TOWN OF NORTH SMITHFIELD, RHODE ISLAND

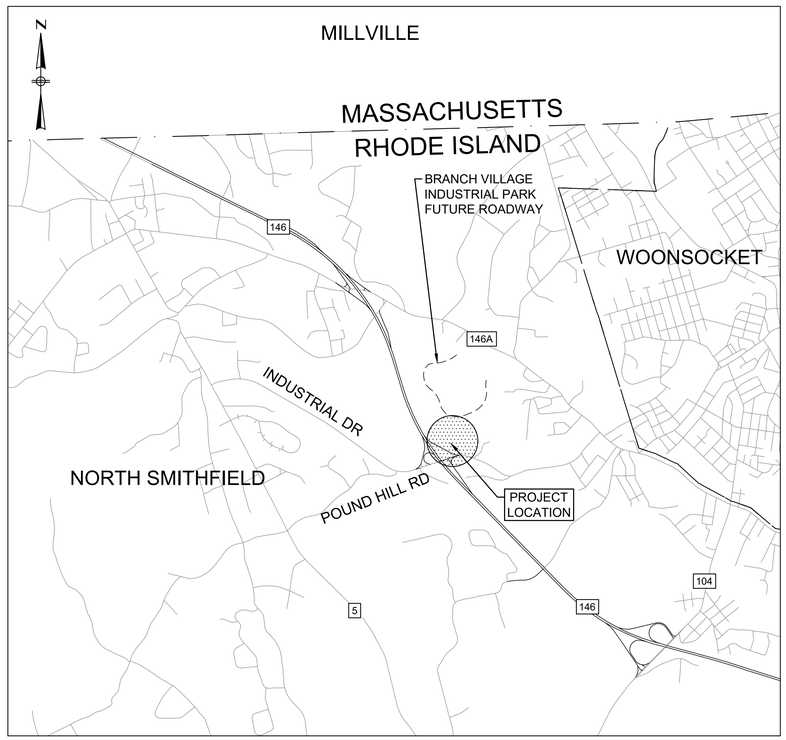
PRELIMINARY PHYSICAL ALTERATION PERMIT

BRANCH VILLAGE BUSINESS PARK
ACCESS ROAD AND INTERCHANGE IMPROVEMENTS
POUND HILL ROAD, NORTH SMITHFIELD

PLAN INDEX

R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS

SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED MARCH 2018, WITH ALL REVISIONS AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE R.I. STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.



PROJECT LOCATION

LOCATION MAP
SCALE 1" = 2000'

10% SUBMISSION
DATE: 2-12-2021

PREPARED BY:

BETA
www.BETA-Inc.com

ISSUE DATE: JANUARY 29, 2021

REGISTERED PROFESSIONAL _____ DATE _____

LEGEND

GENERAL SYMBOLS

EXISTING	PROPOSED	
		CURB OR BERM (TYPE AS NOTED)
		EDGE OF PAVEMENT
CB	CB	CATCH BASIN (OR GUTTER INLET, LEACHING BASIN, DROP INLET, CATCH BASIN CURB INLET)
EHH	EHH	ELECTRIC HANDHOLE (NUMBER AS NOTED)
E	EMH	ELECTRIC MANHOLE
T	TMH	TELEPHONE MANHOLE
W	WMH	WATER MANHOLE
S	SMH	SEWER MANHOLE
D	DMH	DRAINAGE MANHOLE
GG	GG	GAS GATE
WG	WG	WATER GATE
CS	CS	CURB STOP
HYD.	HYD	HYDRANT
FA	FAB	FIRE ALARM BOX
PM	PM	PARKING METER
LP		STREET LIGHT POLE
UP	UP	UTILITY POLE
UPL	UPL	UTILITY POLE w/ LIGHT
		SIGN
GUY	GUY	GUY POLE
12" RCP —D—	10'-12" RCP	DRAIN PIPE (SIZE AS NOTED)
8" VCP —S—	10'-8" PVC	SEWER MAIN (SIZE AS NOTED)
E	10'-8" PVC	ELECTRIC DUCT
4" HP G	10'-4" HP	GAS MAIN (SIZE AS NOTED)
8" CI —W—	10'-8" DI	WATER MAIN (SIZE AS NOTED)
	10'-8" PVC	
T		TELEPHONE DUCT (SIZE AS NOTED)
EOH	OHW	OVERHEAD WIRE
		MAIL BOX
		WOOD GUARD RAIL STEEL BEAM GUARD, WOOD OR STEEL POSTS (TYPE AS NOTED)
		STEEL GUARD RAIL, STEEL POSTS (TYPE NOTED)
		STONE WALL
		RETAINING WALL (TYPE NOTED)
BND	BND	HIGHWAY/PROPERTY BOUND (TYPE AS NOTED)
SHLO (Date of Layout)		STATE HIGHWAY LAYOUT LINE (SHLO)
		CITY, TOWN OR COUNTY LAYOUT LINE (R.O.W.)
Boundary Name		CITY, TOWN, COUNTY OR STATE BOUNDARY LINE
℄		PROPERTY LINE
		EASEMENT LINE (TYPE NOTED)
	2+00	CONSTRUCTION BASELINE
N00°00'00"E 000.00'		SURVEY LINE
		RAILROAD OR STREET RAILWAY TRACKS WITH SIDELINES
		WHEELCHAIR RAMP
24" PINE		TREE (SIZE AND TYPE AS NOTED)
WF-1		HEDGE/SHRUBS
		FENCE (SIZE AND TYPE AS NOTED)
		EDGE OF WETLAND W/ FLAGGED NUMBER
		EDGE OF RIVER/STREAM LINE
		100-FT. WETLAND BUFFER LIMIT
		100-FT. RIVER FRONT LIMIT
		200-FT. RIVER FRONT LIMIT
		WOODED AREA / LIMIT OF CLEARING
x 00.0	x 00.00	SPOT GRADE
		SAW CUT LINE
	TP-1	TEST PIT
	B-1	BORING
		EROSION CONTROL BARRIER/COMPOST FILTER TUBES

TRAFFIC SIGNAL SYMBOLS

EXISTING	PROPOSED	
		CONTROL CABINET GROUND MOUNTED WITH FOUNDATION
		CONTROL CABINET POLE MOUNTED
	Ø2	CONTROLLER PHASE
	MA-1	MAST ARM, SHAFT & BASE (ARM LENGTH AS NOTED)
		VEHICULAR SIGNAL HEAD (ALPHA-NUMERIC DESIGNATION AS NOTED)
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		VEHICULAR SIGNAL HEAD (REMOVED & RESET)
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD, OPTICALLY PROGRAMMED
HH		PULL BOX 12"x12" OR HANDHOLE
		LOOP DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		PRE-EMPTION DETECTOR
		PRE-EMPTION CONFIRMATION STROBE
		SIGNAL CONDUIT (SINGLE RUN)
		SIGNAL CONDUIT (DOUBLE RUN)
		SIGNAL POST & BASE
M	M	MAGNETIC DETECTOR
		SCHOOL ZONE SPEED LIMIT SIGN
		MICROWAVE OR ULTRASONIC DETECTOR
		VIDEO DETECTION CAMERA
		VIDEO DETECTION ZONE

PAVEMENT MARKINGS AND SIGNING SYMBOLS

PROPOSED

CW	CROSSWALK, 2 - 12" WHITE LINES (8" WIDTH)
SL	STOP LINE - 12" WHITE LINE 4' BEHIND CW (TYP.)
SWEL	SOLID WHITE EDGE LINE - 4"
SWCHL	SOLID WHITE CHANNELIZING LINES - 12" (SPACING NOTED)
SWGL	SOLID WHITE GORE LINE 12" @ 33°, (SPACING NOTED)
SWLL	SOLID WHITE LANE LINE - 4"
SWPL	SOLID WHITE PARKING LINE - 4"
BWLL	BROKEN WHITE LANE LINE - 4"
DWLEx	DOTTED WHITE LANE EXTENSION LINE - 4" (2' LINE & 6' GAP)
DYLEx	DOTTED YELLOW LANE EXTENSION LINE - 4" (2' LINE & 6' GAP)
BYCL	BROKEN YELLOW CENTERLINE - 4"
DYCL	DOUBLE YELLOW CENTERLINE - 2 - 4" LINES
SYEL	SOLID YELLOW EDGE LINE - 4"
SYGL	SOLID YELLOW GORE LINE 12" @ 33°, (SPACING NOTED)
SYLL	SOLID YELLOW LANE LINE - 4"
SYCTEL	SOLID YELLOW CYCLE TRACK EDGE LINE - 4"
DYCTCL	DOTTED YELLOW CYCLE TRACK CENTERLINE - 4" (3' LINE & 9' GAP)
SCHOOL	SCHOOL ZONE - WHITE
	HANDICAP SYMBOL - WHITE
	PAVEMENT ARROW - WHITE
ONLY	LEGEND "ONLY" - WHITE

