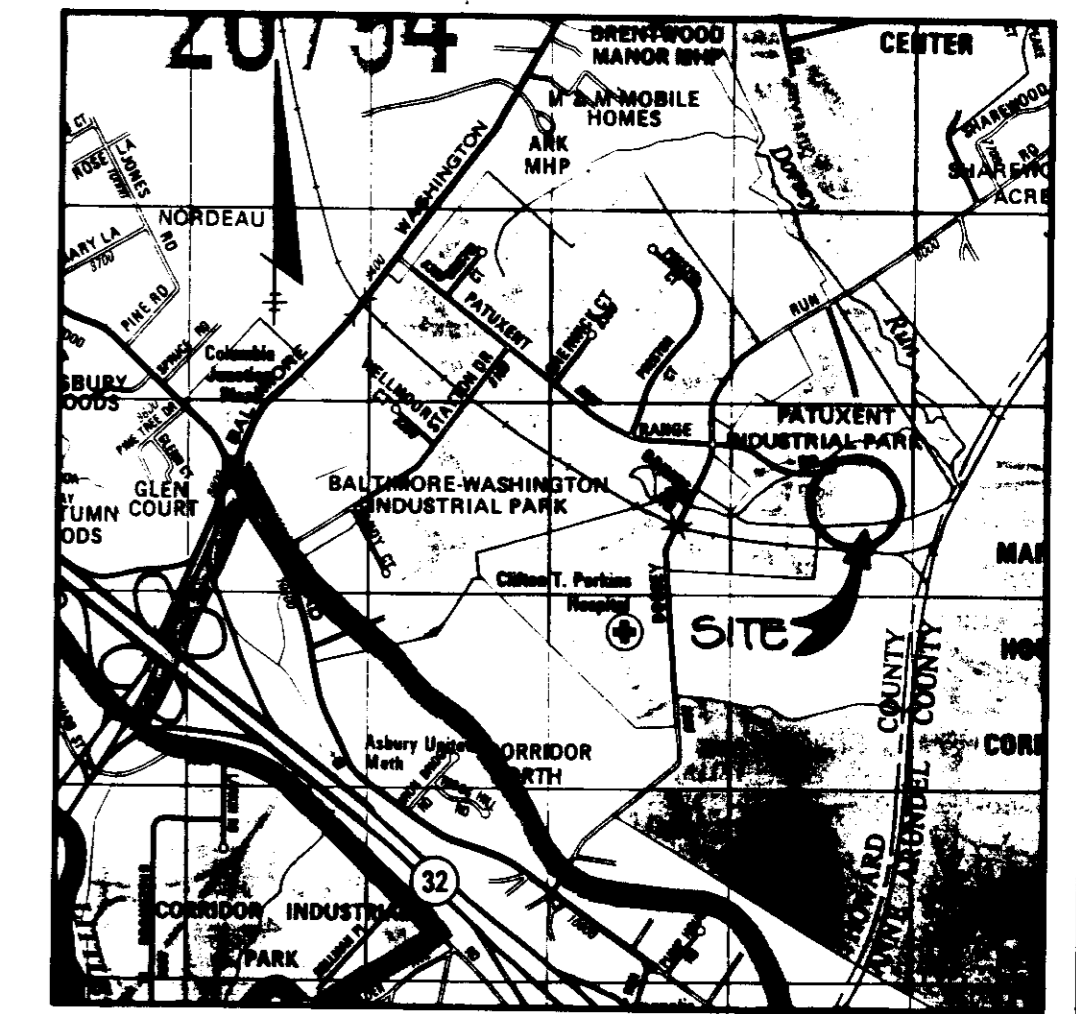


SITE DEVELOPMENT PLAN DORSEY RUN INDUSTRIAL PARK PARCEL C 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

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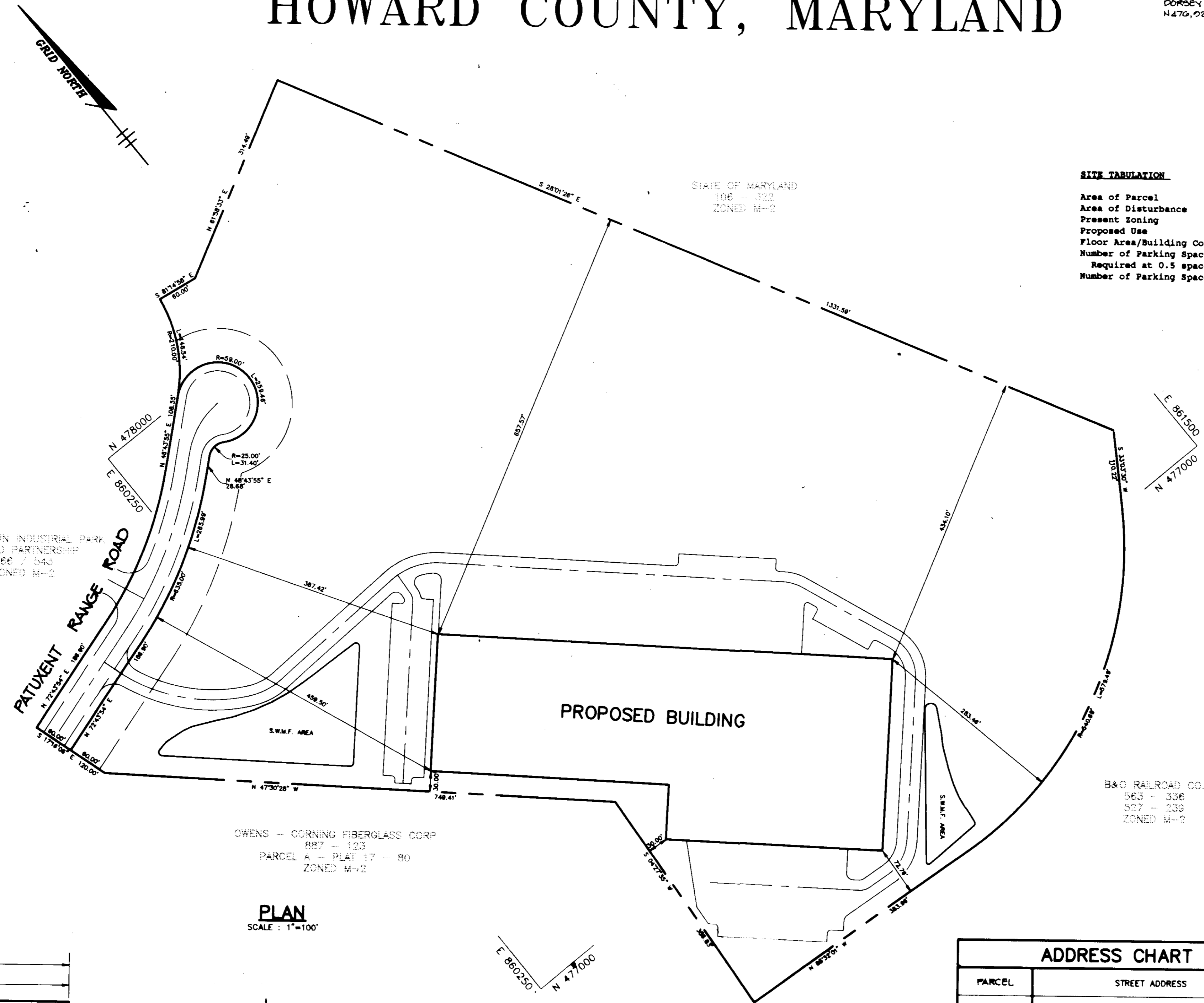
BENCH MARK

B.M. #1
REBAR LOCATED ON B&O RAILROAD SPUR
8' NORTH OF TOP BANK 0.5' BELOW SURFACE
350.2' EAST OF ENGINE ADJUSTMENT AT
DORSEY RUN ROAD ELEV. 210.707'
N47G, 020.101' 0250, 026.300'

GENERAL NOTES

1. ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS M.S.A. STANDARDS AND SPECIFICATIONS IF APPLICABLE.
3. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL TEST FIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
5. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
6. CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:

M&E UTILITY	1-800-857-3777
C&P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	313-4800
AT&T CABLE LOCATION DIVISION	383-3353
BALTIMORE GAS & ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-6533
7. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
8. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
9. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
10. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SENDER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
11. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
12. NO PIPE SHALL BE LAD UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE.
13. TOPS TAKEN FROM FIELD SURVEY DATED NOV. 1994 BY ROMER MUEGGE AND ASSOCIATES, INC. CONTOURS SHOWN AT 2 FOOT INTERVAL.
14. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
15. ALL STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN IN DETAIL G2 (TRENCH IN ROCK OR TRENCH IN EARTH AS DETERMINED BY FIELD CONDITIONS) IN VOL. IV OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS.
16. THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEGMENT AND EXISTING CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ADJACENT TO EXISTING WATERWAYS. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
17. THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE PREPARED SUBGRADE. ANY PAVEMENT SECTION DETERMINED BY THE GEOTECHNICAL ENGINEER THAT IS LESS THAN THE HOWARD COUNTY MINIMUM STANDARD, SHALL FIRST BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER.
18. STORMWATER MANAGEMENT QUANTITY AND QUALITY CONTROL FOR THIS DEVELOPMENT ARE PROVIDED BY TWO RETENTION FACILITIES.
19. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND C.S. MEAN SEA LEVEL DATUM, 1929.
20. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CONNECTED AT THE DEVELOPER'S EXPENSE.
21. HORIZONTAL AND VERTICAL CONTROL, BASED ON HOWARD COUNTY MONUMENTS 2044.001 AND 2045.004.
22. WATER METER IS TO BE LOCATED INSIDE THE BUILDING.
23. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
24. WETLAND PERMIT # WIP-95-21 APPROVED TO WAIVE SECTION 10 (2)(2)(4) FOR A PARTIAL WAIVER TO THE FULL REQUIREMENTS OF THE PORTAGE CONSERVATION PLAN, AND TO WAIVE SECTION 10 (4)(1) FOR DISTURBANCE IN THE WETLAND BUFFER. APPROVAL OF SECTION 10 (4)(1) IS CONDITIONED UPON NOTING THE JOINT PERMIT TRACKING NUMBER ON THE SITE DEVELOPMENT PLAN, DATED MAY 24, 1995.
25. THE DIRECTOR OF PUBLIC WORKS ON MAY 9, 1995 APPROVED THE LOCATION OF THE TWO SWMP'S ALLOWING THEM TO ENCLOSE WITHIN THE 20' SETBACK REQUIREMENT FROM PROPERTY LINES.
26. WORK PERFORMED WITHIN NON-TIDAL WETLANDS IS TO BE PERFORMED IN ACCORDANCE WITH NON-TIDAL WETLANDS AND WATERWAYS PERMIT NO. 95-NT-0107/19950324 AND MARYLAND DEPT. OF THE ENVIRONMENT WATER QUALITY CERTIFICATION NO. 95-WQ-0200 AS PER LETTER DATED SEPTEMBER 15, 1995.



SITE TABULATION

Area of Parcel	26.88 Ac. (1,170,893 SF)
Area of Disturbance	11.5 Ac. (500,040 SF)
Present Zoning	M-2
Proposed Use	Warehouse
Floor Area/Building Coverage	159,600 SF (13.6A)
Number of Parking Spaces	80 spaces
Required at 0.5 spaces/1000 SF	80 spaces (incl. 5 HC)
Number of Parking Spaces Provided	

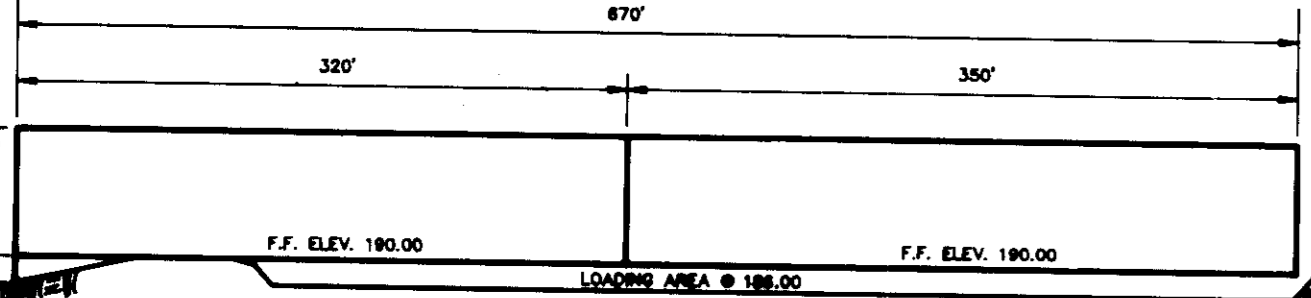
STATE OF MARYLAND
106 - 322
ZONED M-2

DORSEY RUN INDUSTRIAL PARK
LIMITED PARTNERSHIP
886 7 543
ZONED M-2

B&O RAILROAD CO.
963 - 336
507 - 338
ZONED M-2

OWENS - CORNING FIBERGLASS CORP
887 - 123
PARCEL A - PLAT 17 - 80
ZONED M-2

PLAN
SCALE: 1" = 100'



ADDRESS CHART	
PARCEL	STREET ADDRESS
C	8225 PATUXENT RANGE ROAD

DORSEY RUN INDUSTRIAL PARK	
BLK # 11040	BLK # 11040
D	M-2
48	6TH
0000 01	0000 01
002	300000

AS BUILT CERTIFICATE	
JAYKANT D. PAREKH #19148	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Jaykant Parekh</i> DIRECTOR	1/4/96 DATE
<i>Jim Swannan</i> CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	1/3/96 DATE
<i>W.M. Williams</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	12/20/95 DATE

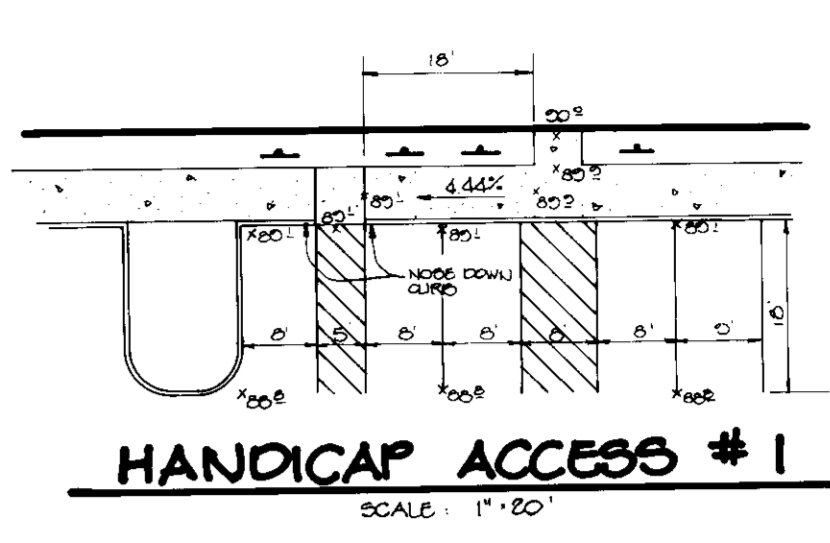
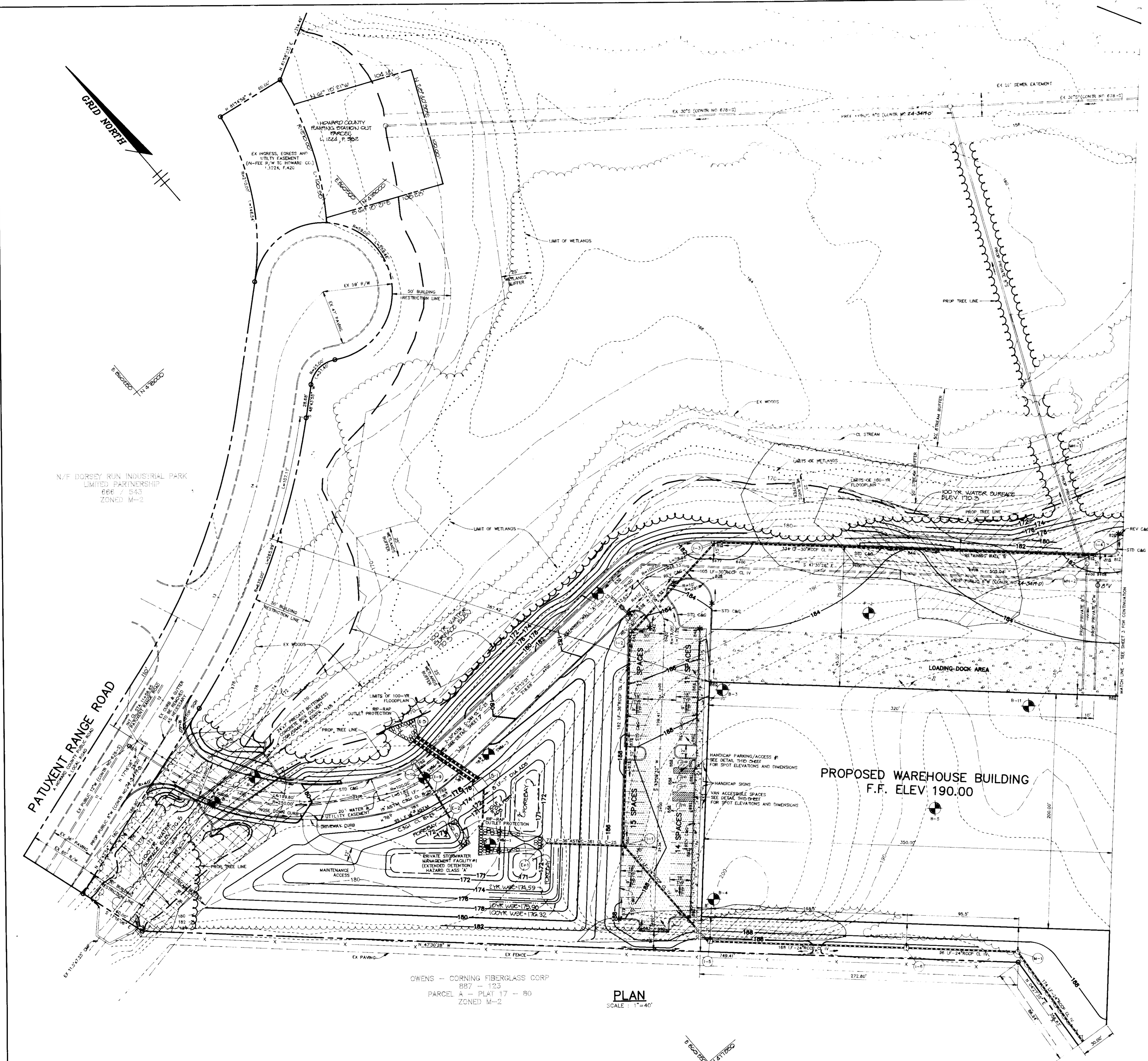
DATE / NO.	REVISION
OWNER / DEVELOPER	
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP ARUNDEL BUILDING - SUITE 203 110 WEST ROAD BALTIMORE, MARYLAND 21204	
PROJECT	
DORSEY RUN INDUSTRIAL PARK - PARCEL C A WAREHOUSE BUILDING	
AREA TAX MAP NO. 48 PARCEL C ZONED M-2 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	
TITLE SHEET	

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
410-997-8900 FAX: 410-997-9282

11.30.95
DATE

DESIGNED BY: C.J.R.
DRAWN BY: W.C.W.
PROJECT NO: 101403
DATE: NOVEMBER 27, 1995
SCALE: AS SHOWN
DRAWING NO. 1 OF 10

JAYKANT D. PAREKH #19148



NOTE, RETAINING WALLS:
 CONTRACTOR TO PROVIDE SHEETING/SHORING AS NECESSARY TO ENSURE THAT THE FOOTING CONSTRUCTION CAN BE ACCOMPLISHED WITHOUT EXCEEDING THE LIMIT OF DISTURBANCE.

- NOTES:**
1. ALL CURB RADIUS 5' UNLESS OTHERWISE NOTED.
 2. ENTRANCE AS PER H.O.C.D. STD. R6-07 FOR LOW VOLUME ENTRANCE.
 3. SHOP DRAWINGS FOR BOTTOMLESS PRECAST BOX CULVERT TO BE PROVIDED PRIOR TO CONSTRUCTION.
 4. FOR 8" WATER MAIN:
 - a.) CONSTRUCT ALONG WITH EMBANKMENT LIFTS. (DO NOT RETRENCH POND FILL.)
 - b.) COMPACTED EARTH TO BE USED ONLY. (NO GRAVEL BEDDING)
 - c.) USE RESTRAINED JOINTS WITHIN DAM SECTION FROM WATER MAIN 05A 0-50 TO STA. 0+50

- LEGEND**
- P-1 PAVING
 - P-2 PAVING
 - P-3 PAVING
 - CONCRETE SIDEWALK OR PAVEMENT
 - STANDARD 7" CONCRETE CURB & GUTTER
 - REVERSE 7" CONCRETE CURB & GUTTER
 - TRANSITION - STANDARD TO REVERSE
 - DENOTES 15% - 24% SLOPES
 - DENOTES 25% OR GREATER SLOPES

N/F DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
 266 X 543
 ZONED M-2

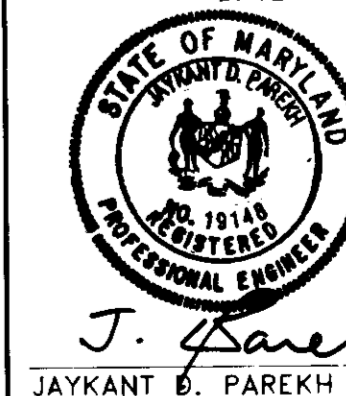
PATUXENT RANGE ROAD

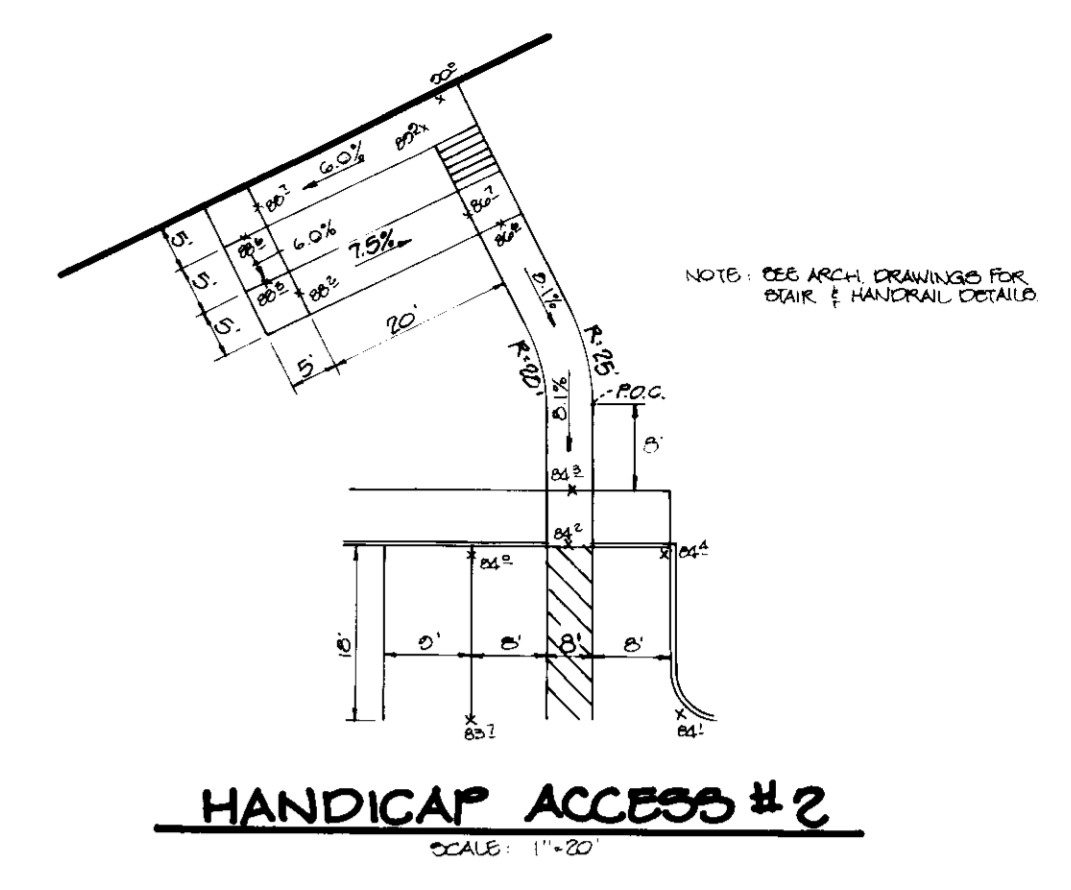
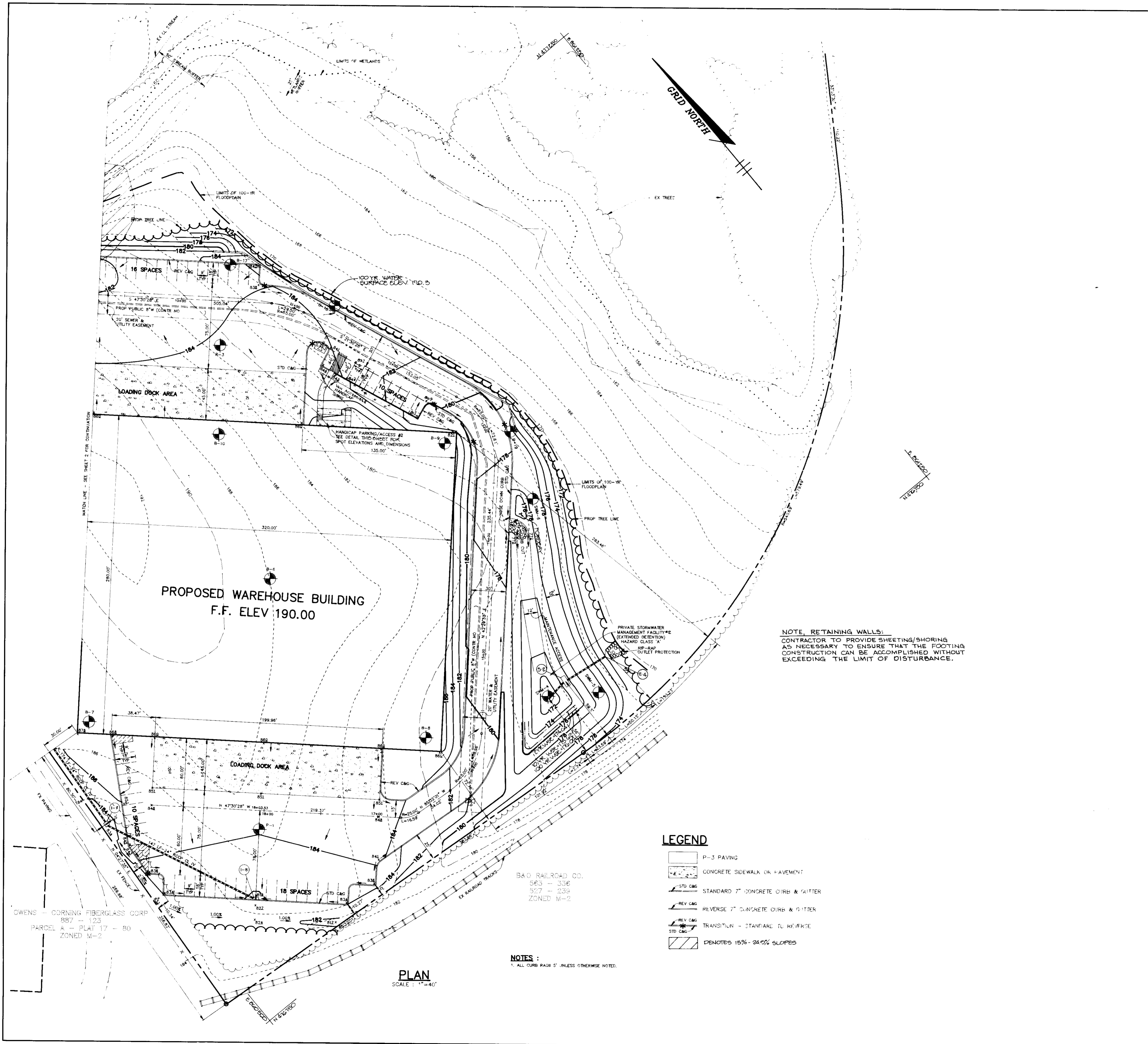
PROPOSED WAREHOUSE BUILDING
 F.F. ELEV. 190.00

OWENS - CORNING FIBERGLASS CORP
 887 - 123
 PARCEL A - PLAT 17 - 80
 ZONED M-2

PLAN
 SCALE: 1"=40'

AS BUILT CERTIFICATE	
JAYKANT D. PAREKH #19148	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Jaykant Parekh</i> DIRECTOR	1/4/96 DATE
<i>Anna Swinney</i> CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	1/3/96 DATE
<i>Chris Williams</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	12/20/95 DATE
DATE NO.	REVISION
OWNER / DEVELOPER	
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP - ARUNDEL BUILDING - SUITE 203 110 WEST ROAD BALTIMORE, MARYLAND 21204	
PROJECT	
DORSEY RUN INDUSTRIAL PARK - PARCEL C A WAREHOUSE BUILDING	
AREA TAX MAP NO. 48 PARCEL C ZONED M-2 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	
SITE DEVELOPMENT PLAN	
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045 410-997-8900 FAX: 410-997-9282	
11.30.95 DATE	F 93-107, SDP 91-57, SDP 92-67 F 95-180
DESIGNED BY: C.J.R.	
DRAWN BY: W.C.W.	
PROJECT NO: 101403	
DATE: NOVEMBER 27, 1995	
SCALE: AS SHOWN	
DRAWING NO. 2 OF 10	





NOTE, RETAINING WALLS:
CONTRACTOR TO PROVIDE SHEETING/SHORING AS NECESSARY TO ENSURE THAT THE FOOTING CONSTRUCTION CAN BE ACCOMPLISHED WITHOUT EXCEEDING THE LIMIT OF DISTURBANCE.

- LEGEND**
- P-3 PAVING
 - CONCRETE SIDEWALK OR PAVEMENT
 - STANDARD 7" CONCRETE CURB & GUTTER
 - REVERSE 7" CONCRETE CURB & GUTTER
 - TRANSITION - STANDARD TO REVERSE
 - DENOTES 15% - 24.0% SLOPES

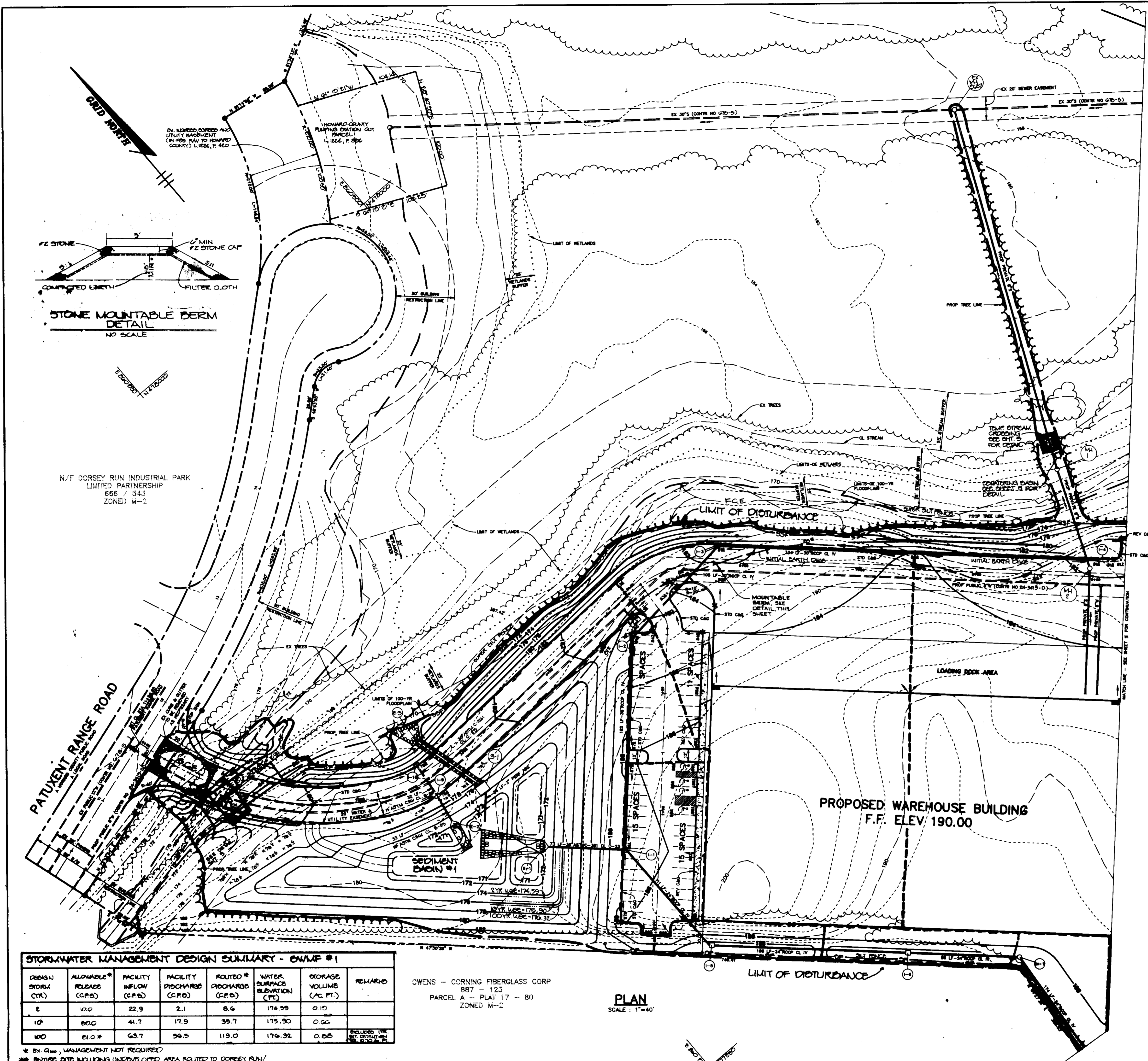
NOTES:
1. ALL CURB RADIUS 5' UNLESS OTHERWISE NOTED.

