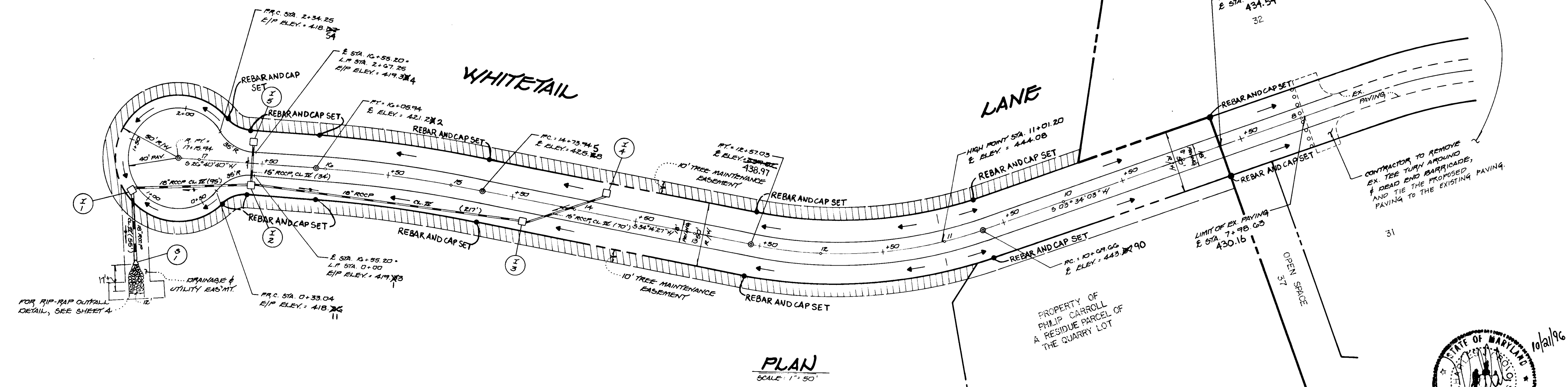


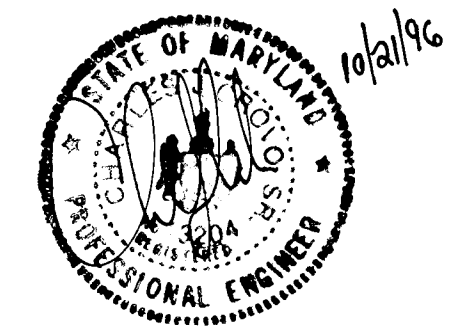


E 1,337,250  
N 68°52'50"

E 1,337,750  
N 7°18'30"



PLAN  
SCALE: 1" = 50'



**QUARTERFIELD III**  
ZONED RC-DEO  
TAX MAP NO. 23 PARCEL 711 PART OF PARCEL NO. 84  
THIRD ELECTION DISTRICT HOWARD COUNTY, MD.

**WHITETAIL LANE**  
PLAN AND PROFILE

OWNER: PHILIP CARROLL, 9619 TOM BOTTENBERG, 8032 DORSEY HALL DRIVE, SUITE 204, ELLICOTT CITY, MD 21042

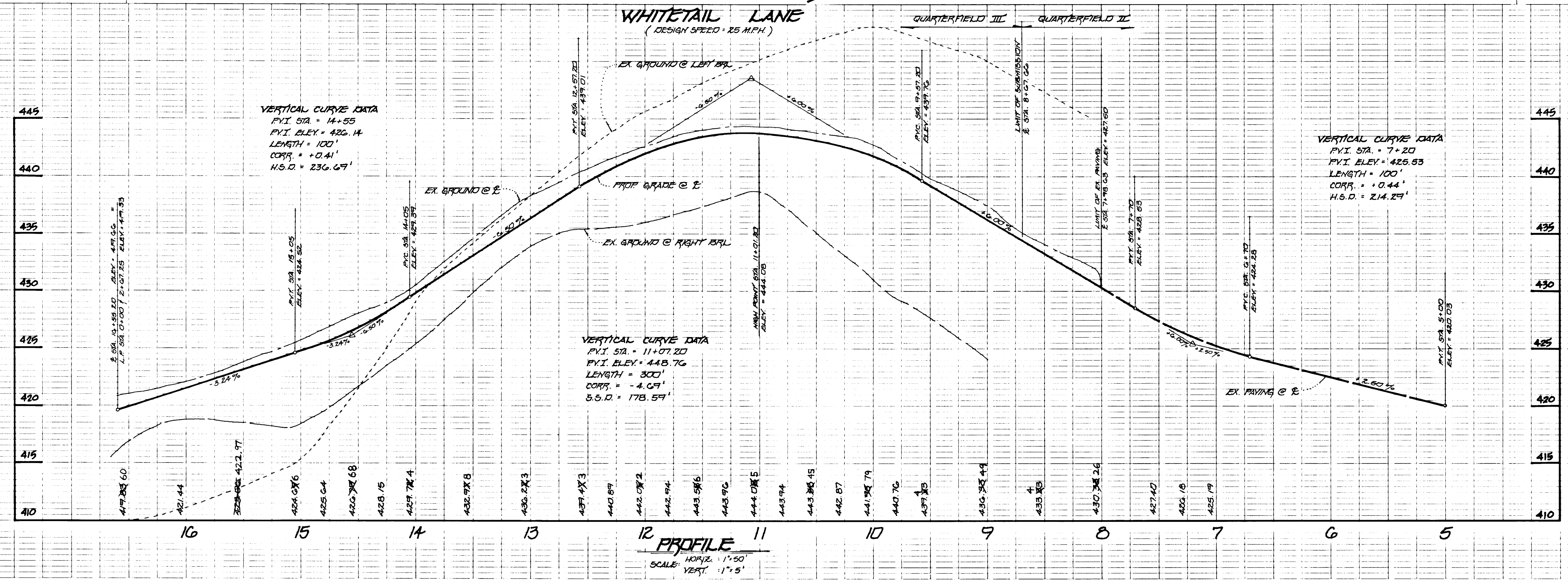
DEVELOPER: MID ATLANTIC DEVELOPMENT, L.L.C., 8032 DORSEY HALL DRIVE, SUITE 204, ELLICOTT CITY, MD 21042

SCALE: AS SHOWN DATE: OCT 18, 1996

**VERTICAL CURVE DATA**  
**WHITETAIL LANE**  
PVI STA = 14+55  
PVI ELEV = 426.14  
LENGTH = 100'  
CORR. = +0.41'  
H.S.D. = 236.69'

**VERTICAL CURVE DATA**  
**WHITETAIL LANE**  
PVI STA = 7+20  
PVI ELEV = 425.53  
LENGTH = 100'  
CORR. = +0.44'  
H.S.D. = 214.29'

