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# FINAL ROAD CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLAN

## GLYNCHESTER FARM

### BUILDABLE LOTS 1 THRU 46, OPEN SPACE LOTS 47 THRU 53 AND NON-BUILDABLE PARCELS 'A' & 'B'

**ZONED: R-20**

### TAX MAP No. 31 PARCEL NOs. 239 & 740 GRID No. 16

APPROVED: DEPARTMENT OF PLANNING AND ZONING

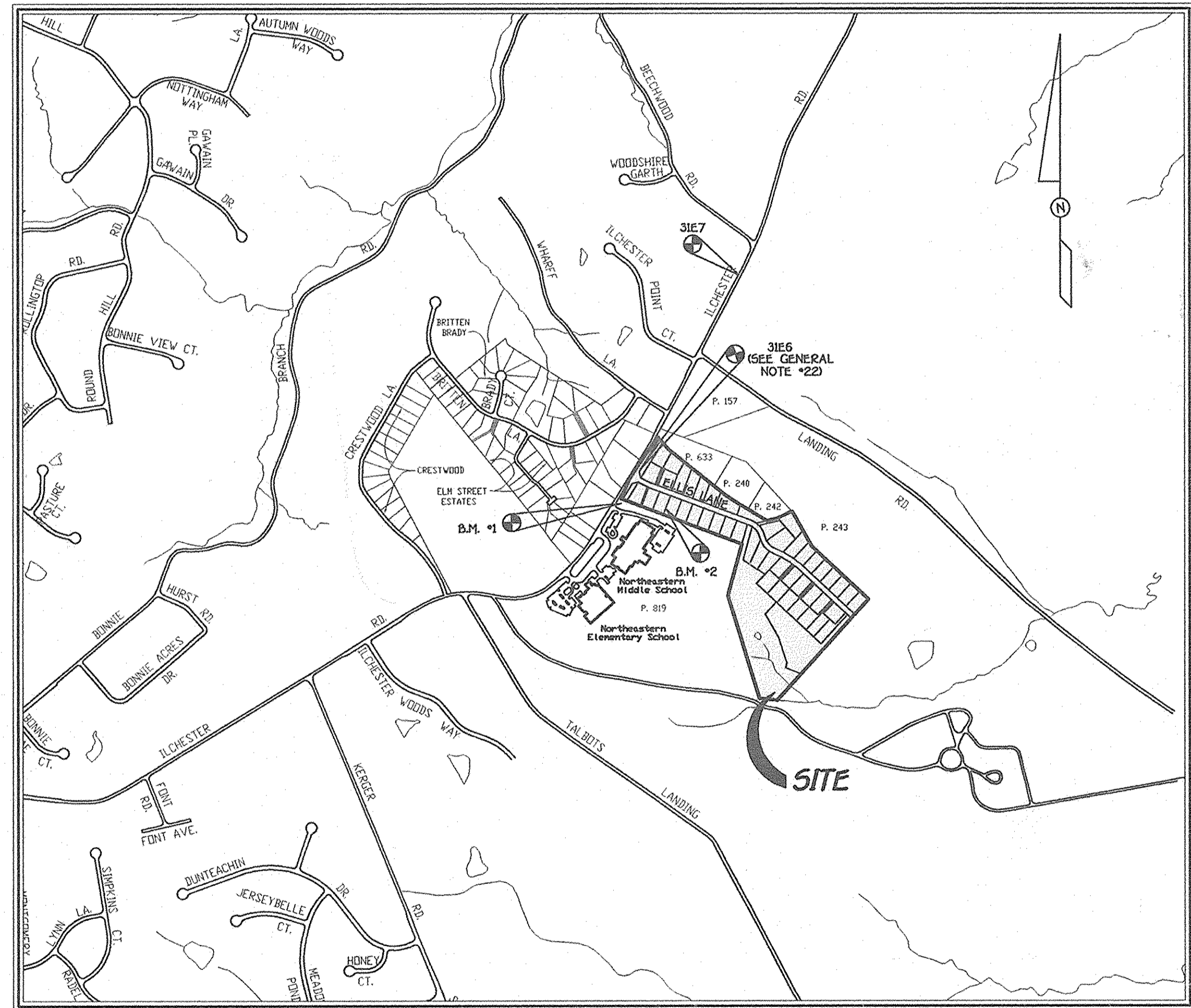
*Cindy Hamstra* 6/28/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE

*W. J. ...* 5/30/02  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Andrew M. ...* 5-14-02  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE

- #### GENERAL NOTES
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSMA 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 (5) WORKING DAYS PRIOR TO THE START OF WORK.
  - THE CONTRACTOR SHALL NOTIFY "M55 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.
  - COORDINATES BASED ON NAD83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 31 E6 AND NO. 31 E7
    - √ 31 E6 N 570852.396  
E 1376700.705
    - √ 31 E7 N 572335.321  
E 1377503.919
  - THE TRAFFIC STUDY WAS PREPARED BY THE TRAFFIC GROUP, INC. DATED MARCH 29, 1998 AND APPROVED UNDER LICENSE 598-15.
  - BACKGROUND INFORMATION:
    - A. SUBDIVISION NAME: GLYNCHESTER FARM
    - B. TAX MAP NO.: 31
    - C. PARCEL NOS.: 239 AND 740
    - D. ZONING: R-20
    - E. ELECTION DISTRICT: FIRST
    - F. TOTAL TRACT AREA: 28.81 AC.
    - G. NO. OF BUILDABLE LOTS: 46
    - H. NO. OF OPEN SPACE LOTS: 7
    - I. NO. OF NON-BUILDABLE PARCELS: 2
    - J. AREA OF BUILDABLE LOTS: 16,237 AC.
    - K. AREA OF OPEN SPACE LOTS: 10,231 AC.
    - L. AREA OF NON-BUILDABLE PARCELS: 0.110 AC.
    - M. PREVIOUS FILE NOS.: 598-15 APPROVAL DATE: 1/13/98, P01-13
    - N. APPROVAL DATE: 3/9/02
    - O. TOTAL AREA OF OPEN SPACE REQUIRED: 0.64 AC. (30% OF GROSS AREA)
    - P. RECREATIONAL OPEN SPACE REQUIRED: 46 X 200 = 9200 SF.
    - Q. RECREATIONAL OPEN SPACE PROVIDED: 9805 SF. ON LOT 50
  - NO CEMETERIES EXIST ON THE PROPERTY.
  - ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T-99.
  - THE FOREST CONSERVATION EASEMENTS HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 161202 OF THE HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
  - STORMWATER MANAGEMENT FACILITY:
    - TYPE - WET POOL DESIGN (RETENTION)
    - OWNER - ZILCHESTER AT GLYNCHESTER HOMEOWNERS ASSOC., INC.
    - MAINTENANCE - PRIVATELY MAINTAINED.
  - STREET LIGHTS WILL BE REQUIRED IN THE DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (REVISED AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)". THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
  - THE PROPOSED WATER AND SEWER SYSTEMS SHALL BE PUBLIC. CONTRACT NO. 14-3976-D
  - THE SUBJECT PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND/OR SEWER ALLOCATIONS FOR THIS DEVELOPMENT ARE SUBJECT TO SECTION 18122-B OF THE HOWARD COUNTY CODE. ALLOCATIONS WILL BE MADE AVAILABLE AT THE TIME OF FINAL PLAT APPROVAL, IF CAPACITY IS AVAILABLE AT THAT TIME.
  - EXISTING UTILITIES SHOWN HEREON ARE TAKEN FROM CURRENT HOWARD COUNTY CONTRACT DRAWINGS.
    - a. EXISTING WATER CONTRACT NO. 200-W
    - b. EXISTING SEWER CONTRACT NOS. 10-184 AND 10-3696
  - TOPOGRAPHIC INFORMATION ESTABLISHED AT TWO FOOT INTERVALS BASED ON AERIAL TOPOGRAPHY PREPARED BY HARFORD AERIAL SURVEYS DATED MARCH, 1998.
  - FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE IS TO BE PROVIDED AT THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY AND NOT ONTO THE FLAG OR PIPESTEM DRIVEWAY.
  - WETLAND AND FOREST STAND DELINEATION INFORMATION SHOWN WAS TAKEN FROM REPORTS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED MARCH 5, 1998 AND APPROVED UNDER 5-98-15.
  - SOILS INFORMATION TAKEN FROM SOIL MAP NOS. 20 AND 21, SOIL SURVEY, HOWARD COUNTY, MARYLAND, JULY 1968 ISSUE.
  - OPEN SPACE LOT 50 DEDICATED TO THE HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS. ALL OTHER OPEN SPACE LOTS WITHIN THIS SUBDIVISION SHALL BE DEDICATED TO THE HOMEOWNERS ASSOCIATION.
  - THE THREE MAIN ACCESSORY STRUCTURES LOCATED ON LOTS 13, 14 & 35 WILL BE RAZED PRIOR TO RECORDATION OF THE FINAL PLAT. EXISTING HOUSE TO REMAIN LOCATED ON LOT 35.
  - THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS SURVEY DIVISION 72 HOURS PRIOR TO ANY WORK BEING DONE. SURVEY CONTROL STATION 3166 SHALL BE RELOCATED PRIOR TO THE WIDENING OF ILCHESTER ROAD. (410) 313-2471.
  - (ELEV.) DENOTES APPROXIMATE ELEVATION OF 100 YEAR FLOOD PLAIN THE "NON-CRITICAL" METHOD WAS USED FOR DETERMINATION OF THE "100 YEAR FLOOD PLAIN".
  - THE PURPOSE OF NON-BUILDABLE PARCELS 'A' & 'B' IS TO CREATE ACCESS TO ADJOINING PARCELS RECORDED IN LIBER 521, FOLIO 360, "BENTZ PROPERTY", PARCEL 240 AND LIBER 3084, FOLIO 136, "YAW PROPERTY", PARCEL 242. PARCELS 'A' & 'B' WILL BE CONVEYED TO ADJOINING PROPERTY OWNERS UPON RECORDATION OF THE FINAL RECORD PLAT. THE PARCELS WILL BE DEED AT NO COST FOR THE EXCLUSIVE USE OF THESE PROPERTIES.
  - THE LANDSCAPE SURETY IN THE AMOUNT OF \$35,460 FOR PERIMETER LANDSCAPE REQUIREMENTS OF SECTION 16124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL IS POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION.
  - THE FOREST CONSERVATION REQUIREMENTS PER SECTION 161202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL, FOR THIS PROJECT HAS BEEN FULFILLED BY ON-SITE RETENTION OF EXISTING FOREST IN THE AMOUNT OF 3.4 ACRES AND ON-SITE PLANTING (AFFORESTATION) IN THE AMOUNT OF 0.5 ACRES. THE REMAINING FOREST CONSERVATION OBLIGATION IS LOCATED OFF-SITE IN NON-BUILDABLE PRESERVATION PARCEL 'B' OF SECTION 1, AREA 1 OF THE GAITHER HUNT SUBDIVISION RECORDED AS PLAT NOS. 13208 THRU 13211 PROVIDING 5.2 ACRES OF AFFORESTATION. SURETY FOR ON-SITE RETENTION (34 AC. X 0.20 = \$29,620.80), ON-SITE AFFORESTATION (0.5 AC. X 0.50 = \$10,990.00) AND OFF-SITE AFFORESTATION (1.2 AC. X 0.50 = \$11,356.00) IS POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION. TOTAL FOREST CONSERVATION SURETY AMOUNT FOR THIS SUBDIVISION IS \$51,966.80.
  - ILCHESTER ROAD IS A SCENIC ROAD. SEE FOR ON SHEET 2, ETC., RE 10' WIDE EASEMENT FOR MANS 2 & 241222.



**VICINITY MAP**  
SCALE: 1" = 600'

## 1st. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

#### STREET LIGHT CHART

STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE	COMMENTS
ELLIS LANE	C.L. STA. 0+37	28'R	100-WATT HPS. VAPOR PENDANT (CUTT-OFF) MOUNTED AT 30-FOOT ON A BRONZE FIBERGLASS POLE USING A 12" ARM.	----
ELLIS LANE	C.L. STA. 3+75	9'R	100-WATT HPS VAPOR "PREMIER COLONIAL" POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	AT SPEED CALMING DEVICE
ELLIS LANE	C.L. STA. 7+60	9'R	100-WATT HPS VAPOR "PREMIER COLONIAL" POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	AT SPEED CALMING DEVICE
ELLIS LANE	C.L. STA. 10+65	15'L	100-WATT HPS VAPOR "PREMIER COLONIAL" POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	----
ELLIS LANE	C.L. STA. 12+30	15'R	100-WATT HPS VAPOR "PREMIER COLONIAL" POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	----
ELLIS LANE	C.L. STA. 13+20	9'R	100-WATT HPS VAPOR "PREMIER COLONIAL" POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	AT SPEED CALMING DEVICE
ELLIS LANE	C.L. STA. 17+40	9'R	100-WATT HPS VAPOR "PREMIER COLONIAL" POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	AT SPEED CALMING DEVICE

#### STREET SIGN CHART

STREET NAME	STATION	OFFSET	POSTED SIGN	SIGN CODE
ELLIS LANE	C.L. STA. 0+50	14'L	STOP	R1-1
ELLIS LANE	C.L. STA. 0+32	37'R	STREET	0-3
ELLIS LANE	C.L. STA. 1+50	14'R	SPEED LIMIT 25	R2-1
ELLIS LANE	C.L. STA. 3+25	14'L	STOP AHEAD	W3-1A
ELLIS LANE	C.L. STA. 3+25	14'R	ONE LANE ROAD AHEAD	W20-4
ELLIS LANE	C.L. STA. 6+50	14'R	ONE LANE ROAD AHEAD	W20-4
ELLIS LANE	C.L. STA. 12+50	14'R	ONE LANE ROAD AHEAD	W20-4
ELLIS LANE	C.L. STA. 13+50	14'L	SPEED LIMIT 25	R2-1
ELLIS LANE	C.L. STA. 16+40	14'R	ONE LANE ROAD AHEAD	W20-4

#### BENCH MARKS

B.M. #1 ELEV. 480.74  
 REBAR AND CAP SET @ STA. -2+10 ILCHESTER ROAD  
 20' FROM E

B.M. #2 ELEV. 462.34  
 REBAR AND CAP SET @ STA. 3+45 ELLIS LANE  
 147' FROM E

#### DRIVEWAY NOTE:

DRIVEWAY (D) SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:

- WIDTH - 12 FEET (14 FEET SERVING MORE THAN ONE RESIDENCE)
- SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING
- GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM 45 FOOT TURNING RADIUS
- STRUCTURES - (CULVERTS / BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (125 LBS LOADING)
- DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
- STRUCTURE CLEARANCES - MINIMUM 12 FEET
- MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.

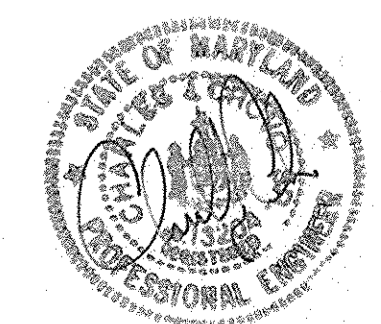
**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FLD.  
 ELICOTT CITY, MARYLAND 21042  
 410-461-3395

July 27, 2002	Revised Owner and Developer
Date	Revision

**OWNER AND DEVELOPER**  
 DR. AND MRS. MICHAEL ELLIS  
 4971 ILCHESTER ROAD  
 ELICOTT CITY, MARYLAND 21043

*Alvin W. ...*  
 ALDO M. WHEELER, P.E.

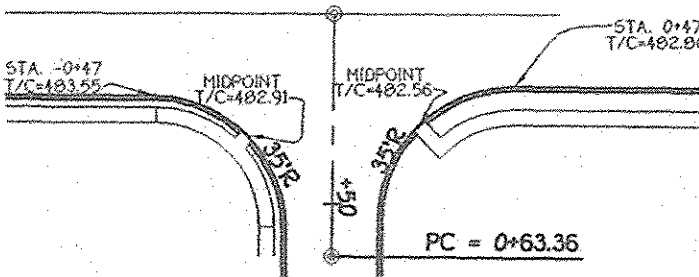
4-11-02  
DATE



**TITLE SHEET**  
**GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED: R-20  
 TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 11, 2002  
 SHEET 1 OF 20

**AS-BUILT 10-21-05** F.02-05

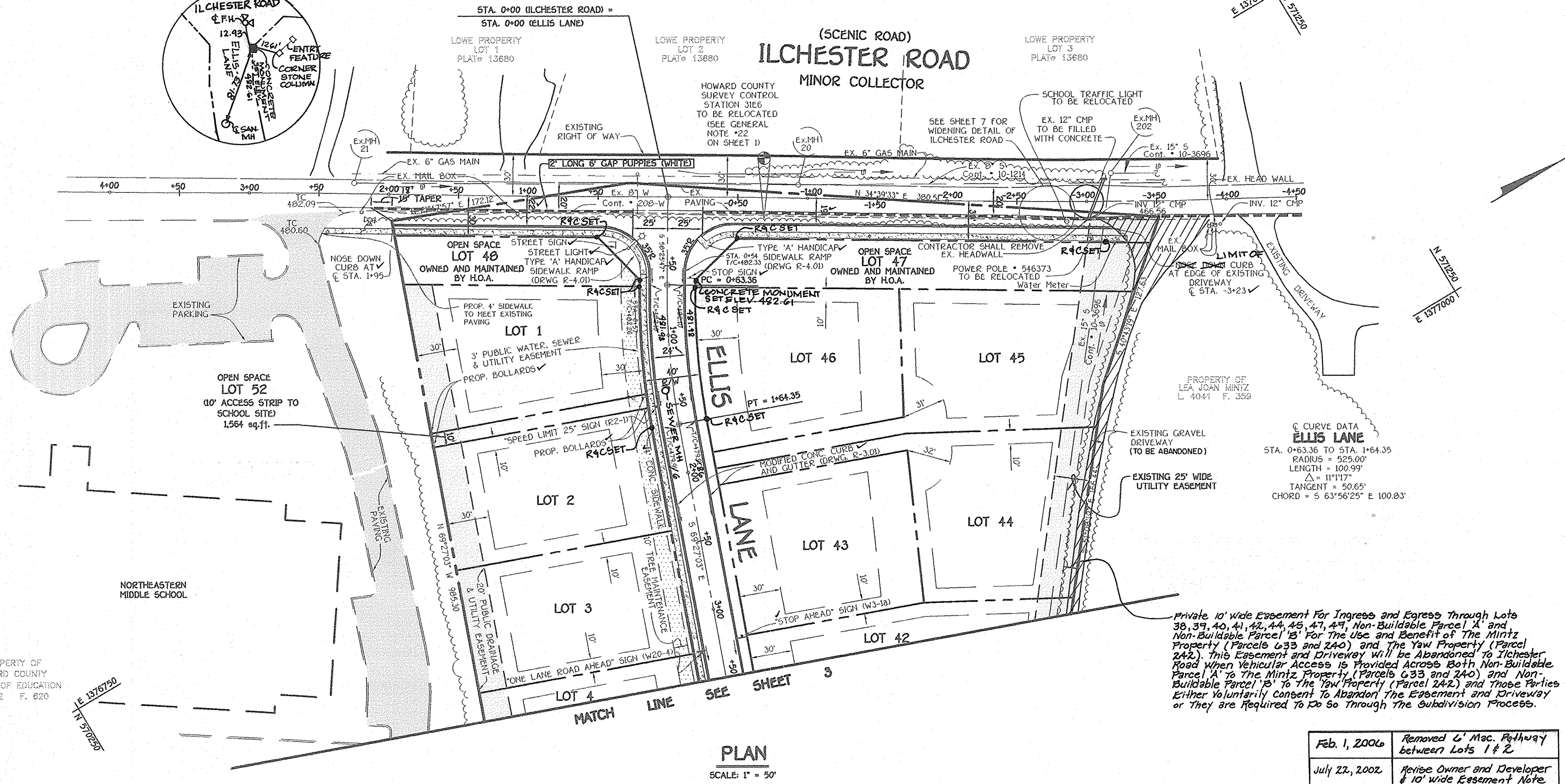
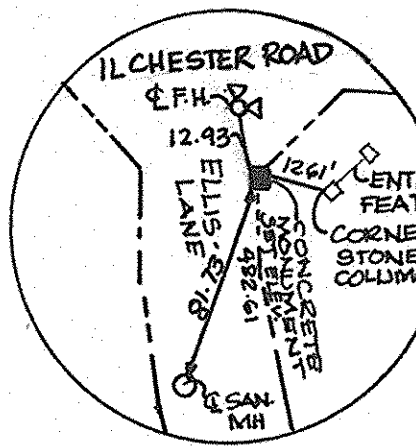
**ILCHESTER ROAD**



**ELLIS LANE**

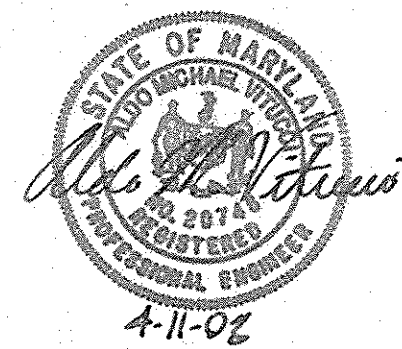
**DETAIL**

SCALE: 1" = 50'



**PLAN**

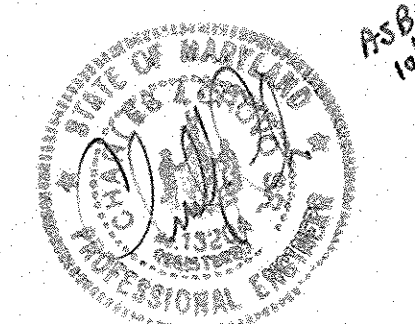
SCALE: 1" = 50'



APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
*Cindy Harvath* 6/25/02  
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
*Michael J. ...* 6/25/02  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. ...* 5/19/02  
CHIEF, BUREAU OF HIGHWAYS



**GLYNCHESTER FARM**  
BUILDABLE LOTS 1 THRU 46  
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AND NON-BUILDABLE PARCELS 'A' & 'B'  
TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

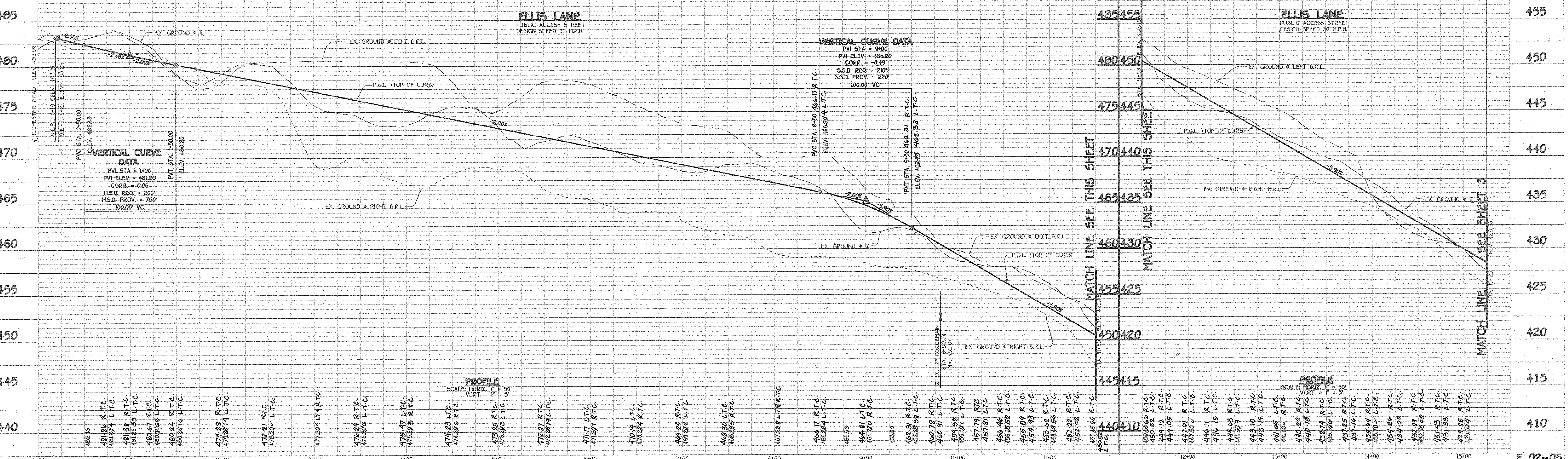
**ILCHESTER ROAD WIDENING** PLAN  
**ELLIS LANE PLAN AND PROFILE**

Owner and Developer  
*Dr. and Mrs. Michael Ellis*  
4711 Ilchester Road  
Ellicott City, Maryland 21043

SCALE: AS SHOWN DATE: APR. 11, 2002 DWG. NO. 2 OF 20  
DES: JNZ GRN: FJM / JCL CHK: CJC

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - BELTS BALTIMORE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21043  
(410) 451-1200

Feb. 1, 2006	Removed 6' Mac. Pathway between Lots 1 & 2
July 22, 2002	Revise Owner and Developer 10' wide Easement Note
Date =	Revision =



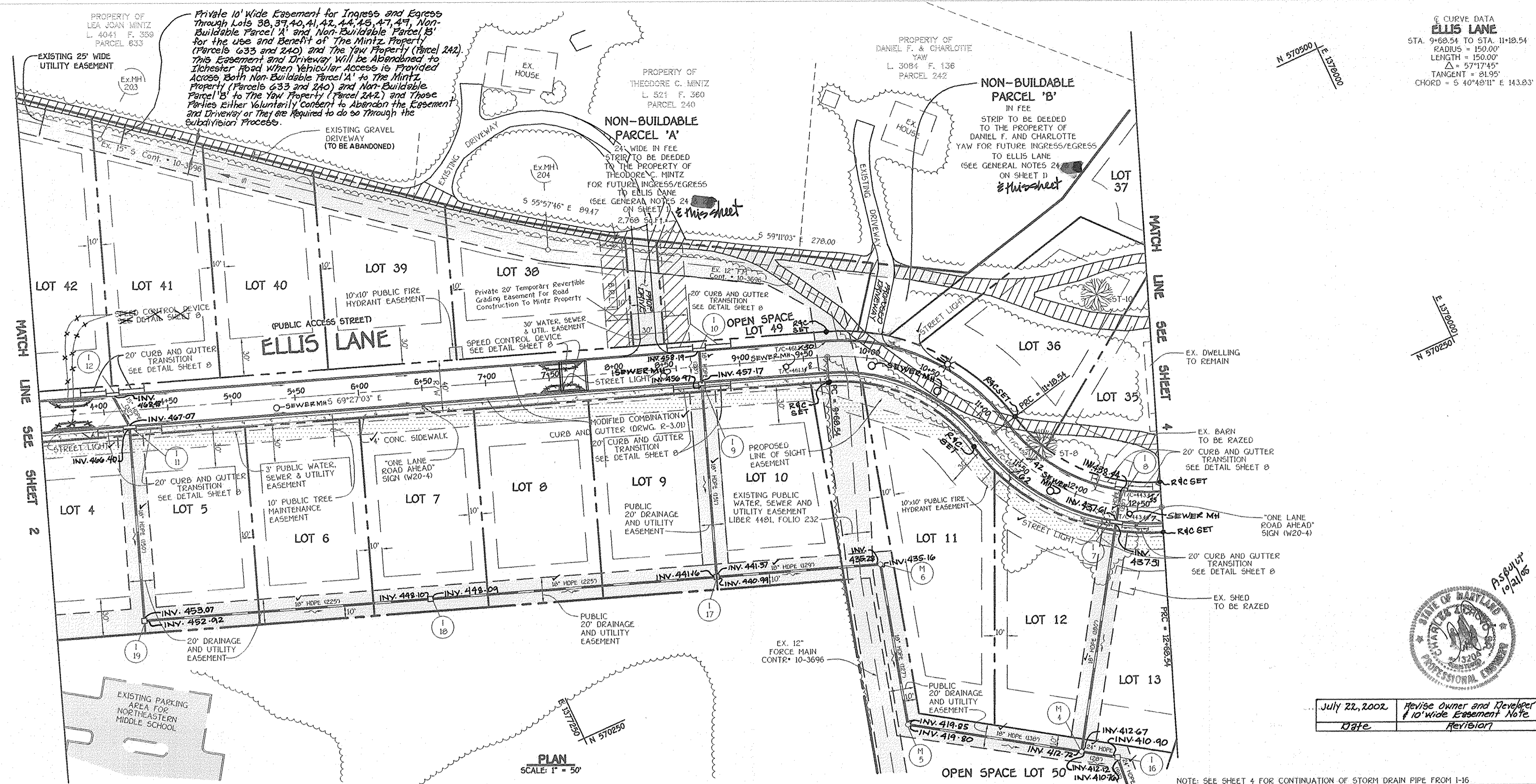
**AS-BUILT 10-21-05**



APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
*Windy Hancock* 6/28/02  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
*John D. Williams* 5/20/02  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE

APPROVED  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Richard M. Daniels* 5-14-02  
CHIEF, BUREAU OF HIGHWAYS  
DATE



6 CURVE DATA  
**ELLIS LANE**  
STA. 9+68.54 TO STA. 11+8.54  
RADIUS = 150.00'  
LENGTH = 150.00'  
 $\Delta = 57^{\circ}14'55''$   
TANGENT = 81.95'  
CHORD = 5 40'48"11" E 143.83'

6 CURVE DATA  
**ELLIS LANE**  
STA. 11+8.54 TO STA. 12+68.54  
RADIUS = 150.00'  
LENGTH = 150.00'  
 $\Delta = 57^{\circ}14'55''$   
TANGENT = 81.95'  
CHORD = 5 40'48"11" E 143.83'

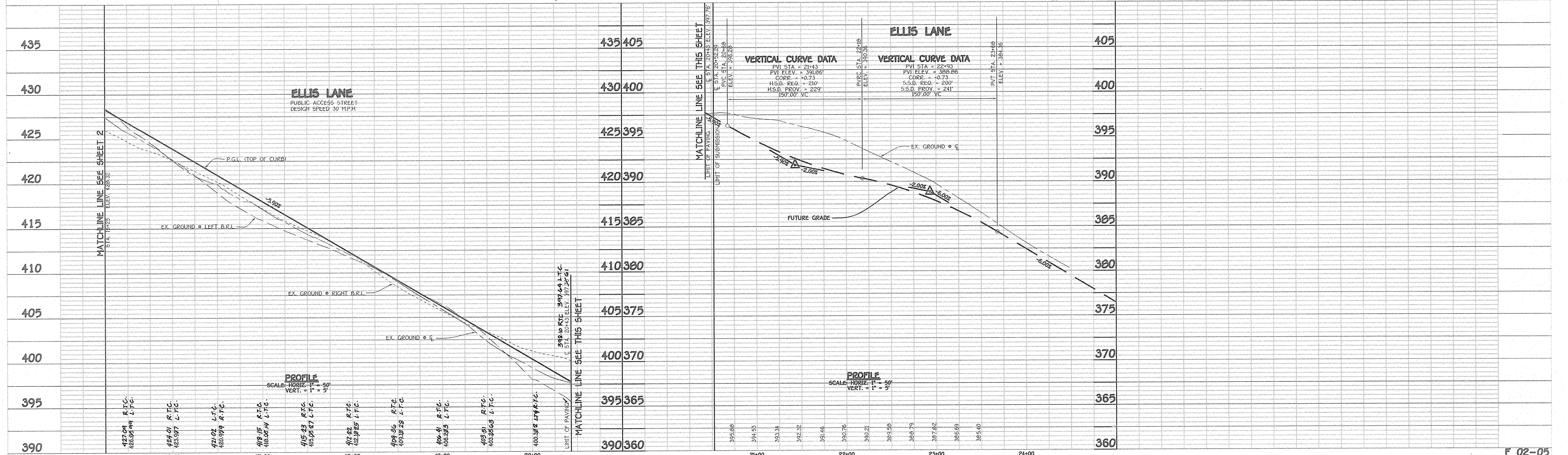
**GLYNCHESTER FARM**  
BUILDABLE LOTS 1 THRU 46,  
OPEN SPACE LOTS 47 THRU 53  
AND NON-BUILDABLE PARCELS 'A' & 'B'  
ZONED R-20  
TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**ELLIS LANE**  
PLAN AND PROFILE  
Owner and Developer  
*Dr. and Mrs. Michael Ellis*  
4771 Titchester Road  
Ellicott City, Maryland 21043

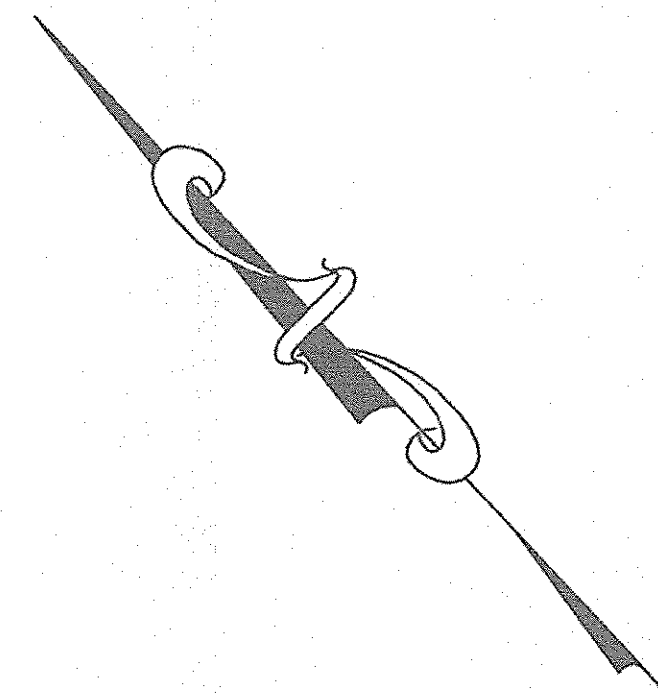
July 22, 2002  
Date  
Revise Owner and Developer  
of 10' wide Easement Note  
Revision

SCALE: AS SHOWN  
DATE: APR. 11, 2002  
DWG. NO. 3 OF 20  
DES. JMJ  
DWN. FJM / JCL  
CHK. CJC

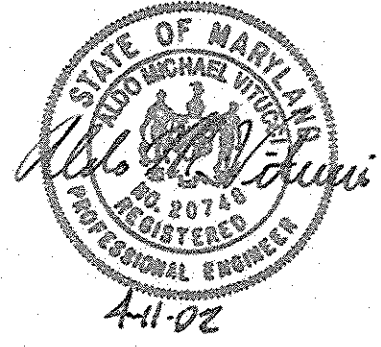
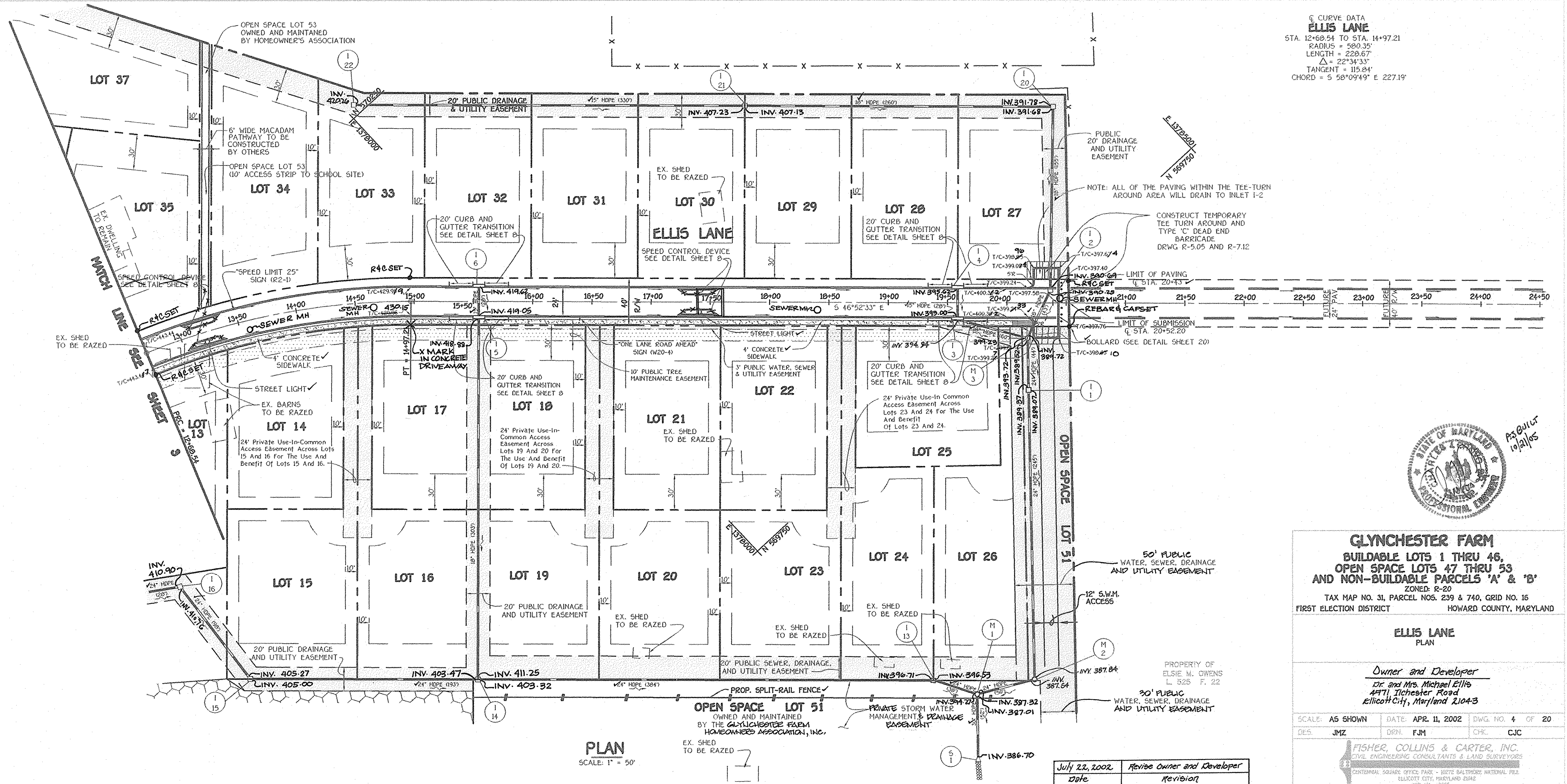
FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10725 BALTIMORE NATIONAL FREE  
ELICOTT CITY, MARYLAND 21042  
(410) 461-2000



AS-BUILT 10-21-05



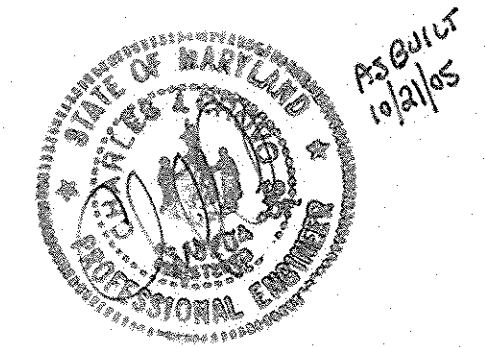
G CURVE DATA  
**ELLIS LANE**  
 STA. 12+60.54 TO STA. 14+97.21  
 RADIUS = 580.35'  
 LENGTH = 228.67'  
 $\Delta = 22^{\circ}34'33''$   
 TANGENT = 115.84'  
 CHORD = 5 58'09.19" E 227.19"



APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
*Coody Hamada* JJA 6/25/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
*William D. ...* 5/31/02  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*William M. ...* 5/14/02  
 CHIEF, BUREAU OF HIGHWAYS DATE



**GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
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 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED: R-20  
 TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 15  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ELLIS LANE**  
 PLAN

Owner and Developer  
 Mr. and Mrs. Michael Ellis  
 4471 Ilchester Road  
 Ellicott City, Maryland 21043

SCALE: AS SHOWN DATE: APR. 11, 2002 DWG. NO. 4 OF 20  
 DES. JMJ DRY. FJM CHK. CJC

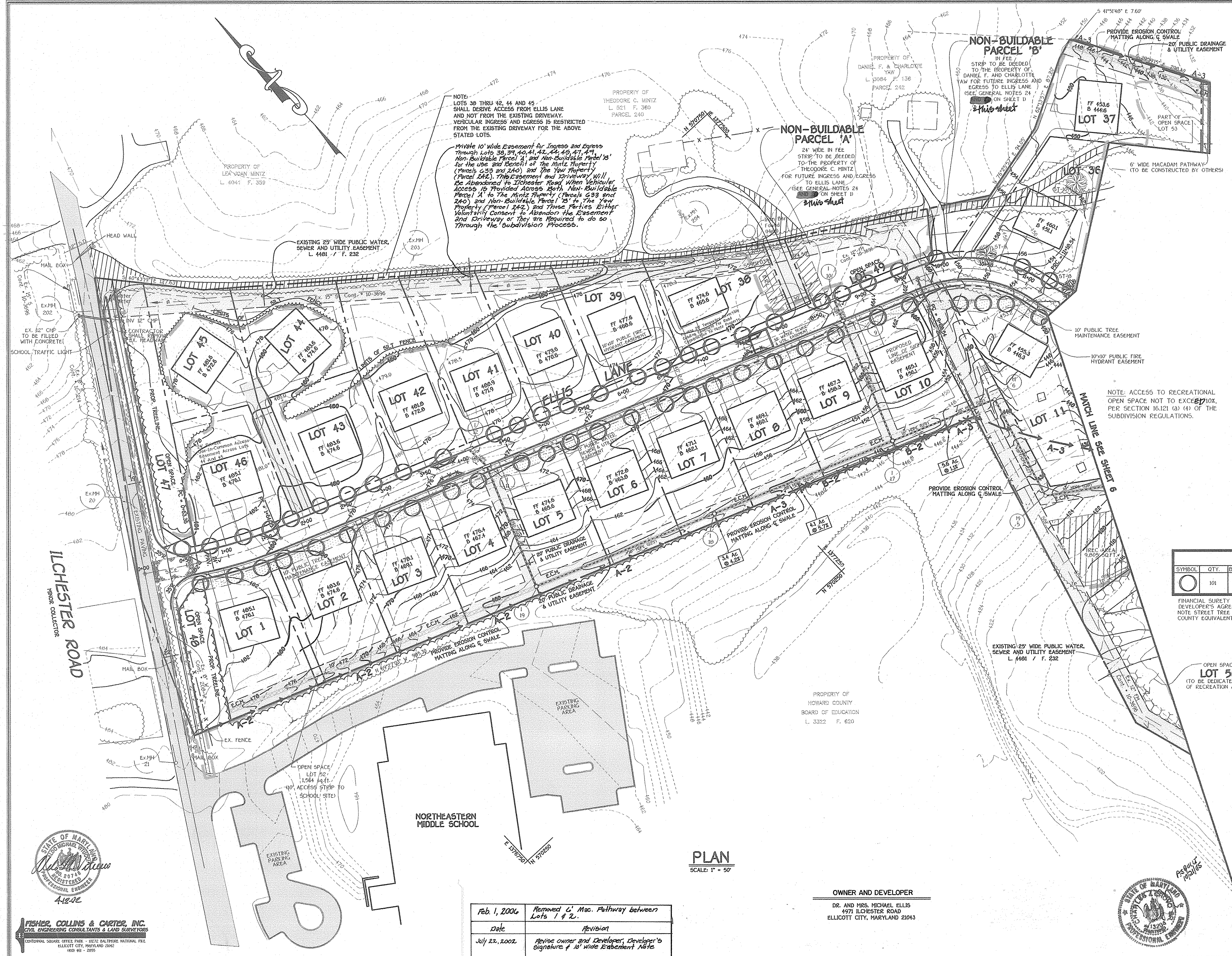
FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 10000 SQUARE OFFICE PARK - SUITE 300 BALTIMORE, MARYLAND 21286  
 ELICOTT CITY, MARYLAND 21043  
 4102 101 - 2005

July 22, 2002 Revise Owner and Developer  
 Date Revision

**PLAN**  
 SCALE: 1" = 50'

K:\Drawings\333021\Ellis - Ilchester Road\FINAL\30021 Final SH 3.dwg, 4/11/2002 4:44:39 AM

AS-BUILT 10-21-05



NOTE:  
LOTS 38 THRU 42, 44 AND 45  
SHALL DERIVE ACCESS FROM ELLIS LANE  
AND NOT FROM THE EXISTING DRIVEWAY.  
VEHICULAR INGRESS AND EGRESS IS RESTRICTED  
FROM THE EXISTING DRIVEWAY FOR THE ABOVE  
STATED LOTS.

