

GENERAL NOTES

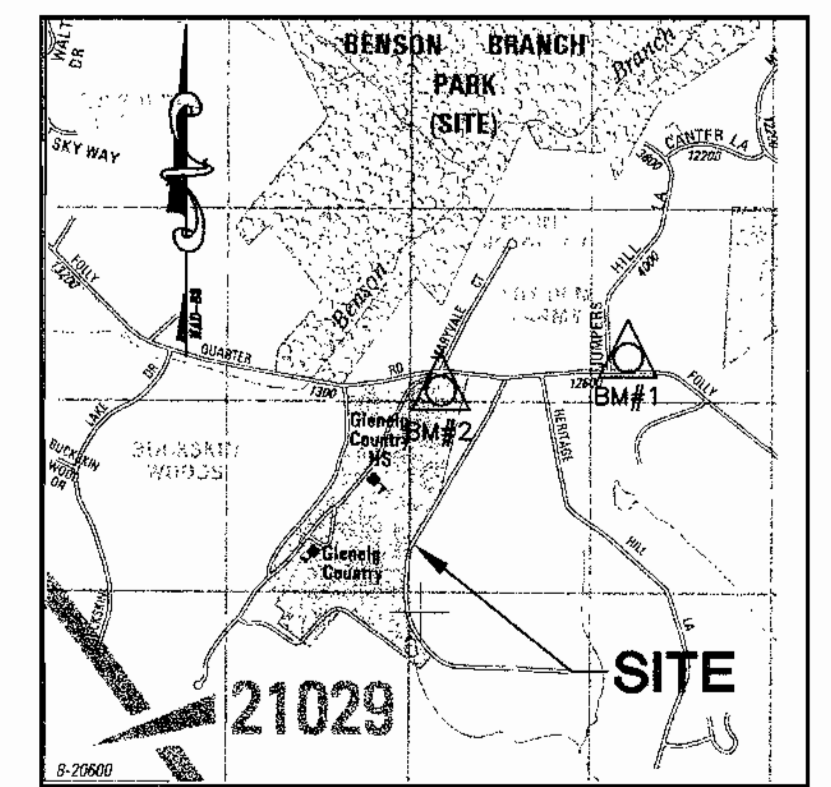
- ALL CONSTRUCTION AS SHOWN ON THESE PLANS IS TO BE CONDUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION VOLUME IV (OCT. 1990 AND ALL ADDENDA THERE TO) UNLESS OTHERWISE NOTED.
- THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THIS PLAN ARE BASED ON FIELD LOCATIONS SUPPLEMENTED WITH EXISTING UTILITY DRAWINGS, AND SHOULD BE VERIFIED BY THE CONTRACTOR TO HIS SATISFACTION PRIOR TO CONSTRUCTION. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING UTILITIES, AND ANY DAMAGE DONE TO THEM DUE TO CONSTRUCTION ACTIVITY SHALL BE REPAIRED IMMEDIATELY AT HIS OWN EXPENSE.
- CONTRACTOR TO NOTIFY HOWARD COUNTY, DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION (410-313-1880) AT LEAST 24 HOURS PRIOR TO STARTING CONSTRUCTION.
- CONTRACTOR TO SCHEDULE PRECONSTRUCTION MEETING WITH HOWARD COUNTY, CONSTRUCTION INSPECTION DIVISION (410-313-1880) PRIOR TO STARTING CONSTRUCTION.
- CONTRACTOR TO NOTIFY MISS UTILITY (1-800-257-7777) AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION WORK.
- CONTRACTOR IS RESPONSIBLE FOR ALL SITE CONDITIONS, CONSTRUCTION REQUIREMENTS, AND SHALL CONFORM TO ALL STATE, FEDERAL, AND COUNTY CONSTRUCTION REGULATIONS. THE CONTRACTOR IS NOT RELIEVED OF RESPONSIBILITY SHOULD ANY REQUIRED ITEMS PERTAINING TO SITE CONSTRUCTION NOT BE INCLUDED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS AS SHOWN ON THESE PLANS.
- ANY DAMAGE TO EXISTING UTILITIES, PAVEMENT, OR CURB AND GUTTER DUE TO CONSTRUCTION ACTIVITY OUTSIDE THE LIMITS OF DISTURBANCE IS TO BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL TEST PIT ALL EXISTING UTILITIES AT LEAST FIVE (5) DAYS PRIOR TO STARTING ANY WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PROPERTY MONUMENTS, MARKERS, SIGNS, LIGHTS, OR ANY OTHER EXISTING SITE FEATURES DISTURBED DURING CONSTRUCTION.
- ALL WORK SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE "1994 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROLS" PUBLISHED JOINTLY BY THE WATER RESOURCES ADMINISTRATION, SOIL CONSERVATION SERVICE, AND STATE SOIL CONSERVATION COMMITTEE.
- TOPOGRAPHY BASED ON FIELD RUN SURVEYS BY MORRIS & RITCHE ASSOCIATES, INC., DATED JANUARY 2002, AND SUPPLEMENTED WITH EXISTING AVAILABLE DESIGN PLANS.
- THE SITE BOUNDARY, BEARINGS, AND COORDINATES SHOWN ARE BASED ON ELECTRONIC FILES OBTAINED FROM CLARK FINEROCK AND SACKET, INC.
- HORIZONTAL AND VERTICAL CONTROL BASED ON HOWARD COUNTY MONUMENTS NO'S 221A AND 221A.
- NO 100-YEAR FLOODPLAIN EXISTS NEAR THE PROPOSED CONSTRUCTION AREA.
- WATER IS PRIVATE WELL SUPPLY. SEWER IS PRIVATE ON-SITE SEPTIC.
- NO WETLANDS EXIST IN OR NEAR THE PROPOSED CONSTRUCTION AREA.
- SEE PREVIOUS DEPARTMENT OF PLANNING AND ZONING FILES: SDP-01-69, SDP-97-07, SDP-85-76, SDP-82-101, SDP-80-144, SDP-78-15, BA 95-46-E, BA 99-51 E & V.
- THE SUBJECT PROPERTY IS ZONED RR-DEO PER THE OCT. 18, 1993 COMPREHENSIVE ZONING PLAN.
- FOREST STAND DELINEATION AND FOREST CONSERVATION PLAN APPROVED UNDER SDP-97-007. FOREST CONSERVATION IS BY RETENTION. AREAS OF RETENTION ARE 1.1958 AC., 5.6637 AC., AND 3.2043 AC. FOR A TOTAL OF 10.0638 AC. DEED OF FOREST CONSERVATION EASEMENT AGREEMENT RECORDED IN LIBER 5340 FOLIO 689.
- FOREST CONSERVATION AREAS REVISED UNDER RED-LINE REVISION TO SDP-01-69. REVISED AREAS OF RETENTION ARE 1.195 AC., 5.801 AC., AND 3.193 AC. FOR A TOTAL OF 10.190 AC. DEED OF FOREST CONSERVATION EASEMENT AGREEMENT RECORDED IN LIBER 5340 FOLIO 689.
- NO CLEARING OF EXISTING WOODED OR FOREST CONSERVATION AREAS IS PROPOSED FOR THIS PROJECT.
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- NO EXTERIOR LIGHTING IS PROPOSED IN ASSOCIATION WITH THIS PROJECT. EXTERIOR LIGHTING PRESENTS A NEGATIVE IMPACT UPON THE USE OF THE TELESCOPE.
- A GEOTECHNICAL STUDY WAS CONDUCTED FOR THIS PROJECT BY GEO-TECHNOLOGY ASSOCIATES, INC. DATED AUGUST 31, 2001.
- NO LANDSCAPE REQUIREMENTS ARE GENERATED BY THIS MINOR STRUCTURE PROPOSED WITHIN THE SCHOOL PROPERTY PERIMETER. THE LANDSCAPE CONDITIONS INCLUDED IN THE BOARD OF APPEALS DECISION AND ORDER CASE #99-5168V AND CASE #95-46E HAVE BEEN PREVIOUSLY MET BY AUGMENTATION OF PLANTINGS ALONG THE SCHOOL'S PERIMETER.
- THE PROPOSED ASTRONOMY OBSERVATORY IS AN ACCESSORY STRUCTURE/USE OF THE SCHOOL AND DOES NOT GENERATE ANY TRAFFIC. NO ADDITIONAL STUDENTS OR FACULTY ARE TO BE ADDED AS A RESULT OF THIS PROJECT. THEREFORE, THIS SDP IS EXEMPT FROM THE TEST FOR ROAD FACILITIES, PER SECTION 16.1107(2)(i).
- THE PROPOSED OBSERVATORY IS TO BE CONSTRUCTED WELL WITHIN THE REQUIRED SETBACKS ON THE 80-ACRES SITE. THE SPECIAL EXCEPTION APPROVED IN CASE #95-46E REQUIRES A MINIMUM 270 FOOT SETBACK. A MINIMUM SETBACK OF 330 FEET IS PROPOSED.
- BOARD OF APPEALS BA-99-51 E&V WAS GRANTED ON MAY 16, 2000 FOR THE SPECIAL EXCEPTION. THE SPECIAL EXCEPTION REQUESTED THE ENLARGEMENT OF AN EXISTING PRIVATE SCHOOL AND A VARIANCE TO REDUCE THE REQUIRED 30' STRUCTURE AND USE SETBACK TO 0' FOR THE IMPROVEMENTS ASSOCIATED WITH THE PROPOSED NEW PRIMARY SCHOOL, AND IS SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE SPECIAL EXCEPTION SHALL APPLY TO THE INCLUSION OF PARCEL 346 INTO THE SPECIAL EXCEPTION SITE, AND THE CONSTRUCTION OF IMPROVEMENTS AS DEPICTED ON THE SPECIAL EXCEPTION PLAN DATED NOVEMBER 8, 1999, AND TO NO OTHER STRUCTURES AND/OR USES.
 - EXISTING VEGETATION SHALL BE AUGMENTED TO CREATE A TYPE C LANDSCAPE BUFFER ALONG THE LOT LINES OF PARCEL 346 THAT DO NOT KNOW PARCEL 146.
 - ALL NEW LIGHTING SHALL COMPLY WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
 - THE PETITIONER SHALL COMPLY WITH THE REQUIREMENTS OF THE BUREAU OF ENVIRONMENTAL HEALTH REGARDING SEWAGE DISPOSAL.
 - THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, & COUNTY LAWS & REGULATIONS.
- WAIVER PETITION WP-01-55 WAS APPROVED ON JAN. 11, 2001 TO WAIVE SECTIONS 16.116(a)(1), 16.116(a)(2), AND 16.116(a)(2)(i) TO ALLOW GRADING WITHIN 25' OF WETLANDS AND WITHIN 75' OF PERENNIAL STREAM FOR THE PURPOSE OF RECONSTRUCTING THE EXISTING POND, SUBJECT TO THE FOLLOWING:
 - COMPLY WITH CONDITIONS IMPOSED BY MDE REGARDING STREAM, WETLANDS, BUFFER DISTURBANCE AND POND RECONSTRUCTION TO BE ACCOMPLISHED UNDER THE CURRENT SITE DEVELOPMENT PLAN FOR PHASE 4 OF THE SCHOOL PROJECT (SDP-01-69), REFERENCE THE APPLICABLE MDE PERMIT NUMBER OF THE SITE PLAN.
 - ENSURE THAT DISTURBANCE IS TO THE MINIMUM EXTENT NECESSARY TO COMPLETE THE STREAM RESTORATION, AND TO INSTALL THE NEW POND, AND ENSURE THAT A CLEAR LOG IS SET AND MARKED PRIOR TO WORK AND MAINTAINED DURING WORK RELATED TO THE EXISTING POND AND PROPOSED SWM POND.
 - PROVIDE TREE PROTECTION FENCE AND SIGNAGE ALONG BOTH OF THE FOREST CONSERVATION EASEMENT AREAS IN THE VICINITY OF THE PROPOSED LOG FOR THE PROPOSED WORK IF THE FENCE AND SIGNAGE ARE NOT ALREADY IN PLACE.
 - THIS WAIVER APPLIES ONLY TO GRADING AND CLEARING FOR REMOVAL OF THE EXISTING POND AND RELATED STREAM, STREAM BUFFER, WETLANDS AND WETLANDS BUFFER DISTURBANCE, TO RECONSTRUCTION OF THE STREAM BED, AND TO THE CREATION OF THE SWM FACILITY ON THIS SITE AND TO NO OTHER SITE DESIGN ISSUES.