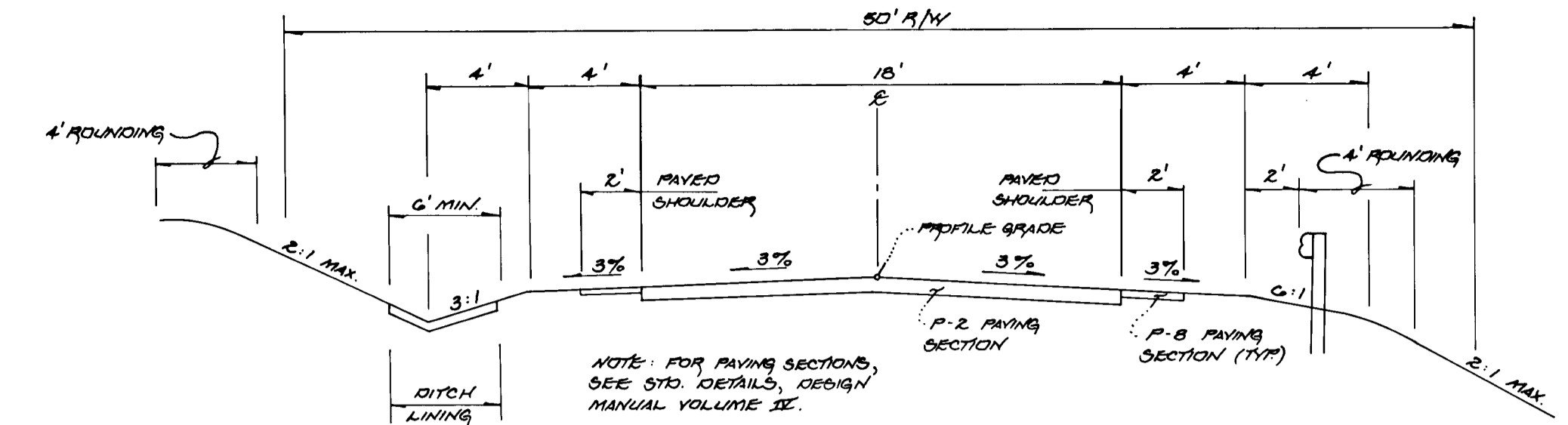
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamilton* 4/23/97  
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Alta Damussen* 4/22/97  
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Rausch* 4-14-97



PROFILE  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'

1738

| STRUCTURE SCHEDULE |   |         |          |                |                                |          |                          |                        |
|--------------------|---|---------|----------|----------------|--------------------------------|----------|--------------------------|------------------------|
| STRUCTURE NO.      | TOP / THROAT ELEVATION                  | INV. IN | INV. OUT | ROAD NAME      | ROAD STA.                      | OFFSET   | TYPE                     | REMARKS                |
| I-1                | TOP EL. 416.2481<br>THROAT EL. 414.96   | 410.89  | 410.865  | WHITETAIL LANE | L.P. STA. 1+13.83              | 5' LT.   | OPEN ENDS<br>GRATE INLET | S.D. 18" W/ 5'-0" S.P. |
| I-2                | TOP EL. 418.35<br>THROAT EL. 417.69     | 412.27  | 412.30   | WHITETAIL LANE | L.P. STA. 0+02.80              | 6' LT.   | OPEN ENDS<br>GRATE INLET | S.D. 18" W/ 5'-0" S.P. |
| I-3                | TOP EL. 426.96<br>THROAT EL. 425.74     | 421.03  | 420.974  | WHITETAIL LANE | C.L. STA. 14+34.41             | 17' SLT. | OPEN ENDS<br>GRATE INLET | S.D. 18" W/ 5'-0" S.P. |
| I-4                | TOP EL. 430.9837<br>THROAT EL. 429.625  | ---     | 423.975  | WHITETAIL LANE | C.L. STA. 13+75                | 17' SLT. | OPEN ENDS<br>GRATE INLET | S.D. 18" W/ 5'-0" S.P. |
| I-5                | TOP EL. 440.941809<br>THROAT EL. 439.69 | ---     | 413.26   | WHITETAIL LANE | L.P. STA. 2+64.45              | 6' RT.   | OPEN ENDS<br>GRATE INLET | S.D. 18" W/ 5'-0" S.P. |
| 5-1                | 411.3671                                | 409.88  | 410.21   | ---            | N 560,518.48<br>E 1,337,549.03 | ---      | CONC. END SECTION        | S.D. 5.51              |



TYPICAL ROADWAY SECTION  
(NO SCALE)

| ROAD NAME      | CLASSIFICATION | DESIGN SPEED | ZONING | E. STATION LIMITS   | PAVING SECTION |
|----------------|----------------|--------------|--------|---------------------|----------------|
| WHITETAIL LANE | CUL-DE-SAC     | 25 M.P.H.    | RC-DEO | 7+98.63 TO 17+15.94 | P-2            |

APPROVED DEPARTMENT OF PLANNING AND ZONING  
*Candy Hamilton* 4/23/97  
 APPROVED DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Dancik* 4-14-97

**QUARTERFIELD III**  
 ZONED RC-DEO  
 TAX MAP NO. 23 PARCEL 114 PART OF PARCEL NO. 84  
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

WHITETAIL LANE PROFILE, STORM DRAIN PROFILES, STRUCTURE SCHEDULE & TYP. SECTION

OWNER: MR. PHILIP CARROLL  
 DEVELOPER: MID ATLANTIC DEVELOPMENT, L.L.C.  
 3023 DORSEY HALL DRIVE  
 SUITE 204  
 ELLICOTT CITY, MD 21042

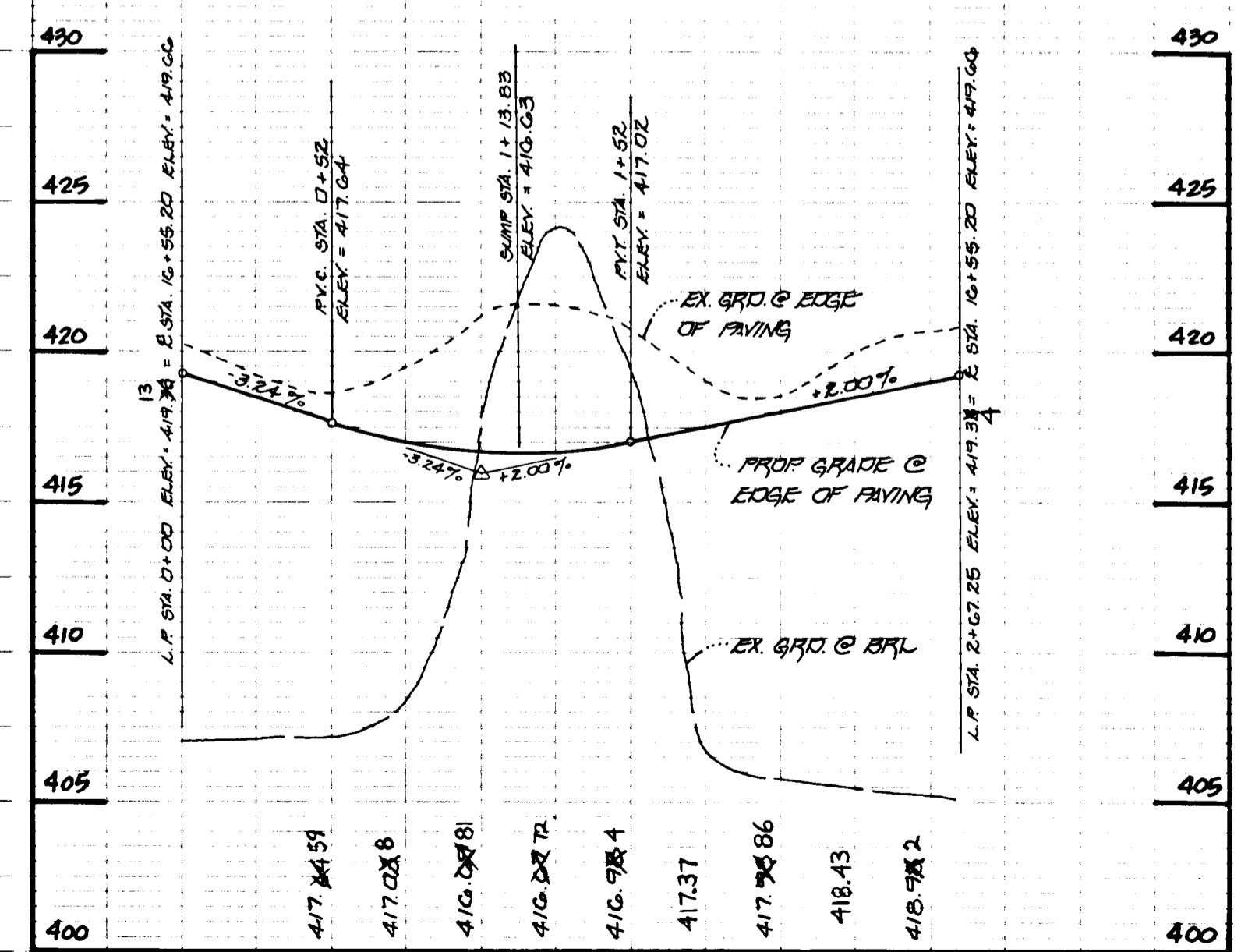
DATE: OCT. 18, 1996  
 J.C.K. J.C.L. C.J.C.

