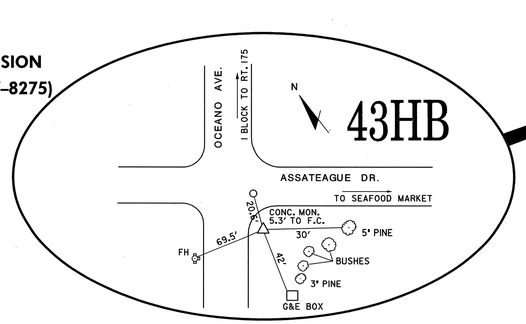
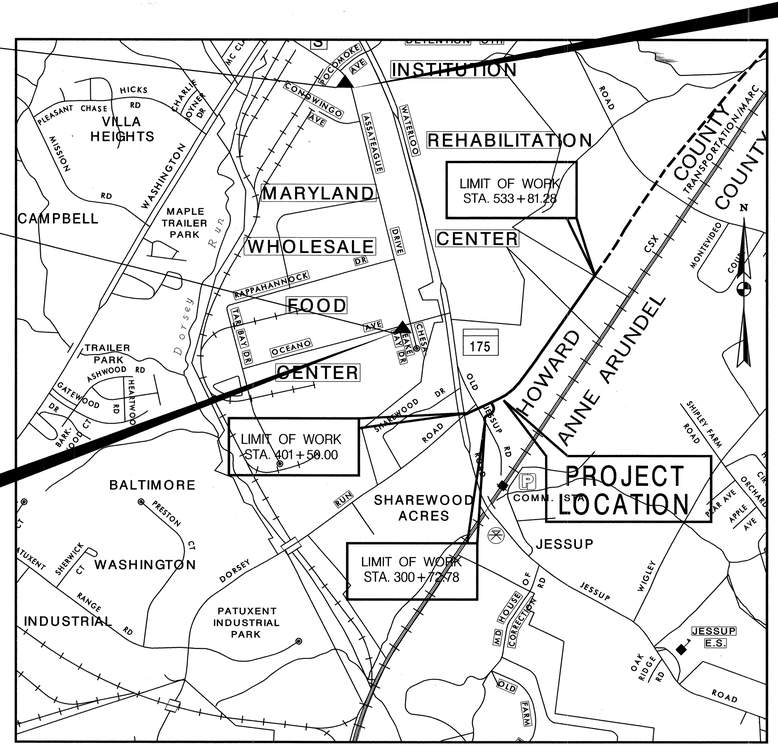
DORSEY RUN ROAD EXTENSION

MD 175 TO DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT 1
HOWARD COUNTY, MARYLAND
CAPITAL PROJECT J-4148-C

INDEX OF DRAWINGS

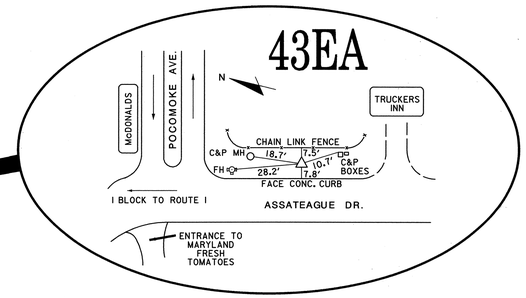




LOCATION MAP
HOWARD COUNTY

1000 0 1000 2000

SCALE: 1" = 1000'



GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AND MISS UTILITY AT 1-800-257-7777 AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK
2. THE SYSTEM OF COORDINATES USED BY HOWARD COUNTY IS BASED IN THE FOLLOWING DATUMS AND PROJECTIONS:

   HORIZONTAL: MARYLAND NAD83 (ADJ 1991)
   VERTICAL: NAVD88

   HOWARD COUNTY CONTROL:

   STATION NO. 43 EA (ELEV. 242.201), N 546,593.973, E 1,373,621.750
   STATION NO. 43 HB (ELEV. 251.628), N 543,166.747, E 1,374,425.040.
3. ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1988.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
5. ALL WORK SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE '1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL,' ISSUED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND THE NATURAL RESOURCES CONSERVATION SERVICE.
6. TOPOGRAPHIC SURVEYS WERE PERFORMED BY URS CORPORATION IN JUNE 2005.
7. THE PROPERTY LINES AND EASEMENTS FOR THIS PROJECT ARE SHOWN ON PLATS J-4148-01, J-4148-02, J-4148-03, J-4148-04, J-4148-05, J-4148-06, J-4148-07.
8. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND THE FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
9. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHOD, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
10. APPROXIMATE UTILITIES ARE SHOWN FROM AVAILABLE RECORDS. 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.

    UTILITY CONTACTS:

BGE:	(410)-597-7835 (ELECTRIC)
BGE:	(410)-291-5101 (GAS)
VERIZON:	(410)-224-9285
MCI:	(912)-729-6016
XPEIUS	(703)-386-2340
ABOVENET	(443)-250-1873
COMCAST	(410)-513-3207
11. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.

DEVELOPER'S CERTIFICATION

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER — DATE 3/29/07

ENGINEER'S CERTIFICATION

"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 DISRRICT."

3/28/07
DATE

URS CORPORATION
4 NORTH PARK DRIVE
HUNT VALLEY, MD 21030

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/26/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

	DORSEY RUN ROAD	RELOCATED OLD JESSUP ROAD
CLASS	MAJOR COLLECTOR	MINOR ARTERIAL STREET
DESIGN SPEED	40 MPH (POSTED 35 MPH)	25 MPH (POSTED 25 MPH)
PAVEMENT TYPE	BIT. CONC. (P-5)	BIT. CONC. (P-3)
LIMITS	STA. 401+50.00 TO STA. 533+81.28	STA. 300+72.78 TO STA. 305+37.94

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS Acting — 3/29/07 DATE

CHIEF, BUREAU OF ENGINEERING — 3/29/07 DATE

Steve Sharar 3/29/07
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE

CHIEF, BUREAU OF HIGHWAYS Acting — 3/30/07 DATE

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS TOPPIN — REGISTERED PROFESSIONAL ENGINEER — 3/28/07

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

TITLE SHEET

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 – JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS NOTED

SHEET 1 OF 74

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DORSEY RUN ROAD			
DESIGNATION	STATION	NORTHING	EASTING
DORSEY RUN ROAD			
POT	400+00.00	541,767.326	1,375,084.424
PC CURVE DRR-1	402+67.87	541,922.622	1,375,302.686
PI CURVE DRR-1	402+76.57	541,927.663	1,375,309.771
PT CURVE DRR-1	402+85.26	541,932.745	1,375,316.827
PC CURVE DRR-2	406+11.22	542,123.254	1,375,581.320
PI CURVE DRR-2	407+66.84	542,214.203	1,375,707.590
PT CURVE DRR-2	409+19.04	542,343.988	1,375,793.449
PC CURVE DRR-3	423+76.34	543,559.402	1,376,597.500
PI CURVE DRR-3	425+52.67	543,706.461	1,376,694.787
PT CURVE DRR-3	427+25.41	543,877.926	1,376,735.909
EQUALITY POT	428+50.00= 533+00.00	543,999.080	1,376,764.965
POT	535+97.26	544,288.142	1,376,834.291
RELOCATED OLD JESSUP ROAD			
POT	300+00.00	541,713.733	1,375,570.229
PC CURVE OJR-1	300+82.47	541,787.545	1,375,533.445
PI CURVE OJR-1	301+09.11	541,811.387	1,375,521.564
PT CURVE OJR-1	301+35.55	541,837.197	1,375,514.973
PC CURVE OJR-2	301+35.55	541,837.197	1,375,514.973
PI CURVE OJR-2	301+81.52	541,881.739	1,375,503.599
PT CURVE OJR-2	302+16.90	541,909.875	1,375,539.954
PC CURVE OJR-3	303+47.63	541,989.889	1,375,643.343
PI CURVE OJR-3	303+78.82	542,008.977	1,375,668.007
PCC CURVE OJR-3	304+09.78	542,032.786	1,375,688.151
PCC CURVE OJR-4	304+09.78	542,032.786	1,375,688.151
PI CURVE OJR-4	304+46.47	542,060.794	1,375,711.848
PT CURVE OJR-4	304+74.49	542,093.432	1,375,695.091
PC CURVE OJR-5	304+87.42	542,104.935	1,375,689.185
PI CURVE OJR-5	305+11.17	542,126.064	1,375,678.337
PT CURVE OJR-5	305+34.70	542,144.065	1,375,662.842
POT	305+68.94	542,170.010	1,375,640.508

CURVE DATA						
CURVE NO.	DELTA	DEGREE	RADIUS	TANGENT	LENGTH	EXTERNAL
DORSEY RUN ROAD						
DRR-1	0°19′55.69″LT	1°54′35.49″	3,000.00′	8.70′	17.39′	0.01
DRR-2	20°44′57.08″LT	6°44′26.45″	850.00′	155.61′	307.82′	14.13
DRR-3	19°59′59.96″LT	5°43′46.48″	1,000.00′	176.33′	349.07′	15.43
RELOCATED OLD JESSUP ROAD						
OJR-1	12°09′50.80″ RT	22°55′05.92″	250.00′	26.64′	53.08′	1.42
OJR-2	66°35′16.75″ RT	81°51′04.01″	70.00′	45.97′	81.35′	13.75
OJR-3	12°01′46.03″ LT	19°21′24.06″	296.00′	31.19′	62.15′	1.64
OJR-4	67°24′38.18″ LT	104°10′26.92″	55.00′	36.69′	64.71′	11.11
OJR-5	13°32′43.00″ LT	28°38′52.40″	200.00′	23.75′	47.28′	1.41

TRAVERSE POINTS			
DESIGNATION	ELEVATION	NORTHING	EASTING
TRAVERSE POINT 12	219.26	541937.0140	1375215.7710
TRAVERSE POINT 13	198.34	541881.6640	1375476.6840
TRAVERSE POINT 14	0.00	542711.9229	1375111.6137
TRAVERSE POINT 19	194.55	541651.1364	1375613.1164
TRAVERSE POINT 20	186.95	541409.7583	1375738.0513
TRAVERSE POINT 22	190.13	541381.2023	1375702.2554
TRAVERSE POINT 23	195.94	541665.0333	1375569.7921
TRAVERSE POINT 24	215.46	541678.1229	1375201.3401
TRAVERSE POINT 25	200.53	542028.1620	1375438.3836
TRAVERSE POINT 26	196.39	542155.6859	1375600.9109
TRAVERSE POINT 27	203.36	542343.3987	1375797.2815
TRAVERSE POINT 28	228.83	542558.7035	1375901.7540
TRAVERSE POINT 29	229.25	542660.6367	1375983.1349
TRAVERSE POINT 30	226.85	542882.6069	1376116.2038
TRAVERSE POINT 31	220.25	543047.2923	1376210.0963
TRAVERSE POINT 32	214.04	543237.7113	1376340.2850
TRAVERSE POINT 33	212.61	543454.1161	1376490.1954
TRAVERSE POINT 34	230.74	543780.6342	1376631.3619
TRAVERSE POINT 35	223.09	543996.2933	1376822.3337
TRAVERSE POINT 36	200.12	544353.4860	1376858.9042
TRAVERSE POINT 41	207.90	542341.8097	1375905.9349
TRAVERSE POINT 43	227.92	542546.2987	1376081.7465
TRAVERSE POINT 44	225.98	542724.6177	1376182.1353
TRAVERSE POINT 45	221.89	542900.8037	1376281.9249
TRAVERSE POINT 46	211.64	543051.9054	1376420.4749
TRAVERSE POINT 47	207.22	543218.9628	1376521.9236
TRAVERSE POINT 48	221.51	543471.6760	1376639.4101
TRAVERSE POINT 49	230.41	543606.8943	1376760.1924

NOTE:

1. FOR RIGHT OF WAY PLATS SEE:
   J-4148-01, J-4148-01, J-4148-02, J-4148-03,
   J-4148-04, J-4148-05, J-4148-06, J-4148-07
   AND J-4148-08
2. FOR TRAVERSE POINT SKETCHES, SEE ROADWAY PLANS.
3. TRAVERSE POINTS ARE NOTED FOR INFORMATIONAL PROPOSES ONLY, AND MAY NOT BE PRESENT IN THE FIELD AT THE TIME OF CONSTRUCTION.

DEPARTMENT OF PUBLIC WORKS

[signature] 12/15/06
DIRECTOR OF PUBLIC WORKS — DATE

Steve Shavan 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE

[signature] 12/14/06
CHIEF, BUREAU OF ENGINEERING — DATE

[signature] 12-15-06
CHIEF, BUREAU OF HIGHWAYS — DATE

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORCOM — NO. 16159 — REGISTERED PROFESSIONAL ENGINEER — 12/12/06

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

GEOMETRIC LAYOUT

SCALE MAP NO. N/A BLOCK NO. ____

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=100'

SHEET 2 OF 74

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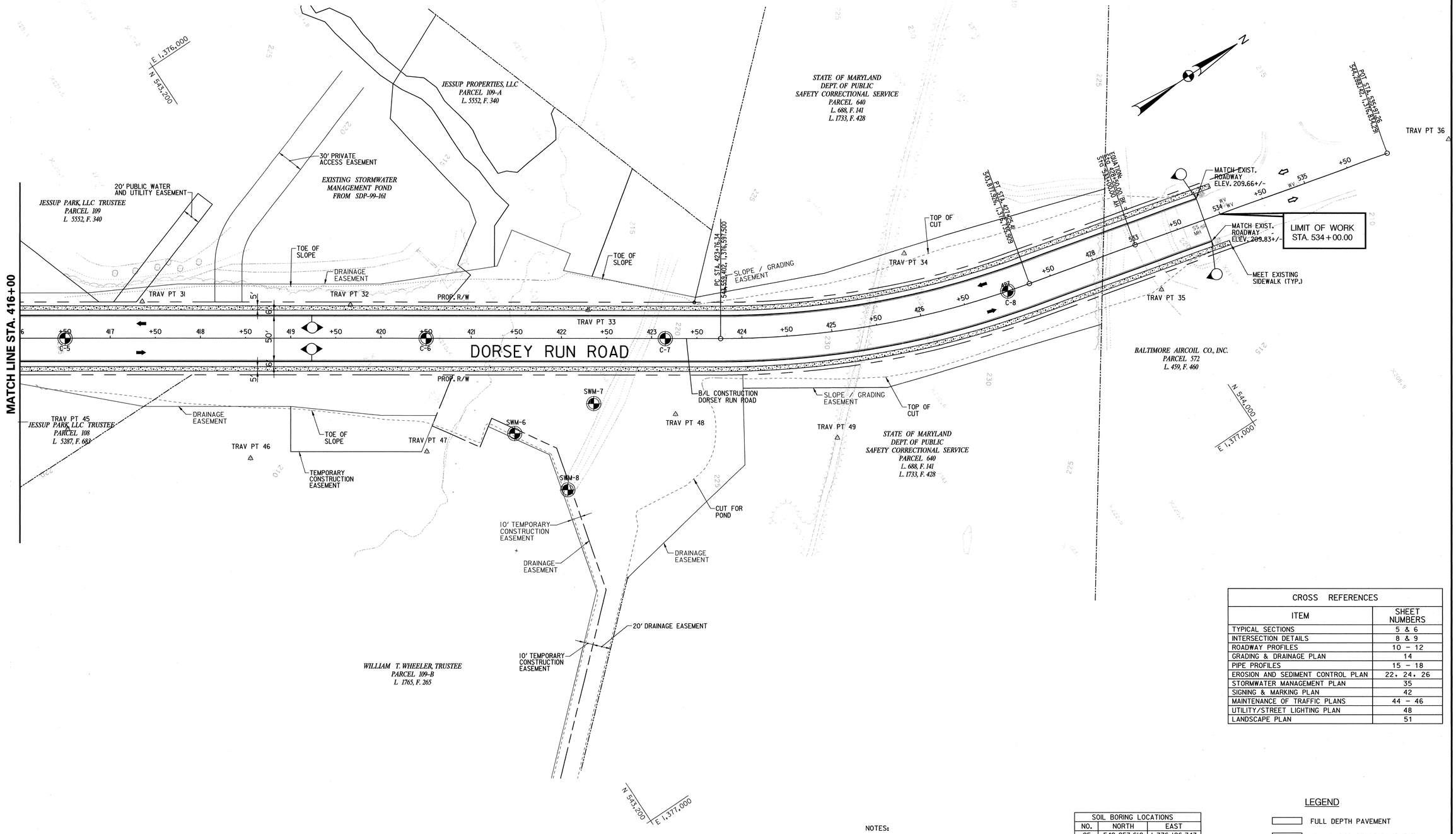

CROSS REFERENCES	
ITEM	SHEET NUMBERS
TYPICAL SECTIONS	5 & 6
INTERSECTION DETAILS	8 & 9
ROADWAY PROFILES	10 – 12
GRADING & DRAINAGE PLAN	14
PIPE PROFILES	15 – 18
EROSION AND SEDIMENT CONTROL PLAN	22. 24. 26
STORMWATER MANAGEMENT PLAN	35
SIGNING & MARKING PLAN	42
MAINTENANCE OF TRAFFIC PLANS	44 – 46
UTILITY/STREET LIGHTING PLAN	48
LANDSCAPE PLAN	51

NOTES:

1. FOR RIGHT OF WAY PLATS SEE J-4148-01, J-4148-02, J-4148-03, J-4148-04, J-4148-05, J-4148-06, J-4148-07 AND J-4148-08.
2. ALL BORINGS DRILLED BY EBA ENGINEERING, INC. IN JANUARY 2006.
3. DRILLING AND SAMPLING CONFORMS TO AASHTO DESIGNATION T-206.
4. SEE SHEETS 52 AND 53 FOR BORING LOGS.

SOIL BORING LOCATIONS		
NO.	NORTH	EAST
C5	542,953.618	1,376,196.747
C6	543,287.225	1,376,417.443
C7	543,508.239	1,376,563.654
C8	543,853.294	1,376,729.670
SWM6	543,311.297	1,376,558.985
SWM7	543,402.667	1,376,579.662
SWM8	543,325.710	1,376,643.878

LEGEND

- FULL DEPTH PAVEMENT
- MILL & RESURFACE PAVEMENT
- REMOVE EXISTING PAVEMENT
- (R) TO BE REMOVED
- STD. CURB & GUTTER
- SOIL BORING
- EXISTING BORING BY OTHERS

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/19/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS ADCOCK — NO. 16155 — REGISTERED PROFESSIONAL ENGINEER — 12/19/06

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

ROADWAY PLAN
SEGMENT C

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=50'

SHEET 4 OF 74

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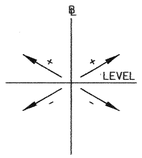


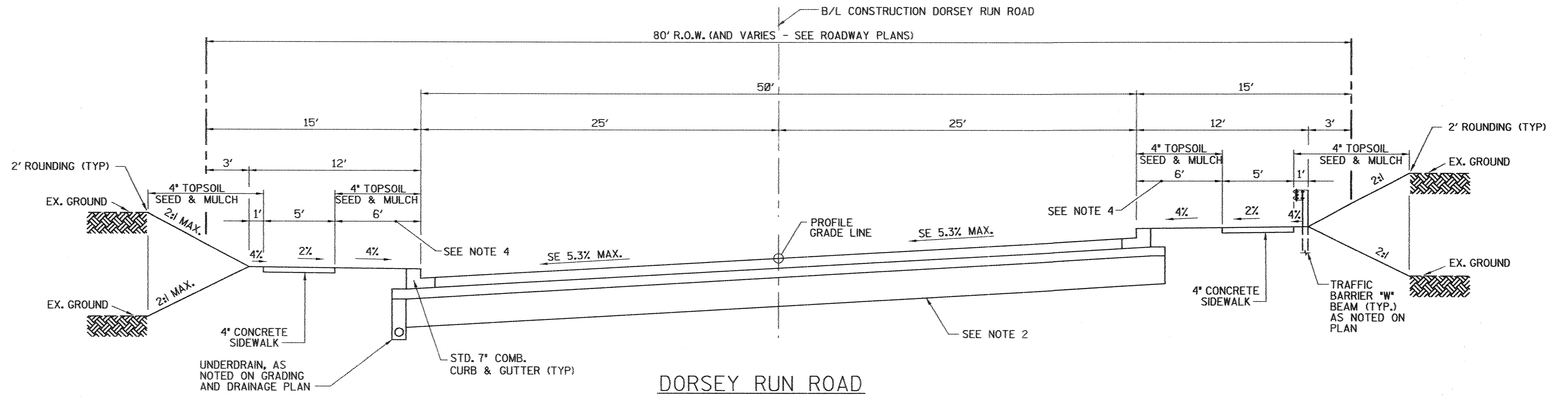
SUPERELEVATION SIGN CONVENTION

SUPERELEVATION DATA

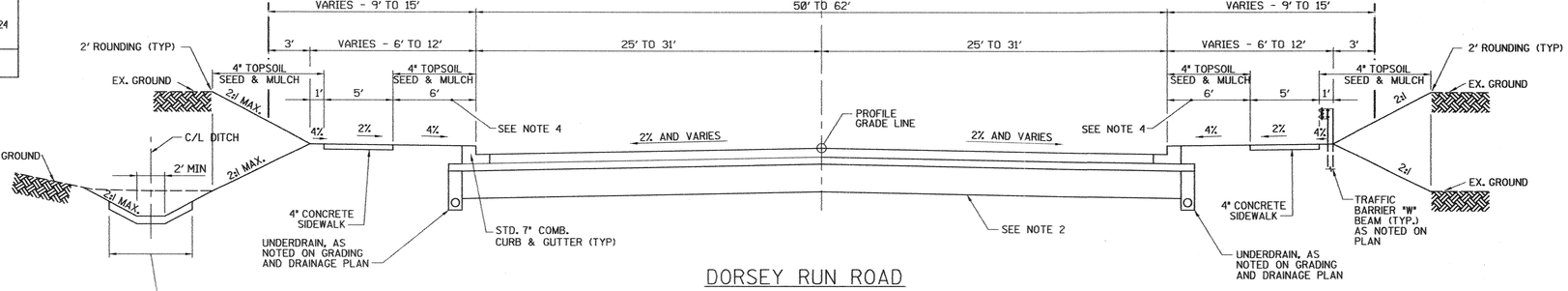
DORSEY RUN ROAD

STATION	REMARKS	CROSS SLOPE LT.(%)	CROSS SLOPE RT.(%)	FACTORS FT./FT.
POT 402+00.00	SEE CROSS SECTIONS FOR SLOPE AT INTERSECTION	Varies	Varies	
POT 402+50.00	SEE CROSS SECTIONS FOR SLOPE AT INTERSECTION	Varies	-2.00	
POT 402+88.70	SEE CROSS SECTIONS FOR SLOPE AT INTERSECTION	Varies	-2.00	
POT 404+96.44	LAST NORMAL RIGHT	-2.00	-2.00	
POT 405+90.78	LAST NORMAL LEFT	-2.00	2.00	
POC 406+68.61	FIRST FULL SUPER	-5.30	5.30	C=0.000392
POC 408+61.65	LAST FULL SUPER	-5.25	5.30	
POT 409+39.48	FIRST NORMAL LEFT	-2.00	2.00	
POT 410+33.82	FIRST NORMAL RIGHT	-2.00	-2.00	
POT 422+58.99	LAST NORMAL RIGHT	-2.00	-2.00	
POT 423+61.03	LAST NORMAL LEFT	-2.00	2.00	
POC 424+35.01	FIRST FULL SUPER	-4.90	4.90	C=0.000424
POC 426+66.74	LAST FULL SUPER	-4.90	4.90	
POT 427+40.72	FIRST NORMAL LEFT	-2.00	2.00	
POT 428+42.76	FIRST NORMAL RIGHT	-2.00	-2.00	
POT 533+81.28	MATCH EXISTING ROADWAY CROSS SLOPE	-2.00+/-	-2.00+/-	

NOTES:
1. FOR SUPERELEVATION DIAGRAM SEE SHEET 7.
2. THE CONTRACTOR WILL EXCAVATE ALL UNSUITABLE MATERIAL AND REPLACE WITH SELECT BACKFILL OR ON-SITE MATERIAL.
3. SEE ROADWAY PLAN FOR LIMITS OF TRAFFIC BARRIER 'W' BEAM
4. DISTANCE BETWEEN CURB AND SIDEWALK MAY VARY - SEE PLAN FOR TRANSITION AREAS.



DORSEY RUN ROAD
STA. 404+96.44 TO 410+33.82
STA. 422+58.99 TO 428+42.76
PAVEMENT SECTION P-5
SCALE: 1" = 5'
(DESIGN SPEED= 40 M.P.H.)



DORSEY RUN ROAD
STA. 402+00.00 TO 404+96.44
STA. 410+33.82 TO 422+58.99
STA. 428+42.76 TO 533+81.28
PAVEMENT SECTION P-5
SCALE: 1" = 5'
(DESIGN SPEED= 40 M.P.H.)

5 0 5 10
FULL SIZE SCALE: 1" = 5'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-13-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS JOHNSON — NO. 16156 — REGISTERED PROFESSIONAL ENGINEER — 12/10/06

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

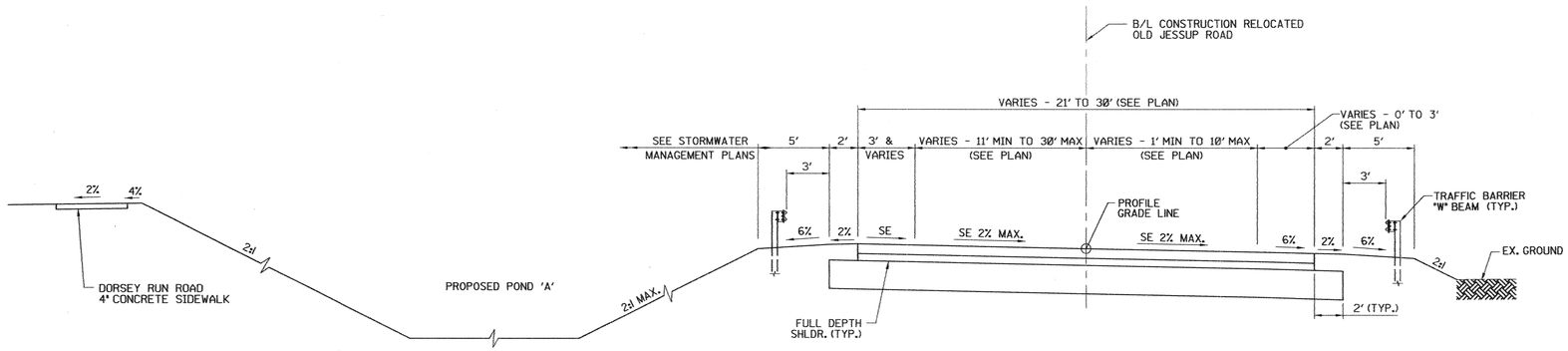
TYPICAL ROADWAY SECTIONS - I

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

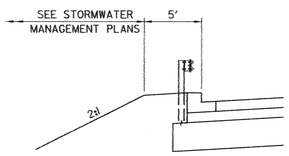
SCALE 1" = 5'

SHEET 5 OF 74

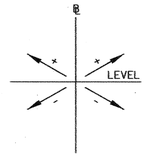


RELOCATED OLD JESSUP ROAD

STA. 301+00.00 TO STA. 302+62.61
PAVEMENT SECTION P-3
SCALE: 1" = 5'
(DESIGN SPEED= 25 M.P.H.)



CURBED SECTION
SEE PLAN FOR LIMITS



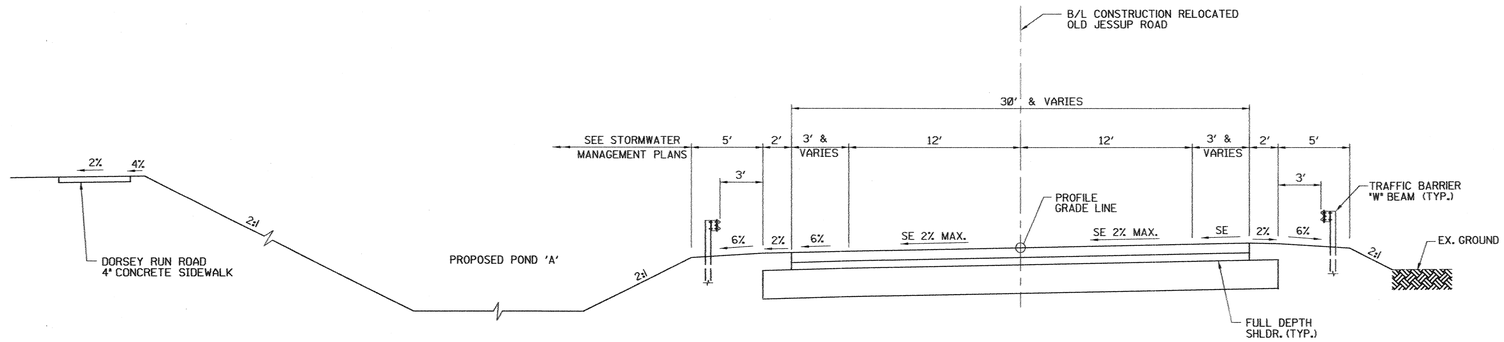
SUPERELEVATION SIGN CONVENTION

SUPERELEVATION DATA

OLD RELOCATED JESSUP ROAD

STATION	REMARKS	CROSS SLOPE LT.(%)	CROSS SLOPE RT.(%)	FACTORS FT./FT.
POC 301+00.00	MATCH EXISTING CROSS SLOPE	-1.30+/-	-1.87+/-	
POC 301+57.21	FIRST FULL SUPER	2.00	-2.00	C=0.000482
POC 301+79.69	LAST FULL SUPER	2.00	-2.00	
POT 302+62.61	FIRST NORMAL LEFT/RIGHT	-2.00	-2.00	
POT 302+62.61	LAST NORMAL LEFT/RIGHT	-2.00	-2.00	
POC 303+89.91	FIRST FULL SUPER	-2.00	2.00	C=0.000314
POC 304+50.00	LAST FULL SUPER	-2.00	2.00	
POC 305+00.00	SEE CROSS SECTIONS FOR SLOPE AT DORSEY RUN RD.	Varies	Varies	
POT 305+37.94	SEE CROSS SECTIONS FOR SLOPE AT DORSEY RUN RD.	Varies	Varies	

NOTES:
1. FOR SUPERELEVATION DIAGRAM SEE SHEET 7.
2. THE CONTRACTOR WILL EXCAVATE ALL UNSUITABLE MATERIAL AND REPLACE WITH SELECT BACKFILL OR ON-SITE MATERIAL.
3. SEE ROADWAY PLAN FOR LIMITS OF TRAFFIC BARRIER 'W' BEAM



RELOCATED OLD JESSUP ROAD

STA. 302+62.61 TO STA. 305+35.00 ±
PAVEMENT SECTION P-3
SCALE: 1" = 5'
(DESIGN SPEED= 25 M.P.H.)

5 0 5 10
FULL SIZE SCALE: 1" = 5'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/5/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORGAN — NO. 16156 — REGISTERED PROFESSIONAL ENGINEER — 12/12/06

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06				
	BY	NO.	REVISION	DATE

TYPICAL ROADWAY SECTIONS - II

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1" = 5'

SHEET 6 OF 74

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COORDINATE TABLE

POINT	BASELINE	STATION	OFFSET	NORTH	EAST	ELEV.	REMARKS
00	DORSEY RUN ROAD	PC 401+36.61	74.76'RT.	541,785.609	1,375,239.080	215.95+/-	MATCH EX. ELEV.
01	DORSEY RUN ROAD	POC 401+66.10	42.81'RT.	541,828.735	1,375,244.580	216.85	HIGH POINT
02	DORSEY RUN ROAD	PT 402+07.94	31.00'RT.	541,862.616	1,375,271.822	216.41	
03	DORSEY RUN ROAD	PC 402+67.87	31.00'RT.	541,897.364	1,375,320.658	215.10	
04	DORSEY RUN ROAD	PC 402+85.26	31.00'RT.	541,907.590	1,375,334.944	214.52	
05	DORSEY RUN ROAD	PC 403+22.65	31.00'LT.	541,979.753	1,375,329.049	213.95	
06	DORSEY RUN ROAD	PCC 402+73.26	39.92'LT.	541,958.234	1,375,283.871	215.88	
07	DORSEY RUN ROAD	PCC 402+34.09	100.11'LT.	541,984.603	1,375,217.124	219.77	
08	DORSEY RUN ROAD	PT 402+50.41	159.04'LT.	542,042.088	1,375,196.257	221.33+/-	MATCH EX. CURB
09	DORSEY RUN ROAD	PT 402+11.46	65.45'LT.	541,943.241	1,375,218.775	219.01	
10	DORSEY RUN ROAD	PC 401+98.68	37.84'LT.	541,913.343	1,375,224.374	218.28	
11	DORSEY RUN ROAD	PT 402+00.50	35.00'LT.	541,912.082	1,375,227.500	217.90	
12	DORSEY RUN ROAD	PC 402+26.91	35.00'LT.	541,927.392	1,375,249.017	216.99	
13	DORSEY RUN ROAD	PT 402+30.74	43.21'LT.	541,936.304	1,375,247.378	217.56	
14	DORSEY RUN ROAD	PCC 402+21.03	57.64'LT.	541,942.435	1,375,231.105	218.21	
15	DORSEY RUN ROAD	PC 402+16.83	65.59'LT.	541,946.474	1,375,223.072	218.68	
16	DORSEY RUN ROAD	POT 404+04.77	60.67'LT.	542,051.818	1,375,378.342	202.53	
17	DORSEY RUN ROAD	PC 404+04.57	78.67'LT.	542,066.309	1,375,367.660	202.74	
18	DORSEY RUN ROAD	PT 404+17.93	90.16'LT.	542,083.443	1,375,371.782	202.54	
19	DORSEY RUN ROAD	POT 404+21.11	107.68'LT.	542,099.514	1,375,364.124	202.92	
20	DORSEY RUN ROAD	POT 404+42.14	103.98'LT.	542,108.806	1,375,383.355	202.84	
21	DORSEY RUN ROAD	PC 404+40.68	95.64'LT.	542,101.184	1,375,387.037	202.70	
22	DORSEY RUN ROAD	PT 404+54.62	79.22'LT.	542,096.005	1,375,407.950	202.07	
23	DORSEY RUN ROAD	POT 404+77.95	79.47'LT.	542,109.852	1,375,426.734	201.48	
24	DORSEY RUN ROAD	POT 404+78.15	61.48'LT.	542,095.363	1,375,437.414	201.03	
25	DORSEY RUN ROAD	POT 404+34.52	60.99'LT.	542,069.474	1,375,402.294	202.02	
26	DORSEY RUN ROAD	POT 404+13.27	60.76'LT.	542,056.863	1,375,385.185	202.25	
27	DORSEY RUN ROAD	POT 403+54.94	58.08'LT.	542,020.596	1,375,339.418	211.00+/-	MATCH EX. ELEV.
28	DORSEY RUN ROAD	POT 403+30.22	70.27'LT.	542,016.038	1,375,312.238	211.59+/-	MATCH EX. ELEV.
29	DORSEY RUN ROAD	POT 403+11.55	61.84'LT.	541,998.291	1,375,302.016	211.48+/-	MATCH EX. ELEV.
30	DORSEY RUN ROAD	POT 402+84.69	41.45'LT.	541,966.047	1,375,292.149	212.72	
31	DORSEY RUN ROAD	POT 403+37.59	31.00'LT.	541,988.480	1,375,341.165	213.25	
32	DORSEY RUN ROAD	POT 400+98.34	33.00'RT.	541,797.452	1,375,183.686	217.12	MATCH EX. ELEV.
33	DORSEY RUN ROAD	POT 401+09.00	33.00'RT	541,803.628	1,375,192.366	217.11	MATCH EX. ELEV.
34	DORSEY RUN ROAD	POT 401+11.68	37.34'RT	541,801.652	1,375,197.068	216.97	MATCH EX. ELEV.
35	DORSEY RUN ROAD	POT 401+04.03	52.72'RT	541,784.683	1,375,199.751	216.63	MATCH EX. ELEV.
36	DORSEY RUN ROAD	POT 400+98.45	52.18'RT	541,781.889	1,375,194.894	216.63	MATCH EX. ELEV.
37	DORSEY RUN ROAD	POT 400+93.87	40.24'RT	541,788.963	1,375,184.237	216.93	MATCH EX. ELEV.

TRAFFIC BARRIER W BEAM END SECTION

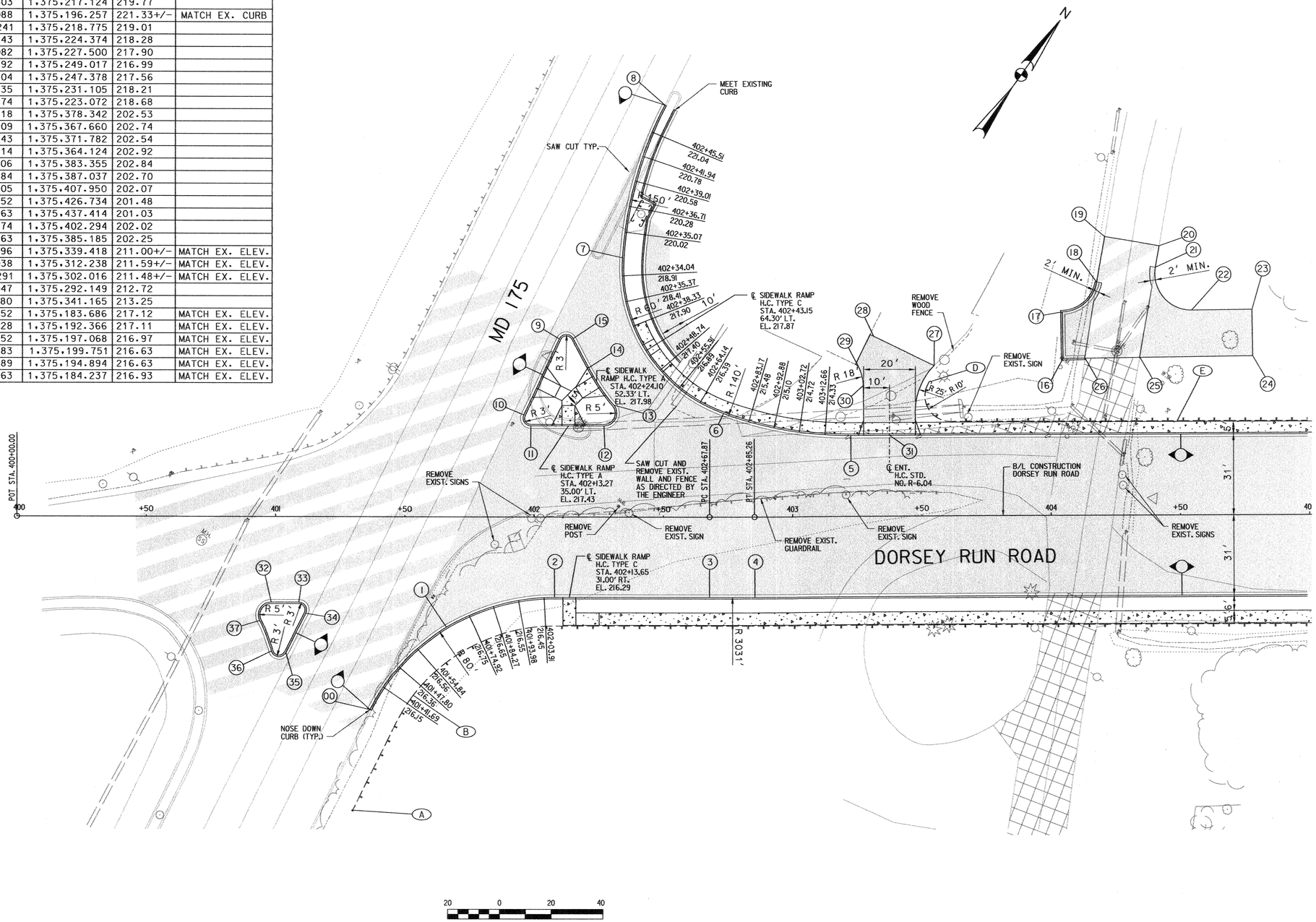
POINT	TYPE	STANDARD DRAWING REFERENCE	COMMENTS
A TO B	C	MD 605.03	11' OFFSET FROM MD 175 RT. EOP
D	W-BEAM END	MD 605.20	INCIDENTAL TO TRAFFIC BARRIER W-BEAM ITEM
E	L	MD 605.13	10' RADIUS

NOTES:

1. ALL CURB LOCATIONS ARE SHOWN TO THE BOTTOM FACE OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
2. SEE UTILITY PLANS AND SIGNAL PLANS FOR UTILITY INFORMATION.
3. SEE GRADING & DRAINAGE PLANS AND DRAINAGE PROFILES FOR DRAINAGE INFORMATION.
4. FOR GUARDRAIL INFORMATION SEE TYPICAL ROADWAY DETAILS.

LEGEND

- FULL DEPTH PAVEMENT
- MILL & RESURFACE PAVEMENT
- CONCRETE SIDEWALK
- REMOVE EXISTING PAVEMENT
- STANDARD 7" COMBINATION CURB & GUTTER (R-3.01)



20 0 20 40

FULL SIZE SCALE: 1" = 20'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/8/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
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STATE OF MARYLAND — DAVID THOMAS MCKAY — NO. 19456 — REGISTERED PROFESSIONAL ENGINEER — 12/12/06

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

INTERSECTION DETAIL - I

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=20'

SHEET 8 OF 74

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COORDINATE TABLE

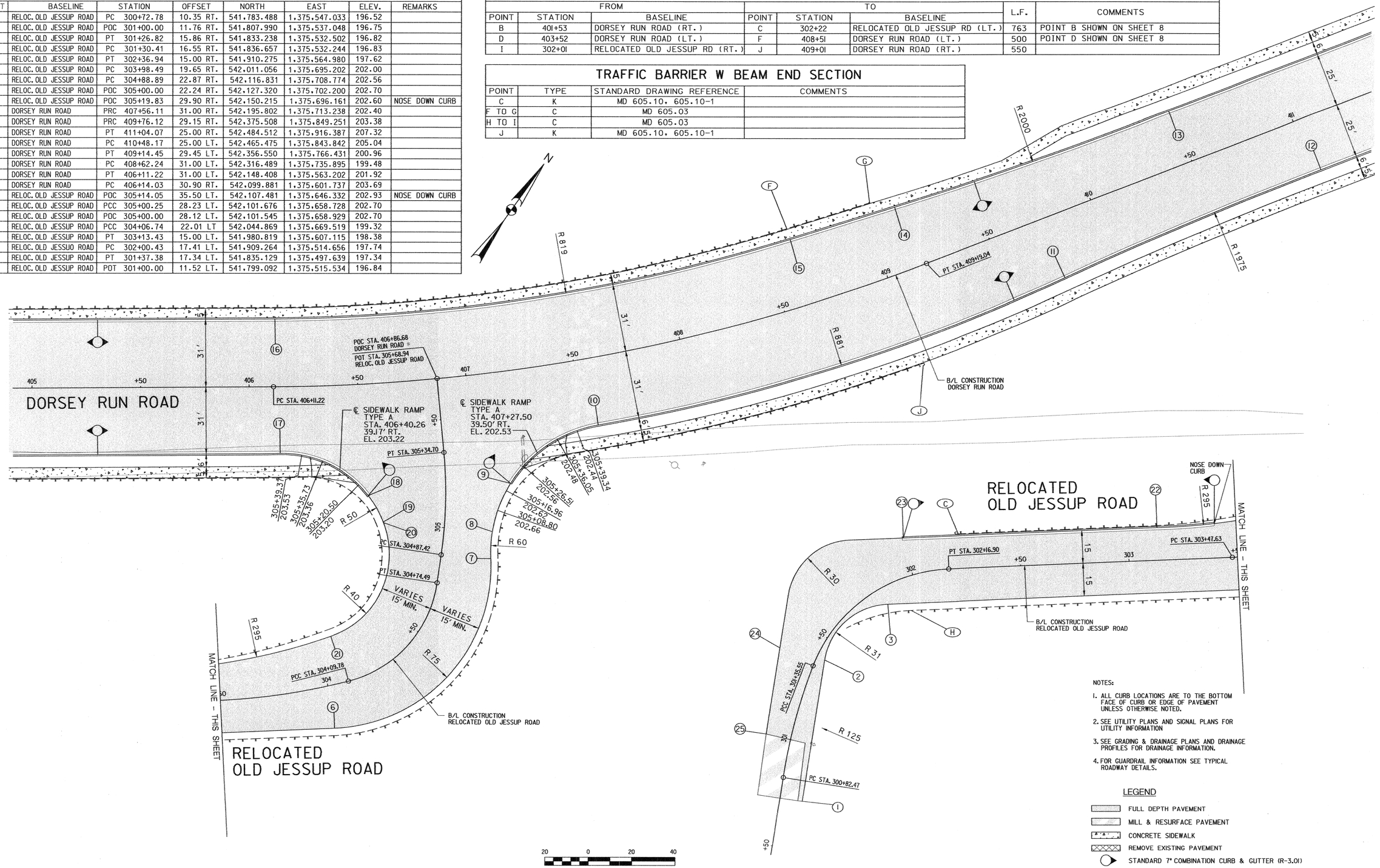
POINT	BASELINE	STATION	OFFSET	NORTH	EAST	ELEV.	REMARKS
1	RELOC. OLD JESSUP ROAD	PC 300+72.78	10.35 RT.	541,783.488	1,375,547.033	196.52	
2	RELOC. OLD JESSUP ROAD	POC 301+00.00	11.76 RT.	541,807.990	1,375,537.048	196.75	
3	RELOC. OLD JESSUP ROAD	PT 301+26.82	15.86 RT.	541,833.238	1,375,532.502	196.82	
4	RELOC. OLD JESSUP ROAD	PC 301+30.41	16.55 RT.	541,836.657	1,375,532.244	196.83	
5	RELOC. OLD JESSUP ROAD	PT 302+36.94	15.00 RT.	541,910.275	1,375,564.980	197.62	
6	RELOC. OLD JESSUP ROAD	PC 303+98.49	19.65 RT.	542,011.056	1,375,695.202	202.00	
7	RELOC. OLD JESSUP ROAD	PC 304+88.89	22.87 RT.	542,116.831	1,375,708.774	202.56	
8	RELOC. OLD JESSUP ROAD	POC 305+00.00	22.24 RT.	542,127.320	1,375,702.200	202.70	
9	RELOC. OLD JESSUP ROAD	POC 305+19.83	29.90 RT.	542,150.215	1,375,696.161	202.60	NOSE DOWN CURB
10	DORSEY RUN ROAD	PRC 407+56.11	31.00 RT.	542,195.802	1,375,713.238	202.40	
11	DORSEY RUN ROAD	PRC 409+76.12	29.15 RT.	542,375.508	1,375,849.251	203.38	
12	DORSEY RUN ROAD	PT 411+04.07	25.00 RT.	542,484.512	1,375,916.387	207.32	
13	DORSEY RUN ROAD	PC 410+48.17	25.00 LT.	542,465.475	1,375,843.842	205.04	
14	DORSEY RUN ROAD	PT 409+14.45	29.45 LT.	542,356.550	1,375,766.431	200.96	
15	DORSEY RUN ROAD	PC 408+62.24	31.00 LT.	542,316.489	1,375,735.895	199.48	
16	DORSEY RUN ROAD	PT 406+11.22	31.00 LT.	542,148.408	1,375,563.202	201.92	
17	DORSEY RUN ROAD	PC 406+14.03	30.90 RT.	542,099.881	1,375,601.737	203.69	
18	RELOC. OLD JESSUP ROAD	POC 305+14.05	35.50 LT.	542,107.481	1,375,646.332	202.93	NOSE DOWN CURB
19	RELOC. OLD JESSUP ROAD	PCC 305+00.25	28.23 LT.	542,101.676	1,375,658.728	202.70	
20	RELOC. OLD JESSUP ROAD	POC 305+00.00	28.12 LT.	542,101.545	1,375,658.929	202.70	
21	RELOC. OLD JESSUP ROAD	PCC 304+06.74	22.01 LT	542,044.869	1,375,669.519	199.32	
22	RELOC. OLD JESSUP ROAD	PT 303+13.43	15.00 LT.	541,980.819	1,375,607.115	198.38	
23	RELOC. OLD JESSUO ROAD	PC 302+00.43	17.41 LT.	541,909.264	1,375,514.656	197.74	
24	RELOC. OLD JESSUP ROAD	PT 301+37.38	17.34 LT.	541,835.129	1,375,497.639	197.34	
25	RELOC. OLD JESSUP ROAD	PDT 301+00.00	11.52 LT.	541,799.092	1,375,515.534	196.84	

TRAFFIC BARRIER W BEAM (MD STD 605.22)

FROM			TO			L.F.	COMMENTS
POINT	STATION	BASELINE	POINT	STATION	BASELINE		
B	401+53	DORSEY RUN ROAD (RT.)	C	302+22	RELOCATED OLD JESSUP RD (LT.)	763	POINT B SHOWN ON SHEET 8
D	403+52	DORSEY RUN ROAD (LT.)	F	408+51	DORSEY RUN ROAD (LT.)	500	POINT D SHOWN ON SHEET 8
I	302+01	RELOCATED OLD JESSUP RD (RT.)	J	409+01	DORSEY RUN ROAD (RT.)	550	

TRAFFIC BARRIER W BEAM END SECTION

POINT	TYPE	STANDARD DRAWING REFERENCE	COMMENTS
C	K	MD 605.10, 605.10-1	
F TO G	C	MD 605.03	
H TO I	C	MD 605.03	
J	K	MD 605.10, 605.10-1	



20 0 20 40
FULL SIZE SCALE: 1" = 20'

NOTES:

1. ALL CURB LOCATIONS ARE TO THE BOTTOM FACE OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
2. SEE UTILITY PLANS AND SIGNAL PLANS FOR UTILITY INFORMATION
3. SEE GRADING & DRAINAGE PLANS AND DRAINAGE PROFILES FOR DRAINAGE INFORMATION.
4. FOR GUARDRAIL INFORMATION SEE TYPICAL ROADWAY DETAILS.

LEGEND

- FULL DEPTH PAVEMENT
- MILL & RESURFACE PAVEMENT
- CONCRETE SIDEWALK
- REMOVE EXISTING PAVEMENT
- STANDARD 7" COMBINATION CURB & GUTTER (R-3.01)

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/13/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06 Steve Sharan
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
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HUNT VALLEY, MARYLAND
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STATE OF MARYLAND — DAVID THOMAS DOBSON — NO. 21615 — PROFESSIONAL ENGINEER — 12/15/06

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

INTERSECTION DETAIL - II

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=20'

SHEET 9 OF 74

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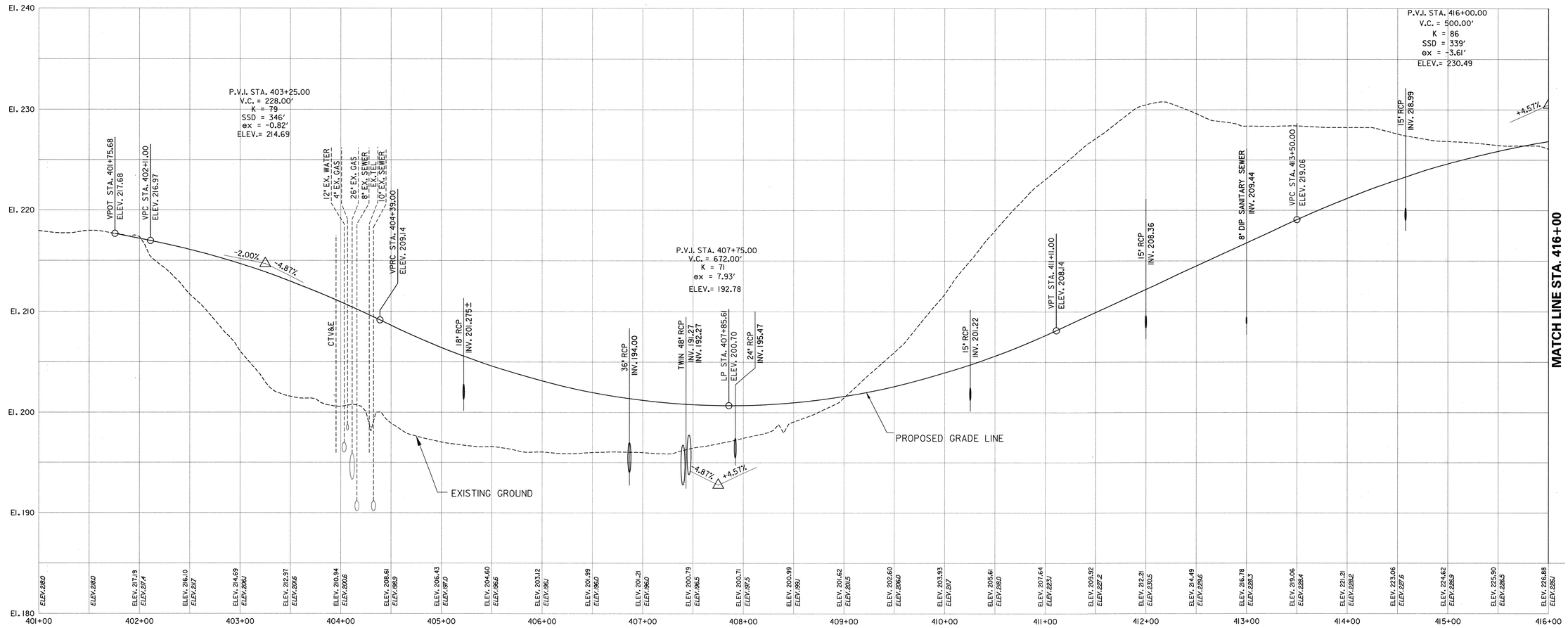

MATCH LINE STA. 416+00

DORSEY RUN ROAD

CROSS REFERENCES	
ITEM	DRAWING NUMBERS
TYPICAL SECTIONS	5 & 6
INTERSECTION DETAILS	8 & 9
ROADWAY PLANS	3
GRADING & DRAINAGE PLAN	13 & 14
PIPE PROFILES	15 - 18
EROSION AND SEDIMENT CONTROL PLAN	21 - 26
STORMWATER MANAGEMENT PLANS	33 - 37
SIGNING & MARKING PLAN	41 & 42
MAINTENANCE OF TRAFFIC PLANS	44 - 46
UTILITY/STREET LIGHTING PLAN	47 & 48
LANDSCAPE PLAN	50 & 51

50 0 50 100
FULL SIZE HORZ. SCALE: 1" = 50'

10 0 10 20
FULL SIZE VERT. SCALE: 1" = 10'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MCKAY — NO. 18156 — REGISTERED PROFESSIONAL ENGINEER — 12/12/06

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06	BY	NO.	REVISION	DATE

ROADWAY PROFILE - I

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 10 OF 74

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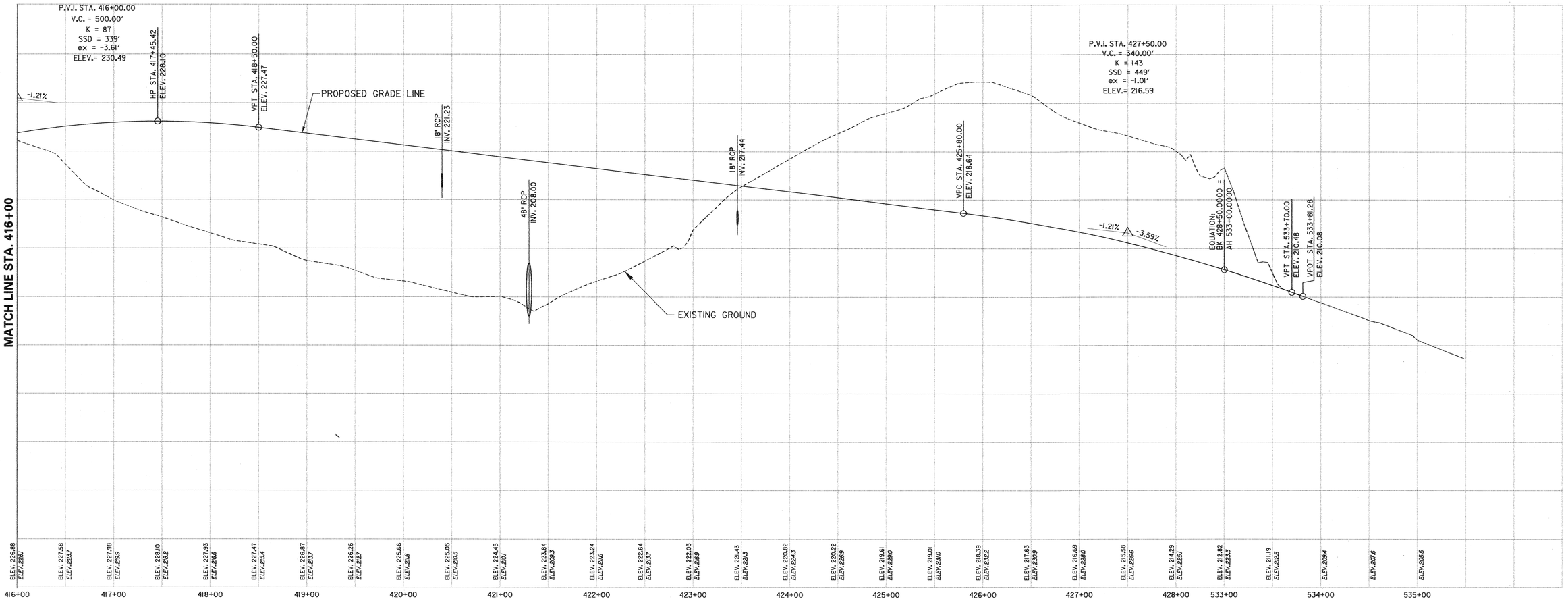

DORSEY RUN ROAD

CROSS REFERENCES	
ITEM	SHEET NUMBERS
TYPICAL SECTIONS	5 & 6
INTERSECTION DETAILS	8 & 9
ROADWAY PLANS	4
GRADING & DRAINAGE PLAN	13 & 14
PIPE PROFILES	15 – 18
EROSION AND SEDIMENT CONTROL PLAN	21 – 26
STORMWATER MANAGEMENT PLANS	33 – 37
SIGNING & MARKING PLAN	41 & 42
MAINTENANCE OF TRAFFIC PLANS	44 – 46
UTILITY/STREET LIGHTING PLAN	47 & 48
LANDSCAPE PLAN	50 & 51

50 0 50 100
FULL SIZE HORZ. SCALE: 1" = 50'

10 0 10 20
FULL SIZE VERT. SCALE: 1" = 10'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/5/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/19/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS DODSON — NO. 16156 — REGISTERED PROFESSIONAL ENGINEER
12/7/06

DES:	CMC
DRN:	SYC/CDF
CHK:	DTM
DATE:	10/06

BY	NO.	REVISION	DATE

ROADWAY PROFILE - II

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 11 OF 74

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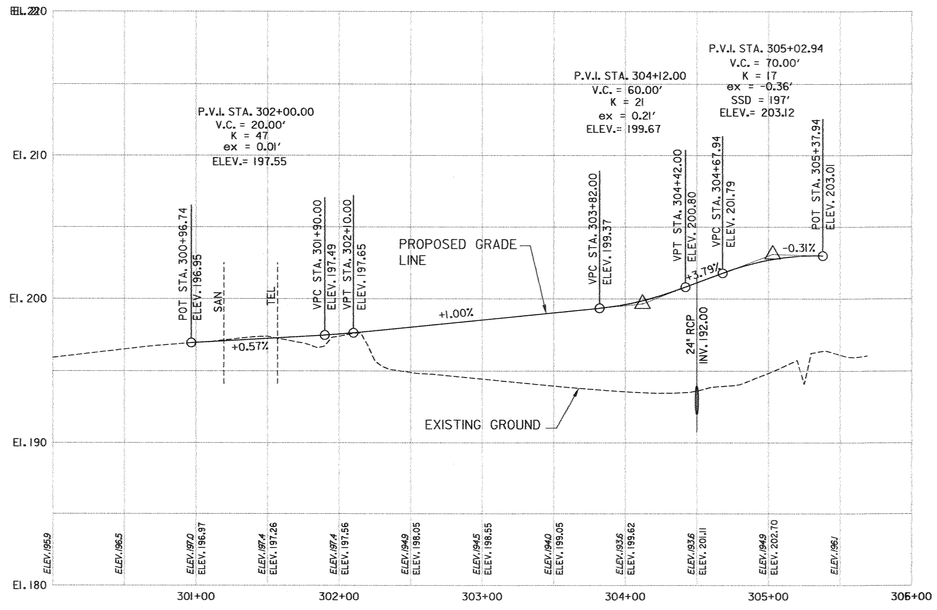

RELOCATED OLD JESSUP ROAD

CROSS REFERENCES	
ITEM	SHEET NUMBERS
TYPICAL SECTIONS	5 & 6
INTERSECTION DETAILS	8 & 9
ROADWAY PLANS	3
GRADING & DRAINAGE PLAN	13 & 14
PIPE PROFILES	15 – 18
EROSION AND SEDIMENT CONTROL PLAN	21 – 26
STORMWATER MANAGEMENT PLANS	33 – 37
SIGNING & MARKING PLAN	41 & 42
MAINTENANCE OF TRAFFIC PLANS	44 & 45
UTILITY/STREET LIGHTING PLAN	47 & 48
LANDSCAPE PLAN	50 & 51

50 0 50 100
FULL SIZE HORZ. SCALE: 1" = 50'

10 0 10 20
FULL SIZE VERT. SCALE: 1" = 10'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS DORSON — 30116156 — REGISTERED PROFESSIONAL ENGINEER — 12/7/06

DES: CMC	
DRN: SYC/CDF	
CHK: DTM	
DATE: 10/06	

BY	NO.	REVISION	DATE

ROADWAY PROFILE - III

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 12 OF 74

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LIMIT OF WORK STA. 401+50
MD 175
SOOK H. & JOSEPH H. CHUNG PARCEL 248 L. 4335, F. 533
OLD JESSUP
SLOPE / GRADING EASEMENT
SAWCUT
REMOVE AND REPLACE W-BEAM
LIMIT OF WALL REMOVAL
SEE NOTE 2
LEO McMULLEN & WIFE 7861 OLD JESSUP ROAD PARCEL 107 L. 437, F. 180
100 YR FLOODPLAIN
DRAINAGE EASEMENT
RESET EX. SIGN
REMOVE AND RESET EX. LIGHT POLE
HOWARD COUNTY PARCEL 432 L. 7893, F. 258
T.D. PROPERTIES MANAGEMENT PARCEL 253 L. 5744, F. 41
SANITARY SEWER BY OTHERS
LIMIT OF WORK
10' SANITARY AND UTILITY EASEMENT
POND-A
B/L CONSTRUCTION RELOCATED OLD JESSUP ROAD
OJR, LLC PARCEL 112 L. 5288, F. 10
INSTALL 300 LINEAR FEET OF 8" SANITARY SEWER INCLUDING SMH-2, AND SMH-3 AS PART OF CAPITAL PROJECT J-4148-C.
OLD JESSUP ROAD
POND-E
JESSUP PARK, LLC 7909 SE OLD JESSUP ROAD PARCEL 10B L. 5287, F. 683
TEMPORARY CONSTRUCTION EASEMENT
INSTALL 90 LINEAR FEET OF 8" SANITARY @ 0.72% (DIP, CL 52) AND PLUG ENDS. SEE SHEET 49 FOR PROFILE.
SLOPE / GRADING EASEMENT
MATCH LINE STA. 416+00
DORSEY RUN ROAD
INSTALL 650 LF - 8" UNDERDRAIN FROM STATION 409+00 TO 415+50, LT. UNDERDRAIN SHALL CONNECT TO I-7, MH-3, I-11 AND I-12.
INSTALL 675 LF - 8" UNDERDRAIN FROM STATION 409+00 TO 415+50, RT. UNDERDRAIN SHALL CONNECT TO I-12, I-9, I-8 AND I-7.
B/L CONSTRUCTION DORSEY RUN ROAD
SANITARY SEWER BY OTHERS
8" UNDERDRAIN
JESSUP PARK, LLC 7909 SE OLD JESSUP ROAD PARCEL 10B L. 5287, F. 683
TEMPORARY CONSTRUCTION EASEMENT
HOWARD CO. PARCEL 328
POND-B
POND-D
20' SANITARY AND UTILITY EASEMENT
SANITARY SEWER BY OTHERS
SOIL BORINGS BY OTHERS
WILLIAM T. WHEELER, TRUSTEE PARCEL 109-B L. 1765, F. 265
N 542,600 E 1,376,200
N 542,000 E 1,376,200
50 0 50 100
FULL SIZE SCALE: 1" = 50'

100 YR. FLOODPLAIN ELEVATIONS		
SECTION	EXISTING	PROPOSED
XS-1	206.0	205.8
XS-2	203.0	203.0
XS-3	199.6	197.1
XS-4	198.4	196.2
XS-5	194.5	194.4
XS-6	193.0	192.8
XS-7	190.7	190.8

CROSS REFERENCES	
ITEM	SHEET NUMBERS
TYPICAL SECTIONS	5 & 6
INTERSECTION DETAILS	8 & 9
ROADWAY PLAN	3
ROADWAY PROFILES	10 - 12
PIPE PROFILES	15 - 18
EROSION AND SEDIMENT CONTROL PLAN	21. 23. 25
STORMWATER MANAGEMENT PLANS	33. 34. 36. 37
SIGNING & MARKING PLAN	41
MAINTENANCE OF TRAFFIC PLANS	44 - 46
UTILITY/ STREET LIGHTING PLAN	47
LANDSCAPE PLAN	50

NOTES:

1. FOR ELEVATIONS ALONG DORSEY RUN ROAD AND RELOCATED OLD JESSUP ROAD SEE TYPICAL ROADWAY SECTIONS, TYPICAL ROADWAY DETAILS AND INTERSECTION DETAILS.
2. CONTRACTOR SHALL FIELD LOCATE ROOF LEADER AND ADJUST OUTLET TO CONNECT TO INLET.
3. INSTALL SANITARY SEWER AS INDICATED ON SHEETS 47 & 49. ALL OTHER SANITARY SEWER WILL BE INSTALLED BY OTHERS.

