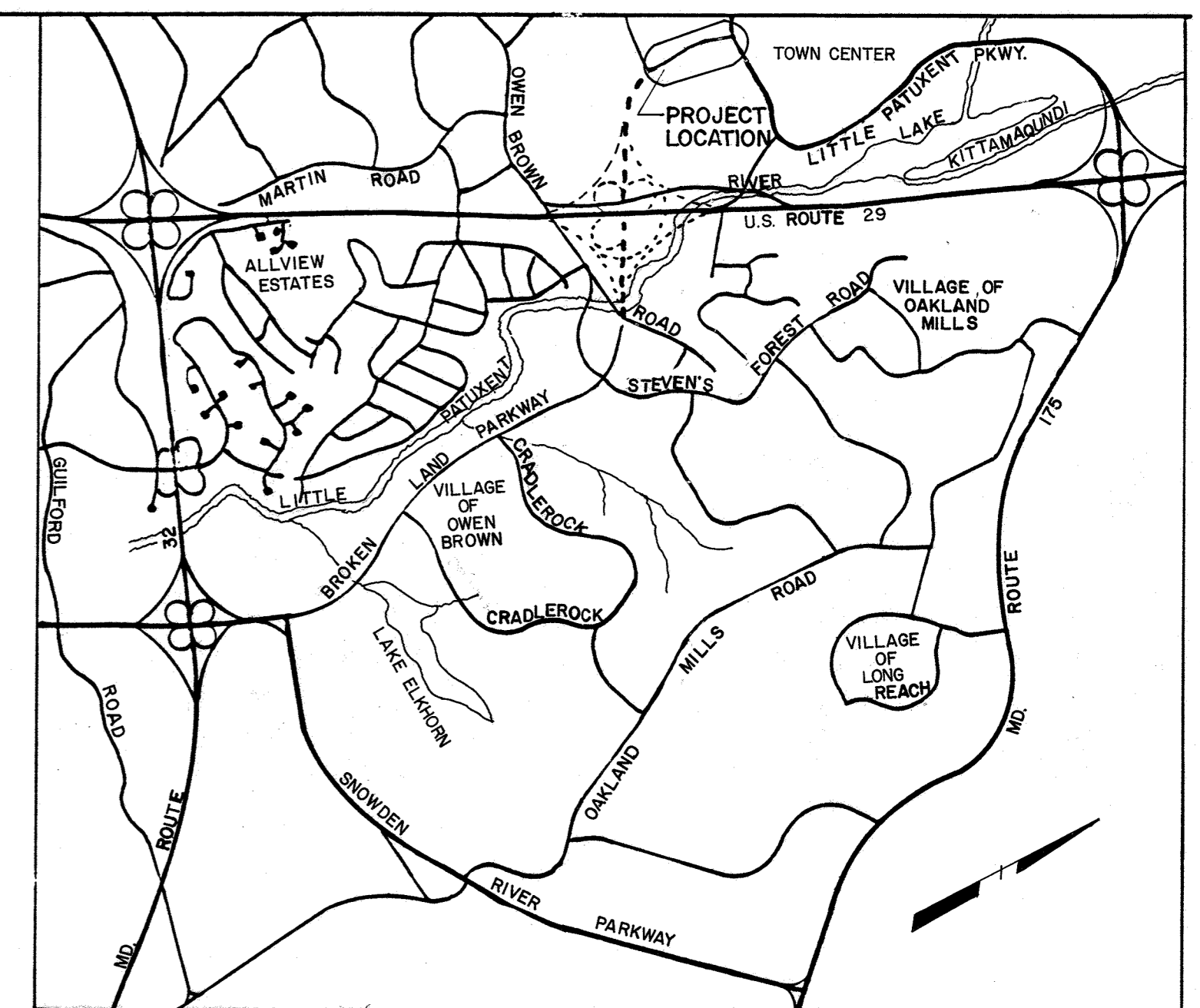


BROKEN LAND PARKWAY

5TH. ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP

GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME IV, "STANDARD DETAILS AND SPECIFICATIONS FOR CONSTRUCTION".
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. 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.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- CONTRACTOR TO NOTIFY "MISS UTILITY" PHONE (1) 539-0100 AT LEAST THREE (3) DAYS BEFORE STARTING WORK SHOWN ON THIS/ THESE DRAWING(S).
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1971 REVISED EDITION.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME III STANDARDS. 50 MPH.
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929.
- ALL COORDINATES BASED ON MARYLAND STATE GRID SYSTEM.
- CONTRACTOR TO RESTORE ALL EXISTING PAVING, SIDEWALKS OR LAWNS AFFECTED BY THE CONSTRUCTION SHOWN HEREON TO A CONDITION COMPARABLE TO THAT EXISTING PRIOR TO CONSTRUCTION.
- THE LOCATION AND LENGTHS OF ALL PROPOSED STORM DRAINS SHALL BE VERIFIED BY THE CONTRACTOR BEFORE ORDERING PIPE.
- STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN ON HOWARD COUNTY STD. G-2.01.
- EXISTING TRAFFIC SIGNS THAT ARE REMOVED UNDER THIS CONTRACT SHALL BE SALVAGED AND TURNED OVER TO HOWARD COUNTY.
- STORMWATER MANAGEMENT FOR THIS PROJECT PROVIDED BY FACILITY CONSTRUCTED WITH (F-85-131).
- TRAFFIC SIGNAL SYSTEMS WILL BE CONSTRUCTED AT THE HICKORY RIDGE ROAD AND LITTLE PATUXENT PARKWAY INTERSECTIONS. (SEE TRAFFIC SIGNAL PLANS) - ELEMENTS OF THE PROPOSED SIGNAL SYSTEM. PARTICULARLY THE INSTALLATION OF UNDERGROUND CONDUIT MUST BE COORDINATED WITH THE ROADWAY CONSTRUCTION.
- EXISTING STORM DRAINS, FRAMES, AND COVERS REMOVED AND NOT REUSED ON THIS PROJECT SHALL BE DELIVERED TO HOWARD COUNTY, BUREAU OF HIGHWAYS, DAYTON SHOP.
- THE LOCATION AND TYPE OF TREES SHOWN ON THESE PLANS ARE TENTATIVE AND ARE FOR BOND PURPOSES ONLY. THE FINAL LOCATION AND VARIETY OF TREES MAY VARY TO ACCOMMODATE FIELD CONDITIONS AND BUILDERS LANDSCAPE PROGRAM. BOND RELEASE IS CONTINGENT UPON SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS. AS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.

As-Built

of SCOTT SHANABERGER
PROFESSIONAL L.S. # 10849
SHANABERGER & LANE
8726 TOWN & COUNTRY BLDG
SUITE 106 & 107
ELLIOTT CITY, MD 21043

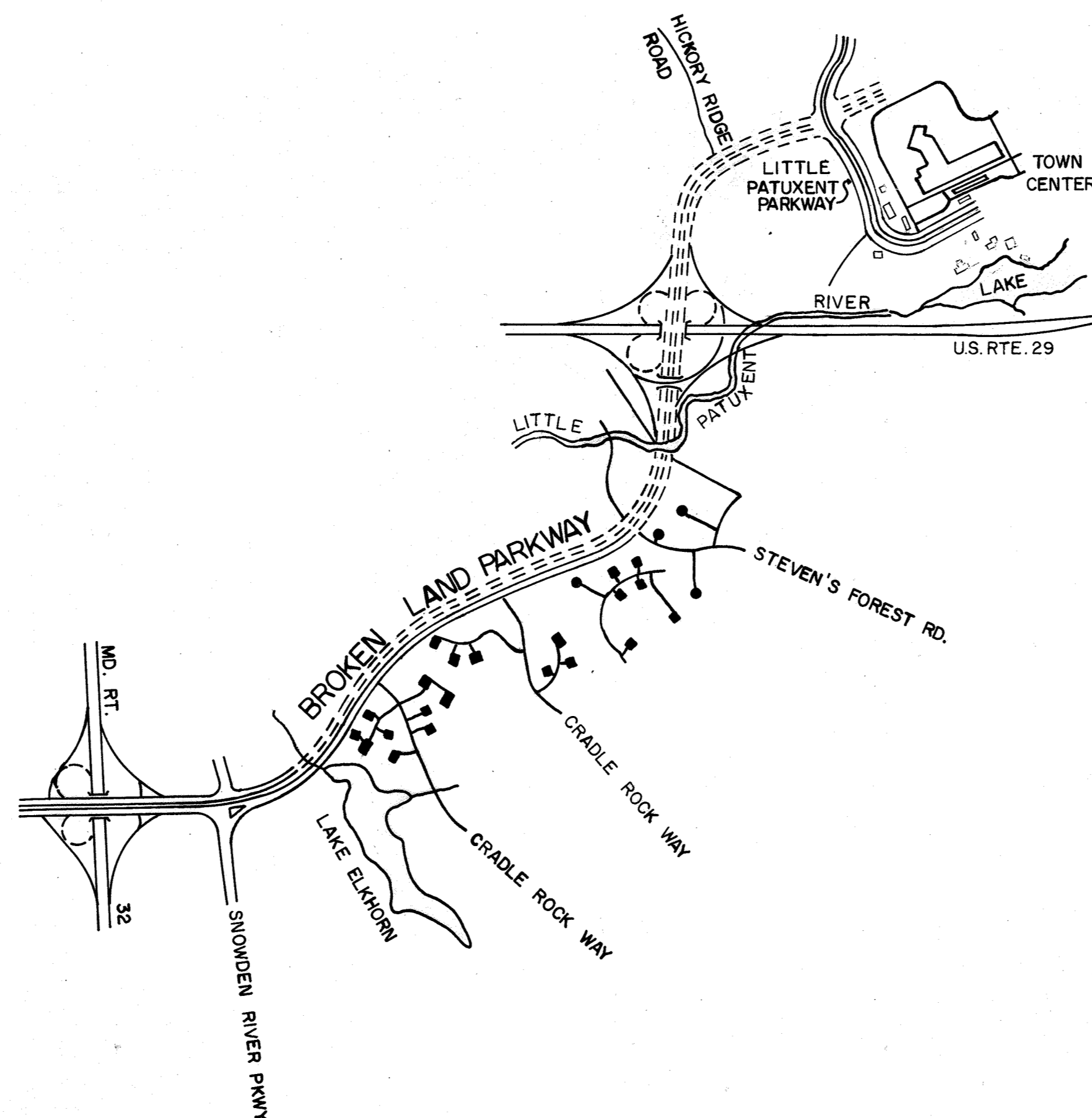
APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Scott Shanaberger 5/15/91
CHIEF, LAND DEVELOPMENT DIVISION DATE
Lawrence W. Welland 5/16/91
CHIEF, BUREAU OF HIGHWAYS DATE
James R. ... 5-23-91
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED:
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark J. ... 5/15/91
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND 21228

AREA	BROKEN LAND PARKWAY	
TITLE	TITLE SHEET	
Des By	H.R.P.	Scale
Drn By	J.W.B.	Date OCT. 1990
Chk By	S.P.	Approved
Proj. No.	89-0040	
Drawing No.	1 OF 20	

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS AND DETAILS
3	TYPICAL SECTIONS AND DETAILS
4	GEOMETRIC DESIGN SHEET
5	ROADWAY PLAN AND PROFILE
6	ROADWAY PLAN AND PROFILE
7	ROADWAY PLAN - LITTLE PATUXENT PARKWAY
8	PROFILE LITTLE PATUXENT PARKWAY
9	STORM DRAIN PROFILES
10	STORM DRAIN PROFILES
11	LITTLE PATUXENT PARKWAY INTERSECTION
12	LITTLE PATUXENT PARKWAY INTERSECTION
13	EROSION AND SEDIMENT CONTROL
14	EROSION AND SEDIMENT CONTROL
15	EROSION AND SEDIMENT CONTROL
16	EROSION AND SEDIMENT CONTROL
17	EROSION AND SEDIMENT CONTROL
18	DRAINAGE AREA MAP
19	DRAINAGE AREA MAP
20	Signing and striping Plan

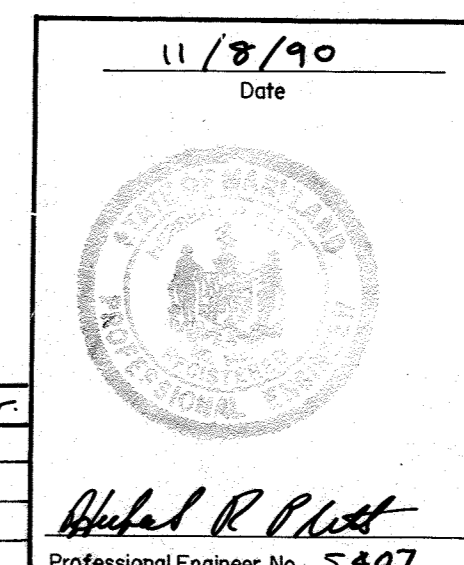


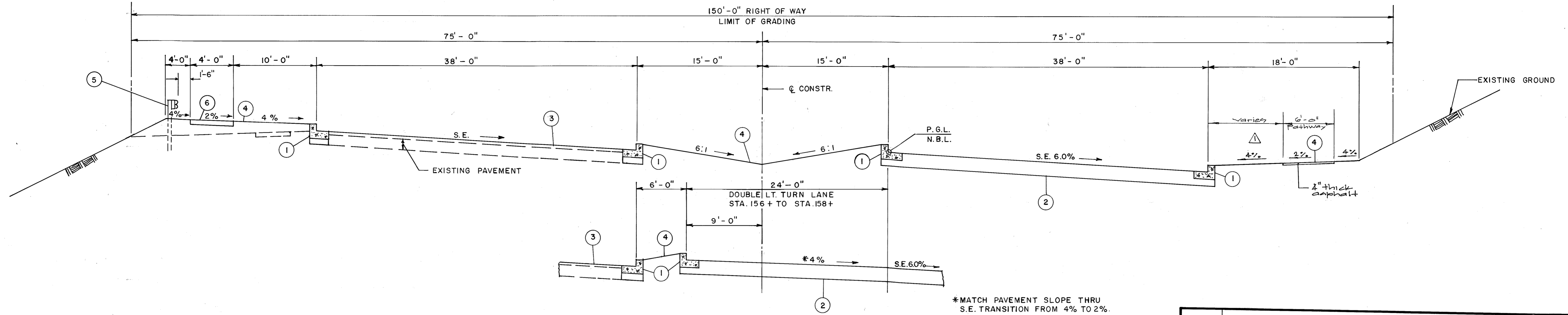
LOCATION PLAN

Professional Certification
For revision
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the state of Maryland.
License #12975 Expiration Date: 09/20/15



Date	Revision	By	Appr.
07/11/90	Revised sheet index		



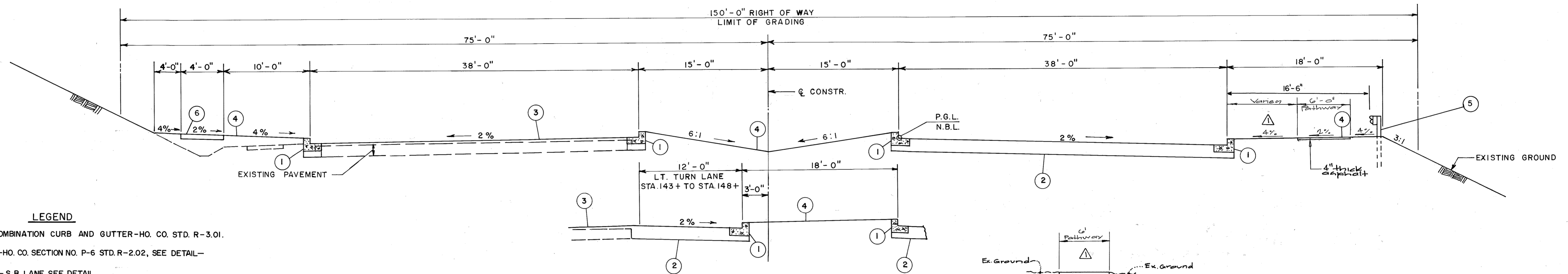


SUPERELEVATED SECTION

STA. 151+ TO STA. 157+

NOT TO SCALE

Date	Revision	By	Appr.
2010-1-19	Δ Revised typical road section added asphalt path detail	gt	DEV



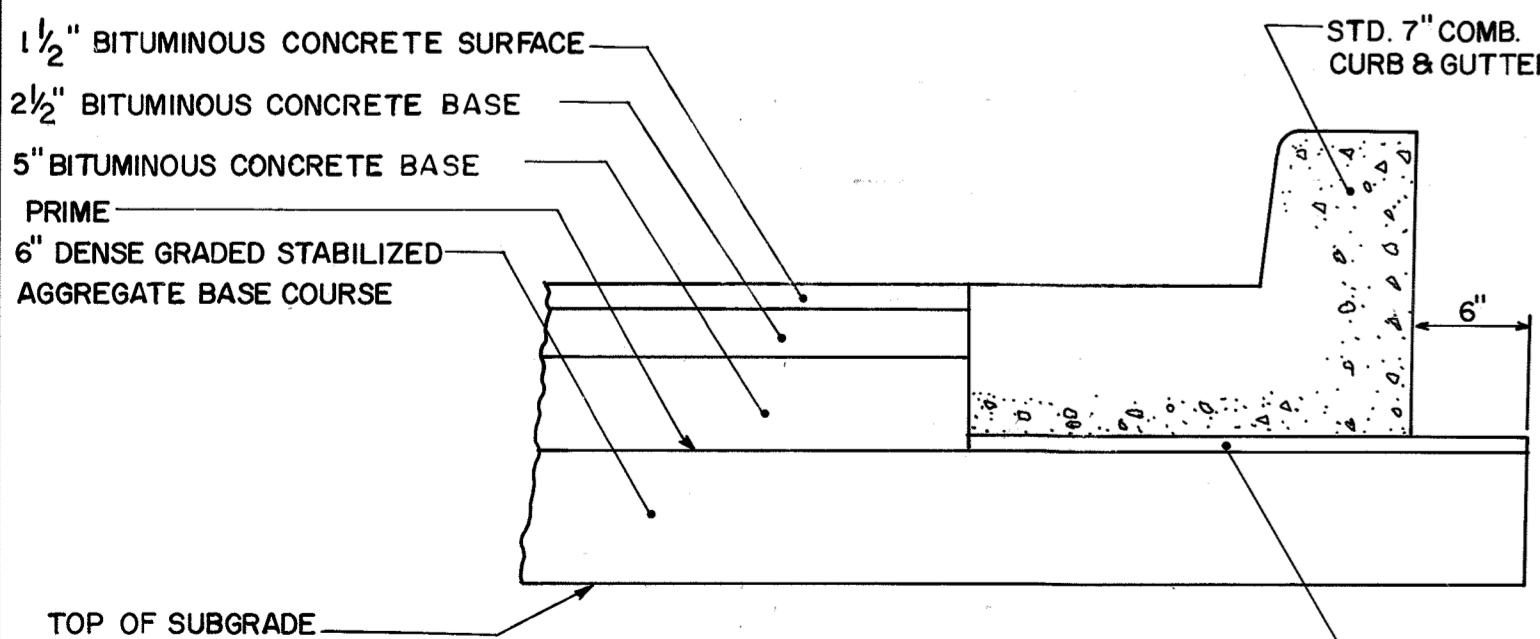
NORMAL SECTION

STA. 145+ TO STA. 151+

NOT TO SCALE

LEGEND

- ① - STANDARD 7" COMBINATION CURB AND GUTTER-HO. CO. STD. R-3.01.
- ② - ROADWAY PAVING-HO. CO. SECTION NO. P-6 STD. R-2.02, SEE DETAIL-SHEET NO. _____
- ③ - SURFACE COURSE-S. B. LANE SEE DETAIL.
- ④ - 4" TOP SOIL, SEEDING AND MULCHING.
- ⑤ - REMOVE AND RESET EXIST BEAM TYPE GUARD FENCE.
- ⑥ - CONCRETE SIDEWALK-HO. CO. STD. R-3.05.

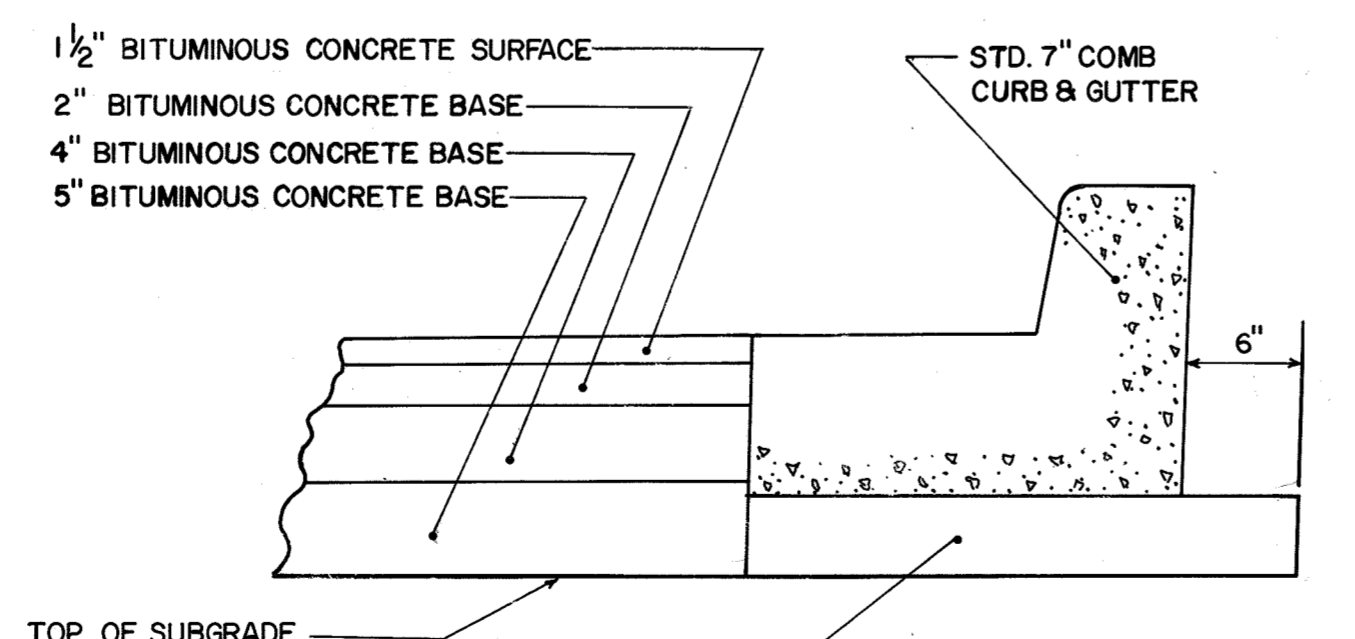


ALTERNATE A

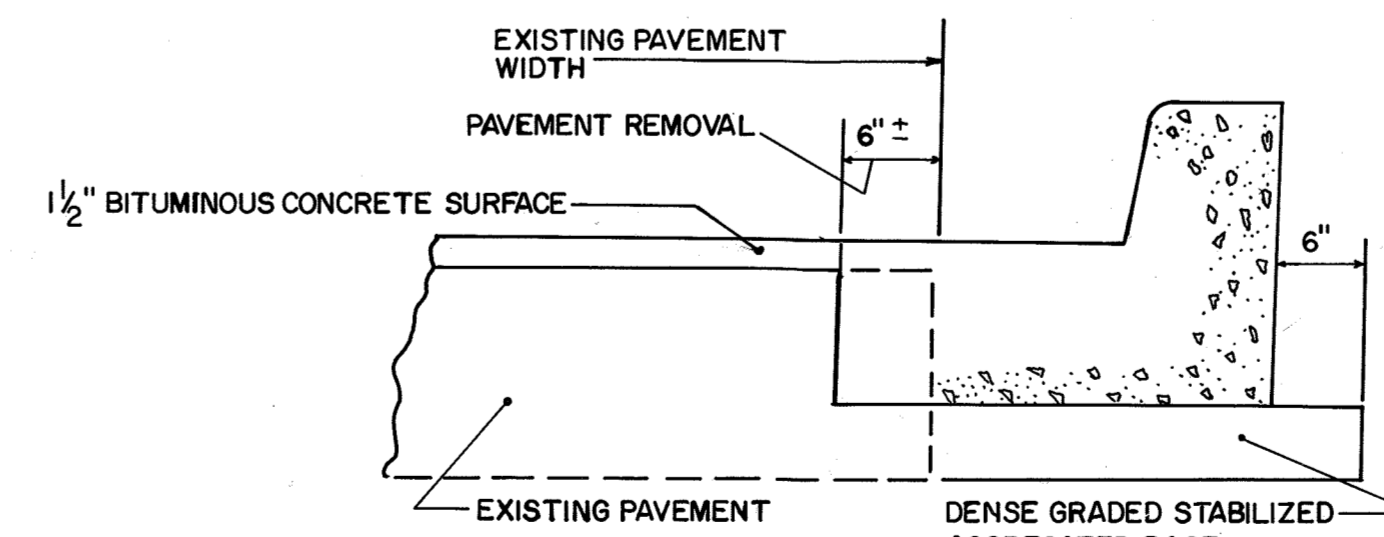
ROADWAY PAVING DETAIL

HO. CO. STD. R-202

NOT TO SCALE



ALTERNATE B



PAVING DETAIL - SBL

COST OF PAVEMENT REMOVAL AND DENSE GRADED STABILIZED AGGREGATE TO BE CONSIDERED INCIDENTAL TO AND INCLUDED IN THE COST CURB AND GUTTER.

