VDOT GENERAL NOTES

GRADING

G–1 THE GRADE LINE DENOTES TOP OF FINISHED PAVEMENT UNLESS SHOWN OTHERWISE ON TYPICAL SECTIONS OR PLANS.

G–3 EARTHWORK QUANTITIES ON THIS PROJECT ARE BASED ON ANTICIPATED SETTLEMENT AND MAY REQUIRE ADJUSTING DURING CONSTRUCTION. PAYMENT WILL BE MADE ONLY FOR QUANTITIES ACTUALLY MOVED.

G–4 THE COST OF REMOVAL OF ALL EXISTING CONCRETE ITEMS LOCATED IN THE AREA TO BE GRADED, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING, SHALL BE INCLUDED IN THE PRICE BID FOR REGULAR EXCAVATION: FOUNDATIONS, HEADWALLS, PIPES, DRAINAGE STRUCTURES, PAVED DITCHES.

G–6 THE BORROW MATERIAL FOR THIS PROJECT SHALL BE A MINIMUM CBR 15 OR AS APPROVED BY THE MATERIALS ENGINEER.

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 THE 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 FINISH 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 CONCRETE. FOR STRENGTH, SHEET THICKNESS, OR CLASS DESIGNATION, AVAILABLE SIZES, HEIGHT OF COVER LIMITATIONS AND OTHER RESTRICTIONS FOR A PARTICULAR PIPE TYPE OR HEIGHT OF COVER, SEE THE APPLICABLE SECTIONS OF THE VDOT ROAD AND BRIDGE STANDARDS PC–1.

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 STANDARD 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.

PAVEMENT

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 THEORETICAL MAXIMUM DENSITY. (SEE IIM–LD–158)

INCIDENTAL

I–8A CLEARING AND GRUBBING SHALL BE CONFINED TO THOSE AREAS NEEDED FOR CONSTRUCTION. NO TREES OR SHRUBS IN UNGRADED AREAS SHALL BE CUT WITHOUT THE PERMISSION OF 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–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 3B THRU 6B AND AS DIRECTED BY THE ENGINEER.

EROSION AND SEDIMENT CONTROL (ESC)

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.

UTILITIES

1. THE CONTRACTOR WILL CONTACT "MISS UTILITY OF VIRGINIA" (811) PRIOR TO BEGINNING WORK IN ORDER TO DETERMINE THE EXTENT AND LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE PROJECT LIMITS, UTILITY COMPANIES WILL BE NOTIFIED THROUGH "MISS UTILITY OF VIRGINIA" 72 HOURS PRIOR TO ANY EXCAVATION WITHIN THE PROXIMITY OF THEIR UTILITIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING OR REPLACING AT HIS OWN EXPENSE ANY EXISTING UTILITIES, PAVEMENT, CONCRETE ITEMS, PIPES, ETC THAT ARE DAMAGED DURING CONSTRUCTION.
2. THE LOCATION AND EXTENT OF EXISTING UTILITY FACILITIES ARE SHOWN BASED UPON INFORMATION AVAILABLE AT THE TIME OF DESIGN.
3. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION, ELEVATION, ORIENTATION, DIMENSIONS, MATERIALS, JOINT LOCATIONS, ETC. OF EXISTING PIPELINES AT CONNECTION POINTS PRIOR TO ORDERING MATERIALS.
4. ELEVATIONS OF EXISTING UTILITIES THAT CROSS THE PROPOSED PIPELINE(S) SHALL BE VERIFIED BY TEST PITS SUFFICIENTLY IN ADVANCE OF PIPELINE INSTALLATION TO PROVIDE ADJUSTMENT TO AVOID CONFLICTS WITHOUT PROJECT DELAY, HORIZONTAL DEPICTIONS OF WATER SERVICES AND SANITARY SEWER LATERAL LOCATIONS ARE APPROXIMATE; THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL SERVICES. THE ENGINEER AND PU INSPECTOR SHALL BE NOTIFIED IMMEDIATELY IF DISCREPANCIES EXIST.

NOTE: MAINTENANCE OF EXISTING SIDEWALK CONSISTED OF REMOVING AND REPLACING EXISTING SIDEWALK PANELS WITH 4" HYDRAULIC CEMENT CONCRETE. WORK ALSO CONSISTS OF REGRADING EXIST. VERGE BETWEEN SIDEWALK AND CURB, FLUSH BETWEEN CONCRETE FEATURES. ALL DISTURBED AREAS SHALL BE STABILIZED WITH TOPSOIL AND SEEDING.

LEGEND

	ASPHALT SURFACE
	SPOT ELEVATION
EHH	ELECTRIC HAND HOLE
Y/L	YARD LAMP
EM	ELECTRIC METER
	OVERHEAD LINES
	UNDERGROUND ELECTRIC
P/P	POWER POLE
L/P	LIGHT POLE
	GUY WIRE
GM	GAS METER
	UNDERGROUND GAS LINE
GV	GAS VALVE
	SIGN
	BOLLARD
EOI	END OF INFORMATION
SFMV	SANITARY FORCE MAIN VALVE
	FORCE MAIN
CDI	CURB DRAINAGE INLET
SDMH	STORM DRAIN MANHOLE
DI	DROP INLET
	STORM PIPES
	TRAVERSE POINT
TBM	TEMPORARY BENCH MARK
	UNDERGROUND CABLE
T–PED	TELEPHONE PEDESTAL
T–CAB	TELEPHONE CABINET
TMH	TELEPHONE MANHOLE
	UNDERGROUND TELEPHONE
	UNDERGROUND FIBER
FOWP	FIBER OPTIC WITNESS POST
	UNKNOWN UTILITY
SCO	SEWER CLEANOUT
SMH	SEWER MANHOLE
	SANITARY SEWER LINE
	SHRUB
	SAPLING
	TREE
WV	WATER VALVE
FH	FIRE HYDRANT
	UNDERGROUND WATER
WM	WATER METER
WDF	WOOD FENCE
WF	WIRE FENCE
TR–BOOM	TRAFFIC BOOM
TRHH	TRAFFIC HAND HOLE
TR–CAB	TRAFFIC CABINET
	UNDERGROUND TRAFFIC
MB	MAIL BOX
A/C	AIR CONDITIONER
M–WELL	MONITORING WELL
F	FUEL CAPS
	SATELLITE DISH
HDPE	HIGH DENSITY POLYETHYLENE
30"C&G	SIZE/CURB & GUTTER
UNK	UNKNOWN
CMP	CORRUGATED METAL PIPE
STL	STEEL
PVC	POLYVINYL CHLORIDE
QLC	QUALITY LEVEL C
CM	CREEP MYRTLE
PIV	POST INDICATOR VALVE
W–VAULT	WATER VAULT

MAIN STREET & ROUTE 10 INTERSECTION
ISLE OF WIGHT COUNTY, VIRGINIA

SCALE: 1" = 25'

PMI PROJECT #23070

SURVEY NOTES:
1. THE MERIDIAN SOURCE OF THIS TOPOGRAPHIC SURVEY IS BASED ON THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM 1983(NA2011) USING GPS RTK METHOD (U.S. SURVEY FOOT).
2. ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 USING RTK GPS METHOD.
3. THIS SURVEY WAS PREPARED TO SHOW EXISTING FEATURES AS OF SEPTEMBER 16, 2023 AND DOES NOT CERTIFY TO CHANGES TO SITE CONDITIONS WHICH OCCUR SUBSEQUENT TO THIS DATE AND OR TO PROPOSED IMPROVEMENTS.
4. THIS SURVEY DOES NOT CONSTITUTE A BOUNDARY SURVEY NOR A SUBDIVISION OF LAND.
5. PROPERTY AND RIGHT–OF–WAY LINES ARE DEPICTED FOR GRAPHIC PURPOSES ONLY AND DOES NOT REPRESENT A BOUNDARY SURVEY NOR A SUBDIVISION OF LAND. THE PROPERTY AND RIGHT–OF–WAY DEPICTED ON THIS TOPOGRAPHIC SURVEY ARE A COMPILATION OF DEEDS AND PLATS WHICH HAVE BEEN SCALED, TRANSLATED AND ROTATED TO FIT INTO THE PROJECT DATUM.
6. THIS SURVEY DOES NOT INTEND TO DEPICT ANY WETLANDS, HAZARDOUS WASTE AND ENVIRONMENTAL FEATURES THAT MAY AFFECT SAID PROPERTY SHOWN HEREON EXCEPT AS SHOWN.
7. PIPE MATERIAL TYPES ARE DETERMINED BY FIELD OBSERVATIONS TO THE BEST OF OUR ABILITY. PMI DOES NOT WARRANT THE MATERIAL TYPE OF PIPES LOCATED IN CONFINED OR INACCESSIBLE SPACES.
8. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN DESIGNATED BY ACCUMARK AND THE PAINT DESIGNATIONS LINES HAVE BEEN LOCATED IN THE FIELD. THE SURVEYOR MAKES NO GUARANTEE THE THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDON. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THE SURVEYOR FURTHER NOTIFIES ALL PARTIES THAT VIRGINIA LAW REQUIRES "VA811" TO BE CONTACTED PRIOR TO ANY EXCAVATION.
9. THE TOPOGRAPHY AND PHYSICAL FEATURES SHOWN ON THIS MAP WERE OBTAINED UNDER THE DIRECT AND RESPONSIBLE CHARGE AND SUPERVISION OF, GARY C. THOMAS, L.S. FROM AN ACTUAL GROUND OR SURVEY. THIS TOPOGRAPHIC SURVEY MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
10. THIS TOPOGRAPHIC SURVEY WAS PREPARED/COMPILED BY:

PRECISION MEASUREMENTS, INC.
SURVEYORS – GPS – GIS – MAPPING – 3–D LASER SCANNING
11835 CANON BLVD. SUITE B103
NEWPORT NEWS, VA. 23606
(757) 595–7570
WWW.PRECISIONMEASUREMENTS.COM
VIRGINIA BEACH – NEWPORT NEWS – RICHMOND, VIRGINIA

No.	REVISIONS	DATE

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4525 MAIN STREET, SUITE 1000, VIRGINIA BEACH, VA 23462
PHONE: 757–213–8600
WWW.KIMLEY–HORN.COM

Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT	117032035
DATE	7/12/2024
SCALE	AS SHOWN
DESIGNED BY	NVR
DRAWN BY	NVR
CHECKED BY	APF

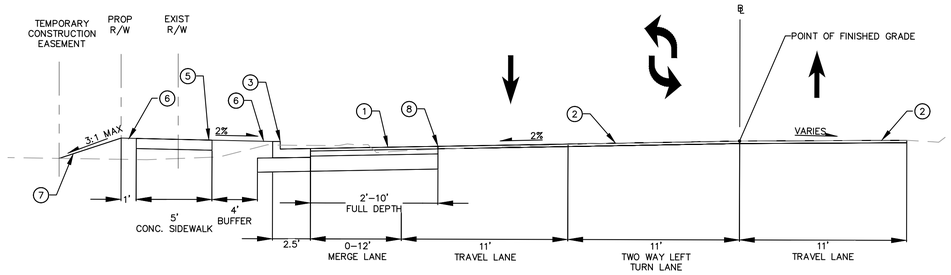
GENERAL NOTES

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
2

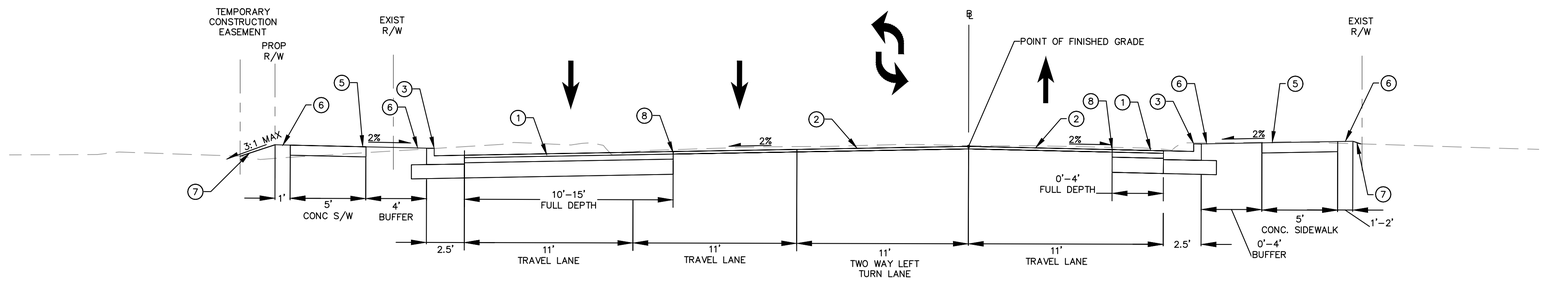
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1. PROPOSED FULL DEPTH ASPHALT PAVEMENT (PAVEMENT DESIGN TO BE PROVIDED UPON COMPLETION OF GEOTECHNICAL REPORT)
2. PROPOSED 1.5" MILLING OF EXISTING PAVEMENT AND 1.5" SM-9.5A @ 165 LB/SY
3. VDOT STD. CG-6
4. VDOT STD. CG-2
5. HYDRAULIC CEMENT CONCRETE SIDEWALK, 4"
6. GRADED SLOPE WITH TOPSOIL AND SEED
7. GRADED SLOPE WITH VDOT STD. EC-2 MATTING, TOPSOIL, AND SEED
8. SAWCUT AND PAVEMENT DEMOLITION IN ACCORDANCE WITH VDOT STD. WP-2 DETAIL



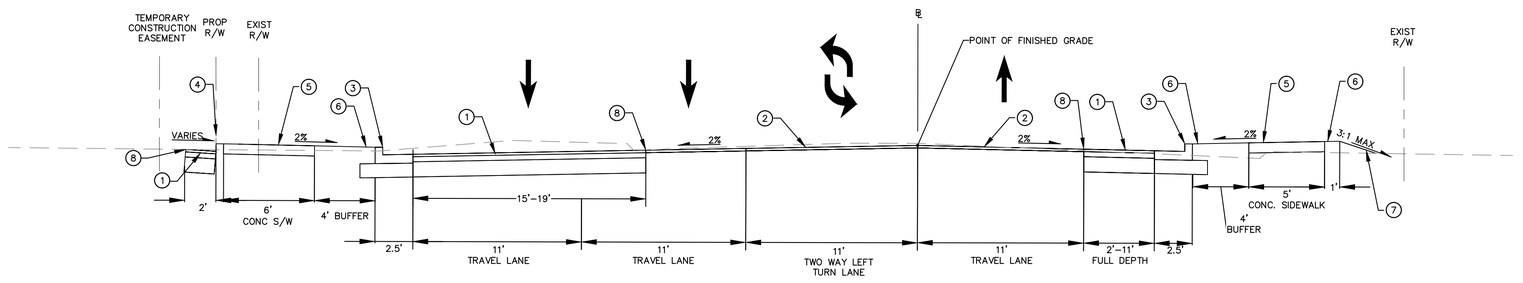
W MAIN STREET / US 258

100+85.58 TO 102+11.12
N.T.S



W MAIN STREET / US 258

102+11.12 TO 103+71.93
N.T.S



W MAIN STREET / US 258

103+71.93 TO 105+30.13
N.T.S

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Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR
		DRAWN BY NVR	CHECKED BY APF

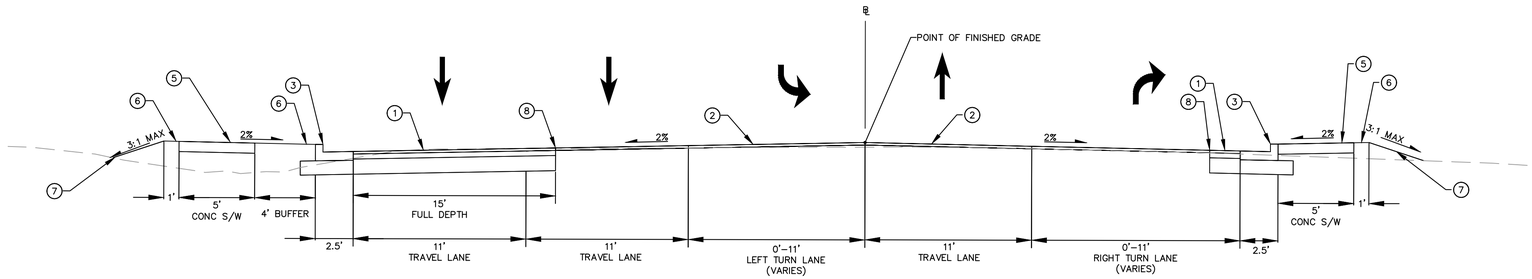
TYPICAL SECTIONS

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD
VIRGINIA

SHEET NUMBER
2A

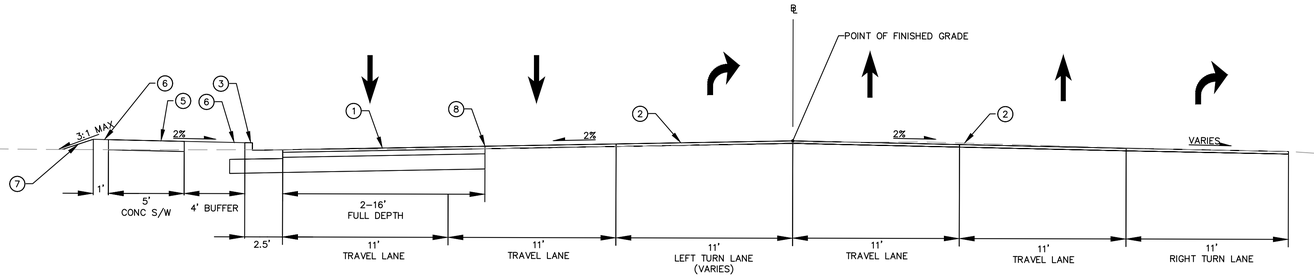
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8. SAWCUT AND PAVEMENT DEMOLITION IN ACCORDANCE WITH VDOT STD. WP-2 DETAIL



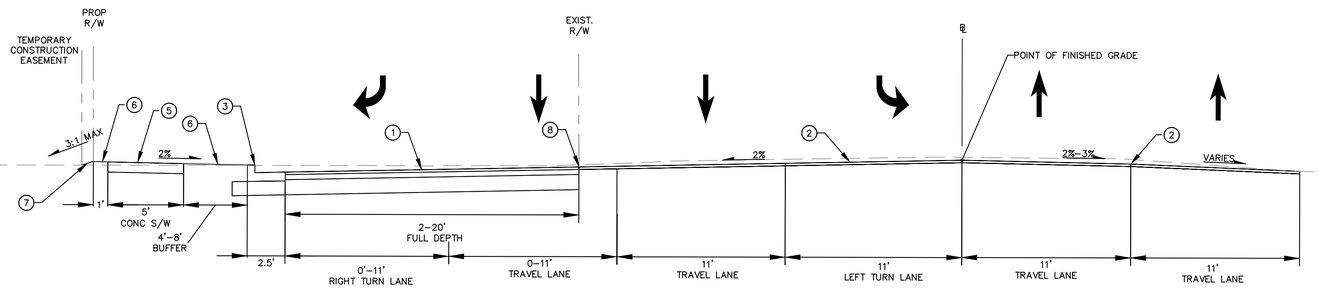
W MAIN STREET / US 258

105+84.21 TO 106+95.35
N.T.S



W MAIN STREET / US 258

106+95.35 TO 108+13.75
N.T.S



W MAIN STREET / US 258

109+16.87 TO 114+89.11
N.T.S

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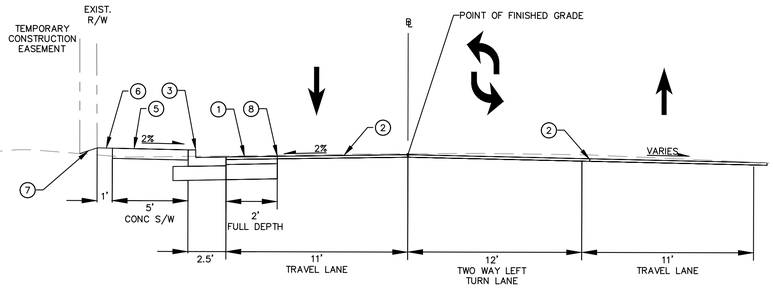
KHA PROJECT 117032035	DATE 7/12/2024		
SCALE AS SHOWN	DESIGNED BY NVR	DRAWN BY NVR	CHECKED BY APF

TYPICAL SECTIONS

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD VIRGINIA

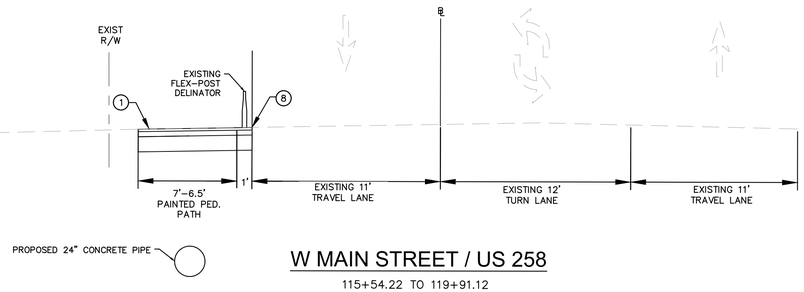
SHEET NUMBER
2B

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6. GRADED SLOPE WITH TOPSOIL AND SEED
7. GRADED SLOPE WITH VDOT STD. EC-2 MATTING, TOPSOIL, AND SEED
8. SAWCUT AND PAVEMENT DEMOLITION IN ACCORDANCE WITH VDOT STD. WP-2 DETAIL



W MAIN STREET / US 258

114+89.11 TO 115+54.22
N.T.S



W MAIN STREET / US 258

115+54.22 TO 119+91.12
N.T.S

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Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT	117032035
DATE	7/12/2024
SCALE	AS SHOWN
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TYPICAL SECTIONS

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BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD
VIRGINIA

SHEET NUMBER
2C

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THIS PROJECT WIDENS MAIN STEET/ ROUTE 258 ON BOTH SIDES OF THE OF THE ROUTE 10 BYPASS INTERSECTION FROM A SINGLE THRU LANE IN EACH DIRECTION TO TWO 11-FOOT THRU LANES IN EACH DIRECTION AND RESTORE THE EXISTING LEFT AND RIGHT TURN LANES AT THE INTERSECTION. THE PEDESTRIAN ACCOMMODATIONS ALONG MAIN STREET INCLUDE A MINIMUM 4-FOOT-WIDE LANDSCAPED BUFFER AND 5-FOOT-WIDE SIDEWALK ALONG THE ENTIRE NORTH SIDE OF MAIN STREET AND ON THE SOUTH SIDE TO THE WEST OF THE ROUTE 10 BYPASS. THE PROPOSED IMPROVEMENTS WILL BE CONSISTENT WITH THE CONCEPT SUBMITTED WITH THE SMART SCALE APPLICATION AND CONSIST OF ROADWAY WIDENING, CURB AND GUTTER IMPROVEMENTS, DRAINAGE AND STORMWATER MANAGEMENT IMPROVEMENTS, PEDESTRIAN ACCOMMODATIONS, AND TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL IMPROVEMENTS. THE IMPROVEMENTS ALSO CONSIST OF THE DESIGN OF A NEW PARK AND RIDE LOT ON THE NORTHWEST CORNER OF THE INTERSECTION THAT WILL PROVIDE A 5-FOOT-WIDE SIDEWALK CONNECTION.

EROSION AND SEDIMENT CONTROL

EXTENSIVE EROSION AND SEDIMENT CONTROL MEASURES INCLUDING SILT FENCE, INLET PROTECTION, TREE PROTECTION, AND CONSTRUCTION ENTRANCES, ARE PROPOSED FOR THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLAN. 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, 3RD EDITION (VESCH) AND THE 2016 VDOT ROAD AND BRIDGE STANDARDS. THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS WAIVED OR APPROVED BY A VARIANCE.

STRUCTURAL PRACTICES

SILT FENCE
SILT FENCE IS PLACED AS SHOWN ON THE PLANS TO TRAP SEDIMENT-LADEN RUNOFF FROM EXITING THE PROJECT SITE. THE SILT FENCE WAS SPECIFICALLY PLACED TO PROTECT ADJACENT AREAS.

INLET PROTECTION
INLET PROTECTION WILL BE PROVIDED ON ALL EXISTING AND PROPOSED STORM DRAIN INLETS TO PROTECT SEDIMENT-LADEN WATER FROM ENTERING THE STORM PIPING SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE SURROUNDING DISTURBED AREAS.

TREE PROTECTION
THE TREE PROTECTION FENCING SHALL BE CONSTRUCTED ALONG THE TREE DRIP LINE AND IT IS DESIGNED TO PREVENT THE TREE AND ITS ROOT BASE FROM BEING DAMAGED DURING CONSTRUCTION.

VEGETATIVE PRACTICES

TEMPORARY SEEDING
ALL AREAS THAT HAVE NOT REACHED FINAL GRADE AND WILL BE LEFT DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR WILL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED, BUT WILL BE IN ACCORDANCE WITH VESCH STANDARDS.

PERMANENT SEEDING/SODDING/FERTILIZATION
ALL ON-SITE UNPAVED OPEN AREAS THAT HAVE REACHED FINAL GRADE WILL BE PERMANENTLY SEEDED OR SODDED AND FERTILIZED WITHIN 7 DAYS OF FINAL GRADING.

MANAGEMENT STRATEGIES

1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
2. TEMPORARY SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.
3. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.
4. THE RESPONSIBLE LAND DISTURBER WILL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
5. AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

PERMANENT STABILIZATION

ALL DISTURBED AREAS THAT WILL REMAIN DORMANT FOR MORE THAN ONE YEAR WILL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING GRADING. SEEDING WILL BE DONE IN ACCORDANCE WITH THE PLANTING SCHEDULE PROVIDED ON THE NOTES SHEET IN THE SITE PLAN DRAWINGS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER, AND LIME WILL BE APPLIED PRIOR TO MULCHING.