REGISTERED PROFESSIONAL ENGINEER  
 REGISTERED PROFESSIONAL ENGINEER

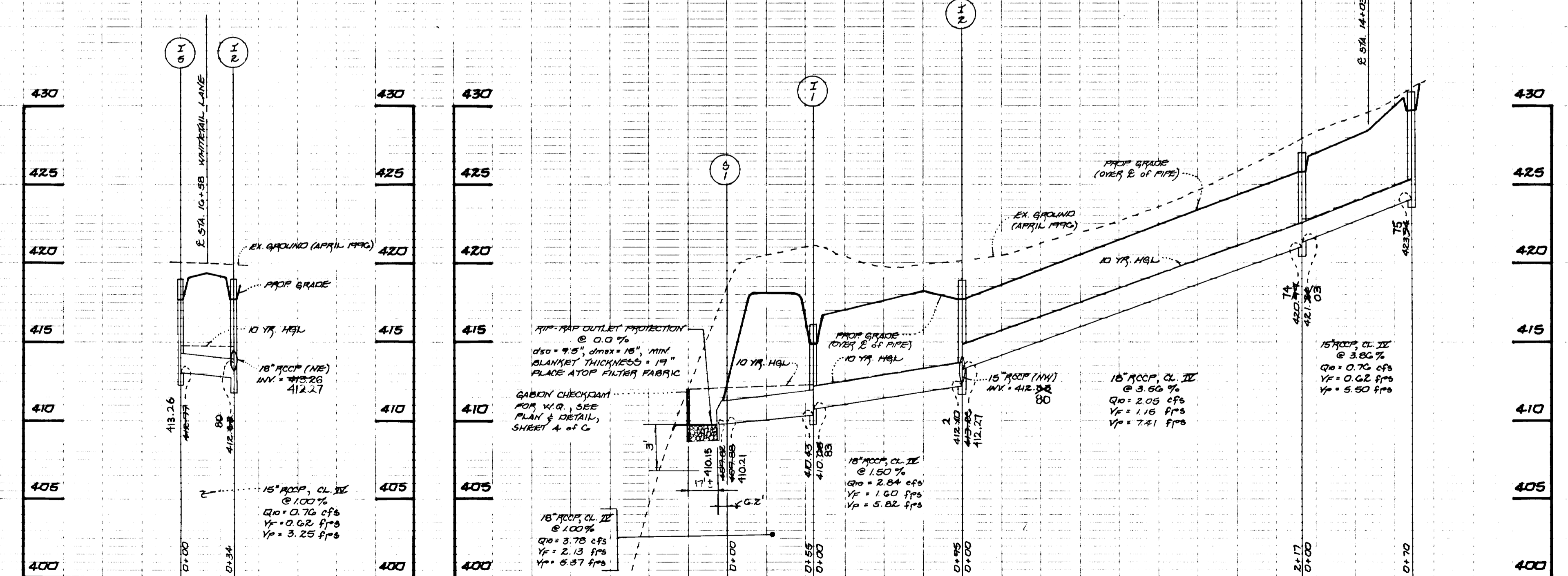
1738

WHITETAIL LANE

VERTICAL CURVE DATA  
 PVI STA. = 1+02  
 PVI ELEV. = 416.02  
 LENGTH = 100'  
 CURV. = +0.65'



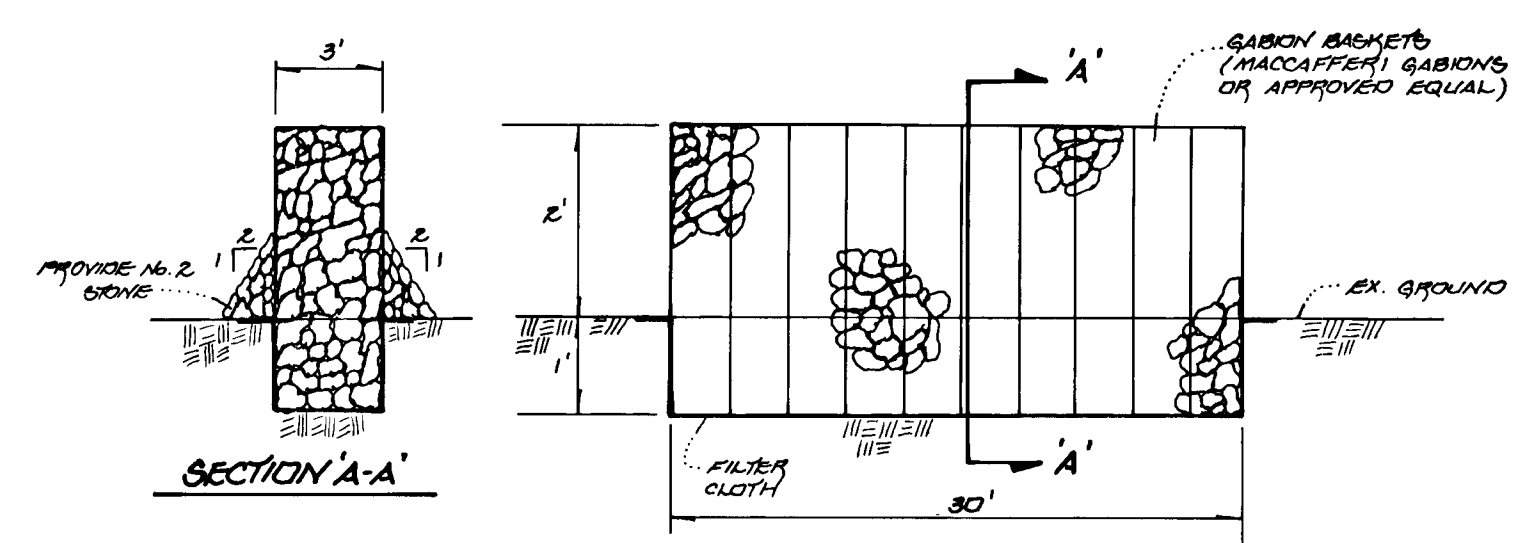
LINEAR PROFILE  
 SCALE: HORIZ. 1" = 50'  
 VERT. 1" = 5'



