

*Joyce Boylen* 6-30-78  
COUNTY HEALTH OFFICER DATE

APPROVED : HOWARD COUNTY OFFICE OF PLANNING & ZONING

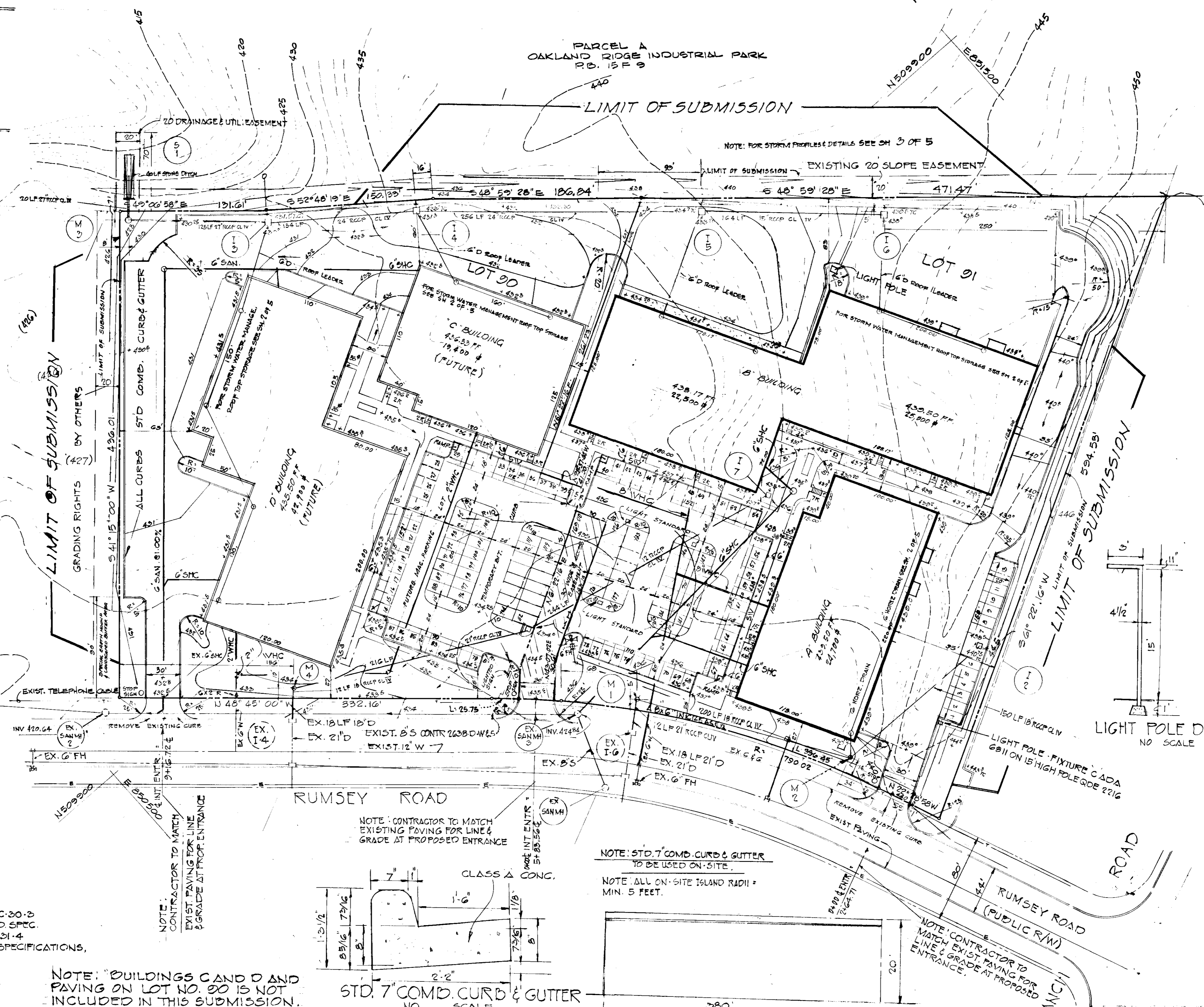
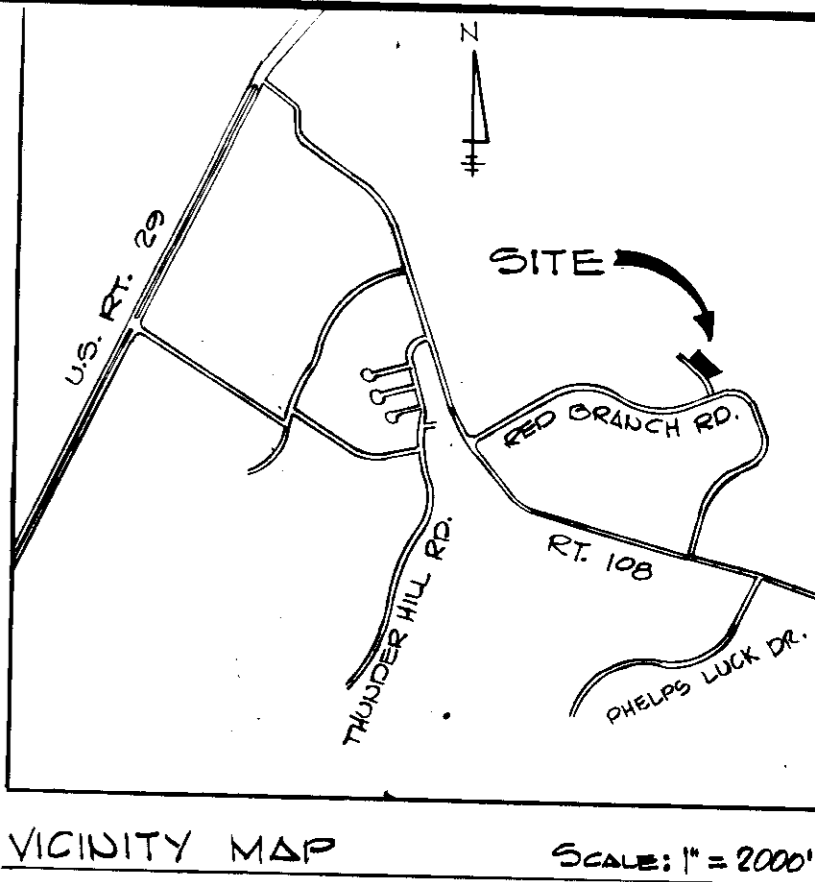
*James J. Smith* 7-5-78  
PLANNING DIRECTOR DATE

*John W. Murrain* 6-30-78  
CHIEF DIVISION OF LAND DEVELOPMENT DATE

APPROVED FOR STORM DRAIN SYSTEMS AND ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Richard E. Srodenberger* 6-29-78  
DIRECTOR DATE

*W. O. Lambert* 6-29-78  
CHIEF BUREAU OF ENGINEERING DATE



GENERAL NOTES CONTINUED FROM BELOW.

14. OFFICE AND WAREHOUSE AREAS (SQ. FT.) PER BUILDING.	TOTALS	
BUILDING A - OFFICE: 1115#	WAREHOUSE: 13,585#	24,700#
BUILDING B - OFFICE: 21,375#	WAREHOUSE: 26,125#	47,500#
BUILDING C - OFFICE: 8730#	WAREHOUSE: 10,670#	19,400#
BUILDING D - OFFICE: 19,305#	WAREHOUSE: 23,575#	42,880#
15. WAREHOUSE EMPLOYEES PER BUILDING		
BUILDING A - 10		
BUILDING B - 16		
BUILDING C - 8		
BUILDING D - 16		
TOTAL 80 EMPLOYEES		
16. BUILDING COVERAGE PER LOT		
LOT 90 - 62,300#	LOT 91 - 72,200#	
17. PARKING PER LOT		
LOT 90 - 67	LOT 91 - 80	

- GENERAL NOTES
- TOTAL AREA OF SITE - 1,015,141 AC.
  - OWNER - RUMSEY ASSOCIATES COMMERCIAL & INDUSTRIAL REALTY CORP.
  - PLAT REF 3991 TAX MAP 30
  - FINAL DEVELOPMENT PLAN NO FOP NO. 25-A EMPLOYMENT CENTER, INDUSTRIAL, RECORDED PD. 28 F. 29-22
  - SITE USE
  - OFFICE - 40,350 SQ. FT. TOTAL 134,500 SQ. FT. WAREHOUSE - 94,150 SQ. FT.
  - SITE DENSITY
  - BUILDING COVERAGE - 33.74% PAVED AREA - 39% OPEN SPACE - 27.26%
  - PARKING: REQUIRED 106 SPACES OFFICE - 40,350 SQ. FT. : 81 SPACES WAREHOUSE - EMPLOYEES PER MAX SHIFT : 50 : 255 SPACES HANDICAPPED SPACES - 4 SPACES, TOTAL 106 SPACES
  - HANDICAPPED SPACES PROVIDED 147 NO 29, 40, 67, 13
  - TOTAL SPACES SHOWN - 147
  - ALL PARKING SPACES ARE 10 X 20' EXCEPT HANDICAPPED SPACES WHICH ARE 12 X 20'
  - PUBLIC WATER & SEWER
  - NO RETAIL SALES ON-SITE
  - CONTRACTOR TO NOTIFY THE UTILITIES AT LEAST THREE DAYS BEFORE STARTING WORK SHOWN ON THIS DRAWING.
  - INSTALLATION OF TRAFFIC CONTROL SERVICES, MARKINGS & SIGNING, SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 1971 EDITION.



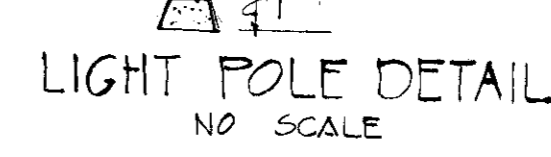
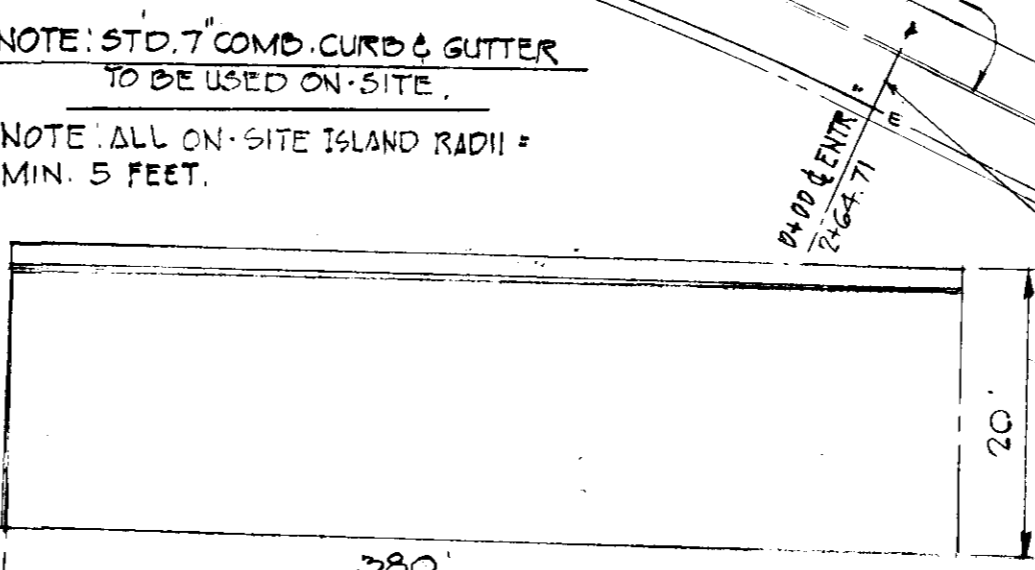
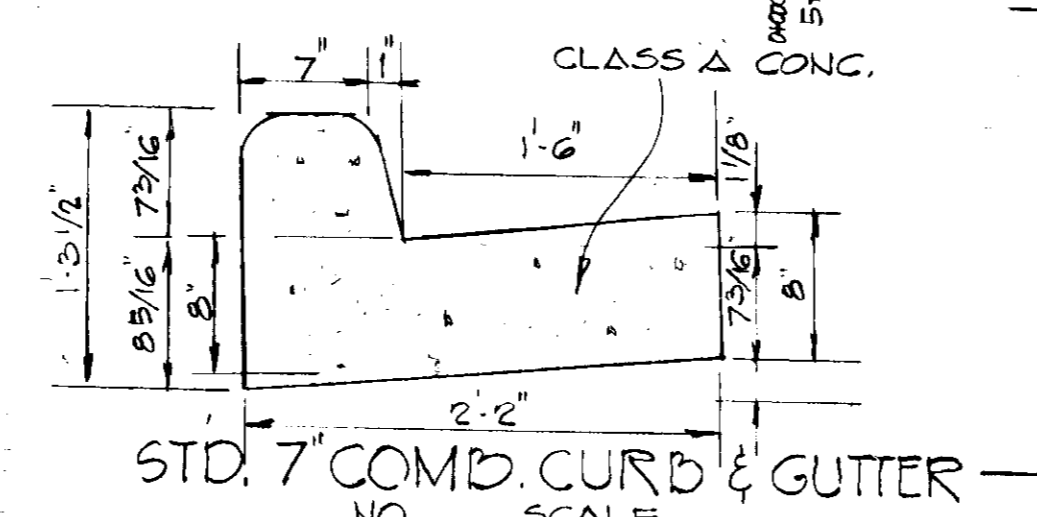
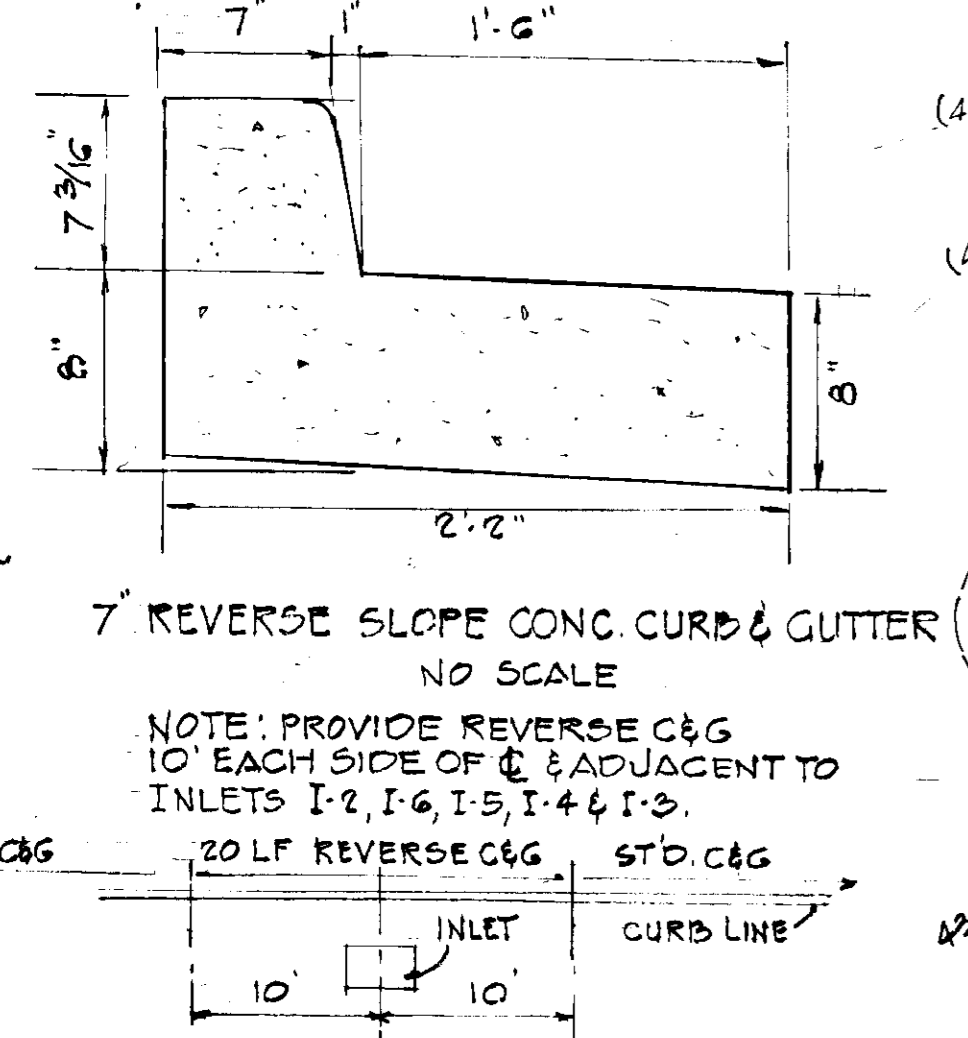
*John L. Schneider*  
1/24/78  
8/1/78

- GENERAL NOTES CONTINUED
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY CONSTRUCTION CODE & STANDARD SPECIFICATIONS
  - RUMSEY ROAD A PUBLIC ROAD, IS EXISTING.

SITE PLAN  
OAKLAND RIDGE INDUSTRIAL PARK  
SECTION 2  
LOTS 90 AND 91  
RESUBDIVISION OF LOTS 85 & 86  
PLAT REF. 3991  
2ND ELECTION DISTRICT OF HOWARD COUNTY MD.  
SCALE: 1" = 50' DATE: 77

OWNER:  
RUMSEY ASSOCIATES  
COMMERCIAL & INDUSTRIAL  
REALTY CORPORATION  
402 EQUITABLE TOWNSHIP  
TOWNSHIP, MARYLAND 21284

ENGINEERS:  
ROD WAGNER  
LAND DEV. CONSULTANT  
SUITE # 104  
8794 LOCK BEND DRIVE  
BALTIMORE MD. 21284



DITUMINOUS CONCRETE SURFACE 1 1/2" BAND C-3  
DITUMINOUS CONCRETE BINDER 5" GRAVEL MIX  
CRUSHER RUN BASE 6"

CLEARING & GRADING ARTICLE C-1  
SUBGRADE ARTICLE C-2  
BASE COURSE ARTICLE C-25  
BINDER COURSE ARTICLE C-31 OR C-33  
SURFACE COURSE ARTICLE C-31

NOTE: BASE WILL BE PRIMED IN ACCORDANCE WITH SECTION C-30-3 AS PROVIDED IN THE HO. CO. ROAD CONSTRUCTION CODE & STD. SPEC. TACT COAT IS REQUIRED IN ACCORDANCE WITH SECTION C-31-4 OF THE HO. CO. ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.

TYPICAL ON-SITE PAVING SECTION  
NO SCALE  
NOTE: ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE HO. CO. ROAD CONSTRUCTION CODE

NOTE: BUILDINGS C AND D AND PAVING ON LOT NO. 90 IS NOT INCLUDED IN THIS SUBMISSION.

NOTE: STD. 7" COMB. CURB & GUTTER TO BE USED ON-SITE.

NOTE: ALL ON-SITE ISLAND RADII = MIN. 5 FEET.

NOTE: CONTRACTOR TO MATCH EXISTING PAVING FOR LINE & GRADE AT PROPOSED ENTRANCE.

5-24-78

APPROVED FOR PUBLIC WATER & PUBLIC SEWER  
HOWARD COUNTY HEALTH DEPARTMENT

*Joey B. Bynum* 6-30-78  
COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING  
*Thomas J. Amis* 7-5-78  
PLANNING DIRECTOR DATE

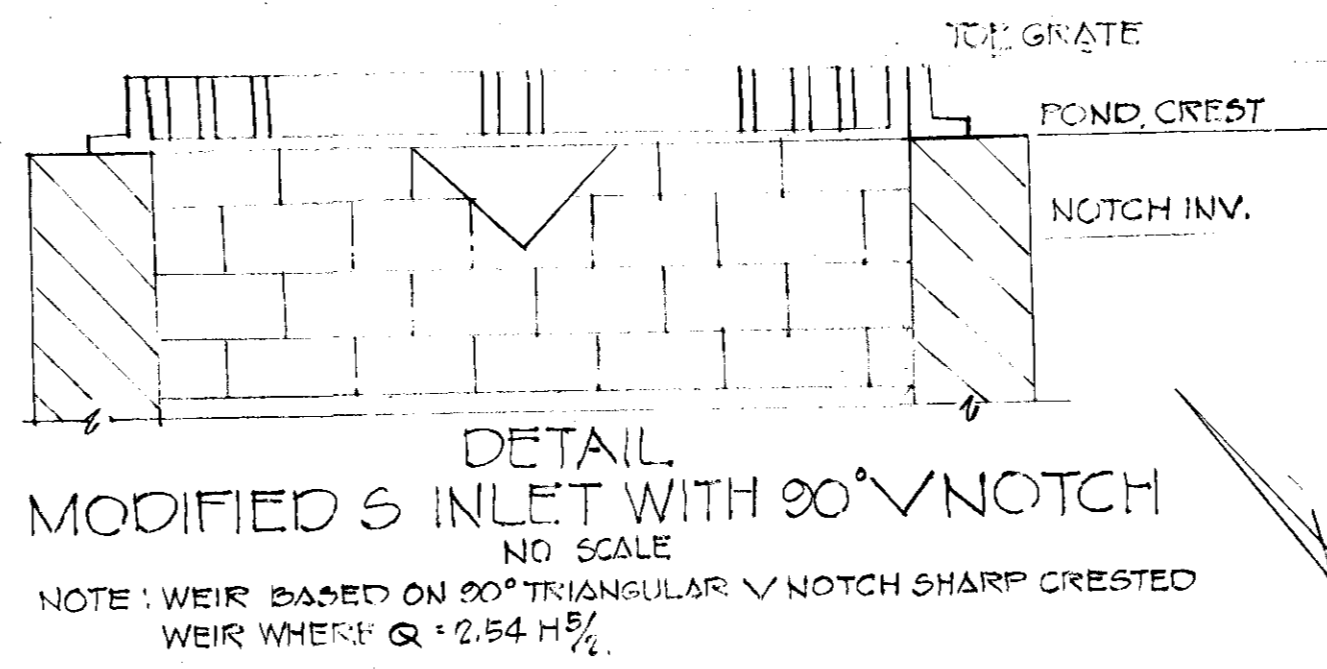
*W. W. Woodman* 6-30-78  
CHIEF DIVISION OF LAND DEVELOPMENT DATE

APPROVED FOR STORM DRAIN SYSTEMS AND ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

