PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

GENERAL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	2(1)

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

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 Engineer of Record before installing the culvert or storm sewer outfall pipe.

D-3 The "H" dimensions shown on plans for drop inlets and junction boxes and the "L.F." dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F." dimensions are to be determined by the contractor from field conditions.

D-6 Pipes shall conform to any of the allowable types shown on this sheet, within the applicable height of cover limitations.
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 VDOT Road and Bridge Standard PC-1. Structural plate pipe may be substituted for corrugated pipe of the same size, provided the substitution complies with the applicable sections of the VDOT Road and Bridge Standards PC-1.

D-10 The proposed riprap may be omitted by the Engineer if the slope designated for placement of riprap is found to be comprised of solid rock or closely consolidated boulders with soundness, size and weight equal to, or exceeding, the specifications for the proposed riprap.

D-12 All existing drainage facilities labeled "To Be Abandoned" shall be left in place, backfilled and plugged in accordance with the VDOT Road and Bridge Standard PP-1. Basis of Payment will be C.Y. of Flowable Backfill.

D-13 Existing drainage facilities being utilized as a part of the drainage system, and designated on the plans "To Be Cleaned Out" shall be cleaned as directed by the Engineer. The cost incidental to this shall be included in the contract price for other items.

D-14 Proposed drop inlets with a height (H) less than the standard minimum shown in the VDOT Road and Bridge Standards shall be considered and paid for as Standard Drop Inlets for the type specified.

D-16 When CG-6 or CG-7 is specified on a radius (such as at a street intersection), the Engineer may approve a decrease in the cross slope of the gutter to facilitate proper drainage.

STORMWATER MANAGEMENT

Contractor will provide Construction record drawings for all permanent SWM Facilities, including approved shop drawings for MTDs, and shall be appropriately signed and sealed by a person registered in the Commonwealth of Virginia as a professional architect, engineer, land surveyor or landscape architect and qualified in the responsible administration of the BMP construction.

S-6 Construction record documentation shall be provided for all permanent SWM Facilities. The registered professional shall certify that all SWM Facilities have been constructed and made functional in accordance with the SWM Plan. The form LD-445D shall be used to document this certification process. The official record drawings for the project include both the plan drawings and record drawing survey.

Any changes to the proposed SWM Plan or BMPs necessitated during the construction phase of the project, that affects the proposed construction details or the BMP design information shown in the construction plans or documentation, shall be coordinated by Project Manager along with the Engineer of Record and VDOT. If as-built documentation for permanent SWM Facilities deviates from the approved plans, the Project Manager should request a review by the Engineer to determine if modifications to the facility are needed prior to acceptance. As-built documentation should be submitted as early as possible but no less than 30 days prior to expected acceptance. Significant deviation from the approved drawings may delay project acceptance. The record set of construction plans and the BMP information tables in the construction plans or documentation are to be formally revised to reflect any authorized/approved changes to the proposed SWM Plan and/or the proposed BMP construction details. All plan revisions shall be completed in accordance with the VDOT Road Design Manual and the VDOT Construction Division's IIM-CD-2013-12.01, signed and sealed in accordance with Department's sealing and signing policy IIM-LD-243 and filed with the record set of construction plans.

Inspection forms specific to the BMP type(s) should be used to document the construction/installation process. A final inspection for SWM Facilities/BMPs shall be conducted by the Project Manager, and VDOT. The inspection shall be conducted prior to final project acceptance to identify any required corrective actions, allowing the contractor to perform these corrective actions. The final inspections should be conducted as early as practicable to allow time for corrective actions. Reinspection may be required after receipt of the as-built documentation.

INCIDENTALS

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-12 St'd. RM-2 right of way monuments shall be set by the Contractor.

I-16 The "underground utilities" survey data on this project has been provided by consultant and copies are available from the Department.

I-17 For method of constructing Straight-Line Taper Lanes in curb and/or curb and gutter sections, see typical details on Sheet 2(2).

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 and as directed by the Engineer.

I-19 The following sources, under contract with VDOT, have provided information on this project:

Hydraulic Design	-	Timmons Group
Roadway Design	-	" "
Utility Design	-	" "
Utility Designation	-	" "
Utility Location	-	" "
Survey	-	" "
Bridge Design	-	N/A
Signal Design	-	Timmons Group

If questions or problems arise during construction, please contact the Project Designer. DO NOT CONTACT THE OUTSIDE SOURCES.

I-20 The Official Electronic PDF Version of the plans will override the paper copies or prints of specific layers.

Portions of this plan assembly have been CADD generated. To assist in the preparation of the bid and construction of the project, Microstation format (.dgn) files will be made available to the prime contractor during bids and after award of the contract.

I-21 All electronic plan assemblies will include the construction plans in two formats: PDF files and MicroStation format (.dgn) files. Only the PDF files will be considered as part of the official plan assembly.

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

TABLE AI - ALLOWABLE TYPE OF STORM SEWER PIPE
ALLOWABLE PIPE TYPES (UNLESS OTHERWISE SHOWN ON PLANS)

LOCATION	CONCRETE	CORRUGATED STEEL** ALUMINUM COATED TYPE 2 FULLY CONCRETE LINED	ALUMINUM COATED TYPE 2 ** STEEL SPIRAL RIB	POLYMER COATED (10/10)** CORRUGATED STEEL SPIRAL RIB	POLYMER COATED (10/10)** CORRUGATED STEEL DOUBLE WALL (SMOOTH INTERIOR)	ALUMINUM SPIRAL RIB **	POLYVINYLCHLORIDE (PVC) RIBBED PIPE (SMOOTH INTERIOR)	POLYETHYLENE (PE) CORRUGATED TYPE S	POLYPROPYLENE (PP) TYPE D OR S
STATEWIDE U.S.RTE.258	X				X		X	X	X

GRADING

G-1 The grade line denotes top of finished pavement unless shown otherwise on typical sections or plans.