MAINTENANCE

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY, AFTER EVERY SIGNIFICANT RAINFALL (0.5" IN A 24-HOUR DURATION), AND IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

1. THE CONSTRUCTION ENTRANCE SHALL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT THE CLEANING OF THE WHEELS OF CONSTRUCTION TRAFFIC. IF CONSTRUCTION ENTRANCE IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.
2. THE SILT FENCE BARRIERS SHALL 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.
3. THE SEEDED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDED AS NEEDED TO ESTABLISH AND MAINTAIN A GOOD STAND OF VEGETATION.
4. EC MATTING ON STOCKPILES SHOULD BE CHECKED REGULARLY TO ENSURE IT HAS NOT BEEN DAMAGED FROM CONSTRUCTION OPERATIONS. ANY DAMAGED EC MATTING SHALL BE REPLACED.

SOILS

THE FOLLOWING SOIL TYPES WERE IDENTIFIED WITHIN THE PROJECT SITE BY THE UNITED STATES DEPARTMENT OF AGRICULTURE'S NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY: NEVARC AND REMLIK SOILS (15 TO 35 PERCENT SLOPES, 2.0% AOI), PEAWICK SILT LOAM (0 TO 2 PERCENT SLOPES, 76.9% AOI), AND PEAWICK SILT LOAM (2 TO 6 PERCENT SLOPES, 21.0% AOI).

SOIL TYPE 11E
NEVARC AND REMLIK SOILS, 15 TO 30 PERCENT SLOPES
HYDROLOGIC SOIL GROUP: A

SOIL TYPE 12A
PEAWICK SILT LOAM, 0 TO 2 PERCENT SLOPES
HYDROLOGIC SOIL GROUP: D

SOIL TYPE 12B
PEAWICK SILT LOAM, 2 TO 6 PERCENT SLOPES
HYDROLOGIC SOIL GROUP: D

SEQUENCE OF CONSTRUCTION

SEE SHEET 1D FOR SEQUENCE OF CONSTRUCTION

VIRGINIA EROSION AND SEDIMENT CONTROL PLAN MINIMUM STANDARDS (MS) CHECKLIST

YES	N/A	4VAC50-30-40 MINIMUM STANDARDS	DESCRIBE HOW MS IS ADDRESSED ON PLAN
X		MS1: 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 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.	FOR SOIL STABILIZATION, SEEDING DETAILS CAN BE FOUND ON SHEET 2D(1)
X		MS2: DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES 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 SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.	AS NEEDED, A DOUBLE ROW OF SILT FENCE IS REQUIRED AROUND ALL SOIL STOCKPILES.
X		MS3: 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.	ALL DENUDED AREAS ARE SHOWN WITH TEMPORARY SEEDING ON THE PLANS. PERMANENT STABILIZATION DETAILS CAN BE FOUND ON SHEET 2D(1).
X		MS4: 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 UPSLOPE LAND DISTURBANCE TAKES PLACE.	AS PROVIDED IN THE SEQUENCE OF CONSTRUCTION ON SHEET 1D, CONSTRUCTION ENTRANCES AND SILT FENCE WILL BE INSTALLED BEFORE CLEARING AND GRUBBING BEGINS.
	X	MS5: STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.	NO DAMS, DIKES OR DIVERSIONS ARE PROPOSED FOR THE PROJECT.
	X	MS6: 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 AREA 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 25-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.	NO SEDIMENT TRAPS OR SEDIMENTS BASINS ARE PROPOSED FOR THE PROJECT.
X		MS7: 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.	ALL CUT AND FILL SLOPES ARE 3:1 OR LESS
	X	MS8: CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.	ANY RUNOFF DOWN FILL SLOPES IS SHEET FLOW AND THEREFORE SHOULD NOT ERODE THE SOILS.
X		MS9: WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.	ALL PROPOSED SLOPES ARE DESIGNED TO BE STABILIZED WITH TEMPORARY SEEDING DURING CONSTRUCTION AND PERMANENT VEGETATION OR HARDSCAPE IN THE ULTIMATE CONDITION.
X		MS10: 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.	ALL ON-SITE AND DOWN STORM INLETS SHALL BE PROTECTED WITH INLET PROTECTION UNTIL FINAL STABILIZATION IS REACHED.
X		MS11: 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.	TEMPORARY AND PERMANENT OUTFALL PROTECTION IS PROVIDED WITH THIS PLAN.
	X	MS12: 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. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.	NO WORK IN A LIVE WATERCOURSE IS ANTICIPATED.
	X	MS13: WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWCE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.	NO VEHICLE CROSSING OVER A LIVE WATERCOURSE IS ANTICIPATED.
	X	MS14: ALL APPLICABLE FEDERAL, STATE AND LOCAL CHAPTERS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.	NO CROSSINGS OVER OR WORK WITHIN A LIVE WATERCOURSE ARE ANTICIPATED.
	X	MS15: THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.	NO WORK IN A LIVE WATERCOURSE IS ANTICIPATED.
X		MS16: 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 THE 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 BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION. E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER. F. APPLICABLE SAFETY CHAPTERS SHALL BE COMPLIED WITH.	UNDERGROUND UTILITIES SHALL BE INSTALLED ACCORDANCE WITH THE STANDARD NOTES.
X		MS17: 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.	CONTRACTOR IS REQUIRED TO ESTABLISH CONSTRUCTION ENTRANCES, AS NEEDED, THROUGHOUT THE LENGTH OF THE PROJECT LIMITS.
X		MS18: 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 VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.	THE LAST STEP IN THE SEQUENCE OF CONSTRUCTION STATES "REMOVE TEMPORARY CONTROLS IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. DO NOT REMOVE EROSION CONTROL MEASURES UNTIL THE ENTIRE SITE HAS BEEN PERMANENTLY STABILIZED.
X		MS19: PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES 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. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS: 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: 1) 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 2) (A) 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 OR BANKS. (B) 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 (C) 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 CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO CHANNEL THE BED OR BANKS; OR 2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES; 3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWOYEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PREDEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MANMADE CHANNEL; OR 4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION. D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS. E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT. F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A 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 MANAGEMENT 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 THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE. L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO I. DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; II. DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24- HOUR STORM; AND III. REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 10.1-562 OR 10.1-570 OF THE ACT. M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 10.1-561 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 10.1-603.2 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 4VAC50-60-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS. N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 4VAC50-60-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF MINIMUM STANDARD 19.	THIS PROJECT HAS BEEN DESIGNED TO BE IN COMPLIANCE WITH PART IIB STORMWATER MANAGEMENT CRITERIA FOR WATER QUANTITY

Plotted By:Russo, Niki Sheet Set:Kha Layout:2D NARRATIVE July 11, 2024 03:31:58pm K:\VAB_RDW\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\2D ESC NARRATIVE AND DETAILS.dwg
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No.	REVISIONS	DATE

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Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT	DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
117032035	7/12/2024	AS SHOWN	NVR	NVR	APF

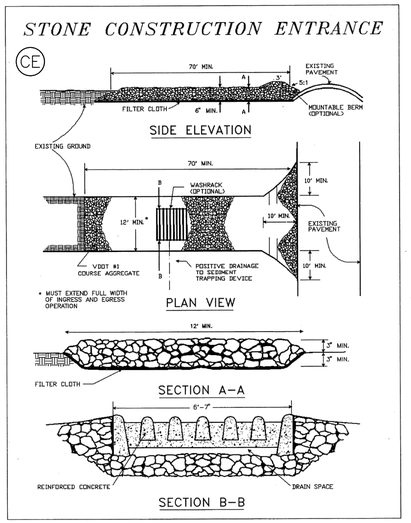
EROSION & SEDIMENT CONTROL NARRATIVE

US 258 AT ROUTE 10 BYPASS INTERSECTION IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD VIRGINIA

SHEET NUMBER
2D

1992 3.02

STONE CONSTRUCTION ENTRANCE (CE)



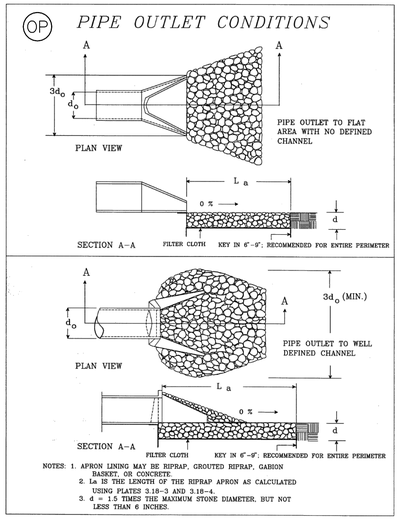
Source: Adapted from 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC

Plate 3.02-1

III - 9

1992 3.18

PIPE OUTLET CONDITIONS (OP)



NOTES: 1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP, GABION BASKET, OR CONCRETE.
2. La IS THE LENGTH OF THE RIPRAP APRON AS CALCULATED USING PLATES 3.18-3 AND 3.18-4.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6 INCHES.

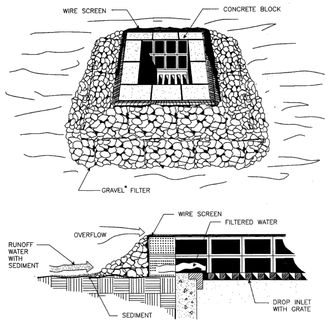
Source: Va. DSWC

Plate 3.18-1

III - 157

1992 3.07

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER (P-A)



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

Source: Va. DSWC

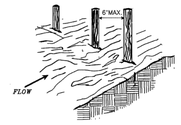
Plate 3.07-3

III - 38

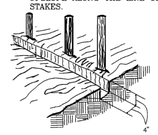
1992 3.05

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT) (SF)

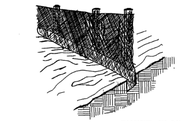
1. SET THE STAKES.



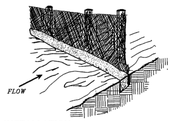
2. EXCAVATE A 4"X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



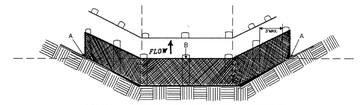
3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



SHEET FLOW INSTALLATION
(PERSPECTIVE VIEW)



POINTS A SHOULD BE HIGHER THAN POINT B.

DRAINAGEWAY INSTALLATION
(FRONT ELEVATION)

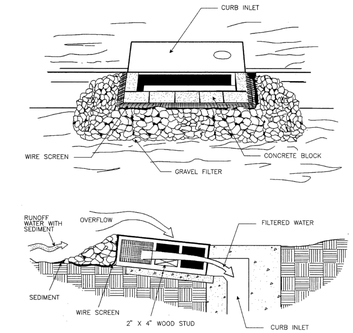
Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant

Plate 3.05-2

III - 25

1992 3.07

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER (P-B)



SPECIAL APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE

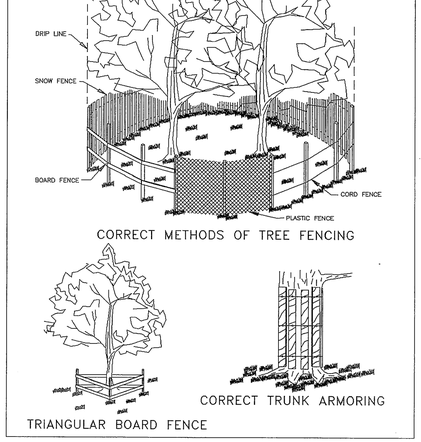
Source: Va. DSWC

Plate 3.07-8

III - 45

1992 3.38

FENCING AND ARMORING (TP)



Source: Va. DSWC

Plate 3.38-2

PERMANENT SEEDING SPECIFICATIONS FOR COASTAL PLAIN AREA (PS)

TABLE 3.32-E
(Revised June 2003)
PERMANENT SEEDING SPECIFICATIONS FOR COASTAL PLAIN AREA

SEED[1]		
LAND USE	**SPECIES**	**APPLICATION RATES**
Minimum Care Lawn (Commercial or Residential)	Tall Fescue[1]	175 - 200 lbs.
	or	
	Bermudagrass[1]	75 lbs.
High-Maintenance Lawn	Tall Fescue[1]	200-250 lbs.
	or	
	Bermudagrass[1] (seed)	40 lbs. (unhulled)
	or	30 lbs. (hulled)
	Bermudagrass[1] (by other vegetative establishment method, see Std. & Spec. 3.34)	
General Slope (3:1 or less)	Tall Fescue[1]	128 lbs.
	Red Top Grass or Creeping Red Fescue	2 lbs.
	Seasonal Nurse Crop[2]	20 lbs.
		TOTAL: 150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	Tall Fescue[1]	93-108 lbs.
	Bermudagrass[1]	0-15 lbs.
	Red Top Grass or Creeping Red Fescue	2 lbs.
	Seasonal Nurse Crop[2]	20 lbs.
	Sericea Lespedeza[3]	20 lbs.
		TOTAL: 150 lbs.

1 - When selecting varieties of turfgrass, use the Virginia Crop Improvement Association (VCIA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by VCIA. A current turfgrass variety list is available at the local County Extension office or through VCIA at 804-746-4884 or at http://sudan.cses.vt.edu/html/Turf/turf/publications/publications2.html

2 - Use seasonal nurse crop in accordance with seeding dates as stated below:

February, March - April	Annual Rye
May 1st - August	Foxtail Millet
September, October - November 15th	Annual Rye
November 16th - January	Winter Rye

3 - May through October, use hulled seed. All other seeding periods, use unhulled seed. If Weeping Lovegrass is used, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30 -40 lbs/acre.

FERTILIZER & LIME

- Apply 10-20-10 **fertilizer** at a rate of **500** lbs. / acre (or 12 lbs. / 1,000 sq. ft.)
- Apply **Pulverized Agricultural Limestone** at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

NOTE:
- A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
- Incorporate the lime and fertilizer into the top 4 – 6 inches of the soil by disking or by other means.
- When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin # 4, 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/es4a.htm#pubs

QUICK REFERENCE FOR ALL REGIONS (TS)

TABLE 3.31-B
(Revised June 2003)
TEMPORARY SEEDING SPECIFICATIONS
QUICK REFERENCE FOR ALL REGIONS

SEED		
APPLICATION DATES	**SPECIES**	**APPLICATION RATES**
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (lolium multi-florum) & Cereal (Winter) Rye (Secale cereale)	50 -100 (lbs/acre)
Feb. 16 - Apr. 30	Annual Ryegrass (lolium multi-florum)	60 - 100 (lbs/acre)
May 1 - Aug. 31	German Millet	50 (lbs/acre)

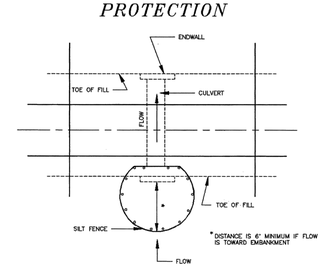
FERTILIZER & LIME

- Apply 10-10-10 **fertilizer** at a rate of 450 lbs. / acre (or 10 lbs. / 1,000 sq. ft.)
- Apply **Pulverized Agricultural Limestone** at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

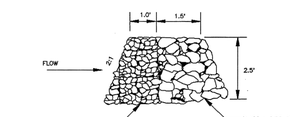
NOTE:
1 - A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
2 - Incorporate the lime and fertilizer into the top 4 – 6 inches of the soil by disking or by other means.
3 - When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin # 4, 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/es4a.htm#pubs

1992 3.08

SILT FENCE CULVERT INLET PROTECTION (CIP)



OPTIONAL STONE COMBINATION**



** VDOT #3, #357 OR #5 COARSE AGGREGATE TO REPLACE SILT FENCE IN " HORSESHOE " WHEN HIGH VELOCITY OF FLOW IS EXPECTED

Source: Adapted from VDOT Standard Sheets and Va. DSWC

Plate 3.08-1

III - 49

Plotted By: Russo, Niki Sheet Set: Kha Layout: 2D(1) DETAILS July 11, 2024 03:31:59pm K:\VAB_RDWY\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\2D ESC NARRATIVE AND DETAILS.dwg
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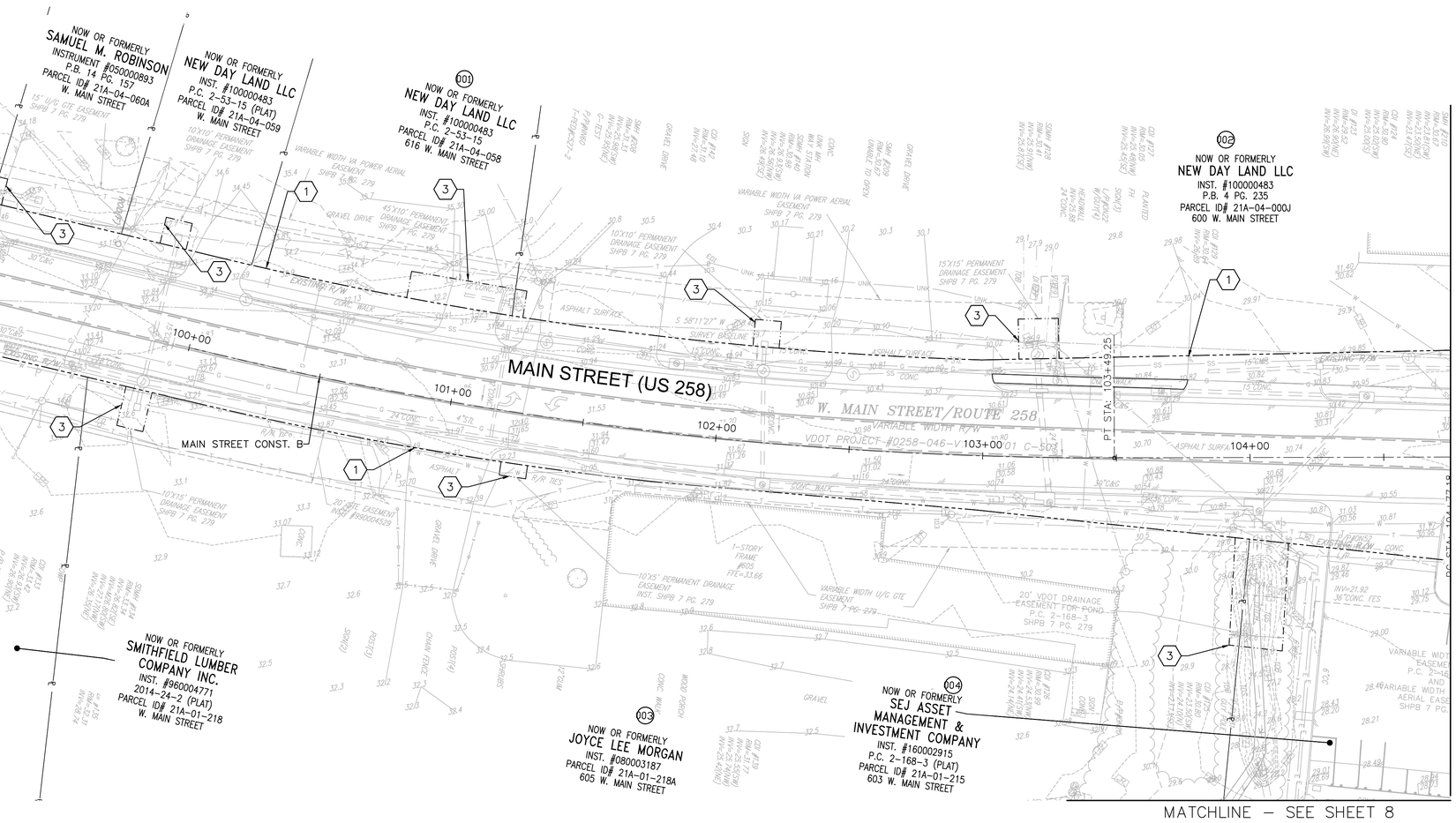
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Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	
		DESIGNED BY NVR	
		DRAWN BY NVR	
		CHECKED BY APF	

EROSION & SEDIMENT CONTROL DETAILS

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD
VIRGINIA

SHEET NUMBER
2D(1)



GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

LEGEND

1 — · — · — · — EXISTING RIGHT OF WAY LINE
2 — · — · — · — EXISTING LIMITED ACCESS LINE
3 — · — · — · — EXISTING DRAINAGE EASEMENT

NOTES:

1. DARKER SHADE REPRESENTS IMPROVEMENTS INCLUDED IN UPC #102951

NORTH

No.	REVISIONS	DATE

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Roadway Engineer

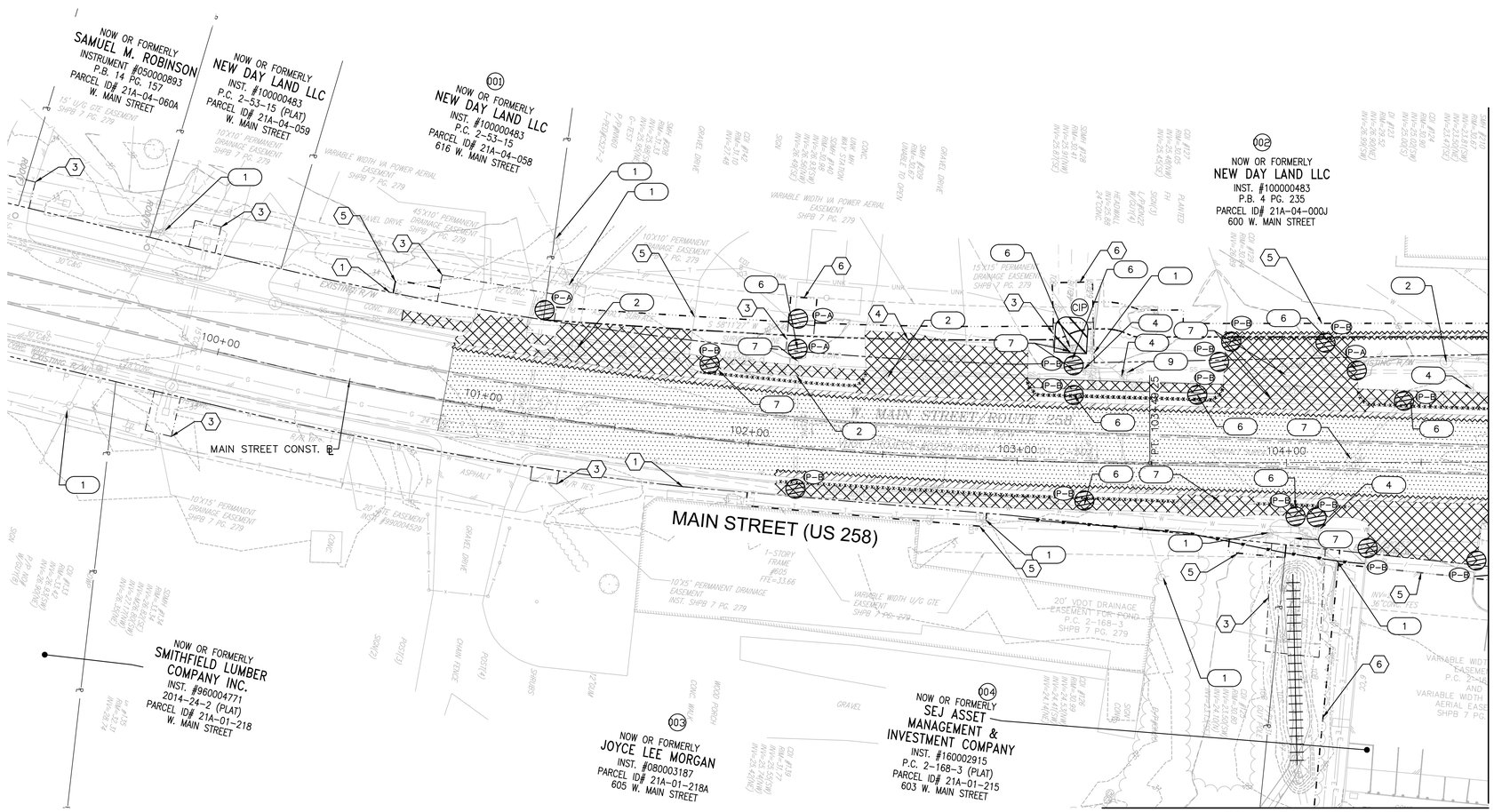
KHA PROJECT	DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
117032035	7/12/2024	AS SHOWN	NVR	NVR	APF

EXISTING CONDITIONS

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
3

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NOTE:

1. CONTRACTOR TO REMOVE ALL EXISTING TREES AND SHRUBS WITHIN CONSTRUCTION LIMITS INCLUDING ALL PERMANENT AND TEMPORARY EASEMENTS.