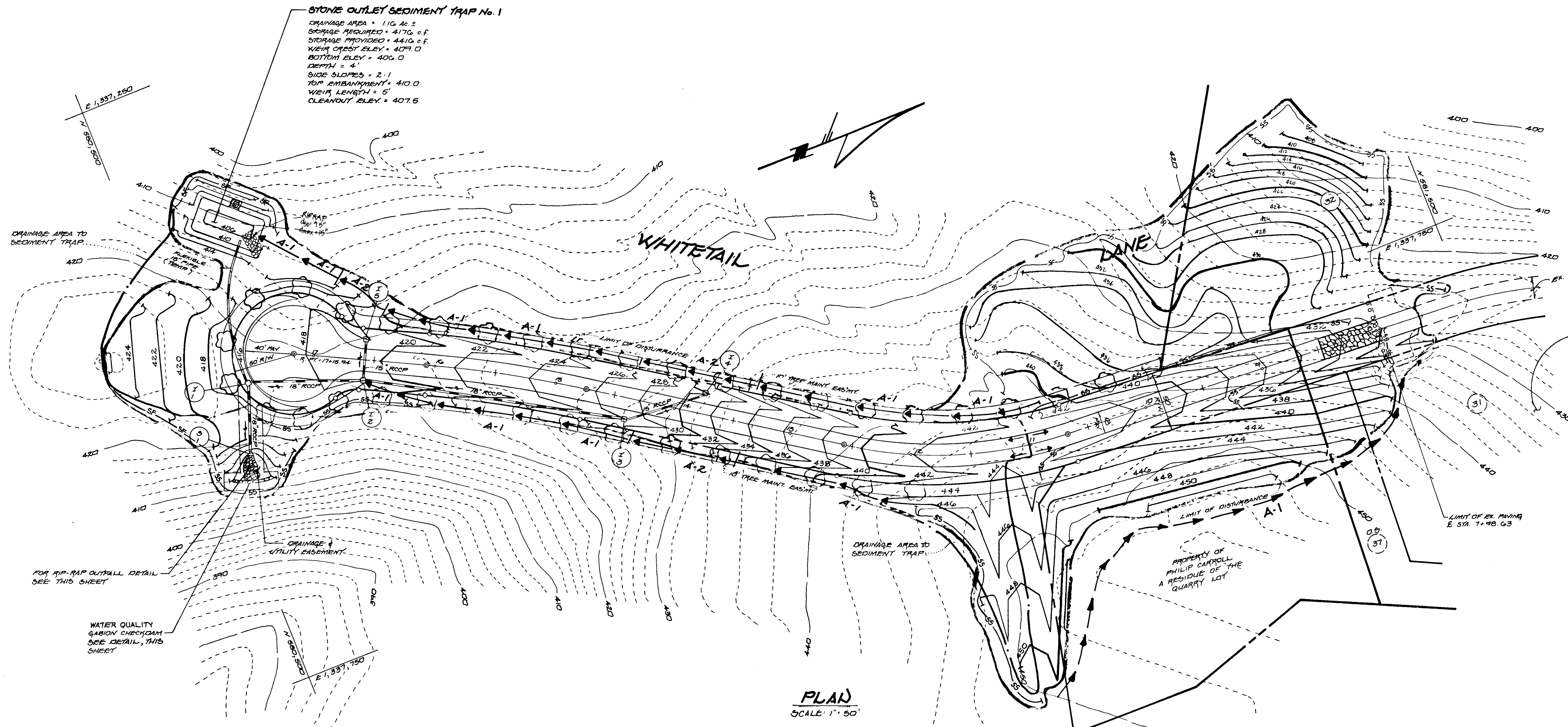
STORM DRAIN PROFILES  
 SCALE: HORIZ. 1" = 50'  
 VERT. 1" = 5'

| STREET TREE SCHEDULE |   |                        |   |
|----------------------|---|------------------------|---|
| SYMBOL               | BOTANICAL AND COMMON NAME                   | SIZE                   | COMMENTS                                  |
|                      | ACER RUBRUM<br>'OCTOBER GLORY'<br>RED MAPLE | 2 1/2" - 3"<br>CALIPER | 40' SPACING ON<br>PUBLIC RIGHT-<br>OF-WAY |

NOTE: STREET TREES ARE ONLY A RECOMMENDATION. THIS MAY BE REVISED TO A COUNTY ACCEPTABLE EQUIVALENT.  
TOTAL NUMBER OF TREES: 37



GABION CHECKDAM DETAIL  
(NO SCALE)



STONE OUTLET SEDIMENT TRAP No. 1  
DRAINAGE AREA = 1.10 AC ±  
STORAGE REQUIRED = 4770 CF  
STORAGE PROVIDED = 4410 CF  
WEIR crest ELEV. = 407.0  
BOTTOM ELEV. = 406.0  
DEPTH = 4"  
SIDE SLOPES = 2:1  
TOP EMBANKMENT = 410.0  
WEIR LENGTH = 5'  
CLEANOUT ELEV. = 407.6

**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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
Signature: [Signature] DATE: 10/18/96

**DEVELOPER'S CERTIFICATE**  
I/WE 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 ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.  
Signature: [Signature] DATE: 11/1/96

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
Signature: [Signature] DATE: 04-07-97  
USDA-NATURAL RESOURCES CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
Signature: [Signature] DATE: 4/3/97  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Signature: [Signature] DATE: 4/23/97  
DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Signature: [Signature] DATE: 4/22/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION, MD

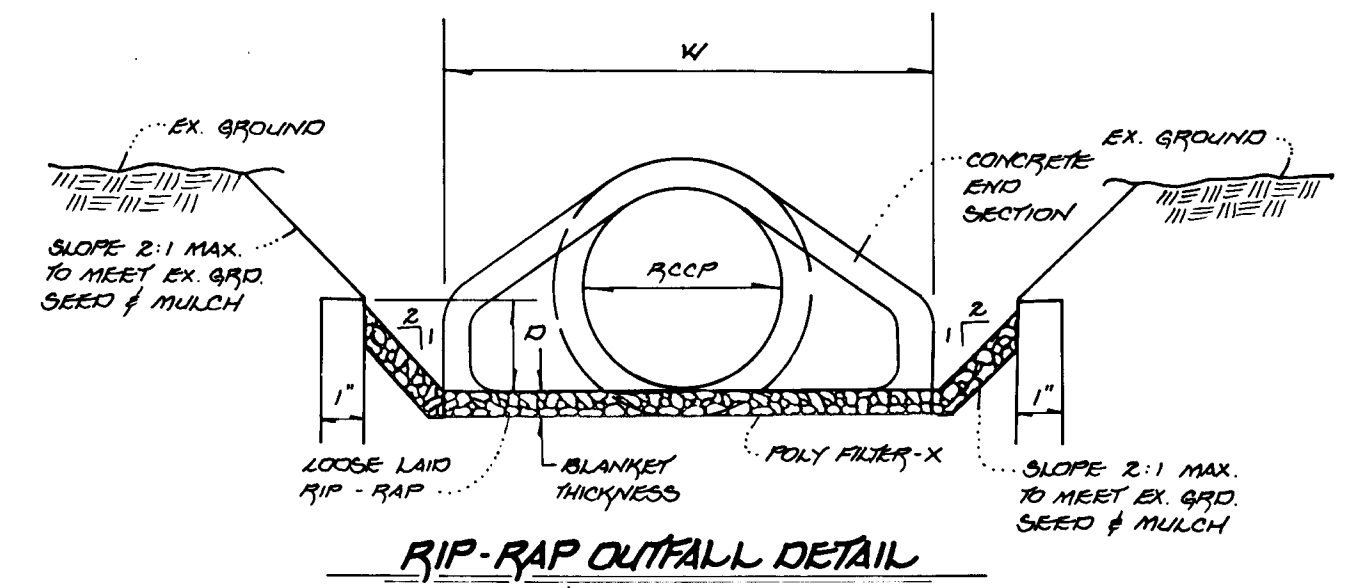
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
Signature: [Signature] DATE: 4-14-97  
CHIEF, BUREAU OF HIGHWAYS