ABBREVIATIONS

GENERAL

ABAN.	ABANDON
ADJ.	ADJUST
ALT.	ALTERATION
APPROX.	APPROXIMATE
℄	BASELINE
B.B.	BITUMINOUS BERM
B.C.	BITUMINOUS CURB
BD OR BND	BOUND
BLDG.	BUILDING
B.O.	BY OTHERS
BOS	BOTTOM OF SLOPE
BOW	BOTTOM OF WALL
BSW	BACK OF SIDEWALK
C.C.	CONCRETE CURB
CEM.	CEMENT
CLF	CHAIN LINK FENCE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
DWY	DRIVEWAY
E.P., EOP	EDGE OF PAVEMENT
EL.	ELEVATION
ESMT.	EASEMENT
EXIST.	EXISTING
FDN.	FOUNDATION
GRAN.	GRANITE
GC	GRANITE CURB
HOR.	HORIZONTAL
IP	IRON PIPE
JCT	JUNCTION
LP	LOW POINT
MB	MAIL BOX
MHB	MASSACHUSETTS HIGHWAY BOUND
O.C.	ON CENTER
PCC	POINT OF COMPOUND CURVATURE
PC	POINT OF CURVATURE
PRC	POINT OF REVERSE CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PERM.	PERMANENT
PGL	PROFILE GRADE LINE
PROP.	PROPOSED
PVC	POINT OF VERTICAL CURVATURE
PVMT.	PAVEMENT
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
REM.	REMOVE
REMOD.	REMODEL
RET.	RETAIN
RR	RAILROAD
RT.	RIGHT
SB	SOUTH BOUND OR STONE BOUND
SDWK.	SIDEWALK
SHT.	SHEET
SHLD.	SHOULDER
STA.	STATION
TEMP.	TEMPORARY
TOS	TOP OF SLOPE
TOW	TOP OF WALL
TYP.	TYPICAL
VAR.	VARIABLE
VERT.	VERTICAL
VGC	VERTICAL GRANITE CURB
WCR	WHEELCHAIR RAMP

TRAFFIC SIGNAL SYSTEMS

R	STEADY CIRCULAR RED
Y	STEADY CIRCULAR AMBER
G	STEADY CIRCULAR GREEN
FR	FLASHING CIRCULAR RED
FY	FLASHING CIRCULAR AMBER
←FY	FLASHING YELLOW LEFT ARROW
R→	STEADY RED RIGHT ARROW
Y→	STEADY AMBER RIGHT ARROW
G→	STEADY GREEN RIGHT ARROW
←R	STEADY RED LEFT ARROW
←Y	STEADY AMBER LEFT ARROW
←G	STEADY GREEN LEFT ARROW
W	STEADY WALK (PERSON WALKING) - LUNAR WHITE
DW	STEADY DON'T WALK (HAND) - PORTLAND ORANGE
FDW	FLASHING DON'T WALK (FLASHING HAND) - PORTLAND ORANGE

UTILITIES

ACCMP	ASPHALT COATED CORRUGATED METAL PIPE
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CI	CURB INLET
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
CMP	CORRUGATED METAL PIPE
C	CONDUIT
CPP	CORRUGATED PLASTIC PIPE
CSP	CORRUGATED STEEL PIPE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FM	FORCE MAIN
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GG	GAS GATE
HDW	HEADWALL
HYD.	HYDRANT
INV.	INVERT ELEVATION
LP	LIGHT POLE
MH	MANHOLE
PVC	POLY-VINYL-CHLORIDE PIPE
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE (CLASS III UNLESS NOTED)
SD	SUBDRAIN
SMH	SEWER MANHOLE
TS	TRAFFIC SIGNAL
TSV&B	TAPPING SLEEVE, VALVE AND BOX
UP	UTILITY POLE
UPL	UTILITY POLE w/ LIGHT
UPT	UTILITY POLE w/ TRANSFORMER
VCP	VITRIFIED CLAY PIPE
WIP	WROUGHT IRON PIPE
WG	WATER GATE
WM	WATER METER/WATER MAIN

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
DESIGNED BY:
CHECKED BY:

REGISTERED PROFESSIONAL

PREPARED BY: BETA www.BETA-Inc.com

SUBCONSULTANT

SCALE: NONE

TITLE: **Route 146 Interchange at Pound Hill Road**
North Smithfield, Rhode Island

LEGEND AND ABBREVIATIONS

BETA JOB NO. 7398
ISSUE DATE 1/29/2021
SHEET NO. 2

GENERAL NOTES

1. THE ACCURACY AND COMPLETENESS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE, TYPE ETC. OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THE WORK. ALL CITY-OWNED UTILITY STRUCTURES, WITHIN AREAS AFFECTED BY THE WORK SHALL BE ADJUSTED TO NEW LINE AND GRADE AS DIRECTED BY THE ENGINEER. ANY UTILITY POLES AND/OR GUY POLES, WITHIN AREAS AFFECTED BY THE WORK, SHALL BE REMOVED AND RESET BY THE RESPECTIVE UTILITY COMPANY. ALTERATIONS TO UTILITIES NOT OWNED BY THE TOWN SHALL BE MADE BY THE RESPECTIVE UTILITY OWNERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WORK IN ADVANCE WITH THOSE UTILITY OWNERS.
2. CATCH BASIN AND MANHOLE FRAMES AND GRATES/COVERS SHALL EXACTLY ALIGN WITH THE OPENINGS IN THE CONCRETE BLOCK STRUCTURES AND THE GRADE OF THE PROPOSED ROADWAY.
3. ALL EXISTING DRAINAGE LINES TO BE REPLACED SHALL BE ABANDONED IN PLACE AND FILLED WITH CONTROLLED LOW STRENGTH MATERIAL UNLESS OTHERWISE NOTED. IF SAID LINES CONFLICT WITH THE PROPOSED DRAINAGE, THEY SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
4. WHERE DRAINAGE PIPES OR STRUCTURES ARE ABANDONED IN PLACE, THE CONTRACTOR SHALL MAKE SURE THAT ALL CONNECTING PIPES, INLETS AND OUTLETS ARE PLUGGED. ALL LIVE CONNECTIONS SHALL BE CONNECTED TO THE NEW SYSTEM.
5. ALL CURB TIE DIMENSIONS ARE TO FACE OF THE CURB.
6. CONTRACTOR SHALL VERIFY EXISTING GRADES. IF ANY ADJUSTMENT IS REQUIRED DUE TO DIFFERENT EXISTING GRADES FOUND IN THE FIELD, THE CONTRACTOR SHALL NOTIFY AND SEEK THE APPROVAL OF THE ENGINEER PRIOR TO PERFORMING THE WORK.
7. IN AREAS OF NEW SIDEWALK, NEW EDGE OF PAVEMENT OR CURB WITHOUT SIDEWALK OR ANY WORK ADJACENT TO EXISTING GRASS AREAS, EVEN WHEN NO SLOPE-MATCHING OR GRADING IS NECESSARY AND THE EXISTING GRADE IS MET, LOAM AND SEED SHALL BE PROVIDED AS NECESSARY TO REPAIR AND COMPLETE ANY DAMAGE TO THE GRADE CAUSED BY THE CONSTRUCTION PROCESS.
8. WHEN WORKING NEXT TO EXISTING TREES, WALLS OR FENCES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO DISTURB THE EXISTING WALL, TREE OR FENCE. IF THE CONTRACTOR DAMAGES EXISTING TREES, WALLS OR FENCES AS A RESULT OF THE CONSTRUCTION PROCESS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ALL DAMAGES AS DIRECTED BY THE ENGINEER. ALL WORK ASSOCIATED WITH THE REPAIR OR REPLACEMENT OF EXISTING TREES, WALLS OR FENCES SHALL BE CONSIDERED AS INCLUDED IN THE BID PRICE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED THEREFORE.
9. THE CONTRACTOR SHALL CALL DIGSAFE A MINIMUM OF 72 HOURS PRIOR TO THE START OF ANY WORK.
10. SURVEY PERFORMED BY DIPRETE ENGINEERING IN 2020. HORIZONTAL COORDINATE SYSTEM IS NAD83. THE VERTICAL DATUM IS NAVD88.
11. ANY DAMAGE TO EXISTING PAVEMENT, BRIDGES, CONDUIT, SIDEWALK, FENCES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.
12. THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF THE TRAVEL LANE SO AS NOT TO CAUSE A SAFETY HAZARD.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED IN SUFFICIENT DETAIL, THEREBY ENABLING HIM TO CONSTRUCT THE PROJECT IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS.
14. ASPHALT EMULSION TACK COAT SHALL BE PLACED PRIOR TO PAVEMENT PLACEMENT ON THE CONCRETE BASE OR COLD PLANED PAVEMENT, AND ON ANY NEW COURSE WHICH HAS BEEN OPEN TO TRAFFIC, OR ANY NEW COURSE WHICH HAS BEEN EXPOSED FOR MORE THAN 3 DAYS, AND/OR AS DIRECTED BY THE ENGINEER. IT SHALL ALSO BE APPLIED TO VERTICAL PAVEMENT FACES BETWEEN ADJOINING PAVEMENT SECTIONS. ALL APPLICATIONS ON BOTH HORIZONTAL AND VERTICAL SURFACES SHALL BE PAID FOR UNDER THE CONTRACT UNIT BID PRICE FOR CODE 403.0300 "ASPHALT EMULSION TACK COAT."
15. UNDER NO CIRCUMSTANCE WILL THE CONTRACTOR BE ALLOWED TO STOCKPILE REMOVED PAVEMENT MATERIALS WITHIN THE PROJECT LIMITS.
16. CLEANING AND SWEEPING OF PAVEMENT WILL INCLUDE REMOVAL OF ALL PAVEMENT DEBRIS PRIOR TO THE PLACEMENT OF EACH BITUMINOUS PAVEMENT LIFT. ALL CLEANING AND SWEEPING SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAYS FREE OF DEBRIS RESULTING FROM THEIR CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.
18. ALL EXISTING MANHOLES, CATCH BASINS, ROADWAY BOXES, AND CURB STOP BOXES FOR ALL UTILITIES WITHIN THE PROJECT WORK LIMITS SHALL BE ADJUSTED TO GRADE EXCEPT FOR WHERE REPLACEMENT IS CALLED FOR ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ALL NEW ITEMS FURNISHED AND INSTALLED WILL BE ADJUSTED TO GRADE AS REQUIRED.
19. WHEELCHAIR RAMPS ARE TO BE LOCATED FREE OF ALL OBSTRUCTIONS.
20. ALL SIDEWALKS AND DRIVEWAYS DESIGNATED FOR REPLACEMENT SHALL BE FULL-DEPTH SAWCUT AT THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED OR DIRECTED BY THE ENGINEER. NEW CONCRETE SIDEWALKS MUST BE PLACED WITHIN FIVE (5) CONSECUTIVE WORKING DAYS AFTER REMOVAL OF THE OLD SIDEWALK.
21. THE CLEANING AND FLUSHING OF DRAIN PIPE SHALL BE COMPLETED AFTER CLEANING CATCH BASINS OR MANHOLES. THE OUTLETS OF DRAIN PIPES SHALL BE PLUGGED PRIOR TO CLEANING AND FLUSHING. DRAIN PIPES AND DRAIN STRUCTURES SHALL BE CLEANED BOTH PRIOR TO CONSTRUCTION AND AFTER CONSTRUCTION IS COMPLETED.