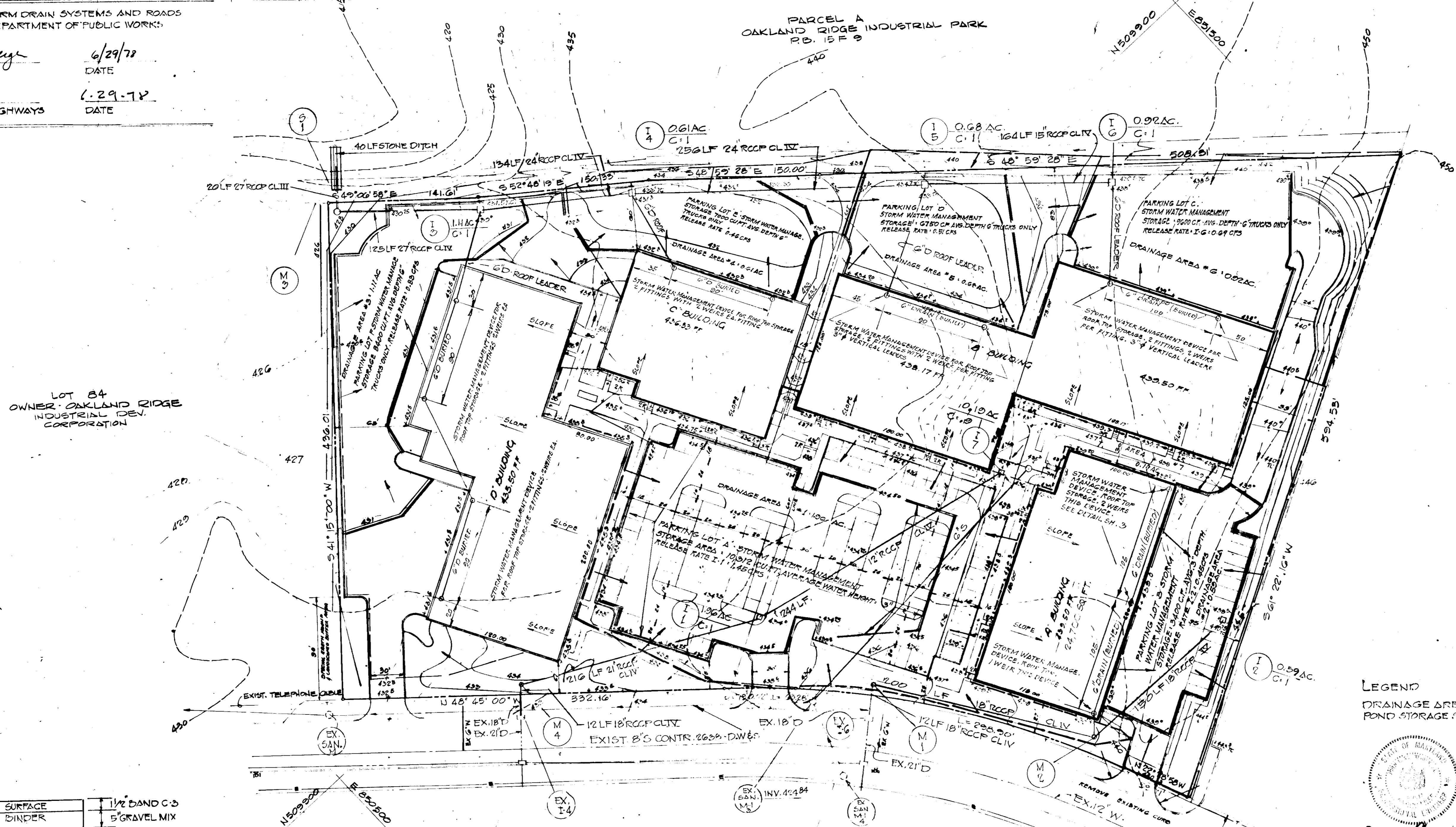
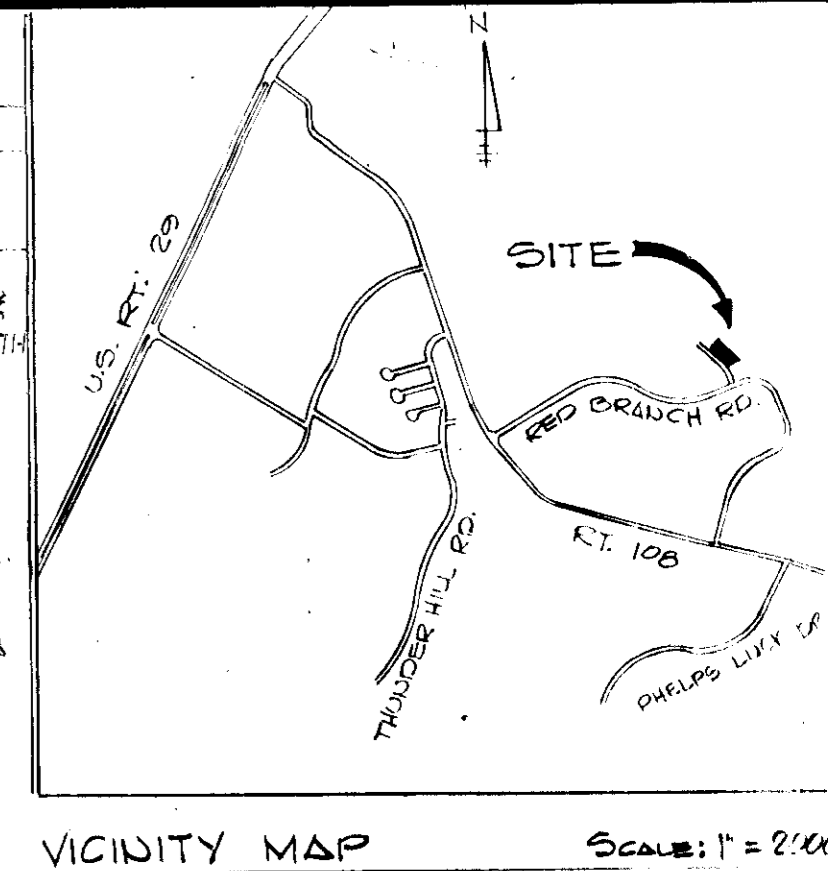
*Richard E. Sreudenberg* 6/29/78  
DIRECTOR DATE

*W. O. Lambert* 6-29-78  
CHIEF BUREAU OF HIGHWAYS DATE

STRUCTURE	DRAINAGE AREA (AC)	STORAGE REQUIRED (CF)	STORAGE AVAILABLE (CF)	RELEASE RATE (CF/S)	REMARKS
I-1	1.12	3400 CF	4500 CF	1.17 CFS	USE MOD. S INLET WITH 10" V NOTCH, H = 9 5/8"
I-2	.57	2400 CF	4500 CF	0.45 CFS	USE MOD. S INLET WITH 6" V NOTCH, H = 6"
I-3	1.11	5200 CF	8100 CF	0.82 CFS	MOD. S WITH 8" V NOTCH, H = 7 3/16"
I-4	0.61	3500 CF	7000 CF	0.46 CFS	MOD. S WITH 6" V NOTCH, H = 6"
I-5	0.68	4000 CF	6750 CF	0.51 CFS	MOD. S WITH 6" V NOTCH, H = 6"
I-6	0.92	5100 CF	9600 CF	0.60 CFS	MOD. S WITH



BUILDING	AREA (AC)	STORAGE REQUIRED (CF)	STORAGE AVAILABLE (CF)	RELEASE RATE (CF/S)	REMARKS
BLDG. A	0.87 AC	3600 CF	4200 CF	1.28 CFS OR 192 GPM	2 FITTINGS / 2 WEIRS EACH
BLDG. B	1.00 AC	5000 CF	7010 CF	1.00 CFS 306 GPM	4 FITTINGS / 2 WEIRS EACH
BLDG. C	0.46 AC	3000 CF	3804 CF	0.45 CFS 155 GPM	2 FITTINGS / 2 WEIRS EACH
BLDG. D	0.98 AC	5800 CF	7151 CF	0.73 CFS 230 GPM	4 FITTINGS / 2 WEIRS EACH



- GENERAL NOTES**
- TOTAL AREA OF SITE: 10.151 AC.
  - OWNER: RUMSEY ASSOCIATES COMMERCIAL & INDUSTRIAL REALTY CORP.
  - PLAT REF: TAX MAP 20
  - FINAL DEVELOPMENT PLAN NO. FOP NO. 25-A EMPLOYMENT CENTER, INDUSTRIAL, RECORDED PD. 2872-22
  - SITE USE: OFFICE: 32,450 SQ. FT. WAREHOUSE: 97,350 SQ. FT. TOTAL 129,800 SQ. FT.
  - SITE DENSITY: BUILDING COVERAGE: 32.50% PAVED AREA
  - PARKING: REQUIRED OFFICE: 32,450 SQ. FT.: 65 SPACES WAREHOUSE: EMPLOYEES PER MAX SHIFT: 80: 25 SPACES HANDICAPPED SPACES: 4 SPACES
  - PARKING SPACES SHOWN: OFFICE: WAREHOUSE: HANDICAPPED: TOTAL SPACES SHOWN:
  - ALL PARKING SPACES ARE 10' X 20' EXCEPT HANDICAPPED SPACES WHICH ARE 12' X 20'
  - PUBLIC WATER & SEWER
  - NO RETAIL SALES ON SITE

**LEGEND**

DRAINAGE AREAS SHOWN THUS  
POND STORAGE SHOWN THUS



*John A. Schuler*  
PROFESSIONAL ENGINEER

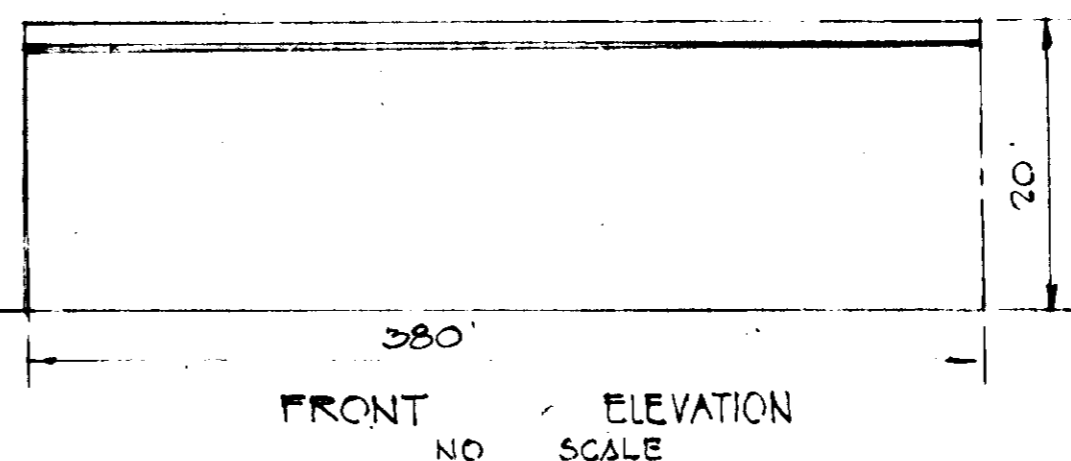
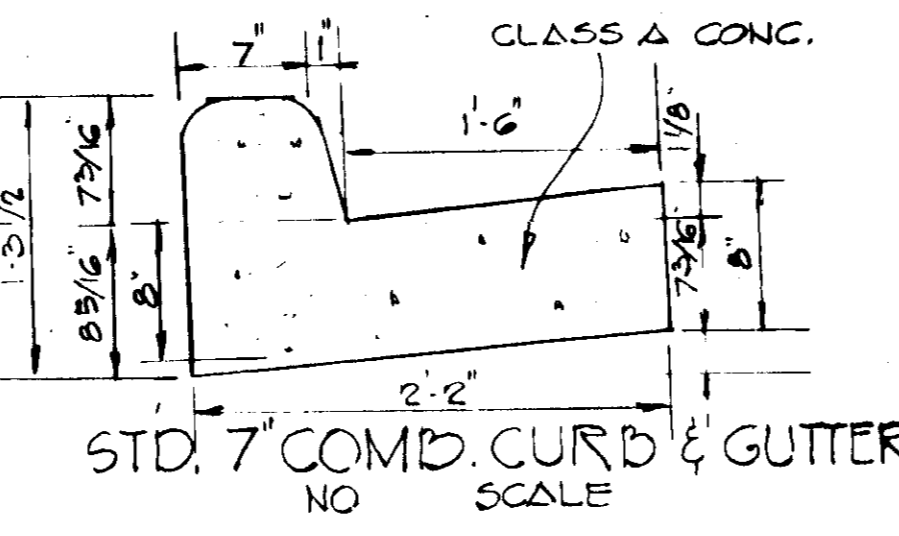
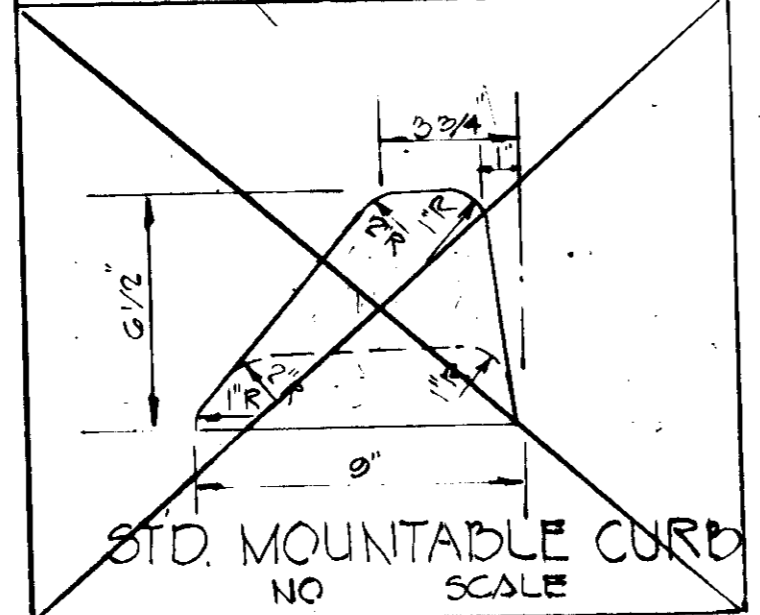
DITUMINOUS CONCRETE SURFACE	1 1/2" SAND C-3
DITUMINOUS CONCRETE BINDER	5" GRAVEL MIX
GRUSHER RUN BASE	6"

CLEARING & GRADING ARTICLE C-1  
SUBGRADE ARTICLE C-2  
BASE COURSE ARTICLE C-25  
BINDER COURSE ARTICLE C-31 OR C-20  
SURFACE COURSE ARTICLE C-31

NOTE: BASE WILL BE PRIMED IN ACCORDANCE WITH SECTION C-30-3 AS PROVIDED IN THE HO. CO. ROAD CONSTRUCTION CODE & STD. SPEC. TACTY COAT IS REQUIRED IN ACCORDANCE WITH SECTION C-31-4 OF THE HO. CO. ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.

**TYPICAL ON-SITE PAVING SECTION**

NO SCALE  
NOTE: ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE HO. CO. ROAD CONSTRUCTION CODE



**DRAINAGE AREA & STORM WATER MANAGEMENT PLAN**

OAKLAND RIDGE INDUSTRIAL PARK  
SECTION 2  
LOTS 90 AND 91  
RESUBDIVISION OF LOTS 85 & 92  
PLAT REF. 3991  
2ND ELECTION DISTRICT OF HOWARD COUNTY MD.  
SCALE: 1" = 50'  
DATE: 77

APPROVED  
5-24-78

OWNER: RUMSEY ASSOCIATES COMMERCIAL & INDUSTRIAL REALTY CORPORATION  
402 EQUITABLE TOWNSHIP BLDG. TOWSON, MARYLAND 21284

ENGINEERS: BOB WAGNER LAND DEV. CONSULTANT SUITE # 104 8794 LOCH BEND DRIVE BALTIMORE, MD. 21284

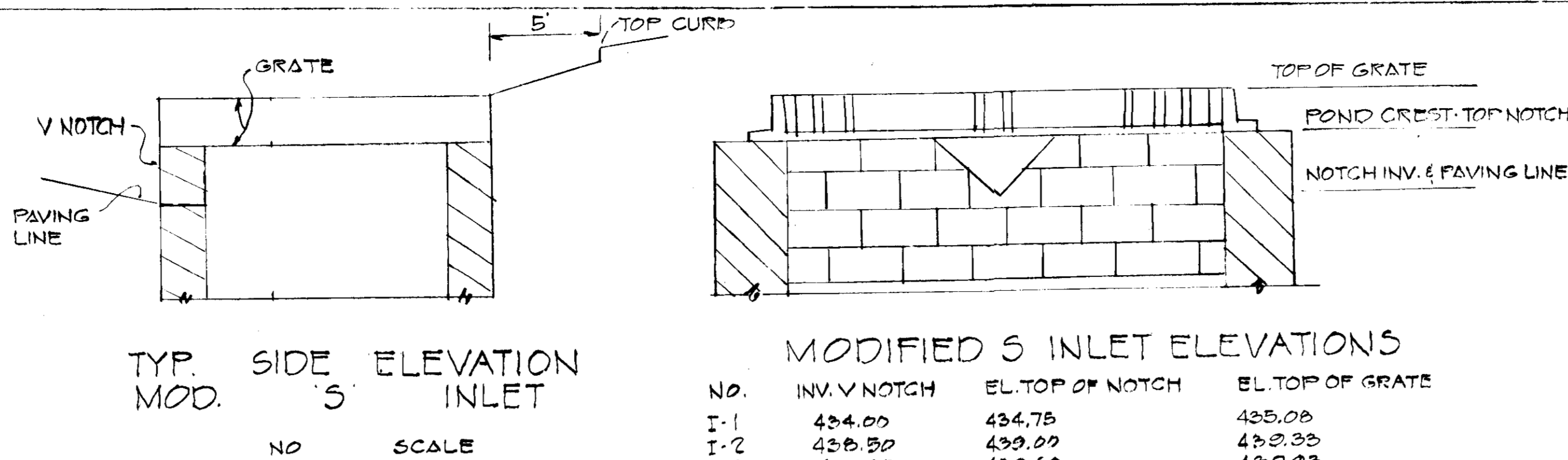
*Joseph Boylan* 6-30-78  
DATE

*Thomas L. Harris Jr* 7-5-78  
PLANNING DIRECTOR DATE

*William W. Muehlen* 6-30-78  
CHIEF DIVISION OF LAND DEVELOPMENT DATE

*Rudolf E. Sreudenberger* 6/29/78  
DIRECTOR DATE

*W.O. Lubert* 6-29-78  
CHIEF BUREAU OF ENGINEERING DATE



MODIFIED S INLET ELEVATIONS

NO.	INV. V NOTCH	EL. TOP OF NOTCH	EL. TOP OF GRATE
I-1	434.00	434.75	435.00
I-2	430.50	430.00	430.25
I-3	430.00	430.60	430.25
I-4	431.50	431.00	432.15
I-5	433.20	433.70	434.25
I-6	433.00	433.60	433.90

REVIEWED FOR HO. SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

*C. Wayne Ray* 6-14-78  
U.S. SOIL CONSERVATION SERVICE DATE

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

*Wes Ernie* 6-14-78  
HO. SOIL CONSERVATION DISTRICT DATE

NO.	TYPE	STRUCTURE			REMARKS
		INV. IN	INV. OUT	TOP EL.	
I-1	MODIFIED CLASS S INLET	430.31	430.11	435.00	SEE HO. CO. STD DETAILS DRWG D-28 PAGE 153
I-2	MOD. CLASS S INLET	-	434.80	432.30	SEE " " " " " " " " " "
I-3	MOD. CLASS S INLET	427.40	429.71	430.33	" " " " " " " " " "
I-4	MOD. CLASS S INLET	424.48	424.28	432.15	" " " " " " " " " "
I-5	MOD. CLASS S INLET	428.76	429.01	434.03	" " " " " " " " " "
I-6	MOD. CLASS S INLET	-	435.15	433.00	" " " " " " " " " "
I-7	HO. CO. STD CLASS S INLET	-	431.77	435.00	SEE HO. CO. STD DETAILS DRWG D-28 PAGE 153
M-1	HO. CO. STD MANHOLE	431.99	431.60	436.60	SEE HO. CO. STD DETAILS DRWG D-103 PAGE 158
M-2	HO. CO. STD MANHOLE	433.29	433.00	439.00	" " " " " " " " " "
M-3	HO. CO. STD MANHOLE	428.84	428.56	427.30	" " " " " " " " " "
M-4	HO. CO. STD MANHOLE	428.81	428.61	434.00	SEE HO. CO. STD DETAILS DRWG D-103 PAGE 158
S-1	HO. CO. STD TYPE C ENDWALL	-	420.20	-	SEE HO. CO. STD DETAILS DRWG D-52 PAGE 107

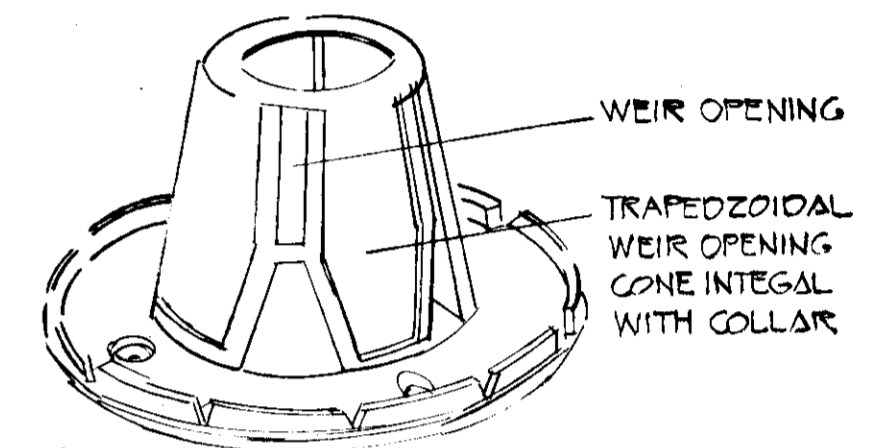
NOTE: FOR DETAIL OF MODIFIED CLASS S INLET SEE SH.

ENGINEER'S CERTIFICATE: I HEREBY CERTIFY THAT THIS PLAN FOR EROSION & SEDIMENT CONTROL REPRESENTS A WORKABLE AND PRACTICAL PLAN BASED ON MY KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD CONSERVATION DISTRICT.