G-2 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction.

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: Conc. Pipe Entrance Culverts, Curb, Median, End Sections, End Walls, and Surplus Earthen Material (once all grading operations are complete).

G-5 The excavation of unsuitable material as specified on these plans is based on previously conducted subsurface soil investigation. If, during construction, it is deemed necessary to change the depth more than one foot, or the limits of such excavation, such change is to be made at the direction of the Engineer and measurement and payment shall be made in accordance with Section 303 of the applicable VDOT Road and Bridge Specifications.

G-6 The embankment material for this project shall be a minimum CBR _10_ or as approved by the Materials Engineer.

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 the theoretical maximum density. (See IIM-LD-158)

EROSION AND SEDIMENT CONTROL (ESC)

E-1 If the removal of Brush Silt Barrier is specified by the plans or required by the Engineer, the cost of removal and disposal of brush shall be in accordance with Section 109 of the applicable VDOT Road and Bridge Specifications.

E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.

E-3 The following symbols are used to depict Erosion Control items in the plan assembly:

- EC-2,T1 / EC-2,T2 / EC-2,T3 / EC-2,T4 — *Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4*
- EC-3,T1 / EC-3,T2 / EC-3,T3 — *Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3*
- TSF-A / TSF-B — *Temporary Silt Fence, St'd EC-5 Type A or B*
- RCD-1 — *Rock Check Dam, Type I; St'd EC-4*
- RCD-2 — *Rock Check Dam, Type II; St'd EC-4*
- DD — *Temporary Diversion Dike, St'd EC-9*
- IP-A / IP-B / IP-C — *Inlet Protection, Type A, B, or C; St'd EC-6*
- TCD — *Temporary Check Dam, St'd EC-16*
- SAF — *Temporary Safety Fence (Plastic Polyethylene)* * *NOT INTENDED FOR EROSION CONTROL*
- OP — *Outlet Protection, St'd EC-1*
- SC — *Temp. Stream Crossing; St'd EC-14*
- LOD — *Limits of Disturbance/ Limits of Clearing*
- ST — *Temp. Sediement Trap; St'd EC-7*

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

PUBLIC HEARING PLANS

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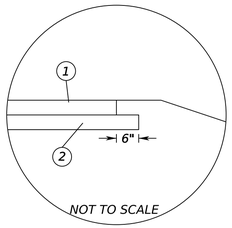
TYPICAL SECTIONS

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	2A

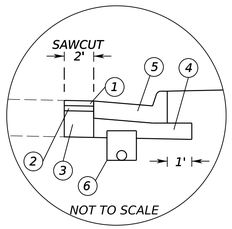
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INSET A*



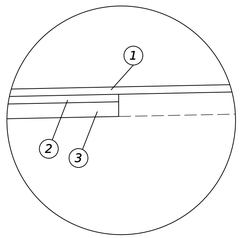
1. 4" HYDRAULIC CEMENT CONC. SIDEWALK
2. 4" AGGREGATE BASE MATERIAL TYPE 1 NO. 21B

INSET B*



1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-12.5 D) at 220 Lbs/S.Y.
2. 2" ASPHALT CONCRETE INTERMEDIATE COURSE (VDOT IM-19.0 D)
3. 4" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)
4. VAR. DEPTH AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B) UNDER CURB
5. STD. CG-6 CURB AND GUTTER
6. STD. UD-4 UNDERDRAIN

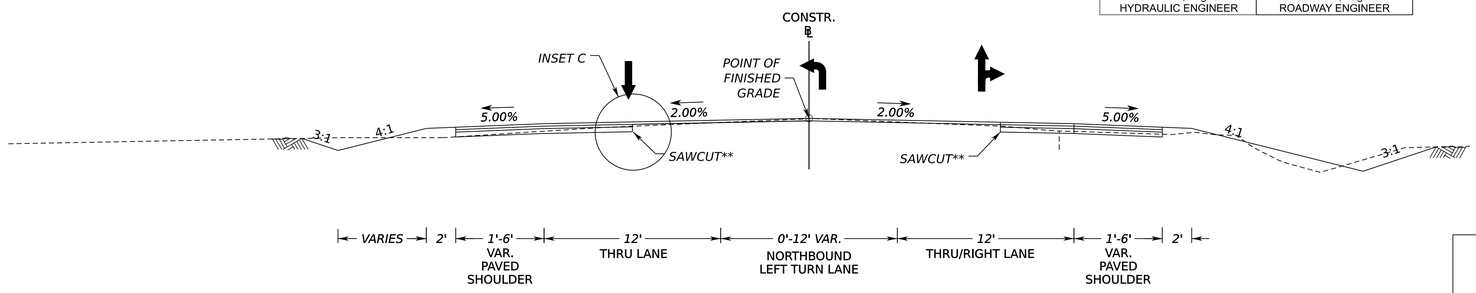
INSET C*



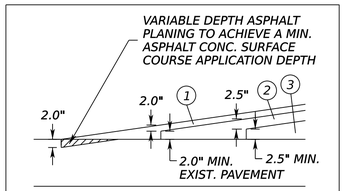
1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-12.5 D) at 220 Lbs/S.Y.
2. 2" ASPHALT CONCRETE INTERMEDIATE COURSE (VDOT BM-19.0 D)
3. 4" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)