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

G. SCOTT SHANABERGER
SHANABERGER & WINE
Professional L.S. #10849 Exp. Date 07/27/20
AS-BUILT DATE: 6-10-2012

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John M. Langston 5/23/91
CHIEF, LAND DEVELOPMENT DIVISION TP DATE

Francis W. Welland 5/16/91
CHIEF, BUREAU OF HIGHWAYS DATE

Gregory R. Ryan 5-23-91
CHIEF, BUREAU OF ENGINEERING DATE

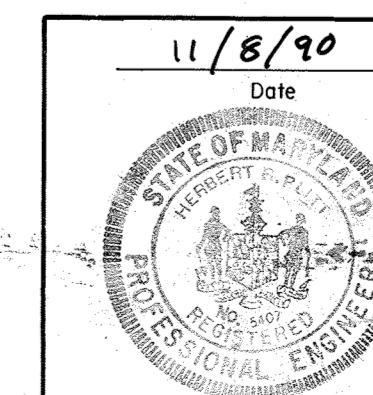
APPROVED:
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
David J. Taylor 5/23/91
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND 21228

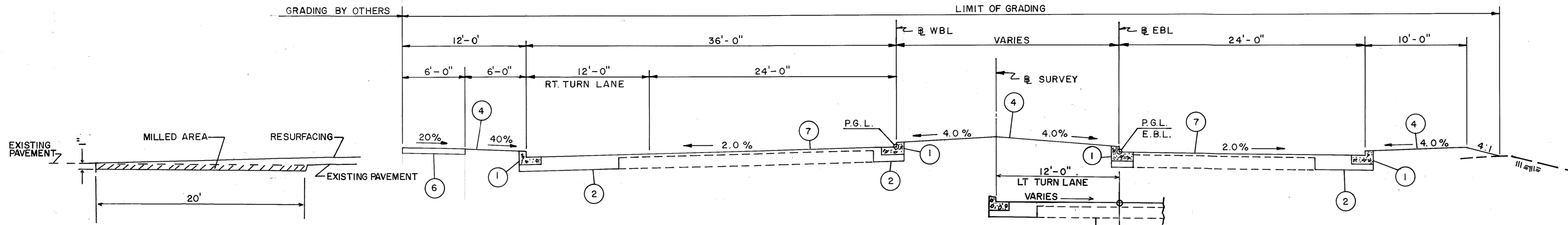
AREA **BROKEN LAND PARKWAY**

TITLE **TYPICAL SECTION AND DETAILS
BROKEN LAND PARKWAY**

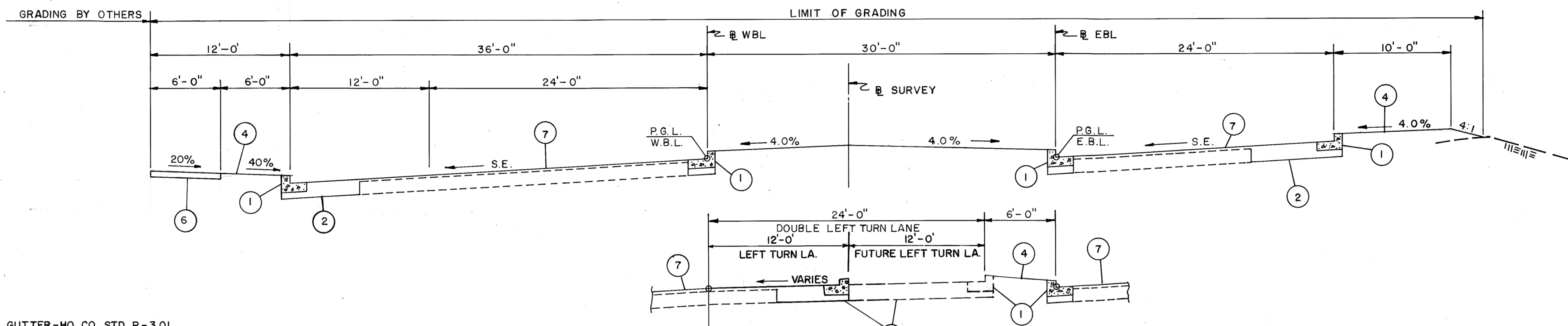
Des By H.R.P.	Scale AS SHOWN	Proj. No. 89-0040
Drn By J.W.B.	Date OCT. 1990	Drawing No. 2 OF 20
Chk By S.P.	Approved	



11/8/90
Date
Robert A. Blodgett
Professional Engineer No. 5407



MILLING DETAIL
TIE IN TO EXISTING PAVEMENT

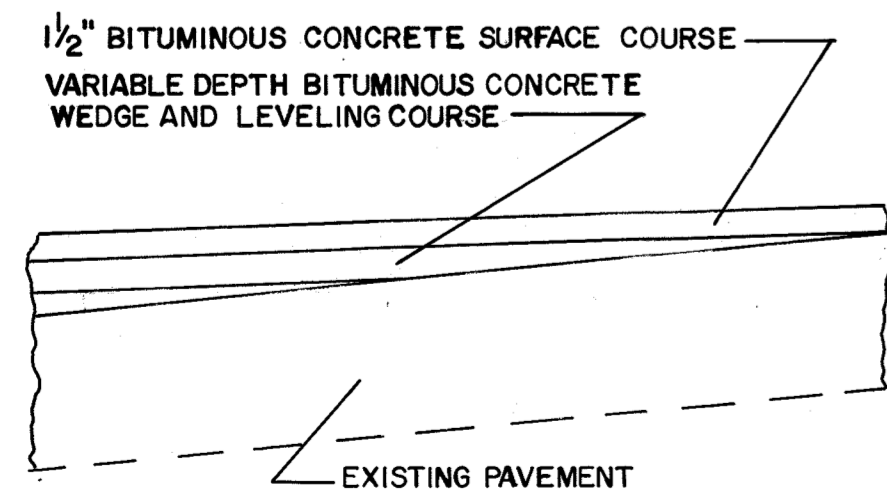
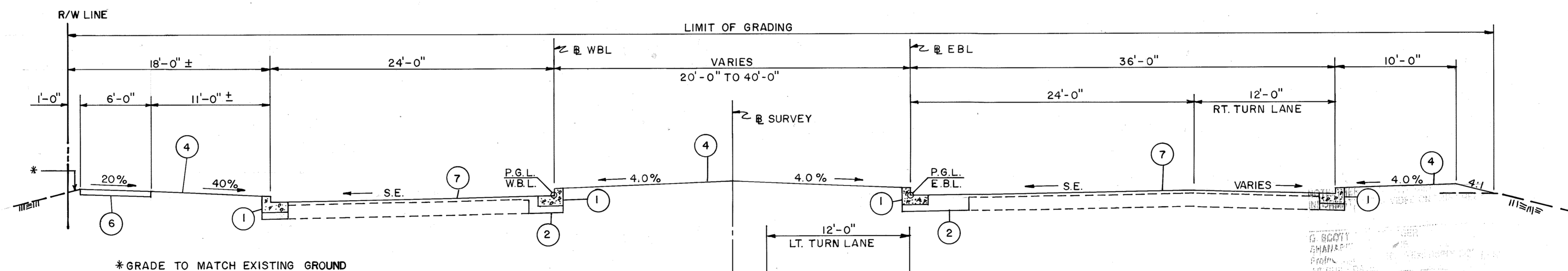


EXISTING UTILITIES SYMBOLS

- ⊗ F.H. - FIRE HYDRANT
- ⊕ W.V. - WATER VALVE
- ⊙ - TRAFFIC SIGN
- ⊙ TC. - TRAFFIC SIGNAL POLE
- ⊙ L.P. - LIGHT POLE
- C.C. - CONDUIT COVER
- C- - TELEPHONE CONDUIT
- E.T. - ELECTRIC TRANSFORMER
- ⊠ - TELEPHONE CONDUIT MANHOLE
- BC- - BURIED CABLE

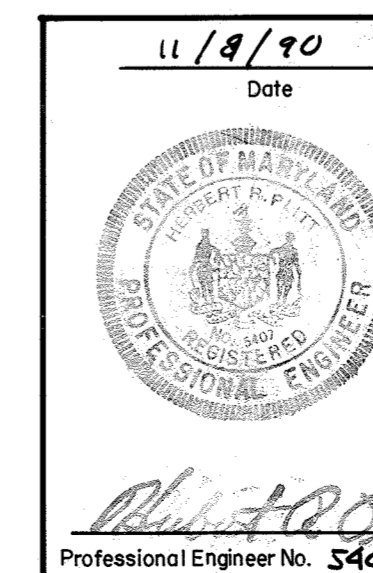
LEGEND

- ① - STANDARD 7" COMBINATION CURB AND GUTTER-HO. CO. STD. R-3.01.
- ② - ROADWAY PAVING-HO. CO. SECTION NO. P-6 STD. R-2.02, SEE DETAIL-SHEET NO. 2.
- ③ - SURFACE COURSE-S. B. LANE SEE DETAIL.
- ④ - 4" TOP SOIL, SEEDING AND MULCHING.
- ⑤ - REMOVE AND RESET EXIST. BEAM TYPE GUARD FENCE.
- ⑥ - CONCRETE SIDEWALK-HO. CO. STP R-3.05.
- ⑦ - BITUMINOUS CONCRETE OVERLAY SEE DETAIL- THIS SHEET. - SEE DETAILS-SHEET NO. 2.



BITUMINOUS CONCRETE OVERLAY
LITTLE PATUXENT PARKWAY

SUPERELEVATED SECTION
STA. 209+ TO STA. 212+
NOT TO SCALE



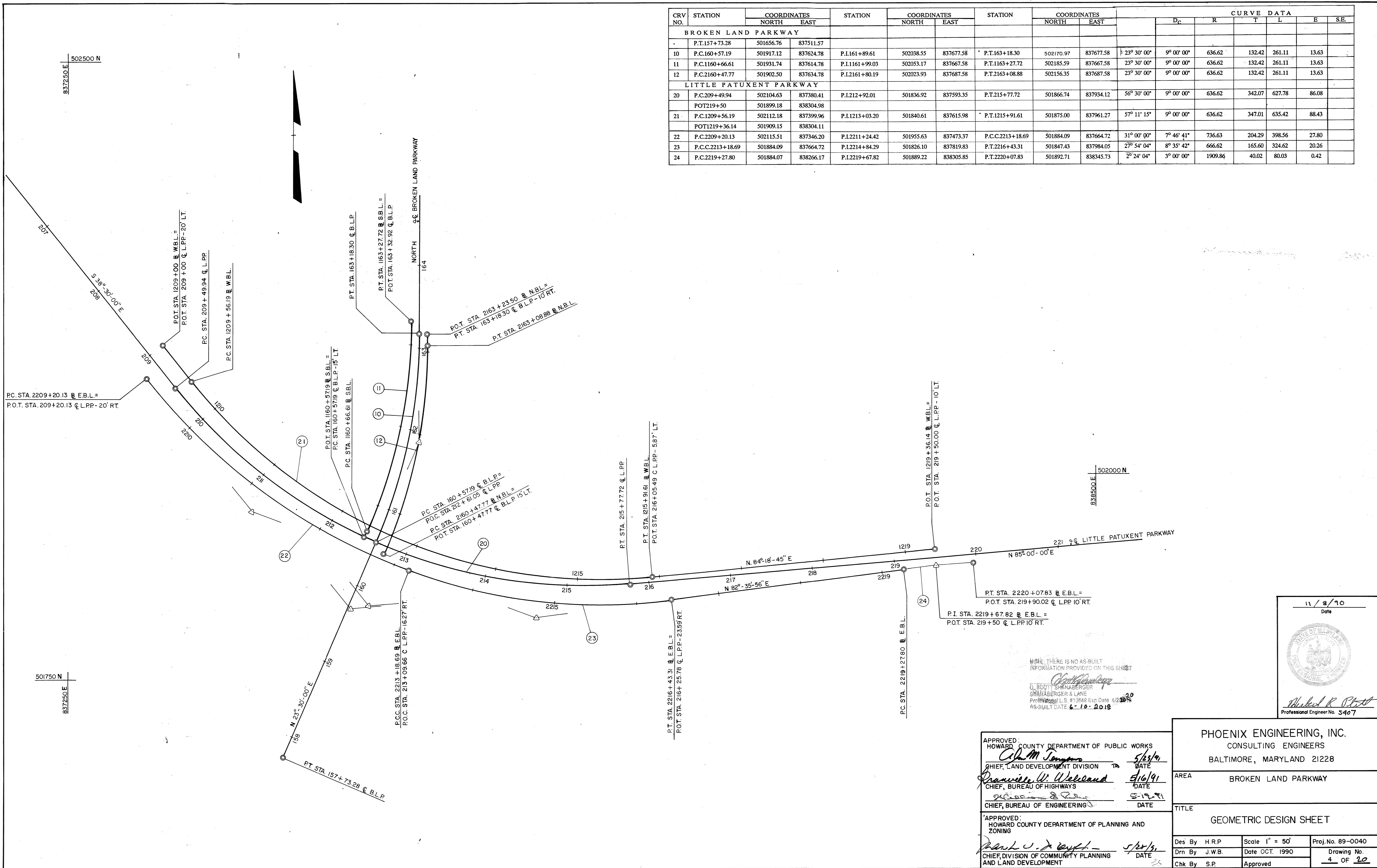
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Scott Sumner 5/23/90
 CHIEF, LAND DEVELOPMENT DIVISION DATE
William W. Welton 5/16/90
 CHIEF, BUREAU OF HIGHWAYS DATE
William W. Welton 5-23-90
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark J. Taylor 5/20/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

PHOENIX ENGINEERING, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND 21228		
AREA	BROKEN LAND PARKWAY	
TITLE	TYPICAL SECTION AND DETAILS LITTLE PATUXENT PARKWAY	
Des By	H.R.P.	Scale AS SHOWN
Dwn By	J.W.B.	Date OCT. 1990
Chk By	S.P.	Approved
Proj No.	89-0040	Drawing No.
		3 OF 20

65

65



CRV NO.	STATION	COORDINATES		STATION	COORDINATES		STATION	COORDINATES		CURVE DATA													
		NORTH	EAST		NORTH	EAST		NORTH	EAST	D _c	R	T	L	E	S.E.								
BROKEN LAND PARKWAY																							
-	P.T.157+73.28	501656.76	837511.57																				
10	P.C.160+57.19	501917.12	837624.78	P.I.161+89.61	502038.55	837677.58	P.T.163+18.30	502170.97	837677.58	23° 30' 00"	9° 00' 00"	636.62	132.42	261.11	13.63								
11	P.C.1160+66.61	501931.74	837614.78	P.I.1161+99.03	502053.17	837667.58	P.T.1163+27.72	502185.59	837667.58	23° 30' 00"	9° 00' 00"	636.62	132.42	261.11	13.63								
12	P.C.2160+47.77	501902.50	837634.78	P.I.2161+80.19	502023.93	837687.58	P.T.2163+08.88	502156.35	837687.58	23° 30' 00"	9° 00' 00"	636.62	132.42	261.11	13.63								
LITTLE PATUXENT PARKWAY																							
20	P.C.209+49.94	502104.63	837380.41	P.I.212+92.01	501836.92	837593.35	P.T.215+77.72	501866.74	837934.12	56° 30' 00"	9° 00' 00"	636.62	342.07	627.78	86.08								
	POT219+50	501899.18	838304.98																				
21	P.C.1209+56.19	502112.18	837399.96	P.I.1213+03.20	501840.61	837615.98	P.T.1215+91.61	501875.00	837961.27	57° 11' 15"	9° 00' 00"	636.62	347.01	635.42	88.43								
	POT1219+36.14	501909.15	838304.11																				
22	P.C.2209+20.13	502115.51	837346.20	P.I.2211+24.42	501955.63	837473.37	P.C.2213+18.69	501884.09	837664.72	31° 00' 00"	7° 46' 41"	736.63	204.29	398.56	27.80								
23	P.C.C.2213+18.69	501884.09	837664.72	P.I.2214+84.29	501826.10	837819.83	P.T.2216+43.31	501847.43	837984.05	27° 54' 04"	8° 35' 42"	666.62	165.60	324.62	20.26								
24	P.C.2219+27.80	501884.07	838266.17	P.I.2219+67.82	501889.22	838305.85	P.T.2220+07.83	501892.71	838345.73	2° 24' 04"	3° 00' 00"	1909.86	40.02	80.03	0.42								

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

Scott Shanaberger
 G. SCOTT SHANABERGER
 SHANABERGER & LAMIE
 Professional L.S. #13848 Exp. Date 4/2/2018
 AG-SUBT DATE 6-10-2018

11/2/10
Date

Michael R. Blodgett
 Professional Engineer No. 5407

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Alan M. Tompkins 5/23/91
 CHIEF, LAND DEVELOPMENT DIVISION DATE

Drayville W. Welwood 5/16/91
 CHIEF, BUREAU OF HIGHWAYS DATE

William J. ... 5-19-91
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Frank V. ... 5/20/91
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND 21228

AREA: BROKEN LAND PARKWAY

TITLE: GEOMETRIC DESIGN SHEET

Des By H.R.P. Scale 1" = 50' Proj. No. 89-0040
 Drn By J.W.B. Date OCT. 1990 Drawing No. 4 OF 20
 Chk By S.P. Approved

NOTE: MEDIAN CURB & GUTTER TO STA. 142+ RT TURN LANE AND ISLAND AND CURB MODIFICATIONS IN MEDIAN OF H.R. RD. ARE INCLUDED IN THE ADJACENT CONTRACT, NO. F-91-42

FINAL UTILITY RELOCATION AND LIMITS OF REMOVAL TO BE DETERMINED IN FIELD.

MONUMENT RECOVERY SKETCH NO SCALE

STA. 146+00
REMOVE BRICK PLUGS IN EXIST 15" CMP ADJUST LENGTH TO MEET NEW INLETS I-4 AND I-4A. INVERT ELEV. OF INLETS TO BE ADJUSTED AS REQ'D TO MATCH ELEVATION OF EXIST. PIPE.

STA. 149+00
REMOVE BRICK PLUGS IN EXIST 15" CMP ADJUST LENGTH TO MEET INLET I-2 AS REQ'D. INVERT ELEV. OF INLET I-2 TO BE ADJUSTED AS REQ'D. TO MATCH EXIST. PIPE ELEVATION. CONNECT NEW 15" CMP AND ADJUST ON 0.8% (MIN.) GRADE TO INLET I-1. ADJUST INVERT ELEV. OF I-1 AS REQ'D TO MATCH PIPE ELEVATION.

STA. 147+00 TO 152+00 RT.
STA. 150+00 TO 152+00 LT.
REMOVE AND RESET EXIST. BEAM TYPE GUARD FENCE

BM #13 ELEV. 343.93
CUT ON CORNER OF CONCRETE HEADWALL

11/8/90
Date
STATE OF MARYLAND
PROFESSIONAL ENGINEER
Robert C. O'Neil
Professional Engineer No. 5407

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION
5/29/91 DATE
Drewell W. Wellwood
CHIEF, BUREAU OF HIGHWAYS
5/16/91 DATE
O.C. [Signature]
CHIEF, BUREAU OF ENGINEERING
5-23-91 DATE

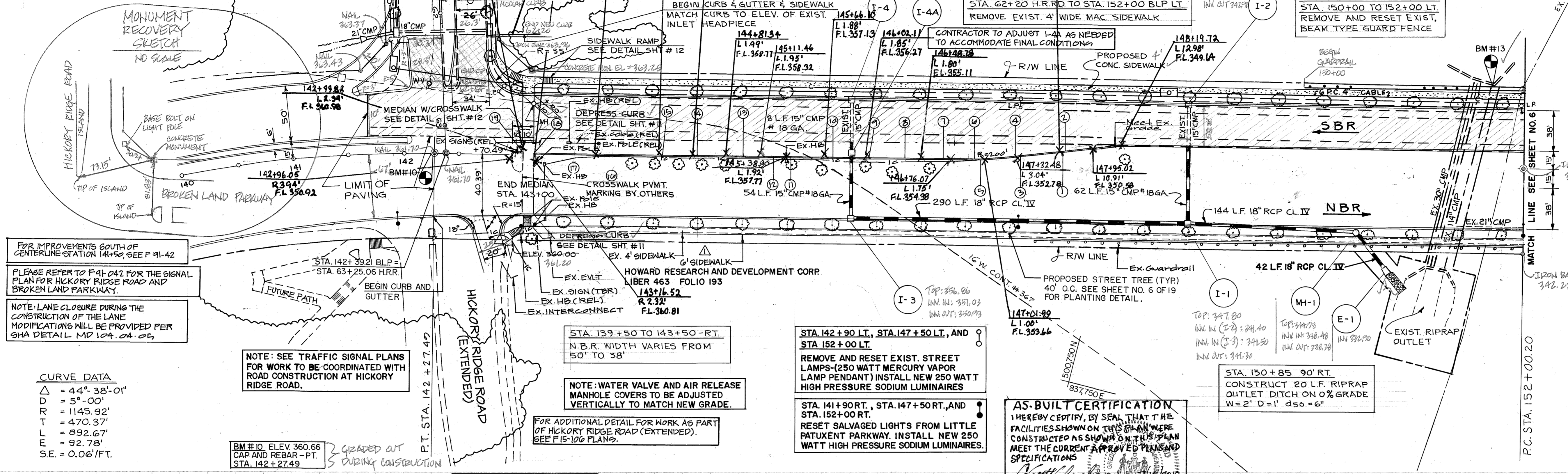
APPROVED:
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
5/29/91 DATE
[Signature]

PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND 21228

AREA
BROKEN LAND PARKWAY

TITLE
ROADWAY PLAN AND PROFILE

Des By H.R.P. Scale 1" = 50' Proj. No. 89-0040
Dwn By J.W.B. Date OCT. 1990 Drawing No. 5 OF 20
Chk By S.P. Approved



FOR IMPROVEMENTS SOUTH OF CENTERLINE STATION 141+50 SEE P 91-42

PLEASE REFER TO F-91-042 FOR THE SIGNAL PLAN FOR HICKORY RIDGE ROAD AND BROKEN LAND PARKWAY.

NOTE: LANE CLOSURE DURING THE CONSTRUCTION OF THE LANE MODIFICATIONS WILL BE PROVIDED PER SHA DETAIL MD 104.04.05

NOTE: SEE TRAFFIC SIGNAL PLANS FOR WORK TO BE COORDINATED WITH ROAD CONSTRUCTION AT HICKORY RIDGE ROAD.

NOTE: WATER VALVE AND AIR RELEASE MANHOLE COVERS TO BE ADJUSTED VERTICALLY TO MATCH NEW GRADE.

AS-BUILT CERTIFICATION
I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS

AS-BUILT
G. SCOTT SHANABERGER
PROFESSIONAL LAND SURVEYOR #10849
LICENSE EXPIRATION DATE 4/20/20
AS-BUILT SURVEY DATE 6-10-2018

CURVE DATA

Δ	= 44° 38' 01"
D	= 5° 00'
R	= 1145.92'
L	= 470.37'
T	= 892.67'
E	= 92.78'
SE	= 0.061/FT.

BM #10 ELEV. 360.66
CAP AND REBAR - PT.
STA. 142+27.49

CURVE DATA
P.V.I. STA. 144+00
ELEV. = 365.20
V.C. = 800'
CORR. = -4.62'

STA. 142+70.49 RT.
CONSTRUCT ENTRANCE APRON TO R/W LINE USING P-1 PAVING SECTION. CONSTRUCT GATE SIMILAR TO EXISTING GATE AT STA. 154.

NOTE: PGL SHOWN IS FOR NBR ONLY PGL OR GUTTER ELEVATIONS EACH SIDE FOR S.B.R. ARE TO BE SET AT 1/2" ABOVE EXIST. PAVEMENT. ELEVATIONS MAY BE ADJUSTED AS REQ'D TO ESTABLISH A SMOOTH GRADE.

CURVE DATA
P.V.I. STA. 150+75
ELEV. = 341.57
V.C. = 550'
CORR. = +3.22'

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP EL.	REMARKS
I-4	A-10 INLET	STA. 146+00-53' LT.	-	353.00	356.87	HO. CO. STD. SD. 4.02
I-4A	A-10 INLET	STA. 146+00-3' LT.	352.20	350.00	357.23	HO. CO. STD. SD. 4.02
I-3	A-10 INLET	STA. 146+00-53' RT.	351.20	351.00	356.92	HO. CO. STD. SD. 4.02
I-2	A-10 INLET	STA. 149+00-53' LT.	-	342.30	347.89	HO. CO. STD. SD. 4.02
I-1	A-10 INLET	STA. 149+00-53' RT.	342.00	341.70	348.00	HO. CO. STD. SD. 4.02
MH-1	STD. P.C. MH	STA. 150+50-58' RT.	338.80	338.60	345.16	HO. CO. STD. G. 512
E-1	CONC. END S.	STA. 150+75-90' RT.	-	330.00	-	HO. CO. STD. SD. 5.52

NOTE: TOP ELEVATIONS OF INLETS LOCATED IN SBR TO BE ADJUSTED AS REQ'D TO MEET ACTUAL TOP OF CURB ELEVATIONS ESTABLISHED FOR THE SBR.

CURB FLOW LINE ELEV.

#	STA.	O/S	ELEV.	DESC.	#	STA.	O/S	ELEV.	DESC.
1	144+19.2	13' L	350.64	FL	11	145+83.7	18' L	356.75	FL
2	144+84.9	4' L	350.70	FL	12	145+46.2	17' L	357.72	FL
3	144+51.1	5' L	352.20	FL	13	145+30.7	18' L	357.96	FL
4	144+47.4	4' L	352.33	FL	14	145+03.7	18' L	358.49	FL
5	144+34.0	3' L	-	PT	15	144+62.2	14' L	359.10	FL
6	144+16.1	16' L	353.33	FL/PT	16	144+21.7	2' L	359.52	FL
7	144+12.8	4' L	353.46	FL/PT	17	143+86.4	2' L	360.00	FL
8	144+02.2	12' L	-	PT	18	143+51.1	2' L	360.27	FL
9	143+82.3	14' L	354.72	FL	19	143+10.9	2' L	360.67	FL
10	143+44.8	15' L	355.10	FL	20	142+06.1	23' L	360.70	FL
11	143+12.0	16' L	355.98	FL	21	142+49.8	0.6' R	EX. END	

LEGEND

- EVLT - ELECTRIC VAULT
- HB - HAND BOX
- (TR) - TO BE REMOVED
- (REL) - TO BE RELOCATED
- EX - EXISTING
- EX POST - EXISTING POST
- EX COBRA - EXISTING COBRA
- EX TREE - EXISTING TREE
- EX SIGN - EXISTING SIGN
- EX INTERCONNECT - EXISTING INTERCONNECT

PAVING LEGEND

- - HO. CO. SECTION NO. P-6 - SEE DETAIL SHEET NO. 2.
- ▨ - 1/2" BITUMINOUS CONCRETE SURFACE COURSE - SEE DETAIL SHEET NO. 2.
- ▩ - BITUMINOUS SURFACE TIE IN TO EXISTING PAVEMENT - SEE DETAIL SHEET NO. 3.

CROSS REFERENCE

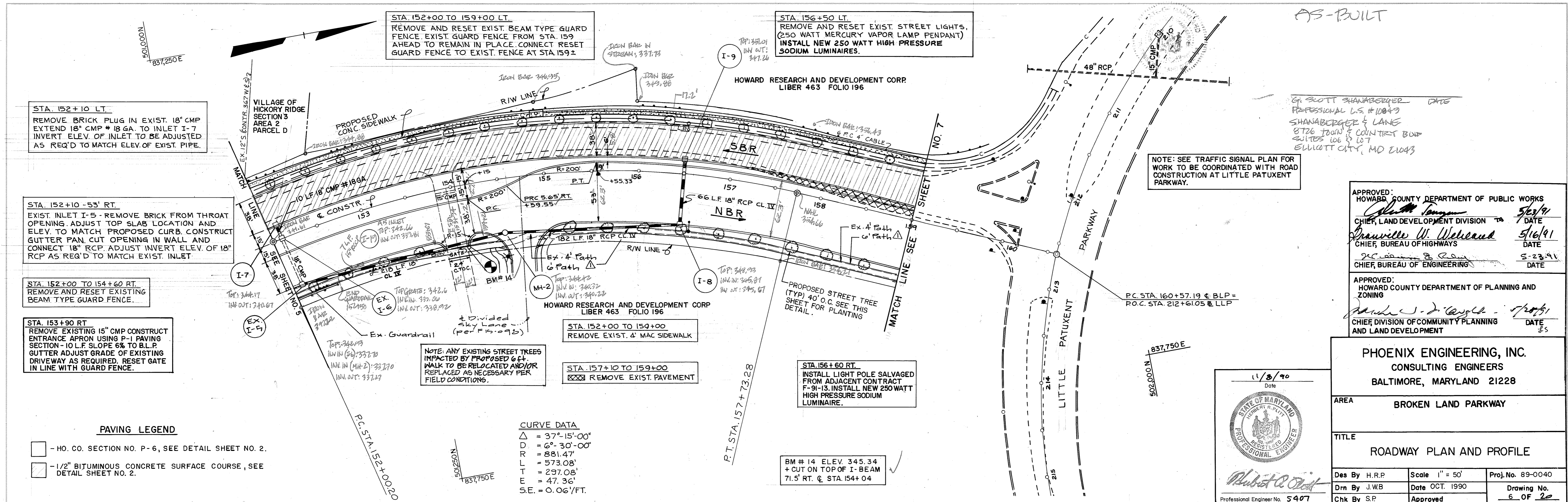
- TYPICAL SECTIONS - SHEET NO. 2.
- SUPERELEVATION TRANSITION - SHEET NO. 9.
- STORM DRAIN PROFILES - SHEET NO. 9.

65

DATE: _____
 BY: _____
 SURVEYED: _____
 NOTE BOOK: _____
 ADJUSTMENT CHECKED: _____
 RT. OF WAY CHECKED: _____
 No. _____

DATE: _____
 BY: _____
 SURVEYED: _____
 NOTE BOOK: _____
 ADJUSTMENT CHECKED: _____
 RT. OF WAY CHECKED: _____
 No. _____

65



AS-BUILT
 G. SCOTT SHANABARGER DATE
 PROFESSIONAL L.S. # 10049
 SHANABARGER & LANE
 8726 TOWN & COUNTRY BOW
 SUITES 106 & 107
 ELICOTT CITY, MD 21043

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 _____ DATE 5/23/91
 CHIEF, LAND DEVELOPMENT DIVISION
 _____ DATE 5/16/91
 CHIEF, BUREAU OF HIGHWAYS
 _____ DATE 5-23-91
 CHIEF, BUREAU OF ENGINEERING

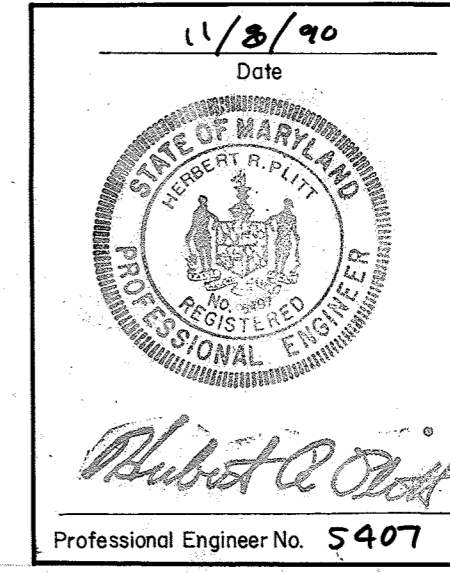
APPROVED:
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 _____ DATE 7/23/91
 CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND 21228

AREA: BROKEN LAND PARKWAY

TITLE: ROADWAY PLAN AND PROFILE

Des By H.R.P. Scale 1" = 50' Proj. No. 89-0040
 Dwn By J.W.B. Date OCT. 1990 Drawing No. 6 OF 22
 Chk By S.P. Approved



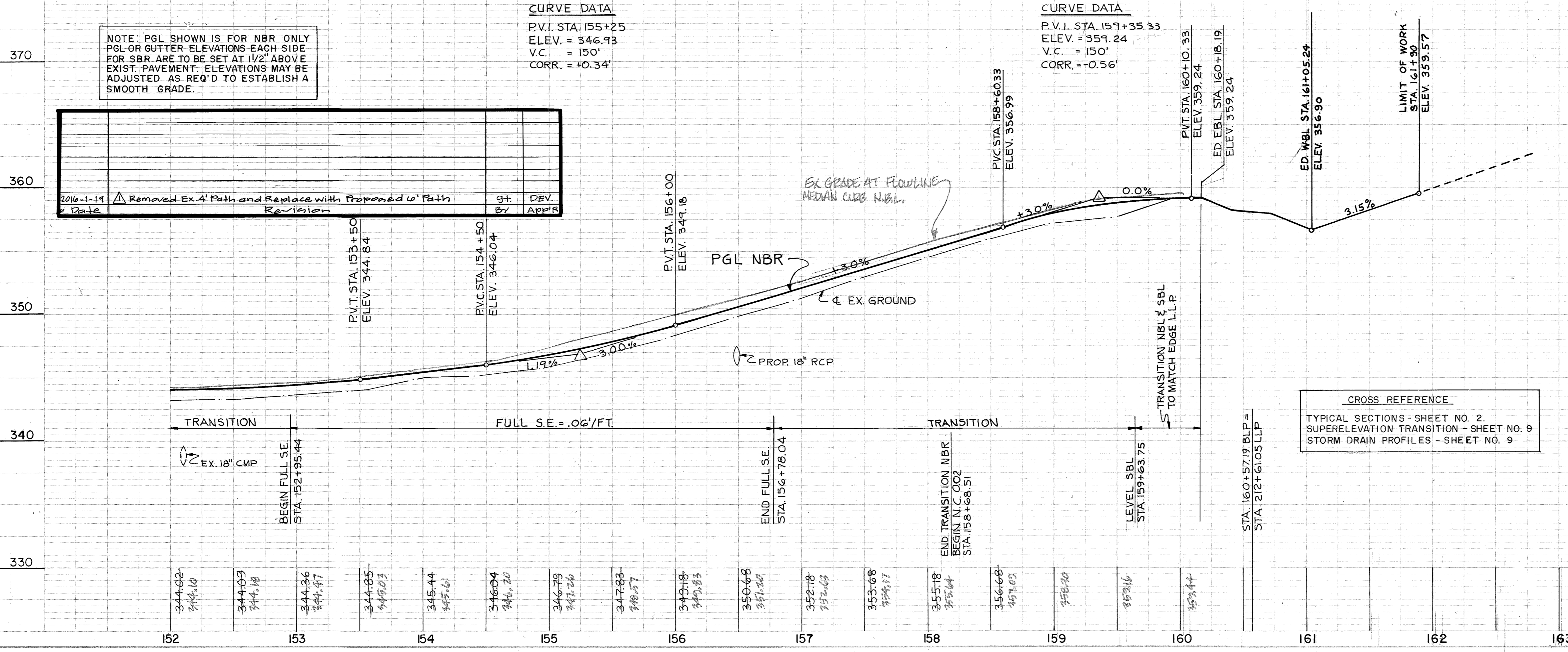
PAVING LEGEND

□ - HO. CO. SECTION NO. P-6, SEE DETAIL SHEET NO. 2.

