

FINAL ROAD CONSTRUCTION PLAN

THE WOODS OF PARK PLACE

LOTS 1-15 AND OPEN SPACE LOTS 16-17

A RESUBDIVISION OF THE F.A.A.D. PROPERTY

LOTS 1-4

HOWARD COUNTY, MARYLAND

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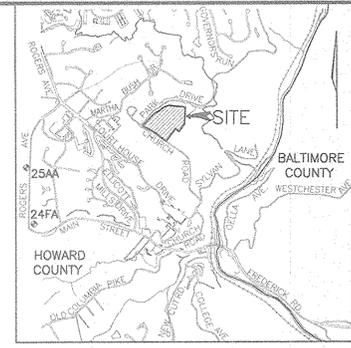
SITE ANALYSIS

LOCATION: TAX MAP 25, GRIDS 1 & 2, PARCEL 3
 2ND ELECTION DISTRICT
 EXISTING ZONING: R-ED
 COUNTY REFERENCE: PB-276, PB-344, S-00-10, P-02-02, F-92-132, WP-02-57
 GROSS AREA OF TRACT: 15.21 AC.
 AREA OF FLOODPLAIN: 5960 SQ.FT.(0.14 AC.)
 AREA OF FLOODPLAIN OUTSIDE OF STEEP SLOPES: 0.03 AC. (1158 SF)
 AREA OF STEEP SLOPES: 7.35 AC.(320135 SF)
 NET AREA OF TRACT: 7.83 AC.
 AREA OF PROPOSED BUILDABLE LOTS: 5.89 AC.
 AREA OF PROPOSED OPEN SPACE LOTS 16 & 17: 8.97 AC
 AREA OF PROPOSED RIGHT-OF-WAY: 0.35 AC.
 AREA OF OPEN SPACE REQUIRED: 25% OR 3.80 AC.
 AREA OF OPEN SPACE PROVIDED: 8.97 AC (59%)
 NUMBER OF BUILDABLE LOTS PROPOSED: 15 LOTS
 NUMBER OF OPEN SPACE LOTS: 2 LOTS
 AREA OF WETLANDS: 14150 SF
 TOTAL AREA OF DISTURBANCE: 5.96 ACRES

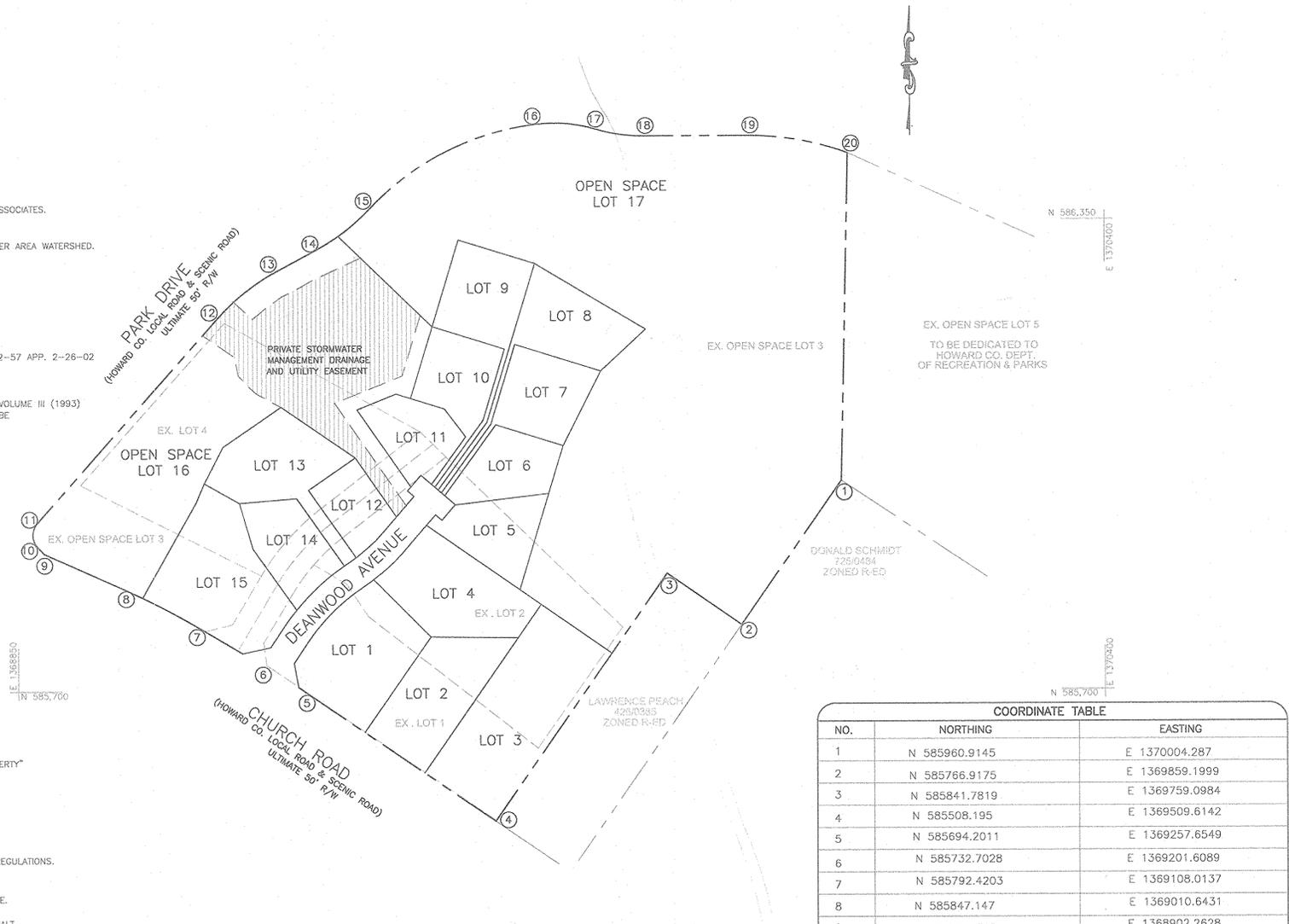
GENERAL NOTES

- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- DEED REFERENCE: 1313/336
- DENSITY:
NUMBER OF ENTITIES PERMITTED BY RIGHT: 7.83 x 2 = 15 LOTS
NUMBER OF BUILDABLE ENTITIES PROPOSED: 15 LOTS
- THE BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT OCTOBER, 1999 BY VOGEL AND ASSOCIATES.
- THE TOPOGRAPHY AND UTILITIES SHOWN HEREON IS BASED ON AERIAL PHOTOGRAMMETRIC BY POTOMAC AERIAL SURVEYS, INC. WITH FIELD VERIFIED SPOT ELEVATIONS PROVIDED BY VOGEL AND ASSOCIATES, DATED OCTOBER 1999.
- WATER AND SEWER FOR THIS PROJECT WILL BE PUBLIC. WATER CONTRACT NO. 640-W. SEWER CONTRACT NO. 10-1305. PATAPSCO RIVER AREA WATERSHED.
- STORM WATER MANAGEMENT (2 YR AND 10 YR) TO BE PROVIDED FOR THE DEVELOPMENT. WATER QUALITY TO BE PROVIDED BY EXTENDED DETENTION. THE FACILITY WILL BE LOCATED ON LOT 16. THE FACILITY WILL BE PRIVATELY OWNED AND MAINTAINED BY THE HOA.
- WETLANDS AND STREAMS SHOWN ON SITE ARE BASED ON A FIELD INVESTIGATION PERFORMED BY WILDHAWK ENVIRONMENTAL SERVICES AND AERIAL PHOTOGRAMMETRIC, DATED FEBRUARY 2000.
- FLOODPLAIN SHOWN ON SITE IS BASED ON PLAT NO. 10817.
- FOREST CONSERVATION PLAN PREPARED BY FREDERICK WARD AND ASSOCIATES, DATED JULY 2001.
- APFO TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP DATED FEBRUARY 14, 2000 AND APPROVED JANUARY 24, 2001.
- PLANNING AND ZONING FILE NUMBERS: S-00-10, P-02-02, F-92-132, PB CASE #276 APP. 2-18-92, PB-344 APP. 1-24-01, WP-02-57 APP. 2-26-02
- ALL LANDSCAPING REQUIREMENTS AS SET FORTH IN THE LANDSCAPE MANUAL SHALL BE COMPLIED WITH. LANDSCAPE SCREENING DEPICTED ON SHEET 2 OF S-00-10 IS REQUIRED PER PB-344 (1-24-01) AND IS SHOWN ON THE PRELIMINARY PLAN AND FINAL PLAN.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
- SEDIMENT AND EROSION CONTROL WILL BE PROVIDED FOR THIS SITE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL/CEMETARY LOCATIONS ON SITE.
- PER P.B.344, THE LIMITS FOR THE AREA OF DISTURBANCE FOR THE PROPOSED STORM WATER MANAGEMENT FACILITY ARE NO GREATER THAN AS ILLUSTRATED ON THE APPROVED SKETCH PLAN. (IN RESPONSE TO DPZ REQUEST FOR INFORMATION, THE CURRENT PROPOSED DISTURBANCE FOR THE SWM POND IS 0.59 ACRE)
- THE PROPOSED ROUTE FOR THE SEWER LINE CONNECTION AND THE LOCATION FOR THE STORMWATER MANAGEMENT FACILITY HAVE BEEN DETERMINED AS A NECESSARY DISTURBANCE OF THE 25% OR GREATER STEEP SLOPES BY DPZ IN ACCORDANCE WITH SECTION 16.116 (c) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION WILL BE FULFILLED BY THE RETENTION OF EXISTING FOREST IN THE AMOUNT OF 5.32 AC. TOTAL OBLIGATION IS 5.32 AC.
- STREET TREES ARE REQUIRED FOR THIS SUBDIVISION IN ACCORDANCE WITH SECTION 16.124(a)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL.
- LOTS 2 AND 3 WILL UTILIZE A USE-IN-COMMON DRIVEWAY. HOWARD COUNTY STANDARD DETAIL NO. R-6.08 WILL BE UTILIZED FOR THE ENTRANCE AT THE INTERSECTION OF THE PUBLIC ROAD.
- TREE PROTECTION FENCING WILL BE PROVIDED AT THE LIMITS OF DISTURBANCE WHERE GRADING IS ADJACENT TO ENVIRONMENTAL AREAS.
- OPEN SPACE LOT 16 TO BE PRIVATELY OWNED AND MAINTAINED BY THE HOA.
- OPEN SPACE LOT 17 IS TO BE OWNED AND MAINTAINED BY HOWARD COUNTY DEPT. OF RECREATION AND PARKS.
- THIS DEVELOPMENT IS SUBJECT TO SECTION R310 OF THE INTERNATIONAL RESIDENTIAL CODE (IRC) 2000 EDITION WHICH REQUIRES EMERGENCY ESCAPE EXTERIOR WINDOWS OR DOORS FROM ALL BASEMENTS WITH HABITABLE SPACE.
- A NOISE STUDY IS NOT REQUIRED FOR THIS SITE.
- CHURCH ROAD AND PARK DRIVE ARE SCENIC ROADS.
- ALL SDP'S FOR LOTS 1-15 WILL REQUIRE PLANNING BOARD APPROVAL PER PB CASE NO. 344 DECISION AND ORDER DATED 1/24/01.
- EXISTING VEHICULAR INGRESS AND EGRESS RESTRICTIONS ALONG CHURCH ROAD AND PARK DRIVE AS RECORDED ON THE "F.A.A.D. PROPERTY" SUBDIVISION PLAT WILL BE ABANDONED WITH THE RECORDING OF THE SUBDIVISION PLAT FOR THE "WOODS OF PARK PLACE".
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, STREAMS OR THEIR BUFFERS AND THE FOREST CONSERVATION EASEMENTS.
- A WAIVER HAS BEEN SUBMITTED AND APPROVED ON FEBRUARY 7, 2002 TO WAIVE SECTION 2.3.2.B OF THE DESIGN MANUAL, VOLUME III, TO ALLOW A TEE-TURNAROUND ON A PERMANENT NON-THROUGH STREET.
- A WAIVER HAS BEEN SUBMITTED AND APPROVED ON FEBRUARY 26, 2002 (WP-02-57) TO WAIVE SECTION 16.134.(b)(1)(i) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO ALLOW A PUBLIC ROAD WITHOUT A SIDEWALK.
- THIS PLAN AND PROJECT IS GRANDFATHERED TO THE FOURTH EDITION OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPE STEM AND THE ROAD RIGHT-OF-WAY LINE ONLY AND NOT ONTO THE FLAG OR PIPE STEM LOT DRIVEWAY.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 24-FA AND 25AA WERE USED FOR THIS PROJECT.