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 4/26/07
CHIEF, BUREAU OF ENGINEERING — DATE 4/26/07
Steve Shaver 4/27/07 — CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE
CHIEF, BUREAU OF HIGHWAYS — DATE 4-27-07

PREPARED BY URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — REGISTERED PROFESSIONAL ENGINEER — 4/26/07

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

GRADING AND DRAINAGE PLAN

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION MD 175 TO DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=50'

SHEET 13 OF 74

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GRADING PLAN FOR INSTALLATION OF 48 INCH RCP

CROSS REFERENCES	
ITEM	SHEET NUMBERS
TYPICAL SECTIONS	5 & 6
INTERSECTION DETAILS	8 & 9
ROADWAY PLAN	4
ROADWAY PROFILES	10 - 12
PIPE PROFILES	15 - 18
EROSION AND SEDIMENT CONTROL PLAN	22, 24, 26
STORMWATER MANAGEMENT PLANS	35
SIGNING & MARKING PLAN	42
MAINTENANCE OF TRAFFIC PLANS	44 - 46
UTILITY/STREET LIGHTING PLAN	48
LANDSCAPE PLAN	51

NOTES:

1. FOR ELEVATIONS ALONG DORSEY RUN ROAD AND RELOCATED OLD JESSUP ROAD SEE TYPICAL ROADWAY SECTIONS, TYPICAL ROADWAY DETAILS AND INTERSECTION DETAILS.

100 YR. FLOODPLAIN ELEVATIONS		
SECTION	EXISTING	PROPOSED
XS-1	213.7	213.5
XS-2	211.8	213.1*
XS-3	210.4	213.1*
XS-4	208.5	208.4
XS-5	206.8	206.8
XS-6	205.4	205.4

* INCREASE IN THE 100 YR. FLOOD PLAIN ELEVATION IS CONTAINED WITHIN A HOWARD COUNTY DRAINAGE EASEMENT AND FOREST CONSERVATION EASEMENT WHERE FUTURE DEVELOPMENT WILL NOT OCCUR.

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

Steve Sharan 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — PROFESSIONAL ENGINEER — 12/12/06

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

GRADING AND DRAINAGE PLAN

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=50'

SHEET 14 OF 74

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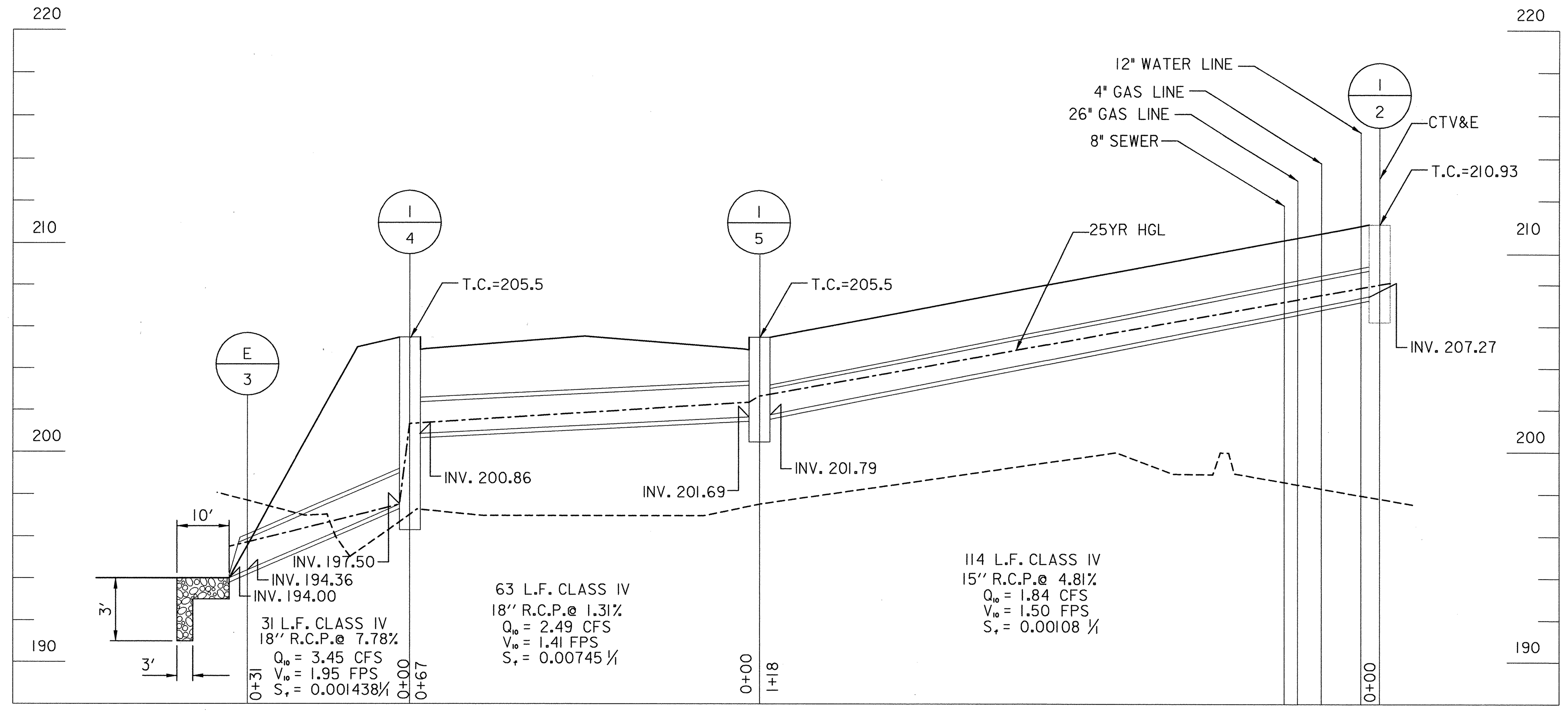
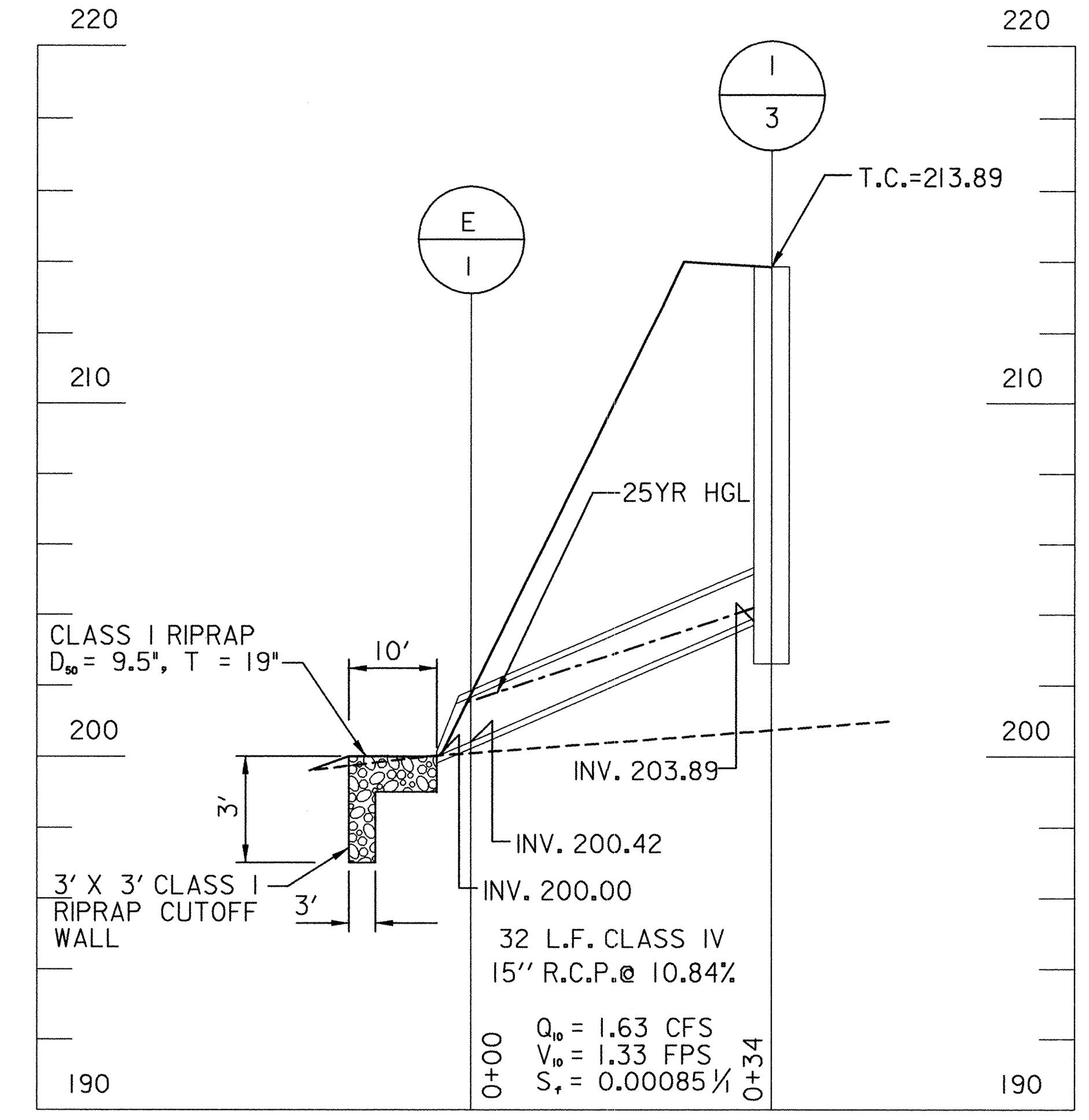
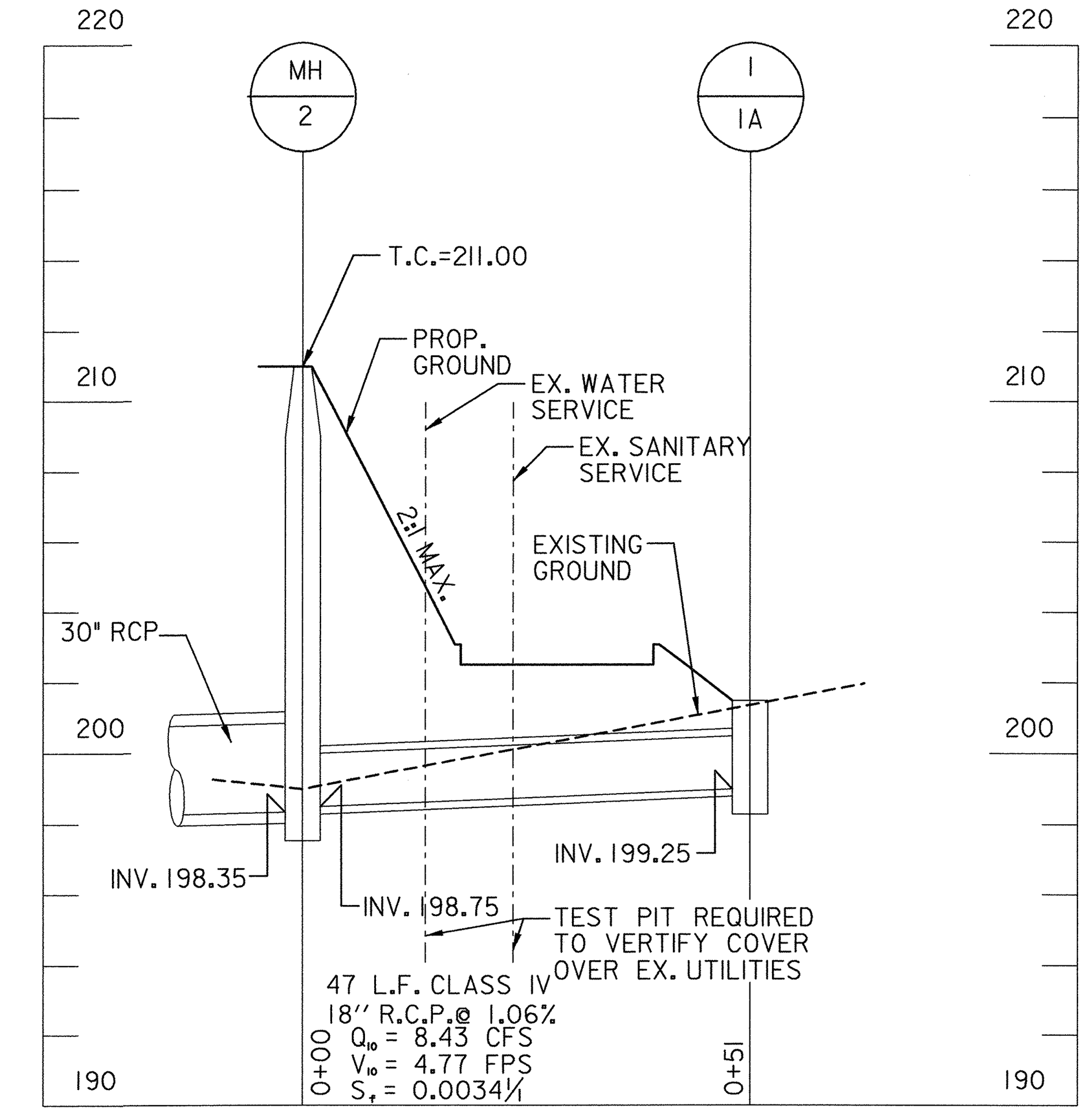


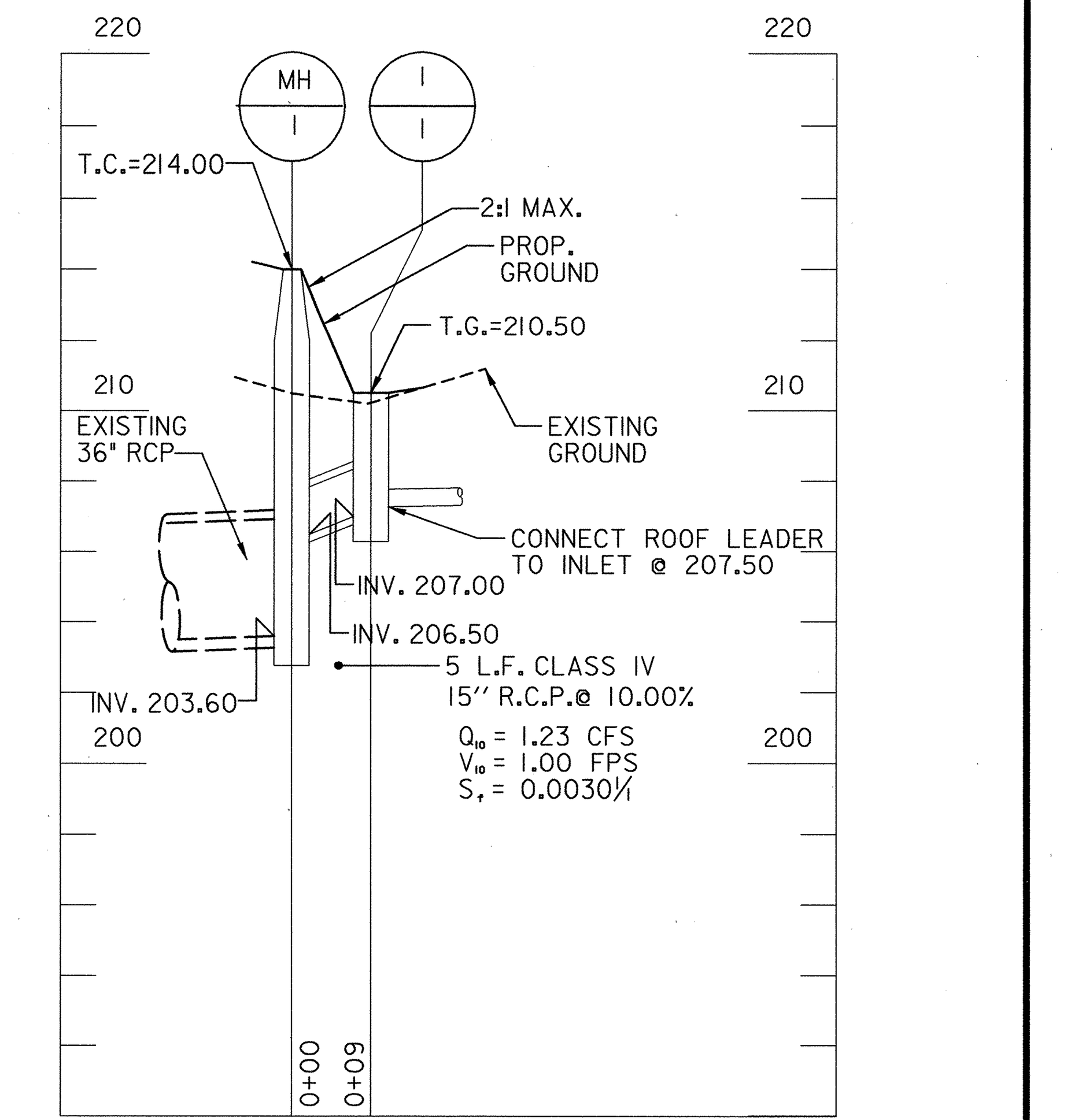
STA 403+23 TO STA 405+23 - DORSEY RUN ROAD



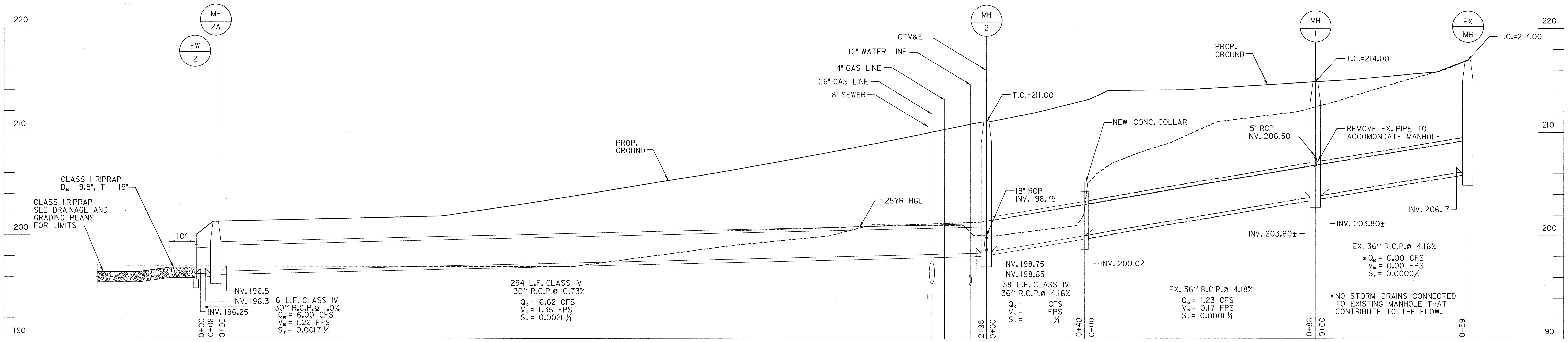
STA 403+23 - DORSEY RUN ROAD



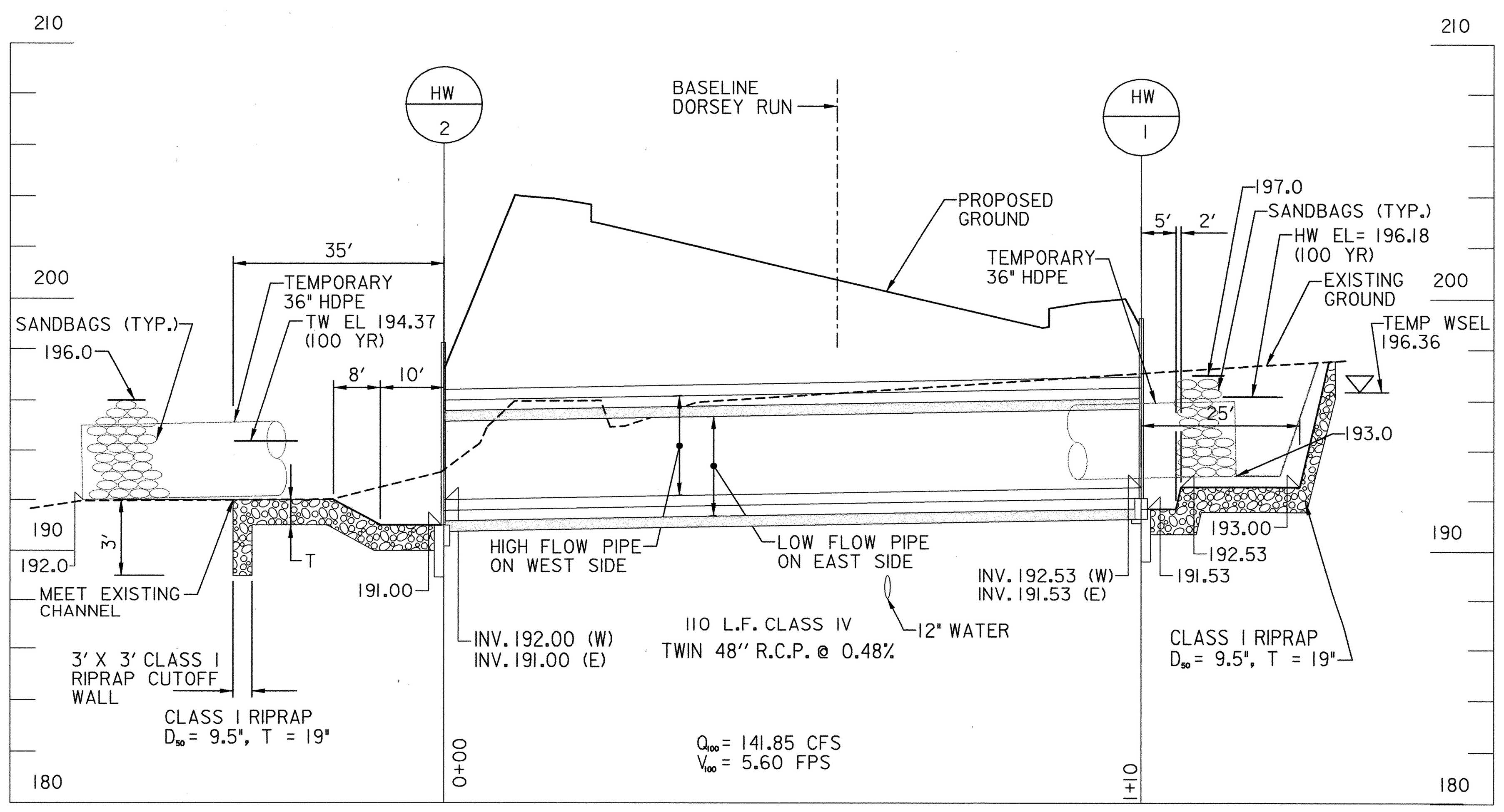
STA 404+15, LT - DORSEY RUN ROAD



STA 403+16, LT - DORSEY RUN ROAD



STA 402+17 TO 405+80 - DORSEY RUN ROAD



STA 407+50 - DORSEY RUN ROAD

DRAINAGE STRUCTURE SCHEDULE							
STRUCTURE NO.	STATION	OFFSET (FEET)	INV. IN	INV. OUT	TOP ELEV.	TYPE	STD. REF.
I-1	403+15	49 LT	207.50	207.00	210.50	YARD INLET	HCDPW SD-4.14
I-1A	404+16	93 LT	-	199.25	201.50	YARD INLET	HCDPW SD-4.14
I-2	404+00	31 LT	-	207.27	210.93	10' STD. COG INLET	HCDPW SD-4.02
I-5	405+25	31 LT	201.79	201.69	205.50	10' STD. COG INLET	HCDPW SD-4.02
I-4	405+23	31 RT	200.86	197.50	205.50	10' STD COG INLET	HCDPW SD-4.02
I-3	403+25	31 RT	-	203.89	213.89	10' STD. COG INLET	HCDPW SD-4.02
E-1	403+25	72 RT	200.00	-	-	STD. CONCRETE END SECTION FOR 15" RCP	HCDPW SD-5.52
E-3	405+26	67 RT	194.00	-	-	STD. CONCRETE END SECTION FOR 18" RCP	HCDPW SD-5.52
MH-1	403+16	40 LT	203.80	203.60	214.00	STD. MANHOLE	MD 384.03
MH-2	404+04	42 LT	198.75	198.65	211.00	STD. MANHOLE	MD 384.03
MH-2A	407+09	40 LT	196.51	196.31	-	STD. MANHOLE	MD 384.03
EW-2	407+18	44 LT	196.25	-	-	STD. CONCRETE " TYPE C" ENDWALL	HCDPW SD-5.21
HW-1	407+47	49 LT	-	192.53	-	MODIFIED HEAD WALL	SEE SHEET 19
HW-2	407+34	61 RT	193.00/192.00	-	-	MODIFIED HEAD WALL	SEE SHEET 20

GENERAL NOTES:

1. FOR OUTFALL DETAILS, REFER TO SHEET 40 – "STORMWATER MANAGEMENT MISCELLANEOUS DETAILS – II"
2. FOR DIVERSION PIPE LOCATION, SEE SHEET 21.

CROSS REFERENCES	
ITEM	SHEET NUMBERS
TYPICAL SECTIONS	5 & 6
INTERSECTION DETAILS	8 & 9
ROADWAY PROFILES	10 – 12
GRADING & DRAINAGE PLAN	13 & 14
EROSION AND SEDIMENT CONTROL PLAN	21 – 26
STORMWATER MANAGEMENT PLANS	33 – 37
SIGNING & MARKING PLAN	41 & 42
MAINTENANCE OF TRAFFIC PLANS	44 – 46
UTILITY/STREET LIGHTING PLAN	47 & 48
LANDSCAPE PLAN	50 & 51

STATE OF MARYLAND — DAVID THOMAS MORGAN — NO. 16156 — REGISTERED PROFESSIONAL ENGINEER

HOR. SCALE: 1" = 20'

VERT. SCALE: 1" = 5'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 4/26/07

CHIEF, BUREAU OF ENGINEERING — DATE

Steve Sharar 4/27/07 — CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE

CHIEF, BUREAU OF HIGHWAYS — DATE 4-27-07

PREPARED BY URS, 4 NORTH PARK DRIVE, HUNT VALLEY, MARYLAND, TEL: (410) 785-7220

RJM ENGINEERING, INC. CONSULTING ENGINEERS, COLUMBIA, MARYLAND, TELE:(410)730-1001 FAX:(410)730-5403

DES: CMC | DRN: SYC/CDF | CHK: DTM | DATE: 10/06

BY | NO. | REVISION | DATE

PIPE PROFILES - I

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION MD 175 TO DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND

CAPITAL PROJECT J-4148-C

SCALE: AS SHOWN

SHEET 15 OF 74

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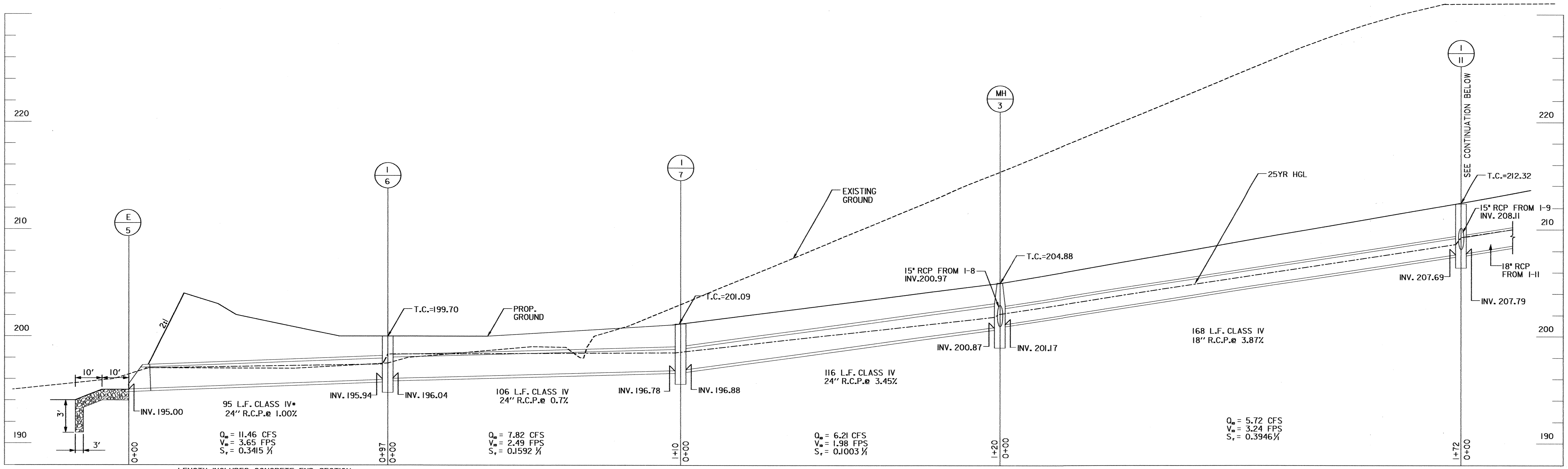
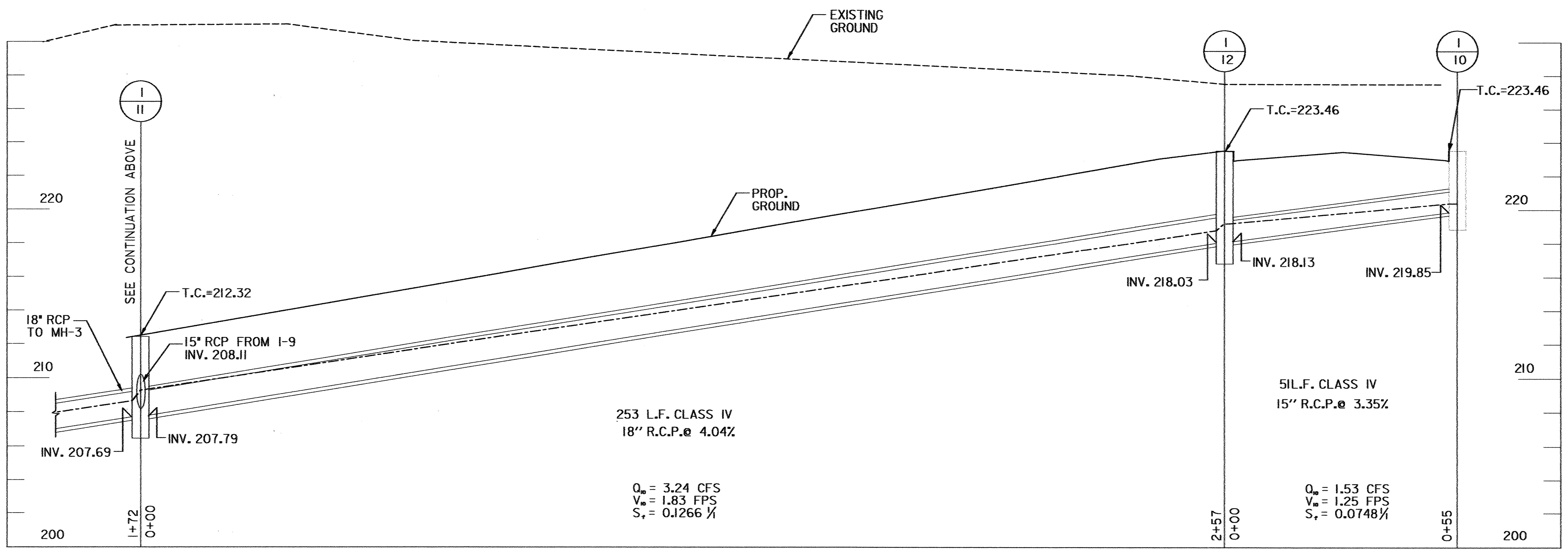
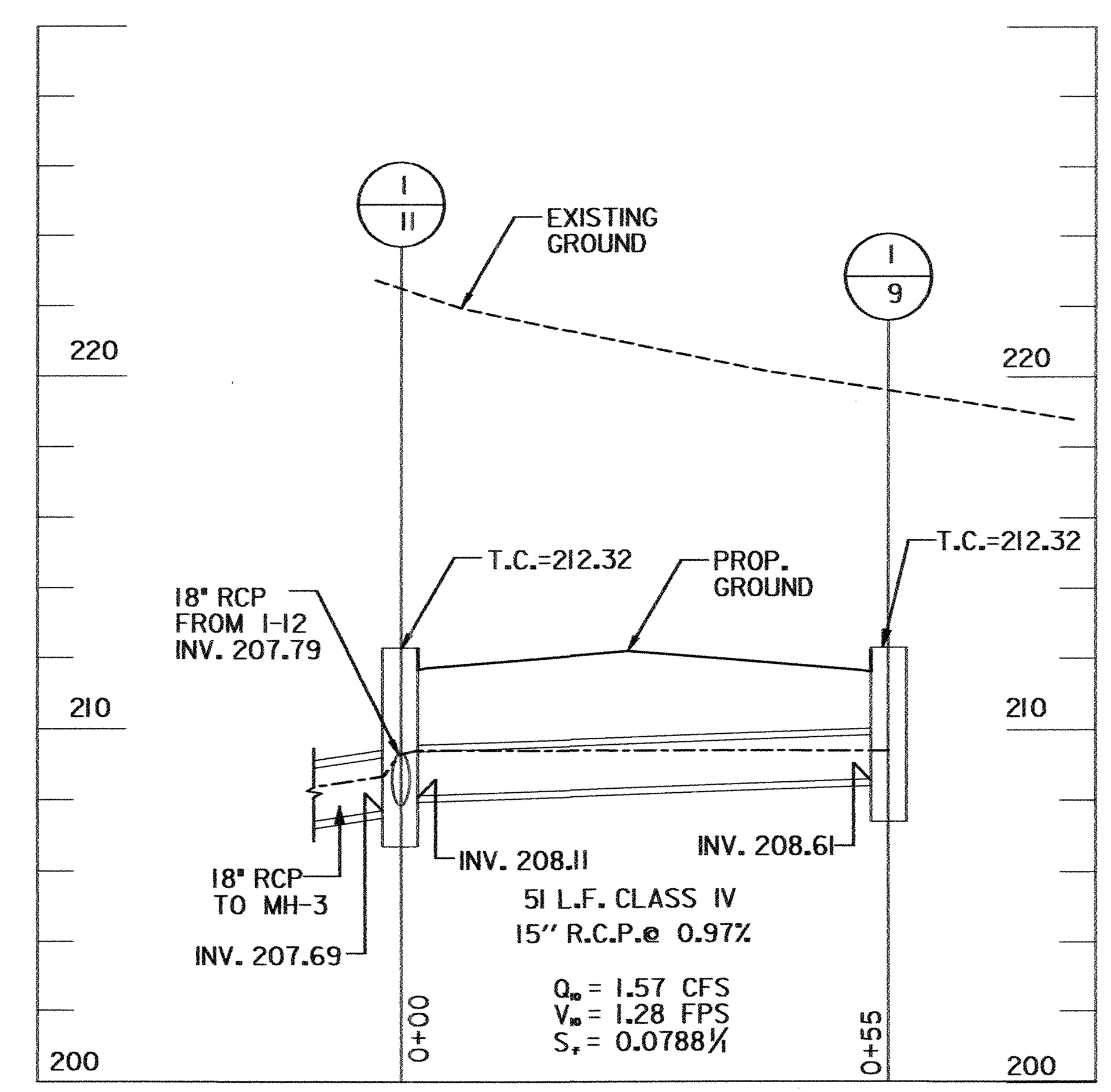


* LENGTH INCLUDES CONCRETE END SECTION

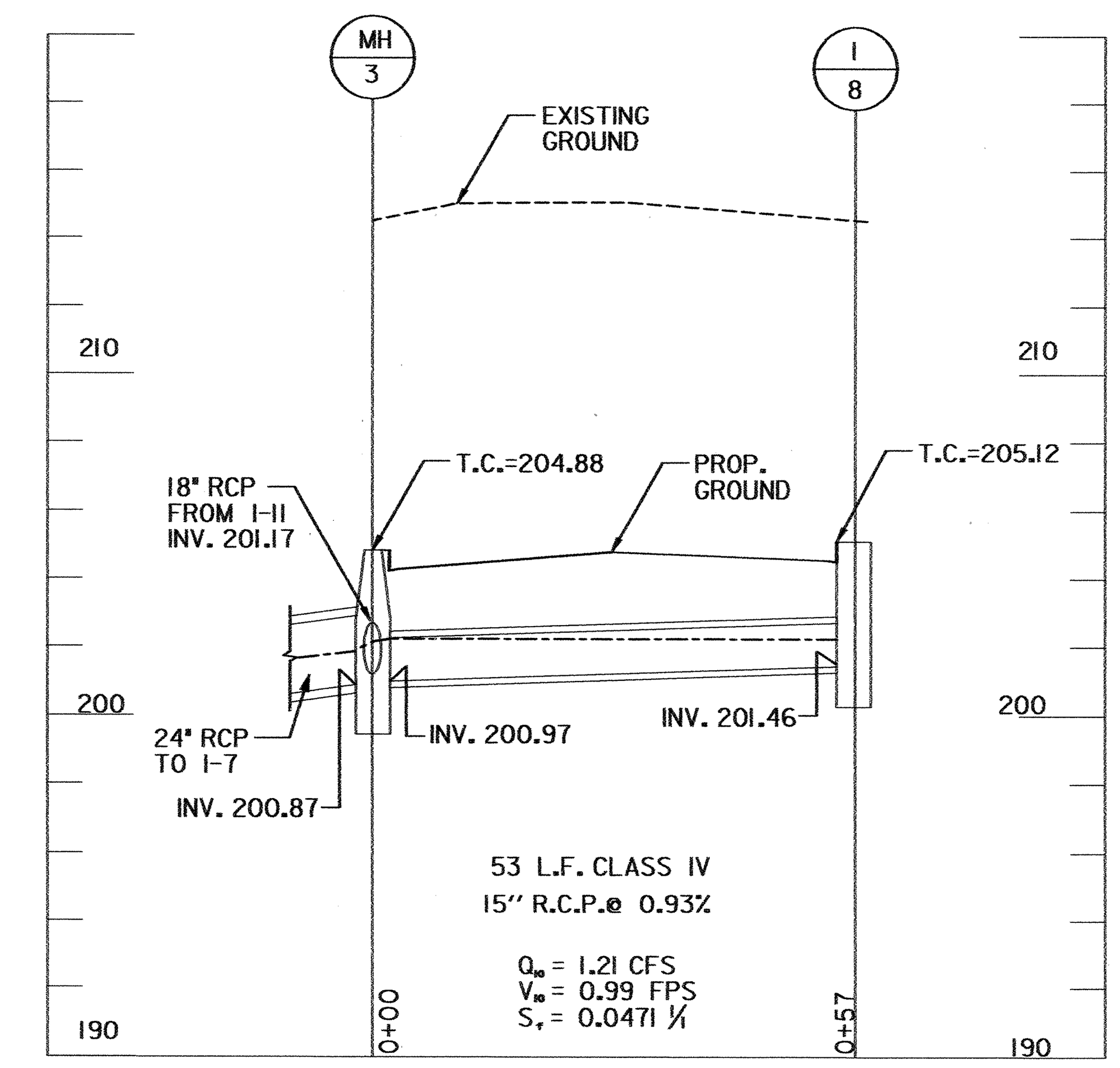
STA 407+82 TO STA 412+00 - DORSEY RUN ROAD



STA 412+00 TO STA 414+58 - DORSEY RUN ROAD



STA 412+00 - DORSEY RUN ROAD



STA 410+26 - DORSEY RUN ROAD

DRAINAGE STRUCTURE SCHEDULE							
STRUCTURE NO.	STATION	OFFSET (FEET)	INV. IN	INV. OUT	TOP ELEV.	TYPE	STD. REF.
I-6	407+85	25 LT	196.04	195.94	199.70	10' STD. COG INLET	HCDPW SD-4.02
I-7	409+04	25 LT	196.88	196.78	201.09	10' STD. COG INLET	HCDPW SD-4.02
I-8	410+26	25 RT	-	201.46	205.12	10' STD COG INLET	HCPDW SD-4.02
I-9	412+00	25 RT	-	208.61	212.32	10' STD. COG INLET	HCPDW SD-4.02
I-10	414+59	25 RT	-	219.85	223.46	10' STD. COG INLET	HCPDW SD-4.02
I-11	412+00	25 LT	207.79	207.69	212.32	10' STD COG INLET	HCPDW SD-4.02
I-12	414+59	25 LT	218.13	218.03	223.46	10' STD COG INLET	HCPDW SD-4.02
MH-3	410+26	25 LT	201.17	200.87	204.88	STD MANHOLE	MD 384.01
E-5	408+00	65 RT	195.00	-	-	STD. CONCRETE END SECTION FOR 24" RCP	HCPDW SD-5.52

CROSS REFERENCES	
ITEM	SHEET NUMBERS
TYPICAL SECTIONS	5 & 6
INTERSECTION DETAILS	8 & 9
ROADWAY PROFILES	10 - 12
GRADING & DRAINAGE PLAN	13 & 14
EROSION AND SEDIMENT CONTROL PLAN	21 - 26
STORMWATER MANAGEMENT PLANS	33 - 37
SIGNING & MARKING PLAN	41 & 42
MAINTENANCE OF TRAFFIC PLANS	44 - 46
UTILITY/STREET LIGHTING PLAN	47 & 48
LANDSCAPE PLAN	50 & 51

GENERAL NOTES:

1. FOR OUTFALL DETAILS, REFER TO SHEET 40 - "STORMWATER MANAGEMENT MISCELLANEOUS DETAILS - II"

20 0 20 40
HOR. SCALE: 1" = 20'

0 5 10
VERT. SCALE: 1" = 5'

STATE OF MARYLAND
DAVID THOMAS BORCOM
REGISTERED PROFESSIONAL ENGINEER
12/12/06

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS 12/13/06 DATE
CHIEF, BUREAU OF ENGINEERING 12/14/06 DATE
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS 12/14/06 DATE
CHIEF, BUREAU OF HIGHWAYS 12-15-06 DATE

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

RJM ENGINEERING, INC.
CONSULTING ENGINEERS
COLUMBIA, MARYLAND
TELE:(410)730-1001 FAX:(410)730-5403

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

PIPE PROFILES - II

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE
AS SHOWN

SHEET
16 OF 74

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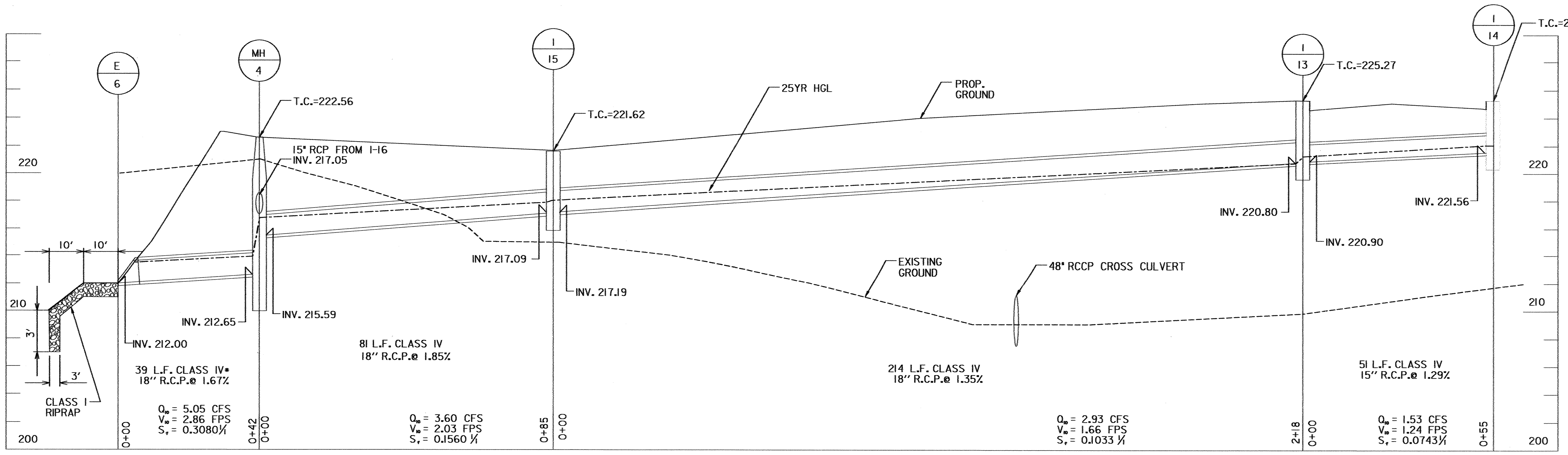
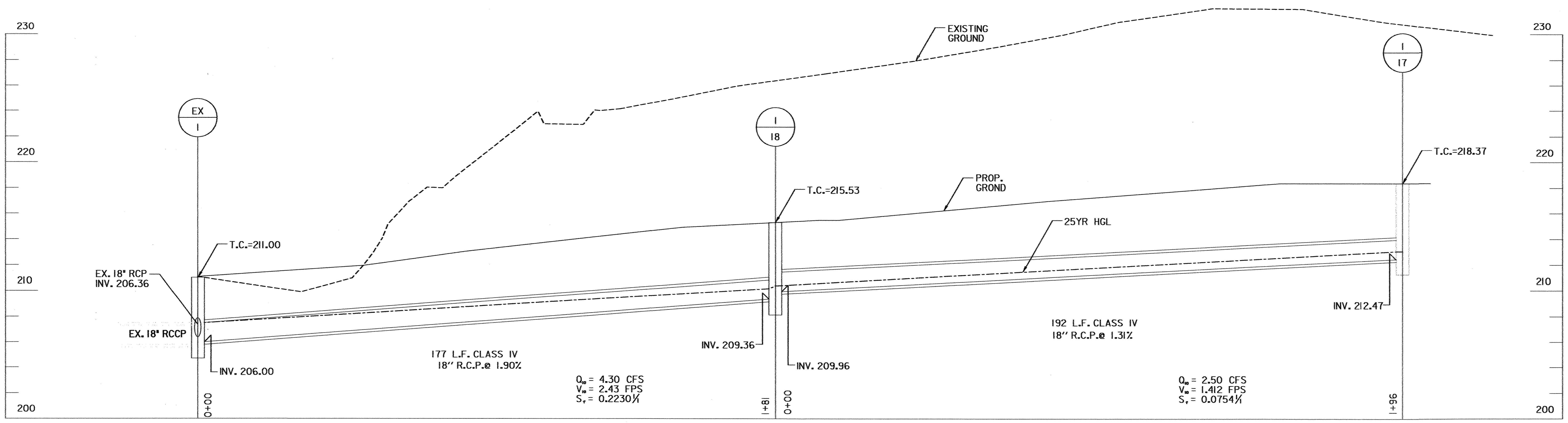
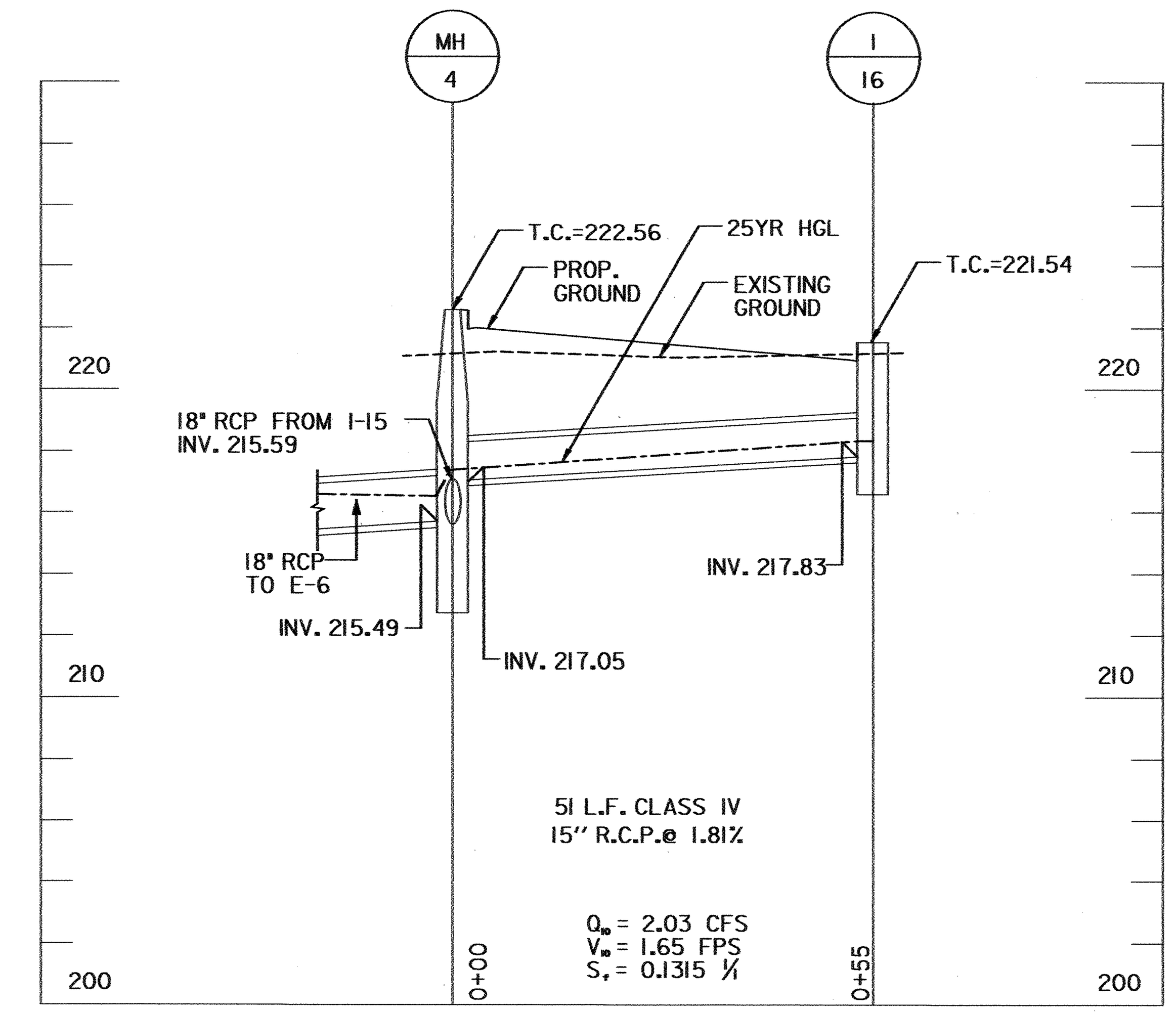


* INCLUDES CONCRETE END SECTION

STA 420+42 TO STA 423+47 - DORSEY RUN ROAD



STA 425+50 TO 534+00 - DORSEY RUN ROAD



STA 423+47 - DORSEY RUN ROAD

DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NO.	STATION	OFFSET (FEET)	INV. IN	INV. OUT	TOP ELEV.	TYPE	STD. REF.
I-13	420+41	25 RT	220.90	220.80	225.27	10' STD. COG INLET	HCDPW SD-4.02
I-14	420+41	25 LT	-	221.56	225.27	10' STD. COG INLET	HCDPW SD-4.02
I-15	422+60	25 RT	217.19	217.09	221.62	10' STD COG INLET	HCPDW SD-4.02
I-16	423+47	25 LT	-	217.83	221.54	10' STD. COG INLET	HCPDW SD-4.02
MH-4	423+47	25 RT	215.59	212.65	222.56	STD MANHOLE	MD 383.01
E-6	423+16	50 RT	212.00	-	-	STD. CONCRETE END SECTION FOR 18" RCP	HCPCDW SD-5.52
I-17	425+54	25 LT	-	212.47	218.37	10' STD. COG INLET	HCDPW SD-4.02
I-18	427+56	25 LT	209.96	209.36	215.53	10' STD. COG INLET	HCDPW SD-4.02

CROSS REFERENCES

ITEM	SHEET NUMBERS
TYPICAL SECTIONS	5 & 6
INTERSECTION DETAILS	8 & 9
ROADWAY PROFILES	10 - 12
GRADING & DRAINAGE PLAN	13 & 14
EROSION AND SEDIMENT CONTROL PLAN	21 - 26
STORMWATER MANAGEMENT PLANS	33 - 37
SIGNING & MARKING PLAN	41 & 42
MAINTENANCE OF TRAFFIC PLANS	44 - 46
UTILITY/STREET LIGHTING PLAN	47 & 48
LANDSCAPE PLAN	50 & 51

GENERAL NOTES:

1. FOR OUTFALL DETAILS, REFER TO SHEET 40 - "STORMWATER MANAGEMENT MISCELLANEOUS DETAILS - II"

STATE OF MARYLAND ... PROFESSIONAL ENGINEER

20 0 20 40
HOR. SCALE: 1" = 20'
5 0 5 10
VERT. SCALE: 1" = 5'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Sharar — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

RJM ENGINEERING, INC.
CONSULTING ENGINEERS
COLUMBIA, MARYLAND
TELE:(410)730-1001 FAX:(410)730-5403

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

PIPE PROFILES - III

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 17 OF 74

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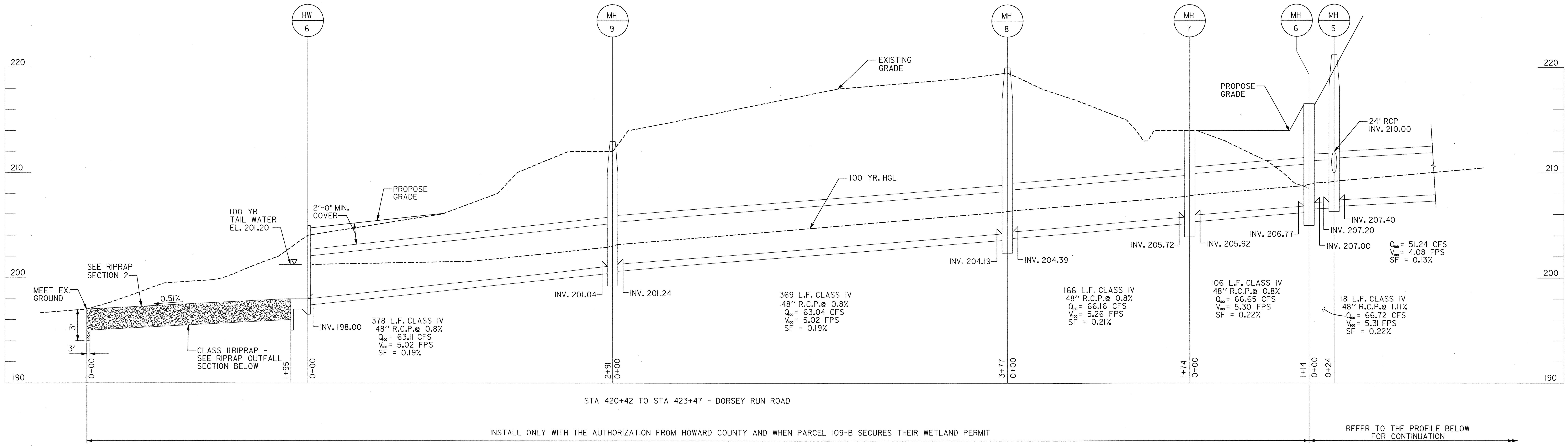
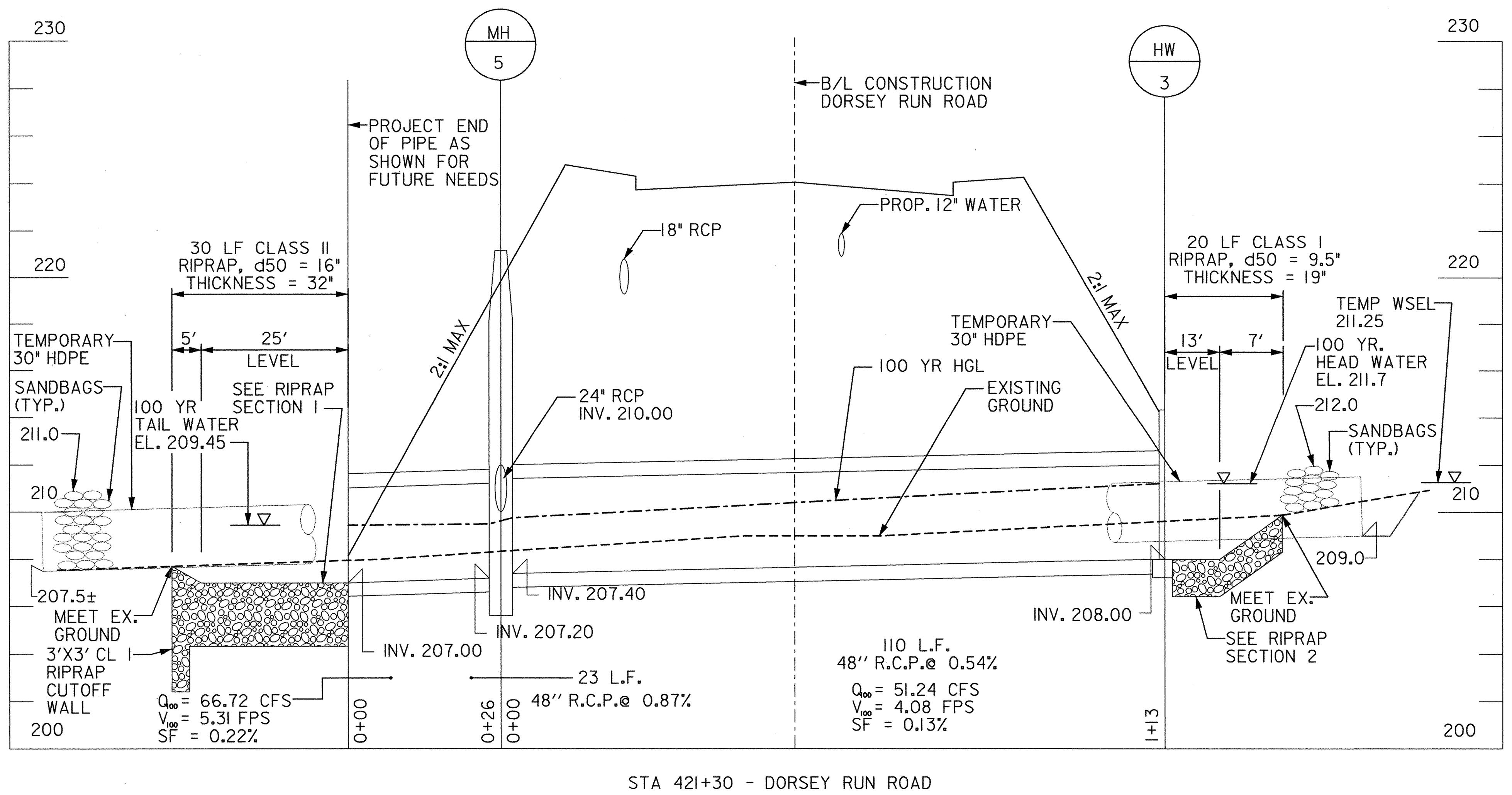
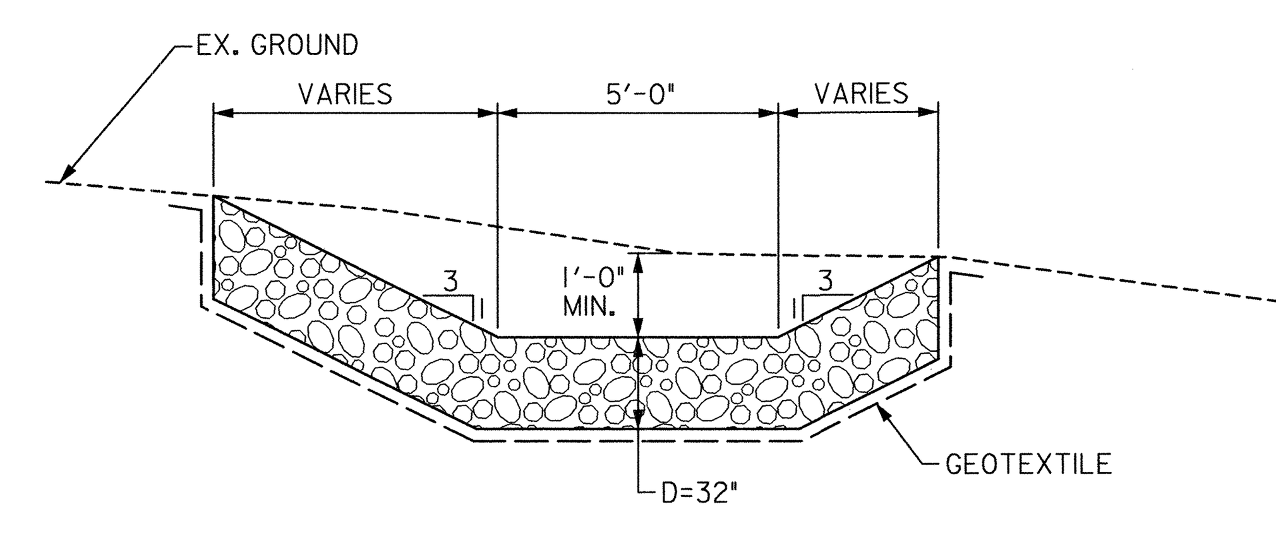
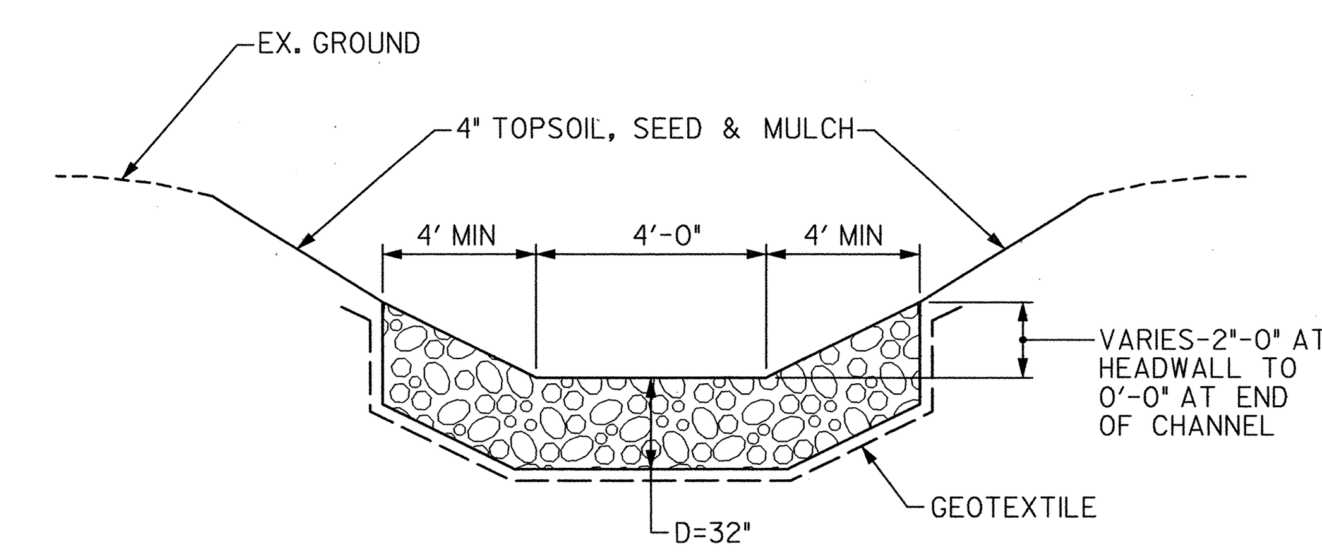






RIPRAP SECTION 1
SCALE: NONE



RIPRAP SECTION 2
SCALE: NONE

DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NO.	STATION	OFFSET (FEET)	INV. IN	INV. OUT	TOP ELEV.	TYPE	STD. REF.
MH-5	421+09.00	43.5 RT	207.40	207.20	221.50	72" PRECAST MH	MD 384.05
MH-6	421+00.35	67.14 RT	207.00	206.77	217.00	72" PRECAST MH	MD 384.05
MH-7	422+02.69	113.42 RT	205.92	205.72	214.00	72" PRECAST MH	MD 384.05
MH-8	422+65.28	277.74 RT	204.39	204.19	220.00	72" PRECAST MH	MD 384.05
MH-9	421+00.35	647.13 RT	201.24	201.04	213.00	72" PRECAST MH	MD 384.05
HW-3	421+55.00	54.00 LT	209.00	-	214.00	B-48	MD 352.01
HW-6	418+91.03	646.33 RT	-	198.00	203.00	B-48	MD 352.01

CROSS REFERENCES

ITEM	SHEET NUMBERS
TYPICAL SECTIONS	5 & 6
INTERSECTION DETAILS	8 & 9
ROADWAY PROFILES	10 - 12
GRADING & DRAINAGE PLAN	13 & 14
EROSION AND SEDIMENT CONTROL PLAN	21 - 26
STORMWATER MANAGEMENT PLANS	33 - 37
SIGNING & MARKING PLAN	41 & 42
MAINTENANCE OF TRAFFIC PLANS	44 - 46
UTILITY PLAN	47 & 48
LANDSCAPE PLAN	50 & 51

GENERAL NOTES:
1. FOR OUTFALL DETAILS, REFER TO SHEET 40 - "STORMWATER MANAGEMENT MISCELLANEOUS DETAILS - II"
2. FOR DIVERSION PIPE LOCATION, SEE SHEET 22.