NOTE:
** SAWCUT 1' MIN. FROM EX. EDGE OF PAVEMENT OR 2' MIN. FROM EDGE OF PROPOSED CURB AND GUTTER

S PRINCE BOULEVARD (RTE. 258)
STA. 11+00.00 - STA. 15+68.37



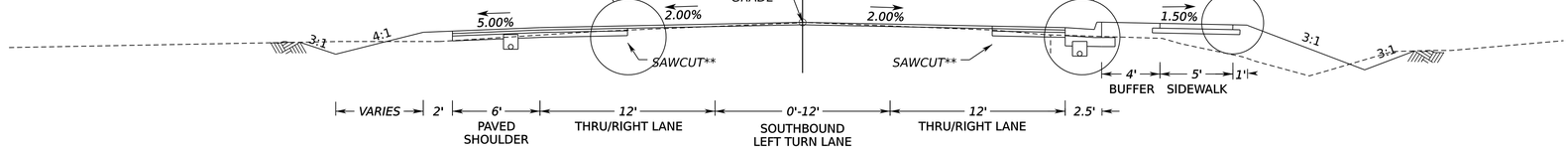
NOTE: SEE CROSS-SECTIONS FOR ACTUAL DIMENSIONS AND SLOPES



PAVEMENT BUILD-UP WITH OVERLAY

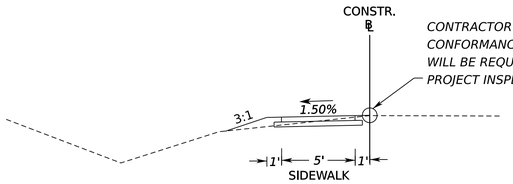
1. ASPHALT CONC. OVERLAY TY. SM-12.5D (2" MIN. DEPTH REQ'D.)
2. VAR. DEPTH IM-19.0A ASPHALT LEVELING COURSE (DEPTHS UP TO 2.5")
3. VAR. DEPTH BM-25.0A ASPHALT LEVELING COURSE (REMAINDER IF NECESSARY)

N PRINCE BOULEVARD (RTE. 258)
STA. 17+15.09 - STA. 23+36.10



NOTE: SEE CROSS-SECTIONS FOR ACTUAL DIMENSIONS AND SLOPES

W WINDSOR BLVD (RTE. 460) SIDEWALK
STA. 70+49.84 - STA. 74+17.15



PRIVATE AND COMMERCIAL ENTRANCES

NOT TO SCALE

TYPE I
Crusher Run Aggr.



6" Crusher Run Aggr. 25

TYPE II
Concrete



Concrete Entrance Pavement
7" HES
4" Aggr. Base Mat'l. Ty. I No. 21B

TYPE III
Asphalt



Asphalt Conc. Type SM-9.5A @ 220 Lbs. per S.Y.
4" Aggr. Base Mat'l. Ty. I No. 21B

TYPE IV
Asphalt Commercial



Asphalt Conc. Type SM-9.5A @ 165 Lbs. per S.Y.
4" Asphalt Conc. Base Course BM-25.0
6" Aggr. Base Mat'l. Ty. I No. 21B

The type of entrance (I , II , III , IV) to be constructed will be determined by the existing condition at the time of construction.

PROJECT	SHEET NO.
0460-046-724	2A

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DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

EROSION AND SEDIMENT CONTROL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	2B(1)

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PUBLIC HEARING PLANS

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

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO WIDEN ROUTE 258 (PRINCE BOULEVARD) TO PROVIDE LEFT TURN LANES IN BOTH DIRECTIONS AT U.S. RTE 460. THE WIDENING OF U.S. RTE 258 INCORPORATES A SIDEWALK ON THE EASTERN SIDE OF 258 NORTH CONNECTING TO THE MOBILE HOME DEVELOPMENT NORTH OF BELMONT STREET TO ROUTE 460. THE PROJECT ALSO INCLUDES THE CONSTRUCTION OF ONE (1) ONSITE STORMWATER BMP'S AND TRAFFIC SIGNAL IMPROVEMENTS AT RTE 258 AND RTE 460.

APPROXIMATELY 1.55 ACRES OF LAND WILL BE DISTURBED AND GRADED FOR THE COMPLETION OF THIS PROJECT. TRAFFIC WILL BE MAINTAINED AT ALL TIMES DURING THE LIFE OF THIS PROJECT.

EXISTING SITE CONDITIONS

THE SURROUNDING TOPOGRAPHY FOR THE ROUTE 258 WIDENING PROJECT CONSISTS OF MINIMAL SLOPING ROAD GRADES FROM 0.5% TO 4.00% GRADE. THE DRAINAGE ON THE PROJECT IS CONVEYED VIA CLOSED STORM SEWER SYSTEMS AND DITCHES TO FOUR OUTFALLS, ONE (1) OF WHICH INCLUDES AN ONSITE BMP TO CONTROL/TREAT RUNOFF BEFORE LEAVING THE PROJECT AREA. EXISTING LAND USES ALONG ROUTE 258 INCLUDE MOSTLY SUBURBAN RESIDENTIAL WITH A FEW SMALL-SCALE COMMERCIAL DESTINATIONS AT THE INTERSECTION WITH ROUTE 460.

SOIL CONDITIONS

THE PREDOMINANT SOILS FOR THIS PROJECT ARE: 7 KINSTON LOAM, 9 MYATT FINE SANDY LOAM, 10 NAWNEY LOAM, 17B3 SLAGLE SANDY LOAM 2 TO 6 PERCENT SLOPES, SEVERELY ERODED, 18A SLAGLE FINE SANDY LOAM 0 TO 2 PERCENT SLOPES, 18B SLAGLE FINE SANDY LOAM 2 TO 6 PERCENT SLOPES, 21 UDORTHENTS LOAMY, 23 YEMASSEE FINE SANDY LOAM. A COMPLETE GEOTECHNICAL ENGINEERING REPORT HAS BEEN PREPARED FOR THE PROJECT FOR ADDITIONAL SOILS INFORMATION.