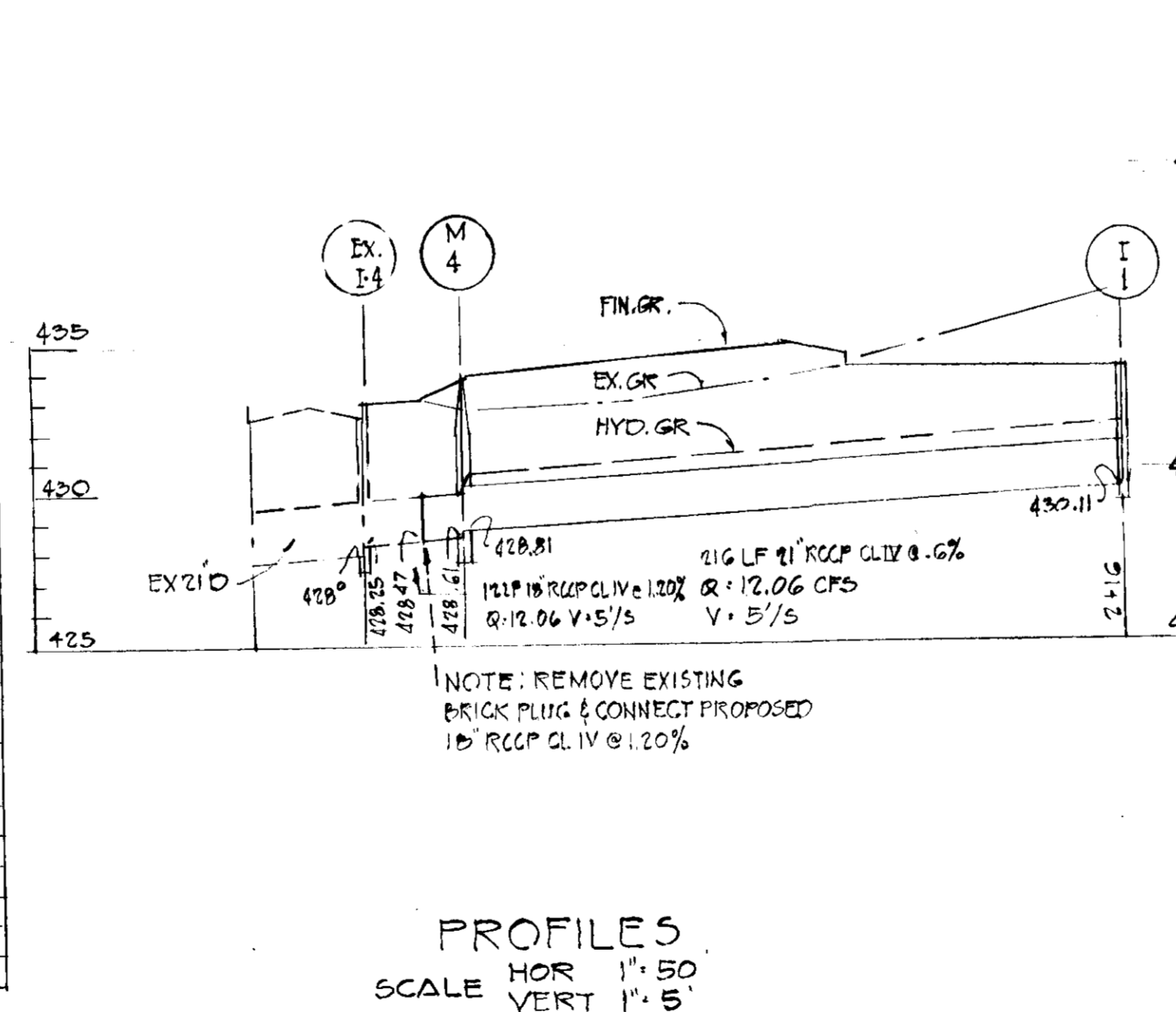
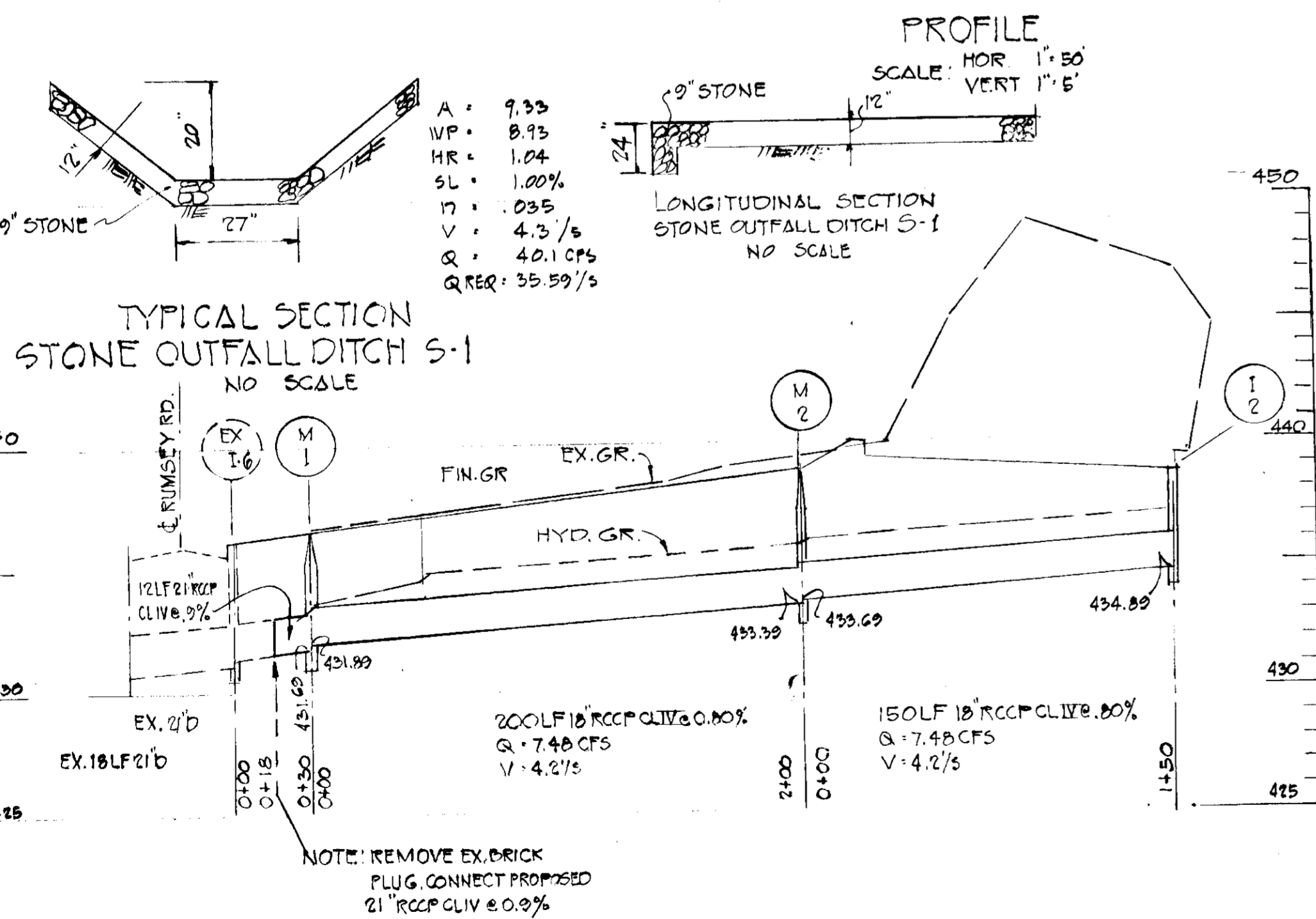
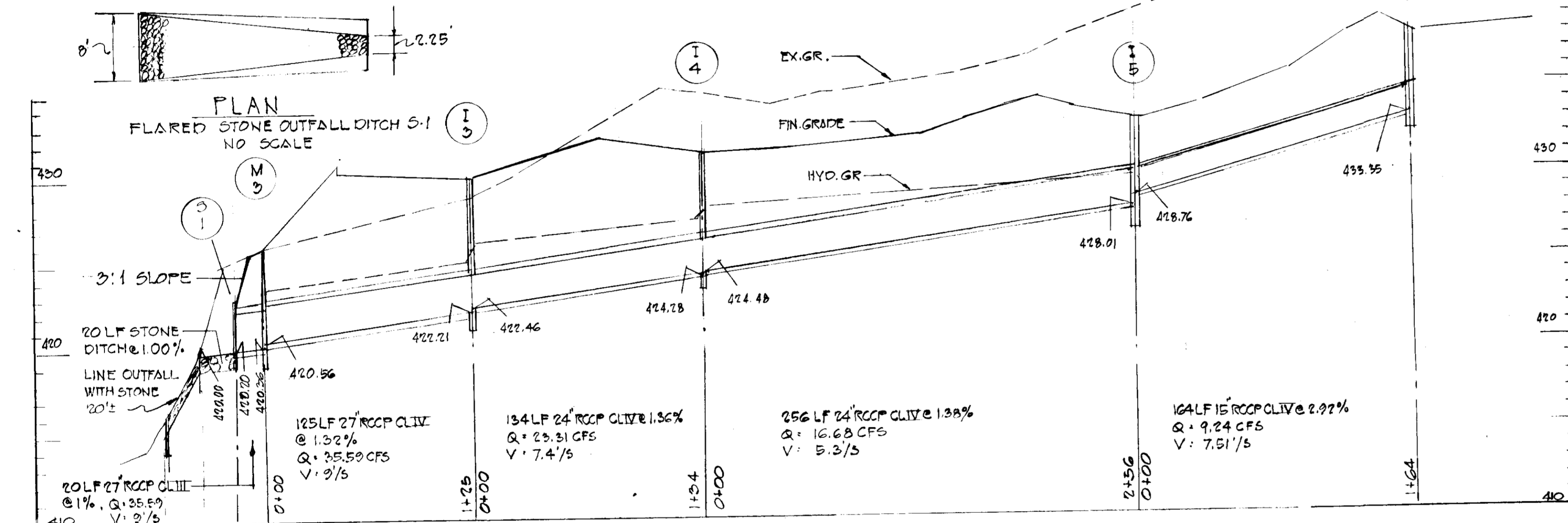
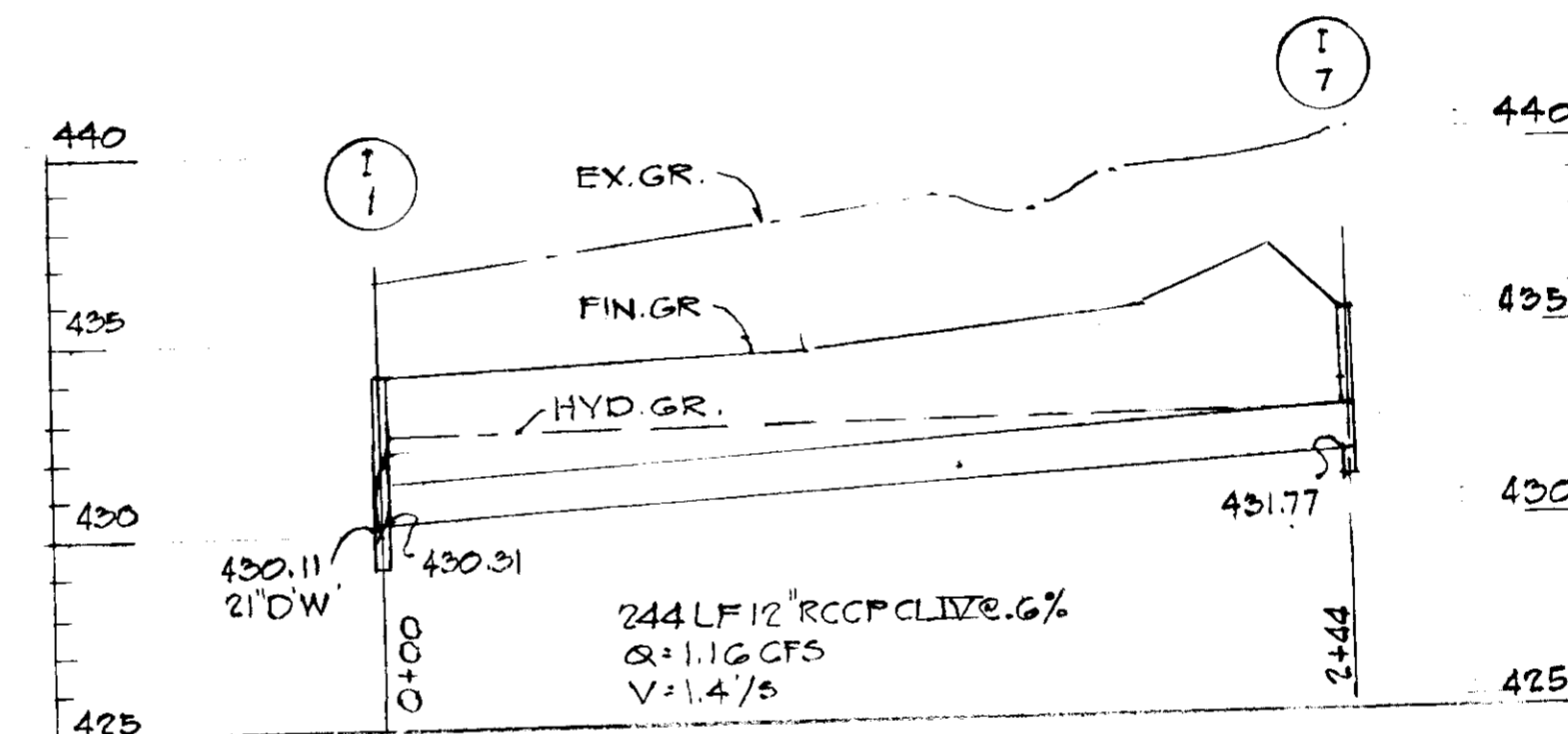
*John L. Schneider* 7-13-78  
ENGINEER: JOHN L. SCHNEIDER DATE

DEVELOPER'S CERTIFICATE: I HEREBY CERTIFICATE THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR EROSION AND SEDIMENT CONTROL. WE AUTHORIZE PERIODIC ON SITE INSPECTION BY THE HO. SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DIVISION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HO. SOIL CONSERVATION DISTRICT.

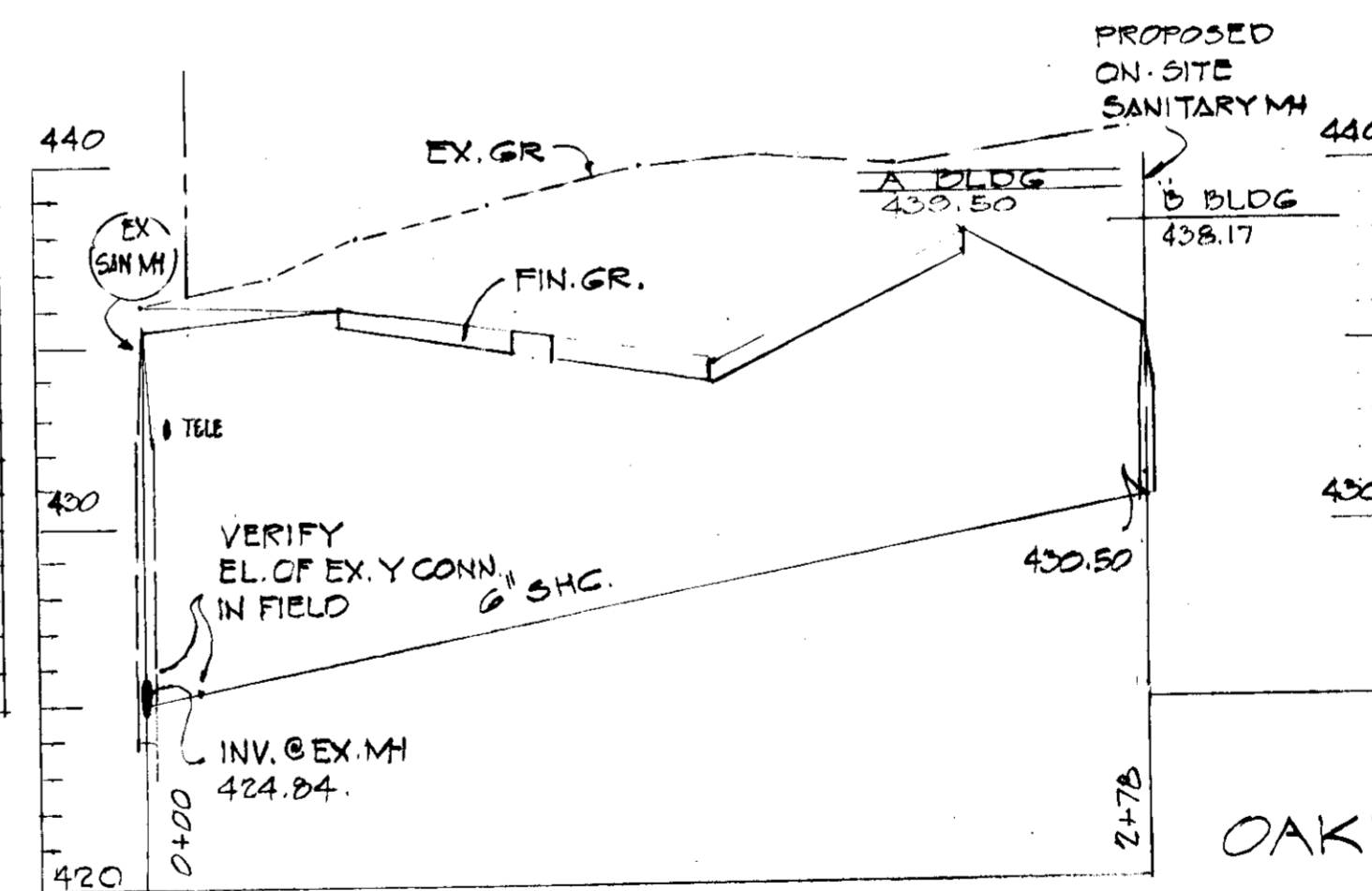
*Sidney Silder* 4/1/78  
DEVELOPER: SIDNEY SILDER DATE



DETAIL ROOF DRAIN DEVICE  
RAIN TROL  
NO SCALE  
NOTE: SEE SH. OF FOR SCHEDULE



PROFILES  
SCALE HOR 1"=50  
VERT 1"=5'



PROFILES AND DETAILS  
OAKLAND RIDGE INDUSTRIAL PARK  
SECTION 2  
RESUBDIVISION OF LOTS 85 & 86  
2ND DISTRICT PLAT REF. 3001 HO. CO. MD  
SCALE: AS SHOWN JAN. 10, 1975

APPROVED  
DATE 5-24-78 SHEET 3 OF 6

APPROVED FOR PUBLIC WATER & PUBLIC SEWER  
HOWARD COUNTY HEALTH DEPARTMENT

*John P. Bryan* 6-30-78  
DATE

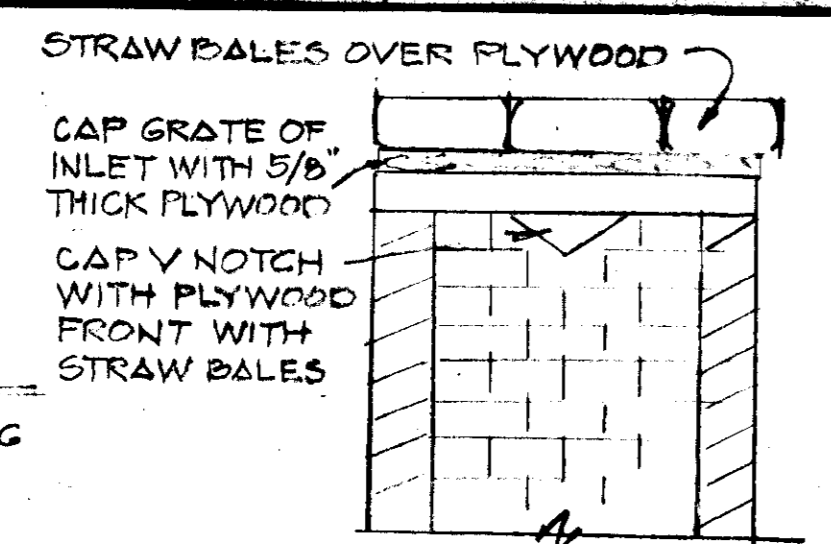
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
*Thomas J. Harige* 7-5-78  
PLANNING DIRECTOR DATE

*John W. Hirschman* 6-30-78  
CHIEF DIVISION OF LAND DEVELOPMENT DATE

APPROVED FOR STORM DRAIN SYSTEMS AND ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Richard E. Freudenberger* 6/29/78  
DIRECTOR DATE

*W.O. Latta* 6-29-78  
CHIEF BUREAU OF HIGHWAYS DATE



DETAIL TYPICAL FOR BOXING OF INLETS  
NO SCALE  
NOTE: REMOVE FLYWOOD & STRAW BALES AFTER CONSTRUCTION IS COMPLETED

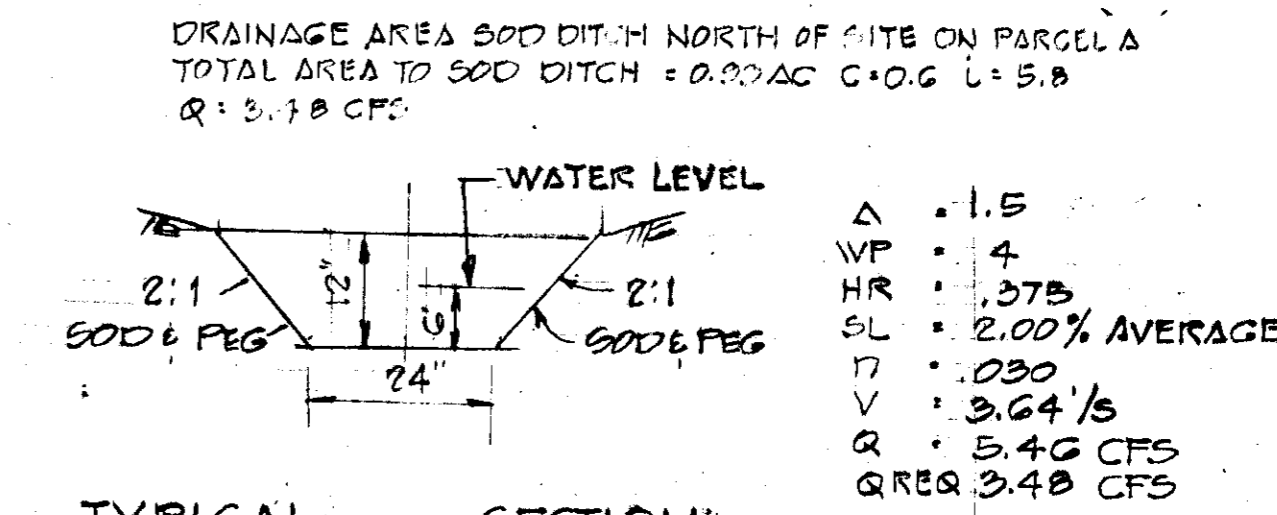
- CONSTRUCTION SEQUENCE
1. OBTAIN GRADING PERMIT
  2. INSTALL SOIL CONSERVATION MEASURES
  3. GRADE SECT. 1
  4. CONSTRUCT STORM DRAINS
  5. BOX INLETS CLOSED WITH FLYWOOD ON GRATES & V NOTCHES COVER FLYWOOD WITH STRAW BALES
  6. CONSTRUCT BUILDINGS SECT. 1
  7. CONSTRUCT PAVING
  8. REMOVE SOIL CONSERVATION MEASURES
- CONSTRUCTION SCHEDULE SECT. 1  
1. START - APRIL 1978  
FINISH - APRIL 1979

SITE ANALYSIS

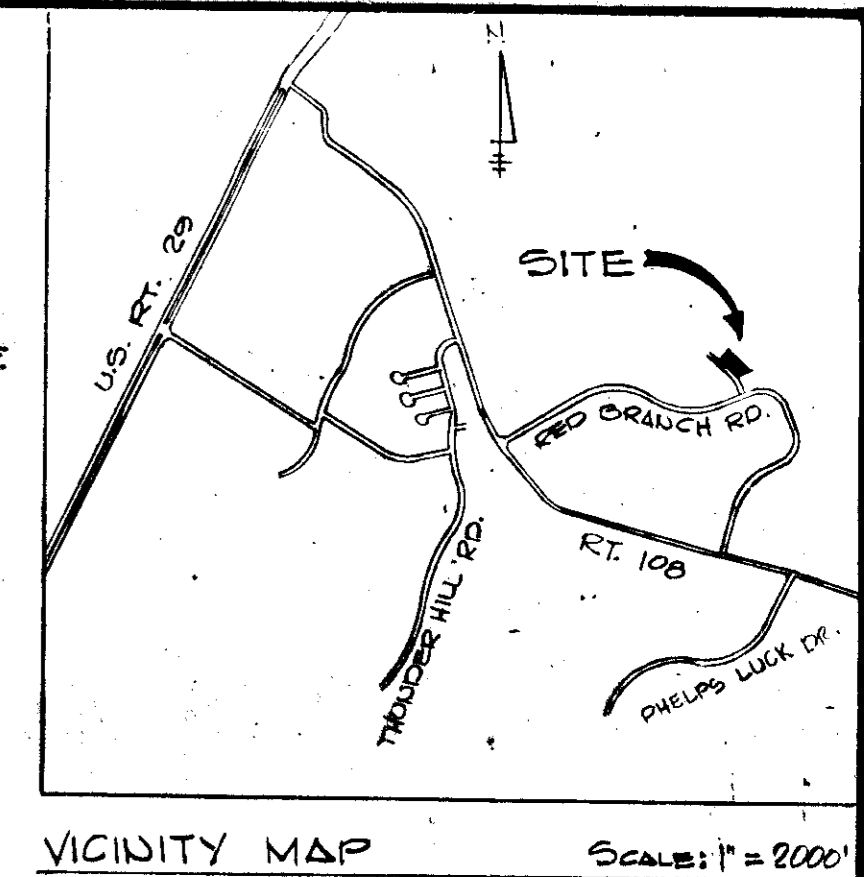
TOTAL AC. 9.15  
TOTAL AC. SECT. 1 = 5.06 AC.  
DISTURBED AC. SECT. 1 = 5.06 AC.  
PAVED AREA SECT. 1 = 4.6 AC.  
CUT SECT. 1 = 16,000 CU.YD.  
FILL SECT. 1 = 10,000 CU.YD.

TOTAL AC. SECT. 2 = 4.09 AC.  
DISTURBED AC. SECT. 2 = 4.09 AC.  
PAVED AREA SECT. 2 = 3.80 AC.  
CUT SECT. 2 = 5,000 CU.YD.  
FILL SECT. 2 = 10,000 CU.YD.

SITE WILL BE BALANCED



TYPICAL SECTION 50D DITCH  
NO SCALE



SEDIMENT TRAP #3  
2ND SECTION  
DRAINAGE AREA = 3.77 AC.  
DISTURBED AREA = 3.77  
VOL. REQUIRED = 250 CU.YD.  
VOL. AVAILABLE = 266  
SIZE OF TRAP = 60x40x3'

SEDIMENT TRAP NO. 1  
DRAINAGE AREA = 3.22 AC.  
DISTURBED AREA = 3.22 AC.  
VOL. REQUIRED = 215 CUFT  
VOL. AVAILABLE = 266 CUFT  
SIZE OF TRAP = 60x40x3'

ENGINEERS CERTIFICATE:  
I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A WORKABLE & PRACTICAL PLAN, BASED ON MY KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

*John L. Schneider* 4-5-78  
ENGINEER JOHN L. SCHNEIDER DATE: 4/5/78

DEVELOPERS CERTIFICATE:  
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL. WE AUTHORIZE PERIODIC ON SITE INSPECTION BY THE HO. CO. SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DIVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HO. CO. SOIL CONSERVATION DISTRICT.

