

FOR INDEX OF SHEETS SEE SHEET 1B

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (OPENROADS).
OPENROADS Computer Identification No. 115553



COMMONWEALTH OF VIRGINIA



PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

PRINCE WILLIAM COUNTY

OLD BRIDGE ROAD AND OCCOQUAN ROAD INTERSECTION IMPROVEMENT

FR: 0.085 MI. EAST OF RTE. 253
TO: 0.104 MI. WEST OF RTE. 253

FHWA-534 DATA 44004
PPMS-115553

STATE	FEDERAL AID PROJECT		STATE PROJECT		SHEET NO.
	PROJECT	ROUTE	PROJECT	ROUTE	
VA.	STP-5B01() SEE TABULATIONS BELOW FOR SECTION NUMBERS	641	0641-076-301 SEE TABULATIONS BELOW FOR SECTION NUMBERS		1

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA		
	OLD BRIDGE ROAD (RTE. 641)	OCCOQUAN ROAD (RTE. 253)
NON-NHS	URBAN MINOR ARTERIAL (GS-6) -DIVIDED-ROLLING-40 MPH MIN. DESIGN SPEED	URBAN MAJOR COLLECTOR (GS-7) -DIVIDED-ROLLING-30 MPH MIN. DESIGN SPEED
	FR: 0.085 MI. EAST OF RTE. 253 TO: 0.104 MI. WEST OF RTE. 253	FR: 0.038 MI. SOUTH OF RTE. 641 TO: 0.059 MI. NORTH OF RTE. 641
ADT (2019)	53,000	13,000
ADT (2045)	68,649	16,838
DHV	5,149	1,482
D (%) (design hour)	88%	71%
T (%) (design hour)	2%	2%
V (MPH)	⊗	⊗

⊗ See Plan and Profile Sheets for horizontal and vertical curve design speed data

VDOT SHALL MAINTAIN ALL PROPOSED FACILITIES WITHIN EXISTING OR PROPOSED RIGHT-OF-WAY

TIER 1 PROJECT

LOCALLY ADMINISTERED PROJECTS	
PRINCE WILLIAM COUNTY	
NAME OF LOCALITY	
KHATTAB SHAMMOUT, P.E., DBIA	
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	
DATE	TITLE OF POSITION
NAME OF RESPONSIBLE LOCAL GOVERNMENT OFFICIAL (TYPED)	
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
DATE	TITLE OF POSITION

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	
TOTAL TAKE FOR PARCELS:	
009	010
DISTRICT PLANNING AND INVESTMENT MANAGER	
DISTRICT PROJECT DEVELOPMENT ENGINEER	
APPROVED FOR RIGHT OF WAY ACQUISITION	
DISTRICT ENGINEER/ADMINISTRATOR	

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
DISTRICT PLANNING AND INVESTMENT MANAGER	
DISTRICT PROJECT DEVELOPMENT ENGINEER	
APPROVED FOR CONSTRUCTION	
DISTRICT ENGINEER/ADMINISTRATOR	

PROJECT MANAGER: SHERRY, DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE: JMT, SEPTEMBER 2020
DESIGN BY: JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE: JMT, SEPTEMBER 2020

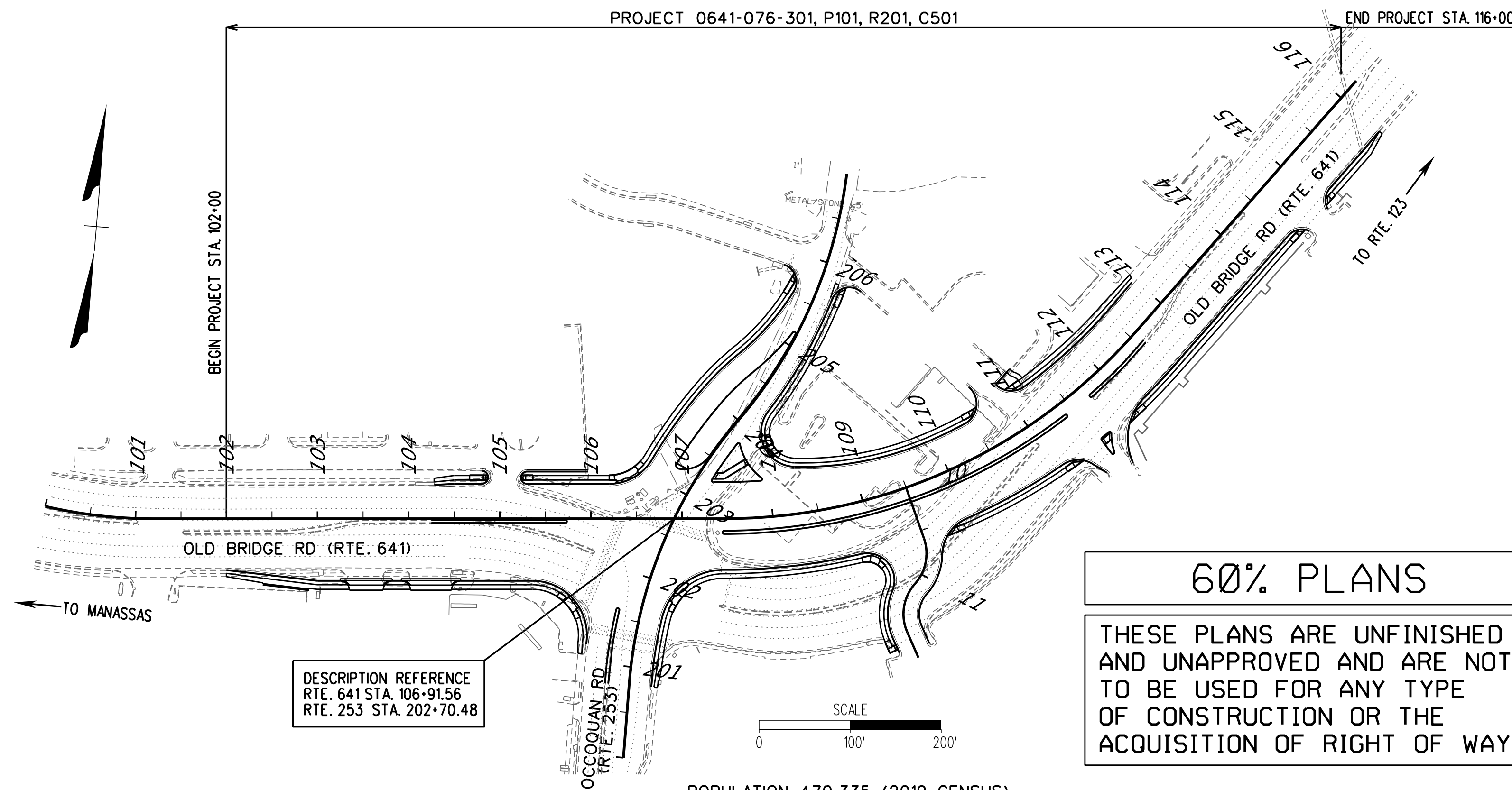
THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE GENERAL NOTES.

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2020 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS REVISED MAY 2020, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD TC-5.11ULS, EXCEPT WHERE OTHERWISE NOTED.

THE ORIGINAL APPROVED TITLE SHEET(S), INCLUDING ORIGINAL SIGNATURES, IS FILED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES, IS ILLEGAL AND ENFORCED TO THE FULL EXTENT OF THE LAW.



DESCRIPTION REFERENCE
RTE. 641 STA. 106+91.56
RTE. 253 STA. 202+70.48

POPULATION 470,335 (2019 CENSUS)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	PPMS NO.	LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		TYPE PROJECT	DESCRIPTION
					FEET	MILES	FEET	MILES		
0641-076-301	P-101	STP-5B01(129)	PENG	115553	1,500	0.284	1,500	0.284	PRELIM. ENGIN.	FR: 0.085 MI. EAST OF RTE. 253 TO: 0.104 MI. WEST OF RTE. 253
	R-201	STP-5B01(230)	ROWA	115553	1,500	0.284	1,500	0.284	RIGHT OF WAY	FR: 0.085 MI. EAST OF RTE. 253 TO: 0.104 MI. WEST OF RTE. 253
	C-501	STP-5B01()	F000	115553	1,500	0.284	1,500	0.284	CONSTRUCTION	FR: 0.085 MI. EAST OF RTE. 253 TO: 0.104 MI. WEST OF RTE. 253

NOTE: PROJECT LENGTH BASED ON CONSTRUCTION BASELINE

CONVENTIONAL SIGNS

STATE LINE	LEVEE OR EMBANKMENT	
COUNTY LINE	BRIDGES	
CITY/TOWN OR VILLAGE	CULVERTS	
RIGHT OF WAY LINE	DROP INLET	
FENCE LINE	POWER POLES	
UNFENCED PROPERTY LINE	TELEPHONE OR TELEGRAPH POLES	
FENCED PROPERTY LINE	TELEPHONE OR TELEGRAPH LINES	
WATER LINE	HEDGE	
SANITARY SEWER LINE	TREES	
GAS LINE	HEAVY WOODS	
ELECTRIC UNDERGROUND CABLE	GROUND ELEVATION	
TRAVELED WAY	GRADE ELEVATION	
GUARD RAIL		
RETAINING WALL		
RAILROADS		
BASE OR SURVEY LINE		

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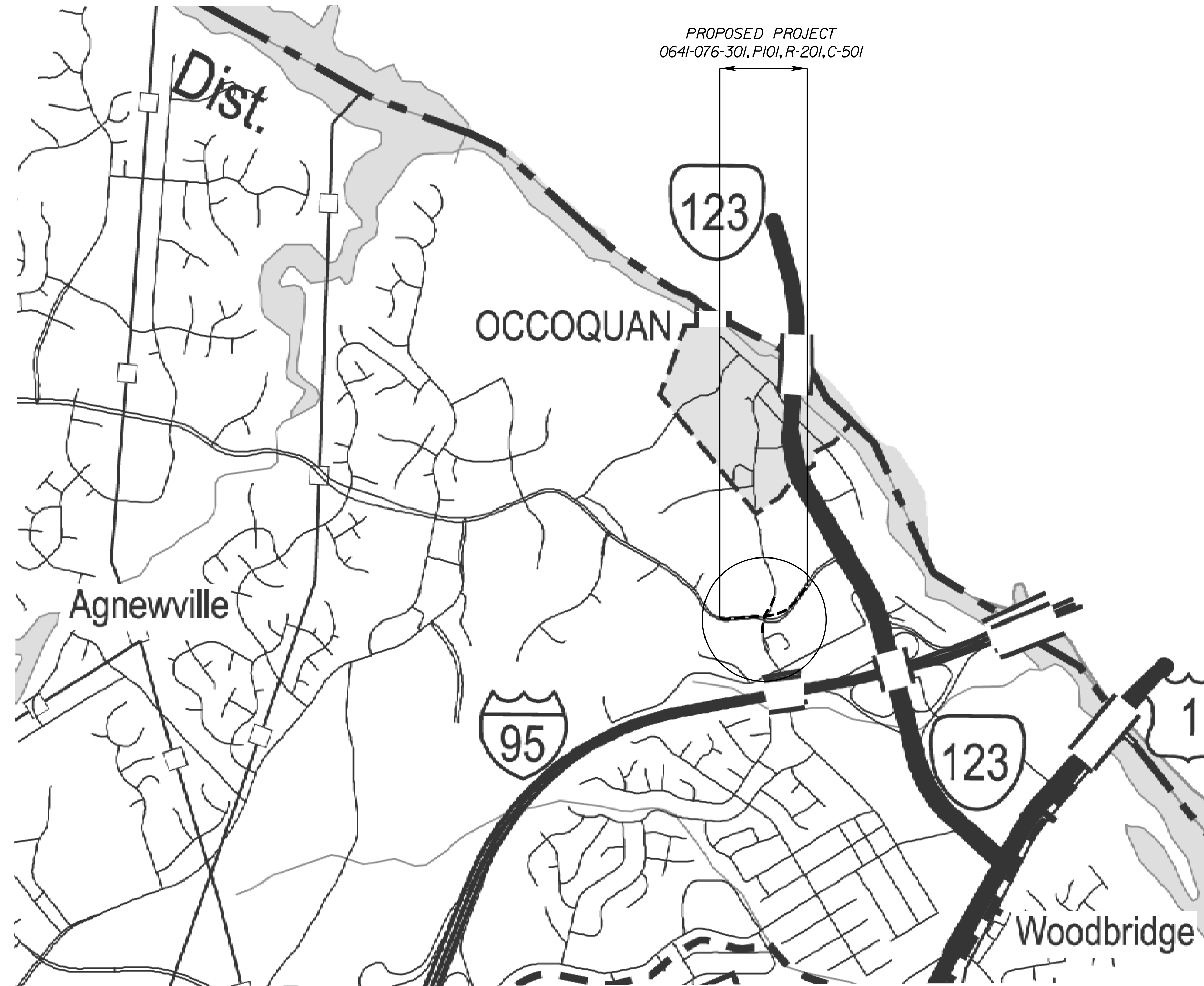
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1A

LOCATION MAP

PRINCE WILLIAM COUNTY

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

PROJECT	SHEET NO.
NTS	1A
0641-076-301	

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

INDEX OF SHEETS

REVISED	STATE		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
	VA.	641		0641-076-301 R-201, C-501	1B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SHEET NO.	DESCRIPTION
1	TITLE SHEET
1A	LOCATION MAP
1B	INDEX OF SHEETS
1C	RIGHT OF WAY DATA SHEET
1D	REVISION DATA SHEET
1E	SURVEY CONTROL DATA SHEET
1F	CONSTRUCTION ALIGNMENT DATA SHEET
1G	UNDERGROUND UTILITY TEST HOLE INFORMATION
1H(1)	TEMPORARY TRAFFIC CONTROL PLAN (TTC) - GENERAL NOTES
1H(3) - 1H(6)	TEMPORARY TRAFFIC CONTROL PLAN (TTC) - PHASE 1
1H(3A) - 1H(6A)	DRAINAGE INSTALLATION PLAN - PHASE 1
1H(7) - 1H(10)	TEMPORARY TRAFFIC CONTROL PLAN (TTC) - PHASE 2
1H(7A) - 1H(10A)	DRAINAGE INSTALLATION PLAN - PHASE 2
1H(11) - 1H(14)	TEMPORARY TRAFFIC CONTROL PLAN (TTC) - PHASE 3
1H(11A) - 1H(14A)	DRAINAGE INSTALLATION PLAN - PHASE 3
1H(15) - 1H(18)	TEMPORARY TRAFFIC CONTROL PLAN (TTC) - PHASE 4
1H(15A) - 1H(18A)	DRAINAGE INSTALLATION PLAN - PHASE 4
1H(19)	TEMPORARY TRAFFIC SIGNAL PLAN
2	GENERAL NOTES
2A(1) - 2A(2)	TYPICAL SECTIONS
2A(3)	PAVEMENT BUILD-UP DETAIL
2B(1) - 2B(2)	DRAINAGE DESCRIPTION SHEETS
2C(1) - 2C(4)	STORM POLLUTION PREVENTION PLAN (SWPPP)
2C(5)	PWC SWPPP
2C(6)	NUTRIENT CREDIT PURCHASE
2D(1)	EROSION & SEDIMENT CONTROL NARRATIVE AND NOTES
2D(2)	EROSION & SEDIMENT CONTROL GENERAL NOTES
2D(3)	EROSION & SEDIMENT CONTROL SOILS MAP
2D(4)	TEMPORARY SEEDING TABLE
3 - 6	PLAN SHEETS
3A - 6A	PROFILE SHEETS
3B(1) - 6B(2)	EROSION AND SEDIMENT CONTROL PLANS (PHASES I & II)
7(1) - 7(7)	STORM SEWER PROFILE SHEETS
8	ENTRANCE PROFILE
9(1) - 9(2)	SIGNAL PLANS
10(1) - 10(6)	PAVEMENT MARKING AND SIGNING PLANS
TOTAL CROSS SECTION SHEETS 28 (SEE CROSS SECTION SHEET NUMBER 1 FOR INDEX OF SHEETS)	

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

N/A	PROJECT 0641-076-301	SHEET NO. 1B
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201, C-501	1C

PRELIMINARY RIGHT OF WAY DATA SHEET

DESIGN FEATURES RELATING TO CONSTRUCTION
OR TO REGULATION AND CONTROL OF TRAFFIC
MAY BE SUBJECT TO CHANGE AS DEEMED
NECESSARY BY THE DEPARTMENT

City/County: PRINCE WILLIAM COUNTY
UPC No.: 115553

PARCEL NO.	LANDOWNER	SHEET NO.	AREA (Areas greater than or equal to 1 acre will be shown in acres to 3 decimalplaces (x.xxx). Areas less than 1 acre will be shown to square feet (x,xxx).)												PROFFERS YES / NO
			TOTAL ACRES OR SQUARE FEET	FEE TAKING ACRES OR SQ. FEET	PRESCRIPTIVE R/W		FEE REMAINDER ACRES OR SQ. FEET	EASEMENTS				TEMPORARY ACRES OR SQ. FEET	TEMPORARY(ENTRANCES)		
					ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS		PERMANENT ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	UTILITY ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS		ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	
001	CNM OLD BRIDGE, LLC	3	1.81778 AC	925 SF			1.797 AC					632 SF			NO
002	MANAS WOODBRIDGE, LLC	3,4	13,264 SF	1862 SF			11,402 SF					1,137 SF			NO
003	T-COURT INVESTMENTS, LLC	4	0.43 AC	2020 SF			16,711 SF					1,404 SF			NO
004	MCDONALD'S CORPORATION	3,4	2.4955 AC	22 SF			2,495 AC					133 SF			NO
005	DOMINION CONVENIENCE CENTER, LLC	4,5	1.31179 AC	526 SF			1.300 AC					2,516 SF			NO
006	PUBLIC STORAGE, INC., TRUSTEE	5	5.00378 AC	1854 SF			4.961 AC					3,124 SF			NO
007	1470 OLD BRIDGE PROPERTY, LLC	4	1.2882 AC	2166 SF			1.238 AC					5,325 SF			NO
008	AEROMARITIME INVESTMENT COMPANY	4,6	0.53691 AC	9895 SF			13,493 SF					7,683 SF			NO
009 *	XUANJOE, LLC	4,5,6	0.7436 AC	32,038 SF			0								NO
010	1420 OLD BRIDGE PROPERTY, LLC	4,5	0.2583 AC	11,250 SF			0								NO
011	NOUR ASSOCIATES, LLC & MIRWEIS TARZI	5,6	0.5651 AC	1,782 SF			22,833 SF					5,645 SF			NO
012	HIEU P. NGUYEN & NHI Y. LE	5	0.4591 AC	124 SF			19,874 SF					508 SF			NO
013	XUANJOE, LLC	5,6	0.1324 AC	118 SF			5,649 SF					2,277 SF			NO

* EARLY ACQUISITION - TOTAL TAKE

60% PLANS

THESE PLANS ARE UNFINISHED
AND UNAPPROVED AND ARE NOT
TO BE USED FOR ANY TYPE
OF CONSTRUCTION OR THE
ACQUISITION OF RIGHT OF WAY.

N/A

PROJECT
0641-076-301

SHEET NO.
1C

PROJECT MANAGER: SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE: JMT, SEPTEMBER 2020
 DESIGN BY: JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE: JMT, SEPTEMBER 2020

SURVEY CONTROL DATA SHEET

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	64I	064I-076-30I R-20I,C-50I	1E

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

UTILITY LEGEND

□ E/B	Electric Box	□ T/B	Telephone Booth
■	Electric Guy Pole	●	Telephone Guy Pole
⊕	Electric Ground Light	○	Telephone Guy Wire
⊖	Electric Guy Wire	⊕	Test Holes (All Utilities)
⊗	Electric Hand Hole	⊗	Telephone Cell Tower
⊙	Electric Meter	⊗	Telephone Hand Hole
⊕	Electric Manhole	⊗	Telephone Manhole
⊖	Electric Marker Post	⊗	Telephone Marker Post
⊗	Electric Pedestal	⊗	Telephone Pole
⊙	Electric Stub	⊗	Telephone Pedestal
⊕	Electric Power Pole	⊗	Telephone Riser Pole
⊖	Electric Power Riser Pole	⊗	Television Satellite Dish
⊗	Electric Light Pole	⊗	Tower Anchor
⊙	Electric Luminaire	⊗	Traffic Camera Pole
⊕	End of Information (All Utilities)	⊗	Traffic Control Hand Hole
⊖	Fire Hydrant	⊗	Traffic Control Manhole
⊗	Fiber Optic Hand Hole	⊗	Traffic Control Guy Wire
⊙	Fiber Optic Marker	⊗	Traffic Control Pedestal
⊕	Fiber Optic Manhole	⊗	Traffic Signal Guy Pole
⊖	Fiber Optic Pedestal	⊗	Traffic Signal Pole
⊗	Gas Meter	⊗	Traffic Signal Pole w/Luminaire
⊕	Gas Manhole	⊗	Telephone Stub
⊖	Gas Marker Post	⊗	Television Hand Hole
⊗	Gas Monitoring Well	⊗	Television Manhole
⊙	Gas Stub	⊗	Television Marker Post
⊕	Gas Test Station	⊗	Television Pedestal
⊖	Gas Valve	⊗	Television Stub
⊗	Gas Vent	⊗	Water Blow Off
⊕	Gas Well	⊗	Water Meter
⊖	Sanitary Air Release Valve	⊗	Water Manhole
⊗	Sanitary Flow Arrow	⊗	Water Marker Post
⊙	Sanitary Stub	⊗	Water Spigot
⊖	Sewer Clean Out	⊗	Water Slamese Connection
⊕	Sanitary Force Main Valve	⊗	Water Stub
⊗	Sanitary Marker Post	⊗	Water Valve
⊙	Sanitary Manhole	⊗	Water Post Inspection Valve
⊖	Sewer Vent Pipe	⊗	Water Irrigation Valve
⊕	Unknown Clean Out	⊗	Water Steam Manhole
⊗	Unknown Hand Hole	⊗	Water Steam Vent Pipe
⊙	Unknown Manhole		

PLANIMETRIC LEGEND

⊕	Advertising Sign
⊖	Bore Hole
⊗	Bench Mark
⊙	Bollard Post
⊕	Photo Control Point
⊖	Control Station
⊗	Drainage Flow Arrow (Storm Drainage)
⊙	Filler Cap (Gas Stations)
⊖	Flow Arrow (Streams & Rivers)
⊗	Flag Pole
⊙	Secondary Control Point
⊖	Filler Pipe (Gas Stations)
⊗	Gas Tank Access Manhole (Gas Stations)
⊙	Gravesite Marker
⊖	Guard Post
⊗	Gas Vent Pipe (Gas Stations)
⊙	Mall Box
⊖	Mine Entrance
⊗	Node Point
⊙	Property Line Symbol
⊖	Found Monumentation
⊗	Property Monument
⊙	Metal or Wooden Post
⊖	Monitoring Well
⊗	Road Arrow
⊙	Reference
⊖	Right of Way Monument
⊗	VDOT Commission Monument
⊙	Railroad Mile Marker
⊖	Railroad Right of Way Monument
⊗	Railroad Signal Pole or Gate
⊙	Railroad Telegraph Pole
⊖	Railroad Telephone Pole
⊗	Railroad Switch
⊙	Shrub
⊖	Storm Sewer Manhole
⊗	Photogrammetric Target
⊙	Tree
⊖	Traffic Left Turn Arrow
⊗	Traffic Left-Right Arrow
⊙	Traffic Left-Thru Arrow
⊖	Traffic Left-Thru-Right Arrow
⊗	Traffic Right Turn Arrow
⊙	Traffic Thru Arrow
⊖	Traffic Thru-Right Arrow
⊗	Traffic Springback Marker
⊙	Wetland Flag Automatic
⊖	Wetland Flag Manual
⊗	Bridge Elevation
⊙	Plan Elevation
⊖	Water Elevation
⊗	Elevation Tick Mark
⊙	Connected Plat Symbol
⊖	Brush Line
⊗	Pipe Culverts *
⊙	City Line
⊖	County Line
⊗	Curb Only
⊙	Curb and Gutter
⊖	Fence Line
⊗	Guardrail
⊙	Hedge Row
⊖	Jersey Barrier
⊗	Obscure Areas
⊙	Paved Ditches
⊖	Railroad
⊗	Right of Way
⊙	State Line
⊖	Edges of Water
⊗	Sidewalks
⊙	Wetlands
⊖	Woods
⊗	* Designate size of culverts (Variable From 12" to 120")

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control
Control Station I.D.: JMT2 Date: 08-24-2020

VDOT Project Coordinates (2014)
East (X): 11,836,552.1 ft.
North (Y): 6,930,777.64 ft.
Elevation: 135.64 ft.

VA State Plane Coordinates: NAD 83 - U.S. Survey Feet
East (X): 11,836,248.20 ft.
North (Y): 6,930,422.22 ft.
Ortho. Elevation (H): 135.64 ft.
Zone: North

Project Specific Combined Scale
Factor: 1.000051284 (9 Decimal Places)

Project Information
Project Number: 115553 County: Prince Williams
Route: Old Bridge Road & Occoquan Road
Established By: Johnson, Mirmiran & Thompson

Latitude: 38° 40' 21.80164" N (5 Decimal Places)
Longitude: 77° 15' 44.49644" W (5 Decimal Places)
Geoid Separation (N): _____
Ellipsoid Height (h): _____
Horizontal Datum: NAD 83 Year: _____
Vertical Datum: NAVD 88 Geoid: 12B
Azimuth to Station: JMT3 is 85° 30' 17"
Control Based On: Station (Name/PID) _____
or Project (Monument No.): _____

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula:
* Multiply the Easting and Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)
* Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)
JMT2 is a Rod and Cap. To Reach JMT2 Go .012 Mile West Of The Intersection Of Old Bridge Road And Occoquan Road. JMT2 is To The Left. It is 7.8' To The Back Of Concrete Curb & Gutter; 36.4' To A Storm Sewer Manhole; And 51.2' To A Brick Sign.

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control
Control Station I.D.: JMT6 Date: 08-24-2020

VDOT Project Coordinates (2014)
East (X): 11,837,938.43 ft.
North (Y): 6,930,963.51 ft.
Elevation: 92.10 ft.

VA State Plane Coordinates: NAD 83 - U.S. Survey Feet
East (X): 11,837,331.37 ft.
North (Y): 6,930,608.09 ft.
Ortho. Elevation (H): 92.10 ft.
Zone: North

Project Specific Combined Scale
Factor: 1.000051284 (9 Decimal Places)

Project Information
Project Number: 115553 County: Prince Williams
Route: Old Bridge Road & Occoquan Road
Established By: Johnson, Mirmiran & Thompson

Latitude: 38° 40' 23.49420" N (5 Decimal Places)
Longitude: 77° 15' 30.80763" W (5 Decimal Places)
Geoid Separation (N): _____
Ellipsoid Height (h): _____
Horizontal Datum: NAD 83 Year: _____
Vertical Datum: NAVD 88 Geoid: 12B
Azimuth to Station: JMT7 is 36° 30' 10"
Control Based On: Station (Name/PID) _____
or Project (Monument No.): _____

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula:
* Multiply the Easting and Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)
* Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)
JMT6 is a Rod and Cap. To Reach JMT6 Go .095 Mile East Of The Intersection Of Old Bridge Road And Occoquan Road. JMT6 is To The Right. It is 5.3' To A Fire Hydrant; 38.4' To A Light Pole; And 101.6' To Another Light Pole.

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control
Control Station I.D.: JMT3 Date: 08-24-2020

VDOT Project Coordinates (2014)
East (X): 11,837,129.54 ft.
North (Y): 6,930,799.21 ft.
Elevation: 119.87 ft.

VA State Plane Coordinates: NAD 83 - U.S. Survey Feet
East (X): 11,836,522.52 ft.
North (Y): 6,930,443.79 ft.
Ortho. Elevation (H): 119.87 ft.
Zone: North

Project Specific Combined Scale
Factor: 1.000051284 (9 Decimal Places)

Project Information
Project Number: 115553 County: Prince Williams
Route: Old Bridge Road & Occoquan Road
Established By: Johnson, Mirmiran & Thompson

Latitude: 38° 40' 21.97823" N (5 Decimal Places)
Longitude: 77° 15' 41.03402" W (5 Decimal Places)
Geoid Separation (N): _____
Ellipsoid Height (h): _____
Horizontal Datum: NAD 83 Year: _____
Vertical Datum: NAVD 88 Geoid: 12B
Azimuth to Station: JMT4 is 90° 30' 17"
Control Based On: Station (Name/PID) _____
or Project (Monument No.): _____

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula:
* Multiply the Easting and Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)
* Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)
JMT3 is a Rod and Cap. To Reach JMT3 Go .066 Mile West Of The Intersection Of Old Bridge Road And Occoquan Road. JMT3 is To The Left. It is 4.0' To A Storm Sewer Manhole; 17.2' To A Brick Sign; And 26.7' To Another Storm Sewer Manhole.

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control
Control Station I.D.: JMT7 Date: 08-24-2020

VDOT Project Coordinates (2014)
East (X): 11,838,080.04 ft.
North (Y): 6,931,154.87 ft.
Elevation: 85.69 ft.

VA State Plane Coordinates: NAD 83 - U.S. Survey Feet
East (X): 11,837,472.97 ft.
North (Y): 6,930,799.43 ft.
Ortho. Elevation (H): 85.69 ft.
Zone: North

Project Specific Combined Scale
Factor: 1.000051284 (9 Decimal Places)

Project Information
Project Number: 115553 County: Prince Williams
Route: Old Bridge Road & Occoquan Road
Established By: Johnson, Mirmiran & Thompson

Latitude: 38° 40' 25.36652" N (5 Decimal Places)
Longitude: 77° 15' 28.98962" W (5 Decimal Places)
Geoid Separation (N): _____
Ellipsoid Height (h): _____
Horizontal Datum: NAD 83 Year: _____
Vertical Datum: NAVD 88 Geoid: 12B
Azimuth to Station: JMT8 is 36° 35' 14"
Control Based On: Station (Name/PID) _____
or Project (Monument No.): _____

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula:
* Multiply the Easting and Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)
* Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)
JMT7 is a Rod and Cap. To Reach JMT7 Go .139 Mile East Of The Intersection Of Old Bridge Road And Occoquan Road. JMT7 is To The Right. It is 72.7' To A Corner Of A Brick Wall; 119.5' To A Storm Sewer Manhole; And 141.0' To Another Corner Of A Brick Wall.

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

NTS	PROJECT	SHEET NO.
	064I-076-30I	1E

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	641	0641-076-301 R-201, C-501	1F
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia ROADWAY ENGINEER				

CONSTRUCTION ALIGNMENT DATA SHEET

OLD BRIDGE ROAD ALIGNMENT:

Element:	STATION	NORTHING	EASTING
Circular			
PC*	100+00.00 RI	6930850.639	1183687.923
HPI*	100+59.90 RI	6930842.034	1183687.204
CC*		6931370.994	11836893.339
PT*	101+19.29 RI	6930847.004	11836936.900
Radius:	525.000		
Delta:	13.019° Left		
Degree of Curvature(Arc):	10.913		
Length:	119.289		
Tangent:	59.903		
Chord:	119.033		
Middle Ordinate:	3.384		
External:	3.406		
Tangent Direction:	S81°44'27.452"E		
Radial Direction:	S08°15'32.548"W		
Chord Direction:	S88°15'00.953"E		
Radial Direction:	S04°45'34.454"E		
Tangent Direction:	N85°14'25.546"E		
Linear			
PT*	101+19.29 RI	6930847.004	11836936.900
PC*	107+46.41 RI	6930899.039	11837561.858
Tangential Direction:	N85°14'25.546"E		
Tangential Length:	627.120		
Circular			
PC*	107+46.41 RI	6930899.039	11837561.858
HPI*	110+18.07 RI	6930921.580	11837832.582
CC*		6931496.970	11837512.073
PT*	112+56.59 RI	6931139.896	11837994.254
Radius:	600.000		
Delta:	48.719° Left		
Degree of Curvature(Arc):	9.549		
Length:	510.184		
Tangent:	271.661		
Chord:	494.953		
Middle Ordinate:	53.415		
External:	58.535		
Tangent Direction:	N85°14'25.546"E		
Radial Direction:	S04°45'34.454"E		
Chord Direction:	N60°52'51.359"E		
Radial Direction:	S53°28'42.828"E		
Tangent Direction:	N36°31'17.72"E		
Linear			
PT*	112+56.59 RI	6931139.896	11837994.254
END*	115+25.00 RI	6931355.593	11838153.986
Tangential Direction:	N36°31'17.72"E		
Tangential Length:	268.402		

ENTRANCE ALIGNMENT:

Element:	STATION	NORTHING	EASTING
Linear			
START*	10+00.00 RI	6930764.594	11837787.200
PC*	10+30.49 RI	6930791.393	11837772.652
Tangential Direction:	N28°29'41.027"W		
Tangential Length:	30.492		
Circular			
PC*	10+30.49 RI	6930791.393	11837772.652
HPI*	10+62.60 RI	6930819.613	11837757.334
CC*		6930815.246	11837816.596
PRC*	10+87.58 RI	6930845.283	11837776.623
Radius:	50.000		
Delta:	65.417° Right		
Degree of Curvature(Arc):	114.592		
Length:	57.087		
Tangent:	32.110		
Chord:	54.036		
Middle Ordinate:	7.928		
External:	9.423		
Tangent Direction:	N28°29'41.027"W		
Radial Direction:	N67°30'18.973"E		
Chord Direction:	N04°12'49.064"E		
Radial Direction:	S53°04'40.844"E		
Tangent Direction:	N36°55'19.56"E		
Circular			
PRC*	10+87.58 RI	6930845.283	11837776.623
HPI*	11+17.10 RI	6930868.886	11837794.359
CC*		6930875.319	11837736.650
PT*	11+40.92 RI	6930895.816	11837782.256
Radius:	50.000		
Delta:	61.123° Left		
Degree of Curvature(Arc):	114.592		
Length:	53.340		
Tangent:	29.525		
Chord:	50.846		
Middle Ordinate:	6.946		
External:	8.066		
Tangent Direction:	N36°55'19.56"E		
Radial Direction:	S53°04'40.844"E		
Chord Direction:	N06°21'37.687"E		
Radial Direction:	N65°47'56.218"E		
Tangent Direction:	N24°12'03.782"W		
Linear			
PT*	11+40.92 RI	6930895.816	11837782.256
END*	12+00.00 RI	6930949.703	11837758.037
Tangential Direction:	N24°12'03.782"W		
Tangential Length:	59.079		

OCCOQUAN ROAD ALIGNMENT:

Element:	STATION	NORTHING	EASTING
Linear			
START*	200+00.00 RI	6930628.225	11837473.498
PC*	200+79.74 RI	6930707.966	11837473.031
Tangential Direction:	N00°20'06.347"W		
Tangential Length:	79.742		
Circular			
PC*	200+79.74 RI	6930707.966	11837473.031
HPI*	202+45.71 RI	6930873.932	11837472.060
CC*		6930710.948	11837983.022
PRC*	204+00.65 RI	6931008.683	11837568.952
Radius:	510.000		
Delta:	36.053° Right		
Degree of Curvature(Arc):	11.234		
Length:	320.913		
Tangent:	165.969		
Chord:	315.645		
Middle Ordinate:	25.034		
External:	26.326		
Tangent Direction:	N00°20'06.347"W		
Radial Direction:	N89°39'53.653"E		
Chord Direction:	N17°41'28.783"E		
Radial Direction:	S54°16'56.087"E		
Tangent Direction:	N35°43'03.913"E		
Circular			
PRC*	204+00.65 RI	6931008.683	11837568.952
HPI*	205+01.61 RI	6931090.652	11837627.892
CC*		6931306.417	11837154.882
PT*	206+00.00 RI	6931188.895	11837651.156
Radius:	510.000		
Delta:	22.395° Left		
Degree of Curvature(Arc):	11.234		
Length:	199.342		
Tangent:	100.960		
Chord:	198.076		
Middle Ordinate:	9.709		
External:	9.897		
Tangent Direction:	N35°43'03.913"E		
Radial Direction:	S54°16'56.087"E		
Chord Direction:	N24°31'12.876"E		
Radial Direction:	S76°40'38.160"E		
Tangent Direction:	N13°19'21.840"E		

60% PLANS

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N/A

PROJECT
0641-076-301

SHEET NO.
1F

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TRANSPORTATION MANAGEMENT PLAN NOTES

REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	64I	064I-076-30I R-20I,C-50I	IHK(I)

GENERAL NOTES

- IT IS NOT THE INTENT OF THIS PLAN TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH STAGE, BUT ONLY TO SHOW THE GENERAL FEATURES NECESSARY TO PROVIDE THE PROPER HANDLING OF TRAFFIC.
- THE CONTRACTOR SHALL SUBMIT REVISED TRAFFIC CONTROL PLANS TO THE ENGINEER FOR APPROVAL PRIOR TO THE BEGINNING OF ANY REVISED PHASE. THE TRAFFIC CONTROL PLAN SHALL SHOW ALL NECESSARY TRAFFIC CONTROL DEVICES INCLUDING SIGNS, PAVEMENT MARKINGS, AND CHANNELIZING DEVICES.
- THE CLEAR ZONE SHALL BE FREE OF STORED MATERIALS AND PARKED EQUIPMENT. HORIZONTAL AND VERTICAL SIGHT DISTANCES SHALL NOT BE IMPACTED BY PARKED CONSTRUCTION EQUIPMENT.
- ALL AREAS EXCAVATED MORE THAN 2' BELOW PAVEMENT SURFACE SERVING PUBLIC TRAFFIC WITHIN THE CLEAR ZONE AND NOT PROTECTED BY A POSITIVE BARRIER AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED TO FORM AN APPROXIMATE 6" SAFETY WEDGE DESIRABLE (4" MINIMUM), AGAINST THE PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF PUBLIC TRAFFIC. ALL COSTS FOR PLACING, MAINTAINING AND REMOVING THE 6" DESIRABLE (4" MINIMUM) SAFETY WEDGE SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS IN THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ALL TRAFFIC CONTROL DEVICES SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE PROPERTY OWNER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL TRAFFIC CONTROL DEVICES, GRADING, AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR, AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ANY EXISTING SIGNS, UNLESS OTHERWISE ADVISED BY THE ENGINEER TO REMOVE OR RELOCATE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE CONSTRUCTION, SIGNING, AND TRAFFIC MANAGEMENT PLAN WITH OTHER ADJACENT PROJECTS UNDER CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE PROJECT MANAGER AND RESIDENCY ADMINISTRATOR OF ANY SCHEDULED WORK PLANS AND TRAFFIC DELAYS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE PROJECT MANAGER, RESIDENCY ADMINISTRATOR, REGIONAL OPERATIONS MANAGER, AND THE PUBLIC AFFAIRS STAFF OF ANY UNSCHEDULED TRAFFIC DELAYS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PUBLIC SAFETY, EMERGENCY MANAGEMENT, AND MASS TRANSIT ORGANIZATIONS OF DETOUR ROUTE(S) AND AVAILABLE ALTERNATE ROUTES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ADD ANY ADDITIONAL TEMPORARY MEASURES NECESSARY TO FACILITATE PROPER, POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION.
- UNLESS SPECIFIED ON THE PLANS, ALL EXISTING TURN LANES SHALL BE MAINTAINED AT ALL TIMES FOR THE DURATION OF CONSTRUCTION.
- WHERE GROUP 2 CHANNELIZING DEVICES ARE USED TO SEPARATE THE CONSTRUCTION AREA AND TRAFFIC, A MINIMUM CLEAR ZONE AREA AS DEFINED IN THE VA WAPM IS TO BE MAINTAINED.
- TRAFFIC BARRIER SERVICE SHALL BE INSTALLED AND REMOVED SO AS NOT TO PRESENT ANY BLUNT END OR HAZARD TO THE MOTORING PUBLIC. THE PLACEMENT AND REMOVAL OF THE TRAFFIC BARRIER SERVICE AND BARRICADES ARE TO BE COORDINATED BY THE PROJECT SAFETY OFFICER.
- CONTRACTOR SHALL EXPEDITE WORK BEHIND BARRIER IN THE INFLUENCE OF INTERSECTIONS TO RESTORE SIGHT DISTANCE AS SOON AS POSSIBLE.
- THE CONTRACTOR SHALL ENSURE THAT PERSONNEL ASSIGNED TO THE PROJECT ARE TRAINED IN TRAFFIC CONTROL TO A LEVEL COMMENSURATE WITH THEIR RESPONSIBILITIES IN ACCORDANCE WITH VDOT'S WORK ZONE TRAFFIC CONTROL TRAINING GUIDELINES.
- THE CONTRACTOR SHALL INFORM THE ENGINEER OF ANY WORK REQUIRING LANE SHIFTS, LANE CLOSURES, AND/OR PHASE CHANGES A MINIMUM OF TWO WORKING DAYS PRIOR TO IMPLEMENTING THIS ACTIVITY.
- THE CONTRACTOR SHALL PERFORM REVIEWS OF THE CONSTRUCTION AREA TO ENSURE COMPLIANCE WITH CONTRACT DOCUMENTS AT REGULARLY SCHEDULED INTERVALS AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE TEMPORARY TRAFFIC CONTROL PLAN AT THE WORK SITE AT ALL TIMES.
- UNDER NO CIRCUMSTANCES WILL CONCURRENT CONSTRUCTION LEFT AND RIGHT OF ANY LANE BE ALLOWED UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR SHOWN ON THESE PLANS.
- EXISTING SURFACE, AGGREGATE BASE AND SUBBASE MATERIAL, WHICH WILL BE DEMOLISHED OR OBLITERATED DURING CONSTRUCTION AND WHICH IS SUITABLE FOR MAINTENANCE OF TRAFFIC AS DETERMINED BY THE ENGINEER SHALL BE SALVAGED AND UTILIZED FOR MAINTENANCE OF TRAFFIC PRIOR TO THE USE OF COMMERCIAL MATERIALS, WHEN NOT SPECIFIED AS A SEPARATE PAY ITEM. THE REMOVAL AND SALVAGING OF EXISTING SURFACES AND AGGREGATE BASE AND SUBBASE MATERIAL AND REUSE OF MATERIALS WILL BE MEASURED AND PAID FOR AS REGULAR EXCAVATION IN ACCORDANCE WITH SECTION 303 OF THE ROAD AND BRIDGE SPECIFICATIONS.
- ACCESS TO ADJACENT RESIDENTIAL AND COMMERCIAL PROPERTIES SHALL BE MAINTAINED AT ALL TIMES OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY EACH AFFECTED PROPERTY OWNER AT LEAST 48 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS.
- IF REQUIRED, THE CONTRACTOR SHALL PLACE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) AT LOCATIONS APPROVED BY VDOT AND SHALL BE IN ACCORDANCE WITH THE VA WAPM.
- ALL EXISTING SIGNS, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE MAINTAINED AND RELOCATED AS NECESSARY THROUGHOUT THE LIFE OF THE PROJECT OR AS DIRECTED BY THE ENGINEER.
- SIGN SPACING SHALL BE ADJUSTED TO FIT FIELD CONDITIONS WITH APPROVAL OF THE ENGINEER.
- ALL EXISTING SIGNS, EITHER SHOWN ON THE PLANS OR NOT, THAT ARE TO REMAIN AND CONVEY A CONFLICTING MESSAGE TO THE TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED AT ALL TIMES FOR THE DURATION OF TEMPORARY TRAFFIC CONTROL SETUP.
- ALL SIGNING FOR THE PROJECT LIMITS SHALL BE DONE IN ACCORDANCE WITH THE LATEST REVISION OF THE VA WAPM. THESE SIGNS SHALL BE INSTALLED ON ALL STATE MAINTAINED ROADWAYS AND REMAIN IN PLACE FOR THE DURATION OF THE PROJECT.
- ALL CONSTRUCTION SIGNING SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE FOLLOWING DOCUMENTS:

VIRGINIA WORK AREA PROTECTION MANUAL (WAPM)
 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
 VIRGINIA SUPPLEMENT TO THE MUTCD
 VIRGINIA ROAD AND BRIDGE SPECIFICATIONS
 VIRGINIA ROAD AND BRIDGE STANDARDS
 VDOT IIM-LD-241 / IIM-TE-351.5
 VDOT IIM-TE-392 (IF APPLICABLE)

PUBLIC COMMUNICATIONS

- THE PUBLIC SHALL BE NOTIFIED OF THE EXPECTED SCHEDULE ON VDOT'S WEB SITE FOR THIS PROJECT. INFORMATION OF THE POTENTIAL FOR BACK-UPS DURING THE PEAK HOURS OF OPERATION IS PROVIDED BY THE REGIONAL TRAFFIC OPERATIONS CENTER.
- THE CONTRACTOR SHALL PROVIDE ADVANCE NOTICE OF ALL CLOSURES TO THE ENGINEER WHO WILL COMMUNICATE WITH THE VDOT DISTRICT PUBLIC AFFAIRS SECTION, LOCAL AGENCY, FEDERAL AGENCIES AND SCHOOLS IN CLOSE PROXIMITY, RADIO AND TELEVISION, EMERGENCY SERVICES, AND VDOT TRAFFIC OPERATION CENTER AS DEEMED NECESSARY.
- THE CONTRACTOR SHALL NOTIFY TRANSPORTATION OPERATIONS CENTER 48 HOURS IN ADVANCE OF ANY LANE CLOSURES IN ORDER TO PLACE LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-TRAFFIC.

TRANSPORTATION OPERATIONS

- THE PUBLIC AFFAIRS SECTION AND THE TRAFFIC OPERATIONS CENTER SHALL BE NOTIFIED BY THE CONSTRUCTION PROJECT MANAGER OF LANE CLOSURE INFORMATION FOR DISTRIBUTION ON THE 511 SYSTEM AND VOIS. THE TOC AND CONTRACTOR WILL UTILIZE ASSETS SUCH AS VARIABLE MESSAGE SIGNS TO ALERT MOTORIST OF LANE CLOSURES AND OTHER INCIDENT THAT MAY IMPACT TRAVEL. PCMS BOARD SHALL BE EQUIPPED WITH COMA CAPABILITIES.
- THE CONSTRUCTION PROJECT MANAGER SHALL BE NOTIFIED ONE WEEK IN ADVANCE OF LANE CLOSURES.
- EMERGENCY RESPONSE PROFESSIONALS SHALL RESPOND TO TRAFFIC INCIDENTS IN THE WORK ZONE AS SOON AS POSSIBLE.
- BY NOON ON EACH THURSDAY, THE CONTRACTOR WILL SUBMIT TO THE CONSTRUCTION PROJECT MANAGER IN WRITING, A REQUEST FOR LANE CLOSURES FOR THE FOLLOWING WEEK.
- THE FOLLOWING IS THE CONTACT LIST OF EMERGENCY RESPONSE AGENCIES IN CASE AN INCIDENT OCCURS IN THE WORK ZONE:
 - POLICE/AMBULANCE/FIRE SAFETY /HAZMAT SPILLS - 911
 - TRAFFIC OPERATIONS CENTER - (703) 877-3449
 - VIRGINIA STATE POLICE - (703) 791-3101
 - LOCAL AGENCY - (703) 792-6825
- FOLLOWING ANY TRAFFIC INCIDENTS, THE SITE SHALL BE CLEARED AND RESTORED FOR NORMAL TRAFFIC OPERATIONS AS SOON AS POSSIBLE.
- TRAFFIC INCIDENTS WILL BE INVESTIGATED AND MEASURES INTRODUCED TO REDUCE OCCURRENCES. IF NECESSARY, THE TRANSPORTATION MANAGEMENT PLAN MAY BE REVISED IN CONSULTATION WITH THE ENGINEER.

TEMPORARY TRAFFIC CONTROL

- THIS TRANSPORTATION MANAGEMENT PLAN HAS BEEN DESIGNED IN CONFORMANCE WITH A TYPE B, CATEGORY III PROJECT.
- LANE CLOSURES OR WORK THAT RESTRICTS TRAFFIC FLOW WILL NOT BE PERMITTED FROM NOON THE DAY BEFORE A HOLIDAY UNTIL NOON THE DAY AFTER A HOLIDAY UNLESS APPROVED BY THE ENGINEER.
- WHEN A HOLIDAY FALLS ON A FRIDAY, LANE CLOSURES ARE NOT PERMITTED FROM NOON ON THURSDAY TO NOON ON MONDAY. WHEN A HOLIDAY FALLS ON MONDAY, LANE CLOSURES ARE NOT PERMITTED FROM NOON ON FRIDAY TO NOON ON TUESDAY. FURTHER, AS THE THANKSGIVING DAY HOLIDAY OCCURS ON A THURSDAY, THE LANE CLOSURE WILL NOT BE PERMITTED FROM NOON ON WEDNESDAY UNTIL NOON ON THE FOLLOWING MONDAY.
- THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER FOR ANY PLANNED CLOSURE NOT ANTICIPATED BY THIS TRANSPORTATION MANAGEMENT PLAN.
- THE CONTRACTOR SHALL SUBMIT REQUESTS FOR LANE CLOSURE TO VDOT A MINIMUM OF ONE WEEK IN ADVANCE OF THE LANE CLOSURE.
- LANE CLOSURE REQUEST SHALL BE ENTERED INTO THE VDOT'S LANE CLOSURE ADVISORY MANAGEMENT SYSTEM (LCAMS), BY THE CONTRACTOR, AT LEAST TEN (10) DAYS TO THE LANE CLOSURE, AND NO LATER THEN CLOSE OF BUSINESS WEDNESDAY THE WEEK PRIOR TO THE CLOSURE.
- PRIOR TO CLOSING LANES OF A ROADWAY OR DETOURING TRAFFIC, LOCAL FIRE, RESCUE, AND LAW ENFORCEMENT SHALL BE NOTIFIED BY THE ENGINEER. IN THE EVENT AN ACCEPTABLE ALTERNATE ROUTING FOR EMERGENCY SERVICES CANNOT BE OBTAINED, THE CONTRACTOR SHALL MAKE ACCOMMODATIONS TO ROUTE EMERGENCY VEHICLES SAFELY THROUGH THE WORK ZONE UNDER APPROVAL AND DIRECTION OF THE ENGINEER.
- THE CONTRACTOR SHALL START LANE CLOSURE ACTIVITIES WITHIN THE SPECIFIED OFF PEAK HOURS. NO ROAD PREPARATION ACTIVITY ALLOWED DURING THE PEAK HOURS. THE CONTRACTOR SHALL CLEAR THE TEMPORARY LANE CLOSURE SET-UP WITHIN THE OFF PEAK HOURS.
- LANE CLOSURES WILL NOT BE PERMITTED DURING THE PEAK HOURS UNLESS DIRECTED BY THE ENGINEER.

PEAK HOURS: 6:00 AM TO 9:00 AM AND 3:30 PM TO 6:30 PM
 NON-PEAK HOURS: 9:00 AM TO 3:30 PM AND 6:30 PM TO 6:00 AM

ALLOWABLE LANE CLOSURE HOURS (SINGLE LANE)				
WEEKDAY		WEEKEND		
MONDAY - THURSDAY	FRIDAY	FRIDAY - SATURDAY	SATURDAY - SUNDAY	SUNDAY - MONDAY
9:00 AM TO 3:30 PM 9:00 PM TO 5:00 AM	9:00 AM TO 2:00 PM	9:00 PM TO 9:00 AM	9:00 PM TO 9:00 AM	10:00 PM TO 5:00 AM

ALLOWABLE LANE CLOSURE HOURS (MULTIPLE LANES)				
WEEKDAY		WEEKEND		
MONDAY - THURSDAY	FRIDAY	FRIDAY - SATURDAY	SATURDAY - SUNDAY	SUNDAY - MONDAY
9:00 PM TO 5:00 AM	NOT UNTIL 10:00 PM	10:00 PM TO 6:00 AM	10:00 PM TO 6:00 AM	10:00 PM TO 5:00 AM

TYPICAL TRAFFIC CONTROL FIGURES

THE FOLLOWING TYPICAL TRAFFIC CONTROL (TTC) FIGURES FROM THE VA WAPM HAVE BEEN PROPOSED FOR THE USE, GUIDANCE, AND APPLICATION ON THIS PROJECT:

FIGURE TTC-1J	WORK BEYOND SHOULDER OPERATION
FIGURE TTC-3.2	MOBILE OR SHORT DURATION SHOULDER OPERATION
FIGURE TTC-4.2	STATIONARY OPERATION ON A SHOULDER
FIGURE TTC-5.2	SHOULDER OPERATION WITH MINOR ENCROACHMENT
FIGURE TTC-13.2	MOVING/MOBILE OPERATIONS ON A TWO-LANE ROADWAY
FIGURE TTC-15.2	SHORT DURATION OPERATION ON A MULTI-LANE ROADWAY
FIGURE TTC-16.2	OUTSIDE LANE CLOSURE OPERATION ON A FOUR-LANE ROADWAY
FIGURE TTC-17.2	INSIDE LANE CLOSURE OPERATION ON A FOUR-LANE ROADWAY
FIGURE TTC-18.2	MULTI-LANE CLOSURE OPERATION
FIGURE TTC-23.2	LANE CLOSURE ON A TWO-LANE ROADWAY USING FLAGGERS
FIGURE TTC-24.2	NON-STATIONARY OPERATION ON A TWO-LANE ROADWAY USING FLAGGERS
FIGURE TTC-26.2	LANE CLOSURE OPERATION - NEAR SIDE OF AN INTERSECTION
FIGURE TTC-27.2	LANE CLOSURE OPERATION - FAR SIDE OF AN INTERSECTION
FIGURE TTC-28.2	LANE CLOSURE OPERATION IN AN INTERSECTION
FIGURE TTC-29.2	TURN LANE CLOSURE OPERATION
FIGURE TTC-53.0	SIGNING FOR PROJECT LIMITS
FIGURE TTC-58J	END OF DAY SIGNING FOR FULL PAVING OPERATIONS ON A MULTI-LANE ROADWAY

SEQUENCE OF CONSTRUCTION

- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, SIGNING FOR PROJECT LIMITS SHALL BE INSTALLED AS SHOWN IN FIGURE TTC-53.0 OF THE VA WAPM FOR PROJECT DURATIONS EQUAL TO OR GREATER THAN 60 DAYS.
- ALL EROSION AND SEDIMENT CONTROL MEASURES AND TEMPORARY DRAINAGE SHALL BE IN PLACE PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL SCHEDULE ALL PHASES OF CONSTRUCTION IN SUCH A MANNER THAT WATER, SANITARY SEWER, CABLE, FIBER CABLE/OPTIC CABLE, AND ANY OVERHEAD OR UNDERGROUND UTILITY SERVICES WILL NOT BE INTERRUPTED.

UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PLAN AND PROSECUTE THE WORK IN ACCORDANCE WITH THE FOLLOWING SUGGESTED SEQUENCE OF CONSTRUCTION:

STAGE 1:

- INSTALL ADVANCE WARNING SIGNS ALONG WITH GROUP 2 CHANNELIZING DEVICES AS SHOWN ON PLANS.
- CONSTRUCT GRADING AND DRAINAGE ITEMS AS INDICATED ON PLANS.
- CONSTRUCT RIGHT SIDE OF OCCOQUAN ROAD FROM STATION 203+00 TO STATION 206+00.
- CONSTRUCT RIGHT SIDE OF WESTBOUND OLD BRIDGE ROAD FROM STATION 105+09 TO STATION 107+00.
- CONSTRUCT WESTBOUND OLD BRIDGE ROAD FROM STATION 104+29 TO STATION 106+86 UNDER SHORT-TERM LANE CLOSURES.

STAGE 2:

- INSTALL ADVANCE WARNING SIGNS ALONG WITH GROUP 2 CHANNELIZING DEVICES AS SHOWN ON PLANS.
- CONSTRUCT GRADING AND DRAINAGE ITEMS AS INDICATED ON PLANS.
- CONSTRUCT LEFT SIDE OF OCCOQUAN ROAD FROM STATION 203+00 TO 205+14.
- CONSTRUCT MAJORITY OF WESTBOUND OLD BRIDGE ROAD FROM STATION 106+78 TO STATION 113+00.
- CONSTRUCT WESTBOUND OLD BRIDGE ROAD FROM STATION 107+24 TO STATION 107+76 AND FROM 108+84 TO STATION 113+00.

STAGE 3:

- INSTALL ADVANCE WARNING SIGNS ALONG WITH GROUP 2 CHANNELIZING DEVICES AS SHOWN ON PLANS.
- CONSTRUCT GRADING AND DRAINAGE ITEMS AS INDICATED ON PLANS.
- CONSTRUCT EASTBOUND OLD BRIDGE ROAD FROM STATION 102+00 TO STATION 106+00.

STAGE 4:

- INSTALL ADVANCE WARNING SIGNS ALONG WITH GROUP 2 CHANNELIZING DEVICES AS SHOWN ON PLANS.
- CONSTRUCT GRADING AND DRAINAGE ITEMS AS INDICATED ON PLANS.
- CONSTRUCT REMAINDER OF PERMANENT DRIVEWAYS, CURB AND GUTTERS, AND SHARED-USE PATH UNDER SHORT-TERM LANE CLOSURES.
- CONSTRUCT EASTBOUND OLD BRIDGE ROAD FROM STATION 111+50 TO STATION 116+00.

FOR DRAINAGE INSTALLATION PLANS FOLLOW TTC STAGES 1 THROUGH 4 (SHEETS 3A THROUGH 18A)

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

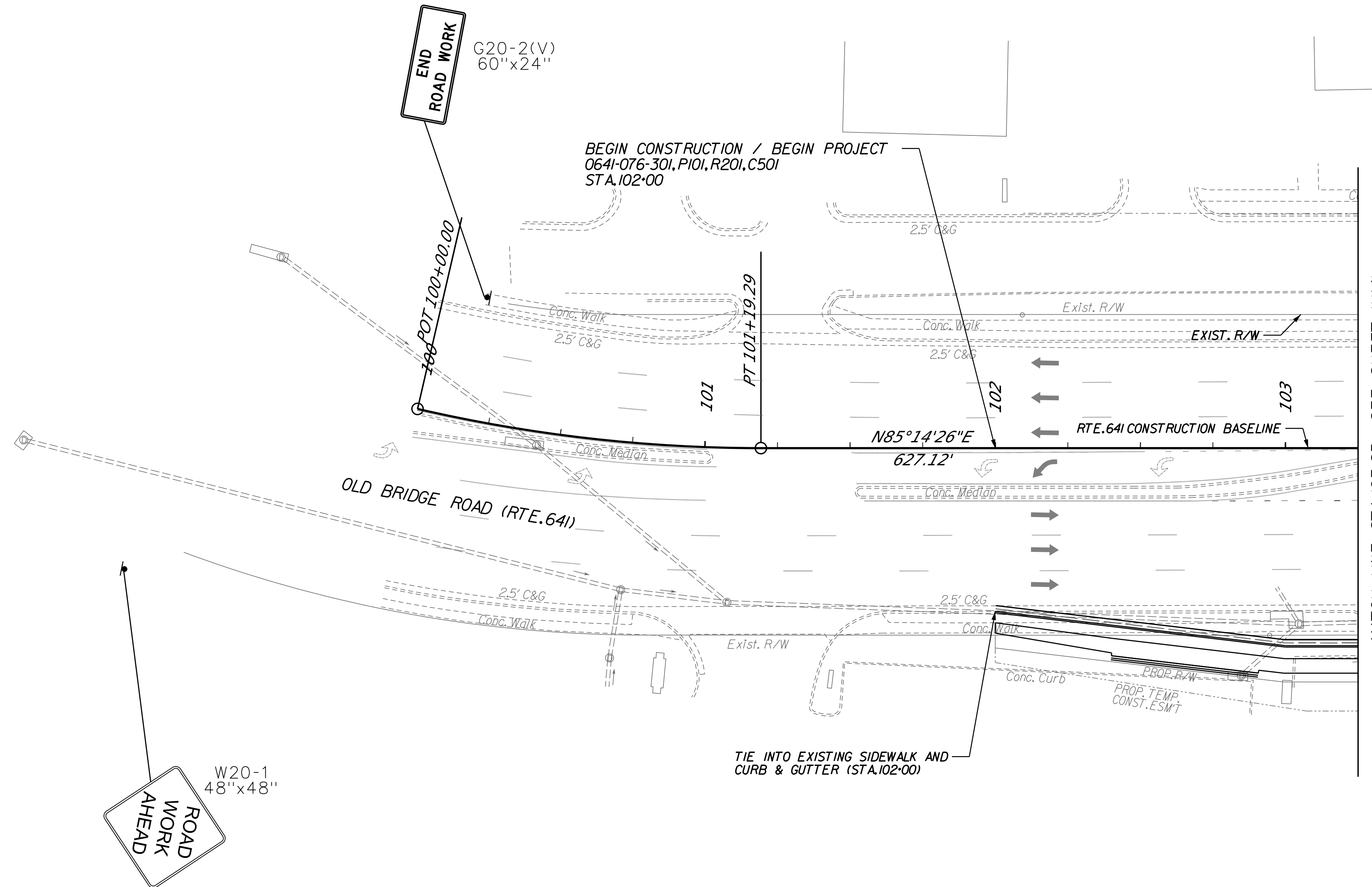
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 1

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (N) TYPE A, WHITE, 24" WIDTH (10' LINE, 3' SPACE) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |
| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

LEGEND

- DENOTES CONSTRUCTION THIS STAGE
- DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
- DENOTES CONSTRUCTION PREVIOUS STAGE
- DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



PROJECT
0641-076-301
SHEET NO.
1H(3)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE INSTALLATION PLAN

STAGE 1

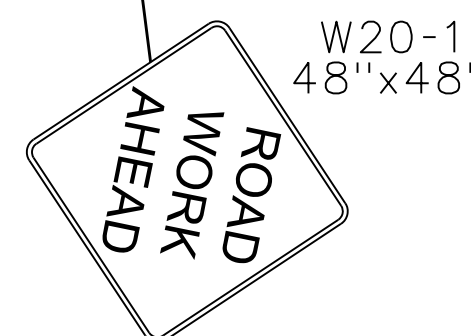
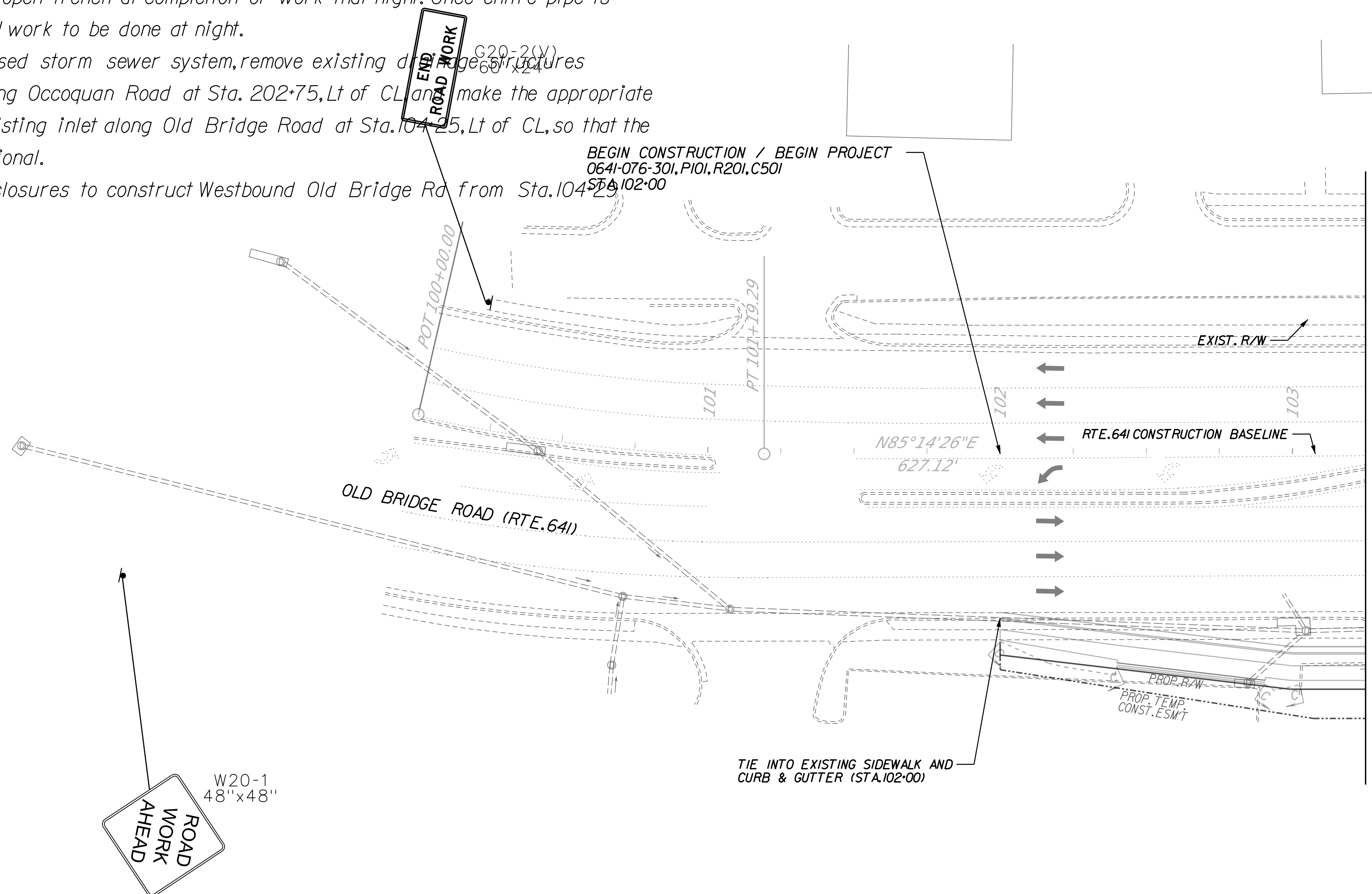
SEQUENCE OF CONSTRUCTION

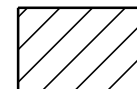



1. Install proposed storm sewer system along Occoquan Road outfalling at Str.6-3 from the downstream end working upstream to Str.4-6, prior to any excavation activities.
2. For the installation of the pipe between Str.6-1 and 6-2, install at night closing one lane at a time for a staged installation, using flaggers. Excavate trench and install a portion of pipe, then place steel plate over open trench at completion of work that night. Once entire pipe is installed, backfill trench. All work to be done at night.
3. Upon installation of proposed storm sewer system, remove existing drainage structures and system outfalling along Occoquan Road at Sta. 202+75, Lt of CL and make the appropriate pipe connections to the existing inlet along Old Bridge Road at Sta. 104+25, Lt of CL, so that the proposed system is functional.
4. Maintain short term lane closures to construct Westbound Old Bridge Rd from Sta. 104+25 to Sta. 106+86.