Private 10' Wide Easement for Ingress and Egress  
Through Lots 38, 39, 40, 41, 42, 44, 45, 47, 49  
Non-Buildable Parcel A, and Non-Buildable Parcel B  
for the Use and Benefit of The Mintz Property  
(Parcels G33 and 240) and The Yaw Property  
(Parcel 242). This Easement and Driveway Will  
Be Abandoned to Ilchester Road When Vehicular  
Access Is Provided Across Both Non-Buildable  
Parcel A to The Mintz Property (Parcels G33 and  
240) and Non-Buildable Parcel B to The Yaw  
Property (Parcel 242), and Those Parties Either  
Voluntarily Consent to Abandon the Easement  
and Driveway or They are Required to do so  
Through the Subdivision Process.

NON-BUILDABLE  
PARCEL 'A'  
24' WIDE IN FEE  
STRIP TO BE DEDEDICATED  
TO THE PROPERTY OF  
THEODORE C. MINTZ  
FOR FUTURE INGRESS AND EGRESS  
TO ELLIS LANE  
(SEE GENERAL NOTES 24  
& 25 ON SHEET D)  
THIS SHEET

NON-BUILDABLE  
PARCEL 'B'  
IN FEE  
STRIP TO BE DEDEDICATED  
TO THE PROPERTY OF  
DANIEL F. AND CHARLOTTE  
YAW FOR FUTURE INGRESS AND  
EGRESS TO ELLIS LANE  
(SEE GENERAL NOTES 24  
& 25 ON SHEET D)  
THIS SHEET

By The Developer:  
I/We Certify That All Development And/Or Construction Will Be Done According To These Plans,  
And That Any Responsible Personnel Involved In The Construction Project Will Have A  
Certificate Of Attendance At A Department Of The Environment Approved Training Program  
For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A  
Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil  
Conservation District With An As-Built Plan Of The Pond Within 30 Days Of Completion. I  
Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District.

*Patricia A. Ellis* 9-17-02  
Signature Of Developer Date  
Printed Name Of Developer  
By The Engineer:  
I Certify That The Plan For Pond Construction, Erosion And Sediment Control Represents A  
Practical Approach To The Problem 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 Noticed The Plans And 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.

*Patricia A. Ellis* 4-11-02  
Signature Of Engineer Date  
Printed Name Of Engineer  
These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The  
Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

*John M. C. S.* 4/19/02  
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 M. C. S.* 4/19/02  
Howard Soil Conservation District Date  
Approved Department of Public Works  
*Christopher M. Daniels* 5-14-02  
Chief, Bureau of Highways Date  
Approved Department of Planning And Zoning  
*Cynthia Hamrick* 6/25/02  
Chief, Division of Land Development Date  
*Chris Demaree* 5/29/02  
Chief, Development Engineering Division Date

NO.	REVISIONS	DESCRIPTION	DATE

NOTE: ACCESS TO RECREATIONAL  
OPEN SPACE NOT TO EXCEED 10%,  
PER SECTION 16.121 (a) (4) OF THE  
SUBDIVISION REGULATIONS.

STREET TREE SCHEDULE				
SYMBOL	QTY.	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
○	101	ACER RUBRUM 'OCTOBER GLORY' RED MAPLE	2 1/2"-3" CAL.	40' APART ON PUBLIC R/W

FINANCIAL SURETY FOR THE 101 REQUIRED STREET TREES HAS BEEN POSTED AS PART OF THE  
DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$30,000.00  
NOTE: STREET TREE TYPE IS ONLY A RECOMMENDATION AND MAY BE REVISED TO AN ACCEPTABLE  
COUNTY EQUIVALENT FROM THE HOWARD COUNTY LANDSCAPE MANUAL.

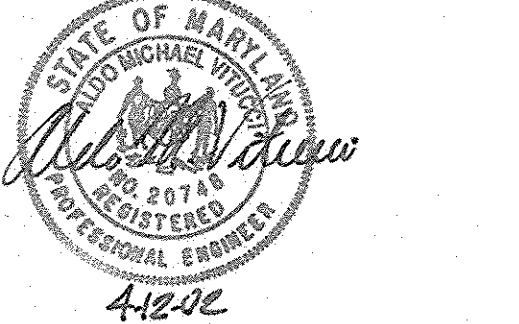
- LEGEND**
- SF—SF—SF— SUPER-SILT FENCE
  - SF—SF—SF— SILT FENCE
  - TP—TP—TP— TREE PROTECTION FENCE
  - [S.C.E.] STABILIZED CONSTRUCTION ENTRANCE
  - EARTH DIKE
  - DENOTES L.O.D. LIMITS OF DISTURBANCE
  - ECM DENOTES EROSION CONTROL MATTING

STREET TREE, GRADING AND SEDIMENT CONTROL PLAN  
**GLYNCHESTER FARM**  
BUILDABLE LOTS 1 THRU 46,  
OPEN SPACE LOTS 47 THRU 53  
AND NON-BUILDABLE PARCELS 'A' & 'B'  
ZONED: R-20  
TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: APRIL 11, 2002  
SHEET 5 OF 20 F 02-05

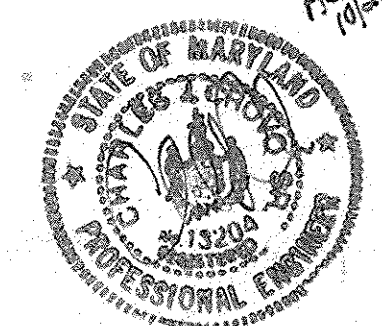
Date	Revision
Feb. 1, 2006	Removed 6' Mac. Pathway between Lots 1 & 2.
July 22, 2002	Revise owner and Developer, Developer's Signature of 10' wide Easement Note

OWNER AND DEVELOPER  
DR. AND MRS. MICHAEL ELLIS  
4971 ILCHESTER ROAD  
ELLCOTT CITY, MARYLAND 21043

PLAN  
SCALE: 1" = 50'



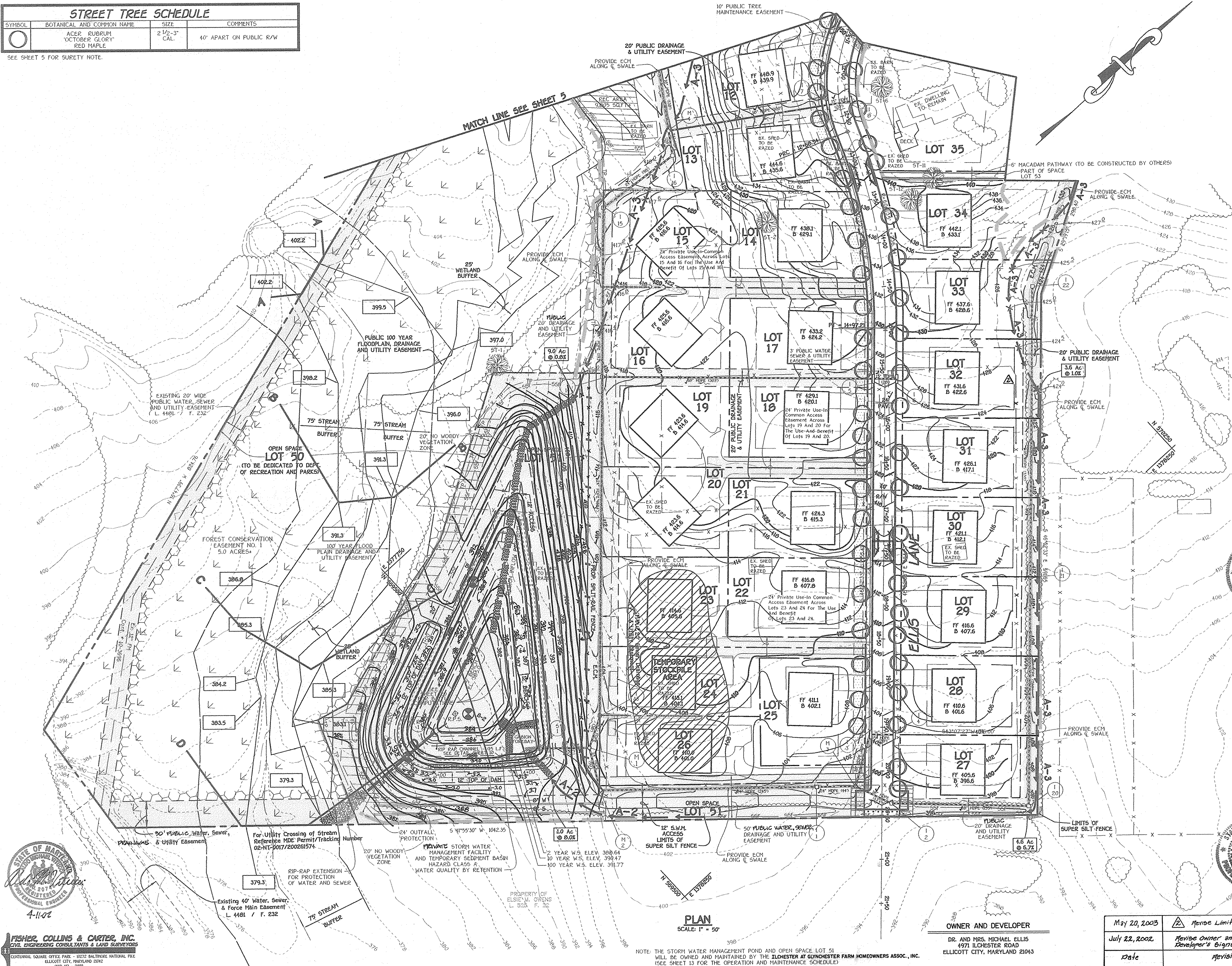
FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21042  
4100 681 - 2000



AS-BUILT 10-21-05

STREET TREE SCHEDULE			
SYMBOL	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
○	ACER RUBRUM "OCTOBER GLORY" RED MAPLE	2 1/2"-3" CAL.	40' APART ON PUBLIC R/W

SEE SHEET 5 FOR SURETY NOTE.



By The Developer:  
 I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District.

*Patricia A. Ellis* 9-17-02  
 Signature Of Developer Date  
 PATRICIA A. ELLIS  
 Printed Name Of Developer

By The Engineer:  
 I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The District That 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 J. Ellis* 4-11-02  
 Signature Of Engineer Date  
 MICHAEL J. ELLIS  
 Printed Name Of Engineer

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

*John J. Kelly* 4/19/02  
 Signature Of Engineer Date  
 JOHN J. KELLY  
 Printed Name Of Engineer

USDA-Natural Resources Conservation Service 4/19/02  
 Date

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

*John J. Kelly* 4/19/02  
 Signature Of Engineer Date  
 JOHN J. KELLY  
 Printed Name Of Engineer

Approved Department Of Public Works 5-14-02  
 Chief, Bureau Of Highways Date

Approved Department Of Planning And Zoning 6/28/02  
 Chief, Division Of Land Development Date  
*John J. Kelly* JA  
 Signature Date  
 JOHN J. KELLY  
 Chief, Development Engineering Division Date

AS-BUILT CERTIFICATION  
 I Herby Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As-Built" Plans And Meets The Approved Plans And Specifications.

*John J. Kelly* 12/04  
 Signature Date  
 JOHN J. KELLY  
 Printed Name

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate 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 Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

REVISIONS		
NO.	DESCRIPTION	DATE

LEGEND	
—S—S—S—S—S—	SUPER-SILT FENCE
—TP—TP—TP—	TREE PROTECTION FENCE
—E—E—E—E—E—	EARTH DIKE
—D—D—D—D—D—	DENOTES L.O.D. LIMITS OF DISTURBANCE
379.3	DENOTES APPROXIMATE ELEVATION OF 100 YEAR FLOOD PLAN
ECM	DENOTES EROSION CONTROL MATTING

TEMPORARY SEDIMENT BASIN DATA

TOP OF DAM WIDTH = 12.0'  
 ELEV. @ TOP OF DAM = 393.00  
 INITIAL D.A. = 5.27 AC.  
 FINAL D.A. = 23.31 AC.  
 STORAGE REQUIRED  
 WET = 1800 x 23.31 = 41950 Cuft.  
 DRY = 1800 x 23.31 = 41950 Cuft.  
 STORAGE PROVIDED  
 WET = 41950 Cuft. @ ELEV. 386.98  
 DRY = 41950 Cuft. @ ELEV. 386.83  
 BOTTOM ELEV. = 382.00  
 STORAGE DEPTH = 6.83  
 SIDE SLOPES = 3:1  
 TOP OF EMBANKMENT = 393.00  
 CLEAN OUT ELEV. = 382.24  
 2 YR. CREST ELEV. = 386.83  
 SPILLWAY CREST ELEV. = 390.80  
 SPILLWAY WEIR LENGTH = 20'  
 Q<sub>2</sub> EXIST. = 3.2 CFS  
 Q<sub>2</sub> PROP. = 2.7 CFS @ 390.89

STREET TREE GRADING, SEDIMENT CONTROL AND STORM WATER MANAGEMENT PLAN  
**GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED: R-20  
 TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 11, 2002  
 SHEET 6 OF 20

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 3072 BALDWIN NATIONAL PARK  
 ELICOTT CITY, MARYLAND 21042  
 410-481-2000

OWNER AND DEVELOPER  
 DR. AND MRS. MICHAEL ELLIS  
 4971 ILCHESTER ROAD  
 ELLICOTT CITY, MARYLAND 21043

DATE: May 20, 2003  
 REVISION: Revise Limit of Disturbance

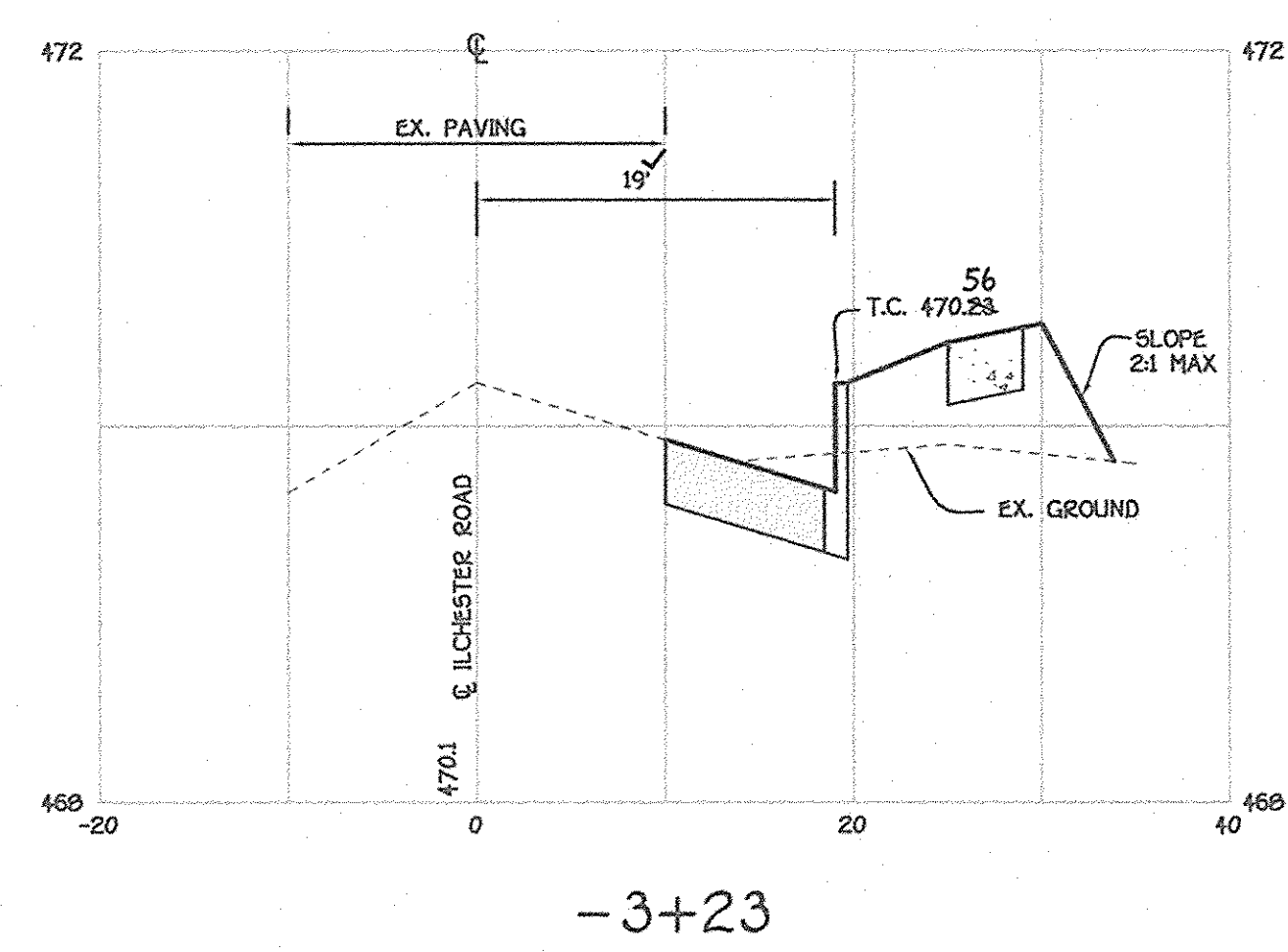
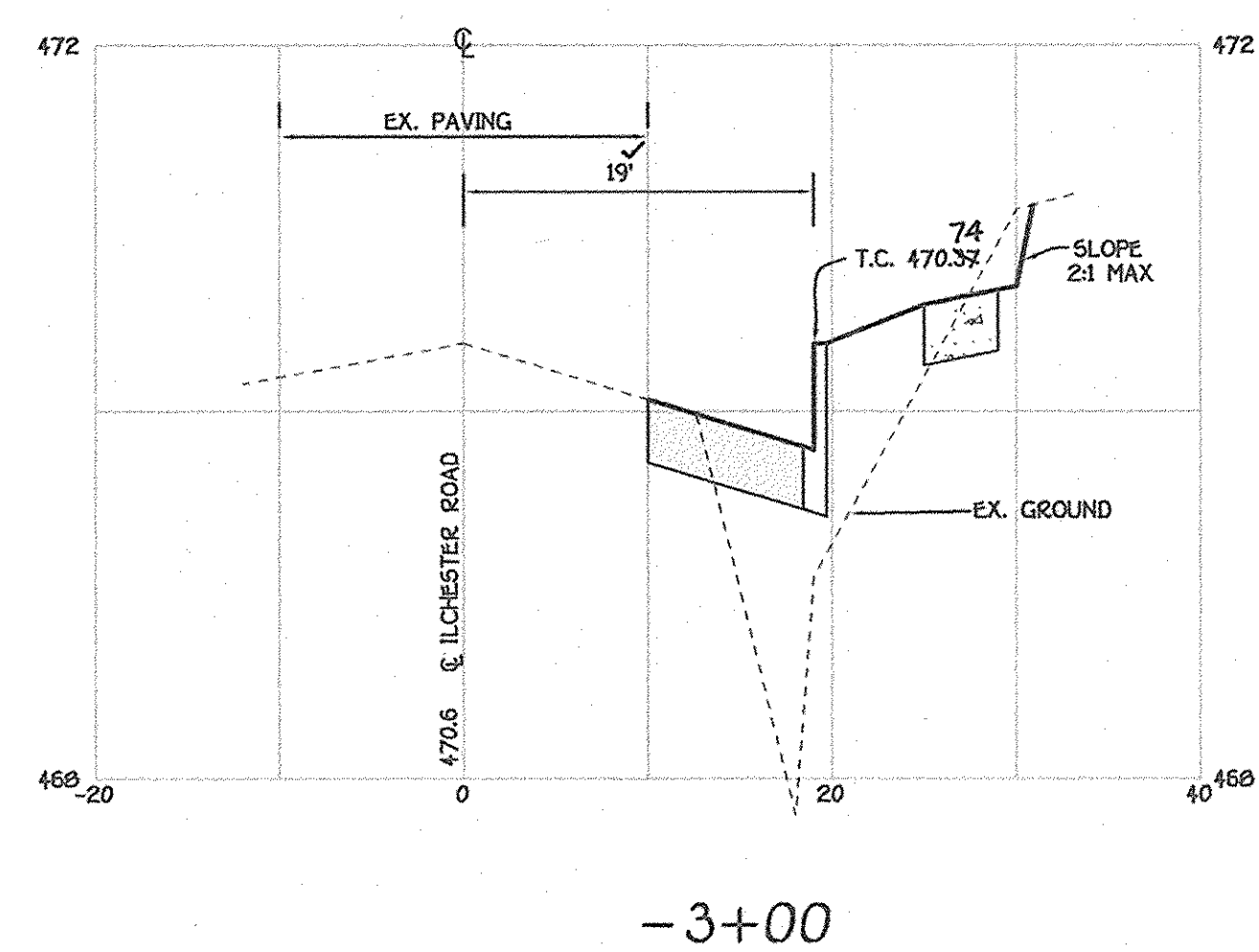
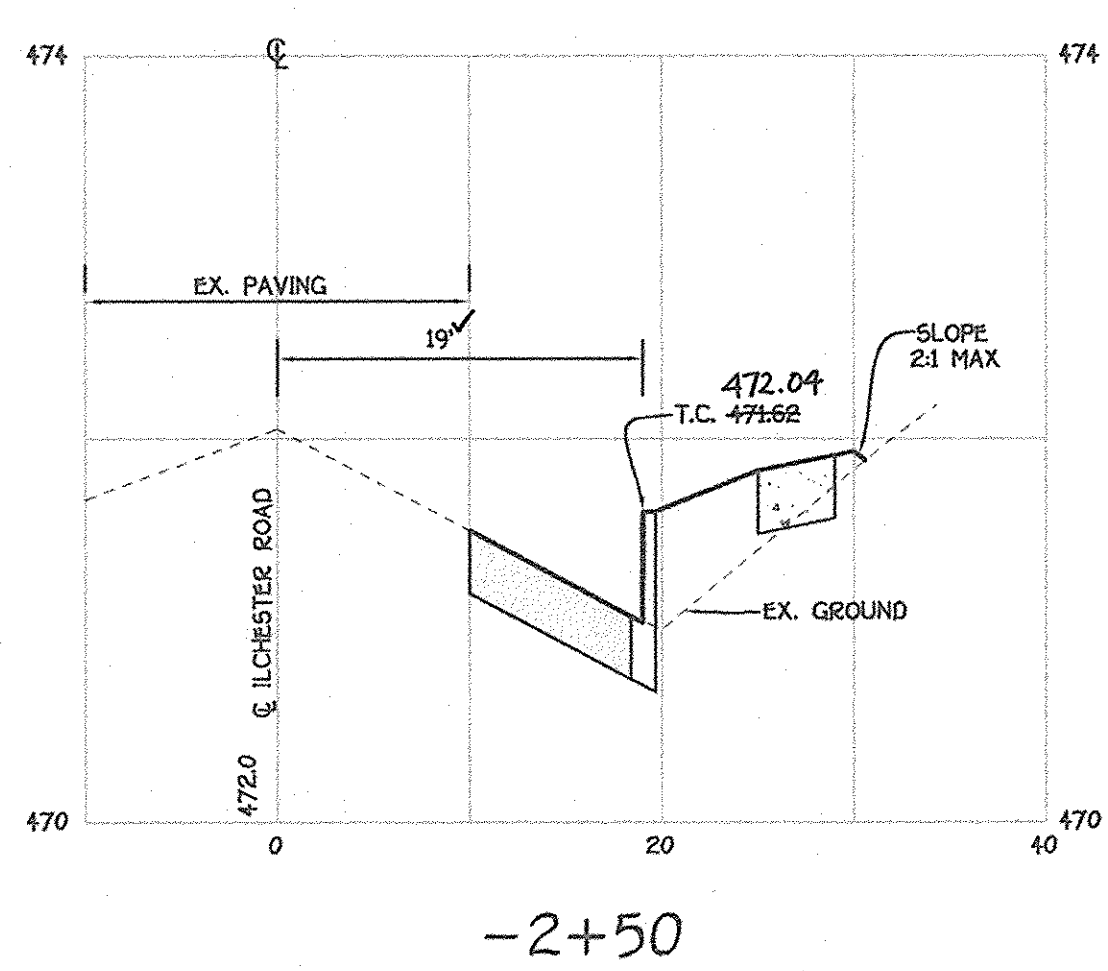
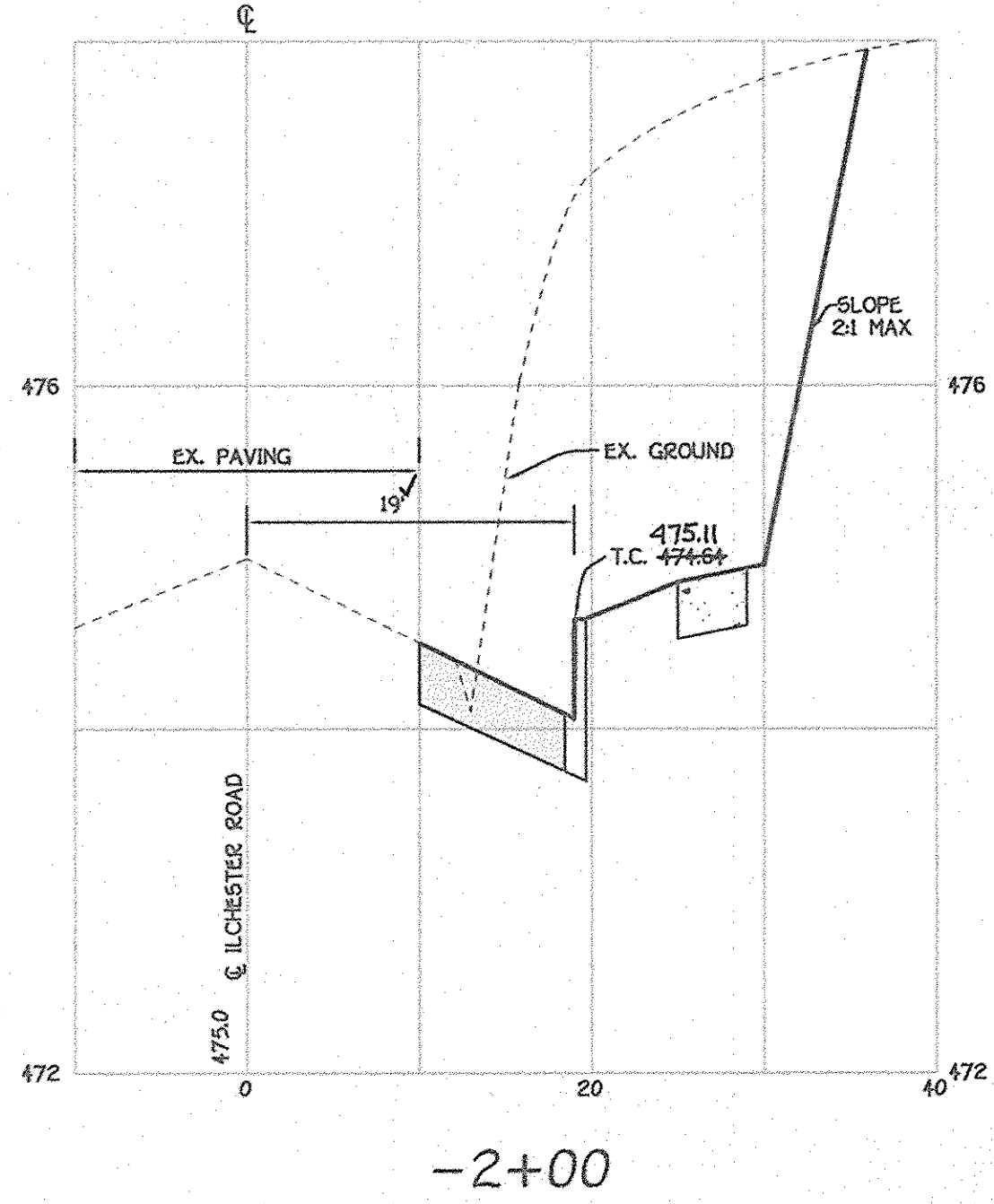
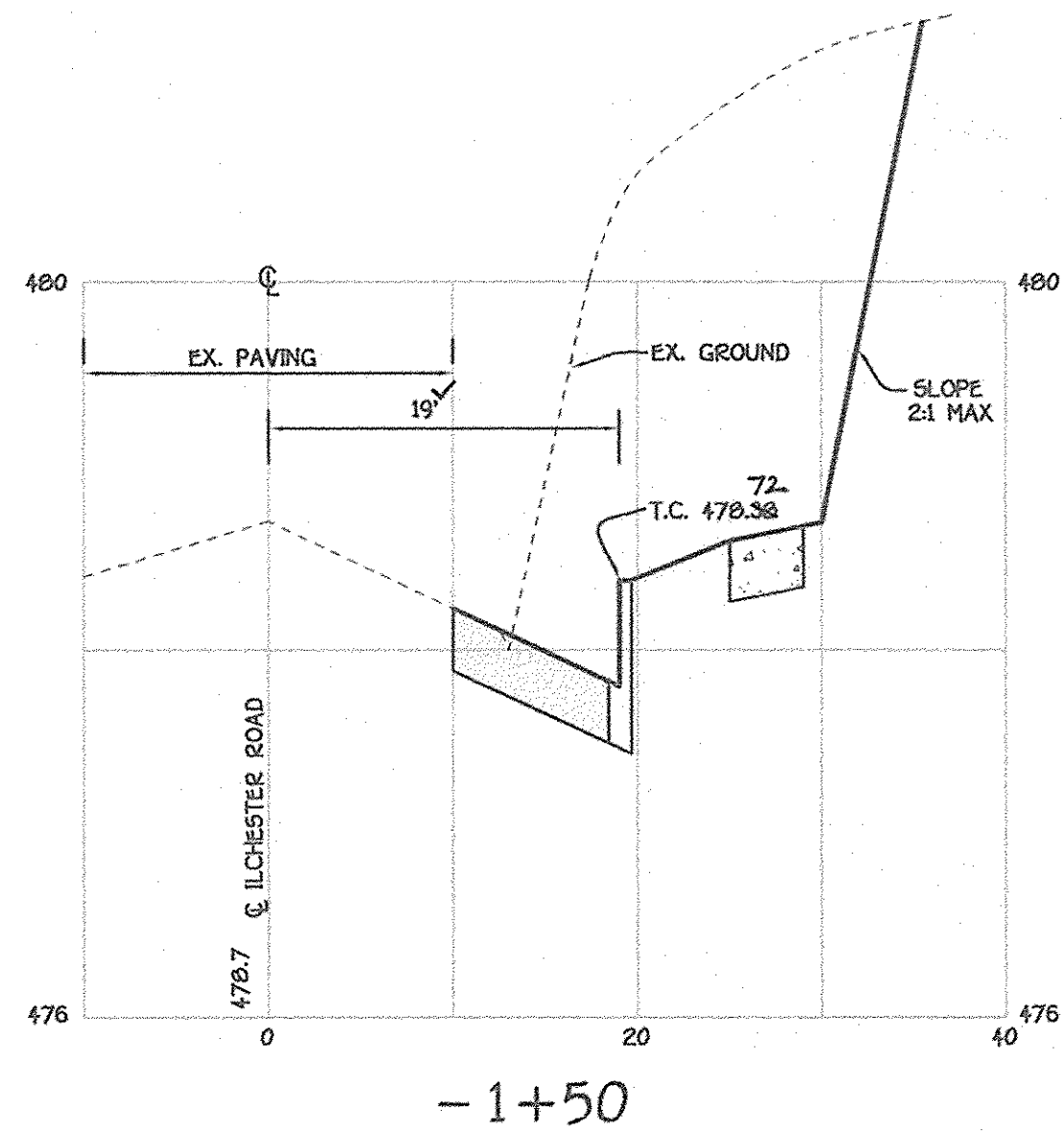
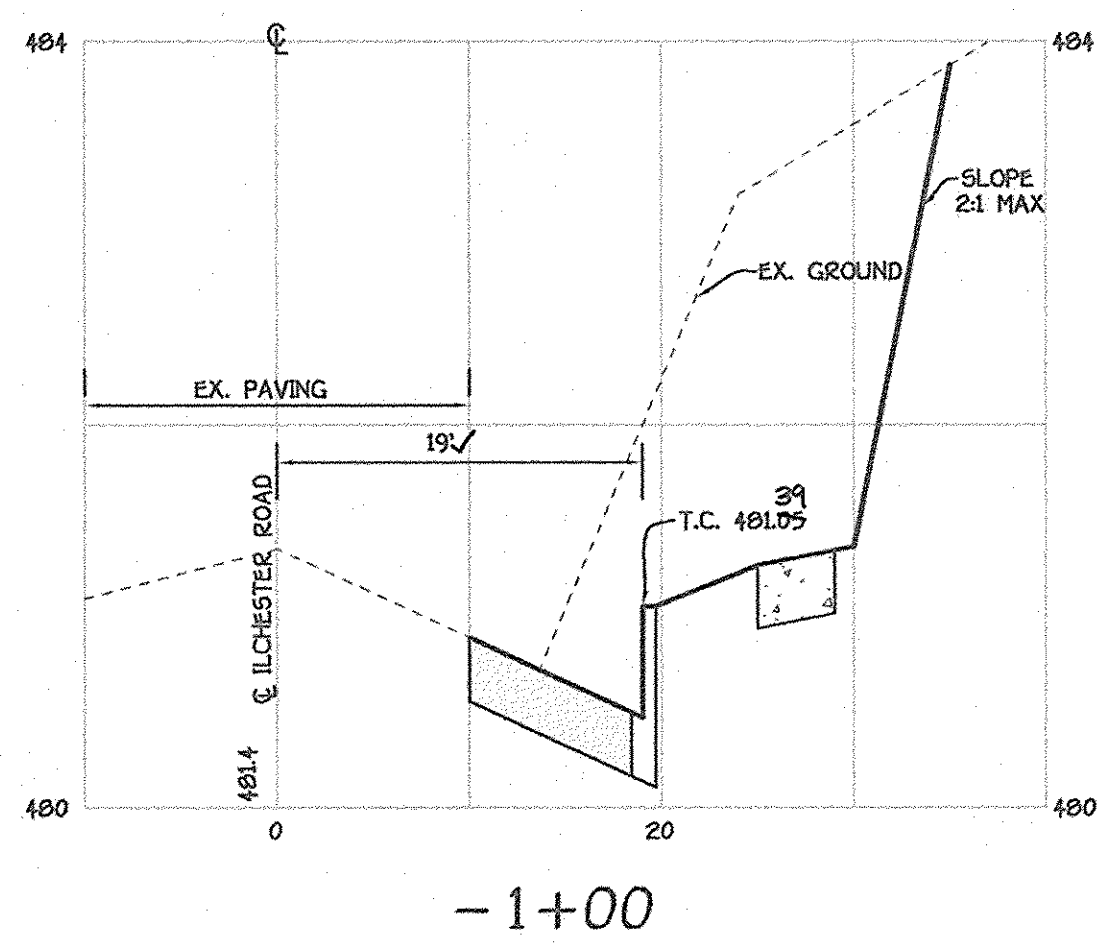
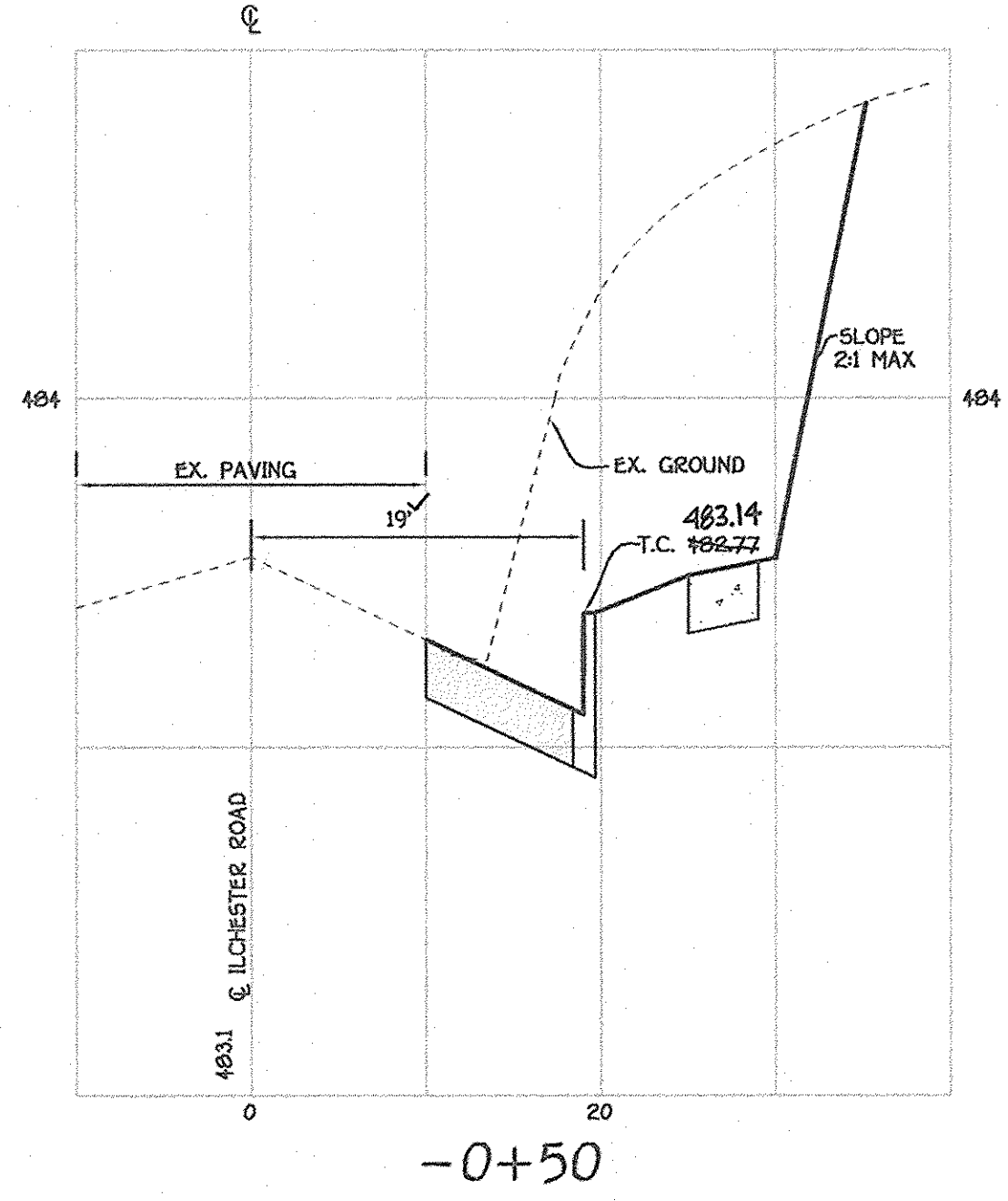
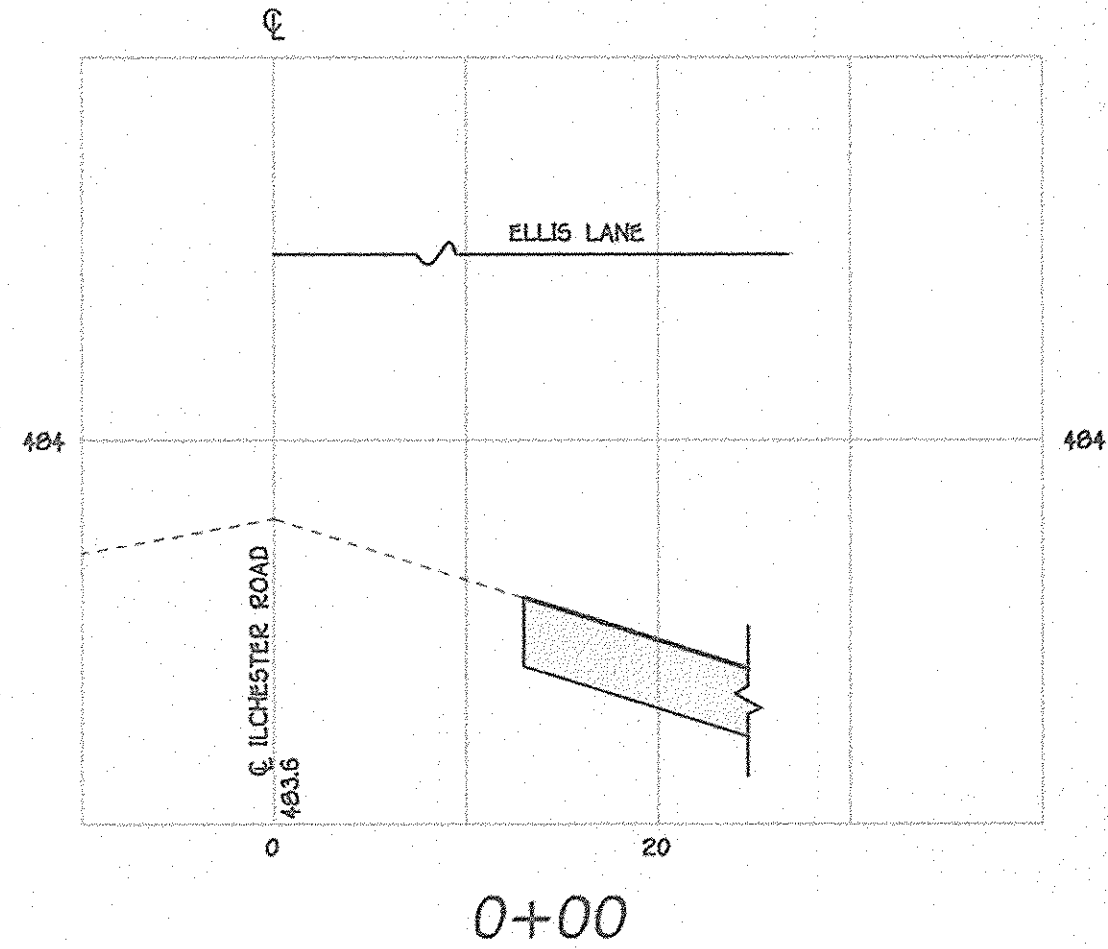
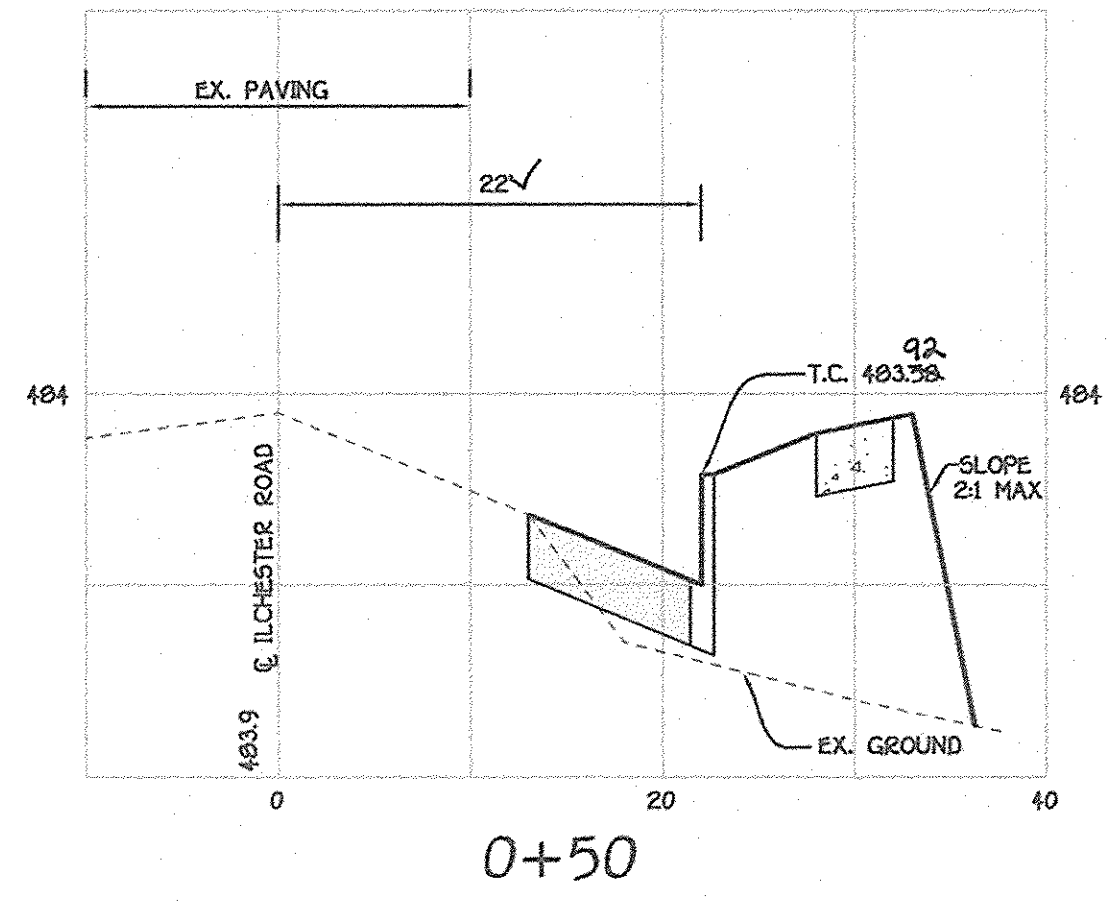
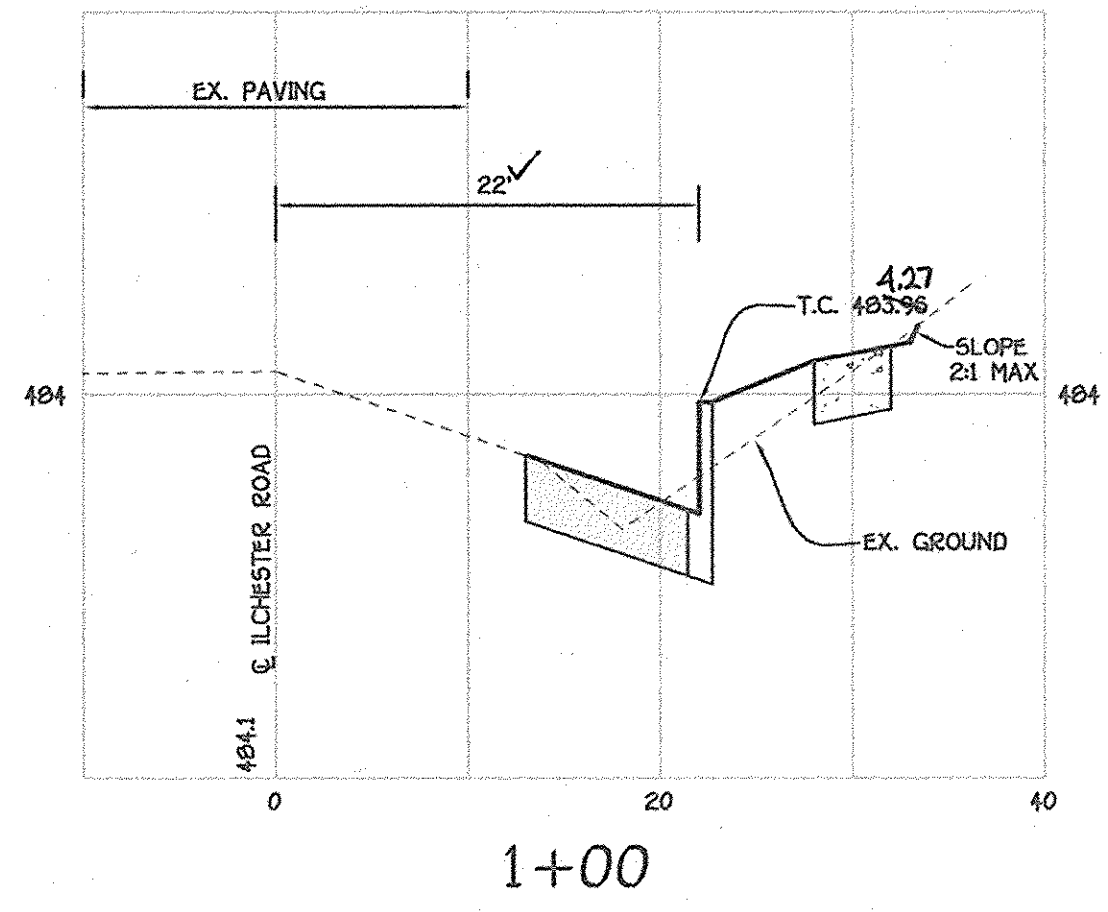
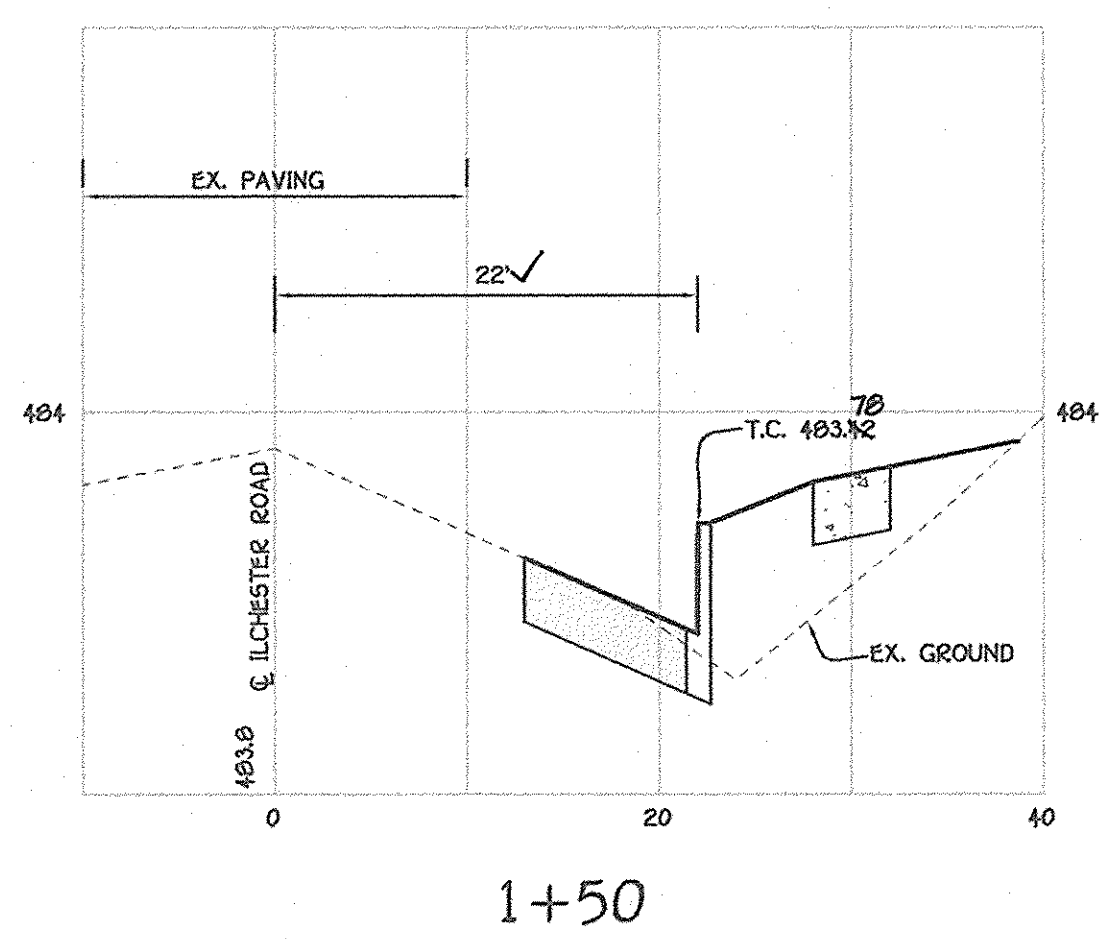
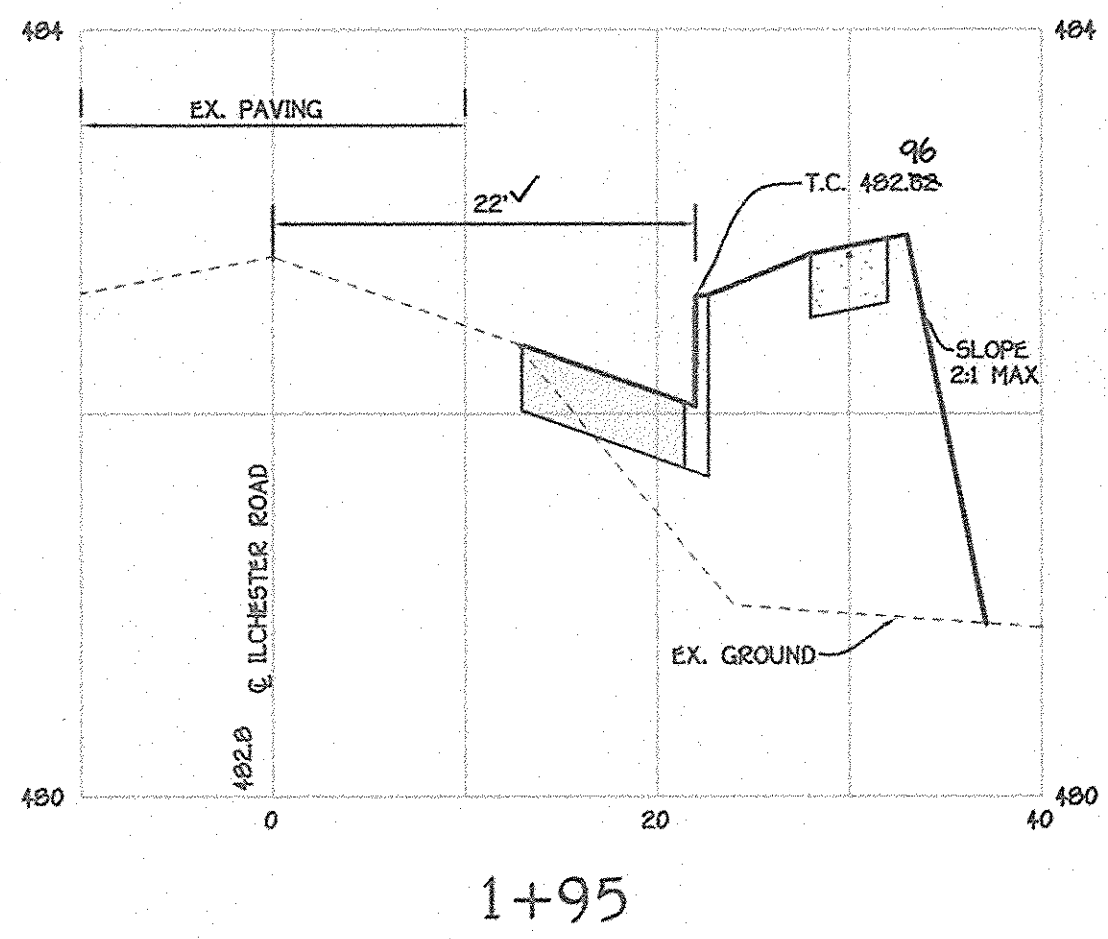
DATE: July 22, 2002  
 REVISION: Revise Owner and Developer's Signature