*Sidney Silber* 4/17/78  
DEVELOPER SIDNEY SILBER DATE: 4/17/78

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

*C. Wayne Ray* 6-14-78  
U.S. SOIL CONSERVATION SERVICE DATE:

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HO. CO. SOIL DISTRICT.

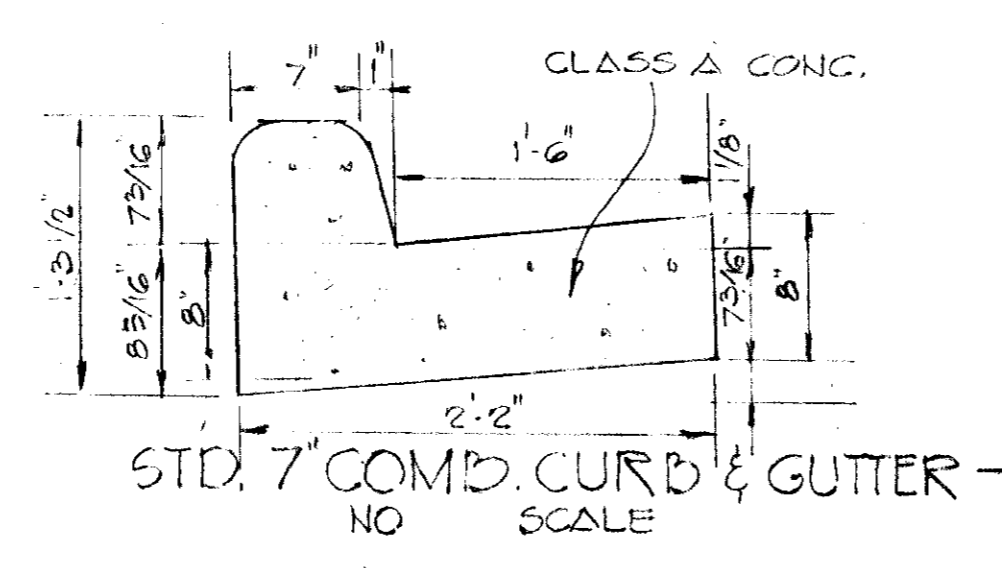
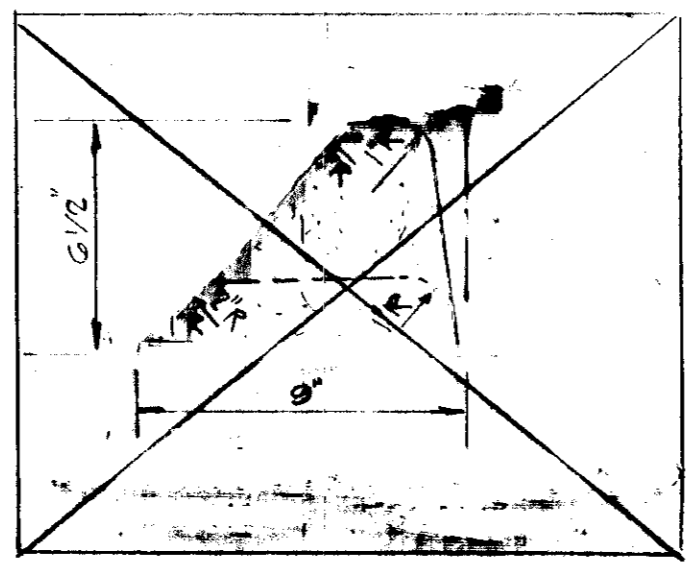
*Wes Eber* 6-14-78  
HO. CO. SOIL CONSERVATION DISTRICT DATE

PITUMINOUS CONCRETE SURFACE	1 1/2\"/>
PITUMINOUS CONCRETE BINDER	3\"/>
GRUSHER RUN BASE	6\"/>

CLEARING & GRADING ARTICLE C-1  
SUBGRADE ARTICLE C-2  
BASE COURSE ARTICLE C-23  
BINDER COURSE ARTICLE C-21 OR C-22  
SURFACE COURSE ARTICLE C-21

NOTE: BASE WILL BE PRIMED IN ACCORDANCE WITH SECTION C-20-2 AS PROVIDED IN THE HO. CO. ROAD CONSTRUCTION CODE & STD. SPEC. TACT. COAT IS REQUIRED IN ACCORDANCE WITH SECTION C-21-4 OF THE HO. CO. ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.

TYPICAL ON-SITE PAVING SECTION  
NO SCALE  
NOTE: ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE HO. CO. ROAD CONSTRUCTION CODE



SEDIMENT TRAP NO. 2  
DRAINAGE AREA = 2.10 AC.  
DISTURBED AREA = 2.10 AC.  
VOL. REQUIRED = 145 CU.YD.  
VOL. AVAILABLE = 177 CU.YD.  
SIZE OF TRAP = 60x40x2'

- GENERAL NOTES
1. TOTAL AREA OF SITE = 9.15 AC.
  2. OWNER RUMSEY ASSOCIATES COMMERCIAL & INDUSTRIAL REALTY CORP.
  3. FLAT REF. TAX MAP # 30
  4. FINAL DEVELOPMENT PLAN NO. FDP NO. 28-A EMPLOYMENT CENTER, INDUSTRIAL, RECORDED PD. 28 F 28-22
  5. SITE USE:  
OFFICE: 32,450 SQ. FT.  
WAREHOUSE: 97,350 SQ. FT. TOTAL 129,800 SQ. FT.
  6. SITE DENSITY:  
BUILDING COVERAGE: 32.50%  
PAVED AREA:  
PARKING: 1 REQUIRED  
OFFICE: 32,450 SQ. FT. : 65 SPACES  
WAREHOUSE: EMPLOYEES PER MAX. SHIFT: 50 : 25 SPAC.  
HANDICAPPED SPACES: 4 SPACES  
PARKING SPACES SHOWN:  
OFFICE:  
WAREHOUSE:  
HANDICAPPED:  
TOTAL SPACES SHOWN:  
ALL PARKING SPACES ARE 10'x20' EXCEPT HANDICAPPED SPACES WHICH ARE 12'x20'
  10. PUBLIC WATER & SEWER
  11. NO RETAIL SALES ON SITE

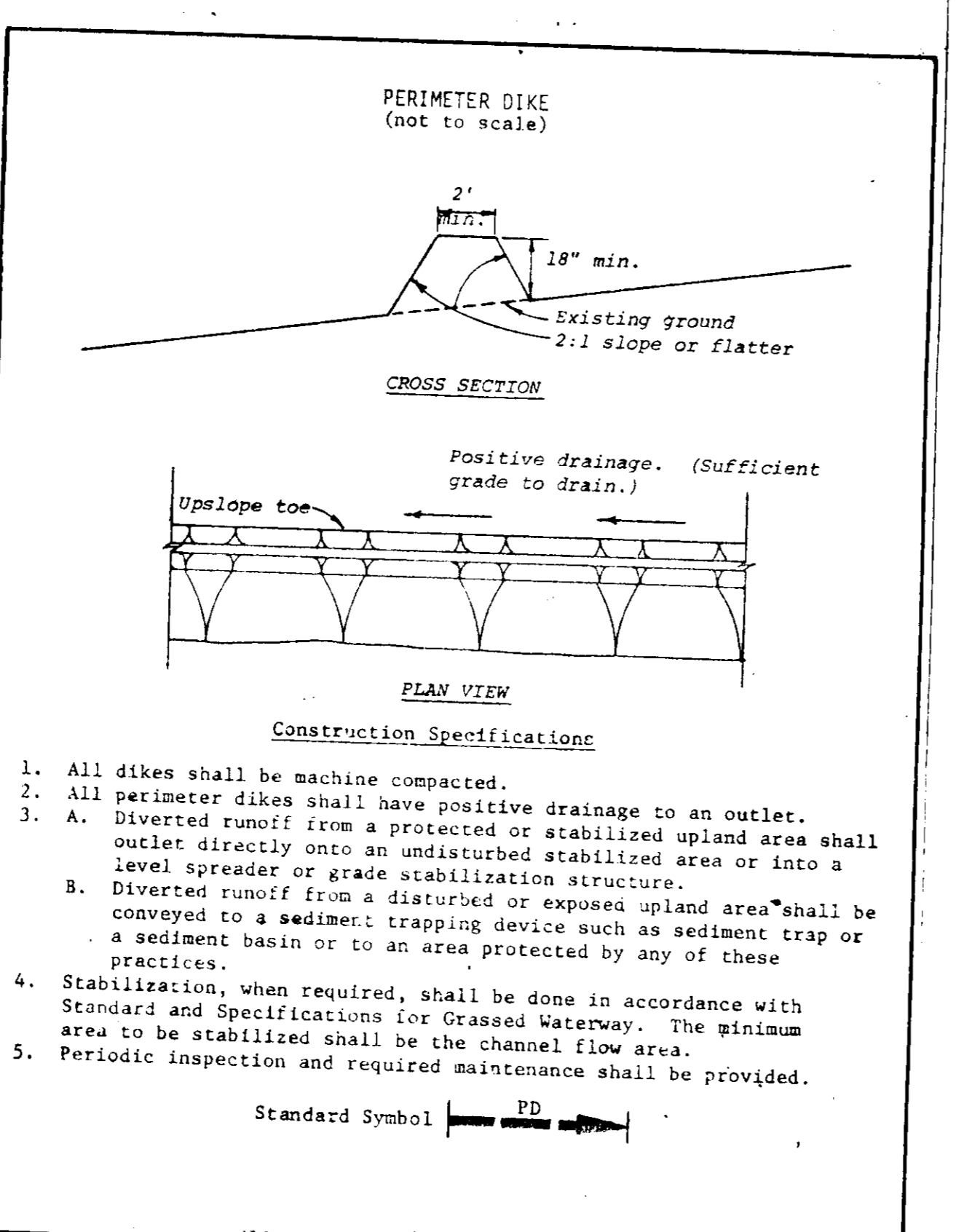
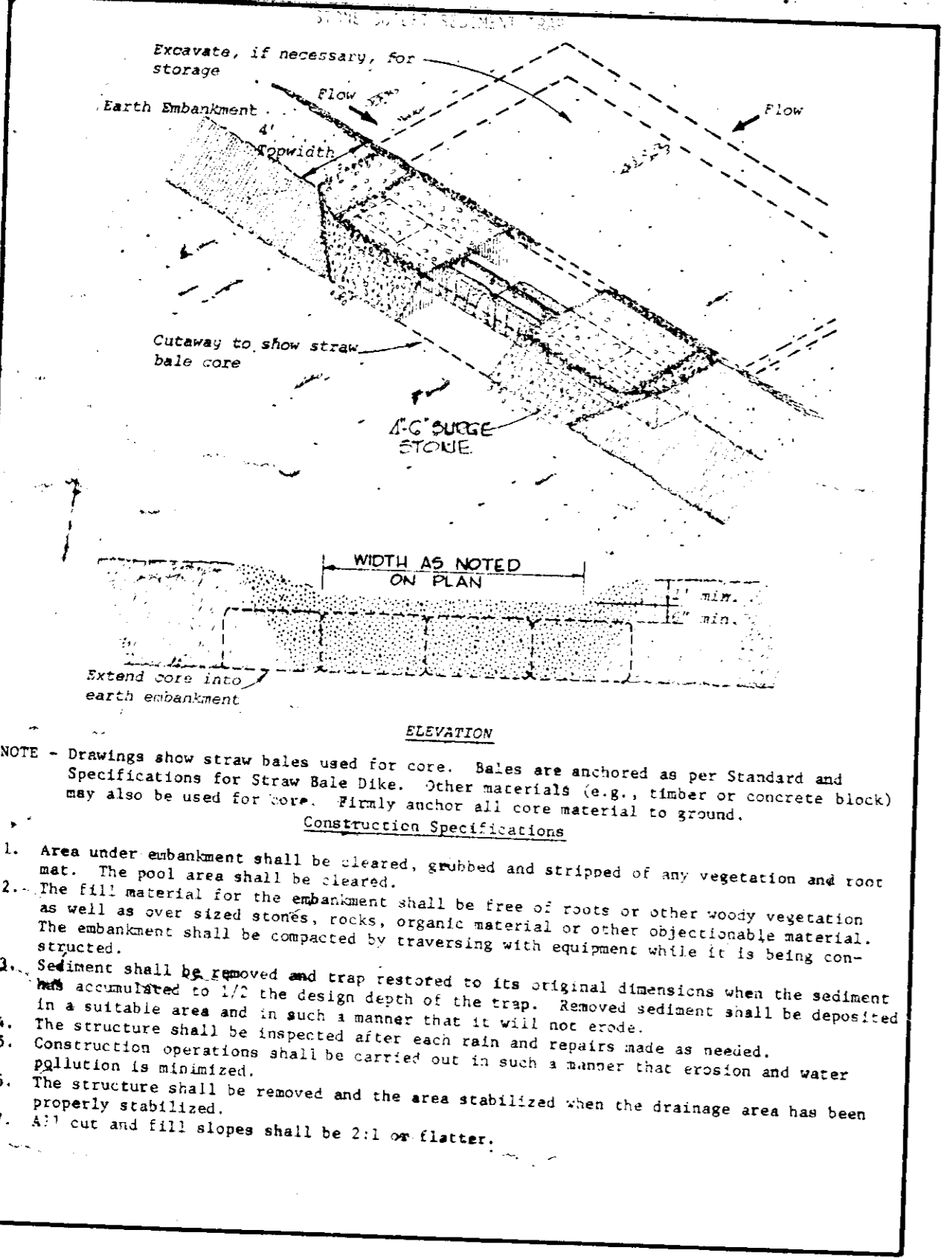
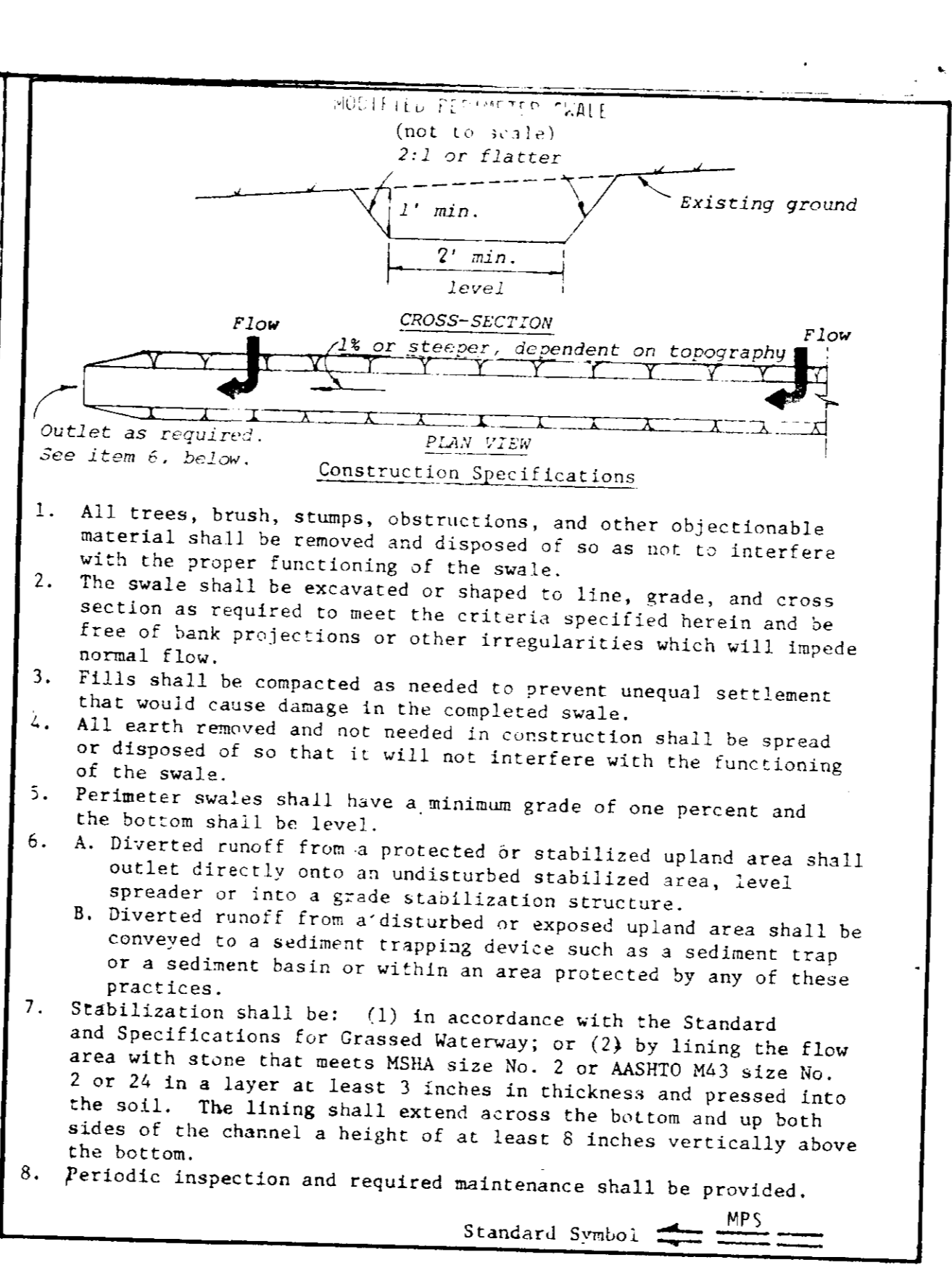
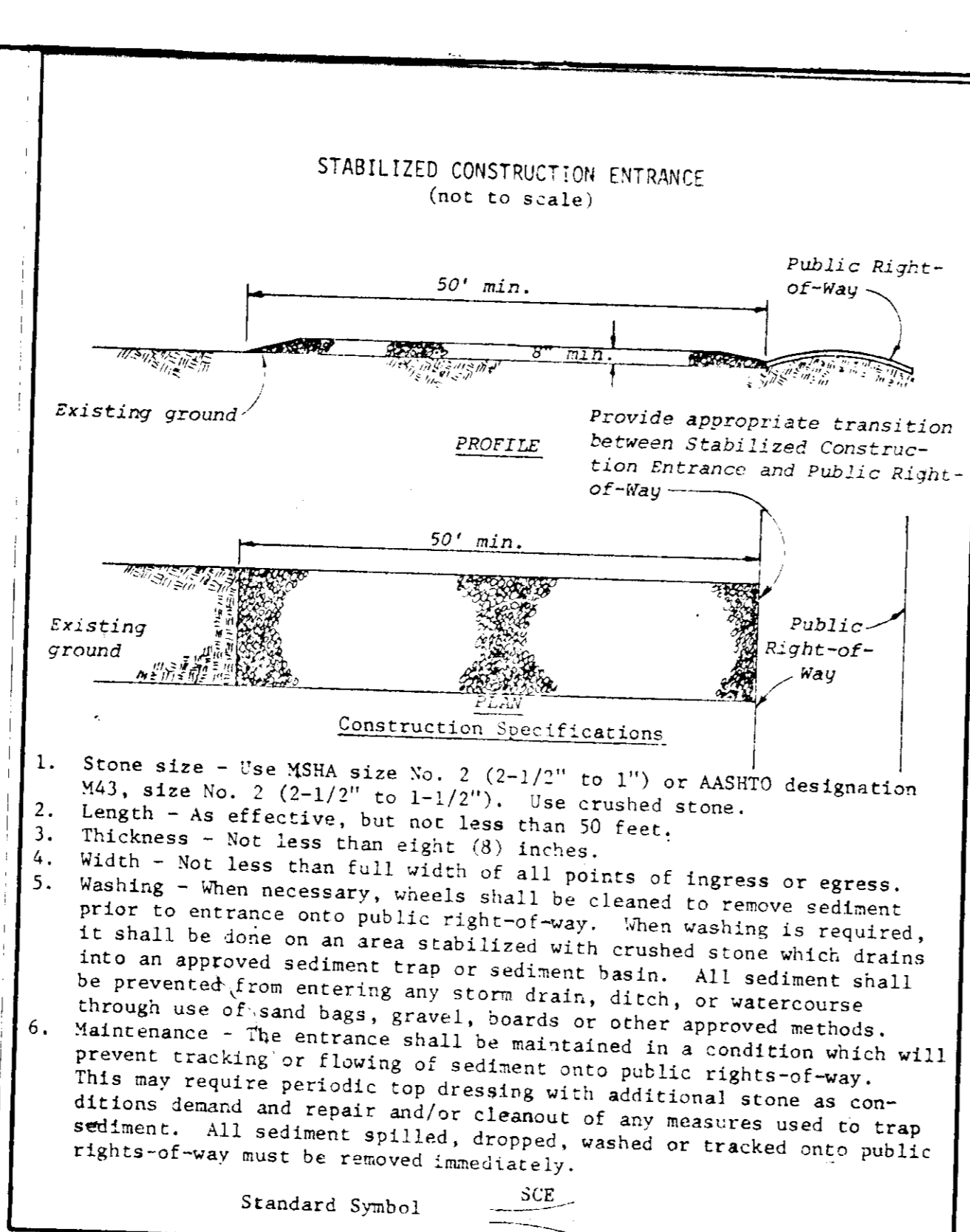
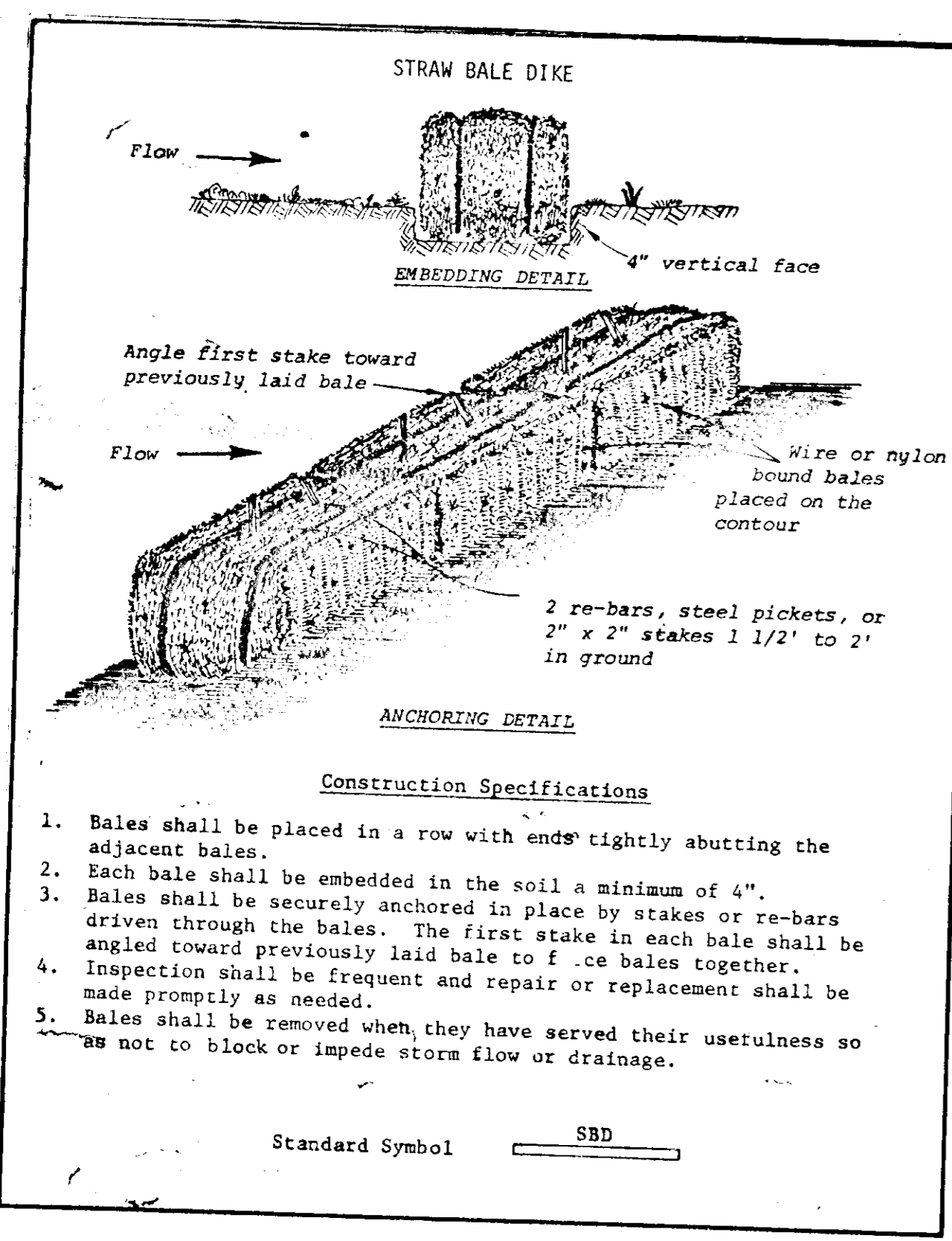
*John L. Schneider* 4/8/78  
SOIL CONSERVATION

OAKLAND RIDGE INDUSTRIAL PARK  
SECTION 2  
LOTS 90 AND 91  
RESUBDIVISION OF LOTS 24 & 26  
FLAT REF. 3991  
2ND ELECTION DISTRICT OF HOWARD COUNTY MD.  
SCALE: 1" = 50'  
DATE: 77

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE: 5-24-78

OWNER:  
RUMSEY ASSOCIATES  
COMMERCIAL & INDUSTRIAL  
REALTY CORPORATION  
402 EQUITABLE TOWNSHIP BLDG.  
TOWSON, MARYLAND 21284

ENGINEERS:  
RICHARD WAGNER  
LAND DEV. CONSULTANT  
SUITE # 104  
8794 LOTT BEND DRIVE  
BALTIMORE MD. 21284



**GENERAL NOTES**

- A MINIMUM 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD SOIL CONSERVATION OFFICE AND THE HOWARD COUNTY DEPT. OF PERMITS AND INSPECTION PRIOR TO THE START OF ANY CONSTRUCTION 992-2434
- ALL SEDIMENT CONTROL STRUCTURES WILL BE INSTALLED IN ACCORDANCE WITH "THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS" AS PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.
- SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
- ALL DISTURBED AREAS ARE TO BE DRESSED AND STABILIZED IN ACCORDANCE WITH THE SEEDING SCHEDULE AS SOON AS PROPER WEATHER CONDITIONS EXIST FOR THE ESTABLISHMENT OF A PERMANENT VEGETATIVE COVER.
- FERTILIZER AND LIME RATES MAY BE CHANGED THROUGH AUTHORIZATION BY THE HOWARD SOIL CONSERVATION DISTRICT IF SOIL TESTS DETERMINE A REDUCTION IN THE RATES SPECIFIED IS JUSTIFIED.
- SEDIMENT WILL BE REMOVED FROM TRAPS WHEN THE DEPTH REACHES THE CLEAN-OUT ELEVATION SHOWN ON THE PLAN.  
~~PERIMETER DIKES, MODIFIED PERIMETER DIKES AND STRAW BALE DIKES ARE TO BE MAINTAINED IN PLACE AND ARE TO BE MAINTAINED IN AN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD SOIL CONSERVATION DISTRICT OFFICE.~~
- MODIFIED PERIMETER DIKES AND PERIMETER DIKES MAY BE INTERCHANGED BY THE BUILDER IF THE DRAINAGE AREAS TO THE STONE OUTLET TRAPS OR STRAW BALE DIKES REMAIN UNCHANGED.
- STONE CONSTRUCTION ENTRANCES ARE REQUIRED AS SHOWN.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN AN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD SOIL CONSERVATION DISTRICT OFFICE.

