

COLUMBIA

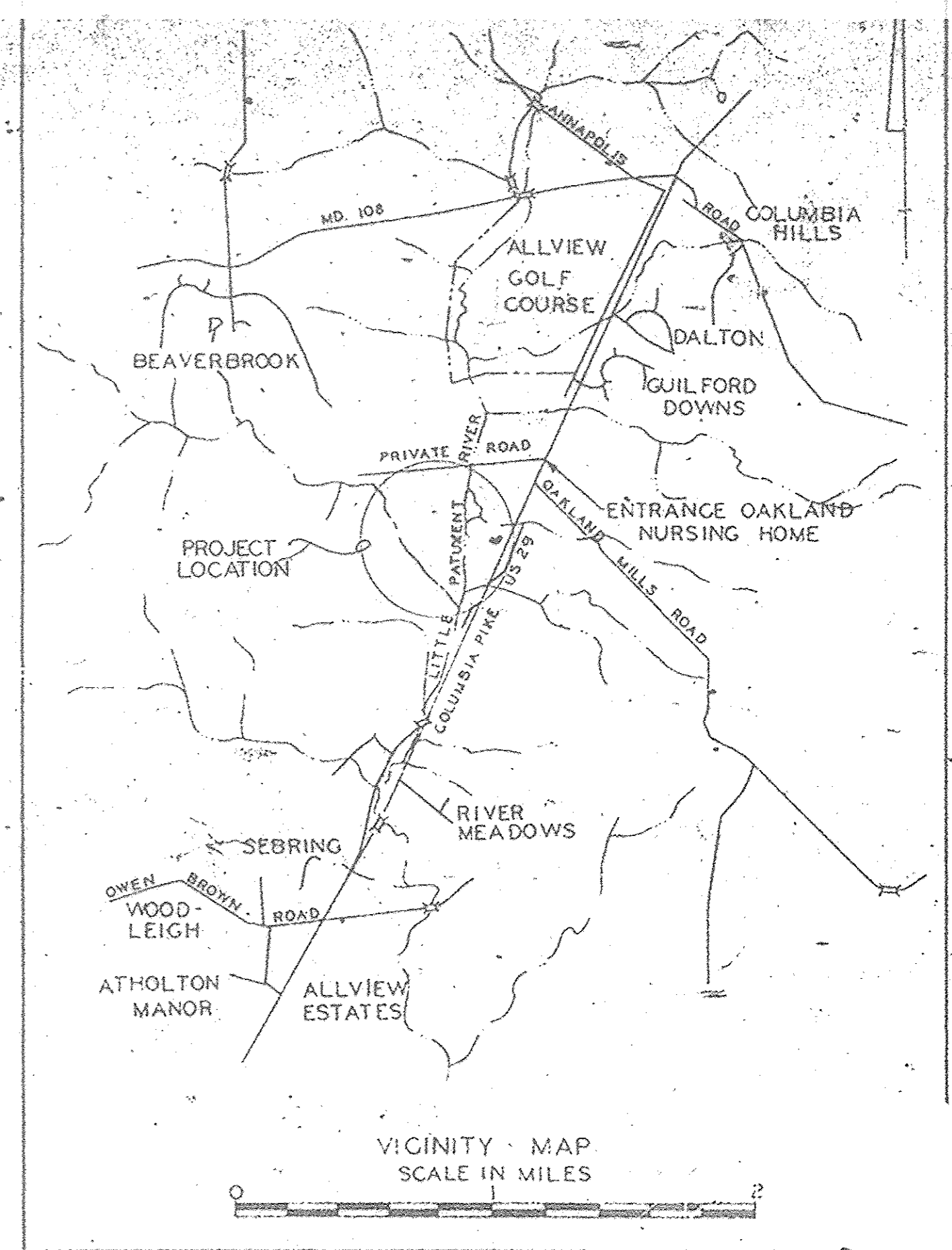
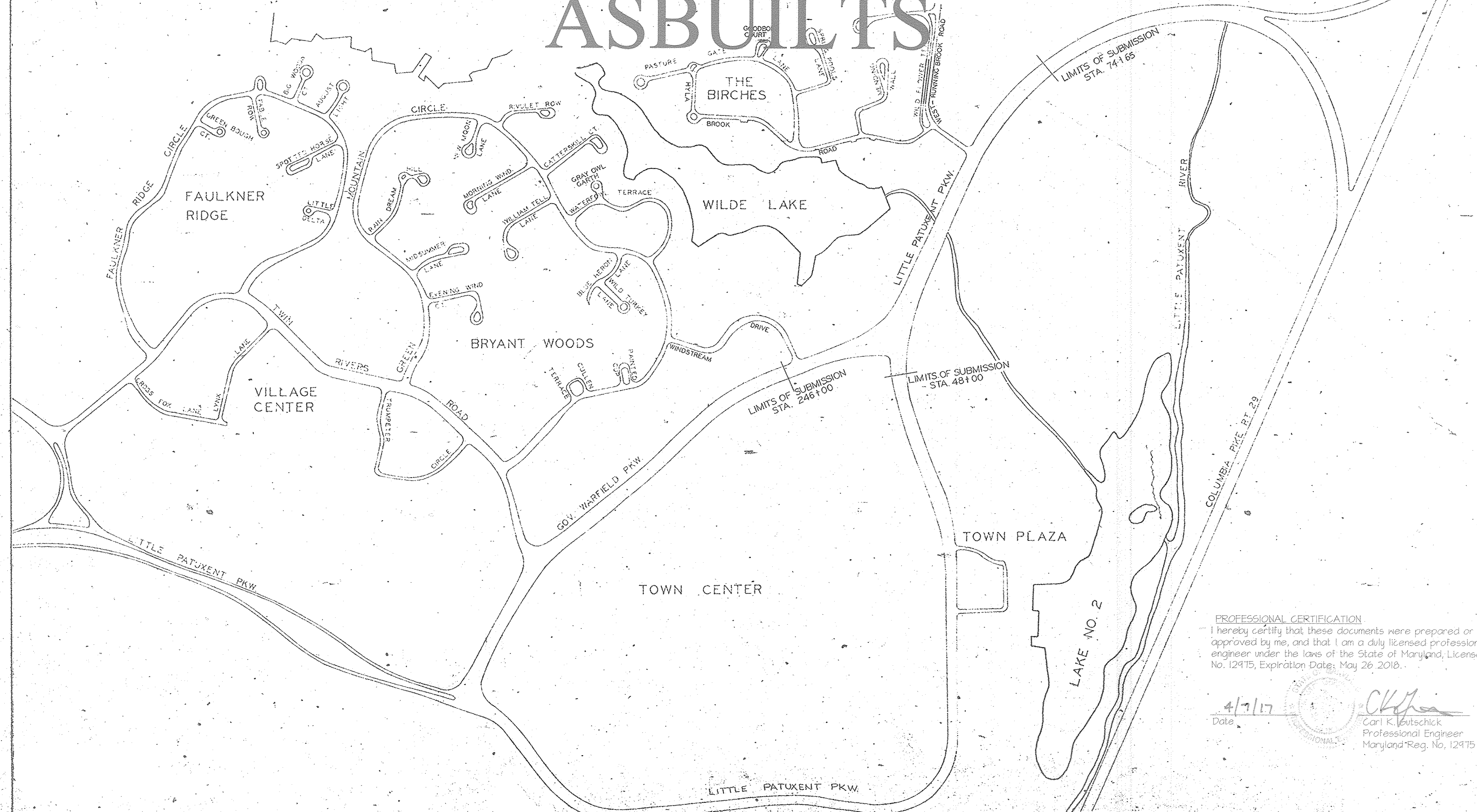
ELECTION DISTRICT 5

VILLAGE OF WILDE LAKE SECTION 3 WILDE LAKE AND PORTOFINO

HOWARD RESEARCH & DEVELOPMENT CORP.
VILLAGE OF CROSS KEYS BALTIMORE, MARYLAND 21210
HOWARD COUNTY, MARYLAND

JANUARY 1967

ASBUILTS



INDEX		
DESCRIPTION	STREET NAME	DRAWING NO.
TITLE		1
DETAILS	TYPICAL SECTIONS	2 & 3
PLAN & PROFILE	LITTLE PATUXENT PARKWAY	4, 5 & 6
PLAN & PROFILE	GOV. WARFIELD PARKWAY	7
PLAN & PROFILE	WINDSTREAM DRIVE	8
DETAILS	DRAINAGE	9
PROFILES	DRAINAGE	10, 11 & 12

ASBUILTS

APR. 2017 ASBUILT SHEET 1 OF 2

APPROVED BY
 HOWARD COUNTY PLANNING COMMISSION *J. H. Lawson* 2-2-67
 SENIOR ENGINEER DATE
 HOWARD COUNTY ROAD DEPARTMENT *Herman S. Chell* 2-2-67
 ROAD SUPERVISOR DATE
 HOWARD COUNTY METROPOLITAN COMMISSION *W. O. Ladd* 6-19-67
 CHIEF ENGINEER DATE

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 No. 12475, Expiration Date: May 26 2018.

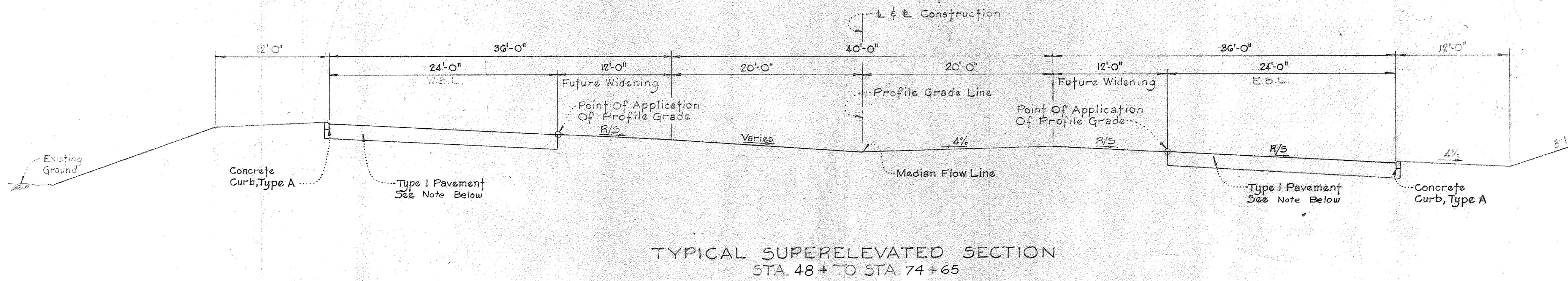
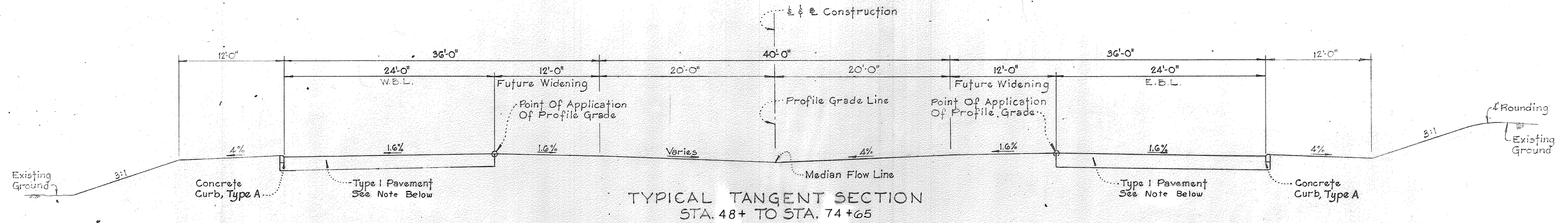
4/7/17
 Date

 Carl K. Leutschick
 Professional Engineer
 Maryland Reg. No. 12475

RUMMEL, KLEPPER AND KAHL
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND
 SHEETS 2 TO 7, 9 TO 11
August W. Muehl

C. D. MESSICK, JR. & ASSOCIATES
 CONSULTING ENGINEERS & LAND SURVEYORS
 21 WEST STREET ANNAPOLIS MARYLAND
 SHEETS 8 & 12
Russell E. Johnson

Note: 2" Topsoil, Seed (Art. 36.04) & Mulch (Art. 36.05) To Be Placed On All Median Areas, Construction Slopes & Ditches, Unless Otherwise Noted On The Plans.



Note: Type I Pavement

- 7" Crusher Run Subbase
 - 4" Bituminous Concrete Base Course
 - 2 1/2" Bituminous Concrete Binder Course
 - 2-1 1/2" Bituminous Concrete Surface Courses
- This surface type to be constructed in accordance with the Howard County Road Construction Code and specification Dwg D112 Page 165b

NO ASBUILT INFORMATION 01/07/2017

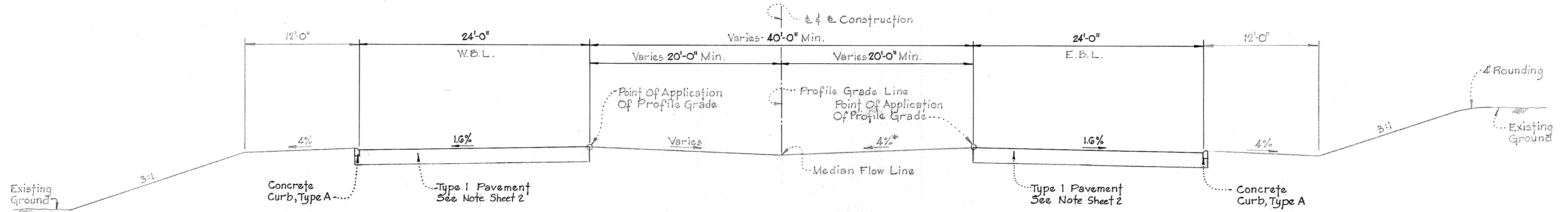
Pavement Spec. Amended	2/10/67
Added Note	1/10/67
Curb Type	3/22/66

Description	By	Mark	Date
LITTLE PATUXENT PARKWAY			
TYPICAL SECTION			
COLUMBIA			
Scale: 1" = 6'	Date: 3-30-66		
Design by:	Traced by:		
Checked by:	Drawing No: 2 of 19		

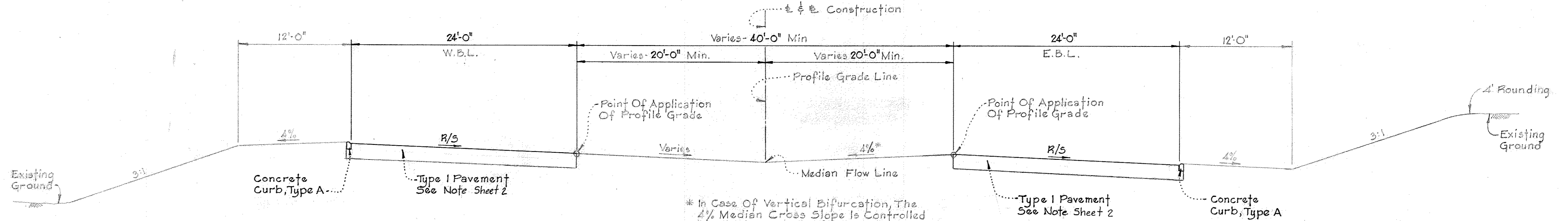
LITTLE PATUXENT PARKWAY

RUMMEL, KLEPPER & KAHL
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

Note: 2" Topsoil, Seed (Art. 36.04) & Mulch (Art. 36.05) To Be Placed On All Median Areas, Construction Slopes & Ditches, Unless Otherwise Noted On The Plans.

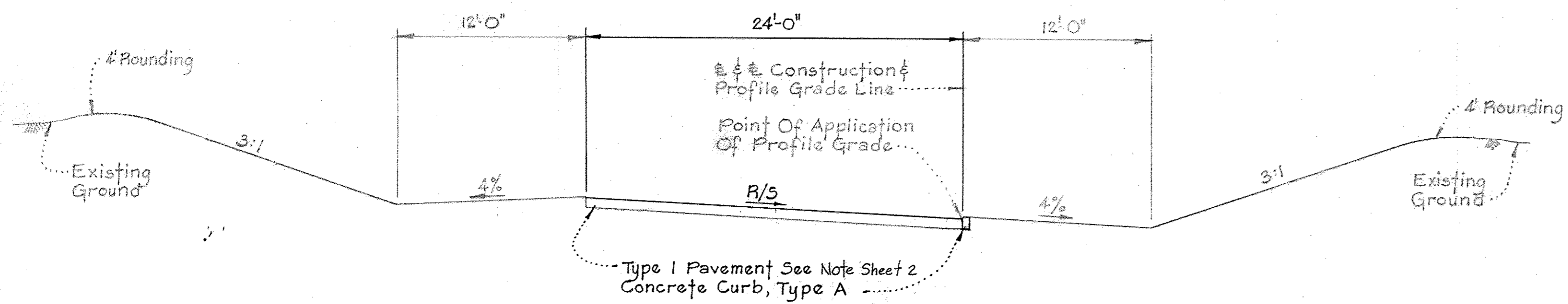


STA. 246+ TO STA. 252+
TYPICAL TANGENT SECTION



* In Case Of Vertical Bifurcation, The 4% Median Cross Slope Is Controlled By The Lower Profile Grade.

STA. 246+ TO STA. 252+
TYPICAL SUPERELEVATED SECTION



E.B.L. STA. 250+ TO STA. 252+
W.B.L. STA. 250+ TO STA. 255+
LOOKING IN DIRECTION OF TRAFFIC

GOV. WARFIELD PARKWAY

RUMMEL, KLEPPER & BARNETT
CONSULTING ENGINEERS
2000 N. WASHINGTON ST.
COLUMBIA, MO. 65201

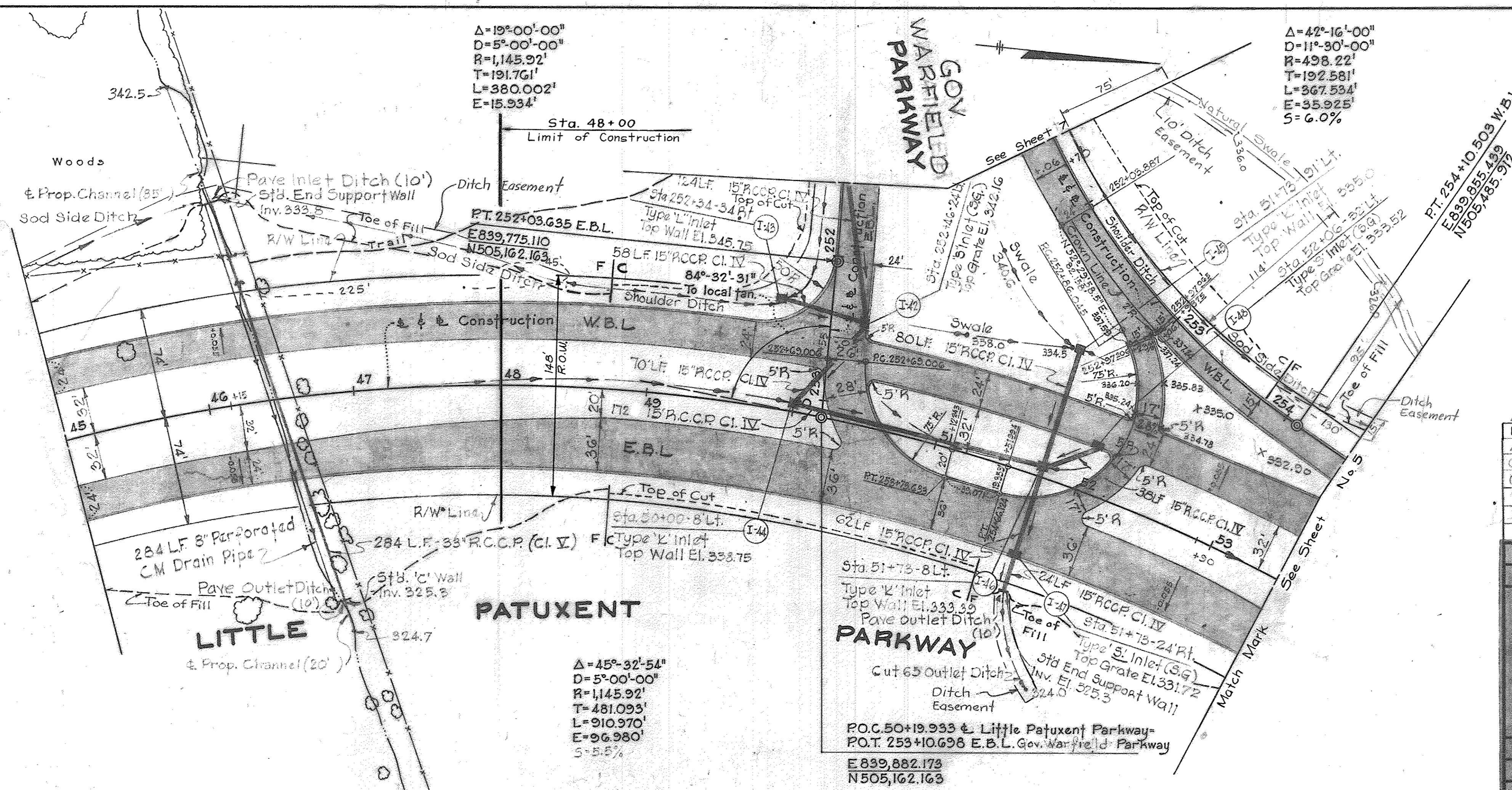
NO ASBUILT INFORMATION 04/01/2017

Curb Type	9/22/06
GOV. WARFIELD PARKWAY	
TYPICAL SECTION	
COLUMBIA	
DATE	3-30-06
PROJECT NO.	
SCALE	AS SHOWN
DATE	3-30-06
PROJECT NO.	
SCALE	AS SHOWN

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
ALIGNMENT CHECKED	
RT. OF WAY CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
STRUCTURE NOTATIONS CHECKED	
NO.	

RUMMEL, KLEPPER & KAHL
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

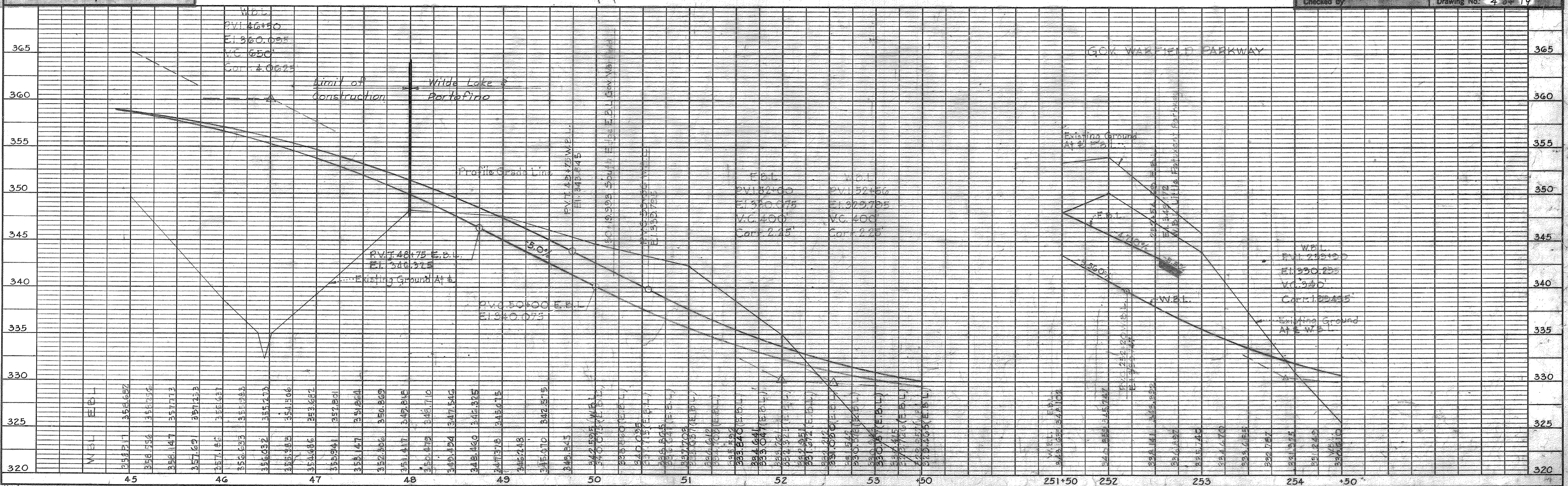


NOTE: SEE SHEETS 13-16 FOR 2014 IMPROVEMENTS TO GOVERNOR WARFIELD PARKWAY AND LITTLE PATUXENT PARKWAY

NO RESULT INFORMATION 04/07/2017

Revise Sheet No's	1/10/67
Added Drainage	9/22/66
Grade Change Gov. Warfield Parkway	8/12/66
Grade Change Gov. Warfield Parkway	7/22/66
Revised Drainage	6/23/66
Revised Grade	6/24/66
Revised Grade	5/18/66

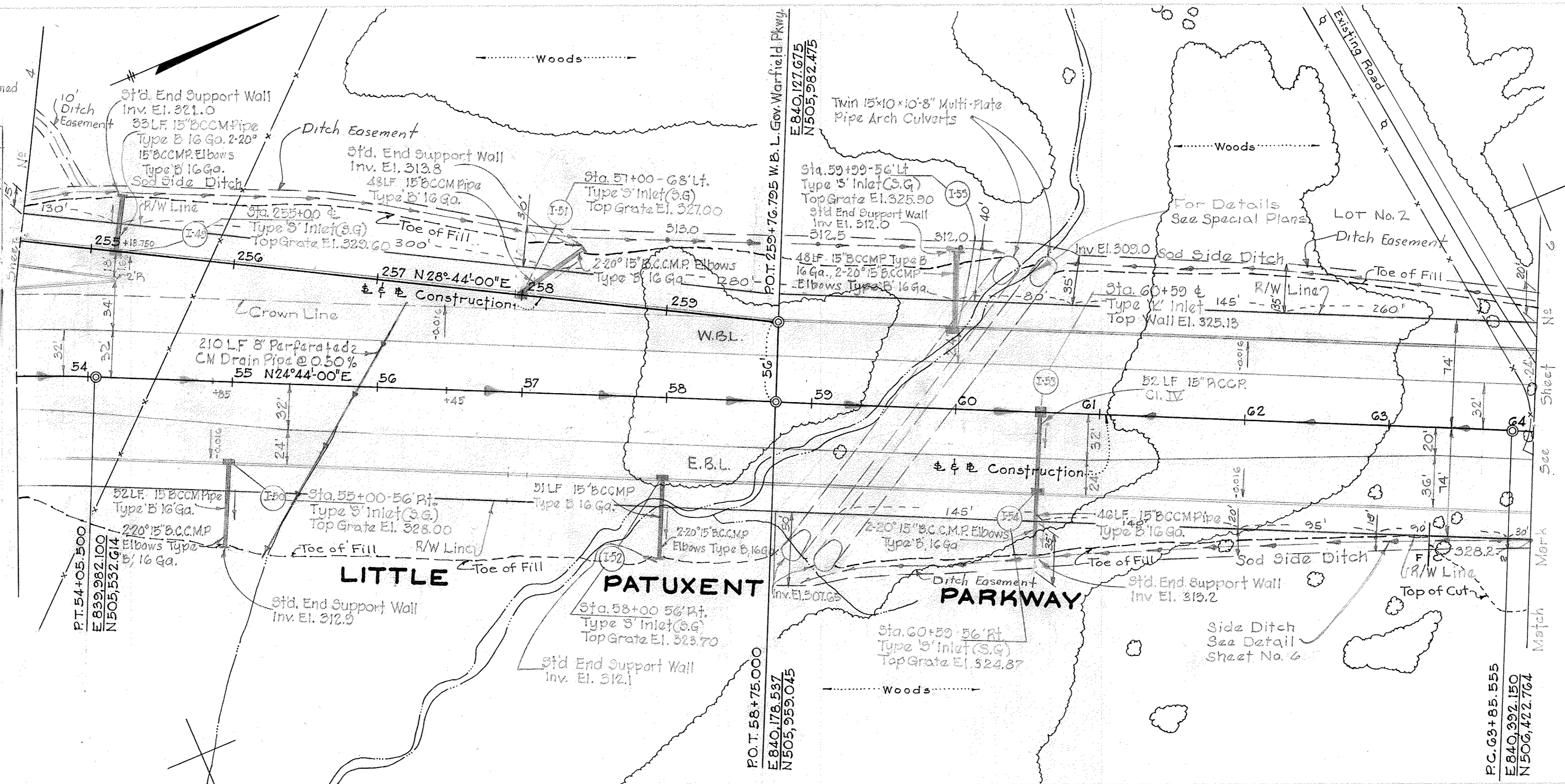
Description	By	Mark	Date
REVISIONS			
LITTLE PATUXENT PARKWAY			
Sta. 45+ To Sta. 53+			
COLUMBIA			
Scale Horiz. 1"=50'		Date April 1966	
Design by:		Traced by:	
Checked by:		Drawing No. 4 of 19	



Sta. 54 + To 64
Remove Unsuitable Material For The Full Width Of Embankment Construction To The Depths Indicated In The Following Table And Replace With Granular Backfill. Exact Limits Of Removal To Be Determined By The Engineer.