▨ - 1/2" BITUMINOUS CONCRETE SURFACE COURSE, SEE DETAIL SHEET NO. 2.

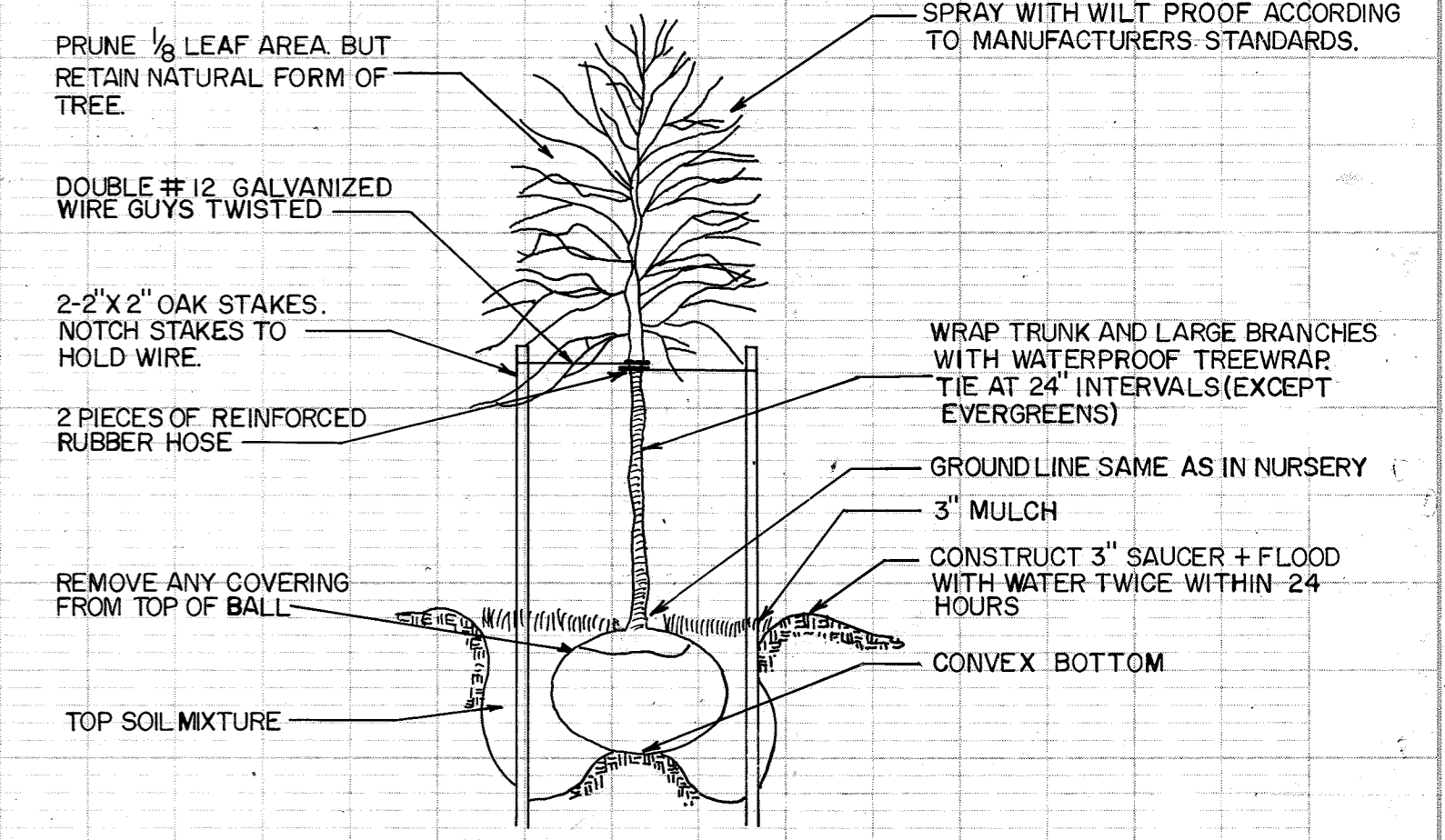
CURVE DATA

Δ = 37°-15'-00"
 D = 6°-30'-00"
 R = 881.47'
 L = 573.08'
 T = 297.08'
 E = 47.36'
 S.E. = 0.06'/FT.



STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP EL.	REMARKS
I-9	A-10 INLET	STA. 156 + 50 15' LT.	-	347.10	350.93	HO. CO. STD. SD. 4.02
I-8	A-10 INLET	STA. 156 + 50 53' RT.	345.10	344.60	348.09	HO. CO. STD. SD. 4.02
MH-2	SH/LW P.C. M	STA. 154 + 50 58' RT.	348.86	346.60	344.91	HO. CO. STD. G 5.12
I-5	EXIST. A-10	STA. 152 + 10.45-53' RT.	337.50	347.23	343.09	ADJUST EXIST. INLET SEE NOTE
I-7	A-10 INLET	STA. 152 + 10.45-15' LT.	-	339.40	344.14	HO. CO. STD. SD. 4.02
I-6	EXIST. K	STA. 152 + 10.45 - C	337.06	346.96	343.26	



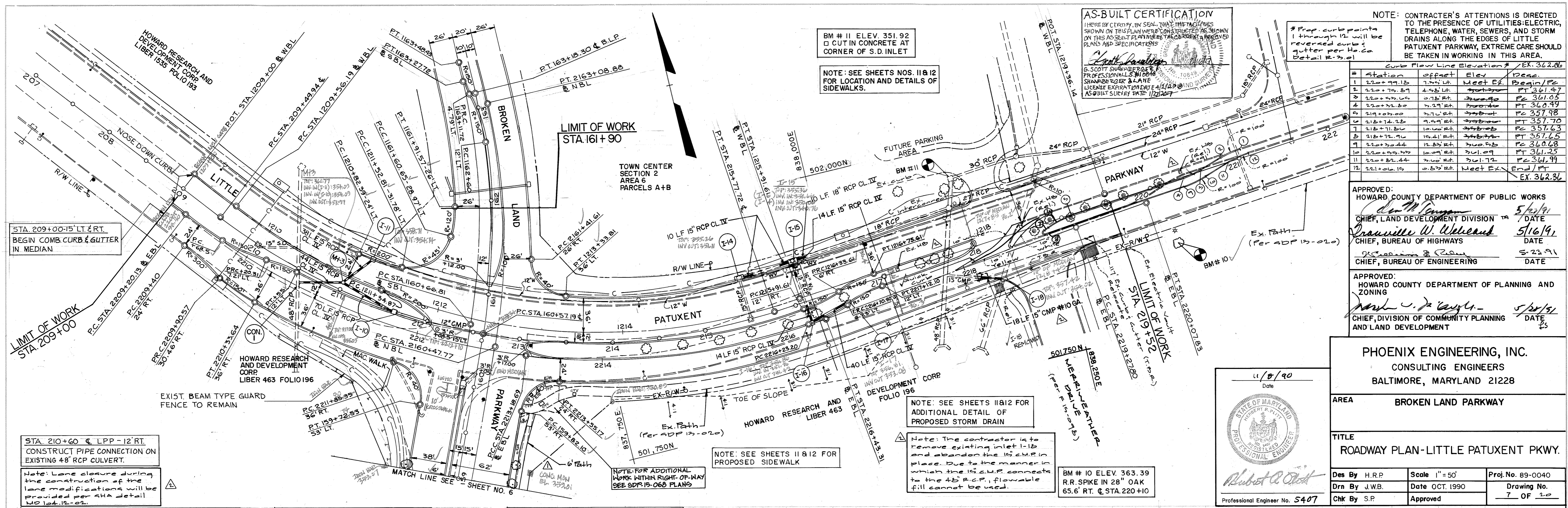
QUANTITY OF TREES	COMMON NAME	BOTANICAL NAME	HEIGHT
82	PIN OAK	QUERCUS PALUSTRIS	10'

TREE PLANTING DETAIL
 NO SCALE

PLAN
 NOTE BOOK
 NO. 10

PROFILE
 NOTE BOOK
 NO. 10

65



NOTE: CONTRACTOR'S ATTENTIONS IS DIRECTED TO THE PRESENCE OF UTILITIES: ELECTRIC, TELEPHONE, WATER, SEWERS, AND STORM DRAINS ALONG THE EDGES OF LITTLE PATUXENT PARKWAY, EXTREME CARE SHOULD BE TAKEN IN WORKING IN THIS AREA.

Station	Effect	Elev	Desc.
1 220+99.18	Meet Ex	361.47	Begin/Pe
2 220+75.87	Meet Ex	361.47	PT 361.47
3 220+52.60	Meet Ex	361.05	PT 361.05
4 220+29.30	Meet Ex	360.99	PT 360.99
5 219+06.00	Meet Ex	357.70	PT 357.70
6 218+72.70	Meet Ex	357.43	PT 357.43
7 218+49.40	Meet Ex	357.43	PT 357.43
8 218+26.10	Meet Ex	357.43	PT 357.43
9 218+02.80	Meet Ex	357.43	PT 357.43
10 217+79.50	Meet Ex	357.43	PT 357.43
11 217+56.20	Meet Ex	357.43	PT 357.43
12 217+32.90	Meet Ex	357.43	PT 357.43

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division
 DATE 5/2/91

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Community Planning and Land Development
 DATE 5/2/91

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND 21228

AREA BROKEN LAND PARKWAY

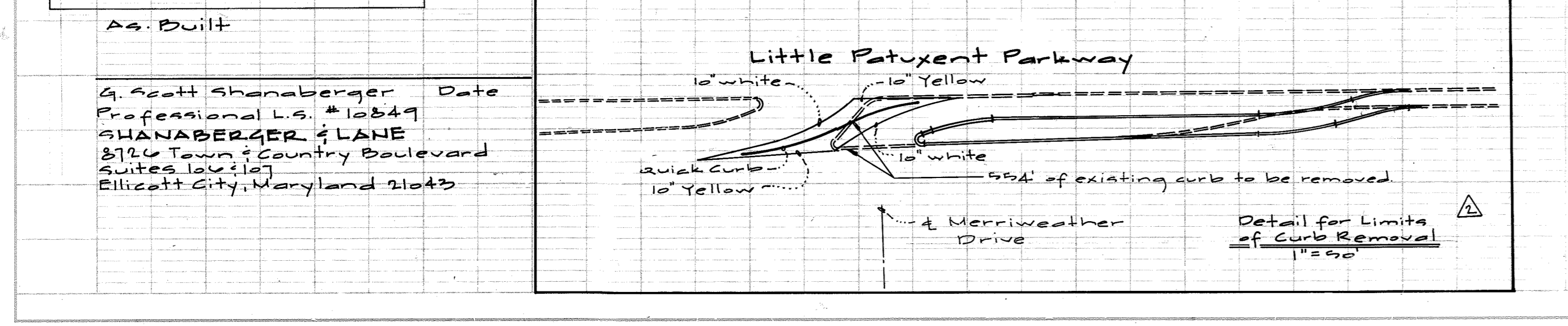
TITLE ROADWAY PLAN-LITTLE PATUXENT PKWY.

Des By H.R.P. **Scale** 1"=50' **Proj. No.** 89-0040

Drn By J.W.B. **Date** OCT. 1990 **Drawing No.** 7 OF 10

Chk By S.P. **Approved**

- REMOVE EXISTING CONC. CURB & GUTTER**
 STA. 1210+00 TO 1218+24 WBL - 24' LT. 890 L.F.
 STA. 1216+43 TO 1219+00 WBL - MEDIAN 257 L.F.
 STA. 2215+75 TO 2219+70 EBL - MEDIAN 395 L.F.
 STA. 2213+05 TO 2219+70 EBL - RT. 675 L.F.
- REMOVE EXISTING BITUMINOUS CURB**
 TRAFFIC ISLAND RT. STA. 2212+00 EBL
 TRAFFIC ISLAND RT. STA. 2212+60 EBL
- REMOVE EXISTING CONC. CURB & GUTTER**
 STA. 2209+20 TO 2209+70 EBL
 FEATHER BITUMINOUS SURFACE COURSE TO EXISTING PAVEMENT
 STA. 2209+40 - 24' RT.
 BEGIN NEW CONC. CURB & GUTTER TRANSITION CURB HEIGHT TO MATCH EXISTING CURB
- REMOVE EXISTING ROADWAY PAVEMENT**
 STA. 2213+50 TO 2219+00 EBL
 REMOVE EXISTING ROADWAY PAVEMENT EDGE TO BE CUT ON A NEAT ALIGNMENT AT A LOCATION WHICH WILL PERMIT CONSTRUCTION OF THE NEW CURB & GUTTER
- REMOVE EXISTING ROADWAY PAVEMENT**
 STA. 2218+45 TO 1219+00 WBL
 STA. 2219+70 RT. & 2219+70 EBL
 END NEW CURB & GUTTER TRANSITION CURB HEIGHT TO MATCH EXIST. CURB
- REMOVE EXISTING ROADWAY PAVEMENT**
 STA. 2217+90 ELLP
 ADJUST ELEVATION OF STORM DRAIN MANHOLE 46' LT. TO MATCH PROPOSED CURB AND SIDEWALK
- REMOVE EXISTING ROADWAY PAVEMENT**
 STA. 217+90 ELLP
 ADJUST ELEVATION OF STORM DRAIN MANHOLE 46' LT. TO MATCH PROPOSED CURB AND SIDEWALK
- REMOVE EXISTING ROADWAY PAVEMENT**
 STA. 212+ TO 213+
 REMOVE ENDS OF EXISTING 12" CMP TO PAVEMENT LIMITS INSTALL BRICK PLUG EACH END.



- PAVING LEGEND**
- HO. CO. SECTION NO. P-6-SEE DETAIL SHEET NO. 2
 - BITUMINOUS CONCRETE OVERLAY-SEE DETAIL SHEET NO. 3.
 - BITUMINOUS SURFACE COURSE-TIE IN TO EXISTING P.V.M.T. SEE DETAILS SHEET NO. 3.
 - REMOVE EXISTING BITUMINOUS PAVEMENT

NOTE: SEE SHEET NOS. 11 & 12 FOR LIMITS OF PAVING AND PAVEMENT REMOVAL

NOTE: SEE TRAFFIC SIGNAL PLANS FOR WORK TO BE COORDINATED WITH ROAD CONSTRUCTION.

NOTE: EXISTING UTILITY VAULT AND MANHOLE COVERS WITHIN THE LIMITS OF CONSTRUCTION, BUT NOT OTHERWISE AFFECTED BY THE PROPOSED CONSTRUCTION (REMOVED OR RELOCATED) SHALL BE ADJUSTED VERTICALLY TO MATCH PROPOSED GRADES.

NOTE A: PIPE TO BE REMOVE TO FIRST JOINT BEYOND EXIST. STRUCTURE. CONNECT NEW PIPE WITH STD. JOINT.

NOTE B: MAKE PIPE CONNECTION USING STD. CMP PIPE BAND.

Professional Certification
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland.
 License #14715 Expiration Date: 09/24/13

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP EL.	REMARKS
MH-3	STD. P.C. MH	STA-211+00-10' LT.	354.00	354.90	360.70	HO. CO. STD. 6 5.12
I-11	A-5 INLET	STA-121+15 WBL-23.68' LT.	355.53	358.93	360.93	HO. CO. STD. SD 4.01
I-10	A-5 INLET	STA-221+75 EBL-12.0' LT.	355.85	359.33	360.93	HO. CO. STD. SD 4.01
I-14	A-5 INLET**	STA-215+37 WBL-36.0' LT.	354.00	355.34	360.93	HO. CO. STD. SD 4.01
I-15	A-10 INLET**	STA-1215+97 WBL-36.0' LT.	349.90	349.50	355.72	HO. CO. STD. SD 4.02
I-16	A-5 INLET	STA-2216+28 EBL-6.23' LT.	352.30	352.00	356.79	HO. CO. STD. SD 4.01
I-17	A-5 INLET	STA-2216+72 EBL-6.23' LT.	353.19	356.59	360.93	HO. CO. STD. SD 4.01
I-18	A-5 INLET	STA-2218+34 EBL-26.0' RT.	354.00	357.42	360.93	HO. CO. STD. SD 4.01

MONUMENT RECOVERY SKETCH
 NO SCALE

Legend

- EVLT Electric Vault
- H.B. Hand Box
- Pole
- (T.B.R.) To Be Removed
- (REL) To Be Relocated
- Ex. Light Fixture
- Ex. Tree
- Ex. Curb Fixture Light Pole
- Ex. Tree (T.B.R.)
- Ex. Gas Valve
- Ex. Sign
- Ex. Interconnect

CROSS REFERENCES

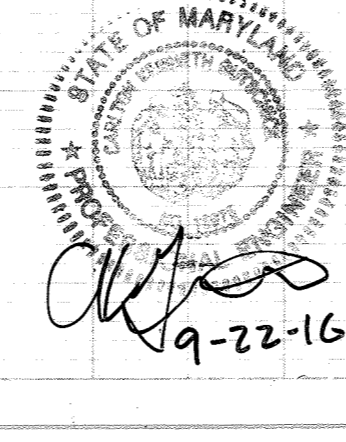
- GEOMETRIC DESIGN - SHEET NO. 4
- TYPICAL SECTIONS - SHEET NO. 3
- PROFILE GRADES - SHEET NO. 8
- SUPERELEVATION TRANSITION - SHEET NO. 10
- STORM DRAIN PROFILES - SHEET NO. 10
- PAVING, SIDEWALKS, STORM DRAIN DETAIL - SHEET NO. 11 & 12

Date 09/10/90 **Rev** Little Patuxent Parkway median
 01/19/91 **Rev** Remove 4' path & replace with 12' path

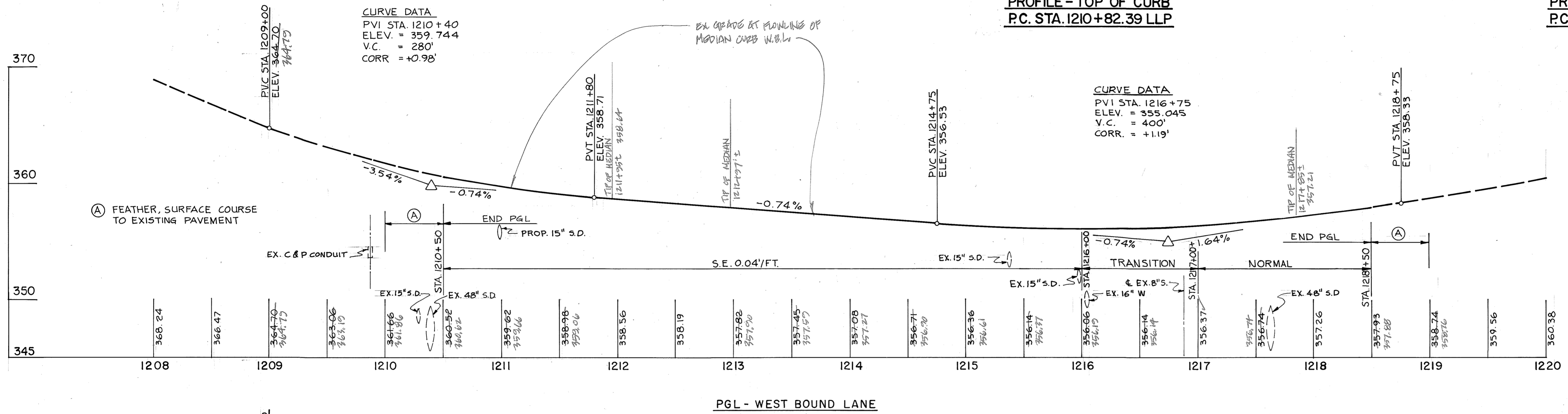
By dev **Appr.** dev

By dev **Appr.** dev

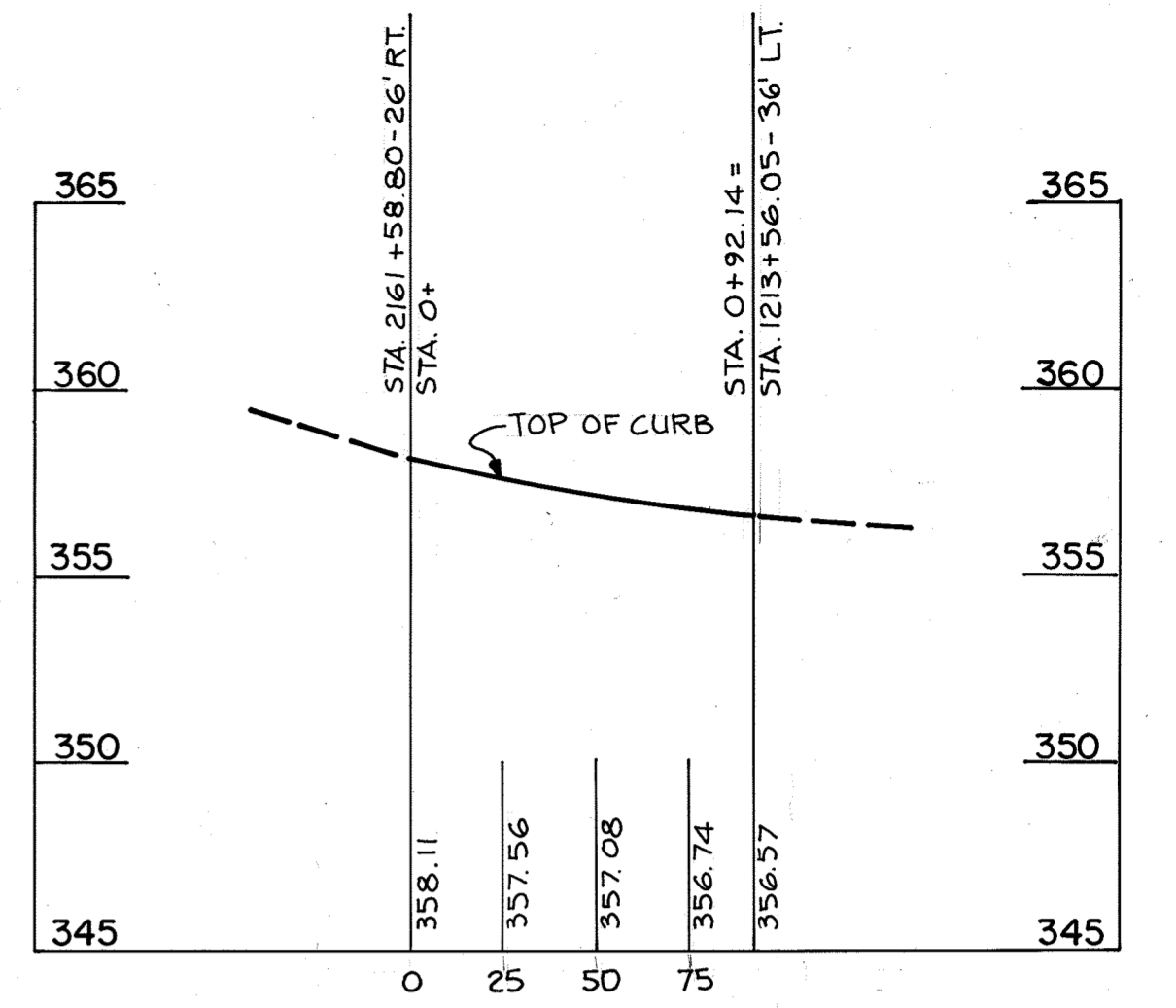
① Location of items "to be relocated" are shown in their existing location. The new location will be determined in the field by the Howard Co. Traffic Div. prior to installation.



