

MATCH LINE SEE SHEET 3

PLAN
1" = 30'

NOTE:
ALL STD. DETAILS ARE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOL. IV.
SEE DETAILS, SHEET 15.

WB-40 TURNING RADIUS
1" = 30'

DATE	REVISION
10/21/02	INCREASED TOTAL NUMBER OF UNITS FROM 20 TO 30 BY CHANGING UNIT BLDG (25-30) TO A UNIT BLDG (25-30) & ADDING A 2 UNIT BLDG (27 & 30). REVISED DRAINAGE, STREET ELEVATIONS & FLOW DIRECTIONS AS REQUIRED.
2/3/03	ADDED UTILITY CLOSETS FOR STRENGTH PROTECTION. REVISED STREET NAME & REVISED UNIT NO. TO ADD 2 UNITS ON UNIT 1. PER NEW LOCATION FOR ELECTRICAL CLOSET ON UNIT 1 WITH VARIATIONS.
9-25-04	Revise Units 1-8 per new architectural plans.
5-14-04	Revise Units 1-8 with 4 unit condominiums as approved on 6-25-02.
10-06-07	Added General Note No. 27 re: extension of Driveway Permit Application deadline date for Units 5-8, 9-12 & 13-16 to January 14, 2008.
1-2-06	Add Utility Closets to Units 1-16

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 468-2995

ENGINEER'S CERTIFICATE
I certify that the erosion and sediment control represents a practical and workable plan based on my knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

John C. Robertson
Signature of Engineer
6-12-02
Date

DEVELOPER'S CERTIFICATE
I/we certify that all development and construction will be done according to this plan, for sediment and erosion control 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 also authorize periodic on-site inspection by the Howard Soil Conservation District.

Thomas A. Field
Signature of Developer
6-12-02
Date

Reviewed for HOWARD COUNTY and meets Technical Requirements.

Jim Meyer
U.S.D. Natural Resources
Conservation Service
6/18/02
Date

This development plan is approved for sediment and erosion control by the HOWARD COUNTY SOIL CONSERVATION DISTRICT.

John C. Robertson
Howard County
6/18/02
Date

OWNER/DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT
8000 MAIN STREET
ELICOTT CITY, MARYLAND 21043
(410) 460-9105

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chris Hunte
Chief, Division of Land Development (4B)
6/25/02
Date

John C. Robertson
Chief, Development Engineering Division
6/18/02
Date

John C. Robertson
Director - Department of Planning and Zoning
6/25/02
Date

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
GTW'S WAVERLY WOODS	7	PARCEL 10'

PLAT	GRID NO.	ZONE	TAX MAP NO.	ELEC. DIST.	CENSUS TR.
13433, 13434, 13437	5 & 10	PEC	16	THIRD	603000

WATER CODE	SEWER CODE
H05	5992000

SITE DEVELOPMENT PLAN

GTW'S WAVERLY WOODS
SECTION 7
PARCEL 10'
DAY CARE CENTER AND
CONDOMINIUM OFFICE BUILDINGS 1-30

TAX MAP No: 16 PART OF PARCEL: 424
THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: JUNE, 2002
SHEET 2 OF 18

SDP-02-74

MATCH LINE SEE SHEET 2



STORMWATER MANAGEMENT PRACTICES	
PARCEL	PRACTICE/FACILITY TYPE
'B' (50P-02-74)	TYPE "F-1" SURFACE SAND FILTER

PURPOSE NOTE: THE PURPOSE OF THIS REDLINE REVISION IS TO REPLACE THE UNDERGROUND S.W.M. FACILITY WITH A SURFACE SAND FILTER.

PLAN
1" = 30'

INTERSTATE ROUTE 70
(S.H.A. PLAT No. 31486, 31487 AND 31488)
PRINCIPAL ARTERIAL
VEHICULAR INGRESS AND EGRESS IS RESTRICTED

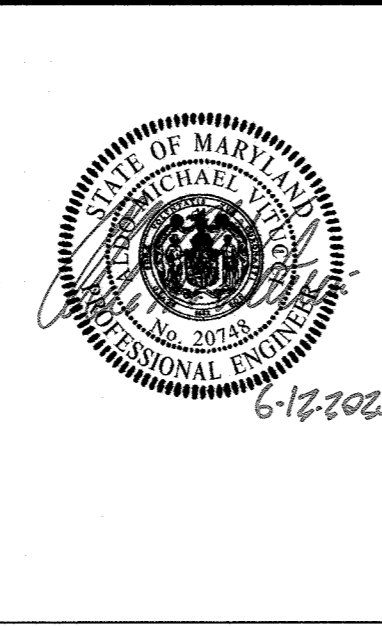
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALDORNE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461-2899

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development *[Signature]* 9/28/20 Date

Chief, Development Engineering Division *[Signature]* 9/14/20 Date

Director - Department of Planning and Zoning *[Signature]* 9-29-20 Date



OWNER/DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT
8000 MAIN STREET
ELLICOTT CITY, MARYLAND 21043
(410) 480-9105

NO.	REVISION	DATE
1	REVISED S.W.M. FACILITY TYPE FOR PARCEL 'B'	3-2-20
2	REVISED TITLE BLOCK TO REFLECT TOTAL NUMBER OF UNITS FROM 29 TO 30	10/21/02

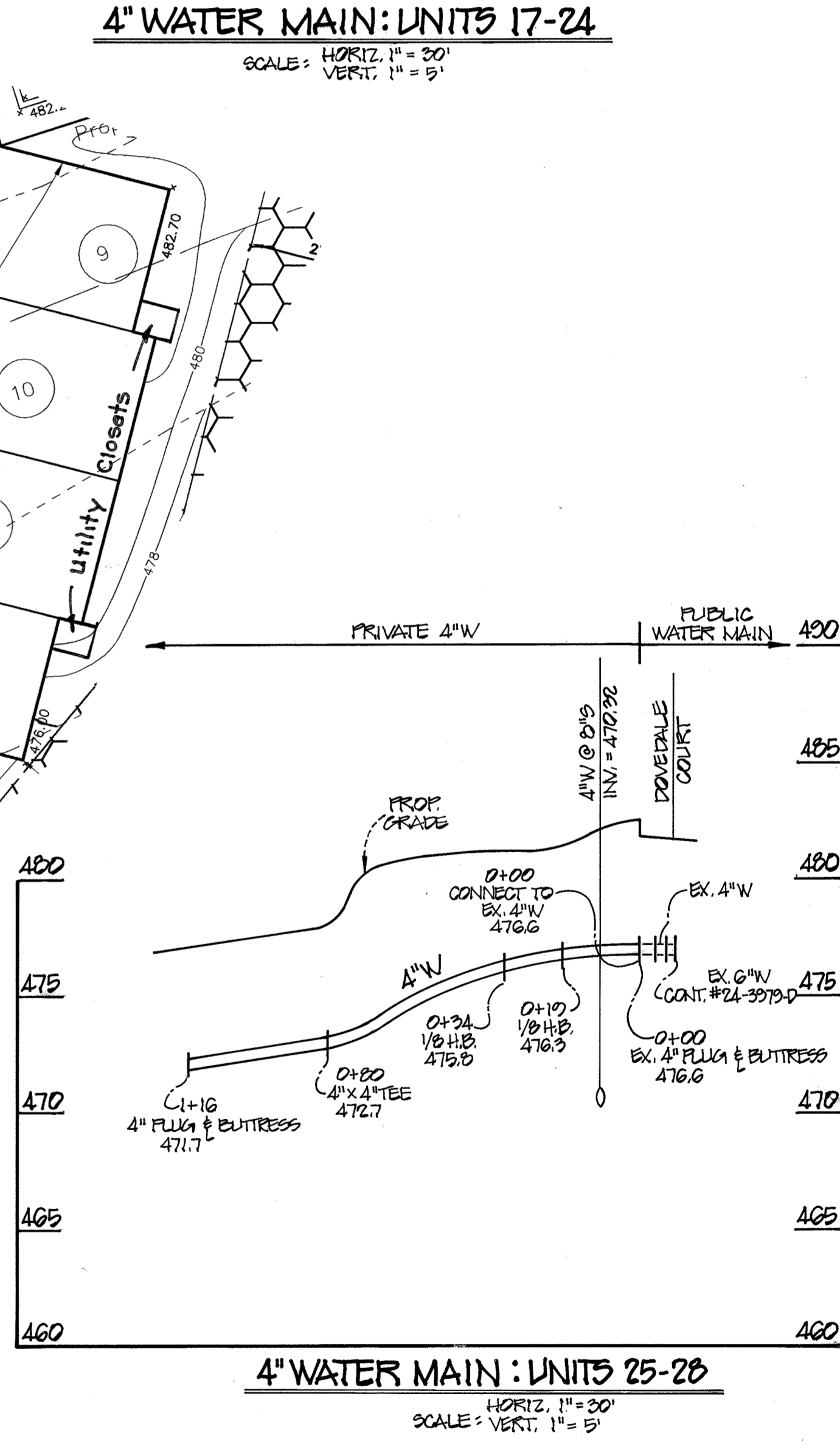
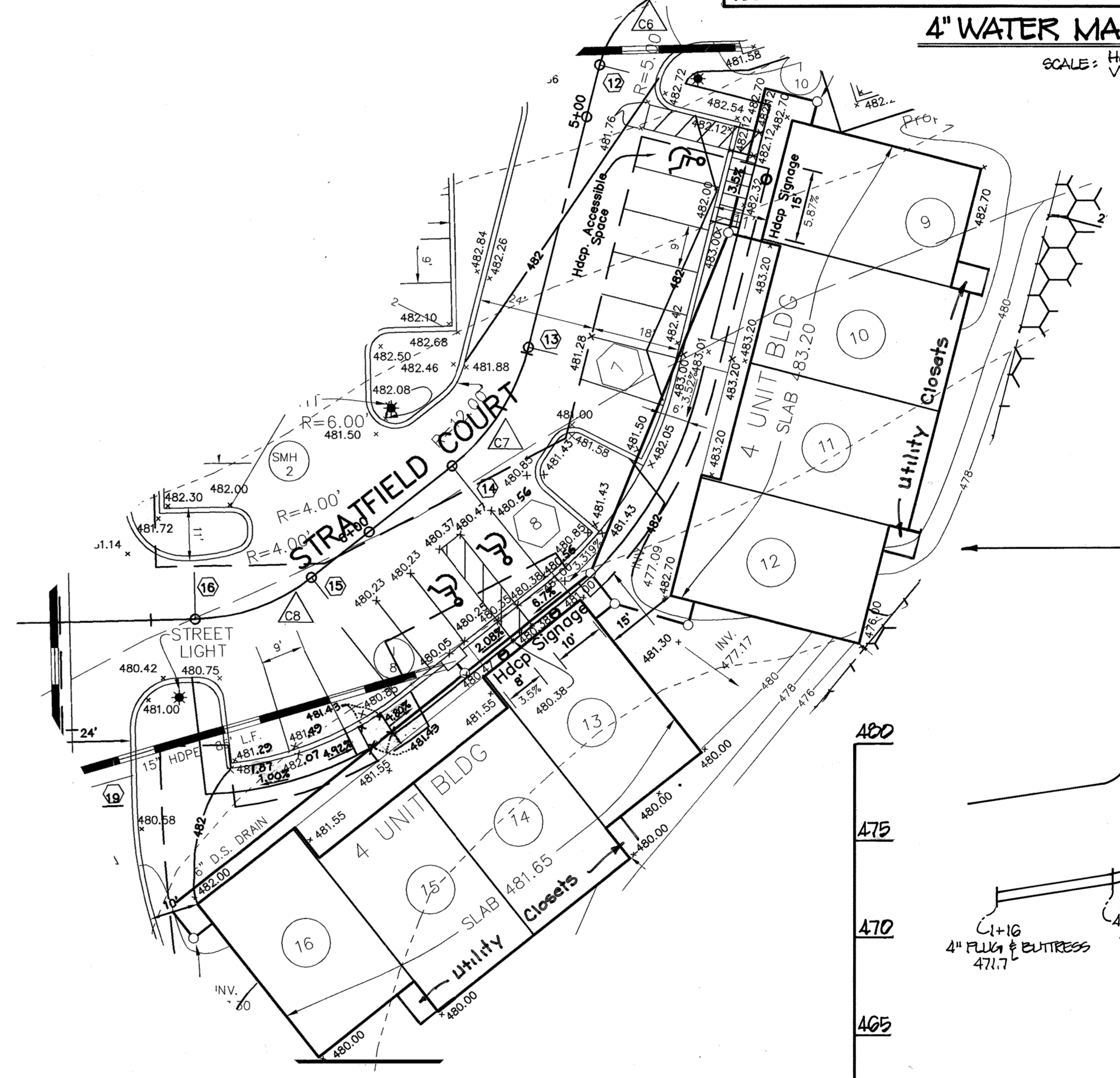
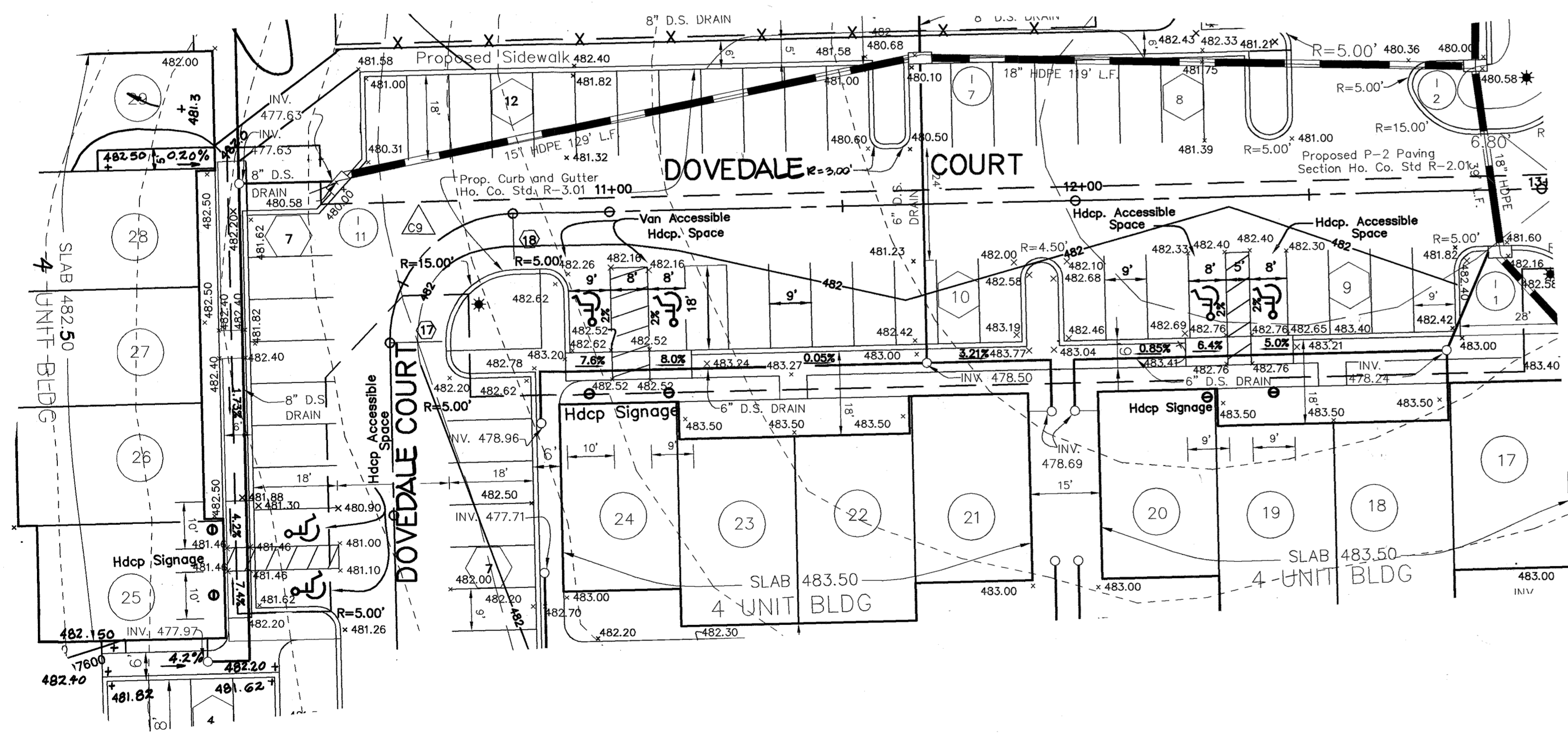
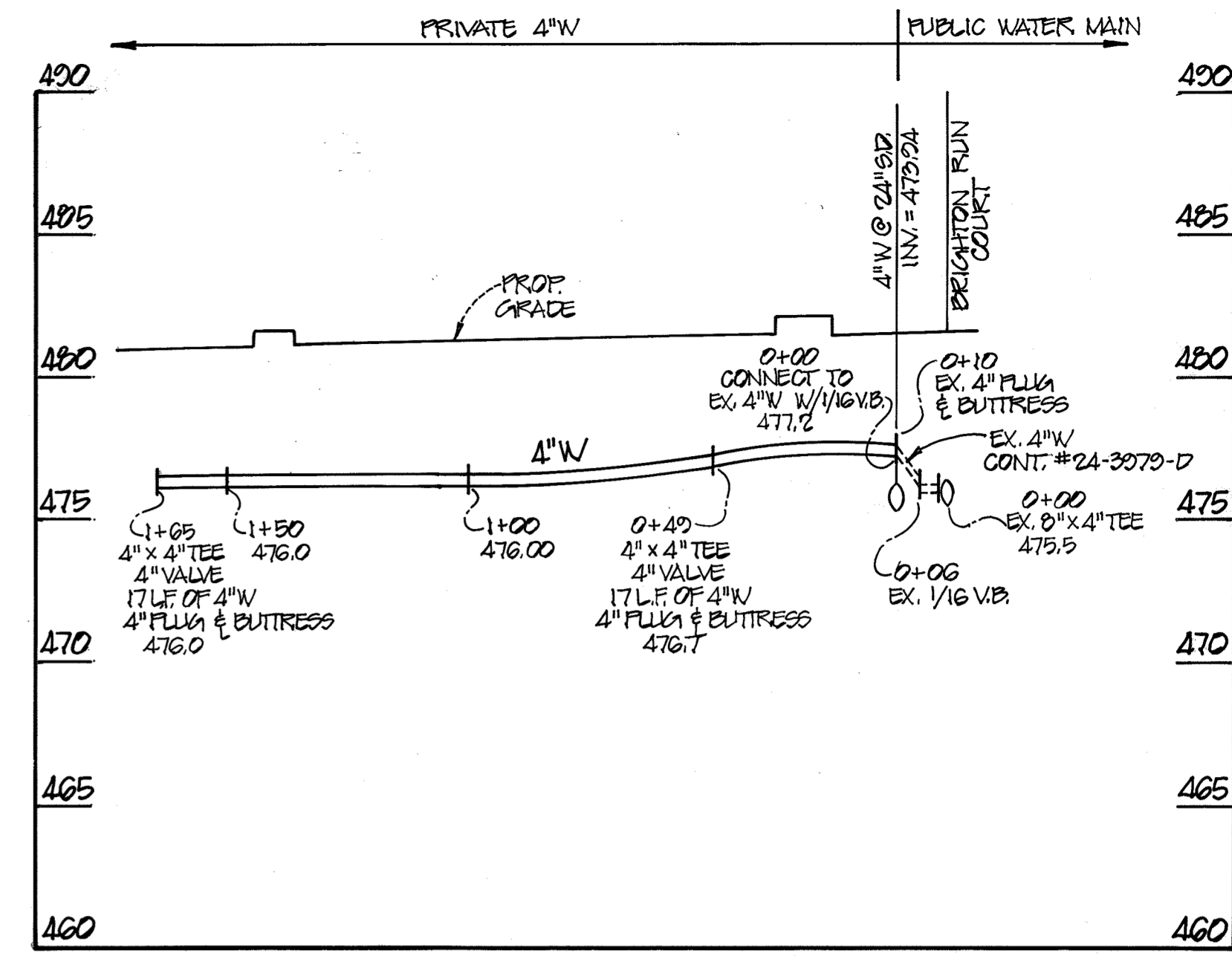
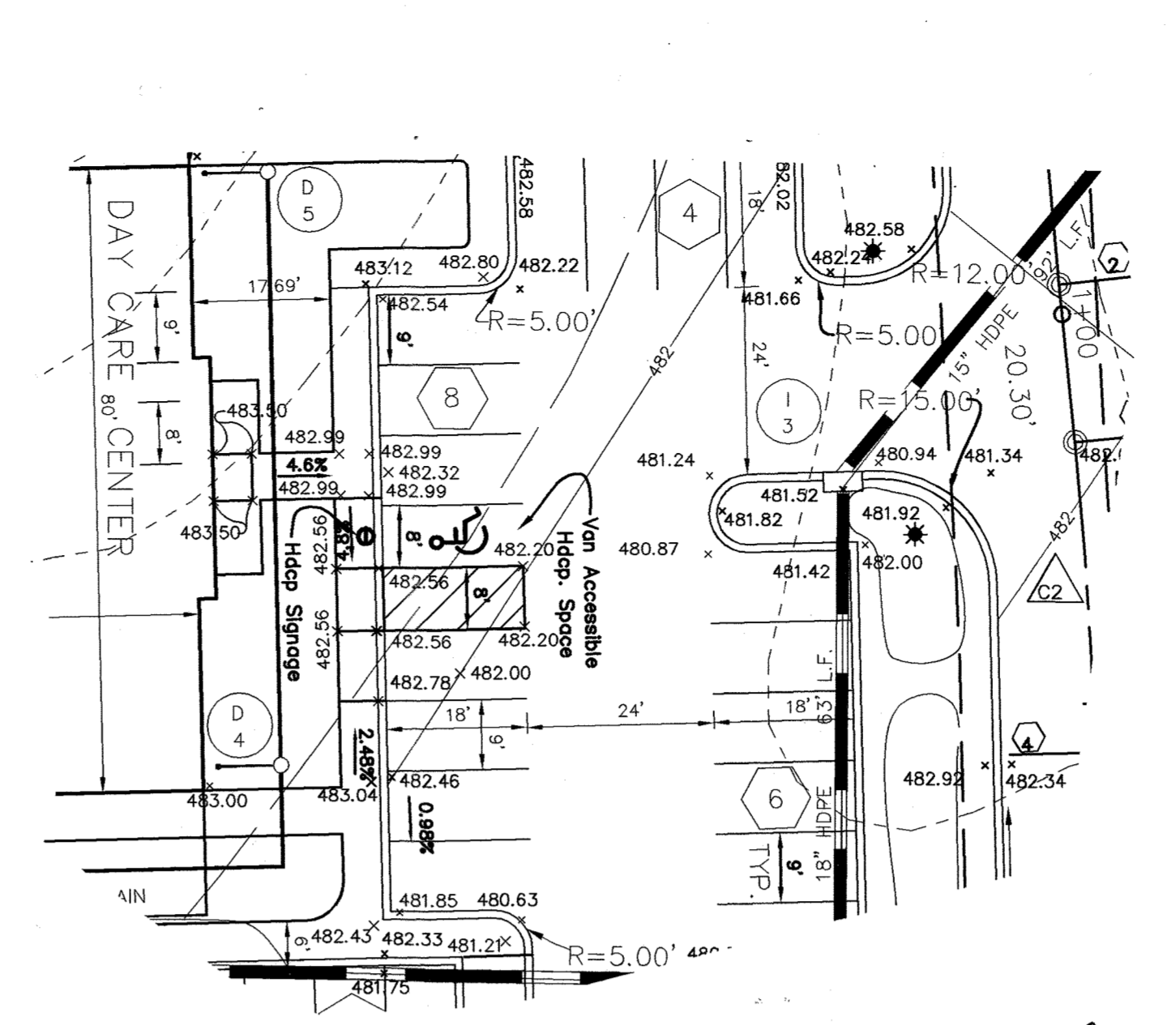
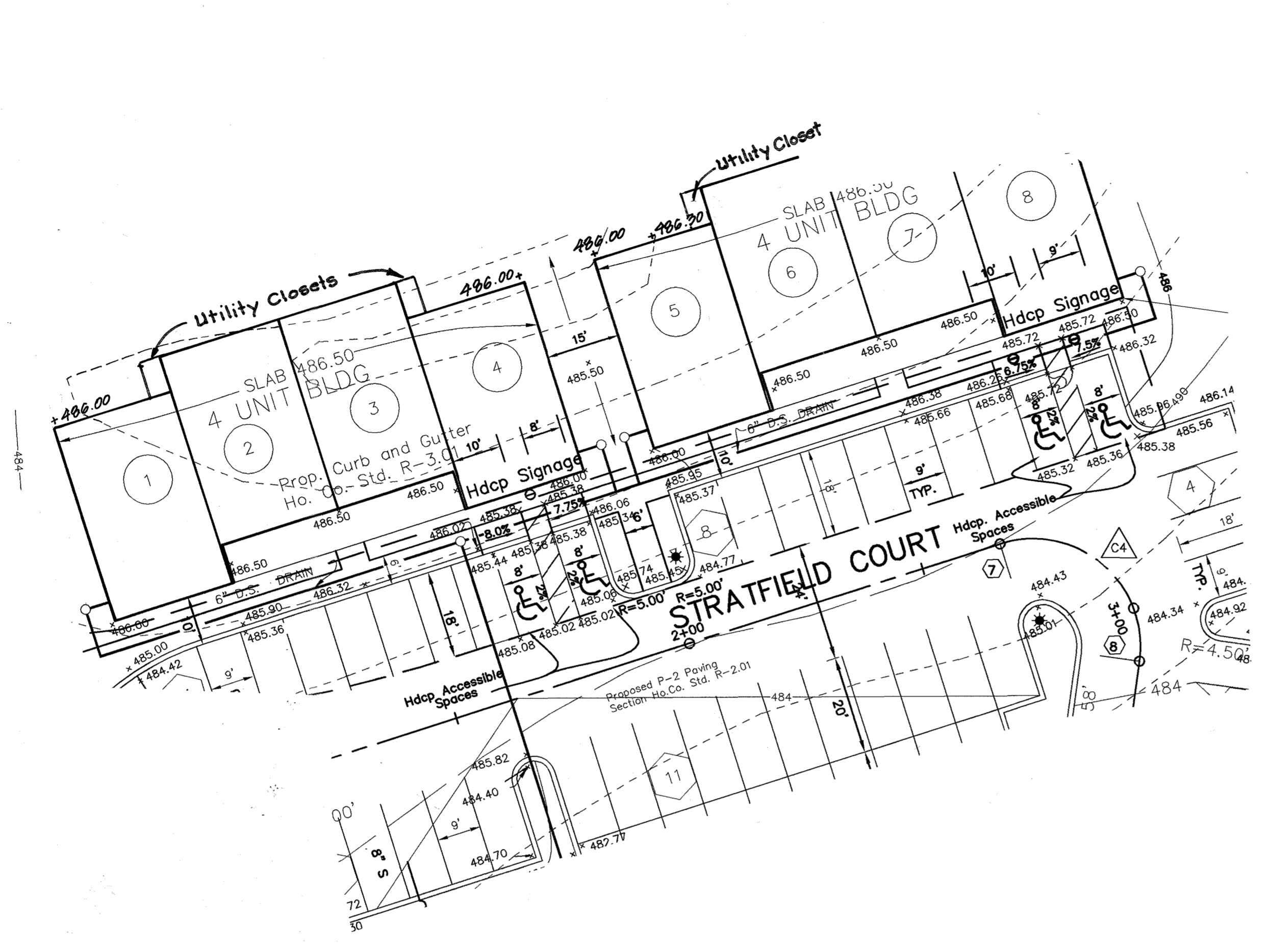
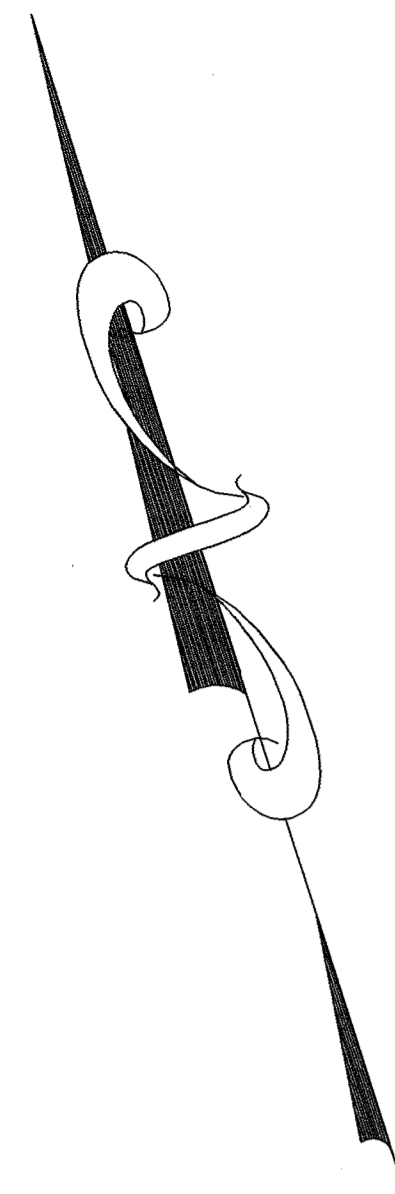
PLAT	GRID NO.	ZONE	TAX MAP NO.	ELEC. DIST.	CENSUS TR.
13433, 13434, 13437	5 & 10	PEC	16	THIRD	603000