Approx. Depth Of Unsuitable Material (In Feet)	
Sta. 100' Left	50' Right
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64

STORM DRAIN PROFILES
Sta. 54+ To Sta. 64+ See Sheet No. 10



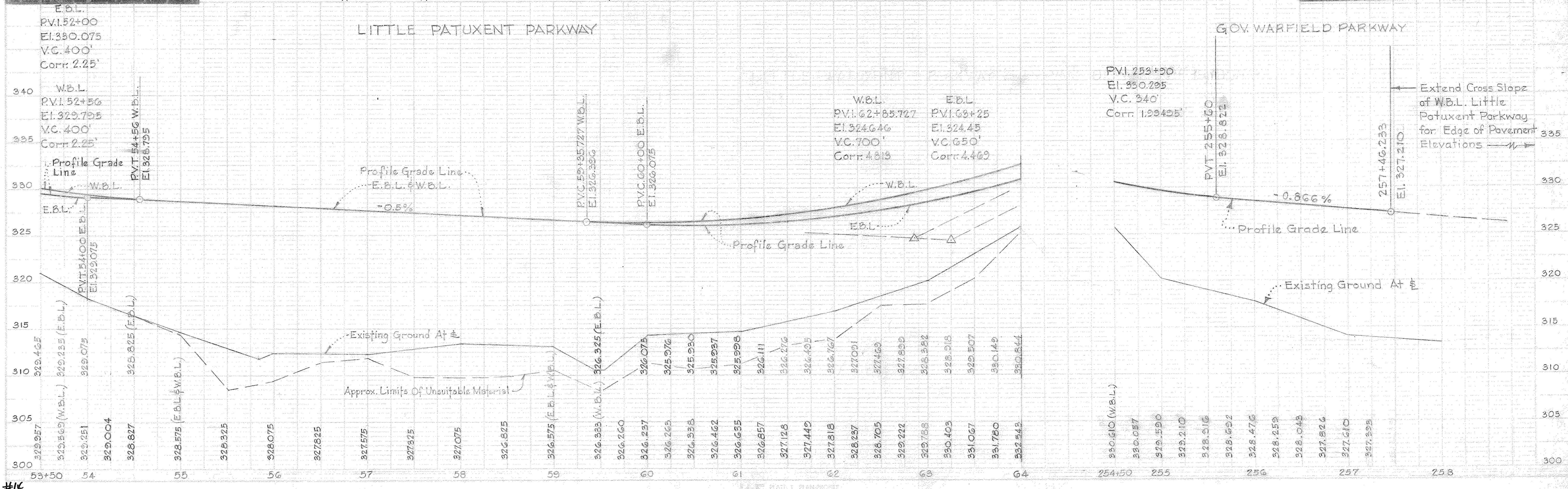
NO. ABSENT INFORMATION 04/07/2017

Removed Pedestrian Underpasses	1/10/67
Added Drainage	9/22/66
Grade Change Gov. Warfield Pkwy	8/12/66
Added Limits Of Unsuitable Material	7/22/66
Drainage	6/25/66
Grade	5/18/66

LITTLE PATUXENT PARKWAY
Sta. 54+ to Sta. 64+

COLUMBIA

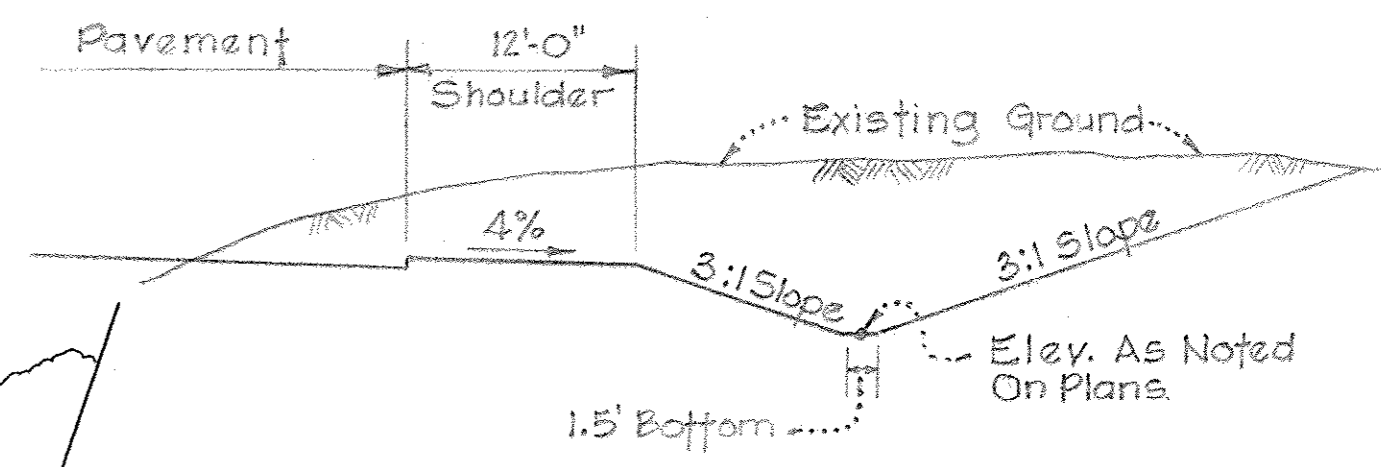
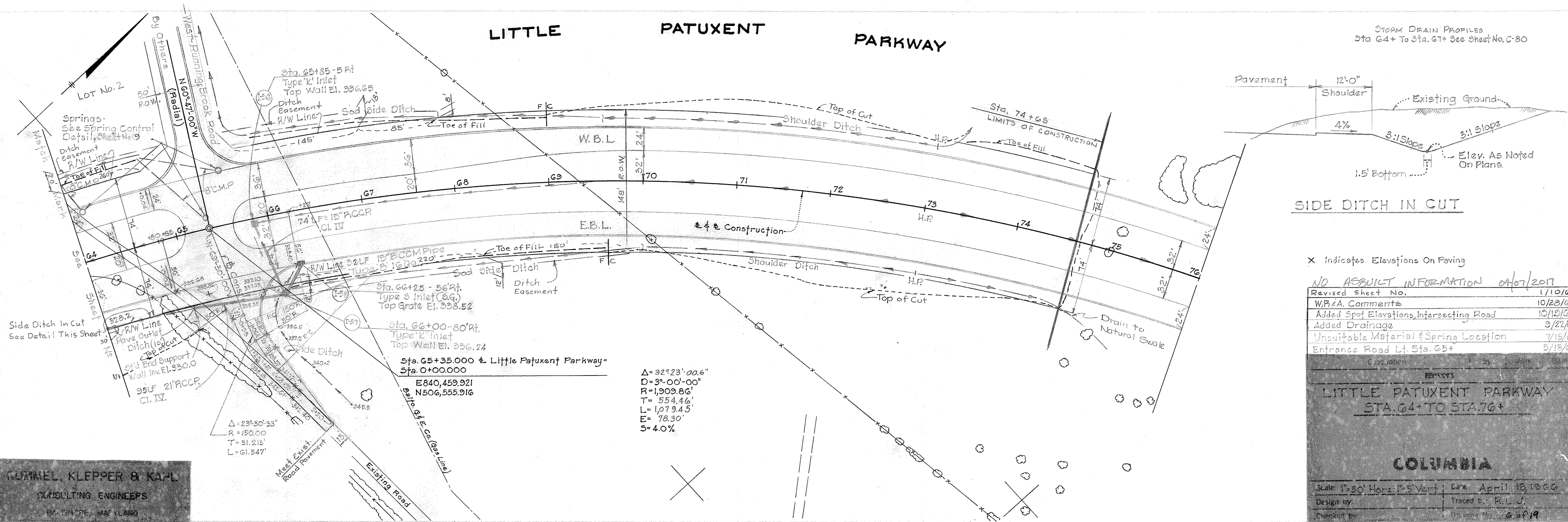
Scale: 1" = 40' Horizontal, 1" = 4' Vertical
Date: April 18, 1966
Drawn by: [Name]
Checked by: [Name]



#14

LITTLE PATUXENT PARKWAY

STORM DRAIN PROFILES
Sta. 64+ To Sta. 67+ See Sheet No. C-80



X Indicates Elevations On Paving

NO. REVISION INFORMATION 04/07/2017

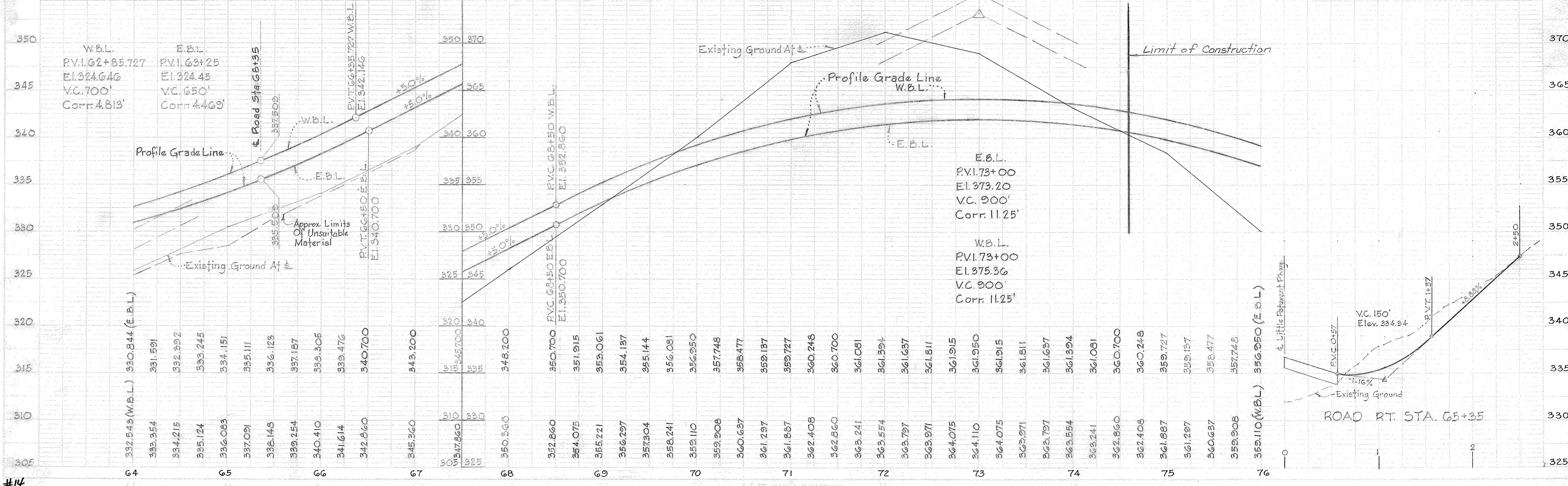
Revised Sheet No.	1/10/67
W.P.A. Comments	10/28/66
Added Spot Elevations, Intersecting Road	10/12/66
Added Drainage	3/22/66
Unavoidable Material & Spring Location	7/15/66
Entrance Road Lt. Sta. 65+	5/18/66

LITTLE PATUXENT PARKWAY
STA. 64+ TO STA. 76+

COLUMBIA

Scale: 1"=50' Horiz., 1"=5' Vert. Date: April 18, 2017
 Design by: Traced by: R.L.J.
 Checked by: Drawing No.: 4 of 19

GUMMEL, KLEPPER & KAPL
CONSULTING ENGINEERS
100 TRACYS, HAVANLAND



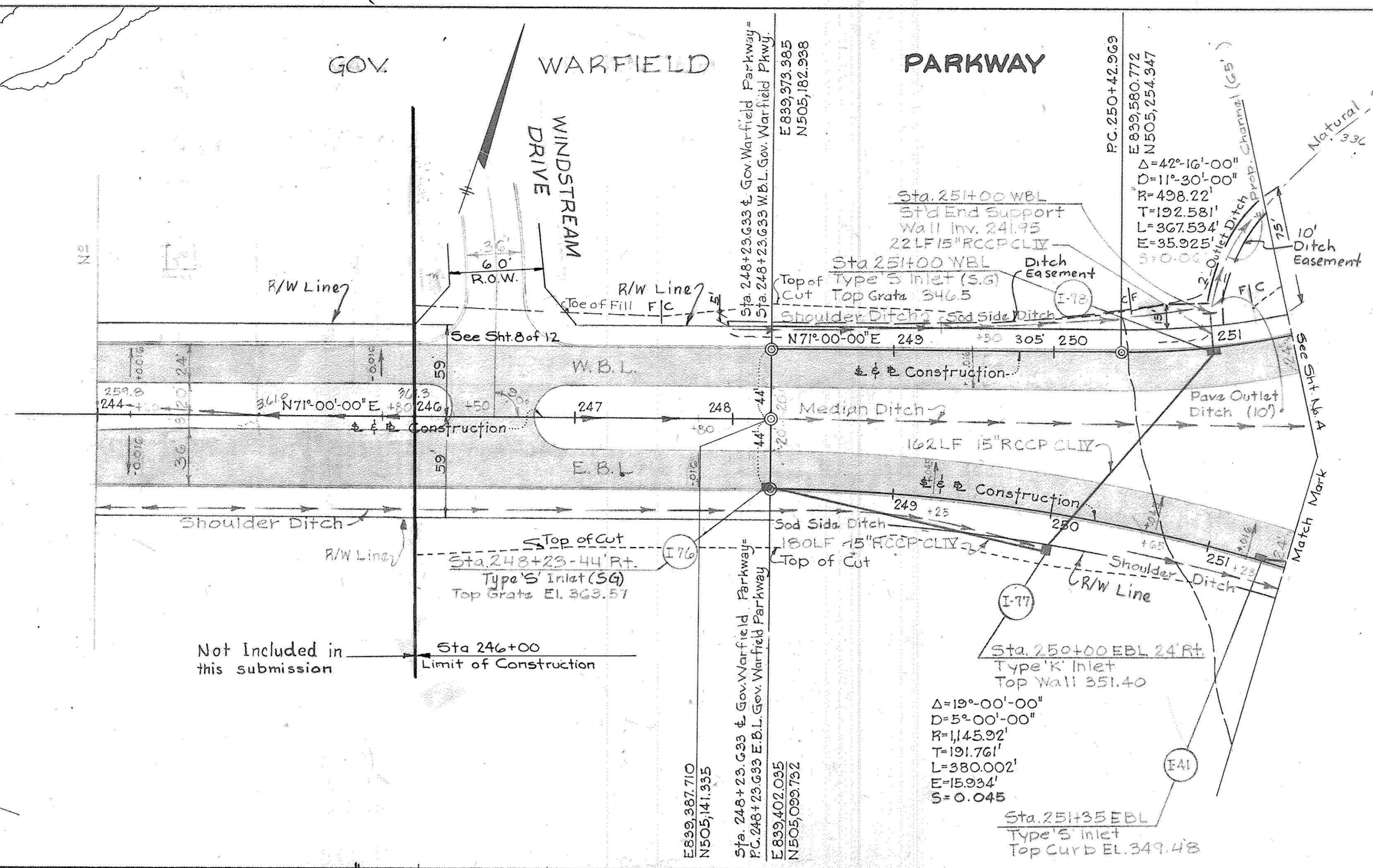
#14

NOTE: SEE SHEETS 13-16 FOR 2014 IMPROVEMENTS TO GOVERNOR WARFIELD PARKWAY AND LITTLE PATUXENT PARKWAY

PLAN
SURVEYED BY DATE
NOTE BOOK NO.
ALIGNED CHECKED
RT. OF WAY CHECKED

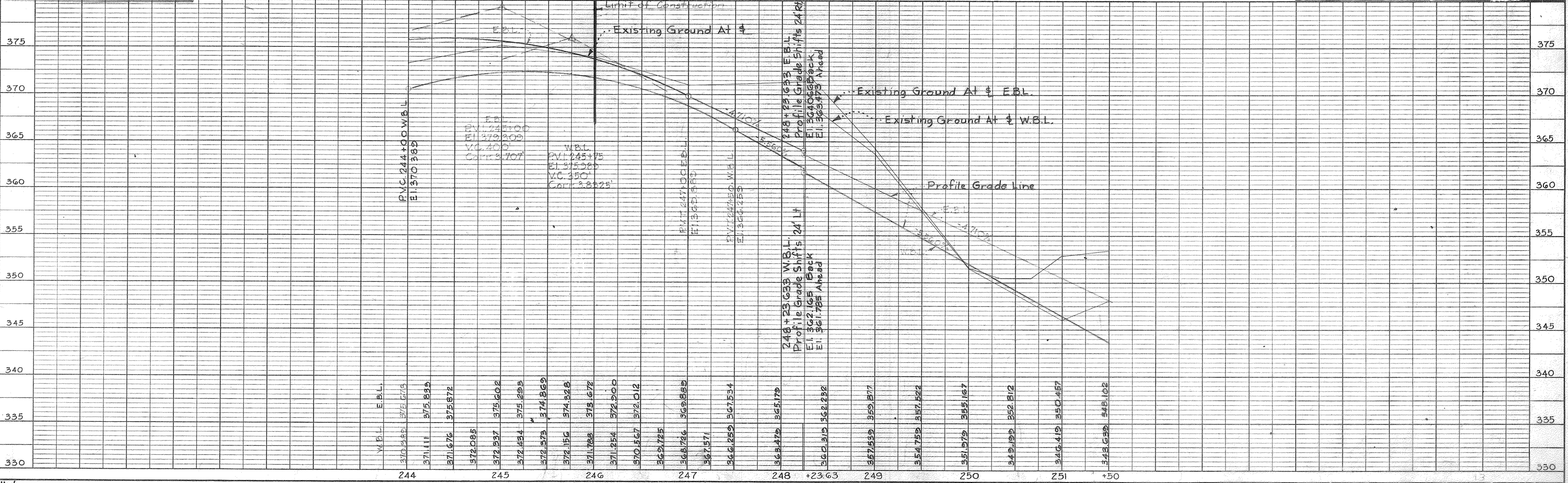
PROFILE
SURVEYED BY DATE
NOTE BOOK NO.
GRADES CHECKED
B. M. NOTED
STRUCTURE DATUM CHECKED

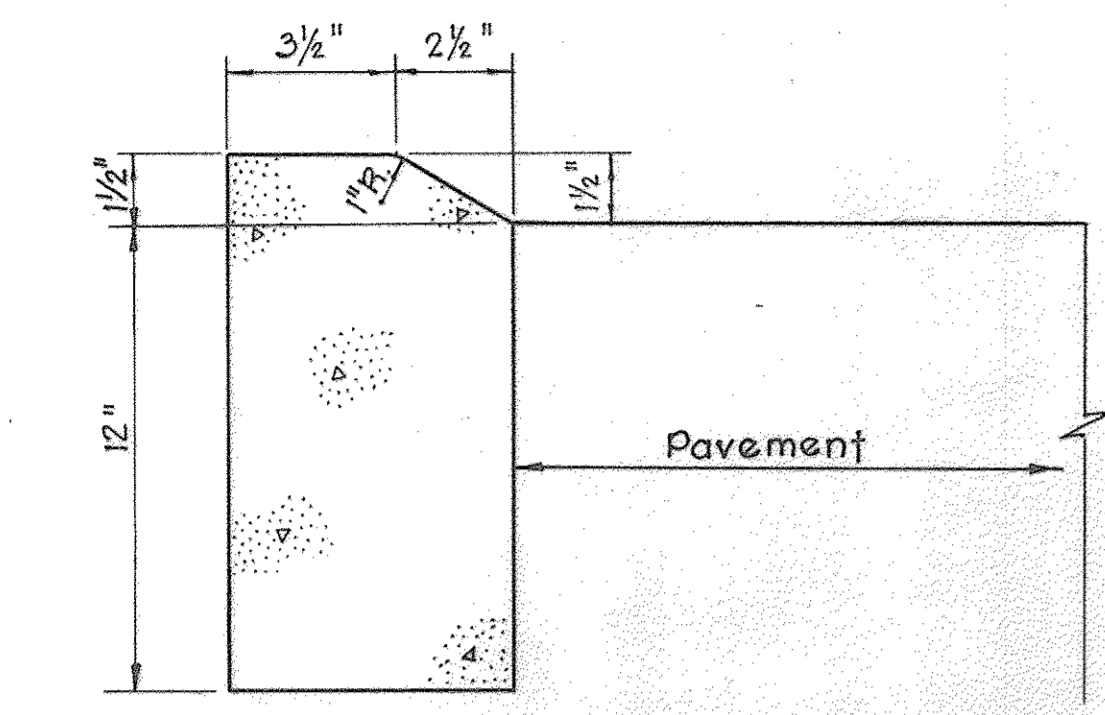
RUMMEL, KLEPPER & KAHL
CONSULTING ENGINEERS
BALTIMORE, MARYLAND



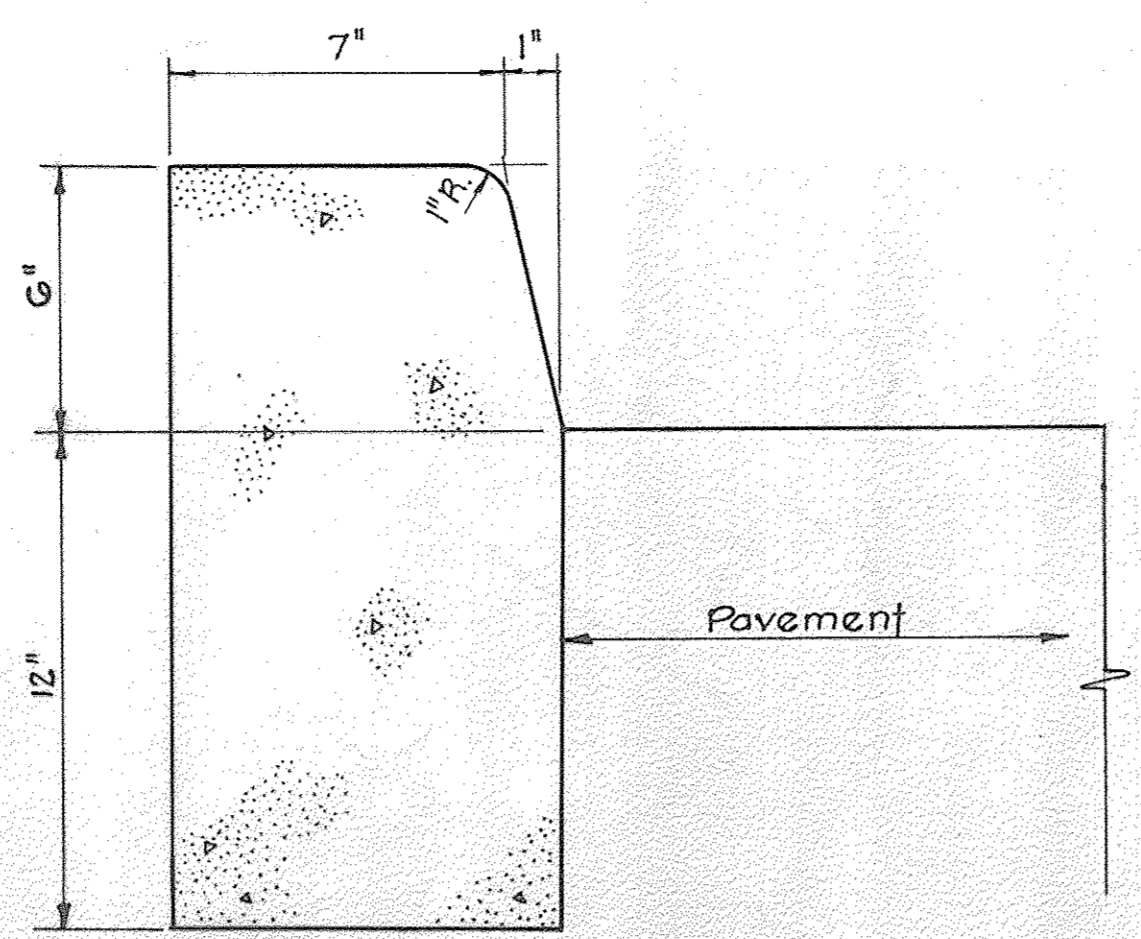
NO ASBUILT INFORMATION 04/07/2017

Added Limits	1/10/67
Added Drainage	9/22/66
Grade Revised	8/12/66
Grade Revised	7/22/66
Drainage	4/23/66
Grade & Green Cove Road Location	5/18/66