50 0 50 100
HOR. SCALE: 1" = 50'
5 0 5 10
VERT. SCALE: 1" = 5'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS DATE
CHIEF, BUREAU OF ENGINEERING DATE 4/26/07
Steve Sharar 4/27/07
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE
CHIEF, BUREAU OF HIGHWAYS DATE 4-27-07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND REGISTERED PROFESSIONAL ENGINEER

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

PIPE PROFILES - IV

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 18 OF 74

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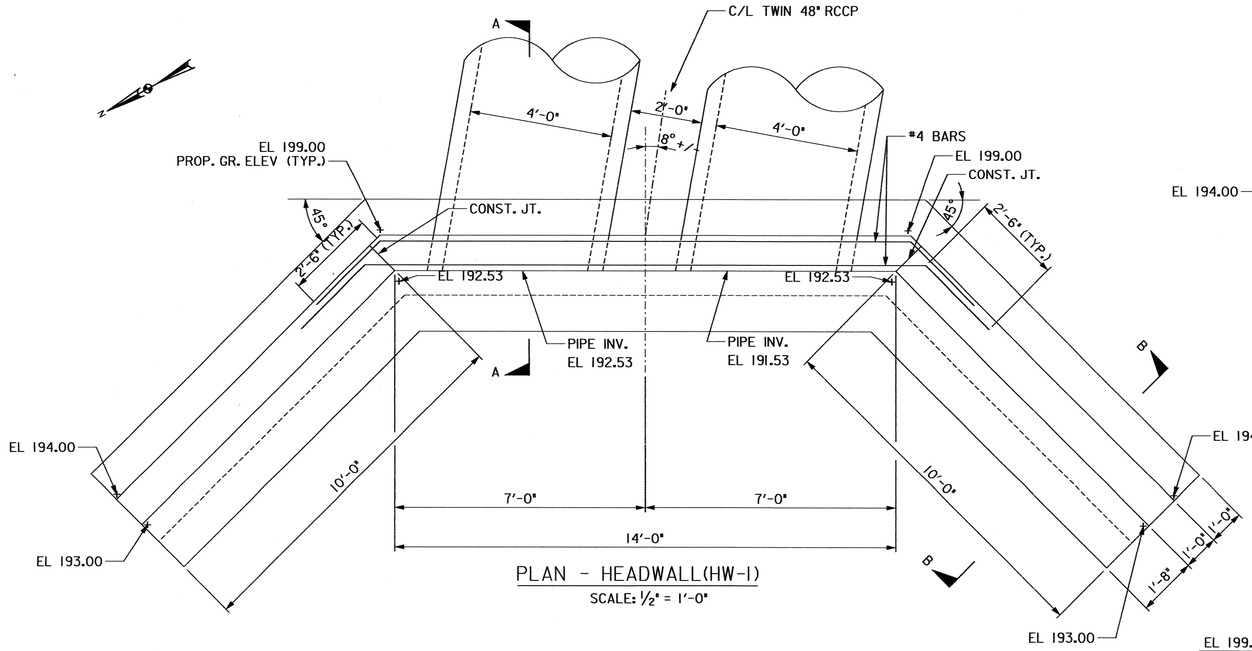
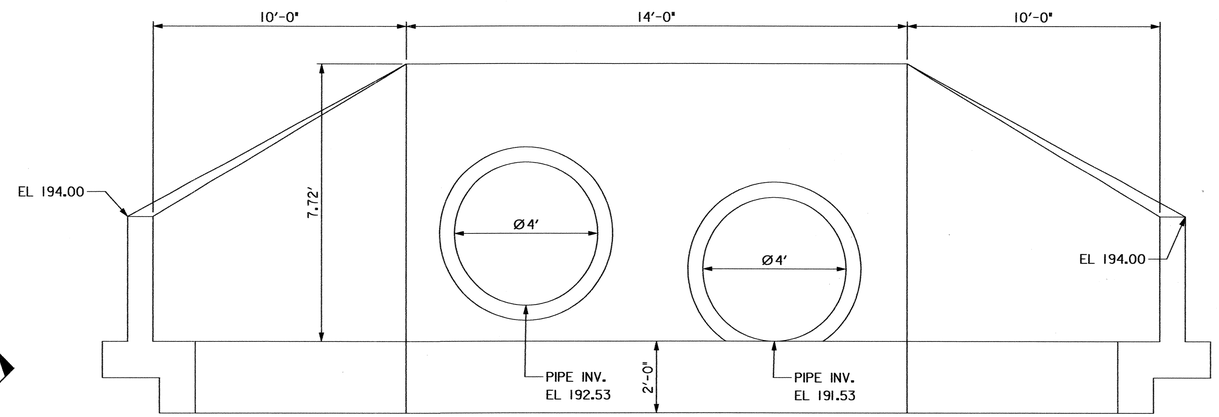


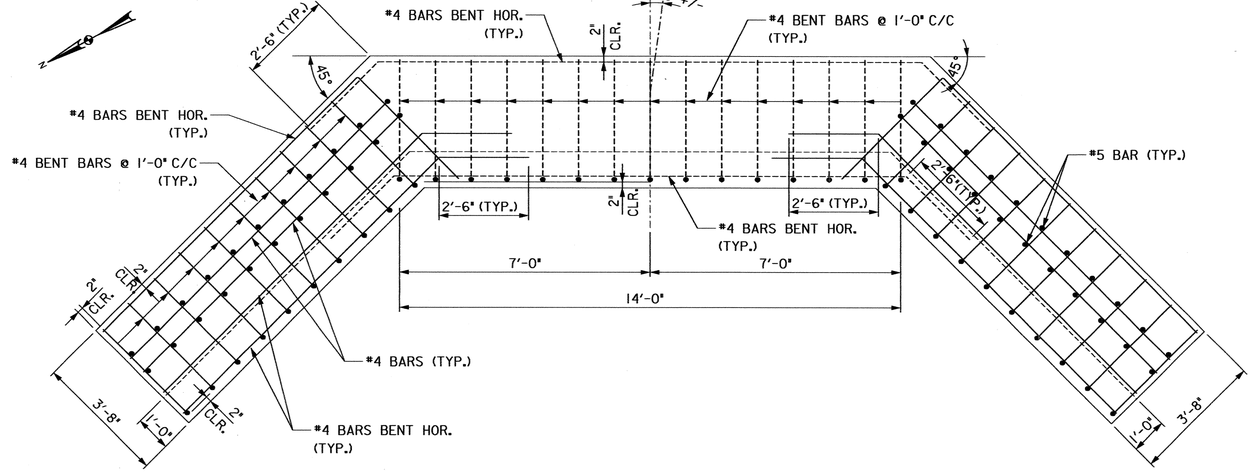
PLAN - HEADWALL(HW-1)

SCALE: ½" = 1'-0"



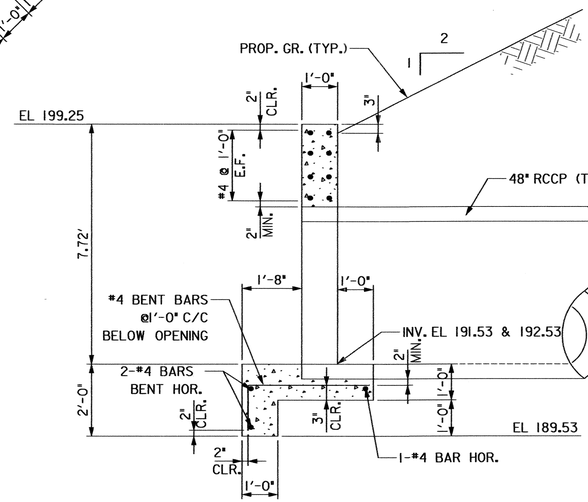
FRONT VIEW - HEADWALL(HW-1)

SCALE: ½" = 1'-0"



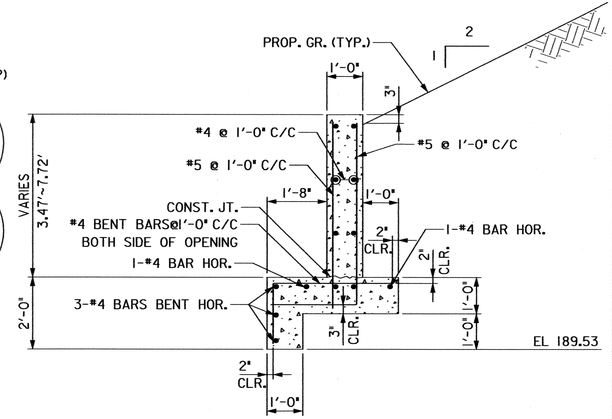
FOUNDATION REINFORCEMENT PLAN - HWADWALL(HW-1)

SCALE: ½" = 1'-0"



SECTION A-A

SCALE: ½" = 1'-0"



SECTION B-B

SCALE: ½" = 1'-0"

GENERAL NOTES

SPECIFICATIONS: SHA SPECIFICATIONS DATED JANUARY, 2001 REVISIONS THEREOF AND ADDITIONS THERETO AND SPECIAL PROVISIONS FOR MATERIALS AND CONSTRUCTION.

CONCRETE: CONCRETE DESIGN: SERVICE LOAD DESIGN METHOD fc = 1200 psi.

REINFORCING STEEL DESIGN: fs = 24,000 psi.

ALL STRUCTURE CONCRETE SHALL BE MIX NO. 3 (3500 psi).

REINFORCING STEEL: ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, 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 FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCE ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCE.

ALL REINFORCING STEEL SHALL BE EPOXY COATED.

ONLY GRADE 60 CAN BE USED ON THIS PROJECT

CHAMFER: ALL EXPOSED EDGES 1"X1" OR AS DIRECTED BY ENGINEER.

NOTES:

1. SEE SHEET 13 FOR HEADWALL LOCATIONS.
2. SEE SHEET 15 FOR PIPE PROFILE.

STATE OF MARYLAND — THOMAS D. MORAN — REGISTERED PROFESSIONAL ENGINEER

12/12/06

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

RJM ENGINEERING, INC.
CONSULTING ENGINEERS
COLUMBIA, MARYLAND
TELE:(410)730-1001 FAX:(410)730-5403

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

STORM DRAINAGE DETAILS - I

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 19 OF 74

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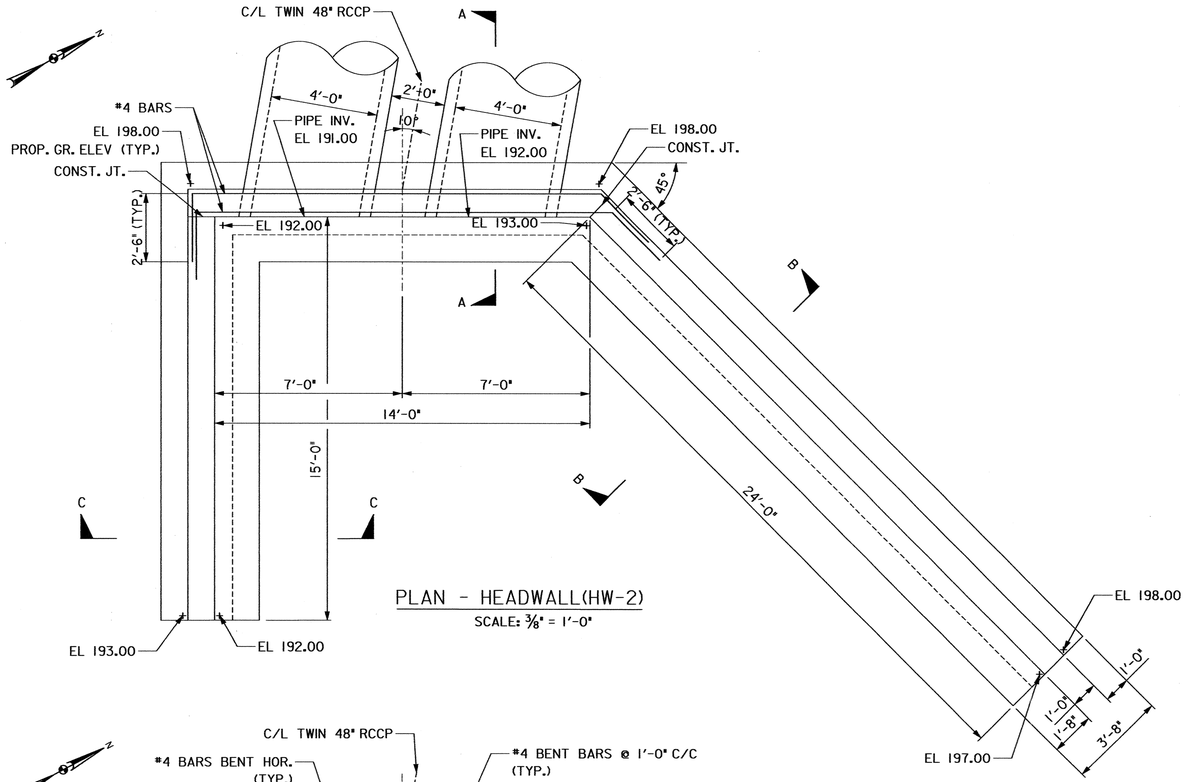
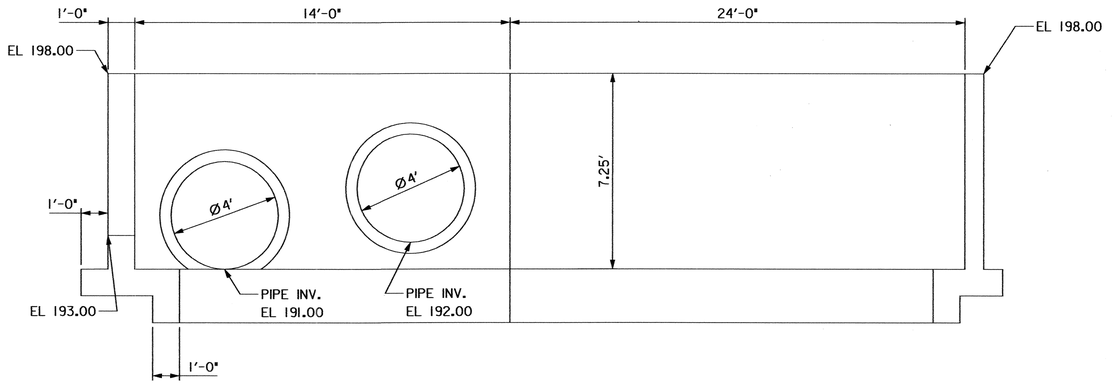


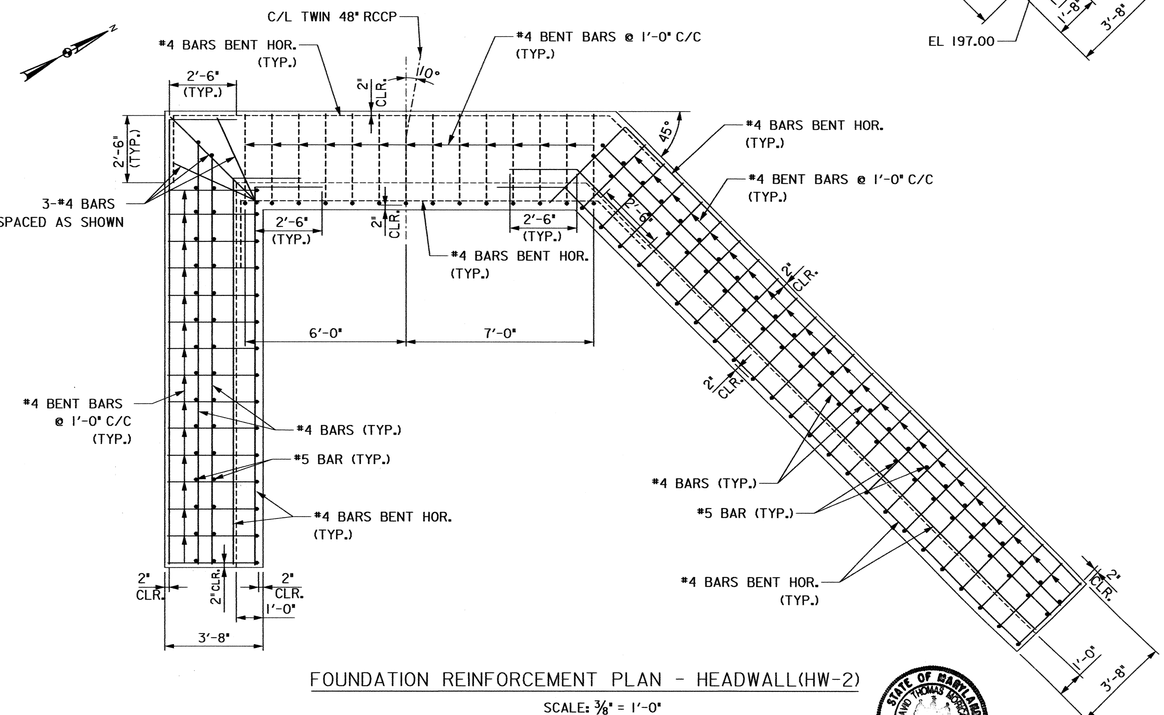
PLAN - HEADWALL(HW-2)

SCALE: 3/8" = 1'-0"



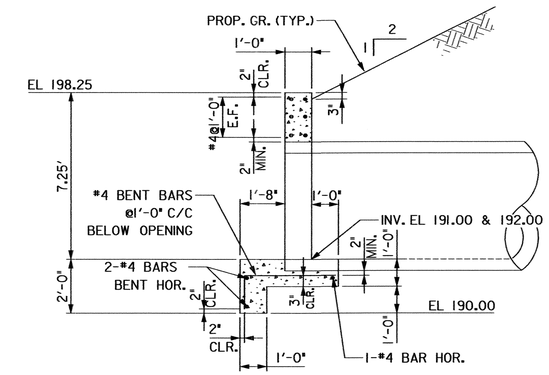
FRONT VIEW - HEADWALL(HW-2)

SCALE: 3/8" = 1'-0"



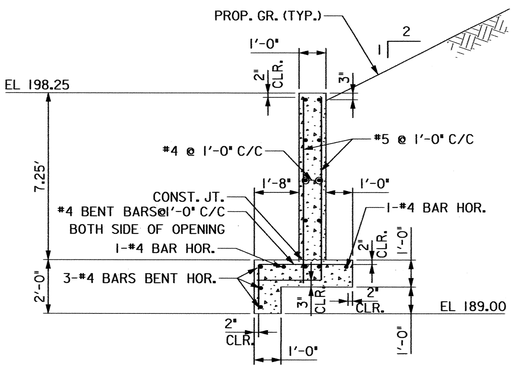
FOUNDATION REINFORCEMENT PLAN - HEADWALL(HW-2)

SCALE: 3/8" = 1'-0"



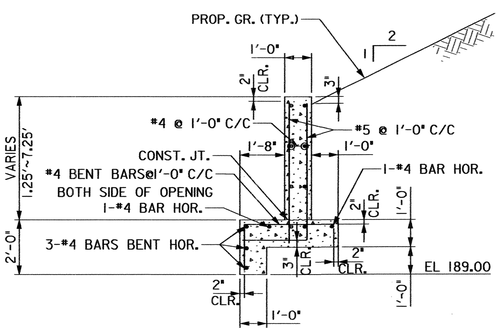
SECTION A-A

SCALE: 3/8" = 1'-0"



SECTION B-B

SCALE: 3/8" = 1'-0"



SECTION C-C

SCALE: 3/8" = 1'-0"

NOTES:

1. SEE SHEET 13 FOR HEADWALL LOCATIONS.
2. FOR GENERAL NOTES, SEE DRAINAGE DETAILS FOR HW-1.
3. SEE SHEET 15 FOR PIPE PROFILE.

STATE OF MARYLAND — DAVID THOMAS JACKSON — NO. 16156 — REGISTERED PROFESSIONAL ENGINEER

12/14/06

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/13/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Shawan — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
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HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

RJM ENGINEERING, INC.
CONSULTING ENGINEERS
COLUMBIA, MARYLAND
TELE:(410)730-1001 FAX:(410)730-5403

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

STORM DRAINAGE DETAILS - II

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 20 OF 74

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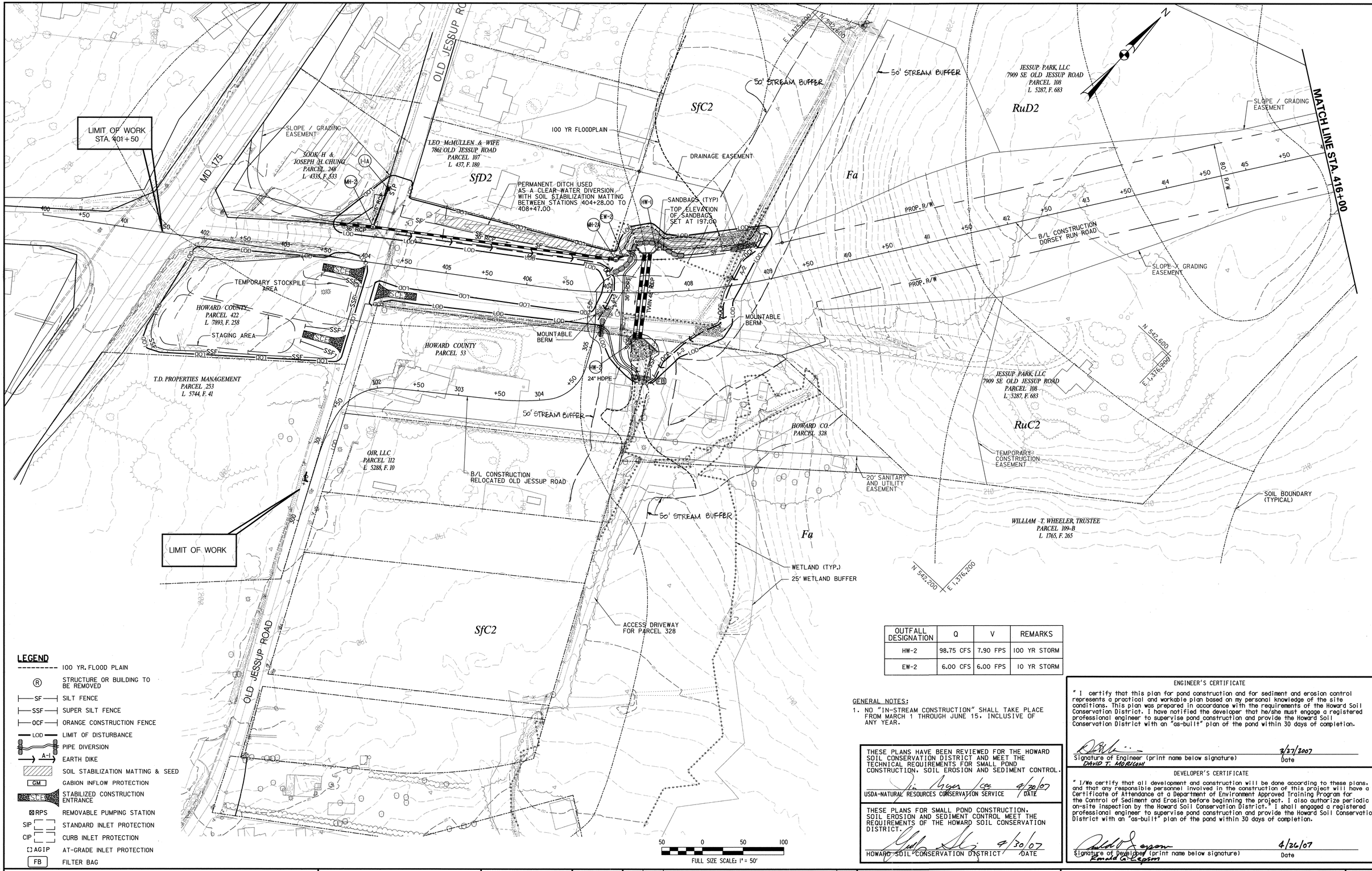


LEGEND

- 100 YR. FLOOD PLAIN
- (R) STRUCTURE OR BUILDING TO BE REMOVED
- SF — SILT FENCE
- SSF — SUPER SILT FENCE
- OCF — ORANGE CONSTRUCTION FENCE
- LOD — LIMIT OF DISTURBANCE
- A-1 — PIPE DIVERSION
- A-1 — EARTH DIKE
- SOIL STABILIZATION MATTING & SEED
- GM — GABION INFLOW PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- RPS — REMOVABLE PUMPING STATION
- SIP — STANDARD INLET PROTECTION
- CIP — CURB INLET PROTECTION
- AGIP — AT-GRADE INLET PROTECTION
- FB — FILTER BAG

OUTFALL DESIGNATION	Q	V	REMARKS
HW-2	98.75 CFS	7.90 FPS	100 YR STORM
EW-2	6.00 CFS	6.00 FPS	10 YR STORM

GENERAL NOTES:

1. NO "IN-STREAM CONSTRUCTION" SHALL TAKE PLACE FROM MARCH 1 THROUGH JUNE 15, INCLUSIVE OF ANY YEAR.

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORIGHI — Date 3/27/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District. " I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) Ronald A. Lepson — Date 4/26/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07

CHIEF, BUREAU OF HIGHWAYS ACTING — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORIGHI — REGISTERED PROFESSIONAL ENGINEER — 9/27/2007

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06	BY	NO.	REVISION	DATE

EROSION AND SEDIMENT CONTROL PLAN - PHASE 1

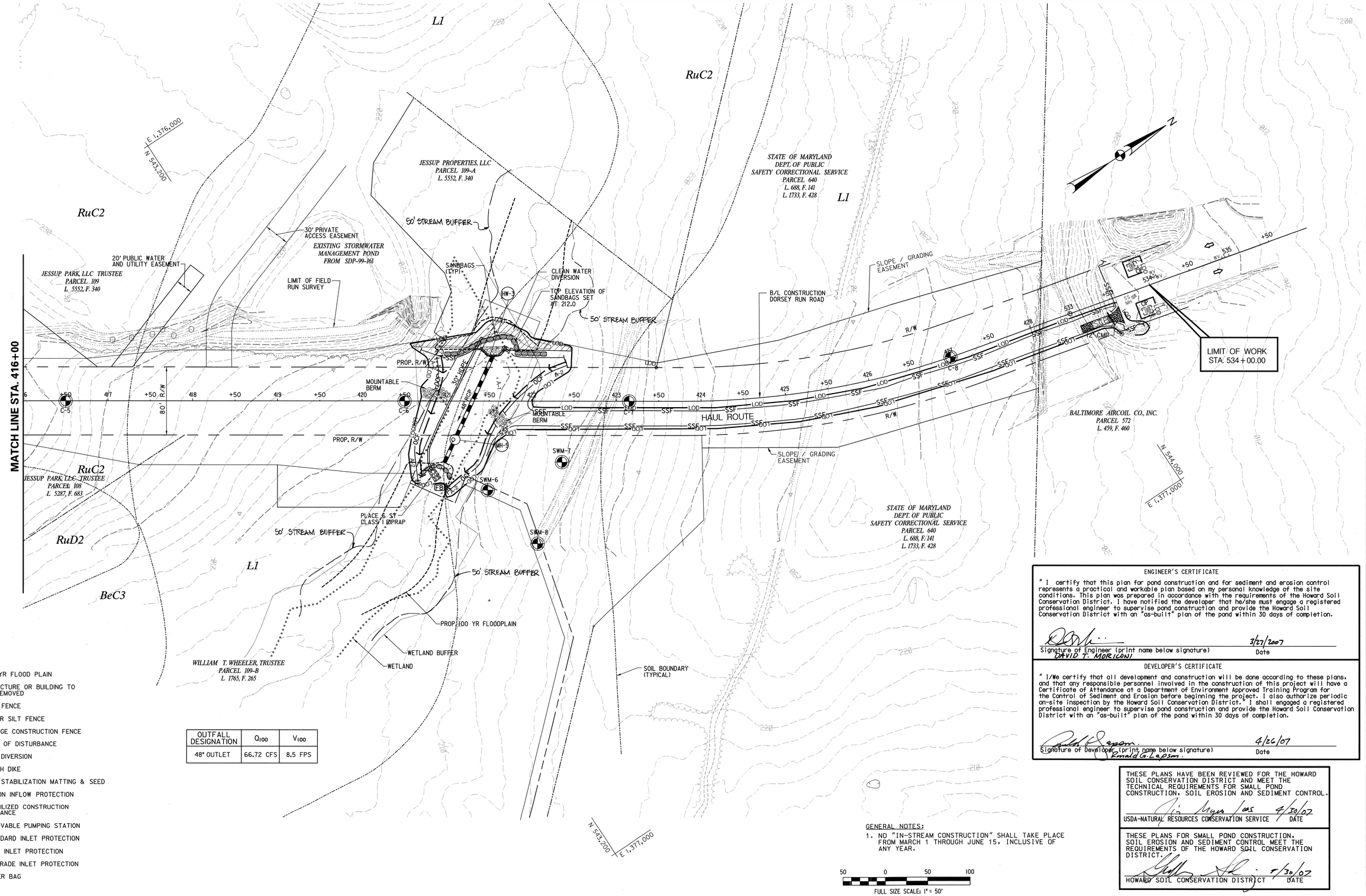
SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION MD 175 TO DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1" = 50'

SHEET 21 OF 74



LEGEND

- ---------- 100 YR FLOOD PLAIN
- (R) STRUCTURE OR BUILDING TO BE REMOVED
- —SF— SILT FENCE
- —SSF— SUPER SILT FENCE
- —OCF— ORANGE CONSTRUCTION FENCE
- —LOD— LIMIT OF DISTURBANCE
- PIPE DIVERSION
- A-1 EARTH DIKE
- SOIL STABILIZATION MATTING & SEED
- GM GABION INFLOW PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE
- ⊠RPS REMOVABLE PUMPING STATION
- SIP STANDARD INLET PROTECTION
- CIP CURB INLET PROTECTION
- AGIP AT-GRADE INLET PROTECTION
- FB FILTER BAG

OUTFALL DESIGNATION	Q_{100}	V_{100}
48" OUTLET	66.72 CFS	8.5 FPS

GENERAL NOTES:

1. NO "IN-STREAM CONSTRUCTION" SHALL TAKE PLACE FROM MARCH 1 THROUGH JUNE 15, INCLUSIVE OF ANY YEAR.

50 0 50 100
FULL SIZE SCALE: 1" = 50'

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORICONI — Date 3/27/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) Ernald G. Lapsom. — Date 4/26/07

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07
CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07
CHIEF, BUREAU OF HIGHWAYS — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — NO. 16155 — REGISTERED PROFESSIONAL ENGINEER — 3/27/07

DES: CMC			
DRN: SYC/CDF			
CHK: DTM			
DATE: 10/06	BY	NO.	REVISION

EROSION AND SEDIMENT CONTROL PLAN - PHASE 1

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION MD 175 TO DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1" = 50'

SHEET 22 OF 74

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OUTFALL DESIGNATION	Q_{10}	V_{10}
ES-A	3.88 CFS	5.4 FPS
ES-B	8.64 CFS	6.9 FPS
ES-D	16.34 CFS	8.0 FPS
ES-E	13.48 CFS	13.0 FPS

LEGEND

- 100 YR. FLOOD PLAIN
- (R) STRUCTURE OR BUILDING TO BE REMOVED
- SF — SILT FENCE
- SSF — SUPER SILT FENCE
- OCF — ORANGE CONSTRUCTION FENCE
- LOD — LIMIT OF DISTURBANCE
- PIPE DIVERSION
- A-1 EARTH DIKE
- SOIL STABILIZATION MATTING & SEED
- GM — GABION INFLOW PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- RPS — REMOVABLE PUMPING STATION
- SIP — STANDARD INLET PROTECTION
- CIP — CURB INLET PROTECTION
- AGIP — AT-GRADE INLET PROTECTION
- FB — FILTER BAG

GENERAL NOTES:

1. NO "IN-STREAM CONSTRUCTION" SHALL TAKE PLACE FROM MARCH 1 THROUGH JUNE 15, INCLUSIVE OF ANY YEAR.

FULL SIZE SCALE: 1" = 50'

SEDIMENT TRAP DATA

TRAP NO.		(POND A)	(POND B)
TRAP TYPE		SEDIMENT BASIN 3	SEDIMENT BASIN 1
DRAINAGE AREA	PRE		1.44 ACRES
	POST	2.48 ACRES	2.59 ACRES
MAX. WET STORAGE REQUIRED		4,464	4,662 C.F.
MAX. WET STORAGE PROVIDED		4,475	4,750C.F.
MAX. DRY STORAGE REQUIRED		4,464	4,662 C.F.
MAX.DRY STORAGE PROVIDED		21,683	8,987 C.F.
BOTTOM DIMENSIONS		VARIES - SEE PLAN	SEE PLAN
WEIR LENGTH		THRU RISER	THRU RISER
EMBANKMENT ELEVATION		198.5	200.5
BOTTOM ELEV.		193.0	193.0
WET STORAGE ELEV.		193.9	195.4
DRY STORAGE ELEV.		196.0	197.5
CLEANOUT ELEV.		193.6	194.55
Q_1 (PRE)		1.52 CFS	0.24 CFS
Q_1 (DURING CONSTRUCTION)		0.21 CFS	0.13 CFS
Q_1 (POST CONSTRUCTION)		0.06 CFS	0.16 CFS
BAFFLE LENGTH		75 FT.	192 FT.

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORICONI — Date 3/27/2007

DEVELOPER'S CERTIFICATE

"I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) Ronald G. Lepson — Date 4/26/07

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS Acting — DATE 3/29/07

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

Steve Sharar — CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07

CHIEF, BUREAU OF HIGHWAYS Acting — DATE 3/30/07

PREPARED BY URS, 4 NORTH PARK DRIVE, HUNT VALLEY, MARYLAND, TEL: (410) 785-7220

DES: CMC | DRN: SYC/CDF | CHK: DTM | DATE: 10/06

BY	NO.	REVISION	DATE

EROSION AND SEDIMENT CONTROL PLAN - PHASE 2

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION MD 175 TO DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND

CAPITAL PROJECT J-4148-C

SCALE 1" = 50'

SHEET 23 OF 74

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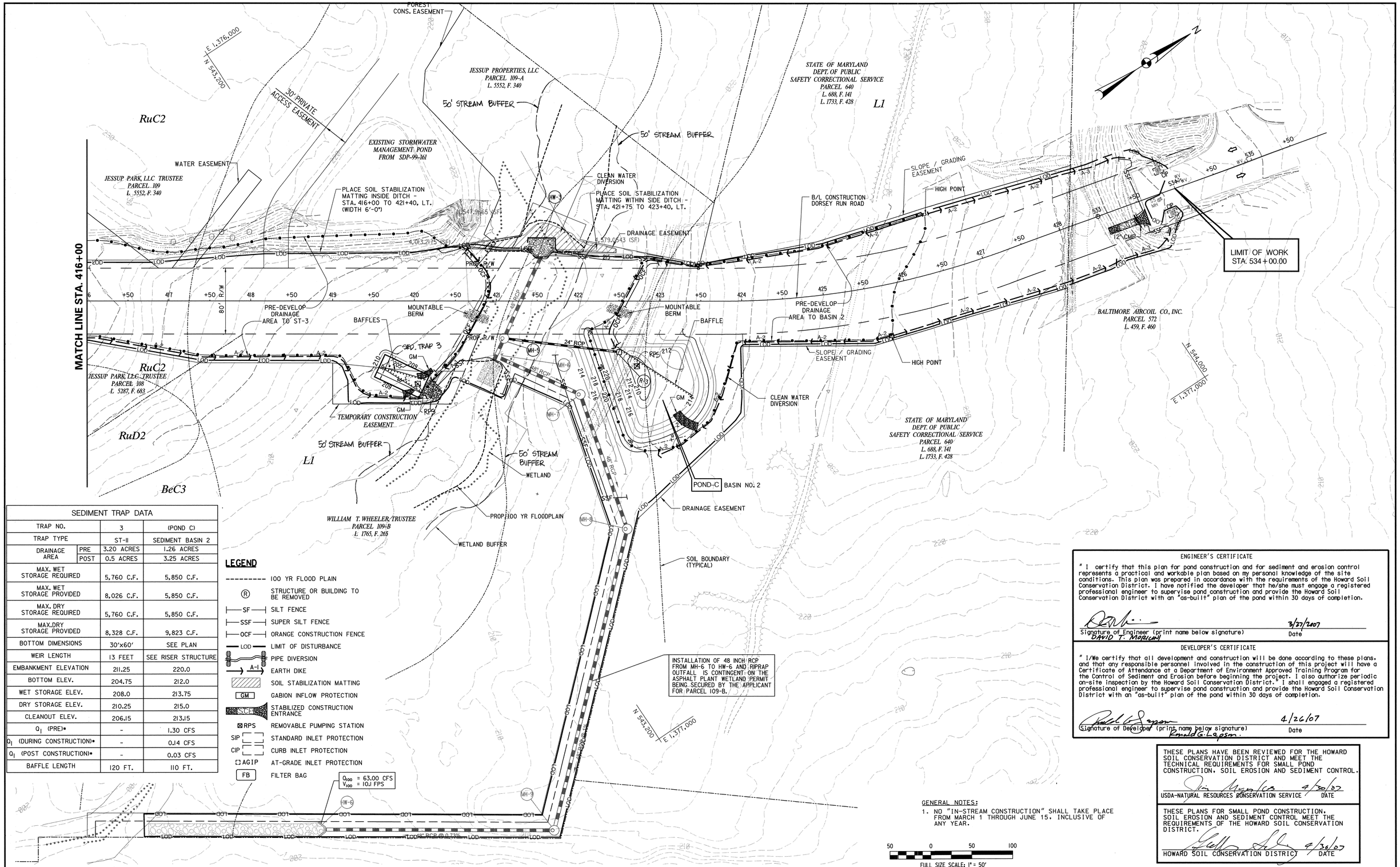

SEDIMENT TRAP DATA			
TRAP NO.		3	(POND C)
TRAP TYPE		ST-II	SEDIMENT BASIN 2
DRAINAGE AREA	PRE	3.20 ACRES	1.26 ACRES
	POST	0.5 ACRES	3.25 ACRES
MAX. WET STORAGE REQUIRED		5,760 C.F.	5,850 C.F.
MAX. WET STORAGE PROVIDED		8,026 C.F.	5,850 C.F.
MAX. DRY STORAGE REQUIRED		5,760 C.F.	5,850 C.F.
MAX.DRY STORAGE PROVIDED		8,328 C.F.	9,823 C.F.
BOTTOM DIMENSIONS		30'x60'	SEE PLAN
WEIR LENGTH		13 FEET	SEE RISER STRUCTURE
EMBANKMENT ELEVATION		211.25	220.0
BOTTOM ELEV.		204.75	212.0
WET STORAGE ELEV.		208.0	213.75
DRY STORAGE ELEV.		210.25	215.0
CLEANOUT ELEV.		206.15	213.15
Q_1 (PRE)*		-	1.30 CFS
Q_1 (DURING CONSTRUCTION)*		-	0.14 CFS
Q_1 (POST CONSTRUCTION)*		-	0.03 CFS
BAFFLE LENGTH		120 FT.	110 FT.

LEGEND

- ---------- 100 YR FLOOD PLAIN
- Ⓡ STRUCTURE OR BUILDING TO BE REMOVED
- SF SILT FENCE
- SSF SUPER SILT FENCE
- OCF ORANGE CONSTRUCTION FENCE
- LOD LIMIT OF DISTURBANCE
- PIPE DIVERSION
- A-1 EARTH DIKE
- SOIL STABILIZATION MATTING
- GM GABION INFLOW PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE
- ⊠RPS REMOVABLE PUMPING STATION
- SIP STANDARD INLET PROTECTION
- CIP CURB INLET PROTECTION
- AGIP AT-GRADE INLET PROTECTION
- FB FILTER BAG

GENERAL NOTES:

1. NO "IN-STREAM CONSTRUCTION" SHALL TAKE PLACE FROM MARCH 1 THROUGH JUNE 15, INCLUSIVE OF ANY YEAR.

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MOZELEWSKI — Date 3/27/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District. I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) Ronald G. Lapson — Date 4/26/07

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Sharar — DATE 3/27/07

CHIEF, BUREAU OF HIGHWAYS — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MOZELEWSKI — 21631 — REGISTERED PROFESSIONAL ENGINEER — 3/27/2007

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06	BY	NO.	REVISION	DATE

EROSION AND SEDIMENT CONTROL PLAN - PHASE 2

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION MD 175 TO DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND

CAPITAL PROJECT J-4148-C

SCALE 1" = 50'

SHEET 24 OF 74

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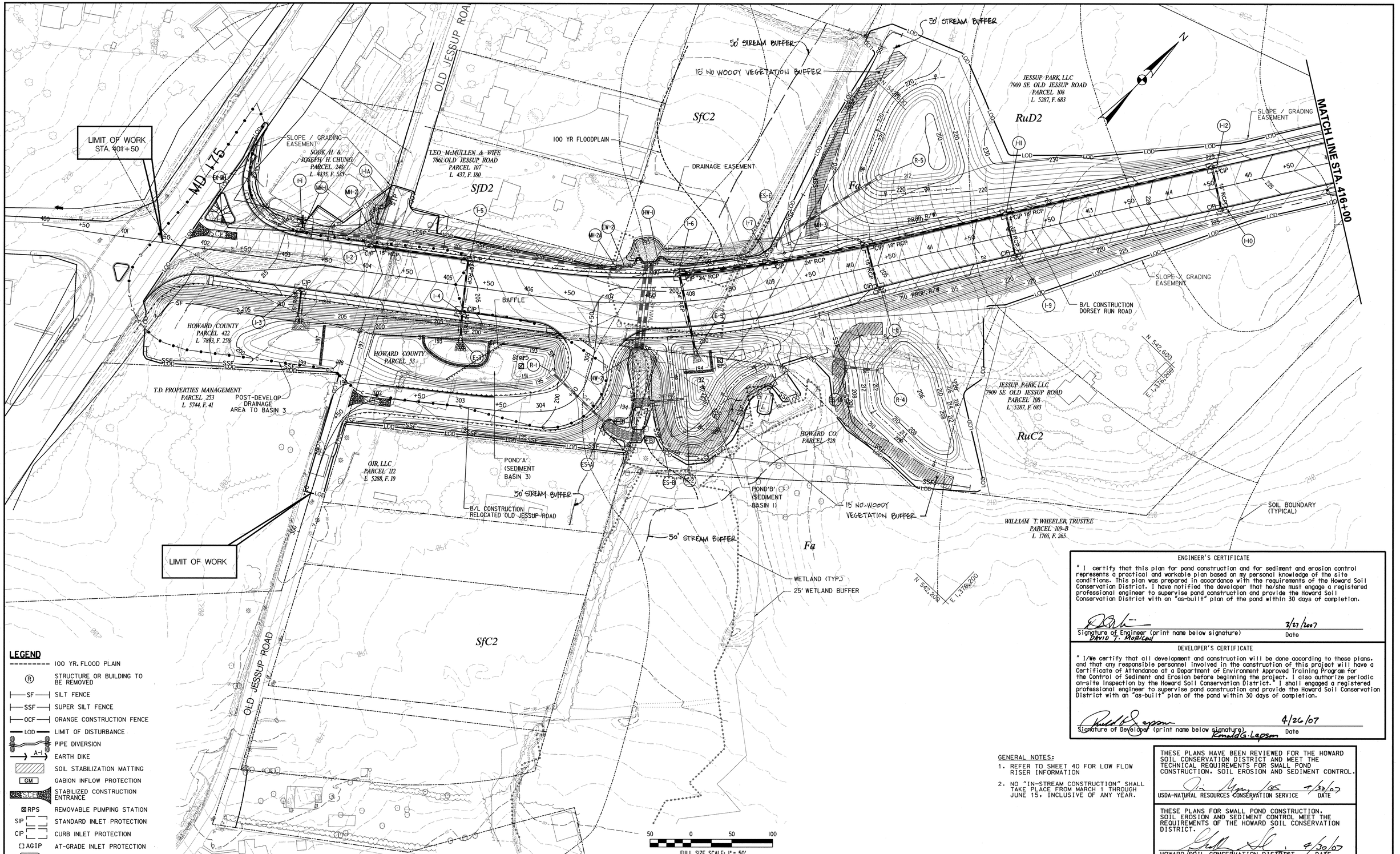

LEGEND

- 100 YR. FLOOD PLAIN
- (R) STRUCTURE OR BUILDING TO BE REMOVED
- SF — SILT FENCE
- SSF — SUPER SILT FENCE
- OCF — ORANGE CONSTRUCTION FENCE
- LOD — LIMIT OF DISTURBANCE
- PIPE DIVERSION
- A-1 — EARTH DIKE
- SOIL STABILIZATION MATTING
- GM — GABION INFLOW PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- RPS — REMOVABLE PUMPING STATION
- SIP — STANDARD INLET PROTECTION
- CIP — CURB INLET PROTECTION
- AGIP — AT-GRADE INLET PROTECTION
- FB — FILTER BAG

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORGAN — 3/27/2007 Date

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) Ronald G. Lapson — 4/26/07 Date

GENERAL NOTES:

1. REFER TO SHEET 40 FOR LOW FLOW RISER INFORMATION
2. NO "IN-STREAM CONSTRUCTION" SHALL TAKE PLACE FROM MARCH 1 THROUGH JUNE 15, INCLUSIVE OF ANY YEAR.

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS Acting — DATE 3/29/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Sharar — DATE 3/27/07

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

CHIEF, BUREAU OF HIGHWAYS Acting — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORGAN — NO. 16158 — REGISTERED PROFESSIONAL ENGINEER — 3/27/2007

DES:	CMC
DRN:	SYC/CDF
CHK:	DTM
DATE:	10/06

BY	NO.	REVISION	DATE

EROSION AND SEDIMENT CONTROL PLAN - PHASE 3

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION MD 175 TO DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND

CAPITAL PROJECT J-4148-C

SCALE 1" = 50'

SHEET 25 OF 74

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MATCH LINE STA. 416+00

E 1,376,000
N 543,200

FOREST CONS. EASEMENT

JESSUP PROPERTIES, LLC
PARCEL 109-A
L. 5552, F. 340

50' STREAM BUFFER

30' PRIVATE ACCESS EASEMENT

EXISTING STORMWATER MANAGEMENT POND FROM SDP-99-161

20' PUBLIC WATER AND UTILITY EASEMENT

JESSUP PARK, LLC TRUSTEE
PARCEL 109
L. 5552, F. 340

STATE OF MARYLAND
DEPT. OF PUBLIC SAFETY CORRECTIONAL SERVICE
PARCEL 640
L. 688, F. 141
L. 1733, F. 428

SLOPE / GRADING EASEMENT

B/L CONSTRUCTION DORSEY RUN ROAD

DRAINAGE EASEMENT

PROP. R/W

LIMIT OF WORK
STA. 534+00.00

BALTIMORE AIRCOIL CO., INC.
PARCEL 572
L. 459, F. 460

N 544,000
E 1,377,000

JESSUP PARK, LLC TRUSTEE
PARCEL 108
L. 5287, F. 683

POST-DEVELOP DRAINAGE AREA TO ST-3

TEMPORARY CONSTRUCTION EASEMENT

POST-DEVELOP DRAINAGE AREA TO BASIN 2

WETLAND

15' NO WOODY VEGETATION BUFFER

PROP. 100 YR FLOODPLAIN

WETLAND BUFFER

SOIL BOUNDARY (TYPICAL)

WILLIAM T. WHEELER, TRUSTEE
PARCEL 109-B
L. 1765, F. 205

INSTALLATION OF 48 INCH RCP FROM MH-6 TO HW-6 AND RIPRAP OUTFALL IS CONTINGENT ON THE ASPHALT PLANT WETLAND PERMIT BEING SECURED BY THE APPLICANT FOR PARCEL 109-B.

Q_{100} = 63.00 CFS
V_{100} = 10.1 FPS

N 543,200
E 1,377,000

RuC2 RuD2 BeC3 L1

LEGEND

- 100 YR FLOOD PLAIN
- (R) STRUCTURE OR BUILDING TO BE REMOVED
- SF SILT FENCE
- SSF SUPER SILT FENCE
- OCF ORANGE CONSTRUCTION FENCE
- LOD LIMIT OF DISTURBANCE
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- RPS REMOVABLE PUMPING STATION
- SIP STANDARD INLET PROTECTION
- CIP CURB INLET PROTECTION
- AGIP AT-GRADE INLET PROTECTION
- FB FILTER BAG

GENERAL NOTES:

1. NO "IN-STREAM CONSTRUCTION" SHALL TAKE PLACE FROM MARCH 1 THROUGH JUNE 15, INCLUSIVE OF ANY YEAR.

50 0 50 100
FULL SIZE SCALE: 1" = 50'

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORICONI — Date 3/27/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) Arnold G. Lapson — Date 4/26/07

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07
CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07
CHIEF, BUREAU OF HIGHWAYS — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — No. 16158 — REGISTERED PROFESSIONAL ENGINEER — 3/27/2007

DES:	CMC
DRN:	SYC/CDF
CHK:	DTM
DATE:	10/06

BY	NO.	REVISION	DATE

EROSION AND SEDIMENT CONTROL PLAN - PHASE 3

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1" = 50'

SHEET 26 OF 74

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PERMANENT SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1,000 SQUARE FEET) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1,000 SQUARE FEET) BEFORE SEEDING. HARROW OR DISC INTO UPPER 3 INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS. PER 1,000 SQUARE FEET).

2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1,000 SQUARE FEET) AND 1,000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS. PER 1,000 SQUARE FEET) BEFORE SEEDING. HARROW OR DISC INTO UPPER 3 INCHES OF SOIL.

SEEDING: FOR THE PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS. PER 1,000 SQUARE FEET) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.05 LBS. PER 1,000 SQUARE FEET) OF WEEPING LOVEGRASS. DURING THE PERIOD OCTOBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY ONE OF THE FOLLOWING OPTIONS:

1) 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON AS POSSIBLE IN THE SPRING.

2) USE SOD.

3) SEED WITH 60 LBS. PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1½ TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1,000 SQUARE FEET) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GALLONS PER 1,000 SQUARE FEET) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FEET OR HIGHER, USE 347 GALLONS PER ACRE (8 GALLONS PER 1,000 SQUARE FEET) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS, AND RESEEDINGS.

TEMPORARY SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1,000 SQUARE FEET).

SEEDING: FOR PERIODS MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2½ BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS. PER 1,000 SQUARE FEET). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.07 LBS. PER 1,000 SQUARE FEET). FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE SOD.

MULCHING: APPLY 1½ TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1,000 SQUARE FEET) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GALLONS PER 1,000 SQUARE FEET) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FEET OR HIGHER, USE 347 GALLONS PER ACRE (8 GALLONS PER 1,000 SQUARE FEET) FOR ANCHORING. REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1855).

2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:

   A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1.
   B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOLUME 1, CHAPTER 7, 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SECTION 50). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES 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 THERE REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7. SITE ANALYSIS:

   AREA DISTURBED - 13.6 ACRES
   AREAS TO BE ROOFED OR PAVED - 3.82 ACRES
   AREA TO BE VEGETATIVELY STABILIZED - 5.53 ACRES
   TOTAL CUT - 61,640 CY
   TOTAL FILL - 56,480 CY
   OFF-SITE WASTE SITE - HOWARD COUNTY LANDFILL
   OFF-SITE BORROW SITE - APPROVED SITE WITH AN ACTIVE GRADING PERMIT

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. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, 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.

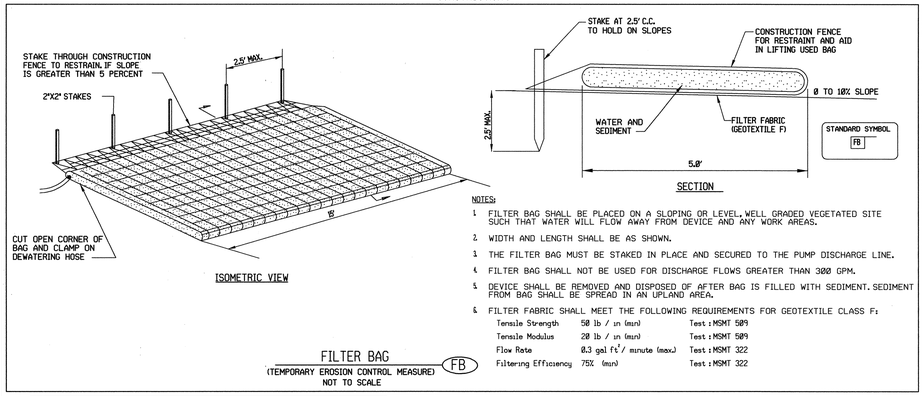
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

12. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.

13. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.

14. CUT 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 UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

15. CONSTRUCTION WITHIN, ALONG OR ACROSS STREAM CHANNELS SHALL, AS A MINIMUM, CONFIRM TO CRITERIA DESCRIBED UNDER "MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION".



NOTES:

1. FILTER BAG SHALL BE PLACED ON A SLOPING OR LEVEL, WELL GRADED VEGETATED SITE SUCH THAT WATER WILL FLOW AWAY FROM DEVICE AND ANY WORK AREAS.
2. WIDTH AND LENGTH SHALL BE AS SHOWN.
3. THE FILTER BAG MUST BE STAKED IN PLACE AND SECURED TO THE PUMP DISCHARGE LINE.
4. FILTER BAG SHALL NOT BE USED FOR DISCHARGE FLOWS GREATER THAN 300 GPM.
5. DEVICE SHALL BE REMOVED AND DISPOSED OF AFTER BAG IS FILLED WITH SEDIMENT. SEDIMENT FROM BAG SHALL BE SPREAD IN AN UPLAND AREA.
6. FILTER FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:

Tensile Strength	50 lb / in (min)	Test : MSMT 509
Tensile Modulus	20 lb / in (min)	Test : MSMT 509
Flow Rate	0.3 gal ft²/ minute (max.)	Test : MSMT 322
Filtering Efficiency	75% (min)	Test : MSMT 322

FILTER BAG
(TEMPORARY EROSION CONTROL MEASURE) FB
NOT TO SCALE

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) — Date 3/27/2007
DAVID T. MORICONI

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District. " I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) — 4/26/07
Ronald G. Lepson

SEQUENCE OF CONSTRUCTION

NOTE THAT SOME SEQUENCE STEPS MAY BE PERFORMED CONCURRENTLY WITH THE APPROVAL OF THE COUNTY INSPECTOR.

