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ROAD CONSTRUCTION PLANS

AUTUMN VIEW SECTION 4

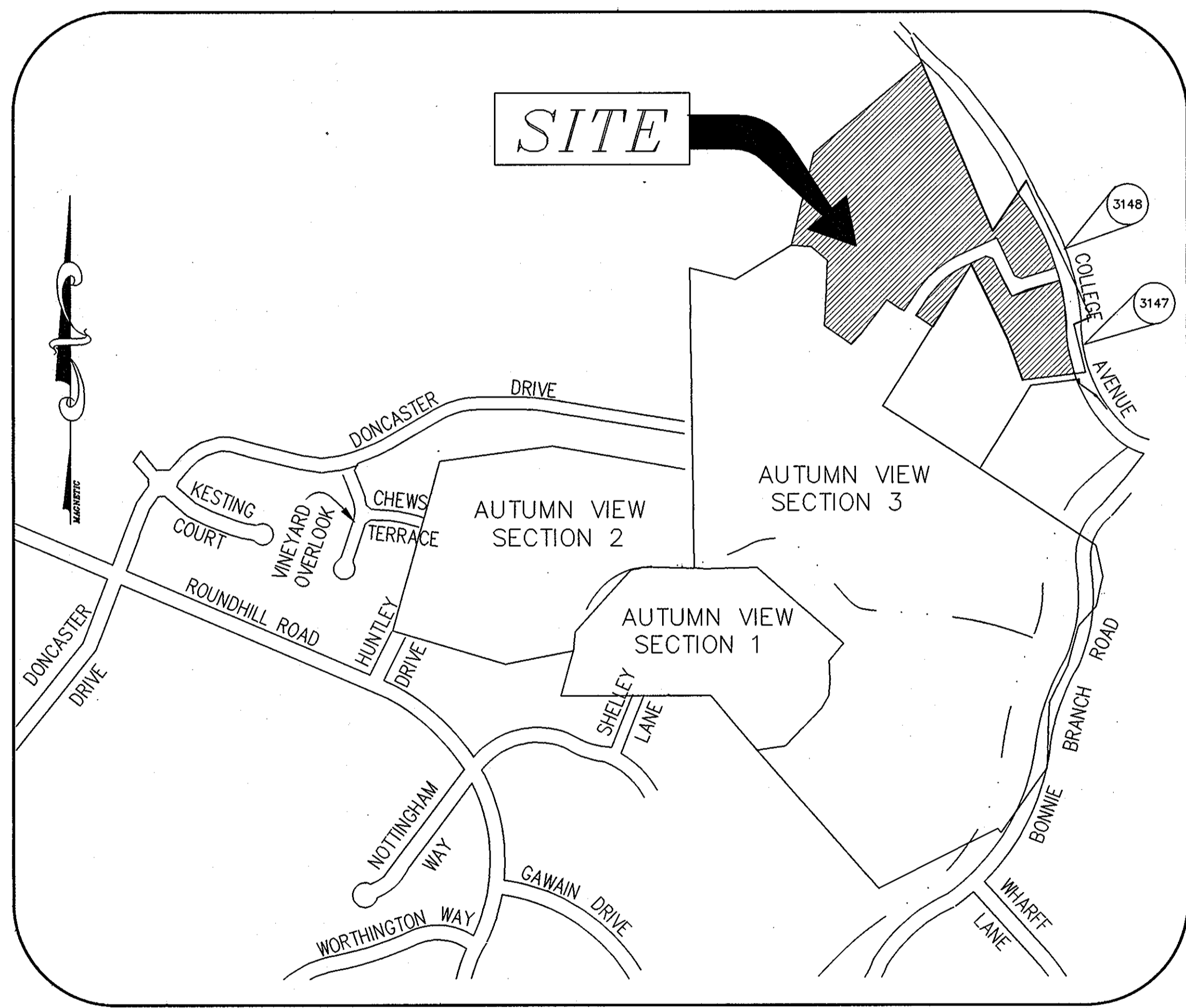
LOTS 152 THRU 210

SECOND ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

GENERAL NOTES

- SUBJECT PROPERTY ZONED R-ED AS PER THE 10/18/93 COMPREHENSIVE ZONING PLAN.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:
 - MISS UTILITY 1-800-257-7777
 - C&P TELEPHONE COMPANY (410) 725-9976
 - HOWARD COUNTY BUREAU OF UTILITIES (410) 313-4900
 - AT&T CABLE LOCATION DIVISION (410) 393-3533
 - BALTIMORE GAS & ELECTRIC (410) 685-0123
 - STATE HIGHWAY ADMINISTRATION (410) 531-5533
 - HOWARD COUNTY DEPT. OF PUBLIC WORKS/ CONSTRUCTION INSPECTION DIVISION (410) 313-1880
- PROJECT BACKGROUND:
 - LOCATION: TAX MAP: 25 & 31, P/O PARCEL: 75, AND A RESUBDIVISION OF AUTUMN VIEW SECTION 3, PARCEL A, PLAT NO. 13891-13904.
 - ZONING: R-ED
 - ELECTION DISTRICT: 2ND
 - SECTION: 4
 - DPZ REFERENCE: P-99-12 SECTION 4, APPROVED: JULY 7, 1999
 - S-98-15, SECTION 3, APPROVED: SEPTEMBER 23, 1998
 - P-98-10, SECTION 3, APPROVED: MARCH 19, 1998
 - F-99-45, SECTION 3, RECORDED 8/11/99.
- NO FLOODPLAIN EXISTS ON THIS SECTION. NO DRAINAGE AREA IN EXCESS OF 30 ACRES EXISTS ON THIS SITE.
- TOPOGRAPHIC INFORMATION IS BASED ON AERIAL TOPOGRAPHIC SURVEY BY WINGS AERIAL MAPPING CO., INC. FLOWN ON MARCH 25, 1995. VERTICAL DATUM IS NAD'83.
- COORDINATES BASED ON NAD'83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3147 AND 3148.
 - STA. 3147 N575598.0794, E1375801.7684, EL.=335.987
 - STA. 3148 N576015.4313, E1375770.4364, EL.=379.248
- BOUNDARY INFORMATION IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT APRIL 2000 BY MILDENBERG, BOENDER AND ASSOCIATES, INC.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER ARE PUBLIC. CONTRACT NUMBER IS 14-3902-D.
- STORMWATER MANAGEMENT IS PRIVATELY OWNED AND MAINTAINED IT IS PROVIDED BY THE METHOD OF EXTENDED DETENTION UNDER SECTION 3 (F-99-45). HOUSES NOT CONTROLLED BY THE SWM POND #2 TO HAVE DRY WELLS.
- EXISTING UTILITIES WERE LOCATED VIA AERIAL TOPOGRAPHY AND HOWARD COUNTY'S AS-BUILT DRAWINGS.
- WETLAND AND STREAM DELINEATION IS BY CHESAPEAKE ENVIRONMENTAL MANAGEMENT, INC.
- DEED REFERENCE: PARCEL 5 L. 735 F. 71; P/O PARCEL 4 L. 380 F. 426; P/O PARCEL 13 L. 422 F. 515; P/O PARCEL 504 L. 478 F. 290. AUTUMN VIEW, SEC. 3, PARCEL A, PLAT NO. 13891-13904. ADJOINED TRANSFER OF P/O PARCEL 4 IS BEING PREPARED TO CREATE NEW PARCEL 5 TO ENCOMPASS THE PROPOSED SECTION 3.
- NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON SITE.
- THIS PROJECT INCLUDES 4 ROADS (WHISPERING WILLOW, HIDDEN HOLLOW, PRANCING DEER AND HUXLEY DRIVE) AND LOT CONSTRUCTION ONLY. OTHER ROADWAYS AND STORM DRAIN SYSTEMS ARE INCLUDED IN AUTUMN VIEW SECTION 3 (F-99-45).
- SWM POND # 2 (F-99-45) WAS DESIGNED TO SERVE AS SEDIMENT BASIN FOR THIS SECTION.
- LOTS 196-200 MUST BE DEVELOPED WITH HOUSES THAT HAVE REAR ENTRY GARAGES AND THE FRONTS OF THE UNITS FACING COLLEGE AVENUE. AND LOT 201 MUST BE DEVELOPED WITH A HOUSE THAT HAS THE FRONT OR SIDE OF THE UNIT ORIENTED TOWARDS COLLEGE AVENUE.
- NO INTERSECTION OF MAJOR COLLECTOR ROAD OR HIGHER CLASSIFICATION WITH ANOTHER MAJOR COLLECTOR OR HIGHER CLASSIFICATION ROAD EXISTS WITHIN 1 MILE OF PROJECT ENTRANCE. NO APFO ROAD TEST IS REQUIRED.
- ALL EXISTING STRUCTURES, RUINS AND EXISTING FENCING TO BE REMOVED.
- PROJECT IS SUBJECT TO WP-99-50 TO PERMIT REACTIVATION OF SP-98-12, APPROVED DECEMBER 10, 1998.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL, HAVE BEEN SATISFIED UNDER AUTUMN VIEW SECTION 3 (F-99-45), BY THE PLACEMENT OF 41.22 ACRES IN A FOREST CONSERVATION EASEMENT - 33.72 AC OF WHICH IS THE REQUIRED BREAK EVEN POINT FOR THE ACREAGE OF AUTUMN VIEW SECTION 3 AND 4 COMBINED. THE REMAINING 7.50 AC IS TO BE CREDITED TOWARD AUTUMN VIEW SECTION 5.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENT OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - A) WIDTH - 12 FEET (14 FEET IF SERVING MORE THAN ONE RESIDENCE)
 - B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING
 - C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 18% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS
 - D) STRUCTURES (CULVERTS/BRIDGES) - MUST SUPPORT 25 GROSS TON LOADING (H2S LOADING)
 - E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
 - F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
 - G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE
- DRIVEWAYS TO BE CONSTRUCTED IN ACCORDANCE WITH H.C.STD (R-6.01)
- ALL SIDEWALK RAMPS TO BE CONSTRUCTED IN ACCORDANCE WITH H.C.STD (R-4.01)
- NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, WETLANDS BUFFER, FLOODPLAIN, FOREST CONSERVATION EASEMENTS, OR STREAM BUFFER AREAS EXCEPT AS SHOWN ON APPROVED PLANS.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL, AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY LINE ONLY.
- WATER AND SEWER FOR THESE LOTS WILL BE GRANTED UNDER PROVISIONS OF SECTION 18.122.B OF THE HOWARD COUNTY CODE.
- DRY WELLS TO BE PROVIDED FOR LOTS 158 TO 174, 182 TO 190, 195 AND 196.
- THE STREET LIGHT LOCATIONS AND TYPES OF LIGHTS ARE AS FOLLOWS:



VICINITY MAP
SCALE: 1"=500'

AREA TABULATION:

SECTION 3

GROSS AREA:	87.39 AC ±
AREA OF STEEP SLOPES:	13.20 AC ±
AREA OF FLOODPLAIN:	6.19 AC ±
NET AREA:	68.00 AC ±
AREA OF EXISTING BUILDABLE LOTS:	16.46 AC ±
AREA OF EXISTING ROAD (R/W):	6.11 AC ±
REQUIRED OPEN SPACE (25% OF GROSS AREA):	21.85 AC ±
PROVIDED OPEN SPACE:	60.50 AC ±
NON CREDITED OPEN SPACE:	0.06 AC ±
NET OPEN SPACE:	60.44 AC ±
REQUIRED RECREATIONAL OPEN SPACE (250 S.F. PER LOT):	18,000 S.F.
PROVIDED RECREATIONAL OPEN SPACE:	18,000 S.F.
NUMBER OF BUILDABLE LOTS ALLOWED (NET AREA x 2):	136
NUMBER OF EXISTING BUILDABLE LOTS (SFD):	72
NUMBER OF PROPOSED OPEN SPACE LOTS:	7
NUMBER OF BULK PARCELS:	1
TOTAL NUMBER OF PROPOSED LOTS:	77

SECTION 4

GROSS AREA:	23.40 AC ±
AREA OF STEEP SLOPES:	4.32 AC ±
AREA OF FLOODPLAIN:	19.08 AC ±
NET AREA:	2.05 AC ±
AREA OF PROPOSED BUILDABLE LOTS:	0.00 AC ±
AREA OF PROPOSED ROAD (R/W):	17.03 AC ±
REQUIRED OPEN SPACE (25% OF GROSS AREA):	2.12 AC ±
PROVIDED OPEN SPACE:	6.89 AC ±
NON CREDITED OPEN SPACE:	0.08 AC ±
NET OPEN SPACE:	6.81 AC ±
REQUIRED RECREATIONAL OPEN SPACE (250 S.F. PER LOT):	14,000 S.F.
PROVIDED RECREATIONAL OPEN SPACE:	14,250 S.F.
NUMBER OF BUILDABLE LOTS ALLOWED (NET AREA x 2):	34
NUMBER OF PROPOSED BUILDABLE LOTS (SFD):	56
NUMBER OF PROPOSED OPEN SPACE LOTS:	3
TOTAL NUMBER OF PROPOSED LOTS:	59

SECTION 3 & 4

GROSS AREA:	106.47 AC ±
AREA OF STEEP SLOPES:	15.25 AC ±
AREA OF FLOODPLAIN:	6.19 AC ±
NET AREA:	85.03 AC ±
AREA OF PROPOSED BUILDABLE LOTS:	30.88 AC ±
AREA OF PROPOSED ROAD (R/W):	8.23 AC ±
REQUIRED OPEN SPACE (25% OF GROSS AREA):	26.62 AC ±
PROVIDED OPEN SPACE:	67.36 AC ±
NON CREDITED OPEN SPACE:	0.14 AC ±
NET OPEN SPACE:	67.22 AC ±
REQUIRED RECREATIONAL OPEN SPACE (250 S.F. PER LOT):	32,000 S.F.
PROVIDED RECREATIONAL OPEN SPACE:	32,250 S.F.
NUMBER OF BUILDABLE LOTS ALLOWED (NET AREA x 2):	170
NUMBER OF PROPOSED BUILDABLE LOTS:	128
NUMBER OF PROPOSED OPEN SPACE LOTS:	7
TOTAL NUMBER OF PROPOSED LOTS:	135
NUMBER OF BULK PARCELS:	1

* (DENSITY OF BULK PARCEL "A" ACCOUNTED FOR IN SECTION 3, TABULATION FOR SECTION 4 EXCLUDING BULK PARCEL "A")

* EXCESS OPEN SPACE IS BEING DEDICATED AS PART OF THIS SECTION AS REQUESTED BY HOWARD COUNTY. EXCESS OPEN SPACE AND ALLOWABLE LOTS ARE TO BE CREDITED TO FUTURE SECTIONS OF THE OVERALL AUTUMN VIEW DEVELOPMENT WITHIN THE R-ED DISTRICT.

STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
PRANCING DEER DRIVE	2+02	20' L	100 watt HPS VAPOR COLONIAL POST-TOP MOUNTED ON A 14' FIBERGLASS POLE
PRANCING DEER DRIVE	3+85	13' R	100 watt HPS VAPOR COLONIAL POST-TOP MOUNTED ON A 14' FIBERGLASS POLE
PRANCING DEER DRIVE	L.P. 0+92	3'	100 watt HPS VAPOR COLONIAL POST-TOP MOUNTED ON A 14' FIBERGLASS POLE
HIDDEN HOLLOW DRIVE	1+83	13' R	100 watt HPS VAPOR COLONIAL POST-TOP MOUNTED ON A 14' FIBERGLASS POLE
HIDDEN HOLLOW DRIVE	L.P. 1+75	3'	100 watt HPS VAPOR COLONIAL POST-TOP MOUNTED ON A 14' FIBERGLASS POLE

- STREET LIGHTS WILL BE REQUIRED IN THIS 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 (1993) 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 SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.



ASBUILT
11/17/05
FISHBE COLLINS
ANNOVARK INC.

OWNER/DEVELOPER

BONNIE BRANCH CORPORATION
P.O. BOX 396
ELLICOTT CITY, MD 21043

ASBUILT 11-17-05

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.

DATE: 6/12/01

SIGNATURE OF DEVELOPER: Donald R. Reuber

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 NOTICED 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.

DATE: 6/13/01

SIGNATURE OF ENGINEER: Donald R. Reuber

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

DATE: 6/25/01

SIGNATURE: Jim Myrnes

THE DEVELOPMENT PLAN IS APPROVED FOR SOIL CONSERVATION DISTRICT.

DATE: 6/25/01

SIGNATURE: John P. Reuber

APPROVED: DEPARTMENT OF PUBLIC WORKS

DATE: 7/30/01

SIGNATURE: Howard S. Hill

APPROVED: DEPARTMENT OF PLANNING AND ZONING

DATE: 8/6/01

SIGNATURE: Cinda Horvath

APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION (M1)

DATE: 8/6/01

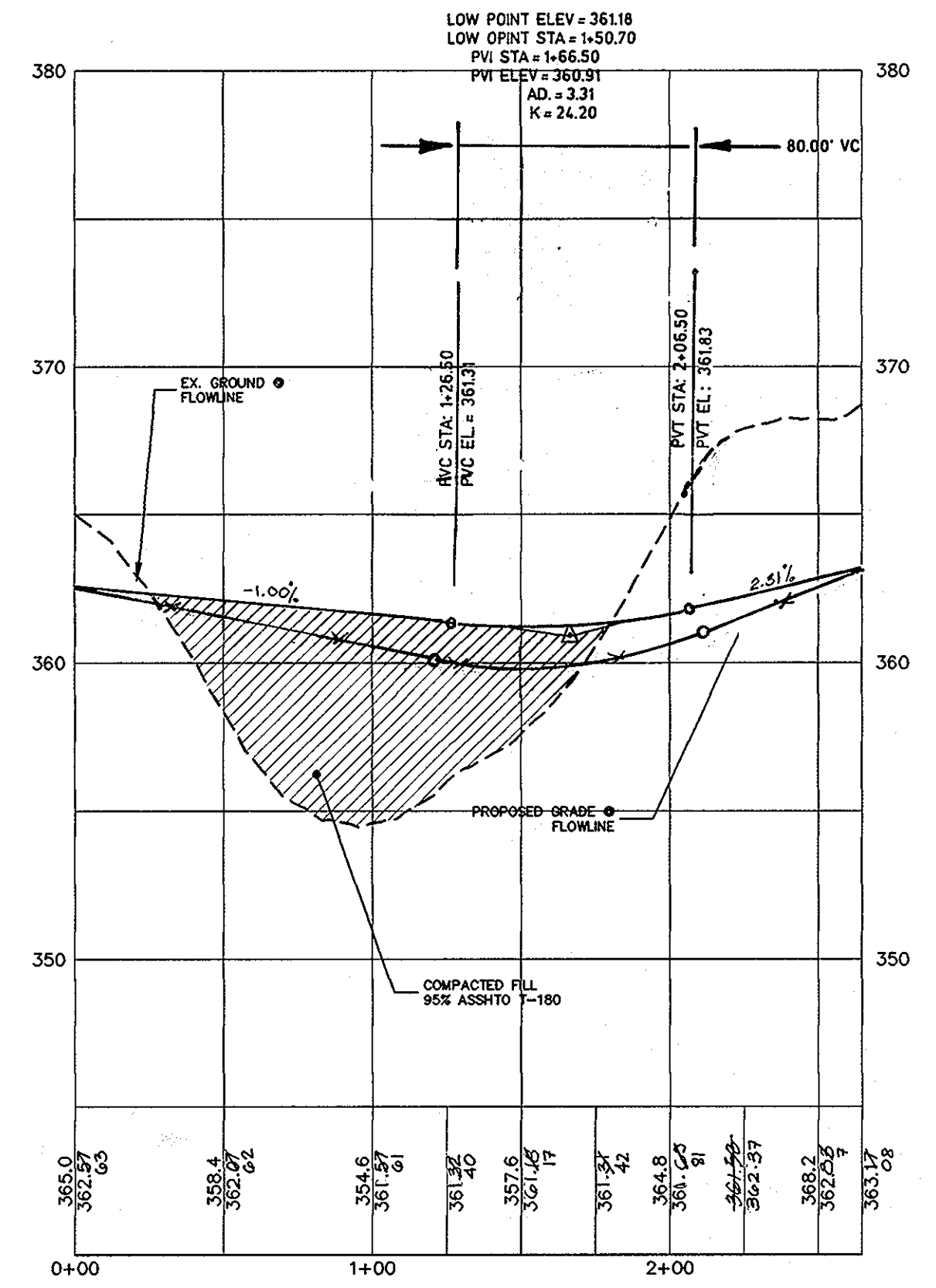
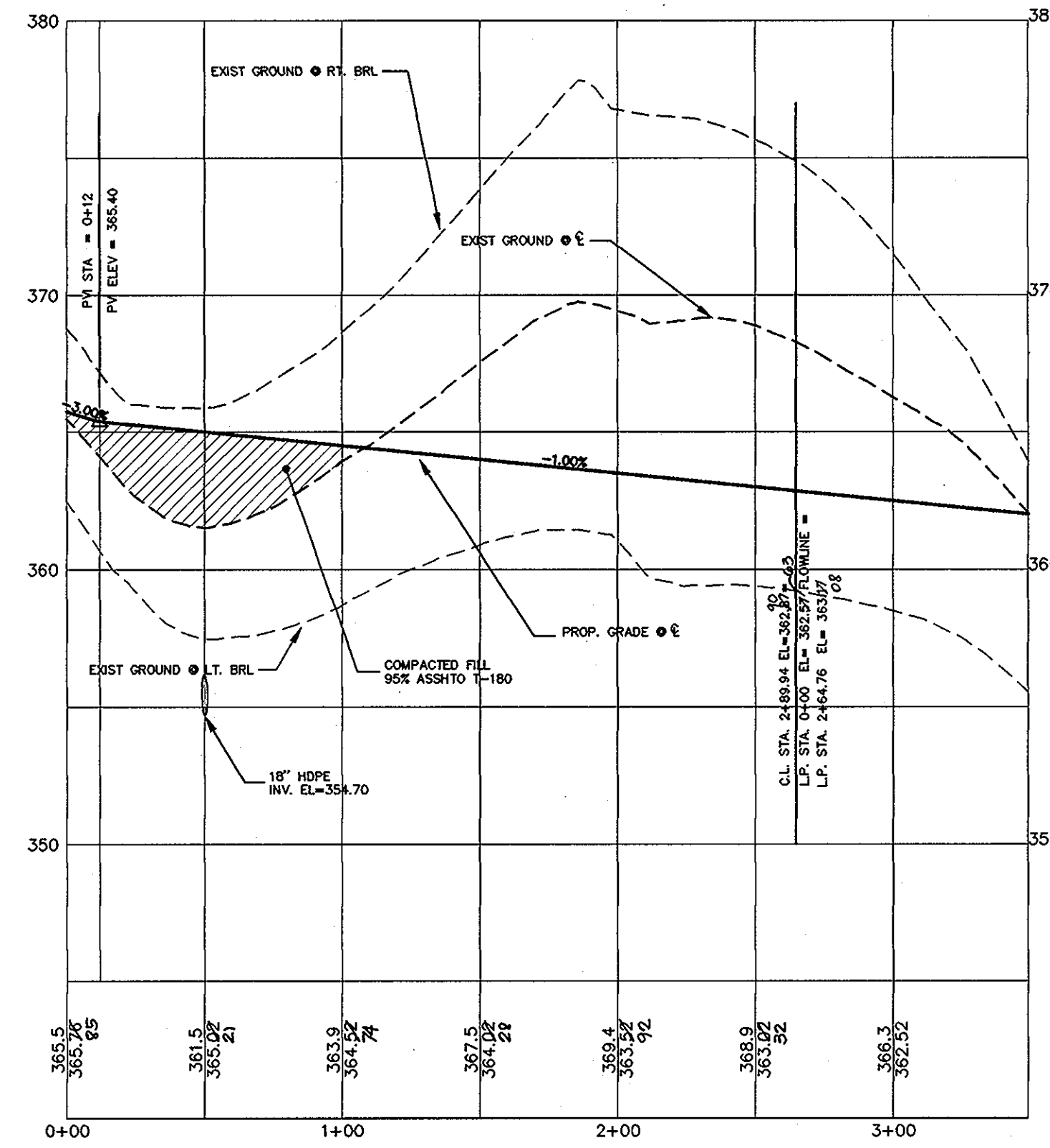
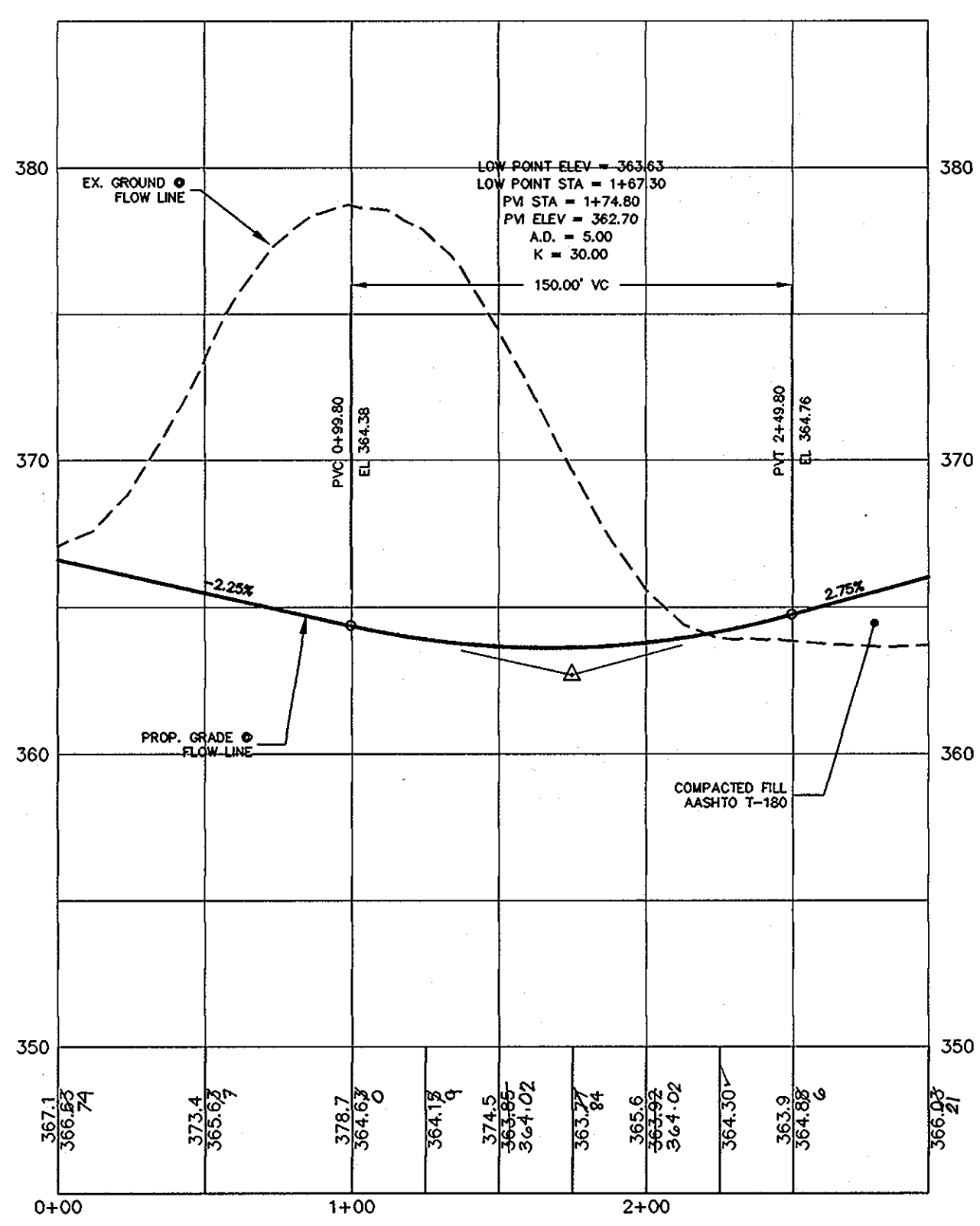
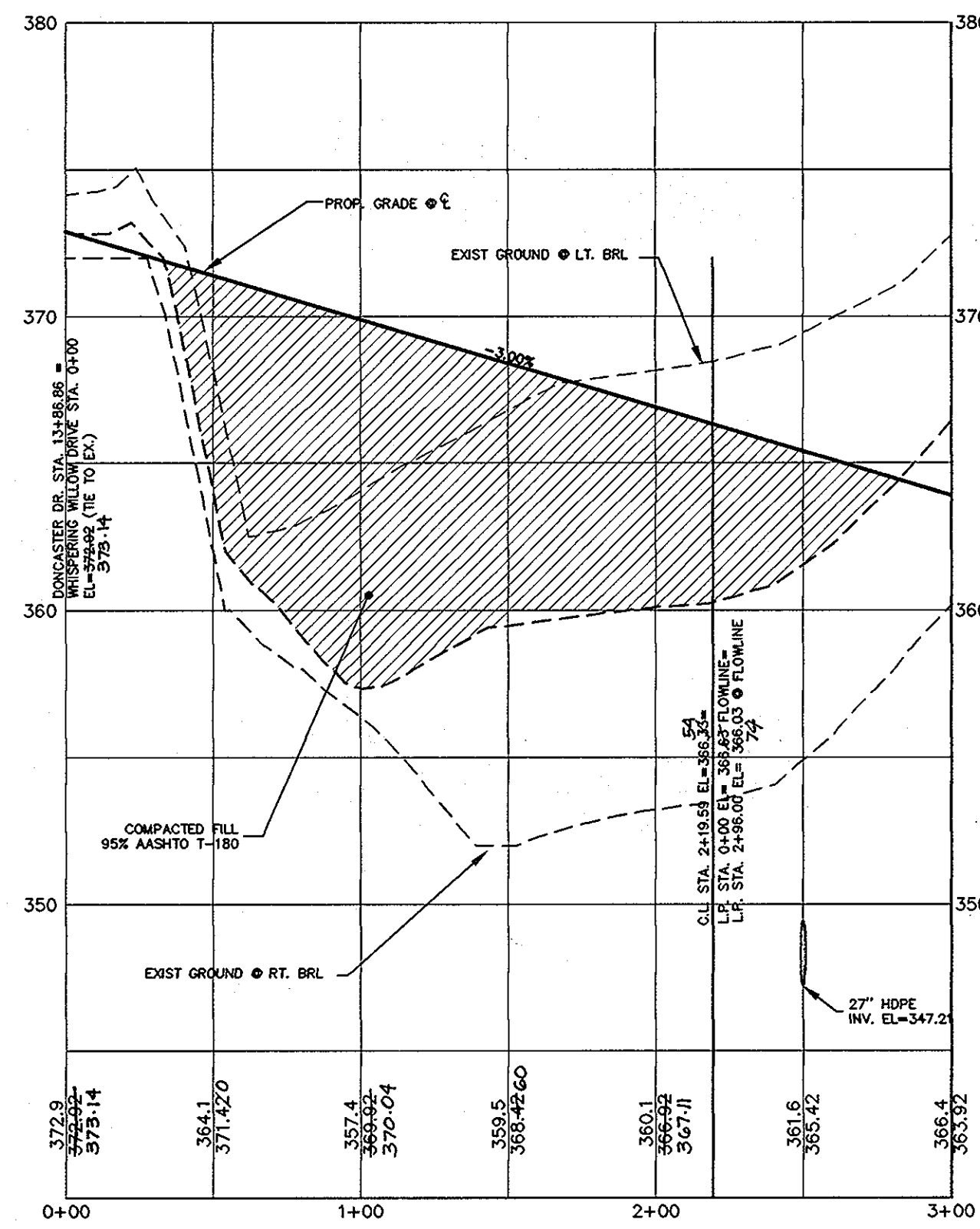
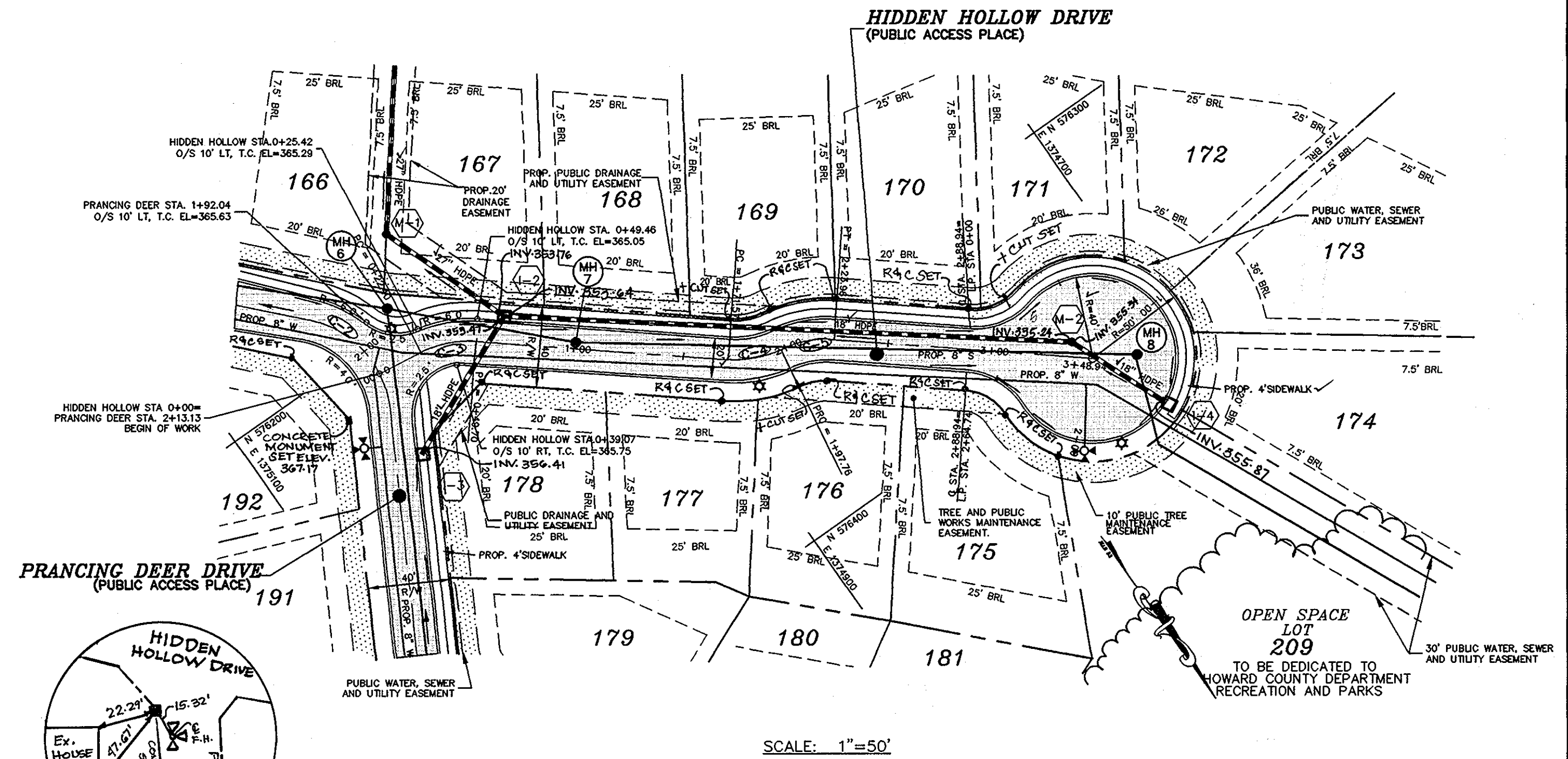
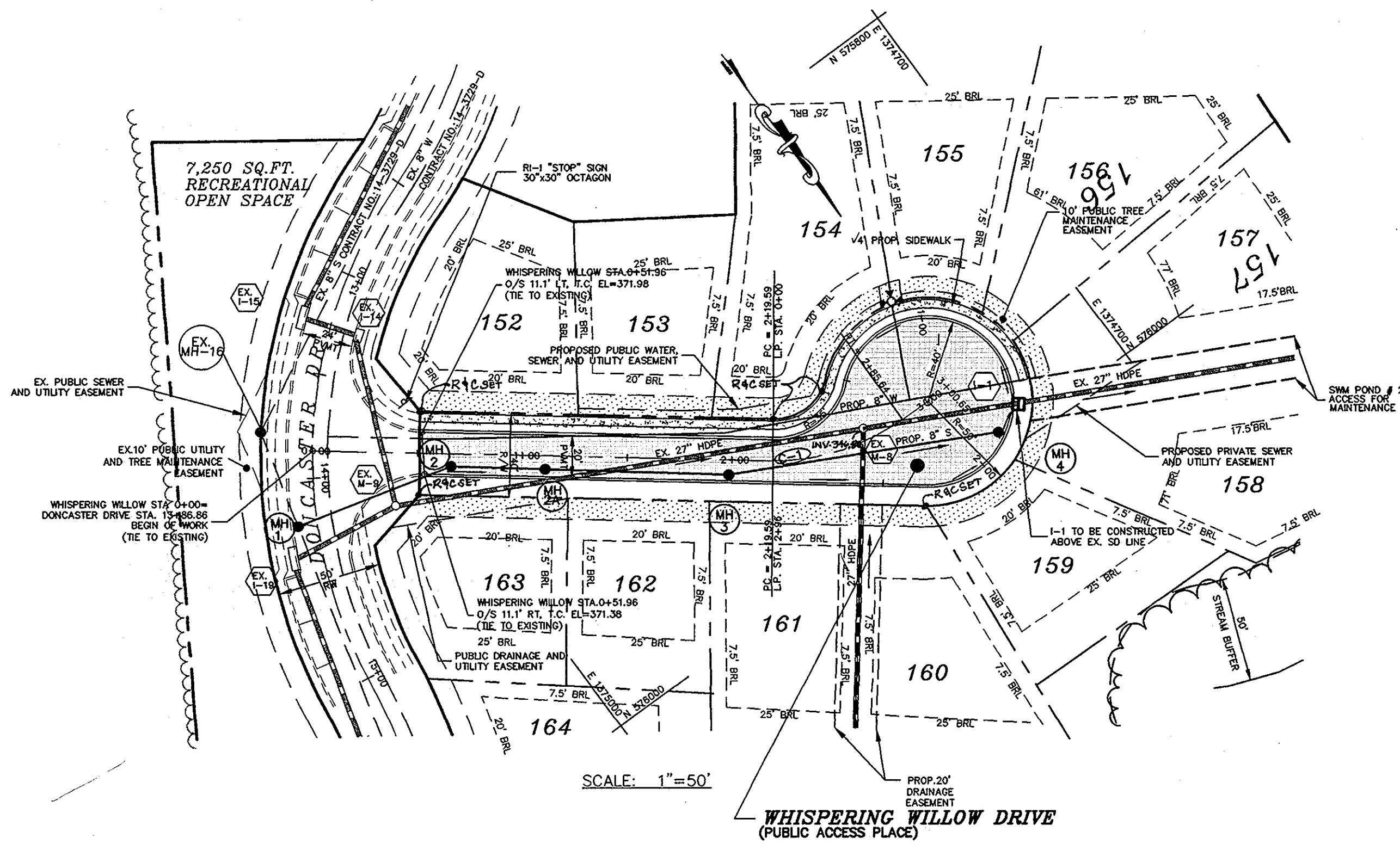
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Project:	00-021	date:	JUNE 2001
Illustration:	MMP/SA	engineering:	
scale:	MMP/SA	approval:	
AS SHOWN:	IBM		

description:	revisions:
no.:	date:

AUTUMN VIEW, SEC. 4, LOTS 152-210
TAX MAP 25 & 31, P/O PARCEL 75
AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COVER SHEET

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5012 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland 21042
(410) 987-0286 Fax: (301) 621-5521 Wash. (410) 987-0288 Fax.