BENCHMARKS
 BENCHMARK NO. 1: COUNTY CONTROL #24FA
 N. 583,751.410, E. 1,366,091.943
 ELEV. = 263.701'
 BENCHMARK NO. 2: COUNTY CONTROL #25AA
 N. 585,307.185, E. 1,366,071.024
 ELEV. = 308.447'



VICINITY MAP
 SCALE: 1" = 2000'



LOCATION PLAN
 SCALE: 1"=100'

| COORDINATE TABLE | | |
|------------------|---------------|----------------|
| NO. | NORTHING | EASTING |
| 1 | N 585960.9145 | E 1370004.287 |
| 2 | N 585766.9175 | E 1369859.1999 |
| 3 | N 585841.7819 | E 1369759.0984 |
| 4 | N 585508.195 | E 1369509.6142 |
| 5 | N 585694.2011 | E 1369257.6549 |
| 6 | N 585732.7028 | E 1369201.6089 |
| 7 | N 585792.4203 | E 1369108.0137 |
| 8 | N 585847.147 | E 1369010.6431 |
| 9 | N 585900.3071 | E 1368902.2628 |
| 10 | N 585909.6423 | E 1368893.8633 |
| 11 | N 585943.5974 | E 1368894.2986 |
| 12 | N 586216.558 | E 1369153.4399 |
| 13 | N 586278.8484 | E 1369237.8787 |
| 14 | N 586305.7656 | E 1369292.2359 |
| 15 | N 586361.2589 | E 1369370.0138 |
| 16 | N 586468.5609 | E 1369606.1313 |
| 17 | N 586458.3919 | E 1369685.3711 |
| 18 | N 586446.4828 | E 1369750.14 |
| 19 | N 586441.4075 | E 1369895.2271 |
| 20 | N 586412.3483 | E 1370031.5236 |

OWNER/DEVELOPER
 TRINITY HOMES
 3675 PARK AVE. SUITE 301
 ELLICOTT CITY, MARYLAND 21043
 410-480-0023

COVER SHEET

THE WOODS OF PARK PLACE
 LOTS 1-15 AND OPEN SPACE LOTS 16 & 17
 A RESUBDIVISION OF THE F.A.A.D. PROPERTY
 LOTS 1-4

TAX MAP 25, GRIDS 1 & 2 PARCEL '3' LIBER 1313 FOLIO 336
 2ND ELECTION DISTRICT F-92-132, F-03-042
 REF: PB-344, S-00-10, P-02-02, WP-02-57 HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
 ENGINEERS 7125 Riverwood Drive Columbia, Maryland 21046-2354
 ARCHITECTS Phone: 410-290-9550 Fax: 410-720-6226
 SURVEYORS Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

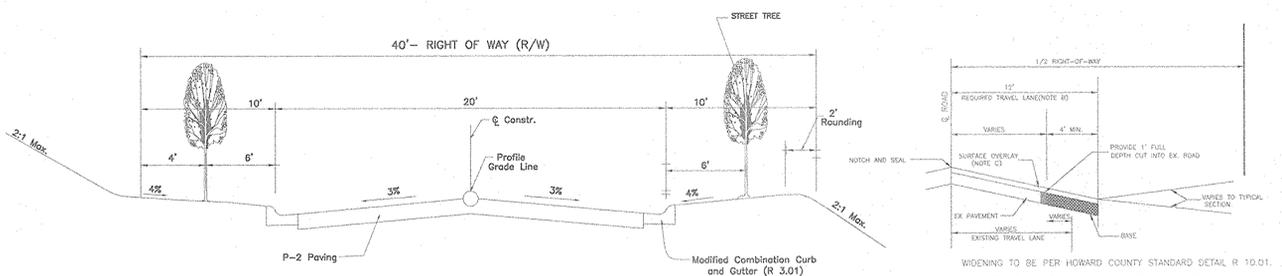
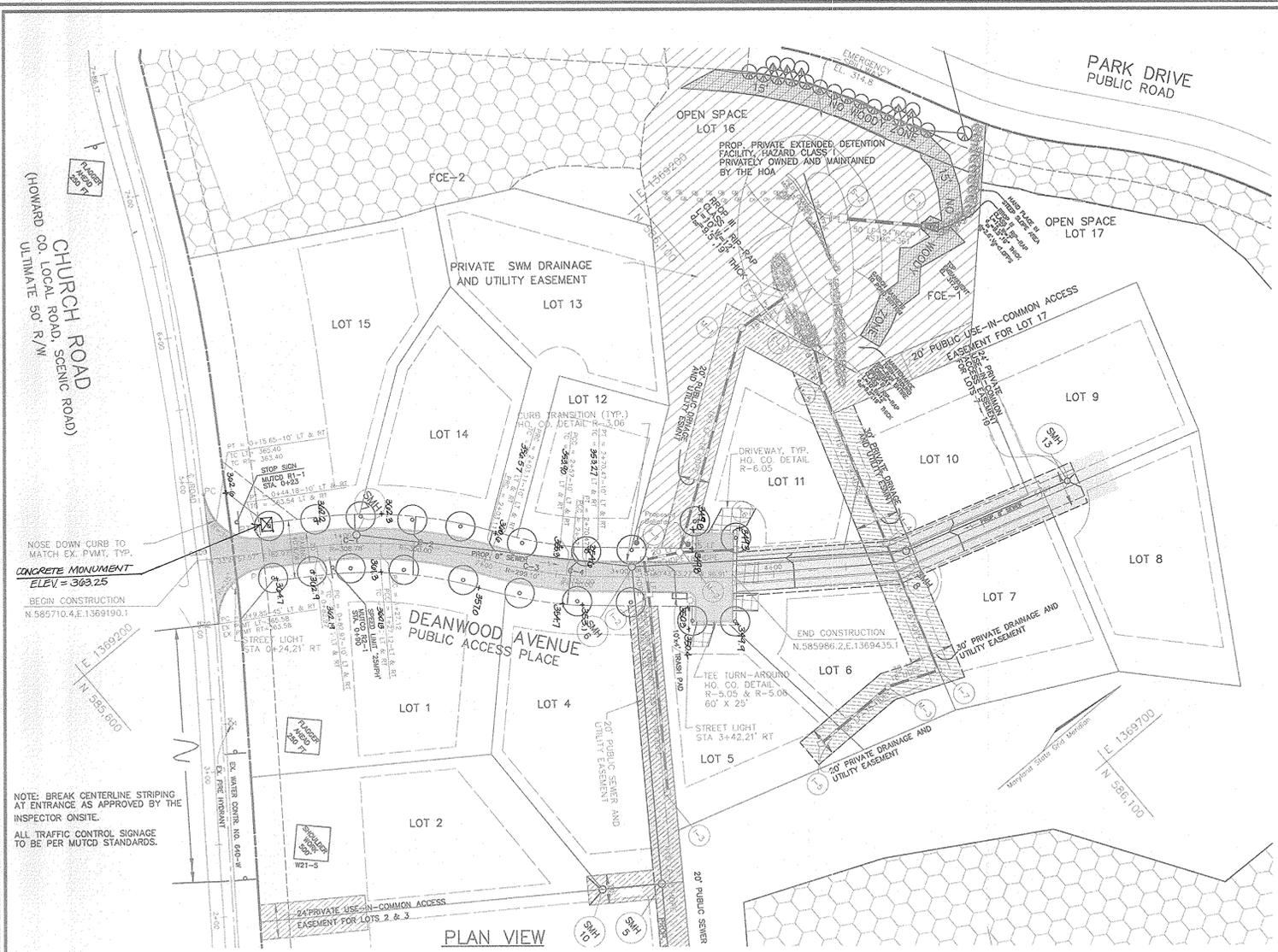
DESIGN BY: MHM
 DRAWN BY: MHM
 CHECKED BY: JCO
 DATE: APRIL 3, 2003
 SCALE: AS SHOWN
 W.O. NO.: 2019143.0