TREE PRESERVATION NOTES

1. TREES WITHIN THE LIMITS OF GRADING SHALL NOT BE REMOVED UNLESS APPROVED BY THE ENGINEER.
2. PRIOR TO CONSTRUCTION PROTECT TREES WITHIN THE LIMITS OF WORK IN ACCORDANCE WITH DETAIL.
3. BRANCHES OR LIMBS DAMAGED DURING CONSTRUCTION SHALL BE CUT BACK TO THE TRUNK OR A LATERAL BRANCH.
4. MAKE EVERY EFFORT TO MAINTAIN EXCAVATION ACTIVITIES OUTSIDE LIMITS OF THE TREE CANOPY.
5. ROOTS LARGER THAN 1.5" IN DIAMETER ENCOUNTERED IN EXCAVATIONS SHALL BE CUT OFF SQUARELY USING A SHARP ARBORIST SAW.
6. STRIP AND SEGREGATE TOPSOIL PRIOR TO EXCAVATING IN UNPAVED AREAS. FOLLOWING BACKFILL OPERATIONS PLACE TOPSOIL BACK IN THE APPROPRIATE PLACE WITHOUT COMPACTION AND VERTICALLY MULCH ROOT SYSTEM. NO AMENDMENTS SHALL BE ADDED.
7. IMMEDIATELY FOLLOWING BACKFILL OPERATIONS PROVIDE DEEP WATERING OF THE ROOT SYSTEM, APPLICATION OF FERTILIZER, AND VERTICAL MULCHING.
8. MAINTAIN STORAGE OF EQUIPMENT AND MATERIALS A DISTANCE AT LEAST TWO (2) TIMES THE DISTANCE OF THE RADIUS OF THE TREE CANOPY.

SOIL EROSION AND SEDIMENTATION CONTROL

1. THE CONTRACTOR SHALL FOLLOW THE APPROVED ORDER OF CONDITIONS AND DIRECTION OF THE ENGINEER WITH REGARD TO INSTALLATION, MAINTENANCE, AND REPAIR OF ALL SESC MEASURES ON THE PROJECT SITE FOR THE FULL DURATION OF THE CONSTRUCTION PERIOD. TEMPORARY SESC MEASURES MAY INCLUDE, BUT SHALL NOT BE LIMITED TO, CONSTRUCTION ENTRANCE PADS, COMPOST FILTER SOCKS, HAY/STRAW BALES, SILT FENCE, CATCH BASIN INSERTS, ETC. PLEASE REFER TO THE ORDER OF CONDITIONS FOR ADDITIONAL INFORMATION.
2. ALL SESC MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION. THE SESC MEASURES SHALL BE REGULARLY INSPECTED, CLEANED AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION OPERATIONS IN ACCORDANCE WITH THE ORDER OF CONDITIONS. SESC MEASURES SHALL ALSO BE INSPECTED AND CLEANED AFTER ALL SIGNIFICANT STORM EVENTS AS STIPULATED BY THE SESC PLAN AND AT THE DIRECTION OF THE OWNER OR ENGINEER.
3. CONTRACTOR SHALL MAINTAIN AN ADEQUATE SUPPLY OF SESC MEASURE MATERIALS ON SITE TO BE INSTALLED IN AREAS WHERE EXISTING SESC MEASURES HAVE FAILED OR ARE NECESSARY AS DETERMINED BY THE ENGINEER. NO WORK OR STORAGE OF CONSTRUCTION EQUIPMENT WILL BE PERMITTED OUTSIDE THE LIMIT OF DISTURBANCE.
4. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR REGULAR INSPECTION AND REPORTING REQUIREMENTS.
5. SESC MEASURES SHALL BE MAINTAINED UNTIL SITE WORK IS COMPLETE AND ALL EXPOSED SOILS ARE SATISFACTORILY STABILIZED. UPON PERMANENT STABILIZATION OF ALL DISTURBED SOILS, THE SESC MEASURES SHALL BE REMOVED AND PROPERLY DISPOSED. PROVIDE SESC MEASURES AT PERIMETERS OF ALL EXCAVATION AREAS, DISTURBED SURFACES AND AT ALL CATCH BASINS ADJACENT TO DISTURBED AREAS. PROVIDE COMPOST FILTER SOCKS IN ACCORDANCE WITH DIVISION 2 SPECIFICATION REQUIREMENTS AND AS SHOWN ON THE CIVIL DETAIL DRAWINGS.
6. ALL MITIGATIVE FEATURES, FACILITIES AND SYSTEMS OF TREATMENT AND CONTROL THAT MAY BE INSTALLED OR USED SHALL BE PROPERLY MAINTAINED TO PREVENT HARM TO AREAS ADJACENT TO THE SITE.

RESOURCE AREA NOTES

1. EXCESS SOIL, STUMPS, TREES, ROCKS, BOULDERS, AND OTHER REFUSE SHALL BE DISCARDED OFF-SITE IN AN APPROPRIATE UPLAND LOCATION, OUTSIDE OF ALL REGULATED WETLAND AREAS.
2. THE STRAW WATTLE/SILT FENCE LINE CALLED FOR ON THESE PLANS IS TO BE STAKED IN THE FIELD PRIOR TO CONSTRUCTION, AND SHALL SERVE AS THE STRICT LIMITS OF DISTURBANCE FOR THE PROJECT WITHIN OR ADJACENT TO REGULATED WETLAND AREAS. NO ALTERATIONS, INCLUDING VEGETATIVE CLEARING OR SURFACE DISTURBANCE, SHALL OCCUR BEYOND THIS STRAW WATTLES/SILT FENCE LINE.
3. THE LIMITS OF CLEARING, GRADING, AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. AREAS OUTSIDE OF THESE LIMITS, AS DEPICTED ON THE PROJECT SITE PLANS, SHALL REMAIN UNDISTURBED, IN A COMPLETELY NATURAL CONDITION.
4. SOIL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO THE INITIATION OF PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF SUCH CONTROLS DURING CONSTRUCTION. SEE SOIL EROSION AND SEDIMENTATION CONTROL NOTES.
5. NO HEAVY MACHINERY MAY BE USED WITHIN THE RESOURCE AREAS.