WHISPERING WILLOW DRIVE PROFILE
 SCALE: HOR: 1"=50'
 VER: 1"=5'
 CLASSIFICATION: ACCESS PLACE (PUBLIC)
 DESIGN SPEED: 15 MPH

WHISPERING WILLOW DRIVE CUL-DE-SAC LINEAR PROFILE
 SCALE: HOR: 1"=50'
 VER: 1"=5'

HIDDEN HOLLOW DRIVE PROFILE
 SCALE: HOR: 1"=50'
 VER: 1"=5'
 CLASSIFICATION: ACCESS PLACE (PUBLIC)
 DESIGN SPEED: 15 MPH

HIDDEN HOLLOW DRIVE CUL-DE-SAC LINEAR PROFILE
 SCALE: HOR: 1"=50'
 VER: 1"=5'

CURVE TABLE

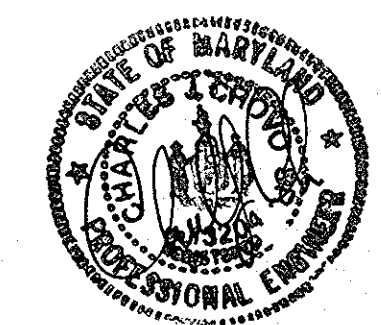
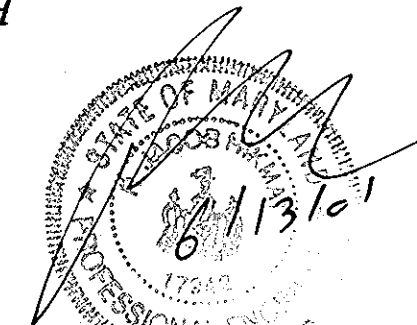
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C-2	62.99	50.00	36.45	58.91	S07°05'01"E	72°10'58"
C-3	52.38	50.00	28.88	50.01	N01°00'08"W	60°01'06"
C-4	27.30	50.00	14.00	26.96	S66°14'49"E	31°16'49"
C-5	26.19	50.00	13.40	25.89	N65°36'03"W	30°00'44"

* NOT A SPEED CALMING DEVICE

APPROVED: DEPARTMENT OF PUBLIC WORKS
Howard S. Hill 7/30/01
 CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cindy Krantz 8/7/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Bill Deacon 8/16/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION (M&D) DATE

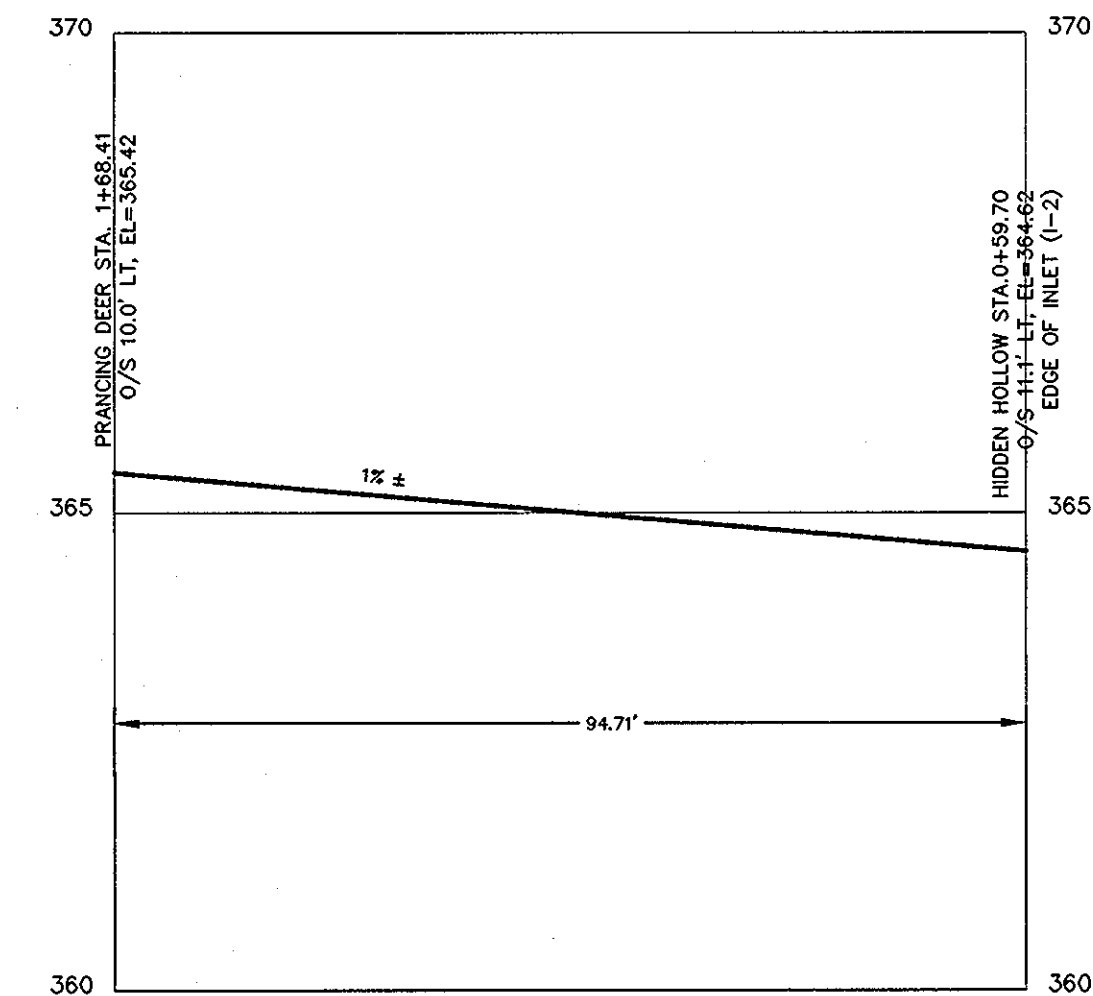
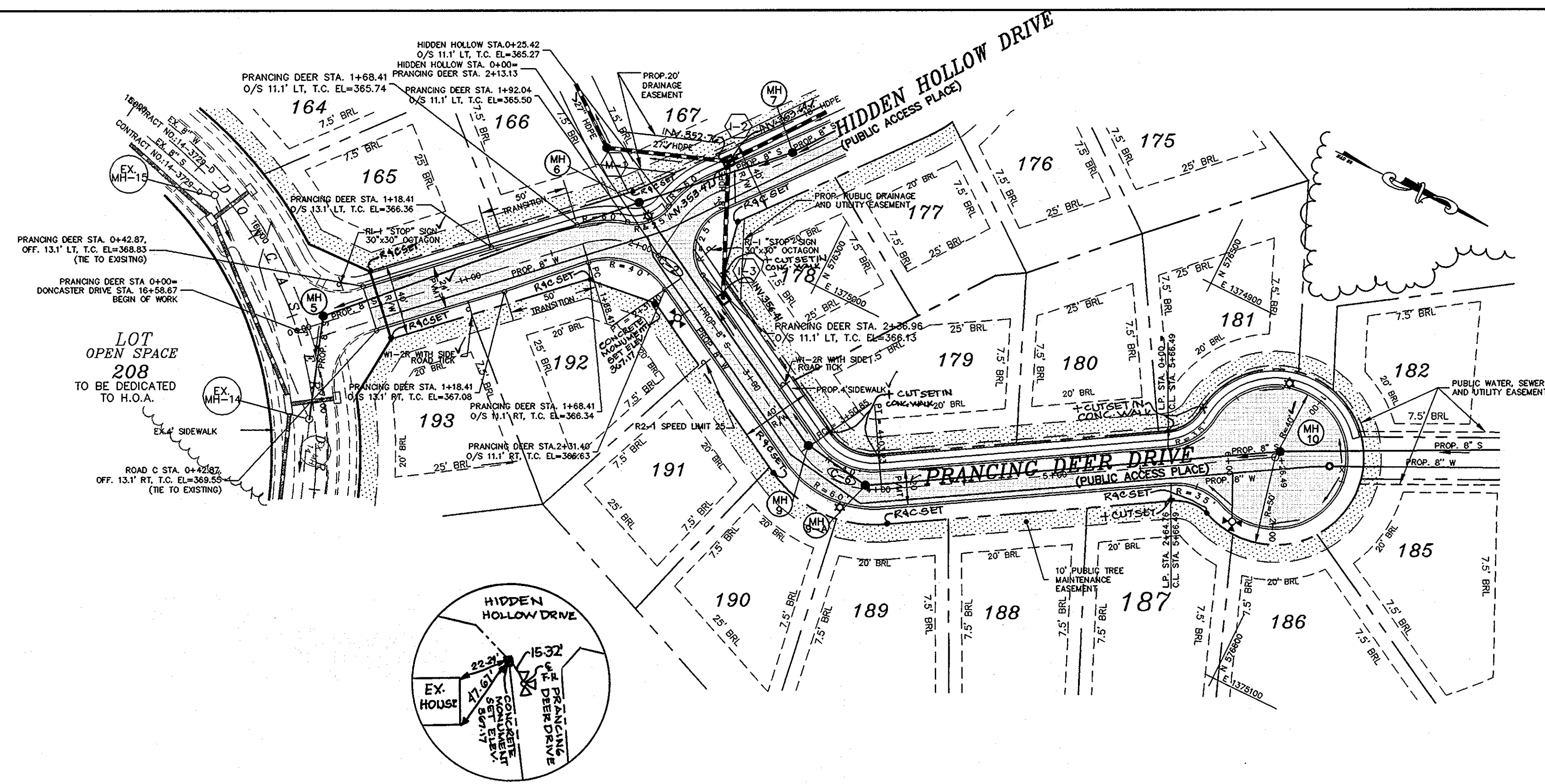


Project	date	description
00-021	JUNE 2001	engineering
MMP/SA	MMP/SA	approval
AS SHOWN	AS SHOWN	approval

1	REVISE LINEAR PROFILE (HIDDEN HOLLOW)	5/1/2002
	description	date
	revisions	

AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
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 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 ROAD PLANS AND PROFILES

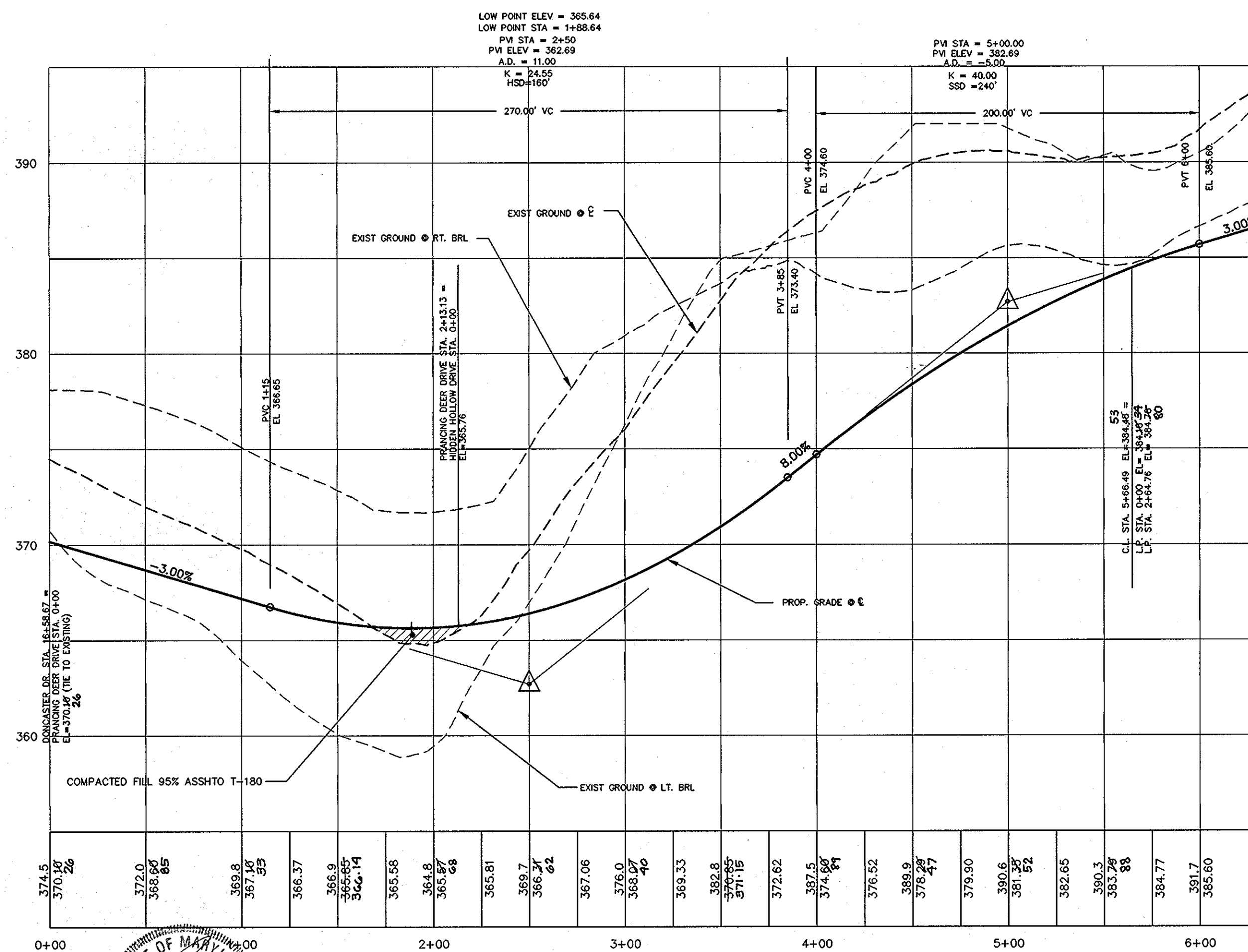
MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Balt. (301) 821-5521 Wash. (410) 997-0298 Fax



**PRANCING DEER DRIVE TO HIDDEN HOLLOW DRIVE
PROFILE @ FLOW LINE**

SCALE: HOR: 1"=20'
VER: 1"=2'

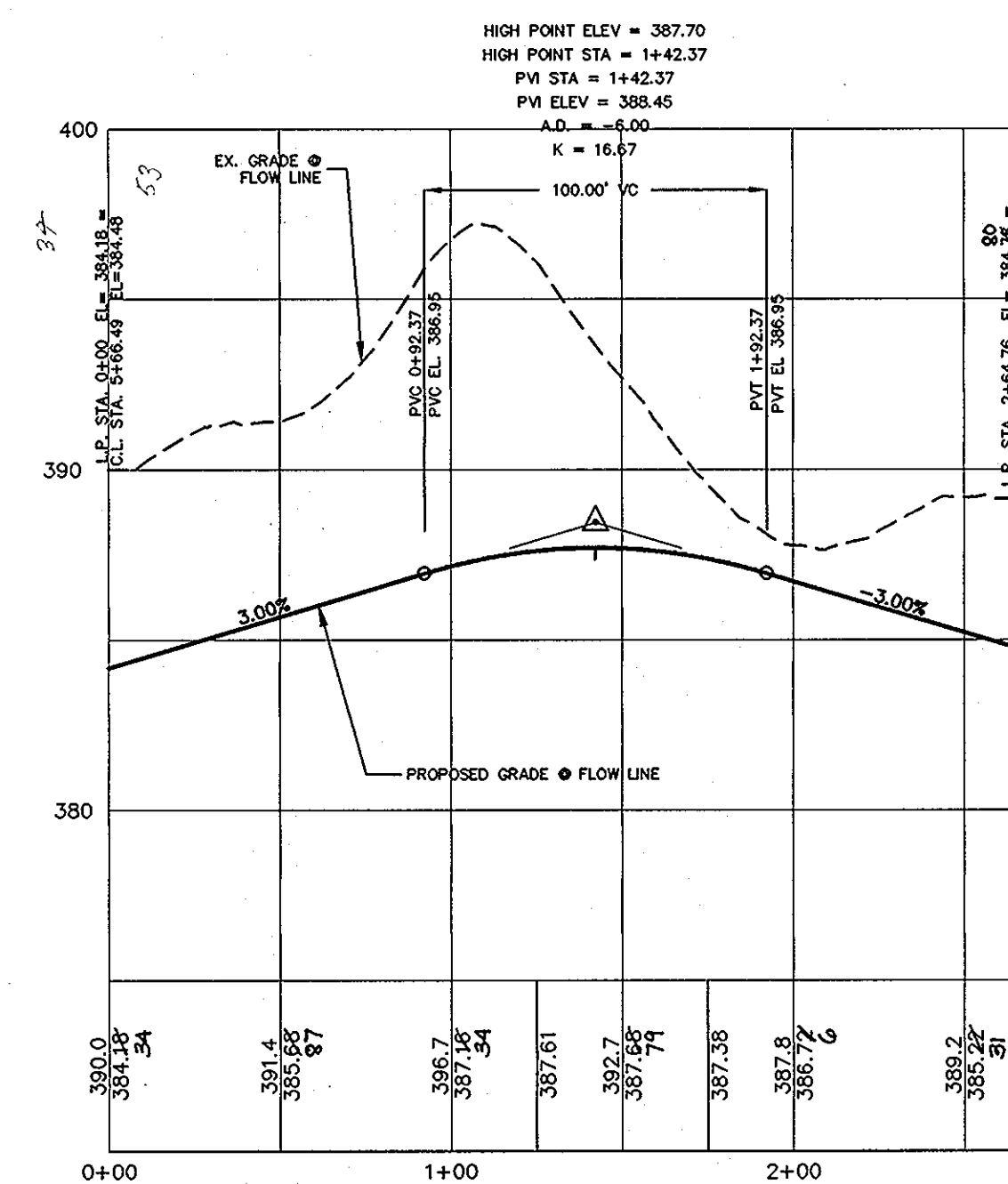
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C-2	62.99	50.00	36.45	58.91	S07°05'01"E	72°10'58"
C-6	26.19	50.00	13.40	25.89	S65°35'58"E	30°00'52"



PRANCING DEER DRIVE PROFILE

SCALE: HOR: 1"=50'
VER: 1"=5'

CLASSIFICATION: ACCESS PLACE (PUBLIC)
DESIGN SPEED: 15 MPH
(VERTICAL CURVE DESIGN FOR 25 MPH)



**PRANCING DEER DRIVE
CUL-DE-SAC LINEAR PROFILE**

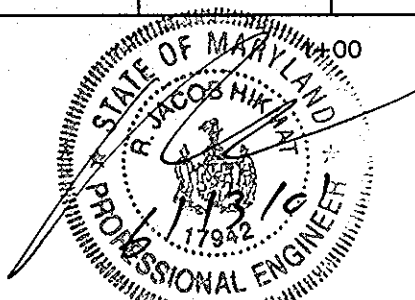
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VER: 1"=5'

E: 100-021.DWG (FINAL) PROF-FINAL.DWG

APPROVED: DEPARTMENT OF PUBLIC WORKS
Handwritten signature 7/30/01
 CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Handwritten signature 8/7/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Handwritten signature 8/10/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION (M&J) DATE



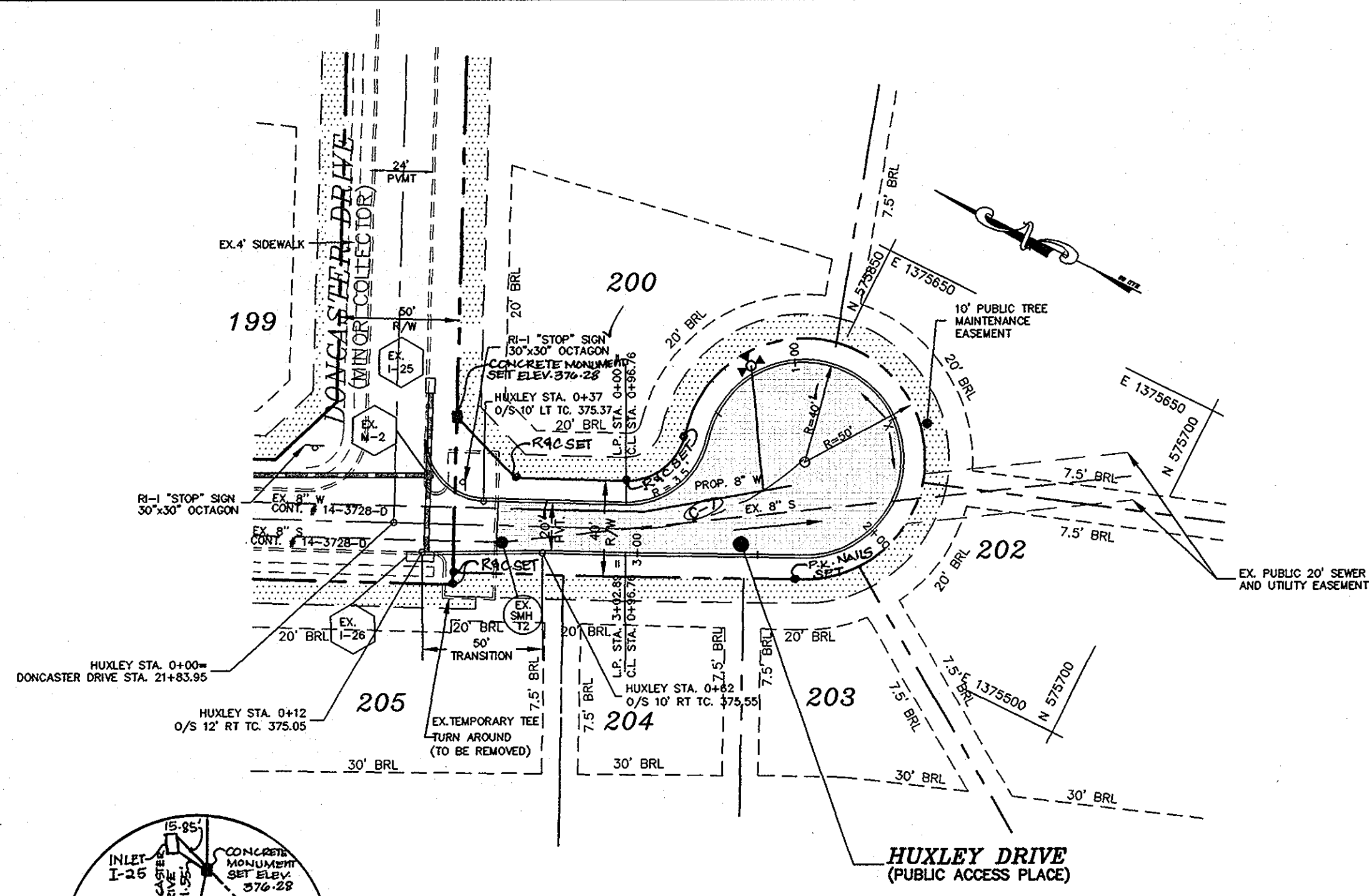
ASBUILT
11/17/05
P&H FOR COLLING
AND CONTRACTORS

Project	00-021	Date	JUNE 2001
Illustration	MMP/SA/SAA	Engineering	MMP/SA/SAA
Scale	AS SHOWN	Approval	IBM

No.		Date	
Revisions			
Description			

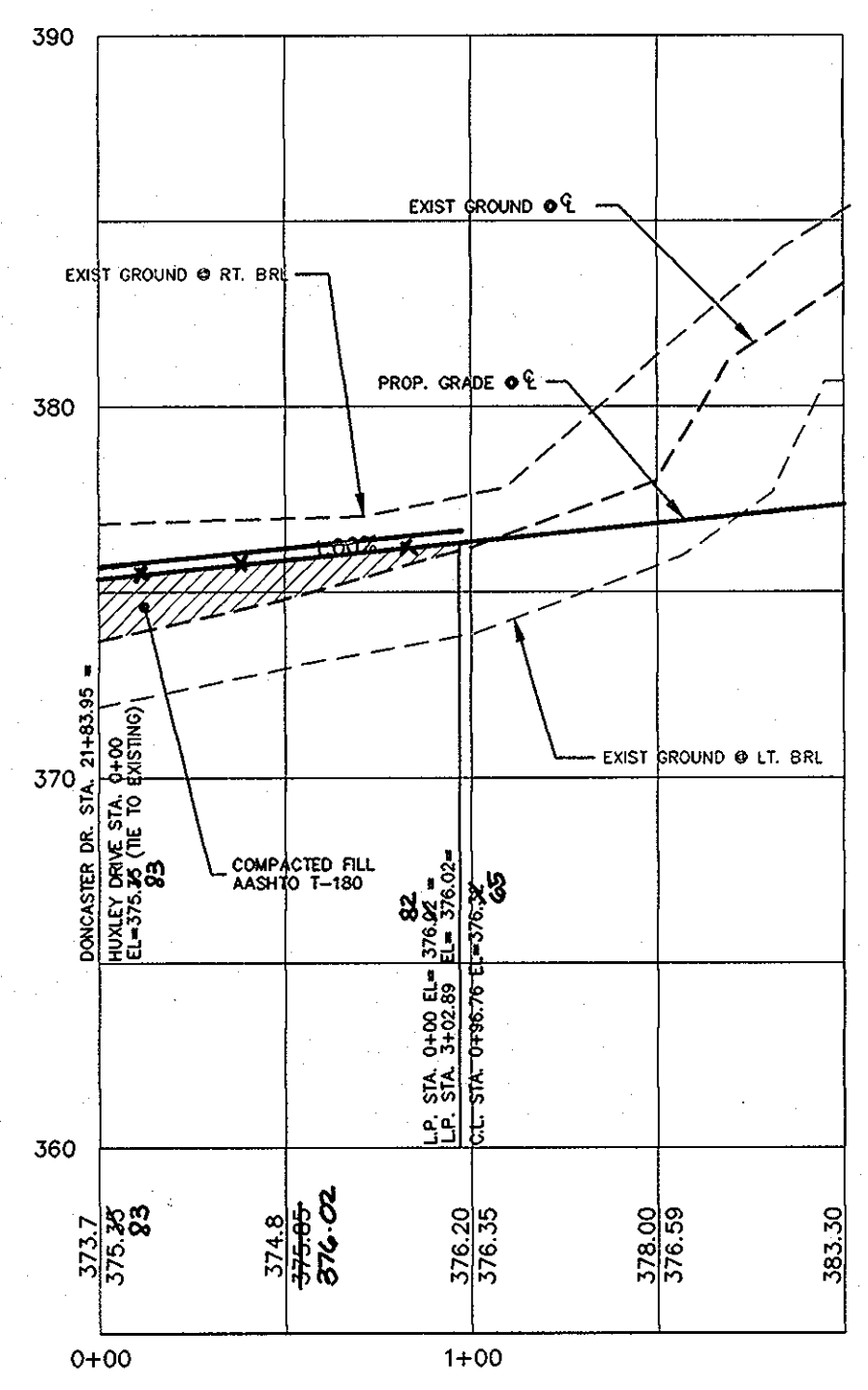
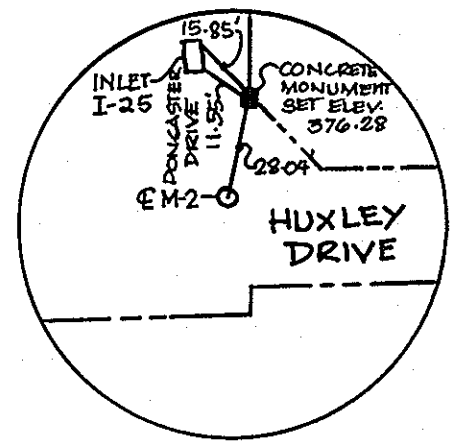
AUTUMN VIEW, SEC. 4, LOTS 152-210
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 ROAD PLANS AND PROFILES

**MILDENBERG,
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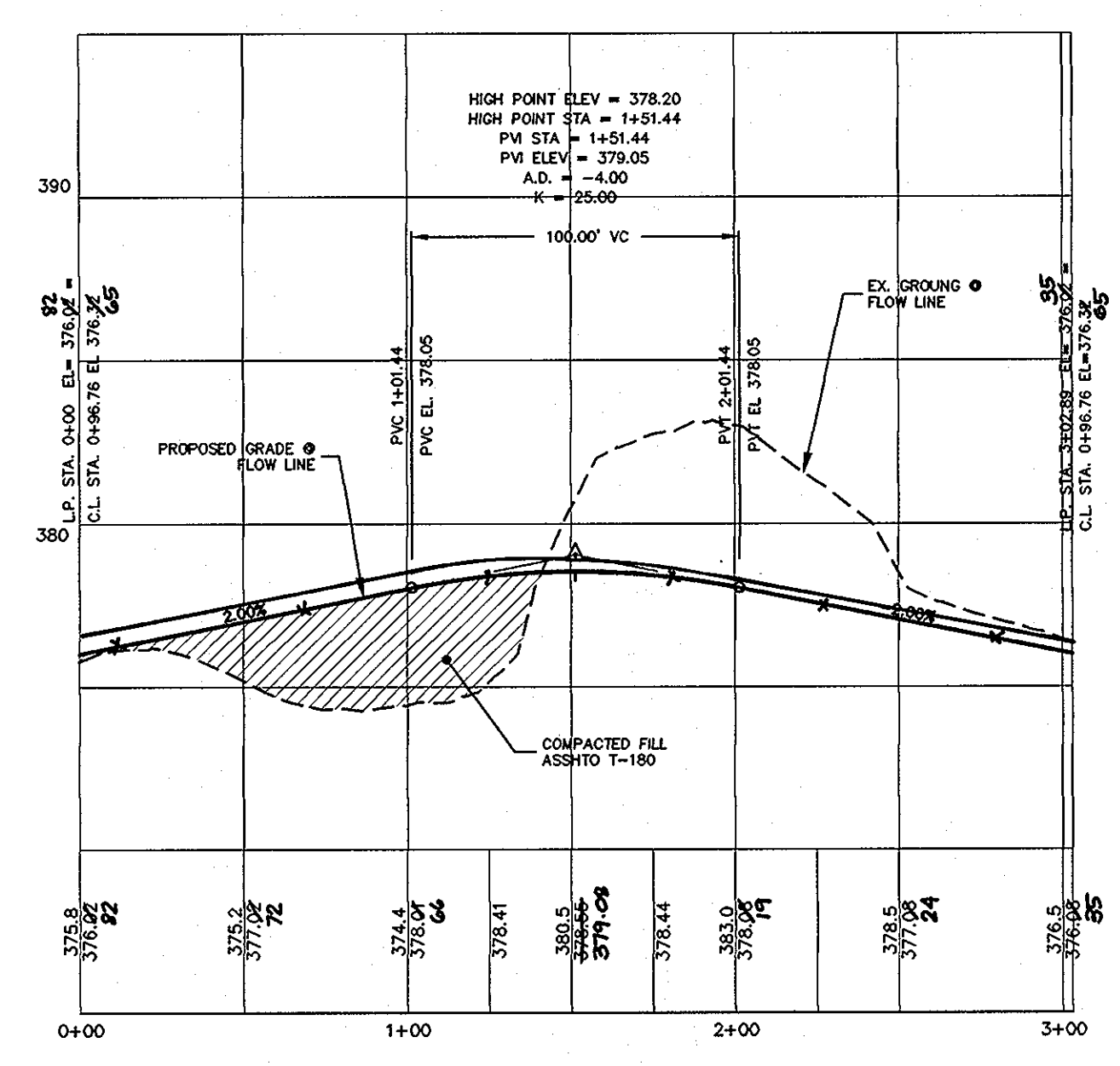


CURVE TABLE						
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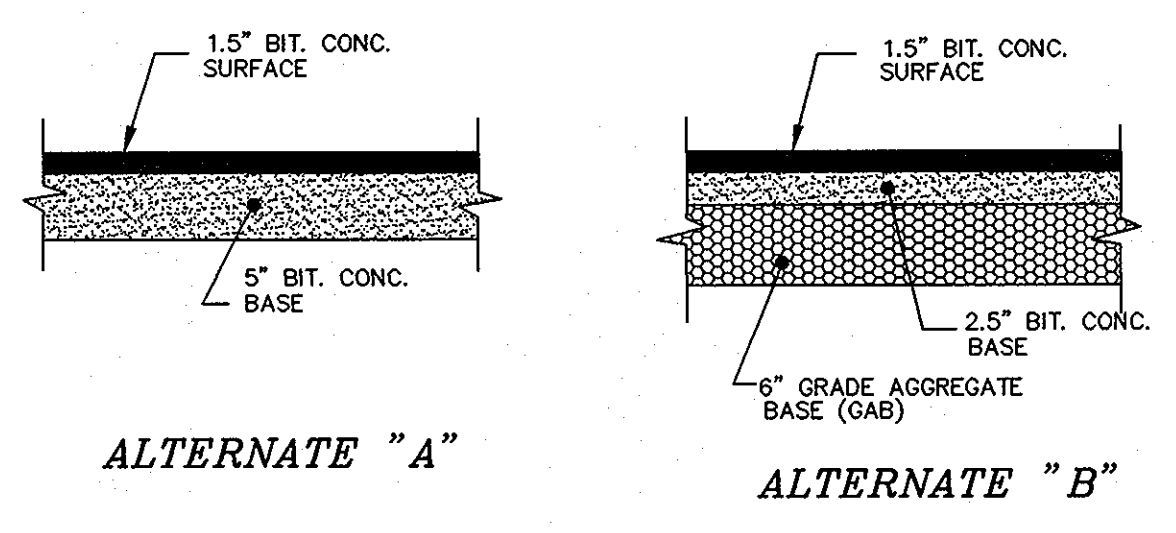
* NOT A SPEED CALMING DEVICE



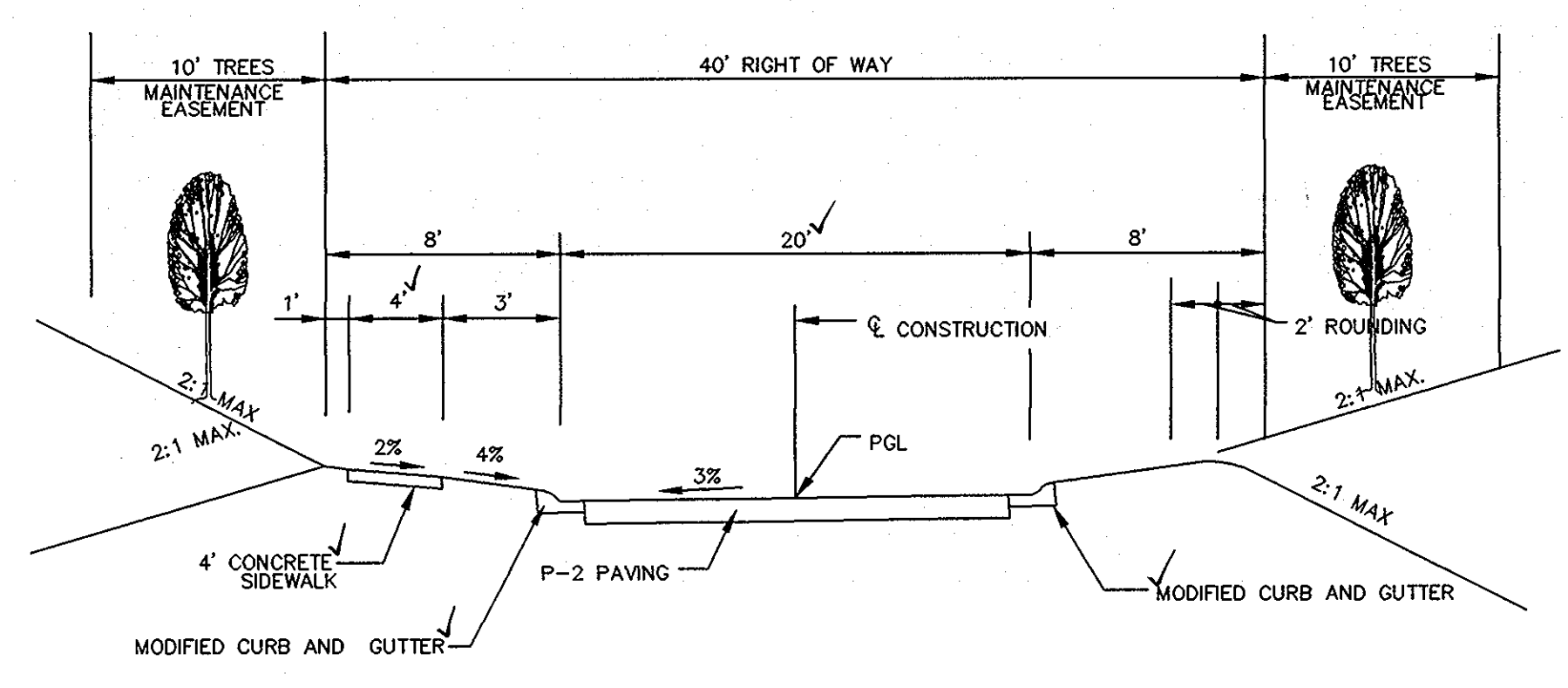
HUXLEY DRIVE PROFILE
SCALE: HOR: 1"=50'
VER: 1"=5'
CLASSIFICATION: ACCESS PLACE (PUBLIC)
DESIGN SPEED: 15 MPH



