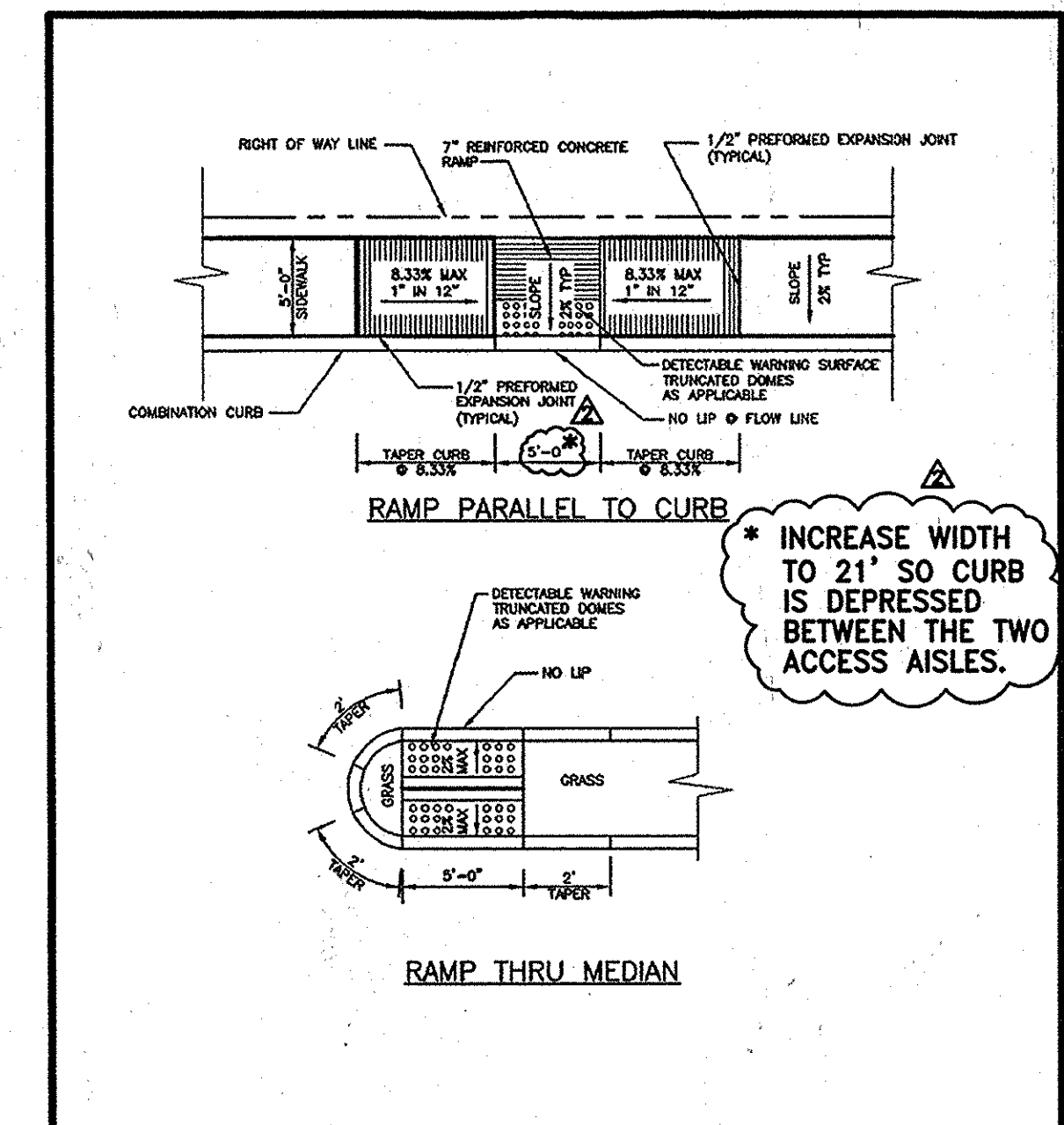
NOTE: 1. TRANSVERSE SCORED JOINTS SHALL BE LOCATED LONGITUDINALLY EVERY 5' AND 5' FROM THE BACK OF CURB WHERE APPLICABLE. EXPANSION JOINTS SHOULD BE PROVIDED AT MAXIMUM 25' O.C.



9 PVC DRAINAGE CLEANOUT DETAIL NOT TO SCALE



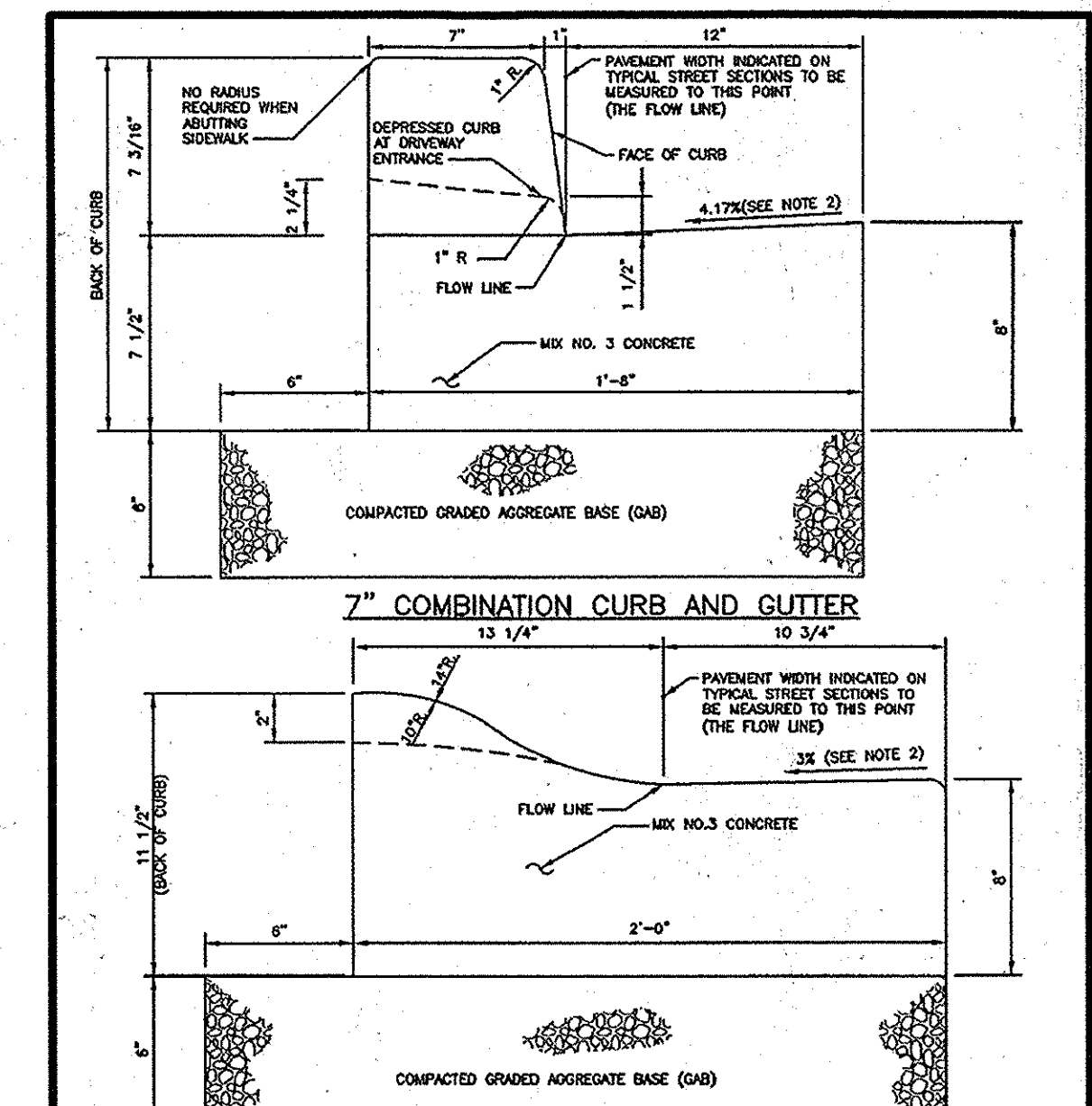
8 DETAIL : SEWER CLEANOUT NOT TO SCALE



7 DETAIL : SIDEWALK RAMP NOT TO SCALE

NOTES:
1. ALL RAMPS SHALL HAVE DETECTABLE WARNING SURFACES. SEE DETAIL R-4.07.
2. GRASS AREA ADJACENT TO SIDEWALK MUST BE SLOPED TO MEET RAMP.

| | | | |
|---------|---|---|------------------|
| Project | Howard County, Maryland Department of Public Works | SIDEWALK RAMP Layout & Grading Parallel to Curb & Thru Median | Detail R-4.06 |
|---------|---|---|------------------|



6 DETAIL : COMBINATION CURB & GUTTER NOT TO SCALE

NOTE: MODIFIED COMBINATION CURB AND GUTTER
1. A REVERSE GUTTER PAN SHALL HAVE A GUTTER SLOPE OF 4.17% AWAY FROM THE FLOW LINE, AND SHALL NOT BE USED UNLESS THIS DRAINAGE CREATES A WORKABLE CONDITION.
2. GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAYMENT. MATCH PAYMENT CROSS SLOPE WHEN CURB IS LOCATED ON THE LOW SIDE OF SUPERELEVATED SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MOORED CURB & GUTTER.
3. A MINIMUM OF TWO (2) FEET OF COMPACTED STABILIZED EARTH OR EQUIVALENT, SHALL SUPPORT THE ENTIRE BACK OF CURB.
4. POSITIVE DRAINAGE SHALL BE PROVIDED BOTH BEHIND THE CURB AND ALONG THE GUTTER AND FLOW LINE.

| | | | |
|---------|---|----------------------------------|------------------|
| Project | Howard County, Maryland Department of Public Works | CURB AND GUTTER 7" & Modified | Detail R-3.01 |
|---------|---|----------------------------------|------------------|

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chad E. ... 2-24-15
Chief, Development Engineering Division Date

V. ... 3-09-15
Chief, Division of Land Development Date

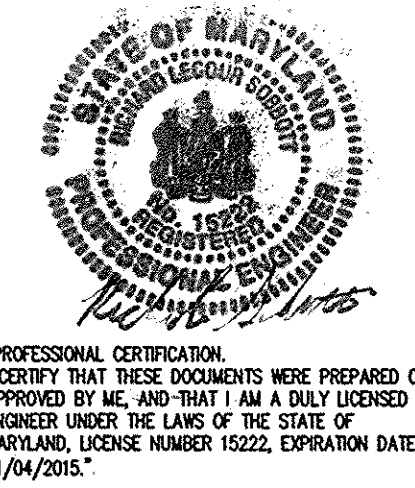
M. ... 2-14-15
Director Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM
Howard County Health Department
Howard County, Health Officer Date

gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
9450 GERWIG LANE
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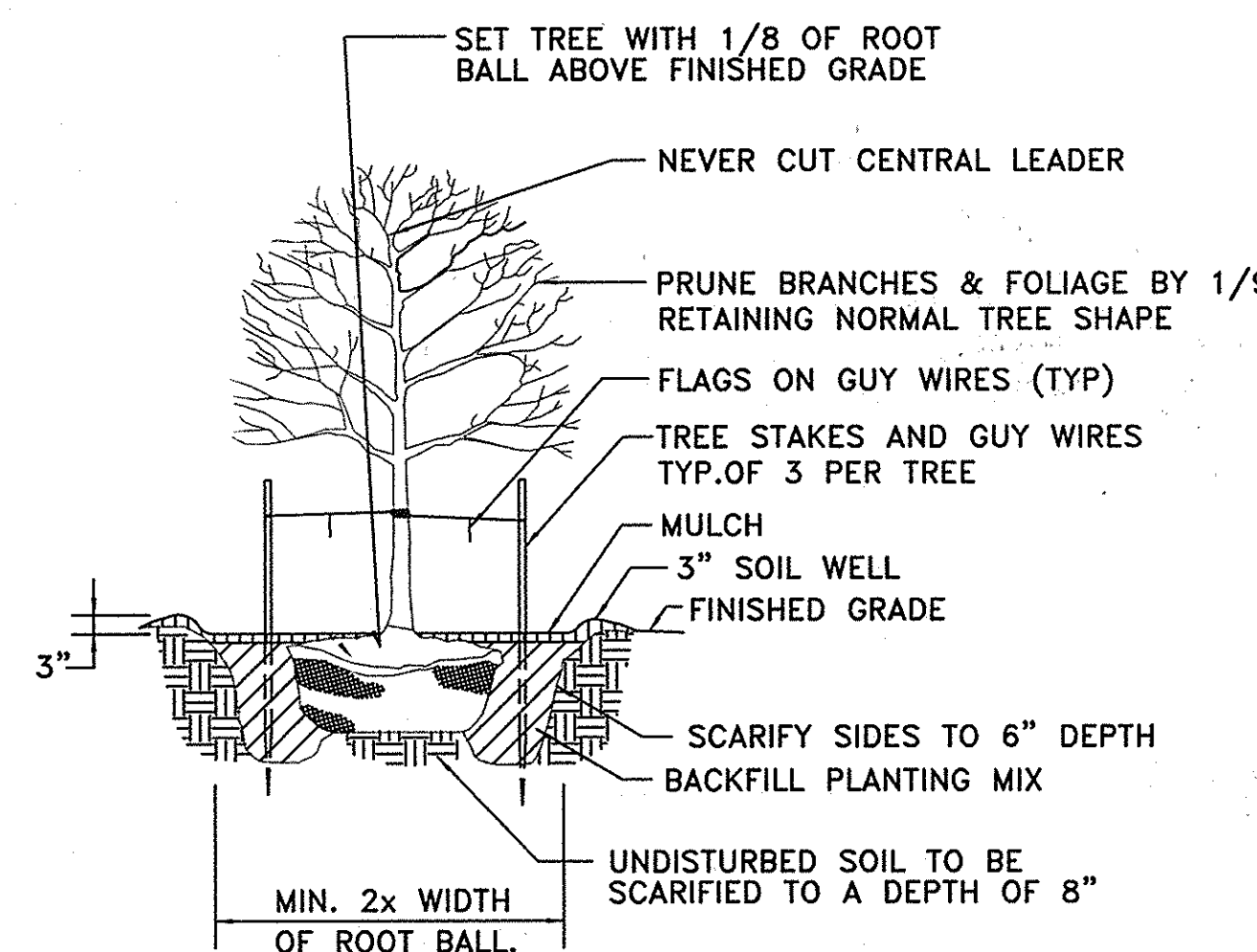
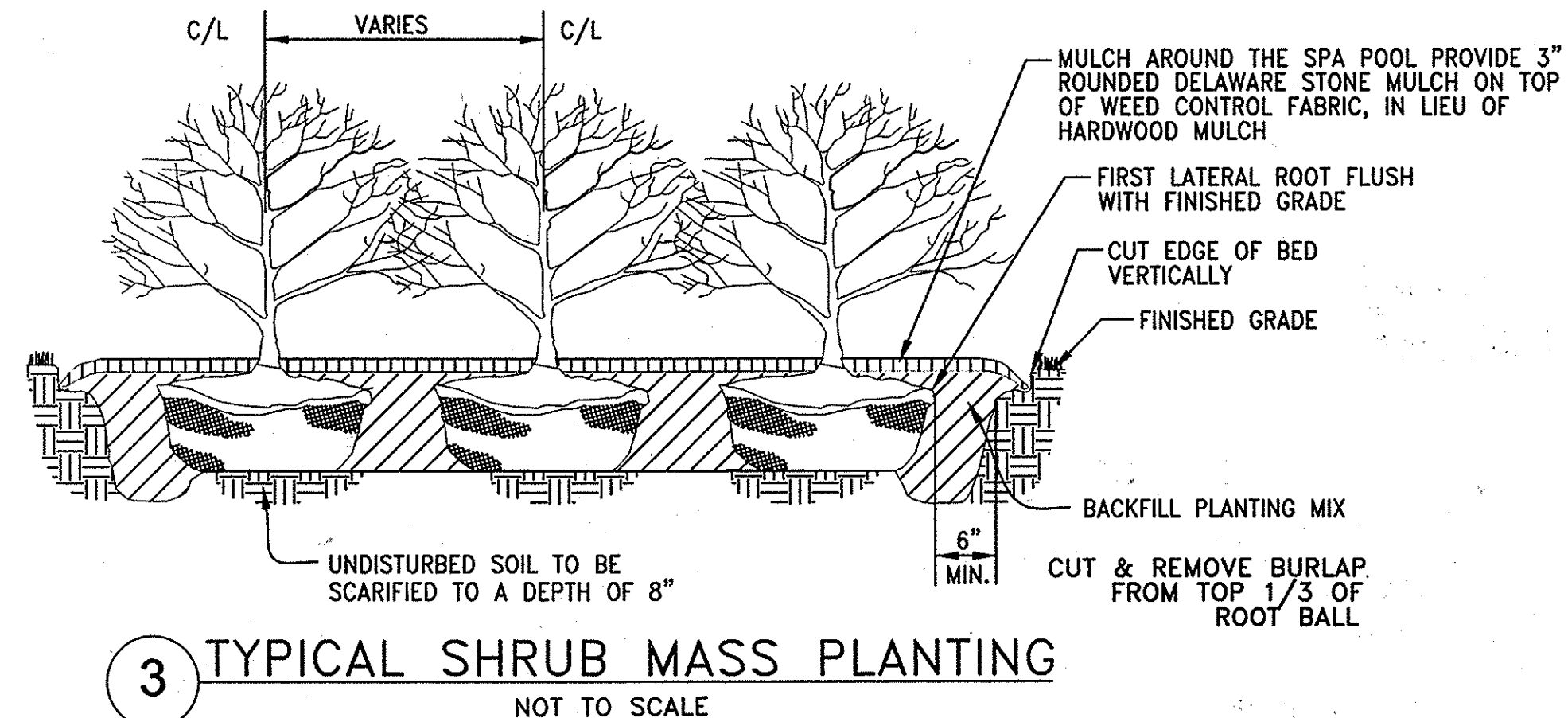
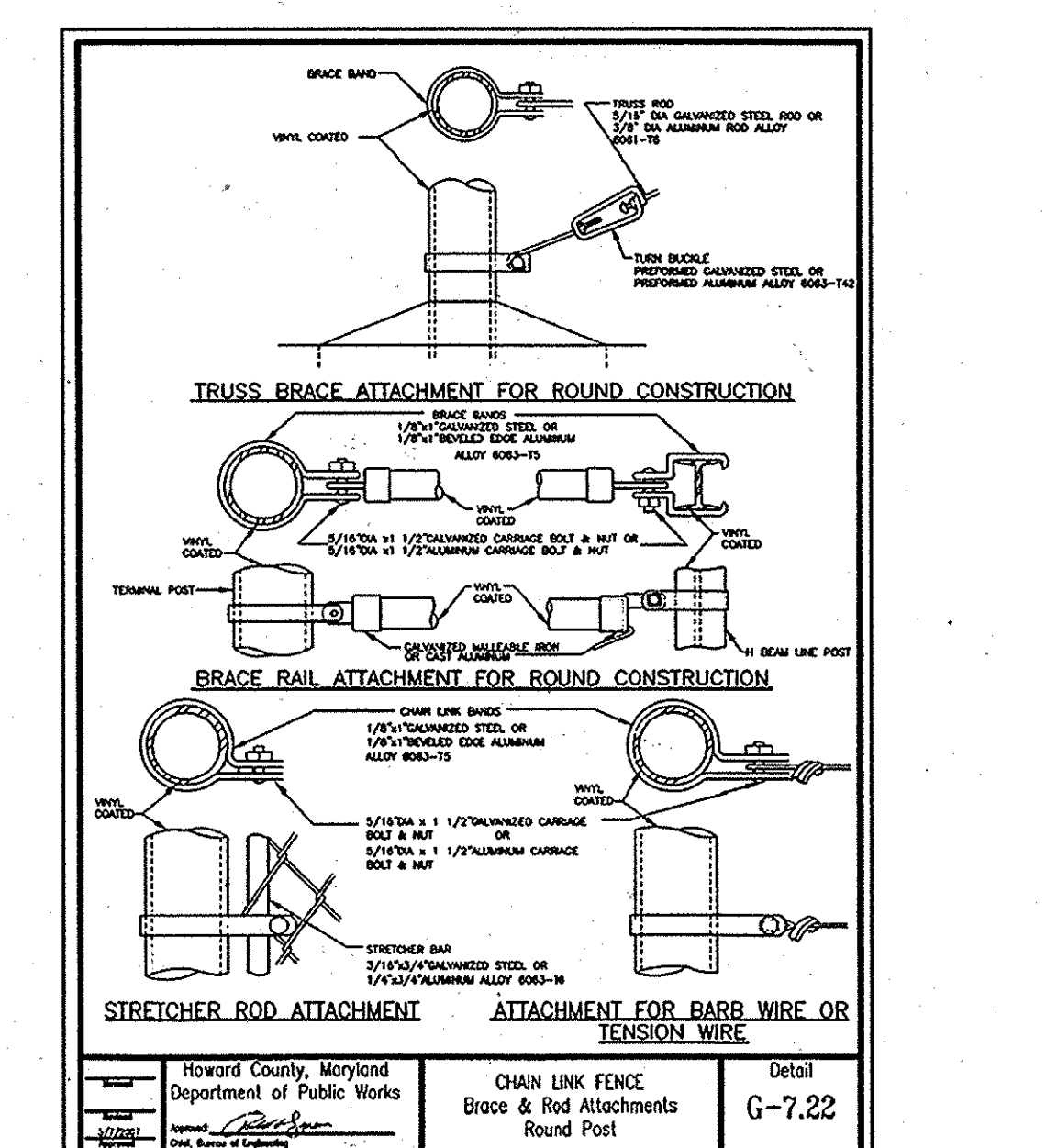
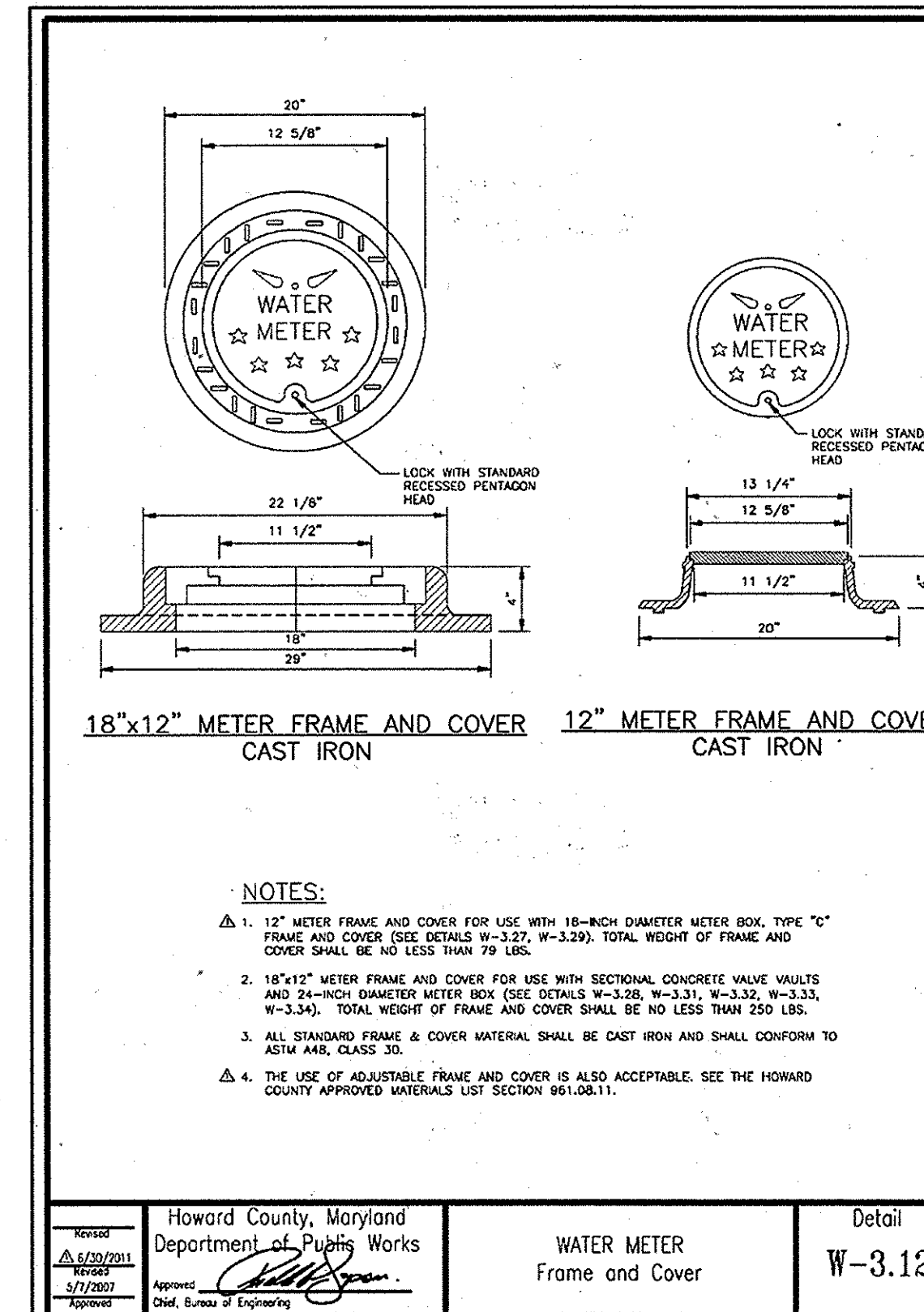
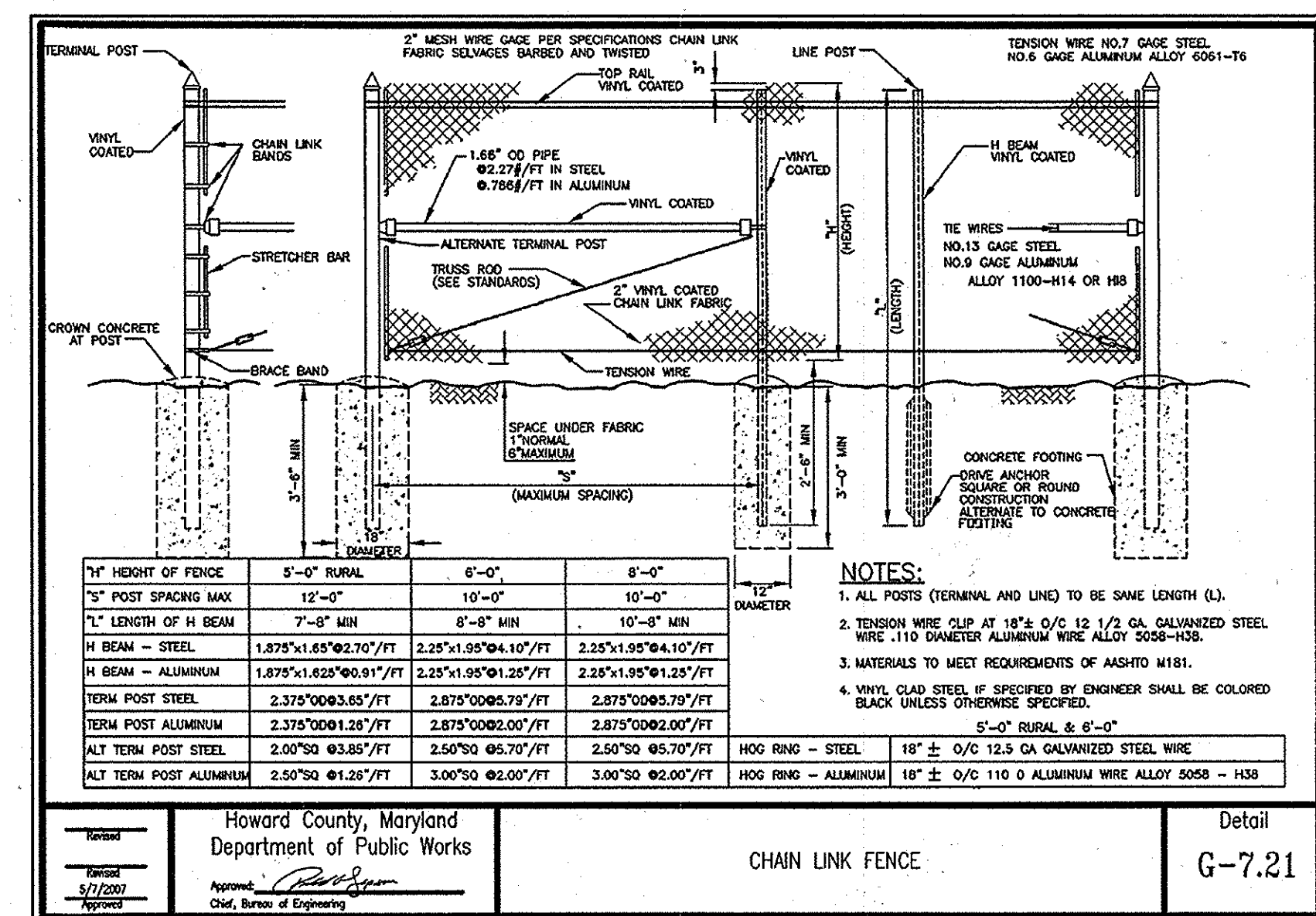
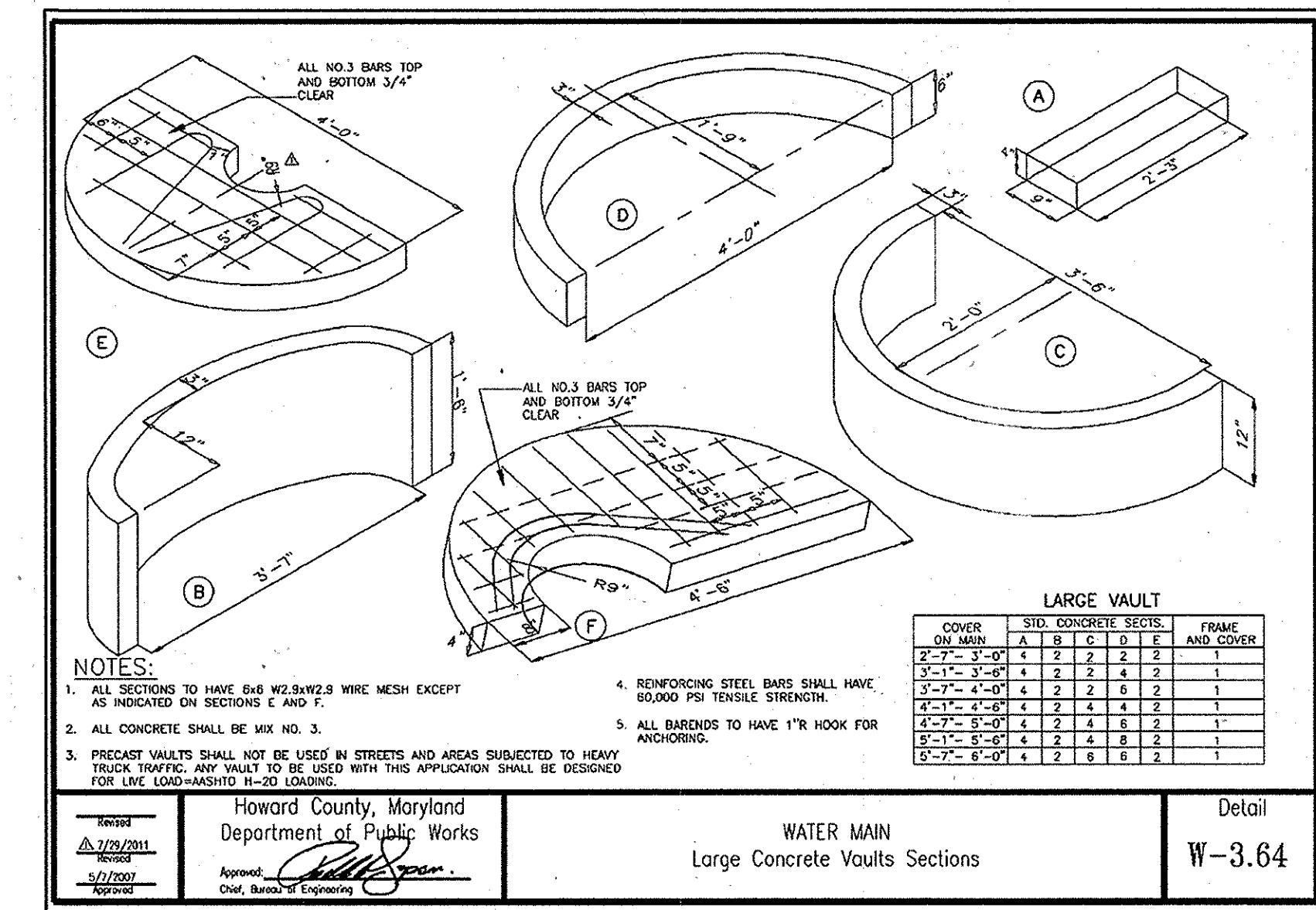
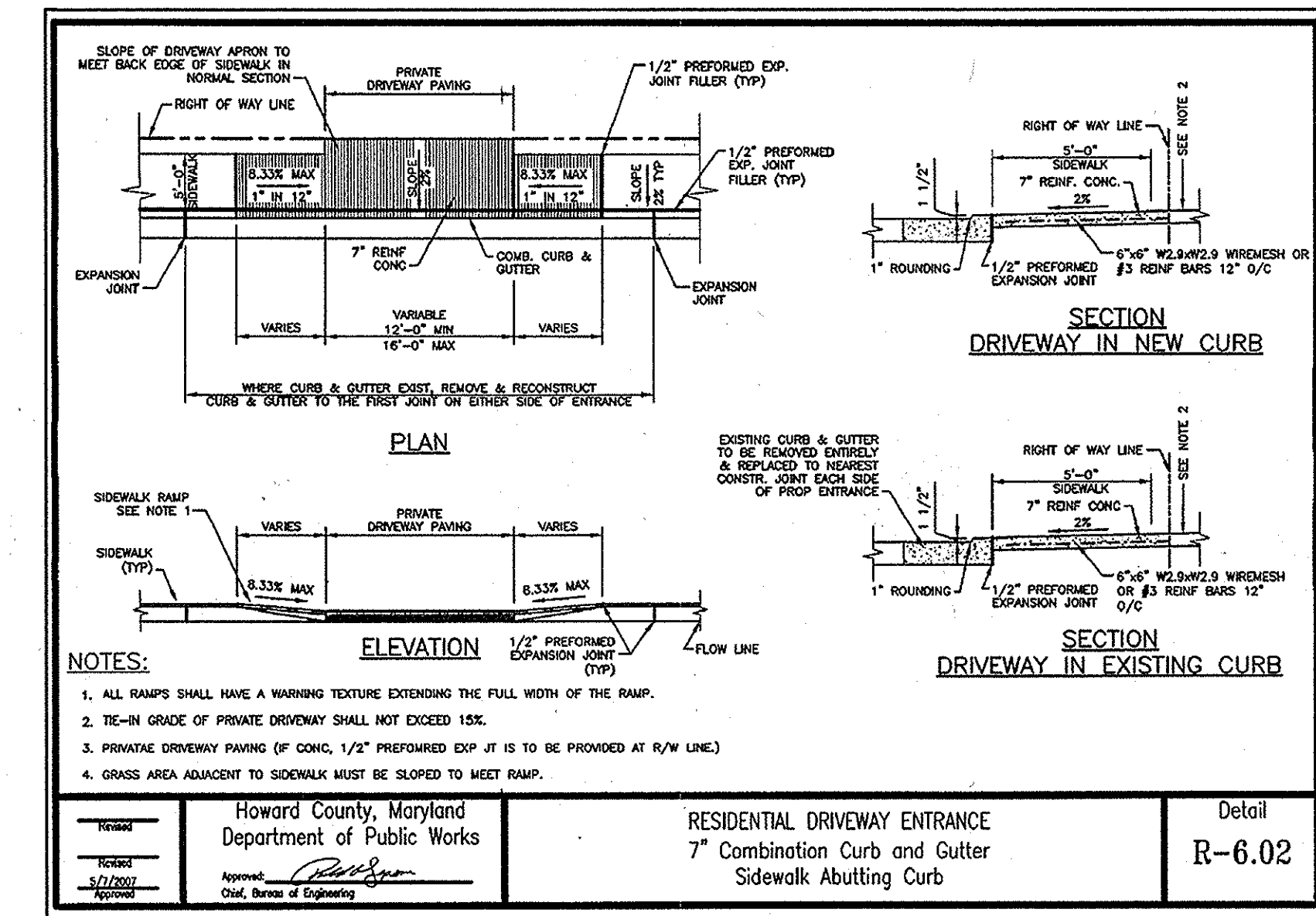
CONSULTANTS:
DCI
DANIEL CONSULTANTS INC.
CONSULTING ENGINEERS AND PLANNERS
8929 Rt. 108 E., Suite 229, Columbia, MD 21045
Phone: 410-995-0099 Fax: 410-995-7035



PROJECT:
DORSEY HALL, SECTION 1, AREA 3
COMMUNITY POOL, CHILD DAY CARE
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4649 COLUMBIA ROAD
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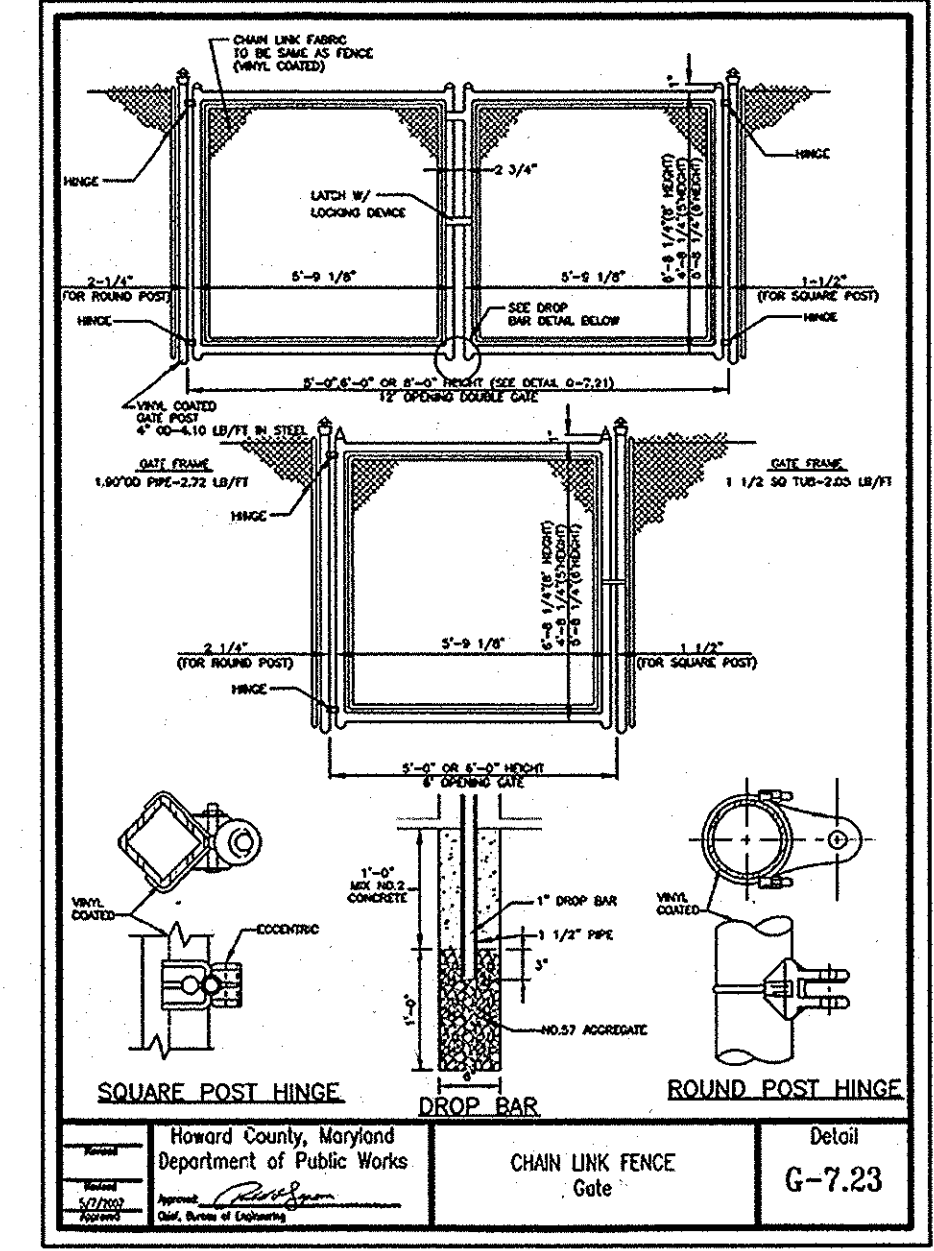
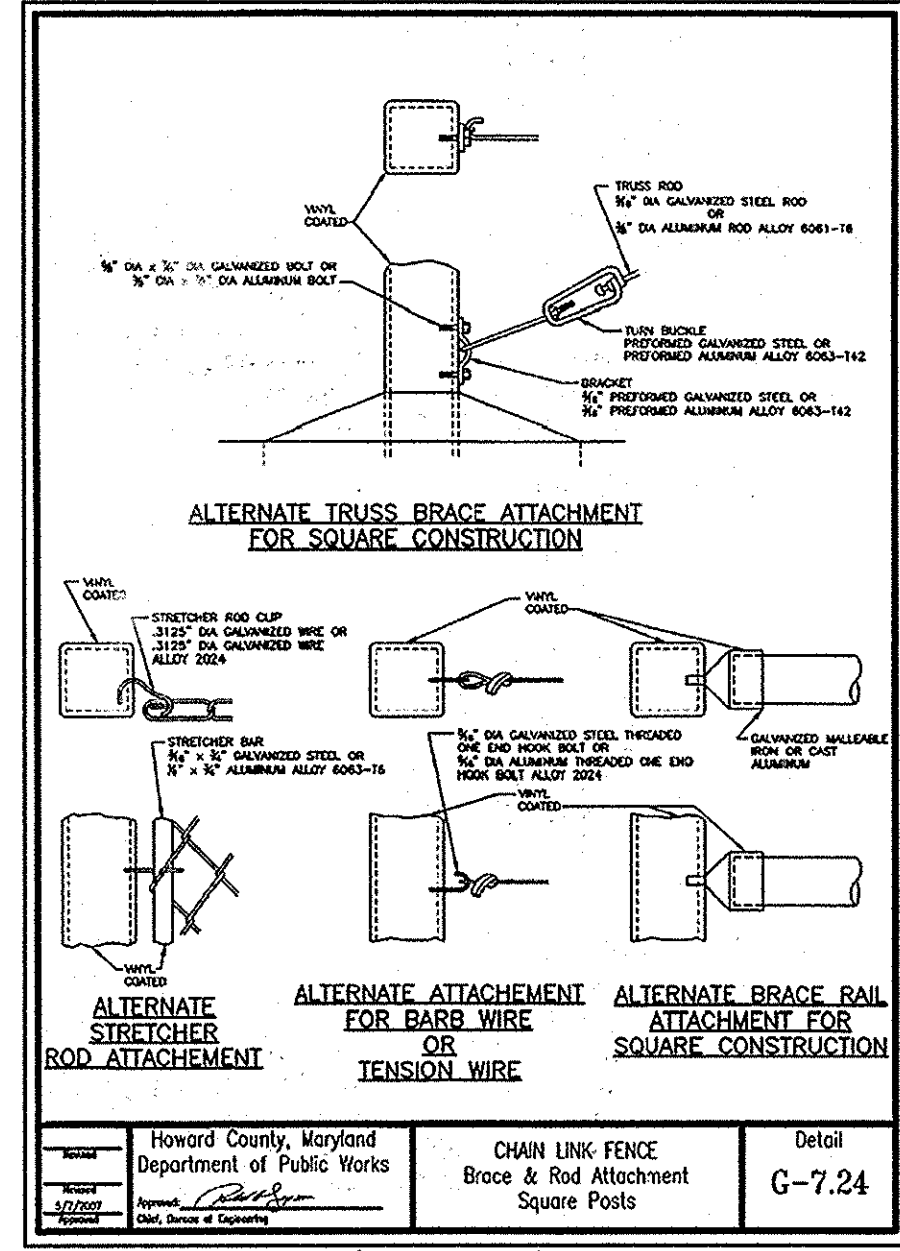
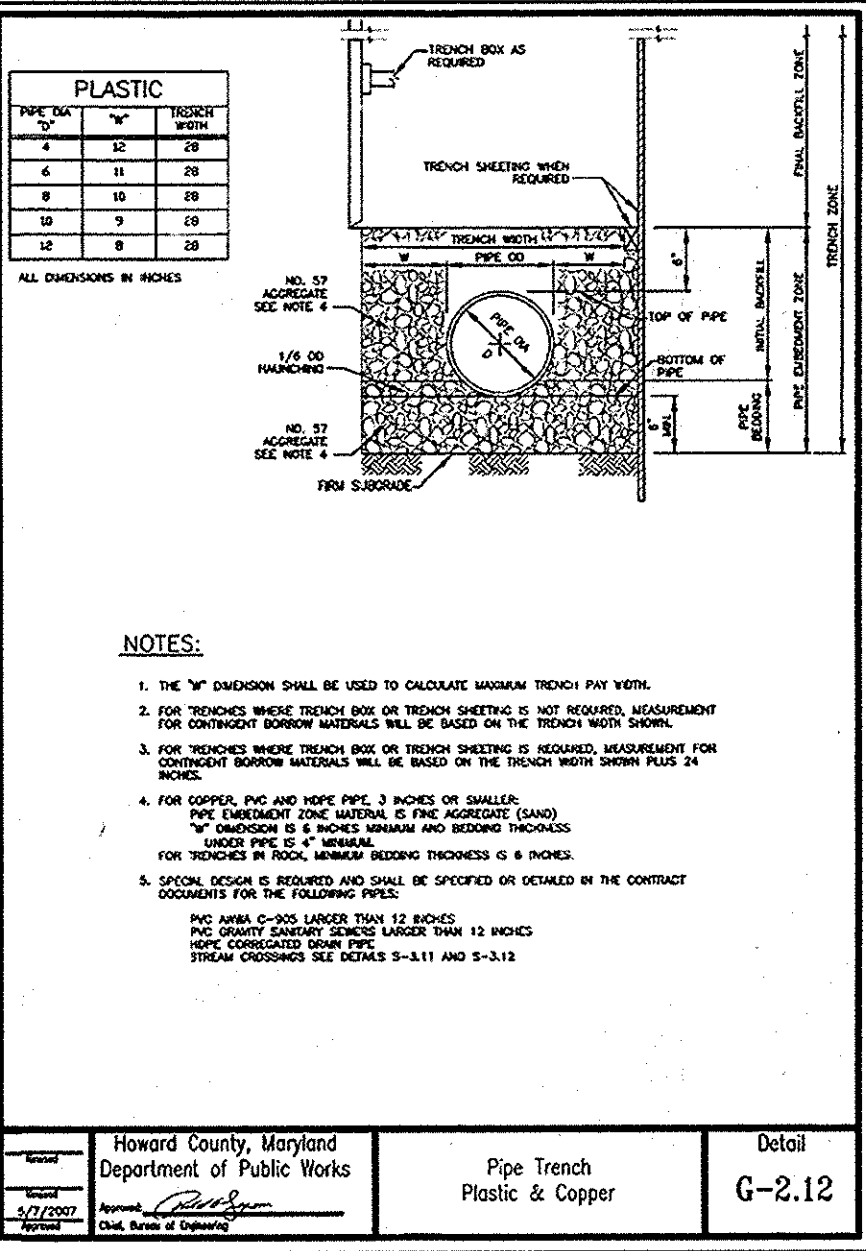
PROJ. NO.: 20423
DATE: 08/08/2014
SCALE: AS SHOWN
REVISION: 4/26/15 RED LINE