WATER CODE: H05
SEWER CODE: 5992000

REVISED
SITE DEVELOPMENT PLAN

GTW'S WAVERLY WOODS
SECTION 7
PARCEL 'B'
DAY CARE CENTER AND
CONDOMINIUM OFFICE BUILDINGS 1-30

TAX MAP No: 16 PART OF PARCEL: 424
THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: MARCH, 2020
SHEET 3 OF 18



PLAN
1" = 20'

DATE	REVISION
10/21/02	REVISED TITLE BLOCK TO REFLECT TOTAL NUMBER OF UNITS FROM 29 TO 30
2/3/03	ADD 4" WATER MAIN PROFILES & REVISE STREET NAME
12/03	ADD SIDEWALK TO SIDE OF UNITS 25 & 26 FOR HANDICAP ACCESSANCE
3-24-04	Rev. Units 1-8 per new architectural plans.
5-14-04	Revises Units 1-8 with 4 unit condominiums as approved on 6-25-02.
10-06-05	Added General Note No. 27 re: extension of Blvd. Permit Application deadline date for Units 5-8, 9-12 & 15-16 to January 14, 2006.
1-9-06	Add Utility Closets to Units 1-16

ENGINEER'S CERTIFICATE
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on my best knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

John R. [Signature] 6-12-02
 Signature of Engineer Date

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan, for sediment and erosion control 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 also authorize periodic on-site inspection by the Howard Soil Conservation District.

[Signature] 6-12-02
 Signature of Developer Date

Approved for HOWARD SCD and meets Technical Requirements. 6/18/02
John R. [Signature] Date
 U.S.D. Natural Resources Conservation Service
 This development is approved for erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John R. [Signature] 6/19/02
 Howard SCD Date

OWNER/DEVELOPER
 WAVERLY WOODS DEVELOPMENT CORPORATION
 C/O LAND DESIGN AND DEVELOPMENT
 8000 MAIN STREET
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-9105

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

<i>[Signature]</i> Chief, Division of Land Development	6/25/02 Date
<i>[Signature]</i> Chief, Development Engineering Division	6/26/02 Date
<i>[Signature]</i> Director - Department of Planning and Zoning	6/27/02 Date

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
GTW'S WAVERLY WOODS	7	PARCEL 'B'

PLAT	GRID NO.	ZONE	TAX MAP NO.	ELEC. DIST.	CENSUS TR.
13433, 13434, 13437	5 & 10	PEC	16	THIRD	603000

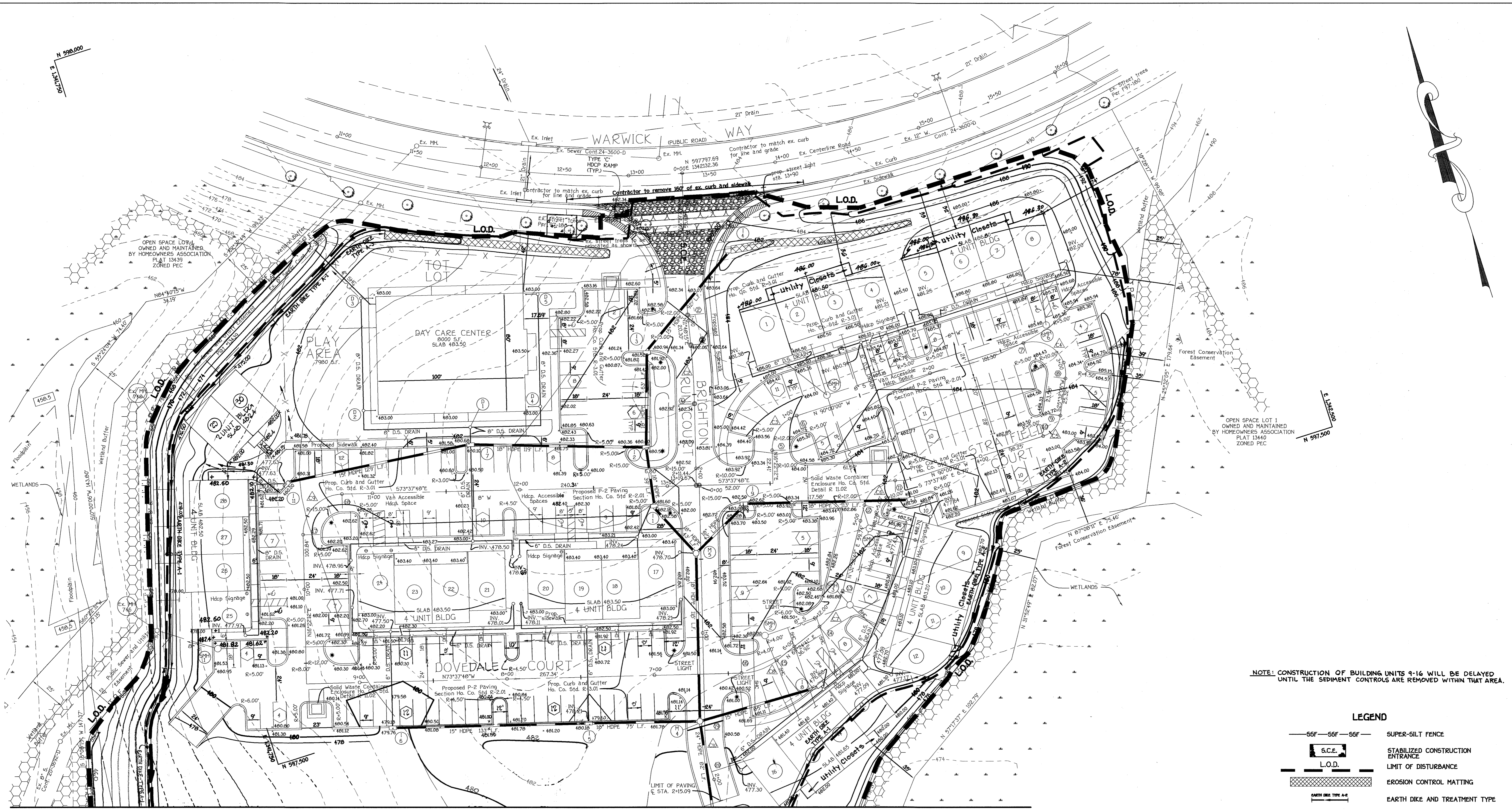
WATER CODE	SEWER CODE
H05	5992000

HANDICAP DETAIL PLAN
 PRIVATE WATER MAIN PROFILES

GTW'S WAVERLY WOODS
 SECTION 7
 PARCEL 'B'
 DAY CARE CENTER AND
 CONDOMINIUM OFFICE BUILDINGS 1-30

TAX MAP No: 16 PART OF PARCEL: 424
 THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 SCALE: 1" = 20' DATE: JUNE, 2002
 SHEET 4 OF 18

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461 - 2855



MATCH LINE SEE SHEET 6

PLAN
1" = 30'

NOTE: CONSTRUCTION OF BUILDING UNITS 9-16 WILL BE DELAYED UNTIL THE SEDIMENT CONTROLS ARE REMOVED WITHIN THAT AREA.

LEGEND

— S-GF — S-GF — S-GF —	SUPER-SILT FENCE
[Symbol]	STABILIZED CONSTRUCTION ENTRANCE
— L.O.D. —	LIMIT OF DISTURBANCE
[Symbol]	EROSION CONTROL MATTING
[Symbol]	EARTH DIKE AND TREATMENT TYPE
— T.P.F. — T.P.F. — T.P.F. —	TREE PROTECTION FENCE
[Symbol]	SEDIMENT TRAP DRAINAGE AREAS

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PARK
ELLCOTT CITY, MARYLAND 21042
4100 461 - 2955

DATE	REVISION
9/12/02	REVISE THE PROPOSED STORM DRAIN OUTFALL & SEDIMENT CONTROL SYSTEM PER RED LINE DATED 9/12/02
10/21/02	INCREASED TOTAL NUMBER OF THIS PROJECT FROM 20 TO 29 BY CHANGING UNIT BLDG (20-29) TO 4 UNIT BLDG (20-23) & ADDING A 2 UNIT BLDG (24 & 25) ACQUISITION LOCATION OF EARTH DIKE NO. 1 REQUIRED
2/20/03	REVISED DRAWING TO ADD 2 ADDITIONAL SPACES & REVISED FOR SIDEWALK FOR SIDE ENTRANCE ON UNITS 23 & 25 FOR HANDICAP ACCESSIBILITY
3-24-04	Rev. Units 1-8 per new architectural plans.
5-14-04	Revise Units 1-8 with 4 unit condominiums as approved on 6-25-02
10-06-05	Added General Note No. 17 re: extension of Bldg Permit Application deadline date for Units 7, 8, 9, 12 & 13-16 to January 14, 2006
1-9-06	Add Utility Closets to Units 1-16

ENGINEER'S CERTIFICATE
I certify that this plan for erosion and sediment control represents a practical and workable plan based on the best knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Signature of Professional Engineer: *[Signature]* Date: 6-12-02

DEVELOPER'S CERTIFICATE
I/We certify that all development and construction will be done according to this plan for sediment and erosion control 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 also authorize periodic on-site inspection by the Howard Soil Conservation District.
Signature of Developer: *[Signature]* Date: 6-12-02

Reviewed for HOWARD SOIL CONSERVATION DISTRICT and meets Technical Requirements.
[Signature] Date: 6/12/02
U.S.D. Natural Resources Conservation Service
This development plan is approved for erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
[Signature] Date: 6/12/02
Howard SOCD

OWNER/DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT
8000 MAIN STREET
ELLCOTT CITY, MARYLAND 21043
(410) 480-9105

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development	Date: 6/12/02
Chief, Development Engineering Division	Date: 6/12/02
Director - Department of Planning and Zoning	Date: 6/12/02

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
GTW'S WAVERLY WOODS	7	PARCEL 'B'

PLAT	GRID NO.	ZONE	TAX MAP NO.	ELEC. DIST.	CENSUS TR.
13433, 13434, 13437	5 & 10	PEC	16	THIRD	603000

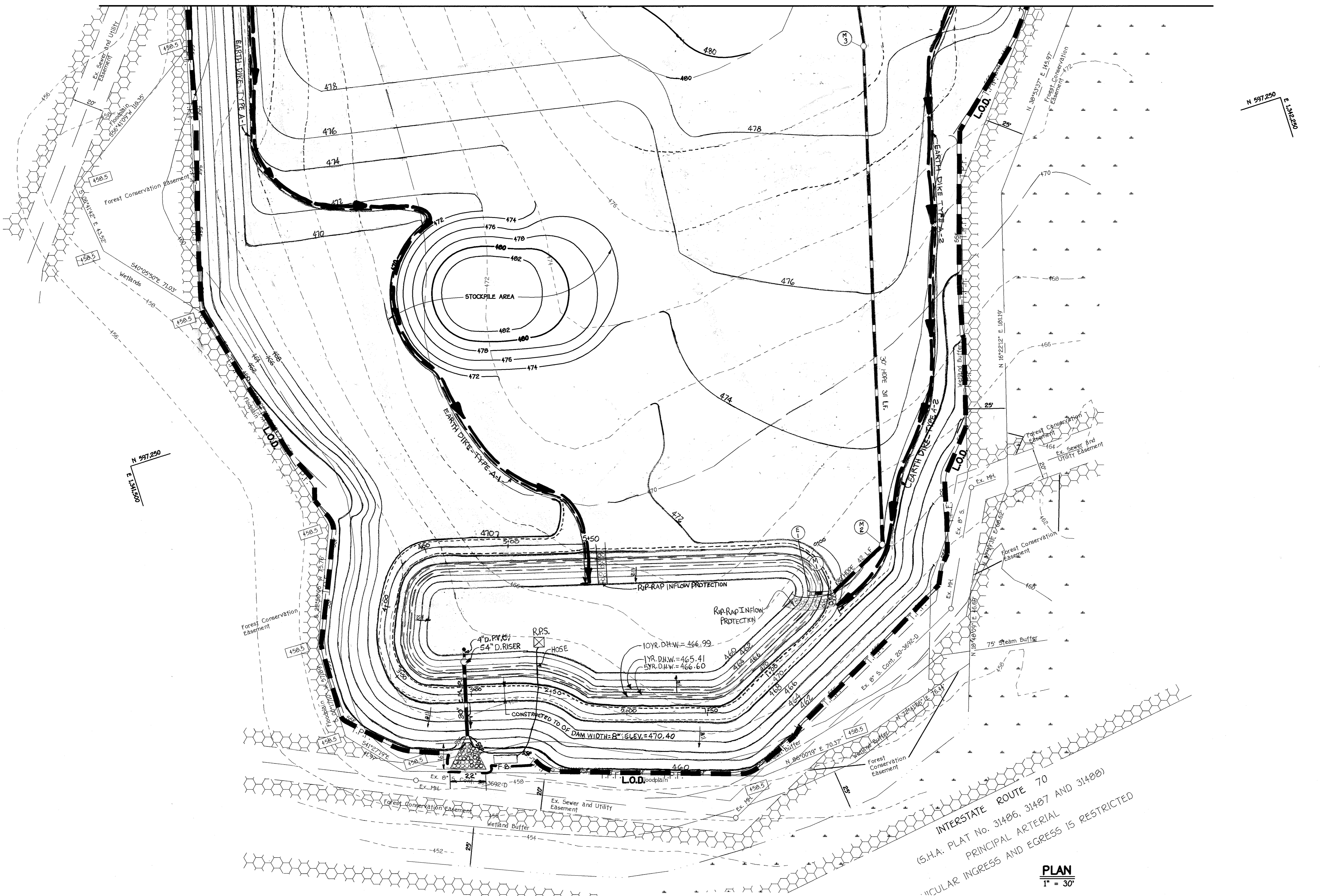
WATER CODE	SEWER CODE
HO5	5992000

GRADING AND SEDIMENT CONTROL PLAN
STAGE 1-INITIAL CONSTRUCTION

GTW'S WAVERLY WOODS
SECTION 7
PARCEL 'B'
DAY CARE CENTER AND
CONDOMINIUM OFFICE BUILDINGS 1-29

TAX MAP No: 16 PART OF PARCEL: 424
THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: JUNE, 2002
SHEET 5 OF 18

SDP-02-74



LEGEND

---SSF---SSF---SSF---	SUPER-SILT FENCE
[Symbol]	S.C.E.
[Symbol]	STABILIZED CONSTRUCTION ENTRANCE
---	L.O.D.
[Symbol]	LIMIT OF DISTURBANCE
[Symbol]	EROSION CONTROL MATTING
[Symbol]	EARTH DIKE AND TREATMENT TYPE
[Symbol]	T.P.F.
[Symbol]	TREE PROTECTION FENCE
[Symbol]	SEDIMENT TRAP DRAINAGE AREAS

PLAN
1" = 30'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FREE
ELLICOTT CITY, MARYLAND 21042
(410) 481-2995

DATE	REVISION
9/12/02	REVISE THE PROPOSED STORM DRAIN OUTFALL SEDIMENT CONTROL SYSTEM PER RED LINE DATED 9/13/02
10/21/02	REVISED TITLE BLOCK TO REFLECT TOTAL NUMBER OF UNITS FROM 29 TO 30

ENGINEER'S CERTIFICATE

I certify that the erosion and sediment control represents a practical and workable plan based on my knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature of Professional Engineer: *[Signature]* Date: 6-12-02

DEVELOPER'S CERTIFICATE

I/we certify that all development and construction will be done according to this plan for sediment and erosion control 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 also authorize periodic on-site inspection by the Howard Soil Conservation District.

Signature of Developer: *[Signature]* Date: 6-12-02

Reviewed for HOWARD COUNTY and meets Technical Requirements.

[Signatures] 6/18/02

U.S.D. Natural Resources Conservation Service
This document is approved for erosion and sediment control by the HOWARD COUNTY SOIL CONSERVATION DISTRICT.

[Signatures] 6/18/02

Howard, ECD

OWNER/DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT
8000 MAIN STREET
ELLICOTT CITY, MARYLAND 21043
(410) 480-9105

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 6/25/02
Chief, Division of Land Development

[Signature] 6/21/02
Chief, Development Engineering Division

[Signature] 6/25/02
Director - Department of Planning and Zoning

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
GTW'S WAVERLY WOODS	7	PARCEL 'B'

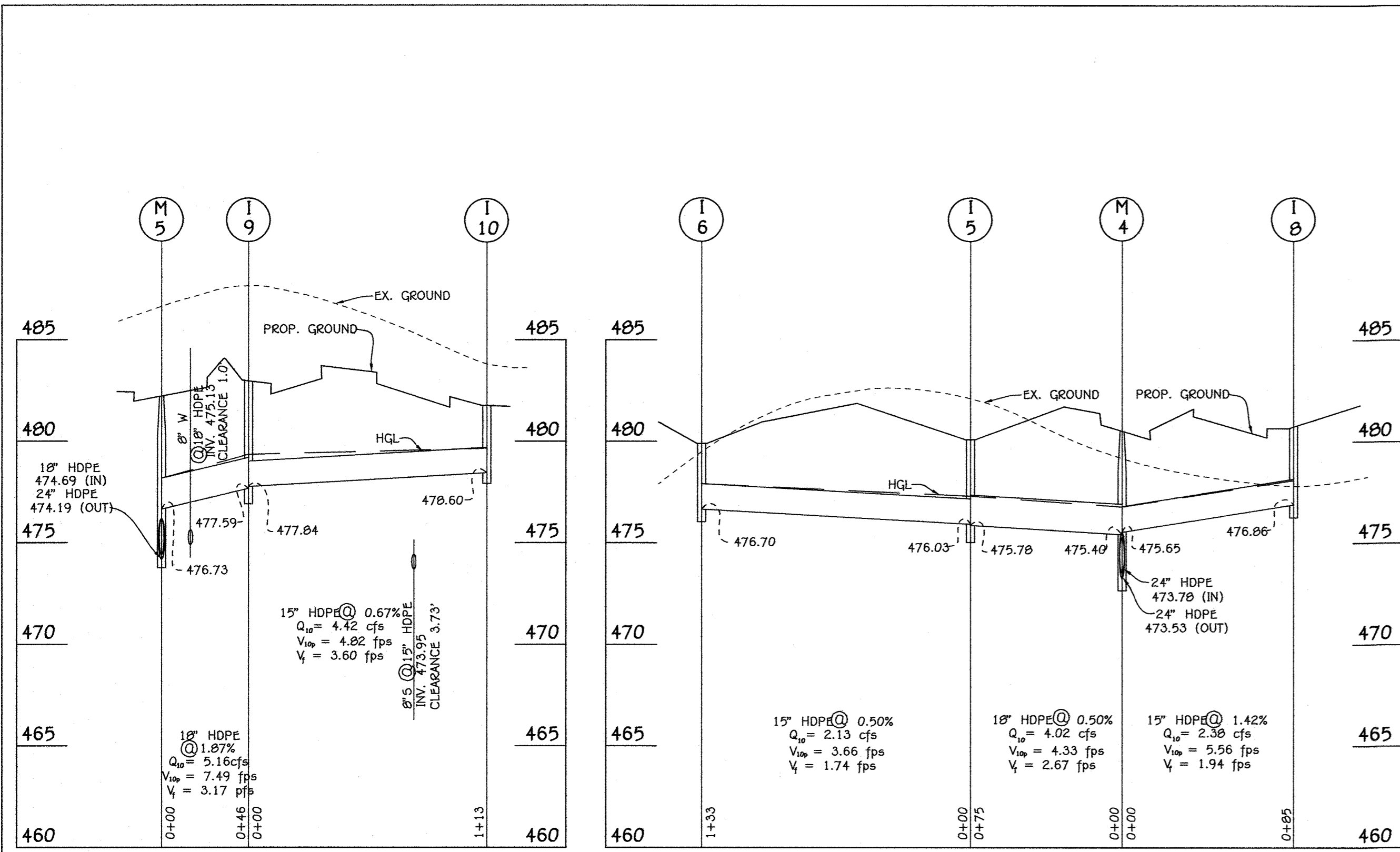
PLAT	GRID NO.	ZONE	TAX MAP NO.	ELEC. DIST.	CENSUS TR.
13433, 13434, 13437	5 & 10	PEC	16	THIRD	603000