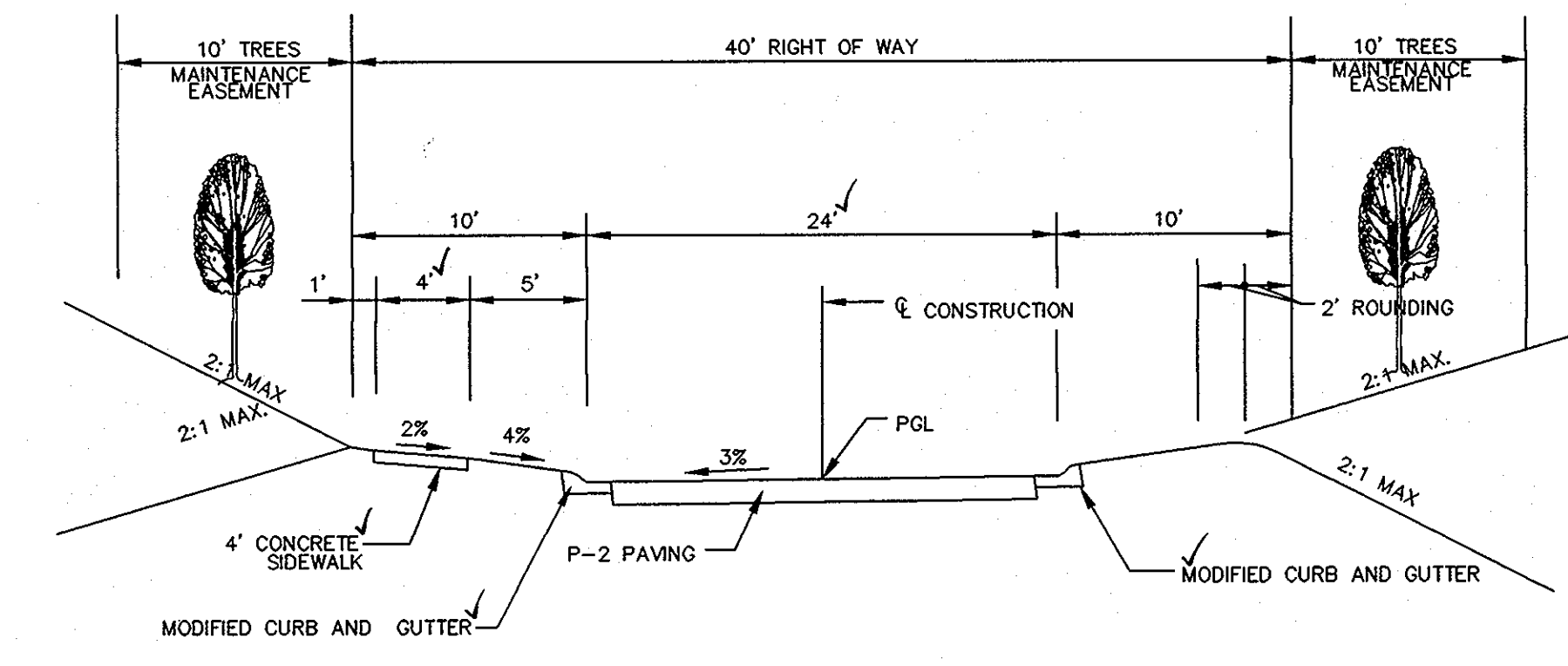
HUXLEY DRIVE CUL-DE-SAC LINEAR PROFILE
SCALE: HOR: 1"=50'
VER: 1"=5'



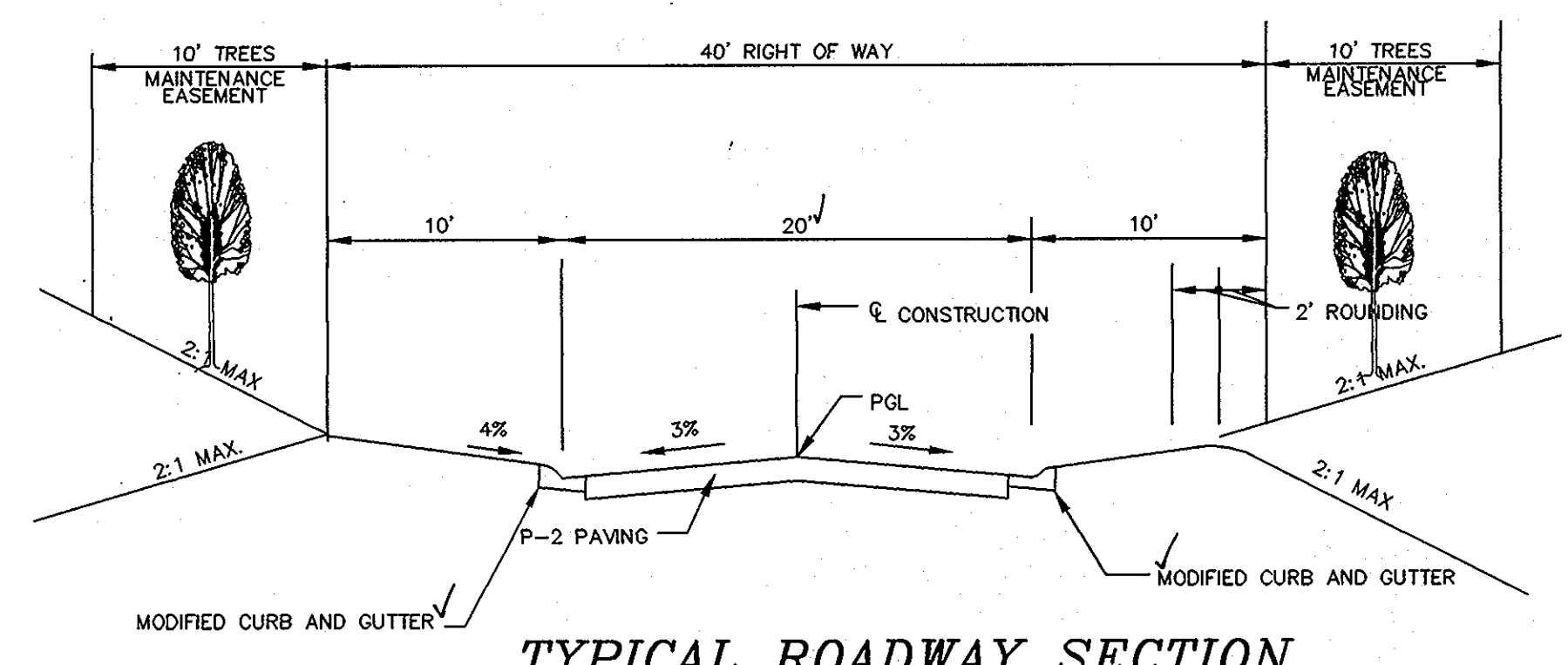
PAVING SECTION - P2
N.T.S.



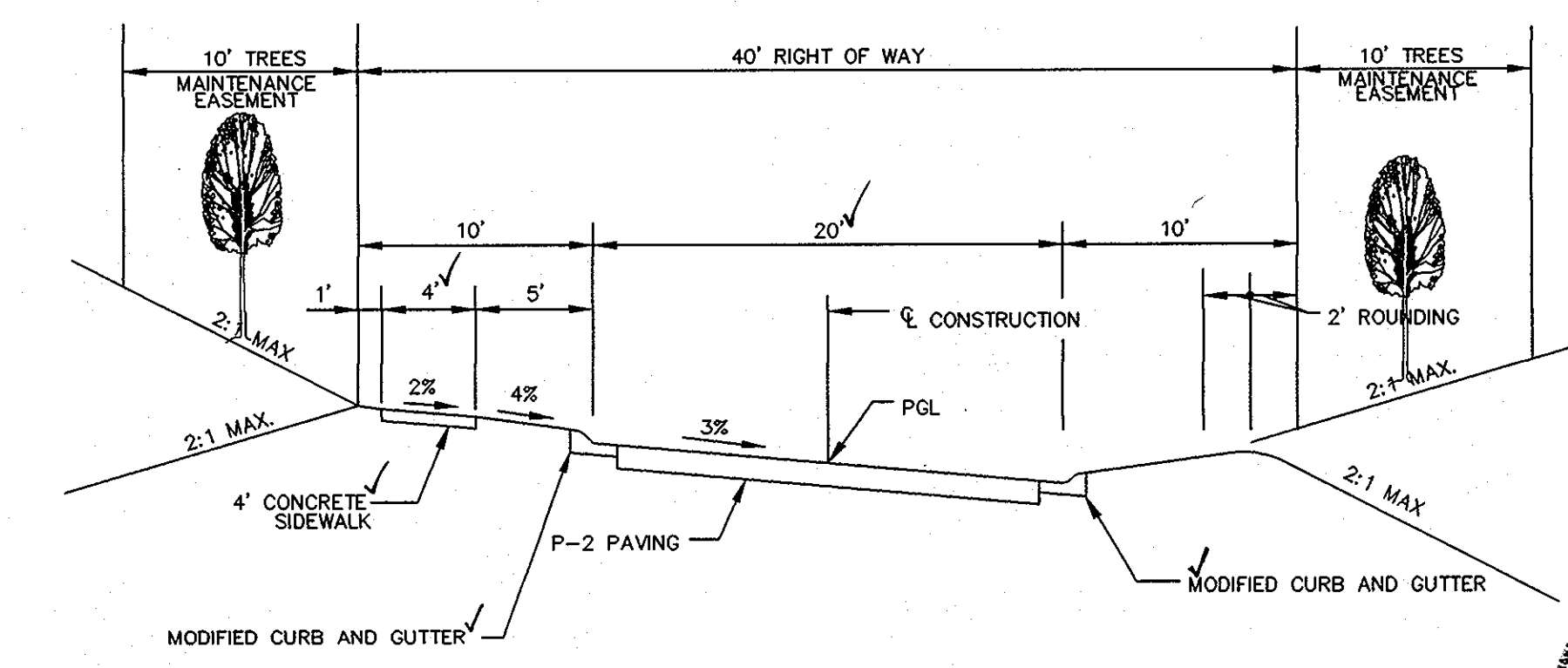
TYPICAL ROADWAY SECTION
N.T.S.
CLASSIFICATION: ACCESS PLACE (PUBLIC)
DESIGN SPEED: 15 MPH
THIS SECTION APPLIES TO:
-HIDDEN HOLLOW DRIVE
-PRANCING DEER DRIVE (STA. 1+68.41 TO STA. 6+26.49)



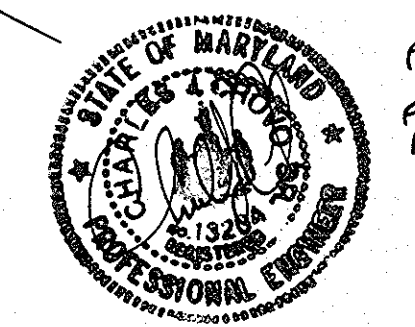
TYPICAL ROADWAY SECTION
N.T.S.
CLASSIFICATION: ACCESS PLACE (PUBLIC)
DESIGN SPEED: 15 MPH
THIS SECTION APPLIES TO:
-PRANCING DEER DRIVE (STA. 0+42.87 TO STA. 1+18.41)



TYPICAL ROADWAY SECTION
N.T.S.
CLASSIFICATION: ACCESS PLACE (PUBLIC)
DESIGN SPEED: 15 MPH
THIS SECTION APPLIES TO:
-HUXLEY DRIVE



TYPICAL ROADWAY SECTION
N.T.S.
CLASSIFICATION: ACCESS PLACE (PUBLIC)
DESIGN SPEED: 15 MPH
THIS SECTION APPLIES TO:
-WHISPERING WILLOW DRIVE



F: 100-021 DWG (FINAL) PROC-FINAL.DWG

APPROVED: DEPARTMENT OF PUBLIC WORKS
Howard Shultz 7/30/01
 CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chris Howard 8/7/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chris Howard 8/1/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION (M13) DATE

date	JUNE 2001
project	00-021
illustration	MMP/SA
scale	MMP/SA
approval	AS SHOWN JBM

description	revisions	date
no.		

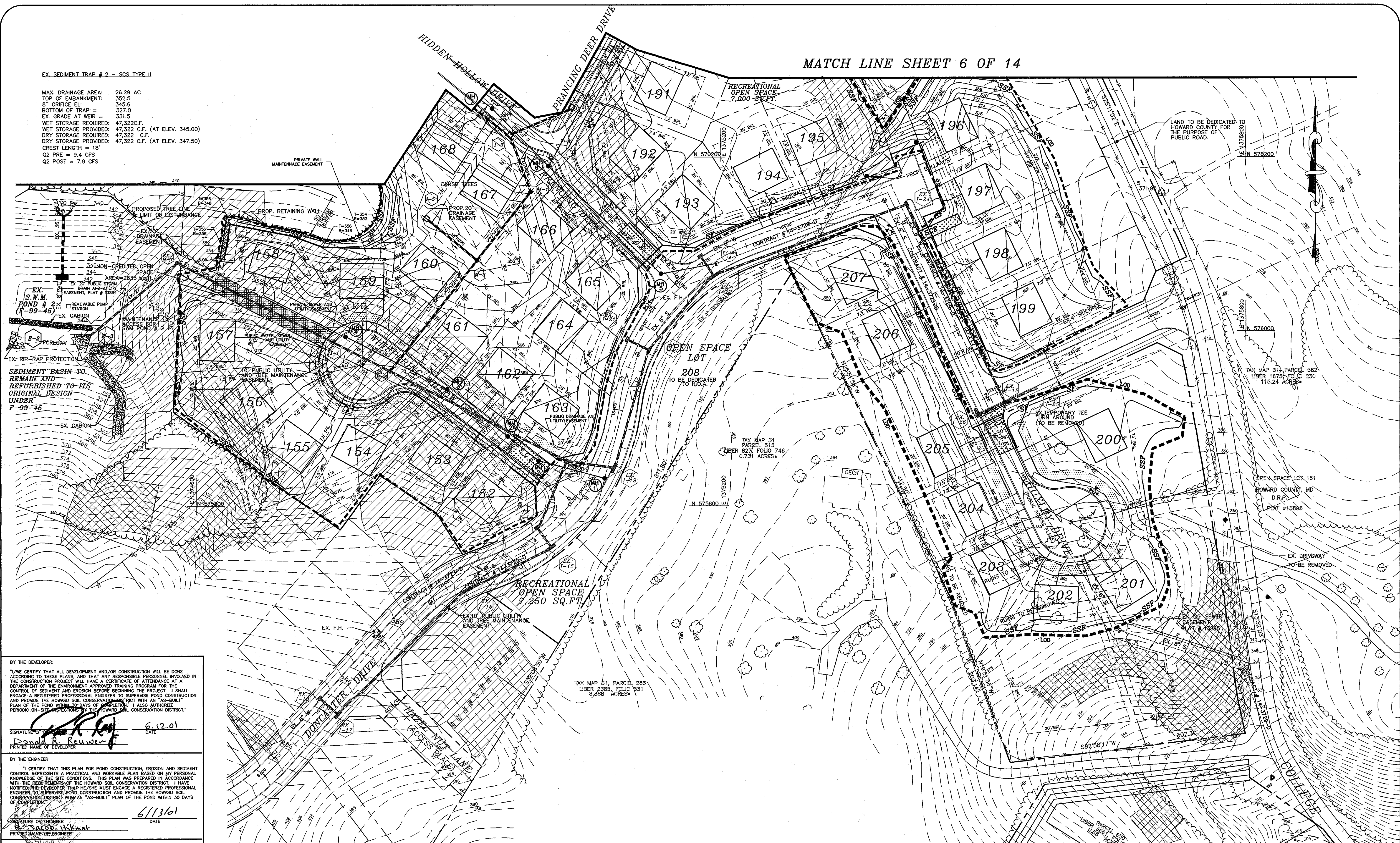
AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3, PARCEL A
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 ROAD PLANS, PROFILES AND TYPICAL SECTIONS

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax. (301) 621-5521 Wash. (410) 997-0298 Fax.

MATCH LINE SHEET 6 OF 14

EX. SEDIMENT TRAP # 2 - SCS TYPE II

MAX. DRAINAGE AREA: 26.29 AC
 TOP OF EMBANKMENT: 352.5
 8" ORIFICE EL: 345.6
 BOTTOM OF TRAP = 327.0
 EX. GRADE AT WEIR = 331.5
 WET STORAGE REQUIRED: 47,322 C.F.
 WET STORAGE PROVIDED: 47,322 C.F. (AT ELEV. 345.00)
 DRY STORAGE REQUIRED: 47,322 C.F.
 DRY STORAGE PROVIDED: 47,322 C.F. (AT ELEV. 347.50)
 CREST LENGTH = 18'
 Q2 PRE = 9.4 CFS
 Q2 POST = 7.9 CFS



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: *Donald R. Reuser* DATE: 6/2/01
 PRINTED NAME OF DEVELOPER: Donald R. Reuser

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 NOTICED 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: *James M. Myers* DATE: 6/13/01
 PRINTED NAME OF ENGINEER: James M. Myers

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Myers DATE: 6-25-01
 NRS - NATURAL RESOURCE CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Robinson DATE: 6/25/01
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS
Shirley Stoltz DATE: 7/30/01
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cheryl Hamilton DATE: 8/7/01
 CHIEF, DIVISION OF LAND DEVELOPMENT

Michael J. ... DATE: 8/1/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION (M&E)

- LEGEND**
- DENOTES LIMITS OF APPROXIMATE 100 YEAR FLOODPLAIN
 - DENOTES SLOPES OF 15-24.99 %
 - DENOTES SLOPES OF 25% OR STEEPER SUSTAINED FOR 10 VERTICAL FEET.
 - DENOTES LIMITS OF WETLAND
 - A-1 EARTH DIKE
 - SF SILT FENCE
 - SSF SUPER SILT FENCE
 - PROPOSED TREE LINE
 - LOD LIMIT OF DISTURBANCE

NOTE:
 ALL DOWNSPOTS AT LOTS 201-203 SHALL BE DIRECTED TO THE FRONT TOWARDS DONCASTER DRIVE.

OWNER/DEVELOPER
 BONNIE BRANCH CORPORATION
 P.O. BOX 396
 ELLICOTT CITY, MD 21041

ASBUILT 11/17/05

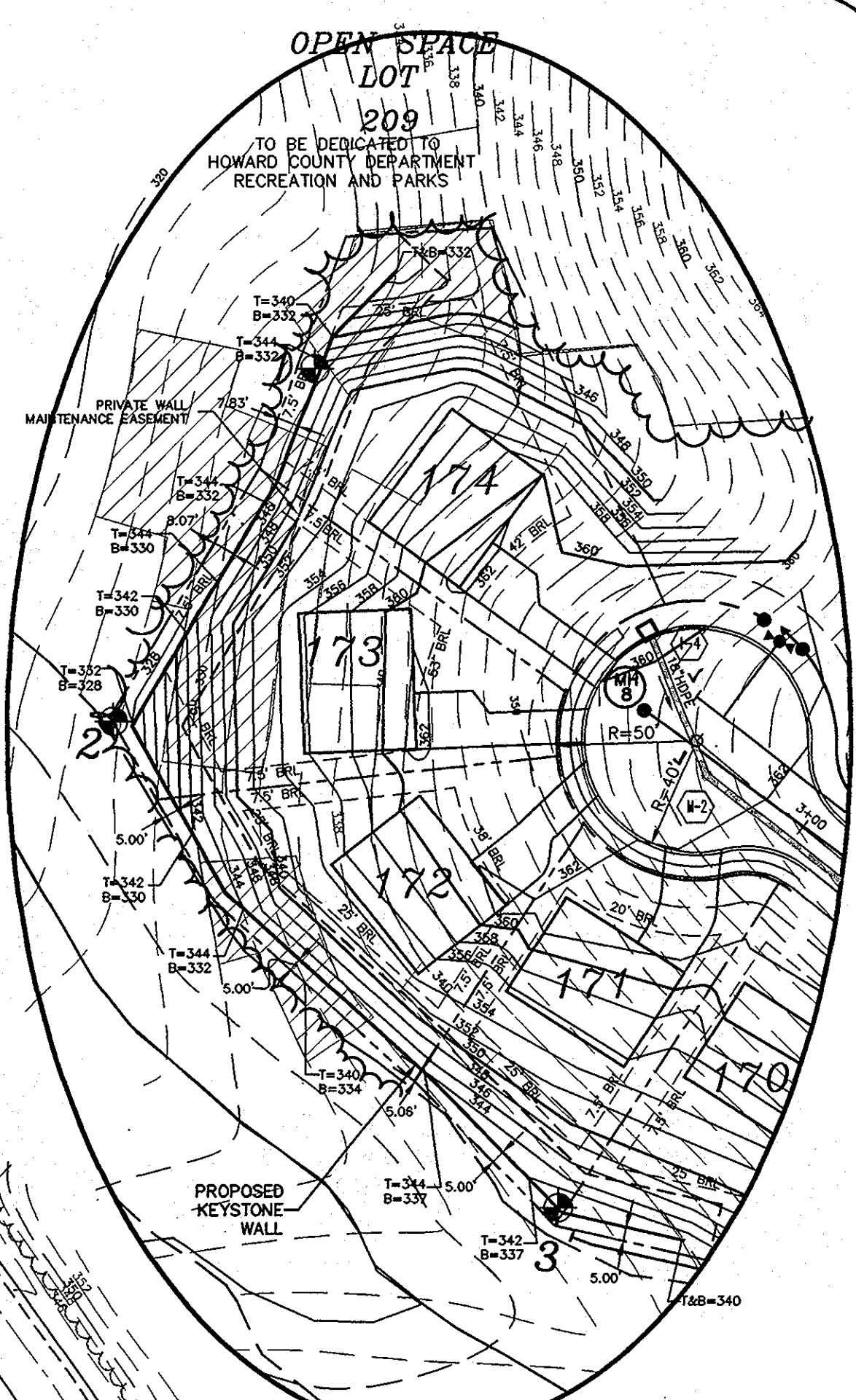
FISHER COLLINS AND CARTER, INC.
 PROFESSIONAL ENGINEERS

Project	00-021	date	JUNE 2001
Illustration	M&P	engineering	JBM
scale	1" = 60'	approval	JBM

no.	description	date

AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW PARCEL 3 PARCEL A
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 GRADING AND SEDIMENT CONTROL PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5012 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax. (301) 621-5521 Wash. (410) 997-0298 Fax.



FINAL GRADING
 NOTE:
 CONSTRUCTION OF HOUSES ON LOTS 172, 173 & 174 IS TO BE DELAYED UNTIL APPROVAL BY HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

MATCH LINE SHEET 5 OF 14

- LEGEND**
- DENOTES LIMITS OF APPROXIMATE 100 YEAR FLOODPLAIN
 - DENOTES SLOPES OF 15-24.99 %
 - DENOTES SLOPES OF 25% OR STEEPER SUSTAINED FOR 10 VERTICAL FEET.
 - DENOTES LIMITS OF WETLAND
 - EARTH DIKE
 - SIF SILT FENCE
 - SSF SUPER SILT FENCE
 - PROPOSED TREE LINE
 - LOD LIMIT OF DISTURBANCE

SEDIMENT TRAP # 1 - SCS TYPE II
 BOTTOM DIMENSIONS: 23'x205' (2:1 SIDE SLOPES)
 MAX. DRAINAGE AREA: 4.5 AC
 TOP OF EMBANKMENT: 334.5
 WEIR CREST EL.: 333.5
 BOTTOM OF TRAP = 327.0
 EX. GRADE AT WEIR = 331.5
 WET STORAGE REQUIRED: 8,172 C.F.
 WET STORAGE PROVIDED: 30,882 C.F. (AT ELEV. 331.5)
 DRY STORAGE REQUIRED: 8,172 C.F.
 DRY STORAGE PROVIDED: 20,315 C.F. (AT ELEV. 333.5)
 CREST LENGTH = 18'
 Q2 PRE = 2.6 CFS
 Q2 POST = 1.4 CFS



OWNER/DEVELOPER
 BONNIE BRANCH CORPORATION
 P.O. BOX 396
 ELLICOTT CITY, MD 21041

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: *Donald R. Reuwen* DATE: 6/20/01
 PRINTED NAME OF DEVELOPER: Donald R. Reuwen

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 NOTICED JUST 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: *Jim Mays* DATE: 6/13/01
 PRINTED NAME OF ENGINEER: Jim Mays

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 SIGNATURE: *John K. Redstone* DATE: 6/25/01
 PRINTED NAME OF REVIEWER: John K. Redstone

APPROVED: DEPARTMENT OF PUBLIC WORKS
 SIGNATURE: *Howard S. Hill* DATE: 7/20/01
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 SIGNATURE: *Conrad H. Hunter* DATE: 8/7/01
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF DEVELOPMENT ENGINEERING DIVISION (H&E)
 SIGNATURE: *Chris P. ...* DATE: 8/1/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION (H&E)

Project	00-021	date	JUNE 2001
Illustration	MMP	engineering	JBM
scale	1"=60'	MPP	
revisions		approval	JBM

no.	description	date

AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 GRADING AND SEDIMENT CONTROL PLAN

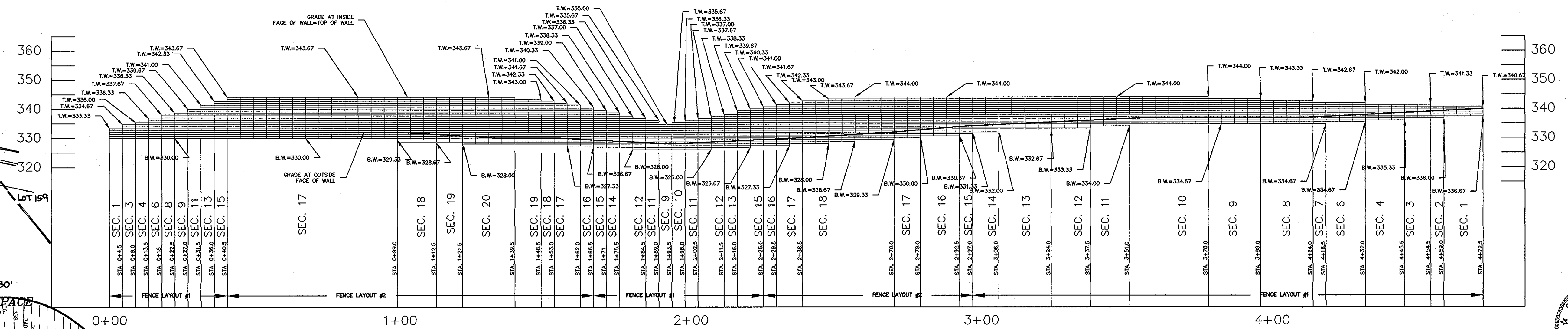
MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5012 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 987-0298 Bact. (301) 621-6521 Wash. (410) 987-0298 Fax.

Project	date	June 2001
00-021	illustration	engineering
SAAS	scale	SAAS
SAAS	revision	AS SHOWN
SAAS	approval	JBM

LOT 9 158 4 159 (as built loc.)	Rev. Desc. Loc.	10-01-02
Per Ret Wall #1 encroach. by FCC	description	revisions
1	no.	

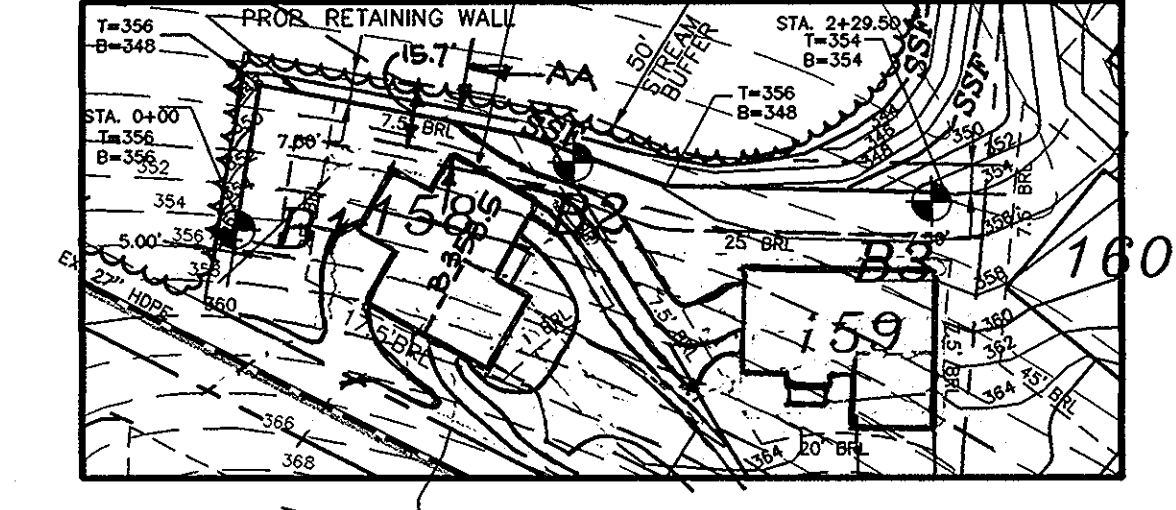
AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
RETAINING WALL DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
 Surveyors
 Engineers Planners
 5012 Dorsley Hall Drive, Suite 202, Ellicott City, Maryland, 21042
 (410) 937-0298 Fax (410) 937-5521 Wash. (410) 937-0298 Fax

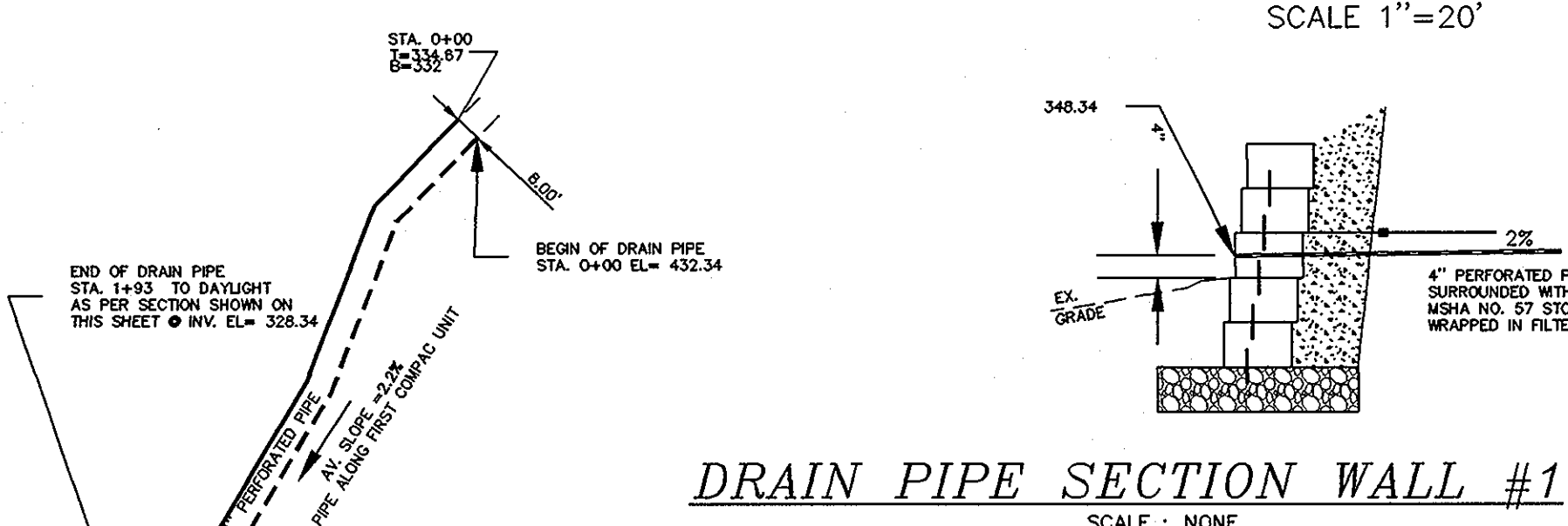


KEYSTONE RETAINING WALL #2 - ELEVATION
 SCALE 1"=20'

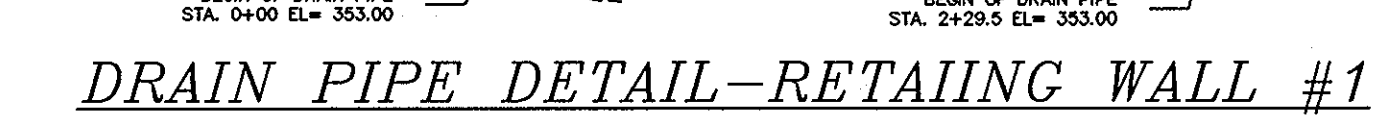
FOR LOCATION AND DIMENSION OF HOUSE ENCROACHMENT, SEE INSERT, THIS SHEET



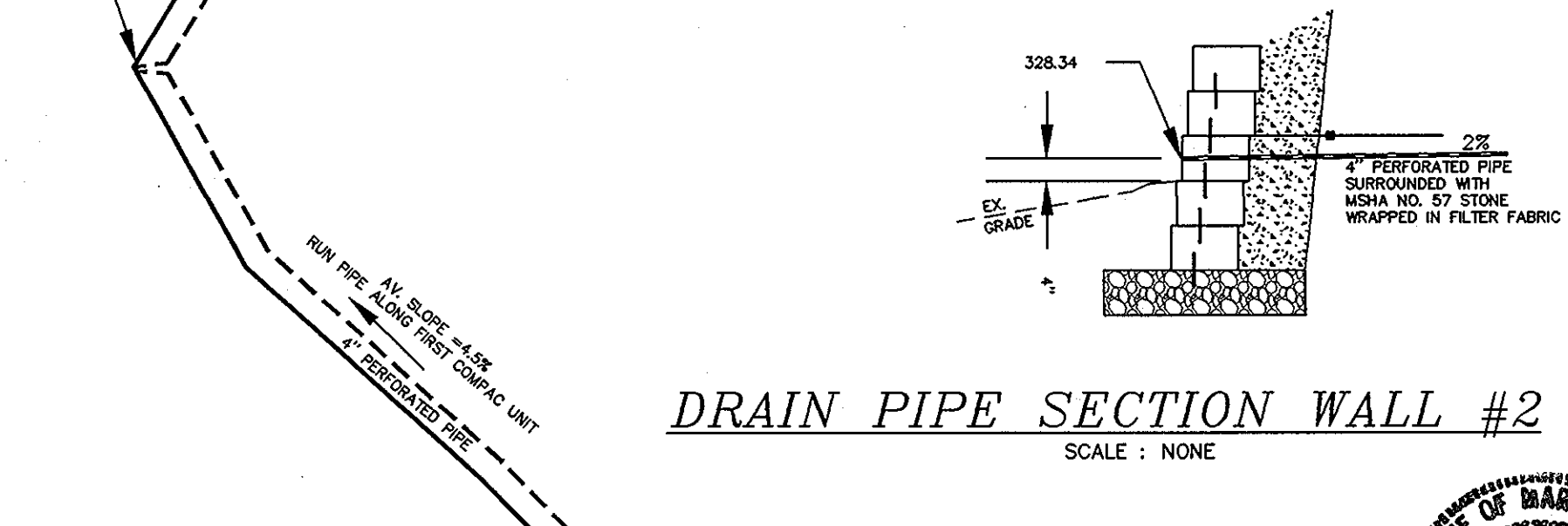
RETAINING WALL #1 - PLAN
 SCALE 1"=50'



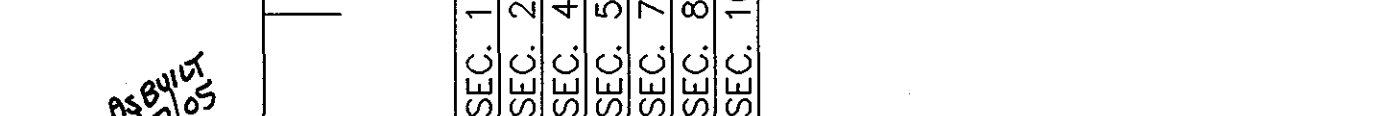
DRAIN PIPE SECTION WALL #1
 SCALE: NONE



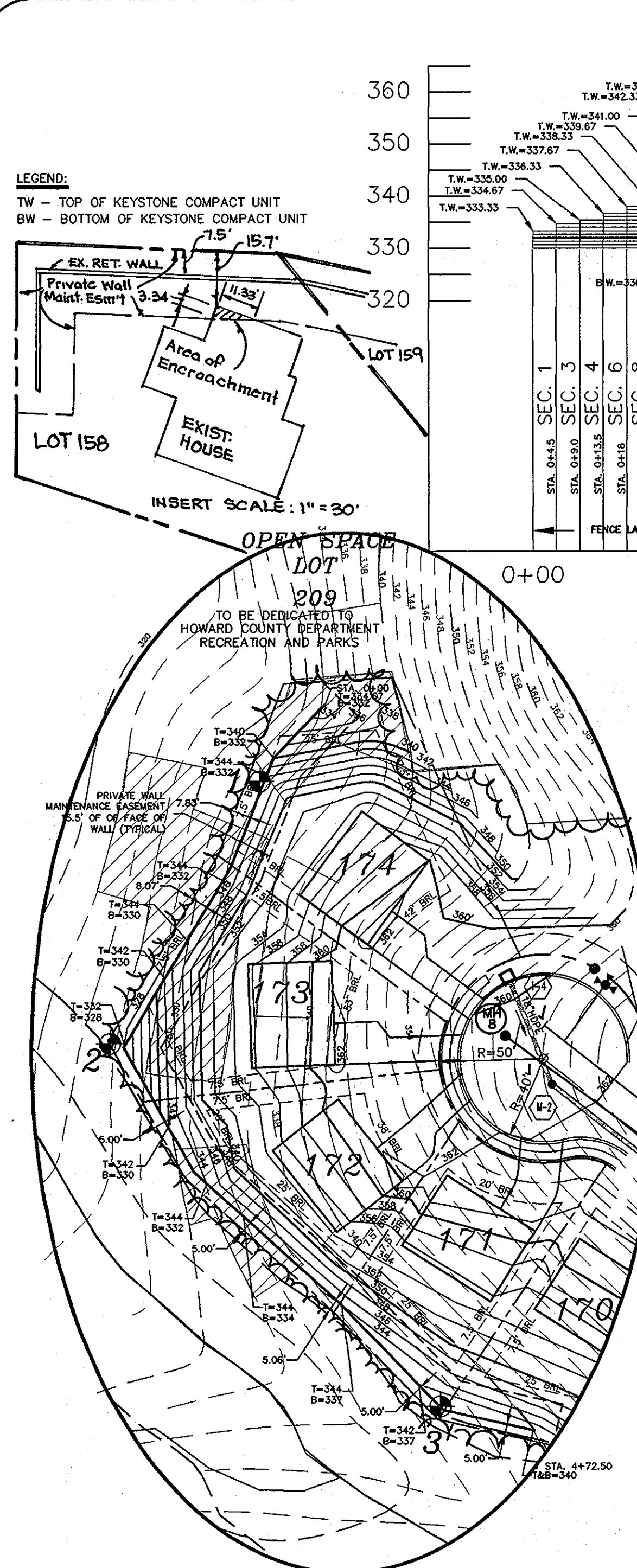
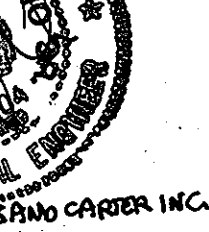
DRAIN PIPE DETAIL-RETAINING WALL #1
 SCALE 1"=50'



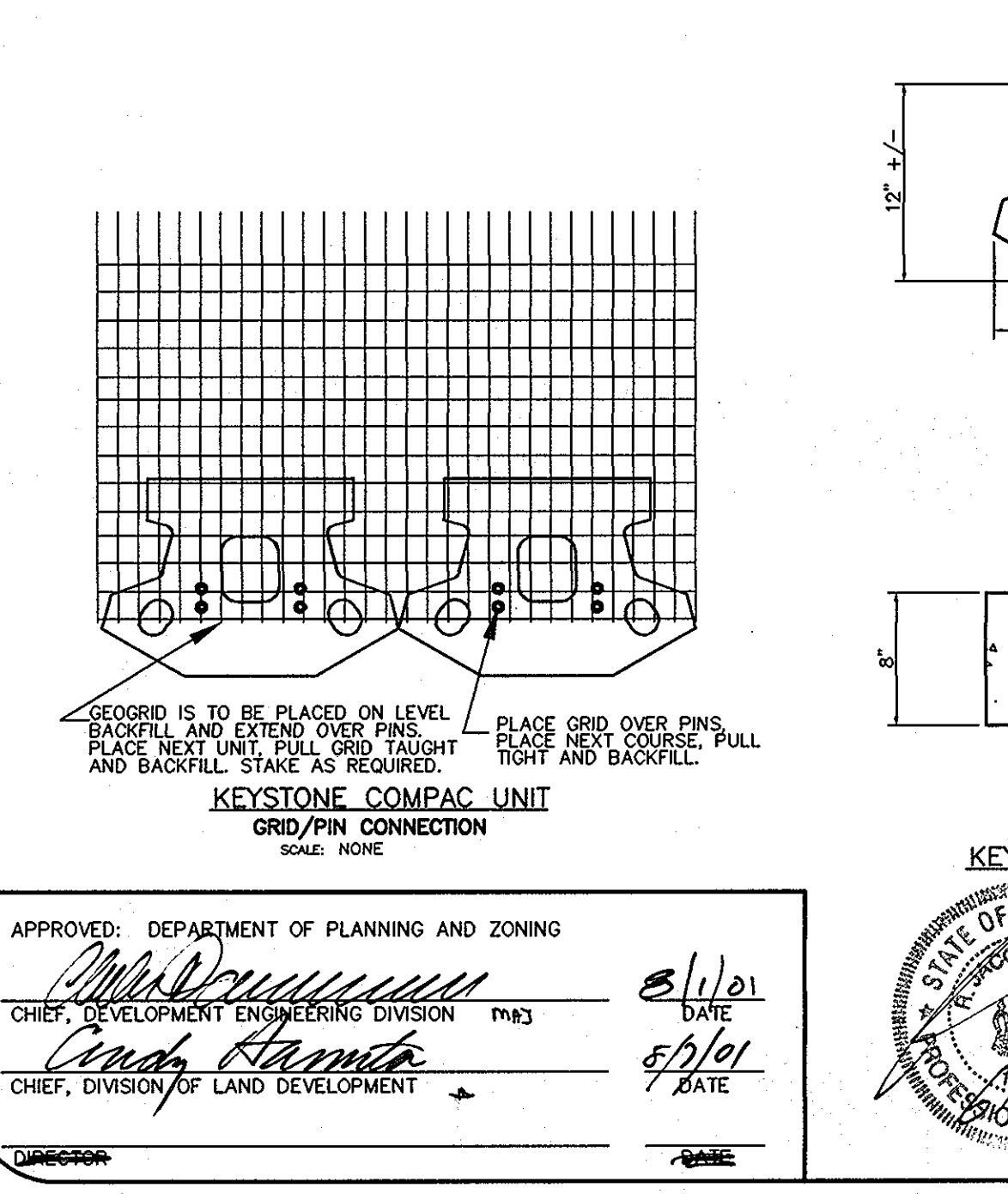
DRAIN PIPE SECTION WALL #2
 SCALE: NONE



DRAIN PIPE DETAIL-RETAINING WALL #2
 SCALE 1"=50'



RETAINING WALL #2 - PLAN
 SCALE 1"=50'



GENERAL NOTES:

- WALL SHALL BE CONSTRUCTED PER THE KEYSTONE WALL SPECIFICATIONS UNDER THE OBSERVATION OF A MARYLAND REGISTERED PROFESSIONAL ENGINEER. (FOR QUESTIONS 1-800-486-4011)
- THE WALL SHALL BE PRIVATELY OWNED AND MAINTAINED.
- ALL GEORGRID SHALL BE GEO 30 OR APPROVED EQUIVALENT. ALL REINFORCED FILL SHALL BE SILTS & SAND. THE SUITABILITY OF THE FILL MATERIAL SHALL BE VERIFIED AND CERTIFIED BY A GEOTECHNICAL ENGINEER.
- REQUIRED BEARING OF 3,000 PSF OR GREATER SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF THE LEVELING PAD.
- WALL SHALL BE CONSTRUCTED PER THE KEYSTONE WALL SPECIFICATIONS UNDER THE OBSERVATION OF A MARYLAND REGISTERED PROFESSIONAL ENGINEER. (FOR QUESTIONS 1-800-486-4011)
- THE WALL SHALL BE PRIVATELY OWNED AND MAINTAINED.
- ALL GEORGRID SHALL BE GEO 30 OR APPROVED EQUIVALENT. ALL REINFORCED FILL SHALL BE SILTS & SAND. THE SUITABILITY OF THE FILL MATERIAL SHALL BE VERIFIED AND CERTIFIED BY A GEOTECHNICAL ENGINEER.
- REQUIRED BEARING OF 3,000 PSF OR GREATER SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF THE LEVELING PAD.