DATE: \_\_\_\_\_  
 REVISION: \_\_\_\_\_

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Andy Hamata* 6/28/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John DeMunnis* 5/20/02  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Robert M. Daulton* 5-14-02  
 CHIEF, BUREAU OF HIGHWAYS DATE



**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTURIAL SQUARE OFFICE PARK - 10772 BALTIC PIKE NATIONAL FILE  
 ELLICOTT CITY, MARYLAND 21114  
 4100 461 - 2305

DATE	REVISION
July 22, 2002	Revise Owner and Developer
note	revision

**SECTIONS**  
 SCALE: HORIZ. 1" = 10'  
 VERT. 1" = 1'

OWNER AND DEVELOPER  
 DR. AND MRS. MICHAEL ELLIS  
 4971 ILCHESTER ROAD  
 ELLICOTT CITY, MARYLAND 21043



AS-BUILT 10/21/05  
 ILCHESTER ROAD WIDENING  
 CROSS SECTIONS  
**GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED: R-20  
 TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 11, 2002  
 SHEET 7 OF 20

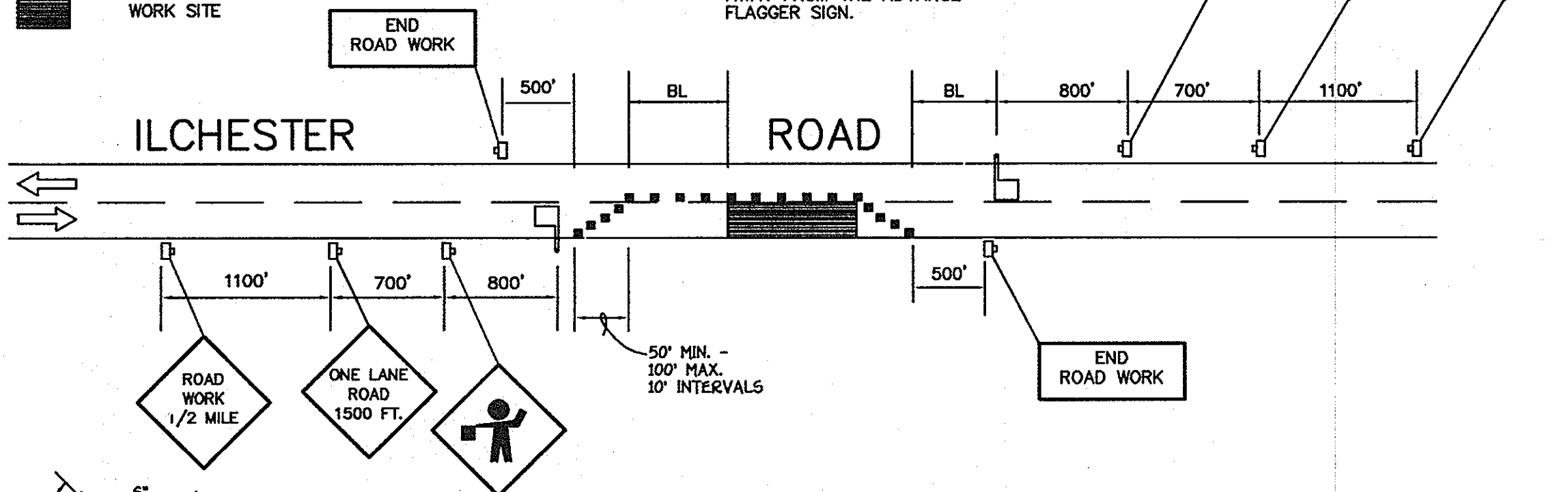
**AS-BUILT 10-21-05**

**KEY**

- FLAGGER
- DIRECTION OF TRAFFIC
- SIGN SUPPORT
- FACE OF SIGN
- CHANNELIZING DEVICES
- WORK SITE

IMPORTANT: THIS DRAWING SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES AT THE BEGINNING OF STANDARDS NO. MD 104.00.

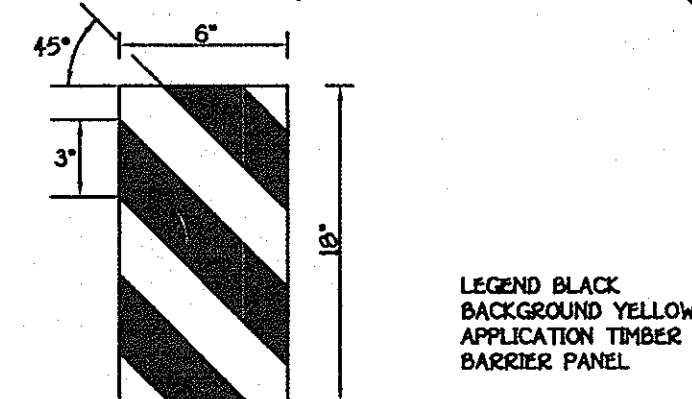
NOTE: FLAGGER SHALL NEVER BE STATIONED MORE THAN 1000' AWAY FROM THE ADVANCE FLAGGER SIGN.



**TEMPORARY TRAFFIC CONTROL PLAN**

(STANDARD NO. MD 104.31-02)

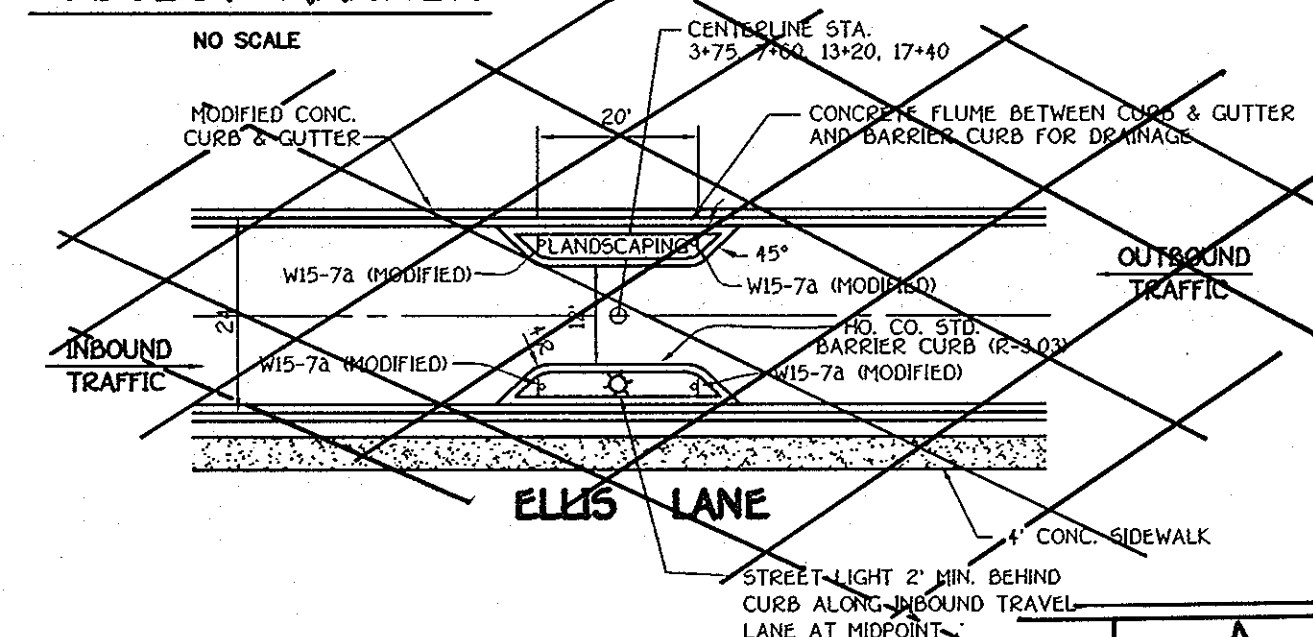
NO SCALE



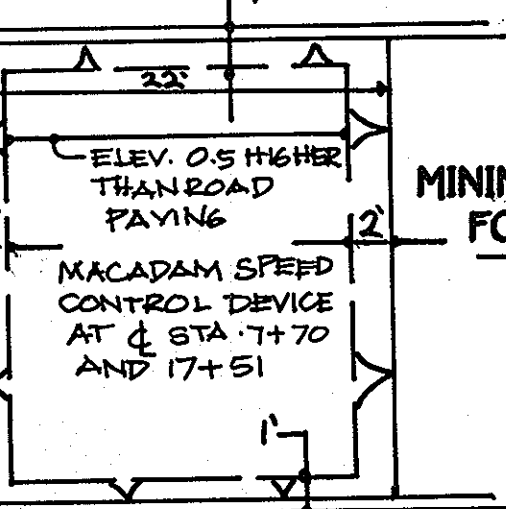
LEGEND BLACK BACKGROUND YELLOW APPLICATION TIMBER BARRIER PANEL

**W15-7a MODIFIED OBJECT MARKER**

NO SCALE



**SPEED CONTROL DEVICE**



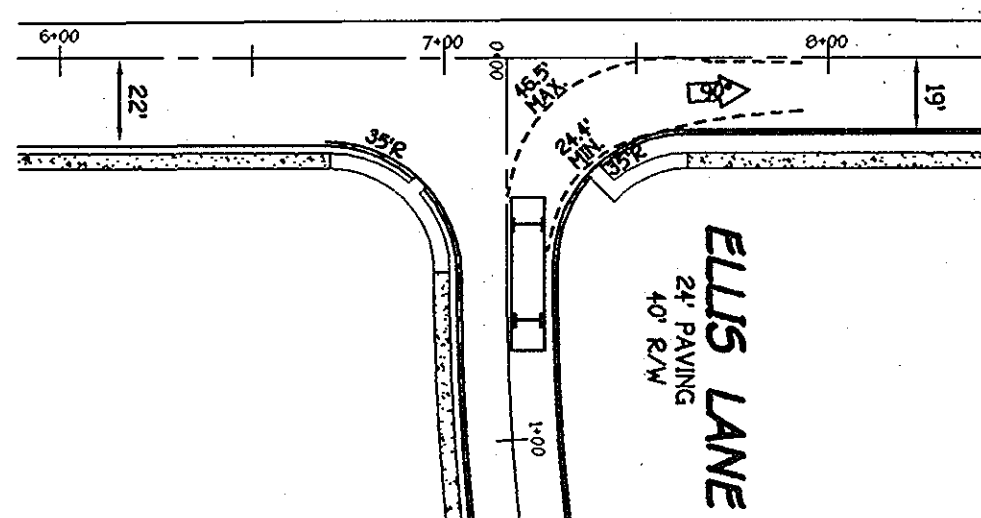
**MINIMUM TURNING PATH DETAIL FOR BUS DESIGN VEHICLE**

SCALE: 1" = 50'

**MINIMUM TURNING PATH DETAIL FOR BUS DESIGN VEHICLE**

SCALE: 1" = 50'

**ILCHESTER ROAD**

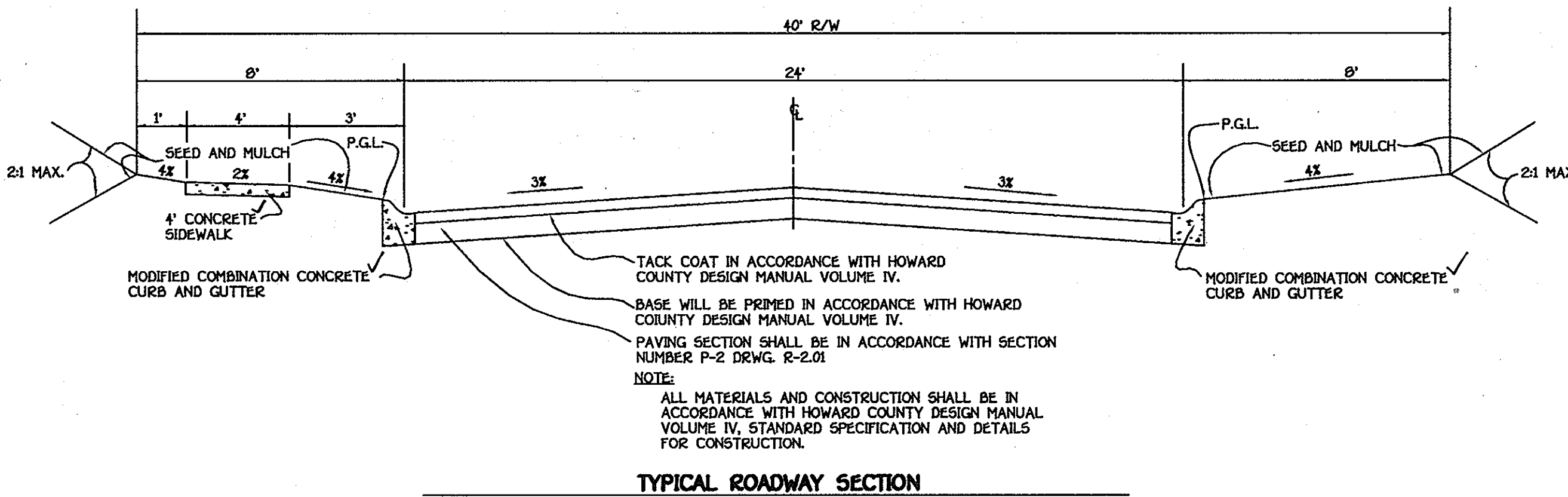


**CONCRETE CURB & GUTTER TRANSITION**

NO SCALE

STR. 7" CONC. CURB & GUTTER

MODIFIED CONC. CURB & GUTTER



**TYPICAL ROADWAY SECTION**

NO SCALE

**ROADWAY INFORMATION CHART**

ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STATION LIMITS	PAVING SECTION
ELLIS LANE	PUBLIC ACCESS STREET	25 MPH	R-20	0+00 TO 20+43	P-2

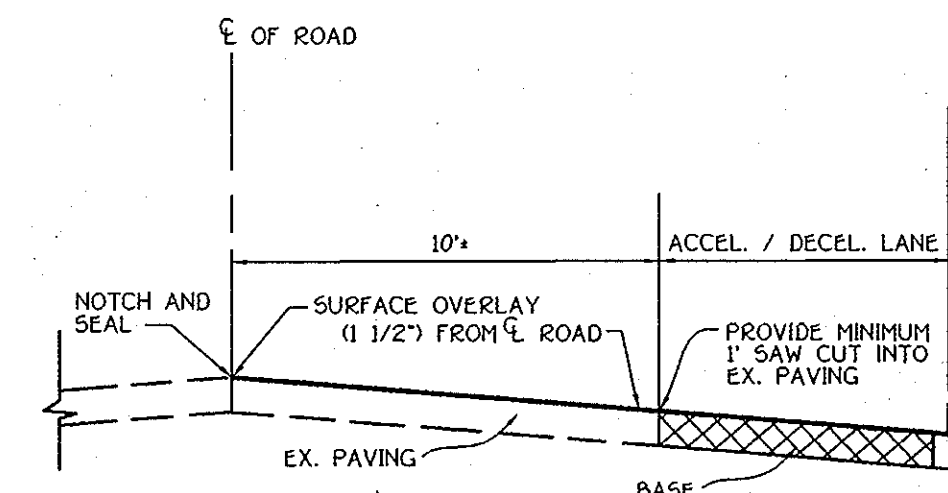
APPROVED DEPARTMENT OF PUBLIC WORKS

*Charles M. ...* 5-14-02  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED DEPARTMENT OF PLANNING AND ZONING

*Cindy ...* 6/25/02  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

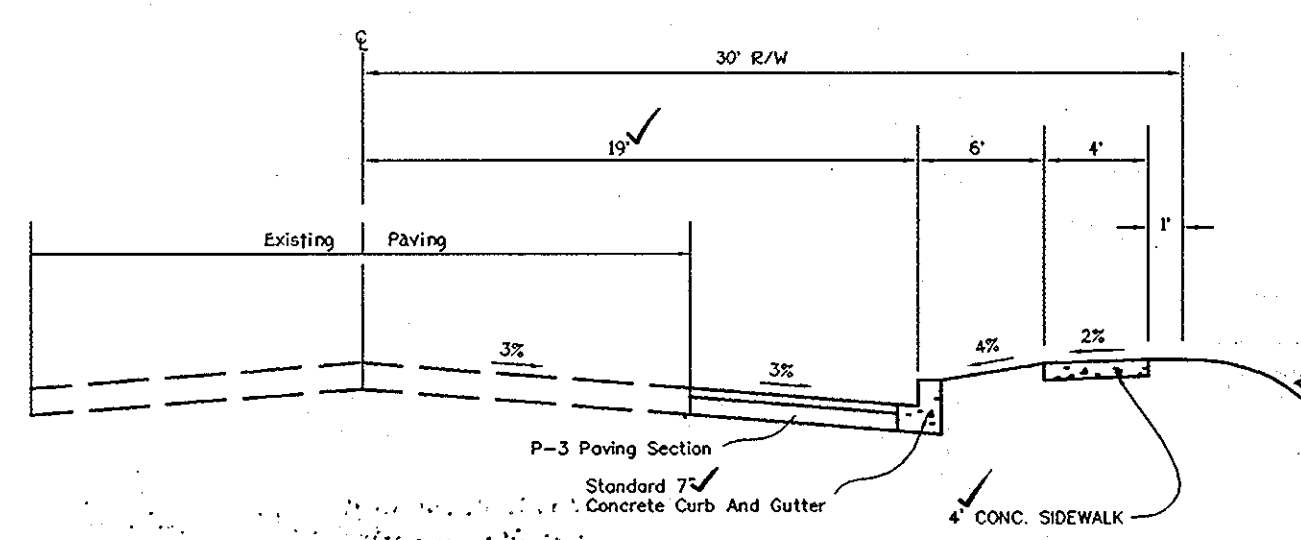
*John ...* 5/30/02  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



**ILCHESTER ROAD OVERLAY SECTION**

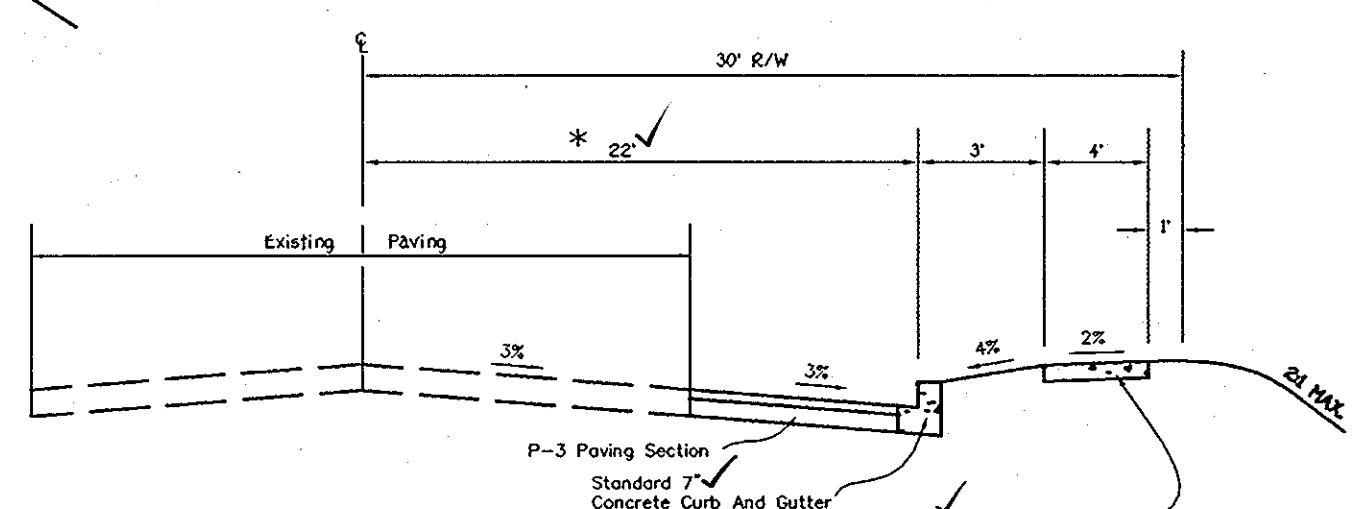
NO SCALE

THE IMPROVEMENTS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STD. DETAIL R-10.01



**TYPICAL ILCHESTER ROAD WIDENING SECTION**

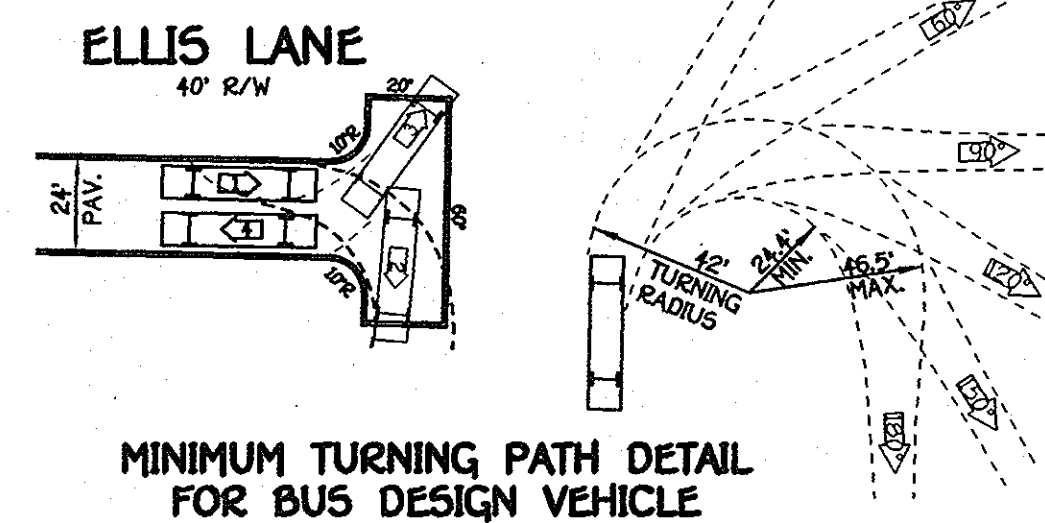
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**TYPICAL ILCHESTER ROAD WIDENING SECTION**

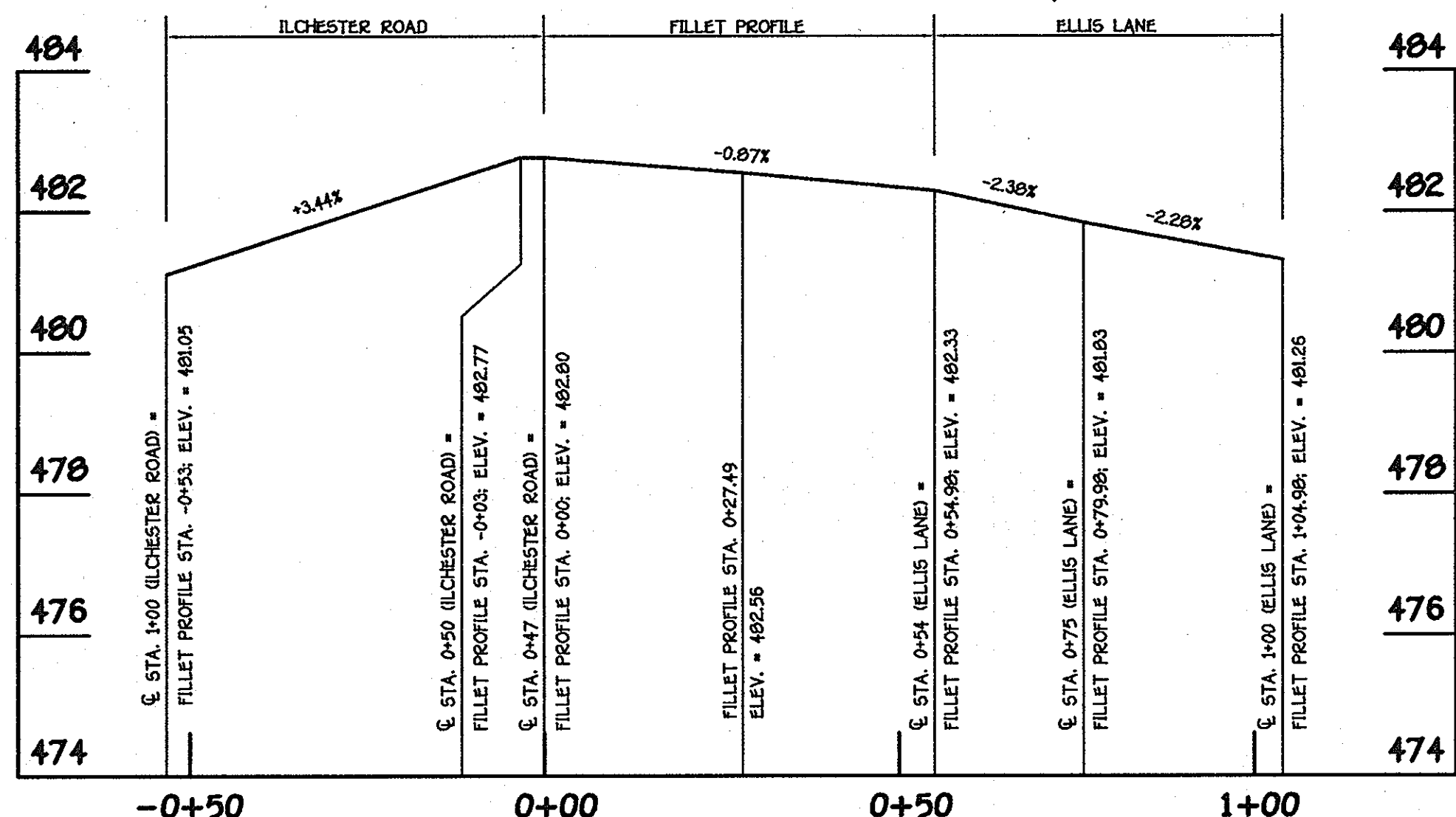
NO SCALE

\* NOTE: 22' PAVING WIDTH PROVIDED ON THE SOUTHWEST SIDE OF ILCHESTER ROAD PER COMMENT FROM PTO FOR SCHOOL BUS PULL-OFF LANE.