WATER CODE	SEWER CODE
H05	5992000

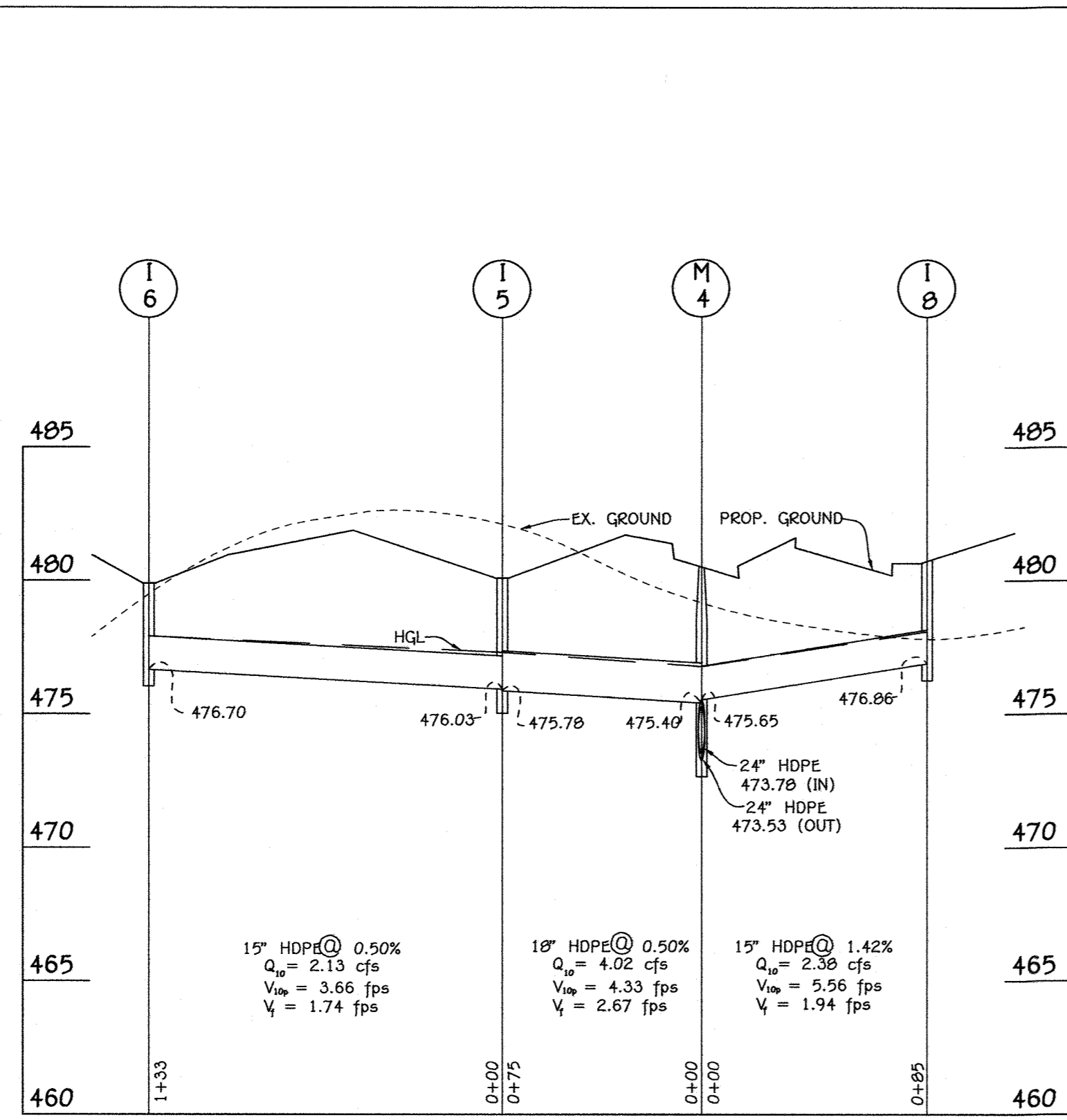
**GRADING AND SEDIMENT CONTROL PLAN
STAGE 1-INITIAL CONSTRUCTION**

**GTW'S WAVERLY WOODS
SECTION 7
PARCEL 'B'
DAY CARE CENTER AND
CONDOMINIUM OFFICE BUILDINGS 1-30**

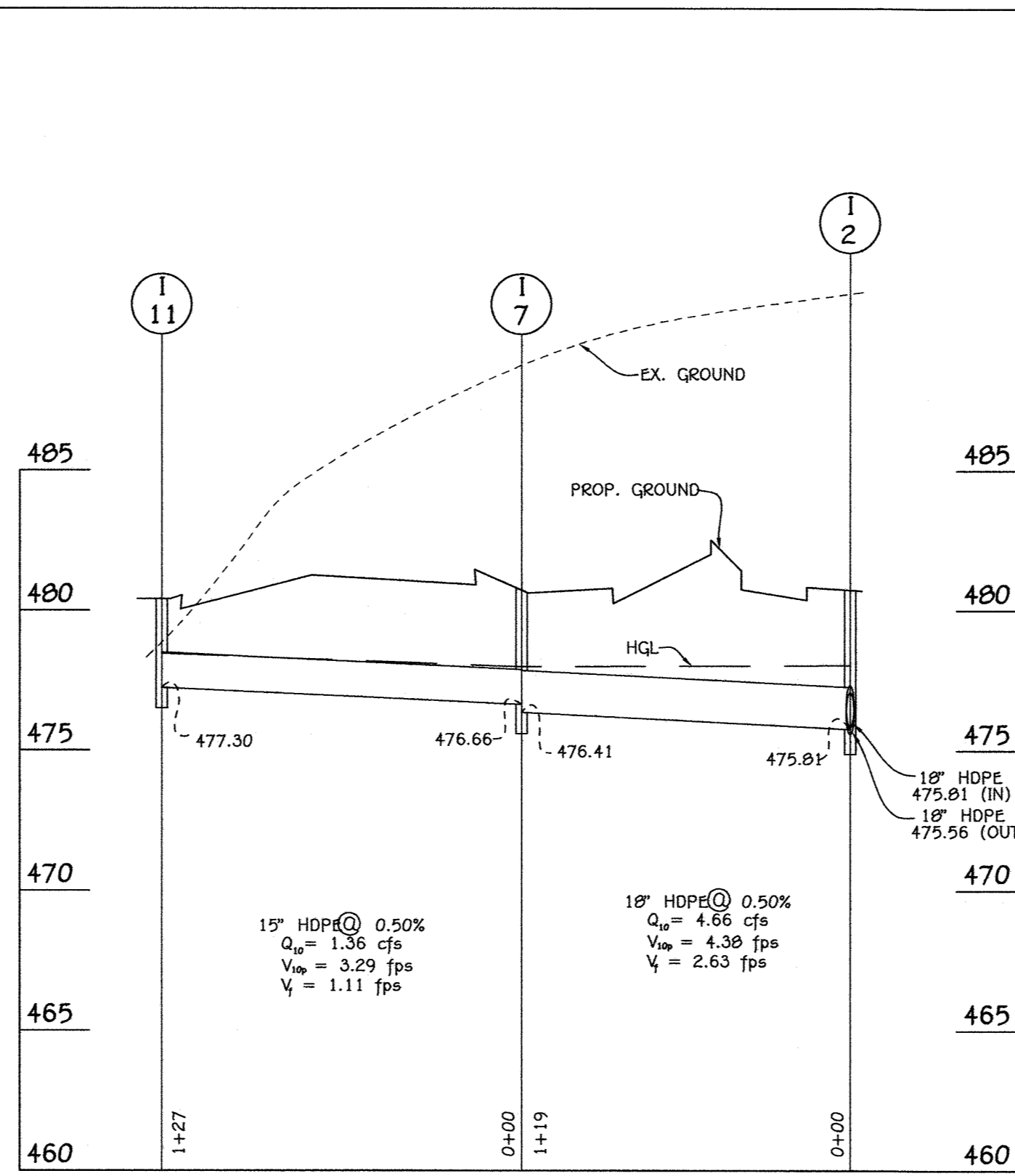
TAX MAP No: 16 PART OF PARCEL: 424
THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JUNE, 2002
SHEET 6 OF 18



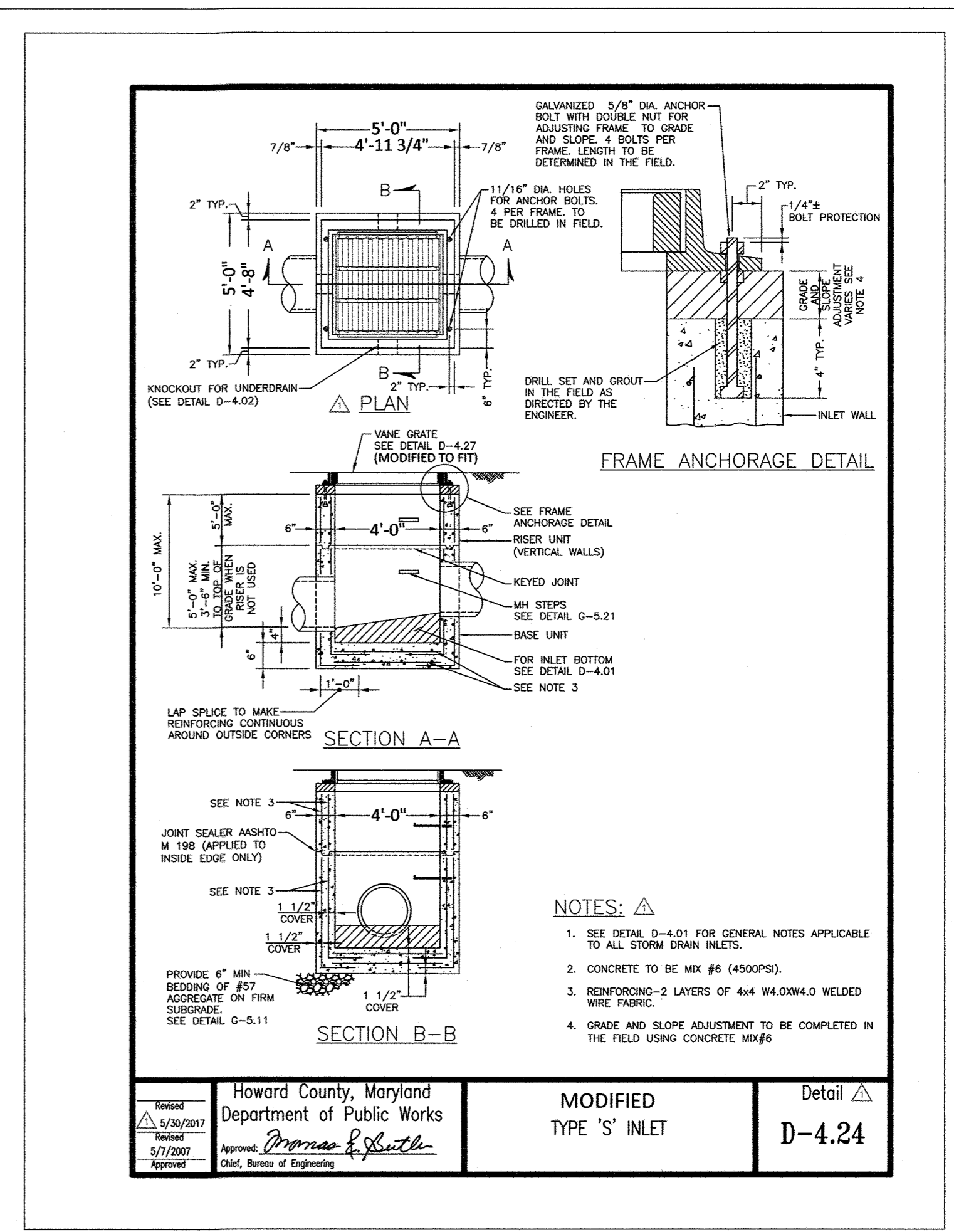
PROFILE
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'



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



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

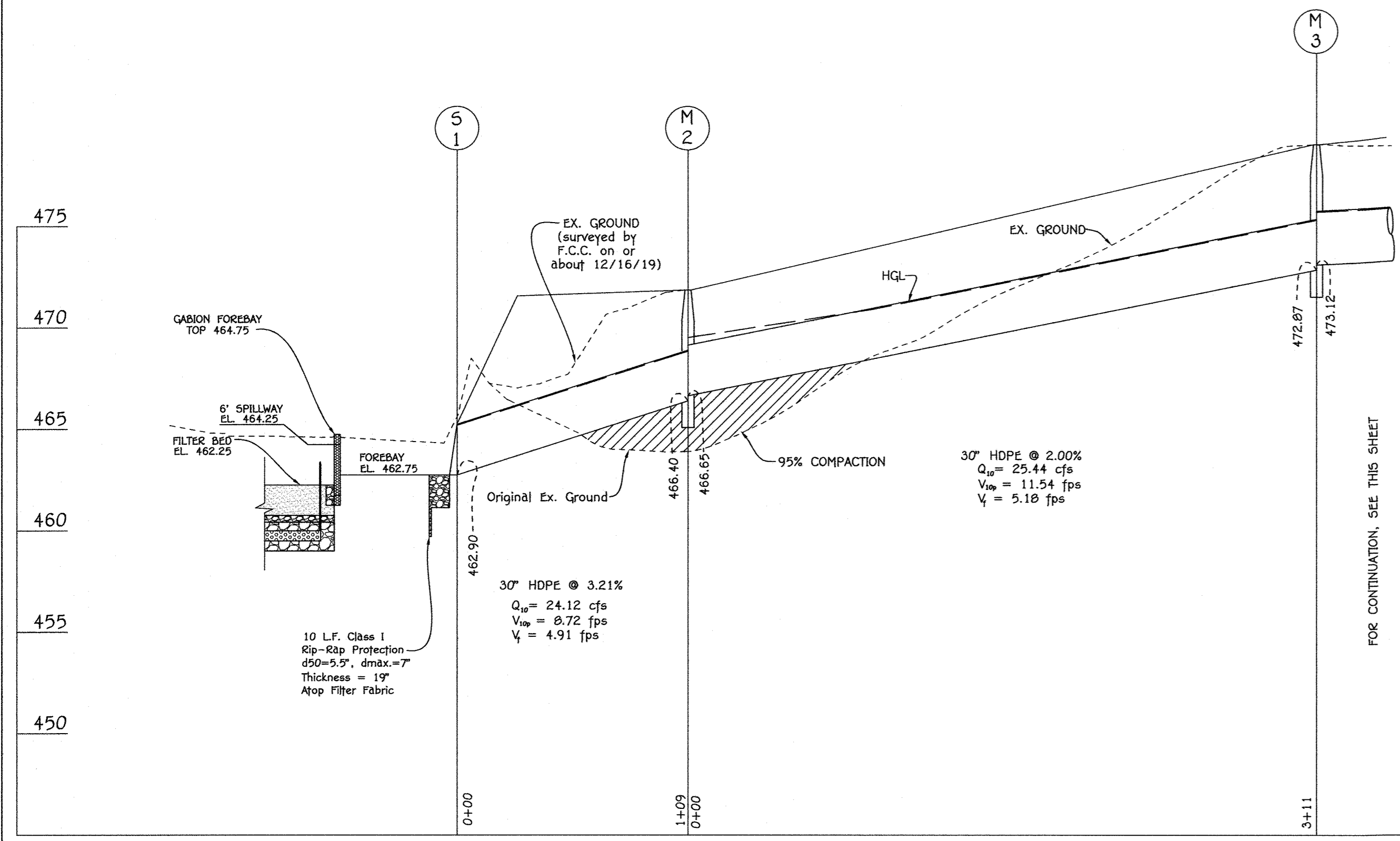


Released 3/20/2017	Howard County, Maryland Department of Public Works	MODIFIED TYPE 'S' INLET	Detail D-4.24
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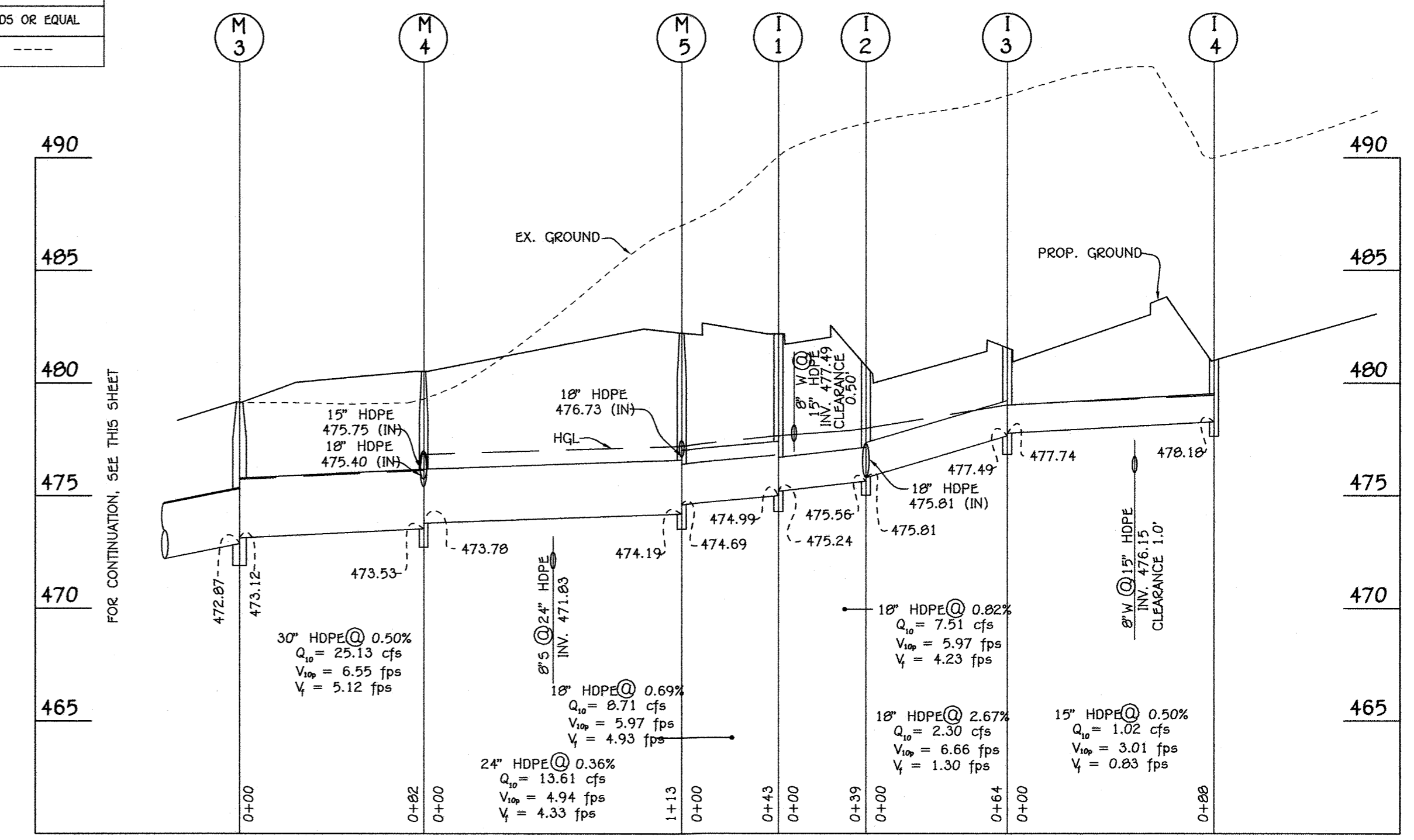
STRUCTURE SCHEDULE - PRIVATE STORM DRAIN								
STRUCTURE	NORTH	EAST	TYPE	STD. DETAILS	TOP ELEV.	INV. IN	INV. OUT	REMARKS
1-12	597081.36	1341622.63	MODIFIED 'S' INLET	----	464.25	459.50	459.50	SEE DETAIL THIS SHT.
5-1	597011.71	1341836.71	30\"/>					

PIPE SCHEDULE			
SIZE	TYPE	CLASS	LENGTH (ft.)
4"	PERFORATED PVC	SCH 40	263
18"	RCCP, CL. IV	----	33
30"	HDPE	----	109*

* DENOTES PIPE LENGTH FROM M-2 TO 5-1



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



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

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-2999

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Division of Land Development
Date: 9/26/20

Chief, Development Engineering Division
Date: 9/14/20

Director, Department of Planning and Zoning
Date: 9-27-20



OWNER/DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT
8000 MAIN STREET
ELICOTT CITY, MARYLAND 21043
(410) 480-9105

REVISION		DATE
3	REVISED S.W.M. FACILITY FOR PARCEL 'B'	3-02-20
2	REVISED TITLE BLOCK TO REFLECT TOTAL NUMBER OF UNITS FROM 29 TO 30	10/21/02
1	REVISE THE PROP. STORM DRAIN OUTFALL & SEDIMENT CONTROL SYSTEM PER REDLINE DATED 9/13/02	9-12-02

NO.	REVISION	DATE
1	REVISED S.W.M. FACILITY FOR PARCEL 'B'	3-02-20
2	REVISED TITLE BLOCK TO REFLECT TOTAL NUMBER OF UNITS FROM 29 TO 30	10/21/02
3	REVISED S.W.M. FACILITY FOR PARCEL 'B'	3-02-20

SUBDIVISION NAME		SECTION/AREA	LOT/PARCEL NO.
GTW'S WAVERLY WOODS		7	PARCEL 'B'

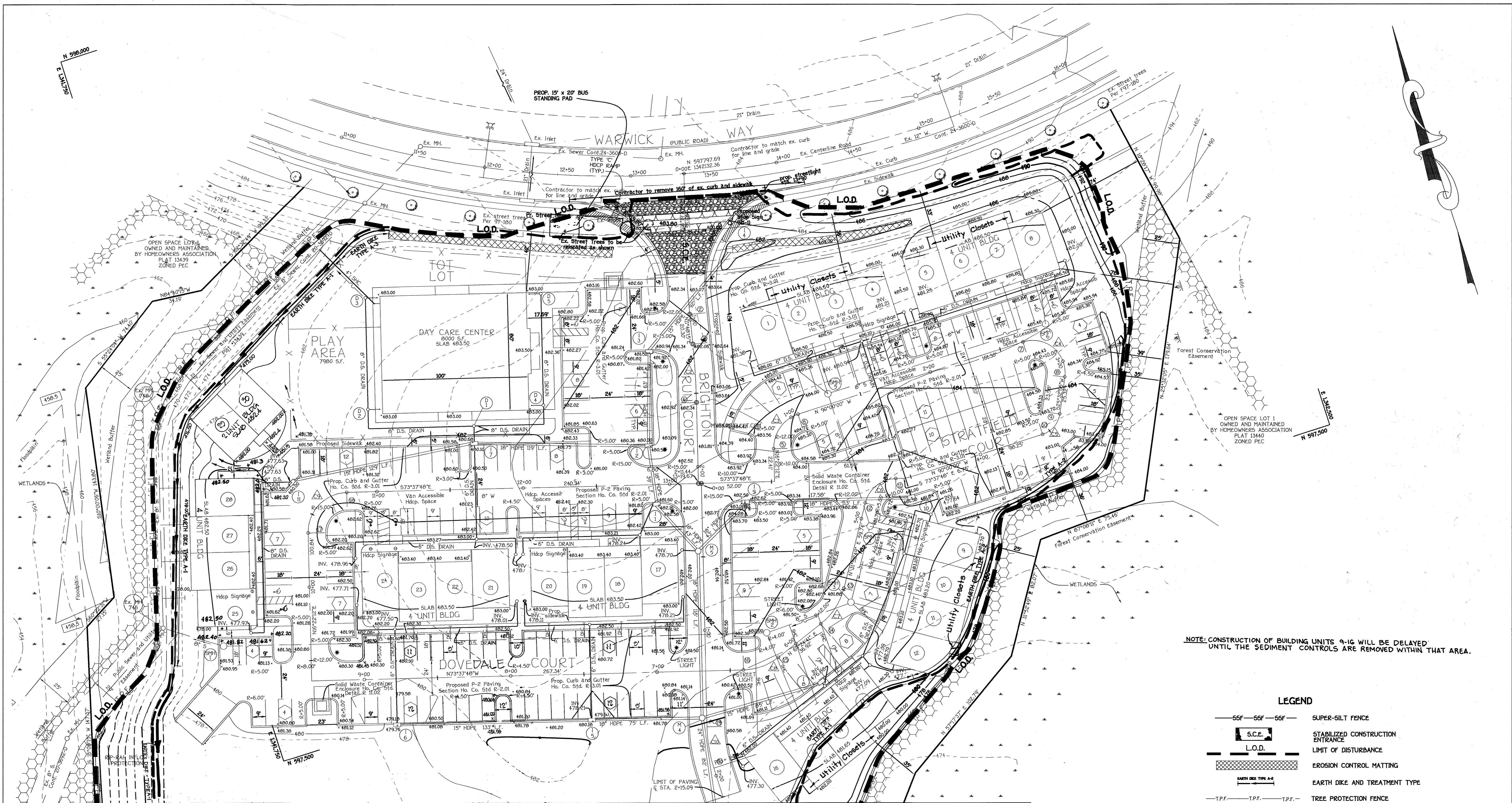
PLAT	GRID NO.	ZONE	TAX MAP NO.	ELEC. DIST.	CENSUS TR.
13433, 13437	5 & 10	PEC	16	THIRD	603000

WATER CODE	SEWER CODE
H05	5992000

REVISED STORM DRAIN PROFILES

GTW'S WAVERLY WOODS
SECTION 7
PARCEL 'B'
DAY CARE CENTER AND
CONDOMINIUM OFFICE BUILDINGS 1-30

TAX MAP No: 16 PART OF PARCEL: 424
THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' DATE: MARCH, 2020
SHEET 7 OF 17



NOTE: CONSTRUCTION OF BUILDING UNITS 9-16 WILL BE DELAYED UNTIL THE SEDIMENT CONTROLS ARE REMOVED WITHIN THAT AREA.