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201, C-501	1H(3A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



- LEGEND**
-  DENOTES CONSTRUCTION THIS STAGE
 -  DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 -  DENOTES CONSTRUCTION PREVIOUS STAGE
 -  DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 1H(3A)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

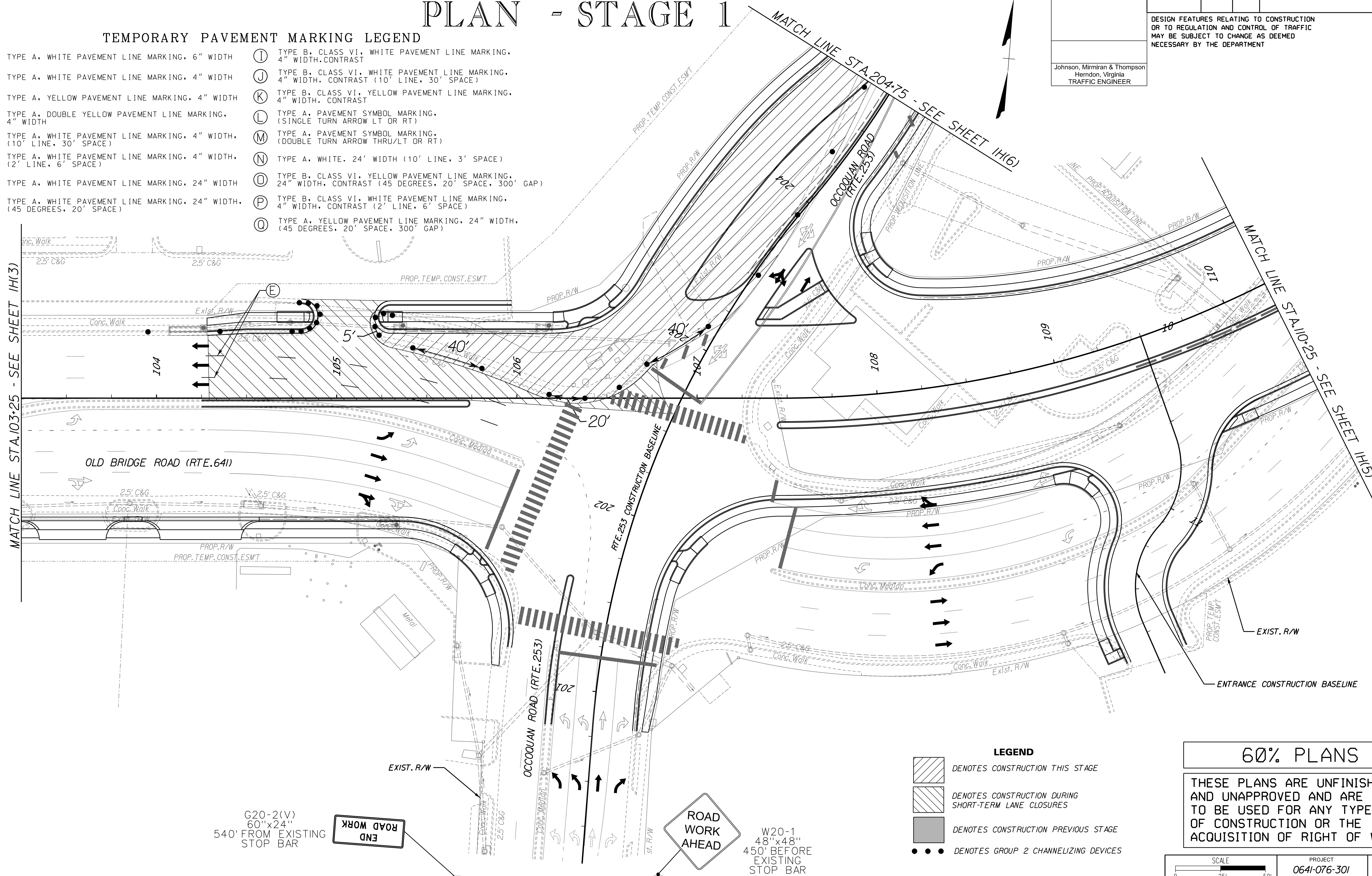
TEMPORARY TRAFFIC CONTROL (TTC)

PLAN - STAGE 1

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201, C-501	IH(4)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER					

TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A. WHITE PAVEMENT LINE MARKING, 6" WIDTH | (I) TYPE B. CLASS VI. WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (B) TYPE A. WHITE PAVEMENT LINE MARKING, 4" WIDTH | (J) TYPE B. CLASS VI. WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (C) TYPE A. YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B. CLASS VI. YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (D) TYPE A. DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A. PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (E) TYPE A. WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (M) TYPE A. PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (F) TYPE A. WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (N) TYPE A. WHITE, 24' WIDTH (10' LINE, 3' SPACE) |
| (G) TYPE A. WHITE PAVEMENT LINE MARKING, 24" WIDTH | (O) TYPE B. CLASS VI. YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (H) TYPE A. WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (P) TYPE B. CLASS VI. WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| | (Q) TYPE A. YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |



G20-2(V)
60"x24"
540' FROM EXISTING STOP BAR

END ROAD WORK

ROAD WORK AHEAD

W20-1
48"x48"
450' BEFORE EXISTING STOP BAR

- LEGEND**
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. IH(4)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE INSTALLATION PLAN

STAGE 1

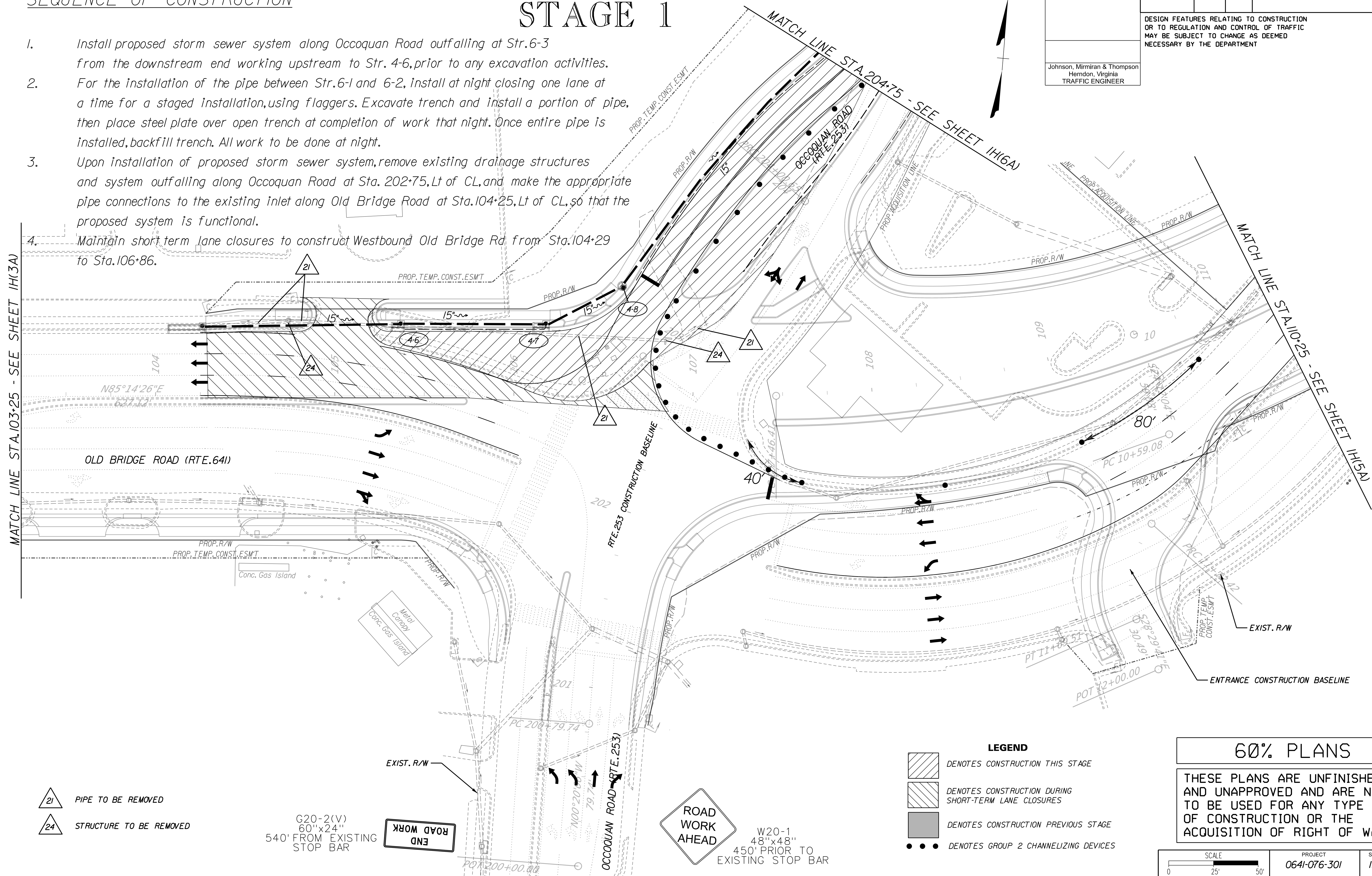
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(4A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER

SEQUENCE OF CONSTRUCTION

1. Install proposed storm sewer system along Occoquan Road outfalling at Str.6-3 from the downstream end working upstream to Str. 4-6, prior to any excavation activities.
2. For the installation of the pipe between Str.6-1 and 6-2, install at night closing one lane at a time for a staged installation, using flaggers. Excavate trench and install a portion of pipe, then place steel plate over open trench at completion of work that night. Once entire pipe is installed, backfill trench. All work to be done at night.
3. Upon installation of proposed storm sewer system, remove existing drainage structures and system outfalling along Occoquan Road at Sta. 202+75, Lt of CL, and make the appropriate pipe connections to the existing inlet along Old Bridge Road at Sta.104+25, Lt of CL, so that the proposed system is functional.
4. Maintain short term lane closures to construct Westbound Old Bridge Rd from Sta.104+29 to Sta.106+86.



- PIPE TO BE REMOVED
- STRUCTURE TO BE REMOVED

G20-2(V)
60"x24"
540' FROM EXISTING
STOP BAR

END
ROAD WORK

ROAD
WORK
AHEAD

W20-1
48"x48"
450' PRIOR TO
EXISTING STOP BAR

- LEGEND**
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 1H(4A)
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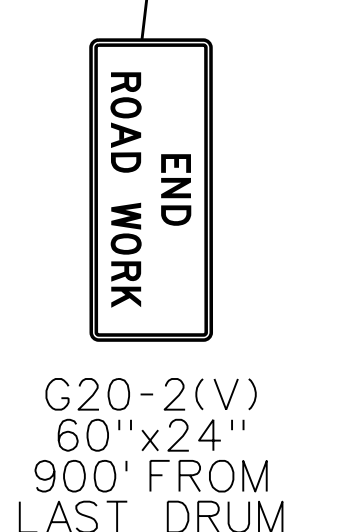
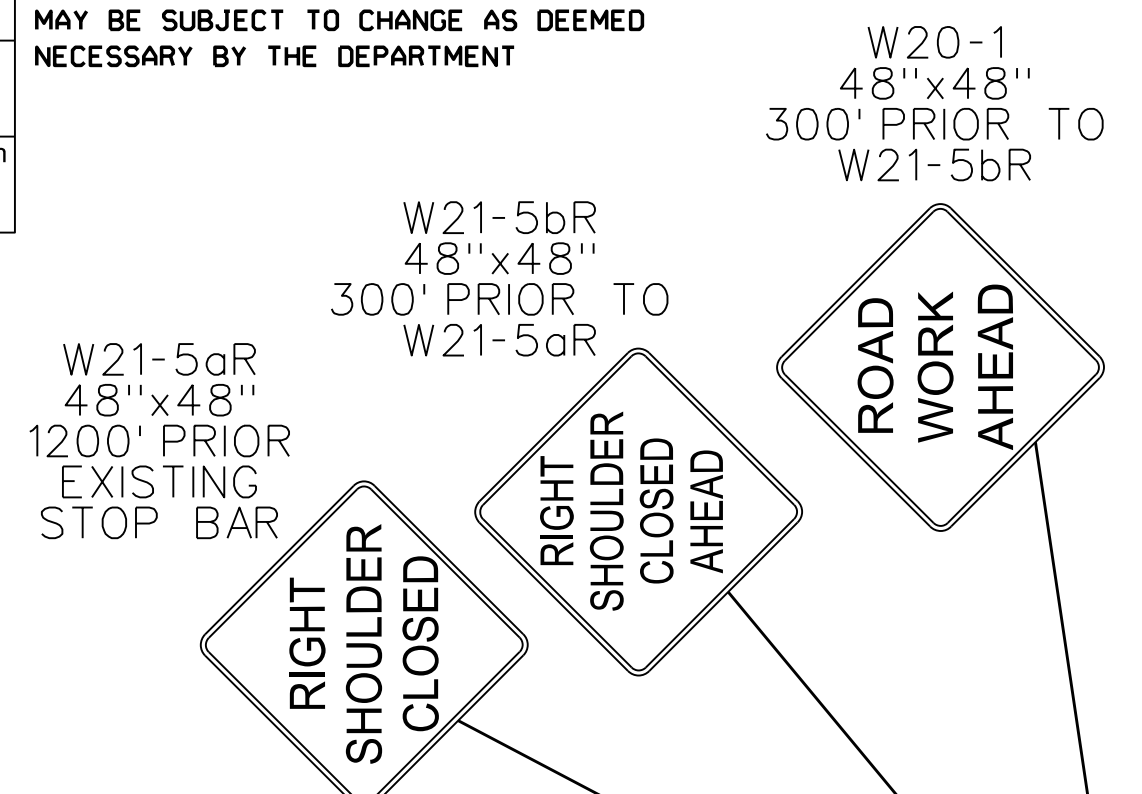
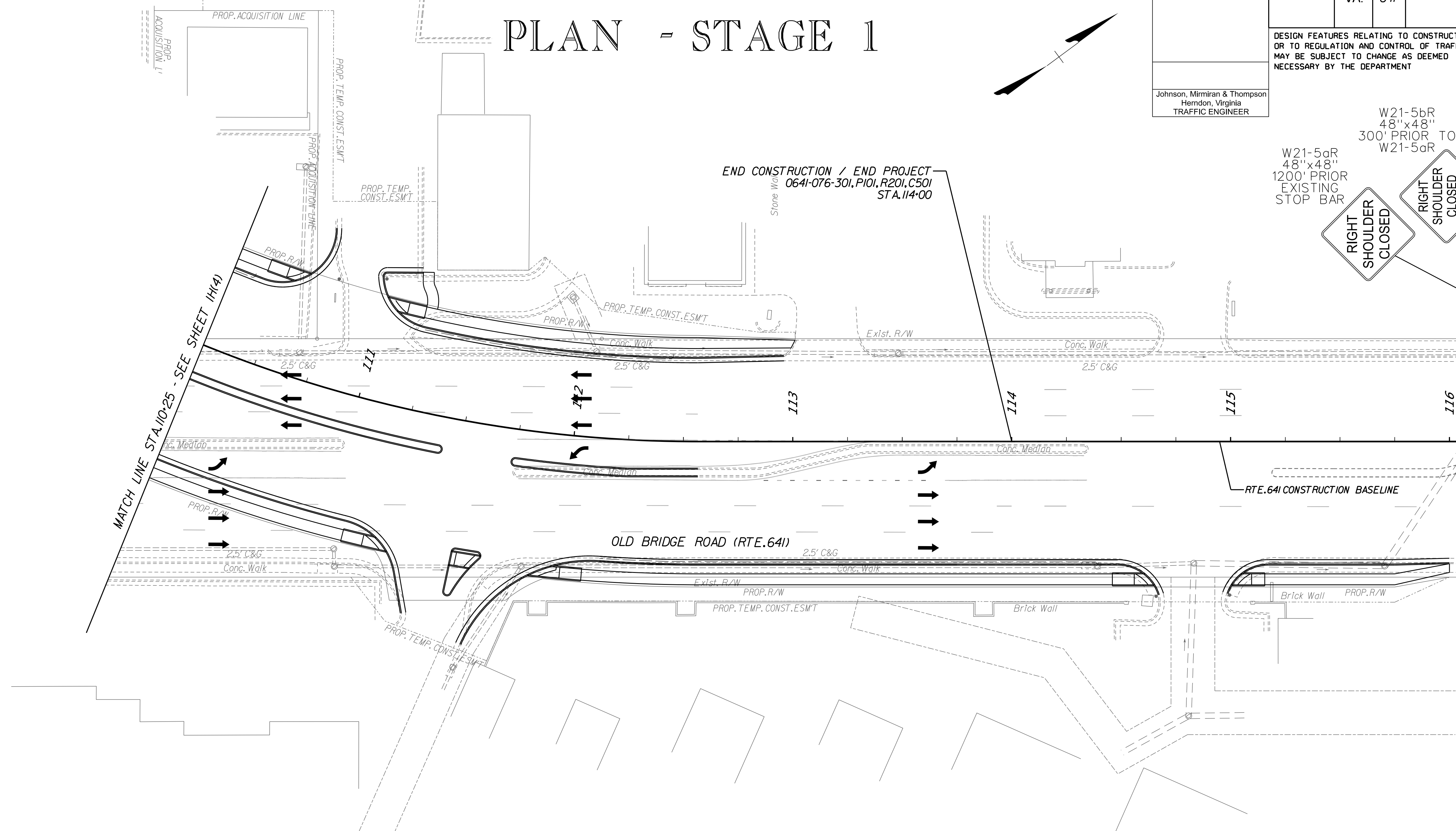
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 1

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(5)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



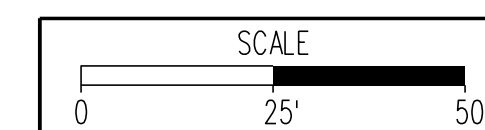
TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (N) TYPE A, WHITE, 24" WIDTH (10' LINE, 3' SPACE) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |
| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



PROJECT 0641-076-301
SHEET NO. 1H(5)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

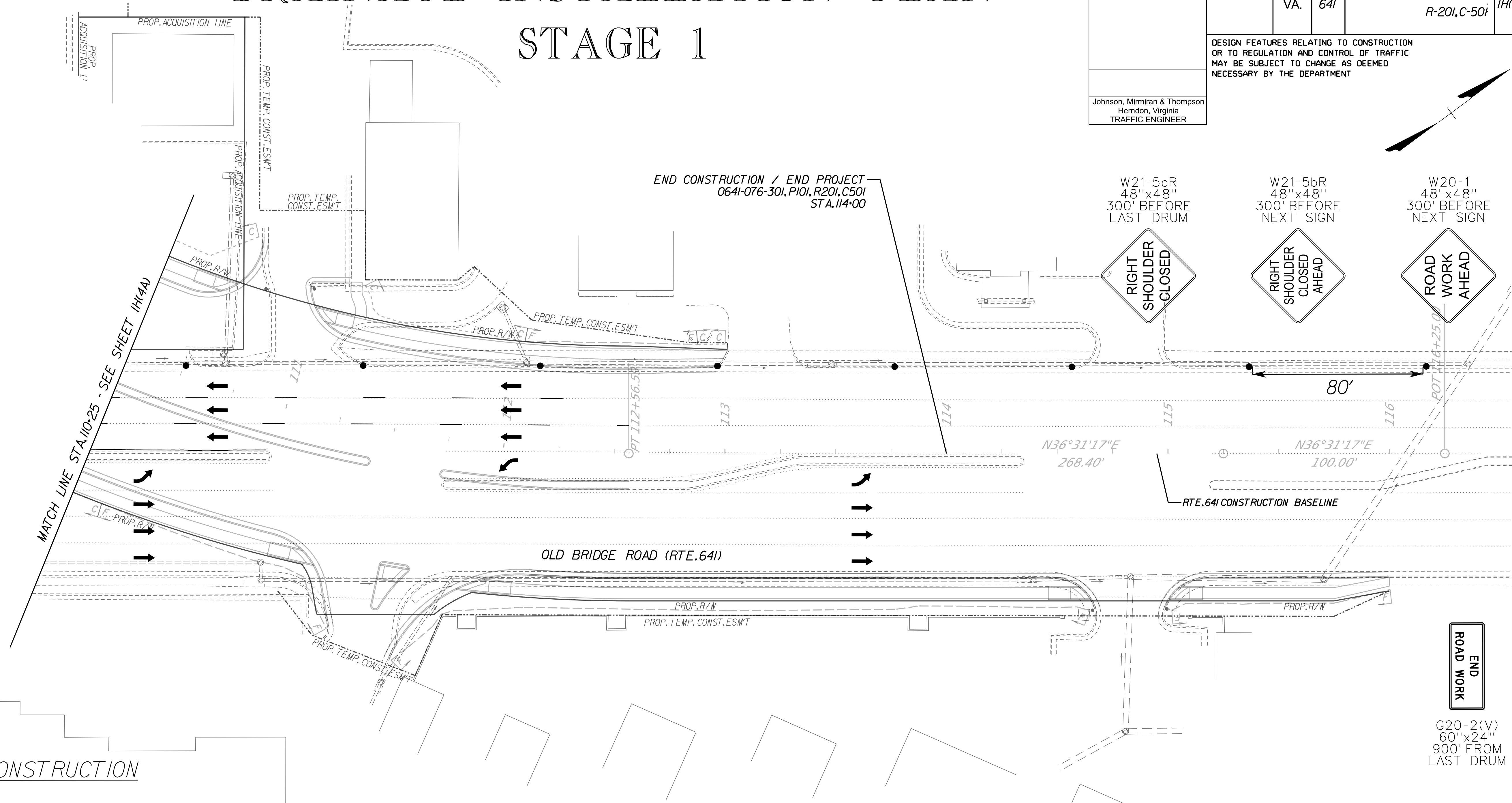
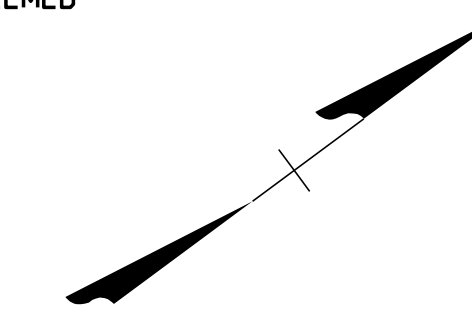
DRAINAGE INSTALLATION PLAN

STAGE 1

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201,C-501	1H(5A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



SEQUENCE OF CONSTRUCTION

1. Install proposed storm sewer system along Occoquan Road outfalling at Str. 6-3 from the downstream end working upstream to Str. 4-6, prior to any excavation activities.
2. For the installation of the pipe between Str. 6-1 and 6-2, install at night closing one lane at a time for a staged installation, using flaggers. Excavate trench and install a portion of pipe, then place steel plate over open trench at completion of work that night. Once entire pipe is installed, backfill trench. All work to be done at night.
3. Upon installation of proposed storm sewer system, remove existing drainage structures and system outfalling along Occoquan Road at Sta. 202+75, Lt of CL, and make the appropriate pipe connections to the existing inlet along Old Bridge Road at Sta. 104+25, Lt of CL, so that the proposed system is functional.
4. Maintain short term lane closures to construct Westbound Old Bridge Rd from Sta. 104+29 to Sta. 106+86.

LEGEND

	DENOTES CONSTRUCTION THIS STAGE
	DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
	DENOTES CONSTRUCTION PREVIOUS STAGE
	DENOTES GROUP 2 CHANNELIZING DEVICES

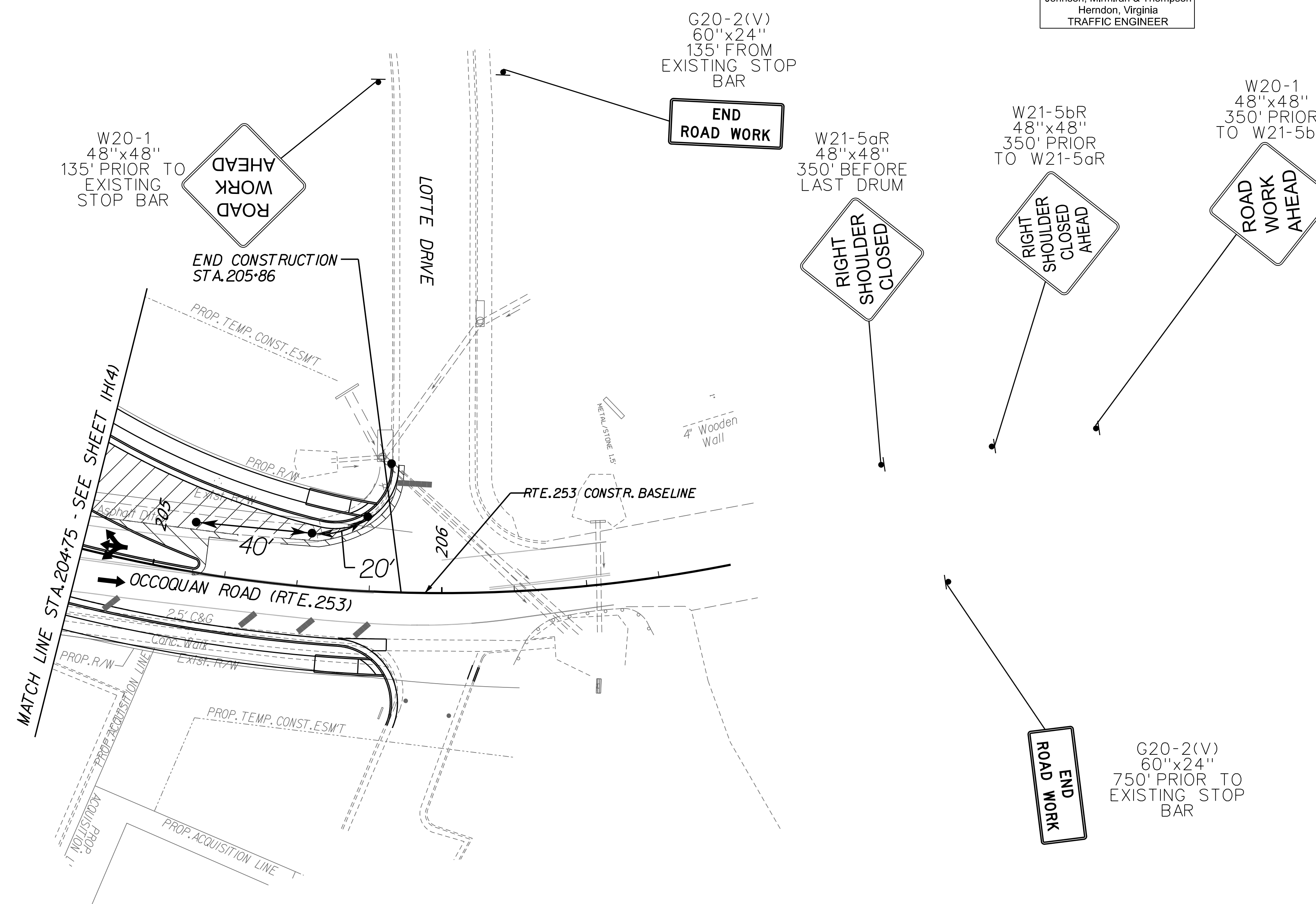
60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 1

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201, C-501	1H(6)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER					



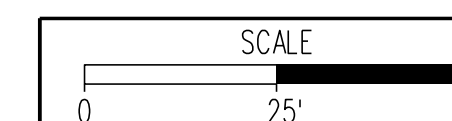
TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (N) TYPE A, WHITE, 24' WIDTH (10' LINE, 3' SPACE) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |
| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



PROJECT 0641-076-301
SHEET NO. 1H(6)

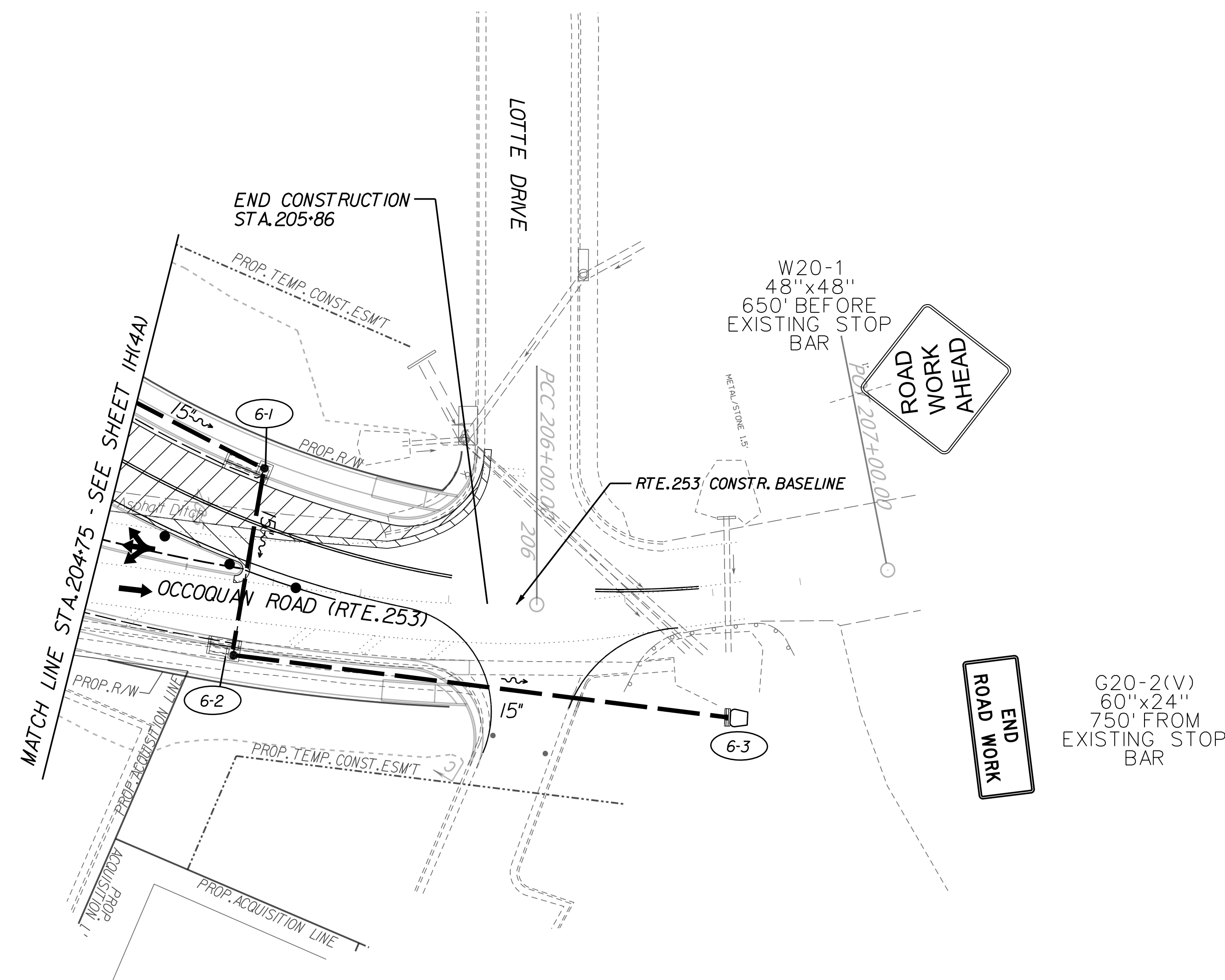
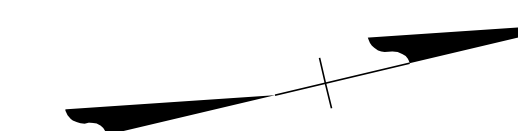
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE INSTALLATION PLAN STAGE 1

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(6A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



SEQUENCE OF CONSTRUCTION

1. Install proposed storm sewer system along Occoquan Road outfalling at Str. 6-3 from the downstream end working upstream to Str. 4-6, prior to any excavation activities.
2. For the installation of the pipe between Str. 6-1 and 6-2, install at night closing one lane at a time for a staged installation, using flaggers. Excavate trench and install a portion of pipe, then place steel plate over open trench at completion of work that night. Once entire pipe is installed, backfill trench. All work to be done at night.
3. Upon installation of proposed storm sewer system, remove existing drainage structures and system outfalling along Occoquan Road at Sta. 202+75, Lt of CL, and make the appropriate pipe connections to the existing inlet along Old Bridge Road at Sta. 104+25, Lt of CL, so that the proposed system is functional.
4. Maintain short term lane closures to construct Westbound Old Bridge Rd from Sta. 104+29 to Sta. 106+86.

LEGEND

- DENOTES CONSTRUCTION THIS STAGE
- DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
- DENOTES CONSTRUCTION PREVIOUS STAGE
- DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



PROJECT **0641-076-301** SHEET NO. **1H(6A)**

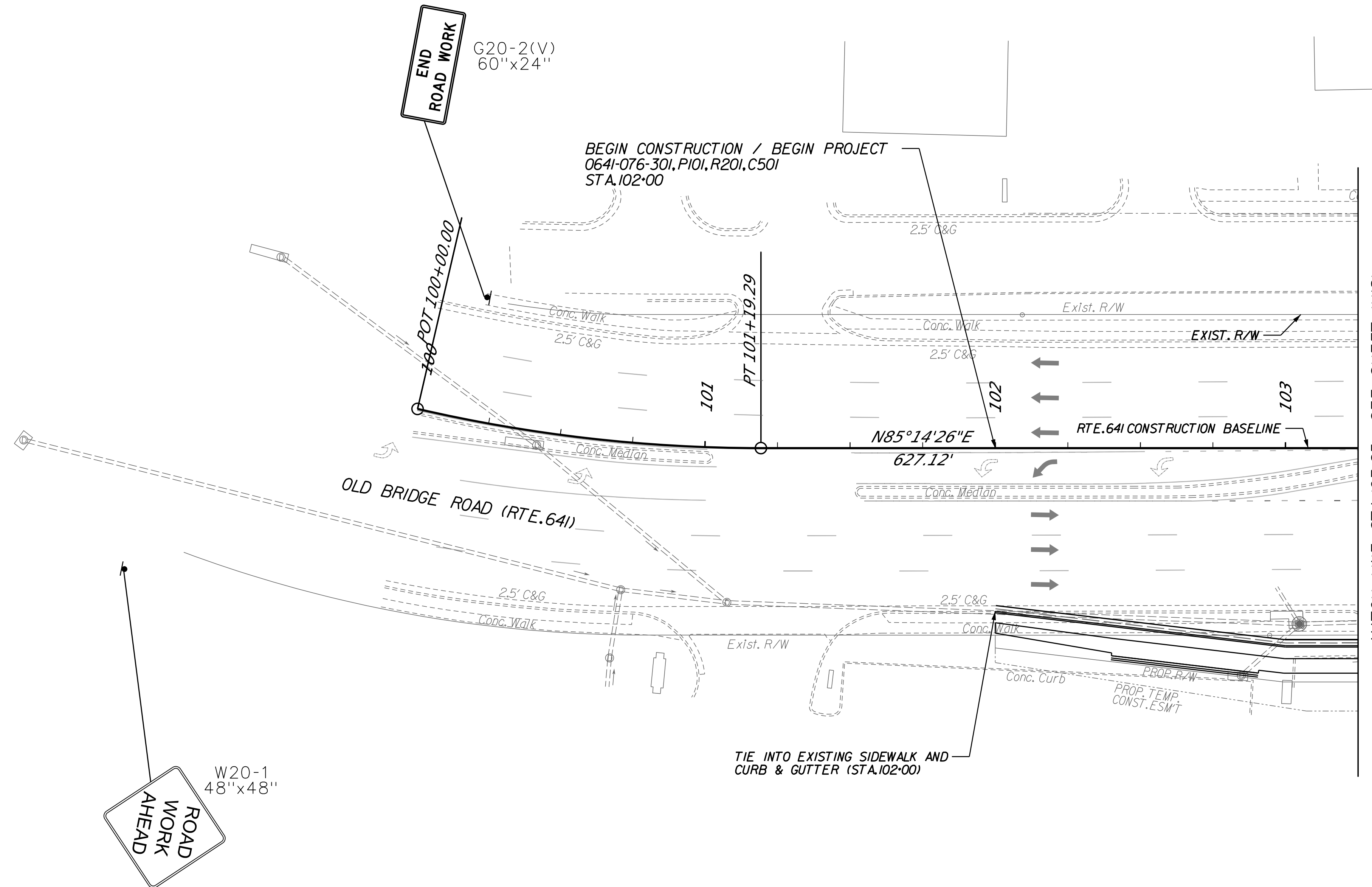
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 2

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	IH(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (N) TYPE A, WHITE, 24" WIDTH (10' LINE, 3' SPACE) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |
| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. IH(7)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

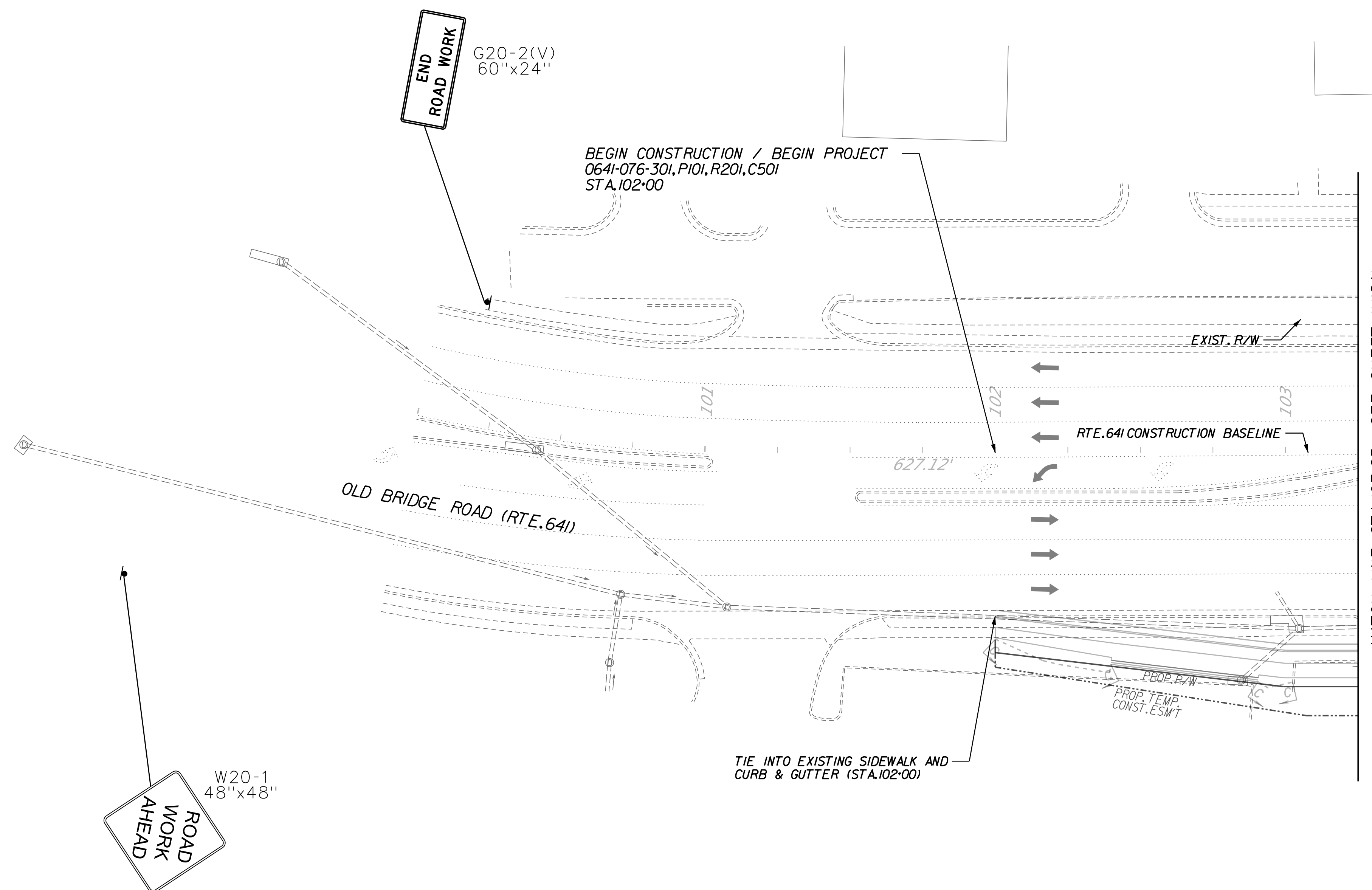
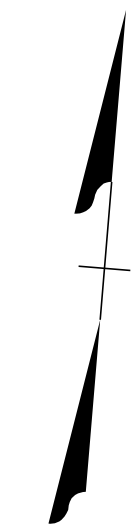
DRAINAGE INSTALLATION PLAN

STAGE 2

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(7A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



SEQUENCE OF CONSTRUCTION

1. Remove existing storm sewer system along Old Bridge Road between Sta. 108+25, Lt of CL, and Sta. 110+00, Rt of CL.
2. Install proposed storm sewer system along Old Bridge Road between Str. 5-4 and Str. 5-3 and tie into existing storm sewer system. Maintain flow through system.
3. Install remainder of proposed storm sewer system from Str. 5-5 to Str. 5-4.

LEGEND

	DENOTES CONSTRUCTION THIS STAGE
	DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
	DENOTES CONSTRUCTION PREVIOUS STAGE
	DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 1H(7A)
--------------------	-------------------------	---------------------

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
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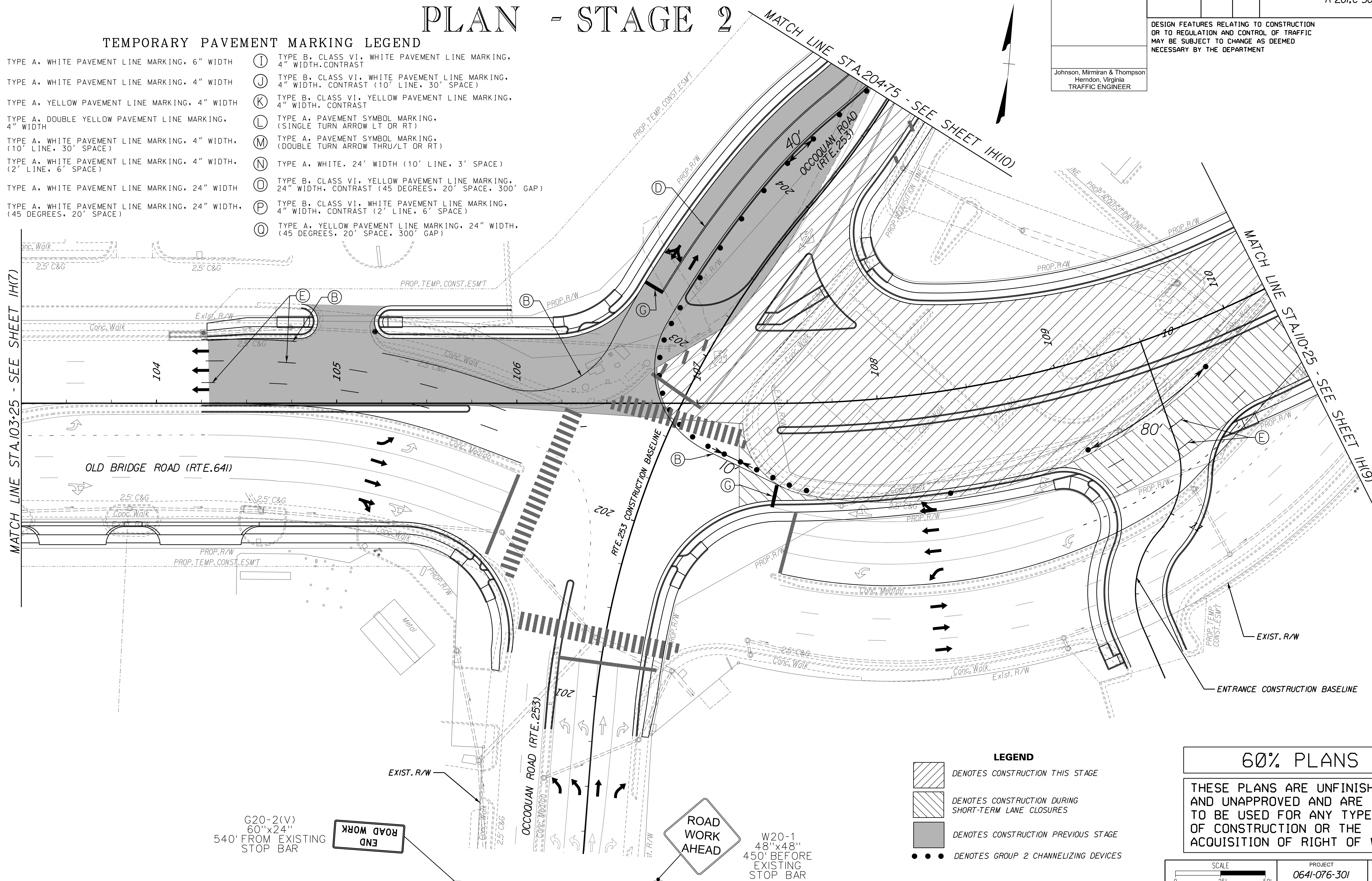
TEMPORARY TRAFFIC CONTROL (TTC)

PLAN - STAGE 2

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201, C-501	1H(8)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER					

TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (N) TYPE A, WHITE, 24' WIDTH (10' LINE, 3' SPACE) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |



LEGEND

	DENOTES CONSTRUCTION THIS STAGE
	DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
	DENOTES CONSTRUCTION PREVIOUS STAGE
	DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 1H(8)
--------------------	-------------------------	--------------------

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE INSTALLATION PLAN

STAGE 2

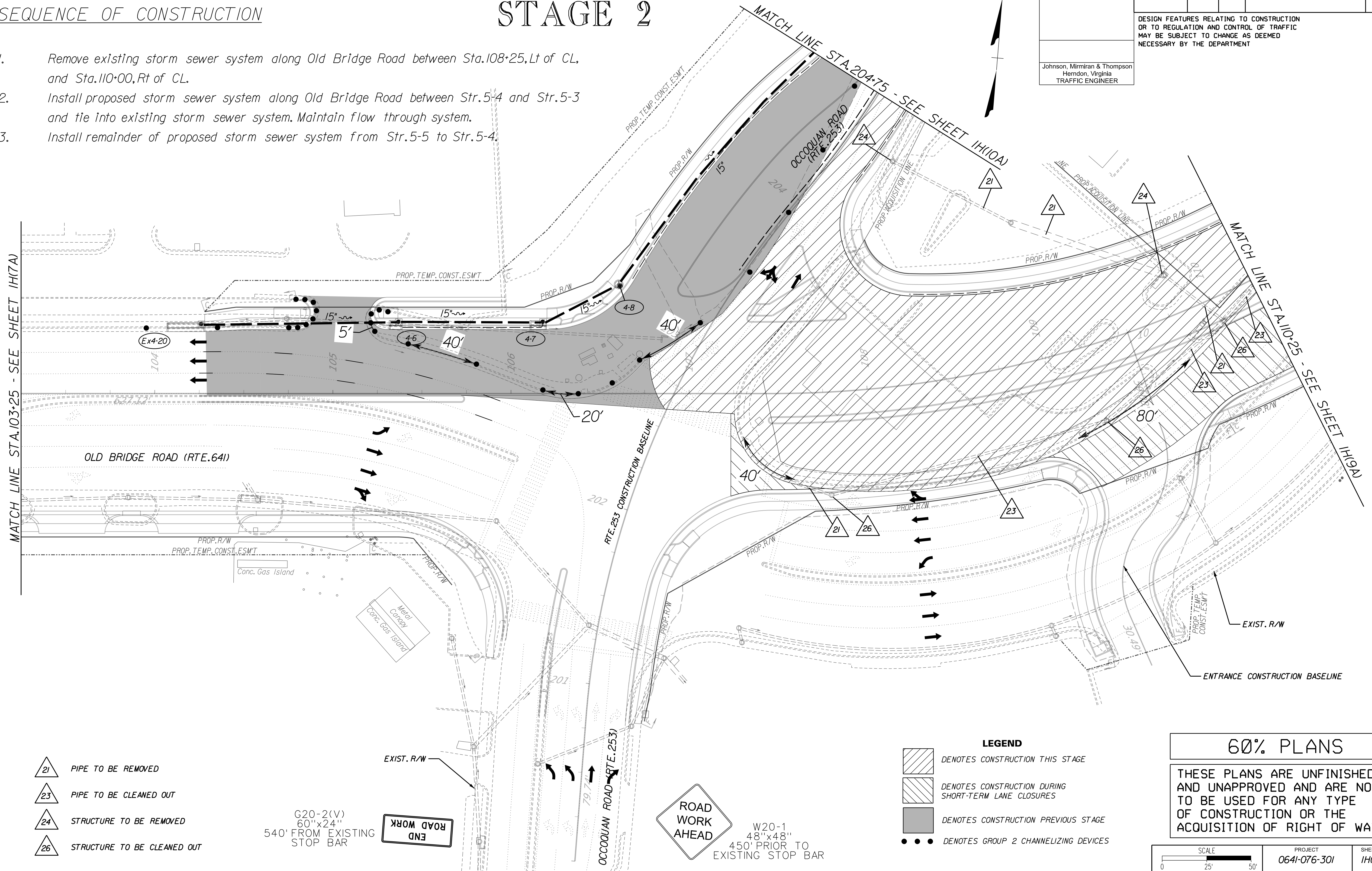
REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(8A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER

SEQUENCE OF CONSTRUCTION

1. Remove existing storm sewer system along Old Bridge Road between Sta.108+25, Lt of CL, and Sta.110+00, Rt of CL.
2. Install proposed storm sewer system along Old Bridge Road between Str.5-4 and Str.5-3 and tie into existing storm sewer system. Maintain flow through system.
3. Install remainder of proposed storm sewer system from Str.5-5 to Str.5-4.



- PIPE TO BE REMOVED
- PIPE TO BE CLEANED OUT
- STRUCTURE TO BE REMOVED
- STRUCTURE TO BE CLEANED OUT

G20-2(V)
60"x24"
540' FROM EXISTING STOP BAR

END ROAD WORK

ROAD WORK AHEAD

W20-1
48"x48"
450' PRIOR TO EXISTING STOP BAR

- LEGEND**
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 1H(8A)
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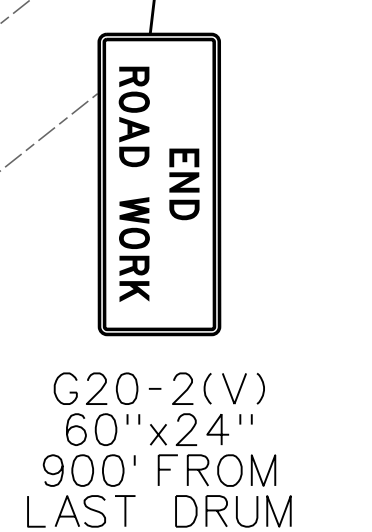
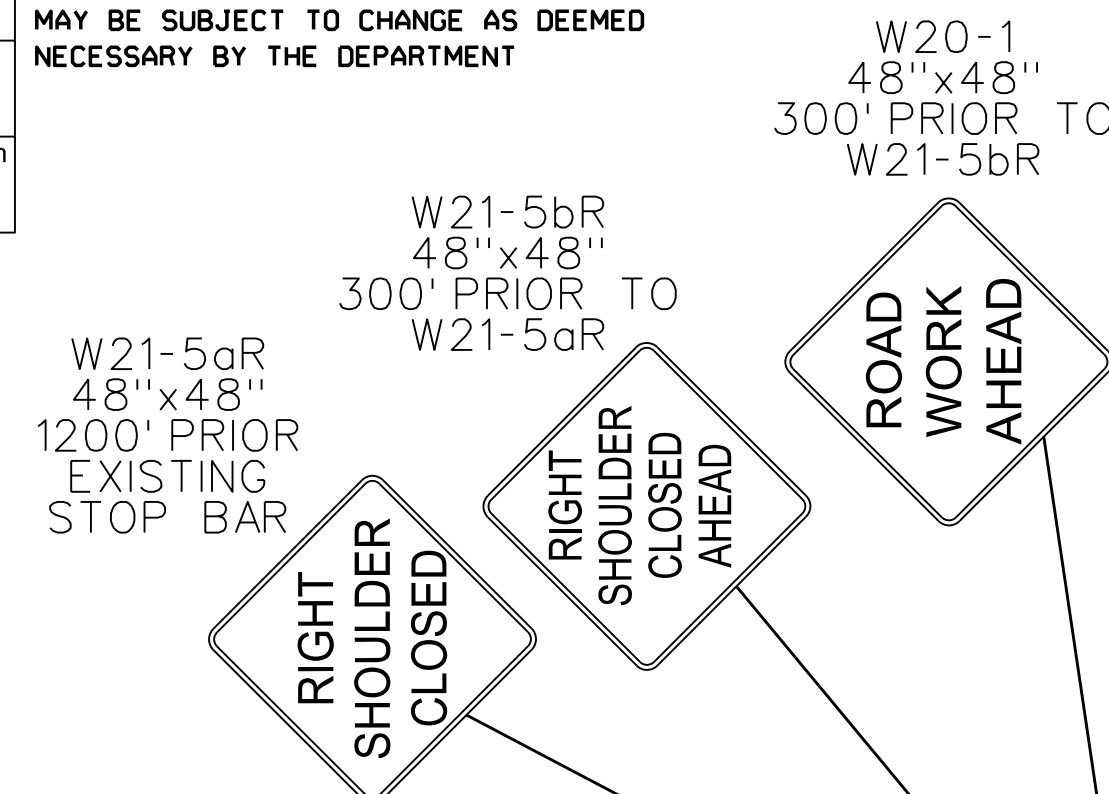
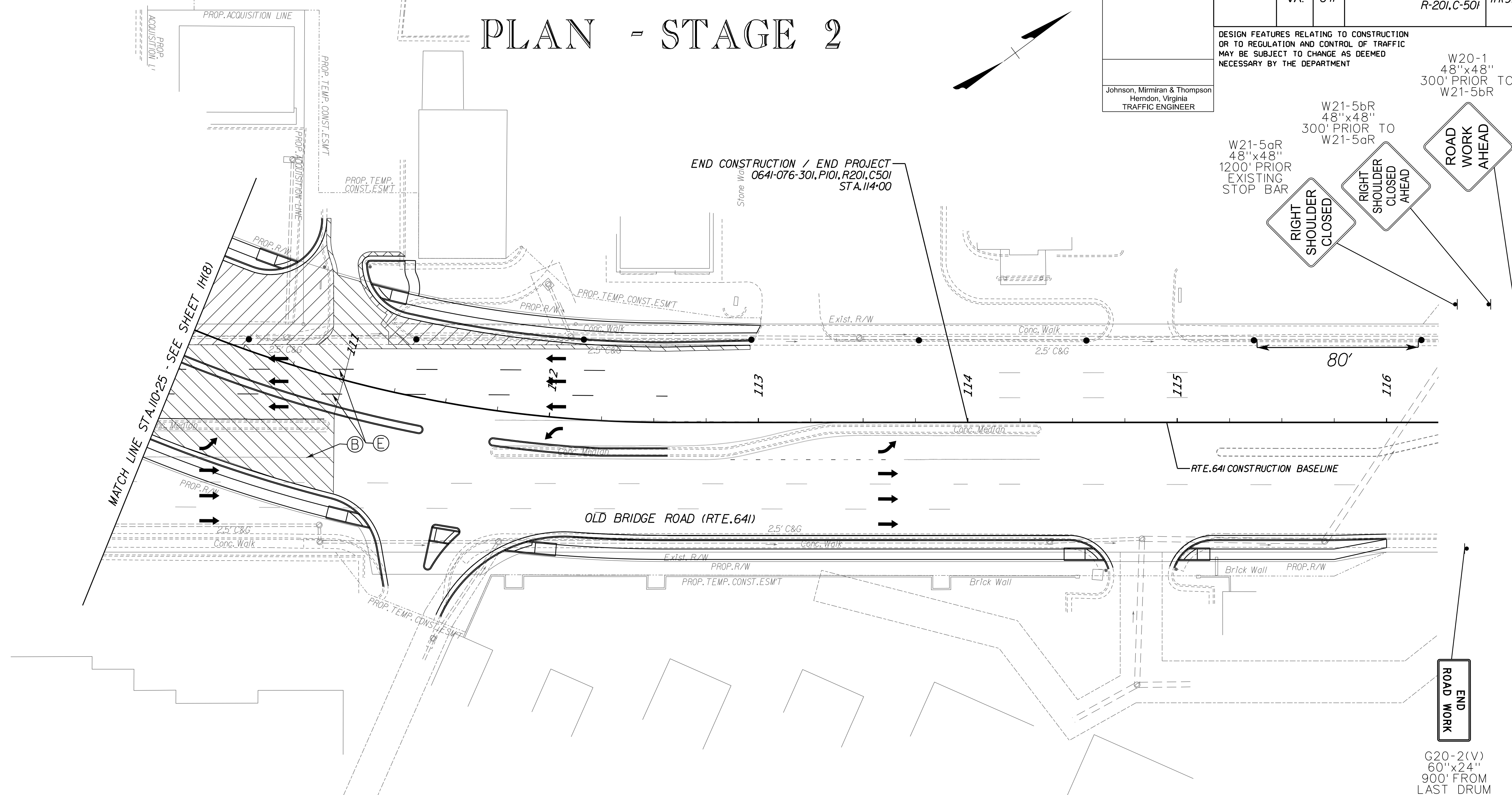
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 2

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	64I		064I-076-30I R-20I,C-50I	1H(9)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (N) TYPE A, WHITE, 24" WIDTH (10' LINE, 3' SPACE) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
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| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
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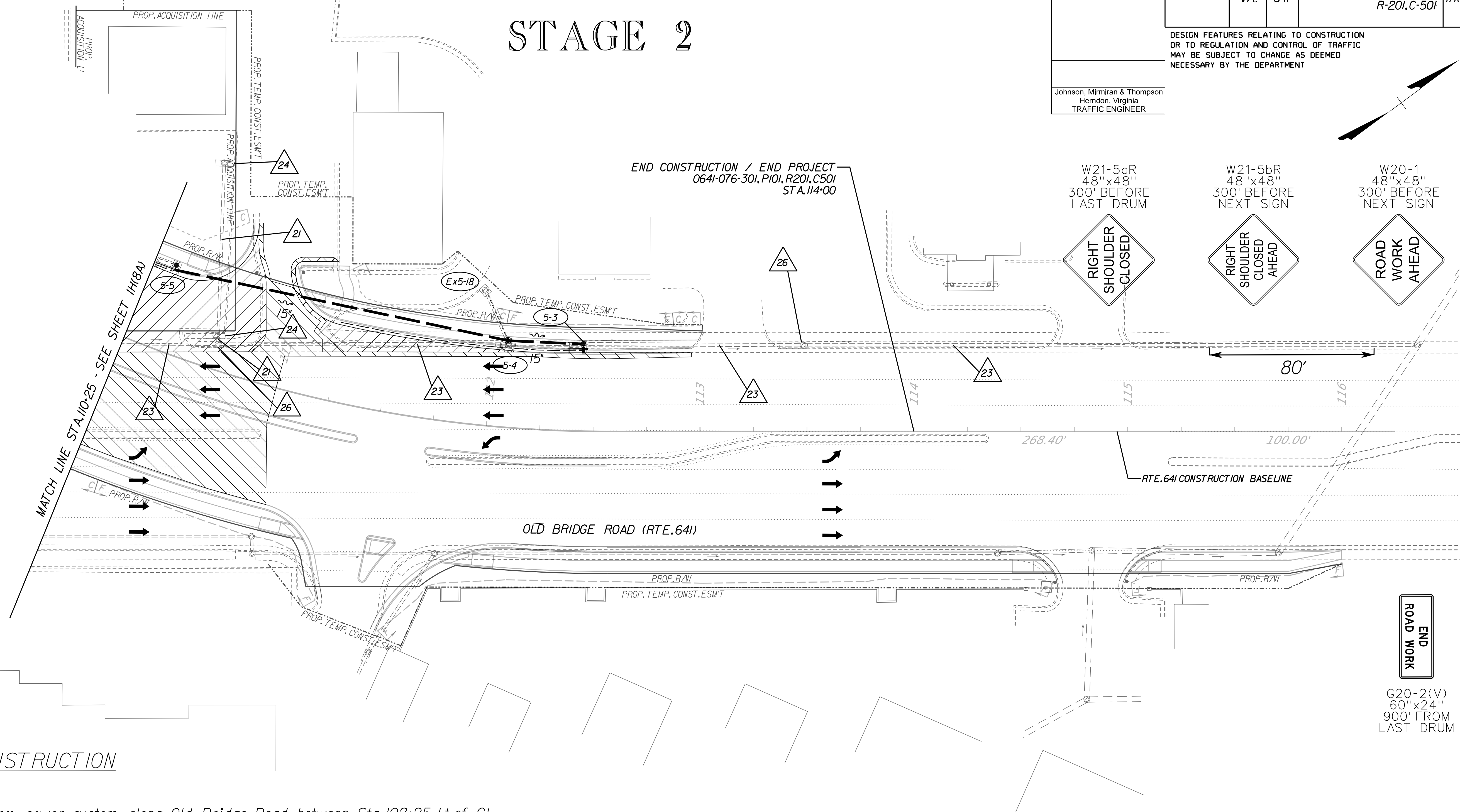
DRAINAGE INSTALLATION PLAN

STAGE 2

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(9A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



SEQUENCE OF CONSTRUCTION

1. Remove existing storm sewer system along Old Bridge Road between Sta.108+25, Lt of CL, and Sta.110+00, Rt of CL.
2. Install proposed storm sewer system along Old Bridge Road between Str.5-4 and Str.5-3 and tie into existing storm sewer system. Maintain flow through system.
3. Install remainder of proposed storm sewer system from Str.5-5 to Str.5-4.

- PIPE TO BE REMOVED
- PIPE TO BE CLEANED OUT
- STRUCTURE TO BE REMOVED
- STRUCTURE TO BE CLEANED OUT

LEGEND

- DENOTES CONSTRUCTION THIS STAGE
- DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
- DENOTES CONSTRUCTION PREVIOUS STAGE
- DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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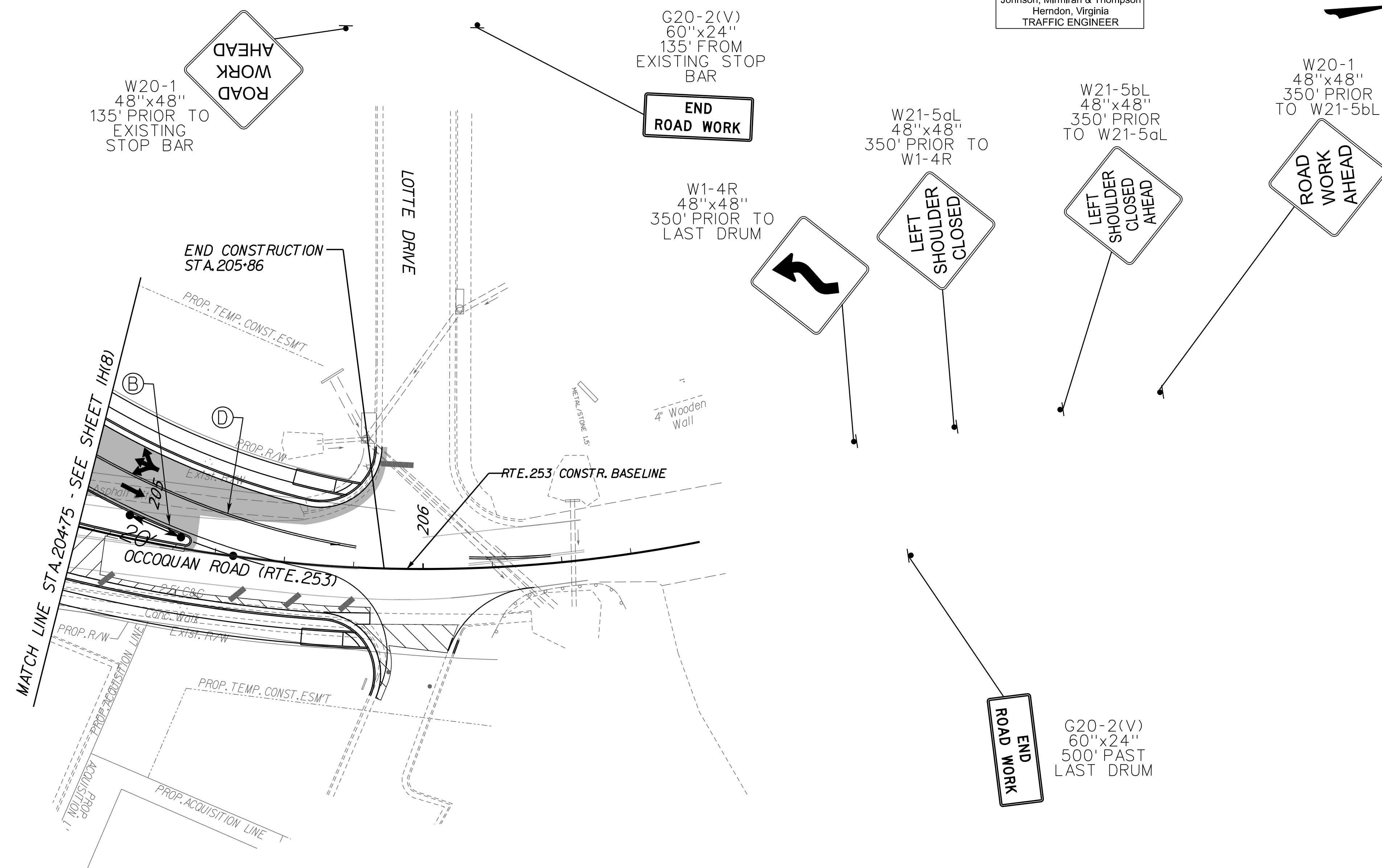
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 2

REVISED	STATE		PROJECT	SHEET NO.
	VA.	ROUTE		
		641	0641-076-301 R-201, C-501	1H(10)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



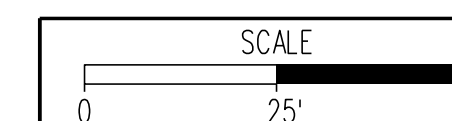
TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
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| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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PROJECT 0641-076-301
SHEET NO. 1H(10)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

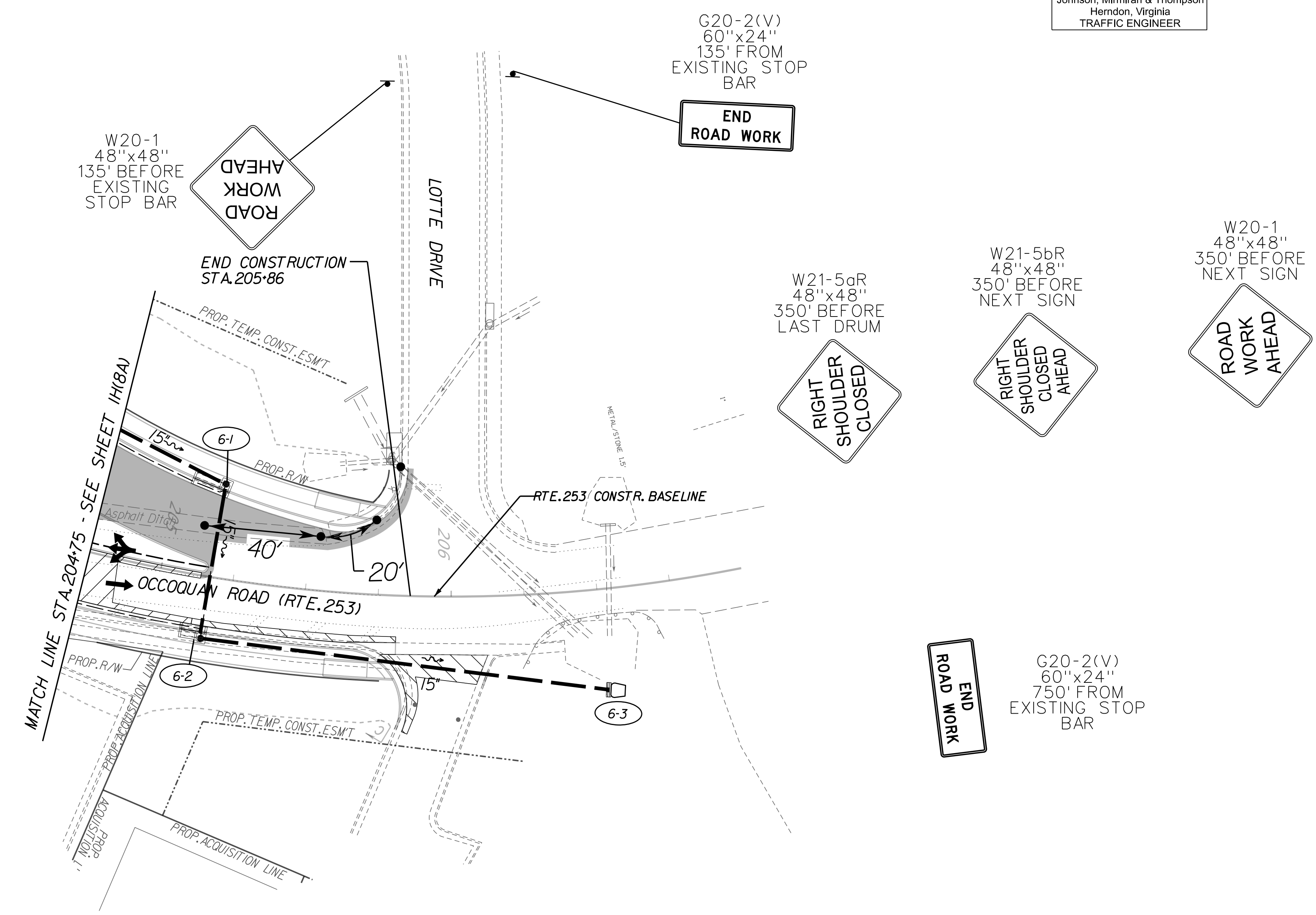
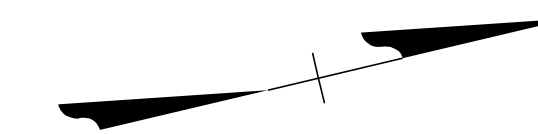
DRAINAGE INSTALLATION PLAN

STAGE 2

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	64I	064I-076-30I R-20I, C-50I	1H(10A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



SEQUENCE OF CONSTRUCTION

1. Remove existing storm sewer system along Old Bridge Road between Sta. 108+25, Lt of CL, and Sta. 110+00, Rt of CL.
2. Install proposed storm sewer system along Old Bridge Road between Str. 5-4 and Str. 5-3 and tie into existing storm sewer system. Maintain flow through system.
3. Install remainder of proposed storm sewer system from Str. 5-5 to Str. 5-4.

LEGEND

- DENOTES CONSTRUCTION THIS STAGE
- DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
- DENOTES CONSTRUCTION PREVIOUS STAGE
- DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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SCALE

PROJECT

064I-076-30I

SHEET NO.