PLEASE NOTE, WAIVER PETITION WP-01-55 DOES NOT APPLY TO ANY SITE IMPROVEMENTS PROPOSED UNDER THIS SDP.

SITE ANALYSIS

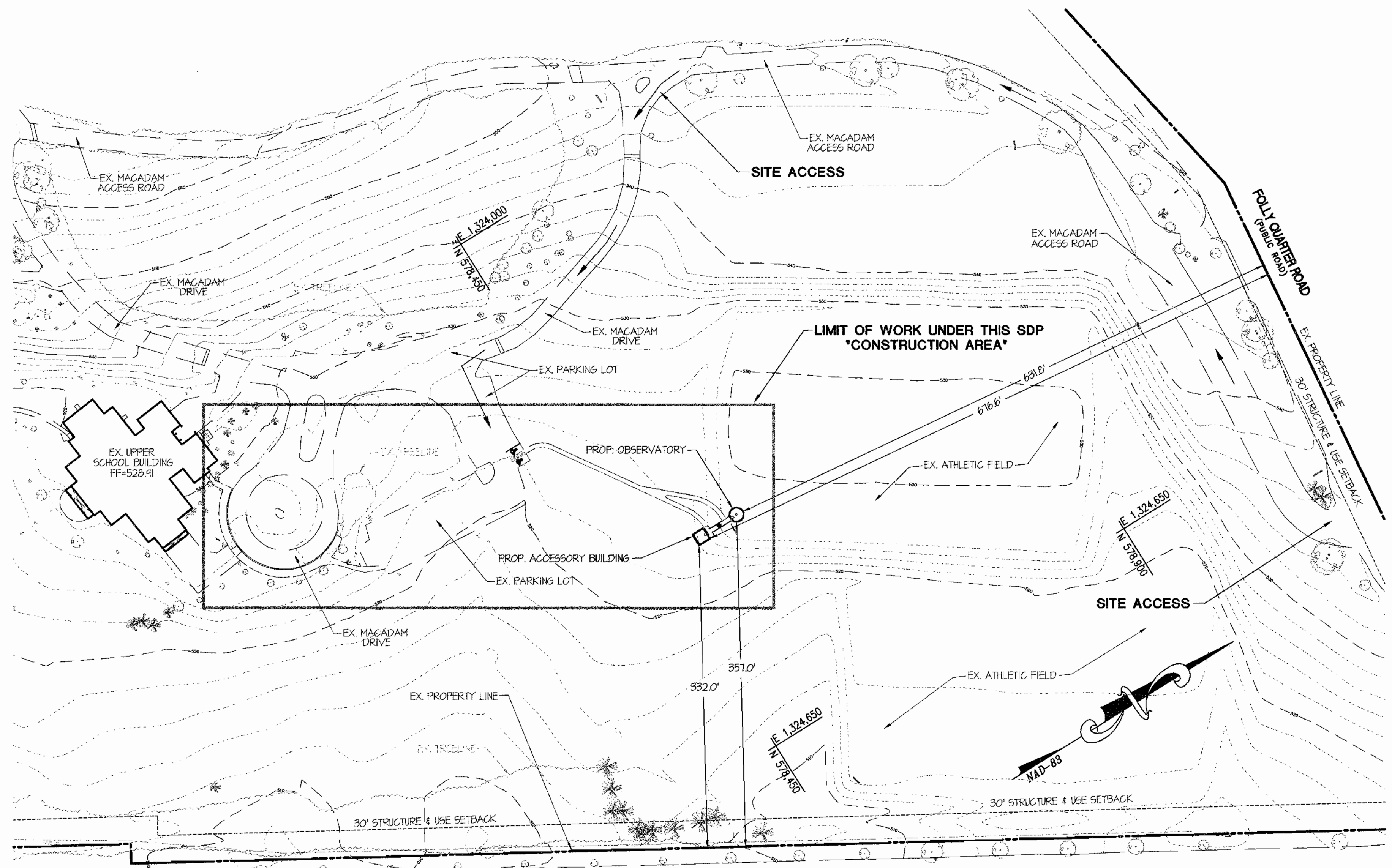
- LOT AREA (PARCEL 146): 80.67 AC.
- DISTURBED AREA: 21,434 SF OR 0.49 AC.
- ZONING: RR-DEO
- EXISTING LAND USE: PRIVATE SCHOOL/ATHLETIC FIELDS
- PROPOSED/ACCESSORY LAND USE: ASTRONOMY OBSERVATORY (PERMITTED BY SPECIAL EXCEPTION CASE #95-46E AND 99-51 E&V)
- PROPOSED IMPERVIOUS AREA:
 - PROPOSED BUILDING AREA: 395 SF
 - PROPOSED PAVEMENT AREA: 1,347 SF
 - TOTAL IMPERVIOUS AREA: 1,742 SF
- GROSS FLOOR AREA OF BUILDING: 395 SF
- GREEN SPACE ON SITE = 78.64 ACRES OR 85%
- BUILDING COVERAGE OF SITE: 0.010 ACRES, 0.012% OF GROSS AREA
- PARKING REQUIRED: NOT APPLICABLE
- PARKING PROVIDED: 2 HC SPACES
- NUMBER OF EMPLOYEES FOR SITE FACILITY: 0 EMPLOYEES

GLENELG COUNTRY SCHOOL ASTRONOMY OBSERVATORY SITE DEVELOPMENT PLAN

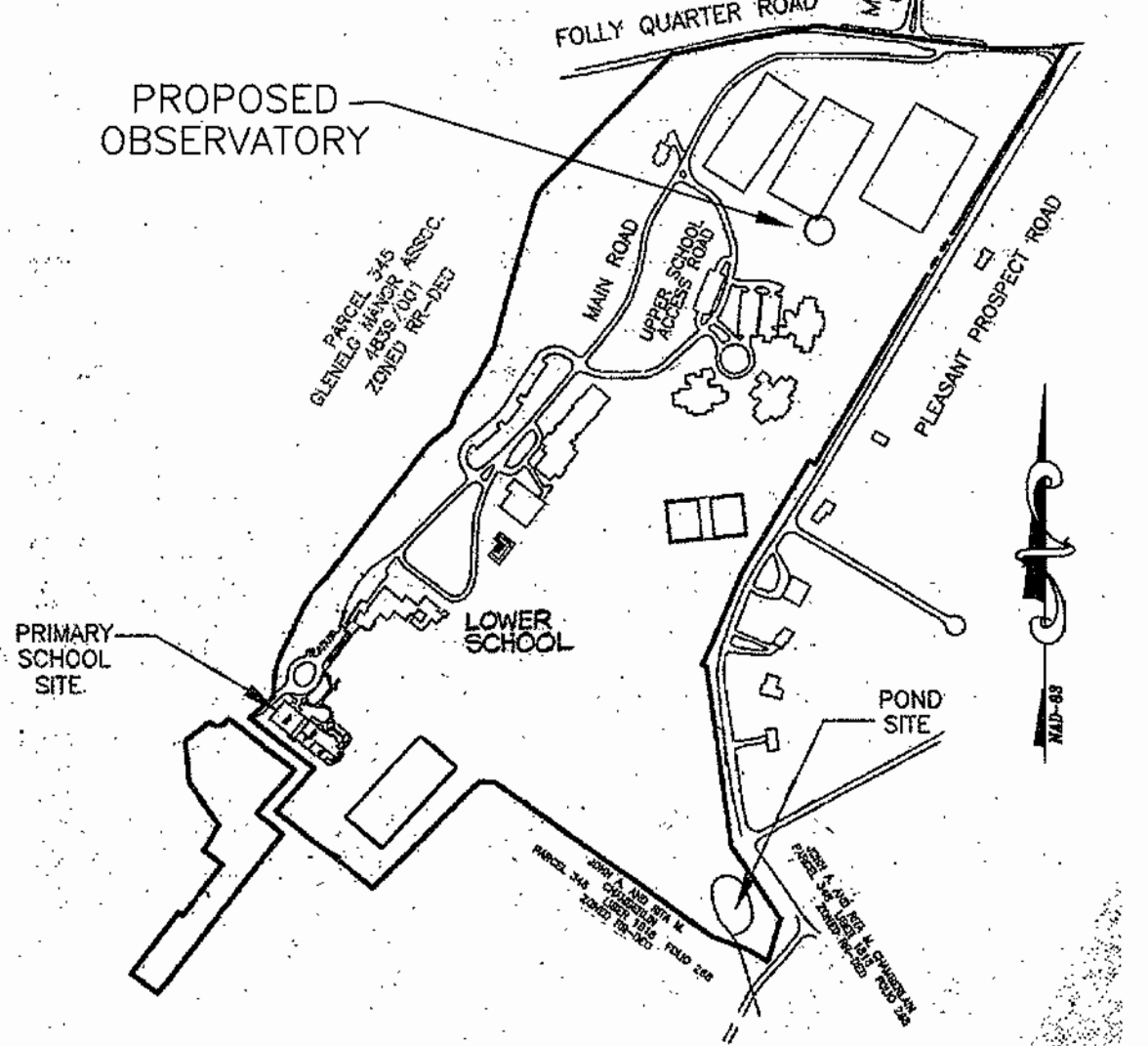


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VICINITY MAP SCALE: 1"=2000'
MAP BOOK (ADC) PAGE 10 GRID B-12