LEGEND

—S.F.—S.F.—S.F.—	SUPER-SILT FENCE
—S.C.E.—	STABILIZED CONSTRUCTION ENTRANCE
—L.O.D.—	LIMIT OF DISTURBANCE
—E.C.M.—	EROSION CONTROL MATTING
—E.D.T.—	EARTH DIKE AND TREATMENT TYPE
—T.P.F.—T.P.F.—T.P.F.—	TREE PROTECTION FENCE
—T.S.W.D.—	TEMPORARY S.W.M. DRAINAGE AREAS

MATCH LINE SEE SHEET 9
PLAN
 1" = 30'

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK • 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 481-2255

DATE	REVISION
9/12/02	REVISE THE PROPOSED STORM DRAIN OUTFALL & SEDIMENT CONTROL SYSTEM PER RED LINE DATE 9/13/02
10/21/02	REVISED PER COMMENTS FROM HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING TO A UNIT BLDG (25-28) & ADDING A UNIT BLDG (29 & 30) AND RELOCATING LOCATION OF SEDIMENT FENCE AS REQUIRED
2/3/03	REVISED PROVISION TO ADD 2 ADDITIONAL UNITS & REVISED
12/13	ADD HANDICAP WALK TO SIDE ENTRANCES TO UNITS 25-28
10/06/03	Added General Note No. 27 re: extension of Bldg Permit Application deadline date for Units 2-8, 9-12 & 13-16 to January 14, 2004
1-9-06	Add Utility Closets to Units 1-16

ENGINEER'S CERTIFICATE
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on the best professional knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 Signature: *[Signature]* Date: 6-12-02

DEVELOPER'S CERTIFICATE
 I/we certify that all development and construction will be done according to this plan for sediment and erosion control 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 also authorize periodic on-site inspection by the Howard Soil Conservation District.
 Signature of Developer: *[Signature]* Date: 6-12-02

Approved for HOWARD COUNTY and meets Technical Requirements.
 Signature: *[Signature]* Date: 6/18/02
 Signature: *[Signature]* Date: 6/18/02
 Signature: *[Signature]* Date: 6/18/02
OWNER/DEVELOPER
 WAVERLY WOODS DEVELOPMENT CORPORATION
 C/O LAND DESIGN AND DEVELOPMENT
 8000 MAIN STREET
 ELLICOTT CITY, MARYLAND 21043
 (410) 480-9105

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* Date: 6/18/02
 Signature: *[Signature]* Date: 6/18/02
 Signature: *[Signature]* Date: 6/18/02

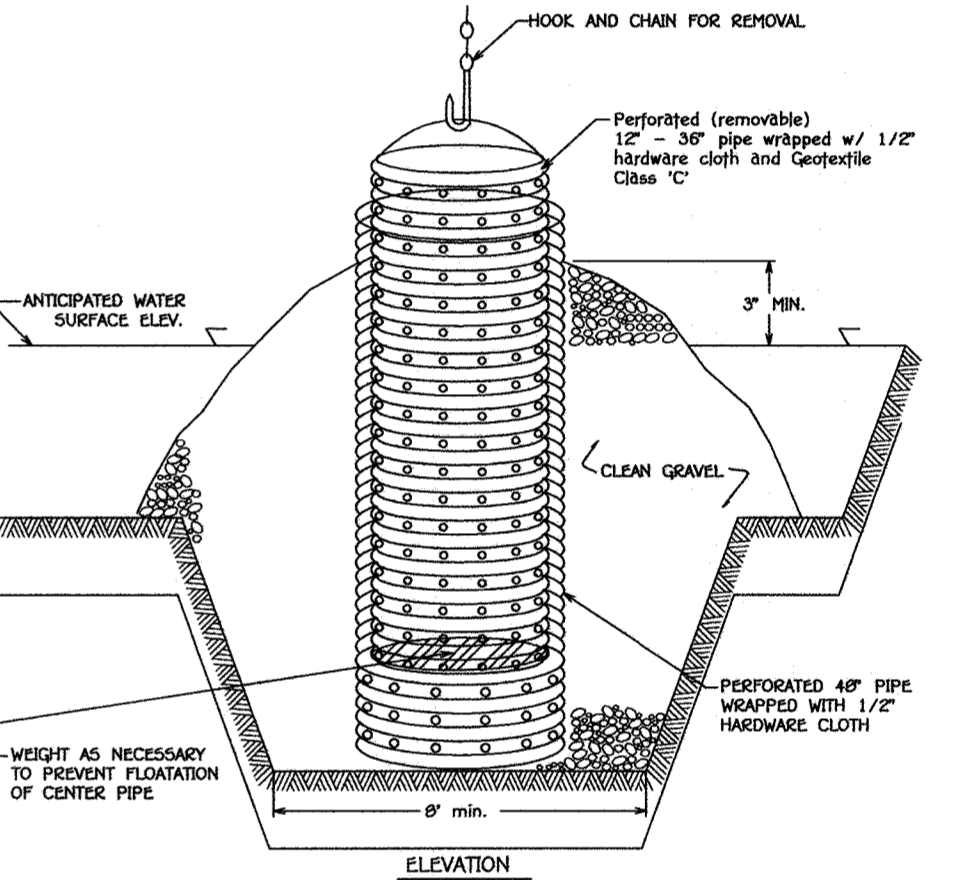
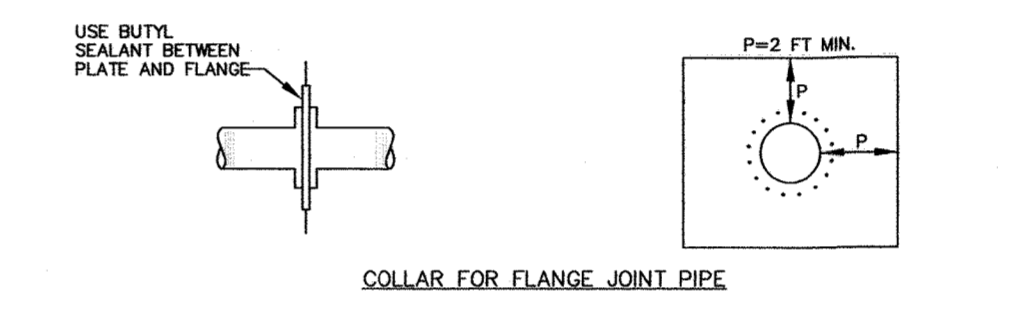
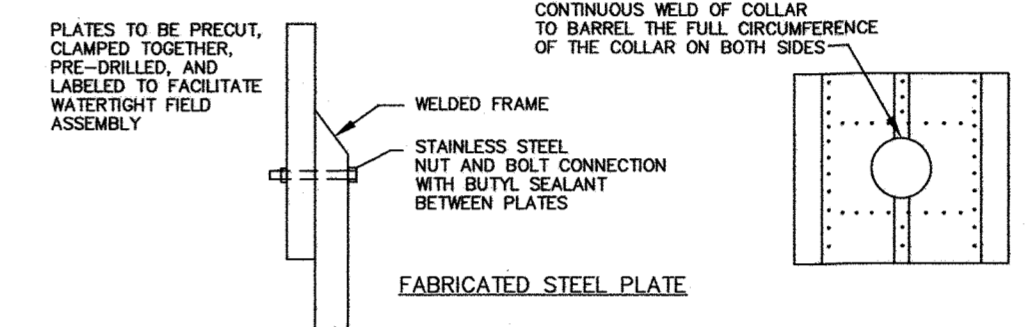
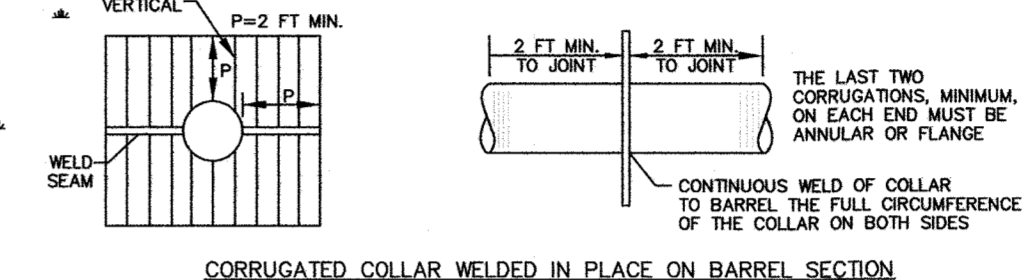
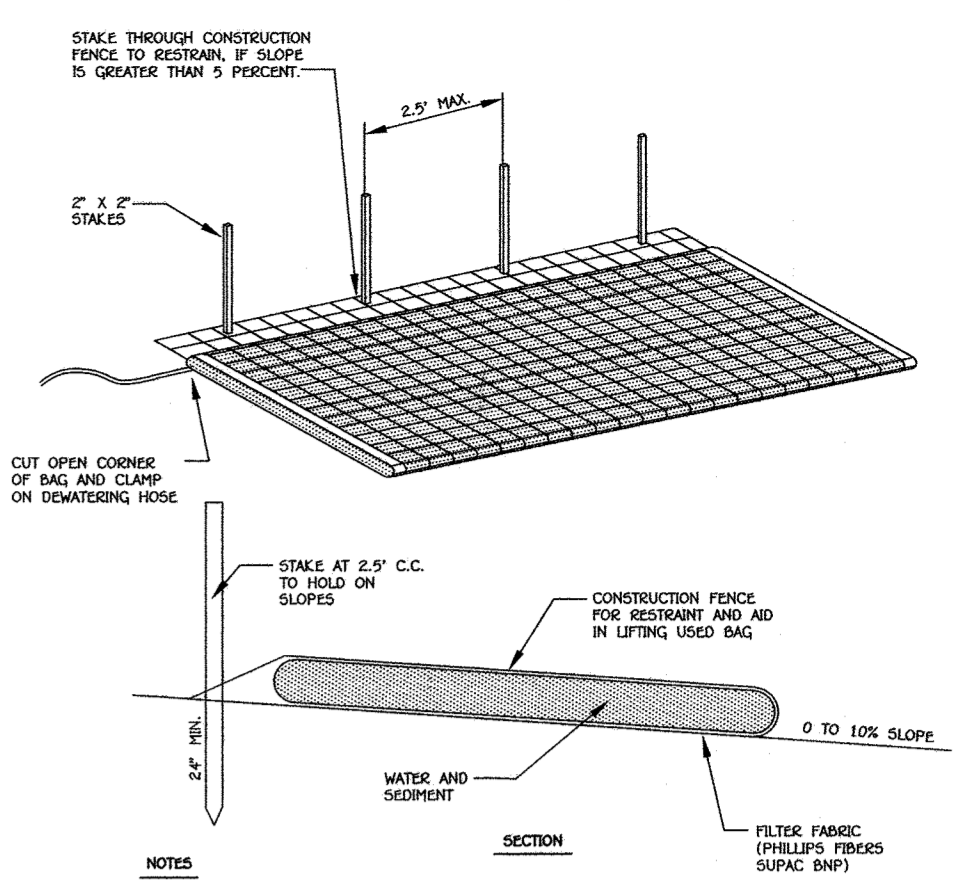
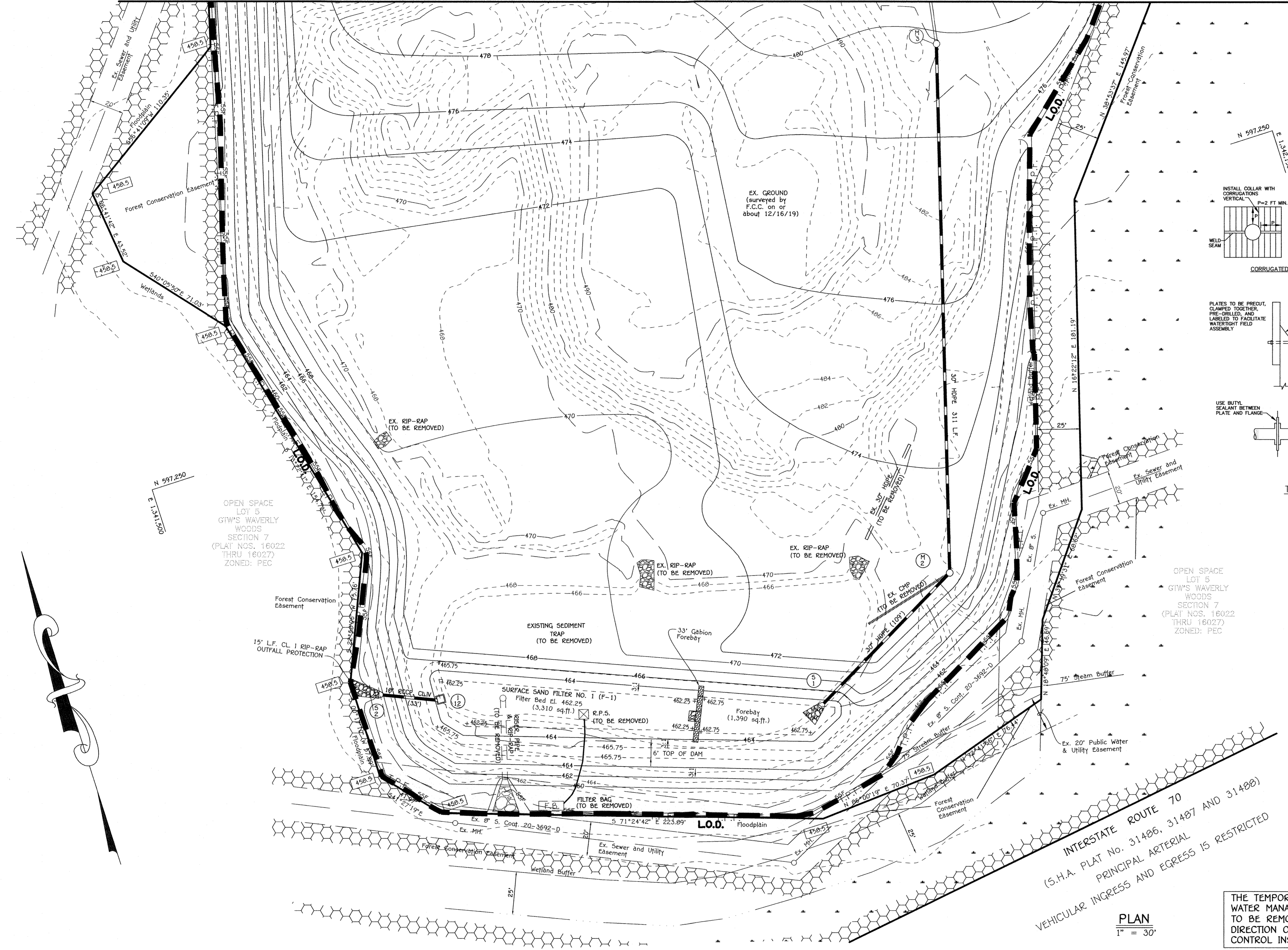
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
GTW'S WAVERLY WOODS	7	PARCEL 'B'

PLAT	GRID NO.	ZONE	TAX MAP NO.	ELEC. DIST.	CENSUS TR.
13433, 13434, 13437	5 & 10	PEC	16	THIRD	603000

WATER CODE: H05 SEWER CODE: 5992000

GRADING AND SEDIMENT CONTROL PLAN
STAGE II - FINAL CONSTRUCTION
GTW'S WAVERLY WOODS
SECTION 7
PARCEL 'B'
DAY CARE CENTER AND
CONDOMINIUM OFFICE BUILDINGS 1-30
 TAX MAP No: 16 PART OF PARCEL: 424
 THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JUNE, 2002
 SHEET 8 OF 18

MATCH LINE SEE SHEET 8



- The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations.
- After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.
- The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 30" in diameter. The perforations shall be 1/2" x 6" slots or 1" diameter holes @ center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C.
- The center pipe should extend 12" to 18" above the anticipated water surface elevation or finer crest elevation when dewatering a basin.

LEGEND

— S.S.F. — S.S.F. — S.S.F. —	SUPER-SILT FENCE
— S.C.E. —	STABILIZED CONSTRUCTION ENTRANCE
— L.O.D. —	LIMIT OF DISTURBANCE
— EROSION CONTROL MATTING —	EROSION CONTROL MATTING
— EARTH DIKE TYPE A-2 —	EARTH DIKE AND TREATMENT TYPE
— T.P.F. — T.P.F. — T.P.F. —	TREE PROTECTION FENCE
— — —	TEMPORARY S.W.M. DRAINAGE AREAS

THE TEMPORARY STORM WATER MANAGEMENT BASIN IS TO BE REMOVED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

PLAN
1" = 30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2955

Chief, Division of Land Development
Chris Adams
Date: 9/14/20

Chief, Development Engineering Division
Chris Adams
Date: 9-29-20

Director, Department of Planning and Zoning
Chris Adams
Date: 9-29-20

ENGINEER'S CERTIFICATE

"I certify that this plan for sediment and erosion 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."

Chris Adams
Signature of Engineer (print name below signature) 9/14/2020 Date

DEVELOPER'S CERTIFICATE

"I/we certify that all development and construction will be done according to this plan for sediment and erosion control, and that all 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 also authorize periodic on-site inspection by the Howard Soil Conservation District."

Chris Adams
Signature of Developer (print name below signature) 9-17-20 Date

OWNER/DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT
8000 MAIN STREET
ELLSWORTH CITY, MARYLAND 21043
(410) 480-9105

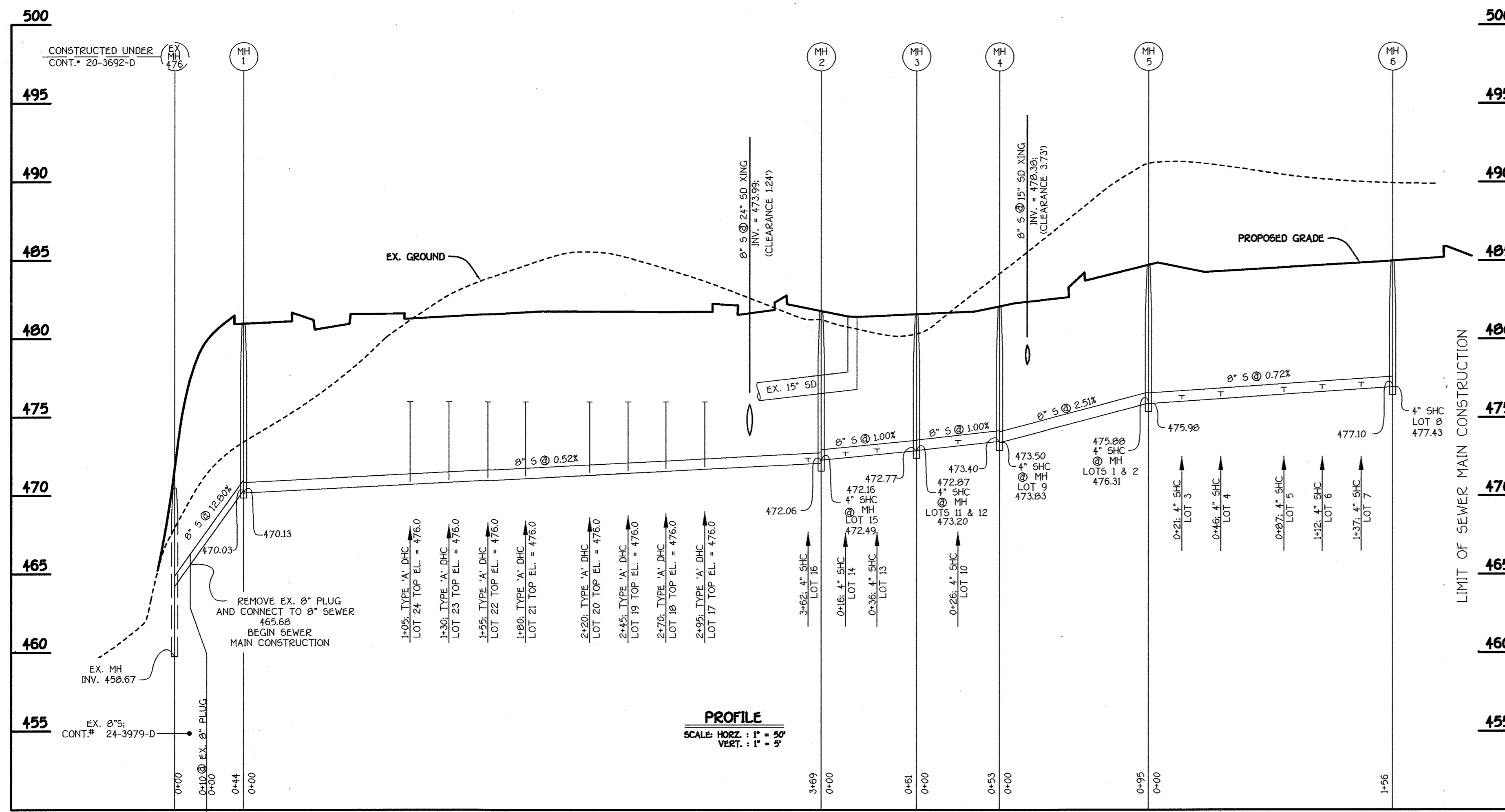
3	REVISED S.W.M. FACILITY FOR PARCEL 'B'	3-02-20
2	REVISED TITLE BLOCK TO REFLECT TOTAL NUMBER OF UNITS FROM 29 TO 30	10/21/02
1	REVISE THE PROP. STORM DRAIN OUTFALL & SEDIMENT CONTROL SYSTEM PER LICENSE DATED 9/13/02	9-12-02
NO.	REVISION	DATE
SUBDIVISION NAME: GTW'S WAVERLY WOODS		
SECTION/AREA: 7		
LOT/PARCEL NO.: PARCEL 'B'		
PLAT: 13433, 13434, 13437	GRID NO.: 5 & 10	ZONE: PEC
TAX MAP NO.: 16	ELEC. DIST.: THIRD	CENSUS TR.: 603000
WATER CODE: H05	SEWER CODE: 5992000	

REVISED

GRADING AND SEDIMENT CONTROL PLAN
STAGE II - FINAL CONSTRUCTION

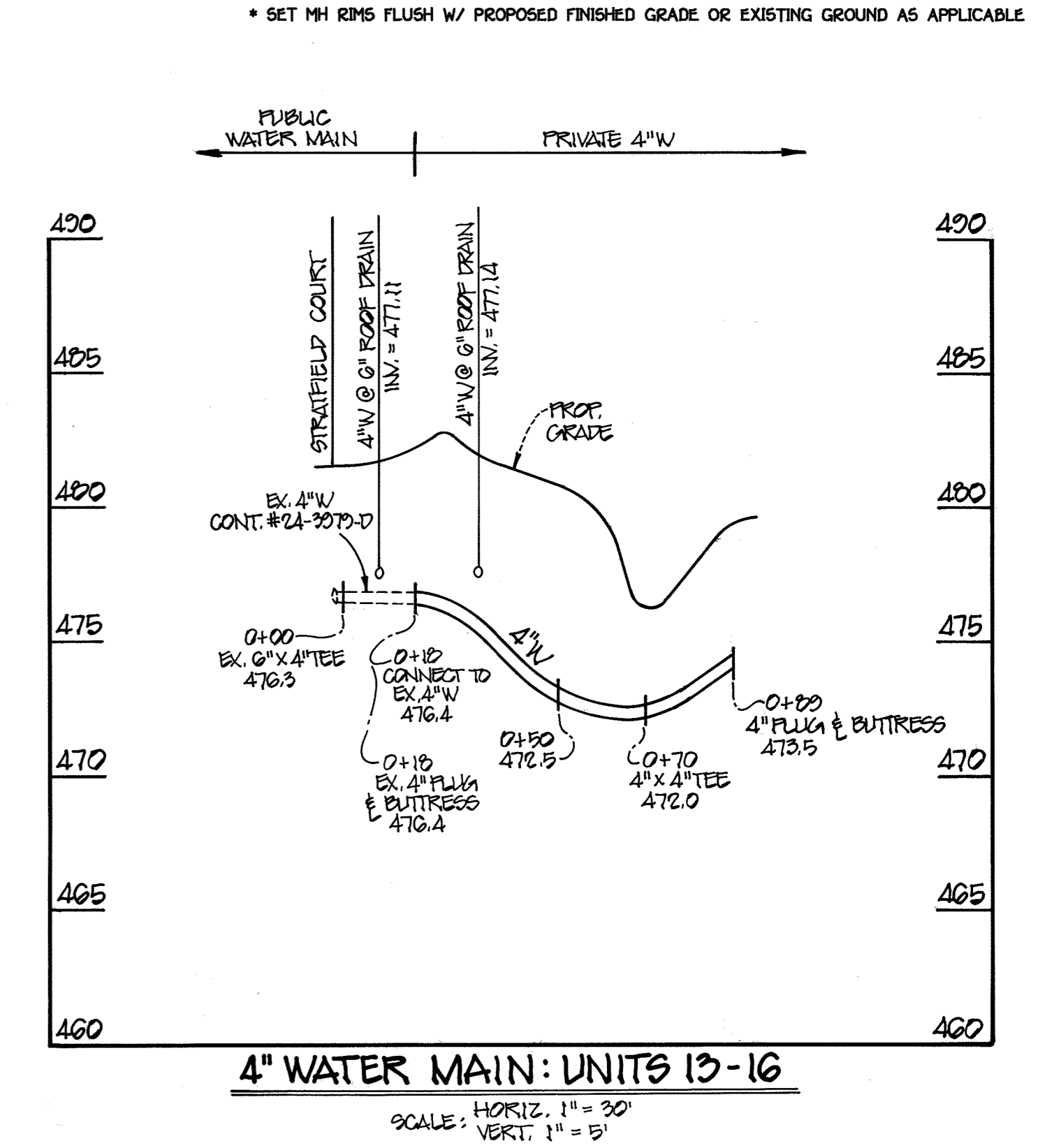
GTW'S WAVERLY WOODS
SECTION 7
PARCEL 'B'
DAY CARE CENTER AND
CONDOMINIUM OFFICE BUILDINGS 1-30

TAX MAP No: 16 PART OF PARCEL: 424
THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: MARCH, 2020
SHEET 9 OF 18