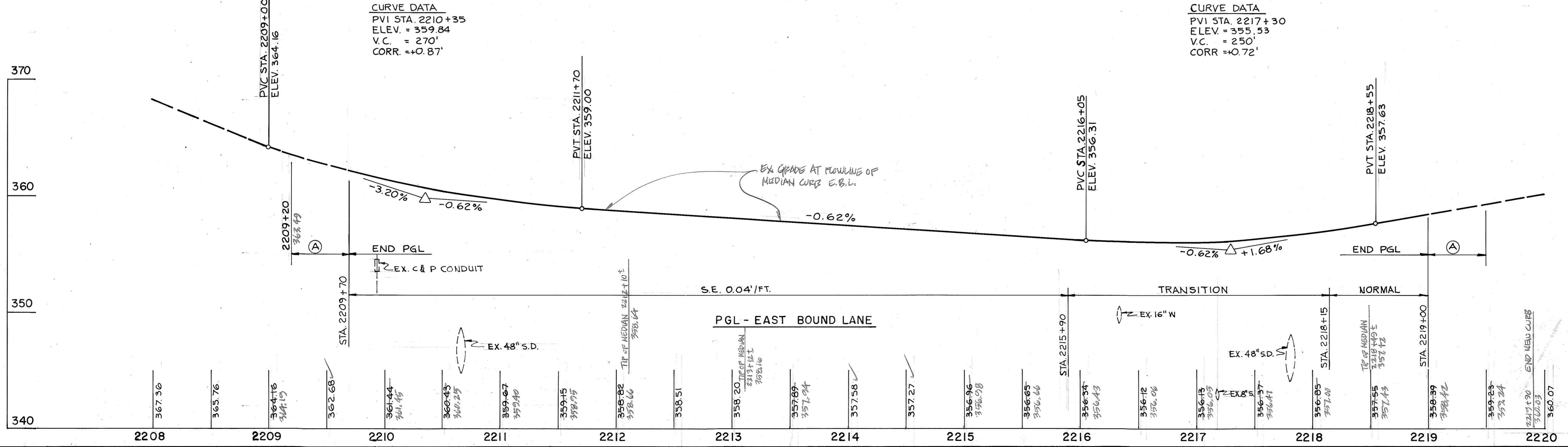
65



PROFILE - TOP OF CURB
P.C. STA. 1210+82.39 LLP



PROFILE - TOP OF CURB
P.C. STA. 2161+58.80 BLP



PGL - WEST BOUND LANE

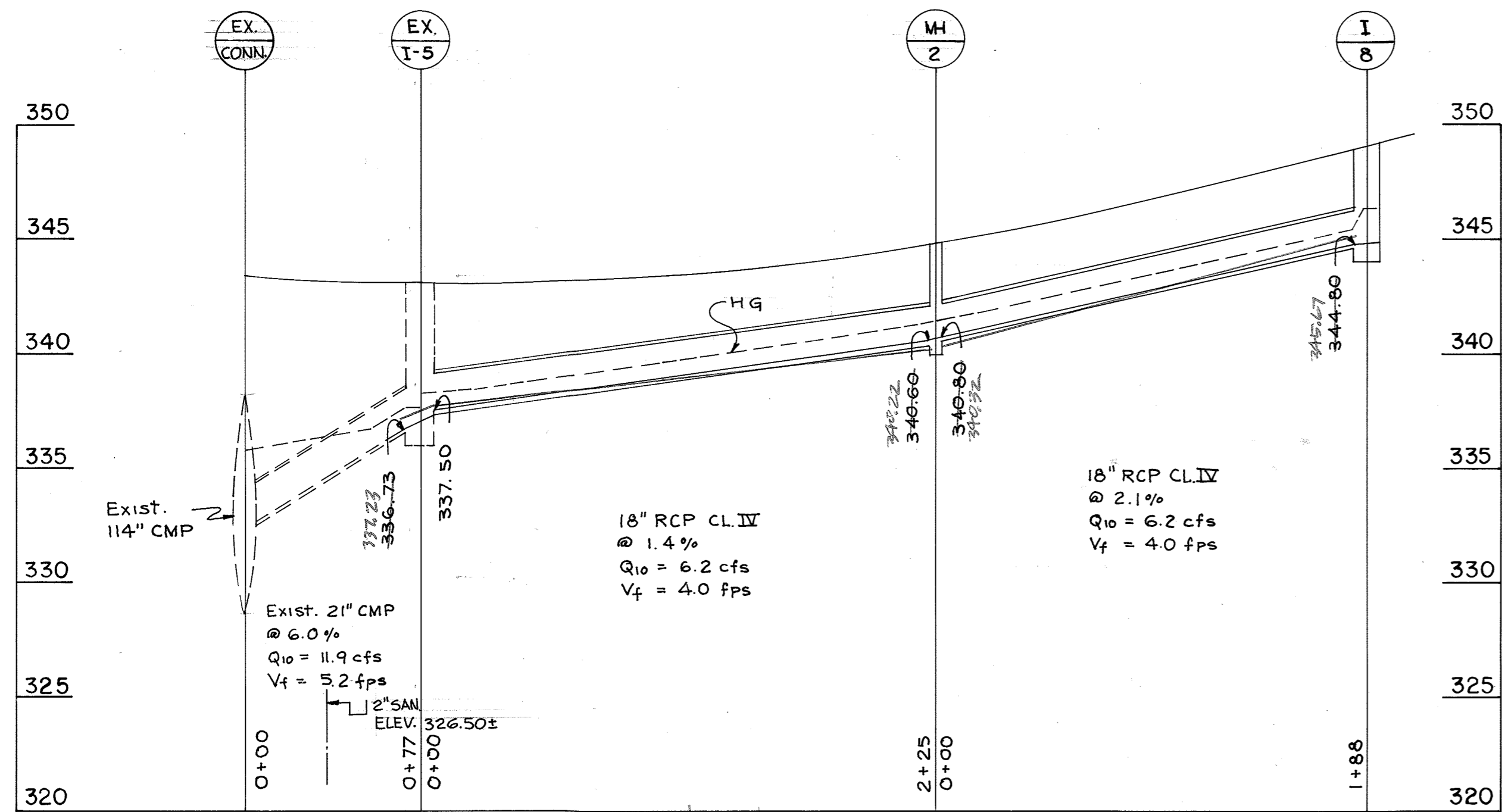
PGL - EAST BOUND LANE

AS-BUILT
G. SCOTT SHANABERGER
PROFESSIONAL L.S. # 10849

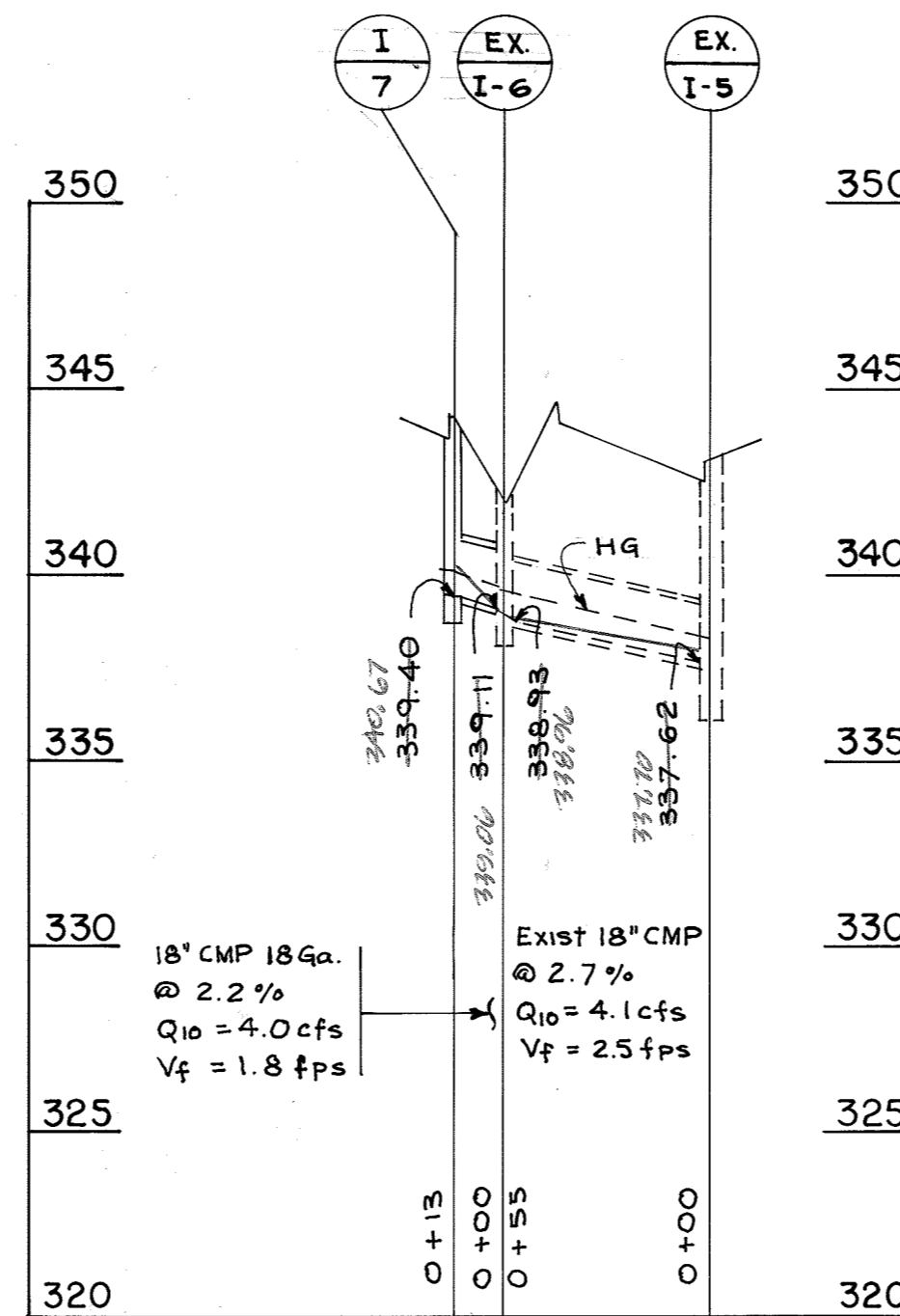
11/8/90
Date
Professional Engineer No. 5407

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION
DATE 5/23/91
Draville W. Welton
CHIEF, BUREAU OF HIGHWAYS
DATE 5/16/91
APPROVED:
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
DATE 5/23/91

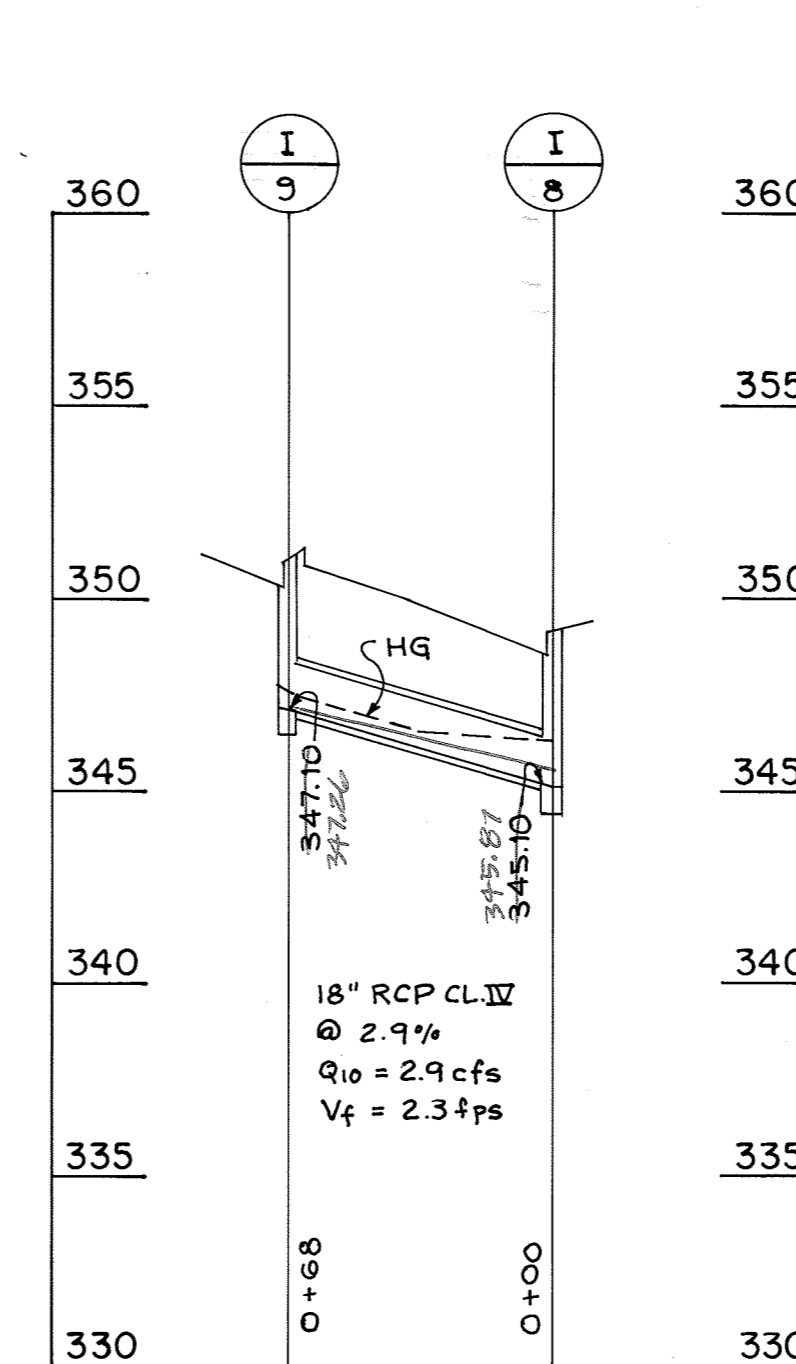
PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND 21228
AREA: BROKEN LAND PARKWAY
TITLE: PROFILES - LITTLE PATUXENT PKWY.
Des By: H.R.P. Scale: HOR. 1" = 50' VER. 1" = 5'
Drn By: J.W.B. Date: OCT. 1990
Chk By: S.P. Approved



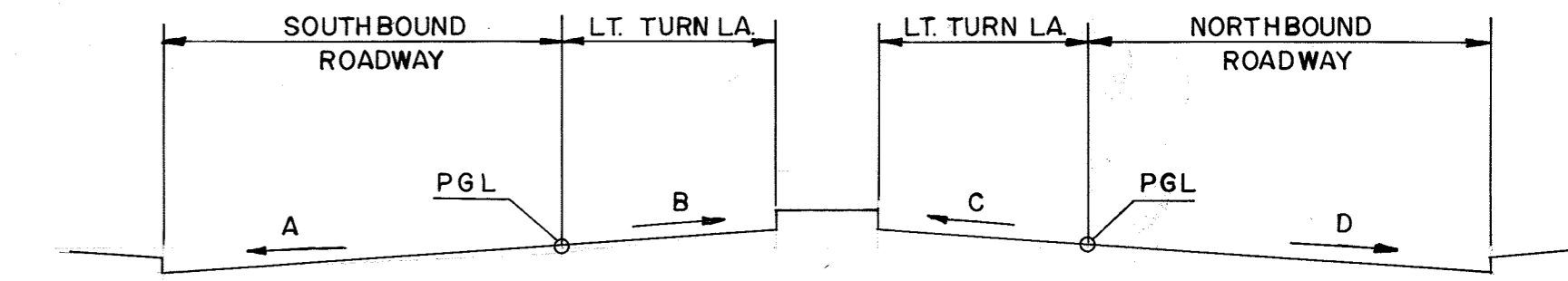
STA. 151+ TO STA. 156+
SCALE: HOR. 1" = 50'
VER. 1" = 5'



STA. 152+
SCALE: HOR. 1" = 50'
VER. 1" = 5'



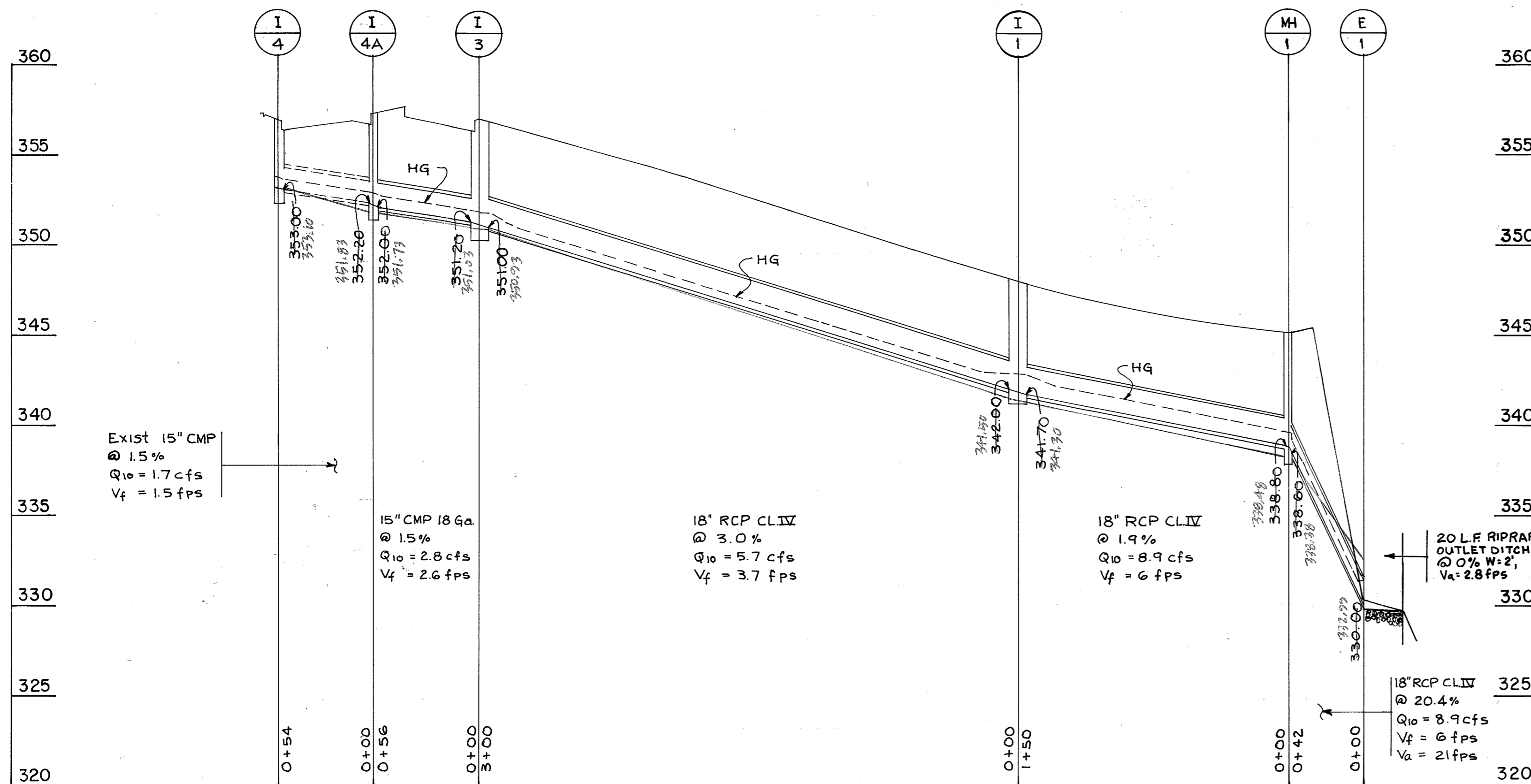
STA. 156+
SCALE: HOR. 1" = 50'
VER. 1" = 5'



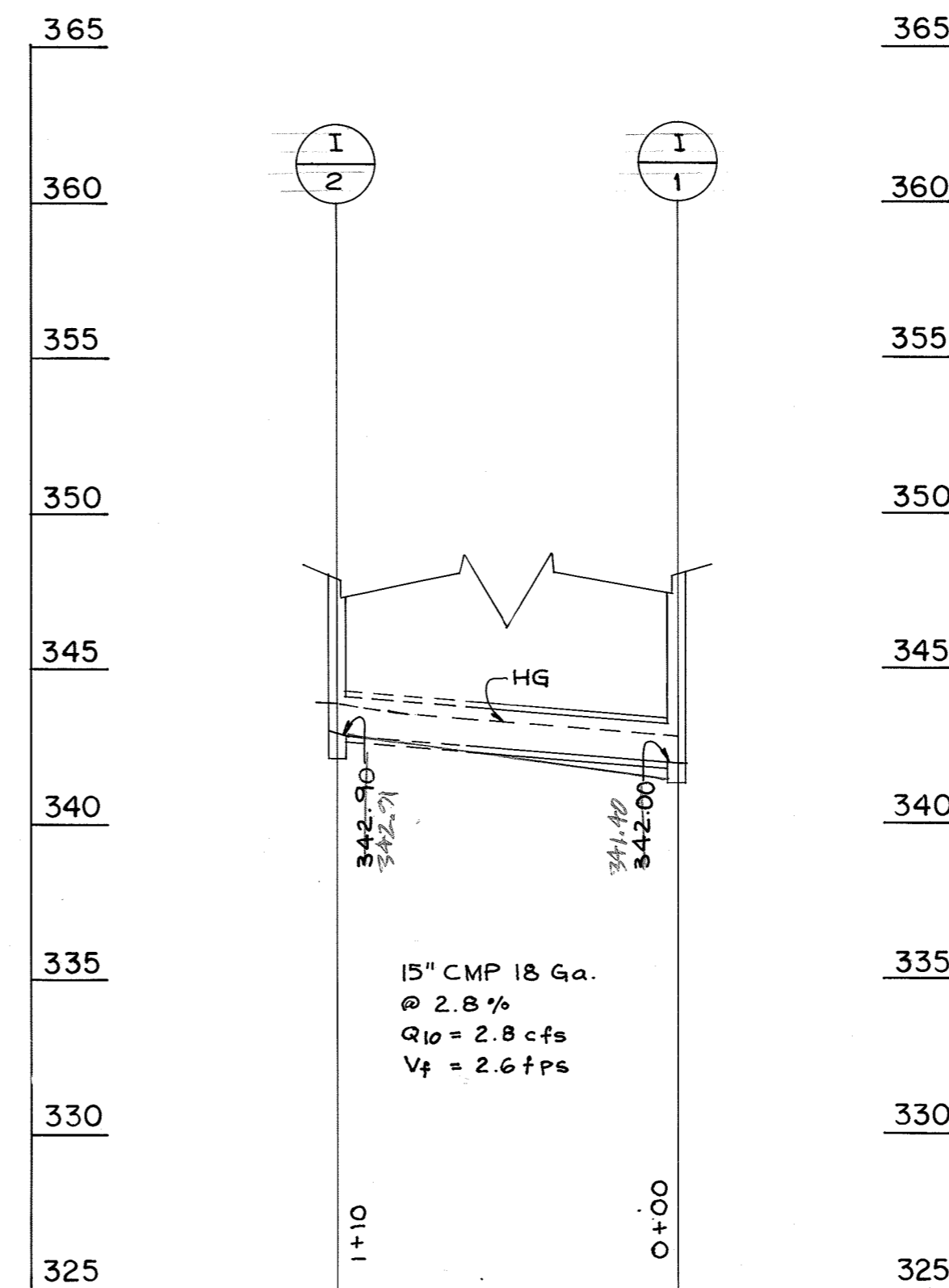
SUPERELEVATION TRANSITION TABLE

STATION	CROSS SLOPE				REMARKS
	A	B	C	D	
141+38.60	+0.06	-	-	-0.06	END FULL S.E., BEGIN TRANS.
143+16.38	+0.02	-0.02	-	-0.02	PLANE INCLINE - BEGIN N.C. NBL
144+05.27	0.00	-0.02	-	-0.02	LEVEL SBL
145+00.81	-0.02	-0.02	-	-0.02	END TRANS., BEGIN N.C.
146+00	-0.02	-0.02	-	-0.02	END 0.02 LT. TURN LANE B, BEGIN TRANS.
147+50	-0.02	-0.02	-	-0.02	END TRANS. LT. TURN LANE B
149+14.49	-0.02	-	-	-0.02	END N.C. SBL - BEGIN TRANS.
150+09.73	0.00	-	-	-0.02	LEVEL SBL
151+04.97	+0.02	-	-	-0.02	PLANE INCLINE - END N.C. NBL
152+95.44	+0.06	-	-	-0.06	END TRANS., BEGIN FULL S.E.
154+15	+0.06	-	+0.02	-0.06	BEGIN LT. TURN C NBL
156+78.04	+0.06	-	+0.02	-0.06	END FULL S.E., BEGIN TRANS.
158+68.51	+0.02	-	+0.02	-0.02	PLANE INCLINE - BEGIN N.C. NBL
159+00	+0.03	-	+0.02	-0.02	END 0.02 LT. TURN LANE C, BEGIN TRANS.
159+63.75	0.00	-	+0.02	-0.02	LEVEL SBL, N.C. NBL, BEGIN TRANS.
160+18.19	+0.006	-	+0.006	-0.006	EDGE PYMT. L.L.P.

AS-BUILT

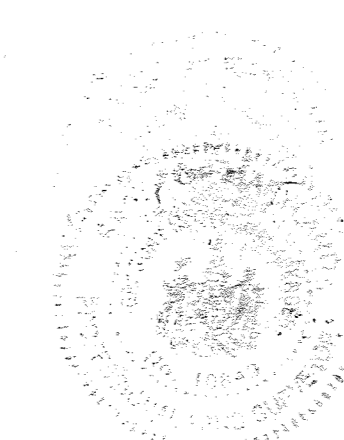


STA. 146+ TO STA. 150+
SCALE: HOR. 1" = 50'
VER. 1" = 5'



STA. 149
SCALE: HOR. 1" = 50'
VER. 1" = 5'

G. SLOTT SHANABERGER DATE PROFESSIONAL LAND SURVEYOR # 10849



APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Colin M. Pappas 5/13/90 DATE
CHIEF, LAND DEVELOPMENT DIVISION
Dr. William W. Wallace 5/16/90 DATE
CHIEF, BUREAU OF HIGHWAYS
Dr. William W. Wallace 5-23-90 DATE
CHIEF, BUREAU OF ENGINEERING

APPROVED:
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Robert V. D. ... 5/23/90 DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND 21228

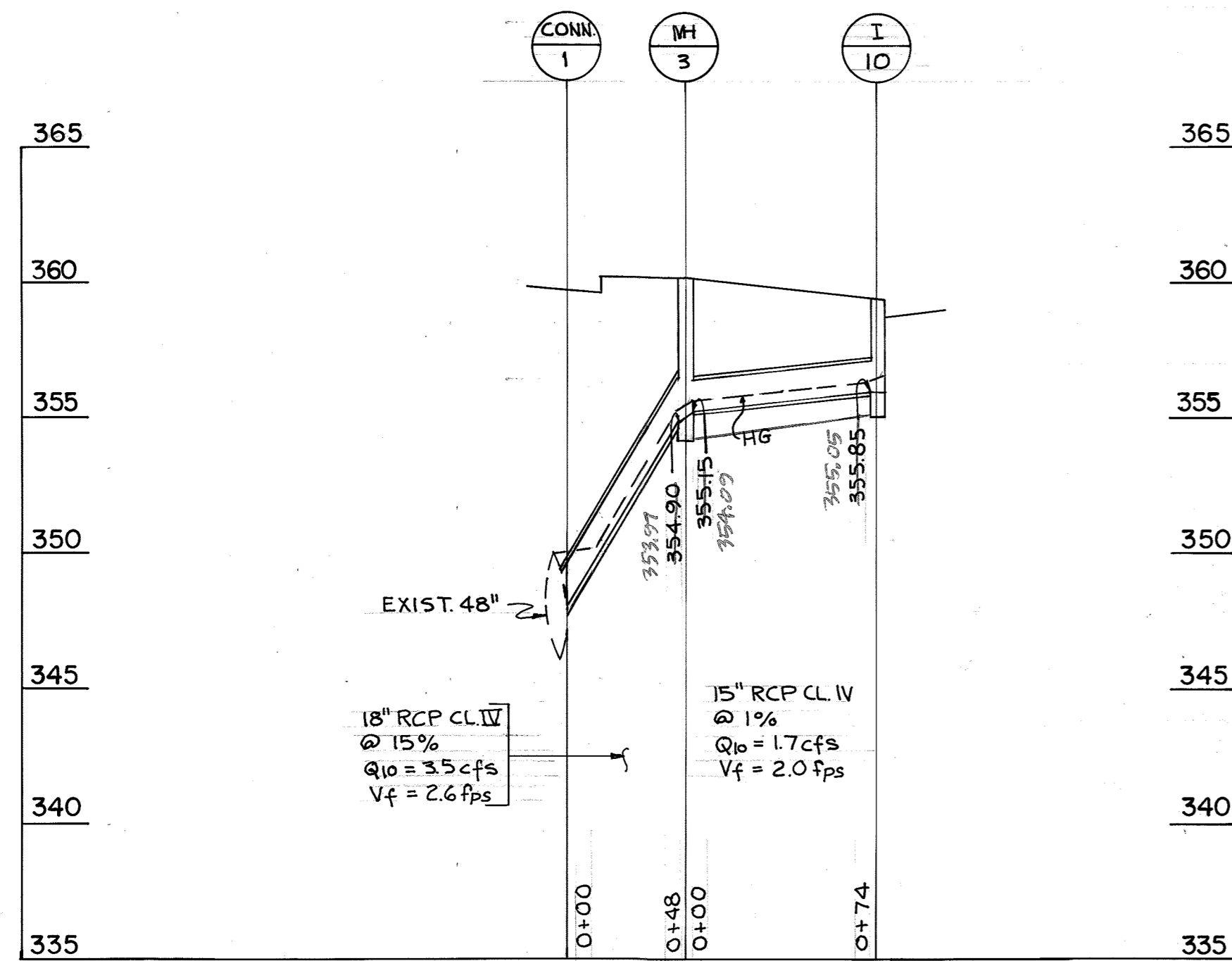
AREA BROKEN LAND PARKWAY

TITLE STORM DRAIN PROFILES

Des By H.R.P. Scale AS SHOWN Proj.No. 89-0040
Drn By J.W.B. Date OCT. 1990 Drawing No. 9 OF 20
Chk By S.P. Approved

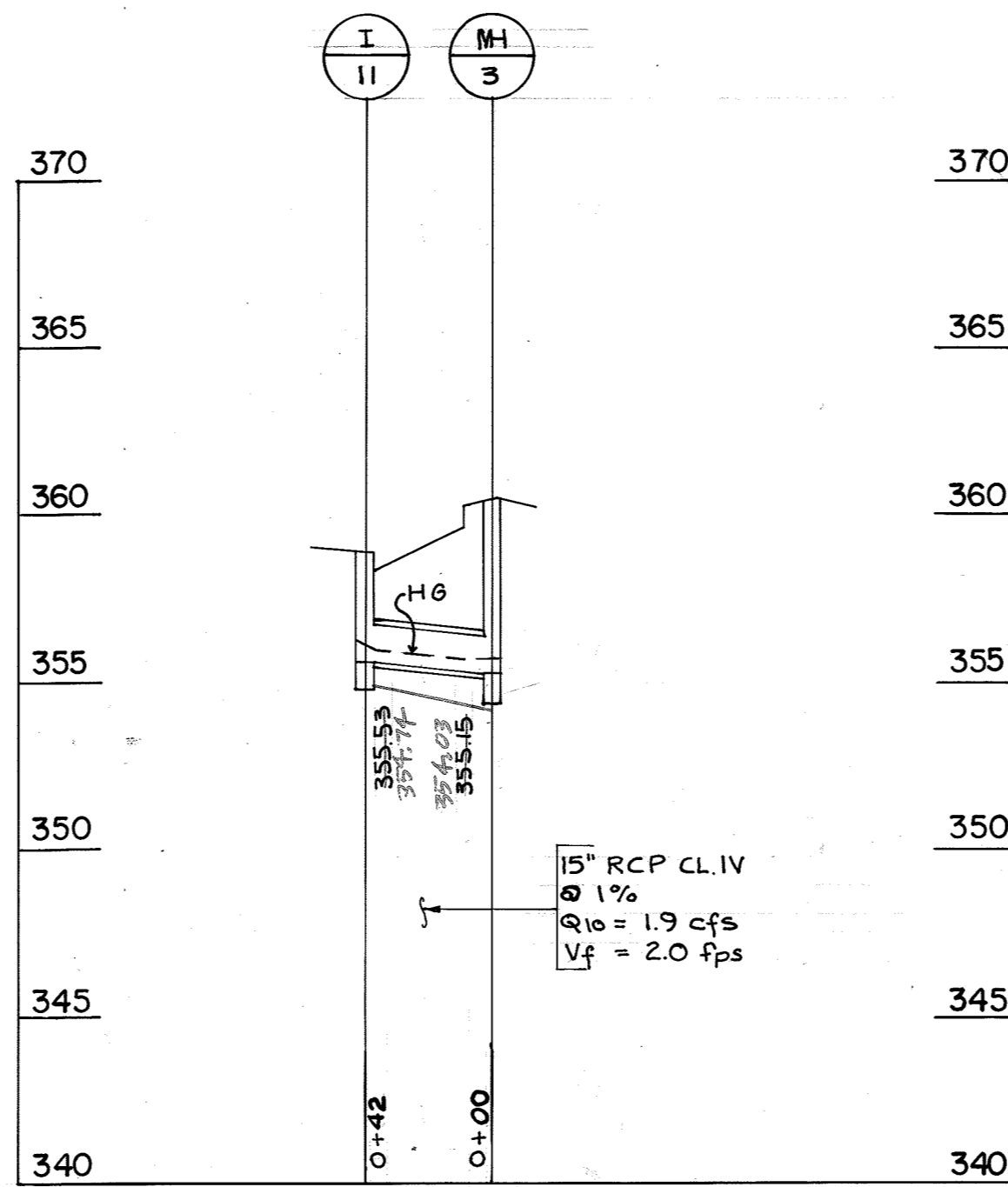
11/8/90 Date
Professional Engineer No. 5407