CRITICAL EROSION AREAS

CRITICAL AREAS INCLUDE: ANY STEEP SLOPE ALONG THE LENGTH OF THE PROJECT THAT REQUIRES EROSION AND SEDIMENT CONTROL MEASURES OR STABILIZATION. SLOPES THAT REQUIRE STABILIZATION SHOULD HAVE THE PROCEDURE PERFORMED AS SOON AS POSSIBLE AFTER COMPLETION OF THE GRADING IN THAT AREA. THE CONTRACTOR SHALL KEEP THE EXISTING ROADWAY FREE FROM BUILD-UP OF SOIL.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. THE MINIMUM STANDARDS OF THE HANDBOOK SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE FROM ISLE OF WIGHT COUNTY.

EROSION AND SEDIMENT CONTROL NARRATIVE

ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE VDOT ROAD AND BRIDGE STANDARDS AND VIRIGNIA EROSION AND SEDIMENT CONTROL HANDBOOK.

THE CONTRACTOR SHALL OBTAIN A LAND DISTURBANCE PERMIT FROM THE ISLE OF WIGHT COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY LAND DISTURBING ACTIVITIES AND PROVIDE AT LEAST 48 HOUR ADVANCE NOTIFICATION TO SCHEDULE AN ON-SITE PRE-CONTRUCTION MEETING, WHICH THE CERTIFIED LAND DISTURBER IS REQUIRED TO ATTEND. THE ISLE OF WIGHT COUNTY E&S INSPECTOR HAS THE AUTHORITY TO ADD OR REMOVE ANY E&S MEASURES AS DEEMED NECESSARY DURING CONSTRUCTION AS FIELD CONDITIONS MAY DICTATE. ONCE CONSTRUCTION HAS COMMENCED, THE CONTRACTOR SHALL INSPECT AND REPAIR ALL E&S MEASURES AFTER EACH RAINFALL EVENT AND AT LEAST ONCE EVERY 7 DAYS. IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, VDOT ROAD AND BRIDGE STANDARDS, VDOT SPECIFICATIONS AND E&S NOTES AND DETAILS SHOWN IN THIS PLAN, PERFORM CONSTRUCTION OPERATIONS IN THE SEQUENCE OF STEPS TO FOLLOW.

STEP 1
INSTALL ALL REQUIRED CONSTRUCTION SIGNAGE, STRIPING, AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES AS DESCRIBED IN THE MAINTENANCE OF TRAFFIC (MOT) PLANS BASED ON THE SPECIFIC PHASE OF CONSTRUCTION TO BE IMPLEMENTED IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL. THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AS DESCRIBED BELOW MAY BE COMPLETED FOR THE ENTIRE PROJECT OR WITH PHASED INSTALLATION TO MATCH MOT PLANS AS APPROVED BY COUNTY INSPECTOR.

STEP 2:
INSTALL PERIMETER SILT FENCE, PERIMETER SAFETY FENCE, CHECK DAMS AND CULVERT INLET PROTECTION OVER EXISTING CULVERT INLETS AS SEEN IN PHASE 1 PLAN SHEETS.

STEP 3:
REMOVE AND STOCKPILE TOPSOIL WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN ENSURING ALL DENUDED AREAS ARE CONTAINED BY SEDIMENT TRAPPING DEVICES. PERFORM INITIAL GRADING ACTIVITIES WITH INSTALLATION OF STORM SEWER PIPES/INLETS AND CULVERTS. INSTALL INLET PROTECTION OVER ALL PROPOSED STRUCTURES AS SHOWN IN THE PHASE 2 E&S PLANS.

STEP 4:
CONTINUE GRADING OPERATIONS ONCE STORM SEWER IS IN PLACE WITH E&S MEASURES ENSURING POSITIVE DRAINAGE TO SEDIMENT TRAPPING DEVICES AT ALL TIMES. FOR GRADING OF OPEN DRAINAGE DITCH SECTIONS, INSTALL CHECK DAMS IN THE LOCATIONS SHOWN. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF EXCAVATIONS. FOR AREAS TO BE LEFT UNSTABILIZED FOR UP TO 30 DAYS, TEMPORARY SEEDING SHALL BE REQUIRED.

STEP 5:
ONCE ROADWAY CURB & GUTTER AND OTHER PERIMETER CONCRETE ITEMS HAVE BEEN INSTALLED WITH PHASE 2 E&S MEASURES REMAINING IN PLACE, PREPARE SUBGRADE AND INSTALL SUBBASE AGGREGATE BASE MATERIALS AND ASPHALT COURSES UP TO INTERMEDIATE COURSE.

STEP 6:
PERFORM MILL AND OVERLAY OPERATION AND INSTALLATION OF SURFACE COURSE OF ASPHALT IN ACCORANCE WITH SEQUENCE OF CONSTRUCTION PLAN AND CROSS-SECTIONS. INSTALL PERMANENT PAVEMENT STRIPING AND SIGNAGE, AS WELL AS PERMANENT SEEDING OF ALL GRADED AREAS.

STEP 7:
ONCE ALL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABALIZED AND APPROVAL IS GRANTED BY THE ISLE OF WIGHT COUNTY E&S INSPECTOR, THE CONTRACTOR MAY REMOVE ALL E&S MEASURES AND TRAFFIC CONTROL DEVICES.