1 SHEET OF 10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 4/29/03
 CHIEF, BUREAU OF HIGHWAYS

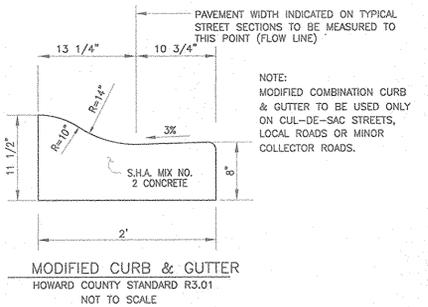
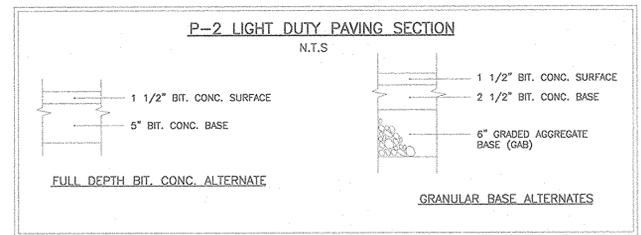
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 4/30/03
 CHIEF, DIVISION OF LAND DEVELOPMENT

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 ROBERT H. VOGEL, P.E.
 AS-BUILT CERTIFICATION
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.
 4/12/04
 PE No. DATE



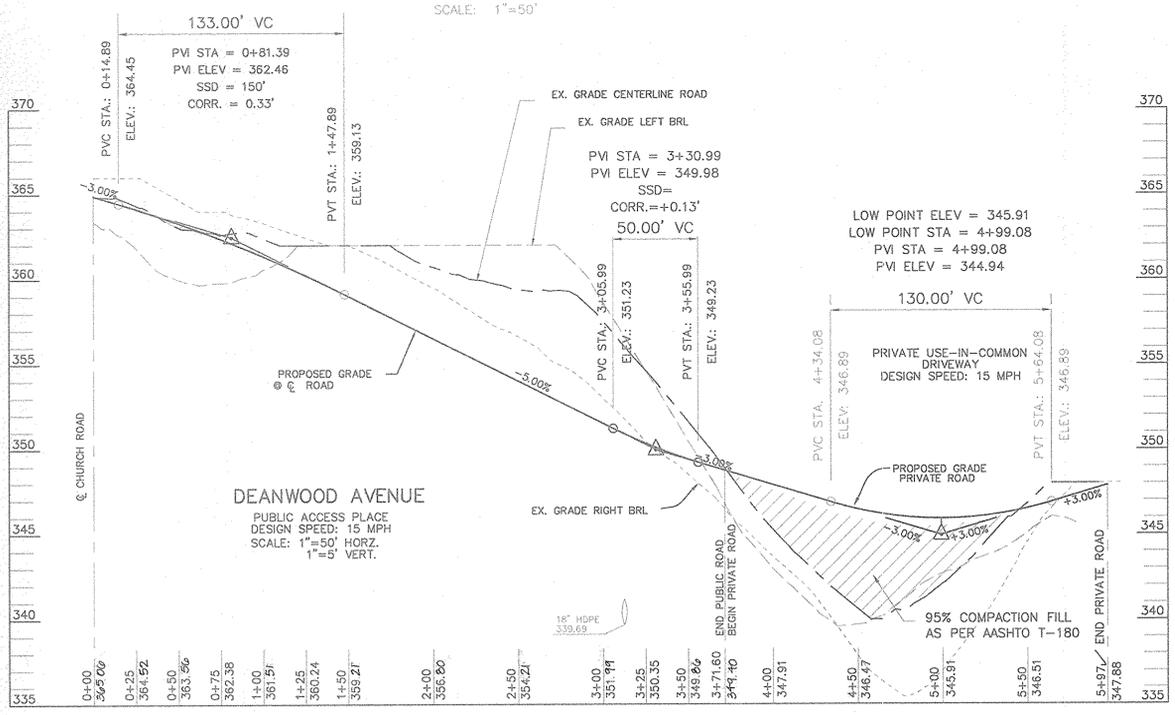
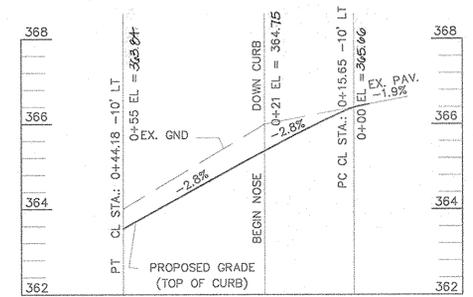
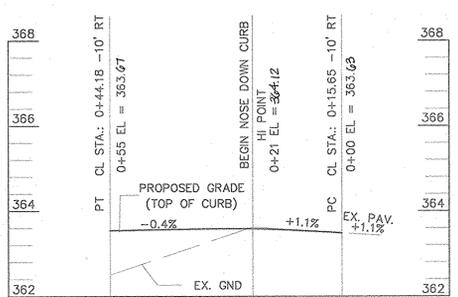
DEANWOOD AVENUE
TYPICAL ROADWAY SECTION
CLASSIFICATION : PUBLIC ACCESS PLACE
DESIGN SPEED 15 MPH
 STATION 0+00 TO STATION 3+66.53
 HOWARD COUNTY STANDARD FIGURE 2.09b
 NOT TO SCALE

WIDENING DETAIL
CHURCH ROAD
 NOT TO SCALE



LEGEND

☼ STREET LIGHT 100-WATT HPS VAPOR "PREMIER COLONIAL" POST TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLAS POLE



MINIMUM LOT SIZE CHART

| LOT NO. | GROSS AREA | PIPESTEM AREA | MINIMUM LOT SIZE |
|---------|------------|---------------|------------------|
| 7 | 13676 SF | 677 SF | 12999 SF |
| 8 | 16072 SF | 1343 SF | 14729 SF |
| 9 | 15109 SF | 1267 SF | 13842 SF |
| 10 | 12161 SF | 440 SF | 11721 SF |
| 13 | 18343 SF | 2295 SF | 16048 SF |

CURVE TABLE

| CURVE | LENGTH | RADIUS | DELTA ANGLE | TANGENT | CHORD DIRECTION | CHORD LENGTH |
|-------|--------|---------|-------------|---------|-----------------|--------------|
| C1 | 44.15' | 308.78' | 08°11'34" | 22.11' | N37°37'06"E | 44.11' |
| C2 | 75.99' | 300.00' | 14°30'44" | 38.20' | N49°03'10"E | 75.78' |
| C3 | 53.89' | 299.10' | 10°19'24" | 27.02' | N54°04'50"E | 53.82' |
| C4 | 13.48' | 150.00' | 05°08'52" | 6.74' | S43°18'09"W | 13.47' |



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 4/23/03

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 4/20/03

OWNER/DEVELOPER
 TRINITY HOMES
 3875 PARK AVE., SUITE 301
 ELLICOTT CITY, MARYLAND 21043
 410-480-0023

FINAL ROAD CONSTRUCTION
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THE WOODS OF PARK PLACE
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 2 SHEET OF 10

LANDSCAPE LEGEND
 ALI - AILANTHUS
 TP - TULIP POPLAR
 MAP - MAPLE

SEDIMENT BASIN
 DRAINAGE AREA: 3.83 AC.
 TOTAL STORAGE REQUIRED: 13068 CF
 TOTAL STORAGE PROVIDED: 35580 CF
 BOTTOM ELEVATION: 308.00
 CREST ELEVATION: 314.00
 WET STORAGE: 308.00-312.00(4.0')
 DRY STORAGE: 312.00-314.00(2.0')
 TOTAL STORAGE DEPTH: 8.0'
 TOP OF EMBANKMENT: 316.80
 CLEANOUT ELEVATION: 310.40
 SIDE SLOPES: 3:1
 O₂(EX.)=3.0CFS
 O₂(TSM)=3.5CFS
 OUTLET ELEVATION: 306.50