SITE
DETAILS I
10 OF 18



- NOTES:
1. CUT AND REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL.
2. REMOVE ALL NON-BIODEGRADABLE CONTAINERS & SCARIFY ROOT BALL.

2 TREE PLANTING DETAIL
NOT TO SCALE



07/02/14 SDP 90-127

FOREST CONSERVATION WORKSHEET
VERSION 1.0
(Enter in Yellow Cells)

NET TRACT AREA:
A. Total tract area: 0.89
B. Area within 100 year floodplain: 0.00
C. Area to remain in agricultural production: 0.00
D. Net tract area: 0.89

LAND USE CATEGORY: (from table 5.2.1, page 40, Manual)
Input the number "1" under the appropriate land use zoning, and limit to only one entry.

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| ARA | MOR | IDA | MOR | MPD | CIA |
| 0 | 0 | 1 | 0 | 0 | 0 |

E. Afforestation Threshold: 15% x D = 0.09
F. Conservation Threshold: 20% x D = 0.12

EXISTING FOREST COVER:
G. Existing forest cover (excluding floodplain): 0.00
H. Area of forest above afforestation threshold: 0.00
I. Area of forest above conservation threshold: 0.00

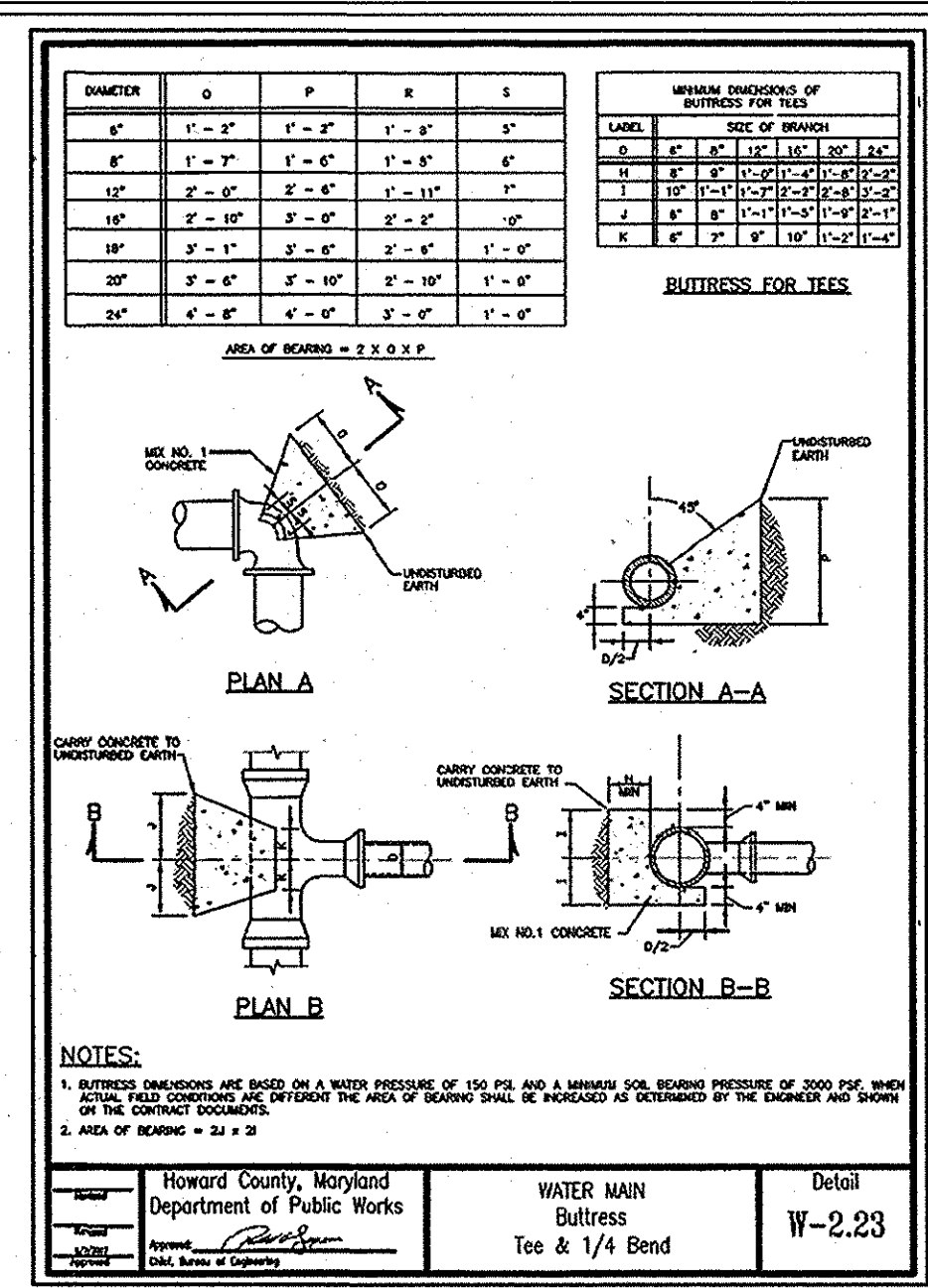
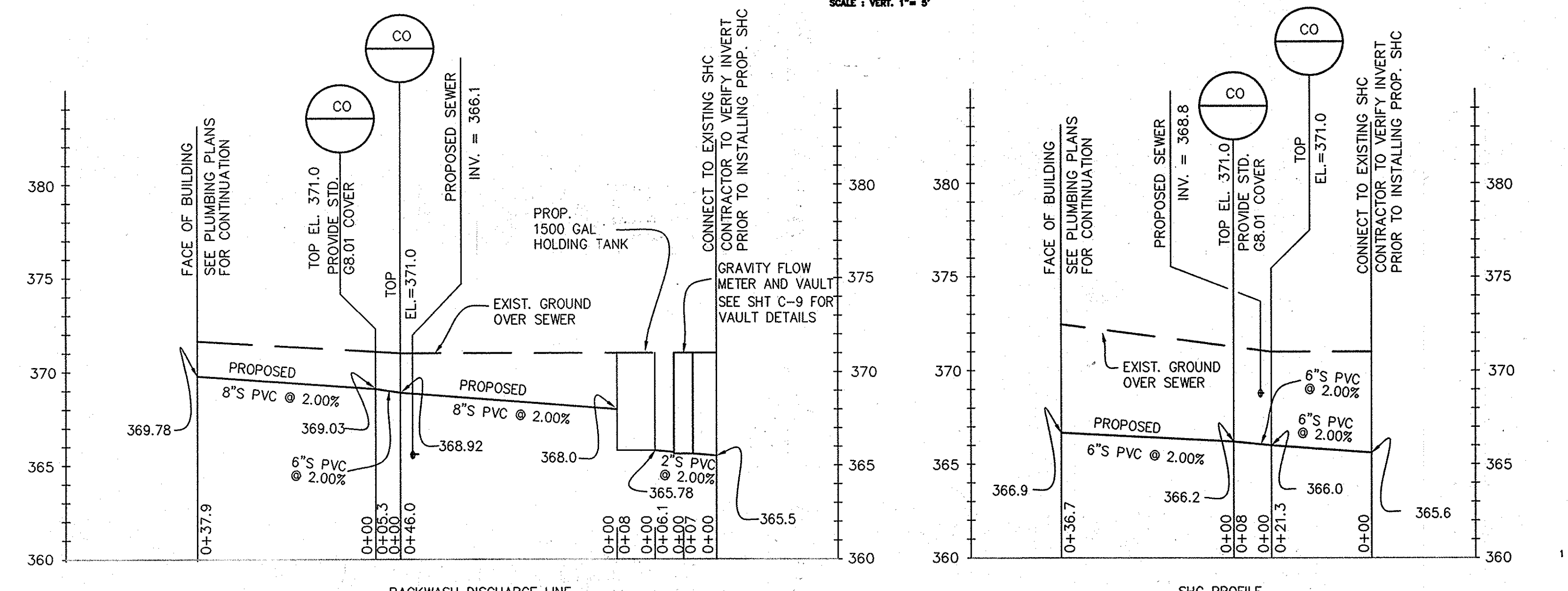
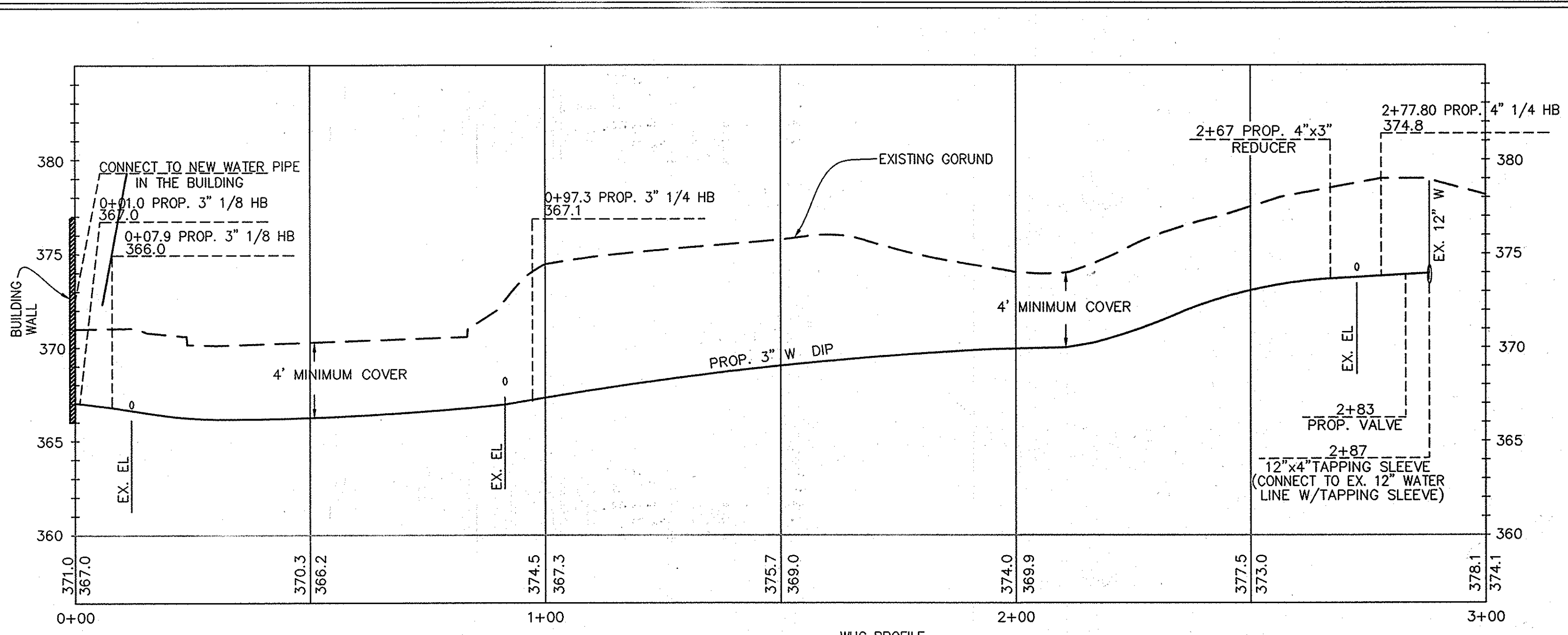
BREAK EVEN POINT:
J. Forest retention above threshold with no mitigation: 0.00
K. Clearing permitted without mitigation: 0.00

PROPOSED FOREST CLEARING:
L. Total area of forest to be cleared: 0.00
M. Total area of forest to be retained: 0.00

PLANTING REQUIREMENTS:
N. Reforestation for clearing above conservation threshold: 0.00
O. Credit for retention above conservation threshold: 0.00
P. Total reforestation required: 0.00
Q. Total afforestation required: 0.00
R. Total reforestation and afforestation required: 0.00

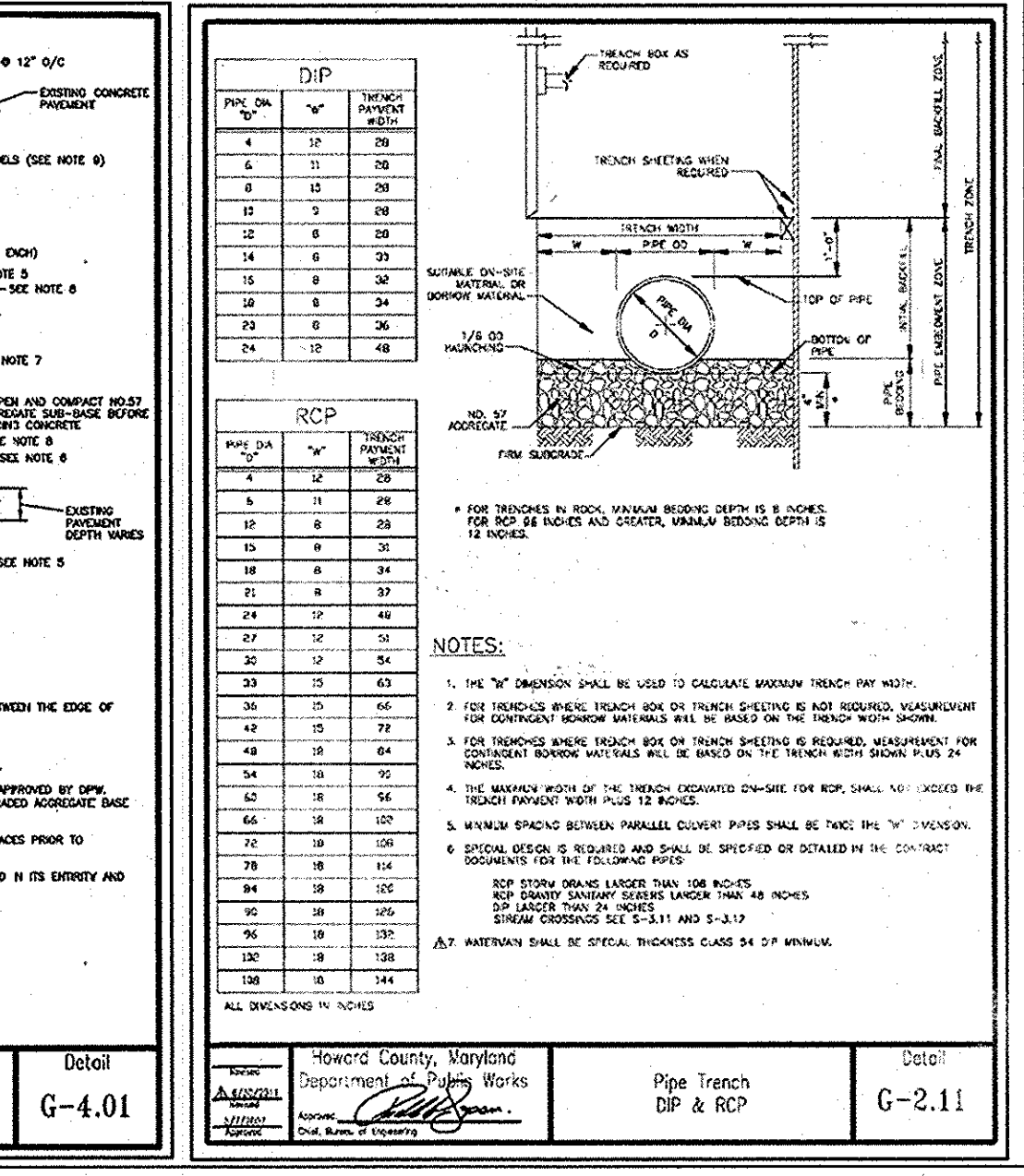
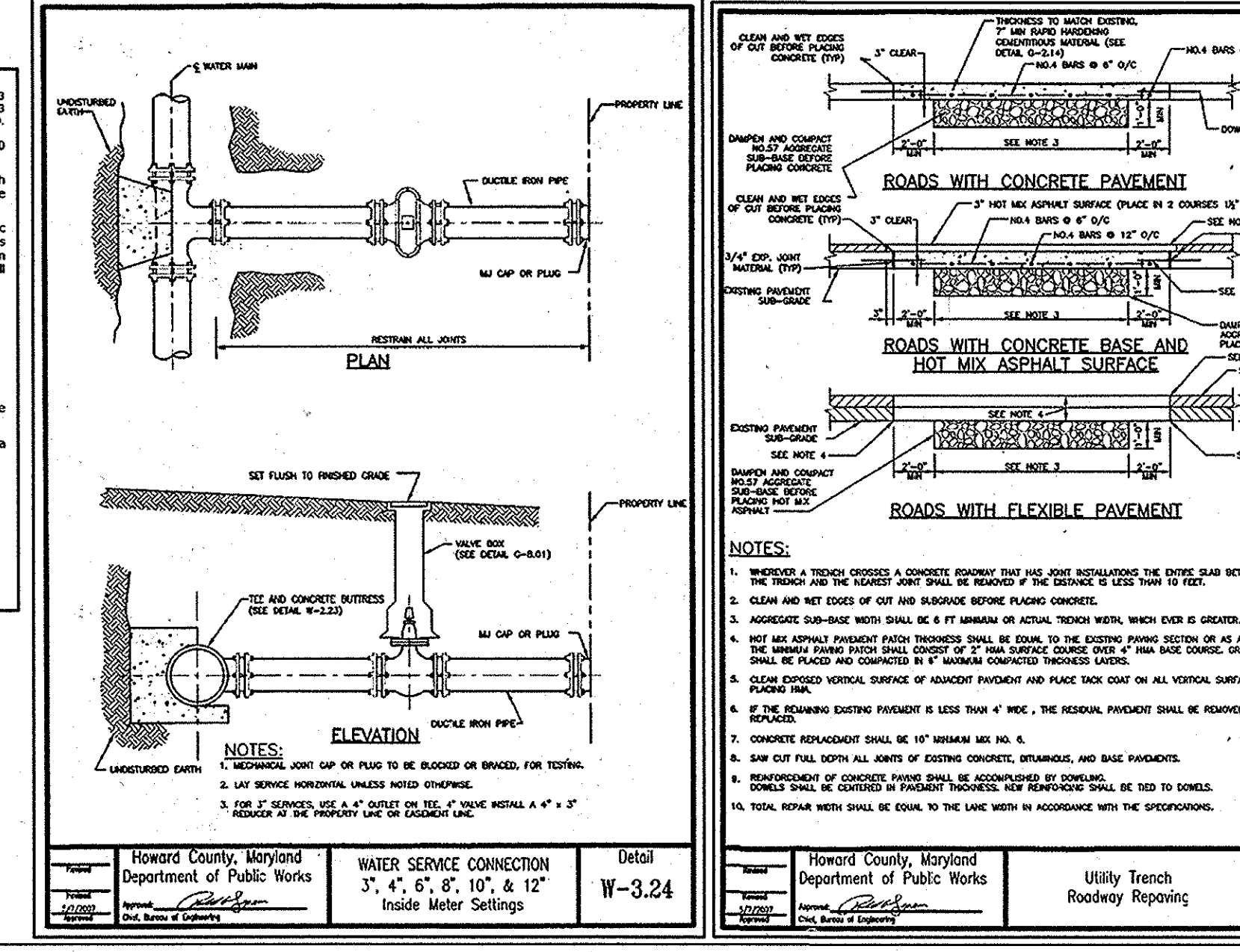
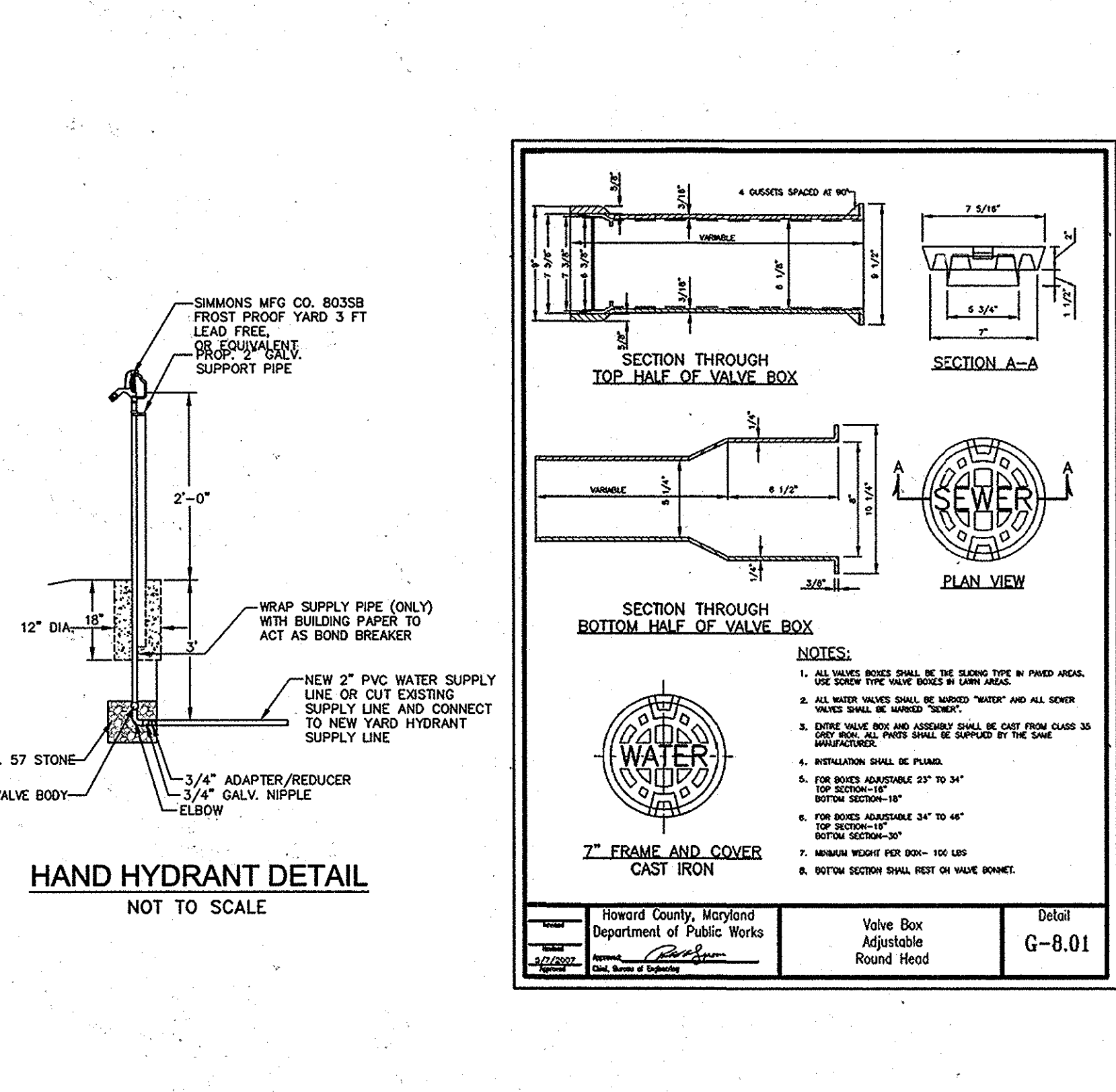
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM
Howard County Health Department
Howard County, Health Officer Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division Date
Chief, Division of Land Development Date
Director Date