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

LEGEND

- (1) EXIST. R/W
- (2) EXIST. LIMITED ACCESS LINE
- (3) EXIST. DRAINAGE EASEMENT
- (4) PROP. R/W
- (5) TEMP. CONSTR. EASEMENT
- (6) PERM. DRAINAGE EASEMENT
- (IP-A) INLET PROTECTION TYPE A
- (IP-B) INLET PROTECTION TYPE B

- DEMOLITION OF CONCRETE PAVEMENT (RIGID)
- DEMOLITION OF ASPHALT PAVEMENT (FLEXIBLE)
- FLEXIBLE PAVEMENT PLANNING 0"–2"
- DEMOLITION OF CURB
- DEMOLITION SAWCUTTING
- SF — TEMPORARY SILT FENCE TYPE A
- DEMUCK EXISTING DITCH AND BACKFILL WITH SELECT FILL
- TP — (TP) TREE PROTECTION
- (CIP) CULVERT INLET PROTECTION
- (OP) OUTLET PROTECTION
- (CE) CONSTRUCTION ENTRANCE

- (1) PROTECT AND DO NOT DISTURB EXISTING UTILITY POLE
- (2) ADJUST EXISTING UTILITY TO GRADE
- (3) REMOVE AND RELOCATE EXISTING UTILITY POLE (BY OTHERS)
- (4) REMOVE SIGN PANEL, POST, AND FOUNDATION. *INDICATES SIGN PANEL TO BE RETAINED FOR REUSE.
- (5) RELOCATE TRAFFIC SIGNAL EQUIPMENT
- (6) REMOVE DRAINAGE STRUCTURE
- (7) REMOVE DRAINAGE PIPE
- (8) REMOVE EXISTING FENCE
- (9) RELOCATE EXISTING FIRE HYDRANT

No.	REVISIONS	DATE

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Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Richard S. Engineer

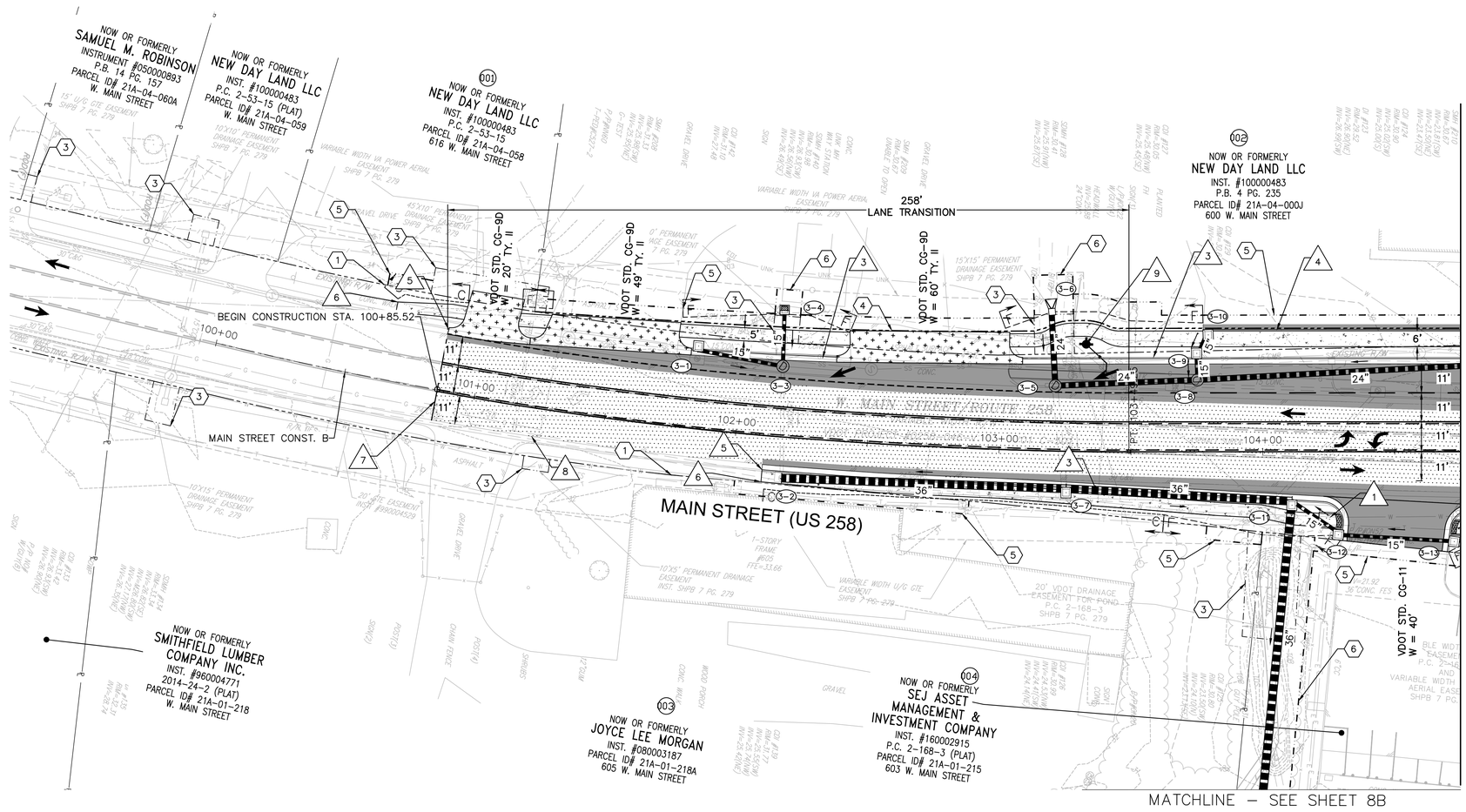
KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR	DRAWN BY NVR	CHECKED BY APF

DEMOLITION & EROSION AND SEDIMENT CONTROL PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
3A

Plotted By:Russo, Niki Sheet Set:Kha Layout:3A July 12, 2024 09:10:21am K:\VAB_RDWY\117032035 – US 258 and Route 10 intersection\05 – Design\CADD\PlanSheets\3A DEMO & ESC PLAN.dwg
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NOTES:

1. CONCRETE SIDEWALK SHALL BE PLACED AROUND EXISTING UTILITY POLES WHERE REQUIRED. MINIMUM 4' WIDE CONCRETE SIDEWALK SHALL BE PROVIDED AT ALL EXISTING UTILITY POLE LOCATIONS. ALL COSTS FOR PLACING SIDEWALK AROUND UTILITY POLES SHALL BE PAID AS INCIDENTAL TO THE SIDEWALK.
2. CONTRACTOR SHOULD NOTE LOCATIONS OF TEMPORARY CONSTRUCTION EASEMENTS SHOWN ON THE PLANS AT EXISTING ENTRANCES. CONTRACTOR SHALL EXERCISE CARE WHEN WORKING ADJACENT TO EXISTING RIGHT-OF-WAY LINE AND SELECT INSTALLATION MEANS AND METHODS ACCORDING TO GIVEN SPACE. ALL WORK SHALL OCCUR WITHIN THE EXISTING RIGHT-OF-WAY LINE AND TEMPORARY CONSTRUCTION EASEMENTS UNLESS DIRECTED BY THE OWNER.

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

LEGEND

- 1 EXIST. R/W
- 2 EXIST. LIMITED ACCESS LINE
- 3 EXIST. DRAINAGE EASEMENT
- 4 PROP. R/W
- 5 TEMP. CONSTR. EASEMENT
- 6 PERM. DRAINAGE EASEMENT
- 7 FUTURE IMPROVEMENTS BY ADJACENT DEVELOPMENT
- 1 VDOT STD. CG-12 TYPE A REQ'D. (5' WIDTH)
- 2 VDOT STD. CG-12 TYPE B REQ'D. (5' WIDTH)
- 3 VDOT STD. CG-6 REQ'D.
- 4 VDOT STD. CG-2 REQ'D
- 5 TIE TO EXIST. CURB/CURB & GUTTER
- 6 TIE TO EXIST. SIDEWALK
- 7 TIE TO EXIST. PAVEMENT
- 8 MAINTAIN EXISTING CURB AND GUTTER
- 9 FIRE HYDRANT ASSEMBLY
- F F FILL LIMITS
- C C CUT LIMITS

- DENOTES PROP. FULL DEPTH ASPHALT PAVEMENT
- DENOTES PROP. VARIABLE MILL AND OVERLAY WITH SM-9.5A @165 LBS/SY
- DENOTES CONCRETE ENTRANCE PAVEMENT
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROP. 5' WIDE CONCRETE SIDEWALK
- DIRECTIONAL ARROW

No.	REVISIONS	DATE

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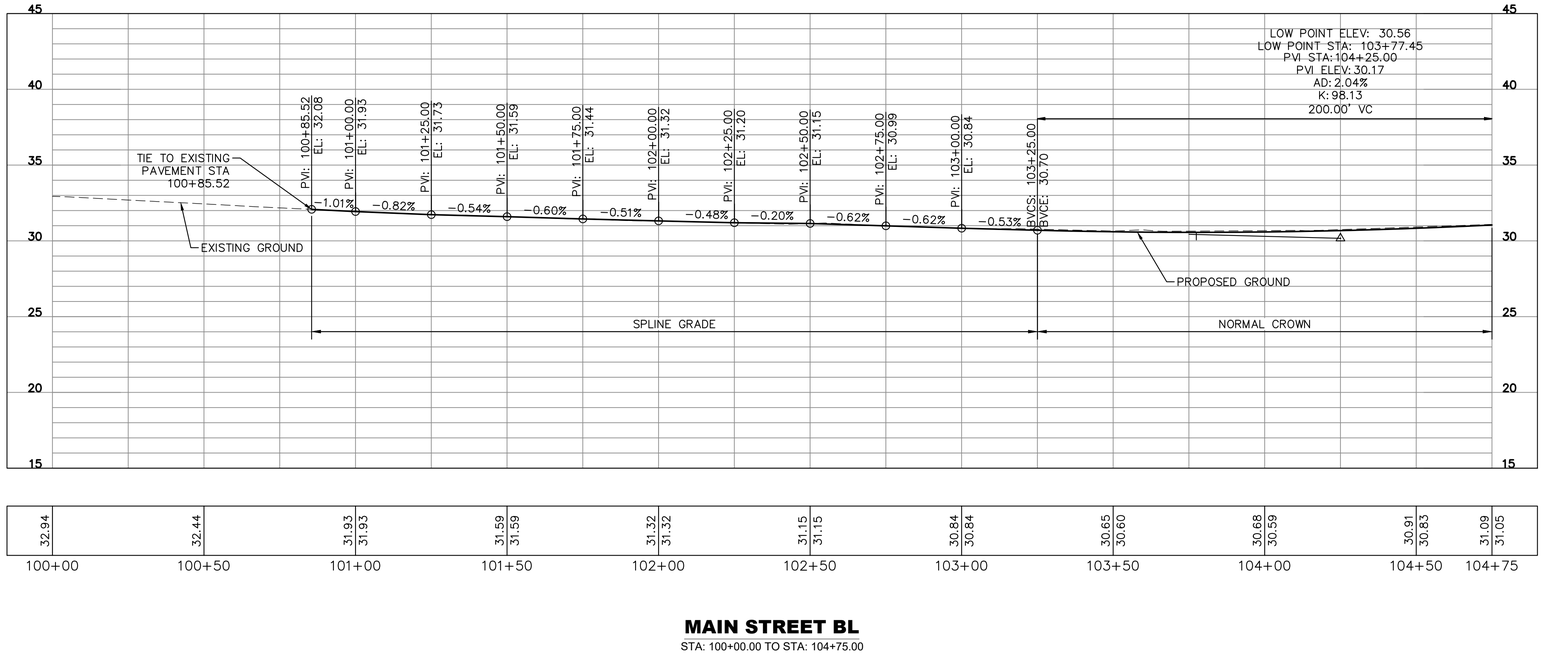
KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR	DRAWN BY NVR	CHECKED BY APP

ROADWAY PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
3B

Plotted By:Russo, Nikki Sheet Set:Kha Layout:3B July 12, 2024 09:10:52am K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3B ROADWAY PLAN.dwg
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MAIN STREET BL

STA: 100+00.00 TO STA: 104+75.00

GRAPHIC SCALE IN FEET
0 12.5 25 50
HORIZONTAL

GRAPHIC SCALE IN FEET
0 2.5 5 10
VERTICAL

No.	REVISIONS	DATE

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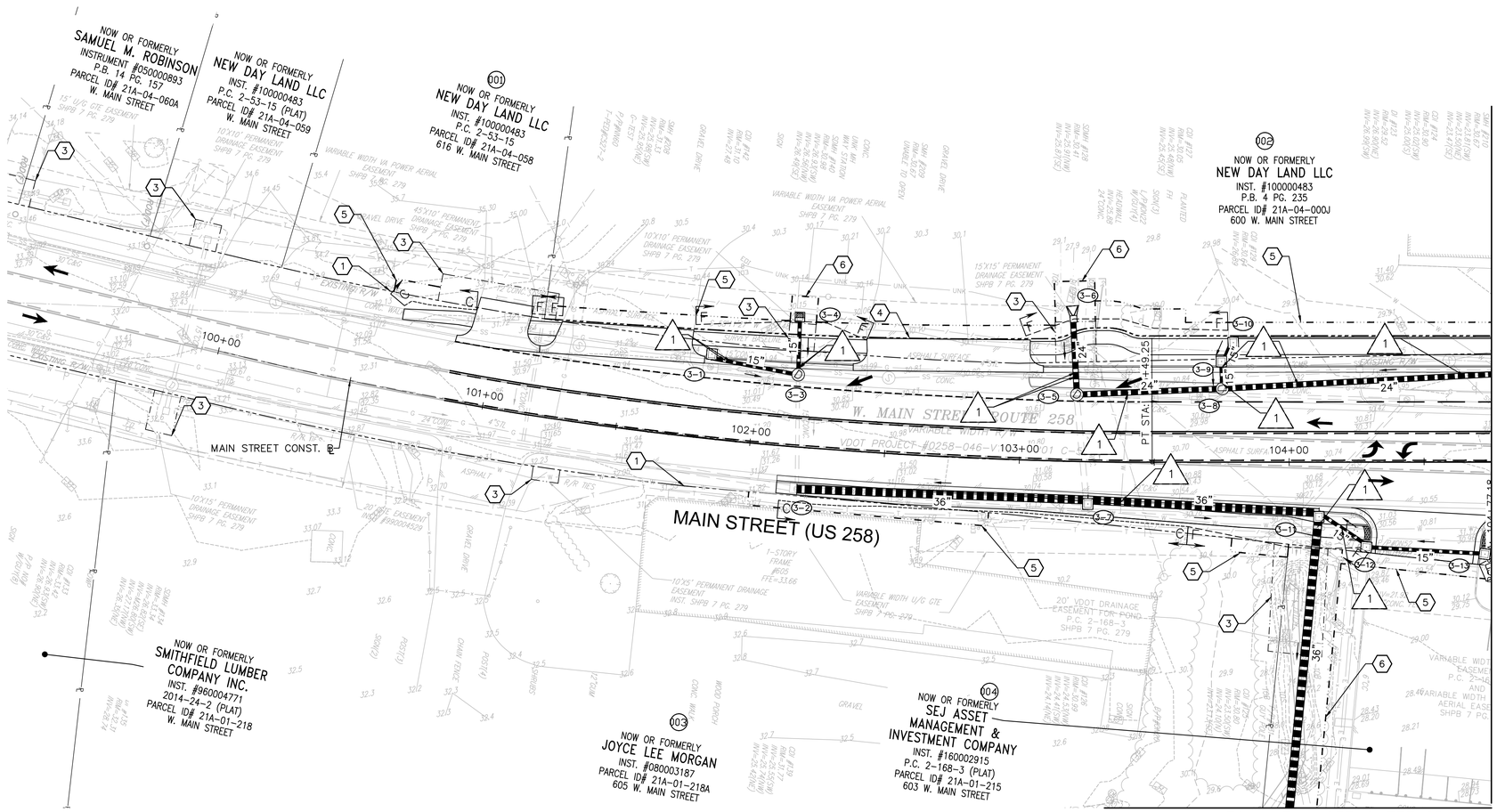
KHA PROJECT	117032035
DATE	7/12/2024
SCALE	AS SHOWN
DESIGNED BY	NVR
DRAWN BY	NVR
CHECKED BY	APF

ROADWAY PROFILE

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
3B(1)

Plotted By:Russo, Niki Sheet Set:Kha Layout:3B(1) July 11, 2024 03:33:54pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3B(1) PROFILE VIEWS.dwg
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LEGEND

1. EXIST. R/W
2. EXIST. LIMITED ACCESS LINE
3. EXIST. DRAINAGE EASEMENT
4. PROP. R/W
5. TEMP. CONSTR. EASEMENT
6. PERM. DRAINAGE EASEMENT

1. POTENTIAL UTILITY CONFLICT WITH PROPOSED STORM SEWER SYSTEM
2. STRUCTURES ADDED/REMOVED UNDER UPC #102951
3. PIPES ADDED/REMOVED UNDER UPC #102951

F F FILL LIMITS

C C CUT LIMITS

SW	SIDEWALK ELEV.
TC	TOP OF CURB ELEV.
ME	MATCH EXIST. ELEV.
EOP	EDGE OF PAVEMENT
P	PAVEMENT

NOTE:

1. PROPOSED PIPE UNDER THE SMITHFIELD SIDEWALK IMPROVEMENTS (UPC #102951) WILL NOT BE AFFECTED BY THE ADDITION OF THE PIPE STARTING AT STA. 115+53.73.

(3-1) 1 STD. DI-3B REQ'D.
L=6', H=4.2' INV. 26.65

(3-1) TO (3-3) 33'-15" CONC. PIPE CLASS III REQ'D. (2.6' COVER)
INV. (IN) 26.65 INV. (OUT) 26.49

(3-3) 1 STD. MH-1 FRAME & COVER REQ'D.
INV. 26.49
CONNECT TO EXISTING 24" CONC. PIPE
CONFIRM EXIST INV. 26.49

(5-4) TO (3-3) 22'-15" CONC. PIPE CLASS III REQ'D. (1.8' COVER)
(IN) 26.60 INV. (OUT) 26.49

(3-4) 1 STD. DI-1 REQ'D.
L=2.5', H=3.4' INV. 26.60

(3-2) MODIFY EXIST. INLET TO ACCEPT PROPOSED 36"
CONCRETE PIPE INV. 25.42

(3-2) TO (3-7) 108'-36" CONC. PIPE CLASS III REQ'D. (2.9' COVER)
(IN) 25.42 INV. (OUT) 24.41

(3-5) 1 STD. MH-1 FRAME & COVER REQ'D.
CONNECT TO EXISTING 24" CONC. PIPE
CONFIRM EXIST INV. 25.45

(5-8) TO (3-5) 33'-24" CONC. PIPE CLASS III REQ'D. (2' COVER)
INV. (IN) 25.61 INV. (OUT) 25.45

(3-6) 1 STD. ES-1 REQ'D.
INV. 25.61

(5-7) 1 STD. DI-3B REQ'D.
L=4', H=6.4' INV. 24.41
CONNECT TO EXISTING 24" CONC. PIPE
CONFIRM EXIST INV. 24.53

(3-7) TO (5-11) 86'-36" CONC. PIPE CLASS III REQ'D. (3' COVER)
INV. (IN) 24.41 INV. (OUT) 22.39

(5-11) 1 STD. DI-3B REQ'D.
L=4', H=8.2' INV. 22.39

(5-11) TO (8-1) 291'-36" CONC. PIPE CLASS III REQ'D. (4.1' COVER)
INV. (IN) 22.39 INV. (OUT) 15.52

(3-8) TO (3-5) 54'-24" CONC. PIPE CLASS III REQ'D. (2.2' COVER)
INV. (IN) 25.61 INV. (OUT) 25.45

(3-8) 1 STD. MH-1 FRAME & COVER REQ'D.
INV. 25.61

(3-9) TO (3-8) 9'-15" CONC. PIPE CLASS III REQ'D. (2.8' COVER)
INV. (IN) 25.65 INV. (OUT) 25.61

(3-9) 1 STD. DI-2C REQ'D.
L=12', H=4.59' INV. 25.65

(5-10) TO (3-9) 11'-15" CONC. PIPE CLASS III REQ'D. (3.3' COVER)
INV. (IN) 25.71 INV. (OUT) 25.65

(5-10) 1 STD. DI-3B REQ'D.
L=8', H=4.73' INV. 25.71

(5-12) TO (5-11) 23'-15" CONC. PIPE CLASS III REQ'D. (5.9' COVER)
INV. (IN) 22.61 INV. (OUT) 22.39

(5-12) 1 STD. DI-3A REQ'D.
L=2.5', H=7.4' INV. 22.61

(5-13) TO (5-12) 41'-15" CONC. PIPE CLASS III REQ'D. (5.8' COVER)
INV. (IN) 23.02 INV. (OUT) 22.61

(5-13) 1 STD. DI-3B REQ'D.
L=4', H=7.61' INV. 23.02

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

No.	REVISIONS	DATE

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Roadway Engineer

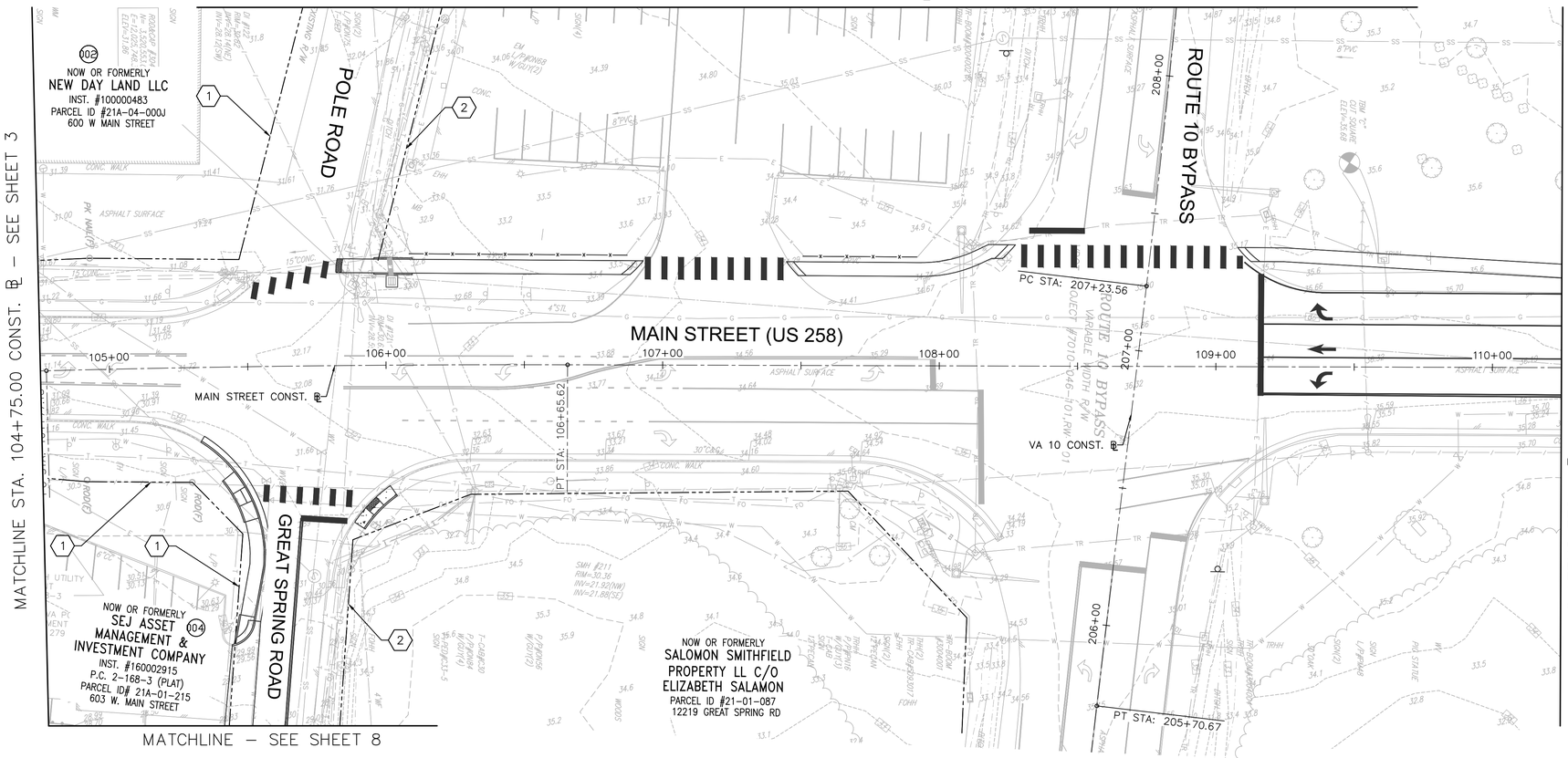
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DATE 7/12/2024
SCALE AS SHOWN
DESIGNED BY NVR
DRAWN BY NVR
CHECKED BY APP

GRADING AND DRAINAGE PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
3C

Plotted By:Russo, Nikki Sheet Set:Kha Layout:3C July 11, 2024 03:34:33pm K:\VAB_RDW\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3C GRADING AND DRAINAGE PLAN.dwg
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LEGEND

1 — · — · — · — EXISTING RIGHT OF WAY LINE
2 — · — · — · — EXISTING LIMITED ACCESS LINE
3 — · — · — · — EXISTING DRAINAGE EASEMENT

NOTES:

1. DARKER SHADE REPRESENTS IMPROVEMENTS INCLUDED IN UPC #102951

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

No.	REVISIONS	DATE

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Virginia Beach, Virginia
Roadway Engineer

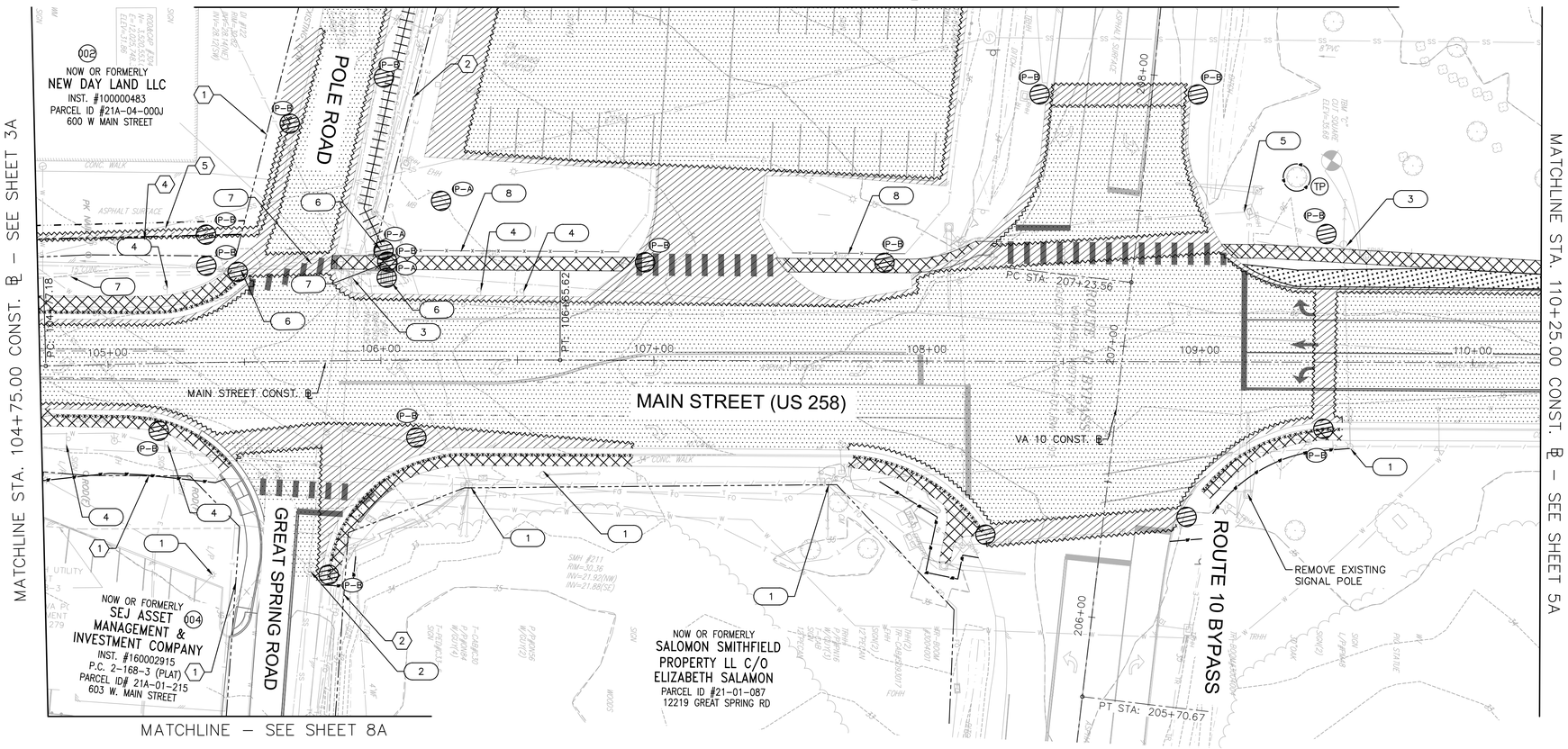
KHA PROJECT	DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
117032035	7/12/2024	AS SHOWN	NVR	NVR	APF

EXISTING CONDITIONS

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD VIRGINIA

SHEET NUMBER
4

Plotted By:Russo, Niki Sheet Set:Kha Layout:4 EXISTING CONDITIONS July 11, 2024 03:34:58pm K:\VAB_RDWY\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\3 EXISTING CONDITIONS.dwg
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NOTE:

1. CONTRACTOR TO REMOVE ALL EXISTING TREES AND SHRUBS WITHIN CONSTRUCTION LIMITS INCLUDING ALL PERMANENT AND TEMPORARY EASEMENTS.