PHASE 1:

1. OBTAIN THE NECESSARY GRADING PERMITS PRIOR TO CONSTRUCTION (1 DAY).
2. NOTIFY HOWARD COUNTY AT 410-313-1855 AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION (1 DAY).
3. WITH THE APPROVAL OF THE INSPECTOR INSTALL STABILIZED CONSTRUCTION ENTRANCES WITH MOUNTABLE BERMS AND PIPES (IF NECESSARY). (2 DAYS)
4. CLEAR AND GRUB FOR THE INSTALLATION OF THE EROSION AND SEDIMENT CONTROL MEASURES NOTED BELOW. (5 DAYS)
5. INSTALL PIPE DIVERSION PRACTICES TO FACILITATE THE INSTALLATION OF THE TWIN 48-INCH RCP AT STATION 407+40, AND SINGLE 48-INCH RCP AT STATION 421+25. (3 DAYS)
6. INSTALL THE FOLLOWING PERIMETER EROSION AND SEDIMENT CONTROL MEASURES (10 DAYS):
   A. SUPER SILT FENCE AT THE STOCKPILE/STAGING AREA.
   B. SUPER SILT FENCE IN THE VICINITY OF HEADWALL (HW-2)
   C. EARTH DIKE BETWEEN STATIONS 404+30 (LT.) AND 407+00 (RT.)
   D. EARTH DIKE BETWEEN STATIONS 407+50 (RT.) AND 409+00 (LT.)
   E. EARTH DIKE BETWEEN STATIONS 420+75 (RT.) AND 421+00 (LT.)
   F. EARTH DIKE BETWEEN STATION 421+25 (RT.) AND 422+45 (LT.)
   G. MOUNTABLE BERMS
   H. ORANGE CONSTRUCTION FENCE ALONG INTERIOR EARTH DIKES AS SHOWN
   I. PERMANENT DITCH TO SERVE AS A CLEAR WATER DIVERSION BETWEEN STATIONS 404+05 AND 408+75 (LT) STABILIZED WITH SOIL STABILIZATION MATTING. INSTALL SILT FENCE AS SHOWN
   J. CURB INLET PROTECTION DEVICES AT STATIONS 533+90 LT AND RT
7. ESTABLISH STAGING AREA(S) FOR CONSTRUCTION TRAILERS AND COORDINATE UTILITY SERVICES. (5 DAYS)
8. COORDINATE THE DISCONNECTION OF ALL EXISTING UTILITIES (IF NOT DONE SO ALREADY) TO EXISTING DWELLINGS WITHIN THE LIMIT OF DISTURBANCE.
9. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, INSTALL STORM DRAIN FROM EW-2 TO CONCRETE COLLAR AT STATION 403+65, LT. INSTALL I-1A AND PIPE TO MH-2. INSTALL INLET PROTECTION AT I-1A. THIS SYSTEM WILL SERVE AS A CLEAR WATER DIVERSION. (10 DAYS)
10. WITH THE APPROVAL OF THE INSPECTOR, CONSTRUCT HEADWALLS HW-1 THROUGH HW-3, TWIN 48-INCH AND SINGLE 48-INCH RCP. CONSTRUCT RIPRAP OUTLET CHANNELS AT HW-2 AND EXIT OF SINGLE 48-INCH PIPE. CONCURRENT WITH THE INSTALLATION OF THE TWIN 48-INCH RCP'S, INSTALL THE 12-INCH WATER LINE UNDER THE TWIN 48-INCH RCP'S. (30 DAYS). IN STREAM WORK MAY NOT BE CONDUCTED FROM MARCH 1 THRU JUNE 15, INCLUSIVE OF ANY YEAR.

PHASE 2:

11. WITH THE APPROVAL OF THE INSPECTOR AND ONCE THE TWIN 48-INCH AND SINGLE 48-INCH CROSS CULVERTS ARE IN PLACE AND THE INFLOW AND OUTFALL CHANNELS ARE CONSTRUCTED AND STABILIZED, DIRECT CLEAR WATER TO HW-1 AND HW-3. REMOVE THE TEMPORARY PIPE DIVERSIONS. RAZE ALL EXISTING BUILDINGS AND APPURTENANCES WITHIN THE LIMIT OF DISTURBANCE AND DISPOSE OF ALL MATERIALS TO APPROVED DISPOSAL SITE. IMMEDIATELY STABILIZE THE AREAS WITH TEMPORARY SEED AND MULCH. (6 DAYS)
12. CLEAR THE AREAS FOR CONSTRUCTION OF PONDS AND TRAPS.
13. CONSTRUCT TEMPORARY SEDIMENT TRAP 3. PLACE GABION INFLOW PROTECTION MEASURES AS SHOWN ON PLAN. (10 DAYS)
14. WITH THE APPROVAL OF THE INSPECTOR, CONSTRUCT POND 'B' AND 'C' USING THE FOLLOWING SEQUENCE (30 DAYS):
    CONSTRUCT PRINCIPAL SPILLWAY (CUTOFF TRENCH, CONCRETE CRADLE, PIPE, ANTI-SEEP COLLAR AND RISER)
    CONSTRUCT EMBANKMENT (CUTOFF TRENCH, CORE TRENCH)
    CONSTRUCT LOW FLOW DEWATERING DEVICE TO RISER STRUCTURE
    PLACE RIPRAP INFLOW PROTECTION MEASURES AS SHOWN ON PLAN.
15. CONSTRUCT EARTH DIKE BETWEEN THE FOLLOWING STATIONS (10 DAYS):
    A. 404+50 LT. AND 406+75 RT . (TO SEDIMENT BASIN NO. 3)
    B. 407+80 RT. AND 412+50 LT. (TO SEDIMENT BASIN NO. 1)
    C. 409+00 RT AND 412+26 RT (TO SEDIMENT BASIN NO. 1)
    D. 410+80 LT AND 412+10 LT (CLEAR WATER DIVERSION)
    E. 410+90 RT AND 411+50 RT (CLEAR WATER DIVERSION)
    F. 412+25 RT AND 420+10 RT (TO ST-3)
    G. 420+20 RT AND 420 +90 LT (TO ST-3)
    H. 422+40 RT AND 426+50 LT (TO SEDIMENT BASIN NO. 2)
    I. 422+90 RT AND 425+75 RT (CLEAR WATER DIVERSION)
    J. 426+50 LT AND 533+50 RT
    K. 425+75 RT AND 533+65 RT
16. CONSTRUCT POND 'D' AND 'E' USING THE FOLLOWING SEQUENCE (30 DAYS):
    A. CONSTRUCT PRINCIPAL SPILLWAY (CUTOFF TRENCH, CONCRETE CRADLE, PIPE, ANTI-SEEP COLLAR AND RISER)
    B. CONSTRUCT EMBANKMENT (CUTOFF TRENCH, CORE TRENCH)
    C. CONSTRUCT LOW FLOW DEWATERING DEVICE TO RISER STRUCTURE

    NOTE: POND D AND E WILL NOT SERVE AS EROSION AND SEDIMENT CONTROL DEVICES. PONDS SHALL BE DEWATERED THROUGH A FILTER BAG. LOW FLOW SHALL BE PLUGGED.

DEEP RUN AND TRIBUTARIES ARE USE IP WATERWAYS. INSTREAM WORK MAY NOT BE CONDUCTED FROM MARCH 1 THROUGH JUNE 15, INCLUSIVE OF ANY YEAR.

A COPY OF THE MDE PERMIT WILL BE INCORPORATED INTO THE SPECIFICATIONS. THE CONTRACTOR MUST ADHERE TO ALL CONDITIONS CONTAINED THEREIN.

SEQUENCE OF CONSTRUCTION CONTINUED

17. INSTALL 24-INCH RCP, ES-A AND R-1. PLUG LOW FLOW OPENING. (5 DAYS)
18. BEGIN ROUGH GRADING BETWEEN STATIONS 404+50 AND 533+50 ALONG DORSEY RUN ROAD AND STATIONS 301+75 AND 305+40 ALONG RELOCATED OLD JESSUP ROAD. CONVERT TEMPORARY SEDIMENT TRAP NO. 1 TO THE FINAL STORMWATER MANAGEMENT FACILITY (POND 'A'). CONSTRUCT THE REMAINDER OF PONDS 'B' AND 'C' AS THE GRADING PROGRESSES (30 DAYS).
19. INSTALL REMAINING INLETS, MANHOLES AND PIPES AS FOLLOWS:
    A. I-3 TO E-1 AND RIPRAP OUTFALL
    B. I-2 TO E-3 AND RIPRAP OUTFALL
    C. I-10 TO E-5 AND RIPRAP OUTFALL
    D. I-9 TO I-11, I-8 TO MH-3
    E. I-14 TO E-6 AND RIPRAP OUTFALL
    F. I-16 TO MH-4
    G. I-17 TO EX-1
20. INSTALL WATER LINE EXTENSION AND SANITARY SEWER.

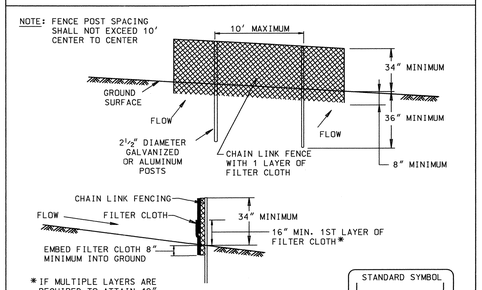
PHASE 3:

21. WITH THE APPROVAL OF THE INSPECTOR, PLACE SILT FENCE AND SUPER SILT FENCE ALONG THE TOES OF SLOPES AS SHOWN ON THE PHASE 3 PLANS. COMPLETE FINAL GRADING AND STABILIZE WITH SEED AND MULCH. (10 DAYS)

    NOTE TO CONTRACTOR: THE INSTALLATION OF THE 48-INCH RCP FROM MH-6 TO HW-6, RIPRAP OUTFALL, AND THE EROSION AND SEDIMNT CONTROL ASSOCIATED WITH THE INSTALLATION WILL ONLY BE INSTALLED WHEN THE PROPERTY OWNER OF PARCEL 109-B SECURES THE WETLAND PERMIT FOR DEVELOPMENT ON THEIR PROPERTY.

22. INSTALL PAVEMENT SECTION AND SIDEWALKS. (20 DAYS)
23. ONCE ALL UPSTREAM AREAS ARE STABILIZED, REMOVE ALL ACCUMULATED SEDIMENT FROM THE SEDIMENT BASINS AND CONVERT TO STORMWATER MANAGEMENT FACILITIES AS FOLLOWS (10 DAYS):
    A. CLEAN ALL STORM DRAIN LEADING TO THE SEDIMENT BASINS OF ANY ACCUMULATED SEDIMENT
    B. PUMP SEDIMENT LADEN WATER FROM THE BASINS TO A FILTER BAG
    C. REMOVE ALL SEDIMENT AND GRADE POND TO THEIR FINAL GRADES
    D. STABILIZE WITH SEED AND MULCH
    E. REMOVE LOW FLOW DEVICE USED FOR SEDIMENT CONTROL PURPOSES
    F. CONSTRUCT THE PERMANENT LOW FLOW DEVICE
    G. COMPLETE STABILIZATION
24. REMOVE SEDIMENT TRAP 3, GRADE AREA TO DRAIN AND STABILIZE WITH PERMANENT SEED AND MULCH.
25. WITH THE APPROVAL OF THE INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND COMPLETE THE FINAL STABILIZATION. (5 DAYS)

DETAIL 33 - SUPER SILT FENCE



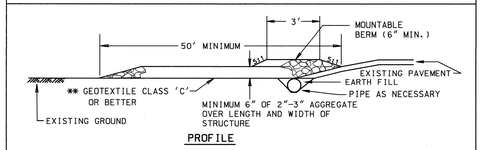
Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft²/minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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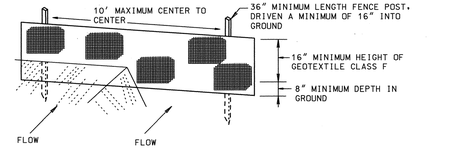
DETAIL 22 - SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1½" x 1½" square (minimum) cut, or 1¾" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft²/ minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 15 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07
CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07
CHIEF, BUREAU OF HIGHWAYS — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — 21677 — REGISTERED PROFESSIONAL ENGINEER — 3/27/07

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06	BY	NO.	REVISION	DATE

EROSION AND SEDIMENT CONTROL DETAILS AND NOTES - I

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE N.T.S.

SHEET 27 OF 74

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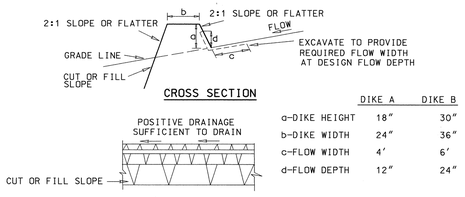
DETAIL 1 - EARTH DIKE



CROSS SECTION

	DIKE A	DIKE B
a-DIKE HEIGHT	18"	30"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	12"	24"

PLAN VIEW

STANDARD SYMBOL
A-2 B-3

FLOW CHANNEL STABILIZATION
GRADE 0.5% MIN. 10% MAX.

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.

2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.

4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.

5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

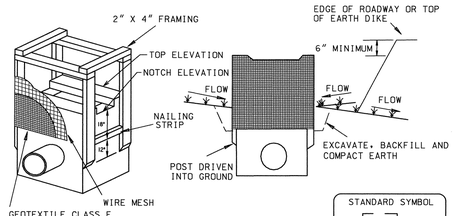
6. Fill shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.

8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A - 1 - 6	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 23A - STANDARD INLET PROTECTION



STANDARD SYMBOL
SIP

MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

1. Excavate completely around the inlet to a depth of 18" below the notch elevation.

2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (weir) must be 6" below adjacent roadways where flooding and safety issues may arise.

3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.

4. Stretch the Geotextile Class E tightly over the wire mesh with the geotixtile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.

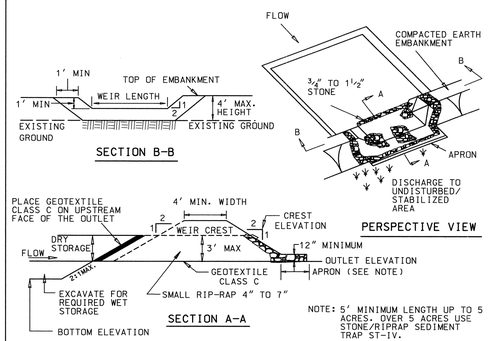
5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and top elevation on the sides.

6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be at least 6" higher than the top of the frame.

7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 5	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II



NOTE: 5' MINIMUM LENGTH UP TO 5 ACRES. OVER 5 ACRES USE STONE/RIPRAP SEDIMENT TRAP ST-IV.

Construction Specifications

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.

2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.

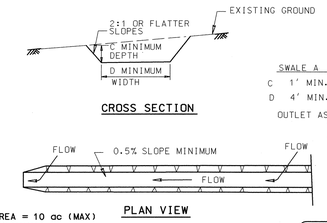
3. All cut and fill slopes shall be 2:1 or flatter.

4. The stone used in the outlet shall be small rip-rap 4" to 7" in size with a 1' thick layer of 3/4" to 1 1/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.

5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE C - 9 - 10	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 2 - TEMPORARY SWALE



DRAINAGE AREA = 10 ac (MAX)
SLOPE = 10% (MAX)

STANDARD SYMBOL
A - 2/B - 3

FLOW CHANNEL STABILIZATION
GRADE 0.5% MIN. 10% MAX.

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4"-7" stone or recycled concrete equivalent pressed into soil in a minimum 7" layer.

Construction Specifications

1. All temporary swales shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.

2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed stabilized area at a non-erosive velocity.

4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.

5. The swale shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

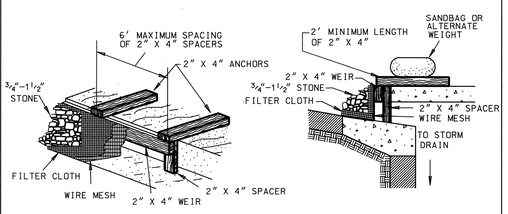
6. Fill, if necessary, shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the swale.

8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A - 2 - 4	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 23C - CURB INLET PROTECTION (COG OR COS INLETS)



MAX. DRAINAGE AREA = 1/4 ACRE

STANDARD SYMBOL
CIP

Construction Specifications

4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.

5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.

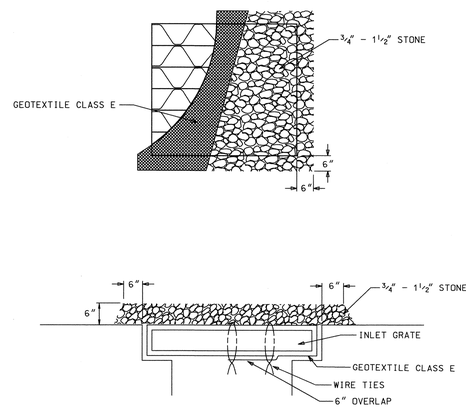
6. Form the 1/2" x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4" x 1 1/2" stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.

7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.

8. Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 5B	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 23B - AT GRADE INLET PROTECTION



STANDARD SYMBOL
AGIP

MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.

2. Place 3/4" to 1 1/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 5A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

STONE OUTLET SEDIMENT TRAP - ST II

6. The structure shall be inspected periodically and after each rain and repairs made as needed.

7. Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.

8. The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.

9. Refer to Section D for specifications concerning trap dewatering.

10. Minimum trap depth shall be measured from the weir elevation.

11. The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.

12. Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to the placement of stone. Sections of filter cloth must overlap at least 1' with the section nearest the entrance placed on top. The filter cloth shall be embedded at least 6" into existing ground at the entrance of the outlet channel.

13. Outlet - An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stable channel.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE C - 9 - 10A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) — Date 3/27/2007
DAVID T. MORITSUGU

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District. " I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) — Date 4/26/07
Ronald G. Lapson

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07

CHIEF, BUREAU OF HIGHWAYS — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORITSUGU — NO. 16156 — REGISTERED PROFESSIONAL ENGINEER — 3/27/2007

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06	BY	NO.	REVISION	DATE

EROSION AND SEDIMENT CONTROL DETAILS AND NOTES - II

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE N.T.S.

SHEET 28 OF 74

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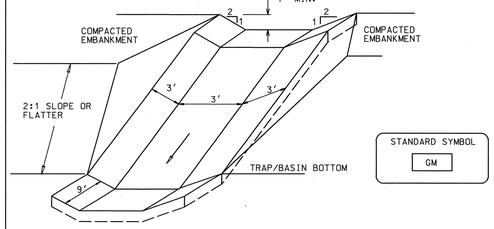
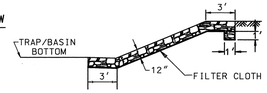
DETAIL 6 – GABION INFLOW PROTECTION



PERSPECTIVE VIEW



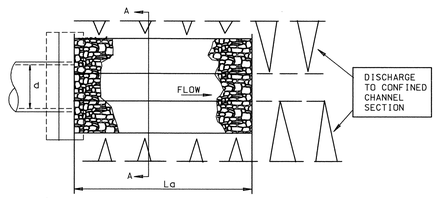
PROFILE ALONG CENTERLINE

Construction Specifications

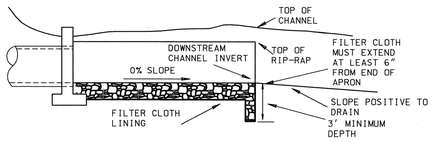
1. Gabion inflow protection shall be constructed of 9' x 3' x 9" gabion baskets forming a trapezoidal cross section 1' deep, with 2:1 side slopes, and a 3' bottom width.
2. Geotextile Class C shall be installed under all gabion baskets.
3. The stone used to fill the gabion baskets shall be 4" – 7".
4. Gabions shall be installed in accordance with manufacturers recommendations.
5. Gabion Inflow Protection shall be used where concentrated flow is present on slopes steeper than 4:1.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE B – 7 – 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

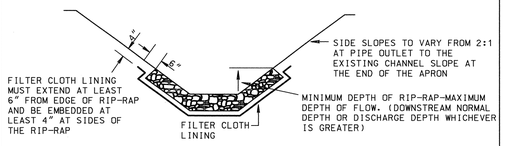
DETAIL 26 – ROCK OUTLET PROTECTION II



PLAN VIEW



ELEVATION

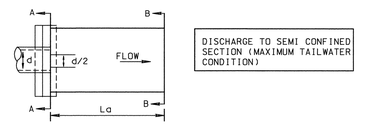


SECTION A-A

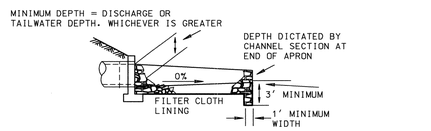
NOTE: FILTER CLOTH SHALL BE GEOTEXTILE CLASS C

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F – 18 – 9	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 25 – ROCK OUTLET PROTECTION I

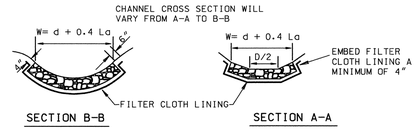


PLAN VIEW



ELEVATION

NOTE: FILTER CLOTH MUST EXTEND A MINIMUM OF 6" BEYOND APRON AND SIDES

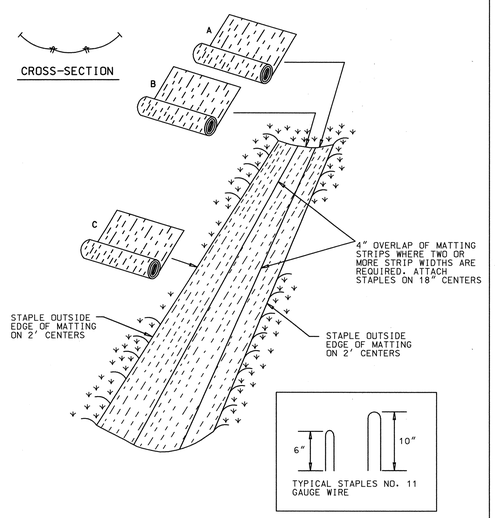


SECTION B-B SECTION A-A

NOTE: FILTER CLOTH SHALL BE GEOTEXTILE CLASS C

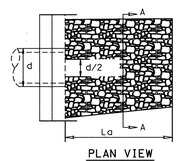
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F – 18 – 8	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 30 – EROSION CONTROL MATTING

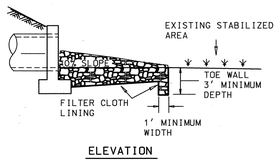


U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G – 22 – 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

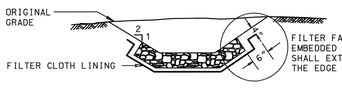
DETAIL 27 – ROCK OUTLET PROTECTION III



PLAN VIEW



ELEVATION

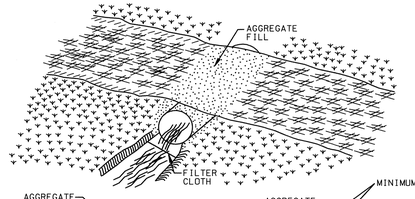


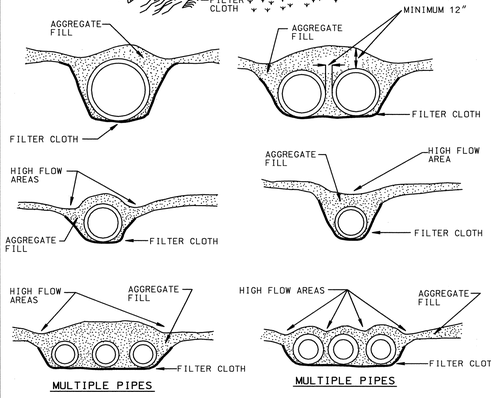
SECTION A-A

NOTE: FILTER CLOTH SHALL BE GEOTEXTILE CLASS C

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F – 18 – 10	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 36 – TEMPORARY ACCESS CULVERT





MULTIPLE PIPES MULTIPLE PIPES

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H – 29 – 12	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

ROCK OUTLET PROTECTION

Construction Specifications

1. The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.
3. Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.
4. Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.
5. The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F – 18 – 8A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

EROSION CONTROL MATTING

Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
2. Staple the 4" overlap in the channel center using an 18" spacing between staples.
3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G – 22 – 2A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORICONI — Date 3/26/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) Arnold G. Lepsen — Date 4/26/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS Acting — DATE 3/23/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

CHIEF, BUREAU OF HIGHWAYS Acting — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — No. 21610 — REGISTERED PROFESSIONAL ENGINEER — 3/26/07

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06				
BY	NO.	REVISION	DATE	

EROSION AND SEDIMENT CONTROL DETAILS AND NOTES – III

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 – JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE N.T.S.

SHEET 29 OF 74

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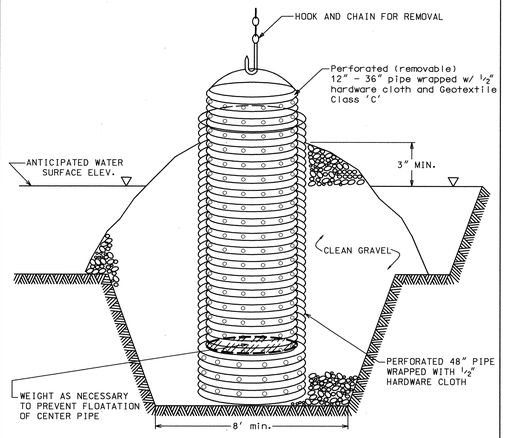
DETAIL 20A – REMOVABLE PUMPING STATION



ELEVATION

Construction Specifications

1. The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with ½" hardware cloth to prevent backfill material from entering the perforations.

2. After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.

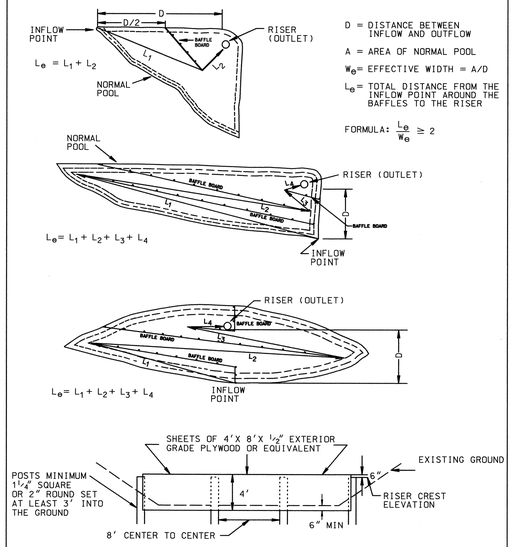
3. The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be ½" X 6" slits or 1" diameter holes 6" on center. The center pipe shall be wrapped with ½" hardware cloth first, then wrapped again with Geotextile Class C.

4. The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE D – 12 – 4	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 18 – SEDIMENT BASIN BAFFLES

PLAN VIEWS

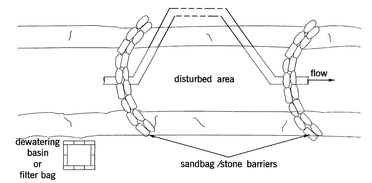


BAFFLE DETAIL

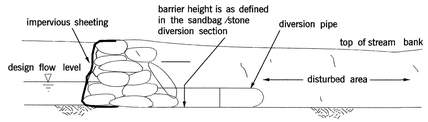
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE C – 10 – 28	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Maryland's Guidelines To Waterway Construction
DETAIL 1.4: DIVERSION PIPE

PLAN VIEW



LONGITUDINAL SECTION VIEW



TEMPORARY INSTREAM CONSTRUCTION MEASURES	*REVISED NOVEMBER 2000* *PAGE 1.4 – 2*	MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

MGWC 1.4: DIVERSION PIPE

Temporary measure for dewatering in-channel construction sites

DESCRIPTION

The work should consist of installing flow diversion pipes in combination with sandbag or stone diversions when construction activities occur within the stream channel.

EFFECTIVE USES & LIMITATIONS

Diversion pipes with an insufficient flow capacity can cause the channel diversion to fail thereby resulting in severe erosion of the disturbed channel section under construction. Therefore, in-channel construction activities should occur only during periods of low flow.

MATERIAL SPECIFICATIONS

Materials for stream diversions should meet the following requirements:

* *Riprap:* Stone should be washed and have a minimum diameter of 6 inches (15 centimeters).
* *Sandbags:* Sandbags should consist of materials which are resistant to ultra-violet radiation, tearing, and puncture and should be woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).
* *Sheeting:* Sheeting should consist of polyethylene or other material which is impervious and resistant to puncture and tearing.

INSTALLATION GUIDELINES

All erosion and sediment control devices including mandatory dewatering basins should be installed as the first order of business according to a plan approved by the WMA or local authority. Installation should proceed from upstream to downstream during low flow conditions. If necessary, silt fence or straw bales should be installed around the perimeter of the work area.

Diversion pipes with sandbag or stone barriers should be completed as follows (refer to Detail 1.4):

1. Sandbag/stone barriers should be sized and installed as detailed in MGWC 1.5: Sandbag/Stone Diversion. The materials should be sized to withstand baseflow velocities.
2. All excavated material should be deposited and stabilized in an approved area outside the 100-year floodplain unless otherwise authorized by the WMA.
3. Sediment-laden water from the construction area should be pumped to a dewatering basin.
4. The diversion pipe should have a minimum capacity sufficient to convey the 2-year flow for projects with a duration of two weeks or greater. For projects of shorter duration, the capacity of the pipe can be reduced accordingly.
5. If necessary, silt fence or straw bales should be installed around the perimeter of the work area.
6. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal.

TOPSOIL CONSTRUCTION AND MATERIAL SPECIFICATIONS

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

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

A. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY.

TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1½" IN DIAMETER.

B. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

C. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

A. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION – SECTION I – VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. TOPSOIL APPLICATION

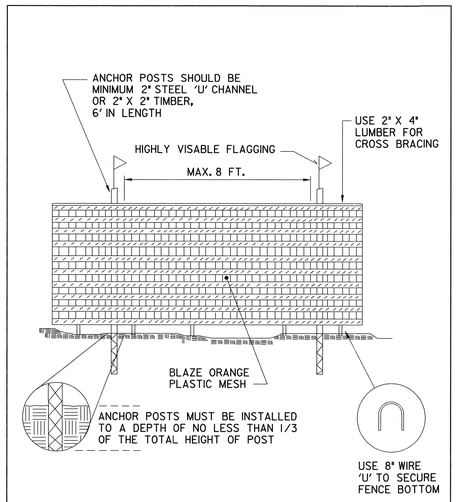
A. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

B. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" – 8" HIGHER IN ELEVATION.

C. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" – 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

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

V. THESE TOPSOIL SPECIFICATIONS HAVE BEEN EDITED FROM THE 1994 EROSION AND SEDIMENT CONTROL STANDARDS TO FIT THIS PROJECT. IT IS STILL THE INTENTION TO FOLLOW THE REFERENCED 1994 EROSION AND SEDIMENT CONTROLS STANDARDS IN THEIR ENTIRETY.



ORANGE CONSTRUCTION FENCE

NOT TO SCALE

BERM NO.	HEIGHT
A	18"
B	30"

FILTER CLOTH SHALL BE GEOTEXTILE CLASS "C", OR BETTER.

MOUNTABLE BERM

NOT TO SCALE

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE / DATE 4/26/07

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

HOWARD SOIL CONSERVATION DISTRICT / DATE 4/26/07

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORICONI — Date 4/26/07

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) Ronald G. Lepson — Date 4/26/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS / DATE 4/27/07

CHIEF, BUREAU OF ENGINEERING / DATE 4/26/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS / DATE Steve Sharan 4/27/07

CHIEF, BUREAU OF HIGHWAYS / DATE 4-27-07

PREPARED BY
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4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — NO. 19150 — REGISTERED PROFESSIONAL ENGINEER — 4/26/07

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

EROSION AND SEDIMENT CONTROL DETAILS AND NOTES AND – IV

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 – JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE N.T.S.

SHEET 30 OF 74

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REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRCUTION. SOIL EROSION AND SEDIMENT CONTROL.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SCD — DATE 4/30/07

SOIL CHART

SYMBOL	NAME/DESCRIPTION	TYPE
BeB2	BELTSVILLE SILT LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	C
BeC3	BELTSVILLE SILT LOAM, 1 TO 5 PERCENT SLOPES, SEVERELY ERODED	C
Fa	FALLSINGTON LOAM	D
Ll	LEONARDTOWN SILT LOAM	D
RuB2	RUMFORD LOAMY SAND, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	B
RuC2	RUMFORD LOAMY SAND 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	B
RuD2	RUMFORD LOAMY SAND, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
SfB2	SASSAFRAS GRAVELLY SANDY LOAM, 1 TO 5 PERCENT SLOPES MODERATELY ERODED	B
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	B
SfD2	SASSAFRAS GRAVELLY DANDY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	B

HOWARD SOIL SURVEY MAP NUMBER 30

LEGEND

- 1 — STUDY POINT
- A → B — TIME OF CONCENTRATION PATH
- DRAINAGE DIVIDE
- AREA (AC, SM) / RCN — A-1 — ZONING / % IMPERV. — DRAINAGE AREA DESIGNATION
- SOIL BOUNDARY

NOTES:

1. RCN IS BASED ON CURRENT LAND USE, NOT CURRENT ZONING.

0 200 400
SCALE: 1" = 200'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07
CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07
CHIEF, BUREAU OF HIGHWAYS — DATE 3/3/17

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HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS DOSS — NO. 21616 — REGISTERED PROFESSIONAL ENGINEER — 3/27/07

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06	BY	NO.	REVISION	DATE

DRAINAGE AREA MAP - PRE-DEVELOPMENT

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE

SHEET 31 OF 74

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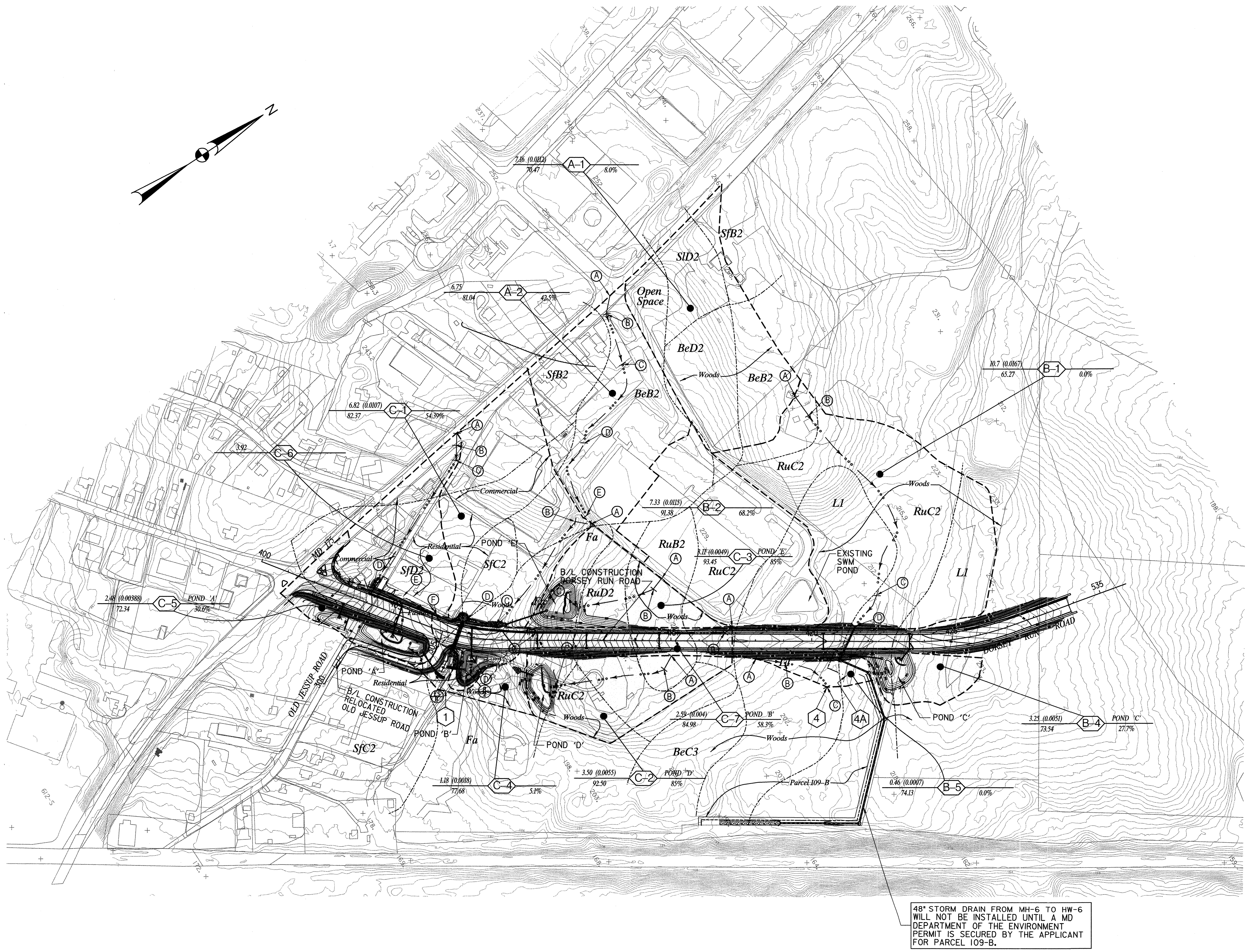
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRCUTION. SOIL EROSION AND SEDIMENT CONTROL.

USDA-NATURAL RESOURCES CONSERVATION SERVICE 9/30/07 DATE

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

HOWARD SCD 9/30/07 DATE



LEGEND

- STUDY POINT
- TIME OF CONCENTRATION PATH
- DRAINAGE DIVIDE
- AREA (AC, SM) / RCN — A-1 — % IMPERV. — DRAINAGE AREA DESIGNATION
- SOIL BOUNDARY

NOTES:

1. REFER TO 'DRAINAGE AREA MAP - PRE-DEVELOPMENT' FOR SOIL CHART.
2. RCN IS BASED ON CURRENT LAND USE, NOT CURRENT ZONING.

0 200 400

SCALE: 1" = 200'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS 3/29/07 DATE

CHIEF, BUREAU OF ENGINEERING 3/29/07 DATE

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS 3/27/07 DATE

CHIEF, BUREAU OF HIGHWAYS 3/30/07 DATE

PREPARED BY

URS

4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

DRAINAGE AREA MAP - POST-DEVELOPMENT

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION MD 175 TO DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND

CAPITAL PROJECT J-4148-C

SCALE

SHEET 32 OF 74

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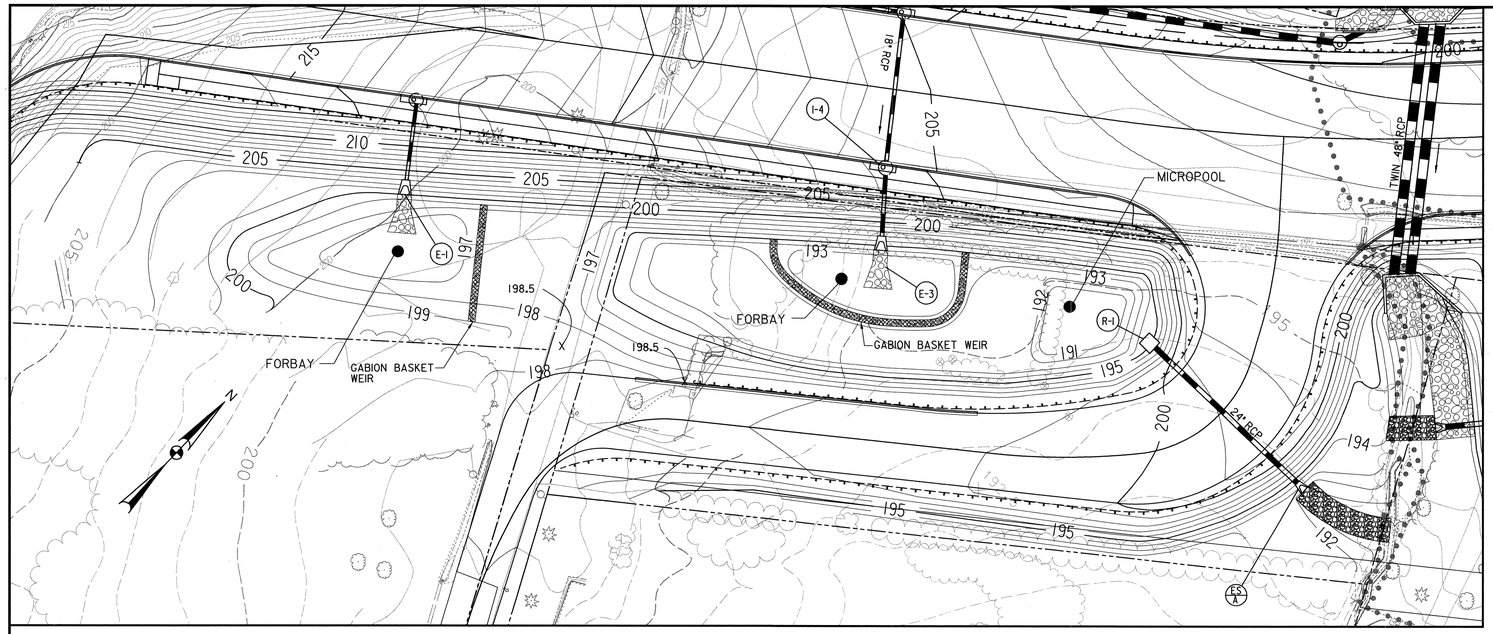


PLAN – POND A

SCALE: 1" = 30'

BMP DATA SUMMARY	
ADDRESS	HOWARD COUNTY, MD
MD COORDINATES (NAD83)	NORTH (542,069.0000) EAST (1,375,660.0000)
ADC MAP/GRID	20/K4
STRUCTURE TYPE	EXTENDED-DETENTION (MICROPOOL/FOREBAY)
MOP LAND USE	HIGHWAY
STRUCTURE DRAINAGE AREA	2.48 ACRES
TOTAL SITE DRAINAGE AREA	ACRES (DISTURBED)
RCN - POST DEVELOPMENT	78.7
ON/OFF SITE SWM	ON SITE STORMWATER MANAGEMENT
OWNER	HOWARD COUNTY DEPT. OF PUBLIC WORKS

STORMWATER MANAGEMENT SUMMARY CHART								
STORM			PROPOSED PEAK INFLOW	PROPOSED PEAK DISCHARGES	PROPOSED POND ELEVATIONS	PROPOSED STORAGE VOLUMES	PROPOSED PEAK DISCHARGES *	PROPOSED POND ELEVATIONS *
YR			CFS	CFS	FT.	AC.-FT.	CFS	FT.
1			6.94	0.2	194.68	0.314	3.48	196.40
2			10.38	0.25	195.41	0.493	5.65	196.58
10			22.46	4.23	196.45	0.774	14.05	197.08
100			36.62	17.55	197.23	1.042	23.27	197.52

*LOW FLOW ORIFICE IN CLOGGED CONDITION

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) — Date: 3/27/2007

DAVID T. MORICONI

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." 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.

(Signature of Developer (print name below signature)) — Date: 4/26/07

Ronald G. Lapsan

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.

USDA – Natural Resources Conservation Service — Date: 4/30/07

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard SCD — Date: 4/30/07

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

Signature _____ PE No. _____

Date _____

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07 (Acting)

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07 (Steve Sharar)

CHIEF, BUREAU OF HIGHWAYS — DATE 3/30/07 (Acting)

PREPARED BY

URS

4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — REGISTERED PROFESSIONAL ENGINEER — 3/27/2007

DES: CMC			
DRN: SYC/CDF			
CHK: DTM			
DATE: 10/06	BY	NO.	REVISION

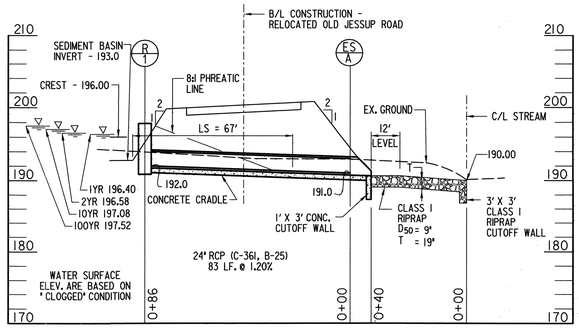
STORMWATER MANAGEMENT
POND 'A' (SED. BASIN NO. 3) DETAILS

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 – JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE: AS SHOWN

SHEET 33 OF 74

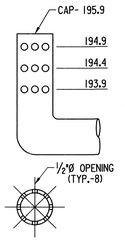


PROFILE ALONG PRINCIPAL SPILLWAY – POND A

SCALE: HORIZ: 1" = 30'
VERT: 1" = 10'

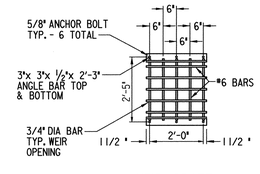
GENERAL NOTES

1. FOR OPERATION AND MAINTENANCE SCHEDULE, SEE BELOW.

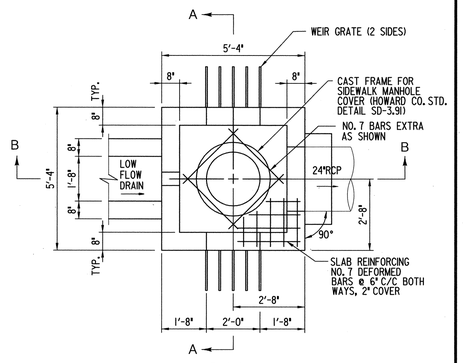


PERFORATED LOW FLOW PIPE

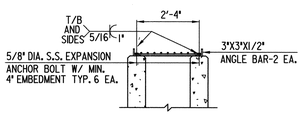
N.T.S.



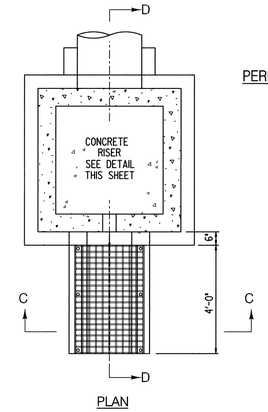
WEIR GRATE



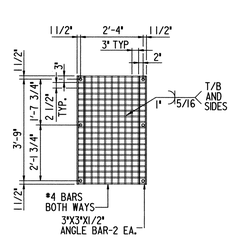
PLAN



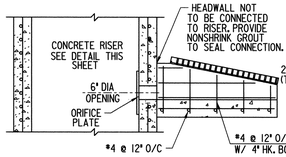
ELEVATION



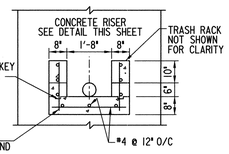
PLAN



TRASH RACK PLAN



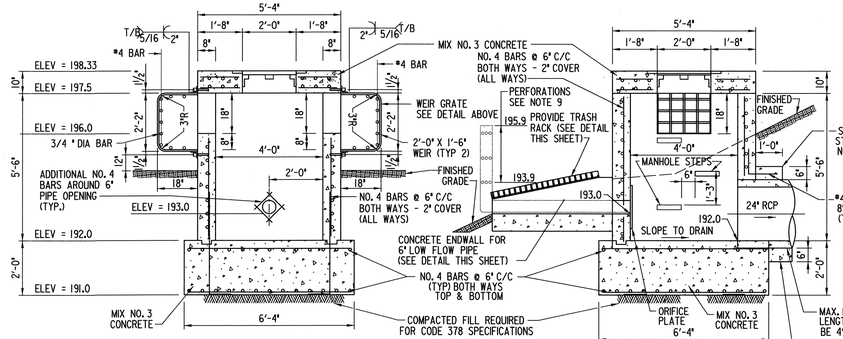
SECTION D–D



SECTION C–C

TRASH RACK DETAIL

3/8" = 1'-0"



SECTION A–A

SECTION B–B

RISER DETAIL R-1

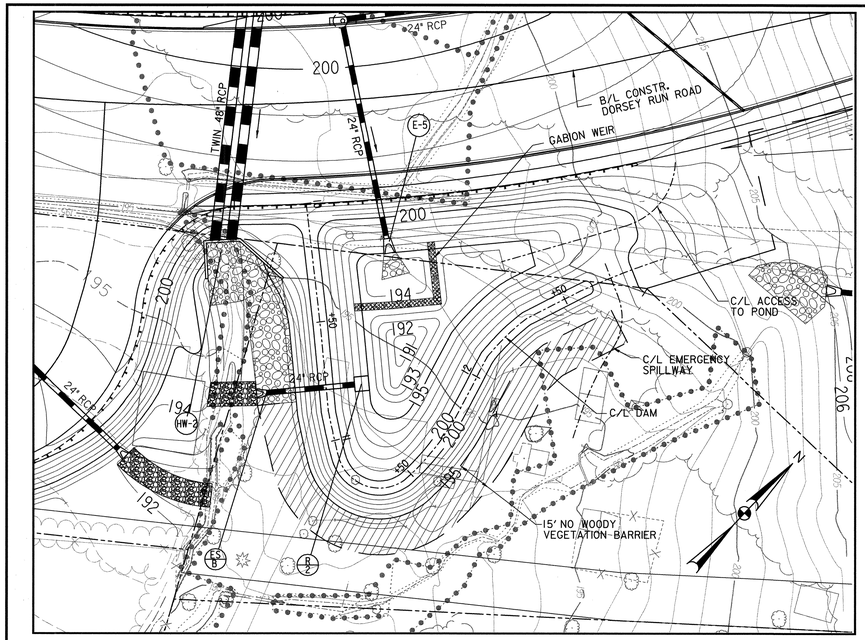
3/8" = 1'-0"

CONCRETE STRUCTURAL NOTES

1. CONCRETE CONSTRUCTION SHALL BE DESIGNED, REINFORCED AND CONSTRUCTED IN ACCORDANCE WITH ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
2. CONCRETE SHOWN HEREON SHALL BE 3000 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH UNLESS OTHERWISE NOTED.
3. REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A615, GRADE 60.
4. CONCRETE EXPOSED TO WEATHER SHALL HAVE 5% MINIMUM ENTRAINED AIR.
5. CONTRACTOR MAY (AT HIS OWN OPTION) FURNISH THESE STRUCTURES AS A PRECAST UNIT, PROVIDED THAT SHOP DRAWINGS OF THE PRECAST STRUCTURE ARE SUBMITTED TO, AND APPROVED BY THE ENGINEER-IN-CHARGE, PRIOR TO CONSTRUCTION.
6. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4-INCH.
7. TRASH RACK & WEIR GRATING ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION AND PAINTED W/2 COATS OF BATTLESHIP GRAY PAINT.
8. IF RISER IS PRECAST, PROVIDE A WATERTIGHT COLLAR AT BARREL PIPE CONNECTION TO RISER. IF RISER IS CAST-IN-PLACE, CAST WALLS DIRECTLY AROUND BARREL PIPE TO FORM A WATERTIGHT SEAL.
9. INSTALL LOW FLOW DEWATERING DEVICE WHILE POND SERVES AS A SEDIMENT BASIN. THE PERFORATED SECTION SHALL BE WRAPPED IN HARDWARE CLOTH AND CLASS C GEOTEXTILE.

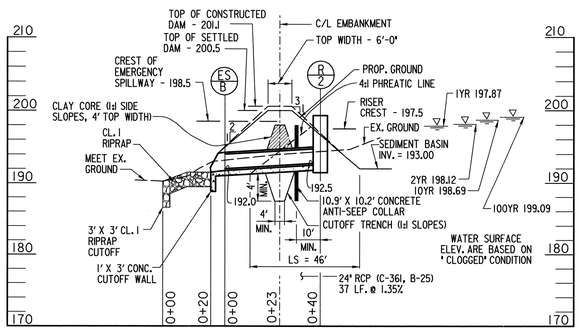
0:\20829544\CAD\draft\SW01drr.dgn

3/27/2007 3:57:09 PM Fleming



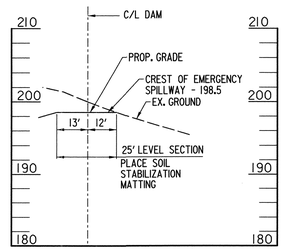
PLAN – POND B

SCALE: 1" = 30'



PROFILE ALONG PRINCIPAL SPILLWAY – POND B

SCALE: HORIZ: 1" = 30'
VERT: 1" = 10'

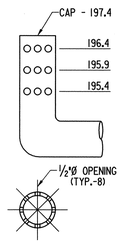


PROFILE – EMERGENCY SPILLWAY – POND B

SCALE: HORIZ: 1" = 30'
VERT: 1" = 10'

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY. IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.



PERFORATED LOW FLOW PIPE

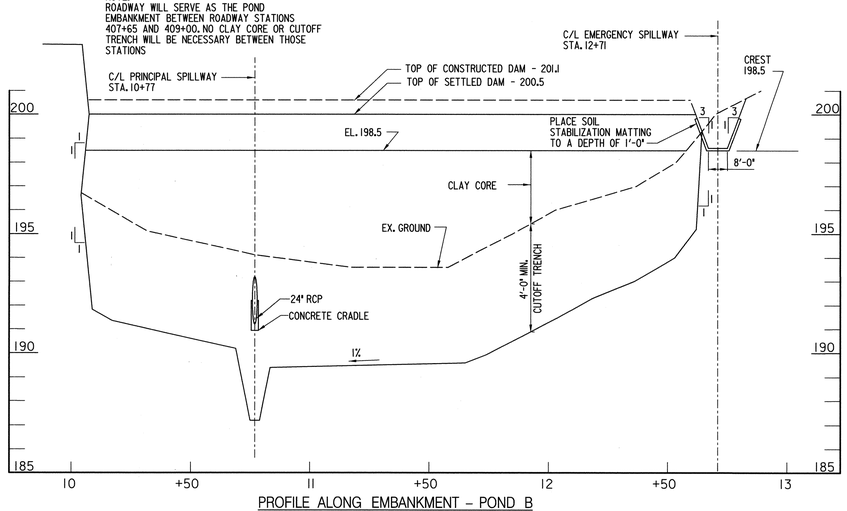
N.T.S.

BMP DATA SUMMARY	
ADDRESS	HOWARD COUNTY, MD
MD COORDINATES (NAD83)	NORTH (542,160.0000) EAST (1,375,800.0000)
ADC MAP/GRID	207/K4
STRUCTURE TYPE	EXTENDED-DETENTION (MICROPOOL/FOREBAY)
MOP LAND USE	HIGHWAY
STRUCTURE DRAINAGE AREA	4.71 ACRES
TOTAL SITE DRAINAGE AREA	ACRES (DISTURBED)
RCN - POST DEVELOPMENT	72.10
ON/OFF SITE SWM	ON SITE STORMWATER MANAGEMENT
OWNER	HOWARD COUNTY DEPT. OF PUBLIC WORKS

STORMWATER MANAGEMENT SUMMARY CHART								
STORM			PROPOSED PEAK INFLOW	PROPOSED PEAK DISCHARGES	PROPOSED POND ELEVATIONS	PROPOSED STORAGE VOLUMES	PROPOSED PEAK DISCHARGES *	PROPOSED POND ELEVATIONS *
YR			CFS	CFS	FT.	AC.-FT.	CFS	FT.
1			3.97	0.2	195.58	0.097	1.60	197.87
2			6.55	0.26	196.63	0.193	3.12	198.12
10			16.15	3.72	198.15	0.38	11.59	198.63
100			27.94	19.19	198.96	0.51	24.25	199.09

*LOW FLOW ORIFICE IN CLOGGED CONDITION

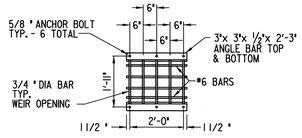
NOTE:
ROADWAY WILL SERVE AS THE POND EMBANKMENT BETWEEN ROADWAY STATIONS 407+65 AND 409+00. NO CLAY CORE OR CUTOFF TRENCH WILL BE NECESSARY BETWEEN THOSE STATIONS



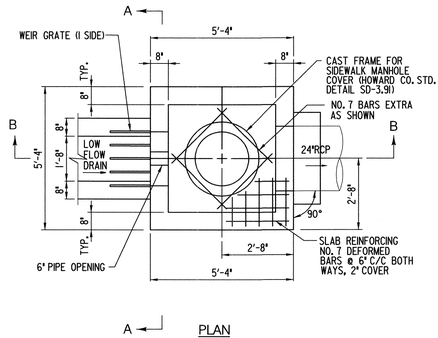
PROFILE ALONG EMBANKMENT – POND B

SCALE: HORIZ: 1" = 30'
VERT: 1" = 3'

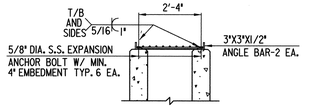
NOTES:
ALL METAL PARTS TO BE GALVANIZED.
BOLTS SHALL BE STAINLESS STEEL.
ALL EXPOSED EDGES TO HAVE ½" CHAMFER



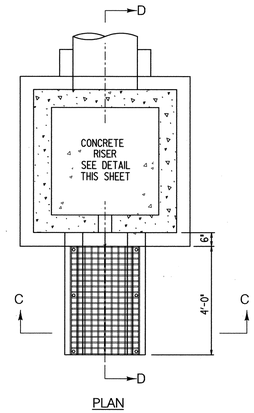
WEIR GRATE



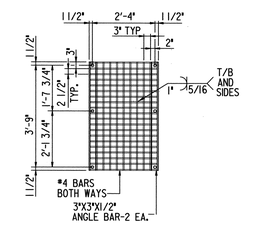
PLAN



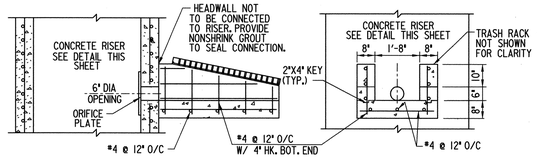
ELEVATION



PLAN



TRASH RACK PLAN

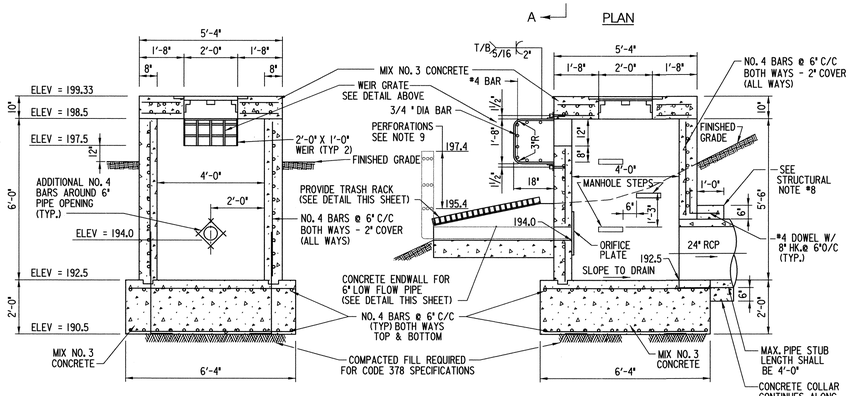


SECTION D–D

SECTION C–C

TRASH RACK DETAIL

3/8" = 1'-0"



RISER DETAIL (R-2)

3/8" = 1'-0"

CONCRETE STRUCTURAL NOTES

1. CONCRETE CONSTRUCTION SHALL BE DESIGNED, REINFORCED AND CONSTRUCTED IN ACCORDANCE WITH ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
2. CONCRETE SHOWN HEREON SHALL BE 3000 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH UNLESS OTHERWISE NOTED.
3. REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A615, GRADE 60.
4. CONCRETE EXPOSED TO WEATHER SHALL HAVE 5% MINIMUM ENTRAINED AIR.
5. CONTRACTOR MAY (AT HIS OWN OPTION) FURNISH THESE STRUCTURES AS A PRECAST UNIT, PROVIDED THAT SHOP DRAWINGS OF THE PRECAST STRUCTURE ARE SUBMITTED TO, AND APPROVED BY THE ENGINEER-IN-CHARGE, PRIOR TO CONSTRUCTION.
6. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4-INCH.
7. TRASH RACK & WEIR GRATING ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION AND PAINTED W/2 COATS OF BATTLESHIP GRAY PAINT.
8. IF RISER IS PRECAST, PROVIDE A WATERTIGHT COLLAR AT BARREL PIPE CONNECTION TO RISER. IF RISER IS CAST-IN-PLACE, CAST WALLS DIRECTLY AROUND BARREL PIPE TO FORM A WATERTIGHT SEAL.
9. INSTALL LOW FLOW DEWATERING DEVICE WHILE POND SERVES AS A SEDIMENT BASIN. THE PERFORATED SECTION SHALL BE WRAPPED IN HARDWARE CLOTH AND CLASS C GEOTEXTILE.

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORICONI — Date 3/27/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." 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.

Signature of Developer (print name below signature) Ronald G. Lapson — Date 4/26/07

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.