KEYSTONE RETAINING WALL #1 - ELEVATION
 SCALE 1"=20'

RETAINING WALL - SPECIFICATIONS

2.02 MODULAR CONCRETE RETAINING WALL UNITS

A. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING ARCHITECTURAL REQUIREMENTS:

FACE COLOR - STANDARD MANUFACTURERS' COLOR OR CUSTOM COLOR AS SPECIFIED BY THE OWNER.

FACE FINISH - SCULPTURED ROCK FACE IN ANGULAR MULTIPLANER CONFIGURATION; OTHER FACE FINISHES WILL NOT BE ALLOWED WITHOUT WRITTEN APPROVAL OF OWNER.

BOND CONFIGURATION - RIBBING WITH BONDS NORMALLY LOCATED AT JUNCTION VERTICALLY ADJACENT UNITS, IN BOTH STRAIGHT AND CURVED ALIGNMENTS.

EXPOSED SURFACES OF UNITS SHALL BE FREE OF CHIPS, CRACKS OR OTHER IMPERFECTIONS WHEN VIEWED FROM A DISTANCE OF 10 FEET UNDER OVERCAST LIGHTING.

B. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING MATERIAL REQUIREMENTS:

1. CEMENT - MATERIALS SHALL CONFORM TO THE FOLLOWING APPLICABLE SPECIFICATIONS:

- PORTLAND CEMENT - ASTM C 150
- MODIFIED PORTLAND CEMENT - PORTLAND CEMENT CONFORMING TO ASTM C 150, MODIFIED AS FOLLOWS: Limestone - CALCIUM CARBONATE, WITH A MINIMUM 85% CONTENT, MAY BE ADDED TO THE CEMENT; PROVIDED THESE REQUIREMENTS OF C 150 AS MODIFIED ARE MET: (1) LIMITATION ON INSOLUBLE RESIDUE 1.5 %; (2) LIMITATION ON AIR CONTENT OF MIXTURE - VOLUME PERCENT, 22% MAXIMUM; AND (3) LIMITATIONS OF LOSS OF IGNITION - 7 %
- BLENDING CEMENTS - ASTM C 618
- POZZOLANS - ASTM C 618
- BLAST FURNACE SLAG CEMENT - ASTM C 989

2. AGGREGATES - AGGREGATES SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS, AS APPLICABLE:

- NORMAL WEIGHT AGGREGATES - ASTM C 33
- LIGHTWEIGHT AGGREGATES - ASTM C 331

3. OTHER CONSTITUENTS - AIR ENTRAINING AGENTS, COLORING PIGMENTS, INTEGRAL WATER REPELLENTS, FINELY GROUND SILICA, AND OTHER CONSTITUENTS SHALL BE PREVIOUSLY ESTABLISHED AS SUITABLE. FOR USE IN MODULAR CONCRETE RETAINING WALL UNITS AND SHALL CONFORM TO APPLICABLE ASTM STANDARDS OR SHALL BE SHOWN BY TEST OR EXPERIENCE TO BE NOT DETRIMENTAL TO THE DURABILITY OF THE MODULAR CONCRETE UNITS OR ANY MATERIAL CUSTOMARILY USED IN RETAINING WALL CONSTRUCTION MATERIAL.

C. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING STRUCTURAL AND GEOMETRIC REQUIREMENTS:

COMPRESSIVE STRENGTH = 3000 PSI MINIMUM

ABSORPTION = 8 % MAXIMUM (6% IN NORTHERN STATES) FOR STANDARD WEIGHT AGGREGATES

UNIT WIDTH TO HEIGHT RATIO = 2.25: 1

UNIT WEIGHT = 90 LBS/UNIT MINIMUM FOR STANDARD WEIGHT AGGREGATES

INTER-UNIT SHEAR STRENGTH = 1500 PLF MINIMUM AT 2 PSI NORMAL PRESSURE

GEORGRID/UNIT PEAK CONNECTION STRENGTH = 1000 PLF MINIMUM AT 2 PSI NORMAL FORCE

D. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING CONSTRUCTIONAL REQUIREMENTS:

VERTICAL SETBACK = 1/8" PER COURSE (NEAR VERTICAL) OR 1/4" PER COURSE PER THE DESIGN DRAWINGS - FIBERGLASS PINS, TWO PER UNIT MINIMUM.

2.03 SHEAR CONNECTORS

A. STRENGTH OF SHEAR CONNECTORS BETWEEN VERTICAL ADJACENT UNITS SHALL BE APPLICABLE OVER A DESIGN TEMPERATURE OF 10 DEGREES F TO + 100 DEGREES F. SHEAR CONNECTORS SHALL BE 1/2" INCH DIAMETER THERMOSET ISOPHTHALIC POLYESTER RESIN-FULLY CURED FIBERGLASS REINFORCED 3000S CONNECTORS SHALL HAVE A MINIMUM FLEXURAL STRENGTH OF 120,000 PSI AND SHORT BEAM SHEAR OF 8,400 PSI.

B. SHEAR CONNECTORS SHALL BE CAPABLE OF HOLDING THE GEORGRID IN THE PROPER DESIGN POSITION DURING GRID PRE-TENSIONING AND BACKFILLING.

2.04 BASE LEVELING PAD MATERIAL

A. MATERIAL SHALL CONSIST OF A COMPACTED CRUSHED STONE BASE AS SHOWN ON THE CONSTRUCTION DRAWINGS.

THE LEVELING PAD SHALL BE A MINIMUM OF 6 INCHES THICK.

2.05 UNIT FILL

A. UNIT FILL SHALL CONSIST OF CLEAN 1" MINUS CRUSHED STONE OR CRUSHED GRAVEL MEETING THE GRADATION LISTED BELOW.

SIZE	PERCENT PASSING
1" INCH	100
3/4" INCH	75-100
NO. 10	0 - 5

B. ONE CUBIC FOOT MINIMUM OF DRAIN FILL SHALL BE USED FOR EACH SQUARE FOOT OF WALL FACE. DRAIN FILL SHALL BE PLACED WITHIN CORES OF, BETWEEN, AND BEHIND UNITS TO MEET THIS REQUIREMENT.

2.06 REINFORCED BACKFILL

A. REINFORCED BACKFILL SHALL BE FREE OF DEBRIS AND MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIZE	PERCENT PASSING
2" INCH	100-75
3/4" INCH	100-75
NO. 40	0-20
NO. 10	0-5
PIE ANGLE = 20°	
G = 5	

UNIT WGT. = 120 LBS./CUFT.

PLASTICITY INDEX (PI) < 10 AND LIQUID LIMIT < 40.

B. THE MAXIMUM AGGREGATE SIZE SHALL BE LIMITED TO 3/4" INCH UNLESS FIELD TESTS HAVE BEEN OR WILL BE PERFORMED TO EVALUATE POTENTIAL STRENGTH REDUCTIONS TO THE GEORGRID DESIGN DUE TO DAMAGE DURING CONSTRUCTION.

C. MATERIAL CAN BE SITE EXCAVATED SOILS WHERE THE ABOVE REQUIREMENTS CAN BE MET. UNSUITABLE SOILS FOR BACKFILL (HIGH PLASTIC CLAYS OR ORGANIC SOILS) SHALL NOT BE USED IN THE BACKFILL OR IN THE REINFORCED SOIL MASS.

D. CONTRACTOR SHALL SUBMIT REINFORCED FILL SAMPLE AND LABORATORY TEST RESULTS TO THE ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO THE USE OF ANY PROPOSED REINFORCED FILL.

2.07 GEORGRID

A. TA, ALLOWABLE TENSILE DESIGN LOAD, SHALL BE DETERMINED AS FOLLOWS: TA = TOR/(TF*CF*FS)

TA SHALL BE EVALUATED BASED ON A 75 YEAR DESIGN LIFE.

B. TOR, CREEP TENSILE LOAD, SHALL BE DETERMINED FROM 10,000 HOUR CREEP TESTING PERFORMED IN ACCORDANCE WITH ASTM D6922.

C. FS, FACTOR FOR CONSTRUCTION DAMAGE

FS SHALL BE DETERMINED FROM PRODUCT SPECIFIC DURABILITY TESTING PERFORMED IN ACCORDANCE WITH GR-604. TEST RESULTS SHALL PROVIDED FOR EACH PRODUCT TO BE USED WITH PRODUCT SPECIFIC OR MORE SEVERE SOIL TYPE.

E. FS, OVERALL FACTOR OF SAFETY

FS SHALL BE 1.5 UNLESS OTHERWISE NOTED.

F. THE MAXIMUM DESIGN TENSILE LOAD OF THE GEORGRID SHALL NOT EXCEED THE LABORATORY TESTED ULTIMATE STRENGTH OF THE GEORGRID/FACING UNIT CONNECTION AS LIMITED BY THE "MINI HEIGHT" DIVIDED BY A FACTOR OF 1.5. THE CONNECTION STRENGTH TESTING AND COMPUTATION PROCEDURES SHALL BE IN ACCORDANCE WITH INCMIA TEST METHODS.

G. SOIL INTERACTION COEFFICIENT, CI

CI VALUES SHALL BE DETERMINED PER GR-605 AT A MAXIMUM 0.75 INCH DISPLACEMENT.

H. MANUFACTURING QUALITY CONTROL

THE GEORGRID MANUFACTURER SHALL HAVE A MANUFACTURING QUALITY CONTROL PROGRAM THAT INCLUDES QC TESTING FOR EACH 40,000 SF OF PRODUCTION, EACH LOT, OR EACH PRODUCTION DAY. THE QC TESTING SHALL INCLUDE:

- SPECIFIC GRAVITY
- WETT FLOW INDEX (PRAHDPE)
- MOLECULAR WEIGHT (PEP)

I. GEORGRID SHALL CONFORM TO GEO 30 OR APPROVED EQUIVALENT

3.01 EXCAVATION

3.01A EXCAVATION

A. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. ARCHITECT/ENGINEER WILL INSPECT THE EXCAVATION AND APPROVE PRIOR TO PLACEMENT OF LEVELING MATERIAL OR FILL SOILS.

B. OVER-EXCAVATION OF DELETERIOUS SOILS AND REPLACEMENT WITH SUITABLE FILL WILL BE PAD AT UNIT COST RATES.

3.02 BASE LEVELING PAD

A. LEVELING PAD MATERIAL(S) SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS, TO A MINIMUM THICKNESS OF 6 INCHES.

B. SOIL LEVELING PAD MATERIALS SHALL BE COMPACTED TO A MINIMUM OF 95 % STANDARD OR 90 % MODIFIED PROCTOR.

C. LEVELING PAD SHALL BE PREPARED TO INSURE FULL CONTACT TO THE BASE SURFACE OF THE CONCRETE UNITS.

3.03 REINFORCED BACKFILL PLACEMENT

A. REINFORCED BACKFILL SHALL BE PLACED, SPREAD, AND COMPACTED IN SUCH A MANNER THAT MINIMIZES THE DEVELOPMENT OF SLACK IN THE GEORGRID.

B. REINFORCED BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 8 INCHES WHERE HAND COMPACTION IS USED, OR 12 INCHES WHERE HEAVY COMPACTION EQUIPMENT IS USED.

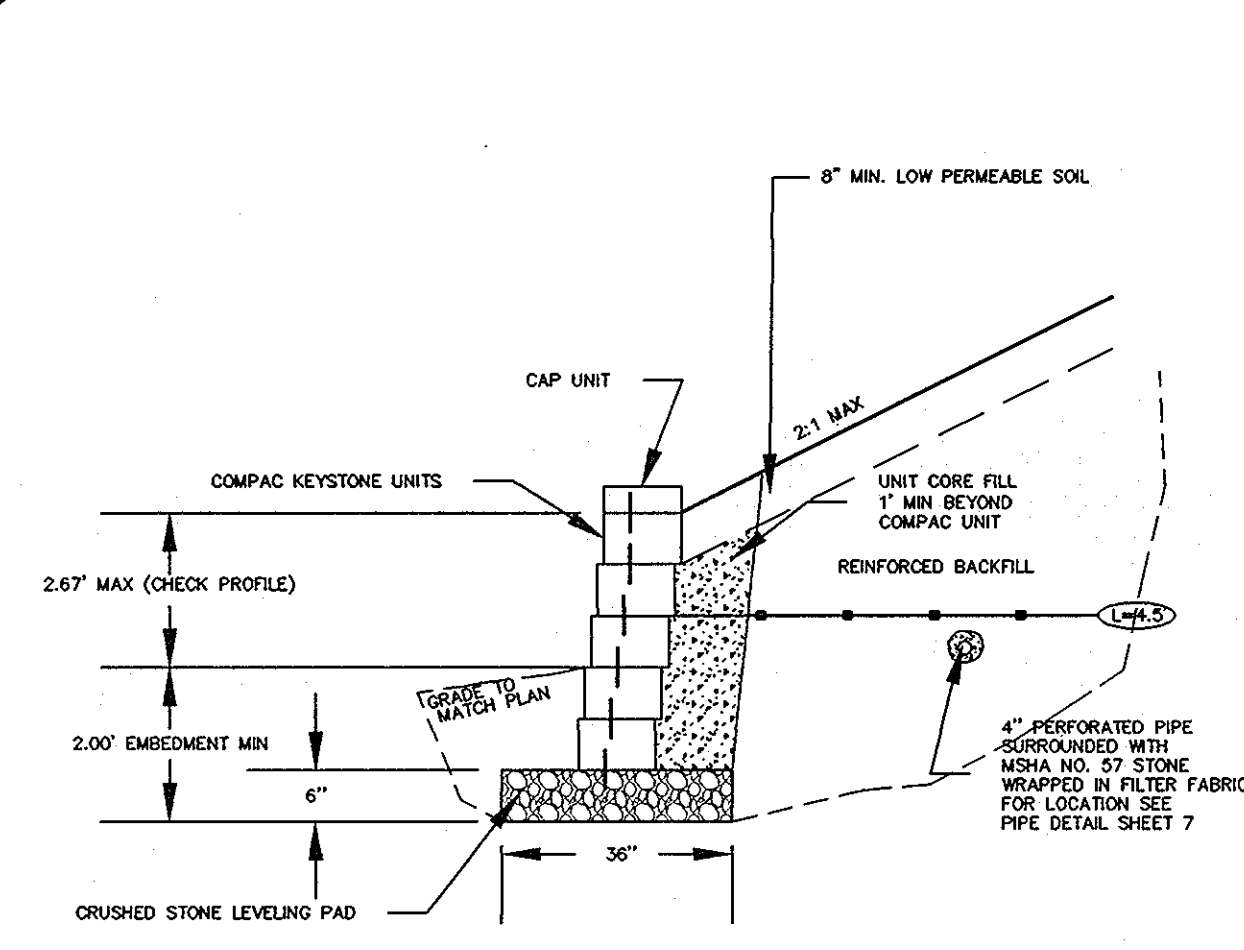
C. REINFORCED BACKFILL SHALL BE COMPACTED TO 95 % OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D1557. THE MODULUS OF ELASTICITY OF THE BACKFILL MATERIAL PRIOR TO AND DURING COMPACTION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE BACKFILL AND SHALL BE WITHIN 2 PERCENTAGE POINTS DRY OF OPTIMUM.

D. ONLY LIGHTWEIGHT HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET FROM THE TAIL OF THE MODULAR CONCRETE UNIT.

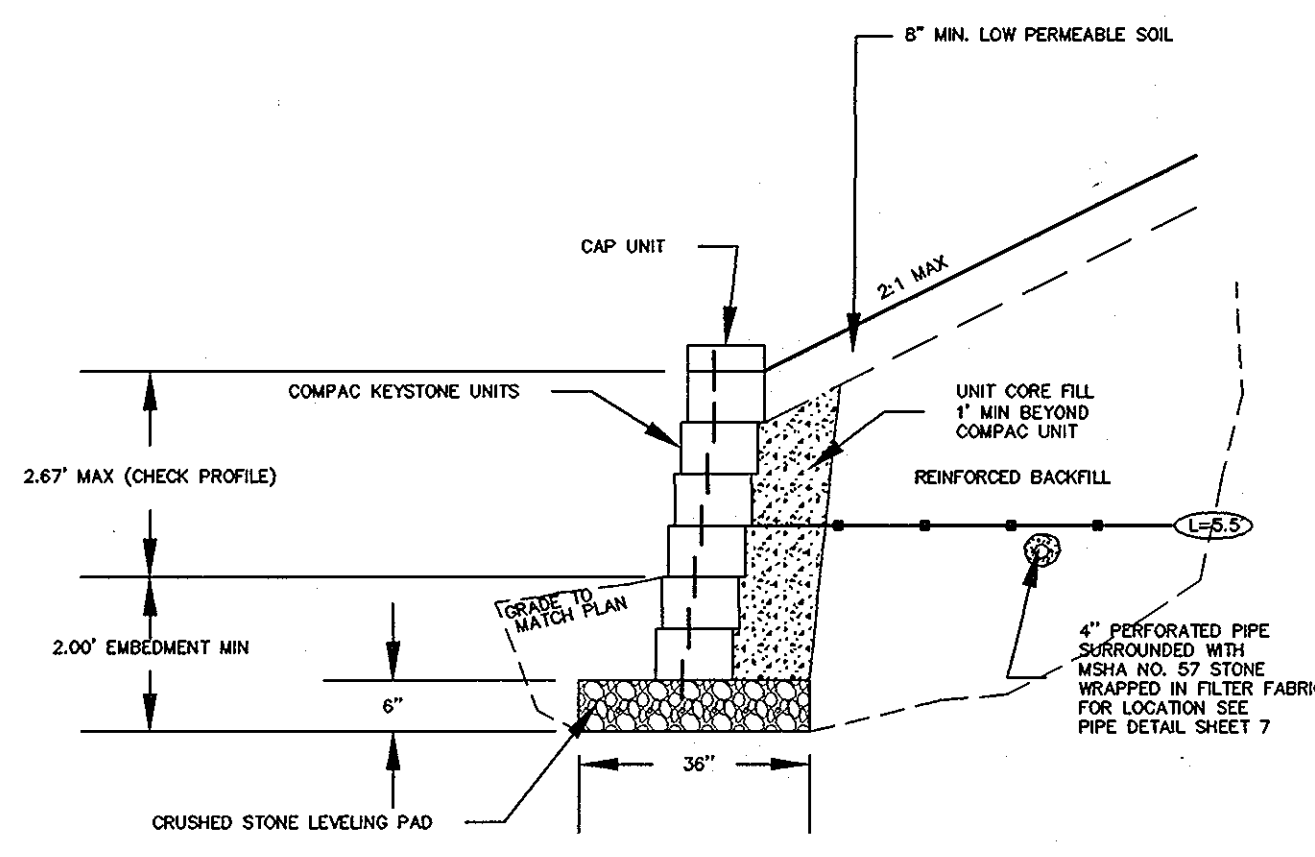
E. TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY UPON THE GEORGRID REINFORCEMENT. A MINIMUM FILL THICKNESS OF 6 INCHES IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEORGRID. TRACKED VEHICLE TURNING SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING THE GEORGRID.

F. RUBBER TREAD EQUIPMENT MAY PASS OVER GEORGRID REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SLOW BRAKING AND SHARP TURNING SHALL BE AVOIDED.

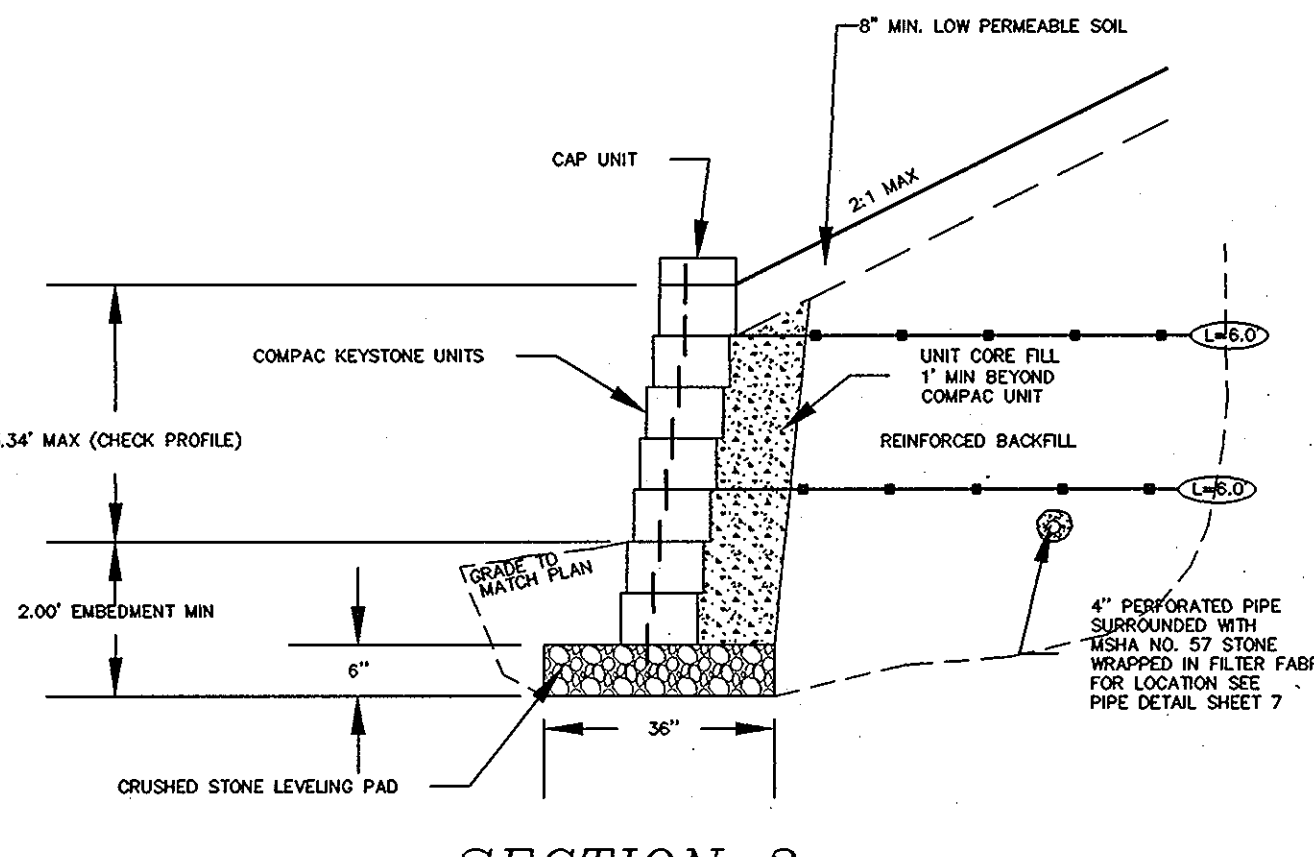
G. AT THE END OF EACH DAY'S OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LIFT OF REINFORCEMENT AWAY FROM THE WALL UNITS TO ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION SITE.



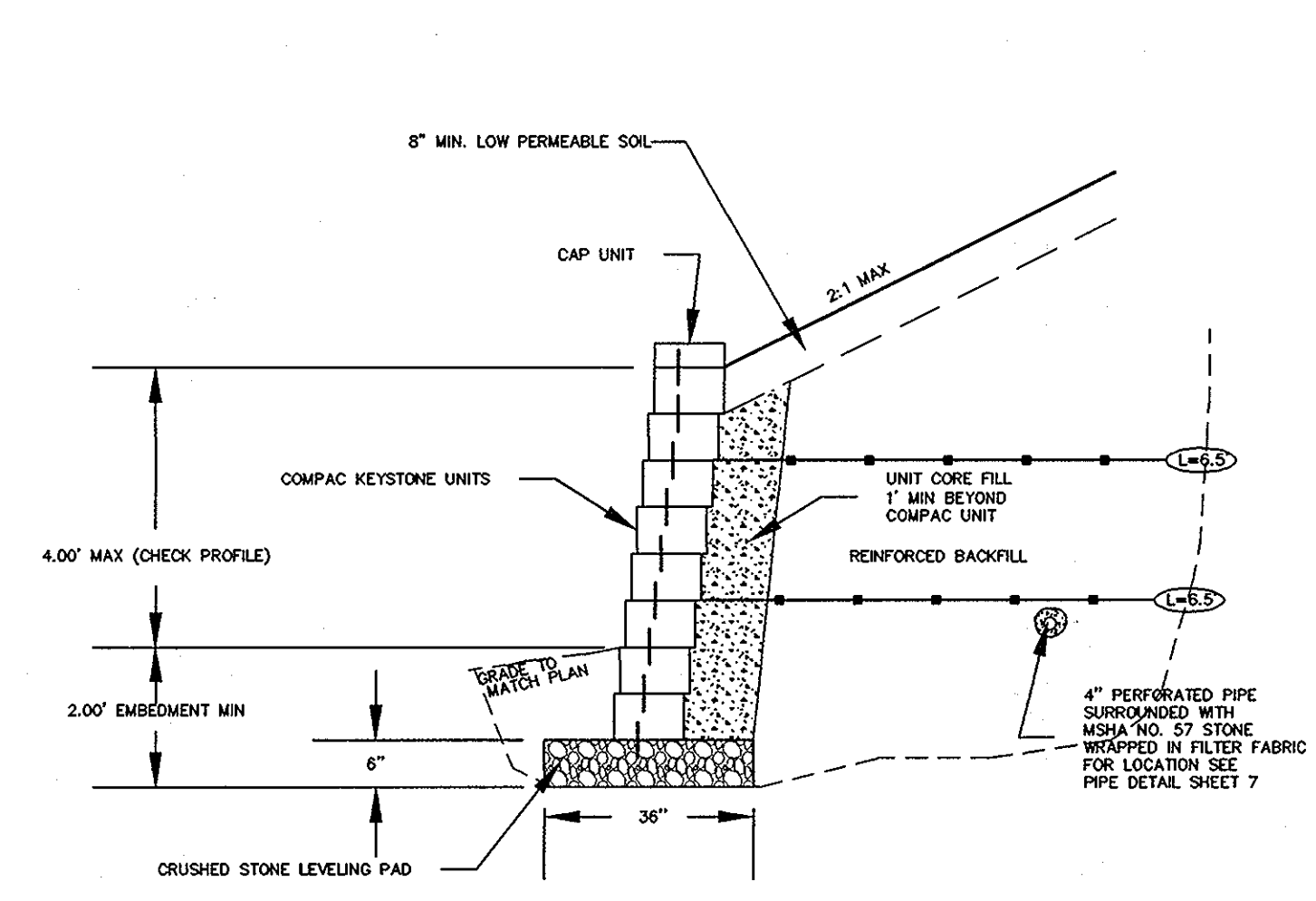
SECTION 1
SCALE 1"=20'
WALL HEIGHT= 2.00'
No. OF GEO GRID LAYERS= 1
No. OF COMPAC KEYSTONE LAYERS= 5



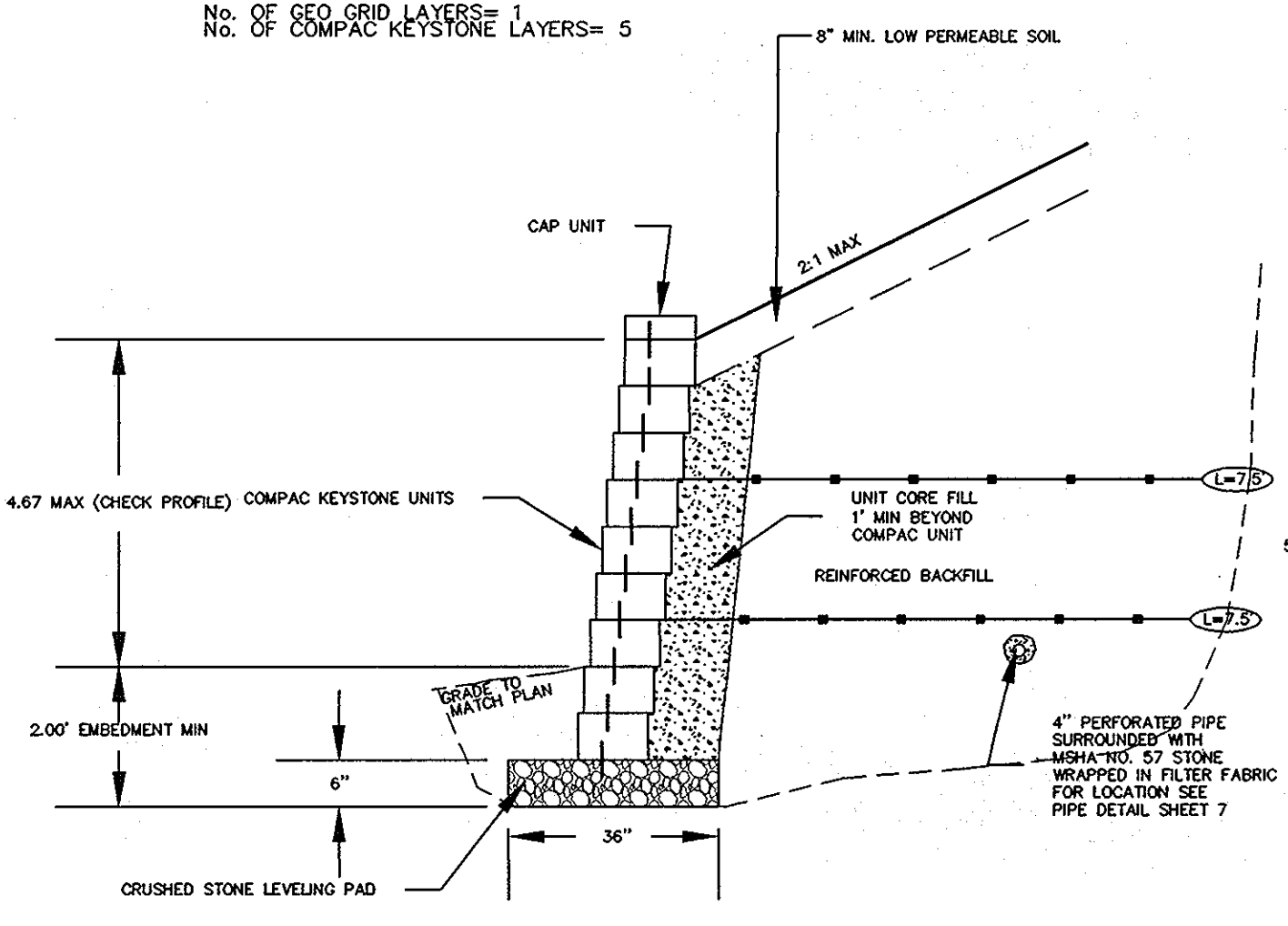
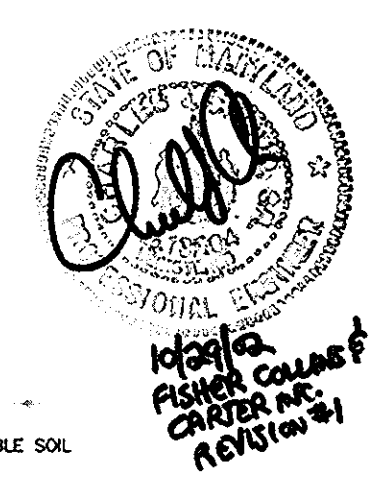
SECTION 2
SCALE 1"=20'
WALL HEIGHT= 2.67'
No. OF GEO GRID LAYERS= 1
No. OF COMPAC KEYSTONE LAYERS= 6