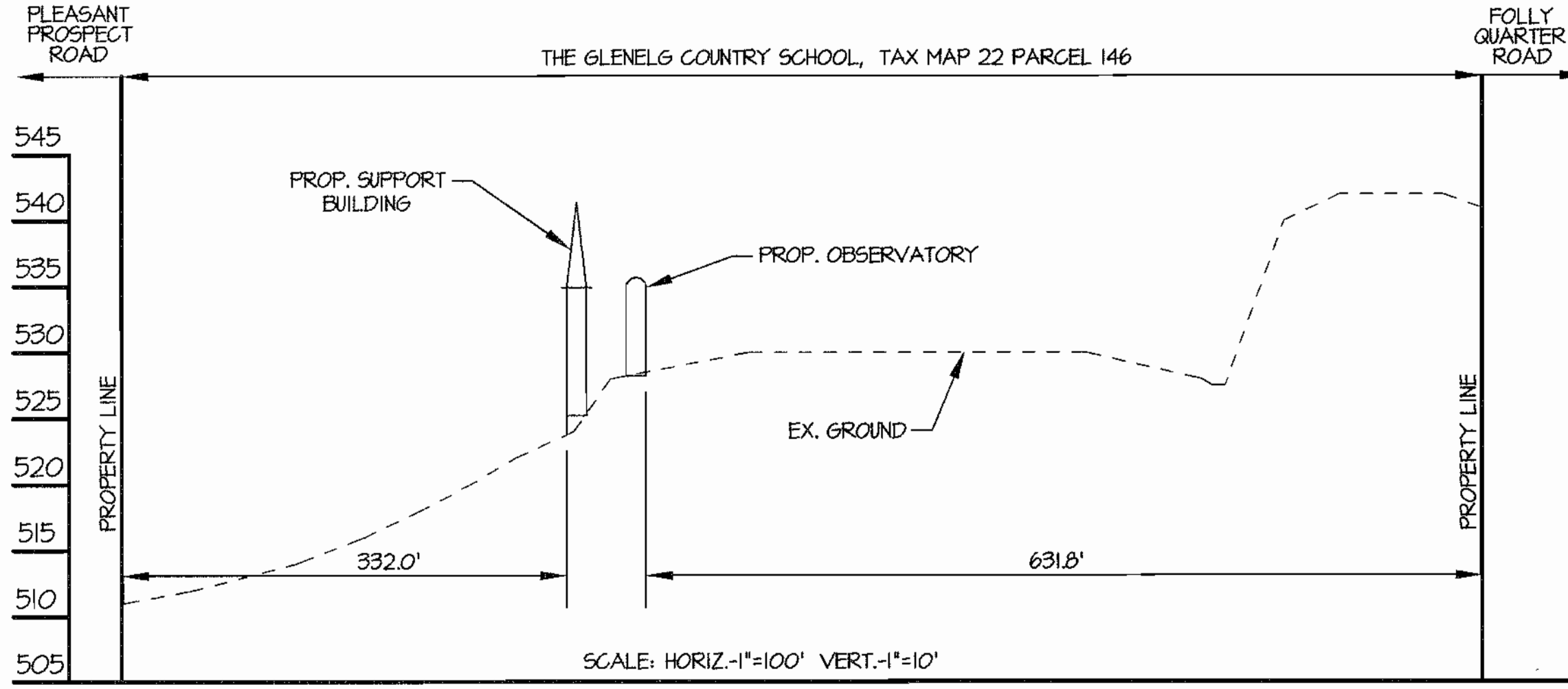


SITE LOCATION MAP
SCALE: 1"=80'



SITE LOCATION MAP
SCALE: 1"=500'

ADDRESS CHART / OWNER INFORMATION					
GLENELG COUNTRY SCHOOL					
12793 FOLLY QUARTER ROAD					
GLENELG, MD 21737 PHONE: 410-531-2229					
PERMIT INFORMATION CHART					
Subdivision Name:	GLENELG COUNTRY SCHOOL	Area:	80.67 AC.	Parcel #:	146
Plot #:	1296/245	Zoning:	RR-DEO	Tax Map:	22
Water Code:	PRIVATE WELL	Elec. District:	5TH	Census Tract:	6051.01
		Sewer Code:	PRIVATE SEPTIC		



SCALE: HORIZ.-1"=100' VERT.-1"=10'

- BENCHMARKS**
- B.M.#1 - HOWARD COUNTY BENCHMARK 221A - NORTH SIDE OF FOLLY QUARTER ROAD 231' EAST OF JUMPERS HILL. ELEV. 496.43
 - B.M.#2 - HOWARD COUNTY BENCHMARK 221A - SOUTH SIDE OF FOLLY QUARTER ROAD OPPOSITE MARYVALE COURT. ELEV. 538.39

SHEET INDEX

- TITLE SHEET SDP-1
- SITE PLAN SDP-2
- SITE DETAILS SDP-3
- GRADING & SEDIMENT CONTROL PLAN SDP-4
- GRADING & SEDIMENT CONTROL DETAILS SDP-5

GENERAL SWM REQUIREMENTS			
STEP	REQUIREMENT	VOLUME REQUIRED (ac-ft)	NOTES
1	WATER QUALITY VOLUME (WQv)	0.0057 AC-FT.	PROVIDED BY DISCONNECTION OF ROOFTOP & NON ROOFTOP RUNOFF CREDIT
2	RECHARGE VOLUME (Rev)	0.0012 AC-FT.	PROVIDED BY DISCONNECTION OF ROOFTOP & NON ROOFTOP RUNOFF CREDIT
3	CHANNEL PROTECTION VOLUME (CpV)	N/A	NOT REQUIRED, DISTURBED AREA LESS THAN 15,000 S.F.
4	OVERBANK FLOOD PROTECTION VOLUME (Qp)	N/A	NOT REQUIRED PER HOWARD COUNTY REG. SITE IS NOT W/IN DESIGNATED FLOOD ZONE
5	EXTREME FLOOD VOLUME (Qf)	N/A	NOT REQUIRED PER HOWARD COUNTY REG. SITE IS NOT W/IN DESIGNATED FLOOD ZONE

OWNER		FAX NO:	
A. NAME:	JOEL R. CHERINGTON, AGENT FOR THE GCS	B. TELEPHONE:	410-531-2229
C. COMPANY:	GLENELG COUNTRY SCHOOL		
D. ADDRESS:	12793 FOLLY QUARTER ROAD		
E. CITY:	GLENELG, MD	ZIP:	21737
DEVELOPER		FAX NO:	
A. NAME:	JOEL R. CHERINGTON, AGENT FOR THE GCS	B. TELEPHONE:	410-234-1796
C. COMPANY:	GOULD PROPERTY COMPANY		
D. ADDRESS:	1332 SOUTH CHARLES STREET		
E. CITY:	BALTIMORE, MD	ZIP:	21230

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 7/20/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION MKK DATE

[Signature] 7/30/02
CHIEF, DIVISION OF LAND DEVELOPMENT JA DATE

[Signature] 7/30/02
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

SDP-1

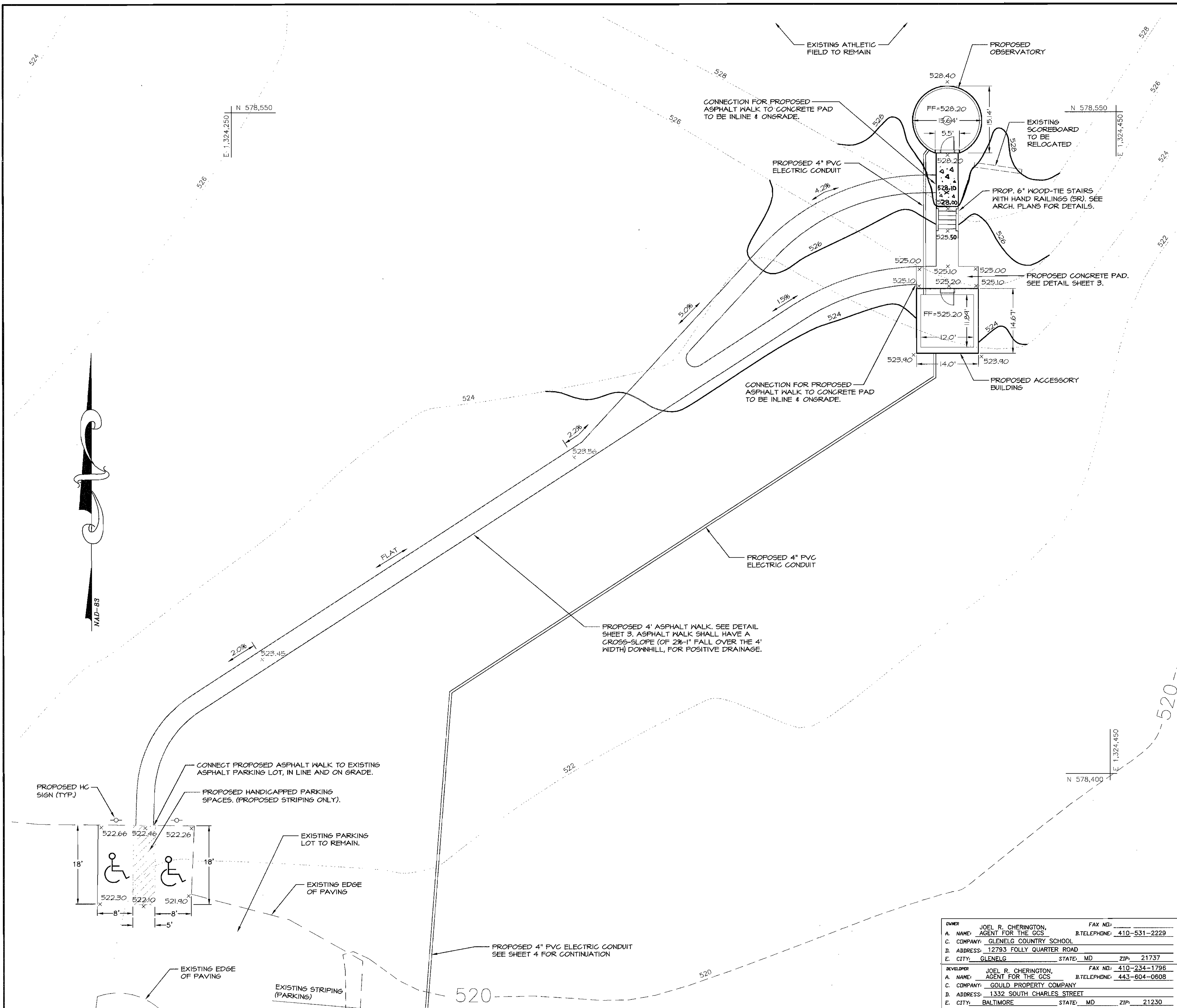
MORRIS & RITCHE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

9080 JUNCTION DRIVE, SUITE 9
ANNAPOLIS JUNCTION, MARYLAND 20701
(410) 792-9792 or (301) 776-1890
FAX (410) 792-7395

**GLENELG COUNTRY SCHOOL
ASTRONOMY OBSERVATORY
SITE DEVELOPMENT PLAN
TITLE SHEET**

TAX MAP 22 GRID 22 PARCEL 146
LIBER 1296 FOLIO 245
FIFTH CITY ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
		12189.03
		SCALE: AS SHOWN
		DATE: 07/02/02
		DRAWN BY: BRS/TCN
		DESIGN BY: TCN/BWY
		REVIEW BY: PVM/TFM
		SHEET: 1 OF 5



- ### LEGEND
- PR. 2' CONTOUR
 - PR. WALKWAY
 - PR. BUILDING
 - PR. CONCRETE SLAB
 - PR. SPOT ELEVATION
 - PR. ELECTRIC CONDUIT
 - PR. SIGN
 - EXISTING 2' CONTOUR
 - EXISTING 10' CONTOUR
 - EXISTING EDGE OF PAVEMENT
 - EXISTING SIGN/FEATURE



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK 7/26/02
 CHIEF, DIVISION OF LAND DEVELOPMENT JA 7/30/02
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING 7/31/02