**LEGEND**

- OF OF SALT FENCE
- OS OS SUPER OIL FENCE
- A-1 A-1 EARTH DIKE
- [Symbol] STABILIZED CONSTRUCTION ENTRANCE
- [Symbol] LIMIT OF DISTURBANCE
- [Symbol] DRAINAGE AREA TO TRAP

NOTE: CONTRACTOR SHALL LINE THE DITCH FROM I-3 UP TO STATION 12+65 WITH SOLID SO2 OR EQUIVALENT.

| NO.       | DATE    | DESCRIPTION                   |
|-----------|---------|-------------------------------|
| 1         | 9-18-97 | REMOVED TREE PROTECTION FENCE |
| REVISIONS |         |                               |



| RIP-RAP CHANNEL DESIGN DATA |        |                  |        |                  |      |                  |    |       |    |        |         |                   |
|-----------------------------|--------|------------------|--------|------------------|------|------------------|----|-------|----|--------|---------|-------------------|
| STRUCTURE                   | AREA   | WETTED PERIMETER | R      | R <sup>2/3</sup> | S    | S <sup>1/2</sup> | W  | D     | N  | V(FPS) | Q (CFS) | BLANKET THICKNESS |
| S-1                         | 2.6208 | 6.3255           | 0.4143 | 0.5555           | .005 | .0707            | 4' | 0.62' | 04 | 1.46   | 3.83    | 19"               |

OWNER  
MR. PHILIP CARROLL  
C/O MR. TOM SCRIVENER  
5026 DORSEY HALL DRIVE  
SUITE 204  
ELICOTT CITY, MD. 21042

DEVELOPER  
MID ATLANTIC DEVELOPMENT, L.L.C.  
5026 DORSEY HALL DRIVE  
SUITE 204  
ELICOTT CITY, MD. 21042

1738

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
1000 W. BALTIMORE NATIONAL HWY.  
ELICOTT CITY, MARYLAND 21042  
(410) 461-2855

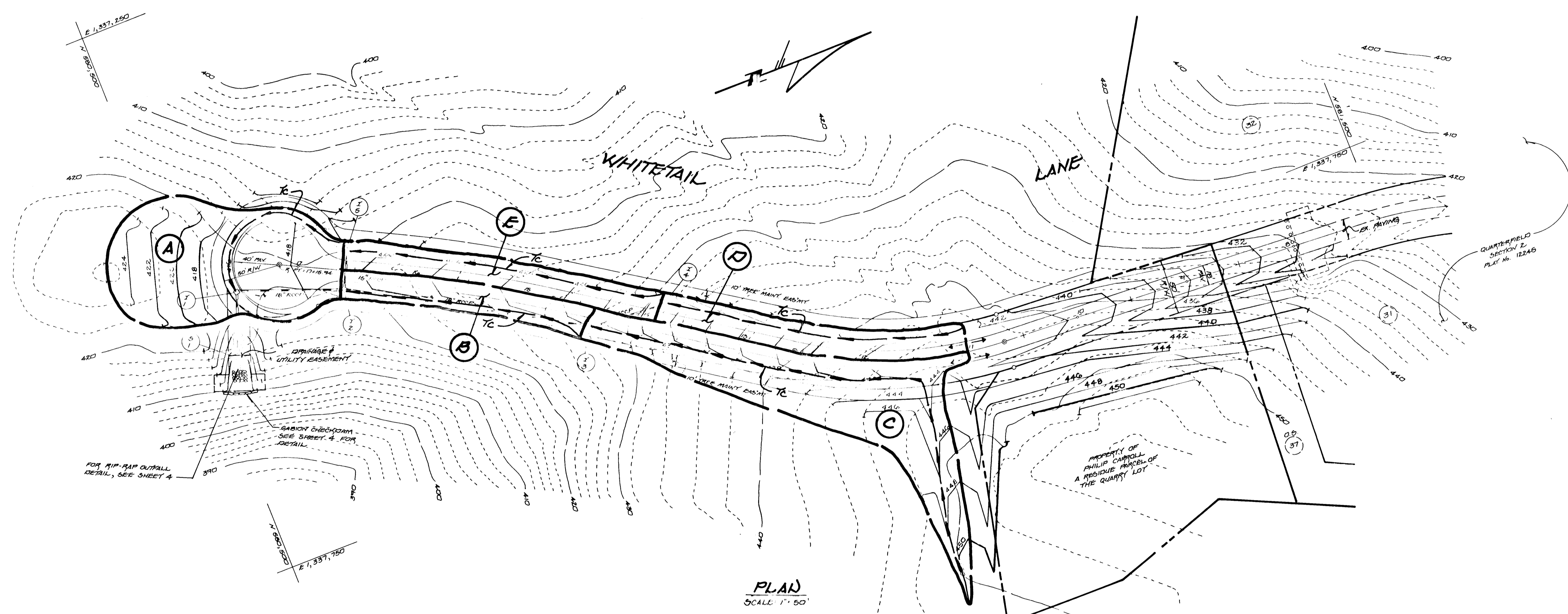
STREET TREE, GRADING AND SEDIMENT CONTROL PLAN  
**QUARTERFIELD III**  
ZONED RC-DEO  
TAX MAP NO. 23 PARCEL 17 PART OF PARCEL NO. 84  
THIRD ELECTION DISTRICT HOWARD COUNTY, MD.  
SCALE: AS SHOWN DATE: OCTOBER 18, 1996  
SHEET 4 OF 6

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Pauley* 9-14-97  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cathy Hamilton* 10/14/97  
 DIVISION OF LAND DEVELOPMENT DATE

*Mr. Pauley* 10/21/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

| DRAINAGE AREA DATA |      |               |          |        |        |
|--------------------|------|---------------|----------|--------|--------|
| INLET NO.          | AREA | DRAINAGE AREA | C FACTOR | ZONING | % IMP. |
| I-1                | A    | 0.22 Ac. ±    | 0.67     | RC-DEO | 64 %   |
| I-2                | B    | 0.12 Ac. ±    | 0.60     | RC-DEO | 50 %   |
| I-3                | C    | 0.47 Ac. ±    | 0.33     | RC-DEO | 19 %   |
| I-4                | D    | 0.16 Ac. ±    | 0.56     | RC-DEO | 44 %   |
| I-5                | E    | 0.16 Ac. ±    | 0.56     | RC-DEO | 44 %   |