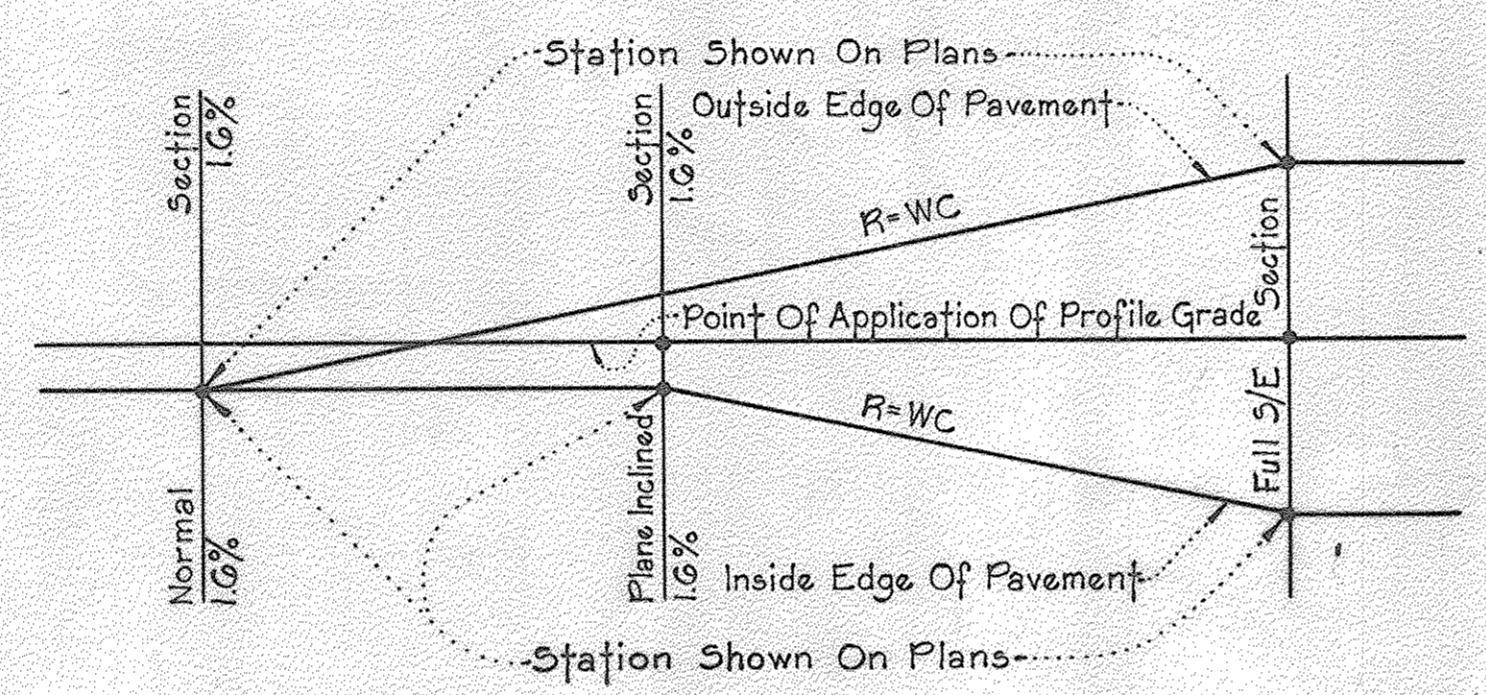




**DETAIL
CONCRETE CURB - TYPE A**
Scale: 3" = 1'-0"

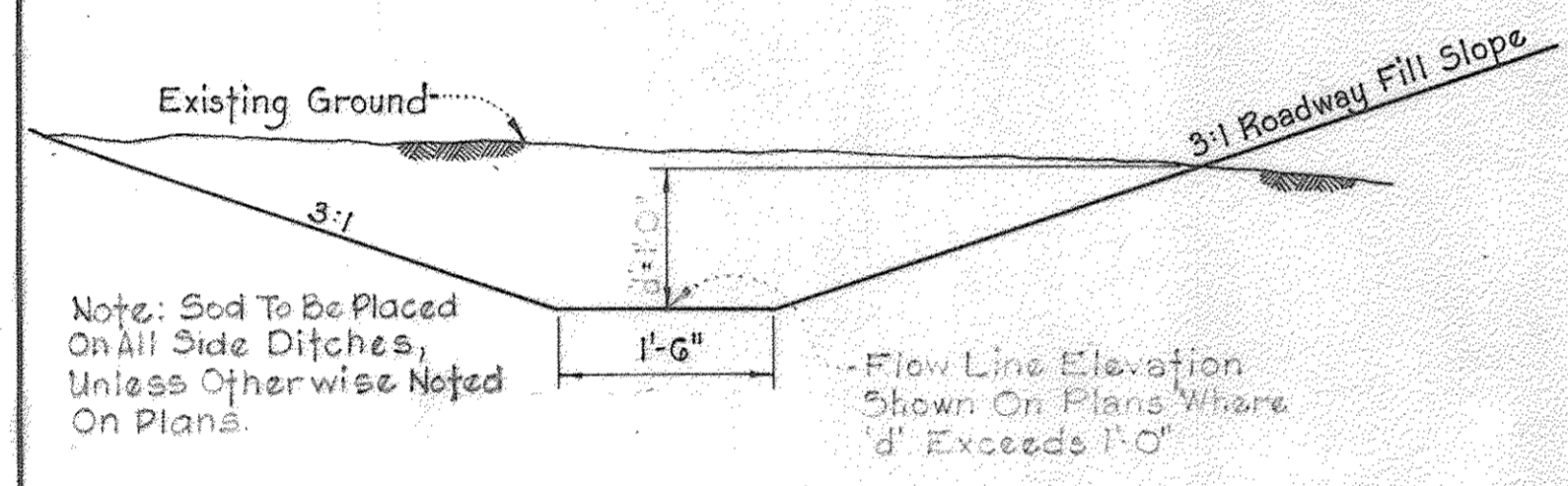


**DETAIL
VERTICAL CONCRETE CURB
TYPE B**
Scale: 3" = 1'-0"

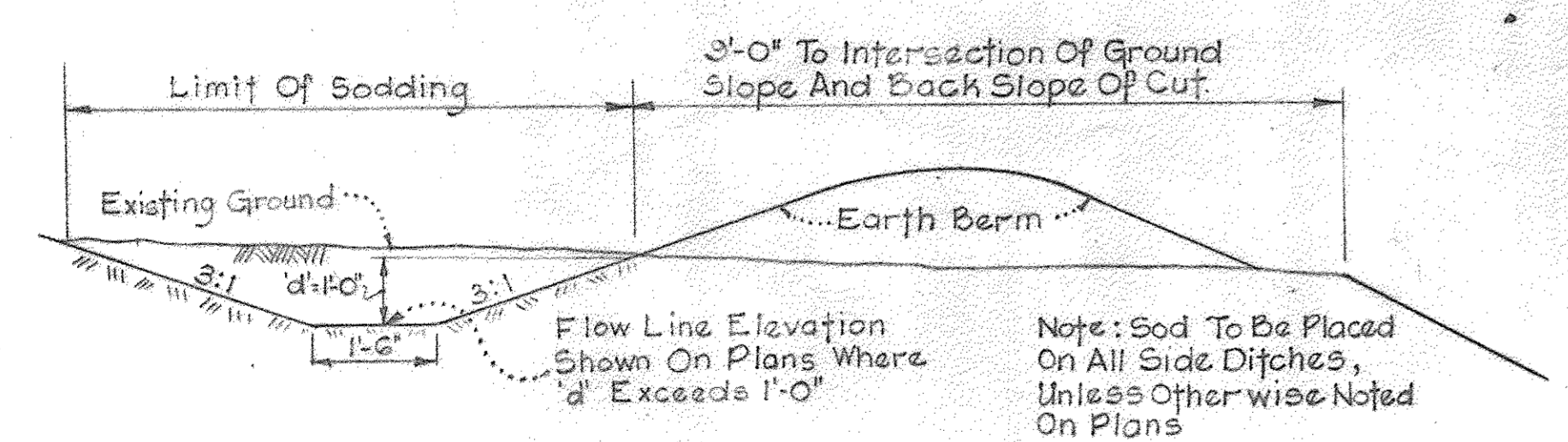


W: Width Of Pavement.
R: Rate Of Change Of A Given Point On The Pavement With Respect To The Point Of Application Of Profile Grade.
C: 0.0002 ft per ft Except For The Transitions Between Station 28+95 And Station 43+21.67, Which Are 0.00015 ft per ft.

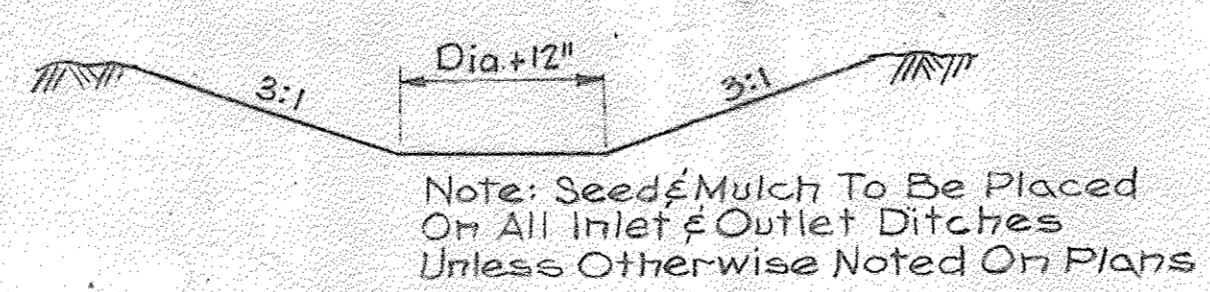
**DETAIL
SUPERELEVATION TRANSITION**



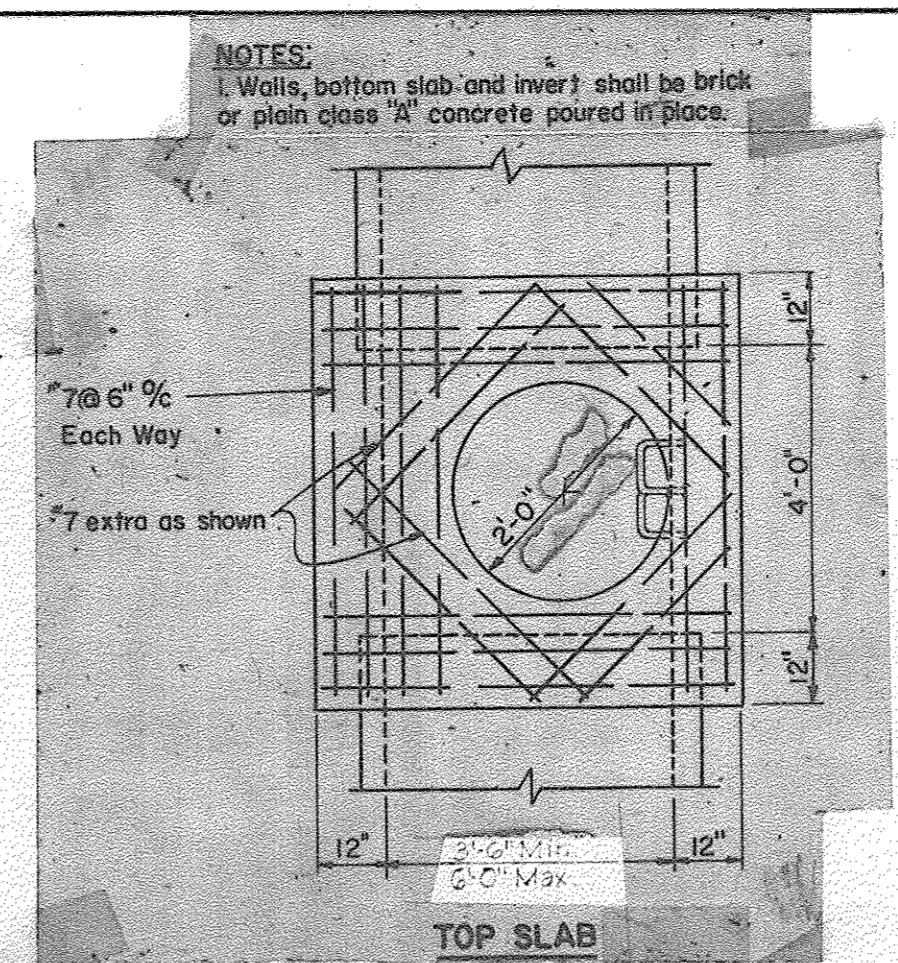
**DETAIL
SIDE DITCH**
Scale: 3/4" = 1'-0"



**DETAIL
BERM DITCH**

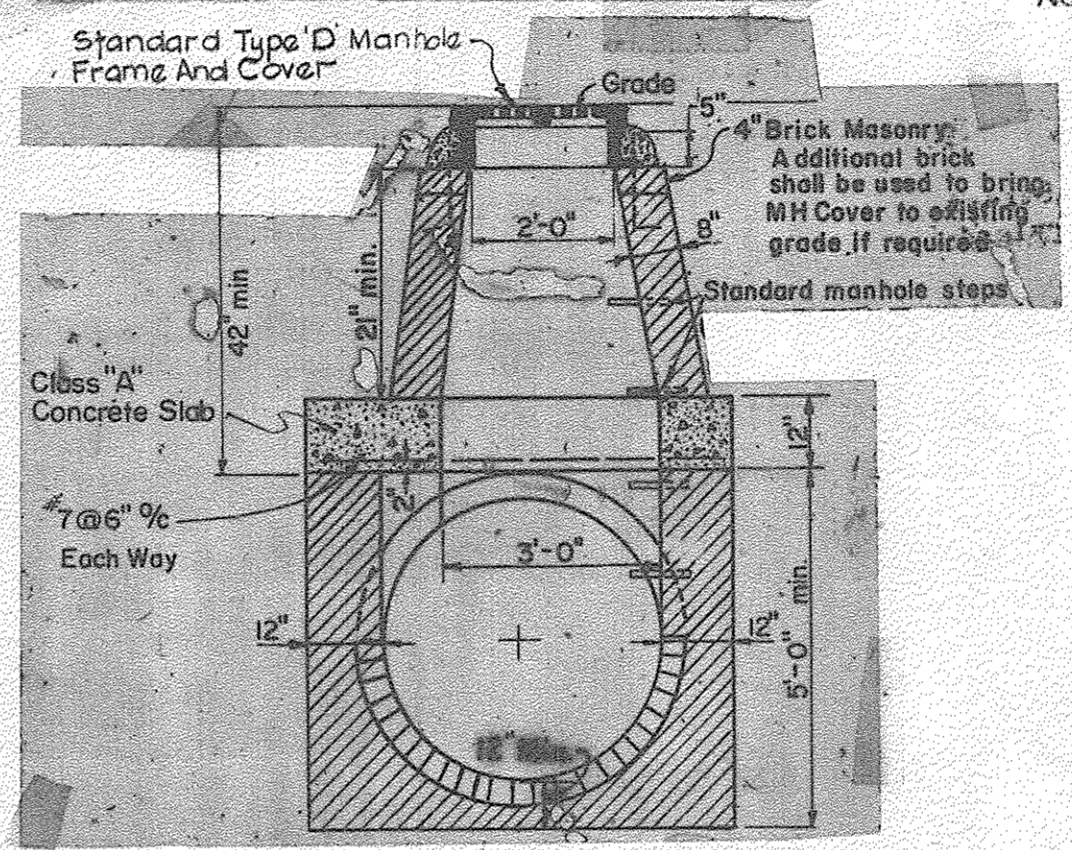


**TYPICAL CHANNEL
CONSTRUCTION
(INLET AND OUTLET DITCHES)**

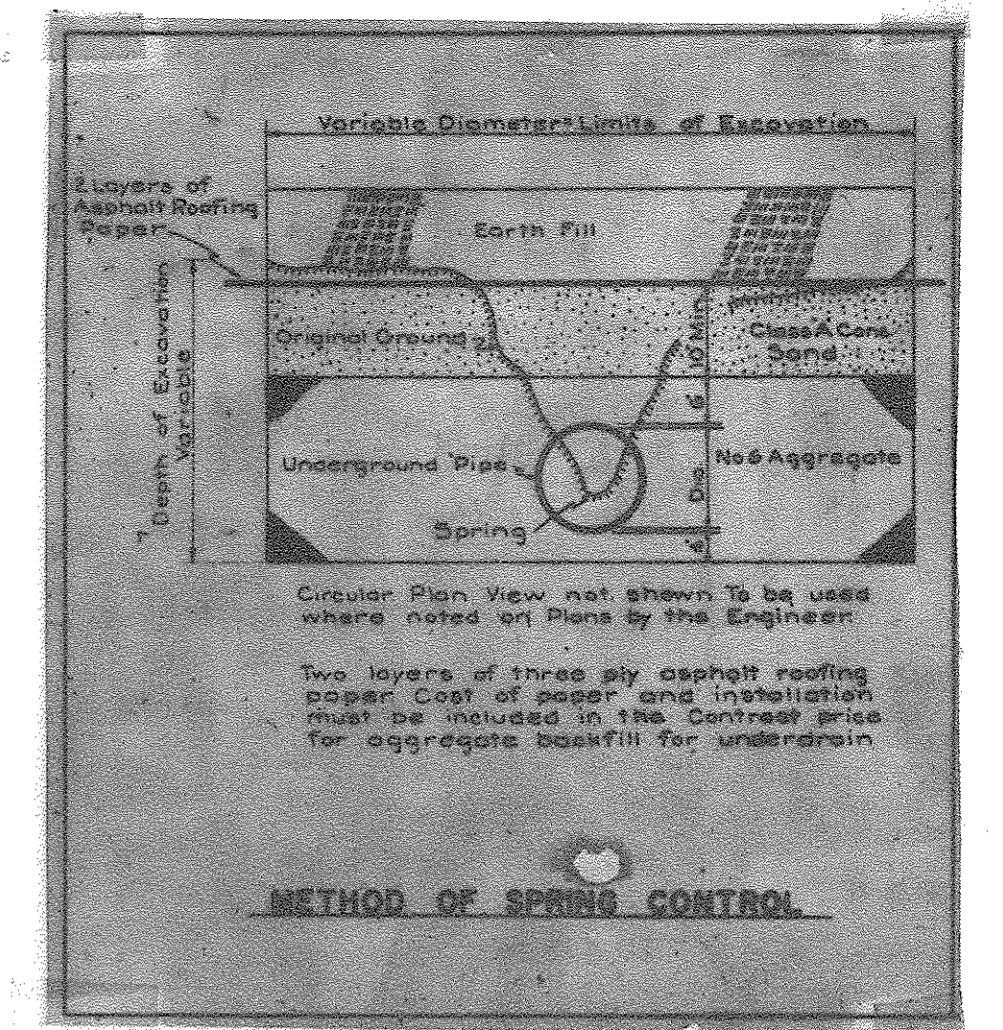


Provide Temporary Slot In End Of 'S'-Inlet As Shown
Top Of Curb Elev. Shown On Plans

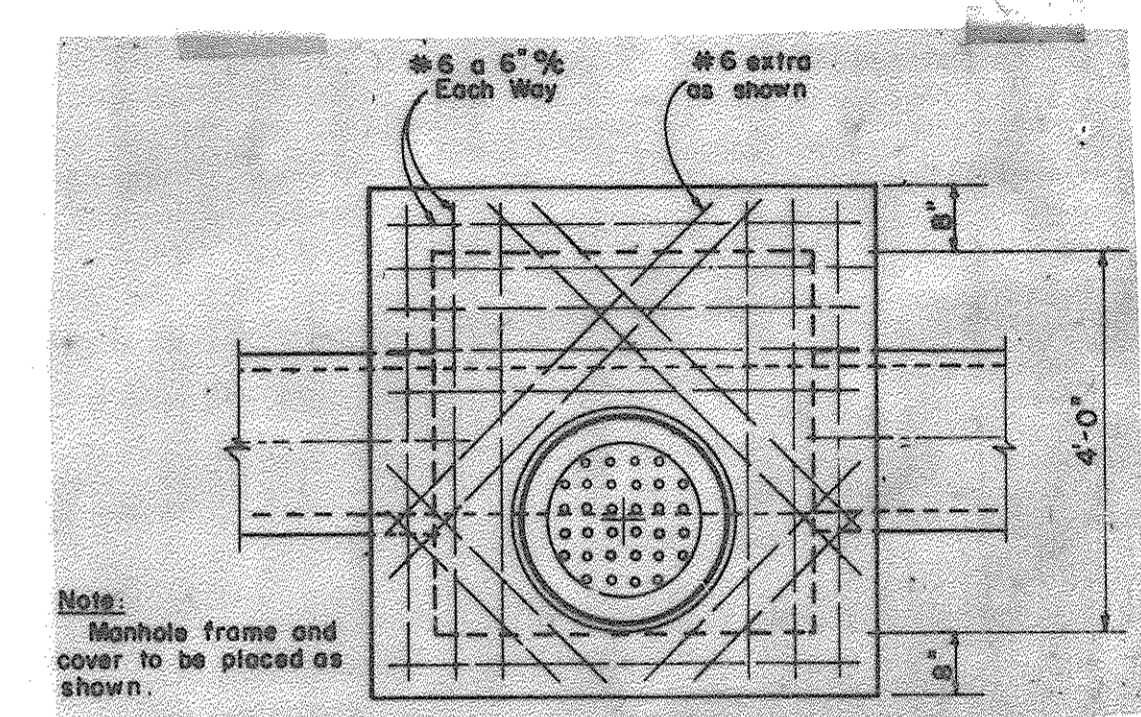
**TEMPORARY DRAINAGE SLOT
'S'-INLETS**
Note: To Be Constructed Where Noted On Plans



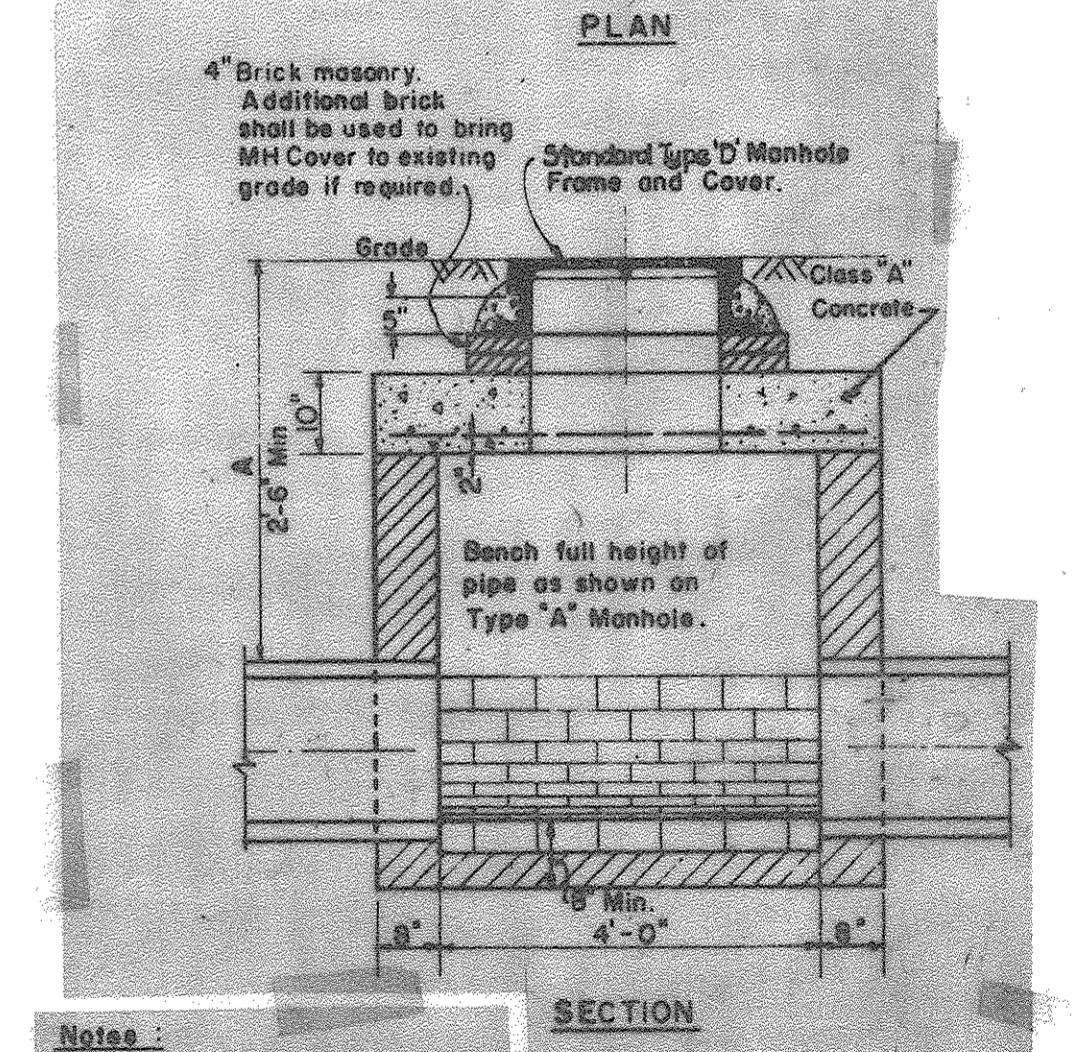
**DETAIL
TYPE 'C' MANHOLE**



METHOD OF SPRING CONTROL

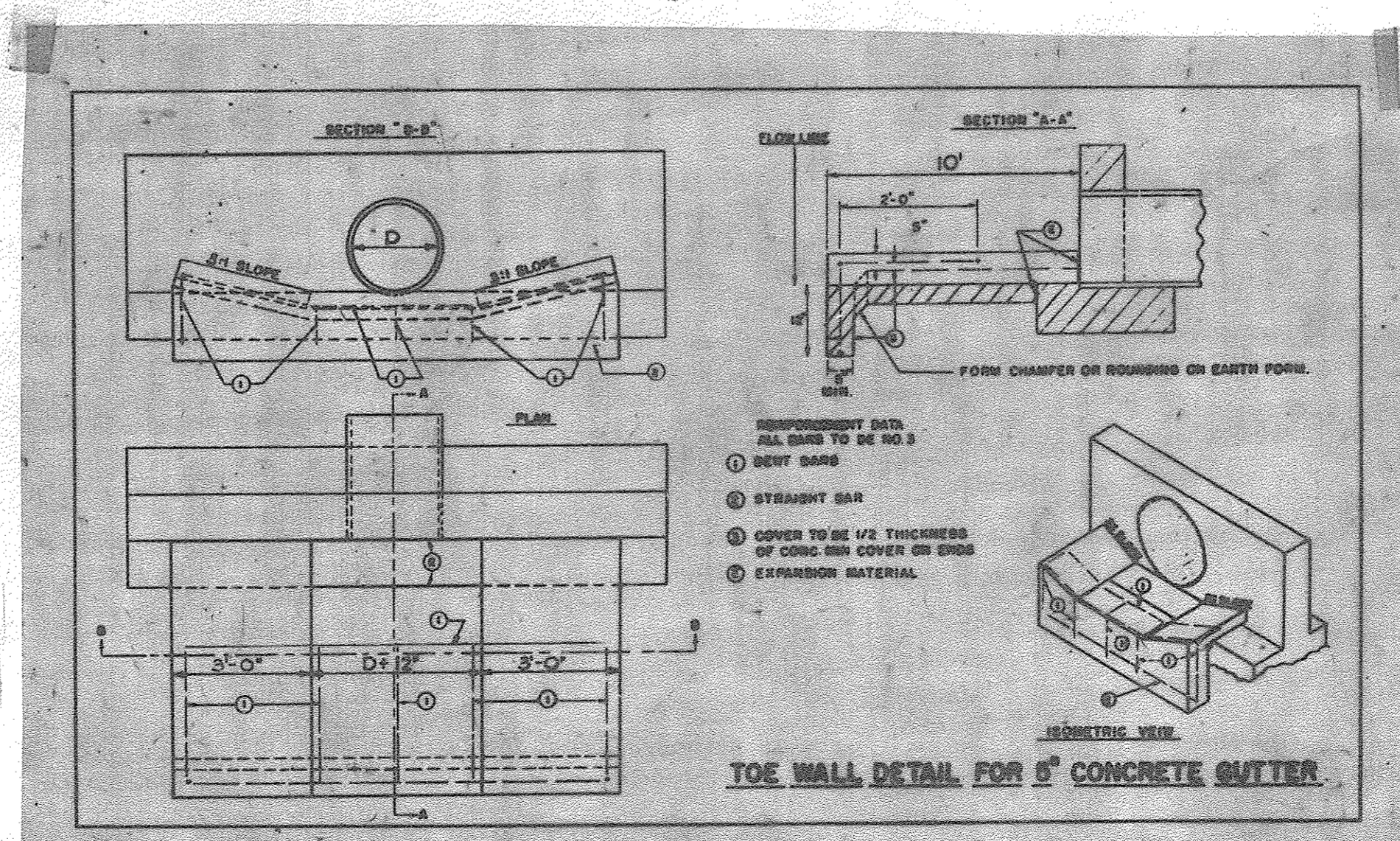


Note: Manhole frame and cover to be placed as shown.