1H(10A)

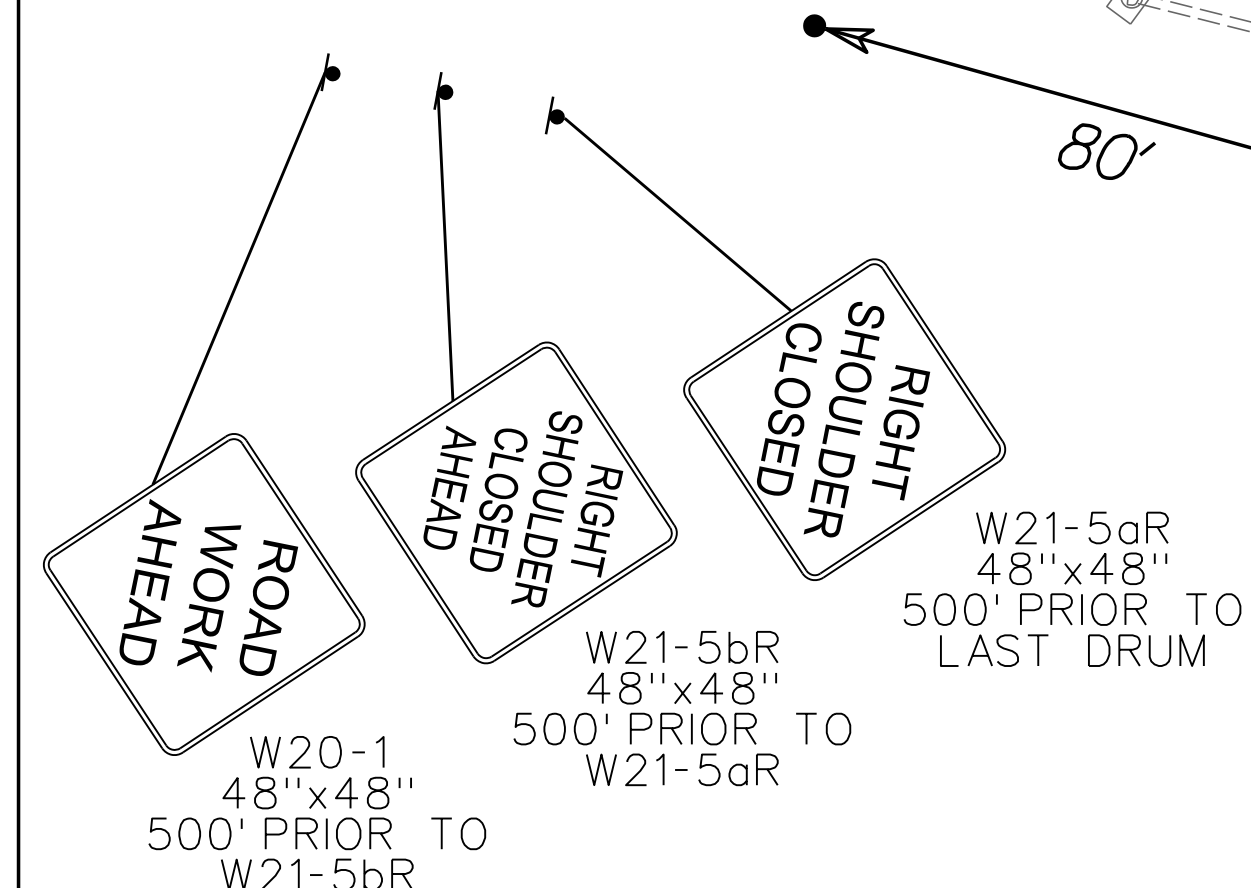
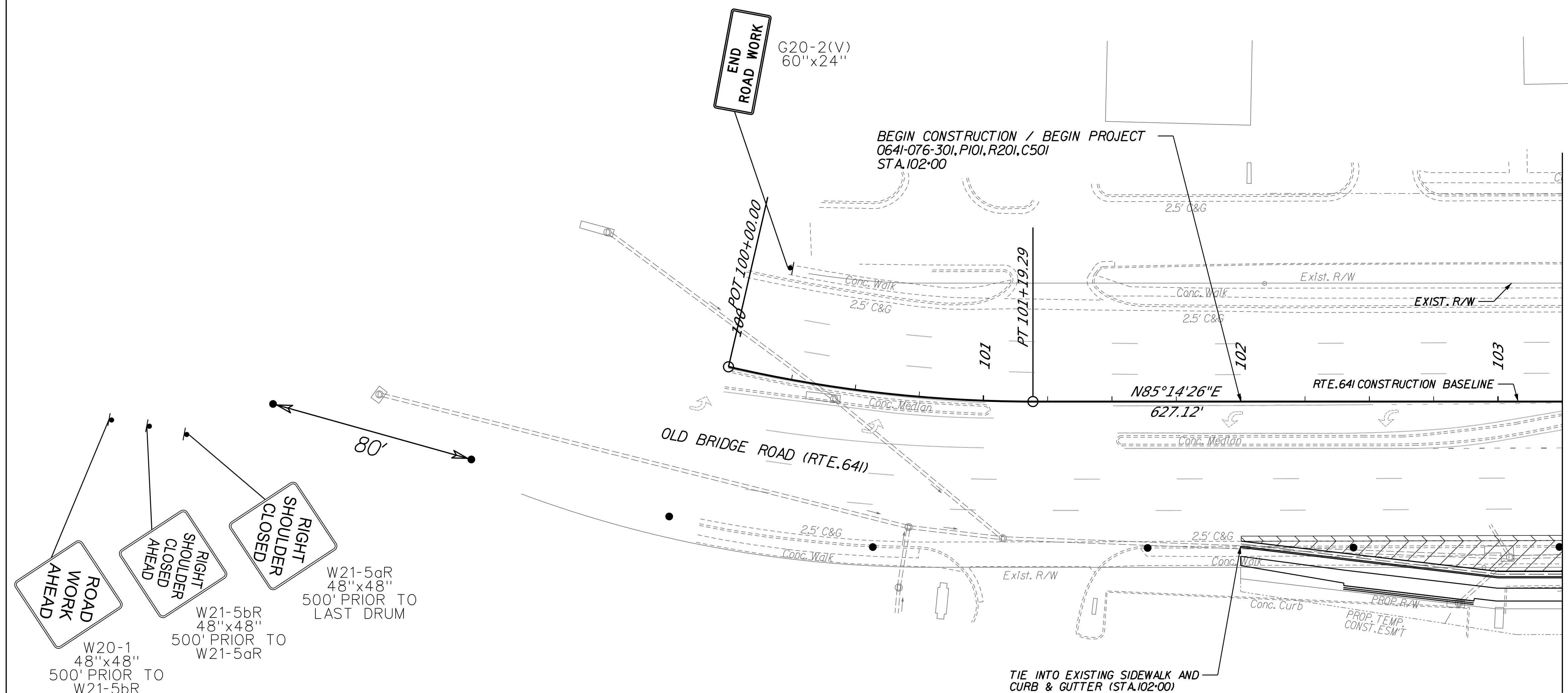
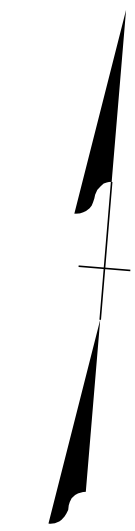
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 3

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	IH(11)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
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| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (N) TYPE A, WHITE, 24" WIDTH (10' LINE, 3' SPACE) |
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| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |
| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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PROJECT
0641-076-301

SHEET NO.
IH(11)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

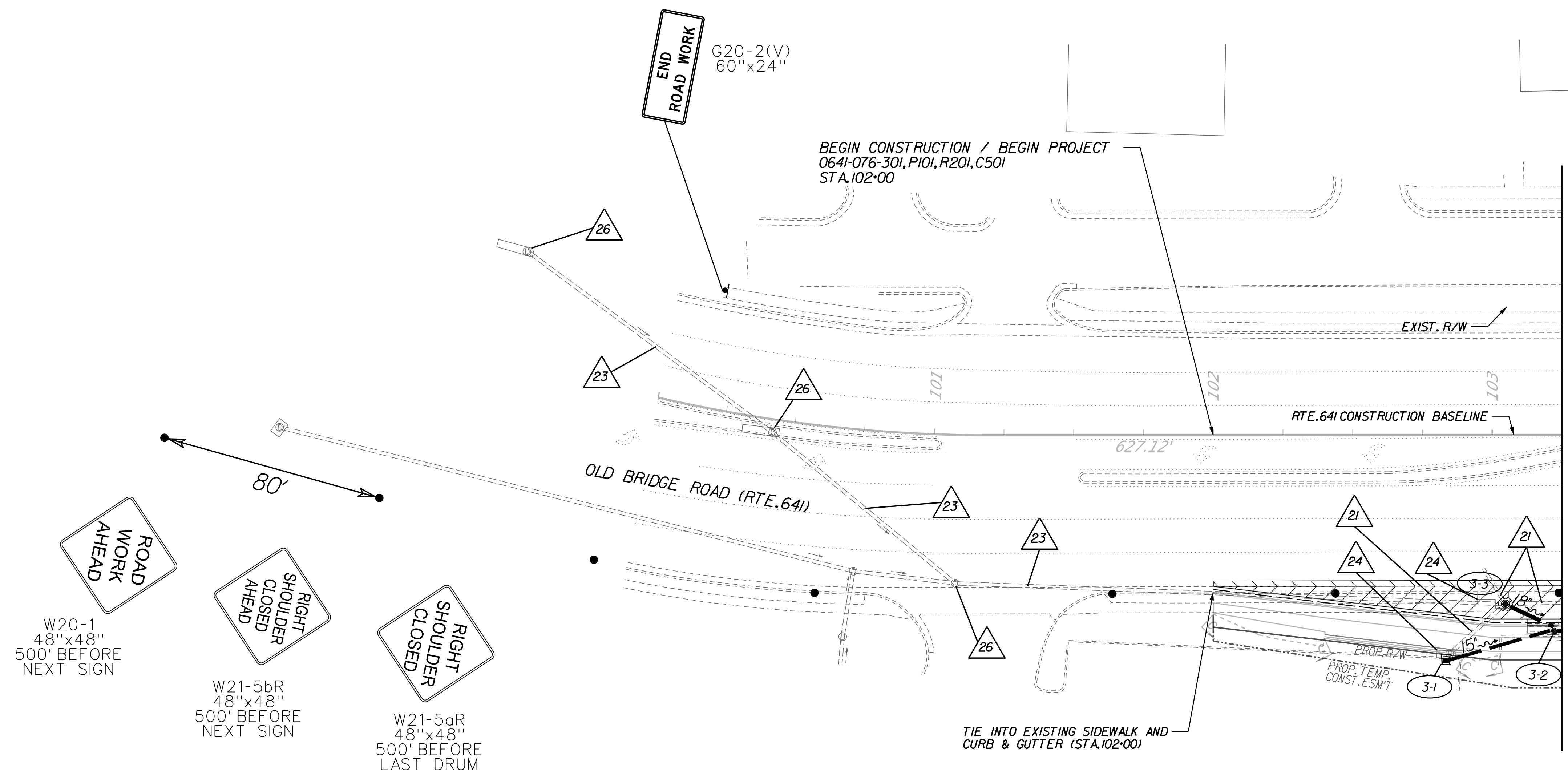
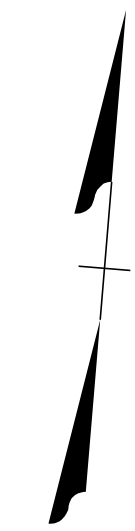
DRAINAGE INSTALLATION PLAN

STAGE 3

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(11A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



SEQUENCE OF CONSTRUCTION

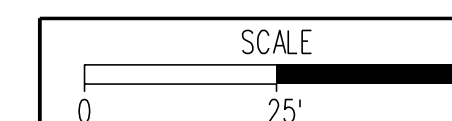
1. Install storm sewer system between Str. 3-1 and 3-2 and cap proposed structures.
2. Install proposed drainage system between Str. 3-2 and Str. 4-1 and pipe to Str. 4-2; cap all installed structures and pipes.
3. Install storm sewer system between Str. 4-3 and 4-9. Install Str. 4-9 and connect to existing storm sewer system.
4. Install pipe under Occoquan Road between Str. 4-3 and 4-2 at night in phases. Close one lane at a time and excavate trench. Install pipe in sections. Place steel plate on trench at the end of work each night. Once entire pipe is installed, backfill trench.
5. Install Str. 4-2 once pipe under Occoquan Road is installed and connect to storm sewer system between Str. 3-1 and Str. 4-2. Uncap pipes and make system functional.
6. Install Str. 3-3 and pipe between Str. 3-3 and Str. 3-2.

- PIPE TO BE REMOVED
- PIPE TO BE CLEANED OUT
- STRUCTURE TO BE REMOVED
- STRUCTURE TO BE CLEANED OUT

- LEGEND**
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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PROJECT 0641-076-301
SHEET NO. 1H(11A)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC)

PLAN - STAGE 3

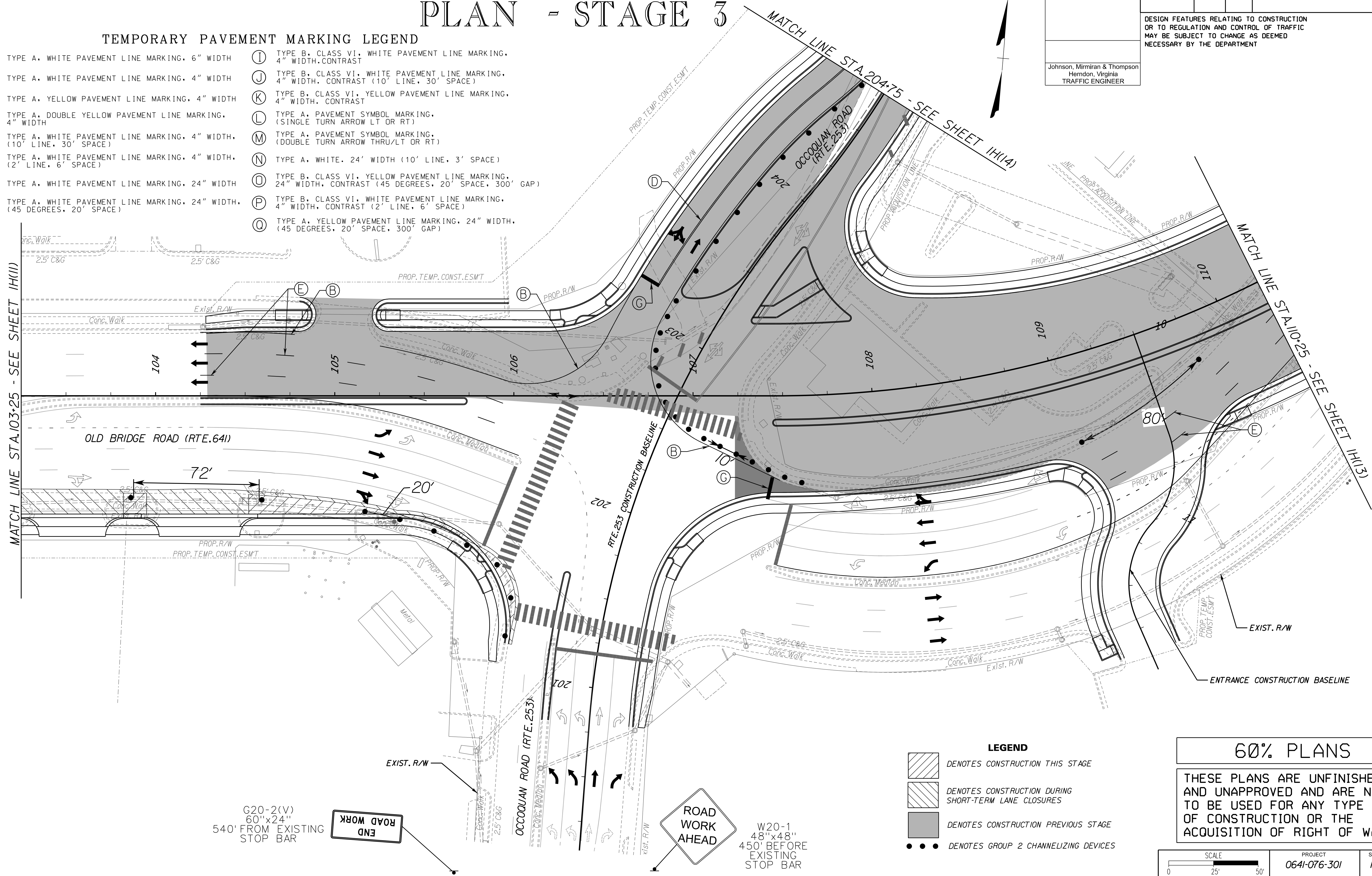
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201, C-501	1H(12)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER

TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A. WHITE PAVEMENT LINE MARKING, 6" WIDTH | (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (B) TYPE A. WHITE PAVEMENT LINE MARKING, 4" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (C) TYPE A. YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (D) TYPE A. DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A. PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (E) TYPE A. WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (M) TYPE A. PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (F) TYPE A. WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (N) TYPE A. WHITE, 24' WIDTH (10' LINE, 3' SPACE) |
| (G) TYPE A. WHITE PAVEMENT LINE MARKING, 24" WIDTH | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (H) TYPE A. WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| | (Q) TYPE A. YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |



- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

G20-2(V)
60"x24"
540' FROM EXISTING STOP BAR

END ROAD WORK

ROAD WORK AHEAD

W20-1
48"x48"
450' BEFORE EXISTING STOP BAR

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE

PROJECT

0641-076-301

SHEET NO.

1H(12)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE INSTALLATION PLAN

STAGE 3

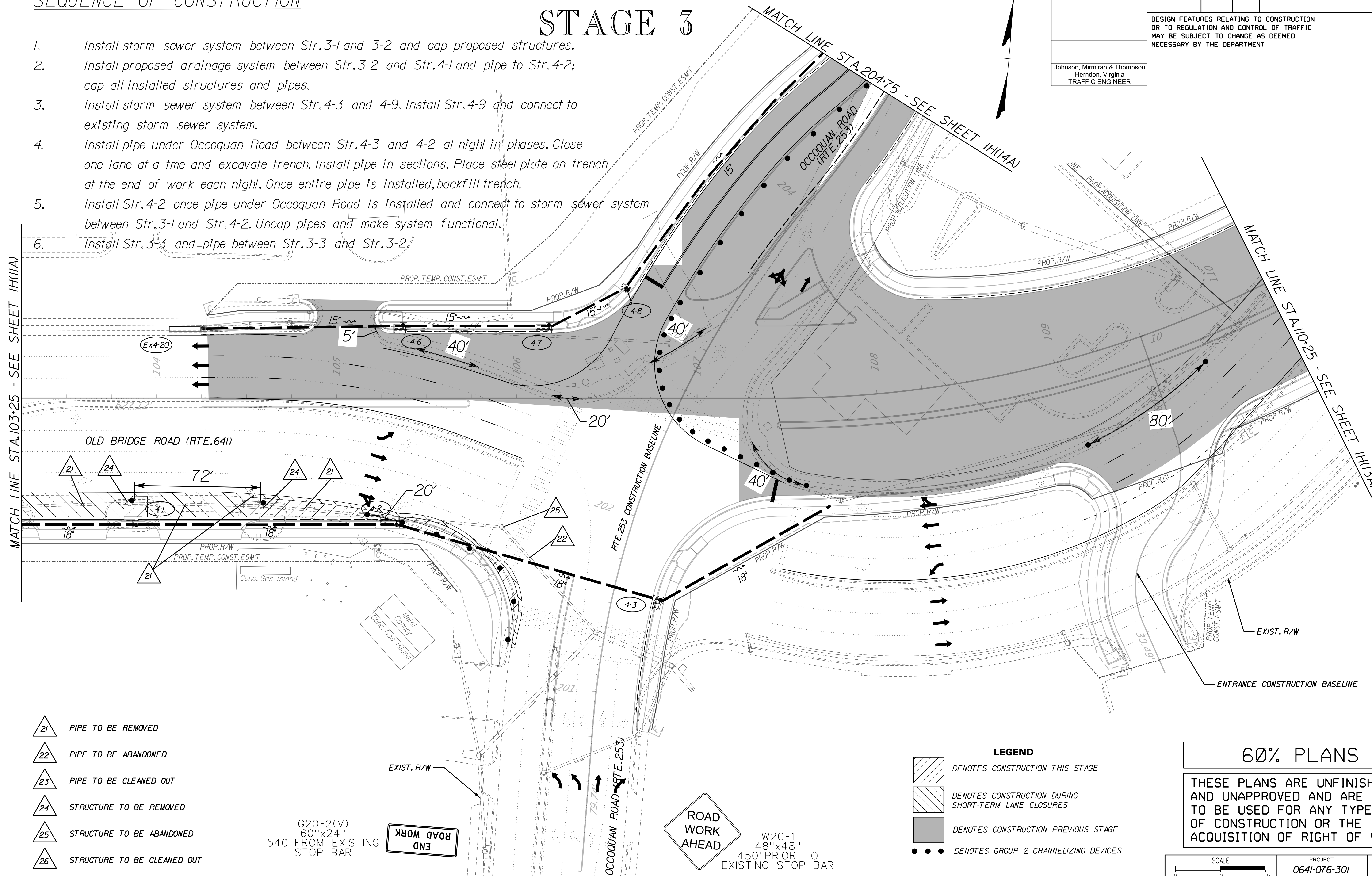
SEQUENCE OF CONSTRUCTION

1. Install storm sewer system between Str.3-1 and 3-2 and cap proposed structures.
2. Install proposed drainage system between Str.3-2 and Str.4-1 and pipe to Str.4-2; cap all installed structures and pipes.
3. Install storm sewer system between Str.4-3 and 4-9. Install Str.4-9 and connect to existing storm sewer system.
4. Install pipe under Occoquan Road between Str.4-3 and 4-2 at night in phases. Close one lane at a time and excavate trench. Install pipe in sections. Place steel plate on trench at the end of work each night. Once entire pipe is installed, backfill trench.
5. Install Str.4-2 once pipe under Occoquan Road is installed and connect to storm sewer system between Str.3-1 and Str.4-2. Uncap pipes and make system functional.
6. Install Str.3-3 and pipe between Str.3-3 and Str.3-2.

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(12A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



- △21 PIPE TO BE REMOVED
- △22 PIPE TO BE ABANDONED
- △23 PIPE TO BE CLEANED OUT
- △24 STRUCTURE TO BE REMOVED
- △25 STRUCTURE TO BE ABANDONED
- △26 STRUCTURE TO BE CLEANED OUT

G20-2(V)
60"x24"
540' FROM EXISTING STOP BAR

END ROAD WORK

ROAD WORK AHEAD

W20-1
48"x48"
450' PRIOR TO EXISTING STOP BAR

- LEGEND**
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 1H(12A)
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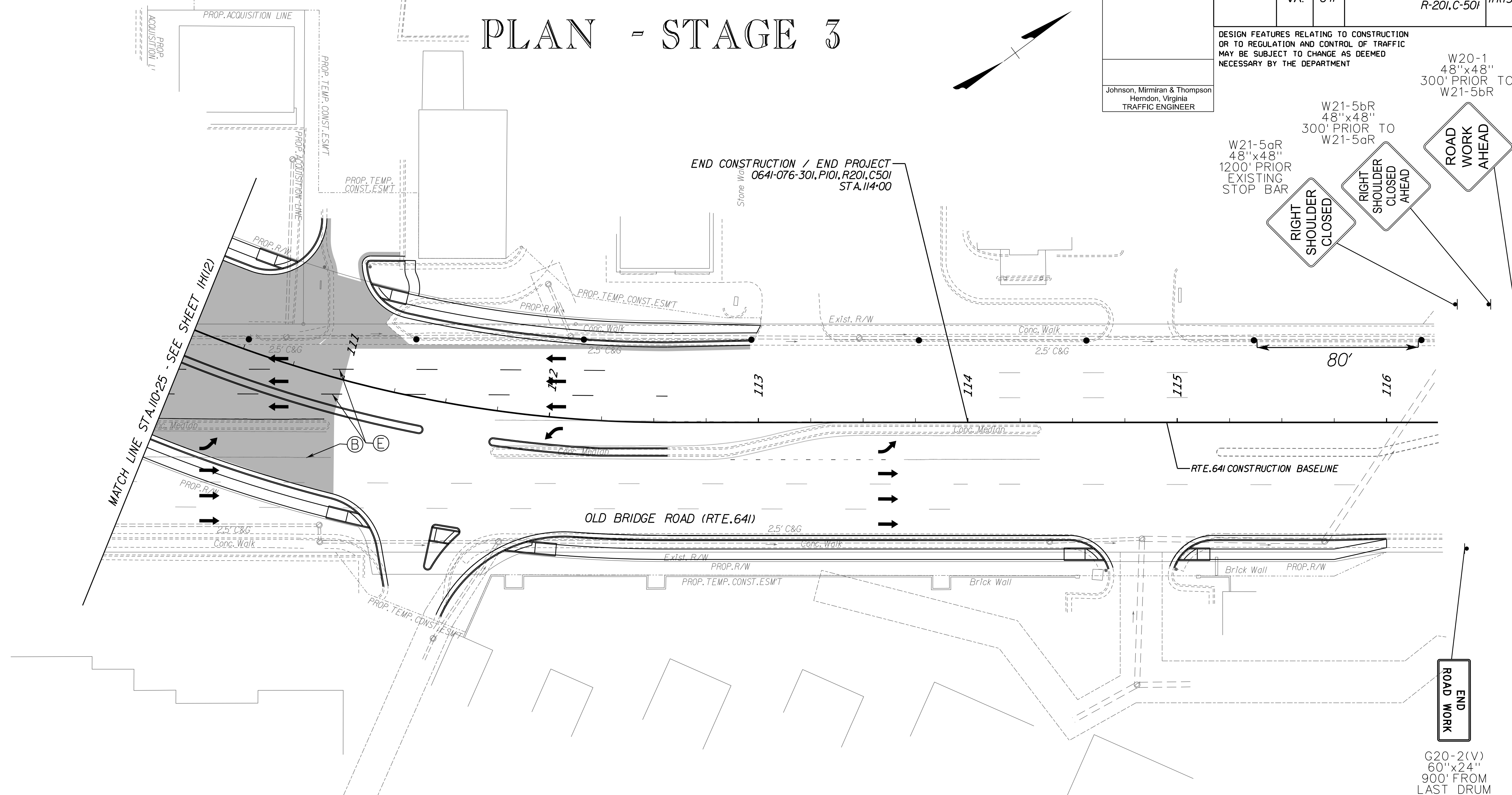
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 3

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	64I	0641-076-30I R-20I,C-50I	1H(13)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (N) TYPE A, WHITE, 24" WIDTH (10' LINE, 3' SPACE) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |
| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

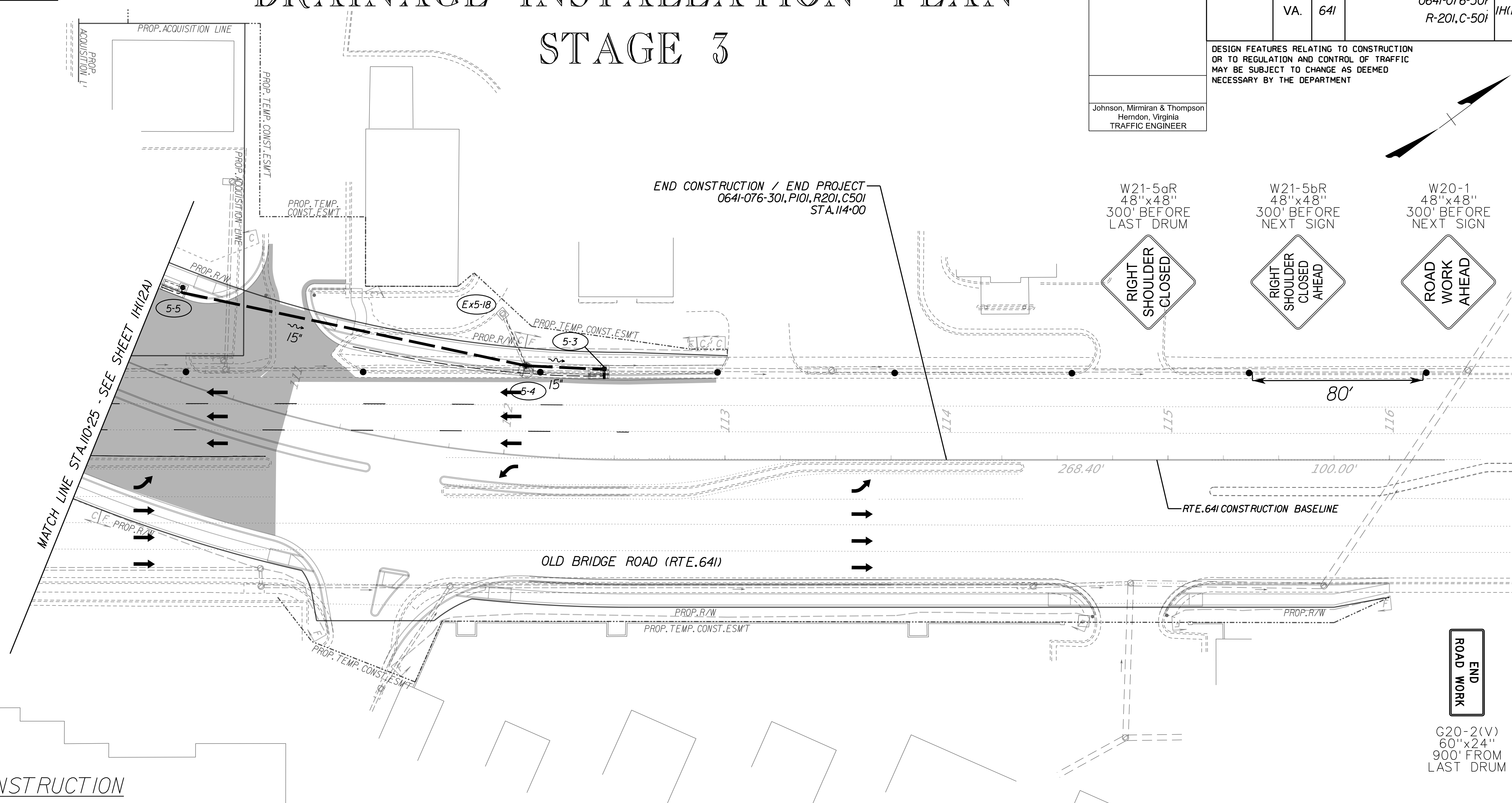
SCALE 0 25' 50'	PROJECT 0641-076-30I	SHEET NO. 1H(13)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE INSTALLATION PLAN

STAGE 3

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(13A)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER				



SEQUENCE OF CONSTRUCTION

1. Install storm sewer system between Str.3-1 and 3-2 and cap proposed structures.
2. Install proposed drainage system between Str.3-2 and Str.4-1 and pipe to Str.4-2; cap all installed structures and pipes.
3. Install storm sewer system between Str.4-3 and 4-9. Install Str.4-9 and connect to existing storm sewer system.
4. Install pipe under Occoquan Road between Str.4-3 and 4-2 at night in phases. Close one lane at a time and excavate trench. Install pipe in sections. Place steel plate on trench at the end of work each night. Once entire pipe is installed, backfill trench.
5. Install Str.4-2 once pipe under Occoquan Road is installed and connect to storm sewer system between Str.3-1 and Str.4-2. Uncap pipes and make system functional.
6. Install Str.3-3 and pipe between Str.3-3 and Str.3-2.

LEGEND

	DENOTES CONSTRUCTION THIS STAGE
	DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
	DENOTES CONSTRUCTION PREVIOUS STAGE
	DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 1H(13A)
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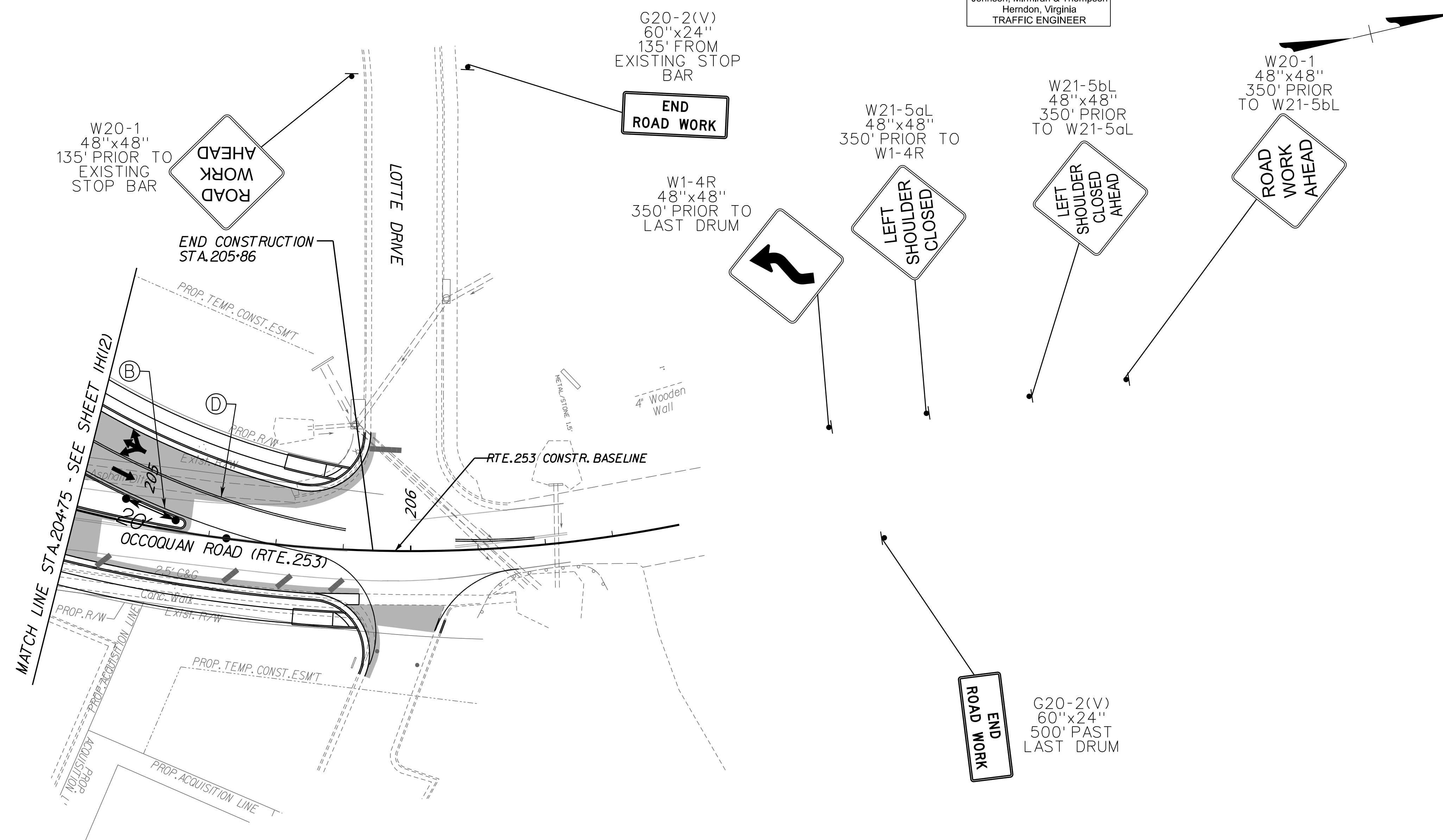
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 3

REVISED	STATE		PROJECT	SHEET NO.
	STATE	ROUTE		
	VA.	641	0641-076-301 R-201, C-501	1H(14)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (N) TYPE A, WHITE, 24' WIDTH (10' LINE, 3' SPACE) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |
| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

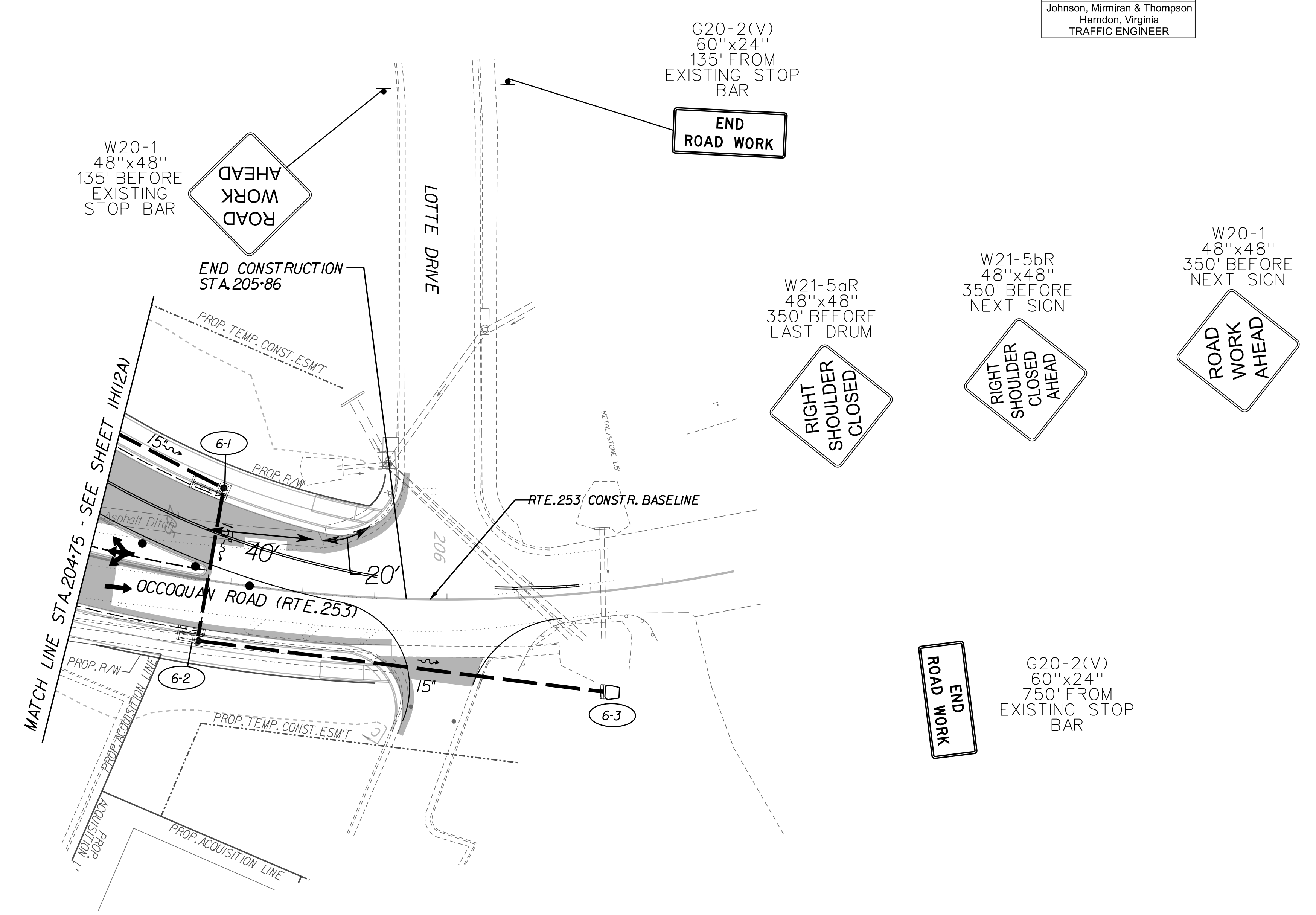
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE INSTALLATION PLAN

STAGE 3

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(14A)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER				



SEQUENCE OF CONSTRUCTION

1. Install storm sewer system between Str.3-1 and 3-2 and cap proposed structures.
2. Install proposed drainage system between Str.3-2 and Str.4-1 and pipe to Str.4-2; cap all installed structures and pipes.
3. Install storm sewer system between Str.4-3 and 4-9. Install Str.4-9 and connect to existing storm sewer system.
4. Install pipe under Occoquan Road between Str.4-3 and 4-2 at night in phases. Close one lane at a time and excavate trench. Install pipe in sections. Place steel plate on trench at the end of work each night. Once entire pipe is installed, backfill trench.
5. Install Str.4-2 once pipe under Occoquan Road is installed and connect to storm sewer system between Str.3-1 and Str.4-2. Uncap pipes and make system functional.
6. Install Str.3-3 and pipe between Str.3-3 and Str.3-2.

LEGEND

	DENOTES CONSTRUCTION THIS STAGE
	DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
	DENOTES CONSTRUCTION PREVIOUS STAGE
	DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE

PROJECT
0641-076-301

SHEET NO.
1H(14A)

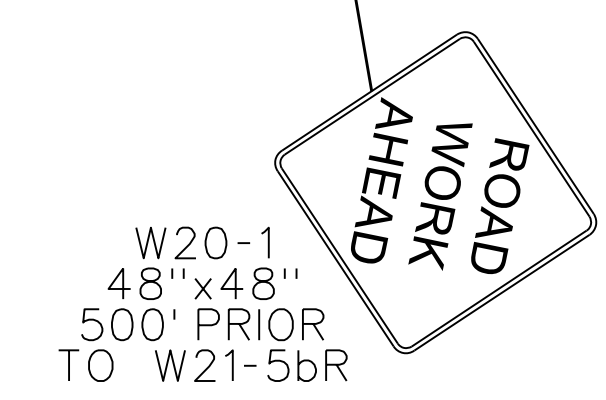
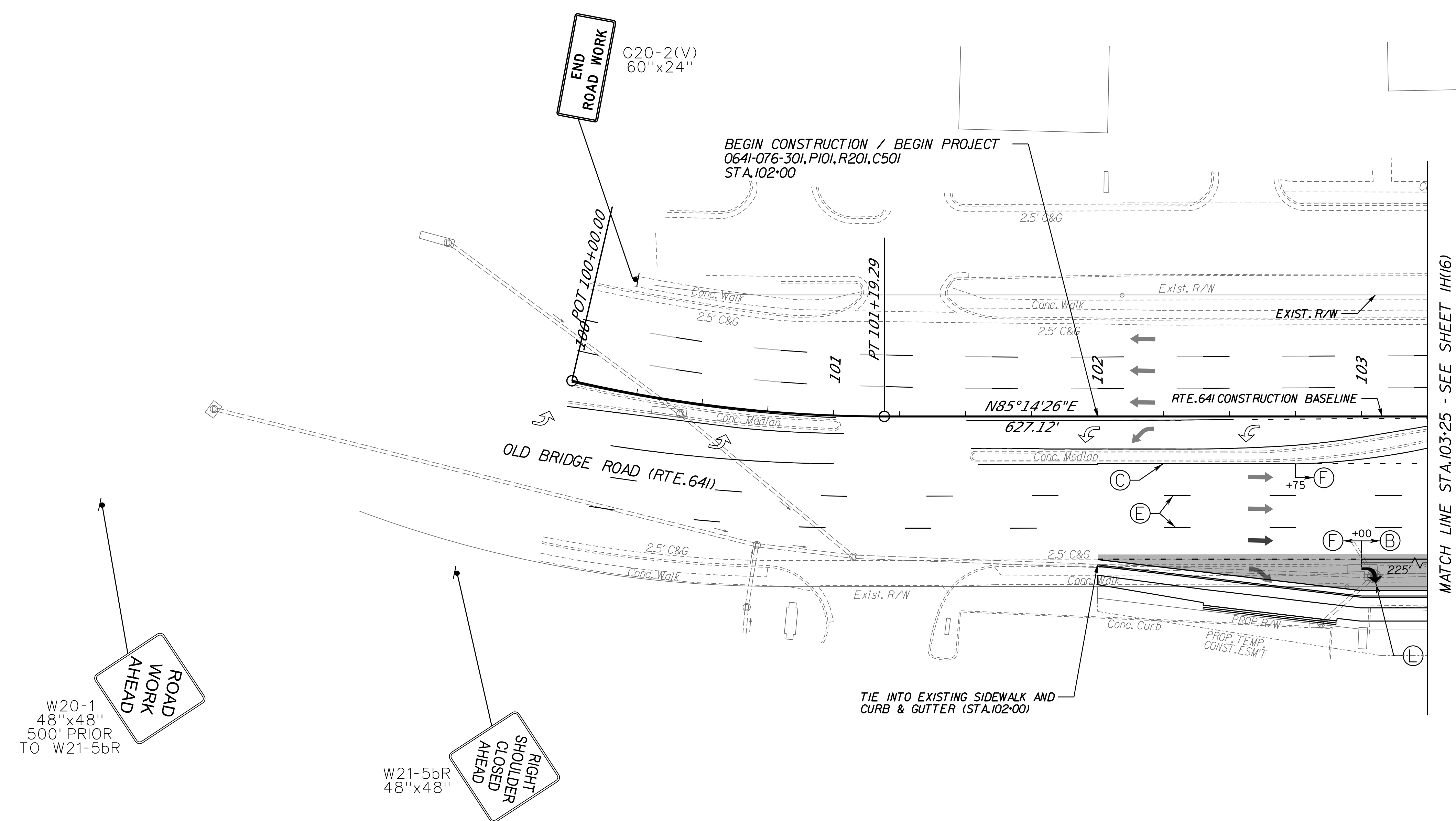
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 4

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(15)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



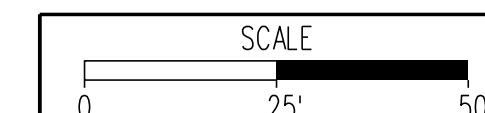
TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (N) TYPE A, WHITE, 24" WIDTH (10' LINE, 3' SPACE) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |
| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



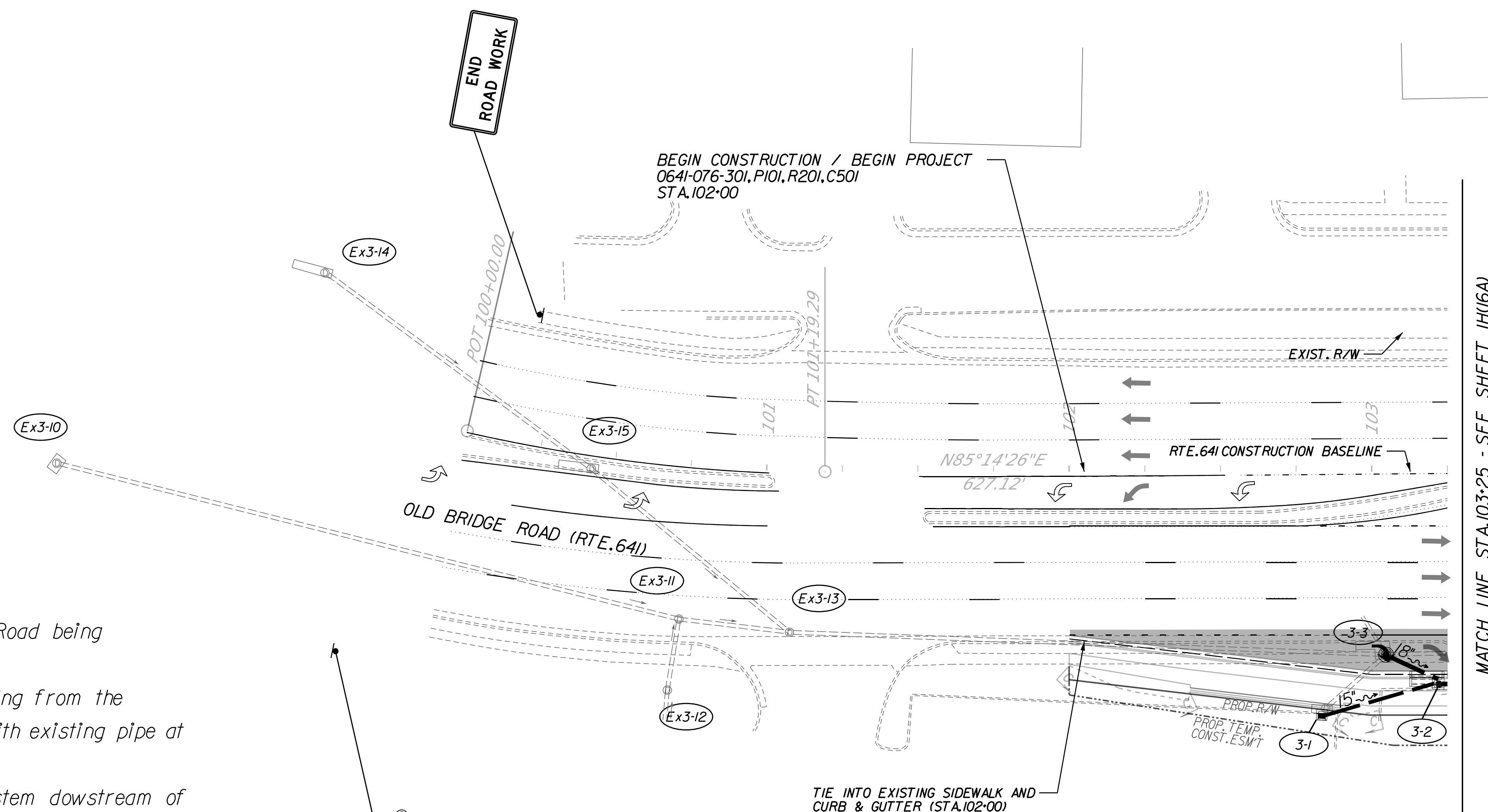
PROJECT 0641-076-301
SHEET NO. 1H(15)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE INSTALLATION PLAN

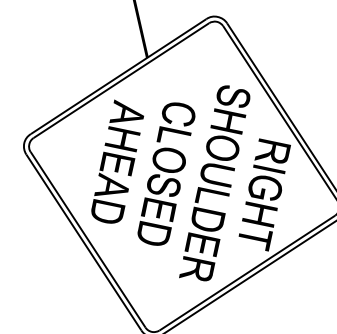
STAGE 4

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(15A)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER				



SEQUENCE OF CONSTRUCTION

1. Remove existing storm system along the existing Old Bridge Road being demolished up until the location of proposed Str.5-2
2. Install storm sewer system between Str.4-9 and Str.5-9, starting from the downstream end and working upstream. Remove connections with existing pipe at Str.4-9. Make proposed storm sewer system functional.
3. Plug and abandon previously connect existing storm sewer system downstream of Str.4-9 that is connected to Str.5-4.
4. The work to install the cross pipe between Str.5-6 and Str.5-3 will be completed at night. Closing one lane at a time starting at Str.5-3, excavate trench and install portion of pipe from the downstream end working upstream. Upon completion of work each night, cover trench with steel plate for during the day. Once entire pipe is installed, cap pipe at Str.5-6 and backfill trench.
5. As the median is constructed, install proposed storm sewer system between Str.4-5 and 5-6 from the downstream end working upstream with the use of short term lane closures as necessary.
6. When the pipe between Str.4-5 and 5-7 is installed, remove 20 lin.ft. of the existing pipe connected upstream to Str.5-4.
7. Once entire system is installed, unplug pipe between Str.5-6 and Str.5-3 to make proposed storm sewer system functional.



LEGEND

	DENOTES CONSTRUCTION THIS STAGE
	DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
	DENOTES CONSTRUCTION PREVIOUS STAGE
● ● ●	DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC)

PLAN - STAGE 4

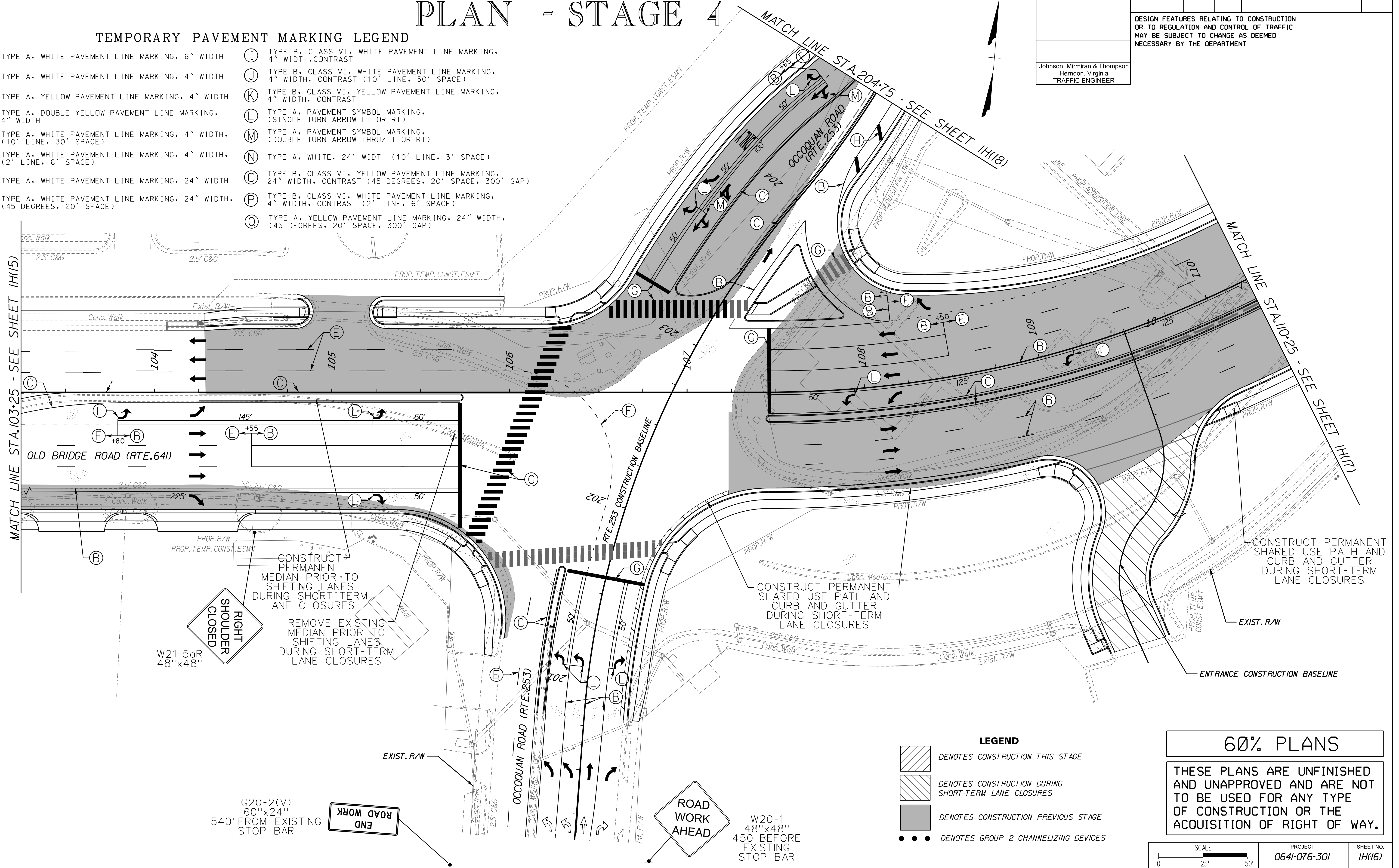
REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(16)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER

TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (N) TYPE A, WHITE, 24' WIDTH (10' LINE, 3' SPACE) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |



W21-5aR
48"x48"

RIGHT SHOULDER CLOSED

G20-2(V)
60"x24"
540' FROM EXISTING STOP BAR

END ROAD WORK

ROAD WORK AHEAD

W20-1
48"x48"
450' BEFORE EXISTING STOP BAR

- LEGEND**
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 1H(16)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE INSTALLATION PLAN

STAGE 4

SEQUENCE OF CONSTRUCTION

1. Remove existing storm system along the existing Old Bridge Road being demolished up until the location of proposed Str.5-2
2. Install storm sewer system between Str.4-9 and Str.5-9, starting from the downstream end and working upstream. Remove connections with existing pipe at Str.4-9. Make proposed storm sewer system functional.
3. Plug and abandon previously connect existing storm sewer system downstream of Str.4-9 that is connected to Str.5-4.
4. The work to install the cross pipe between Str.5-6 and Str.5-3 will be completed at night. Closing one lane at a time starting at Str.5-3, excavate trench and install portion of pipe from the downstream end working upstream. Upon completion of work each night, cover trench with steel plate for during the day. Once entire pipe is installed, cap pipe at Str.5-6 and backfill trench.

5. As the median is constructed, install proposed storm sewer system between Str.4-5 and 5-6 from the downstream end working upstream with the use of short term lane closures as necessary.

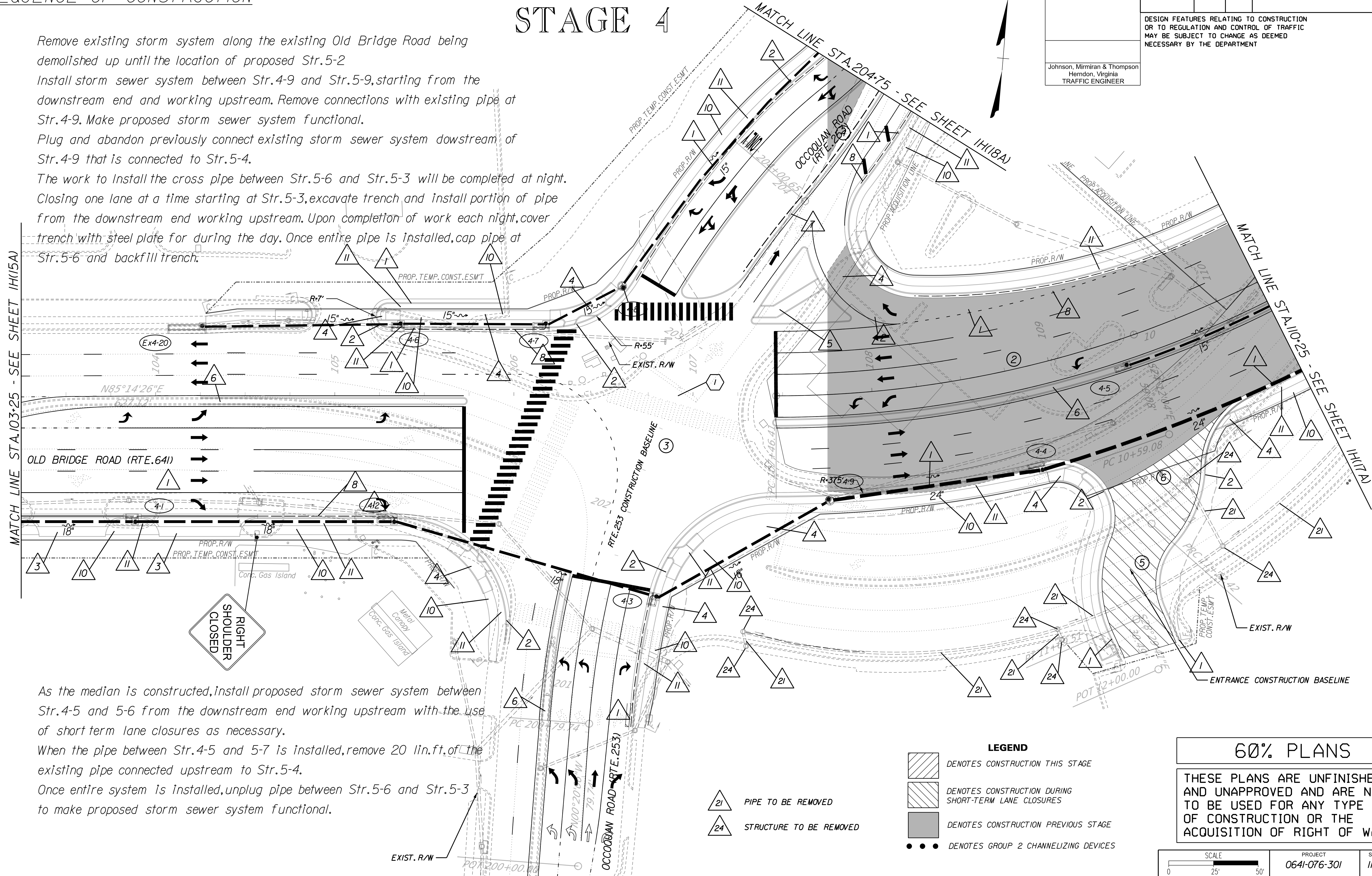
6. When the pipe between Str.4-5 and 5-7 is installed, remove 20 lin.ft. of the existing pipe connected upstream to Str.5-4.

7. Once entire system is installed, unplug pipe between Str.5-6 and Str.5-3 to make proposed storm sewer system functional.

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201,C-501	IH(16A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



LEGEND

- DENOTES CONSTRUCTION THIS STAGE
- DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
- DENOTES CONSTRUCTION PREVIOUS STAGE
- DENOTES GROUP 2 CHANNELIZING DEVICES
- PIPE TO BE REMOVED
- STRUCTURE TO BE REMOVED

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

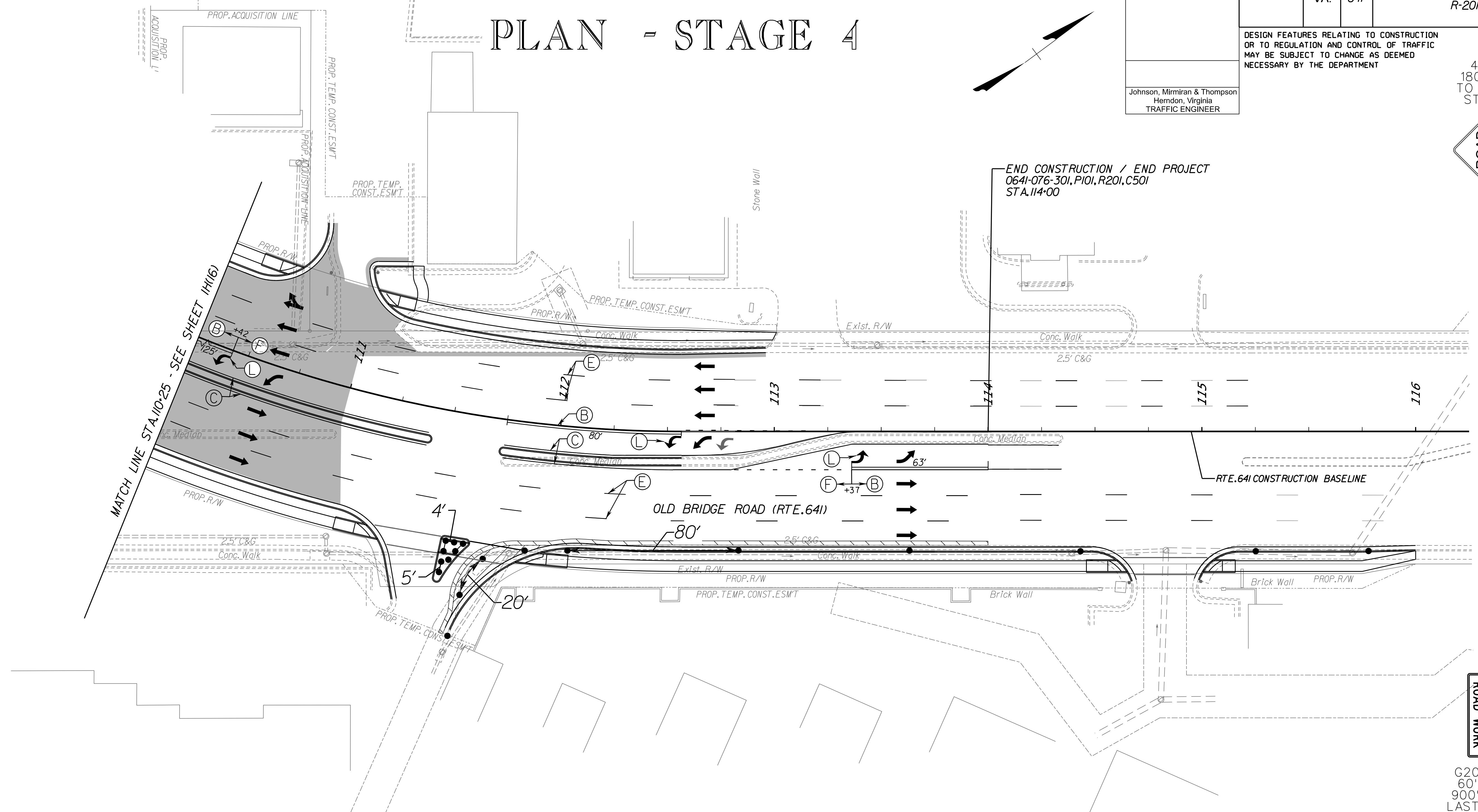
TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 4

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(17)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

W20-1
48"x48"
1800' PRIOR
TO EXISTING
STOP BAR

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
| (B) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH | (K) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST |
| (C) TYPE A, YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (L) TYPE A, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT) |
| (D) TYPE A, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH | (M) TYPE A, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT) |
| (E) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE) | (N) TYPE A, WHITE, 24" WIDTH (10' LINE, 3' SPACE) |
| (F) TYPE A, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE) | (O) TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, CONTRAST (45 DEGREES, 20' SPACE, 300' GAP) |
| (G) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH | (P) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (2' LINE, 6' SPACE) |
| (H) TYPE A, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE) | (Q) TYPE A, YELLOW PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE, 300' GAP) |
| (I) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST | |

- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 1H(17)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

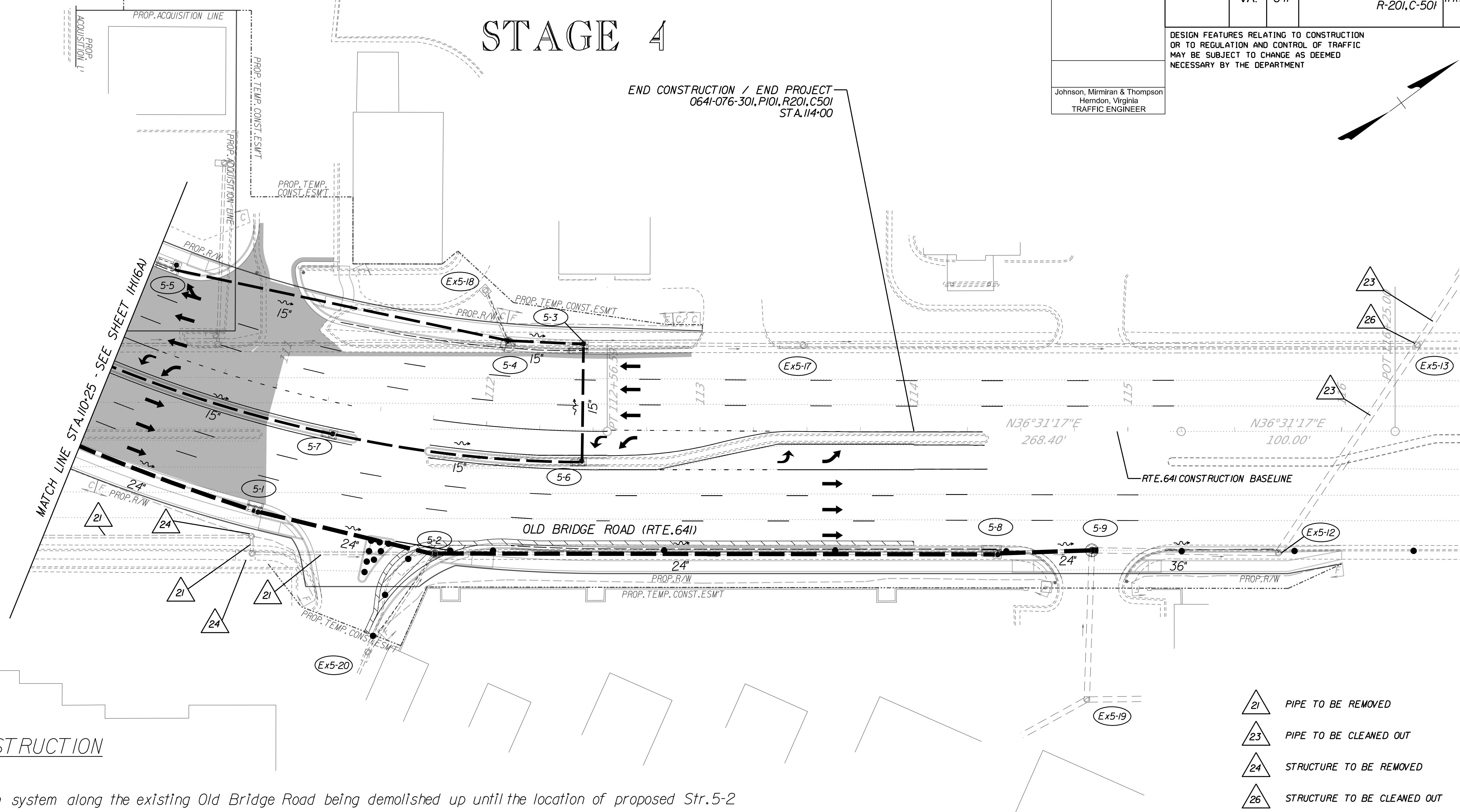
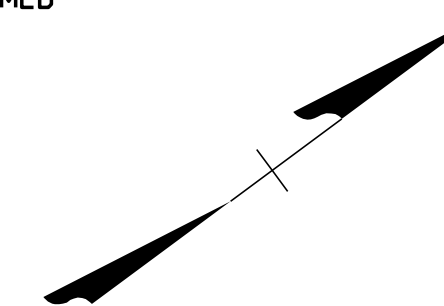
DRAINAGE INSTALLATION PLAN

STAGE 4

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(17A)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



SEQUENCE OF CONSTRUCTION

1. Remove existing storm system along the existing Old Bridge Road being demolished up until the location of proposed Str.5-2
2. Install storm sewer system between Str.4-9 and Str.5-9, starting from the downstream end and working upstream. Remove connections with existing pipe at Str.4-9. Make proposed storm sewer system functional.
3. Plug and abandon previously connect existing storm sewer system downstream of Str.4-9 that is connected to Str.5-4.
4. The work to install the cross pipe between Str.5-6 and Str.5-3 will be completed at night. Closing one lane at a time starting at Str.5-3, excavate trench and install portion of pipe from the downstream end working upstream. Upon completion of work each night, cover trench with steel plate for during the day. Once entire pipe is installed, cap pipe at Str.5-6 and backfill trench.
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7. Once entire system is installed, unplug pipe between Str.5-6 and Str.5-3 to make proposed storm sewer system functional.

LEGEND

- DENOTES CONSTRUCTION THIS STAGE
- DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
- DENOTES CONSTRUCTION PREVIOUS STAGE
- DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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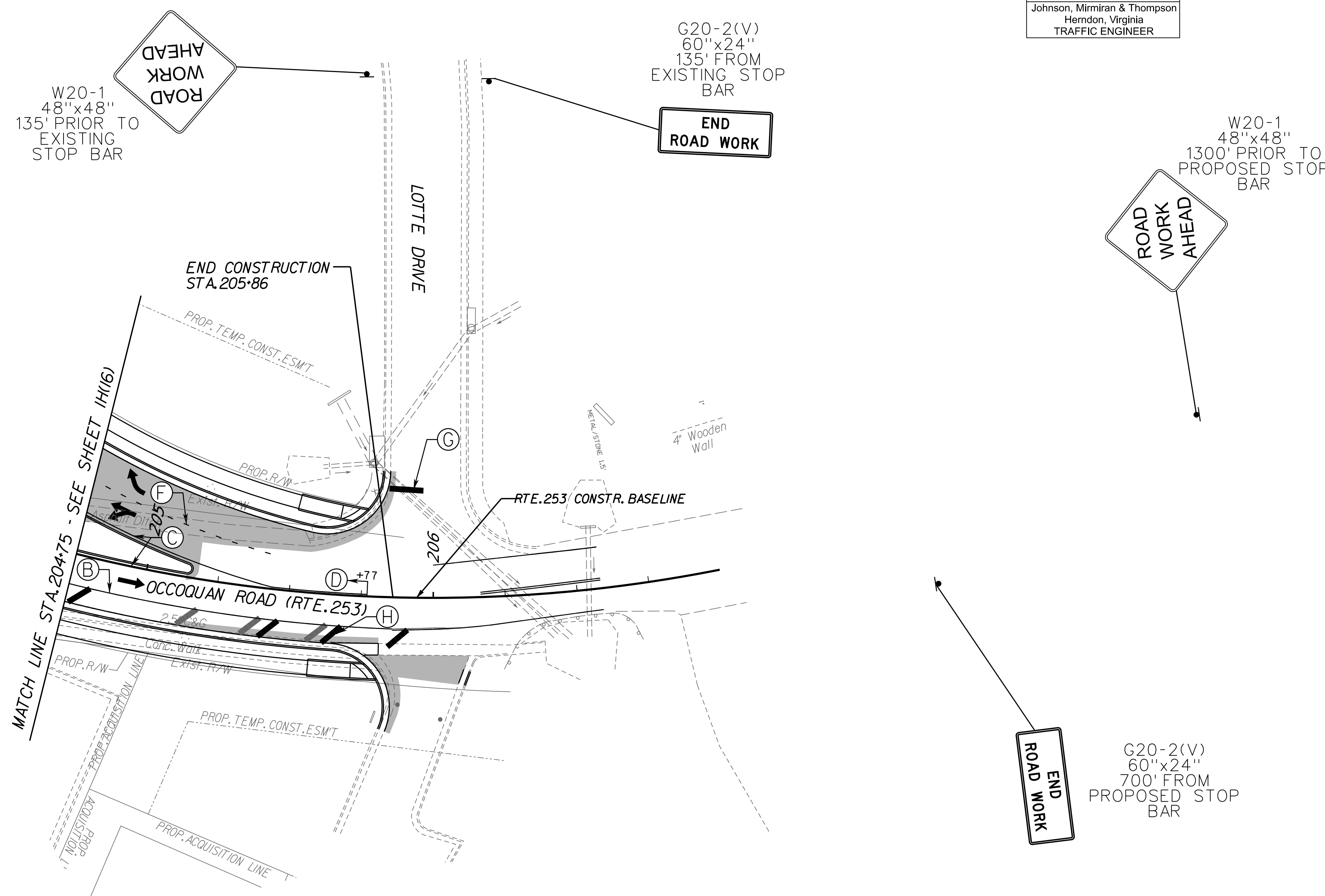
SCALE

PROJECT 0641-076-301	SHEET NO. 1H(17A)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC CONTROL (TTC) PLAN - STAGE 4

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1H(18)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER				



TEMPORARY PAVEMENT MARKING LEGEND

- | | |
|---|---|
| (A) TYPE A, WHITE PAVEMENT LINE MARKING, 6" WIDTH | (J) TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 4" WIDTH, CONTRAST (10' LINE, 30' SPACE) |
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- ### LEGEND
- DENOTES CONSTRUCTION THIS STAGE
 - DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
 - DENOTES CONSTRUCTION PREVIOUS STAGE
 - DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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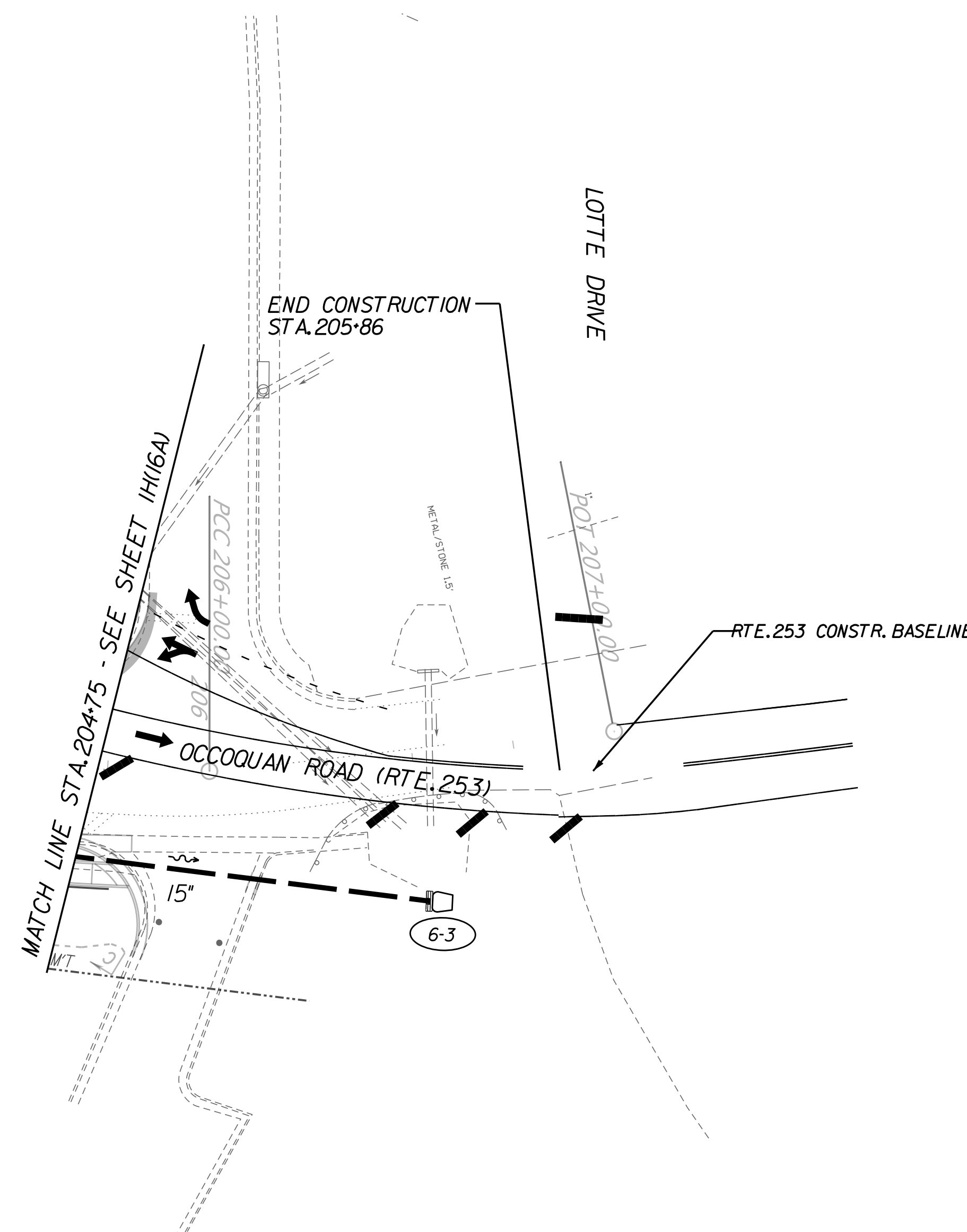
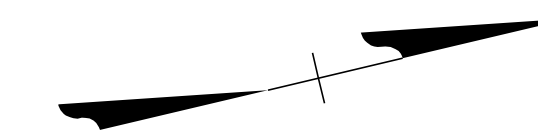


PROJECT 0641-076-301
SHEET NO. 1H(18)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE INSTALLATION PLAN STAGE 4

REVISED	STATE		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
	VA.	641	0641-076-301	R-201, C-501	IH(18A)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER					



SEQUENCE OF CONSTRUCTION

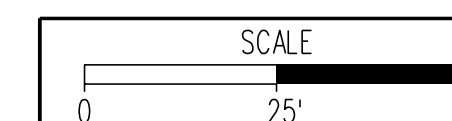
1. Remove existing storm system along the existing Old Bridge Road being demolished up until the location of proposed Str.5-2
2. Install storm sewer system between Str.4-9 and Str.5-9, starting from the downstream end and working upstream. Remove connections with existing pipe at Str.4-9. Make proposed storm sewer system functional.
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7. Once entire system is installed, unplug pipe between Str.5-6 and Str.5-3 to make proposed storm sewer system functional.