UTILITY NOTES

- Approximate locations of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services to maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the utility owner at the contractor's expense.
- Topographic field surveys were performed on JANUARY 2013 (Month, Year) by DANIEL CONSULTANTS Engineering / Survey Firm.
- Horizontal and Vertical Survey Controls: The coordinates shown on the drawings are based on Maryland State Reference System NAD 83/91 as projected by Howard County Geodetic Control Stations No. 30CB No. 30BB and No. 30BA. All vertical controls are based on NAVD 88. Vertical controls provided on the drawings are 30BB (Engineering / Survey firm shall provide description of vertical control points, i.e., iron bars, cross cuts on concrete structures, etc).
- All pipe elevations shown are invert elevations unless otherwise noted on the plans.
- Clear all utilities by a minimum of 12 inches. Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted.
- For details not shown on the drawing, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specifications and Details for Construction (Latest Edition). The contractor shall have a copy of Volume IV on the job.
- The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:
 - AT&T..... 1-800-252-1133
 - BGE (Construction Services)..... 410-637-8713
 - BGE (Emergency)..... 410-653-8123
 - Bureau of Utilities..... 410-313-4900
 - Colonial Pipeline Co..... 410-795-1390
 - Miss Utility..... 1-800-257-7777
 - State Highway Administration..... 410-531-5533
 - Verizon..... 1-800-743-0033
- Trees and shrubs are to be protected from damage to the maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
- The contractor shall remove trees, stumps and roots along the line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
- The contractor shall notify the Bureau of Highways, Howard County, at (410)-313-7450 at least five working days before open cutting or boring/jacking of any County road for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirements per Section 18.114(e) of the Howard County Code.
- All water mains shall be D.I.P. Class 54 unless otherwise noted.
- Tops of all water mains shall have a minimum of 3'-6" of cover unless otherwise noted.
- Valves adjacent to trees shall be strapped to trees.
- All fittings shall be buttressed or anchored with concrete in accordance with Standard Details unless otherwise provided for on the drawings.
- The contractor shall not operate any water main valves on the existing water system.
- Tracer wires and continuity test stations shall be installed on all DIP and PVC water mains in accordance with the Howard County Design Manual.
- For PVC water main, all records for the Quality Control and Qualification Test Requirements noted in Section 5.1 of the AWWA Standard C900 for PVC pressure pipe shall be submitted with the pipe material certifications or shop drawings prior to approval of the material for use. The test records shall be for the pipe to be installed under this contract. All PVC pipe shall contain markings to allow cross referencing of the pipe supplied to the test records received.
- Unless otherwise noted on the plans or in the specifications, sacrificial anodes shall be installed on all valves and metallic fittings used with PVC water mains, in accordance with Volume IV, Standard Specifications and Details for Construction. Seventeen (17) pound Magnesium anodes shall be installed on all valves and ductile iron fittings including restrictors and hammers. Twelve (12) pound Zinc anodes shall be installed on all stainless steel fittings and saddles used with PVC mains. All "tees" used with PVC mains shall be ductile iron.
- Proper Assembly of Gasketed PVC Pipe Joints: The manufacturer's insertion line of gasketed PVC pipe joints indicates the maximum depth of insertion of the spigot into the bell. After assembly of the joint, the insertion line shall remain visible. Dual insertion lines on gasketed PVC pipe indicate the maximum and minimum depth of insertion of the spigot into the bell. The contractor shall not insert or over home the spigot into the bell of PVC pipe.
- All changes in horizontal or vertical direction of PVC water pipe shall be made with standard bends, 5-degree sweeps or high deflection (HD) couplings. No bending of the pipe or deflecting of PVC pipe joints is permitted. Where high deflection couplings or 5-degree sweeps are permitted, the contractor shall provide one full pipe length (20-foot long) on either side of the high deflection coupling or 5-degree sweep. The contractor shall use a vibratory plate compactor or other approved means to thoroughly compact the 875 stones on both sides of the high deflection coupling or 5-degree sweep, taking care not to use compaction equipment directly over the fitting.



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM
 Howard County Health Department
 Howard County, Health Officer Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division Date
 Chief, Division of Land Development Date
 Director Date

EXHIBIT 1
CONSTRUCTION NOTES FOR ADVANCE DEPOSIT ORDER (A.D.O.) WORK IN THE PUBLIC WATER & UTILITY BASEMENT
 A.D.O. for DORSEY SEARCH POOL

PART I - GENERAL CONSTRUCTION NOTES

- For details not shown on the drawing, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specifications and Details for Construction (Latest Edition). The contractor shall have a copy of Volume IV on the job.
- The A.D.O. construction work must be performed under the continuous inspection of the Howard County Bureau of Utilities. The contractor shall notify the Bureau of Utilities (Mr. Henry Zolner at 410-313-6404 or Mr. Don Campbell at 410-313-1438) at least five (5) days prior to the start of any construction for this A.D.O.
- Clear all utilities by a minimum of 12 inches. Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted. The contractor shall coordinate with the utility companies to schedule the timing of the work.
- The contractor shall notify all utilities and agencies and Miss Utility at least two (2) working days before starting work shown on the plans.
- Existing utilities in the vicinity of the proposed work for which test pits have not been dug shall be located by the contractor in advance of construction operations at his own expense.
- The contractor shall notify the Howard County Bureau of Highways, 410-313-7450, at least five working days before open cutting or boring/jacking of any County road for laying water or sewer mains or service connections.
- Work performed within Maryland State Highway Administration (MSHA) right-of-way shall be performed in accordance with the MSHA permit issued for the contract. The contractor shall notify the Maryland State Highway Administration, 410-313-5531, at least five (5) working days before excavating within the Maryland State Highway right-of-way for laying water or sewer mains or service connections.
- Excavations must be supported for the protection of workers, the construction work area and adjacent property. Refer to Excavation, Shoring, Scaffolding, and Trenching, Section 1006.03.03 of the Standard Specifications. Pumps must be the proper type and capacity to maintain a dry work area.
- The use of spot plates to protect the trench and roadway shall be as specified under Section 1006.03.03 of the Standard Specifications.
- Temporary traffic management repair of roadway openings shall be as specified under Section 1006.03.03 of the Standard Specifications. Removal of the repair shall be as specified by Permit from the authority having jurisdiction. Temporary traffic management shall consist of not less than 12 (twelve) inches of curbed stone and two (two) inches of bituminous cold patch material.

PART II - WATER CONSTRUCTION NOTES

- All water mains shall be D.I.P., Class 54 minimum, or AWWA C900/C905 P.V.C. pipe, Class DR18 minimum, unless otherwise specified on the drawings.
- Tops of all water pipes shall have not less than 4'-0" of cover unless otherwise noted.
- Valves adjacent to trees shall be strapped to trees.
- Fire hydrants shall be set to the bury line elevations shown on the Plans. All fire hydrants shall be installed in accordance with Standard Details. The soil around the fire hydrant shall be compacted in accordance with Sections 1000 and 1005 of the Standard Specifications.
- All fittings shall be buttressed or anchored with concrete in accordance with Standard Details unless otherwise provided for on the drawings.
- The contractor shall notify the Bureau of Utilities at least 48 hours in advance of scheduled shut-downs of the existing water main. Shut-downs of the existing water main for new connections and removal of existing service connections shall be as specified under Section 1002.06 Connections of the Standard Specifications.
- The contractor shall not operate any water main valves on the existing water system.
- Water service connections shall be as specified under Section 1004. Water House Service and appurtenances of the Standard Specifications and Standard Detail Plans.
- The minimum size of a single residential WHC for new residential construction is 1-1/2 inch diameter with 1-inch meter. Installation of the water meter is not part of the A.D.O. construction work.
- If the existing water meter will be moved to the new water connection inside the building, the contractor shall contact the Meter Division of the Bureau of Utilities at 410-313-4944 to schedule relocation of the meter setting.
- For commercial meters: The new water meter assembly shall be the minimum 2-inch diameter per Howard County Detail Plate 1004. Installation of the water meter is not part of the A.D.O. construction work.
- The abandonment of existing water service connections shall be as specified under Section 1004.02 of the Standard Specifications. Removal of the existing corporation stop or tapping saddle requires a scheduled shut-down of the water main. The existing corporation stop shall be removed from the water main and the pipe repaired with a County-approved stainless steel full circle repair clamp such as Ford meter F22, Mueller S55 or S52 series.
- Tracer wires and continuity test stations shall be installed on all water mains in accordance with Detail Plate G-4.21 of the Standard Specifications.
- Proper Assembly of Gasketed PVC Pipe Joints: The manufacturer's insertion line of gasketed PVC pipe joints indicates the maximum depth of insertion of the spigot into the bell. After assembly of the joint, the insertion line shall remain visible. Dual insertion lines on gasketed PVC pipe indicate the maximum and minimum depth of insertion of the spigot into the bell.

PART III - SEWER CONSTRUCTION NOTES

- All sewer mains shall be D.I.P. or P.V.C. unless otherwise noted.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- Sewer from mains shall be D.I.P. unless otherwise noted.
- Sewer house connections shall be as specified under Section 1009.03 of the Standard Specifications and the Standard Details.
- House(s) with the symbol "C.I.S." indicates that the cellar cannot be served by a gravity sewer service connection.

gba
 gant-brunnett
 ARCHITECTS
 15 West Mulberry Street
 Baltimore, Maryland 21201-4406
 Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
 9450 GERWIG LANE
 COLUMBIA MD, 21046
 410-381-0287

(C) GANT BRUNNETT ARCHITECTS
 ALL REPRODUCTION IS PROHIBITED

CONSULTANTS:
DCI
 DANIEL CONSULTANTS INC.
 CONSULTING ENGINEERS AND PLANNERS
 8550 Rt. 108 E., Suite 229, Columbia, MD 21045
 Phone: 410-995-0900 Fax: 410-993-7038

STATE OF MARYLAND
 PROFESSIONAL CERTIFICATION
 I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NUMBER: 15222, EXPIRATION DATE: 01/04/2015.

PROJECT:
DORSEY HALL, SECTION 1, AREA 3
COMMUNITY POOL, CHILD DAY CARE
AND COMMUNITY HALL
4649 COLUMBIA ROAD
ELLICOTT CITY, MARYLAND 21042

PROJ. NO: 20423
 DATE: 08/08/2014
 SCALE: AS SHOWN
 REVISION:

WATER & SEWER PLANS

12 OF 18

MATCH LINE 'A'

POI 1 SUMMARY:
 PAVEMENT REMOVAL = 0.00 SF
 NEW IMPERVIOUS = 1792 SF $P_e=2.6\%$ IMPERVIOUS=100%
 $R_v=.009*100+.05=.95$
 REDEVELOPMENT = 8,521 SF $P_e=1.0\%$ IMPERVIOUS=100%
 $R_v=.009*100+.05=.95$

IMPERVIOUS AREA REQUIRING TREATMENT:
 $1792 + (0.5)8,521 - (0.5)0.0 = 6052$ SF

AREA TREATED WITH MICROBIORETENTION:
 14,810 SF

ESD_v REQUIRED for EXIST. IMPERVIOUS AREA 675 cf= $.95*8521/12$
 ESD_v REQUIRED for NET NEW IMPERVIOUS AREA 350 cf= $.95*1792*2.6/12$
 TOTAL ESD_v REQUIRED 1046 cf
 SURFACE STORAGE IN MICRO BIO RETENTION=1042 cf
 ESD_v PROVIDED BY MICROBIO RETENTION (M-6)1557 cf= $1388=1042/.75$
 PE PROVIDED = 1.7 in.= $1388*12/(.95*(1557+8521))$

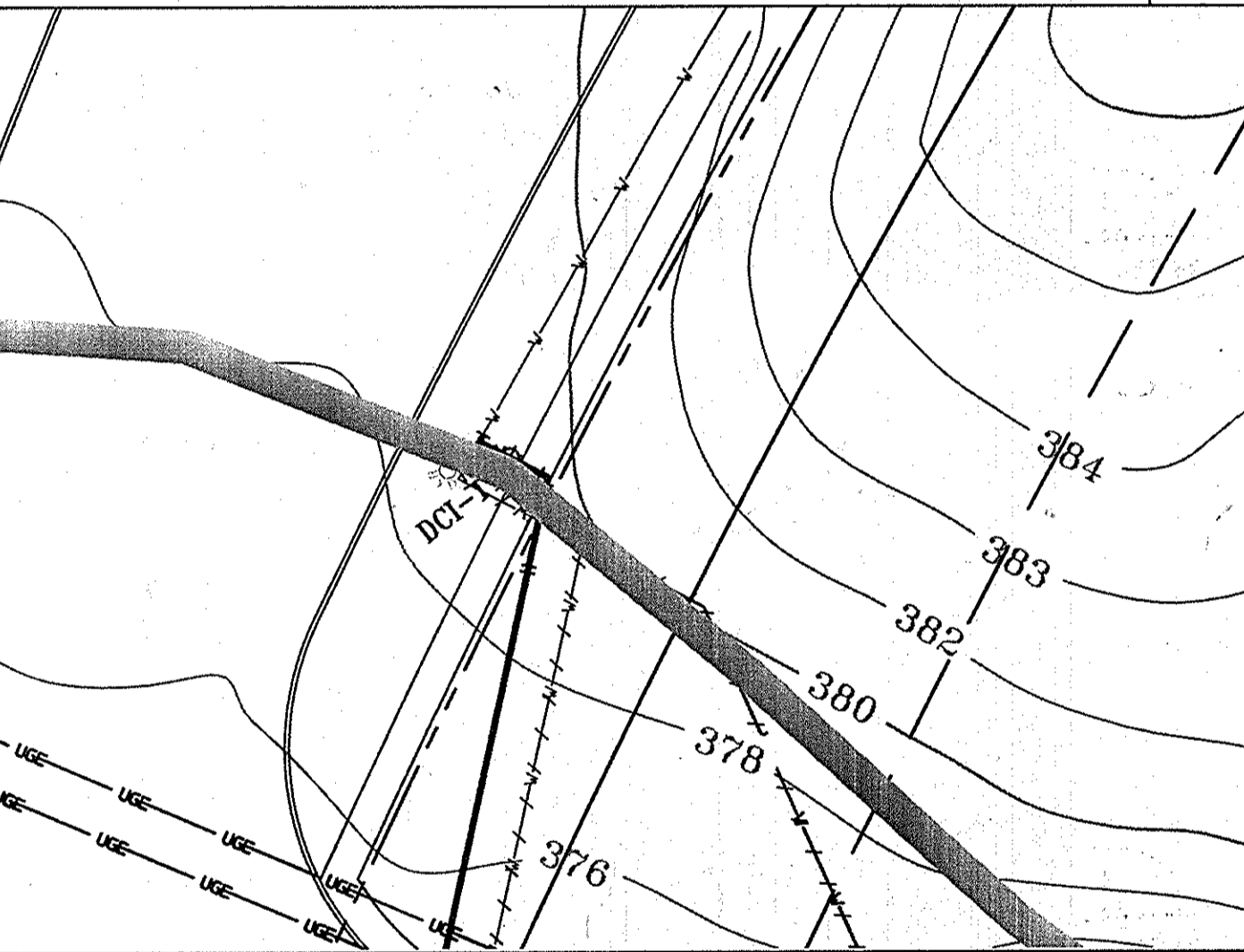
POI 2 SUMMARY:
 PAVEMENT REMOVAL = 197 SF
 NEW IMPERVIOUS = 347 SF (INCLUDES 48 SF OF PERMEABLE PAVERS)
 $P_e=2.6\%$ IMPERVIOUS=100%
 $R_v=.009*100+.05=.95$
 REDEVELOPMENT = 618 SF (INCLUDES 539 SF OF PERMEABLE PAVERS)
 $P_e=1.0\%$ IMPERVIOUS=100%
 $R_v=.009*100+.05=.95$

IMPERVIOUS AREA REQUIRING TREATMENT:
 $347 + (0.5)618 - (0.5)197 = 558$ SF

AREA TREATED WITH PERMEABLE PAVERS:
 324 SF

ESD_v REQUIRED for EXIST. IMPERVIOUS AREA 49 cf= $.95*618/12$
 ESD_v REQUIRED for NET NEW IMPERVIOUS AREA 31 cf=
 $.95*(347-197)*2.6/12$

TOTAL ESD_v REQUIRED 80 cf
 ESD_v/sf FOR 12" THICK PAVEMENT ON B SOIL ACCORDING TO TABLE 1
 OF THE ESD PROCESS AND COMPTATIONS 2010=.196 ESD_v/SF
 ESD_v PROVIDED BY PERMEABLE PAVING (A-2-1 THRU A-2-3)
 162 cf= $826*.196=162$
 PE PROVIDED = 2.7 in.