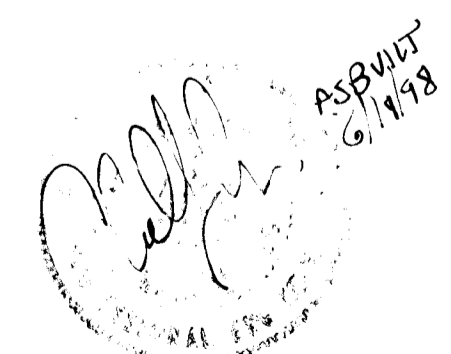
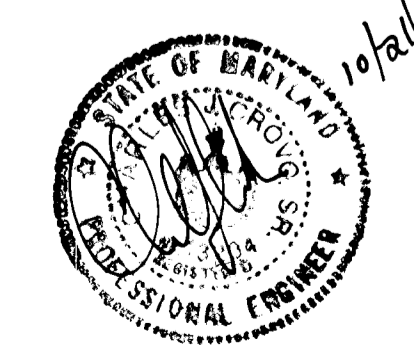


1738

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 14101 461 - 2855

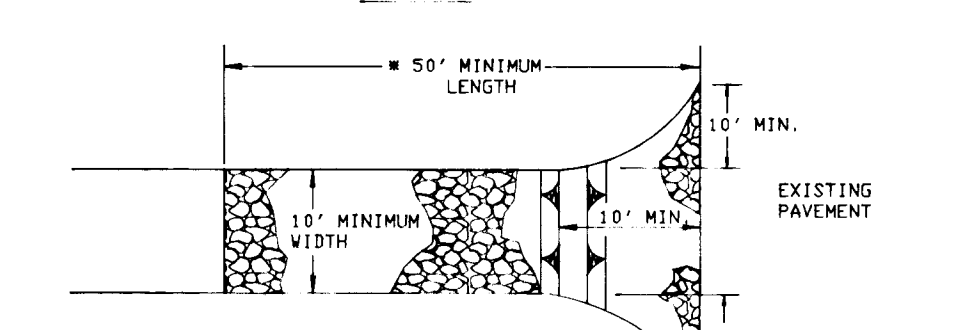
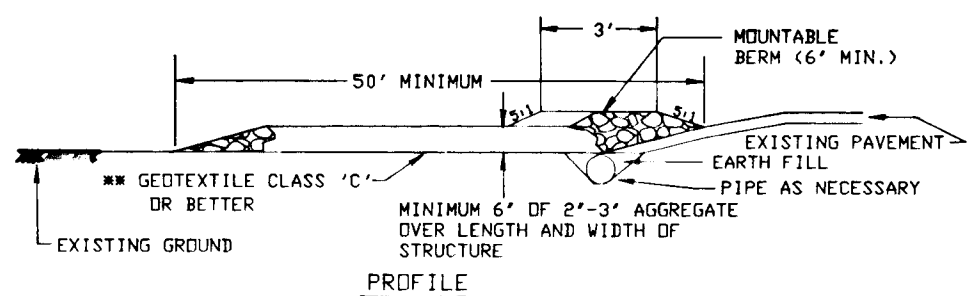
OWNER  
 MR. PHILIP CARROLL  
 C/O MR. TOM SCRIVENER  
 5006 DORSEY HALL DRIVE  
 SUITE 204  
 ELLICOTT CITY, MD. 21042

DEVELOPER  
 MID ATLANTIC DEVELOPMENT, L.L.C.  
 5026 DORSEY HALL DRIVE  
 SUITE 204  
 ELLICOTT CITY, MD. 21042



DRAINAGE AREA MAP  
**QUARTERFIELD III**  
 ZONED RC-DEO  
 TAX MAP NO. 23 PARCEL T1 PART OF PARCEL NO. 84  
 THIRD ELECTION DISTRICT HOWARD COUNTY, MD.  
 SCALE: AS SHOWN DATE: OCTOBER 18, 1996  
 SHEET 5 OF 6

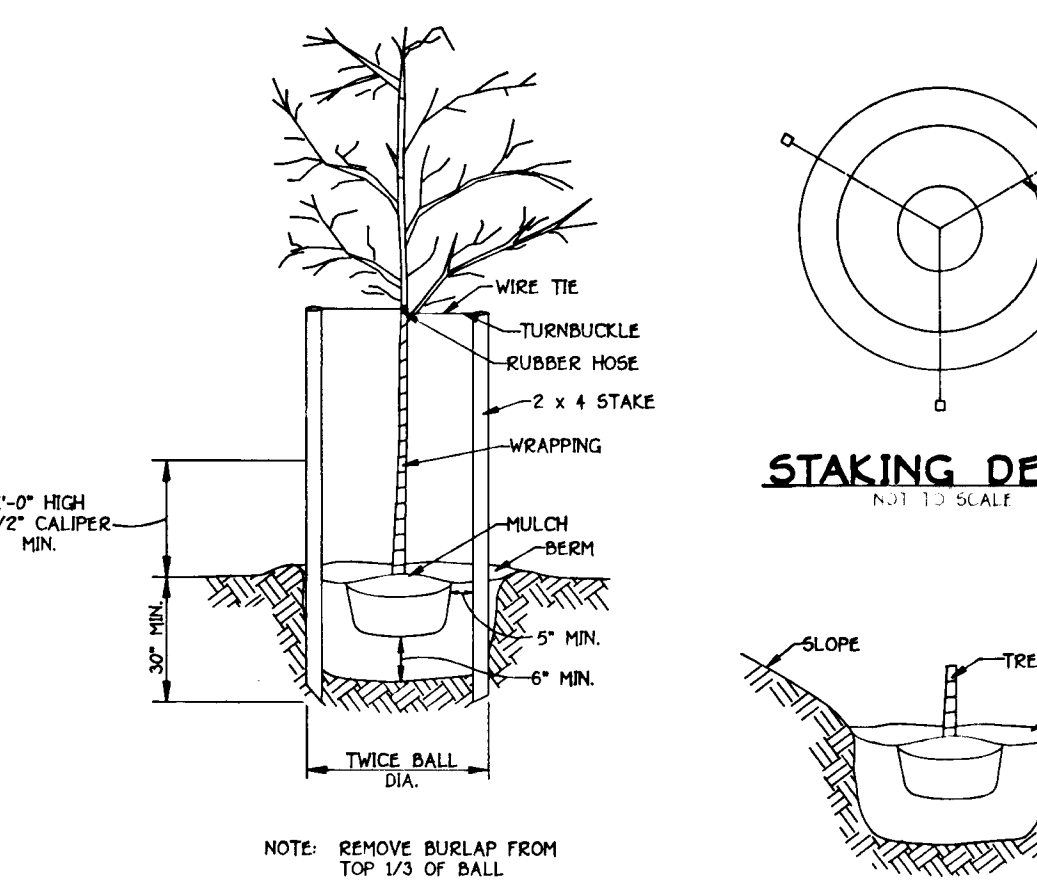
F97.90



Construction Specification

- Length - minimum of 50' (#30' for single residence lot).
- Width - 10' minimum, should be placed at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