LEGEND

- DENOTES CONSTRUCTION THIS STAGE
- DENOTES CONSTRUCTION DURING SHORT-TERM LANE CLOSURES
- DENOTES CONSTRUCTION PREVIOUS STAGE
- DENOTES GROUP 2 CHANNELIZING DEVICES

60% PLANS

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PROJECT: 0641-076-301
SHEET NO.: IH(18A)

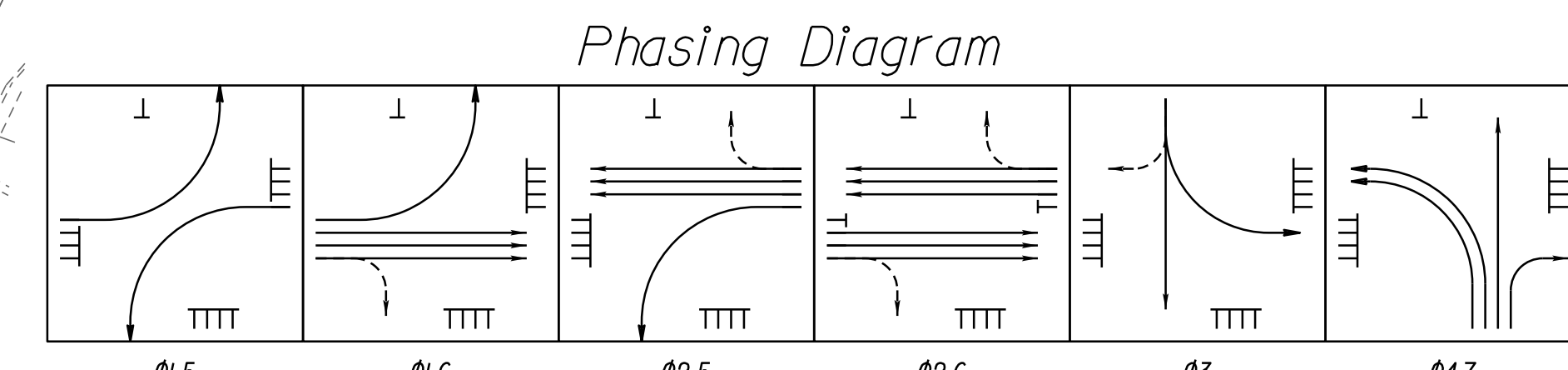
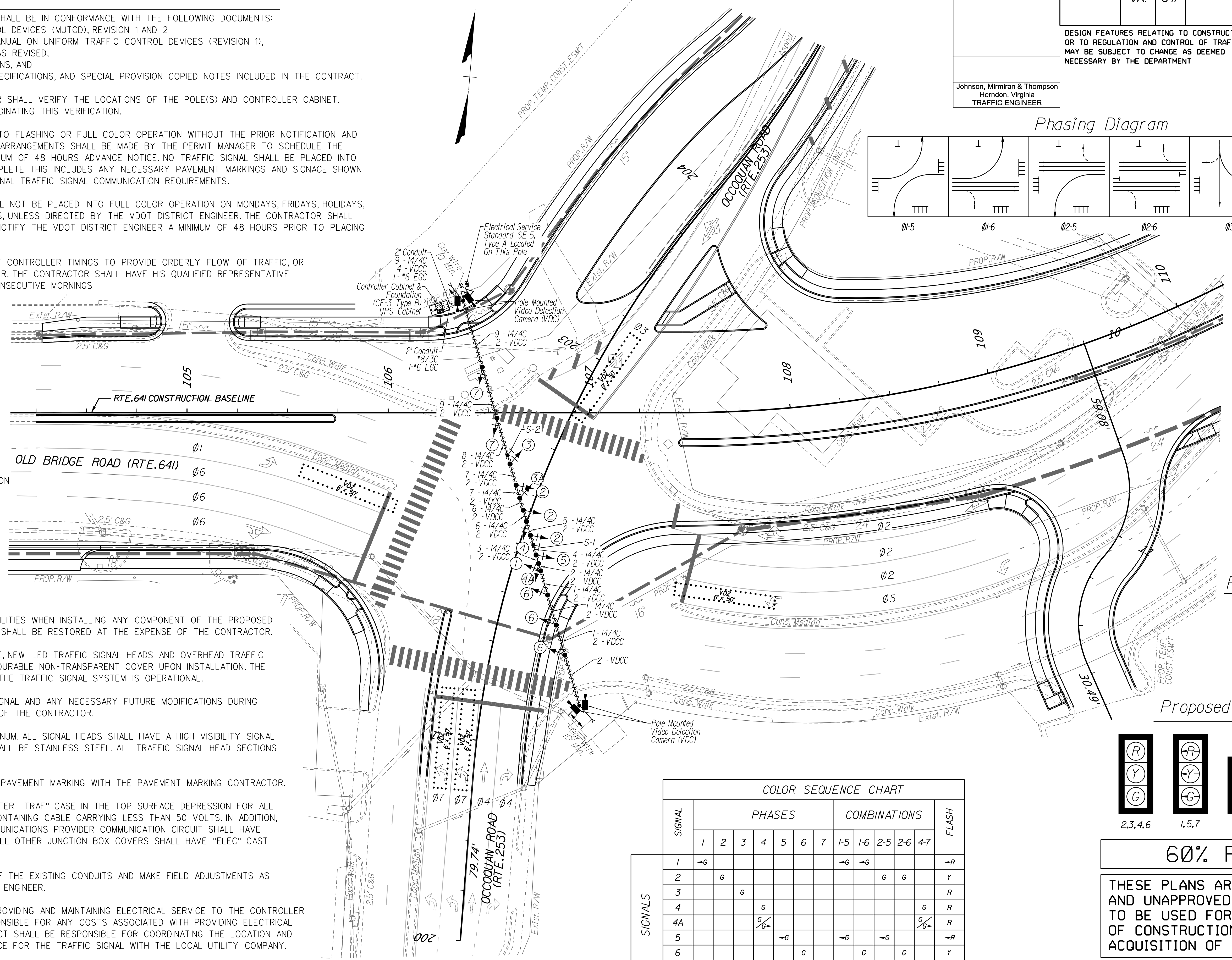
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TEMPORARY TRAFFIC SIGNAL PLAN

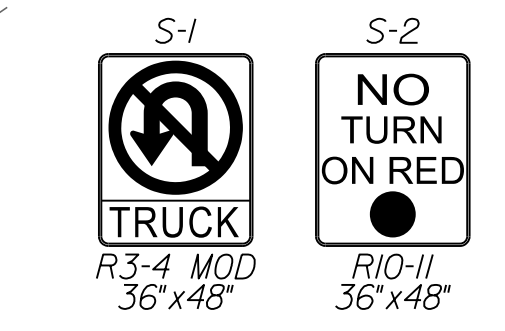
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	64I		0641-076-30I R-201,C-50I	1H(19)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER					

GENERAL NOTES

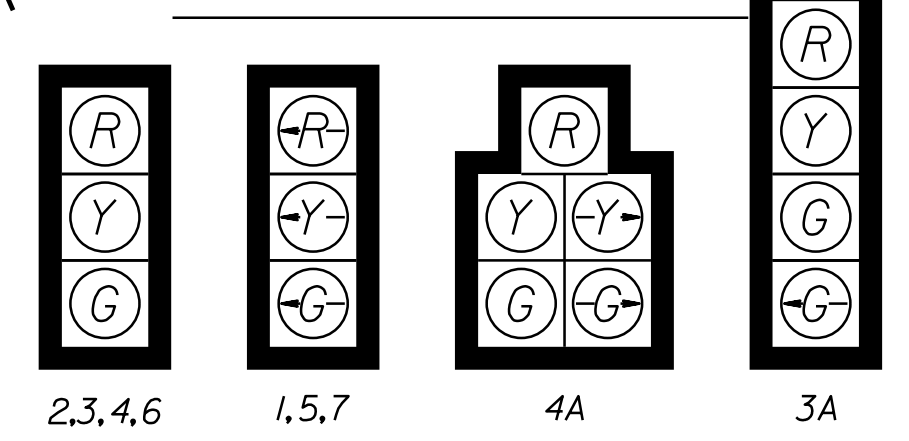
- ALL SIGNING AND PAVEMENT MARKING WORK SHALL BE IN CONFORMANCE WITH THE FOLLOWING DOCUMENTS:
 - 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), REVISION 1 AND 2
 - 2011 VIRGINIA SUPPLEMENT TO THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (REVISION 1),
 - 2016 VDOT ROAD AND BRIDGE STANDARDS, AS REVISED,
 - 2020 VDOT ROAD AND BRIDGE SPECIFICATIONS, AND
 - ALL SPECIAL PROVISIONS, SUPPLEMENTAL SPECIFICATIONS, AND SPECIAL PROVISION COPIED NOTES INCLUDED IN THE CONTRACT.
- PRIOR TO CONSTRUCTION THE VDOT ENGINEER SHALL VERIFY THE LOCATIONS OF THE POLE(S) AND CONTROLLER CABINET. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THIS VERIFICATION.
- THE TRAFFIC SIGNAL WILL NOT BE PLACED INTO FLASHING OR FULL COLOR OPERATION WITHOUT THE PRIOR NOTIFICATION AND APPROVAL FROM A VDOT DISTRICT ENGINEER. ARRANGEMENTS SHALL BE MADE BY THE PERMIT MANAGER TO SCHEDULE THE DISTRICT FIELD PERSONNEL PROVIDING A MINIMUM OF 48 HOURS ADVANCE NOTICE. NO TRAFFIC SIGNAL SHALL BE PLACED INTO OPERATION UNTIL THE LOCATION IS 100% COMPLETE THIS INCLUDES ANY NECESSARY PAVEMENT MARKINGS AND SIGNAGE SHOWN ON THE PLANS AND COMPLETE AND OPERATIONAL TRAFFIC SIGNAL COMMUNICATION REQUIREMENTS.
- THE NEW TRAFFIC SIGNAL INSTALLATION SHALL NOT BE PLACED INTO FULL COLOR OPERATION ON MONDAYS, FRIDAYS, HOLIDAYS, OR DAYS PRECEDING OR FOLLOWING HOLIDAYS, UNLESS DIRECTED BY THE VDOT DISTRICT ENGINEER. THE CONTRACTOR SHALL NOTIFY THE PERMIT INSPECTOR, WHO SHALL NOTIFY THE VDOT DISTRICT ENGINEER A MINIMUM OF 48 HOURS PRIOR TO PLACING THE SIGNAL INTO OPERATION.
- THE CONTRACTOR SHALL INSTALL AND ADJUST CONTROLLER TIMINGS TO PROVIDE ORDERLY FLOW OF TRAFFIC, OR AS DIRECTED BY THE VDOT DISTRICT ENGINEER. THE CONTRACTOR SHALL HAVE HIS QUALIFIED REPRESENTATIVE PRESENT TO MONITOR A MINIMUM OF TWO CONSECUTIVE MORNINGS AND EVENING RUSH HOUR PERIODS, OR AS DIRECTED BY THE VDOT DISTRICT ENGINEER
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ELECTRICAL SERVICE TO THE CONTROLLER AT ALL TIMES.
- ALL UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND MAY NOT BE ACCURATE OR COMPLETE. THE CONTRACTOR SHALL COMPLY WITH THE VIRGINIA "UNDERGROUND UTILITY DAMAGE PREVENTION ACT" AND THE STATE CORPORATION COMMISSION'S "RULES FOR ENFORCEMENT OF THE ACT." IF THE CONTRACTOR IS AWARE OF ANY UTILITIES WITHIN THE PROJECT LIMITS THAT ARE NOT IDENTIFIED BY THE NOTIFICATION CENTER, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNER(S) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL NOTIFY VDOT AT 800-367-7623 TO DETERMINE THE EXTENT AND LOCATION OF VDOT OWNED EQUIPMENT. IF THE CONTRACTOR PERCEIVES A CONFLICT BETWEEN UTILITIES AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE REVIEWED.
- CONTRACTOR SHALL NOT IMPACT EXISTING UTILITIES WHEN INSTALLING ANY COMPONENT OF THE PROPOSED SIGNAL. ANY DISRUPTION TO UTILITY SERVICE SHALL BE RESTORED AT THE EXPENSE OF THE CONTRACTOR.
- DURING CONSTRUCTION AND WHEN NOT IN USE, NEW LED TRAFFIC SIGNAL HEADS AND OVERHEAD TRAFFIC SIGNAL SIGNAGE SHALL BE COVERED WITH A DURABLE NON-TRANSPARENT COVER UPON INSTALLATION. THE CONTRACTOR SHALL MAINTAIN COVERS UNTIL THE TRAFFIC SIGNAL SYSTEM IS OPERATIONAL.
- MAINTENANCE AND REPAIR OF THE TRAFFIC SIGNAL AND ANY NECESSARY FUTURE MODIFICATIONS DURING CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- TRAFFIC SIGNAL HEADS SHALL BE CAST ALUMINUM. ALL SIGNAL HEADS SHALL HAVE A HIGH VISIBILITY SIGNAL BACKPLATE (HVS). BACKPLATE HARDWARE SHALL BE STAINLESS STEEL. ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE LED.
- THE SIGNAL CONTRACTOR SHALL COORDINATE PAVEMENT MARKING WITH THE PAVEMENT MARKING CONTRACTOR.
- JUNCTION BOX COVERS SHALL HAVE THE LETTER "TRAF" CASE IN THE TOP SURFACE DEPRESSION FOR ALL TRAFFIC SIGNAL RELATED JUNCTION BOXES CONTAINING CABLE CARRYING LESS THAN 50 VOLTS. IN ADDITION, THE JUNCTION BOX USED FOR THE TELECOMMUNICATIONS PROVIDER COMMUNICATION CIRCUIT SHALL HAVE "COMM" CASE IN TOP SURFACE DEPRESSION. ALL OTHER JUNCTION BOX COVERS SHALL HAVE "ELEC" CAST IN THE TOP SURFACE DEPRESSION.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE EXISTING CONDUITS AND MAKE FIELD ADJUSTMENTS AS NECESSARY AND APPROVED BY THE DISTRICT ENGINEER.
- THE PROJECT SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ELECTRICAL SERVICE TO THE CONTROLLER AT ALL TIMES. THE PROJECT SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH PROVIDING ELECTRICAL SERVICE TO THE TRAFFIC SIGNAL. THE PROJECT SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND THE INSTALLATION OF THE ELECTRICAL SERVICE FOR THE TRAFFIC SIGNAL WITH THE LOCAL UTILITY COMPANY. ELECTRICAL SERVICE SHALL BE METERED.



Proposed Signs



Proposed Signals



COLOR SEQUENCE CHART

SIGNAL	PHASES							COMBINATIONS					FLASH
	1	2	3	4	5	6	7	1-5	1-6	2-5	2-6	4-7	
1	-G							-G	-G				-R
2		G								G	G		Y
3			G										R
4				G							G	G	R
5					G			G	G				R
6						G			G	G			Y
7							G				-G		-R

NOTE: empty box denotes RED indication (red ball or red arrow as appropriate)

60% PLANS

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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

GENERAL NOTES

REVISED	STATE		STATE		SHEET NO.
	STATE	ROUTE	PROJECT		
	VA.	641	0641-076-301 R-201, C-501		2

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

GRADING

- G-1 The grade line denotes top of finished pavement unless shown otherwise on typical sections or plans.
- G-6 The borrow material for this project shall be a minimum CBR 5 or as approved by the Materials Engineer.
- G-7 Material from regular excavation which is suitable for stabilization with hydraulic cement (lime) shall be placed in the top portion of the subgrade.

PAVEMENT

- P-1 If any settlement occurs in concrete pavement adjacent to bridges prior to acceptance of the project by the Department, the contractor shall restore the pavement to the original grade either by the mud jack method or by replacing the pavement. In the event the pavement cracks or becomes damaged, it shall be replaced, if directed by the Engineer.
- P-2 The pavement materials on this project will be paid for on a tonnage basis. The weight will vary in accordance with the specific gravity of the aggregates and the asphaltic content of the mix actually used to secure the design depth. The weight of the asphalt concrete is based on 95% of the theoretical maximum density.

INCIDENTALS

- I-4 All trees located within the Clear Zone or within a minimum of 30 feet of the edge of pavement, within the limits of the right of way or construction easement, unless otherwise noted on plans or directed by the Engineer, shall be removed, as provided for a Section 301 of the applicable VDOT Road and Bridge Specifications.
- I-5 That portion of the right of way lying within the Clear Zone or within a minimum of 10 feet from the edge of pavement or surfacing or within the limits of the construction slopes beyond 10 feet, shall be cleared and grubbed in accordance with the applicable VDOT Road and Bridge Specifications, Section 301, where sufficient right of way or construction easement is provided.
- I-6 Certain trees shall be preserved as noted on plans or as directed by the Engineer.
- I-7 Where Standard slope roundoffs would damage trees, bushes or other desirable vegetation, they shall be omitted when so ordered by the Engineer.
- I-9 When no centerline alignment is shown for a proposed entrance, the entrance shall be constructed in the same location as the existing entrance.
- I-12 St'd. RM-2 right of way monuments shall be set by the Contractor.
- I-16 The "underground utilities" survey data on this project has been provided by consultant and copies are available from the Department.
- I-17 For method of constructing Straight-Line Taper Lanes in curb and/or curb and gutter sections, see typical details on Sheet 2A(6).
- I-18 All pavement markings and traffic flow arrows shown on the roadway construction plans are schematic only. The actual location and application of pavement markings shall be in accordance with Section 704 of the applicable VDOT Road and Bridge Specifications, MUTCD, sequence of construction/traffic control plans, pavement marking plan sheets 33(3) thru 33(14) and as directed by the Engineer.
- I-20 The Official Electronic PDF Version of the plans will override the paper copies or prints of specific layers.

Portions of this plan assembly have been CADD generated. To assist in the preparation of the bid and construction of the project, Microstation format (.dgn) files will be made available to the prime contractor during bids and after award of the contract.
- I-21 All electronic plan assemblies will include the construction plans in two formats: PDF files and MicroStation format (.dgn) files. Only the PDF files will be considered as part of the official plan assembly.

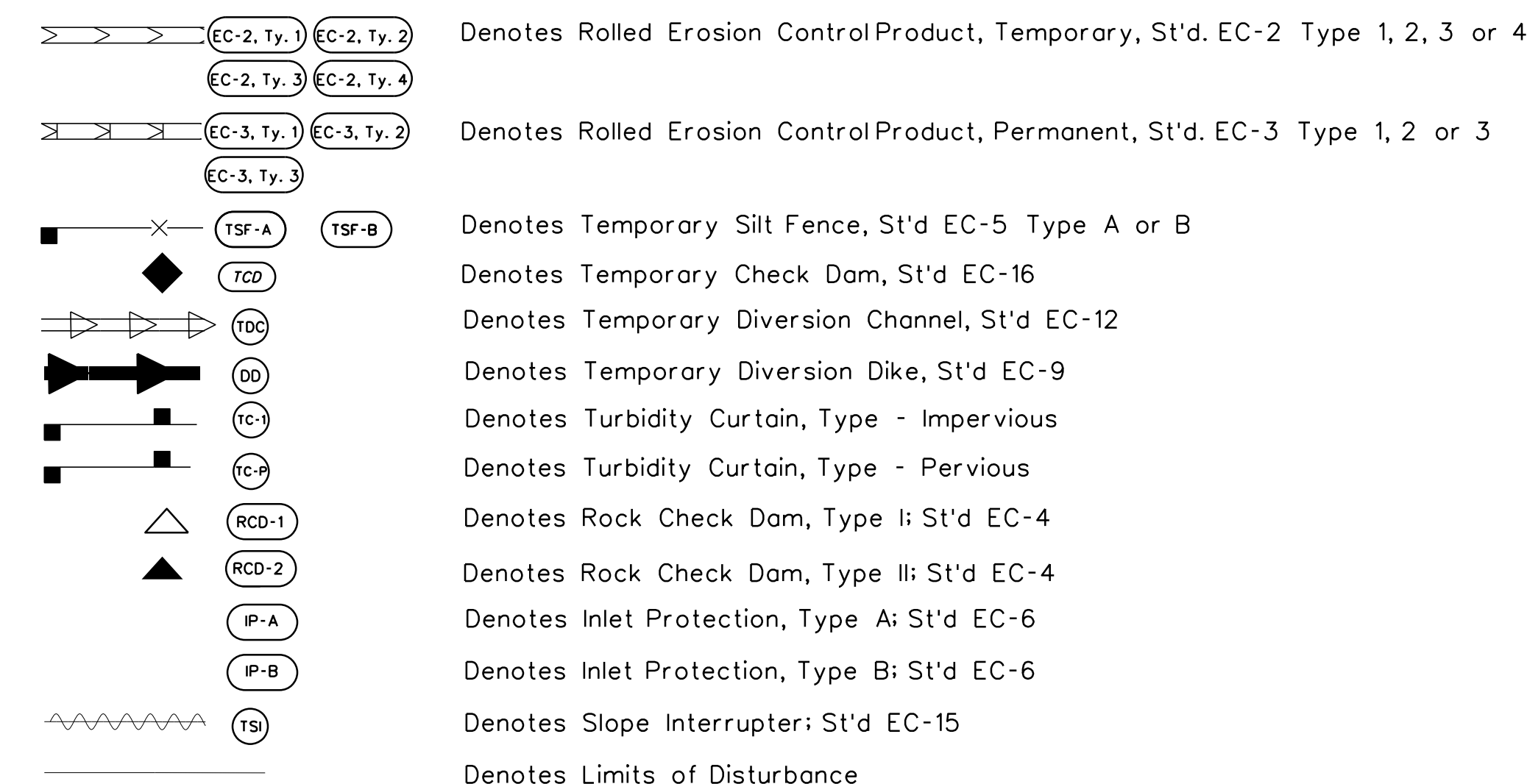
The MicroStation format (.dgn) files are furnished only as information for the contractor. These plans are developed in layers (levels) to aid in readability. (See the VDOT CADD Manual for CADD Level Structure). However, the construction items may or may not be in the proper layering scheme as described in the VDOT CADD Manual. The Microstation files will only match the scanned files if all required levels are turned on. A Microstation Software license is required to be able to read these files.

DRAINAGE

- D-1 The horizontal location of all drainage structures shown on these plans is approximate only, with the exception of structures showing specific stations, special design bridges and storm sewer systems.
- D-2 The horizontal location and invert elevations shown for proposed culverts and storm sewer outfall pipes are based on existing survey data and required design criteria. If during construction, it is found that the horizontal location or invert elevations shown on the plans differ significantly from the horizontal location or elevations of the stream or swale in which the culvert or storm sewer outfall pipe is to be placed, the Engineer shall confer with, and get approval from, the applicable District Drainage Engineer before installing the culvert or storm sewer outfall pipe.
- D-3 The "H" dimensions shown on plans for drop inlets and junction boxes and the "L.F." dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F." dimensions are to be determined by the contractor from field conditions.
- D-7 All pipe on this project shall be reinforced concrete. For strength, sheet thickness, or class designation; available sizes; height of cover limitations; and other restrictions for a particular pipe type or height cover, see the applicable sections of the VDOT Road and Bridge Standards PC-1.
- D-9 A pipe joint length different from that stated on the plans may be used. An adjustment in the percentage of open joint (not to exceed 25% of the spigot length) or amount of bevel shall be made that will obtain the radius stated on the plans. Extra payment for this adjustment will not be allowed. The proposed adjustment shall be approved by the Engineer prior to installation of the pipe line.
- D-10 The proposed riprap may be omitted by the Engineer if the slope designated for placement of riprap is found to be comprised of solid rock or closely consolidated boulders with soundness, size and weight equal to, or exceeding, the specifications for the proposed riprap.
- D-11 The proposed granular filter blanket for the proposed riprap may be omitted by the Engineer if the slope on which it is to be placed is found to be comprised of material which is coarser than that specified for the proposed granular filter blanket.
- D-12 All existing drainage facilities labeled "To Be Abandoned" shall be left in place, backfilled and plugged in accordance with the VDOT Road and Bridge Standard PP-1. Basis of Payment will be C.Y. of Flowable Backfill.
- D-13 Existing drainage facilities being utilized as a part of the drainage system, and designated on the plans "To Be Cleaned Out" shall be cleaned as directed by the Engineer. The cost incidental to this shall be included in the contract price for other items.
- D-14 Proposed drop inlets with a height (H) less than the standard minimum shown in the VDOT Road and Bridge Standards shall be considered and paid for as Standard Drop Inlets for the type specified. Pipes with less than standard minimum finished height of cover shall be noted as such in the drainage description for the pipe. Specific pipe bedding and cover requirements are provided in the applicable PB-1 and PC-1 standard drawings of the VDOT Road and Bridge Standards.
- D-16 When CG-6 or CG-7 is specified on a radius (such as at a street intersection), the Engineer may approve a decrease in the cross slope of the gutter to facilitate proper drainage.
- D-17 St'd. SL-1 Safety Slab locations are based on the assumed use of precast structures. If cast-in-place structures are utilized, and the interior chamber dimensions (length and width, or diameter) are less than 4 feet, the safety slabs shall not be installed.

EROSION AND SEDIMENT CONTROL (ESC)

- E-1 If the removal of Brush Silt Barrier is specified by the plans or required by the Engineer, the cost of removal and disposal of brush shall be in accordance with Section 109 of the applicable VDOT Road and Bridge Specifications.
- E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.
- E-3 The following symbols are used to depict Erosion Control items in the plan assembly:



- E-4 Permanent vegetation shall be established on all denuded areas not otherwise stabilized with non-erodible materials. See the Roadside Development sheet for details on permanent vegetation establishment.

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

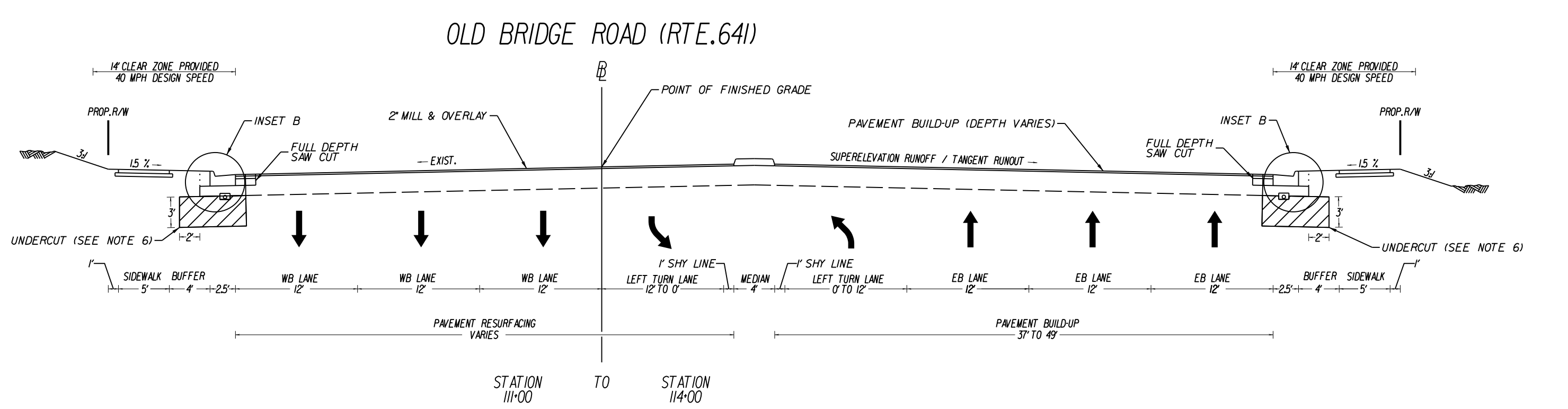
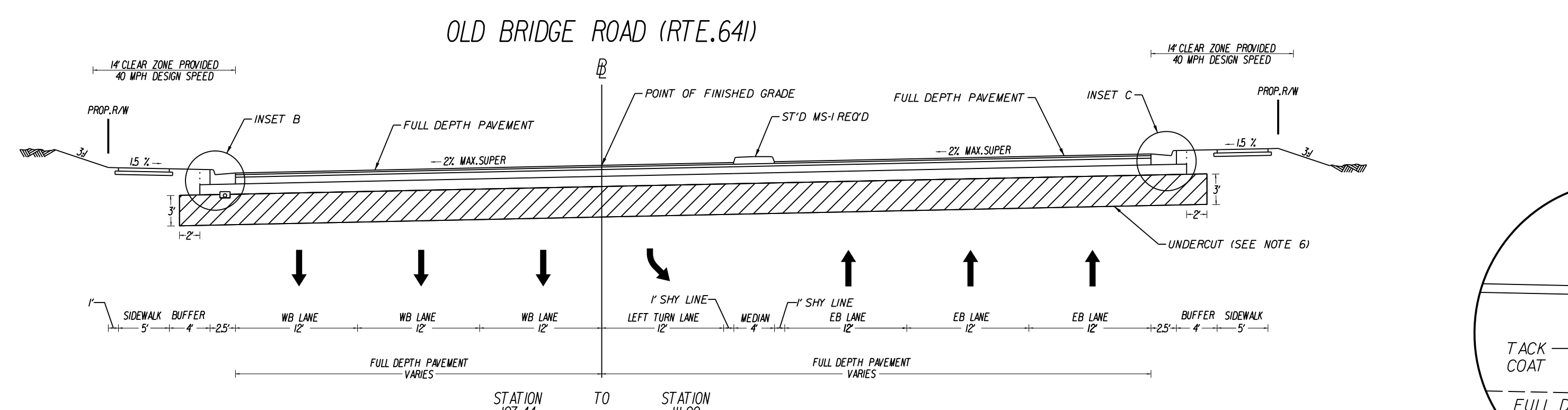
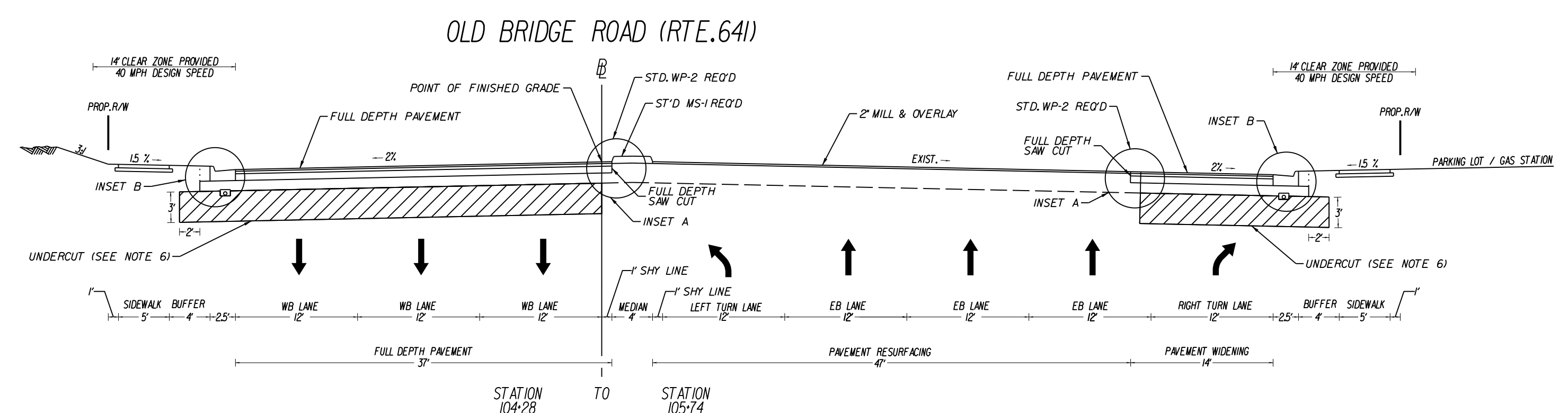
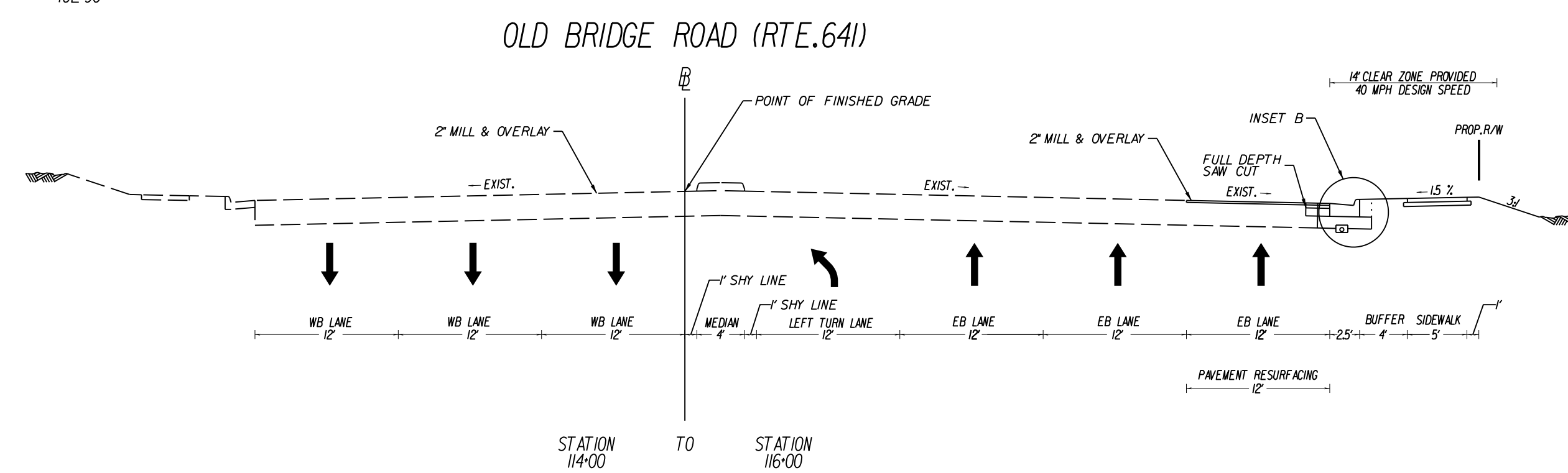
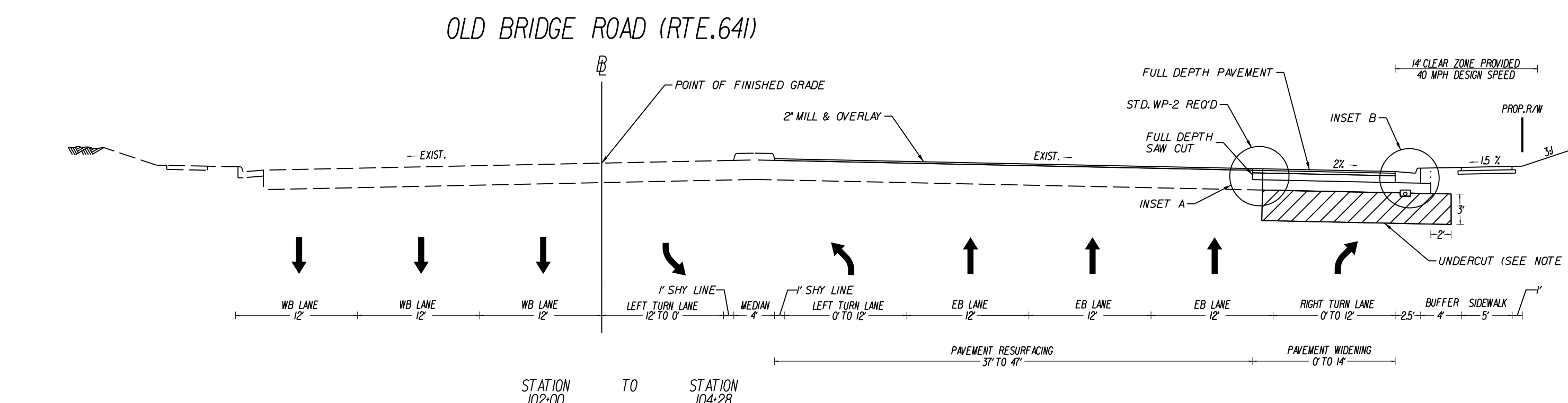
PROJECT	SHEET NO.
N/A	2

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

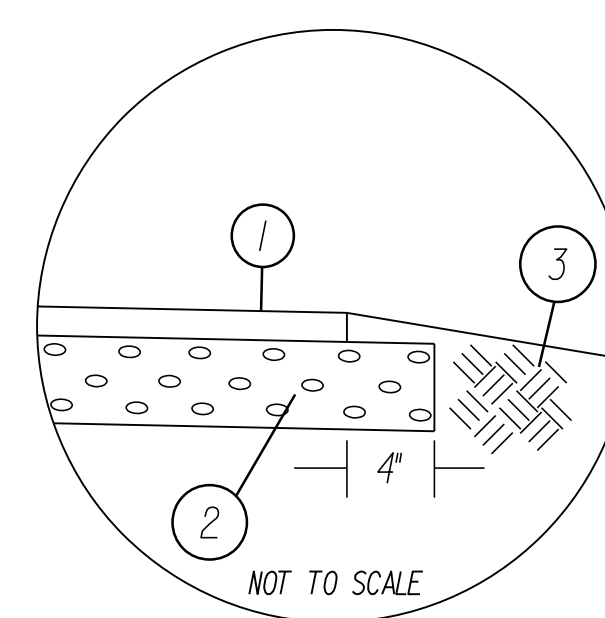
TYPICAL SECTIONS

REVISED	STATE	STATE		SHEET NO.
	VA.	ROUTE 641	PROJECT 0641-076-301 R-201,C-501	
Johnson, Mirmiran & Thompson Herndon, Virginia MATERIALS ENGINEER		Johnson, Mirmiran & Thompson Herndon, Virginia ROADWAY ENGINEER		

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



SIDEWALK STRUCTURE

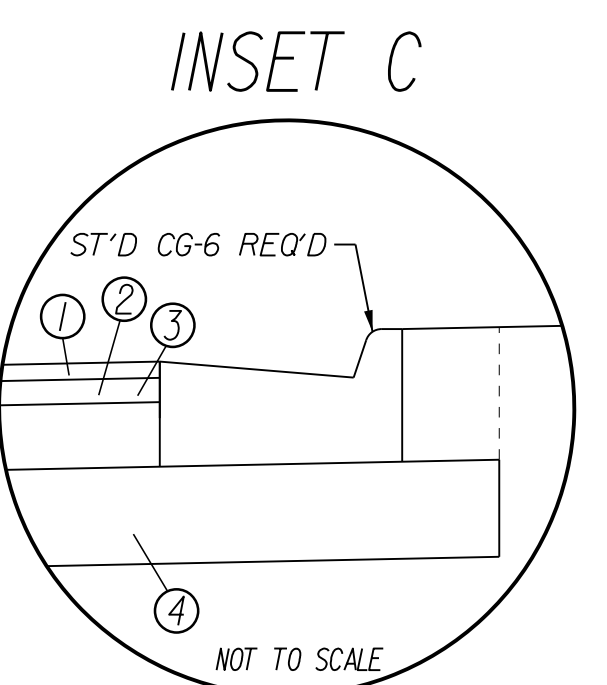
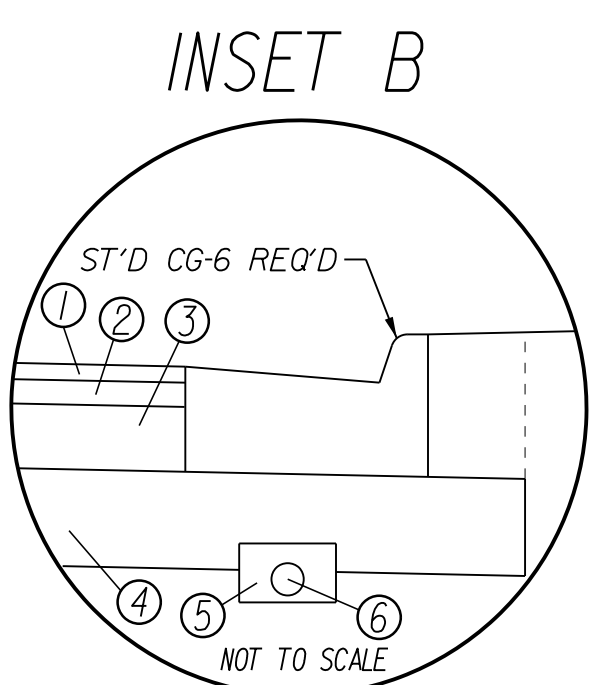
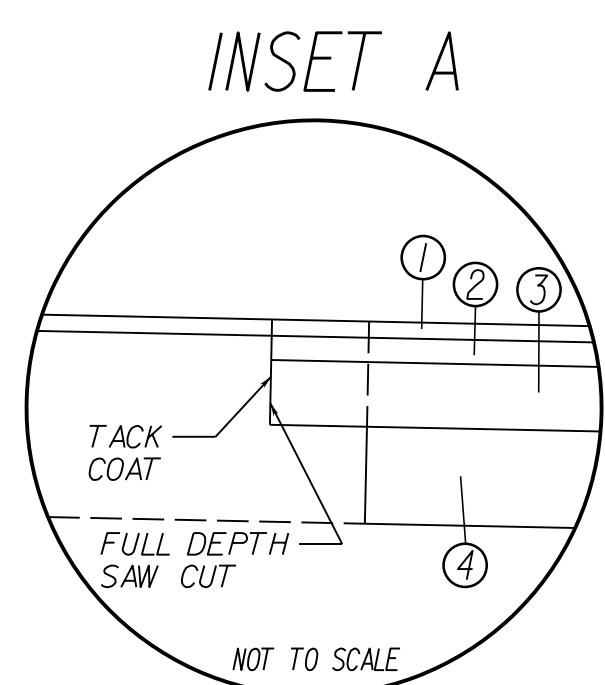


SIDEWALK SECTION NOTES

- 1) SURFACE - 4" HYDRAULIC CEMENT CONCRETE SIDEWALK (CLASS A-3)
- 2) BASE - 4" AGGREGATE BASE MATERIAL, TYPE 1, SIZE NO. 21A, EXTENDED 4" ON EITHER SIDE OF THE SURFACE
- 3) REGULAR FILL MATERIAL OR NATIVE SOIL

PAVEMENT SECTION NOTES

- 1) SURFACE - 2" ASPHALT CONCRETE TYPE SM-9.5D AT 224 LBS/SY
- 2) INTERMEDIATE - 3" ASPHALT CONCRETE TYPE IM-19.0A @ 330 LBS/SQ YD
- 3) BASE - 8" ASPHALT CONCRETE TYPE BM-25.0A
- 4) SUBBASE - 12" AGGREGATE BASE MATERIAL TYPE 1 SIZE 21B
- 5) *57/*8 AGGREGATE OR CRUSHED GLASS MEETING *8 GRADATION REQUIREMENT
- 6) ST'D UD-4 REQ'D



NOTES:

- 1) FOR APPROXIMATE LIMITS OF MILL & OVERLAY, BUILDUP, AND FULL DEPTH PAVEMENT, REFER TO PLAN SHEETS.
- 2) WHERE ADDITIONAL PAVEMENT BUILDUP IS NEEDED TO MEET PROPOSED GRADE, THE DEPTH SHALL BE VARIABLE WITH 2-INCH MINIMUM REQUIRED (SEE DETAIL ON SHEET 2A(3)). SEE PROFILE AND CROSS SECTIONS FOR FINISHED GRADE ELEVATIONS.
- 3) SEE PROFILE AND CROSS SECTIONS FOR FULL SUPERELEVATION AND TRANSITION LENGTHS.
- 4) ALL PAVEMENT WIDENING SHALL BE PERFORMED IN ACCORDANCE WITH ST'D WP-2.
- 5) REMOVE AND DISPOSE OF ANY EXISTING UNDERDRAIN PIPE THAT IS DISTURBED.
- 6) UNDERCUT UNSUITABLE MATERIAL TO A MAXIMUM DEPTH OF 3 FEET BELOW SUBGRADE OR UNTIL THE SUITABLE MATERIAL IS NO LONGER PRESENT.
 - A. IF NO CH/MH/OH/OL SOIL LIES BELOW THE UNDERCUT THE REPLACEMENT MATERIAL SHOULD HAVE A MINIMUM VALUE OF 5.
 - B. IF CH/MH/OH/OL SOIL LIES BELOW THE UNDERCUT, THE REPLACEMENT MATERIAL SHOULD BE SELECT MATERIAL TYPE 1 WITH MINIMUM CB3-30.

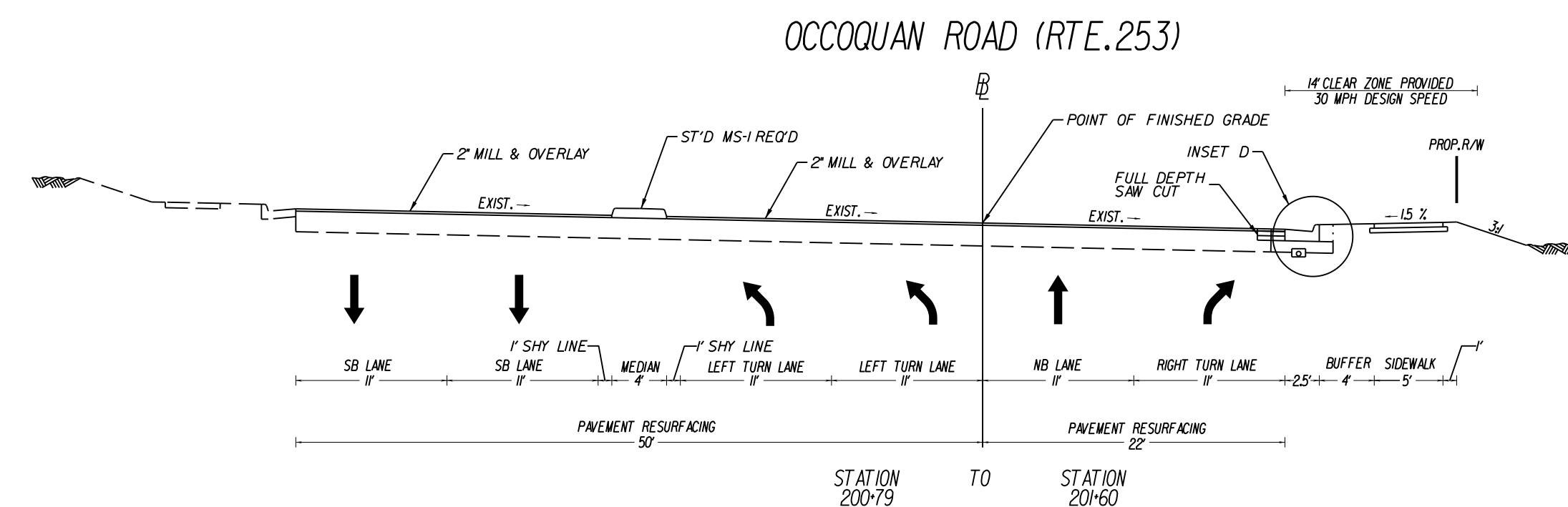
60% PLANS
 THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 10' 20'	PROJECT 0641-076-301	SHEET NO. 2A(1)
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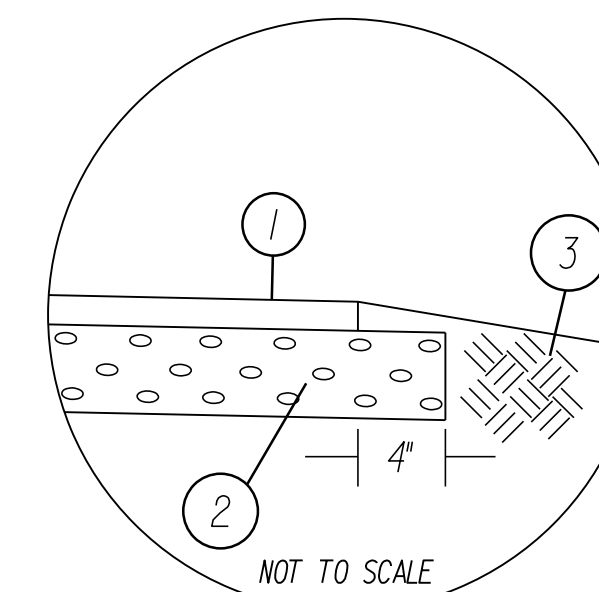
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TYPICAL SECTIONS

REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	641	0641-076-301 R-201, C-501	2A(2)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia MATERIALS ENGINEER		Johnson, Mirmiran & Thompson Herndon, Virginia ROADWAY ENGINEER		

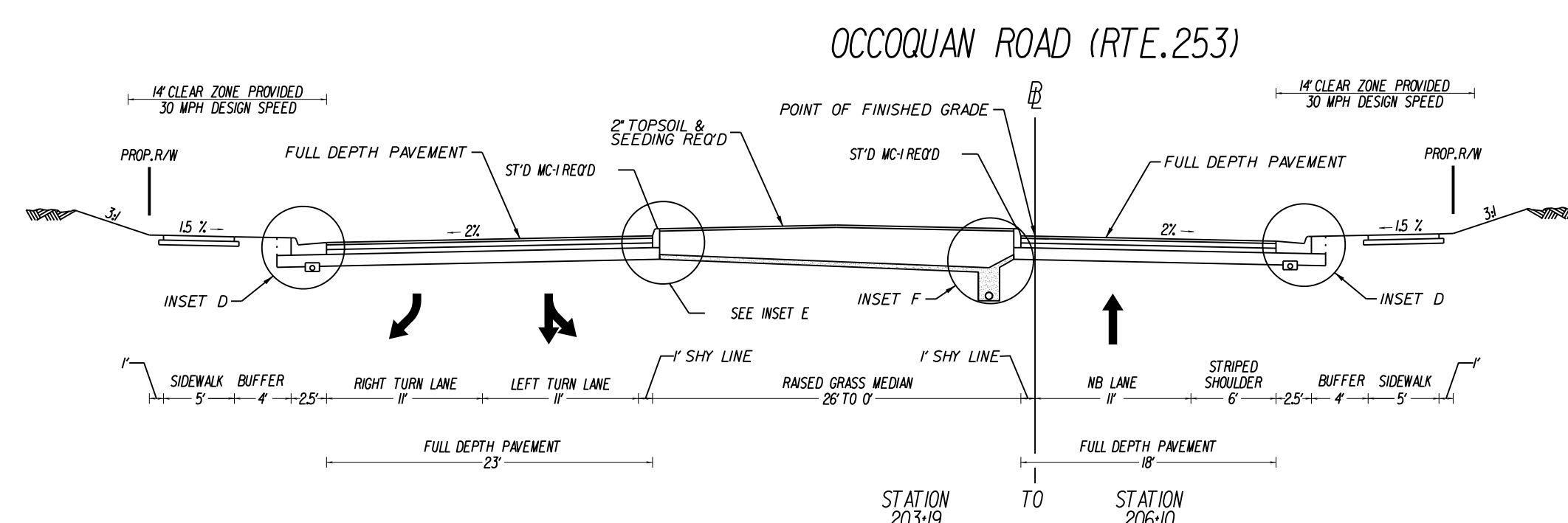


SIDEWALK STRUCTURE

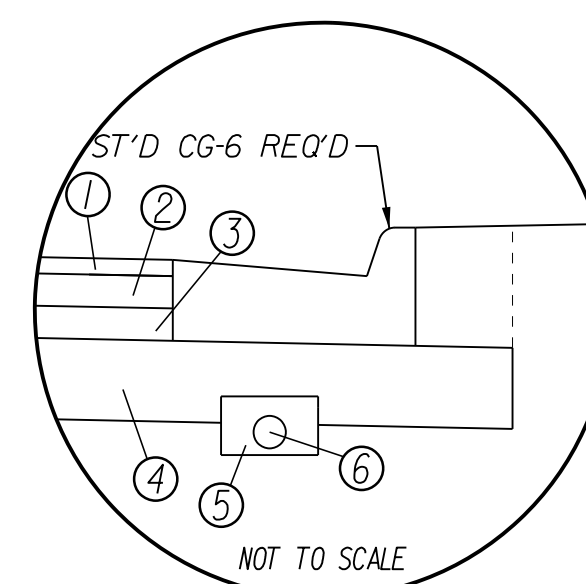


SIDEWALK SECTION NOTES

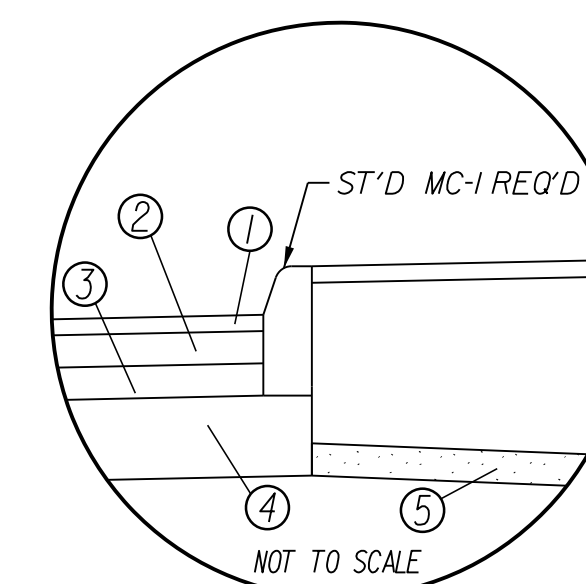
- ① SURFACE - 4" HYDRAULIC CEMENT CONCRETE SIDEWALK (CLASS A-3)
- ② BASE - 4" AGGREGATE BASE MATERIAL, TYPE 1, SIZE NO. 21A, EXTENDED 4" ON EITHER SIDE OF THE SURFACE
- ③ REGULAR FILL MATERIAL OR NATIVE SOIL



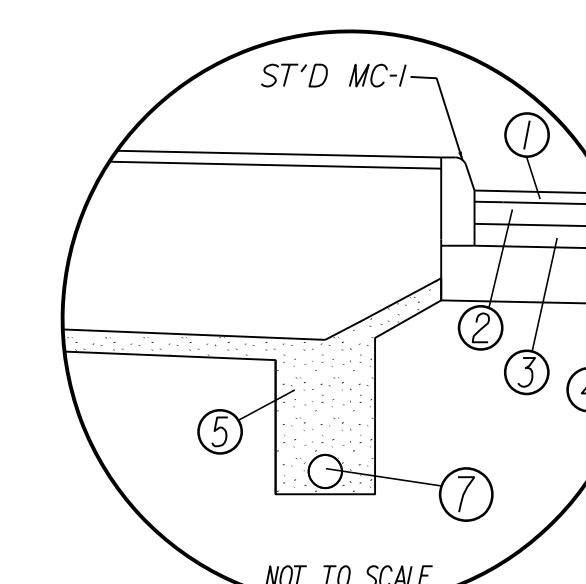
INSET D



INSET E



INSET F



PAVEMENT SECTION NOTES

- ① SURFACE - 2" ASPHALT CONCRETE TYPE SM-9.5D AT 224 LBS/SY
- ② INTERMEDIATE - 4" ASPHALT CONCRETE TYPE IM-19.0A @ 440 LBS/SQ YD
- ③ BASE - 4" ASPHALT CONCRETE TYPE BM-25.0A
- ④ SUBBASE - 10" AGGREGATE BASE MATERIAL TYPE 1 SIZE 21B
- ⑤ *57/8 AGGREGATE OR CRUSHED GLASS MEETING *8 GRADATION REQUIREMENT
- ⑥ ST'D UD-4 REQ'D
- ⑦ ST'D UD-2 REQ'D

NOTES:

- 1.) FOR APPROXIMATE LIMITS OF MILL & OVERLAY, BUILDUP, AND FULL DEPTH PAVEMENT, REFER TO PLAN SHEETS.
- 2.) WHERE ADDITIONAL PAVEMENT BUILDUP IS NEEDED TO MEET PROPOSED GRADE, THE DEPTH SHALL BE VARIABLE WITH 2-INCH MINIMUM REQUIRED (SEE DETAIL ON SHEET 2A(3)). SEE PROFILE AND CROSS SECTIONS FOR FINISHED GRADE ELEVATIONS.
- 3.) SEE PROFILE AND CROSS SECTIONS FOR FULL SUPERELEVATION AND TRANSITION LENGTHS.
- 4.) ALL PAVEMENT WIDENING SHALL BE PERFORMED IN ACCORDANCE WITH ST'D WP-2.
- 5.) REMOVE AND DISPOSE OF ANY EXISTING UNDERDRAIN PIPE THAT IS DISTURBED.

60% PLANS

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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

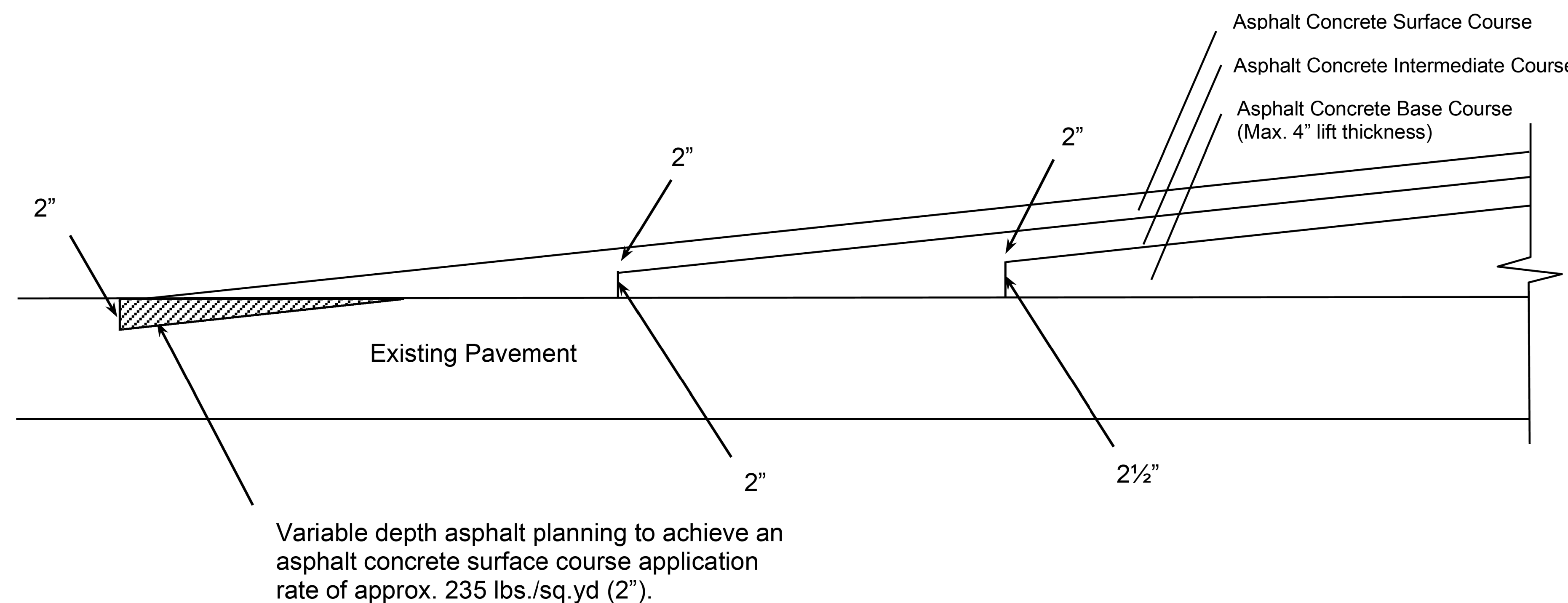
TYPICAL SECTIONS

REVISED	STATE		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
	VA.	641		0641-076-301 R-201, C-501	2A(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Virginia Department of Transportation NOVA District Materials Section

Detail: Asphalt Concrete Build-up



Not to Scale

60% PLANS

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NTS	PROJECT 0641-076-301	SHEET NO. 2A(3)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE DESCRIPTIONS

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	64I	064I-076-30I R-20I,C-50I	2B(1)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER				

SHEET 3

3-3 4.9 LF STD.MH-1 or 2 REQ'D.
1 St'd.MH-1 Frame & Cover Req'd.
INV.115.48
St'd.IS-1 Req'd.
Tie to existing 15" pipe.

3-2 20'-18" STORM SEWER PIPE REQ'D.(4' COVER)
Silt Tight Joint Type
INV.(IN) 115.48 INV.(OUT) 114.69

3-2 1 STD.DI-3B REQ'D.
L=10',H= 5J',INV.114.59
St'd.IS-1 Req'd.
Connect UD-4 to DI

4-1 67'-18" STORM SEWER PIPE REQ'D.(4' COVER)
Silt Tight Joint Type
INV.(IN) 114.59 INV.(OUT) 110.89

3-1 1 STD.DI-2A REQ'D.
L=2.5',H= 6.3',INV.116.35

3-2 40'-15" STORM SEWER PIPE REQ'D.(3' COVER)
Silt Tight Joint Type
INV.(IN) 116.35 INV.(OUT) 115.90

SHEET 4

4-1 1 STD.DI-3B REQ'D.
L=6',H= 5.7',INV.110.79
Connect UD-4 to DI

4-1 4-2 145'-18" STORM SEWER PIPE REQ'D.(4' COVER)
Silt Tight Joint Type
INV.(IN) 110.79 INV.(OUT) 104.29

4-2 1 STD.DI-3B REQ'D.
L=10',H= 4.9',INV.104.19
St'd.IS-1 Req'd.
Connect UD-4 to DI

4-2 4-3 152'-18" STORM SEWER PIPE REQ'D.(6' COVER)
Silt Tight Joint Type
INV.(IN) 104.19 INV.(OUT) 97.01

4-3 1 STD.DI-3B REQ'D.
L=6',H= 6.5',INV.96.91
St'd.IS-1 Req'd.
Connect UD-4 to DI

4-3 4-9 111'-18" STORM SEWER PIPE REQ'D.(9' COVER)
Silt Tight Joint Type
INV.(IN) 96.91 INV.(OUT) 91.36

4-9 9.6 LF STD.MH-1 or 2 REQ'D.
1 St'd.MH-1 Frame & Cover Req'd.
INV.91.26
St'd.IS-1 Req'd.

4-9 4-4 120'-24" STORM SEWER PIPE REQ'D.(9' COVER)
Silt Tight Joint Type
INV.(IN) 91.26 INV.(OUT) 88.05

4-4 1 STD.DI-3B REQ'D.
L=8',H= 10.9',INV.86.99

4-4 5-1 244'-24" STORM SEWER PIPE REQ'D.(9' COVER)
(654' Radius with open joints - using 8' pipe joint lengths)
Joints are to be opened a maximum of 25% of the spigot or tongue length.
INV.(IN) 86.99 INV.(OUT) 81.41

Ex. 4-20 Ex. STD.DI-3B
L=20',H= 5.4',INV.110.97
Connect Proposed 15" Storm Sewer Pipe Ex.4-20 to 4-6.

Ex. 4-20 4-6 111'-15" STORM SEWER PIPE REQ'D.(3' COVER)
Silt Tight Joint Type
INV.(IN) 110.97 INV.(OUT) 105.38

4-6 1 STD.DI-3B REQ'D.
L=6',H= 4.6',INV.105.28

4-6 4-7 81'-15" STORM SEWER PIPE REQ'D.(3' COVER)
Silt Tight Joint Type
INV.(IN) 105.28 INV.(OUT) 101.57

4-7 1 STD.DI-3B REQ'D.
L=8',H= 4.6',INV.101.47
St'd.IS-1 Req'd.
Connect UD-4 to DI

4-7 4-8 47'-15" STORM SEWER PIPE REQ'D.(3' COVER)
Silt Tight Joint Type
INV.(IN) 101.47 INV.(OUT) 97.32

4-8 4J LF STD.MH-1 or 2 REQ'D.
1 St'd.MH-1 Frame & Cover Req'd.
INV.97.22
St'd.IS-1 Req'd.

4-8 6-1 211'-15" STORM SEWER PIPE REQ'D.(3' COVER)
(300' Radius with open joints - using 8' pipe joint lengths)
Joints are to be opened a maximum of 25% of the spigot or tongue length.
INV.(IN) 97.22 INV.(OUT) 86.05

4-5 1 STD.DI-3B REQ'D.
L=8',H= 4.3',INV.91.23

4-5 5-7 194'-15" STORM SEWER PIPE REQ'D.(3' COVER)
(614' Radius with open joints - using 8' pipe joint lengths)
Joints are to be opened a maximum of 25% of the spigot or tongue length.
INV.(IN) 91.23 INV.(OUT) 86.64

SHEET 5

5-1 1 STD.DI-3B REQ'D.
L=6',H= 10.8',INV.81.31

5-1 5-2 85'-24" STORM SEWER PIPE REQ'D.(5' COVER)
Silt Tight Joint Type
INV.(IN) 81.31 INV.(OUT) 79.03

5-2 10.3 LF STD.MH-1 or 2 REQ'D.
1 St'd.MH-1 Frame & Cover Req'd.
INV.78.93
St'd.IS-1 Req'd.

5-2 5-8 263'-24" STORM SEWER PIPE REQ'D.(5' COVER)
Silt Tight Joint Type
INV.(IN) 78.93 INV.(OUT) 71.88
Connect to existing 15" Conc.Pipe from Ex5-20

5-8 1 STD.DI-3B REQ'D.
L=8',H= 10.86',INV.71.78

5-8 5-9 44'-24" STORM SEWER PIPE REQ'D.(5' COVER)
Silt Tight Joint Type
INV.(IN) 71.78 INV.(OUT) 70.55

5-9 9.5 LF STD.MH-1 or 2 REQ'D.
1 St'd.MH-1 Frame & Cover Req'd.
INV.70.45
St'd.IS-1 Req'd.

5-9 Ex.5-12 87'-36" STORM SEWER PIPE REQ'D.(5' COVER)
Silt Tight Joint Type
INV.(IN) 70.45 INV.(OUT) 69.77

Ex.5-12 Existing Manhole to be modified to accept 36" Storm Sewer Pipe.

5-7 1 STD.DI-3B REQ'D.
L=6',H= 5.6',INV.86.54

60% PLANS

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N/A

PROJECT
064I-076-30I

SHEET NO.
2B(1)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

DRAINAGE DESCRIPTIONS

REVISED	STATE		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
	VA.	641		0641-076-301 R-201, C-501	2B(2)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER					

5-7 5-6 117'-15" STORM SEWER PIPE REQ'D.(5' COVER)
 INV.(IN) 86.54 INV.(OUT) 84.19
 (61'4" Radius with open joints - using 8' pipe joint lengths)
 Joints are to be opened a maximum of 25% of the spigot or tongue length.

5-6 1 STD.DI-3B REQ'D.
 L=6', H= 4.5, INV. 84.09
 St'd. IS-1 Req'd.