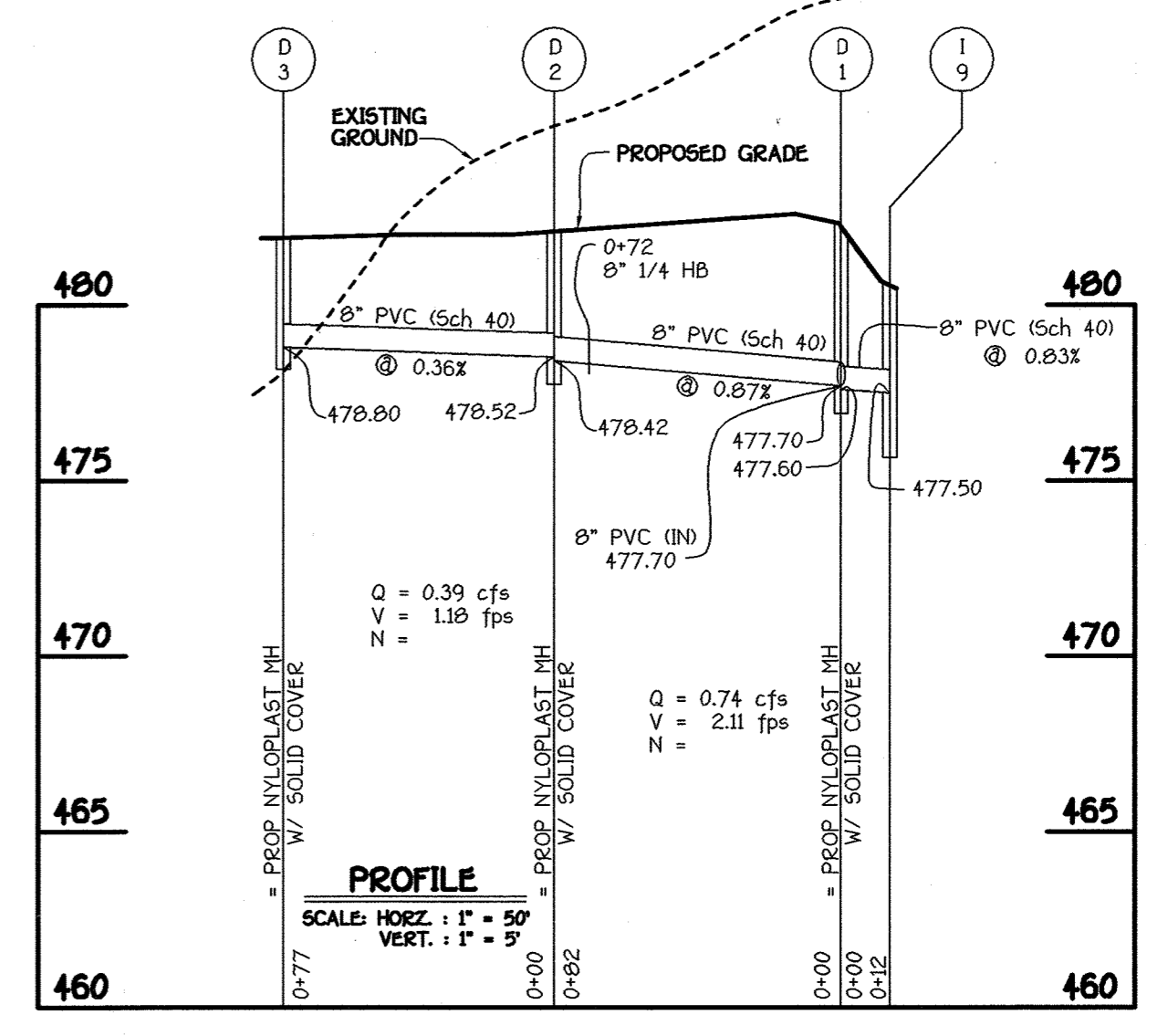
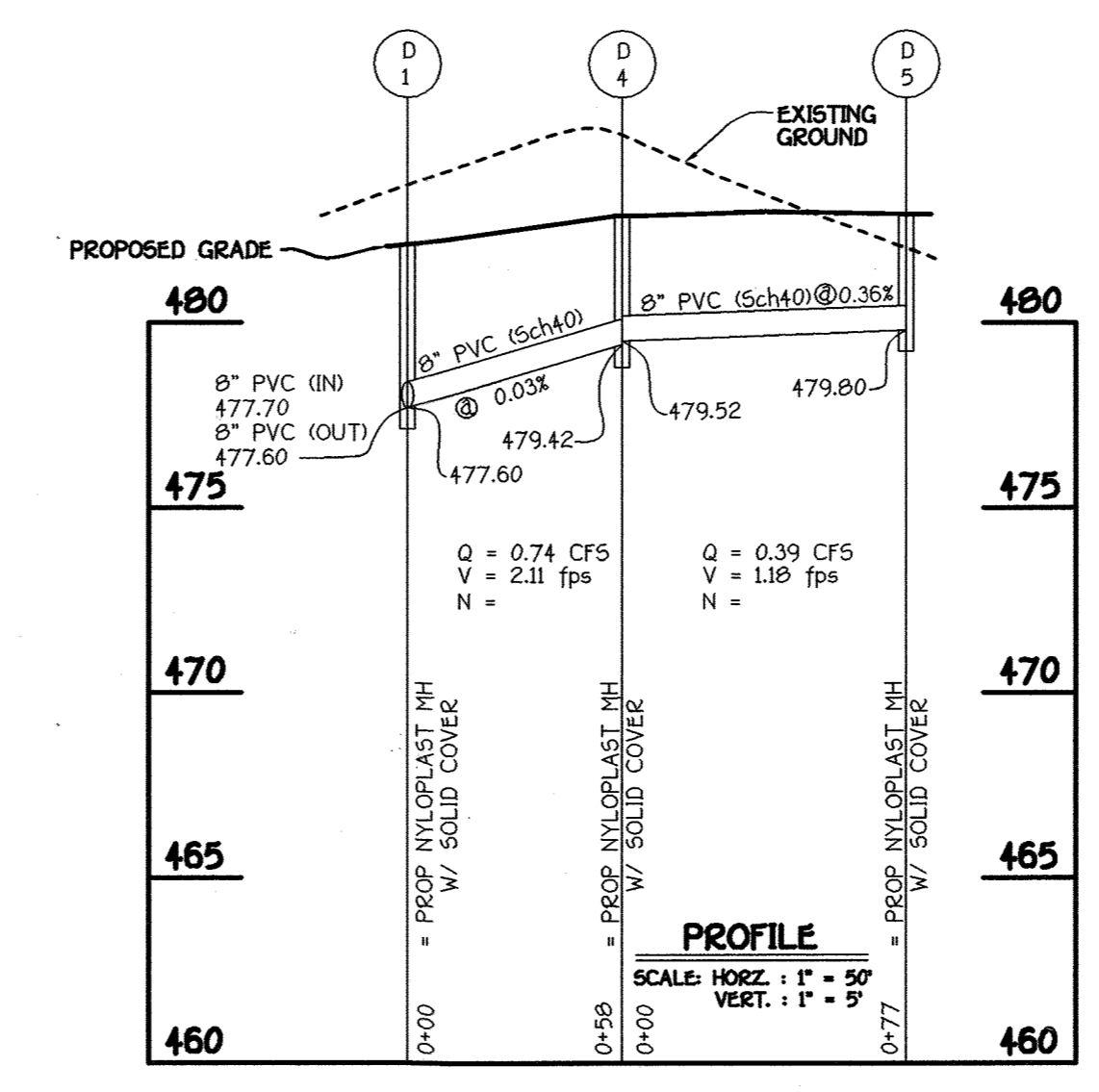
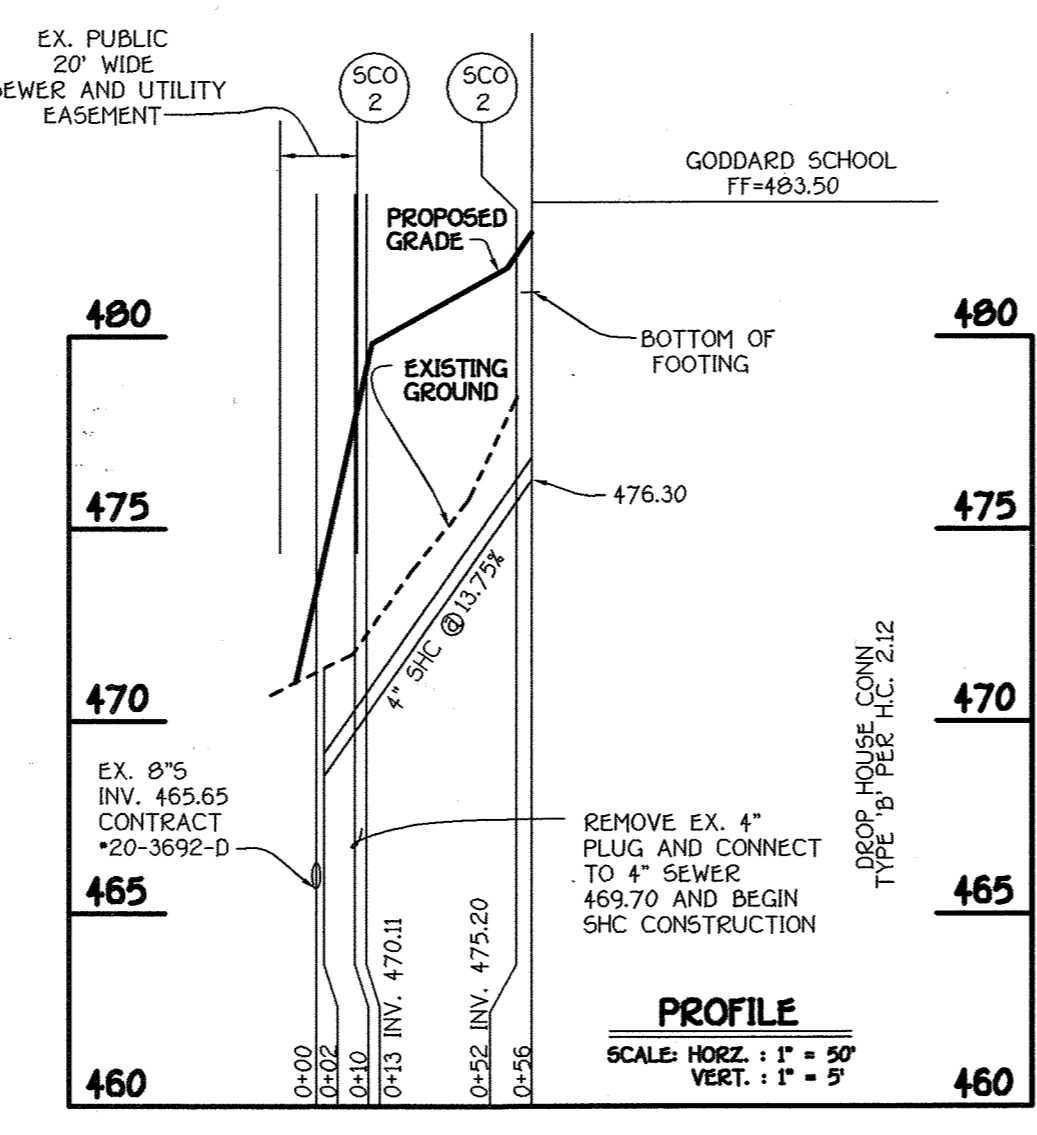
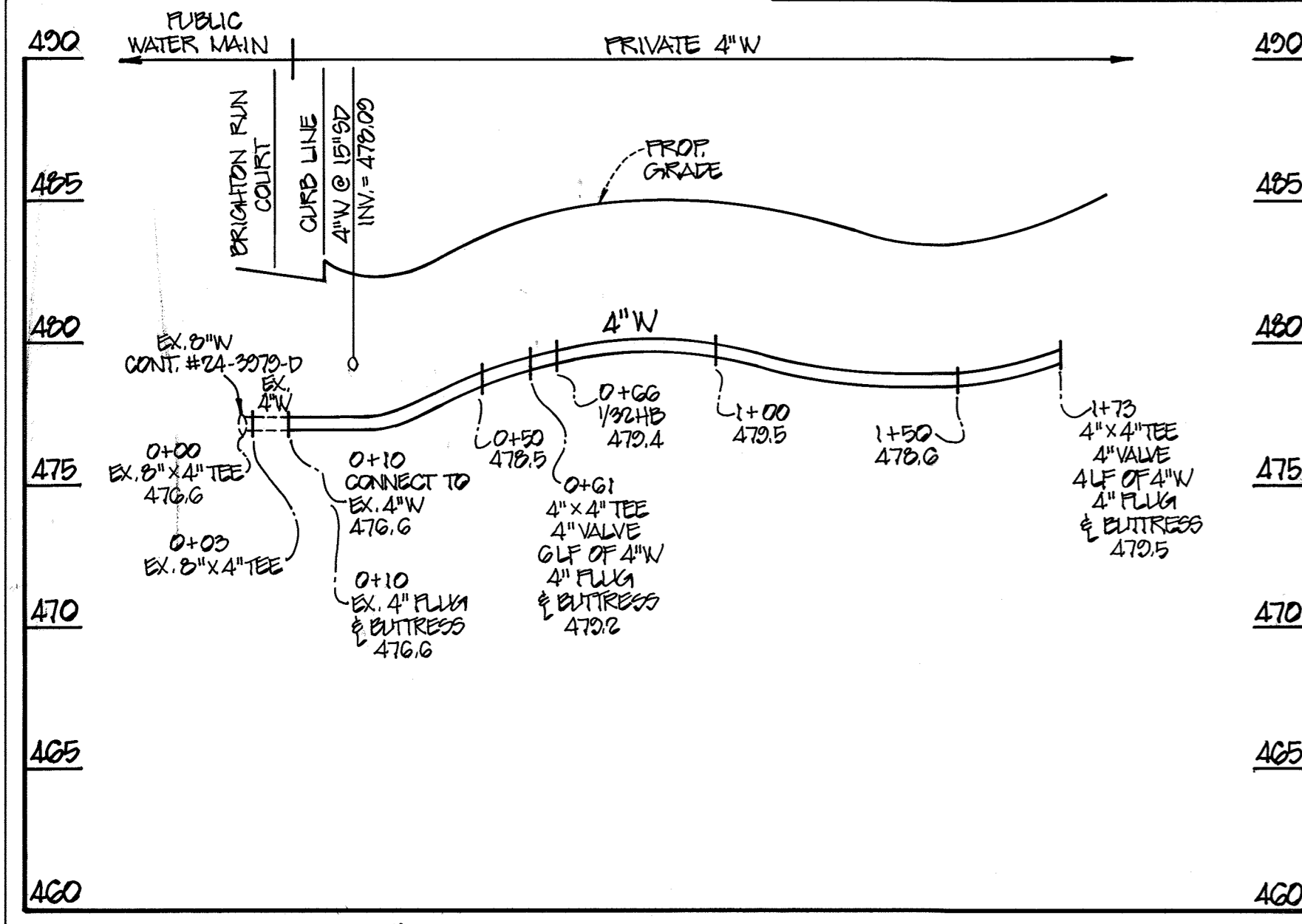


M.C.E. CHART	
UNIT	M.C.E.
1	480.41
2	480.41
3	480.40
4	480.58
5	480.88
6	481.05
7	481.24
8	481.53
9	478.43
10	477.90
11	477.80
12	477.90
13	477.49
14	477.59
15	477.89
16	477.58
17	480.30
18	480.30
19	480.30
20	480.30
21	480.30
22	480.30
23	480.30
24	480.30
25	463.34
26	463.59
27	463.84
28	464.09
29	464.34
30	473.12

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
1	597587.08	1341734.78	481.30
2	597482.48	1342090.88	481.90
3	597484.68	1342152.02	481.70
4	597530.10	1342180.27	482.30
5	597624.69	1342180.27	484.80
6	597624.69	1342336.27	480.10



8" SEWER MAIN: LOTS 1 THRU 24



4" WATER MAIN: UNITS 1-8

SCALE: HORIZ. 1" = 30'
VERT. 1" = 5'

4" SHC TO GODDARD SCHOOL

DOWNSPOUT DRAINS FOR GODDARD SCHOOL

DOWNSPOUT DRAINS FOR GODDARD SCHOOL

DATE	REVISION
10/21/02	REVISED TITLE BLOCK TO REFLECT TOTAL NUMBER OF UNITS FROM 20 TO 30
2/3/03	ADD 4" WATER MAIN PROFILES

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461-2855

ENGINEER'S CERTIFICATE
I certify that this plan for erosion and sediment control represents a practical and workable plan based on the best professional knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Signature: [Signature] Date: 6-12-02
DEVELOPER'S CERTIFICATE
I/We certify that all development and construction will be done according to this plan, for sediment and erosion control 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 also authorize periodic on-site inspection by the Howard Soil Conservation District.
Signature: [Signature] Date: 6-12-02

Reviewed for HOWARD SCD and meets Technical Requirements.
U.S.D.A.-Natural Resources Conservation Service
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
Howard SCD Date: [Signature]
OWNER/DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT
3000 MAIN STREET
ELLCOTT CITY, MARYLAND 21043
(410) 480-9105

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chief, Division of Land Development Date: 6/18/02
Chief, Development Engineering Division Date: 6/21/02
Director, Department of Planning and Zoning Date: 6/25/02
SUBDIVISION NAME: GTW'S WAVERLY WOODS SECTION/AREA: 7 LOT/PARCEL NO.: PARCEL 'B'
PLAT: 13433, 13434 GRID NO.: 5 & 10 ZONE: PEC TAX MAP NO.: 16 ELEC. DIST.: THIRD CENSUS TR.: 603000
WATER CODE: H05 SEWER CODE: 5992000

PRIVATE SEWER MAIN PROFILES
PRIVATE WATER MAIN PROFILES
GTW'S WAVERLY WOODS
SECTION 7
PARCEL 'B'
DAY CARE CENTER AND
CONDOMINIUM OFFICE BUILDINGS 1-30
TAX MAP No: 16 PART OF PARCEL: 424
THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JUNE, 2002
SHEET 11 OF 16

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

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

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

B. Soil Amendments (Fertilizer and Lime Specifications)... i. Soil tests to determine the exact ratio and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres...

iii. Lime materials shall be ground limestone hydrated or burnt lime but be suitable for use in agriculture... iv. Seedbed Preparation... i. Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable equipment...

ii. For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the soil testing agency shall be written in... iii. For areas receiving low maintenance, apply ureaform fertilizer (46-0-0) at 3 1/2 lbs/1000 sq. ft.

Table with 5 columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depth. Includes rows for BARLEY OR RYE FLUX and FOXTAIL MILLET.

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

Table with 5 columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depth. Includes rows for TALL FESCUE (85B) and PERENNIAL RYE GRASS (200).

ii. Hydroseeding... a. Hydroseeding shall be done by a contractor who includes seed, fertilizer, and broadcast spreader... b. Seed spreader shall be incorporated into the subsoil...

iii. Drill or Cultipacker Seeding... a. Cultipacker seeding shall be used in areas where one species of grass is desired... b. Mulch seeding shall be used in areas where one species of grass is desired...

iv. Straw mulch... a. A mulch of straw shall be applied over all seeded areas at the rate of 1500 lbs/acre... b. Wood cellulose fiber mulch... i. WCF shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state...

v. Securing straw... a. Securing straw shall be done by a contractor who includes seed, fertilizer, and broadcast spreader... b. Securing straw shall be done by a contractor who includes seed, fertilizer, and broadcast spreader...

vi. Light plastic netting... a. Light plastic netting may be applied over the mulch according to manufacturer's recommendations... b. Netting is usually available in rolls 4" to 15" feet wide and 300 to 3,000 feet long.

vii. Liquid binders... a. Liquid binders should be heavier at the edges where wind catches much, such as in valleys and crests of berms... b. Synthetic binders such as urea formaldehyde resin should be applied uniformly after final grading...

viii. Light plastic netting... a. Light plastic netting may be applied over the mulch according to manufacturer's recommendations... b. Netting is usually available in rolls 4" to 15" feet wide and 300 to 3,000 feet long.

Table with 2 columns: DATE, REVISION. Includes a row for 10/21/02 and another for 3-02-20.

REVISION TITLE BLOCK TO REFLECT TOTAL NUMBER OF UNITS FROM 09 TO 30... 3-02-20 Added Note To See Sheet 18 For Current Specifications

FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS... CENTRAL SQUARE OFFICE PARK - 1027 BALTIMORE NATIONAL FIRE... ELLICOTT CITY, MARYLAND 21042

DATE REVISION

SEMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSING AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (03-18-2001)...

2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL...

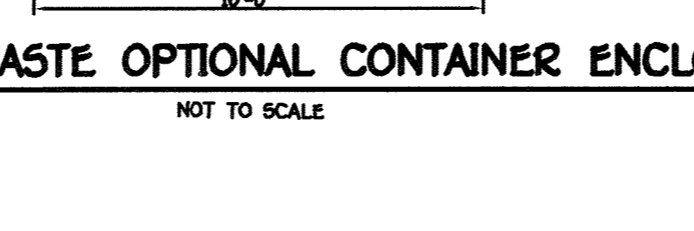
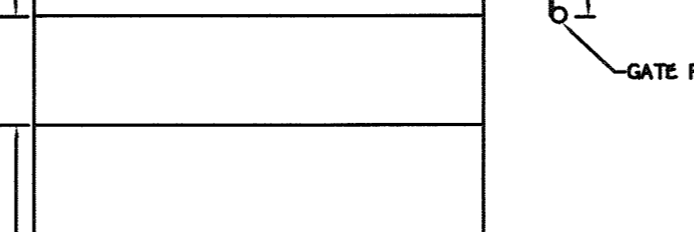
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMITS OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 72 HOURS... 4. CALENDAR DAYS FOR PERMITSER SEDIMENT CONTROL STRUCTURES, DICES, PERMITSER SLOPES AND ALL SLOPES STEEPER THAN 3:1 FOR 10 DAYS...

5. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERMITSER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL (STORM DRAINAGE)... 6. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE PERIOD SPECIFIED ABOVE...

7. SITE ANALYSIS... TOTAL AREA OF SITE 12.29 ACRES... AREA DISTURBED 2.23 ACRES... AREA TO BE ROOFED OR GRAVED 1.29 ACRES... AREA TO BE VEGETATIVELY STABILIZED 7.77 ACRES...

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPEATED ON THE SAME DAY OF DISTURBANCE... 9. ALL ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED IF REQUIRED NECESSARY BY HOWARD COUNTY SEDIMENT CONTROL DIVISION...

10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUIRED PRIOR TO COMPLETION OF INSTALLATION OF PERMITSER EROSION AND SEDIMENT CONTROL STRUCTURES... 11. TREES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THOSE PIPE LIGHTS OR THAT WHICH WILL BE BACK-FILLED AND STABILIZED WITHIN THE WORKING DAY, WHICHEVER IS SHORTER.



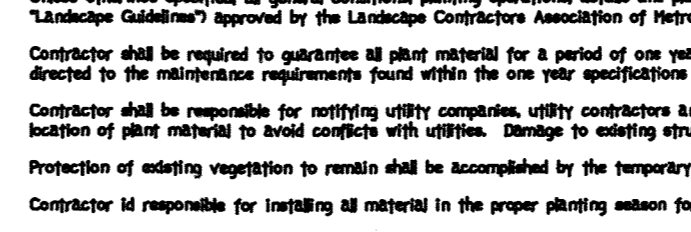
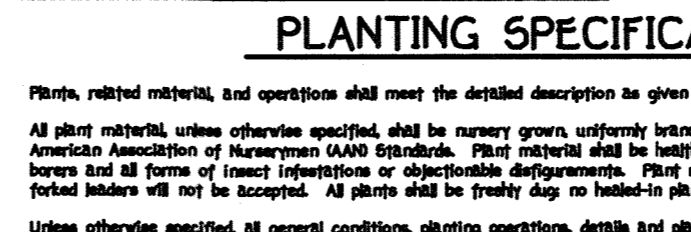
TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED... SEEDING PREPARATION... LOOSEN TOP 3 INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING...

SOIL AMENDMENTS... APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER OR LBS./1000 SQ.FT... SEEDING... FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH NOVEMBER 30...

MULCHING... APPLY 1 TO 2 TONS PER ACRE (20 TO 40 LBS./1000 SQ.FT) OF UNMULCHED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING... MULCHING... APPLY 1 TO 2 TONS PER ACRE (20 TO 40 LBS./1000 SQ.FT) OF UNMULCHED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING...

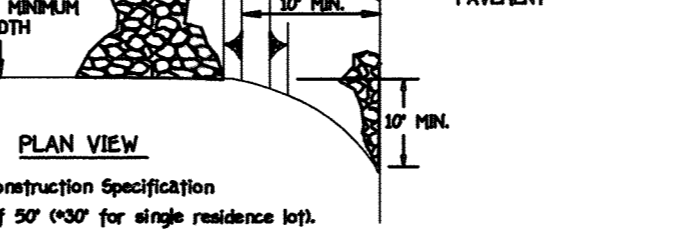
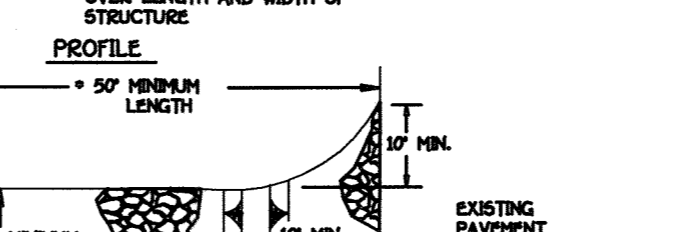
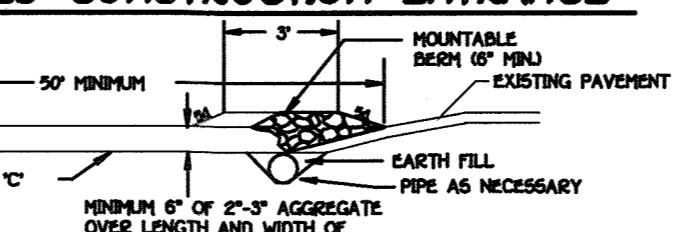
REFER TO THE 2008 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED... 2. PRECES OF REINFORCED BRIDGE DECK... 3. 2" x 2" OAK STAKES... 4. 2" x 2" OAK STAKES...



Plants, related materials, and operations shall meet the detailed description as given on the plans and as described herein... ALL plant material, unless otherwise specified, shall be nursery grown, uniformly graded, and shall conform to the section size, root and slope shown on the plan...

Contractor shall be responsible for obtaining all planting materials for a period of one year after date of acceptance... Contractor shall be responsible for obtaining all planting materials for a period of one year after date of acceptance...

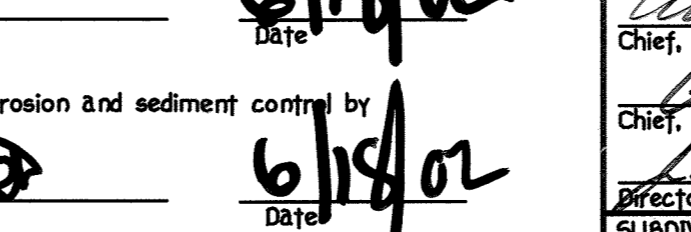
Planting mix shall be as follows: Deciduous Plants - Two parts topsoil, one part well-rotted cow or horse manure... Evergreen Plants - two parts topsoil, one part horse or other approved organic material...



1. Length - minimum of 50' (50' for single residence lots)... 2. Width - 10' minimum, should be fixed 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...

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 through construction entrances shall be piped through the entrance, maintaining positive drainage...

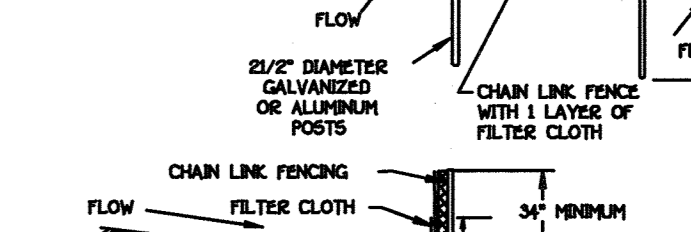
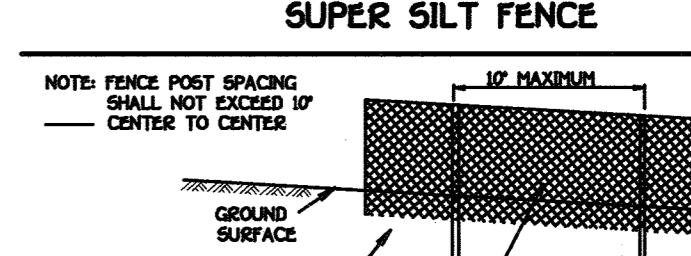
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site... 7. Construction Traffic - All construction traffic shall be directed through the stabilized construction entrance...



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING... Chief, Division of Land Development... Chief, Development Engineering Division...