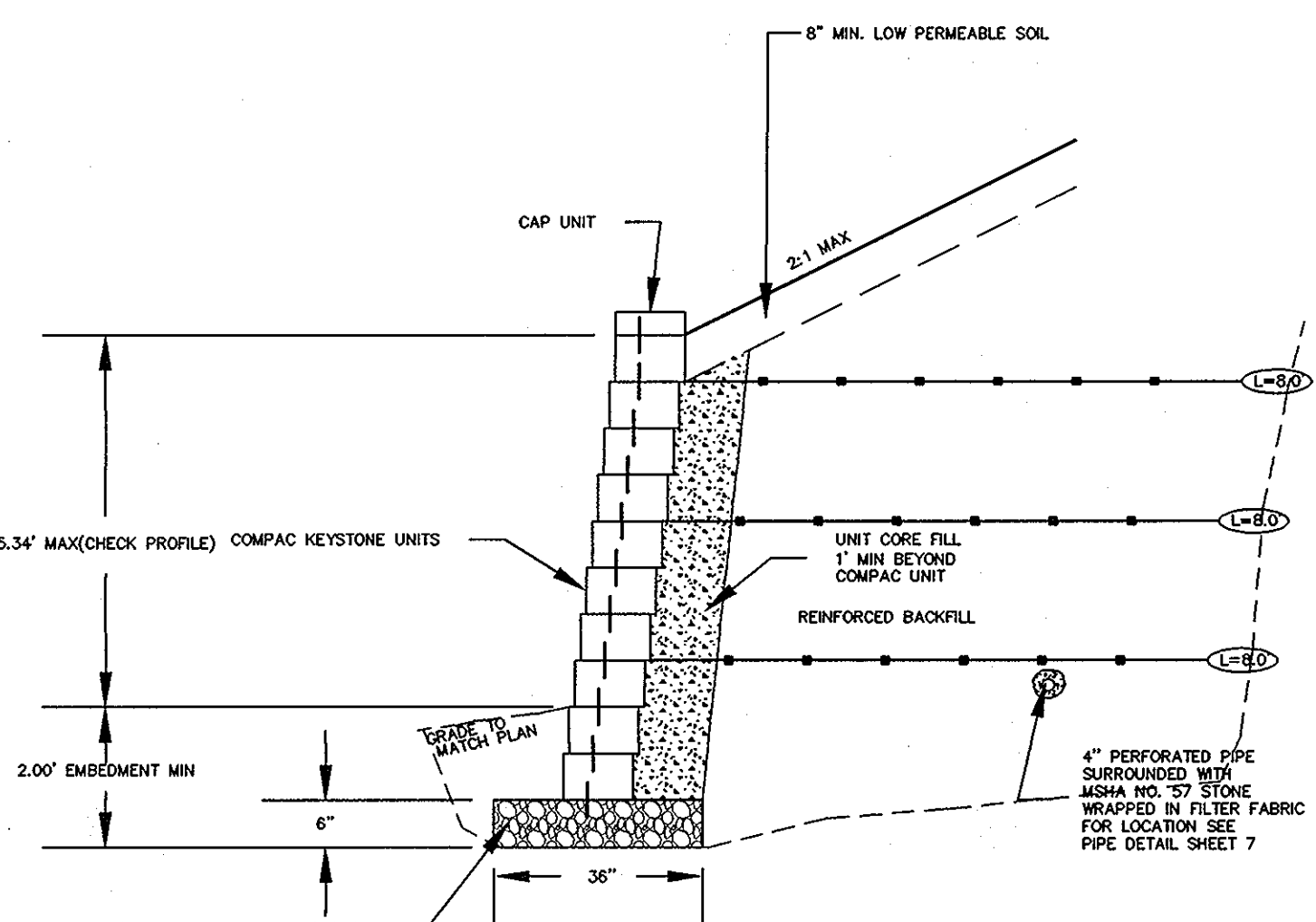
SECTION 3
SCALE 1"=20'
WALL HEIGHT= 3.34'
No. OF GEO GRID LAYERS= 2
No. OF KEYSTONE LAYERS= 7



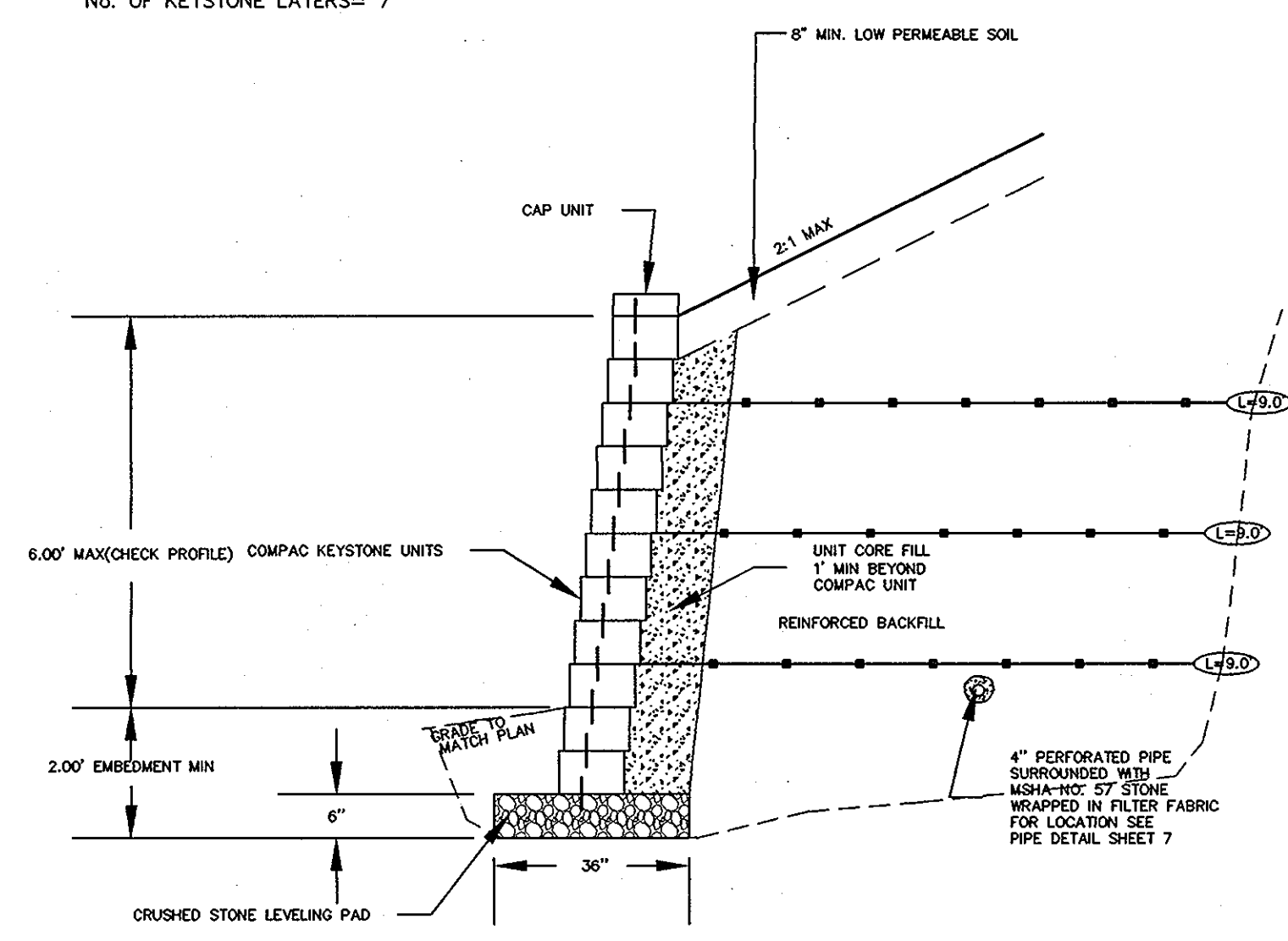
SECTION 4
SCALE 1"=20'
WALL HEIGHT= 4.00'
No. OF GEO GRID LAYERS= 2
No. OF KEYSTONE LAYERS= 8



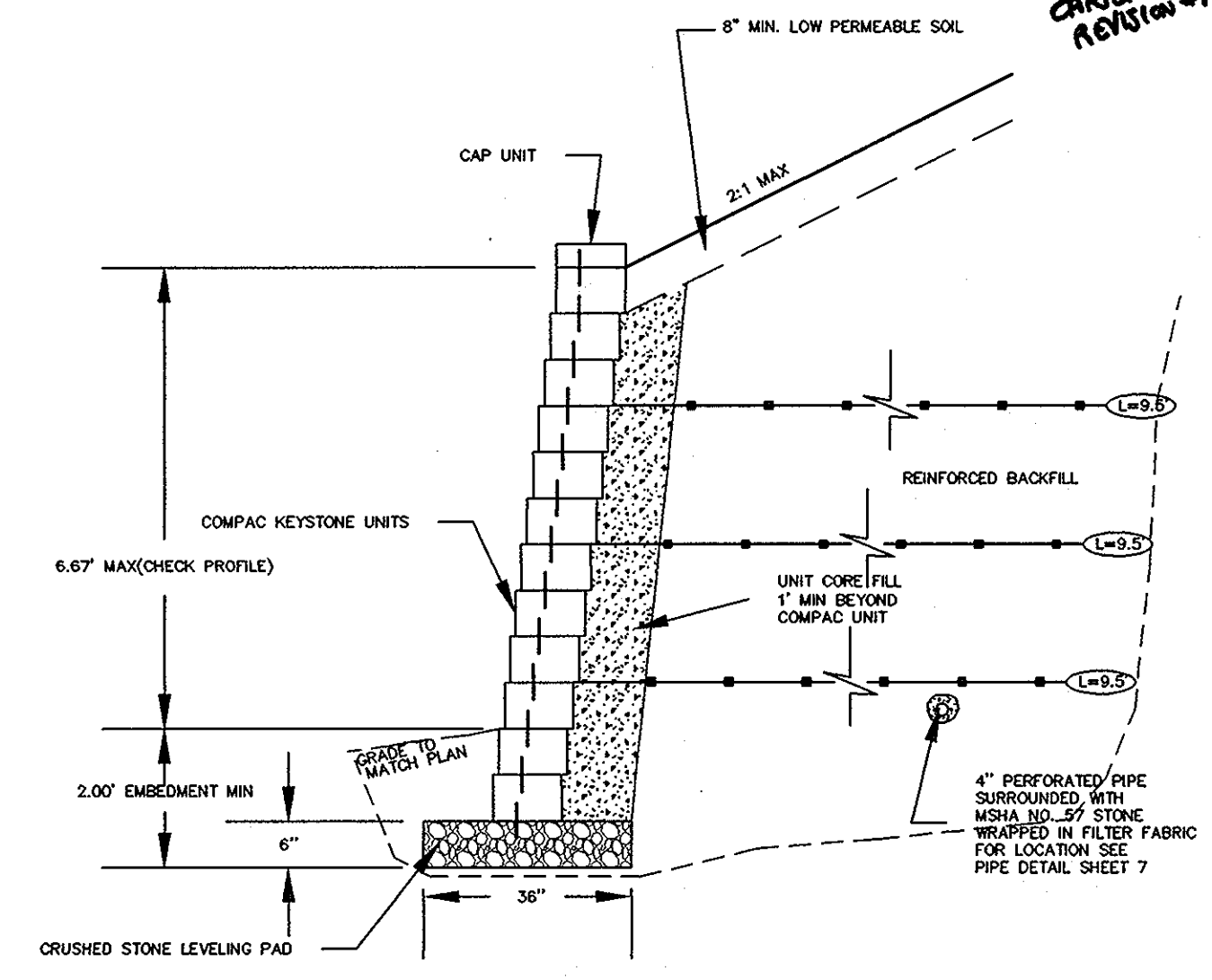
SECTION 5
SCALE 1"=20'
WALL HEIGHT= 4.67'
No. OF GEO GRID LAYERS= 2
No. OF KEYSTONE LAYERS= 9



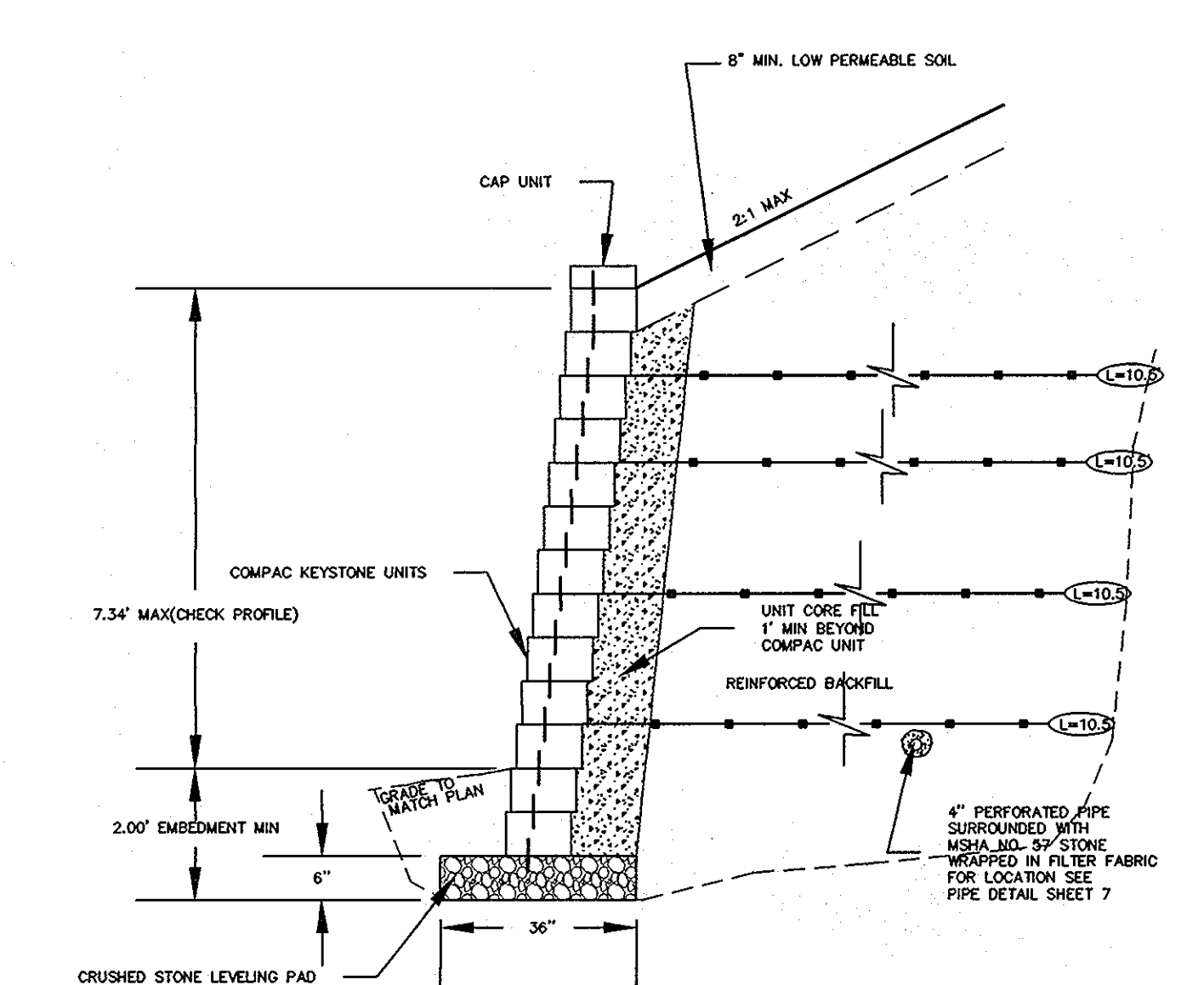
SECTION 6
SCALE 1"=20'
WALL HEIGHT= 5.34'
No. OF GEO GRID LAYERS= 3
No. OF KEYSTONE LAYERS= 10



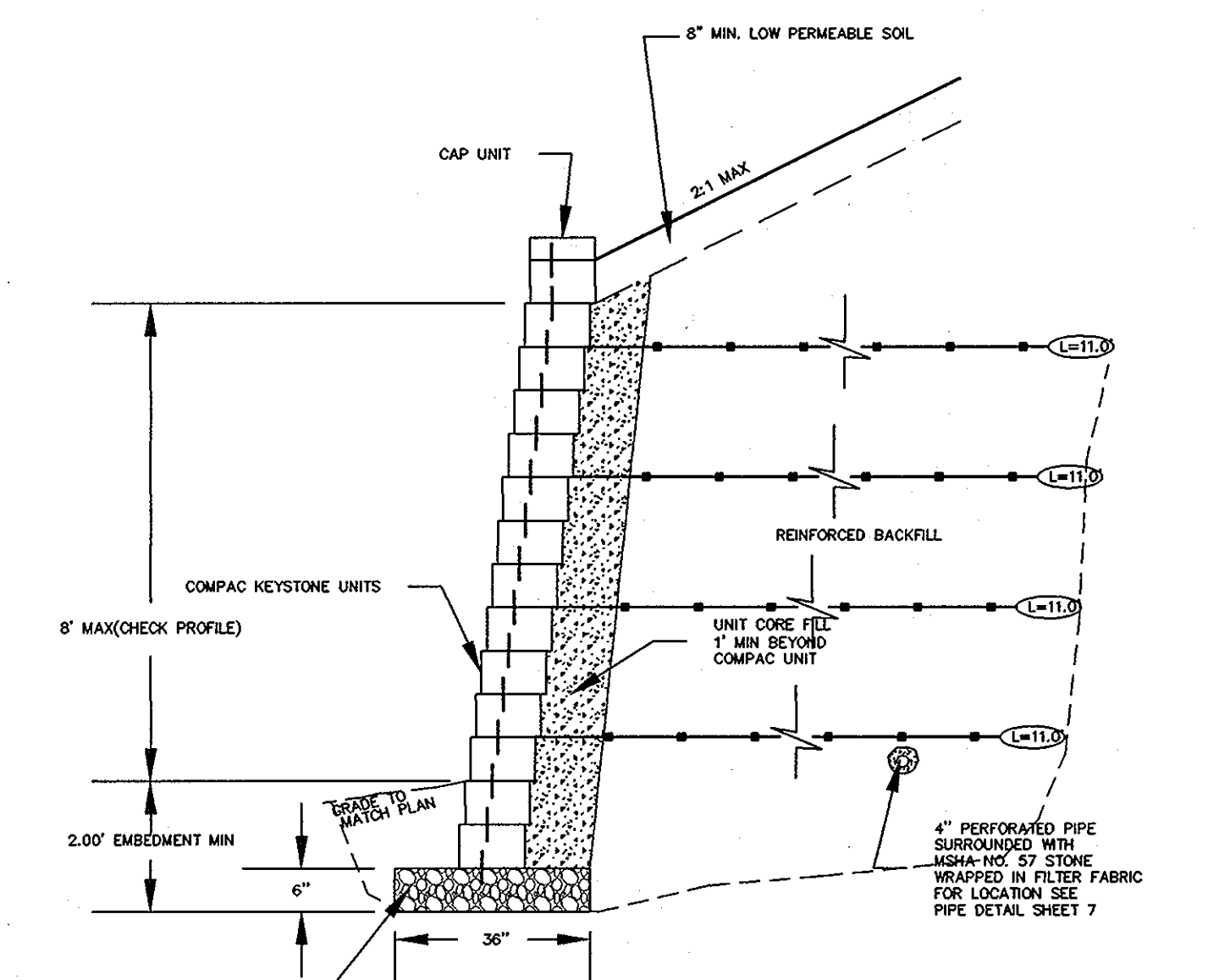
SECTION 7
SCALE 1"=20'
WALL HEIGHT= 6.00'
No. OF GEO GRID LAYERS= 3
No. OF KEYSTONE LAYERS= 11



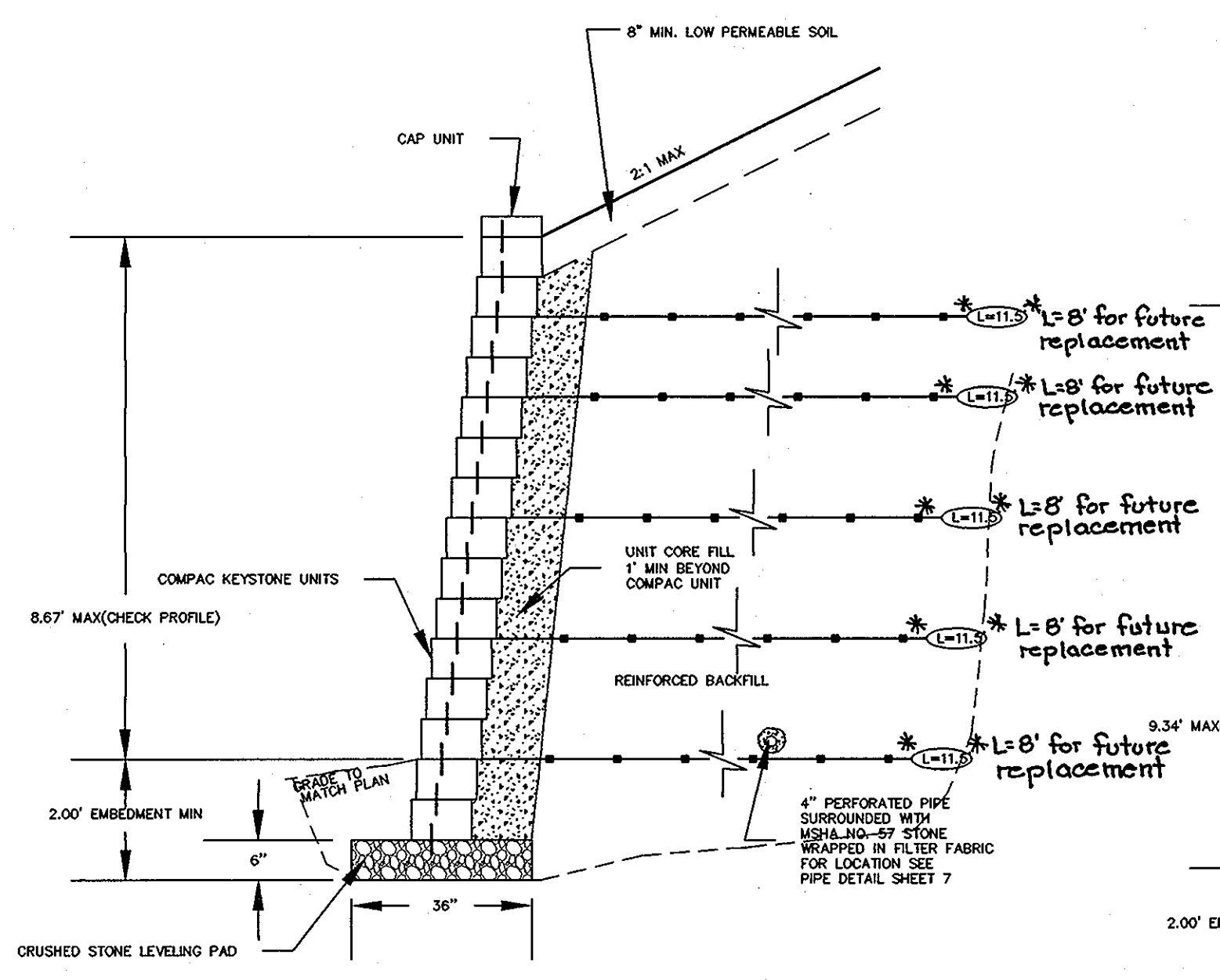
SECTION 8
SCALE 1"=20'
WALL HEIGHT= 6.67'
No. OF GEO GRID LAYERS= 3
No. OF KEYSTONE LAYERS= 12



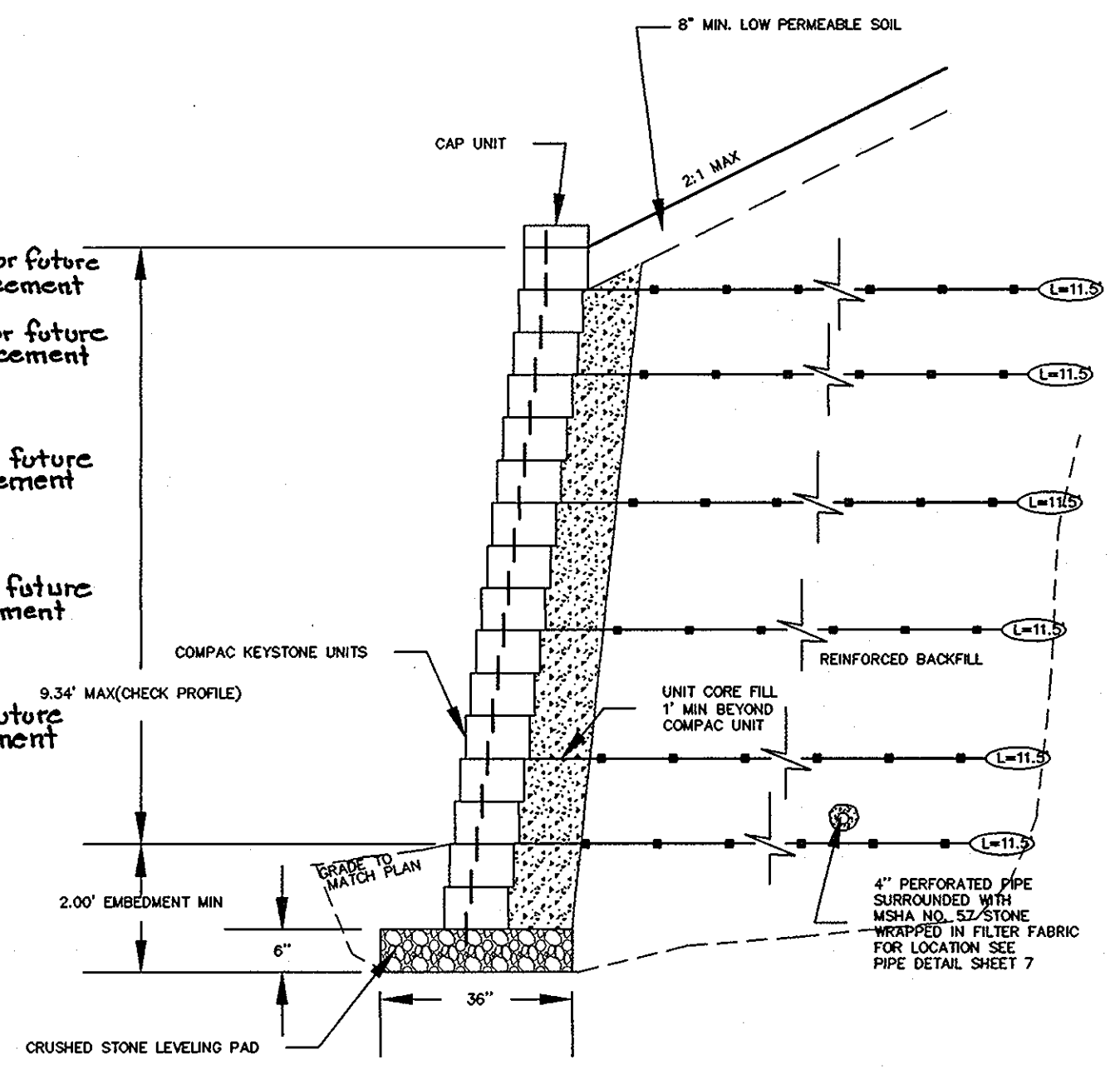
SECTION 9
SCALE 1"=20'
WALL HEIGHT= 7.34'
No. OF GEO GRID LAYERS= 4
No. OF KEYSTONE LAYERS= 13



SECTION 10
SCALE 1"=20'
WALL HEIGHT= 8.00'
No. OF GEO GRID LAYERS= 4
No. OF KEYSTONE LAYERS= 14



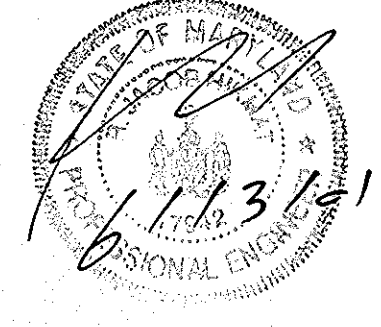
SECTION 11
SCALE 1"=20'
WALL HEIGHT= 8.67'
No. OF GEO GRID LAYERS= 5
No. OF KEYSTONE LAYERS= 15



SECTION 12
SCALE 1"=20'
WALL HEIGHT= 9.34'
No. OF GEO GRID LAYERS= 6
No. OF KEYSTONE LAYERS= 16

Section 11 - future replacement
Only 8' Geo Grid layers are required for replacement of this type of Keystone Retaining Wall should failure ever occur.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE 8/1/01
 [Signature] DATE 8/2/04
 DIRECTOR DATE

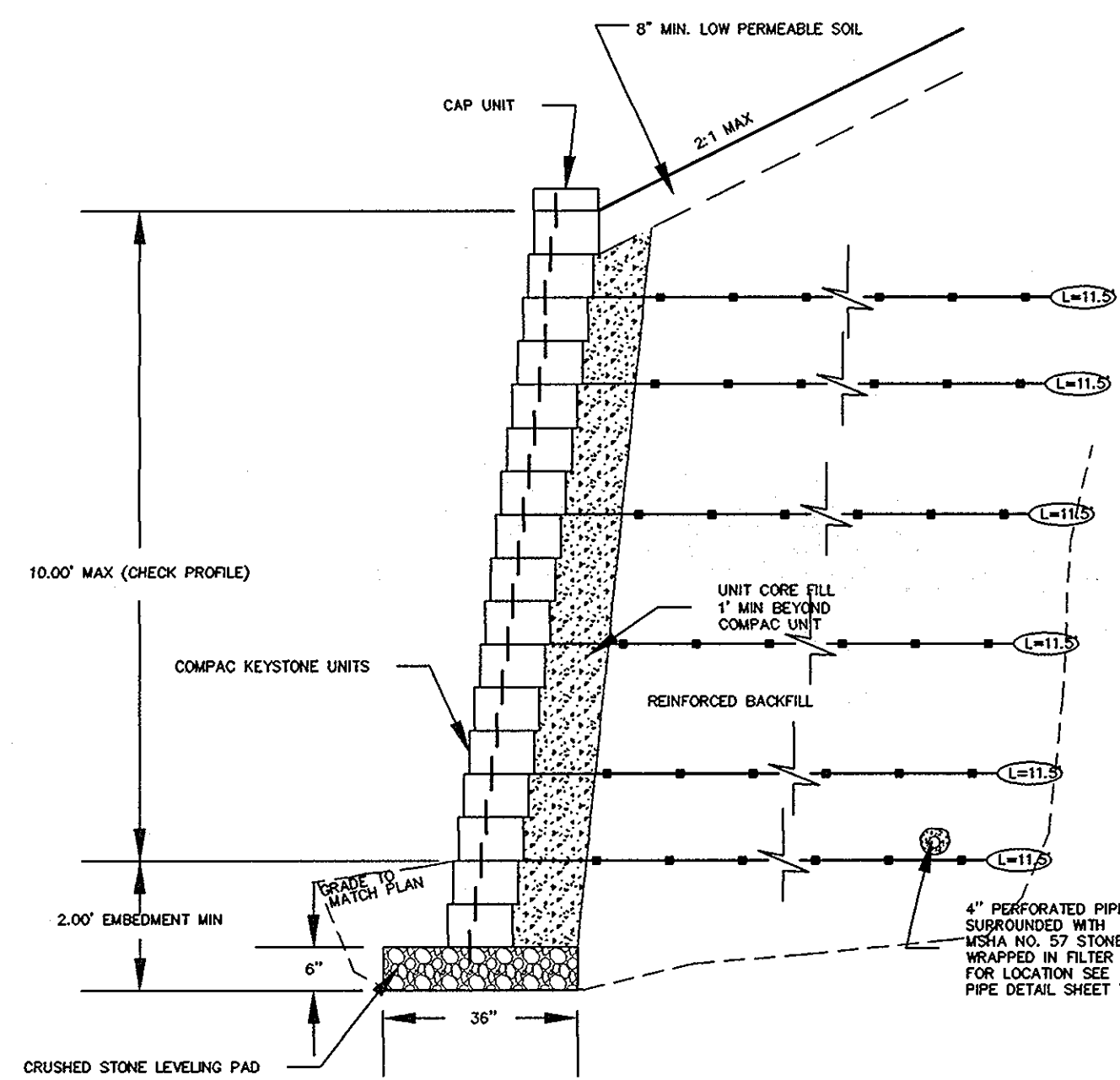


Project	00-021	Date	JUNE 2001
Illustration	SAA	Engineering	SAA
Score	SAA	Approval	SAA
AS SHOWN	IBM		

1	Add Geo Grid note to Section 11 by FCC	10-21-02	date
			revisions

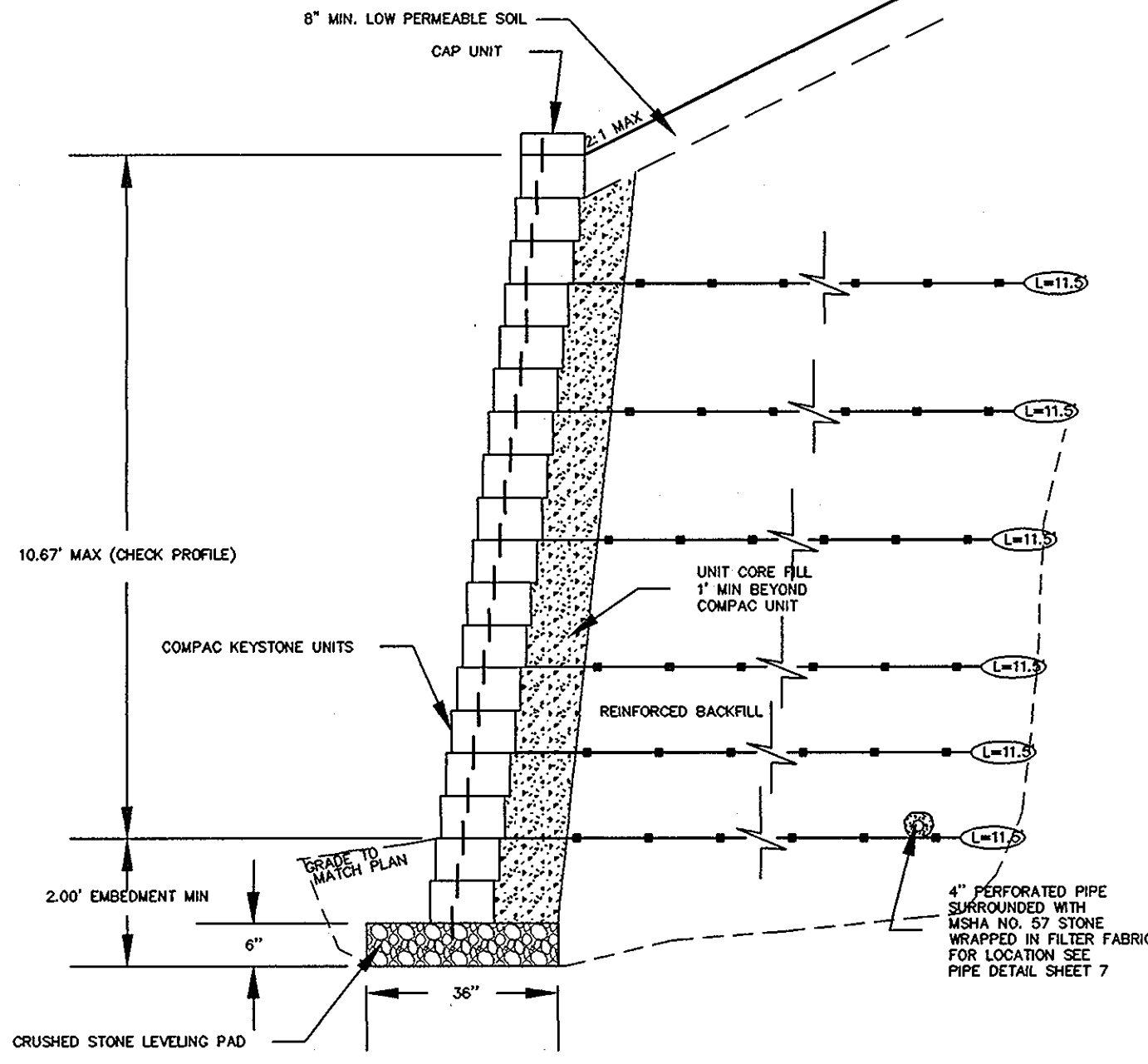
AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 RETAINING WALL DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax: (301) 621-5521 Wash. (410) 997-0298 Fax.