5-6 5-3 55'-15" STORM SEWER PIPE REQ'D.(5' COVER)
 Silt Tight Joint Type
 INV.(IN) 84.09 INV.(OUT) 82.99

5-3 1 STD.DI-3B REQ'D.
 L=8', H= 6.1, INV. 82.01
 St'd. IS-1 Req'd.
 Connect to existing 18" Conc. Pipe
 Connect UD-4 to DI

5-5 1 STD.DI-3B REQ'D.
 L=10', H= 4.0, INV. 87.95
 Connect UD-4 to DI

5-5 5-4 159'-15" STORM SEWER PIPE REQ'D.(4' COVER)
 Silt Tight Joint Type
 INV.(IN) 87.95 INV.(OUT) 83.36

5-4 5.0 LF STD.1 or 2 REQ'D.
 1 St'd. MH-1 Frame & Cover Req'd.
 INV. 83.36
 St'd. IS-1 Req'd.
 Tie to existing 15" Conc. Pipe from Ex. DI 5-18

5-4 5-3 36'-15" STORM SEWER PIPE REQ'D.(4' COVER)
 Silt Tight Joint Type
 INV.(IN) 83.36 INV.(OUT) 82.11

SHEET 6

6-1 1 STD.DI-3B REQ'D.
 L=12', H= 4.6', INV. 85.95
 St'd. IS-1 Req'd.
 Connect UD-4 to DI

6-1 6-2 55'-15" STORM SEWER PIPE REQ'D.(3' COVER)
 Silt Tight Joint Type
 INV.(IN) 85.95 INV.(OUT) 84.46

6-2 1 STD.DI-3B REQ'D.
 L=8', H= 6.4', INV. 84.36
 St'd. IS-1 Req'd.
 Connect UD-4 to DI

6-2 6-3 114'-15" STORM SEWER PIPE REQ'D.(2' COVER)
 Silt Tight Joint Type
 INV.(IN) 84.36 INV.(OUT) 81.27

6-3 3.2 LF STD.MH-1 or 2 REQ'D.
 1 St'd. MH-1 Frame & Cover Req'd.
 INV. 81.27

6-3 6-4 28'-15" STORM SEWER PIPE REQ'D.(2' COVER)
 Silt Tight Joint Type
 INV.(IN) 81.27 INV.(OUT) 80.50
 1 STD.EW-1 REQ'D.
 4 Tons St'd. EC-1 Class 1 Req'd. Type B Installation

60% PLANS

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N/A

PROJECT
0641-076-301

SHEET NO.
2B(2)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

See Sheet 2 of 3 for Acronyms

REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	641	0641-076-301 R-201, C-501	2C(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance activities that disturb an area equal to or greater than 10,000 square feet outside the Chesapeake Bay Preservation Area, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD (as defined in the latest IIM 242) will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents) for the land disturbance (construction) activity.

I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that this document and all other documents related to the SWPPP, as identified on the SWPPP General Information Sheets, are maintained at the activity site, or at a location convenient to the activity site where no on-site facilities are available, and such documents will be made available for review upon request in accordance with the provisions of the General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10) when applicable. Where the SWPPP documents are not stored on-site, a copy of such documents shall be in the possession of those with day to day operational control over the implementation of the SWPPP whenever they are on site.

* or ** Delegated Authority Signature*

Signature: _____
 Printed Name: _____
 Date: _____

(1) See Section 1, Item 11 relating to delegation of authority, and form LD-445H (Delegation of Authority).

ACRONYMS

CBPA - Chesapeake Bay Preservation Act	SWPPP - Stormwater Pollution Prevention Plan
BMP - Best Management Practice	TMDL - Total Maximum Daily Load
DEQ - Department of Environmental Quality	VDOT - Virginia Department of Transportation
EPA - U.S. Environmental Protection Agency	VPDES - Virginia Pollutant Discharge Elimination System
ESC - Erosion and Sediment Control	VSMPP - Virginia Stormwater Management Program
IIM - Instructional and Informational Memorandum	VESCP - Virginia Erosion and Sediment Control Program
R&B - Road and Bridge	WLA - Waste Load Allocation
RLD - Responsible Land Disturber	SWM - Stormwater Management

SECTION I GENERAL INFORMATION

1. Activity Description - Realign the intersection of Old Bridge Road and Occoquan Road and associated roadway and pedestrian facilities improvements to enhance traffic and pedestrian safety. This project is located in Prince William County.

2. This land disturbance (construction) activity site is located in Prince William County and approximately acres will be disturbed by excavation, grading or other construction activities.

3. (Include one of the following notes as appropriate)

A. This proposed activity disturbs one acre or greater and requires coverage under the VPDES General Permit for Discharges Of Stormwater from Construction Activities (the VPDES Construction Permit) as issued by the DEQ. A copy of the VPDES Construction Permit (VAR10), the registration information (LD-445 & LD-445C forms) and the permit coverage letter received from DEQ shall be maintained with other SWPPP documents for this land disturbing activity.

~~B. This proposed activity disturbs less than one acre and is exempt from coverage under the VPDES General Permit for Discharges of Stormwater from Construction Activities (the VPDES Construction Permit) as issued by the DEQ.~~

~~C. This proposed activity is exempt from coverage under the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) as issued by the DEQ because it is considered a routine maintenance activity (i.e., the proposed activity is intended to maintain the original line and grade, hydraulic capacity or original construction of the project or involves the paving of an existing roadway with a compacted or impervious surface and the reestablishment of associated ditches and shoulders).~~

✖✖ 4. The location of on-site support facilities that will be covered under the VPDES Construction Permit coverage for this land disturbance (construction) activity shall be provided by the contractor and identified on the record set of plans or in other appropriate contract documents. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storage areas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site.

✖✖ 5. Written Evidence of permit coverage shall be provided by the contractor for all support activities located outside of VDOT right of way or easement in the form of the Construction General Permit coverage letter: (List VPDES Permit # or Letter from VSMPP Authority stating coverage not needed)

6. List the surface waters that have been identified as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report for sediment, total suspended solids, turbidity, Nitrogen or Phosphorus. These pollutants are considered benthic impairments: None.

7. Identify the TMDL's where stormwater from construction activities discharges into a watershed with a TMDL waste load allocation established and approved by the State Water Control Board prior to July 1, 2016 for sediment, total suspended solids, turbidity, nitrogen or phosphorus: Chesapeake Bay (nitrogen, phosphorus, total suspended solids)

8. This land disturbance activity discharges stormwater to the following surface waters that have been identified as exceptional in Section 9VAC25-260-30 A 3 c of the Virginia Administrative Code: N/A

9. Locations of surface waters and locations where concentrated stormwater is discharged from this land disturbance (construction) activity are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity. (List name of surface waters and locations here if not shown in construction plan or other such documents).

10. The ESC and SWM plans (where applicable) for this land disturbance (construction) activity have been developed in accordance with VDOT's Approved Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications as approved by the DEQ.

11. List the RLD and other responsible parties for the land disturbance activity: (required for erosion and sediment control). The following individual(s) have "delegated authority" to sign all reports required by the construction permit including the SWPPP General Information Sheets and Inspection Reports (C-107). Reference form LD-445H for delegation of authority (form 445H for the project is hereby incorporated by reference into this SWPPP). These individual(s) has/have overall responsibility for the environmental matters for the project: (required only for permitted projects):

Name	Position	Responsibility
TBD	RLD	Certify the SWPPP (with date & sig.)
TBD	Certified Inspector	Sign (C-107) Inspection Form Part 1
TBD	Certified Inspector	Sign (C-107) Inspection Form Part 2

✖ 12. The name of the VDOT individual(s) responsible for the oversight inspection in accordance with IIM-LD-256 on these land disturbance construction activities as identified on these SWPPP General Information Sheets. The names will be updated and maintained with the other SWPPP documents for this land disturbance activity.

VDOT Individuals	Position	Responsibility
Marian Carroll	NPDES	NPDES Coordinator responsible for the oversight inspection in accordance with IIM-LD-256
Pawan Sarang	District Hydraulic Engineer	District Hydraulic Engineer or designee(s) responsible for the review & the coordination approval of ESC SWM Plan modification(s).

✖ 13. The ESC and P2 inspections for this land disturbing (construction) activity shall follow (Select Schedule 1 or 2, if schedule #2 is used, void note #14) as defined in 2016 R&B Specifications except for Section 107.16(e) 4. an Inspection Requirements Rain gauge notes apply only to Inspection Schedule 1.

✖✖ 14. The location of the on-site rain gage that will be used to determine the occurrence of a measurable storm event for the purposes of ESC and Pollution Prevention inspections will be provided by the contractor and identified on the record set of plans or in other appropriate SWPPP documents for this land disturbance activity: (List location of rain gage).

The rain gage shall be observed daily at "_____" to determine the occurrence of a measurable storm event (i.e., 0.25 inches of rainfall or greater in a 24 hour period). A log book shall be maintained to record observation information which shall include (1) the date, (2) the time, (3) whether or not rainfall is occurring at the time of the observation, (4) the amount of accumulated rainfall in the gage, if any, and (5) whether or not an inspection is required based on the amount of accumulated rainfall in the gage. If there is no rainfall occurring at the time of the observation, the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage. If there is rainfall occurring at the time of the observation, the observation information is to be noted in the log book. The rain gage is not to be emptied but left to accumulate additional rainfall until the conclusion of the rainfall event. At the conclusion of the rainfall event, an observation of the rain gage shall be made and the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage.

15. The following VDOT documents are applicable to a) permitted projects b) non-permitted projects in Chesapeake Bay Preservation Areas (CBPA) with 2,500 S.F. to 1.0 acre of land disturbance c) non-permitted projects requiring a SWPPP and d) Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP:

- VDOT LD-445: Permitted projects, CBPA projects and Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP and ESC projects > 10,000 s.f. but < 1 acre.
- VDOT LD-445A: Permitted projects only.
- VDOT LD-445C: Projects that require a permit, ESC Plan, or SWPPP.
- VDOT LD-445D: Permitted projects, CBPA projects and Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP.
- VDOT LD-445F: Emergency work projects (when applicable).
- Water Quality Requirement (when applicable)
- VDOT LD-445H: Permitted projects only.
- VDOT C-107 Part I and Part II. All projects that require a permit or SWPPP.
- VDOT LD-445I: AS&S Approval Form (when applicable)

16. If there is an excessive loading of sediment from the project (i.e. more than to be expected from the project with an implemented ESC plan) that is discovered within a local watershed with a sediment TMDL that allocates a WLA to VDOT's MS4, (see note #7) the contractor shall investigate the area of concern at the site within 24 hours of discovery and ensure all erosion and sediment control best management practices are being implemented in accordance with the permits approved standards and specifications required by Part I.B of the current Construction General Permit. If corrective action is necessary, the contractor shall initiate corrective actions no later than 5 business days after the initial investigation.

17. If excessive loading of sediment from a land disturbing activity that is not the responsibility of the contractor is discovered discharging into a MS-4, the contractor shall notify the municipality with jurisdiction over erosion and sediment control activities.

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	641	0641-076-301 R-201, C-501	2C(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SECTION II EROSION AND SEDIMENT CONTROL

- XX 1. The intended sequence and timing of activities that disturb soils at the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation, etc.) shall be provided by the contractor in accordance with the current edition of Section 108.03 of the VDOT R&B Specifications and shall be included with the other SWPPP documents for this land disturbance (construction) activity.
- 2. Directions of stormwater flow and approximate slopes anticipated after major grading activities are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
- 3. Areas of soil disturbance and areas of the site which will not be disturbed are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
- 4. Locations of major structural and nonstructural ESC measures intended to filter, settle or similarly remove sediment are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
- 5. Locations where stabilization practices are expected to occur are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
- 6. A description of interim and permanent stabilization practices for the site are identified in the applicable sections of the documents identified in the Note 1 of Section IV.
- XX 7. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated will be provided by the contractor and maintained with the record set of plans or other SWPPP documents for this land disturbance (construction) activity: (List how this will be tracked and the location)
- 8. A description and schedule of procedures to maintain vegetation, erosion and sediment control measures and other protective measures in good and effective operating conditions are identified in the current edition of Sections 107.16 and 303.03 of the VDOT R&B Specifications.
- 9. Nutrients shall be applied in accordance with the current edition of Sections 603 and 604 of the VDOT Road and Bridge Specifications. Nutrients shall not be applied during rainfall events. Top soil shall be applied in accordance with the current edition of section 602 of the latest Road and Bridge Specifications.
- 10. All engineering calculations supporting the design of erosion and sediment control measures proposed for this land disturbance (construction) activity are contained in the project drainage file located in the VDOT NOVA District Hydraulics Section, 4975 Alliance Road, Phone: (800) 367-7623 and will be made available for review upon request during normal business hours.
- 11. The temporary erosion and siltation control items shown on the ESC Plan for this land disturbing (construction) activity are intended to provide a general plan for controlling erosion and sediment within the project limits. The ESC Plan is based on field conditions at the time of plan development and an assumed sequence of construction for the project. The contractor, in conjunction with the VDOT Project Engineer and/or ESC Inspector, shall adjust the location, quantity and type of erosion and sediment control items required based on the actual field conditions encountered at the time of construction and the actual scheduling and sequencing of the construction activities. Significant changes to the proposed ESC Plan (e.g., those that require an engineering analysis, elimination of a perimeter control, change to ESC concept that would affect the quantity or direction of flow of water) shall be submitted to the applicable District Hydraulics Engineer for review and approval. Any changes to the proposed ESC Plan must be noted on the designated record set of plans which shall be retained on the project site and made available upon request during normal business hours.
- 12. The areas beyond the project's construction limits are to be protected from siltation. Perimeter controls such as silt fence, diversion dikes, turbidity curtains, etc. shall be installed prior to any grubbing operations or other earth moving activities.
- 13. Temporary earthen structures such as dikes and berms are to be stabilized immediately upon installation. Stabilization may include temporary or permanent seeding, riprap, aggregate, sod, mulching, and/or soil stabilization blankets and matting in conjunction with seeding.
- 14. All channel relocations are to be constructed during the earliest stage of construction and shall be constructed in accordance with all applicable permit requirements and shall be constructed in the dry wherever possible. Stabilization or vegetation shall be established before flow is redirected through the constructed area as directed by the Engineer.
- 15. The contractor shall plan and implement his land disturbance operations in order to:
 - a. Control the volume and velocity of stormwater runoff within the site to minimize erosion.
 - b. Control the peak flow rates, volume and velocity of stormwater discharges to minimize erosion at outlets and in downstream channels.
 - c. Minimize the amount of soil exposed.
 - d. Minimize the disturbance of steep slopes.
 - e. Minimize sediment discharge from the site.
 - f. Provide and maintain natural buffers around surface waters, direct stormwater runoff to vegetated areas and maximize stormwater infiltration, unless infeasible.
 - g. Minimize soil compaction (except in those areas where compaction is required by the contract documents) and preserve topsoil where feasible.

- XX 16. The name of the individual(s) or contractor(s) responsible for the installation and maintenance of the erosion and sediment control measures shall be supplied by the contractor and maintained with the other SWPPP documents for this land disturbance (construction) activity.
- 17. Soil stockpiles temporarily placed within the project area or on VDOT right of way or easement shall be identified, stabilized, and protected with sediment trapping measures.

18. A construction entrance or other approved measure shall be installed at all locations where construction vehicular traffic access routes intersect a paved or a public road in order to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or a public road surface, the road shall be cleaned thoroughly at the end of each work day by shoveling or sweeping. Removed sediment shall be disposed of in accordance with Section 106.04 of the R&B Specifications.

19. Any variance, exception or deviation approved by DEQ must be listed below and supporting documentation (exception/variance/deviation request and DEQ approval) must be maintained with the SWPPP.

The following exceptions to the Water Quantity criteria of the VSMP Regulation have been approved by the DEQ for this land disturbance (construction) activity: (list all approved exceptions and include a brief description of the exception, the date approved and the approving DEQ Office)

Type(1)	Regulation Modified(2)	Approval Date(3)	Description of Variance

- (1) Type of modification (Variance from ESC regulations, or Deviation from published guidance)
- (2) Section of Regulation or Guidance Document Modified (e.g. ESC Min. Std. 15)
- (3) Date that variance/exception/deviation was approved by DEQ.

SECTION III POST CONSTRUCTION STORMWATER MANAGEMENT

Choose the appropriate note 1A or 1B that is applicable to the proposed post construction SWM Plan for this land disturbance (construction) activity. (Delete, strikethrough or mark as NA those notes not applicable.)

- 1. This land disturbance activity utilizes the Part IIB technical criteria (i.e., Runoff Reduction Method, Energy Balance Equation, etc.) in Section XX 9VAC25-870-62 et seq. of the VSMP Regulations.

3. Any variance, exception or deviation approved by DEQ must be listed below and supporting documentation (exception/variance/deviation request and DEQ approval) must be maintained with the SWPPP.

Type(1)	Regulation Modified(2)	Approval Date(3)	Description of Waiver

- (1) Type of modification (Variance, or Exception from SWM Regulations or Deviation from published guidance)
- (2) Section of Regulation or Guidance Document Modified (e.g. ESC Min. Std. 15)
- (3) Date that variance/exception/deviation was approved by DEQ.

4. The permanent onsite SWM facilities or offsite strategies proposed to meet the water quality/quantity requirements for this land disturbance (construction) activity are listed in Section VI.

ACRONYMS

- CBPA - Chesapeake Bay Preservation Act
- BMP - Best Management Practice
- DEQ - Department of Environmental Quality
- EPA - U.S. Environmental Protection Agency
- ESC - Erosion and Sediment Control
- IIM - Instructional and Informational Memorandum
- R&B - Road and Bridge
- RLD - Responsible Land Disturber
- SWPPP - Stormwater Pollution Prevention Plan
- TMDL - Total Maximum Daily Load
- VDOT - Virginia Department of Transportation
- VPDES - Virginia Pollutant Discharge Elimination System
- VSMP - Virginia Stormwater Management Program
- VESCP - Virginia Erosion and Sediment Control Program
- WLA - Waste Load Allocation
- SWM - Stormwater Management

- XX Denotes information that is to be provided/ completed by the RLD.
- XX Denotes information that is to be provided/completed by the contractor.

60% PLANS

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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE		STATE		SHEET NO.
	ROUTE	PROJECT			
	VA.	641	0641-076-301 R-201, C-501		2C(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance (construction) activities that disturb an area equal to or greater than 10,000 square feet outside the Chesapeake Bay Preservation Area, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD will ensure that the information shown on the SWPPP General Information sheets is updated/ revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/ revised sheets shall be maintained with the designated record set of plans (or other such documents) for the land disturbance (construction) activity.

SECTION IV SWPPP

1. All documents related to the SWPPP for this land disturbance (construction) activity shall be maintained at the activity site and shall be readily available for review upon request during normal business hours. Such documents include, but are not limited to, the construction plans (or other such documents), the ESC Plan, the Pollution Prevention Plan, the post construction SWM Plan (if applicable), the VDOT R&B Standards and Specifications, Supplemental Specifications, Special Provisions and Special Provision Copied Notes. Documents related to stormwater pollution prevention which are not a part of those documents referenced above, such as copies of the VPDES Construction Permit coverage letter (when applicable) and the VPDES General Permit For Discharges Of Stormwater From Construction Activities (when applicable) and those required to be developed by the contractor for pollution prevention associated with any on-site support facilities being included in the VPDES Construction Permit coverage for this land disturbance (construction) activity are to be maintained at the activity site with the other SWPPP documents for this land disturbance (construction) activity. Where no facilities are available at the activity site to maintain the SWPPP documents, they are to be kept by or with the designated RLD at a location convenient to the activity site where they would be made available for review upon request during normal business hours.

2. The SWPPP and any subsequent amendments, modifications and updates shall be implemented from commencement of land disturbance until termination of VPDES Construction Permit coverage or completion of land disturbance (construction) activities where no VPDES Construction Permit coverage is required.

XX 3. For all on-site support facilities that will be included in the VPDES Construction Permit coverage for this land disturbance (construction) activity, the contractor shall develop a SWPPP in accordance with, but not limited to, Section 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications. The SWPPP for the on-site support facilities shall be maintained with and become a component of the SWPPP for this land disturbance (construction) activity. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storage areas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site.

4. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the SWPPP shall be made available for review upon the request of the DEQ, the EPA, the VSMP Authority, the VESCP Authority, local government officials or the operator of a municipal separate storm sewer system (MS4) receiving discharge from the construction site.

X 5. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the VDOT RLD shall post, or have posted, a copy of the General Permit coverage letter and a copy of a completed LD-445A form, noting the name and contact information for the VDOT person responsible for the land disturbing (construction) activity and its SWPPP, outside the project's construction office along with other Federal and State mandated information. Where there is no construction office (e.g., a maintenance activity), the permit coverage letter and the LD-445A form are to be maintained with the other SWPPP documents for the land disturbing (construction) activity.

6. The SWPPP shall be made available for review by the public upon request. Such reviews shall be at a time and publicly accessible location convenient to the VDOT and shall be scheduled during normal business hours and no less than once per month.

SECTION V - POLLUTION PREVENTION PLAN

1. The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are prohibited:
 - a. Wastewater from concrete washouts.
 - b. Wastewater from the washout and cleanout of stucco, paint, from release oils, curing compounds and other construction materials.
 - c. Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance.
 - d. Oils, toxic substances or hazardous substances from spills or other releases.
 - e. Soaps, solvents or detergents used in equipment and vehicle washing.
 - f. There shall be no discharge of floating solids or visible foam in other than trace amounts
2. The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are allowed when discharged in compliance with the VPDES Construction Permit:
 - a. Discharges from firefighting activities.
 - b. Fire hydrant flushings.
 - c. Waters used to wash vehicles or equipment where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.
 - d. Water used to control dust that has been filtered, settled or similarly treated prior to discharge.
 - e. Potable water sources including uncontaminated waterline flushings managed in a manner to avoid stream impacts.
 - f. Routine external building wash down where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.
 - g. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (or where all spilled or leaked material has been removed prior to washing), where soaps, solvents or detergents have not been used and where the wash water has been filtered, settled or similarly treated prior to discharge.
 - h. Uncontaminated air conditioning or compressor condensate.
 - i. Uncontaminated ground water or spring water.
 - j. Foundation or footing drains where flows are not contaminated with process materials such as solvents.
 - k. Uncontaminated excavation dewatering, including dewatering trenches and excavations that have been filtered, settled or similarly treated prior to discharge.
 - l. Landscape irrigation.

XX 3. The contractor shall develop a Pollution Prevention Plan to address any of his on-site operations that have a potential to generate a pollutant that may reasonably be expected to affect the quality of stormwater discharges from this land disturbance (construction) activity. The Pollution Prevention Plan shall be developed in accordance with, but not limited to, Sections 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications and shall include a narrative with appropriate plan detail and shall be provided on standard 8.5 x 11 inch paper or larger and shall:

- a. Identify the potential pollutant-generating activities and the pollutant that is expected to be exposed to stormwater.
- b. Describe the location where the potential pollutant-generating activities will occur, or if identified on the record set of plans, reference the record set of plans.
- c. Identify all non-stormwater discharges, as described in note two of this section, that are or will be commingled with stormwater discharges from the construction activity, including any on-site support activities.
- d. Identify the person(s) or contractor(s) responsible for implementing and maintaining the pollution prevention practice or practices for each pollutant-generating activity.
- e. Describe the pollution prevention practices and procedures that will be implemented to:
 - 1) Prevent and respond to leaks, spills, and other releases, including procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases, and procedures for reporting leaks, spills, and other releases in accordance with Section 107.16 of the VDOT Road and Bridge Specifications and the requirements within the VPDES Construction Permit.

- 2) Prevent the discharge of spilled and leaked fuels and chemicals from vehicle fueling and maintenance activities.
- 3) Prevent the discharge of soaps, solvents, detergents, and wash water from construction materials, including procedures for the clean-up of stucco, paint, form release oils, and curing compounds.
- 4) Minimize the discharge of pollutants from vehicle and equipment washing, wheel wash water, and other types of washing.
- 5) Direct concrete wash water into a leak-proof container or leak-proof settling basin. The container or basin shall be designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes. Liquid concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wash waters and shall not be discharged to surface waters.
- 6) Minimize the discharge of pollutants from storage, handling, and disposal of construction products, materials, and wastes including building products (such as asphalt sealants, copper flashing, roofing materials, adhesives, and concrete admixtures), pesticides, herbicides, insecticides, fertilizers, landscape materials, construction and domestic wastes (such as packaging materials), scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.
- 7) Prevent the discharge of fuels, oils, and other petroleum products, hazardous or toxic wastes, waste concrete and sanitary wastes.
- 8) Address any other discharge from any potential pollutant-generating activity not listed herein.
- 9) Minimize the exposure of waste materials to precipitation by closing or covering waste containers during precipitation events and at the end of the business day, or implementing other similarly effective practices. Minimization of exposure is not required in case where the exposure to precipitation will not result in a discharge of pollutants.
- 10) Describe and implement procedures for providing pollution prevention awareness (including but not limited to prevention practices, disposal practices and appropriate disposal locations) for all applicable wastes (including any wash water), to appropriate personnel.

X Denotes information that is to be provided/completed by the RLD.

XX Denotes information that is to be provided/completed by the contractor.

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

NTS	PROJECT 0641-076-301	SHEET NO. 2C(3)
-----	-------------------------	--------------------

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

PWC SWPPP

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	64I	064I-076-30I R-20I,C-50I	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

PURPOSE

9VAC25-870-54 of the Virginia Stormwater Management Program (VSMP) Permit Regulations requires that Stormwater Pollution Prevention Plan (SWPPP) be developed for all regulated land disturbing activities. The SWPPP must include, but not be limited to, an approved erosion and sediment control plan, an approved stormwater management plan, and this **Pollution Prevention Plan (PPP)** for regulated land disturbing activities, and a description of any additional control measures necessary to address a TMDL as applicable.

The plan for implementing pollution prevention measures during construction activities developed on this sheet must be implemented and updated as necessary. Any PPP requirements not included on this sheet must be incorporated into the SWPPP required by 9VAC25-870-54 that must be developed before land disturbance commences. This PPP identifies potential sources of pollutants that may reasonably be expected to affect the quality stormwater discharges from the construction site (both on- and off-site activities) and describes control measures that will be used to minimize pollutants in stormwater discharges from the construction site.

OTHER REFERENCED PLANS

SWPPP requirements may be fulfilled by incorporating, by reference, other plans. All plans incorporated by reference become enforceable under the VSMP Permit Regulations and General Permit VARIO for Discharges of Stormwater from Construction Activities. If a plan incorporated by reference does not contain all of the required elements of the PPP, the operator must develop the missing elements and include them in the SWPPP.

Independent Plans Incorporated by Reference	Date Approved
Stormwater Management Plans (Regional or Master)	
Erosion and Sediment - Control Plans	
Off-Site Stockpile	
Off-Site Borrow Area	

POTENTIAL POLLUTANT SOURCES

The following sources of potential pollutants must be addressed in the Pollution Prevention Plan. Various controls and/or measures designed to prevent and/or minimize pollutants in stormwater discharges from the project site must be applied to the sources found on the site. Additional information concerning the following controls and/or measures may be found in the SWPPP. Deviations from the location criteria may be approved by the Public Works Site Inspector.

LEAKS, SPILLS, AND OTHER RELEASES

- The operator(s) shall ensure procedures are in place to prevent and respond to all leaks, spills and other releases of pollutants.
- The operator(s) shall ensure all leaks, spills and other releases of pollutant are contained and cleaned immediately upon discovery. Any contaminated materials are to be disposed in accordance with federal, state, and/or local requirements.
- The operator(s) shall ensure spill containment kits containing appropriate materials (e.g., absorbent material and pads, brooms, gloves, sand, etc.) are available at appropriate locations, including, but not limited to: designated areas for vehicle and equipment maintenance; vehicle and equipment fueling; storage and disposal of construction materials, products, and waste; and storage and disposal of hazardous and toxic materials, and sanitary waste facilities.
- The locations of the spill containment kits are identified as described below.

Date	Shown on Plan Sheet # (s)	Location	
Approved Plan			
REVISIONS TO LOCATIONS			
Date	Shown on Plan Sheet # (s)	Location	Operator(s) Initials

- The operator(s) shall notify the Department of Environmental Quality (DEQ) of leaks, spills, and other releases that discharge to or have the potential to discharge to surface waters immediately upon discovery of the discharge but in no case later than 24 after the discovery. Written notice of the discharge must be sent to DEQ and Prince William County Department of Public Works within five (5) days of the discovery.

Virginia Department of Environmental Quality Northern Regional Office (703) 583-3800 (voice) (703) 583-3821 (fax) Website: http://www.deq.virginia.gov/Programs/PollutionResponsePreparedness/MakingaReport.aspx For emergencies: 1-800-468-8892 (outside normal working hours)	PW County Department of Public Works 5 County Complex Court Prince William, Virginia 22192 703-792-7070 PW County Department of Fire & Rescue 1 County Complex Court Prince William, Virginia 22192 703-792-8800 703-792-6813 (outside normal working hours)
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EQUIPMENT / VEHICLE WASHING

- Washing must be conducted in a **dedicated area** that is located to maximize the distance from storm drain inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features.
- All wash water used in vehicle wheel washing must be directed to a sediment basin/trap.
- All vehicle washing activities other than wheel washing must have secondary containment.
- Each facility must have appropriate signage to inform users where the **dedicated area(s)** are located.

Activity	Location of Dedicated Area(s)	Shown on Plan Sheet # (s)	Water Source Location	
Wheel Wash				
Other Wash Areas				
REVISIONS TO LOCATIONS				
Activity	Location of Dedicated Area(s)	Shown on Plan Sheet # (s)	Water Source Location	Operator's Initials

VEHICLE FUELING AND MAINTENANCE

- Conduct regular maintenance in a **dedicated area** that is located to maximize the distance from storm drain inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features.
- If fueling is conducted at a **dedicated area**, the location must be located to maximize the distance from storm drain inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features.
- Each facility must have a stabilized access to prevent mud tracking into the street.
- Each facility must have appropriate signage to inform users where the **dedicated area(s)** are located.

Date	Shown on Plan Sheet # (s)	Location of Dedicated Area(s)	
Approved Plan			
REVISIONS TO LOCATIONS			
Date	Shown on Plan Sheet # (s)	Location of Dedicated Area(s)	Operator's Initials

- If mobile fueling will be used, the fueling must be done in an area that is located to maximize the distance from storm drain inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features.
- Spill kits must be readily available at all mobile fueling locations.
- On-site storage tanks must have a means of secondary containment (spill berms, decks, spill containment pallets, etc.) and must be covered where appropriate.
- All vehicles on site must be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage.

DISCHARGE FROM STORAGE, HANDLING, AND DISPOSAL OF CONSTRUCTION PRODUCTS, MATERIALS, AND WASTE

- Storage of construction products, materials, and waste is to be conducted in **dedicated areas**.
- The **dedicated area** must be located to maximize the distance from storm drain inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features. Separations of less than 50 feet may be approved by the Public Works Site Inspector.
- The **dedicated areas** must be designed to minimize the discharge of pollutants from storage, handling, and disposal of construction products, materials and wastes including (i) building products such as asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures; (ii) pesticides, herbicides, insecticides, fertilizers, and landscape materials; and (iii) construction and domestic wastes such as packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, Styrofoam, concrete and other trash or building products.
- Each facility must have appropriate signage to inform users where the **dedicated area(s)** are located.

Date	Shown on Plan Sheet # (s)	Location(s) of Dedicated Area(s) for storage of construction products and materials	
Approved Plan			
REVISIONS TO LOCATIONS			
Date	Shown on Plan Sheet # (s)	Location(s) of Dedicated Area(s) for storage of construction products and materials	Operator(s) Initials

Date	Shown on Plan Sheet # (s)	Location(s) of Dedicated Area(s) for waste from construction products and materials	
Approved Plan			
REVISIONS TO LOCATIONS			
Date	Shown on Plan Sheet # (s)	Location(s) of Dedicated Area(s) for waste from construction products and materials	Operator(s) Initials

- Follow all federal, state, and local requirements that apply to the use, handling and disposal of pesticides, herbicides, and fertilizers.
- Keep chemicals on-site in small quantities and in closed, well marked containers.
- Clean up solid waste, including building materials, garbage, and debris on a daily basis and deposit into covered dumpsters that are periodically emptied.
- Schedule waste collection to prevent exceeding the capacity of onsite containers. Additional containers may be necessary depending on the phase of construction (e.g., demolition, etc.).
- Dispose of all solid waste at an authorized disposal site.
- Ensure that containers have lids or are otherwise protected from exposure to precipitation.

DISCHARGES FROM OTHER POTENTIAL POLLUTANT SOURCES

Other Potential Pollutant Sources	Location(s) of Potential Pollutant Sources

- Above ground oil storage tanks with a storage capacity exceeding 1,320 gallons and have a reasonable expectation of a discharge into or upon Waters of the United States are required to have a Spill Prevention Control and Countermeasure (SPCC) Plan.
- The discharge of contaminated flush water and material removed during flushing operations must be collected and disposed of in accordance with appropriate federal, state, and local requirements.

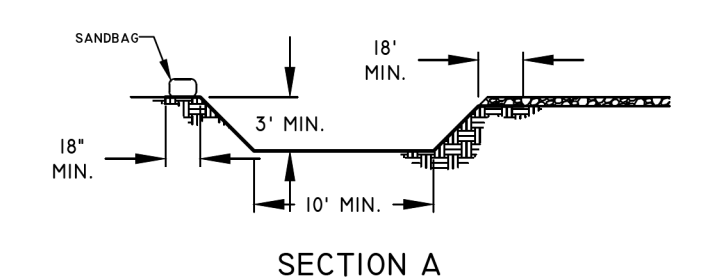
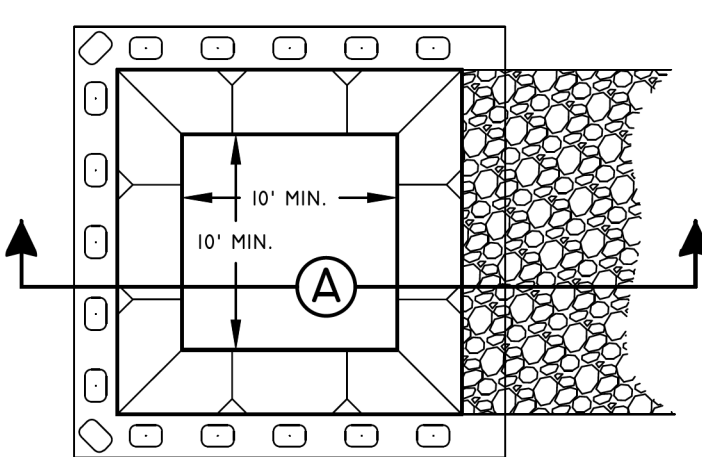
DISCHARGES FROM CONCRETE RELATED WASH ACTIVITIES

- Concrete trucks are not allowed to wash out or discharge surplus concrete or drum wash water on site except in a **dedicated area(s)** that is located to prevent discharge to storm drain inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features.
- Each facility must have a stabilized access to prevent mud tracking into the street.
- Each facility must have appropriate signage to inform users where the **dedicated area(s)** are located.

Date	Shown on Plan Sheet # (s)	Location of Dedicated Area(s)	
Approved Plan			
REVISIONS TO LOCATIONS			
Date	Shown on Plan Sheet # (s)	Location of Dedicated Area(s)	Operator's Initials

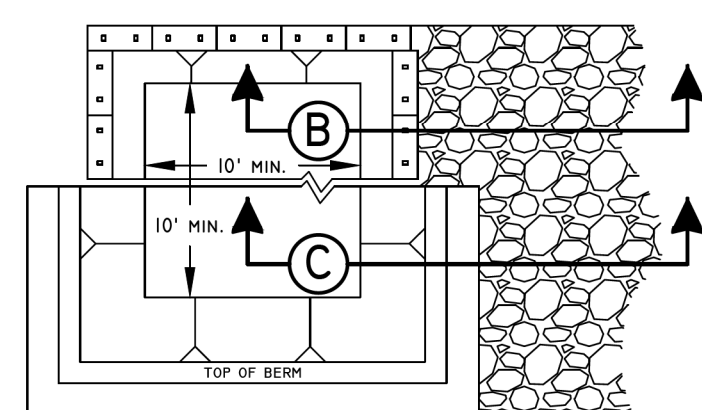
- Facilities must be cleaned, or new facilities constructed, once the washout area is two-thirds (2/3) full.

BELOW GRADE CONCRETE WASHOUT AREA

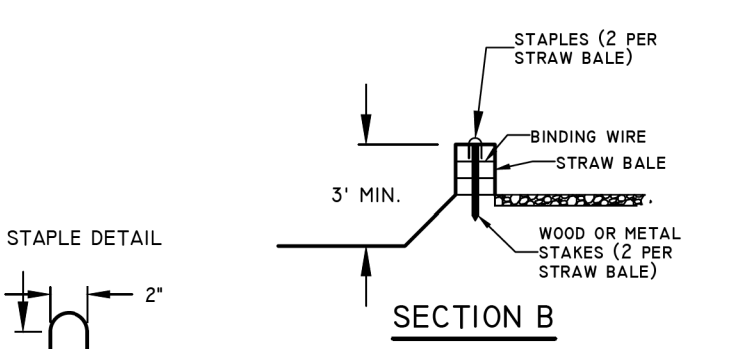


SECTION A

ABOVE GRADE CONCRETE WASHOUT AREA



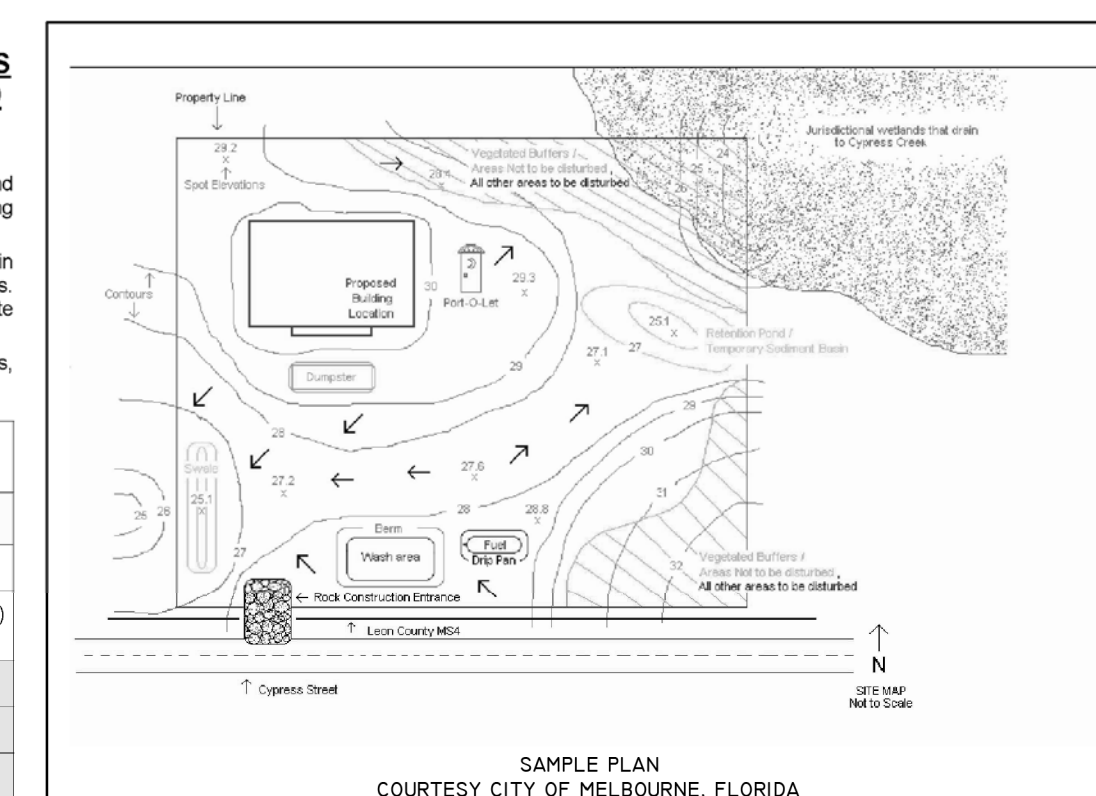
SECTION B



SECTION C

CONCRETE WASHOUT AREA NOTES

- The facility must be lined with 10 mil plastic lining that is free from holes, tears, or other defects that might compromise the material's impermeability.
- The lining must be anchored with staples (2 spacing) or sandbags.
- Side slopes must be 1:1 (horizontal/vertical) or flatter.
- Stone access must be provided between the street and the concrete washout area.
- A "Concrete Washout" sign must be installed within 30 feet of the washout facility. The sign must be no smaller than 2' tall by 4' wide.



POLLUTION PREVENTION PLAN

PRINCE WILLIAM COUNTY DEPARTMENT OF PUBLIC WORKS

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

NTS

PROJECT
064I-076-30I

SHEET NO.
2C(5)

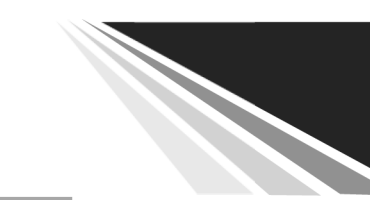
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

NUTRIENT CREDIT PURCHASE

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	2C161

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Old Bridge Road and Occoquan Road Intersection Improvement



Water Quality

The Project is located within one 6th Order HUC. Per the latest publication of VDOT's Instructional and Informational Memorandum (IIM), IIM-195.12, the area subject to VSMP regulations excludes areas defined as routine maintenance. IIM-195.12 defines routine maintenance as 'those activities performed to maintain the original line and grade, hydraulic capacity or original construction of the Project.' Routine maintenance includes areas of mill & overlay as well as areas of full-depth reconstruction. Therefore, preparation of the VSMP calculations for the Project deducted all areas considered routine maintenance from the total disturbed area for the Project site. However, the routine maintenance exemption does not apply to the Virginia Erosion and Sediment Control (ESC) Program. See *Appendix E* Land Use Mapping for a graphical depiction of the overall Project areas, existing and proposed impervious surface areas and those areas defined as routine maintenance under both pre- and post-construction conditions. See *Appendix E* for the VRRM spreadsheet computations. Table 4 summarizes the areas used in the VRRM calculations and the required removal rate of pounds of phosphorus.

Table 4: VRRM Project Areas

		Pre-Construction	Post-Construction
Total Project Limits of Construction (LOD)	AC	5.64	5.64
Maintenance Area (exempt from VSMP Regulations)	AC	2.61	2.61
Remaining	AC	3.03	3.03
Managed Turf	AC	0.85	2.00
Impervious Surface	AC	1.20	0.60
Forested	AC	0.56	0.00
<hr/>			
Required Removal Rate	lb/yr	-0.09	

The total annual pollution load reduction requirement for the Project produces a negative number of -0.09 LB/YR. No TP load reduction is required, likely due to the overall reduction in impervious surface under the post-development condition. Per VSMP Regulations 9VAC25-870-69, offsite compliance options may be used to meet the required phosphorus nutrient reductions because the Post-Construction Total Phosphorus Load Reduction is less than 10 lbs. Since the required removal is less than zero, there will be no purchase of credits or onsite treatment for this project.



Prince William County
VDOT Northern Virginia

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

N/A	PROJECT 0641-076-301	SHEET NO. 2C161
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PROJECT MANAGER	SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE	JMT, SEPTEMBER 2020
DESIGN BY	JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE	JMT, SEPTEMBER 2020

	REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT		
		VA.	641	0641-076-301 R-201,C-501	2D(1)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER					

EROSION & SEDIMENT CONTROL GENERAL NOTES

EROSION & SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

This project is located in Prince William County and approximately 5.6 acres will be disturbed by the proposed construction/maintenance activity. Roadway improvement project realigning the reverse curve of Old Bridge Road for 0.243 miles from Old Bridge Road 500 feet West of the intersection with Occoquan Road to 600 feet East of the same intersection. Roadway typical section will be closed curb and gutter with a raised median. This project is covered under the DCROIVSMP - General Permit for Discharges of Stormwater from Construction Activities.

EXISTING SITE CONDITIONS

The topography is gently sloping falling from the westerly portion of the site to the easterly portion of the site and from Old Bridge Road falling north along Occoquan Road. The site is predominantly paved with small strips of grassed and wooded areas along the roadway corridor.

ADJACENT PROPERTY

Adjacent to Route 1 on both sides are primarily commercial developed properties with undeveloped parcels directly to the Northwest and Southeast of the Old Bridge - Occoquan intersection.

OFF-SITE AREAS

There are no anticipated Off-Site borrow areas and/or surplus material disposal areas associated with this project. Therefore off-site-borrow is not covered by this Erosion and Sediment Control Plan. In the event that the above statement is not valid the contractor shall submit a supplementary E&S plan to the owner covering the off-site borrow area which would have to be approved by the authority before any off-site activity commences.

SOILS

According to the Soil Survey of Prince William County, Virginia, the soils in the project area primarily consist of Urban Land - Udorthents complex (54B). This designation describes areas where 85 percent or more of the surface layer is covered by asphalt, concrete or other impervious surfaces and areas of variable depth and slope which are well draining to moderately well drained soils. The Udorthents are areas where the existing soils have been altered by excavation or covered by fill. Also included are undisturbed soils and fill area containing material, such as concrete, wood and asphalt.

The project site directly east of the intersection primarily consists of Neabasco - Quantico complex (42B). These soils are very deep and gently sloping, and are on medium-wide to broad ridges. The complex consists of approximately 45 percent moderately well drained Neabasco soils, 35 percent well drained Quantico soils, and 20 percent other soils. Neabasco soils have a medium surface runoff, moderate erosion hazard, and a low shrink-swell potential. Quantico soils have a medium surface runoff, moderate erosion hazard, and a moderate shrink-swell potential.

CRITICAL EROSION AREAS

According to the NRCS, the area east of the intersection is considered a moderate erosion hazard. However, due to the limited pervious area to be exposed during construction, the current erosion and sediment control plans are sufficient.

EROSION AND SEDIMENT CONTROL MEASURES

Unless otherwise indicated, all vegetative and structural erosion and sediment control practices shall be constructed and maintained according to minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook (1992) and the VDOT Road and Bridge Specifications (2007). See sheet 2E(1) and 2E(2) for a list of E&S controls used and General E&S notes.

PERMANENT STABILIZATION

Permanent stabilization shall be done in accordance with the VESCH and VDOT Road & Bridge Specifications (2016). All areas disturbed by construction shall be stabilized with permanent seeding immediately following final grading. Seeding shall be done in accordance with these plans unless otherwise directed by the engineer.

STORMWATER MANAGEMENT

Calculation of runoff before and after development indicates that there will be a net increase in peak runoff as a result of the project. Therefore stormwater management has been designed and controls have been put in place to address stormwater management. See drainage report for more details.

VEGETATIVE PRACTICES

1. Temporary Seeding - 3.31

Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within 14 days to denuded areas that may not be at final grade but will remain dormant for longer than 30 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.

2. Permanent Seeding - 3.32

Permanent or temporary soil stabilization shall be applied on rough-graded areas that will not be brought to final grade for a year or more or where permanent, long-lived vegetative cover is needed on fine-graded areas. Permanent seeding shall consist of perennial vegetative cover and shall be determined by the slopes, soil types, and maintenance requirements.

MANAGEMENT STRATEGIES

The first step in this Erosion and Sediment Control Plan for this multi-phase project is to install all perimeter controls. All perimeter controls will be in place prior to any excavation.

Phase I of the Erosion and Sediment Control Plan shall:

1. Flag limits of clearing and grading and hold pre-construction meeting.
2. Install construction entrances with wash racks as needed. Water for the wash racks to be provided by private water truck if no hydrant is available.
3. Provide minimum grading to allow Phase I measures to be installed.
4. Install perimeter controls as shown to include diversion dikes and silt fence. These sediment trapping measures shall be installed as a first step in grading per the Phase I Erosion and Sediment Control Plan and will be seeded and mulched immediately following installation.
5. Grading operations may commence once perimeter controls, diversions and trapping measures are installed to the satisfaction of the inspector.
6. Temporary seeding or other stabilization will follow immediately after grading.
7. Once all of Phase I controls are in place, the Contractor is to contact the county inspector for sign-off. Once sign-off is obtained by the county, the Contractor can proceed with general clearing and earthworks activities.
8. Install proposed utilities.
9. Final grade excavated areas.
10. Lime, fertilize and permanently seed and mulch all areas that will not receive impervious cover.
11. For vegetative stabilization of all denuded areas see erosion control measures and vegetative practices.
12. Once all areas are stabilized to the satisfaction of the county inspector the control shall remove perimeter controls.

MAINTENANCE STRATEGIES - SEDIMENT & EROSION CONTROL

1. It will be the responsibility of the Contractor to ensure that all downstream areas are protected against erosion and sedimentation. In doing so, the Contractor must coordinate with the county inspector throughout the duration of this project.
2. In general, all erosion and sediment control measures will be checked daily and after each significant rainfall. Refer to the attached erosion and sediment control standard notes for detailed maintenance and revegetation/stabilization requirements.
3. All new seeded and mulch areas will be inspected after each rainfall event to ensure the new seed has not been washed away. If so, the areas shall be re-seeded and mulched immediately.
4. The Inspector has the authority to add or delete erosion and sediment controls as needed in the field, as site conditions warrant. The Contractor does have the authority to add additional sediment and erosion control measures as the Contractor deems necessary to prevent erosion and movement of sediment to off-site areas. Additional measures should be authorized by the project manager.
5. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization, in accordance with minimum standard #18.

TWO PHASE EROSION & SEDIMENT CONTROL PLAN

Phase I controls shall be placed as indicated on the Erosion & Sediment Plans, prior to any land disturbing activities. Mud and debris will be washed from all construction vehicles and equipment before leaving the site. See land disturbing/construction sequence, this sheet.

Phase II work will not commence until Phase I work has been approved by the county inspector. Phase II includes the adjustment of silt fence and perimeter controls, providing the cut and fill areas are near final grade and storm sewer is functional. The utilities, curb and gutter, and roads also should be near final grade. Base stone for the roads and parking areas should be completed within seven (7) days after reaching final grade for subgrade. Inlet protection shall be provided for all proposed and existing inlet storm structures. Additionally, any stock piles (location of which will be coordinated in the field with the site inspector) will be provided with perimeter silt fence. Topsoil, stockpiles and all areas to be rough graded during initial phase of construction shall be seeded with fast germinating temporary vegetation immediately following grading. Mixture of seed will depend on the time of year. 3:1 slope areas not adequately stabilized by seeding are to be sodded and pegged at the direction of the inspector. After all construction operations have ended and all disturbed areas have been stabilized, mechanical sediment controls shall be removed and the ground permanently stabilized with vegetation upon the approval of the site inspector. See land disturbing/construction sequence, this sheet.

The implementation of Phase II controls cannot begin until the Phase II controls have been approved by the Prince William County inspector.

LAND DISTURBING/CONSTRUCTION SEQUENCE PHASE I

A Pre-Construction meeting shall be held prior to commencement of work.

Prior to clearing and grubbing, all perimeter controls are to be installed as shown and as necessary. Construct temporary sediment traps at proposed locations. The contractor shall install and maintain all necessary temporary pipes to provide adequate drainage throughout construction. Construct proposed drainage outfalls and channel relocations or improvements as shown on the plans. For all ditches constructed during Phase I, the required check dams shall be installed at the time ditches are constructed. Obtain County Site Inspector's approval of perimeter controls.

LAND DISTURBING/CONSTRUCTION SEQUENCE PHASE II

After the County Site Inspector's approval of Phase I E&S controls, clear and grub remainder of the site as necessary. Construct the proposed drainage system as shown and as necessary. Install inlet protection as shown and as needed. All silt fence is to be installed as shown and as necessary. Drop inlet silt traps shall be installed as shown and as needed. Rock check dams shown shall be installed at the same time the ditch is constructed. All ditches shall be constructed and stabilized according to the plans, once stabilization has been completed direct flow to the ditches and remove temporary diversion dikes. Install all curb & gutter and place base stone pavement except where this would interfere with the temporary sediment traps. Fine grade site and install all landscaping, including permanent seeding and fertilizing as shown in the plan. Install base course asphalt paving and final paving. Clean site of all trash and debris. Have the County Inspector inspect all areas to determine if they are adequately stabilized.

CHECKLIST

FOR EROSION AND SEDIMENT CONTROL PLANS

2E(1&2) Minimum Standards - All applicable Minimum Standards must be addressed.

Narrative

2E(1) Project description - briefly describes the nature and purpose of the land-disturbing activity, and the area (acres) to be disturbed.

2E(1) Existing site conditions - a description of the existing topography, vegetation and drainage.

2E(1) Adjacent areas - A description of neighboring areas such as streams, lakes, residential areas, road, etc., which might be affected by the land disturbance.

2E(1) Off-site areas - Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Will any other areas be disturbed?

2E(1) Soils - a brief description to the soils on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure.

2E(1) Critical areas - A description of areas on the site which have potentially serious erosion problems (e.g., steep slopes, channels, wet weather/underground springs, etc.).

2E(1) Erosion and sediment control measures - A description of the methods which will be used to control erosion and sedimentation on the site. (Controls should meet the specifications in Chapter 3.)

2E(1) Permanent stabilization - A brief description, including specifications, of how the site will be stabilized after construction is completed.

2E(1) Stormwater runoff considerations - Will the development site cause an increase in peak runoff rates? Will the increase in run off cause flooding or channel degradation down stream? Describe the strategy to control stormwater runoff.

SITE PLAN

1A Vicinity map - A small map locating the site in relation to the surrounding area. Include any landmarks which might assist in locating the site.

1A Indicate north - The direction of north in relation to the site.

1H(3)-1H(18) Limits of clearing and grading - Areas which are to be cleared and graded.

1H(3)-1H(18) Existing contours - the existing contours of the site.

1H(3)-1H(18) Final contours - Changes to the existing contours, including final drainage patterns.

1H(3)-1H(18) Existing vegetation - The existing tree lines, grassed areas, or unique vegetation.

2E(3) Soils - The boundaries of different soil types.

3C/D-6C/D Existing drainage patterns - The dividing lines and the direction of flow for the different drainage areas. Include the size (acreage) of each drainage area.

N/A Critical erosion areas - Areas with potentially serious erosion problems. (See Chapter 6 for criteria.)

1H(3)-1H(18) Site Development - Show all improvements such as buildings, parking lots, access roads, utility construction, etc.

3C/D-6C/D Location of practices - The locations of erosions and sediment controls and stormwater management practices used on the site. Use the standard symbols and abbreviations in Chapter 3 of the handbook.

N/A Off-site areas - Identify any off-site land-disturbing activities (e.g., borrow sites, waste areas, etc.). Show locations of erosion controls. (Is there sufficient information to assure adequate protection and stabilization?)

N/A Detail drawings - Any structural practices used that are not referenced to the E&S hand book or local handbooks should be explained and illustrated with detail drawings.

2E(1) Maintenance - A schedule of regular inspections and repair of erosion and sediment control structures should be set forth.

STRUCTURAL PRACTICES

1. Safety Fence - 3.01

A safety fence shall be installed around all temporary sediment traps in accordance with the VESCH.

2. Temporary Construction Entrance - 3.02

Temporary construction entrances with wash racks shall be installed adjacent to the construction limits. During muddy conditions, drivers of construction vehicles will be required to wash their wheels before leaving the limits of construction. Any sediment tracked into the travel way shall be cleaned at the end of each day, in accordance with minimum standard #17. Water source for wash rack to be provided by fire hydrant, if no hydrant is available, water to be provided by private water truck.

3. Construction Road Stabilization - 3.03

Temporary stabilization with stone of access roads, subdivision streets, parking areas and other traffic areas immediately after grading to reduce erosion caused by vehicles during wet weather, and to prevent having to regrade permanent roadbeds between initial grading and final stabilization.

4. Silt Fence Barrier - 3.05 Super Silt Fence Barrier

Silt fence sediment barriers will be installed down slope of areas with minimal grades to filter sediment-laden runoff from the sheet flow, as indicated on the plans.

5. Storm Drain Inlet Protection - 3.07

All storm sewer inlets shall be protected during construction. Sediment-laden water shall be filtered before entering the storm sewer inlets.

6. Culvert Inlet Protection - 3.08

All culvert inlets shall be protected during construction. Sediment-laden water shall be filtered before entering the culvert inlets.

7. Temporary Diversion Dike - 3.09

Diversion Dikes shall be installed below major graded areas to direct sediment-laden runoff into the sediment traps. Diversion Dikes shall be installed above major graded areas to divert clean water around the disturbed areas.

8. Temporary Diversion Channel - 3.12

Temporary Diversion Channels shall be installed in the locations shown on the plan to divert the existing channels and allow for the construction of the culverts to be performed in the dry.

9. Temporary Sediment Trap - 3.13

A temporary ponding area will be formed by constructing an earthen embankment with a stone weir outlet. The depth and configuration of the trap will be designed to meet minimum standards, and will be filled in Phase II when all storm sewer utilities are in place and functional. Specific details of the sediment traps are shown on the plan.

10. Rock Check Dams - 3.20

Temporary stone dams shall be constructed across the drainage ditches to reduce the velocity of concentrated stormwater flows, thereby reducing erosion of the swale or ditch.

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

N/A

PROJECT
0641-076-301

SHEET NO.
2D(1)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

	REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
		VA.	641	0641-076-301 R-201, C-501	

EROSION & SEDIMENT CONTROL GENERAL NOTES

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
 Herndon, Virginia
 HYDRAULIC ENGINEER

EROSION & SEDIMENT CONTROL STANDARD NOTES:

1. THE OWNER/DEVELOPER MUST NOTIFY THE DEPARTMENT OF PUBLIC WORKS AT 792-7070 AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH APPLICABLE COUNTY ORDINANCES AND POLICIES.
2. THE OWNER/DEVELOPER GRANTS THE RIGHT-OF-ENTRY ON TO THIS PROPERTY TO THE DESIGNATED PRINCE WILLIAM COUNTY PERSONNEL FOR THE PURPOSE OF INSPECTING AND MONITORING FOR COMPLIANCE WITH TITLE 100, CHAPTER 5, ARTICLE 4 OF THE CODE OF VIRGINIA, EROSION AND SEDIMENT CONTROL LAW AND THE DESIGN AND CONSTRUCTION STANDARDS MANUAL SECTION 750.04 (C).
3. ALL EROSION CONTROL MEASURES SHOWN ON THE APPROVED PLAN MUST BE IN PLACE AND INSPECTED AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS PRIOR TO CLEARING, STRIPPING OF TOPSOIL OR GRADING.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE KEPT ON THE SITE AT ALL TIMES.
5. THE DEVELOPER/DEVELOPER'S REPRESENTATIVE IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY PRINCE WILLIAM COUNTY.
6. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL COMPLETE AND ADEQUATE STABILIZATION IS ACHIEVED.
7. WATER MUST BE PUMPED INTO AN APPROVED FILTERING DEVICE DURING DEWATERING OPERATIONS.
8. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS AND TO THE PRINCE WILLIAM COUNTY DESIGN AND CONSTRUCTION STANDARDS MANUAL.
9. THE DEVELOPER/DEVELOPER'S REPRESENTATIVE WILL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES AT ALL TIMES.

THE DEVELOPER/DEVELOPER'S REPRESENTATIVE SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY AND AFTER EACH SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

- A. SEDIMENT BASINS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT BUILDUP REACHES THE CLEANOUT ELEVATION INDICATED ON THE RISER PIPE. SEDIMENT SHALL BE DISPOSED IN SUITABLE AREAS AND IN SUCH A MANNER THAT WILL NOT ERODE OR CAUSE SEDIMENTATION PROBLEMS. THE BASIN EMBANKMENT SHOULD BE CHECKED REGULARLY TO ENSURE THAT IT STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. EMERGENCY SPILLWAYS SHOULD BE CHECKED REGULARLY TO ENSURE THAT ITS LINING IS WELL ESTABLISHED AND EROSION RESISTANT. (N/A)
- B. SEDIMENT TRAPS WILL BE CHECKED REGULARLY FOR SEDIMENT CLEANOUT. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN VOLUME OF THE WET STORAGE. SEDIMENT REMOVED FROM THE TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE AND CAUSE SEDIMENTATION PROBLEMS.
- C. GRAVEL OUTLETS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.
- D. SILT FENCE BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.
- E. SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
- F. STREAM DIVERSION AND STORM CONVEYANCE CHANNELS SHALL BE INSPECTED DAILY AND AFTER EACH RAIN TO ENSURE THEY ARE FUNCTIONING PROPERLY AND THAT THE INTEGRITY OF THE LININGS ARE NOT IMPAIRED. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES MUST BE MADE IMMEDIATELY AFTER THE INSPECTION.

10. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING AND WILL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
11. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN FOURTEEN (14) DAYS. SEEDING AND SELECTION OF THE SEED MIXTURE SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK STANDARD AND SPECIFICATION 3.32. ROADS AND PARKING AREAS SHALL BE STABILIZED WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED.
12. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE REMOVED WITHIN 30 DAYS AFTER ADEQUATE SITE STABILIZATION AND AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, AS AUTHORIZED BY THE PRINCE WILLIAM COUNTY INSPECTORS. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES WILL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION
13. WHEN SEDIMENT IS TRANSPORTED ONTO A PAVED ROAD SURFACE, THE ROAD WILL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT WILL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING WILL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
14. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.
15. RPA AND FLOODPLAIN LIMITS SHALL BE CLEARLY MARKED IN THE FIELD BY FLAGS, SIGNS, ETC.
16. TREE SAVE AREAS SHALL BE CLEARLY MARKED IN THE FIELD BY ORANGE SAFETY FENCE.
17. ORANGE SAFETY FENCE MUST BE INSTALLED AROUND ALL SILT TRAPS AND SEDIMENT BASINS.

60% PLANS
 THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

4/VAC50-30-40 MINIMUM STANDARDS (MS-19)

AN EROSION AND SEDIMENT CONTROL PROGRAM ADOPTED BY A DISTRICT OR LOCALITY MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS:

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOILS STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP SLOPE LAND DISTURBANCE TAKES PLACE.
5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
 - a. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
 - b. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL AT A MINIMUM MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
11. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT. CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NON ERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON ERODIBLE COVER MATERIALS.
13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NON ERODIBLE MATERIAL SHALL BE PROVIDED.
14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - a. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
 - b. EXCAVATED MATERIAL SHALL BE PLACED ON UPHILL SIDE OF TRENCHES.
 - c. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - d. MATERIAL USED FOR BACK FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - e. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
 - f. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE, WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASE IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:
 - a. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
 - b. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
 - (i) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
 - (ii) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED AND BANKS; AND
 - (iii) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
 - (iv) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.

- c. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
 - (1) IMPROVE THE CHANNEL TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR
 - (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES; OR
 - (3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR
 - (4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE PLAN-APPROVING AUTHORITY TO PREVENT DOWNSTREAM EROSION.
- d. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
 - a. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT OF THE SUBJECT PROJECT.
 - f. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION HE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
 - g. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
 - h. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
 - i. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
 - j. IN APPLYING THESE STORMWATER RUNOFF CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL, OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
 - k. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

MINIMUM STANDARDS (MS-19) NARRATIVE

1. INSTRUCTION FOR TEMPORARY SOIL STABILIZATION REQUIREMENTS ARE PROVIDED ON THE PLANS, SEE THE E&S NARRATIVE - VEGETATIVE PRACTICES *1 ON SHEET *2E(1) AND SEED MIXTURES AND APPLICATION RATES IN TABLE 3.31-B ON SHEET *2E(4). INSTRUCTION FOR PERMANENT STABILIZATION REQUIREMENTS ARE PROVIDED ON THE PLANS, SEE THE E&S NARRATIVE - VEGETATIVE PRACTICES *2 ON SHEET *2E(1).
2. DURING CONSTRUCTION OF THE PROJECT, ANY SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOILS STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
3. A NOTE STATING THE DEFINITION OF PERMANENT STABILIZATION IS PROVIDED ON THE PLANS, SEE THE E&S NARRATIVE - VEGETATIVE PRACTICES *2 ON SHEET *2E(1) AND TABLE 3.32-D ON SHEET *2E(4).
4. ALL SEDIMENT TRAPPING MEASURES SHALL BE CONSTRUCTED AS A FIRST STEP PRIOR TO UP SLOPE LAND DISTURBANCE.
5. STABILIZATION MEASURES ARE PROVIDED FOR THE EARTHEN STRUCTURES, SEE THE E&S NARRATIVE MANAGEMENT STRATEGIES, ITEM 4 AND SEED MIXTURES AND APPLICATION RATES IN TABLE 3.31-B ON SHEET 2E(4).
- 6a. THE SEDIMENT TRAPS ARE CONTROLLING LESS THAN THREE ACRES AND ARE DESIGNED WITH A MINIMUM STORAGE CAPACITY OF 134 CUBIC YARDS PER ACRE, SEE STRUCTURAL PRACTICES ON SHEET 2E(1).
- 6b. N/A
7. CUT AND FILL SLOPES SHOWN ON THIS PLAN HAVE BEEN EVALUATED BY A GEOTECHNICAL ENGINEER AND DESIGNED TO PREVENT EROSION. INSTRUCTION FOR PERMANENT STABILIZATION REQUIREMENTS ARE PROVIDED ON THE PLANS, SEE THE E&S NARRATIVE - VEGETATIVE PRACTICES *2 ON SHEET *1J. PROVIDE SURFACE ROUGHENING OR CRIMPING TO ENHANCE SEED GERMINATION.
8. ANY CONCENTRATED RUNOFF FROM THIS SITE IS OUTLET INTO AN ADEQUATE OUTFALL CHANNEL. CHANNEL ADEQUACY WILL BE VERIFIED WITH THE SUBMISSION OF THE ROADWAY CONSTRUCTION PLANS AND DRAINAGE CALCULATIONS.
9. IT IS NOT KNOWN AT THIS TIME IF THERE WILL BE ANY SEEPAGE OF WATER FROM UNDERGROUND. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
10. INLET PROTECTION HAS BEEN PROVIDED FOR ALL STORM SEWER INLETS DOWN SLOPE OF THE DISTURBANCE ACTIVITIES, SEE PLAN SHEETS 3C/D THRU 6C/D.
11. OUTLET PROTECTIONS ARE PROVIDED ON THE PLAN AT THE APPROPRIATE LOCATIONS, SEE EROSION AND SEDIMENT CONTROL SHEETS 3C/D THRU 6C/D.
12. ENCROACHMENT IN THE WATERCOURSE SHALL BE LIMITED TO THE LIMITS OF DISTURBANCE, WHICH ARE AT A MINIMUM TO CONSTRUCT THE ROAD, SILT FENCE AND DIVERSION DIKES ARE PROVIDED TO CONTROL SEDIMENT TRANSPORT.
13. WHERE IT IS NECESSARY TO CROSS A LIVE WATERCOURSE, A TEMPORARY OR PERMANENT VEHICULAR STREAM CROSSING, IN ACCORDANCE WITH VESCH 3.24, SHALL BE PROVIDED.
14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
15. THE BED AND BANKS OF THE DISTURBED WATERCOURSES ARE TO BE IMMEDIATELY STABILIZED AFTER WORK IS COMPLETED.
16. UNDERGROUND UTILITIES
 - a. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
 - b. EXCAVATED MATERIAL SHALL BE PLACED ON UPHILL SIDE OF TRENCHES.
 - c. EFFLUENT FROM DEWATERING OPERATION SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - d. MATERIAL USED FOR BACK FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - e. TEMPORARY AND PERMANENT SEEDING SCHEDULES ARE PROVIDED ON SHEET *2E(4), SEE TABLES 3.31B & 3.32D.
17. A NOTE REQUIRING THE CLEANING OF ADJACENT TRAVELWAYS IS SHOWN ON THE PLAN, SEE STRUCTURAL PRACTICES - TEMPORARY CONSTRUCTION ENTRANCE 3J2 SEE SHEET *2E(1).
18. A NOTE REQUIRING THE REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS PROVIDED ON THE PLAN, SEE MAINTENANCE STRATEGIES - SEDIMENT & EROSION CONTROL SEE SHEET *2E(1).
19. STORMWATER OUTFALL ADEQUACY WILL BE VERIFIED WITH THE SUBMISSION OF THE ROADWAY CONSTRUCTION PLANS AND DRAINAGE CALCULATIONS.