MATCH LINE 'A'

APPROVED: FOR PUBLIC WATER AND
 PUBLIC SEWER SYSTEM
 Howard County Health Department

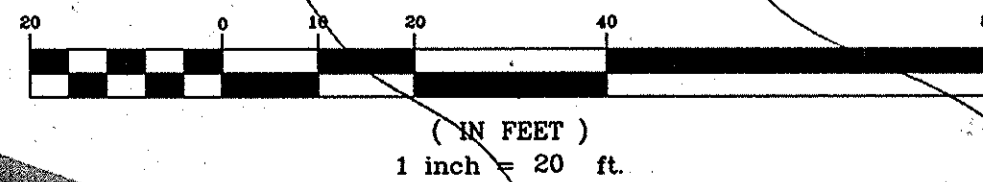
 Howard County, Health Officer Date

- AREA IN SF SHADING
- BMP DRAINAGE AREA
- NEW IMPERVIOUS
- PAVEMENT REMOVAL
- REDEVELOPMENT

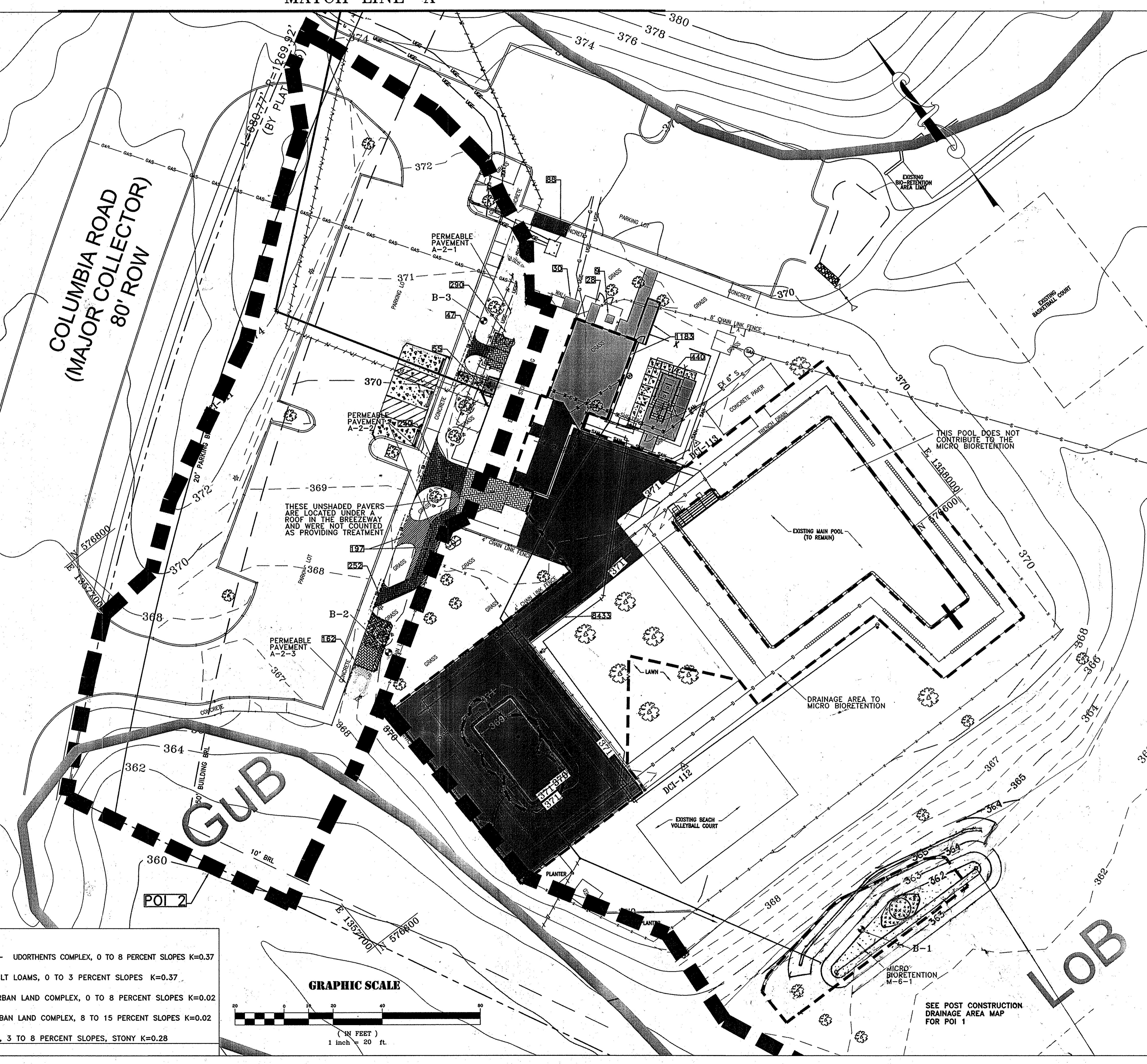
APPROVED: DEPARTMENT OF PLANNING AND ZONING
 _____ 2-24-15
 Chief, Development Engineering Division Date
 _____ 3-09-15
 Chief, Division of Land Development Date
 _____ 2/9/15
 Director Date

SOILS LEGEND
 GUB GLENVILLE-URBAN LAND- UDORTMENTS COMPLEX, 0 TO 8 PERCENT SLOPES K=0.37
 Ha HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES K=0.37
 LoB LEGORE-MONTALTO-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES K=0.02
 LoC LEGORE-MONTALTO-URBAN LAND COMPLEX, 8 TO 15 PERCENT SLOPES K=0.02
 WcB WATCHUNG SILT LOAM, 3 TO 8 PERCENT SLOPES, STONY K=0.28

GRAPHIC SCALE



COLUMBIA ROAD
 (MAJOR COLLECTOR)
 80' ROW



gba
 gant-brunnett
 ARCHITECTS
 15 West Mulberry Street
 Baltimore, Maryland 21201-4408
 Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
 9450 GERWIG LANE
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CONSULTANTS:

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 COMMUNITY POOL, CHILD DAY CARE
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 4649 COLUMBIA ROAD
 ELLICOTT CITY, MARYLAND 21042

| | |
|-----------|------------------|
| PROJ. NO: | 20423 |
| DATE: | 08/08/2014 |
| SCALE: | AS SHOWN |
| REVISION: | 4/26/16 RED LINE |

STORMWATER
 DRAINAGE
 AREA MAP

13 OF 18

STORMWATER DRAINAGE AREA MAP SCALE: 1" = 20'

REVISED SITE DEVELOPMENT PLAN

SDP # 90-127

B3.B SPECIFICATIONS FOR MICRO-BIORETENTION/BIOSWALE

1. MATERIAL SPECIFICATIONS

THE ALLOWABLE MATERIALS TO BE USED IN MICRO-BIORETENTION ARE DETAILED IN THE TABLE SHOWN ON THIS SHEET. CERTIFICATIONS FOR ALL MATERIALS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL PRIOR TO THEIR INSTALLATION

2. PLANTING SOIL

THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIRETENTION AREA THAT MAY BE HARMFUL TO PLANT GROWTH...

THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:

- SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION)
ORGANIC CONTENT - MINIMUM 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35% TO 40%) OR SANDY LOAM (30%), COARSE SAND (30%), AND COMPOST (40%).

THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FOR THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

3. COMPACTION

IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE MICRO-BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF BIRETENTION AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES...

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE MICRO-BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE MICRO-BIORETENTION FACILITY BEFORE BACKFILLING THE REQUIRED SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE. WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THE ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.

WHEN BACKFILLING THE MICRO-BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE MICRO-BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE MICRO-BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

4. PLANT MATERIAL

ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE FULL YEAR TO BE IN A HEALTHY GROWING CONDITION. PLANT MATERIALS WHICH DO NOT FULFILL THIS GUARANTEE SHALL BE REPLACED AT NO COST TO THE OWNER THROUGHOUT THE ORIGINAL GUARANTEE PERIOD.

5. PLANT INSTALLATION

MULCH SHALL BE PLACED TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD WILL FLOAT AND MOVE THE PERIMETER OF THE MICRO-BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 50% TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.

GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.

THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL ADQUATELY SUPPLY NUTRIENTS FORM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIRETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS OAR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

PLANTING INSTALLATION SEQUENCE

- 1. STAKE OUT PLANT/BED LOCATIONS.
2. CUT EDGE OF PLANT BED.
3. TILL SOIL AND APPLY AMENDMENTS TO ENTIRE PLANTING AREA.
4. APPLY PRE-EMERGENT HERBICIDE (TWO WEEKS PRIOR TO PLANTING).
5. INSTALL PLANTS.
6. INSTALL FERTILIZER TABLETS IN EACH PLANT PIT.
7. PLACE BACKFILL.
8. WATER EACH INDIVIDUAL PLANT THOROUGHLY.
9. PLACE MULCH OVER ENTIRE PLANT BED.
10. WATER ENTIRE PLANT BED THOROUGHLY.

MICRO-BIORETENTION/BIOSWALE AREA CONSTRUCTION SEQUENCE

- NOTE: REFER TO THE EROSION & SEDIMENTATION CONTROL PLAN FOR THE OVERALL CONSTRUCTION SEQUENCE.
1. EXCAVATE AND INSTALL THE STORMWATER CONVEYANCE STRUCTURES.
2. INSTALL UNDERDRAIN GRAVEL AND UNDERDRAIN PIPING.
3. WRAP THE SIDE OF THE MICRO-BIORETENTION AREA WITH GEOTEXTILE.
4. INSTALL FILTER LAYERS.
5. INSTALL PLANTS AND MULCH LAYER ON SURFACE OF MICRO-BIORETENTION AREA.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

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

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM

Howard County Health Department
Howard County, Health Officer Date

6. UNDERDRAINS

UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:

- PIPE- SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F 758, TYPE PS 28, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OR HDPE).
PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4X4) GALVANIZED HARDWARE CLOTH.
GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.
A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT POINT AND MONITOR PERFORMANCE OF THE FILTER.
A 4" LAYER OF PEA GRAVEL (1/4" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".

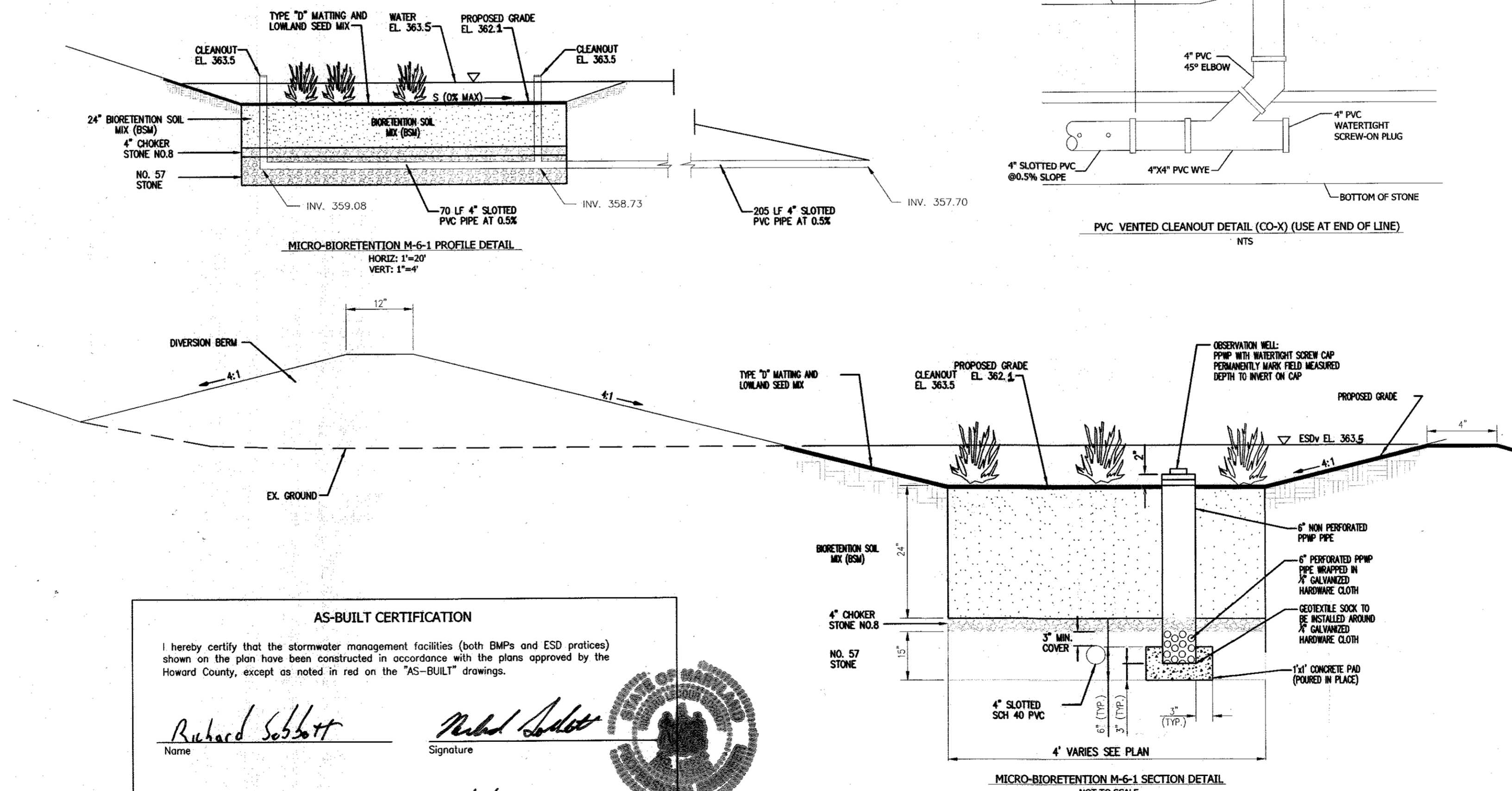
THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. MISCELLANEOUS

THE MICRO-BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.

THE MICRO-BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.

Table with 4 columns: MATERIAL, SPECIFICATION, SIZE, NOTES. Rows include PLANTING SOIL, MULCH, FILTER FABRIC, GRAVEL, and UNDERDRAIN PIPING.



AS-BUILT CERTIFICATION

I hereby certify that the stormwater management facilities (both BMPs and ESD practices) shown on the plan have been constructed in accordance with the plans approved by the Howard County, except as noted in red on the "AS-BUILT" drawings.

Richard Sobbett Name
Richard Sobbett Signature
15222 Maryland Registration Number (PE or LS)
7/16/16 Date

Facilities being certified (list each individually using facility ID number and/or description):

- MICROBIO M-6-1
PERMEABLE PAVERS A-2-1
PERMEABLE PAVERS A-2-2
PERMEABLE PAVERS A-2-3

Attach additional form(s) if necessary.

"Certify" means to state or declare a professional opinion based on sufficient and appropriate onsite inspections and material tests conducted during construction.

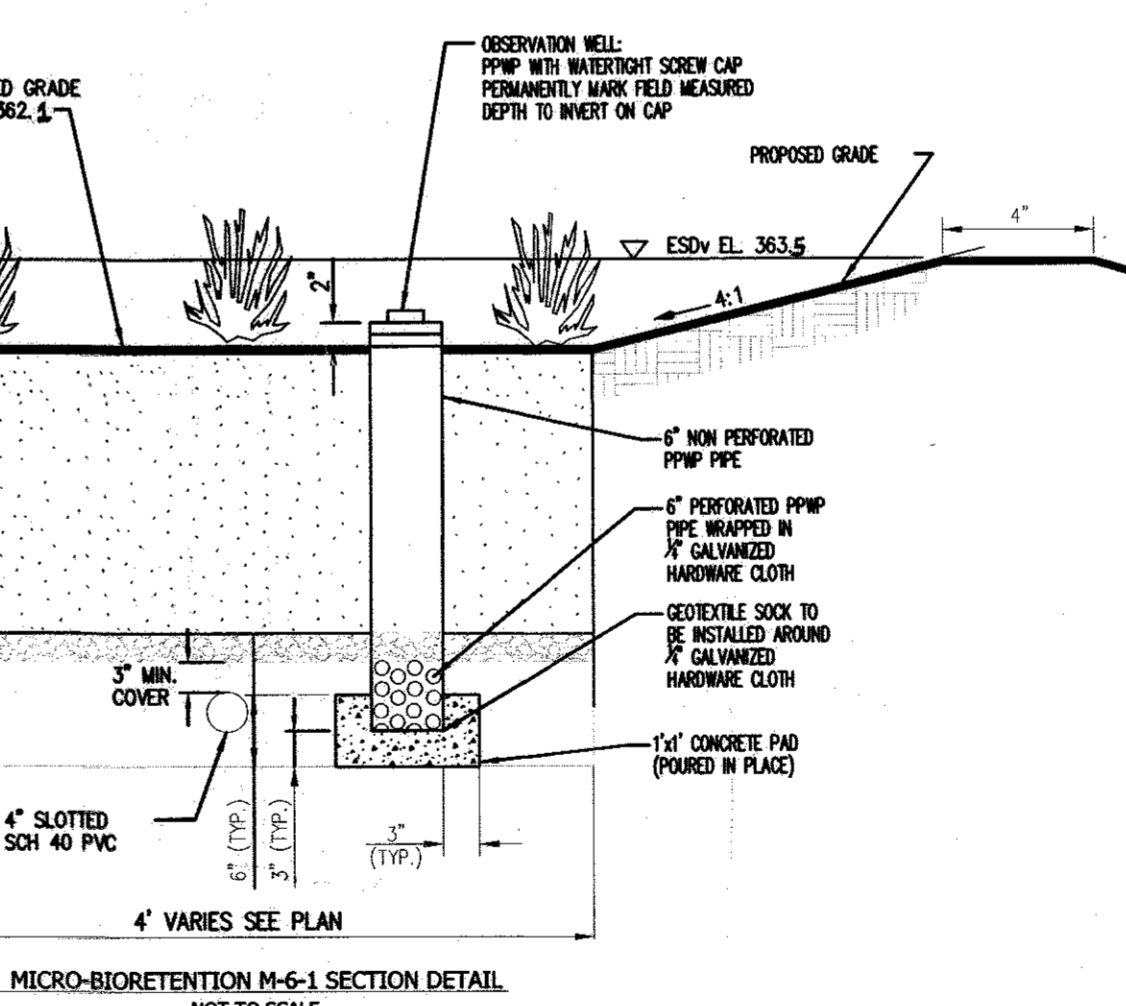
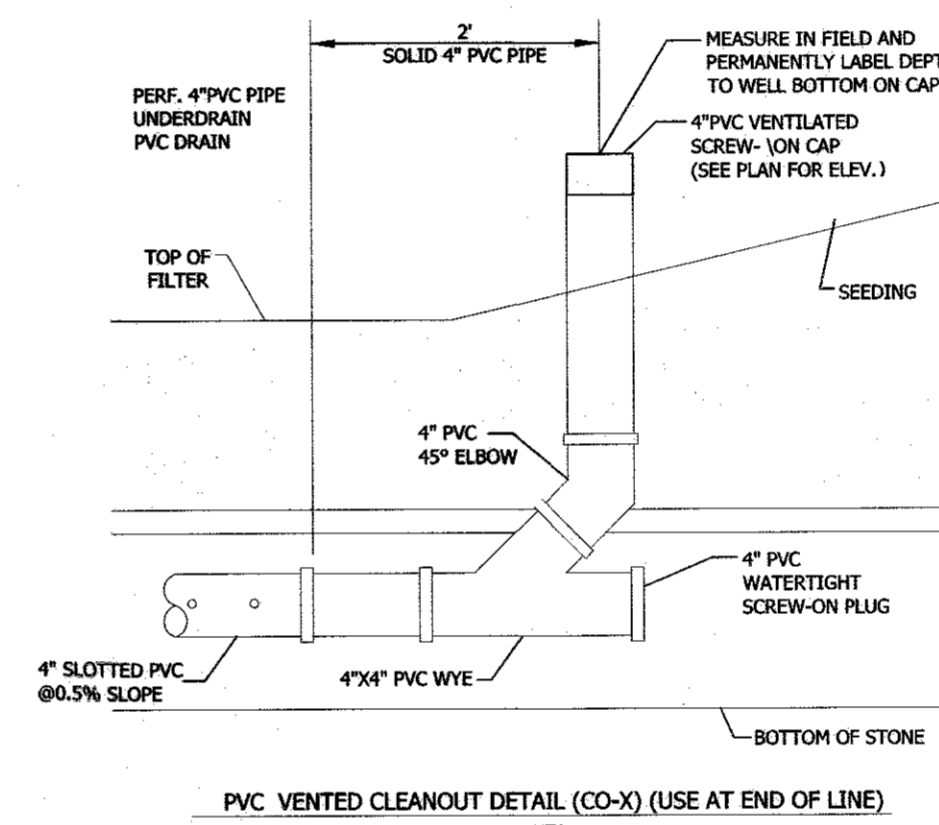
GENERAL STORMWATER MANAGEMENT NOTES

- A. COORDINATES ARE BASED ON THE MARYLAND STATE COORDINATE SYSTEM NAD 83 DATUM PROJECTED BY THE DEPARTMENT OF PUBLIC WORKS OF HOWARD COUNTY, MARYLAND.
B. ELEVATIONS ARE BASED ON NAVD 1988.
C. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD DETAILS FOR CONSTRUCTION OF STORM DRAINS, ROADS AND STORMWATER MANAGEMENT, JULY 2006 (AND ADDENDUMS).
D. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS, AND ANY DAMAGE TO THEM DUE TO THEIR NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
E. THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION BEFORE STARTING CONSTRUCTION. NEITHER THE OWNER NOR HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS WARRANT OR GUARANTEE THE COMPLETENESS OR THE CORRECTNESS OF THE INFORMATION GIVEN.
F. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO SPECIFICALLY MENTION ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THAT CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
G. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY INSPECTION DIVISION, (410) 313-1855, FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THE DRAWINGS.
H. THE CONTRACTOR SHALL NOTIFY MISS UTILITY @ 1-800-257-7777 FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
I. ALL UTILITY POLES SHALL BE BRACED AS NECESSARY AT CONTRACTOR'S EXPENSE. UTILITY POLES SHALL BE RELOCATED AT THE OWNER'S EXPENSE IN CASES WHERE THEY WILL INTERFERE WITH CONSTRUCTION.
J. PIPE ELEVATIONS REFER TO INVERTS UNLESS OTHERWISE NOTED.