PLAN
SCALE: 1"=40'

OWENS - CORNING FIBERGLASS CORP
887 - 123
PARCEL A - PLAN 17 - 80
ZONED M-2

B&O RAILROAD CO.
563 - 336
527 - 239
ZONED M-2

AS BUILT CERTIFICATE	
JAYKANT D. PAREKH #19148	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>James Smith</i> DIRECTOR	1/4/96 DATE
<i>Chris Surranjani</i> CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	1/3/96 DATE
<i>W. D. ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	12/20/95 DATE
DATE NO.	REVISION
OWNER / DEVELOPER	
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP ARUNDEL BUILDING - SUITE 202 110 WEST ROAD BALTIMORE, MARYLAND 21204	
PROJECT DORSEY RUN INDUSTRIAL PARK - PARCEL C A WAREHOUSE BUILDING	
AREA TAX MAP NO. 48 PARCEL C ZONE M-2 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE SITE DEVELOPMENT PLAN	
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045 410-997-8900 FAX: 410-997-9282	
11.30.95 DATE	F-92-107, SDP 91-27, SDP 92-67 F-95-150
DESIGNED BY: C.J.R.	
DRAWN BY: W.C.W.	
PROJECT NO: 101405	
DATE: NOVEMBER 27, 1995	
SCALE: AS SHOWN	
DRAWING NO. 3 OF 10	
<i>J. Parekh</i> JAYKANT D. PAREKH #19148	



STORMWATER MANAGEMENT DESIGN SUMMARY - OWMF #1

DESIGN STORM (CYR)	ALLOWABLE* RELEASE (C.F.D.)	FACILITY INFLOW (C.F.D.)	FACILITY DISCHARGE (C.F.D.)	ROUTED* DISCHARGE (C.F.D.)	WATER SURFACE ELEVATION (FT)	STORAGE VOLUME (AC. FT.)	REMARKS
2	0.0	22.9	2.1	8.6	174.99	0.10	
10	80.0	41.7	17.9	33.7	175.90	0.00	
100	810*	63.7	36.3	119.0	176.92	0.00	INCLUDED THE 100-YR FLOODPLAIN

OWENS - CORNING FIBERGLASS CORP
887 - 123
PARCEL A - PLAT 17 - 80
ZONED M-2

SEDIMENT BASIN #1

DRAINAGE AREA	0.47 AC.
STORAGE VOLUME REQUIRED	17,046 CF
STORAGE VOLUME PROVIDED	30,500 CF @ 174.00
ROCK CRIB	10'x10'
FLOOR CRIB	17x10.00
TOP OF DAM	170.60
BOTTOM ELEVATION	170.00
CLEARANCE ELEVATION	172.25

#1 C.F. FOREST CONSERVATION EASEMENT

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Charles O'Donovan 11/27/95
DEVELOPER CHARLES O'DONOVAN DATE
PRINT NAME BELOW SIGNATURE

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

J. Farrell 11/30/95
ENGINEER J. FARRELL DATE
PRINT NAME BELOW SIGNATURE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Patricia Engle/65 12/15/95
NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Robert Zipes 12/14/95
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

David K. ... 1/4/96
DIRECTOR DATE

Chris ... 1/29/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING DATE

Mr. ... 2/20/95
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE	NO.	REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ARUNDEL BUILDING - SUITE 203
110 WEST ROAD
BALTIMORE, MARYLAND 21204

PROJECT
DORSEY RUN INDUSTRIAL PARK - PARCEL C
A WAREHOUSE BUILDING

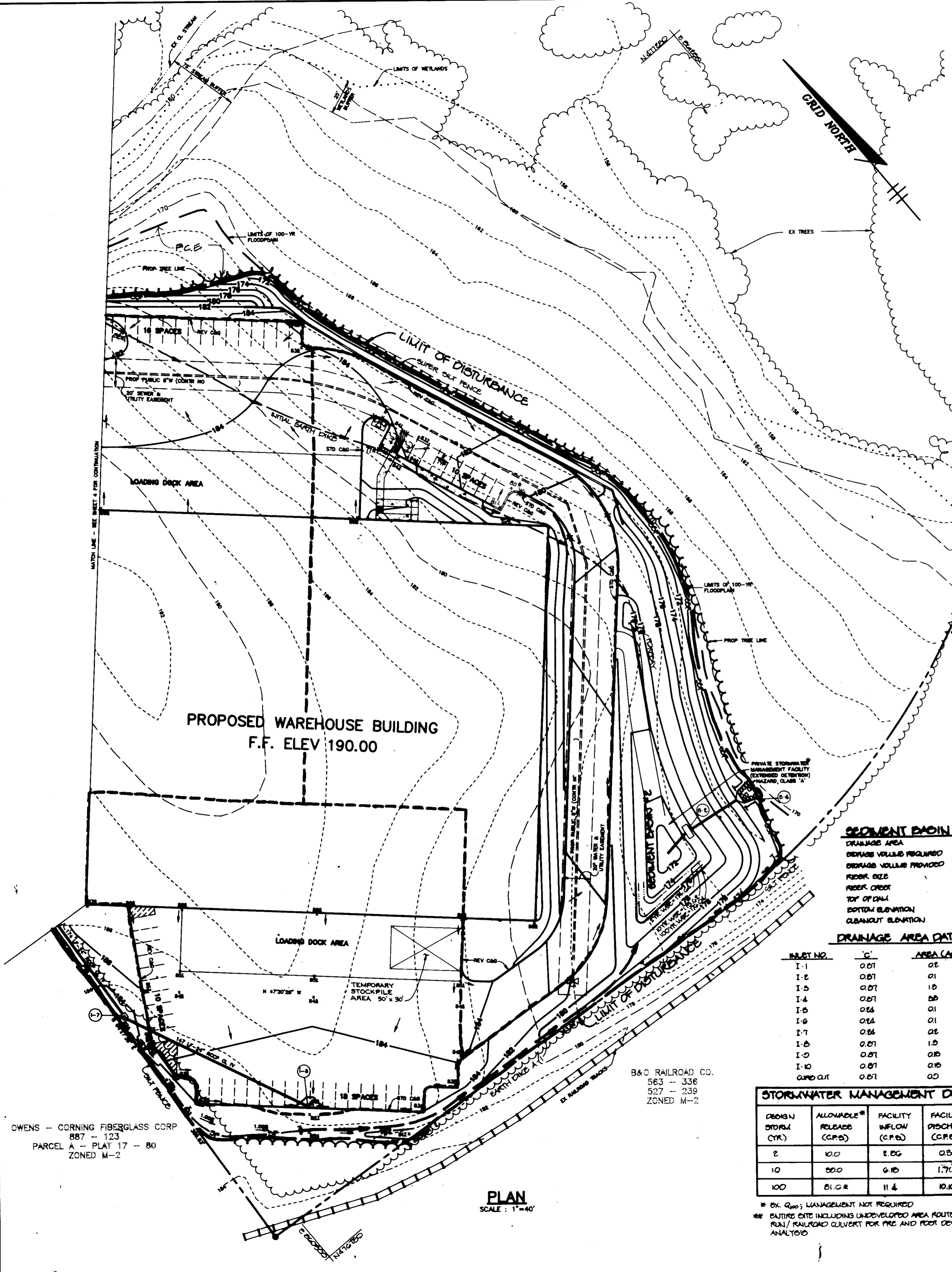
AREA TAX MAP NO. 48 PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE GRADING, SEDIMENT CONTROL
PLAN AND DRAINAGE AREA MAP

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, MD 21046
410-997-8900 FAX: 410-997-9282

11/30/95
DATE
DESIGNED BY: C.J.R.
DRAWN BY: W.C.W.
PROJECT NO: 101403
DATE: NOVEMBER 27, 1995
SCALE: AS SHOWN
DRAWING NO. 4 OF 10

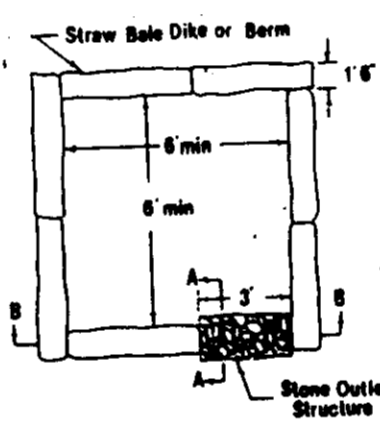
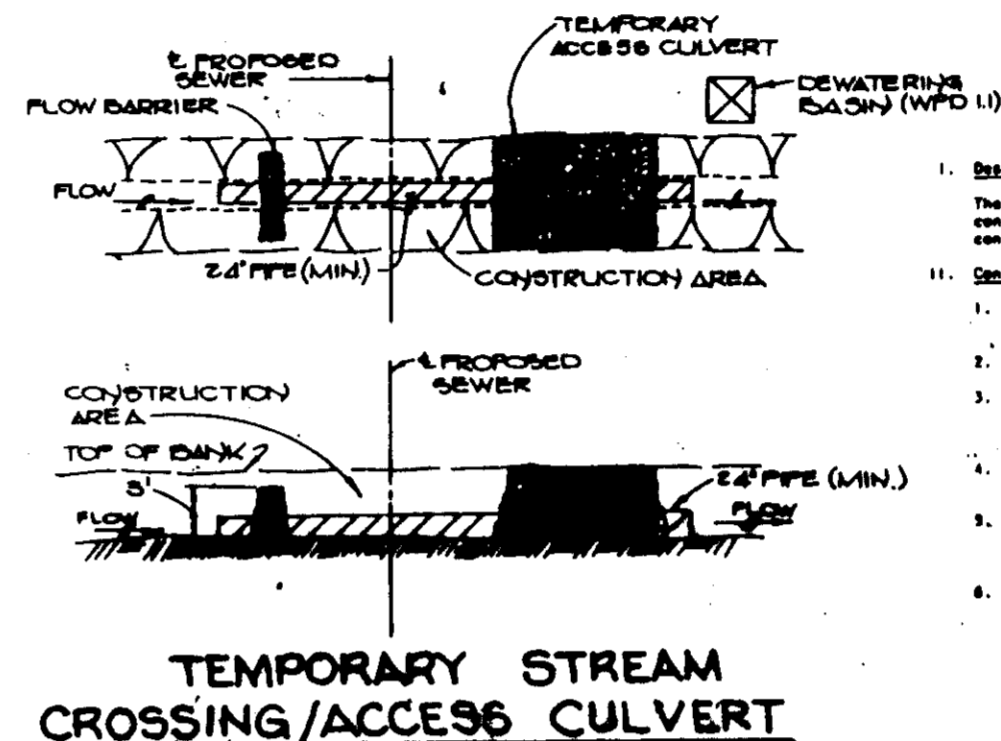
J. Farrell
JAYKANT D. PAREKH #19148



CONDITIONS AND MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS

- Remove excess fill or construction material or debris to an upland disposal area;
- Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of remaining nontidal wetlands or waterways;
- Maintain the hydrologic regime of the nontidal wetlands upstream, downstream, or adjacent to the regulated activity;
- Repair and maintain any servicable structure or fill so there is no permanent loss of nontidal wetlands in excess of nontidal wetlands lost under the original structure or fill;
- To protect important aquatic species, in-stream work is prohibited as determined by the classification of the stream as follows:
 - Use 1 Waters. In-stream work may not be conducted during the period March 1 through June 15, inclusive, during any year.
- Upon completion of the project temporarily impacted nontidal wetlands and the 25-foot nontidal wetland buffer will not be mowed or otherwise managed to prevent the re-establishment of pre-existing type of vegetative cover.

F.C.E. = FOREST CONSERVATION EASEMENT



DEWATERING BASIN
NO SCALE

SEDIMENT BASIN #2

DRAINAGE AREA	3.87 AC.
DEBRIS VOLUME REQUIRED	6,966 CF
DEBRIS VOLUME PROVIDED	7428 CF @ EL. 175.70
RISER SIZE	11.00' x 0.00'
RISER ORISE	175.70
TOP OF DAM	170.00
BOTTOM ELEVATION	170.00
CLEANOUT ELEVATION	172.89

DRAINAGE AREA DATA

SUBSET NO.	C	AREA (AC.)	% IMP.
I-1	0.01	0.1	100
I-2	0.01	0.1	100
I-3	0.01	1.0	100
I-4	0.01	0.5	100
I-5	0.01	0.1	0
I-6	0.01	0.1	0
I-7	0.01	0.2	0
I-8	0.01	1.0	100
I-9	0.01	0.1	100
I-10	0.01	0.1	100
GRID CUT	0.01	0.0	100

STORMWATER MANAGEMENT DESIGN SUMMARY - OWMF #2

DESIGN STORM (YR.)	ALLOWABLE* RELEASE (C.F.P.)	FACILITY INFLOW (C.F.P.)	FACILITY DISCHARGE (C.F.P.)	ROUTED** DISCHARGE (C.F.P.)	WATER SURFACE ELEVATION (FT.)	STORAGE VOLUME (AC. FT.)	REMARKS
2	10.0	2.50	0.50	5.0	174.04	0.10	
10	50.0	6.10	1.70	35.7	170.02	0.17	
100	510.0	11.4	10.0	119.0	170.04	0.11	

* EX. ROAD; MANAGEMENT NOT REQUIRED
** ENTIRE SITE INCLUDING UNDEVELOPED AREA ROUTED TO CORRECT RUN/RAILROAD CULVERT FOR PRE AND POST DEVELOPMENT ANALYSIS

- SEQUENCE OF CONSTRUCTION**
- OBTAIN A GRADING PERMIT AND EROSION PERMIT. ENSURE THAT THE MORE REPRESENTATIVE TO NOTIFIED DRAINAGE DISTRICTS TO THE PRE-CONSTRUCTION MEETING AND START OF WORK.
 - INSTALL STABILIZED CONSTRUCTION ENTRANCES, TEMPORARY ACCESS CULVERT, VAULT FENCE, STORM DRAINAGE, WATER AND SEWER AS SUBGRADE ELEVATIONS ARE ACHIEVED. (3 WEEKS).
 - INSTALL CONTROL STRUCTURES, CORE TRINCH, SEEP COLLARS, BUT DO NOT GRAD FOR FOREBAYS. 2-1 TO HAVE 6" ORIFICE CONSTRUCTED 8' SEDIMENT CONTROL. (1.5 WEEKS). BLOCK LIT WEIR @ EL. 175.70 ON STRUCTURE 2-2.
 - ASSEMBLE FORECAST BOX CULVERT AND STABILIZE ACCESS OVER IT AS SHOWN AS PER PLAN. WHEN ACCESS IS AVAILABLE OVER BOX CULVERT, CONTRACTOR TO REMOVE TEMPORARY ACCESS CULVERT AND RESTORE EXISTING CHANNEL TO ITS ORIGINAL CONDITION.
 - ADJUST STORM DRAINAGE AS NECESSARY DURING GRADING OPERATIONS TO ENSURE POSITIVE DRAINAGE TO BASIN.
 - INSTALL STORM DRAINAGE, WATER AND SEWER AS SUBGRADE ELEVATIONS ARE ACHIEVED. (3 WEEKS).
 - INSTALL CURB AND GUTTER THEN PROCEED WITH CONCRETE POUR FOR TRUCK RETURN PAD AND ASPHALT PAVING. (3 WEEKS).
 - STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES (1 DAY).
 - PERFORM FINE GRADING, LANDSCAPING, LIGHTING, SIDEWALKS, AND COMPLETE BUILDING CONSTRUCTION. (2 WEEKS).
 - UPON COMPLETION OF THE HOWARD COUNTY DEDICATED SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES AND CONVERT THE SEDIMENT BASIN TO STORMWATER FACILITIES AS PER THE FOLLOWING:
 - POUR OUT ALL SEDIMENT. (1/2 DAY).
 - REMOVE SEDIMENT AND GRADE FLOOR TO THE FINAL GRADE AS SHOWN ON SHEETS 2 AND 3. (2 WEEKS).
 - INSTALL RIP-RAP PROTECTION AS SHOWN. (2 DAYS).
 - STABILIZE IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (1 DAY).
 - REMOVE 1.5" WEIR BLOCKING FROM 3-2.
 - REMOVE 6" DIA. ORIFICE BLOCKING FROM 3-1.

NOTE: (S) EXCAVATED MATERIAL FROM BASIN TO BE USED AS FILL FOR ROADWAY.
SEE FOREST CONSERVATION PLAN!

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A PROGRAM OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. SMALL ENGAGE REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Charles O'Donovan 1/27/95
DEVELOPER CHARLES O'DONOVAN DATE

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

J. Swell 1/30/95
ENGINEER J. SWELL DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Robert Egle/105 1/30/95
NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Robert Zilman 1/14/95
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James Smith 1/14/95
DIRECTOR DATE

Uma Srinivasan 1/30/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

John Deane 12/28/95
CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

DATE NO. REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ARUNDEL BUILDING - SUITE 203
110 WEST ROAD
BALTIMORE, MARYLAND 21204

PROJECT DORSEY RUN INDUSTRIAL PARK - PARCEL C A WAREHOUSE BUILDING

AREA TAX MAP NO. 48 PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP

RIEMER MUEGGE & ASSOCIATES, INC.
Engineers & Surveyors
8810 Centre Park Drive • Suite 200 • Columbia, MD 21045
410-997-8900 FAX: 410-997-9882

11.30.95 DATE

DESIGNED BY: C.J.R.
DRAWN BY: W.C.W.
PROJECT NO: 101403
DATE: NOVEMBER 27, 1998
SCALE: AS SHOWN
DRAWING NO. 5 OF 10

J. Swell
JAYKANT D. PAREKH #19148

OWENS - CORNING FIBERGLASS CORP
887 - 123
PARCEL A - PLAT 17 - 80
ZONED M-2

B&O RAILROAD CO.
563 -- 336
527 -- 239
ZONED M-2

PLAN
SCALE: 1"=40'

JAYKANT D. PAREKH #19148 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 1/4/96 DATE

[Signature] 1/3/96 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

[Signature] 12/20/95 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

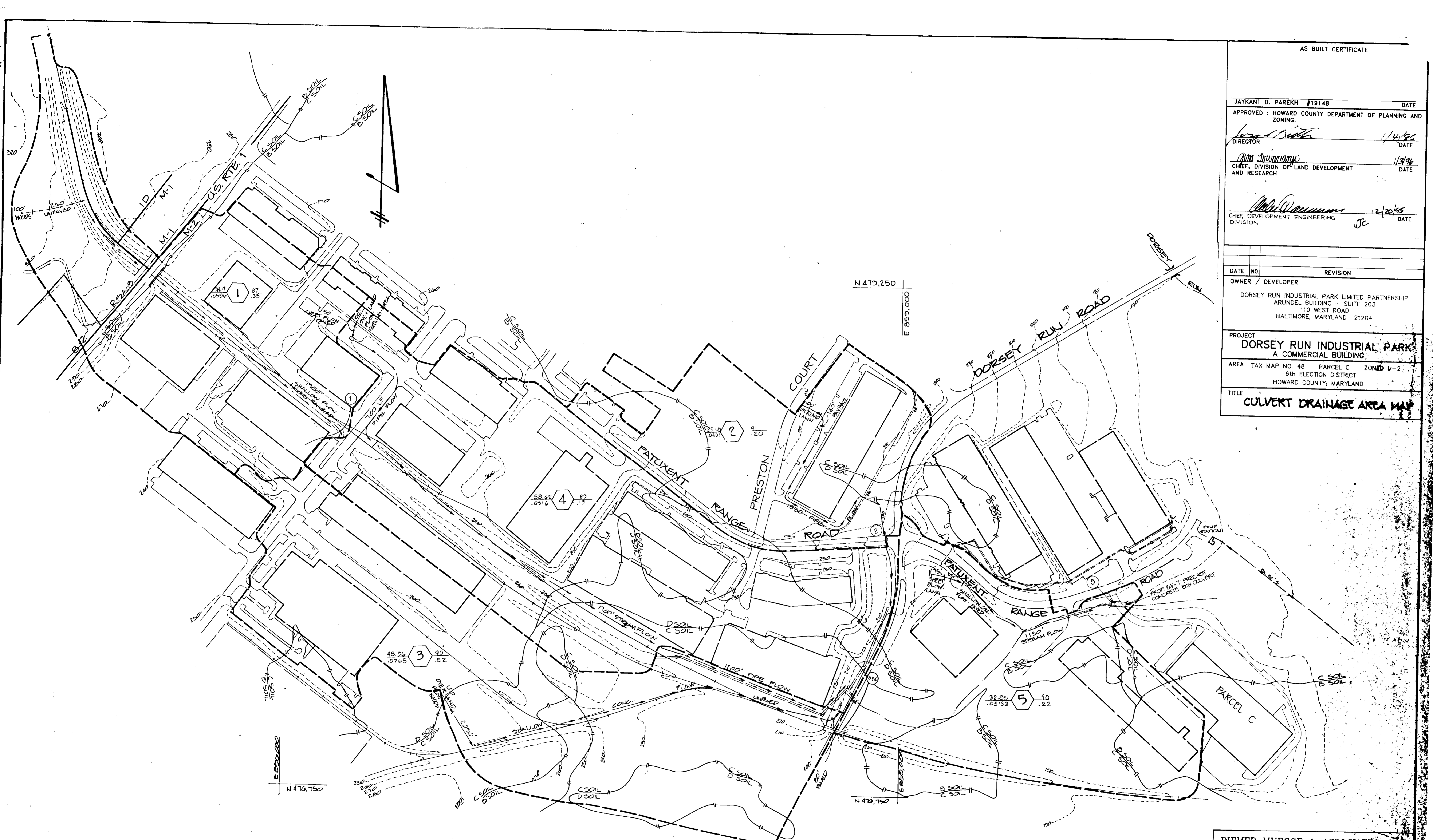
DATE NO. REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ARUNDEL BUILDING - SUITE 203
110 WEST ROAD
BALTIMORE, MARYLAND 21204

PROJECT
DORSEY RUN INDUSTRIAL PARK
A COMMERCIAL BUILDING

AREA TAX MAP NO. 48 PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
CULVERT DRAINAGE AREA MAP



N 470,250
E 850,000

N 470,750

N 470,750

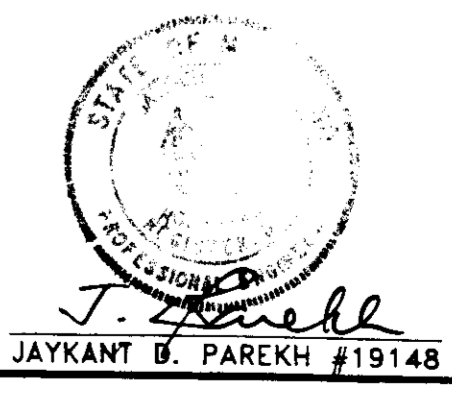
NOTE: DRAINAGE AREA DATA FOR CULVERT WAS TAKEN FROM D.D. THALER SITE DEVELOPMENT PLAN SDP-92-07

PLAN
SCALE: 1"=200'

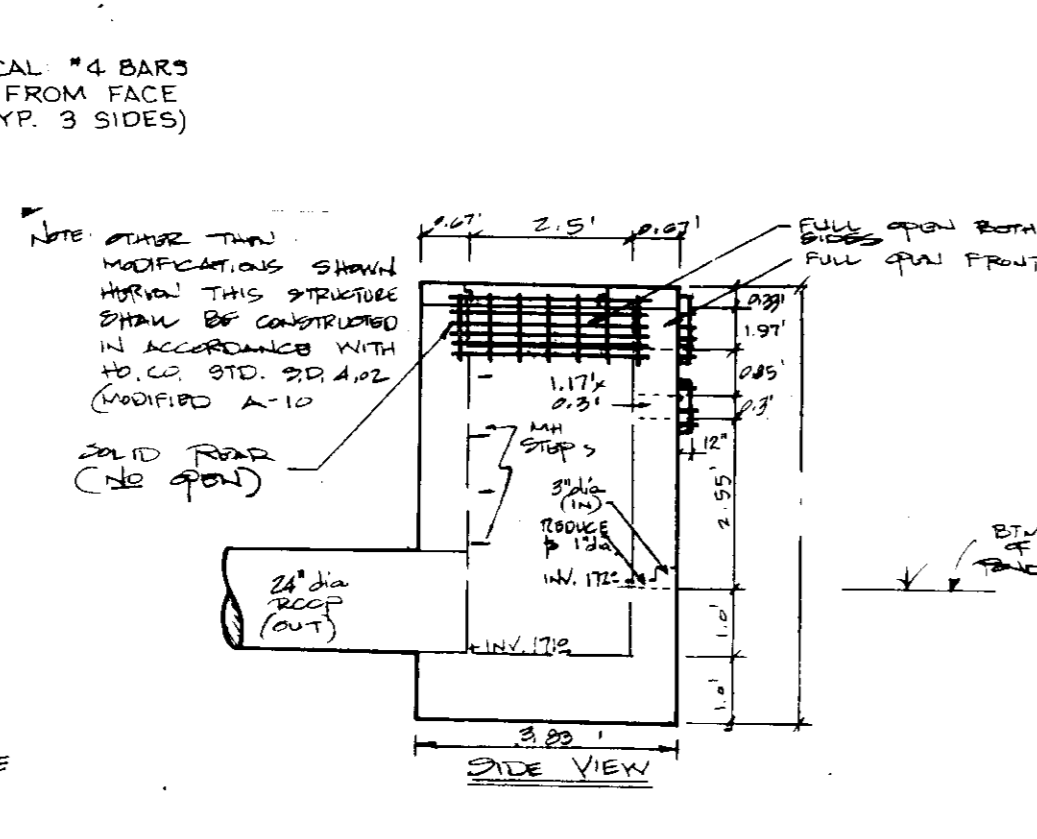
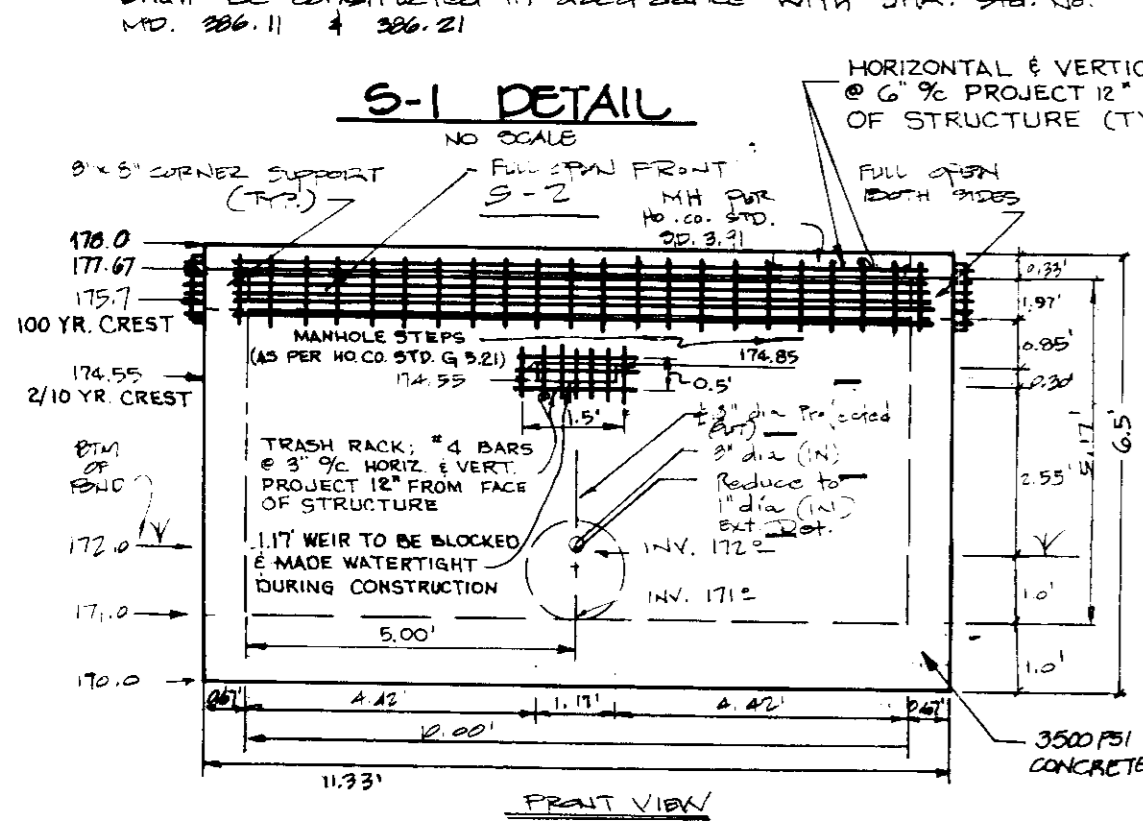
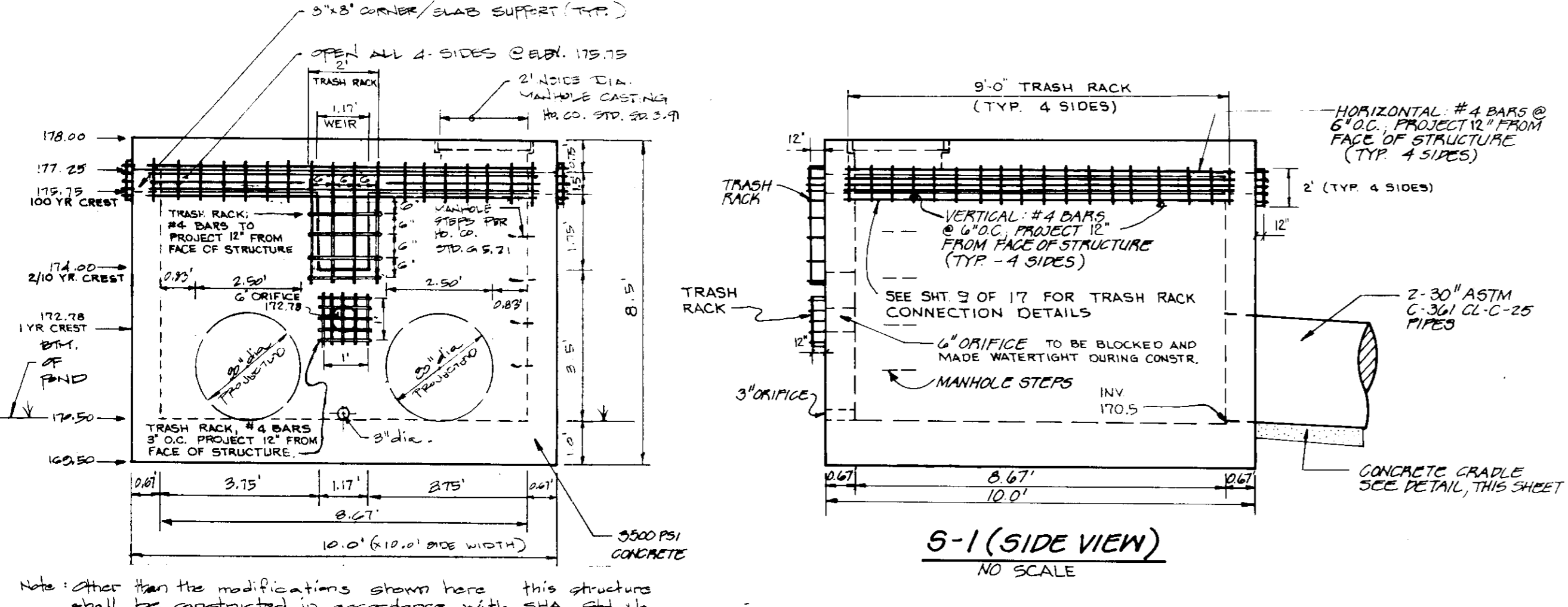
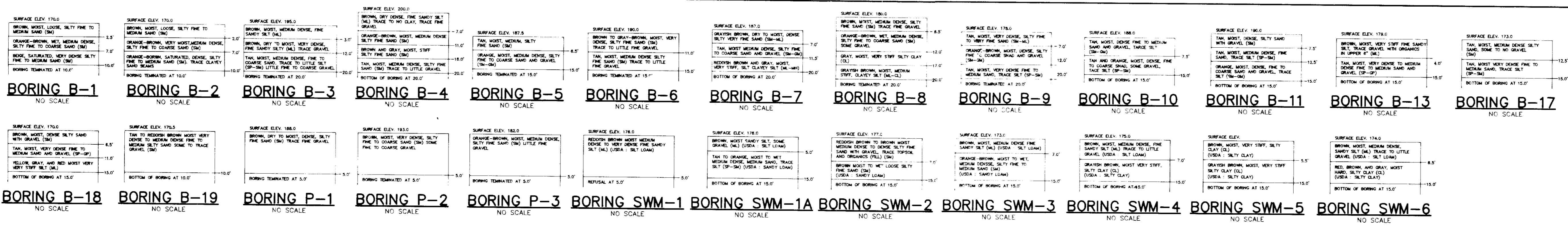
RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, MD 21046
410-997-8800 FAX: 410-997-9282