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

LEGEND

- (1) EXIST. R/W
- (2) EXIST. LIMITED ACCESS LINE
- (3) EXIST. DRAINAGE EASEMENT
- (4) PROP. R/W
- (5) TEMP. CONSTR. EASEMENT
- (6) PERM. DRAINAGE EASEMENT
- (IP-A) INLET PROTECTION TYPE A
- (IP-B) INLET PROTECTION TYPE B

- DEMOLITION OF CONCRETE PAVEMENT (RIGID)
- DEMOLITION OF ASPHALT PAVEMENT (FLEXIBLE)
- FLEXIBLE PAVEMENT PLANNING 0"–2"
- DEMOLITION OF CURB
- DEMOLITION SAWCUTTING
- SF — TEMPORARY SILT FENCE TYPE A
- DEMUCK EXISTING DITCH AND BACKFILL WITH SELECT FILL
- TP — (TP) TREE PROTECTION
- (CIP) CULVERT INLET PROTECTION
- (OP) OUTLET PROTECTION
- (CE) CONSTRUCTION ENTRANCE

- (1) PROTECT AND DO NOT DISTURB EXISTING UTILITY POLE
- (2) ADJUST EXISTING UTILITY TO GRADE
- (3) REMOVE AND RELOCATE EXISTING UTILITY POLE (BY OTHERS)
- (4) REMOVE SIGN PANEL, POST, AND FOUNDATION. *INDICATES SIGN PANEL TO BE RETAINED FOR REUSE.
- (5) RELOCATE TRAFFIC SIGNAL EQUIPMENT
- (6) REMOVE DRAINAGE STRUCTURE
- (7) REMOVE DRAINAGE PIPE
- (8) REMOVE EXISTING FENCE

No.	REVISIONS	DATE

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Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Rachel S. Engineer

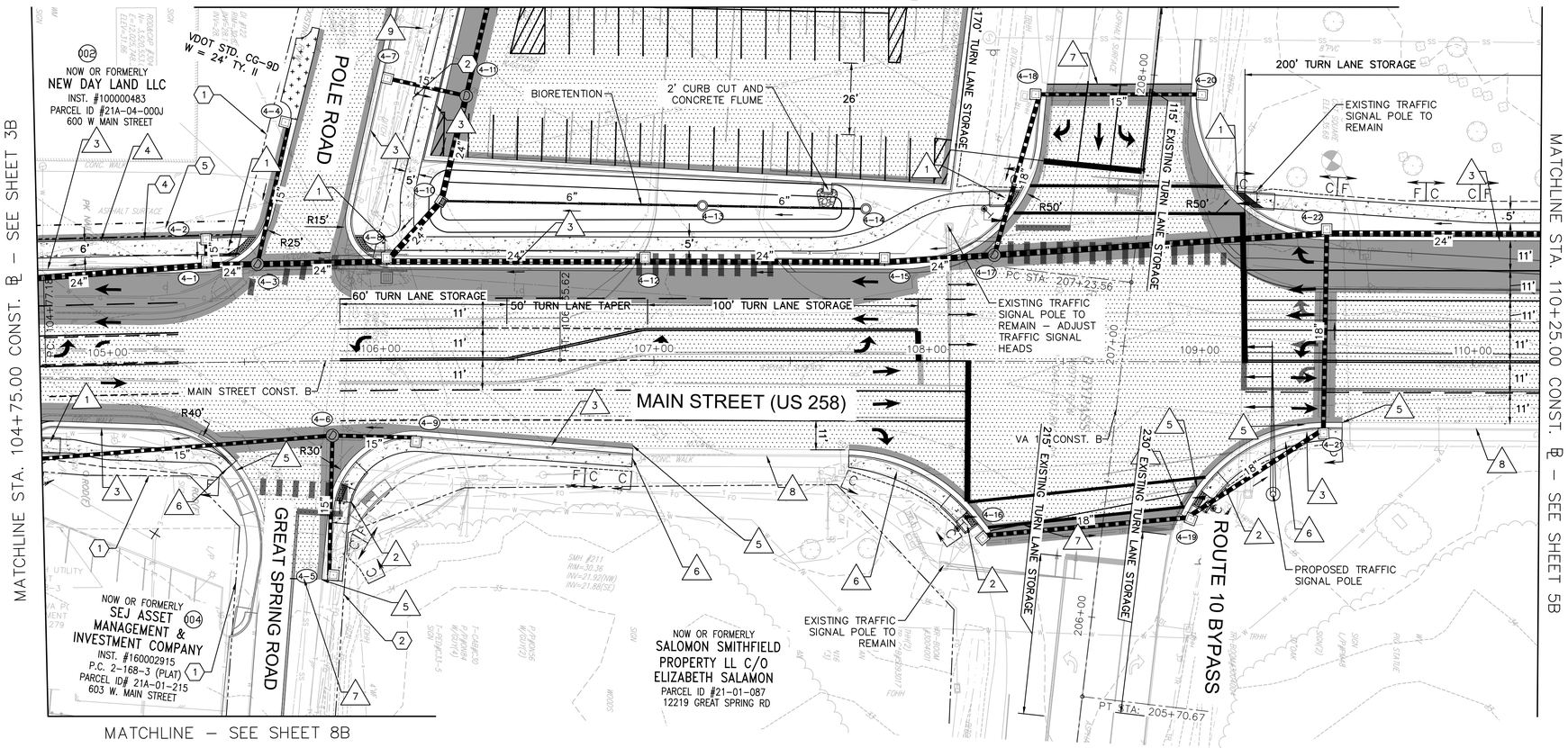
KHA PROJECT 117032035	SCALE AS SHOWN	DESIGNED BY NVR
DATE 7/12/2024		DRAWN BY NVR
		CHECKED BY APF

DEMOLITION & EROSION AND SEDIMENT CONTROL PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
4A

Plotted By:Russo, Nikki Sheet Set:Kha Layout:4A July 11, 2024 03:35:25pm K:\VAB_RDW\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3A DEMO & ESC PLAN.dwg
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NOTES:

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LEGEND

- 1 EXIST. R/W
- 2 EXIST. LIMITED ACCESS LINE
- 3 EXIST. DRAINAGE EASEMENT
- 4 PROP. R/W
- 5 TEMP. CONSTR. EASEMENT
- 6 PERM. DRAINAGE EASEMENT
- 7 FUTURE IMPROVEMENTS BY ADJACENT DEVELOPMENT
- 1 VDOT STD. CG-12 TYPE A REQ'D. (5' WIDTH)
- 2 VDOT STD. CG-12 TYPE B REQ'D. (5' WIDTH)
- 3 VDOT STD. CG-6 REQ'D.
- 4 VDOT STD. CG-2 REQ'D
- 5 TIE TO EXIST. CURB/CURB & GUTTER
- 6 TIE TO EXIST. SIDEWALK
- 7 TIE TO EXIST. PAVEMENT
- 8 MAINTAIN EXISTING CURB AND GUTTER
- F F FILL LIMITS
- C C CUT LIMITS

- DENOTES PROP. FULL DEPTH ASPHALT PAVEMENT
- DENOTES PROP. VARIABLE MILL AND OVERLAY WITH SM-9.5A @165 LBS/SY
- DENOTES CONCRETE ENTRANCE PAVEMENT
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROP. 5' WIDE CONCRETE SIDEWALK
- DIRECTIONAL ARROW

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

No.	REVISIONS	DATE

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Virginia Beach, Virginia
Roadway Engineer

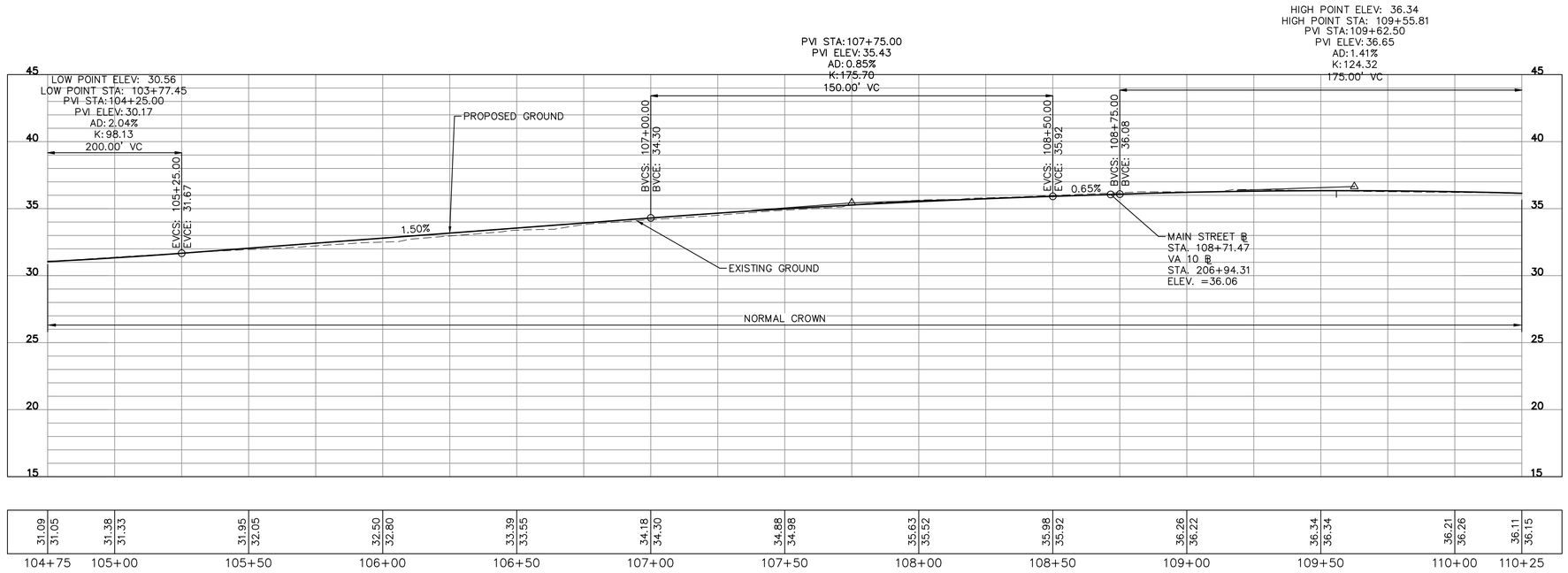
KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR
		DRAWN BY NVR	CHECKED BY APF

ROADWAY PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

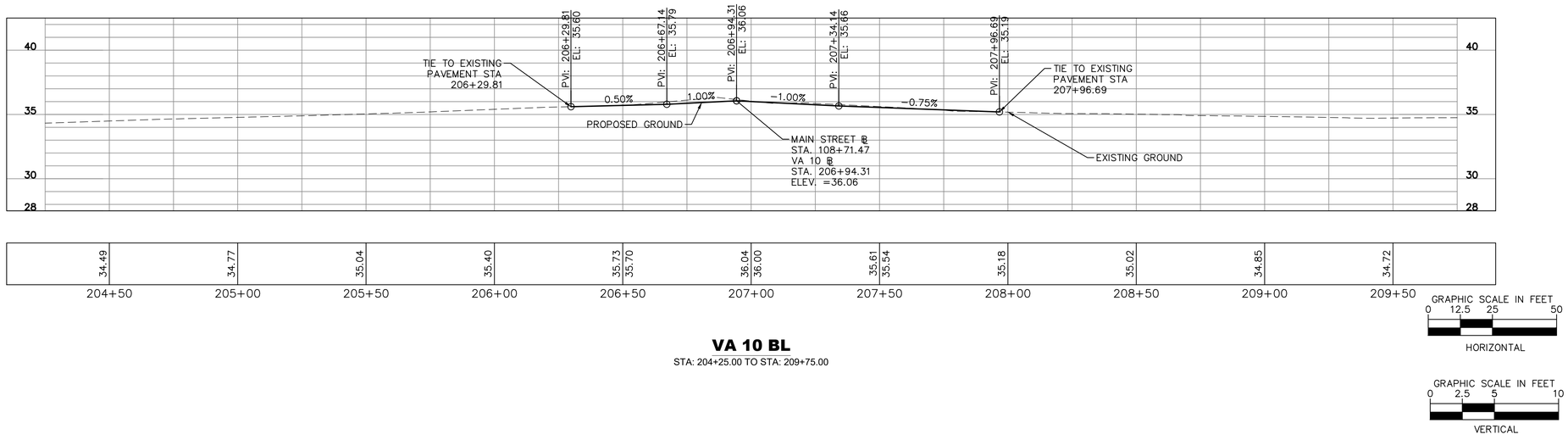
SHEET NUMBER
4B

Plotted By:Russo, Niki Sheet Set:Kha Layout:4B July 11, 2024 03:36:04pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3B ROADWAY PLAN.dwg
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MAIN STREET BL

STA: 104+75.00 TO STA: 110+25.00



VA 10 BL

STA: 204+25.00 TO STA: 209+75.00

GRAPHIC SCALE IN FEET
0 12.5 25 50
HORIZONTAL

GRAPHIC SCALE IN FEET
0 2.5 5 10
VERTICAL

No.	REVISIONS	DATE

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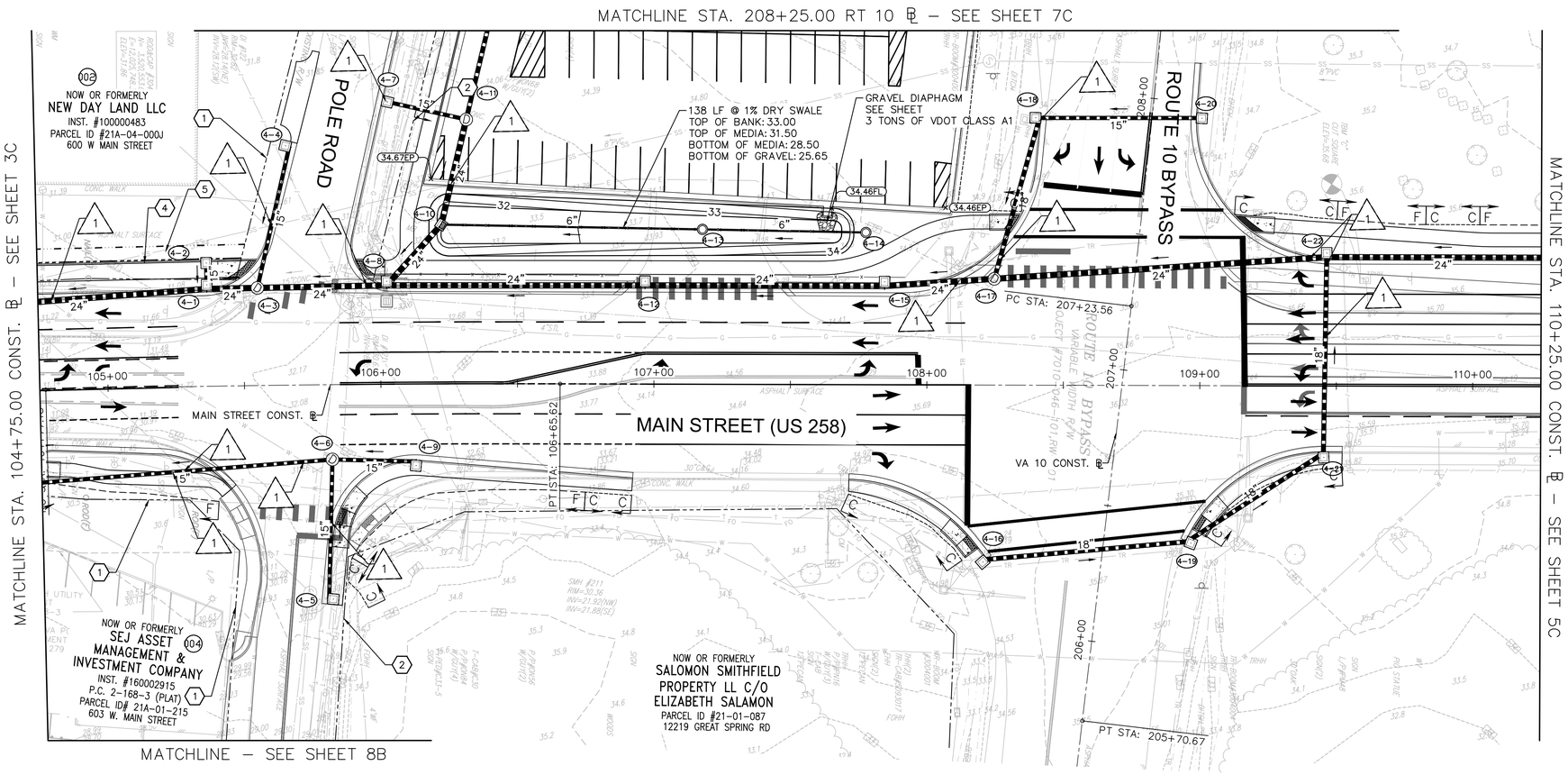
KHA PROJECT 117032035
DATE 7/12/2024
SCALE AS SHOWN
DESIGNED BY NVR
DRAWN BY NVR
CHECKED BY APF

ROADWAY PROFILE

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
4B(1)

Plotted By: Russo, Niki Sheet Set: Kha Layout: 4B(1) July 11, 2024 03:36:21pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3B(1) PROFILE VIEWS.dwg
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LEGEND

1. EXIST. R/W
2. EXIST. LIMITED ACCESS LINE
3. EXIST. DRAINAGE EASEMENT
4. PROP. R/W
5. TEMP. CONSTR. EASEMENT
6. PERM. DRAINAGE EASEMENT
1. POTENTIAL UTILITY CONFLICT WITH PROPOSED STORM SEWER SYSTEM
2. STRUCTURES ADDED/REMOVED UNDER UPC #102951
3. PIPES ADDED/REMOVED UNDER UPC #102951

F F FILL LIMITS

C C CUT LIMITS

SW	SIDEWALK ELEV.
TC	TOP OF CURB ELEV.
ME	MATCH EXIST. ELEV.
EOP	EDGE OF PAVEMENT
P	PAVEMENT
FL	FLOWLINE

NOTE:

1. PROPOSED PIPE UNDER THE SMITHFIELD SIDEWALK IMPROVEMENTS (UPC #102951) WILL NOT BE AFFECTED BY THE ADDITION OF THE PIPE STARTING AT STA. 115+53.73.