65



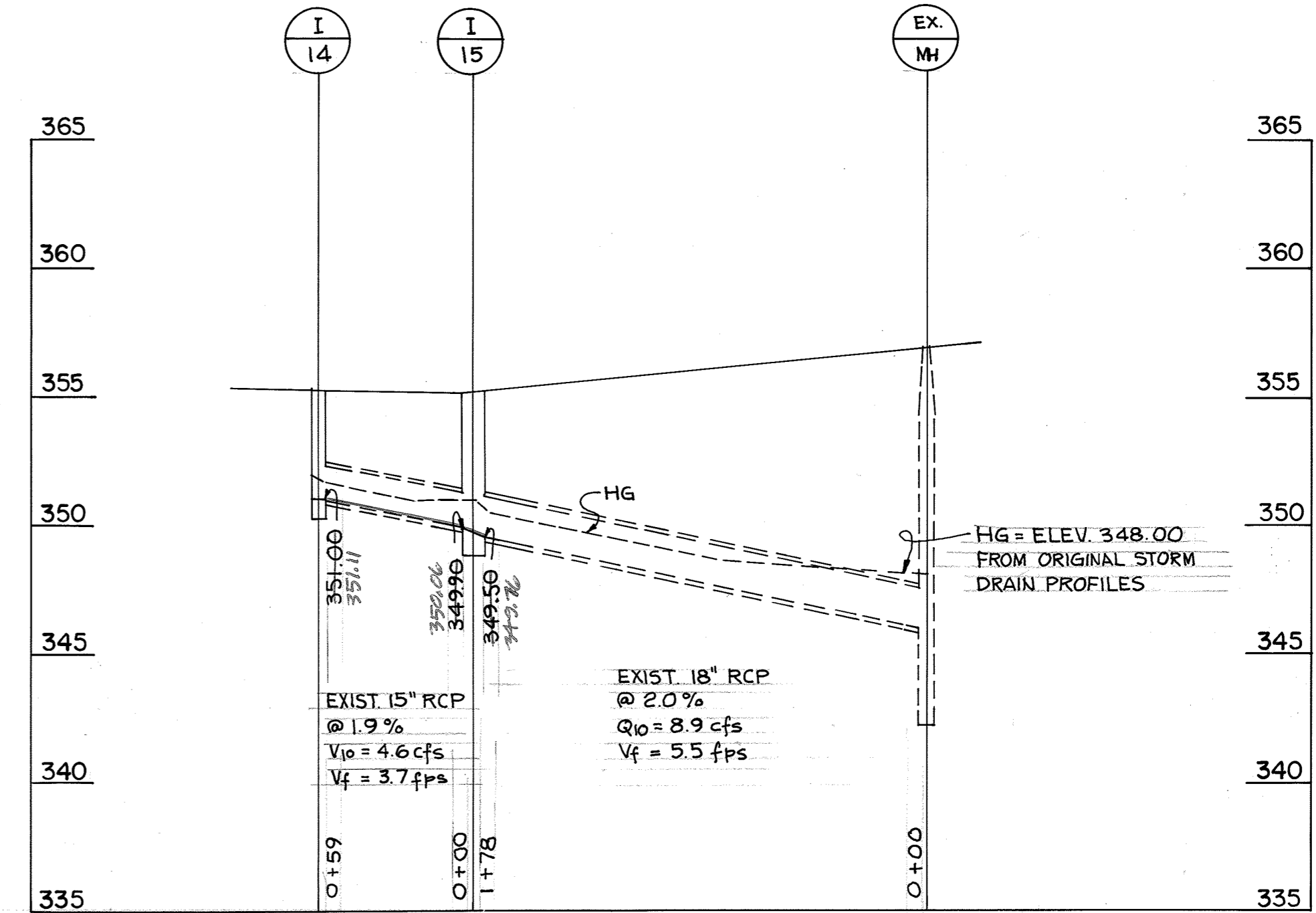
STA. 210+60 TO 211 + LLP

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



STA. 211 + LLP

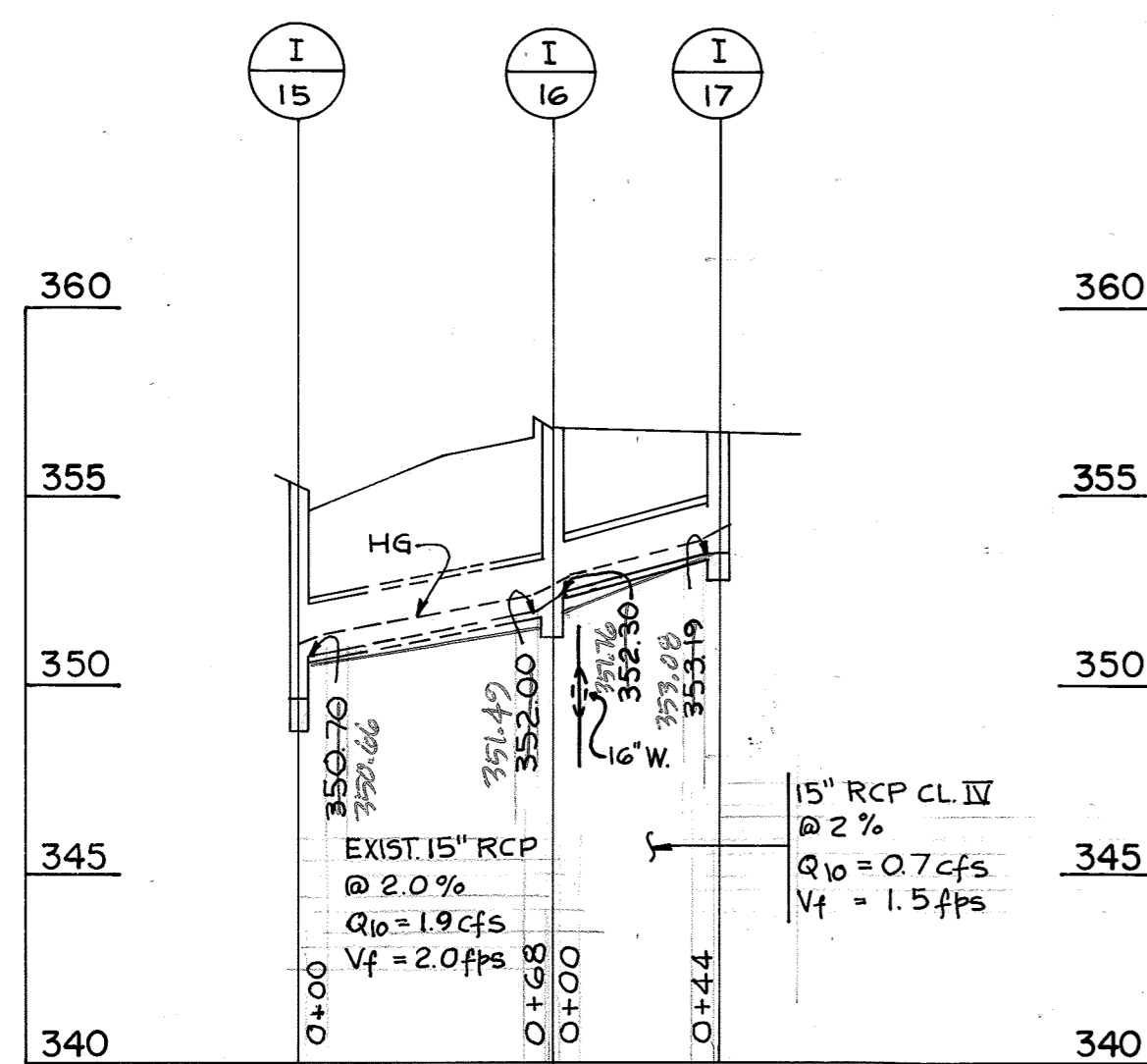
SCALE: HOR. 1" = 50'
VER. 1" = 5'



STA. 215+ TO 217 + LLP

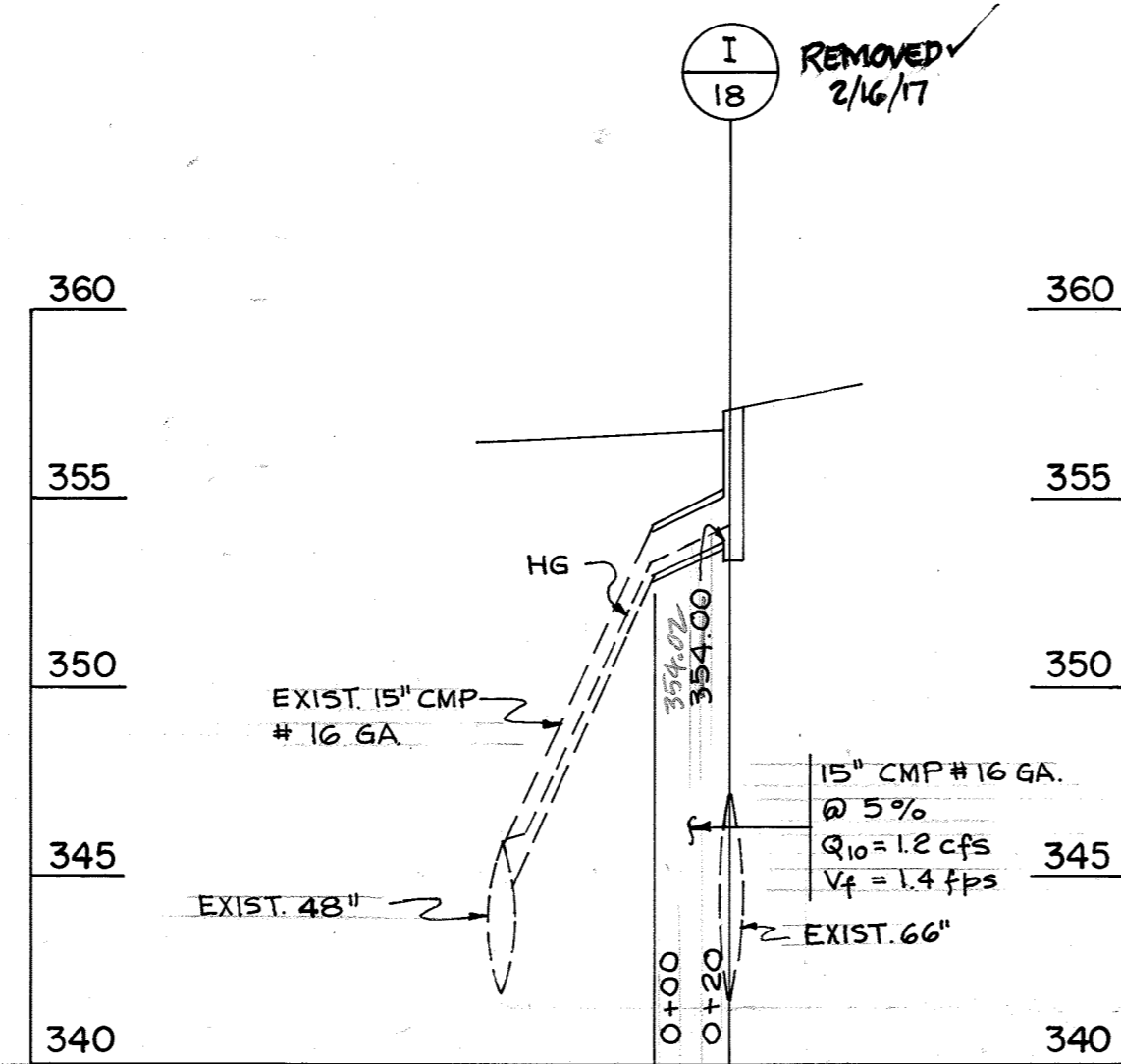
SCALE: HOR. 1" = 50'
VER. 1" = 5'

AS-BUILT



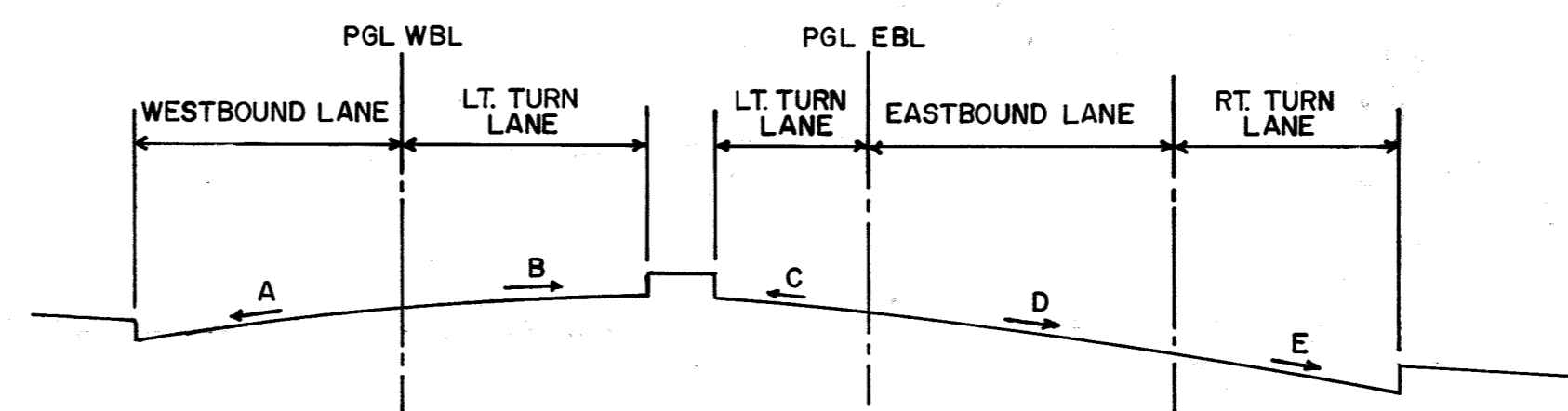
STA. 216 + LLP

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



STA. 218 + LLP

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



SUPERELEVATION TRANSITION TABLE
LITTLE PATUXENT PARKWAY

STATION	CROSS SLOPE					REMARKS
	A	B	C	D	E	
WEST BOUND LANE						
1210 + 50	-0.04	—				FULL S.E.
1213 + 02	-0.04	+0.008				BEGIN LT. TURN LANE TRANSITION
1214 + 25	-0.04	+0.02				END LT. TURN LANE TRANSITION BEGIN +0.02 X-SLOPE
1216 + 00	-0.04	+0.02				END FULL S.E. WBL - BEGIN TRANSITION
1216 + 09.17	—	+0.02				END LT. TURN LANE
1217 + 00	-0.02	—				END TRANSITION WBL - BEGIN N.C.
EAST BOUND LANE						
2209 + 70			-0.02	+0.04	+0.04	FULL S.E.
2209 + 75			-0.02	+0.04	+0.04	END 0.04 X-SLOPE RT. TURN LANE (E) BEGIN TRANSITION
2211 + 69.78			-0.02	+0.04	+0.003	END RT. TURN LANE AND RT. TURN LANE TRANSITION
2211 + 75			-0.02	+0.04	—	BEGIN TRANSITION LT. TURN LANE
2212 + 08.50			-0.01	+0.04	—	END LT. TURN LANE AND LT. TURN LANE TRANSITION
2215 + 90			—	+0.04	—	END FULL S.E. - BEGIN TRANSITION
2218 + 15			—	-0.02	—	END TRANSITION EBL - BEGIN N.C.

AS-BUILT CERTIFICATION
I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS PLANNED AND AS-BUILT AS SHOWN ON THIS AS-BUILT PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS.
G. Scott Shanaberger
PROFESSIONAL L.S. #10049
DATE 5/16/17

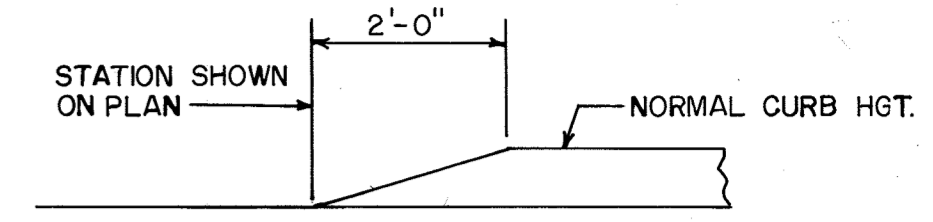
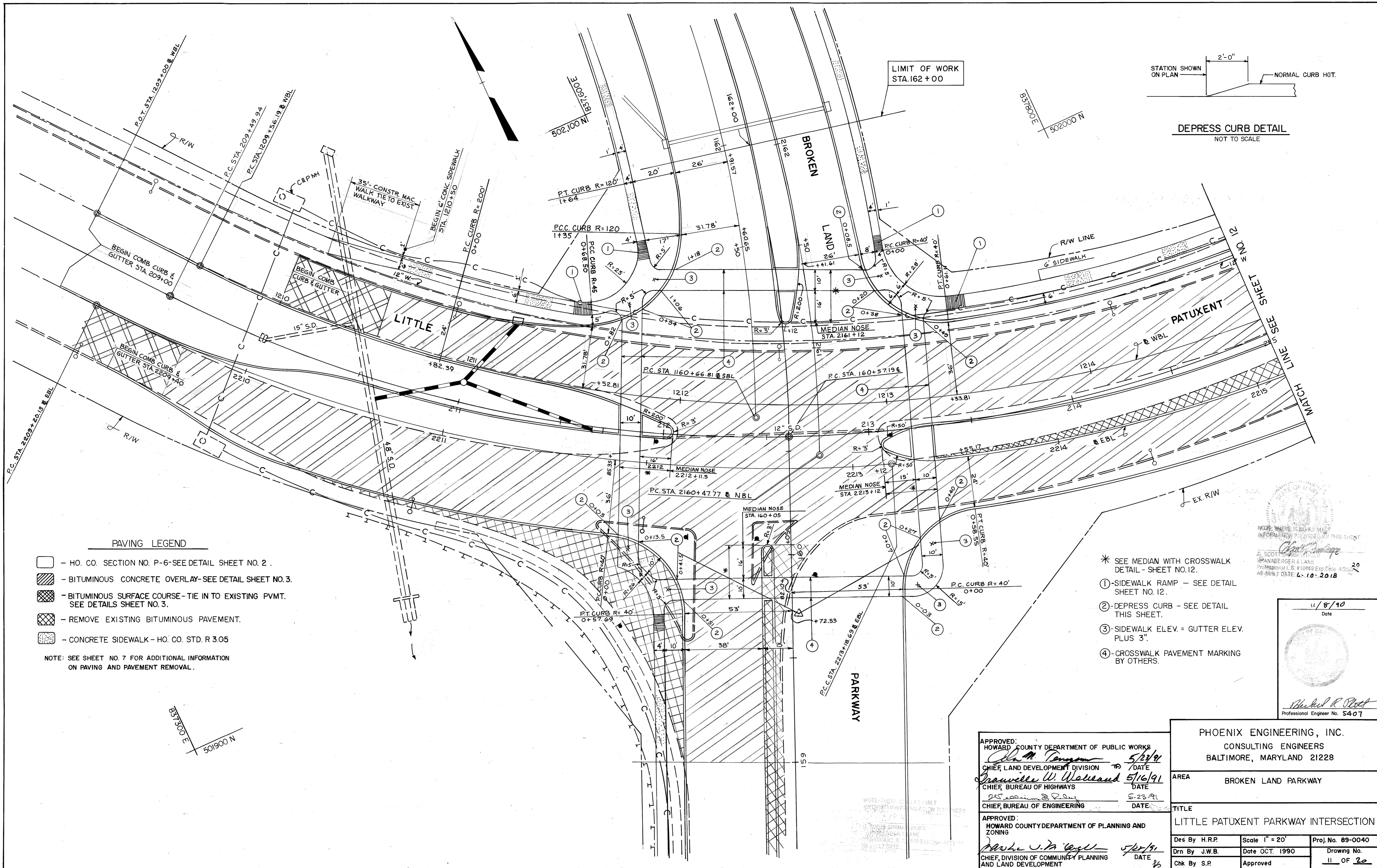
G. SCOTT SHANABERGER
PROFESSIONAL L.S. #10049
DATE

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Land Development Division
Date 5/16/17
Dravilla W. Wakeand
Chief, Bureau of Highways
Date 5/16/17
Chief, Bureau of Engineering
Date 5-23-17

APPROVED:
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chief, Division of Community Planning and Land Development
Date 5/16/17

11/8/10
Date
Professional Engineer No. 5407

PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND 21228
AREA
BROKEN LAND PARKWAY
TITLE
STORM DRAIN PROFILES
Des By H.R.P. Scale AS SHOWN Proj. No. 89-0040
Drn By S.P. Date OCT. 1990 Drawing No. 10 OF 20
Chk By J.W.B. Approved



DEPRESS CURB DETAIL
NOT TO SCALE

PAVING LEGEND

- HO. CO. SECTION NO. P-6-SEE DETAIL SHEET NO. 2.
- BITUMINOUS CONCRETE OVERLAY-SEE DETAIL SHEET NO. 3.
- BITUMINOUS SURFACE COURSE-TIE IN TO EXISTING P.V.M.T. SEE DETAILS SHEET NO. 3.
- REMOVE EXISTING BITUMINOUS PAVEMENT.
- CONCRETE SIDEWALK-HO. CO. STD. R 3.05

NOTE: SEE SHEET NO. 7 FOR ADDITIONAL INFORMATION ON PAVING AND PAVEMENT REMOVAL.

- * SEE MEDIAN WITH CROSSWALK DETAIL - SHEET NO. 12.
- ① SIDEWALK RAMP - SEE DETAIL SHEET NO. 12.
- ② DEPRESS CURB - SEE DETAIL THIS SHEET.
- ③ SIDEWALK ELEV. = GUTTER ELEV. PLUS 3".
- ④ CROSSWALK PAVEMENT MARKING BY OTHERS.

NOTE: THERE IS NO PAYMENT INFORMATION PAYABLE ON THIS SHEET.
 SCOTT SIMPSON
 SCOTT SIMPSON & ASSOCIATES, INC.
 1500 W. WASHINGTON BLVD., SUITE 100
 ANNAPOLIS, MARYLAND 21403
 PROFESSIONAL L.S. #10849 Exp. Date 4/2/00
 45-00007 DATE 6-10-2018

11/8/90
 Date

 Michael R. Platt
 Professional Engineer No. 5407

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John M. Tansum 5/23/91
 CHIEF, LAND DEVELOPMENT DIVISION / DATE
Lawrence W. Wallace 5/16/91
 CHIEF, BUREAU OF HIGHWAYS / DATE
Debra J. P. Ryan 5-23-91
 CHIEF, BUREAU OF ENGINEERING / DATE

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Walter J. DeAngelis 5/21/91
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT / DATE

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND 21228

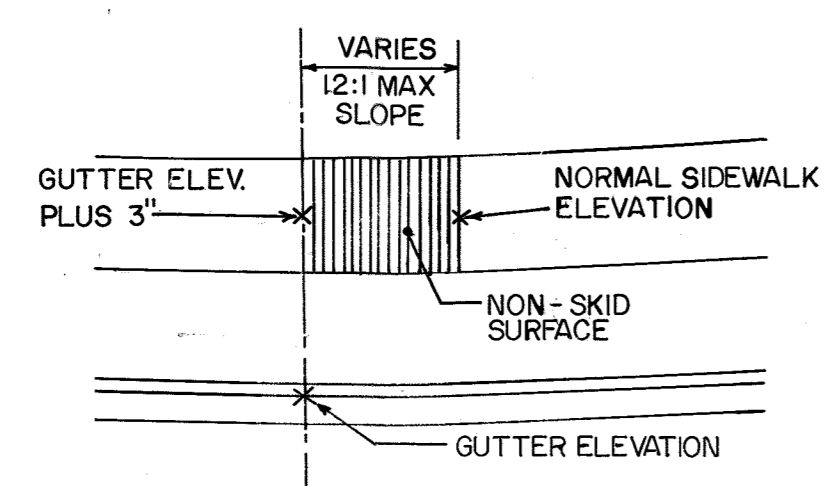
AREA: BROKEN LAND PARKWAY

TITLE: LITTLE PATUXENT PARKWAY INTERSECTION

Des By H.R.P.	Scale 1" = 20'	Proj. No. 89-0040
Drn By J.W.B.	Date OCT. 1990	Drawing No.
Chk By S.P.	Approved	II OF 20

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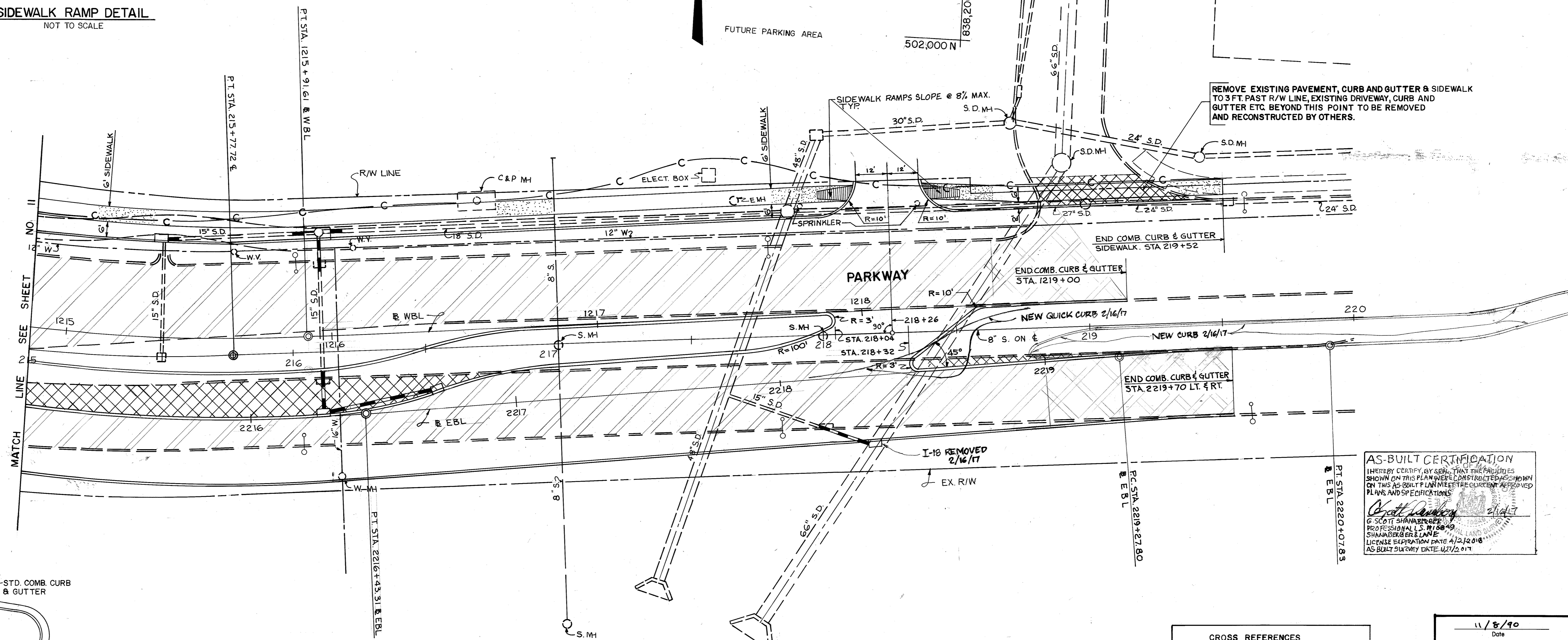
502000 N 837800 E



SIDEWALK RAMP DETAIL
NOT TO SCALE

FUTURE PARKING AREA

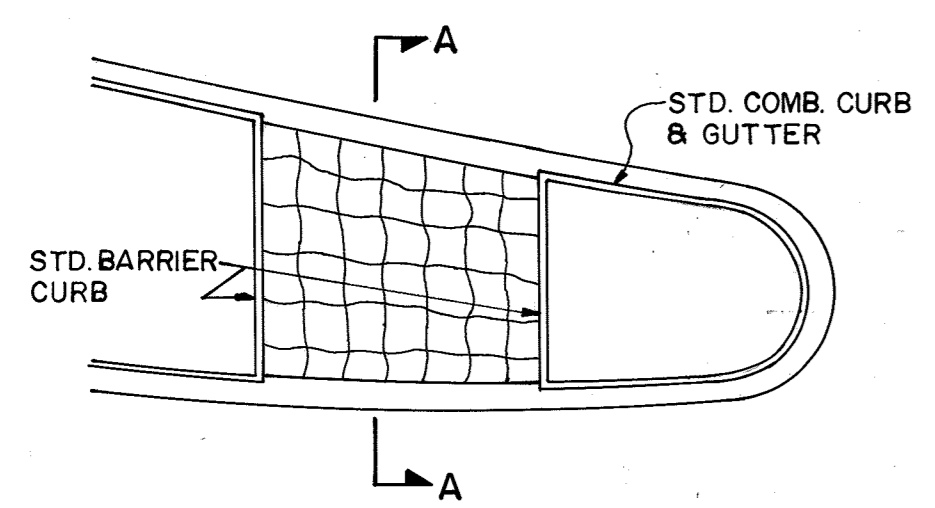
502,000 N 836,200 E



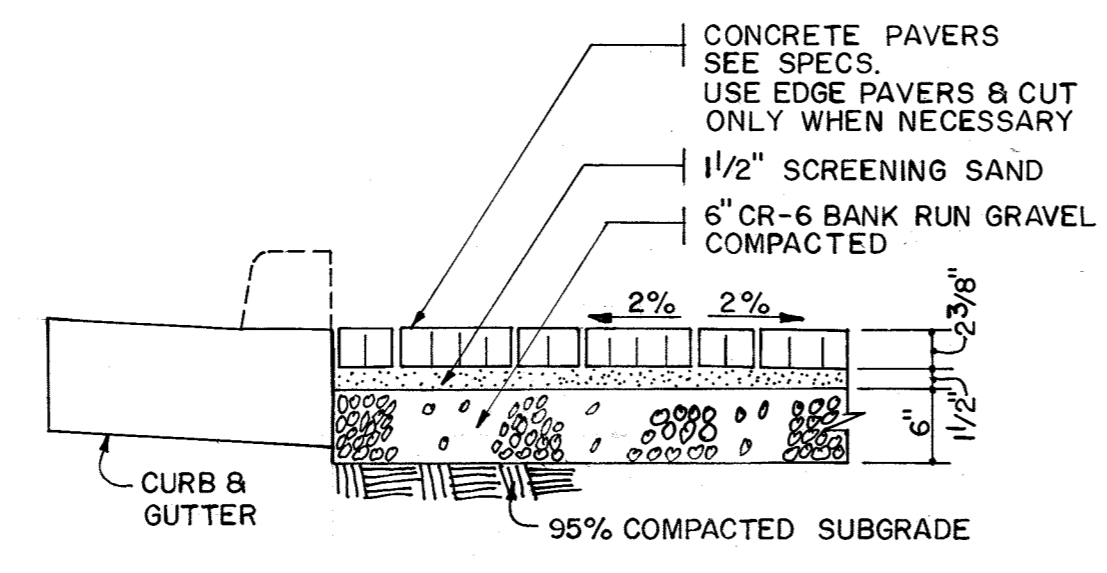
REMOVE EXISTING PAVEMENT, CURB AND GUTTER & SIDEWALK TO 3 FT. PAST R/W LINE, EXISTING DRIVEWAY, CURB AND GUTTER ETC BEYOND THIS POINT TO BE REMOVED AND RECONSTRUCTED BY OTHERS.