USDA – Natural Resources Conservation Service — Date: 4/30/07

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard SCD — Date 4/30/07

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

Signature — PE No. — Date

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Sharar — DATE 3/27/07

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

CHIEF, BUREAU OF HIGHWAYS — ACTING — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — REGISTERED PROFESSIONAL ENGINEER — 3/27/2007

DES: CMC	
DRN: SYC/CDF	
CHK: DTM	
DATE: 10/06	

BY	NO.	REVISION	DATE

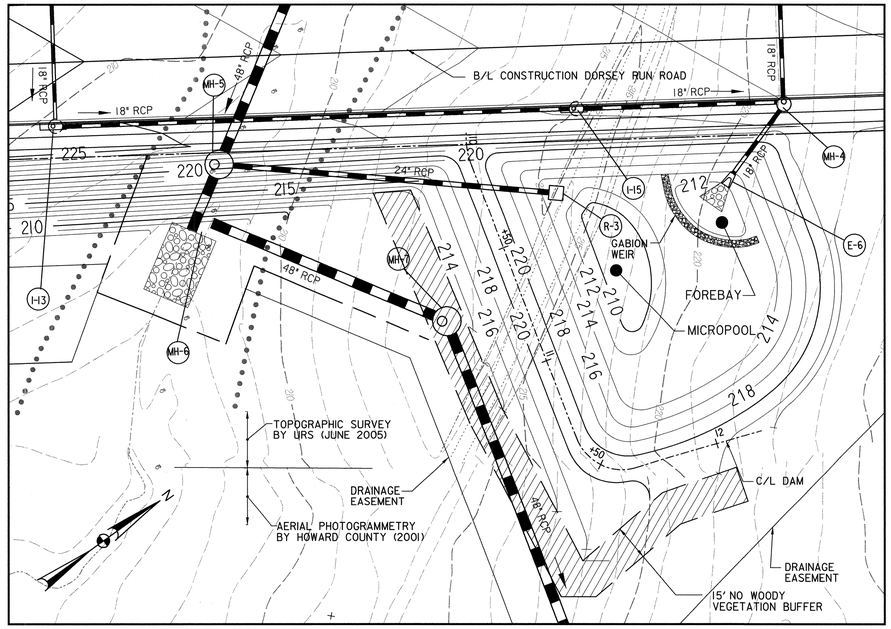
STORMWATER MANAGEMENT
POND 'B' (SED. BASIN NO. 1) DETAILS

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 – JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

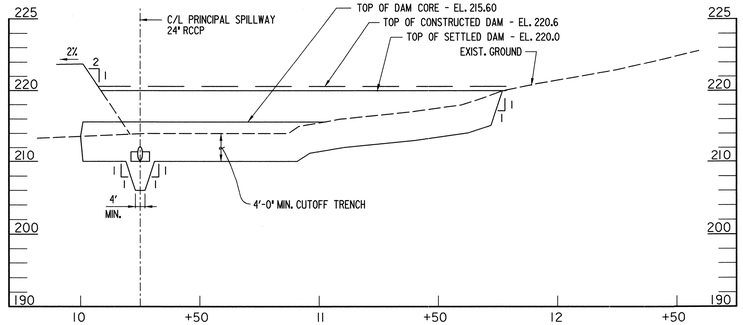
SCALE AS SHOWN

SHEET 34 OF 74



PLAN – POND C

SCALE: 1" = 30'



PROFILE ALONG DAM – POND C

SCALE: HORIZ: 1" = 30'
VERT: 1" = 10'

GENERAL NOTES

1. FOR OPERATION AND MAINTENANCE SCHEDULE, SEE BELOW.
2. THE CONTRACTOR SHALL REMOVE ALL WOODY VEGETATION WITHIN THE 20' BUFFER NOTED ON PLAN.

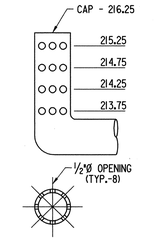
OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

BMP DATA SUMMARY	
ADDRESS	HOWARD COUNTY, MD
MD COORDINATES (NAD83)	NORTH (543,353.0000) EAST (1,376,578.0000)
ADC MAP/GRID	20/K4
STRUCTURE TYPE	EXTENDED-DETENTION (MICROPOOL/FOREBAY)
MOP LAND USE	HIGHWAY
STRUCTURE DRAINAGE AREA	3.25 ACRES
TOTAL SITE DRAINAGE AREA	ACRES (DISTURBED)
RCN - POST DEVELOPMENT	73.5
ON/OFF SITE SWM	ON SITE STORMWATER MANAGEMENT
OWNER	HOWARD COUNTY DEPT. OF PUBLIC WORKS

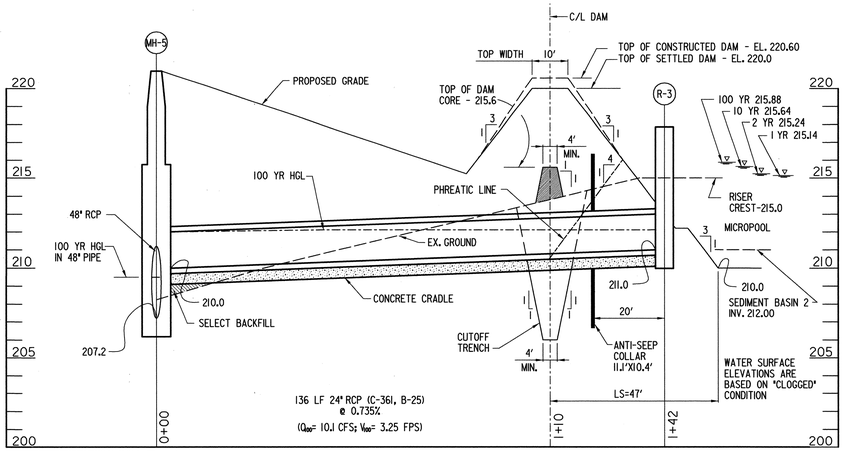
STORMWATER MANAGEMENT SUMMARY CHART							
STORM		PROPOSED PEAK INFLOW	PROPOSED PEAK DISCHARGES	PROPOSED POND ELEVATIONS	PROPOSED STORAGE VOLUMES	PROPOSED PEAK DISCHARGES *	PROPOSED POND ELEVATIONS *
YR		CFS	CFS	FT.	AC.-FT.	CFS	FT.
1		3.06	0.24	213.19	0.07	1.88	215.14
2		4.91	0.30	213.70	0.13	3.12	215.24
10		11.70	1.01	215.05	0.34	9.95	215.64
100		19.92	9.94	215.62	0.44	15.60	215.88

*LOW FLOW ORIFICE IN CLOGGED CONDITION



PERFORATED LOW FLOW PIPE

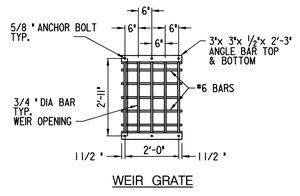
N.T.S.



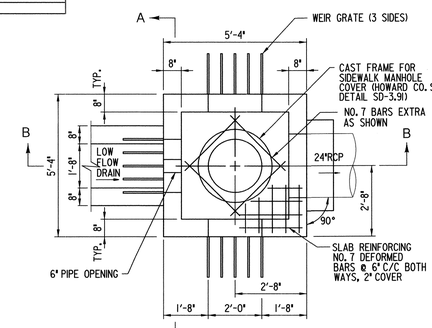
PROFILE ALONG PRINCIPAL SPILLWAY – POND C

SCALE: HORIZ: 1" = 20'
VERT: 1" = 4'

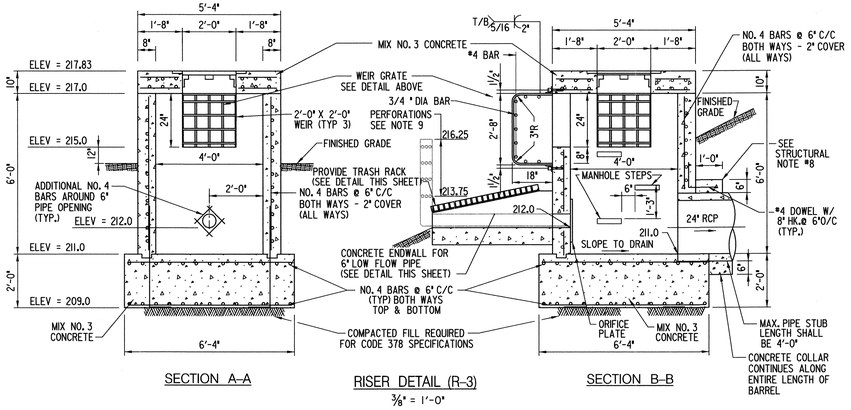
NOTES:
ALL METAL PARTS TO BE GALVANIZED.
BOLTS SHALL BE STAINLESS STEEL.
ALL EXPOSED EDGES TO HAVE ½" CHAMFER



WEIR GRATE

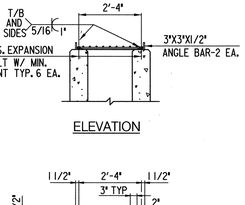


PLAN

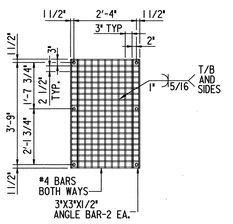


SECTION A–A | RISER DETAIL (R-3) | SECTION B–B

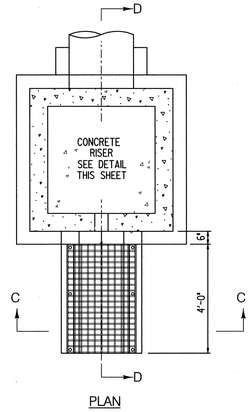
3/8" = 1'-0"



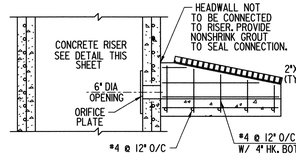
ELEVATION



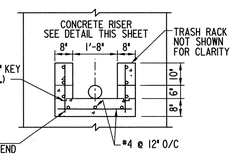
TRASH RACK PLAN



PLAN



SECTION D–D



SECTION C–C

TRASH RACK DETAIL

3/8" = 1'-0"

CONCRETE STRUCTURAL NOTES

1. CONCRETE CONSTRUCTION SHALL BE DESIGNED, REINFORCED AND CONSTRUCTED IN ACCORDANCE WITH ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
2. CONCRETE SHOWN HEREON SHALL BE 3000 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH UNLESS OTHERWISE NOTED.
3. REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A615, GRADE 60.
4. CONCRETE EXPOSED TO WEATHER SHALL HAVE 5% MINIMUM ENTRAINED AIR.
5. CONTRACTOR MAY (AT HIS OWN OPTION) FURNISH THESE STRUCTURES AS A PRECAST UNIT, PROVIDED THAT SHOP DRAWINGS OF THE PRECAST STRUCTURE ARE SUBMITTED TO, AND APPROVED BY THE ENGINEER-IN-CHARGE, PRIOR TO CONSTRUCTION.
6. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4-INCH.
7. TRASH RACK & WEIR GRATING ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION AND PAINTED W/2 COATS OF BATTLESHIP GRAY PAINT.
8. IF RISER IS PRECAST, PROVIDE A WATERTIGHT COLLAR AT BARREL PIPE CONNECTION TO RISER. IF RISER IS CAST-IN-PLACE, CAST WALLS DIRECTLY AROUND BARREL PIPE TO FORM A WATERTIGHT SEAL.
9. INSTALL LOW FLOW DEWATERING DEVICE WHILE POND SERVES AS A SEDIMENT BASIN. THE PERFORATED SECTION SHALL BE WRAPPED IN HARDWARE CLOTH AND CLASS C GEOTEXTILE.

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) — DAVID T. HOCKLEY — Date: 3/27/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." 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.

Signature of Developer (print name below signature) — Ronald G. Lepson — Date: 4/26/07

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.

USDA – Natural Resources Conservation Service — Date: 4/30/07

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard SCD — Date: 4/30/07

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

Signature — PE No. — Date

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — Acting — DATE 3/29/07

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Shaver — DATE 3/27/07

CHIEF, BUREAU OF HIGHWAYS — Acting — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS HOCKLEY — REGISTERED PROFESSIONAL ENGINEER — 3/27/07

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06	BY	NO.	REVISION	DATE

STORMWATER MANAGEMENT
POND 'C' (SED. BASIN NO. 2) DETAILS

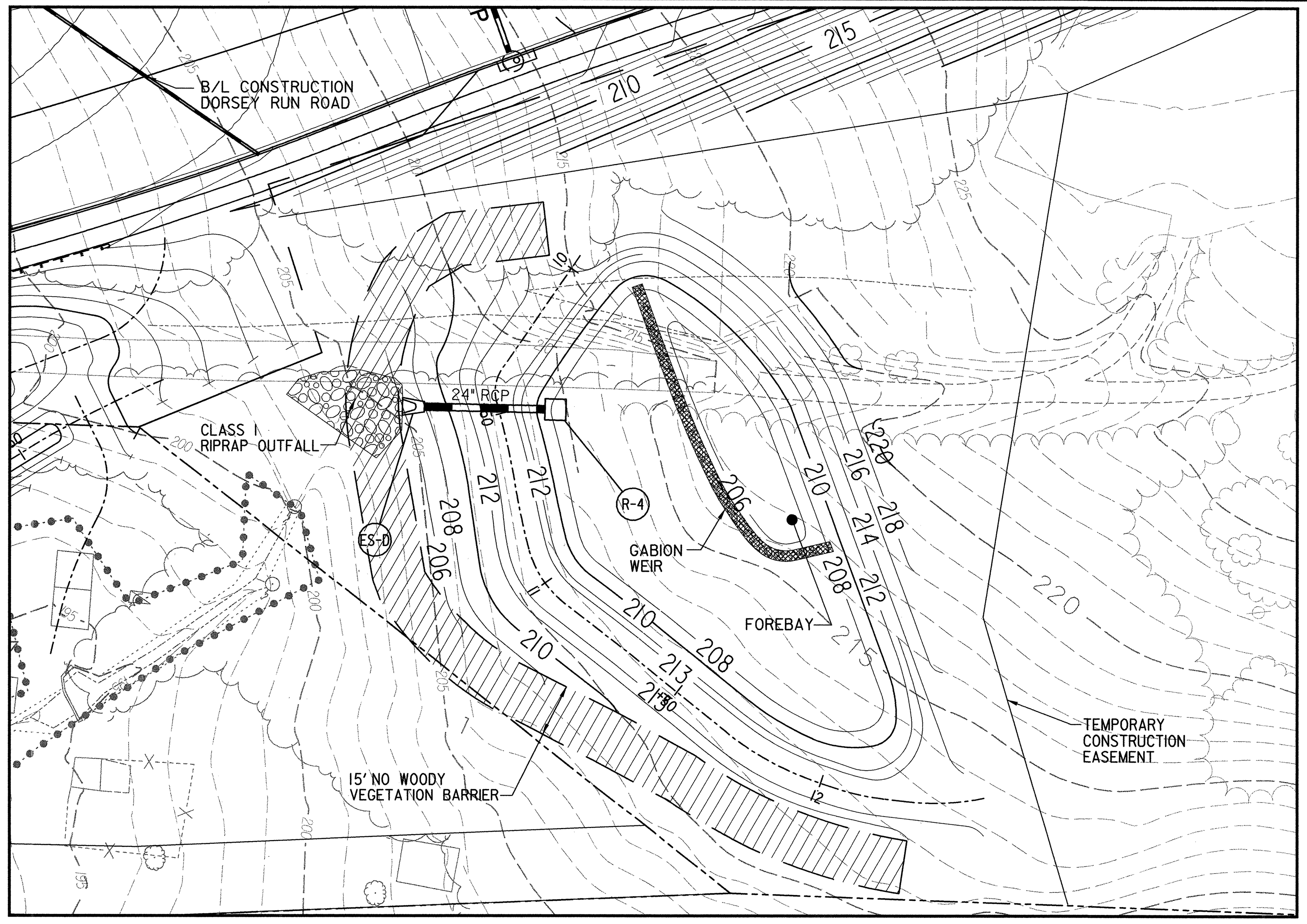
SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 – JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

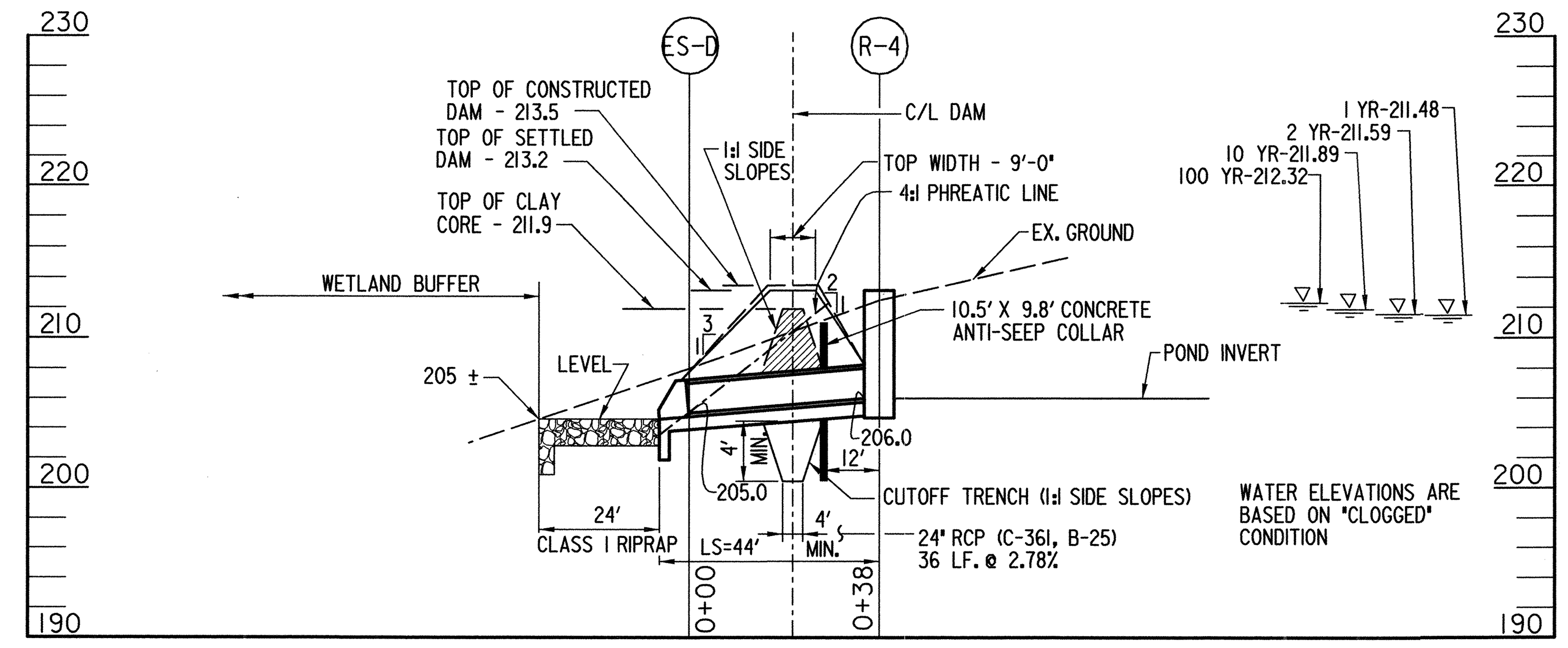
SCALE AS SHOWN

SHEET 35 OF 74

O:\20829544\CAD\draft\SW03drr.dgn 3/27/2007 6:37:22 PM Fleming



PLAN - POND D
SCALE: 1" = 30'



PROFILE ALONG PRINCIPAL SPILLWAY - POND D
SCALE: HORIZ: 1" = 30'
VERT: 1" = 10'

BMP DATA SUMMARY	
ADDRESS	HOWARD COUNTY, MD
MD COORDINATES (NAD83)	NORTH (542,349.0000) EAST (1,375,948.0000)
ADC MAP/GRID	20/K4
STRUCTURE TYPE	EXTENDED-DETENTION (MICROPOOL/FOREBAY)
MOP LAND USE	HIGHWAY
STRUCTURE DRAINAGE AREA	3.5 ACRES
TOTAL SITE DRAINAGE AREA	ACRES (DISTURBED)
RCN - POST DEVELOPMENT	92.5
ON/OFF SITE SWM	ON SITE STORMWATER MANAGEMENT
OWNER	HOWARD COUNTY DEPT. OF PUBLIC WORKS

GENERAL NOTES

1. FOR OPERATION AND MAINTENANCE SCHEDULE, REFER TO SHEET NO. 33.
2. THE CONTRACTOR SHALL REMOVE ALL WOODY VEGETATION WITHIN THE 20' BUFFER NOTED ON PLAN.

OPERATION, MAINTENANCE AND INSPECTION

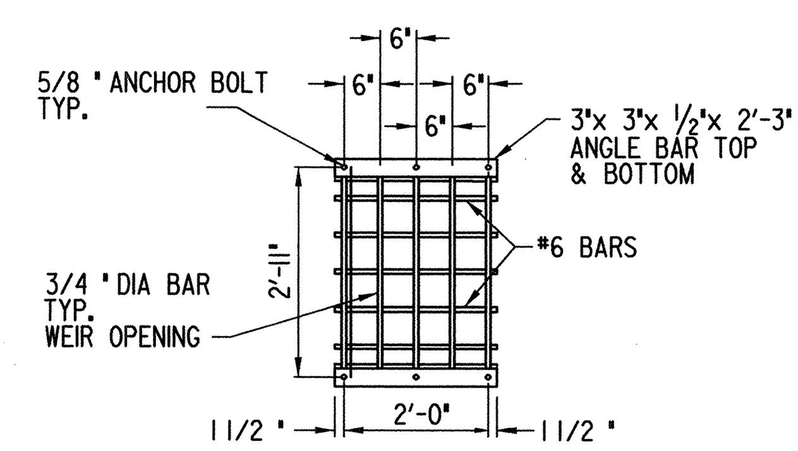
INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

STORMWATER MANAGEMENT SUMMARY CHART

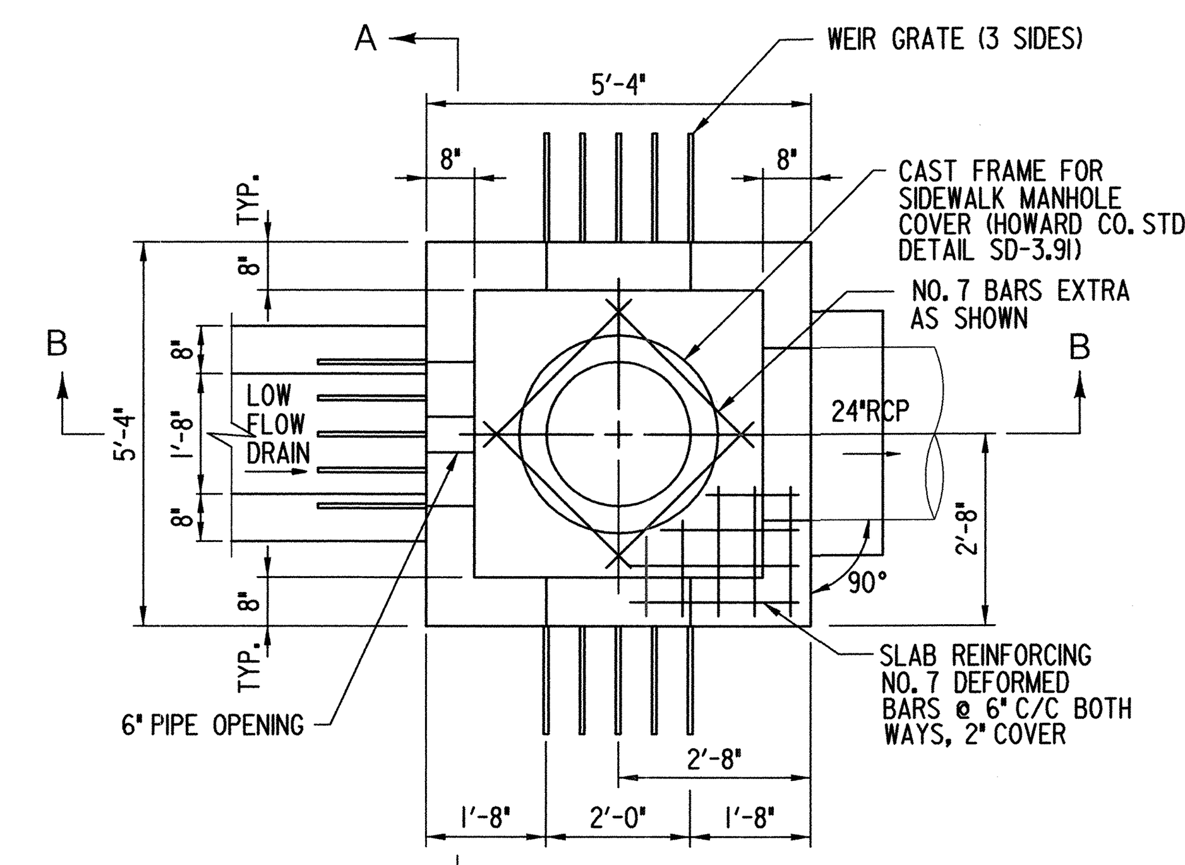
STORM		PROPOSED PEAK INFLOW	PROPOSED PEAK DISCHARGES	PROPOSED POND ELEVATIONS	PROPOSED STORAGE VOLUMES	PROPOSED PEAK DISCHARGES *	PROPOSED POND ELEVATIONS *
YR		CFS	CFS	FT.	AC.-FT.	CFS	FT.
1		9.10	0.63	211.02	0.32	6.30	211.48
2		11.73	3.14	211.21	0.35	8.79	211.59
10		19.95	14.94	211.83	0.47	16.34	211.89
100		28.91	24.27	212.17	0.53	20.59	212.32

*LOW FLOW ORIFICE IN CLOGGED CONDITION

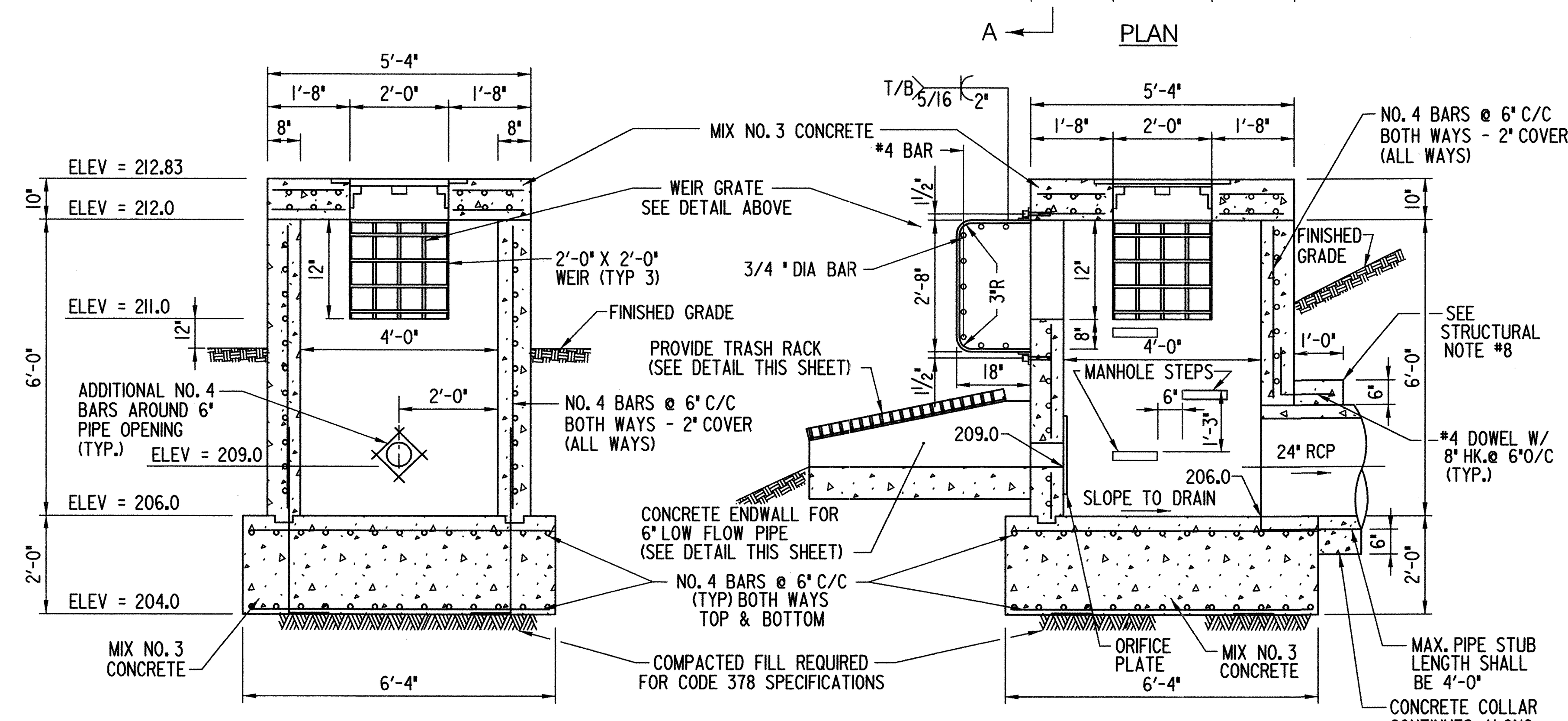
NOTES:
ALL METAL PARTS TO BE GALVANIZED.
BOLTS SHALL BE STAINLESS STEEL.
ALL EXPOSED EDGES TO HAVE 1/2" CHAMFER



WEIR GRATE



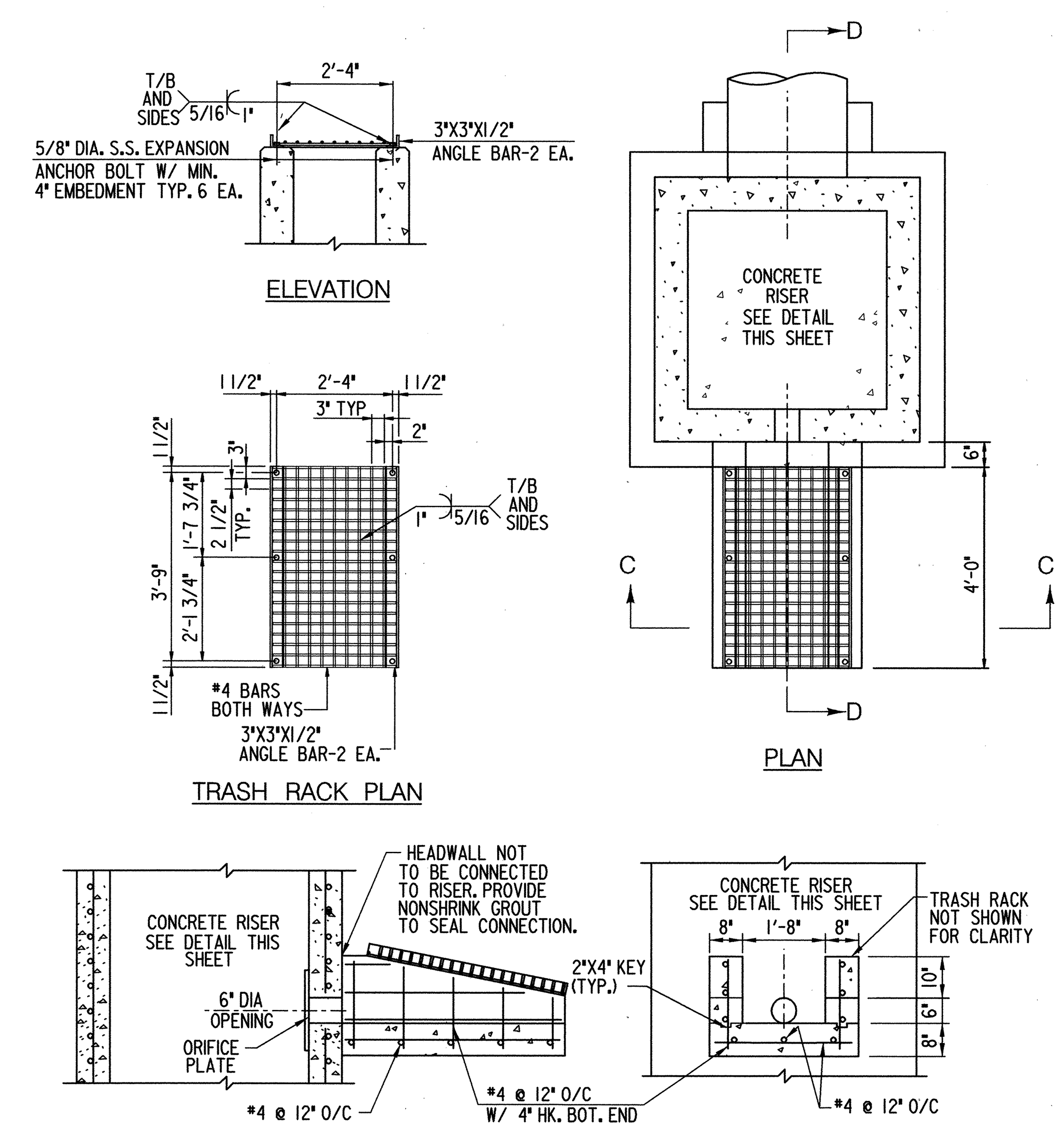
PLAN



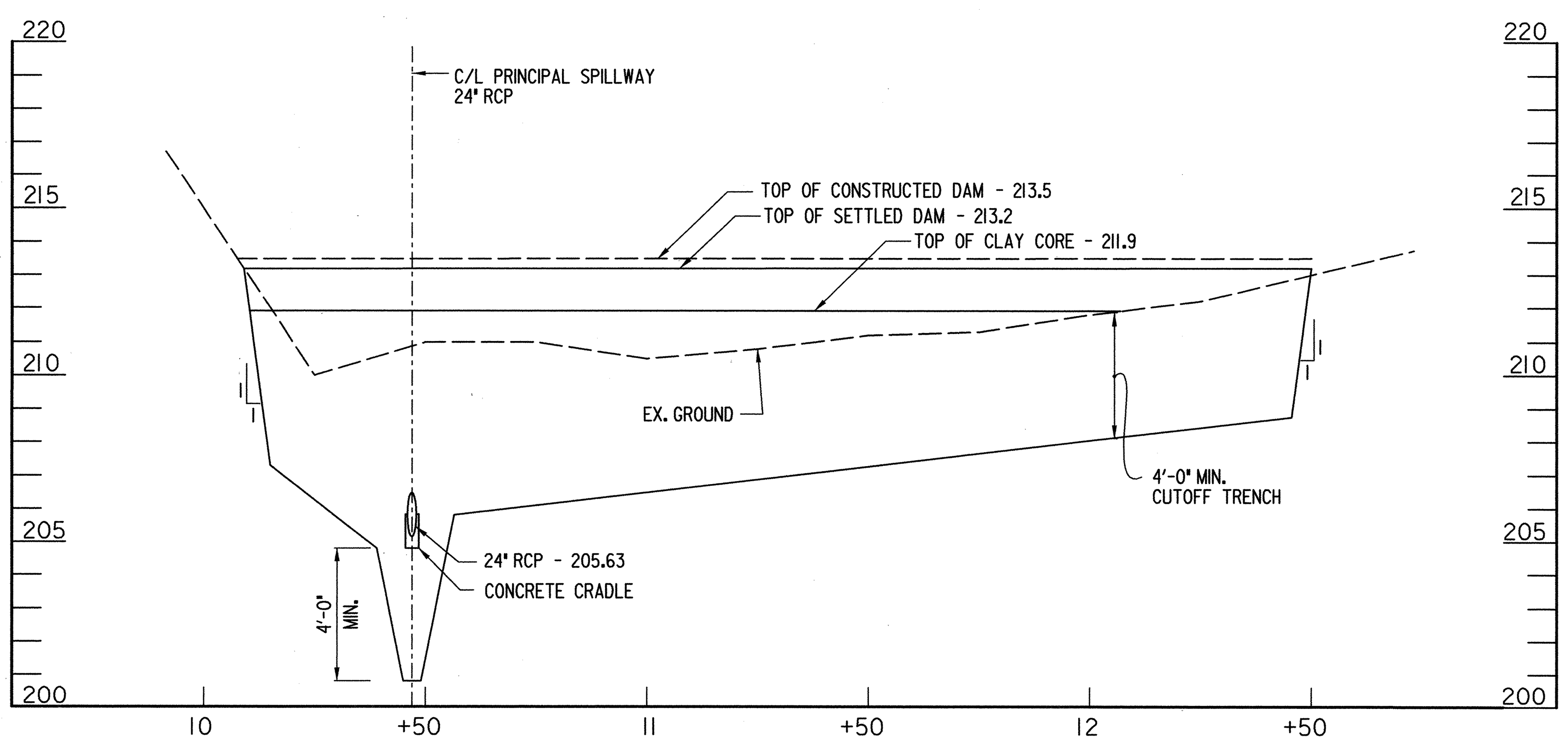
SECTION A-A

RISER DETAIL (R-4)
3/8" = 1'-0"

SECTION B-B



TRASH RACK DETAIL
3/8" = 1'-0"



PROFILE ALONG CENTERLINE OF DAM - POND D
SCALE: HORIZ: 1" = 30'
VERT: 1" = 4'

CONCRETE STRUCTURAL NOTES

1. CONCRETE CONSTRUCTION SHALL BE DESIGNED, REINFORCED AND CONSTRUCTED IN ACCORDANCE WITH ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
2. CONCRETE SHOWN HEREON SHALL BE 3000 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH UNLESS OTHERWISE NOTED.
3. REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A615, GRADE 60.
4. CONCRETE EXPOSED TO WEATHER SHALL HAVE 5% MINIMUM ENTRAINED AIR.
5. CONTRACTOR MAY (AT HIS OWN OPTION) FURNISH THESE STRUCTURES AS A PRECAST UNIT, PROVIDED THAT SHOP DRAWINGS OF THE PRECAST STRUCTURE ARE SUBMITTED TO, AND APPROVED BY THE ENGINEER-IN-CHARGE, PRIOR TO CONSTRUCTION.
6. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4-INCH.
7. TRASH RACK & WEIR GRATING ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION AND PAINTED W/2 COATS OF BATTLESHIP GRAY PAINT.
8. IF RISER IS PRECAST, PROVIDE A WATERTIGHT COLLAR AT BARREL PIPE CONNECTION TO RISER. IF RISER IS CAST-IN-PLACE, CAST WALLS DIRECTLY AROUND BARREL PIPE TO FORM A WATERTIGHT SEAL.

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) — DAVID T. MORICONI — Date 3/27/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." 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.

Signature of Developer (print name below signature) — Ronald G. Lepson — Date 4/26/07

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.

USDA - Natural Resources Conservation Service — Date 4/30/07

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard SCD — Date 4/30/07

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

Signature — PE No. — Date

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS (Acting) — DATE 3/29/07
CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07
Steve Sharar — CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07
CHIEF, BUREAU OF HIGHWAYS (ACTING) — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — REGISTERED PROFESSIONAL ENGINEER — 3/27/2007

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06	BY	NO.	REVISION	DATE

STORMWATER MANAGEMENT
POND 'D' DETAILS

SCALE MAP NO. N/A BLOCK NO.

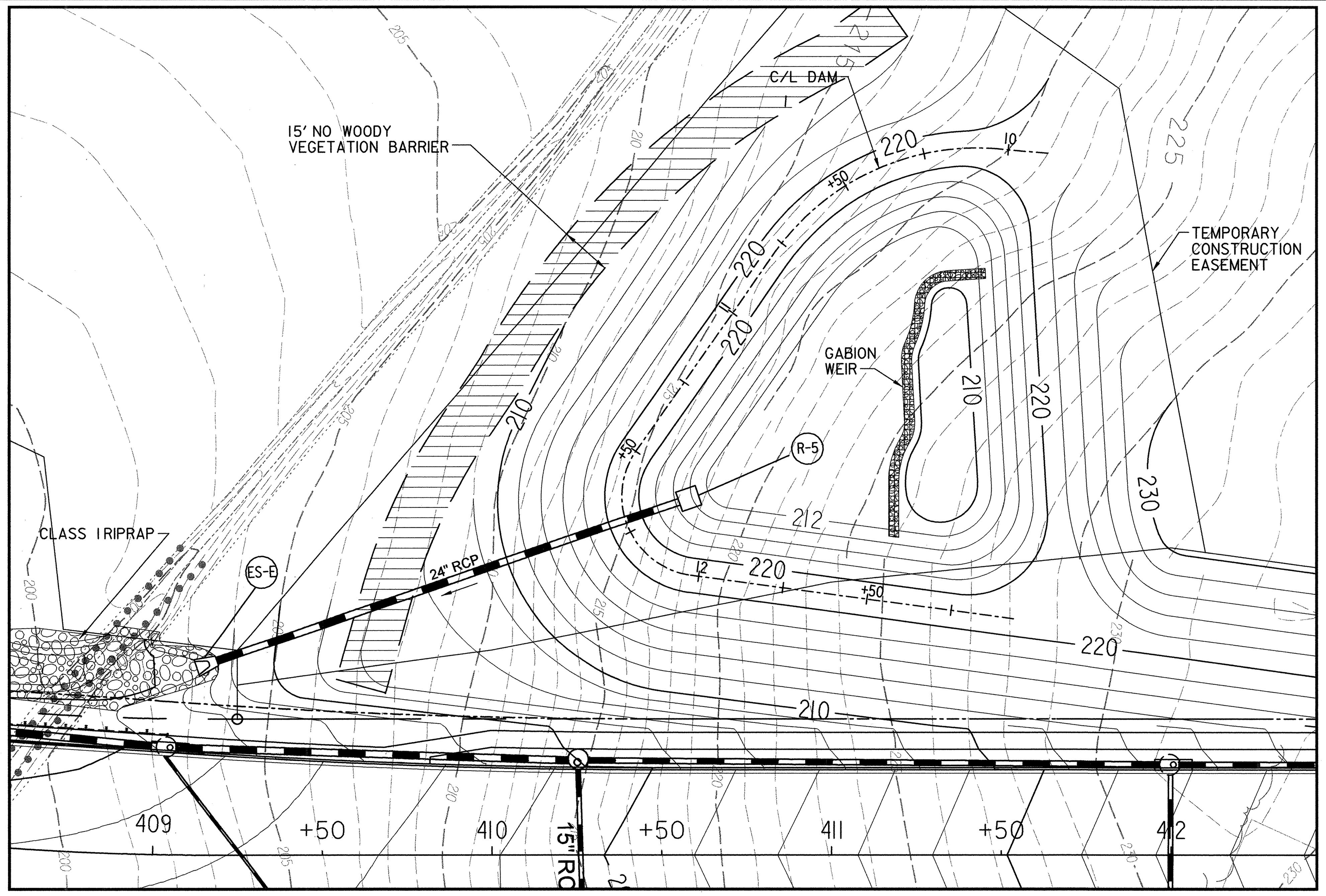
DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE: AS SHOWN

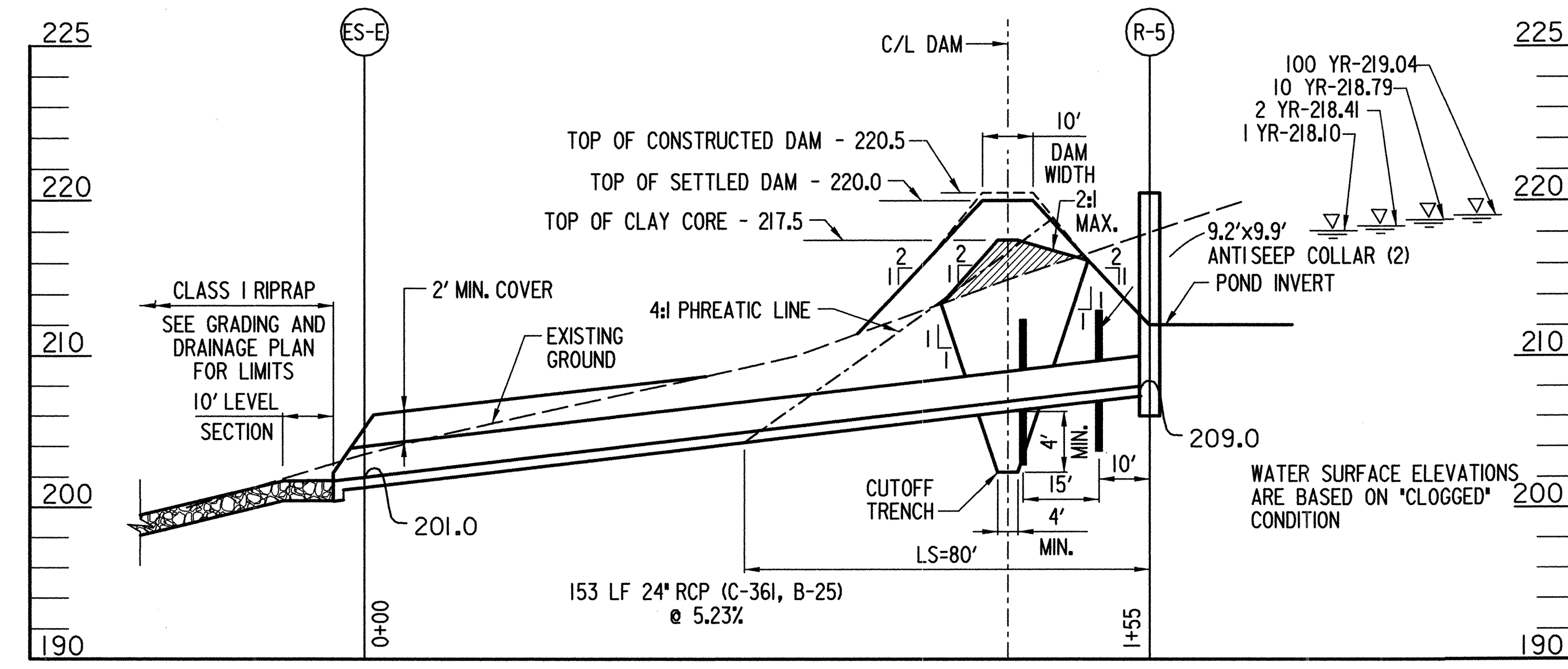
SHEET 36 OF 74

GENERAL NOTES

1. FOR OPERATION AND MAINTENANCE SCHEDULE, SEE BELOW.
2. THE CONTRACTOR SHALL REMOVE ALL WOODY VEGETATION WITHIN THE 20' BUFFER NOTED ON PLAN.



PLAN - POND E
SCALE: 1" = 30'



PROFILE ALONG PRINCIPAL SPILLWAY - POND E
SCALE: HORIZ: 1" = 30'
VERT: 1" = 10'

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

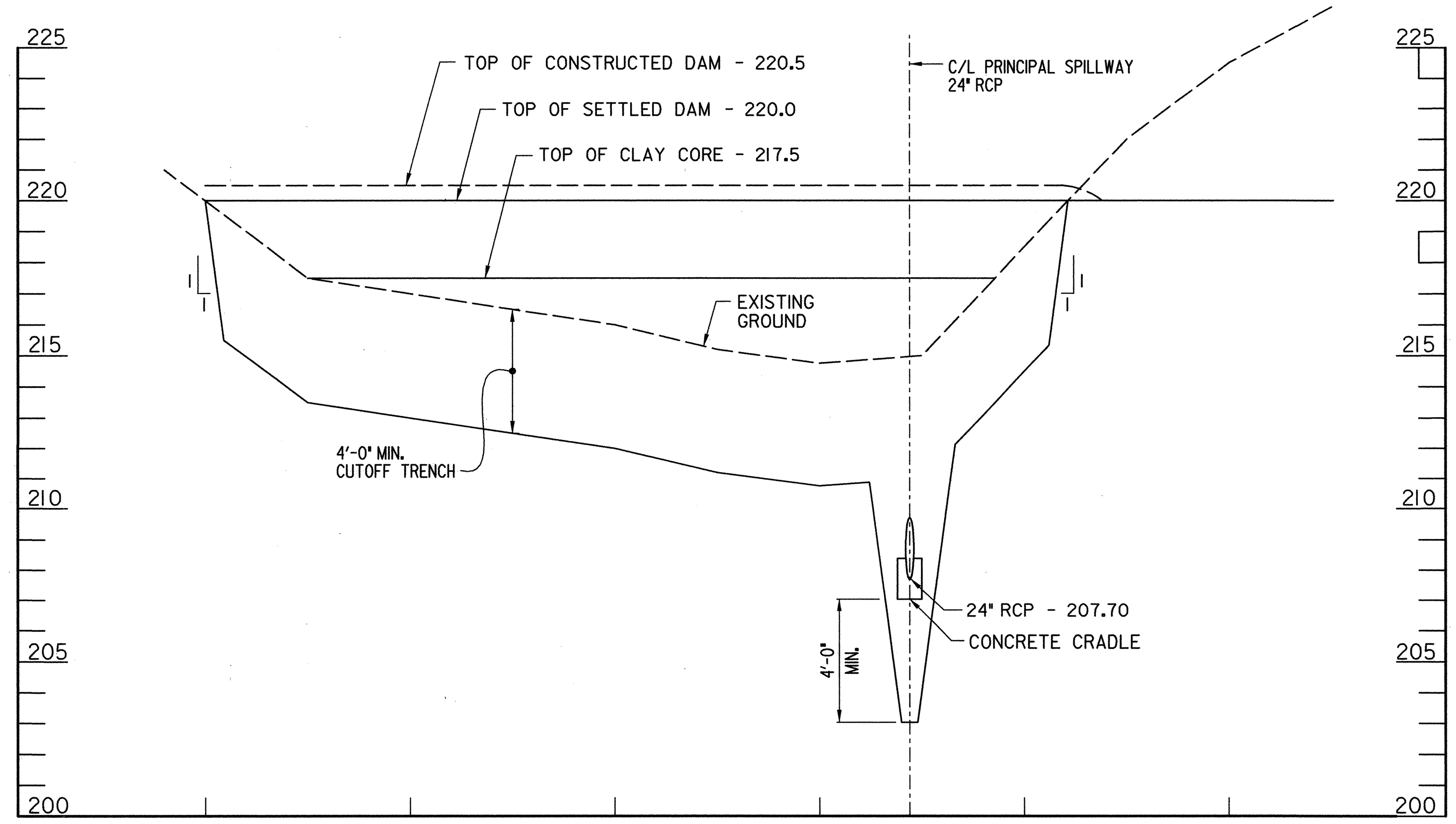
BMP DATA SUMMARY

ADDRESS	HOWARD COUNTY, MD
MD COORDINATES (NAD83)	NORTH (542,518.0000) EAST (1,375,783.0000)
ADC MAP/GRID	20/K4
STRUCTURE TYPE	EXTENDED-DETENTION (MICROPOOL/FOREBAY)
MOP LAND USE	HIGHWAY
STRUCTURE DRAINAGE AREA	3.11 ACRES
TOTAL SITE DRAINAGE AREA	ACRES (DISTURBED)
RCN - POST DEVELOPMENT	93.45
ON/OFF SITE SWM	ON SITE STORMWATER MANAGEMENT
OWNER	HOWARD COUNTY DEPT. OF PUBLIC WORKS

STORMWATER MANAGEMENT SUMMARY CHART

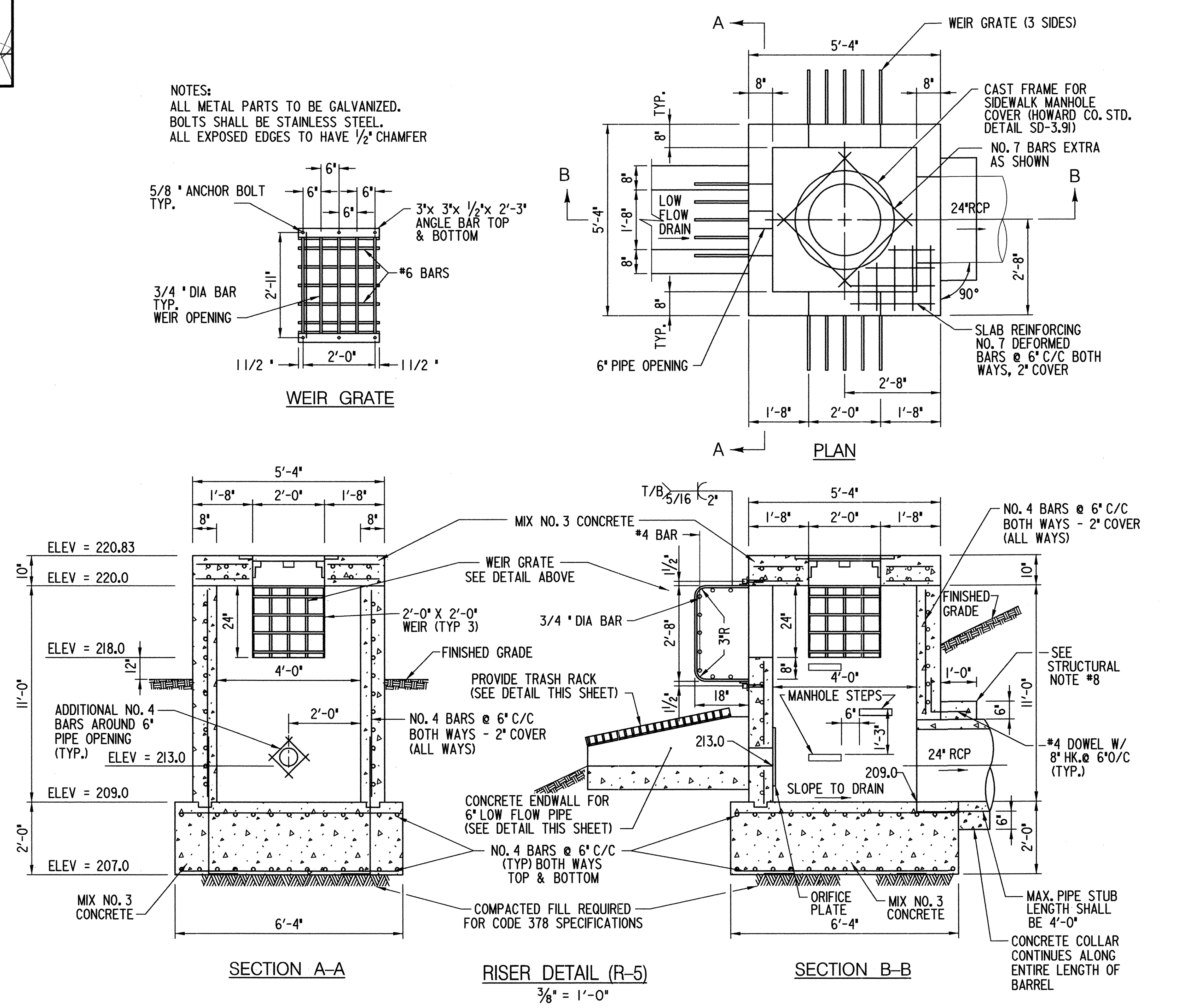
STORM		PROPOSED PEAK INFLOW	PROPOSED PEAK DISCHARGES	PROPOSED POND ELEVATIONS	PROPOSED STORAGE VOLUMES	PROPOSED PEAK DISCHARGES *	PROPOSED POND ELEVATIONS *
YR		CFS	CFS	FT.	AC.-FT.	CFS	FT.
1		8.32	0.32	215.05	0.31	1.35	218.10
2		10.63	0.37	215.65	0.50	5.36	218.41
10		17.86	0.49	217.45	0.75	13.48	218.79
100		25.74	4.66	218.31	0.93	19.99	219.04

*LOW FLOW ORIFICE IN CLOGGED CONDITION

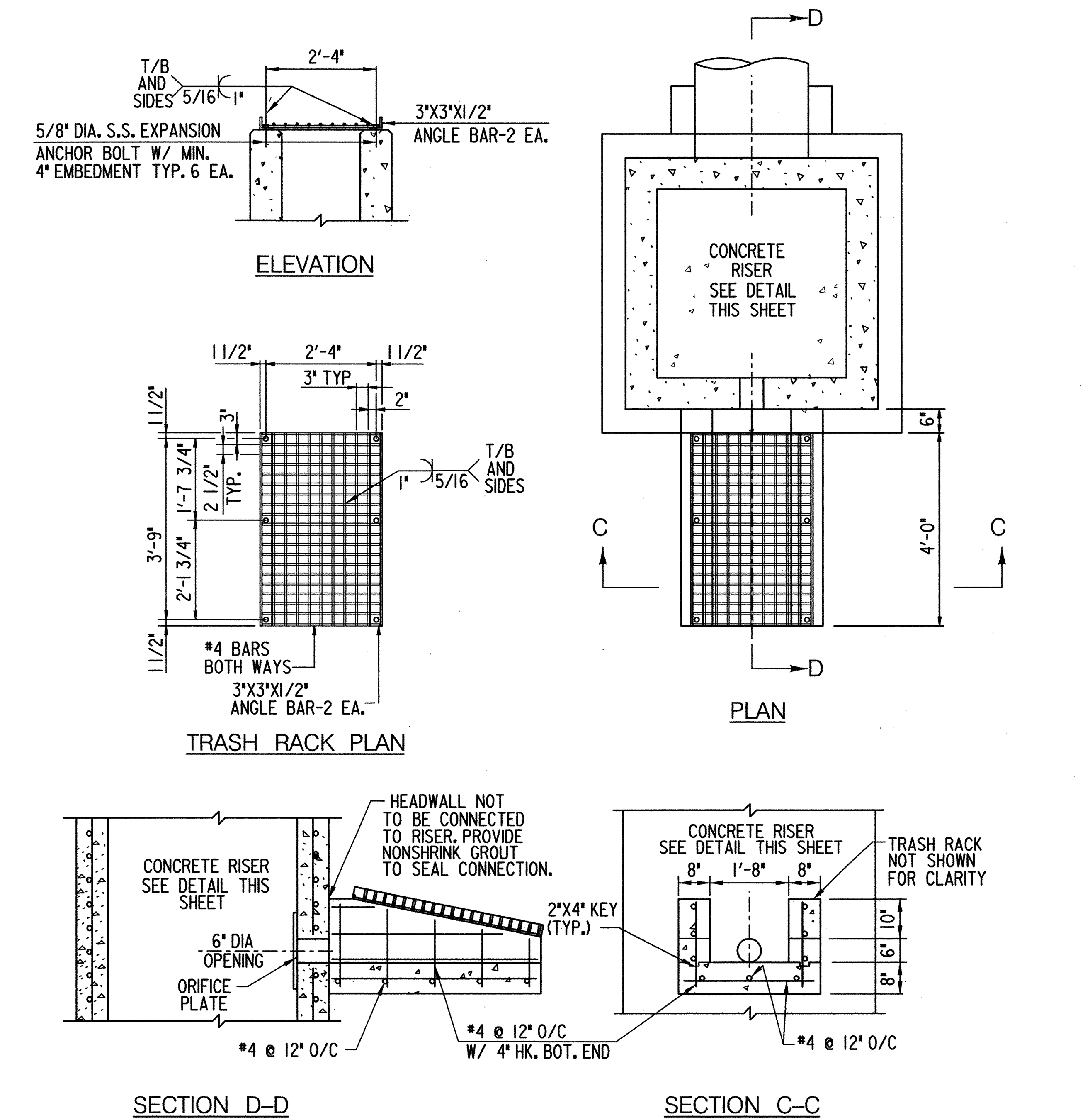


PROFILE ALONG CENTERLINE OF DAM - POND E
SCALE: HORIZ: 1" = 30'
VERT: 1" = 4'

NOTES:
ALL METAL PARTS TO BE GALVANIZED.
BOLTS SHALL BE STAINLESS STEEL.
ALL EXPOSED EDGES TO HAVE 1/2" CHAMFER



WEIR GRATE — PLAN — SECTION A-A — RISER DETAIL (R-5) 3/8" = 1'-0" — SECTION B-B



TRASH RACK DETAIL
3/8" = 1'-0"

CONCRETE STRUCTURAL NOTES

1. CONCRETE CONSTRUCTION SHALL BE DESIGNED, REINFORCED AND CONSTRUCTED IN ACCORDANCE WITH ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
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6. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4-INCH.
7. TRASH RACK & WEIR GRATING ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION AND PAINTED W/2 COATS OF BATTLESHIP GRAY PAINT.
8. IF RISER IS PRECAST, PROVIDE A WATERTIGHT COLLAR AT BARREL PIPE CONNECTION TO RISER. IF RISER IS CAST-IN-PLACE, CAST WALLS DIRECTLY AROUND BARREL PIPE TO FORM A WATERTIGHT SEAL.

ENGINEER'S CERTIFICATE

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Signature of Engineer (print name below signature) — DAVID T. MORICONI — Date 3/27/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." 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.

Signature of Developer (print name below signature) — Ronald G. Lepson — Date 4/26/07

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.

USDA - Natural Resources Conservation Service — Date 4/30/07

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard SCD — Date 4/30/07

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

Signature — PE No. — Date

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS (Acting) — DATE 3/29/07
CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Sharar — DATE 3/27/07
CHIEF, BUREAU OF HIGHWAYS (ACTING) — DATE 3/30/07

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

DES: CMC			
DRN: SYC/CDF			
CHK: DTM			
DATE: 10/06	BY	NO.	REVISION	DATE

STORMWATER MANAGEMENT
POND 'E' DETAILS

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 37 OF 74

SWM POND CONSTRUCTION SPECIFICATIONS

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

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish 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 stormwater management ponds, a minimum of a 25 foot radius 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.

Earth Fill

Material -The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised be a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement -Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (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 principal spillway must be installed 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 tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture to yield the required degree of compaction with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it would not crumble, yet not be so wet that water can be squeezed out When required by the reviewing agency the minimum required density 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 is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1:1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10-year water elevation or as shown on the plans. The side slopes shall be 1:1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

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 other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. 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. Structure backfill may be flowable fill meeting the requirements of the Maryland Department of Transportation, State Highway Administration Standard Specifications for construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6"(measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using the flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil 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 shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of a type and quality conforming to that specified for the core of the embankment or other embankment materials.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugate metal pipe:

1. Materials - (Polymer Coated Steel Pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

Materials - (Alumium Pipe)- This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or soil conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the bandwidth. The following type connections are acceptable for pipe less than 24 inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, pre-punched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket; and a 12-inch wide hugger type band with o-ring gaskets having a minimum diameter of 1/2 -inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 24-inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 one each connecting pipe end. A 24-inch wide by 3/8-inch closed cell circular neoprene gasket will be installed with 12 inches on the end of each pipe. Flanged joint is with 3/8 inch closed cell gaskets the full width of the flange is also acceptable. Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

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

5. Backfilling shall conform to "Structure Backfill".

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-Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in concrete bedding cradle for their entire length. This bedding cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle in not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell and end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the 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 riser. be located within 4 feet from the riser.

4. Backfilling shall conform to "Structure Backfill."

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe - All of the following criteria shall apply for plastic pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings, shall conform to the following: 4" - 10" pipe shall meet the requirements of AASHTO M-252 Type S, and 12" through 24" shall meet the requirements of AASHTO M-294 Type S.

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 unstable 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 Backfill".

5. Other details (Anti-seep collars, valves, etc.) shall be as shown on the drawings. Drainage Diaphragms - When a drainage diaphragm is used, registered professional engineer will supervise the design and construction inspection.