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

4–1 1 STD. DI–3B REQ'D. L=6', H=6.7' INV. 24.84

4–1 TO 3–8 124'–24" CONC. PIPE CLASS III REQ'D. (3.9' COVER) INV. (IN) 24.84 INV. (OUT) 23.61

4–2 1 STD. DI–3B REQ'D. L=6', H=6.8' INV. 24.95

4–2 TO 4–1 11'–15" CONC. PIPE CLASS III REQ'D. (5.2' COVER) (IN) 24.95 INV. (OUT) 24.84

4–3 1 STD. MH–1 FRAME & COVER REQ'D. INV. 25.03

4–3 TO 4–1 19'–24" CONC. PIPE CLASS III REQ'D. (3.9' COVER) INV. (IN) 25.03 INV. (OUT) 24.84

4–4 1 STD. DI–3B REQ'D. L=8', H=6.1' INV. 25.56

4–4 TO 4–3 53'–15" CONC. PIPE CLASS III REQ'D. (4.4' COVER) INV. (IN) 25.56 INV. (OUT) 25.03

4–5 1 STD. DI–3B REQ'D. L=4', H=5.6' INV. 25.39

4–5 TO 4–6 51'–15" CONC. PIPE CLASS III REQ'D. (3.5' COVER) INV. (IN) 25.39 INV. (OUT) 24.88

4–6 1 STD. MH–1 FRAME & COVER REQ'D. INV. 24.88

4–6 TO 4–13 111'–15" CONC. PIPE CLASS III REQ'D. (5.3' COVER) INV. (IN) 24.88 INV. (OUT) 23.77

4–7 1 STD. DI–3B REQ'D. L=4', H=6.32' INV. 26.17

4–7 TO 4–11 31'–15" CONC. PIPE CLASS III REQ'D. (4.9' COVER) INV. (IN) 26.17 INV. (OUT) 26.02

4–8 1 STD. DI–3B REQ'D. L=6', H=6.99' INV. 25.50

4–8 TO 4–3 47'–24" CONC. PIPE CLASS III REQ'D. (3.7' COVER) INV. (IN) 25.50 INV. (OUT) 25.03

4–9 1 STD. DI–3B REQ'D. L=8', H=7.2' INV. 25.19

4–9 TO 4–6 31'–15" CONC. PIPE CLASS III REQ'D. (5.5' COVER) INV. (IN) 25.19 INV. (OUT) 24.88

4–10 1 STD. DI–1 REQ'D. L=2.5', H=5.85' INV. 25.65

4–10 TO 4–8 30'–24" CONC. PIPE CLASS III REQ'D. (3.6' COVER) INV. (IN) 25.65 INV. (OUT) 25.50

4–11 1 STD. MH–1 FRAME & COVER REQ'D. INV. 25.85

4–11 TO 4–10 40'–24" CONC. PIPE CLASS III REQ'D. (3.6' COVER) INV. (IN) 25.85 INV. (OUT) 25.65

4–12 1 STD. DI–3B REQ'D. L=4', H=7.5' INV. 26.45

4–12 TO 4–8 95'–24" CONC. PIPE CLASS III REQ'D. (4.7' COVER) INV. (IN) 26.45 INV. (OUT) 25.50

4–13 4" PVC STORM CO H=5.85' INV. 26.61

4–13 TO 4–10 96'–6" PERFORATED SCHEDULE 40 PVC (2.5' COVER) INV. (IN) 26.61 INV. (OUT) 25.65

4–14 4" PVC STORM CO H=7.4' INV. 27.21

4–14 TO 4–13 60'–6" PERFORATED SCHEDULE 40 PVC (2.5' COVER) INV. (IN) 27.21 INV. (OUT) 26.61

4–15 1 STD. DI–3B REQ'D. L=4', H=7.5' INV. 27.33

4–15 TO 4–12 88'–24" CONC. PIPE CLASS III REQ'D. (5.2' COVER) INV. (IN) 27.33 INV. (OUT) 26.48

4–16 1 STD. DI–3B REQ'D. L=6', H=4.3' INV. 29.98

4–16 TO 4–19 74'–18" CONC. PIPE CLASS III REQ'D. (2.6' COVER) (IN) 29.98 INV. (OUT) 29.61

4–17 1 STD. MH–1 FRAME & COVER REQ'D. INV. 27.73

4–17 TO 4–15 40'–24" CONC. PIPE CLASS III REQ'D. (4.8' COVER) (IN) 27.73 INV. (OUT) 27.33

4–18 1 STD. DI–3B REQ'D. L=4', H=6.8' INV. 28.34

4–18 TO 4–17 61'–18" CONC. PIPE CLASS III REQ'D. (4.6' COVER) (IN) 28.34 INV. (OUT) 27.73

4–19 1 STD. DI–3B REQ'D. L=4', H=5.3' INV. 29.61

4–19 TO 4–2 60'–18" CONC. PIPE CLASS III REQ'D. (3.5' COVER) (IN) 29.61 INV. (OUT) 29.31

4–20 1 STD. DI–3B REQ'D. L=6', H=6.5' INV. 28.92

4–20 TO 4–18 58'–15" CONC. PIPE CLASS III REQ'D. (4.5' COVER) (IN) 28.92 INV. (OUT) 28.34

4–2 1 STD. DI–3B REQ'D. L=4', H=6.3' INV. 29.31

4–2 TO 4–22 72'–18" CONC. PIPE CLASS III REQ'D. (4.4' COVER) (IN) 29.309 INV. (OUT) 28.95

4–22 1 STD. DI–3B REQ'D. L=4', H=6.6' INV. 28.95

4–22 TO 4–17 122'–24" CONC. PIPE CLASS III REQ'D. (4.4' COVER) (IN) 28.95 INV. (OUT) 27.73

No.	REVISIONS	DATE

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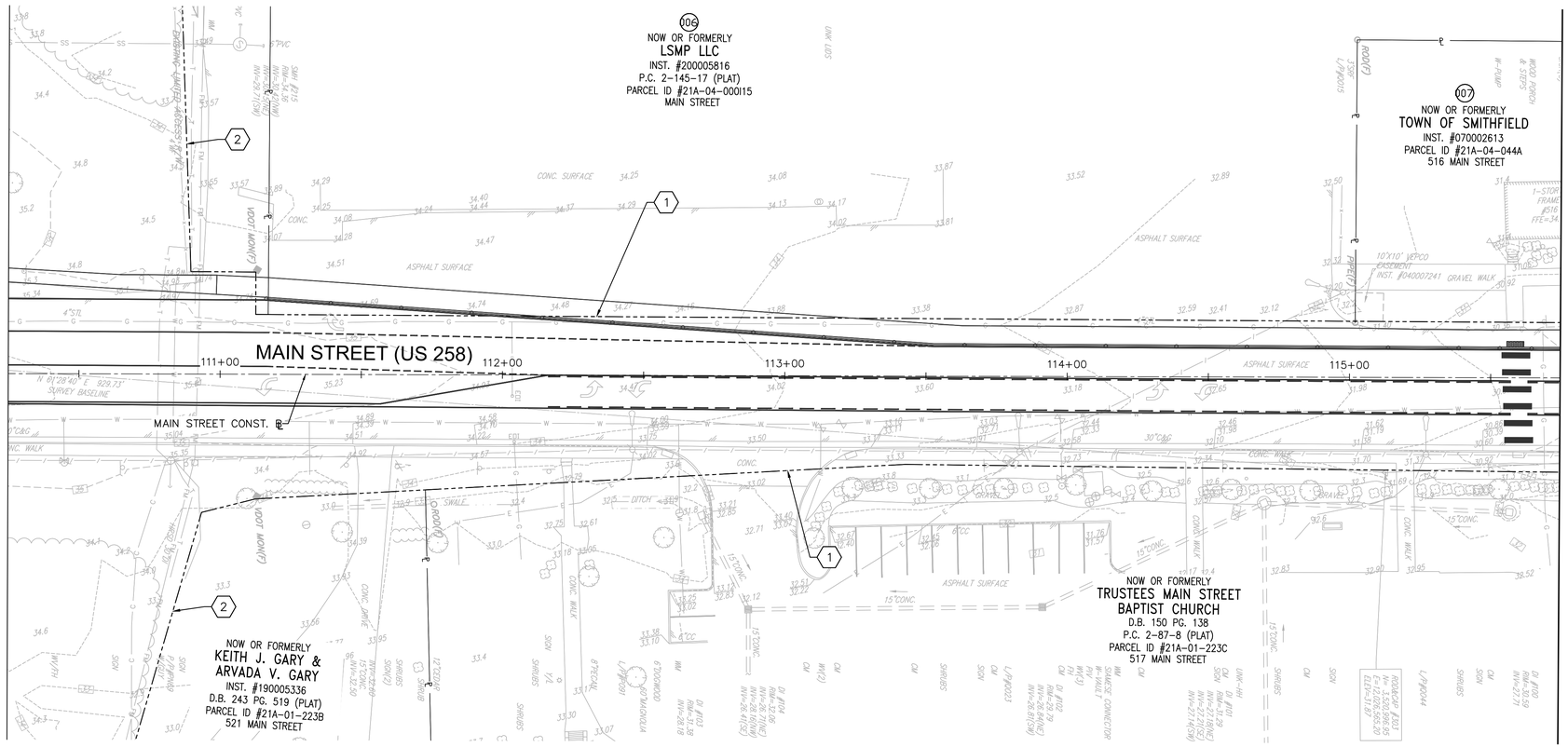
KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR	DRAWN BY NVR	CHECKED BY APF

GRADING AND DRAINAGE PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
4C

Plotted By:Russo, Niki Sheet Set:Kha Layout:4C July 11, 2024 03:36:58pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3C GRADING AND DRAINAGE PLAN.dwg
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LEGEND

1 — · — · — · — EXISTING RIGHT OF WAY LINE
2 — · — · — · — EXISTING LIMITED ACCESS LINE
3 — · — · — · — EXISTING DRAINAGE EASEMENT

NOTES:

1. DARKER SHADE REPRESENTS IMPROVEMENTS INCLUDED IN UPC #102951

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

No.	REVISIONS	DATE

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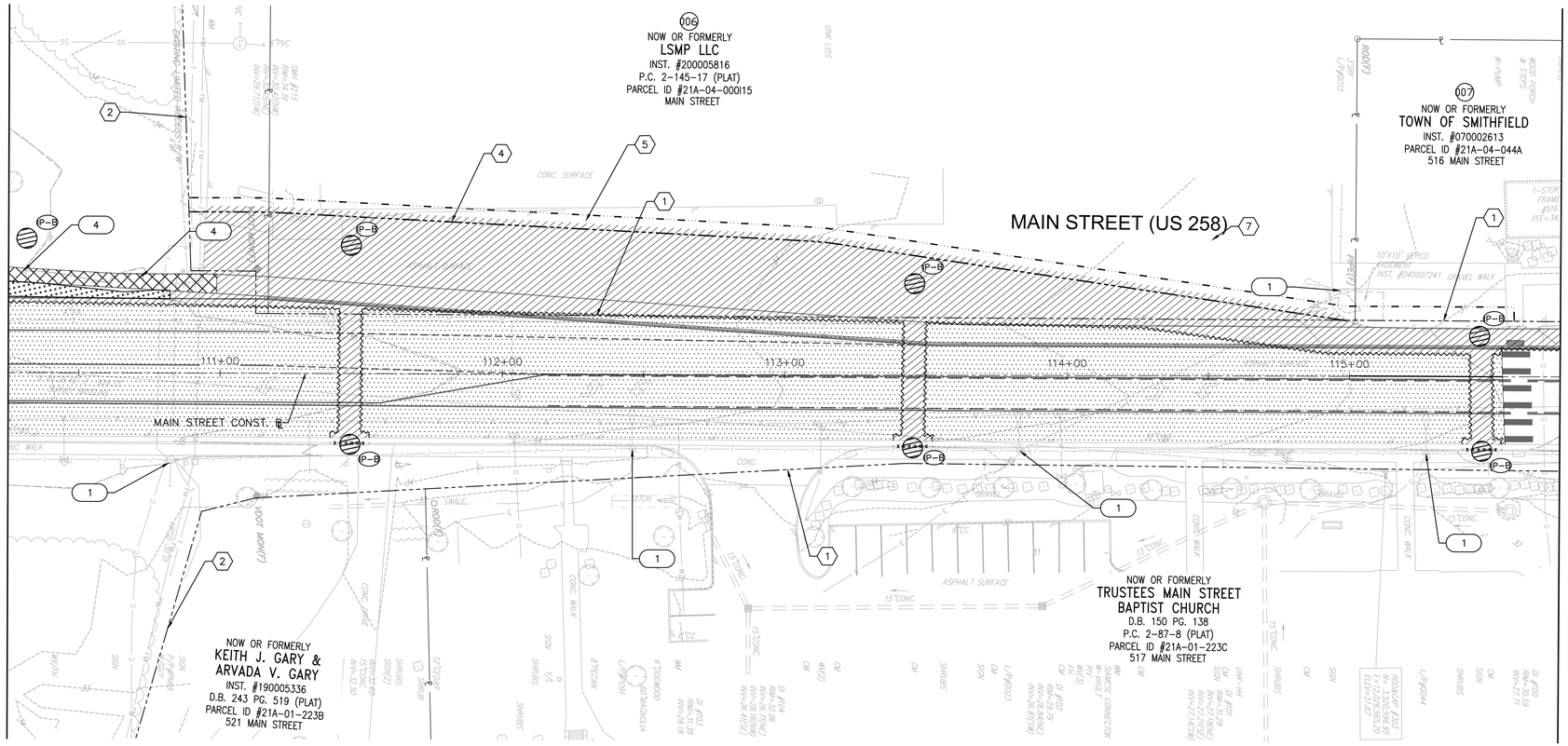
KHA PROJECT	117032035
DATE	7/12/2024
SCALE	AS SHOWN
DESIGNED BY	NVR
DRAWN BY	NVR
CHECKED BY	APF

EXISTING CONDITIONS

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD
VIRGINIA

SHEET NUMBER
5

Plotted By:Russo, Niki Sheet Set:Kha Layout:5 EXISTING CONDITIONS July 11, 2024 03:37:23pm K:\VAB_RDWY\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\3 EXISTING CONDITIONS.dwg
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0 12.5 25 50
1"=25'

NORTH

LEGEND

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- (5) RELOCATE TRAFFIC SIGNAL EQUIPMENT
- (6) REMOVE DRAINAGE STRUCTURE
- (7) REMOVE DRAINAGE PIPE
- (8) REMOVE EXISTING FENCE

No.	REVISIONS	DATE

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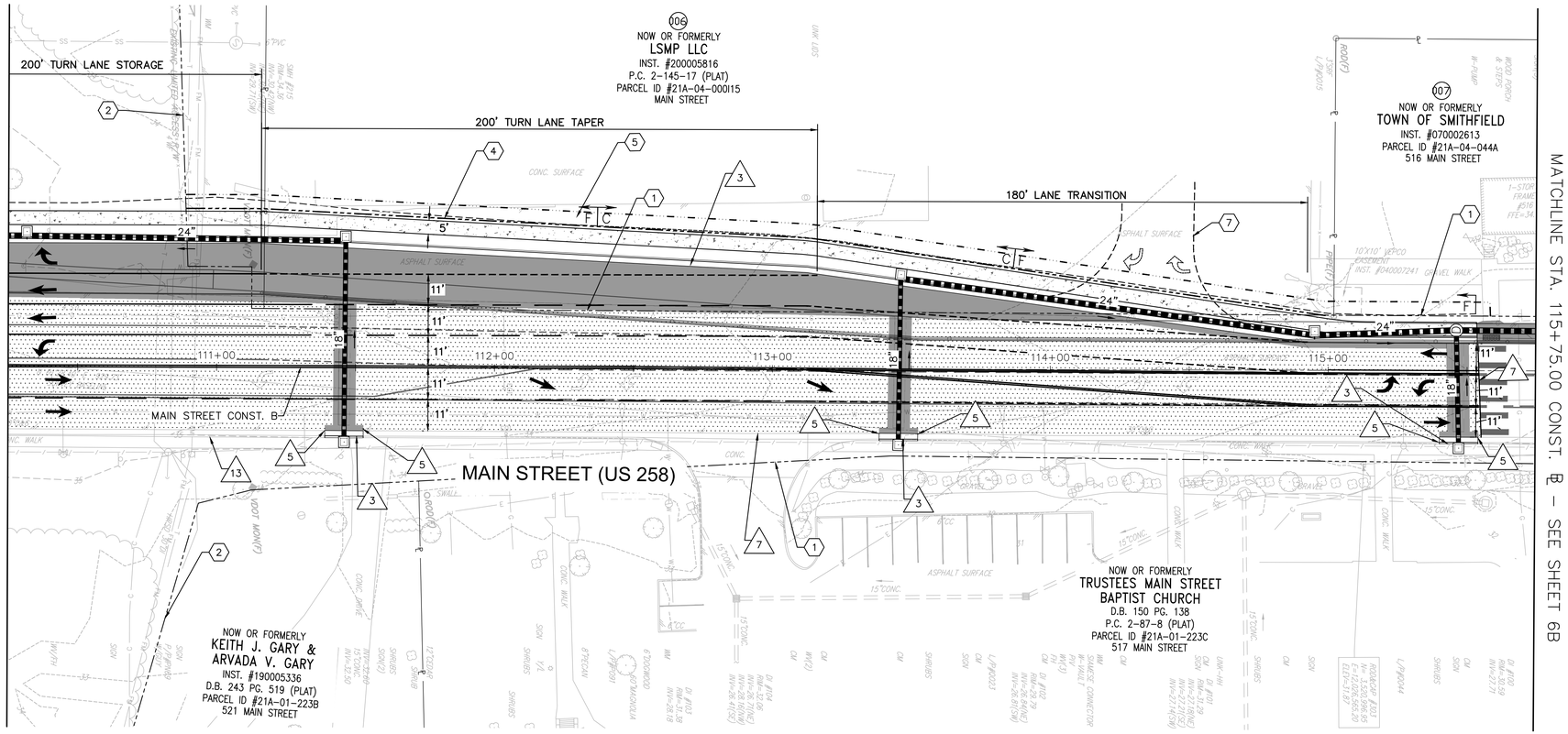
KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR
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DEMOLITION & EROSION AND SEDIMENT CONTROL PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
5A

Plotted By:Russo, Niki Sheet Set:Kha Layout:5A July 11, 2024 03:37:55pm K:\VAB_RDW\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\3A DEMO & ESC PLAN.dwg
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LEGEND

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- 4 PROP. R/W
- 5 TEMP. CONSTR. EASEMENT
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- 7 FUTURE IMPROVEMENTS BY ADJACENT DEVELOPMENT
- 1 VDOT STD. CG-12 TYPE A REQ'D. (5' WIDTH)
- 2 VDOT STD. CG-12 TYPE B REQ'D. (5' WIDTH)
- 3 VDOT STD. CG-6 REQ'D.
- 4 VDOT STD. CG-2 REQ'D
- 5 TIE TO EXIST. CURB/CURB & GUTTER
- 6 TIE TO EXIST. SIDEWALK
- 7 TIE TO EXIST. PAVEMENT
- 8 MAINTAIN EXISTING CURB AND GUTTER
- F F FILL LIMITS
- C C CUT LIMITS

- DENOTES PROP. FULL DEPTH ASPHALT PAVEMENT
- DENOTES PROP. VARIABLE MILL AND OVERLAY WITH SM-9.5A @165 LBS/SY
- DENOTES CONCRETE ENTRANCE PAVEMENT
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROP. 5' WIDE CONCRETE SIDEWALK
- DIRECTIONAL ARROW

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

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Roadway Engineer

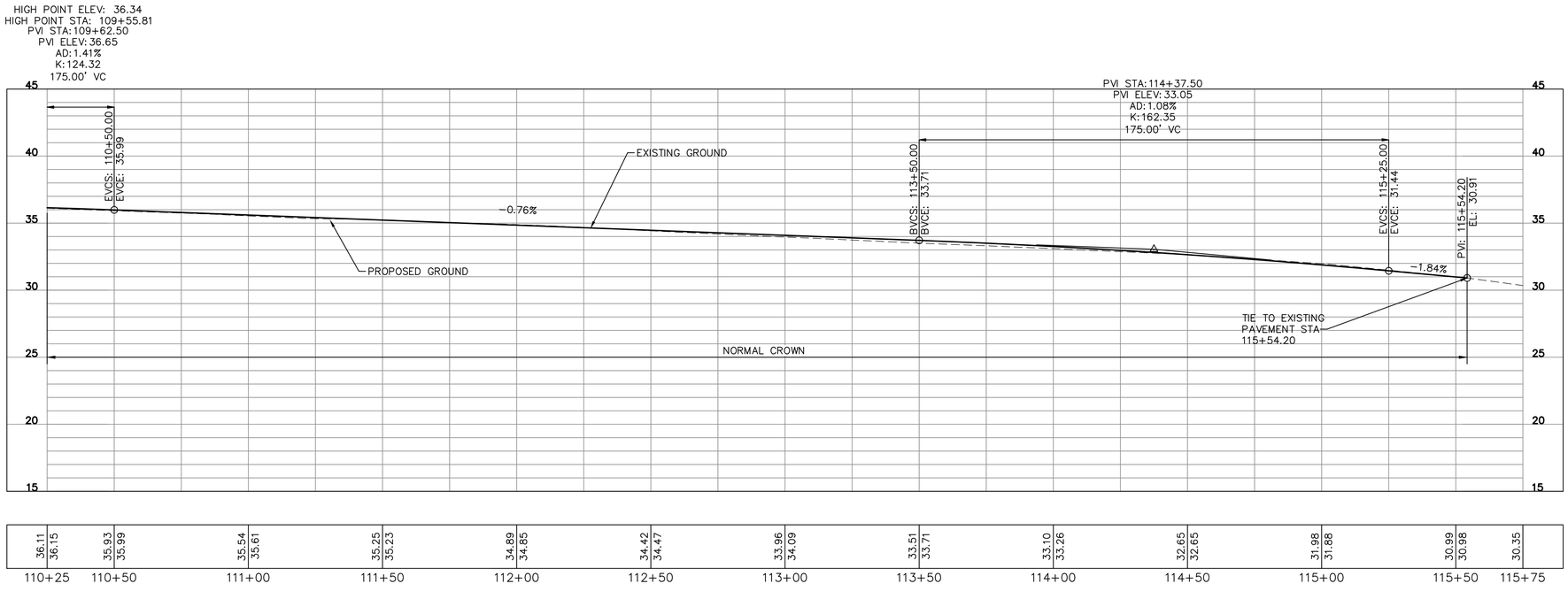
KHA PROJECT 117032035
DATE 7/12/2024
SCALE AS SHOWN
DESIGNED BY NVR
DRAWN BY NVR
CHECKED BY APF

ROADWAY PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
5B

Plotted By:Russo, Niki Sheet Set:Kha Layout:5B July 11, 2024 06:23:40pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3B ROADWAY PLAN.dwg
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MAIN STREET BL

STA: 110+25.00 TO STA: 115+75.00

GRAPHIC SCALE IN FEET
0 12.5 25 50
HORIZONTAL

GRAPHIC SCALE IN FEET
0 2.5 5 10
VERTICAL

No.	REVISIONS	DATE

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WWW.KIMLEY-HORN.COM

Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

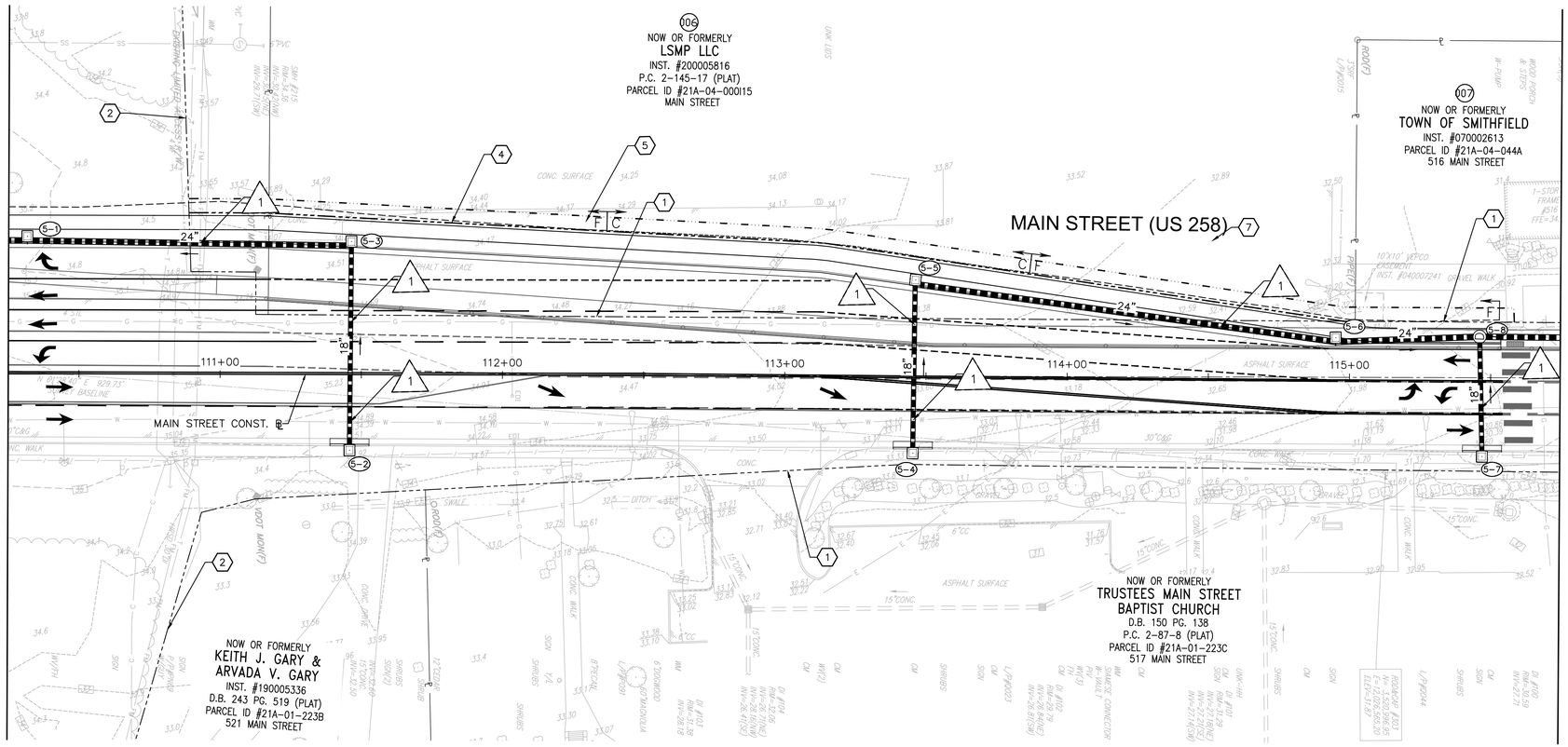
KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR	DRAWN BY NVR	CHECKED BY APF

ROADWAY PROFILE

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD VIRGINIA

SHEET NUMBER
5B(1)

Plotted By:Russo, Niki Sheet Set:Kha Layout:5B(1) July 11, 2024 03:38:51pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3B(1) PROFILE VIEWS.dwg
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LEGEND

1	EXIST. R/W
2	EXIST. LIMITED ACCESS LINE
3	EXIST. DRAINAGE EASEMENT
4	PROP. R/W
5	TEMP. CONSTR. EASEMENT
6	PERM. DRAINAGE EASEMENT
1	POTENTIAL UTILITY CONFLICT WITH PROPOSED STORM SEWER SYSTEM
2	STRUCTURES ADDED/REMOVED UNDER UPC #102951
3	PIPES ADDED/REMOVED UNDER UPC #102951
F F	FILL LIMITS
C C	CUT LIMITS

SW	SIDEWALK ELEV.
TC	TOP OF CURB ELEV.
ME	MATCH EXIST. ELEV.
EOP	EDGE OF PAVEMENT
P	PAVEMENT

NOTE:

1. PROPOSED PIPE UNDER THE SMITHFIELD SIDEWALK IMPROVEMENTS (UPC #102951) WILL NOT BE AFFECTED BY THE ADDITION OF THE PIPE STARTING AT STA. 115+53.73.