Note: 1. Walls, bottom slab and invert shall be brick or plain Class 'A' Concrete poured in place.

**DETAIL
TYPE 'B' MANHOLE**



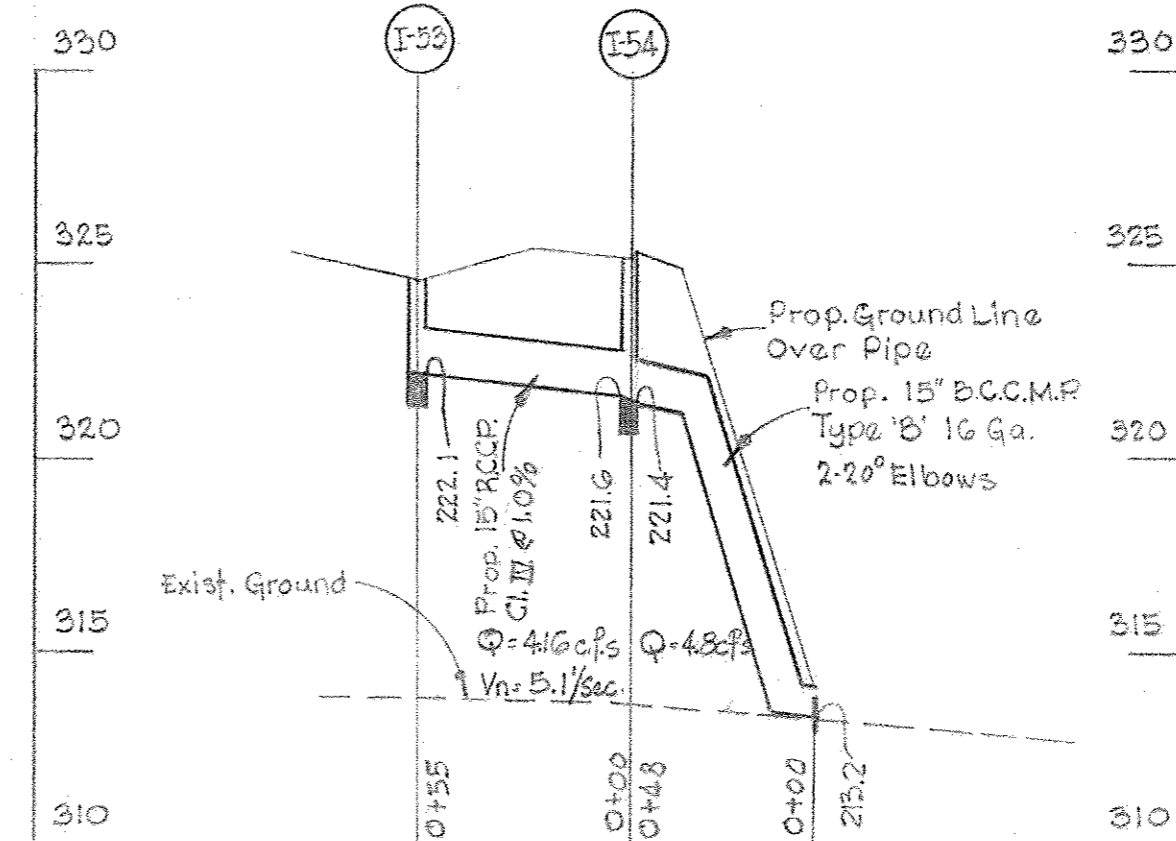
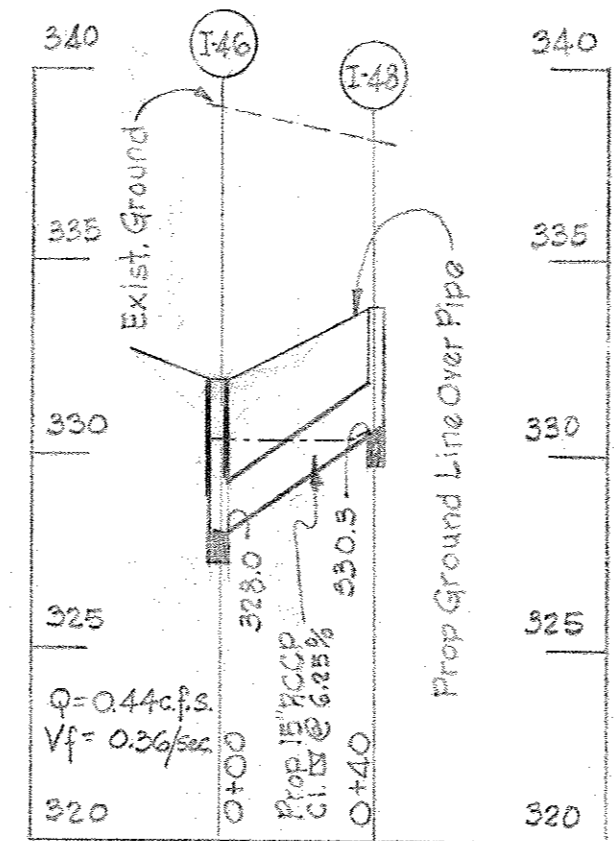
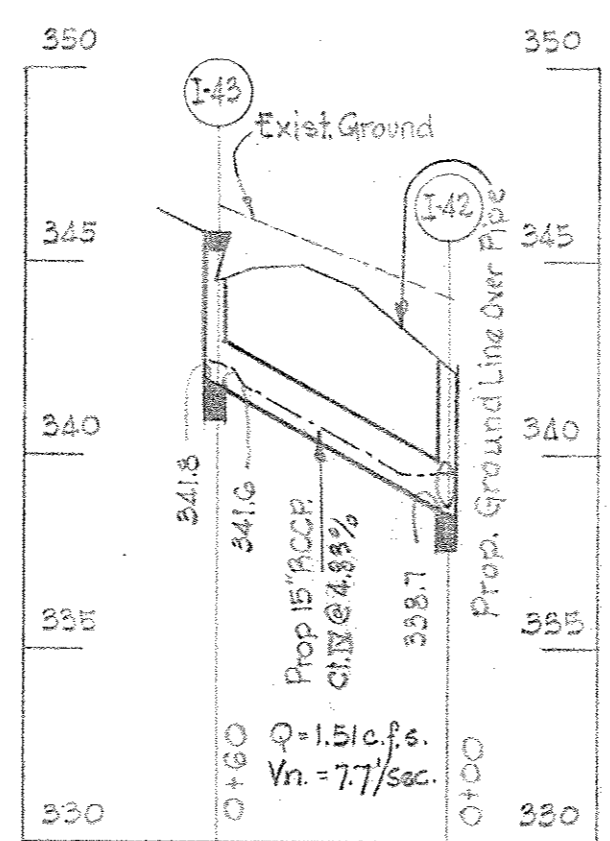
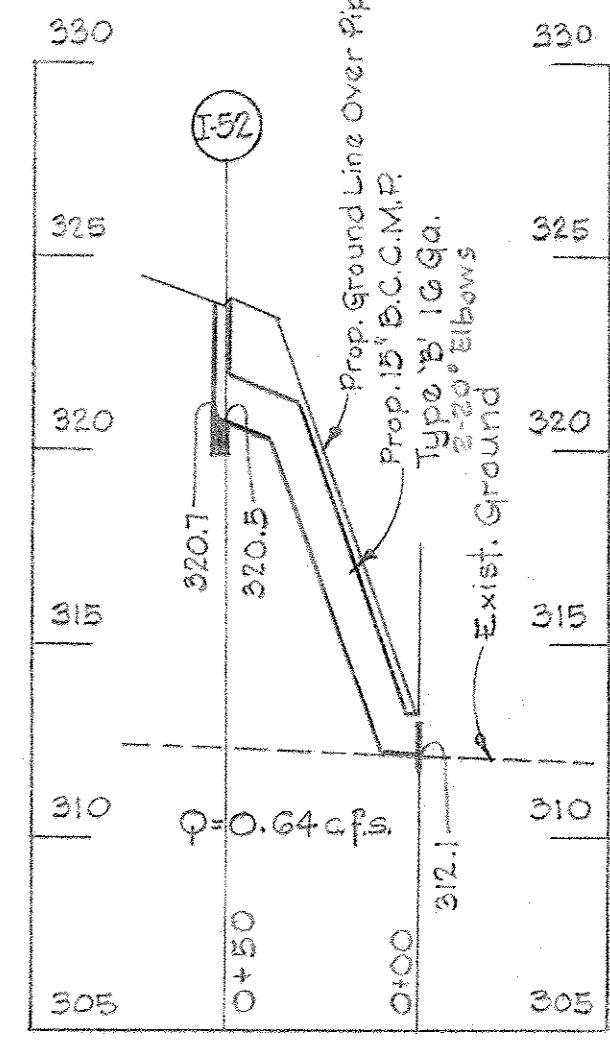
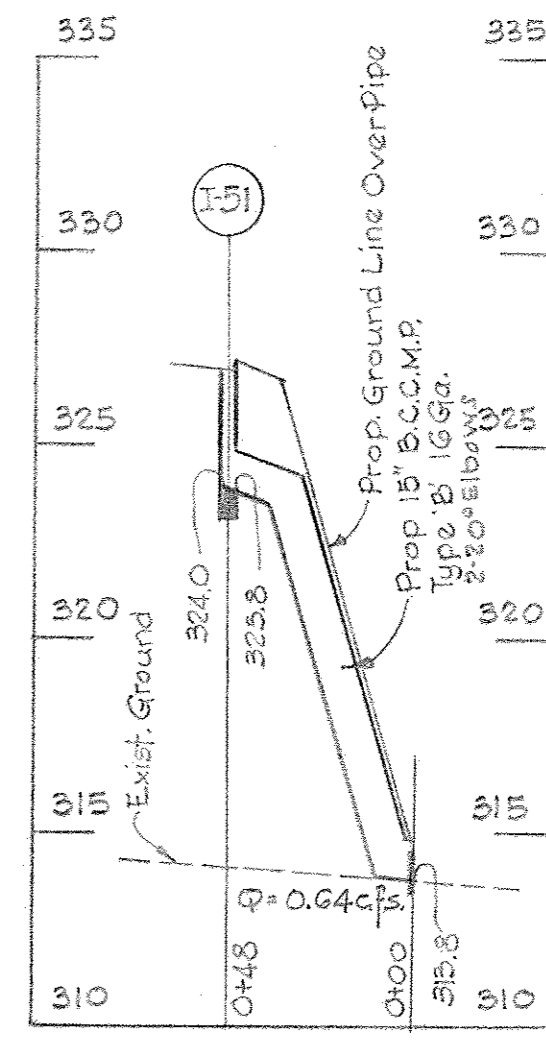
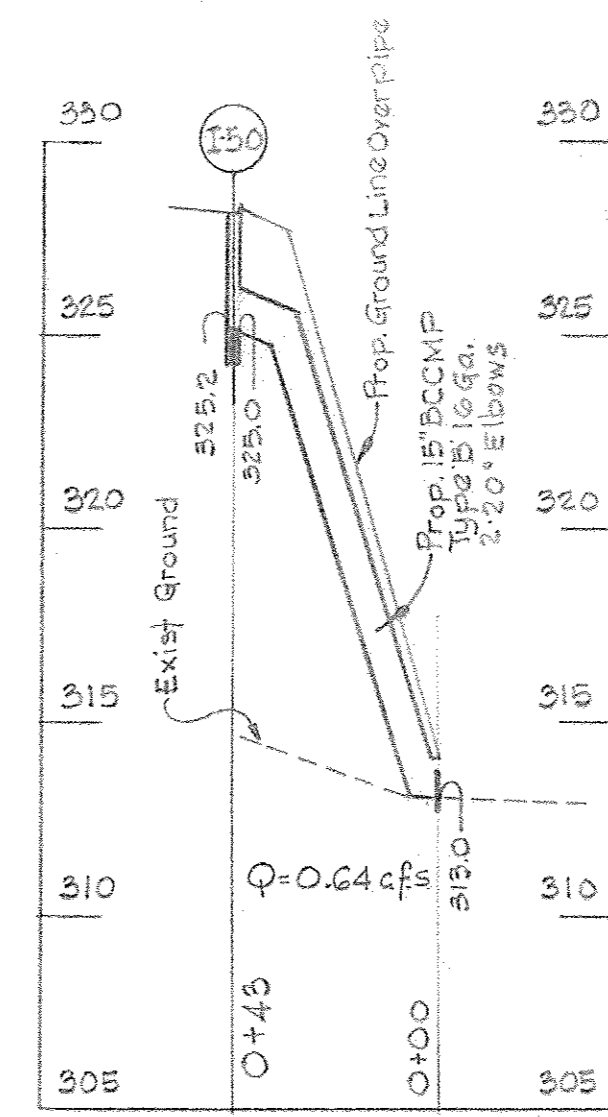
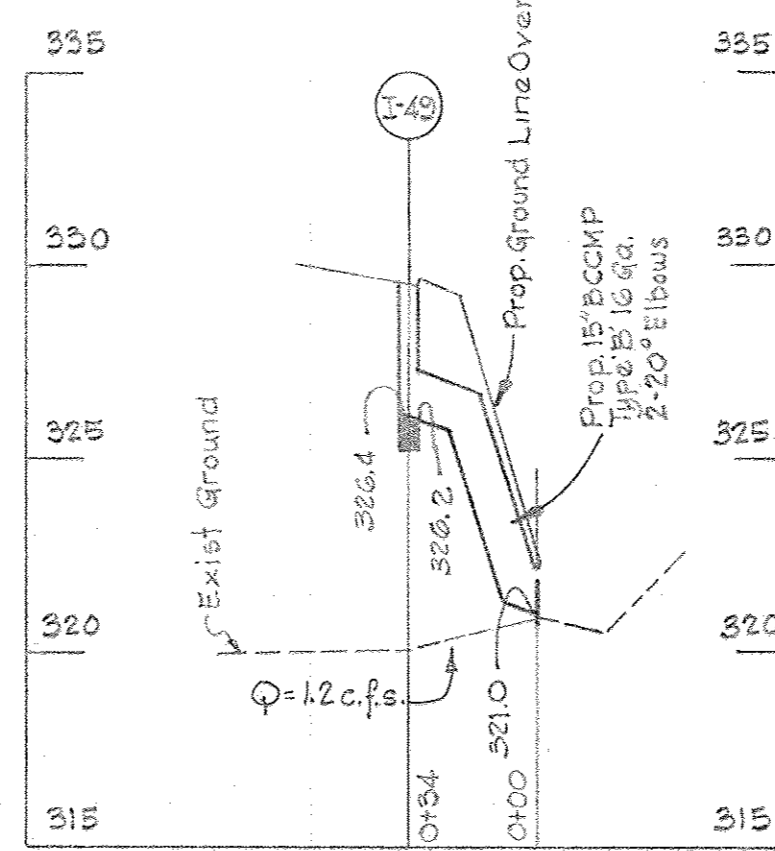
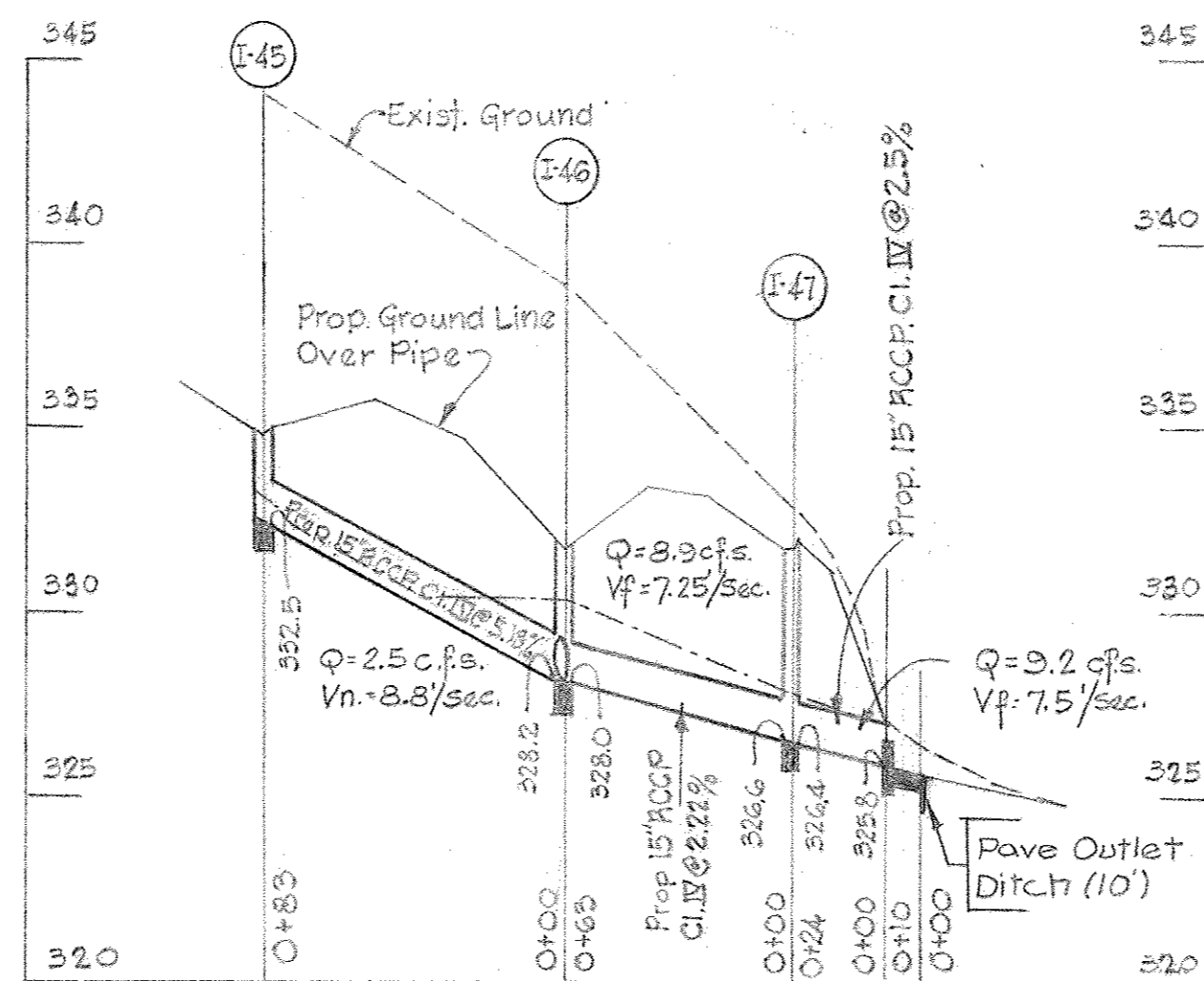
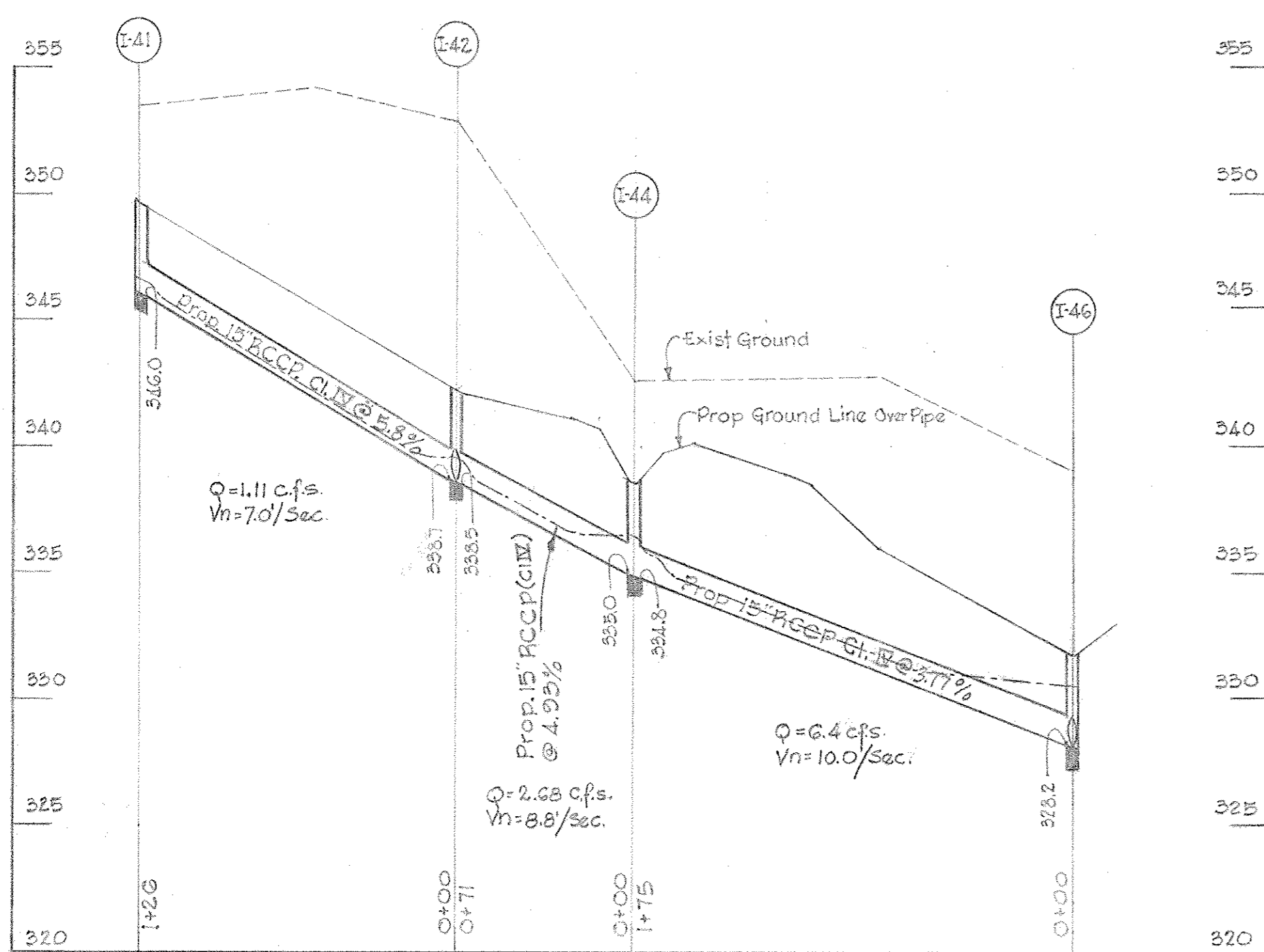
**CHANNEL PROTECTION
AT CULVERTS**
Note: To Be Constructed Where Noted On Plans

RUMMEL, KLEPPER & KAHL
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

NO ASBUILT INFORMATION 04/07/2017

Revised Sheet Number	1/10/67		
Manhole & Curb Type	9/22/66		
Description	By	Mans	Date
ESTIMOS			
DETAIL SHEET			
COLUMBIA			
Scale As Noted	Date	April 15, 1966	
Design By	Traced By	P.L.	
Checked By	Drawing No.	9 of 19	

H.G. Line (10 Yr. Storm) -----



NOTE: All Pipe Elbows Shown On This Sheet Are 20° 15' B.C.C.M.P. Type 'B' 16 Ga.