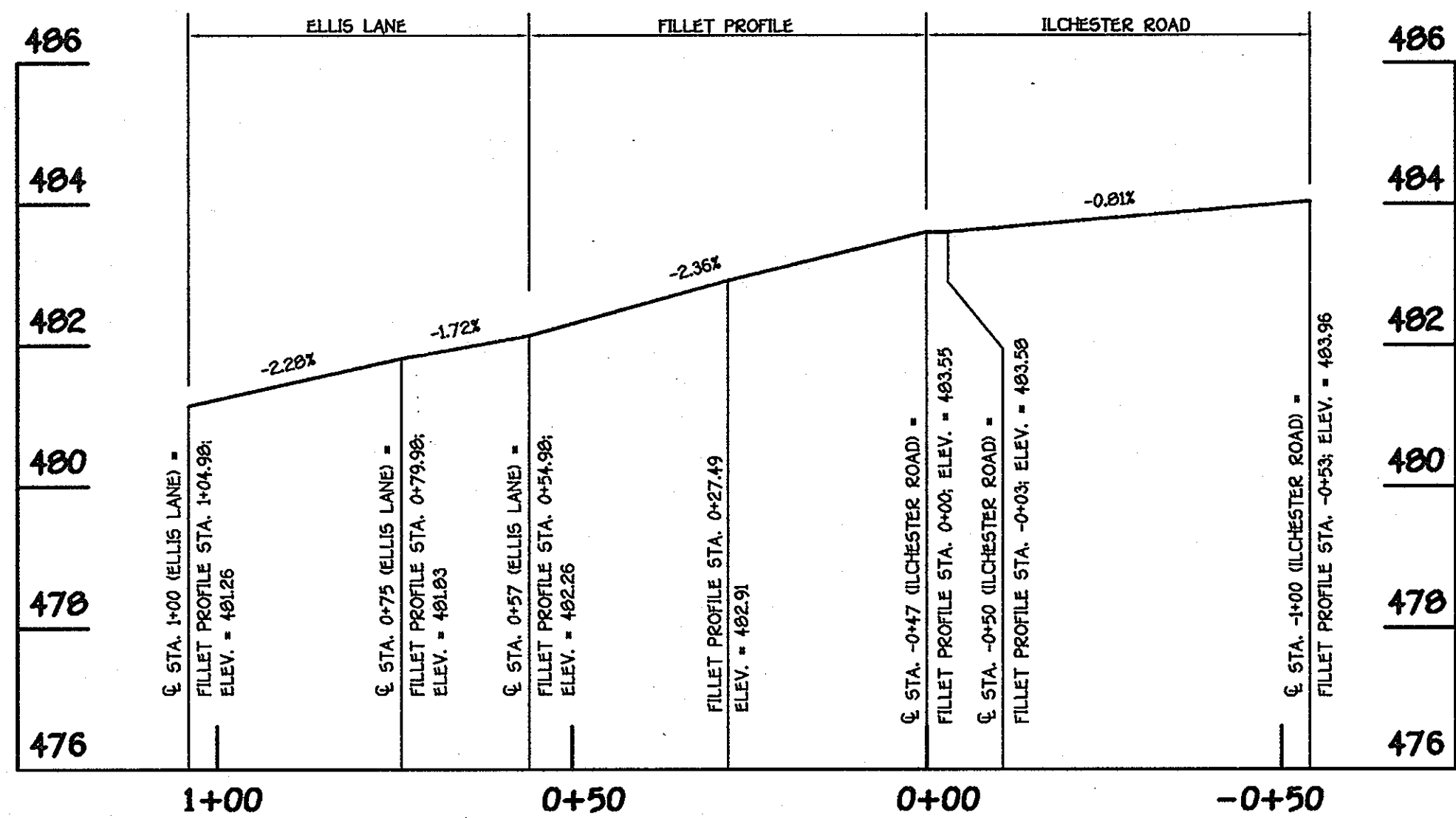


**MINIMUM TURNING PATH DETAIL FOR BUS DESIGN VEHICLE**

SCALE: 1" = 50'



**NORTH SIDE OF INTERSECTION**



**SOUTH SIDE OF INTERSECTION**

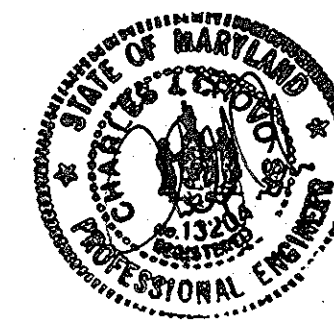
**FILLET PROFILES (ELLIS LANE AT ILCHESTER ROAD)**

SCALE: HORIZ. : 1" = 20'  
VERT. : 1" = 2'

Feb 1, 2006	Removed 'L' Moc. Pathway Detail.
July 22, 2002	Revise Owner and Developer
Date	Revision

OWNER AND DEVELOPER

DR. AND MRS. MICHAEL ELLIS  
4971 ILCHESTER ROAD  
ELLCOTT CITY, MARYLAND 21043



**ROADWAY DETAIL SHEET**

**GLYNCHESTER FARM**

BUILDABLE LOTS 1 THRU 46,  
OPEN SPACE LOTS 47 THRU 53  
AND NON-BUILDABLE PARCELS 'A' & 'B'

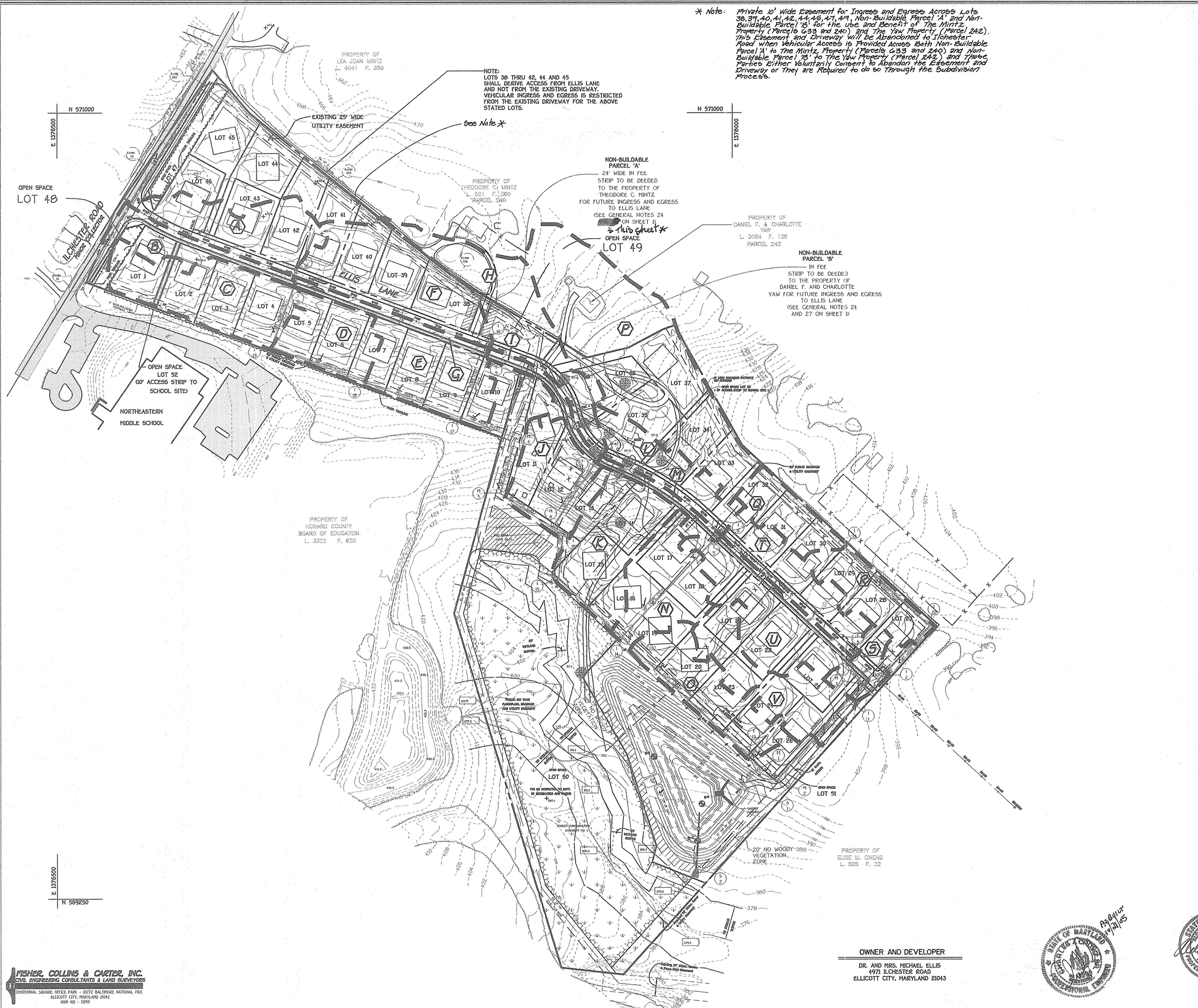
ZONED: R-20  
TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: APRIL 11, 2002  
SHEET 8 OF 20

AS-BUILT 10-21-05

F 02-05



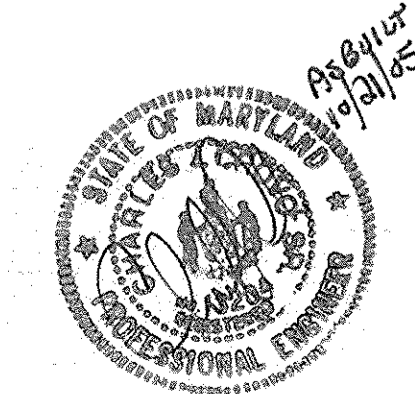
APPROVED: DEPARTMENT OF PUBLIC WORKS <i>Robert M. Davelos</i> CHIEF, BUREAU OF HIGHWAYS	5-14-02 DATE	
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>Cindy Hamstra</i> CHIEF, DIVISION OF LAND DEVELOPMENT	6/28/02 DATE	
<i>Chris Deammon</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	5/30/02 DATE	
REVISIONS		
NO.	DESCRIPTION	DATE
1	Revise Owner and Developer of 10' wide Easmt. Note	7.22.02



INLET	ZONING (Z)	SUBAREA (B)	AREA (A)	C FACTOR (C)	% IMPERVIOUS (P)
I-1	R-20	V	1.00	0.34	35%
I-2	R-20	S	0.30	0.34	35%
I-3	R-20	U	1.10	0.34	35%
I-4	R-20	T	0.75	0.30	30%
I-5	R-20	M	0.20	0.87	90%
I-6	R-20	L	0.70	0.34	35%
I-7	R-20	I	0.20	0.87	90%
I-8	R-20	H	1.30	0.34	35%
I-9	R-20	G	0.21	0.87	90%
I-10	R-20	F	1.35	0.34	35%
I-11	R-20	B	0.50	0.87	90%
I-12	R-20	A	0.95	0.30	30%
I-13	R-20	O	0.90	0.34	35%
I-14	R-20	N	0.85	0.34	35%
I-15	R-20	K	1.15	0.34	35%
I-16	R-20	J	0.85	0.34	35%
I-17	R-20	E	1.00	0.30	30%
I-18	R-20	D	0.75	0.30	30%
I-19	R-20	C	1.25	0.30	30%
I-20	R-20	R	0.60	0.30	30%
I-21	R-20	Q	0.50	0.30	30%
I-22	R-20	P	2.80	0.34	35%

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE, OFFICE PARK - 10272 BALTIMORE NATIONAL FLEX  
ELLCOTT CITY, MARYLAND 21042  
410 461 - 2950

OWNER AND DEVELOPER  
DR. AND MRS. MICHAEL ELLIS  
4971 ILCHESTER ROAD  
ELLCOTT CITY, MARYLAND 21043



DRAINAGE AREA MAP  
**GLYNCHESTER FARM**  
BUILDABLE LOTS 1 THRU 46,  
OPEN SPACE LOTS 47 THRU 53  
AND NON-BUILDABLE PARCELS 'A' & 'B'  
ZONED: R-20  
TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: APRIL 11, 2002  
SHEET 9 OF 20

AS-BUILT 10-21-05

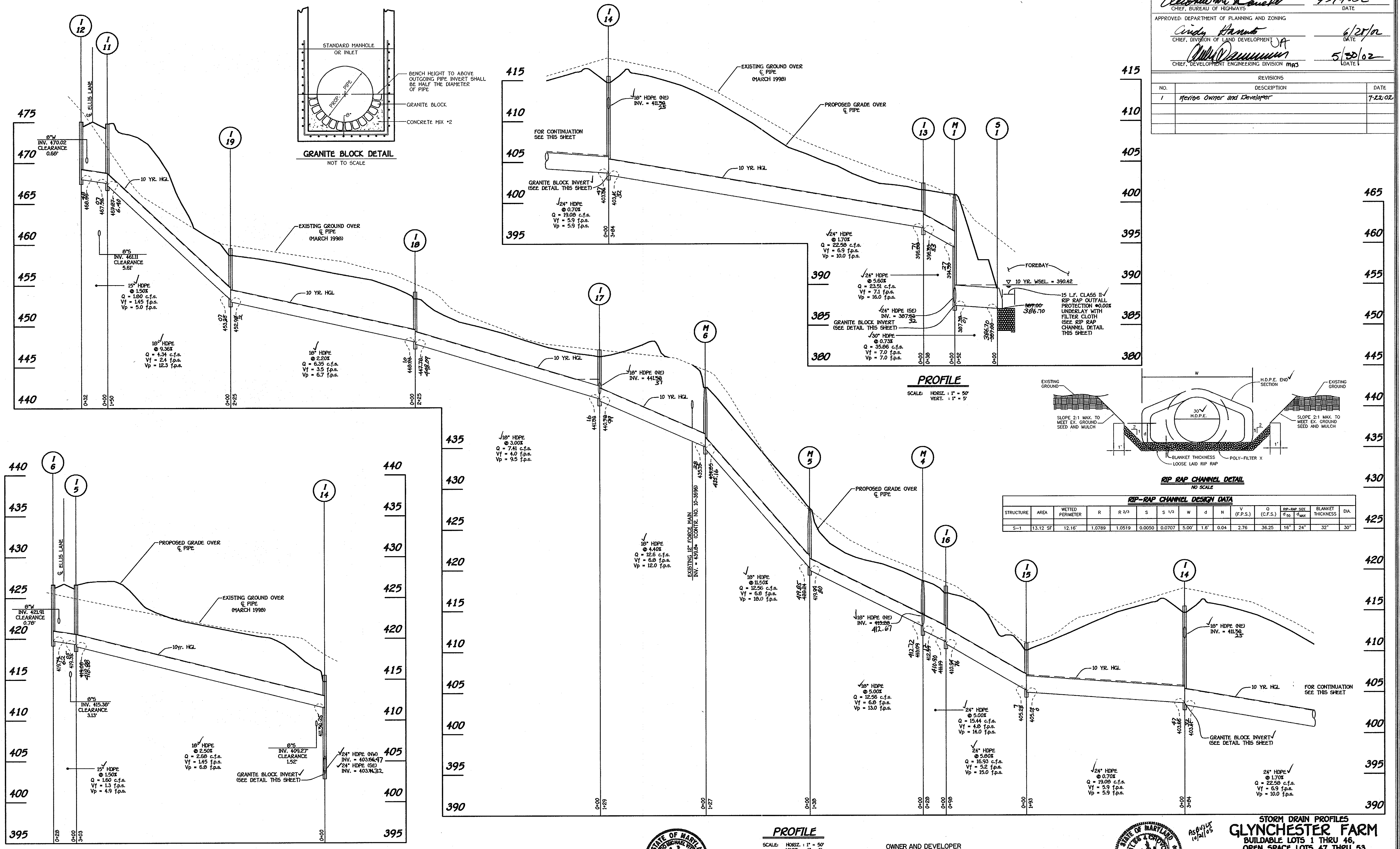
F 02-05

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. D. Quaker* 4-19-02  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamant* 6/25/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*William D. Zimmerman* 5/30/02  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 1

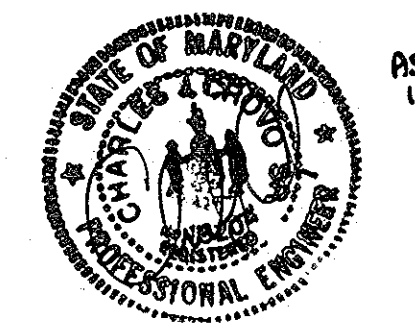
REVISIONS		
NO.	DESCRIPTION	DATE
1	Revise Owner and Developer	7-22-02



**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALDWIN NATIONAL FREE  
 ELLICOTT CITY, MARYLAND 21042  
 410-461-2999



OWNER AND DEVELOPER  
 DR. AND MRS. MICHAEL ELLIS  
 4971 ROCHESTER ROAD  
 ELLICOTT CITY, MARYLAND 21043



**STORM DRAIN PROFILES**  
**GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED R-20  
 TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 15  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 11, 2002  
 SHEET 10 OF 20

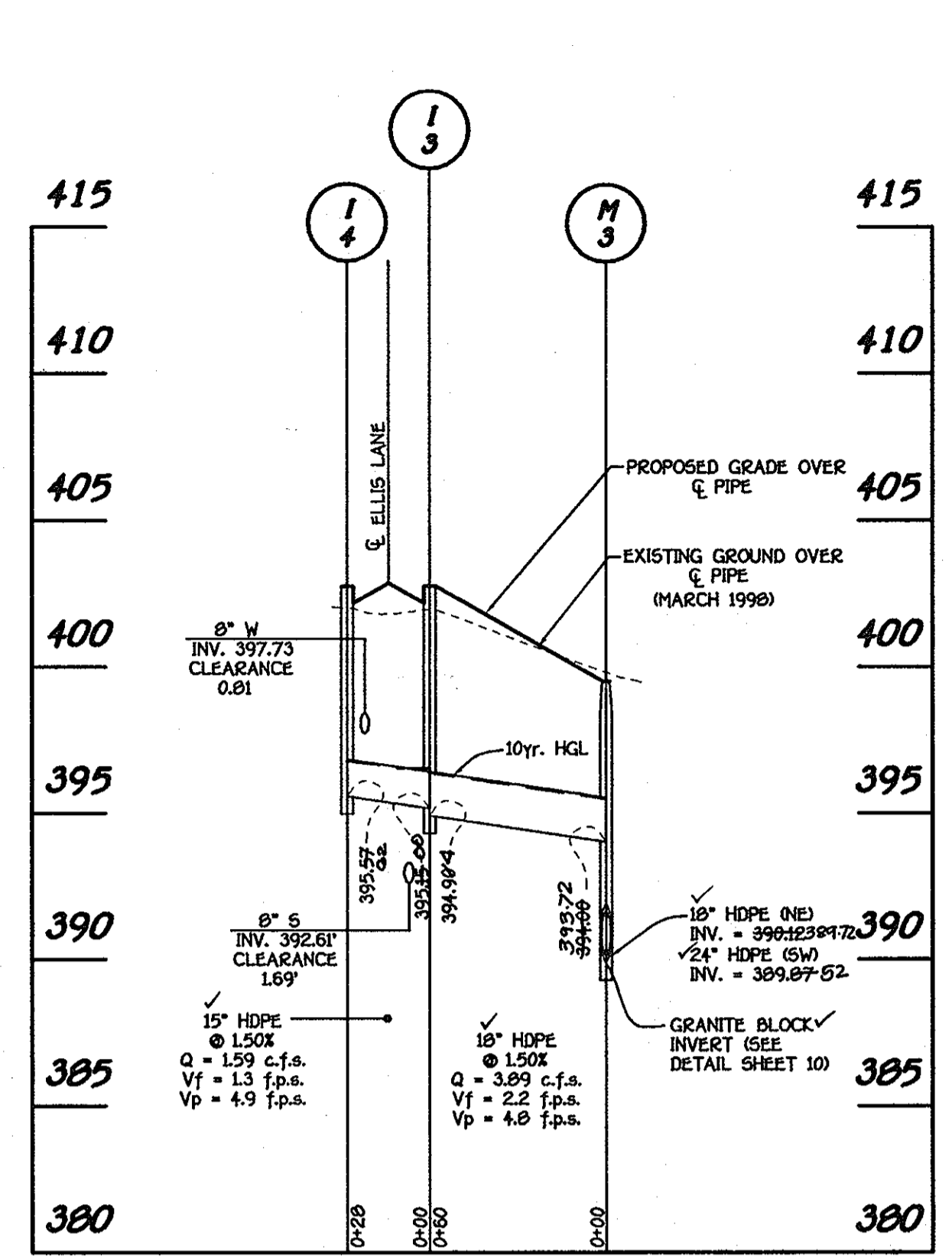
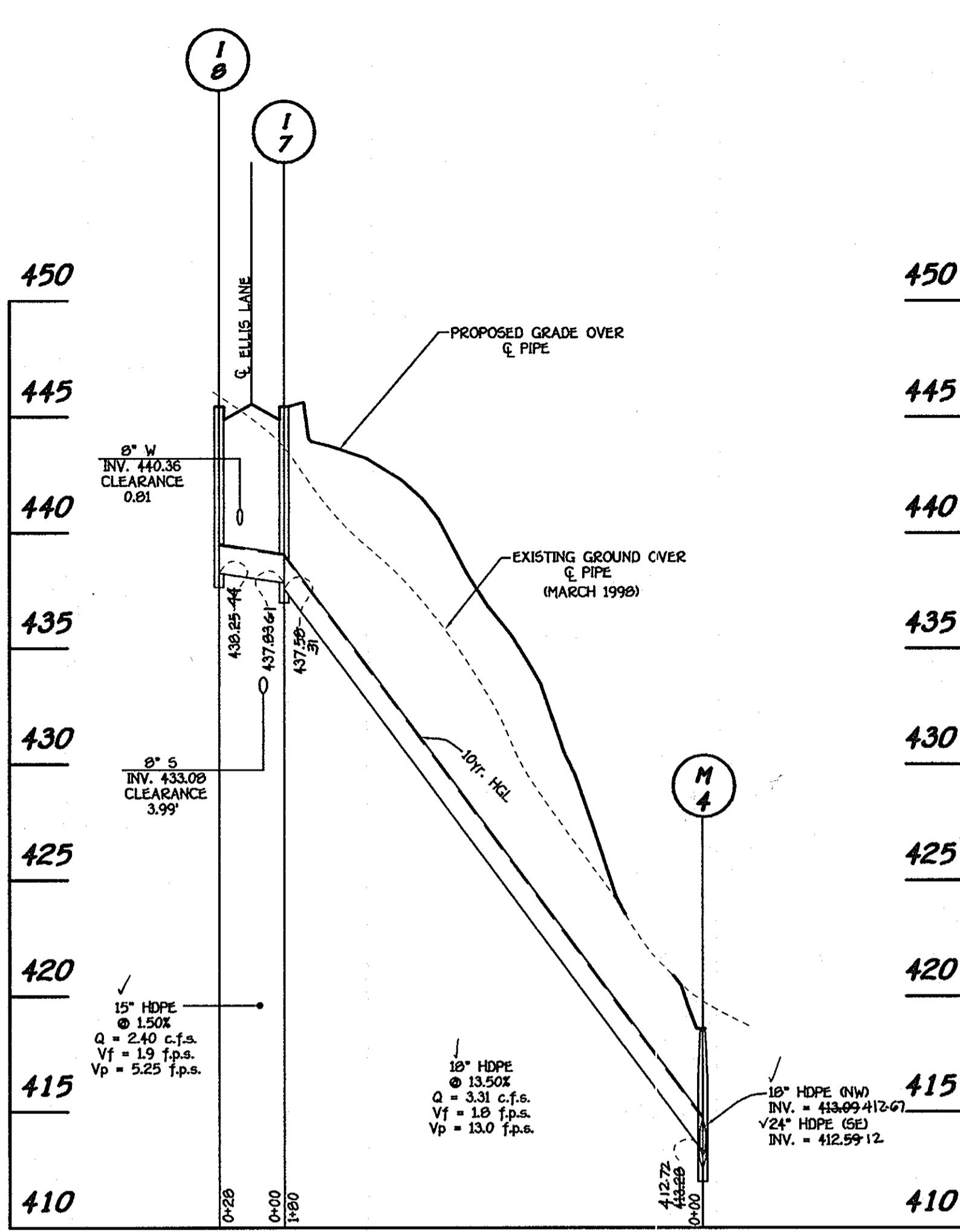
**AS-BUILT 10-21-05**

**STRUCTURE SCHEDULE**

STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	ROAD NAME	CL. ROAD STA.	OFFSET	TYPE	W	REMARKS
I-1	401.83 42	389.65 37	389.48 07	ELLIS LANE	N 869.693 448 E 1378.288 5972	11.05' L TO CL. OF INLET	* 'D' INLET ✓	---	S.D. - 4.39
I-2	397.80 34	390.67 9	390.38 25	ELLIS LANE	20+39.20 ✓		'S' INLET ✓	---	S.D. - 4.37
I-3	402.75 403.06	395.38 00	394.97 4	ELLIS LANE	19+58.58 770	** 12.43' R	A-10 ✓	2.50'	S.D. - 4.41
I-4	402.75 403.12	---	395.57 62	ELLIS LANE	19+58.58 770	** 12.43' L	A-10 ✓	2.50'	S.D. - 4.41
I-5	426.86 35	419.35 05	418.88 419.88	ELLIS LANE	15+54.61 ✓	** 12.43' R	A-10 ✓	2.50'	S.D. - 4.41
I-6	426.86 77	---	419.75 62	ELLIS LANE	15+54.61 ✓	** 12.43' L	A-10 ✓	2.50'	S.D. - 4.41
I-7	445.45 75	437.88 61	437.58 31	ELLIS LANE	12+34.77 ✓	** 12.43' R	A-10 ✓	2.50'	S.D. - 4.41
I-8	445.45 74	---	438.28 44	ELLIS LANE	12+34.77 ✓	** 12.43' L	A-10 ✓	2.50'	S.D. - 4.41
I-9	465.75 97	457.42 17	456.92 7	ELLIS LANE	8+68.82 50	** 12.43' R	A-5 ✓	2.50'	S.D. - 4.40
I-10	465.75 466.04	---	452.95 458.19	ELLIS LANE	8+68.82 50	** 12.43' L	A-10 ✓	2.50'	S.D. - 4.41
I-11	474.82 475.13	467.52 07	467.27 6.40	ELLIS LANE	4+18.82 00	** 12.43' R	A-10 ✓	2.50'	S.D. - 4.41
I-12	475.05 32	---	468.08 48	ELLIS LANE	4+18.82 00	** 12.43' L	A-10 ✓	2.50'	S.D. - 4.41
I-13	402.35 13	396.88 71	396.68 53	---	N 869.693 448 E 1378.288 5972	---	* 'D' INLET ✓	---	S.D. - 4.39
I-14	415.50 414.24	411.52 403.64 47	403.41 32	---	N 869.693 448 E 1378.288 5972	---	* 'D' INLET ✓	---	S.D. - 4.39
I-15	418.00 410.97	405.28 7	405.04 0	---	N 869.693 448 E 1378.288 5972	---	* 'D' INLET ✓	---	S.D. - 4.39
I-16	418.00 421.99	414.99 410.90	410.94 76	---	N 869.693 448 E 1378.288 5972	---	* 'D' INLET ✓	---	S.D. - 4.39
I-17	447.00 446.96	441.52 441.08 16	440.28 99	---	N 869.693 448 E 1378.288 5972	---	* 'D' INLET ✓	---	S.D. - 4.39
I-18	454.25 37	448.08 10	447.76 448.09	---	N 869.693 448 E 1378.288 5972	---	* 'D' INLET ✓	---	S.D. - 4.39
I-19	459.58 27	453.28 07	452.98 2	---	N 869.693 448 E 1378.288 5972	---	* 'D' INLET ✓	---	S.D. - 4.39
I-20	396.43 8	391.77 8	391.48 68	---	N 869.693 448 E 1378.288 5972	---	* 'D' INLET ✓	---	S.D. - 4.39
I-21	411.87 8	407.27 3	407.08 13	---	N 869.693 448 E 1378.288 5972	---	* 'D' INLET ✓	---	S.D. - 4.39
I-22	423.83 424.22	---	418.72 420.26	---	N 869.693 448 E 1378.288 5972	---	* 'D' INLET ✓	---	S.D. - 4.39
M-1	401.00 420.36	394.52 387.64 32	387.38 01	---	N 869.693 448 E 1378.288 5972	---	STD. MANHOLE ✓	---	G - 5.11
M-2	400.08 19	388.43 7.84	387.88 54	---	N 869.693 448 E 1378.288 5972	---	STD. MANHOLE ✓	---	G - 5.11
M-3	399.58 72	393.72 19.00	389.87 52	---	N 869.693 448 E 1378.288 5972	---	STD. MANHOLE ✓	---	G - 5.11
M-4	418.00 422.20	412.72 413.28	412.54 12	---	N 869.693 448 E 1378.288 5972	---	STD. MANHOLE ✓	---	G - 5.11
M-5	427.00 432.36	420.84 419.85	419.97 80	---	N 869.693 448 E 1378.288 5972	---	STD. MANHOLE ✓	---	G - 5.11
M-6	442.20 445.06	435.18 28	434.85 435.16	---	N 869.693 448 E 1378.288 5972	---	STD. MANHOLE ✓	---	G - 5.11
R-1	391.50 392.58	388.00 381.53	381.58 03	---	N 869.693 448 E 1378.288 5972	---	CONCRETE RISER ✓	---	---
S-1	389.50 388.70	387.00 386.70	387.00 386.70	---	N 869.693 448 E 1378.288 5972	---	HDPE END SECTION ✓	---	A.D.S. FLARED END SECTION
S-2	383.00 382.98	380.58 48	380.47 0	---	N 869.693 448 E 1378.288 5972	---	CONC. END SECTION ✓	---	S.D. - 5.51

\* - DENOTES OPENINGS TO BE ON ALL FOUR (4) SIDES  
 \*\* - DENOTES DISTANCE FROM CL. OF ROAD TO FACE OF INLET

A.D.S. - ADVANCED DRAINAGE SYSTEMS  
 LONDON, OHIO  
 1-800-733-9554



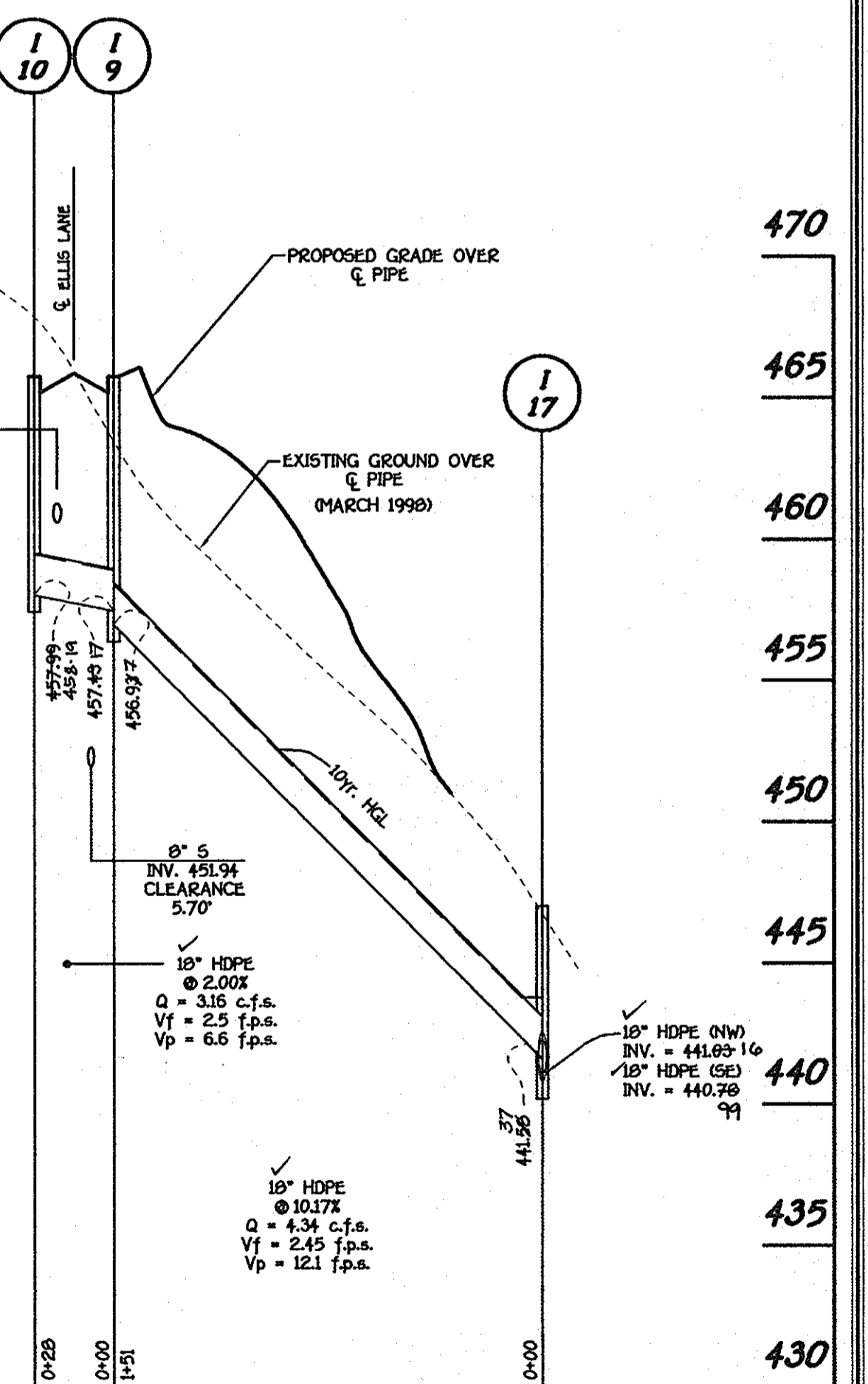
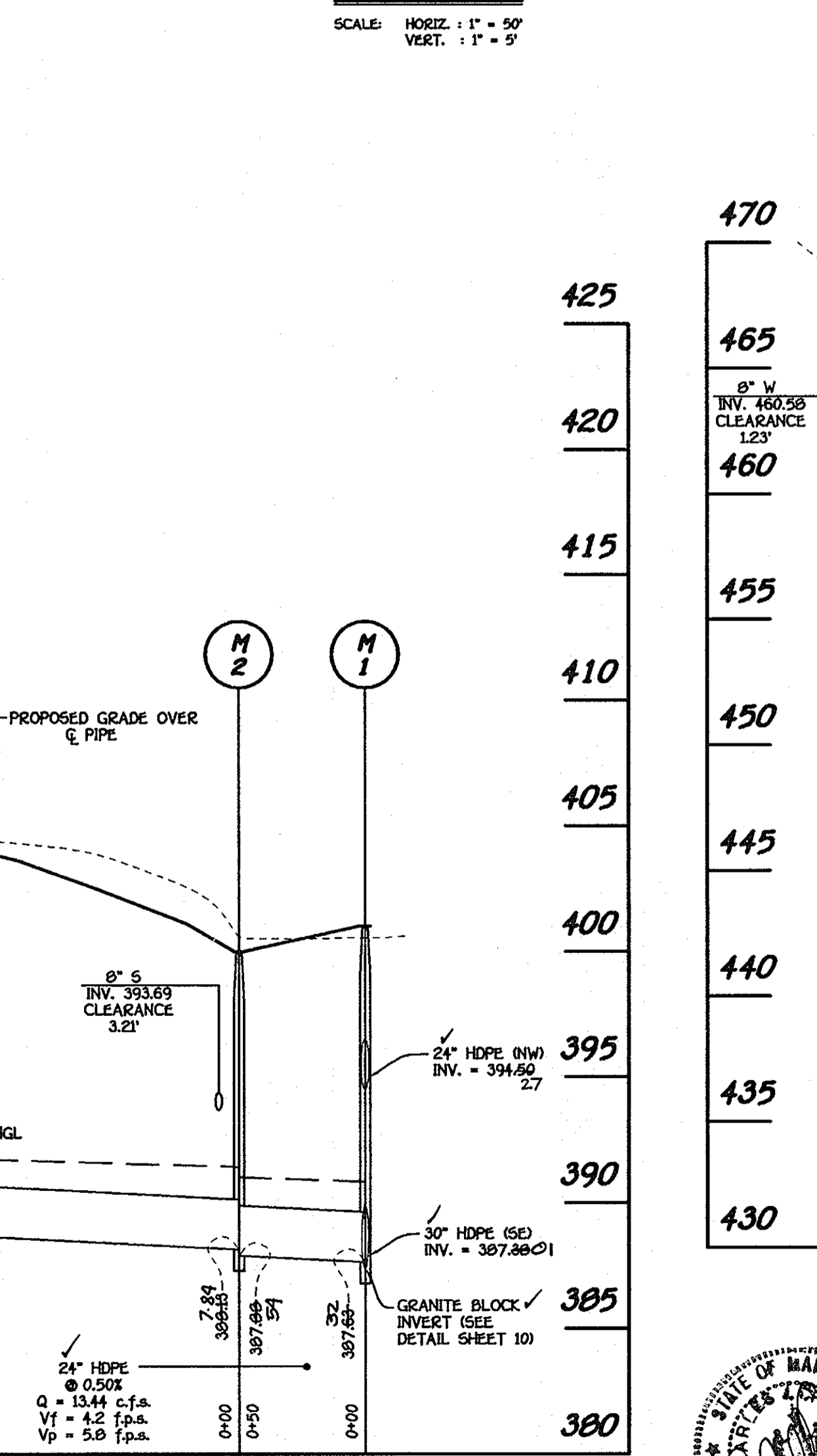
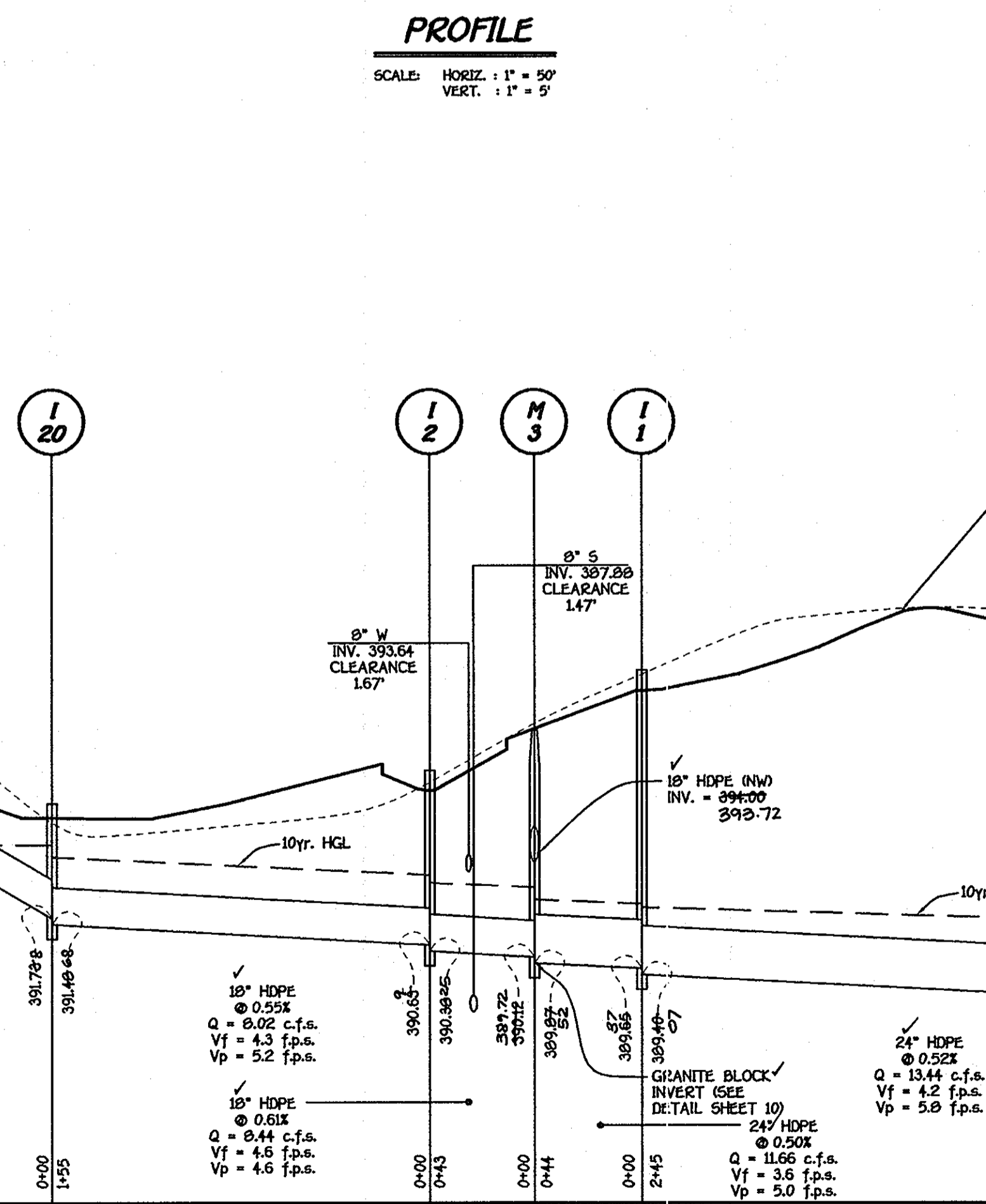
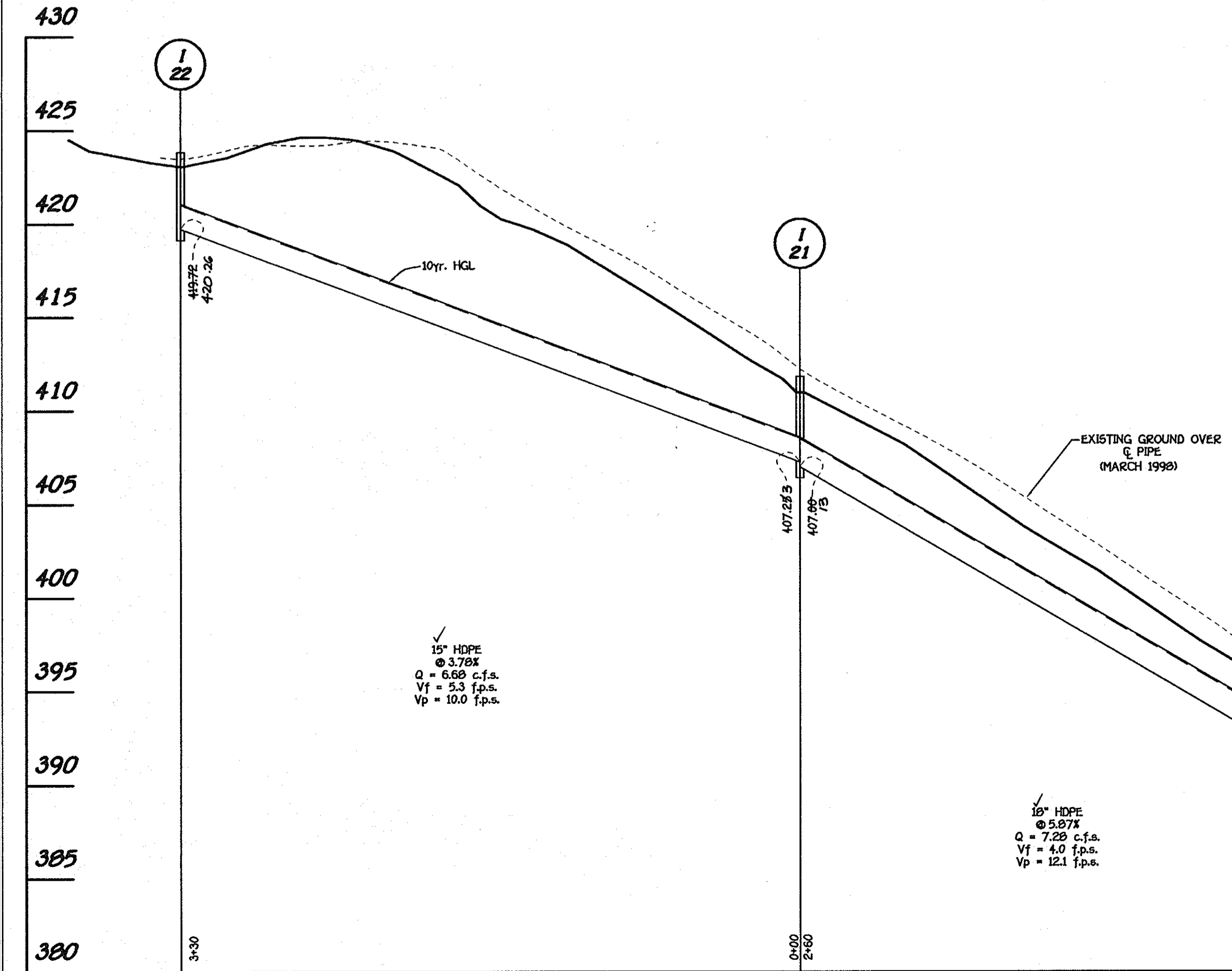
APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard W. Quaker* 5-14-02  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamant* 6/25/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John Deannunzio* 5/30/02  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DESCRIPTION	DATE
1	Revise Owner and Developer	7.12.02