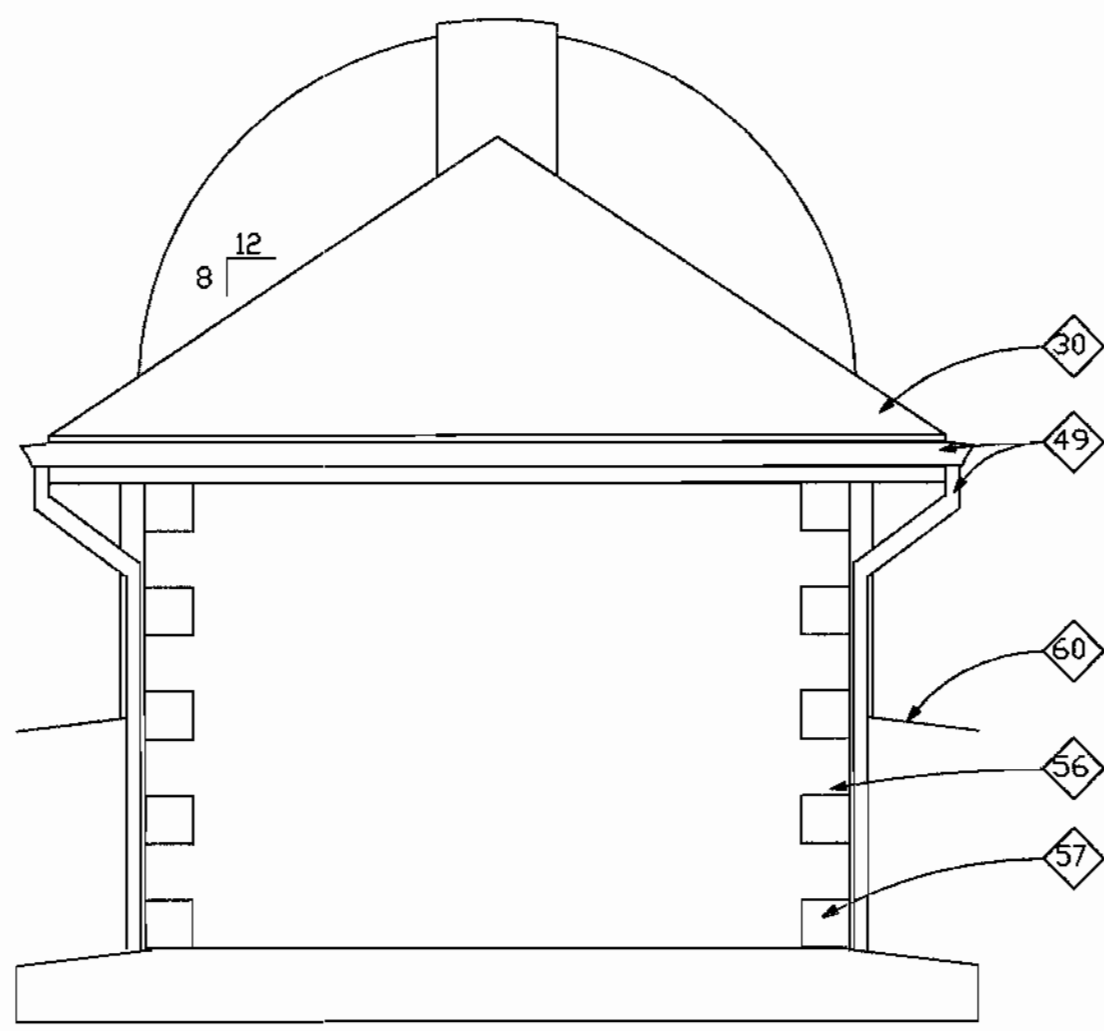
SDP-2

MRA
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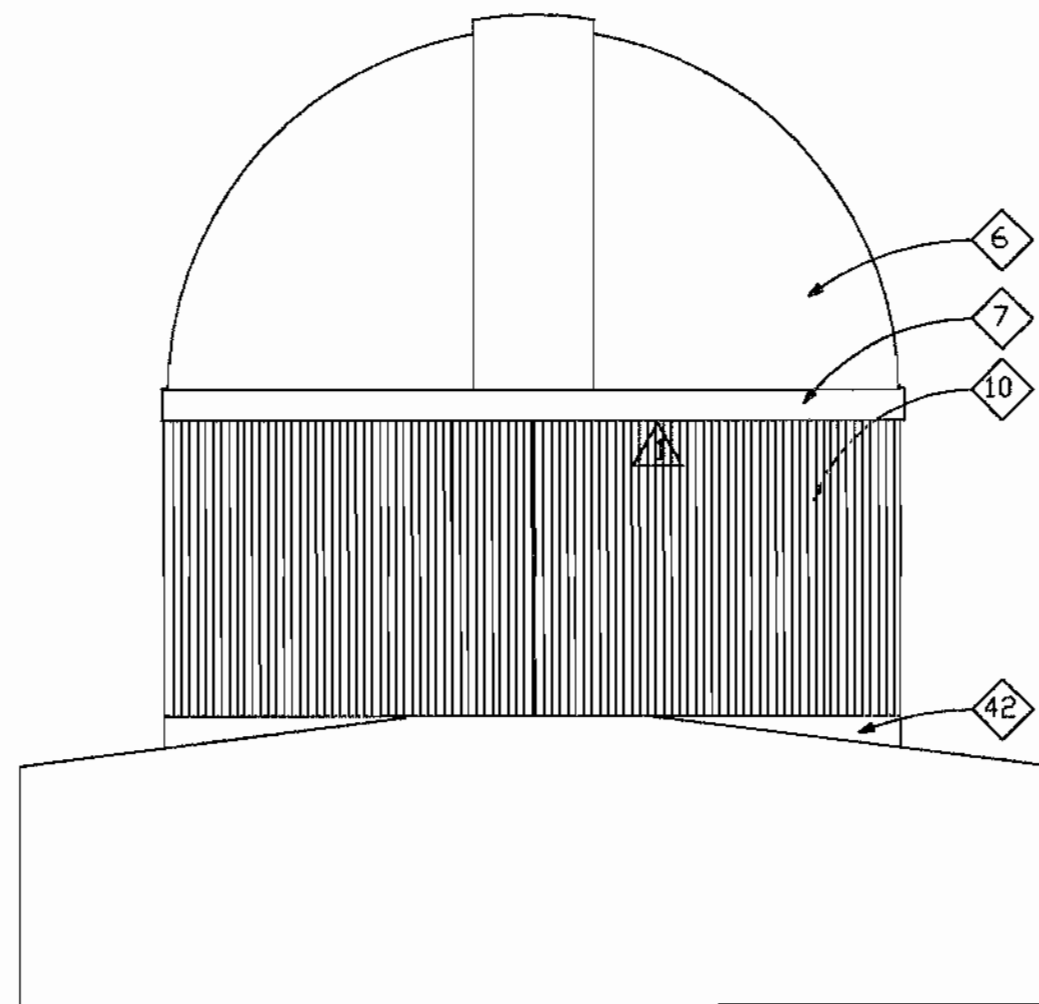
**GLENELG COUNTRY SCHOOL
 ASTRONOMY OBSERVATORY**
 SITE DEVELOPMENT PLAN
 SITE PLAN
 TAX MAP 22 GRID 22 PARCEL 146
 LIBER 1296 FOLIO 245
 FIFTH (5TH) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER: JOEL R. CHERINGTON, AGENT FOR THE CCS
 COMPANY: GLENELG COUNTRY SCHOOL
 ADDRESS: 12793 FOLLY QUARTER ROAD
 CITY: GLENELG STATE: MD ZIP: 21737
 DEVELOPER: JOEL R. CHERINGTON, AGENT FOR THE CCS
 COMPANY: GOULD PROPERTY COMPANY
 ADDRESS: 1332 SOUTH CHARLES STREET
 CITY: BALTIMORE STATE: MD ZIP: 21230

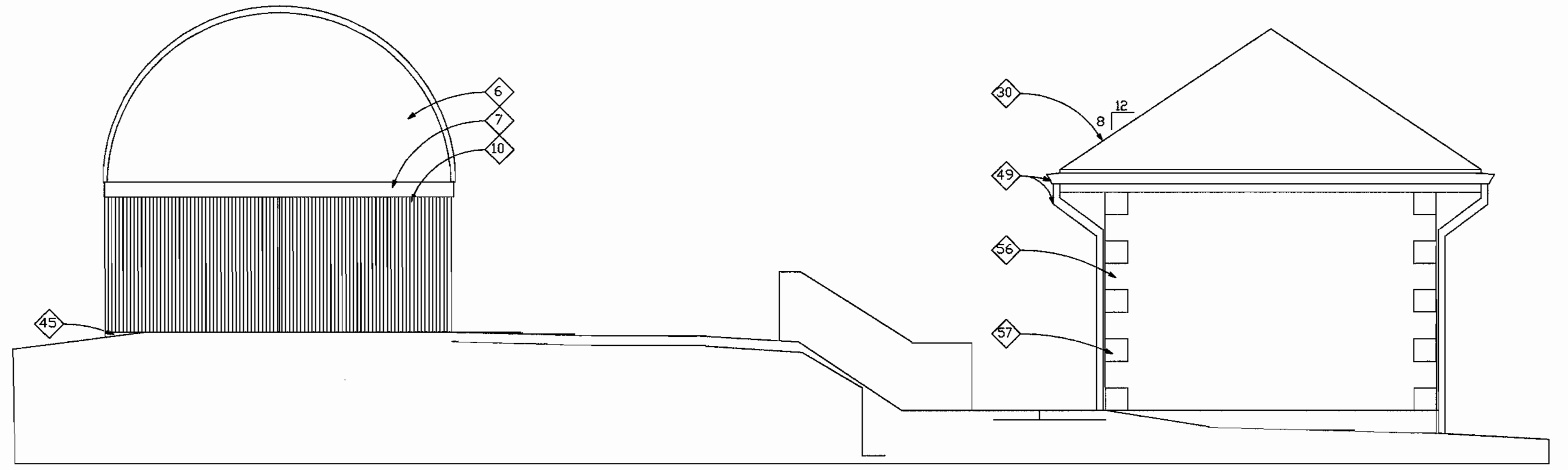
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		DATE: 07/02/02
		DRAWN BY: BRS/TCN
		DESIGN BY: TCN/BWY
		REVIEW BY: PVM/TFM
		SHEET: 2 OF 5



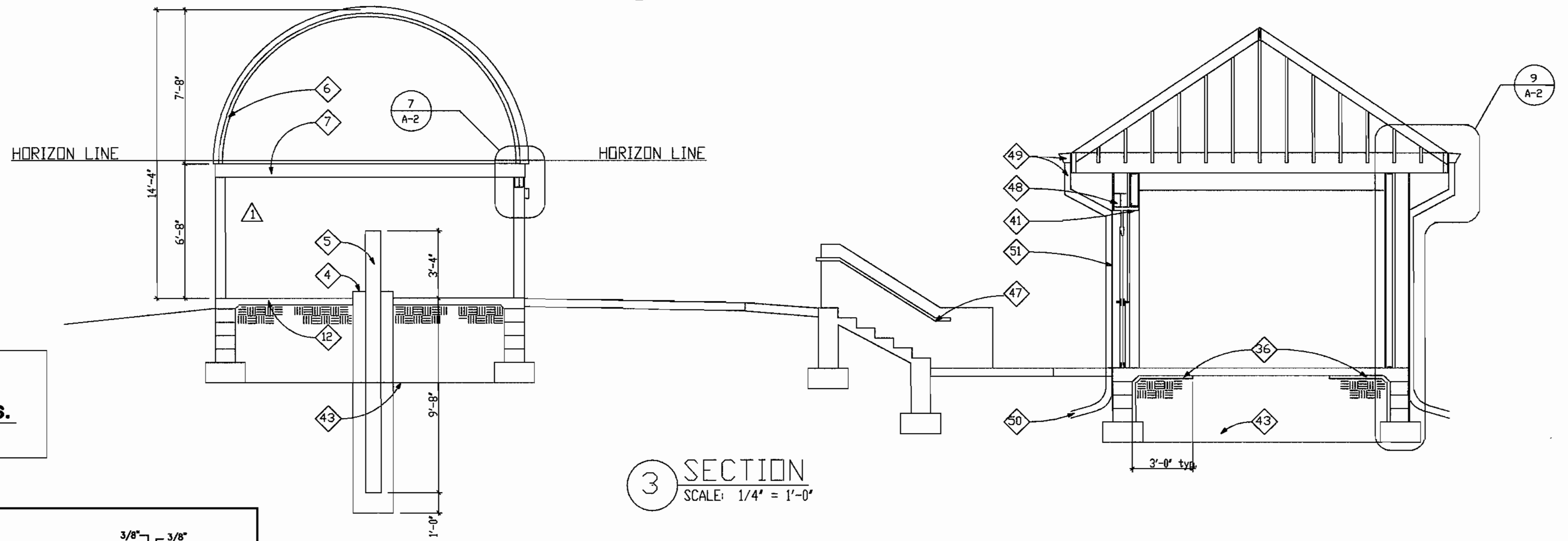
2 ELEVATION
SCALE: 1/4" = 1'-0"