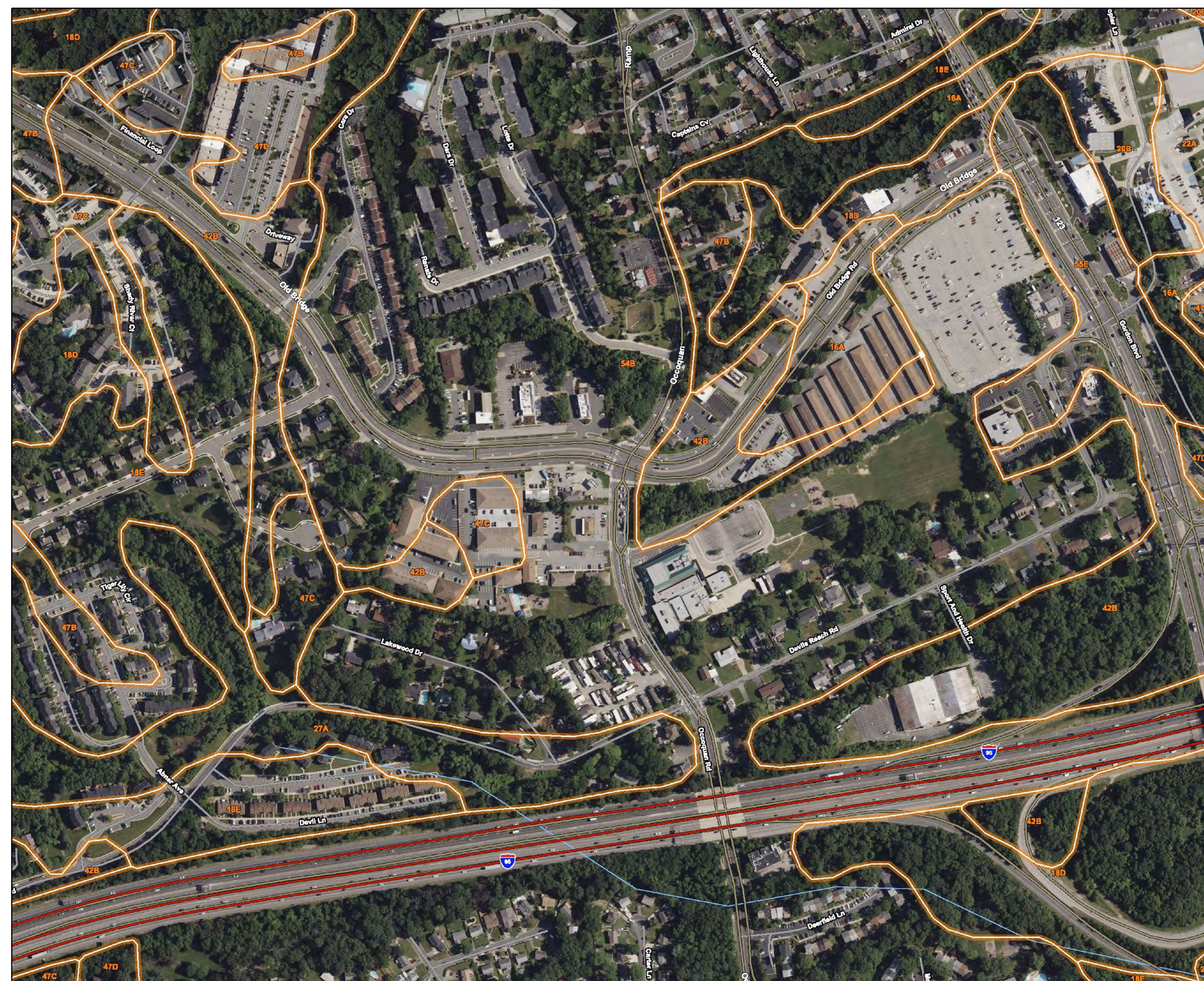
N/A	PROJECT 0641-076-301	SHEET NO. 2D(2)
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REVISED	STATE	STATE		SHEET NO.
	VA.	ROUTE 641	PROJECT 0641-076-301 R-201, C-501	
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Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER				

PROJECT SOILS MAP

Prince William County, Virginia



HYDRAULIC SOIL GROUP - SUMMARY BY MAP UNIT- PRINCE WILLIAM COUNTY, VIRGINIA (VA153)									
MAP UNIT SYMBOL	MAP UNIT NAME	RATING	SURFACE RUNOFF	EROSION HAZARD	SHRINK/SWELL	FLOODING	K-VALUE	ACRES UB AOI	PERCENT OF AOI
16A	Delanco fine sandy loam, 0 to 4 percent slopes	C/D	SLOW	SLIGHT	MODERATE	RARE	?	14.3	4.40%
18D	Dumfries sandy loam, 15 to 25 percent slopes	A	RAPID	SEVERE	LOW	NONE	?	25.8	8.00%
18E	Dumfries sandy loam, 25 to 50 percent slopes	A	VERY RAPID	SEVERE	LOW	NONE	?	30.3	9.40%
20B	Elsinboro sandy loam, 2 to 7 percent slopes	B	SLOW TO MEDIUM	MODERATE	LOW	RARE	?	4.4	1.40%
22A	Featherstone mucky silt loam, 0 to 1 percent slopes	B/D	VERY SLOW	SLIGHT	LOW	FREQUENT	?	2.5	0.8%
27A	Hatboro-Codorus complex, 0 to 2 percent slopes	B/D	SLOW	SLIGHT	LOW	FREQUENT	?	14.6	4.50%
42B	Neabsco-Quantico complex, 0 to 2 percent slopes	D	MEDIUM	MODERATE	LOW-MODERATE	NONE	?	37.1	11.50%
47B	Quantico sandy loam, 2 to 7 percent slopes	B	MEDIUM	MODERATE	MODERATE	NONE	?	8.7	2.70%
47C	Quantico sandy loam, 7 to 15 percent slopes	B	MEDIUM	SEVERE	MODERATE	NONE	?	10.8	3.30%
47D	Quantico sandy loam, 15 to 25 percent slopes	B	VERY RAPID	SEVERE	MODERATE	NONE	?	10.4	3.20%
54B	Urban land-Udorthents complex, 0 to 7 percent slopes	VARIES	N/A	N/A	N/A	YES	N/A	154.1	47.8%
55E	Watt channery silt loam, 25 to 50 percent slopes	B	VERY RAPID	SEVERE	LOW	NONE	?	9.6	3.00%
TOTALS FOR AREA OF INTEREST								322.7	100.0%

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

NTS

PROJECT
0641-076-301

SHEET NO.
2D(3)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201,C-501	2D(4)

TEMPORARY SEEDING TABLES

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

TABLE 3.31-C
TEMPORARY SEEDING PLANT MATERIALS, SEEDING RATES, AND DATES

SPECIES	SEEDING RATE		NORTH ^a				SOUTH ^b			PLANT CHARACTERISTICS
	Acre	1000 ft ²	3/1 to 4/30	5/1 to 8/15	8/15 to 11/1	2/15 to 4/30	5/1 to 9/1	9/1 to 11/15		
OATS (<i>Avena sativa</i>)	3 bu. (up to 100 lbs., not less than 50 lbs.)	2 lbs.	X	-	-	X	-	-	Use spring varieties (e.g., Nobbe).	
RYE ^d (<i>Secale cereale</i>)	2 bu. (up to 110 lbs., not less than 50 lbs.)	2.5 lbs.	X	-	X	X	-	X	Use for late fall seedings, winter cover. Tolerates cold and low moisture.	
GERMAN MILLET (<i>Setaria italica</i>)	50 lbs.	approx. 1 lb.	-	X	-	-	X	-	Warm-season annual. Dies at first frost. May be added to summer mixes.	
ANNUAL RYEGRASS ^c (<i>Lolium multi-florum</i>)	60 lbs.	1½ lbs.	X	-	X	X	-	X	May be added in mixes. Will mow out of most stands.	
WEEPING LOVEGRASS (<i>Eragrostis curvula</i>)	15 lbs.	5½ ozs.	-	X	-	-	X	-	Warm-season perennial. May bunch. Tolerates hot, dry slopes and acid, infertile soils. May be added to mixes.	
KOREAN LESPEDEZA ^a (<i>Lespedeza stipulacea</i>)	25 lbs.	approx. 1½ lbs.	X	X	-	X	X	-	Warm season annual legume. Tolerates acid soils. May be added to mixes.	

^a Northern Piedmont and Mountain region. See Plates 3.22-1 and 3.22-2.
^b Southern Piedmont and Coastal Plain.
^c May be used as a cover crop with spring seeding.
^d May be used as a cover crop with fall seeding.
 X May be planted between these dates.
 - May not be planted between these dates.

TABLE 3.32-A
CHARACTERISTICS OF COMMONLY SELECTED GRASSES

COMMON NAME (Botanical Name)	Life Cycle	Season	pH Range	Germination Time, In Days	Optimum Germination Temperature (°F)	Winter Hardiness	Drought Tolerance	Fertility	Soil Drainage Tolerance	Seeds Per Pound	MAINTENANCE REQUIREMENTS	REMARKS	Suggested Varieties for Virginia
TALL FESCUE (<i>Festuca arundinacea</i>)	P	C	5.5-6.2	10-14	60-85	F	F	M	SPD	225K	Low when used for erosion control; high when used in lawn	Better suited for erosion control and rough turf application.	Ky 31
TALL FESCUES (Improved)	P	C	5.5-6.2	10-14	60-85	F	G	M	SPD	220K	Responds well to high maintenance.	Excellent for lawn and fine turf.	See current VCI list.
KENTUCKY BLUEGRASS (<i>Poa pratensis</i>)	P	C	6.0-6.5	14	60-75	G	P	M	SPD	2.2m	Needs fertile soil, favorable moisture. Requires several years to become well established.	Excellent for fine turf-takes traffic, mowing. Poor drought/heat tolerance.	See current VCI list.
PERENNIAL RYEGRASS (<i>Lolium perenne</i>)	P	C	5.8-6.2	7-10	60-75	F	F	M-H	SPD	227K	Will tolerate traffic.	May be added to mixes. * Improved varieties will perform well all year.	See current VCI list.

KEY
 A = Annual P = Perennial C = Cool Season Plant W = Warm Season Plant G = Good F = Fair P = Poor VP = Very Poor H = High M = Medium L = Low SPD = Somewhat Poorly Drained MPD = Moderately Poorly Drained PD = Poorly Drained VPD = Very Poorly Drained

TABLE 3.32-A (Continued)
CHARACTERISTICS OF COMMONLY SELECTED GRASSES

COMMON NAME (Botanical Name)	Life Cycle	Season	pH Range	Germination Time, In Days	Optimum Germination Temperature (°F)	Winter Hardiness	Drought Tolerance	Fertility	Soil Drainage Tolerance	Seeds Per Pound	MAINTENANCE REQUIREMENTS	REMARKS	Suggested Varieties for Virginia	
FINE FESCUES	HARD FESCUE (<i>Festuca Longifolia</i>)	P	C	5.0-6.2	10-14	60-80	VG	G	L	MWD	400K	Grows well in sun or shade and will tolerate infertile soils; improved disease resistance.	Exceeds all fine fescues in most tests. Excellent for low-maintenance situations.	Reliant, Sparta, Aurora
	CHEWINGS FESCUE	P	C	5.0-6.2	10-14	60-80	VG	G	L	MWD	400K	Tolerates shade, dry infertile soils.	Poor traffic tolerance; less thatch than other fine fescues.	Flyer
	RED FESCUE (<i>Festuca Rubra</i>)	P	C	5.0-6.2	10-14	60-80	VG	G	L	MWD	400K	Low to medium fertility requirements. Requires well-drained soil.	Spreads by rhizomes, tillers and stolons. Will not take traffic - very shade tolerant.	Long-fellow, Victory
REED CANARYGRASS (<i>Phalaris arundinacea</i>)	P	C	5.8-6.2	21	70-85	G	G	M-H	VPD	530K	Do not mow closely or often.	Conservation cover in wet areas.	No named varieties	

KEY
 A = Annual P = Perennial C = Cool Season Plant W = Warm Season Plant G = Good F = Fair P = Poor VP = Very Poor H = High M = Medium L = Low SPD = Somewhat Poorly Drained MPD = Moderately Poorly Drained PD = Poorly Drained VPD = Very Poorly Drained

TABLE 3.32-A (Continued)
CHARACTERISTICS OF COMMONLY SELECTED GRASSES

COMMON NAME (Botanical Name)	Life Cycle	Season	pH Range	Germination Time, In Days	Optimum Germination Temperature (°F)	Winter Hardiness	Drought Tolerance	Fertility	Soil Drainage Tolerance	Seeds Per Pound	MAINTENANCE REQUIREMENTS	REMARKS	Suggested Varieties for Virginia
REDTOP (<i>Agrostis alba</i>)	P	C	5.8-6.2	10	65-85	G	F	L	PD	5m	Will tolerate poor, infertile soils; deep rooted.	Does well in erosion control mixes - not for lawns.	No named varieties.
WEEPING LOVEGRASS (<i>Eragrostis curvula</i>)	P	W	4.5-6.2	14	65-85	F-P	G	L-M	SPD	1.5m	Low-fertility requirements; excellent drought tolerance.	Fast-growing, warm-season bunch grass. Excellent cover for erosion control.	No named varieties.
BERMUDAGRASS (<i>Cynodon dactylon</i>)	P	W	5.8-6.2	21	70-95	P	G	M-H	SPD	1.8m hulled	High nitrogen utilization, excellent drought tolerance. Some varieties adapted to western VA.	Common varieties used for erosion control. Hybrids used for fine turf.	See current VCI list.
ORCHARDGRASS (<i>Dactylis glomerata</i>)	P	C	5.8-6.2	18	60-75	F	F	M	SPD	625K	Does best on well-drained, loamy soil.	Good pasture selection - may be grazed.	Virginia origin or Potomac

KEY
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TABLE 3.32-A (Continued)
CHARACTERISTICS OF COMMONLY SELECTED GRASSES

COMMON NAME (Botanical Name)	Life Cycle	Season	pH Range	Germination Time, In Days	Optimum Germination Temperature (°F)	Winter Hardiness	Drought Tolerance	Fertility	Soil Drainage Tolerance	Seeds Per Pound	MAINTENANCE REQUIREMENTS	REMARKS	Suggested Varieties for Virginia
ANNUAL RYEGRASS (<i>Lolium multiflorum</i>)	A	C	5.8-6.2	7	60-70	G	P	M-H	SPD	227K	Will grow on most Virginia soils. Do not use in fine-turf areas.	May be added into mixes or established alone as temporary cover in spring and fall.	No named varieties.
RYE (<i>Secale cereale</i>)	A	C	5.8-6.2	7	55-70	VG	G	L-M	SPD	18K	Will establish in most all Virginia soils. Do not use in fine-turf areas.	May be added into mixes or established alone for late fall/winter cover.	Abuzzi, Balboa
FOXTAIL MILLET (<i>Setaria italica</i>)	A	W	5.8-6.2	10	65-85	VP	G	M	MWD	220K	Establishes well during summer. Very low moisture requirements.	May be added to erosion-control mixes or established alone.	Common, German

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TABLE 3.31-A

REQUIREMENTS FOR TEMPORARY SITES

pH Test	Recommended Application of Agricultural Limestone
below 4.2	3 tons per acre
4.2 to 5.2	2 tons per acre
5.2 to 6	1 ton per acre

Source: Va. DSWC

TABLE 3.31-B

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS

'QUICK REFERENCE FOR ALL REGIONS'

Planting Dates	Species	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (<i>Lolium multi-florum</i>) & Cereal (Winter) Rye (<i>Secale cereale</i>)	50 - 100
Feb. 16 - Apr. 30	Annual Ryegrass (<i>Lolium multi-florum</i>)	60 - 100
May 1 - Aug. 31	German Millet (<i>Setaria italica</i>)	50

Source: Va. DSWC

TABLE 3.32-D

SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA

Minimum Care Lawn	Total Lbs. Per Acre
- Commercial or Residential	175-200 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	95-100%
- Improved Perennial Ryegrass	0-5%
- Kentucky Bluegrass	0-5%
High-Maintenance Lawn	200-250 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	100%
General Slope (3:1 or less)	
- Kentucky 31 Fescue	128 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
	150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	
- Kentucky 31 Fescue	108 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
- Crownvetch **	20 lbs.
	150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below:
 February 16th through April Annual Rye
 May 1st through August 15th Foxtail Millet
 August 16th through October Annual Rye
 November through February 15th Winter Rye

** Substitute *Setaria lespedeza* for Crownvetch east of Farmville, Va. (May through September use hulled *Setaria*, all other periods, use unhulled *Setaria*). If *Flaipaea* is used in lieu of Crownvetch, increase rate to 30 lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

N/A

PROJECT
0641-076-301

SHEET NO.
2D(4)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	641	0641-076-301 R-201,C-501	3

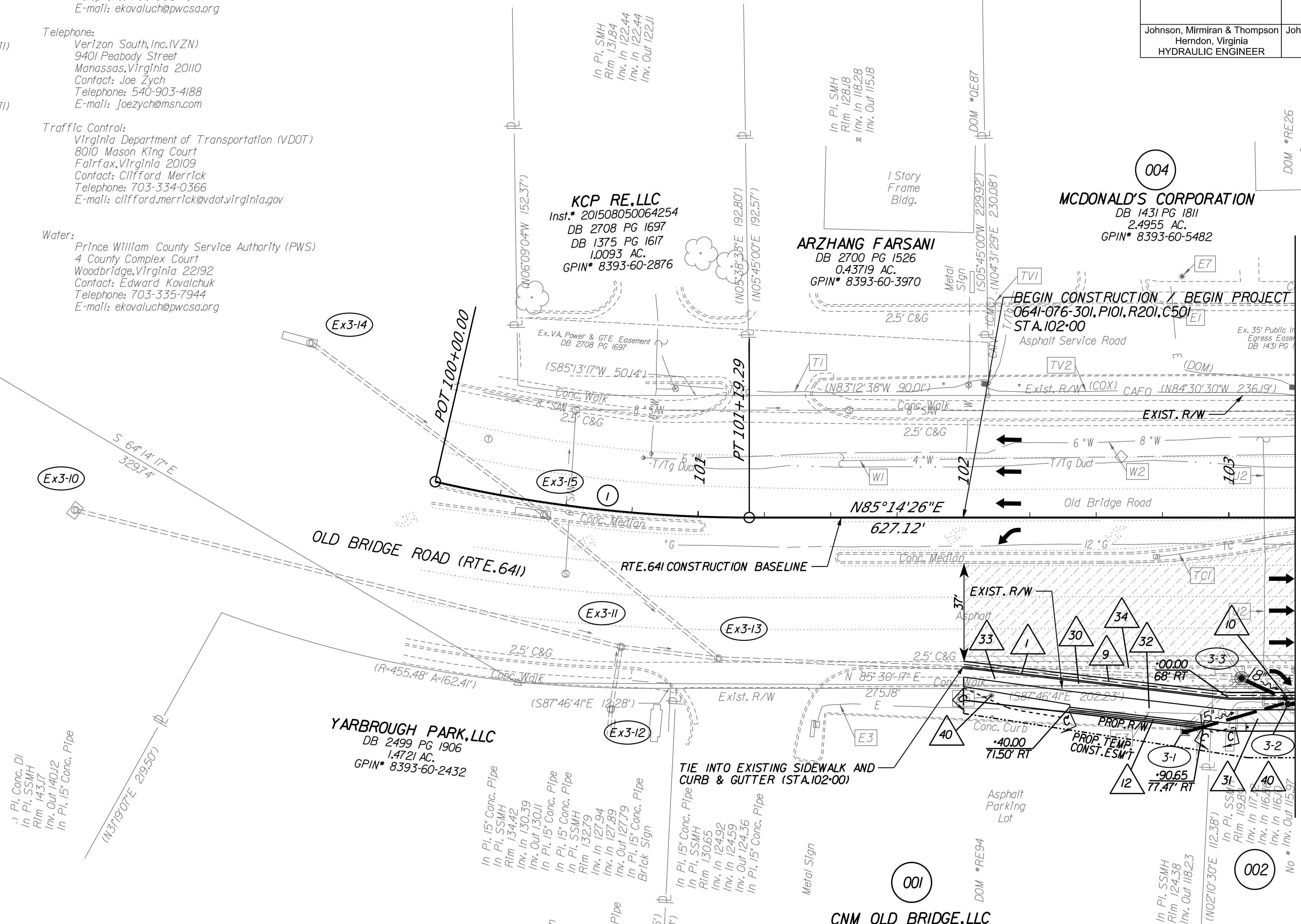
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
HYDRAULIC ENGINEER

Johnson, Mirmiran & Thompson
Herndon, Virginia
ROADWAY ENGINEER

- Utility Owners*
- Cable Television:**
Comcast (CMC)
5401 Staples Mill Road
Richmond, Virginia 23228
Contact: Melvin Yerby
Telephone: 804-221-8492
E-mail: melvin_yerby@comcast.com
- Cox Communications (COX)**
(Automated request/delivery of records via e-mail)
E-mail: natlconsttrafficteam@cox.com
- Electric:**
Dominion Energy (DOM)
(Automated request/delivery of records via e-mail)
E-mail: facilitylocate.request@dominionenergy.com
- Gas:**
Washington Gas (WGL)
6801 Industrial Road
Springfield, Virginia 22151
Contact: Juan Arches, Jr.
Telephone: 703-750-4785
E-mail: jarches@washgas.com
- Sewer:**
Prince William County Service Authority (PWS)
4 County Complex Court
Woodbridge, Virginia 22192
Contact: Edward Kovalchuk
Telephone: 703-335-7944
E-mail: ekovalchuk@pwcsa.org
- Telephone:**
Verizon South, Inc. (VZN)
9401 Peabody Street
Manassas, Virginia 20110
Contact: Joe Zych
Telephone: 540-903-4188
E-mail: joezych@msn.com
- Traffic Control:**
Virginia Department of Transportation (VDOT)
8010 Mason King Court
Fairfax, Virginia 20109
Contact: Clifford Merrick
Telephone: 703-334-0366
E-mail: clifford.merrick@vdot.virginia.gov
- Water:**
Prince William County Service Authority (PWS)
4 County Complex Court
Woodbridge, Virginia 22192
Contact: Edward Kovalchuk
Telephone: 703-335-7944
E-mail: ekovalchuk@pwcsa.org

JMT
N: 63530920.96
E: 11836556.24
Elev: 149.05



LEGEND

- | | | | |
|--|---|--|------------------------|
| | PROPOSED PAVEMENT RESURFACING / BUILDUP | | ST'D CG-6 REQ'D |
| | PROPOSED FULL DEPTH PAVEMENT | | ST'D UD-4 REQ'D |
| | PROPOSED DEMOLITION OF PAVEMENT | | ST'D OUTLET PIPE REQ'D |
| | Denotes Construction Limits In Cuts | | ST'D MB-7F REQ'D |
| | | | 4' BUFFER |
| | | | 5' CONCRETE SIDEWALK |
| | | | 6' CONCRETE SIDEWALK |

- | | |
|--|---------------------------|
| | REMOVE EX. SIDEWALK |
| | REMOVE EX. CURB & GUTTER |
| | TO BE RELOCATED BY OTHERS |

PI - 100-5990
DELTA - 130'07.00' (LT)
D - 59.90'
L - 119.29'
R - 525.00'
PC - 100-00.00
PT - 101-19.29
V - 40 MPH

NOTES:

1) FOR EXISTING PIPES AND STRUCTURES TO BE ABANDONED IN PLACE OR REMOVED, PLEASE SEE TRAFFIC CONTROL SHEETS 1H13A, 1H17A, 1H11A) AND 1H15A).

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

ROUTE 641 PROFILE 3A
E&S PLANS 3B(1) - 3B(2)
DRAIN DESCR. 2B(1) - 2B(2)

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 3
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PROJECT MANAGER _SHERRY_DJOUHARIAN_(703)792-6822-----
 SURVEYED BY, DATE _JMT,_SEPTEMBER_2020-----
 DESIGN BY _JMT_(703)464-7369-----
 SUBSURFACE UTILITY BY, DATE _JMT,_SEPTEMBER_2020-----

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201,C-501	3A

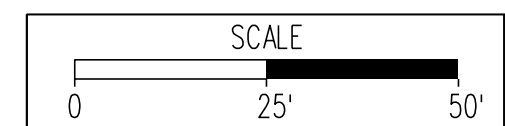
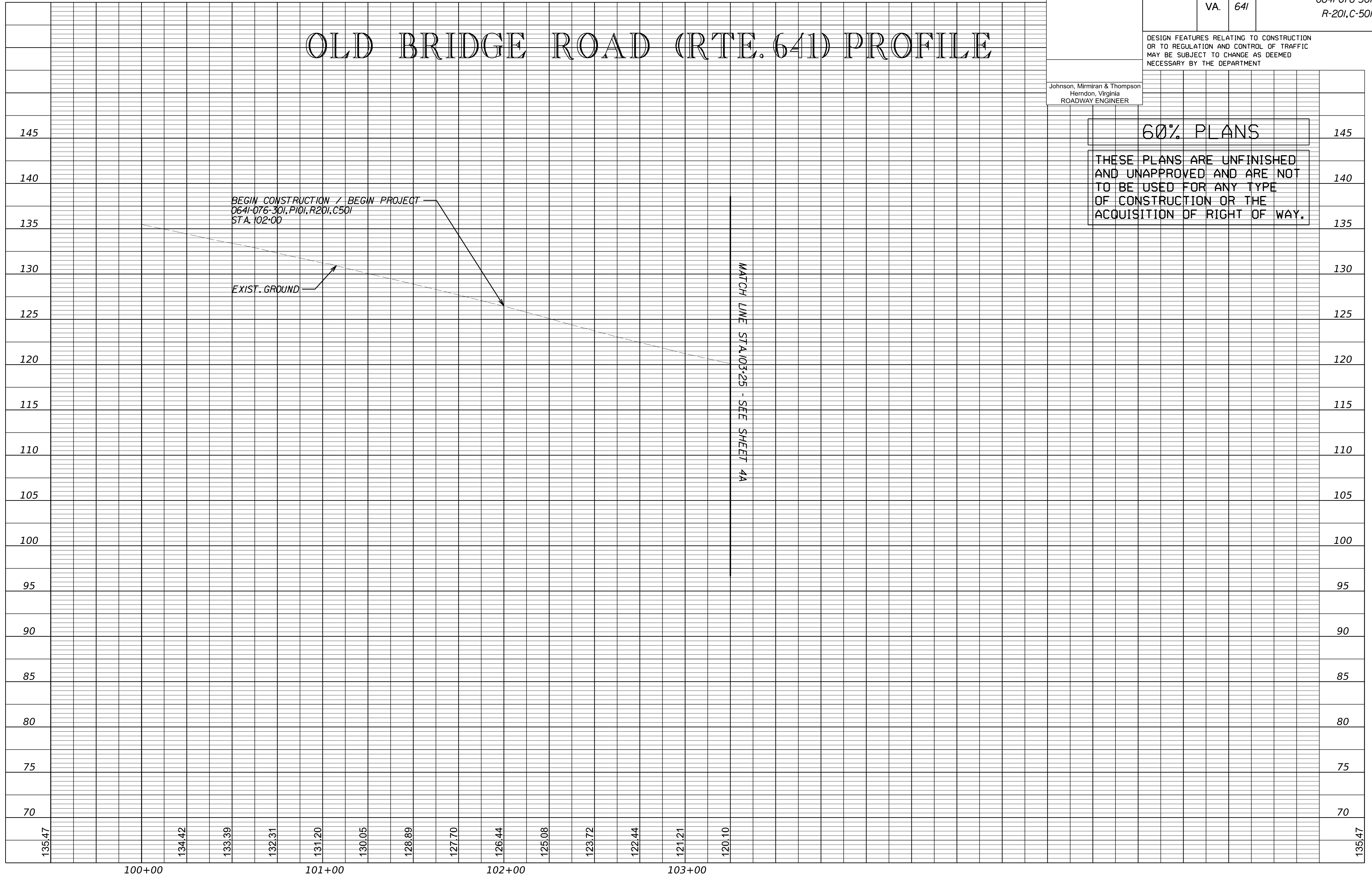
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
ROADWAY ENGINEER

OLD BRIDGE ROAD (RTE. 641) PROFILE

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



PROJECT
0641-076-301

SHEET NO.
3A

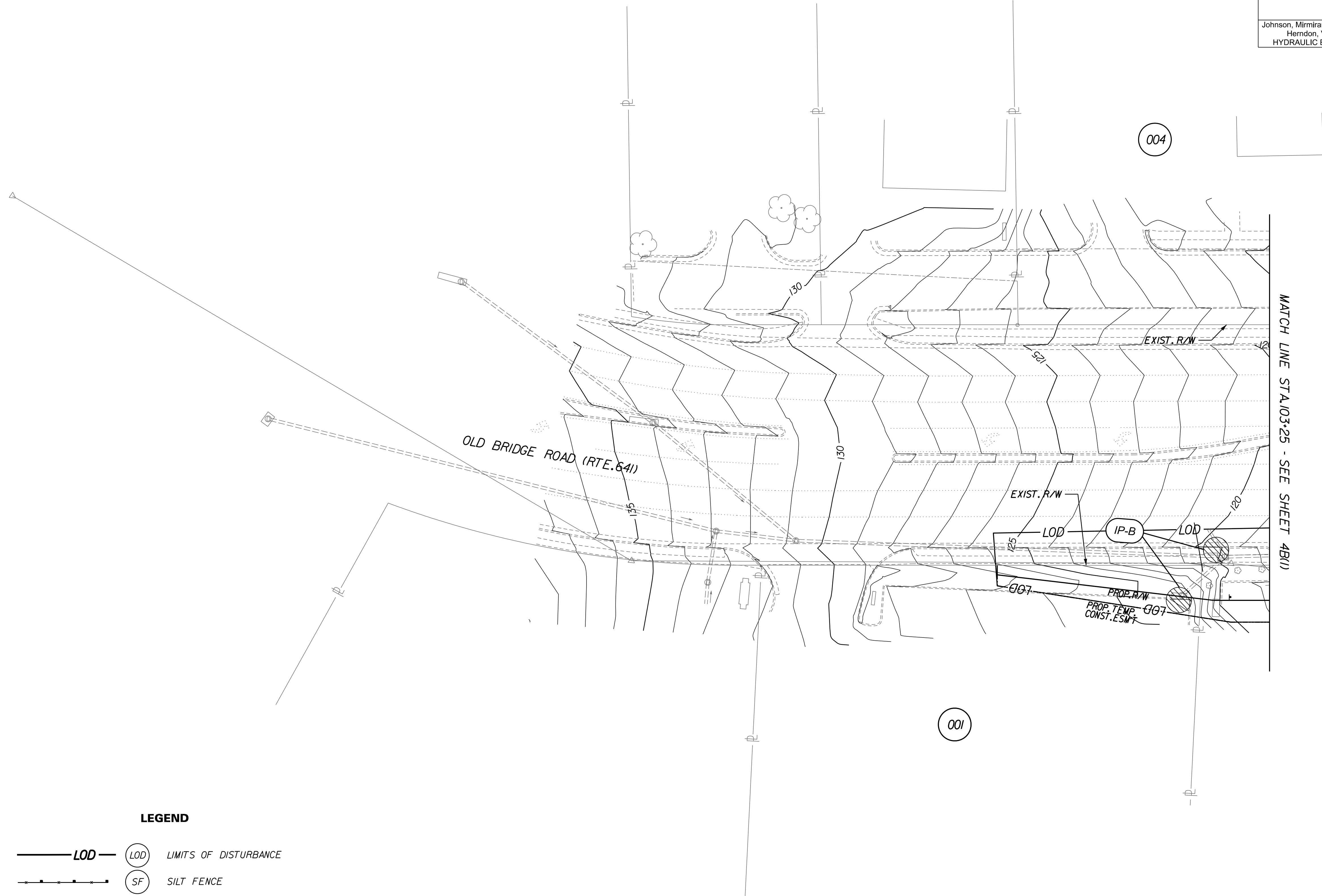
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

EROSION & SEDIMENT CONTROL PLAN (PHASE I)

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	3B(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
HYDRAULIC ENGINEER



LEGEND

- LOD** **LOD** LIMITS OF DISTURBANCE
- SF** **SF** SILT FENCE
- DD** **DD** DIVERSION DIKE
- IP** **IP** STORM DRAIN INLET PROTECTION
- CIP** **CIP** CULVERT INLET PROTECTION

Denotes Construction Limits In Cuts

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 3B(1)
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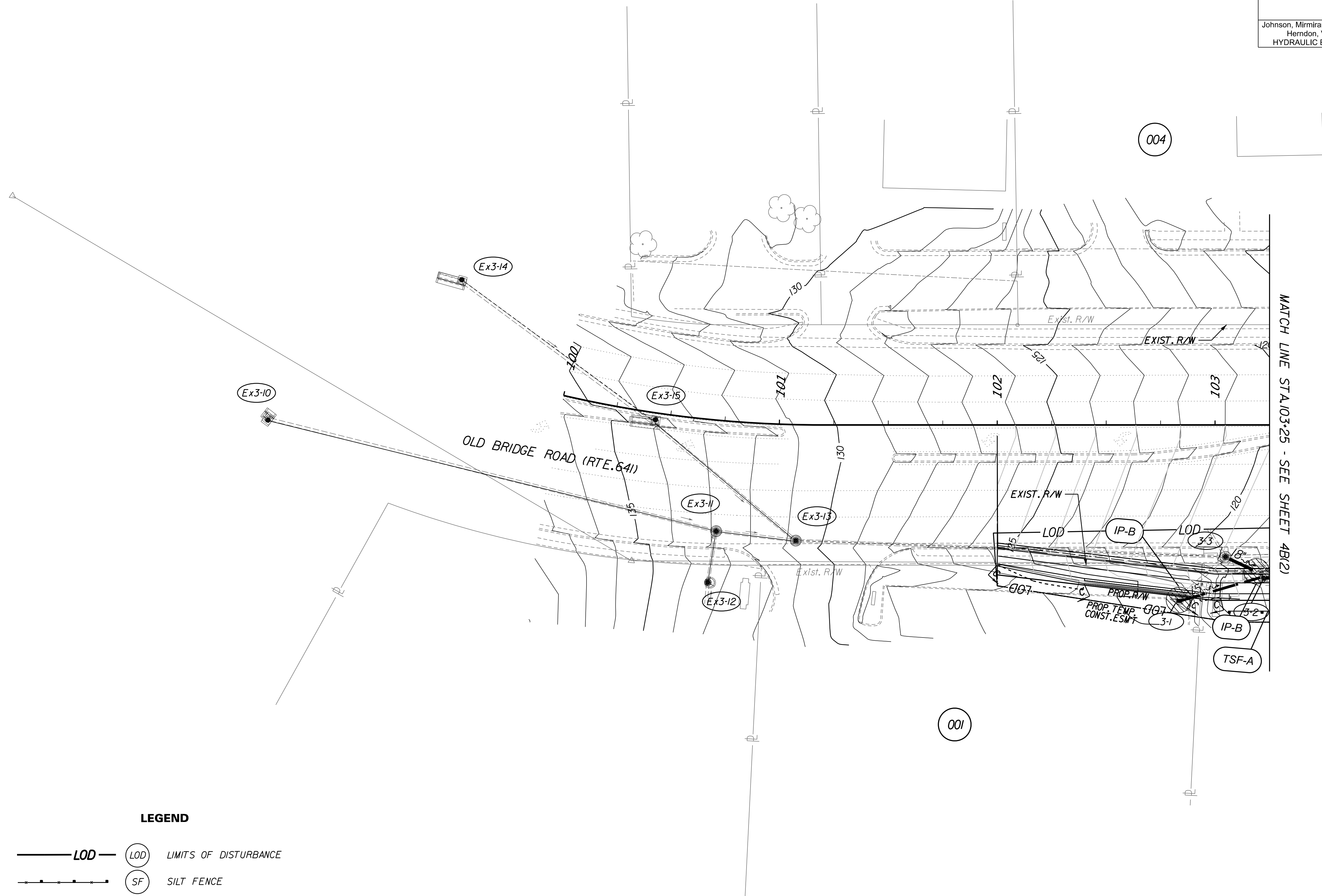
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

EROSION & SEDIMENT CONTROL PLAN (PHASE 2)

REVISED	STATE		PROJECT	SHEET NO.
	VA.	ROUTE		
		641	0641-076-301 R-201, C-501	3B(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
HYDRAULIC ENGINEER



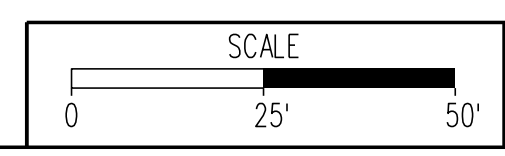
LEGEND

- LOD LIMITS OF DISTURBANCE
- SF SILT FENCE
- DD DIVERSION DIKE
- IP STORM DRAIN INLET PROTECTION
- CIP CULVERT INLET PROTECTION

Denotes Construction Limits In Cuts

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



PROJECT	SHEET NO.
0641-076-301	3B(2)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

Cable Television:
Comcast (CMC)
5401 Staples Mill Road
Richmond, Virginia 23228
Contact: Melvin Yerby
Telephone: 804-221-8492
Email: melvin.yerby@cable-comcast.com

Cox Communications (COX)
(Automated request/delivery of records via e-mail)
E-mail: nationconstr@flongmteam.com

Electric:
Dominion Energy (DOM)
(Automated request/delivery of records via e-mail)
E-mail: facilitylocationrequest@dominionenergy.com

Gas:
Washington Gas (WGL)
6801 Industrial Road
Springfield, Virginia 22151
Contact: Juan Arches, Jr.
Telephone: 703-750-4785
E-mail: jarches@washingtongas.com

Sewer:
Prince William County Service Authority (PWS)
4 County Complex Court
Woodbridge, Virginia 22192
Contact: Edward Kovalchuk
Telephone: 703-335-7944
E-mail: ekovalch@pws.org

- | | | | | | | | |
|---|----------------------------|----|--------------------------|----|------------------------|----|---------------------------|
| 1 | ST'D CG-6 REQ'D | 9 | ST'D UD-4 REQ'D | 35 | REMOVE ENTRANCE GUTTER | 38 | REMOVE EX. CONCRETE APRON |
| 2 | ST'D RADIAL CG-6 REQ'D | 10 | ST'D OUTLET PIPE REQ'D | 36 | REMOVE EX. MEDIAN | 40 | TO BE RELOCATED BY OTHERS |
| 3 | ST'D CG-9D REQ'D | 11 | ST'D UD-2 REQ'D | | | | |
| 4 | ST'D CG-12, TYPE B REQ'D | 30 | 4' BUFFER | | | | |
| 5 | ST'D CG-12, TYPE RI2 REQ'D | 31 | 5' CONCRETE SIDEWALK | | | | |
| 6 | ST'D MS-1 REQ'D | 33 | REMOVE EX. SIDEWALK | | | | |
| 7 | ST'D MC-1 REQ'D | 34 | REMOVE EX. CURB & GUTTER | | | | |
| 8 | ST'D RADIAL MC-1 REQ'D | | | | | | |

AEROMARITIME INVESTMENT COMPANY
Inst.* 200810010094552
Inst.* 200810010094551
0.53691 AC.
GPIN* 8393-60-9575

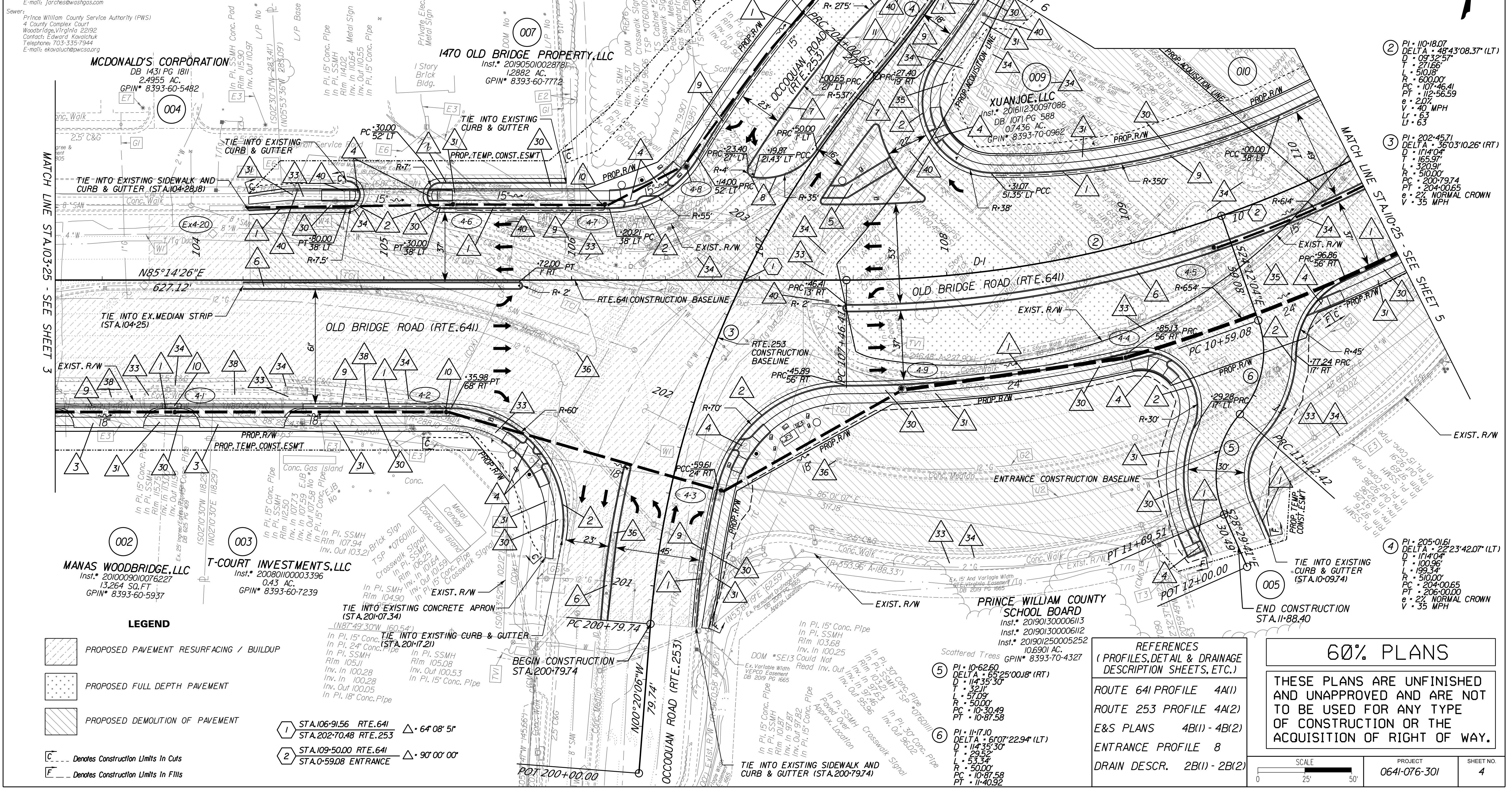
REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	4

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

NOTES:
1/ FOR EXISTING PIPES AND STRUCTURES TO BE ABANDONED IN PLACE OR REMOVED, PLEASE SEE TRAFFIC CONTROL SHEETS IH(4A), IH(8A), IH(12A) AND IH(16A).

Johnson, Mirmiran & Thompson
Herndon, Virginia
HYDRAULIC ENGINEER

Johnson, Mirmiran & Thompson
Herndon, Virginia
ROADWAY ENGINEER



② PI = 110+18.07
DELTA = 48°43'08.37" (LT)
D = 0972.57'
T = 271.65'
L = 510.18'
R = 600.00'
PC = 107+46.41
PT = 112+56.59
e = 2.0%
V = 40 MPH
L = 63'
L = 63'

③ PI = 202+45.71
DELTA = 36°03'10.26" (RT)
D = 1144.04'
T = 165.97'
L = 320.91'
R = 510.00'
PC = 200+79.74
PT = 204+00.65
e = 2% NORMAL CROWN
V = 35 MPH

④ PI = 205+01.61
DELTA = 22°23'42.07" (LT)
D = 1144.04'
T = 100.96'
L = 193.34'
R = 510.00'
PC = 204+00.65
PT = 206+00.00
e = 2% NORMAL CROWN
V = 35 MPH

- LEGEND**
- PROPOSED PAVEMENT RESURFACING / BUILDUP
 - PROPOSED FULL DEPTH PAVEMENT
 - PROPOSED DEMOLITION OF PAVEMENT

C --- Denotes Construction Limits In Cuts
F --- Denotes Construction Limits In Fills

- ① STA.106+91.56 RTE.641
STA.202+70.48 RTE.253
- ② STA.109+50.00 RTE.641
STA.0+59.08 ENTRANCE

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

- ROUTE 641 PROFILE 4A(1)
- ROUTE 253 PROFILE 4A(2)
- E&S PLANS 4B(1) - 4B(2)
- ENTRANCE PROFILE 8
- DRAIN DESCR. 2B(1) - 2B(2)

60% PLANS
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 4
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PROJECT MANAGER _SHERRY_DJOUHARIAN_(703)792-6822-----
SURVEYED BY, DATE _JMT,_SEPTEMBER_2020-----
DESIGN BY _JMT_(703)464-7369-----
SUBSURFACE UTILITY BY, DATE _JMT,_SEPTEMBER_2020-----

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201,C-501	4A(1)

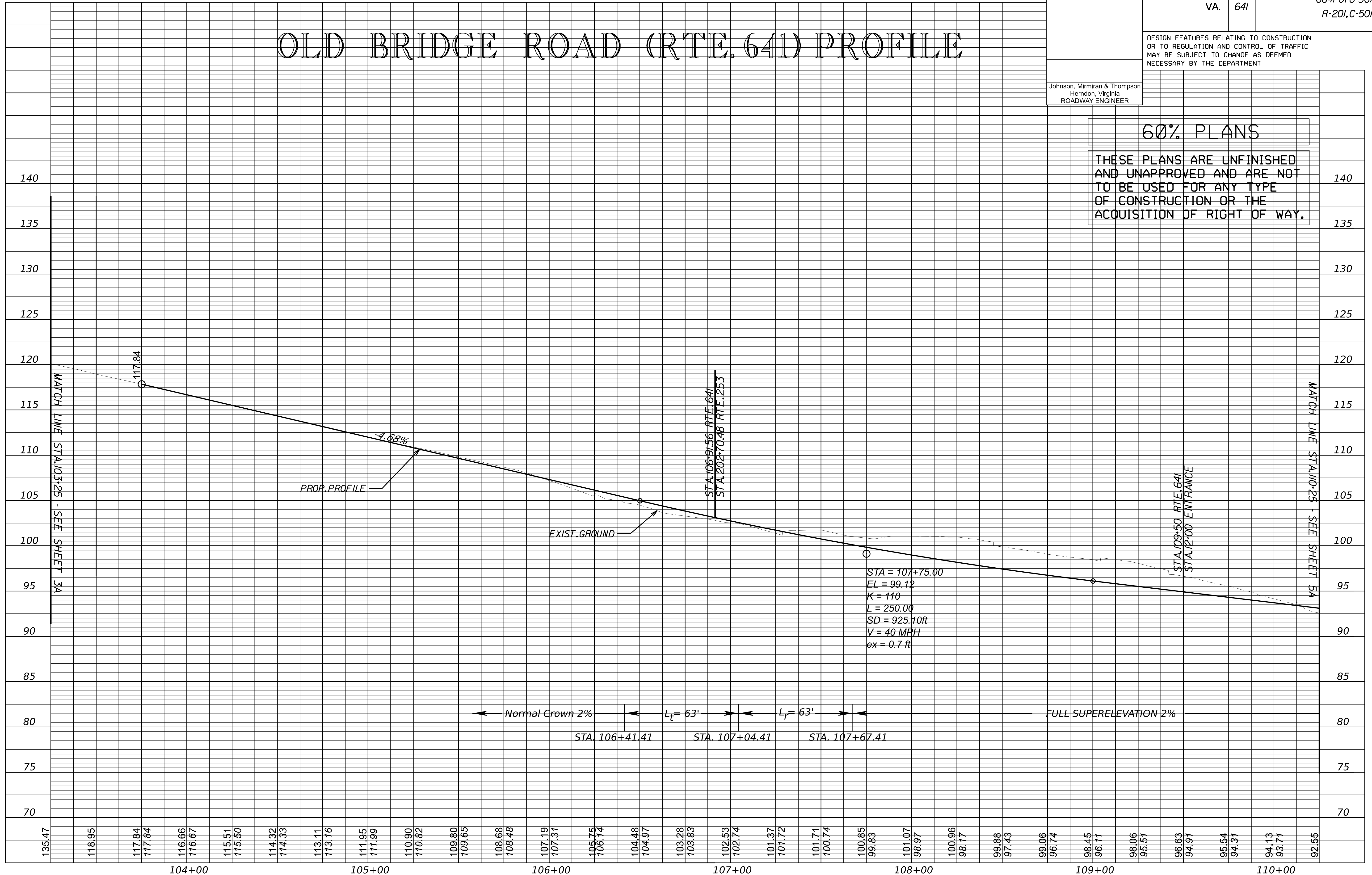
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
ROADWAY ENGINEER

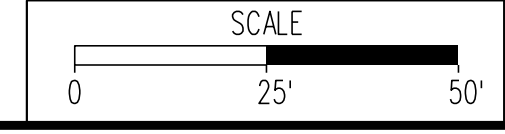
OLD BRIDGE ROAD (RTE. 641) PROFILE

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



135.47	118.95	117.84	116.66	115.51	114.32	113.11	111.95	110.90	109.80	108.68	107.19	105.75	104.48	103.28	102.53	101.37	101.17	100.85	100.96	99.88	99.06	98.45	98.06	96.63	95.54	94.13	92.55	
		117.84	116.67	115.50	114.33	113.16	111.99	110.82	109.65	108.48	107.31	106.14	104.97	103.83	102.74	101.72	100.74	99.83	98.97	98.17	97.43	96.74	96.11	95.57	94.97	94.37	93.71	92.55



PROJECT
0641-076-301

SHEET NO.
4A(1)

PROJECT MANAGER _SHERRY_DJOUHARIAN_(703) 792-6822
 SURVEYED BY, DATE _JMT, SEPTEMBER 2020_
 DESIGN BY _JMT_(703) 464-7369
 SUBSURFACE UTILITY BY, DATE _JMT, SEPTEMBER 2020_

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201,C-501	4A(2)

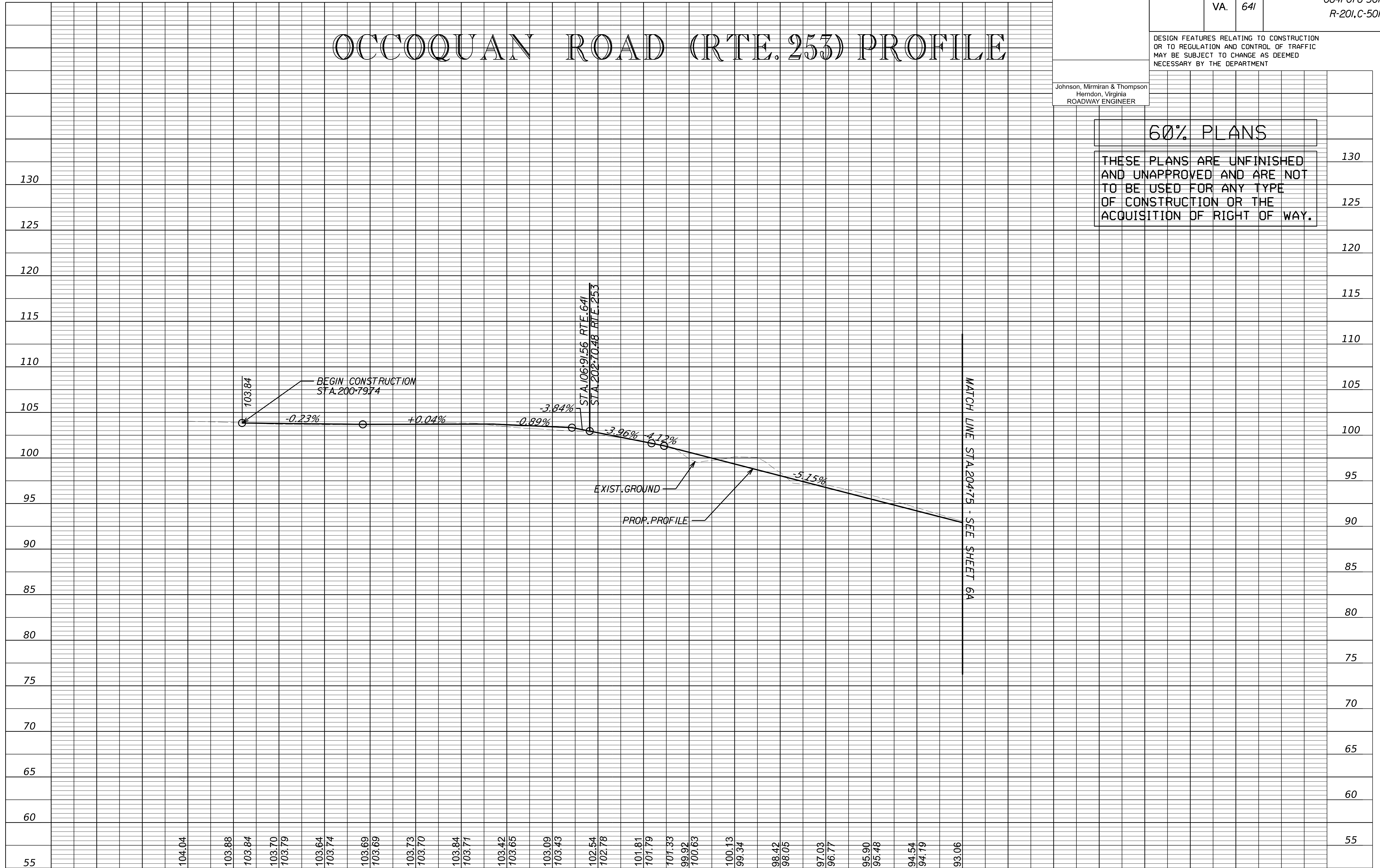
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
ROADWAY ENGINEER

OCCOQUAN ROAD (RTE. 253) PROFILE

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



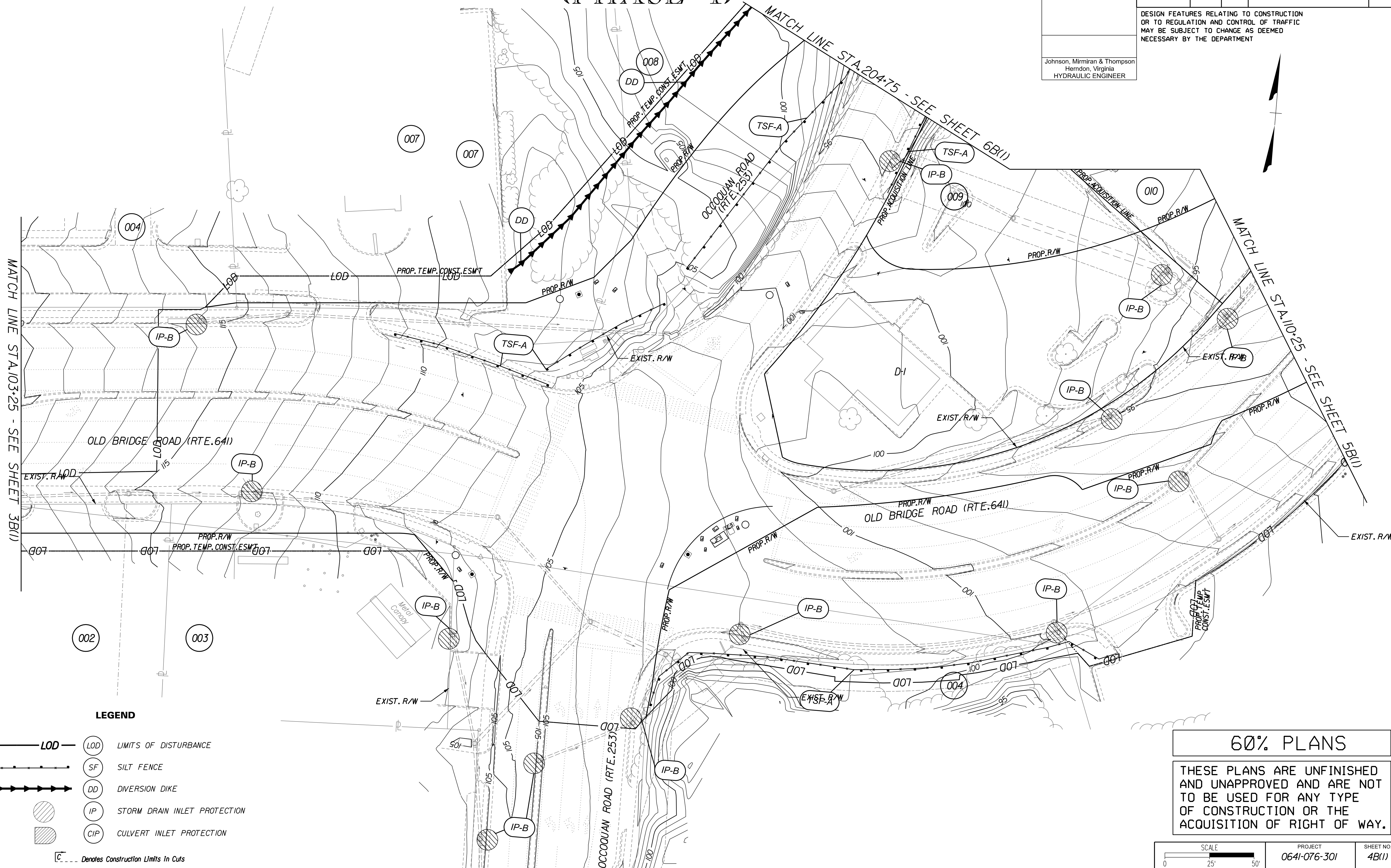
PROJECT
0641-076-301

SHEET NO.
4A(2)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

EROSION & SEDIMENT CONTROL PLAN (PHASE 1)

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201, C-501	4B(1)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER					



- LEGEND**
- LOD — (LOD) LIMITS OF DISTURBANCE
 - SF — (SF) SILT FENCE
 - DD — (DD) DIVERSION DIKE
 - IP — (IP) STORM DRAIN INLET PROTECTION
 - CIP — (CIP) CULVERT INLET PROTECTION

Denotes Construction Limits in Cuts

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE	PROJECT	SHEET NO.
0 25' 50'	0641-076-301	4B(1)

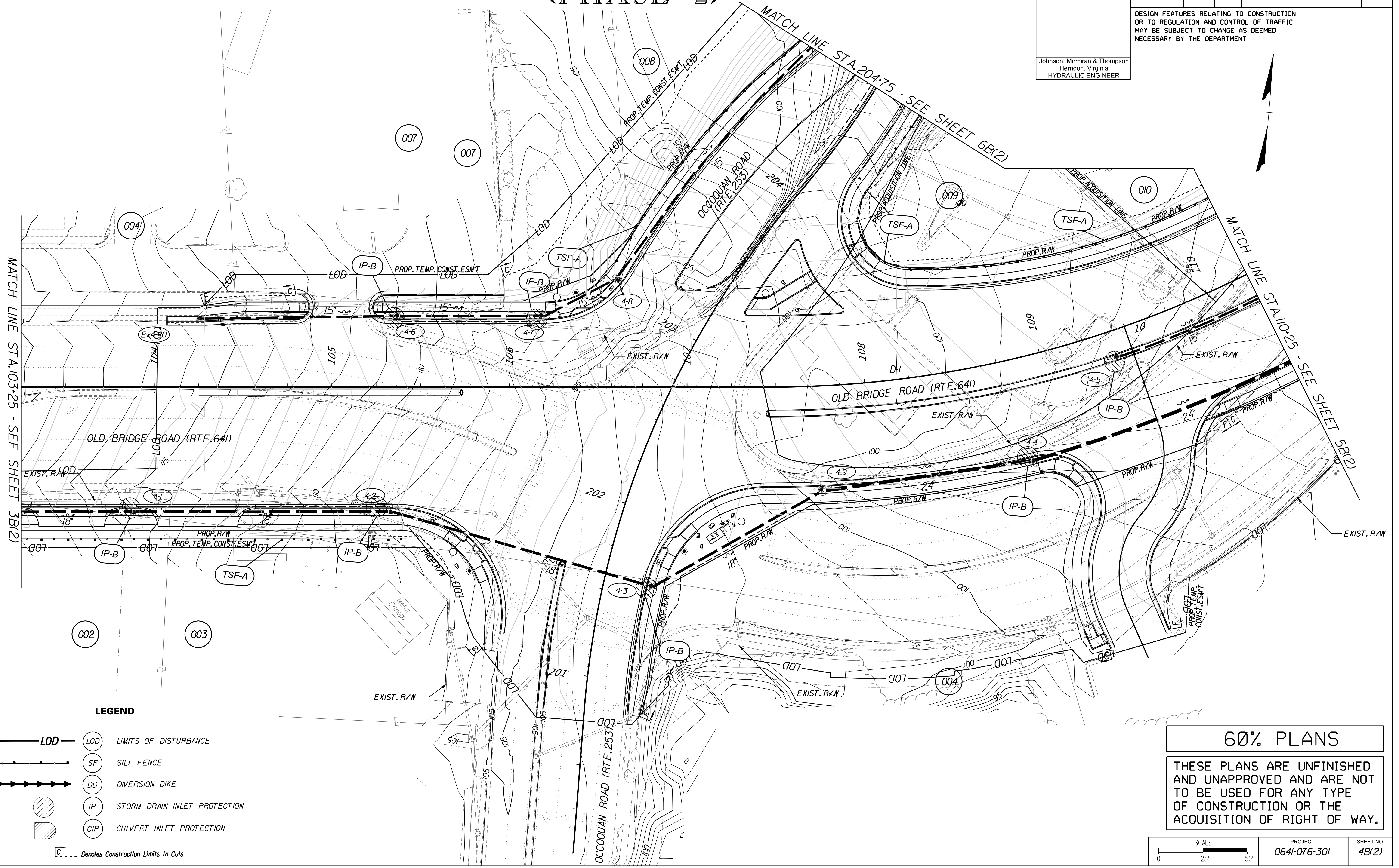
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

EROSION & SEDIMENT CONTROL PLAN (PHASE 2)

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	4B(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
HYDRAULIC ENGINEER



- LEGEND**
- LOD LIMITS OF DISTURBANCE
 - SF SILT FENCE
 - DD DIVERSION DIKE
 - IP STORM DRAIN INLET PROTECTION
 - CIP CULVERT INLET PROTECTION

Denotes Construction Limits in Cuts

60% PLANS

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SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 4B(2)
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PROJECT MANAGER: SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE: JMT, SEPTEMBER 2020
 DESIGN BY: JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE: JMT, SEPTEMBER 2020

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201,C-501	5

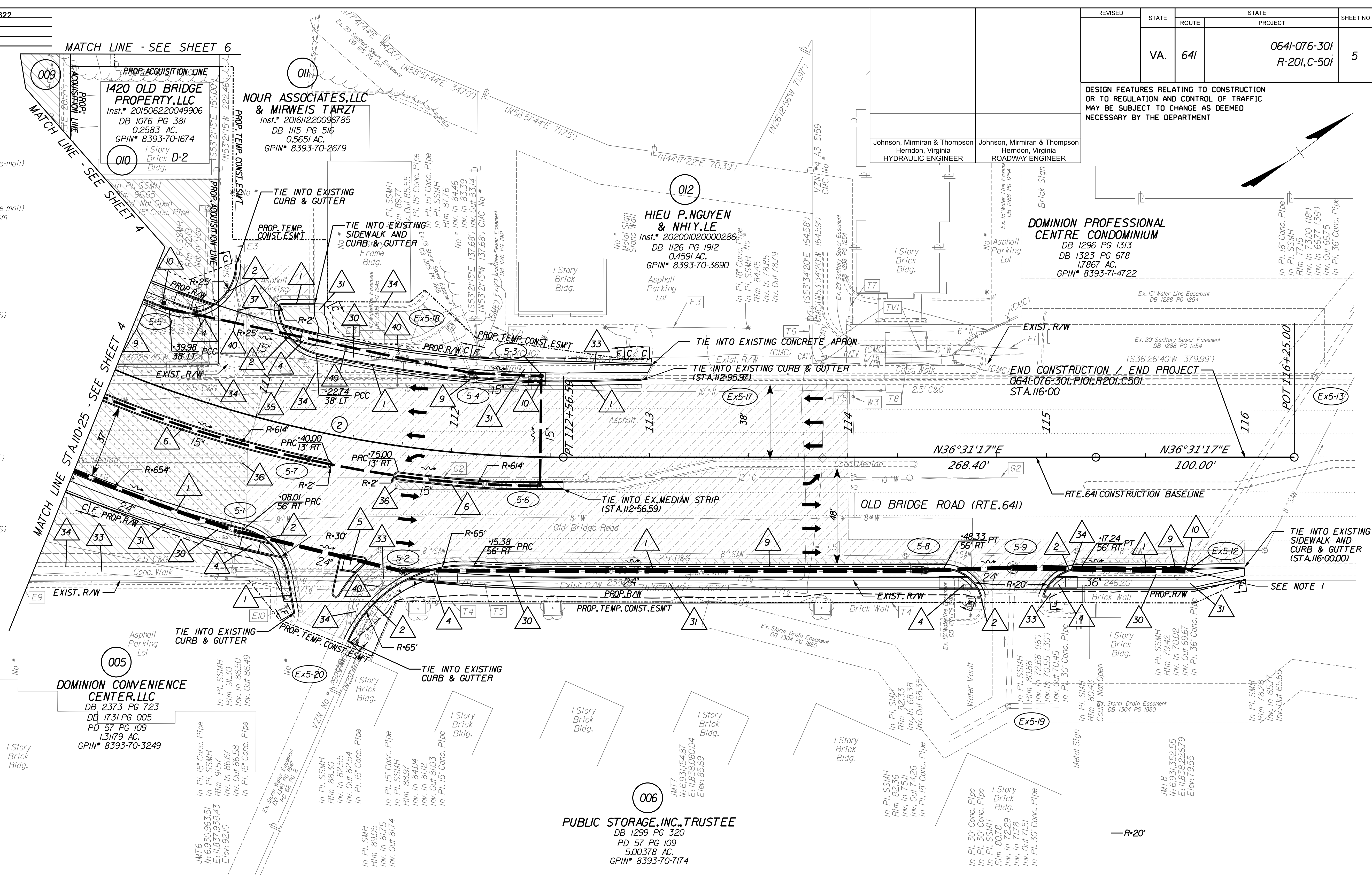
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
HYDRAULIC ENGINEER

Johnson, Mirmiran & Thompson
Herndon, Virginia
ROADWAY ENGINEER

DOMINION PROFESSIONAL CENTRE CONDOMINIUM
 DB 1296 PG 1313
 DB 1323 PG 678
 17867 AC.
 GPIN* 8393-71-4722

- Utility Owners**
- Cable Television:**
Comcast (CMC)
5401 Staples Mill Road
Richmond, Virginia 23228
Contact: Melvin Yerby
Telephone: 804-221-8492
E-mail: melvin.yerby@cable-comcast.com
- Cox Communications (COX)**
(Automated request/delivery of records via e-mail)
E-mail: natlconst@trafficmgmtteam@cox.com
- Electric:**
Dominion Energy (DOM)
(Automated request/delivery of records via e-mail)
E-mail: facilitylocate.request@dominionenergy.com
- Gas:**
Washington Gas (WGL)
6801 Industrial Road
Springfield, Virginia 22151
Contact: Juan Arches, Jr.
Telephone: 703-750-4785
E-mail: jarches@washgas.com
- Sewer:**
Prince William County Service Authority (PWS)
4 County Complex Court
Woodbridge, Virginia 22192
Contact: Edward Kovalchuk
Telephone: 703-335-7944
E-mail: ekovalch@pwsca.org
- Telephone:**
Verizon South, Inc. (VZN)
9401 Peabody Street
Manassas, Virginia 20110
Contact: Joe Zych
Telephone: 540-903-4188
E-mail: joezych@msn.com
- Traffic Control:**
Virginia Department of Transportation (VDOT)
8010 Mason King Court
Fairfax, Virginia 20109
Contact: Clifford Merrick
Telephone: 703-334-0366
E-mail: clifford.merrick@vdot.virginia.gov
- Water:**
Prince William County Service Authority (PWS)
4 County Complex Court
Woodbridge, Virginia 22192
Contact: Edward Kovalchuk
Telephone: 703-335-7944
E-mail: ekovalch@pwsca.org



② PI = 110+18.07
 DELTA = 48°43'08.37" (LT)
 D = 09332.57'
 L = 271.66'
 R = 510.18'
 PC = 107+46.41
 PT = 112+56.59
 e = 2.02%
 v = 40 MPH

LEGEND

- PROPOSED PAVEMENT RESURFACING / BUILDUP
- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED DEMOLITION OF PAVEMENT

NOTES:

1) EXISTING MANHOLE TOP TO REMAIN WITHIN PROPOSED BUFFER.
 2) FOR EXISTING PIPES AND STRUCTURES TO BE ABANDONED IN PLACE OR REMOVED, PLEASE SEE TRAFFIC CONTROL SHEETS 1H(5A), 1H(9A), 1H(13A) AND 1H(17A).