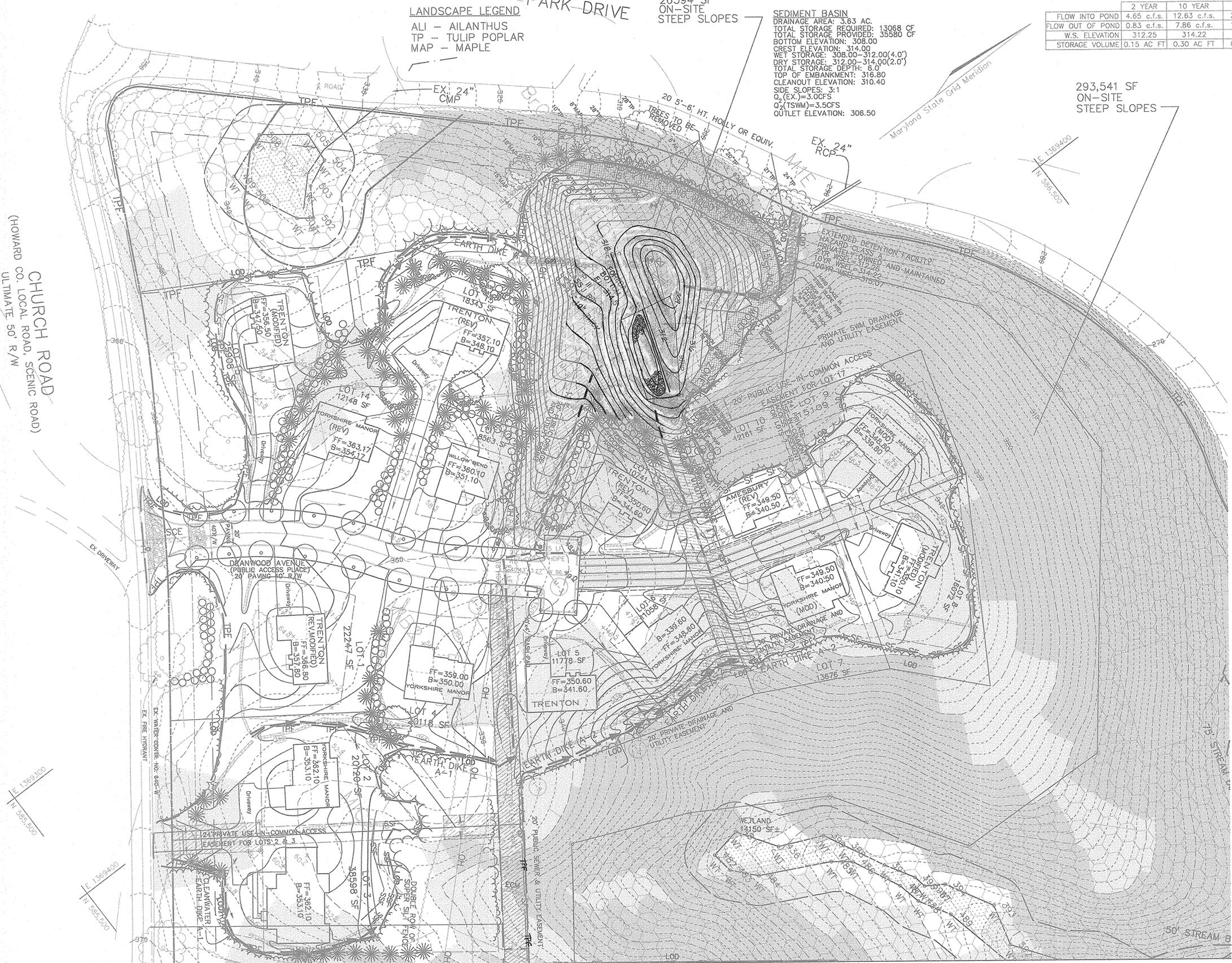
POND SUMMARY

| | 2 YEAR | 10 YEAR | 100 YEAR |
|------------------|-------------|--------------|--------------|
| FLOW INTO POND | 4.65 c.f.s. | 12.63 c.f.s. | 22.72 c.f.s. |
| FLOW OUT OF POND | 0.83 c.f.s. | 7.86 c.f.s. | 17.45 c.f.s. |
| W.S. ELEVATION | 312.25 | 314.22 | 315.07 |
| STORAGE VOLUME | 0.15 AC FT | 0.30 AC FT | 0.40 AC FT |

LEGEND

| | | | | | | | |
|---------------------------------|----------------------------------|------------------------------|----------------------------------|------------|-------------------------|----------------------|------------------------------|
| Existing Contour | Proposed Contour | Direction of Flow | Existing Trees to Remain | Welland | Welland Buffer | SLOPES 15% TO 24.9% | SLOPES 25% OR > |
| APPROXIMATE 100 YEAR FLOODPLAIN | SOCS BOUNDARY | Existing Overhead Power Line | Stabilized Construction Entrance | Silt Fence | Super Silt Fence | Earth Dike | Erosion Control Matting |
| GIC2 | Stabilized Construction Entrance | Silt Fence | Super Silt Fence | Earth Dike | Erosion Control Matting | Limit of Disturbance | Forest Conservation Easement |
| | | | | | | | Tree Protection Fence |

CHURCH ROAD
 CO. LOCAL ROAD, SCENIC ROAD
 ULTIMATE 50' R/W



293,541 SF
 ON-SITE
 STEEP SLOPES

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Jim Mays / *1/03* / *4/15/03*
 USDA-NATURAL RESOURCES CONSERVATION SERVICE / DATE

John Selby / *1/03* / *4/15/03*
 HOWARD SOIL CONSERVATION DISTRICT / DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

John Dammann / *4/20/03*
 CHIEF, DEVELOPMENT ENGINEERING DIVISION / DATE

Cindy Harvath / *4/30/03*
 CHIEF, DIVISION OF LAND DEVELOPMENT / DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Edward Spitzer / *4/29/03*
 CHIEF, BUREAU OF HIGHWAYS / DATE

ENGINEERS CERTIFICATE
 "I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Robert H. Vogel / *4/7/03*
 SIGNATURE OF ENGINEER / DATE
 ROBERT H. VOGEL

DEVELOPER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Michael New / *4/7/03*
 SIGNATURE OF DEVELOPER / DATE

OWNER/DEVELOPER
 TRINITY HOMES
 3675 PARK AVE., SUITE 301
 ELLICOTT CITY, MARYLAND 21043
 410-480-0023

FINAL GRADING AND SEDIMENT CONTROL PLAN
THE WOODS OF PARK PLACE
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 A RESUBDIVISION OF THE F.A.A.D. PROPERTY LOTS 1-4
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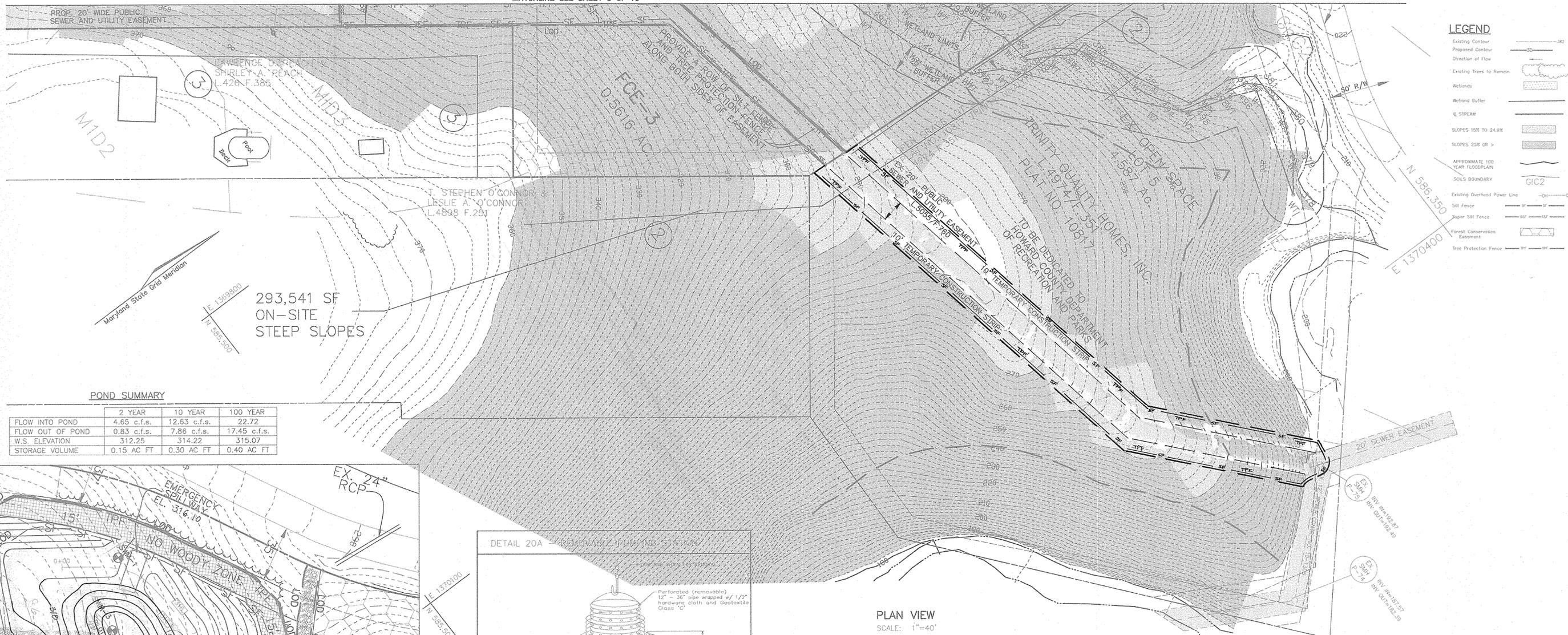
DESIGN BY: MHM
 DRAWN BY: MHM
 CHECKED BY: JCO
 DATE: APRIL 3, 2003
 SCALE: 1"=60'
 W.O. NO.: 2019143.0

3 SHEET OF 10

MATCHLINE SEE SHEET 4 OF 10

"AS-BUILT" CERTIFICATION
 "I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS."
Robert H. Vogel / *4/15/03*
 SIGNATURE OF ENGINEER / DATE
 ROBERT H. VOGEL

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ONSITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ONSITE SITE INSPECTION AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.