SEQUENCE OF CONSTRUCTION AND INSPECTOR'S CHECK-OFF LIST FOR SWM FACILITIES

STAGE	DEVELOPER'S/ENGINEER APPROVAL		INSPECTOR'S APPROVAL	
	INITIALS	DATE	INITIALS	DATE
1. PRE-CONSTRUCTION MEETING. •				
2. SCE, TREE PROTECTION, AND POND EXCAVATION TO THE BOTTOM ELEVATION 231.00				
3. INSTALLATION OF STRUCTURES AND ASSOCIATED STORM DRAINAGE: • A.FOOTING SUBGRADE PRIOR TO POURING. •				
B.FOOTING FORMED AND STEEL SET PRIOR TO POURING. •				
C.STRUCTURE SIDES FORMED AND STEEL SET PRIOR TO POURING. •				
D.PRIOR TO TOP SLAB AND MANHOLES BEING SET ON, INSPECTOR MUST INSPECT ALL CAST-IN-PLACE AND PRE-CAST STRUCTURES FOR PROPER ASSEMBLY. •				
4. SEDIMENT BASIN CONSTRUCTION:• A.INSTALLATION OF ORIFICE PLATE				
B.INSTALLATION OF DRAW-DOWN DEVICE				
5. SITE IS PERMANENTLY STABILIZED, ALL SEDIMENT AND DEBRIS REMOVED FROM THE STRUCTURE AND SEDIMENT BASIN CONVERTED INTO STORMWATER MANAGEMENT POND:• A. POND EXCAVATED TO THE BOTTOM ELEVATIONS INDICATED ON THE PLAN SHEET.				
B. ORIFICE PLATE IS REMOVED				
C. DRAW-DOWN DEVICE IS REMOVED AND UNDERDRAIN PIPE INSTALLED.				
6. FINAL INSPECTION. •				

NOTE: SEE CONSTRUCTION SPECIFICATIONS FOR DETAILED REQUIREMENTS.

• MANDATORY NOTIFICATION/APPROVAL OF INSPECTOR PRIOR TO PROCEEDING WITH NEXT STAGE.

4035M-4 (REV 4-89)

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311. Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

Care of Water During Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. 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 excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required or prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. 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 slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (MD-342) 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 and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

OPERATION AND MAINTENANCE

An operation and maintenance plan in accordance with Local or State Regulations will be prepared for all ponds. As a minimum, the dam inspection checklist located in Appendix A shall be included as part of the operation and maintenance plan and performed at least annually. Written records of maintenance and major repairs needs to be retained in a file. The issuance of a Maintenance and Repair Permit for any repairs or maintenance that involves the modification of the dam or spillway from its original design and specifications is required. A permit is also required for any repairs or reconstruction that involve a substantial portion of the structure. All indicated repairs are to be made as soon as practical.

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORICONI — Date 12/12/06

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans. and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) Ronald G. Lapson — Date 4/26/07

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 9/30/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Shaw — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — 21615 — REGISTERED PROFESSIONAL ENGINEER — 12/14/06

DES: CMC					
DRN: SYC/CDF					
CHK: DTM					
DATE: 10/06	BY	NO.	REVISION	DATE	

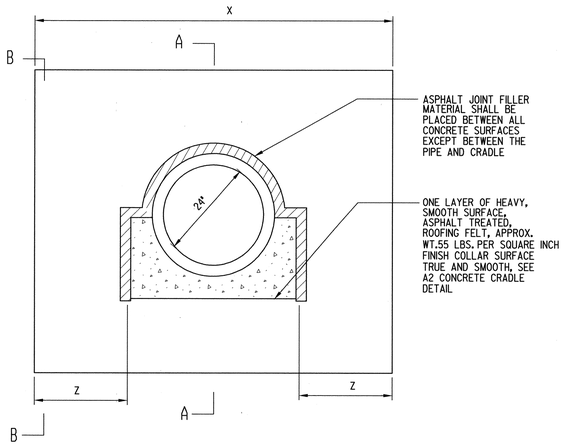
STORMWATER MANAGEMENT SPECIFICATIONS (MD 378)

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

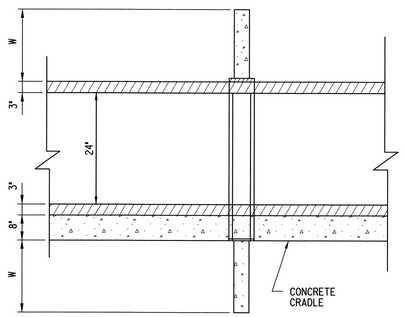
SCALE N.T.S.

SHEET 38 OF 74

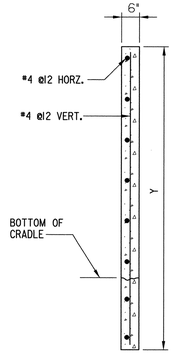


DETAIL SHOWN FOR EARTH FOUNDATION. FOR ROCK FOUNDATION, FOUND BOTTOM OF CRADLE ON ROCK LINE AND KEY COLLAR 6" INTO ROCK

PLAN VIEW



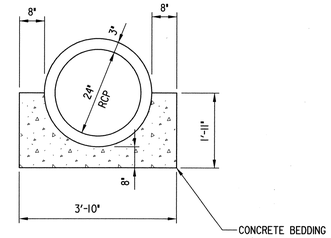
SECTION A-A



SECTION B-B
(SHOWING STEEL)

ANTI-SEEP COLLAR DIMENSIONS (FT.)				
POND DESIGNATION	W	X	Y	Z
A	-	-	-	-
B	3.5'	10.9'	10.2'	3.5'
C	3.6'	11.1'	10.4'	3.6'
D	3.3'	10.5'	9.8'	3.3'
E	3.0'	9.9'	9.2'	3.0'

DETAIL OF ANTI-SEEP COLLAR
ALTERNATE FOR CLASS(a) DAMS LESS THAN 50FT HIGH
NOT TO SCALE



SCS TR-46
A2 CONCRETE CRADLE DETAIL
NOT TO SCALE

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT EXTENDED DETENTION FACILITY

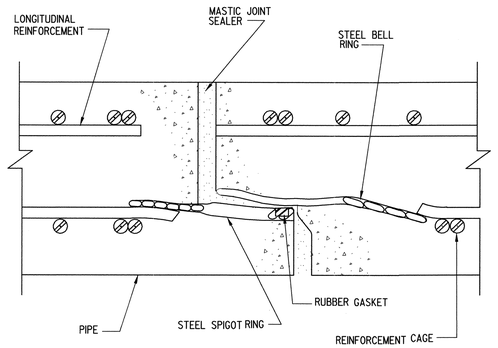
STORMWATER MANAGEMENT FACILITY

ROUTINE MAINTENANCE

1. FACILITY WILL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IS FUNCTIONING PROPERLY.
2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
3. DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
4. VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS RIPRAP OUTLET AREAS SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

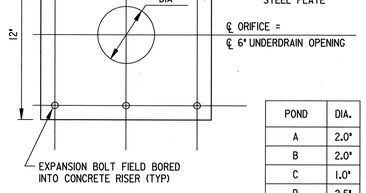
NON-ROUTINE MAINTENANCE

1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
2. SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERE WITH THE FUNCTION OF THE RISER, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.



ASTM DESIGNATION C361
NOT TO SCALE

NOTE:
ORIFICE PLATE TO BE INSTALLED OVER 6" UNDERDRAIN OPENING BEFORE GRADING STARTS.



POND	DIA.
A	2.0"
B	2.0"
C	1.0"
D	2.5"
E	2.0'

ORIFICE PLATE DETAIL
NOT TO SCALE

NOTE:
PLATE SHATT BE USED FOR STORMWATER MANAGEMENT AND EROSION/ SEDIMENT CONTROL PURPOSES.

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORICONI — Date 3/27/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." I shall engaged a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Developer (print name below signature) Ronald G. Lapsen — Date 4/26/07

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07

CHIEF, BUREAU OF HIGHWAYS — DATE 3/30/07

PREPARED BY
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HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — 21015 — REGISTERED PROFESSIONAL ENGINEER — 3/27/2007

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

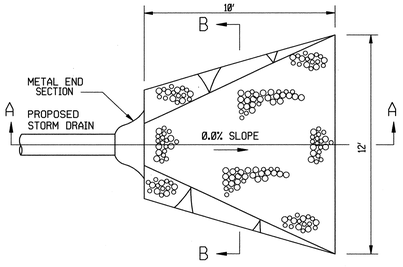
STORMWATER MANAGEMENT MISCELLANEOUS DETAILS - I

SCALE MAP NO. N/A BLOCK NO.

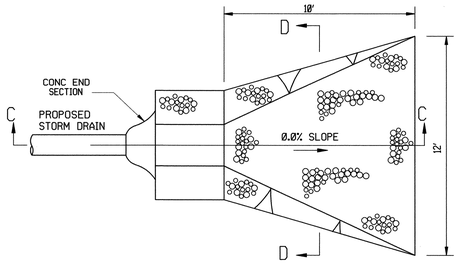
DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE N.T.S.

SHEET 39 OF 74

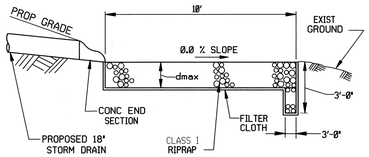


PLAN (E-6)

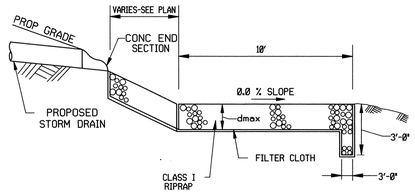


PLAN (E-1, E-3 & E-5)
NOT TO SCALE

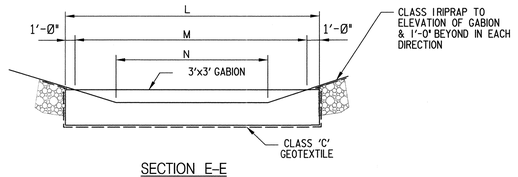
GABION BASKET WEIR DATA						
POND DESIGNATION	L	M	N	X	Y	REMARKS
A	48'	46'	40'	197.5	197.0	TANGENT
	108'	106'	100'	193.5	193.0	CURVED
B	84'	82'	76'	195.0	194.0	90° BEND
C	69'	67'	61'	213.0	212.0	CURVED
D	112'	110'	106'	207.0	206.0	CURVED
E	88'	86'	82'	211.0	210.0	CURVED



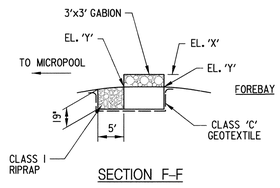
SECTION A-A
NOT TO SCALE



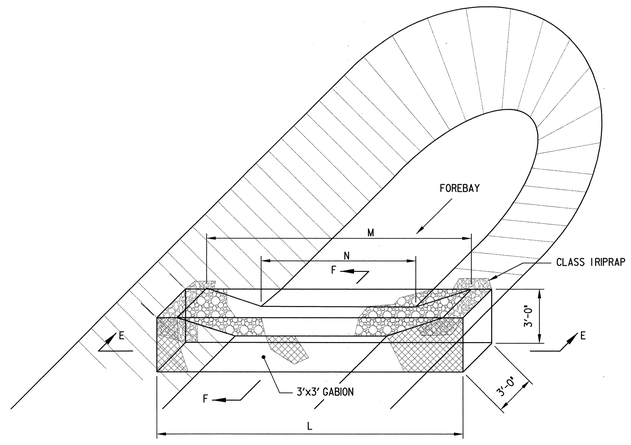
SECTION C-C
NOT TO SCALE



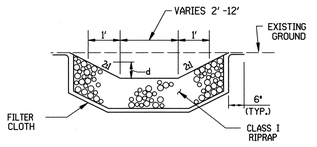
SECTION E-E



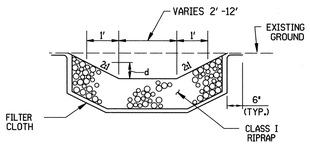
SECTION F-F



GABION BASKET WEIR
NOT TO SCALE



SECTION B-B
AT END SECTION



SECTION D-D
NOT TO SCALE

OUTFALL PROTECTION
NOT TO SCALE

OUTFALL	dmax	d50	Q	V	d
E-1	19"	9.5"	1.63	4.6	0.6
EW-2	19"	9.5"	6.00	6.0	0.6
E-3	19"	9.5"	3.45	4.5	0.85
ES-A	19"	9.5"	3.88	5.4	0.9
HW-2	32"	16"	98.75	7.9	3.4
ES-B	19"	9.5"	8.64	6.9	1.4
E-5	19"	9.5"	11.46	7.0	1.5
ES-D	19"	9.5"	16.34	8.0	1.8
ES-E	19"	9.5"	13.48	13.0	1.6
E-6	19"	9.5"	5.05	11.0	1.0
48-INCH (421+00 RT)	32"	16"	66.72	8.5	2.8
HW-6	32"	16"	63.11	10.1	2.75

ALL Q'S AND V'S ARE BASED ON A 10-YEAR STORM EXCEPT VELOCITIES ARE BASED ON ACTUAL FLOW DEPTHFOR HW-2, HW-6, & 421+00 RT, WHICH ARE BASED ON A 100-YEAR STORM.

ENGINEER'S CERTIFICATE

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

Signature of Engineer (print name below signature) DAVID T. MORICONI — Date 3/27/2007

DEVELOPER'S CERTIFICATE

" I/We certify that all development and construction will be done according to these plans, and that any responsible personnel involved in the construction of this project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District." 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.

Signature of Developer (print name below signature) Ronald G. Lepson — Date 4/26/07

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.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 4/30/07

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 4/30/07

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — 3/29/07 DATE

CHIEF, BUREAU OF ENGINEERING — 3/29/07 DATE

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Shavar 3/27/07 DATE

CHIEF, BUREAU OF HIGHWAYS — 3/30/07 DATE

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORICONI — 21610 — REGISTERED PROFESSIONAL ENGINEER — 3/27/2007

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06	BY	NO.	REVISION	DATE

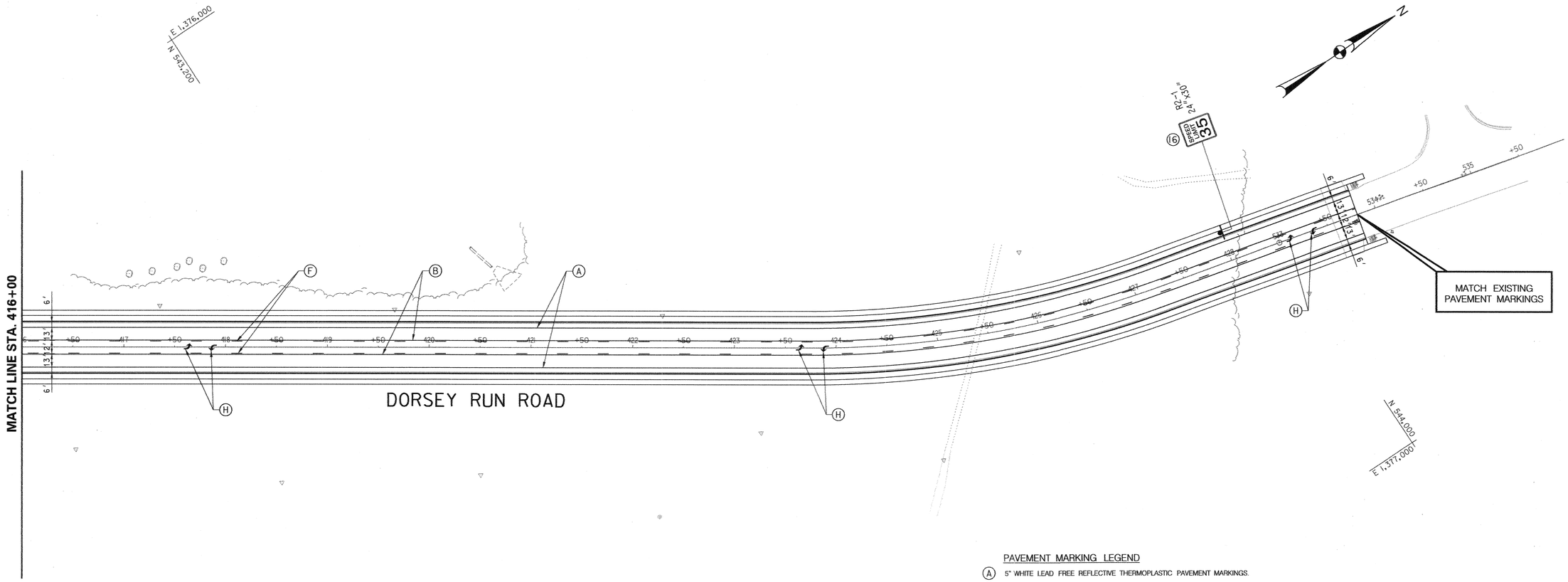
STORMWATER MANAGEMENT MISCELLANEOUS DETAILS - II

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE N.T.S.

SHEET 40 OF 74



PAVEMENT MARKING LEGEND

- (A) 5" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS.
- (B) 5" YELLOW LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS.
- (C) 5" DOUBLE YELLOW LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS.
- (D) 5" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS. (10' LINE, 30' GAP)
- (E) 5" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS. (2' LINE, 6' GAP)
- (F) 5" YELLOW LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS. (10' LINE, 30' GAP)
- (G) 10" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS.
- (H) WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS ARROWS.
- (J) 24" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS.
- (K) 10" YELLOW LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS.
- (L) WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS YEILD LINE. (SEE SIGNAL PLANS FOR LOCATION)

SIGNING AND MARKING NOTES

1. ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) – 3" LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
2. ALL PAVEMENT MARKINGS ON THE ROADWAY SHALL BE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS.
3. STOP LINES AND CROSSWALKS ARE SHOWN ON THIS PLAN FOR ILLUSTRATIVE PURPOSES ONLY. SEE SIGNAL PLANS FOR ACTUAL STOP LINES, CROSSWALKS AND ADDITIONAL SIGNING.
4. PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.
5. ALL WARNING SIGNS SHALL BE BLACK LEGEND WITH YELLOW BACK GROUND.
6. IN COMBINATION WITH THE OBJECT MARKER SIGNS INSTALL WARNING SIGN (SEE DETAIL "A") "NO OUTLET" AT THE INTERSECTION OF MD 175 AND OLD JESSUP ROAD ON TOP OF THE STREET NAME SIGN.

SIGN LEGEND

- EXISTING SIGN AND SUPPORT
- NEW SIGN
- EXISTING SIGN AND SUPPORT TO BE REMOVED
- (4) SIGN ASSEMBLY NUMBER
- EXISTING SIGN AND SUPPORT
- NEW SIGN AND SUPPORT

50 0 50 100
FULL SIZE SCALE: 1" = 50'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORGAN — NO. 16158 — PROFESSIONAL ENGINEER — 12/12/06

DES:	CMC
DRN:	SYC/CDF
CHK:	DTM
DATE:	10/06

BY	NO.	REVISION	DATE

SIGNING AND MARKING PLAN

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 – JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1" = 50'

SHEET 42 OF 74

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SHEET NO.	SIGN NO.	REMARKS		CODE NUMBERS • 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
41	1	R1-2 (36"x36"x36")	1-STEEL TUBE SUPPORT	3.9	15.1																		
	2	W11-2 (30"x30"); M6-2 (21"x15")	1-STEEL TUBE SUPPORT	8.4		16.5																	
	3	W11-2 (30"x30"); M6-2 (21"x15")	1-STEEL TUBE SUPPORT	8.4		16.5																	
	4	W2-2 (30"x30"); D-3(2) (72"x12")	1-STEEL TUBE SUPPORT	12.3		17.0																	
	5	OM4-3 (18"x18"); OM4-2 (18"x18"); OM4-3 (18"x18")	2-STEEL TUBE SUPPORT	6.8	24.0																		
	6	W9-1(R) (30"x30")	1-STEEL TUBE SUPPORT	6.3		16.0																	
	7	M4-5 (30"x15"); M1-4 (36"x36")	2-STEEL TUBE SUPPORT	34.3		39.1																	
		M5-1 (30"x24"); M4-5 (30"x15")																					
		M1-4 (36"x36"); M5-1 (30"x24")																					
	8	D-3 (72"x12"); D-3 (60"x12"); R1-1 (30"x30");	1-STEEL TUBE SUPPORT	18.3		17.0																	
		M4-12(MOD) (24"x6")																					
	9	W4-2(R) (36"x36")	1-STEEL TUBE SUPPORT	9.0	16.5																		
	10	W9-2(L) 48"x48")	1-STEEL TUBE SUPPORT	16.0		16.0																	
	11	R2-1 (24"x30")	1-STEEL TUBE SUPPORT	5.0	15.0																		
	12	W3-3 (36"x36"); D-3(2) (72"x12")	1-STEEL TUBE SUPPORT	15.0		15.0																	
	13	W2-2 (30"X30"); D-3(2) (72"x12")	1-STEEL TUBE SUPPORT	12.3		17.0																	
	14	M4-11 (24"x6"); R3-9b (24"x36")	1-STEEL TUBE SUPPORT	7.0		15.5																	
	15	M4-12 (24"x6"); R3-9b (24"x36")	1-STEEL TUBE SUPPORT	7.0		15.5																	
42	16	R2-1 (24"x30")	1-STEEL TUBE SUPPORT	5.0	15.0																		
		PAVEMENT MARKING QUANTITIES																					
41		STA. 401+88 TO 416+00					1,225	1,000	1,910	142	367	335	591	6		75	21	4					
		STA. 300+73 TO 305+23					930		930						25								
42		STA. 416+00 TO 533+81					2,660	2,660				887		6									
		TOTAL		175.0	85.6	201.1	4,815	3,660	2,840	142	367	1,222	591	12	25	75	21	4					

• CODE NUMBER DESCRIPTION & UNIT

CODE NUMBERS	DESCRIPTION	UNIT
1	SHEET ALUMINUM SIGN	S.F.
2	2" SQUARE STEEL TUBE SIGN SUPPORT	L.F.
3	2 1/2" SQUARE STEEL TUBE SIGN SUPPORT	L.F.
4	5" WHITE LEAD FREE REFLECTIVE PAVEMENT MARKINGS	L.F.
5	5" YELLOW LEAD FREE REFLECTIVE PAVEMENT MARKINGS	L.F.
6	5" DOUBLE YELLOW LEAD FREE REFLECTIVE PAVEMENT MARKINGS	L.F.
7	5" WHITE LEAD FREE REFLECTIVE PAVEMENT MARKINGS (10' LINE, 30' GAP)	L.F.
8	5" WHITE LEAD FREE REFLECTIVE PAVEMENT MARKINGS (2' LINE, 6' GAP)	L.F.
9	5" YELLOW LEAD FREE REFLECTIVE PAVEMENT MARKINGS (10' LINE, 30' GAP)	L.F.
10	10" WHITE LEAD FREE REFLECTIVE PAVEMENT MARKINGS	L.F.

• CODE NUMBER DESCRIPTION & UNIT

CODE NUMBERS	DESCRIPTION	UNIT
11	WHITE LEAD FREE REFLECTIVE PAVEMENT MARKING ARROWS	EA.
12	24" WHITE LEAD FREE REFLECTIVE PAVEMENT MARKINGS	L.F.
13	10" YELLOW LEAD FREE REFLECTIVE PAVEMENT MARKINGS	L.F.
14	WHITE LEAD FREE REFLECTIVE PAVEMENT MARKING YIELD LINE	L.F.
15	WHITE LEAD FREE REFLECTIVE PAVEMENT MARKING LETTERS	EA.

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 3/29/07

CHIEF, BUREAU OF ENGINEERING — DATE 3/29/07

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 3/27/07

CHIEF, BUREAU OF HIGHWAYS — DATE 3/30/07

PREPARED BY

URS

4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS HOFF — 21616 — REGISTERED PROFESSIONAL ENGINEER — 3/28/07

DES: KJS			
DRN: MBW			
CHK: DTM			
DATE: 10/06	BY	NO.	REVISION

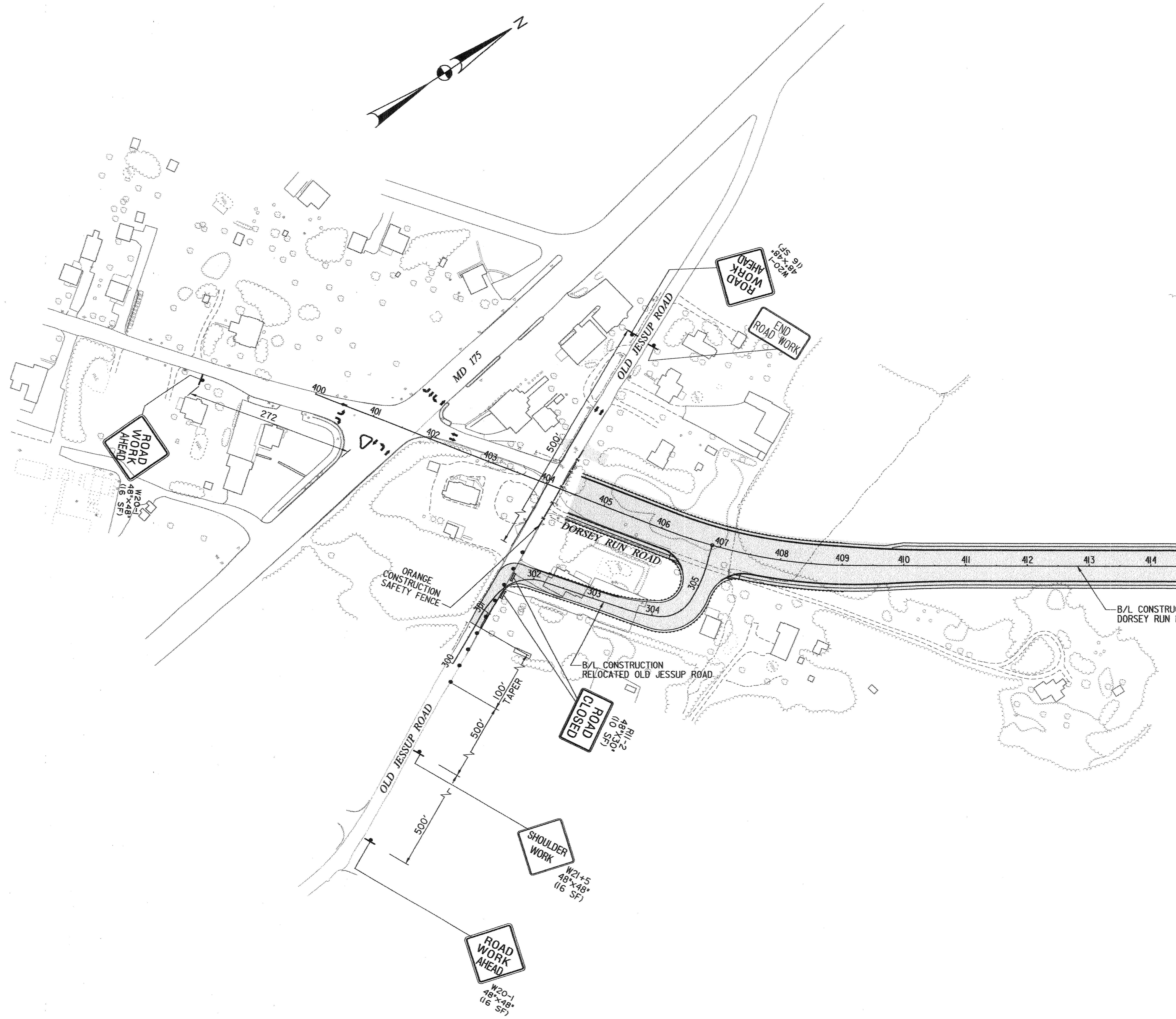
SIGNING AND MARKING SUMMARY TABLE

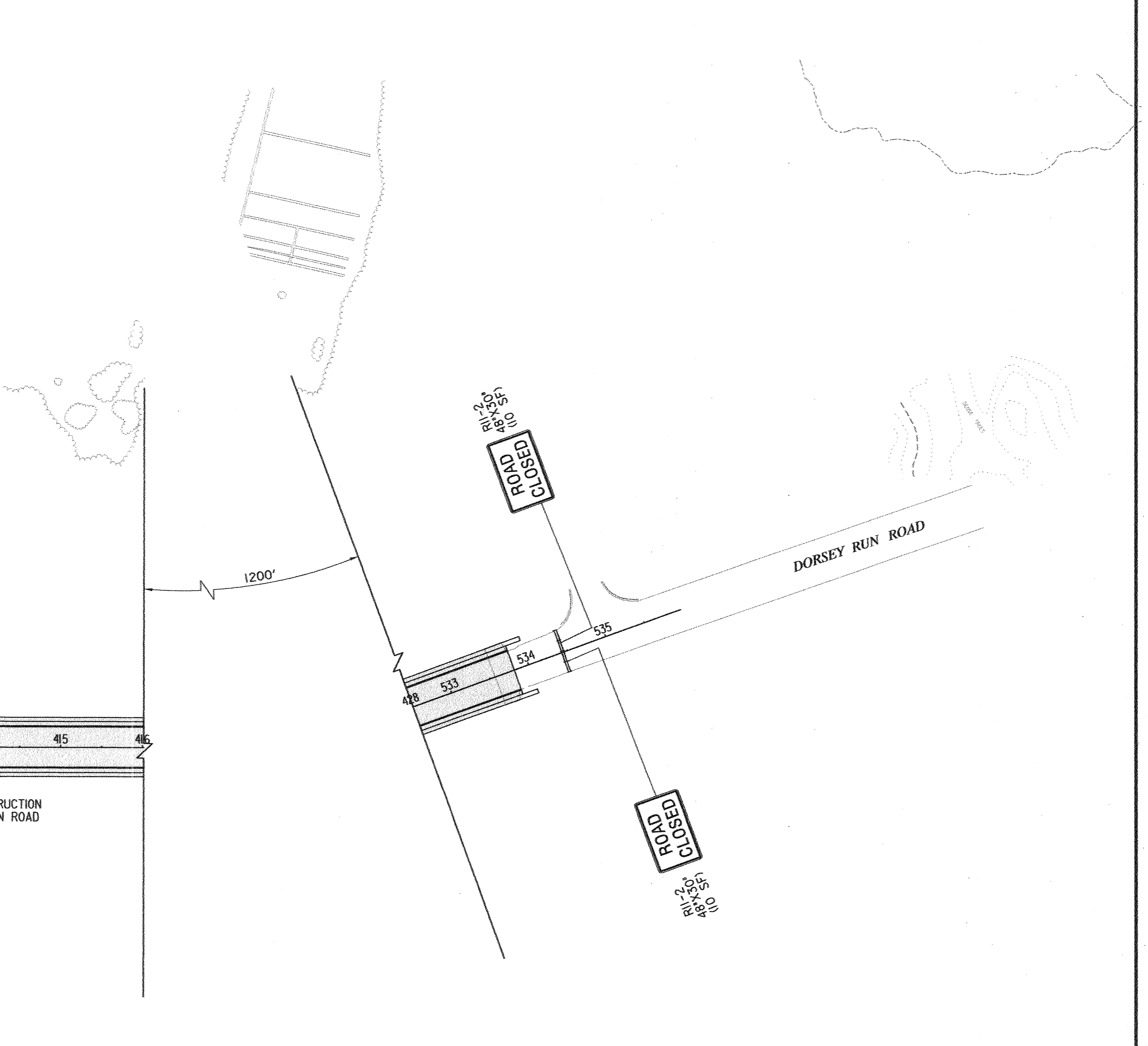
SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1" = 50'

SHEET 43 OF 74





GENERAL NOTES:

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY, INSTALL & MAINTAIN ALL TEMPORARY TRAFFIC CONTROL EQUIPMENT FOR THE DURATION OF THE CONTRACT.
2. ALL TRAFFIC CONTROL DEVICES AND SHOULDER CLOSURES MUST ADHERE TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
3. THE CONTRACTOR IS REQUIRED TO PROTECT AND MAINTAIN THE EXISTING SIGNAL DURING CONSTRUCTION. THE EXISTING SIGNAL SHALL REMAIN OPERATIONAL FOR THE DURATION OF THE CONTRACT.
4. THE MINIMUM LANE WIDTH SHALL BE 10.5 FEET. FOR LANE CLOSURES AND SHOULDER CLOSURES REFER TO THE SPECIFICATIONS.
5. AT THE COMPLETION OF THE WORK DAY, THE CONTRACTOR SHALL REFER TO MD SHA STANDARD NO. 104.92 FOR TEMPORARY AGGREGATE RAMP DETAIL.
6. ALL TEMPORARY SIGNS SHALL BE MOUNTED, AS DIRECTED IN THE M.U.T.C.D.
7. EXISTING PAVEMENT MARKINGS AND SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC PATTERNS SHALL BE REMOVED OR COVERED.

PHASE I NOTES:

1. PLACE ADVANCE WARNING SIGNS AND TEMPORARY TRAFFIC CONTROL DEVICES (EXCEPT TEMPORARY BARRIER) AS SHOWN ON THE PLANS.
2. BEGIN CONSTRUCTING DORSEY RUN ROAD EXTENSION AS DESCRIBED IN THE CONTRACT DOCUMENTS. DURING PHASE I CONSTRUCTION, THE CONTRACTOR SHALL NOT CONSTRUCT THAT PORTION OF DORSEY RUN ROAD EXTENSION BETWEEN STA. 401+80 AND STA. 404+50. THE CONTRACTOR MUST MAINTAIN TRAFFIC ON OLD JESSUP ROAD AT ALL TIMES.
3. BEGIN CONSTRUCTION THE NEW TRAFFIC SIGNAL EQUIPMENT WHILE PROTECTING AND MAINTAIN THE EXISTING TRAFFIC SIGNAL (SEE GENERAL NOTE 3)

LEGEND

	TEMPORARY TRAFFIC BARRIER
	WORK ZONE
	CHANNELIZING BARRELS
	TEMPORARY SIGN & SUPPORT
	DIRECTION OF TRAVEL
5" TW	TEMPORARY PAVEMENT MARKING PAINT WHITE
5" TDY	TEMPORARY PAVEMENT MARKING PAINT DOUBLE YELLOW
	40 MPH TEMPORARY CRASH CUSHION

0 100 200
SCALE: 1" = 100'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/13/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
Steve Sharan 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
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HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS TOSCAN — No. 16156 — REGISTERED PROFESSIONAL ENGINEER

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

MAINTENANCE OF TRAFFIC PLAN
PHASE I

SCALE MAP NO. N/A BLOCK NO. ________

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE
AS SHOWN

SHEET
44 OF 74

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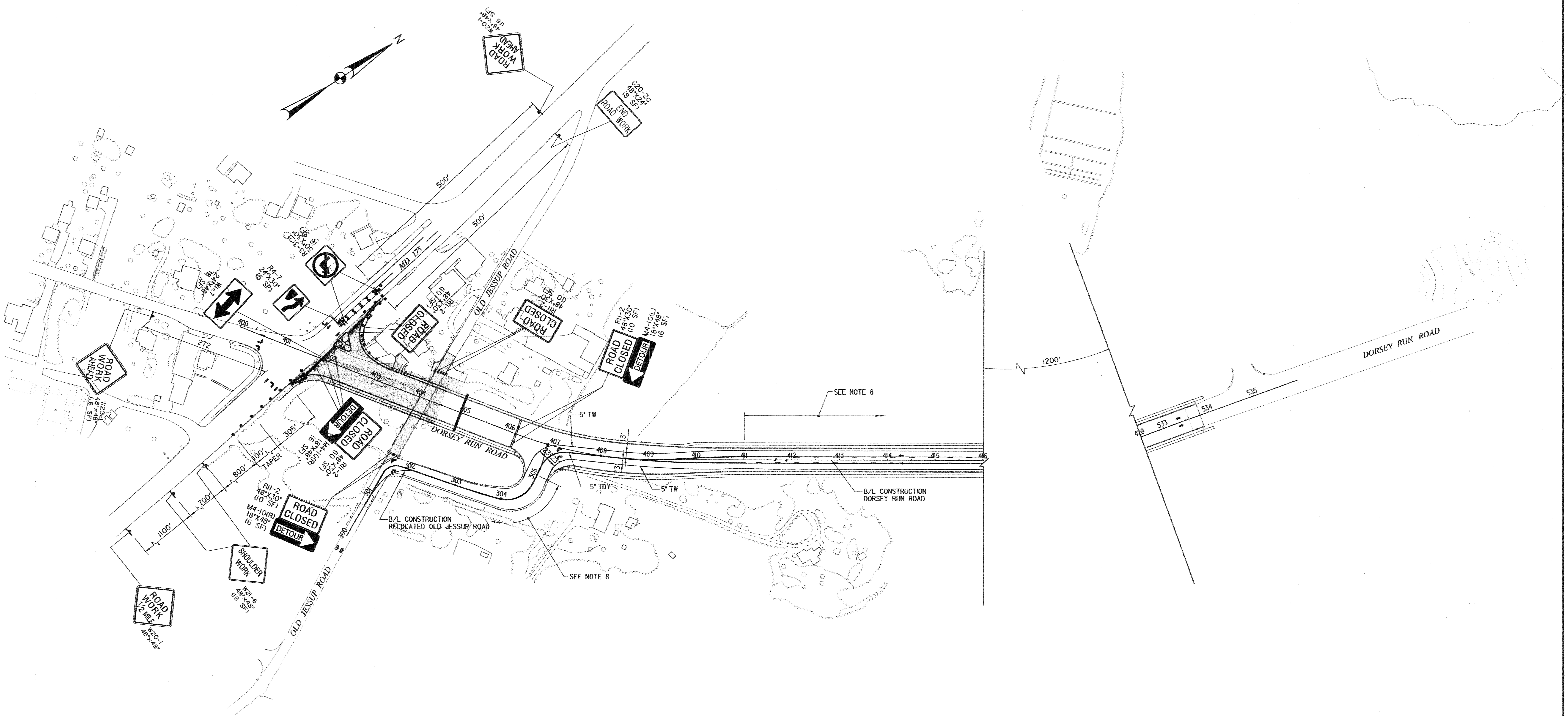

PHASE II NOTES:

1. PRIOR TO COMMENCING PHASE II CONSTRUCTION, PHASE I CONSTRUCTION MUST BE COMPLETED.
2. BEGIN SHIFTING OLD JESSUP ROAD NORTHBOUND TRAFFIC TO THE NEW RELOCATED OLD JESSUP ROAD
3. PLACE ADVANCE WARNING SIGNS AND TEMPORARY TRAFFIC CONTROL DEVICES AS SHOWN ON THE PLANS.
4. CONSTRUCT THE REMAINING PORTION OF DORSEY RUN ROAD, BETWEEN STA. 401+80 AND 405+00.
5. BEGIN CONSTRUCTION AND REMOVAL OF OLD JESSUP ROAD AS SHOWN ON THE PLANS.
6. AT THE COMPLETION OF PHASE II CONSTRUCTION OPEN DORSEY RUN ROAD EXTENDED TO TRAFFIC.
7. REFER TO SHEET 43 FOR DETOUR PLAN.
8. REFER SHEET 39 FOR PERMANENT PAVEMNET MARKINGS.

LEGEND

Symbol	Description
(heavy line)	TEMPORARY TRAFFIC BARRIER
(shaded)	WORK ZONE
•	CHANNELIZING BARRELS
(sign symbol)	TEMPORARY SIGN & SUPPORT
(arrow)	DIRECTION OF TRAVEL
5" TW	TEMPORARY PAVEMENT MARKING PAINT WHITE
5" TDY	TEMPORARY PAVEMENT MARKING PAINT DOUBLE YELLOW
(cushion symbol)	40 MPH TEMPORARY CRASH CUSHION

0 100 200
SCALE: 1" = 100'

DEPARTMENT OF PUBLIC WORKS

12/15/06 — DIRECTOR OF PUBLIC WORKS — DATE
12/14/06 — CHIEF, BUREAU OF ENGINEERING — DATE
Steve Sharar 12/14/06 — CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE
12-15-06 — CHIEF, BUREAU OF HIGHWAYS — DATE

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS GORDON — PROFESSIONAL ENGINEER

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

MAINTENANCE OF TRAFFIC PLAN
PHASE II

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 45 OF 74

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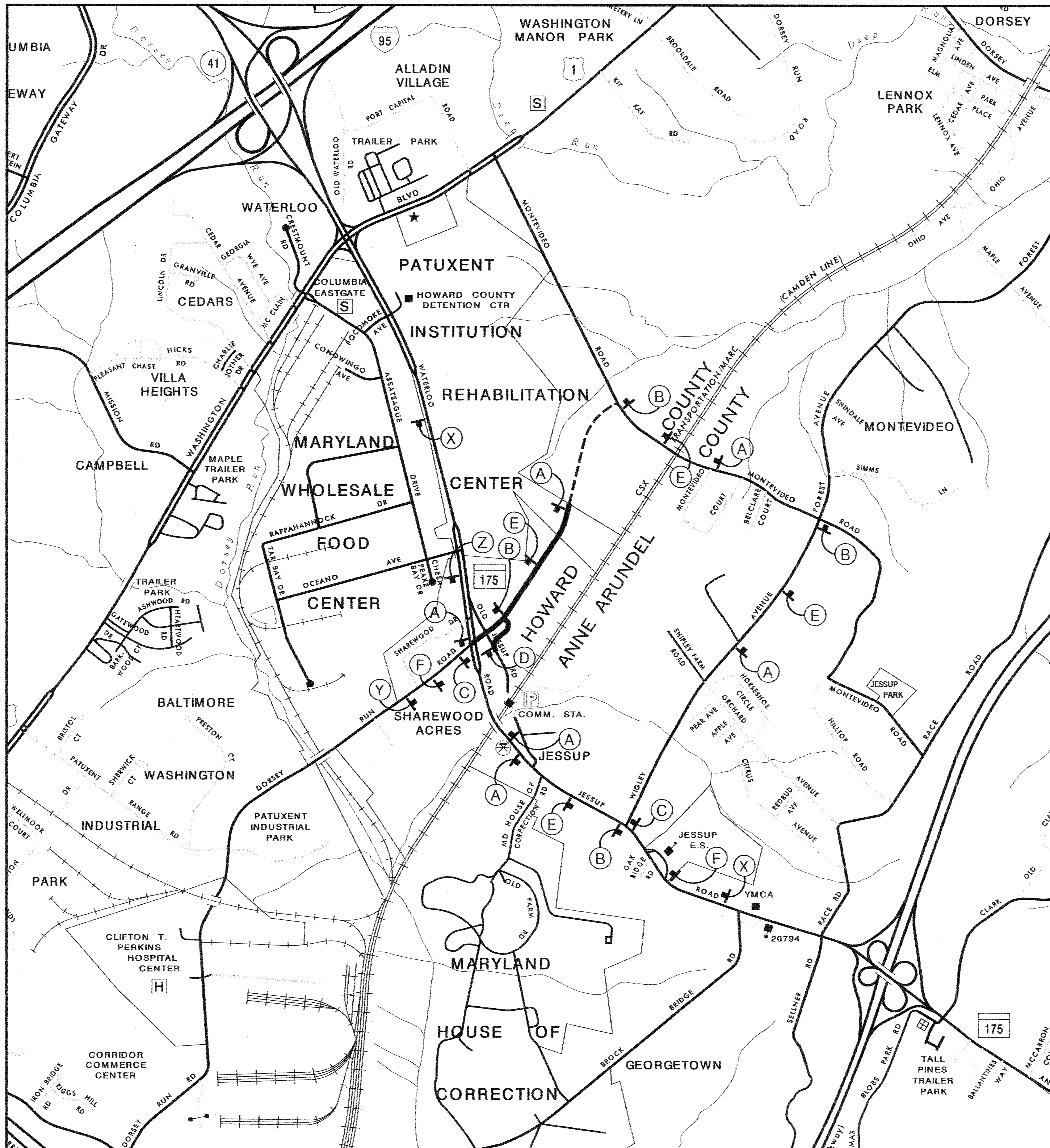
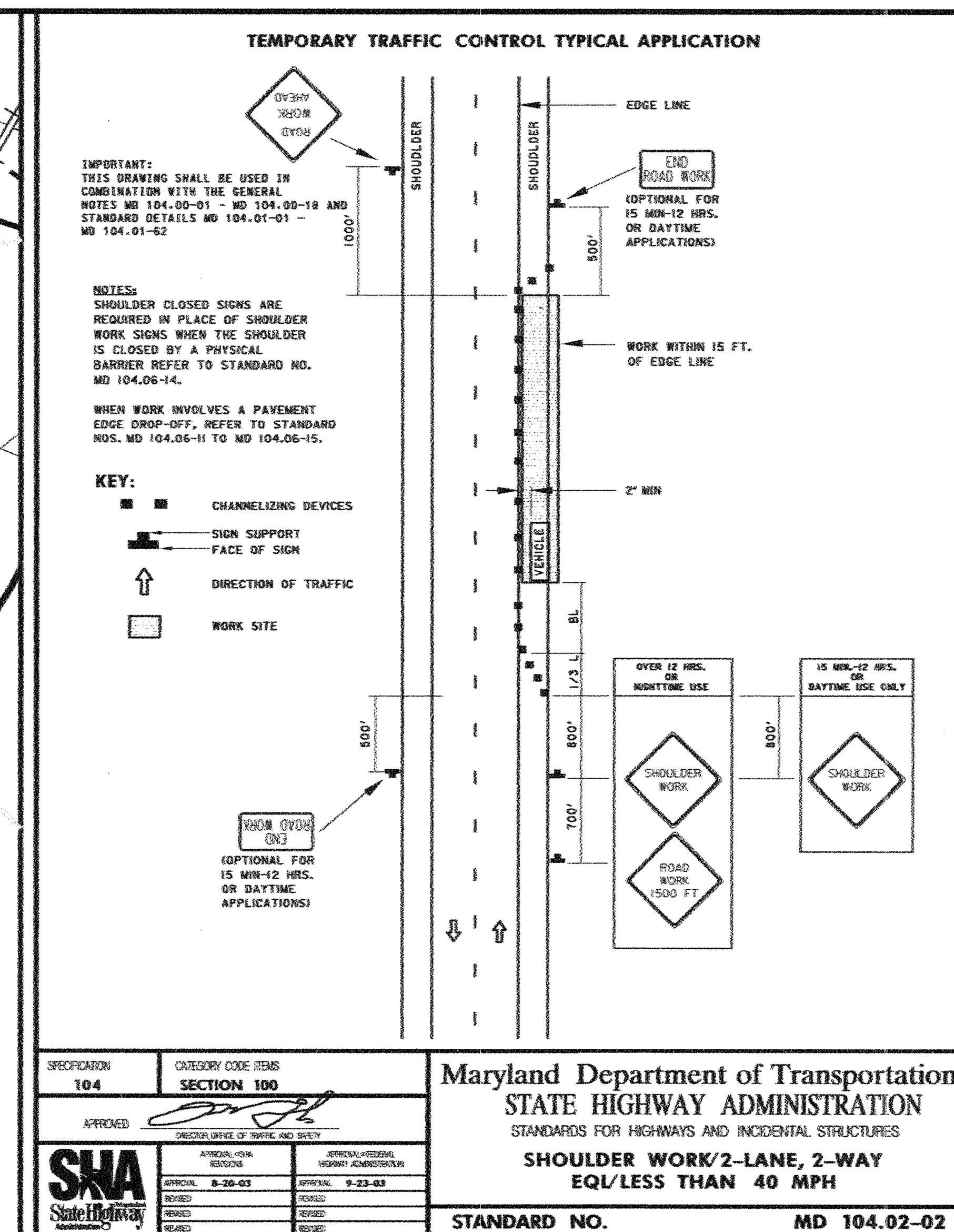
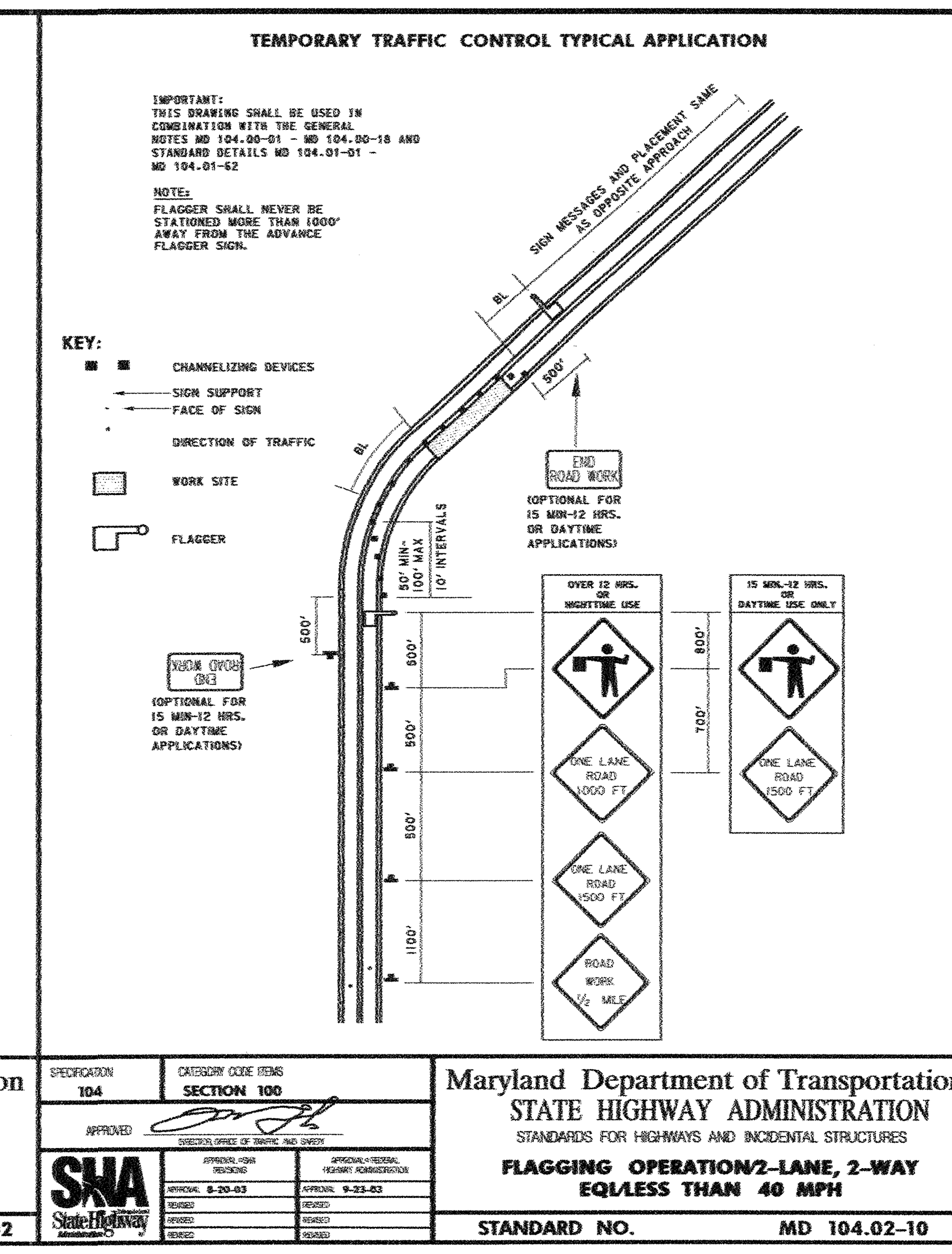
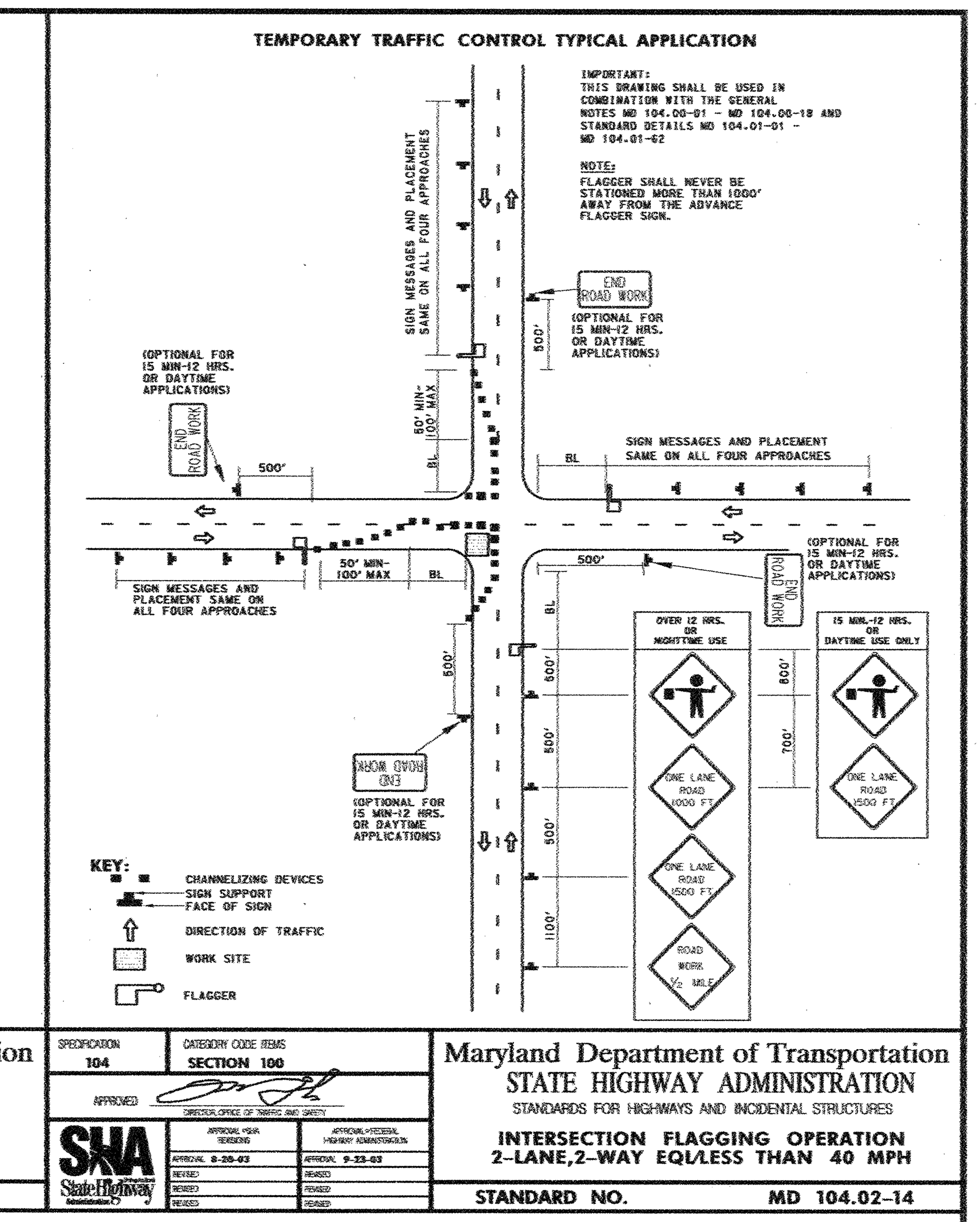


DETOUR MAP

SCALE: 1" = 1000'







5" LETTERS **OLD JESSUP RD**

D-3(2)
30"x9" BLK/WHT
MOUNT ON TOP OF
EVERY M4-8a AND M4-9
DETOUR SIGN AS
DIRECTED BY THE ENGINEER

Sign	Type	Size	Label
OLD JESSUP RD / DETOUR ↑	M4-9	30"x24"	(A)
OLD JESSUP RD / DETOUR ←	M4-9	30"x24"	(B)
OLD JESSUP RD / DETOUR →	M4-9	30"x24"	(C)
OLD JESSUP RD / END DETOUR	M4-8a	36"x24"	(D)
OLD JESSUP RD / DETOUR ↰	M4-9	30"x24"	(E)
OLD JESSUP RD / DETOUR ↱	M4-9	30"x24"	(F)

(X) — MAX. WIDTH 72"

Sign text	Letters
NOTICE	8" LETTERS (BK/YELLOW)
OLD JESSUP ROAD	7" LETTERS (BK/WHITE)
DORSEY RUN ROAD	6" LETTERS (BK/WHITE)
CLOSED	8" LETTERS (BK/WHITE)
DETOUR AHEAD	6" LETTERS (BK/WHITE)

(Y) — MAX. WIDTH 72"

Sign text	Letters
NOTICE	8" LETTERS (BK/YELLOW)
DORSEY RUN ROAD	7" LETTERS (BK/WHITE)
& OLD JESSUP ROAD	6" LETTERS (BK/WHITE)
CLOSED	8" LETTERS (BK/WHITE)
DETOUR AHEAD	6" LETTERS (BK/WHITE)

(Z) — MAX. WIDTH 72"

Sign text	Letters
NOTICE	8" LETTERS (BK/YELLOW)
LOCAL TRAFFIC ONLY	7" LETTERS (BK/WHITE)
↖ ON OLD JESSUP	7" LETTERS (BK/WHITE)
ROAD	7" LETTERS (BK/WHITE)

NOTES

1. THIS PLAN SHALL BE INSTALLED WITH TCP ON SHEET 42.
2. CONTACT TRAFFIC ENGINEER (410-313-5752) PRIOR TO FABRICATING SIGNS.
3. ALL SIGN LOCATIONS SHALL BE APPROVED BY THE TRAFFIC DIVISION PRIOR TO INSTALLATION OF ANY SIGNS.
4. ALL DETOUR SIGNS SHALL BE COVERED WITH OPAQUE MATERIAL UNTIL DAY ROAD IS CLOSED.
5. ALL SIGN LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED IN THE FIELD.

SUGGESTED SEQUENCE OF TRAFFIC CONTROL ACTIVITIES FOR MAINTENANCE OF TRAFFIC DURING CONSTRUCTION

1. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS FOR THIS PHASE.
2. INSTALL DETOUR PER THIS PLAN.

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — 12/15/06 — DATE
CHIEF, BUREAU OF ENGINEERING — 12/14/06 — DATE
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Sharar 12/14/06 — DATE
CHIEF, BUREAU OF HIGHWAYS — 12-15-06 — DATE

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MCKEON — NO. 16156 — REGISTERED PROFESSIONAL ENGINEER — 12/12/06

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 10/06

BY	NO.	REVISION	DATE

MAINTENANCE OF TRAFFIC
DETOUR PLAN FOR
PHASE II

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE

SHEET 46 OF 74

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LIMIT OF WORK STA. 400+92

LIMIT OF WORK STA. 300+72.78

MD 175

OLD JESSUP ROAD

RELOCATED OLD JESSUP ROAD

DORSEY RUN ROAD

SEE PART PLAN THIS SHEET

MATCH LINE STA. 416+00

100 YR FLOODPLAIN

PROPOSED POND 'A'

PROPOSED POND 'B'

PROPOSED POND 'D'

PROPOSED POND 'E'

SLOPE / GRADING EASEMENT

EP TO BE REMOVED

SIGNAL BOX TO BE REMOVED

B/L CONSTRUCTION RELOCATED OLD JESSUP ROAD

B/L CONSTRUCTION DORSEY RUN ROAD

PROP. R/W

12" WATER MAIN (CAPITAL PROJECT W-8275, CONTRACT NO. 24-4399)

INSTALL 90 LINEAR FEET OF 8" SANITARY @ 1.24% (DIP, CL 52) AND PLUG ENDS. SEE SHEET 49 FOR PROFILE.

INSTALL 300 LINEAR FEET OF 8" SANITARY SEWER BETWEEN SMH-2, AND SMH-3 AS PART OF CAPITAL PROJECT J-4148-C. SMH-2 & SMH-3 WILL BE INSTALLED BY OTHERS.

CONTRACT 612-5

CONDUIT 4"PVC 24" BELOW FINISH GRADE

BGE TO INSTALL TRANSFORMER (IF NECESSARY)

8" SAN.

30" RCP

24" RCP

18" RCP

15" RCP

12" W

N 542,600

E 1,375,700

N 542,000

E 1,376,200

E 1,376,100

TEST PIT DATA

NUMBER	TYPE	COVER	REMARKS
TH-1	2" W.S. PIPE	3.66'	GAS
TH-2	2" W.S. PIPE	3.22'	GAS
TH-3	12" DI PIPE	7.00'	WATER
TH-4	12" DI PIPE	4.91'	WATER
TH-5	12" DI PIPE	4.42'	WATER
TH-6	4" W.S. PIPE	4.41'	GAS
TH-7	26" W.S. PIPE	5.89'	GAS
TH-8	12" DI PIPE	3.72'	WATER
TH-9	4" W.S. PIPE	2.25'	GAS
TH-10	26" W.S. PIPE	5.40'	GAS
TH-11	12" DI PIPE	3.98'	WATER
TH-12	4" W.S. PIPE	2.42'	GAS
TH-13	26" W.S. PIPE	4.96'	GAS

STREET LIGHTS

1. ALL STREET LIGHTS ARE 250 WATT HPS VAPOR WITH SAG LENS COBRA HEAD FIXTURES MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM. UNLESS INDICATED WITH A DIFFERENT WATTAGE.
2. ALL LIGHTS WILL BE INSTALLED BY BGE FOR HOWARD COUNTY.
3. TWO STREET LIGHT CONDUIT CROSSING ARE INDICATED.
4. LOCATION OF TRANSFORMER AT STA. 414+00, RT

NOTE:

1. FOR ADDITIONAL UTILITY INFORMATION SEE SIGNAL PLANS AND ROADWAY PROFILES.
2. TEST PIT RESULTS PROVIDED TO HOWARD COUNTY BY KCI TECHNOLOGIES (FEB. 2006)
3. INSTALL SANITARY SEWER AS INDICATED ON SHEET 49. ALL OTHER SANITARY SEWER WILL BE INSTALLED BY OTHERS.