SIGNING AND STRIPING NOTES

1. THE LOCATION OF ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE MANUAL ON TRAFFIC CONTROL DEVICES (MUTCD).
2. FINAL PAVEMENT MARKINGS SHALL BE WHITE AND YELLOW EPOXY RESIN PAVEMENT MARKINGS. THE EPOXY PAVEMENT MARKINGS SHALL BE PLACED ON THE FINISHED COURSE OF PAVEMENT WITHIN FOURTEEN (14) DAYS AFTER PLACEMENT OF THE FINAL PAVEMENT COURSE.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES

1. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELIZING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
2. ALL SIGN MOUNTINGS FOR TEMPORARY AND CONSTRUCTION SIGNS SHALL BE IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. THE CONTRACTOR SHALL COVER ALL EXISTING AND/OR TEMPORARY SIGNS THAT ARE NOT RELEVANT TO THE TRAFFIC CONTROL REQUIRED DURING ANY PARTICULAR STAGE OF THE CONTRACT.
4. ADVANCE FLAGPERSON SIGNS (W20-7A) SHALL BE USED IN ADVANCE OF ANY POINT AT WHICH A FLAGPERSON OR POLICE OFFICER HAS BEEN STATIONED TO CONTROL TRAFFIC. WHEN NEEDED, AN APPROPRIATE DISTANCE MESSAGE MAY BE DISPLAYED ON A SUPPLEMENTAL PLATE (24"X18") BELOW THE FLAGPERSON SYMBOL SIGN. THE SIGN SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE FLAGPERSON IS NOT AT THE STATION.
5. POLICE OFFICERS (AND NOT FLAGPERSONS) SHALL BE UTILIZED WHEN WORK WILL IMPACT THE SIGNALIZED INTERSECTION.
6. POLYETHYLENE DRUMS SHALL BE UTILIZED AS A CHANNELIZING DEVICE WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN BEYOND WORKING HOURS WHEN NO WORKERS ARE PRESENT. CONES SHALL BE UTILIZED WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY BROKEN DOWN AT THE END OF THE WORKDAY.
7. ARROW PANELS SHALL BE SET IN THE FLASHING FOUR CORNERS CAUTION MODE UNLESS UTILIZED FOR A MERGING TAPER. ARROW PANELS SET IN THE FLASHING ARROW MODE SHALL NOT BE UTILIZED FOR LANE SHIFTS.
8. TEMPORARY CONSTRUCTION SIGNS AND OTHER WORKZONE TRAFFIC CONTROL DEVICES THAT ARE DAMAGED OR REQUIRE RELOCATION SHALL BE REPLACED AND/OR RELOCATED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."
9. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED ON THE TRAVEL LANES OR SHOULDERS. THEY MAY BE PARKED WITHIN THE CITY RIGHT-OF-WAY ONLY IN AREAS 30' BEYOND THE OUTSIDE EDGE OF THE TRAVEL LANES AND/OR IN AREAS APPROVED BY THE ENGINEER.
10. TEMPORARY CONSTRUCTION SIGNS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC, AND SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER APPROPRIATE.
11. THE INTENDED VEHICLE PATHS THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES. WATERBORNE PAVEMENT MARKINGS SHALL BE INSTALLED BEFORE THE END OF THE WORK SHIFT ON ALL MILLED AND NEW ROADWAY SURFACES THAT WILL BE OPENED TO TRAFFIC AT THE END OF THE SHIFT.

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
DESIGNED BY:
CHECKED BY:

REGISTERED PROFESSIONAL

PREPARED BY
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SUBCONSULTANT

SCALE
NONE
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

TITLE
Route 146 Interchange at Pound Hill Road
North Smithfield, Rhode Island

GENERAL NOTES

BETA JOB NO. 7398
ISSUE DATE 1/29/2021
SHEET NO. 3

LEGEND

(##) GENERAL PLAN SHEET NO.

[##] PROFILE SHEET NO.

ALT 1 (7) [9] ALT 2 (11) [13]

POUND HILL ROAD

100+00

105+00

0+00

200+00

ROUTE 146

9+72

5+00

5+00

10+00

15+00

PROPOSED ACCESS ROAD

ALT 1 (8) [9 10] ALT 2 (12) [13 14]

ALT 1 (8) [10] ALT 2 (12) [14]

20+00

24+38

0+00

PROPOSED ALTERNATIVE 2

PROPOSED ALTERNATIVE 1

110+00

112+00

BRANCH VILLAGE INDUSTRIAL PARK FUTURE ROADWAY

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:

DESIGNED BY:

CHECKED BY:

REGISTERED PROFESSIONAL

PREPARED BY

BETA

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SUBCONSULTANT

SCALE

100 0 100 200

SCALE IN FEET: 1"=100'

TITLE

Route 146 Interchange at Pound Hill Road
North Smithfield, Rhode Island

KEY PLAN

BETA JOB NO. 7398

ISSUE DATE 1/29/2021

SHEET NO. 4

PAVEMENT NOTES

PROPOSED MILL AND OVERLAY

PAVEMENT MILLING: 2" PAVEMENT MICROMILLING

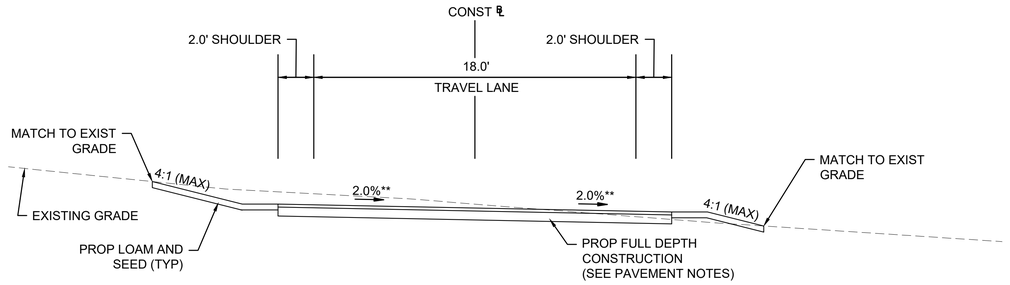
SURFACE COURSE: 2" CLASS 12.5 HMA

PROPOSED FULL DEPTH PAVEMENT

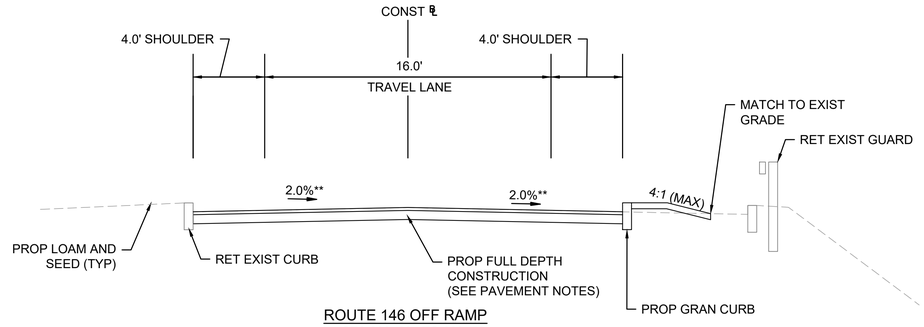
SURFACE COURSE: 2" CLASS 12.5 HMA

BASE COURSE: 4" CLASS 19.0 HMA

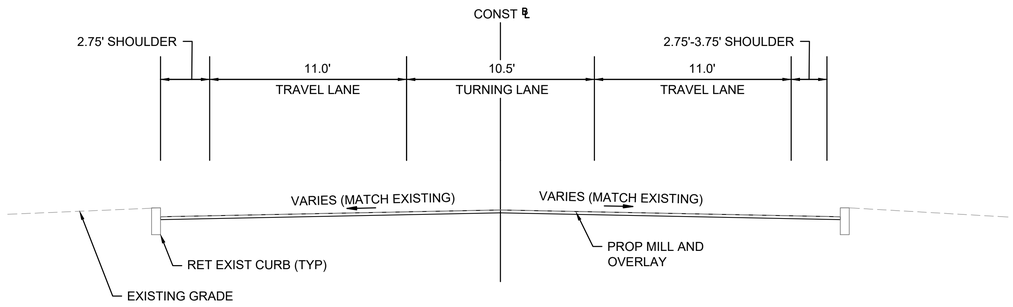
SUBBASE: 12" GRAVEL BORROW



ROUTE 146 ON RAMP
STA 0+00± TO 6+00±
NTS
** TOLERANCE FOR CONSTRUCTION ±0.5%



ROUTE 146 OFF RAMP
STA 200+00± TO 203+50±
NTS
** TOLERANCE FOR CONSTRUCTION ±0.5%



POUND HILL ROAD
STA104+50± TO 110+50±
NTS
** TOLERANCE FOR CONSTRUCTION ±0.5%

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REGISTERED PROFESSIONAL

PREPARED BY: BETA www.BETA-Inc.com

SUBCONSULTANT

SCALE: NONE

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TITLE: **Route 146 Interchange at Pound Hill Road**
North Smithfield, Rhode Island