- | | | |
|------------------------------|--------------------------|---------------------------------|
| ① ST'D CG-6 REQ'D | ⑨ ST'D UD-4 REQ'D | ③④ REMOVE EX. CURB & GUTTER |
| ② ST'D RADIAL CG-6 REQ'D | ⑩ ST'D OUTLET PIPE REQ'D | ③⑤ REMOVE ENTRANCE GUTTER |
| ④ ST'D CG-12, TYPE B REQ'D | ③① 4' BUFFER | ③⑥ REMOVE EX. MEDIAN |
| ⑤ ST'D CG-12, TYPE RI2 REQ'D | ③② 5' CONCRETE SIDEWALK | ③⑦ REMOVE & REPLACE EX. BOLLARD |
| ⑥ ST'D MS-1 REQ'D | ③③ REMOVE EX. SIDEWALK | ④① TO BE RELOCATED BY OTHERS |

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

ROUTE 641 PROFILE 5A
 E&S PLANS 5B(1) - 5B(2)
 DRAIN DESCR. 2B(1) - 2B(2)

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 5
--------------------	-------------------------	----------------

PROJECT MANAGER _SHERRY_DJOUHARIAN_(703)792-6822-----
 SURVEYED BY, DATE _JMT,_SEPTEMBER_2020-----
 DESIGN BY _JMT_(703)464-7369-----
 SUBSURFACE UTILITY BY, DATE _JMT,_SEPTEMBER_2020-----

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201,C-501	5A

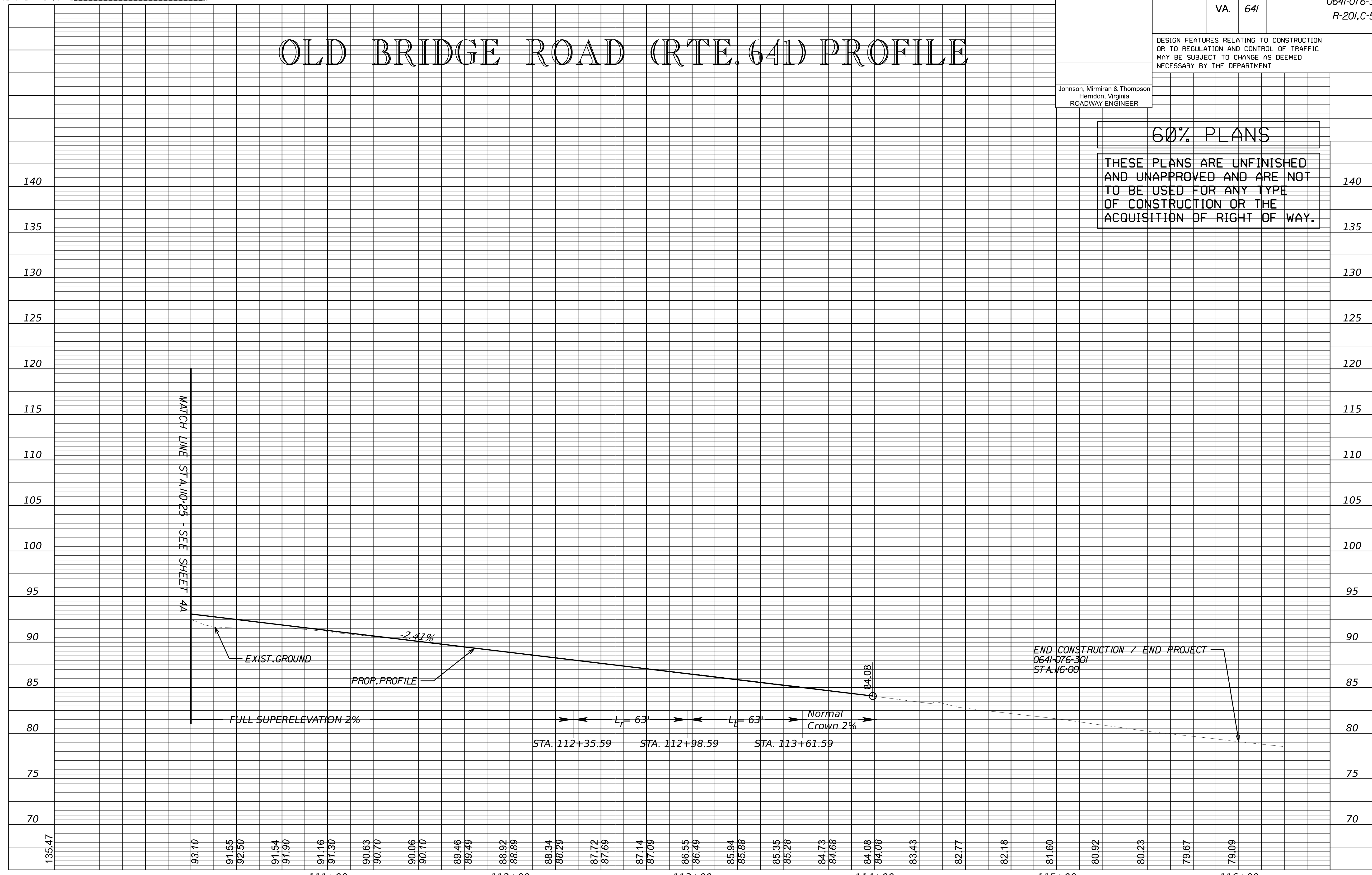
OLD BRIDGE ROAD (RTE. 641) PROFILE

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

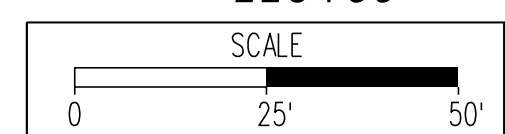
Johnson, Mirmiran & Thompson
Herndon, Virginia
ROADWAY ENGINEER

60% PLANS

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135.47	01.86	91.55	92.50	91.54	97.90	91.16	97.30	90.63	90.70	90.06	90.70	89.46	89.79	88.92	88.89	88.34	88.29	87.72	87.69	87.14	87.09	86.55	86.49	85.94	85.88	85.35	85.28	84.73	84.68	84.08	84.08	83.43	82.77	82.18	81.60	80.92	80.23	79.67	79.09					



PROJECT
0641-076-301

SHEET NO.
5A

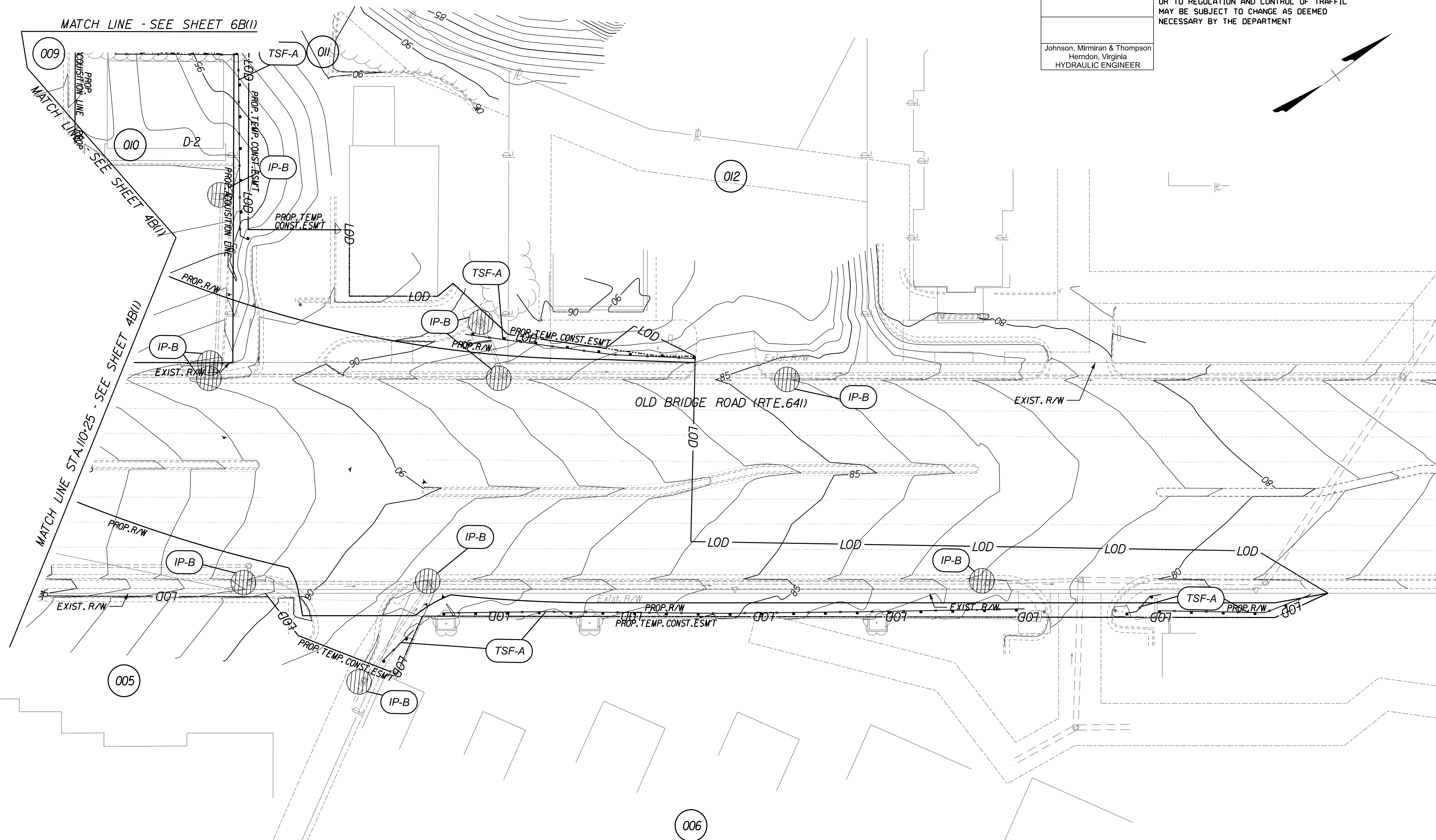
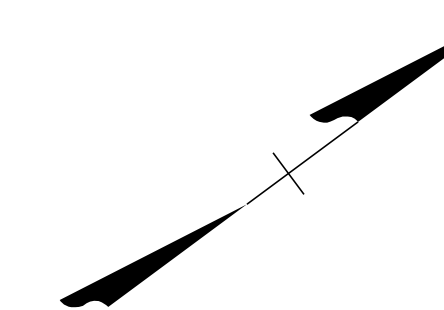
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

EROSION & SEDIMENT CONTROL PLAN (PHASE 1)

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201,C-501	5B(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
HYDRAULIC ENGINEER



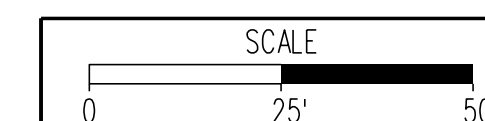
LEGEND

- LOD LIMITS OF DISTURBANCE
- SF SILT FENCE
- DD DIVERSION DIKE
- IP STORM DRAIN INLET PROTECTION
- CIP CULVERT INLET PROTECTION

Denotes Construction Limits in Cuts

60% PLANS

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PROJECT 0641-076-301
SHEET NO. 5B(1)

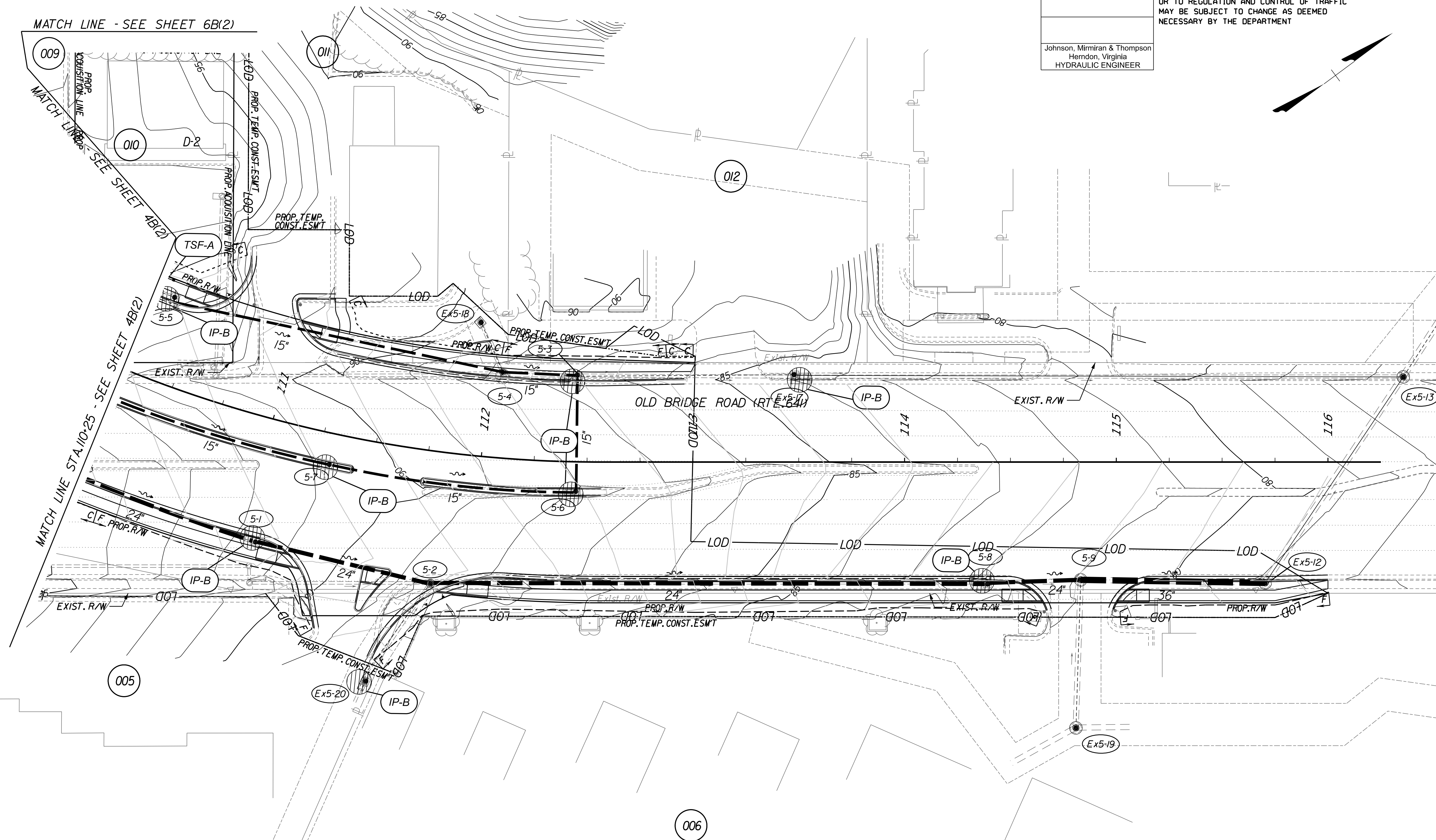
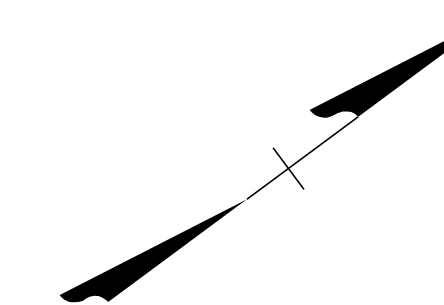
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

EROSION & SEDIMENT CONTROL PLAN (PHASE 2)

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201,C-501	5B(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
HYDRAULIC ENGINEER



LEGEND

- LOD LIMITS OF DISTURBANCE
- SF SILT FENCE
- DD DIVERSION DIKE
- IP STORM DRAIN INLET PROTECTION
- CIP CULVERT INLET PROTECTION

Denotes Construction Limits in Cuts

60% PLANS

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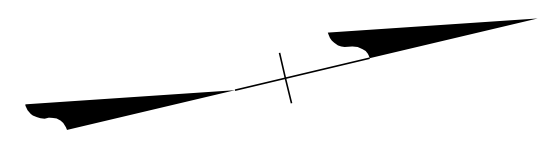


PROJECT 0641-076-301
SHEET NO. 5B(2)

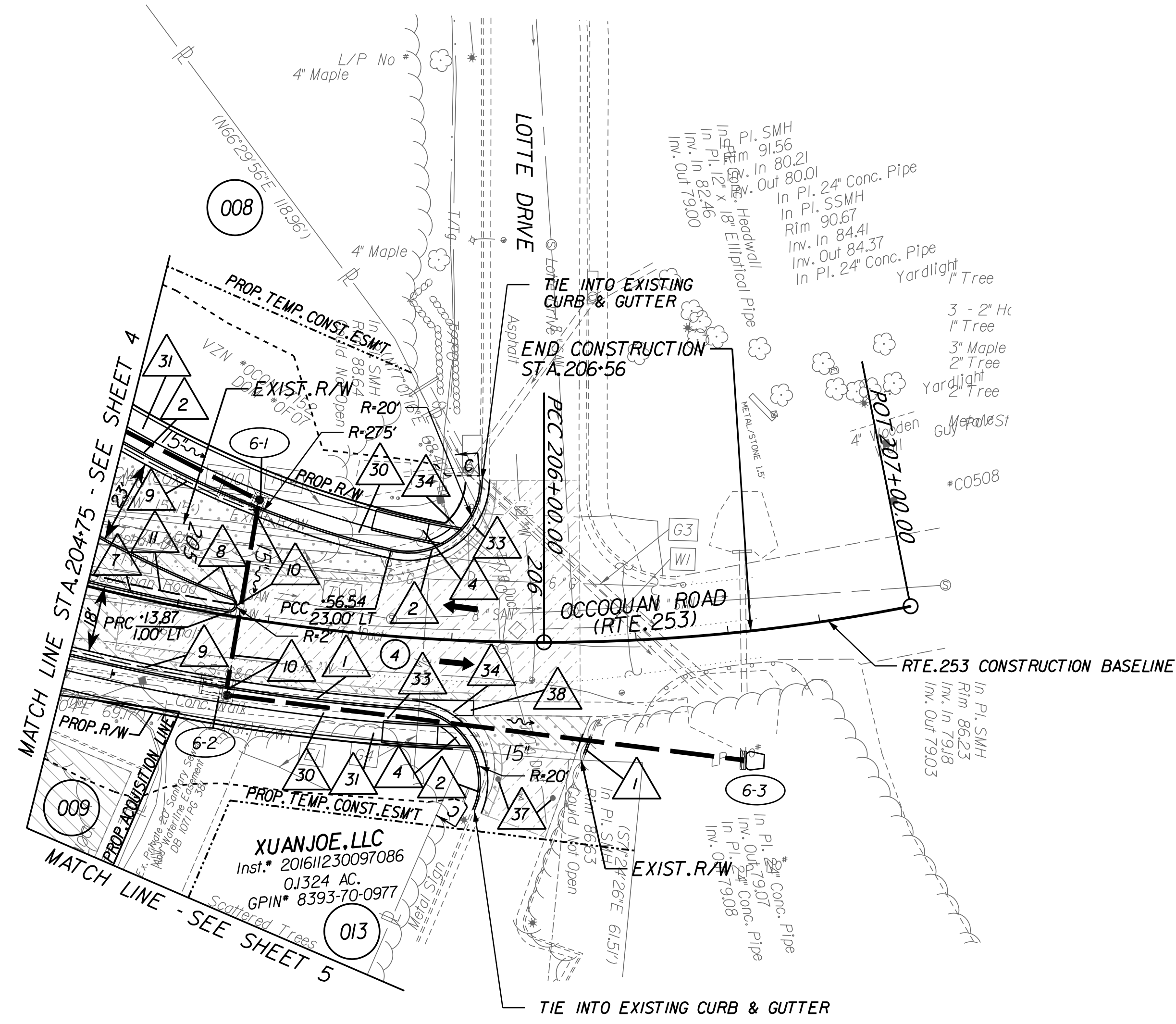
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

REVISED	STATE	STATE		SHEET NO.
	VA.	ROUTE 641	PROJECT 0641-076-301 R-201,C-501	
Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER		Johnson, Mirmiran & Thompson Herndon, Virginia ROADWAY ENGINEER		

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



- Utility Owners**
- Cable Television:**
Comcast (CMC)
5401 Staples Mill Road
Richmond, Virginia 23228
Contact: Melvin Yerby
Telephone: 804-221-8492
E-mail: melvin_yerby@cable-comcast.com
- Cox Communications (COX)**
(Automated request/delivery of records via e-mail)
E-mail: natlconsttraffictmgmtteam@cox.com
- Electric:**
Dominion Energy (DOM)
(Automated request/delivery of records via e-mail)
E-mail: facility.locate.request@dominionelectric.com
- Gas:**
Washington Gas (WGL)
6801 Industrial Road
Springfield, Virginia 22151
Contact: Juan Arches, Jr.
Telephone: 703-750-4785
E-mail: jarches@washgas.com
- Sewer:**
Prince William County Service Authority (PWS)
4 County Complex Court
Woodbridge, Virginia 22192
Contact: Edward Kovalchuk
Telephone: 703-335-7944
E-mail: ekovaluch@pwcsa.org
- Telephone:**
Verizon South, Inc. (VZN)
9401 Peabody Street
Manassas, Virginia 20110
Contact: Joe Zych
Telephone: 540-903-4188
E-mail: joezychemsn.com
- Traffic Control:**
Virginia Department of Transportation (VDOT)
8010 Mason King Court
Fairfax, Virginia 22019
Contact: Clifford Merrick
Telephone: 703-334-0366
E-mail: clifford.merrick@vdot.virginia.gov
- Water:**
Prince William County Service Authority (PWS)
4 County Complex Court
Woodbridge, Virginia 22192
Contact: Edward Kovalchuk
Telephone: 703-335-7944
E-mail: ekovaluch@pwcsa.org



LEGEND

- PROPOSED PAVEMENT RESURFACING / BUILDUP
- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED DEMOLITION OF PAVEMENT
- Denotes Construction Limits In Cuts

- 1 ST'D CG-6 REQ'D
 - 2 ST'D RADIAL CG-6 REQ'D
 - 4 ST'D CG-12, TYPE B REQ'D
 - 7 ST'D MC-1 REQ'D
 - 8 ST'D RADIAL MC-1 REQ'D
 - 9 ST'D UD-4 REQ'D
 - 10 ST'D OUTLET PIPE REQ'D
 - 11 ST'D UD-2 REQ'D
 - 30 4' BUFFER
 - 31 5' CONCRETE SIDEWALK
 - 33 REMOVE EX. SIDEWALK
 - 34 REMOVE EX. CURB & GUTTER
 - 37 REMOVE & REPLACE EX. BOLLARD
 - 38 REMOVE & REPLACE ENTRANCE GUTTER IN KIND
- NOTES:**
IJ FOR EXISTING PIPES AND STRUCTURES TO BE ABANDONED IN PLACE OR REMOVED, PLEASE SEE TRAFFIC CONTROL SHEETS 1H(16A), 1H(10A), 1H(14A) AND 1H(18A).

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)
ROUTE 253 PROFILE 6A
E&S PLANS 6B(1) - 6B(2)
DRAIN DESCR. 2B(1) - 2B(2)

60% PLANS
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 6
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PROJECT MANAGER _SHERRY_DJOUHARIAN_(703)792-6822-----
 SURVEYED BY, DATE _JMT,_SEPTEMBER_2020-----
 DESIGN BY _JMT_(703)464-7369-----
 SUBSURFACE UTILITY BY, DATE _JMT,_SEPTEMBER_2020-----

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201,C-501	6A

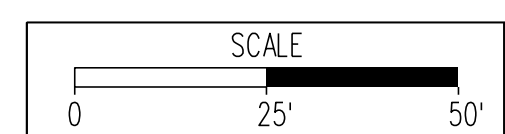
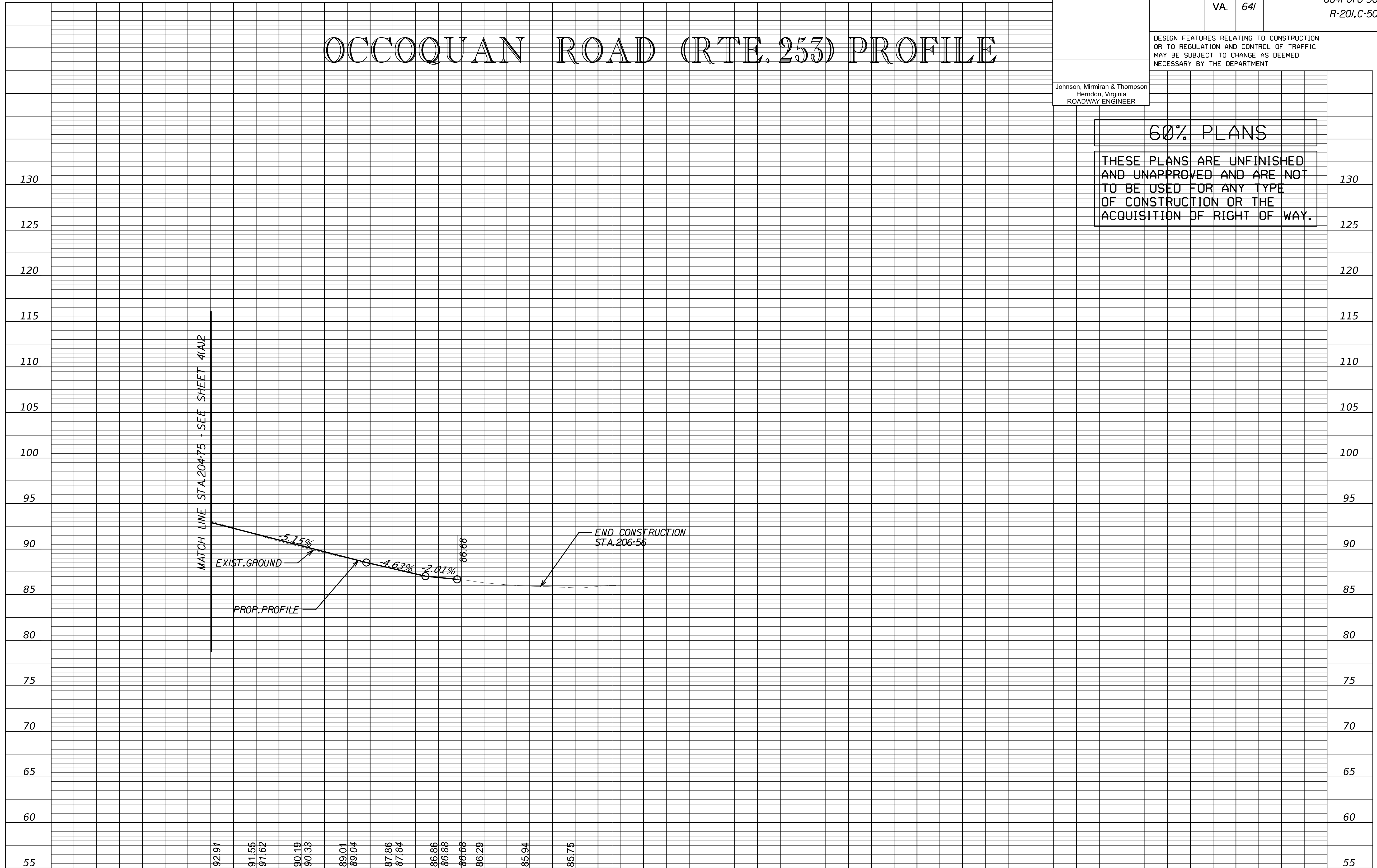
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
ROADWAY ENGINEER

60% PLANS

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OCCOQUAN ROAD (RTE. 253) PROFILE



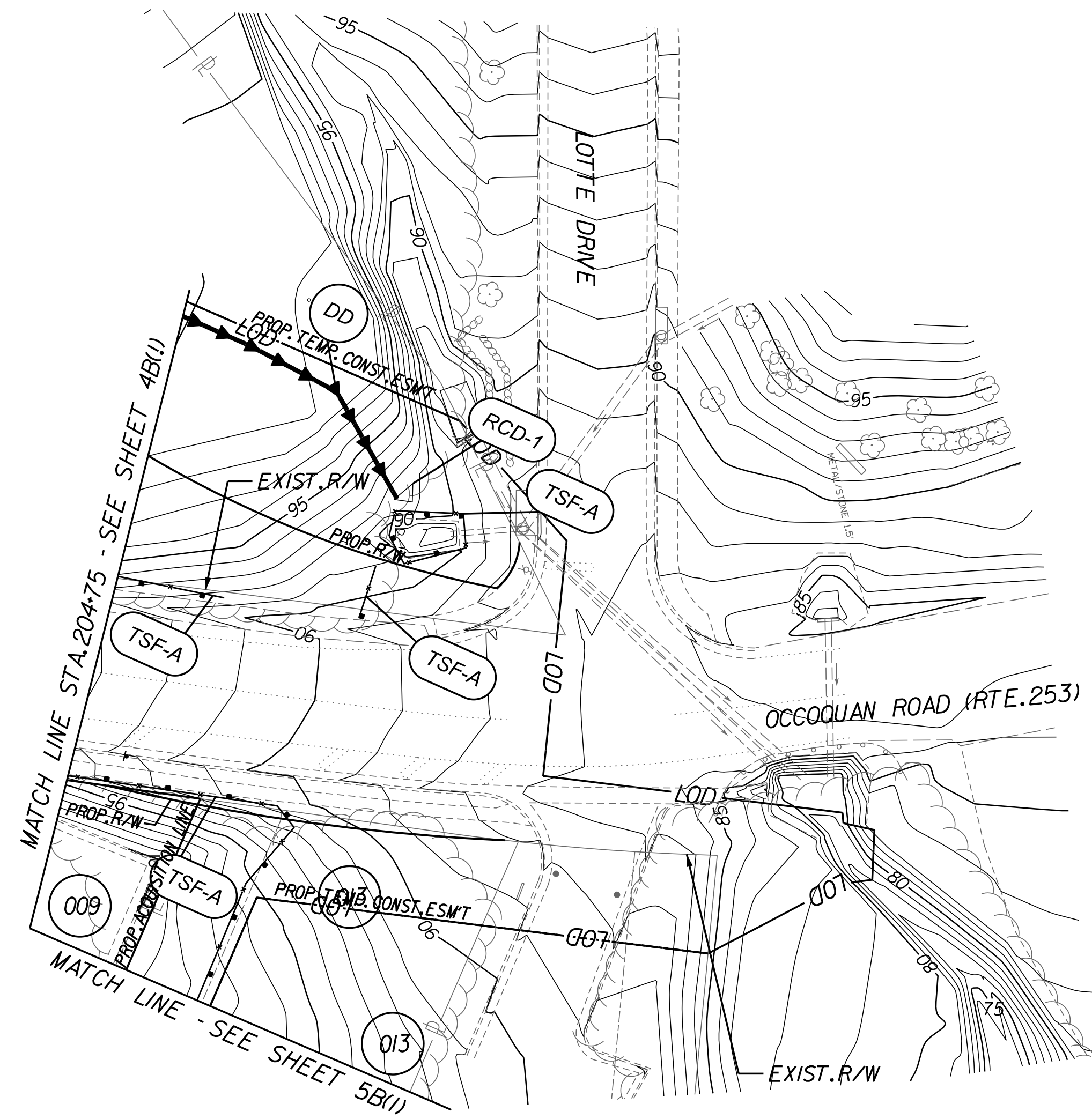
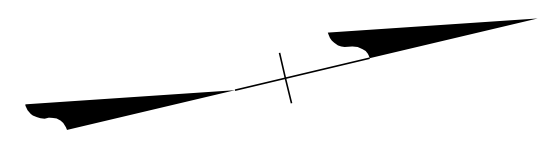
PROJECT
0641-076-301

SHEET NO.
6A

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	6B(1)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER				

EROSION & SEDIMENT CONTROL PLAN (PHASE 1)



LEGEND

- (LOD) LIMITS OF DISTURBANCE
- (SF) SILT FENCE
- (DD) DIVERSION DIKE
- (IP) STORM DRAIN INLET PROTECTION
- (CIP) CULVERT INLET PROTECTION

Dashed Construction Limits In Cuts

60% PLANS

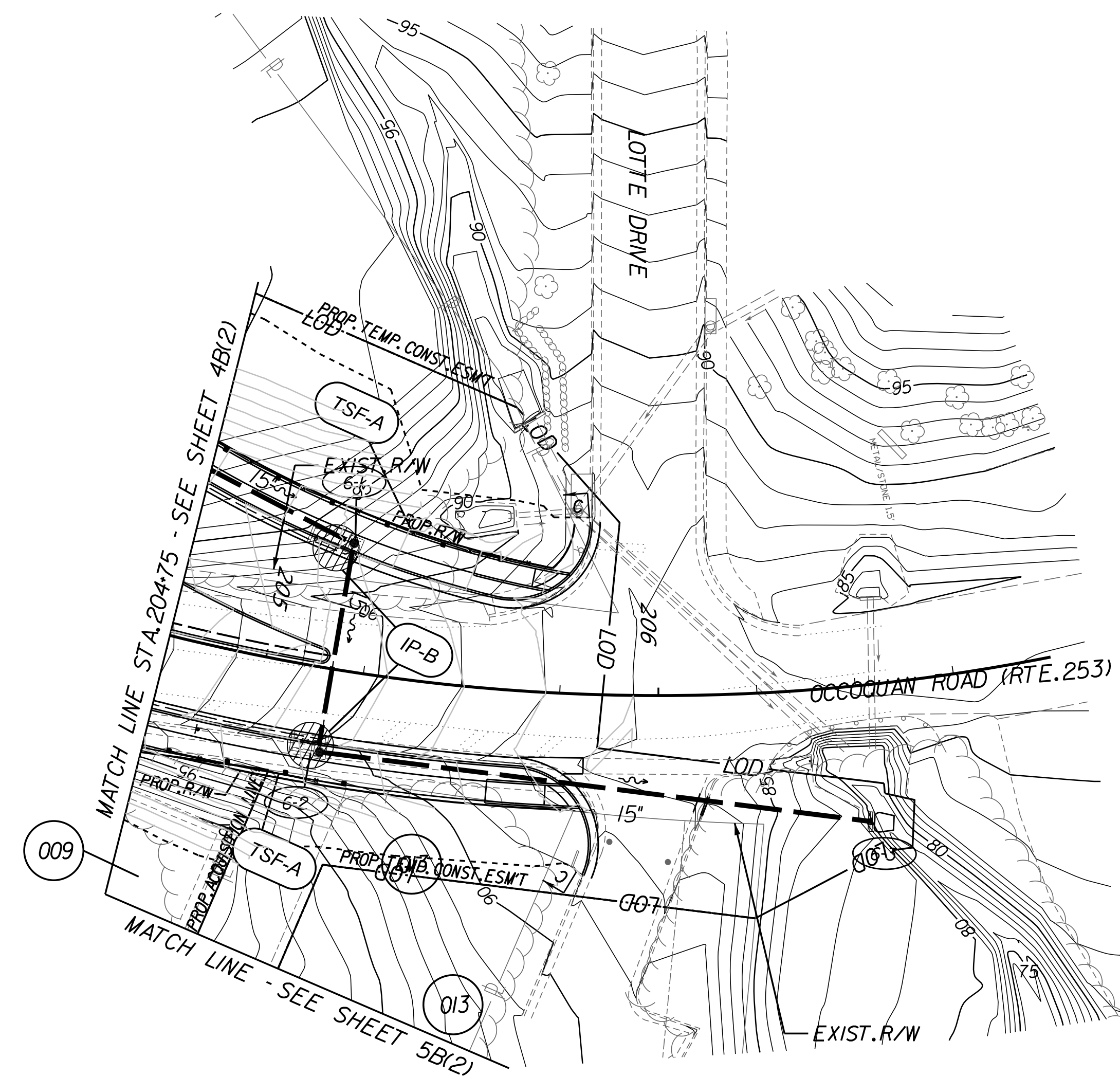
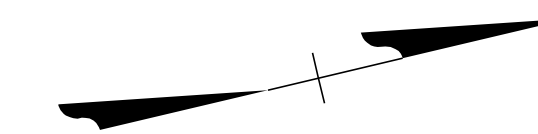
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 6B(1)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

REVISED	STATE		PROJECT	SHEET NO.
	STATE	ROUTE		
	VA.	641	0641-076-301 R-201, C-501	6B(2)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER				

EROSION & SEDIMENT CONTROL PLAN (PHASE 2)



LEGEND

- (LOD) LIMITS OF DISTURBANCE
- (SF) SILT FENCE
- (DD) DIVERSION DIKE
- (IP) STORM DRAIN INLET PROTECTION
- (CIP) CULVERT INLET PROTECTION
- Dashed Construction Limits In Cuts

60% PLANS

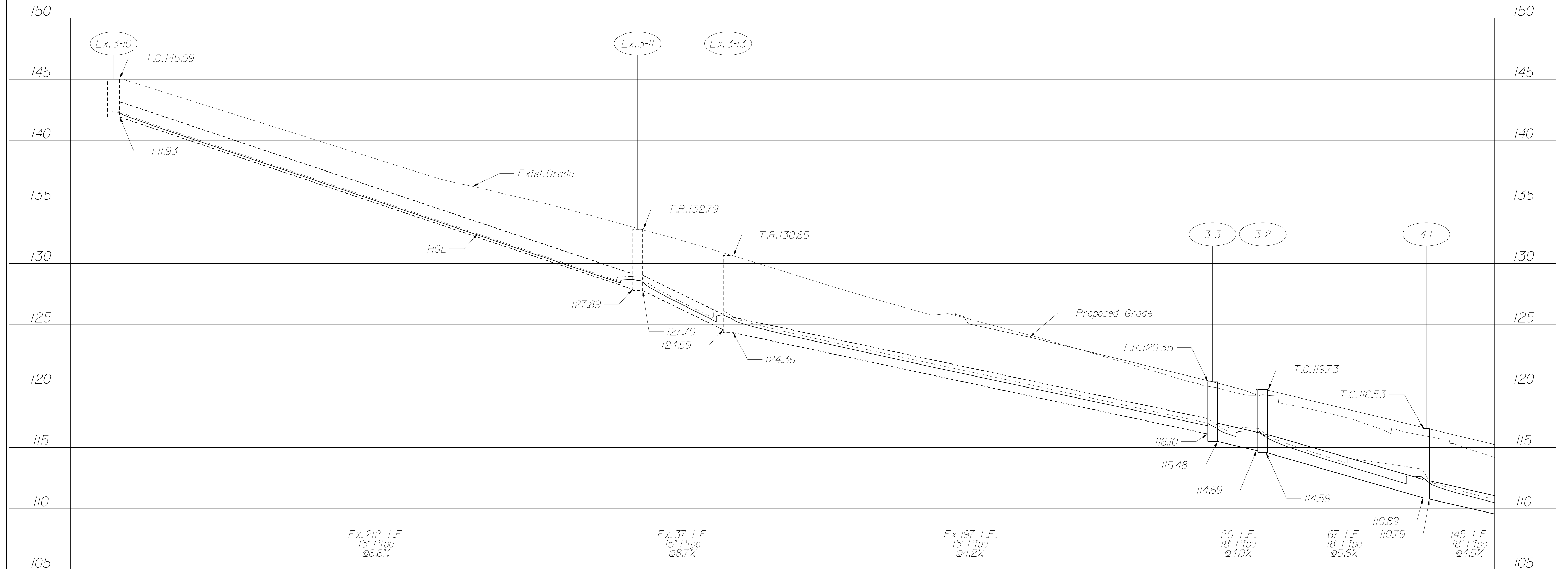
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SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 6B(2)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER				

STORM SEWER PROFILES



60% PLANS

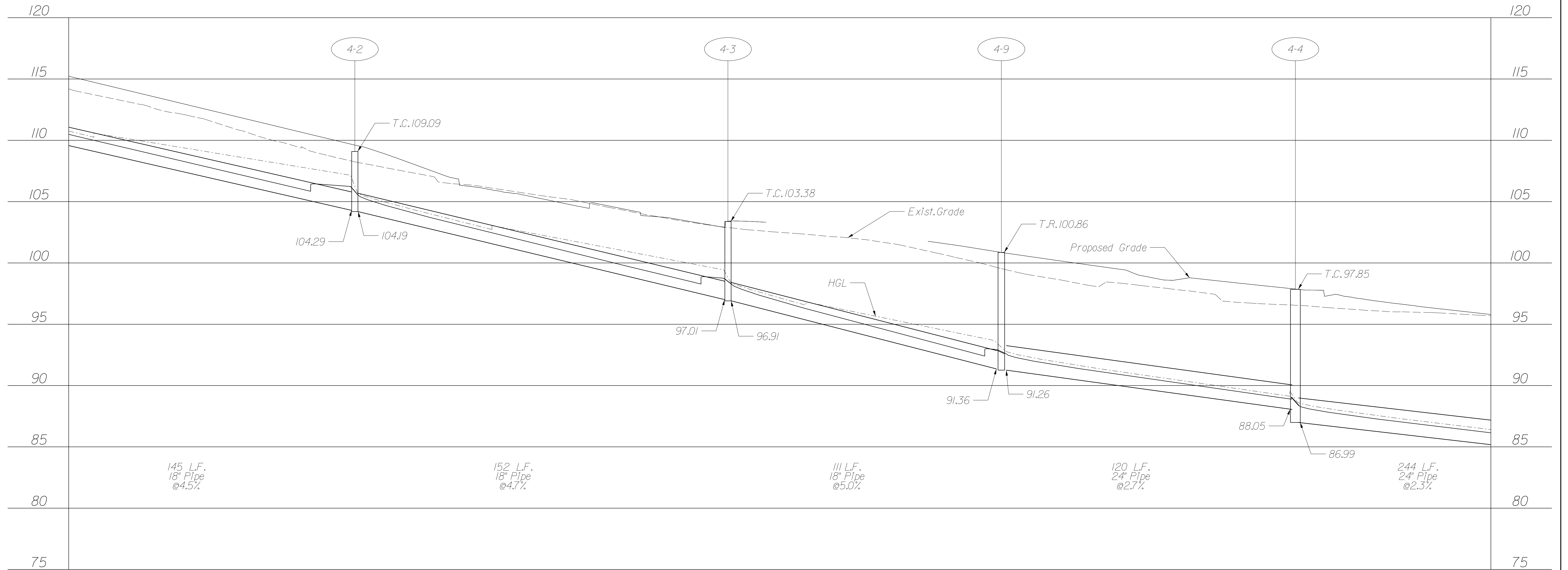
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PROJECT	SHEET NO.
0641-076-301	7(1)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

STORM SEWER PROFILES

REVISED	STATE	STATE		SHEET NO.
	VA.	ROUTE 641	PROJECT 0641-076-301 R-201, C-501	
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Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER				



60% PLANS

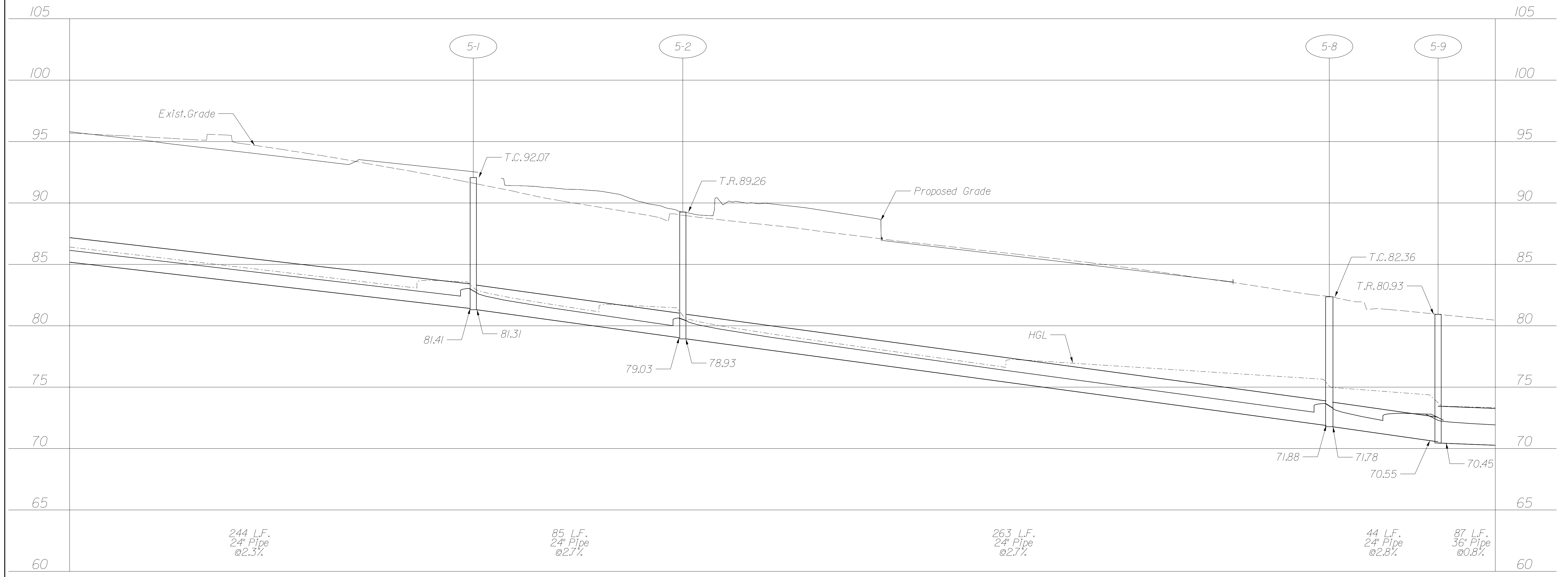
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PROJECT 0641-076-301	SHEET NO. 7(2)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

STORM SEWER PROFILES

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO. 7(3)
	VA.	641		0641-076-301 R-201, C-501	
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Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER					



60% PLANS

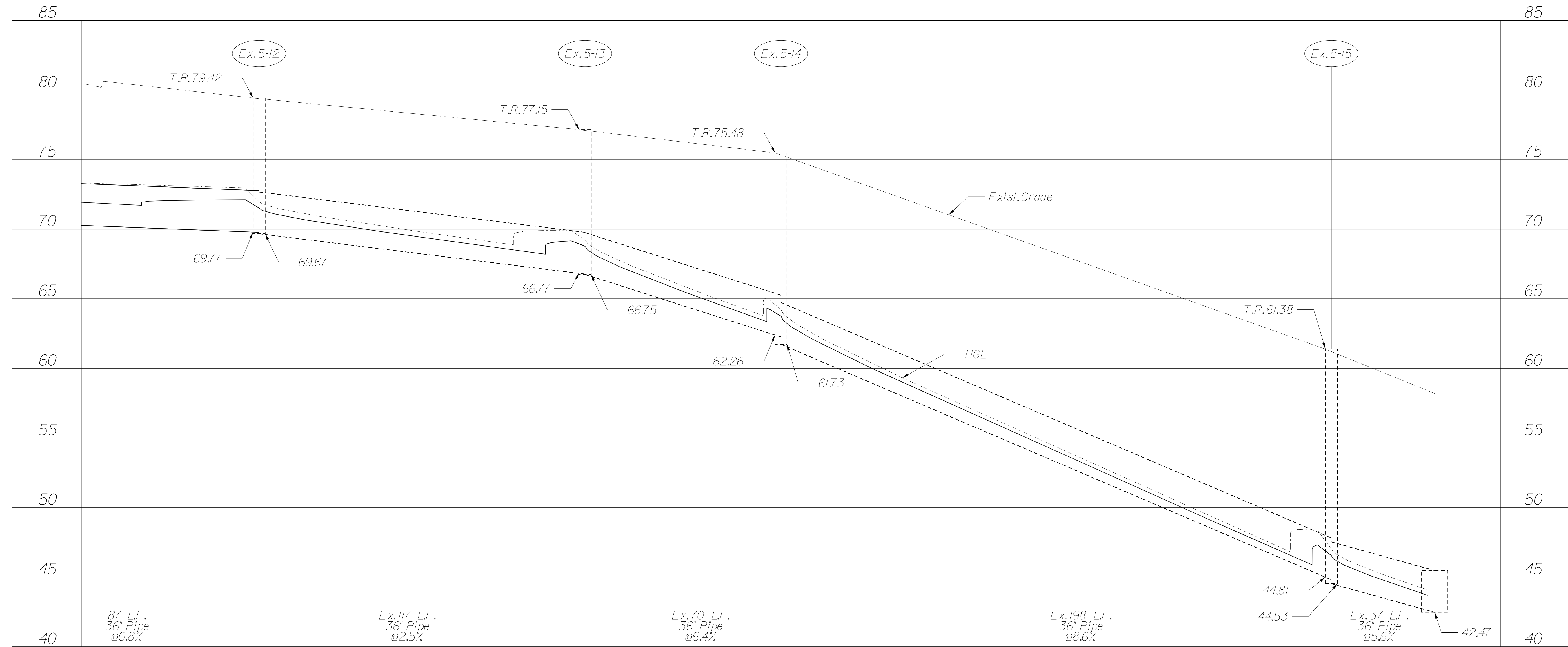
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PROJECT	SHEET NO.
0641-076-301	7(3)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
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 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

STORM SEWER PROFILES

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO. 7(4)
	VA.	641		0641-076-301 R-201, C-501	
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT					
Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER					



60% PLANS

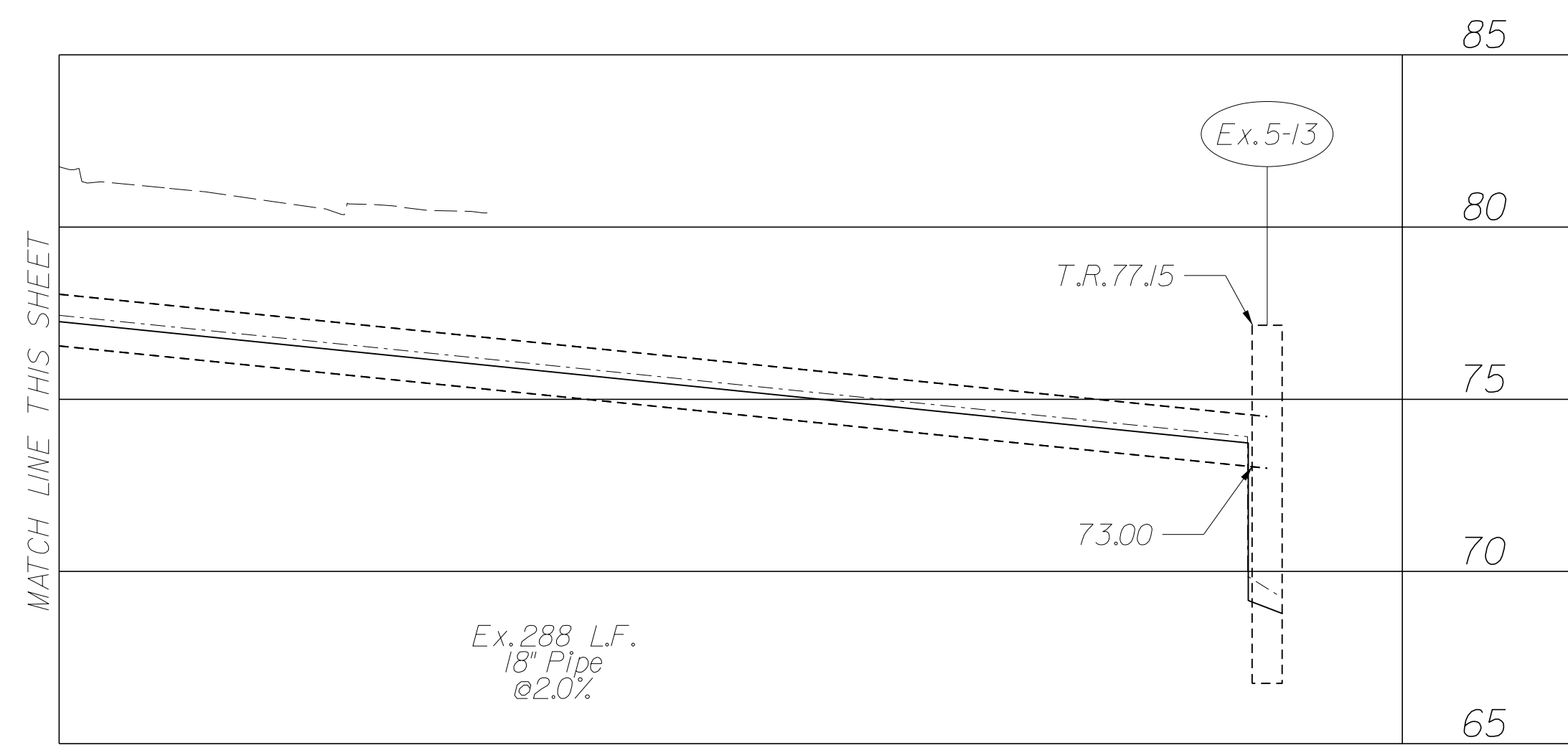
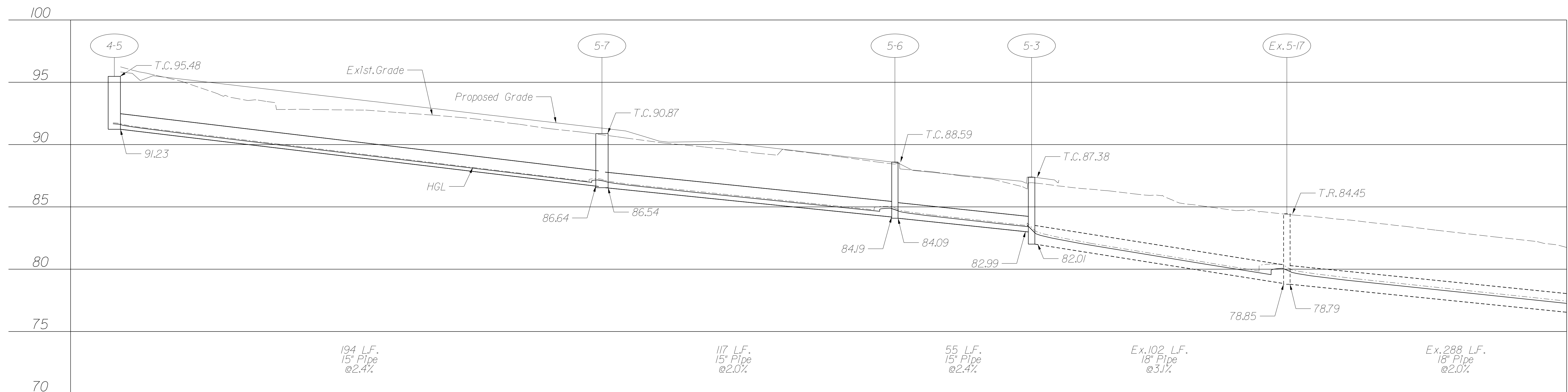
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PROJECT 0641-076-301	SHEET NO. 7(4)
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REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201, C-501	7(5)
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Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER					

STORM SEWER PROFILES



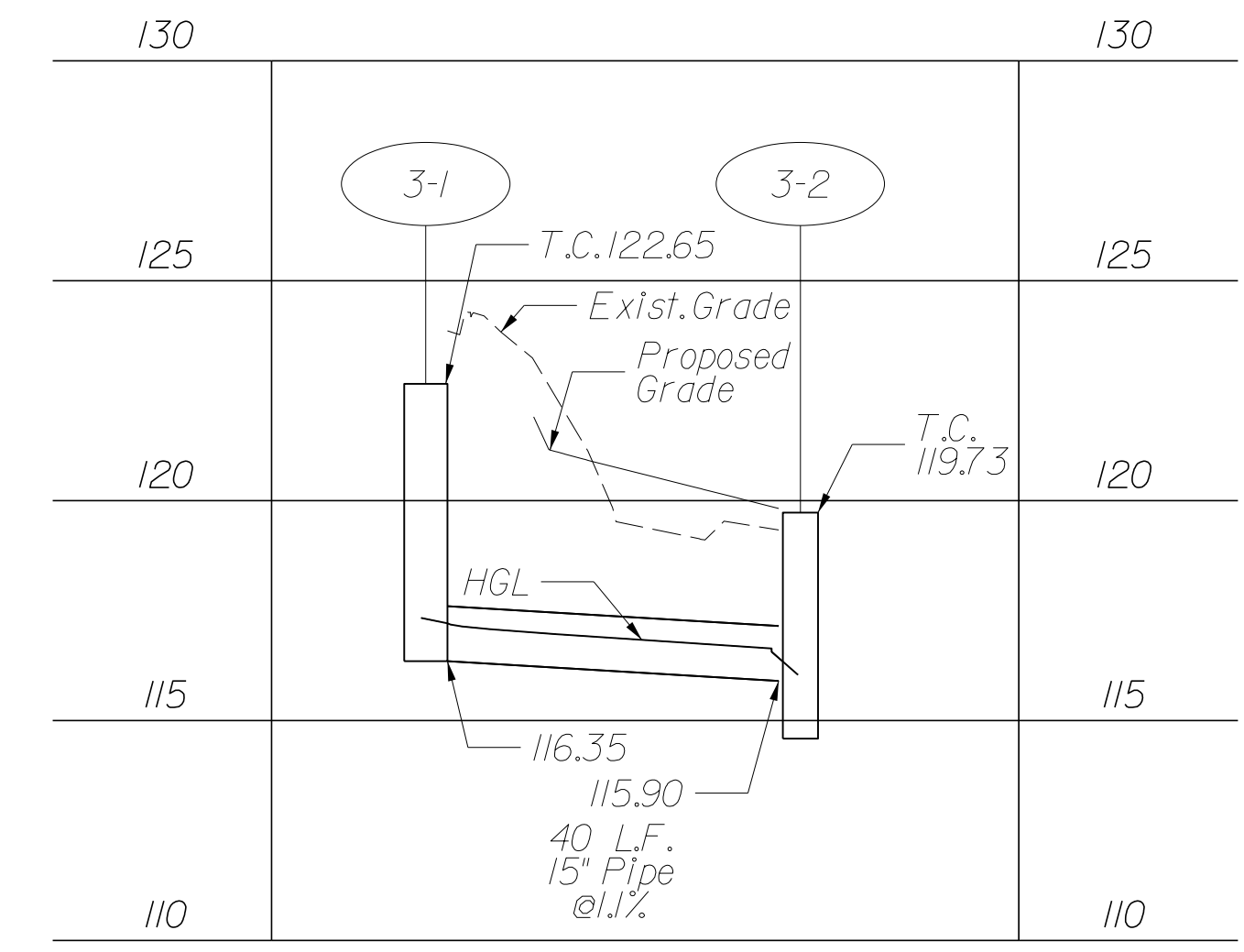
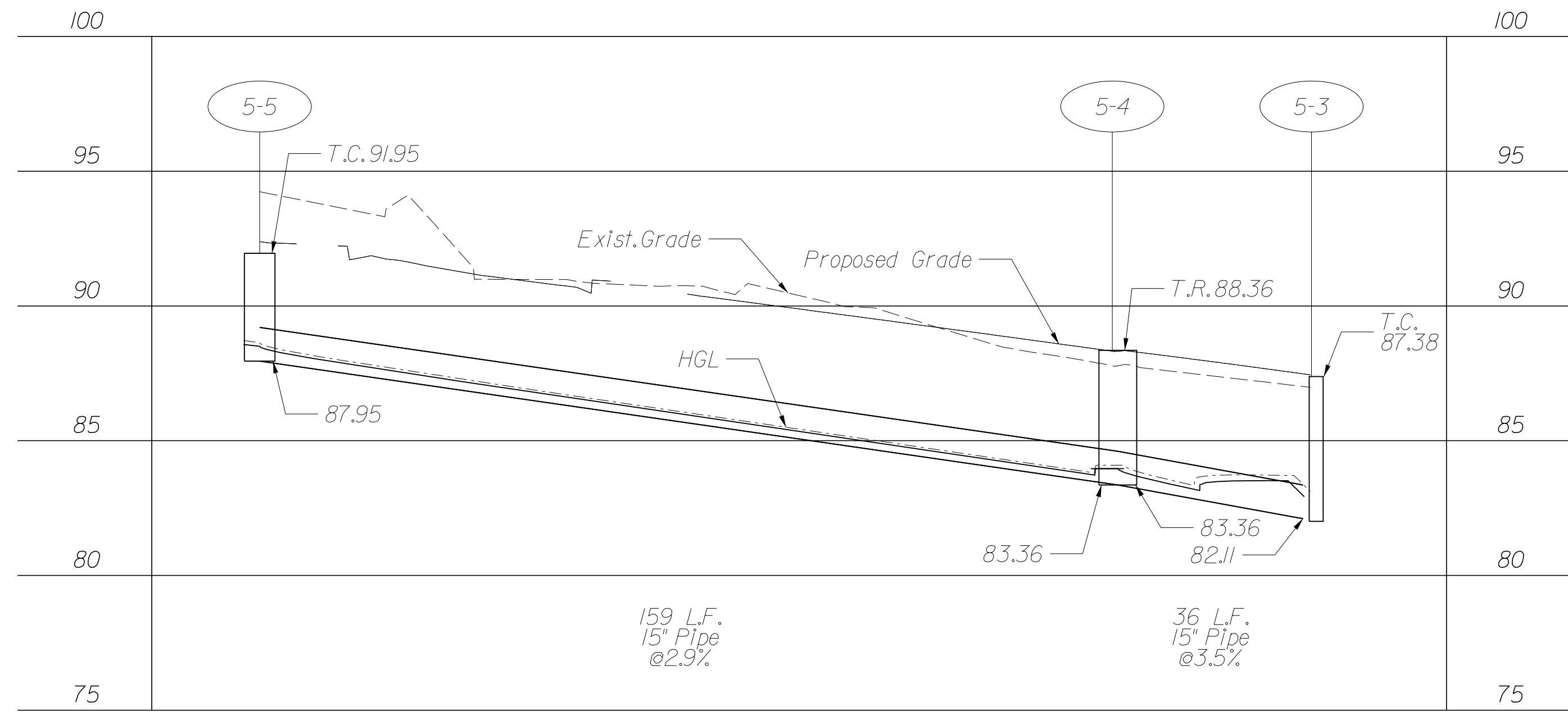
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
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STORM SEWER PROFILES

REVISED	STATE	STATE		SHEET NO.
	VA.	ROUTE 641	PROJECT 0641-076-301 R-201, C-501	
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Johnson, Mirmiran & Thompson Herndon, Virginia HYDRAULIC ENGINEER				



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PROJECT 0641-076-301	SHEET NO. 7(6)
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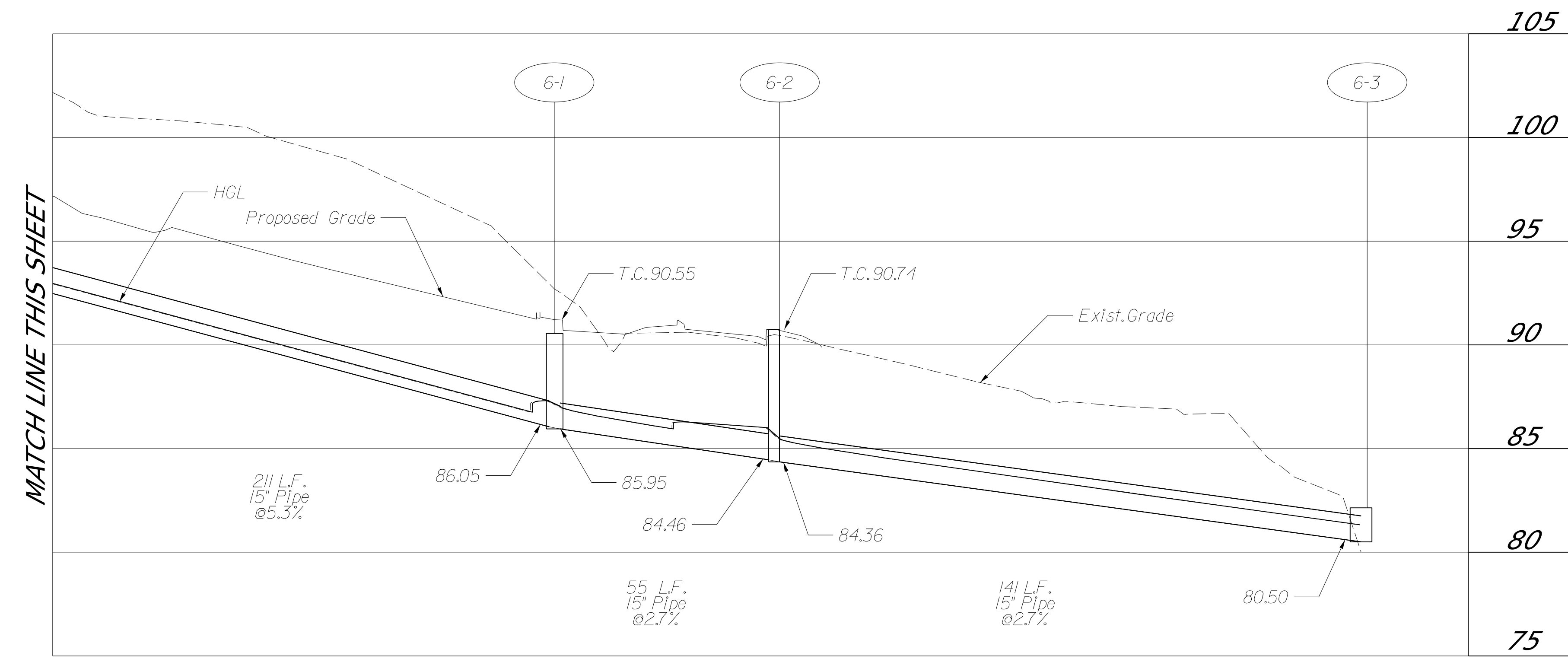
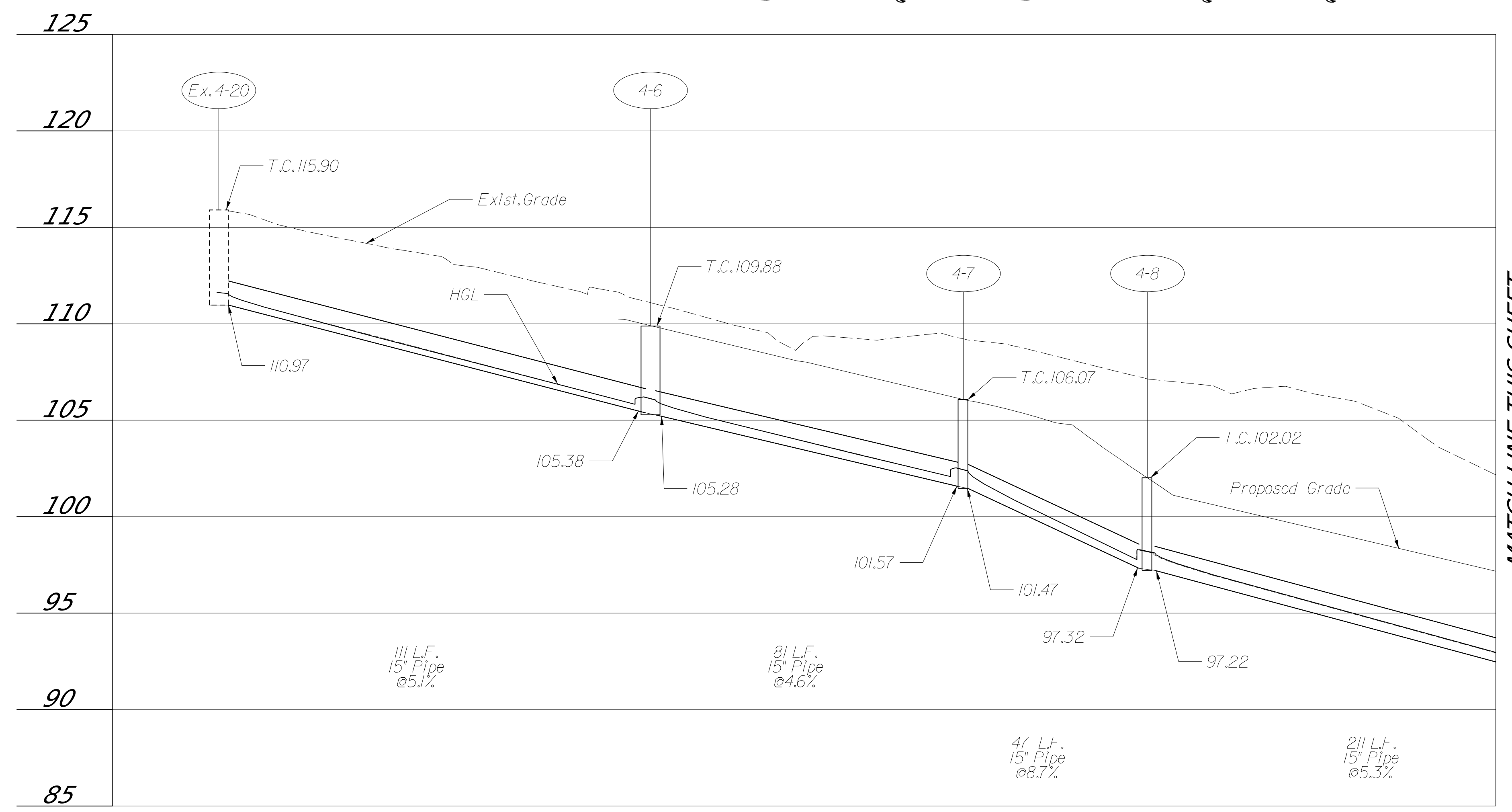
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
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STORM SEWER PROFILES

REVISED	STATE		PROJECT		SHEET NO.
	VA.	ROUTE 641	0641-076-301	R-201, C-501	
					7(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
HYDRAULIC ENGINEER



60% PLANS

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PROJECT	SHEET NO.
0641-076-301	7(7)

PROJECT MANAGER _SHERRY_DJOUHARIAN_(703)792-6822-----
 SURVEYED BY, DATE _JMT,_SEPTEMBER_2020-----
 DESIGN BY _JMT_(703)464-7369-----
 SUBSURFACE UTILITY BY, DATE _JMT,_SEPTEMBER_2020-----

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201,C-501	8

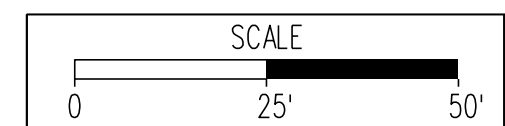
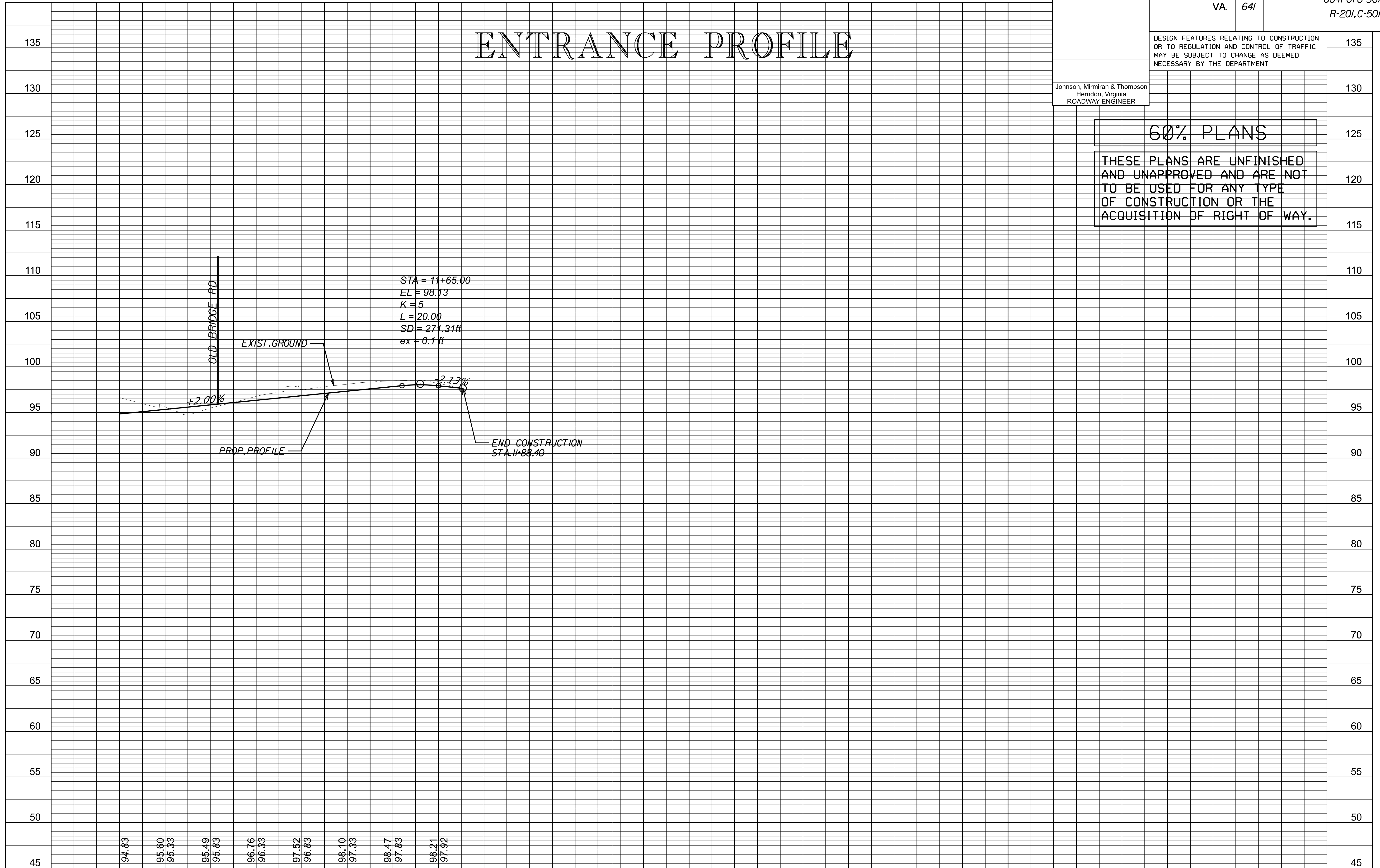
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
ROADWAY ENGINEER

60% PLANS

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ENTRANCE PROFILE



PROJECT
0641-076-301

SHEET NO.
8

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

TRAFFIC SIGNAL

INDEX OF SHEETS, GENERAL NOTES & LEGEND

REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	64I	064I-076-30I R-20I,C-50I	9(1)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER				

GENERAL NOTES

- THE FOLLOWING ITEMS SHALL BE IN ACCORDANCE WITH STANDARDS LISTED BELOW:
 - SIGNAL POLE FOUNDATION PF-8
 - CONDUIT INSTALLATION ECI-1 OR BORED
 - SIGNAL HEAD HANGERS SM-3
 - SIGN HANGER SMD-2
 - JUNCTION BOX JB-S2, JB-S3
 - CONTROLLER CABINET FOUNDATION CF-3
 - ELECTRICAL SERVICE SE-5
- TRAFFIC SIGNAL FOUNDATION DEPTHS AND ABOVE GROUND FOUNDATION PROJECTION/REVEAL (IF NEEDED) SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH PF-8 STANDARDS AFTER THE SIGNAL POLE SOIL TEST BORES ARE COMPLETED. SIGNAL POLES AND FOUNDATIONS SHALL BE IN ACCORDANCE WITH SPECIAL PROVISIONS INCLUDING MAXIMUM LOADING CONDITIONS. THE POLE SUPPLIER SHALL PROVIDE FOUNDATIONS DESIGNS AND SHOP DRAWINGS THAT ARE SIGNED SEALED BY A PROFESSIONAL ENGINEER. THE TOP OF ALL SIGNAL POLE FOUNDATIONS SHALL BE INSTALLED 4" ABOVE THE HIGHEST POINT OF THE ROADWAY PAVEMENT IN WHICH THE MAST IS EXTENDING OVER, TO ALLOW FOR REQUIRED SIGNAL HEAD TO PAVEMENTS DISTANCES PER THE MUTCD.
- SIGNAL POLE FOUNDATIONS MAY BE FIELD ADJUSTED WITHIN THE DESIGNATED CORNERS NO MORE THAN 2' IN ANY DIRECTION FROM THE PLAN LOCATIONS, PROVIDED THAT THE REVISED FOUNDATION LOCATIONS:
 - REMAIN OUT OF THE CLEAR ZONE AND PAVEMENT SECTIONS.
 - REMAIN WITHIN THE RIGHT OF WAY OR PROPOSED EASEMENT
 - DOES NOT CONFLICT WITH UTILITIES
 - DOES NOT LIMIT SIGHT DISTANCE
 - DOES NOT AFFECT DRAINAGE.
 - ALLOW THE SIGNAL HEADS TO BE ADJUSTED WITH THE SAME ALIGNMENT WITH THE DESIGNATED TRAVEL LANES AS SHOWN ON THE PLANS, AND IS IN ACCORDANCE WITH THE PF-8 CONCRETE FOUNDATION STANDARDS DETAIL REFERENCED TO THE INSTALLATION
- THE CONTRACTOR SHALL VERIFY MAST ARM LENGTHS AND SIGNAL HEAD LANE COVERAGE PRIOR TO THE INSTALLATION OF SIGNAL POLE FOUNDATIONS.
- ALL POLES SHALL BE FIELD STAKED BY THE CONTRACTOR AND INSPECTED BY THE ENGINEER AND CONTRACTOR PER SECTION 700 PRIOR TO INSTALLATION OF FOUNDATIONS

- TRAFFIC SIGNAL HEADS AND MAST ARM SIGNS MAY BE FIELD ADJUSTED NO MORE THAN 2' IN EITHER DIRECTION ON THE MAST ARMS, PROVIDED THEY REMAIN WITHIN THE DESIGNATED TRAVEL LANE ASSIGNMENTS. IF FURTHER ADJUSTMENT IS NEEDED, THE PROJECT INSPECTOR SHALL CONTACT (TBD) AT (XXX) XXX-XXXX.
- ALL UNUSED WIRES IN THE SIGNAL HEADS SHALL BE CAPPED INDIVIDUALLY USING CRIMP TYPE CAPS.
- THE CONTROLLER CABINET & CF-3 FOUNDATION MAY BE RELOCATED WITHIN THE DESIGNATED CORNER PROVIDED IT REMAINS WITHIN THE RIGHT OF WAY OR PROPOSED EASEMENT, OUTSIDE OF THE CLEAR ZONE AND PAVEMENTS SECTIONS, DOES NOT CONFLICT WITH UTILITIES, DOES NOT LIMIT SIGHT DISTANCE, AND IS IN ACCORDANCE WITH THE ELECTRIC SERVICE STANDARD DETAIL REFERENCED TO THE INSTALLATION.
- JUNCTION BOXES MAY BE RELOCATED IN THE FIELD AS NECESSARY PROVIDED THEY REMAIN WITHIN THE RIGHT OF WAY, DO NOT CONFLICT WITH UTILITIES AND REMAIN OUTSIDE THE PAVEMENT SECTION.
- THE PLACEMENT OF 6' X 40' LOOPS SHOWN ON THE PLANS SHALL BE 5' IN FRONT OF STOP BARS AND ALL 6' X 6' LOOPS SHALL BE INSTALLED AT THE DISTANCES SPECIFIED ON THE PLANS.
- THE ELECTRIC SERVICE CONNECTION AND SERVICE LINE LOCATIONS MAY BE FIELD ADJUSTED AS NECESSARY PROVIDED ALL EQUIPMENT REMAINS WITHIN THE RIGHT OF WAY OR PROPOSED EASEMENT, DOES NOT CONFLICT WITH UTILITIES AND REMAINS OUTSIDE THE PAVEMENT SECTIONS.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AND MAY NOT BE COMPLETE. AT LEAST 72 HOURS PRIOR TO BEGINNING SIGNAL WORK, THE CONTRACTOR SHALL CONTACT "MISS UTILITY OF VIRGINIA" AT 1-800-552-7001 IN ORDER TO DETERMINE THE EXTENT, LOCATION, AND IDENTIFY ALL OF THE UTILITIES WITHIN THE WORK AREA. AT LEAST 4 FULL WORKING DAYS PRIOR TO BEGINNING SIGNAL WORK, THE CONTRACTOR SHALL CONTACT (TBD) AT (XXX) XXX-XXXX IN ORDER TO DETERMINE THE EXTENT AND LOCATION OF ALL UNDERGROUND SIGNAL EQUIPMENT OWNED BY VDOT WITH THE PROJECT LIMITS. IF THE CONTRACTOR PERCEIVES A CONFLICT BETWEEN UTILITIES AND THE PROPOSED TRAFFIC SIGNAL EQUIPMENT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE REVIEWED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING, AT THEIR OWN EXPENSE, ANY EXISTING UTILITIES, PAVEMENT, CONCRETE ITEMS, ETC. THAT ARE DAMAGED OR DISTURBED DURING CONSTRUCTION.