50 0 50 100

FULL SIZE SCALE: 1" = 50'

30 0 30 60

FULL SIZE SCALE: 1" = 30'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORGAN — 21156 — REGISTERED PROFESSIONAL ENGINEER

DES:	CMC
DRN:	SYC/CDF
CHK:	DTM
DATE:	10/06

BY	NO.	REVISION	DATE

UTILITY /STREET LIGHTING PLAN

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 47 OF 74

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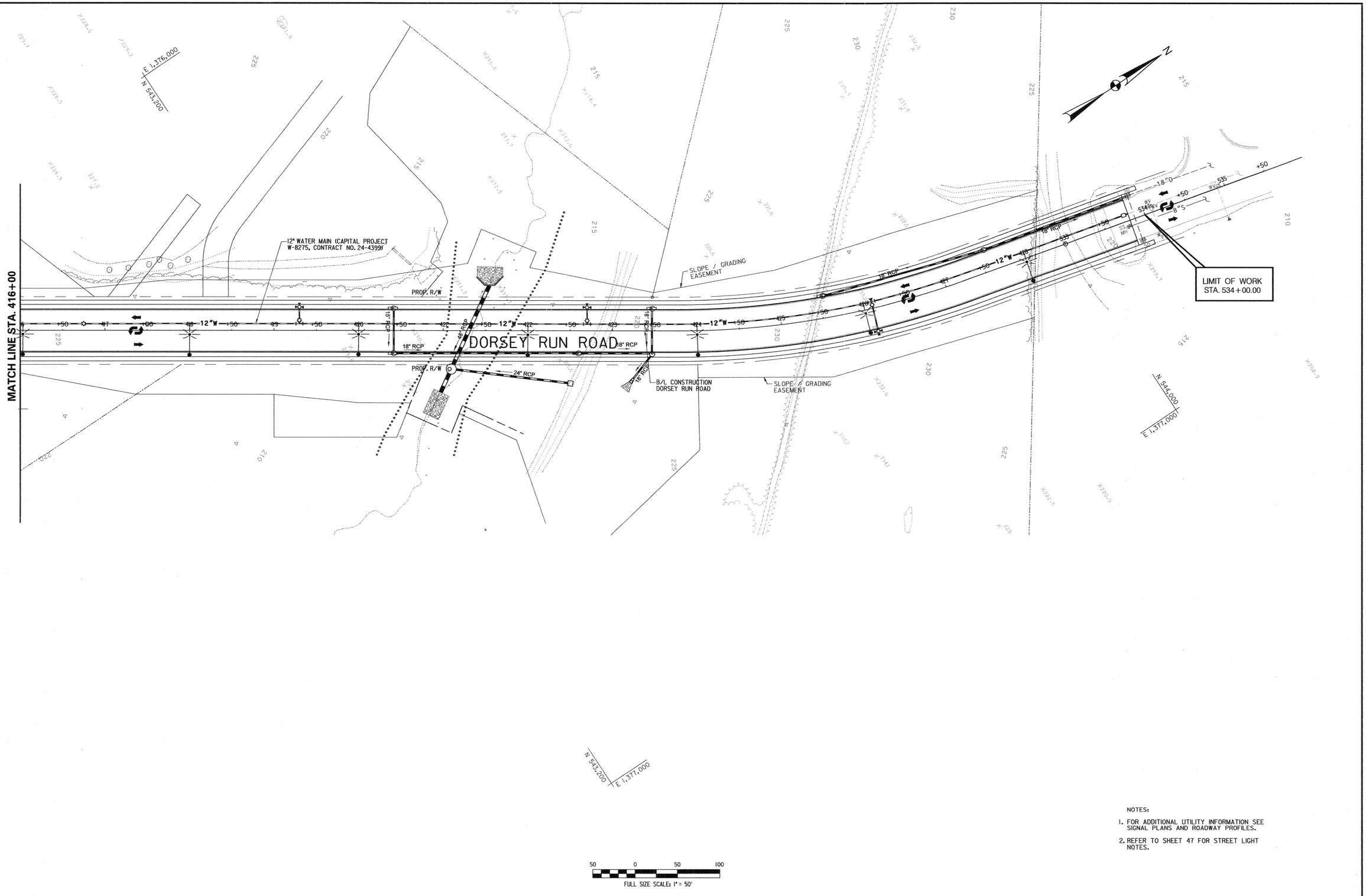

NOTES:

1. FOR ADDITIONAL UTILITY INFORMATION SEE SIGNAL PLANS AND ROADWAY PROFILES.
2. REFER TO SHEET 47 FOR STREET LIGHT NOTES.

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Sloman — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MCCOY — NO. 16156 — REGISTERED PROFESSIONAL ENGINEER — 12/15/06

DES:	CMC
DRN:	SYC/CDF
CHK:	DTM
DATE:	10/06

BY	NO.	REVISION	DATE

UTILITY /STREET LIGHTING PLAN

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE AS SHOWN

SHEET 48 OF 74

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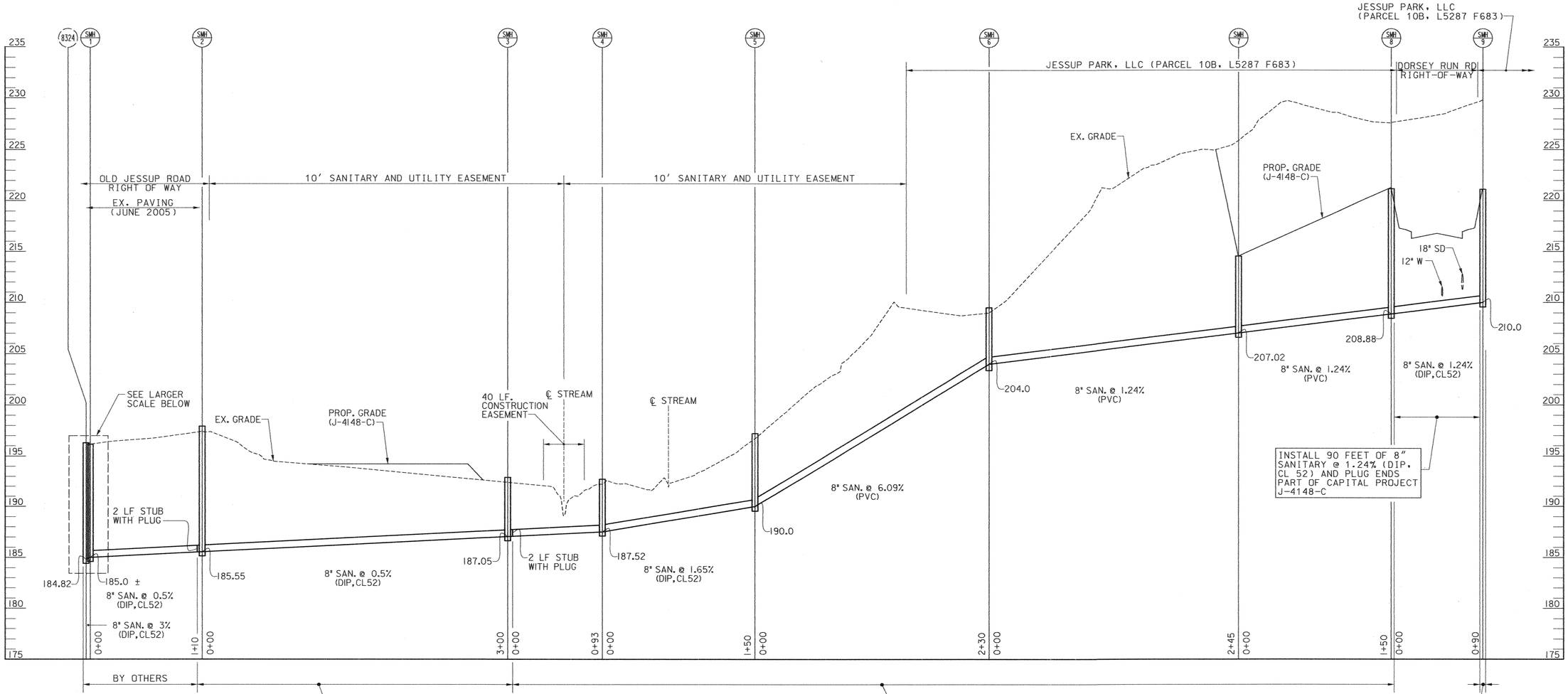

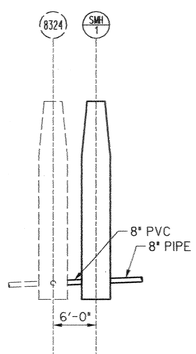

50 0 50 100
FULL SIZE SCALE: 1" = 50'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

Steve Sharan 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS HOSKIN — 26156 — REGISTERED PROFESSIONAL ENGINEER — 12/12/06

DES: CMC	
DRN: SYC/CDF	
CHK: DTM	
DATE: 10/06	

BY	NO.	REVISION	DATE

UTILITY DETAIL SHEET

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=50'

SHEET 49 OF 74

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NOTE:

A 20' SPACING MUST BE MAINTAINED BETWEEN ANY TREES AND STREET LIGHTS.

SHADE TREES — STREET TREE SCHEDULE - THIS SHEET ONLY

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	PLANTING SIZE	SPACING
ARO	60	Acer rubrum 'October Glory'	October Glory Red Maple	2.5" Cal.	40' o.c.
ARR	12	Acer Rebrum 'Red Sunset'	Red Sunset Red Maple	2.5" Cal.	40' o.c.
QC	0	Quercus Coccinea	Scarlet Oak	2.5" Cal.	40' o.c.
QR	0	Quercus rubra	Northern Red Oak	2.5" Cal.	40' o.c.

Note: All street trees to be single trunk trees whose lower branches are pruined to a height of 7'

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

Steve Sharan 12/14/06 — CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY URS, 4 NORTH PARK DRIVE, HUNT VALLEY, MARYLAND, TEL: (410) 785-7220

DES: RKK | DRN: MBW | CHK: RKK | DATE: 10/06

BY	NO.	REVISION	DATE

LANDSCAPE PLAN

SCALE MAP NO. N/A BLOCK NO. ______

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER

ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND

CAPITAL PROJECT J-4148-C

SCALE

SHEET 50 OF 74

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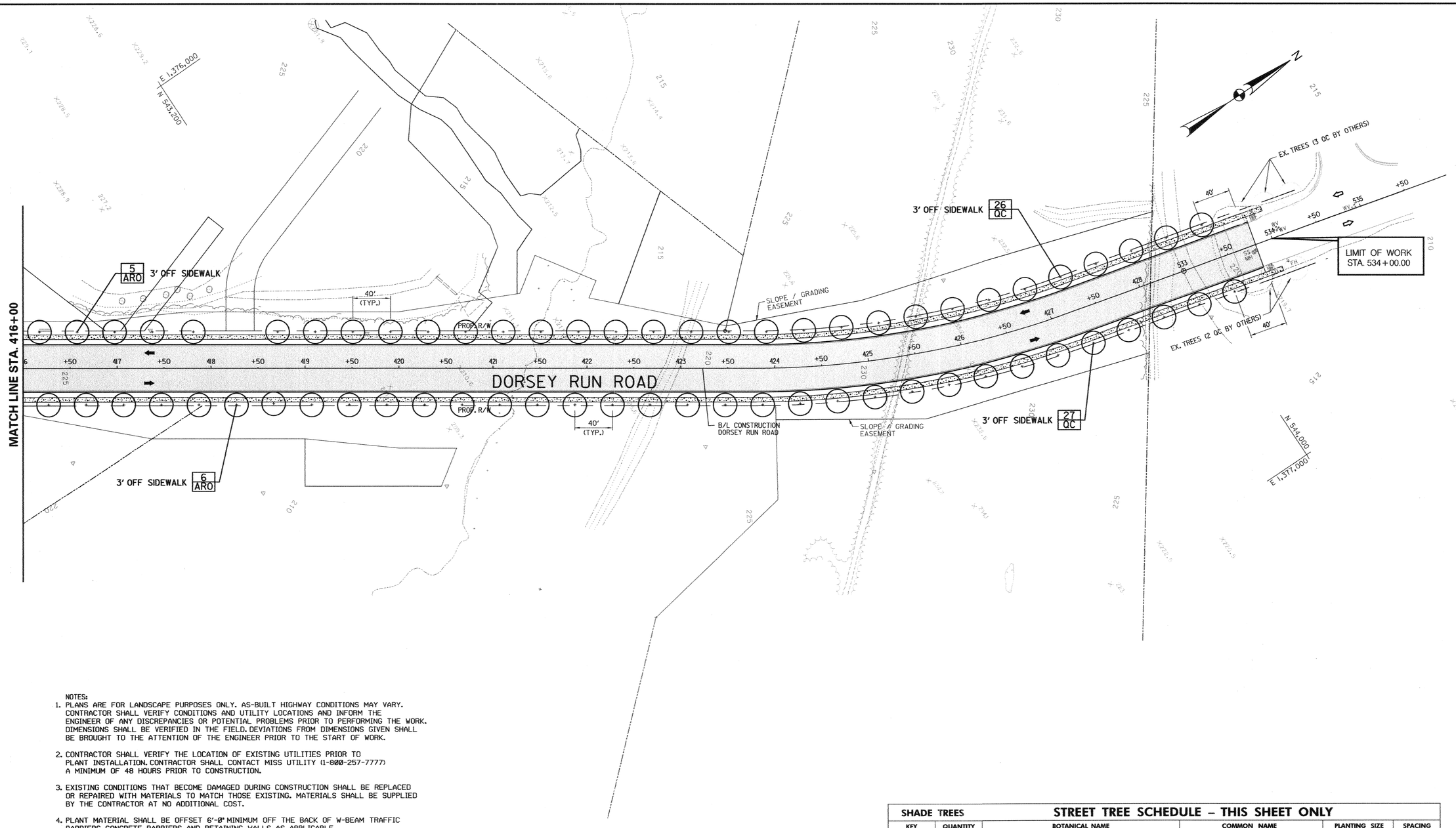

NOTES:

1. PLANS ARE FOR LANDSCAPE PURPOSES ONLY. AS-BUILT HIGHWAY CONDITIONS MAY VARY. CONTRACTOR SHALL VERIFY CONDITIONS AND UTILITY LOCATIONS AND INFORM THE ENGINEER OF ANY DISCREPANCIES OR POTENTIAL PROBLEMS PRIOR TO PERFORMING THE WORK. DIMENSIONS SHALL BE VERIFIED IN THE FIELD. DEVIATIONS FROM DIMENSIONS GIVEN SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF WORK.
2. CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO PLANT INSTALLATION. CONTRACTOR SHALL CONTACT MISS UTILITY (1-800-257-7777) A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION.
3. EXISTING CONDITIONS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED WITH MATERIALS TO MATCH THOSE EXISTING. MATERIALS SHALL BE SUPPLIED BY THE CONTRACTOR AT NO ADDITIONAL COST.
4. PLANT MATERIAL SHALL BE OFFSET 6'-0" MINIMUM OFF THE BACK OF W-BEAM TRAFFIC BARRIERS, CONCRETE BARRIERS, AND RETAINING WALLS, AS APPLICABLE.
5. TREES OR SHRUBS SHALL NOT BE PLANTED WITHIN 5'-0" OF THE CENTERLINE OF SWALES OR DITCHES, OR WITHIN 10'-0" OF THE CENTERLINE OF GAS UTILITY AND SANITARY SEWER.
6. EXISTING LIGHTING AND SIGNAGE SHALL BE FIELD VERIFIED. NOTIFY THE ENGINEER OF CONFLICTS BETWEEN SIGN VISIBILITY AND PLANT LOCATION PRIOR TO PLANT INSTALLATION. PLANT MATERIAL SHALL NOT BE PLANTED DIRECTLY IN FRONT OF ROADWAY SIGN SIGHT LINES. COORDINATE PLANT OR SIGN LOCATION ADJUSTMENTS WITH THE ENGINEER.
7. DECIDUOUS TREES SHALL BE INSTALLED AND STAKED PER SPECIFICATION SECTION 710.03.07 OF THE MD SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.
8. QUANTITIES SHOWN IN SCHEDULES ARE FOR CONTRACTOR'S CONVENIENCE. PLAN SHALL GOVERN.

SHADE TREES — STREET TREE SCHEDULE – THIS SHEET ONLY

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	PLANTING SIZE	SPACING
ARO	11	Acer rebrum 'October Glory'	October Glory Red Maple	2.5" Cal.	40' o.c.
ARR	0	Acer Rebrum 'Red Sunset'	Red Sunset Red Maple	2.5" Cal.	40'o.c.
QC	53	Quercus Coccinea	Scarlet Oak	2.5" Cal.	40' o.c.

Note: All street trees to be single trunk trees whose lower branches are pruned to a height of 7'

SHADE TREES — STREET TREE SCHEDULE – TOTAL

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	PLANTING SIZE	SPACING
ARO	71	Acer rebrum 'October Glory'	October Glory Red Maple	2.5" Cal.	40' o.c.
ARR	12	Acer Rebrum 'Red Sunset'	Red Sunset Red Maple	2.5" Cal.	40'o.c.
QC	53	Quercus Coccinea	Scarlet Oak	2.5" Cal.	40' o.c.

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS GORDON — No. 21615 — REGISTERED PROFESSIONAL ENGINEER — 12/10/06

DES: RKK
DRN: MBW
CHK: RKK
DATE: 10/06

BY	NO.	REVISION	DATE

LANDSCAPE PLAN

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 – JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=50'

SHEET 51 OF 74

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Project Name: Dorsey Run Road Extension | Borehole No.: C–1

Project Number: 20829545.00000 | Location: Jessup, Maryland

Date Started: 11/3/05 | Date Completed: 11/3/05 | Driller: Duane Addison

Drilling Company: EBA Engineering | Elevation: | Sheet 1 of 1

North: 541962 | East: 1375328 | Station: | Offset:

Depth	Sample No.	Blow Count:	Recovery:	Sampled:	Description:	Graphic Log	USCS:	Remarks:
					0.3 4" Bituminous Concrete		ASPH	
	1	8-10-9	12"		Orange-brown, moist, mf SAND, little silt, trace gravel		SM	
	2	6-8-9	14"		5			Boring caved at 2.3' at completion Dry at completion

URS 4 North Park Drive, Suite 300 Hunt Valley, MD 21030 Tel: (410)785–7220 Fax: (410)785–6818

Inspected By: Jason Kotova

Signature:

Project Name: Dorsey Run Road Extension | Borehole No.: C–2

Project Number: 20829545.00000 | Location: Jessup, Maryland

Date Started: 11/2/05 | Date Completed: 11/2/05 | Driller: Ed Gross

Drilling Company: EBA Engineering | Elevation: 198.8 | Sheet 1 of 1

North: 542020 | East: 1375452 | Station: | Offset:

Depth	Sample No.	Blow Count:	Recovery:	Sampled:	Description:	Graphic Log	USCS:	Remarks:
					0.7 8" Topsoil		TOPS	
	1	1-2-2	18"		Orange-brown, wet, mf SAND, some silt, trace gravel		SM	
	2	3-3-5	10"		3 Light gray, moist, Clayey SILT, trace sand		ML	
	3	4-6-8	10"		7 8 Light gray & tan, moist, f SAND and Silty Clay		SC	
	4	6-8-10	9"		Light gray & red, moist, Silty CLAY, trace f sand 10		CL	Boring caved at 7.5' at completion Dry at completion

URS 4 North Park Drive, Suite 300 Hunt Valley, MD 21030 Tel: (410)785–7220 Fax: (410)785–6818

Inspected By: Jason Kotova

Signature:

Project Name: Dorsey Run Road Extension | Borehole No.: C–3

Project Number: 20829545.00000 | Location: Jessup, Maryland

Date Started: 11/2/05 | Date Completed: 11/2/05 | Driller: Ed Gross

Drilling Company: EBA Engineering | Elevation: 199.3 | Sheet 1 of 1

North: 542295 | East: 1375764 | Station: | Offset:

Depth	Sample No.	Blow Count:	Recovery:	Sampled:	Description:	Graphic Log	USCS:	Remarks:
					0.5 6" Topsoil		TOPS	
	1	1-1-2	7"		Orange-brown, moist, Silty CLAY, some sand		CL	
	2	3-3-6	0"		5			Boring caved at 2.4' at completion Dry at completion

URS 4 North Park Drive, Suite 300 Hunt Valley, MD 21030 Tel: (410)785–7220 Fax: (410)785–6818

Inspected By: Jason Kotova

Signature:

Project Name: Dorsey Run Road Extension | Borehole No.: C–4

Project Number: 20829545.00000 | Location: Jessup, Maryland

Date Started: 11/2/05 | Date Completed: 11/2/05 | Driller: Ed Gross

Drilling Company: EBA Engineering | Elevation: 229.6 | Sheet 1 of 1

North: 542620 | East: 1375976 | Station: | Offset:

Depth	Sample No.	Blow Count:	Recovery:	Sampled:	Description:	Graphic Log	USCS:	Remarks:
	1	3-5-10	10"		Tan to reddish brown, moist, mf SAND, trace Clayey Silt		SM	
	2	11-17-21	16"		3 Reddish brown, moist, Clayey SILT, trace f sand		ML	
	3	11-13-18	16"		6			
	4	4-5-5	7"		Tan, moist, mf SAND, little silt, trace gravel		SM	
	5	3-3-5	10"		12 Tan, moist, mf SAND, trace silt		SP-SM	
	6	4-6-8	12"		20			Boring caved at 11' at completion Dry at completion

URS 4 North Park Drive, Suite 300 Hunt Valley, MD 21030 Tel: (410)785–7220 Fax: (410)785–6818

Inspected By: Jason Kotova

Signature:

Project Name: Dorsey Run Road Extension | Borehole No.: C–5

Project Number: 20829545.00000 | Location: Jessup, Maryland

Date Started: 11/2/05 | Date Completed: 11/2/05 | Driller: Ed Gross

Drilling Company: EBA Engineering | Elevation: 223.5 | Sheet 1 of 1

North: 542954 | East: 1376197 | Station: | Offset:

Depth	Sample No.	Blow Count:	Recovery:	Sampled:	Description:	Graphic Log	USCS:	Remarks:
					0.5 6" Topsoil		TOPS	
	1	1-1-2	11"		Reddish tan, moist, mf SAND, trace silt		SP-SM	
	2	3-4-5	10"		5			Boring caved at 3' at completion Dry at completion

URS 4 North Park Drive, Suite 300 Hunt Valley, MD 21030 Tel: (410)785–7220 Fax: (410)785–6818

Inspected By: Jason Kotova

Signature:

Project Name: Dorsey Run Road Extension | Borehole No.: C–6

Project Number: 20829545.00000 | Location: Jessup, Maryland

Date Started: 11/2/05 | Date Completed: 11/2/05 | Driller: Ed Gross

Drilling Company: EBA Engineering | Elevation: 210.3 | Sheet 1 of 1

North: 543297 | East: 1376417 | Station: | Offset:

Depth	Sample No.	Blow Count:	Recovery:	Sampled:	Description:	Graphic Log	USCS:	Remarks:
					0.5 6" Topsoil		TOPS	
	1	2-4-8	12"		2 Gray & tan, moist, Silty CLAY, some sand		CL	
	2	10-19-20	13"		Orange-brown to tan, moist, Silty CLAY, some Sand, Trace Gravel		CL	
	3	10-24-18	13"		8			
	4	9-13-21	14"		Orange-brown, moist, mf SAND, some silt, trace gravel 10		SM	Boring caved at 6.7' at completion Dry at completion

URS 4 North Park Drive, Suite 300 Hunt Valley, MD 21030 Tel: (410)785–7220 Fax: (410)785–6818

Inspected By: Jason Kotova

Signature:

Project Name: Dorsey Run Road Extension | Borehole No.: C–7

Project Number: 20829545.00000 | Location: Jessup, Maryland

Date Started: 11/3/05 | Date Completed: 11/3/05 | Driller: Duane Addison

Drilling Company: EBA Engineering | Elevation: 218 | Sheet 1 of 1

North: 543508 | East: 1376564 | Station: | Offset:

Depth	Sample No.	Blow Count:	Recovery:	Sampled:	Description:	Graphic Log	USCS:	Remarks:
					0.5 6" Topsoil		TOPS	
	1	1-2-3	14"		Tan & gray, moist, mf SAND, and silt, trace root fragments		SM	
	2	6-6-7	14"					
	3	10-14-14	14"		8			
	4	6-9-14	14"		Orange-brown, moist, little silt, trace gravel 10		SM	Boring caved at 8' at completion Dry at completion

URS 4 North Park Drive, Suite 300 Hunt Valley, MD 21030 Tel: (410)785–7220 Fax: (410)785–6818

Inspected By: Jason Kotova

Signature:

Project Name: Dorsey Run Road Extension | Borehole No.: C–8

Project Number: 20829545.00000 | Location: Jessup, Maryland

Date Started: 11/3/05 | Date Completed: 11/3/05 | Driller: Duane Addison

Drilling Company: EBA Engineering | Elevation: 227.8 | Sheet 1 of 1

North: 543853 | East: 1376730 | Station: | Offset:

Depth	Sample No.	Blow Count:	Recovery:	Sampled:	Description:	Graphic Log	USCS:	Remarks:
					0.5 6" Topsoil		TOPS	
	1	1-1-1	16"		Light brown, moist, mf SAND, little silt, trace root fragments		SM	
	2	2-2-3	12"		4.7 Tan, moist, mf SAND, some silty clay, trace gravel 5.5		SC	
	3	7-14-14	18"		Reddish tan, moist, mf SAND, little silt, little gravel 8		SM	
	4	9-10-10	14"		Light gray, moist, SILT with f sand		ML	Boring caved at 10.3' at completion Dry at completion
	5	4-4-6	14"		13.5 Light gray, moist, SILT Y CLAY, some f Sand 15		CL	

URS 4 North Park Drive, Suite 300 Hunt Valley, MD 21030 Tel: (410)785–7220 Fax: (410)785–6818

Inspected By: Jason Kotova

Signature:

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

Steve Shavan 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS DORSCH — No. 19159 — PROFESSIONAL ENGINEER — 12/14/06

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 10/06	BY	NO.	REVISION	DATE

SOIL BORING LOGS - I

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 – JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE N.T.S.

SHEET 52 OF 74

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Borehole No.: SWM-1

Project Name: Dorsey Run Road Extension
Project Number: 20829545.00000 | Location: Jessup, Maryland
Date Started: 11/22/05 | Date Completed: 11/22/05 | Driller: Ed Gross
Drilling Company: EBA Engineering | Elevation: 199.6 | Sheet 1 of 1
North: 541899 | East: 1375405 | Station: | Offset:

Depth	Sample No.	Blow Count	Recovery	Description	USCS	Remarks
0.7				9" Crushed Aggregate Base	GP	
	1	3-3-3	10"	Tan, moist, mf SAND, little silt, trace gravel	SM	
	2	2-2-2	9"			
6	3	5-7-8-9	17"	Reddish tan & tan, moist, Clayey SILT and f sand	ML	
8						Boring caved at 4.7' at completion Dry at completion

URS 4 North Park Drive, Suite 300, Hunt Valley, MD 21030, Tel: (410)785-7220, Fax: (410)785-6818 | Inspected By: Jason Kotova | Signature:

Borehole No.: SWM-3

Project Name: Dorsey Run Road Extension
Project Number: 20829545.00000 | Location: Jessup, Maryland
Date Started: 11/30/05 | Date Completed: 11/30/05 | Driller: Duane Addison
Drilling Company: EBA Engineering | Elevation: 195 | Sheet 1 of 1
North: 542177 | East: 1375749 | Station: | Offset:

Depth	Sample No.	Blow Count	Recovery	Description	USCS	Remarks
0.3				4" Topsoil	TOPS	
	1	2-2-4	12"	Gray & tan, moist, mf SAND with Silty Clay	SC	
2	2	2-2-6	12"	Tan, moist, cf SAND, little silty clay, trace gravel	SC	
5.5	3	6-13-13	16"	Light gray, moist, mf SAND, some silty clay, trace gravel	SC	
8	4	12-17-16	16"	Orange-brown, wet, cf SAND, some gravel, little silt	SM	Water on spoon @ 8.0'
10						Boring caved at 9' at completion Water at 8' at completion

URS 4 North Park Drive, Suite 300, Hunt Valley, MD 21030, Tel: (410)785-7220, Fax: (410)785-6818 | Inspected By: Jason Kotova | Signature:

Borehole No.: SWM-4

Project Name: Dorsey Run Road Extension
Project Number: 20829545.00000 | Location: Jessup, Maryland
Date Started: 11/30/05 | Date Completed: 11/30/05 | Driller: Duane Addison
Drilling Company: EBA Engineering | Elevation: 196.8 | Sheet 1 of 1
North: 542229 | East: 1375819 | Station: | Offset:

Depth	Sample No.	Blow Count	Recovery	Description	USCS	Remarks
0.3				4" Topsoil	TOPS	
	1	1-1-1	8"	Gray & tan, wet, mf SAND, some silt, trace gravel (Fill)	SM	
3	2	2-2-7	12"	Tan & gray, moist, mf SAND with Silty Clay (Possible Fill)	SC	
5.5	3	13-17-14	14"	Reddish tan, wet, cf SAND, little silt, trace gravel	SM	
8	4	5-7-11	12"	Light gray, moist, Silty CLAY, trace f sand	CL	Water on rods @ 3.0'
10						Boring caved at 8' at completion Water at 4' at completion

URS 4 North Park Drive, Suite 300, Hunt Valley, MD 21030, Tel: (410)785-7220, Fax: (410)785-6818 | Inspected By: Jason Kotova | Signature:

Borehole No.: SWM-5

Project Name: Dorsey Run Road Extension
Project Number: 20829545.00000 | Location: Jessup, Maryland
Date Started: 11/30/05 | Date Completed: 11/30/05 | Driller: Duane Addison
Drilling Company: EBA Engineering | Elevation: 193.6 | Sheet 1 of 1
North: 542139 | East: 1375788 | Station: | Offset:

Depth	Sample No.	Blow Count	Recovery	Description	USCS	Remarks
0.3				3" Topsoil	TOPS	
	1	2-2-3	8"	Gray & tan, moist, Silty CLAY with mf Sand	CL	
3	2	6-10-10	18"	Gray & tan, moist, Silty Clay and mf sand, trace gravel	SC	
	3	8-8-7	12"			
	4	6-8-8	12"	Orange-brown, wet, cf SAND, some gravel, little silt	SM	Water on spoon @ 8.0'
9.7				Gray & red, moist, Silty CLAY, trace sand, trace gravel	CL	
10						Boring caved at 9.2' at completion Water at 7.8' at completion

URS 4 North Park Drive, Suite 300, Hunt Valley, MD 21030, Tel: (410)785-7220, Fax: (410)785-6818 | Inspected By: Jason Kotova | Signature:

Borehole No.: SWM-6

Project Name: Dorsey Run Road Extension
Project Number: 20829545.00000 | Location: Jessup, Maryland
Date Started: 11/28/05 | Date Completed: 11/28/05 | Driller: Ed Gross
Drilling Company: EBA Engineering | Elevation: 211.1 | Sheet 1 of 1
North: 543312 | East: 1376559 | Station: | Offset:

Depth	Sample No.	Blow Count	Recovery	Description	USCS	Remarks
0.5				6" Topsoil	TOPS	
	1	1-2-3	15"	Orange-brown & tan, moist, mf SAND, some clayey silt	SM	
3	2	16-18-20	14"	Light gray, moist, mf SAND, some silt	SM	
5.5	3	10-11-13	7"	Gray & tan, moist, mf SAND, little silt, little gravel	SM	
8	4	6-8-14	8"	Gray & tan, moist, Silty CLAY	CH	
10						Boring caved at 7.5' at completion Dry at completion

URS 4 North Park Drive, Suite 300, Hunt Valley, MD 21030, Tel: (410)785-7220, Fax: (410)785-6818 | Inspected By: Jason Kotova | Signature:

Borehole No.: SWM-7

Project Name: Dorsey Run Road Extension
Project Number: 20829545.00000 | Location: Jessup, Maryland
Date Started: 11/28/05 | Date Completed: 11/28/05 | Driller: Ed Gross
Drilling Company: EBA Engineering | Elevation: 214.7 | Sheet 1 of 1
North: 543403 | East: 1376580 | Station: | Offset:

Depth	Sample No.	Blow Count	Recovery	Description	USCS	Remarks
0.5				6" Topsoil	TOPS	
	1	3-6-8	12"	Tan & gray, moist, mf SAND, some silt	SM	
3	2	5-5-5	16"	Tan & gray, moist, mf SAND with Silty Clay	SC	
5.5	3	6-7-9	17"	Light gray & tan, moist, Clayey SILT, trace f sand	ML	
	4	6-8-12	15"			
10						Boring caved at 7.6' at completion Dry at completion

URS 4 North Park Drive, Suite 300, Hunt Valley, MD 21030, Tel: (410)785-7220, Fax: (410)785-6818 | Inspected By: Jason Kotova | Signature:

Borehole No.: SWM-8

Project Name: Dorsey Run Road Extension
Project Number: 20829545.00000 | Location: Jessup, Maryland
Date Started: 11/28/05 | Date Completed: 11/28/05 | Driller: Ed Gross
Drilling Company: EBA Engineering | Elevation: 212 | Sheet 1 of 1
North: 543325 | East: 1376644 | Station: | Offset:

Depth	Sample No.	Blow Count	Recovery	Description	USCS	Remarks
0.3				4" Topsoil	TOPS	
	1	2-3-2	18"	Tan & gray, wet, mf SAND, some silt moist @ 3.0'	SM	
	2	4-6-3	5"			
5.5	3	3-6-10	14"	Gray, moist, mf SAND, some clayey silt	SM	
8	4	23-5-2	7"	Orange-brown, wet, cf SAND, some gravel, some silt	SM	Water on spoon @ 9.0'
10						Boring caved at 8.4' at completion Water at 8.2' at completion

URS 4 North Park Drive, Suite 300, Hunt Valley, MD 21030, Tel: (410)785-7220, Fax: (410)785-6818 | Inspected By: Jason Kotova | Signature:

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS 12/15/06 DATE
CHIEF, BUREAU OF ENGINEERING 12/14/06 DATE
Steve Shanan 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE
CHIEF, BUREAU OF HIGHWAYS 12-15-06 DATE

PREPARED BY URS, 4 NORTH PARK DRIVE, HUNT VALLEY, MARYLAND, TEL: (410) 785-7220

STATE OF MARYLAND, DAVID THOMAS ROBISON, REGISTERED PROFESSIONAL ENGINEER

DES: CMC | DRN: SYC/CDF | CHK: DTM | DATE: 10/06

BY | NO. | REVISION | DATE

SOIL BORING LOGS - II

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE N.T.S.

SHEET 53 OF 74

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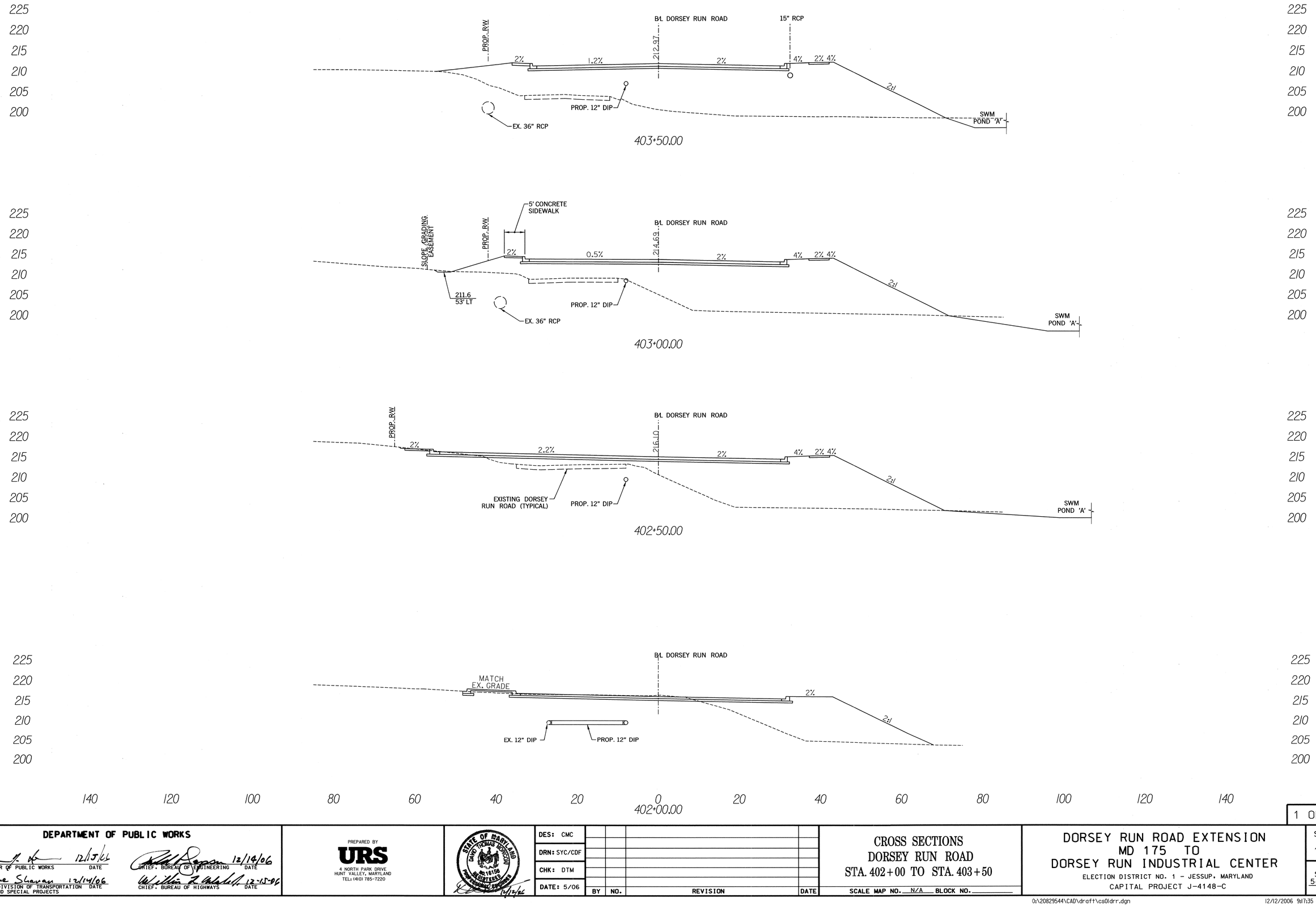

1 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/13/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Sharar — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
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HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS DORSEY — 21616 — REGISTERED PROFESSIONAL ENGINEER — 12/12/06

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 5/06	BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 402+00 TO STA. 403+50

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 54 OF 74

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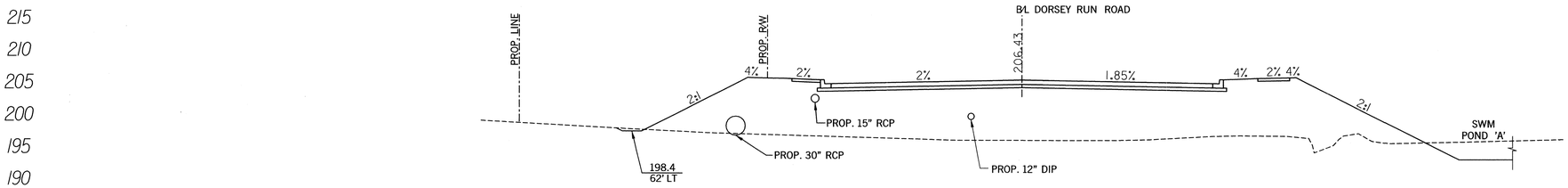

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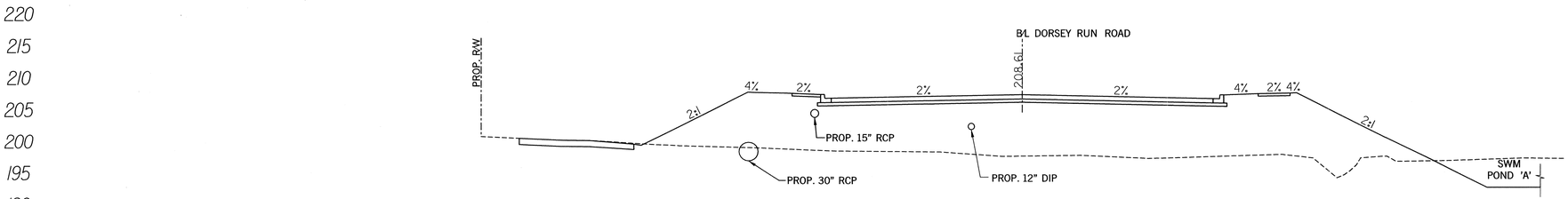

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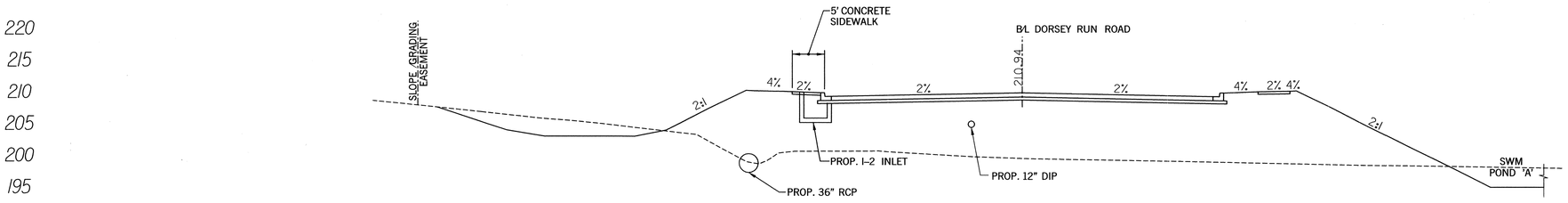

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2 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
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TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS JOHNSON — NO. 16156 — REGISTERED PROFESSIONAL ENGINEER — 12/12/06

DES: CMC	
DRN: SYC/CDF	
CHK: DTM	
DATE: 5/06	

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 404+00 TO STA. 405+00

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 55 OF 74

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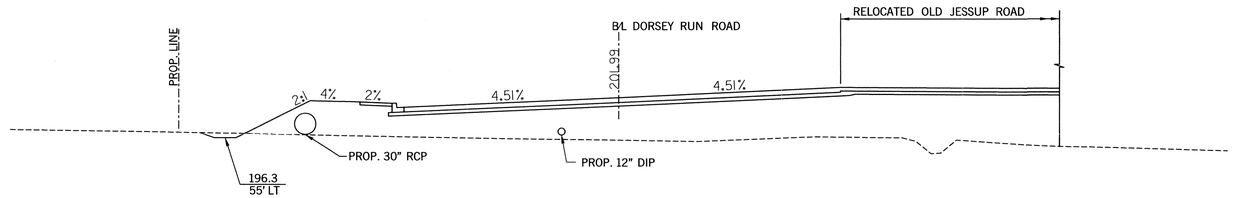

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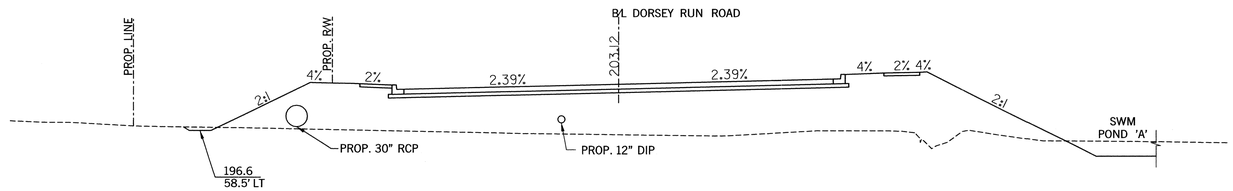

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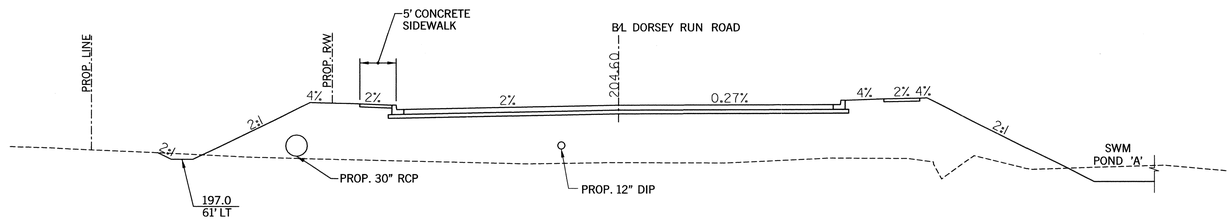

405+50.00

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3 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

/Steve Shaner 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
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HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS GORDON — 21615 — REGISTERED PROFESSIONAL ENGINEER — 12/12/06

DES: CMC	
DRN: SYC/CDF	
CHK: DTM	
DATE: 5/06	

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 405+50 TO STA. 406+50

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 56 OF 74

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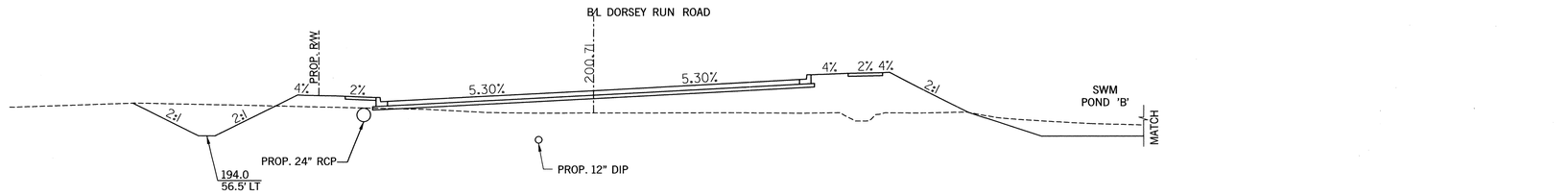
80 100 120 140

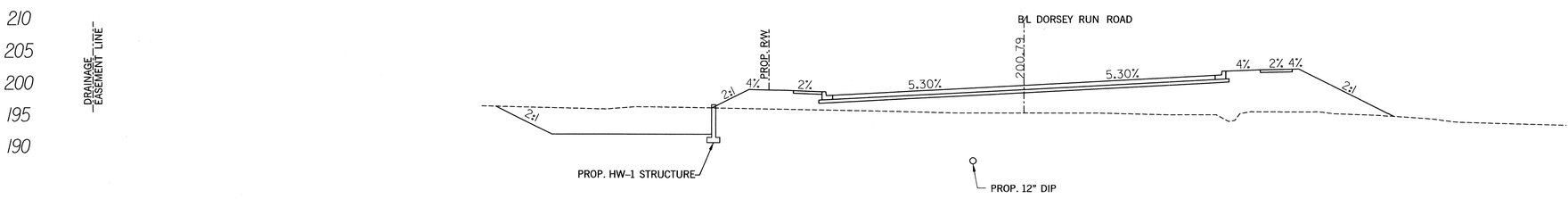
210 205 200 195 190



210 205 200 195 190

408+00.00

210 205 200 195 190



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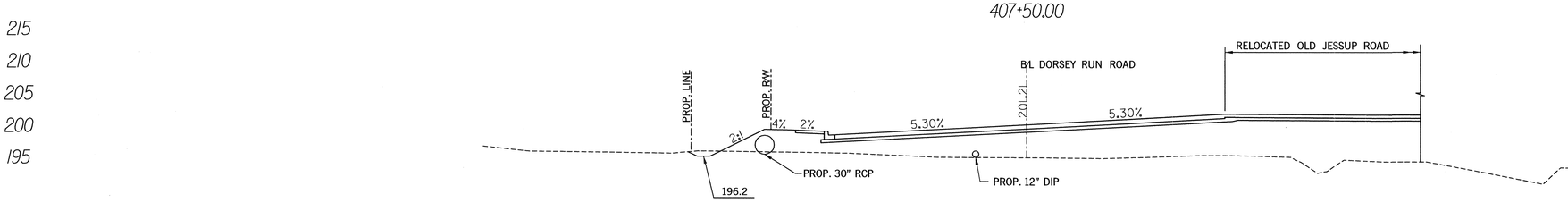

407+00.00

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4 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

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HUNT VALLEY, MARYLAND
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STATE OF MARYLAND — DAVID THOMAS MORGAN — 21615 — REGISTERED PROFESSIONAL ENGINEER — 12/14/06

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 5/06

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 407+00 TO STA. 408+00

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 57 OF 74

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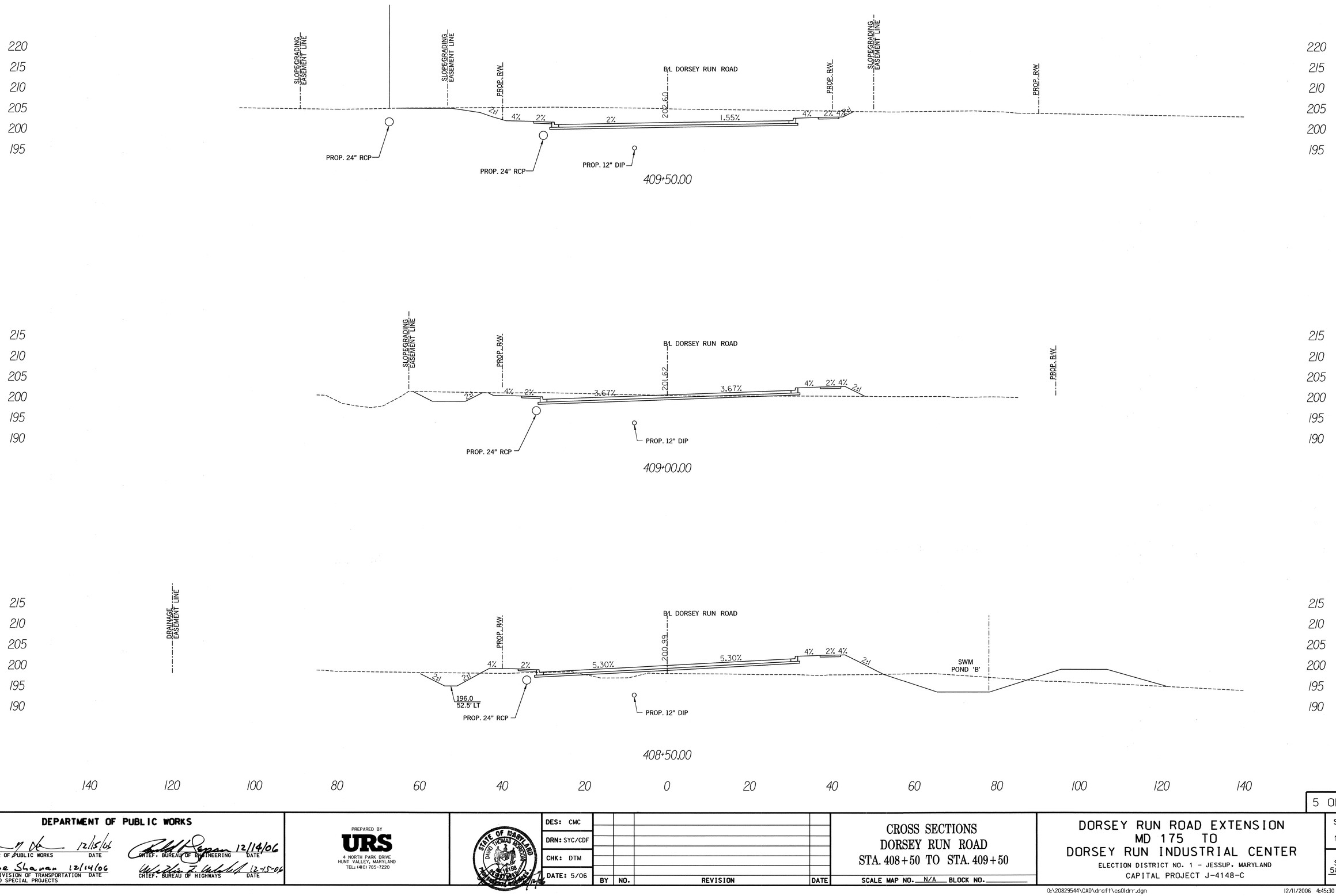

5 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY

URS

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STATE OF MARYLAND — DAVID THOMAS MORGAN — No. 21159 — REGISTERED PROFESSIONAL ENGINEER

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 5/06

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 408+50 TO STA. 409+50

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 58 OF 74

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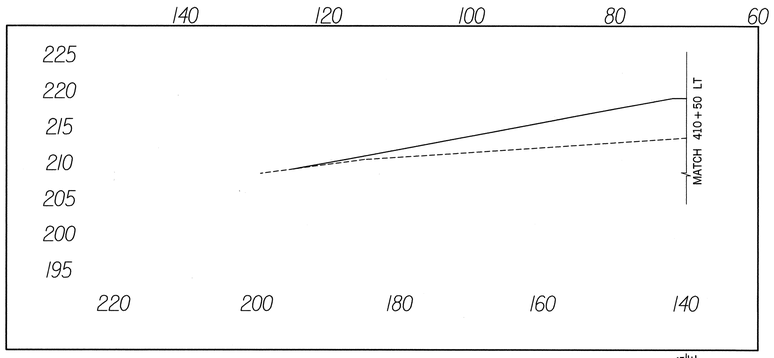

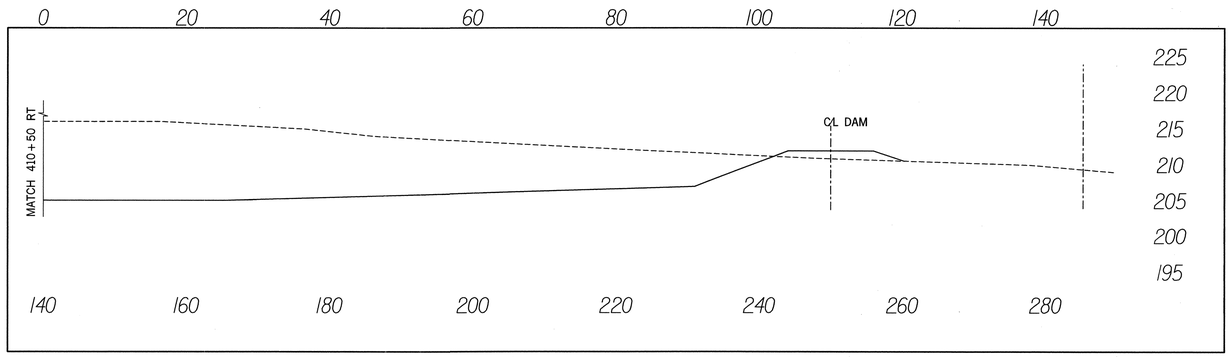

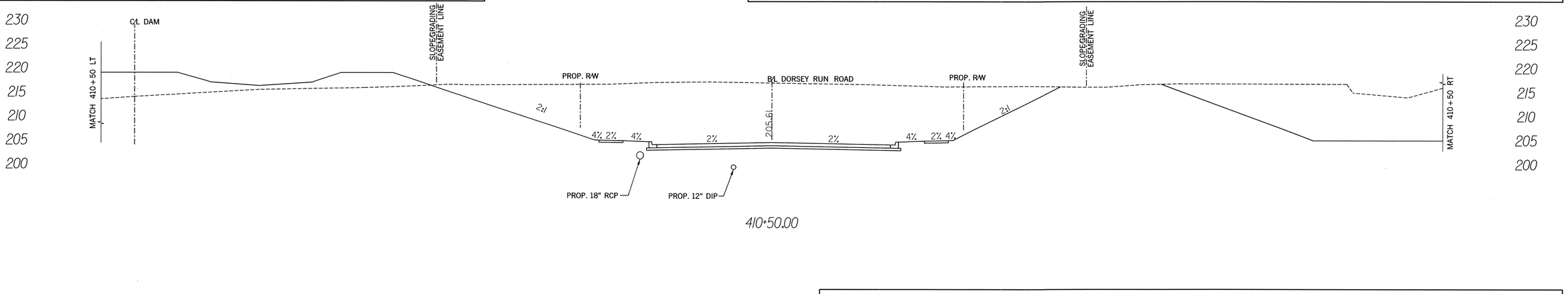

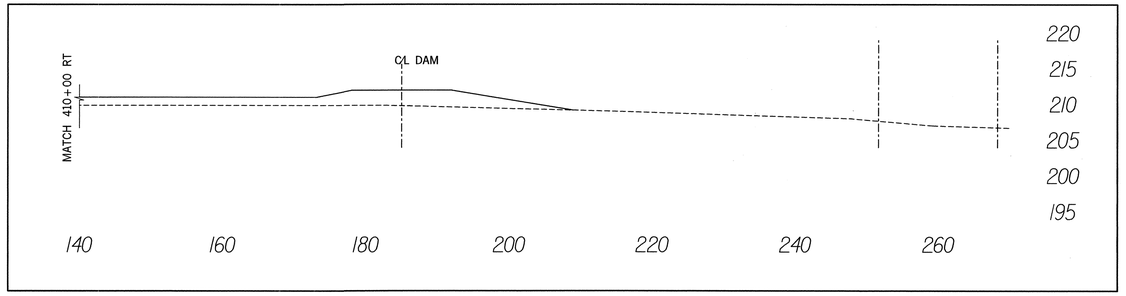

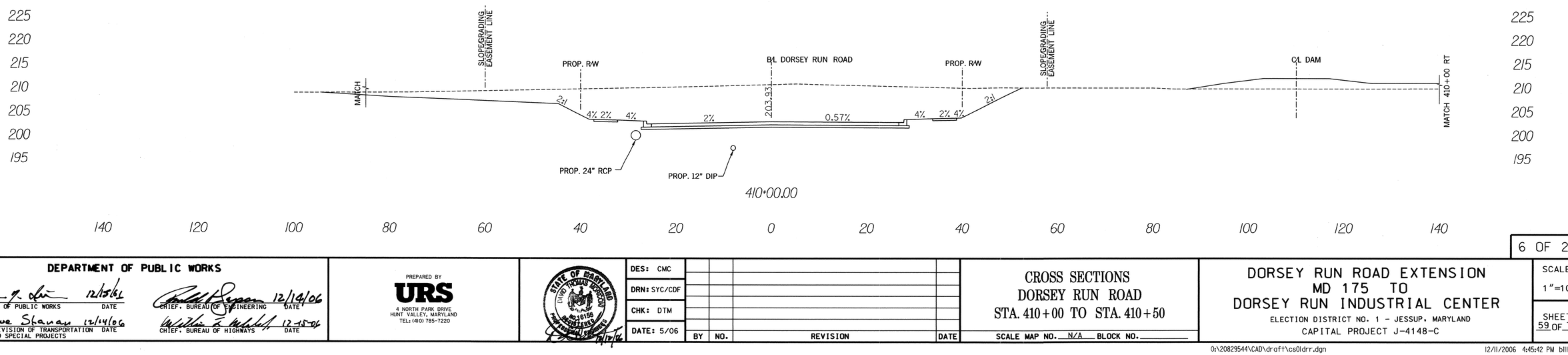

6 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — LAND SURVEYOR — NO. 16156 — REGISTERED — PROFESSIONAL ENGINEER — 12/12/06

DES: CMC	
DRN: SYC/CDF	
CHK: DTM	
DATE: 5/06	

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 410+00 TO STA. 410+50

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 59 OF 74

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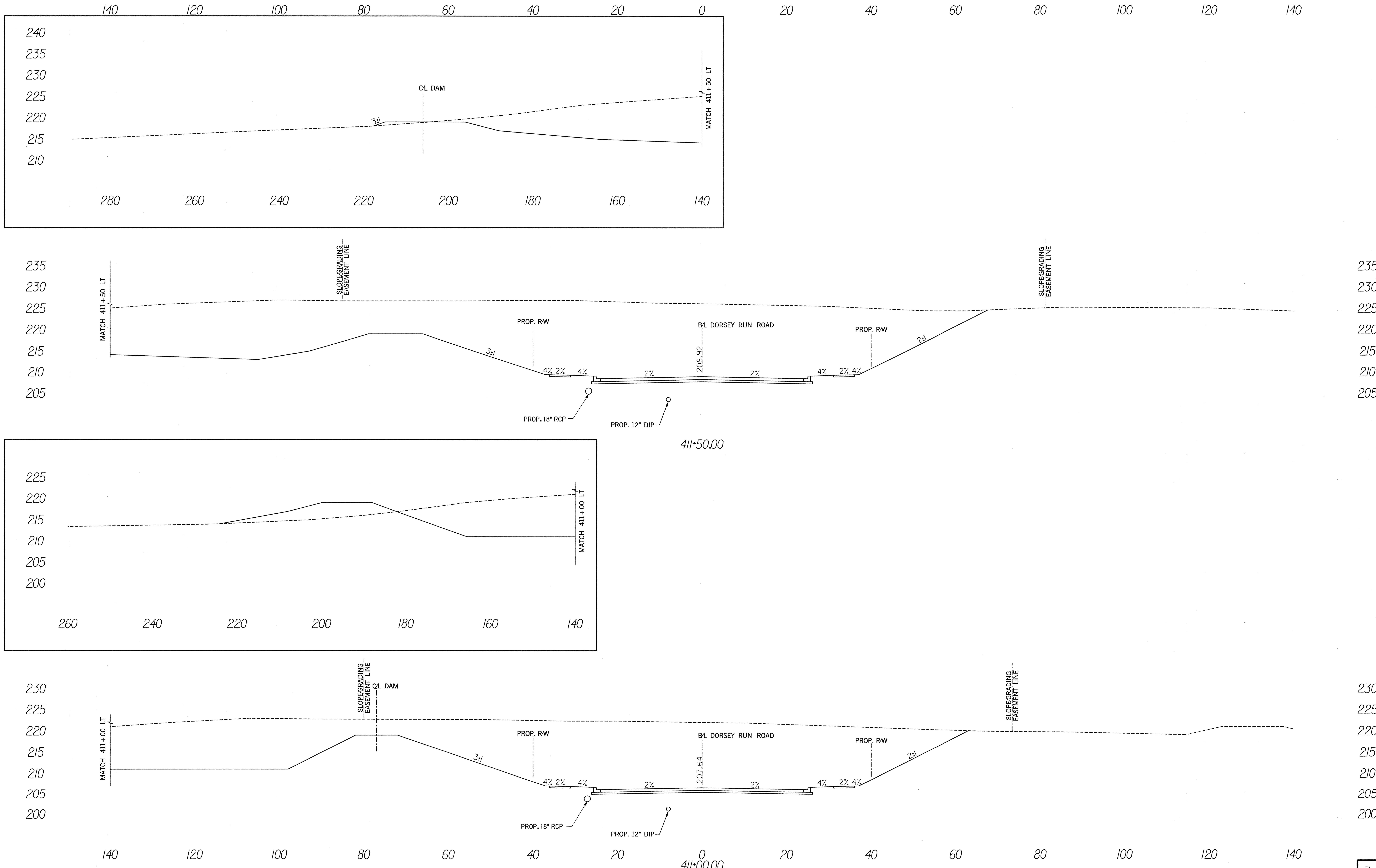