MATCH LINE 2 SEE SHEET NO. 11

AS-BUILT CERTIFICATION
I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS AS-BUILT PLAN MEETING THE CURRENT APPROVED PLANS AND SPECIFICATIONS.
Scott Shanabarger 2/14/17
G SCOTT SHANABARGER
PROFESSIONAL L.S. #10649
SHANABARGER & LANE
LICENSE EXPIRATION DATE 11/12/2018
AS-BUILT SURVEY DATE 11/12/17



MEDIAN WITH CROSS WALK
NOT TO SCALE



SECTION A-A

PAVING LEGEND

- HO. CO. SECTION NO. P-6-SEE DETAIL SHEET NO. 2.
- BITUMINOUS CONCRETE OVERLAY-SEE DETAIL SHEET NO.3.
- BITUMINOUS SURFACE COURSE-TIE IN TO EXISTING P.V.M.T. SEE DETAILS SHEET NO. 3.
- REMOVE EXISTING BITUMINOUS PAVEMENT.
- CONCRETE SIDEWALK - HO. CO. STD. R 3.05

NOTE: SEE SHEET NO. 7 FOR ADDITIONAL INFORMATION ON PAVING AND PAVEMENT REMOVAL.

CROSS REFERENCES

GEOMETRIC DESIGN - SHEET NO. 4
TYPICAL SECTIONS - SHEET NO. 3
PROFILE GRADES - SHEET NO. 8
ROADWAY PLAN - SHEET NO. 7
STORM DRAIN PROFILES - SHEET NO. 10
SUPERELEVATION TRANSITION - SHEET NO. 10

11/8/90
Date

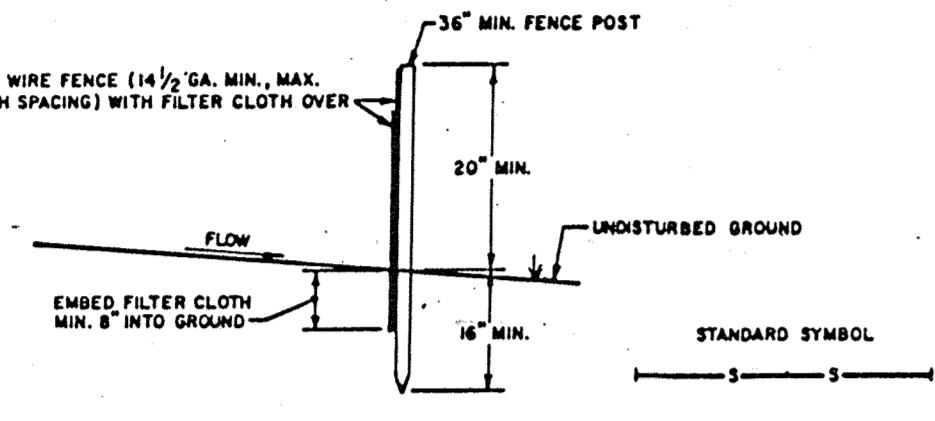
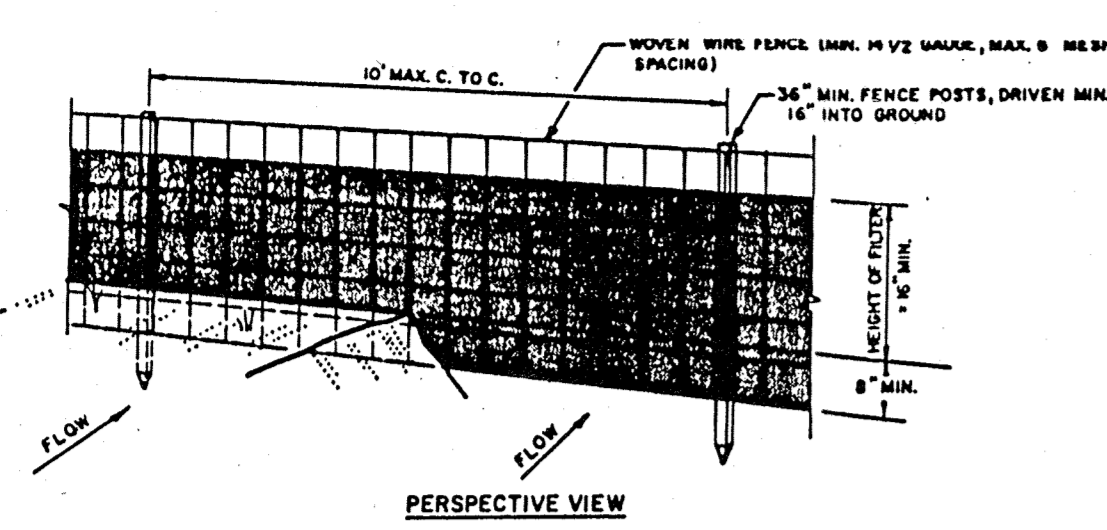
Professional Engineer No. 5467

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William J. Wilson 5/23/91
DATE
CHIEF, LAND DEVELOPMENT DIVISION
William J. Wilson 5/16/91
DATE
CHIEF, BUREAU OF HIGHWAYS
William J. Wilson 5-23-91
DATE
CHIEF, BUREAU OF ENGINEERING

APPROVED:
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Robert A. Dick 5/23/91
DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

PHOENIX ENGINEERING, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND 21228		
AREA	BROKEN LAND PARKWAY	
TITLE	LITTLE PATUXENT PARKWAY INTERSECTION	
Des By H.R.P.	Scale 1" = 20'	Proj. No. 89-0040
Drn By J.W.B.	Date OCT. 1990	Drawing No.
Chk By S.P.	Approved	12 OF 20

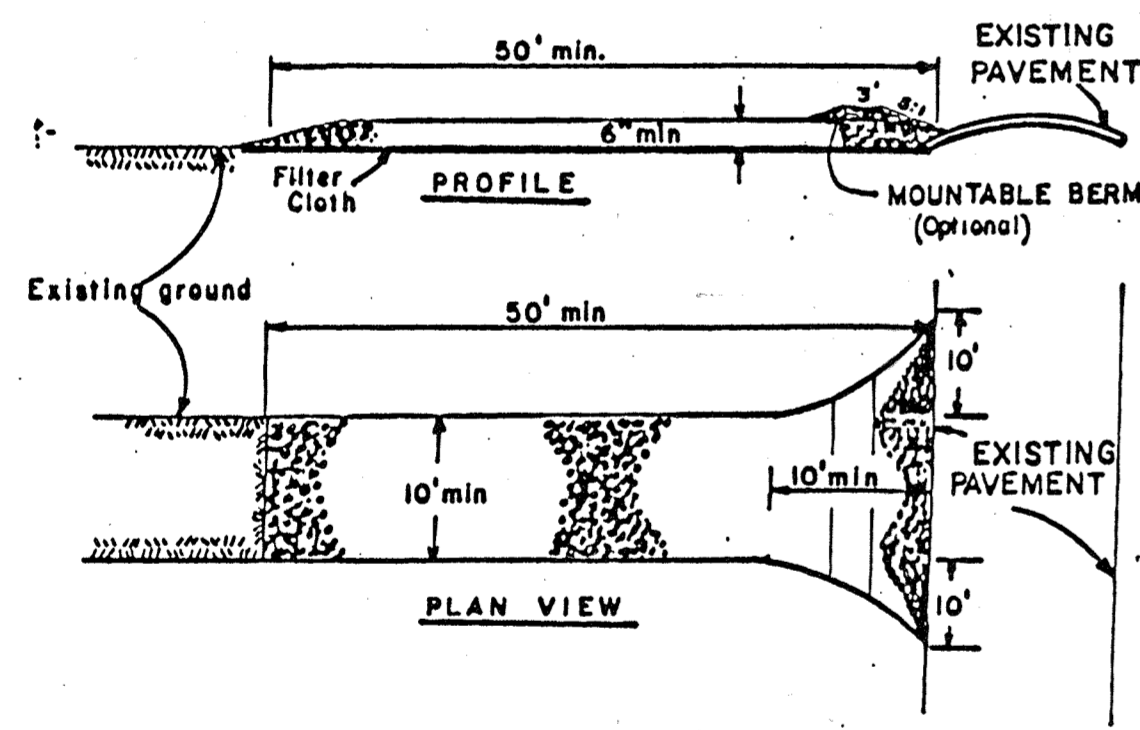
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CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

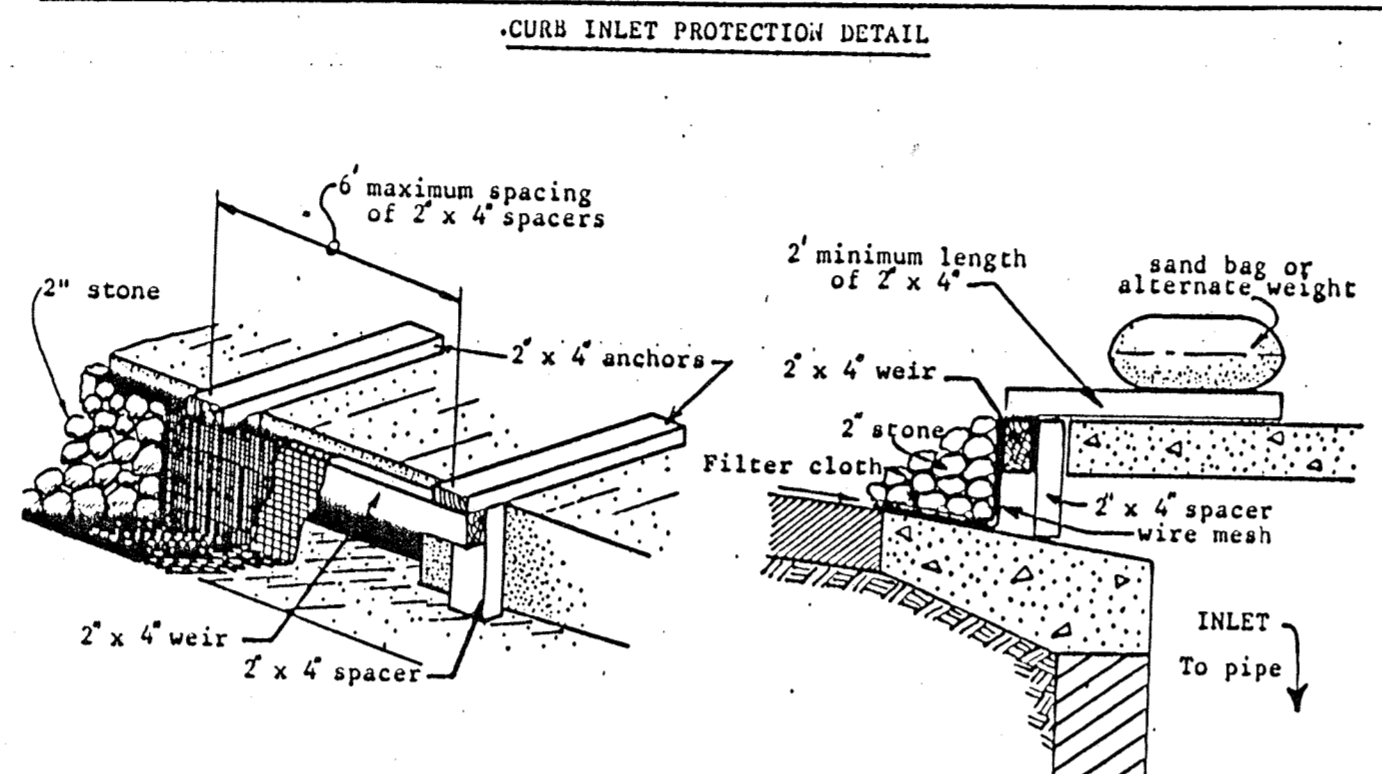
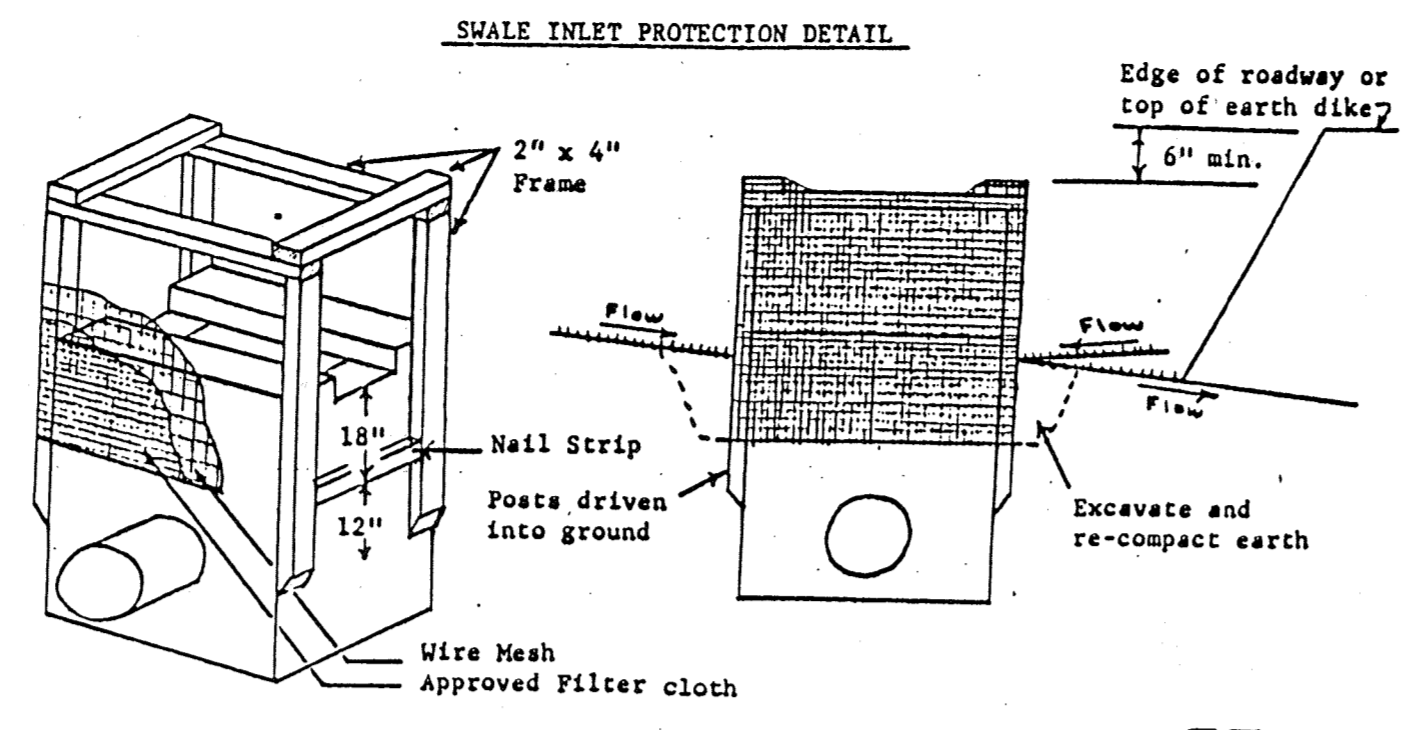
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 2' AT TOP AND MID SECTION.
 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
 FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING
 FILTER CLOTH: FILTER X, MURAL 100, STABILINKA 1100 OR APPROVED EQUAL
 PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

SILT FENCE



- CONSTRUCTION SPECIFICATIONS
1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
 2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
 3. Thickness - Not less than six (6) inches.
 4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
 5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
 6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
 7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
 8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
 9. Periodic inspection and needed maintenance shall be provided after each rain.

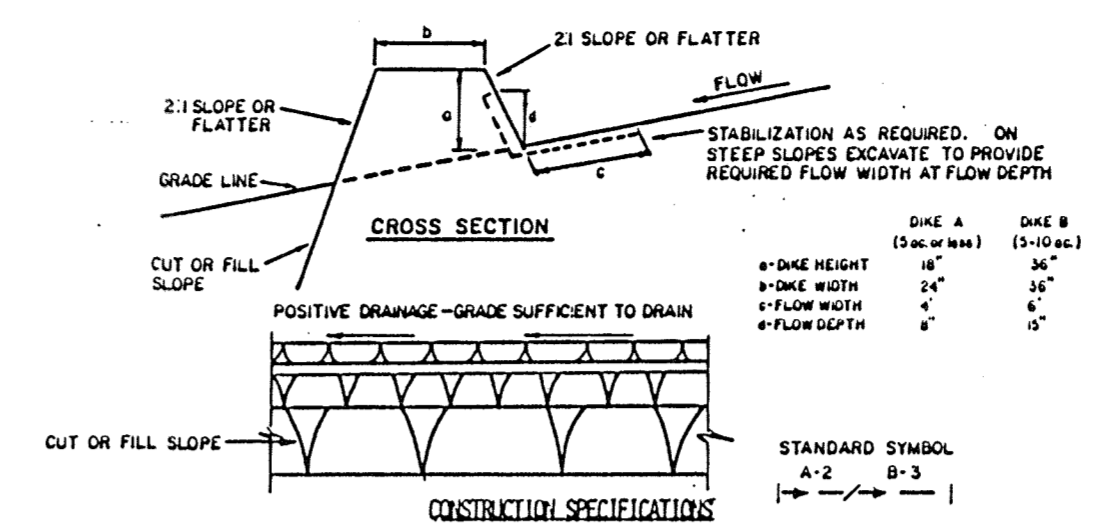
STABILIZED CONSTRUCTION ENTRANCE



Construction Specifications

- I. Materials
- A. Wooden frame is to be constructed of 2" x 4" construction grade lumber.
 - B. Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.
 - C. Filter cloth must be of a type approved for this purpose; resistant to sunlight with sieve size, EOS, 40-85, to allow sufficient passage of water and removal of sediment.
 4. Stone is to be 2" in size and clean, since fines would clog the cloth.
- II. Procedure
- A. A swale, ditchline or yard inlet protection.
 1. Excavate completely around inlet to a depth of 18" below notch elevation.
 2. Drive 2 x 4 post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2 x 4 frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
 3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
 4. Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
 5. Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
 6. If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (weir).
 7. This structure must be inspected frequently and the filter fabric replaced when clogged.
 - B. Curb Inlet Protection.
 1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.
 2. Place a piece of approved filter cloth (40-85 mesh) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
 3. Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' apart).
 4. Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.

INLET PROTECTION



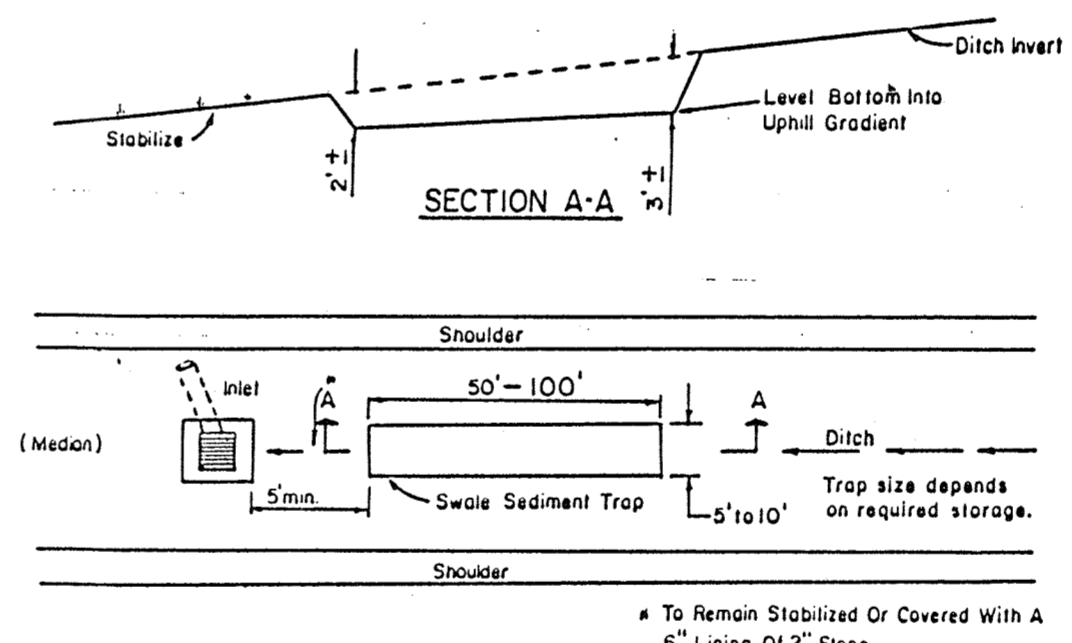
CONSTRUCTION SPECIFICATIONS

1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SLOPE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON; (B) FLOW CHANNEL AS PER THE CHART BELOW.

TYPE OF TREATMENT	CHANNEL WIDTH	DIKE A	DIKE B
1	5-3.00	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.00	SEED AND STRAW MULCH	SEED USING LIME, OR EXCELSTON; SOO; 2" STONE
3	5.1-8.00	SEED WITH LIME, OR SOO; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-200	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

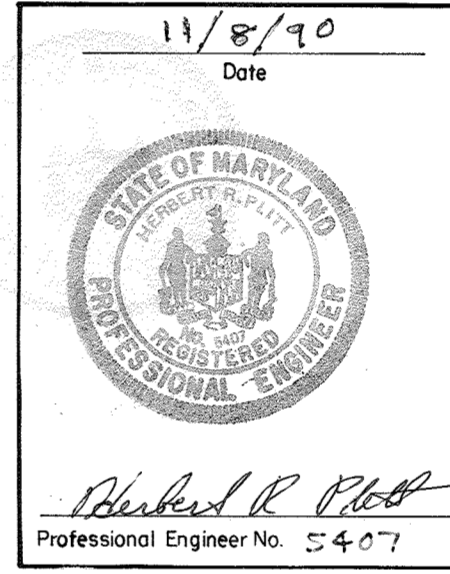
A. Stone to be 2 inch stone, or recycled concrete equivalent, in a layer at least 3 inches in thickness and be pressed into the soil with construction equipment.
 B. RIP-RAP to be 4-8 inches in a layer at least 8 inches thickness and pressed into the soil.
 C. Approved equivalents can be substituted for any of the above materials.
 7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE



- CONSTRUCTION SPECIFICATION FOR ST-IV
1. The swale sediment trap shall be constructed in accordance with the dimensions provided on the design drawings or sized to provide the minimum storage necessary 1800 cubic feet of storage for each acre of drainage area.
 2. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
 3. The structure shall be inspected after each rain and repairs made as needed.
 4. Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
 5. The sediment trap shall be removed and area stabilized when the contributory drainage area has been properly stabilized.
 6. The swale sediment trap will be properly backfilled and the swale or ditch reconstructed.

SWALE SEDIMENT TRAP



APPROVED:
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John M. Thompson 5/23/91
 CHIEF, LAND DEVELOPMENT DIVISION / DATE
Dorville W. Wetland 5/16/91
 CHIEF, BUREAU OF HIGHWAYS / DATE
Richard R. Platt 5-23-91
 CHIEF, BUREAU OF ENGINEERING / DATE

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Richard R. Platt 5/20/91
 CHIEF, DIVISION OF COMMUNITY PLANNING / DATE
 AND LAND DEVELOPMENT / DATE

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND 21228

AREA: BROKEN LAND PARKWAY

TITLE: EROSION AND SEDIMENT CONTROL

Des By H.R.P. Scale 1" = 50' Proj. No. 89-0040
 Drn By J.W.B. Date OCT. 1990 Drawing No. 13 OF 20
 Chk By S.P. Approved

CERTIFICATION BY THE DEVELOPER:

I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Richard R. Platt 11/9/90
 Signature of Developer / Date

CERTIFICATION BY THE ENGINEER:

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

Richard R. Platt 11/8/90
 Signature of Engineer / Date

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

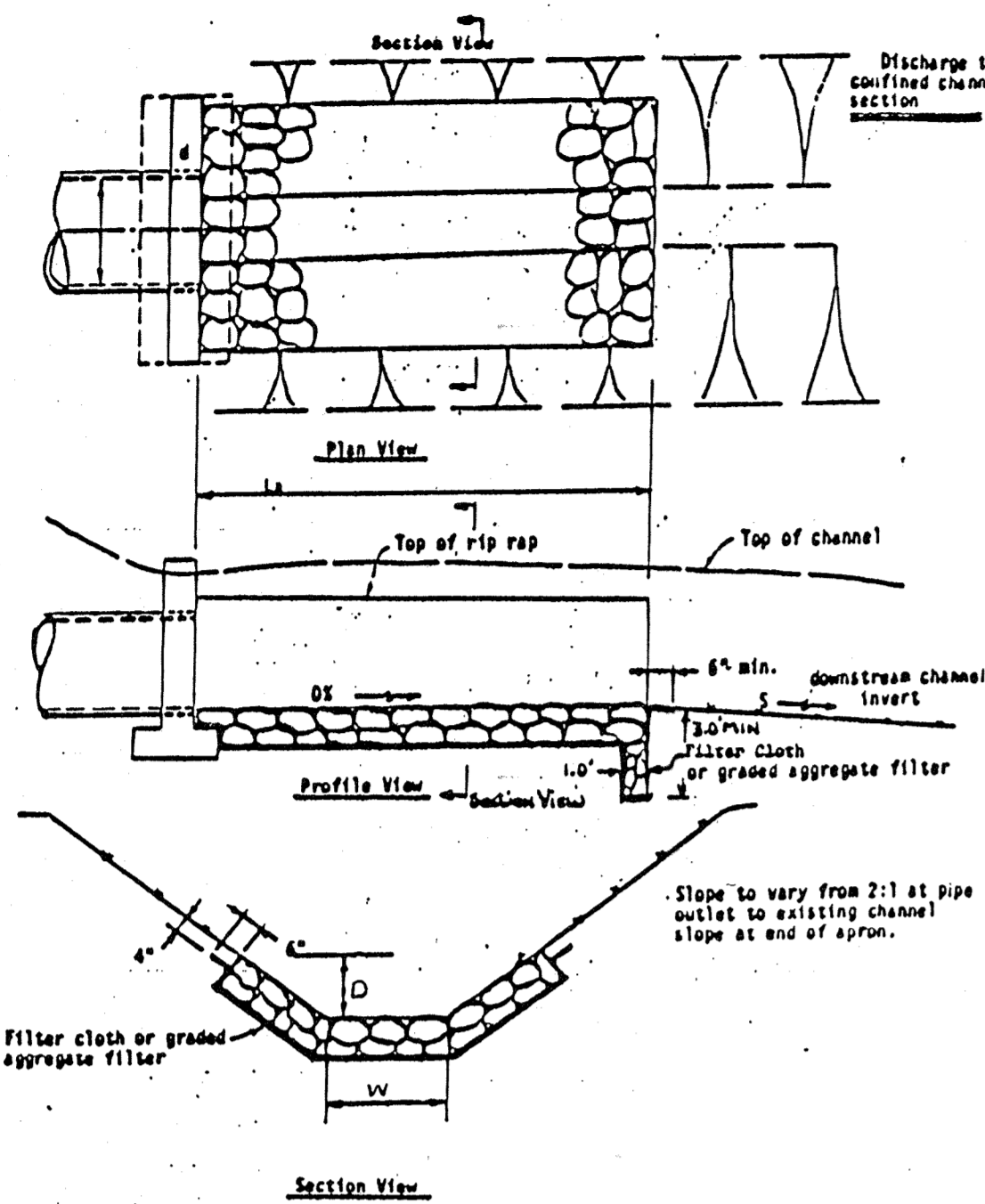
Joseph H. Hester 5/1/91
 U.S. Soil Conservation Service / Date

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

Shirley V. Adkins 5/1/91
 Howard Soil Conservation District / Date

65

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
 G. SCOTT SHANABERGER
 SHANABERGER & LANE
 PROFESSIONAL ENGINEERS, BALTIMORE, MARYLAND
 4-10-2018



ROCK RIPRAP SIZES AND THICKNESS

d50 (inches)	dmax (inches)	Min Blanket Thickness (inches)
4	6	9
6	9	14
9	14	20
12	18	27
15	22	32
18	27	38
21	32	43
24	36	43

Stone Quality. Stone for riprap shall consist of field stone or rough unheven quarry stone. The stone shall be hard and angular and of a quality that will not disintegrate on exposure to water or weathering. The specific gravity of the individual stones shall be at least 2.5.