5–1 1 STD. DI–3B REQ'D.
L=4', H=5.9' INV. 29.38

5–1 TO 5–2 85'–24" CONC. PIPE CLASS III REQ'D. (3.7' COVER)
INV. (IN) 29.38 INV. (OUT) 28.95

5–2 1 STD. DI–3B REQ'D.
L=4', H=5.0' INV. 29.94

5–2 TO 5–3 71'–18" CONC. PIPE CLASS III REQ'D. (2.8' COVER)
(IN) 29.94 INV. (OUT) 29.72

5–3 1 STD. DI–3B REQ'D.
L=10', H=4.84' INV. 29.72

5–3 TO 5–1 115'–24" CONC. PIPE CLASS III REQ'D. (2.3' COVER)
INV. (IN) 29.72 INV. (OUT) 29.38

5–4 1 STD. DI–3B REQ'D.
L=4', H=10.10' INV. 23.18

5–4 TO 5–5 58'–18" CONC. PIPE CLASS III REQ'D. (8.1' COVER)
INV. (IN) 23.18 INV. (OUT) 22.60

5–5 1 STD. DI–3B REQ'D.
L=10', H=10.8' INV. 22.60

5–5 TO 5–6 150'–24" CONC. PIPE CLASS III REQ'D. (8.2' COVER)
INV. (IN) 22.60 INV. (OUT) 21.09

5–6 1 STD. DI–3B REQ'D.
L=10', H=10.93' INV. 21.09

5–6 TO 5–8 51'–24" CONC. PIPE CLASS III REQ'D. (8.4' COVER)
INV. (IN) 21.09 INV. (OUT) 20.58

5–7 1 STD. DI–3B REQ'D.
L=6', H=9.87' INV. 20.99

5–7 TO 5–8 41'–18" CONC. PIPE CLASS III REQ'D. (7.7' COVER)
INV. (IN) 20.99 INV. (OUT) 20.58

5–8 1 STD. MH–1 FRAME & COVER REQ'D.
INV. 20.58

5–8 TO 6–1 243'–24" CONC. PIPE CLASS III REQ'D. (3.3' COVER)
INV. (IN) 20.58 INV. (OUT) 18.15

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

No.	REVISIONS	DATE

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Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT 117032035
DATE 7/12/2024
SCALE AS SHOWN
DESIGNED BY NVR
DRAWN BY NVR
CHECKED BY APF

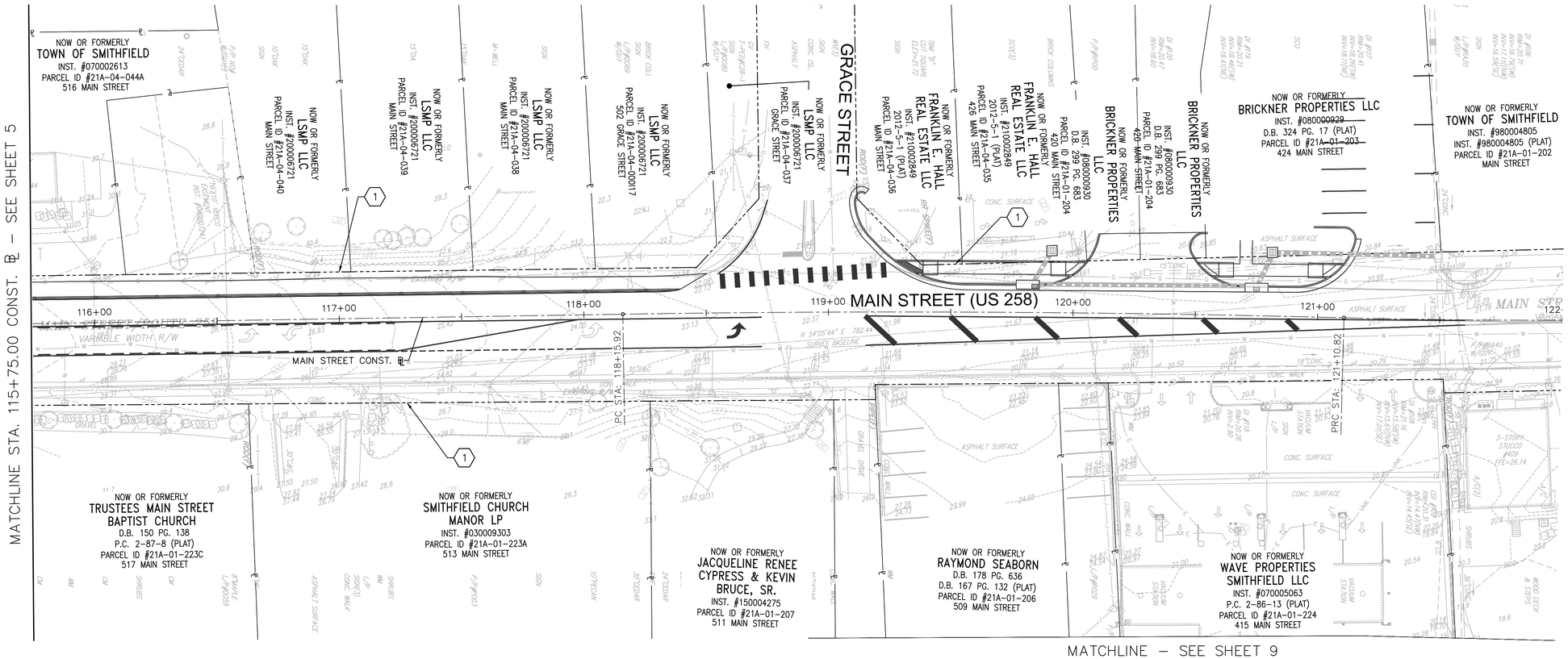
GRADING AND DRAINAGE PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
5C

Plotted By:Russo, Nik Sheet Set:Kha Layout:5C July 11, 2024 03:39:28pm K:\VAB_RDWY\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\3C GRADING AND DRAINAGE PLAN.dwg
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Plotted By:Russo, Niki Sheet Set:Kha Layout:6 EXISTING CONDITIONS July 11, 2024 03:39:59pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3 EXISTING CONDITIONS.dwg
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GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

LEGEND

1 — · — · — · — EXISTING RIGHT OF WAY LINE
2 — · — · — · — EXISTING LIMITED ACCESS LINE
3 — · — · — · — EXISTING DRAINAGE EASEMENT

NOTES:

1. DARKER SHADE REPRESENTS IMPROVEMENTS INCLUDED IN UPC #102951

NORTH

No.	REVISIONS	DATE

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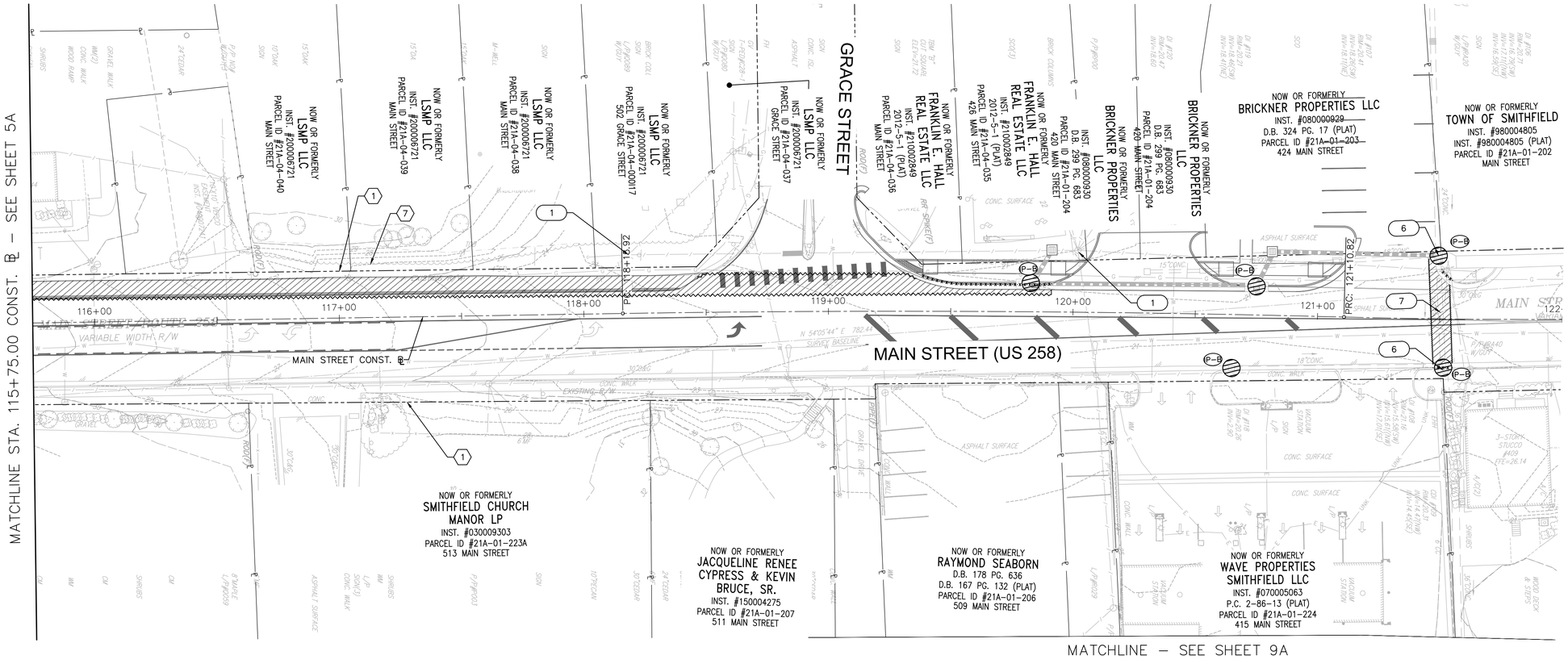
Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR
		DRAWN BY NVR	CHECKED BY APF

EXISTING CONDITIONS

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
6



NOTE:

1. CONTRACTOR TO REMOVE ALL EXISTING TREES AND SHRUBS WITHIN CONSTRUCTION LIMITS INCLUDING ALL PERMANENT AND TEMPORARY EASEMENTS.

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

LEGEND

- (1) EXIST. R/W
- (2) EXIST. LIMITED ACCESS LINE
- (3) EXIST. DRAINAGE EASEMENT
- (4) PROP. R/W
- (5) TEMP. CONSTR. EASEMENT
- (6) PERM. DRAINAGE EASEMENT
- (IP-A) INLET PROTECTION TYPE A
- (IP-B) INLET PROTECTION TYPE B

- DEMOLITION OF CONCRETE PAVEMENT (RIGID)
- DEMOLITION OF ASPHALT PAVEMENT (FLEXIBLE)
- FLEXIBLE PAVEMENT PLANNING 0"–2"
- DEMOLITION OF CURB
- DEMOLITION SAWCUTTING
- SF TEMPORARY SILT FENCE TYPE A
- DEMUCK EXISTING DITCH AND BACKFILL WITH SELECT FILL
- TP (TP) TREE PROTECTION
- (CIP) CULVERT INLET PROTECTION
- (OP) OUTLET PROTECTION
- (CE) CONSTRUCTION ENTRANCE

- (1) PROTECT AND DO NOT DISTURB EXISTING UTILITY POLE
- (2) ADJUST EXISTING UTILITY TO GRADE
- (3) REMOVE AND RELOCATE EXISTING UTILITY POLE (BY OTHERS)
- (4) REMOVE SIGN PANEL, POST, AND FOUNDATION. *INDICATES SIGN PANEL TO BE RETAINED FOR REUSE.
- (5) RELOCATE TRAFFIC SIGNAL EQUIPMENT
- (6) REMOVE DRAINAGE STRUCTURE
- (7) REMOVE DRAINAGE PIPE
- (8) REMOVE EXISTING FENCE

Plotted By: Russo, Niki Sheet Set: Kho Layout: 6A July 11, 2024 03:40:25pm K:\VAB_RDWY\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\3A DEMO & ESC PLAN.dwg
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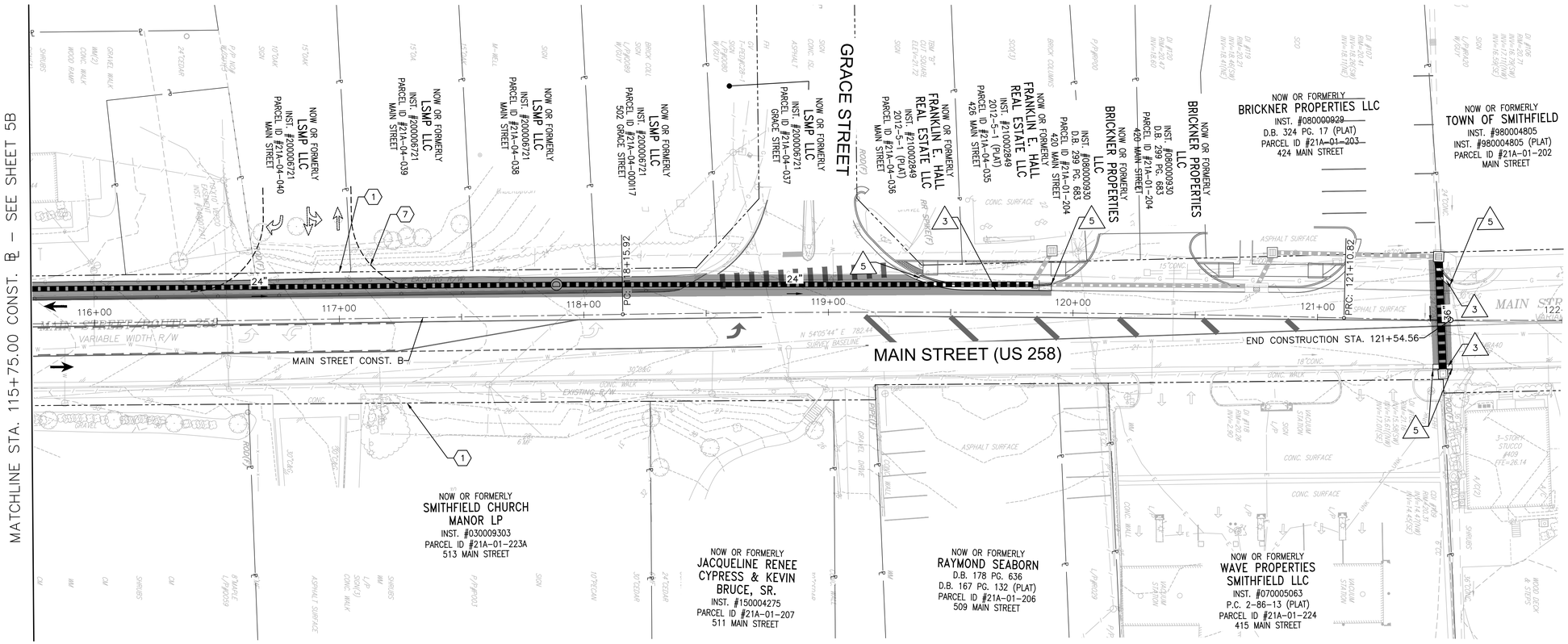
Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Rachel S. Engineer

KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR	DRAWN BY NVR	CHECKED BY APF

DEMOLITION & EROSION AND SEDIMENT CONTROL PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD
VIRGINIA

SHEET NUMBER
6A



NOTES:

1. CONCRETE SIDEWALK SHALL BE PLACED AROUND EXISTING UTILITY POLES WHERE REQUIRED. MINIMUM 4' WIDE CONCRETE SIDEWALK SHALL BE PROVIDED AT ALL EXISTING UTILITY POLE LOCATIONS. ALL COSTS FOR PLACING SIDEWALK AROUND UTILITY POLES SHALL BE PAID AS INCIDENTAL TO THE SIDEWALK.
2. CONTRACTOR SHOULD NOTE LOCATIONS OF TEMPORARY CONSTRUCTION EASEMENTS SHOWN ON THE PLANS AT EXISTING ENTRANCES. CONTRACTOR SHALL EXERCISE CARE WHEN WORKING ADJACENT TO EXISTING RIGHT-OF-WAY LINE AND SELECT INSTALLATION MEANS AND METHODS ACCORDING TO GIVEN SPACE. ALL WORK SHALL OCCUR WITHIN THE EXISTING RIGHT-OF-WAY LINE AND TEMPORARY CONSTRUCTION EASEMENTS UNLESS DIRECTED BY THE OWNER.

LEGEND

- (1) EXIST. R/W
- (2) EXIST. LIMITED ACCESS LINE
- (3) EXIST. DRAINAGE EASEMENT
- (4) PROP. R/W
- (5) TEMP. CONSTR. EASEMENT
- (6) PERM. DRAINAGE EASEMENT
- (7) FUTURE IMPROVEMENTS BY ADJACENT DEVELOPMENT
- (1) VDOT STD. CG-12 TYPE A REQ'D. (5' WIDTH)
- (2) VDOT STD. CG-12 TYPE B REQ'D. (5' WIDTH)
- (3) VDOT STD. CG-6 REQ'D.
- (4) VDOT STD. CG-2 REQ'D
- (5) TIE TO EXIST. CURB/CURB & GUTTER
- (6) TIE TO EXIST. SIDEWALK
- (7) TIE TO EXIST. PAVEMENT
- (8) MAINTAIN EXISTING CURB AND GUTTER
- F F FILL LIMITS
- C C CUT LIMITS

- DENOTES PROP. FULL DEPTH ASPHALT PAVEMENT
- DENOTES PROP. VARIABLE MILL AND OVERLAY WITH SM-9.5A @165 LBS/SY
- DENOTES CONCRETE ENTRANCE PAVEMENT
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROP. 5' WIDE CONCRETE SIDEWALK
- DIRECTIONAL ARROW

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

No.	REVISIONS	DATE

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Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

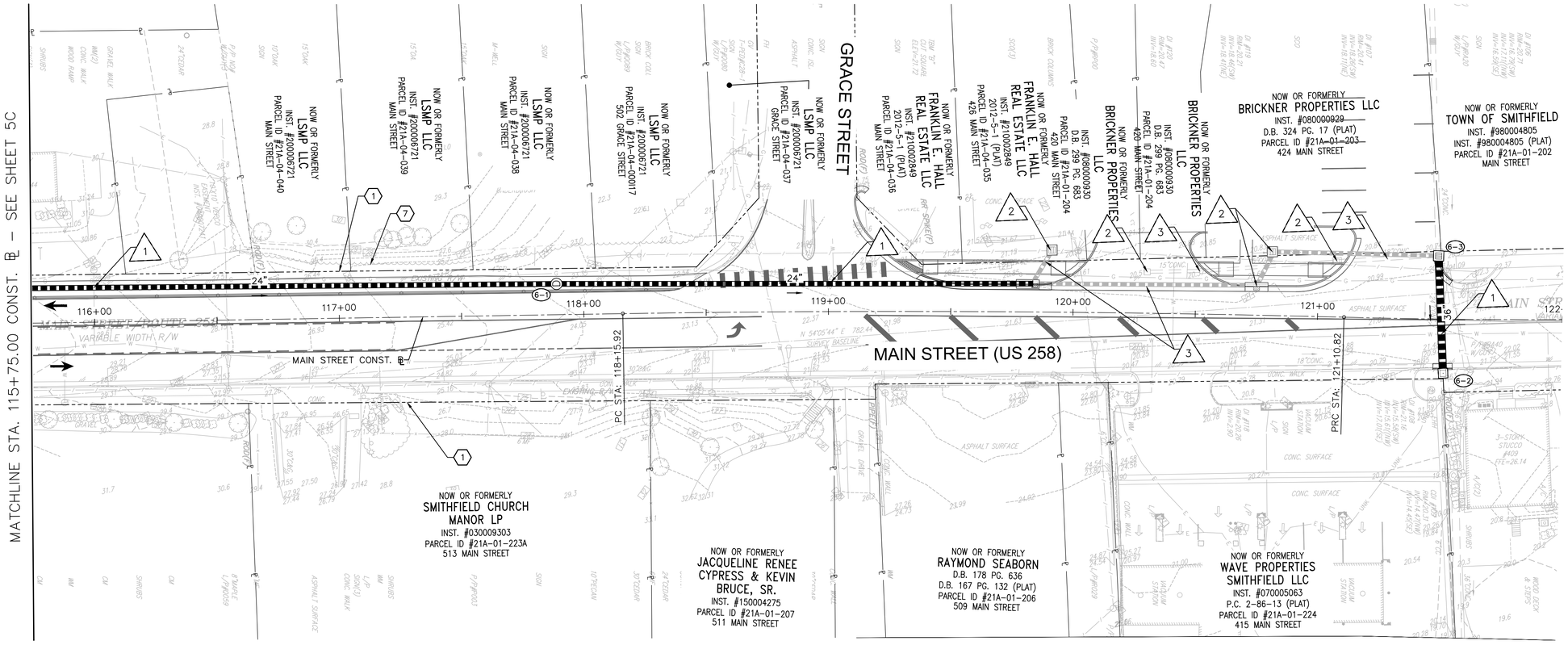
KHA PROJECT	DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
117032035	7/12/2024	AS SHOWN	NVR	NVR	APF

ROADWAY PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
6B

Plotted By:Russo, Niki Sheet Set:Kha Layout:6B July 11, 2024 06:23:48pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3B ROADWAY PLAN.dwg
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LEGEND

1	EXIST. R/W
2	EXIST. LIMITED ACCESS LINE
3	EXIST. DRAINAGE EASEMENT
4	PROP. R/W
5	TEMP. CONSTR. EASEMENT
6	PERM. DRAINAGE EASEMENT
1	POTENTIAL UTILITY CONFLICT WITH PROPOSED STORM SEWER SYSTEM
2	STRUCTURES ADDED/REMOVED UNDER UPC #102951
3	PIPES ADDED/REMOVED UNDER UPC #102951
F F	FILL LIMITS
C C	CUT LIMITS

SW	SIDEWALK ELEV.
TC	TOP OF CURB ELEV.
ME	MATCH EXIST. ELEV.
EOP	EDGE OF PAVEMENT
P	PAVEMENT

NOTE:

1. PROPOSED PIPE UNDER THE SMITHFIELD SIDEWALK IMPROVEMENTS (UPC #102951) WILL NOT BE AFFECTED BY THE ADDITION OF THE PIPE STARTING AT STA. 115+53.73.

GRAPHIC SCALE IN FEET
0 #### ## ##
1"=25'

(6-1) 1 STD. MH-1 FRAME & COVER REQ'D.
INV. 18.15

(6-1) TO EX (5-2) 195'-24" CONC. PIPE CLASS III REQ'D. (1.6' COVER)
INV. (IN) 18.15 INV. (OUT) 17.57

(6-2) 1 STD. DI-3B REQ'D.
L=10', H=6.08' INV. 15.61

(6-3) TO (6-2) 47'-36" CONC. PIPE CLASS III REQ'D. (0.76' COVER)
INV. (IN) 16.59 INV. (OUT) 15.61

(6-3) 1 STD. DI-1 REQ'D.
L=2.5', H=4.12' INV. 16.59

NORTH

Kimley»Horn

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PHONE: 757-213-8600
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE

Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

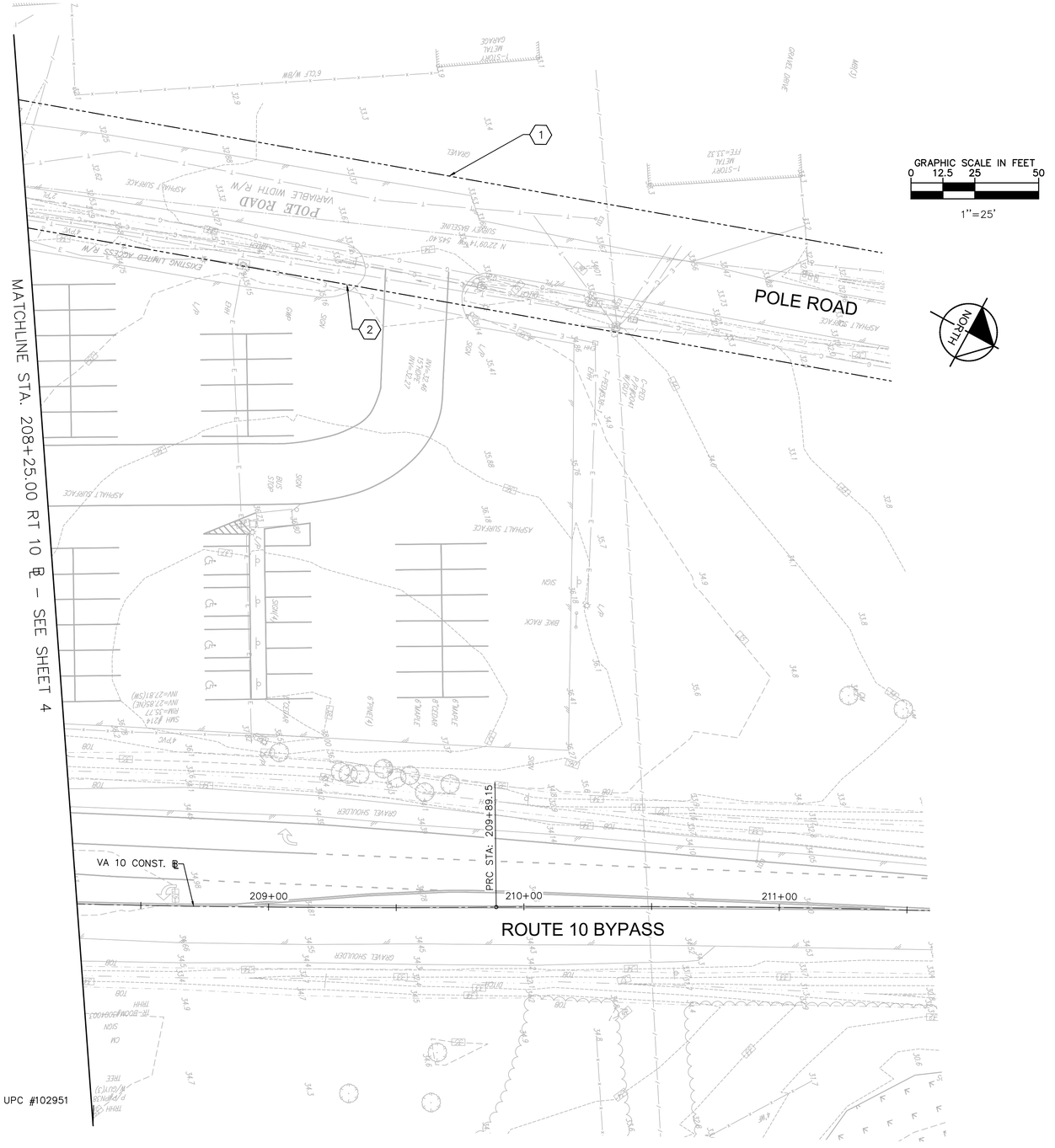
KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	
		DESIGNED BY NVR	
		DRAWN BY NVR	
		CHECKED BY APF	

GRADING AND DRAINAGE PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD VIRGINIA

SHEET NUMBER
6C

Plotted By:Russo, Niki Sheet Set:Kha Layout:6C July 11, 2024 03:41:45pm K:\VAB_RDWY\117032035 – US 258 and Route 10 intersection\05 – Design\CADD\PlanSheets\3C GRADING AND DRAINAGE PLAN.dwg
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LEGEND

1 — · — · — · — EXISTING RIGHT OF WAY LINE
2 — · — · — · — EXISTING LIMITED ACCESS LINE
3 — · — · — · — EXISTING DRAINAGE EASEMENT

NOTES:

1. DARKER SHADE REPRESENTS IMPROVEMENTS INCLUDED IN UPC #102951

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No.	REVISIONS	DATE

Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT 117032035
DATE 7/12/2024
SCALE AS SHOWN
DESIGNED BY NVR
DRAWN BY NVR
CHECKED BY APF

EXISTING CONDITIONS

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD VIRGINIA

SHEET NUMBER
7

Plotted By:Russo, Niki Sheet Set:Kha Layout:7 EXISTING CONDITIONS July 11, 2024 03:42:10pm K:\VAB_RDWY\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\3 EXISTING CONDITIONS.dwg
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LEGEND

1 EXIST. R/W

2 EXIST. LIMITED ACCESS LINE

3 EXIST. DRAINAGE EASEMENT

4 PROP. R/W

5 TEMP. CONSTR. EASEMENT

6 PERM. DRAINAGE EASEMENT

IP–A INLET PROTECTION TYPE A

IP–B INLET PROTECTION TYPE B

DEMOLITION OF CONCRETE PAVEMENT (RIGID)

DEMOLITION OF ASPHALT PAVEMENT (FLEXIBLE)

FLEXIBLE PAVEMENT PLANNING 0"–2"

DEMOLITION OF CURB

DEMOLITION SAWCUTTING

SF TEMPORARY SILT FENCE TYPE A

DEMUCK EXISTING DITCH AND BACKFILL WITH SELECT FILL

TP TREE PROTECTION

CIP CULVERT INLET PROTECTION

OP OUTLET PROTECTION

CE CONSTRUCTION ENTRANCE

1 PROTECT AND DO NOT DISTURB EXISTING UTILITY POLE

2 ADJUST EXISTING UTILITY TO GRADE

3 REMOVE AND RELOCATE EXISTING UTILITY POLE (BY OTHERS)

4 REMOVE SIGN PANEL, POST, AND FOUNDATION.
*INDICATES SIGN PANEL TO BE RETAINED FOR REUSE.

5 RELOCATE TRAFFIC SIGNAL EQUIPMENT

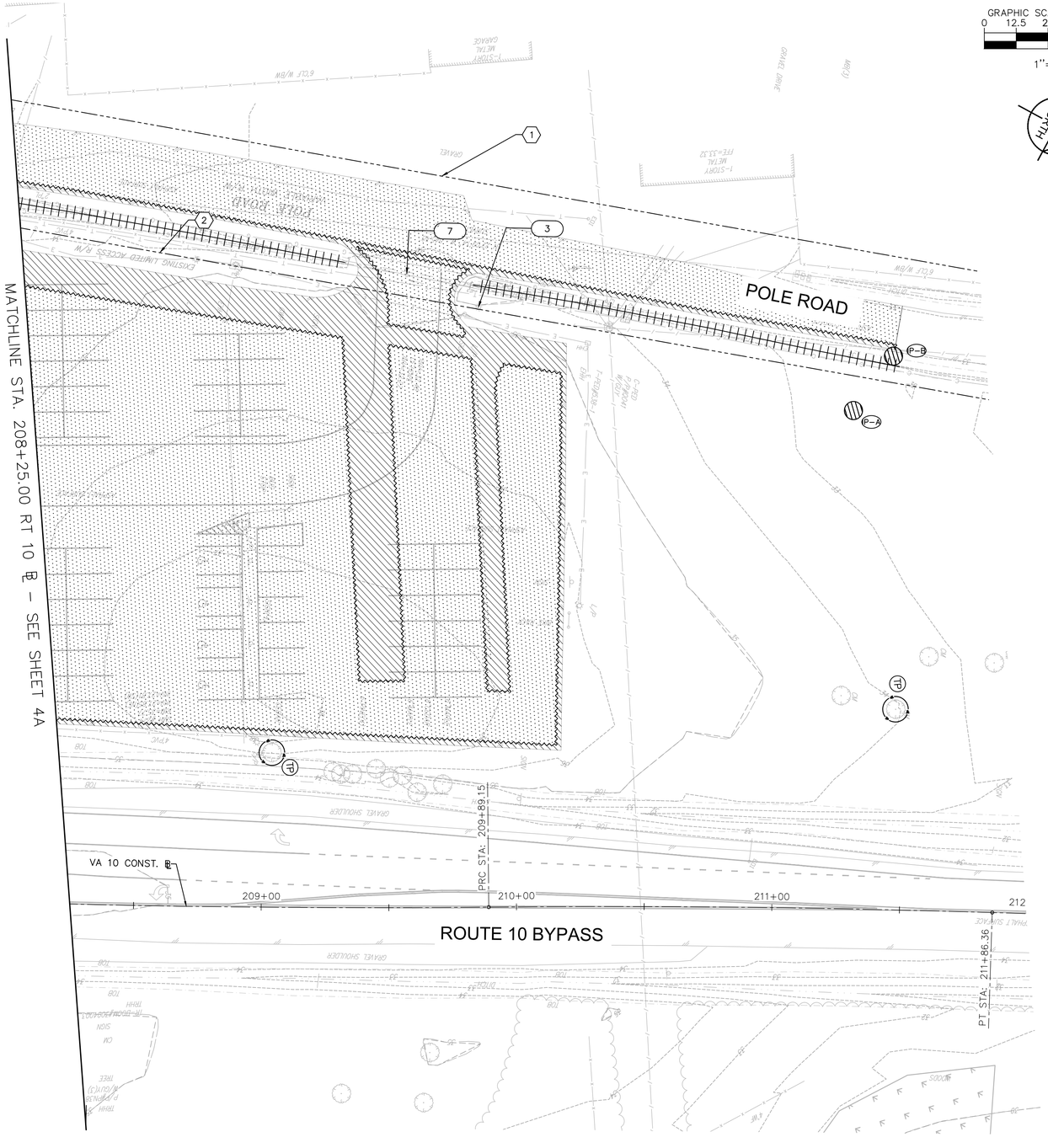
6 REMOVE DRAINAGE STRUCTURE

7 REMOVE DRAINAGE PIPE

8 REMOVE EXISTING FENCE

NOTE:

1. CONTRACTOR TO REMOVE ALL EXISTING TREES AND SHRUBS WITHIN CONSTRUCTION LIMITS INCLUDING ALL PERMANENT AND TEMPORARY EASEMENTS.



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No.	REVISIONS	DATE

Kimley»Horn and Associates, Inc.
Virginia Beach, Virginia
Registered Engineer

KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR
		DRAWN BY NVR	CHECKED BY APF

DEMOLITION & EROSION AND SEDIMENT CONTROL PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD VIRGINIA

SHEET NUMBER
7A

Plotted By:Russo, Niki Sheet Set:Kho Layout:7A July 11, 2024 03:42:40pm K:\VAB_RDWY\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\3A DEMO & ESC PLAN.dwg
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LEGEND

1	EXIST. R/W
2	EXIST. LIMITED ACCESS LINE
3	EXIST. DRAINAGE EASEMENT
4	PROP. R/W
5	TEMP. CONSTR. EASEMENT
6	PERM. DRAINAGE EASEMENT
7	FUTURE IMPROVEMENTS BY ADJACENT DEVELOPMENT
1	VDOT STD. CG-12 TYPE A REQ'D. (5' WIDTH)
2	VDOT STD. CG-12 TYPE B REQ'D. (5' WIDTH)
3	VDOT STD. CG-6 REQ'D.
4	VDOT STD. CG-2 REQ'D
5	TIE TO EXIST. CURB/CURB & GUTTER
6	TIE TO EXIST. SIDEWALK
7	TIE TO EXIST. PAVEMENT
8	MAINTAIN EXISTING CURB AND GUTTER

F F FILL LIMITS

C C CUT LIMITS

DENOTES PROP. FULL DEPTH ASPHALT PAVEMENT

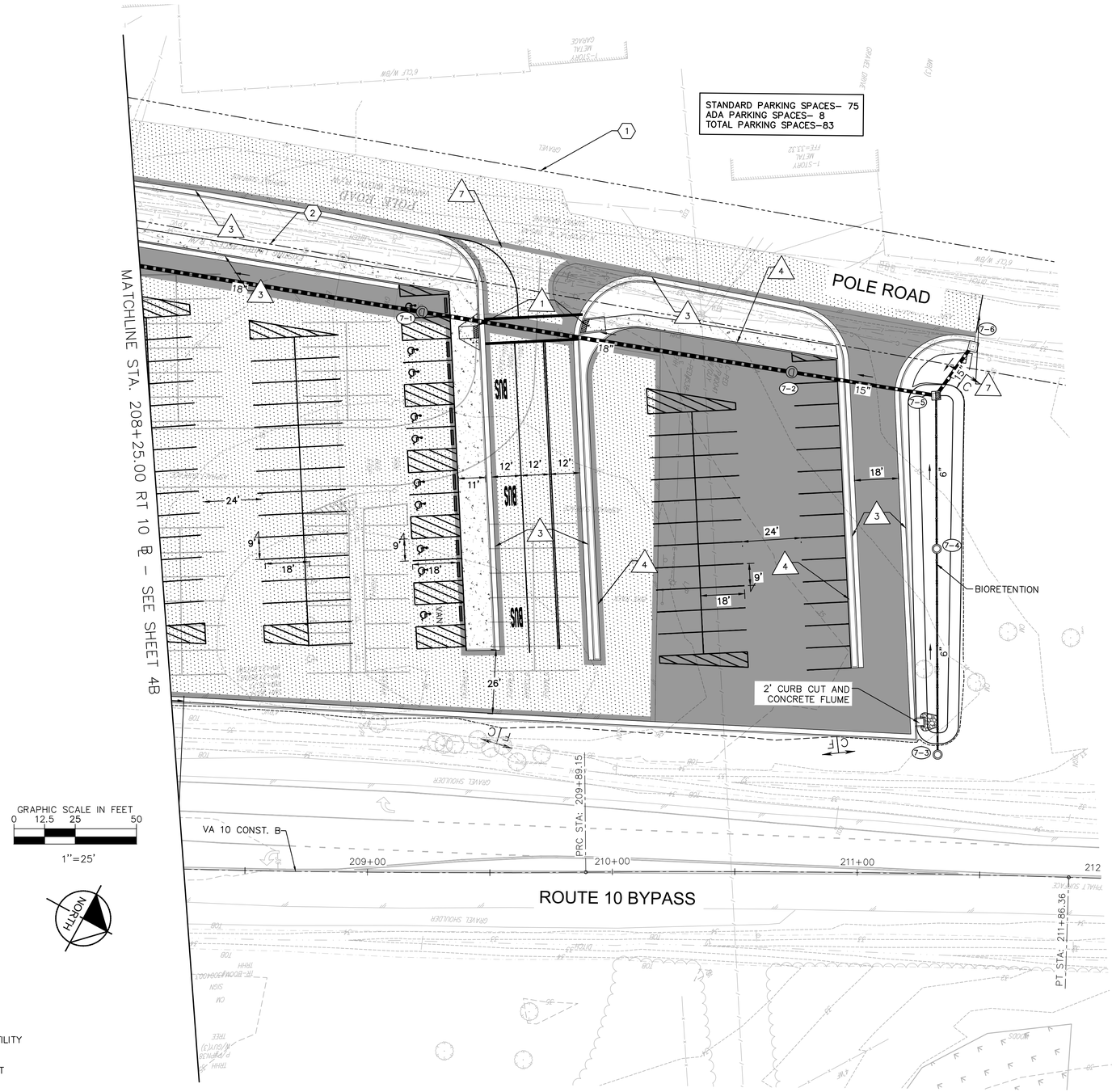
DENOTES PROP. VARIABLE MILL AND OVERLAY WITH SM-9.5A @165 LBS/SY

DENOTES CONCRETE ENTRANCE PAVEMENT

DENOTES DETECTABLE WARNING SURFACE

DENOTES PROP. 5' WIDE CONCRETE SIDEWALK

DIRECTIONAL ARROW



GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

NOTES:

1. CONCRETE SIDEWALK SHALL BE PLACED AROUND EXISTING UTILITY POLES WHERE REQUIRED. MINIMUM 4' WIDE CONCRETE SIDEWALK SHALL BE PROVIDED AT ALL EXISTING UTILITY POLE LOCATIONS. ALL COSTS FOR PLACING SIDEWALK AROUND UTILITY POLES SHALL BE PAID AS INCIDENTAL TO THE SIDEWALK.
2. CONTRACTOR SHOULD NOTE LOCATIONS OF TEMPORARY CONSTRUCTION EASEMENTS SHOWN ON THE PLANS AT EXISTING ENTRANCES. CONTRACTOR SHALL EXERCISE CARE WHEN WORKING ADJACENT TO EXISTING RIGHT-OF-WAY LINE AND SELECT INSTALLATION MEANS AND METHODS ACCORDING TO GIVEN SPACE. ALL WORK SHALL OCCUR WITHIN THE EXISTING RIGHT-OF-WAY LINE AND TEMPORARY CONSTRUCTION EASEMENTS UNLESS DIRECTED BY THE OWNER.

No.	REVISIONS	DATE

Kimley»Horn

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WWW.KIMLEY-HORN.COM

Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

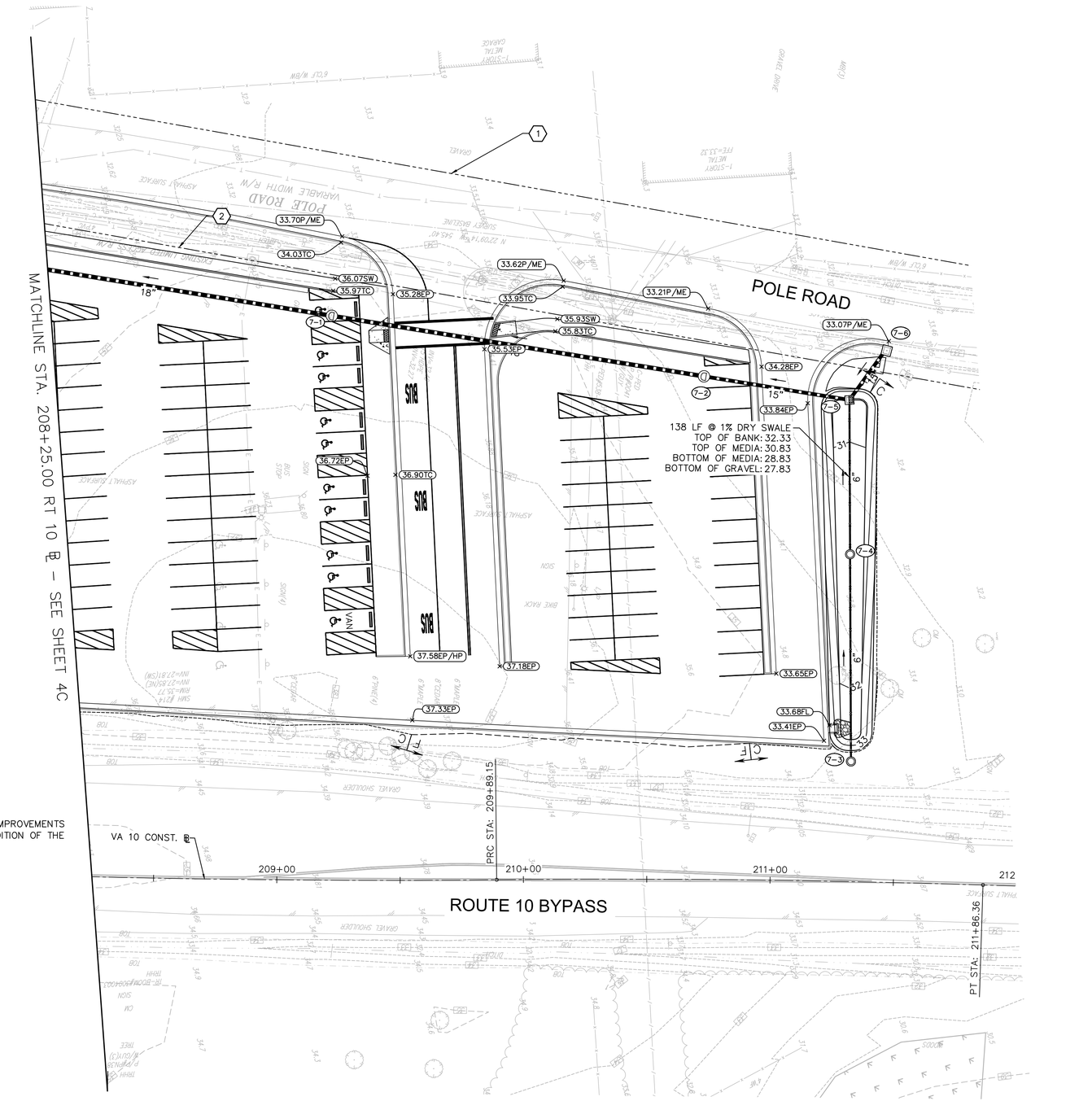
KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR
			DRAWN BY NVR
			CHECKED BY APP

PARK AND RIDE PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
7B

Plotted By:Russo, Nikki Sheet Set:Kha Layout:7B July 11, 2024 03:43:19pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3B ROADWAY PLAN.dwg
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GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

(7-1) 1 STD. MH-1 FRAME & COVER REQ'D.
INV. 26.60

(7-1) TO (4-1) 150'-18" CONC. PIPE CLASS III REQ'D. (7.2' COVER)
INV. (IN) 26.60 INV. (OUT) 25.85

(7-2) 1 STD. MH-1 FRAME & COVER REQ'D.
INV. 27.36

(7-2) TO (7-1) 153'-18" CONC. PIPE CLASS III REQ'D. (5.9' COVER)
INV. (IN) 27.36 INV. (OUT) 26.60

(7-3) 1 STD. SWM-8 4" PVC SCREW CAP
H=4.59' INV. 29.30

(7-3) TO (7-4) 84'-6" PERFORATED SCHEDULE 40 PVC (2.5' COVER)
(IN) 29.30 INV. (OUT) 28.46

(7-4) 1 STD. SWM-8 4" PVC SCREW CAP
H=3' INV. 28.46

(7-4) TO (7-5) 63'-6" PERFORATED SCHEDULE 40 PVC (2.5' COVER)
(IN) 28.46 INV. (OUT) 27.83

(7-5) 1 STD. DI-1 REQ'D.
L=2.5', H=3.66' INV. 27.66

(7-5) TO (7-2) 60'-15" CONC. PIPE CLASS III REQ'D. (1.7' COVER)
INV. (IN) 27.66 INV. (OUT) 27.36

(7-6) 1 STD. DI-3B REQ'D.
L=6', H=5.1' INV. 27.79

(7-6) TO (7-8) 27'-15" CONC. PIPE CLASS III REQ'D. (1.7' COVER)
INV. (IN) 27.79 INV. (OUT) 27.66

LEGEND

1	EXIST. R/W
2	EXIST. LIMITED ACCESS LINE
3	EXIST. DRAINAGE EASEMENT
4	PROP. R/W
5	TEMP. CONSTR. EASEMENT
6	PERM. DRAINAGE EASEMENT
1	POTENTIAL UTILITY CONFLICT WITH PROPOSED STORM SEWER SYSTEM
2	STRUCTURES ADDED/REMOVED UNDER UPC #102951
3	PIPES ADDED/REMOVED UNDER UPC #102951
F F	FILL LIMITS
C C	CUT LIMITS

SW	SIDEWALK ELEV.
TC	TOP OF CURB ELEV.
ME	MATCH EXIST. ELEV.
EOP	EDGE OF PAVEMENT
P	PAVEMENT

NOTE:

1. PROPOSED PIPE UNDER THE SMITHFIELD SIDEWALK IMPROVEMENTS (UPC #102951) WILL NOT BE AFFECTED BY THE ADDITION OF THE PIPE STARTING AT STA. 115+53.73.

No.	REVISIONS	DATE

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Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT
117032035
DATE
7/12/2024
SCALE AS SHOWN
DESIGNED BY NVR
DRAWN BY NVR
CHECKED BY APF

GRADING AND DRAINAGE PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
7C

Plotted By:Russo, Niki Sheet Set:Kho Layout:7C July 11, 2024 03:43:58pm K:\VAB_RDW\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\3C GRADING AND DRAINAGE PLAN.dwg
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Plotted By:Russo, Niki Sheet Set:Kha Layout:8 EXISTING CONDITIONS July 11, 2024 03:44:23pm K:\VAB_RDWY\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\3 EXISTING CONDITIONS.dwg

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LEGEND

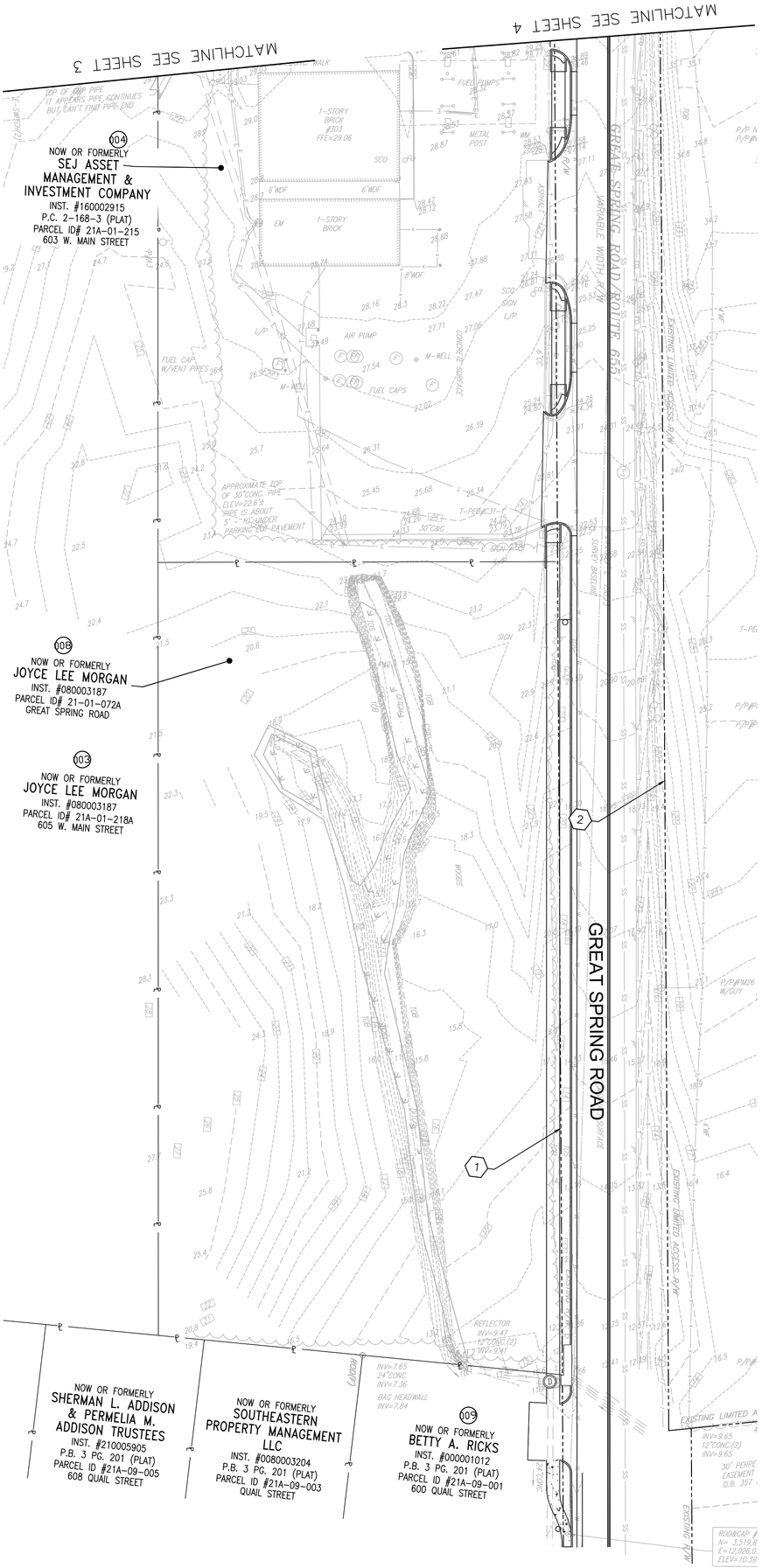
EXISTING RIGHT OF WAY LINE

EXISTING LIMITED ACCESS LINE

EXISTING DRAINAGE EASEMENT

NOTES:

1. DARKER SHADE REPRESENTS IMPROVEMENTS INCLUDED IN UPC #102951



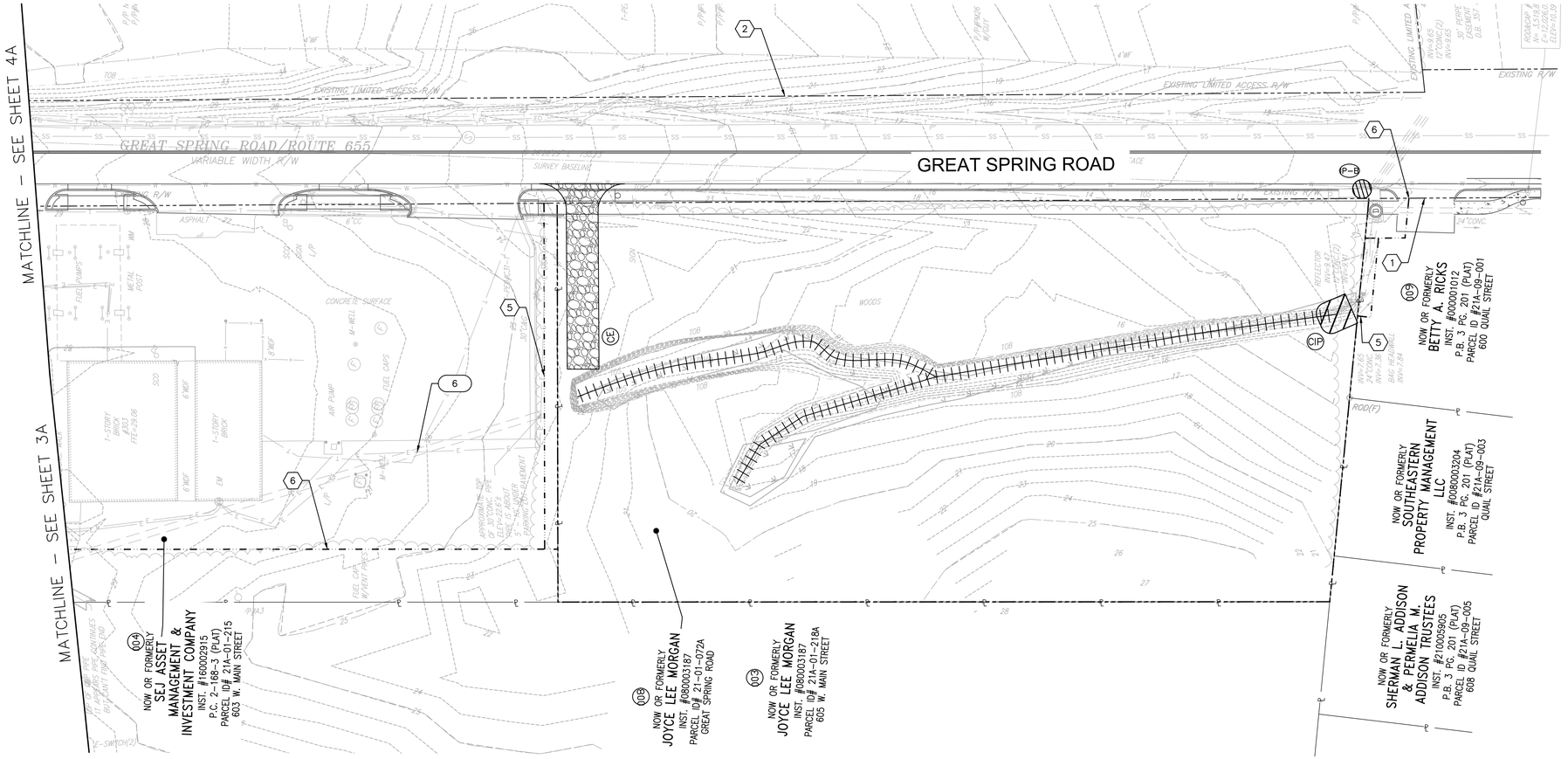
NORTH

0 ### ### ### GRAPHIC SCALE IN FEET
1"=25'

SHEET NUMBER 8	US 258 AT ROUTE 10 BYPASS INTERSECTION IMPROVEMENTS PREPARED FOR ISLE OF WIGHT COUNTY SMITHFIELD VIRGINIA	EXISTING CONDITIONS	KHA PROJECT 117032035 DATE 7/12/2024 SCALE AS SHOWN DESIGNED BY NVR DRAWN BY NVR CHECKED BY APF	Kimley-Horn and Associates, Inc. Virginia Beach, Virginia Roadway Engineer	Kimley»Horn	© 2023 KIMLEY-HORN AND ASSOCIATES, INC. 4525 MAIN STREET, SUITE 1000, VIRGINIA BEACH, VA 23462 PHONE: 757-213-8600 WWW.KIMLEY-HORN.COM	No. REVISIONS DATE

NOTE:

1. CONTRACTOR TO REMOVE ALL EXISTING TREES AND SHRUBS WITHIN CONSTRUCTION LIMITS INCLUDING ALL PERMANENT AND TEMPORARY EASEMENTS.



GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

LEGEND

- (1) EXIST. R/W
- (2) EXIST. LIMITED ACCESS LINE
- (3) EXIST. DRAINAGE EASEMENT
- (4) PROP. R/W
- (5) TEMP. CONSTR. EASEMENT
- (6) PERM. DRAINAGE EASEMENT
- (IP-A) INLET PROTECTION TYPE A
- (IP-B) INLET PROTECTION TYPE B

- DEMOLITION OF CONCRETE PAVEMENT (RIGID)
- DEMOLITION OF ASPHALT PAVEMENT (FLEXIBLE)
- FLEXIBLE PAVEMENT PLANNING 0"–2"
- DEMOLITION OF CURB
- DEMOLITION SAWCUTTING
- SF TEMPORARY SILT FENCE TYPE A
- DEMUCK EXISTING DITCH AND BACKFILL WITH SELECT FILL
- TP (TP) TREE PROTECTION
- (CIP) CULVERT INLET PROTECTION
- (OP) OUTLET PROTECTION
- (CE) CONSTRUCTION ENTRANCE

- (1) PROTECT AND DO NOT DISTURB EXISTING UTILITY POLE
- (2) ADJUST EXISTING UTILITY TO GRADE
- (3) REMOVE AND RELOCATE EXISTING UTILITY POLE (BY OTHERS)
- (4) REMOVE SIGN PANEL, POST, AND FOUNDATION. *INDICATES SIGN PANEL TO BE RETAINED FOR REUSE.
- (5) RELOCATE TRAFFIC SIGNAL EQUIPMENT
- (6) REMOVE DRAINAGE STRUCTURE
- (7) REMOVE DRAINAGE PIPE
- (8) REMOVE EXISTING FENCE

No.	REVISIONS	DATE

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Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Rachel S. Engineer

KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR	DRAWN BY NVR	CHECKED BY APF

DEMOLITION & EROSION AND SEDIMENT CONTROL PLAN

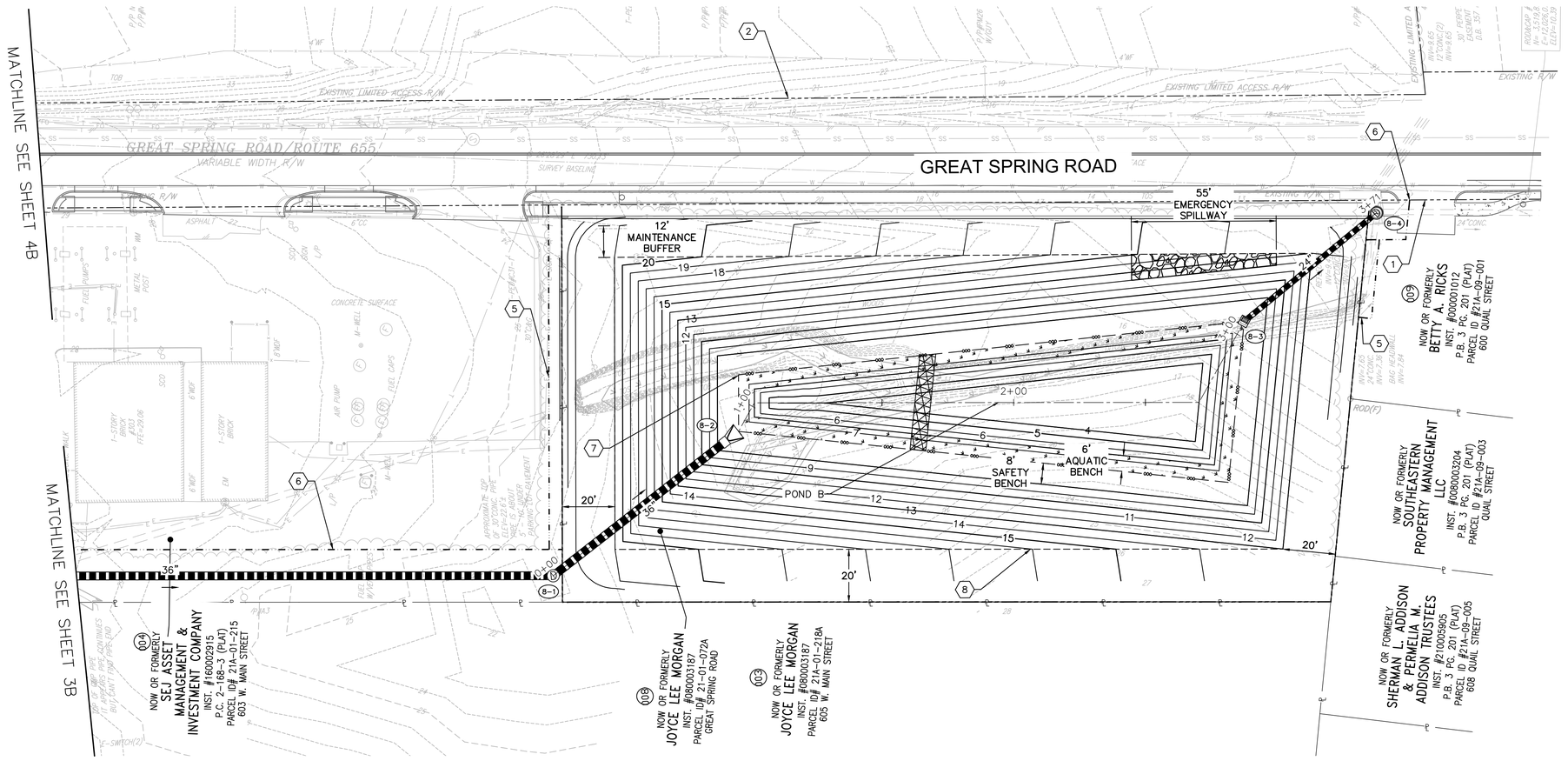
US 258 AT ROUTE 10
BYPASS INTERSECTION IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD VIRGINIA

SHEET NUMBER
8A

Plotted By:Russo, Niki Sheet Set:Kha Layout:8A July 11, 2024 03:44:50pm K:\VAB_RDWY\117032035 – US 258 and Route 10 Intersection\05 – Design\CADD\PlanSheets\3A DEMO & ESC PLAN.dwg
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NOTES:

1. CONCRETE SIDEWALK SHALL BE PLACED AROUND EXISTING UTILITY POLES WHERE REQUIRED. MINIMUM 4' WIDE CONCRETE SIDEWALK SHALL BE PROVIDED AT ALL EXISTING UTILITY POLE LOCATIONS. ALL COSTS FOR PLACING SIDEWALK AROUND UTILITY POLES SHALL BE PAID AS INCIDENTAL TO THE SIDEWALK.
2. CONTRACTOR SHOULD NOTE LOCATIONS OF TEMPORARY CONSTRUCTION EASEMENTS SHOWN ON THE PLANS AT EXISTING ENTRANCES. CONTRACTOR SHALL EXERCISE CARE WHEN WORKING ADJACENT TO EXISTING RIGHT-OF-WAY LINE AND SELECT INSTALLATION MEANS AND METHODS ACCORDING TO GIVEN SPACE. ALL WORK SHALL OCCUR WITHIN THE EXISTING RIGHT-OF-WAY LINE AND TEMPORARY CONSTRUCTION EASEMENTS UNLESS DIRECTED BY THE OWNER.



LEGEND

1	EXIST. R/W
2	EXIST. LIMITED ACCESS LINE
3	EXIST. DRAINAGE EASEMENT
4	PROP. R/W
5	TEMP. CONSTR. EASEMENT
6	PERM. DRAINAGE EASEMENT
7	NORMAL WATER ELEVATION
8	TOP OF BANK ELEVATION (VARIES 21.00'–13.00')

(8-1) 1 STD. MH-1 FRAME & COVER REQ'D.
INV. 16.67

(8-1) TO (8-2) 70'–36" CONC. PIPE CLASS III REQ'D. (2.2' COVER)
INV. (IN) 16.67 INV. (OUT) 14.11

(8-2) 1 STD. ES-1 REQ'D.
INV. 14.11

(8-3) 1 STD. SWM-1
ELEV.9.60

(8-3) TO (8-4) 65'–24" CONC. PIPE CLASS III REQ'D. (2.2' COVER)
INV. (IN) 7.60 INV. (OUT) 7.36

(8-4) 1 STD. MH-1 FRAME & COVER REQ'D.
INV. 7.36
CONNECT TO EXISTING 24" CONC. PIPE
CONFIRM EXIST INV. 7.36

GRAPHIC SCALE IN FEET
0 12.5 25 50
1"=25'

NORTH

No.	REVISIONS	DATE

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Virginia Beach, Virginia
Roadway Engineer

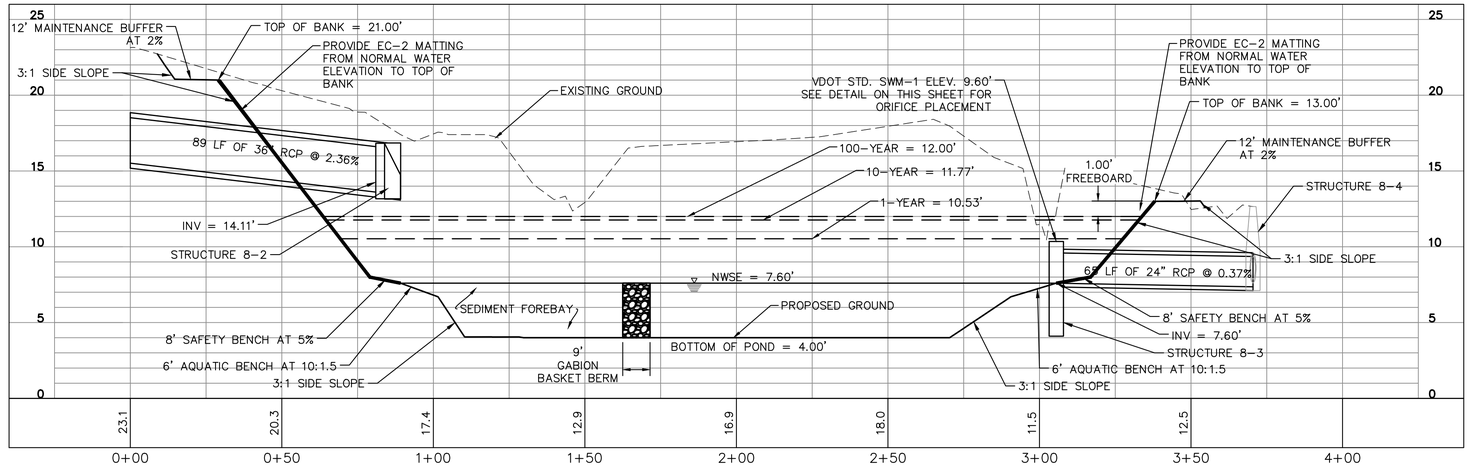
KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR	DRAWN BY NVR	CHECKED BY APF

STORMWATER MANAGEMENT FACILITY PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

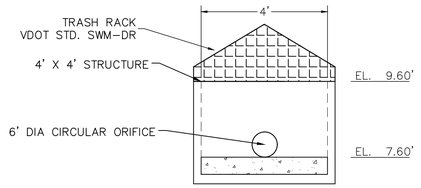
SHEET NUMBER
8B

Plotted By:Russo, Nikki Sheet Set:Kha Layout:8B July 11, 2024 03:45:28pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3B ROADWAY PLAN.dwg
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POND BL

STA: -0+25.00 TO STA: 4+25.00



FRONT VIEW

SWM-1 ORIFICE PLACEMENT DETAIL

NTS

DESIGN INFORMATION - BMP

DRAINAGE AREA	13.11 AC.
WET VOLUME	0.360 AC. FT.
DRY VOLUME	1.95 AC. FT.
TOE OF SLOPE (FOREBAYS)	4.00
TOE OF SLOPE (POND)	4.00
TOP OF BANK	21.00-13.00
RISER ELEVATION	9.60
RISER DIMENSION	4'X4'
ORIFICE ELEVATION	7.60
ORIFICE SIZE	6" CIRCLE.
SIDE SLOPE	3 : 1 / 10:1.5 / 20:1

SWMF RECAPITULATION SHEET - BMP

PROJECT NAME: US 258 AND ROUTE 10 INTERSECTION IMPROVEMENTS

BMP TYPE AND LEVEL (BMP CLEARINGHOUSE DESIGNATION): WET POND-LEVEL1

LATITUDE (DECIMAL DEGREES): 36.975706°

LONGITUDE (DECIMAL DEGREES): -76.640963

TAX PARCEL #: 21-01-072A

RPA/RMA/OUTSIDE CBPA (CHOOSE ONE): RMA

RECEIVING WATER(S) AND HYDROLOGIC UNIT CODE (6TH ORDER):

NAME: CYPRESS CREEK

HUC: 020802060903 (JL40)

DRAINAGE AREA OF SWMF (ACRES): 13.11 AC.

TOTAL IMPERVIOUS AREA DRAINING TO SWMF (ACRES): 1.06 AC

TOTAL DISTURBED AREA (ACRES): 3.49 AC

PHOSPHOROUS REMOVAL (LB/YR): 1.38

Plotted By:Russo, Niki Sheet Set:Kha Layout:8C July 11, 2024 03:45:41pm K:\VAB_RDW\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\8C STORMWATER MANAGEMENT FACILITY DETAILS.dwg
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Virginia Beach, Virginia
Roadway Engineer

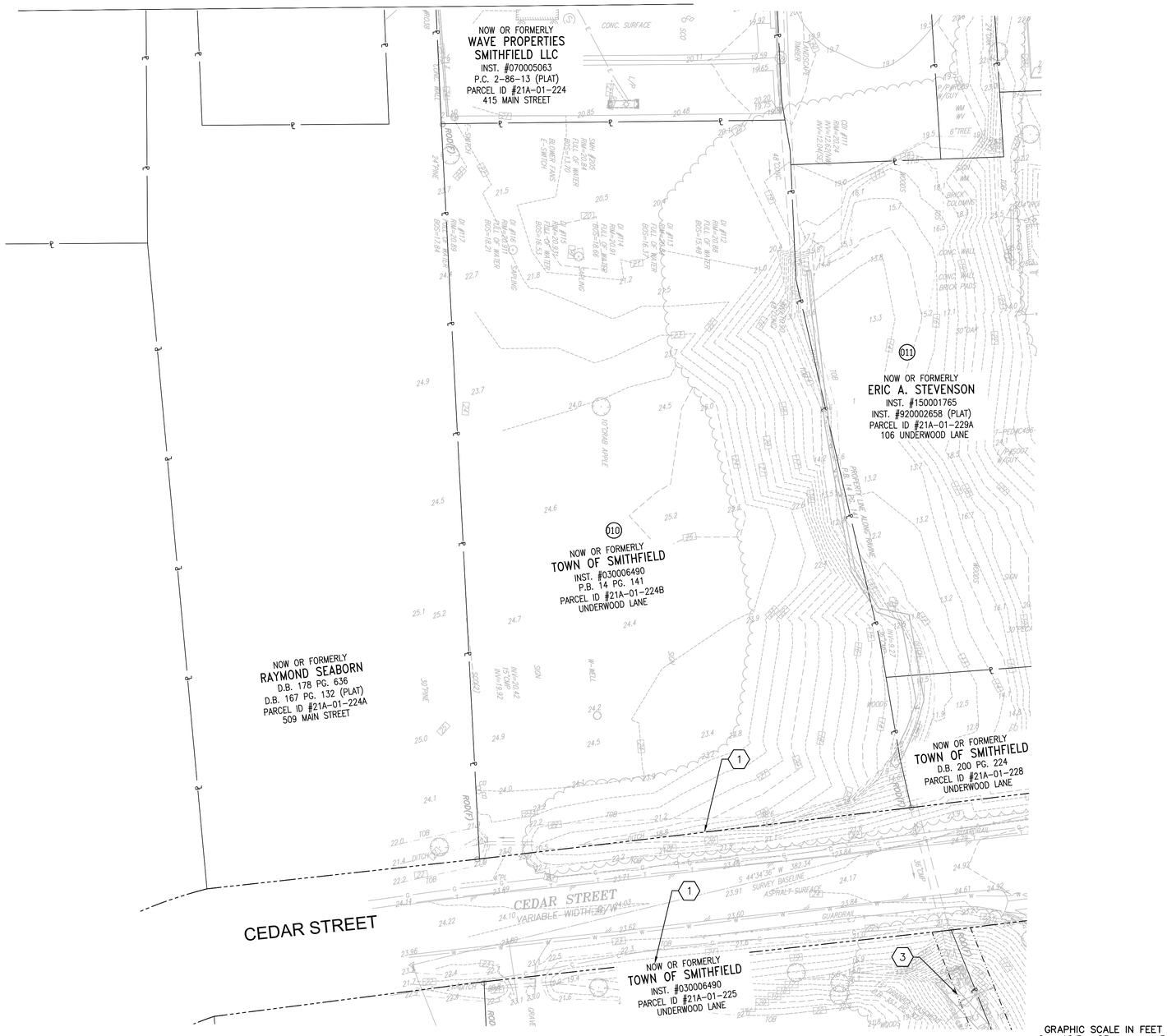
KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR	DRAWN BY NVR	CHECKED BY APF

STORMWATER MANAGEMENT FACILITY DETAILS

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
SMITHFIELD
VIRGINIA

SHEET NUMBER
8C

Plotted By:Russo, Niki Sheet Set:Kha Layout:9 EXISTING CONDITIONS July 11, 2024 03:46:08pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3 EXISTING CONDITIONS.dwg
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LEGEND

1 — · — · — · — EXISTING RIGHT OF WAY LINE
2 — · — · — · — EXISTING LIMITED ACCESS LINE
3 — · — · — · — EXISTING DRAINAGE EASEMENT

NOTES:

1. DARKER SHADE REPRESENTS IMPROVEMENTS INCLUDED IN UPC #102951

No.	REVISIONS	DATE

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Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT 117032035
DATE 7/12/2024
SCALE AS SHOWN
DESIGNED BY NVR
DRAWN BY NVR
CHECKED BY APF

EXISTING CONDITIONS

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
9

Plotted By:Russo, Niki Sheet Set:Kha Layout:9A July 11, 2024 03:46:38pm K:\VA8_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3A DEMO & ESC PLAN.dwg
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LEGEND

- (1) EXIST. R/W
- (2) EXIST. LIMITED ACCESS LINE
- (3) EXIST. DRAINAGE EASEMENT
- (4) PROP. R/W
- (5) TEMP. CONSTR. EASEMENT
- (6) PERM. DRAINAGE EASEMENT
- (IP-A) INLET PROTECTION TYPE A
- (IP-B) INLET PROTECTION TYPE B
- DEMOLITION OF CONCRETE PAVEMENT (RIGID)
- DEMOLITION OF ASPHALT PAVEMENT (FLEXIBLE)
- FLEXIBLE PAVEMENT PLANNING 0"-2"
- DEMOLITION OF CURB
- DEMOLITION SAWCUTTING
- SF TEMPORARY SILT FENCE TYPE A
- DEMUCK EXISTING DITCH AND BACKFILL WITH SELECT FILL
- TP (TP) TREE PROTECTION
- (CIP) CULVERT INLET PROTECTION
- (OP) OUTLET PROTECTION
- (CE) CONSTRUCTION ENTRANCE

- (1) PROTECT AND DO NOT DISTURB EXISTING UTILITY POLE
- (2) ADJUST EXISTING UTILITY TO GRADE
- (3) REMOVE AND RELOCATE EXISTING UTILITY POLE (BY OTHERS)
- (4) REMOVE SIGN PANEL, POST, AND FOUNDATION. *INDICATES SIGN PANEL TO BE RETAINED FOR REUSE.
- (5) RELOCATE TRAFFIC SIGNAL EQUIPMENT
- (6) REMOVE DRAINAGE STRUCTURE
- (7) REMOVE DRAINAGE PIPE
- (8) REMOVE EXISTING FENCE

NOTE:

1. CONTRACTOR TO REMOVE ALL EXISTING TREES AND SHRUBS WITHIN CONSTRUCTION LIMITS INCLUDING ALL PERMANENT AND TEMPORARY EASEMENTS.

MATCHLINE – SEE SHEET 6A



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Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Registered Engineer

KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR	DRAWN BY NVR	CHECKED BY APF

DEMOLITION & EROSION AND SEDIMENT CONTROL PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
9A

Plotted By:Russo, Nikki Sheet Set:Kho Layout:9C July 11, 2024 03:47:16pm K:\VAB_RDWY\117032035 - US 258 and Route 10 Intersection\05 - Design\CADD\PlanSheets\3C GRADING AND DRAINAGE PLAN.dwg
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LEGEND

1	EXIST. R/W
2	EXIST. LIMITED ACCESS LINE
3	EXIST. DRAINAGE EASEMENT
4	PROP. R/W
5	TEMP. CONSTR. EASEMENT
6	PERM. DRAINAGE EASEMENT
1	POTENTIAL UTILITY CONFLICT WITH PROPOSED STORM SEWER SYSTEM
2	STRUCTURES ADDED/REMOVED UNDER UPC #102951
3	PIPES ADDED/REMOVED UNDER UPC #102951
F F	FILL LIMITS
C C	CUT LIMITS

SW	SIDEWALK ELEV.
TC	TOP OF CURB ELEV.
ME	MATCH EXIST. ELEV.
EOP	EDGE OF PAVEMENT
P	PAVEMENT

NOTE:

1. PROPOSED PIPE UNDER THE SMITHFIELD SIDEWALK IMPROVEMENTS (UPC #102951) WILL NOT BE AFFECTED BY THE ADDITION OF THE PIPE STARTING AT STA. 115+53.73.

(9-1) 1 STD. ES-1 REQ'D.
INV. 10.90

No.	REVISIONS	DATE

Kimley»Horn

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Kimley-Horn and Associates, Inc.
Virginia Beach, Virginia
Roadway Engineer

KHA PROJECT 117032035	DATE 7/12/2024	SCALE AS SHOWN	DESIGNED BY NVR
		DRAWN BY NVR	CHECKED BY APF

GRADING AND DRAINAGE PLAN

US 258 AT ROUTE 10
BYPASS INTERSECTION
IMPROVEMENTS
PREPARED FOR
ISLE OF WIGHT COUNTY
VIRGINIA
SMITHFIELD

SHEET NUMBER
9C