**STABILIZED CONSTRUCTION ENTRANCE - 2**  
NOT TO SCALE



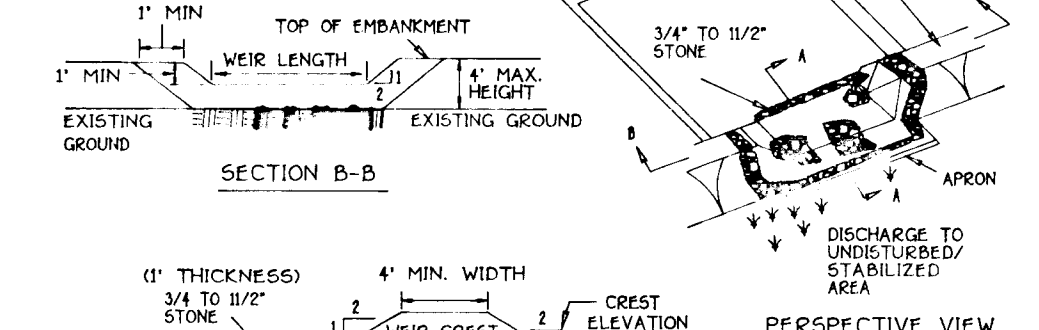
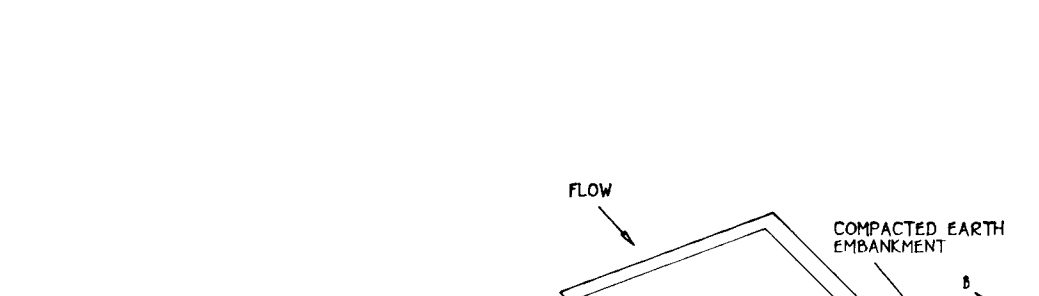
**TREE PLANTING**  
NOT TO SCALE

**GRADING FOR PLANTING ON SLOPES**  
NOT TO SCALE

**SEDIMENT CONTROL NOTES**

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (315-2853).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED WITH YELLOW WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE FENCED WITH YELLOW WARNING SIGNS SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
 

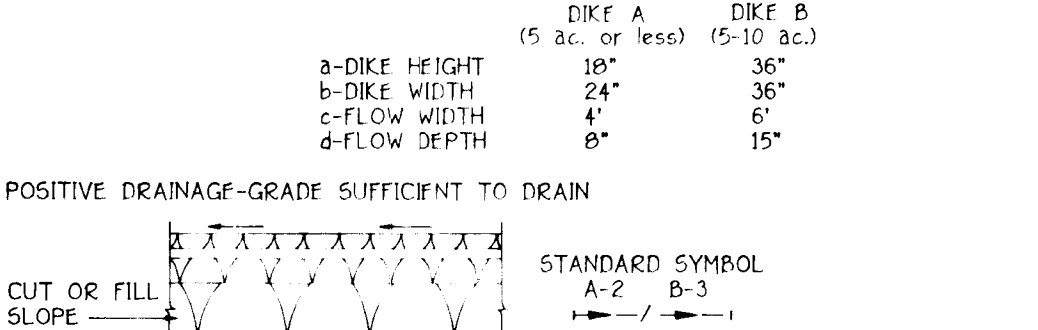
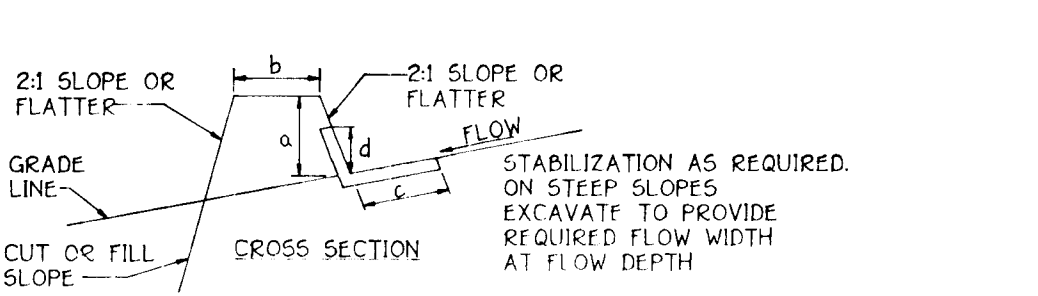
|  |         |
|--|---------|
| TOTAL AREA OF SITE                       | ACRES ± |
| AREA TO BE DISTURBED: 2.70               | ACRES ± |
| AREA TO BE ROOFED OR PAVED: 0.56         | ACRES ± |
| AREA TO BE VEGETATIVELY STABILIZED: 2.34 | ACRES ± |
| TOTAL CUT: 2.00                          | CYD.S ± |
| TOTAL FILL: 2.00                         | CYD.S ± |
| OFFSITE WASTE/BORROW AREA LOCATION       | N/A     |
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITH ONE WORKING DAY, WHICHEVER IS SHORTER.



Construction Specifications

- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil area shall be compacted.
- The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
- All cut and fill slopes shall be 2:1 or flatter.
- The stone used in the outlet shall be small rip-rap 4" to 7" in size with a 1" thick layer of 3/4" to 1 1/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

**DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II**  
NOT TO SCALE



Construction Specifications

- All dikes shall be compacted by earth-moving equipment.
- All dikes shall have positive drainage to an outlet.
- Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
- Field location should be adjusted as needed to utilize a stabilized safe outlet.
- Earth dikes shall have an outlet that functions with a minimum of erosion runoff to a sediment basin where either the dike channel or the drainage area above the dike are not adequately stabilized.
- Stabilization shall be (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

**FLOW CHANNEL STABILIZATION**

| TYPE OF TREATMENT | CHANNEL GRADE | DIKE A                           | DIKE B  |
|-------------------|---------------|----------------------------------|---|
| 1                 | 5-3-0X        | SEED AND STRAW MULCH             | SEED AND STRAW MULCH                          |
| 2                 | 3-1-5-0X      | SEED AND STRAW MULCH             | SEED USING JUTE, OR EXCELISIOR; SOD; 2" STONE |
| 3                 | 5-1-8-0X      | SEED WITH JUTE, OR SOD; 2" STONE | LINED RIP-RAP 4"-8"                           |
| 4                 | 8-1-2-0X      | LINED RIP-RAP 4"-8"              | ENGINEERING DESIGN                            |

- STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
- RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
- APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

**EARTH DIKE**  
NOT TO SCALE

**20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION**

Using vegetation as cover for barren soil to protect it from forces that cause erosion. Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode under the influence of rainfall, thereby reducing sediment loads and runoff to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