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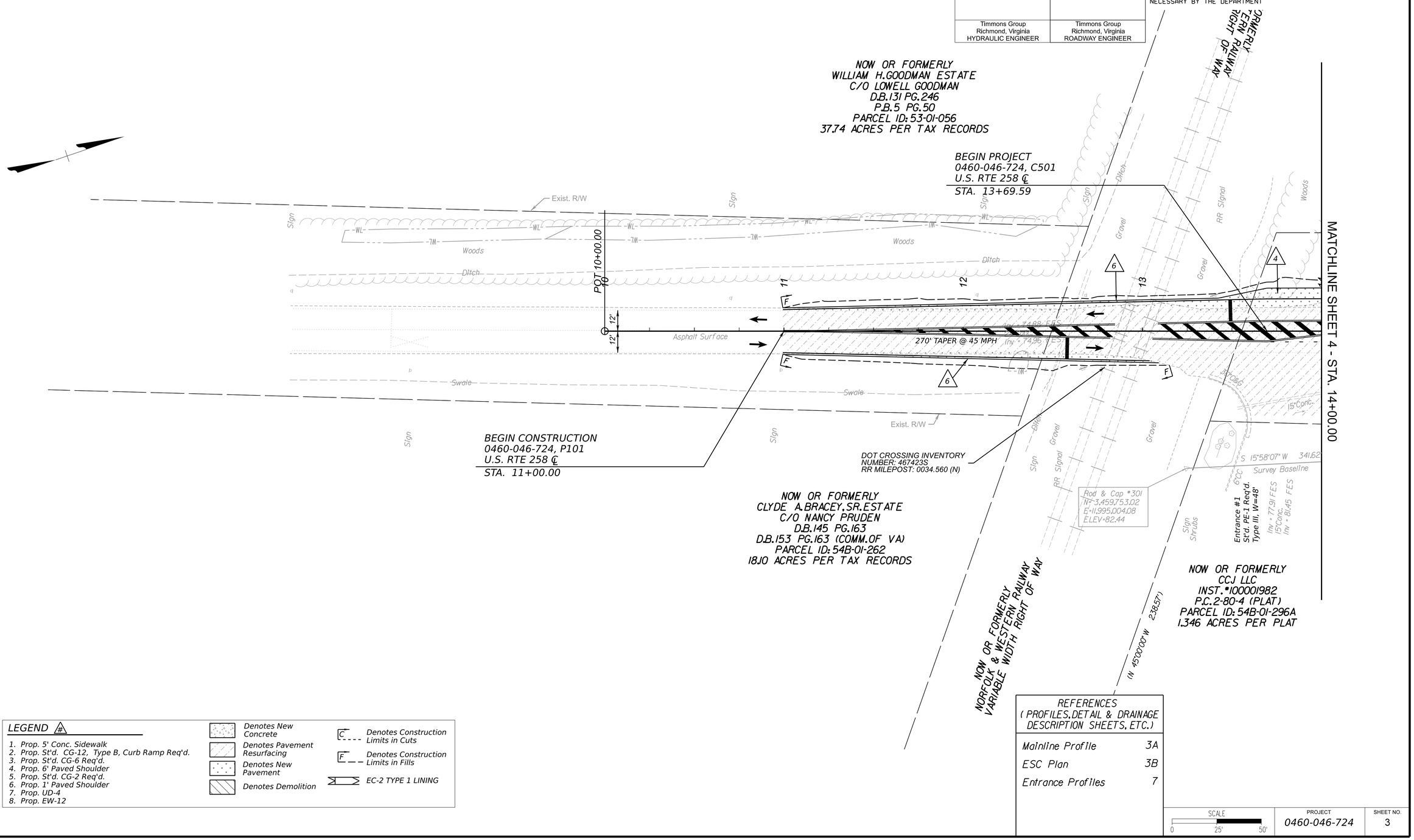
PUBLIC HEARING PLANS

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Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	3

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LEGEND

1. Prop. 5' Conc. Sidewalk
2. Prop. St'd. CG-12, Type B, Curb Ramp Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Prop. 6' Paved Shoulder
5. Prop. St'd. CG-2 Req'd.
6. Prop. 1' Paved Shoulder
7. Prop. UD-4
8. Prop. EW-12

Denotes New Concrete
Denotes Pavement Resurfacing
Denotes New Pavement
Denotes Demolition

C ---- Denotes Construction Limits in Cuts
F ---- Denotes Construction Limits in Fills
EC-2 TYPE 1 LINING

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

Mainline Profile	3A
ESC Plan	3B
Entrance Profiles	7

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	3

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SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