11.30.95 DATE
F 95-180

DESIGNED BY: C.J.R.
DRAWN BY: W.C.W.
PROJECT NO: 101403
DATE: NOVEMBER 27, 1995
SCALE: AS SHOWN
DRAWING NO. 6 OF 10

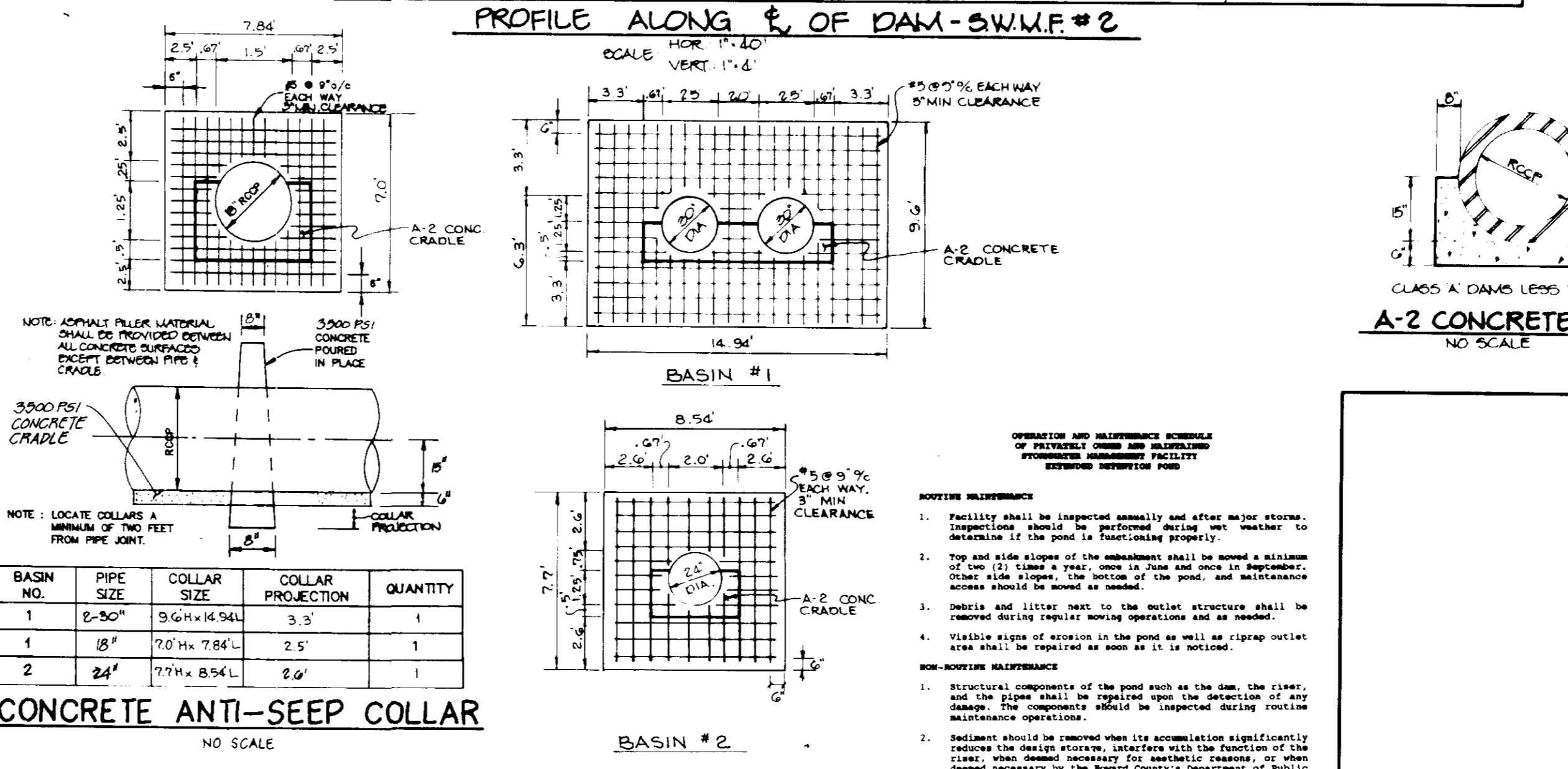
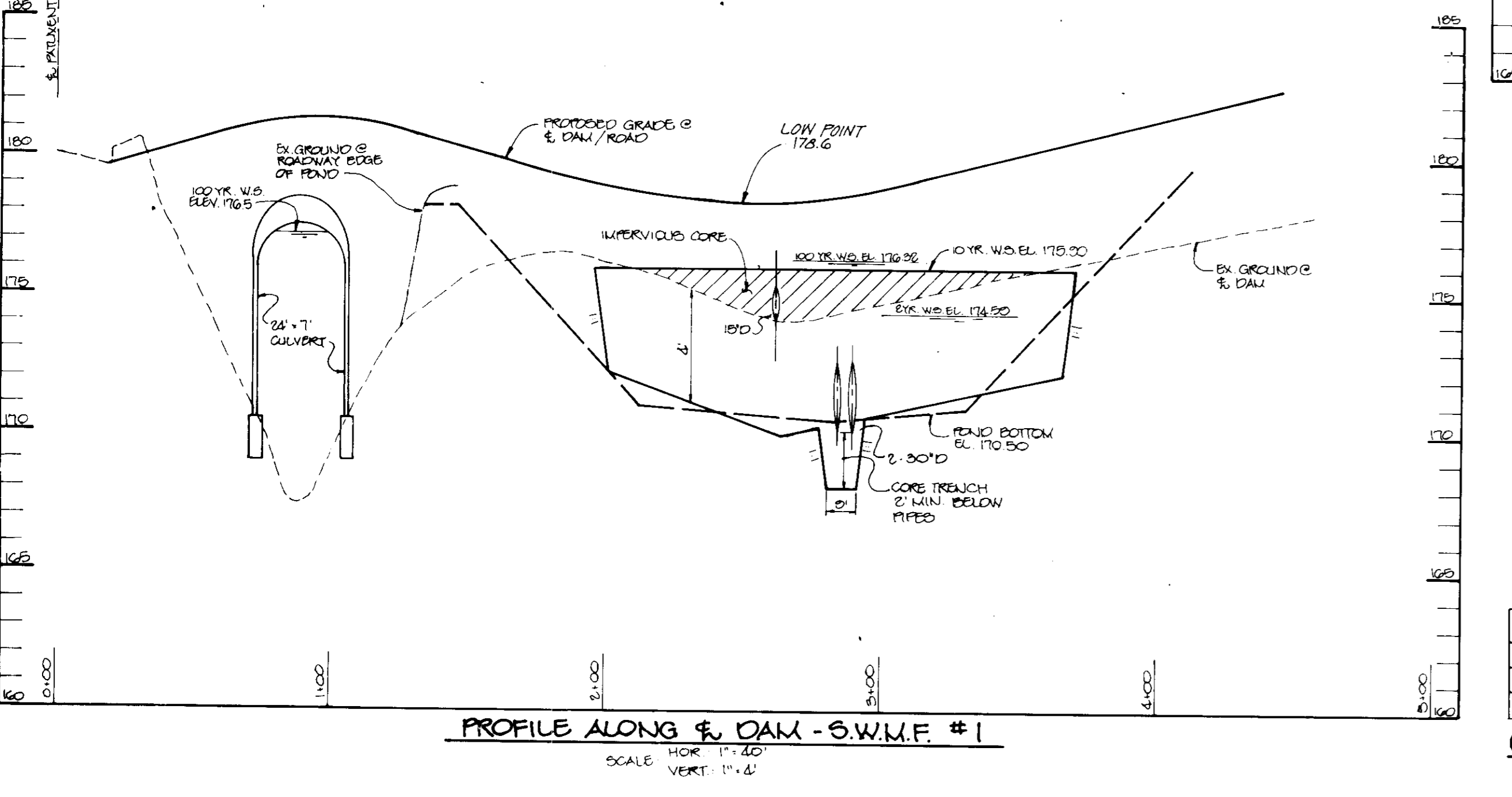
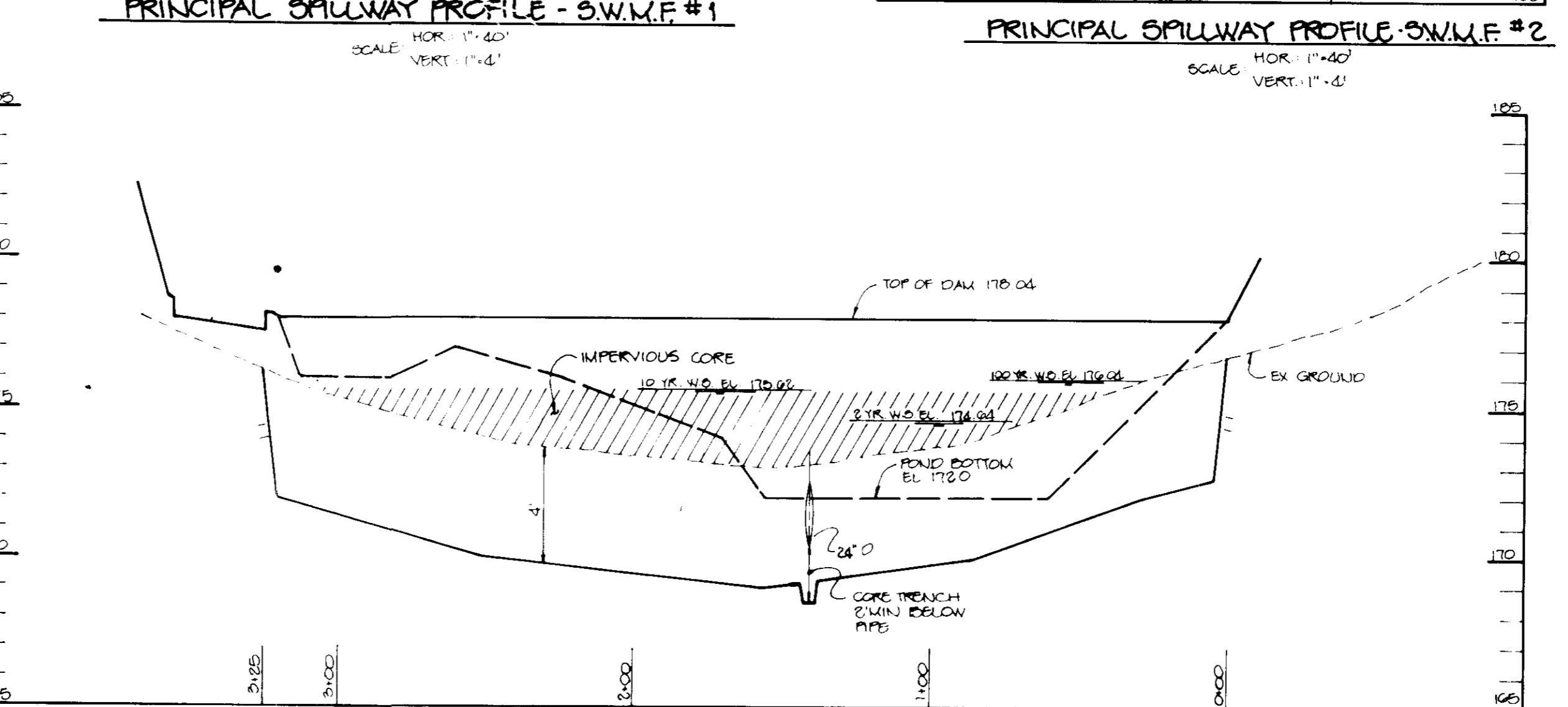
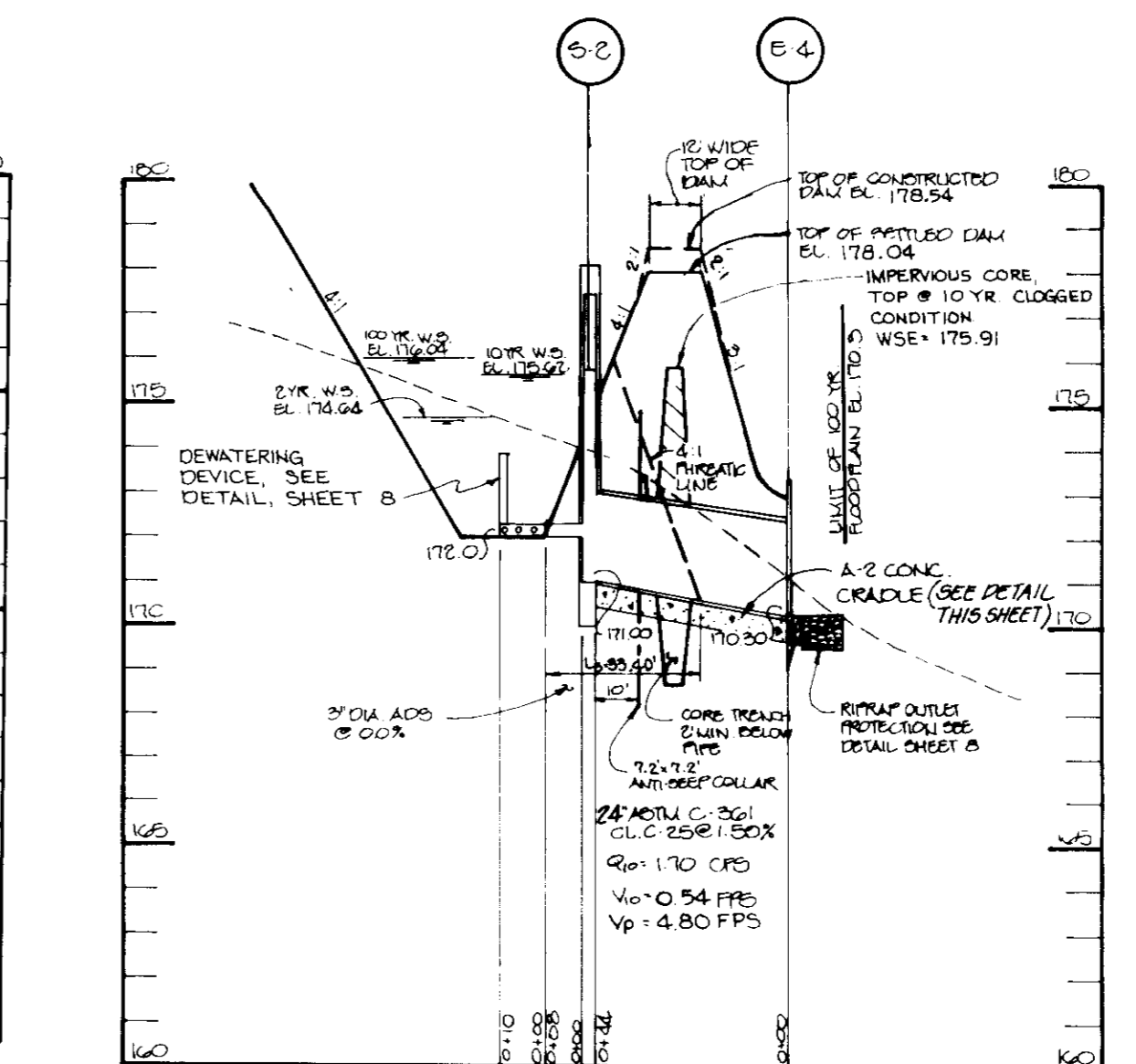
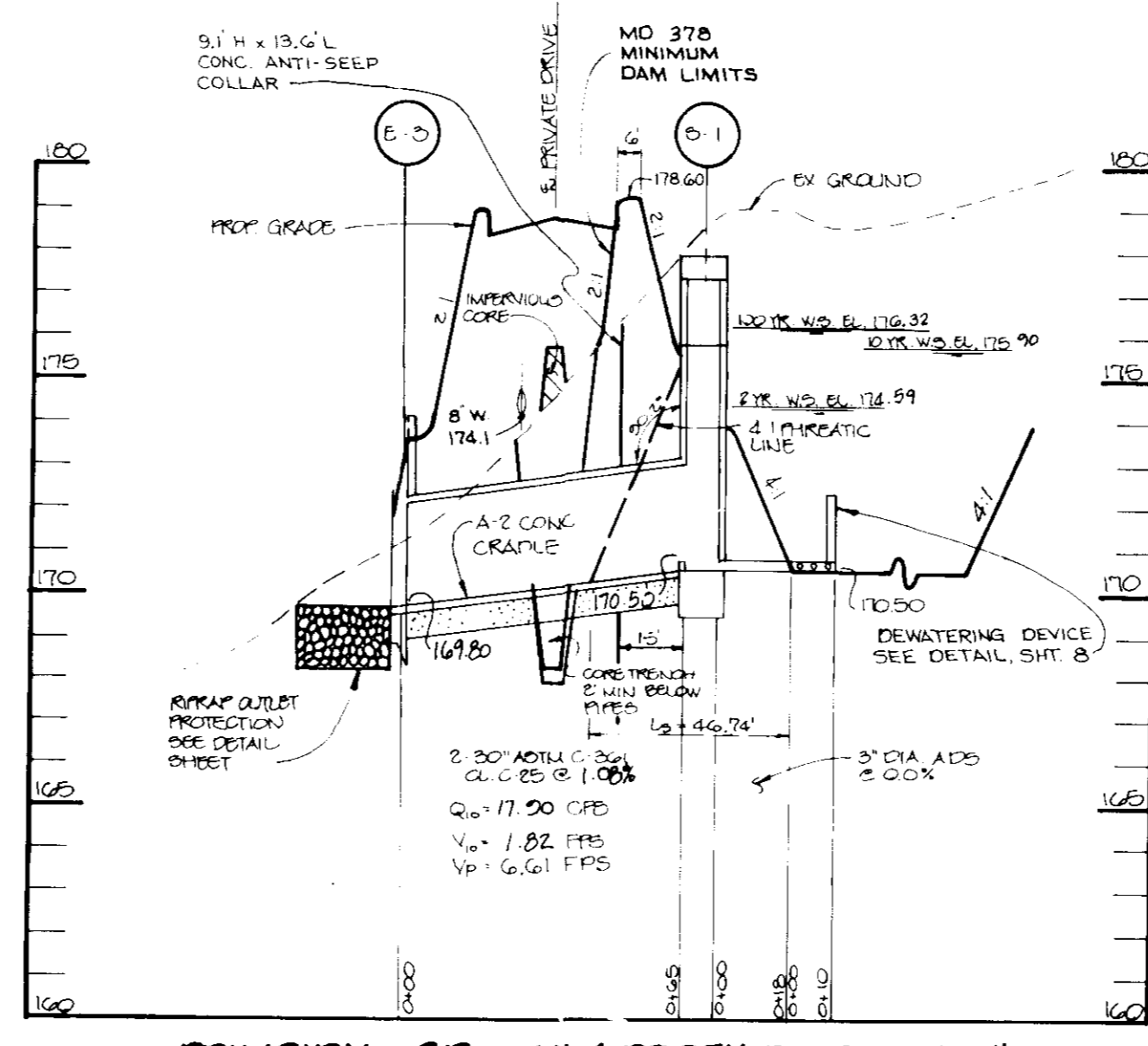


JAYKANT B. PAREKH #19148



NOTE: Other than the modifications shown here, this structure shall be constructed in accordance with SHA, Std. 10, MD, 206.11 & 206.21.

NOTES:
 1. SHOP DRAWINGS TO BE SUBMITTED TO HOWARD CO. AND CONSULTANT PRIOR TO FABRICATION. STRUCTURE MUST BE ON-SITE PRIOR TO COMMENCING CONSTRUCTION OPERATIONS.
 2. PRECAST CONTROL STRUCTURES TO BE PROVIDED WITH WATERTIGHT COLLARS AND 2" STUBS.



BASIN NO.	PIPE SIZE	COLLAR SIZE	COLLAR PROJECTION	QUANTITY
1	24"	9'6" x 14.54"	3.3'	1
1	18"	7'0" x 7.84"	2.5'	1
2	24"	7'7" x 8.54"	8.5'	1

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: CHARLES O'DONOVAN 11/27/95
 PRINT NAME BELOW SIGNATURE DATE

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

ENGINEER: J. Farrell 11/30/95
 PRINT NAME BELOW SIGNATURE DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

ALICIA ENGLISH, INC. 12/13/95
 NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

PLATEAU ZIEHL 12/14/95
 HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR: [Signature] 11/26/95 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH: [Signature] 11/24/96 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature] 12/20/95 DATE

DATE NO. REVISION

OWNER / DEVELOPER
 DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
 ARUNDEL BUILDING - SUITE 203
 110 WEST ROAD
 BALTIMORE, MARYLAND 21204

PROJECT
 DORSEY RUN INDUSTRIAL PARK - PARCEL C
 A WAREHOUSE BUILDING

AREA TAX MAP NO. 48 PARCEL C ZONED M-2
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
 SEDIMENT CONTROL / S.W.M.
 NOTES AND DETAILS

RIEMER MUEGGE & ASSOCIATES, INC.
 Planners • Engineers • Surveyors
 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
 410-997-8900 FAX: 410-997-9282

11.30.95 DATE
 # 93-101, SDP 91-52, SDP 92-07
 P. 95-160
 DESIGNED BY: C.J.R.
 DRAWN BY: W.C.W.
 PROJECT NO: 101403
 DATE: NOVEMBER 27, 1995
 SCALE: AS SHOWN
 DRAWING NO. 7 OF 16
 JAYKANT D. PAREKH #19148
 SDP-95-01

MD-378 STANDARDS AND SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for ponds MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Area designated for borrow areas, embankment, and structural works shall be cleared, grubbed and topped off. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and strip breaks shall be sloped to a steeper than 1:1.

Area to be covered by the reservoir will be cleared of all trees, brush, logs, stumps and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry streambed maintenance ponds, a minimum of 3.0 foot rocks around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of trees, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and out off branch shall conform to Unified Soil Classification C-12, C-13, C-14, or C-15. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 6-inch lifts (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The fill shall be placed and compacted concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot roller or vibratory roller. Fill materials shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

When a maximum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and it to be certified by the Engineer before the time of construction. All compaction is to be determined by AASHTO Method T-99.

Outlet French - The outlet french shall be excavated into impervious material along its parallel to the centerline of the embankment as shown on the plans. The bottom width of the french shall be governed by the equipment used for construction. The minimum depth shall be 4 feet below existing grade or as shown on the plans. The side slopes of the french shall be 1 to 1 or flatter.

The back fill shall be compacted with construction equipment rollers, or hand tampers to ensure maximum density and minimum permeability.

STRUCTURE BACKFILL Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to be completely air compacted immediately after placement. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe.

PIPE CONNECTIONS All pipes shall be caulked in cross section. Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and conform to the requirements of AASHTO Specification M-190 Type A with waterproof coating bands. Any bituminous coating damaged or disturbed shall be repaired with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum thickness of 1/8" (2 mm) on both sides of the pipe. The following coatings or an approved equal may be used: Neolastic 4000, Black Oxide, and other approved coatings. Steel pipe shall meet the requirements of AASHTO M-245 and M-246.

2. Coupling bands, anti-seep collars, and sections, etc. must be composed of the same material as the pipe. Metal pipe shall be connected to other materials with use of rubber or plastic insulating materials at least 1/2" in thickness.

3. Connections - All connections with pipes must be completely watertight. The anti seep collar connection to the pipe shall be welded or caulked on the pipe and rear metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Drape bands are not required to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be provided an adequate number of connections to accommodate the board width. The following pipe connections are acceptable for pipe less than 48" in diameter: (a) flange on both ends of the pipe, a 1/2" wide standard top lip band with 1/2" wide by 3/8" thick closed cell neoprene gasket, 1/2" wide rubber top lip band with 1/2" wide by 3/8" thick closed cell neoprene gasket, 1/2" wide rubber top lip band with 1/2" wide by 3/8" thick closed cell neoprene gasket, and 1/2" wide by 3/8" thick closed cell neoprene gasket. Pipes 48" in diameter and larger shall be connected by 24" long corrugated band using rods and nuts. A 1/2" wide by 3/8" thick closed cell neoprene gasket shall be installed on the end of each pipe for a total of 24" of gasket. Heavily corrugated pipe shall have anti-seep collars welded on every two lock seams.

4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other undesirable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to Structure Bookfill. 6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. The bedding shall consist of high strength concrete placed under the pipe and up the side of the pipe to a depth of at least 10% of the outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.

2. Laying pipe - Ball and reject pipe shall be placed with the ball and reject. Joints shall be made up in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire length the bedding shall be placed to the full depth on both sides of the pipe. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the clear.

3. Backfilling shall conform to Structure Bookfill. 4. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

PROXY CHLORIDE (PVC) PIPE - All of the following criteria shall apply for proxy chloride (PVC) pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785, or ASTM D-2241. 2. Joints and connections to anti-seep collars shall be completely watertight. 3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other undesirable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to Structure Bookfill. 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

ROCK RIPRAP All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subangular in shape. The least dimension of the rock fragment shall not be less than one-third the greatest dimension of the fragment.

The rock shall have the following properties: 1. Bulk specific gravity (saturated surface-dry basis) shall not be less than 2.5. 2. Absorption shall not be more than three percent. 3. Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used. Bulk specific gravity and absorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 186.

CARE OF WATER DURING CONSTRUCTION All work on permanent structures shall be carried out in areas free from water. The contractor shall control and maintain the position of temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent work. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavation, foundation, and other parts of the work free from water. After having served their purpose, all temporary protective works shall be removed or leased and graded to the extent required to prevent destruction in any degree whatsoever of the flow of water to the delivery or outlet works. The contractor shall not be liable for any damage to the structure or stream diversions. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated spaces and bottom of required excavation and will allow satisfactory performance of construction operations. During the piling and compacting of material in required excavations, the water level of the locations being filled shall be maintained below the bottom of the excavation of such locations which may require draining the water to pumps from which the water shall be pumped.

STABILIZATION All borrow areas shall be graded to provide proper drainage and left in a safety condition. All exposed surfaces of the embankment, delivery, spoil and borrow areas, and bays shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (461-142) or as shown on the accompanying drawings.

EROSION AND SEDIMENT CONTROL Construction operations will be carried out in such a manner that erosion will be controlled and water will be pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans will detail erosion and sediment control measures to be employed during the construction process.

Refer to the 1982 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

TEMPORARY SEEDING NOTES Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Seeding Practices - Seeding shall be done within 30 days of soil by ridge, slope or other suitable means before seeding, if not previously located.

Soil Amendments - Apply 500 lbs. per acre 10-10-10 fertilizer (18 lbs. per 1000 sq. ft.).

Seeding - For period March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual ryegrass (3.2 lbs. per 1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of seeping lovegrass (0.07 lbs. per 1000 sq. ft.). For the period February 28, protect site by applying 2 tons per acre of well-rotted straw mulch and seed as soon as possible in the spring, or use seed.

Mulching - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq. ft.) of untreated wood chips, straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2x8 cut-off core (5 gal. per 1000 sq. ft.) of untreated oregon oak bark or 2x8 cut-off core (5 gal. per 1000 sq. ft.) of untreated oregon oak bark or 2x8 cut-off core (5 gal. per 1000 sq. ft.) of untreated oregon oak bark.

PERMANENT SEEDING NOTES Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-term vegetative cover is needed.

Seeding Practices - Seeding shall be done within 30 days of soil by ridge, slope or other suitable means before seeding, if not previously located.

Soil Amendments - Use one of the following alternatives: 1) Fertilizer - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq. ft.) and 800 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq. ft.) before seeding. Harrow or disc to incorporate three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-10 uniform fertilizer (8 lbs. per 1000 sq. ft.). 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq. ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq. ft.) before seeding. Harrow or disc to incorporate three inches of soil.

Seeding - For the period March 1 thru April 30 and from August 15 thru October 15, seed with 2 1/2 bushels per acre of annual ryegrass (3.2 lbs. per 1000 sq. ft.). For the period May 1 thru July 31, seed with 80 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre of 0-20-0 lbs. per 1000 sq. ft. of seeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options:

1) 2 tons per acre of well-rotted mulch straw and seed as soon as possible in the spring. 2) Use seed. 3) Seed with 80 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well-rotted straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2x8 cut-off core (5 gal. per 1000 sq. ft.) of untreated oregon oak bark or 2x8 cut-off core (5 gal. per 1000 sq. ft.) of untreated oregon oak bark.

Maintenance - Inspect all seeded areas and make needed repairs, replacements and seedings.

SEEDING CONTROL NOTES 1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections and Permits prior to the start of any construction (213-1855).

2. All negative and structural practices are to be installed according to the provisions of this plan and one to be in accordance with the Maryland Standards and Specifications for SOIL AND EROSION CONTROL, and revisions thereto.

3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within 14 calendar days for all permanent sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1. 14 days or to other disturbed or graded areas on the project site.

4. All sediment traps/basins shown must be fenced and working after placed around the perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL for permanent seeding (Sec. 51) and (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch areas can only be done when recommended seeding rates do not allow for proper germination and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

7. Site Analysis: Total Area of Site: 26.68 acres. Area Disturbed: 11.50 acres. Area to be seeded or paved: 11.70 acres. Area to be vegetatively stabilized: 45,000 sq. yds. Total Fill: 34,000 cu. yds.

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9. Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.