**SEEDING NOTES**

- APPLY PULVERIZED DOLOMITIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE.
- APPLY 0-20-20 FERTILIZER AT THE RATE OF 400 LBS PER ACRE. NARROW OR DISC LIME AND 0-20-20 FERTILIZER INTO THE SOIL A MINIMUM OF 3" DRAG AND LEVEL WITH A YORK RAKE. AT THE TIME OF SEEDING APPLY 400 LBS OF 38-0-0 UREAPFORM FERTILIZER AND 500 LBS OF 10-20-20 OR EQUIVALENT FERTILIZER PER ACRE.
- SEED WITH A MIXTURE OF CERTIFIED "MERION" KENTUCKY BLUEGRASS @ 40 LBS PER ACRE; COMMON KENTUCKY BLUEGRASS @ 40 LBS PER ACRE; RED FESCUE, PENNLANN OR JAMESTOWN @ 20 LBS PER ACRE.
- MULCH WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE AND ANCHOR WITH A CUTBACK ASPHALT OR EMULSIFIED ASPHALT AT THE RATE OF 5 GAL. PER 1000 SQ. FT.

APPROVED FOR PUBLIC WATER AND PUBLIC SEWER HOWARD COUNTY HEALTH DEPARTMENT

*Joyce B. Brown*  
COUNTY HEALTH OFFICER

6-30-78  
DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

*Thomas L. Amick*  
PLANNING DIRECTOR

7-5-78  
DATE

*Thomas L. Amick*  
CHIEF DIVISION OF LAND DEVELOPMENT

6-30-78  
DATE

APPROVED FOR STORM DRAIN SYSTEMS AND ROADS HOWARD CO. DEPARTMENT OF PUBLIC WORKS.

*Richard E. Brudenberger*  
DIRECTOR

6-29-78  
DATE

*W.O. Silbert*  
CHIEF BUREAU OF ENGINEERING

6-29-78  
DATE

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

APPROVED: *Wes Eager*  
Howard S.C.D.  
6-14-78  
Date

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

*C. Wayne Ray*  
Signature  
U.S. Soil Conservation Service

6-14-78  
Date

CERTIFICATION BY THE ENGINEER

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

*John L. Schneider*  
4/13/78  
Date

JOHN L. SCHNEIDER PE. 7517

CERTIFICATION BY THE DEVELOPER

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN OF SILT AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS DEEMED NECESSARY DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT."

*Walter Silbert*  
4/11/78  
Date

OWNER-DEVELOPER

RON WAGNER  
LAND DEVELOPMENT CONSULTANT  
8734 Loch Bend Drive  
Towson, Maryland 21284

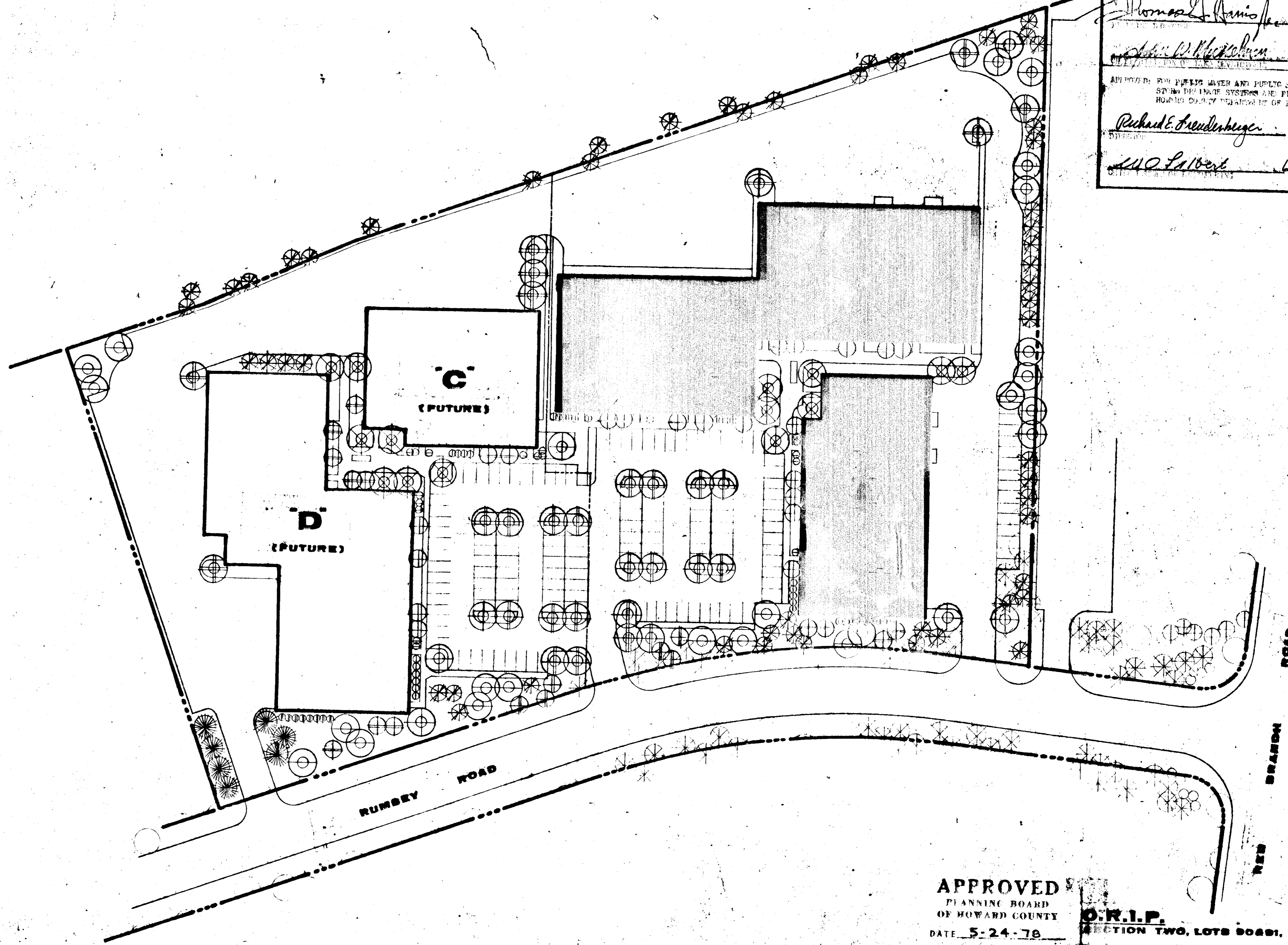
SOIL EROSION DETAILS  
OAKLAND RIDGE INDUSTRIAL PARK SEC. 2  
LOTS 20 & 21, ACQUISITION #1 OF LOTS 20 & 21  
2ND DISTRICT PLAT REF 3391 HO. CO. MD.  
SCALE: AS SHOWN 4/11/78

BRUNING 44 132 2656

**PLANT LIST**

KEY	PLANT NAME	SIZE	QUANT.		REMARKS
			1	2	
<b>SHADE TREES</b>					
⊕	ACER RUBRUM AMERICAN RED MAPLE	2 1/2-3' CAL. 12-14' HT.	7	2	B&B FULL HEADS
⊕	FRAXINUS P. 'LANCLOLATA' SEEDLESS GREEN ASH	2 1/2-3' CAL. 12-14' HT.	4	5	B&B FULL HEADS
⊕	GLEDITSIA T. 'HERMIA' THORNLESS/PODLAS HONEYLOCUST	2 1/2-3' CAL. 12-14' HT.	7	7	B&B FULL HEADS
⊕	QUERCUS PALMYRIS PIN OAK	2 1/2-3' CAL. 12-14' HT.	10	4	B&B FULL HEADS
⊕	TILIA CORDATA EUROPEAN LITTLE LEAF LINDEN	2 1/2-3' CAL. 12-14' HT.	11	10	B&B FULL HEADS
<b>FLOWERING TREES</b>					
⊕	MALUS 'RADIANT' RED FLOWERING CRABAPPLE	2-2 1/2' CAL. 8-10' HT.	10	6	B&B FULL HEADS
⊕	PRUNUS S. 'KAWAZAN' DOUBLE PINK FLOWERING CHERRY	2-2 1/2' CAL. 8-10' HT.	9	8	B&B FULL HEADS
⊕	PYRUS L. 'BRADFORD' DOUBLE WHITE FLOWERING PEAR	2-2 1/2' CAL. 8-10' HT.	3	3	B&B FULL HEADS
<b>EVERGREEN TREES</b>					
⊗	PINUS HINZA AUSTRIAN PINE	3-3 1/2' CAL. 8-10' HT.	0	7	B&B HEAVY HEADS
⊗	PINUS STROBUS EASTERN WHITE PINE	2-2 1/2' CAL. 6-8' HT.	34	16	B&B FULL HEADS
<b>SHRUBS</b>					
⊕	EUCYTHUS A. 'COMPACTUS' DWARF VIBRANT EUCYTHUS	24-30" SPD. 24-30" HT.	8	8	B&B FULL HEADS
⊕	EUCYTHUS P. 'GIBBOLDIANA' EVERGREEN EUCYTHUS	24-30" SPD. 24-30" HT.	15	10	B&B FULL HEADS
⊕	TAXUS S. 'JAPANE' DWARF JAPANESE YEW	24-30" SPD. 24-30" HT.	7	12	B&B FULL HEADS

NOTE: THE LOCATION AND SELECTION OF ALL PROPOSED PLANT MATERIAL IS TO BE APPROVED IN THE FIELD BY THE LANDSCAPE CONTRACTOR. ALL PROPOSED PLANT MATERIAL IS TO BE GUARANTEED BY THE LANDSCAPE CONTRACTOR FOR ONE (1) FULL GROWING SEASON AFTER THE LAST PLANT HAS BEEN INSTALLED AND APPROVED BY THE OWNER. ALL PROPOSED PLANT MATERIAL AND ALL PLANTING METHODS ARE TO BE IN COMPLIANCE WITH THE PLANTING STANDARDS. ALL PROPOSED PLANT MATERIAL IS TO BE NURSERY GROWN IN ACCORDANCE WITH THE "U.S.A. STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. THE LANDSCAPE CONTRACTOR AND/OR THE OWNER IS TO VERIFY THE CORRECT LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO PROCEEDING WITH THE INSTALLATION OF ANY OF THE PROPOSED PLANT MATERIAL. CALL "M&B UTILITIES" COLLECT AT 1-559-0100.



APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, PUBLIC UTILITIES SYSTEMS AND PUBLIC WORKS  
 APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, PUBLIC UTILITIES SYSTEMS AND PUBLIC WORKS  
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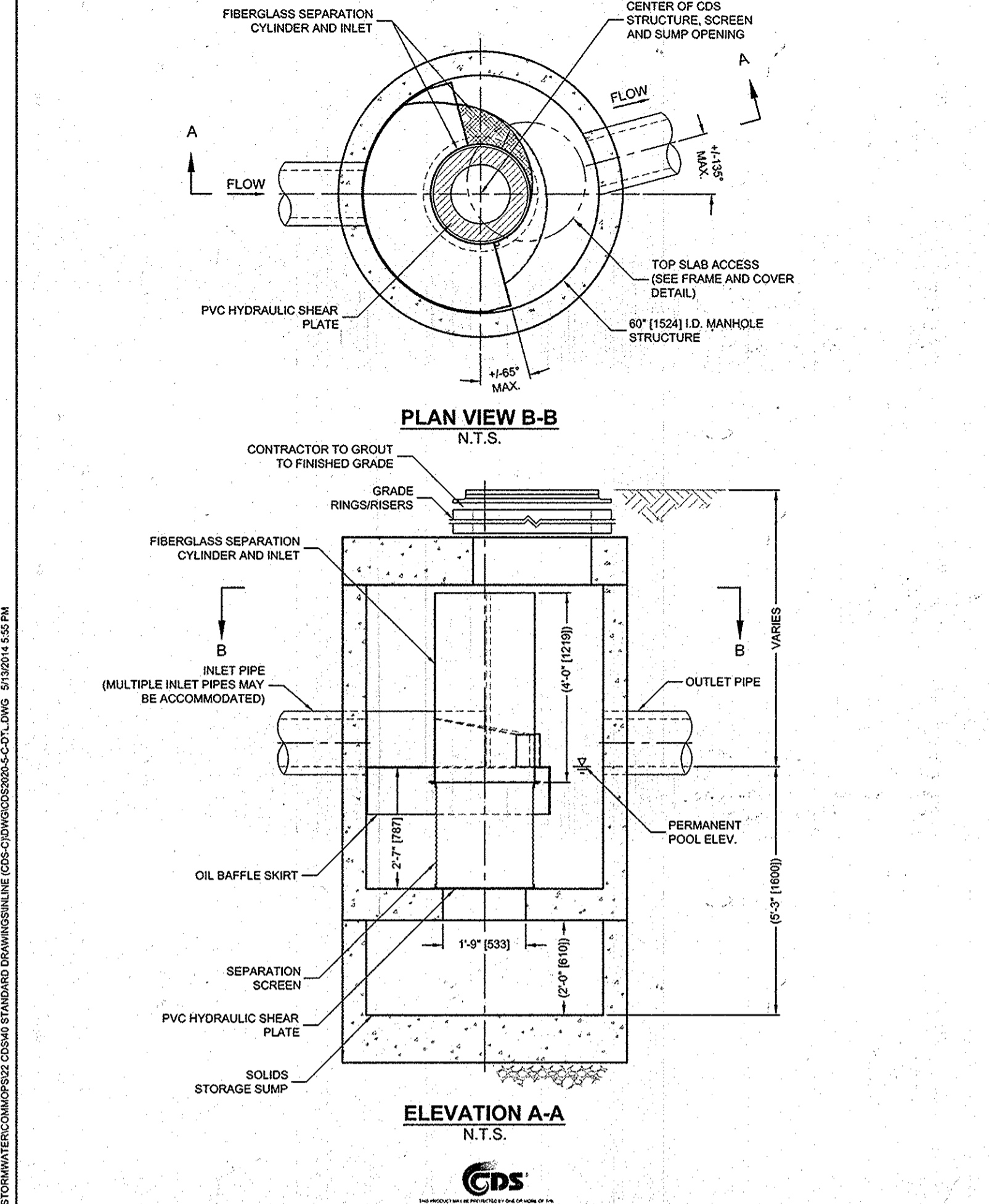
APPROVED  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE 5-24-78

O.R.I.P.  
 SECTION TWO, LOTS 80&81, 0.181 ACRES

M.C. ANACKER & ASSOCIATES, INC.  
 Landscape Architects  
 Planners  
 P.O. Box 57, Columbia, Maryland, 21045  
 PROJECT NUMBER 78-038

NEU-VALLEY NURSERY  
 ELK RIDGE, MD. 21227 TEL. 798-4198

LANDSCAPE DEVELOPMENT PLAN  
 6 OF 6



**CDS2020-5-C DESIGN NOTES**

CDS2020-5-C RATED TREATMENT CAPACITY IS 1.1 CFS [31.2 L/S], OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 14.0 CFS [396 L/S]. IF THE SITE CONDITIONS EXCEED 14.0 CFS [396 L/S], AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS2020-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

**CONFIGURATION DESCRIPTION**

GRATED INLET ONLY (NO INLET PIPE)

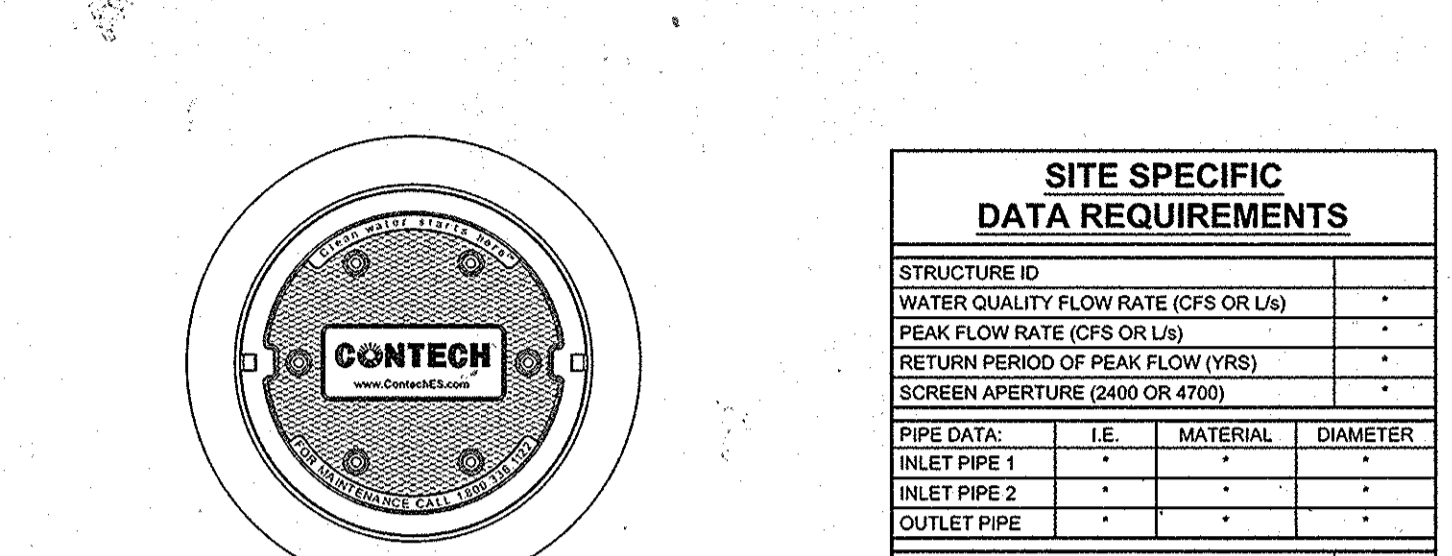
GRATED INLET WITH INLET PIPE OR PIPES

CURB INLET ONLY (NO INLET PIPE)

CURB INLET WITH INLET PIPE OR PIPES

SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)

SEDIMENT WEIR FOR NUDEP / NJCAT CONFORMING UNITS



**GENERAL NOTES**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH (1) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.contechES.com](http://www.contechES.com)
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 309) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