LEGEND

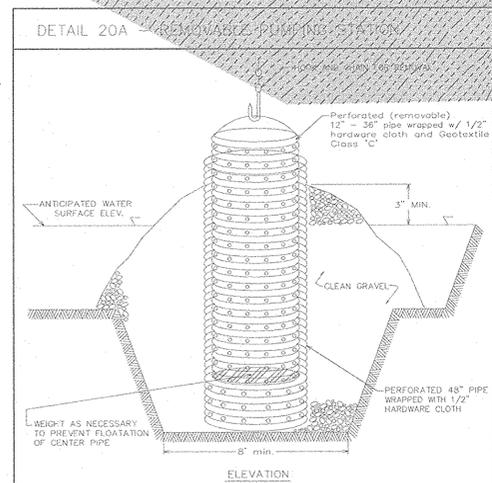
- Existing Contour
- Proposed Contour
- Direction of Flow
- Existing Trees to Remain
- Wetlands
- Wetland Buffer
- STREAM
- SLOPES 10% TO 24.9%
- SLOPES 25% OR >
- APPROXIMATE 100 YEAR FLOODPLAIN
- SOILS BOUNDARY
- Existing Overhead Power Line
- Silt Fence
- Super Silt Fence
- Forest Conservation Easement
- Tree Protection Fence

POND SUMMARY

| | 2 YEAR | 10 YEAR | 100 YEAR |
|------------------|-------------|--------------|--------------|
| FLOW INTO POND | 4.65 c.f.s. | 12.63 c.f.s. | 22.72 |
| FLOW OUT OF POND | 0.83 c.f.s. | 7.86 c.f.s. | 17.45 c.f.s. |
| W.S. ELEVATION | 312.25 | 314.22 | 315.07 |
| STORAGE VOLUME | 0.15 AC FT | 0.30 AC FT | 0.40 AC FT |



DETAIL SWM GRADING
SCALE: 1"=30'



Construction Specifications

- The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations.
- After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.
- The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be 1/2" X 6" slots or 1" diameter holes 6" on center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C.
- The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 8 - 12 - 4 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

PLAN VIEW
SCALE: 1"=40'

"AS-BUILT" CERTIFICATION
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS, AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE OF ENGINEER: *Robert H. Vogel* DATE: 4/10/03

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE SITE INSPECTION AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

OWNER/DEVELOPER
TRINITY HOMES
3875 PARK AVE. SUITE 301
ELLICOTT CITY, MARYLAND 21043
410-480-0023

FINAL GRADING AND SEDIMENT CONTROL PLAN
THE WOODS OF PARK PLACE
LOTS 1-15 AND OPEN SPACE LOTS 16 & 17
A RESUBDIVISION OF THE F.A.A.D. PROPERTY
LOTS 1-4

TAX MAP 25, GRIDS 1 & 2 PARCEL '3' LIBER 1313 FOLIO 336
2ND ELECTION DISTRICT
REF: PB-344.S-00-10,P-02-02, WP-02-57 HOWARD COUNTY, MARYLAND



FREDERICK WARD ASSOCIATES, INC.
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

DESIGN BY: MHM
DRAWN BY: MHM
CHECKED BY: JCO
DATE: APRIL 3, 2003
SCALE: AS SHOWN
W.O. NO.: 2019143.0
4 SHEET OF 10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Howard Shirk 4/29/03
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cheryl Daneman 4/29/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Cindy Harrold 4/30/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

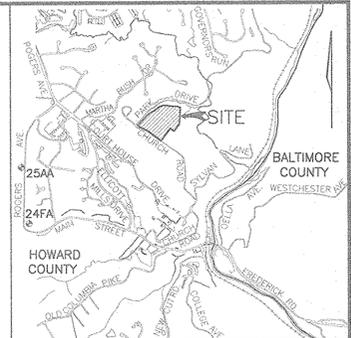
THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
Jim Myers 4/15/03
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
John Sol 4/15/03
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEERS CERTIFICATE
I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
Robert H. Vogel 4/7/03
SIGNATURE OF ENGINEER DATE

DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
Robert H. Vogel 4/7/03
SIGNATURE OF DEVELOPER DATE

| SOILS LEGEND | | | | |
|--------------|--|------|---------|----------|
| SYMBOL | NAME / DESCRIPTION | TYPE | PERCENT | AC VALUE |
| SPC1 | BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED | C | 24 | 0.29 |
| SPC2 | BRANDYWINE LOAM, 25 TO 50 PERCENT SLOPES | C | 24 | 0.35 |
| CM2 | GREENVILLE SCL LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED | B | 26 | 0.82 |
| M1B2 | MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED | B | 33 | 0.25 |
| M1C2 | MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED | B | 33 | 0.06 |
| CM2 | GREENVILLE SCL LOAM, 3 TO 8 PERCENT SLOPES, SEVERELY ERODED | B | 33 | 0.45 |
| M2B2 | MANOR LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED | B | 33 | 0.25 |
| M2C2 | MANOR LOAM, 25 TO 45 PERCENT SLOPES | B | 33 | 0.06 |
| M2B2 | MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED | B | 33 | 0.45 |

NOTE: HOWARD SOIL SURVEY, MAP NUMBER 16



VICINITY MAP
SCALE: 1" = 2000'

BENCHMARKS
HOWARD COUNTY MONUMENT 24FA
HOWARD COUNTY MONUMENT 25AA

| DRAINAGE AREA TABULATIONS | | | | | | |
|---------------------------|----------|------|--------|------------|------|--|
| No. | Area | % C | % Imp. | Soil Types | Zone | |
| I-1 | 0.29 Ac. | 0.54 | 55 | B | R-ED | |
| I-2 | 0.35 Ac. | 0.34 | 26 | B | R-ED | |
| I-3 | 0.82 Ac. | 0.28 | 18 | B | R-ED | |
| I-5 | 0.25 Ac. | 0.33 | 24 | B | R-ED | |
| I-6 | 0.06 Ac. | 0.86 | 100 | B | R-ED | |
| I-7 | 0.45 Ac. | 0.45 | 100 | B | R-ED | |

OWNER/DEVELOPER
TRINITY HOMES
3675 PARK AVE. SUITE 301
ELLCOTT CITY, MARYLAND 21043

FINAL STORM DRAIN
DRAINAGE AREA MAP
THE WOODS OF PARK PLACE
LOTS 1-15 AND OPEN SPACE LOTS 16 & 17
A RESUBDIVISION OF THE F.A.A.D. PROPERTY
LOTS 1-4

TAX MAP 25, GRIDS 1 & 2 PARCEL '3' LIBER 1313 FOLIO 336
2ND ELECTION DISTRICT
REF: PB-344.S-00-10,P-02-02, WP-02-57 HOWARD COUNTY, MARYLAND

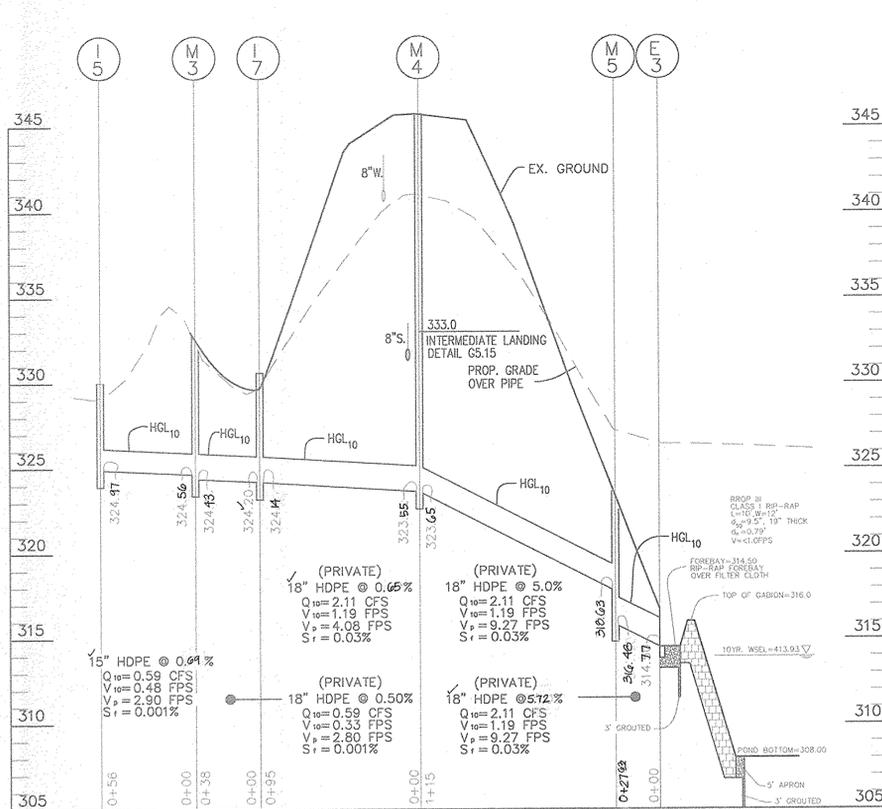
FREDERICK WARD ASSOCIATES, INC.
ENGINEERS 7125 Riverwood Drive Columbia, Maryland 21046-2354
ARCHITECTS Phone: 410-290-9550 Fax: 410-720-6226
SURVEYORS Bel Air, Maryland Columbia, Maryland Warrenton, Virginia



DESIGN BY: JCO/MHM
DRAWN BY: JCO/MHM
CHECKED BY: RHY/JCO
DATE: APRIL 3, 2003
SCALE: 1"=60'
W.D. NO.: 2019143.0

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Howard Spitzer 4/20/03
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamrick 4/20/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

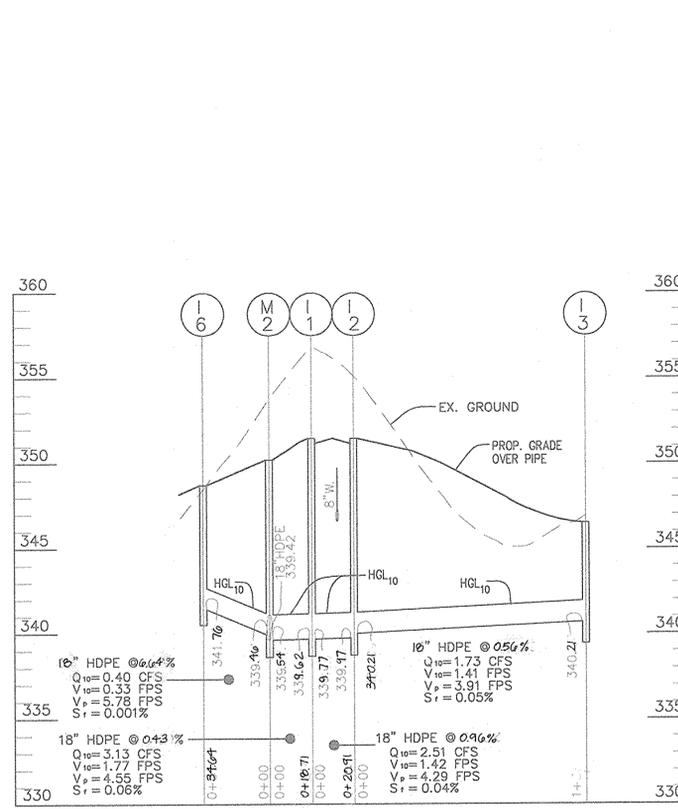


STORM DRAIN PROFILE
SCALE: 1" = 50' HORZ.
1" = 5' VERT.