Filter. A filter is a layer of material placed between the riprap and the underlying soil surface to prevent soil movement into and through the riprap. Riprap shall have a filter placed under it in all cases.

A filter can be of two general forms: A gravel layer or a plastic filter cloth. The plastic filter cloth can be woven or non-woven monofilament yarns, and shall meet these base requirements: thickness 20-60 mils, grab strength 90-120 lbs; and shall conform to ASTM D-1777 and ASTM D-1682.

Gravel filter blanket when used shall be designed by comparing particle sizes of the overlying material and the base material. Design criteria is available in any soils or civil engineering reference or from the Soil Conservation Service.

RIPRAP OUTLET PROTECTION

SEDIMENT CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (992-2437)
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	9.5	ACRES
AREA DISTURBED	9.0	ACRES
AREA TO BE ROOFED OR PAVED	5.8	ACRES
AREA TO BE VEGETATIVELY STABILIZED	3.7	ACRES
TOTAL CUT	6600	CU. YDS.
TOTAL FILL	7400	CU. YDS.
BORROW	800	CU. YDS.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.
- 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.

EARTHWORK BALANCE: ANY BORROW REQUIRED FOR THIS PROJECT WILL BE OBTAINED FROM AREA APPROVED UNDER SDP - 90 - 213.

PERMANENT SEEDING NOTE

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

SOIL AMENDMENTS: USE ONE OF THE FOLLOWING SCHEDULES.

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS. PER 1000 SQ. FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS. ACRES KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS ACRES OF WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL./1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

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./1000 SQ.FT.).

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2-1/2 BU. PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.); FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.); FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLY 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE SOD.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8 GAL./1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEQUENCE OF CONSTRUCTION

THE FOLLOWING DESCRIBES A SEQUENCE OF CONSTRUCTION FOR:

- BROKEN LAND PARKWAY AND LITTLE PATUXENT PARKWAY

IT SHOULD BE NOTED THAT THE SEQUENCE OF CONSTRUCTION FOR THIS PROJECT WILL BE MOSTLY INFLUENCED BY THE REQUIREMENTS FOR MAINTENANCE OF TRAFFIC. THE FOLLOWING IS A SUGGESTED SEQUENCE THAT ADDRESSES AN ANTICIPATED REQUIREMENT TO MAINTAIN TRAFFIC ON BOTH BROKEN LAND PARKWAY AND LITTLE PATUXENT PARKWAY AT ALL TIMES. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE SPECIFIC REQUIREMENTS FOR MAINTENANCE OF TRAFFIC AND TO DEVELOP A SEQUENCE OF CONSTRUCTION THAT WILL MEET BOTH THAT REQUIREMENT AND THE SEDIMENT CONTROL REQUIREMENT DESCRIBED HERE.

I. OBTAIN A GRADING PERMIT

A. BROKEN LAND PARKWAY

- PLACE SILT FENCE ON OUTSIDE N.B.L. AND S.B.L.
- CONSTRUCT DRAINAGE STRUCTURE N.B.L. INLETS 1-1, 3, 4A, MH-1, E-1, 1-5, MH-2, 18 AND INSTALL INLET PROTECTION.
- CONSTRUCT TEMPORARY DIKE TO DIVERT WATER TO SEDIMENT TRAPS IN MEDIAN. STRIP TOPSOIL, FINE GRADE AND COMPACT SUBGRADE ON N.B.L. AND FOR S.B.L. LEFT TURN. DO NOT DISTURB STABILIZED AREA BEHIND PROPOSED CURB EXCEPT FOR PIPE TRENCHES.
- CONSTRUCT PAVEMENT BASE COURSE (NBL) AND S.B.L. LEFT TURN LANE AND CONSTRUCT CURB AND GUTTER. NOTE: THE CURB AND GUTTER ON THE MEDIAN SIDE CAN BE CONSTRUCTED ONLY TO ABOUT STA. 158+50 SO AS NOT TO INTERFERE WITH TRAFFIC OPERATIONS ON THE EXISTING S.B.L.
- GRADE AREA BEHIND CURB AND GUTTER ON OUTSIDE OF N.B.L., PLACE TOPSOIL AND STABILIZE THIS AREA.
- PAVE THE NORTHBOUND LANE.
- CONSTRUCT REMAINING DRAINAGE STRUCTURES ON S.B.L. AND INSTALL INLET PROTECTION.
- CONSTRUCT CURB AND GUTTER ON S.B.L. DO NOT DISTURB AREA BEHIND PROPOSED CURB ON OUTSIDE OF S.B.L. AT THIS TIME.
- REMOVE MACADAM SIDEWALK AND GRADE AREA BEHIND CURB ON OUTSIDE OF S.B.L. CONSTRUCT SIDE WALK AND STABILIZE AREA.
- REMOVE SEDIMENT TRAPS AND GRADE AND STABILIZE MEDIAN. (SEE NOTE 'A' BELOW)
- REMOVE EXISTING PAVEMENT AND CONSTRUCT REMAINING MEDIAN, STA. 157+50 TO L.P.P.
- CONSTRUCT SURFACE COURSE S.B.L.

B. LITTLE PATUXENT PARKWAY

- INSTALL SILT FENCES
- REMOVE BITUMINOUS CURBS AT TRAFFIC ISLANDS IN THE EXISTING INTERSECTION AND CONSTRUCT NEW PAVEMENT BASE-COURSE IN THE ISLAND AREA TO THE ELEVATION OF THE EXISTING PAVEMENT.
- REMOVE EXISTING RIGHT TURN LANE PAVEMENT AND MACADAM SIDEWALK RT. STAT. 211+ TO BLP AND CONSTRUCT NEW CURB AND GUTTER FROM STA. 209+40 TO BLP.
 - REGRADE AREA FROM BACK OF NEW CURB TO EXISTING STEEL BEAM, GUARD FENCE AND STABILIZE AREA.
- INSTALL INLET PROTECTION ON EXISTING INLET RT. STA. 216+15.
- REMOVE EXISTING CURB AND GUTTER ON RT. FROM STA. 212+90 TO 219+. REMOVE EXISTING INLET AT STA. 218+ RT. AND CONSTRUCT NEW INLET 1-18 AND INSTALL INLET PROTECTION.
- GRADE AND COMPACT SUBGRADE FOR WIDENED PAVEMENT ON RT. FROM BLP TO STA. 219+. THE STABILIZED AREA BEHIND THE PROPOSED CURB IS NOT TO BE DISTURBED.
 - CONSTRUCT BASE COURSE, NEW CURB AND GUTTER. CONSTRUCT PAVEMENT TO ELEVATION MATCHING THE EXISTING PAVEMENT.
 - GRADE AREA BEHIND NEW CURB AND STABILIZE.
- REMOVE EXISTING PAVEMENT AND CURB AND GUTTER (MEDIAN) RT. OF CENTERLINE, FROM STAT. 213+ TO 219+.
 - REMOVE EXISTING INLET RT. OF STA. 216+15 AND CONSTRUCT NEW INLETS 1-16 AND ±17.
 - CONSTRUCT NEW CURB AND GUTTER AND PATCH AND LEVEL EXISTING EBL PAVEMENT AS REQUIRED.
- INSTALL INLET PROTECTION ON EXISTING INLETS LT. OF STAT. 216 + 15.
- REMOVE EXISTING CURB AND GUTTER (MEDIAN) LT. FROM STA. 216+ TO 219+.
 - REMOVE EXISTING INLET IN MEDIAN AT STA. 215+50 AND PLUG PIPE.
 - GRADE AND COMPACT SUBGRADE FOR LT. TURN LANE AND MEDIAN SIDE OF W.B.L. FROM STA. 213+ TO 218+.
 - CONSTRUCT BASE COURSE AND NEW CURB AND GUTTER FOR MEDIAN.
 - PAVE AREA TO ELEVATION LEVEL WITH EXISTING PAVEMENT.
 - REGRADE MEDIAN AREA AND STABILIZE.
- CONSTRUCT SILT FENCE FROM STA. 211+40 TO 214+00. NOTE: SEDIMENT BASIN ALONG L.P.P. HAS BEEN CONSTRUCTED BY OTHERS.
- REMOVE EXISTING CURB AND GUTTER LT. FROM STA. 210+00 TO 211+40 AND MACADAM SIDEWALK LT. FROM STA. 210+00 TO 214+00. CONSTRUCT DRAINAGE SYSTEM MH-1, 1-11 AND 1-10.
 - PATCH PAVEMENT AS REQUIRED.
 - GRADE B.L.P. NORTH OF L.P.P. TO LIMIT OF WORK. NOTE: AREA DRAINS TO EXISTING SEDIMENT BASIN.
 - REMOVE CURB AND GUTTER ON L.P.P. RT. FROM STA. 211+40 TO 214+ AND SILT FENCE. (SEE NOTE 'A' BELOW)
 - CONSTRUCT BASE COURSE AND NEW CURB AND GUTTERS.
 - GRADE AREA BEHIND CURB AND GUTTER IN NORTHWEST QUADRANT OF INTERSECTION AND STABILIZE.
- REMOVE EXISTING CURB AND GUTTER AND MACADAM SIDEWALK ON LT. FROM STA. 214+ TO ENTRANCE LT. OF STA. 219+.
 - REMOVE EXISTING INLET AND CONSTRUCT NEW INLET 1-14. PLUG PIPE UNDER W.B.L.
 - REMOVE EXISTING MANHOLE AND INLET AT STA. 216+ AND CONSTRUCT NEW INLET 1-15.
 - GRADE AND COMPACT SUBGRADE FOR WIDENED PAVEMENT, CONSTRUCT BASE COURSE AND NEW CURB AND GUTTER.
 - REMOVE TEMPORARY DIKE AND GRADE AREA BEHIND NEW CURB AND STABILIZE. (SEE NOTE 'A' BELOW)
- CONSTRUCT CURB AND GUTTERS AND RIGHT TURN LANE ON BLP, STA. 209+ TO 212+ AND REGRADE MEDIAN AREA.
- COMPLETE ALL PAVING AND CONSTRUCT NEW SIDEWALKS.

UPON COMPLETION OF ALL GRADING OPERATIONS AND WITH THE APPROVAL OF THE HOWARD COUNTY DPW SEDIMENT INSPECTOR, ALL REMAINING SEDIMENT CONTROL DEVICES WILL BE REMOVED AND THE DISTURBED AREAS STABILIZED IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.

NOTE: TEMPORARY OPENINGS MAY BE INSTALLED IN SIDES OF INLETS TO FACILITATE DRAINAGE AFTER BASE COURSE AND CURB AND GUTTER HAS BEEN CONSTRUCTED.

NOTE 'A': REMOVAL OF E/S CONTROL DEVICES MUST HAVE APPROVAL OF SEDIMENT CONTROL INSPECTOR.

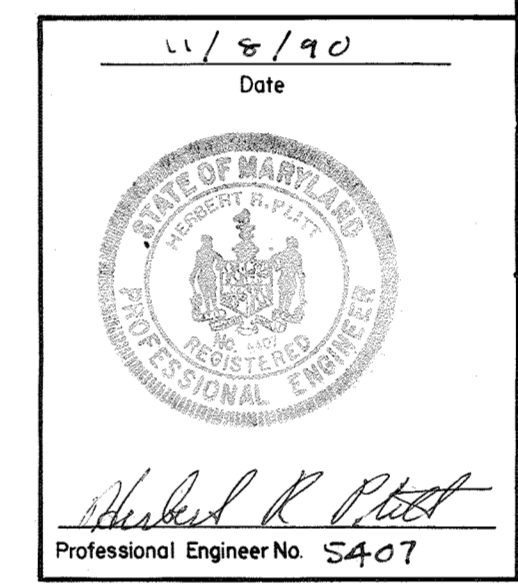
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division
 Danuella W. Weiland
 Chief, Bureau of Highways
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Community Planning and Land Development

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND 21228

AREA: BROKEN LAND PARKWAY

TITLE: EROSION AND SEDIMENT CONTROL

Des By H.R.P.	Scale 1" = 50'	Proj. No. 89-0040
Drn By J.W.B.	Date OCT. 1990	Drawing No. 14 OF 20
Chk By S.P.	Approved	



CERTIFICATION BY THE DEVELOPER:
 I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Signature of Developer: [Signature] Date: 11/9/90

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

Signature of Engineer: [Signature] Date: 11/8/90

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

Signature: [Signature] Date: 5/1/91
 U.S. Soil Conservation Service

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

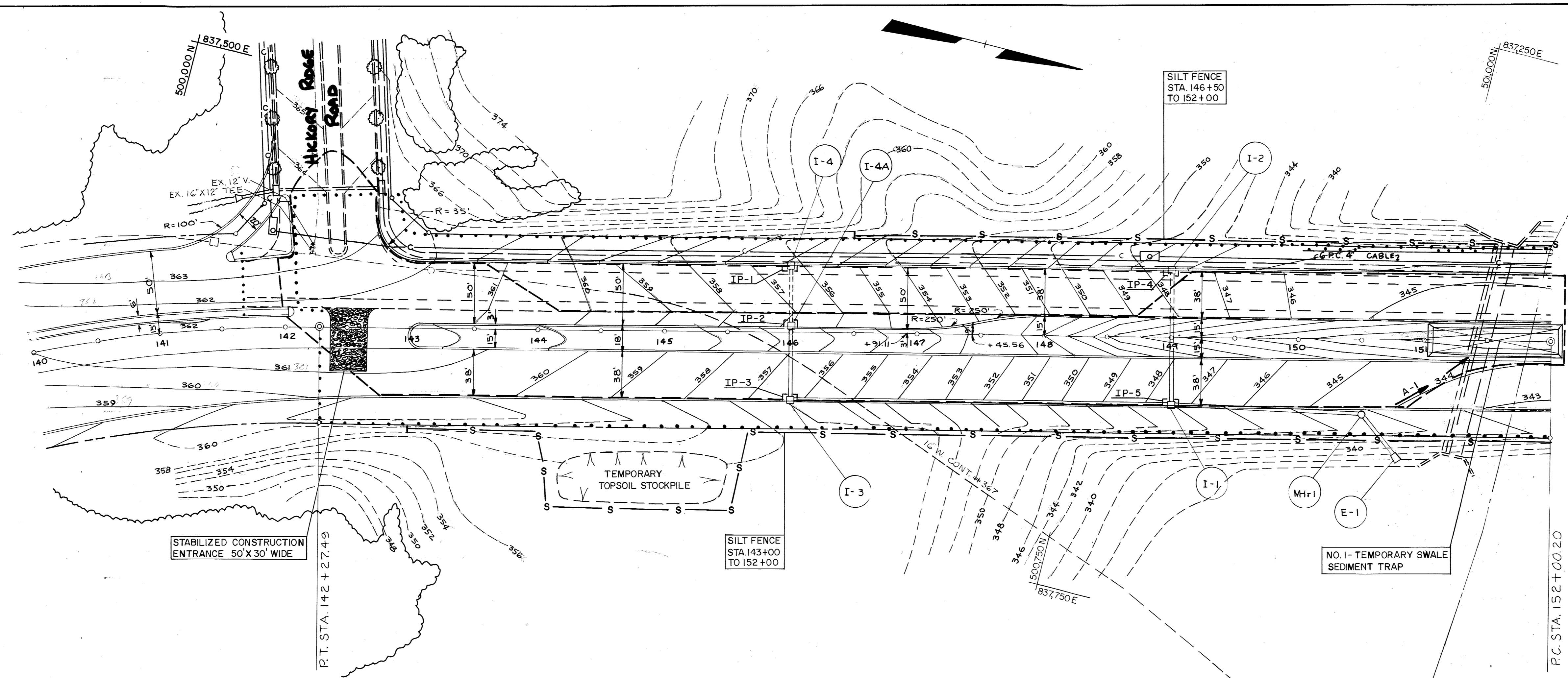
Signature: [Signature] Date: 5/1/91
 Howard Soil Conservation District

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
 SCOTT W. HANBERGER & LANE
 PROFESSIONAL L.S. #10849 Exp. Date 4/2/2018
 SILENT DATE: 6-10-2018

65

DATE: _____ BY: _____
 SURVEYED: _____
 NOTE BOOK: _____
 PLANS CHECKED: _____
 REVISIONS: _____

DATE: _____ BY: _____
 SURVEYED: _____
 NOTE BOOK: _____
 PLANS CHECKED: _____
 REVISIONS: _____

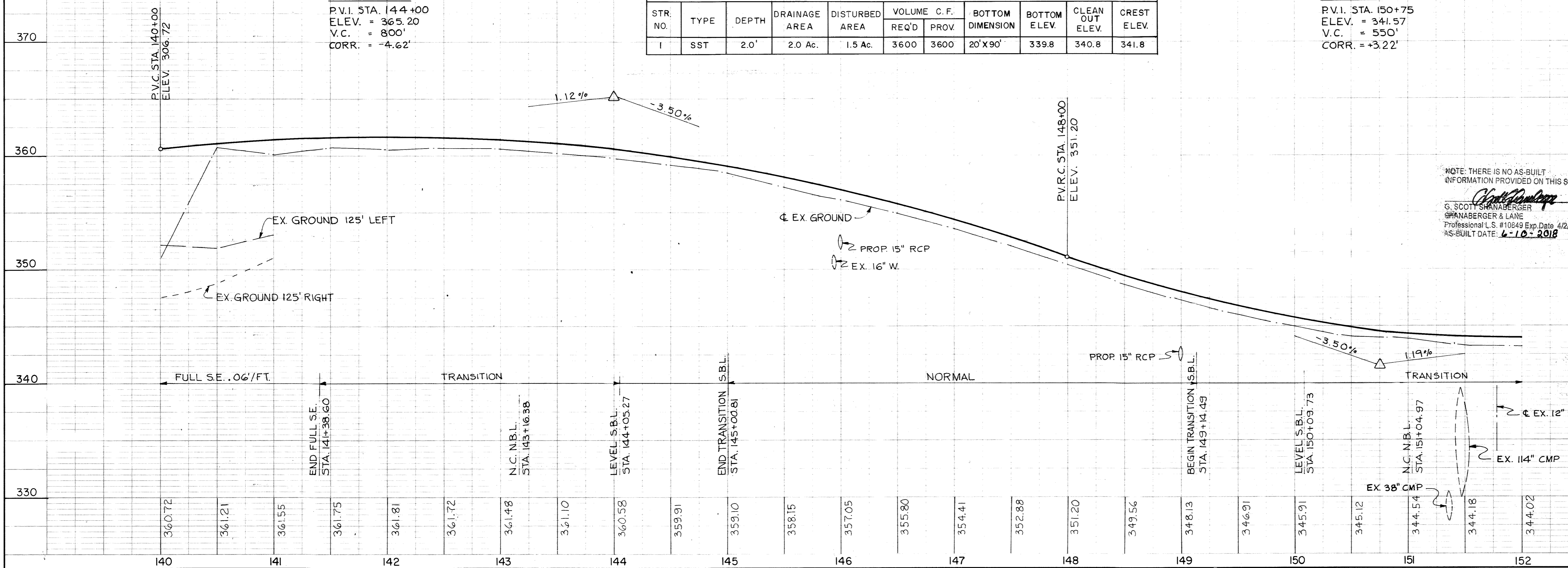


CURVE DATA
 $\Delta = 44^\circ 38' 01''$
 $D = 5^\circ 00'$
 $R = 1145.92'$
 $T = 470.37'$
 $L = 892.67'$
 $E = 92.78'$
 $SE = 0.06'/FT.$

CURVE DATA
 P.V.I. STA. 144+00
 ELEV. = 365.20
 V.C. = 800'
 CORR. = -4.62'

STR. NO.	TYPE	DEPTH	DRAINAGE AREA	DISTURBED AREA	VOLUME C.F.		BOTTOM DIMENSION	BOTTOM ELEV.	CLEAN OUT ELEV.	CREST ELEV.
					REQ'D	PROV.				
1	SST	2.0'	2.0 Ac.	1.5 Ac.	3600	3600	20' X 90'	339.8	340.8	341.8

CURVE DATA
 P.V.I. STA. 150+75
 ELEV. = 341.57
 V.C. = 550'
 CORR. = +3.22'



NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
 G. SCOTT SHANBERGER
 SHANBERGER & LANE
 Professional L.S. #10849 Exp. Date 4/22/2018
 AS-BUILT DATE: 6-10-2018

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chad M. Longan 5/23/91
 CHIEF, LAND DEVELOPMENT DIVISION TO DATE
Brawley W. Wilenski 5/16/91
 CHIEF, BUREAU OF HIGHWAYS DATE
William S. Roush 5-23-91
 CHIEF, BUREAU OF ENGINEERING DATE
 APPROVED:
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Frank J. M. Gagliardi 5/20/91
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

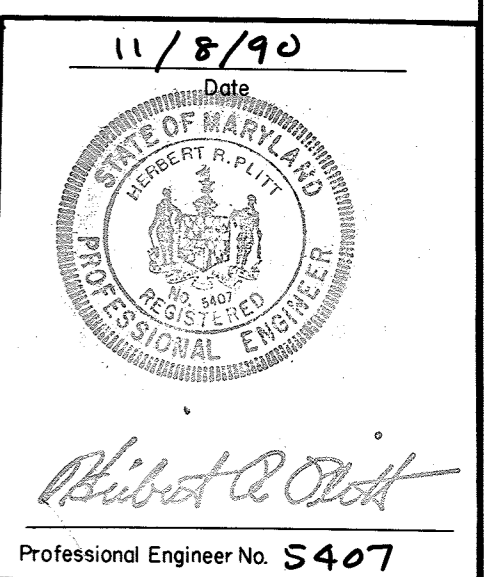
PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND 21228
 AREA: BROKEN LAND PARKWAY
 TITLE: EROSION AND SEDIMENT CONTROL
 Des By: H.R.P. Scale: 1" = 50' Proj. No.: 89-0040
 Drn By: J.W.B. Date: OCT. 1990 Drawing No.:
 Chk By: S.P. Approved: 15 OF 22

CERTIFICATION BY THE DEVELOPER:
 I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
John H. Nij 11/8/90
 Signature of Developer Date

CERTIFICATION BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
William S. Roush 11/8/90
 Signature of Engineer Date

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
John M. Haden 5/1/91
 U.S. Soil Conservation Service Date

THESE PLANS FOR EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
William S. Roush 5/1/91
 Howard Soil Conservation District Date



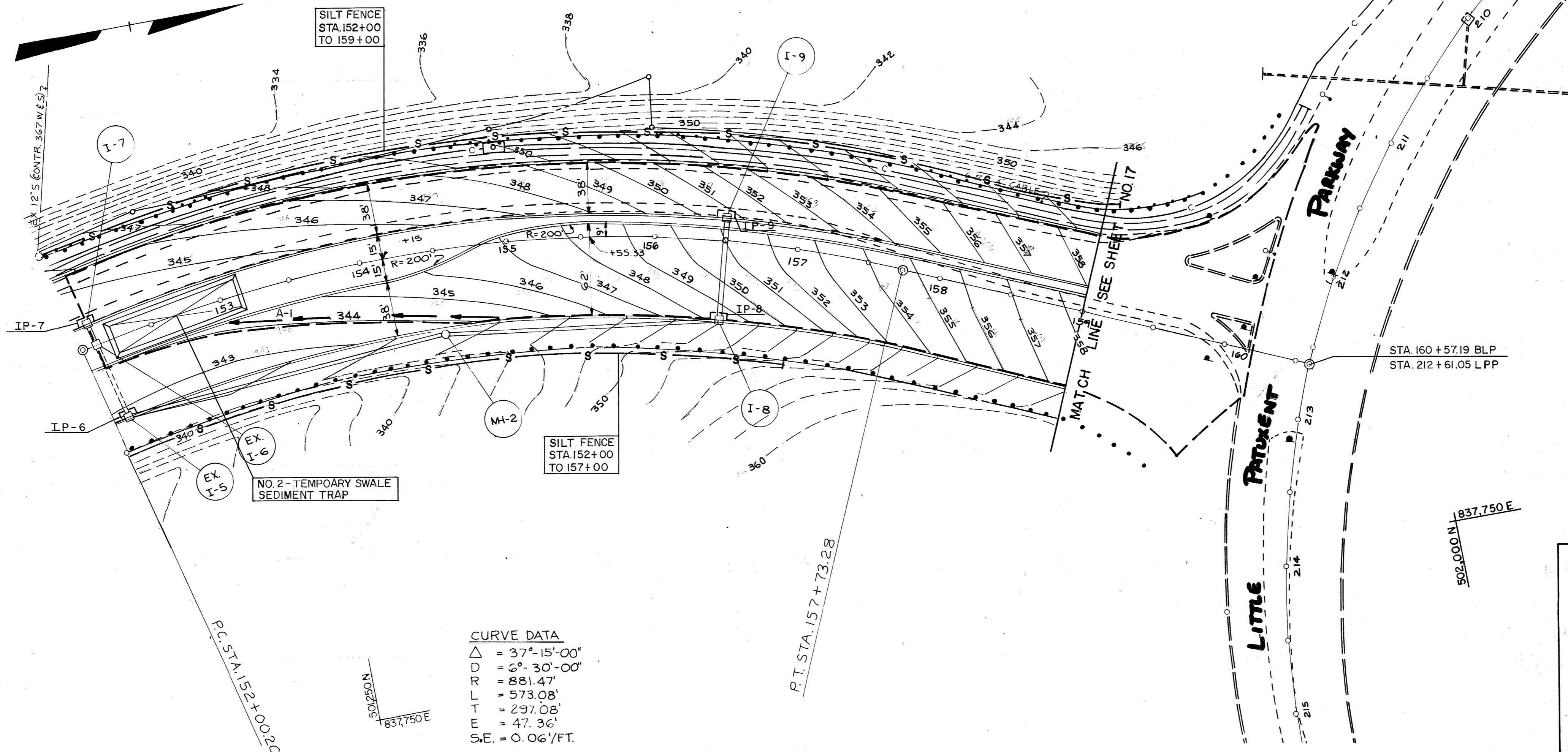
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DATE: _____
 BY: _____
 SURVEYED: _____
 PLOTTED: _____
 NOTE BOOK: _____
 NO. _____

DATE: _____
 BY: _____
 SURVEYED: _____
 PLOTTED: _____
 NOTE BOOK: _____
 NO. _____

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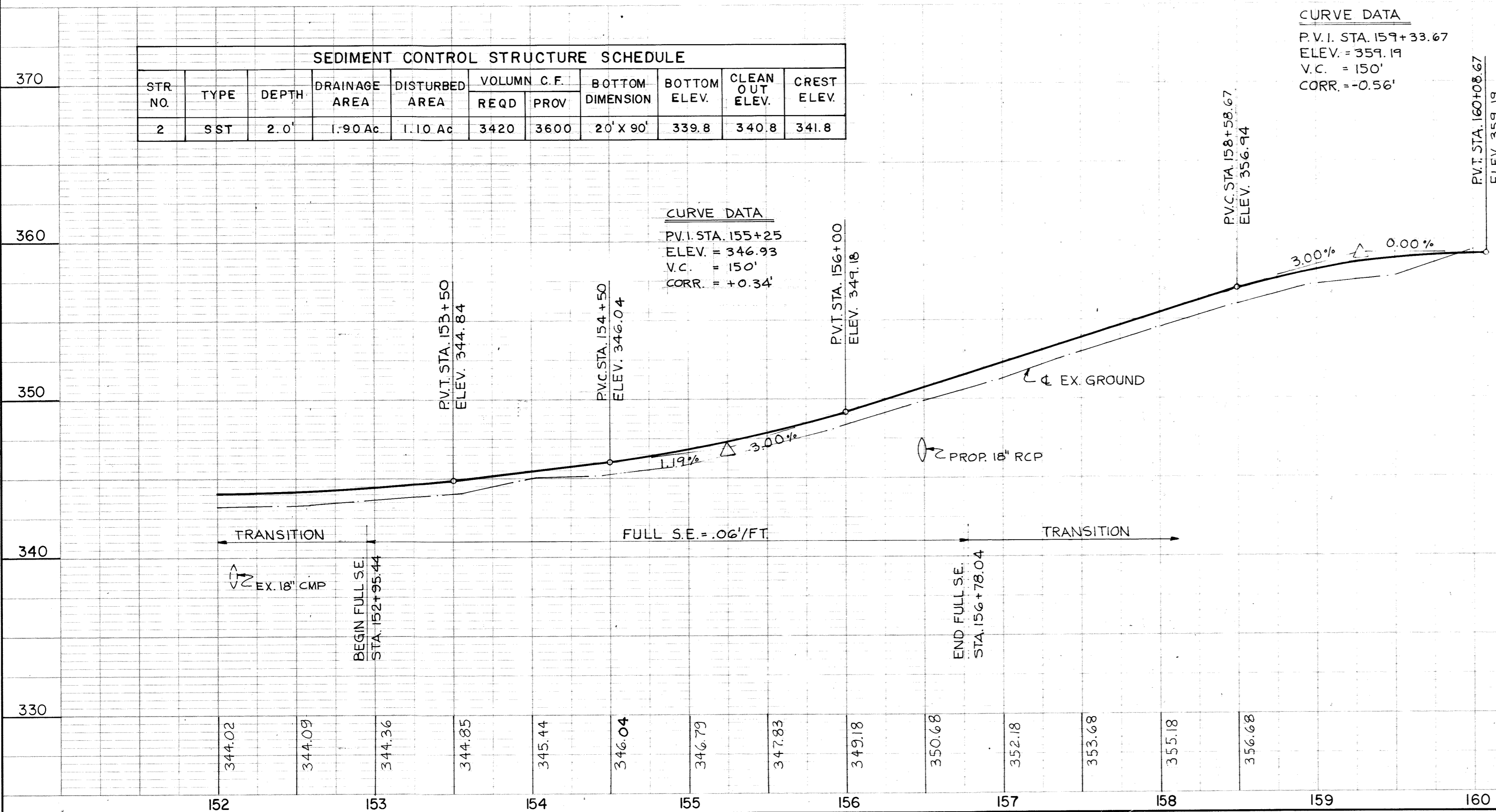
502.000N
 837.250E



CURVE DATA
 Δ = 37°-15'-00"
 DD = 6°-30'-00"
 RR = 881.47'
 TT = 573.08'
 FF = 297.08'
 SE = 47.36'
 S.E. = 0.06'/FT.