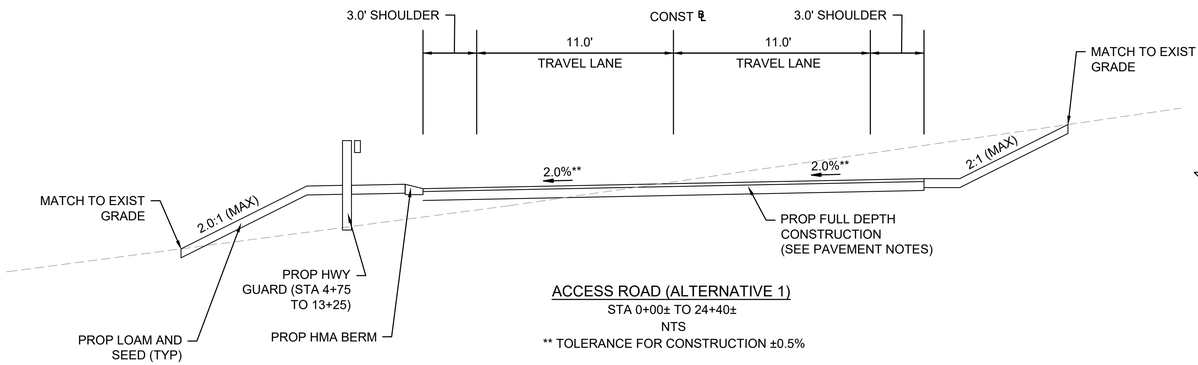
TYPICAL SECTIONS

BETA JOB NO. 7398

ISSUE DATE 1/29/2021

SHEET NO. 5

2/19/2021 11:03 AM N:\7300S\7398 - NORTH SMITHFIELD INTERCHANGE AT ROUTE 146\DRAWINGFILES\PLANSET\7398 TYPICAL SECTIONS.DWG (BETA STB BW.STB)

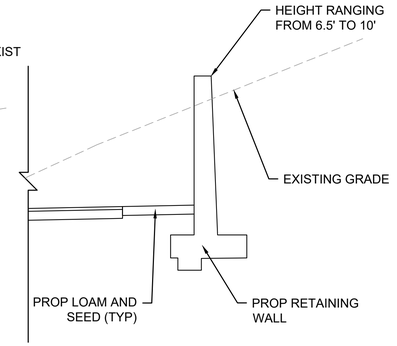


ACCESS ROAD (ALTERNATIVE 1)

STA 0+00± TO 24+40±

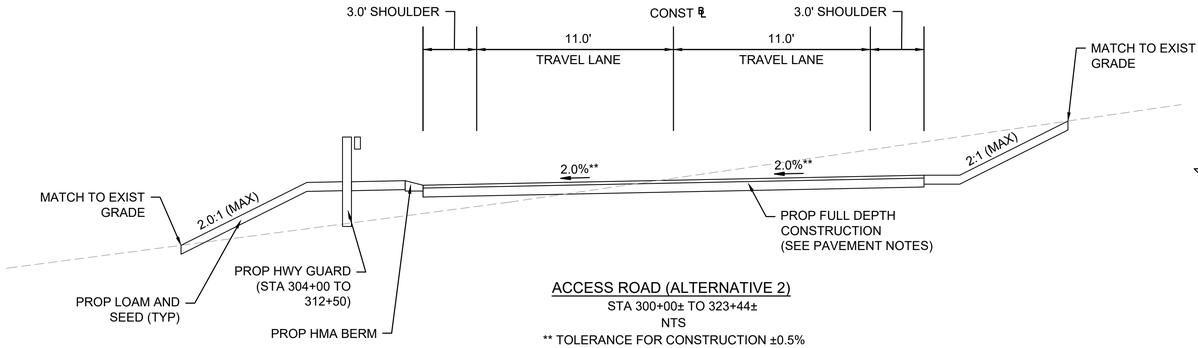
NTS

** TOLERANCE FOR CONSTRUCTION ±0.5%



WALL SECTION

STA 5+25± TO 11+25±

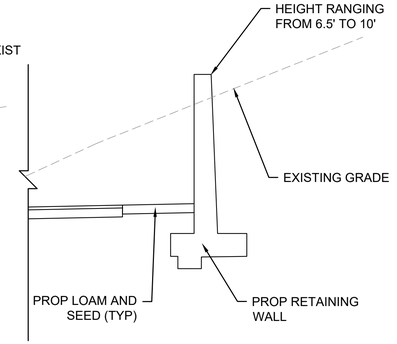


ACCESS ROAD (ALTERNATIVE 2)

STA 300+00± TO 323+44±

NTS

** TOLERANCE FOR CONSTRUCTION ±0.5%



WALL SECTION

STA 304+50± TO 310+60±

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REGISTERED PROFESSIONAL

PREPARED BY: BETA www.BETA-Inc.com

SUBCONSULTANT

SCALE: NONE

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TITLE: **Route 146 Interchange at Pound Hill Road**
North Smithfield, Rhode Island

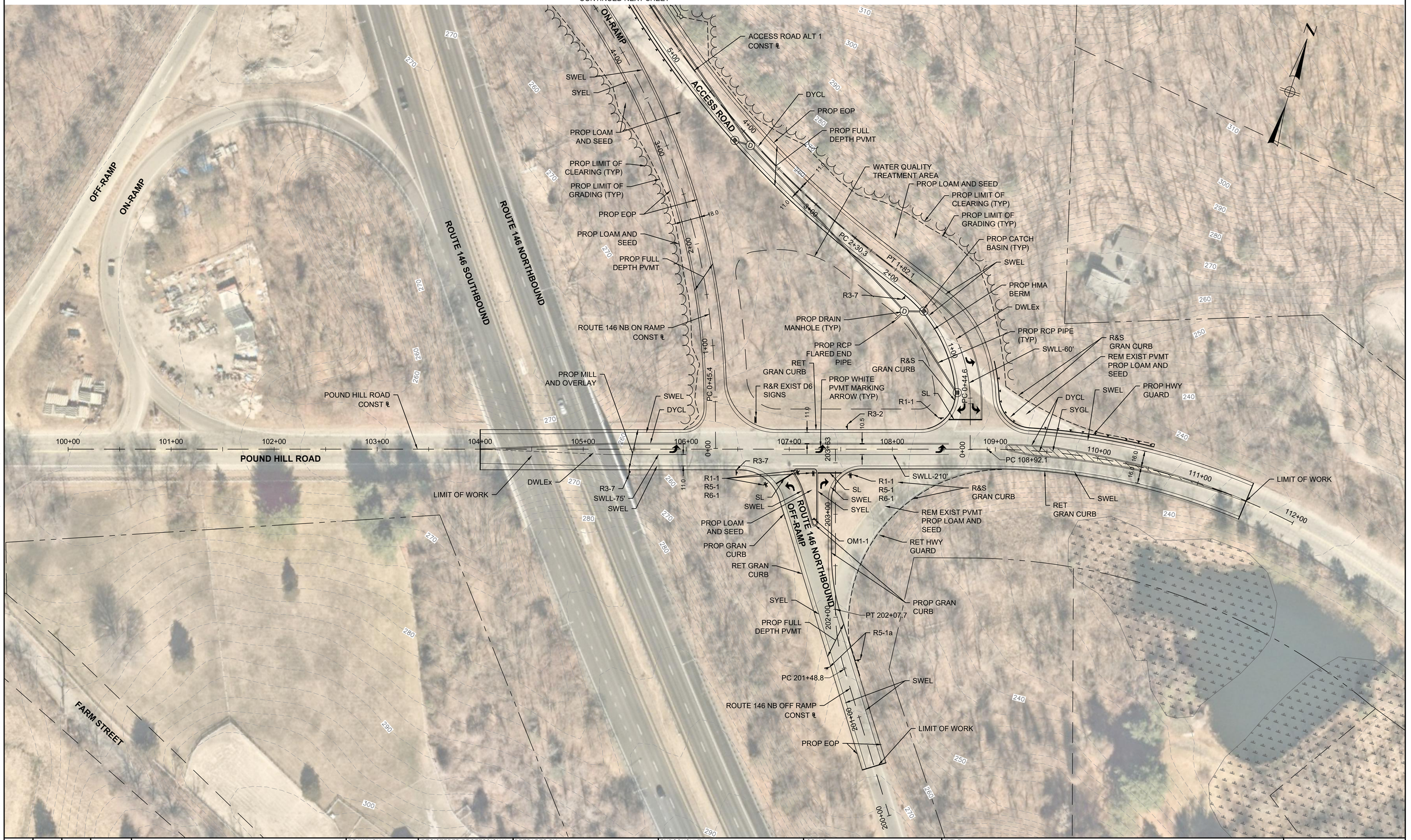
TYPICAL SECTIONS

BETA JOB NO. 7398

ISSUE DATE 1/29/2021

SHEET NO. 6

CONTINUED NEXT SHEET



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DESIGNED BY:

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For Review Only

PREPARED BY

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SCALE

40 0 40 80

SCALE IN FEET: 1"=40'