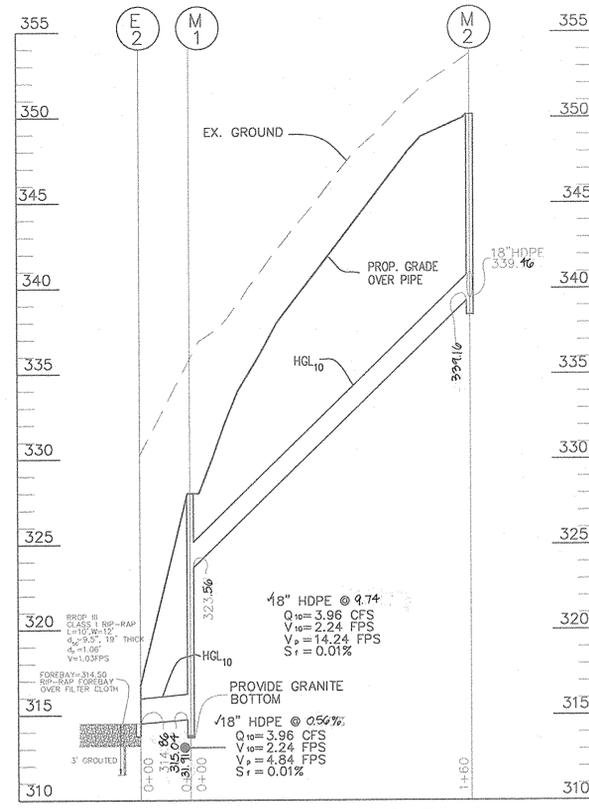
| SIZE | TYPE | LENGTH |
|------|---------------------------|--------|
| 15" | HDPE | 226 LF |
| 18" | HDPE | 494 LF |
| 24" | RCCP ACTM-361, CLASS 25-B | 28 LF |

| NO. | TYPE | LOCATION | TOP ELEV. | INV. IN | INV. OUT | REMARKS |
|-----|----------------------------|-------------------------|-----------|---------|----------|------------|
| I-1 | PRECAST A-5 | STA. 3+10.5, 12'L.T. | 351.62 | 349.77 | 339.62 | SD 4.40 |
| I-2 | PRECAST A-5 | STA. 3+10.5, 12'L.T. | 351.60 | 349.21 | 339.97 | SD 4.40 |
| I-3 | TYPE 'D' INLET | N 585855.1 E 1,369521.1 | 341.6 | - | 340.97 | SD 4.39 |
| I-5 | TYPE 'D' INLET | N 585957.5 E 1369563.7 | 329.72 | - | 324.97 | SD 4.39 |
| I-6 | SINGLE TYPE 'S' INLET | STA. 3+72, 18'L.T. | 348.76 | - | 341.76 | G 5.22 |
| M-1 | Precast Manhole (4') | N 586100.0 E 1369509.9 | 328.75 | 323.70 | 315.64 | G 5.12 |
| M-2 | Precast Manhole (4') | STA. 3+34.9, 17.1'L.T. | 350.26 | 339.46 | 339.16 | G 5.12 |
| M-3 | Precast Manhole (4') | N 58601.9 E 1369563.4 | 331.33 | 324.56 | 324.43 | G 5.12 |
| M-4 | Precast Manhole (6') | N 586080.7 E 1369487.1 | 345.2 | 323.62 | 323.52 | G 5.11 |
| M-5 | Precast Manhole (4') | N 586116.0 E 1369377.4 | 323.36 | 318.63 | 316.46 | G 5.12 |
| E-1 | Concrete End Wall Type 'C' | N 586234.7 E 1369340.7 | 309.55 | - | 306.64 | SD 5.21 |
| E-2 | Concrete End Wall Type 'C' | N 586134.7 E 1369312.9 | 317.52 | - | 314.86 | SD 5.21 |
| E-3 | Concrete End Wall Type 'C' | N 586128.5 E 1396354.4 | 317.20 | - | 314.77 | SD 5.21 |
| S-2 | CONTROL STRUCTURE | N 586201.0 E 1369297.0 | 316.81 | - | 308.26 | SEE DETAIL |
| I-7 | | | 320.20 | 324.20 | 324.14 | |

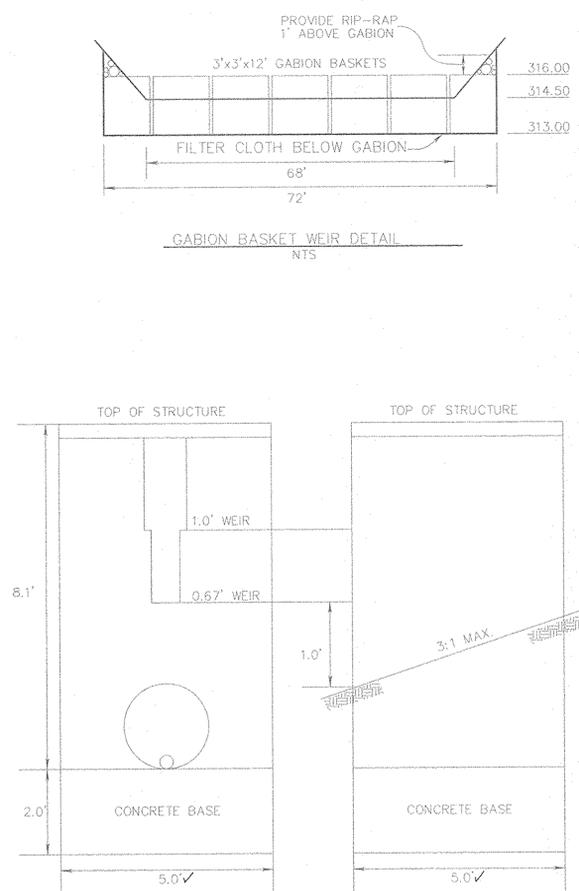
NOTE: 1. TOP ELEVATIONS ARE TO THE CENTER OF THE STRUCTURE AT TOP FACE OF CURB FOR TYPE 'A' INLETS THROAT OPENING FOR TYPE 'D' INLETS AND TOP OF GRATE FOR TYPE 'S' INLETS.



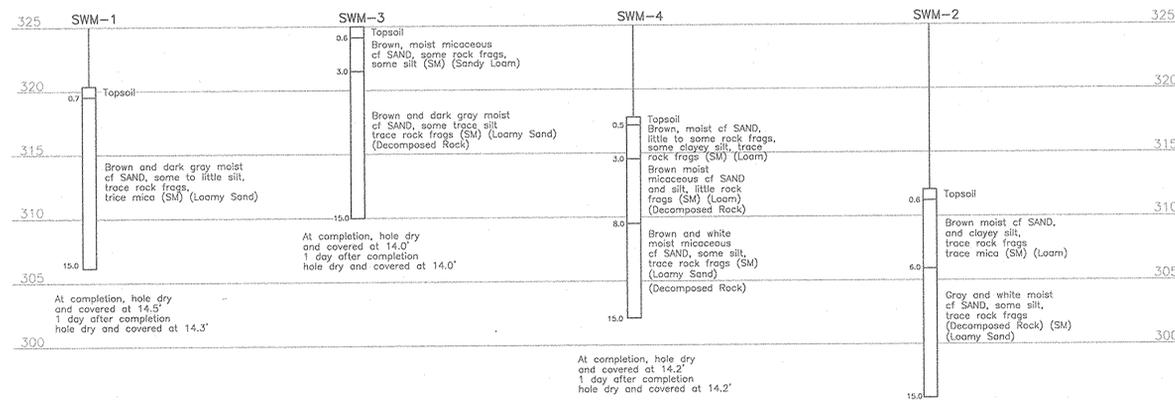
STORM DRAIN PROFILE
SCALE: 1" = 50' HORZ.
1" = 5' VERT.



STORM DRAIN PROFILE
SCALE: 1" = 50' HORZ.
1" = 5' VERT.



RISER DIMENSION DETAIL
SCALE: 1" = 2'



SWM BORING PROFILES
NOT TO SCALE

GEOTECH. RECOMMENDATIONS

STORMWATER MANAGEMENT FACILITY

At the time of our study, the storm water management facility was proposed north and west of the potential residential development. Existing grades compared to proposed grades show a depth of cut upwards of 15 feet in the center of the basin to shallow fills of 3 to 4 feet for embankment construction with the outfall running from the east end of the pond to an outlet near a low point adjacent to Park Drive.

Based upon the test boring information, normal soil excavation techniques can be expected for pond excavation. The subsols are sufficiently dense to provide adequate support for the principal spillway and riser structure providing the allowable soil bearing pressure of the riser structure does not exceed 3,000 PSF. With the low embankment height, it is our opinion that the standard core trench section required by the soil conservation district will be acceptable. The depth of core trench should be calculated from the ground surface after topsoil has been removed rather than from the existing ground surface with topsoil in place.