- CONDUIT SYSTEMS SHALL BE BONDED IN ACCORDANCE WITH SECTION 700 OF THE ROAD AND BRIDGE SPECIFICATIONS.
- PAVEMENT MARKINGS SHOWN ON THE SIGNAL PLANS ARE FOR REPRESENTATION ONLY. ACTUAL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE PAVEMENT MARKING PLANS.
- ALL EQUIPMENT IS TO BE INSTALLED WITHIN THE EXISTING OR PROPOSED R/W OR EASEMENT.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AND MAY NOT BE COMPLETE.
- THE CONTRACTOR WILL PROVIDE SIGNAL TIMINGS. THE CONTRACTOR SHALL CONTACT (TBD) AT (XXX)XXX-XXXX AT LEAST TWO WEEKS IN ADVANCE OF SIGNAL TIMING IMPLEMENTATION.
- THE CONTRACTOR SHALL COORDINATE ALL SIGNAL TIMINGS, INCLUDING RED AND YELLOW CLEARANCE INTERVALS WITH (TBD) AT (XXX) XXX-XXXX
- THE CONTRACTOR SHALL MAINTAIN SIGNAL COMMUNICATIONS AT ALL TIMES.
- IF THE CONTRACTOR PERCEIVES A CONFLICT BETWEEN UTILITIES AND THE PROPOSED TRAFFIC SIGNAL EQUIPMENT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE REVIEWED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING, AT THEIR OWN EXPENSE, ANY EXISTING UTILITIES, PAVEMENT, CONCRETE ITEMS, PIPES, ETC. THAT ARE DAMAGED DURING CONSTRUCTION.
- ALL TRAFFIC SIGNAL AND SIGNING WORK AND ADJUSTMENTS TO PROPOSED SIGNALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, AND THE LATEST EDITIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD & BRIDGE SPECIFICATIONS DATED 2016, VDOT ROAD & BRIDGE STANDARDS DATED 2016, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION (MUTCD), THE 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, THE 2002 NATIONAL ELECTRICAL CODE, SPECIAL PROVISION COPIED NOTES AND SPECIAL PROVISIONS AT THE TIME OF ADVERTISEMENT.
- EMERGENCY PREEMPTION DETECTORS AND CONFIRMATION LIGHTS SHALL BE LOCATED AS SHOWN ON THE PLANS, HOWEVER, MAY BE FIELD ADJUSTED AS NECESSARY TO PROVIDE OPTIMAL DETECTION CAPABILITIES. WIRING SHALL BE ADJUSTED AS NECESSARY IF THE DETECTOR AND LIGHT LOCATIONS ARE MODIFIED.
- ACCESSIBLE PEDESTRIAN SIGNALS AND DETECTORS SHALL BE USED. PUSHBUTTONS SHALL BE LOCATED A MAXIMUM OF 10" FROM THE PEDESTRIAN TRAVELWAY (SIDEWALK).
- THE CONTRACTOR SHALL OBTAIN APPROVAL FROM DISTRICT/REGIONAL OPERATION REPRESENTATIVE PRIOR TO OPENING SIGNAL FOR TRAFFIC USE TO ENSURE THAT ALL COMMUNICATIONS COMPLY WITH VDOT'S LATEST CYBER SECURITY REQUIREMENTS.
- ALL PROPOSED COMMUNICATIONS SHALL COMPLY WITH THE LATEST VITA ITRM STANDARD SEC501 - INFORMATION SECURITY STANDARD, AND BE APPROVED BY DISTRICT/REGIONAL OPERATIONS REPRESENTATIVE PRIOR TO OPENING SIGNAL FOR TRAFFIC USE.
- NOTE NOT USED.
- THE PROJECT IS RESPONSIBLE FOR SUBMITTING TRAFFIC SIGNAL TIMING DATA NEEDED FOR COORDINATION NO MORE THAN SIX (6) MONTHS PRIOR TO PROJECT COMPLETION AND NO LESS THAN SIXTY (60) DAYS PRIOR TO THE ACTIVATION OF THE TRAFFIC SIGNAL. SIGNAL OPERATIONS SECTION REQUEST THE LATEST DATA FOR THE IMPLEMENTATION AND HAVE ENOUGH TIME TO REVIEW. IN ADDITION, THE APPROVED TIMINGS ARE VALID FOR 6 MONTHS ONLY, AND SHOULD REFLECT THE CURRENT OPERATION CONDITION AS THEY WILL BE IMPLEMENTED IN THE FIELD AT THAT TIME. THIS INCLUDES EIGHT (8) TIME OF DAY TIMING PLANS TO REFLECT CYCLE LENGTHS NECESSARY TO ACCOMMODATE CHANGES IN TRAFFIC PATTERNS FOR PERIODS INCLUDING A.M. PEAK, MID-DAY, P.M. PEAK, OFF PEAK AND WEEKENDS (WEEK-AM, SAT PEAK, SUN PEAK AND WEEK-PM). THESE TIMING PLANS ARE TO BE SUBMITTED TO THE VDOT PERMITS SECTION FOR REVIEW AND APPROVAL BY THE SIGNAL OPERATIONS SECTION TO BE PROVIDED IN AN ELECTRONIC FILE FORMAT COMPATIBLE WITH THE SYNCHRO PROGRAM USED BY VDOT.

- AT LOCATIONS WHERE APS PUSHBUTTONS ARE WITHIN 10 FEET OF EACH OTHER, WALK INTERVAL SPEECH MESSAGE SHALL BE USED.
- PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL DETECTORS (APD) AND ACCESSIBLE PEDESTRIAN SIGNALS (APS) SHALL MEET VDOT'S REQUIREMENTS.
- SIGNAL PLANS ARE VALID FOR EIGHTEEN MONTHS FROM THE DATE OF APPROVAL. PLANS WITH EXPIRED APPROVAL MUST BE SUBMITTED TO VDOT FOR RE-APPROVAL
- THE PROJECT SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING COMMUNICATION TO THE TRAFFIC SIGNAL CONTROLLER AT ALL TIMES. THE PROJECT IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH PROVIDING COMMUNICATION TO THE TRAFFIC SIGNAL. THE PROJECT SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND THE INSTALLATION OF THE COMMUNICATION CIRCUIT CONDUIT(S) AND EQUIPMENT TO THE TRAFFIC SIGNAL CONTROLLER CABINET FOR THE DESIGNATED COMMUNICATION PLATFORM.
- THE PROJECT SHALL CONTACT VDOT'S NORTHERN REGION OPERATIONS COMMUNICATIONS GROUP AT NOVATFOCOMM@VDOT.VIRGINIA.GOV NINETY (90) DAYS PRIOR TO THE START OF THE TRAFFIC SIGNAL CONSTRUCTION TO IDENTIFY THE DESIGNATED COMMUNICATION PLATFORM AND INITIATE THE BROADBAND CIRCUIT ORDERING PROCESS.
- THE TRAFFIC SIGNAL PROJECT SHALL UTILIZE VDOT'S NORTHERN REGION RADIO COMMUNICATIONS PLATFORM. THE PROJECT SHALL CONTACT VDOT'S COMM GROUP AT NOVATFOCOMM@VDOT.VIRGINIA.GOV REGARDING THE INSTALLATION REQUIREMENTS AND WIRELESS RADIO COMMUNICATIONS EQUIPMENT DETAILS.
- NO TRAFFIC SIGNAL SHALL BE PLACED INTO OPERATIONS UNTIL THE TRAFFIC SIGNAL COMMUNICATION REQUIREMENTS ARE COMPLETE AND OPERATIONAL.
- FIELD ADJUSTMENTS MADE OF ANY KIND WILL REQUIRE A RED LINED SIGNAL MODIFICATION PLAN FOR VDOT TE REVIEW AND APPROVAL.
- THE 1" METAL CONDUIT THAT IS INSTALLED AS PART OF THE COMMUNICATION CIRCUIT (ST'D CC-2 ON THE CONTROLLER CABINET) SHALL BE TERMINATED INTO A ST'D JB-S1 JUNCTION BOX LOCATED 12" TO 24" FROM THE CONTROLLER CABINET FOUNDATION. THE 2" CONDUIT FROM THE DESIGNATED COMMUNICATION PROVIDER CONNECTION POINT TO THE CONTROLLER CABINET SHALL BE TERMINATED INTO THIS JB S1. THE REQUIRED GROUND ELECTRODE FOR THE COMMUNICATION CIRCUIT SHALL BE INSTALLED IN THIS JB-S1. THE COVER SHALL HAVE "COMM" CAST IN THE DEPRESSION ON TOP AS DETAILED IN THE ST'D JB-S1. PULL ROPE RATED AT 1100 LBS. SHALL BE INSTALLED IN ALL COMMUNICATION CONDUITS. REFER TO VDOT R&B ST'D CF-3 1301.31 (REVISION DATE 2/2016)."

STANDARD TRAFFIC SIGNAL LEGEND

PLAN ITEM	PLAN SYMBOL		PLAN ITEM	PLAN SYMBOL	
	PROPOSED	EXISTING		PROPOSED	EXISTING
Metal Signal Pole & Foundation and Mast Arm (As noted in Signal Pole Legend)			Electrical Service Meter		
Pedestal Pole and Foundation (Std. PF-2)			Electrical Service Safety Switch (Disconnect)		
Pedestal Pole and Foundation (Std. PA-3)			Controller Cabinet		
Traffic Signal Head w/ Backplate			Ground Mounted		
Traffic Signal Head w/o Backplate			Pole Mounted		
Pedestrian Signal Head			Master Controller Cabinet		
Pedestrian Pushbutton & Sign			Ground Mounted		
Traffic Signal Sign Mast Arm or Span Wire Mt'd.			Pole Mounted		
Emergency Vehicle Pre-emption (EVP) Sensor w/ Conf. Light			Std. CF-1		
Video Detection Camera w/o Conf. Light			Std. CF-3		
Junction Box (Std. as noted on plans)			Std. CF-4		
Signal Luminaire (250 W) and Arm			Std. CF-1		
Signal Luminaire (400 W) and Arm			Std. CF-3		
Loop Detector (Size as noted on plans)			Std. CF-4		
Video Detection Zone (Size as noted on plans)			Master Controller Cabinet & Foundation		
Conduit			Uninterruptible Power Supply Cabinet		
			Directional Radio Antenna		

LABELS

Signal Pole or Controller		Proposed Signal Head		Signal Phasing		Sign	
Cable and Conduit		Existing Signal Head		Pedestrian Phasing		Video Detection Camera	
Junction Box		Proposed Pedestrian Signal Head				Emergency Preemption Detector	
		Existing Pedestrian Signal Head					

TRAFFIC SIGNAL PLAN SHEET INDEX

SHEET NO.	DESCRIPTION
9(1)	INDEX OF SHEETS, GENERAL NOTES & LEGEND
9(2)	TRAFFIC SIGNAL PLAN - INT. OF OLD BRIDGE ROAD (RTE. 64I) AND OCCOQUAN ROAD (RTE. 253)

60% PLANS

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NTS	PROJECT 064I-076-30I	SHEET NO. 9(1)
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PROJECT MANAGER: SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE: JMT, SEPTEMBER 2020
 DESIGN BY: JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE: JMT, SEPTEMBER 2020

SIGNAL PLAN

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	641	0641-076-301 R-201,C-501	9(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER

JUNCTION BOX LEGEND

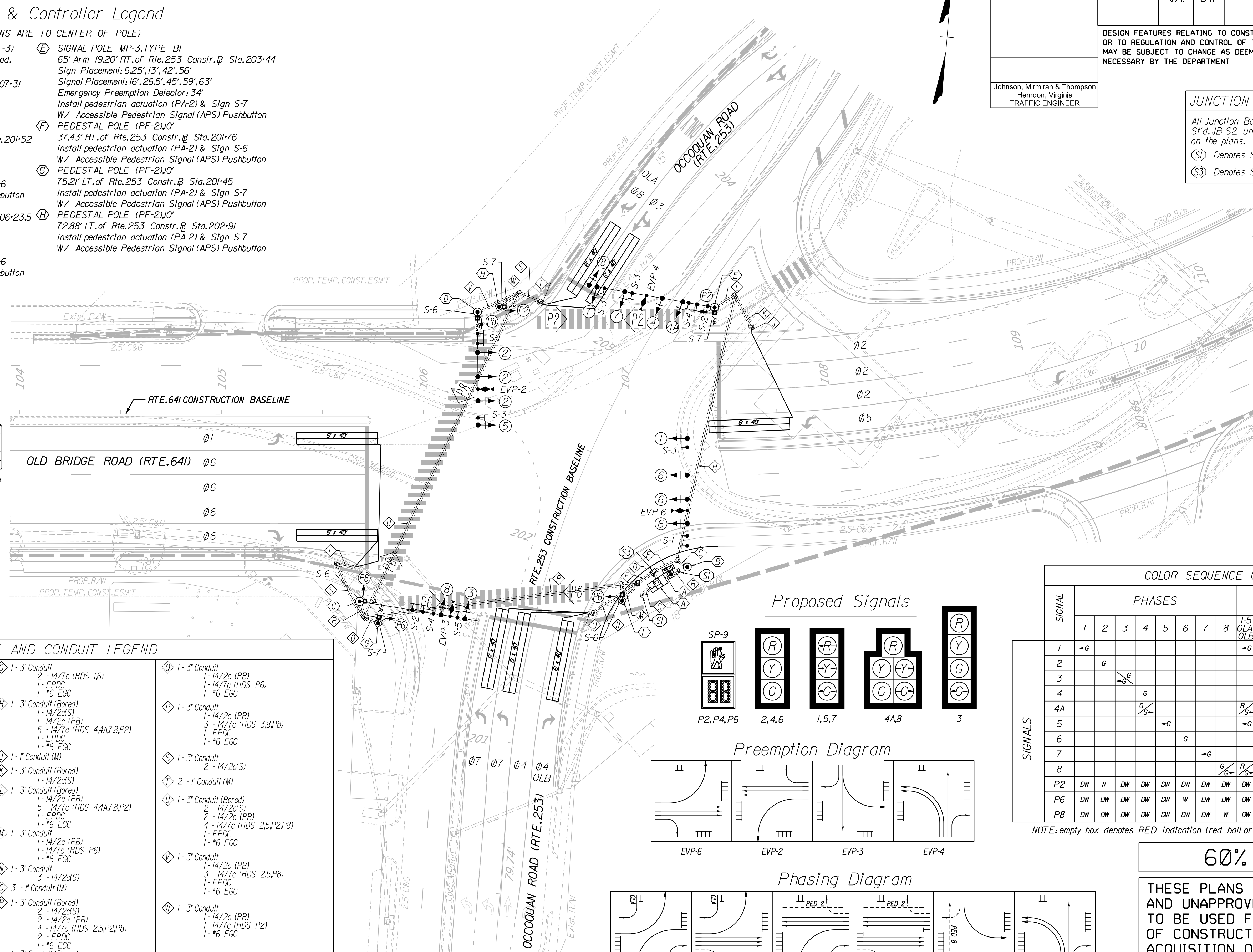
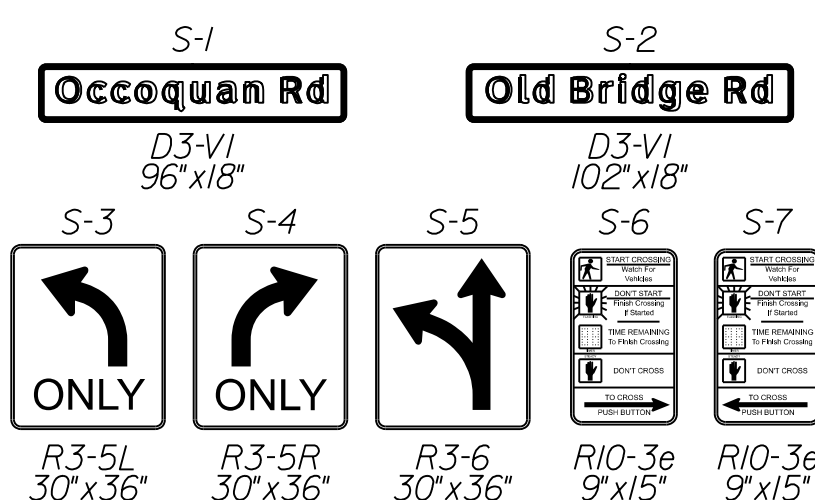
All Junction Boxes shall conform to S'd. JB-S2 unless otherwise noted on the plans.
 (S1) Denotes S'd. JB-S1
 (S3) Denotes S'd. JB-S3

Signal Pole & Controller Legend

(ALL DIMENSIONS ARE TO CENTER OF POLE)

- | | |
|---|--|
| (A) CONTROLLER CABINET & FOUNDATION (CF-3)
Cabinet door hinge located on right side of pad. | (E) SIGNAL POLE MP-3, TYPE BI
65' Arm 19.20' RT. of Rte. 253 Constr. @ Sta. 203+44
Sign Placement: 6.25', 13', 42', 56'
Signal Placement: 16', 26.5', 45', 59', 63'
Emergency Preemption Detector: 34' |
| (B) SIGNAL POLE MP-3, TYPE BI
70' Arm 75.74' RT. of Rte. 641 Constr. @ Sta. 107+31
Sign Placement: 13', 59'
Signal Placement: 21.5', 33.5', 45.5', 63.5'
Emergency Preemption Detector: 28' | (F) PEDESTAL POLE (PF-2) 10'
37.43' RT. of Rte. 253 Constr. @ Sta. 201+76
Install pedestrian actuation (PA-2) & Sign S-6
W/ Accessible Pedestrian Signal (APS) Pushbutton |
| (C) SIGNAL POLE MP-3, TYPE BI
60' Arm 86.43' LT. of Rte. 253 Constr. @ Sta. 201+52
Sign Placement: 29', 37', 49'
Signal Placement: 40.5', 52.5'
Emergency Preemption Detector: 45.5' | (G) PEDESTAL POLE (PF-2) 10'
75.21' LT. of Rte. 253 Constr. @ Sta. 201+45
Install pedestrian actuation (PA-2) & Sign S-7
W/ Accessible Pedestrian Signal (APS) Pushbutton |
| (D) SIGNAL POLE MP-3, TYPE BI
60' Arm 50.20' LT. of Rte. 641 Constr. @ Sta. 106+23.5
Sign Placement: 14.5', 53.8'
Signal Placement: 20.5', 32.5', 44.5', 56.8'
Emergency Preemption Detector: 38.5' | (H) PEDESTAL POLE (PF-2) 10'
72.88' LT. of Rte. 253 Constr. @ Sta. 202+91
Install pedestrian actuation (PA-2) & Sign S-7
W/ Accessible Pedestrian Signal (APS) Pushbutton |

Proposed Signs

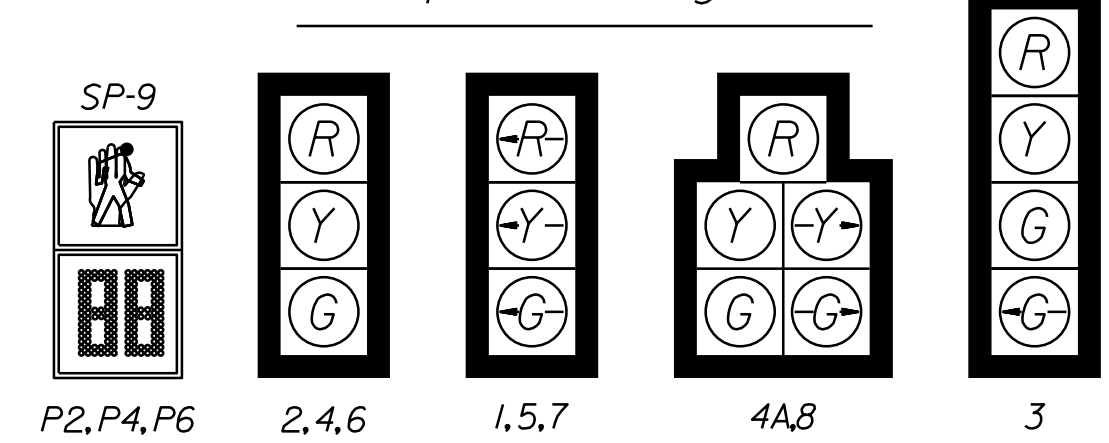


CABLE AND CONDUIT LEGEND

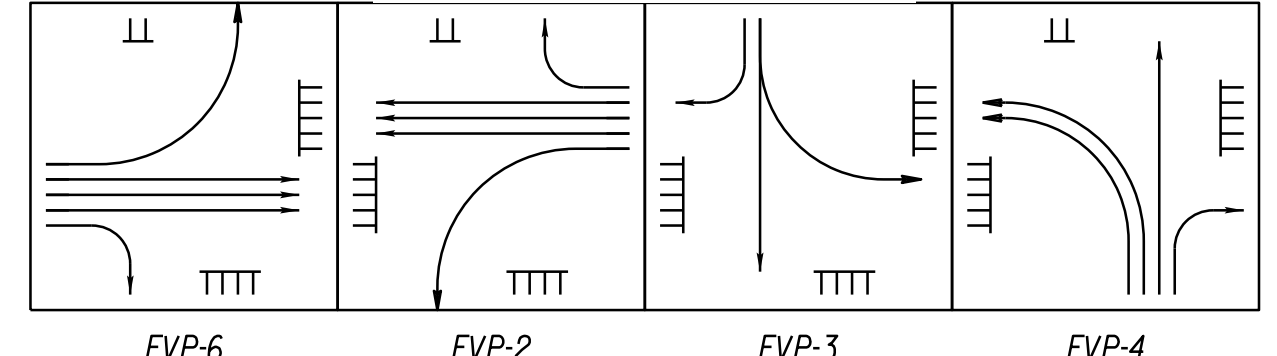
(A) 1 1/4" Conduit (M) 3 * 6 Cables for elec. service	(D) 1 - 3" Conduit 2 - 14/7c (HDS 16)	(I) 1 - 3" Conduit 1 - 14/2c (PB)
(B) 1 - 1" Conduit 1 - * 6 AWG for Service Grounding	(E) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(J) 1 - 3" Conduit 1 - 14/2c (PB)
(C) 1 - 1" Conduit (M) 1 - * 6 AWG (EGC)	(F) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(K) 1 - 3" Conduit (Bored) 2 - 14/2c (S)
(D) 1 - 4" Conduit 3 - 14/2c (S)	(G) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(L) 1 - 3" Conduit (Bored) 2 - 14/2c (S)
(E) 1 - 4" Conduit 3 - 14/2c (PB)	(H) 1 - 3" Conduit (Bored) 5 - 14/7c (HDS 4,4A,7,8,P2)	(M) 2 - 1" Conduit (M)
(F) 1 - 4" Conduit 4 - EPDC	(I) 1 - 3" Conduit (Bored) 5 - 14/7c (HDS 4,4A,7,8,P2)	(N) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)
(G) 1 - 4" Conduit 1 - * 6 EGC	(J) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(O) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)
(H) 1 - 4" Conduit 5 - 14/2c (S)	(K) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(P) 1 - 3" Conduit (Bored) 2 - 14/2c (S)
(I) 1 - 4" Conduit 3 - 14/2c (PB)	(L) 1 - 3" Conduit (Bored) 5 - 14/7c (HDS 4,4A,7,8,P2)	(Q) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)
(J) 1 - 4" Conduit 5 - 14/7c (HDS 3,8,P6,P8)	(M) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(R) 1 - 3" Conduit (Bored) 3 - 14/2c (S)
(K) 1 - 4" Conduit 1 - * 6 EGC	(N) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(S) 3 - 1" Conduit (M)
(L) 1 - 4" Conduit 2 - EPDC	(O) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(T) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)
(M) 1 - 4" Conduit 1 - * 6 EGC	(P) 1 - 3" Conduit (Bored) 3 - 14/2c (S)	(U) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)
(N) 1 - 4" Conduit 5 - 14/2c (S)	(Q) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(V) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)
(O) 1 - 4" Conduit 3 - 14/2c (PB)	(R) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(W) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)
(P) 1 - 4" Conduit 2 - EPDC	(S) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(X) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)
(Q) 1 - 4" Conduit 1 - * 6 EGC	(T) 1 - 3" Conduit (Bored) 2 - EPDC	(Y) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)
(R) 1 - 4" Conduit 5 - 14/2c (S)	(U) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(Z) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)
(S) 1 - 4" Conduit 3 - 14/2c (PB)	(V) 1 - 3" Conduit (Bored) 2 - 14/2c (S)	(AA) 1 - 3" Conduit (Bored) 2 - 14/2c (S)
(T) 1 - 4" Conduit 5 - 14/7c (HDS 3,8,P6,P8)	(W) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(AB) 1 - 3" Conduit (Bored) 2 - 14/2c (S)
(U) 1 - 4" Conduit 1 - * 6 EGC	(X) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)	(AC) 1 - 3" Conduit (Bored) 1 - 14/2c (PB)

ACRONYM/ABBREVIATION DEFINITION:
 (s) - Shielded Cable
 EGC - Equipment Grounding Conductor
 EPDC - Emergency Preemption Detector Cable
 HD - HEAD HDS - HEADS

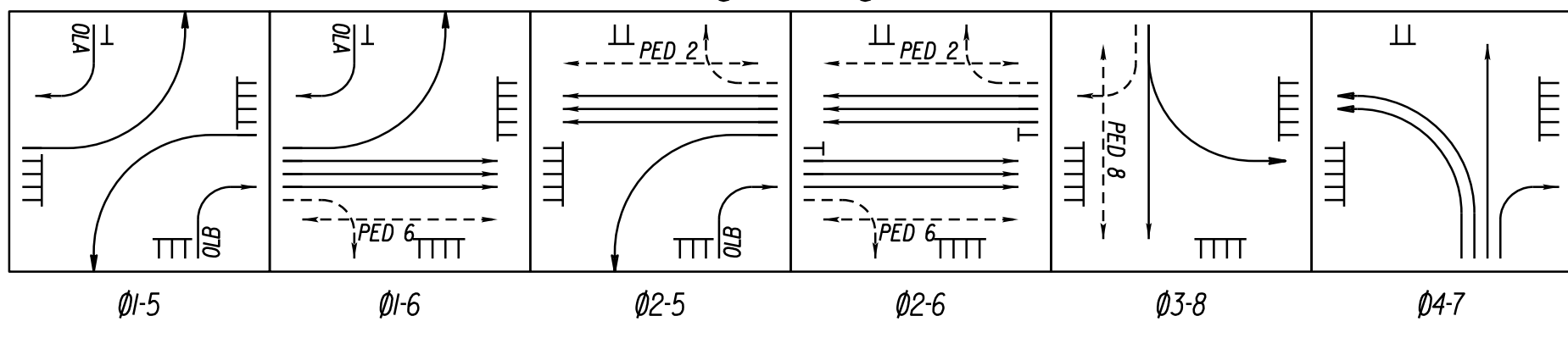
Proposed Signals



Preemption Diagram



Phasing Diagram



COLOR SEQUENCE CHART

SIGNAL	PHASES								COMBINATIONS					FLASH
	1	2	3	4	5	6	7	8	1-5 OLA OLB	1-6 OLA OLB	2-6 OLB	2-6 4-7	3-8	
1	-G									-G				-R
2		G									G	G		Y
3			-G										-G	R
4				G								G		R
4A				-G					R/-	R/-	-G	-G		R
5					-G					-G				-R
6						G				G	G			Y
7							-G						-G	-R
8								-G	R/-	R/-				R
P2	DW	W	DW	DW	DW	DW	DW	DW	DW	DW	W	W	DW	DW
P6	DW	DW	DW	DW	DW	W	DW	DW	DW	DW	W	DW	W	DW
P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW

NOTE: empty box denotes RED Indication (red ball or red arrow as appropriate)

60% PLANS

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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

SIGNING AND PAVEMENT MARKING

INDEX OF SHEETS, GENERAL NOTES & LEGEND

	REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
		VA.	641		0641-076-301 R-201, C-501	10(1)
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT						
Johnson, Mirmiran & Thompson Herndon, Virginia TRAFFIC ENGINEER						

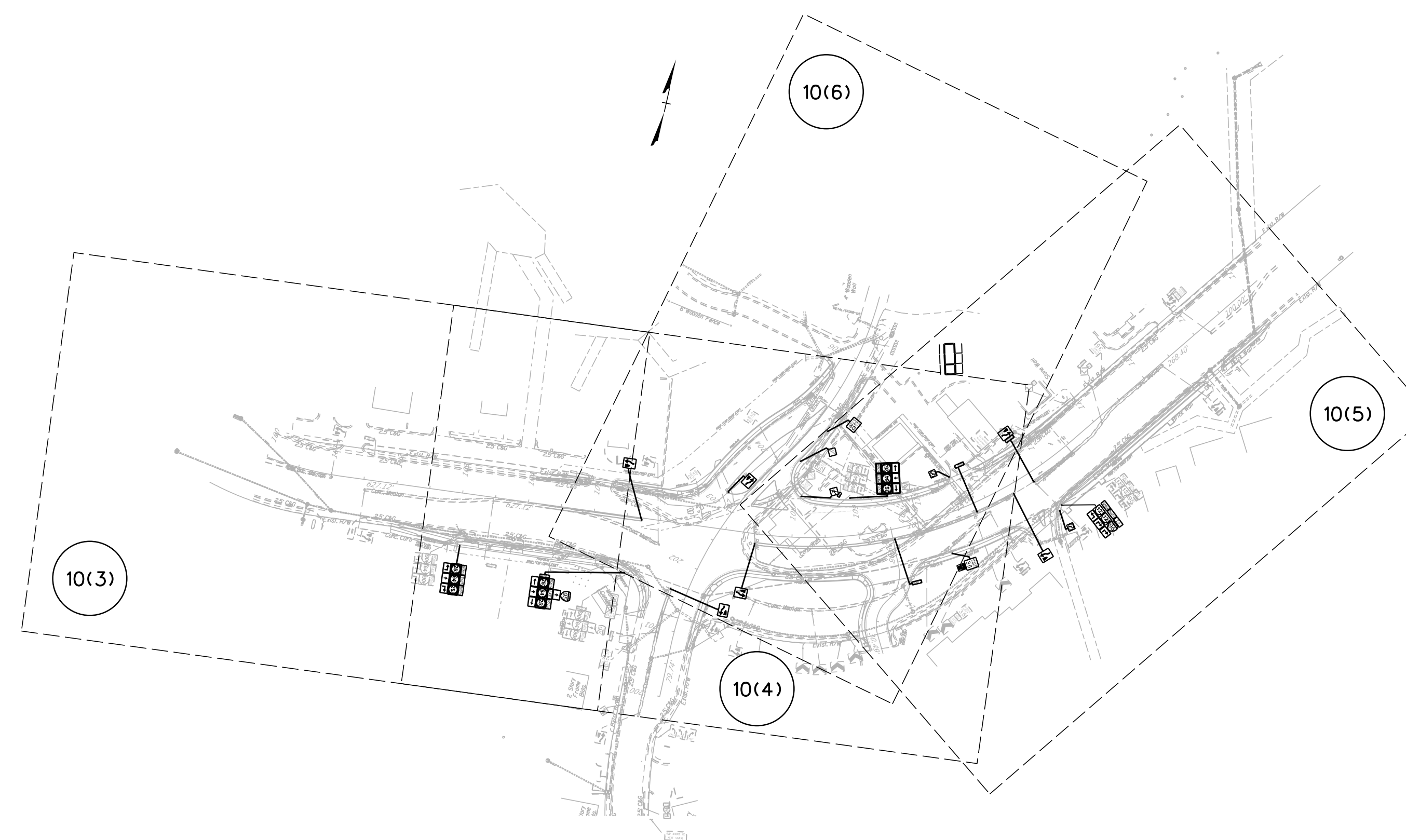
GENERAL NOTES

1. ALL SIGNING AND PAVEMENT MARKING WORK SHALL BE IN CONFORMANCE WITH THE FOLLOWING DOCUMENTS:
 - 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), REVISION 1 AND 2
 - 2011 VIRGINIA SUPPLEMENT TO THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (REVISION 1),
 - 2016 VDOT ROAD AND BRIDGE STANDARDS, AS REVISED,
 - 2020 VDOT ROAD AND BRIDGE SPECIFICATIONS, AND
 - ALL SPECIAL PROVISIONS, SUPPLEMENTAL SPECIFICATIONS, AND SPECIAL PROVISION COPIED NOTES INCLUDED IN THE CONTRACT.
2. NEW MATERIALS AND ITEMS REQUIRED TO COMPLETE THE REMOVAL OR MODIFICATION OF EXISTING ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL IN ACCORDANCE WITH SECTION 105 (2016 ROAD AND BRIDGE STDS.).
3. THE REMOVAL, MODIFICATION, OR RELOCATION OF EXISTING SIGN PANELS, STRUCTURES, AND FOUNDATIONS SHALL CONFORM TO SECTION 510 OF THE SPECIFICATIONS.
4. UNLESS OTHERWISE APPROVED BY THE ENGINEER OR INDICATED IN THE MAINTENANCE OF TRAFFIC AND SEQUENCE OF CONSTRUCTION PLANS, EXISTING TRAFFIC SIGNS WHICH ARE TO BE RELOCATED OR REPLACED SHALL REMAIN IN PLACE UNTIL THE NEW SIGN STRUCTURE AND CRITICAL SIGN MESSAGE ARE IN PLACE.
5. ALL EXISTING AND PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR. ALL PROPOSED SIGN LOCATIONS SHALL BE STAKED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
6. SIGN PANEL DESIGN FOR SIGNS MOUNTED ON SQUARE TUBE POSTS SHALL CONFORM TO ST'D. SPD-5. THE CONTRACTOR SHALL VERIFY THE DESIGN OF ALL SIGN PANEL ASSEMBLY TYPES NOT SHOWN IN THIS ST'D. WITH THE ENGINEER.
7. ALL EXISTING AND PROPOSED PAVEMENT MARKINGS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR. ALL PROPOSED STOP BAR, YIELD LINE AND CROSSWALK LOCATIONS SHALL BE IDENTIFIED AND STAKED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
8. ALL PAVEMENT MARKINGS, WHERE CONNECTING TO EXISTING PAVEMENT MARKINGS, SHALL BE DONE IN A MANNER APPROVED BY THE ENGINEER.
9. EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS SHOWN HEREIN SHALL BE ERADICATED IN ACCORDANCE WITH SECTION 512.03(1) OF THE SPECIFICATIONS. ERADICATION SHALL BE CONSIDERED INCIDENTAL TO THE PAVEMENT MARKINGS AND SHALL NOT BE MEASURED SEPARATELY FOR PAYMENT.
10. ALL TRAVEL LANES SHALL BE 12' WIDE AND STRIPED WITH 4" WIDTH LINES UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE ENGINEER.
11. LONGITUDINAL PAVEMENT LINE MARKINGS SHALL BE TYPE B, CLASS 1. ALL OTHER PAVEMENT MARKINGS SHALL BE TYPE B, CLASS 1 UNLESS OTHERWISE NOTED.

12. INTERSECTION STRIPING SHALL BE COORDINATED WITH THE TRAFFIC SIGNAL INSTALLATION.
13. ALL UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND MAY NOT BE ACCURATE OR COMPLETE. THE CONTRACTOR SHALL COMPLY WITH THE VIRGINIA "UNDERGROUND UTILITY DAMAGE PREVENTION ACT" AND THE STATE CORPORATION COMMISSION'S "RULES FOR ENFORCEMENT OF THE ACT". IF THE CONTRACTOR IS AWARE OF ANY UTILITIES WITHIN THE PROJECT LIMITS THAT ARE NOT IDENTIFIED BY THE NOTIFICATION CENTER, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNER(S) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL NOTIFY VDOT AT 800-367-7623 A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION TO DETERMINE THE EXTENT AND LOCATION OF VDOT OWNED EQUIPMENT. IF THE CONTRACTOR PERCEIVES A CONFLICT BETWEEN UTILITIES AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE REVIEWED.

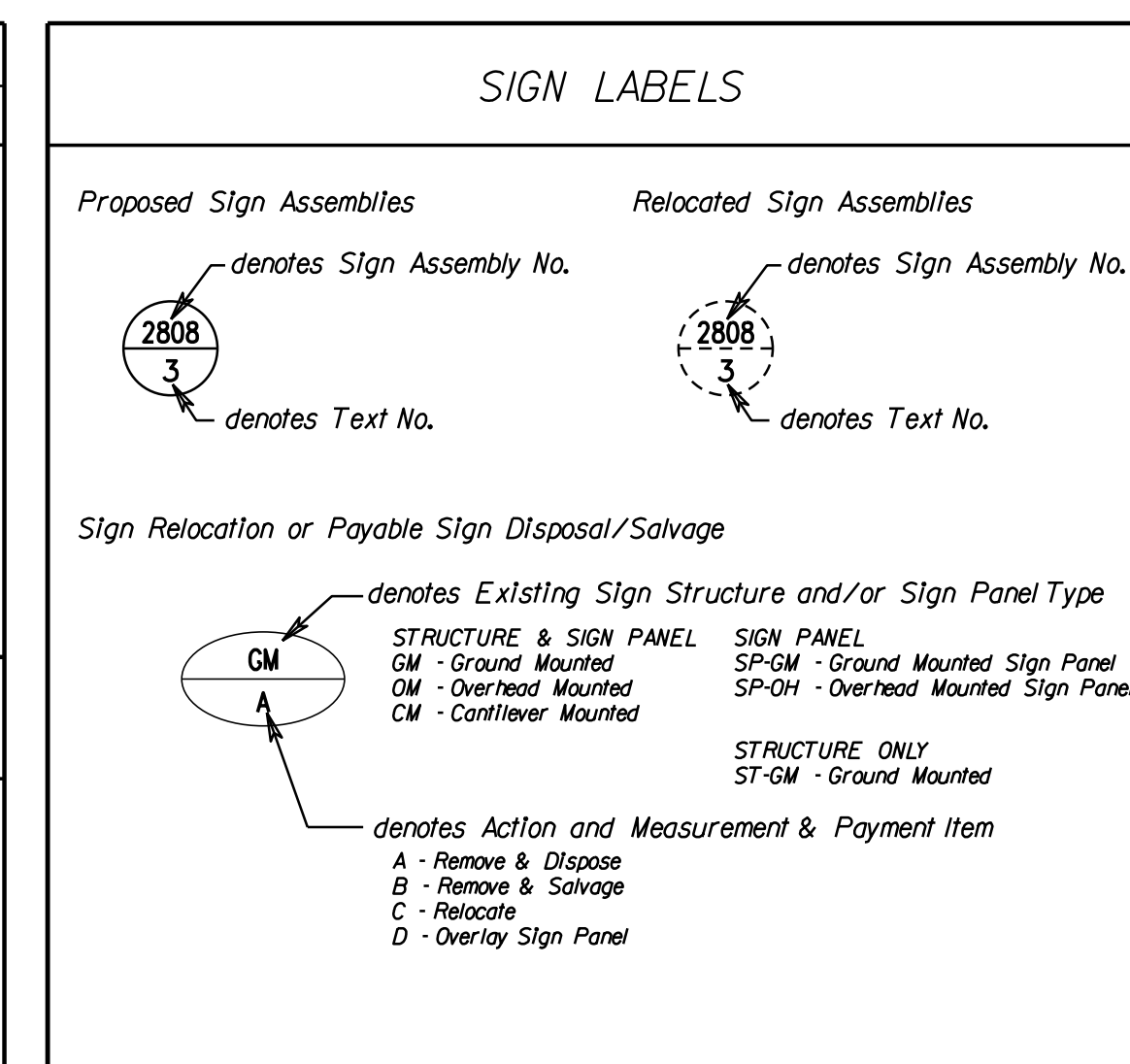
SIGNING AND MARKING PLAN SHEET INDEX

SHEET NO.	DESCRIPTION
10(1)	INDEX OF SHEETS, GENERAL NOTES & LEGEND
10(2B)	SIGN SCHEDULE PROPOSED SIGNS
10(3) -10(6)	SIGNING AND PAVEMENT MARKING PLAN SHEET



STANDARD SIGN LEGEND

PLAN ITEM	PLAN SYMBOL	
	PROPOSED	EXISTING
Single Post Sign Support	┆	┆
Double Post Sign Support	┆┆	┆┆
Triple Post Sign Support	┆┆┆	┆┆┆
O/H Cantilever Sign Support	⊙	⊙
O/H Span Sign Support	⊙—⊙	⊙—⊙
O/H Flashers and Gong	* ○	* ○
SIGN CALL-OUTS		
Existing Sign to Remain or to be Relocated		
Existing Sign to be Removed		
Proposed Sign Panel		



60% PLANS

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NTS

PROJECT
0641-076-301

SHEET NO.
10(1)

PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	10(2B)

SIGNING AND PAVEMENT MARKING PROPOSED SIGN SCHEDULE

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	MUTCD ST'D.	SIGN ASSEMBLY COMPONENTS		QTY.	SIGN PANEL AREA (s.f.)		PROP. SIGN STRUCTURE ST'D.	PROP. FOUNDATION	REMARKS
				W	H		EACH	TOTAL			
101	402,503		R6-1R	54"	18"	2	6.75	13.5	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE A	
102	403,404, 405,406,502		R4-7	24"	30"	5	5	25	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE A	
103	501	 	R2-1 R7-203	30" 18"	36" 24"	1 1	7.5 3	10.5	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE A	
104	504		R4-7 R6-1R	24" 54"	30" 18"	1 1	5 6.75	11.75	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE A	
105	601		R2-1	30"	36"	1	7.5	7.5	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE A	
106	506,507		R3-2	24"	24"	2	4	8	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE A	
301	407		W5-1	36"	36"	1	9	9	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE A	
302	401		W11-2 W16-7P	36" 24"	36" 12"	1 1	9 2	11	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE A	

TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	MUTCD ST'D.	SIGN ASSEMBLY COMPONENTS		QTY.	SIGN PANEL AREA (s.f.)		PROP. SIGN STRUCTURE ST'D.	PROP. FOUNDATION	REMARKS
				W	H		EACH	TOTAL			
501	301		M3-1 M3-2 M3-3 M1-V2a M5-1L M6-3 M5-1R	24" 24" 24" 24" 2" 2" 2"	12" 12" 12" 24" 15" 15" 15"	1 1 1 3 1 1 1	2 2 2 4 2,1875 2,1875 2,1875	24.6	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE B	
502	408		M1-1 M6-3 M3-1 M3-2 M3-3 M1-V2a M6-1L M6-3 M6-1R R6-1L	24" 2" 24" 24" 24" 24" 2" 2" 2" 54"	24" 15" 12" 12" 12" 24" 15" 15" 15" 18"	1 1 1 1 1 3 1 1 1 1	4 2,1875 2 2 2 4 2,1875 2,1875 2,1875 6.75	37.5	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE B	
503	409		M3-3 M3-4 M3-1 M1-V2a M6-1L M6-3 M6-1R	24" 24" 24" 24" 2" 2" 2"	12" 12" 12" 24" 15" 15" 15"	1 1 1 3 1 1 1	2 2 2 4 2,1875 2,1875 2,1875	24.6	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE B	
504	505		M3-1 M3-3 M4-5 M1-V1a M1-1 M5-1L M5-1R	24" 24" 24" 30" 24" 2" 2"	12" 12" 12" 24" 24" 15" 15"	1 1 1 2 1 1 2	2 2 2 5 4 2,1875 2,1875	26.6	(1) STP-1 2 1/2" ga. SQ.TUBE POST	STP-1 TYPE B	

- NOTES:
 1) ALL SIGNS SHALL BE ORIENTED AS SHOWN ON THE PLANS.
 2) SIGN COLOR COMBINATIONS SHALL BE IN ACCORDANCE WITH THE FHWA SHS BOOK AND THE 2011 VIRGINIA SHS BOOK OR AS NOTED IN THE PLANS.
 3) ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS OTHERWISE NOTED IN THE REMARKS.
 4) ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
 5) SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
 6) ALL ST'D. STP-1 STRUCTURES TO BE SINGLE POST UNLESS OTHERWISE NOTED.

60% PLANS

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N/A	PROJECT 0641-076-301	SHEET NO. 10(2B)
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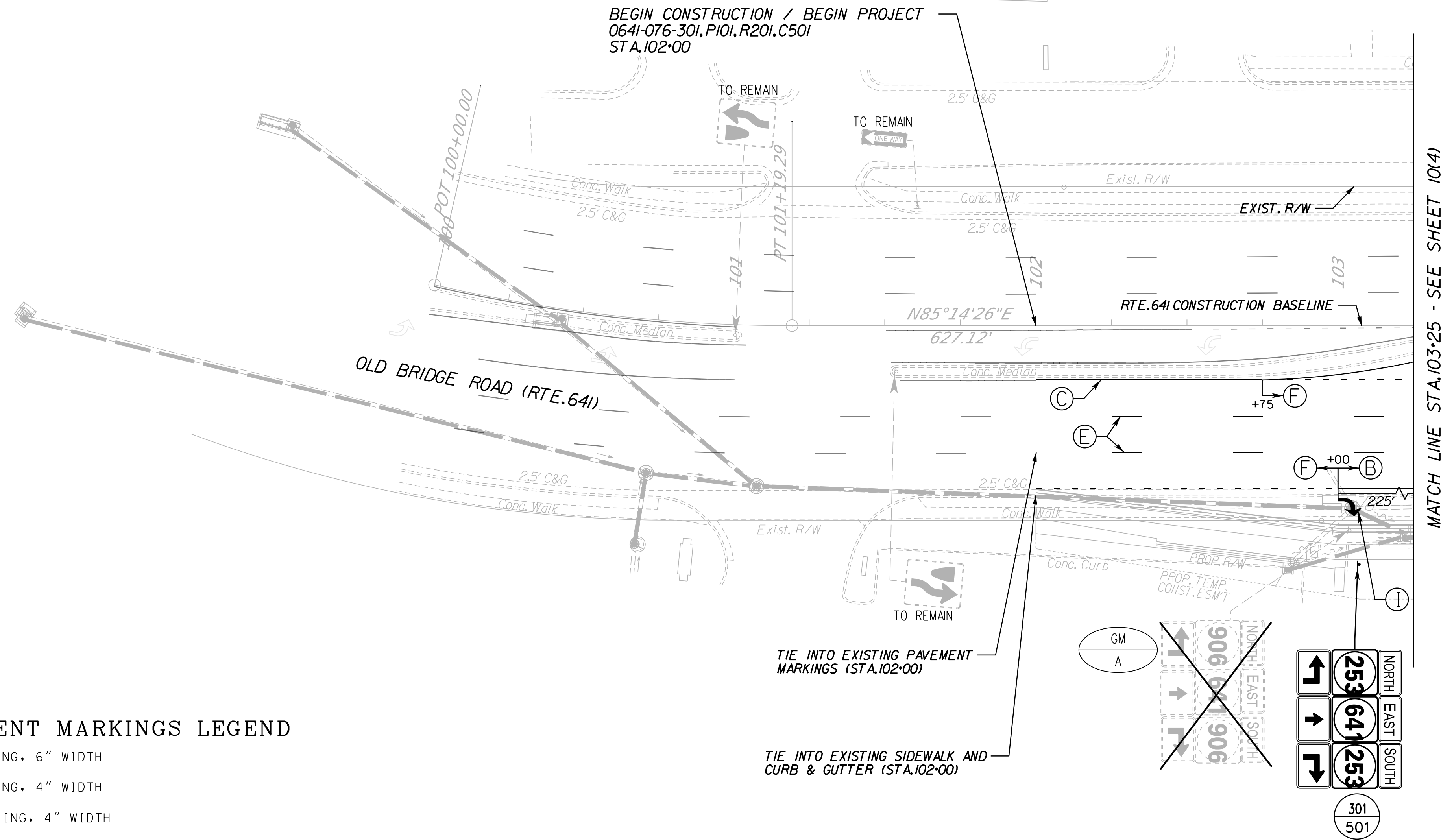
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

SIGNING AND PAVEMENT MARKING PLAN

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	641		0641-076-301 R-201, C-501	10(3)

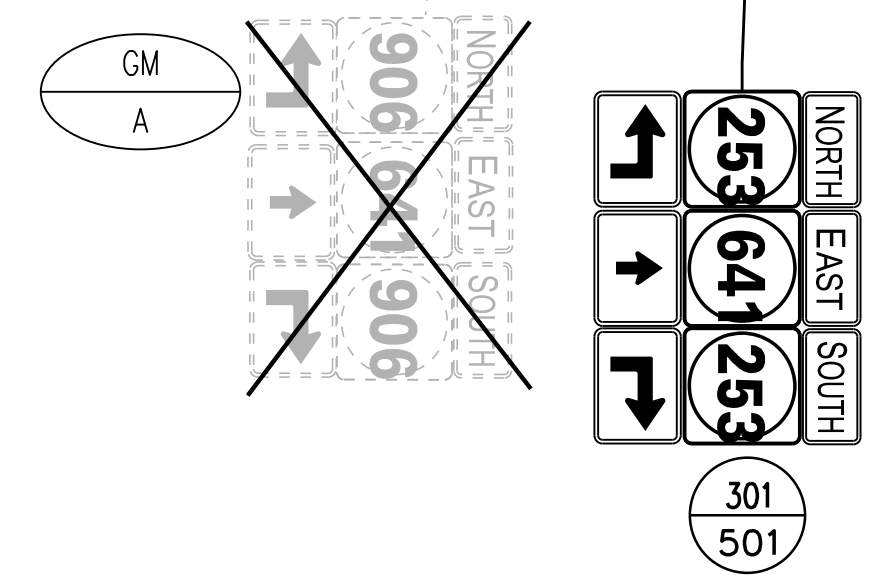
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER



PAVEMENT MARKING & PAVEMENT MARKINGS LEGEND

- (A) TYPE B, CLASS I, WHITE PAVEMENT LINE MARKING, 6" WIDTH
- (B) TYPE B, CLASS I, WHITE PAVEMENT LINE MARKING, 4" WIDTH
- (C) TYPE B, CLASS I, YELLOW PAVEMENT LINE MARKING, 4" WIDTH
- (D) TYPE B, CLASS I, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH
- (E) TYPE B, CLASS I, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE)
- (F) TYPE B, CLASS I, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE)
- (G) TYPE B, CLASS II, WHITE PAVEMENT LINE MARKING, 24" WIDTH
- (H) TYPE B, CLASS II, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE)
- (I) TYPE B, CLASS II, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT)
- (J) TYPE B, CLASS II, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT)
- (K) TYPE B, CLASS II, WHITE PAVEMENT LINE MARKING, 24" WIDTH (10' WIDTH, 2' SPACE)
- (L) TYPE B, CLASS II, PAVEMENT MESSAGE MARKING, ("ONLY")



60% PLANS

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SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 10(3)
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PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
SURVEYED BY, DATE JMT, SEPTEMBER 2020
DESIGN BY JMT (703) 464-7369
SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

SIGNING AND PAVEMENT MARKING PLAN

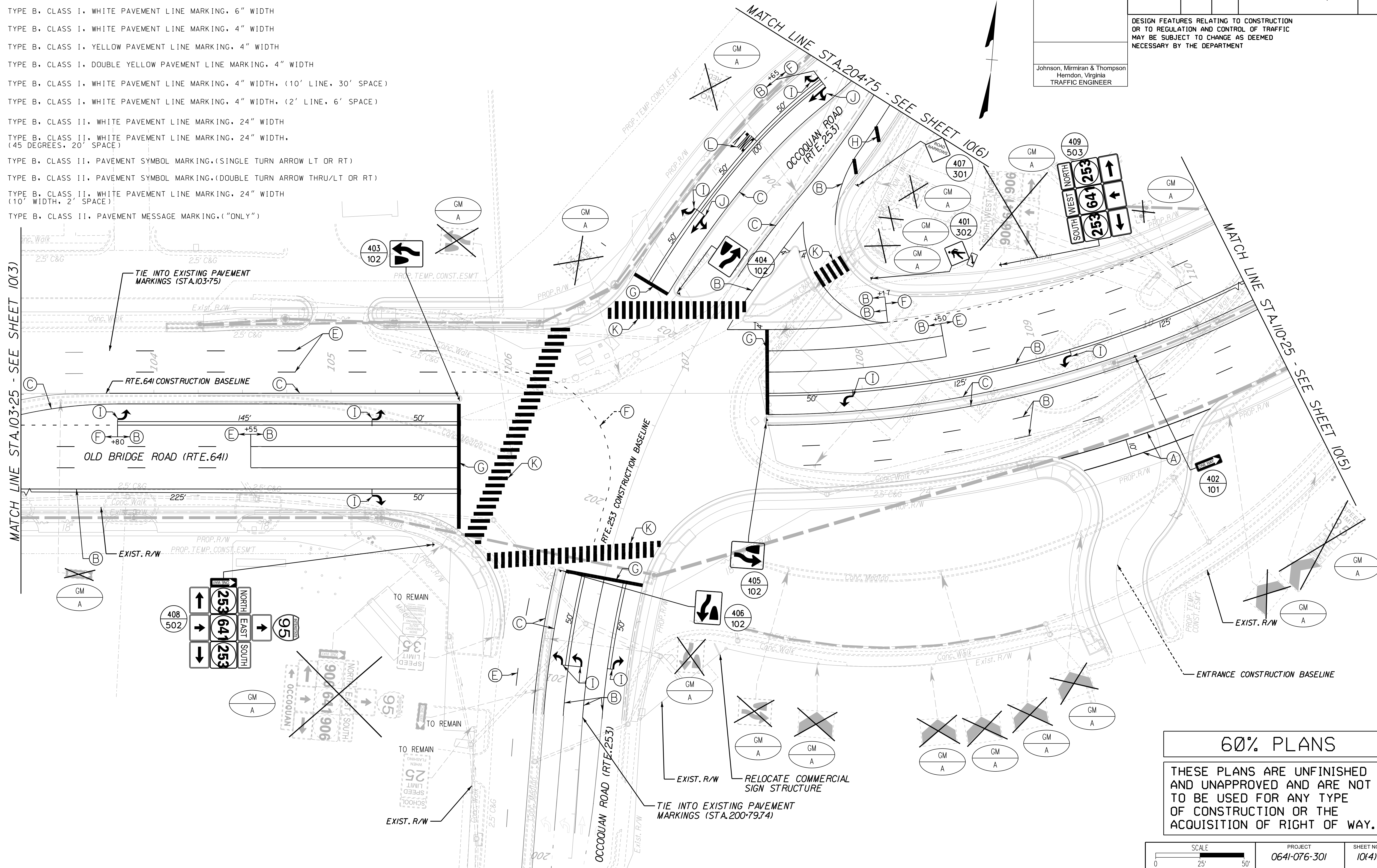
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	10(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER

PAVEMENT MARKING & PAVEMENT MARKINGS LEGEND

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- (E) TYPE B, CLASS I, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE)
- (F) TYPE B, CLASS I, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE)
- (G) TYPE B, CLASS II, WHITE PAVEMENT LINE MARKING, 24" WIDTH
- (H) TYPE B, CLASS II, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE)
- (I) TYPE B, CLASS II, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT)
- (J) TYPE B, CLASS II, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT)
- (K) TYPE B, CLASS II, WHITE PAVEMENT LINE MARKING, 24" WIDTH (10' WIDTH, 2' SPACE)
- (L) TYPE B, CLASS II, PAVEMENT MESSAGE MARKING, ("ONLY")



60% PLANS

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SCALE 0 25' 50'	PROJECT 0641-076-301	SHEET NO. 10(4)
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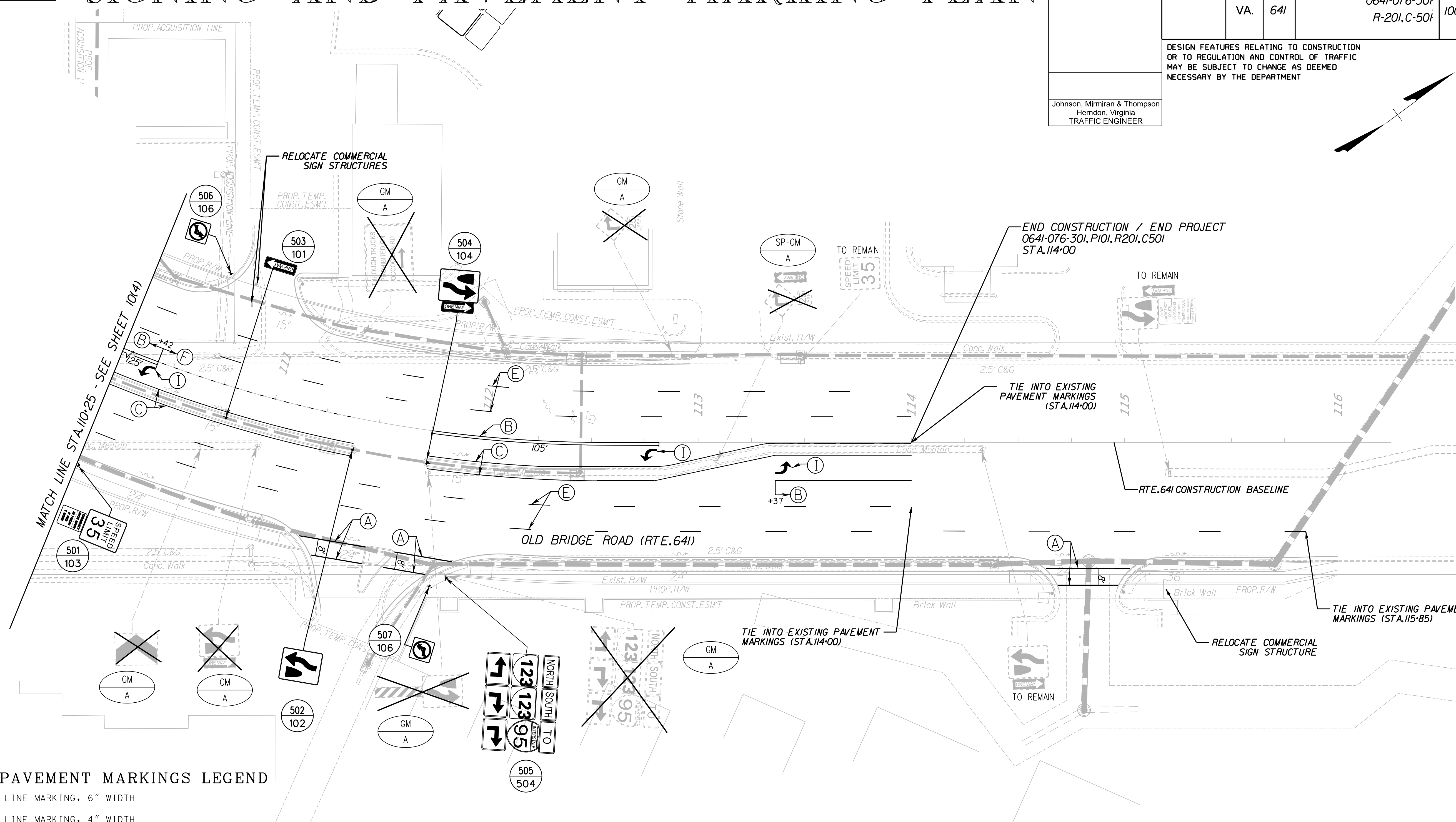
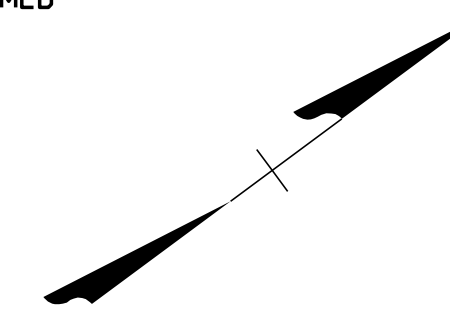
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

SIGNING AND PAVEMENT MARKING PLAN

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	641	0641-076-301 R-201, C-501	1015

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER

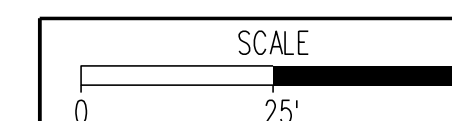


PAVEMENT MARKING & PAVEMENT MARKINGS LEGEND

- (A) TYPE B, CLASS I, WHITE PAVEMENT LINE MARKING, 6" WIDTH
- (B) TYPE B, CLASS I, WHITE PAVEMENT LINE MARKING, 4" WIDTH
- (C) TYPE B, CLASS I, YELLOW PAVEMENT LINE MARKING, 4" WIDTH
- (D) TYPE B, CLASS I, DOUBLE YELLOW PAVEMENT LINE MARKING, 4" WIDTH
- (E) TYPE B, CLASS I, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (10' LINE, 30' SPACE)
- (F) TYPE B, CLASS I, WHITE PAVEMENT LINE MARKING, 4" WIDTH, (2' LINE, 6' SPACE)
- (G) TYPE B, CLASS II, WHITE PAVEMENT LINE MARKING, 24" WIDTH
- (H) TYPE B, CLASS II, WHITE PAVEMENT LINE MARKING, 24" WIDTH, (45 DEGREES, 20' SPACE)
- (I) TYPE B, CLASS II, PAVEMENT SYMBOL MARKING, (SINGLE TURN ARROW LT OR RT)
- (J) TYPE B, CLASS II, PAVEMENT SYMBOL MARKING, (DOUBLE TURN ARROW THRU/LT OR RT)
- (K) TYPE B, CLASS II, WHITE PAVEMENT LINE MARKING, 24" WIDTH (10' WIDTH, 2' SPACE)
- (L) TYPE B, CLASS II, PAVEMENT MESSAGE MARKING, ("ONLY")

60% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



PROJECT 0641-076-301
SHEET NO. 1015

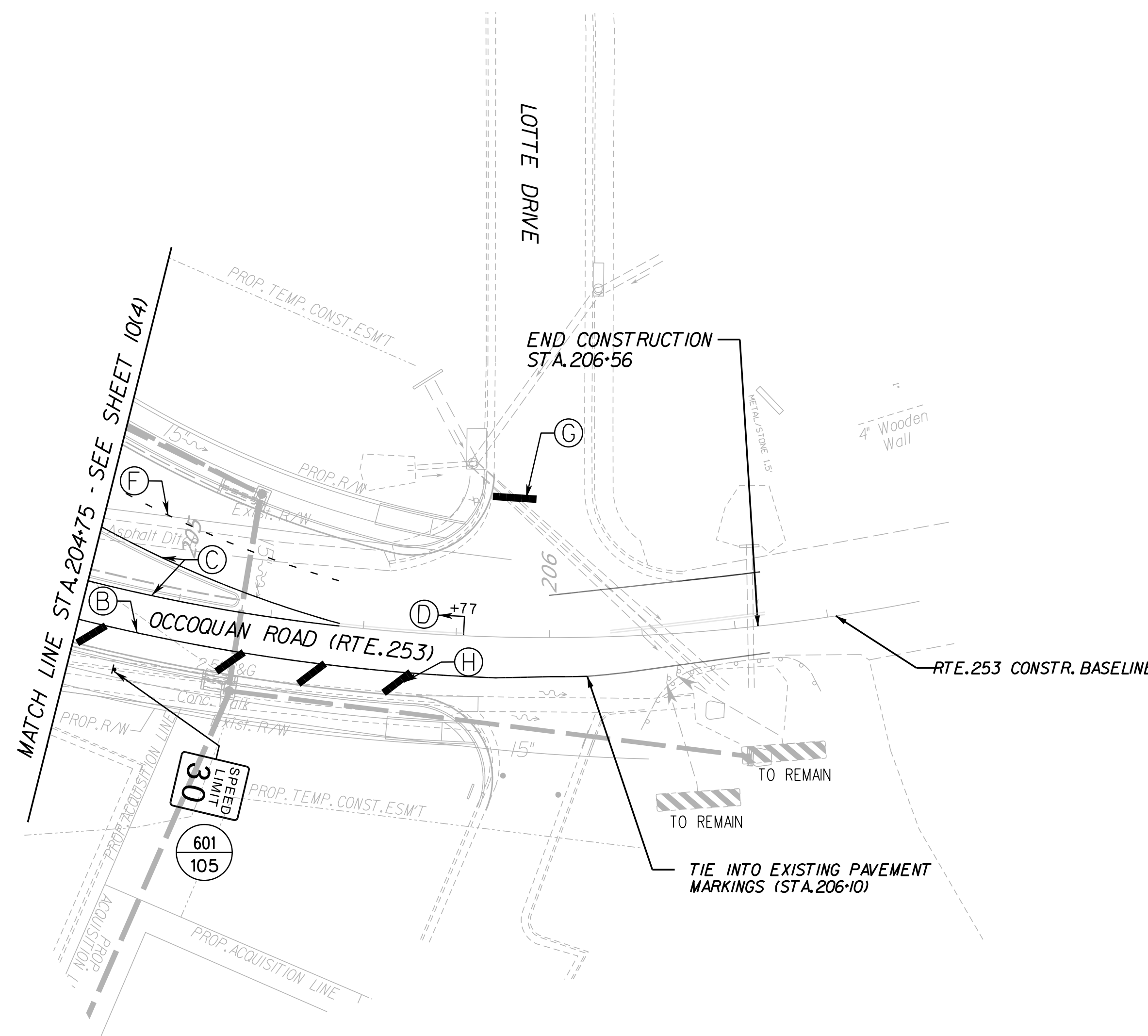
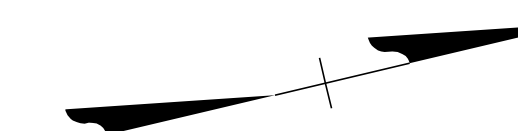
PROJECT MANAGER SHERRY DJOUHARIAN (703) 792-6822
 SURVEYED BY, DATE JMT, SEPTEMBER 2020
 DESIGN BY JMT (703) 464-7369
 SUBSURFACE UTILITY BY, DATE JMT, SEPTEMBER 2020

SIGNING AND PAVEMENT MARKING PLAN

REVISED	STATE		STATE PROJECT	SHEET NO.
	ROUTE	PROJECT		
	VA.	641	0641-076-301 R-201, C-501	10161

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Johnson, Mirmiran & Thompson
Herndon, Virginia
TRAFFIC ENGINEER

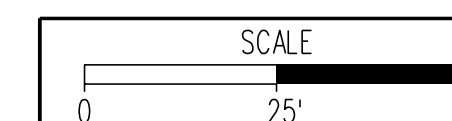


PAVEMENT MARKING & PAVEMENT MARKINGS LEGEND

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PROJECT
0641-076-301

SHEET NO.
10161