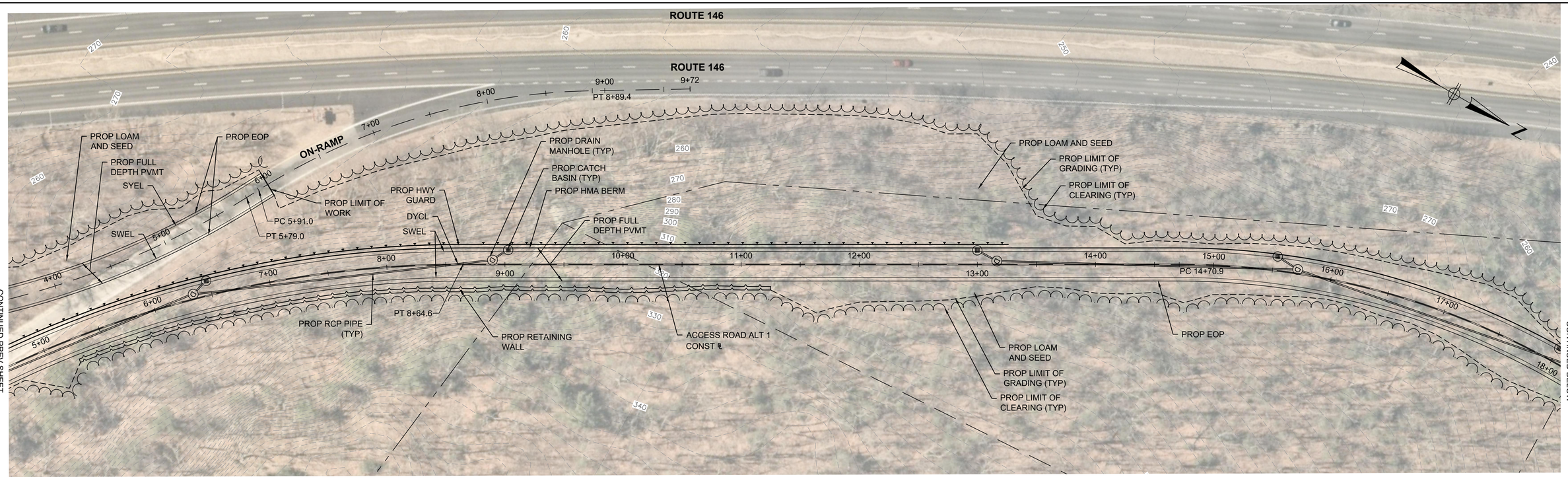
TITLE

Route 146 Interchange at Pound Hill Road
North Smithfield, Rhode Island
GENERAL PLAN
ALTERNATIVE 1

BETA JOB NO. 7398

ISSUE DATE 1/29/2021

SHEET NO. 7



2/19/2021 11:04 AM N:\7300\ST\7398 - NORTH SMITHFIELD INTERCHANGE AT ROUTE 146\DRAWINGFILES\PLANSET\7398 GENERAL PLANS ALT 1.DWG (BETA STB BW.STB)

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SCALE

40 0 40 80
SCALE IN FEET: 1"=40'

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TITLE

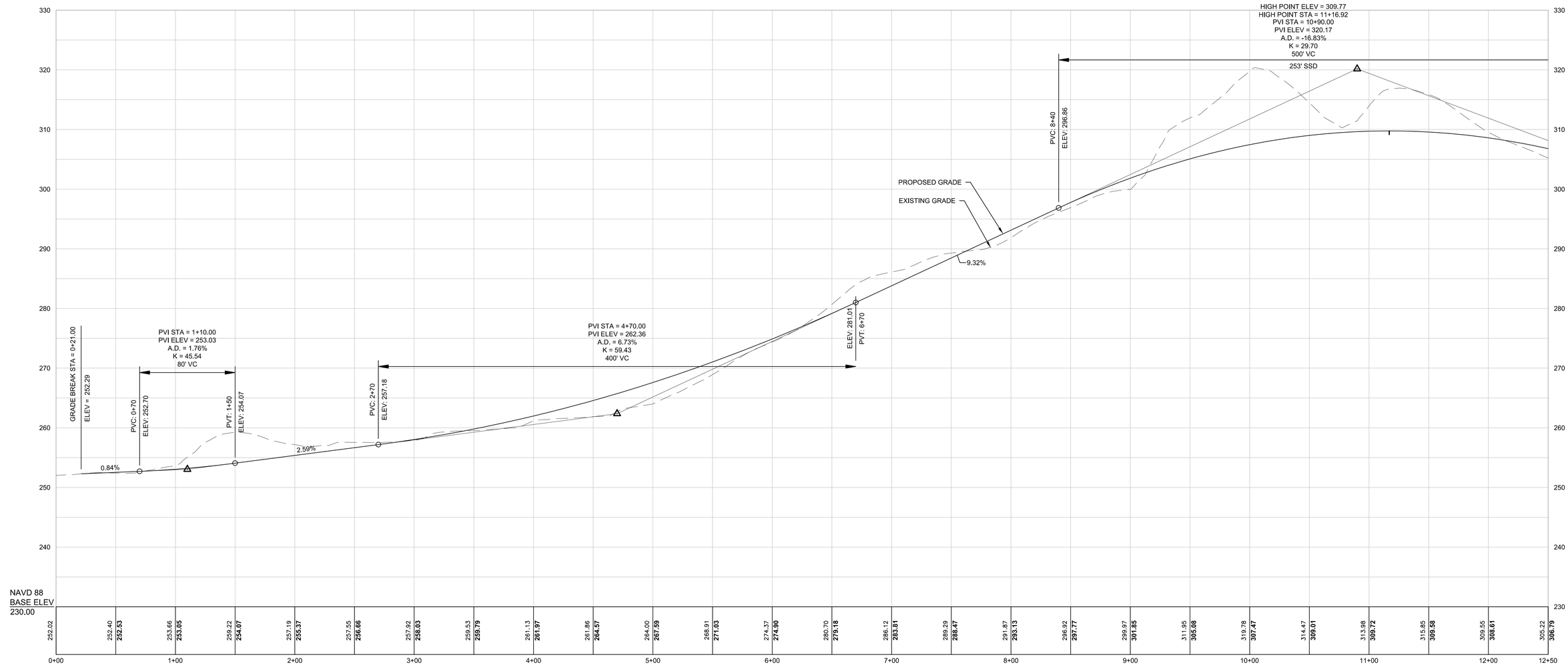
Route 146 Interchange at Pound Hill Road
North Smithfield, Rhode Island
GENERAL PLAN
ALTERNATIVE 1

BETA JOB NO. 7398

ISSUE DATE 1/29/2021

SHEET NO. 8

ACCESS ROAD
ALTERNATIVE 1



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SCALE

HOR. SCALE IN FEET: 1"=40'
40 0 40 80
VER. SCALE IN FEET: 1"=8'
8 0 8 16

TITLE

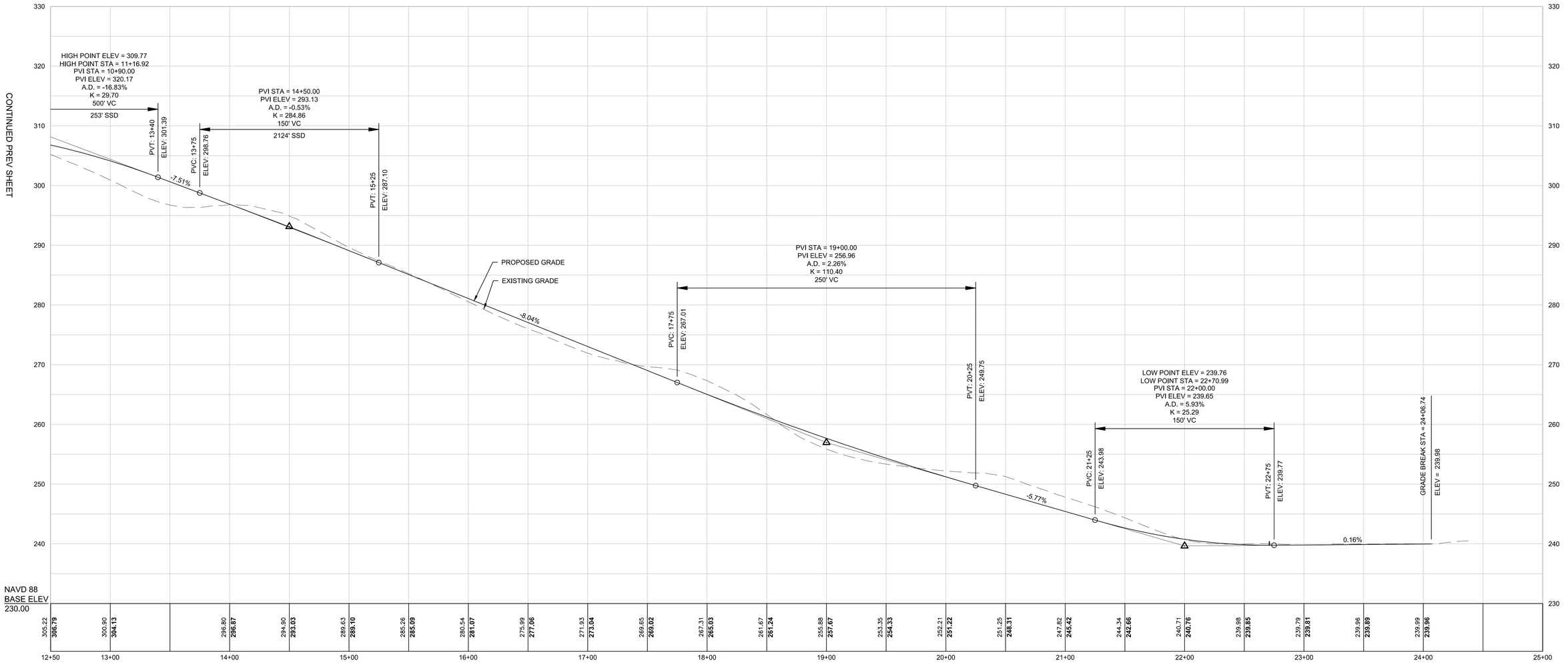
Route 146 Interchange at Pound Hill Road
North Smithfield, Rhode Island
PROFILES
ALTERNATIVE 1