OWNER/DEVELOPER... WAVERLY WOODS DEVELOPMENT CORPORATION... ELLICOTT CITY, MARYLAND 21043

SUPER SILT FENCE

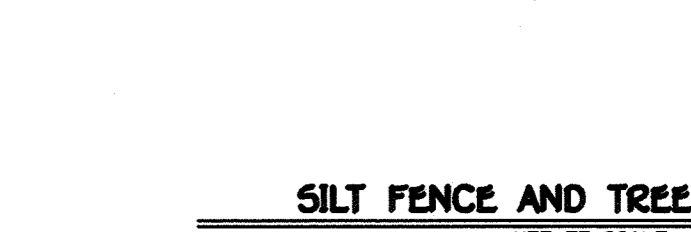


1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Dept. for Chain Link Fencing... 2. Chain link fence shall be fastened securely to the fence posts with wire ties...

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 8" into the ground...

Table with 4 columns: Slope, Slope Length (feet), Slope Length (meters), Silt Fence Length (feet). Includes rows for 1:1, 2:1, 3:1, 4:1, 5:1 slopes.

5. Maintenance shall be performed as needed and silt bulks removed when "bulges" develop in the silt fence... 6. Maintenance shall be performed as needed and silt bulks removed when "bulges" develop in the silt fence...



1. Silt Fence to be heeled into the soil... 2. Vine silt fence, etc. For tree protection only... 3. Boundaries of Retention Area will be established as part of the Forest conservation plan review process...

4. Boundaries of Retention Area should be staked and flagged prior to installing device... 5. Silt fence should be properly maintained throughout construction... 6. Protection signs are also required, see Figure C-4... 7. Locate fence outside the Critical Root Zone.

PERMANENT SEEDING NOTES... ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS... SEEDING PREPARATION... LOOSEN TOP THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING...

SOIL AMENDMENTS... APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER OR LBS./1000 SQ.FT... SEEDING... FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH NOVEMBER 30...

MULCHING... APPLY 1 TO 2 TONS PER ACRE (20 TO 40 LBS./1000 SQ.FT) OF UNMULCHED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING... MULCHING... APPLY 1 TO 2 TONS PER ACRE (20 TO 40 LBS./1000 SQ.FT) OF UNMULCHED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING...

REFER TO THE 2008 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED... 2. PRECES OF REINFORCED BRIDGE DECK... 3. 2" x 2" OAK STAKES... 4. 2" x 2" OAK STAKES...

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Planting mix shall be as follows: Deciduous Plants - Two parts topsoil, one part well-rotted cow or horse manure... Evergreen Plants - two parts topsoil, one part horse or other approved organic material...

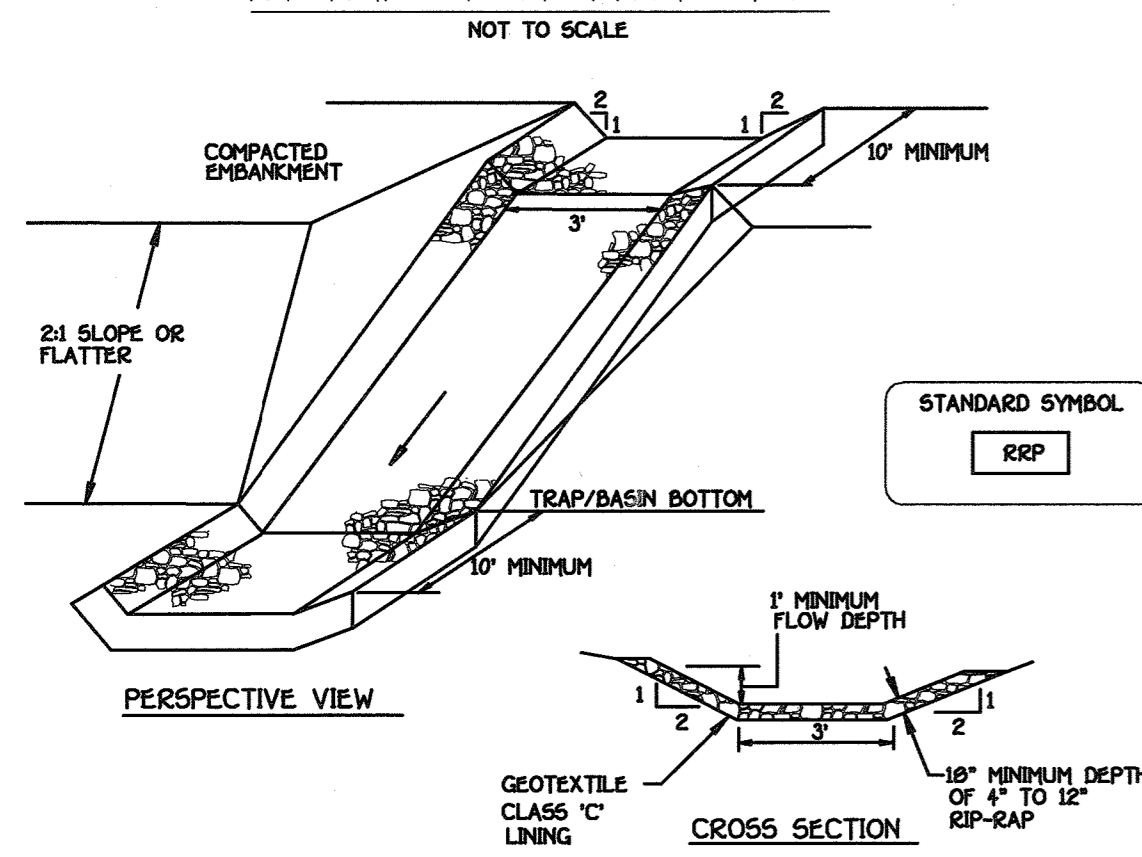
Contractor shall be responsible for obtaining all planting materials for a period of one year after date of acceptance... Contractor shall be responsible for obtaining all planting materials for a period of one year after date of acceptance...

STANDARD DETAILS AND NOTES... GTW'S WAVERLY WOODS SECTION 7 PARCEL 'B' DAY CARE CENTER AND CONDOMINIUM OFFICE BUILDINGS 1-30... TAX MAP No: 16 PART OF PARCEL: 424

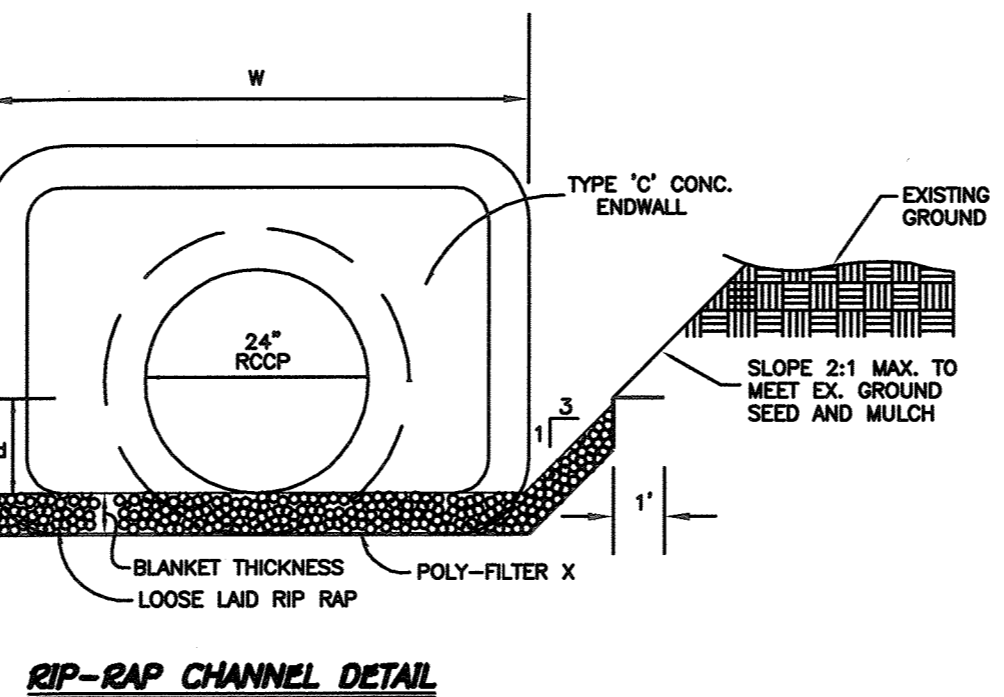
THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND... SCALE: AS SHOWN DATE: JUNE, 2002 SHEET 12 OF 18

SDP-02-74

RIP-RAP INFLOW PROTECTION



- Construction Specifications**
- Rip-rap lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3' (min) bottom width. The channel shall be lined with 4\"/>
 - Filter cloth shall be installed under all rip-rap. Filter cloth shall be Geotextile Class C.
 - Entrance and exit sections shall be installed as shown on the detail section.
 - Rip-rap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.
 - Gabion Inflow Protection may be used in lieu of Rip-rap Inflow Protection.
 - Rip-rap should blend into existing ground.
 - Rip-rap Inflow Protection shall be used where the slope is between 4:1 and 10:1, for slopes flatter than 10:1 use Earth Dike or Temporary Swale Lining criteria.



RIP-RAP CHANNEL DESIGN DATA

STRUCTURE	AREA (S.F.)	WETTED PERIMETER	R	R ^{2/3}	S	S ^{1/2}	W	d	N	V (F.P.S.)	Q (C.F.S.)	RIP-RAP SIZE (S) (D MAX)	BLANKET THICKNESS	DIA.
E-1	11.49	15.76	0.7291	0.8092	0.005	0.0707	12.0'	0.84'	0.035	2.43	23.90	9.5\"/>		

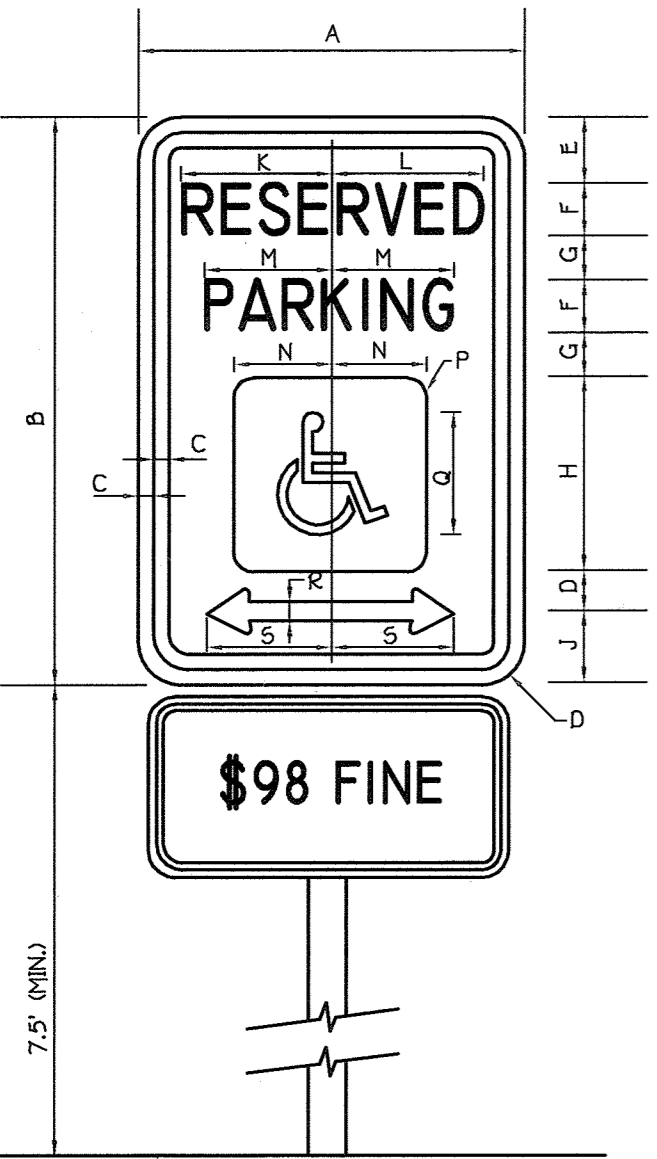
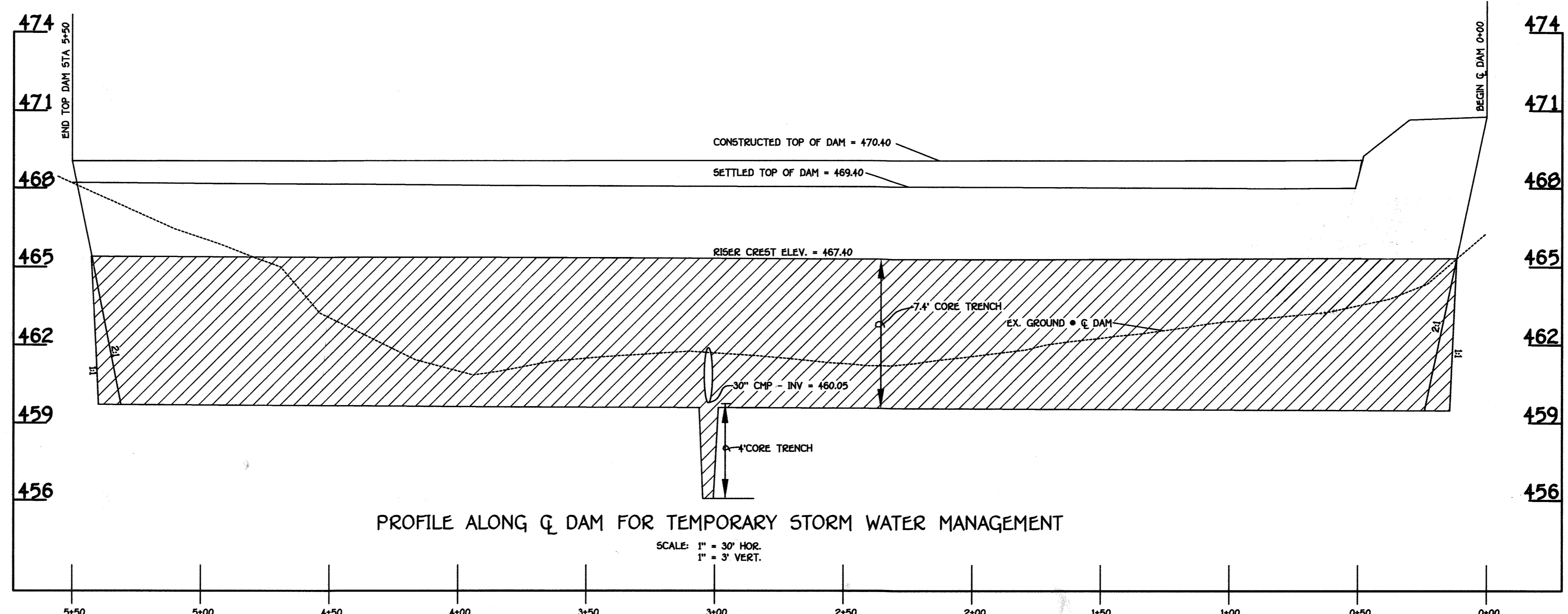
CONSTRUCTION SPECIFICATIONS FOR RIP-RAP OUTFALLS

- The subgrade for the filter, riprap or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
- Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.
- Stones for the riprap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stones for riprap or gabion outlets shall be delivered and placed in a manner that will insure that it is reasonably homogenous with the smaller stones and spalls filling the voids between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.

DRAINAGE AREA = 0.0176 SQUARE MILES OR 11.29 ACRES

DESIGN POINT NO. 12 SUMMARY TABLE

STORM NO.	ALLOWABLE RELEASE AT 5PM12	PROPOSED DISCHARGE AT 5PM12	DISCHARGE FROM FACILITY	STORAGE ELEVATION
2	59 CFS	58.1 CFS	22.5 CFS	464.50
10	260 CFS	232.3 CFS	38.2 CFS	465.20
100	N/A	477.3 CFS	55.3 CFS	465.66



DIMENSIONS (INCHES)

SIGN SIZE	A	B	C	D	E	F	G	H	J
MIN.	6	12	3/8	3/8	1-1/2	1-1/2	10	1/2	1-1/2D
STD.	9	18	3/8	3/8	1-1/2	2-1/4	1-1/2D	1	2D

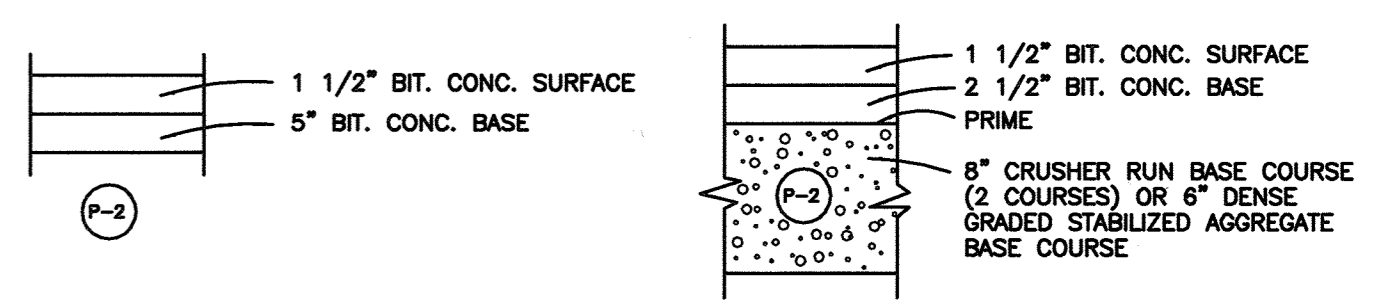
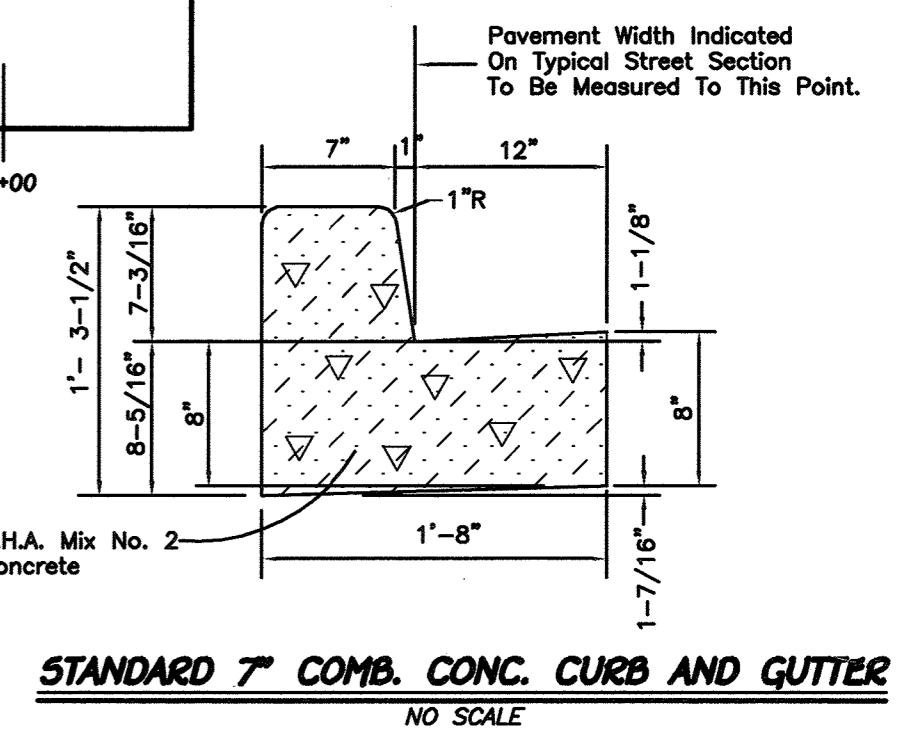
DIMENSIONS (INCHES)

SIGN SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
STD.	12	18	1/2	1-1/2	2	2 C	1	6	2-1/2	4-7/8	5	4-1/4	3	1/2	4	3/4	3-7/8

COLORS

DIRECTIONAL
LEGEND - WHITE
BACKGROUND - BLUE

REGULATORY
LEGEND - GREEN OR BLACK
BACKGROUND - WHITE



DATE	REVISION
9/12/02	REVISE THE PROPOSED STORM DRAIN OUTFALL SEDIMENT CONTROL SYSTEM PER REDLINE DATED 9/13/02
10/21/02	REMOVED TITLE BLOCK TO REFLECT TOTAL NUMBER OF SHEETS FROM 29 TO 30

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 481-2855

ENGINEER'S CERTIFICATE

I certify that the plan for erosion and sediment control represents a practical and workable plan based on my knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature: *[Signature]* Date: 6-12-02

DEVELOPER'S CERTIFICATE

I/we certify that all development and construction will be done according to this plan, for sediment and erosion control 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 also authorize periodic on-site inspection by the Howard Soil Conservation District.

Signature of Developer: *[Signature]* Date: 6-12-02

Reviewed for HOWARD SCD and meets Technical Requirements.

Signature: *[Signature]* Date: 6/8/02

Signature: *[Signature]* Date: 6/8/02

OWNER/DEVELOPER

WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT
8000 MAIN STREET
ELLCOTT CITY, MARYLAND 21043
(410) 480-9105

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* Date: 6/25/02

Signature: *[Signature]* Date: 6/21/02

Signature: *[Signature]* Date: 6/25/02

Director - Department of Planning and Zoning

SUBDIVISION NAME: GTW'S WAVERLY WOODS SECTION/AREA: 7 LOT/PARCEL NO.: PARCEL 'B'

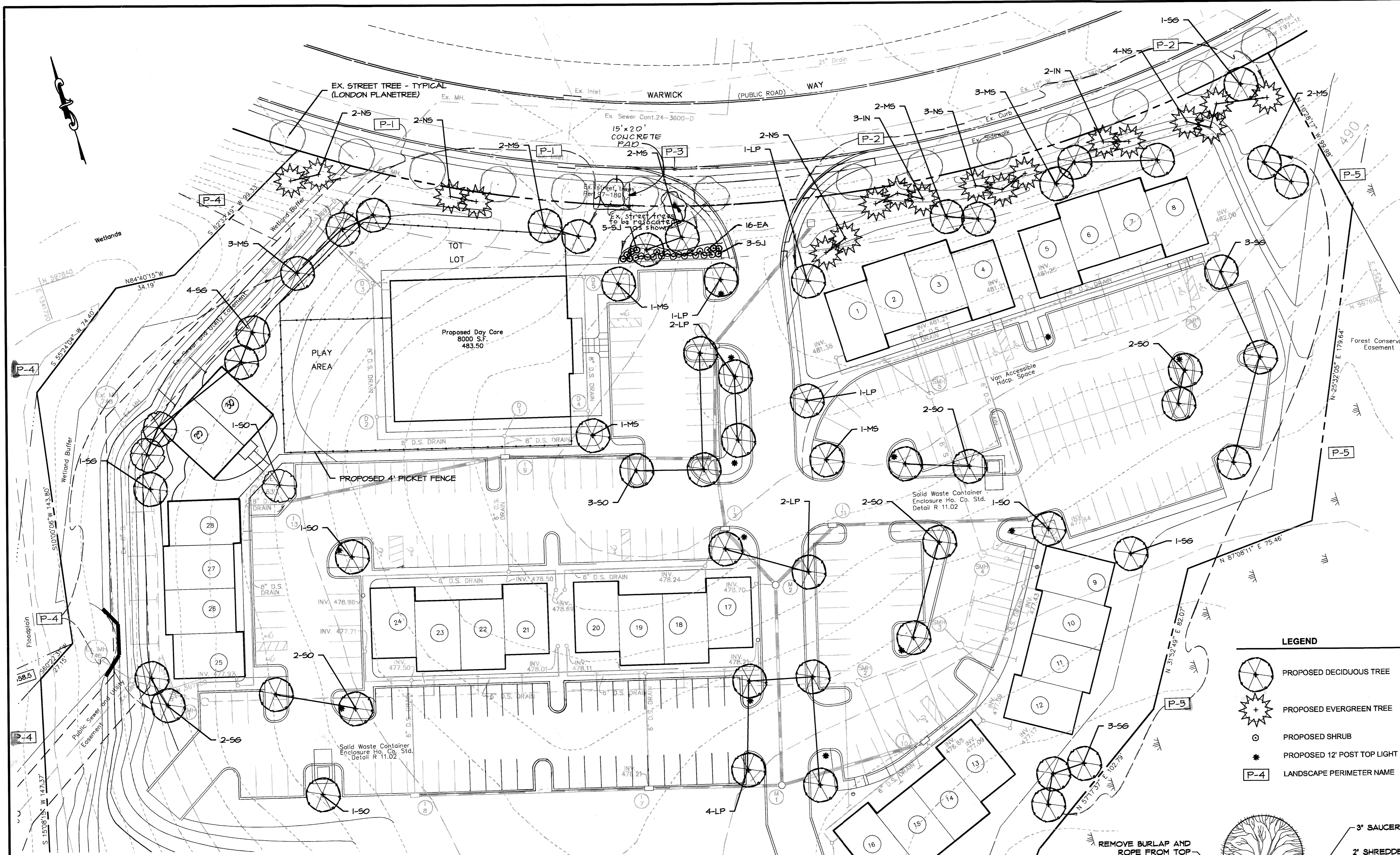
PLAT: 13433, 13434 GRID NO.: 5 & 10 ZONE: PEC TAX MAP NO.: 16 ELEC. DIST.: THIRD CENSUS TR.: 603000

WATER CODE: H05 SEWER CODE: 5992000

TEMPORARY SWM NOTES AND DETAILS

GTW'S WAVERLY WOODS
SECTION 7
PARCEL 'B'
DAY CARE CENTER AND
CONDOMINIUM OFFICE BUILDINGS 1-30

TAX MAP No: 16 PART OF PARCEL: 424
THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JUNE, 2002
SHEET 15 OF 18



Schedule A - Perimeter Landscape Edge

Category	Non-residential Side to Roadways	Non-residential Rear to Roadways	Parking to Roadways	Non-residential to Perimeter Properties
Perimeter Name	P-1	P-2	P-3	P-4
Landscape Type	B	C	E	A
Linear Feet of Roadway Frontage/Perimeter	178.5'	284.6'	65.2'	499.7'
Credit for Existing Vegetation (Yes, No, Linear Feet)	No	No	No	No
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet)	No	No	No	No
Number of Plants Required				
Shade Trees	4	7	2	8
Evergreen Trees	4	14	0	0
Shrubs	0	0	16	0
Other Trees (2:1 Sub.)	0	0	0	0
Number of Plants Provided				
Shade Trees	4	7	2	8
Evergreen Trees	4	14	0	0
Shrubs	0	0	16	0
Other Trees (2:1 Sub.)	0	0	0	0

Schedule B - Parking Lot Internal Landscaping

Number of Parking Spaces	222
Number of Trees Required	11
Number of Trees Provided	
Shade Trees	23
Other Trees (2:1 Sub.)	0

- Contractor Notes**
- Contractor shall be responsible for making himself/herself familiar with all existing on-site conditions prior to submission of bid. The contractor is responsible for the location of all underground utilities, pipes, and structures. Contractor shall take sole responsibility for any cost incurred due to damage of said utilities. Call Miss Utility, 48 hours prior to digging. (1-800-287-7777)
 - Size and standards of plant materials shall conform to latest edition of "USA Standards For Nursery Stock", by the American Association of Nurserymen, Inc. (AAN).
 - All planting procedures and specifications shall conform to "Landscape Guidelines for Baltimore-Washington Metropolitan Area" latest edition.
 - Contractor shall guarantee all plant material for one (1) year from planting approval/acceptance.
 - Contractor shall confirm quantity of plant materials by plan count.
 - Plant pit backfill shall be a uniform mixture of one (1) part topsoil, two (2) parts existing soil and one (1) part Leafgrow® or approved alternative organic compost.
 - All mulch to be shredded hardwood mulch.
 - All plants shall be thoroughly watered by the contractor immediately following installation.
 - Contractor to adjust plant locations in field as necessary.
 - All plants shall be placed as not to obstruct drainage.
 - No plant substitutes without prior approval.
 - Where field conditions exist which would adversely affect plant performance, or interfere with proper planting procedures, the contractor shall notify the Engineer prior to installation of plant material.
 - All areas not otherwise indicated are to be seeded or sodded as per plan project specifications and in accordance with the Maryland Standards and Specifications for Soil Erosion and Sediment Control.