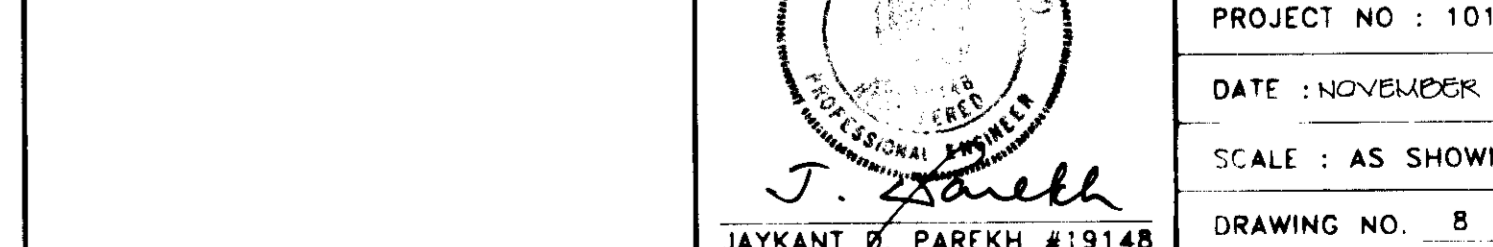
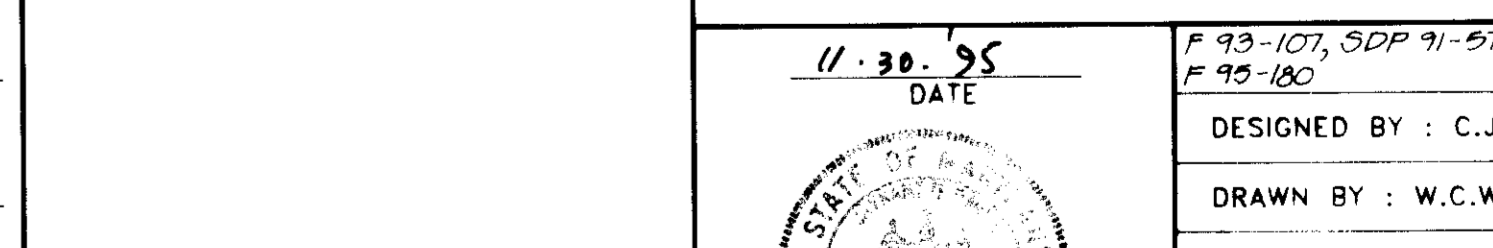
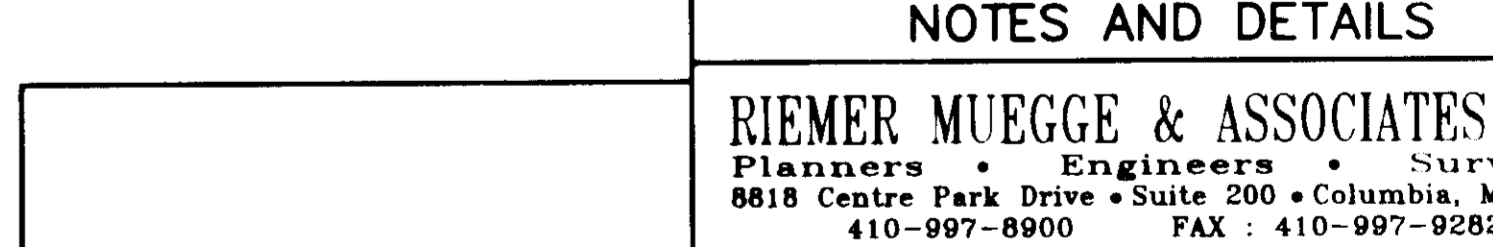
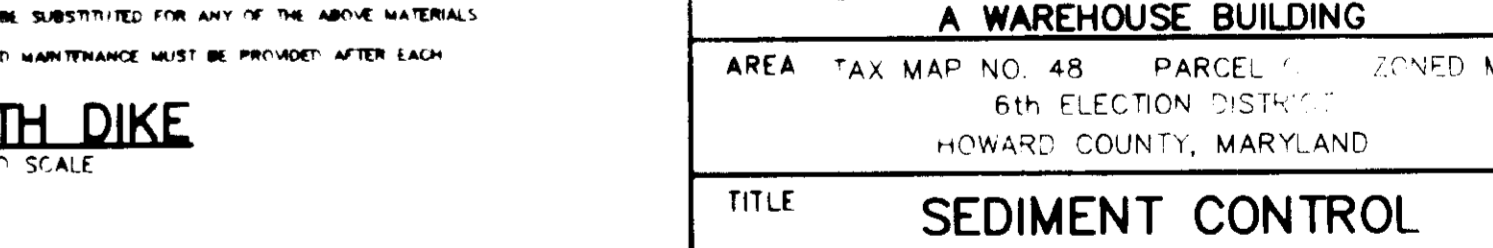
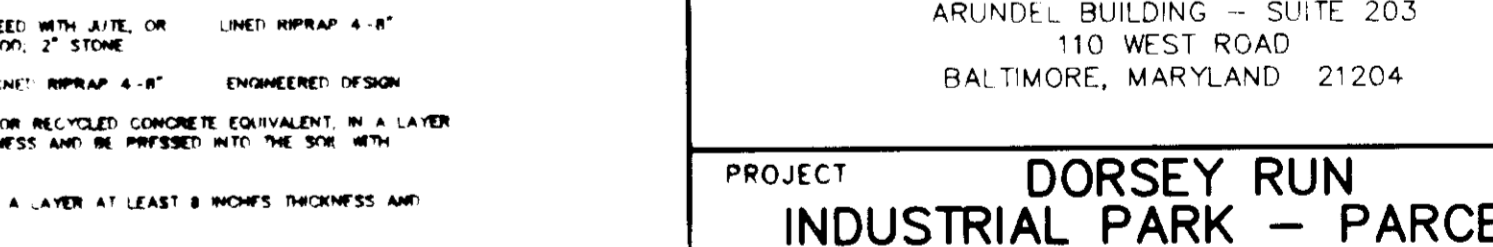
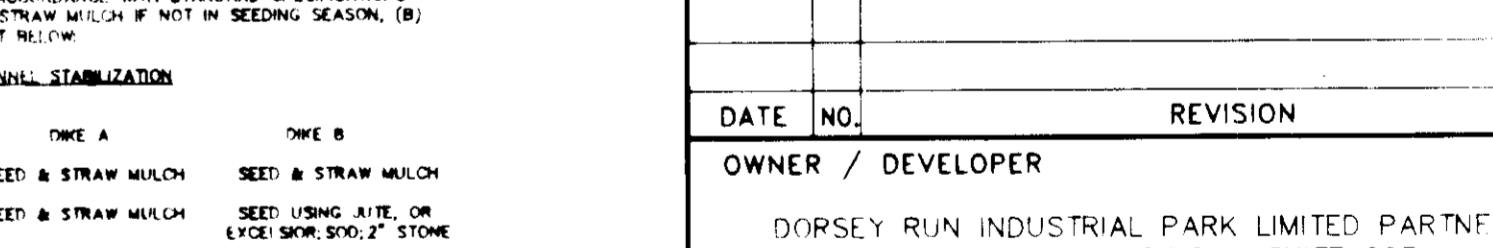
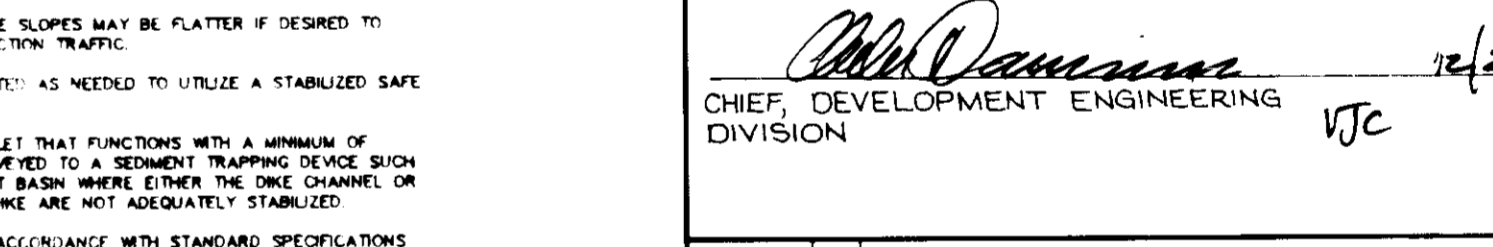
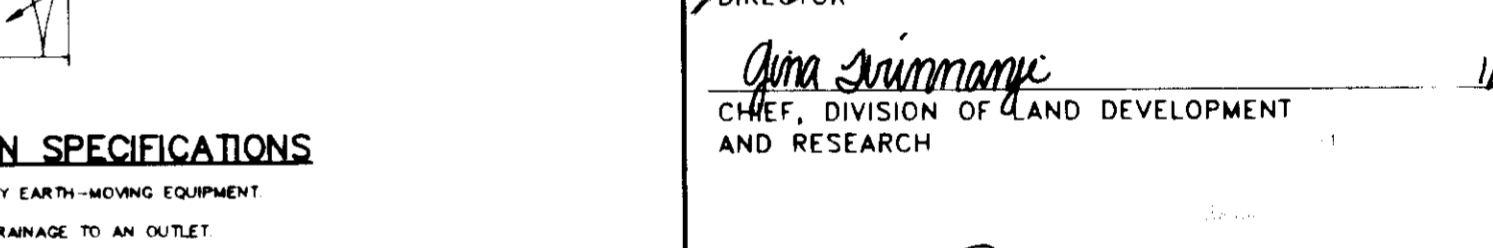
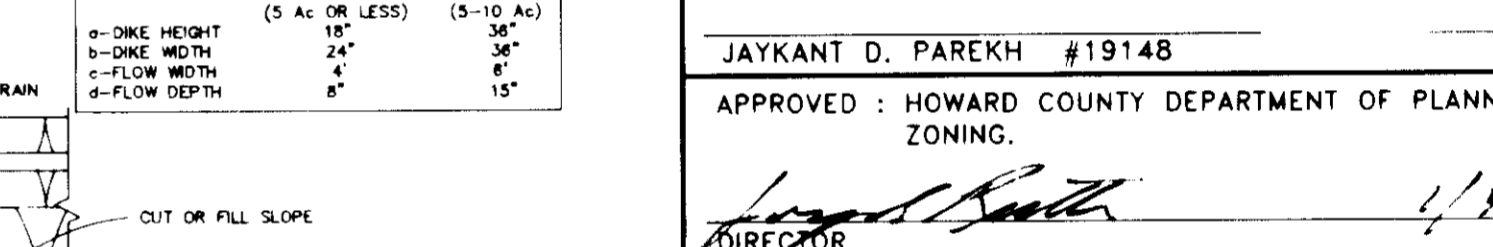
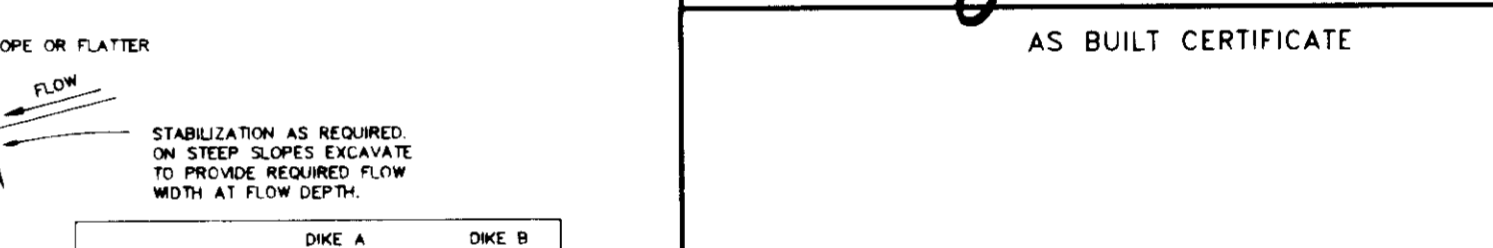
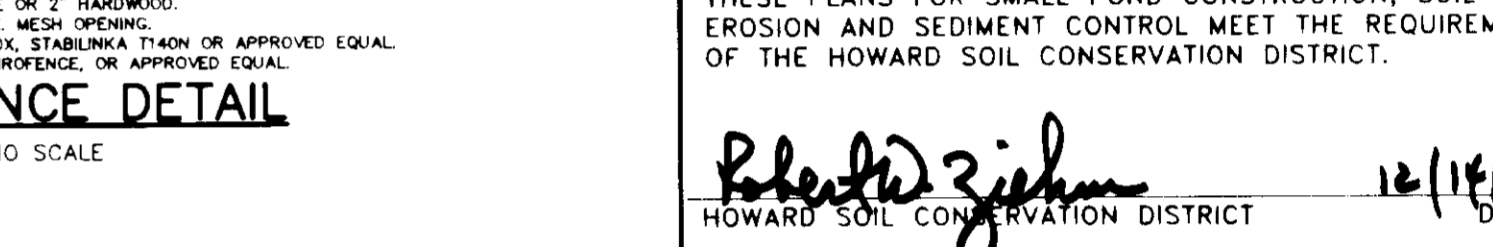
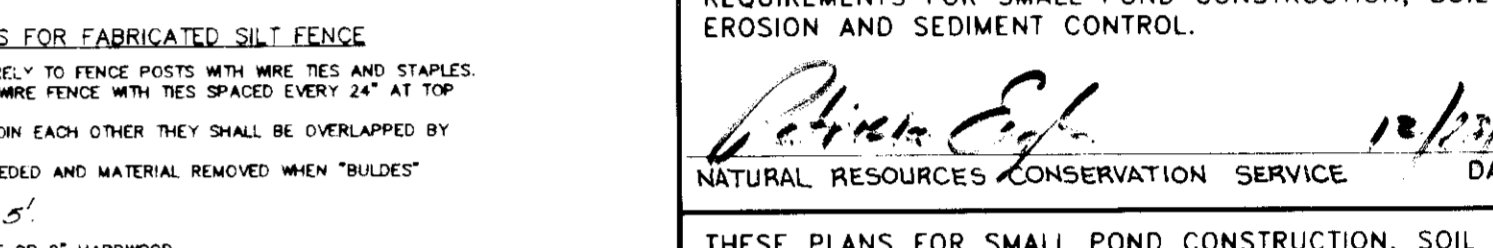
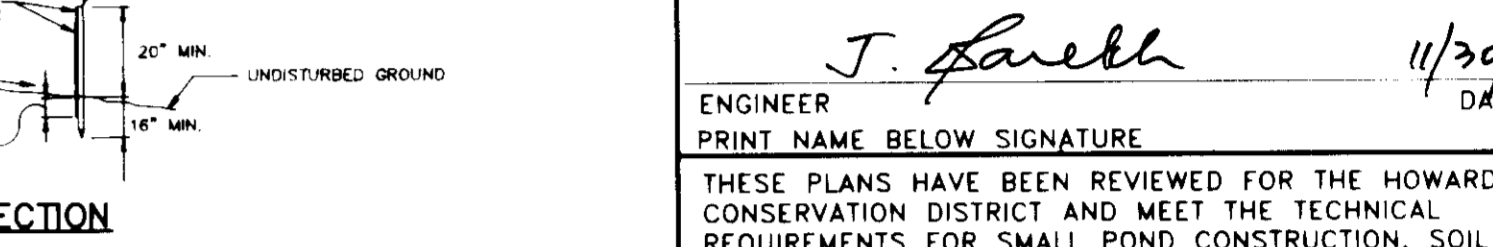
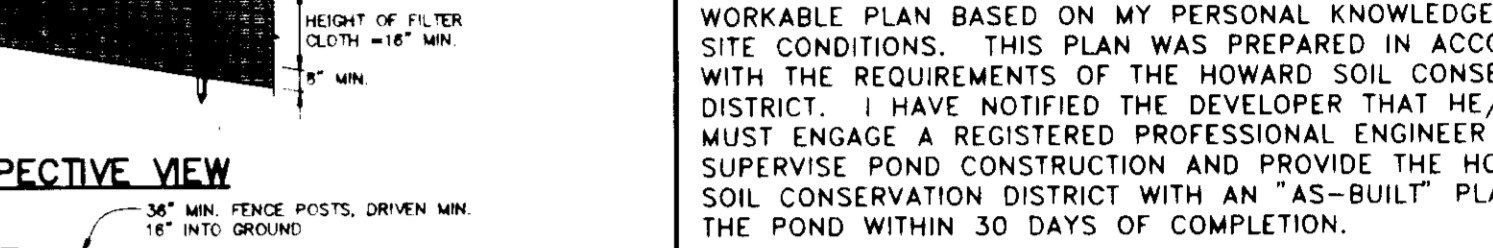
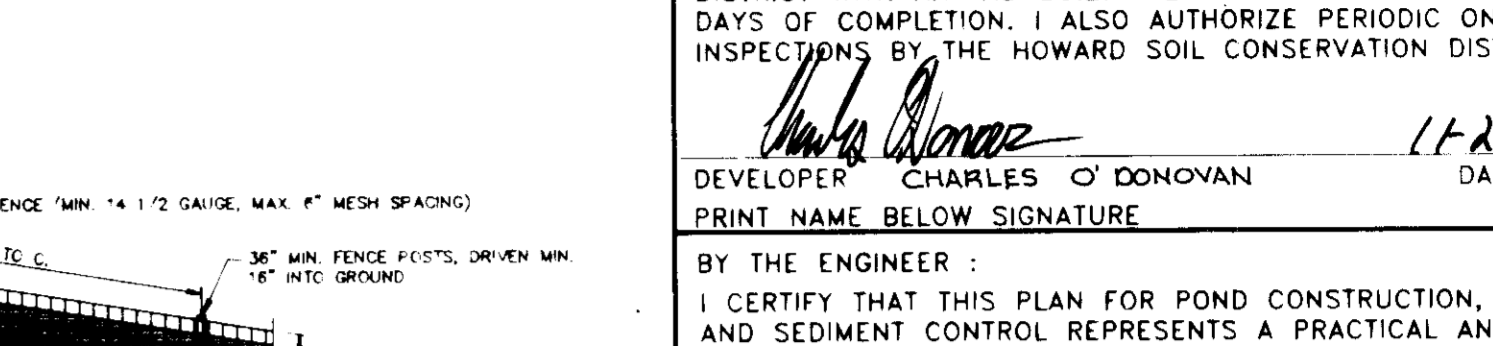
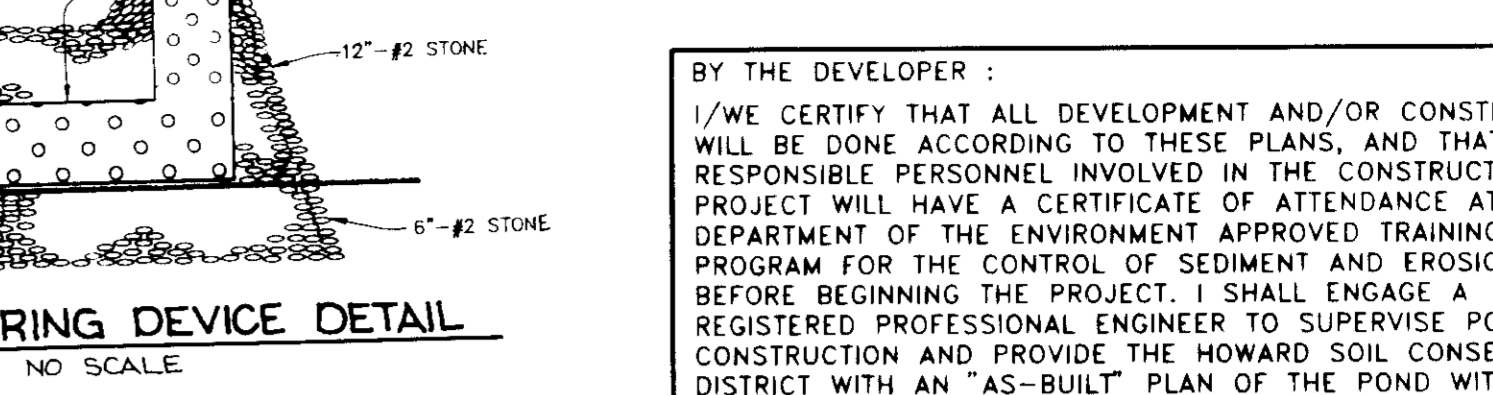
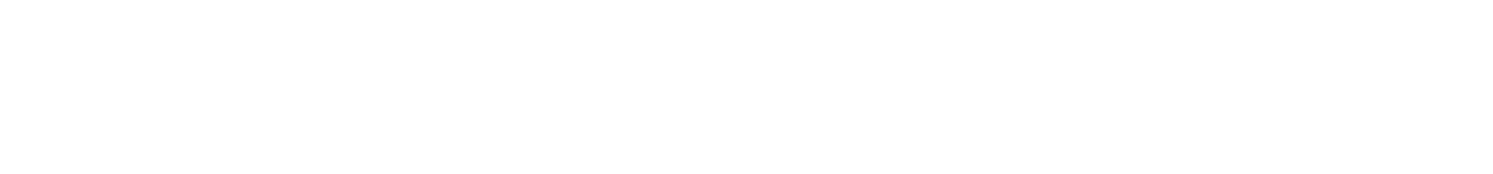
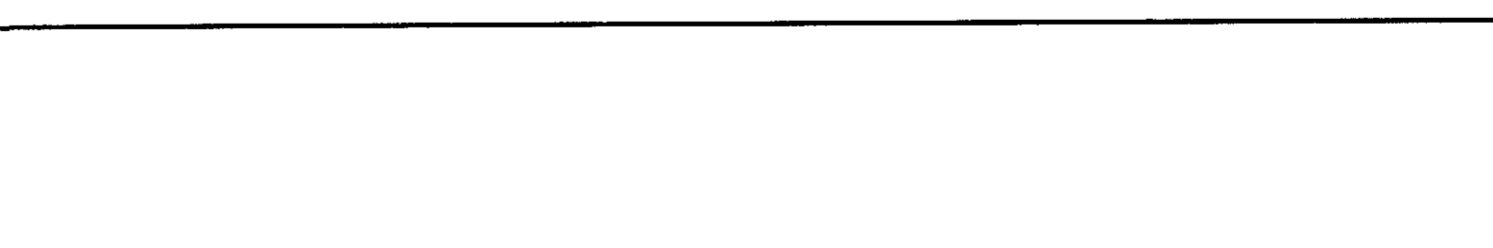
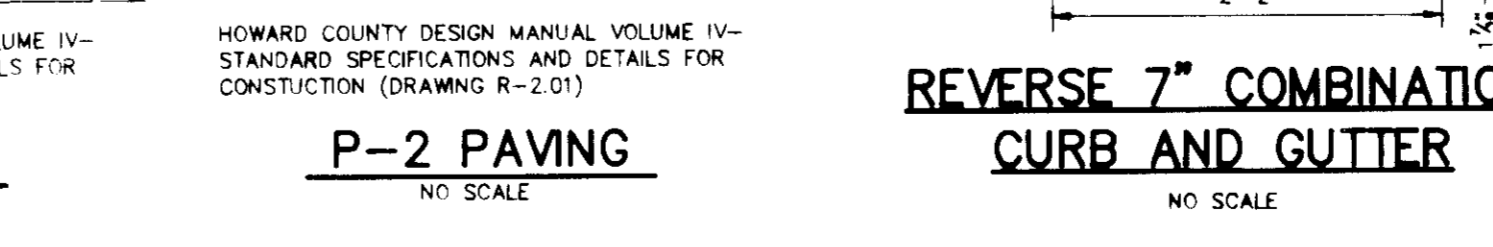
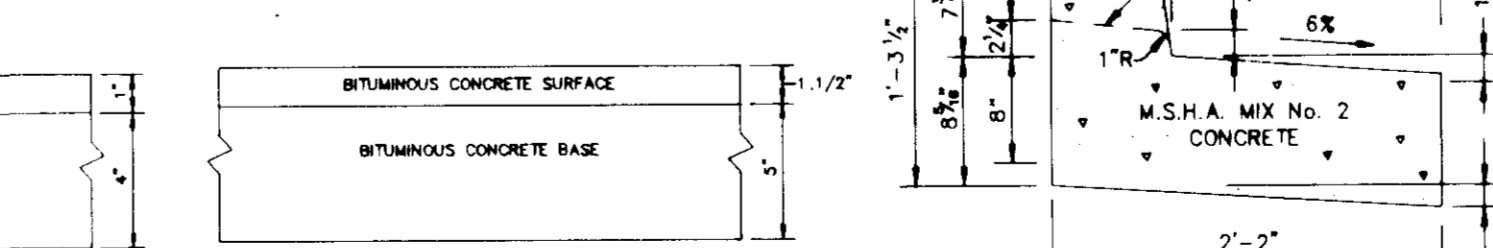
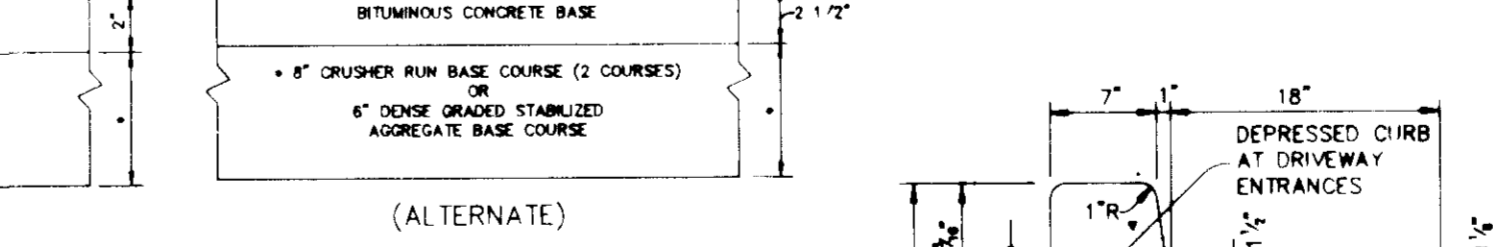
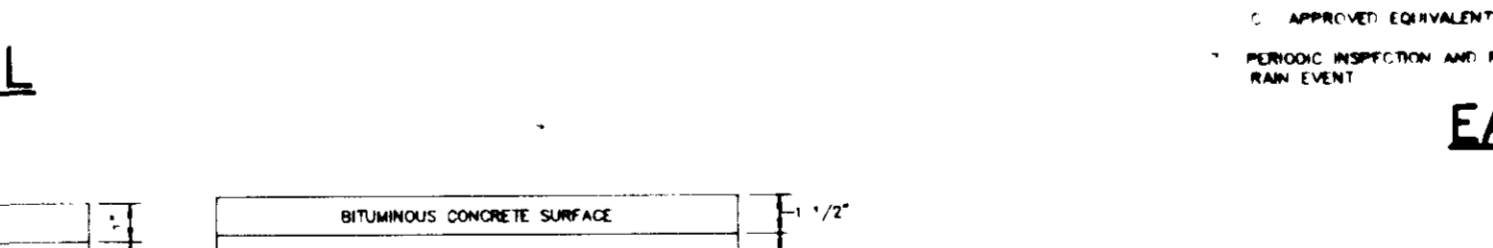
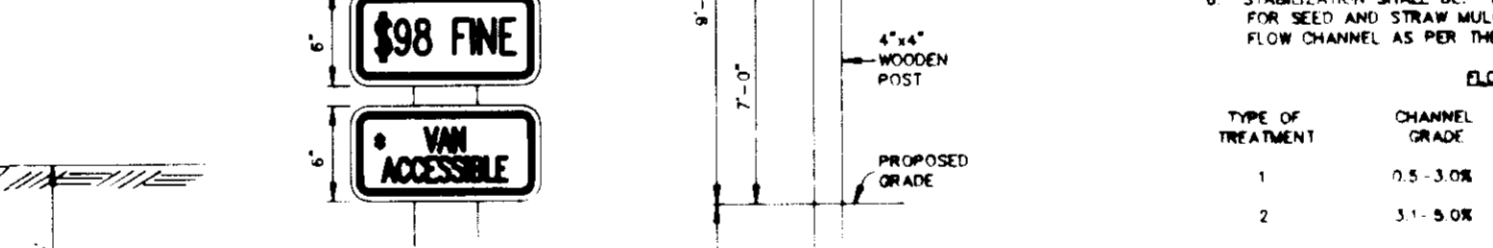
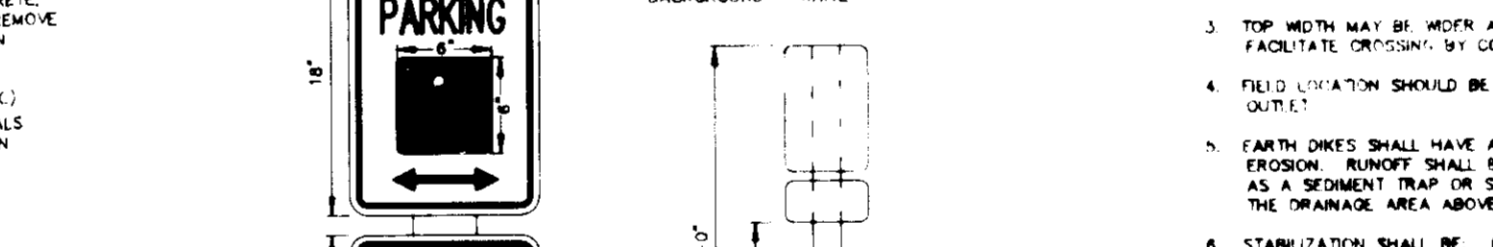
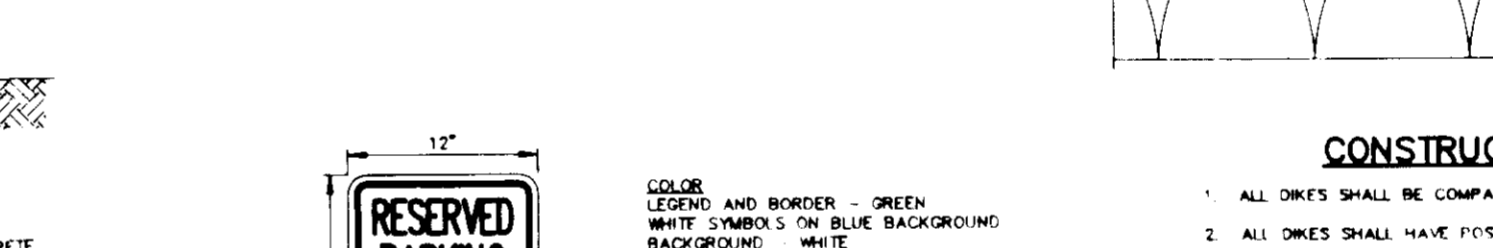