See Detail Sheet No. 9 For:
1. Typical Section Of Inlet & Outlet Ditch
2. Paving Details For Ditches

KUMMEL, KLEPPER & KAHL
CONSULTING ENGINEERS

NO ASBUILT INFORMATION 04/07/2017

Revised Sheet Number	1-10-67
W.P. & A. Comments	10-28-66
Added H.G. Line & Profile I-79	10-19-66

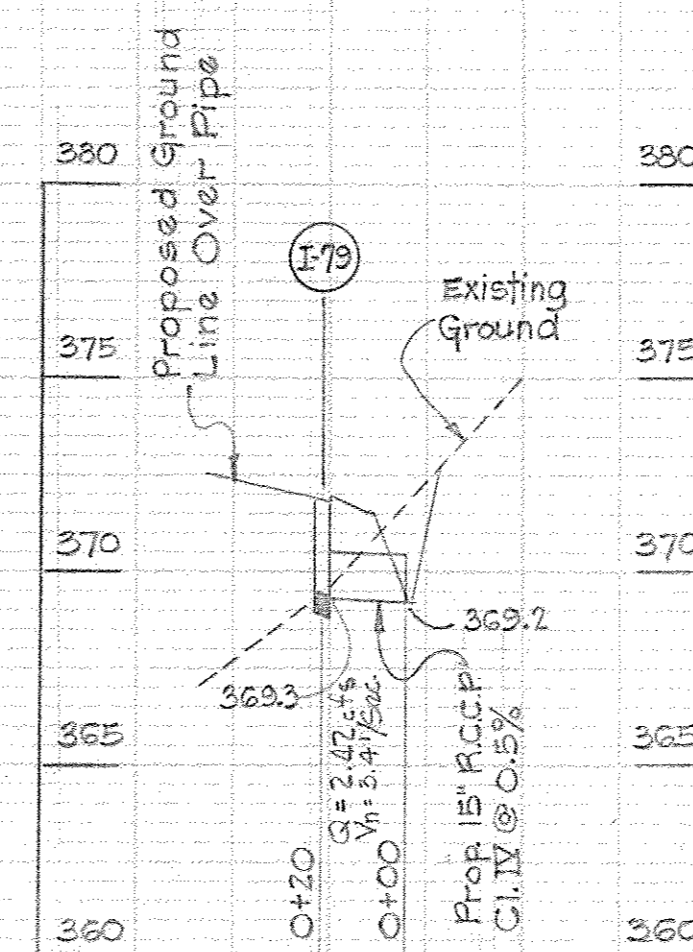
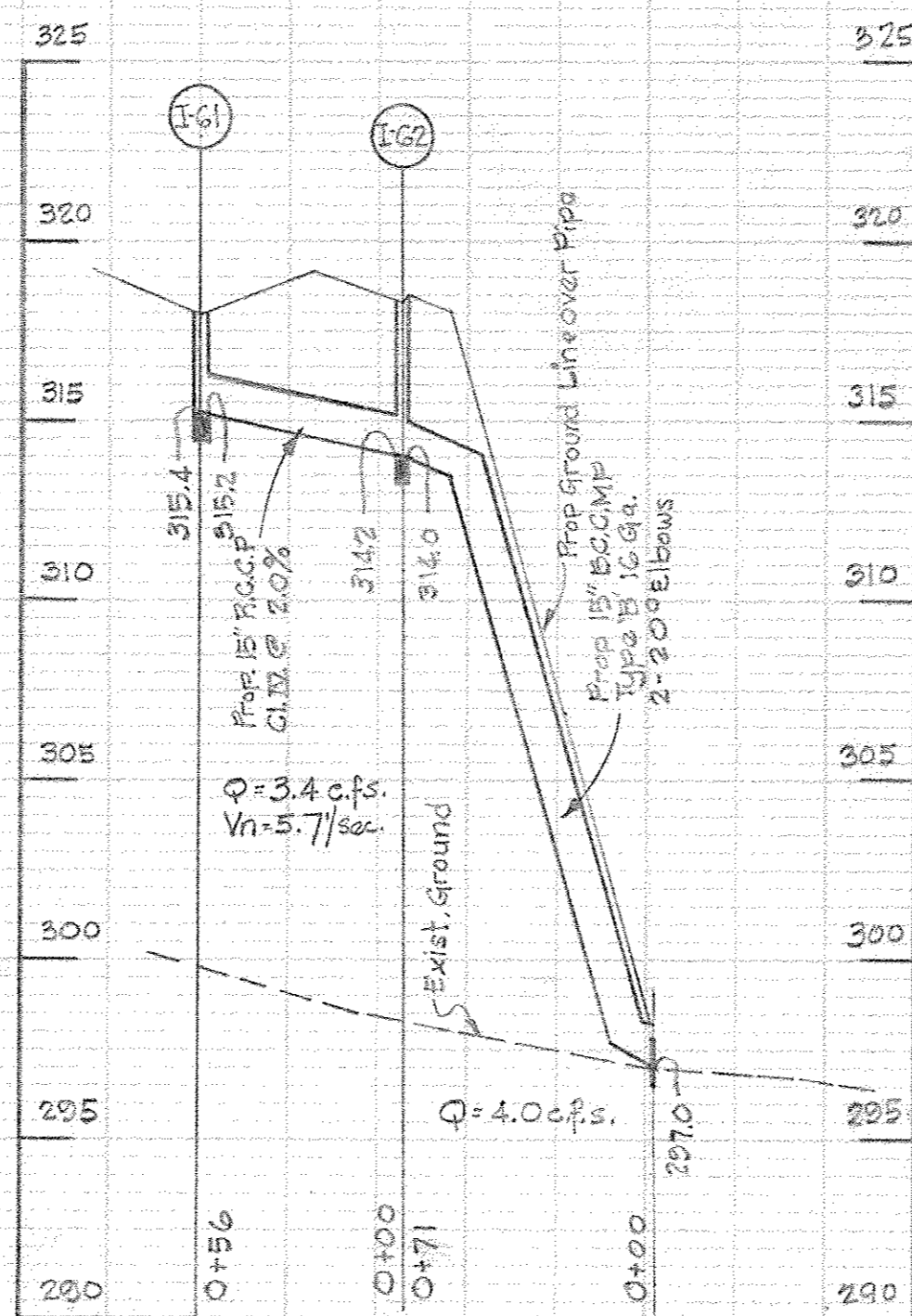
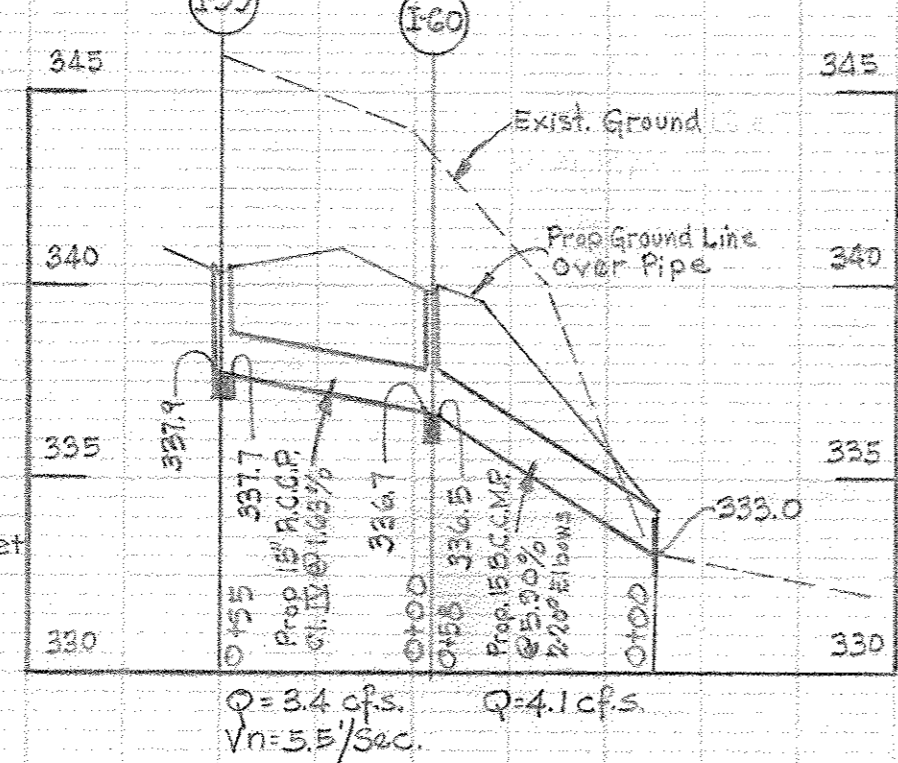
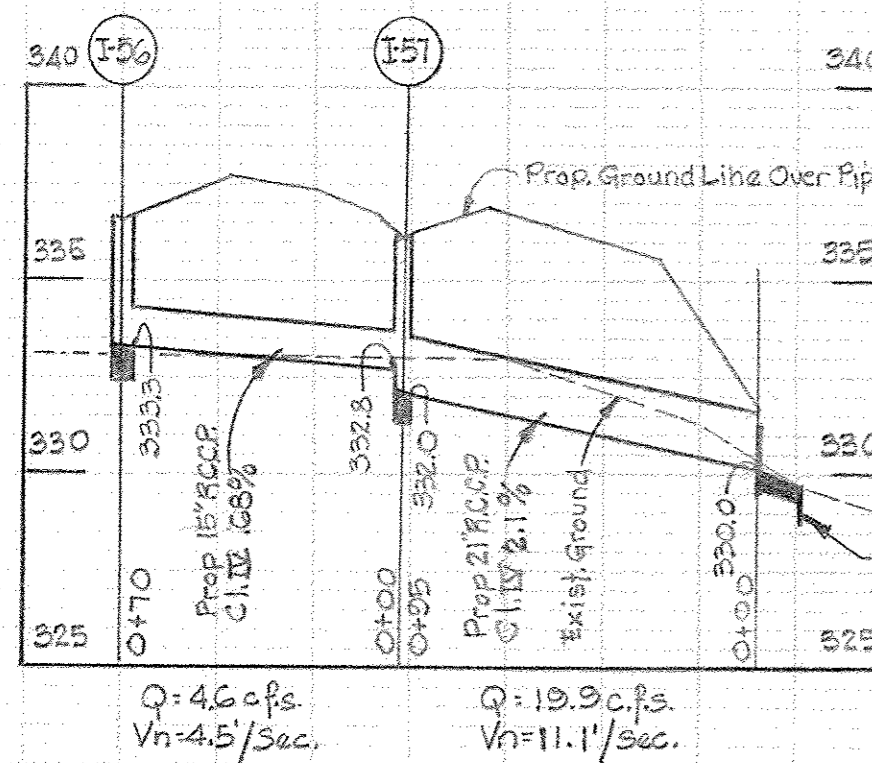
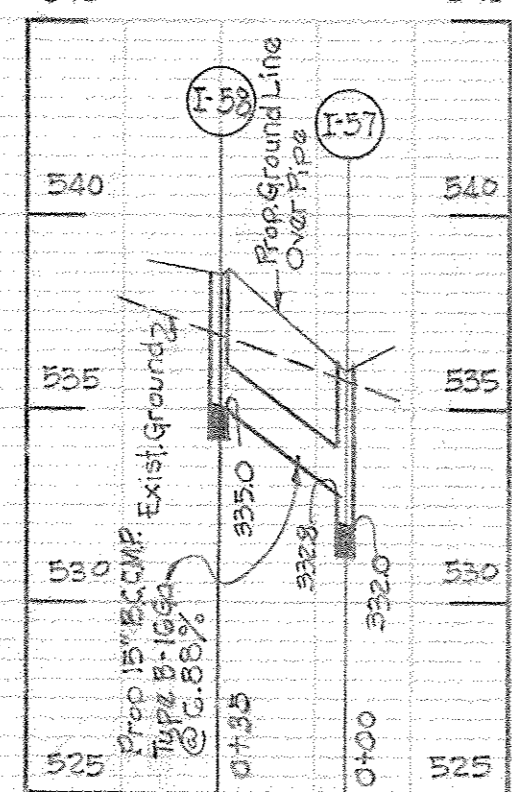
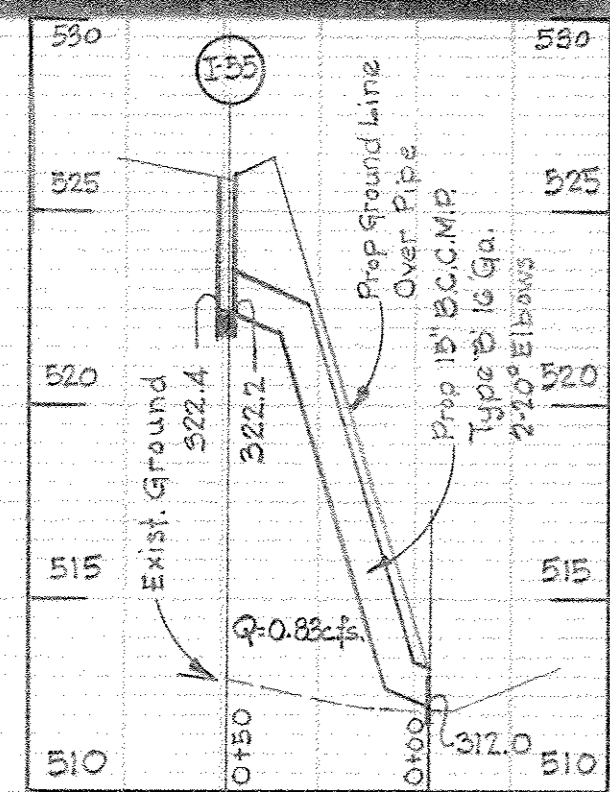
LITTLE PATIENT PARKWAY
STORM DRAIN PROFILES

COLUMBIA

Scale: 1"=30' Horiz. 1"=3' Vert. Date: Sept. 22, 1966

Design by: _____

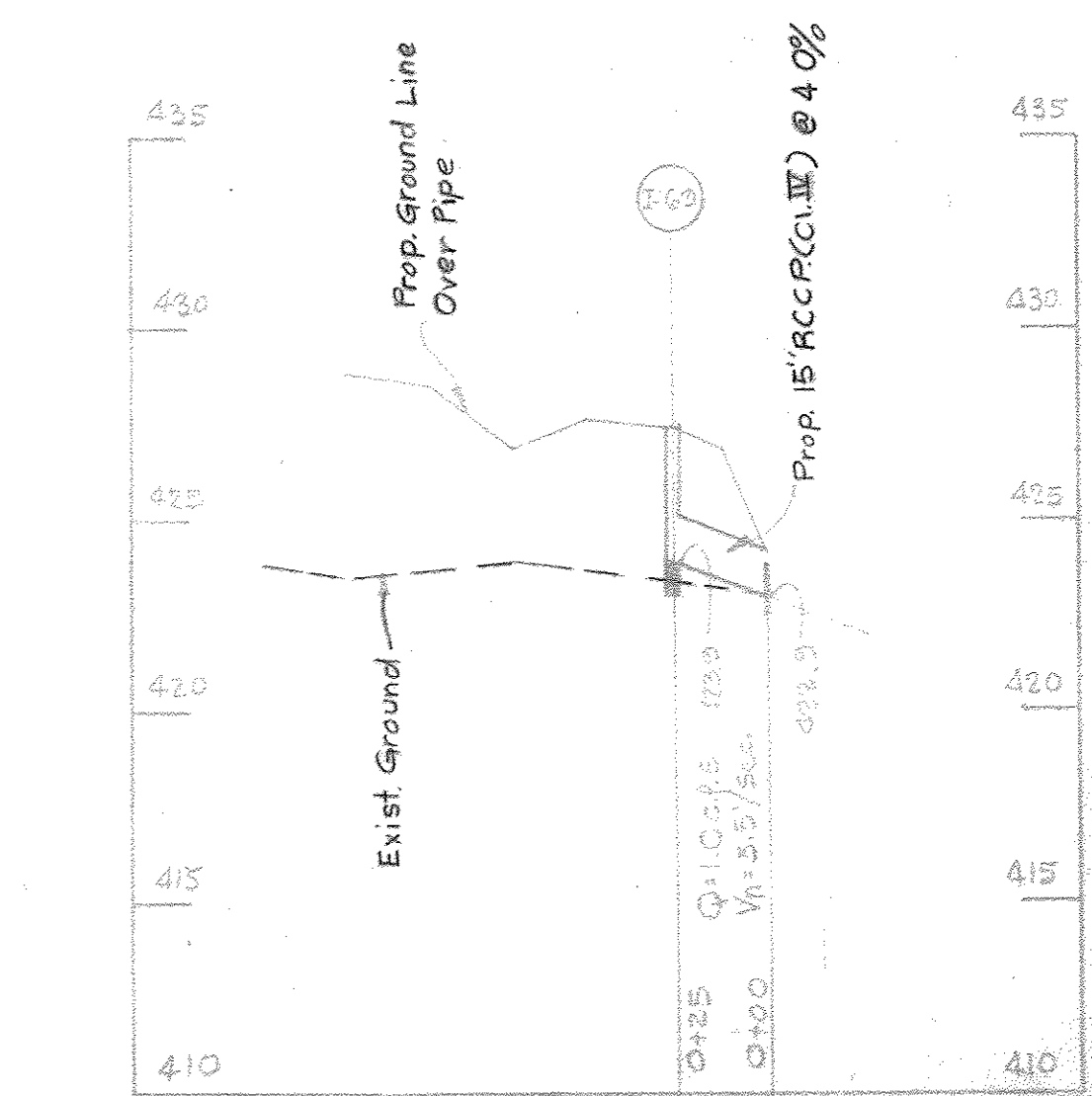
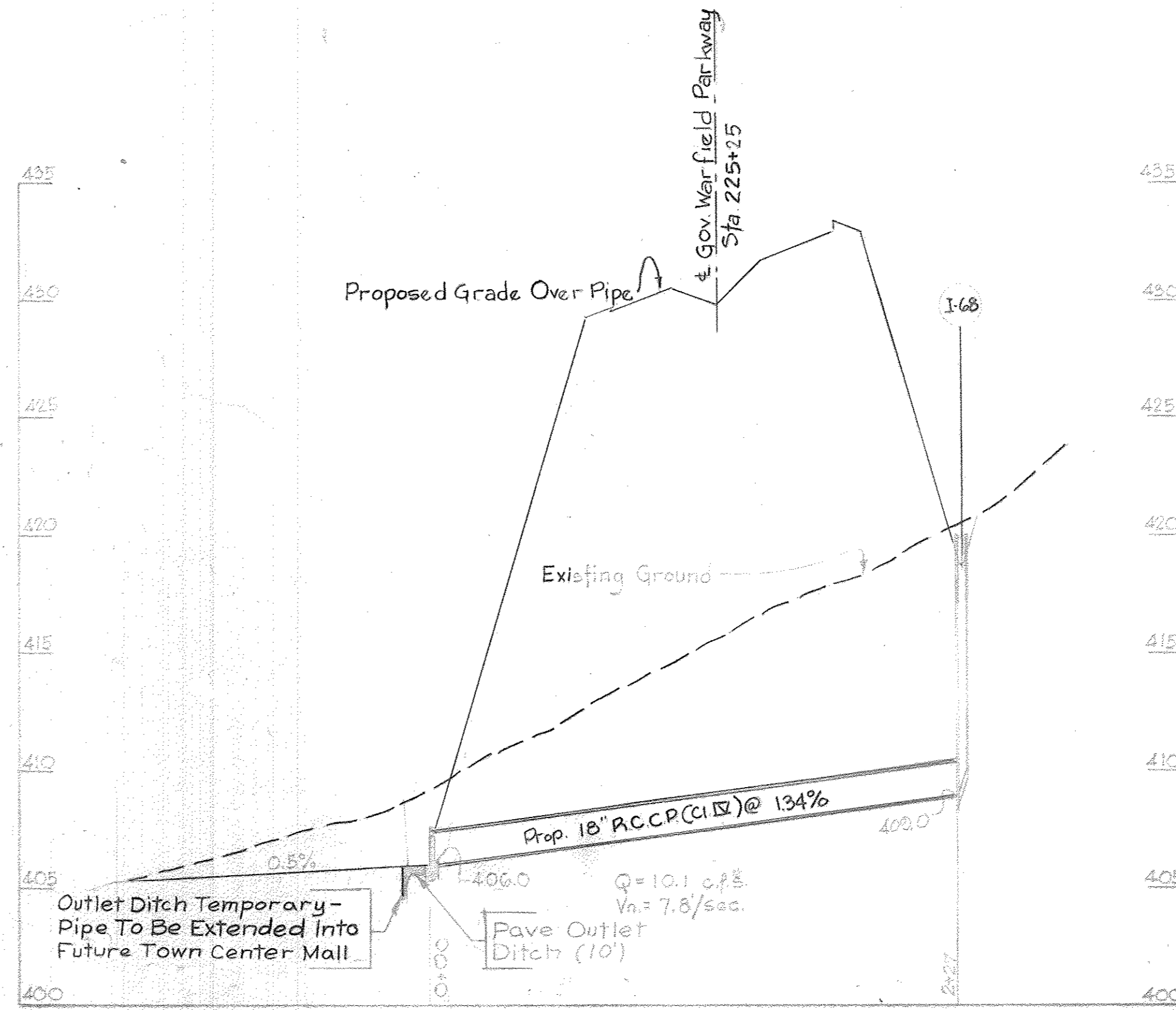
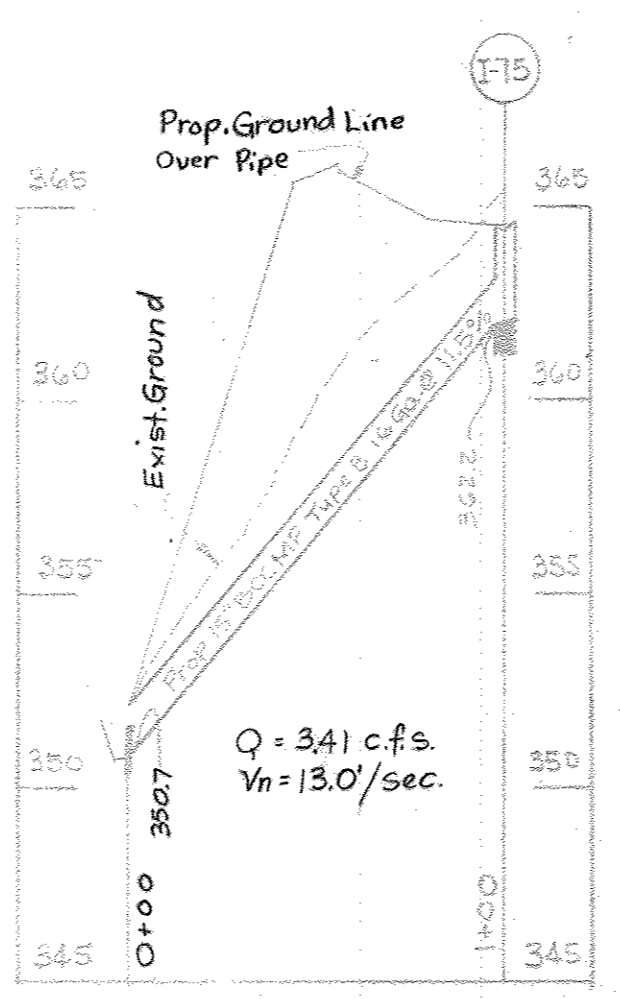
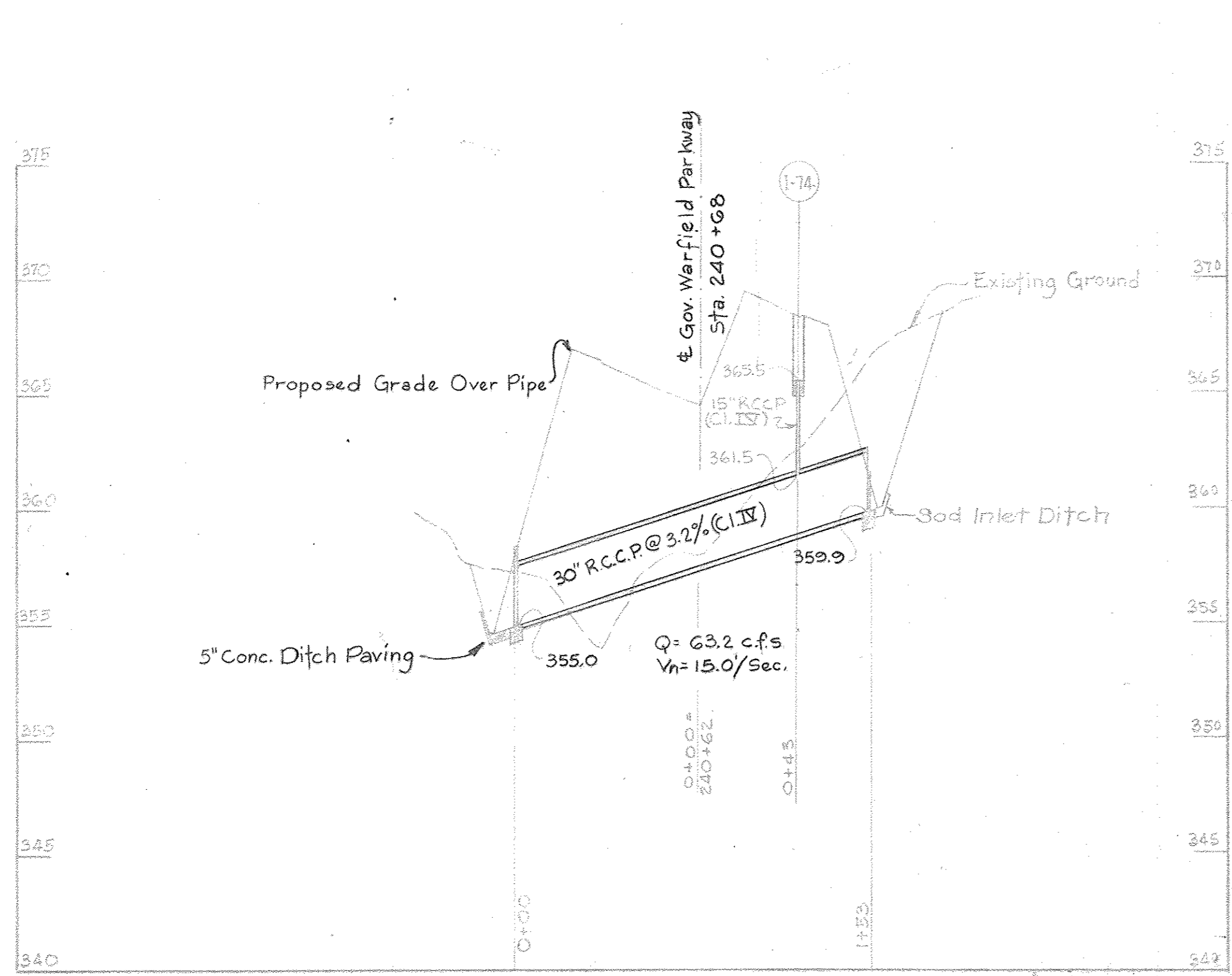
10-19



PLAN
 SURVEYED
 PLOTTED
 NOTE BOOK
 NO.

PROFILE
 SURVEYED
 PLOTTED
 NOTE BOOK
 NO.