Plant List - Front

Quant	Key	Botanical Name	Common Name	Size	Remarks
Trees					
5	IN	Ilex x 'Nellie Stevens'	Nellie Stevens Holly	5-6' ht.	B&B or cont.
12	LP	Platanus acerifolia 'Bloodgood'	Bloodgood London Planetree	2 1/2-3'	B&B or cont.
14	MS	Fraxinus pennsylvanica 'Marshall's Seedless'	Marshall's Seedless Ash	2 1/2-3'	B&B or cont.
13	NS	Picea abies	Norway Spruce	6-8' ht.	B&B or cont.
14	SC	Liquidambar styraciflua	Sweetgum	2 1/2-3'	B&B or cont.
18	SO	Quercus coccinea	Scarlet Oak	2 1/2-3'	B&B or cont.
Shrubs					
16	EA	Euonymus alatus 'Compacta'	Dwarf Winged euonymus	24-30"	B&B or cont.
8	SJ	Juniperus conferta	Shore Juniper	3 gal.	B&B or cont.

PLAN
1" = 30'

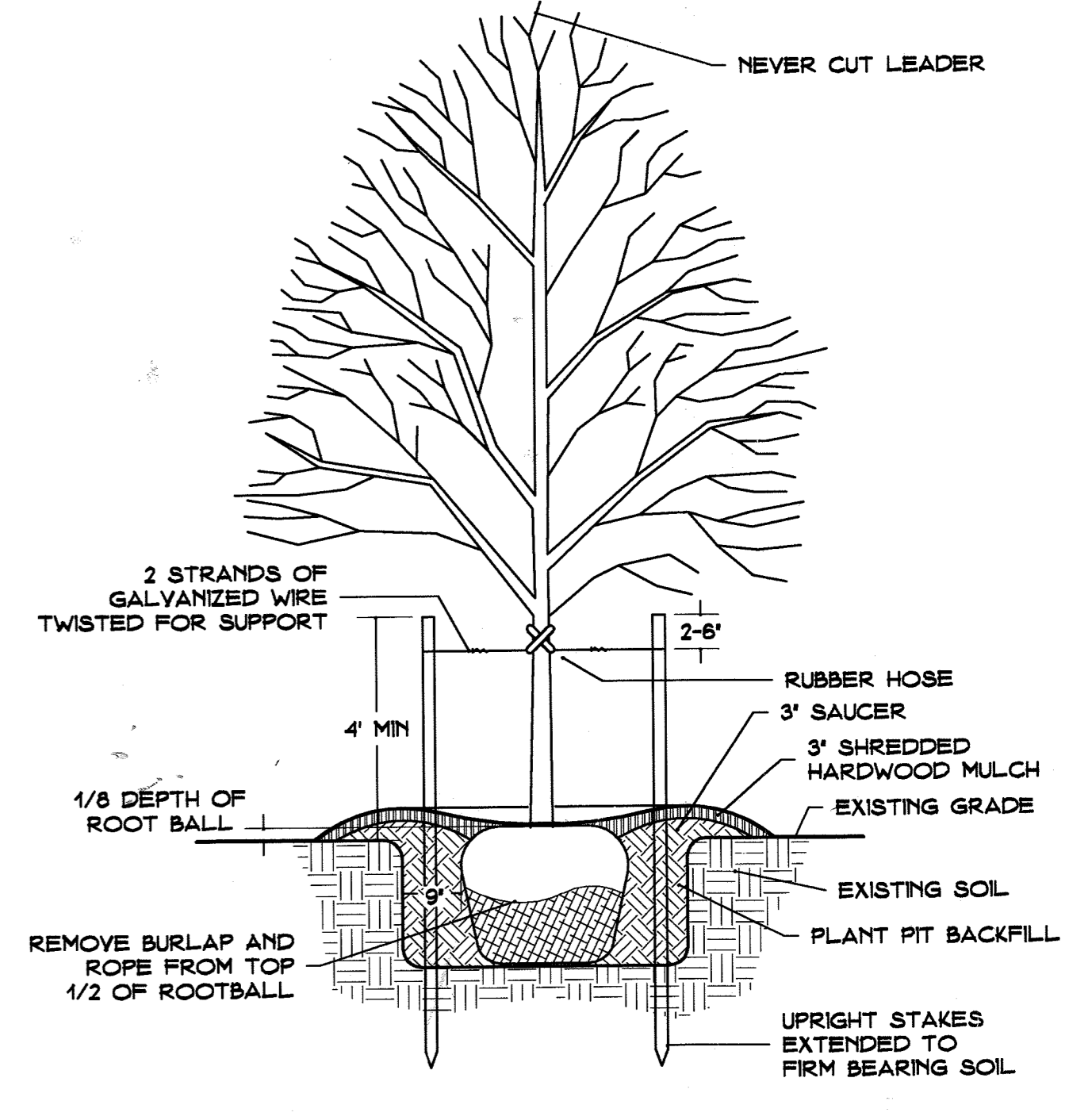
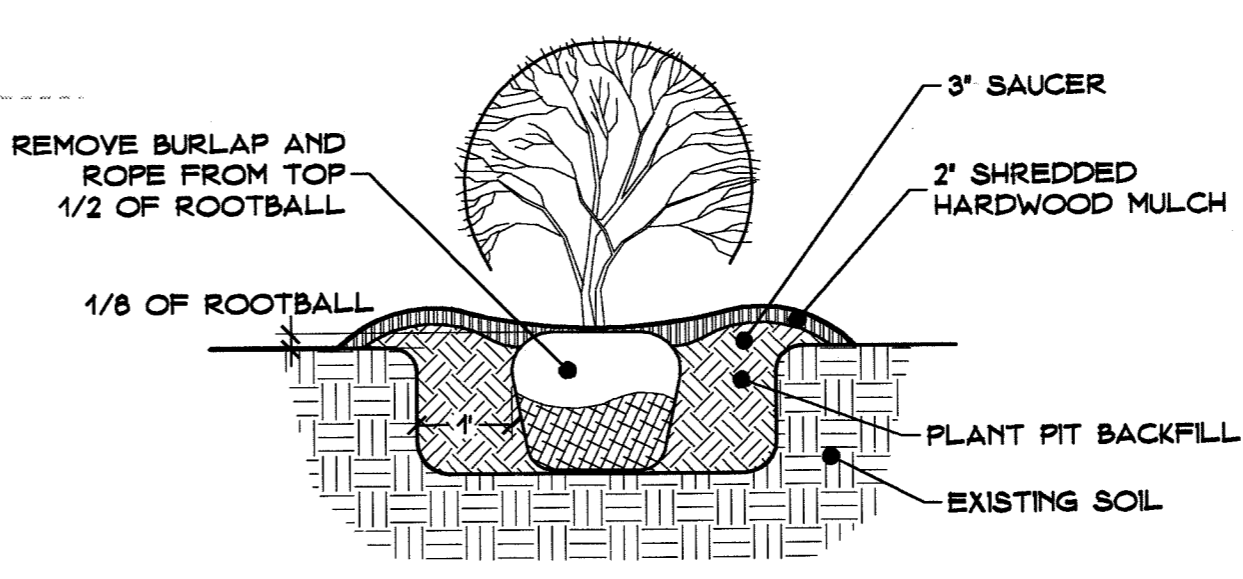
- General Notes**
- This Landscape Plan has been developed in accordance with the Howard County Landscape Manual (Amended 1998).
 - All stormwater management facilities are located underground.
 - The southern portion of this parcel will be developed at a later date. Landscape Plans for that developments will be submitted at that time.

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE PERFORMED IN ACCORDANCE WITH THE PLAN, SECTION 18.024 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Signature **6-12-02**
DATE

- LEGEND**
- PROPOSED DECIDUOUS TREE
 - PROPOSED EVERGREEN TREE
 - PROPOSED SHRUB
 - PROPOSED 12' POST TOP LIGHT
 - LANDSCAPE PERIMETER NAME



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
10772 BALTIMORE NATIONAL Pk
ELLCOTT CITY, MARYLAND 21042
(410) 461-2800

TP+A
TIMOTHY PRIGG+ASSOCIATES
208 Mallow Hill Road - Baltimore, Maryland 21229
410/368-4850 fax: 410/368-4859

3.14.2002
Date
STATE OF MARYLAND
TIMOTHY T. PRIGG
Landscape Architect N4000

DATE	REVISION
10/21/02	INCREASED TOTAL NUMBER OF THIS PLANT TO 10 BY CHANGING UNIT FROM (25 TO 20) TO 24 UNITS PLUS (25 TO 20) & APPROX A QUART PLANT (20 TO 25)
2/2/03	INDICATE REVISED THROUGH LAY-OUT, APPROX TWO (2) ADDITIONAL SPACES
3-24-04	REV. UNITS 1-8 PER NEW ARCHITECTURAL PLANS.
5-14-04	REVISE UNITS 1-8 WITH 4 UNIT CONDOMINIUM AS APPROVED ON 6-25-02.
10-06-05	ADDED GENERAL NOTE NO. 17 re: extension of Blvd Permit Application deadline date for Units 5-8, 9-12 & 13-16 to January 14, 2006.

OWNER'S CERTIFICATE

I certify that I have reviewed this "Landscape Plan", that I am aware of the landscape regulations presented in the Howard County Landscape Manual, latest edition, and I agree to comply with these regulations and all applicable policies, guidelines, and ordinances.

Signature **6-12-02**
Signature of Owner Date

OWNER/DEVELOPER
WAVERLY WOODS DEVELOPMENT CORPORATION
C/O LAND DESIGN AND DEVELOPMENT
8000 MAIN STREET
ELLCOTT CITY, MARYLAND 21043
(410) 480-9105

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature **6/25/02**
Date
Chief, Division of Land Development

Signature **6/21/02**
Date
Chief, Development Engineering Division

Signature **6/12/02**
Date
Director, Department of Planning and Zoning

PLAT	GRID NO.	ZONE	TAX MAP NO.	ELEC. DIST.	CENSUS TR.
13433, 13434, 13437	5 & 10	PEC	16	THIRD	603000

WATER CODE: H05 SEWER CODE: 5992000

LANDSCAPE PLAN

GTW'S WAVERLY WOODS
SECTION 7
PARCEL 'B'
DAY CARE CENTER AND
CONDOMINIUM OFFICE BUILDINGS 1-30
TAX MAP No: 16 PART OF PARCEL: 424
THIRD ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JANUARY, 2002
SHEET 16 OF 18

SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

- A. Soil Preparation**
- Temporary Stabilization
 - Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must be rolled or dragged smooth, but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable permanent stabilization.
 - A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
 - Soil pH between 6.0 and 7.0.
 - Soluble salts less than 500 parts per million (ppm).
 - Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if loesslike soil will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
 - Soil contains 1.5 percent minimum organic matter by weight.
 - Soil contains sufficient pore space to permit adequate root penetration.
 - Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
 - Graded areas must be maintained in a true and even condition as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
 - Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
 - Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Make lawn areas smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes shall be flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seeded loosening may be unnecessary on newly disturbed areas.

- B. Topsoiling**
- Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptably soil oxidation.
 - Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
 - Topsoiling is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
 - Areas having slopes steeper than 2:1 require special consideration and design.
 - Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
 - Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of clods, stones, logs, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.
 - Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or other noxious species.
 - Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
 - Topsoil Application
 - Erosion and sediment control practices must be maintained when applying topsoil.
 - Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that seeding or sowing can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil must not be placed if 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 seeded preparation.

- C. Soil Amendments (Fertilizer and Lime Specifications)**
- Soil tests must be performed to determine the exact rates and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
 - Fertilizers must be uniform in composition, free flowing and suitable for accurate application by chemical equipment. Mixture may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
 - Lime materials must be ground limestone (hydrated or burnt) lime may be substituted except when hydroxydizing which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 90 to 100 percent will pass through a #20 mesh sieve.
 - Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
 - Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1000 square feet) prior to the placement of topsoil.

Permanent Seeding Summary

No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depth (in.)	N	P ₂ O ₅	K ₂ O	Lime Rate (tons/acre)
B	TALL FESCUE	100	Mar. - May 15 Aug. - Oct. 15	1 1/4 - 1 1/2 in.	45 lbs. per acre (1000 sq ft)	90 lb/acre (2 lb/1000 sq ft)	90 lb/acre (2 lb/1000 sq ft)	2 tons/acre (90 lb/1000 sq ft)

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

- THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DICES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 HORIZONTAL TO 1 VERTICAL (3:1); AND
- SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA (B-4-3)

Definition
The mound or pile of soil protected by appropriately designed erosion and sediment control measures.

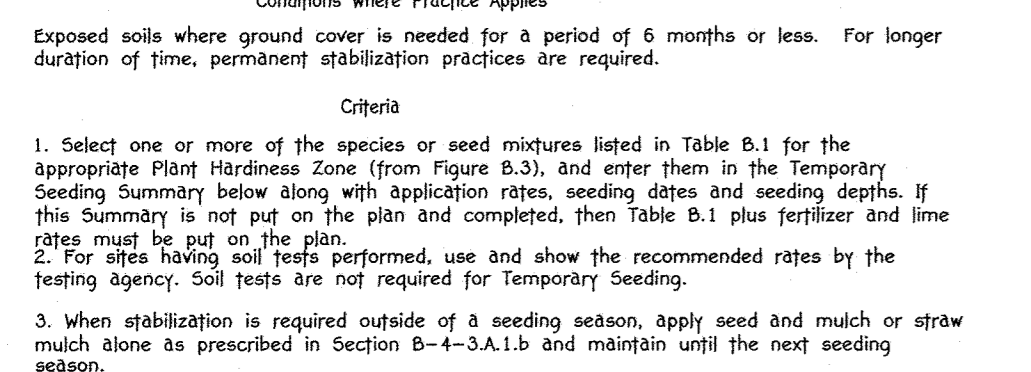
Purpose
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies
Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

Criteria

- The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
- Runoff from the stockpile area must drain to a suitable sediment control practice.
- Access the stockpile area from the upgrate side.
- Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth ditch, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
- Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
- Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
- If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

Maintenance
The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.



Permanent Seeding Summary

Hardness Zone (from Figure B.3):	Seed Mixture (from Table B.1):	Fertilizer Rate (10-20-20)	Lime Rate				
				Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depth



PERMANENT SEEDING NOTES (B-4-5)

- A. Seed Mixtures**
- General Use
 - Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
 - Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
 - For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
 - Turfgrass Mixtures
 - Areas where turfgrasses may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
 - Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.

- Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and eastern shore. Recommended Certified Kentucky Bluegrass Cultivar Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
- Kentucky Bluegrass/Perennial Ryegrass: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivar/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
- Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivar 90 to 100 percent, Certified Kentucky Bluegrass Cultivar 0 to 5 percent. Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. One or more cultivars may be blended.
- Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: Certified Kentucky Bluegrass Cultivar 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.

Permanent Seeding Summary

No.	Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depth (in.)	N	P ₂ O ₅	K ₂ O	Lime Rate (tons/acre)
B	TALL FESCUE	100	Mar. - May 15 Aug. - Oct. 15	1 1/4 - 1 1/2 in.	45 lbs. per acre (1000 sq ft)	90 lb/acre (2 lb/1000 sq ft)	90 lb/acre (2 lb/1000 sq ft)	2 tons/acre (90 lb/1000 sq ft)

STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA (B-4-3)

Definition
The mound or pile of soil protected by appropriately designed erosion and sediment control measures.

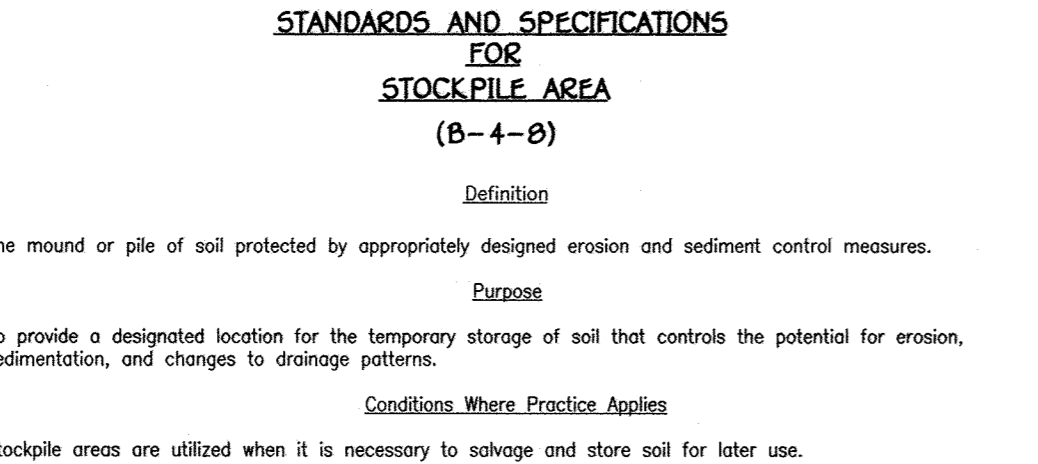
Purpose
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies
Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

Criteria

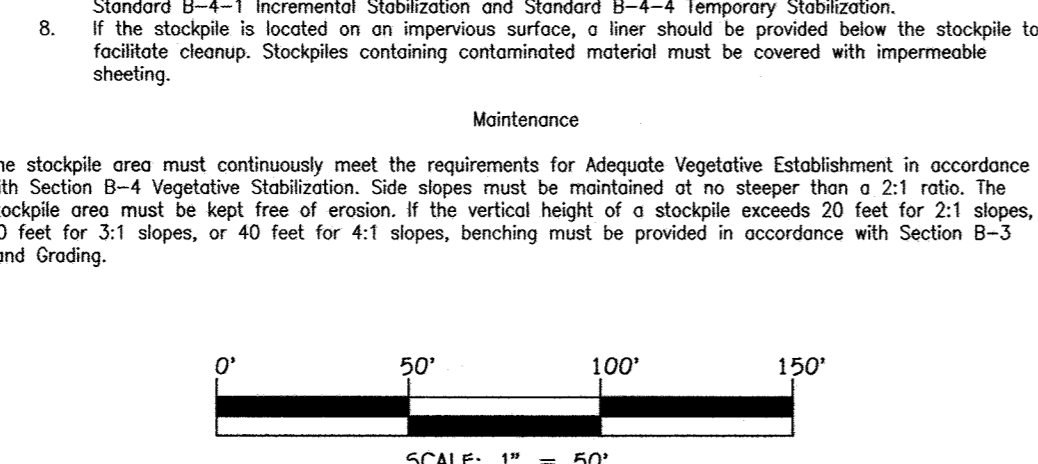
- The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
- Runoff from the stockpile area must drain to a suitable sediment control practice.
- Access the stockpile area from the upgrate side.
- Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth ditch, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
- Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
- Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
- If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

Maintenance
The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.



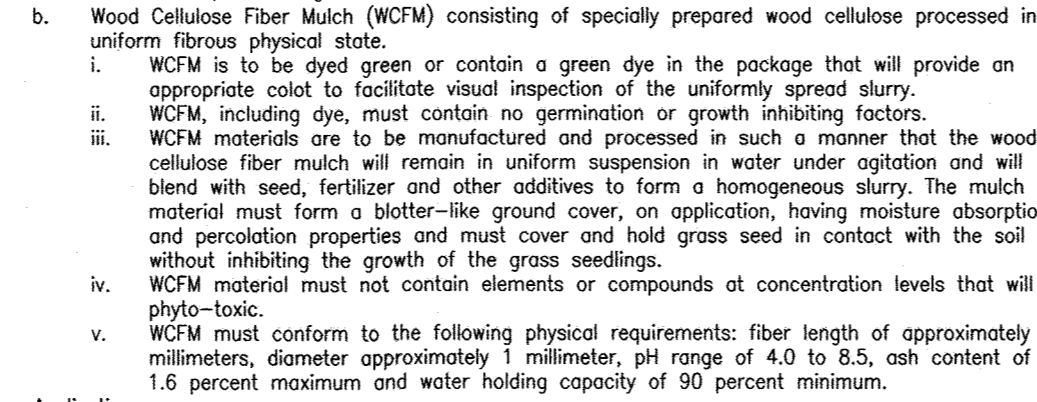
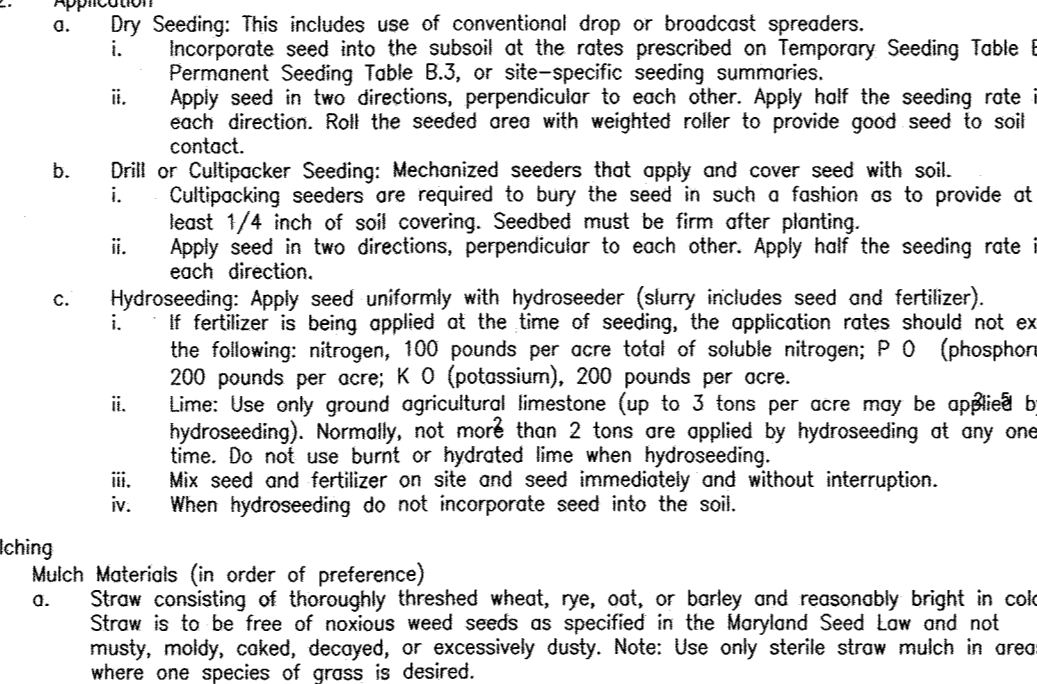
Permanent Seeding Summary

Hardness Zone (from Figure B.3):	Seed Mixture (from Table B.1):	Fertilizer Rate (10-20-20)	Lime Rate				
				Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depth