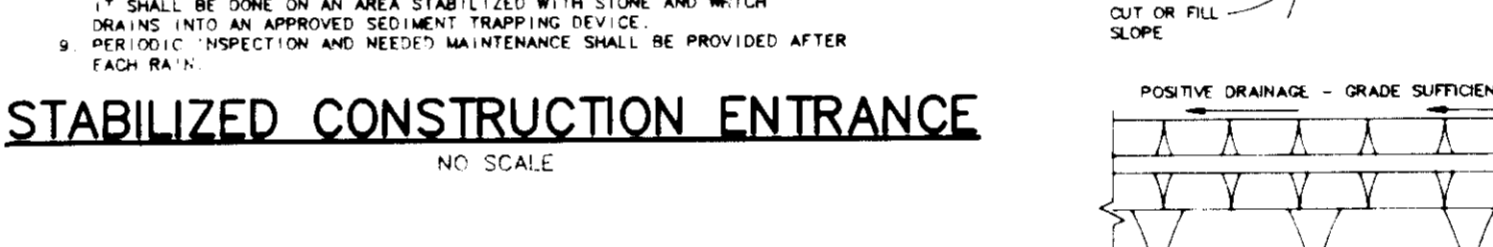
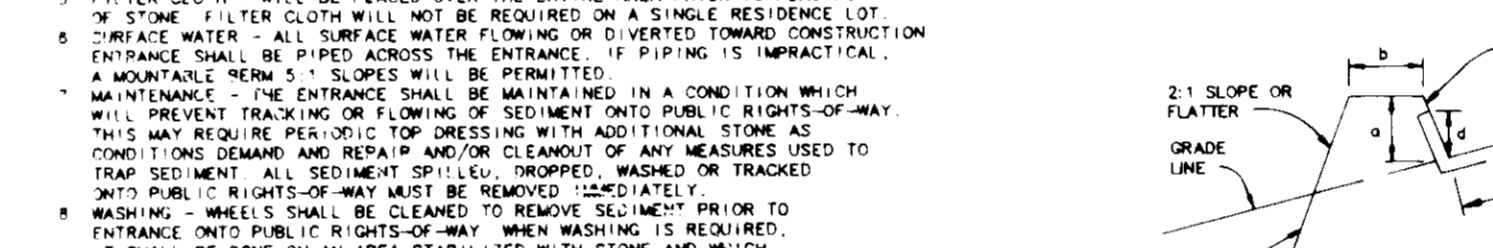
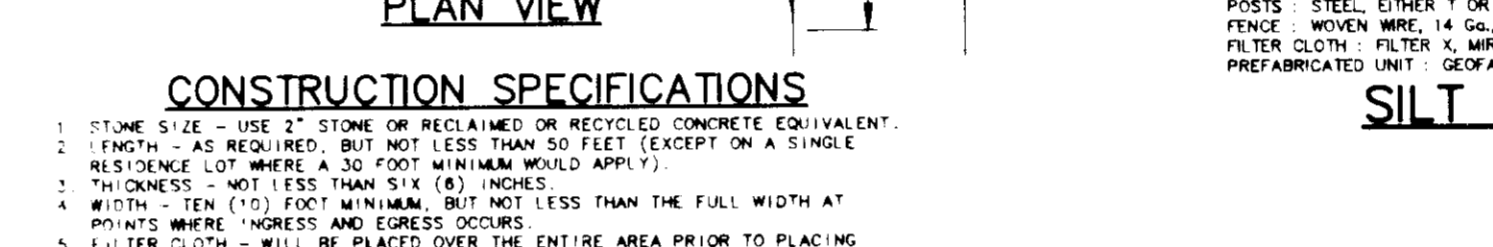
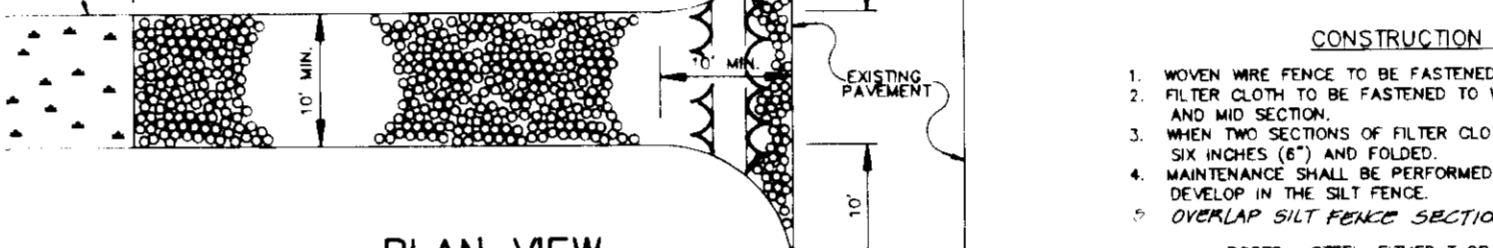
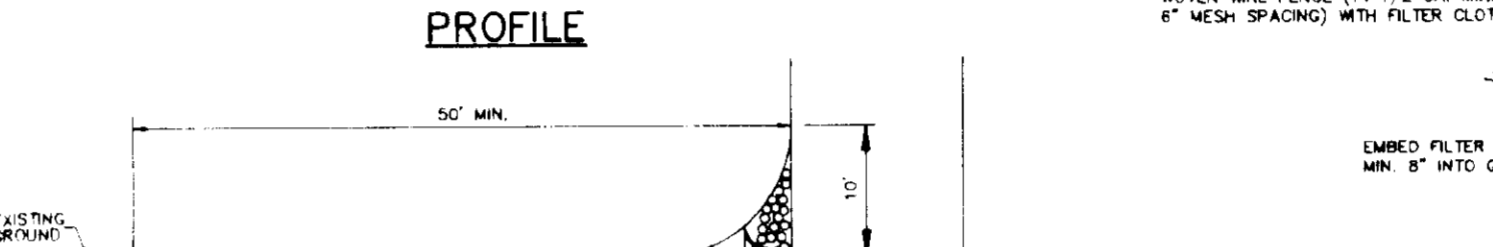
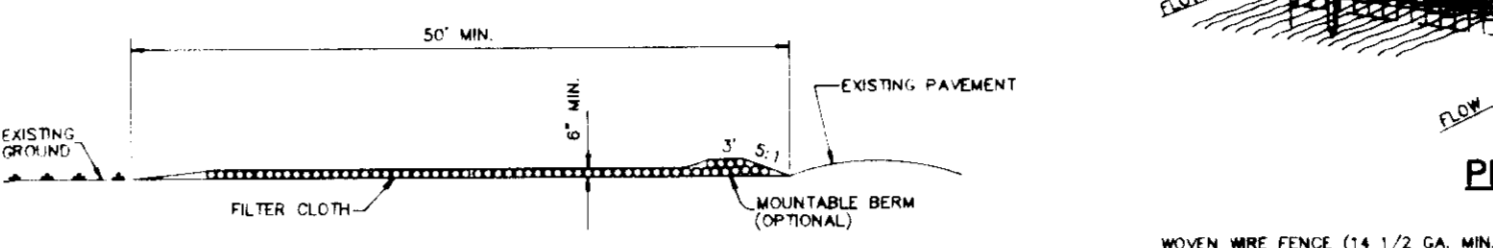
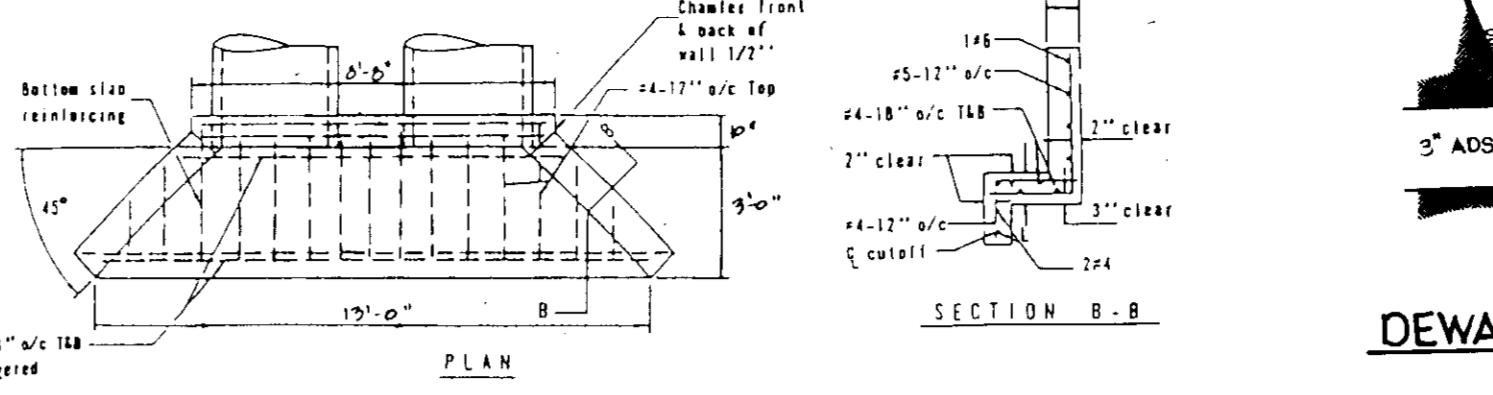
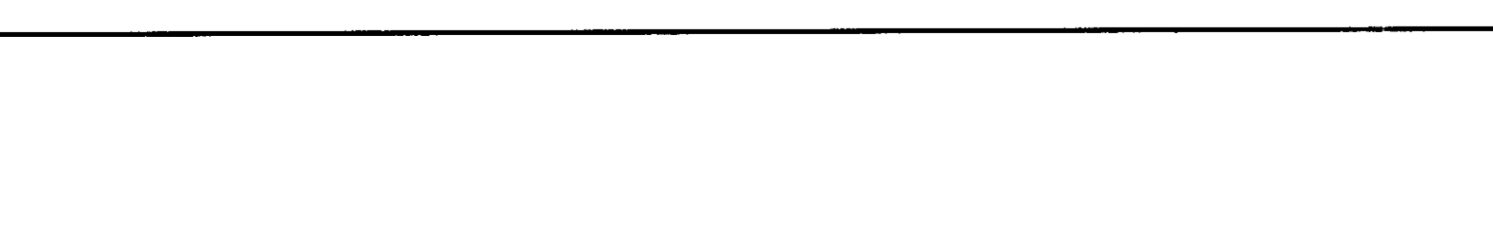
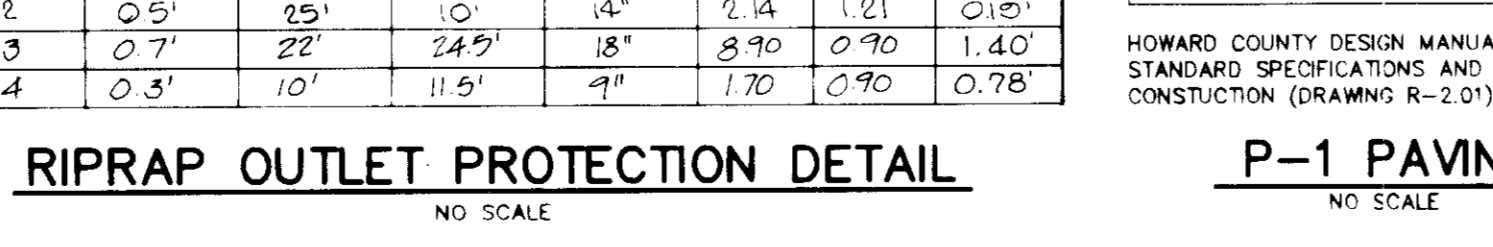
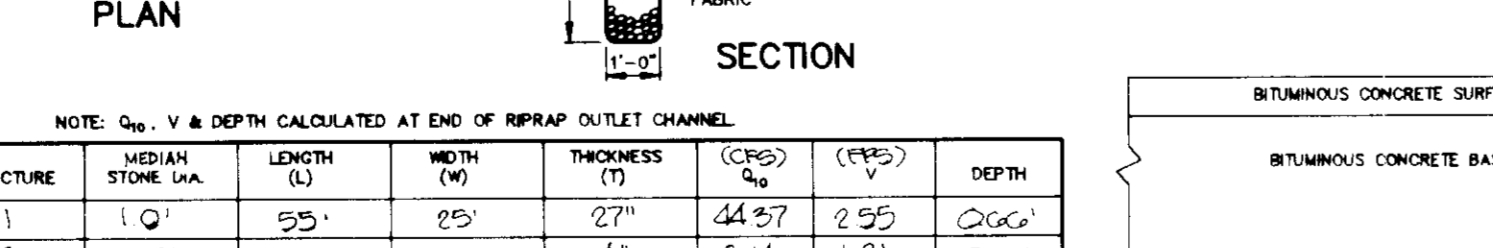
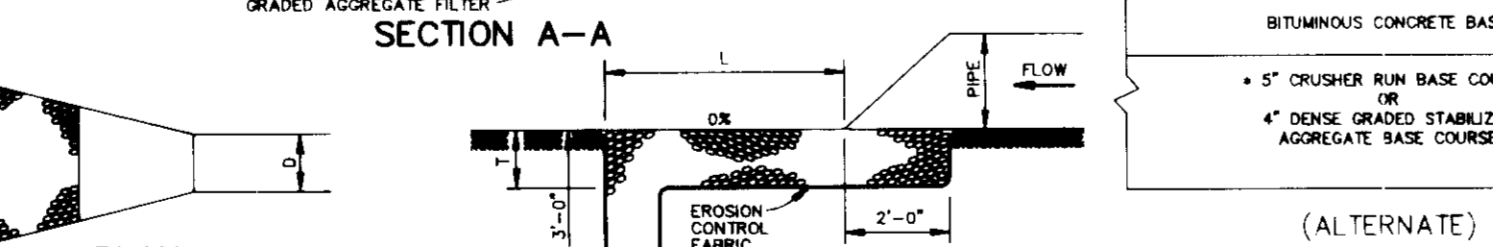
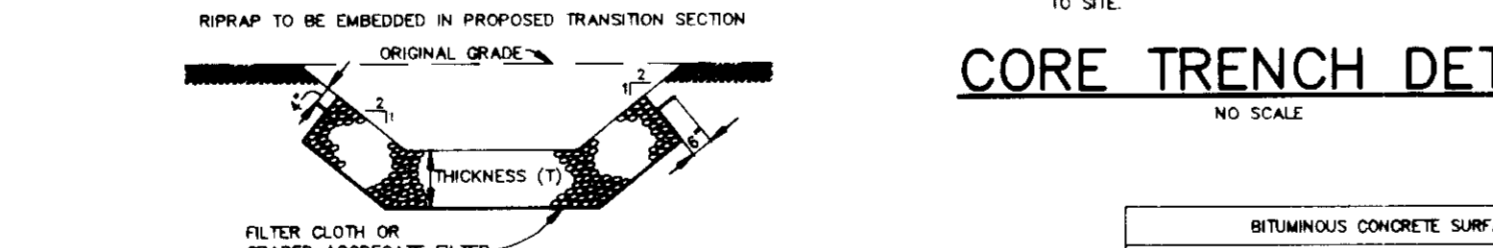
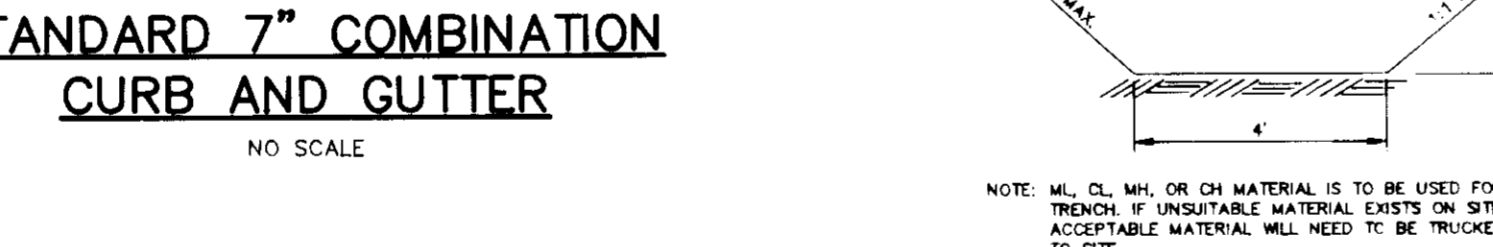
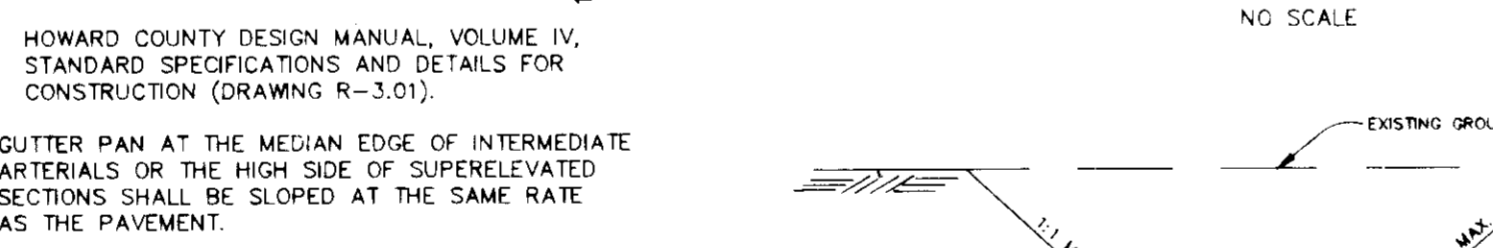
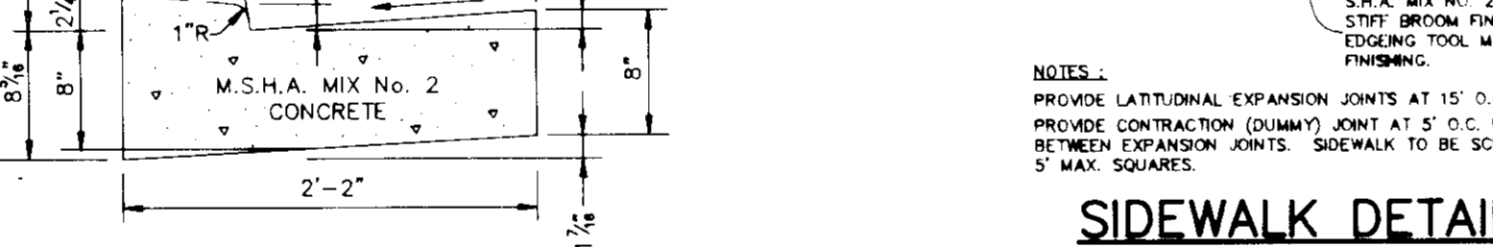
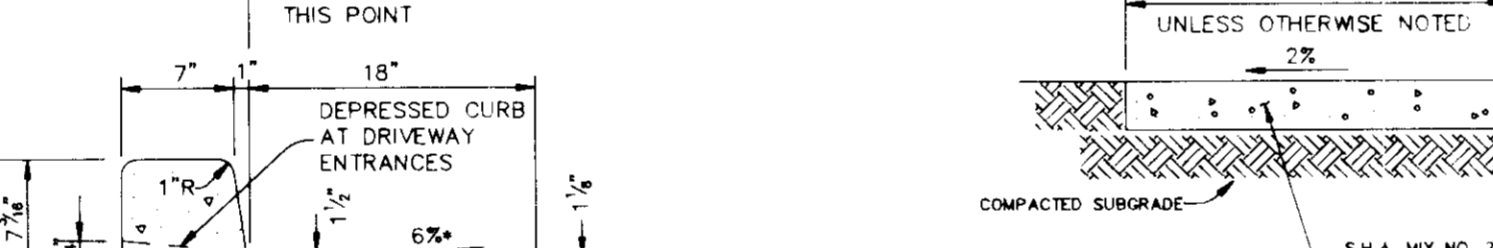
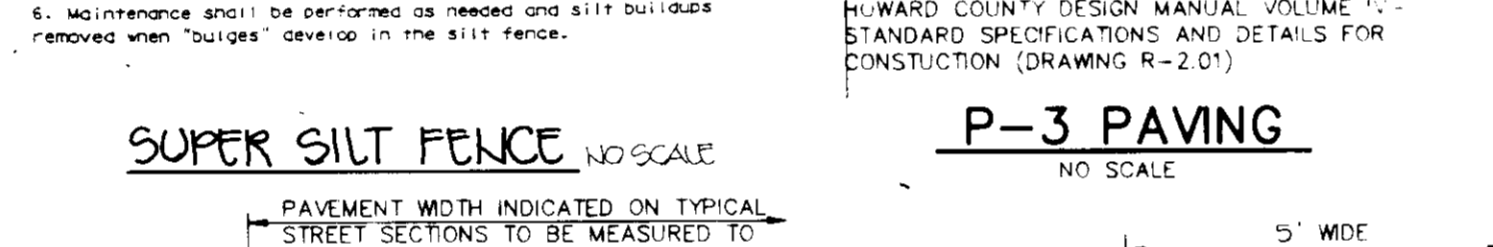
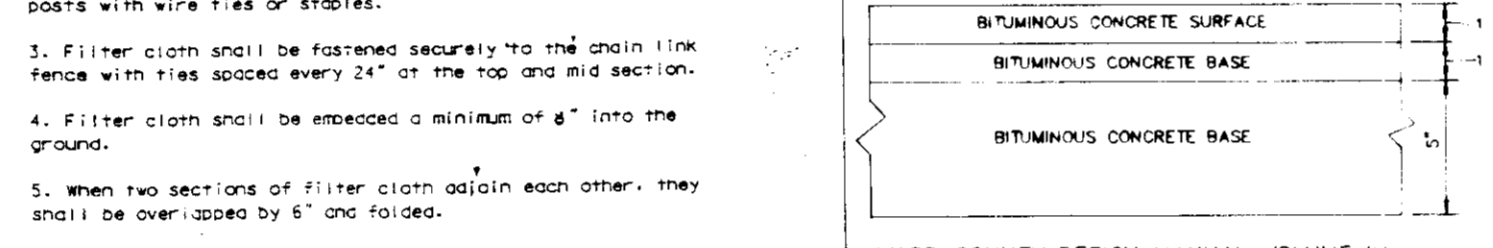
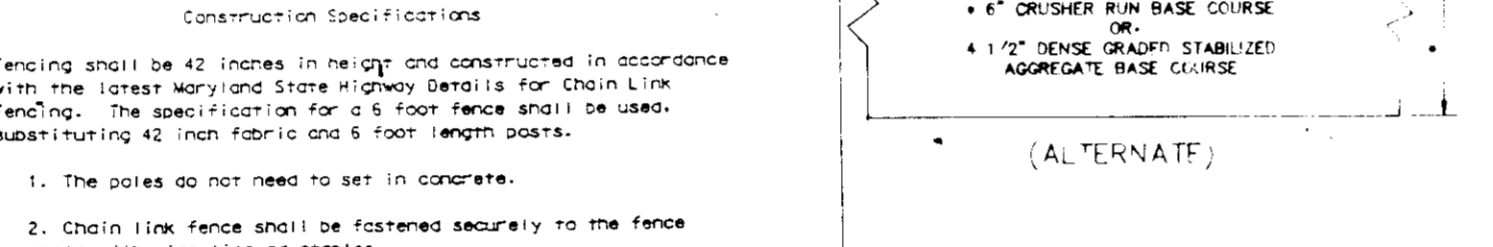
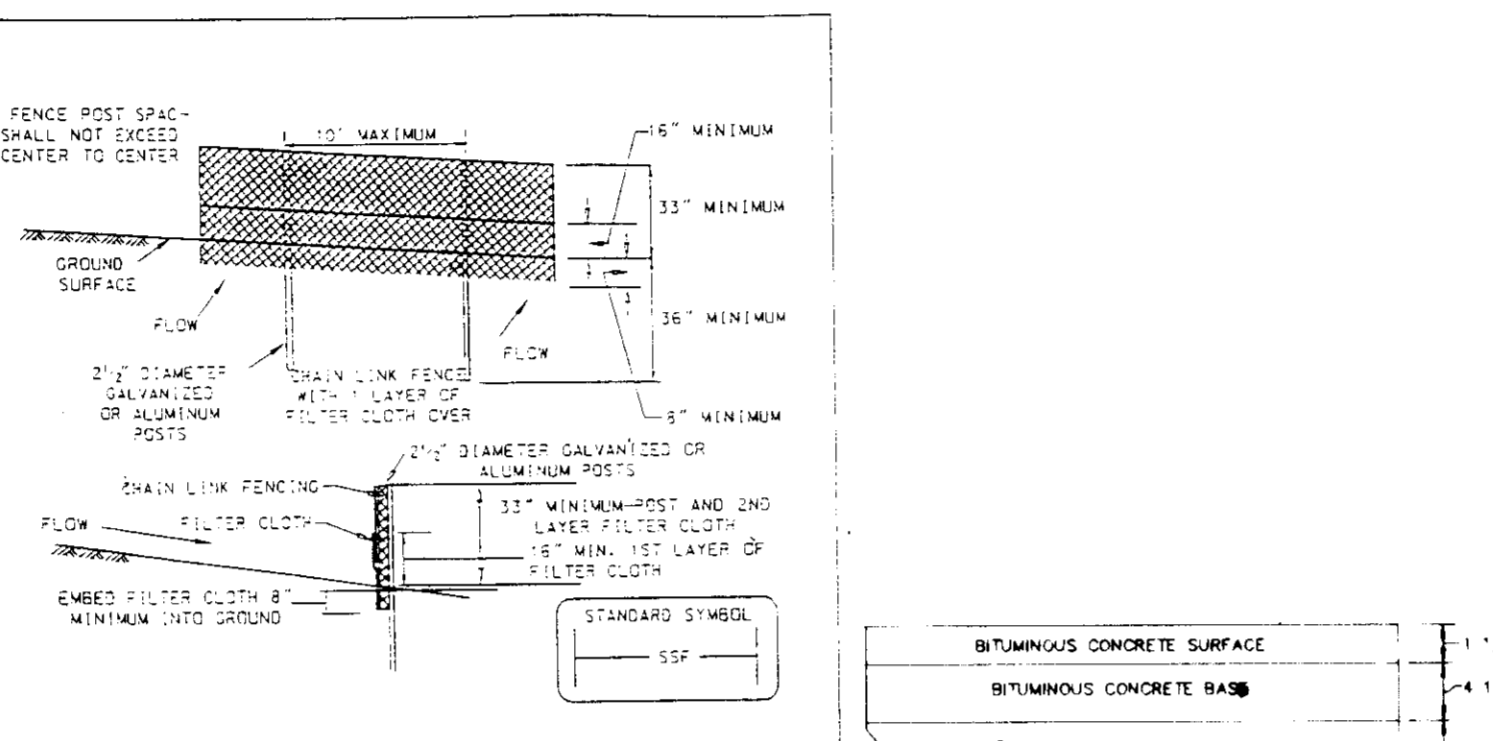
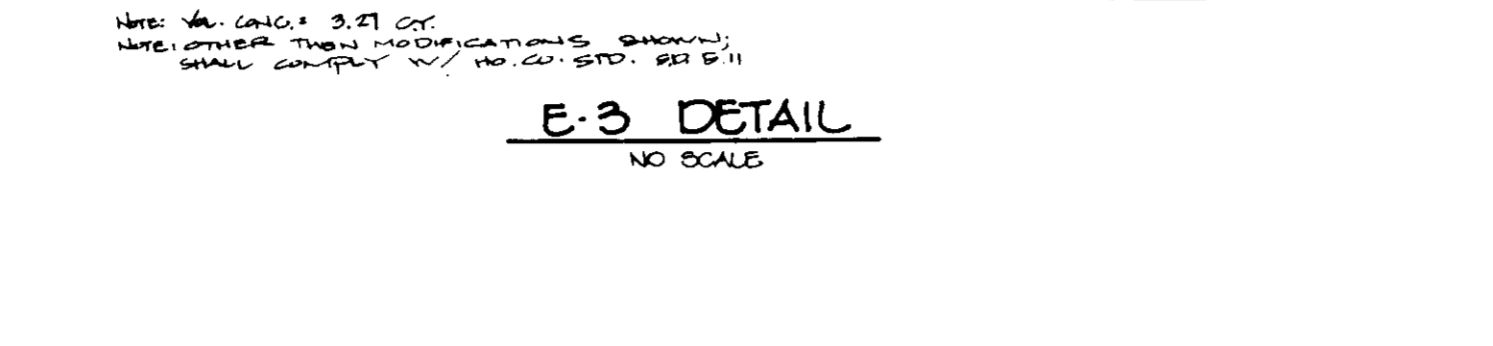
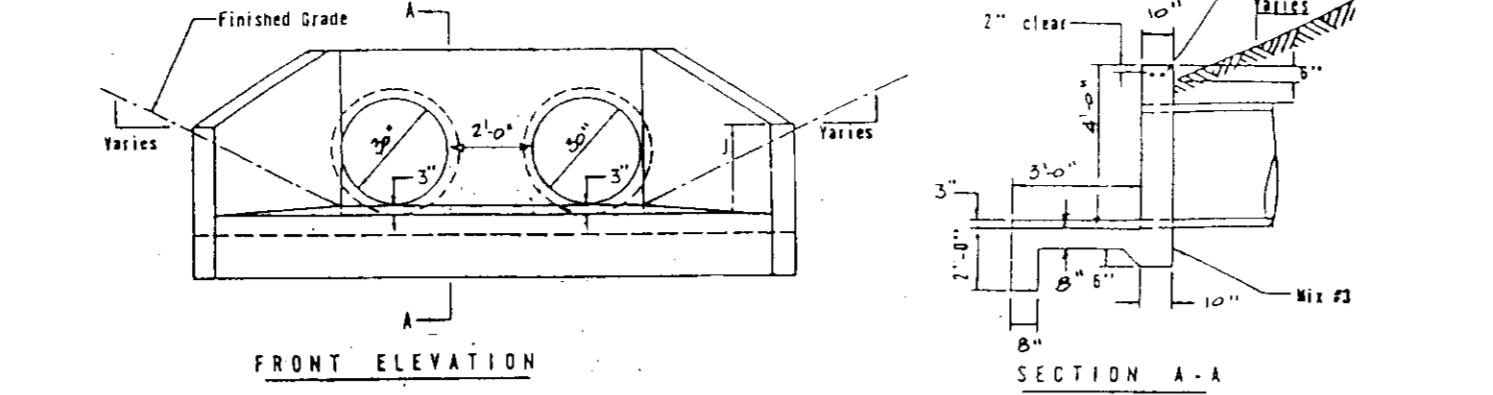
10. Site grading will begin only after all permanent sediment control measures have been installed and are in a functioning condition.