CONSTRUCTION PHASE INSPECTION SCHEDULE

AT A MINIMUM, INSPECTIONS SHALL BE MADE AND DOCUMENTED AT THE FOLLOWING STAGES OF CONSTRUCTION:

- A. DURING EXCAVATION TO SUBGRADE
B. DURING EXCAVATION AND BACKFILL OF UNDERDRAIN SYSTEMS;
C. DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA;
D. DURING CONSTRUCTION OF APURTENANT CONVEYANCE SYSTEMS, SUCH AS PRE-FILTERS AND FILTERS, AND INLETS;
E. UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.



STORMWATER MANAGEMENT STRUCTURE SUMMARY SHEET table with columns for Project Name, Date, Overall Drainage Area, Practice, Structure #, Type, Location NAD Grid ESD Practices, Drainage Area/Impervious Area (Ac), ESD Storage Volume (cf), and Required ESD Volume (cf).

Table with columns: FEATURE, DESIGN, AS BUILT. Rows include OVERTOPPING ELEVATION, FILTER BED AREA (SF), FILTER BED SURFACE ELEVATION, THICKNESS OF FILTER MEDIA.

NOTE TO DESIGNER: It may be necessary to add and/or delete features as appropriate for the specific BMP.

Table with columns: FEATURE, DESIGN, AS BUILT. Rows include AREA OF SURFACE (SF), THICKNESS NO. 1 STONE (IN), THICKNESS NO. 57 STONE (IN).

NOTE TO DESIGNER: It may be necessary to add and/or delete features as appropriate for the specific BMP.

Table with columns: FEATURE, DESIGN, AS BUILT. Rows include AREA OF SURFACE (SF), THICKNESS NO. 1 STONE (IN), THICKNESS NO. 57 STONE (IN).

NOTE TO DESIGNER: It may be necessary to add and/or delete features as appropriate for the specific BMP.

Table with columns: FEATURE, DESIGN, AS BUILT. Rows include AREA OF SURFACE (SF), THICKNESS NO. 1 STONE (IN), THICKNESS NO. 57 STONE (IN).

NOTE TO DESIGNER: It may be necessary to add and/or delete features as appropriate for the specific BMP.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED PERMEABLE PAVEMENT (A-2)

- a. The Owner shall periodically sweep (or vacuum porous concrete pavement) the pavement surfaces to reduce sediment accumulation and ensure continued surface porosity. Sweeping should be performed at least twice annually with a commercial cleaning unit. Washing or compressed air units should not be used to perform surface cleaning.
b. The Owner shall periodically clean drainage pipes, inlets, stone edge drains and other structures within or draining to the subbase.
c. The Owner shall use deicers in moderation. Deicers should be non-toxic and be applied either as calcium magnesium acetate or as pre-treated salt.
d. The Owner shall ensure snow plowing is performed carefully with blades set one-inch above the surface. Plowed snow piles and snowmelt should not be directed to permeable pavement.

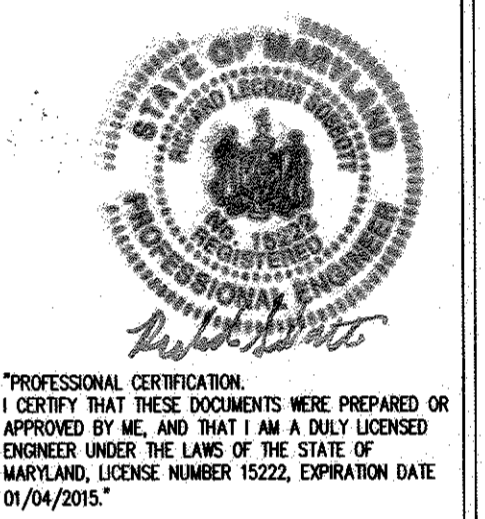
OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-8) MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SWALES (M-9), ENHANCED FILTERS (M-9)

- a. The Owner shall maintain the plant material, mulch layer and soil layer annually. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning. Acceptable replacement plant material is limited to the following: 2000 Maryland Stormwater Design Manual Volume II, Table A-4.1 and 2.
b. The Owner shall perform a plant in the spring and in the fall of each year. During the inspection, the Owner shall remove dead and diseased vegetation considered beyond treatment, replace dead plant material with acceptable replacement plant material, treat diseased trees and shrubs, and replace all deficient stakes and wires.
c. The Owner shall inspect the mulch each spring. The mulch shall be replaced every two to three years. The previous mulch layer shall be removed before the new layer is applied.
d. The Owner shall correct soil erosion on an as needed basis, with a minimum of once per month and after each heavy storm.

gba gant-brunnett ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
9450 GERWIG LANE
COLUMBIA MD, 21046
410-381-0287

CONSULTANTS:
DCI DANIEL CONSULTANTS, INC.
CONSULTING ENGINEERS AND PLANNERS
4690 ELK LANE, SUITE 225, COLUMBIA, MD 21046
Phone: 410-995-8099 Fax: 410-995-7008



PROJECT:
DORSEY HALL, SECTION 1, AREA 3
COMMUNITY POOL, CHILD DAY CARE
AND COMMUNITY HALL
4649 COLUMBIA ROAD
ELLCOTT CITY, MARYLAND 21042

Table with columns: PROJ. NO., DATE, SCALE, REVISION. Includes revision 4/26/16 and 7/26/16.

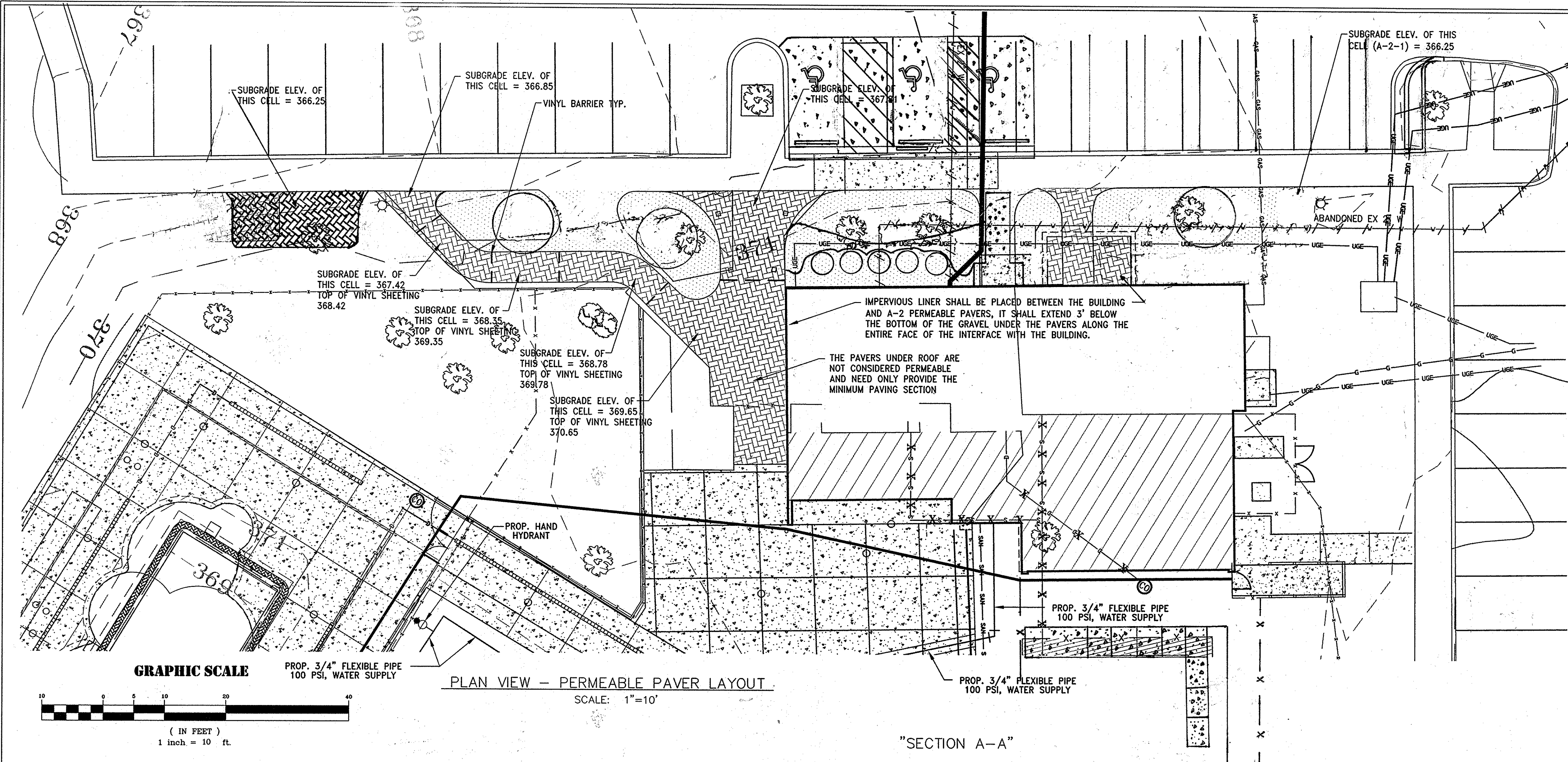
STORMWATER DETAILS I

STORMWATER DETAILS I

SCALE: NOT TO SCALE

REVISED SITE DEVELOPMENT PLAN

SDP # 90-127



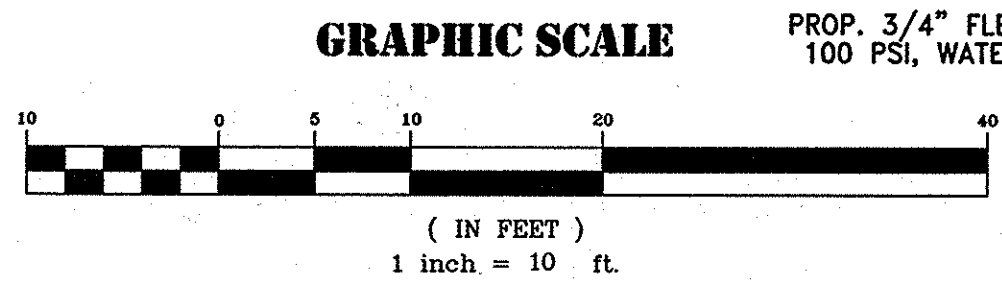
BORING LOG

Project: DORSEY SEARCH POOL Commission No.: _____
 Location: _____ Date: 2/4/14

| BORING NO. | BORING METHOD | SAMPLER TYPE | GROUND WATER DEPTH |
|--------------------|--------------------------|--------------------------|------------------------|
| B-1 | HSA - Hollow Stem Augers | DS - Driven Split Spoon | At Completion EST. Ft. |
| Page 1 of 1 | SSA - Solid Stem Augers | PT - Pressed Shelby Tube | After 24 Hrs. RET. Ft. |
| Boring Method | DC - Driving Casing | D - Denison | After Hrs. Ft. |
| Ground Surface El. | MD - Mud Drilling | P - Pitcher | Covered Depth J/A. Ft. |

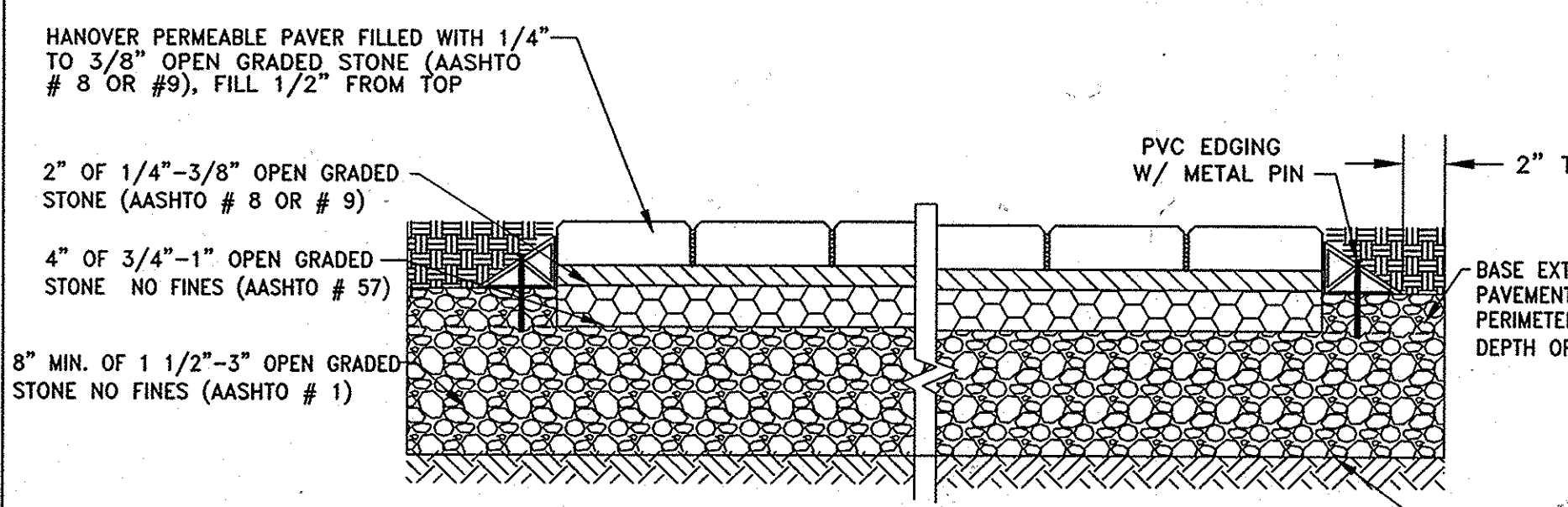
| STRATA DEPTH | STRATA DEPTH | SAMPLE NO. | BLOWS/FT | TYPE/SIZE | REC/ATT | DESCRIPTION |
|--------------|--------------|------------|----------|-----------|---------|---|
| | | | | | | COLOR, DENSITY, MOISTURE, PROPORTION, ETC.) |
| 1 | | | | | | RED BROWN SILT (M) WITH SOME COARSE SAND AND ORGANIC MATTER |
| 2 | | | | | | |
| 3 | | | | | | RED BROWN SILT (M) WITH HIGH COARSE SAND CONTENT |
| 4 | | | | | | |
| 5 | | | | | | GREY BROWN SILTY SAND (SP) COARSE SAND |
| 6 | | | | | | |
| 7 | | | | | | BOH |

Standard Penetration Test - Driving 2" O.D. Sampler with 140 LB Hammer freely falling 30".

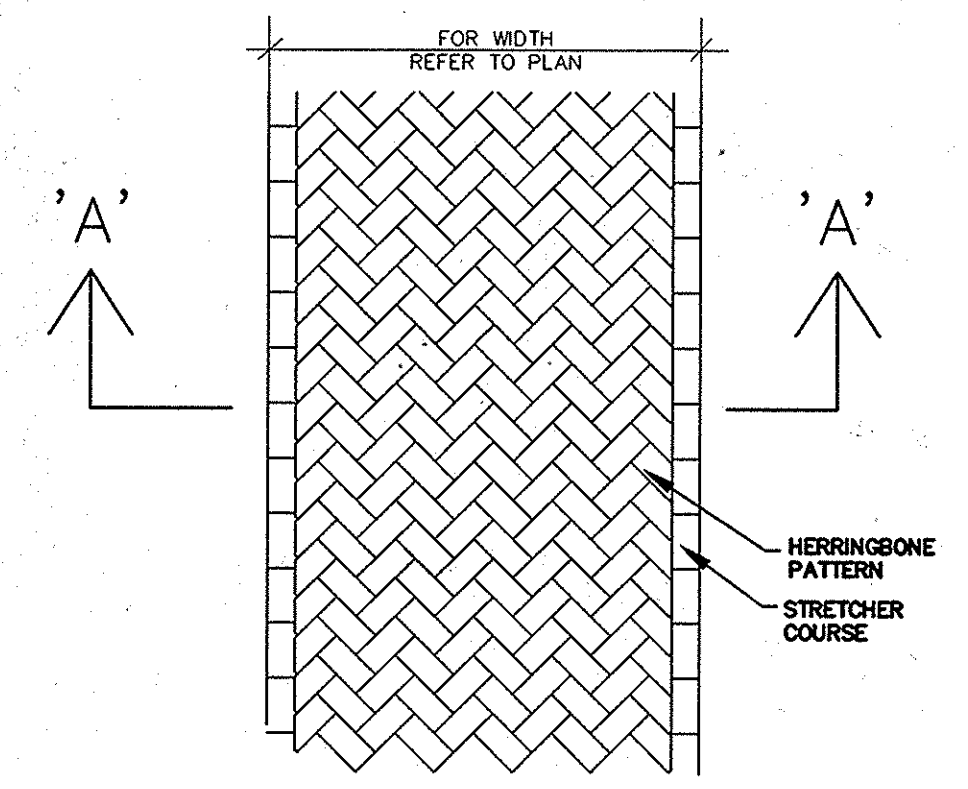


PLAN VIEW - PERMEABLE PAVER LAYOUT
SCALE: 1"=10'

"SECTION A-A"

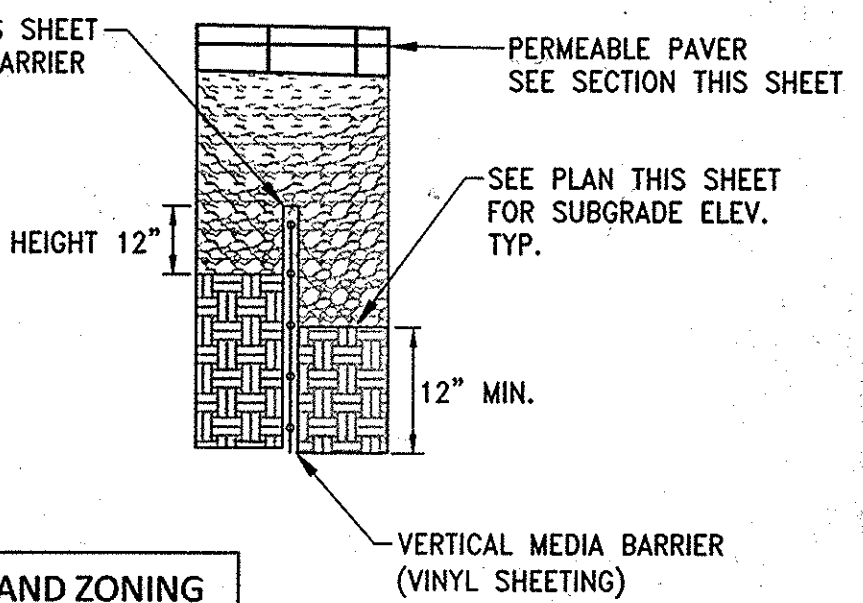


PAVER - TYPICAL SECTION
NOT TO SCALE



PAVER SIDEWALK TOP VIEW
NOT TO SCALE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM
 Howard County Health Department
 _____ Date
 Howard County, Health Officer



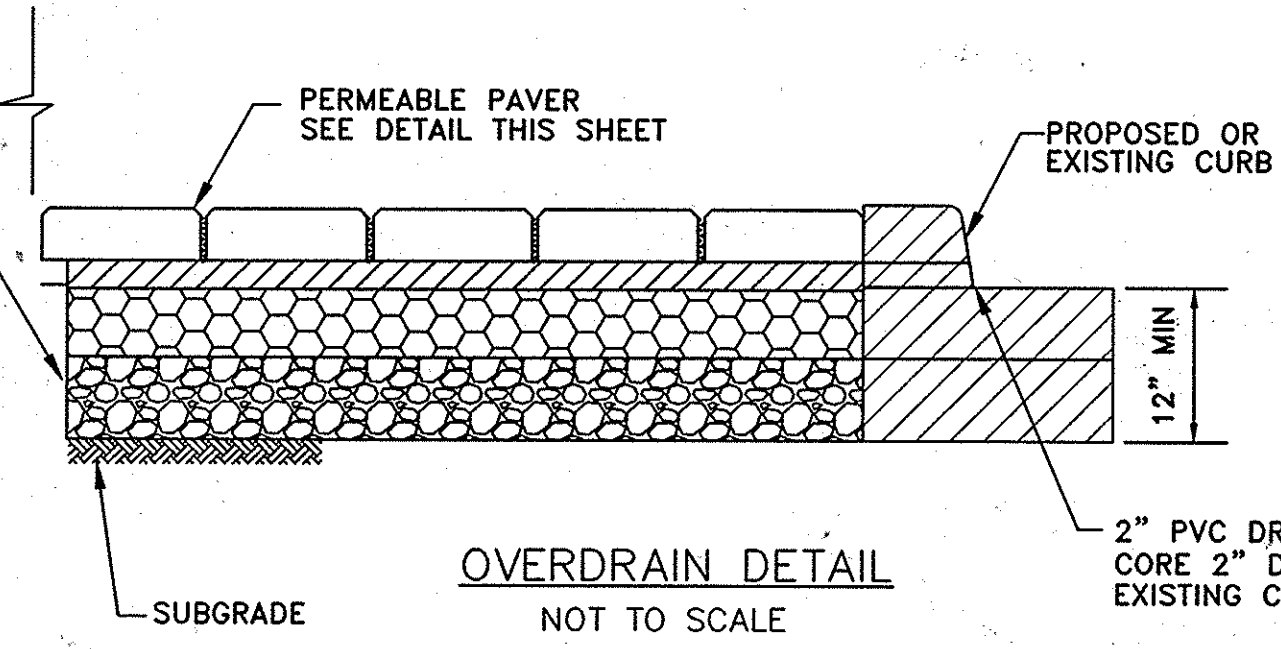
PERMEABLE PAVER SECTION WITH VERTICAL MEDIA BARRIERS
NOT TO SCALE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 _____ 7-24-15
 Chief, Development Engineering Division Date

_____ 3-09-15
 Chief, Division of Land Development Date

_____ 3/1/15
 Director Date

IMPERVIOUS LINER SHALL BE PLACED BETWEEN THE BUILDING AND A-2 PERMEABLE PAVERS, IT SHALL EXTEND 3' BELOW THE BOTTOM OF THE GRAVEL UNDER THE PAVERS ALONG THE ENTIRE FACE OF THE INTERFACE WITH THE BUILDING.