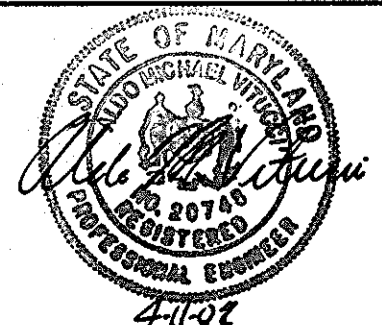
PIPE SCHEDULE		
SIZE	CLASS	LENGTH
15"	HDPE	446'
18"	HDPE	2174'
24"	HDPE	1080'
30"	HDPE	52'



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

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

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PKWY  
 ELICOTT CITY, MARYLAND 21042  
 410-461-3900

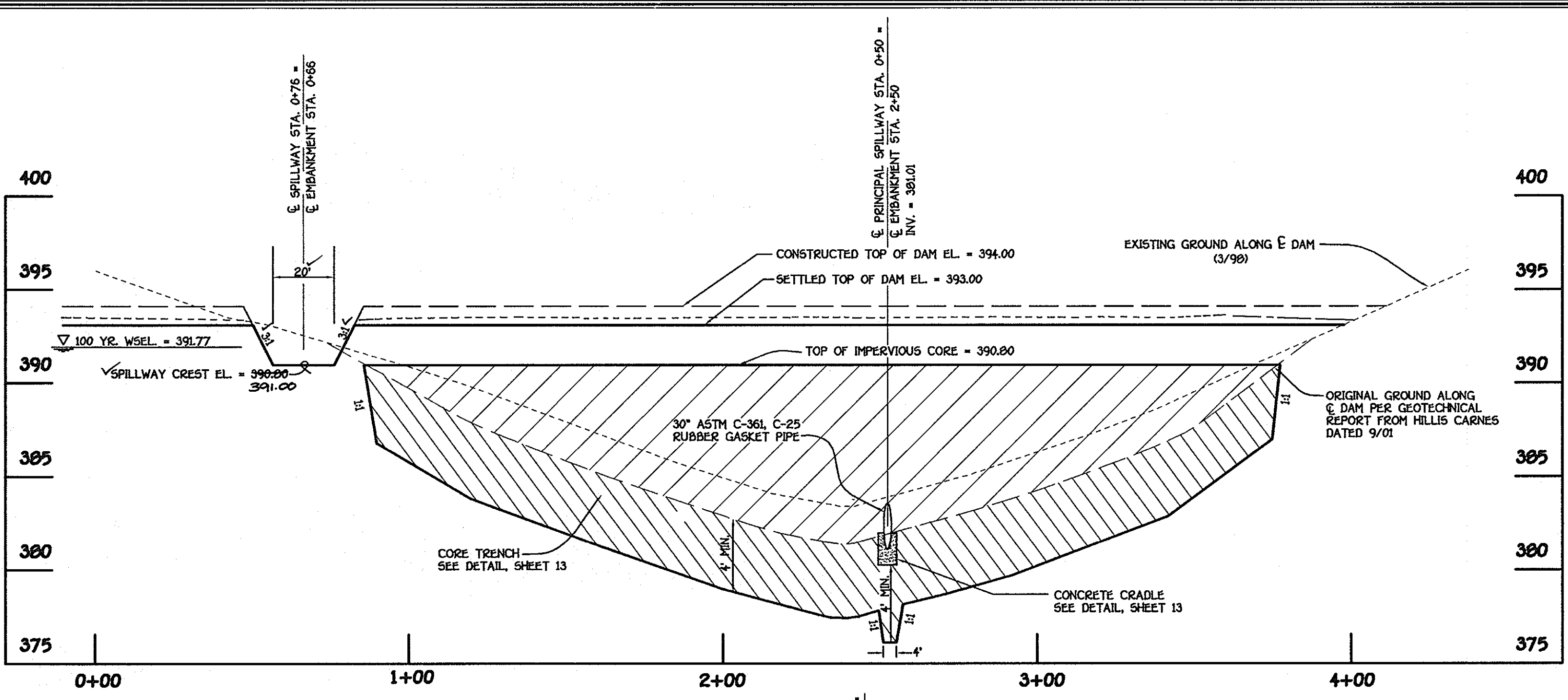


OWNER AND DEVELOPER  
 DR. AND MRS. MICHAEL ELLIS  
 4971 ILLICESTER ROAD  
 ELLICOTT CITY, MARYLAND 21043

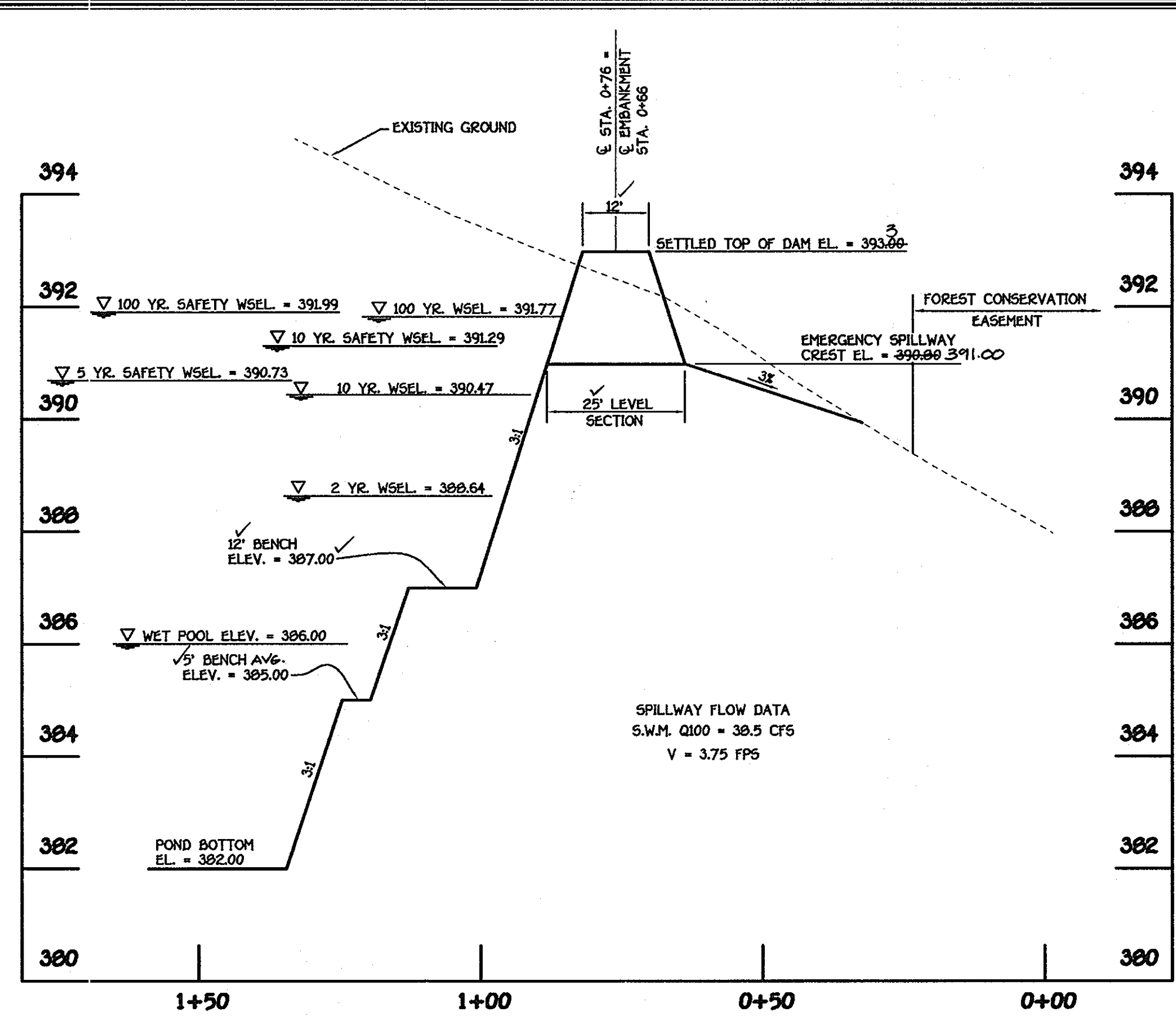


**STORM DRAIN PROFILES**  
**GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED: R-20  
 TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 11, 2002  
 SHEET 11 OF 20

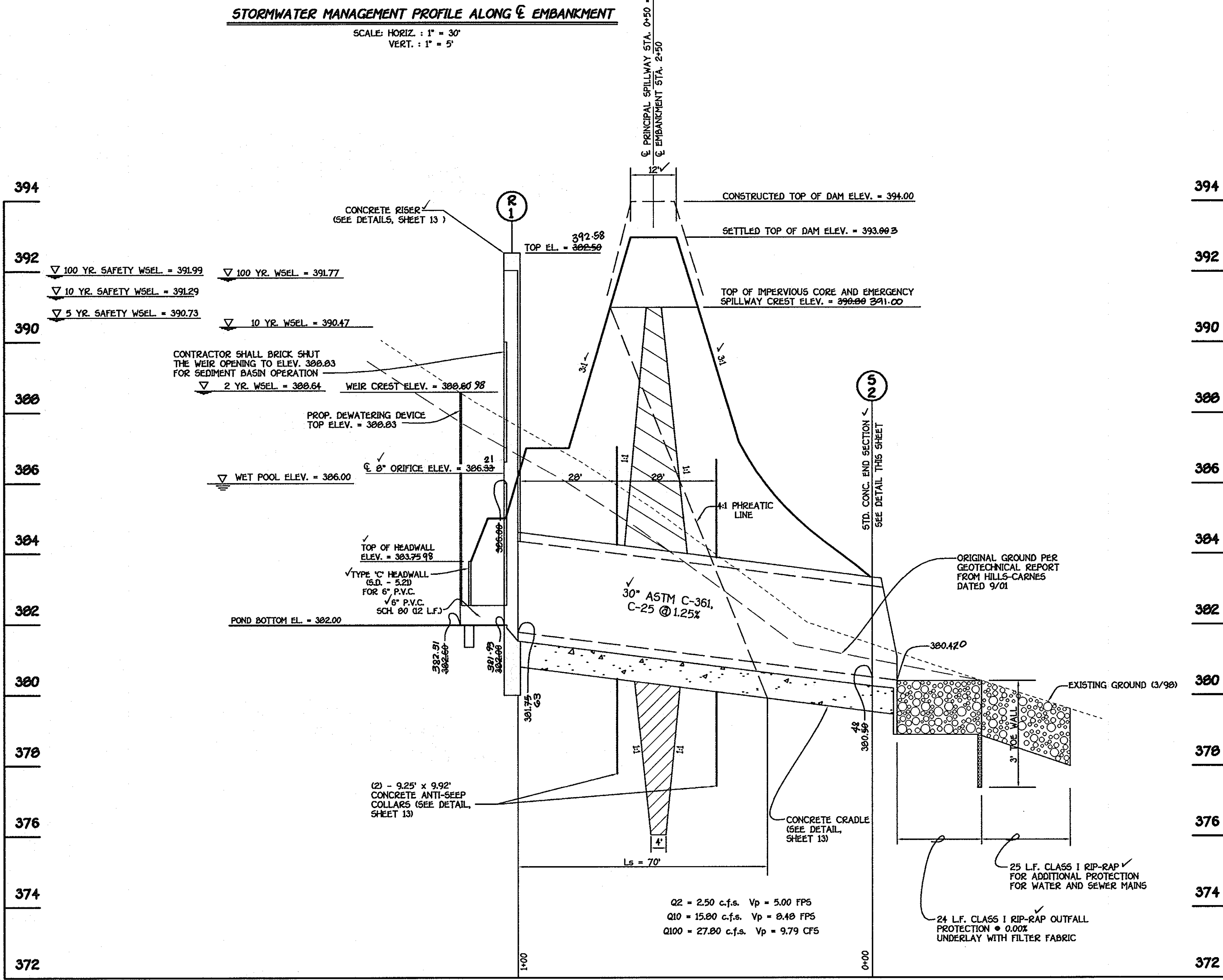
**AS-BUILT 10-21-05**



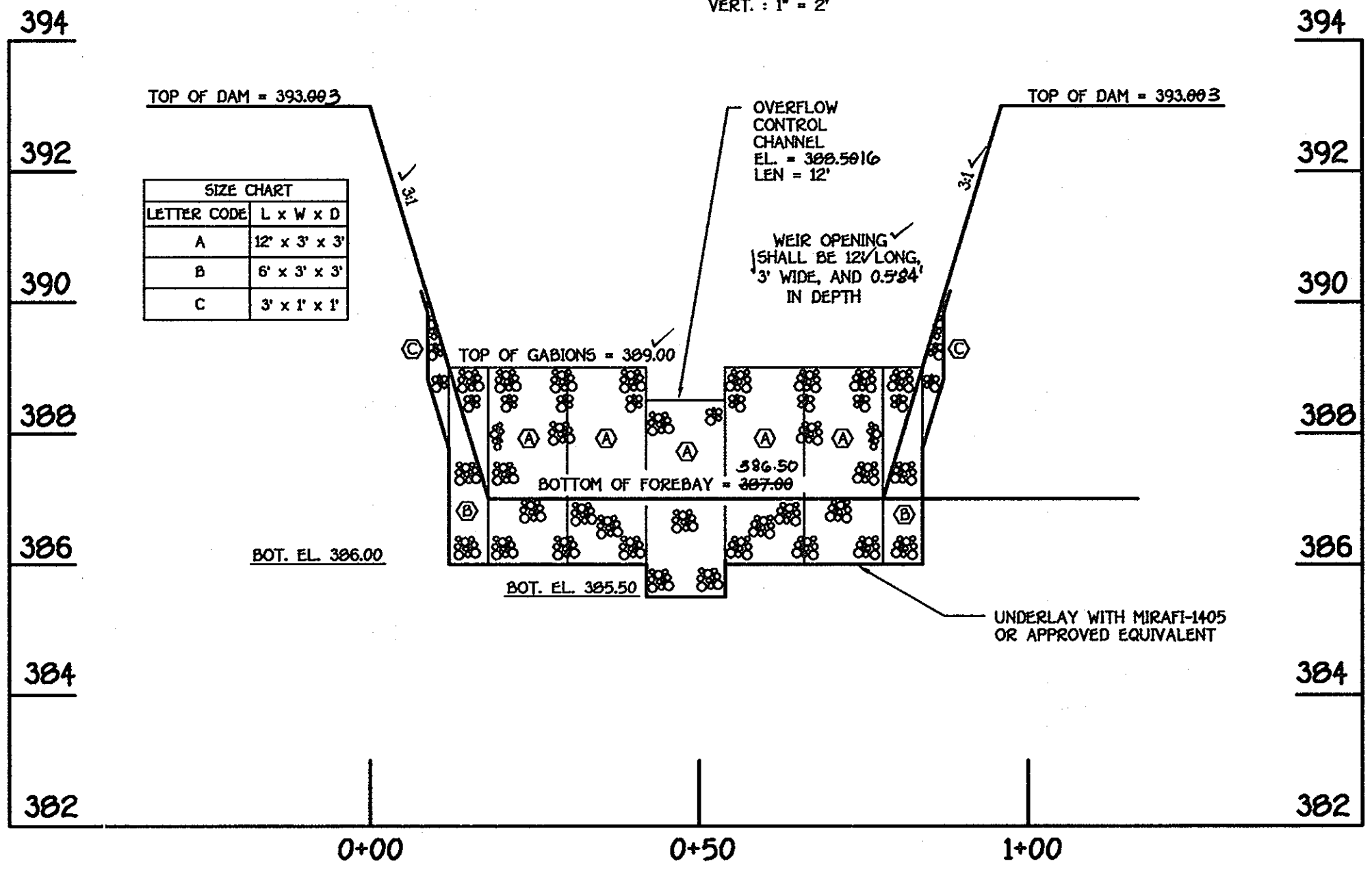
**STORMWATER MANAGEMENT PROFILE ALONG E EMBANKMENT**  
 SCALE: HORIZ. : 1" = 30'  
 VERT. : 1" = 5'



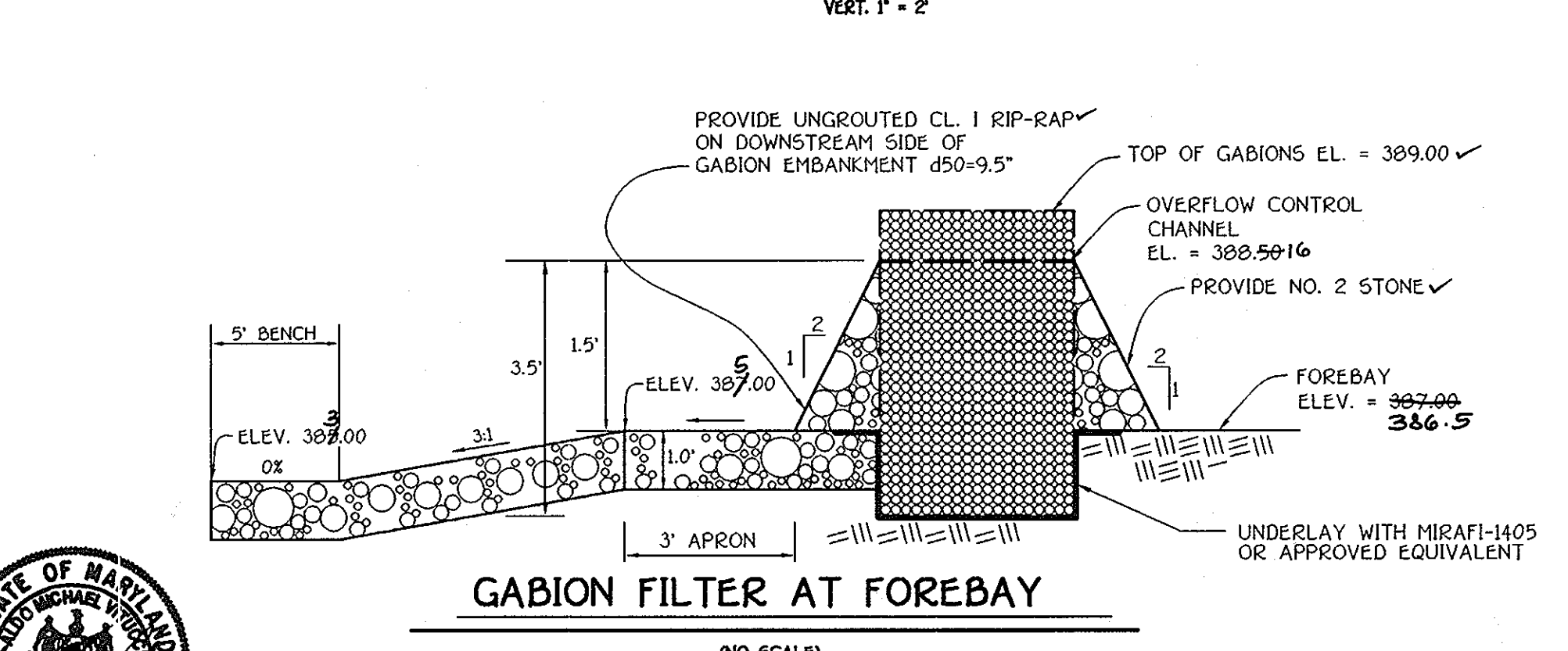
**EMERGENCY SPILLWAY PROFILE**  
 SCALE: HORIZ. : 1" = 20'  
 VERT. : 1" = 2'



**PRINCIPAL SPILLWAY PROFILE**  
 SCALE: HORIZ. : 1" = 20'  
 VERT. : 1" = 2'



**S.W.M. FACILITY (PROFILE ALONG G GABION FOREBAY)**  
 SCALE: HORIZ. 1" = 20'  
 VERT. 1" = 2'



**GABION FILTER AT FOREBAY**  
 (NO SCALE)

By The Developer:  
 I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District.

Signature Of Developer: Patricia A. Ellis Date: 9-17-02  
 Printed Name Of Developer: PATRICIA A. ELLIS

By The Engineer:  
 I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Noted The Requirements Of The Howard Soil Conservation District. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion.

Signature Of Engineer: [Signature] Date: 4-11-02  
 Printed Name Of Engineer: Michael W. Ellis

These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.

USDA-Natural Resources Conservation Service Date: 9/19/02  
 These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Howard Soil Conservation District Date: 9/19/02  
 Approved Department Of Public Works Date: 5-14-02  
 Chief, Bureau Of Highways

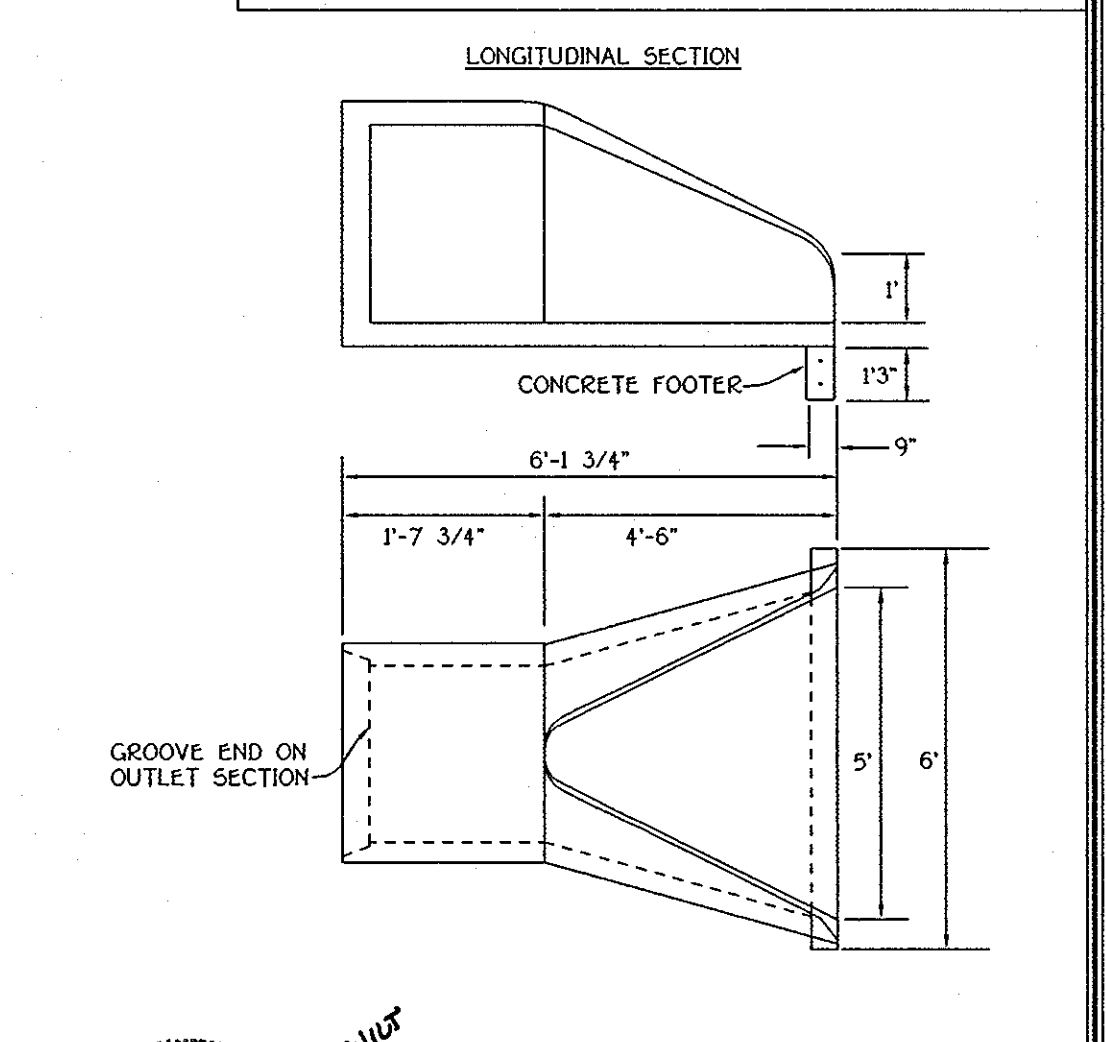
Approved Department Of Planning And Zoning Date: 6/25/02  
 Chief, Division Of Land Development

Approved Department Of Planning And Zoning Date: 5/30/02  
 Chief, Development Engineering Division

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: [Signature] Date: 10/21/05  
 P.E. No. 19210AS

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 Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate 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 Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.



**CONCRETE END SECTION AT5-2**  
 NO SCALE

**STORMWATER MANAGEMENT PROFILES  
 GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED: R-20  
 TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 11, 2002  
 SHEET 12 OF 20