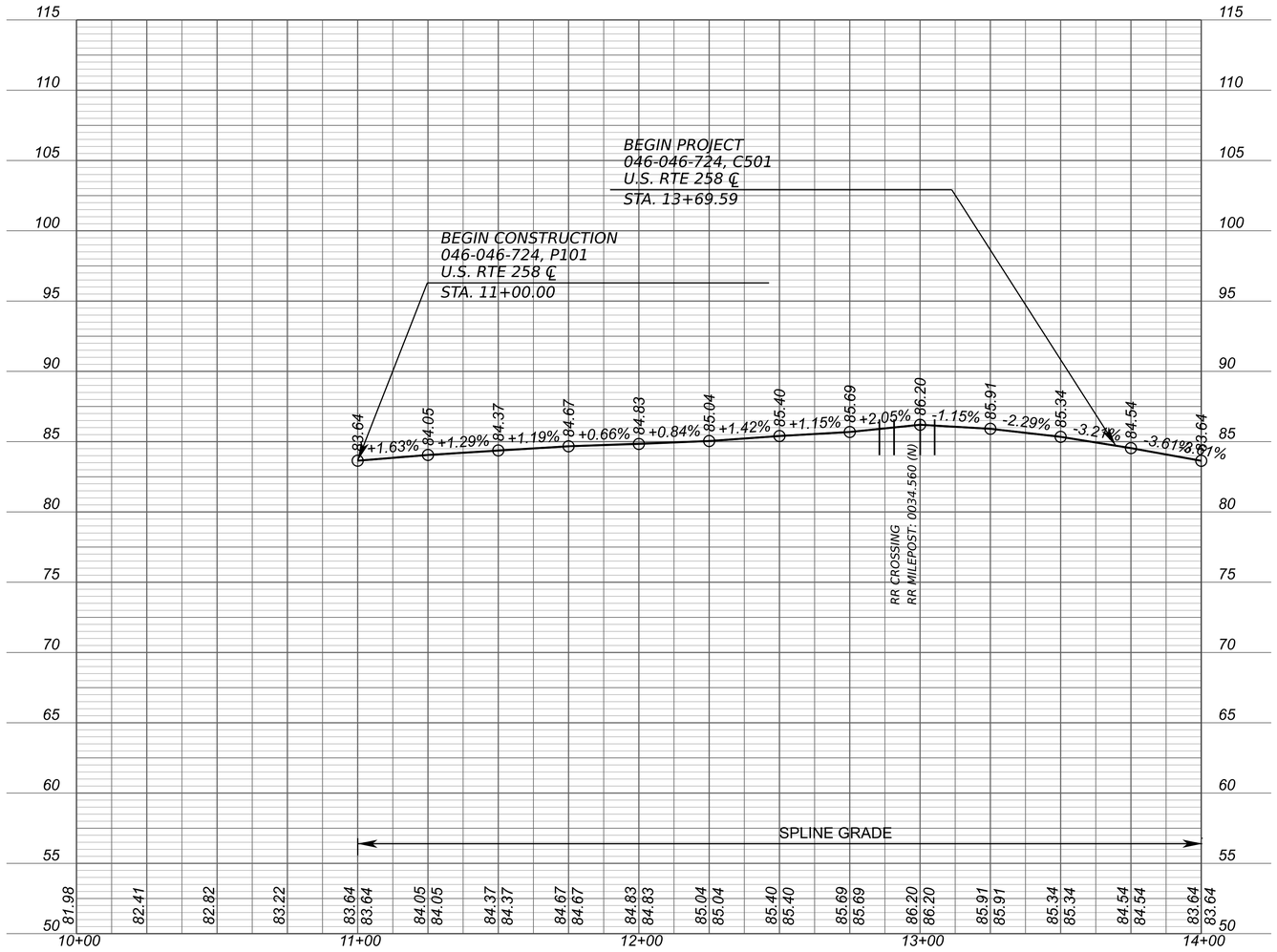
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE AQUISITION OF RIGHT-OF-WAY.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	3A

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

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

S PRINCE BLVD (US RTE 258)



HORIZONTAL SCALE: 1" = 25'
VERTICAL SCALE: 1" = 5'

	PROJECT	SHEET NO.
	0460-046-724	3A

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	3B

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

NOW OR FORMERLY
WILLIAM H.GOODMAN ESTATE
C/O LOWELL GOODMAN
D.B.131 PG.246
P.B.5 PG.50
PARCEL ID: 53-01-056
37.74 ACRES PER TAX RECORDS

NOW OR FORMERLY
CLYDE A.BRACEY,SR.ESTATE
C/O NANCY PRUDEN
D.B.145 PG.163
D.B.153 PG.163 (COMM.OF VA)
PARCEL ID: 54B-01-262
18.10 ACRES PER TAX RECORDS

NOW OR FORMERLY
NORFOLK & WESTERN RAILWAY
VARIABLE WIDTH RIGHT OF WAY

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

POT 10+00.00

MATCHLINE SHEET 4B - STA. 14+00.00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	3B

8/2/2024
1:10:20 PM

dll5528_03x.dgn
Plotted By: Katie.Settle

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE: PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	4

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

MATCHLINE SHEET 3 - STA. 14+00.00

MATCHLINE SHEET 5 - STA. 21+00.00

MATCHLINE SHEET 6 - STA. 36+00.00

NOW OR FORMERLY
J C PATTERSON PROPERTIES THREE LLC
INST.#130001020
PARCEL ID: 54B-01-298
1.80 ACRES PER TAX RECORDS

NOW OR FORMERLY
60 WEST WINDSOR REALTY LLC
INST.#110004948
PARCEL ID: 54B-01-001
10 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C. 2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B. 124 PG. 560
D.B. 125 PG. 2
D.B. 131 PG. 210
D.B. 149 PG. 366
D.B. 159 PG. 396
D.B. 176 PG. 241
D.B. 286 PG. 140
P.C. 2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME PARK LLC
INST.#160003475
INST.#160003475 (PLAT)
PARCEL ID: 54B-05-022
30.652 ACRES PER PLAT

BEGIN PROJECT
0460-046-724 R201
U.S. RTE 460 ℄
STA. 35+01.50

END PROJECT
0460-046-724, C501
U.S. RTE 258 ℄
STA. 20+15.64

POT STA. 16+27.95 RTE 258 ℄
POT STA. 34+27.89 RTE 460 ℄

POT 70+00.00

N18°44'55"E
1400.00'

S67°49'06"E
1400.00'

R =70'
R =50'
R =150'
R =45'

100' LTL TAPER
100' LTL STORAGE
200' LTL STORAGE
100' LTL TAPER
270' TAPER @ 45 MPH

DO NOT DISTURB EX. PIPE

PROP. BMP (SEE SHEET 12 FOR DETAILS)

CONSTRUCT SIDEWALK FROM EXISTING GRADE USING TYPICAL SECTION ON SHEET 2A

PROP. PERM. VAR. WIDTH SIDEWALK EASEMENT

EXISTING 15' X 15' ISLE OF WIGHT COUNTY UTILITY EASEMENT INST.#980003590

EXISTING 30' COMMUNITY ELECTRIC COOPERATIVE EASEMENT P.B. 4 PG. 233

Entrance #2 Std. PE-1 Req'd. Type III, W=50'
Entrance #3 Std. PE-1 Req'd. Type III, W=50'
Entrance #4 Std. PE-1 Req'd. Type III, W=28'
Entrance #5 Std. PE-1 Req'd. Type III, W=26'
Entrance #6 Std. CG-9D Req'd. Type III, W=12'