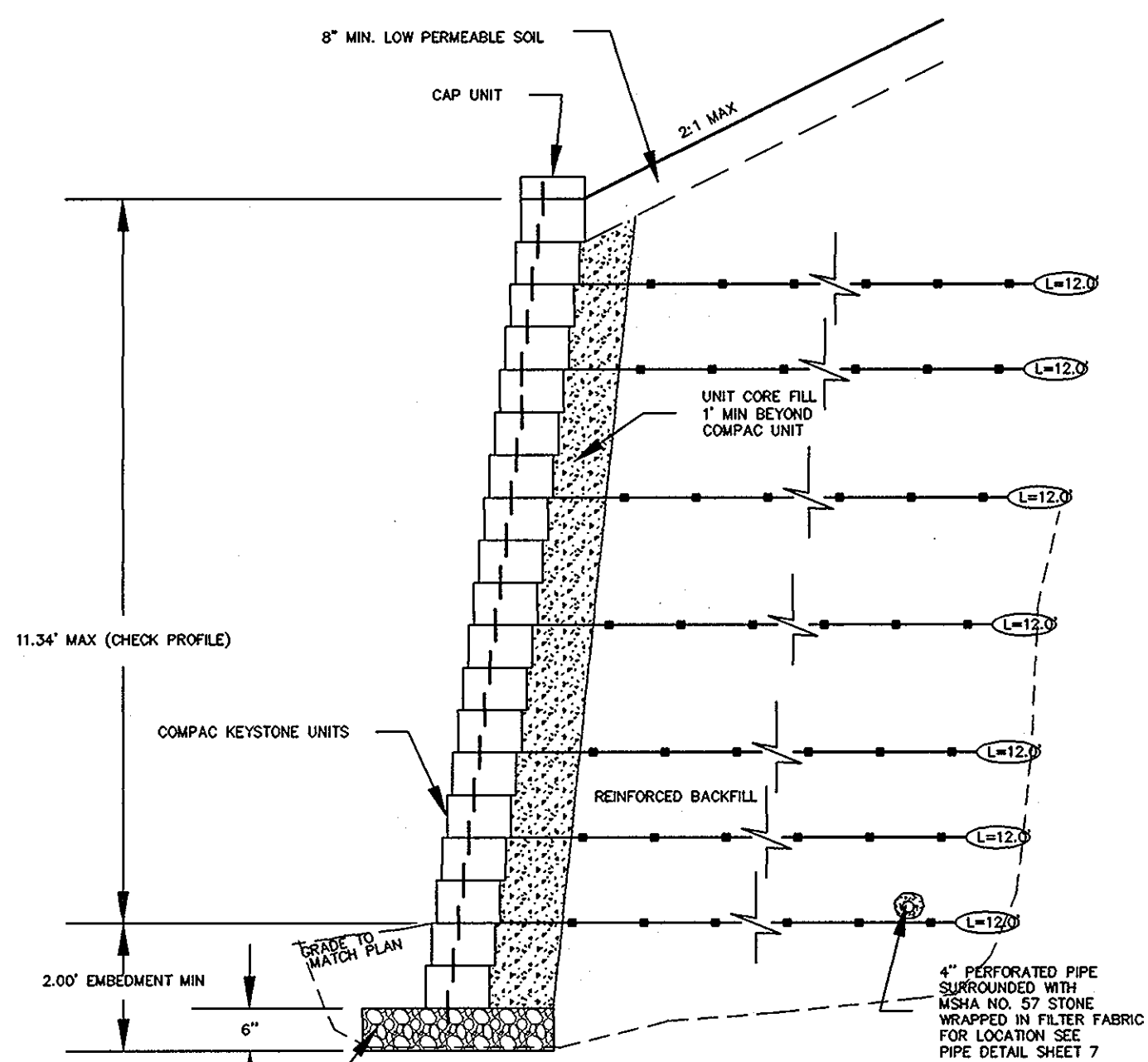
SECTION 13

SCALE 1"=20'
WALL HEIGHT= 10.00'
No. OF GEO GRID LAYERS= 6
No. OF KEYSTONE LAYERS= 17



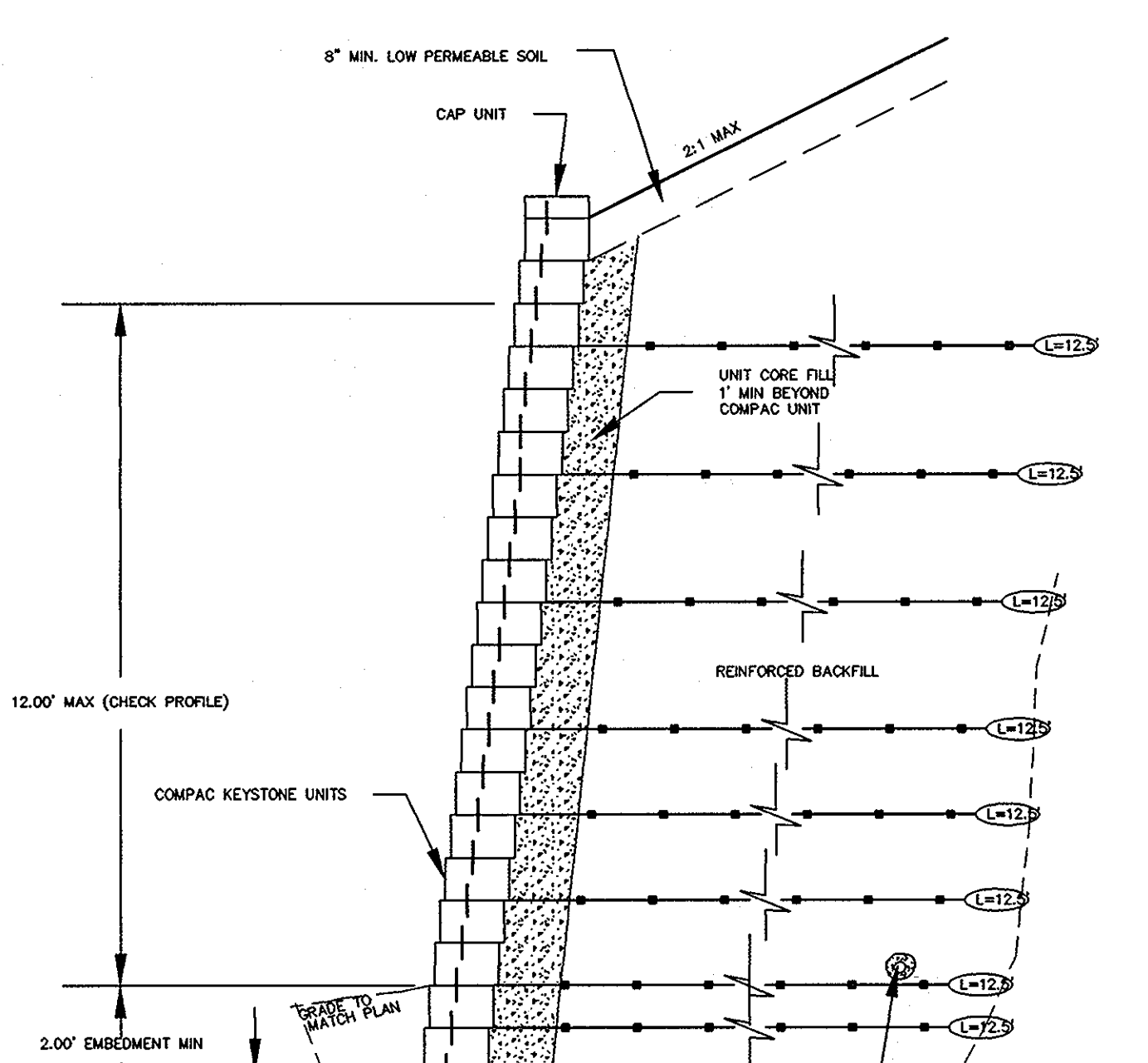
SECTION 14

SCALE 1"=20'
WALL HEIGHT= 10.67'
No. OF GEO GRID LAYERS= 6
No. OF KEYSTONE LAYERS= 18



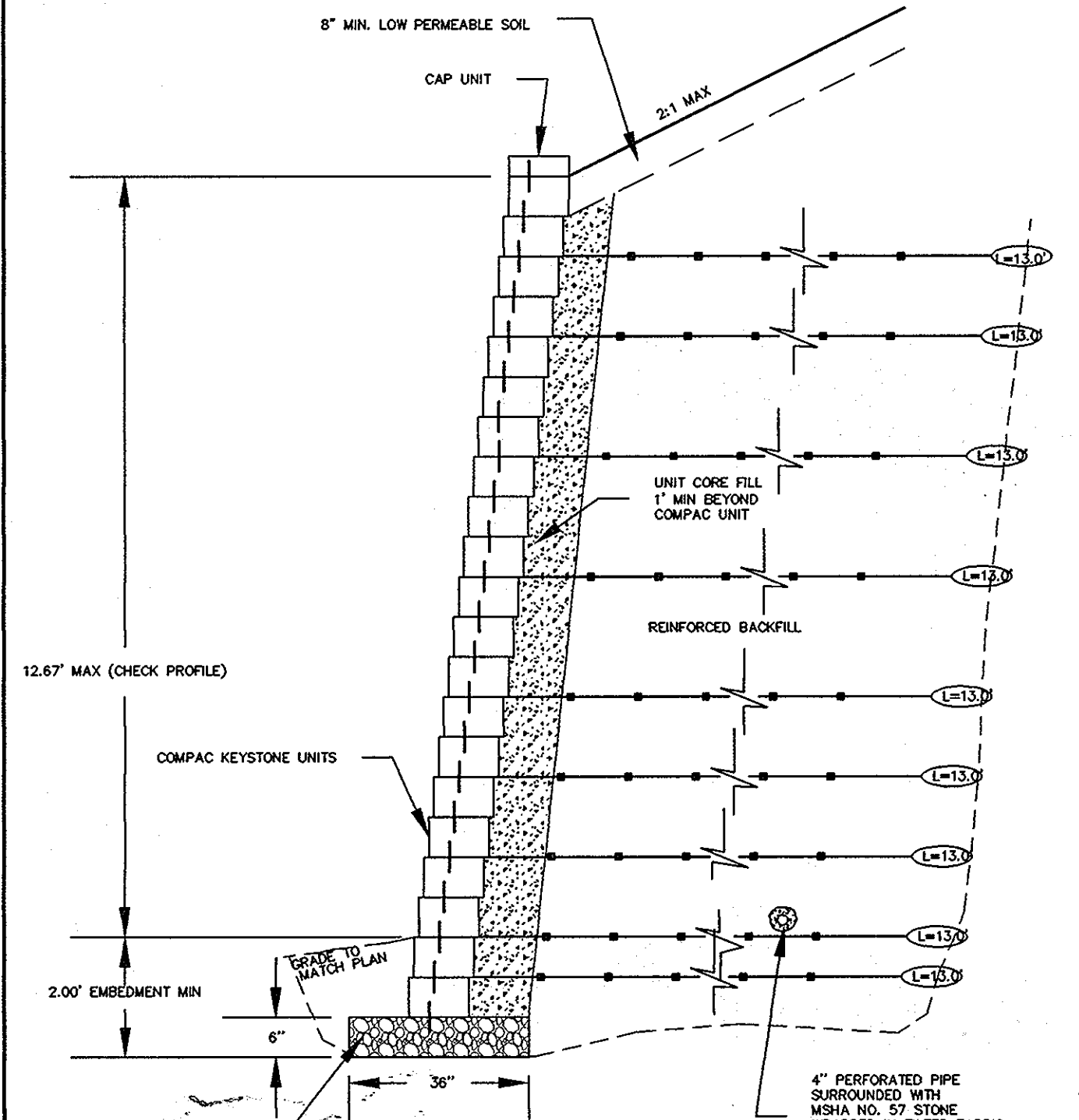
SECTION 15

SCALE 1"=20'
WALL HEIGHT= 11.34'
No. OF GEO GRID LAYERS= 7
No. OF KEYSTONE LAYERS= 19



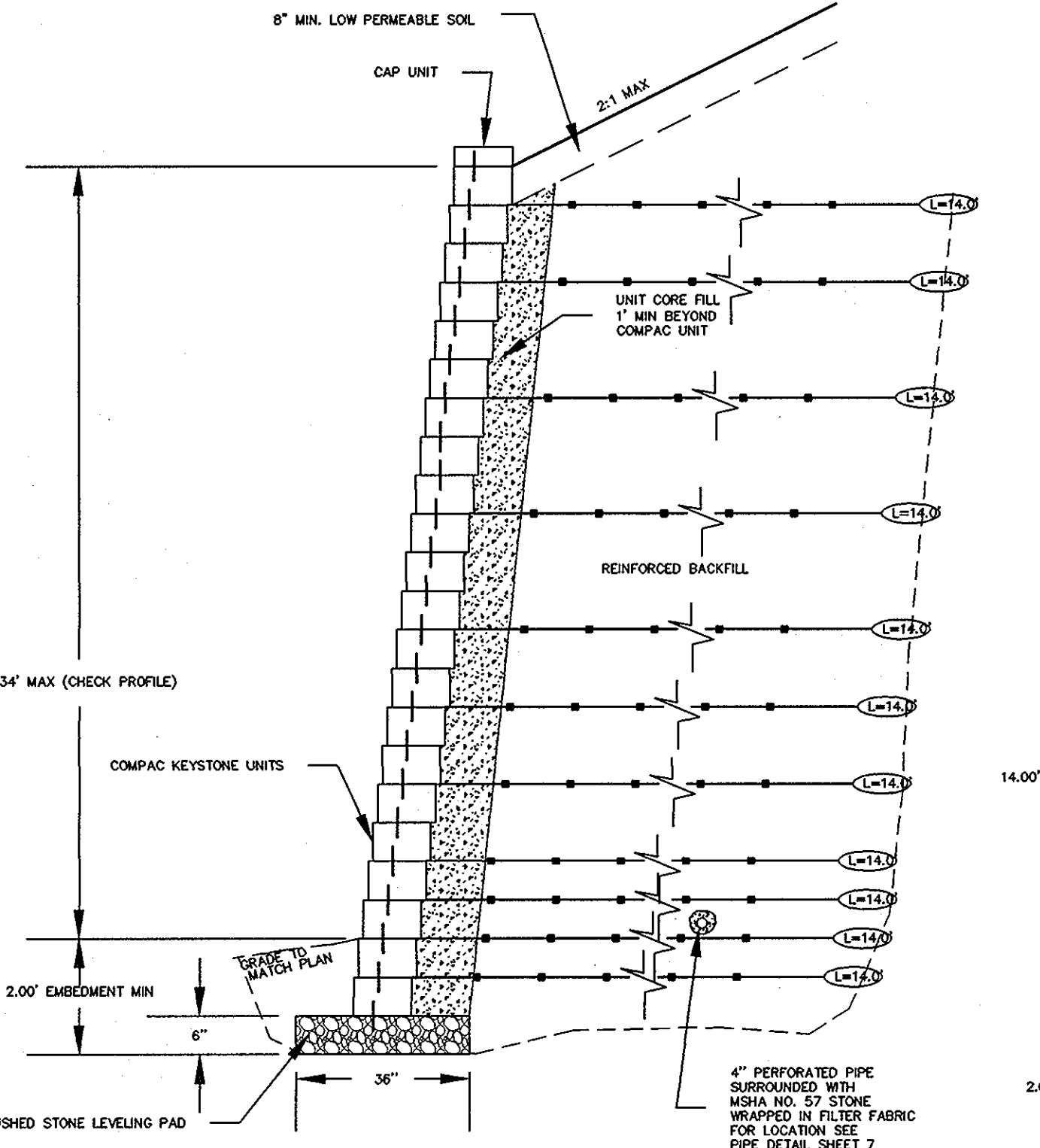
SECTION 16

SCALE 1"=20'
WALL HEIGHT= 12.00'
No. OF GEO GRID LAYERS= 8
No. OF KEYSTONE LAYERS= 20



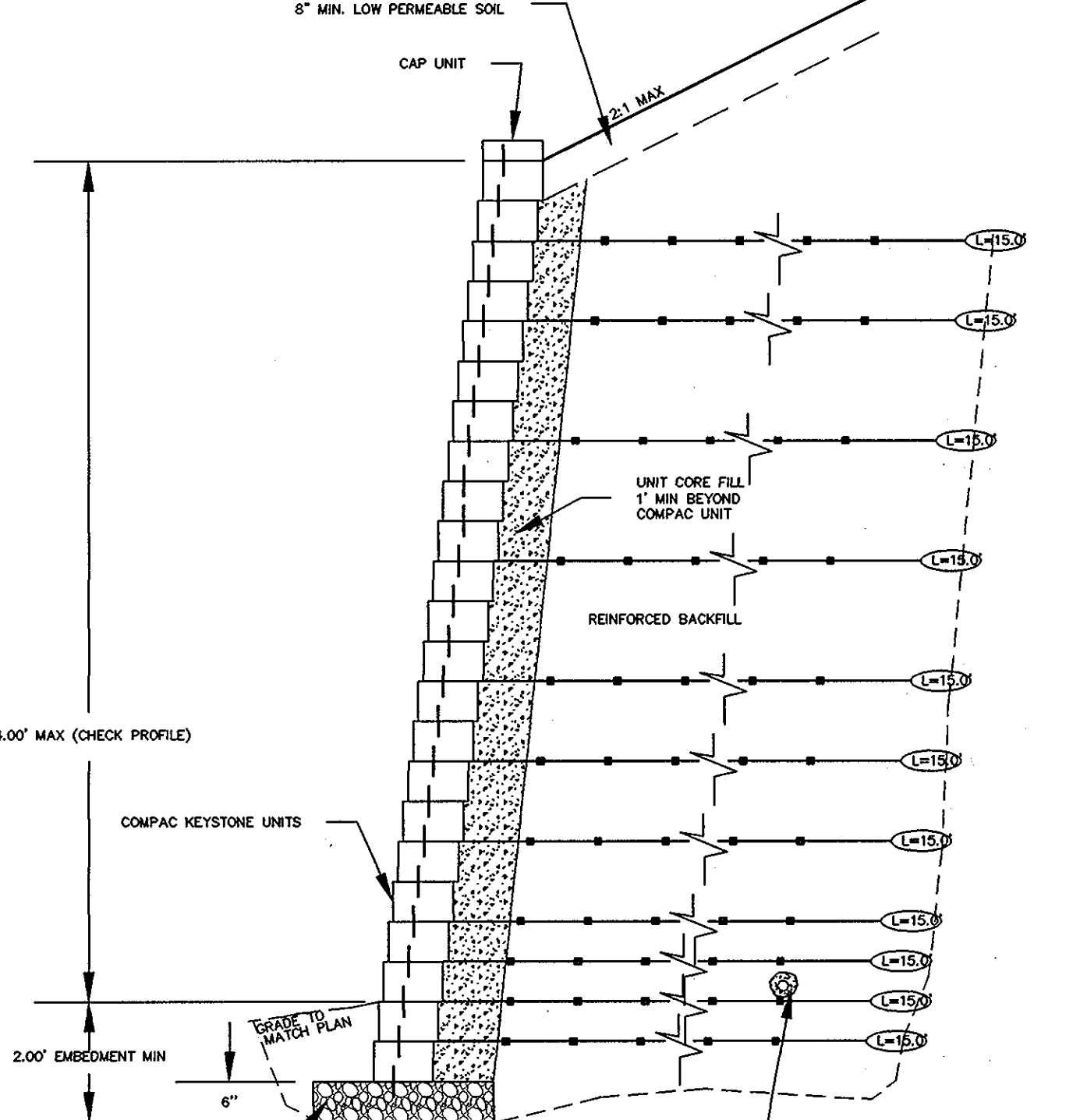
SECTION 17

SCALE 1"=20'
WALL HEIGHT= 12.67'
No. OF GEO GRID LAYERS= 9
No. OF KEYSTONE LAYERS= 21



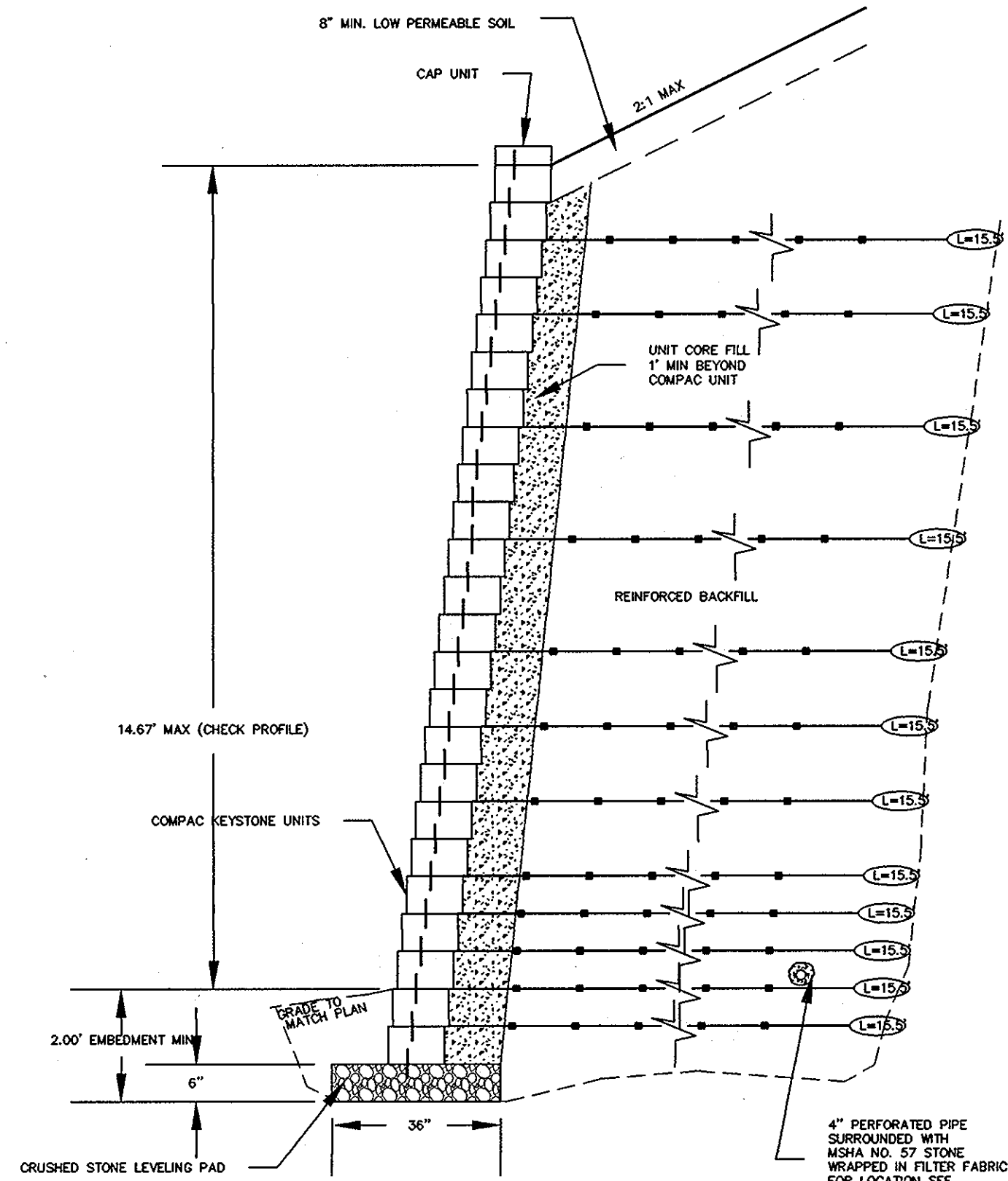
SECTION 18

SCALE 1"=20'
WALL HEIGHT= 11.34'
No. OF GEO GRID LAYERS= 11
No. OF KEYSTONE LAYERS= 22



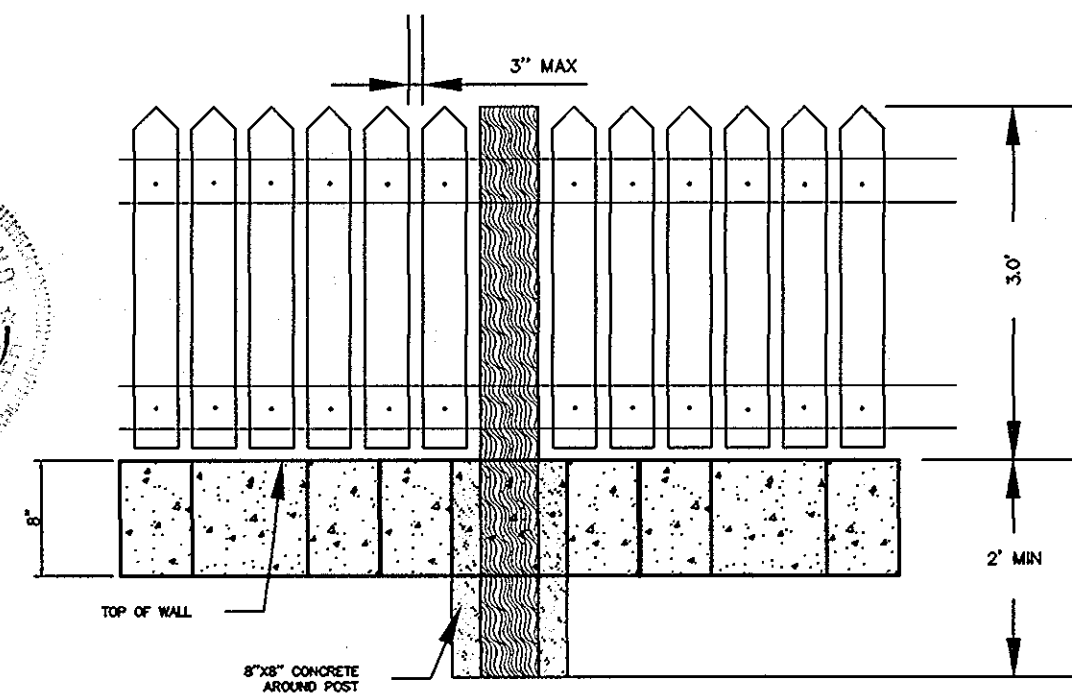
SECTION 19

SCALE 1"=20'
WALL HEIGHT= 14.00'
No. OF GEO GRID LAYERS= 11
No. OF KEYSTONE LAYERS= 23



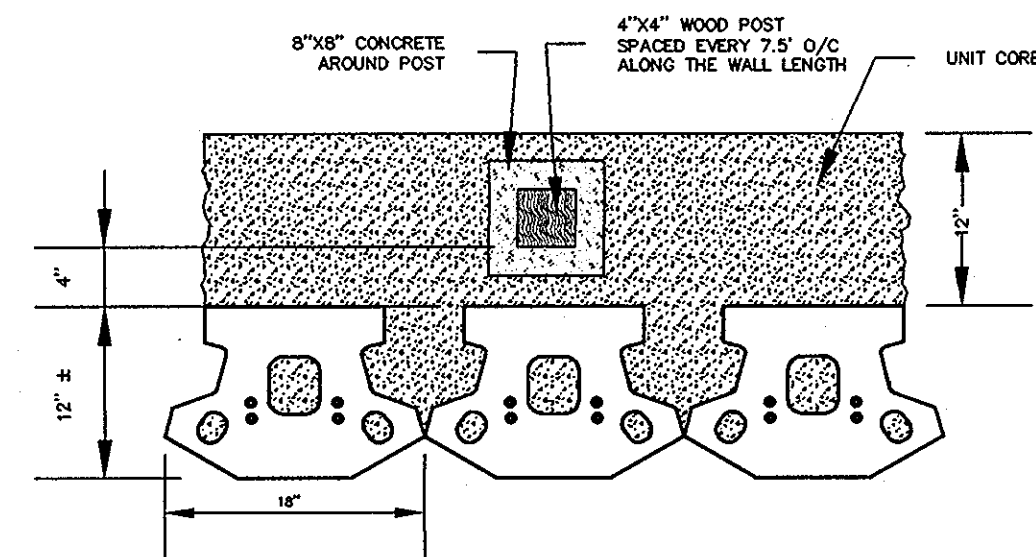
SECTION 20

SCALE 1"=20'
WALL HEIGHT= 14.67'
No. OF GEO GRID LAYERS= 12
No. OF KEYSTONE LAYERS= 24



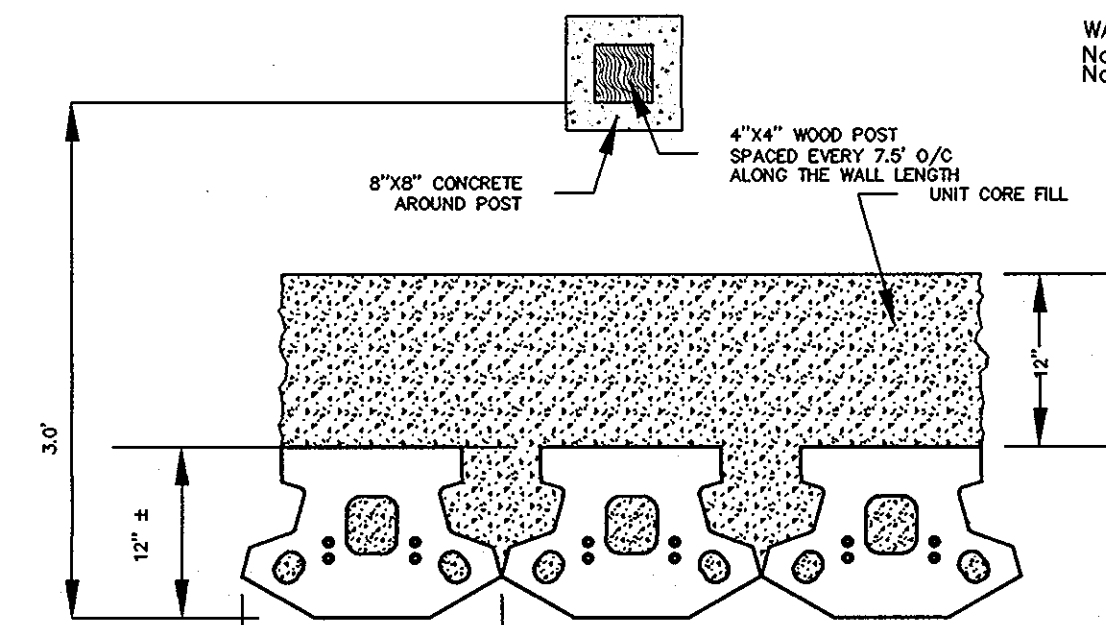
FENCE PROFILE (TYP.)

SCALE: NONE



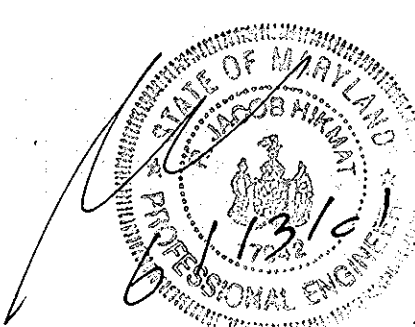
FENCE LAYOUT # 1 (PLAN)

SCALE: NONE



FENCE LAYOUT # 2 (PLAN)

SCALE: NONE



APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MAR3
[Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8/1/11
 DATE: 8/2/11

date	JUNE 2001
project	00-021
illustration	scale
engineering	AS SHOWN
SA	approval
SA	IBM

no.	description	date

AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
RETAINING WALL DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax

HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

- 9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES...

STANDARD 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...

CONSTRUCTION AND MATERIAL SPECIFICATIONS: TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS...

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

STANDARD SEDIMENT CONTROL NOTES

- 1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS...
2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN...

ROCK OUTLET PROTECTION

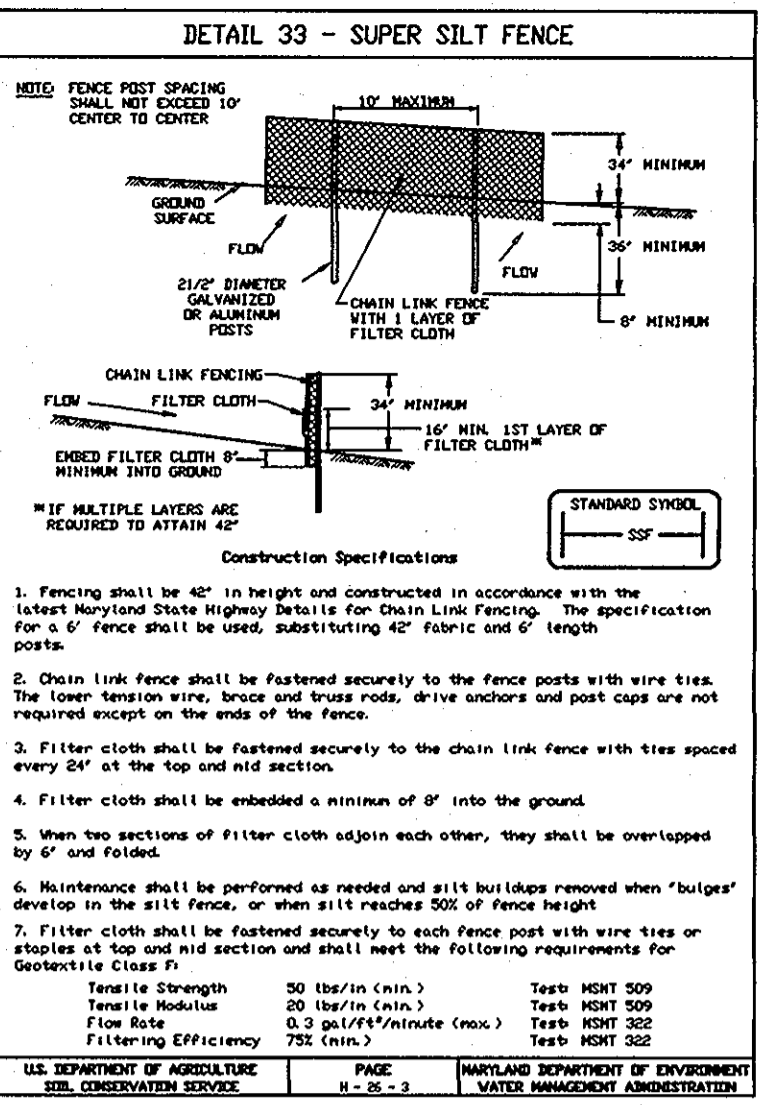
Construction Specifications: 1. The subgrade for the filter, riprap, or gabion shall be prepared to the required finished grade...
2. The rock or gravel shall conform to the specified gradation limits when installed respectively in the riprap or filter.

SEQUENCE OF CONSTRUCTION

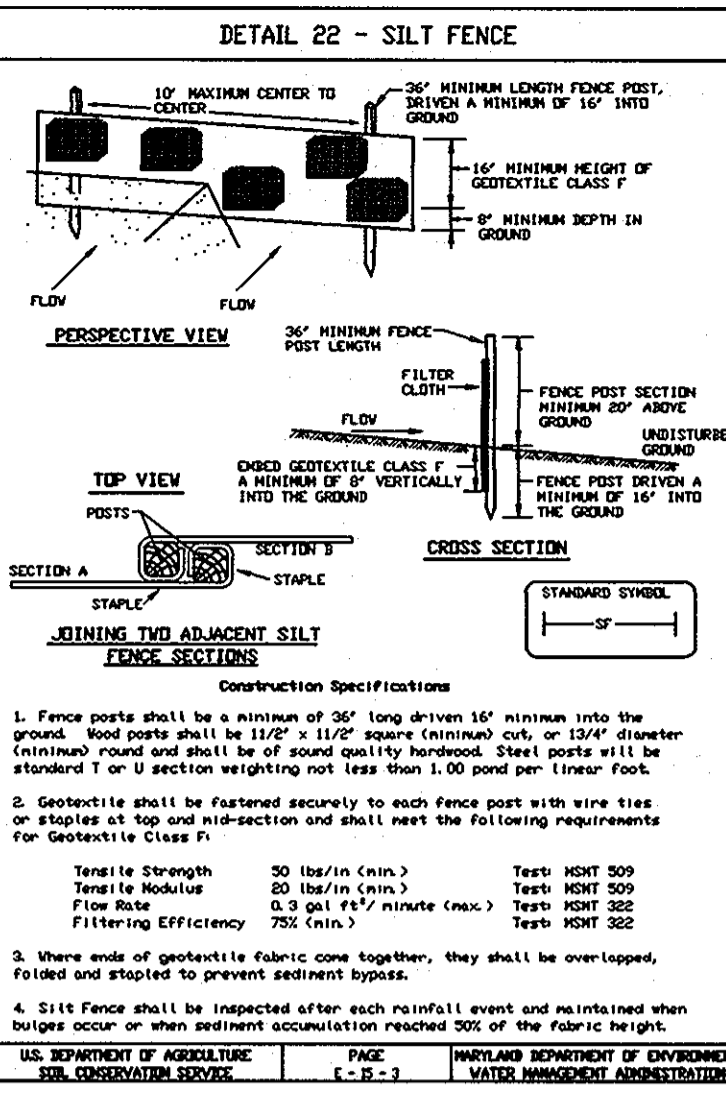
- 1. OBTAIN GRADING PERMIT.
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES WITH MOUNTABLE BARRIERS AT LOCATIONS INDICATED. (1 DAY)
3. CONSTRUCT SILT FENCES, SUPER SILT FENCES AND TREE PROTECTION FENCES (3 DAYS)

TEMPORARY DUST CONTROL MEASURES

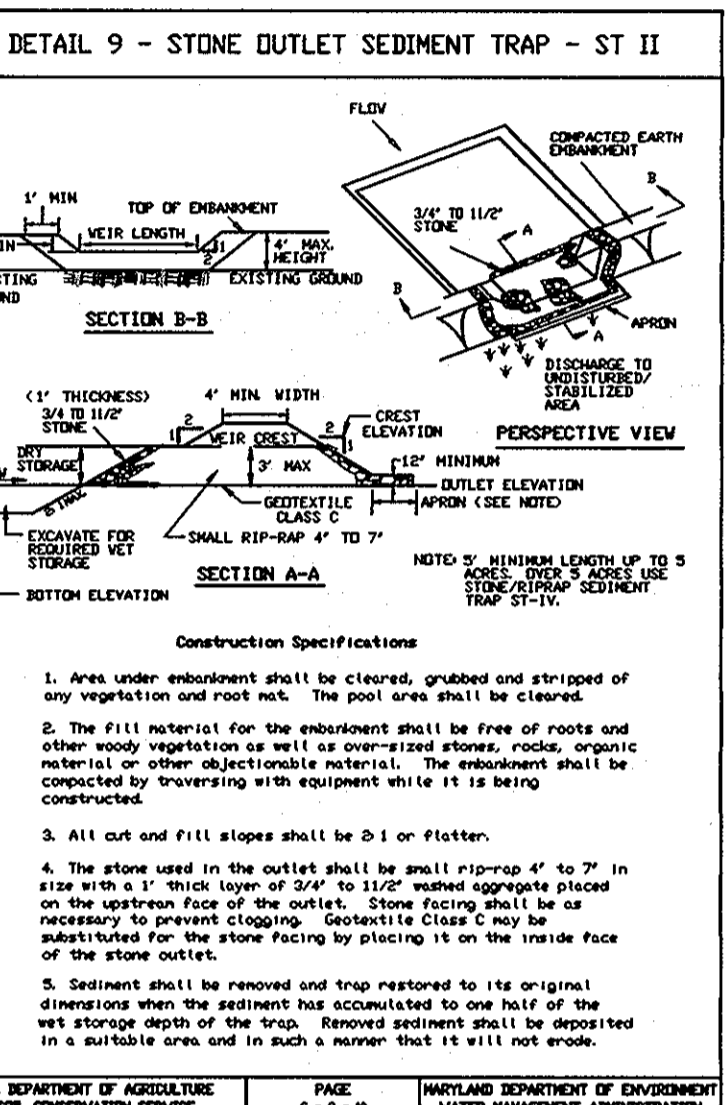
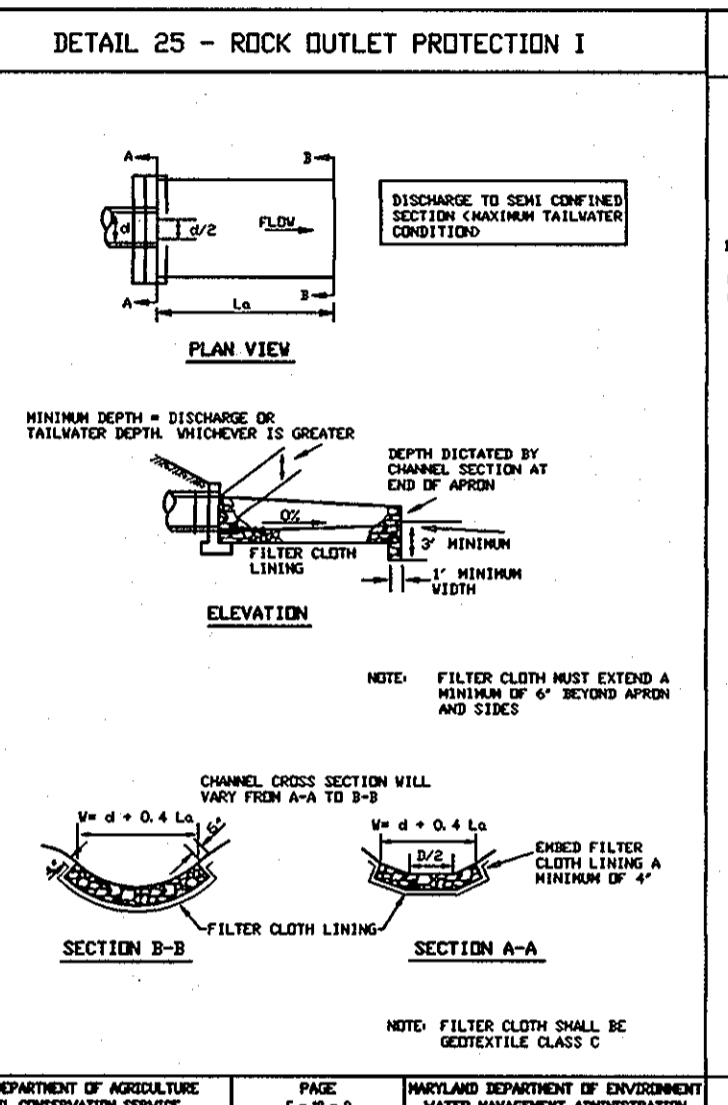
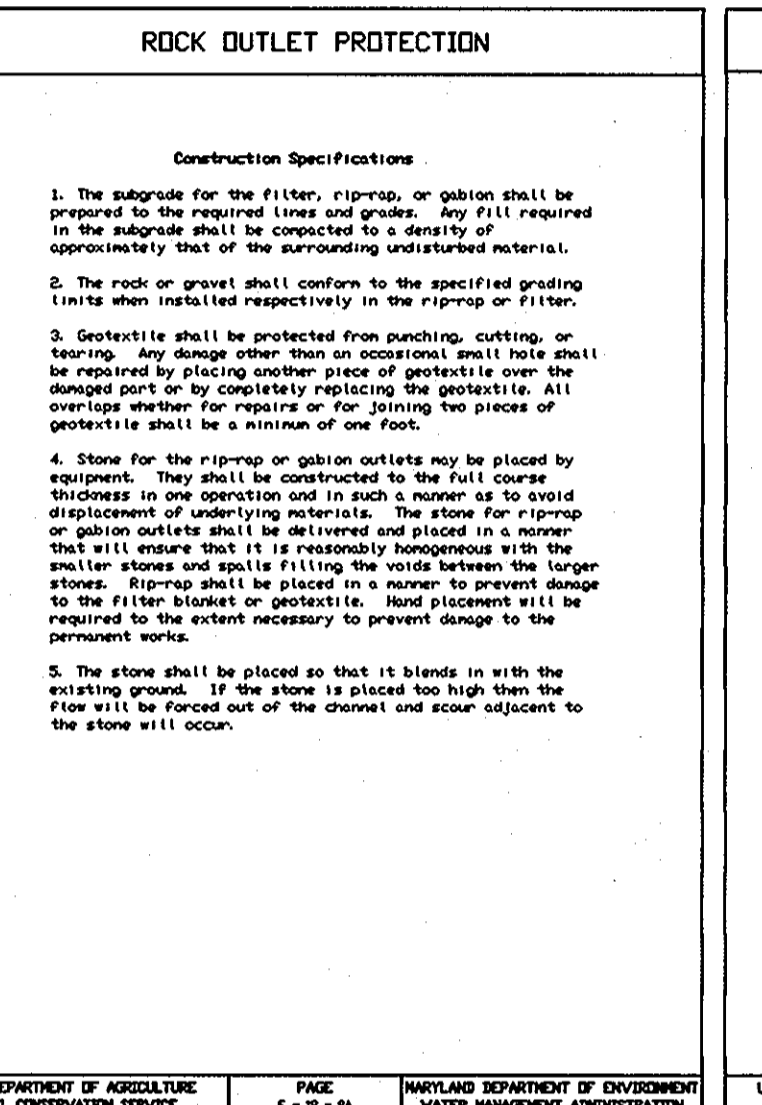
- 1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRUMPED OR TACKED TO PREVENT BLOWING.
2. VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.