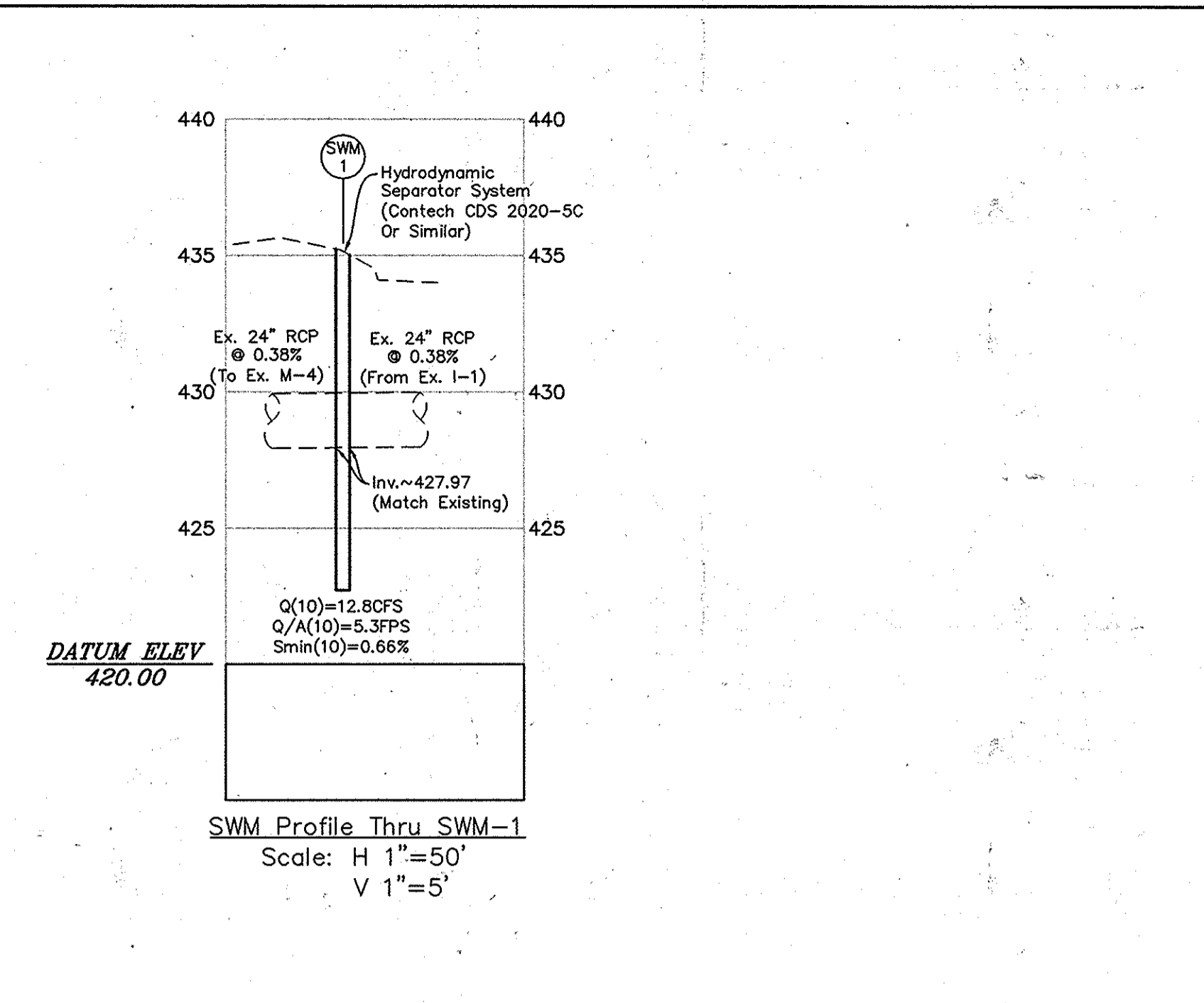
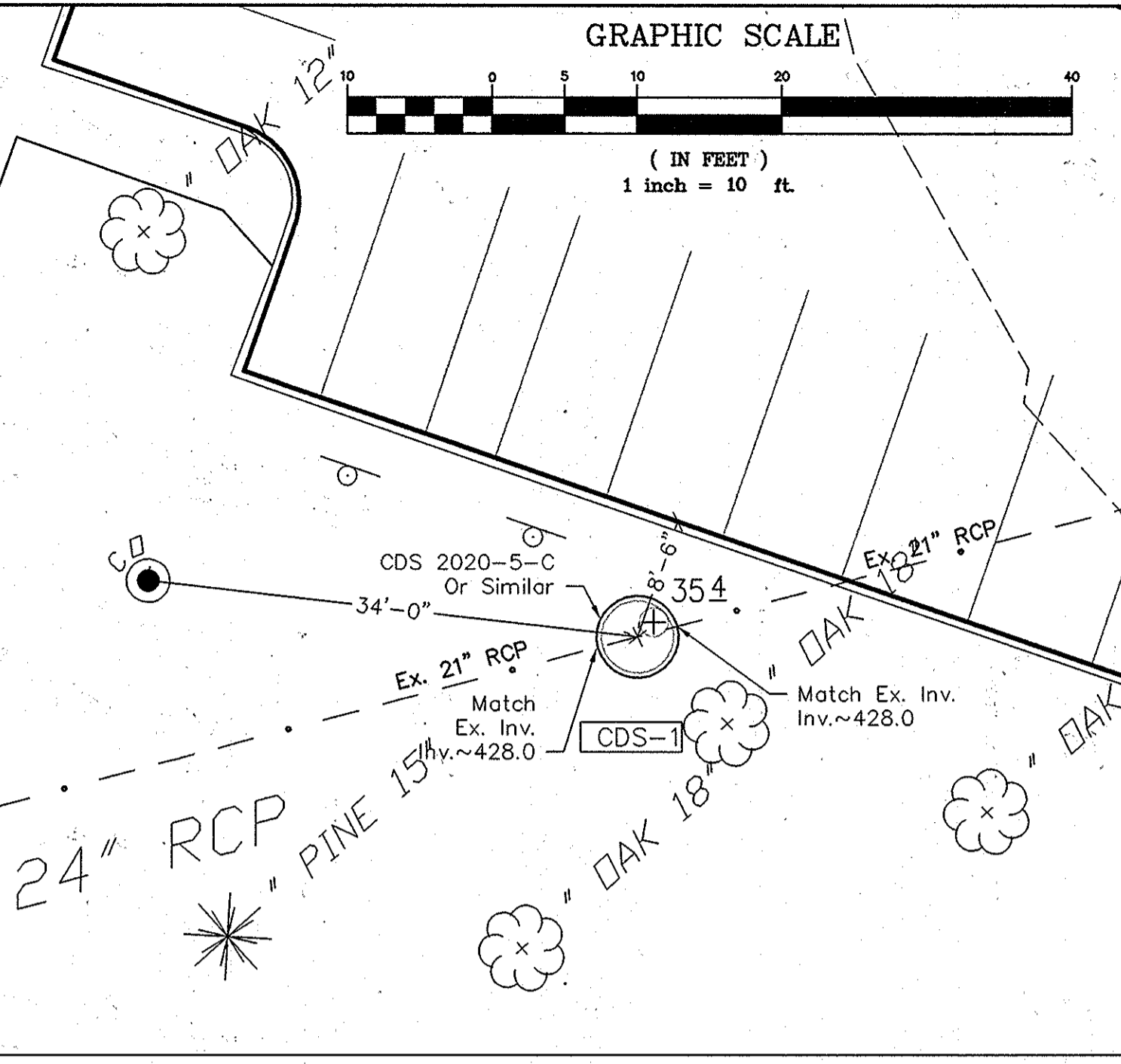
**INSTALLATION NOTES**

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUDED.

**CONTECH ENGINEERED SOLUTIONS LLC**

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45389  
 800-338-1122 513-645-7000 513-645-7993 FAX

CDS2020-5-C  
 INLINE CDS  
 STANDARD DETAIL **CDS 1**



- OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY MAINTAINED CONTECH CDS WATER QUALITY DEVICES**
- The Contech CDS water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Contech CDS unit twice a year at a minimum, utilizing the Contech CDS Inspection & Maintenance Log. Inspections shall be done by measuring from the water surface elevation to the top of the sediment pile in the isolated sump. If the measurement is less than 3.5' for CDS-1 or less than 4.0' for CDS-2, maintenance is required and the system must be cleaned.
  - The Contech CDS water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agencies.
  - The maintenance of the Contech CDS unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. The area outside of the screen shall also be cleaned out if pollutant build-up exists in this area. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
  - The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found the owner shall have them removed. Structural parts of the Contech CDS unit shall be repaired as needed.
  - The owner shall retain and make the Contech CDS Inspection & Maintenance Log available to the Howard County officials upon their request.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 6-2-16

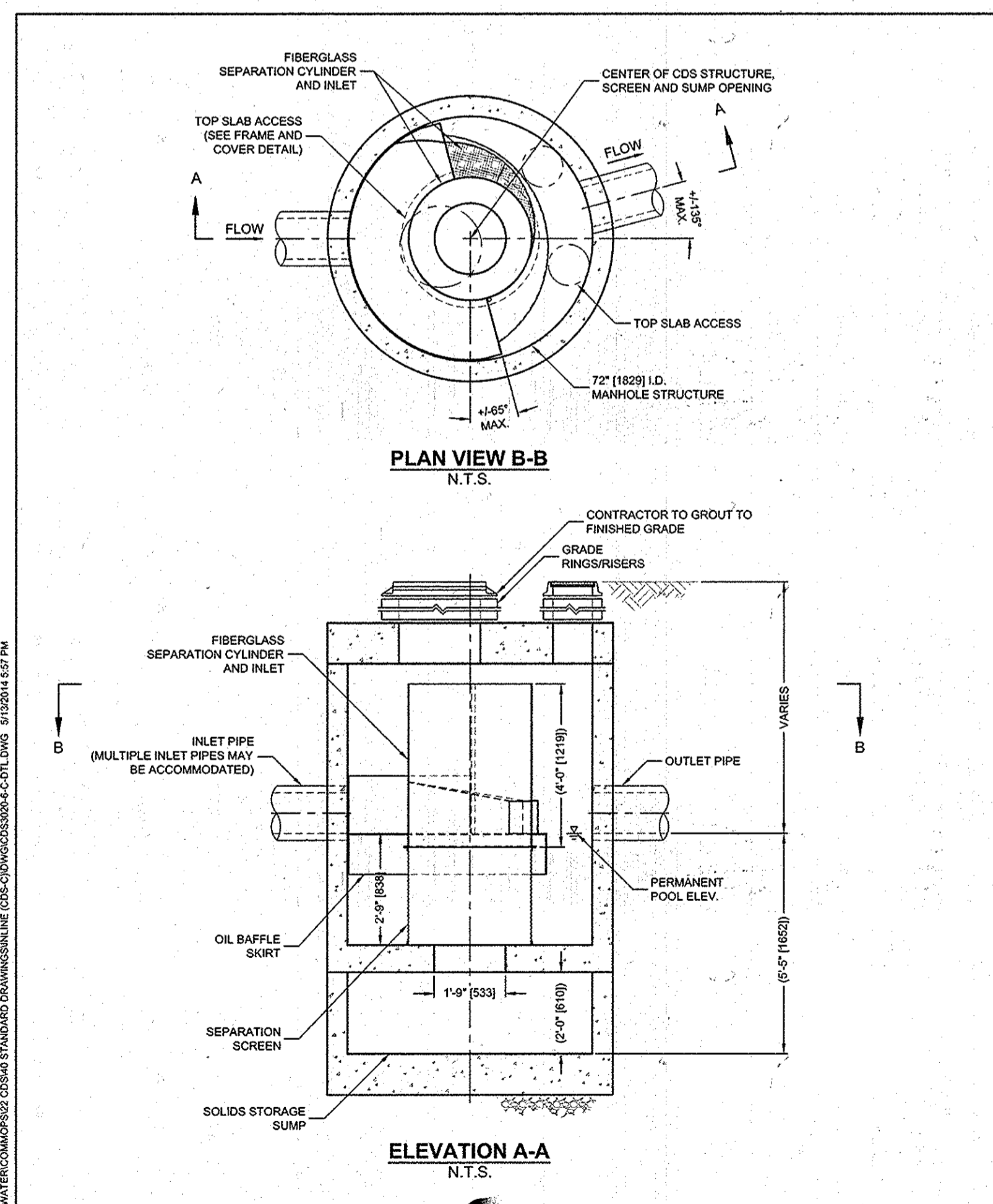
Chief, Development Engineering Division Date

*[Signature]* 6-2-16

Chief, Division of Land Development Date

*[Signature]* 6-2-16

Director Date



**CDS3020-6-C DESIGN NOTES**

CDS3020-6-C RATED TREATMENT CAPACITY IS 2.0 CFS [56.6 L/S], OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 20.0 CFS [566 L/S]. IF THE SITE CONDITIONS EXCEED 20.0 CFS [566 L/S], AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS3020-6-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

**CONFIGURATION DESCRIPTION**

GRATED INLET ONLY (NO INLET PIPE)

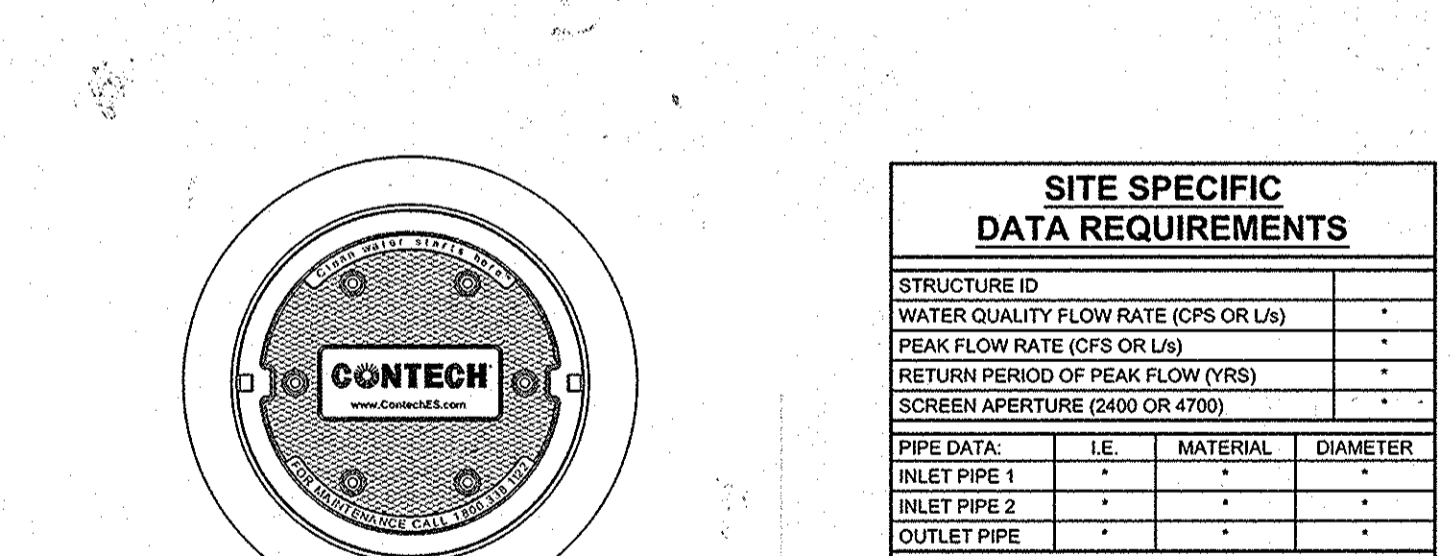
GRATED INLET WITH INLET PIPE OR PIPES

CURB INLET ONLY (NO INLET PIPE)

CURB INLET WITH INLET PIPE OR PIPES

SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)

SEDIMENT WEIR FOR NUDEP / NJCAT CONFORMING UNITS



**GENERAL NOTES**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH (1) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.contechES.com](http://www.contechES.com)
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 309) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

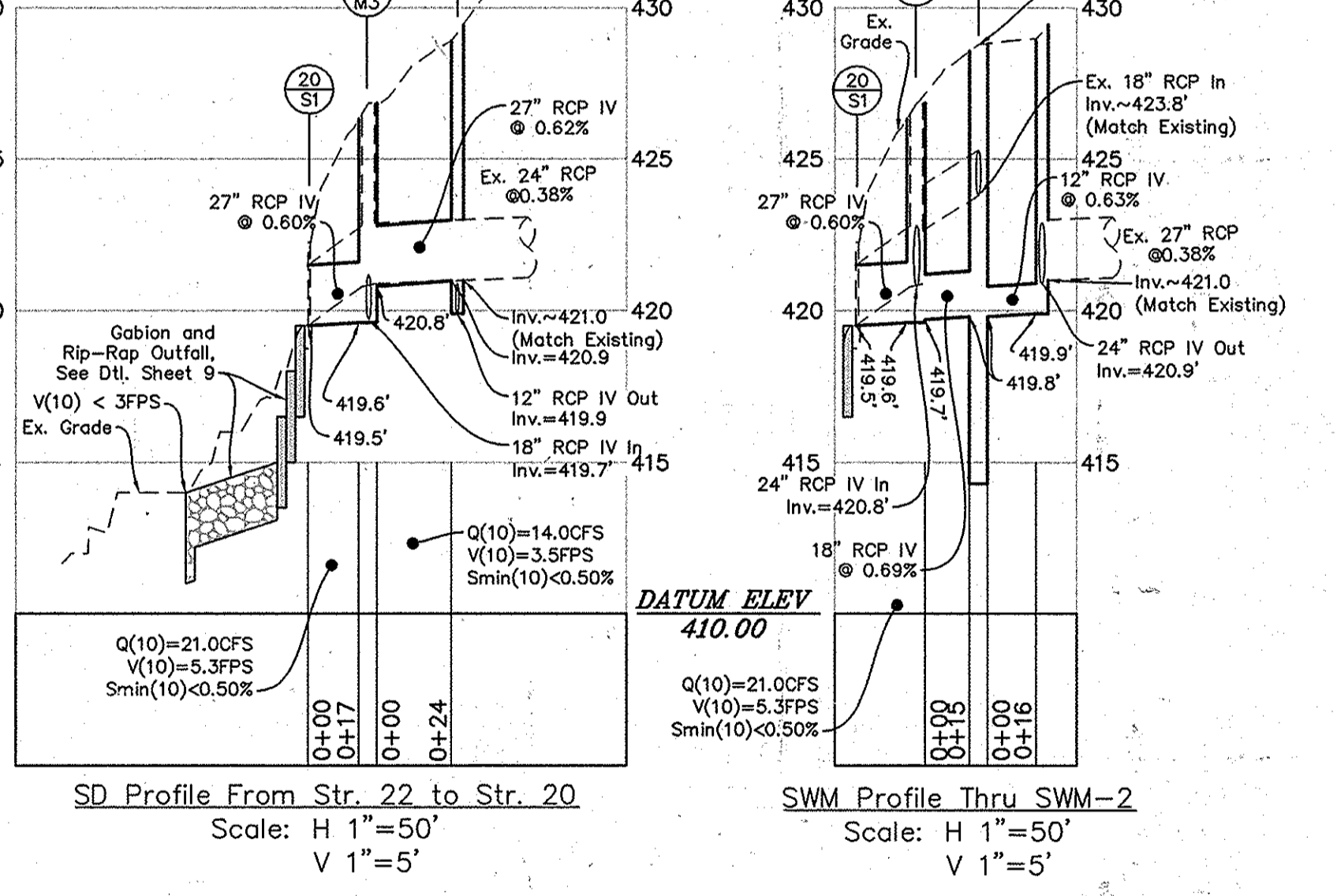
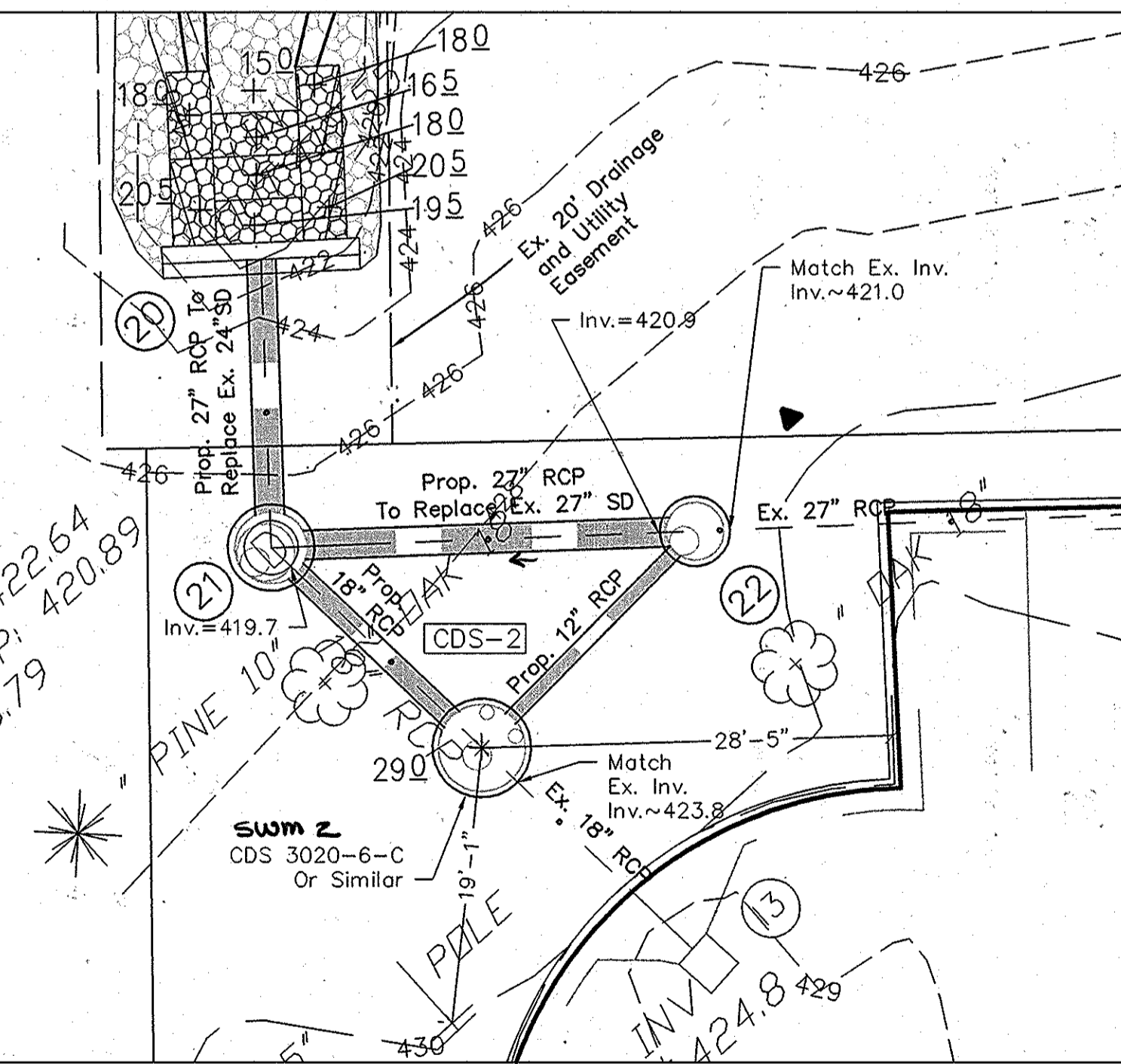
**INSTALLATION NOTES**

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUDED.

**CONTECH ENGINEERED SOLUTIONS LLC**

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45389  
 800-338-1122 513-645-7000 513-645-7993 FAX

CDS3020-6-C  
 INLINE CDS  
 STANDARD DETAIL **CDS 2**



**BASE BID SWM 2**

GRAPHIC SCALE

( IN FEET )  
 1 inch = 10 ft.