3 ELEVATION
SCALE: 1/4" = 1'-0"



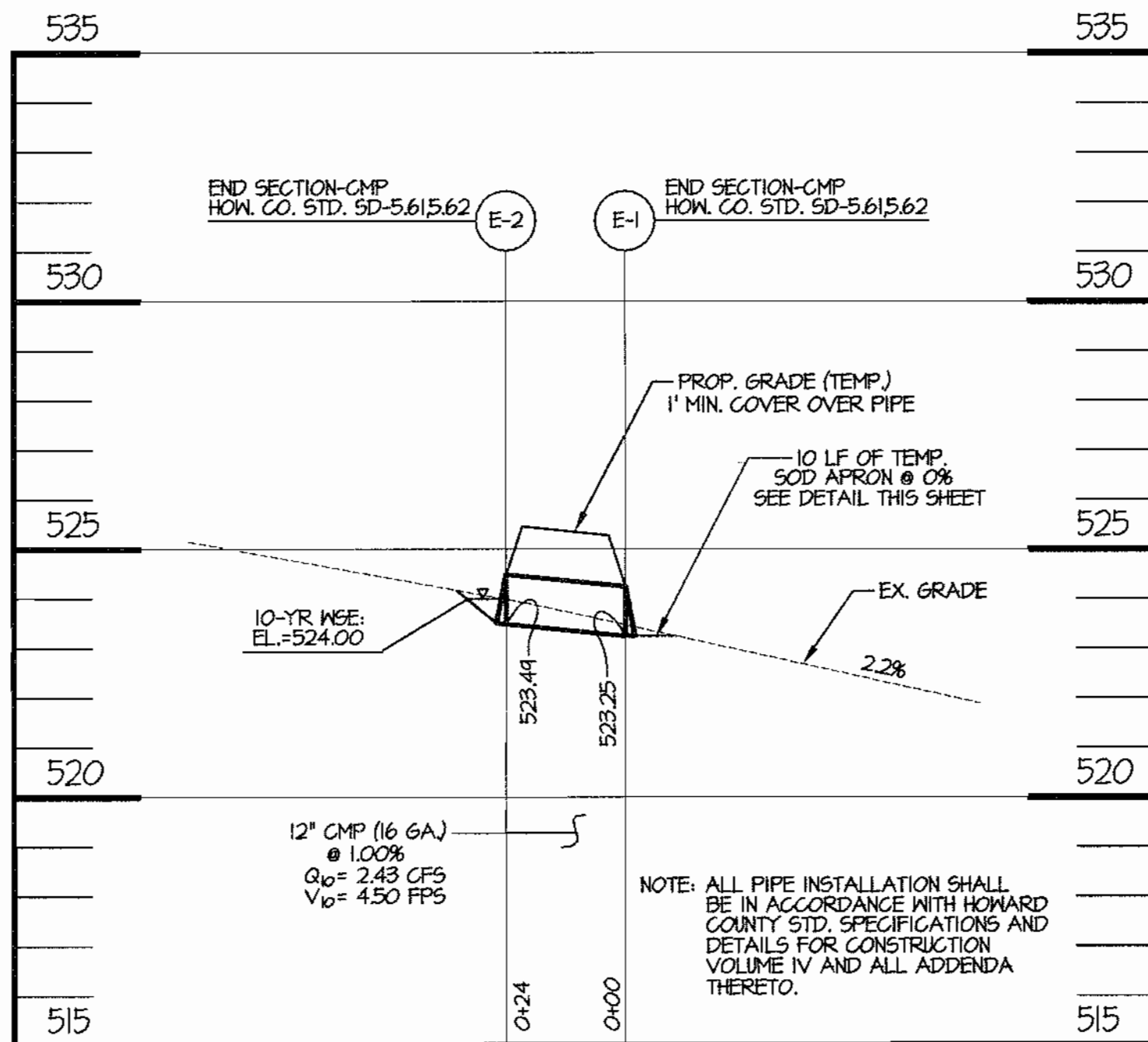
2 ELEVATION
SCALE: 1/4" = 1'-0"



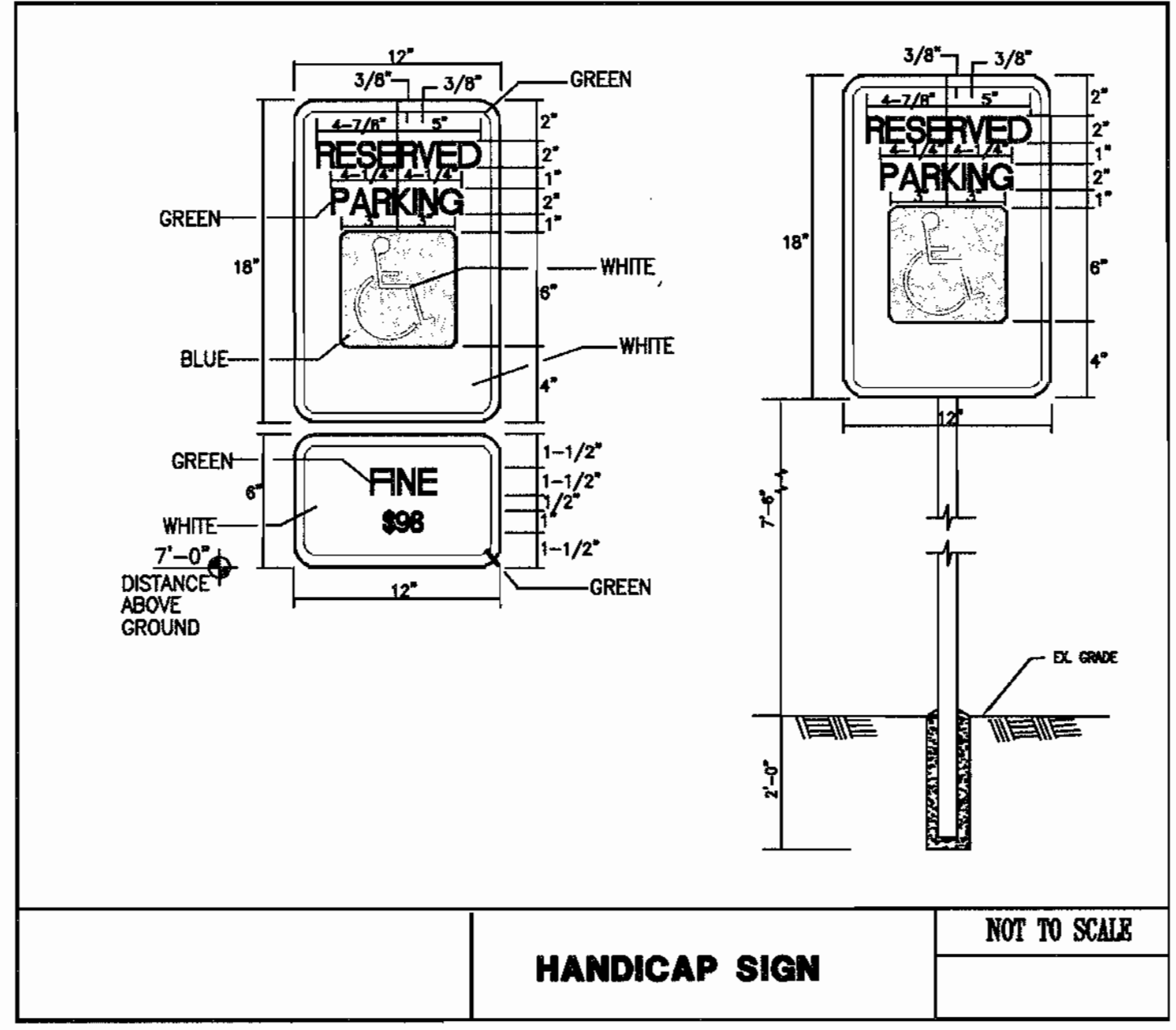
3 SECTION
SCALE: 1/4" = 1'-0"

- KEYNOTES
THIS SHEET ONLY
- 1 CONTROLS (BY OTHERS).
 - 4 10" DIA. TELESCOPE PIER, CONCRETE FILLED.
 - 5 CONCRETE ENCASEMENT AND FOUNDATION FOR TELESCOPE PIER.
 - 6 PREFAB. DOME (SUPPLIED BY OTHERS).
 - 7 PREFAB. DOME RING (SUPPLIED BY OTHERS)-PAINT DOME RING GLENELG GREEN.
 - 10 7/8" x 20 ga. CORRUGATED METAL PANELS.
 - 12 4" CONCRETE SLAB IN GRADE.
 - 41 GWB RETURNS AT HEAD, JAMB & SILL CONDITIONS.
 - 42 NOT USED.
 - 43 LINE OF FOUNDATION BEYOND.
 - 45 EXPOSED CONCRETE.
 - 47 1-1/2" DIA. HANDRAIL. EXTEND 12 INCHES BEYOND TOP AND BOTTOM RISER OF STAIR RUN.
 - 48 MASONRY LINTEL.
 - 49 COPPER GUTTER AND DOWNSPOUT.
 - 50 CONNECT TO UNDERGROUND RAIN LEADER - SEE SITE DRAWINGS.
 - 51 ALUMINUM FRAME WINDOWS AND ENTRY DOOR, SEE ALTERNATES.
 - 56 STUCCO FINNISH.
 - 57 1'-0" x 1'-0" STUCCO COINS.
 - 60 GRADE BEYOND.

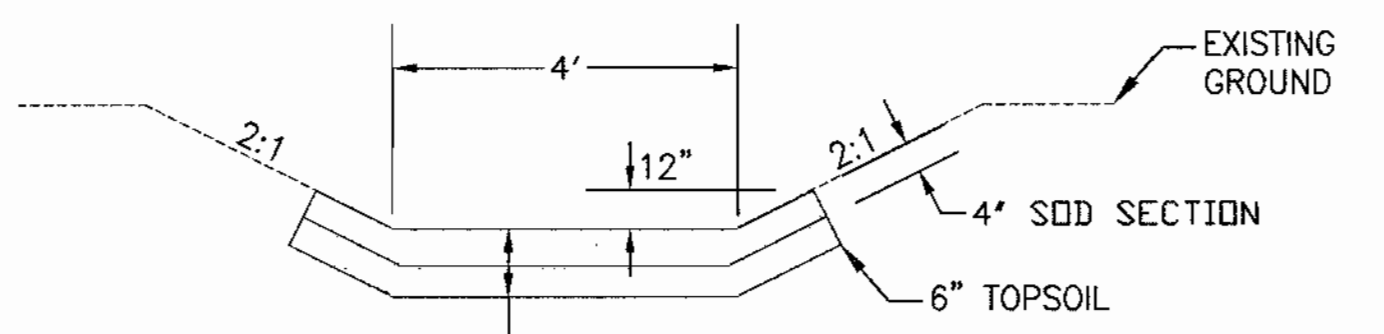
SECTIONS AND ELEVATIONS OF DOME PROVIDED BY: MRA-GETZ TAYLOR ARCHITECTS.