BETA JOB NO. 7398

ISSUE DATE 1/29/2021

SHEET NO. 9

ACCESS ROAD
ALTERNATIVE 1



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SCALE

HOR. SCALE IN FEET: 1"=40'
40 0 40 80
8 0 8 16
VER. SCALE IN FEET: 1"=8'

TITLE

Route 146 Interchange at Pound Hill Road
North Smithfield, Rhode Island
PROFILES
ALTERNATIVE 1

BETA JOB NO. 7398

ISSUE DATE 1/29/2021

SHEET NO. 10

CONTINUED NEXT SHEET

PROP RCP PIPE (TYP)
PROP LOAM AND SEED
ACCESS ROAD ALT 2 CONST ℄
PROP CATCH BASIN (TYP)
PROP DRAIN MANHOLE (TYP)
PROP LIMIT OF CLEARING (TYP)
PROP EOP
DWLEx
PROP FULL DEPTH PVMT
DYCL
WATER QUALITY TREATMENT AREA
PROP LIMIT OF GRADING (TYP)
ACCESS ROAD
304+00
PRC 302+71.2
303+60
302+00
PC 301+60.4
SWEL
SYEL
4.00
48.0
PROP LOAM AND SEED
PROP LIMIT OF CLEARING (TYP)
PROP LIMIT OF GRADING (TYP)
PROP EOP
ROUTE 146 NORTHBOUND ON-RAMP
3+00
2+00
PROP LOAM AND SEED
PROP FULL DEPTH PVMT
PROP RCP FLARED END PIPE
ROUTE 146 NB ON RAMP CONST ℄
PROP SLOPE FACED GRAN CURB
PROP STAMPED & COLORED CONC TRUCK APRON
PROP MILL AND OVERLAY
1+00
PC 0+45.4
R3-8a
PROP HMA BERM
R&R EXIST D6 SIGNS
SWLL-190'
SWEL
301+00
PROP WHITE PVMT MARKING ARROW (TYP)
SL
DYCL
SYGL
EXISTING ROUTE 146 NORTHBOUND ON-RAMP
R&S GRAN CURB
REM EXIST PVMT PROP LOAM AND SEED
RET HWY GUARD
RET GRAN CURB
LIMIT OF WORK
PC 108+92.1
110+00
111+00
112+00
16.3
14.9
PROP FUTURE TRAFFIC SIGNAL (ALTERNATIVE 2A)
PROP GRAN CURB
R5-1
R6-1
REM EXIST PVMT PROP LOAM AND SEED
R&S GRAN CURB
RET HWY GUARD
PROP GRAN CURB
ROUTE 146 NORTHBOUND OFF-RAMP
203+00
PT 202+07.7
202+00
PROP FULL DEPTH PVMT
R5-1a
PC 201+48.8
ROUTE 146 NB OFF RAMP CONST ℄
201+00
PROP EOP
LIMIT OF WORK
200+00
POUND HILL ROAD CONST ℄
POUND HILL ROAD
RET GRAN CURB
LIMIT OF WORK
DWLEx
R3-7
SWLL-75'
SWEL
DYCL
SWEL
SWLL-55'
SL
R5-1
R6-1
REM EXIST PVMT PROP LOAM AND SEED
SYEL
R&S GRAN CURB
SWEL
SWLL-120'
PROP GRAN CURB
RET HWY GUARD
SWEL
SL
DYCL
SYGL
0+00
300+00
203+63
10.5
11.0
100+00
101+00
102+00
103+00
104+00
105+00
106+00
107+00
108+00
109+00
OFF-RAMP
ON-RAMP
ROUTE 146 SOUTHBOUND
ROUTE 146 NORTHBOUND
FARM STREET
270
260
280
290
300
310
250
240

N

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REGISTERED PROFESSIONAL
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SUBCONSULTANT

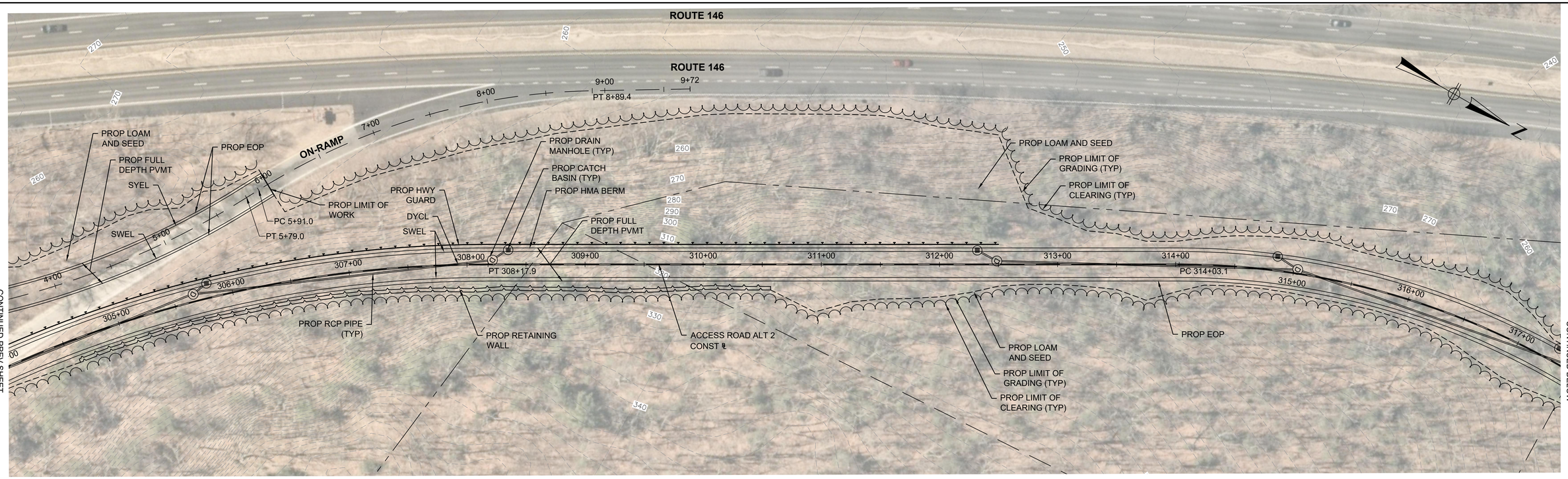
SCALE
40 0 40 80
SCALE IN FEET: 1"=40'
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

TITLE
Route 146 Interchange at Pound Hill Road
North Smithfield, Rhode Island
GENERAL PLAN
ALTERNATIVE 2

BETA JOB NO. 7398
ISSUE DATE 1/29/2021
SHEET NO. 11

2/19/2021 11:05 AM N:\7300S\7398 - NORTH SMITHFIELD INTERCHANGE AT ROUTE 146\DRAWINGFILES\PLANSET\7398 GENERAL PLANS ALT 2.DWG (BETA STB BW.STB)

CONTINUED PREV SHEET



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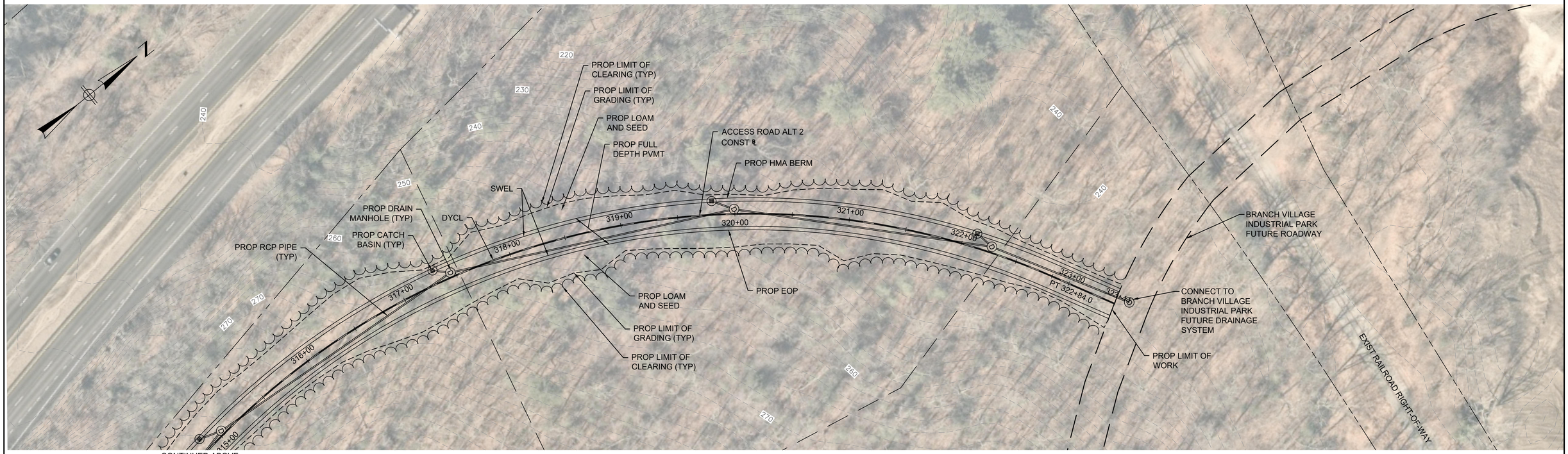