NO.	DATE	DESCRIPTION	BY

**OWNER:**

Edison Rumsey LLC  
 MFS Rumsey LLC Et Al  
 7200 Wisconsin Ave, Suite 1100  
 Bethesda, MD 20814  
 Phone: (301) 915-9463

**STORMWATER MANAGMENT RED-LINE**

LOTS 105 & 106, SECTION 2, Parcel 330

**OAKLAND RIDGE INDUSTRIAL PARK**

PLAT REF. 6066

2ND ELECTION DISTRICT - HOWARD COUNTY - MARYLAND

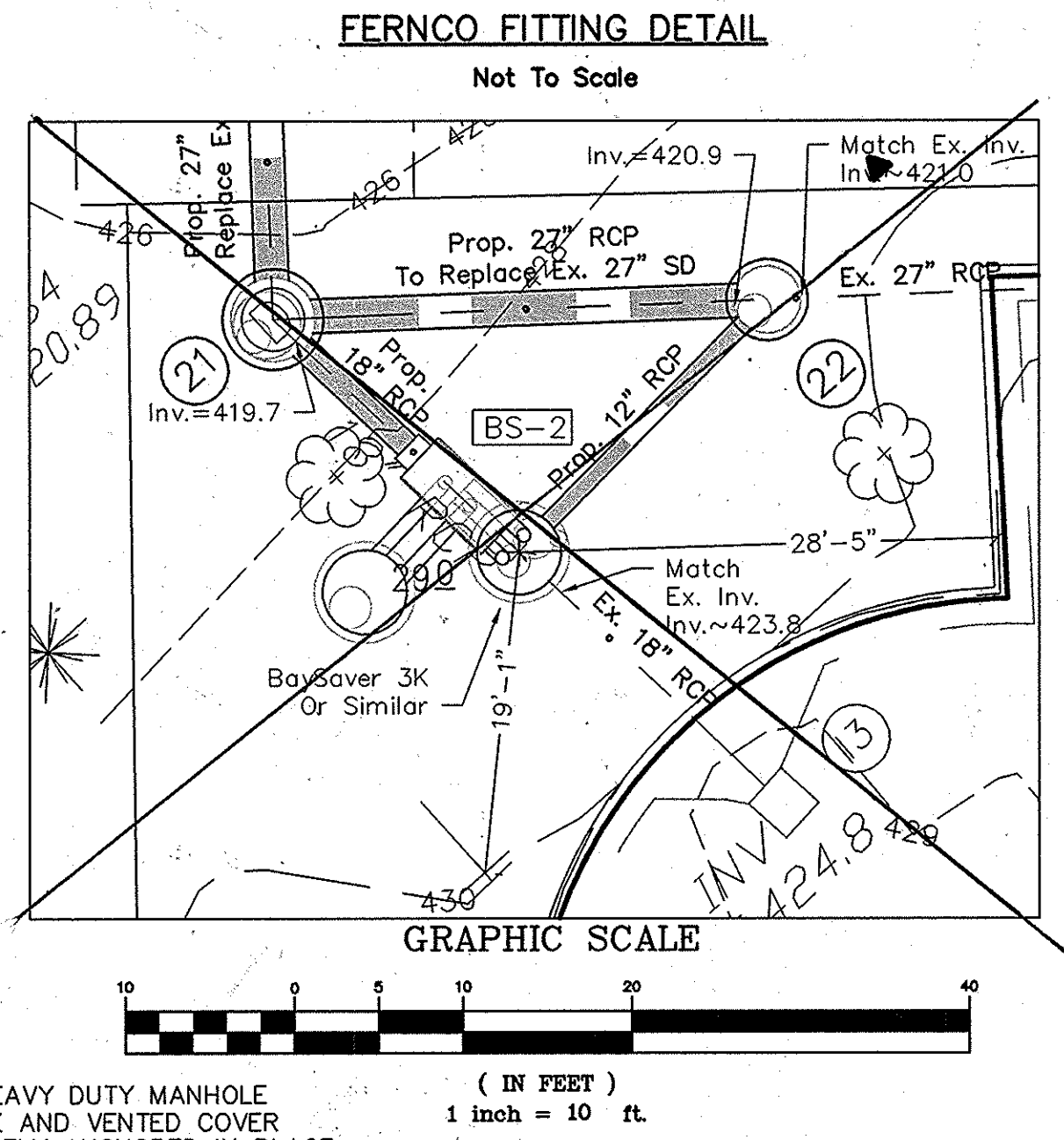
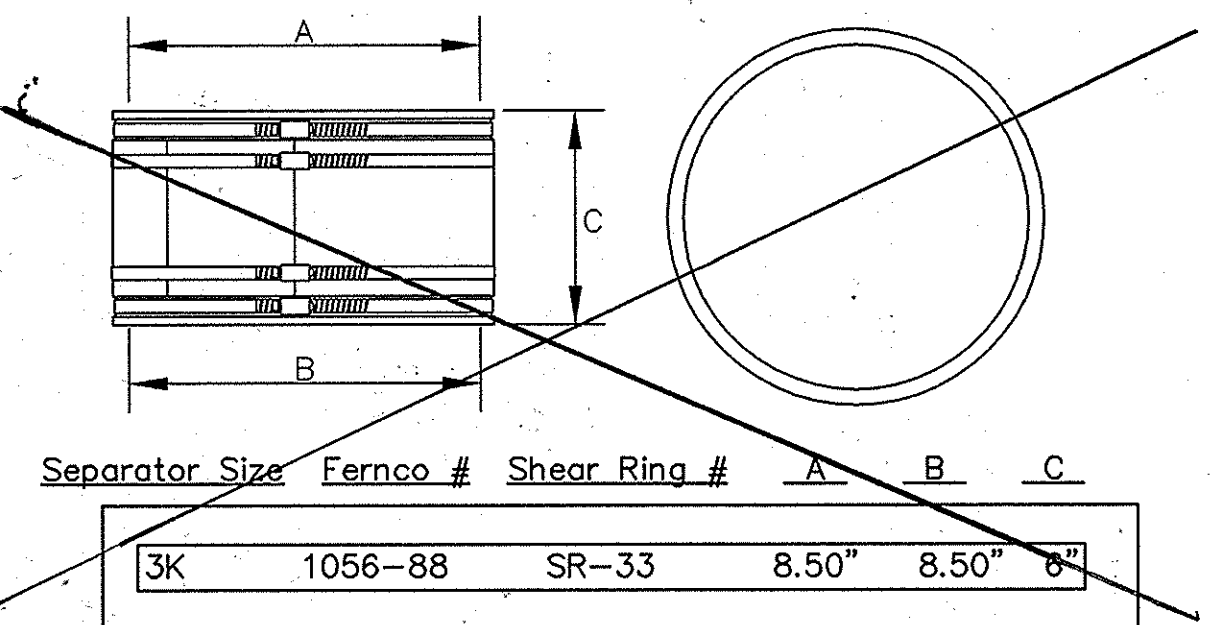
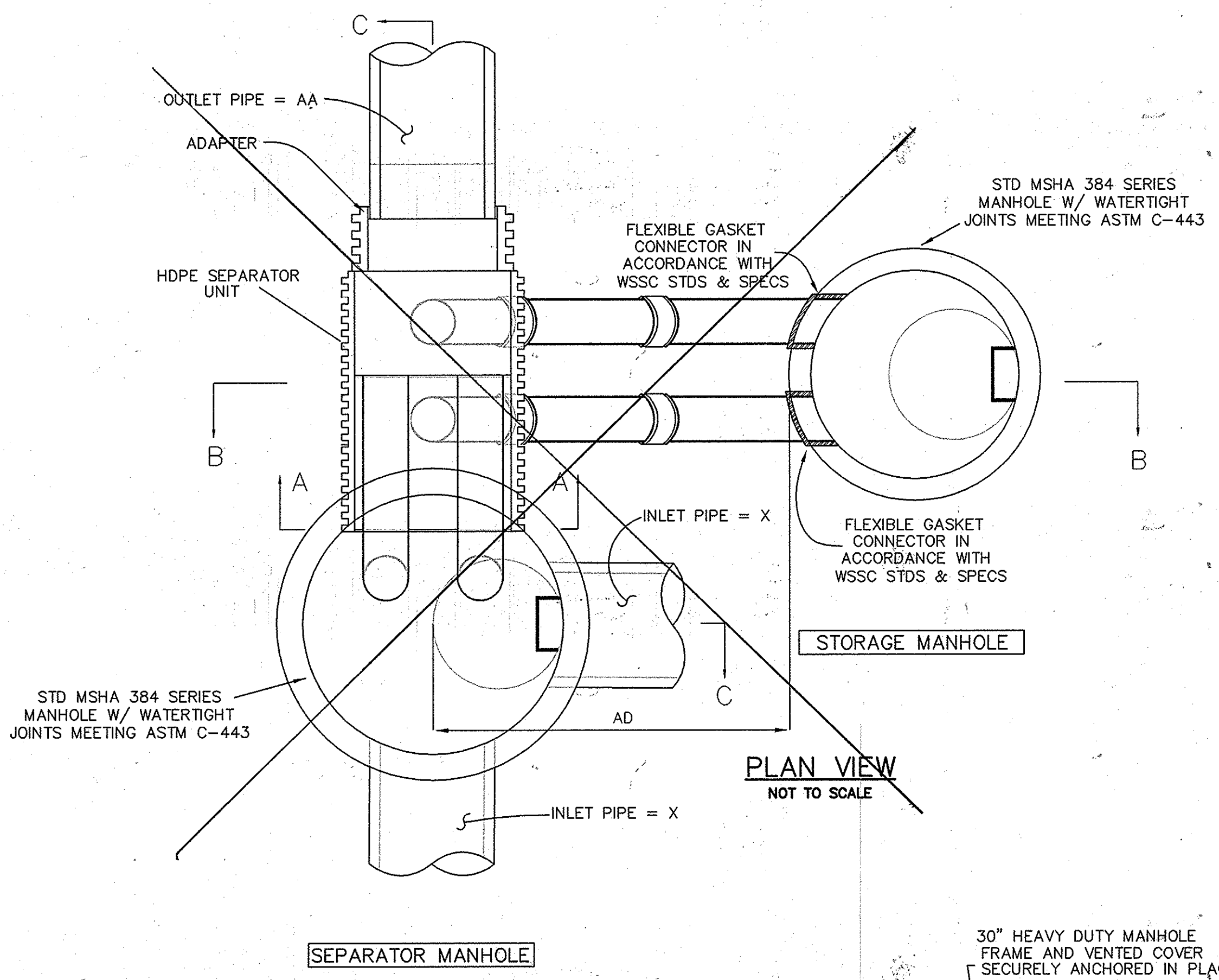
**MHG** Macris, Hendricks & Glascock, P.A.  
 Engineers • Planners  
 Landscape Architects • Surveyors

9220 Wightman Road, Suite 120  
 Montgomery Village, Maryland  
 20886-1279

Phone 301.670.0840  
 Fax 301.948.0693  
 www.mhga.com

Proj. Mgr.	Designer
Lgr.	PCW
Date	Scale
5/18/16	As Shown
Project No.	Sheet
15.146.21	7 of 9

SDP-78-076c

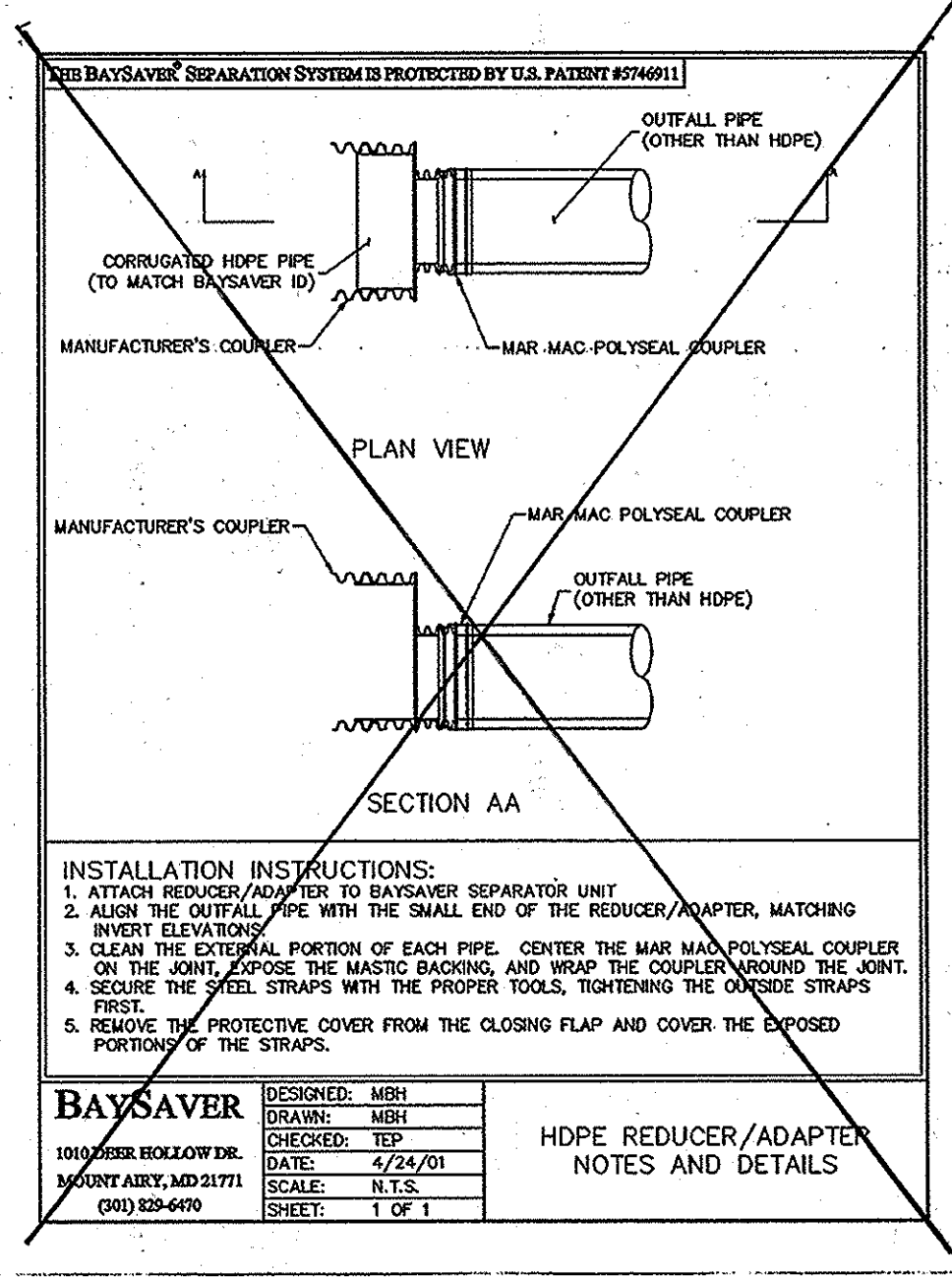


**CONSTRUCTION NOTES FOR WATER QUALITY STRUCTURES**

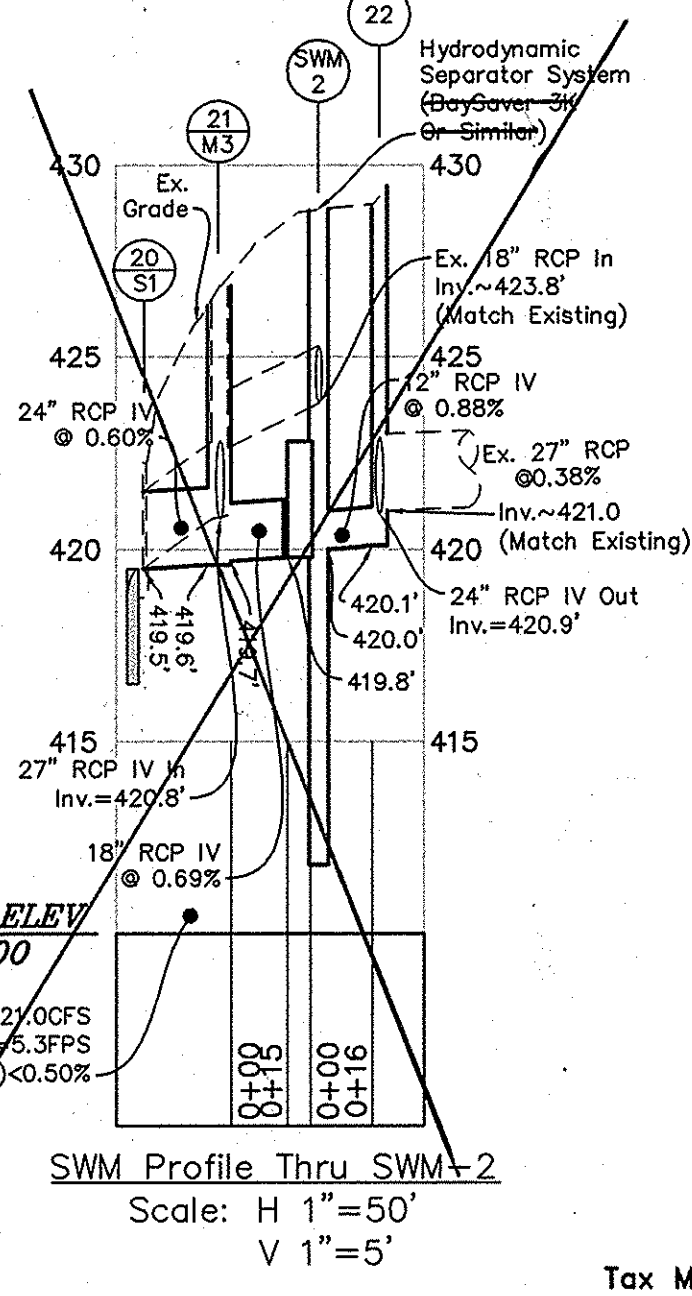
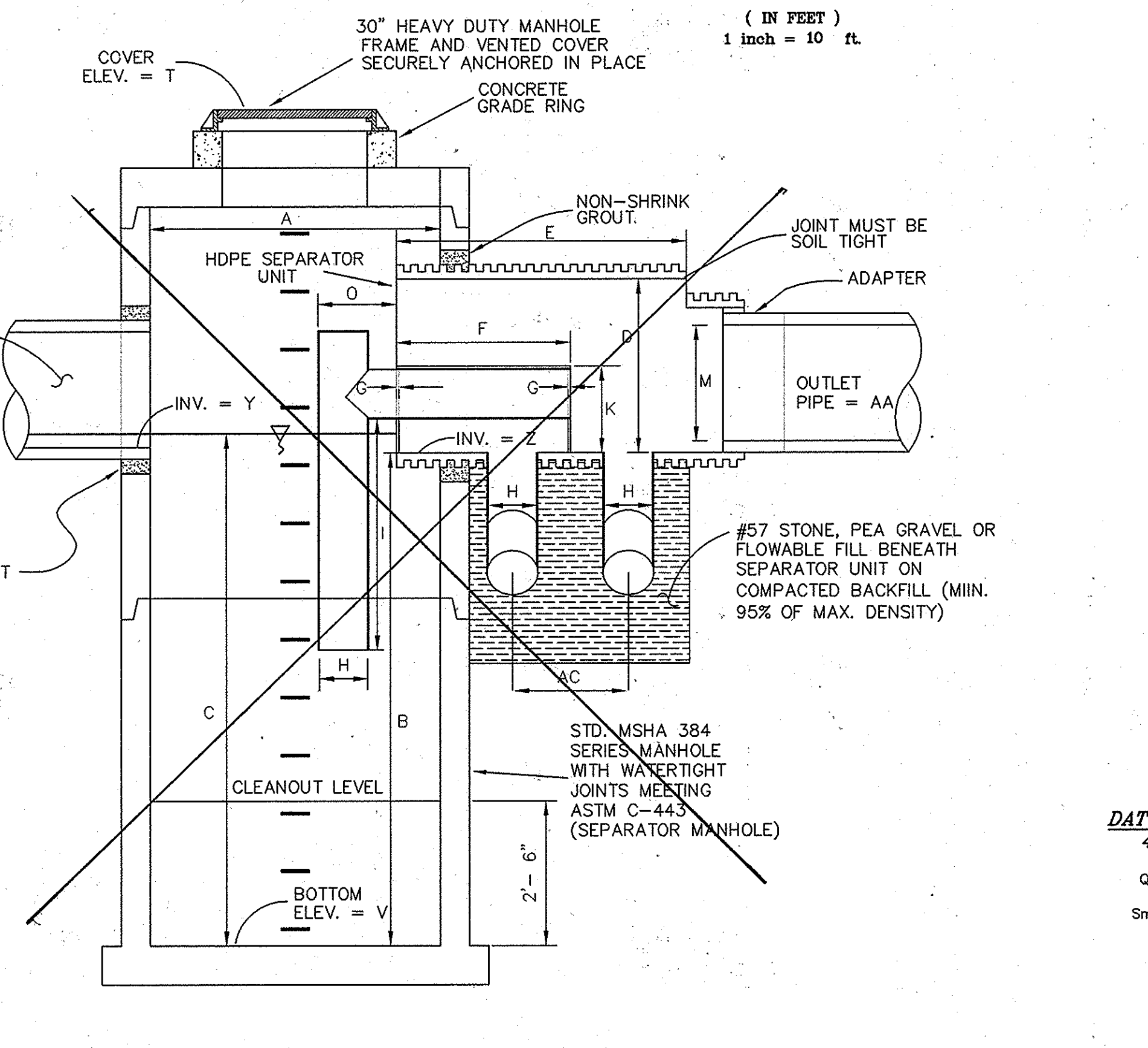
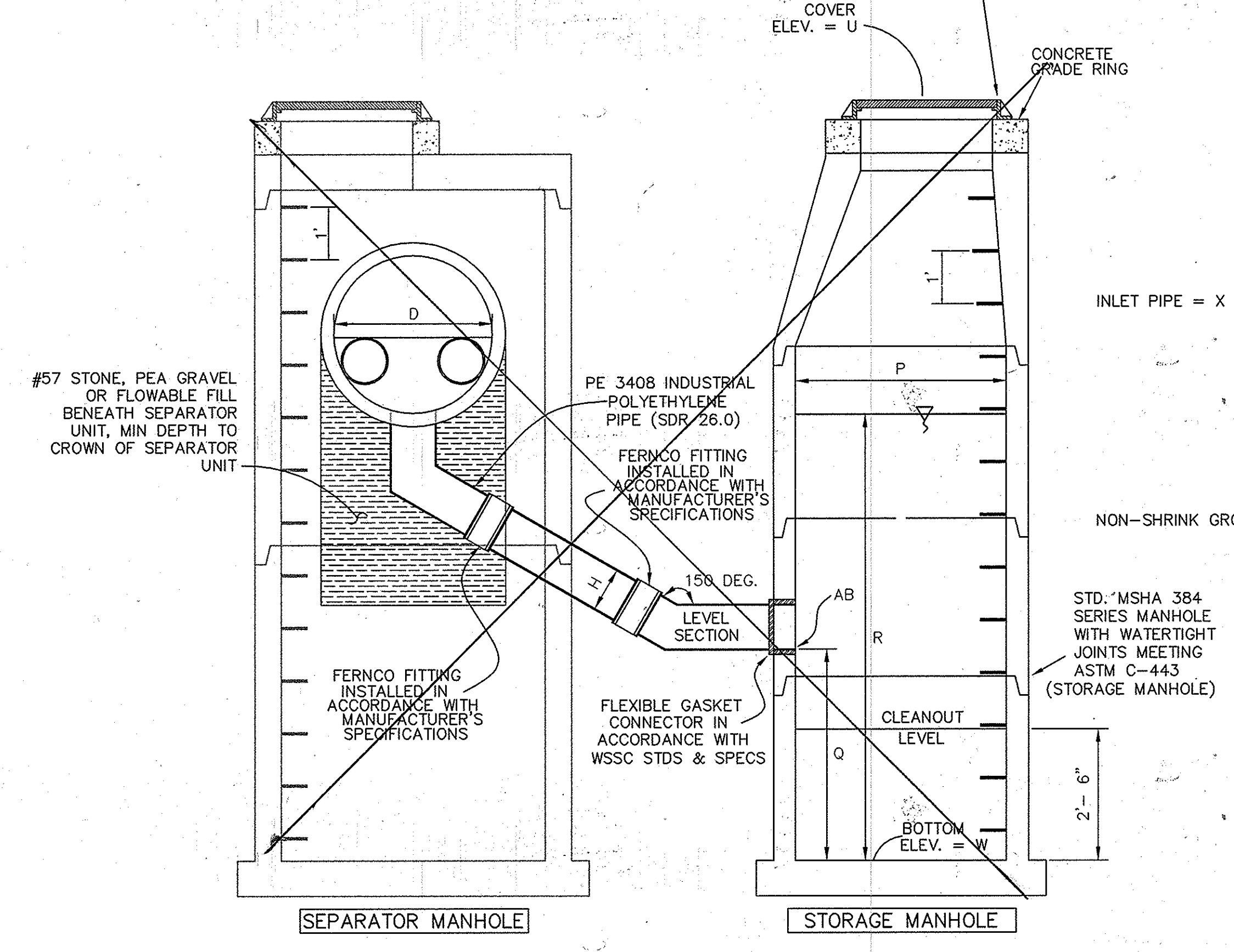
- Silt and debris shall not be allowed to enter the separator manhole, the storage manhole or the separator unit until the contributing drainage areas have been permanently stabilized.
  - All openings to structures shall be protected with the appropriate sediment control measures during construction.
  - The separator and storage manholes must be inspected at the end of the construction project and pumped out and cleaned if necessary.
- WATER QUALITY STRUCTURE WASTE**
- Water quality structures will require periodic cleaning. Owners of these facilities will have to clean them as needed.
  - Maintenance of these facilities will consist of cleaning out the separator and storage manholes and disposal of the waste and repair of the separator unit as needed. Periodic inspections of these facilities will be made by the owner after heavy rains.
  - The disposal of the liquid and solid matter shall be as follows:
    - All liquid material in the separator and storage manholes shall be pumped into a suitable tank truck and disposed of at an approved facility.
    - The solid material shall be landfilled in an approved sanitary landfill.
  - The inlet pipes, trash racks, grates, and structural parts shall be repaired as needed.
  - The Separator Unit shall be filled with clean water after it has been cleaned out.
  - The Separator Unit shall be periodically inspected. Blockages shall be removed and disposed of as required in #2 above.