SUPER SILT FENCE Design Criteria table with columns for Slope, Slope Steepness, Slope Length (feet), and Silt Fence Length (feet).



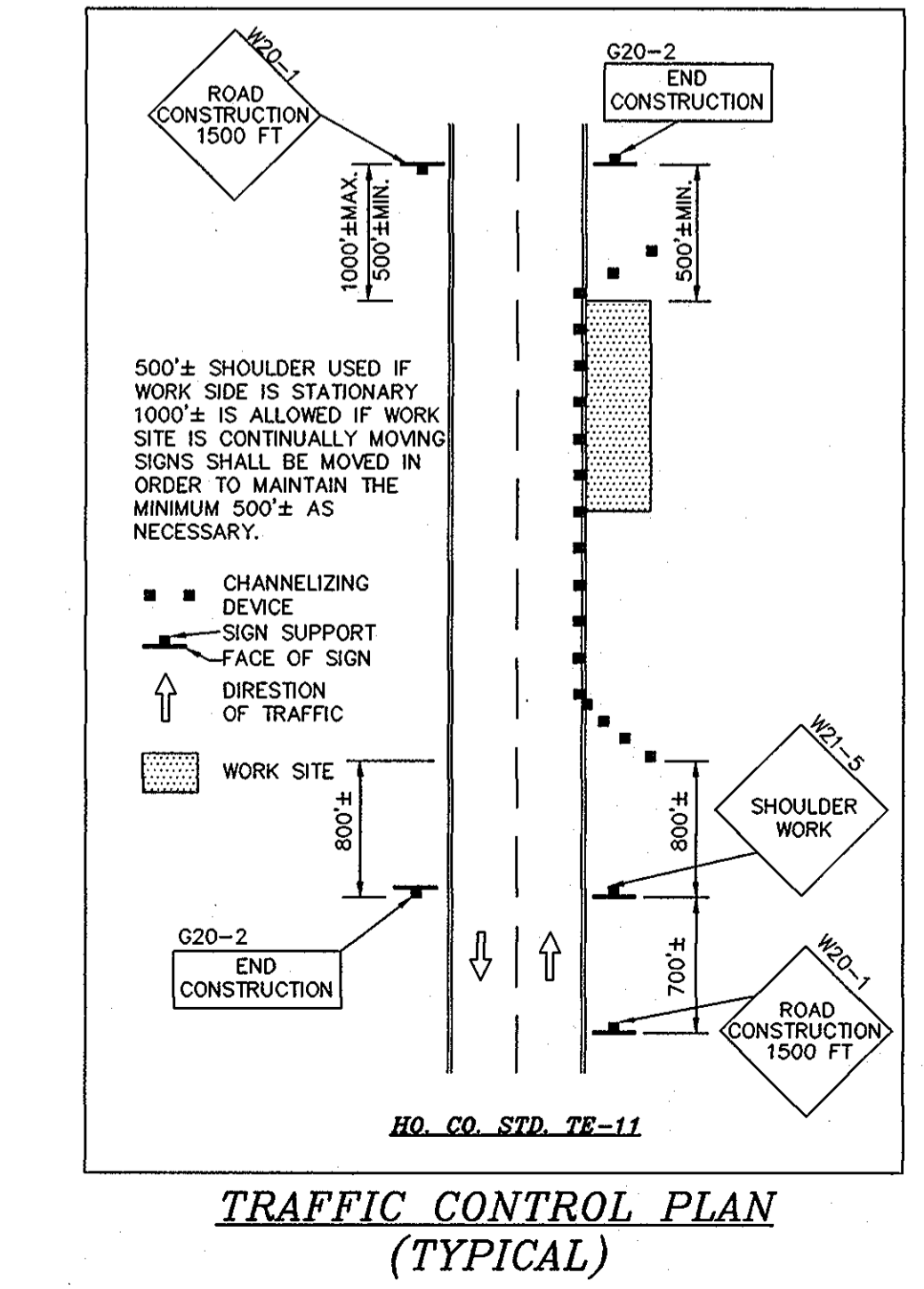
SILT FENCE Design Criteria table with columns for Slope Steepness, Slope Length (feet), and Silt Fence Length (feet).



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.



FISHER COLLEGE AND CAREER INC.
Professional Engineer
6/12/05

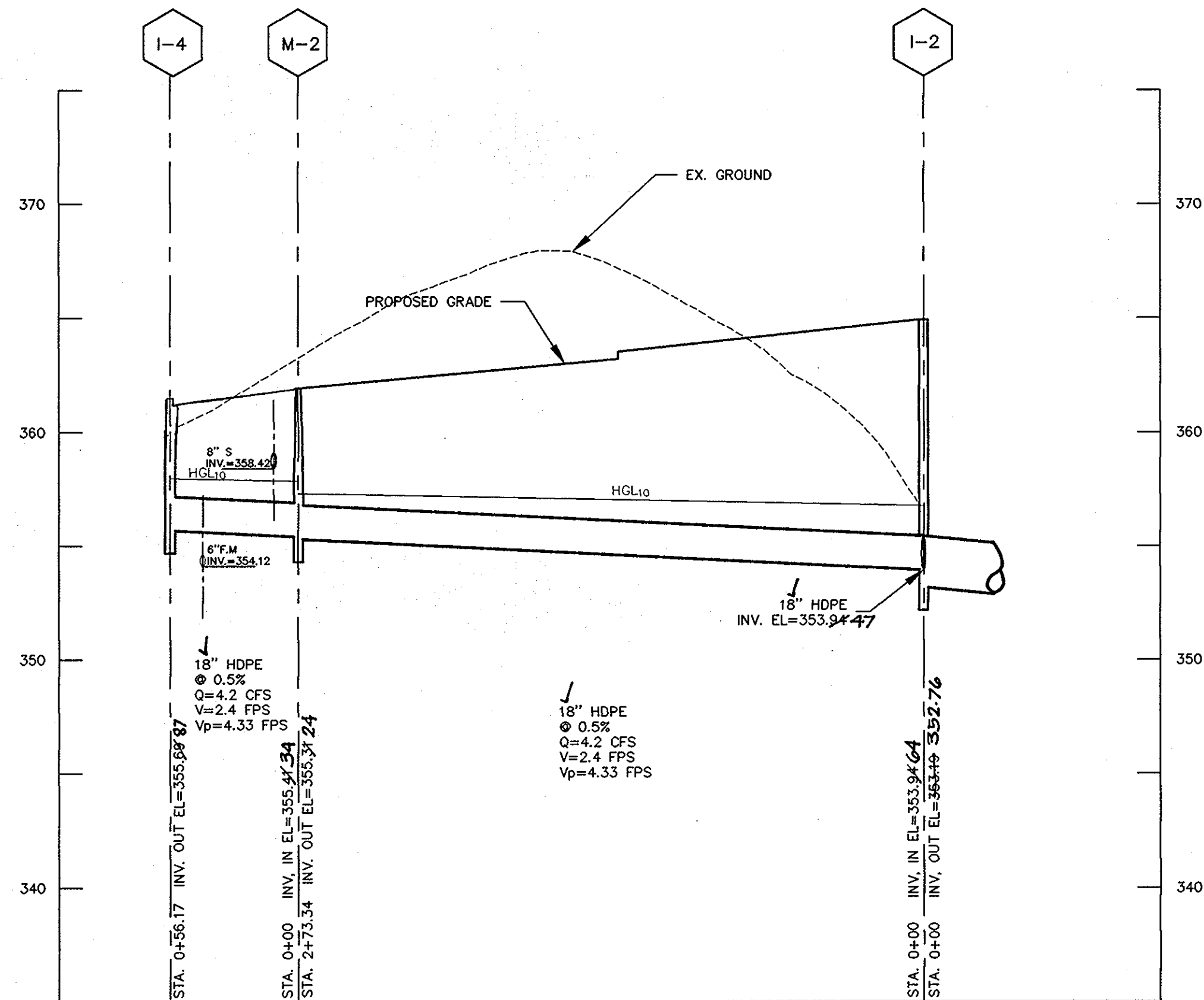


Project information table with columns for date, project name, illustration, scale, and approval.

Revision table with columns for no., description, and date.

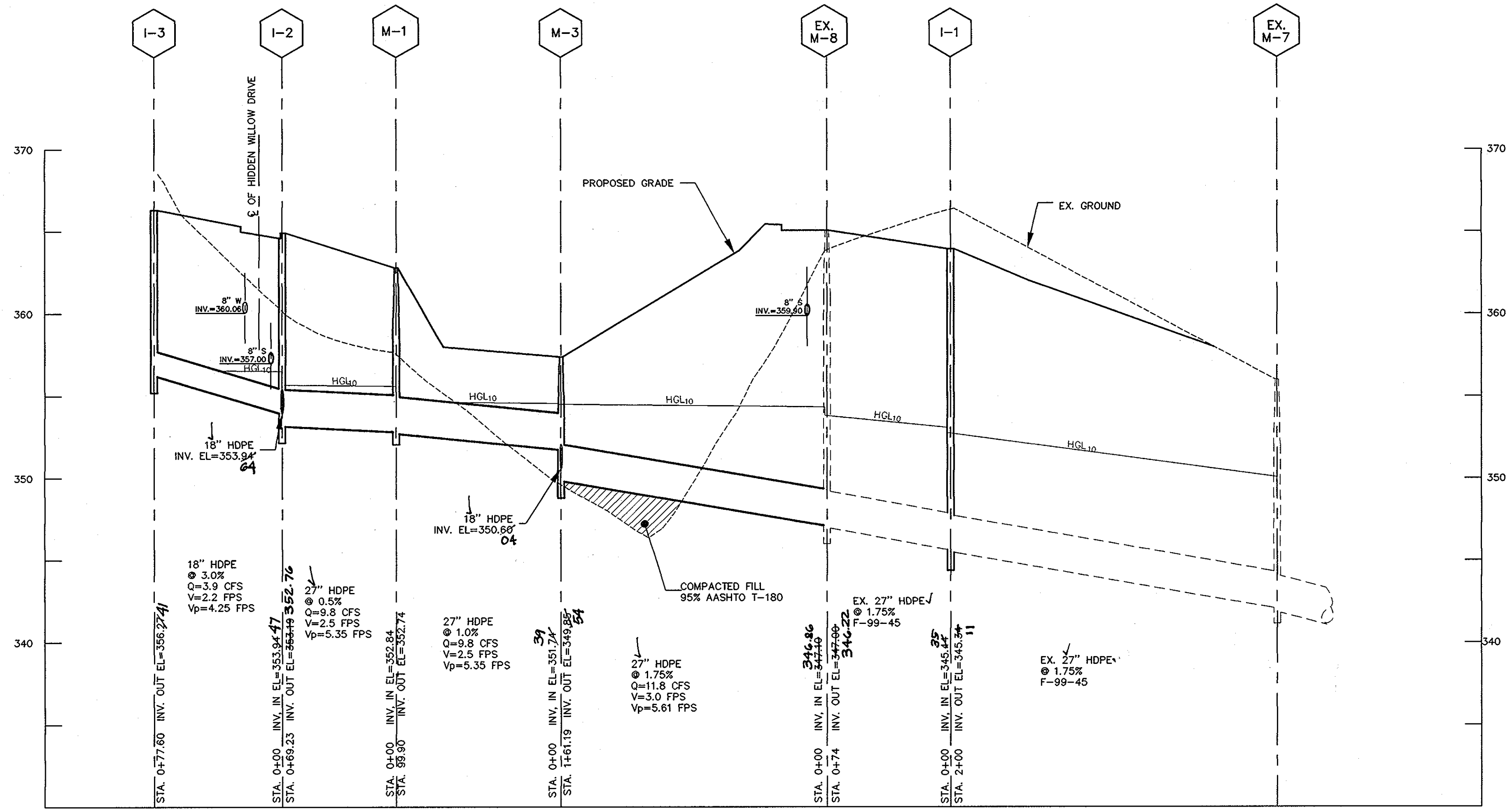
AUTUMN VIEW, SEC. 4, LOTS 152-150
TAX MAP 25 & 31, P/O PARCEL 75
AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
HOWARD COUNTY, MARYLAND
SECOND ELECTION DISTRICT

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Beltsville, Maryland 21042
(410) 997-0298 Fax
(301) 821-5521



**STORM DRAIN PROFILE
I-4 TO I-2**

SCALE HORIZONTAL 1"=50'
VERTICAL 1"=5'



**STORM DRAIN PROFILE
I-3 TO I-1**

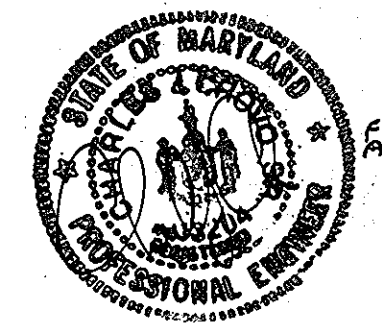
SCALE HORIZONTAL 1"=50'
VERTICAL 1"=5'



APPROVED: DEPARTMENT OF PUBLIC WORKS
Hamilton 7/30/01
 CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cinda Hamilton 8/1/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

McDermott 8/1/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



OWNER/DEVELOPER
 BONNIE BRANCH CORPORATION
 P.O. BOX 396
 ELLICOTT CITY, MD 21041

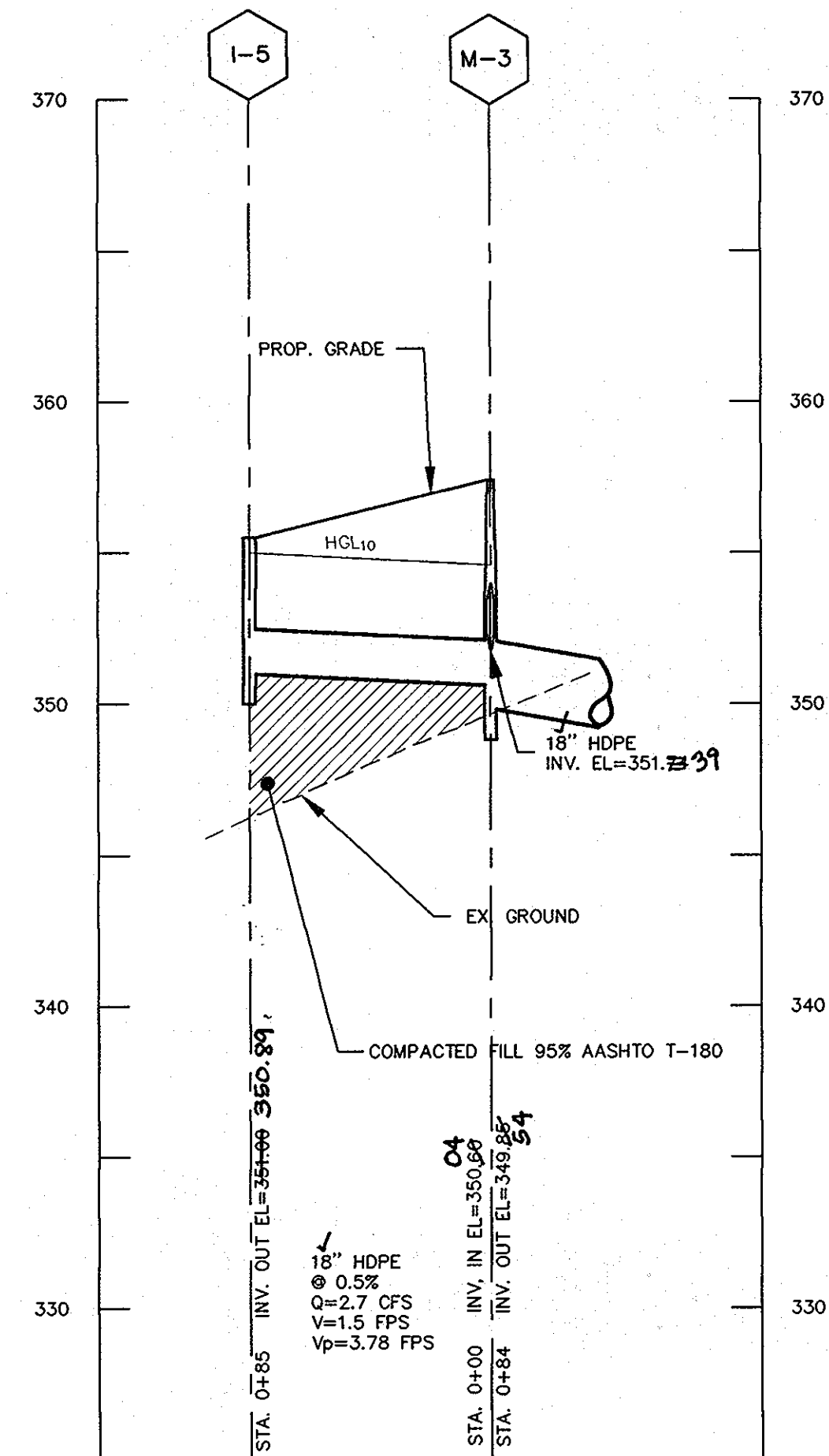
Project	00-021	date	JUNE 2001
Illustration	SAA	engineering	SAA
scale	AS SHOWN	approval	JBM

no.	1	description	REVISE STORM DRAIN PROFILE I-4 TO I-2	date	5/17/2002
revisions					

AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
 HOWARD COUNTY, MARYLAND
 SECOND ELECTION DISTRICT

STORM DRAIN PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Bat. (301) 621-5521 Wash. (410) 997-0298 Fax.



**STORM DRAIN PROFILE
M-3 TO I-5**

SCALE HORIZONTAL 1"=50'
VERTICAL 1"=5'

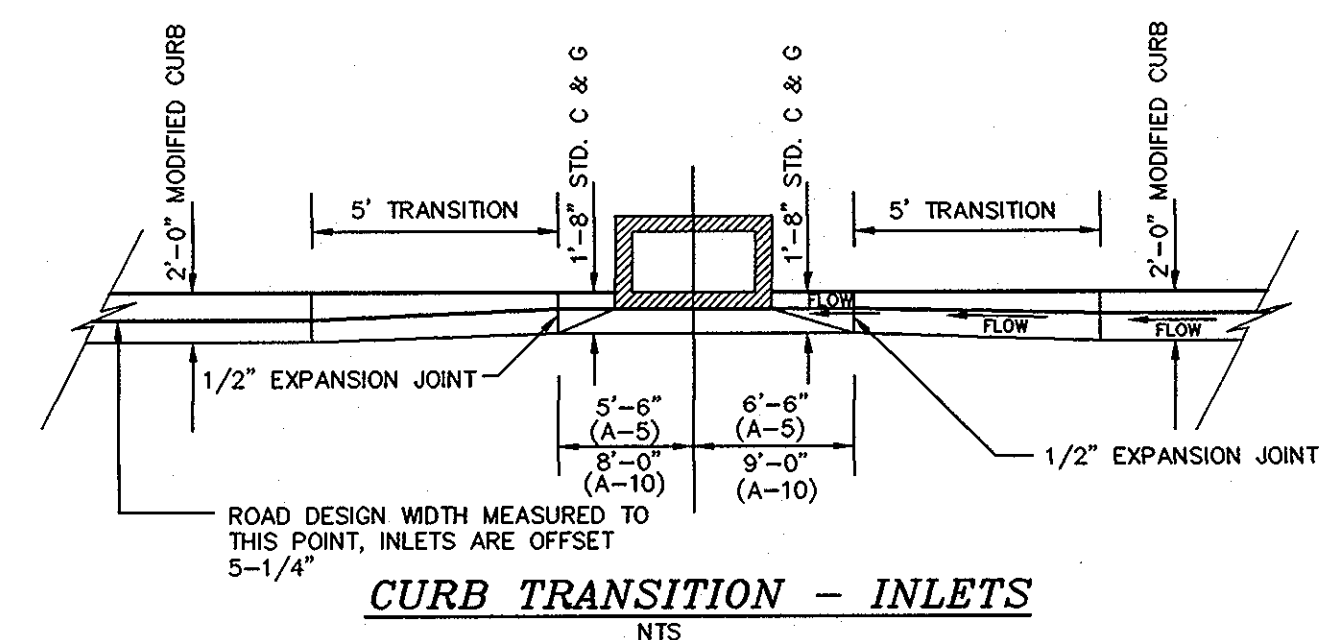
STRUCTURE SCHEDULE

No.	LOCATION	TYPE OF STRUCTURE	TOP OF STRUCTURE	INVERT IN	INVERT OUT	COMMENTS
I-1	WHISPERING WILLOW DRIVE L.P. STA 1+66.53 O/S 1.34'	√A-5 H.C. STD. SD 4.01	364.28 34	345.44 36	345.34 11	WIDTH OF INLET IS 3'-6" (TO BE BUILT ON EX. 27" PIPE)
I-2	HIDDEN HOLLOW STA. 0+62.80 O/S 11.34' LT.	√A-5 H.C. STD. SD 4.01	365.28 43	353.92 353.24 64	363.40 352.76	WIDTH OF INLET IS 3'-6"
I-3	FRANCING DEER STA. 2+54.80 O/S 11.34' LT.	√A-5 H.C. STD. SD 4.01	366.81 96	---	356.61 41	WIDTH OF INLET IS 2'-6"
I-4	HIDDEN HOLLOW DRIVE L.P. STA 1+51.50 O/S 1.34'	√A-5 H.C. STD. SD 4.01	364.60 361.91	---	355.68 87	WIDTH OF INLET IS 2'-6"
I-5	STA 2+28.94 10.52' LT.	√TYPE "K" INLET H.C. STD SD 4.12	355.50 44	---	364.00 350.89	TOP = TROAT EL. /DIMENSIONS OF INLET OPENING ARE 3'x3'
M-1	N 576160 E 1374983	√BRICK MANHOLE H.C. STD G 5.02	362.80	352.84	352.74	
M-2	HIDDEN HOLLOW STA. 3+38.13 O/S 7.15' LT	√BRICK MANHOLE H.C. STD G 5.01	364.00 362.64	355.44 34	355.34 24	
M-3	N 576081 E 1374921	√BRICK MANHOLE H.C. STD G 5.02	357.40 24	350.60 351.74 39	349.80 54	
EX. M-3	WHISPERING WILLOW STA. 2+67.01 O/S 5.72' LT.		366.60 364.95	---	---	TOP OF MANHOLE TO BE RAISED 1.08'

NOTES:
1. LOCATION OF INLETS IS CENTER OF STRUCTURE TOP OF CURB.

PIPE SCHEDULE

PIPE SIZE	LENGTH
18" HDPE	488 L.F.
27" HDPE	329 L.F.



CURB TRANSITION - INLETS



AS BUILT
11/17/05
FISHER COLLINS
AND CARTER INC.

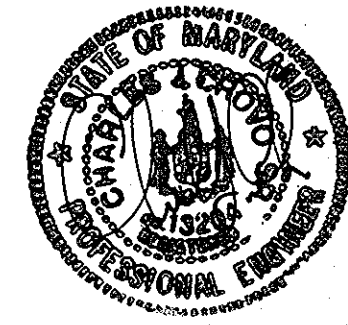
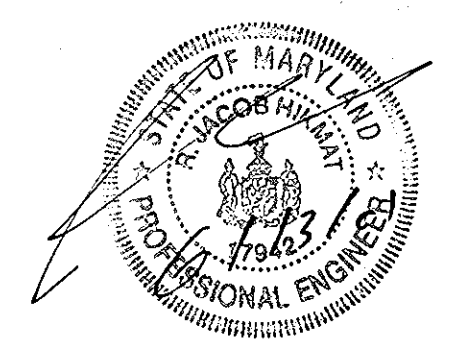
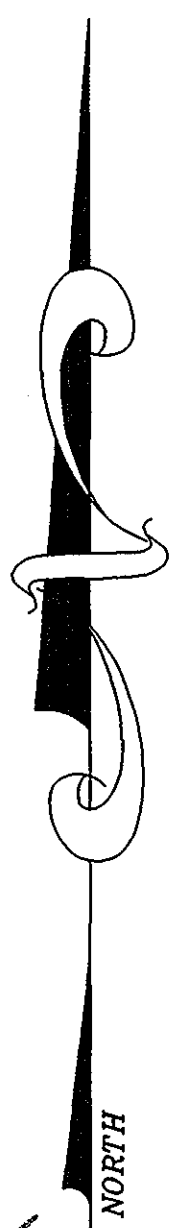
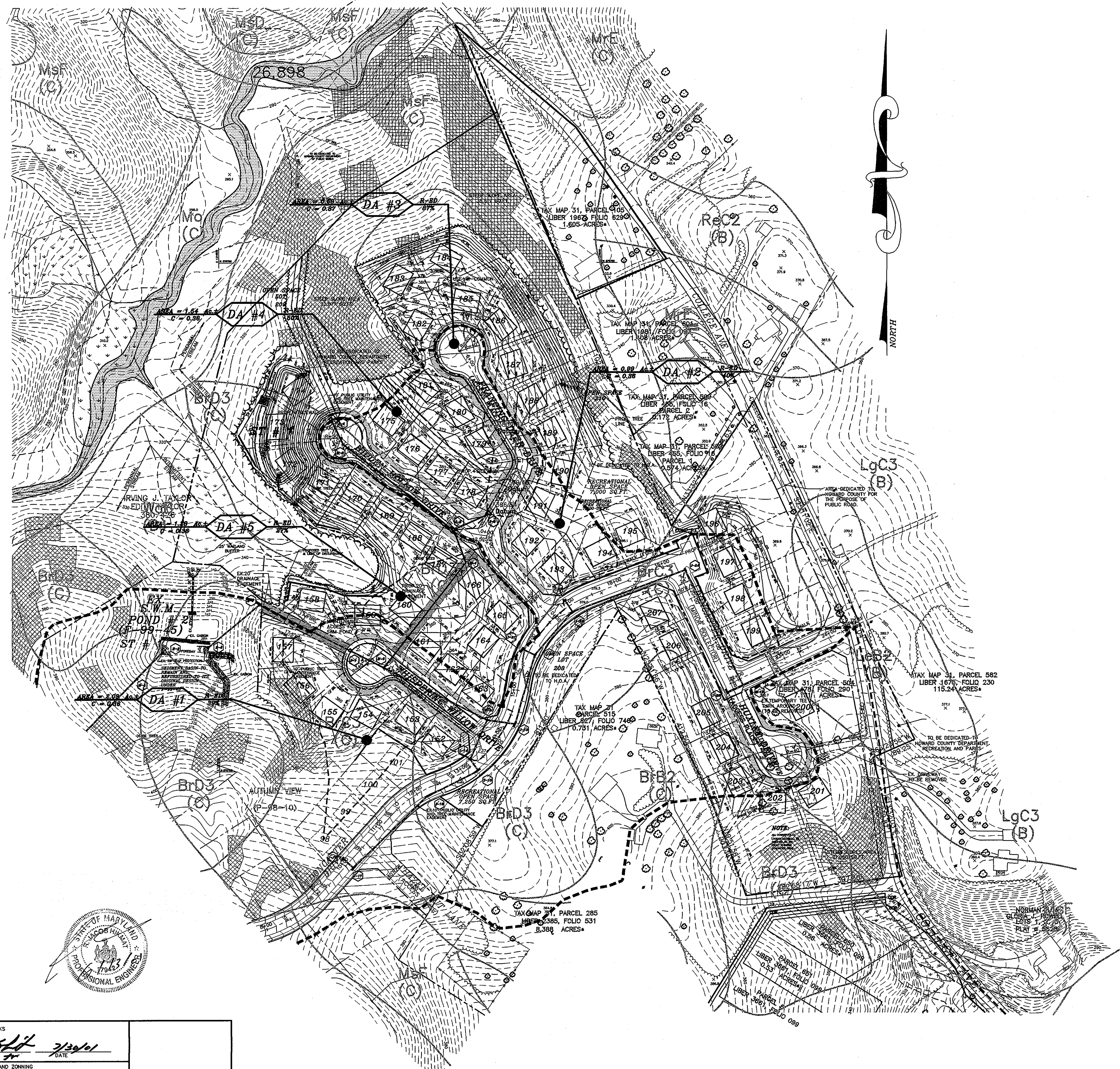
OWNER/DEVELOPER
BONNIE BRANCH CORPORATION
P.O. BOX 396
ELlicott CITY, MD 21041

date	JUNE 2001
project	00-021
illustration	SAA
scale	SAA
approval	AS SHOWN IBM

description	REVISE STRUCTURE SCHEDULE
no.	1
date	5/17/2002
revisions	

STORM DRAIN PROFILES
AUTUMN VIEW, SEC. 4, LOTS 152-210
TAX MAP 25 & 31, P/O PARCEL 75
AND RESUBDIVISION OF AUTUMN VIEW SECTION 3, PARCEL A
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Fax. (301) 621-5521 Wash. (410) 997-0298 Fax.



ASBUILT
11/17/05
FISHKILL CONSULTANTS
AND CARTER INC.

APPROVED: DEPARTMENT OF PUBLIC WORKS
Howard Stoltz 7/20/01
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chris Hamble 8/9/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Michael P. ... 8/16/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNER/DEVELOPER
 BONNIE BRANCH CORPORATION
 P.O. BOX 396
 ELLICOTT CITY, MD 21041

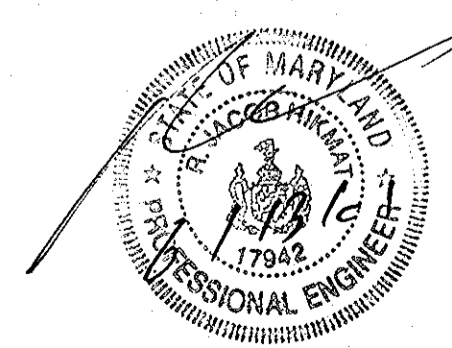
Project	00-021	date	JUNE 2001
Illustration	MMP/SA/A	engineering	MMP/SA/A
scale	1"=100'	approval	JBM

no.	description	revisions	date

AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75 AND 405
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DRAINAGE AREA MAP

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.

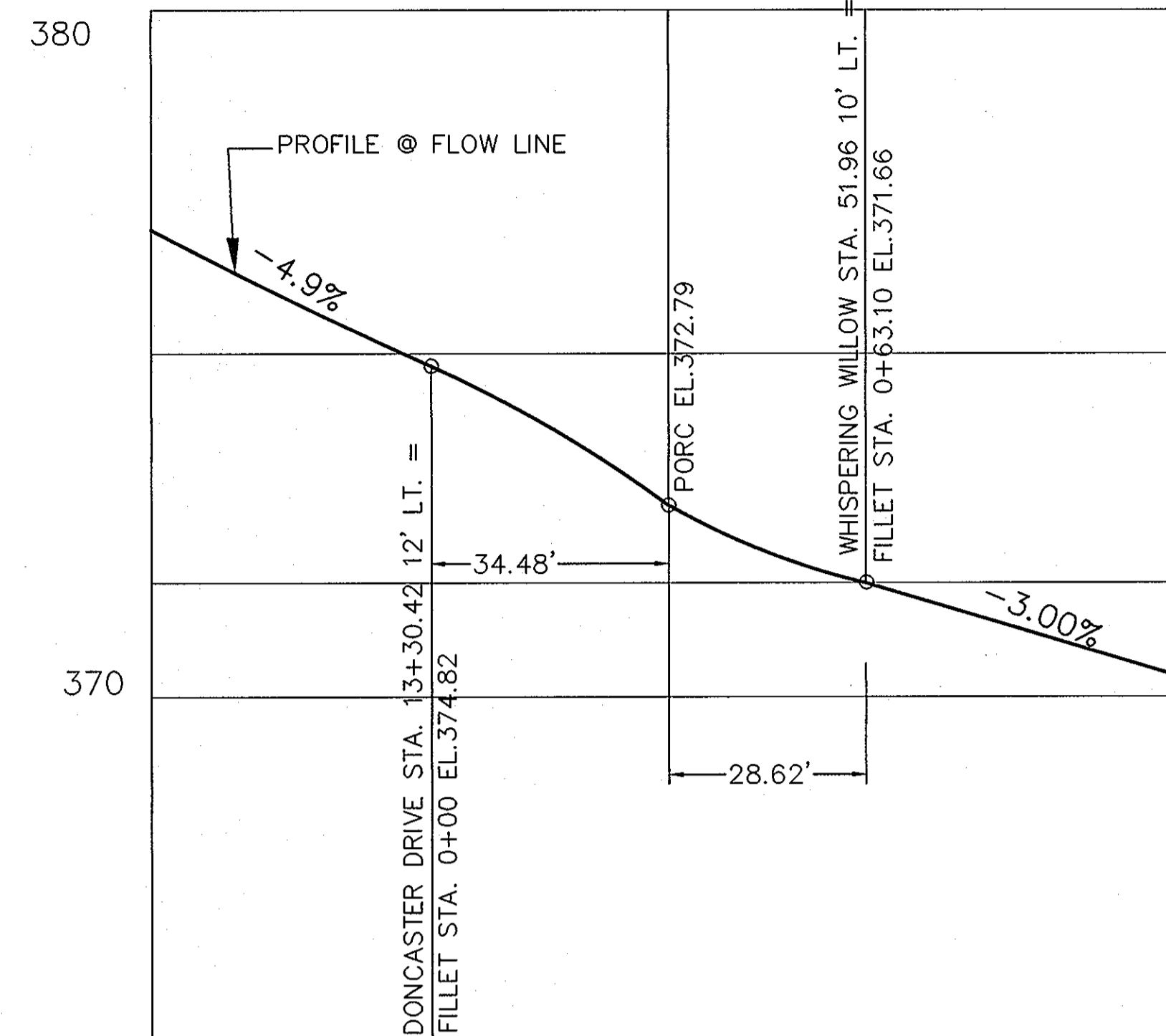
F: 00-021 (REV) FINAL PROFILE.DWG



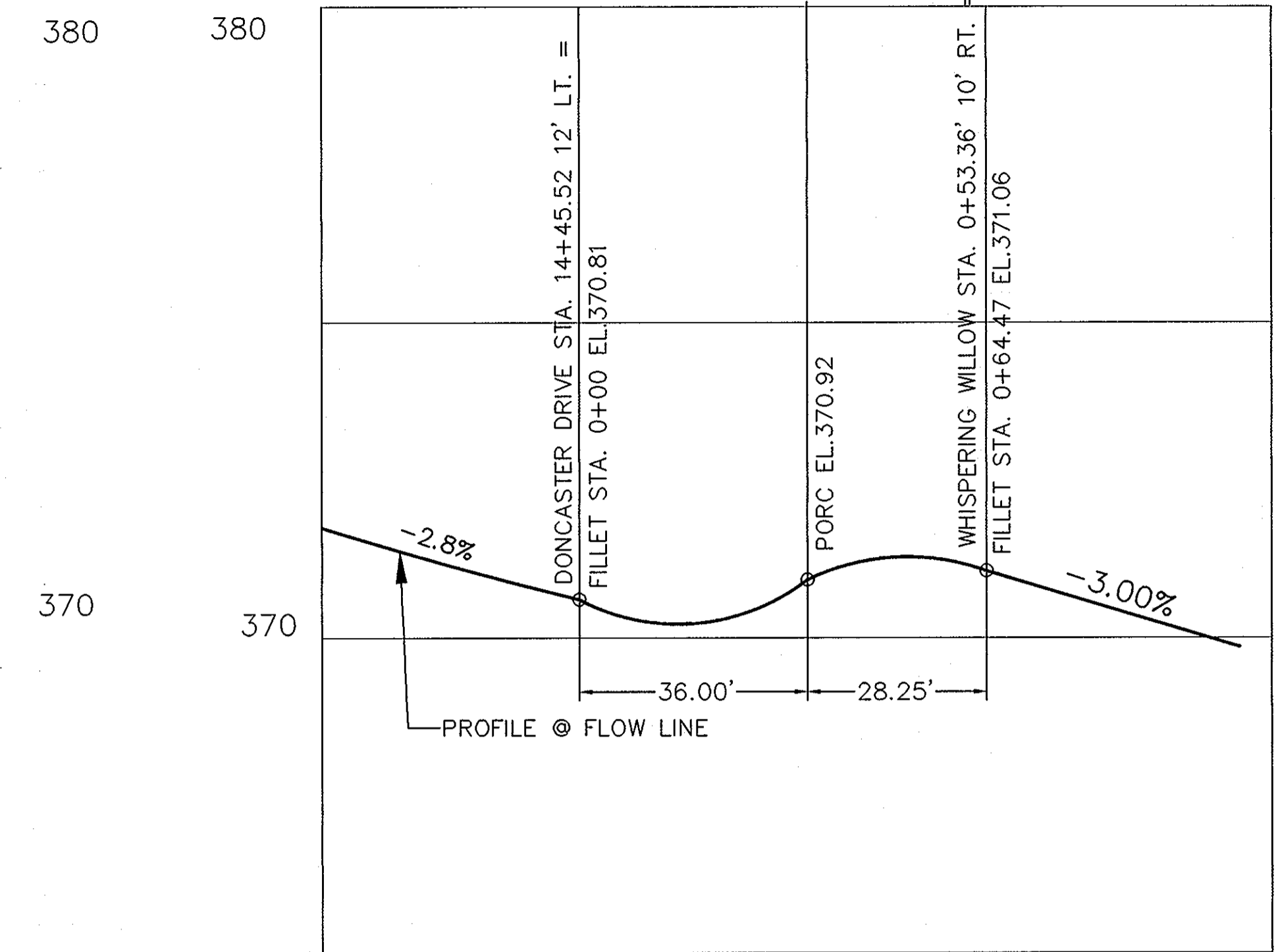
APPROVED: DEPARTMENT OF PUBLIC WORKS
Howard Silk 7/20/01
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cinda Howard 8/7/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