RUMMEL, KLEPPER & KAHL
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND

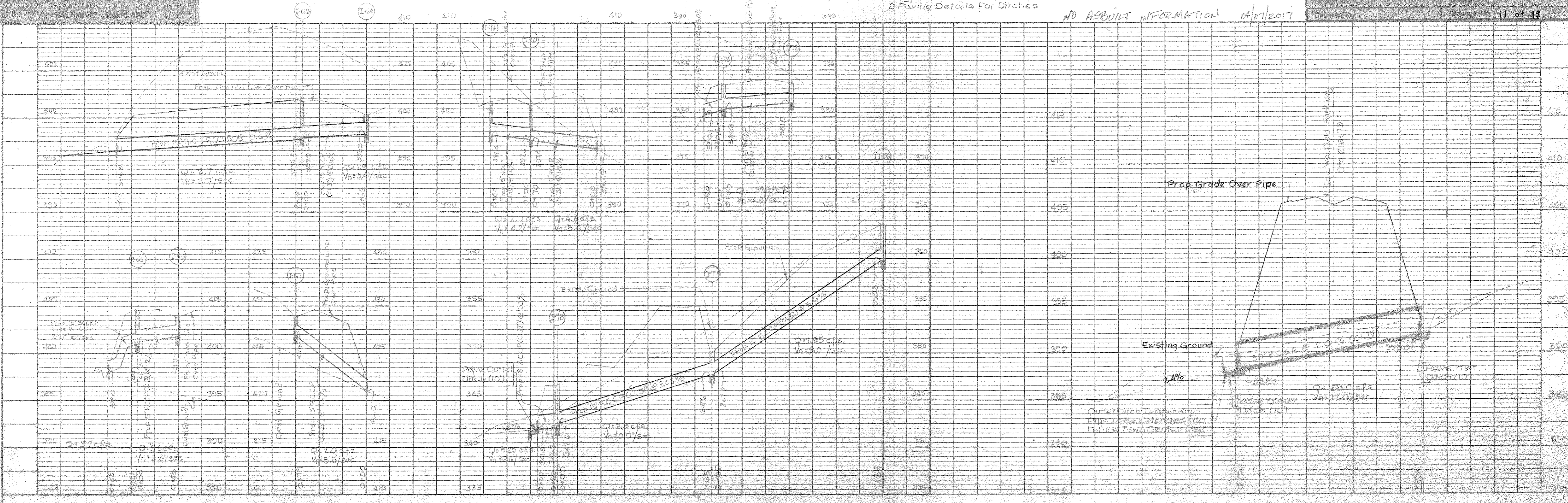


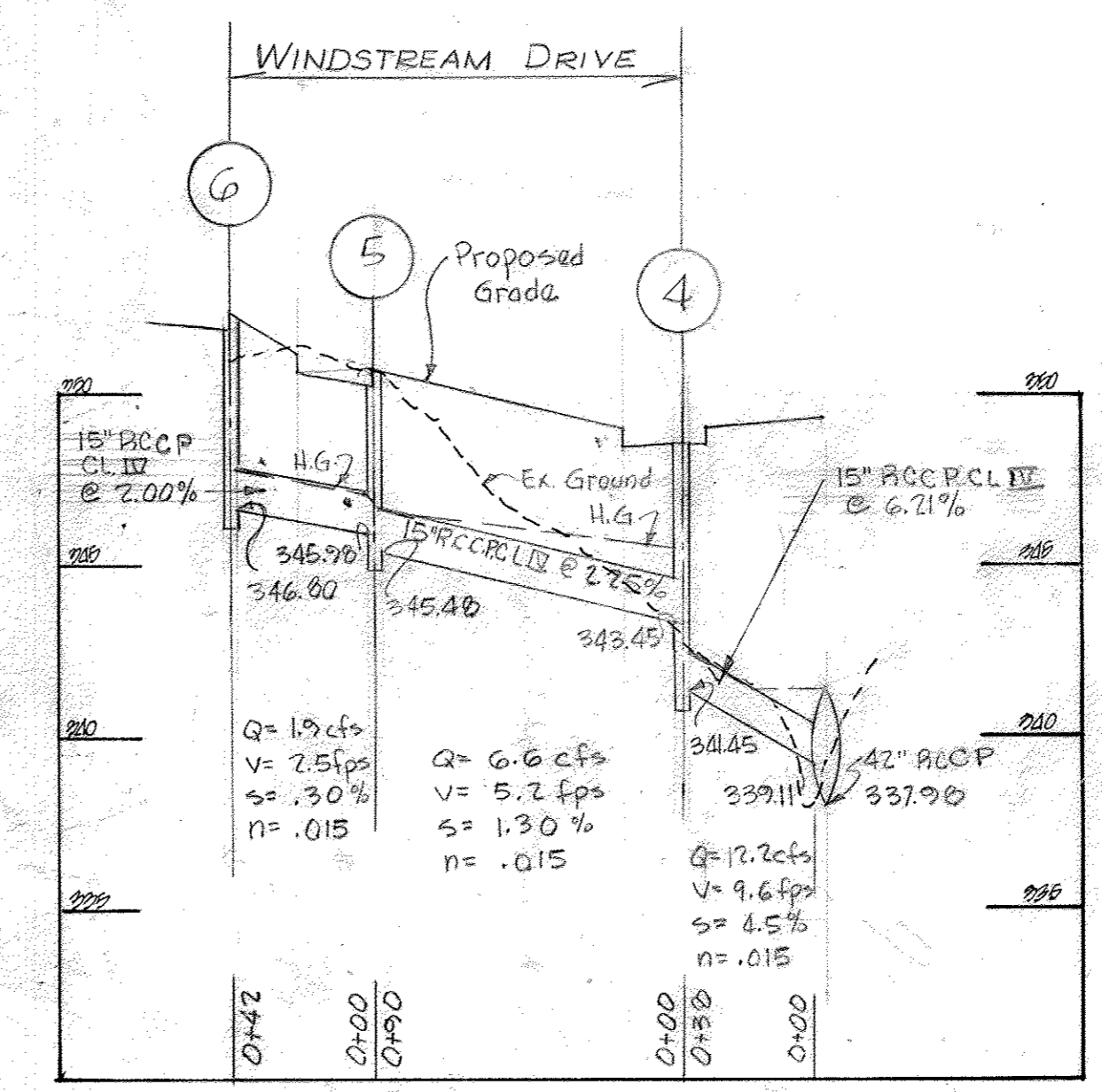
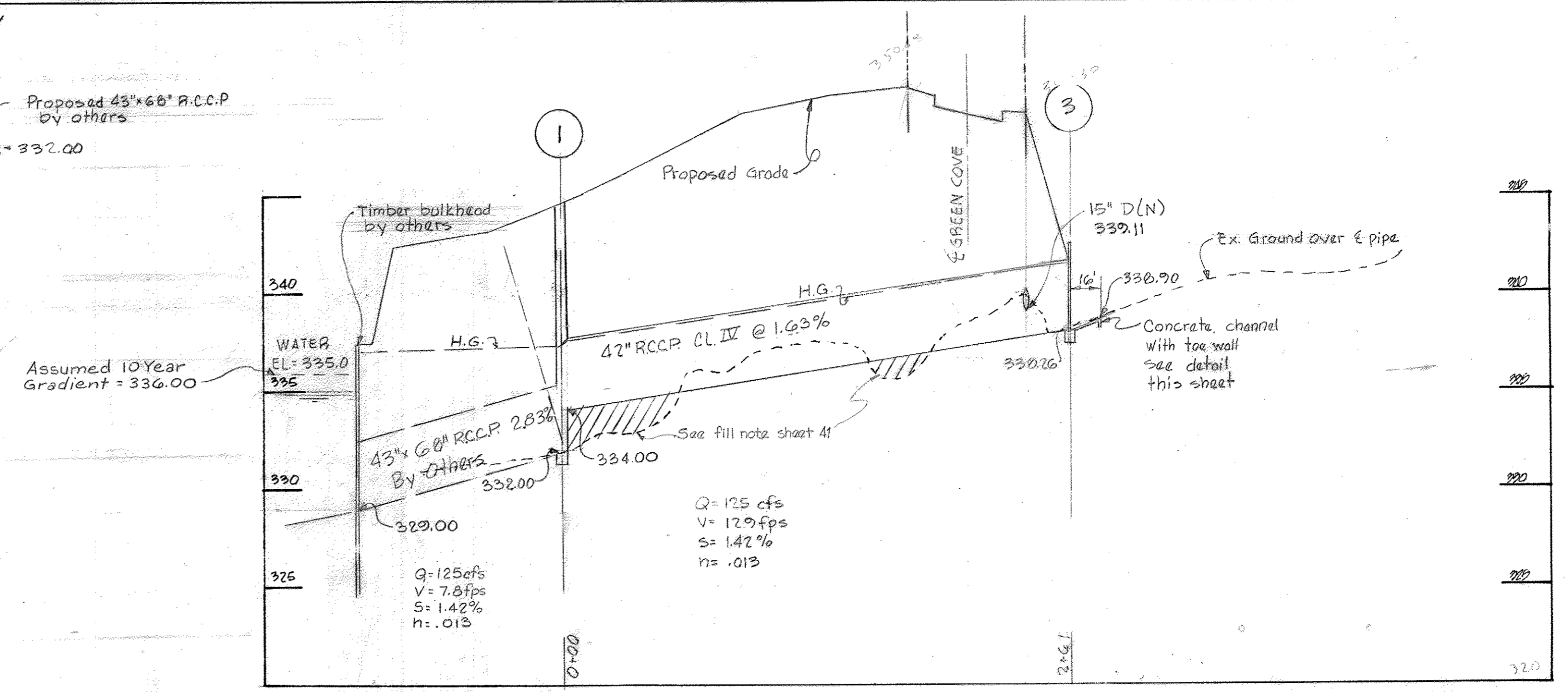
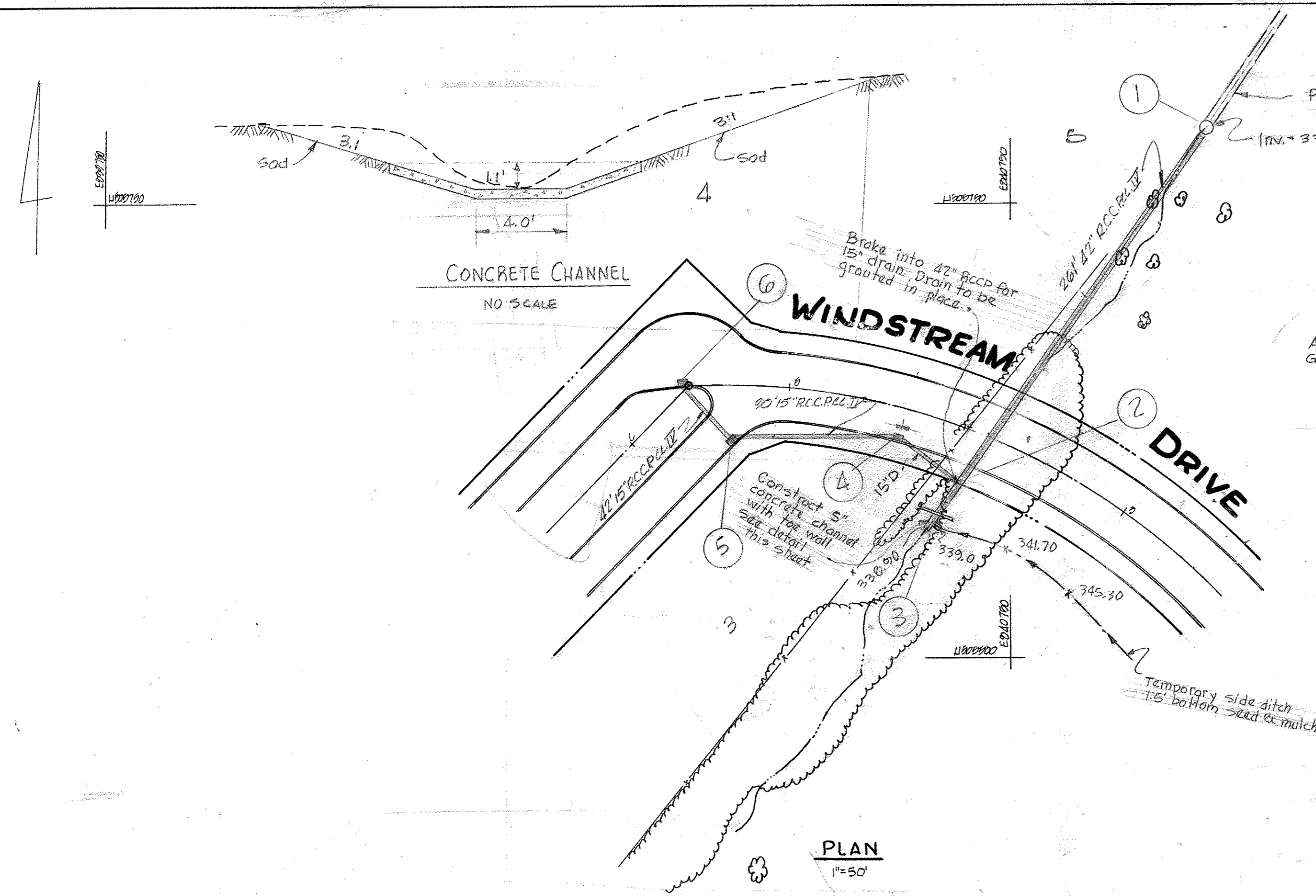
Revised Sheet No. 1-10-67
 W.R. & A. Comments 10-28-66

Description	By	Mark	Date
REVISION			
GOV. WARFIELD PARKWAY STORM DRAIN PROFILES			
COLUMBIA			
Scale: Horiz. 1"=50' Vert. 1"=5'	Date: Aug 22, 1966		
Design by:	Traced by:		
Checked by:	Drawing No. 11 of 12		

See Detail Sheet No. 9 For:
 1. Typical Section Of Inlet & Outlet Ditch
 2. Paving Details For Ditches

NO ASBUILT INFORMATION 01/07/2017





STORM DRAIN STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	T.C. ELEV.	INV. IN.	INV. OUT.	REMARKS
6	Mod. 5\"/>					

PROFILE
Hor: 1" = 50'
Ver: 1" = 5'

C.D. MESSICK JR. & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
21 WEST STREET ANAPOLIS, MARYLAND
Russell E. Lowman 9-8-66
RUSSELL E. LOWMAN L.S. NO. 3947 DATE

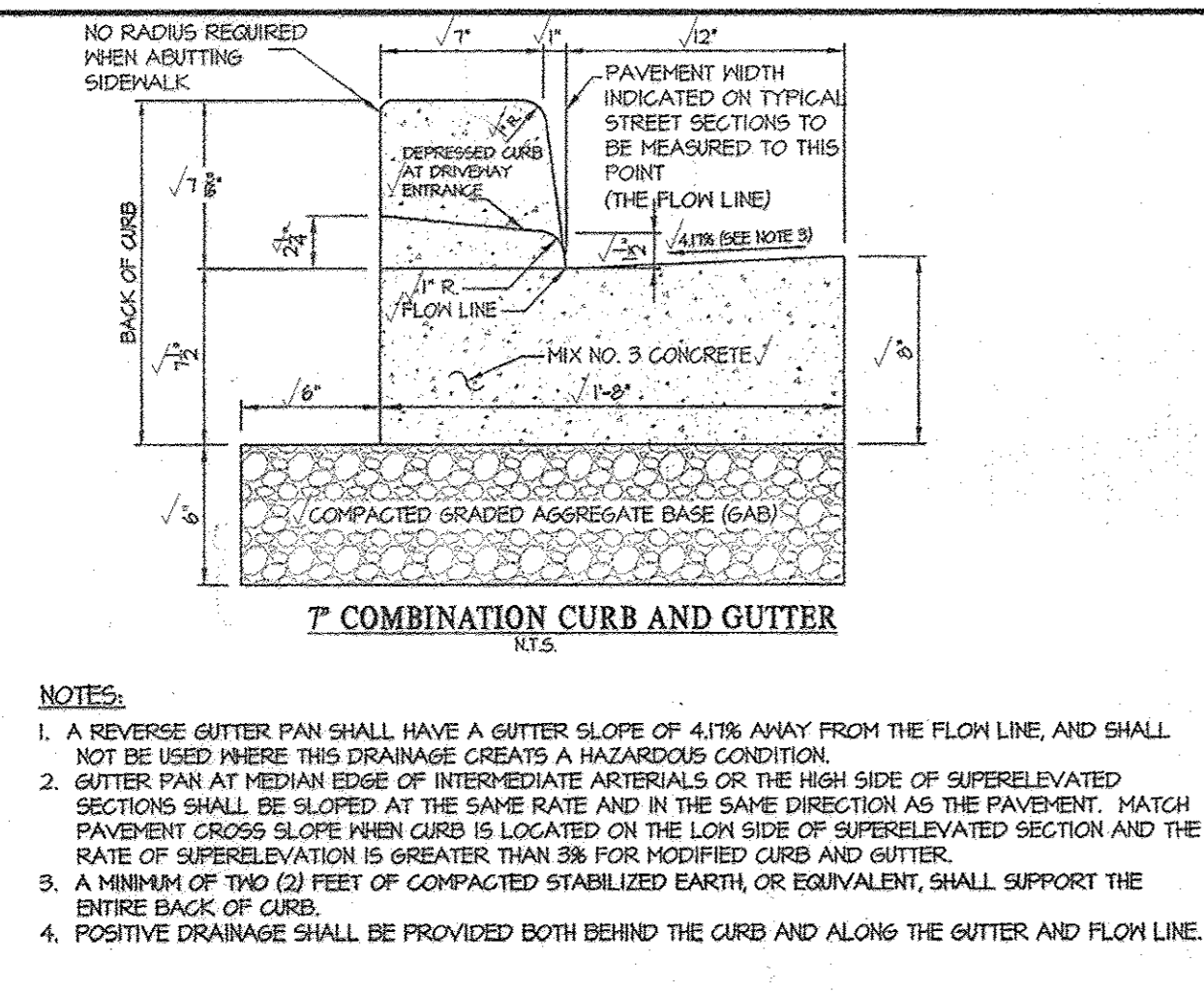
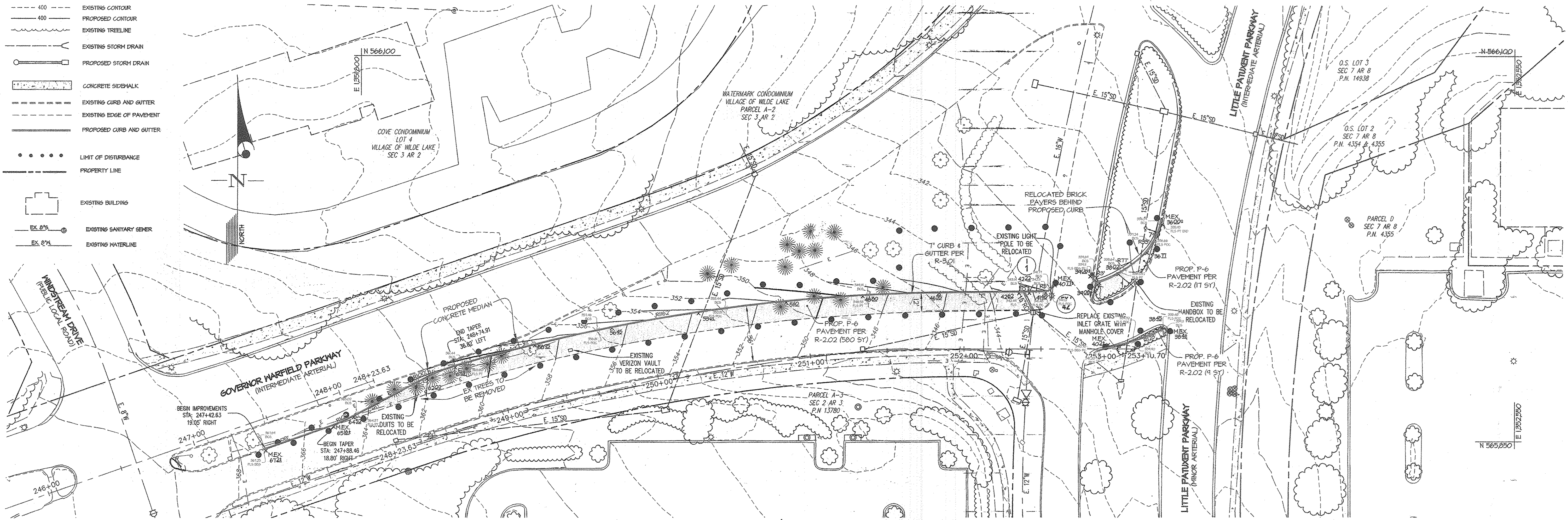


NO ABUSE INFORMATION 04/07/2017

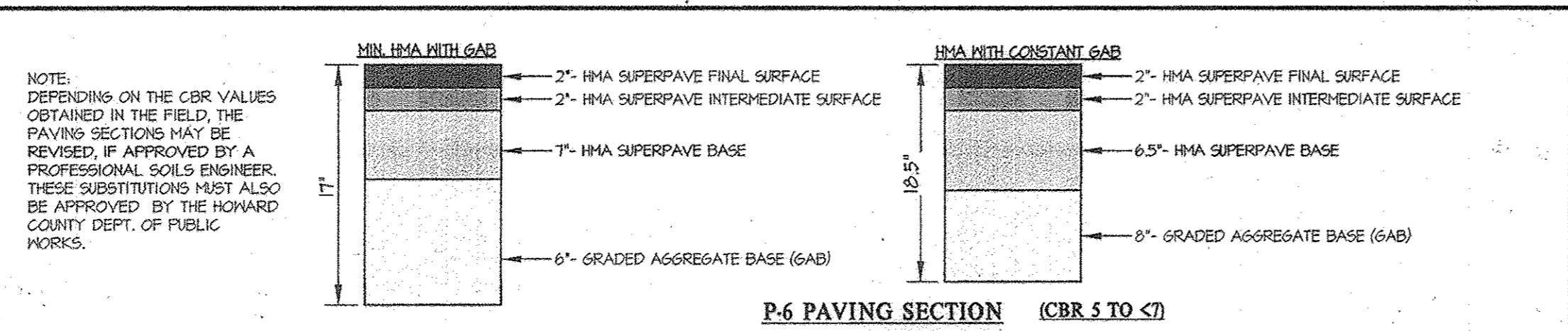
REVISED SHEET NUMBER	JM.	1-10-67	
REVISED STREET NAME	JM.	12-1-66	
GENERAL STORM DRAIN REVISIONS	JAS	10-17-66	
DESCRIPTION	BY	MARK	DATE
REVISIONS			
VILLAGE OF WILDE LAKE SECTION 3 WILDE LAKE & PORTOFINO COLUMBIA SYSTEM "N" STORM DRAIN			
SCALE: As shown	DATE: NOV. 1966		
DESIGNED BY: JAS	TRACED BY: JAS		
CHECKED BY:	DRAWING NO. 12 of 19		

LEGEND

- 400 --- EXISTING CONTOUR
- 400 --- PROPOSED CONTOUR
- --- EXISTING TREELINE
- --- EXISTING STORM DRAIN
- --- PROPOSED STORM DRAIN
- --- CONCRETE SIDEWALK
- --- EXISTING CURB AND GUTTER
- --- EXISTING EDGE OF PAVEMENT
- --- PROPOSED CURB AND GUTTER
- --- LIMIT OF DISTURBANCE
- --- PROPERTY LINE
- --- EXISTING BUILDING
- --- EX. 8" S --- EXISTING SANITARY SEWER
- --- EX. 8" W --- EXISTING WATERLINE

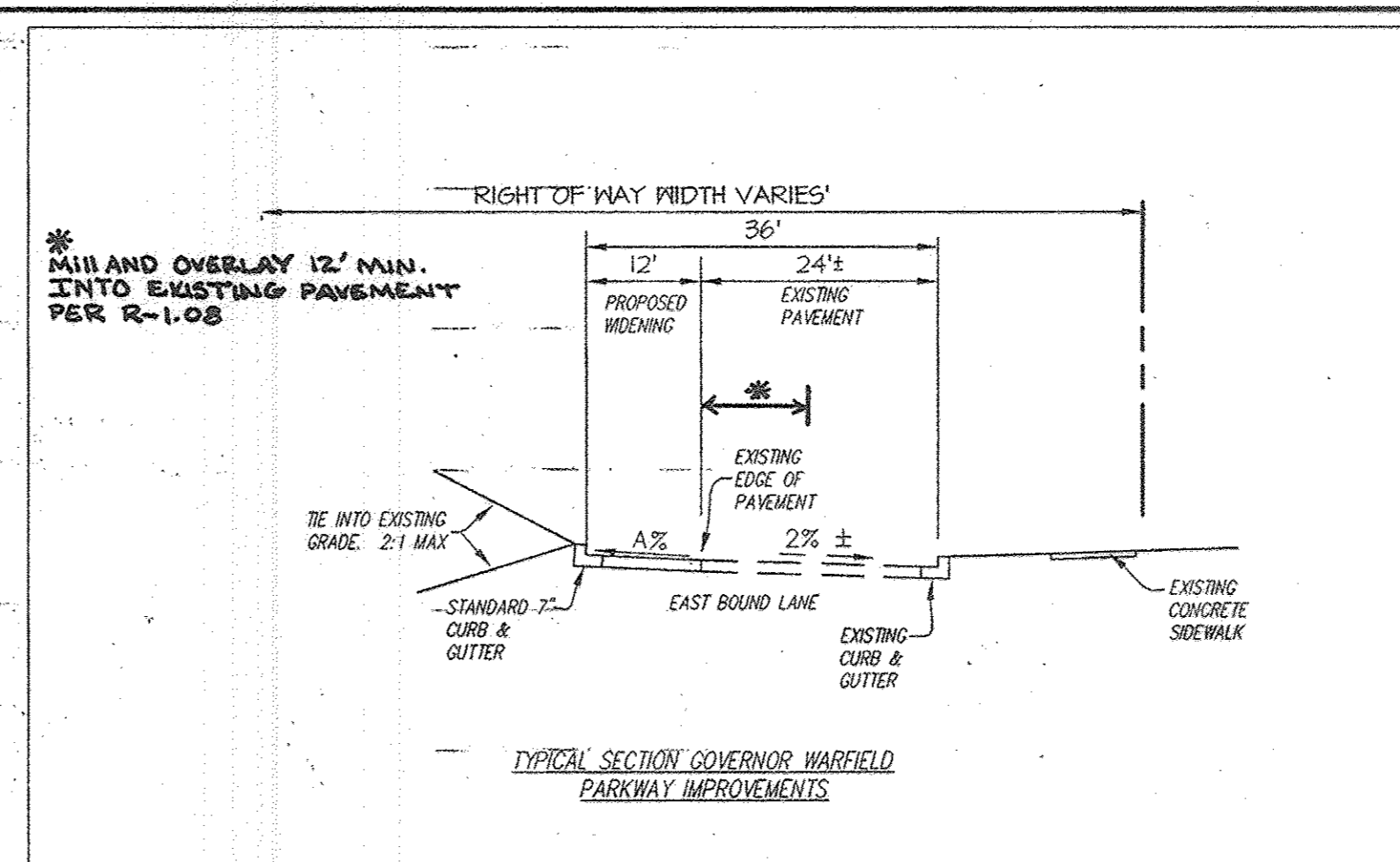


1 CURB DETAILS NO SCALE



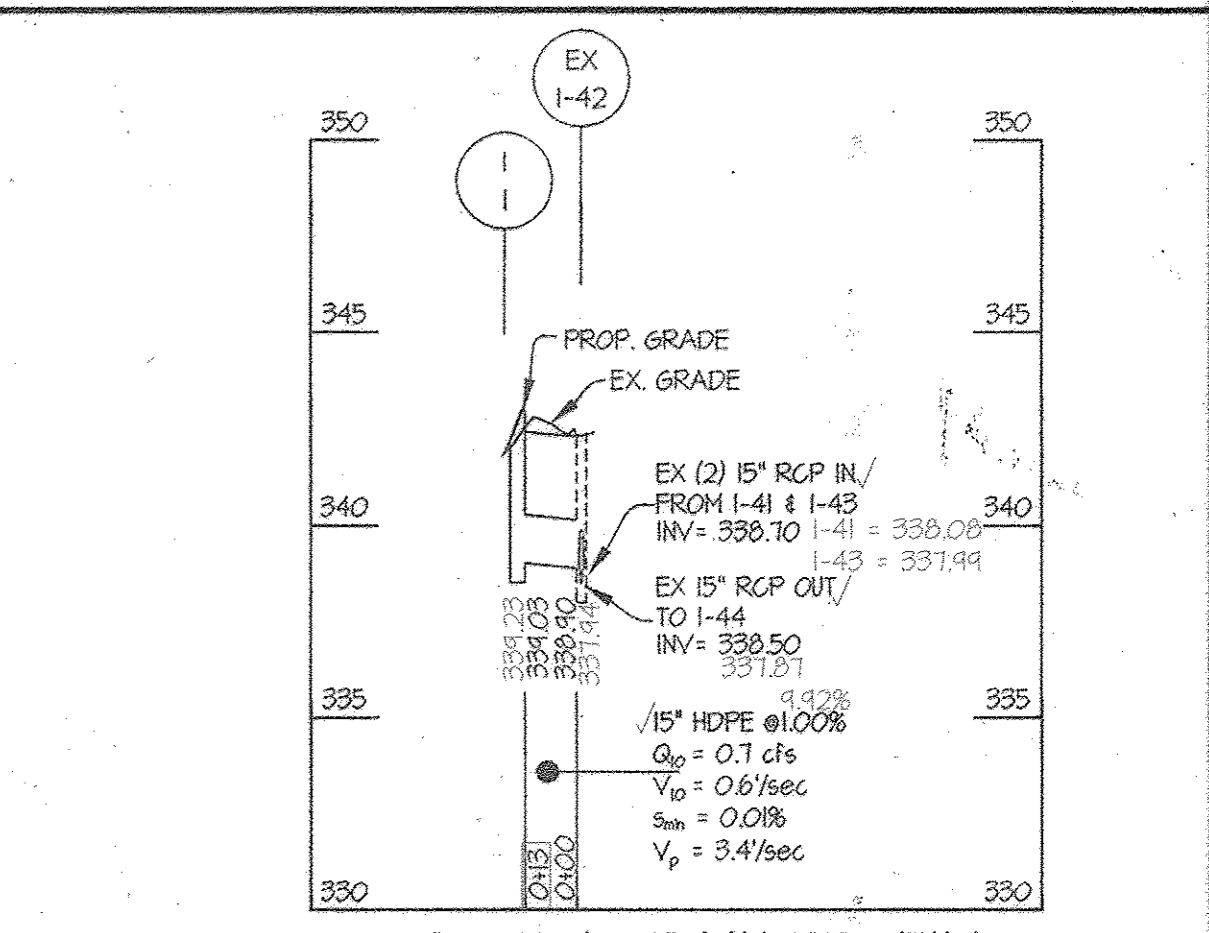
GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS HMA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/ BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT 410-313-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-251-7171 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III, SECTION 5.5.A. A MINIMUM OF 20 FEET SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY BENCHMARKS 306A AND 36AA WERE USED FOR THIS PROJECT.
- CONTOURS SHOWN WERE TAKEN FROM AERIAL TOPOGRAPHY PREPARED BY MCKENZIE-SYNDER DURING MARCH, 2007 AND SUPPLEMENTED BY A FIELD SURVEY PERFORMED BY GUTSCHICK LITTLE AND WEBER DATED AUGUST 2014.
- EXISTING UTILITIES WERE TAKEN FROM AVAILABLE HOWARD COUNTY RECORDS.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OF RADIALLY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
- GUTTER PAN OF CURBS SHALL BE PITCHED TO CONFORM TO THE ADJACENT DRAINAGE PATTERN OF THE ADJOINING PAVING FOR VEHICULAR USE.
- ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. SPOT ELEVATIONS ALONG CURB LINE ARE FOR THE FLOW LINE (BOTTOM OF CURB), UNLESS NOTED OTHERWISE.
- CONTRACTOR MAY USE THE HOWARD SCD STANDARD SEDIMENT CONTROL PLAN TO OBTAIN PERMITS.