**INSTALLATION INSTRUCTIONS: WATER QUALITY STRUCTURES**

- Prior to the start of installing the structures, the City Inspector must be called 48 hours in advance (pre-construction meeting).
- Stake-Out location of the separator and storage units and excavate the hole. Excavate adequate space to connect inlet and outlet pipes to separator manhole and separator unit. Secure inspector approval of subgrade and subbase. Install a 12" deep (or as required) compacted aggregate subbase as bottom of excavation. Install mule or shoring, as needed.
- Verify subgrade elevation against manhole dimensions and connecting storm drain inverts. Adjust base aggregate if necessary.
- Install Separator and Storage Manholes. Make sure that the bases are level. Align storage manhole openings with separator unit. Install rubber gaskets on base units and coat with lubricating grease. Install additional manhole sections, as required.
- Backfill base sections of manholes to invert of storage manhole connecting pipes with approved backfill material (no organic or topsoil to be used for backfill). Backfill and compact in 8 inch lifts. Backfill compaction to be minimum 95% AASHTO T-99 density.
- Install Separator Unit and connecting pipes. Seal all connecting joints and install separator unit/storm drain joint collar. Provide temporary supports and hold downs as necessary to stabilize unit during remaining backfill operation.
- Backfill separator unit and manholes. Areas not accessible to compaction equipment to be backfilled with lean concrete or flowable fill. Backfill and compact in 8 inch lifts. Backfill compaction to be minimum 95% AASHTO T-99 density.
- Install and Set Grade Adjusting Rings, as needed.
- Install and set Separator Manhole and Storage Manhole Frame and Cover.
- The Separator and Storage manholes shall be pumped out when the sediment control measures are removed and the site is permanently stabilized. Sediment and debris shall be disposed of properly.
- Final inspection.



DIM	DESCRIPTION	MEASUREMENT
<b>Separator Manhole Dimensions</b>		
A	Primary Manhole Diameter	60"
B	Manhole Depth Below Outlet	8'-0"
C	Minimum Fluid Depth Z-V + 0.33	8'-4"
<b>Standard Separator Dimensions</b>		
D	Separator Unit Pipe I.D.	36"
E	Separator Unit Length	78.2"
F	By-Pass Plate Length	45"
G	Weir/By-Pass Plate Thickness	3/4"
H	Baffle Tee and Connecting Pipe ID	10.75"
I	Baffle Tee Length	48"
J	Weir Height Above Invert	4"
K	By-Pass Plate Height Above Invert	17.6"
L	Width of Weir at Base	4 1/2"
M	Outlet Pipe Diameter	18"
N	Baffle Tee Invert Height Above Unit Invert	7 1/2"
O	Baffle Tee Pipe O.D. Change	18"
<b>Storage Manhole Dimensions</b>		
P	Storage Manhole Diameter	60"
Q	Manhole Depth Below Inlet/Outlet	48"
R	Fluid Depth Z-V	5'-0"
S	Total Storage Volume	300 CF
<b>System Dimensions and Elevations</b>		
T	Separator M.H. Cover Elevation	429.00'
U	Storage M.H. Cover Elevation	428.50'
V	Separator M.H. Floor Elevation	411.75'
W	Storage M.H. Floor Elevation	411.75'
X	Inlet Pipe ID and Material	12" & 18" RCP
Y	Inlet Pipe Invert (lowest)	420.00'
Z	Separator Unit Invert	419.75'
AA	Outlet Pipe ID and Material	18" RCP
AB	Connecting Pipe Invert Elevation	415.75'
AC	Connection Pipe Spacing	24"
AD	Storage Manhole Side Offset	8'-6"
AE	Storage Manhole Downstream Offset	5'-7"
AF	Baysayer Separator D/S offset (Specify Left or Right)	0'



**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY MAINTAINED BAYSAYER WATER QUALITY DEVICE**

- The BaySaver water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the BaySaver unit yearly at a minimum, utilizing the BaySaver Inspection/Monitoring Form. Inspections shall be done by using a Grade Stick or similar device. When the sediment depths exceed 2 feet, the unit must be cleaned.
- The BaySaver water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agencies.
- The maintenance of the BaySaver unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
- The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found the owner shall have them removed. Structural parts of the BaySaver unit shall be repaired as needed.
- The owner shall retain and make the BaySaver Inspection/Monitoring Forms available to the Howard County officials upon their request.

Approved For Base Bid Design Only See Sheet 7069  
**SWM 2 ALTERNATIVE**

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 6-2-16  
 Chief, Development Engineering Division  
 6-6-16  
 6-6-16  
 Director

OWNER:  
 Edison Rumsey LLC  
 MFS Rumsey LLC Et Al  
 7200 Wisconsin Ave, Suite 1100  
 Bethesda, MD 20814  
 Phone: (301) 915-9463

Professional Certification  
 05-19-16  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the Laws of the State of Maryland License No. 16903, Expiration Date: 04/21/2019

**STORMWATER MANAGMNT RED-LINE**  
 LOTS 105 & 106, SECTION 2, Parcel 330  
**OAKLAND RIDGE INDUSTRIAL PARK**  
 PLAT REF. 6066  
 2ND ELECTION DISTRICT - HOWARD COUNTY - MARYLAND

**MHG** Macris, Hendricks & Glascock, P.A.  
 Engineers ■ Planners  
 Landscape Architects ■ Surveyors

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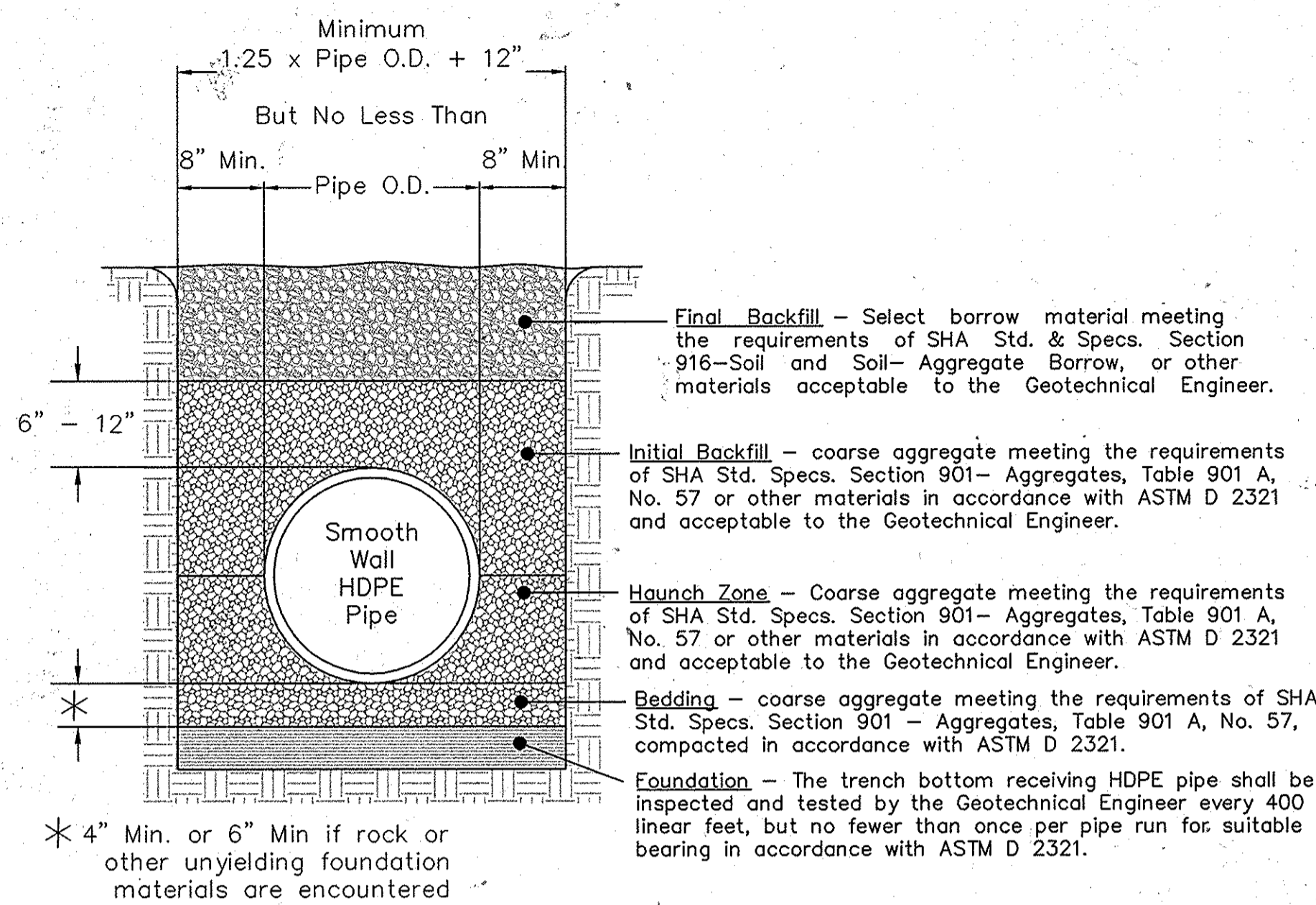
Proj. Mgr. LEW	Designer PCW
Date 5/18/16	Scale As Shown
Project No. 15.146.21	Sheet 8 of 9

SDP-78-076c



GENERAL NOTES FOR STORM DRAIN CONSTRUCTION

- All storm drains shall be constructed in accordance with the latest Edition of the Standard Specifications For Construction and Materials published by the Maryland Department of Transportation State Highway Administration.
- Type of structure refers to the the latest edition of Howard County Design Manual "Standard and Specifications and Details For Construction" and the Book of Standards For Highway and Incidental Structure published by the Maryland Department of Transportation State Highway Administration, unless otherwise noted.
- Where the drop on the main line through a structure can be accommodated by an invert slope of 1.5 to 1 or flatter, a rounded channel lined with sewer brick on edge shall be built to the crown of the pipes.
- Information concerning underground utilities was obtained from available records, but the Contractor must determine the exact location and elevation of the utilities by digging test pits by hand at all utility crossings, well in advance of trenching. If clearances are less than specified contact the Design Engineer and the appropriate utility owner before proceeding with construction. Macris, Hendricks and Glascock, P.A. does not express or imply any guarantee or warranty as to the location or existence of any underground utility.
- Where any part of the storm drain system is located in a fill section, provide select fill material compacted to 95% AASHTO T-99 density from approved subgrade to the structure bottom slabs and/or the pipe bedding.
- All storm drain pipes shall be installed in accordance with bedding per Detail G-2.11 of the "Howard County Volume IV Design Manual Standard and Specifications and Details For Construction" unless otherwise noted.
- Call "Miss Utility" at 1-800-257-777 48 hours prior to beginning excavation to determine the location of existing utilities.
- All standard storm drain structures are subject to modifications by the Design Engineer to meet field conditions.
- All work within the public rights-of-way shall be done in accordance with the latest edition of the Howard County "Design Manual Standard and Specifications and Details For Construction".
- Fillet paving at intersections shall be warped to assure positive drainage.
- Trim edge when tying into existing paving to provide a clean, straight, vertical joint.
- No pipe shall be constructed into the corner of a square or rectangular storm drain structure. A minimum clearance of 6 (six) inches must be provided between any inside corner of a structure and the outside diameter of the pipe. This requirement applies to all storm drain structures whether precast or constructed of brick.



HDPE PIPE BEDDING DETAIL FOR PRIVATE STORM DRAINAGE SYSTEMS  
NO SCALE

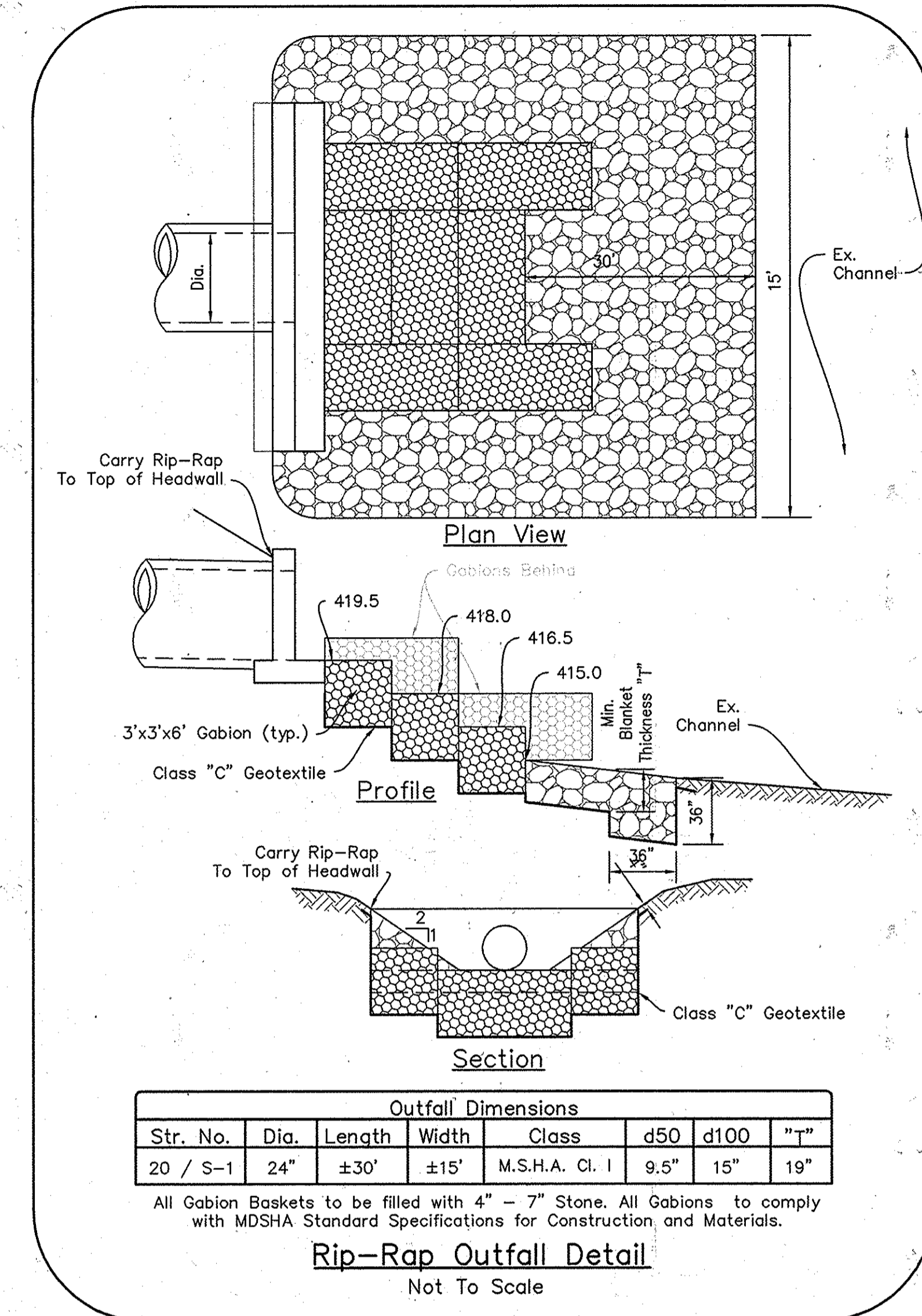
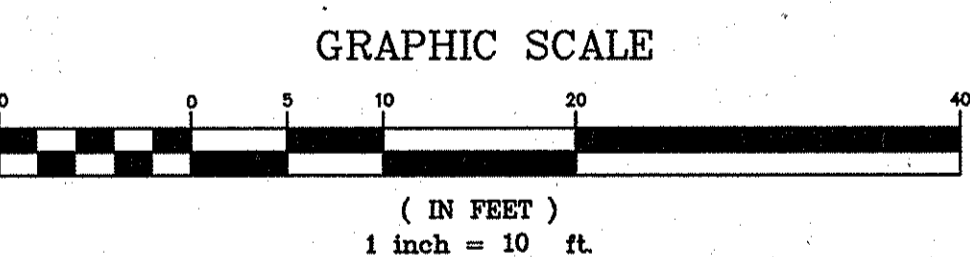
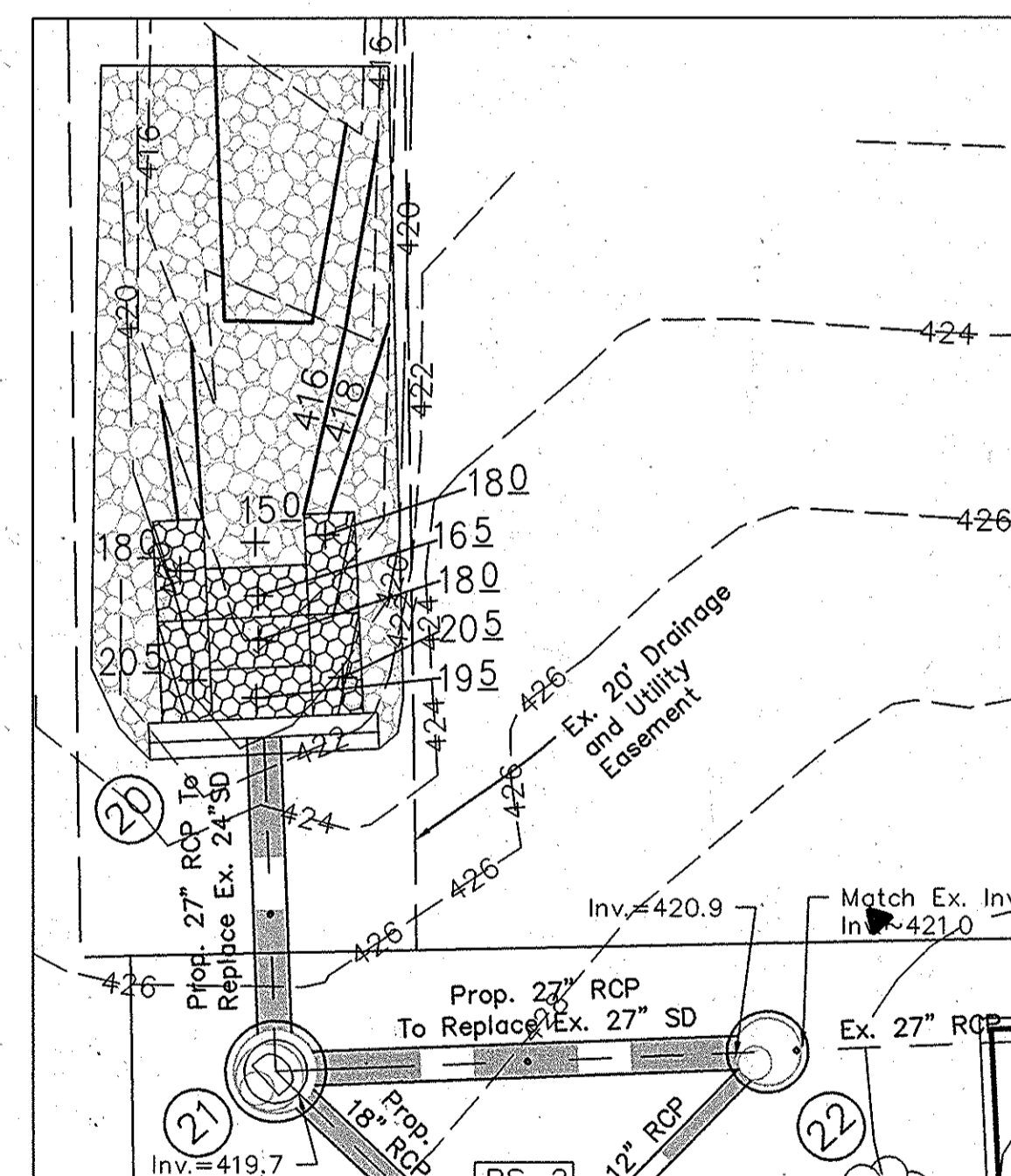
Structure Schedule					
No.	Type & Standard	Dimensions	Top Elev.	Inverts	Notes
20	Existing Endwall	~13'-8" L	Ex Top of Wall = 423.3'	Ex Inv. = 419.5'	--
21	Manhole Std. No. MD-384.05	84" Diameter	Top = 426.8' (Match Existing Grade)	Inv. Out = 419.6'	--
22	Manhole Std. No. MD-384.03	72" Diameter	Top = 429.2' (Match Existing Grade)	Inv. Out = 419.9' or 420.1'	Design Alternatives Available Refer to approved Stormwater Management Red-Line
SWM1	Hydrodynamic Separator	See Details	See Details	See Details	--
SWM2	Hydrodynamic Separator	See Details	See Details	See Details	Design Alternatives Available Refer to approved Stormwater Management Red-Line

Private Pipe Schedule		
Diameter	Type	Length
12"	Reinforced Concrete, Class IV	15'
18"	Reinforced Concrete, Class IV	15'
27"	Reinforced Concrete, Class IV	43'

Stormwater Management Information Chart						
Lot Number	Facility Number	Practice Type	Public	Private	HOA Maintains	Misc.
105 & 106	SWM-1 (CDS-1)	Contech CDS (CDS 2020-5C)		X	N	Retrofit
105 & 106	Base Bid SWM-2 (CDS-2)	Contech CDS (CDS 3020-6C)		X	N	Retrofit
105 & 106	Alternative SWM-2 (BS-1)	BaySaver (3K)		X	N	Retrofit

GENERAL NOTES FOR THE SUBSTITUTION OF SMOOTH WALL HDPE STORM DRAIN

- The pipe shall be Advance Drainage Systems, Inc. N12 pipe, Hancor HI-Q, Hancor HI-Q Sure-Lok or similar smooth wall solid HDPE pipe meeting the requirements of AASHTO M 252, Type S and M 294, Type S. The joints shall be soil tight unless rubber gasketed RCP joints are specified, then HDPE must have water tight gasketed joints. The Contractor shall provide certification for the HDPE pipe in accordance with the Maryland Department of Transportation, State Highway Administration (SHA) Standard Specifications for Construction and Materials (Std. Specs.), Section 905.01.
- The Smooth Wall HDPE pipe shall be substituted in equivalent pipe diameters as the specified RCP, except where an equivalent pipe diameter is not available in HDPE pipe, in which case the next larger HDPE pipe size shall be used. The contractor is responsible for any changes in precast structure openings necessary to accommodate the larger pipe.
- The HDPE pipe shall be installed in accordance with ASTM D 2321 and SHA Std. Specs. Section 303-Pipe Culverts, excepting any reference to measurement and payment.
- The trench bottom receiving HDPE pipe shall be inspected and tested by the Geotechnical Engineer every 400 linear feet, but no fewer than once per pipe run for suitable bearing.
- The HDPE pipe shall be bedded on a minimum 4" layer of coarse aggregate meeting the requirements of SHA Std. Specs. Section 901-Aggregates, Table 901 A, No. 57, compacted in accordance with ASTM D 2321.
- The HDPE pipe haunch zone and initial backfill zone shall be backfilled with coarse aggregate meeting the requirements of SHA Std. Specs. Section 901-Aggregates, Table 901 A, No. 57 or other materials in accordance with ASTM D 2321 and acceptable to the Geotechnical Engineer. The compaction shall be in accordance with ASTM D 2321 and shall be monitored by the Geotechnical Engineer.
- The trench receiving HDPE pipe shall be backfilled with select borrow material meeting the requirements of SHA Std. Specs. Section 916-Soil and Soil-Aggregate Borrow or other materials acceptable to the Geotechnical Engineer. The backfill shall be compacted in accordance with SHA Std. Specs. Section 210-Tamped Fill. The compaction shall be in accordance with ASTM D 2321 and shall be monitored by the Geotechnical Engineer.
- The HDPE pipe shall not be substituted for any corrugated metal pipe shown on the contract drawings. Connections between HDPE pipe and CMP pipe shall be at a structure or as approved by the Engineer.
- The HDPE pipe deflection shall be measured no sooner than thirty (30) days after installation using a nine (9) point mandrel. Remove, replace and retest any pipe with a deflection greater than 5%.



OWNER:  
Edison Rumsey LLC  
MFS Rumsey LLC Et Al  
7200 Wisconsin Ave, Suite 1100  
Bethesda, MD 20814  
Phone: (301) 915-9463

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Date: 6-2-16  
Date: 6-2-16  
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OWNER:  
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MFS Rumsey LLC Et Al  
7200 Wisconsin Ave, Suite 1100  
Bethesda, MD 20814  
Phone: (301) 915-9463

Professional Certification  
15-19-16  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the Laws of the State of Maryland License No. 16905, Expiration Date: 04/21/2018

**STORMWATER MANAGEMENT RED-LINE**  
LOTS 105 & 106, SECTION 2, Parcel 330  
**OAKLAND RIDGE INDUSTRIAL PARK**  
PLAT REF. 6066  
2ND ELECTION DISTRICT - HOWARD COUNTY - MARYLAND

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Engineers • Planners  
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Proj. Mgr. LEW	Designer PCW
Date 5/18/16	Scale As Shown
Project No. 15.146.21	Sheet 9 of 9

NO.	DATE	DESCRIPTION	BY

SDP-78-076c