**AS-BUILT 10-21-05**

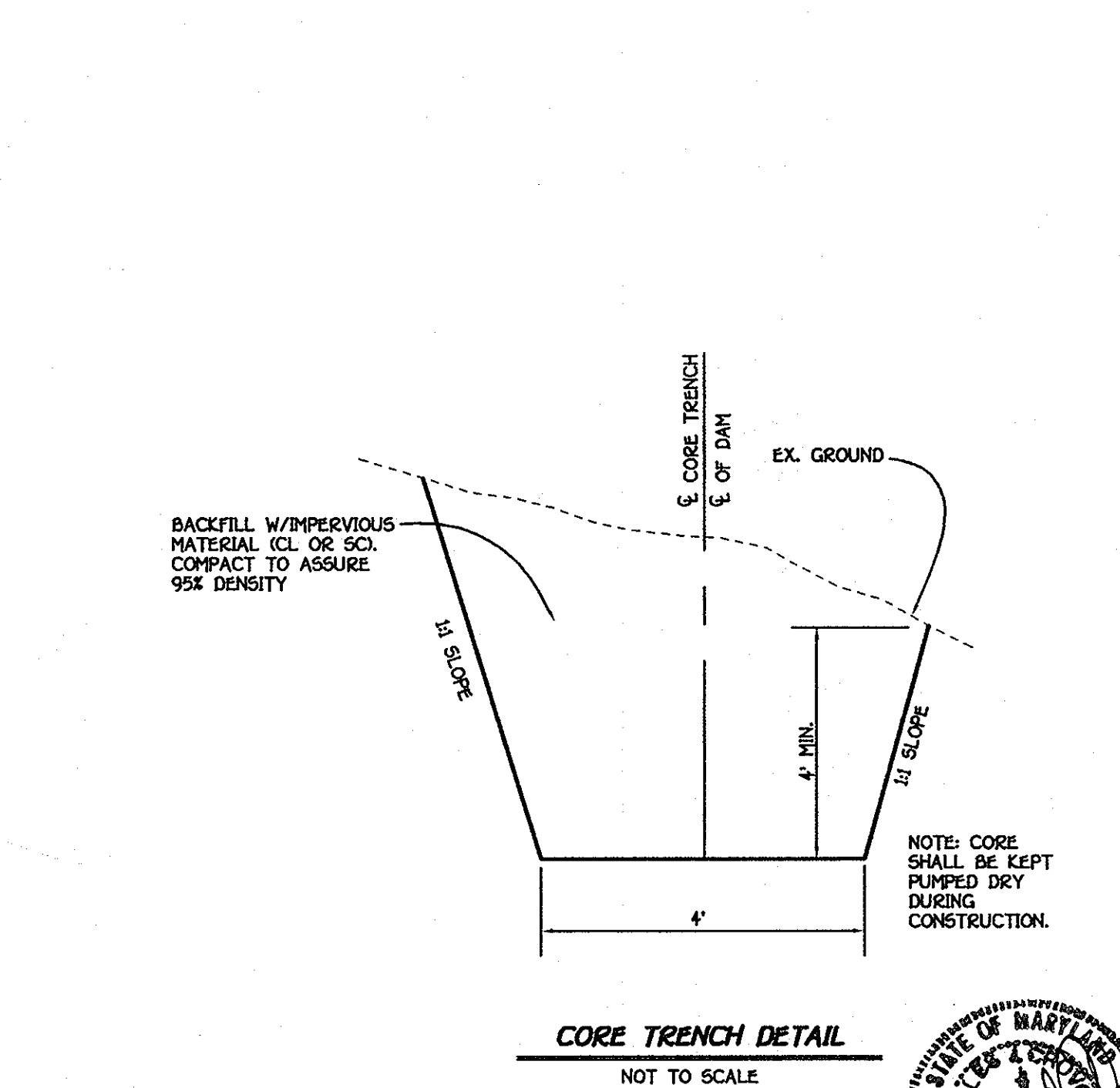
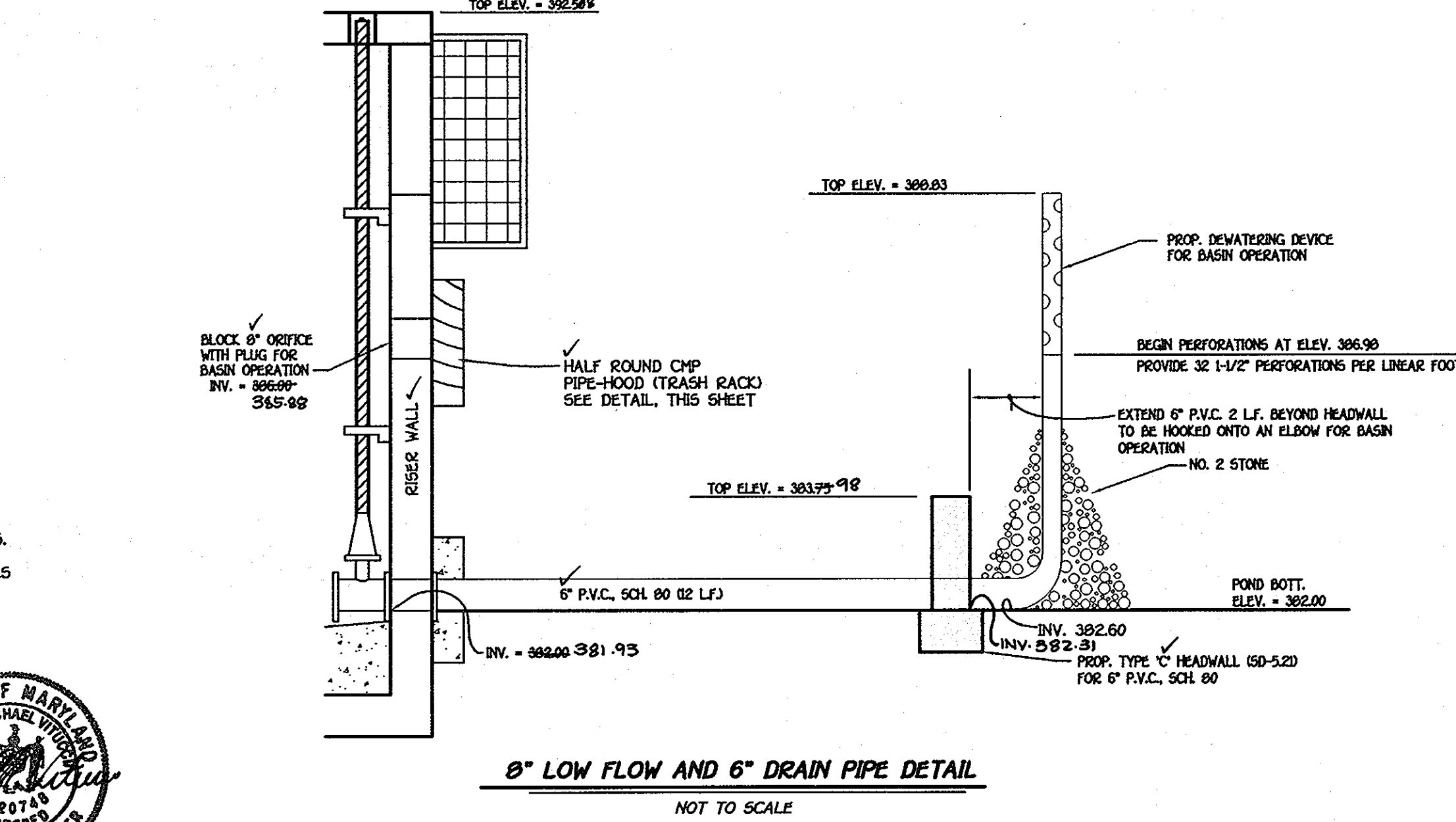
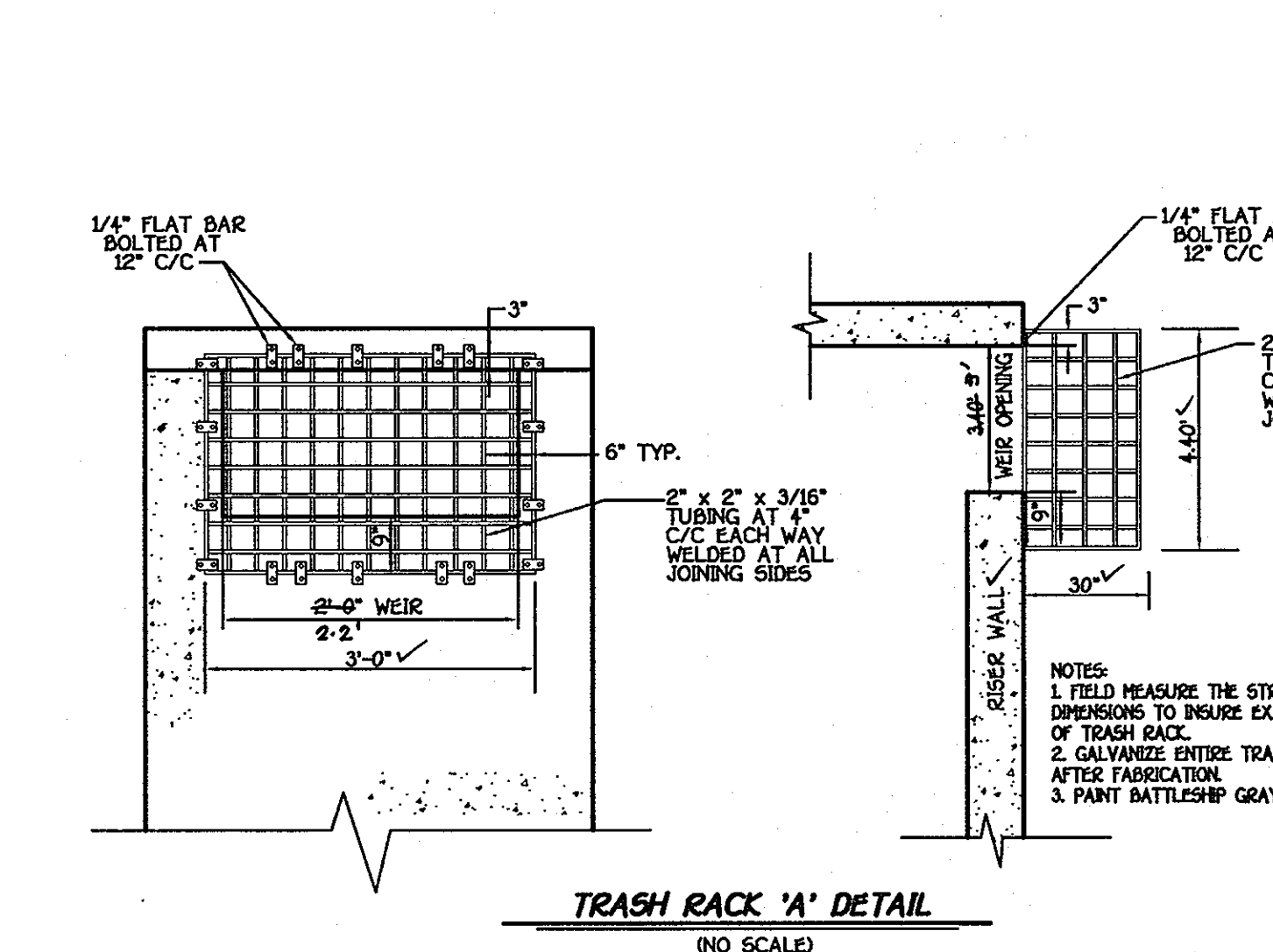
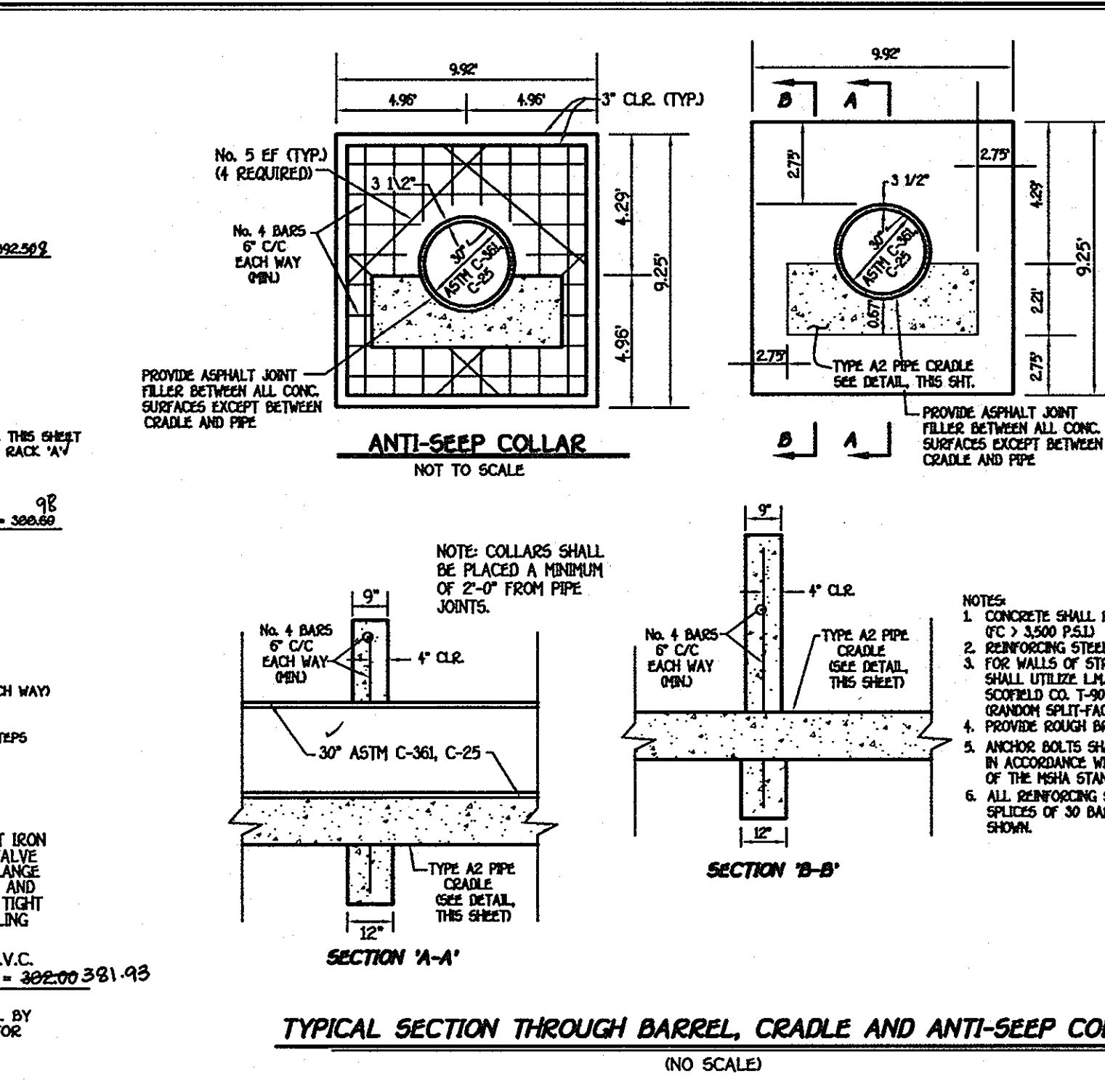
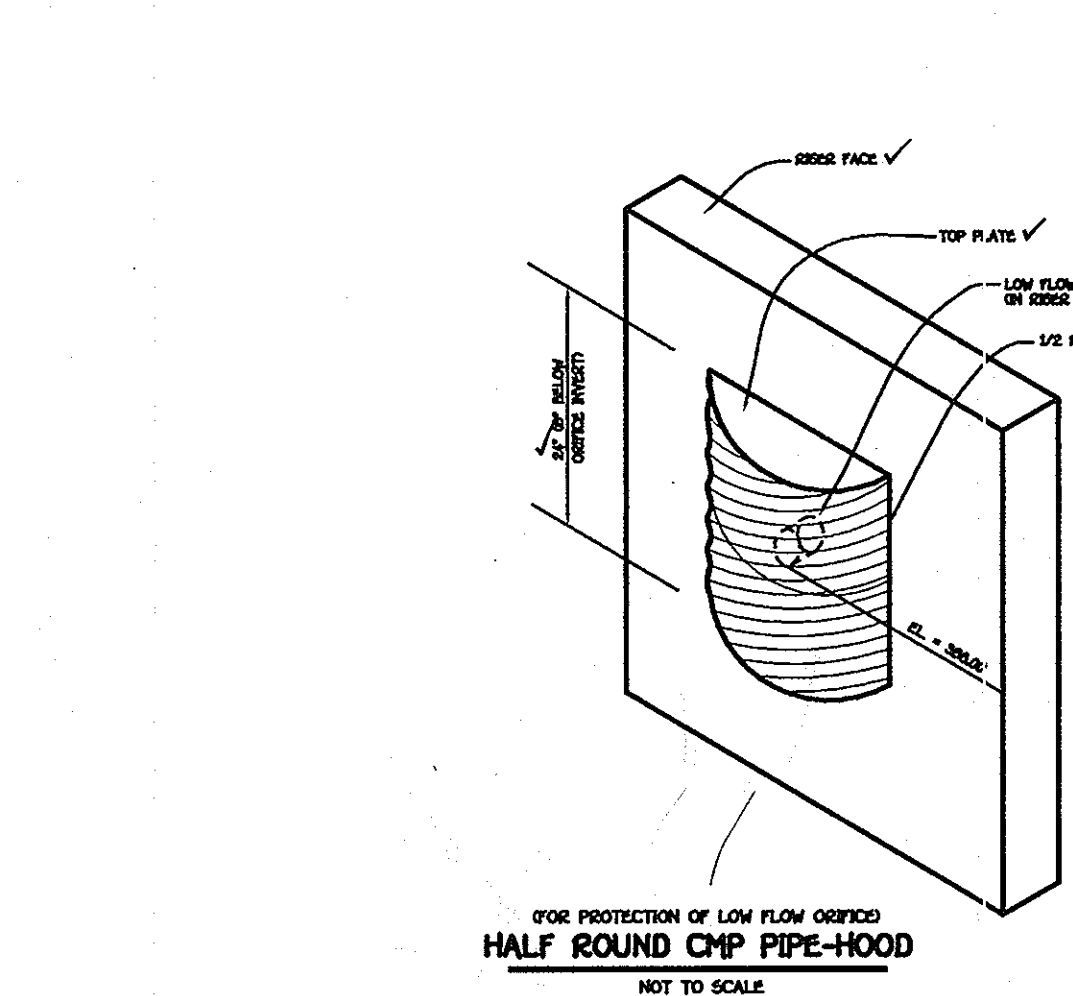
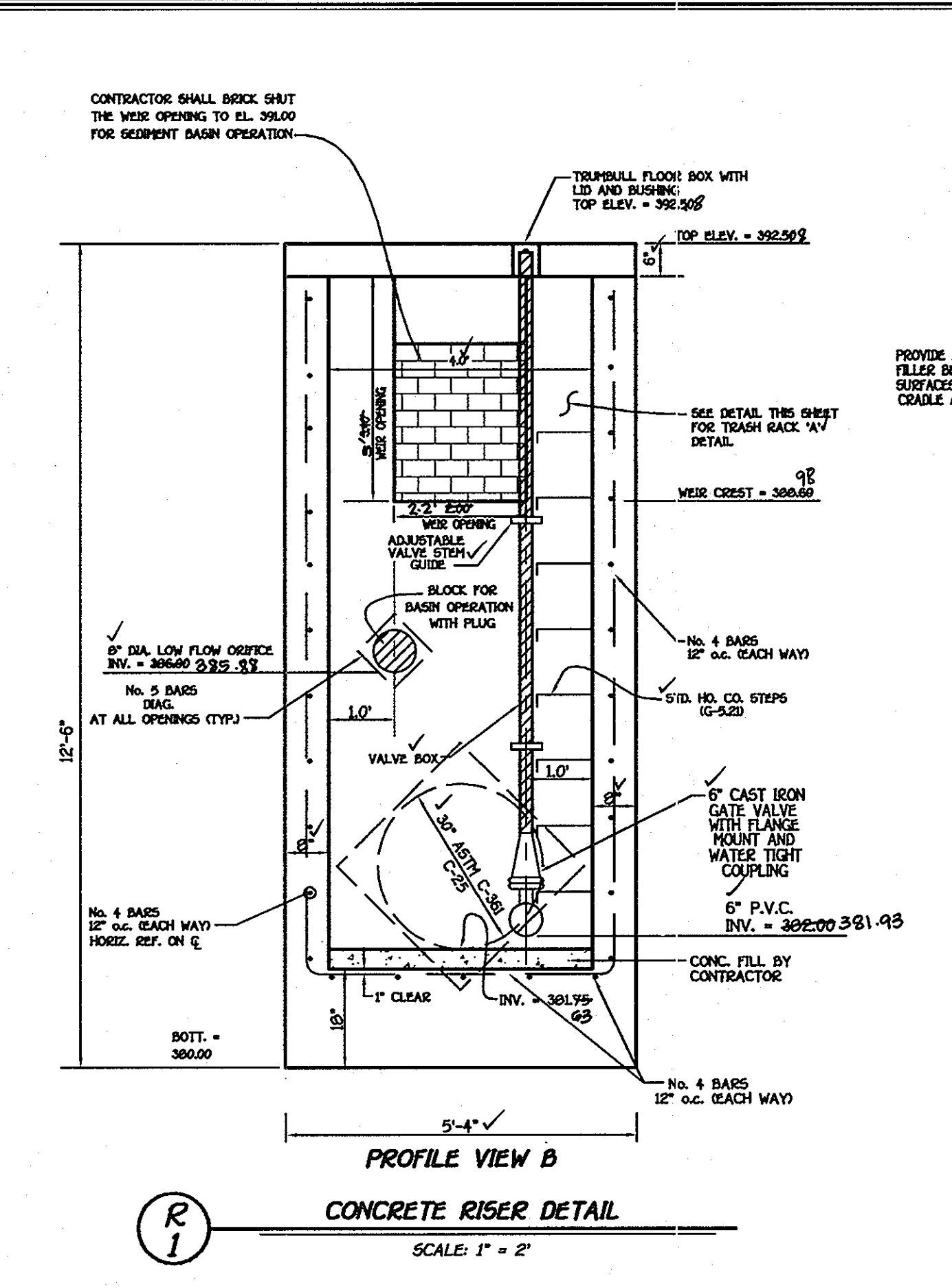
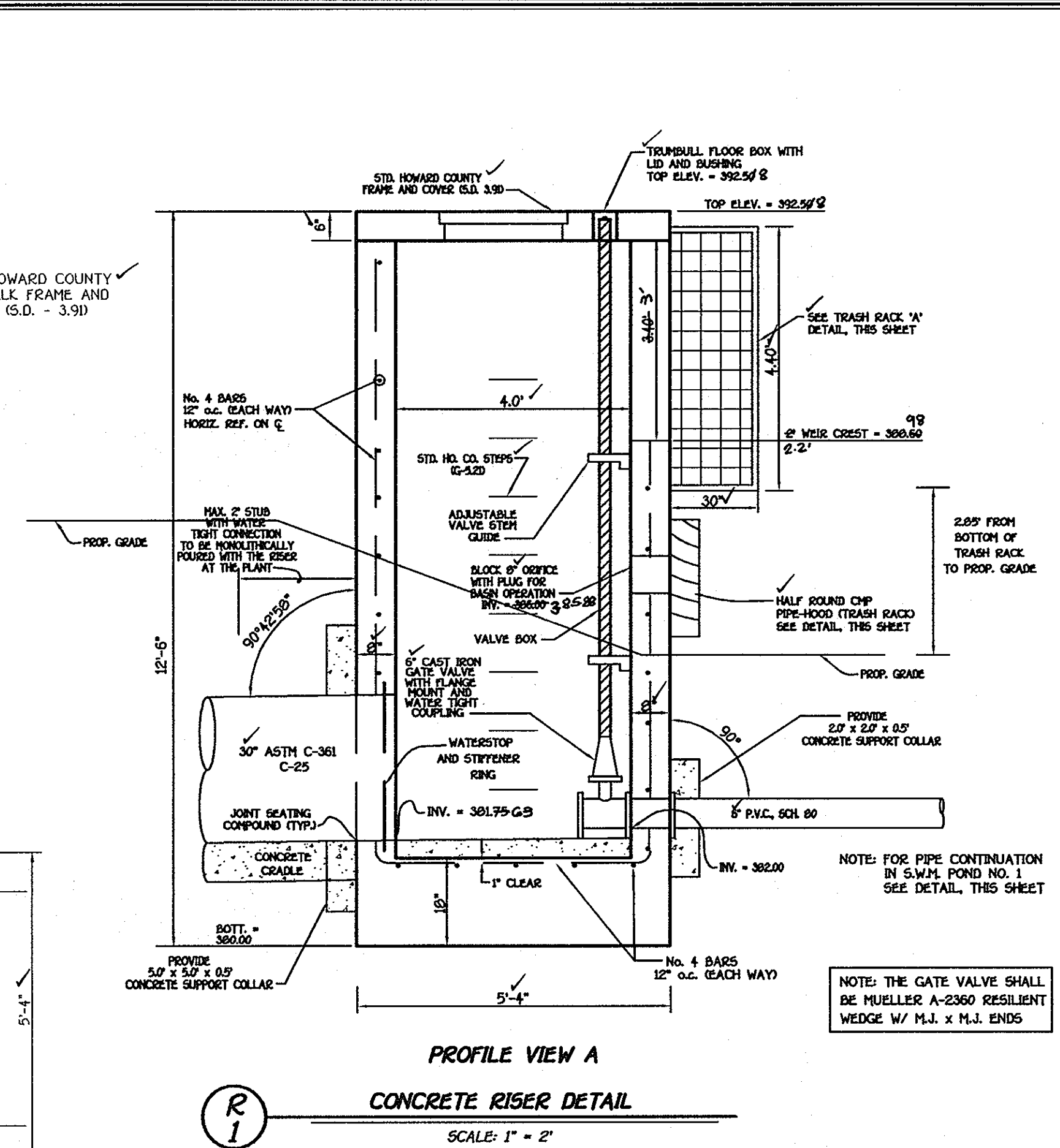
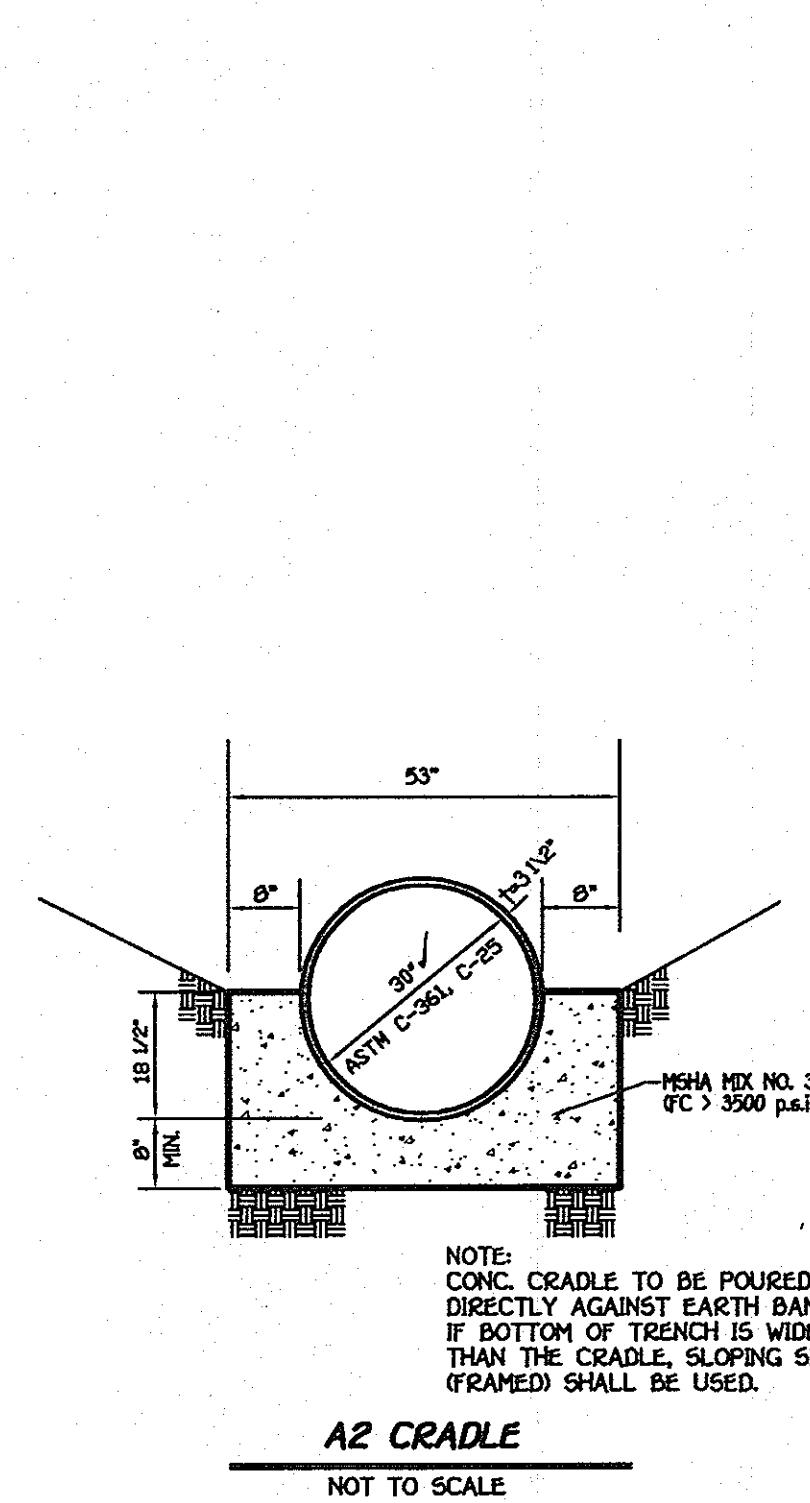
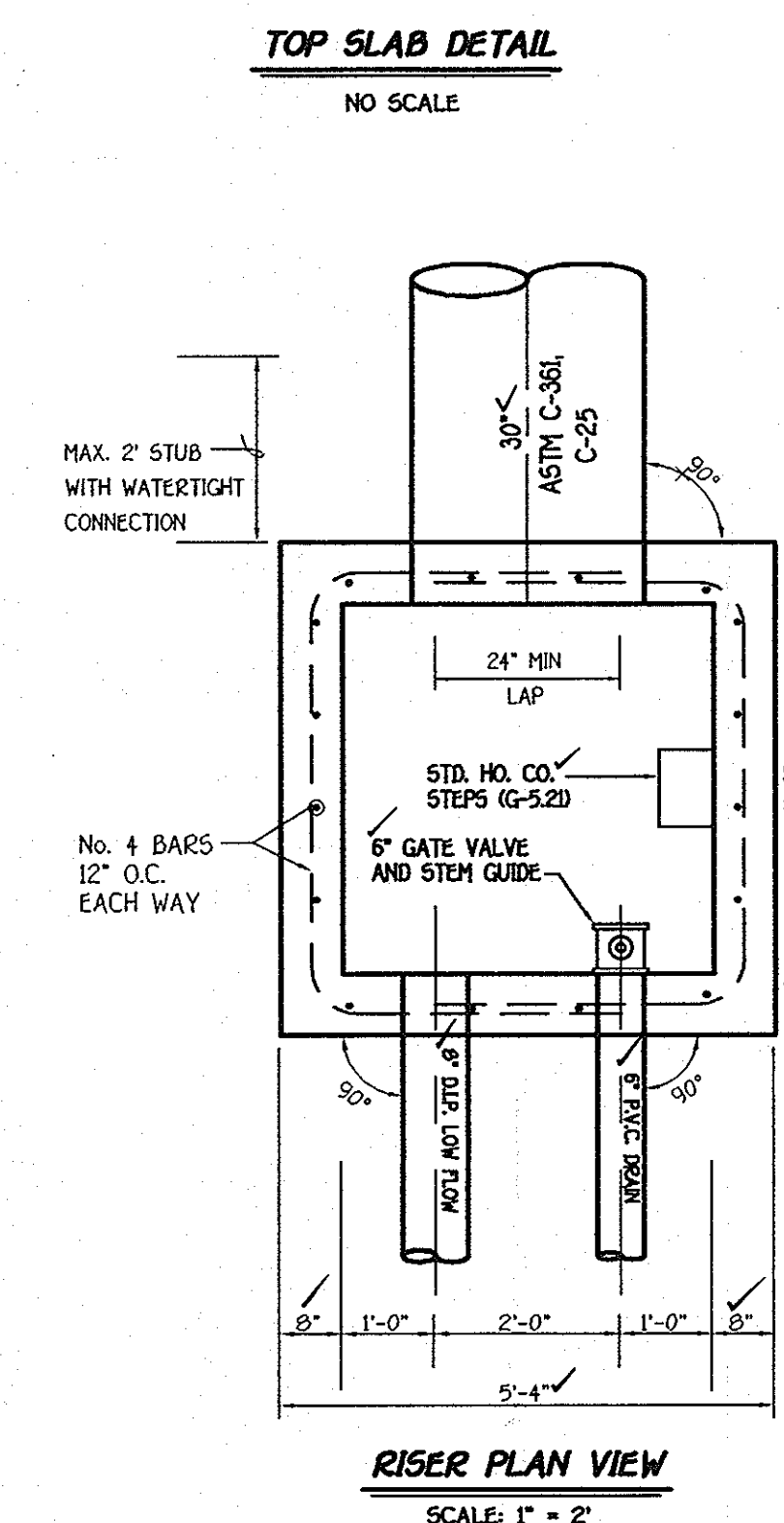
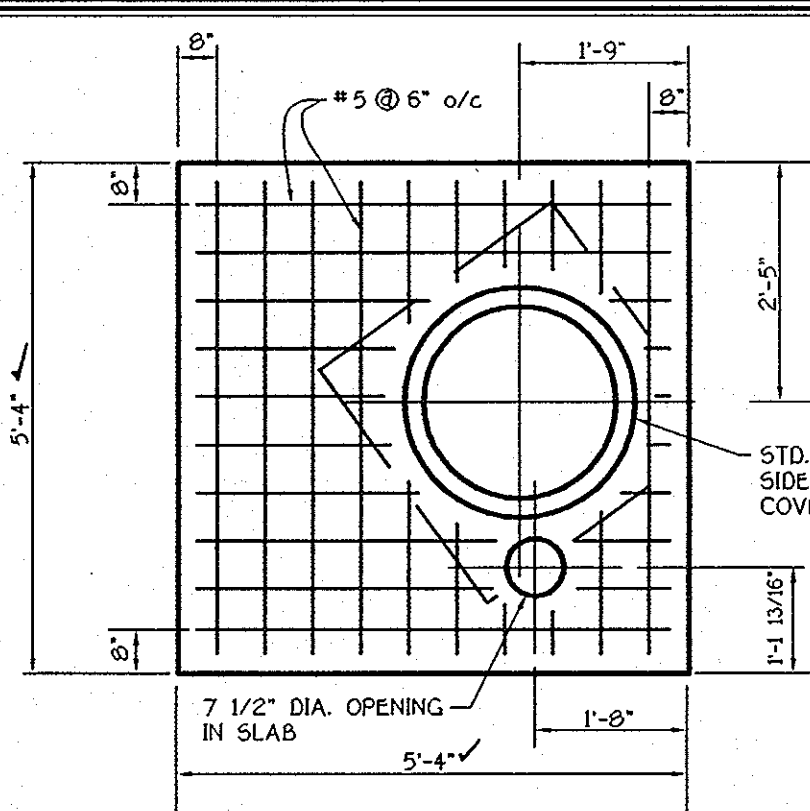
**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SOLIDWORKS OFFICE PARK - 10272 BALTIMORE NATIONAL FREE  
 ELLICOTT CITY, MARYLAND 21104  
 4100 461 - 3200

July 23, 2002, Revise Owner and Developer & Developer's Signature  
 Date Revision



**OWNER AND DEVELOPER**  
 DR. AND MRS. MICHAEL ELLIS  
 4971 ILLICESTER ROAD  
 ELLICOTT CITY, MARYLAND 21043

K:\Drawings\330321-Elis - Ilchester Road\FINAL\0801 S.W.M. PROFILES.dwg, 4/11/2002 8:38:13 AM



By The Developer:  
 1/4" Certify That All Development And/Or Construction Will Be Done According To These Plans. And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District.

*Patricia A. Ellis* 9-17-02  
 Signature of Developer Date  
 Patricia A. Ellis  
 Printed Name of Developer  
 By The Engineer:  
 1/4" Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Usable 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 Not Observed Any Conditions That Require A Registered Professional Engineer To Supervise Pond Construction. I Provide The Howard Soil Conservation District With An "As-Built" Plan Within 30 Days Of Completion.

*Andy Hamden* 4-11-02  
 Signature of Engineer Date  
 Andy Hamden  
 Printed Name of Engineer  
 These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.  
 USDA-Natural Resources Conservation Service 4/19/02  
 Date  
 These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.  
 Howard Soil Conservation District 4/19/02  
 Date  
 Approved: Department of Public Works 5-14-02  
*Richard M. Dwyer* Date  
 Chief, Bureau of Highways  
 Approved: Department of Planning And Zoning 6/25/02  
*Andy Hamden* Date  
 Chief, Division Of Land Development  
 Approved: Department of Public Works 5/30/02  
*Andy Hamden* Date  
 Chief, Development Engineering Division

AS-BUILT CERTIFICATION  
 I Herby Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As-Built" Plans And Meets The Approved Plans And Specifications.

*Andy Hamden* 1304  
 Signature P.E. No. 10/11/05  
 Date  
 Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate 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 Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

**OPERATION AND MAINTENANCE SCHEDULE OF HOME OWNERS ASSOCIATION OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY WET POOL DESIGN (RETENTION POND)**

**HOME OWNERS ASSOCIATION'S MAINTENANCE RESPONSIBILITIES:**

1. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.
2. Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
3. When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.

**OPERATION AND MAINTENANCE SPECIFICATIONS**

D) Periodic inspections of the facility will be made to identify potential problems that may affect its safety. These inspections will be made after periods of heavy rainfall and at least twice annually. Inspection reports shall be kept until the next subsequent inspection. Inspection items to be looked at include:

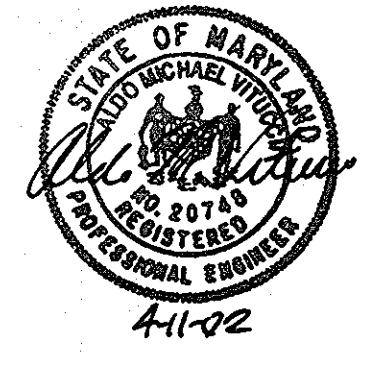
A. Spillway and outlet works  
 B. Rip-rap  
 C. Vegetative cover  
 D. Cracks in the fill  
 E. Slope failures; and  
 F. Seepage and other signs of distress.

2) Problems identified during inspections will be promptly corrected. Major problems will be brought to the attention of the soil conservation district and the dam safety division of the Maryland Water Resources Administration. As a very minimum, grassy vegetation will be maintained in a dense and healthy state, and woody vegetation will not be permitted to grow on the embankment.

**NOTES**

1. Concrete shall conform to the Maryland D.O.T.S.H.A. Standard Spec's for construction and materials, 1902 Mix No. 6, except that TY, III Cement and A.S.T.M. C 33 No. 6 coarse AGG. shall be used.

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SOLAR OFFICE PARK - 10272 BALDPOPE NATIONAL FRZ  
 ELICOTT CITY, MARYLAND 21042  
 410-461-2929



**OWNER AND DEVELOPER**  
 DR. AND MRS. MICHAEL ELLIS  
 4971 ILLICESTER ROAD  
 ELICOTT CITY, MARYLAND 21043

July 22, 2002  
 Date  
 Revised Owner and Developer & Developer's Signature  
 Revision



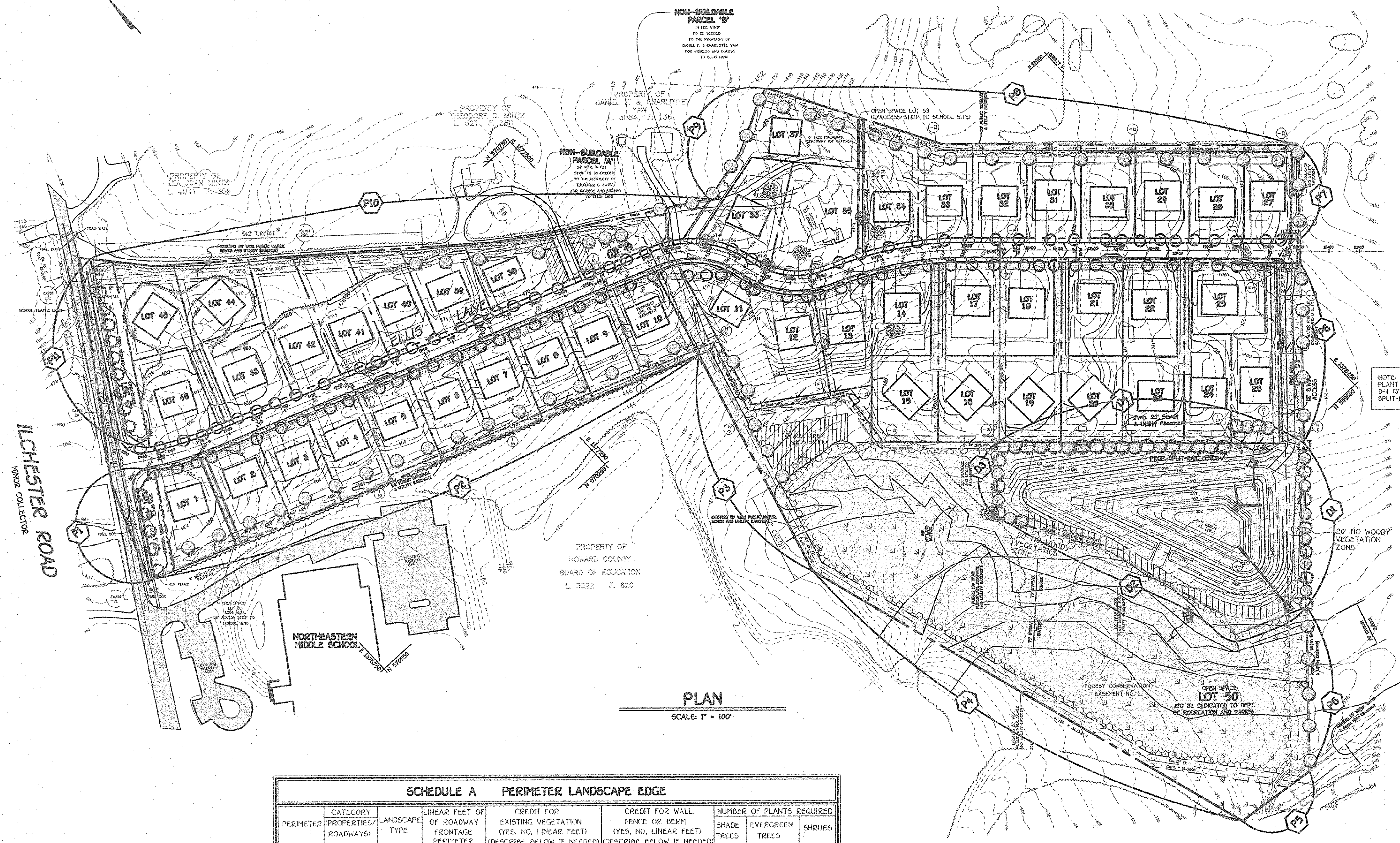
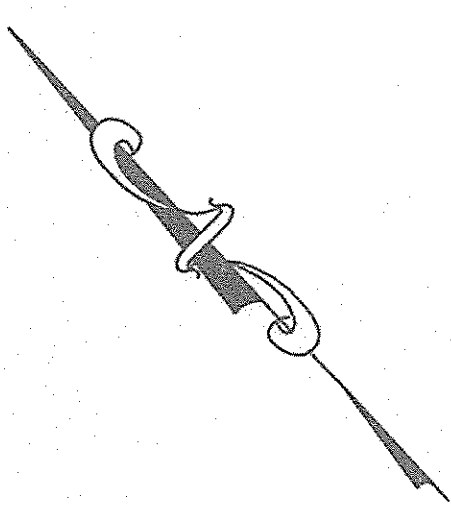
**STORMWATER MANAGEMENT DETAIL SHEET  
 GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED R-20  
 TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 12, 2002  
 SHEET 13 OF 20

**AS-BUILT 10-21-05**

Approved Department of Public Works  
*Richard M. Daulton* 5-19-02  
 Chief, Bureau of Highways Date

Approved Department of Planning and Zoning  
*Andy Hammett* 6/25/02  
 Chief, Division of Land Development Date

*Mike Dammann* 5/30/02  
 Chief, Development Engineering Division Date



NOTE: PLANT LANDSCAPE TREES ALONG PERIMETER D-4 (3) THREE FEET BEHIND THE PROPOSED SPLIT-RAIL FENCE ON THE UPHILL SIDE.

LANDSCAPING PLANT LIST			
QTY.	KEY	NAME	SIZE
82		ACER RUBRUM (OCTOBER GLORY OCTOBER RED MAPLE)	2 - 2 1/2" CALIPER FULL CROWN, B&B
42		PINUS STROBUS EASTERN WHITE PINE	6' - 8' HT.

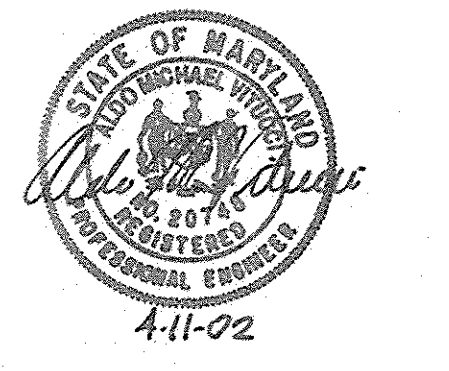
"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 15.24 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL". FINANCIAL SURETY FOR THE 124 REQUIRED LANDSCAPE TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$30,000.00. IN ADDITION, FINANCIAL SURETY FOR THE PROPOSED SPLIT RAIL FENCE HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF (456 L.F. x \$10 PER LINEAR FOOT) = \$4,560.00.  
 Total = \$35,460.00

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING				
LINEAR FEET OF PERIMETER	D1: 273'	D2: 578'	D3: 123'	D4: 464'
NUMBER OF TREES REQUIRED:				
SHADE TREES	6	12	3	12
EVERGREEN TREES	7	15	4	12
CREDIT FOR EXISTING VEGETATION (NO, YES AND 2)	NO	YES (578')	NO	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND 2)	NO	NO	NO	NO
NUMBER OF TREES PROVIDED:				
SHADE TREES	6	0	3	10
EVERGREEN TREES	7	0	4	12
OTHER TREES (2:1 SUBSTITUTION)	---	---	---	---

SCHEDULE A PERIMETER LANDSCAPE EDGE							
PERIMETER	CATEGORY (PROPERTIES/ROADWAYS)	LANDSCAPE TYPE	LINEAR FEET OF ROADWAY FRONTAGE PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NUMBER OF PLANTS REQUIRED	
						SHADE TREES	EVERGREEN TREES
P-1	ADJACENT TO ROADWAY	B	188'	YES (188')	NO	0	5
P-2	ADJACENT TO PERIMETER	A	975'	NO	NO	17	-
P-3	ADJACENT TO PERIMETER	A	406'	YES (150')	NO	5	-
P-4	ADJACENT TO PERIMETER	A	825'	YES (825')	NO	0	-
P-5	ADJACENT TO PERIMETER	A	138'	YES (138')	NO	0	-
P-6	ADJACENT TO PERIMETER	A	573'	NO	NO	10	-
P-7	ADJACENT TO PERIMETER	A	156'	NO	NO	3	-
P-8	ADJACENT TO PERIMETER	A	890'	NO	NO	15	-
P-9	ADJACENT TO PERIMETER	A	181'	NO	NO	4	-
P-10	ADJACENT TO PERIMETER	A	1055'	YES (542') *	NO	9	-
P-11	ADJACENT TO ROADWAY	B	338'	YES (338')	NO	0	9

\* NOTE: IF ADDITIONAL TREES ALONG THE P-10 CREDIT AREA ARE REMOVED FOR HOUSE SITING AT THE SDP PLAN PHASE, THEN ADDITIONAL PERIMETER TREES WILL BE REQUIRED.