CONTINUED ABOVE

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SUBCONSULTANT

SCALE

40 0 40 80
SCALE IN FEET: 1"=40'

TITLE

Route 146 Interchange at Pound Hill Road
North Smithfield, Rhode Island
GENERAL PLAN
ALTERNATIVE 2

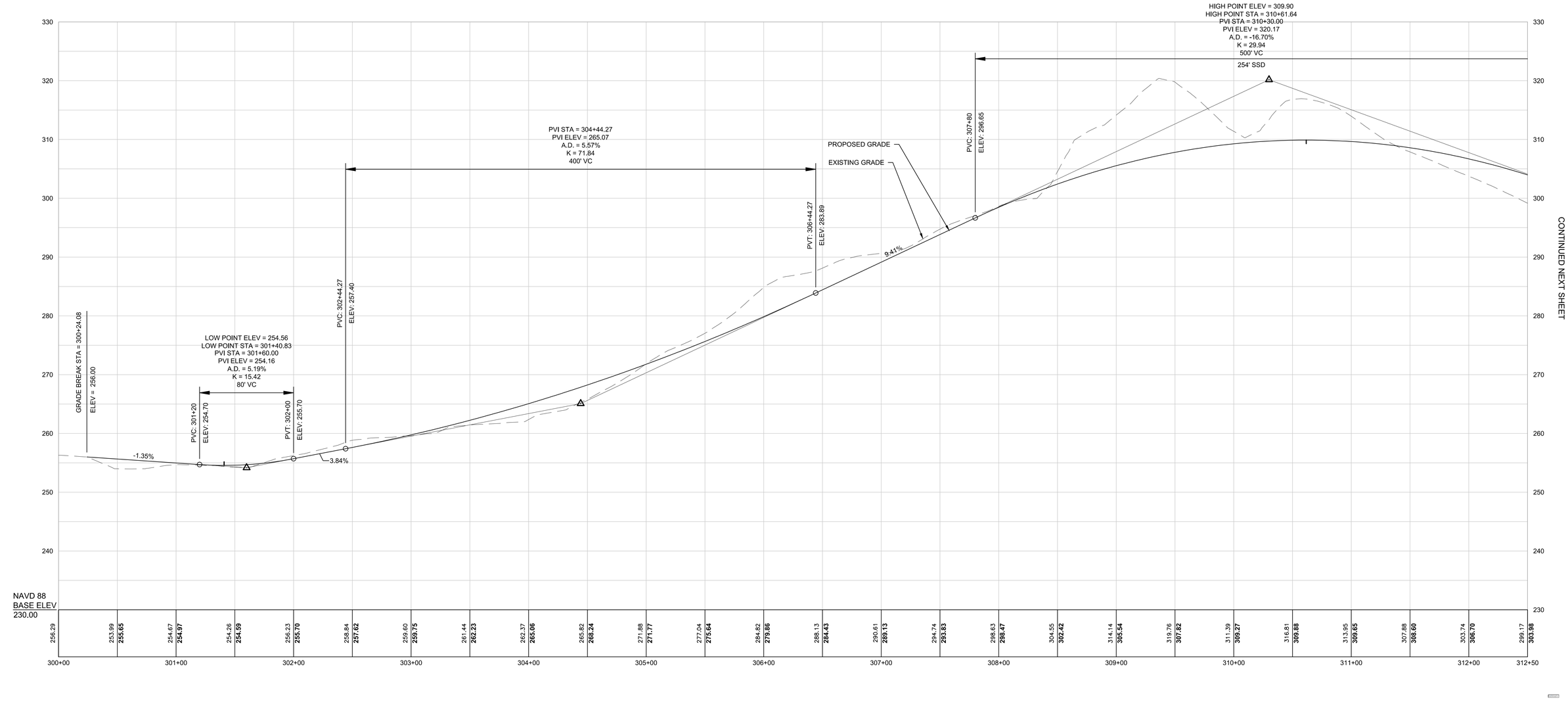
BETA JOB NO. 7398

ISSUE DATE 1/29/2021

SHEET NO. 12

2/19/2021 11:05 AM N:\7300\ST\7398 - NORTH SMITHFIELD INTERCHANGE AT ROUTE 146\DRAWINGFILES\PLANSET\7398 GENERAL PLANS ALT 2.DWG (BETA STB BW.STB)

ACCESS ROAD
ALTERNATIVE 2



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:

DESIGNED BY:

CHECKED BY:

REGISTERED PROFESSIONAL

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SCALE

HOR. SCALE IN FEET: 1"=40'
40 0 40 80
8 0 8 16
VER. SCALE IN FEET: 1"=8'

TITLE

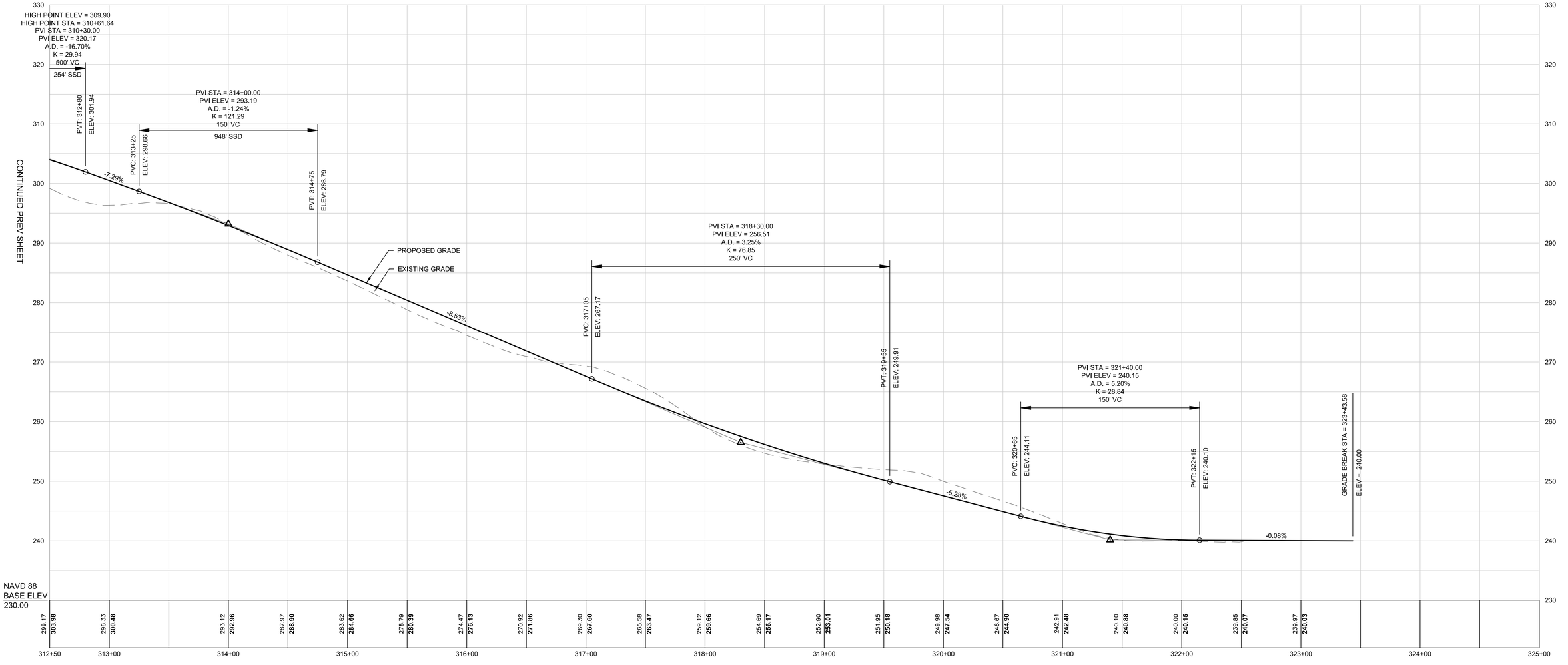
Route 146 Interchange at Pound Hill Road
North Smithfield, Rhode Island
PROFILES
ALTERNATIVE 2

BETA JOB NO. 7398

ISSUE DATE 1/29/2021

SHEET NO. 13

ACCESS ROAD
ALTERNATIVE 2



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SCALE

HOR. SCALE IN FEET: 1"=40'
40 0 40 80
VER. SCALE IN FEET: 1"=8'
8 0 8 16

TITLE

Route 146 Interchange at Pound Hill Road
North Smithfield, Rhode Island
PROFILES
ALTERNATIVE 2

BETA JOB NO. 7398

ISSUE DATE 1/29/2021

SHEET NO. 14