Rod & Cap #300
N= 3,460,081.46
E=11,995,098.07
ELEV=79.19

TBM "A"
Cut Square
Elev=78.96'

LEGEND

1. Prop. 5' Conc. Sidewalk
2. Prop. St'd. CG-12, Type B, Curb Ramp Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Prop. 6' Paved Shoulder
5. Prop. St'd. CG-2 Req'd.
6. Prop. 1' Paved Shoulder
7. Prop. UD-4
8. Prop. EW-12

Denotes New Concrete
Denotes Pavement Resurfacing
Denotes New Pavement
Denotes Demolition
Denotes Construction Limits in Cuts
Denotes Construction Limits in Fills
EC-2 TYPE 1 LINING

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

Mainline Profile	4A
ESC Plan	4B
Entrance Profiles	7

SCALE 0 25' 50'

PROJECT	SHEET NO.
0460-046-724	4

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

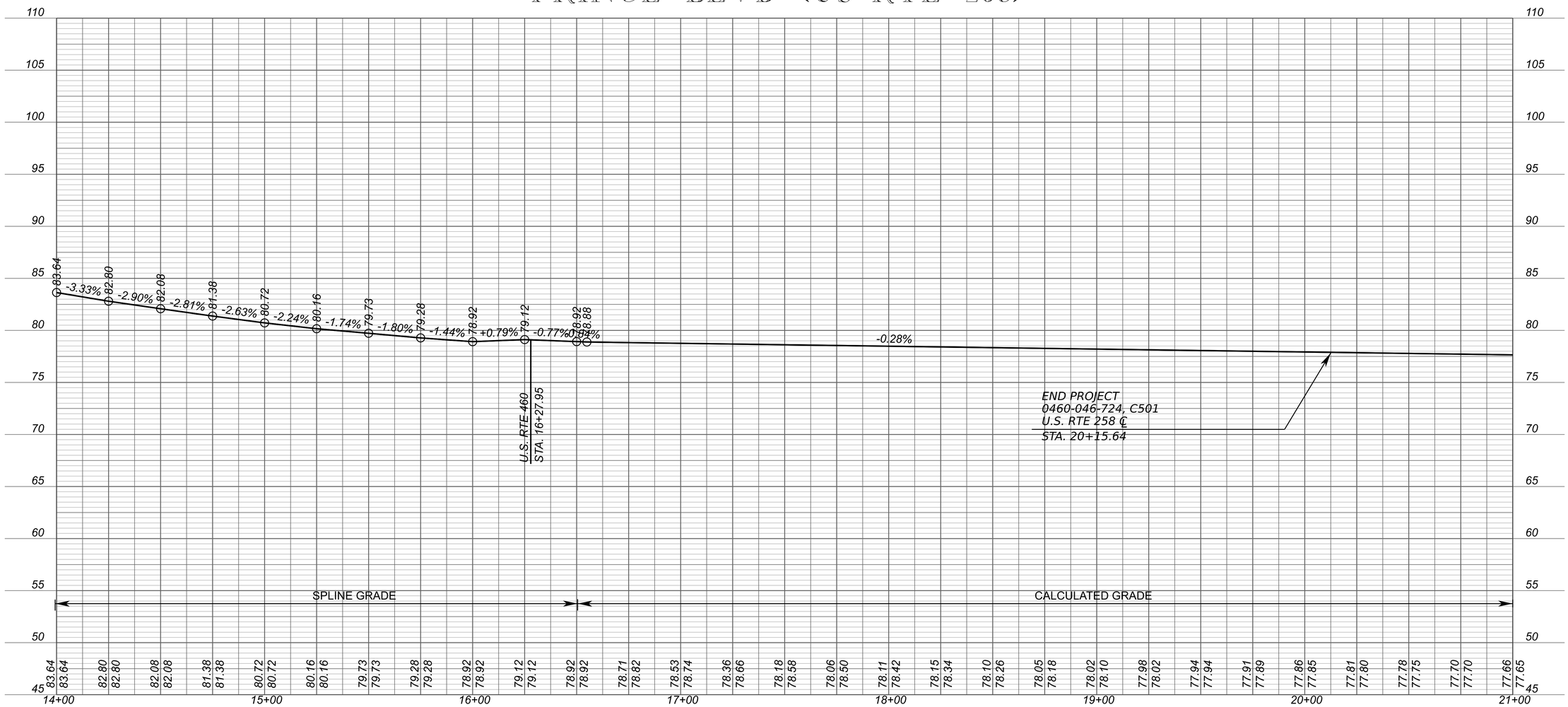
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Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	4A

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

PRINCE BLVD (US RTE 258)



HORIZONTAL SCALE: 1" = 25'
VERTICAL SCALE: 1" = 5'

	PROJECT	SHEET NO.
	0460-046-724	4A

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE: PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	4B

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

MATCHLINE SHEET 3B - STA. 14+00.00

MATCHLINE SHEET 5B - STA. 21+00.00

MATCHLINE SHEET 6A - STA. 36+00.00

NOW OR FORMERLY
J C PATTERSON
PROPERTIES THREE LLC
INST.#130001020
PARCEL ID: 54B-01-298
1.80 ACRES PER TAX RECORDS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NOW OR FORMERLY
60 WEST
WINDSOR REALTY LLC
INST.#110004948
PARCEL ID: 54B-01-001
1.10 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C.2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME
PARK LLC
INST.#160003475
INST.#160003475 (PLAT)
PARCEL ID: 54B-05-022
30.652 ACRES PER PLAT

EXISTING 15'x 15' UTILITY EASEMENT INST.#980003780

EXISTING 30' COMMUNICATIONS COOPERATIVE EASEMENT P.B.4 PG.233

EXISTING 30' COMMUNITY ELECTRIC COOPERATIVE EASEMENT P.B.4 PG.233

PROP. BMP (SEE SHEET 12 FOR DETAILS)