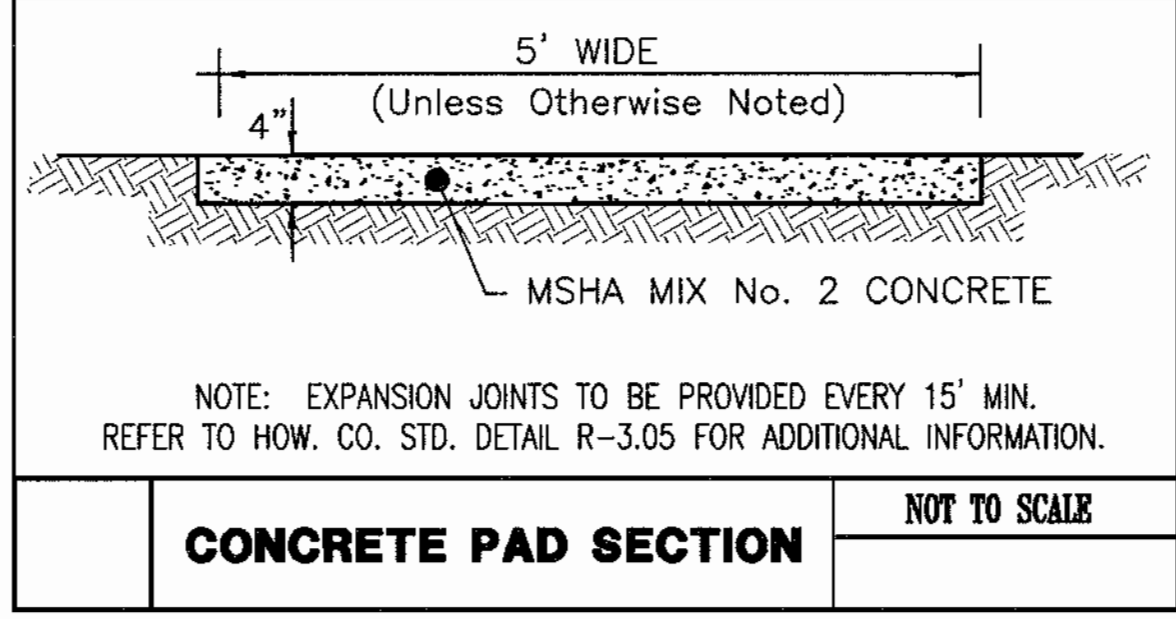
TEMPORARY CULVERT PROFILE
SCALE: HOR. 1" = 30'
VERT. 1" = 3'



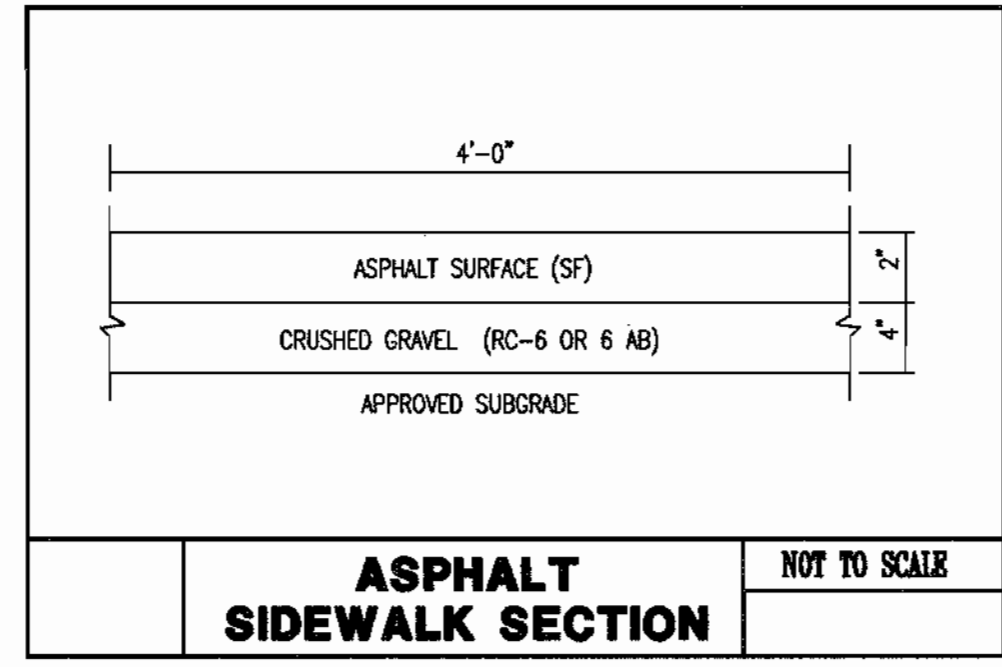
HANDICAP SIGN
NOT TO SCALE



NOTE:
SOD TO BE PINNED IN PLACE.
SODDED CHANNEL DETAIL
NOT TO SCALE



CONCRETE PAD SECTION
NOT TO SCALE



ASPHALT SIDEWALK SECTION
NOT TO SCALE

OWNER		FAX NO.	
A. NAME: JOEL R. CHERINGTON,	AGENT FOR THE GCS.	B. TELEPHONE: 410-531-2229	
C. COMPANY: GLENELG COUNTRY SCHOOL			
D. ADDRESS: 12793 FOLLY QUARTER ROAD			
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E. CITY: BALTIMORE STATE: MD ZIP: 21230			

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Michael J. ... 7/26/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Guida ... 7/30/02
CHIEF, DIVISION OF LAND DEVELOPMENT JA DATE

Frank ... 7/30/02
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

SDP-3

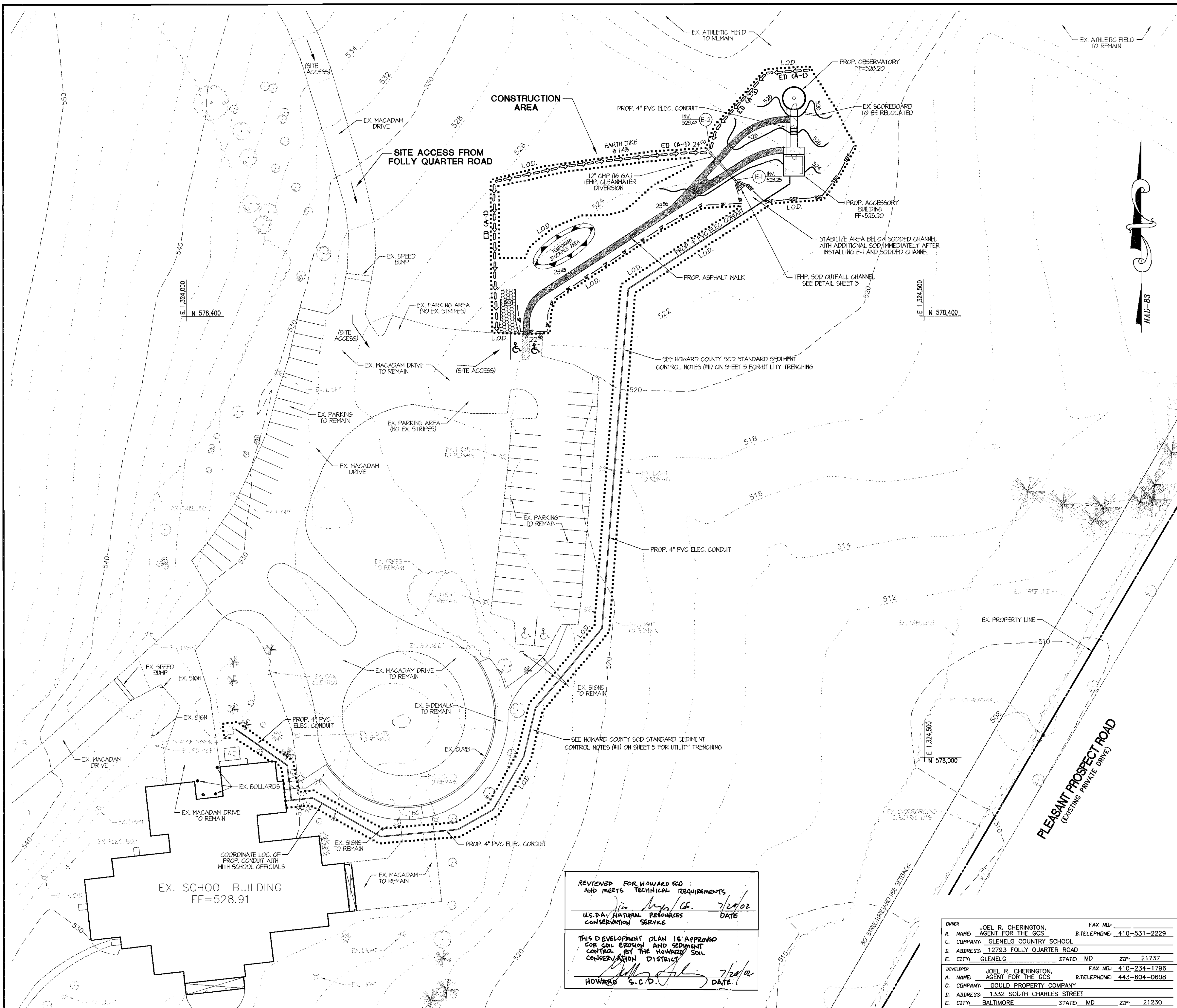
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GLENELG COUNTRY SCHOOL ASTRONOMY OBSERVATORY
SITE DEVELOPMENT PLAN
SITE DETAILS

TAX MAP 22 GRID 22 PARCEL 146
LIBER 1296 FOLIO 245
FIFTH (5TH) ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DATE	REVISIONS*	JOB NO.:
		12189.03
		SCALE: AS SHOWN
		DATE: 07/02/02
		DRAWN BY: BRS/TCN
		DESIGN BY: TCM/BWY
		REVIEW BY: PVM/TFM
		SHEET: 3 OF 5



LEGEND

- 520 --- EX. 2' CONTOUR
- 518 --- EX. 10' CONTOUR
- EX. CURB
- EX. EDGE OF PAVEMENT
- EX. ELECTRIC LINE
- EX. BUILDING LINE
- EX. PROPERTY LINE
- EX. STORM DRAIN STRUCTURE
- EX. SANITARY STRUCTURE
- EX. ELECTRIC TRANSFORMER
- EX. LIGHT
- EX. TREE LINE
- EX. TREE/SHRUB
- 522 --- PROP. 2' CONTOUR
- PROP. CONCRETE SLAB
- PROP. ASPHALT WALKWAY
- PROP. BUILDING LINE
- PROP. ELEC. CONDUIT
- x 25.00 --- PROP. SPOT ELEVATION
- --- PROP. LIMIT OF DISTURBANCE (L.O.D.)
- SF --- PROP. SILT FENCE
- SSF --- PROP. SUPER SILT FENCE
- --- PROP. STORM DRAIN
- --- PROP. EARTH DIKE
- PR. STAB. CONST. ENTRANCE
- --- TEMP. STOCK PILE AREA

NOTE: THIS PLAN SHALL BE USED FOR SEDIMENT CONTROL ONLY. REFER TO SITE PLAN AND SITE DETAIL PLAN FOR ADDITIONAL INFORMATION.