GOV. WARFIELD PARKWAY - INFORMATION

STATION	SECTION	CLASSIFICATION	A	PAVING SECTION
248+14.91 TO 251+04.46	TYPICAL	(INTERMEDIATE ARTERIAL)	28	P-6
251+04.46 TO 252+50.02	TYPICAL	(INTERMEDIATE ARTERIAL)	VARIABLES, SEE SPOT SHOTS ON PLAN	P-6



STORM DRAIN PIPE SCHEDULE

SIZE	TYPE	QUANTITY (L.F.)	REMARKS
15"	RCP	13'	

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 1/29/2015

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date: 2-19-15

Chief, Development Engineering Division
 Date: 2-17-15

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 No. 12915, Expiration Date: May 26, 2018.

Date: 4/7/17
 Carl K. Gutschick
 Professional Engineer
 Maryland Reg. No. 12915

ASBUILTS

STRUCTURE SCHEDULE

NO.	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STD. DETAIL	LOCATIONS	REMARKS
			UPPER	LOWER	UPPER	LOWER			
I-1	A-5 INLET	2' - 6"	343.20	342.80	339.03	334.23	HO. CO. SD-4.01		

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3009 NATIONAL DRIVE - SUITE 200 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

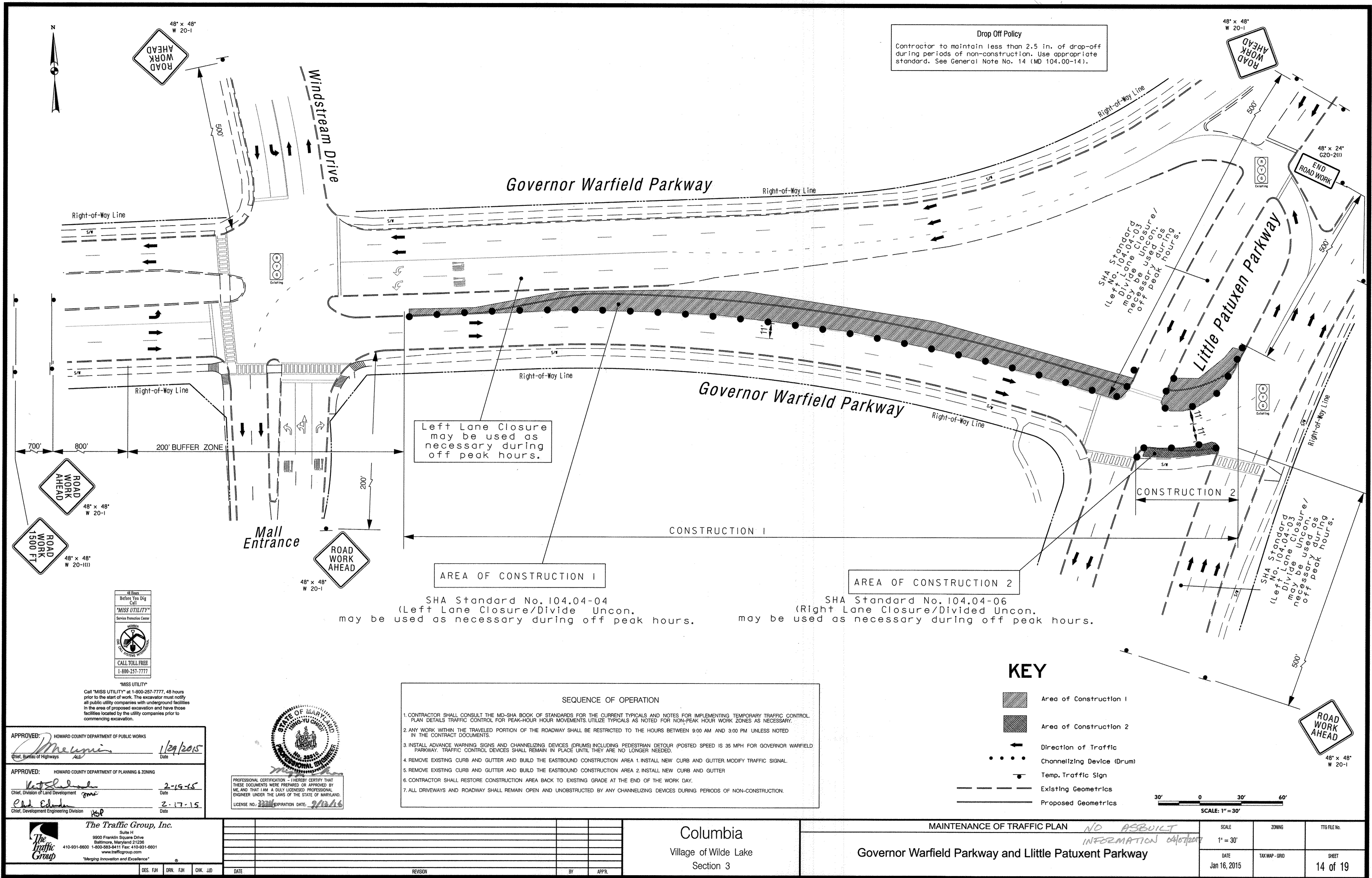
PREPARED FOR:
 LPP INVESTORS LLC
 10211 WINCOPIN CIRCLE
 SUITE 100
 COLUMBIA, MD 21044
 Attn: DAVID COSTELLO
 410-740-9500

GRADING PLAN FOR GOV. WARFIELD IMPROVEMENTS

COLUMBIA VILLAGE OF WILDE LAKE SECTION 3

ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	NT	12069
DATE APR. 2017 JAN., 2015	TAX MAP - GRID 30-20	SHEET 13 OF 19



Drop Off Policy
 Contractor to maintain less than 2.5 in. of drop-off during periods of non-construction. Use appropriate standard. See General Note No. 14 (MD 104.00-14).

Left Lane Closure may be used as necessary during off peak hours.

AREA OF CONSTRUCTION 1

SHA Standard No. 104.04-04 (Left Lane Closure/Divide Uncon. may be used as necessary during off peak hours.

AREA OF CONSTRUCTION 2

SHA Standard No. 104.04-06 (Right Lane Closure/Divided Uncon. may be used as necessary during off peak hours.

- SEQUENCE OF OPERATION**
1. CONTRACTOR SHALL CONSULT THE MD-SHA BOOK OF STANDARDS FOR THE CURRENT TYPICALS AND NOTES FOR IMPLEMENTING TEMPORARY TRAFFIC CONTROL. PLAN DETAILS TRAFFIC CONTROL FOR PEAK-HOUR HOUR MOVEMENTS. UTILIZE TYPICALS AS NOTED FOR NON-PEAK HOUR WORK ZONES AS NECESSARY.
 2. ANY WORK WITHIN THE TRAVELED PORTION OF THE ROADWAY SHALL BE RESTRICTED TO THE HOURS BETWEEN 9:00 AM AND 3:00 PM UNLESS NOTED IN THE CONTRACT DOCUMENTS.
 3. INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES (DRUMS) INCLUDING PEDESTRIAN DETOUR (POSTED SPEED IS 35 MPH FOR GOVERNOR WARFIELD PARKWAY. TRAFFIC CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THEY ARE NO LONGER NEEDED).
 4. REMOVE EXISTING CURB AND GUTTER AND BUILD THE EASTBOUND CONSTRUCTION AREA 1. INSTALL NEW CURB AND GUTTER. MODIFY TRAFFIC SIGNAL.
 5. REMOVE EXISTING CURB AND GUTTER AND BUILD THE EASTBOUND CONSTRUCTION AREA 2. INSTALL NEW CURB AND GUTTER.
 6. CONTRACTOR SHALL RESTORE CONSTRUCTION AREA BACK TO EXISTING GRADE AT THE END OF THE WORK DAY.
 7. ALL DRIVEWAYS AND ROADWAY SHALL REMAIN OPEN AND UNOBSTRUCTED BY ANY CHANNELIZING DEVICES DURING PERIODS OF NON-CONSTRUCTION.

KEY

- Area of Construction 1
- Area of Construction 2
- Direction of Traffic
- Channelizing Device (Drum)
- Temp. Traffic Sign
- Existing Geometrics
- Proposed Geometrics

SCALE: 1" = 30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 1/29/2015

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date: 2-19-15

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division
 Date: 2-17-15

STATE OF MARYLAND
 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 NO. 23244 EXPIRATION DATE: 9/12/16

The Traffic Group, Inc.
 Suite H
 9900 Franklin Square Drive
 Baltimore, Maryland 21286
 410-931-6600 1-800-583-8411 Fax: 410-931-6601
 www.trafficgroup.com
 "Merging Innovation and Excellence"

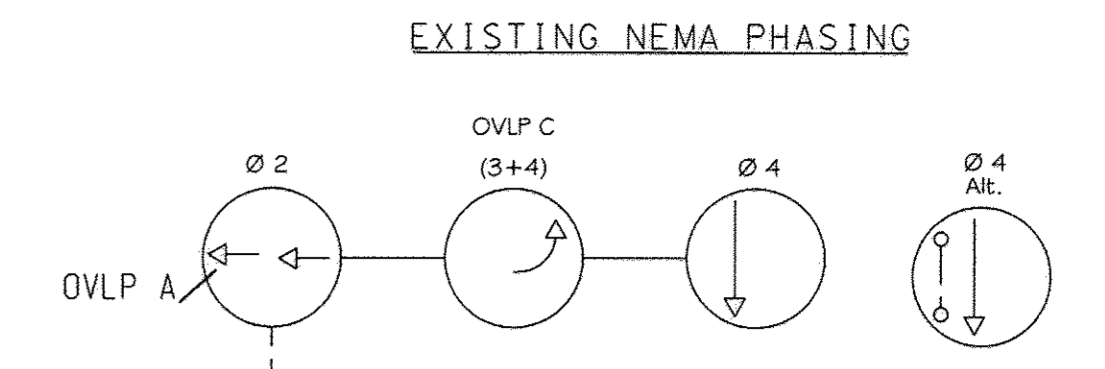
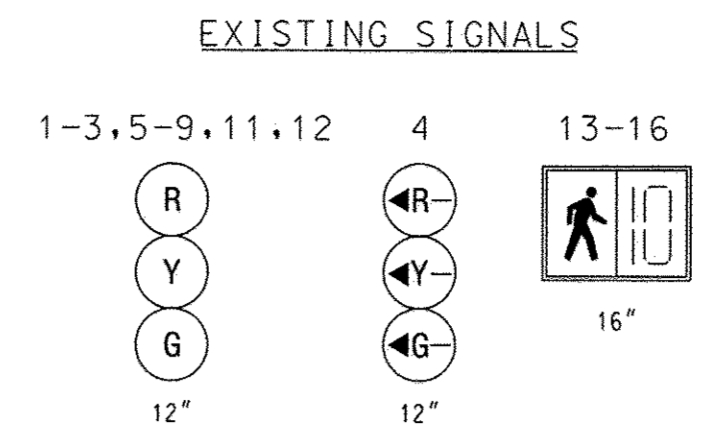
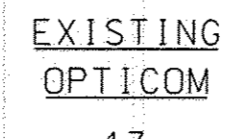
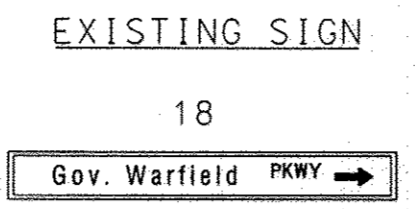
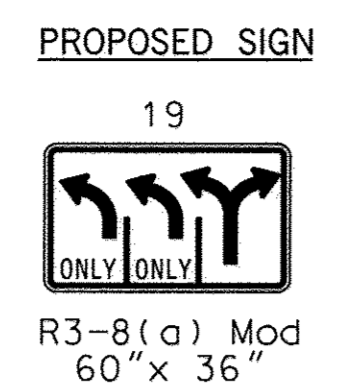
DES.	F.H.	ORN.	F.H.	CHK.	J.D.	DATE	REVISION	BY	APPR.

Columbia
 Village of Wilde Lake
 Section 3

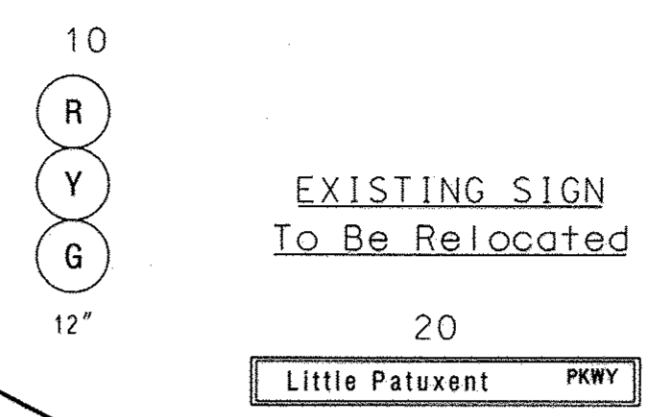
MAINTENANCE OF TRAFFIC PLAN
 NO ASBUILT INFORMATION
 Governor Warfield Parkway and Little Patuxent Parkway

SCALE	ZONING	TTG FILE No.
1" = 30'		
DATE	TAX MAP - GRID	SHEET
Jan 16, 2015		14 of 19

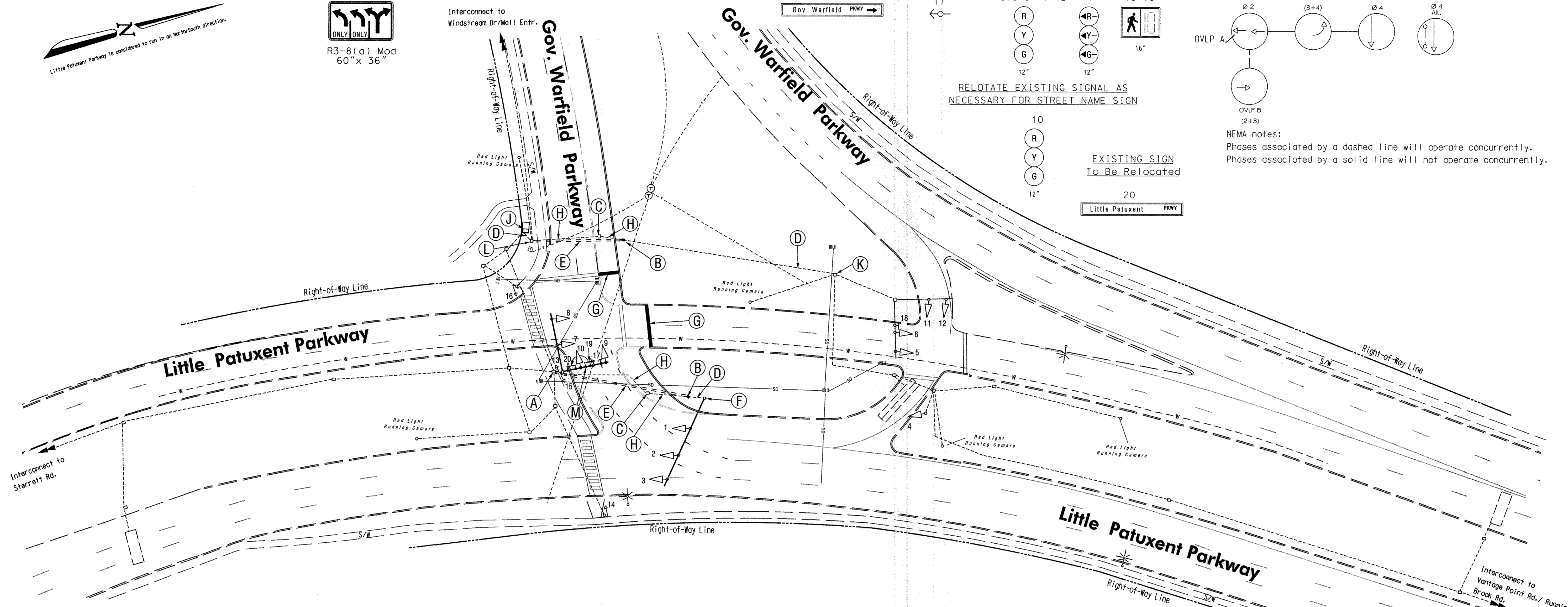
Little Patuxent Parkway is considered to run in an North/South direction.



RELOCATE EXISTING SIGNAL AS NECESSARY FOR STREET NAME SIGN



NEMA notes:
Phases associated by a dashed line will operate concurrently.
Phases associated by a solid line will not operate concurrently.



CONSTRUCTION DETAILS

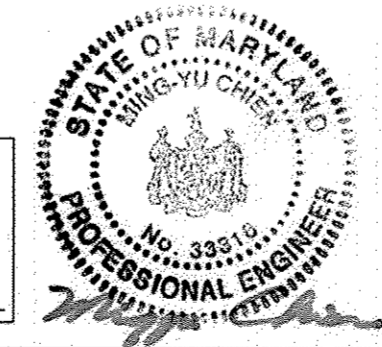
- A. USE EXISTING HANDBOX. PULL BACK EXISTING TRAFFIC SIGNAL CABLES FROM THE SIGNAL POLE AND RERUN IN NEW CONDUIT BACK TO SIGNAL POLE.
- B. INSTALL HANDBOX ON EXISTING CONDUIT RUN.
- C. REMOVE EXISTING HANDBOX.
- D. USE EXISTING CONDUIT.
- E. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.
- F. USE EXISTING MAST ARM POLE. REWIRE EXISTING HEAD WITH EXISTING CABLES.
- G. PAVEMENT MARKING FOR STOP LINE INSTALL SHOWN ON PAVEMENT MARKING PLAN.
- H. CAP AND ABANDON EXISTING CONDUIT.
- J. USE EXISTING CABINET.
- K. USE EXISTING HANDBOX. PULL BACK EXISTING TRAFFIC SIGNAL CABLES FROM CABINET AND RERUN IN NEW CONDUIT BACK TO CABINET.
- L. USE EXISTING HANDBOX.
- M. RELOCATE EXISTING STREET NAME SIGN AND SIGNALS. INSTALL NEW SIGN AS SHOWN.

LEGEND	
PROPOSED	EXISTING
MAST ARM	TRAFFIC SIGNAL HEAD
PEDESTRIAN SIGNAL HEAD	SIGN
STREET LIGHT	HANDBOX
CONDUIT	CONDUIT
LOOP DETECTOR	CONTROLLER WITH PAD
WOOD POLE	FIRE HYDRANT
MANHOLE	W.V. WATER VALVE
G.V. GAS VALVE	G.V. GAS VALVE
GEOMETRICS	

UTILITY LEGEND

G	GAS MAIN
W	WATER MAIN
S	SEWER MAIN
SD	STORM DRAIN
TV	CABLE TELEVISION
E	ELECTRIC CABLES
T	TELEPHONE CABLES
A	AERIAL CABLES

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 NO. 22116 EXPIRATION DATE: 2/2/16



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development: 2-19-15
 Chief, Development Engineering Division: 2-18-15

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
 Director of Public Works: 2/2/15
 Chief, Bureau of Highways: 1/29/2015

The Traffic Group
 Suite H
 9800 Franklin Square Dr.
 Baltimore, Maryland
 410-931-6600
 1-800-983-6411
 Fax: 410-931-6601

DES:	DRN:	CHK:	DATE:	BY:	NO.	REVISION	DATE:
FJH	FJH	FJH	Jan 16, 2015				
		J.J.D.			2	GEOMETRIC CHANGES	1/16/2015
		S.D.			1	AS-BUILT	4/4/2006

Columbia
 Village of Wilde Lake
 Section 3

TRAFFIC SIGNAL PLAN
 Little Patuxent Parkway
 at
 Governor Warfield Parkway

SCALE:
1" = 30'
 SHEET
15 OF 19

NO ASBUILT INFORMATION 04/07/2017

PROJECT DESCRIPTION

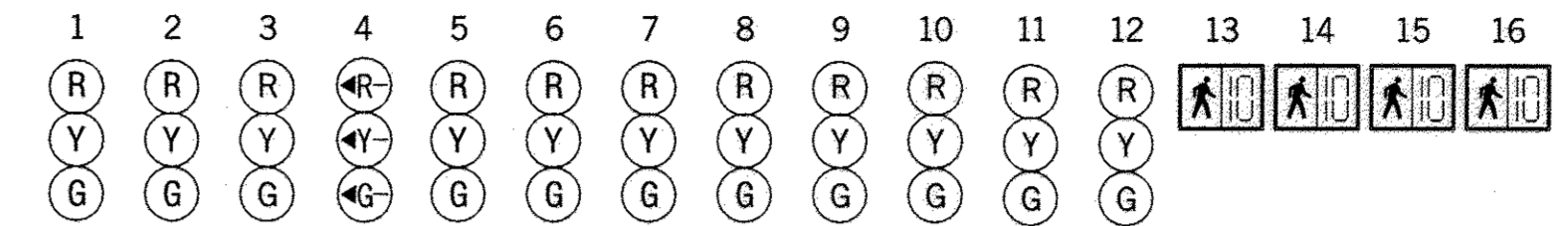
GENERAL
 THIS PROJECT INVOLVES THE MODIFICATION OF THE GEOMETRICS FOR EASTBOUND GOVERNOR WARFIELD PARKWAY
 THE SIGNAL OPERATION WILL REMAIN UNCHANGED.
 LITTLE PATUXENT PARKWAY IS CONSIDERED TO RUN IN A NORTH/ SOUTH DIRECTION.