CURVE DATA
 P.V.I. STA. 159+33.67
 ELEV. = 359.19
 V.C. = 150'
 CORR. = -0.56'

SEDIMENT CONTROL STRUCTURE SCHEDULE										
STR. NO.	TYPE	DEPTH	DRAINAGE AREA	DISTURBED AREA	VOLUMN. C.F. REQD.	VOLUMN. C.F. PROV.	BOTTOM DIMENSION	BOTTOM ELEV.	CLEAN OUT ELEV.	CREST ELEV.
2	SST	2.0'	1.90 Ac	1.10 Ac	3420	3600	20' X 90'	339.8	340.8	341.8



NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET.

SCOTT SHANBERGER
 SHANBERGER & LANE
 PROFESSIONAL ENGINEER, No. 110949 Exp. Date 4/2/2018
 AS-BUILT DATE: 6-16-2018

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division
 DATE: 5/23/91

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Community Planning and Land Development
 DATE: 5/23/91

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND 21228

AREA: BROKEN LAND PARKWAY

TITLE: EROSION AND SEDIMENT CONTROL

Des By: H.R.P. Scale: 1" = 50' Proj. No. 89-0040
 Dwn By: J.W.B. Date: OCT. 1990 Drawing No. 16 OF 20
 Chk By: S.P. Approved

CERTIFICATION BY THE DEVELOPER:
 I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Signature of Developer: _____ Date: 11/9/90

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

Signature of Engineer: _____ Date: 11/8/90

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

Signature: _____ Date: 5/16/91
 U.S. Soil Conservation Service

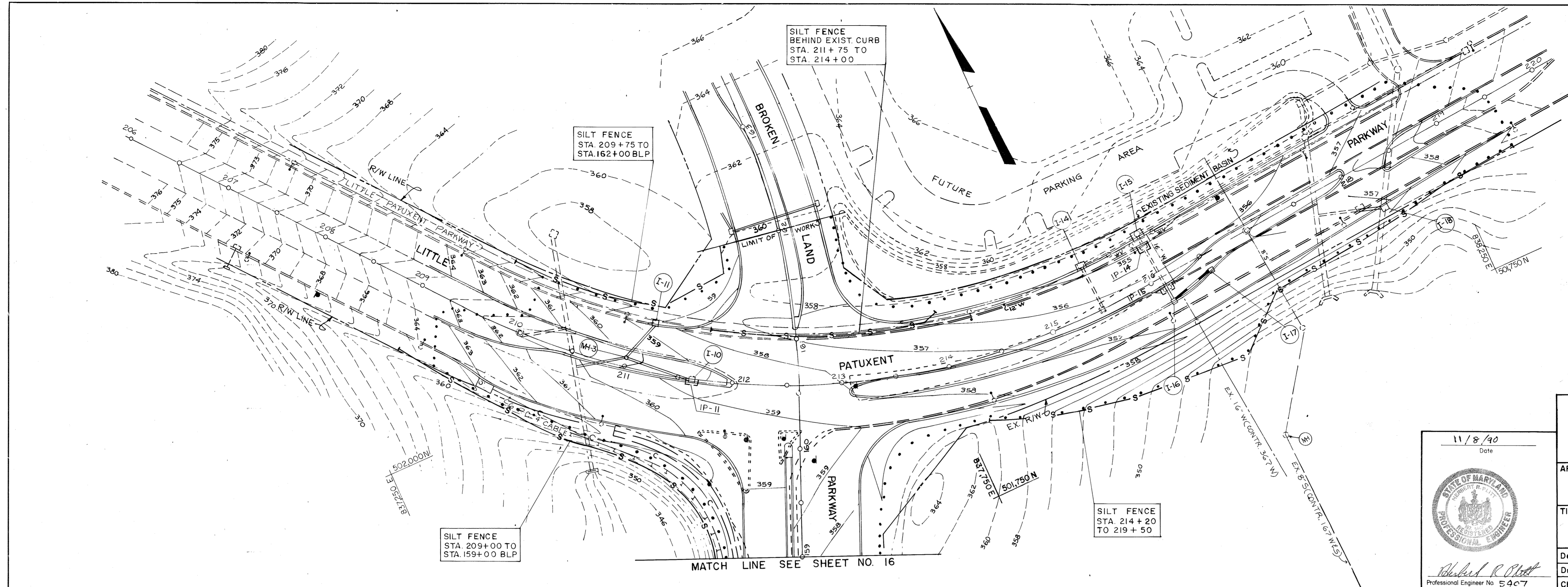
THESE PLANS FOR EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: _____ Date: 5/16/91
 Howard Soil Conservation District

PLAN
 SURVEYED: _____ DATE _____
 PLOTTED: _____
 NOTE BOOK: _____ CHECKED: _____
 NO. _____

PROFILE
 SURVEYED: _____ DATE _____
 PLOTTED: _____
 NOTE BOOK: _____ CHECKED: _____
 NO. _____

65



APPROVED:
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John M. Jones 5/2/91
 CHIEF, LAND DEVELOPMENT DIVISION TO DATE
Rawle W. Weland 5/16/91
 CHIEF, BUREAU OF HIGHWAYS DATE
John S. ... 5-23-91
 CHIEF, BUREAU OF ENGINEERING DATE

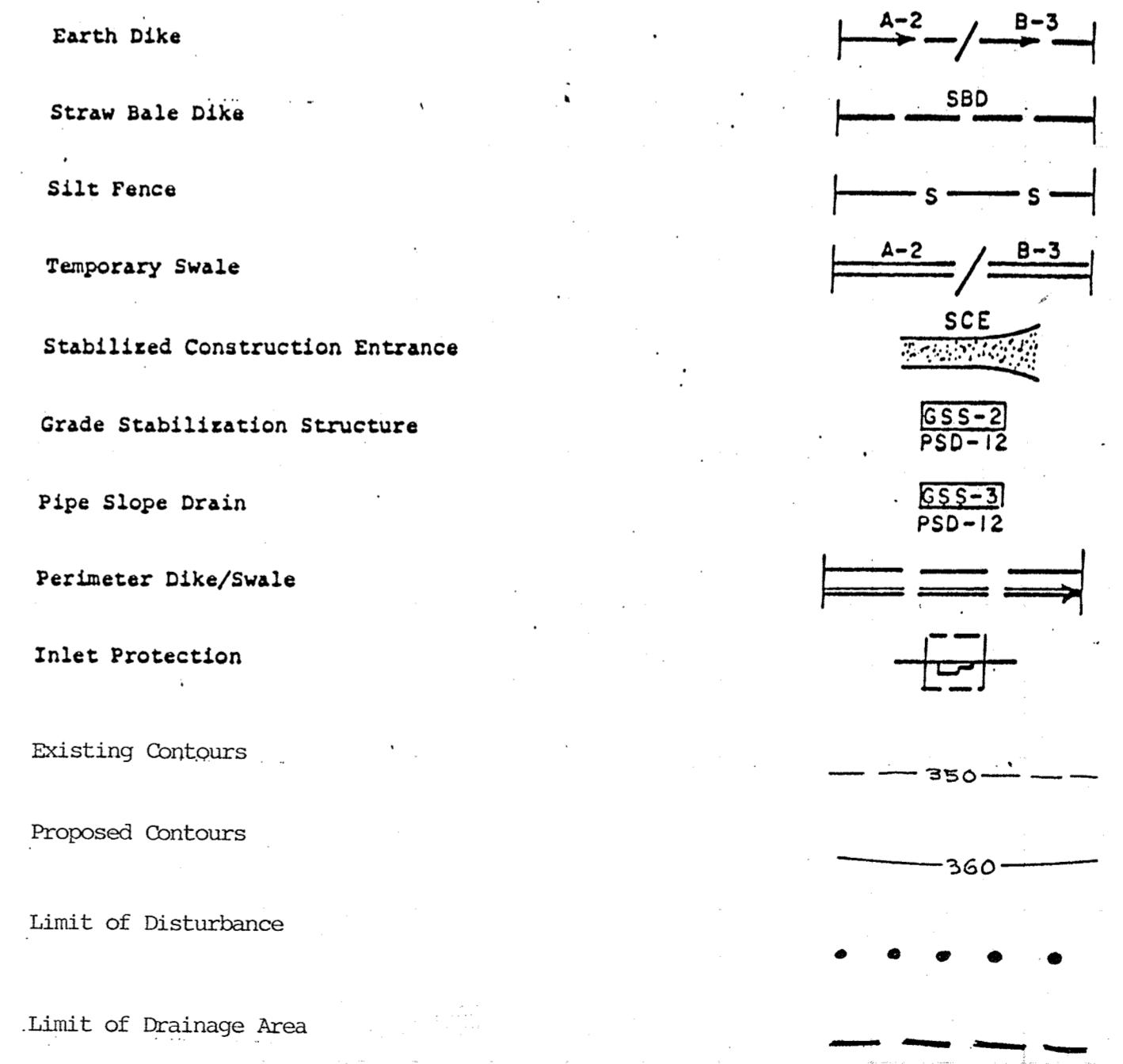
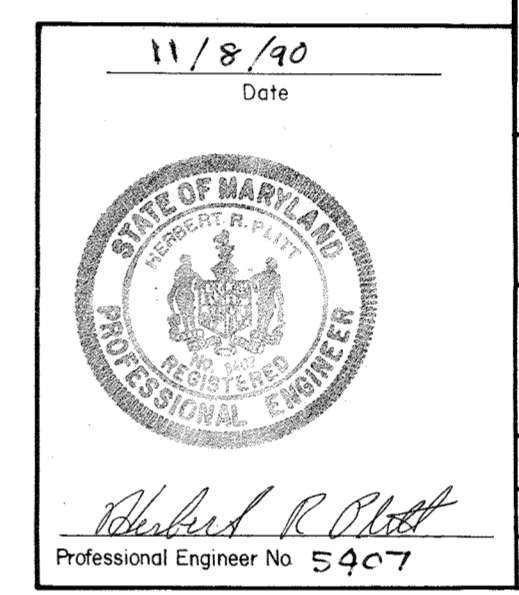
APPROVED:
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
John C. ... 5/2/91
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND 21228

AREA
 BROKEN LAND PARKWAY

TITLE
 EROSION AND SEDIMENT CONTROL

Des By H.R.P.	Scale 1" = 50'	Proj. No. 89-0040
Drn By J.W.B.	Date OCT. 1990	Drawing No.
Chk By S.P.	Approved	17 OF 22



CERTIFICATION BY THE DEVELOPER:
 I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

John H. ... 11/9/90
 Signature of Developer Date

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

Robert R. Platt 11/8/90
 Signature of Engineer Date

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

John ... 5/1/91
 U.S. Soil Conservation Service Date

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

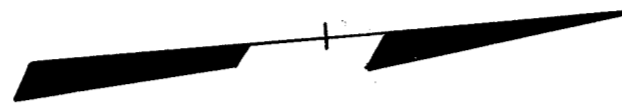
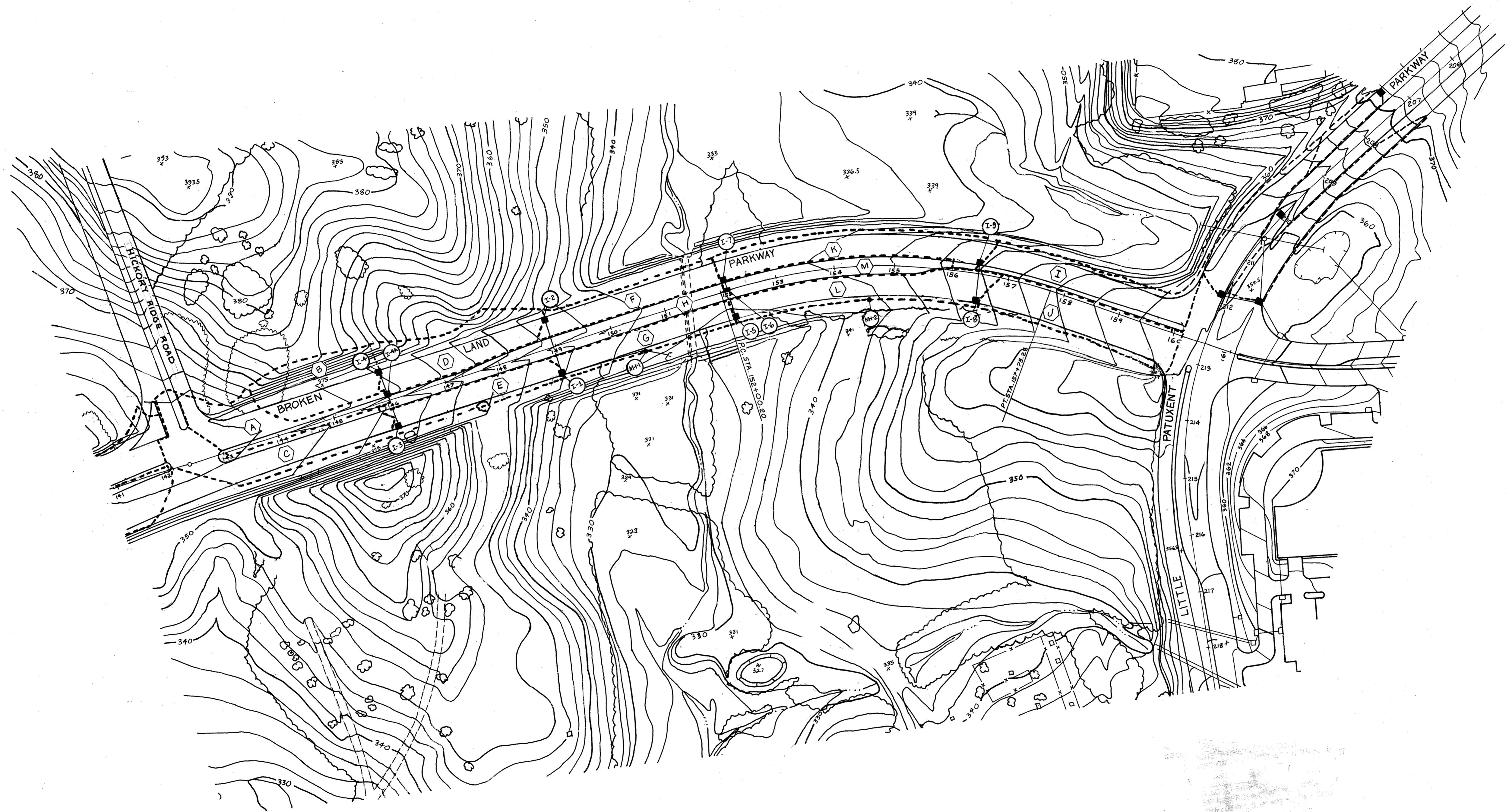
Rawle W. Weland 5/1/91
 Howard Soil Conservation District Date

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED.

SCOTT SHAMBERG
 SHAMBERG & SHAMBERG
 PROFESSIONAL ENGINEERS
 AS-BUILT DATE: 6-16-2015

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED.

SCOTT SHAMBERG
 SHAMBERG & SHAMBERG
 PROFESSIONAL ENGINEERS
 AS-BUILT DATE: 6-16-2015



APPROVED:
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Ch. M. Ingram 5/23/91
 CHIEF, LAND DEVELOPMENT DIVISION TO DATE
Drumelle W. Welland 9/16/91
 CHIEF, BUREAU OF HIGHWAYS DATE
Robert C. DeWitt 5/23/91
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Frank C. DeLong 5/23/91
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

PHOENIX ENGINEERING, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND 21228		
AREA	BROKEN LAND PARKWAY	
TITLE	DRAINAGE AREA MAP	
Des By	H.R.P.	Scale 1" = 100'
Drn By	J.W.B.	Date OCT. 1990
Proj. No.	89-0040	
Chk By	S.P.	Approved
Professional Engineer No.	5407	
Drawing No.	18 OF 20	

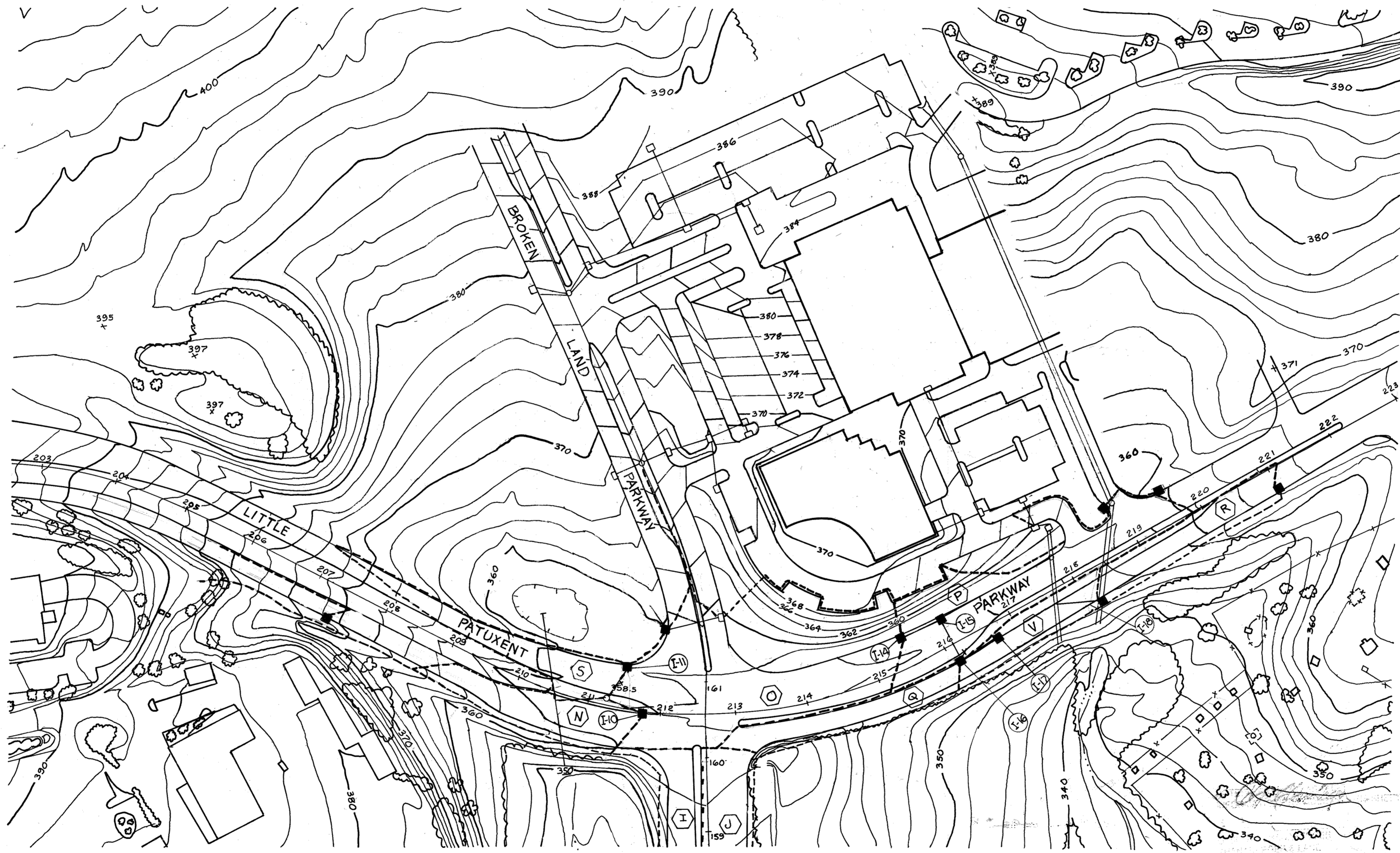
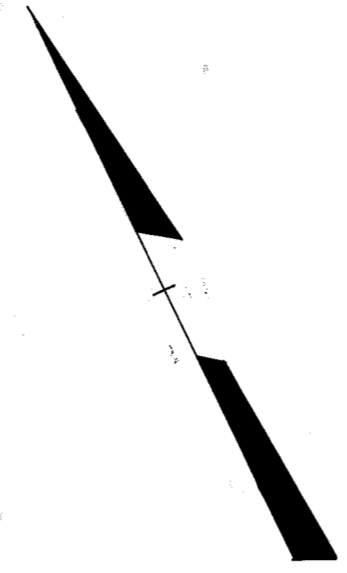
11/8/90
 Date

Robert C. DeWitt
 Professional Engineer No. 5407

IF THERE IS NO AR
 INFORMATION PROVIDED ON THIS SHEET
 PROFESSIONAL ENGINEER
 SHARON ROBERTS LANE
 PROFESSIONAL ENGINEER #10849 Exp. Date 4/22/91
 AS-BUILT DATE: 1-10-2018

65

65



APPROVED:
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chas M. Pope 5/21/91
 CHIEF, LAND DEVELOPMENT DIVISION DATE
Lawrence W. Weiland 5/16/91
 CHIEF, BUREAU OF HIGHWAYS DATE
Robert R. Platt 5-23-91
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED:
 HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Robert C. J. [unclear] 5/20/91
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND 21228

AREA BROKEN LAND PARKWAY

TITLE DRAINAGE AREA MAP

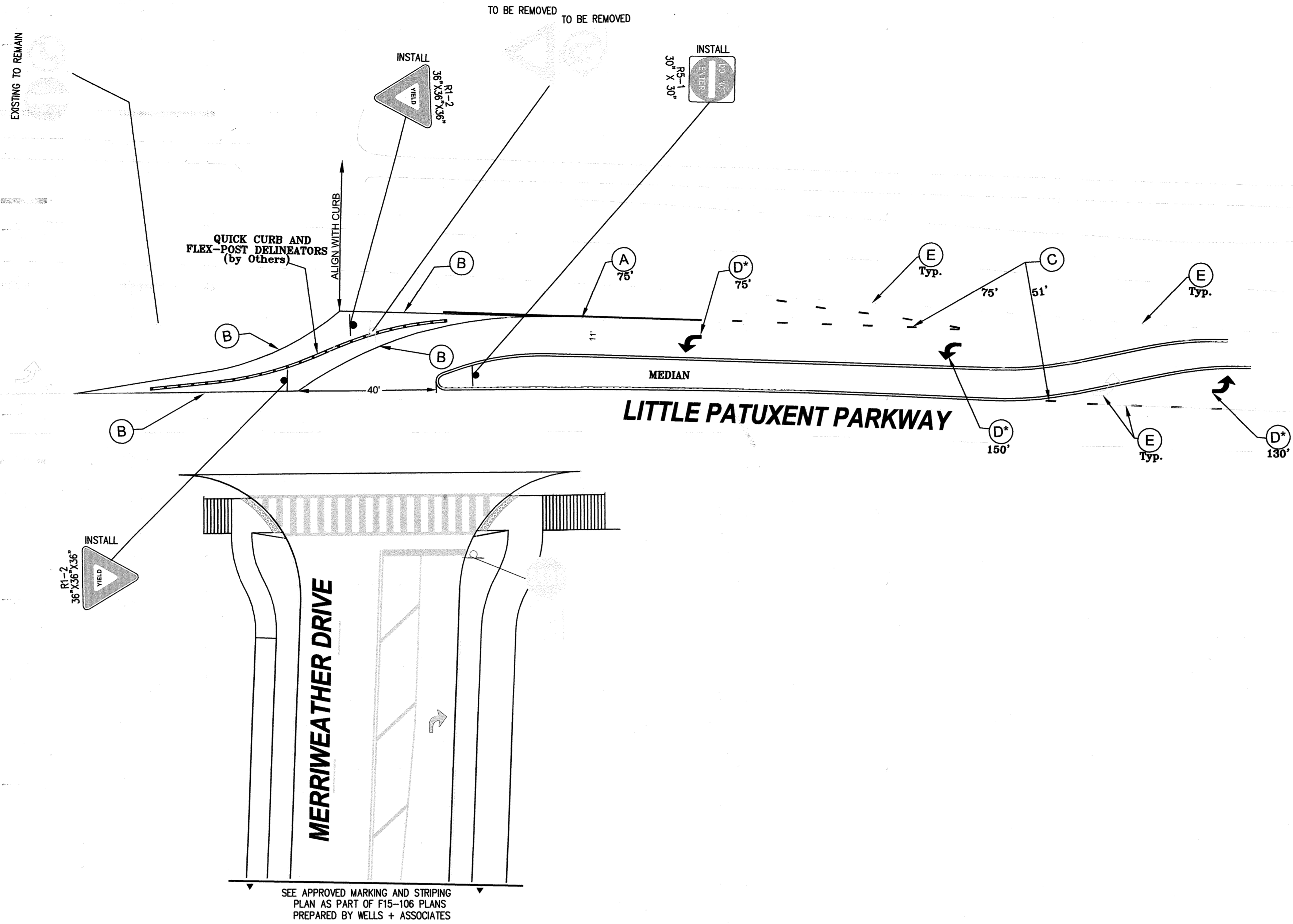
Des By	H.R.P.	Scale	1" = 100'	Proj. No.	89-0040
Drn By	J.W.B.	Date	OCT. 1990	Drawing No.	102 OF 20
Chk By	S.P.	Approved			

11/8/90
 Date

Robert R. Platt
 Professional Engineer No. 5407

NOTED: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
 © S.C. ENGINEERS, INC.
 SWINBERGER & LANE
 PROFESSIONAL L.S. #1608 Exp. Date 4/27/92
 AS-BUILT DATE: 6-10-2018

MERRIWEATHER DRIVE IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.



PAVEMENT MARKING INSTALLATION NOTES

- (A) INSTALL 5" WHITE PAVEMENT MARKING.
- (B) INSTALL 10" WHITE PAVEMENT MARKING.
- (C) INSTALL 5" WHITE PAVEMENT MARKING. (3' SKIP, 9" SPACING)
- (D) INSTALL WHITE PAVEMENT LEGEND AS SHOWN.
- (E) ERADICATE EXISTING PAVEMENT MARKING AS SHOWN.

* MEASURED FROM NOSE OF MEDIAN

PAVEMENT MARKINGS NOTES

1. ALL LONG LINES MARKINGS TO BE APPLIED USING THERMOPLASTIC MATERIAL.
2. THE CROSSWALK AND ARROWS TO BE INSTALLED USING PREFORMED HEAT APPLIED TAPE OR THERMOPLASTIC.
3. ALL PAVEMENT MARKINGS ARE TO BE LOCATED OR APPROVED BY THE TRAFFIC DIVISION PRIOR TO THE PLACEMENT OF ANY MARKINGS.
4. ALL EXISTING PAVEMENT MARKING IN CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS ARE TO BE REMOVED BY GRINDING ONLY. HOWARD COUNTY TRAFFIC (410-313-5752) WILL DETERMINE WHICH EXISTING MARKINGS SHALL BE REMOVED.

SIGNING NOTES

1. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (1 1/2 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (1 1/2 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE SHALL BE MOUNTED ON TOP OF EACH POST. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO QUICK PUNCH HOLES ABOVE THE GROUND.
2. ALL SIGNS LOCATIONS WITHIN THE PUBLIC RIGHT OF WAY SHALL BE APPROVED BY THE HOWARD COUNTY TRAFFIC DIVISION (410-313-5752) PRIOR TO INSTALLATION.

48 Hours
Before You Dig
Call
"MISS UTILITY"
Service Protection Center

MEMBER
ONE CALL SYSTEM INTERNATIONAL

CALL TOLL FREE
1-800-257-7777

CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDER GROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF THE HOWARD COUNTY CODE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature]
Chief, Bureau of Highways
Date: 10/24/2016

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature]
Chief, Division of Land Development
Date: 10-31-16

[Signature]
Chief, Development Engineering Division
Date: 10-24-16

NOTICE: INFORMATION PROVIDED ON THIS SHEET

G. SCOTT SHANABERGER
SHANABERGER & LANE
Professional L.S. #10849 Exp. Date 4/2/2018
AS-BUILT DATE: 6-18-2018

THE PURPOSE OF THIS PLAN IS TO PROVIDE SIGNING AND STRIPING INFORMATION FOR THE REVISIONS TO THE MEDIAN SHOWN ON SHEET 7 OF THIS PLAN SET.

F-91-086

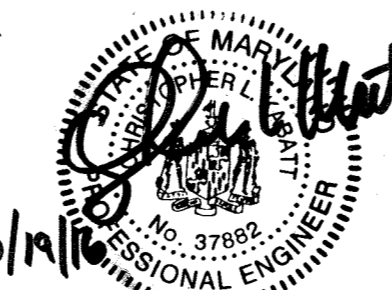
WA WELLS + ASSOCIATES, INC
1420 Spring Hill Road, Suite 610, Tysons, Virginia 22102
Phone: 703/917-6620 Facsimile: 703/917-0739

DES. BM	DRN. BM	CHK. LES	DATE	REVISION	BY	APP'R.

PREPARED FOR:
THE HOWARD HUGHES CORPORATION
LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: BOB JENKINS
410-964-5443

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 37882, EXPIRATION DATE: 10/16/2017.



SIGNING AND STRIPING PLAN 1 OF 1

BROKEN LAND PARKWAY
ROADWAY PLAN - LITTLE PATUXENT PARKWAY

ELECTION DISTRICT No. 5

HOWARD COUNTY, MARYLAND

SCALE 1"=20'	ZONING NT	SHEET 20 OF 20
DATE OCTOBER, 2016	36 - 01	