BY THE ENGINEER
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
P. V. Mellits 7-2-02
 SIGNATURE OF ENGINEER PIERO VAN MELLITS, P.E. MD LICENSE #21875 DATE

BY THE DEVELOPER
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, 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 SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
Joel R. Cherington 7/2/02
 SIGNATURE OF DEVELOPER JOEL R. CHERINGTON, AGENT FOR THE GLENELG COUNTRY SCHOOL DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Mark ... 7/2/02
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE
John ... 7/2/02
 CHIEF, DIVISION OF LAND DEVELOPMENT JA DATE
John ... 7/2/02
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

SDP-4

MORRIS & RITCHIE ASSOCIATES, INC.
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 FAX (410) 792-7395

GLENELG COUNTRY SCHOOL ASTRONOMY OBSERVATORY
 SITE DEVELOPMENT PLAN
 GRADING & SEDIMENT CONTROL PLAN
 TAX MAP 22 GRID 22 PARCEL 146
 LIBER 1296 FOLIO 245
 FIFTH (5TH) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

REVIEWED FOR HOWARD SCD AND MGS'S TECHNICAL REQUIREMENTS
John ... 7/2/02
 U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Howard ... 7/2/02
 HOWARD S.C.D. DATE

OWNER
 A. NAME: JOEL R. CHERINGTON, AGENT FOR THE GCS
 B. TELEPHONE: 410-531-2229
 C. COMPANY: GLENELG COUNTRY SCHOOL
 D. ADDRESS: 12793 FOLLY QUARTER ROAD
 E. CITY: GLENELG STATE: MD ZIP: 21737
DEVELOPER
 A. NAME: JOEL R. CHERINGTON, AGENT FOR THE GCS
 B. TELEPHONE: 410-234-1796
 C. COMPANY: GOULD PROPERTY COMPANY
 D. ADDRESS: 1332 SOUTH CHARLES STREET
 E. CITY: BALTIMORE STATE: MD ZIP: 21230

DATE	REVISIONS	JOB NO.:
		12189.03
		SCALE: 1" = 30'
		DATE: 07/02/02
		DRAWN BY: BRS/TCN
		DESIGN BY: TCN/BMY
		REVIEW BY: PVM/TFM
		SHEET: 4 OF 5

STANDARDS AND SPECIFICATION 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. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW pH, MATERIAL TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRAIN DISTRIBUTION.

CONDITIONS WHEN PRACTICE APPLIES
I. 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.
B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT BEING ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES GREATER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREA HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN REPRESENTATIVE PROFILES SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

II. TOPSOIL SPECIFICATIONS-SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

- I. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY SILT LOAM, OR SILTY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRICULTURIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE AGRICULTURAL AUTHORITY. REGARDLESS TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURES AND SHALL CONTAIN LESS THAN 8% BY VOLUME OF COBBLES, STONES, OR COARSE FRAGMENTS, GRAVELS, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUICKGRASS, JOHNSGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-6 TONS/ACRE (200-400 POUNDS PER 1000 SF) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH SOIL PREPARATION OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITE HAVING DISTURBED AREAS UNDER 5 ACRE

- I. PLACE TOPSOIL (OF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN SOIL VEGETATIVE STABILIZATION-SECTION 1-VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. TOPSOIL APPLICATION

- I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH BANKS, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" OF HIGHER IN ELEVATION.

III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-6" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SOILING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION.

V. ALTERNATIVE FOR PERMANENT SEEDING-INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMPOSTED FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW.

I. COMPOSTED SLUDGE MATERIAL FOR USE AS SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRE SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

- A. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE IDENTIFIED ON THE LINE OF ACQUISITION OF THE COMPOST BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER CDMAR 26-04-06.
B. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 15 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A pH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
C. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1000 SF.

II. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1000 SF, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SOILING, MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTE, REVISED 1973.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN ALL NECESSARY PERMITS. CONTACT THE HOWARD COUNTY OFFICE OF INSPECTIONS AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK. 1 DAY
2. CLEAR AND GRUB FOR INSTALLATION OF SEDIMENT CONTROLS ONLY. INSTALL CLEANNATER DIVERSION PIPE FROM E-2 TO E-1. SEE SHEET SDP-4. 2 DAYS
3. INSTALL ALL SEDIMENT AND EROSION CONTROL DEVICES PER SHEET SDP-4. 2 DAYS
4. CLEAR AND GRUB CONSTRUCTION AREA PER SHEET SDP-4. 2 DAYS
5. BEGIN CONSTRUCTION OF OBSERVATORY AND ACCESSORY BUILDING. 60 DAYS
6. FINAL GRADE SITE AND PROVIDE PERMANENT STABILIZATION. 2 DAYS
7. WITH THE SEDIMENT CONTROL INSPECTOR'S APPROVAL, REMOVE EARTH DIKES AND CLEANNATER DIVERSION PIPE. 2 DAYS
8. PERMANENTLY STABILIZE THOSE DISTURBED AREAS. 2 DAYS
9. WITH THE SEDIMENT CONTROL INSPECTOR'S APPROVAL, REMOVE ALL REMAINING SEDIMENT CONTROLS AND STABILIZE THOSE REMAINING DISTURBED AREAS. 2 DAYS

STANDARDS AND SPECIFICATIONS FOR LAND GRADING

DEFINITION
RESHAPING OF THE EXISTING LAND SURFACE IN ACCORDANCE WITH A PLAN AS DETERMINED BY ENGINEERS SURVEY AND LAYOUT.

PURPOSE
THE PURPOSE OF A LAND GRADING SPECIFICATION IS TO PROVIDE FOR EROSION CONTROL AND PERMANENT STABILIZATION OF THOSE AREAS WHERE THE EXISTING LAND SURFACE IS TO BE RESHAPED BY GRADING ACCORDING TO PLAN.

DESIGN CRITERIA
THE GRADING PLAN SHOULD BE BASED UPON THE INCORPORATION OF BUILDING DESIGNS AND STREET LAYOUTS THAT FIT AND UTILIZE EXISTING TOPOGRAPHY AND DESIRABLE NATURAL SUBORDINANTS TO AVOID EXTREME GRADE MODIFICATIONS. INFORMATION SUBMITTED MUST PROVIDE SUFFICIENT TOPOGRAPHIC SURVEYS AND SOIL INVESTIGATIONS TO DETERMINE LIMITATIONS THAT MUST BE IMPOSED ON THE GRADING OPERATION RELATED TO SOIL STABILITY, EFFECT ON ADJACENT PROPERTIES AND DRAINAGE PATTERNS, MEASURES FOR DRAINAGE AND WATER REMOVAL AND VEGETATIVE TREATMENT, ETC.

MANY COUNTIES HAVE REGULATIONS AND DESIGN PROCEDURES ALREADY ESTABLISHED FOR LAND GRADING AND CUT AND FILL SLOPES. WHERE THESE REQUIREMENTS EXIST, THEY SHALL BE FOLLOWED. THE PLAN MUST SHOW EXISTING AND PROPOSED CONTOURS OF THE AREAS TO BE GRADED. THE PLAN SHALL ALSO INCLUDE PRACTICES FOR EROSION CONTROL, SOIL STABILIZATION, SAFE DISPOSAL OF RUNOFF WATER AND DRAINAGE, SUCH AS WATERWAYS, LINED DITCHES, REVERSE SLOPE BENCHES (INCLUDE GRADE AND CROSS SECTION), GRADE STABILIZATION STRUCTURES, RETAINING WALLS, AND SURFACE AND SUBSURFACE ROADS. THE PLAN SHALL ALSO INCLUDE PHASING OF THESE PRACTICES. THE FOLLOWING SHALL BE INCORPORATED INTO THE PLAN:

- I. PROVISIONS SHALL BE MADE TO SAFELY CONDUIT SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR TO STABLE WATER COURSES TO INSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS.
II. CUT AND FILL SLOPES THAT ARE TO BE STABILIZED WITH GRASSES SHALL NOT BE STEEPER THAN 2:1, WHERE THE SLOPE IS TO BE MOVED THE SLOPE SHOULD BE NO STEEPER THAN 3:1. 4:1 IS PREFERRED BECAUSE OF SAFETY FACTORS RELATED TO MOVING STEEP SLOPES. SLOPES EXCEEDING 2:1 SHALL REQUIRE SPECIAL DESIGN AND STABILIZATION. CONSIDERATIONS THAT SHALL BE ADEQUATELY SHOWN ON THE PLANS.
III. REVERSE BENCHES SHALL BE PROVIDED WHENEVER THE VERTICAL INTERVAL HEIGHT OF ANY 2:1 SLOPE EXCEEDS 20 FEET. FOR 3:1 SLOPES IT SHALL BE INCREASED TO 30 FEET AND FOR 4:1 TO 40 FEET. BENCHES SHALL BE LOCATED TO DRAIN THE SLOPE FACE AS EQUAL AS POSSIBLE AND SHALL CONVEY THE WATER TO A STABLE OUTLET. SOILS, STONES, ROCK OUTCROPPINGS, ETC., SHALL ALSO BE TAKEN INTO CONSIDERATION WHEN DESIGNING BENCHES.

IV. SEDIMENT CONTROL PRACTICE SEEDING

SELECT A SEEDING MIXTURE FROM TABLE 25 OR 26 IN SECTION "G" OF THE 1994 STANDARDS AND SPECIFICATIONS. DOCUMENT SEEDING IN THE EROSION AND SEDIMENT CONTROL PLAN USING APPROPRIATE CHART BELOW.

NOTES: IF SEDIMENT CONTROL PRACTICES ARE IN FOR LONGER THAN 12 MONTHS, PERMANENT SEEDING IS REQUIRED.

V. TEMPORARY/PERMANENT SEEDING MIXTURES AND RATES

SELECT A SEEDING MIXTURE FROM APPROPRIATE TABLE 25 OR 26 IN SECTION "G" OF THE 1994 STANDARDS AND SPECIFICATIONS. DOCUMENT SEEDING IN THE EROSION AND SEDIMENT CONTROL PLAN USING APPROPRIATE CHART BELOW.

VI. TURFPAK ESTABLISHMENT

THIS INCLUDES LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. AREAS TO RECEIVE SEED SHALL BE FILLED BY DISCING OR BY OTHER APPROVED METHODS TO A DEPTH OF 3 TO 5 INCHES. LEVELLED AND RAKED TO PREPARE A PROPER SEEDBED. STONES AND DEBRIS OVER 1/2 INCHES IN DIAMETER SHALL BE REMOVED. THE RESULTING SEEDBED SHALL BE IN SUCH CONDITION THAT FUTURE MOVING OF CHISEL A TURFGRASS MIXTURE FROM PATE G-20 OF THE 1994 STANDARDS AND SPECIFICATIONS OR SELECT FROM THE LIST IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY #177, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND".

VEGETATIVE STABILIZATION

PERMANENT AND TEMPORARY SEEDING, SOILING AND MULCHING

I. SITE PREPARATION

PERMANENT OR TEMPORARY VEGETATION SHALL BE ESTABLISHED WITHIN SEVEN (7) DAYS ON THE SURFACE OF ALL SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BENCHES, WATERWAYS, SEDIMENT CONTROL BASINS, AND ALL SLOPES GREATER THAN 2:1. VEGETATION SHALL BE ESTABLISHED WITHIN 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. MULCHING MAY ONLY BE USED ON DISTURBED AREAS AS TEMPORARY COVER. VEGETATION IS NOT FEASIBLE OR WHERE SEEDING CAN NOT BE COMPLETED BECAUSE OF WEATHER.

II. SEEDING PREPARATION AND SEEDING APPLICATION

LOOSEN THE TOP LAYER OF THE SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT. SUCH AS DISC HARROWS, CHISEL PLANS OR COMB MOUNTED ON CONSTRUCTION EQUIPMENT, INCORPORATE THE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF THE SOIL BY DISCING OR BY OTHER SUITABLE MEANS. ROUGH AREAS SHOULD NOT BE ROLLED OR BRAGGED SMOOTH, BUT LEFT IN A ROUGHENED CONDITION. STEEP SLOPES GREATER THAN 3:1 SHOULD BE TRACKED BY A DOZER, LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL SHOULD BE LOOSE AND FRAGILE. PERMANENT COVER MAY REQUIRE AN APPLICATION OF TOPSOIL, IF SO, IT MUST MEET THE REQUIREMENTS SET FORTH IN SECTION III.