The results of the moisture/compacted density relationship test performed on a typical on-site soil sample indicated the granular silty sand soils have been acceptably high compacted dry density. The moisture content of the tested sample was close to the optimum for the most efficient compaction and in our opinion would be suitable for embankment fill. No Unified 'C' soils suitable for use as core trench for dam core fill were found within the test borings. Although test pits could be performed in other portions of the property to investigate suitable core trench fill soil, in our opinion it is unlikely that the will be found on site given the materials encountered in all eight test borings and the general characteristics for the subsols found in this geologic formation. We would assume that Unified 'C?' clay soils will have a brogton in off site.

The tested soil moisture indicate the conditions at the time of the subsurface exploration program. Soil moisture at the time of construction may vary from those indicated in this report. Earthwork construction during the typical warm dry construction season (late spring, summer and early fall) allow the most economical and efficient grading with the use of on site material. Grading during colder wetter season may saturate exposed grades and prohibit the use of higher moisture on site soil possibly resulting in the requirement for additional undercut and the use of off site soils as fill. This would result in a less efficient, more costly grading operation.

GEO TECHNICAL MONITORING

We recommend that Herbst/Benson & Associates be retained to provide the geotechnical monitoring and testing services during the site grading. This is to observe compliance with design concepts, specifications or recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to start of construction.

The earthwork construction including striping, undercutting, proof rolling and controlled fill placement shall be inspected with in-place density tests taken to verify construction according to the specifications. We will provide the indicated geotechnical monitoring and testing services upon request.

OWNER/DEVELOPER
TRINITY HOMES
3675 PARK AVE, SUITE 301
ELLICOTT CITY, MARYLAND 21043

FINAL STORM DRAIN PROFILES
THE WOODS OF PARK PLACE
LOTS 1-15 AND OPEN SPACE LOTS 16 & 17
A RESUBDIVISION OF THE F.A.A.D. PROPERTY
LOTS 1-4

TAX MAP 25, GRIDS 1 & 2 PARCEL '3' LIBER 1313 FOLIO 336
2ND ELECTION DISTRICT
REF: PB-344,S-00-10,P-02-02, WP-02-57 HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

DESIGN BY: MHM
DRAWN BY: MHM
CHECKED BY: JCO
DATE: APRIL 3, 2003
SCALE: AS SHOWN
W.O. NO.: 2019143.0

7 SHEET OF 10

ENGINEER'S CERTIFICATE
"I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Signature: Robert H. Vogel
DATE: 4/4/03

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DEVELOPER'S CERTIFICATE
"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Signature: Michael Pfan
DATE: 4/3/03

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

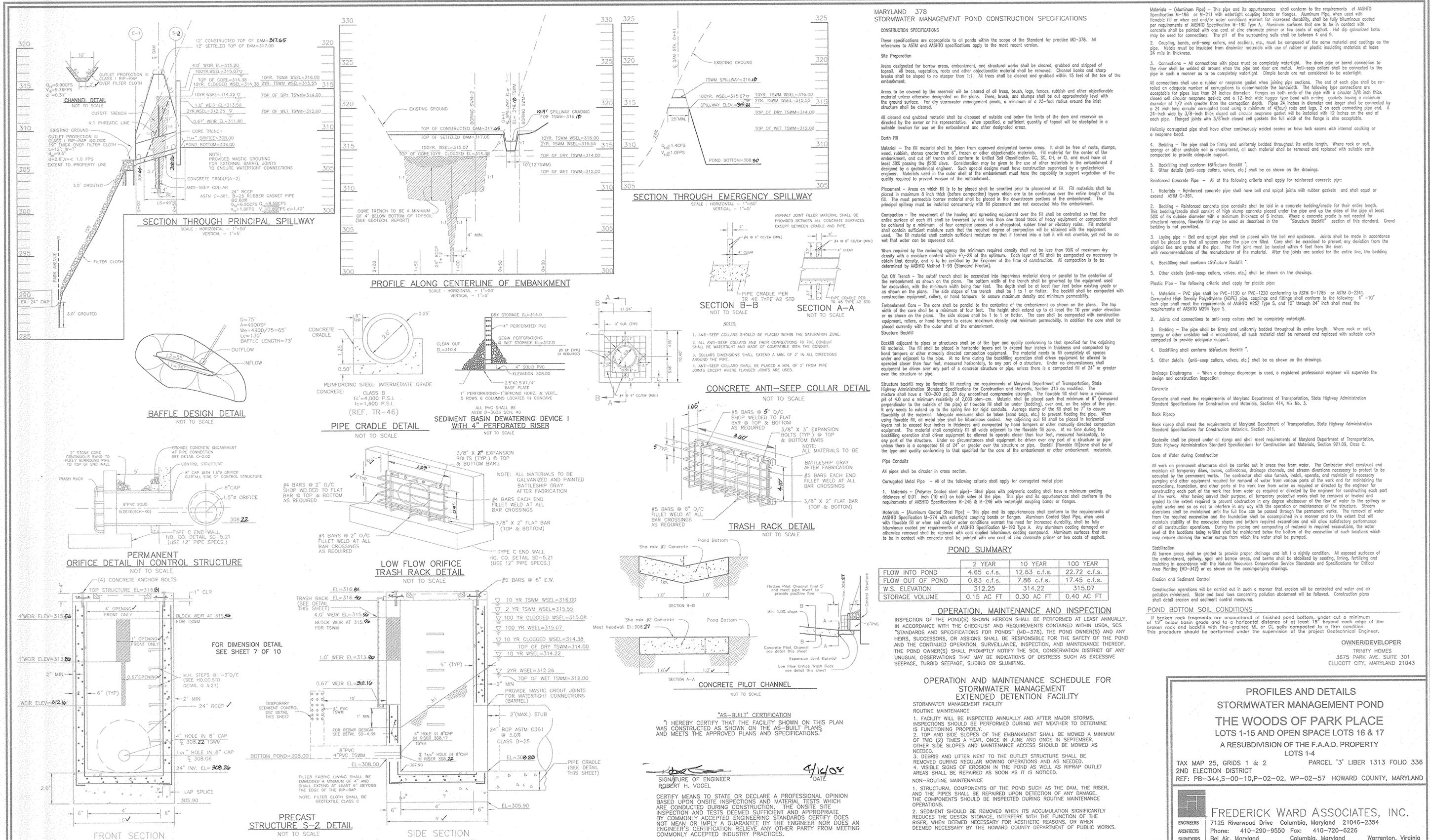
Signature: [Redacted]
DATE: 4/20/03

Signature: Cindy Hamate
DATE: 4/20/03

"AS-BUILT" CERTIFICATION
"I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS, AND MEETS THE APPROVED PLANS AND SPECIFICATIONS."

Signature: [Redacted]
DATE: 4/16/03

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ONSITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ONSITE SITE INSPECTION AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

USDA-NATURAL RESOURCES CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

ENGINEERS CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

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APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

USDA-NATURAL RESOURCES CONSERVATION SERVICE

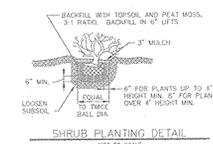
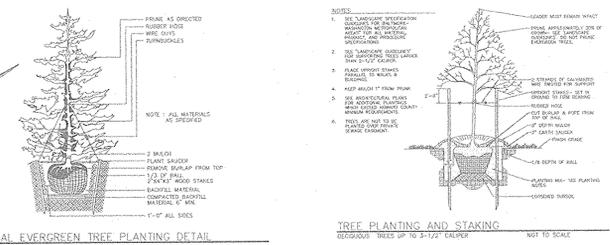
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

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LEGEND

| | | | |
|--------------------------|-----|---------------------------------|-----|
| Existing Contour | --- | APPROXIMATE 100 YEAR FLOODPLAIN | --- |
| Proposed Contour | --- | SOILS BOUNDARY | --- |
| Direction of Flow | --- | Existing Overhead Power Line | --- |
| Existing Trees to Remain | --- | Limit of Disturbance | --- |
| Wetlands | --- | Forest Conservation Easement | --- |
| Wetland Buffer | --- | Light Poles | --- |
| Stream | --- | Post Top | --- |
| SLOPES 15% TO 24.9% | --- | Overhead | --- |
| SLOPES 25% OR > | --- | | |

GENERAL NOTES

- Financial Surety for the required landscaping provided per PB-344 (Applicants Exhibit No.11 1-24-01) and the Landscape Manual to be posted as part of the Developer's Agreement in the amount of \$18,860.00 for 10 shade trees, 59 evergreen trees and 167 shrubs; and for the 20 evergreen trees that are to be provided as alternative compliance along the north side of the SWM facility due to removal of 3 existing trees within the 35' scenic road buffer.

SCHEDULE A PERIMETER LANDSCAPE EDGE

| CATEGORY | ADJACENT TO ROADWAYS | ADJACENT TO PERIMETER PROPERTIES |
|---|----------------------|----------------------------------|
| Perimeter/Frontage Designation | B | A |
| Linear Feet of Roadway | 1420 | 707 |
| Credit for Existing Vegetation (Yes, No, Linear Feet) | Yes* 1420' | Yes* 707' |
| Credit for Wall, Fence or Berm (Yes, No, Linear Feet) | No | No |
| Number of Plants Required (L Remaining) | 0 | 0 |
| Shade Trees | 1:50 0 | 1:60 0 |
| Evergreen Trees | 1:40 0 | 1:60 0 |
| Shrubs | --- | --- |
| Number of Plants Provided | --- | --- |
| Shade Trees | --- | --- |
| Evergreen Trees | --- | --- |
| Other Trees (2:1 Substitution) | --- | --- |
| Shrubs (10:1 Substitution) | --- | --- |
| Describe Plant Substitution Credits Below If Needed | --- | --- |

* Existing Woods to Remain

SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING

| LINEAR FEET OF PERIMETER | SWM POND 623 LF |
|--|---|
| CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET) | Yes* 388' |
| CREDIT FOR OTHER LANDSCAPING (NO, YES AND %) | Yes** 36% (225') |
| NUMBER OF TREES REQUIRED (225) | 5 SHADE TREES 6 EVERGREEN TREES |
| NUMBER OF TREES PROVIDED | 4 SHADE TREES** 39 EVERGREEN TREES** SHRUBS |

*Existing woods to remain
**SWM perimeter landscaping provided per the alternative compliance provision of the Landscape Manual in accordance with the special landscaping illustrated on the site plan per PB Case No. 344; and the addition of 20 hollies due to the removal of 3 existing trees within the 35' scenic road buffer.