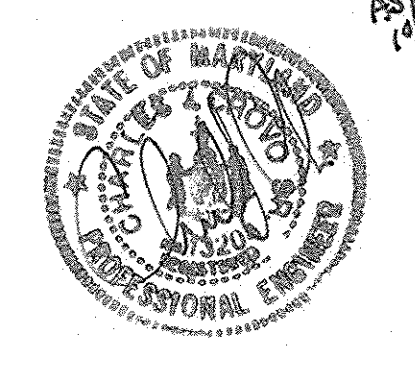
PLAN  
 SCALE: 1" = 100'



FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTURIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21114  
 4100 481 - 2000

OWNER AND DEVELOPER  
 DR. AND MRS. MICHAEL ELLIS  
 4971 ILCHESTER ROAD  
 ELLICOTT CITY, MARYLAND 21143

July 22, 2002	Revise Owner and Developer
Date	Revision



LANDSCAPE PLAN  
**GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED R-20  
 TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 11, 2002  
 SHEET 14 OF 20

AS-BUILT 10-21-05

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 [Signature] 9/30/02  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 10/1/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 10/2/02  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

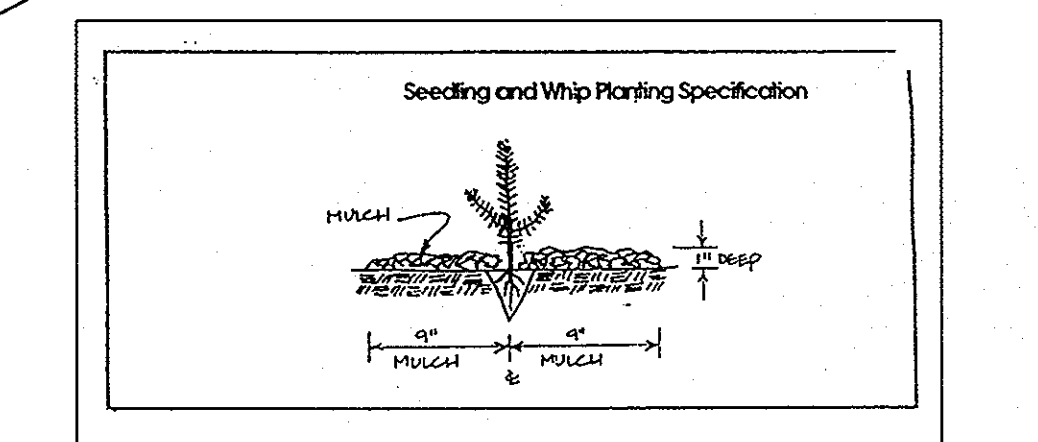
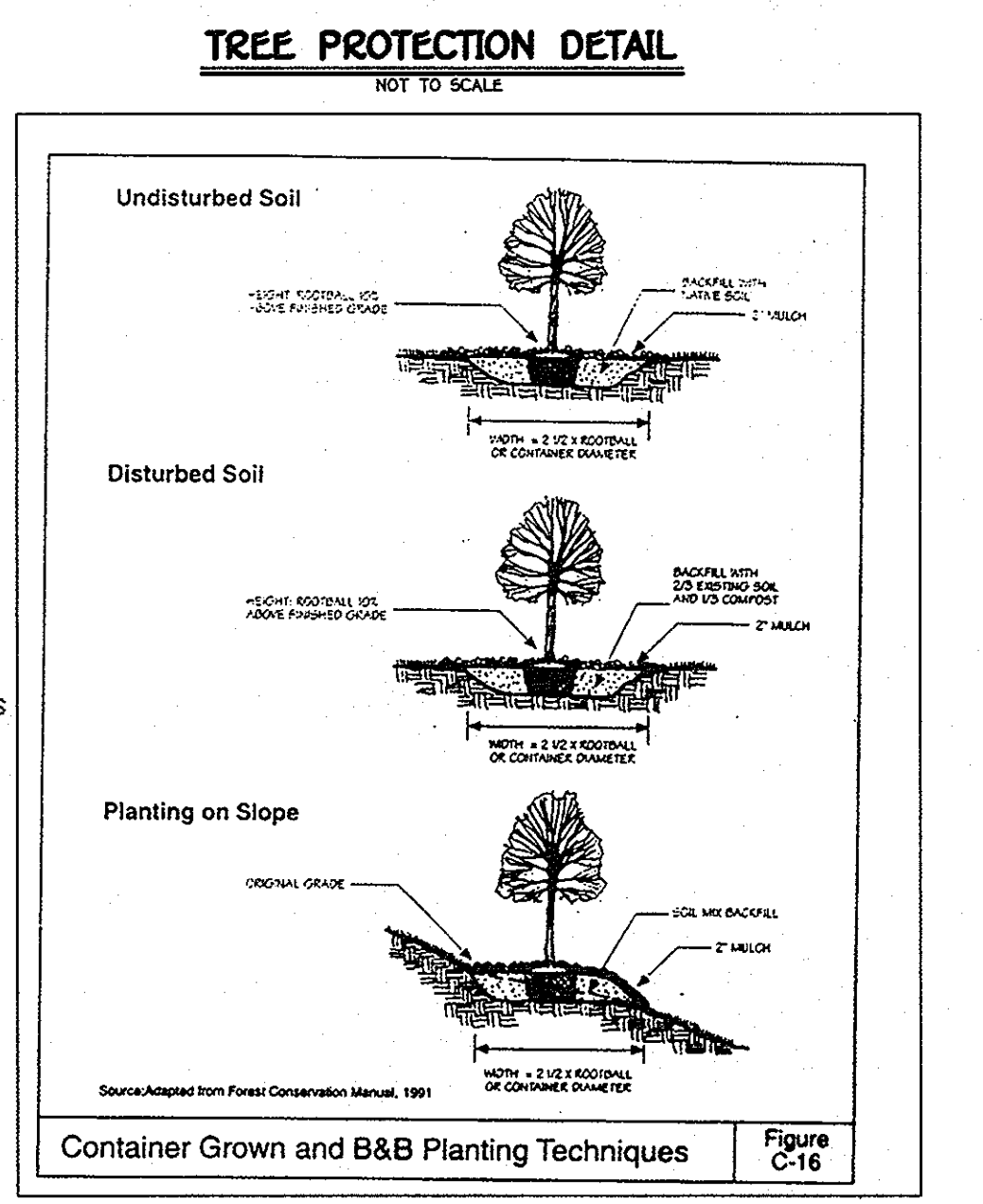
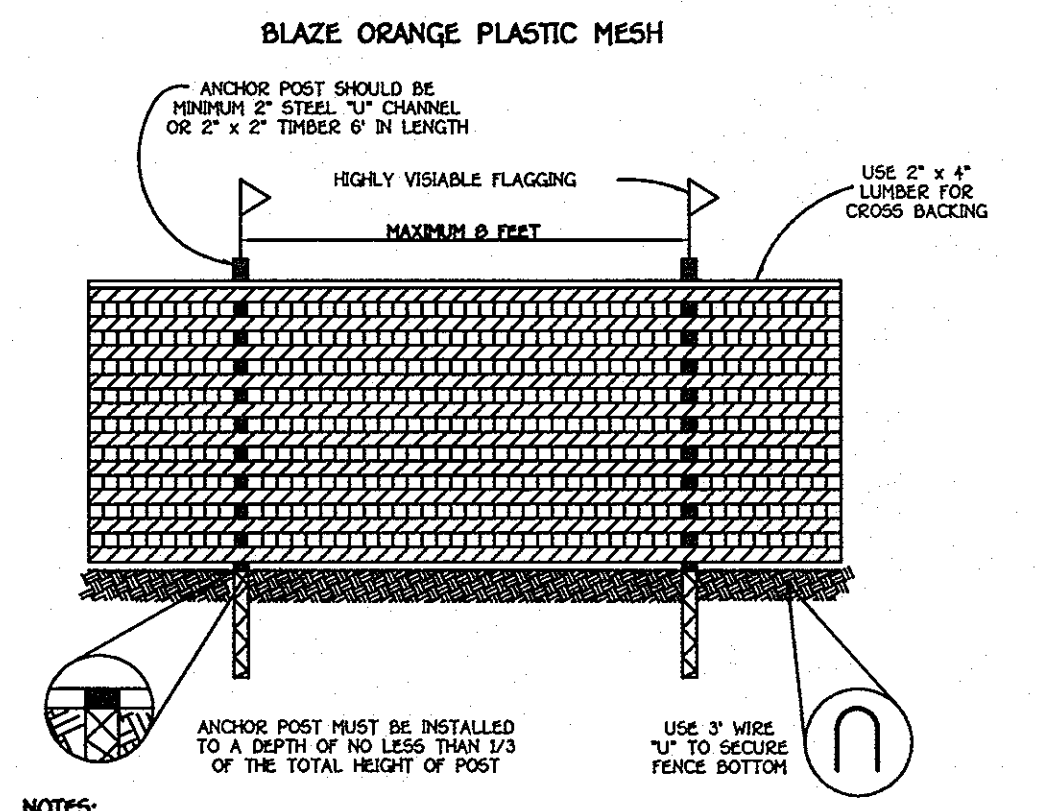
- ### PLANTING/SOIL SPECIFICATIONS
- PLANTING OF NURSERY STOCK SHALL TAKE PLACE BETWEEN MARCH 15th AND APRIL 30th, OR SEPTEMBER 15th AND NOVEMBER 15th.
  - A TWO (2) INCH LAYER OF TOPSOIL SHALL BE SPREAD OVER ALL FORESTATION AREAS IMPACTED BY SITE GRADING TO ASSURE A SUITABLE PLANTING AREA. DISTURBED AREAS SHALL BE SEEDED AND STABILIZED AS PER GENERAL CONSTRUCTION PLAN FOR PROJECT. PLANTING AREAS NOT IMPACTED BY SITE GRADING SHALL HAVE NO ADDITIONAL TOPSOIL INSTALLED.
  - ALL BARE-ROOT PLANTING STOCK SHALL HAVE THEIR ROOT SYSTEMS DIPPED INTO AN ANTI-DESICCANT GEL PRIOR TO PLANTING.
  - PLANTS SHALL BE INSTALLED SO THAT THE TOP OF ROOT MASS IS LEVEL WITH THE TOP OF EXISTING GRADE. BACKFILL IN THE PLANTING PITS SHALL CONSIST OF 3 PARTS EXISTING SOIL TO 1 PART FINE FINES OR EQUIVALENT.
  - FERTILIZER SHALL CONSIST OF AGRIFORM 22-8-2, OR EQUIVALENT, APPLIED AS PER MANUFACTURER'S SPECIFICATIONS.
  - A TWO (2) INCH LAYER OF HARDWOOD MULCH SHALL BE PLACED OVER THE ROOT AREA OF ALL PLANTINGS.
  - PLANT MATERIAL SHALL BE TRANSPORTED TO THE SITE IN A TARPED OR COVERED TRUCK. PLANTS SHALL BE KEPT MOIST PRIOR TO PLANTING.
  - ALL NON-ORGANIC DEBRIS ASSOCIATED WITH THE PLANTING OPERATION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.

- ### SEQUENCE OF CONSTRUCTION
- SEDIMENT CONTROL AND TREE PROTECTION DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH GENERAL CONSTRUCTION PLAN FOR SITE. SITE SHALL BE GRADED IN ACCORDANCE WITH GENERAL CONSTRUCTION PLANS.
  - PROPOSED FORESTATION AREAS IMPACTED BY SITE GRADING SHALL BE TOPSOILED AND STABILIZED AS PER NOTE NO. 2 OF PLANTING/SOIL SPECIFICATIONS FOR PROJECT.
  - PLANTS SHALL BE INSTALLED AS PER PLANT SCHEDULE AND THE PLANTING/SOIL SPECIFICATIONS FOR THE PROJECT.
  - UPON COMPLETION OF THE PLANTING, SIGNAGE SHALL BE INSTALLED AS PER THE FOREST PROTECTION DEVICES SHOWN ON THE FOREST CONSERVATION PLAN.
  - PLANTINGS SHALL BE MAINTAINED AND GUARANTEED IN ACCORDANCE WITH THE MAINTENANCE AND GUARANTEE REQUIREMENTS FOR PROJECT.

- ### MAINTENANCE OF PLANTINGS
- MAINTENANCE OF PLANTINGS SHALL LAST FOR A PERIOD OF 26 MONTHS.
  - ALL PLANT MATERIAL SHALL BE WATERED TWICE A MONTH DURING THE 1st GROWING SEASON. WATERING MAY BE MORE OR LESS FREQUENT DEPENDING ON WEATHER CONDITIONS. DURING 2nd GROWING SEASON, ONCE A MONTH DURING MAY-SEPTEMBER, IF NEEDED.
  - INVASIVE EXOTICS AND NOXIOUS WEEDS WILL BE REMOVED FROM FORESTATION AREAS. OLD FIELD SUCCESSIONAL SPECIES WILL BE RETAINED.
  - PLANTS WILL BE EXAMINED A MINIMUM TWO TIMES DURING THE GROWING SEASON FOR SERIOUS PLANT PESTS AND DISEASES. SERIOUS PROBLEMS WILL BE TREATED WITH THE APPROPRIATE AGENT.
  - DEAD BRANCHES WILL BE PRUNED FROM PLANTINGS.

- ### GUARANTEE REQUIREMENTS
- A 75 PERCENT SURVIVAL RATE OF FORESTATION PLANTINGS WILL BE REQUIRED AT THE END OF THE 24 MONTH MAINTENANCE PERIOD. ALL PLANT MATERIAL BELOW THE 75 PERCENT THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE NEXT GROWING SEASON.

- ### SURETY FOR REFORESTATION
- THE DEVELOPER SHALL POST A SURETY (BOND, LETTER OF CREDIT) TO ENSURE THAT FORESTATION PLANTINGS ARE COMPLETED, UPON ACCEPTANCE OF THE PLANTINGS BY THE COUNTY, THE BOND SHALL BE RELEASED.
  - SURETY FOR ON-SITE RETENTION (3.4 AC. x 0.20 = \$29,620.80), ON-SITE AFFORESTATION (0.5 AC. x 0.50 = \$10,950.00) AND OFF-SITE AFFORESTATION (5.2 AC. x 0.50 = \$13,256.00) IS POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION. TOTAL FOREST CONSERVATION SURETY AMOUNT FOR THIS SUBDIVISION IS \$153,766.80.



### PLANTING SCHEDULE

#### ON-SITE PLANTING AREA - FCE 1 (0.5 ACRES)

GLYNCHESTER FARM PROPERTY

QTY.	SPECIES	SIZE	SPACING
3	LIRIODENDRON TULIPIFERA - POPLAR	1" CAL.	**
25	ACER RUBRUM - RED MAPLE	2-3" WHIP	**
35	FRAXINUS PENNSYLVANICA - GREEN ASH	2-3" WHIP	**
25	LIRIODENDRON TULIPIFERA - POPLAR	2-3" WHIP	**
15	NYSSA SYLVATICA - BLACK GUM	2-3" WHIP	**
20	PLATANUS OCCIDENTALIS - SYCAMORE	2-3" WHIP	**
10	QUERCUS ALBA - WHITE OAK	2-3" WHIP	**
10	QUERCUS PALUSTRIS - PIN OAK	2-3" WHIP	**
10	CORNUS AMOMIUM - SILKY DOGWOOD	2-3" B.T.	**
15	VIBURNUM DENTATUM - ARROWWOOD	2-3" B.T.	**

### PLANTING SCHEDULE

#### FRIENDSHIP FARM

Offsite Planting Area A (0.47 acres)

Qty. Species Size Spacing

10	Acer rubrum - Red maple	2-3 whip **	
50	Fraxinus pennsylvanica - Green ash	2-3 whip **	
35	Liriodendron tulipifera - Poplar	2-3 whip **	
15	Nyssa sylvatica - Black gum	2-3 whip **	
25	Prunus serotina - Black cherry	2-3 whip **	
20	Quercus alba - White oak	2-3 whip **	
10	Quercus rubra - Red oak	2-3 whip **	

#### Offsite Planting Area B (2.30 acres)

Qty. Species Size Spacing

75	Acer rubrum - Red maple	2-3 whip **	
150	Fraxinus americana - White ash	2-3 whip **	
150	Liriodendron tulipifera - Poplar	2-3 whip **	
85	Nyssa sylvatica - Black gum	2-3 whip **	
110	Prunus serotina - Black cherry	2-3 whip **	
120	Quercus alba - White oak	2-3 whip **	
120	Quercus rubra - Red oak	2-3 whip **	
65	Viburnum prunifolium - Blackhaw	2-3 b.t. **	

#### Offsite Planting Area C (2.34 acres)

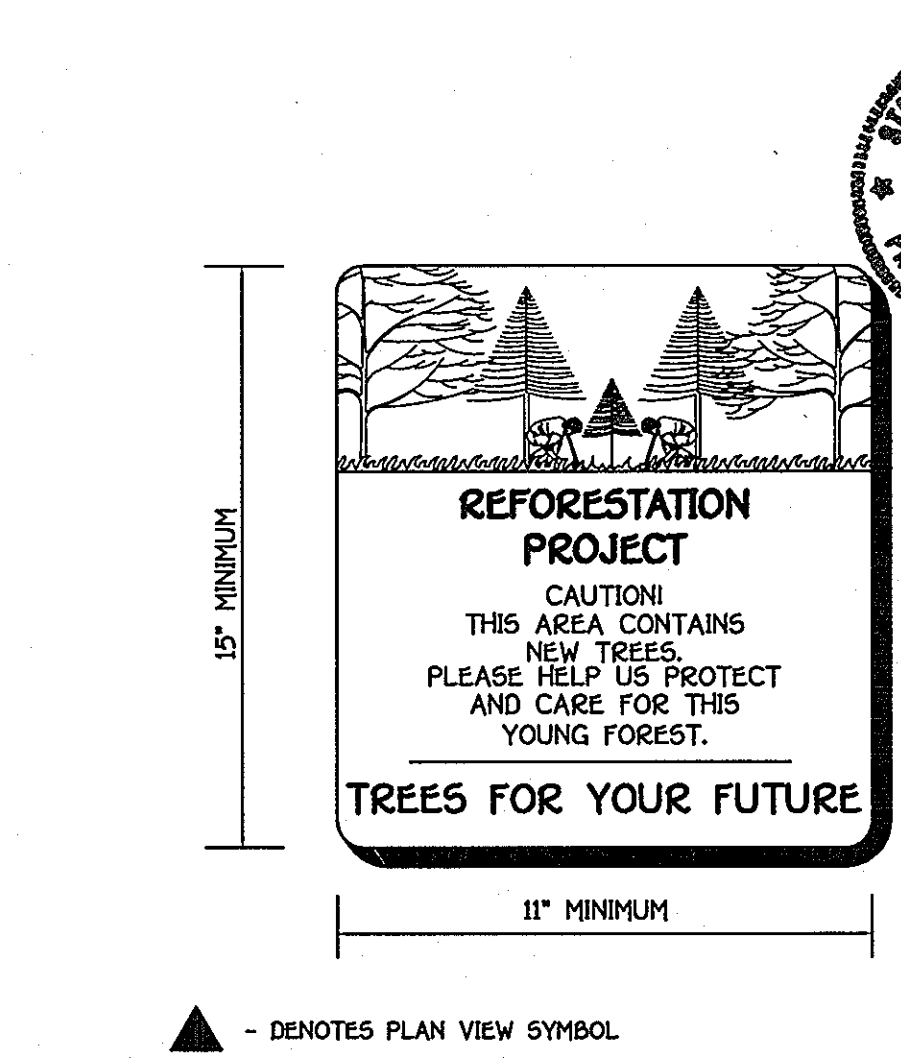
Qty. Species Size Spacing

125	Acer rubrum - Red maple	2-3 whip **	
175	Fraxinus pennsylvanica - Green ash	2-3 whip **	
175	Liriodendron tulipifera - Poplar	2-3 whip **	
110	Nyssa sylvatica - Black gum	2-3 whip **	
125	Platanus occidentalis - Sycamore	2-3 whip **	
106	Quercus palustris - Pin oak	2-3 whip **	
30	Viburnum prunifolium - Blackhaw	2-3 b.t. **	

Key:

\*\* Plantings to be spaced on 11 foot centers, plantings should be installed in rows to facilitate future maintenance. Where possible rows should be made along contour. Shelter required

b.t. - branched transplant



#### ON-SITE & OFF-SITE FCE PLANT LIST

QTY.	NAME	SIZE
3	LIRIODENDRON TULIPIFERA - POPLAR	1" CAL.
235	ACER RUBRUM - RED MAPLE	2-3" WHIP
260	FRAXINUS PENNSYLVANICA - GREEN ASH	2-3" WHIP
350	LIRIODENDRON TULIPIFERA - POPLAR	2-3" WHIP
225	NYSSA SYLVATICA - BLACK GUM	2-3" WHIP
135	PLATANUS OCCIDENTALIS - SYCAMORE	2-3" WHIP
140	QUERCUS ALBA - WHITE OAK	2-3" WHIP
116	QUERCUS PALUSTRIS - PIN OAK	2-3" WHIP
10	CORNUS AMOMIUM - SILKY DOGWOOD	2-3" B.T.
15	VIBURNUM DENTATUM - ARROWWOOD	2-3" B.T.
95	VIBURNUM PRUNIFOLIUM - BLACKHAW	2-3" B.T.

### FCP NOTES

- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
- THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 18.1200 OF THE HOWARD COUNTY CODE, FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- FORESTED AREAS OCCURRING OUTSIDE OF THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE LAND COVENANTS.
- LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
- NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
- TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
- PERMANENT SIGNAGE SHALL BE PLACED 50' - 100' APART ALONG BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS.
- THE OUTSTANDING FOREST CONSERVATION REFORESTATION OBLIGATION SHALL BE MET THROUGH OFF-SITE PLANTING (5.2 AC.) ON NON-BUILDABLE PRESERVATION PARCEL 'B' IN FRIENDSHIP FARMS PLAT NO. 13644.
- THE UNENCUMBERED AREA OF WETLAND AND STREAM BUFFER BETWEEN THE EXISTING AND PROPOSED EASEMENT AREAS IS MAINTAINED AS ACCESS FOR FARM EQUIPMENT.

### OWNER & DEVELOPER

DR. AND MRS. MICHAEL ELLIS  
 4971 ILLCHESTER ROAD  
 ELICOTT CITY, MARYLAND 21043

### PLANTING NOTES:

- MULTIFLORA ROSE CONTROL MUST BE PERFORMED AS PART OF THIS PLANTING PLAN.
  - BARE-ROOT MATERIAL MAY BE USED TO OFFSET THE COST OF MULTIFLORA ROSE REMOVAL AND MAINTENANCE. IF BARE-ROOT MATERIAL IS USED IT MUST BE PLANTED IN MARCH-APRIL AND AN ANTI-DESICCANT GEL SHOULD BE UTILIZED TO PROTECT ROOT SYSTEMS. CONTAINER GROWN STOCK MAY BE USED.
  - PLANTS SHOULD BE FLAGGED TO AID ON LOCATION DURING MAINTENANCE. PLANTINGS SHOULD ALSO BE PLANTED IN GRID PATTERN TO FACILITATE MAINTENANCE AND REMOVAL OF INVASIVE AND EXOTIC SPECIES.
- MULTIFLORA ROSE CONTROL NOTE:**
- PRIOR TO PLANTING ALL MULTIFLORA ROSE WITHIN PLANTING AREAS SHALL BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOWING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWING BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THicketS SHOULD BE RETAINED WHEREVER POSSIBLE. HERBICIDES TREATMENTS SHALL OCCUR ON 2 MONTH INTERVALS DURING THE FIRST GROWING SEASON AND ONCE EACH IN THE SPRING AND FALL FOR SUBSEQUENT YEARS. HERBICIDE USE SHALL BE MADE SPECIFICALLY TO ADDRESS WOODY PLANT MATERIAL AND SHALL BE APPLIED AS PER MANUFACTURER'S SPECIFICATIONS. CARE SHOULD BE TAKEN NOT SPRAY PLANTED TREES OR NATURALLY OCCURRING NATIVE TREE/SHRUB SEEDLINGS. IT IS RECOMMENDED THAT INITIATION OF ROSE REMOVAL BEGIN AT LEAST SIX MONTHS PRIOR TO PLANTING.

### FOREST DATA FOR

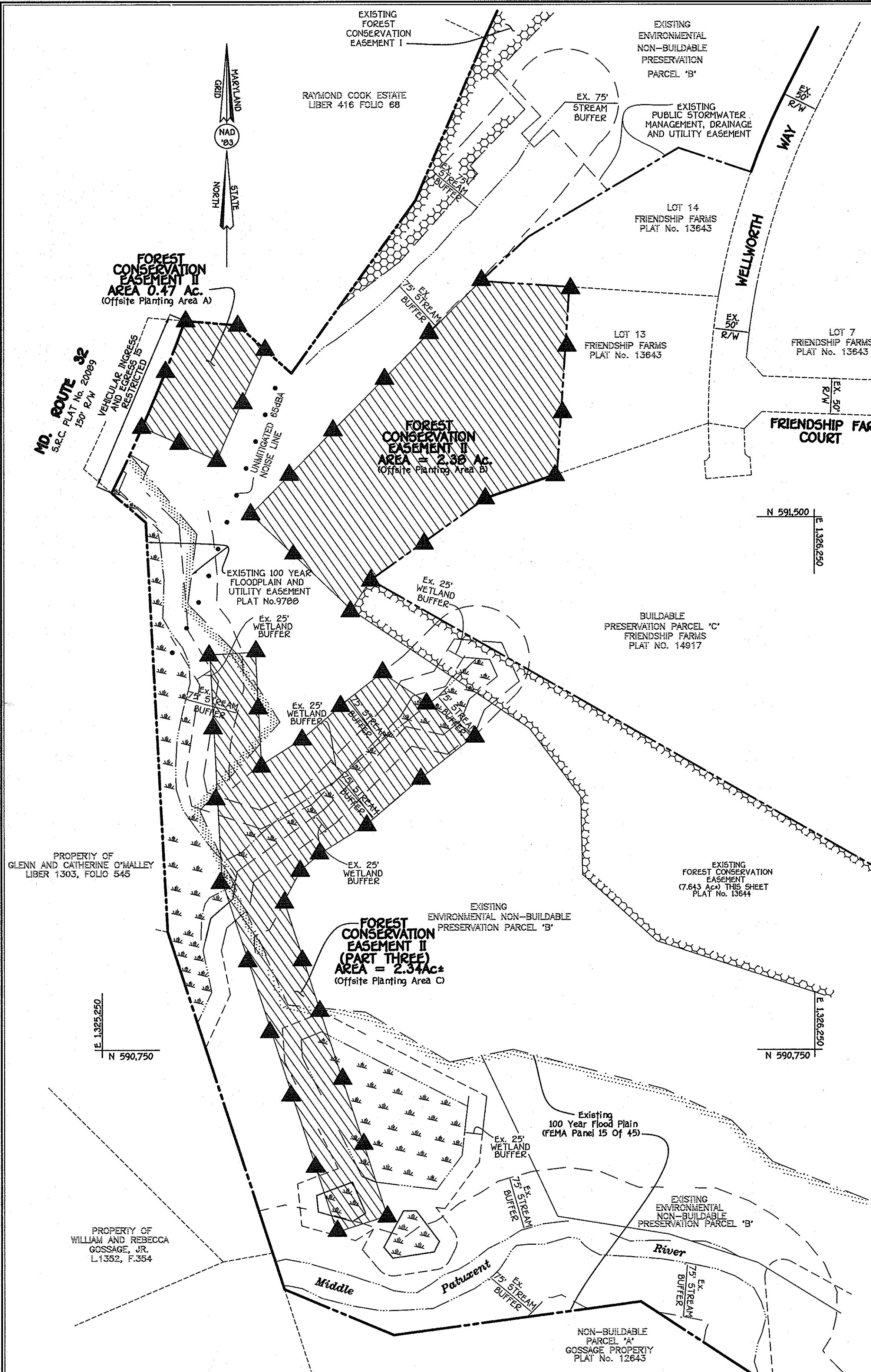
GLYNCHESTER FARM  
 TAX MAP NO. 31 PARCEL NOS. 239 & 740  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

	ACRES
GROSS AREA:	28.8
LOT FOR EXISTING HOUSE:	0.5
100 YEAR FLOODPLAIN:	1.2
NET TRACT AREA (NTA):	27.1
EXISTING FOREST (NTA):	12.1
CONSERVATION THRESHOLD:	5.4
FOREST TO BE CLEARED (NTA):	9.7
FOREST TO BE RETAINED IN FCE (NTA):	3.4
REFORESTATION REQUIRED:	5.7
ON-SITE REFORESTATION PROPOSED:	0.5
OFF-SITE REFORESTATION PROPOSED:	5.2

**OFF-SITE REFORESTATION PLAN**  
 FRIENDSHIP FARMS NON-BUILDABLE PRESERVATION PARCEL 'B',  
 TAX MAP 15, GRID 17, PARCEL 89  
 REFORESTATION PLANTING PLAN  
 NOTES AND SPECIFICATIONS  
**GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'

ZONED: R-20

TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 11, 2002  
 SHEET 15 OF 20



**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 1822 BALDWIN NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 4100 461 - 2055

**Eco-Science Professionals, Inc.**  
 CONSULTING ECOLOGISTS

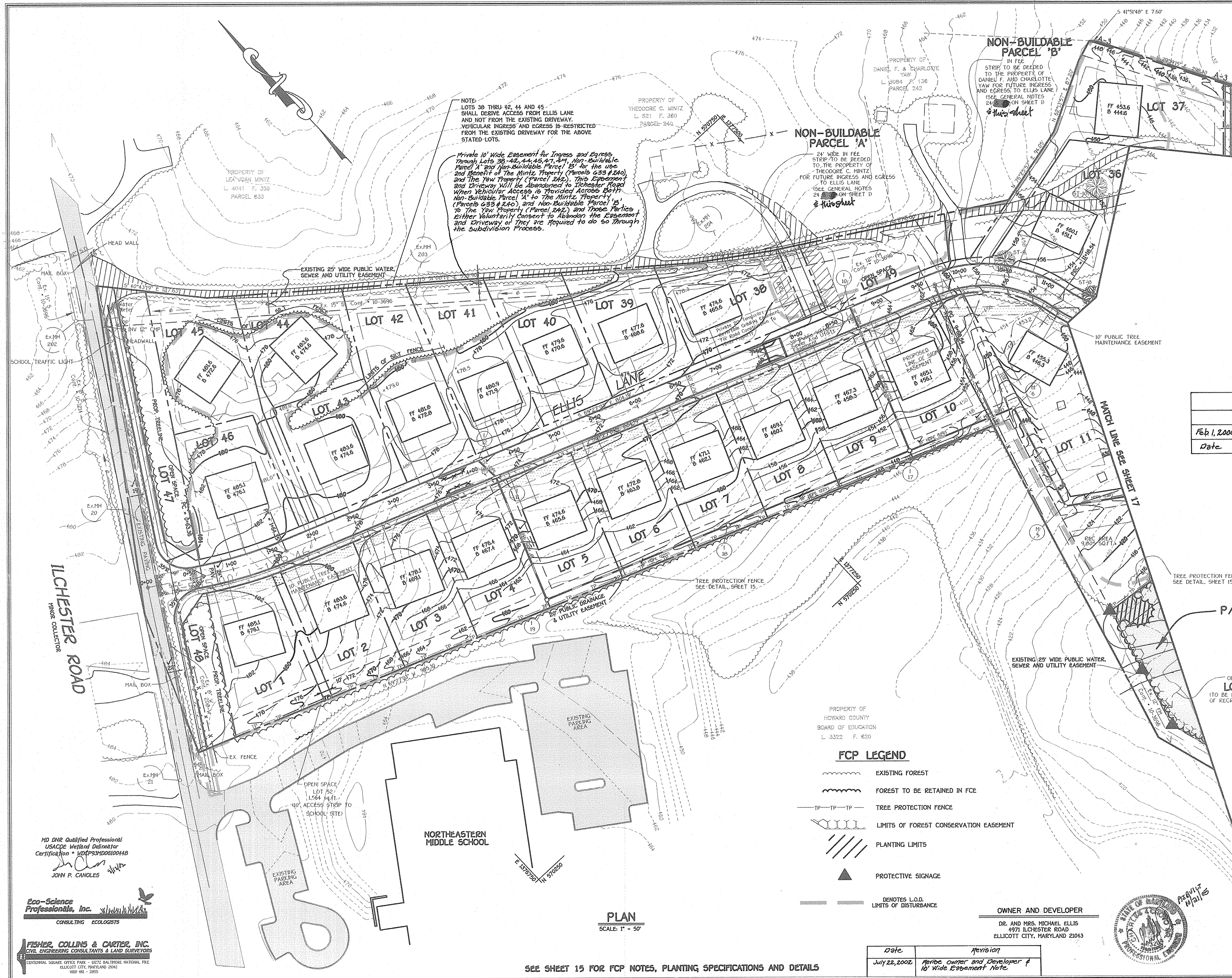
MD DNR Qualified Professional  
 USACE Wetland Delineator  
 Certification MD-C-9341006100448  
 [Signature] 11/02  
 JOHN P. CANOLES

**PROFESSIONAL ENGINEER**  
 STATE OF MARYLAND  
 [Signature]

Approved Department of Public Works  
*Robert M. Canale* 5-18-02  
 Chief, Bureau of Highways Date

Approved Department of Planning and Zoning  
*Andy Kamm* 6/25/02  
 Chief, Division of Land Development JA Date

*John P. Canales* 5/20/02  
 Chief, Development Engineering Division MRO Date



NOTE: LOTS 38 THRU 42, 44 AND 45 SHALL DERIVE ACCESS FROM ELLIS LANE AND NOT FROM THE EXISTING DRIVEWAY. VEHICULAR INGRESS AND EGRESS IS RESTRICTED FROM THE EXISTING DRIVEWAY FOR THE ABOVE STATED LOTS.

Private 10' Wide Easement for Ingress and Egress through Lots 38-42, 44, 45, 47, 48, Non-Buildable Parcel 'A' and Non-Buildable Parcel 'B' for the use and Benefit of The Mintz Property (Parcels 233 & 240) and The Yaw Property (Parcel 242). This Easement and Driveway will be Abandoned to Ilchester Road when Vehicular Access is Provided Across Both Non-Buildable Parcel 'A' to The Mintz Property (Parcels 233 & 240) and Non-Buildable Parcel 'B' to The Yaw Property (Parcel 242) and those Parties either Voluntarily Consent to Abandon the Easement and Driveway of They are Required to do so through the Subdivision Process.

NON-BUILDABLE PARCEL 'B'  
 IN FEE STRIP TO BE DEED TO THE PROPERTY OF DANIEL F. AND CHARLOTTE YAW FOR FUTURE INGRESS AND EGRESS TO ELLIS LANE (SEE GENERAL NOTES 24 & 25 ON SHEET D) & THIS SHEET

NON-BUILDABLE PARCEL 'A'  
 24' WIDE IN FEE STRIP TO BE DEED TO THE PROPERTY OF THEODORE C. MINTZ FOR FUTURE INGRESS AND EGRESS TO ELLIS LANE (SEE GENERAL NOTES 24 & 25 ON SHEET D) & THIS SHEET

Feb 1, 2006	Removed W. Mac. Pathway between Lots 1 & 2.
Date	Revision

PROPERTY OF HOWARD COUNTY BOARD OF EDUCATION  
 L. 3322 F. 820

**FCP LEGEND**

- EXISTING FOREST
- FOREST TO BE RETAINED IN FCE
- TREE PROTECTION FENCE
- LIMITS OF FOREST CONSERVATION EASEMENT
- PLANTING LIMITS
- PROTECTIVE SIGNAGE
- DENOTES L.O.D. LIMITS OF DISTURBANCE

P/O FOREST CONSERVATION EASEMENT NO. 1  
 3.4 ACRES TO BE RETAINED  
 0.5 ACRES TO BE PLANTED

OPEN SPACE LOT 50  
 (TO BE DEDICATED TO DEPT. OF RECREATION AND PARKS)



NOTE: THIS SHEET IS FOR FOREST CONSERVATION INFORMATION PURPOSES ONLY.

**FOREST CONSERVATION PLAN  
 GLYNCHESTER FARM**

BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED: R-20  
 TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 11, 2002  
 SHEET 15 OF 20 F 02-05

MD DNR Qualified Professional  
 USAACE Wetland Delineator  
 Certification # WD4934061000418  
*John P. Canales*

Eco-Science Professionals, Inc.  
 CONSULTING ECOLOGISTS

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21042  
 410.961.2000

PLAN  
 SCALE: 1" = 50'

SEE SHEET 15 FOR FCP NOTES, PLANTING SPECIFICATIONS AND DETAILS

Date	Revision
July 22, 2002	Revise Owner and Developer & 10' Wide Easement Note

OWNER AND DEVELOPER  
 DR. AND MRS. MICHAEL ELLIS  
 4971 ILCHESTER ROAD  
 ELLICOTT CITY, MARYLAND 21043



AS-BUILT 10-21-05

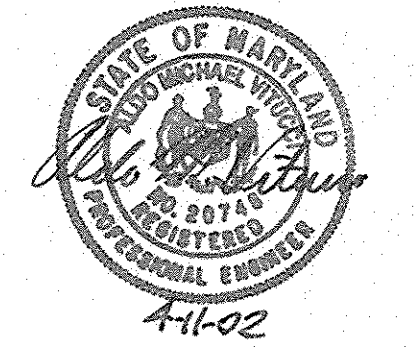
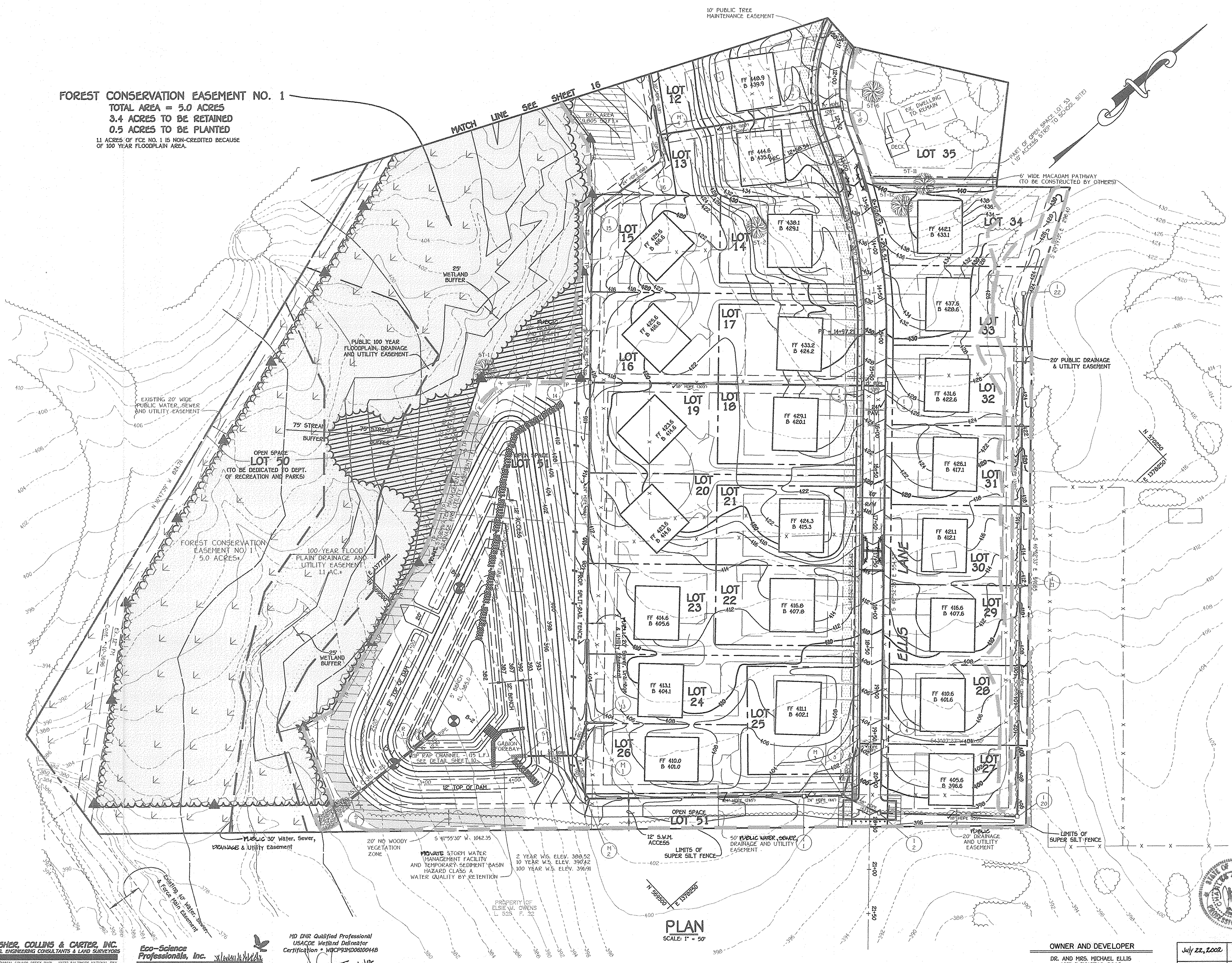


Approved: Department of Public Works  
*Richard M. Dangle* 5-14-02  
 Chief, Bureau of Highways Date

Approved: Department of Planning and Zoning  
*Cindy Harvath* 6/28/02  
 Chief, Division of Land Development Date

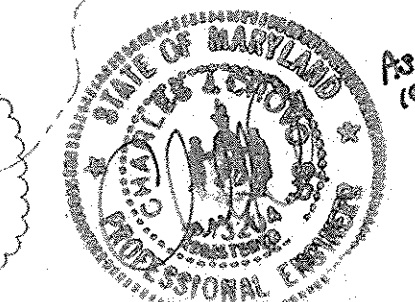
*William J. Williams* 6/30/02  
 Chief, Development Engineering Division Date

**FOREST CONSERVATION EASEMENT NO. 1**  
 TOTAL AREA = 5.0 ACRES  
 3.4 ACRES TO BE RETAINED  
 0.5 ACRES TO BE PLANTED  
 1.1 ACRES OF FCE NO. 1 IS NON-CREDITED BECAUSE  
 OF 100 YEAR FLOODPLAIN AREA.



- FCP LEGEND**
- EXISTING FOREST
  - FOREST TO BE RETAINED IN FCE
  - TREE PROTECTION FENCE
  - LIMITS OF FOREST CONSERVATION EASEMENT
  - PLANTING LIMITS
  - PROTECTIVE SIGNAGE
  - DENOTES L.O.D. LIMITS OF DISTURBANCE

NOTE:  
 THIS SHEET IS FOR FOREST CONSERVATION  
 INFORMATION PURPOSES ONLY.



**FOREST CONSERVATION PLAN  
 GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED: R-20

TAX MAP NO. 31, PARCEL NOS. 239 & 740, GRID NO. 16  
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 11, 2002  
 SHEET 17 OF 20 F 02-05

OWNER AND DEVELOPER  
 DR. AND MRS. MICHAEL ELLIS  
 4971 ILCHESTER ROAD  
 ELLICOTT CITY, MARYLAND 21043

July 22, 2002	Revised Owner and Developer
Date	Revision

**PLAN**  
 SCALE: 1" = 50'

SEE SHEET 15 FOR FCP NOTES, PLANTING SPECIFICATIONS AND DETAILS

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FLY  
 ELLICOTT CITY, MARYLAND 21042  
 4100 461 - 2000

**Eco-Science Professionals, Inc.**  
 CONSULTING ECOLOGISTS

MD DIVE Qualified Professional  
 USACE Wetland Delimitation  
 Certification # WDCP930106100418  
 JOHN P. CANOLES

K:\Drawings\330627\_Ellis - Ilchester Road\FINAL\330627 FOREST CON PLAN17.dwg, 4/11/2002 7:15:18 AM

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition: Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation. Purpose: To provide a suitable soil medium for vegetative growth.

- 1. This practice is limited to areas having 2:1 or flatter slopes where: a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

Construction and Material Specifications: 1. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications.

- II. Topsoil Specifications - Soil to be used as topsoil must follow the following: 1. Topsoil shall be a loam, sandy loam, clay loam, silty loam, sandy clay loam, loamy sand, etc.

- III. For sites having disturbed areas under 5 acres: 1. Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

- On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following: 1. pH for topsoil shall be between 6.0 and 7.5.

- II. Topsoil Application: 1. When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope silt fences and sediment traps and basins.

- III. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall conform to the following requirements:

- IV. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. References: Guideline Specifications, Soil Preparation and Seeding, MD-VA, Pub. #1 Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1/78.

SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (9:00 AM - 4:00 PM).
- 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

Table with 3 columns: AREA DISTURBED, ACRES, and COMMENTS. Includes site area, road, and fill details.

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION: Using vegetation as cover for barren soil to protect it from forces that cause erosion. PURPOSE: Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil.

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.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS: A. Site Preparation: 1. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.

SECTION 2 - TEMPORARY SEEDING: A. Seed mixtures - Temporary Seeding: 1. Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone.