III. SOIL AMENDMENTS

SOIL TESTS SHALL BE MADE ON SITES OVER FIVE ACRES TO DETERMINE THE EXACT REQUIREMENTS FOR BOTH LIME AND FERTILIZER. FOR SITES UNDER 5 ACRES, IN LIEU OF A SOIL TEST, APPLY THE FOLLOWING:

FERTILIZER: NITROGEN 2 LBS/1000 SF (90 LBS/AC) P2O5 4 LBS/1000 SF (175 LBS/AC) K2O 4 LBS/1000 SF (174 LBS/AC)

GROUND LIMESTONE 2 TONS/AC

IV. MAINTENANCE

A. IRRIGATE-APPLY MINIMUM 1" OF WATER EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE, WHEN SOIL MOISTURE BECOMES DEFICIENT TO PREVENT LOSS OF STAND OF PROTECTIVE VEGETATION.

B. REPAIRS-IF STAND PROVIDES BETWEEN 40% TO 90% GROUND COVERAGE, OVERSEED AND FERTILIZER USING HALF OF THE RATES ORIGINALLY APPLIED. IF STAND PROVIDES LESS THAN 40% COVERAGE, REESTABLISH AND STAND FOLLOWING ORIGINAL RATES AND PROCEDURES.

V. SOIL MULCHING

ALL SEEDING REQUIRE MULCHING. ALSO MULCH DURING NON-SEEDING DATES UNTIL SEEDING CAN BE DONE. MULCH SHALL BE UNWITTED, UNCHIPPED, SMALL GRAIN STRAW APPLIED AT A RATE OF 4 TO 2 TONS/ACRE OR 150-300 SF (2 BALES). IF A MULCH ANCHORING TOOL IS USED, APPLY 2.5 TONS/ACRE. MULCH MATERIAL SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE COMPLETELY FREE OF PROHIBITED NOXIOUS WEEDS. SPREAD MULCH UNIFORMLY, MECHANICALLY OR BY HAND, TO A DEPTH OF 1-2 INCHES. MULCH ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY MULCH NETTINGS, MULCH ANCHORING TOOL, WOOD CELLULOSE FIBER OR LIQUID MULCH BINDER.

APPLY WOOD CELLULOSE FIBER AT A DRY WEIGHT OF 1500 LBS/ACRE. IF MIXED WITH WATER, USE 50 LBS OF WOOD CELLULOSE FIBER PER 1000 GALLONS OF WATER.

LIQUID BINDER SHOULD BE APPLIED HEAVIER AT THE EDGE, WHERE WIND CATCHES MULCH IN VALLEYS, AND ON CREST OF BANKS. THE REMAINDER OF THE AREA SHOULD APPEAR UNIFORM AFTER BINDER APPLICATION. APPLY RATER RECOMMENDATIONS BY THE MANUFACTURER TO ANCHOR AND MULCH. STABLE LIGHT WEIGHT, PLASTIC NETTING OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VI. GOODING

CLASS OF TURFGRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED, OR MARYLAND OR VIRGINIA STATE APPROVED SOD. SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD IS TO BE LAID WITH THE LONG EDGES PARALLEL TO THE CONTOUR USING STAGGERED JOINTS WITH ALL ENDS TIGHTLY BUTTED AND NOT OVER LAPPING. SOD SHALL BE ROLLED AND THOROUGHLY WATERED AFTER INSTALLATION. DAILY WATERING TO MAINTAIN A 1/2" DEPTH OF MOISTURE FOR THE FIRST WEEK IS REQUIRED IN THE ABSENCE OF RAINFALL. SOD IS NOT TO BE APPLIED ON FROZEN GROUND.

VII. EROSION CONTROL

USE OF THIS INFORMATION DOES NOT PRECLUDE MEETING ALL OF THE REQUIREMENTS OF THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL VEGETATIVE PRACTICES.

BY THE DEVELOPER

1/4" CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, 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 SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: Joel R. Cherington, 7/2/02

TITLE OF DEVELOPER: JOEL R. CHERINGTON, AGENT FOR THE GLENELG COUNTRY SCHOOL

DATE: 7/2/02

TEMPORARY SEEDING SUMMARY

Table with columns: NO., SPECIES, APPLICATION RATE (LBS/AC), SEEDING DATE, SEEDING DEPTH, FERTILIZER RATE (N-P2O5-K2O), LIME RATE.

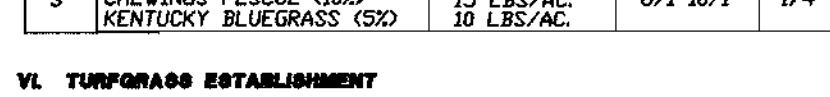
PERMANENT SEEDING SUMMARY

Table with columns: NO., SPECIES, APPLICATION RATE (LBS/AC), SEEDING DATE, SEEDING DEPTH, FERTILIZER RATE (N-P2O5-K2O), LIME RATE.

VI. TURFPAK ESTABLISHMENT

THIS INCLUDES LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. AREAS TO RECEIVE SEED SHALL BE FILLED BY DISCING OR BY OTHER APPROVED METHODS TO A DEPTH OF 3 TO 5 INCHES. LEVELLED AND RAKED TO PREPARE A PROPER SEEDBED. STONES AND DEBRIS OVER 1/2 INCHES IN DIAMETER SHALL BE REMOVED. THE RESULTING SEEDBED SHALL BE IN SUCH CONDITION THAT FUTURE MOVING OF CHISEL A TURFGRASS MIXTURE FROM PATE G-20 OF THE 1994 STANDARDS AND SPECIFICATIONS OR SELECT FROM THE LIST IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY #177, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND".

DETAIL 22 - SILT FENCE



Construction Specifications
1. Fence posts shall be a minimum of 36" long driven 36" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) or 1 3/4" diameter (minimum) and shall be of sound quality hardwood. Steel posts will be 1/2" diameter and shall be of sound quality galvanized steel.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Table with columns: Property, Value, Test Method.

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

US DEPARTMENT OF AGRICULTURE, PAGE 4-1-3, MARYLAND DEPARTMENT OF ENVIRONMENT, SOIL CONSERVATION SERVICE, WATER MANAGEMENT ADMINISTRATION

DETAIL 1 - EARTH DIKE

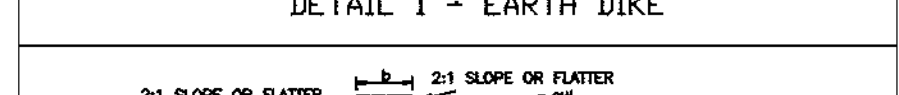


CONSTRUCTION SPECIFICATIONS
1. Seed and cover with straw mulch.
2. Seed and cover with Straw Control matting or the soil with a 2" minimum.
3. 4" x 4" stone or recycled concrete aggregate spread into the soil 2" minimum.

CONSTRUCTION SPECIFICATIONS
1. All temporary earth dikes shall have a minimum top width of 18".
2. All dikes shall be constructed on a minimum of 12" of compacted subgrade.
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US DEPARTMENT OF AGRICULTURE, PAGE 4-1-3, MARYLAND DEPARTMENT OF ENVIRONMENT, SOIL CONSERVATION SERVICE, WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE



CONSTRUCTION SPECIFICATIONS
1. Fencing shall be 40" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6" fence shall be used, substituting 4" fabric and 6" length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 6" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt bulges removed when 'bulger' occurs in the silt fence, or when silt reaches 50% of fence height.
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Table with columns: Property, Value, Test Method.

8. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

US DEPARTMENT OF AGRICULTURE, PAGE 4-1-3, MARYLAND DEPARTMENT OF ENVIRONMENT, SOIL CONSERVATION SERVICE, WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE

Design Criteria

Table with columns: Slope, Slope Steepness, Slope Length (Maximum), Silt Fence Length (Maximum).

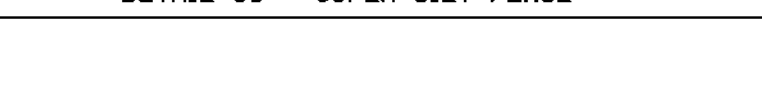
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6. Maintenance shall be performed as needed and silt bulges removed when 'bulger' occurs in the silt fence, or when silt reaches 50% of fence height.
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US DEPARTMENT OF AGRICULTURE, PAGE 4-1-3, MARYLAND DEPARTMENT OF ENVIRONMENT, SOIL CONSERVATION SERVICE, WATER MANAGEMENT ADMINISTRATION

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATIONS
1. Length - minimum of 50' (40' for single residence lots).
2. Width - 10' minimum, shall be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. Where plan approval authority may not require single family residence to use geotextile fabric, it shall be used.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrance shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a manhole in form of a 18" x 18" x 18" manhole or a minimum of 18" of stone over the pipe. Pipe has to be sized according to the drainage. When the SEE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe shall be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
6. Location - A stabilized construction entrance shall be located at various points where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entrance.
7. Maintenance - The entrance shall be maintained in accordance with the requirements of the HOWARD SOIL CONSERVATION DISTRICT.

US DEPARTMENT OF AGRICULTURE, PAGE 4-1-3, MARYLAND DEPARTMENT OF ENVIRONMENT, SOIL CONSERVATION SERVICE, WATER MANAGEMENT ADMINISTRATION

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

SIGNATURE OF DEVELOPER: Joel R. Cherington, 7/2/02

TITLE OF DEVELOPER: JOEL R. CHERINGTON, AGENT FOR THE GLENELG COUNTRY SCHOOL

DATE: 7/2/02

BY THE ENGINEER

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

SIGNATURE OF ENGINEER: P. V. Milled, 7-2-02

TITLE OF ENGINEER: PIERO VAN MELLITS, P.E. MD LICENSE #21875

DATE: 7-2-02

APPROVED: DEPARTMENT OF PLANNING AND ZONING

SIGNATURE OF CHIEF DEVELOPMENT ENGINEERING DIVISION: MK, 7/2/02

TITLE OF CHIEF DEVELOPMENT ENGINEERING DIVISION: CHIEF, DIVISION OF LAND AND DEVELOPMENT, 7/2/02

DATE: 7/2/02

APPROVED: DEPARTMENT OF PLANNING AND ZONING

SIGNATURE OF DIRECTOR: P. V. Milled, 7-2-02

TITLE OF DIRECTOR: DIRECTOR, DEPARTMENT OF PLANNING AND ZONING, 7-2-02

DATE: 7-2-02

SDP-5

MORRIS & RITCHIE ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

9090 JUNCTION DRIVE, SUITE 9 ANNAPOLIS JUNCTION, MARYLAND 20701 (410) 792-9782 or (301) 778-1690 FAX (410) 792-7395

GLENELG COUNTRY SCHOOL ASTRONOMY OBSERVATORY

SITE DEVELOPMENT PLAN GRADING & SEDIMENT CONTROL DETAILS

TAX MAP 22 GRID 22 PARCEL 146 LIBER 1296 FOLIO 245 FIFTH (5TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE BLOCK: DATE, REVISIONS, JOB NO., SCALE, DATE, DRAWN BY, DESIGN BY, REVIEW BY, SHEET.

OWNER: JOEL R. CHERINGTON, AGENT FOR THE GCS, B.TELEPHONE: 410-531-2229

DEVELOPER: JOEL R. CHERINGTON, AGENT FOR THE GCS, B.TELEPHONE: 410-234-1796

ADDRESS: 1332 SOUTH CHARLES STREET, BALTIMORE, STATE MD, ZIP: 21230

DATE: 7-2-02

SDP-02-126

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