LANDSCAPE SCHEDULE

| TYPE | KEY QUAN. | BOTANICAL NAME | SIZE | REM. |
|----------------------|-----------|---|----------------|----------------|
| SH. TREE | 18 | ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE | 2 1/2"-3" Cal. | B & B |
| SH. TREE STREET TREE | 20 | FRAXINUS AMER. 'AUTUMN PURPLE' AUTUMN PURPLE ASH | 2 1/2"-3" Cal. | B & B |
| EV. TREE | 71 | PINUS STROBUS EASTERN WHITE PINE | 7 - 9' Ht. | B & B |
| SHRUB | 171 | RHODODENDRON C. 'ROSEUM ELEGANS' ROSEUM ELEGANS CATAWBA RHODODENDRON | 24"- 30" Ht. | B & B OR CONT. |
| EV. TREE | 26 | ILEX OPACA AMERICAN HOLLY OR EQUIVALENT | 5 - 6' Ht. | B & B |

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAM SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH LCAHW PLANTING SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

OWNER/DEVELOPER
TRINITY HOMES
3675 PARK AVE. SUITE 301
ELICOTT CITY, MARYLAND 21043

FINAL LANDSCAPE AND STREET TREE PLAN
THE WOODS OF PARK PLACE
LOTS 1-15 AND OPEN SPACE LOTS 16 & 17
A RESUBDIVISION OF THE F.A.A.D. PROPERTY
LOTS 1-4
TAX MAP 25, GRIDS 1 & 2 PARCEL '3' LIBER 1313 FOLIO 336
2ND ELECTION DISTRICT
REF: PB-344,S-00-10,P-02-02, WP-02-57 HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-8226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

DESIGN BY: MHM
DRAWN BY: MHM
CHECKED BY: JCO
DATE: APRIL 3, 2003
SCALE: 1"=50'
W.O. NO.: 2019143.0
9 SHEET OF 10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrews 4/2/03
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chris Hamilton 4/30/03
CHIEF, DIVISION OF LAND DEVELOPMENT

DEVELOPER'S BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
Michael Pfeiffer 4/30/03
SIGNATURE OF DEVELOPER

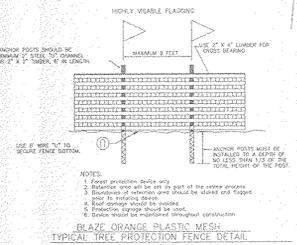
| NO. | REVISION | DATE |
|-----|---|---------|
| 1 | REVISE LANDSCAPING ON LOTS 1-3, 12 & 14 | 4.18.06 |

STREET TREE CHART 2.5" CAL. B&B AUTUMN PURPLE ASH

| STREET NAME | LINEAR FEET | REQUIRED TREES | PROVIDED TREES |
|---------------|-------------|----------------|----------------|
| DEANWOOD AVE. | 785/40 | 20 | 20 |

RETENTION AREA

- ### LEGEND
- Existing Contour
 - Proposed Contour
 - Direction of Flow
 - Existing Trees to Remain
 - Wetlands
 - Wetland Buffer
 - Q STREAM
 - SLOPES 10% TO 24.9%
 - SLOPES 25% OR >
 - APPROXIMATE 100 YEAR FLOODPLAIN
 - SOILS BOUNDARY
 - Existing Overhead Power Line
 - Limit of Disturbance
 - Forest Conservation Easement
 - Light Poles
 - Forest Protection Sign
 - Tree Protection Fence

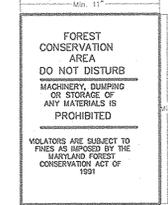


FOREST RETENTION AREAS AND NOTES

- FORESTED STREAM BUFFERS ARE RETAINED IN OPEN SPACE LOTS.
- FORESTED WETLANDS AND THEIR BUFFERS ARE RETAINED IN OPEN SPACE LOTS.
- NO RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED ON THIS SITE.
- THE WOODED STEEP SLOPES ARE SUBSTANTIALLY RETAINED IN OPEN SPACE LOTS.
- FORESTED AREAS ADJACENT TO EXISTING OPEN SPACE LOT 5 ARE RETAINED IN OPEN SPACE LOTS.
- FORESTED AREAS ADJACENT TO FLOODPLAINS AND STREAM BUFFERS ARE "SUBSTANTIALLY" RETAINED IN OPEN SPACE LOTS.
- A 30' FOREST BUFFER IS BEING RETAINED ADJACENT TO EXISTING ROADS.
- AT THE DISCRETION OF A QUALIFIED ARBORIST, A 60' DBH SYCAMORE IS TO BE SAVED IN PROPOSED LOT 15.
- THE PROPOSED ACCESS ROAD AND SHARED DRIVEWAY ARE LOCATED TO AVOID THE CENTENNIAL TREES.
- THERE ARE NO ISOLATED FOREST STANDS ON THIS SITE.
- CHANGES IN GRADING AND RUNOFF WITHIN CONSTRUCTION/INSTALLATION AREAS WILL NOT ADVERSELY AFFECT THE SOILS WITHIN THE FOREST RETENTION AREA. SEDIMENT CONTROL MEASURES WILL REDIRECT CONCENTRATED FLOW RUNOFF TO STORMWATER MANAGEMENT FACILITIES, RETAIN SEDIMENT WITHIN THE CONSTRUCTION SITE, AND/OR REDIRECT CLEAN WATER AWAY FROM CONSTRUCTION AREAS.
- EDGE OF FOREST RETENTION AREA APPROVED PER P.B. DO #3344.
- FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE, OPZ, AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION WILL BE FULFILLED BY THE RETENTION OF EXISTING FOREST IN THE AMOUNT OF 5.32 AC. TOTAL OBLIGATION IS 5.32 AC.
- THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1202 OF THE HOWARD COUNTY CODE. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENTS ARE ALLOWED.
- SEE RECORDED FINAL PLAN FOR BEARINGS AND DISTANCES OF THE FOREST CONSERVATION EASEMENTS.

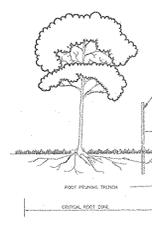
FOREST PROTECTION NOTES

- ### PRE-CONSTRUCTION ACTIVITIES
- Install blaze orange fence and retention signs before construction begins.
 - Fencing shall be maintained in good condition and promptly repaired or restored as the situation warrants.
 - A qualified tree care expert shall determine if root pruning is required along the limit of disturbance. Root prune trees as required. Water any root-pruned trees immediately after root-pruning and monitor for signs of stress during construction.
 - A qualified tree care expert shall determine if any edge trees in retention areas are hazardous. At the direction of the qualified tree care expert, such trees shall be removed or heavily pruned.
- ### CONSTRUCTION PHASE
- No disturbance or dumping is allowed inside the tree retention area.
 - No equipment shall be operated inside the tree retention area including tree canopies.
 - In the event of drought, the protected trees shall be monitored for signs of stress and watered as needed.
- ### POST-CONSTRUCTION ACTIVITIES
- At the direction of a qualified tree care expert, damages to retained trees shall be repaired by the contractor.
 - Fence removal and stabilization shall be as per the sediment and erosion control plan.
 - Do not remove signs.



- Note:
- Bottom of signs to be higher than top of tree protection fence.
 - Signs to be placed approximately 100' feet apart. Conditions on site affecting visibility may warrant placing signs closer or farther apart.
 - Attachment of signs to trees is prohibited.

FOREST CONSERVATION AREA SIGN



- NOTES:
- Retention Areas to be established as part of the forest conservation area review process.
 - Boundaries of Retention Areas to be staked, flagged and/or fenced prior to grading.
 - Exact location of branch should be identified by post-paint with soil removed or organic soil.
 - Branch should be immediately post-painted with soil removed or organic soil.
 - Branch should be clearly cut using vibratory knife or other acceptable equipment.

COST ESTIMATE: (For bonding purposes, only)

RETENTION OF 5.32 ACRES (231,739.2 SF X 0.20) \$46,347.84

SURETY NOTE

FINANCIAL SURETY IN THE AMOUNT OF \$46,347.84 WILL BE POSTED WITH THE FC MAINTENANCE AGREEMENT.

NOTES

- THE PROPERTY OUTLINE IS BASED ON A BOUNDARY SURVEY PREPARED BY FREDERICK WARD ASSOCIATES IN JULY 2001.
- THE EXISTING FEATURES AND CONTOURS SHOWN HEREON ARE BASED ON AERIAL TOPOGRAPHY PREPARED BY POTOMAC AERIAL COMPANY MAY 2001.

OWNER/DEVELOPER

TRINITY HOMES
3675 PARK AVE., SUITE 301
ELLICOTT CITY, MARYLAND 21043

FINAL FOREST CONSERVATION PLAN

THE WOODS OF PARK PLACE

LOTS 1-15 AND OPEN SPACE LOTS 16 & 17

A RESUBDIVISION OF THE F.A.A.D. PROPERTY LOTS 1-4

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Howard Shinn 4/2/03
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chad Damman 4/2/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Cindy Hammet 4/30/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

RETENTION AREA