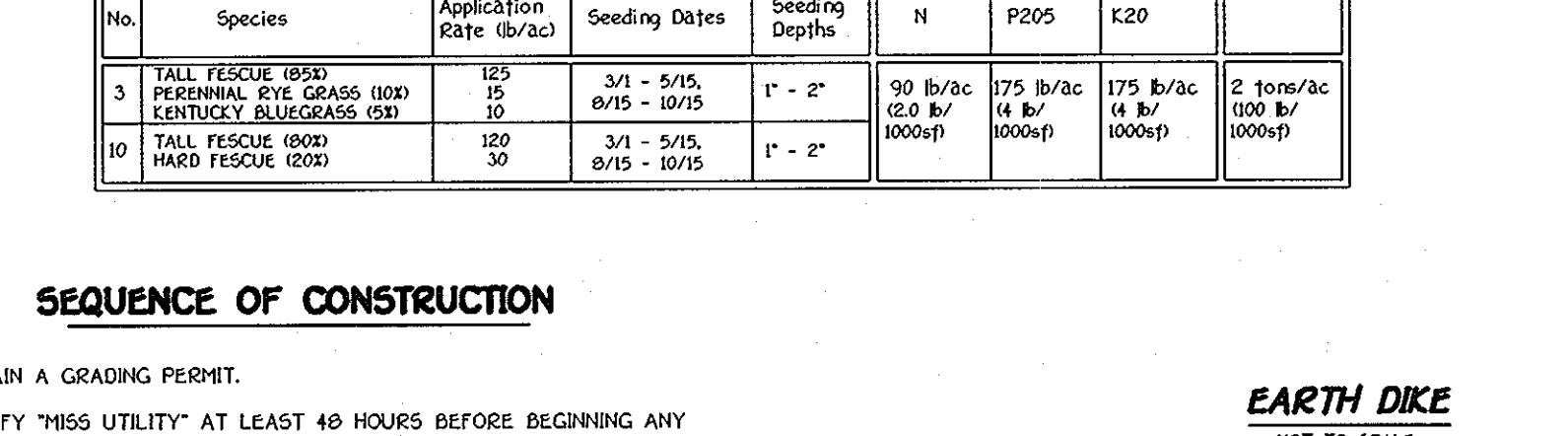
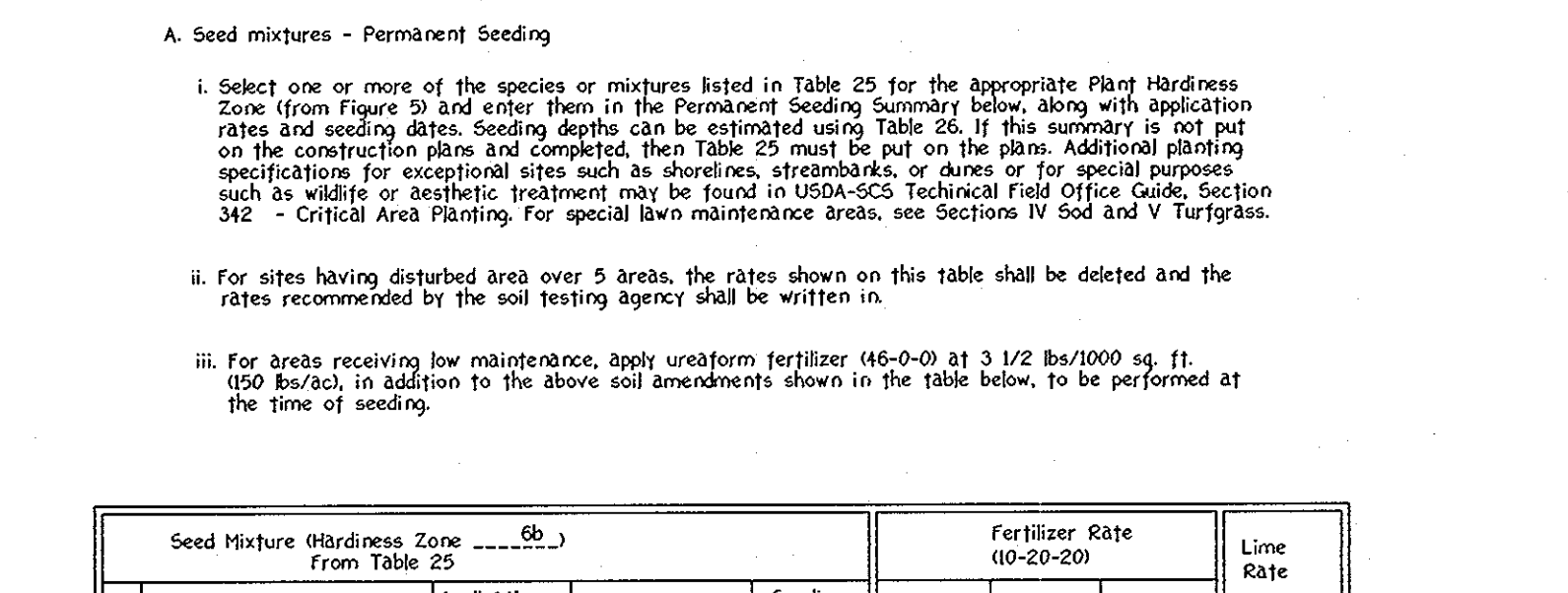
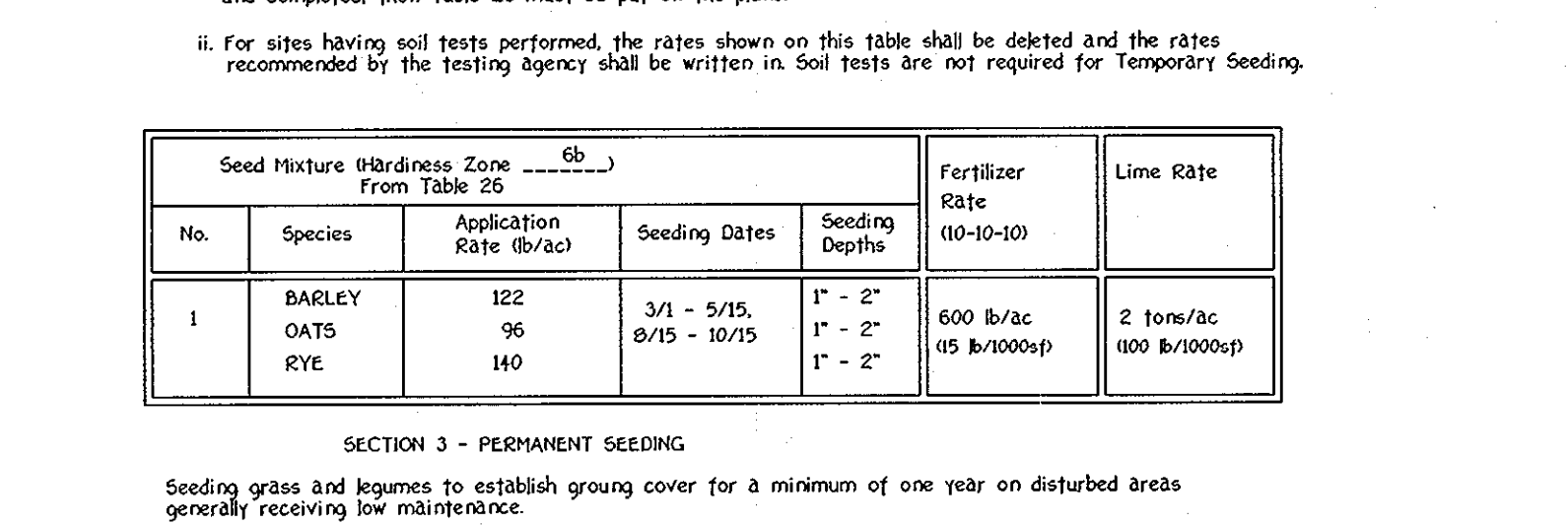
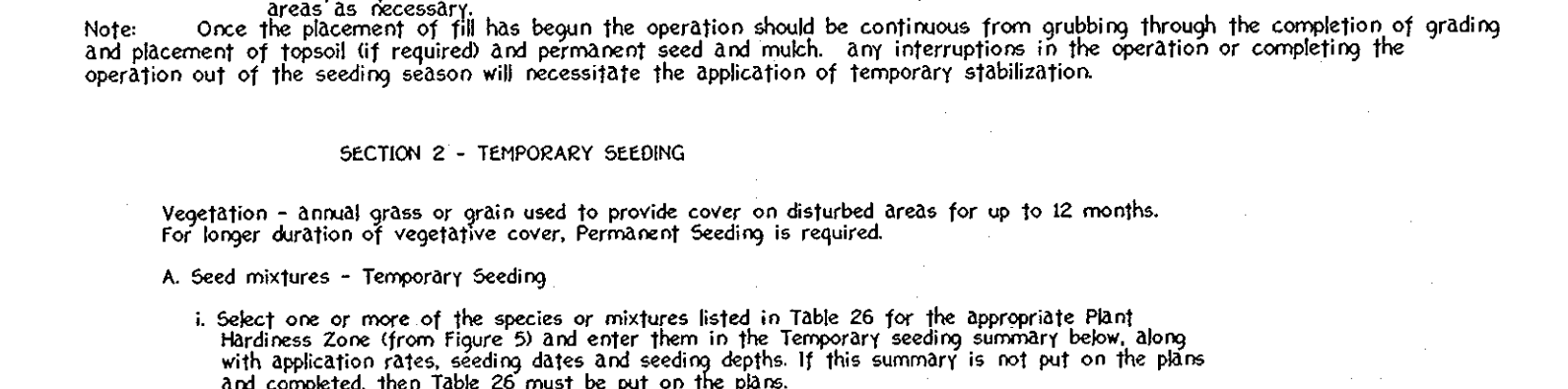
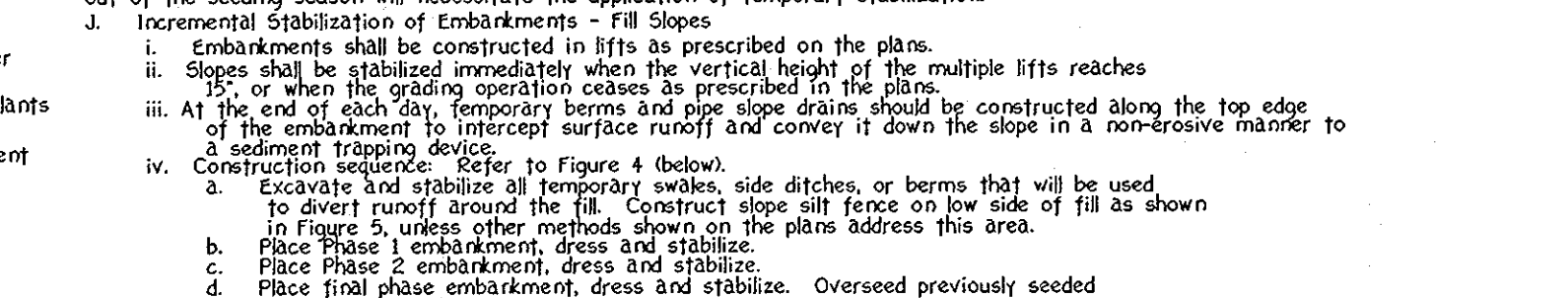
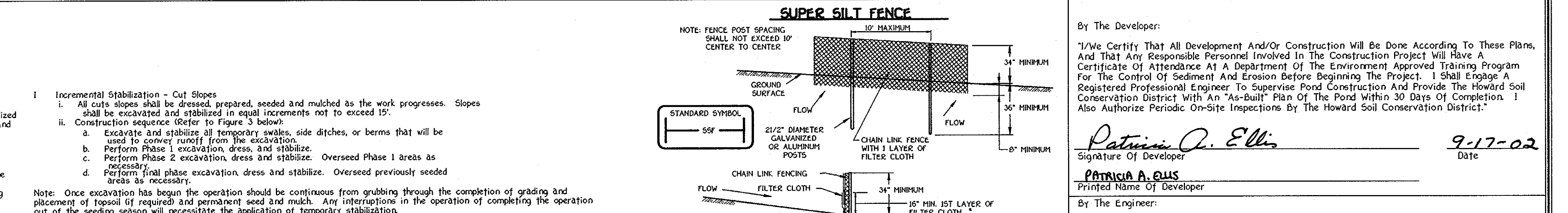
Table 25: Seed Mixture (Hardness Zone 6b) and Fertilizer Rate. Columns include No., Species, Application Rate, Seeding Dates, Seeding Depths, Fertilizer Rate, and Lime Rate.

SECTION 3 - PERMANENT SEEDING: A. Seed mixtures - Permanent Seeding: 1. Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone.

Table 26: Seed Mixture (Hardness Zone 6b) and Fertilizer Rate. Columns include No., Species, Application Rate, Seeding Dates, Seeding Depths, Fertilizer Rate, and Lime Rate.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN A GRADING PERMIT. 2. NOTIFY "THIS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. 3. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY SURVEY DIVISION AT 410-313-603 REGARDING THE RELOCATION OF CONTROL STATION SITES AT LEAST TWO WEEKS PRIOR TO THE WIDENING OF ILLICHESTER ROAD.



CONSTRUCTION SPECIFICATIONS: 1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Line Fencing. The specification for a 6" fence shall be used, substituting 12" fabric and 6" length posts.

By The Developer: Patricia A. Ellis, 9-17-02. Signature of Developer. Title: Registered Professional Engineer.

Patricia A. Ellis, 4/11/02. Signature of Developer. Title: Registered Professional Engineer.

Approved: Department of Public Works, Chief Bureau of Highways, 5-14-02. Signature: Andrew M. Soslak.

Approved: Department of Planning and Zoning, Chief, Division of Land Development, 6/25/02. Signature: Cindy Hamada.

Chief, Development Engineering Division (M&J), 5/30/02. Signature: [Redacted].

Table with 3 columns: Tensile Strength, Tensile Nodes, Flow Rate, and Filtering Efficiency. Includes test results for HMT 509 and HMT 322.

1. Length - minimum of 50' (40' for single residence lot). 2. Width - minimum shall be fixed at the existing road to provide a turning radius.

1. Seed and cover with straw mulch. 2. Seed and cover with erosion control matting or live with sod. 3. 4" x 7" stone or recycled concrete equivalent pressed into the soil 7" minimum.

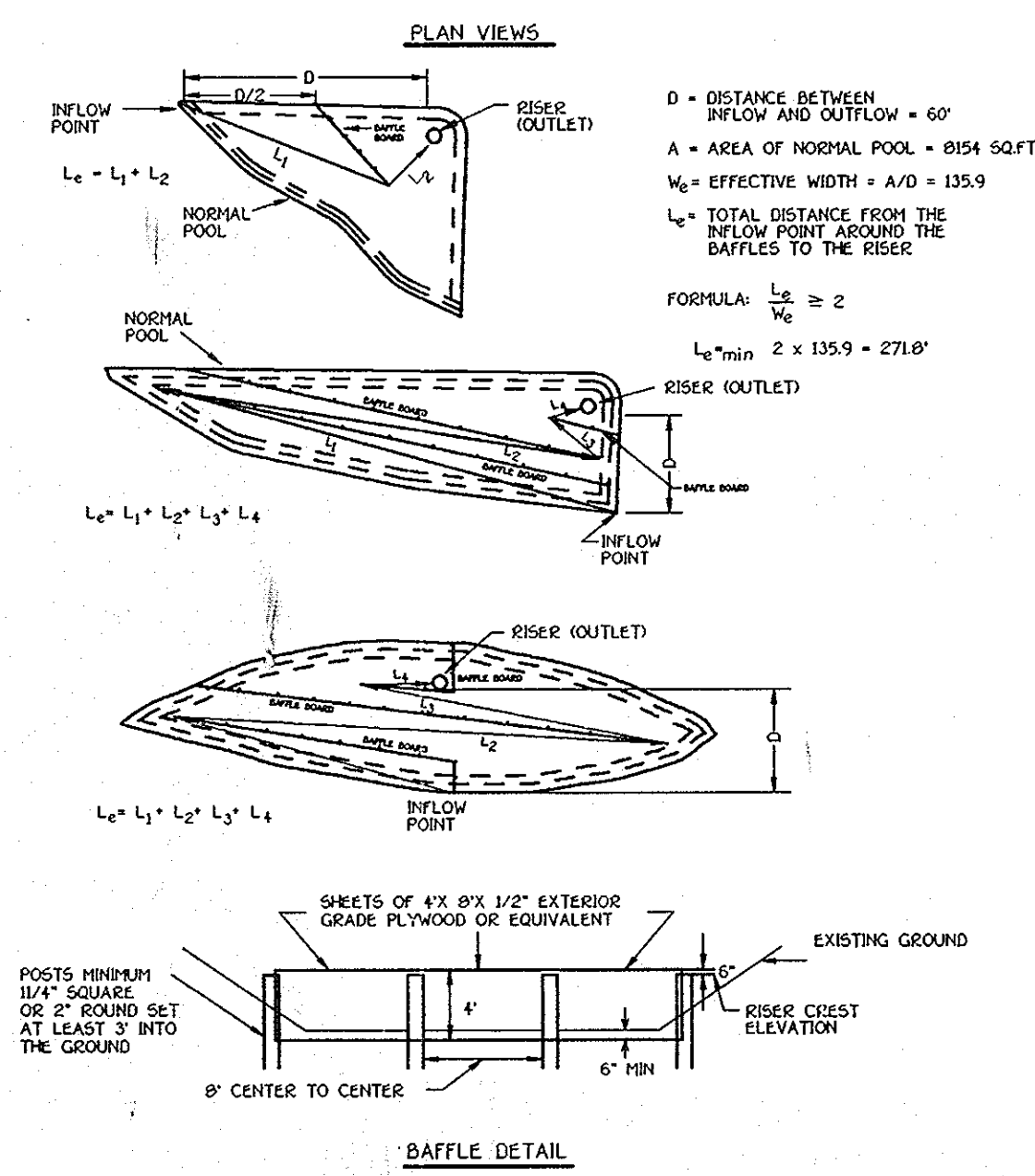
1. Fence posts shall be a minimum of 36" long driven 18" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square minimum cut, or 1 1/4" diameter round and shall be of sound quality hardwood.

1. Silt Fence to be installed into the soil. 2. Wire, snow fence, etc. for tree protection only. 3. Boundaries of Protection Area will be established as part of the Forest Conservation Plan review process.

OWNER AND DEVELOPER: DR. AND MRS. MICHAEL ELLIS, 4971 ILLICHESTER ROAD, ELLICOTT CITY, MARYLAND 21043. SHEET 18 OF 20. F 02-05.



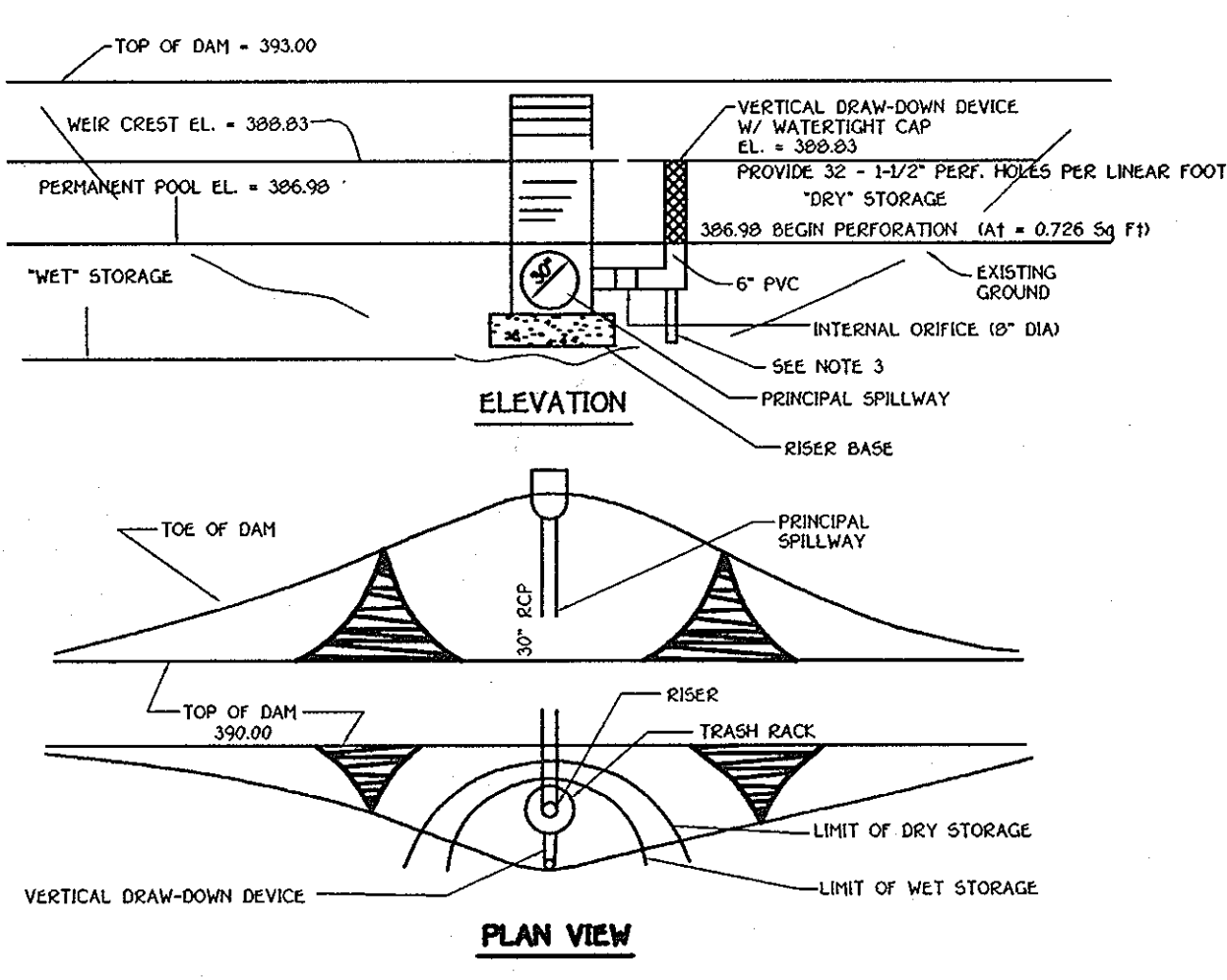
**SEDIMENT BASIN BAFFLES**



**BAFFLE COMPUTATIONS**

D = 90 FT.  
 A = 13,500 SQ. FT. @ ELEV. 386.98  
 We = A/D = 13,500 SQ. FT. / 90 FT. = 150 FT.  
 Le REQUIRED = We x 2 = 150 FT. x 2 = 300 FT.  
 Le PROVIDED = L1+L2+L3+L4 = 30'+140'+95'+70' = 335 FT.

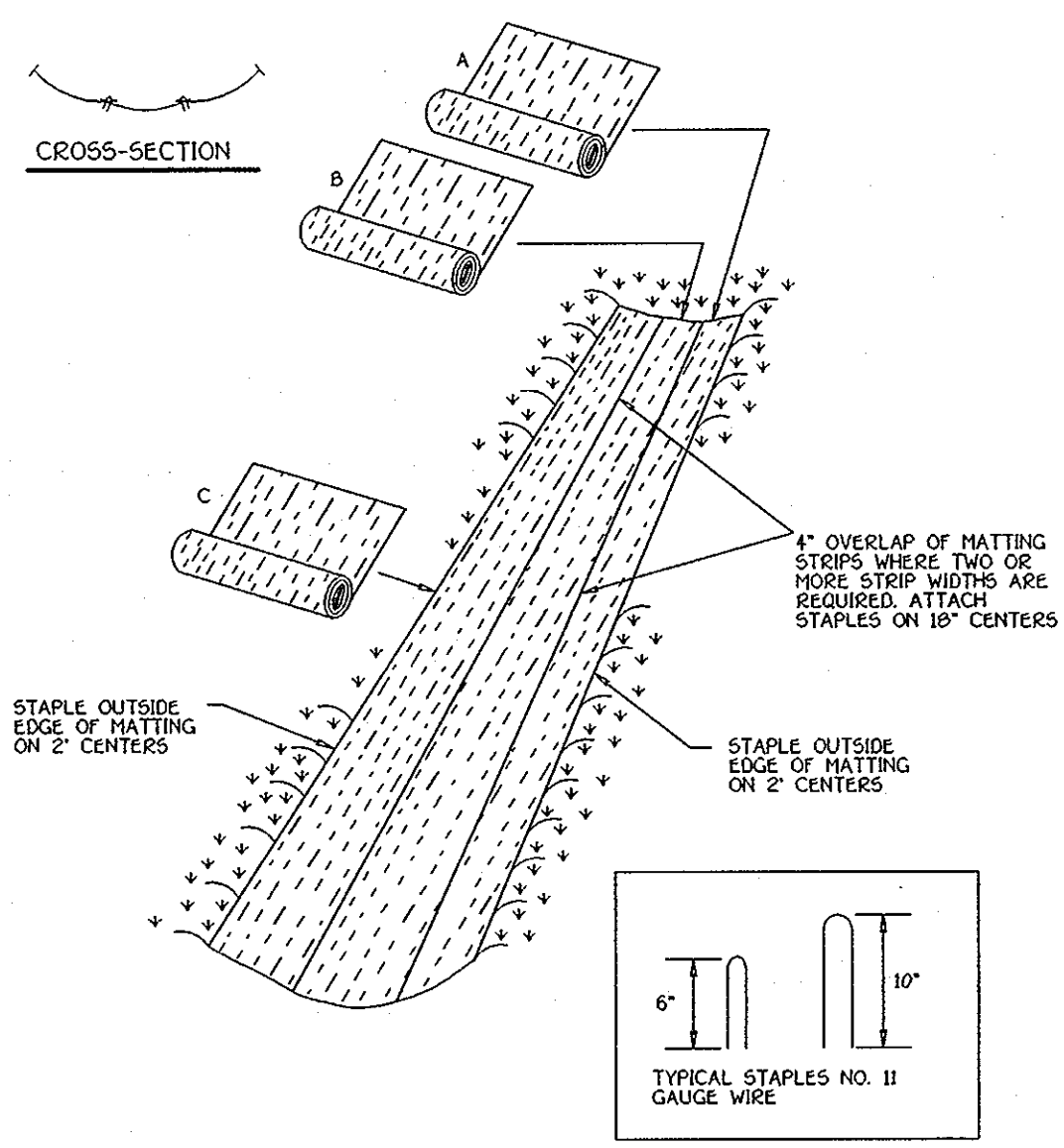
**S.W.M./SEDIMENT BASIN VERTICAL DRAW-DOWN DEVICE**



**CONSTRUCTION SPECIFICATIONS**

- PERFORATIONS IN THE DRAW-DOWN DEVICE MAY NOT EXTEND INTO THE WET STORAGE.
- THE TOTAL AREA OF THE PERFORATIONS MUST BE GREATER THAN 2 TIMES THE AREA OF THE INTERNAL ORIFICE.
- THE PERFORATED PORTION OF THE DRAW-DOWN DEVICE SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. THE GEOTEXTILE FABRIC SHALL MEET THE SPECIFICATIONS FOR GEOTEXTILE CLASS E.
- PROVIDE SUPPORT OF DRAW-DOWN DEVICE TO PREVENT SAGGING AND FLOATION. AN ACCEPTABLE PREVENTATIVE MEASURE IS TO STAKE BOTH SIDES OF DRAW-DOWN DEVICE WITH 1" STEEL ANGLE, OR 1" BY 4" SQUARE, OR 2" ROUND WOODEN POSTS SET 3" MINIMUM INTO THE GROUND THEN JOINING THEM TO THE DEVICE BY WRAPPING WITH 12 GAUGE MINIMUM WIRE.

**EROSION CONTROL MATTING**

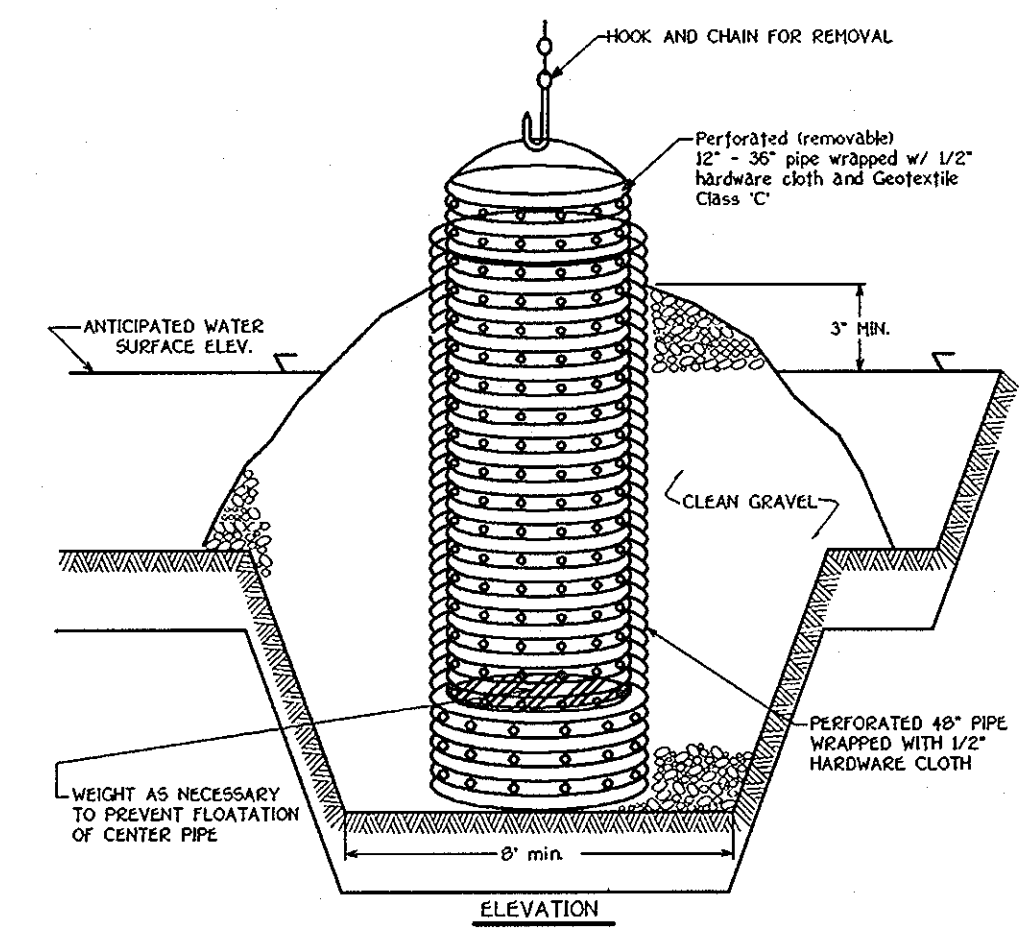


**CONSTRUCTION SPECIFICATIONS**

- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
- Staple the 4" overlap in the channel center using an 18" spacing between staples.
- Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
- Staples shall be placed 2" apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
- Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shingle fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
- The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area affected by the flow must be keyed-in.

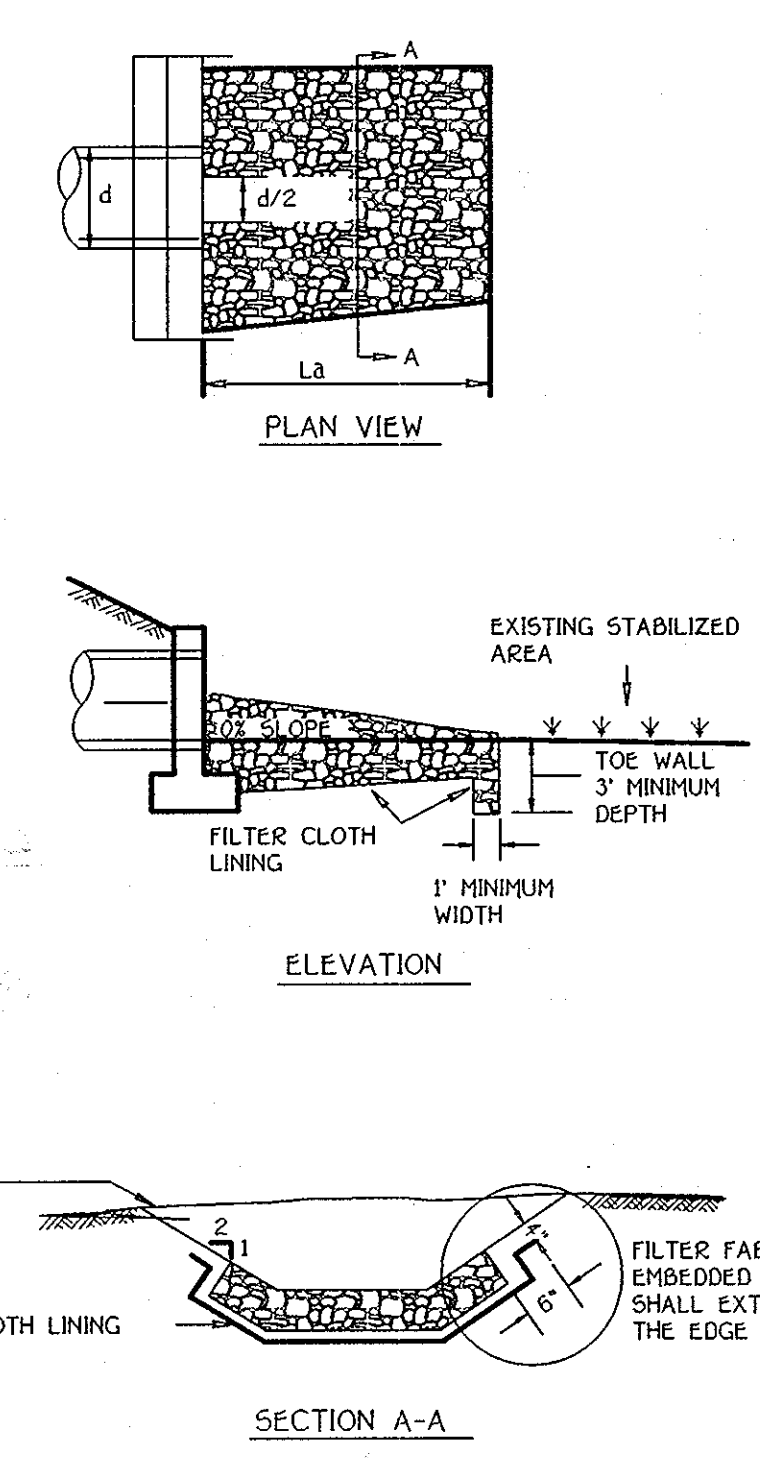
**REMOVABLE PUMPING STATION**



**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.
- 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.

**ROCK OUTLET PROTECTION III**

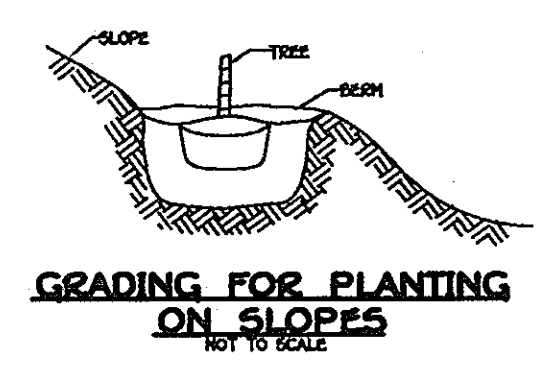
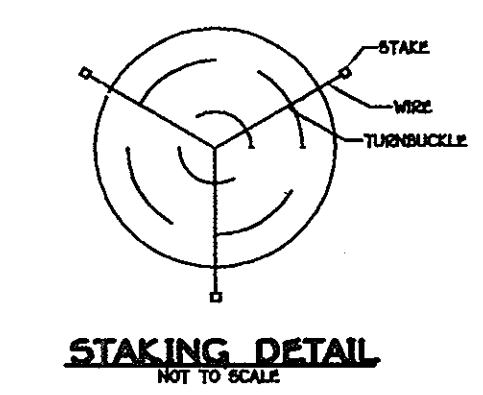
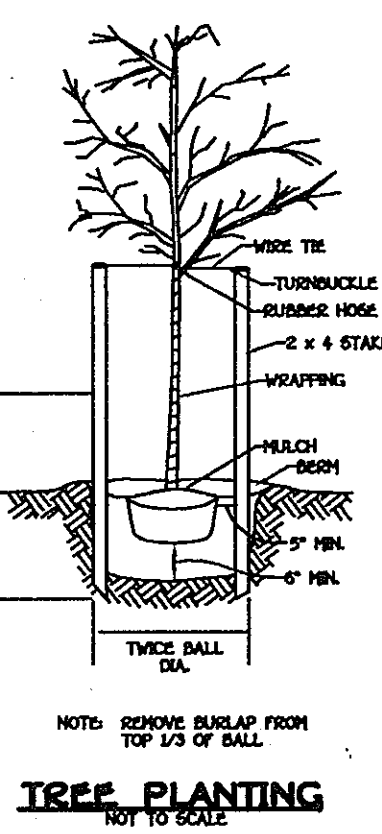


NOTE: FILTER CLOTH SHALL BE GEOTEXTILE CLASS C

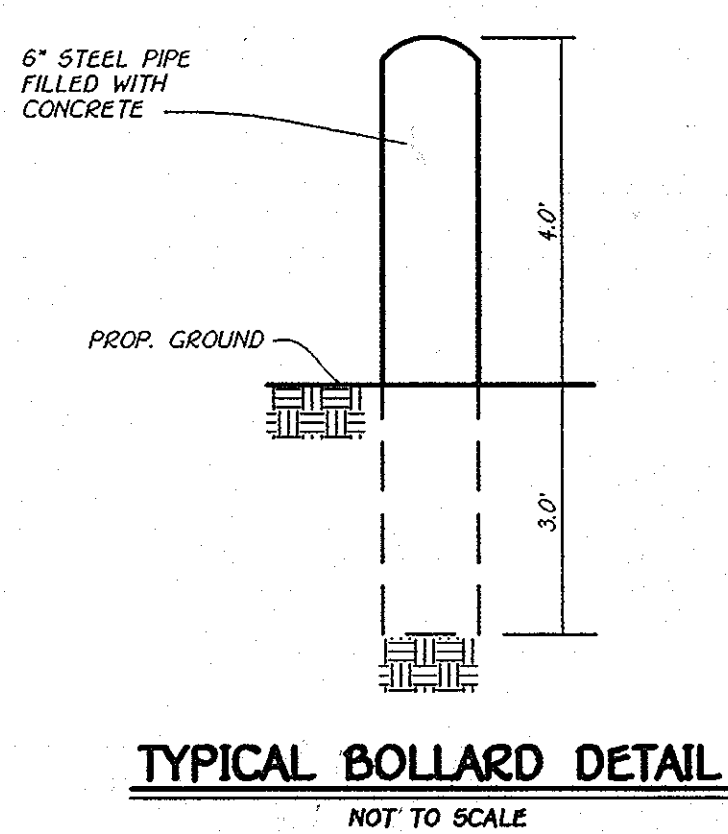
**ROCK OUTLET PROTECTION III**

**CONSTRUCTION SPECIFICATIONS**

- The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.
- Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.
- Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.
- The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.



By The Developer:  
 "I/We Certify That All Development And/Or Construction Will Be Done According To These Plans, And That Any Responsible Personnel Involved In The Construction Project Will Have A Certificate Of Attendance At A Department Of The Environment Approved Training Program For The Control Of Sediment And Erosion Before Beginning The Project. I Shall Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion. I Also Authorize Periodic On-Site Inspections By The Howard Soil Conservation District."  
 Patricia A. Ellis 9-17-02  
 Signature Of Developer Date  
 Patricia A. Ellis  
 Printed Name Of Developer  
 By The Engineer:  
 "I Certify That This Plan For Pond Construction, Erosion And Sediment Control Represents A Practical And Workable Plan Based On My Personal Knowledge Of The Site Conditions. This Plan Was Prepared In Accordance With The Requirements Of The Howard Soil Conservation District. I Have Notified The Developer That He/She Must Engage A Registered Professional Engineer To Supervise Pond Construction And Provide The Howard Soil Conservation District With An "As-Built" Plan Of The Pond Within 30 Days Of Completion."  
 Signature Of Engineer Date  
 Alvin M. Williams 4-11-02  
 Printed Name Of Engineer Date  
 These Plans Have Been Reviewed For The Howard Soil Conservation District And Meet The Technical Requirements For Small Pond Construction, Soil Erosion And Sediment Control.  
 Signature Date  
 Jim Lynn Lee 1/19/02  
 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.  
 Signature Date  
 Approved Department Of Public Works 9/9/02  
 Signature Date  
 Richard M. Dworkin 5-19-02  
 Chief Bureau Of Highways Date  
 Approved: Department Of Planning And Zoning  
 Signature Date  
 Sandy Hanaway 6/25/02  
 Chief, Division Of Land Development Date  
 Signature Date  
 Alvin Williams 5/30/02  
 Chief, Development Engineering Division Date



**TYPICAL BOLLARD DETAIL**  
 NOT TO SCALE

**SEDIMENT EROSION CONTROL AND STORM WATER MANAGEMENT DETAILS**  
**GLYNCHESTER FARM**  
 BUILDABLE LOTS 1 THRU 46,  
 OPEN SPACE LOTS 47 THRU 53  
 AND NON-BUILDABLE PARCELS 'A' & 'B'  
 ZONED R-20  
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July 22, 2002	Revise Owner and Developer & Developer's Signature
Date	Revision

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 4371 ILLICESTER ROAD  
 ELLICOTT CITY, MARYLAND 21043

**AS-BUILT 10-21-05**