OVERDRAIN DETAIL
NOT TO SCALE

BORING LOG

Project: DORSEY SEARCH POOL Commission No.: _____
 Location: _____ Date: 6/16/14

| BORING NO. | BORING METHOD | SAMPLER TYPE | GROUND WATER DEPTH |
|--------------------|--------------------------|--------------------------|------------------------|
| B-2 | HSA - Hollow Stem Augers | DS - Driven Split Spoon | At Completion EST. Ft. |
| Page 1 of 1 | SSA - Solid Stem Augers | PT - Pressed Shelby Tube | After 24 Hrs. RET. Ft. |
| Boring Method | DC - Driving Casing | D - Denison | After Hrs. Ft. |
| Ground Surface El. | MD - Mud Drilling | P - Pitcher | Covered Depth J/A. Ft. |

| STRATA DEPTH | STRATA DEPTH | SAMPLE NO. | BLOWS/FT | TYPE/SIZE | REC/ATT | DESCRIPTION |
|--------------|--------------|------------|----------|-----------|---------|---|
| | | | | | | COLOR, DENSITY, MOISTURE, PROPORTION, ETC.) |
| 1 | | | | | | RED BROWN SILT (M) SOIL CONTAINS LOTS OF MICA |
| 2 | | | | | | |
| 3 | | | | | | REDISH TAN SILT (M) WITH SIGNIFICANT MICA CONTENT |
| 4 | | | | | | |
| 5 | | | | | | BOH |
| 6 | | | | | | |
| 7 | | | | | | |

Standard Penetration Test - Driving 2" O.D. Sampler with 140 LB Hammer freely falling 30".

BORING LOG

Project: DORSEY SEARCH POOL Commission No.: _____
 Location: _____ Date: 6/16/14

| BORING NO. | BORING METHOD | SAMPLER TYPE | GROUND WATER DEPTH |
|--------------------|--------------------------|--------------------------|------------------------|
| B-3 | HSA - Hollow Stem Augers | DS - Driven Split Spoon | At Completion EST. Ft. |
| Page 1 of 1 | SSA - Solid Stem Augers | PT - Pressed Shelby Tube | After 24 Hrs. RET. Ft. |
| Boring Method | DC - Driving Casing | D - Denison | After Hrs. Ft. |
| Ground Surface El. | MD - Mud Drilling | P - Pitcher | Covered Depth J/A. Ft. |

| STRATA DEPTH | STRATA DEPTH | SAMPLE NO. | BLOWS/FT | TYPE/SIZE | REC/ATT | DESCRIPTION |
|--------------|--------------|------------|----------|-----------|---------|--|
| | | | | | | COLOR, DENSITY, MOISTURE, PROPORTION, ETC.) |
| 1 | | | | | | RED BROWN SILT (M) SOIL CONTAINS SOME OF MICA |
| 2 | | | | | | |
| 3 | | | | | | REDISH TAN SILT (M) WITH SIGNIFICANT MICA CONTENT AND SOME COARSE SAND |
| 4 | | | | | | |
| 5 | | | | | | BOH |
| 6 | | | | | | |
| 7 | | | | | | |

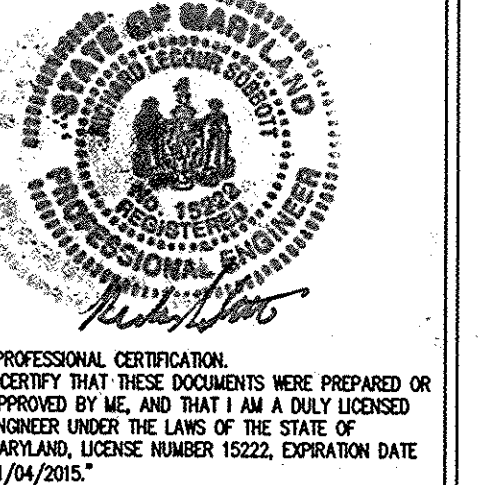
Standard Penetration Test - Driving 2" O.D. Sampler with 140 LB Hammer freely falling 30".

gba
 gant-brunnett
 ARCHITECTS
 15 West Mulberry Street
 Baltimore, Maryland 21201-4406
 Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
 9450 GERWIG LANE
 COLUMBIA MD, 21046
 410-381-0287

(C) GANT BRUNETT ARCHITECTS
 ALL REPRODUCTION IS PROHIBITED

CONSULTANTS:
DCI
 DANIEL CONSULTANTS INC.
 CONSULTING ENGINEERS AND PLANNERS
 8949 RL 108 St., Suite 225, Columbia, MD 21045
 Phone: 410-999-0096 Fax: 410-999-7028



PROJECT:
DORSEY HALL, SECTION 1, AREA 3
COMMUNITY POOL, CHILD DAY CARE
AND COMMUNITY HALL
4649 COLUMBIA ROAD
ELLICOTT CITY, MARYLAND 21042

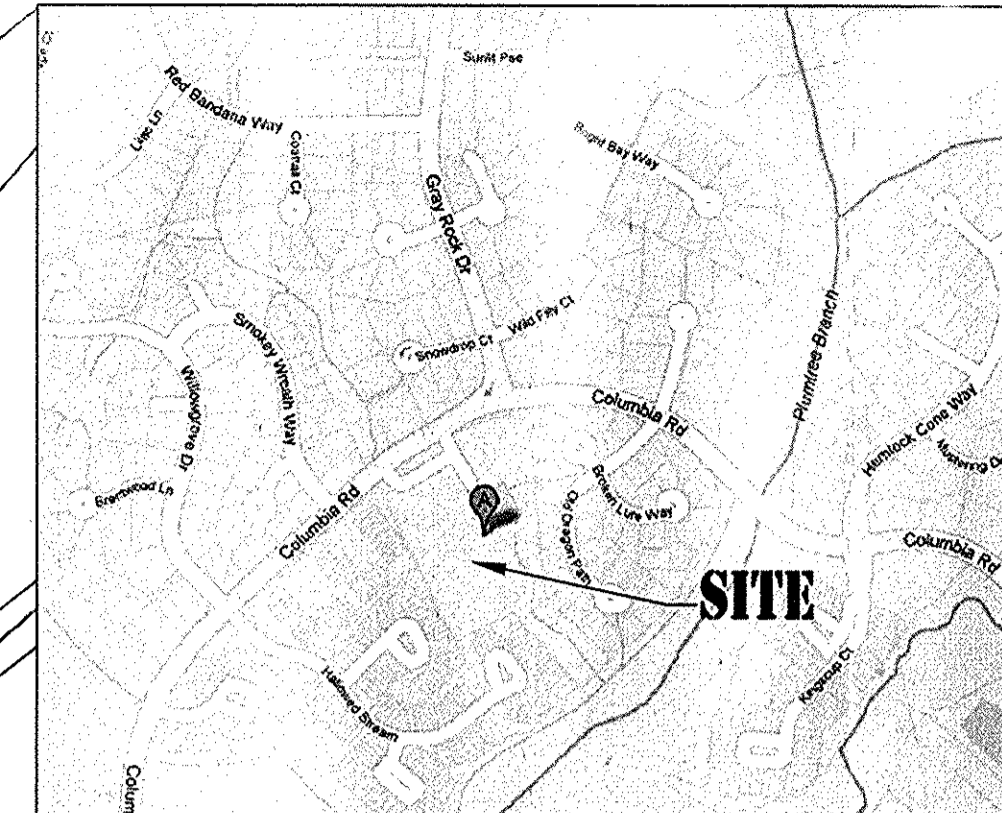
PROJ. NO: 20423
 DATE: 08/08/2014
 SCALE: AS SHOWN
 REVISION:
 4/26/16 RED LINE

STORMWATER DETAILS II

15 OF 18

| E&S LEGEND | |
|------------|----------------------------------|
| | DRAINAGE AREA TO E&S MEASURE |
| | LIMIT OF DISTURBANCE |
| | SILT FENCE |
| | SUPER SILT FENCE |
| | STABILIZED CONSTRUCTION ENTRANCE |
| | AT GRADE INLET PROTECTION |
| | STANDARD INLET PROTECTION |
| | TEMPORARY ASPHALT BERM |

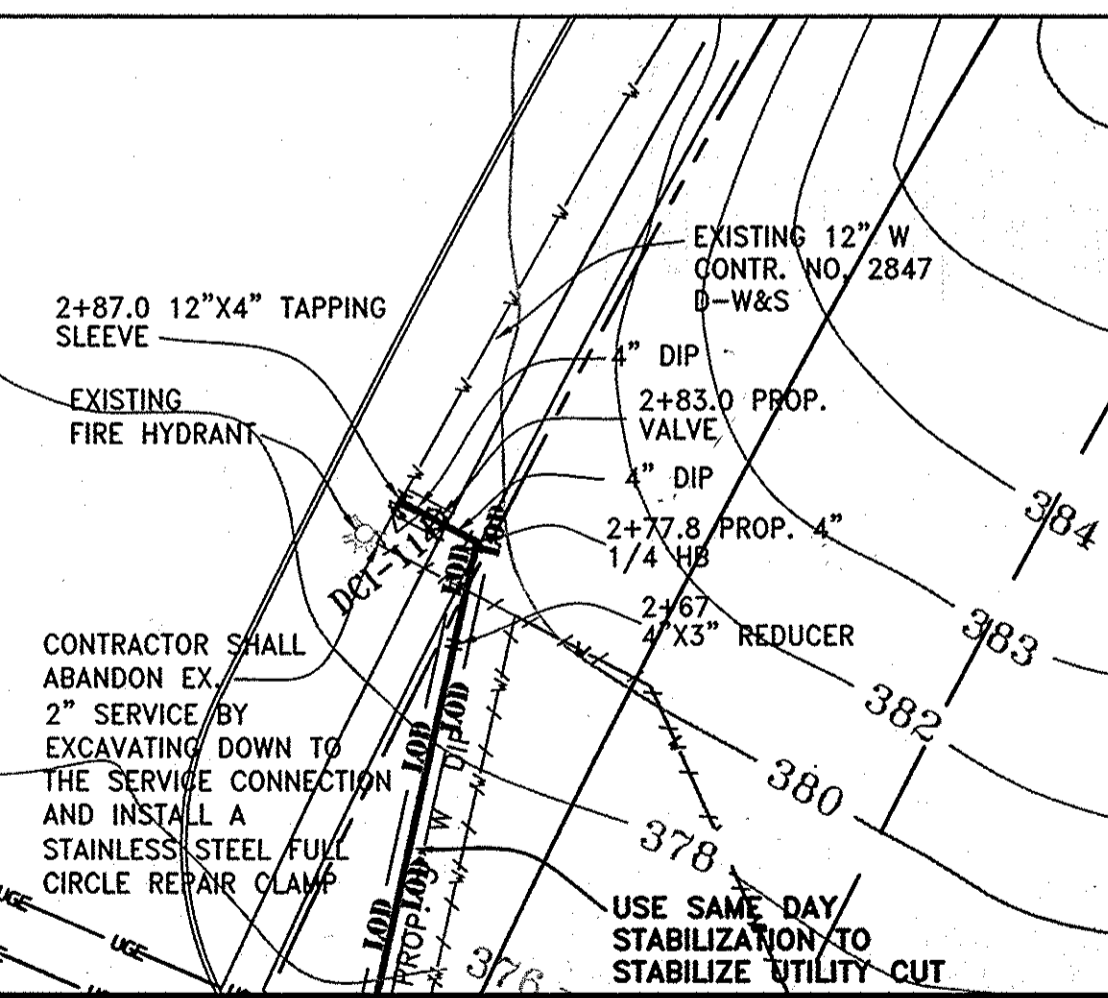
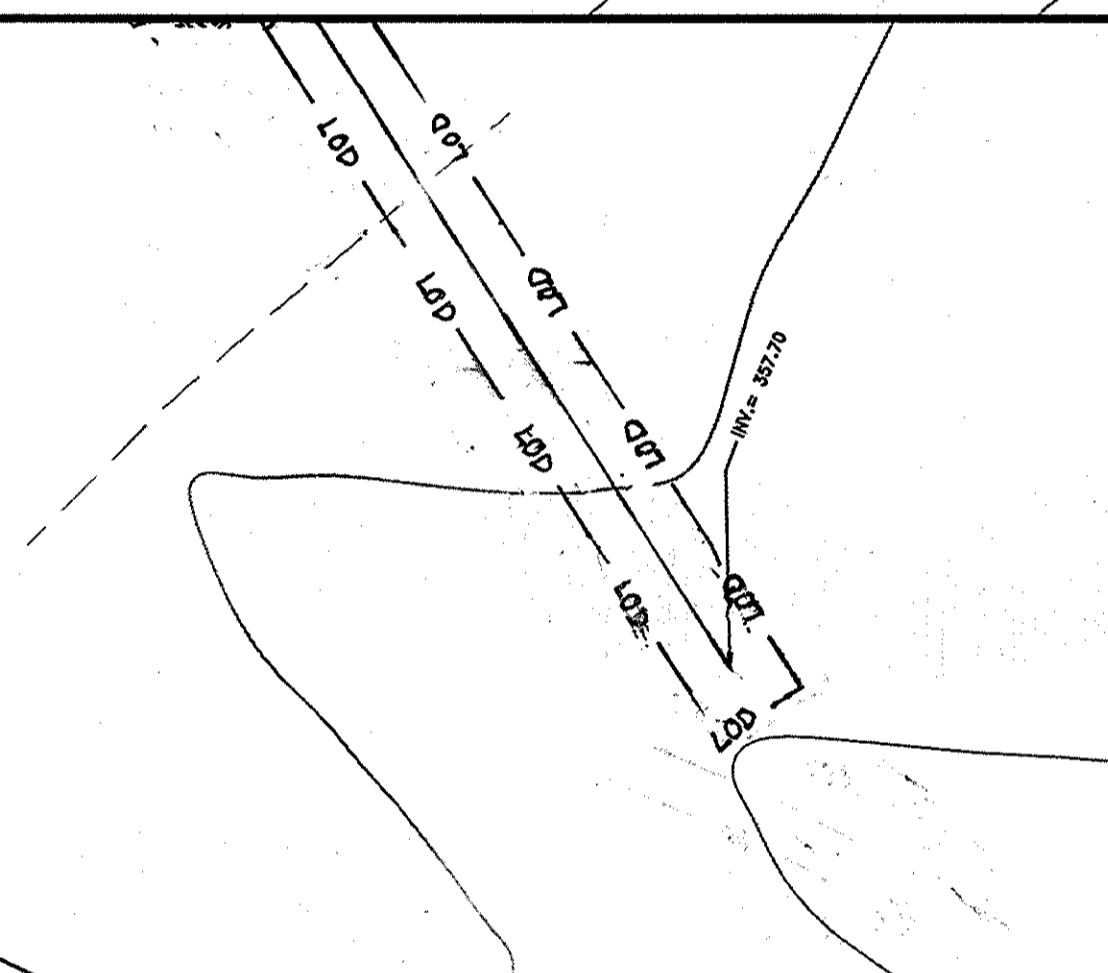
MATCH LINE 'A'



VICINITY MAP

COLUMBIA ROAD
(MAJOR COLLECTOR)
80' ROW

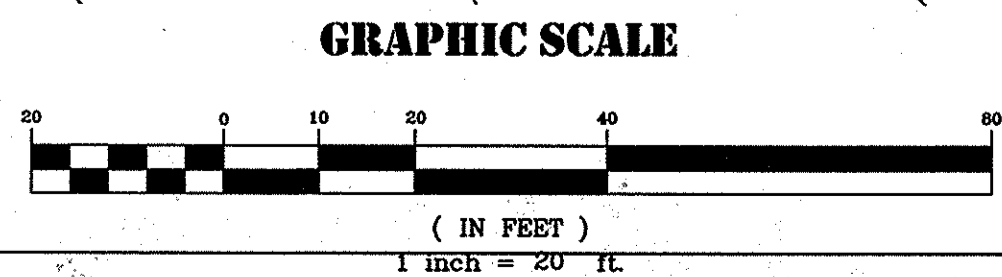
MATCH LINE 'B'



MATCH LINE 'A'

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief Clerk 2-24-15
 Chief, Development Engineering Division Date
Chief Clerk 3-09-15
 Chief, Division of Land Development Date
Director 2/2/15
 Director Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM
 Howard County Health Department
 Howard County, Health Officer Date



EROSION AND SEDIMENT CONTROL PLAN SCALE: 1" = 20'

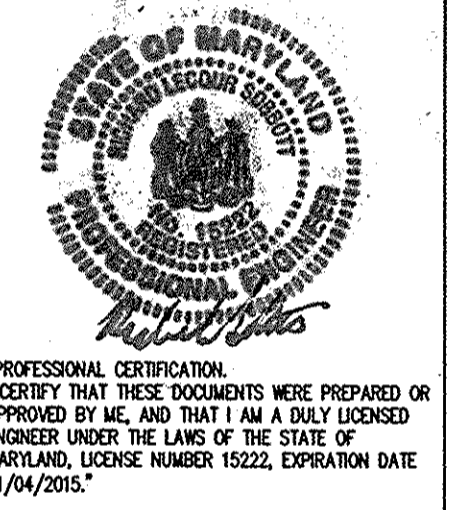
MATCH LINE 'B' REVISED SITE DEVELOPMENT PLAN SDP # 90-127

gba
 gant-brunnett
 ARCHITECTS
 15 West Mulberry Street
 Baltimore, Maryland 21201-4406
 Telephone Number: 410-234-8444

COLUMBIA ASSOCIATION
 9450 GERWIG LANE
 COLUMBIA MD, 21046
 410-381-0287

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 CONSULTING ENGINEERS AND PLANNERS
 8950 Rt. 108 E., Suite 229, Columbia, MD 21046
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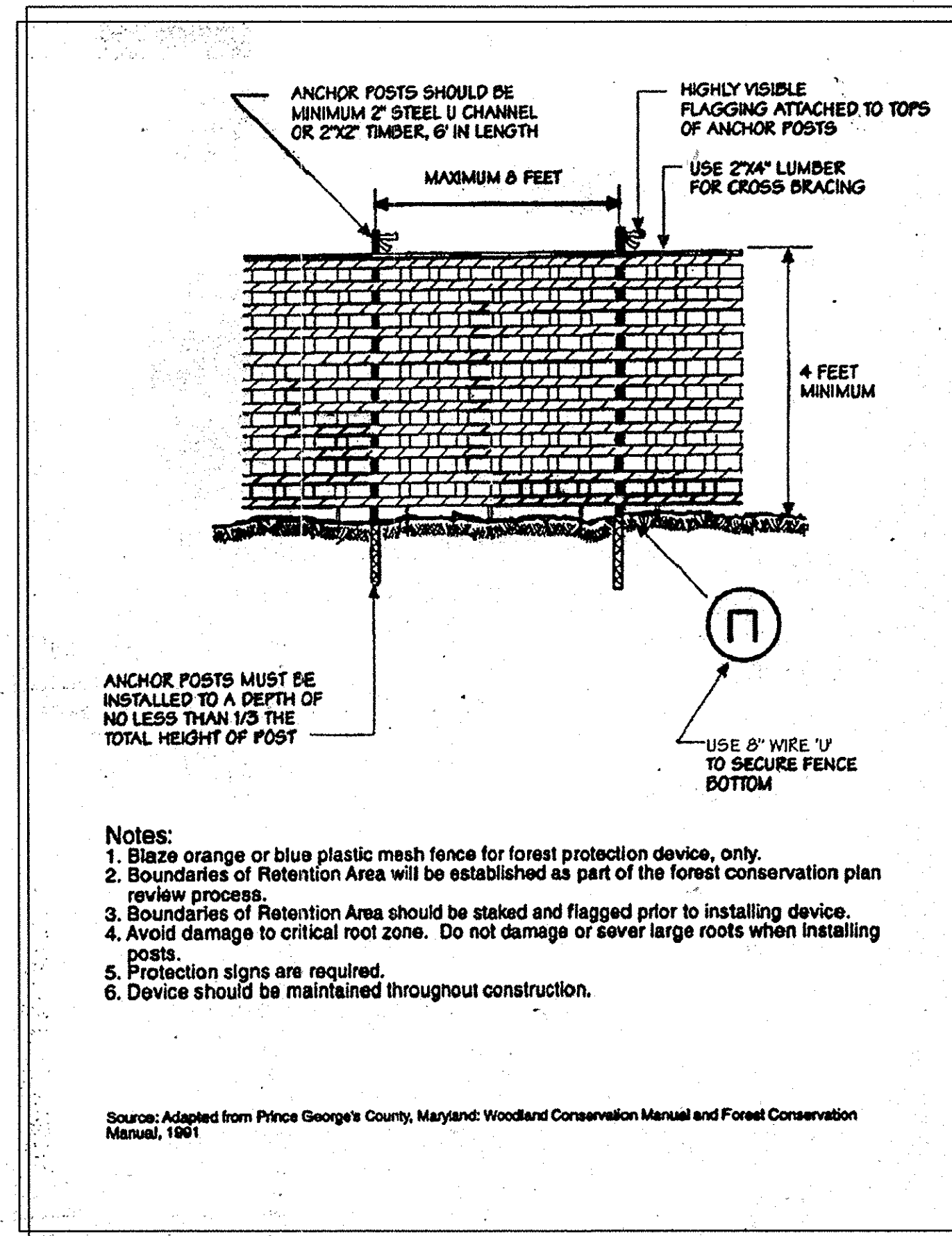
PROFESSIONAL CERTIFICATION
 I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR
 APPROVED BY ME, AND THAT I AM A DULY LICENSED
 ENGINEER UNDER THE LAWS OF THE STATE OF
 MARYLAND, LICENSE NUMBER 15222, EXPIRATION DATE
 01/04/2015.