11. Sediment will be removed from traps when its depth reaches clean out elevation shown on the plans.

12. Out and fill quantities provided under site analysis do not represent bid quantities. These quantities do not distinguish between topsoil, structural fill or embankment material, nor do they reflect consideration of underlay or removal of undesirable material. The contractor shall familiarize himself with site conditions and the inspection agency in the field.

13. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of sediment control structures, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

14. Tranches for the construction of utilities is limited to three pipe lengths or that which can be backfilled and stabilized with one working day, whichever is shorter.



BY THE DEVELOPER: I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Charles O'Donovan 11/2/95 DATE

BY THE ENGINEER: I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

J. Farrell 11/30/95 DATE

These plans have been reviewed for the HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Robert Zelman 12/18/95 DATE

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chira Szymanski 11/3/96 DATE

Chira Szymanski 11/30/95 DATE

OWNER / DEVELOPER: DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP

PROJECT: INDUSTRIAL PARK - PARCEL C A WAREHOUSE BUILDING

TITLE: SEDIMENT CONTROL NOTES AND DETAILS

RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors

DESIGNED BY: C.J.R.

DRAWN BY: W.C.W.

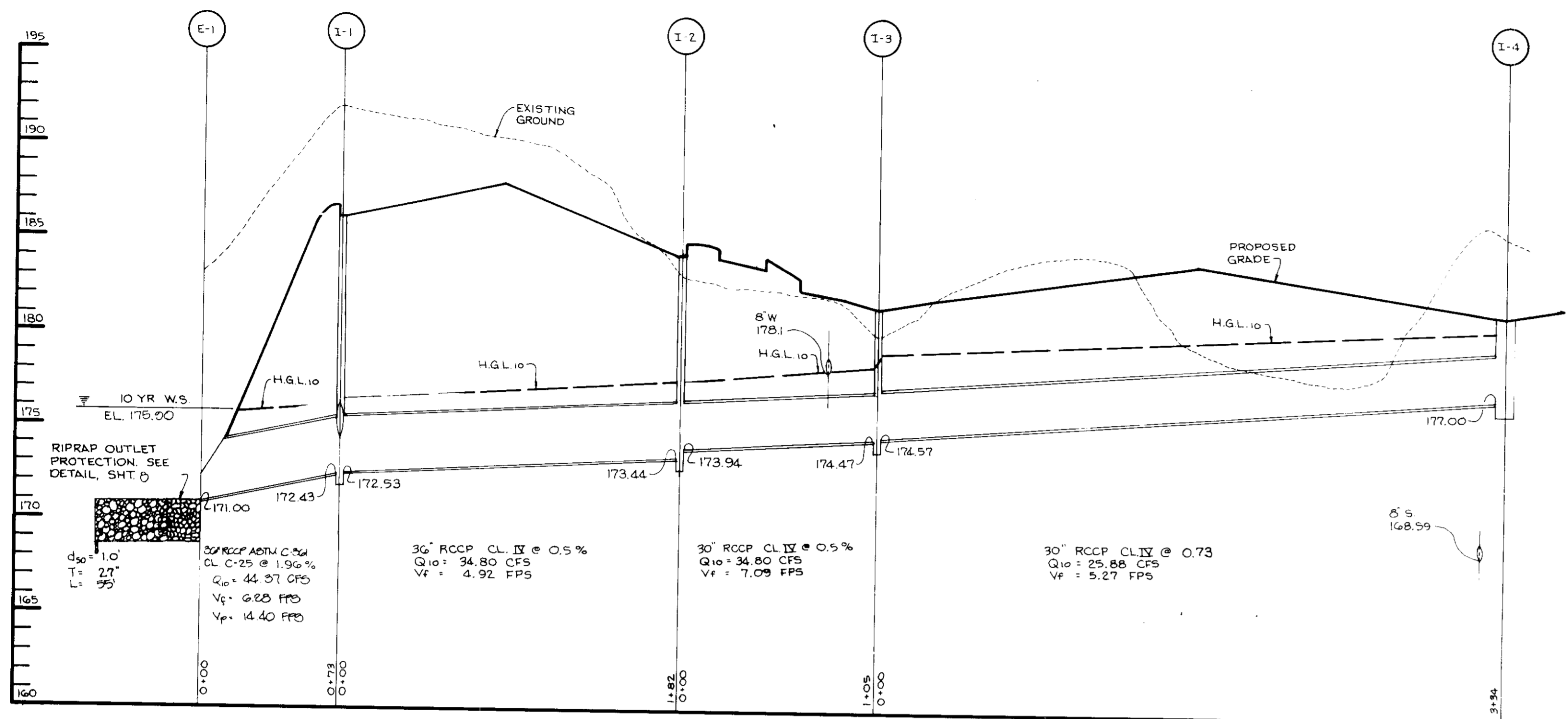
DATE: NOVEMBER 27, 1995

SCALE: AS SHOWN

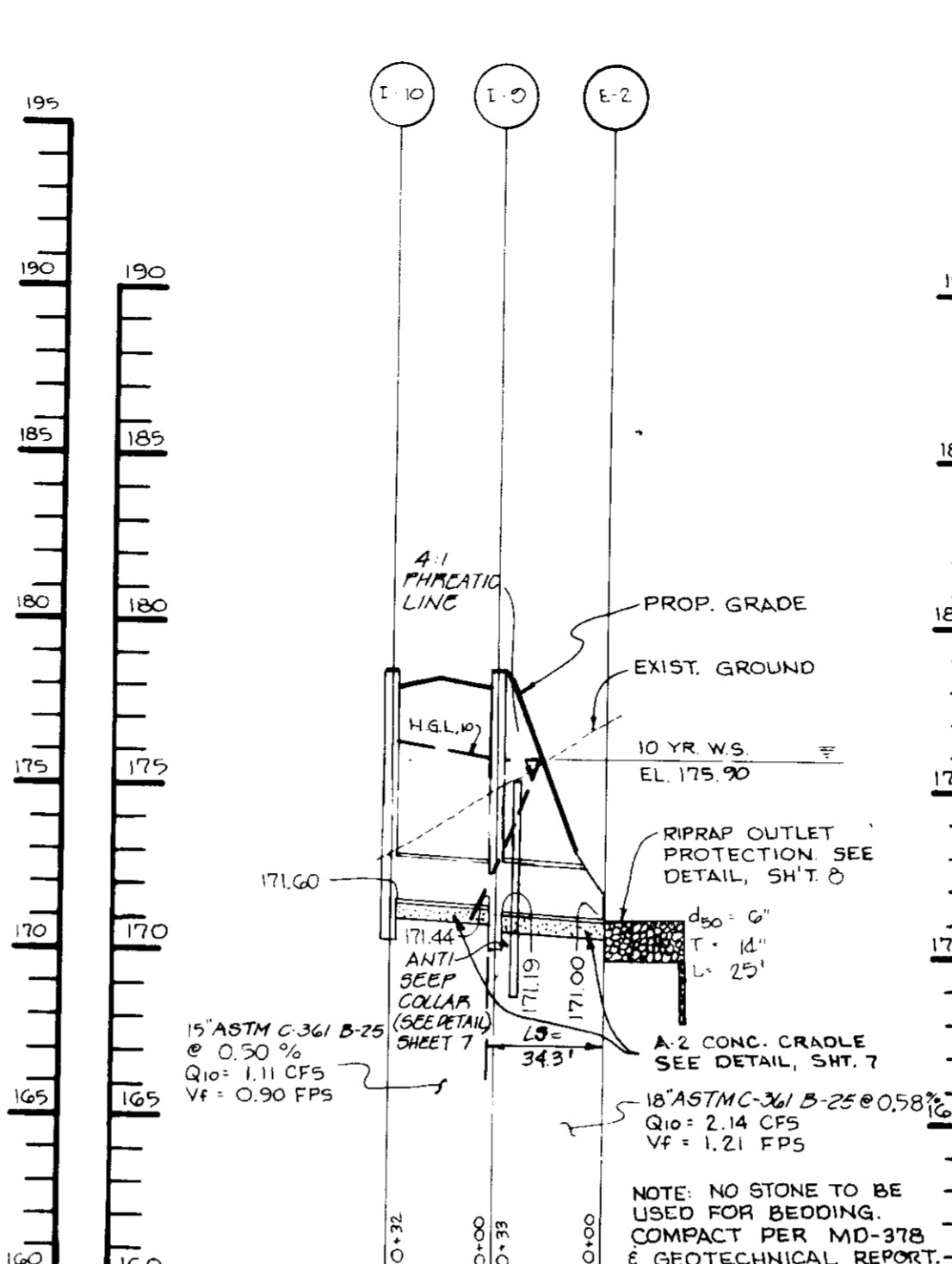
DRAWING NO. 8 OF 12

JAYKANT D. PAREKH #19148

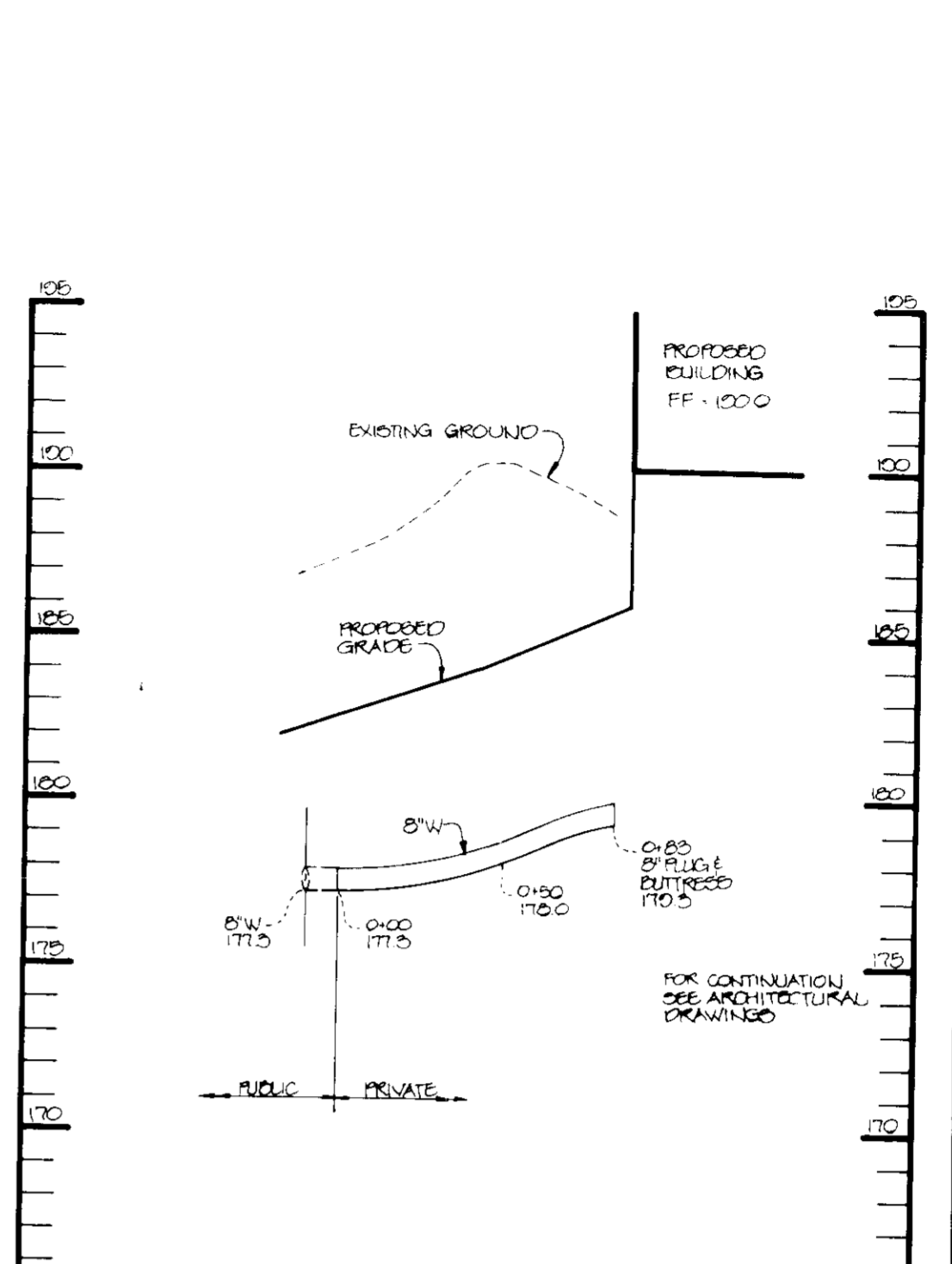
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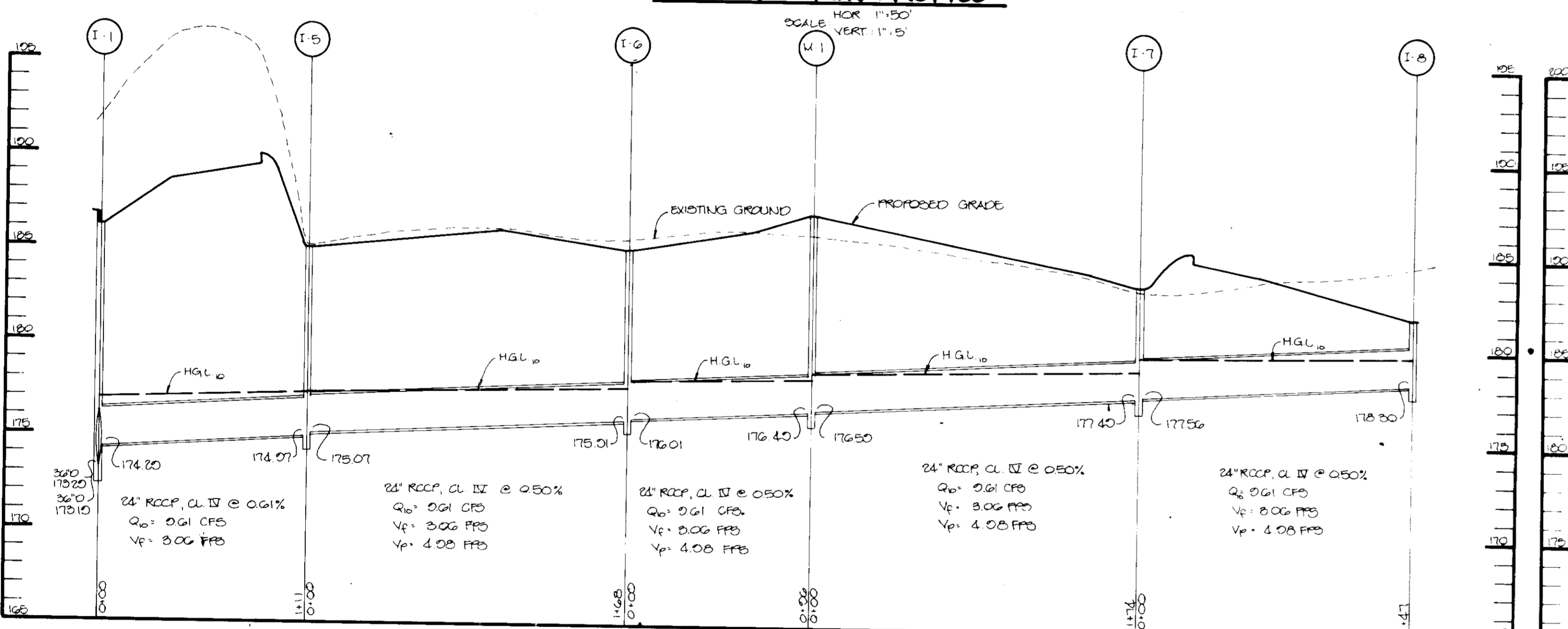
STORM DRAIN PROFILE
SCALE: HOR. 1"=50' VERT. 1"=5'



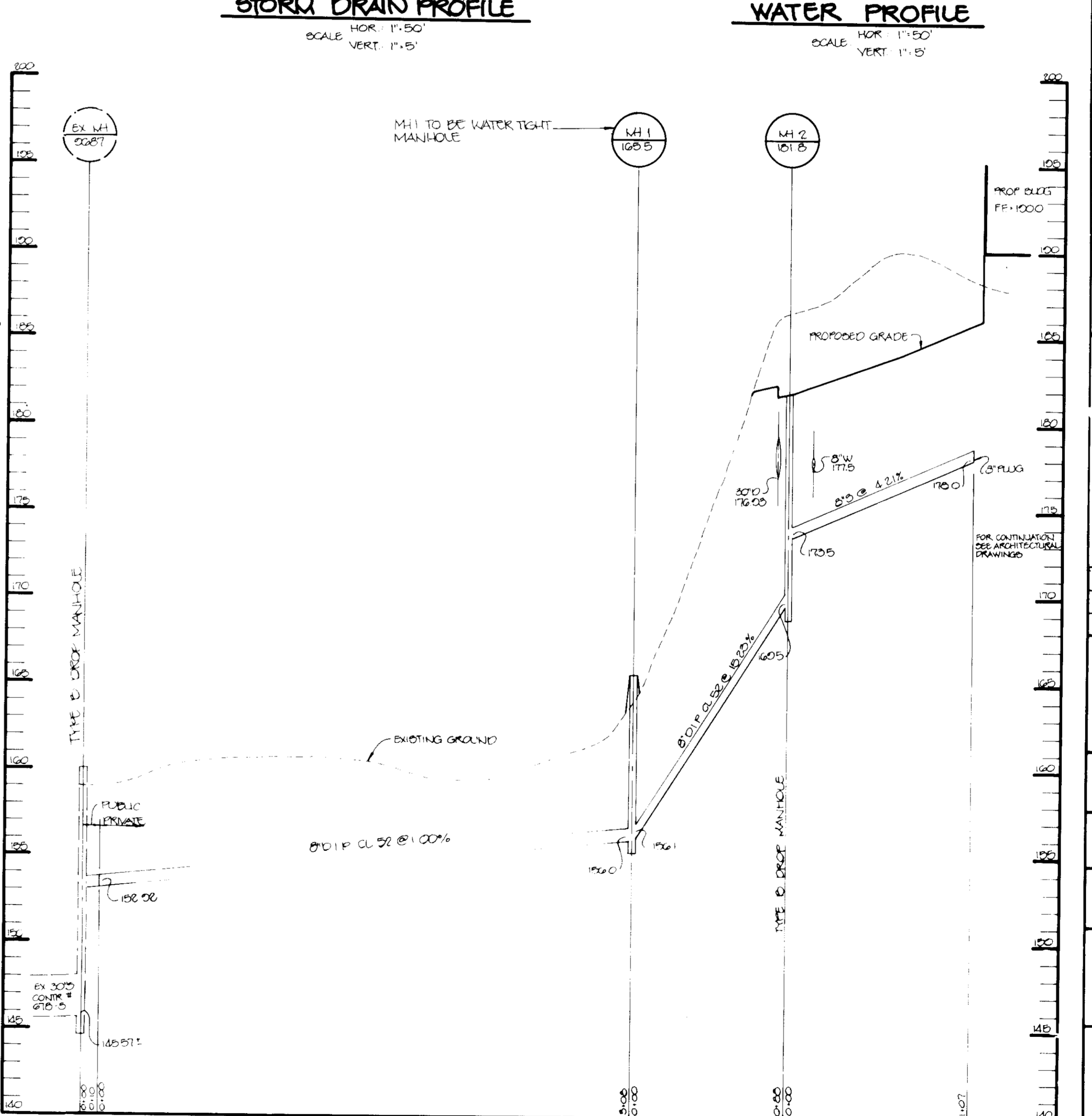
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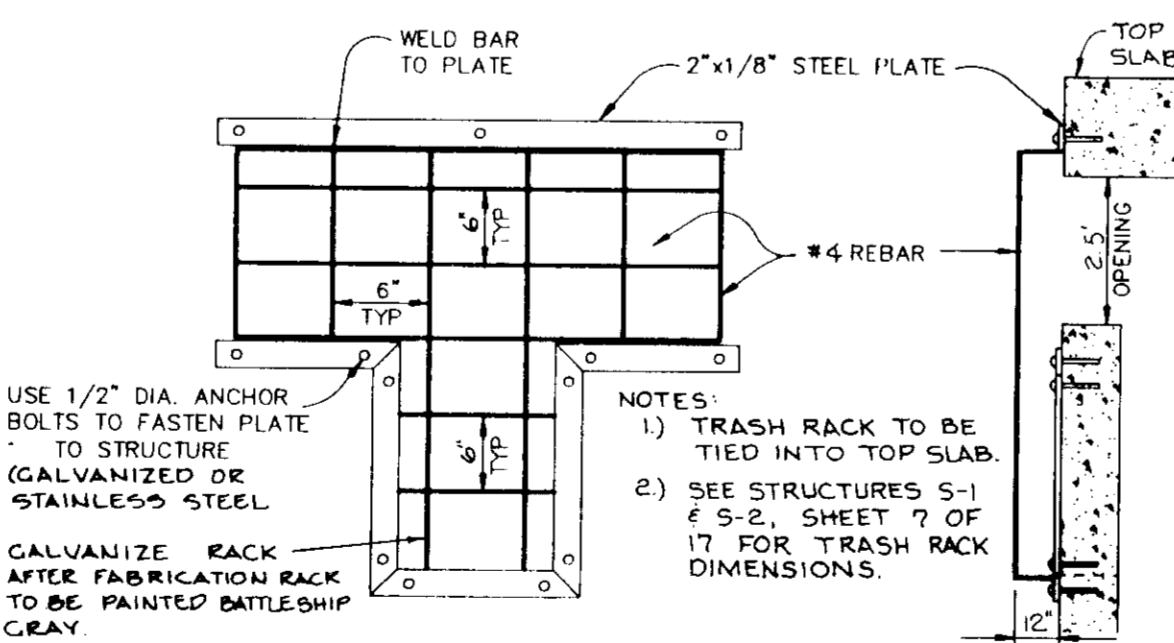
WATER PROFILE
SCALE: HOR. 1"=50' VERT. 1"=5'



STORM DRAIN PROFILE
SCALE: HOR. 1"=50' VERT. 1"=5'



SEWER PROFILE
SCALE: HOR. 1"=50' VERT. 1"=5'



TRASH RACK CONNECTION DETAIL
NO SCALE

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	IN. IN	IN. OUT	TOP ELEV.	REMARKS
I-1	S COMB. INLET W/ RET.	SEE PLAN	174.29 (24)	173.19	186.7	SEE NO. 00 STD DETAIL SD 4.32 & 4.93
I-2	S COMB. INLET W/ RET.	SEE PLAN	173.29 (36)	174.70	185.0	SEE NO. 00 STD DETAIL SD 4.32 & 4.93
I-3	S COMB. INLET W/ RET.	SEE PLAN	175.33	175.23	182.1	SEE NO. 00 STD DETAIL SD 4.32 & 4.93
I-4	DOUBLE S COMB INLET W/ RET.	SEE PLAN	177.00	177.00	182.1	SEE NO. 00 STD DETAIL SD 4.34 & 4.93
I-5	S-GRATE	SEE PLAN	175.07	174.97	185.0	SEE NO. 00 STD DETAIL SD 4.22 & 4.93
I-6	S-GRATE	SEE PLAN	176.01	175.91	185.0	SEE NO. 00 STD DETAIL SD 4.22 & 4.93
I-7	S-GRATE	SEE PLAN	177.56	177.46	183.4	SEE NO. 00 STD DETAIL SD 4.22 & 4.93
I-8	S-COMB INLET W/ RET.	SEE PLAN	-	178.30	182.4	SEE NO. 00 STD DETAIL SD 4.32 & 4.93
I-9	A-5	SEE PLAN	173.79	172.79	178.6	SEE NO. 00 STD DETAIL SD 4.01
I-10	A-5	SEE PLAN	-	174.75	178.6	SEE NO. 00 STD DETAIL SD 4.01
M-1	4'-0" DIAM PRECAST MANHOLE	SEE PLAN	176.59	176.49	187.0	SEE NO. 00 STD DETAIL G 5.12
E-1	36" CONC. END SECTION	SEE PLAN	-	-	-	SEE NO. 00 STD DETAIL SD 5.51
E-2	18" CONC. END SECTION	SEE PLAN	-	-	-	SEE NO. 00 STD DETAIL SD 5.51
E-3	6" S/CONE END SECTION	SEE PLAN	170.5	-	-	SEE NO. 00 STD DETAIL SD 5.11 & 5.17
E-4	18" CONC. END SECTION	SEE PLAN	170.5	-	-	SEE NO. 00 STD DETAIL SD 5.51

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: *Charles Donovan* 11-27-95
DATE

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

ENGINEER: *J. Farrell* 11-30-95
DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Richard Engl. 165 12/14/95
DATE

AS BUILT CERTIFICATE

Richard Zichow 12/14/95
DATE

JAYKANT D. PAREKH #19148
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Joseph Beuth 1/14/96
DIRECTOR DATE

Anna Hummer 1/31/96
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John Dammann 12/20/95
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE	NO.	REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ARUNDEL BUILDING - SUITE 208
110 WEST ROAD
BALTIMORE, MARYLAND 21041

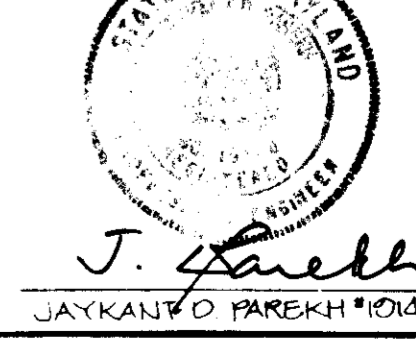
PROJECT
DORSEY RUN INDUSTRIAL PARK
PARCEL C
AREA TAX MAP NO. 48 PARCEL C ZONED W-2
G4 ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

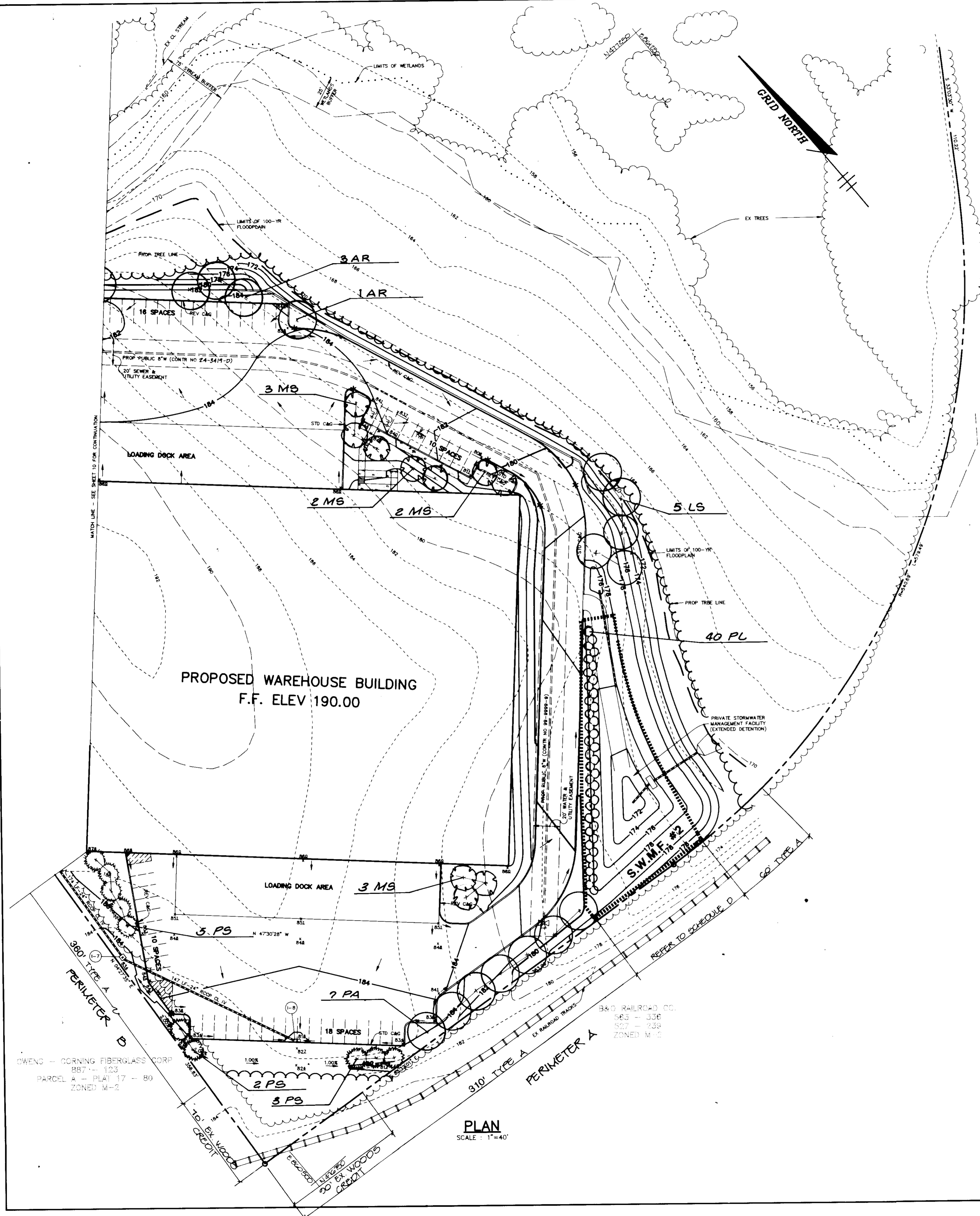
TITLE
PROFILE SHEET

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
410-997-8900 FAX: 410-997-9282

11-30-95
DATE

DESIGNED BY: CJR
DRAWN BY: MAD
PROJECT NO: 101403
DATE: NOVEMBER 27, 1995
SCALE: AS SHOWN
DRAWING NO: 9 OF 10





SCHEDULE A PERIMETER LANDSCAPE EDGE				
CATEGORY	ADJACENT TO PERIMETER PROPERTIES			
	A	B	C	D
Perimeter Edge	A	B	C	D
Landscape Type	A	A	A	
Linear Feet of Roadway Frontage/Perimeter	370	360	435	60
Credit for Existing Vegetation	YES	YES	YES	NO
Yes No Linear Feet	90'	70'	50'	
Describe below if needed				
Number of Plants Required				
Shade Trees	5	5	7	1
Evergreen Trees	0	0	0	0
Shrubs	0	0	0	0
Number of Plants Provided				
Shade Trees	5	5	7	1
Evergreen Trees	0	0	0	0
Shrubs	0	0	0	0
Describe plant substitution credits below if needed				

NOTE: This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
Number of Parking Spaces	110
Number of Shade Trees Required	5
Number of Trees Provided	
Shade Trees	5
Other Trees (2:1 substitution)	0

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING		
S.W.M. Facility Perimeter No.	1	2
Linear Feet of Perimeter	1000	540
Credit for Existing Vegetation (No, Yes and %)	NO	NO
Credit for Other Landscaping (No, Yes and %)	NO	NO
Number of Trees Required		
Shade Trees	20	11
Evergreen Trees	25	14
Number of Trees Provided		
Shade Trees	10	9
Evergreen or Flowering Trees	36	14
Shrubs	50	20
	*1	*2

The following plant substitutions were made:
 *1 11 flowering trees for 5 shade trees and 50 shrubs for 5 shade trees
 *2 20 shrubs for 2 shade trees

PLANT LIST

KEY	QTY	NAME	SIZE	REMARKS
AR	11	ACER RURUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	2 1/2"-3" CAL. 10'-12" HT.	B & B
LS	13	LIQUIDAMBAR STRACIFLUA 'BURGUNDY' BURGUNDY SWEETGUM	2 1/2"-3" CAL. 10'-12" HT.	B & B
MS	12	MAGNOLIA STELLATA STAR MAGNOLIA	1 1/2"-2" CAL. 8'-10" HT.	B & B
PA	18	PLATANUS ACERIFOLIA 'BLOODGOOD' BLOODGOOD PLANE TREE	2 1/2"-3" CAL. 10'-12" HT.	B & B
PL	70	PRUNUS LAUROCERASUS 'SCHIPKARNISIS' SKIP CHERRY LAUREL	24"-30" HT.	B & B
PS	38	PINUS STROBUS WHITE PINE	6'-8" HT.	B & B UNSHARED

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 1/4/96
DIRECTOR DATE

[Signature] 1/3/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

[Signature] 12/20/95
CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

DATE NO. REVISION

OWNER / DEVELOPER
 DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
 ARUNDEL BUILDING - SUITE 203
 110 WEST ROAD
 BALTIMORE, MARYLAND 21204

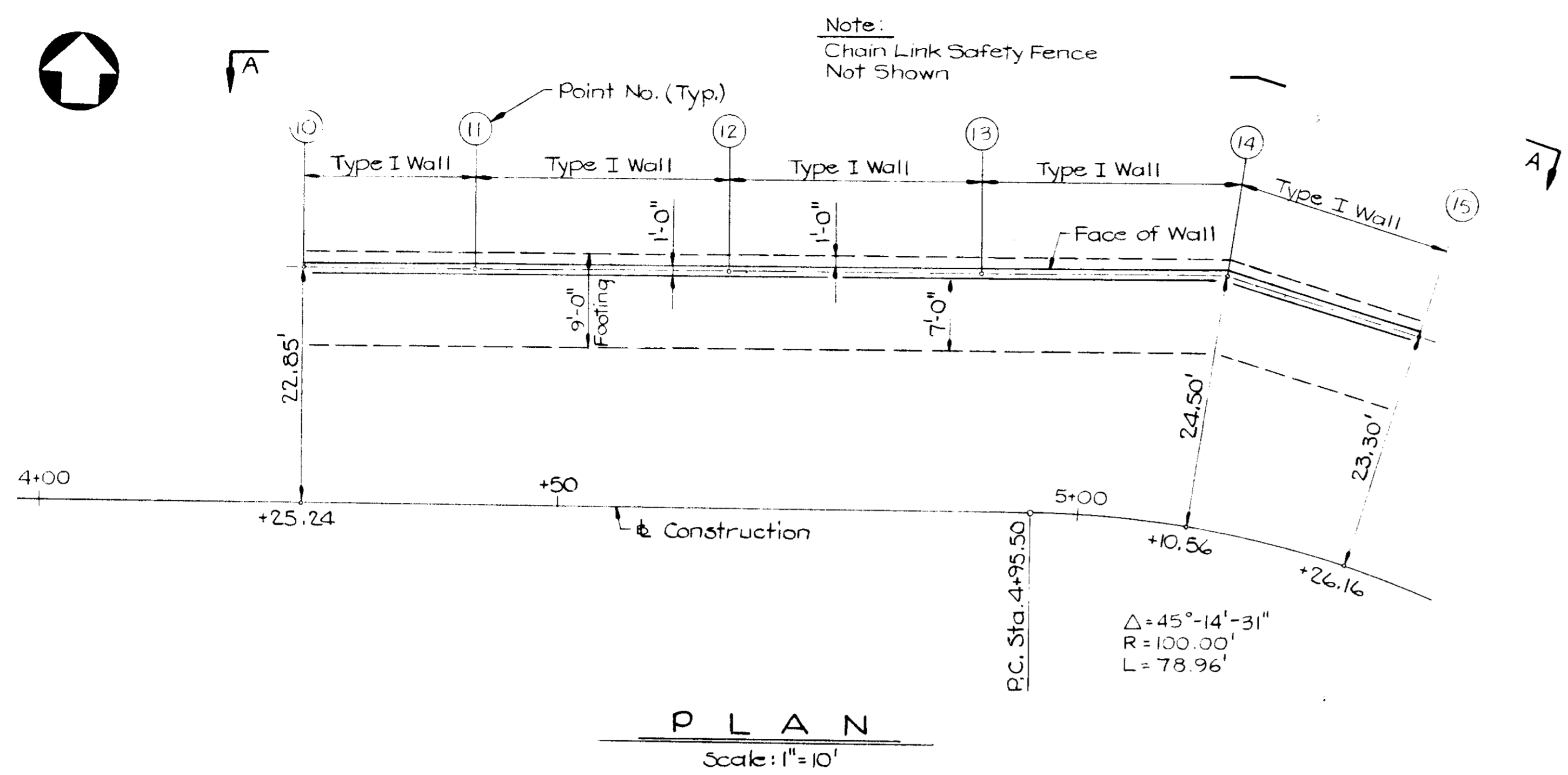
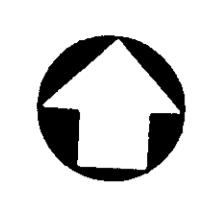
PROJECT
 DORSEY RUN INDUSTRIAL PARK - PARCEL C
 A WAREHOUSE BUILDING

AREA TAX MAP NO. 48 PARCEL C ZONED M-2
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

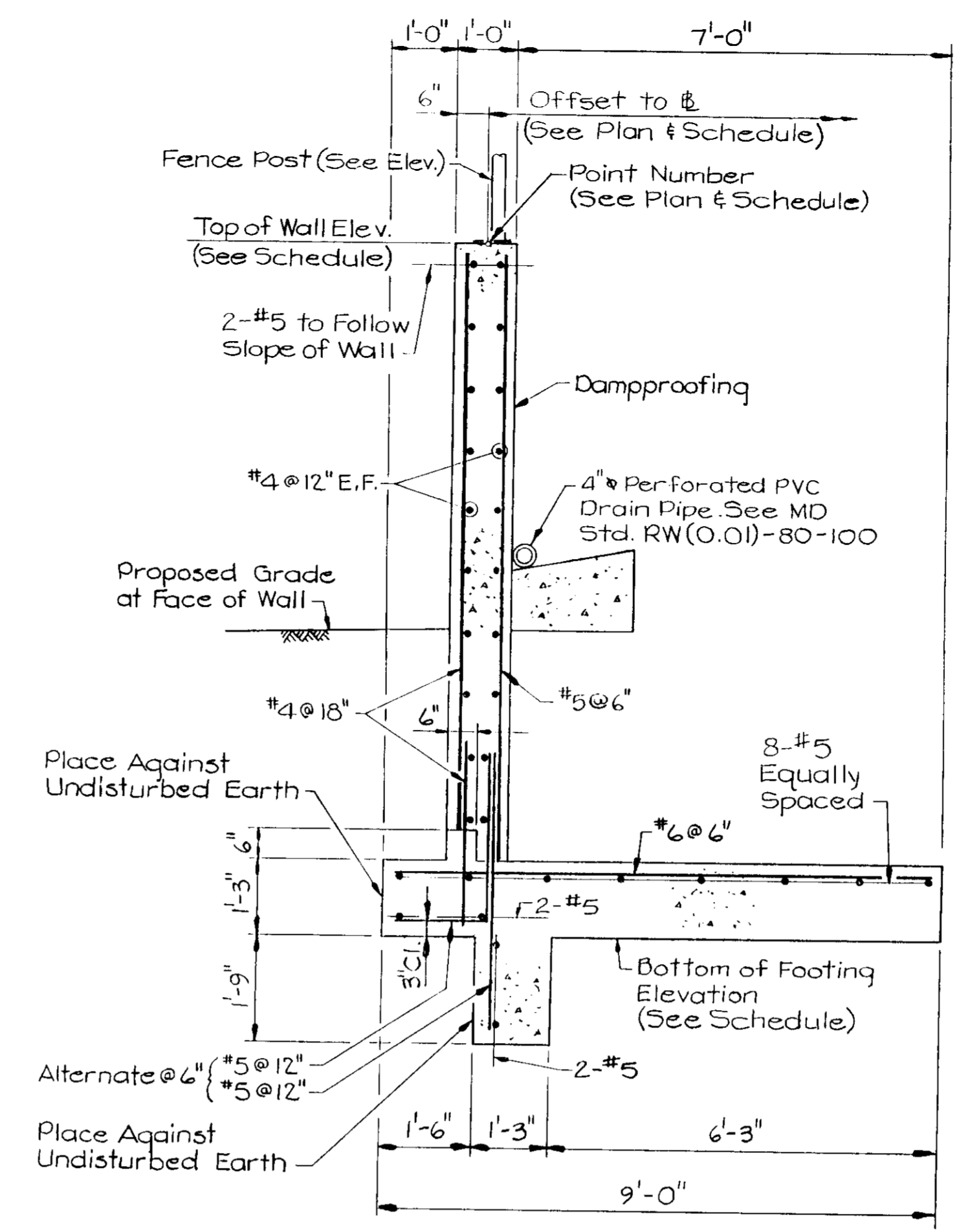
TITLE
 LANDSCAPE PLAN

RIEMER MUEGGE & ASSOCIATES, INC.
 Planners • Engineers • Surveyors
 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045
 410-997-8900 FAX: 410-997-9282

11-17-95 DATE
 F 93-107, SDP 91-57, SDP 92-67
 F 95-180
 DESIGNED BY:
 DRAWN BY:
 PROJECT NO: 101400
 DATE: NOVEMBER 27, 1995
 SCALE: AS SHOWN
 DRAWING NO. 11 OF 12

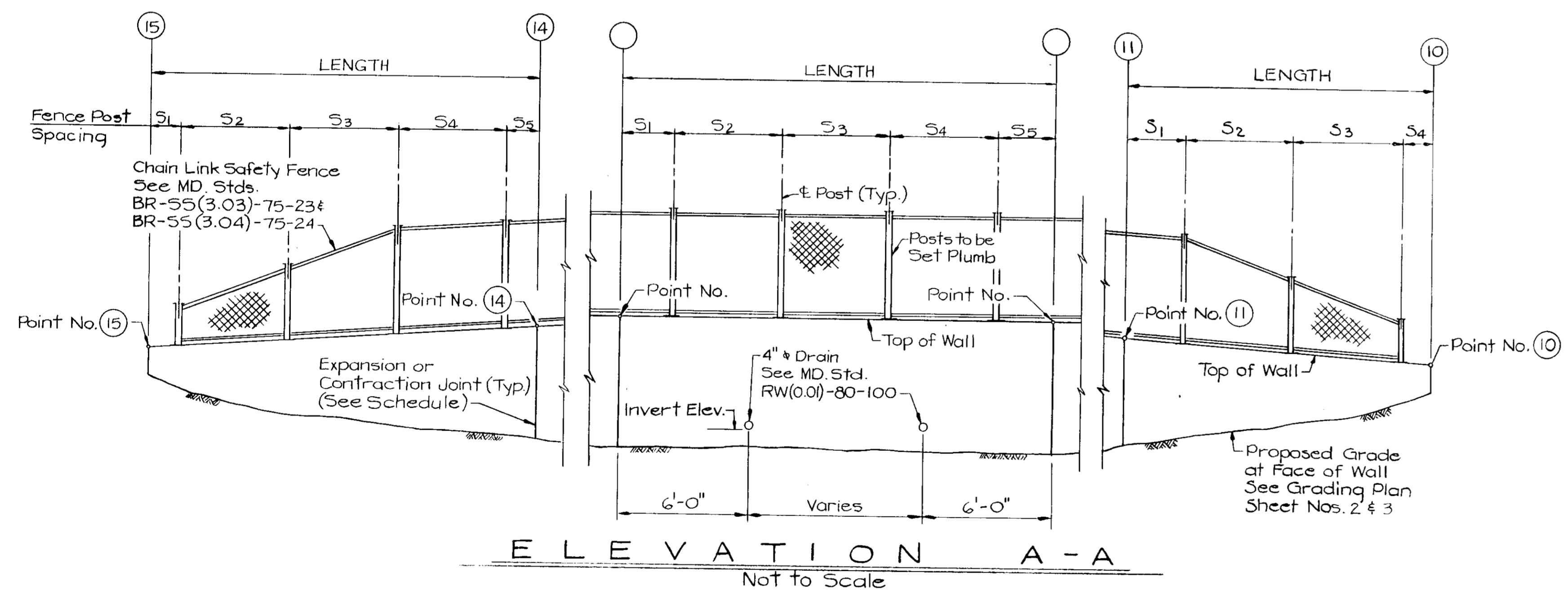


PLAN
Scale: 1"=10'



- Note:**
- 1) Maximum Design Foundation Pressure: 2,000 Pounds Per Square Foot
 - 2) CONTRACTOR TO PROVIDE SHEETING/SHORING AS NECESSARY TO ENSURE THAT THE FOOTING CONSTRUCTION CAN BE ACCOMPLISHED WITHOUT EXCEEDING THE LIMIT OF DISTURBANCE.