7 OF 21

DEPARTMENT OF PUBLIC WORKS		PREPARED BY URS	DES: CMC	BY	NO.	REVISION	DATE	CROSS SECTIONS DORSEY RUN ROAD STA. 411+00 TO STA. 411+50, RT	DORSEY RUN ROAD EXTENSION MD 175 TO DORSEY RUN INDUSTRIAL CENTER	SCALE 1"=10'
DIRECTOR OF PUBLIC WORKS 12/15/06	CHIEF, BUREAU OF ENGINEERING 12/14/06	4 NORTH PARK DRIVE HUNT VALLEY, MARYLAND TEL: (410) 785-7220	DRN: SYC/CDF						ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND	
Steve Sharan CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS 12/14/06	CHIEF, BUREAU OF HIGHWAYS 12-15-06		CHK: DTM					SCALE MAP NO. N/A BLOCK NO.	CAPITAL PROJECT J-4148-C	SHEET 60 OF 74
			DATE: 5/06							

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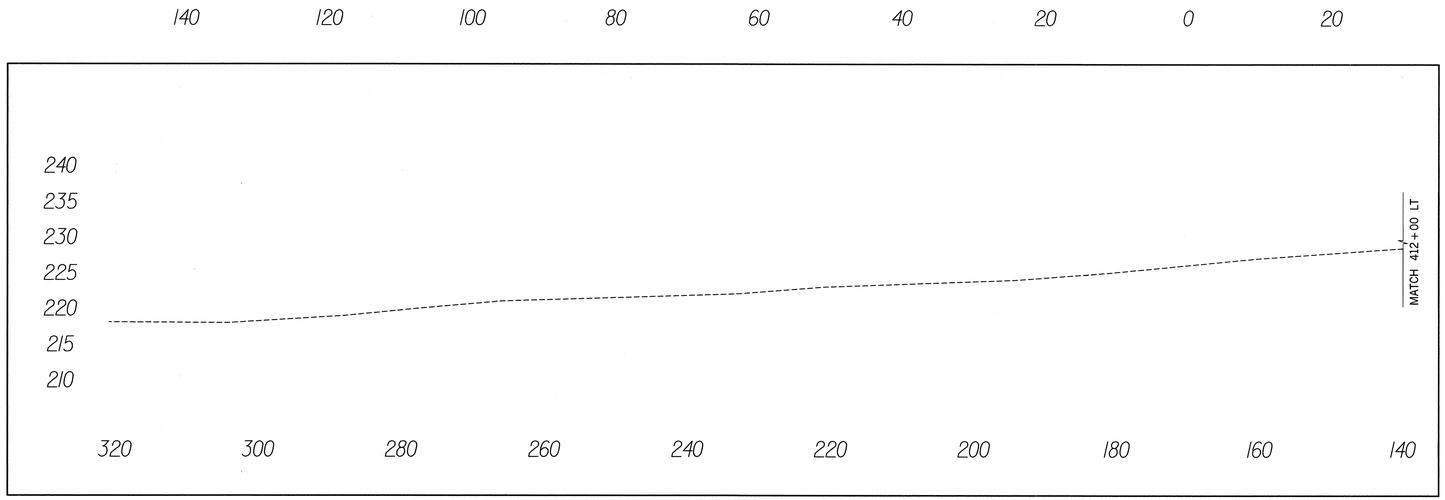

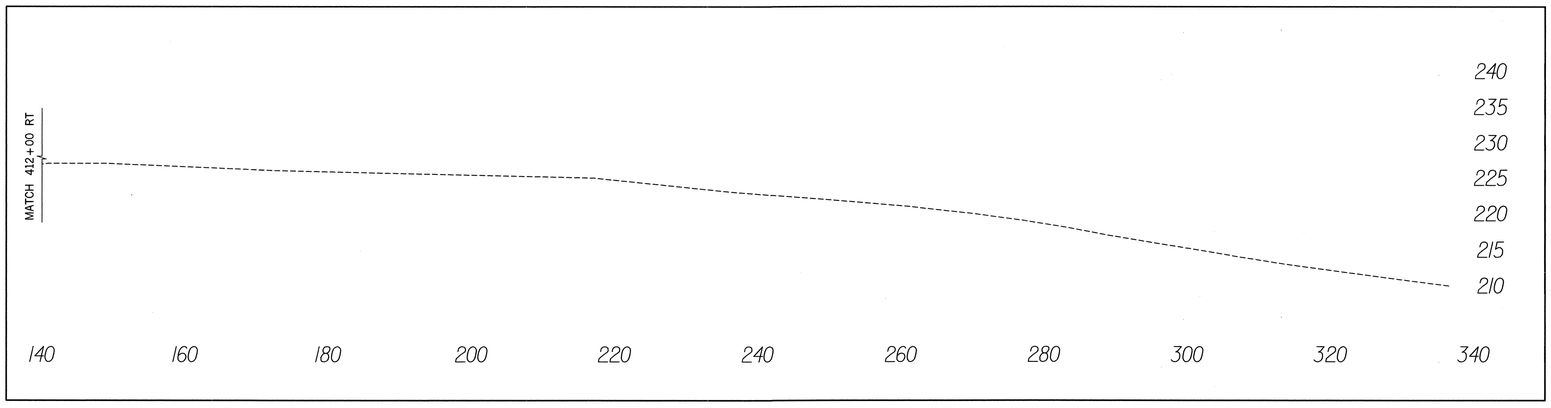

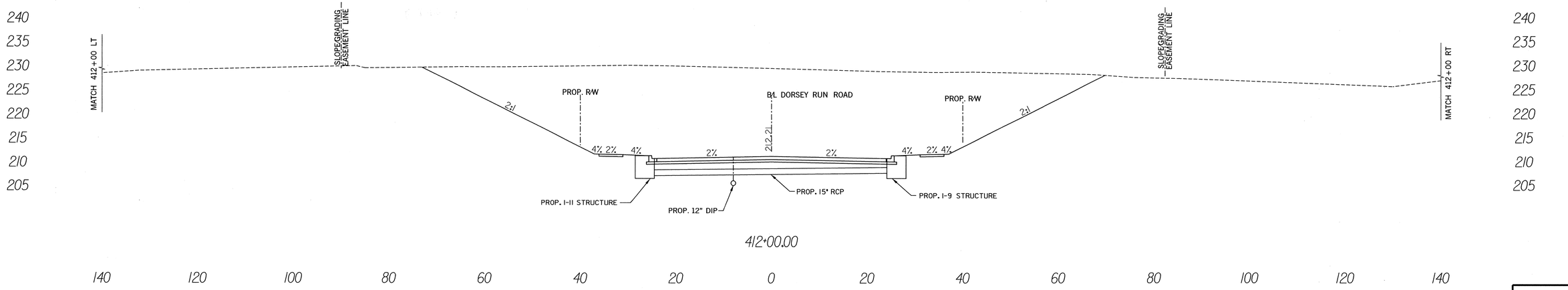

8 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/13/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

Steve Shanan 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MCCORMICK — No. 19158 — REGISTERED PROFESSIONAL ENGINEER — 12/06

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 5/06	BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 411+50, LT TO STA. 412+00

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 61 OF 74

9 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Shavan — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — William D. Mahoney — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS DRISCOLL — No. 19388 — REGISTERED PROFESSIONAL ENGINEER

DES: CMC	
DRN: SYC/CDF	
CHK: DTM	
DATE: 5/06	

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 412+50 TO STA. 413+50

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 62 OF 74

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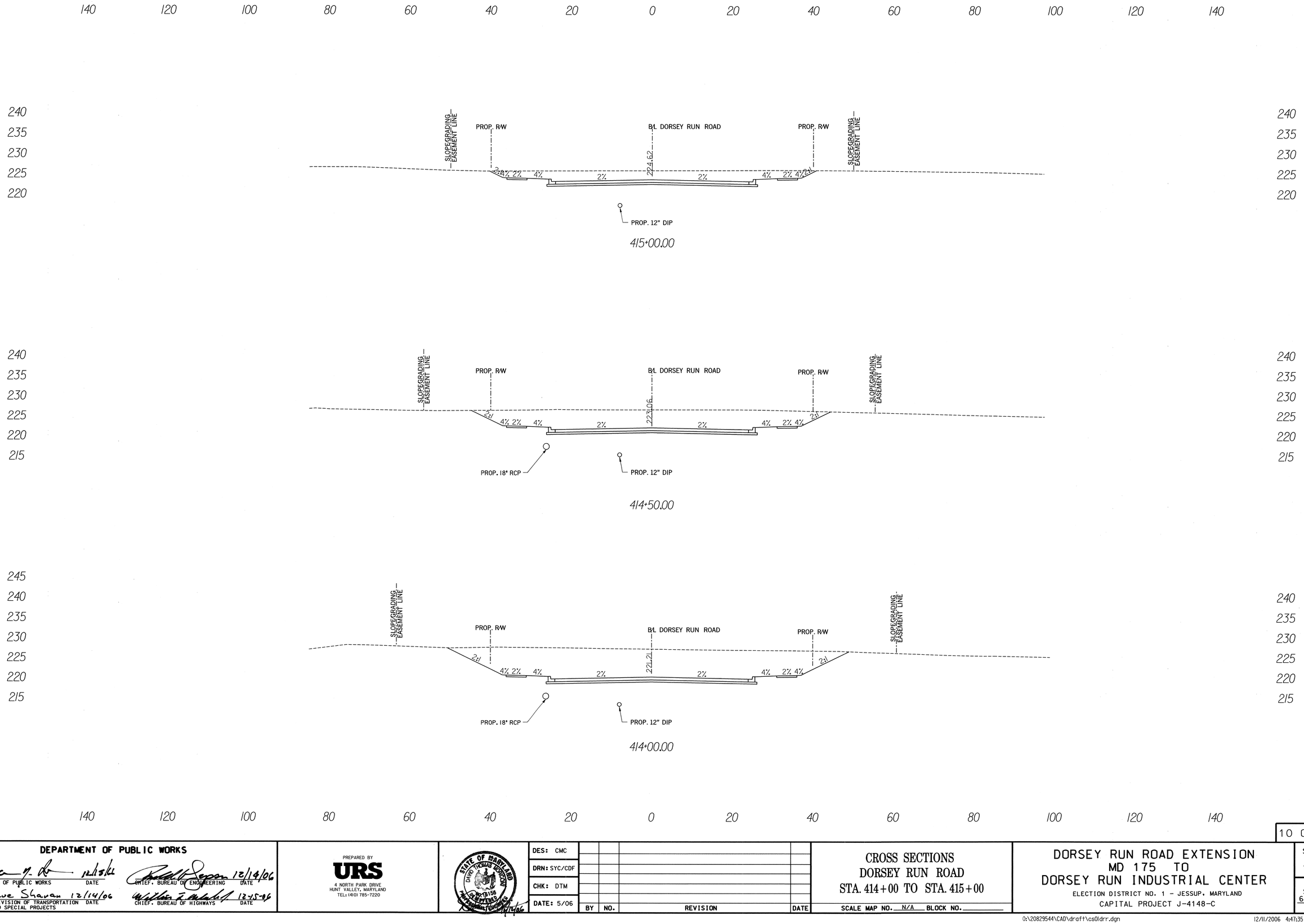

10 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/13/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — Steve Sharan — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-5-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS DRISCOLL — No. 21756 — REGISTERED PROFESSIONAL ENGINEER — 12/14/06

DES: CMC	
DRN: SYC/CDF	
CHK: DTM	
DATE: 5/06	

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 414+00 TO STA. 415+00

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 63 OF 74

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12/11/2006 4:47:35 PM billing

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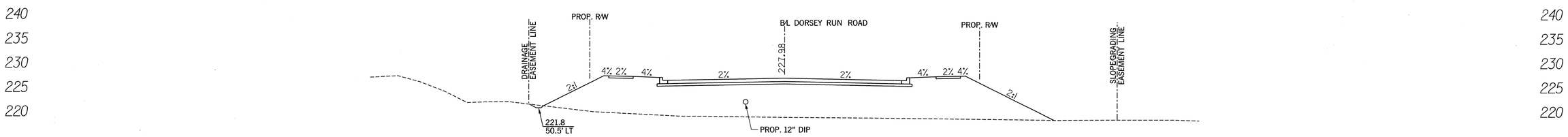
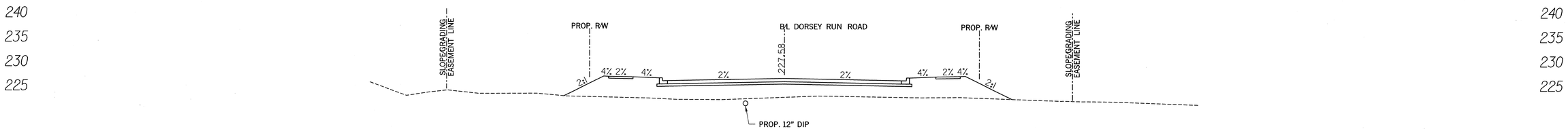
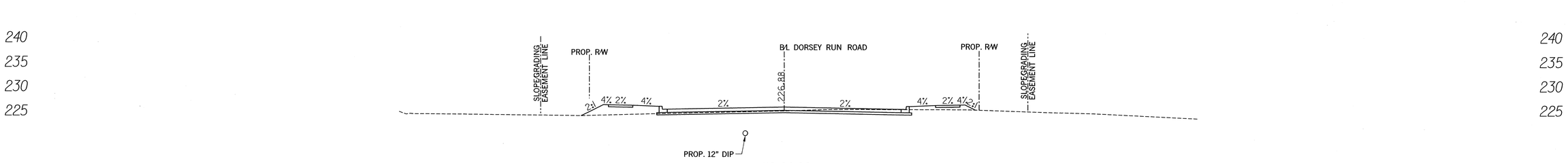


417+00.00



416+50.00



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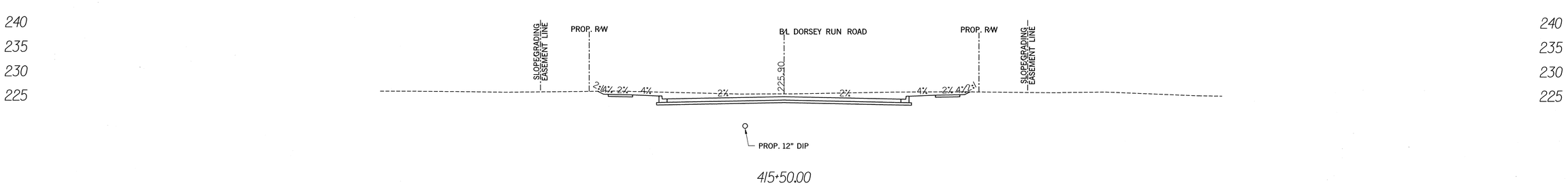

415+50.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/5/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MORGAN — 21156 — REGISTERED PROFESSIONAL ENGINEER — 12/13/06

DES: CMC					
DRN: SYC/CDF					
CHK: DTM					
DATE: 5/06	BY	NO.	REVISION	DATE	

CROSS SECTIONS
DORSEY RUN ROAD
STA. 415+50 TO STA. 417+00

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 64 OF 74

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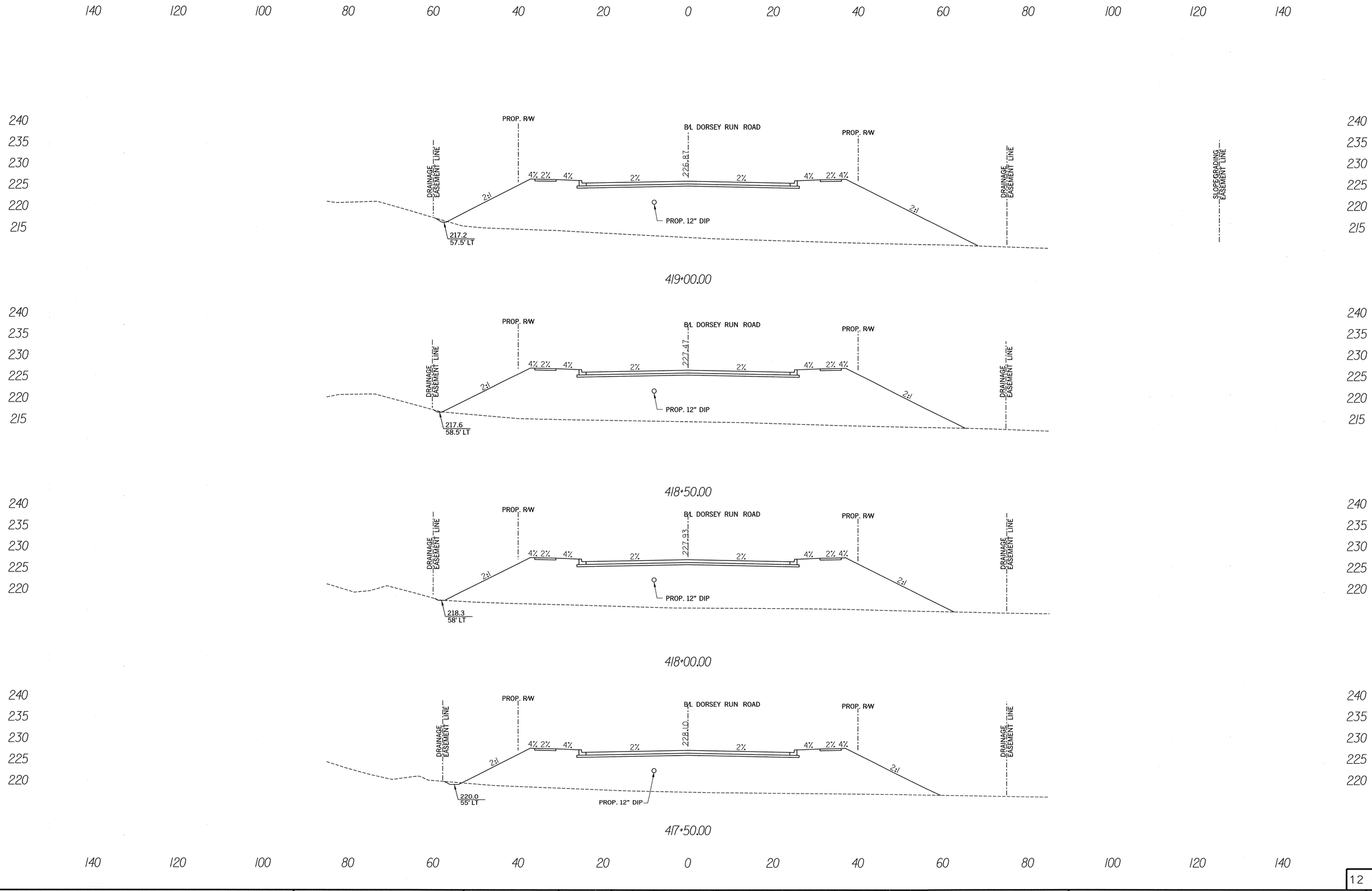

12 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS GORDON — NO. 21615 — REGISTERED PROFESSIONAL ENGINEER — 12/15/06

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 5/06	BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 417+50 TO STA. 419+00

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 65 OF 74

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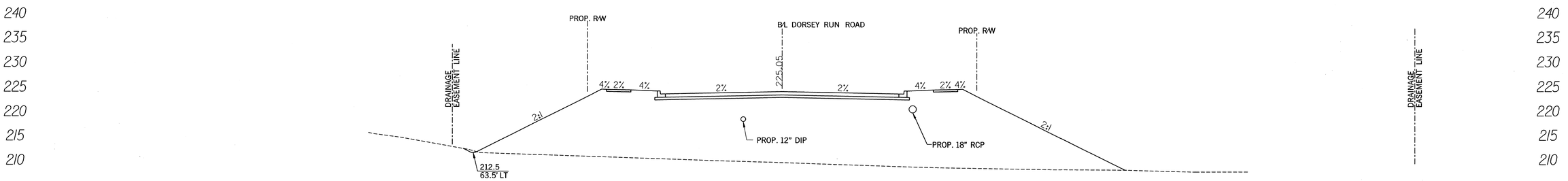
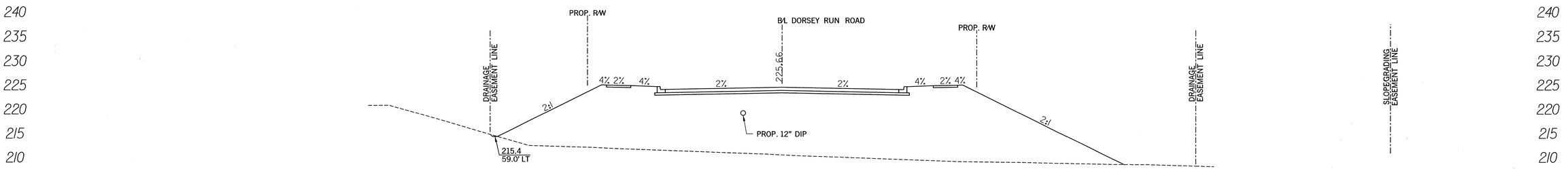
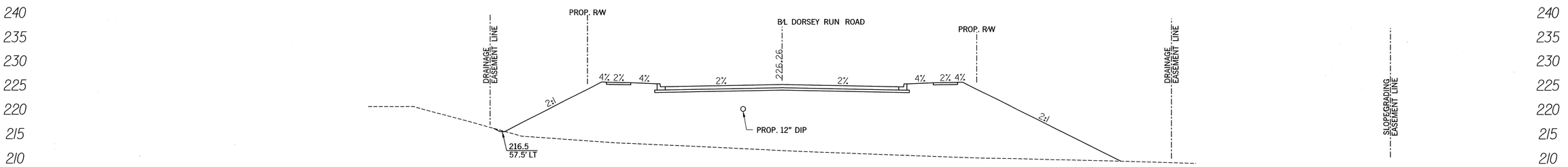


420+50.00



420+00.00



419+50.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

13 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/5/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/4/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — LLOYD THOMAS NORDEN — NO. 16158 — REGISTERED PROFESSIONAL ENGINEER — 12/12/06

DES: CMC	
DRN: SYC/CDF	
CHK: DTM	
DATE: 5/06	

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 419+50 TO STA. 420+50

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 66 OF 74

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DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06	CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06	CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 5/06

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 421+00 TO STA. 422+00

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 67 OF 74

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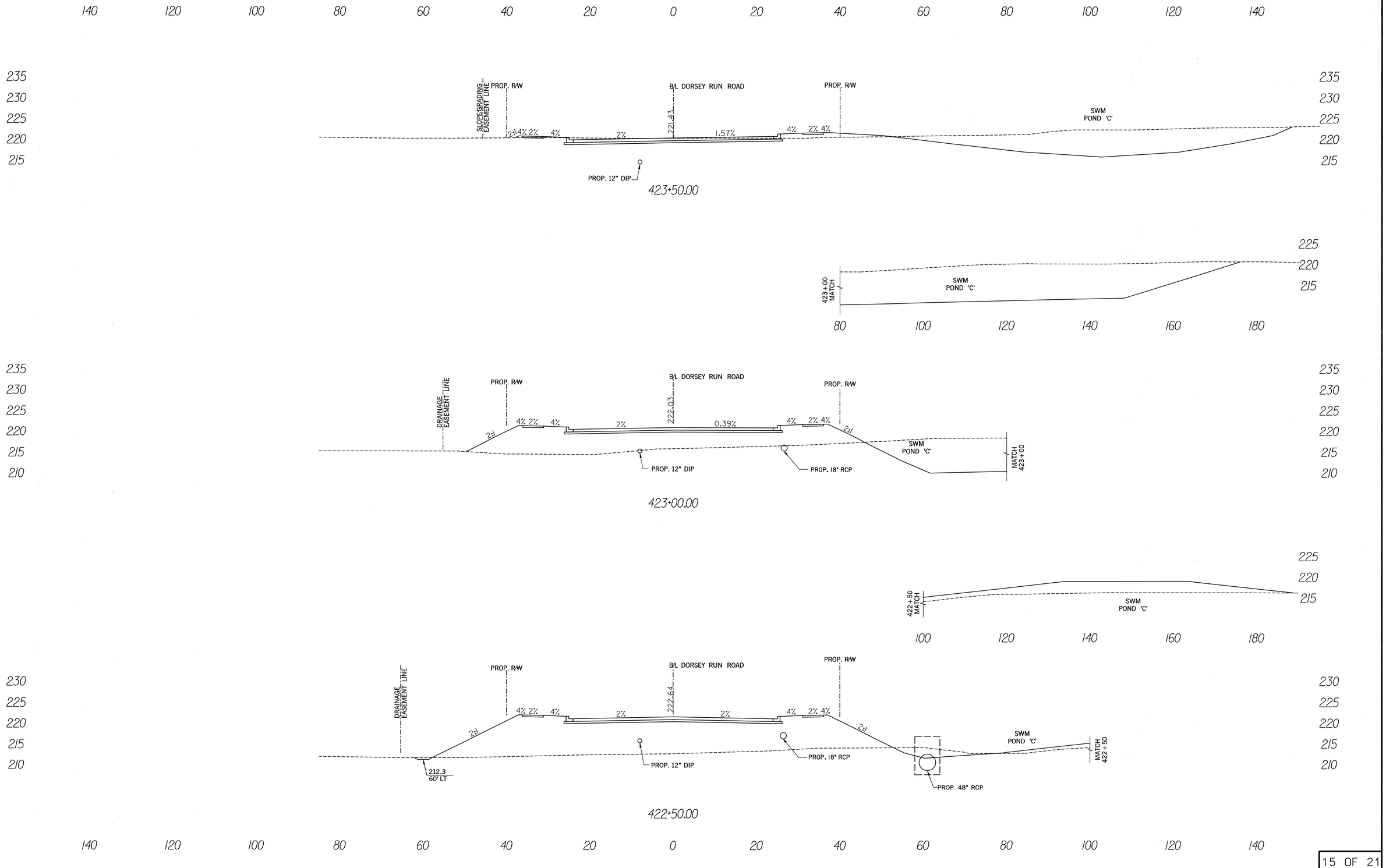

15 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/5/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/04/06 (Steve Shavan)

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS MERCONE — No. 16156 — REGISTERED PROFESSIONAL ENGINEER — 12/1/06

DES:	CMC
DRN:	SYC/CDF
CHK:	DTM
DATE:	5/06

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 422+50 TO STA. 423+50

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 68 OF 74

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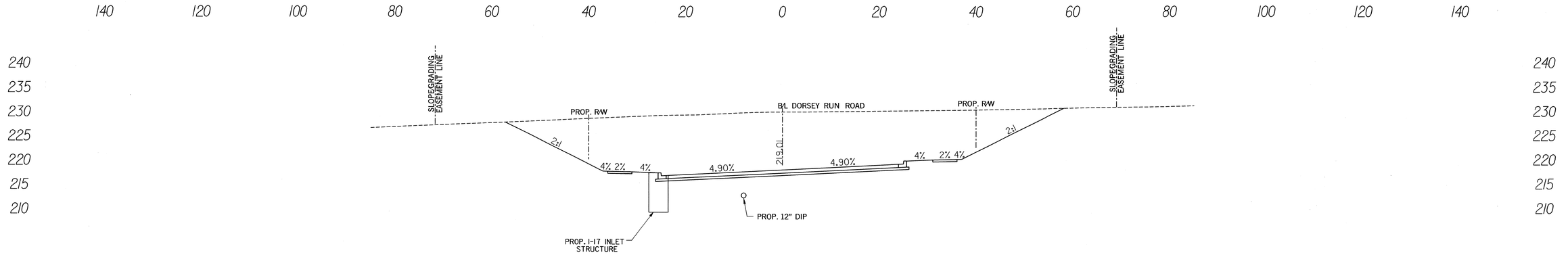
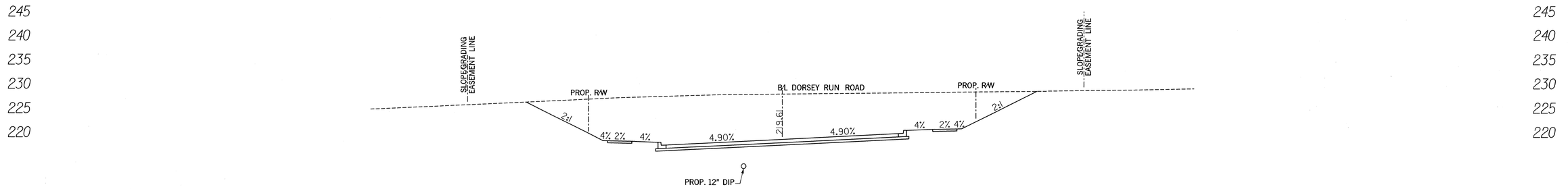
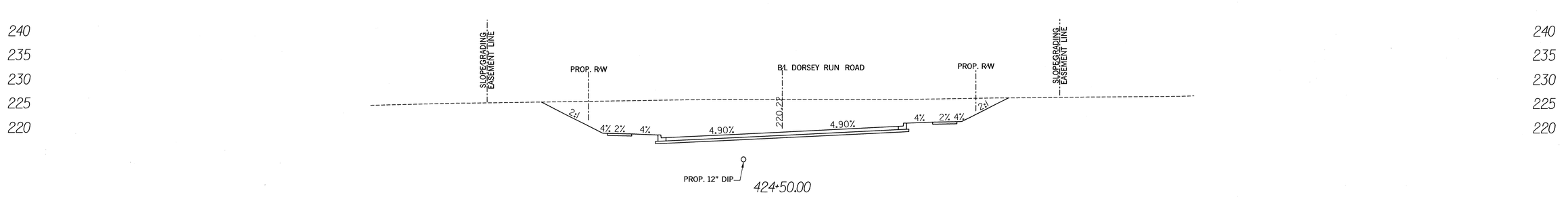


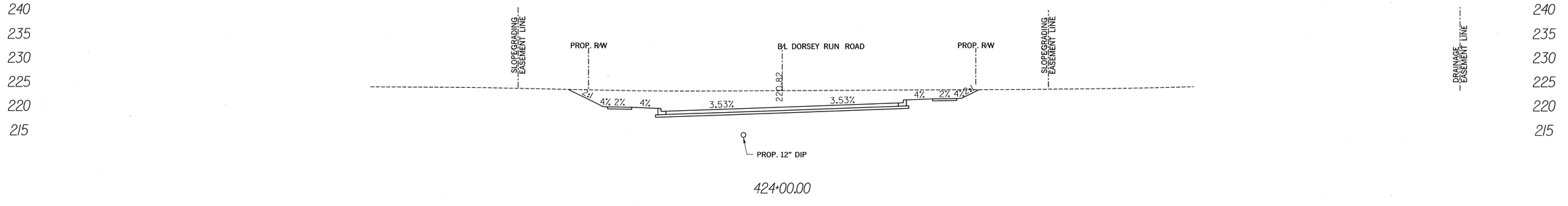
425+50.00



425+00.00



424+50.00



424+00.00

16 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

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4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS THOMPSON — No. 21596 — REGISTERED PROFESSIONAL ENGINEER — 12/14/06

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 5/06	BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 424+00 TO STA. 425+50

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 69 OF 74

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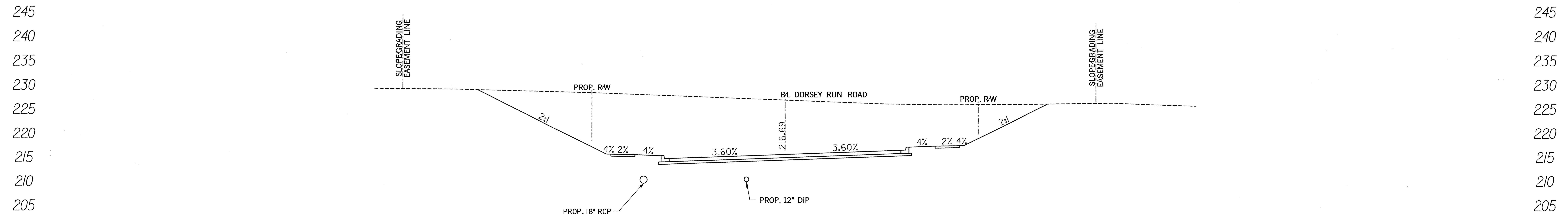
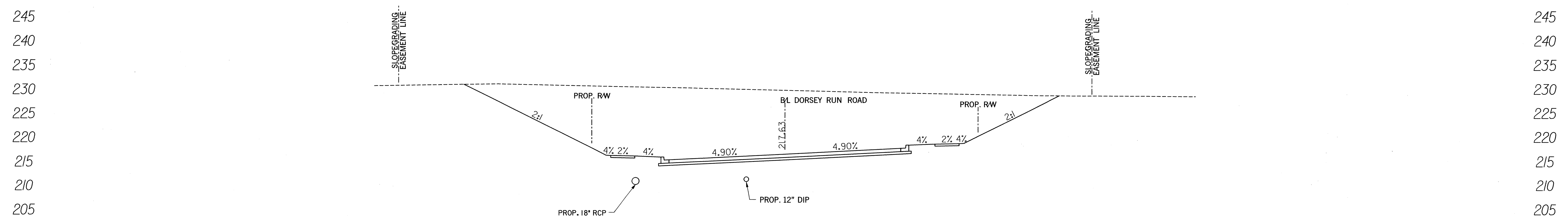
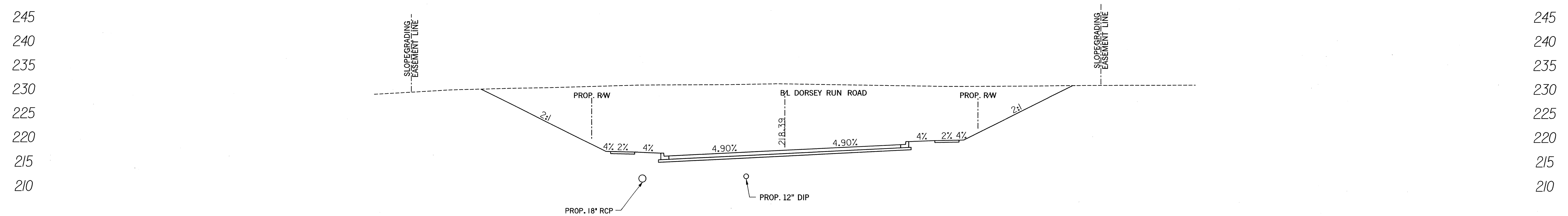


427+00.00



426+50.00



426+00.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

17 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS DATE

CHIEF, BUREAU OF ENGINEERING DATE

Steve Sharan 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

CHIEF, BUREAU OF HIGHWAYS DATE

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 5/06

BY	NO.	REVISION	DATE

CROSS SECTIONS
DORSEY RUN ROAD
STA. 426+00 TO STA. 427+00

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 70 OF 74

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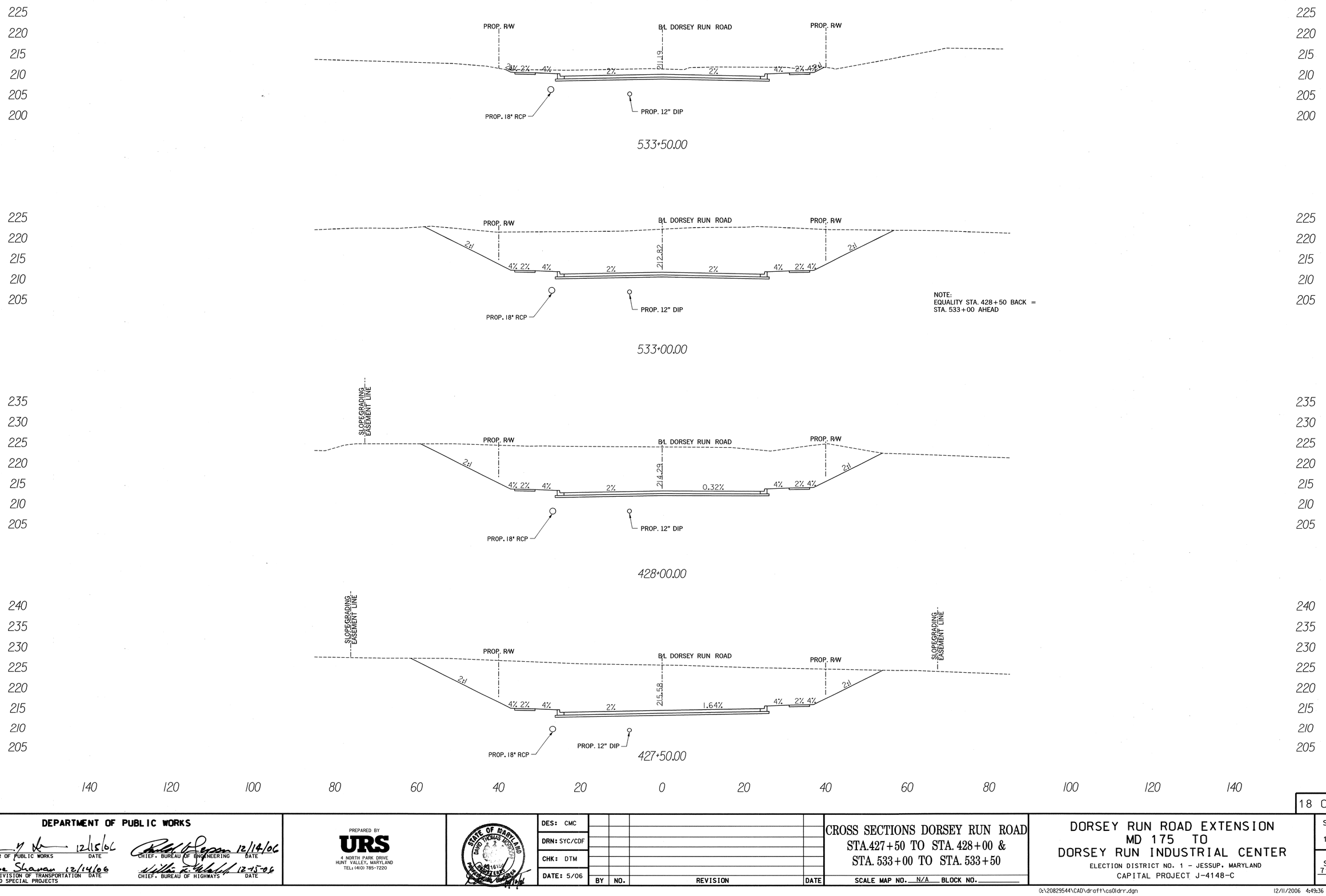


DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS HOSTETLER — 21615 — REGISTERED PROFESSIONAL ENGINEER

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 5/06	BY	NO.	REVISION	DATE

CROSS SECTIONS DORSEY RUN ROAD
STA.427+50 TO STA.428+00 &
STA.533+00 TO STA.533+50

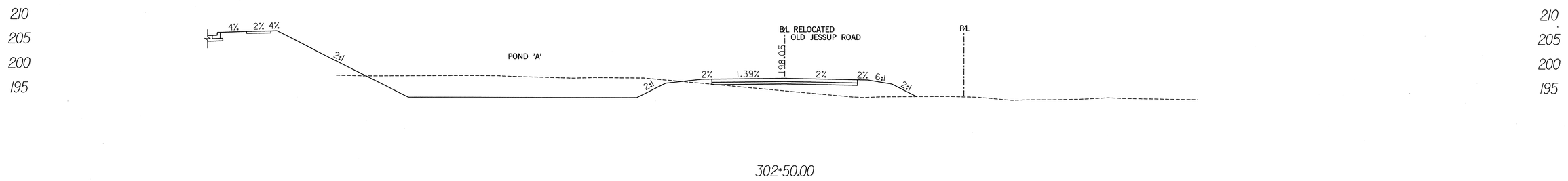
SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

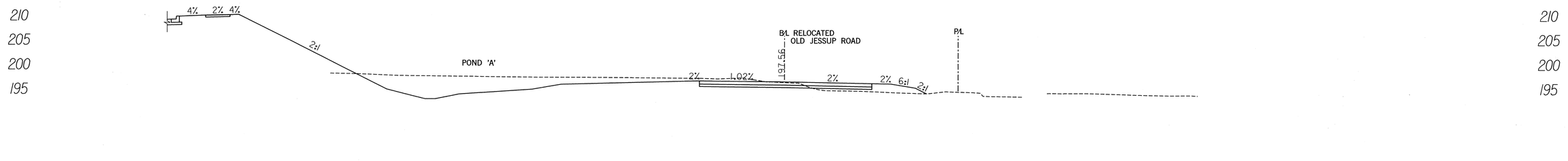
SCALE 1"=10'

SHEET 71 OF 74

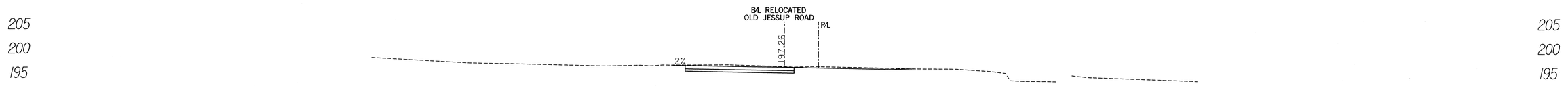
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140



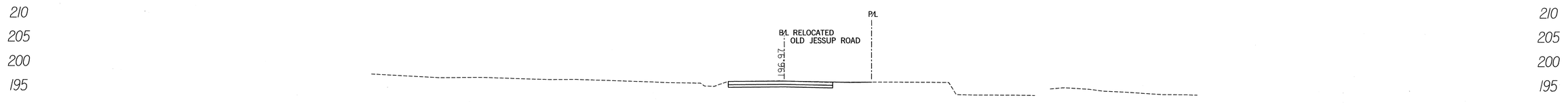
302+50.00



302+00.00



301+50.00



301+00.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

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DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06

CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06

CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND — DAVID THOMAS ROSSITER — 21615 — REGISTERED PROFESSIONAL ENGINEER — 12/14/06

DES: CMC	BY	NO.	REVISION	DATE
DRN: SYC/CDF				
CHK: DTM				
DATE: 5/06				

CROSS SECTIONS
RELOCATED OLD JESSUP ROAD
STA. 301+00 TO STA. 302+50

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 72 OF 74

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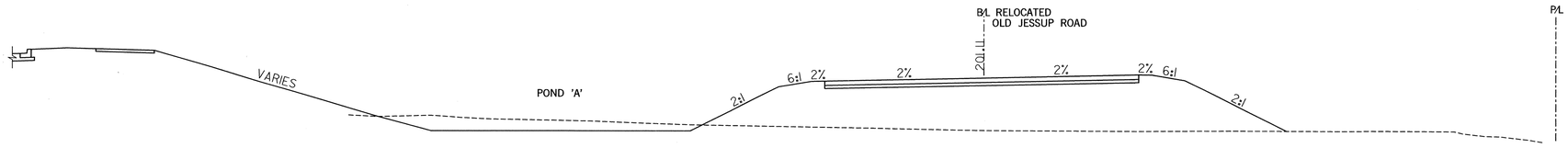
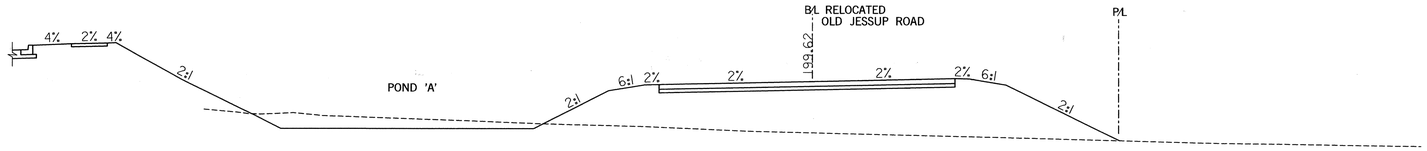
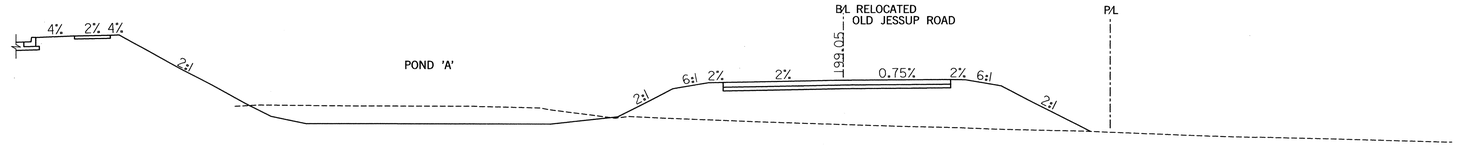
210
205
200
195



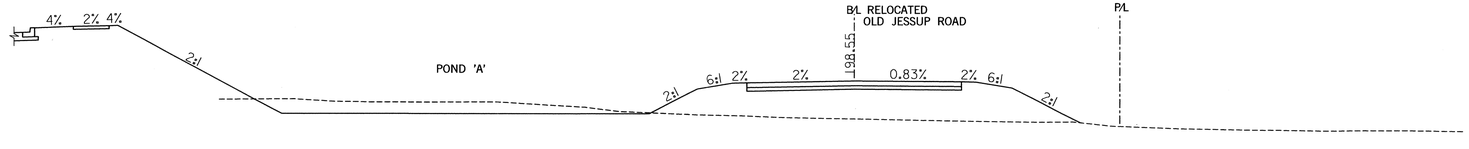
304+50.00



304+00.00



303+50.00



303+00.00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

20 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS — DATE 12/15/06
CHIEF, BUREAU OF ENGINEERING — DATE 12/14/06
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS — DATE 12/14/06
CHIEF, BUREAU OF HIGHWAYS — DATE 12-15-06

PREPARED BY
URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND
DAVID THOMAS MCCOY
NO. 16156
REGISTERED
PROFESSIONAL ENGINEER

DES: CMC				
DRN: SYC/CDF				
CHK: DTM				
DATE: 5/06	BY	NO.	REVISION	DATE

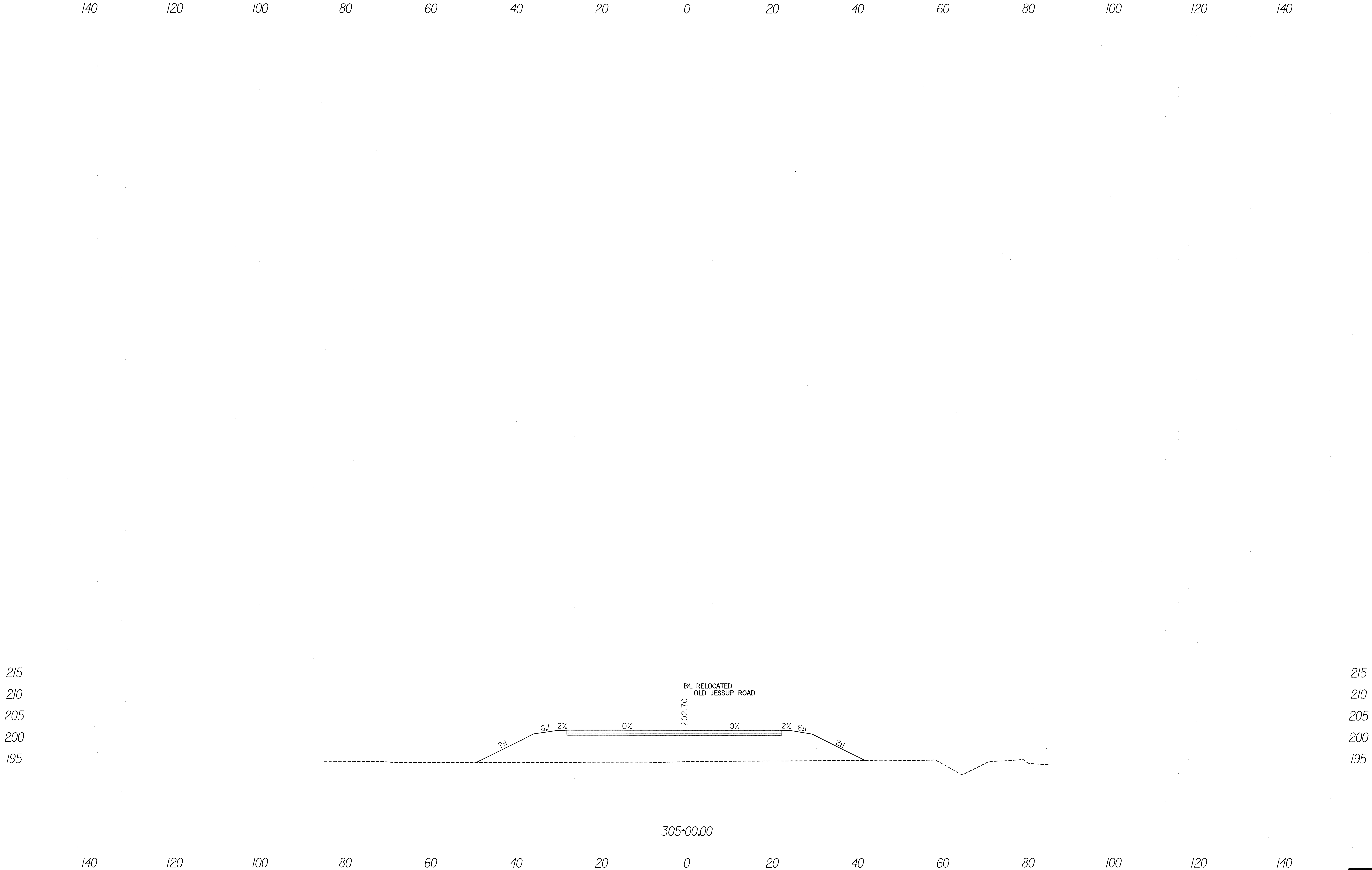
CROSS SECTIONS
RELOCATED OLD JESSUP ROAD
STA. 303+00 TO STA. 304+50

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 73 OF 74



21 OF 21

DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS DATE

CHIEF, BUREAU OF ENGINEERING DATE

CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

CHIEF, BUREAU OF HIGHWAYS DATE

PREPARED BY URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

DES: CMC
DRN: SYC/CDF
CHK: DTM
DATE: 5/06

BY	NO.	REVISION	DATE

CROSS SECTIONS
RELOCATED OLD JESSUP ROAD
STA. 305+00

SCALE MAP NO. N/A BLOCK NO.

DORSEY RUN ROAD EXTENSION
MD 175 TO
DORSEY RUN INDUSTRIAL CENTER
ELECTION DISTRICT NO. 1 - JESSUP, MARYLAND
CAPITAL PROJECT J-4148-C

SCALE 1"=10'

SHEET 74 OF 74

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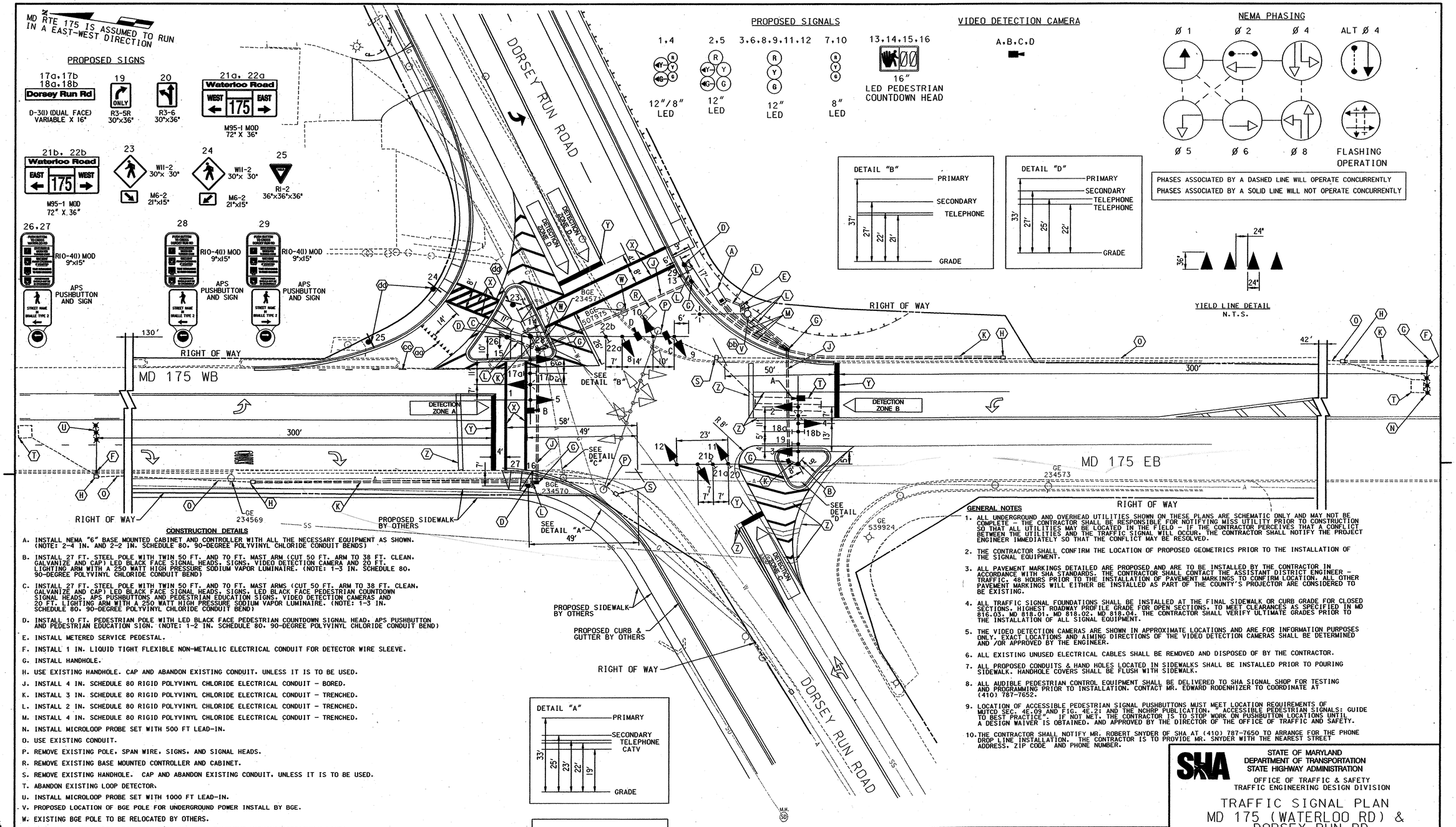

CONSTRUCTION DETAILS

A. INSTALL NEMA "6" BASE MOUNTED CABINET AND CONTROLLER WITH ALL THE NECESSARY EQUIPMENT AS SHOWN. (NOTE: 2-4 IN. AND 2-2 IN. SCHEDULE 80. 90-DEGREE POLYVINYL CHLORIDE CONDUIT BENDS)

B. INSTALL 27 FT. STEEL POLE WITH TWIN 50 FT. AND 70 FT. MAST ARM (CUT 50 FT. ARM TO 38 FT. CLEAN, GALVANIZE AND CAP) LED BLACK FACE SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA AND 20 FT. LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (NOTE: 1-3 IN. SCHEDULE 80. 90-DEGREE POLYVINYL CHLORIDE CONDUIT BEND)

C. INSTALL 27 FT. STEEL POLE WITH TWIN 50 FT. AND 70 FT. MAST ARMS (CUT 50 FT. ARM TO 38 FT. CLEAN, GALVANIZE AND CAP) LED BLACK FACE SIGNAL HEADS, SIGNS, LED BLACK FACE PEDESTRIAN COUNTDOWN SIGNAL HEADS, APS PUSHBUTTONS AND PEDESTRIAN EDUCATION SIGNS, VIDEO DETECTION CAMERAS AND 20 FT. LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (NOTE: 1-3 IN. SCHEDULE 80. 90-DEGREE POLYVINYL CHLORIDE CONDUIT BEND)

D. INSTALL 10 FT. PEDESTRIAN POLE WITH LED BLACK FACE PEDESTRIAN COUNTDOWN SIGNAL HEAD, APS PUSHBUTTON AND PEDESTRIAN EDUCATION SIGN. (NOTE: 1-2 IN. SCHEDULE 80. 90-DEGREE POLYVINYL CHLORIDE CONDUIT BEND)

E. INSTALL METERED SERVICE PEDESTAL.

F. INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC ELECTRICAL CONDUIT FOR DETECTOR WIRE SLEEVE.

G. INSTALL HANDHOLE.

H. USE EXISTING HANDHOLE. CAP AND ABANDON EXISTING CONDUIT, UNLESS IT IS TO BE USED.

J. INSTALL 4 IN. SCHEDULE 80 RIGID POLYVINYL CHLORIDE ELECTRICAL CONDUIT - BORED.

K. INSTALL 3 IN. SCHEDULE 80 RIGID POLYVINYL CHLORIDE ELECTRICAL CONDUIT - TRENCHED.

L. INSTALL 2 IN. SCHEDULE 80 RIGID POLYVINYL CHLORIDE ELECTRICAL CONDUIT - TRENCHED.

M. INSTALL 4 IN. SCHEDULE 80 RIGID POLYVINYL CHLORIDE ELECTRICAL CONDUIT - TRENCHED.

N. INSTALL MICROLOOP PROBE SET WITH 500 FT LEAD-IN.

O. USE EXISTING CONDUIT.

P. REMOVE EXISTING POLE, SPAN WIRE, SIGNS, AND SIGNAL HEADS.

R. REMOVE EXISTING BASE MOUNTED CONTROLLER AND CABINET.

S. REMOVE EXISTING HANDHOLE. CAP AND ABANDON EXISTING CONDUIT, UNLESS IT IS TO BE USED.

T. ABANDON EXISTING LOOP DETECTOR.

U. INSTALL MICROLOOP PROBE SET WITH 1000 FT LEAD-IN.

V. PROPOSED LOCATION OF BGE POLE FOR UNDERGROUND POWER INSTALL BY BGE.

W. EXISTING BGE POLE TO BE RELOCATED BY OTHERS.

X. INSTALL 12 IN. WHITE LEAD FREE THERMOPLASTIC PAVEMENT MARKING (CROSSWALK LINE).

Y. INSTALL 24 IN. WHITE LEAD FREE THERMOPLASTIC PAVEMENT MARKING (STOP LINE).

Z. REMOVE EXISTING PAVEMENT MARKINGS.

aa. INSTALL WHITE LEAD FREE THERMOPLASTIC PAVEMENT MARKING YIELD LINE.

bb. INSTALL 20 FT. LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE ON PROPOSED BGE POLE.

cc. INSTALL 10 IN. WHITE THERMOPLASTIC PAVEMENT MARKING (3'-9'-3').

dd. INSTALL GROUND MONUTED SIGN WITH 4 IN. X 4 IN. WOOD SIGN SUPPORT.

GEOMETRIC LEGEND
- EXISTING GEOMETRICS
- PROPOSED GEOMETRICS

UTILITY LEGEND
- G — G — GAS MAIN
- W — W — WATER MAIN
- S — S — SEWER MAIN
- E — E — ELECTRIC CABLES
- A — A — AERIAL CABLES
- T — T — TELEPHONE CABLES

GENERAL NOTES

1. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE - THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD - IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
2. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF PROPOSED GEOMETRICS PRIOR TO THE INSTALLATION OF THE SIGNAL EQUIPMENT.
3. ALL PAVEMENT MARKINGS DETAILED ARE PROPOSED AND ARE TO BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH SHA STANDARDS. THE CONTRACTOR SHALL CONTACT THE ASSISTANT DISTRICT ENGINEER - TRAFFIC, 48 HOURS PRIOR TO THE INSTALLATION OF PAVEMENT MARKINGS TO CONFIRM LOCATIONS. ALL OTHER PAVEMENT MARKINGS WILL EITHER BE INSTALLED AS PART OF THE COUNTY'S PROJECTOR ARE CONSIDERED TO BE EXISTING.
4. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
5. THE VIDEO DETECTION CAMERAS ARE SHOWN IN APPROXIMATE LOCATIONS AND ARE FOR INFORMATION PURPOSES ONLY. EXACT LOCATIONS AND AIMING DIRECTIONS OF THE VIDEO DETECTION CAMERAS SHALL BE DETERMINED AND /OR APPROVED BY THE ENGINEER.
6. ALL EXISTING UNUSED ELECTRICAL CABLES SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
7. ALL PROPOSED CONDUITS & HAND HOLES LOCATED IN SIDEWALKS SHALL BE INSTALLED PRIOR TO POURING SIDEWALK. HANDHOLE COVERS SHALL BE FLUSH WITH SIDEWALK.
8. ALL AUDIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. EDWARD RODENHIZER TO COORDINATE AT (410) 787-7652.
9. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E-2; AND THE NCHRP PUBLICATION, " ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, AND APPROVED BY THE DIRECTOR OF THE OFFICE OF TRAFFIC AND SAFETY.
10. THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7650 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

SPECIAL NOTES

1. FOR MOUNTING PROPOSED SIGNS M95-1 MOD TO THE SIGNAL MAST ARMS DIAGONALLY USE SHA STANDARD "SIGN MOUNTING ON DIAGONAL MAST ARMS:" TYPICAL NO. 813.99.05.

PREPARED BY URS HUNT VALLEY, MARYLAND

APPROVALS

TEAM LEADER	ORIGINAL ON FILE
ASST. DIV. CHIEF	
DIVISION CHIEF	
OFFICE DIRECTOR	

REVISIONS

B	RECONSTRUCT SIGNAL DUE TO NEW GEOMETRICS HO. CO. CAPITAL PROJECT J-4148	10/06
KJS		
A	5189 ASBUILT INSTALL EP LEFT TURN PHASE FOR WB MD 175	
OCD		

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

TRAFFIC SIGNAL PLAN MD 175 (WATERLOO RD) & DORSEY RUN RD

SCALE 1"= 20' DATE 9-14-79 CONTRACT NO. H0559501785

DESIGNED BY M. GESELL
DRAWN BY M G D
CHECKED BY H J A
F.A.P. NO. N/A

COUNTY HOWARD
LOGMILE 13017500.24
T.I.M.S. NO. H362
TOD NO.

DRAWING NO. TS 1731B

SHEET NO. 1 OF 2

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