PROJECT:
 DORSY HALL, SECTION 1, AREA 3
 COMMUNITY POOL, CHILD DAY CARE
 AND COMMUNITY HALL
 4649 COLUMBIA ROAD
 ELlicOTT CITY, MARYLAND 21042

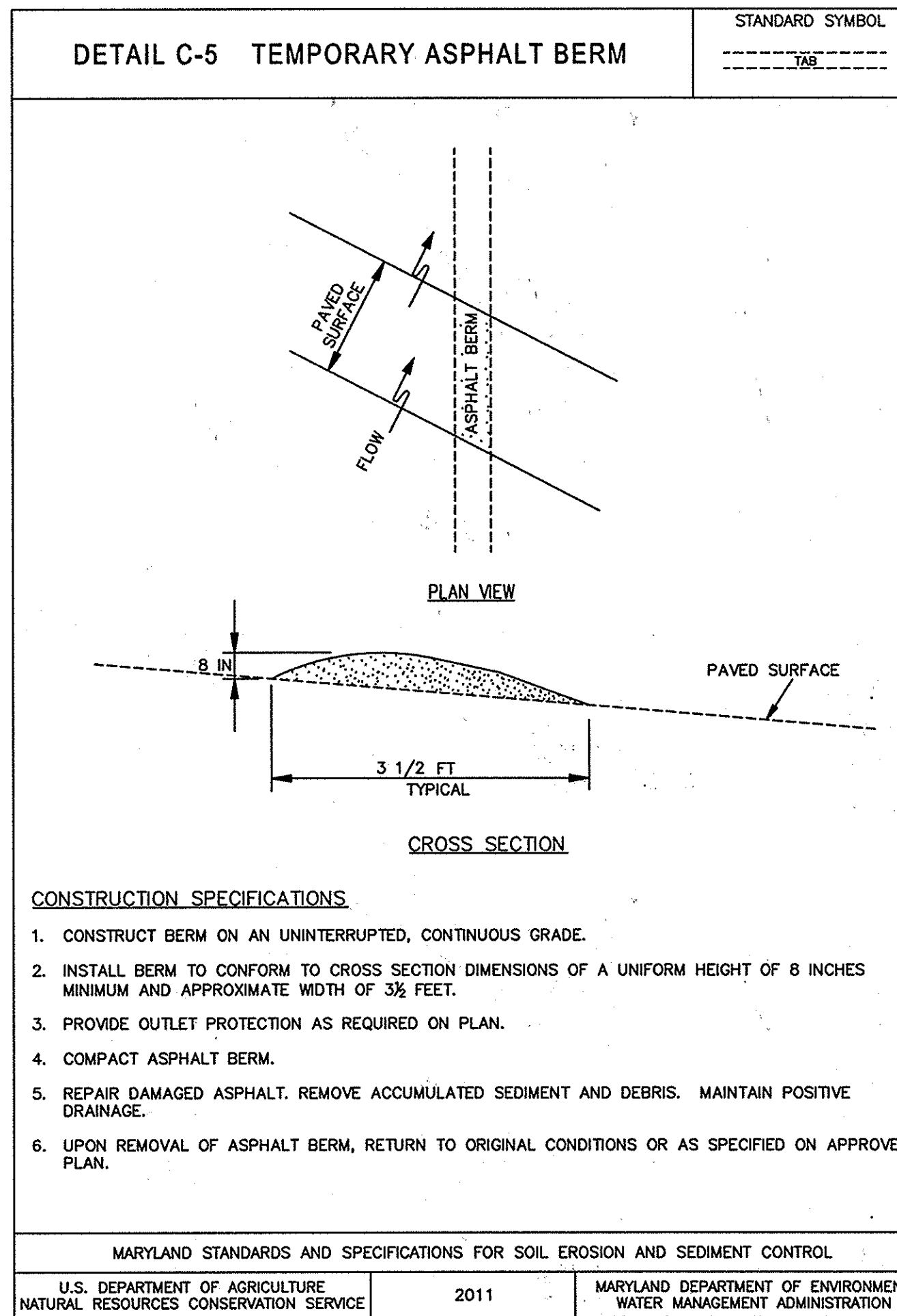
| | |
|-----------|------------|
| PROJ. NO: | 20423 |
| DATE: | 08/08/2014 |
| SCALE: | AS SHOWN |
| REVISION: | |
| 4126136 | RED LINE |

EROSION AND SEDIMENT CONTROL PLAN

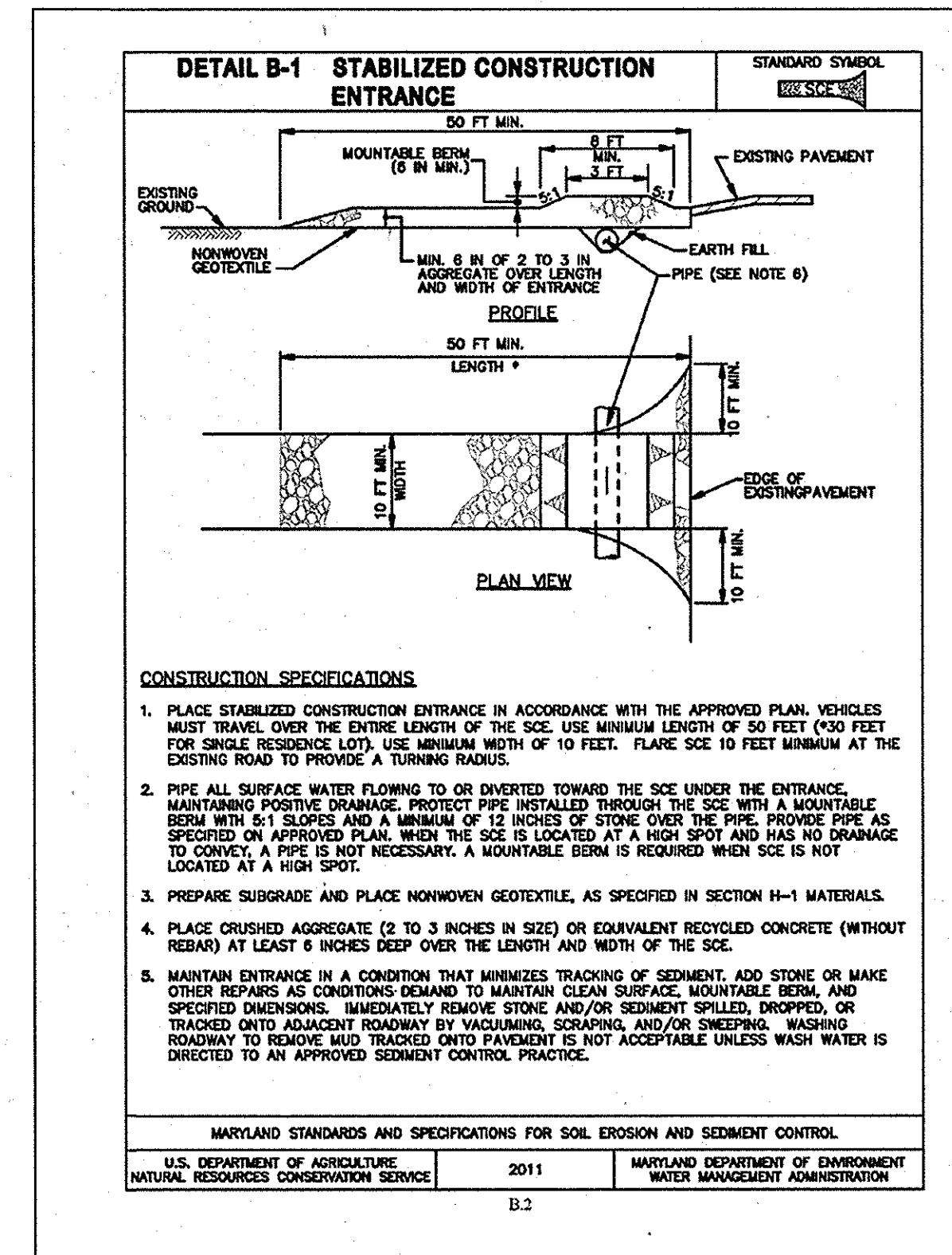
FILE NAME: H:\PROJECTS\Civil\2-218-01 Dorsey Search\Print Files\Without Cloud 9-30-2014\DorseyHall_Site.dwg PLOTTED: Tuesday, September 30, 2014 - 5:34pm



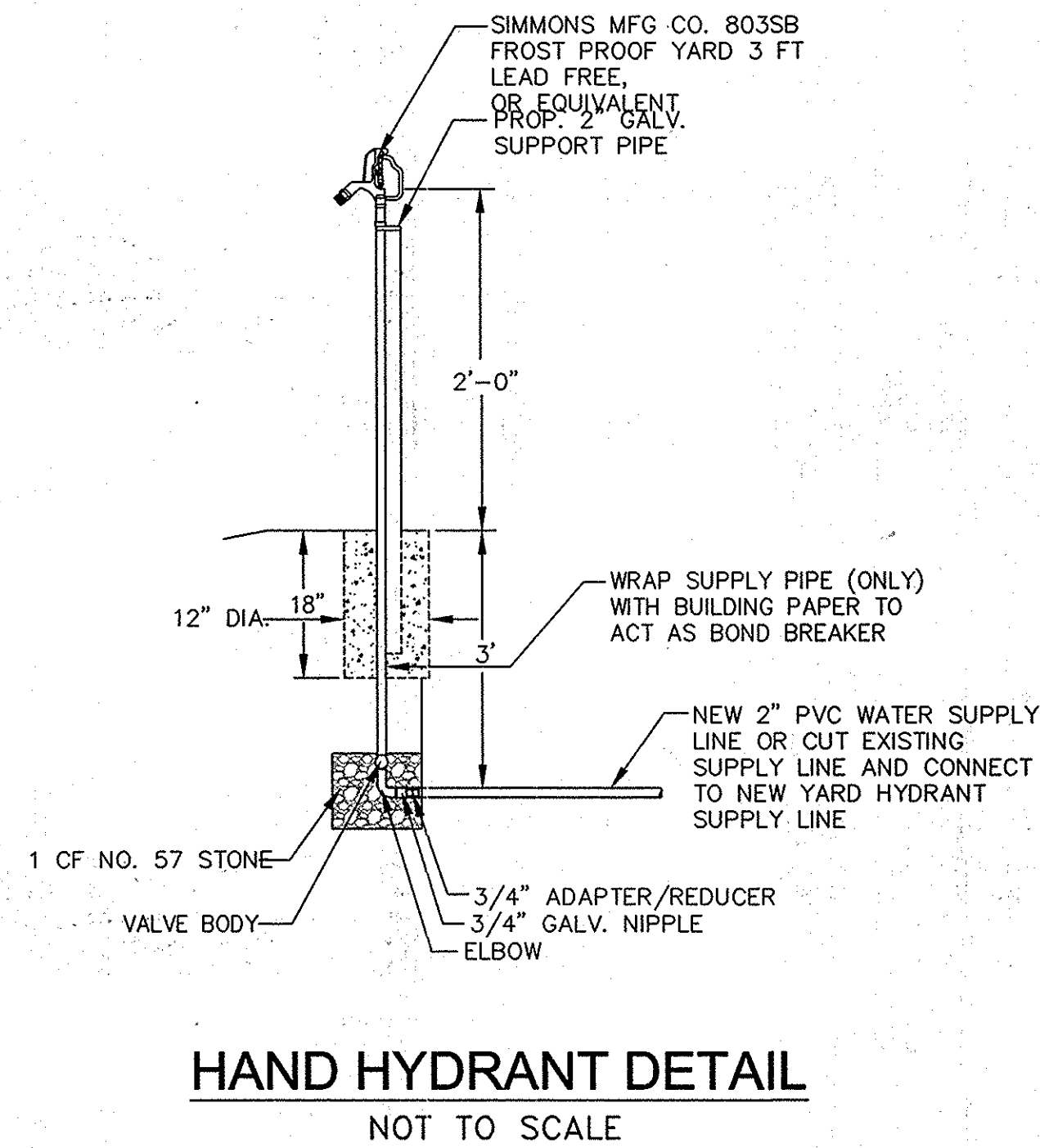
TREE PROTECTION DETAIL
(NOT TO SCALE)



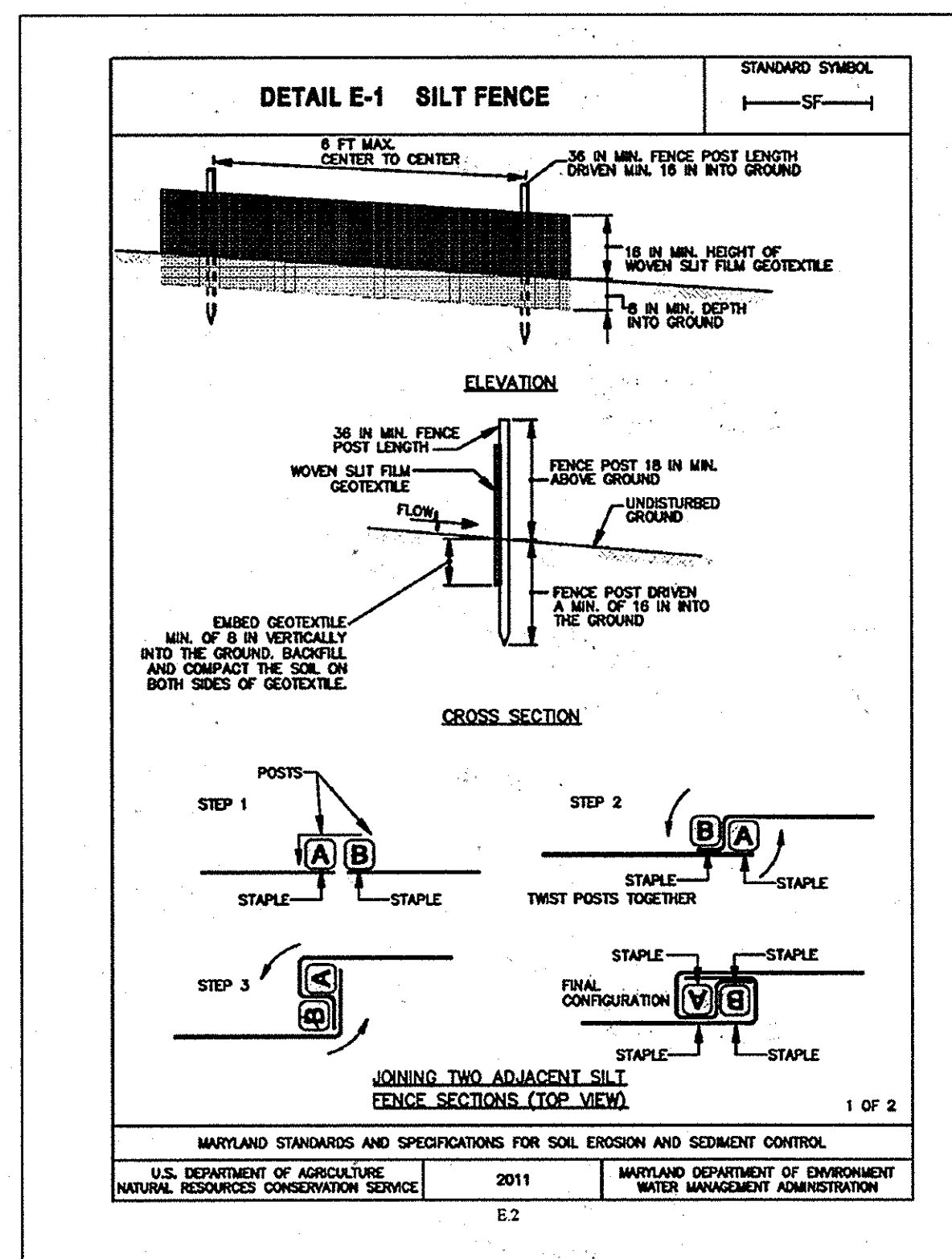
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



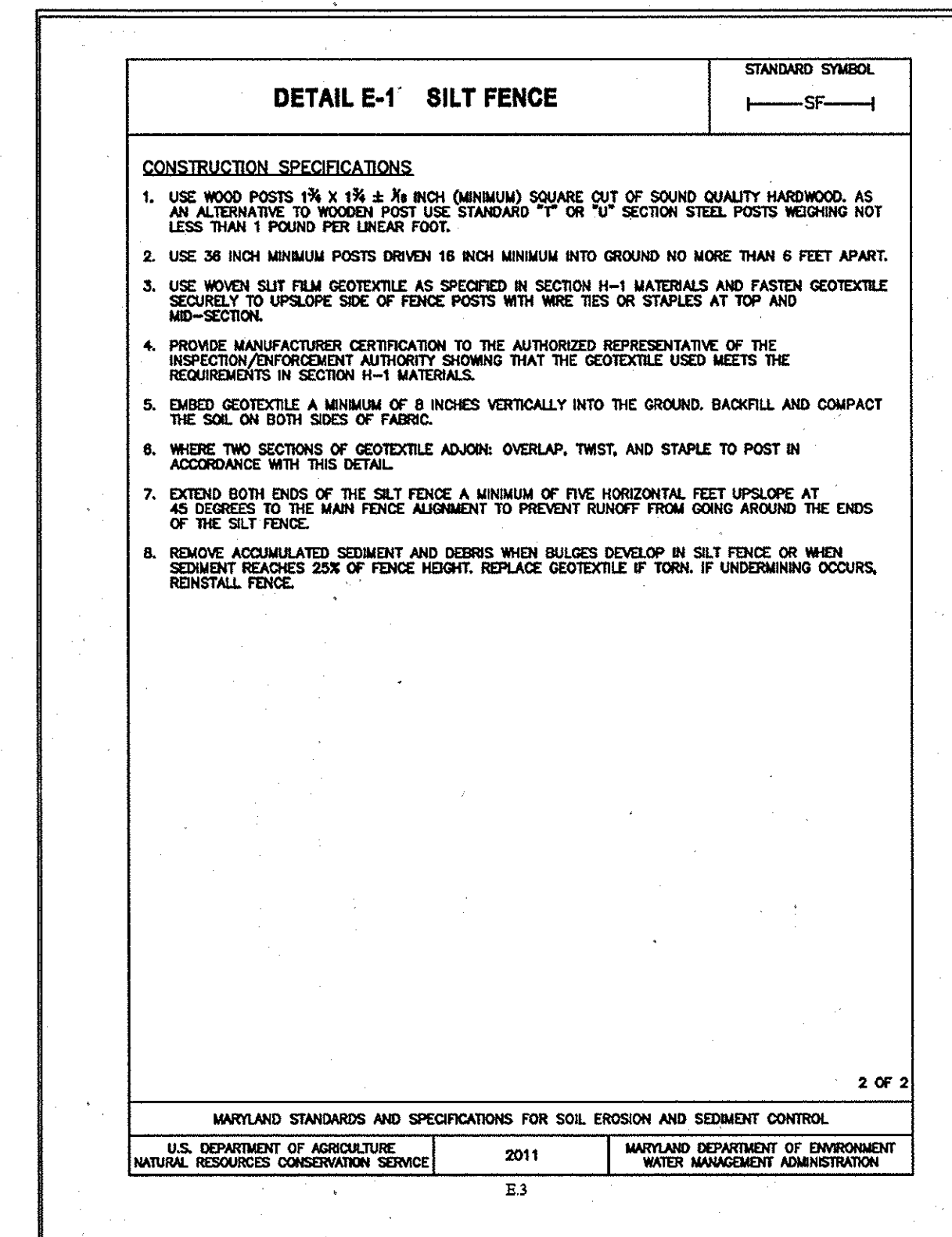
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



HAND HYDRANT DETAIL
NOT TO SCALE



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWER SYSTEM
Howard County Health Department
Howard County, Health Officer Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chad E. ... 2-24-15
Chief, Development Engineering Division Date
Kat ... 3-29-15
Chief, Division of Land Development Date
... 2/1/15
Director Date

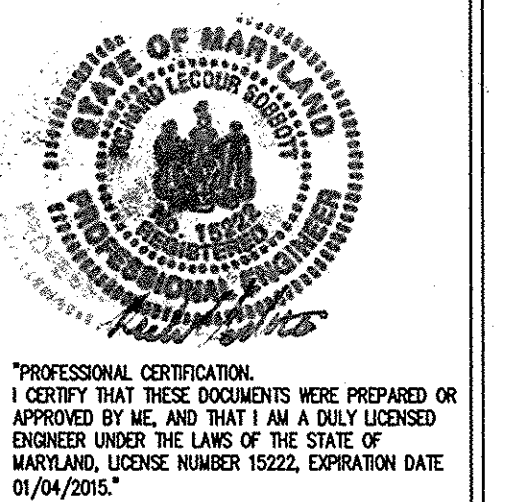
EROSION AND SEDIMENT CONTROL DETAILS

REVISED SITE DEVELOPMENT PLAN SDP # 90-127

gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

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PROJECT:
DORSEY HALL, SECTION 1, AREA 3
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4649 COLUMBIA ROAD
ELLICOTT CITY, MARYLAND 21042

PROJ. NO: 20423
DATE: 08/08/2014
SCALE: AS SHOWN
REVISION:

EROSION AND SEDIMENT CONTROL DETAILS