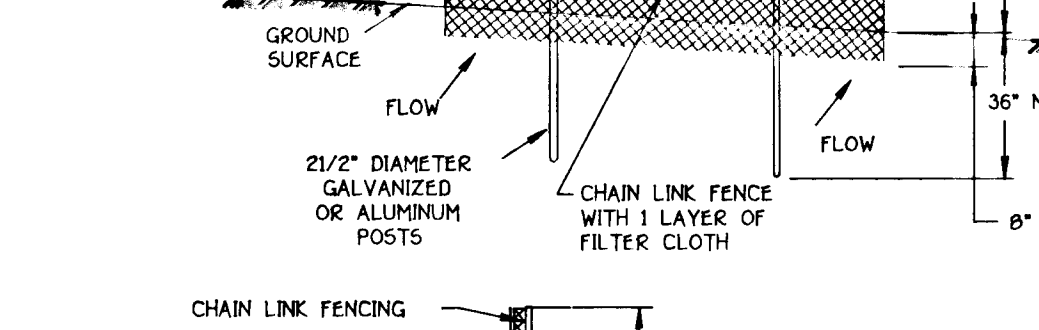
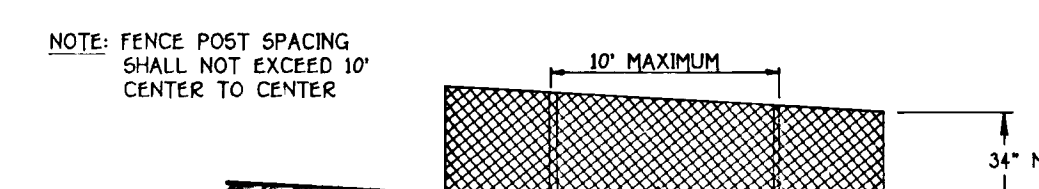
EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

**SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS**

- Site Preparation
  - Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
  - Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
  - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.
- Soil Amendments (fertilizer and Lime Specifications)
  - Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
  - Fertilizers must be formulated and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranty of the producer.
  - Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98-100% will pass through a #20 mesh sieve.
  - Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
- Seeded Preparation
  - Temporary Seeding
    - Seedbed preparation consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
    - Apply fertilizer and lime as prescribed on the plans.
    - Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
  - Permanent Seeding
    - Minimum soil conditions required for permanent vegetative establishment:
      - Soil pH shall be between 6.0 and 7.0.
      - Soluble salts shall be less than 500 parts per million (ppm).
      - The soil shall contain less than 40% clay, but enough fine grained material (30% silt plus clay) to provide the capability to hold a moderate amount of moisture, except that if loesslike or sercia lespezoides is to be planted, then a sandy soil (30% silt plus clay) would be acceptable.
      - Soil shall contain 1% minimum organic matter by weight.
      - Soil must contain sufficient pore space to permit adequate root penetration.
      - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with section 20.0 and specifications for topsoil.
    - Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
    - Apply soil amendments as per soil test or as included on the plans.
    - Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application, where site conditions will not permit normal seeded preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.

**DETAIL 33 - SUPER SILT FENCE**

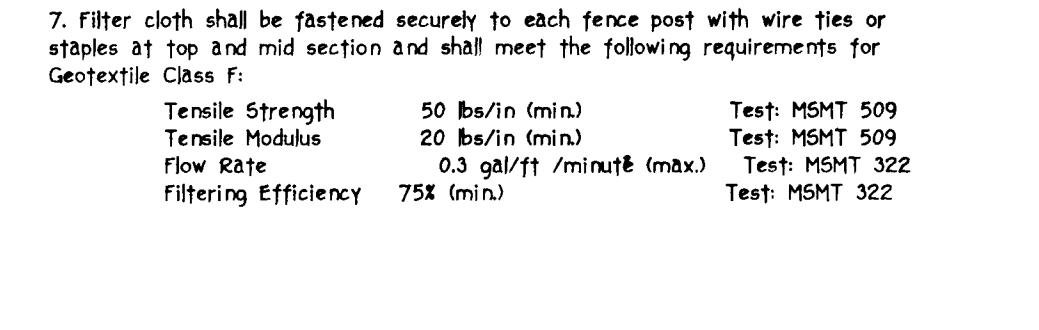


Construction Specifications

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the end of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildup removed when "slugs" develop in the silt fence, or when silt reaches 50% of fence height.
- Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:
 

|                      |                           |                |
|----------------------|---------------------------|----------------|
| Tensile Strength     | 50 lbs/in (min)           | Test: MSMT 509 |
| Tensile Modulus      | 20 lbs/in (min)           | Test: MSMT 509 |
| Flow Rate            | 0.3 gal/ft / minute (max) | Test: MSMT 322 |
| Filtering Efficiency | 75% (min)                 | Test: MSMT 322 |

**DETAIL 22 - SILT FENCE**



Construction Specifications

- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard 1" or U section weighing not less than 100 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
 

|                      |                           |                |
|----------------------|---------------------------|----------------|
| Tensile Strength     | 50 lbs/in (min)           | Test: MSMT 509 |
| Tensile Modulus      | 20 lbs/in (min)           | Test: MSMT 509 |
| Flow Rate            | 0.3 gal/ft / minute (max) | Test: MSMT 322 |
| Filtering Efficiency | 75% (min)                 | Test: MSMT 322 |
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

**DEVELOPER'S CERTIFICATE**

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND THAT ANY RESPONSIBLE PERSONNEL 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 ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

11/7/96  
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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

1/21/96  
DATE

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

APPROVED: 04-07-97  
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

APPROVED: DEPARTMENT OF PLANNING AND ZONING

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

4/24/97  
DATE

4/22/97  
DATE

4-14-97  
DATE

**SEQUENCE OF CONSTRUCTION**

- OBTAIN A GRADING PERMIT.
- NOTIFY "MISS UTILITY" 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION INSPECTION AT (410) 313-1880 (5) WORKING DAYS PRIOR TO START OF CONSTRUCTION.
- INSTALL TREE PROTECTION FENCE.
- INSTALL SEDIMENT CONTROL MEASURES, STABILIZED CONSTRUCTION ENTRANCE, STONE OUTLET SEDIMENT TRAP, EARTH DIKES, SUPER SILT FENCE AND SILT FENCE. STABILIZE DISTURBED AREAS PER TEMPORARY SEEDING NOTES.
- GRADE ROAD TO SUBGRADE AND INSTALL STORM DRAINS, INLETS, TEMPORARY FLEXIBLE PIPE AND CONSTRUCT GABION CHECKDAM.
- BLOCK 1-1 TO 5-1.
- CONSTRUCT ROAD.
- OBTAIN PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO REMOVE SEDIMENT CONTROL.
- STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEEDING.

**SEDIMENT CONTROL NOTES AND DETAILS**

**QUARTERFIELD III**

ZONED RC-DEO

TAX MAP NO. 23 PARCEL T1 PART OF PARCEL B4

THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: OCTOBER 18, 1996

SHEET 6 OF 6

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
1101 W. JORDAN STREET, SUITE 201, BALTIMORE, MARYLAND 21202  
ELLIOTT CITY, MARYLAND 21042  
(410) 461-2855

**OWNER**  
MR. PHILIP CARROLL  
c/o NE. TOM SCHRIEVER  
5026 DORSEY HALL DRIVE-SUITE 204  
ELLIOTT CITY, MARYLAND 21042

**DEVELOPER**  
MID-ATLANTIC DEVELOPMENT LLC  
5026 DORSEY HALL DRIVE-SUITE 204  
ELLIOTT CITY, MARYLAND 21042