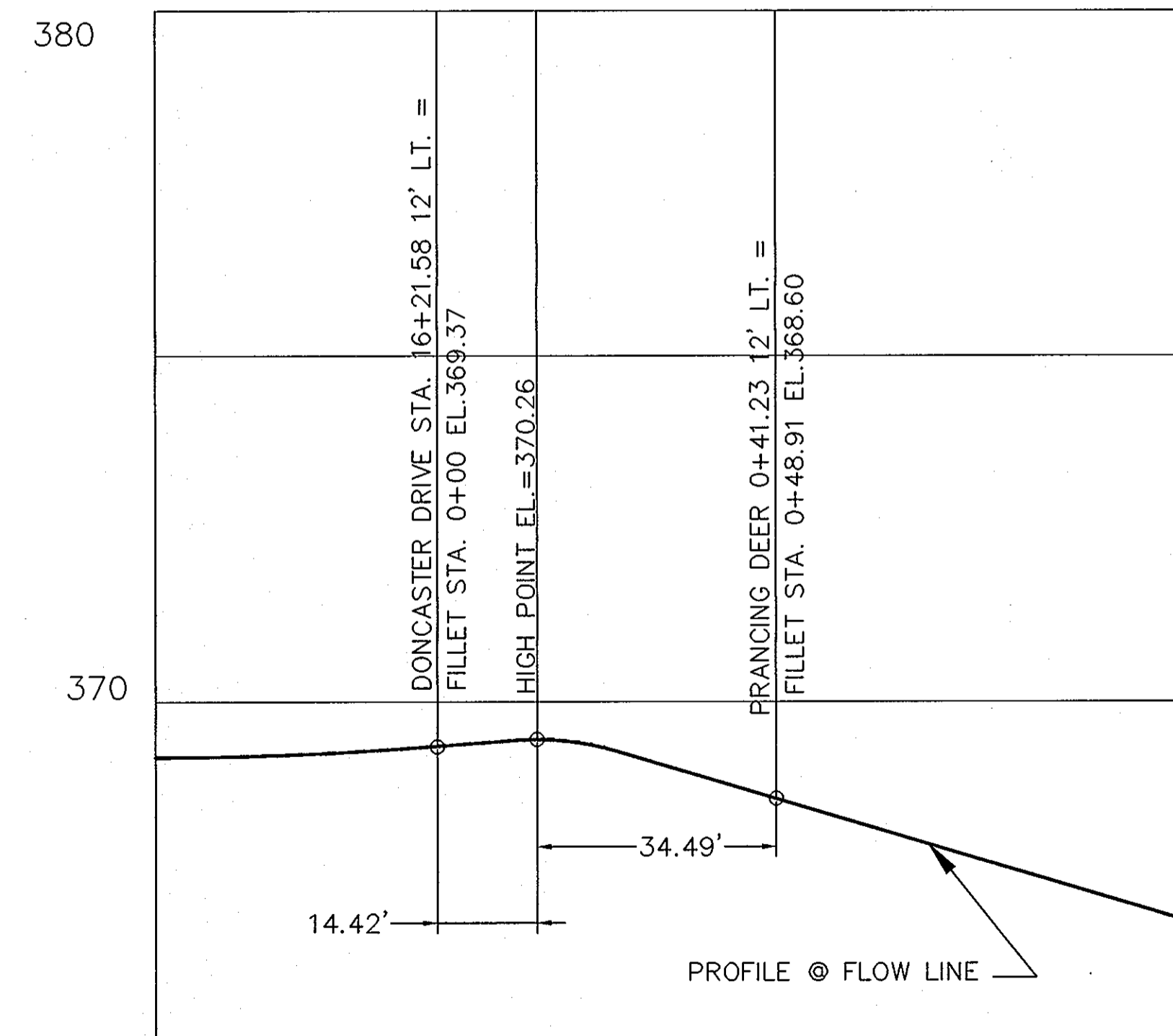
Mike [unclear] 8/1/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



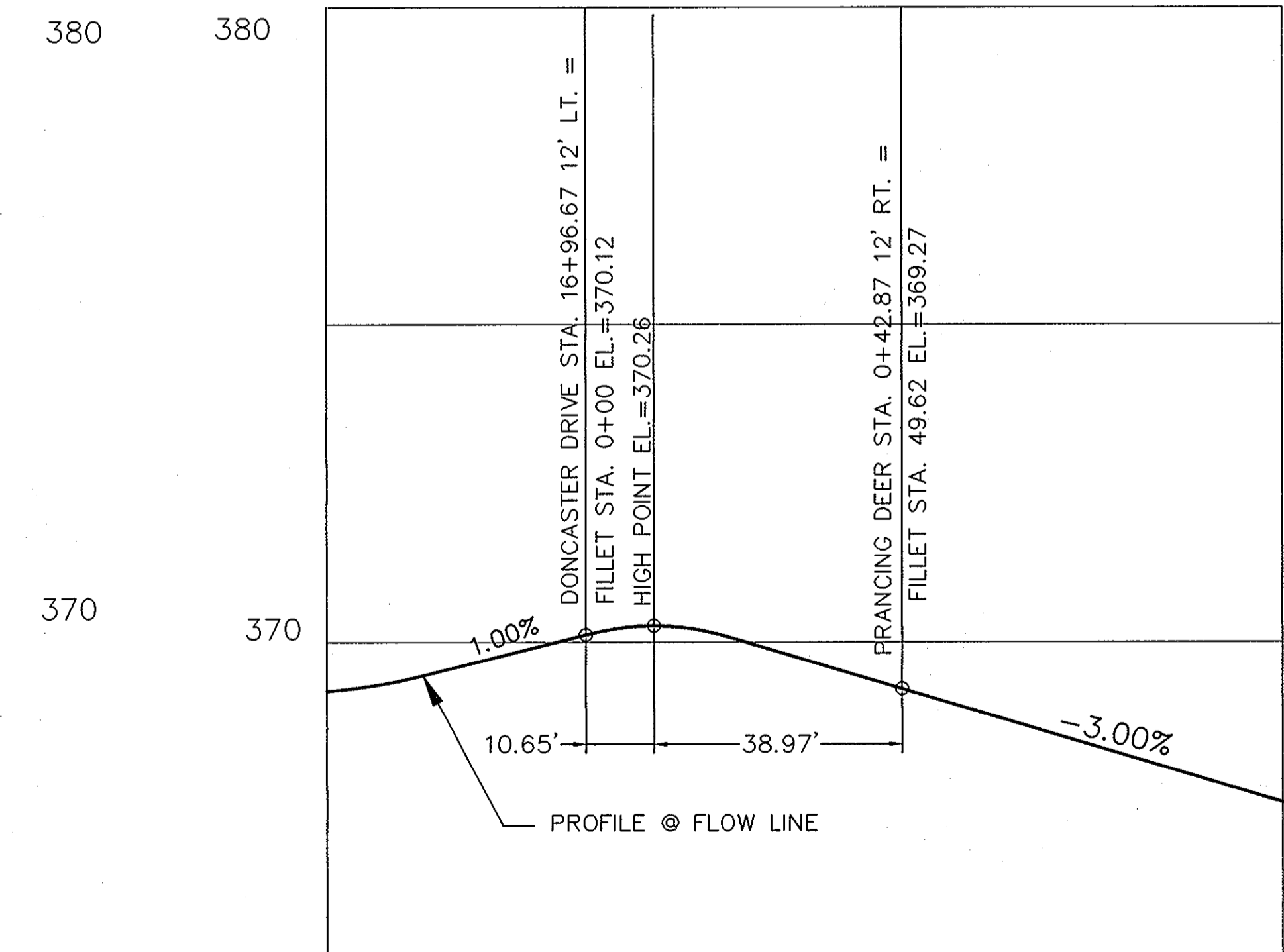
DONCASTER DR. LEFT TURN
 TO WHISPERING WILLOW DRIVE
 SCALE: HOR. 1" = 20', VER 1" = 2'



DONCASTER DR. RIGHT TURN
 TO WHISPERING WILLOW DRIVE
 SCALE: HOR. 1" = 20', VER 1" = 2'



DONCASTER DR. LEFT TURN
 TO PRANCING DEER DRIVE
 SCALE: HOR. 1" = 20', VER 1" = 2'



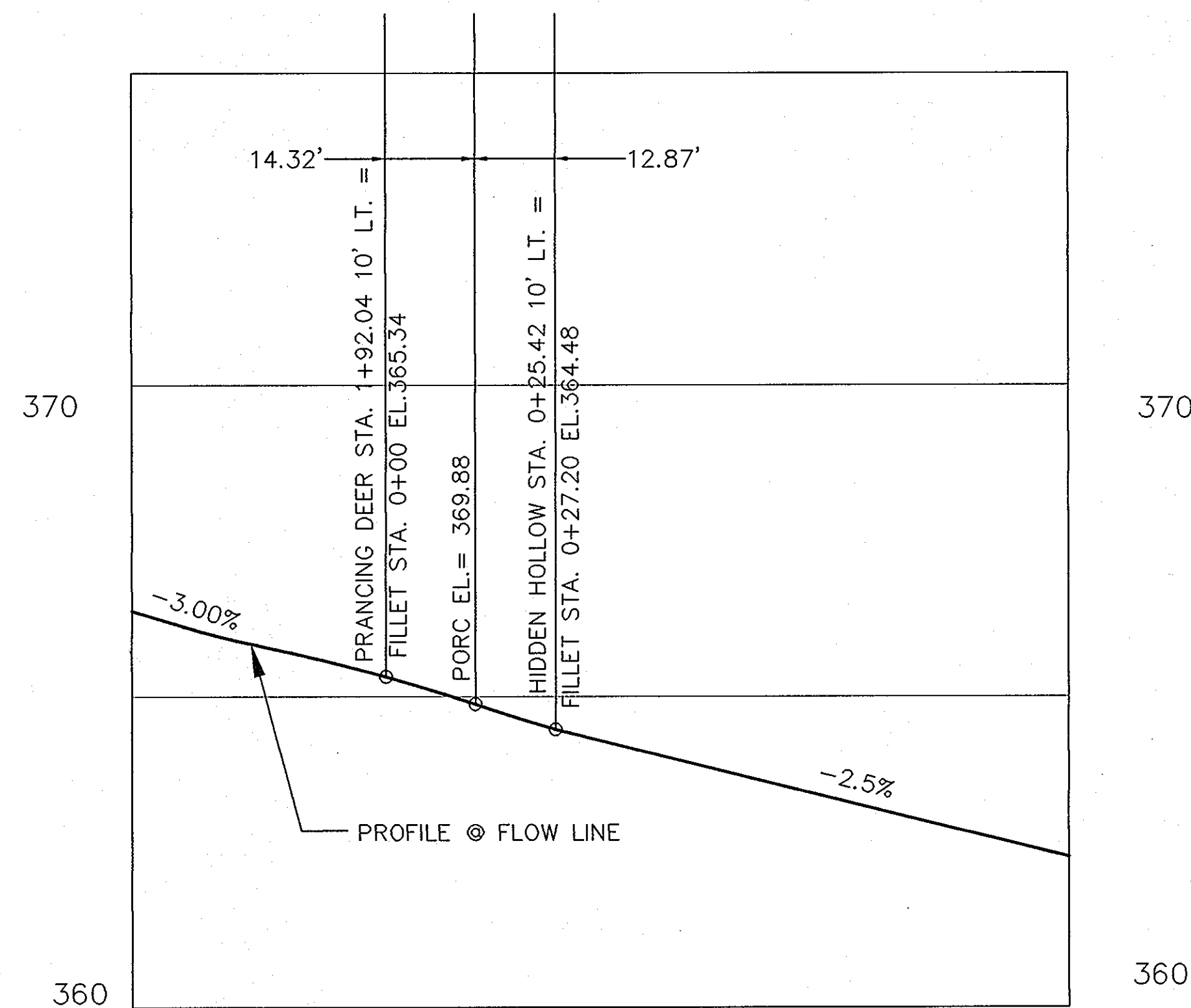
DONCASTER DR. RIGHT TURN
 TO PRANCING DEER DRIVE
 SCALE: HOR. 1" = 20', VER 1" = 2'

Project	date
00-021	JUNE 2001
illustration	engineering
scale	SAA
revisions	approval
no.	AS SHOWN JBM

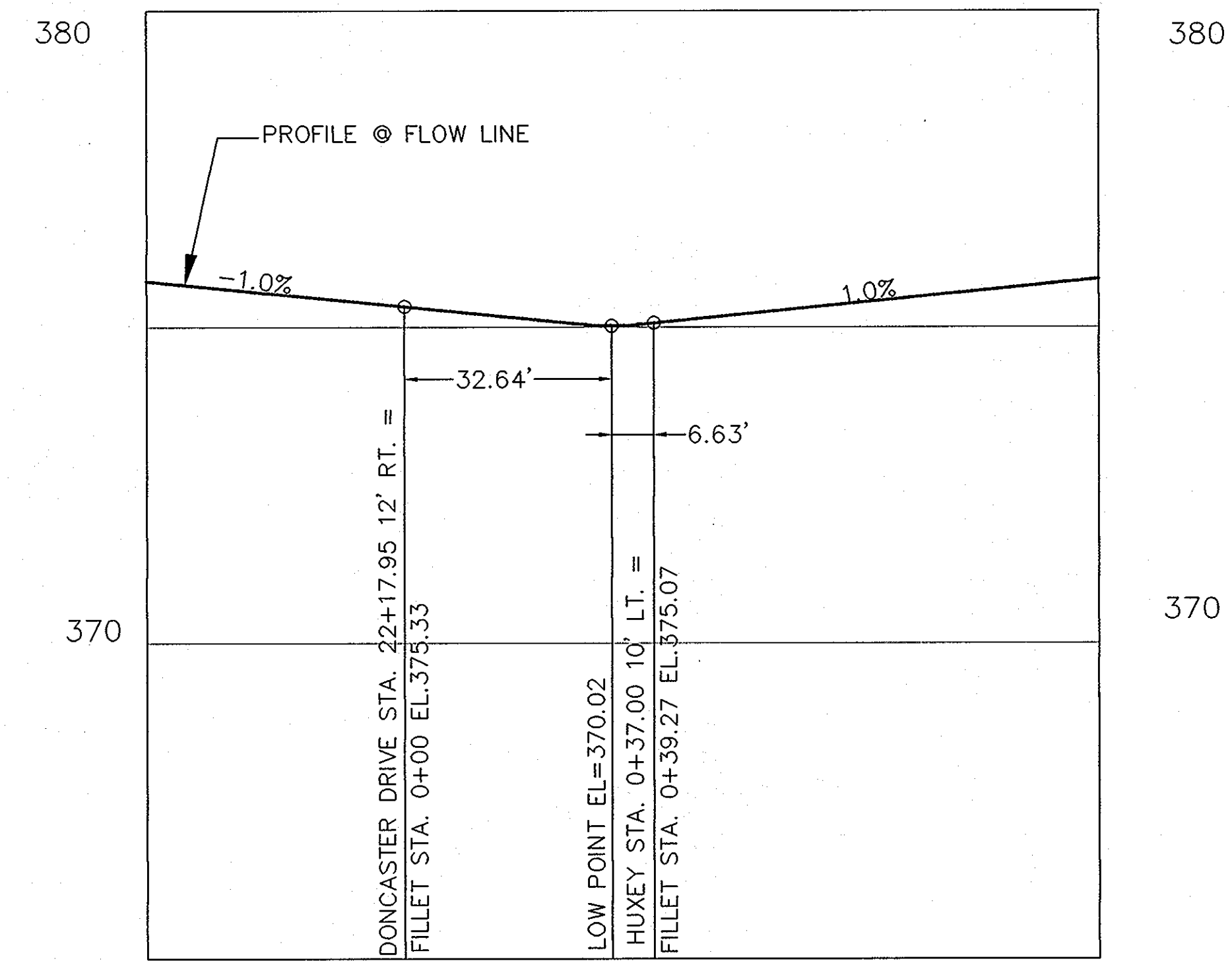
no.	description	date

AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 FILLET PROFILES

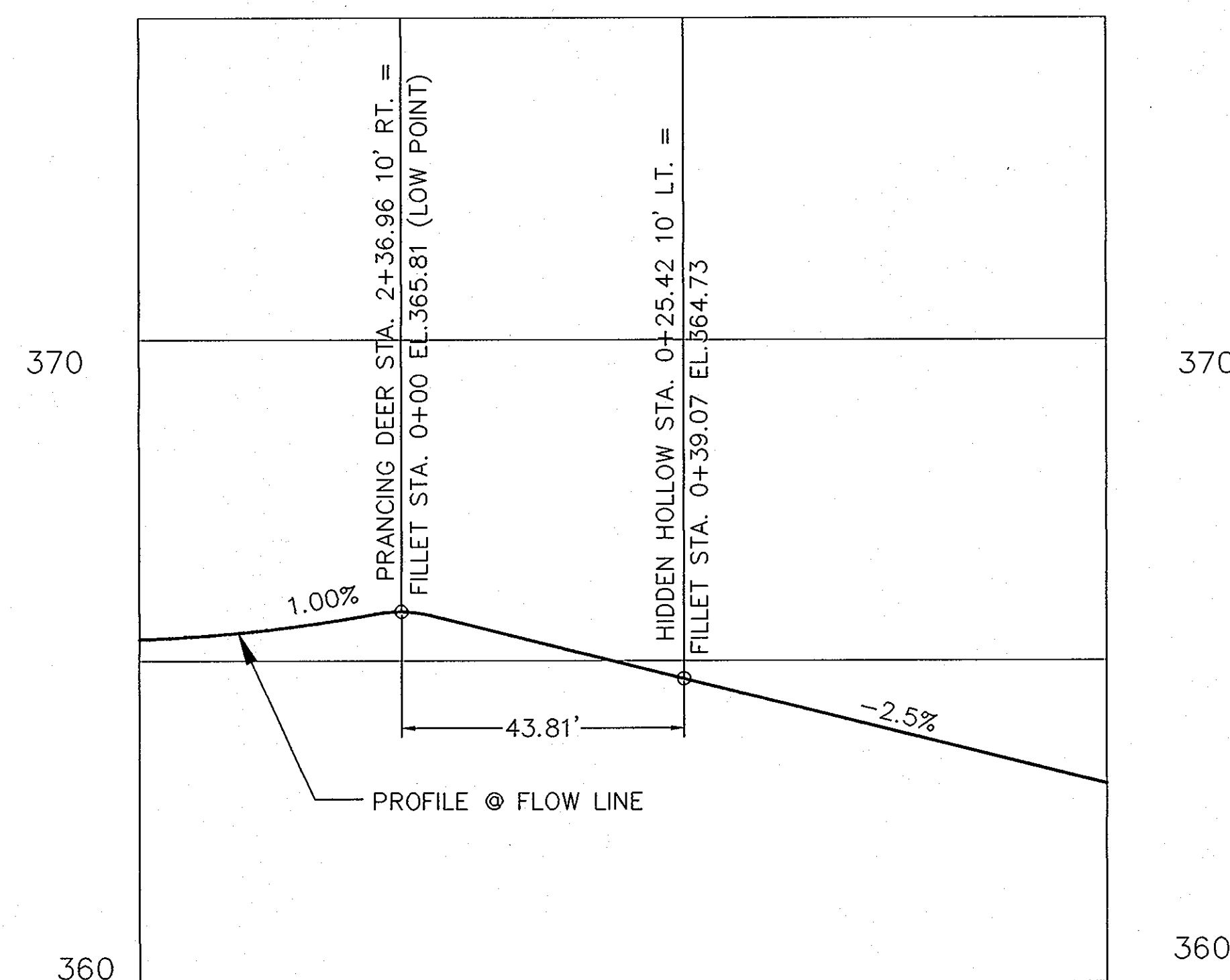
**MILDENBERG,
 BOENDER & ASSOC., INC.**
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax (301) 621-5521 Wash. (410) 997-0296 Fax



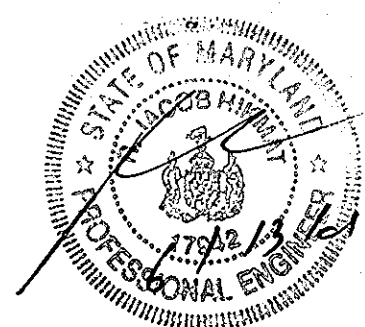
PRANCING DEER DRIVE LEFT
TURN TO HIDDEN HOLLOW DRIVE
SCALE: HOR. 1" = 20', VER 1" = 2'



HUXLEY DRIVE RIGHT TURN
TO DONCASTER DRIVE
SCALE: HOR. 1" = 20', VER 1" = 2'



PRANCING DEER DRIVE RIGHT
TURN TO HIDDEN HOLLOW DRIVE
SCALE: HOR. 1" = 20', VER 1" = 2'



APPROVED: DEPARTMENT OF PUBLIC WORKS
Howard St. J. 7/30/01
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cinda Korman 8/7/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

M. J. ... 8/10/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Project	00-021	date	JUNE 2001
Illustration	SAA	engineering	approval
Scale	AS SHOWN	SAA	approval
AS SHOWN	IBM		

no.	description	revisions	date

AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 FILED PROFILES

**MILDENBERG,
BOENDER & ASSOC., INC.**
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Balt. (301) 821-5521 Wash. (410) 997-0298 Fax

NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.

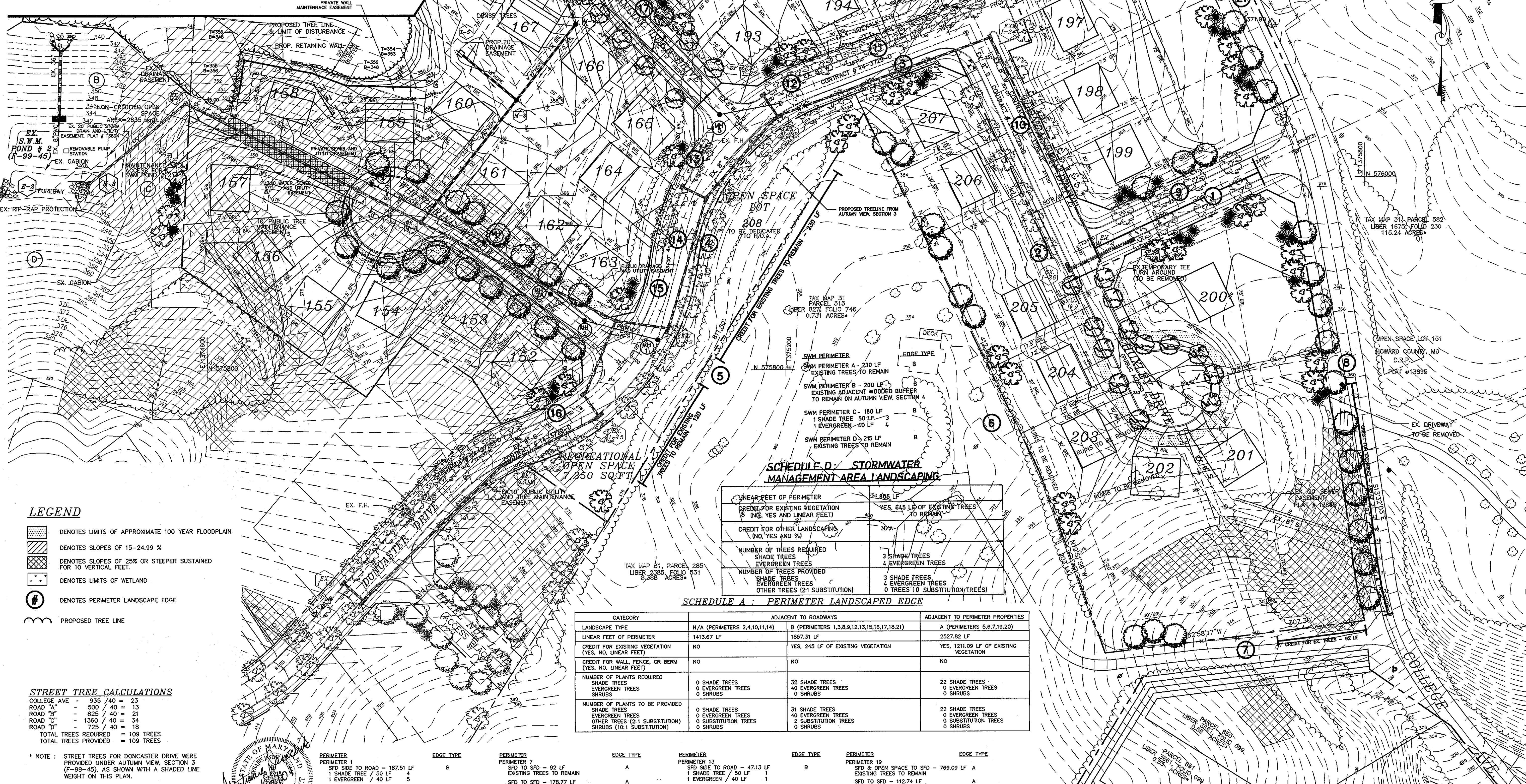
NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$22,200.00.
3. SWM LANDSCAPING REVISED UNDER THIS PLAN, DUE TO CLEARING OF TREES CREDITED TO REMAIN UNDER F-99-45.

MATCH LINE SHEET 17 OF 17

LANDSCAPING REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
42		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
46		PINUS STROBUS	WHITE PINE	6" - 8" HT.
14		TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2 1/2" - 3" CAL.
TOTAL				
102 TREES				(50 SHADE TREES, 46 EVERGREENS)



SCHEDULE D - STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NUMBER OF TREES REQUIRED	NUMBER OF TREES PROVIDED
805 LF	YES, 615 LB OF EXISTING TREES TO REMAIN	N/A	3 SHADE TREES 4 EVERGREEN TREES	3 SHADE TREES 4 EVERGREEN TREES 0 OTHER TREES (0 SUBSTITUTION)

SCHEDULE A - PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	N/A (PERIMETERS 2,4,10,11,14)	A (PERIMETERS 5,6,7,19,20)
LINEAR FEET OF PERIMETER	1413.67 LF	2527.82 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	YES, 1211.09 LF OF EXISTING VEGETATION
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO
NUMBER OF PLANTS REQUIRED	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	32 SHADE TREES 40 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS TO BE PROVIDED	0 SHADE TREES 0 EVERGREEN TREES 0 OTHER TREES (0.1 SUBSTITUTION) 0 SHRUBS (10:1 SUBSTITUTION)	22 SHADE TREES 0 EVERGREEN TREES 2 SUBSTITUTION TREES 0 SHRUBS

PERIMETER	EDGE TYPE	PERIMETER	EDGE TYPE	PERIMETER	EDGE TYPE
PERIMETER 1 SFD SIDE TO ROAD - 187.51 LF 1 SHADE TREE / 50 LF 4 1 EVERGREEN / 40 LF 5	B	PERIMETER 7 SFD TO SFD - 92 LF EXISTING TREES TO REMAIN	A	PERIMETER 13 SFD SIDE TO ROAD - 47.13 LF 1 SHADE TREE / 50 LF 1 1 EVERGREEN / 40 LF 1	B
PERIMETER 2 SFD FRONT TO ROAD - 274.30 LF	N/A	PERIMETER 8 SFD REAR TO ROAD - 245 LF EXISTING TREES TO REMAIN	B	PERIMETER 14 SFD FRONT TO ROAD - 69.84 LF	N/A
PERIMETER 3 SFD SIDE TO ROAD - 88.35 LF 1 SHADE TREE / 50 LF 2 1 EVERGREEN / 40 LF 2	B	PERIMETER 9 SFD REAR TO ROAD - 226.73 LF 1 SHADE TREE / 50 LF 5 1 EVERGREEN / 40 LF 6	B	PERIMETER 15 SFD SIDE TO ROAD - 68.73 LF 1 SHADE TREE / 50 LF 1 1 EVERGREEN / 40 LF 2	B
PERIMETER 4 OPEN SPACE TO ROAD - 536.60 LF	N/A	PERIMETER 10 SFD REAR TO ROAD - 309.82 LF	N/A	PERIMETER 16 SFD SIDE TO ROAD - 98.61 LF 1 SHADE TREE / 50 LF 2 1 EVERGREEN / 40 LF 2	B
PERIMETER 5 SFD TO SFD - 350 LF EXISTING TREES TO REMAIN	A	PERIMETER 11 SFD FRONT TO ROAD - 223.11 LF	N/A	PERIMETER 17 SFD SIDE TO ROAD - 68.42 LF 1 SHADE TREE / 50 LF 2 1 EVERGREEN / 40 LF 2	B
PERIMETER 6 SFD TO SFD - 152.46 LF 1 SHADE TREE / 60 LF 3	A	PERIMETER 12 SFD SIDE TO ROAD - 74.68 LF 1 SHADE TREE / 50 LF 2 1 EVERGREEN / 40 LF 2	B	PERIMETER 18 SFD SIDE TO ROAD - 71.33 LF 1 SHADE TREE / 50 LF 2 1 EVERGREEN / 40 LF 2	B

STREET TREE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
21		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
47		PYRUS CALLERYANA 'BRADFORD'	BRADFORD PEAR	2 1/2" - 3" CAL.
41		TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2 1/2" - 3" CAL.
TOTAL				
109				STREET TREES

LEGEND

- DENOTES LIMITS OF APPROXIMATE 100 YEAR FLOODPLAIN
- DENOTES SLOPES OF 15-24.99 %
- DENOTES SLOPES OF 25% OR STEEPER SUSTAINED FOR 10 VERTICAL FEET.
- DENOTES LIMITS OF WETLAND
- DENOTES PERIMETER LANDSCAPE EDGE
- PROPOSED TREE LINE

STREET TREE CALCULATIONS

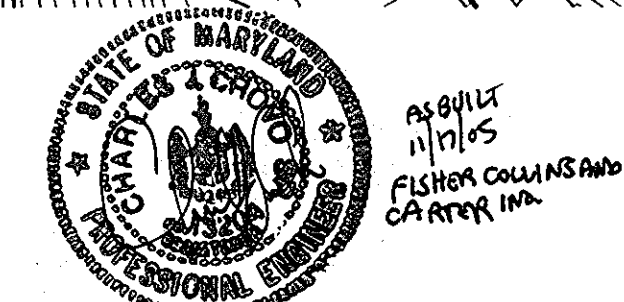
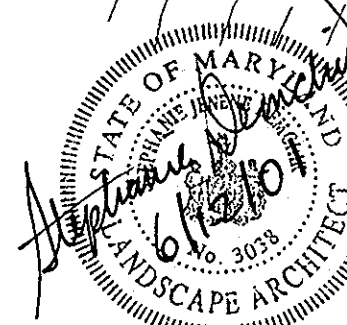
COLLEGE AVE	-	935 / 40	=	23
ROAD "A"	-	500 / 40	=	13
ROAD "B"	-	825 / 40	=	21
ROAD "C"	-	1360 / 40	=	34
ROAD "D"	-	725 / 40	=	18
TOTAL TREES REQUIRED				= 109 TREES
TOTAL TREES PROVIDED				= 109 TREES

* NOTE : STREET TREES FOR DONCASTER DRIVE WERE PROVIDED UNDER AUTUMN VIEW, SECTION 3 (F-99-45), AS SHOWN WITH A SHADED LINE WEIGHT ON THIS PLAN.

APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] 7/30/01
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 8/9/01
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: *[Signature]* 8/1/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION (M&C)

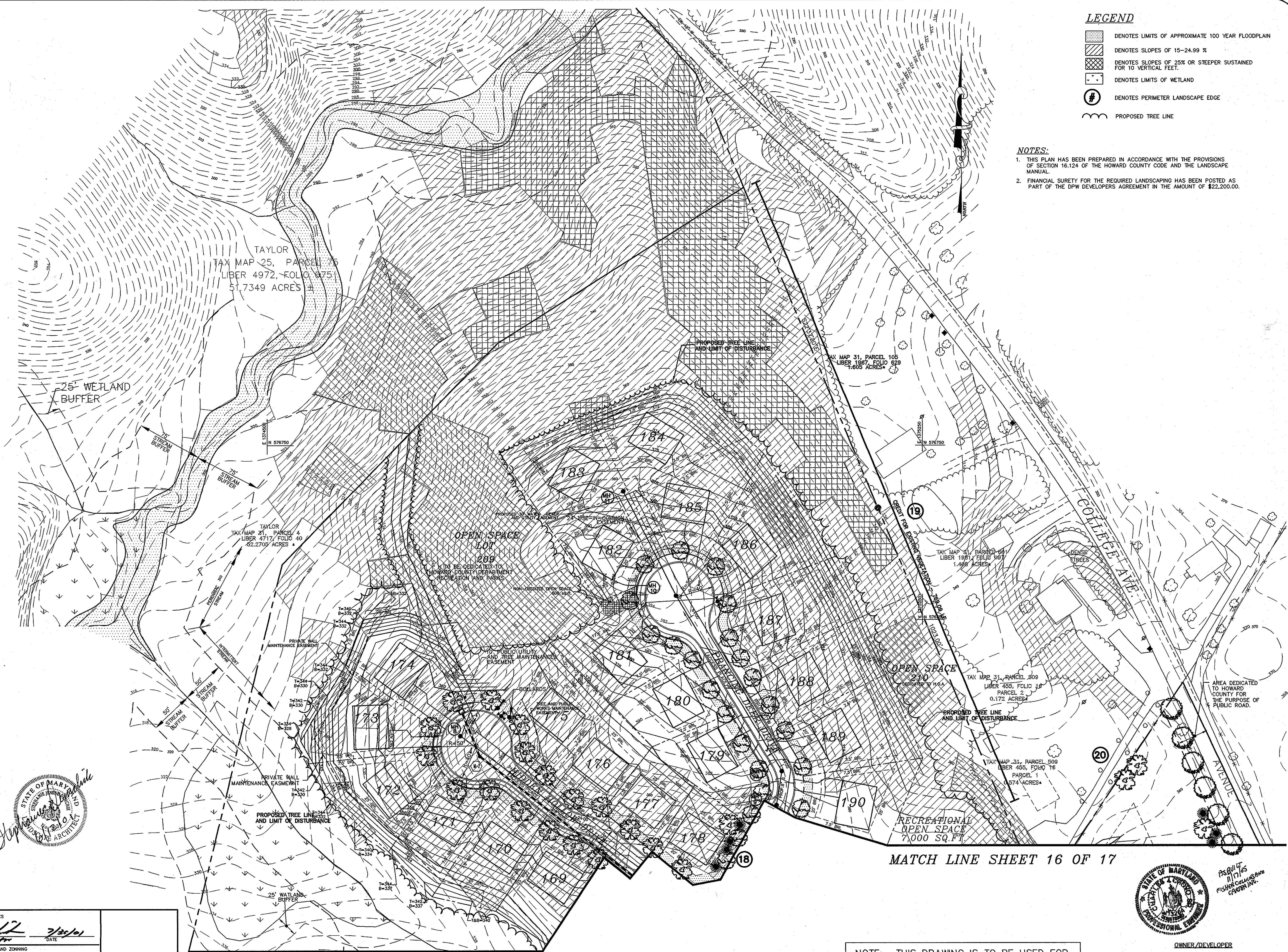


Project	date	description	scale	revision
00-021	JUNE 2001	engineering	MAP/SID	SJD
		illustration	MAP/SID	SJD
		approval	MAP/SID	JBM

FOR SWM LANDSCAPING DUE TO CLEARING OF EXISTING TREES, SEE 5/1/2002 SCHEDULE D, REVISED PLANTING SCHEDULE & REVISED NOTES ACCORDINGLY.

AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3, PARCEL A
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 LANDSCAPE PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax: (301) 621-5521 Wash. (410) 997-0298 Fax.



LEGEND

	DENOTES LIMITS OF APPROXIMATE 100 YEAR FLOODPLAIN
	DENOTES SLOPES OF 15-24.99 %
	DENOTES SLOPES OF 25% OR STEEPER SUSTAINED FOR 10 VERTICAL FEET.
	DENOTES LIMITS OF WETLAND
	DENOTES PERIMETER LANDSCAPE EDGE
	PROPOSED TREE LINE

NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$22,200.00.

Project	date	approval
00-021	JUNE 2001	JBM
Illustration	engineering	
MMP/SID	SID	
scale	scale	
	1"=50'	

no.	description	date
	revisions	

AUTUMN VIEW, SEC. 4, LOTS 152-210
 TAX MAP 25 & 31, P/O PARCEL 75
 AND RESUBDIVISION OF AUTUMN VIEW SECTION 3 PARCEL A
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 LANDSCAPE PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
 (410) 987-0296 Bldg. (301) 621-5521 Wash. (410) 987-0298 Fax.

APPROVED: DEPARTMENT OF PUBLIC WORKS
Howard Spitz 7/21/01
 CHIEF BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Crista Brumley 8/1/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John P. ... 8/1/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 ASBUILT 11/7/05
 FISHER CALDWELL AND COMPANY, INC.

OWNER/DEVELOPER
 BONNIE BRANCH CORPORATION
 P.O. BOX 396
 ELlicOTT CITY, MD 21041

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