WALL TYPE I
Scale: 1/2"=1'-0"



ELEVATION A-A
Not to Scale

POINT NO.	LOCATION		LENGTH POINT TO POINT	ELEVATION TOP OF WALL	ELEVATION BOTTOM OF FOOTING	WALL TYPE	JOINT TYPE	4" DRAIN INVERT ELEVATION	FENCE POST SPACING					REMARKS
	STATION	OFFSET							S1	S2	S3	S4	S5	
(15)	5+26.16	23.30'	19' - 4 1/8"	180.50	171.00	I	N/A	N/A	1'-0"	6'-0 3/4"	6'-0 3/4"	5'-2 5/8"	1'-0"	End of Wall
(14)	5+10.56	24.50'	23' - 6 7/8"	180.50	171.00	I	Contraction	177.50	2'-0 3/4"	6'-1 3/4"	6'-1 3/4"	6'-1 3/4"	3'-0 7/8"	Fence End Section
(13)			24' - 7"	180.50	172.00	I	Expansion	177.00	3'-0 7/8"	6'-1 3/4"	6'-1 3/4"	6'-1 3/4"	3'-0 7/8"	
(12)			24' - 7"	180.50	172.00	I	Contraction	177.50	3'-0 7/8"	6'-1 3/4"	6'-1 3/4"	6'-1 3/4"	3'-0 7/8"	
(11)			16' - 2 3/8"	180.50	172.00	I	Contraction	177.50	3'-0 7/8"	6'-0 3/4"	6'-0 3/4"	1'-0"		
(10)	4+25.24	22.85'		180.50	172.00	I	N/A	N/A	3'-0 7/8"	6'-0 3/4"	6'-0 3/4"	1'-0"		Fence End Section End of Wall

GENERAL NOTES FOR RETAINING WALLS

SPECIFICATIONS: HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS & DETAILS FOR CONSTRUCTION AS REVISED 1990.

ALL REFERENCES TO THE SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (1982) SHALL MEAN THE SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS DATED OCTOBER, 1983.

ALL REFERENCES TO A PARTICULAR SECTION OF THE SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (1982) SHALL MEAN THAT SECTION OF THE SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (1993) WHICH HAS THE SAME OR NEARLY THE SAME SECTION TITLE. SEE THE FOLLOWING EXAMPLES:

(1982)	(1993)
203 - STRUCTURE EXCAVATION	SHALL MEAN 404 - STRUCTURE EXCAVATION
608 - CEMENT CONCRETE STRUCTURES	SHALL MEAN 414 - PORTLAND CEMENT CONCRETE STRUCTURES
615 - POROUS BACKFILL	SHALL MEAN 405 - POROUS BACKFILL

ALL REFERENCES TO "HOWARD COUNTY", "THE COUNTY", "STATE OF MARYLAND", "STATE ROADS COMMISSION", "STATE", "S.H.A." AND "S.R.C." SHALL MEAN THE OWNER.

ALL REFERENCES TO THE "ENGINEER" SHALL MEAN THE OWNER.

AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 1992 FOR DESIGN INCLUDING ALL INTERIM SPECIFICATIONS THROUGH 1993.

CONCRETE DESIGN: SERVICE LOAD DESIGN METHOD: $F_c = 1200$ PSI

REINFORCING STEEL DESIGN: $F_s = 24000$ PSI.

CONCRETE: ALL CONCRETE SHALL BE MIX NO. 3 (3600 PSI).

CHAMFER: ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS EXCEPT ON UNEXPOSED FOOTINGS AND WHERE INDICATED BY THE FOLLOWING NOTATION ON THE PLANS "DO NOT CHAMFER".

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60. ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

ONLY GRADE 60 CAN BE USED ON THIS PROJECT

KEYS: ALL KEYS ARE NOMINAL SIZE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James R. Duff 1/14/90
DIRECTOR DATE

Dina Strimmonis 1/31/90
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

Walter D. ... 12/26/89
CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

DATE NO. REVISION

OWNER / DEVELOPER

DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ARUNDEL BUILDING - SUITE 203
110 WEST ROAD
BALTIMORE, MARYLAND 21204

PROJECT

DORSEY RUN INDUSTRIAL PARK
PARCEL C - A WAREHOUSE BUILDING

AREA TAX MAP NO. 48 PARCEL C ZONED M-2
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE

RETAINING WALL 'A'

NORTHEAST ENGINEERING, INC.
1055 TAYLOR AVENUE, SUITE 104
BALTIMORE, MARYLAND 21286

DESIGNED BY: JRD

DRAWN BY: RWS

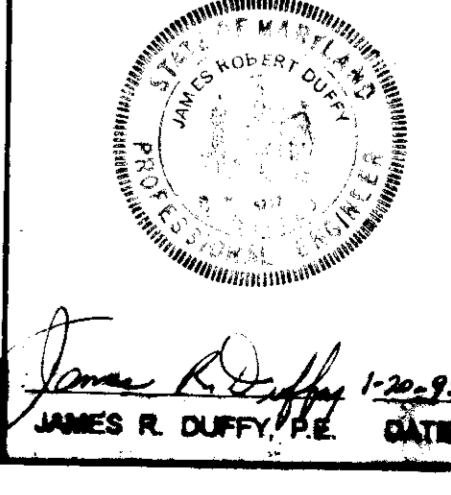
PROJECT NO: _____

DATE: NOVEMBER 27, 1989

SCALE: AS SHOWN

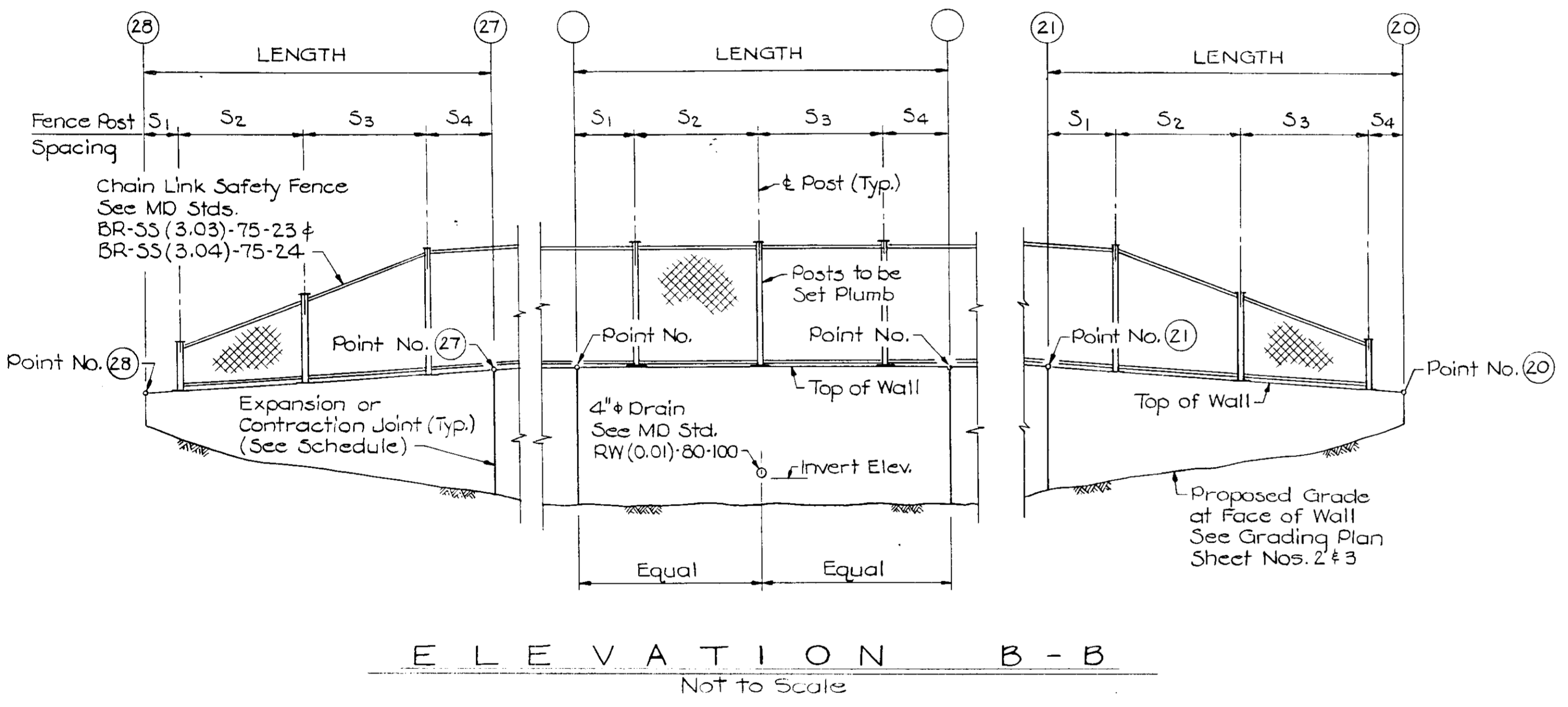
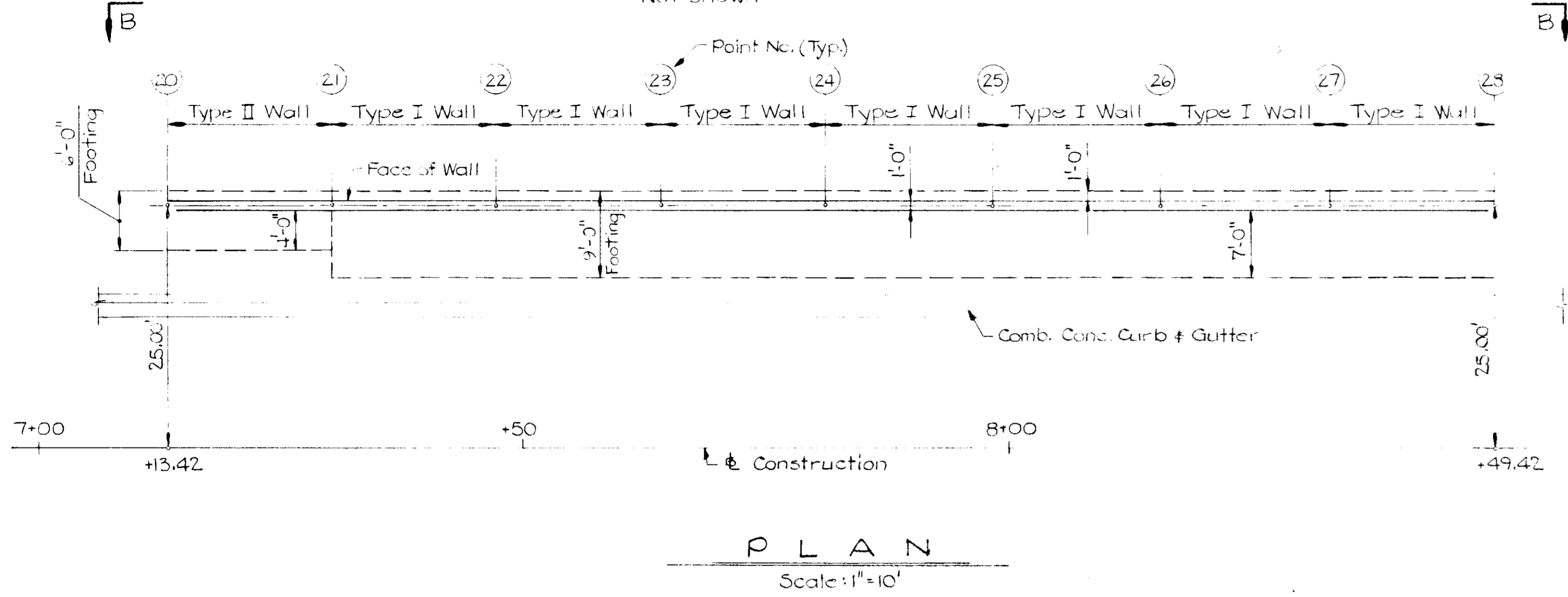
DRAWING NO. 12 OF 16

- NOTES:**
1. FOR BORING LOCATIONS AND BORING LOGS SEE SHEET NOS. 2, 3 & 7
 2. FOR GRADING AT RETAINING WALLS SEE SHEET NOS. 2 & 3.



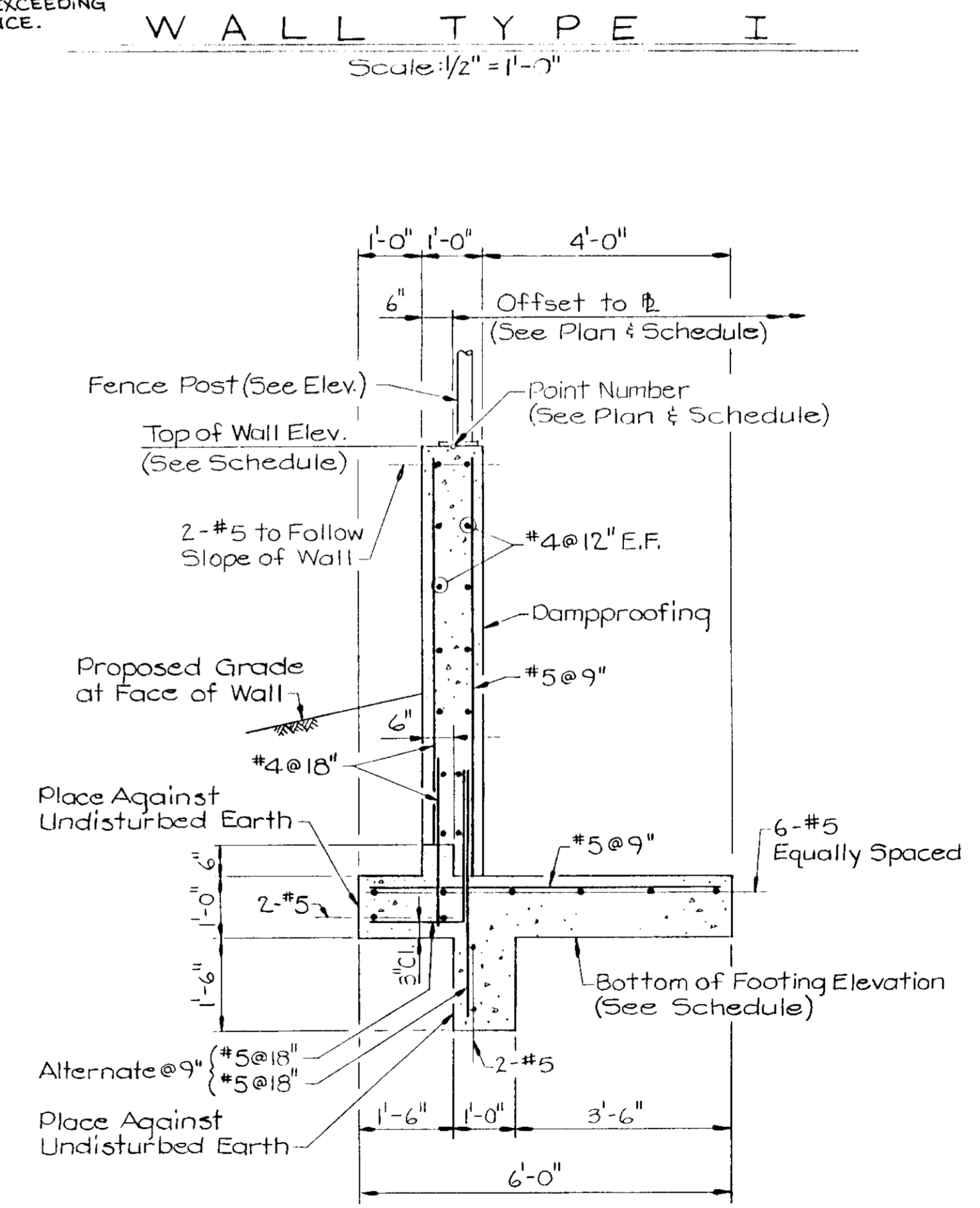
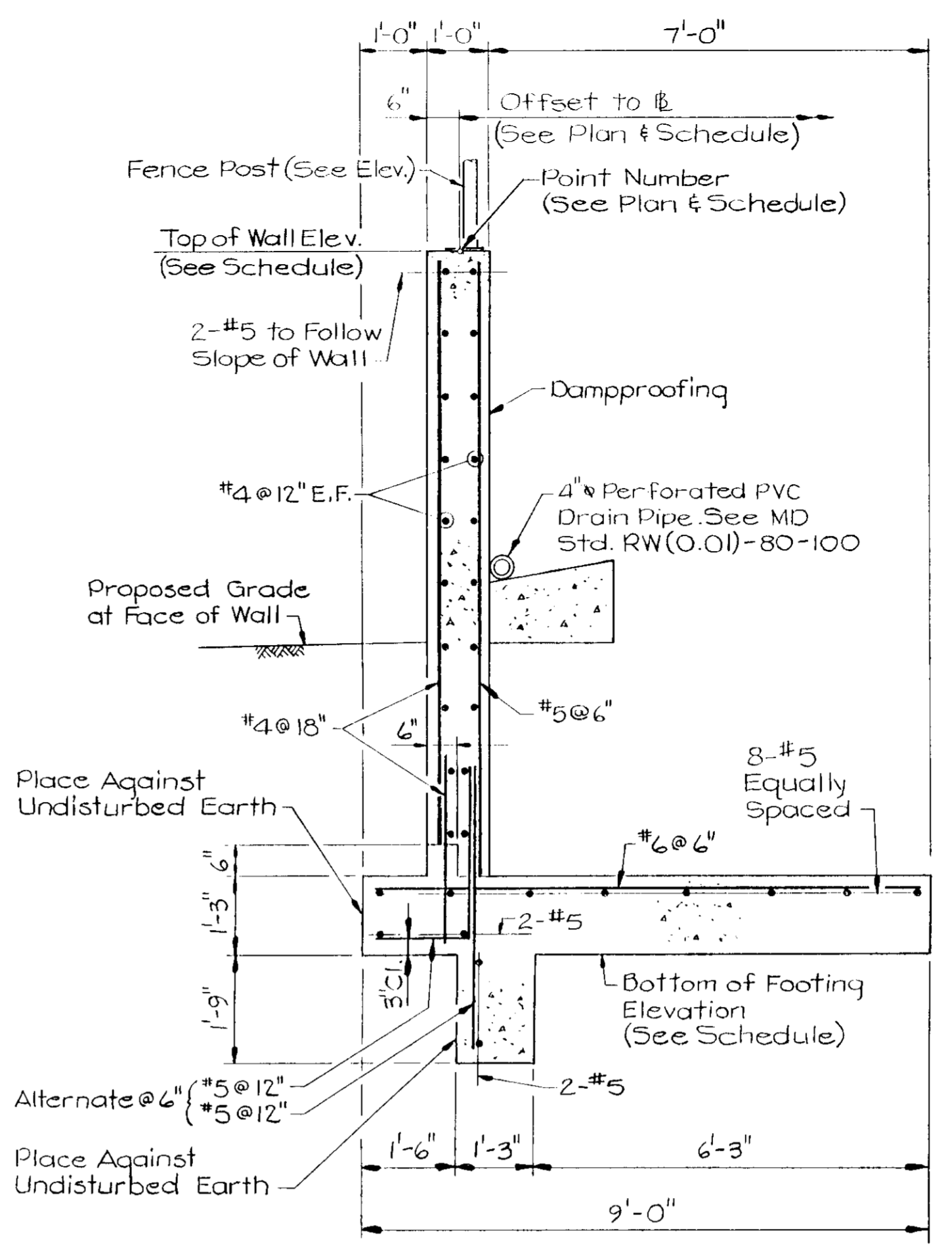


Note:
Chain Link Safety Fence
Not shown



POINT NO.	LOCATION		LENGTH POINT TO POINT	ELEVATION TOP OF WALL	ELEVATION BOTTOM OF FOOTING	WALL TYPE	JOINT TYPE	4"Ø DRAIN INVERT ELEVATION	FENCE POST SPACING				REMARKS
	STATION	OFFSET							S1	S2	S3	S4	
28	8+49.42	25.00'		180.50			N/A						End of Wall
			17'-0"		172.00	I		N/A	2'-0 1/2"	6'-0 3/4"	6'-0 3/4"	2'-10"	Fence End Section
27			17'-0"	180.83	172.00	I	Contraction	N/A	2'-10"	5'-8"	5'-8"	2'-10"	
26			17'-0"	181.17	172.00	I	Contraction	179.00	2'-10"	5'-8"	5'-8"	2'-10"	
25			17'-0"	181.50	172.00	I	Contraction	179.00	2'-10"	5'-8"	5'-8"	2'-10"	
24			17'-0"	181.83	172.00	I	Expansion	179.00	2'-10"	5'-8"	5'-8"	2'-10"	
23			17'-0"	182.17	173.00	I	Contraction	179.00	2'-10"	5'-8"	5'-8"	2'-10"	
22			17'-0"	182.50	174.00	I	Contraction	N/A	2'-10"	5'-8"	5'-8"	2'-10"	
21			17'-0"	182.00	175.00	II	Contraction	N/A	2'-10"	6'-0 3/4"	6'-0 3/4"	2'-0 1/2"	Fence End Section
20	7+13.42	25.00'		181.50			N/A						End of Wall

- Note:
- Maximum Design Foundation Pressure: 2,000 Pounds Per Square Foot
 - WALL TYPES I & II: CONTRACTOR TO PROVIDE SHEETING/SHORING, AS NECESSARY TO ENSURE THAT THE FOOTING CONSTRUCTION CAN BE ACCOMPLISHED WITHOUT EXCEEDING THE LIMIT OF DISTURBANCE.



- Note:
- Maximum Design Foundation Pressure: 2,500 Pounds Per Square Foot

- NOTES:
- FOR BORING LOCATIONS AND BORING LOGS SEE SHEET NOS. 2, 3 & 7.
 - FOR GRADING AT RETAINING WALLS SEE SHEET NOS. 2 & 3.
 - FOR GENERAL NOTES FOR RETAINING WALLS SEE SHEET NO. 12.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Joseph R. Smith 1/4/96 DATE
DIRECTOR

Anna Swaminathan 1/31/96 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

John P. ... 12/20/95 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE NO. REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ARUNDEL BUILDING - SUITE 203
110 WEST ROAD
BALTIMORE, MARYLAND 21204

PROJECT
DORSEY RUN INDUSTRIAL PARK
PARCEL C - A WAREHOUSE BUILDING

AREA TAX MAP NO. 48 PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
RETAINING WALL 'B'

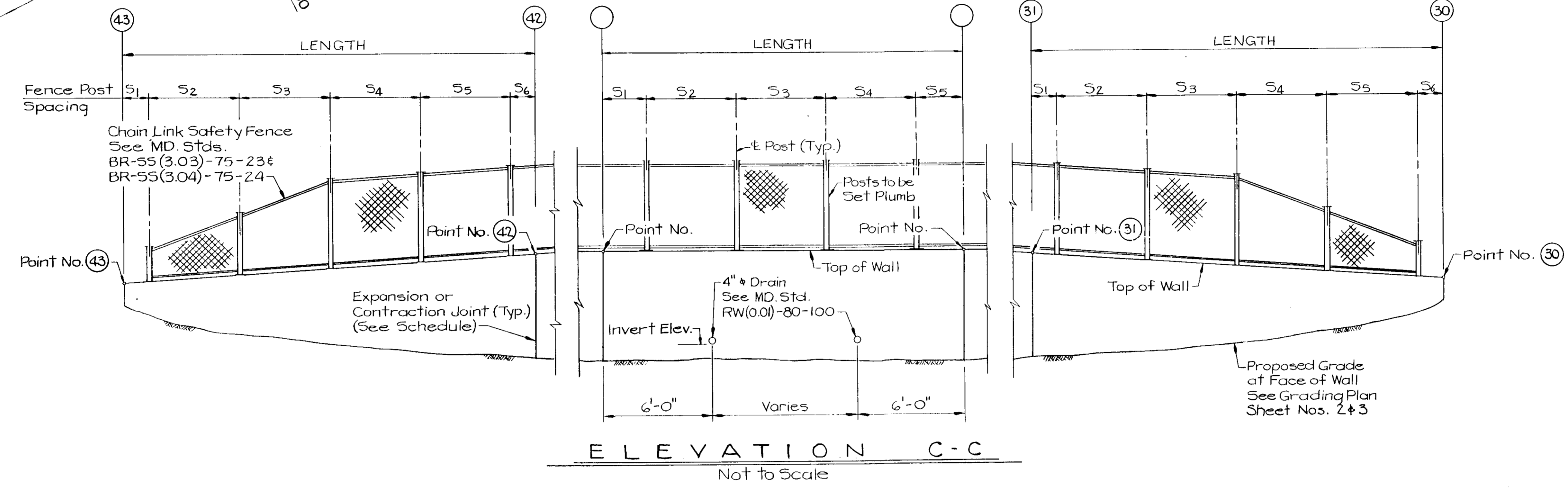
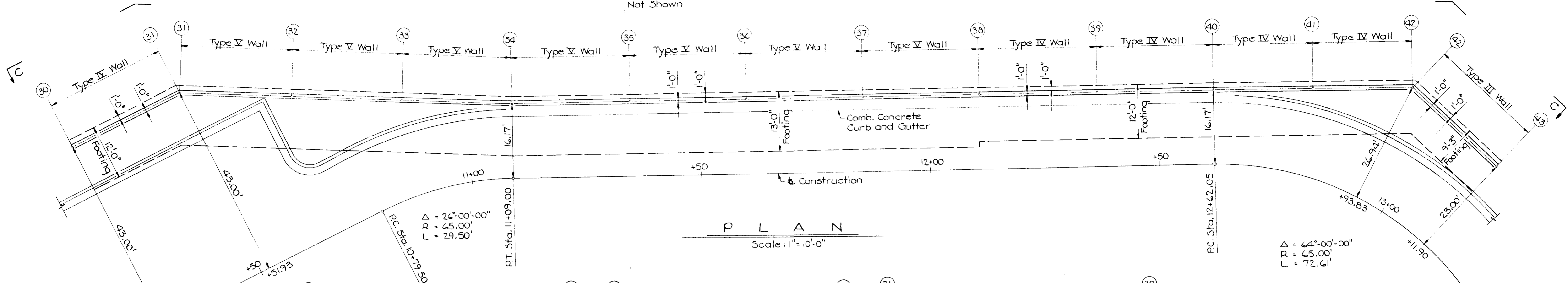
NORTHEAST ENGINEERING, INC.
1055 TAYLOR AVENUE, SUITE 104
BALTIMORE, MARYLAND 21286

DESIGNED BY: JRD
DRAWN BY: KWS
PROJECT NO.:
DATE: NOVEMBER 27, 1995
SCALE: AS SHOWN
DRAWING NO. 13 OF 10

James R. Duffy 1-20-95 DATE
JAMES R. DUFFY, P.E.



Note:
Chain Link Safety Fence
Not Shown



POINT NO.	LOCATION		LENGTH POINT TO POINT	ELEVATION TOP OF WALL	ELEVATION BOTTOM OF FOOTING	WALL TYPE	JOINT TYPE	4"Ø DRAIN INVERT ELEVATION	FENCE POST SPACING						REMARKS
	STATION	OFFSET							S1	S2	S3	S4	S5	S6	
(43)	13+11.90	23.00'	25'-0"	177.50	169.00	III	N/A	N/A	1'-0"	6'-0 3/4"	6'-0 3/4"	5'-5 1/4"	5'-5 1/4"	1'-0"	End of Wall
(42)	12+93.83	26.94'	21'-8 1/4"	180.00	169.00	IV	Contraction	175.25	2'-0"	5'-10"	5'-10"	5'-10"	2'-2 1/4"		Fence End Section
(41)			21'-8"	181.25	169.00	IV	Contraction	175.00	2'-2 3/4"	5'-5"	5'-5"	5'-5"	3'-2 1/4"		
(40)	12+62.05	16.17'	25'-6"	182.50	169.00	IV	Expansion	175.00	3'-2 1/4"	6'-4 1/2"	6'-4 1/2"	6'-4 1/2"	3'-2 1/4"		
(39)			25'-6"	183.02	169.00	IV	Contraction	175.00	3'-2 1/4"	6'-4 1/2"	6'-4 1/2"	6'-4 1/2"	3'-2 1/4"		
(38)			25'-6"	183.53	169.00	V	Contraction	175.00	3'-2 1/4"	6'-4 1/2"	6'-4 1/2"	6'-4 1/2"	3'-2 1/4"		
(37)			25'-6"	184.05	169.00	V	Expansion	175.00	3'-2 1/4"	6'-4 1/2"	6'-4 1/2"	6'-4 1/2"	3'-2 1/4"		
(36)			25'-6"	184.57	169.00	V	Contraction	175.00	3'-2 1/4"	6'-4 1/2"	6'-4 1/2"	6'-4 1/2"	3'-2 1/4"		
(35)			25'-6 5/8"	185.08	169.00	V	Contraction	175.00	3'-2 1/4"	6'-5 1/2"	6'-5 3/8"	6'-5 1/2"	3'-0"		
(34)	11+09.00	16.17'	24'-0"	185.60	169.00	V	Expansion	175.00	3'-0"	6'-0"	6'-0"	6'-0"	3'-0"		
(33)			24'-0"	185.07	169.00	V	Contraction	174.75	3'-0"	6'-0"	6'-0"	6'-0"	3'-0"		
(32)			24'-2 3/4"	184.54	169.00	V	Contraction	174.75	3'-0"	6'-5"	6'-5"	6'-5"	1'-11 3/4"		
(31)	10+51.93	43.00'	28'-0"	184.00	169.00	IV	Contraction	N/A	1'-0"	5'-11 1/4"	5'-11 1/4"	6'-0 3/4"	6'-0 3/4"	1'-0"	Fence End Section
(30)	10+25.93	43.00'		182.50	169.00		N/A								End of Wall

- NOTES:
- FOR BORING LOCATIONS AND BORING LOGS SEE SHEET NOS. 2, 3 & 7.
 - FOR GRADING AT RETAINING WALLS SEE SHEET NOS. 2 & 3.
 - FOR GENERAL NOTES FOR RETAINING WALLS SEE SHEET NO. 12.
 - FOR WALL TYPES III, IV AND V SEE SHEET NO. 15.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James R. Duffy 1/4/96 DATE
DIRECTOR

Anna Stumm 1/3/96 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

John Danner 12/20/95 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE NO. REVISION

OWNER / DEVELOPER
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP
ARUNDEL BUILDING - SUITE 203
110 WEST ROAD
BALTIMORE, MARYLAND 21204