EQUIPMENT LIST

EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

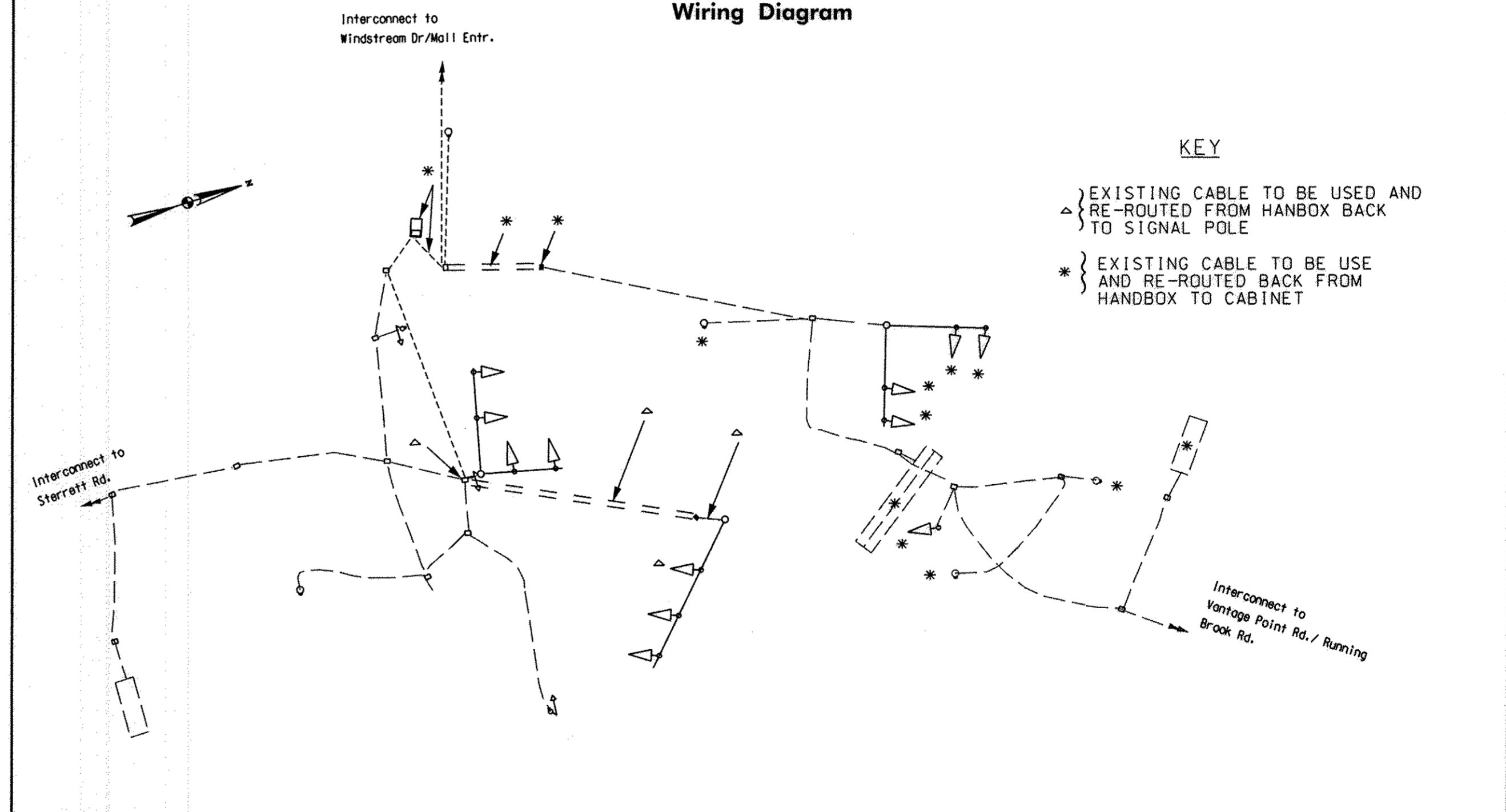
QUANTITY	UNITS	DESCRIPTION
LUMP SUM	LS	MAINTENANCE OF TRAFFIC
LUMP SUM	LS	MOBILIZATION
1	EA	60" x 36" R3-8(G) MOD SIGN WITH MAST ARM MOUNTING HARDWARE
2	EA	HANDBOX
145	LF	4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED
1	EA	RELOCATE EXISTING MAST ARM MOUNTED SIGN
1	EA	RELOCATE SIGNAL HEAD
LUMP SUM	LS	REMOVE EXISTING SIGNAL EQUIPMENT
LUMP SUM	LS	RE-ROUTE EXISTING CABLES (APROX 1200 LF)

Phase Chart



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 2 AND OVLP B	G	G	G	←R	G	G	G	G	R	R	R	R	DW	DW	DW	DW
2 CHANGE	G	G	G	←R	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW
OVLP B AND OVLP C	G	G	G	←G	R	R	R	R	R	R	G	G	DW	DW	DW	DW
OVLP B CHANGE	Y	Y	Y	←G	R	R	R	R	R	R	G	G	DW	DW	DW	DW
OVLP C AND PHASE 4	R	R	R	←G	R	R	R	R	G	G	G	G	DW	DW	DW	DW
OVLP C AND 4 CHANGE	R	R	R	←Y	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
OVLP C AND PHASE ALT 4	R	R	R	←G	R	R	R	R	G	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW
PED CLEARANCE	R	R	R	←G	R	R	R	R	G	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW
OVLP C AND ALT 4 CHANGE	R	R	R	←Y	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/←R	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

Wiring Diagram



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development. 2-19-15
 Chief Development Engineering Division. 2-18-15

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 NO.: 33316 EXPIRATION DATE: 2/12/16



NO ASBUILT INFORMATION 04/07/2017

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works. 2/2/2015
 Chief, Bureau of Highways. 1/29/2015

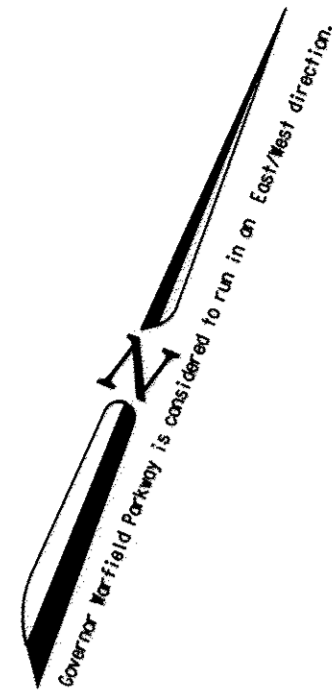


DES: FJH			
DRN: FJH			
CHK: J.J.D.	FJH	2	GEOMETRIC CHANGES 12/2015
	SED	1	AS-BUILT 4/4/2006
DATE: Jan 16, 2015	BY: NO.		REVISION DATE: 600' SCALE MAP NO. DATE:

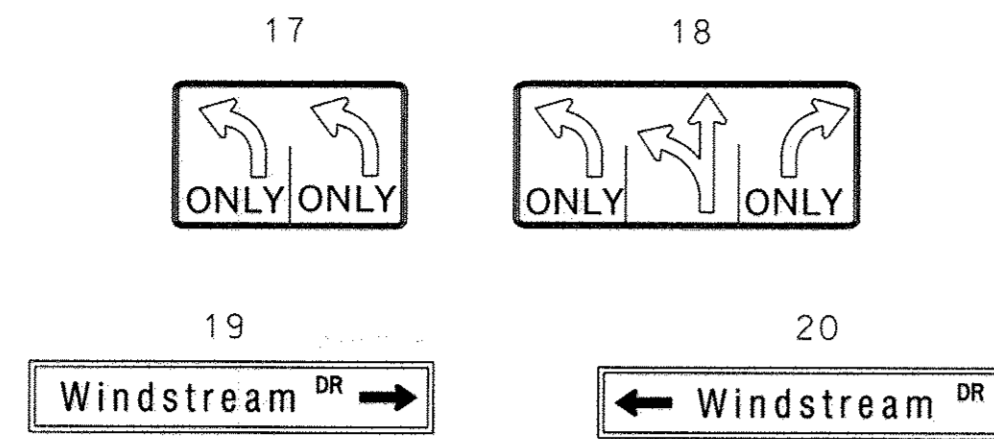
Columbia
 Village of Wilde Lake
 Section 3

GENERAL INFORMATION PLAN
 Little Patuxent Parkway
 at
 Governor Warfield Parkway

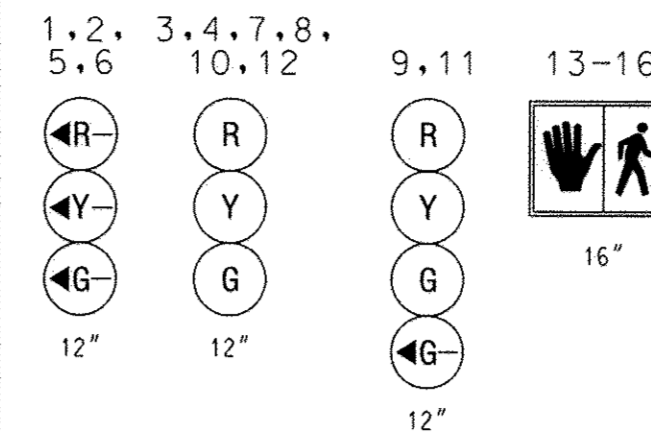
SCALE: NA
 SHEET 16 OF 19



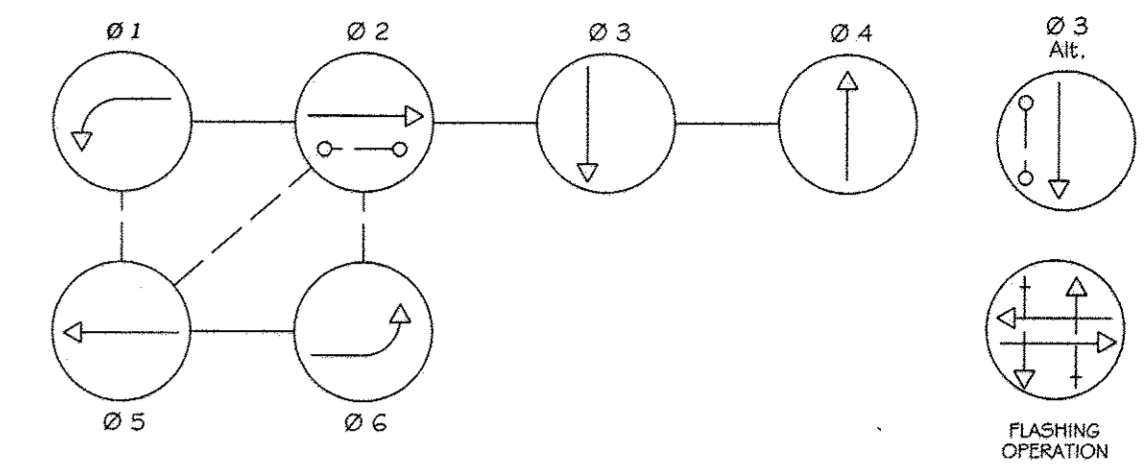
EXISTING SIGNS



EXISTING SIGNALS

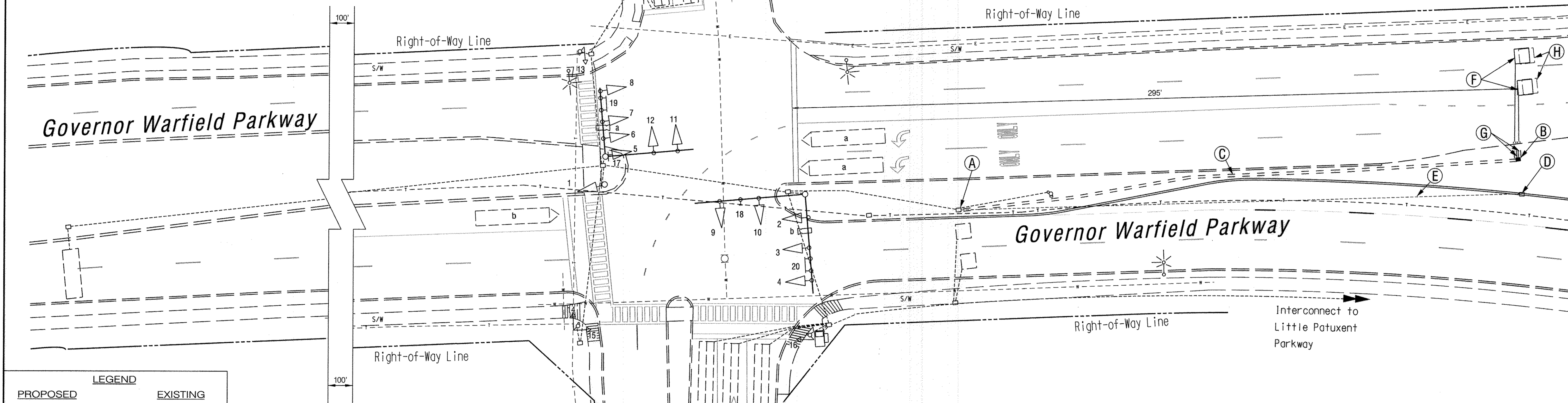
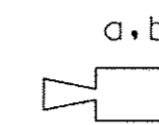


EXISTING NEMA PHASING



NEMA notes:
Phases associated by a dashed line will operate concurrently.
Phases associated by a solid line will not operate concurrently.

EXISTING CAMERAS



PROPOSED	EXISTING

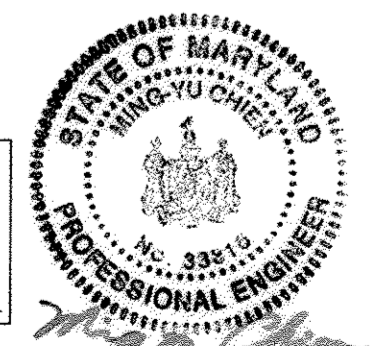
UTILITY LEGEND	
	G GAS MAIN
	W WATER MAIN
	S SEWER MAIN
	SD STORM DRAIN
	TV CABLE TELEVISION
	E ELECTRIC CABLES
	T TELEPHONE CABLES
	A AERIAL CABLES

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 2-19-15
 Chief, Division of Land Development. Date
[Signature] 2-18-15
 Chief, Development Engineering Division Date

CONSTRUCTION DETAILS

- A. USE EXISTING HANDBOX. PULL BACK EXISTING 2 CONDUCTOR ALUMINUM SHIELDED CABLE AND RE-ROUTE IN NEW CONDUIT TO NEW LOOPS.
- B. INSTALL HANDBOX.
- C. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- D. REMOVE EXISTING HANDBOX.
- E. CAP AND ABANDON EXISTING CONDUIT.
- F. INSTALL 6 FT. X 6 FT. LOOP DETECTOR (4 TURNS).
- G. INSTALL 1 IN. FLEXIBLE TUBING FOR LOOP DETECTORS.
- H. ABANDON EXISTING LOOP DETECTORS.

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 NO. 33266 EXPIRATION DATE: 2/28/16
[Signature]



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *[Signature]* 2/16/15
 Chief, Traffic Engineering Division: *[Signature]* 2/2/2015
 Chief, Bureau of Highways: *[Signature]* 1/29/2015

The Traffic Group
 Suite 11
 9900 Piedmont Square Dr.
 Baltimore, Maryland
 410-931-6600
 1-800-593-8411
 Fax: 410-931-6601

DES: F.J.H.	
DRN: F.J.H.	
CHK: J.J.D.	
DATE: Jan 16, 2015	
BY: NO.	REVISION
F.J.H.	1 REPLACE LOOPS ON GOV. WARFIELD PARKWAY WEST BOUNDARY 1/16/2015

Columbia
 Village of Wilde Lake
 Section 3

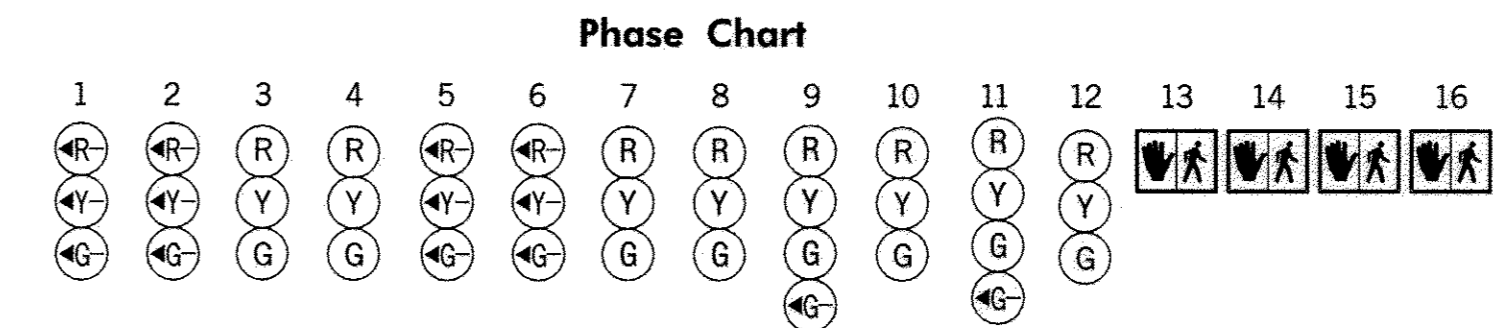
TRAFFIC SIGNAL PLAN
 Governor Warfield Parkway
 at
 Windstream Dr/Mall Entrance
 SCALE: 1" = 20'
 SHEET 17 OF 19

PROJECT DESCRIPTION

GENERAL
 THIS PROJECT INVOLVES THE REPLACEMENT OF THE LOOP DETECTION FOR WESTBOUND GOVERNOR WARFIELD PARKWAY.
 THE SIGNAL OPERATION IS TO REMAIN UNCHANGED.
 GOVERNOR WARFIELD PARKWAY IS CONSIDERED TO RUN IN A EAST/ WEST DIRECTION.

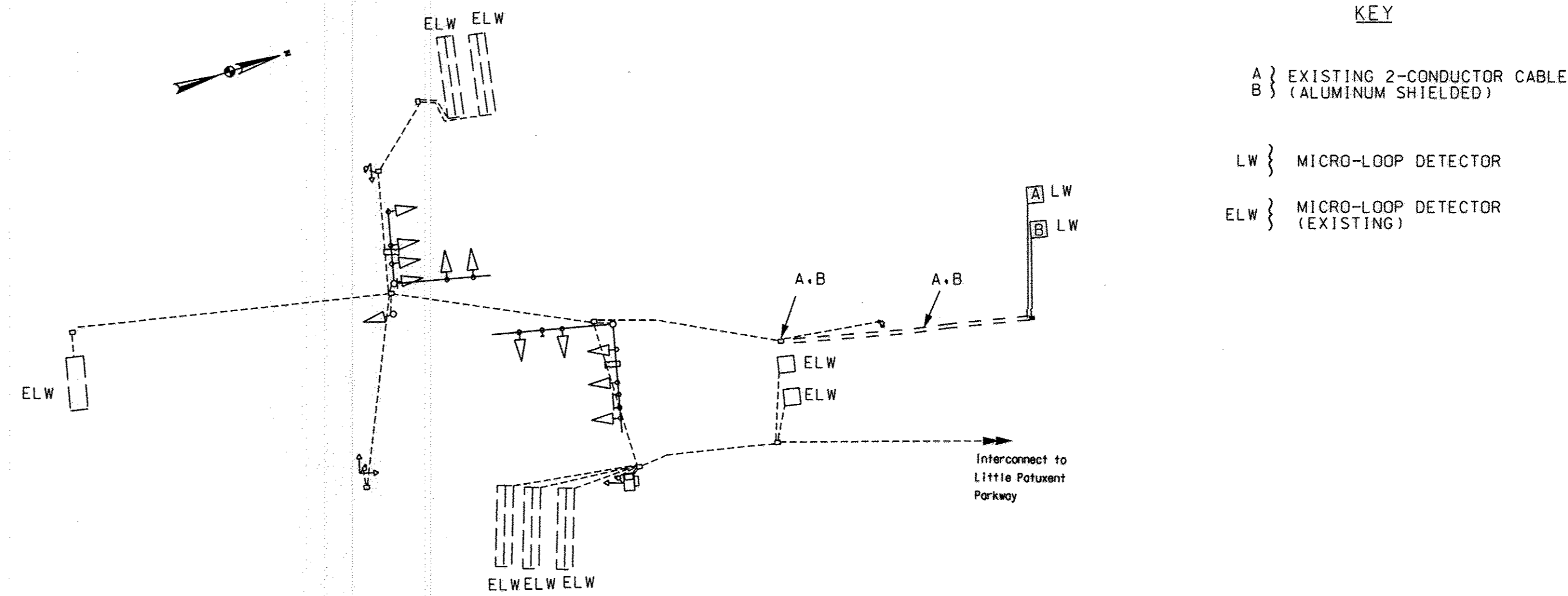
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

QUANTITY	UNITS	DESCRIPTION
LUMP SUM	EA	MAINTENANCE OF TRAFFIC
LUMP SUM	EA	MOBILIZATION
1	EA	HANDBOX
160	LF	3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED
10	LF	1 IN. LIQUID TIGHT FLEXIBLE CONDUIT FOR DETECTOR SLEEVE
155	LF	SAWCUT FOR SIGNAL LOOP DETECTOR
225	LF	LOOP DETECTOR WIRE ENCASED IN FLEXIBLE TUBING
LUMP SUM	LS	RE-ROUTE EXISTING CABLES (APPROX 500LF)



PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 and 5	←R	←R	R	R	←G	←G	G	G	R	R	R	R	DW	DW	DW	DW
1 CHANGE	←R	←R	R	R	←Y	←Y	Y	Y	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 5	←R	←R	G	G	←R	←R	G	G	R	R	R	R	DW	DW	DW	DW
2 CHANGE	←R	←R	G	G	←R	←R	G	G	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 6	←G	←G	G	G	←G	←G	G	G	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	←G	←G	G	G	←R	←R	R	R	R	R	R	R	FLDW	FLDW	DW	DW
2 AND 6 CHANGE	←Y	←Y	Y	Y	←R	←R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 3	←R	←R	R	R	←R	←R	R	R	R	R	←GG	G	DW	DW	DW	DW
3 CHANGE	←R	←R	R	R	←R	←R	R	R	R	R	Y	Y	DW	DW	DW	DW
PHASE ALT 3	←R	←R	R	R	←R	←R	R	R	R	R	←GG	G	DW	DW	WK	WK
PED CLEARANCE	←R	←R	R	R	←R	←R	R	R	R	R	←GG	G	DW	DW	FLDW	FLDW
ALT 3 CHANGE	←R	←R	R	R	←R	←R	R	R	R	R	Y	Y	DW	DW	DW	DW
PHASE 4	←R	←R	R	R	←R	←R	R	R	←GG	G	R	R	DW	DW	DW	DW
4 CHANGE	←R	←R	R	R	←R	←R	R	R	Y	Y	R	R	DW	DW	DW	DW
FLASHING OPERATION	FL←R	FL←R	FLY	FLY	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK

Wiring Diagram



KEY

A } EXISTING 2-CONDUCTOR CABLE
 B } (ALUMINUM SHIELDED)

LW } MICRO-LOOP DETECTOR

ELW } MICRO-LOOP DETECTOR
 (EXISTING)

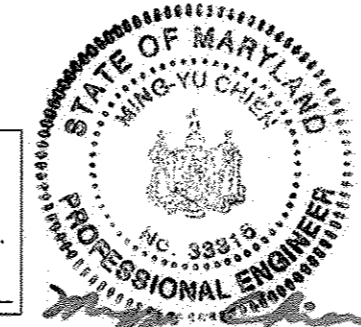
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Kat Belcher
 Chief, Division of Land Development Date: 2-19-15

Chad Edick
 Chief, Development Engineering Division Date: 2-18-15

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 NO: 33316 EXPIRATION DATE: 7/12/16



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Ray De
 DIRECTOR OF PUBLIC WORKS DATE: 2/10/15

Meunier
 CHIEF, BUREAU OF HIGHWAYS DATE: 1/29/2015



DES: FJH			
DRN: FJH			
CHK: J.J.D.			
DATE: Jan 16, 2015			
BY	NO.	REVISION	DATE
FJH	1	REPLACE LOOPS ON GOV. WARFIELD PARKWAY WEST BOUND	9/16/2015

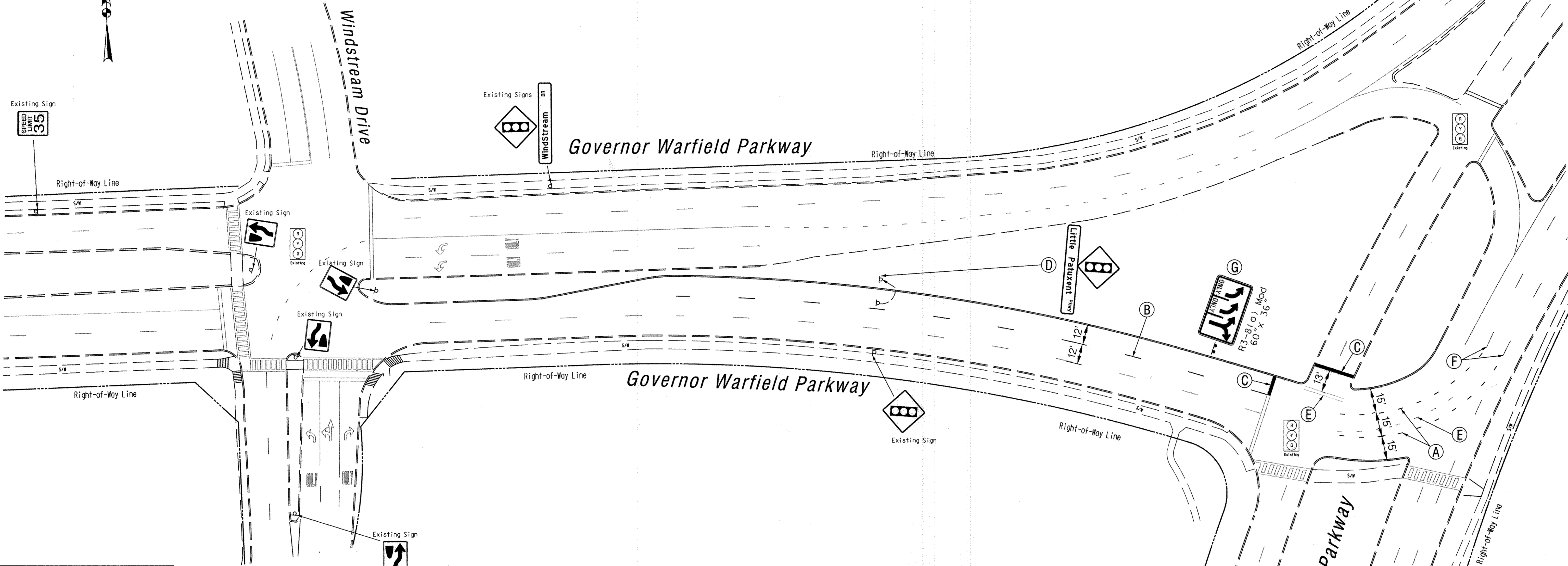
Columbia
 Village of Wilde Lake
 Section 3

600' SCALE MAP NO. _____ DATE: _____

GENERAL INFORMATION PLAN
 Governor Warfield Parkway
 at
 Windstream Dr /Mall Entrance

SCALE: N/A

SHEET 18 OF 19



LEGEND

	PROPOSED GEOMETRICS
	EXISTING GEOMETRICS
	EXISTING/PROPOSED SIGNAL
	PROPOSED SIGN
	EXISTING SIGN
	EXISTING SIGN TO REMAIN
	EXISTING SIGN TO BE REMOVED
	EXISTING PAVEMENT MARKING SYMBOL
	PROPOSED PAVEMENT MARKING SYMBOL

MATERIAL LIST

Equipment to be furnished and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

QUANTITY	UNITS	DESCRIPTION
375	LF	5 IN. WIDE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING - WHITE.
40	LF	24 IN. WIDE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING - WHITE.
1	EA	RELOCATE GROUND MOUNTED SIGN.
75	LF	REMOVE EXISTING PAVEMENT MARKINGS BY GRINDING.
1	EA	60" x 36" R3-8(a) Mod GROUND MOUNTED SIGN.
30	LF	GALVANIZED STEEL "U" CHANNEL SIGN POST.

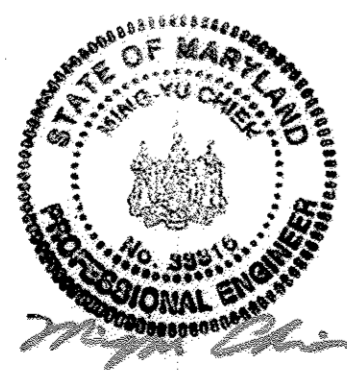
CONSTRUCTION DETAILS

- A. INSTALL 5 IN. DOTTED (3 FT. SEGMENT, 3 FT. GAP) WHITE THERMOPLASTIC PAVEMENT MARKING FOR LANE LINE.
- B. INSTALL 5 IN. BROKEN (10 FT. SEGMENT, 30 FT. GAP) WHITE THERMOPLASTIC PAVEMENT MARKING FOR LANE LINE.
- C. INSTALL 24 IN. SOLID WHITE THERMOPLASTIC PAVEMENT MARKING FOR STOP BAR.
- D. RELOCATE EXISTING GROUND MOUNTED SIGN.
- E. REMOVE EXISTING PAVEMENT MARKING BY GRINDING.
- F. TIE TO EXISTING PAVEMENT MARKING.
- G. INSTALL GROUND MOUNTED SIGN ON TWO STEEL "U" CHANNEL POST.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 1/29/2015
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 2-19-15
 Chief, Division of Land Development

APPROVED: *[Signature]* 2-17-15
 Chief, Development Engineering Division



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 NO. 21126 EXPIRATION DATE: 2/13/16

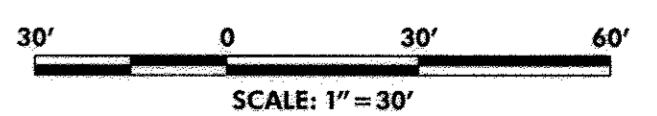


DES.	CHK.	DATE	REVISION	BY	APPR.

Columbia
Village of Wilde Lake
Section 3

NO ASBUILT INFORMATION 04/07/2017

SIGNAGE AND PAVEMENT MARKING PLAN
Governor Warfield Parkway and Little Patuxent Parkway



SCALE 1" = 30'	ZONING	TIG FILE NO.
DATE Jan 16, 2015	TAX MAP - GRID	SHEET 19 of 19

F:\2006-2006-0401\Draws\Residence\DESIGN - SH\GOVERNOR WARFIELD PARKWAY.DWG Wednesday, January 14, 2015 4:02:02 PM