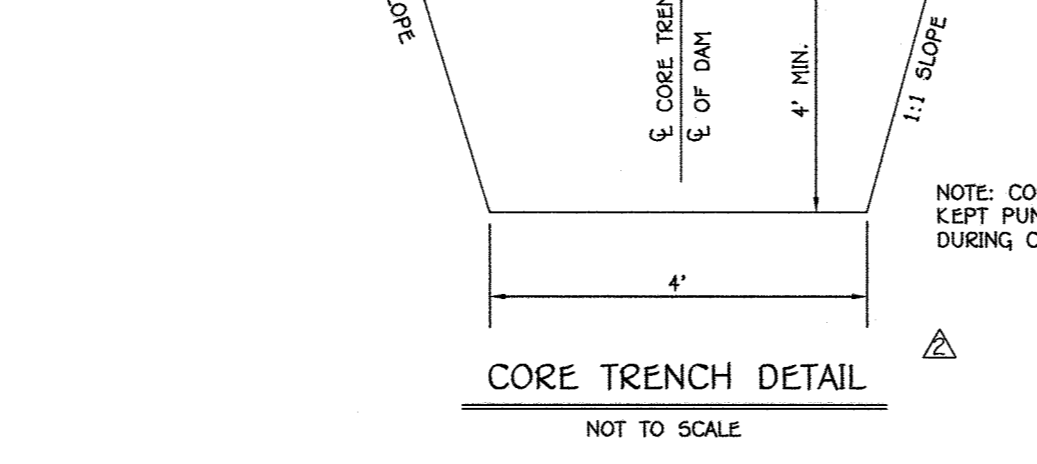
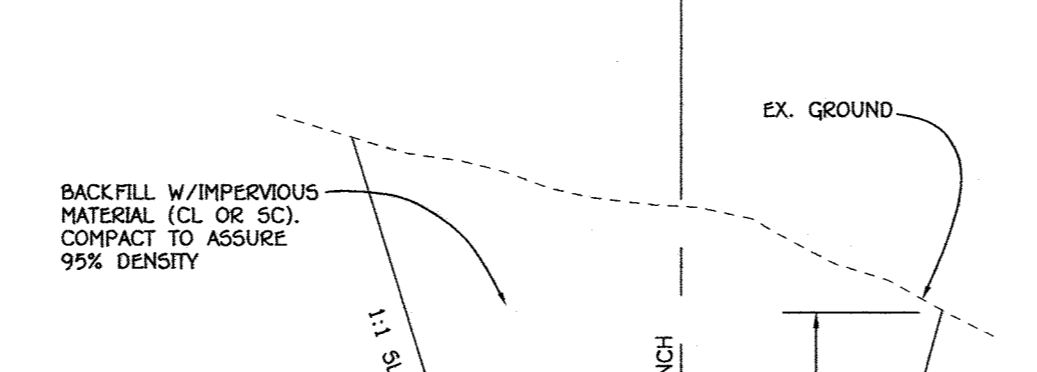
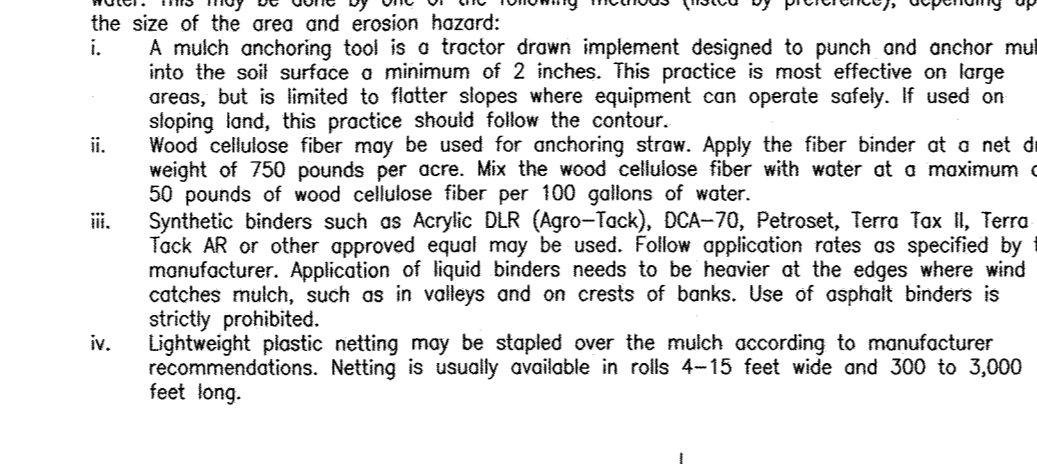


STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING (B-4-3)

- Definition**
The application of seed and mulch to establish vegetative cover.
- Purpose**
To protect disturbed soils from erosion during and at the end of construction.
- Conditions Where Practice Applies**
To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.
- Criteria**
- Seeding
 - All seed must meet the requirement of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
 - Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
 - Incoculants: The inoculant for legume regimens used in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
 - Soil or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weedcontrol until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
 - Application
 - Dry Seeding: This includes use of conventional drop or broadcast spreaders.
 - Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.
 - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with weighted roller to provide good seed to soil contact.
 - Drill or Outdragger Seeding: Mechanized seeders that apply and cover seed with soil.
 - Outdragger seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
 - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
 - Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).
 - If fertilizer is being applied at the time of seeding, the application rates need not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P O (phosphorus), 200 pounds per acre; K O (potassium), 200 pounds per acre.
 - Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - Seed and fertilizer on site or applied on site or applied on site without interruption.
 - When hydroseeding do not incorporate seed into the soil.
 - Mulching
 - Materials (in order of preference)
 - Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.
 - Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into uniform fibrous physical state.
 - WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
 - WCFM, including dye, must contain no germination or growth inhibiting factors.
 - WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFM material must not contain elements or compounds at concentration levels that will be phytotoxic.
 - WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

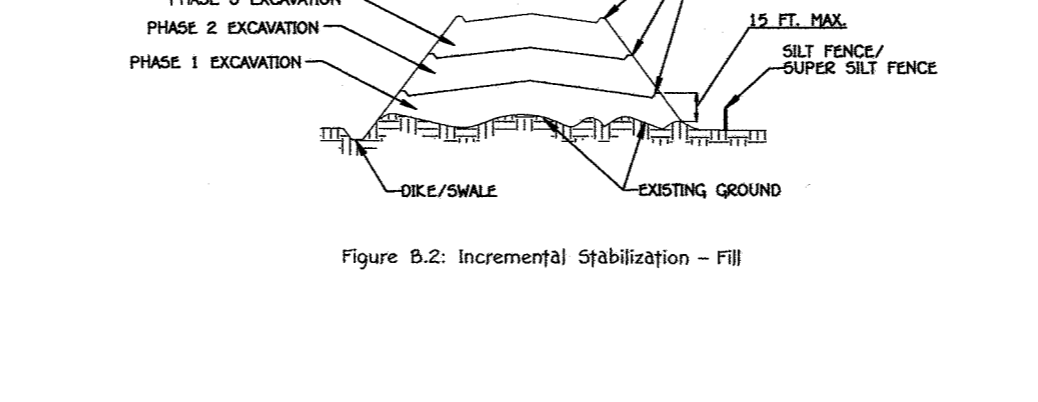
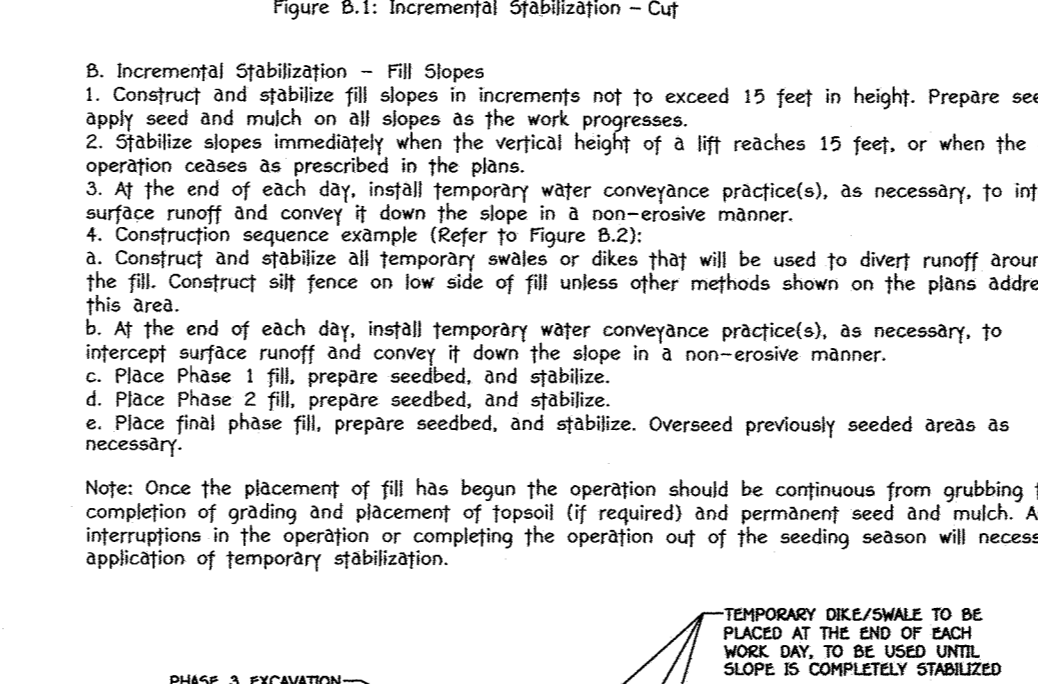


- Application
 - Apply mulch to all seeded areas immediately after seeding.
 - When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
 - Wood cellulose fiber used as mulch must be applied to a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to obtain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- Anchoring
 - Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard.
 - A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
 - Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petrosol, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.
 - Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4-15 feet wide and 300 to 3,000 feet long.

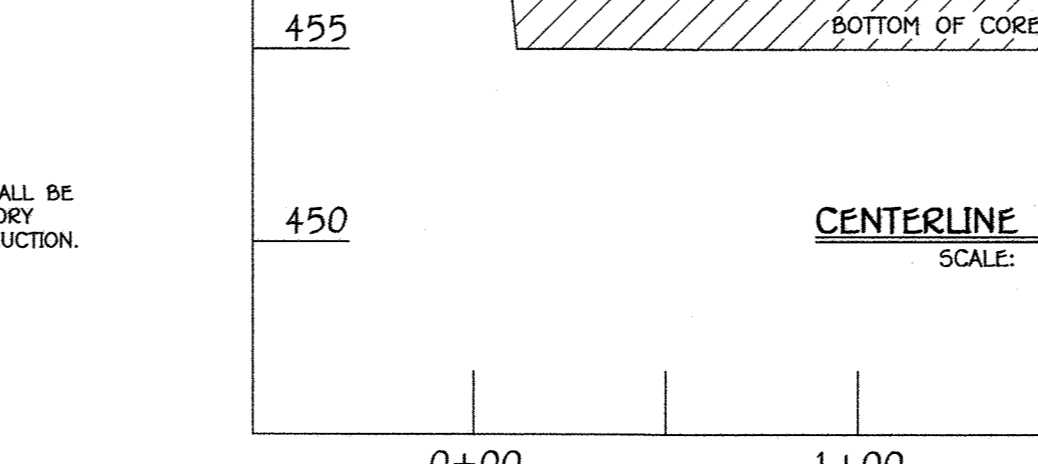
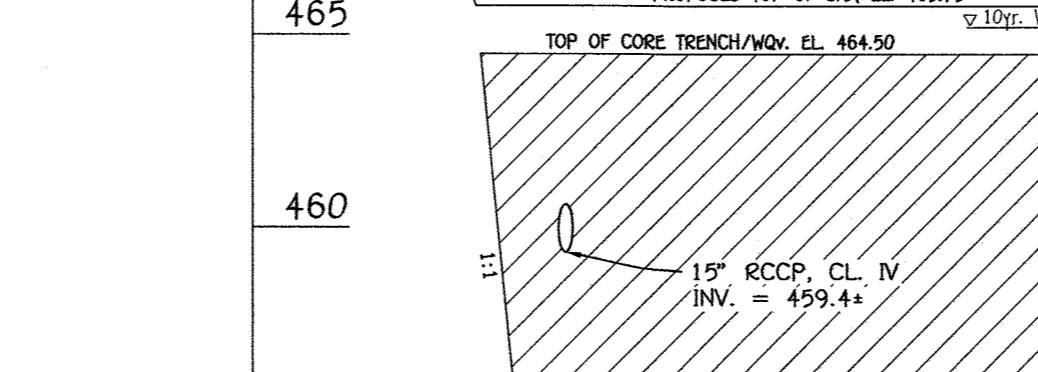
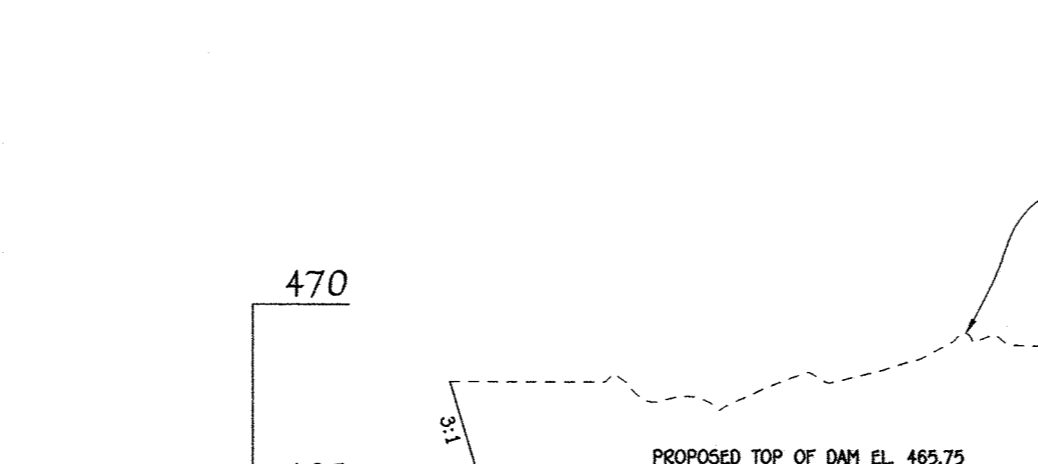


B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

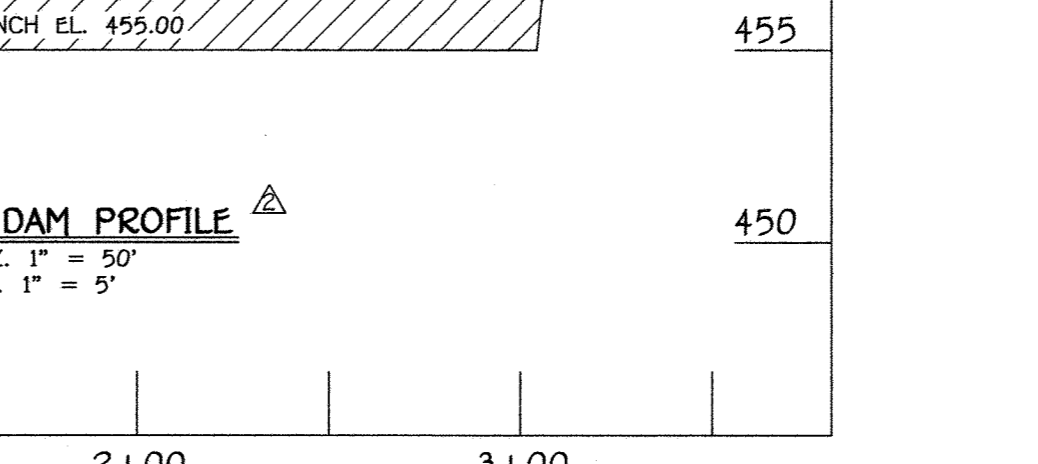
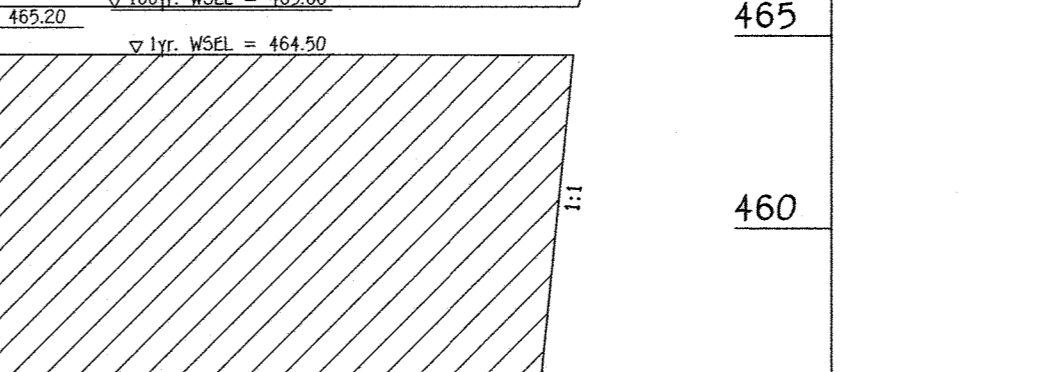
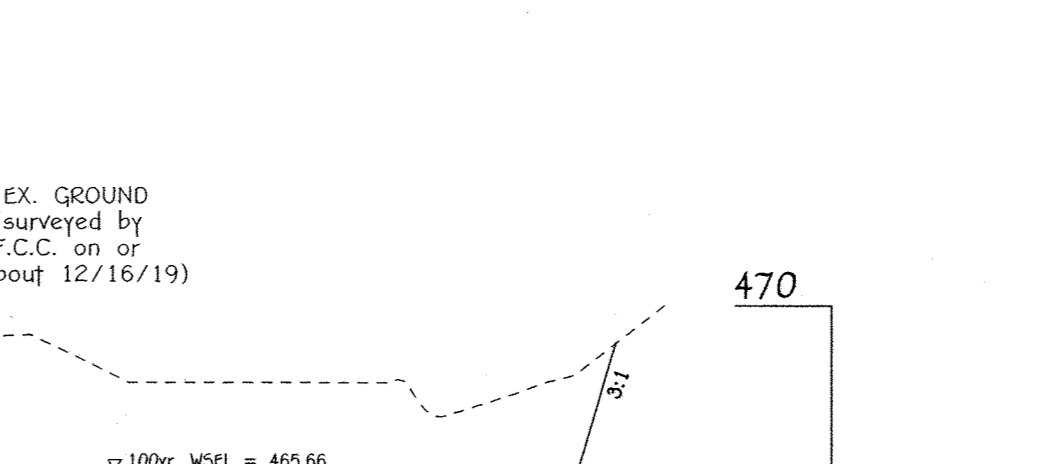
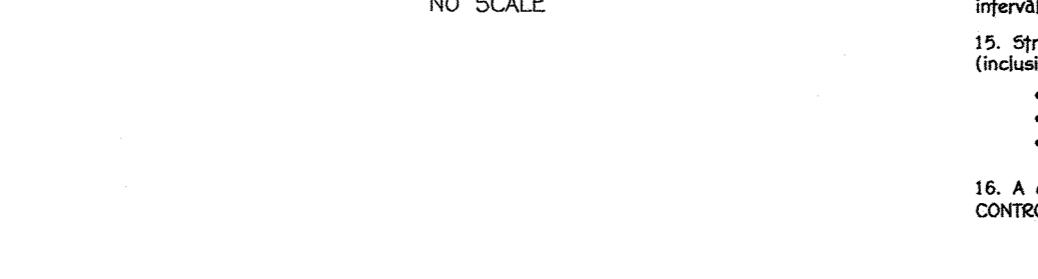
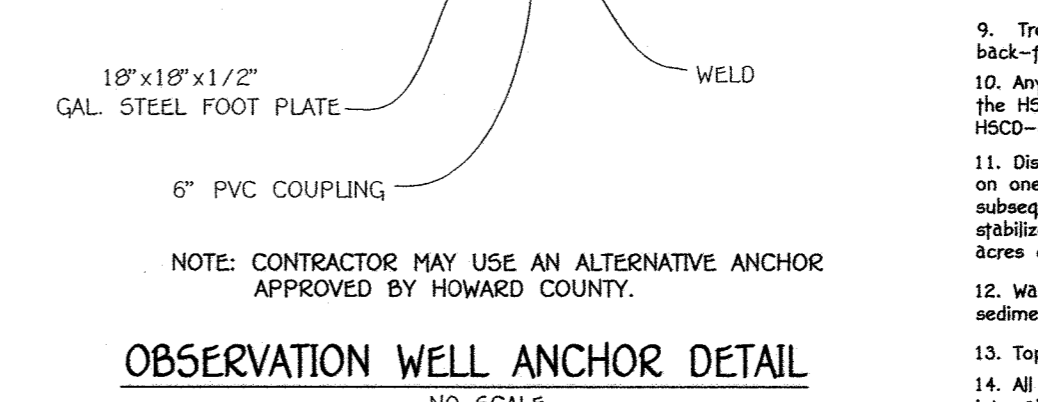
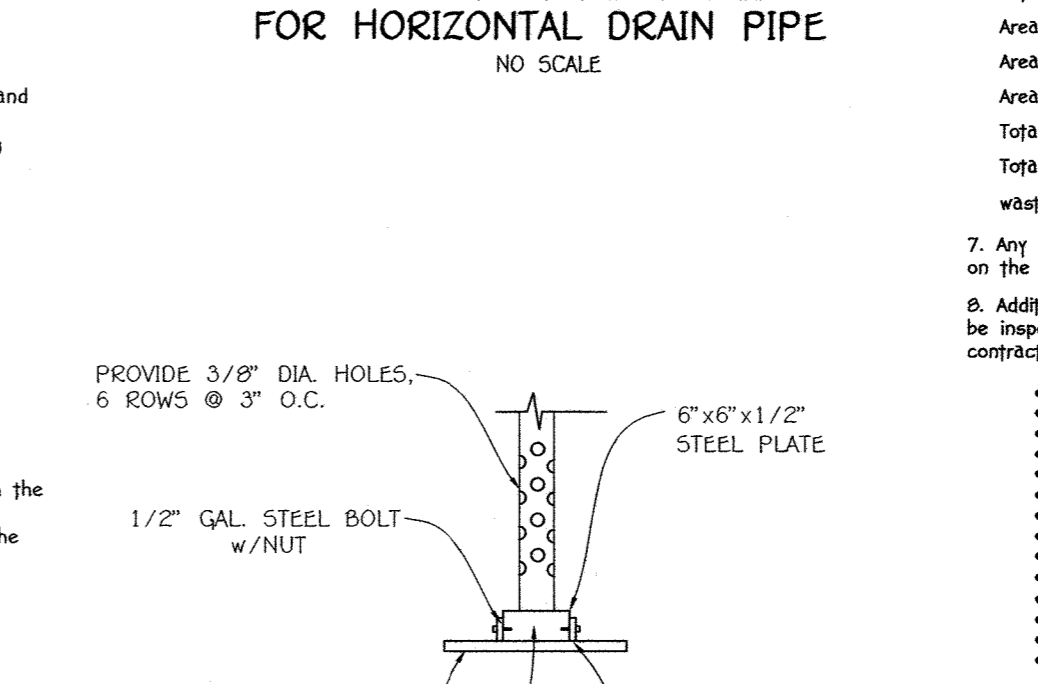
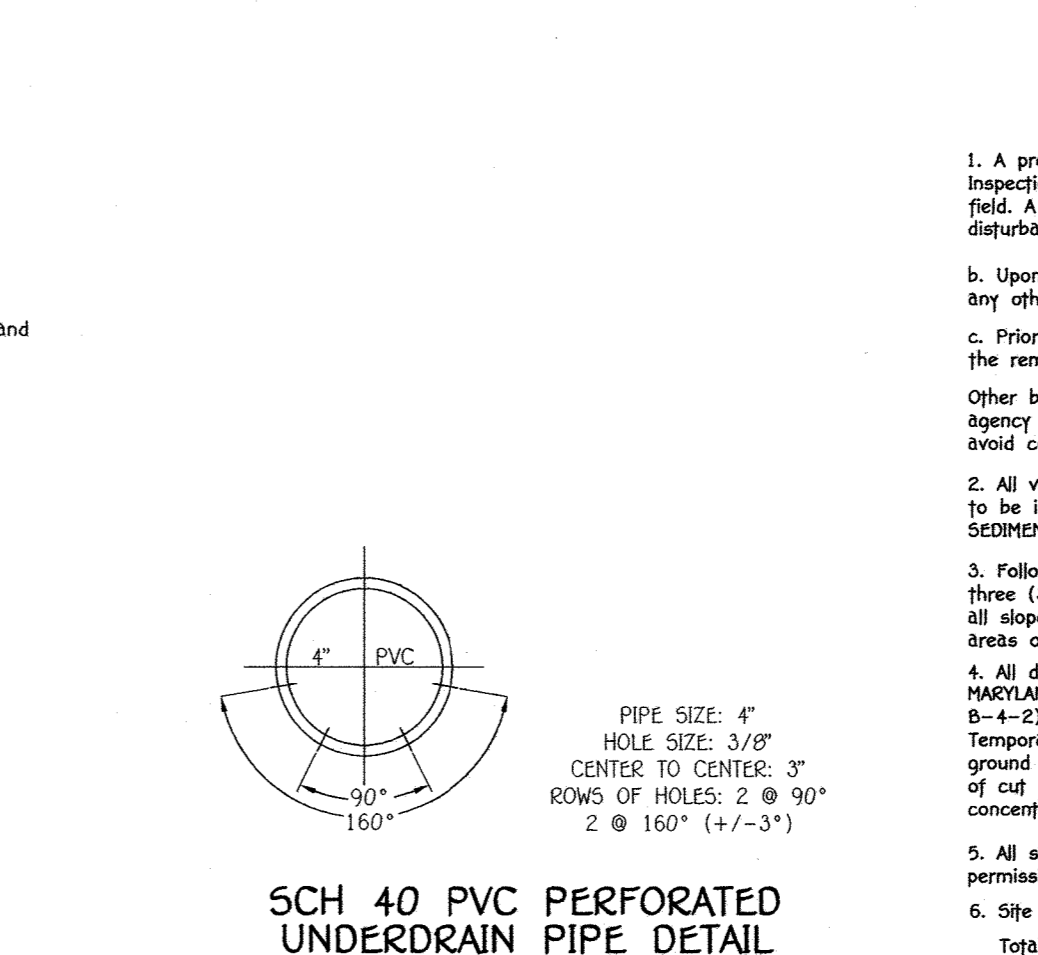
- Definition**
Establishment of vegetative cover on cut and fill slopes.
- Purpose**
To provide timely vegetative cover on cut and fill slopes as work progresses.
- Conditions Where Practice Applies**
Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.
- Criteria**
- Incremental Stabilization - Cut Slopes
 - Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.
 - Construction sequence example (Refer to Figure B.1):
 - Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation.
 - Perform Phase 1 excavation, prepare seedbed, and stabilize.
 - Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as necessary.
 - Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.
 - Incremental Stabilization - Fill Slopes
 - Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses.
 - Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading operation ceases as prescribed in the plans.
 - At the end of each day, install temporary water conveyance practices, as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
 - Construction sequence example (Refer to Figure B.2):
 - Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area.
 - At the end of each day, install temporary water conveyance practices, as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
 - Place Phase 1 fill, prepare seedbed, and stabilize.
 - Place Phase 2 fill, prepare seedbed, and stabilize.
 - Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.



- Application
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 - When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
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 - Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4-15 feet wide and 300 to 3,000 feet long.



STANDARDS AND SPECIFICATIONS FOR OBSERVATION WELL ANCHOR DETAIL



HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

- A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1955 after the future LOI and protected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages:
 - Prior to the start of earth disturbance.