PROJECT
DORSEY RUN INDUSTRIAL PARK
PARCEL C - A WAREHOUSE BUILDING

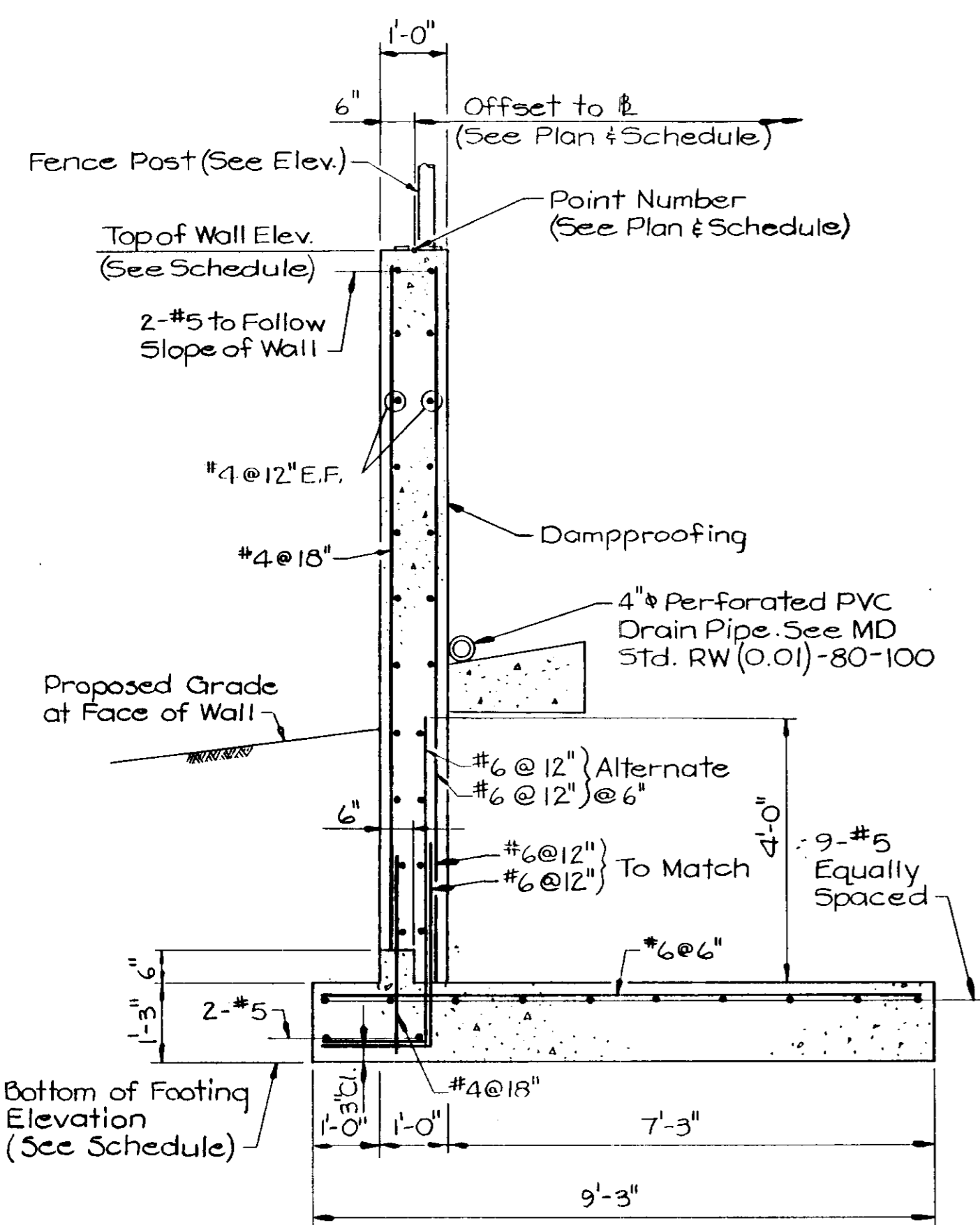
AREA TAX MAP NO. 48 PARCEL C ZONED M-2
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
**RETAINING WALL 'C'
PLAN AND ELEVATION**

NORTHEAST ENGINEERING, INC.
1055 TAYLOR AVENUE, SUITE 104
BALTIMORE, MARYLAND 21286

DESIGNED BY: JRD
DRAWN BY: RWS
PROJECT NO.:
DATE: NOVEMBER 27, 1995
SCALE: AS SHOWN
DRAWING NO. 14 OF 10

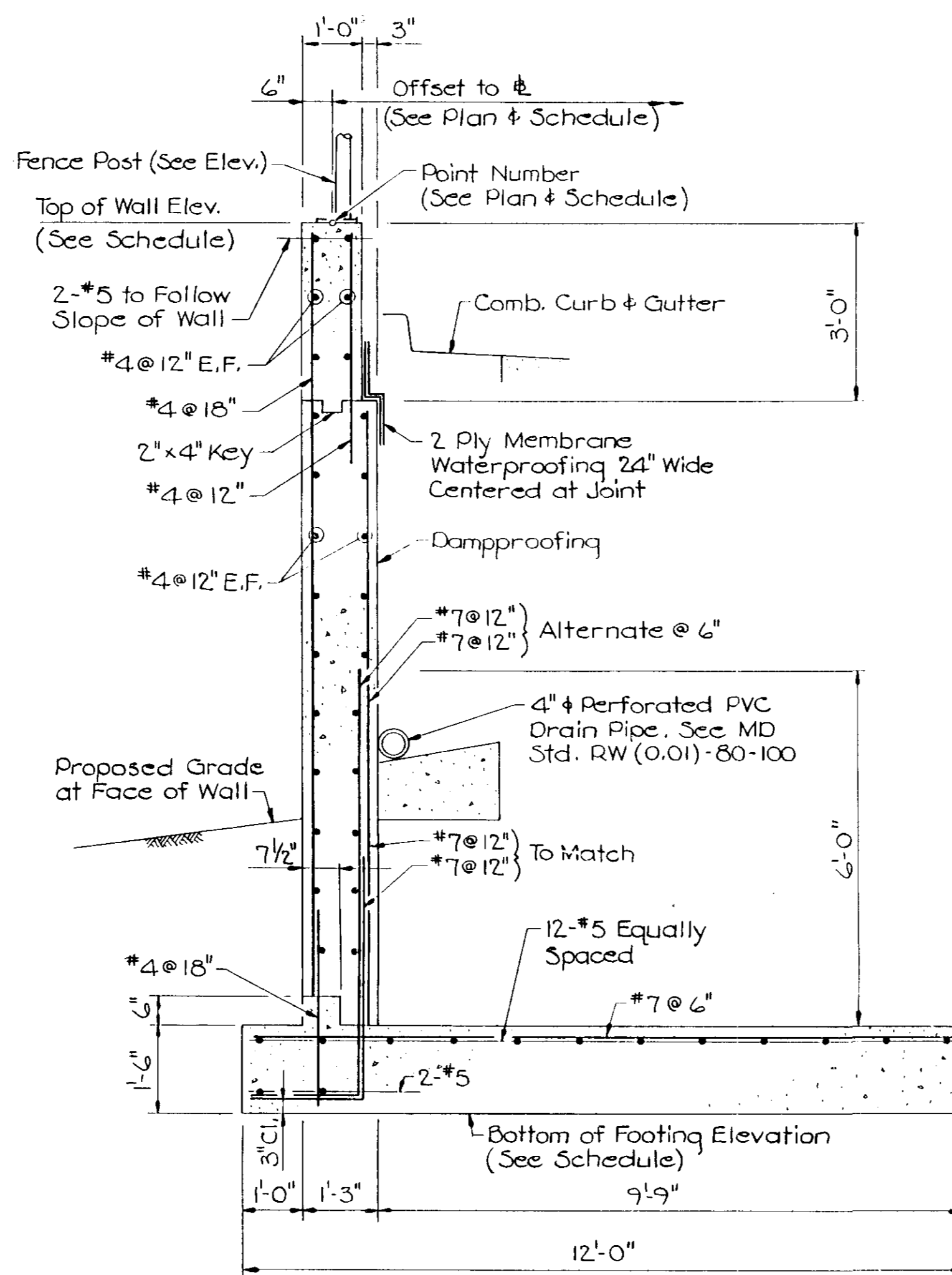
James R. Duffy 1-20-95 DATE
JAMES R. DUFFY, P.E.



Note:
Maximum Design Foundation Pressure:
2,000 Pounds Per Square Foot

WALL TYPE III

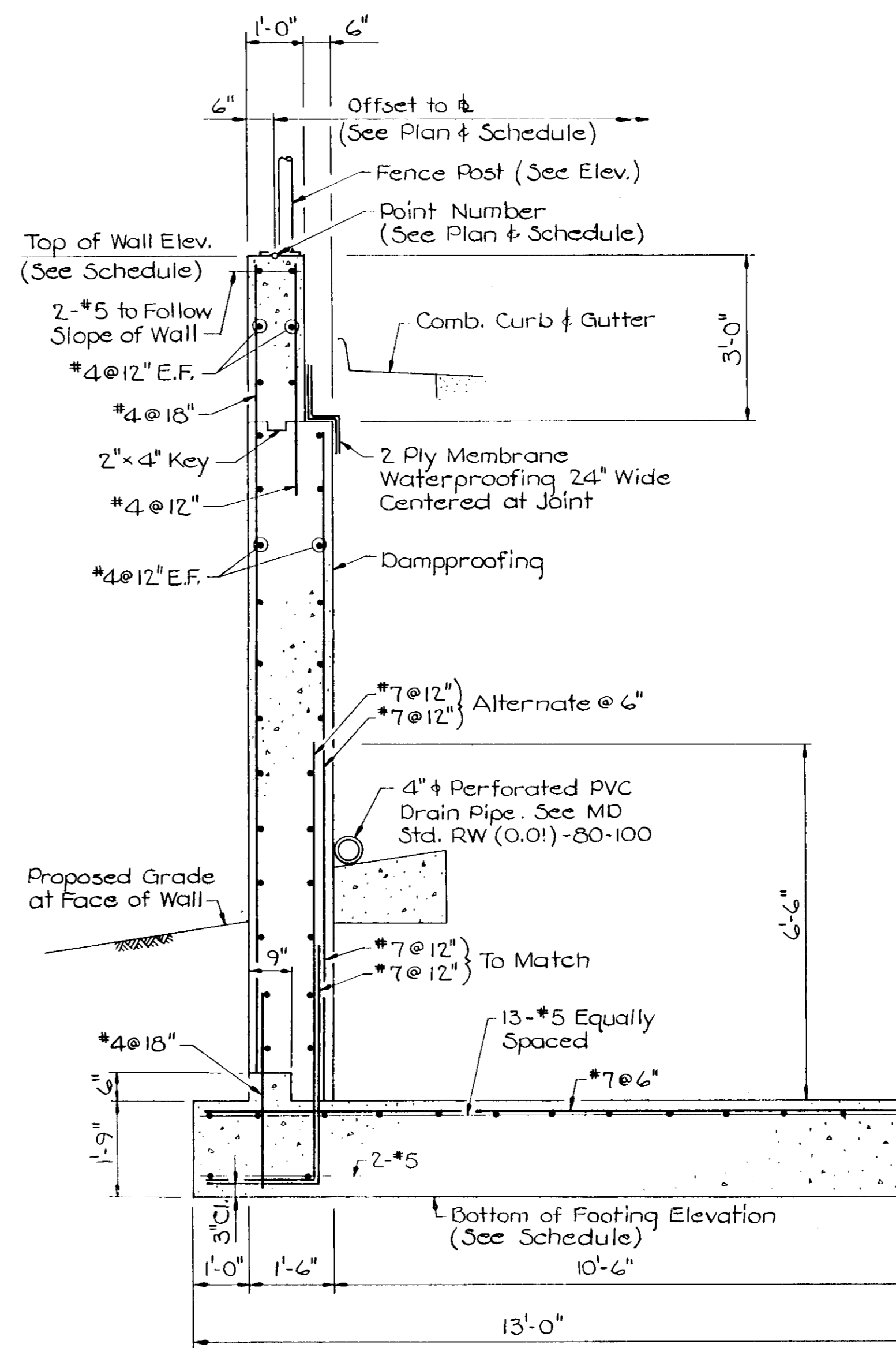
Scale: 1/2" = 1'-0"



Note:
Maximum Design Foundation Pressure:
3,000 Pounds Per Square Foot

WALL TYPE IV

Scale: 1/2" = 1'-0"



Note:
Maximum Design Foundation Pressure:
3,500 Pounds Per Square Foot

WALL TYPE V

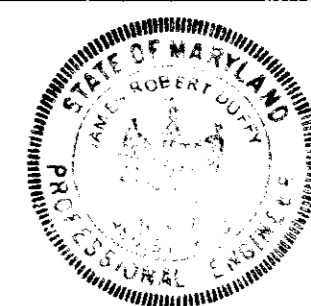
Scale: 1/2" = 1'-0"

NOTE: WALL TYPE III - V
CONTRACTOR TO PROVIDE SHEETING/SHORING AS
NECESSARY TO ENSURE THAT THE FOOTING
CONSTRUCTION CAN BE ACCOMPLISHED
WITHOUT EXCEEDING THE LIMIT OF
DISTURBANCE

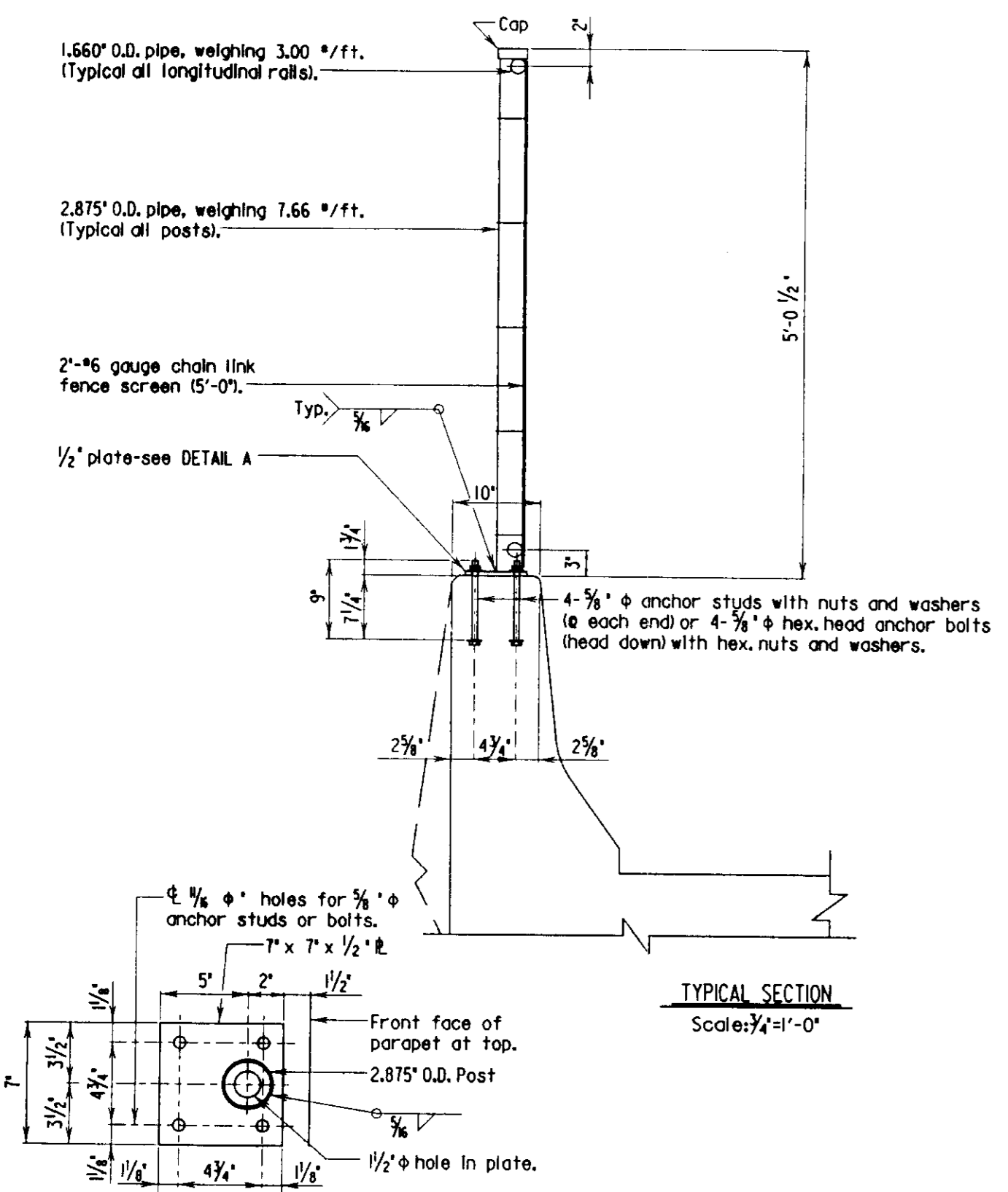
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
James R. Duffy 1/20/95
DIRECTOR DATE
Aimee Summers 1/31/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE
John Dammann 12/20/95
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE	NO.	REVISION
OWNER / DEVELOPER		
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP ARUNDEL BUILDING - SUITE 203 110 WEST ROAD BALTIMORE, MARYLAND 21204		
PROJECT DORSEY RUN INDUSTRIAL PARK PARCEL C - A WAREHOUSE BUILDING		
AREA TAX MAP NO. 48 PARCEL C ZONED M-2 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE RETAINING WALL 'C' SECTIONS AND DETAILS		

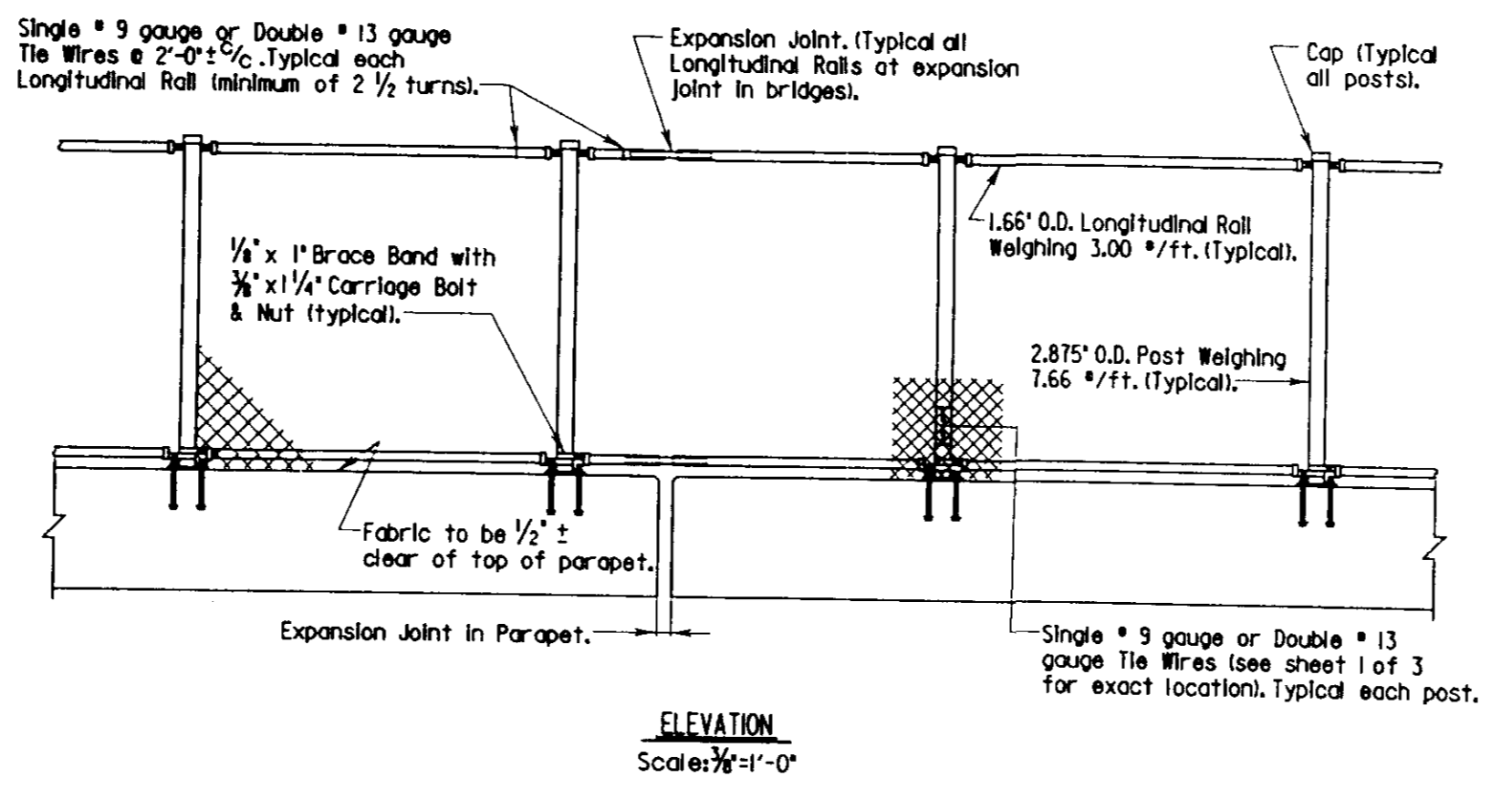
NORTHEAST ENGINEERING, INC.
1055 TAYLOR AVENUE, SUITE 104
BALTIMORE, MARYLAND 21288



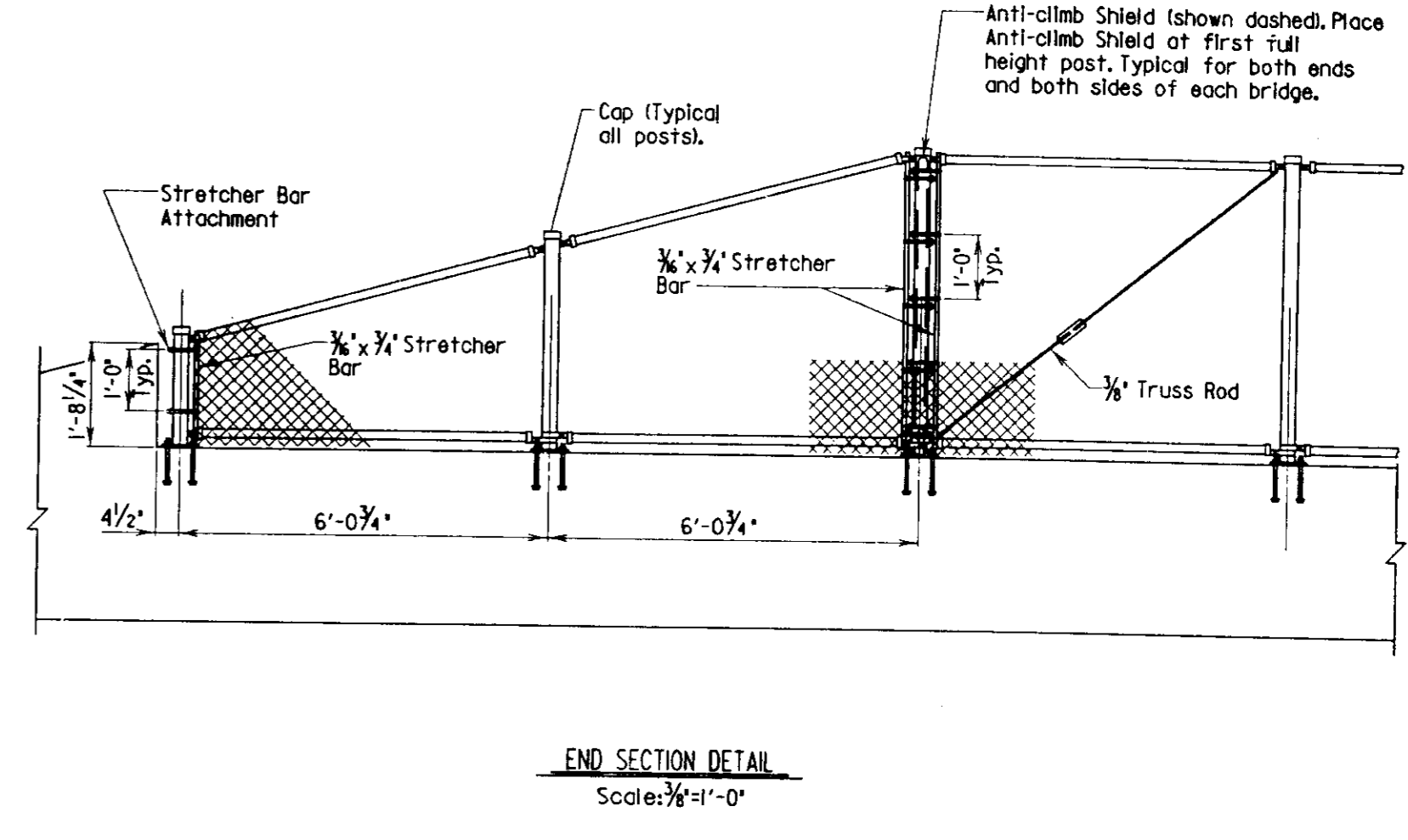
DESIGNED BY: JRD
DRAWN BY: RWS
PROJECT NO: _____
DATE: NOVEMBER 27, 1995
SCALE: AS SHOWN
DRAWING NO. 15 OF 16



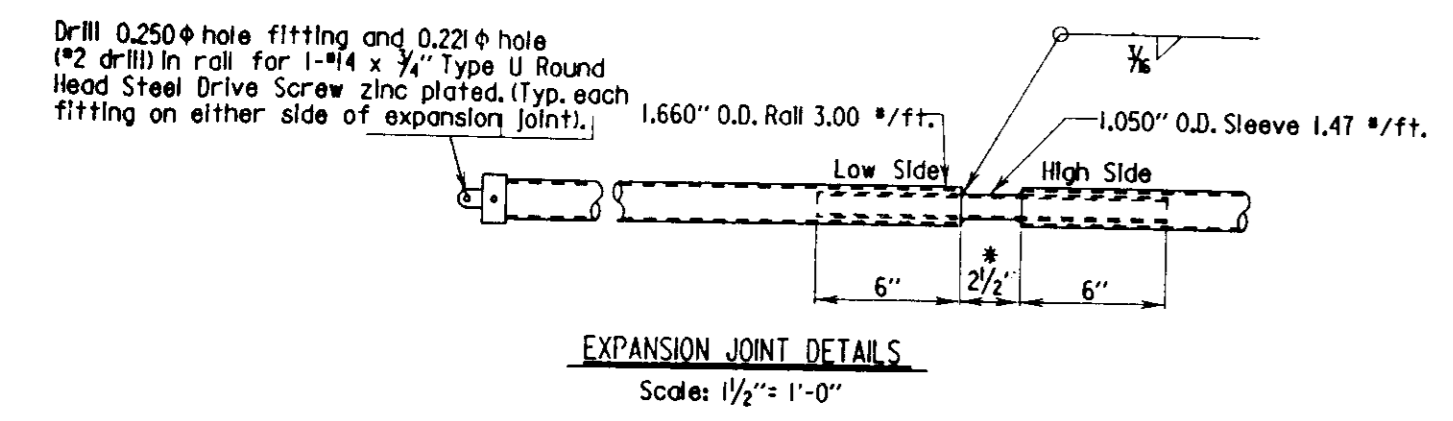
APPROVAL	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT
DATE: 6/18/76	TYPE II CHAIN LINK SAFETY FENCE NEW STRUCTURES
REVISIONS	
DATE: 3-22-88	6-8-90
DATE: 11-9-76	STANDARD NO. BR-SS13.031-75-23 SHEET 1 OF 3



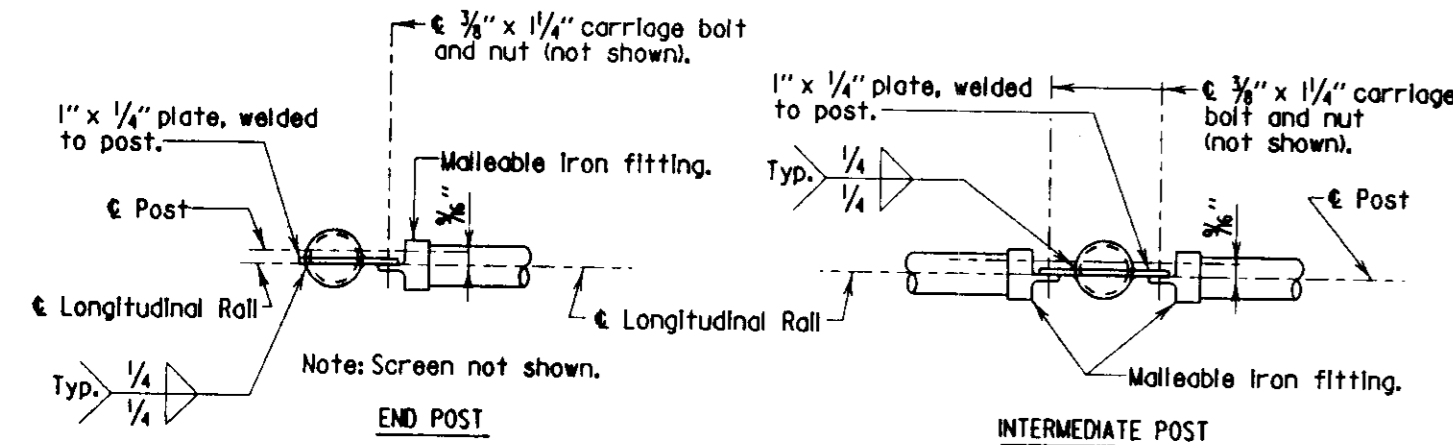
APPROVAL	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT
DATE: 6/18/76	TYPE II CHAIN LINK SAFETY FENCE NEW STRUCTURES
REVISIONS	
DATE: 3-22-88	6-8-90
DATE: 11-9-76	STANDARD NO. BR-SS13.031-75-23 SHEET 2 OF 3



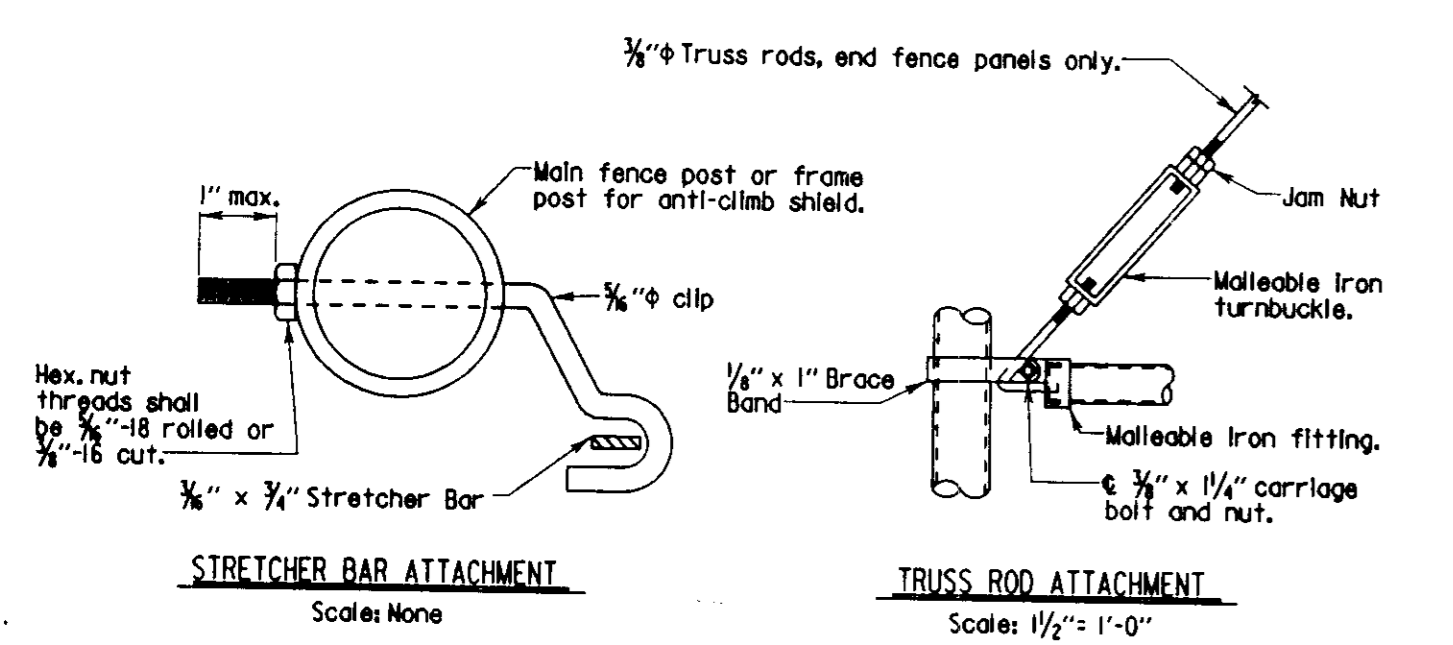
APPROVAL	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT
DATE: 6/18/76	TYPE II CHAIN LINK SAFETY FENCE NEW STRUCTURES
REVISIONS	
DATE: 3-22-88	6-8-90
DATE: 11-9-76	STANDARD NO. BR-SS13.031-75-23 SHEET 3 OF 3



EXPANSION JOINT DETAILS
Scale: 1/2" = 1'-0"



TOP LONGITUDINAL RAIL - POST ATTACHMENT
Scale: 1/2" = 1'-0"



STRETCHER BAR ATTACHMENT
Scale: None

TRUSS ROD ATTACHMENT
Scale: 1/2" = 1'-0"

APPROVAL	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF BRIDGE DEVELOPMENT
DATE: 6/18/76	CHAIN LINK SAFETY FENCE - NEW STRUCTURES MISCELLANEOUS DETAILS
REVISIONS	
DATE: 8-4-81	6-8-90
DATE: 11-9-76	STANDARD NO. BR-SS13.041-75-24 SHEET 1 OF 1

* If opening in parapet is 2 1/2' or less, if opening is greater than this, dimension shall be increased to match proposed movement.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Joseph Scatch</i>	1/4/96
DIRECTOR	DATE
<i>Uma Jurnigany</i>	1/3/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE
<i>Chad Pannone</i>	12/28/95
CHIEF DEVELOPMENT ENGINEERING DIVISION	DATE

DATE NO.	REVISION
OWNER / DEVELOPER	
DORSEY RUN INDUSTRIAL PARK LIMITED PARTNERSHIP ARUNDEL BUILDING - SUITE 203 110 WEST ROAD BALTIMORE, MARYLAND 21204	
PROJECT	
DORSEY RUN INDUSTRIAL PARK PARCEL C - A WAREHOUSE BUILDING	
AREA TAX MAP NO. 48	PARCEL C ZONED M-2 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	
STANDARD DETAILS	

NORTHEAST ENGINEERING, INC.
1055 TAYLOR AVENUE, SUITE 104
BALTIMORE, MARYLAND 21206

	DESIGNED BY: _____
	DRAWN BY: _____
	PROJECT NO: _____
	DATE: NOVEMBER 27, 1995
	SCALE: AS SHOWN
JAMES R. DUFFY, P.E. DATE DRAWING NO. 16 OF 16	