N18°44'55"E 1400.00'

S51°48'08"E 900.00'

(S 45°05'00" E 288.23')

(S 43°45' E 288')

(N 63°45' E)

(S 27°31'00" W 182.27')

(N 4°10' E 111')

(N 26°16' E 100')

(S 26°06'20" W 371.55')

(N 25°38'05" E 179.44')

(N 79°32'11" E 57.29')

(N 42°28'26" E 204.04')

(N 40°30'08" W 92.00')

(N 26°06'20" E 140.04')

(S 26°06'18" W 121.81')

(S 08°01'16" E 77.67')

70 POT 70+00.00

IP-A
IP-B
IP-C
TSF-A
LOD
SAF
RCD-2 TYP.
OP
VDOT MON(F)
P/PEL(F)
PIPE(F)
RCD(F)

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	4B

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

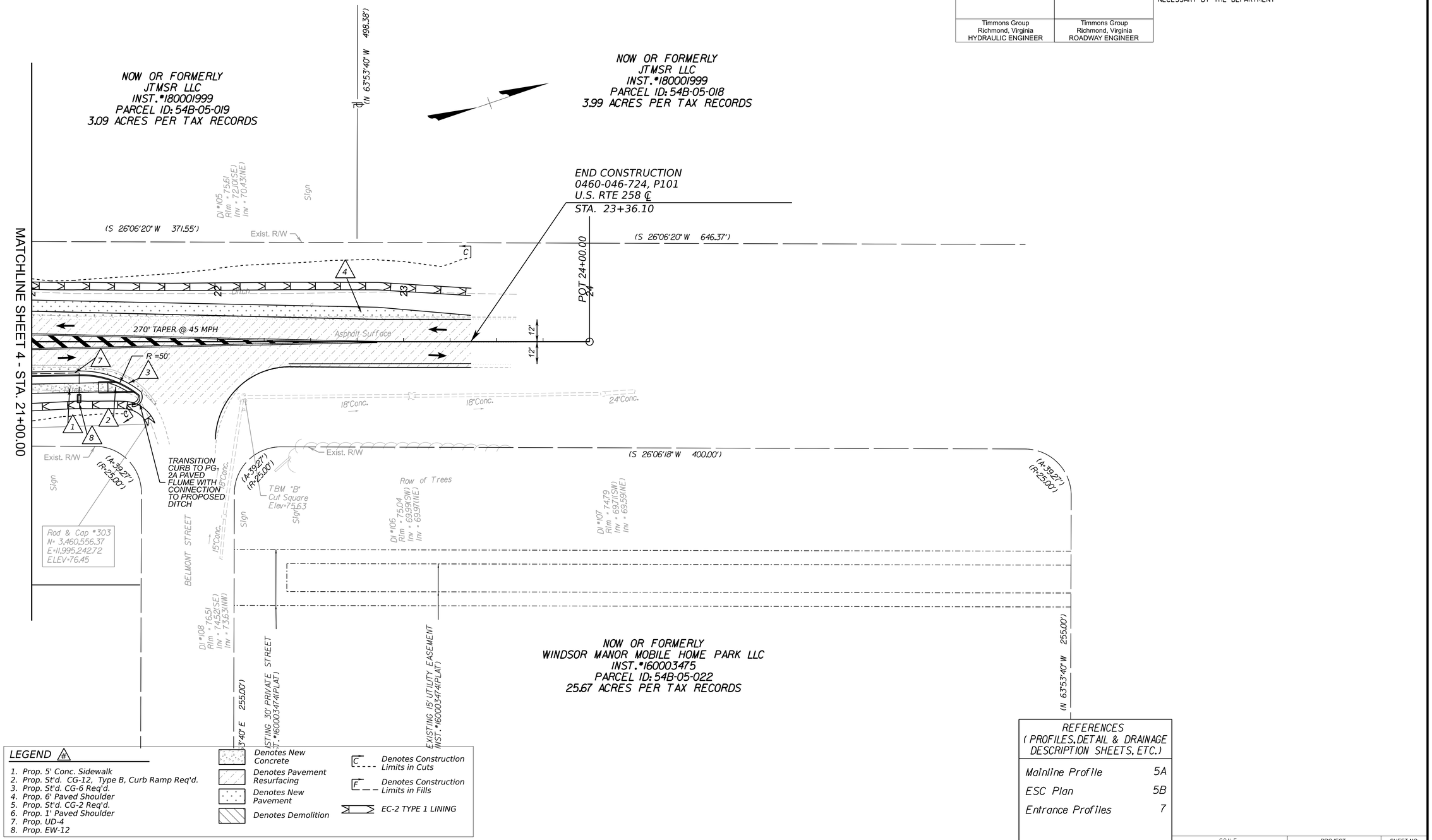
PUBLIC HEARING PLANS

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Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	5

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



LEGEND

1. Prop. 5' Conc. Sidewalk
2. Prop. St'd. CG-12, Type B, Curb Ramp Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Prop. 6' Paved Shoulder
5. Prop. St'd. CG-2 Req'd.
6. Prop. 1' Paved Shoulder
7. Prop. UD-4
8. Prop. EW-12

Denotes New Concrete
Denotes Pavement Resurfacing
Denotes New Pavement
Denotes Demolition

C ---- Denotes Construction Limits in Cuts
F - - - Denotes Construction Limits in Fills
EC-2 TYPE 1 LINING

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

Mainline Profile	5A
ESC Plan	5B
Entrance Profiles	7

SCALE 0 25' 50'

PROJECT	SHEET NO.
0460-046-724	5

8/2/2024
9:20:44 AM

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Plotted By: Katie.Settle

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

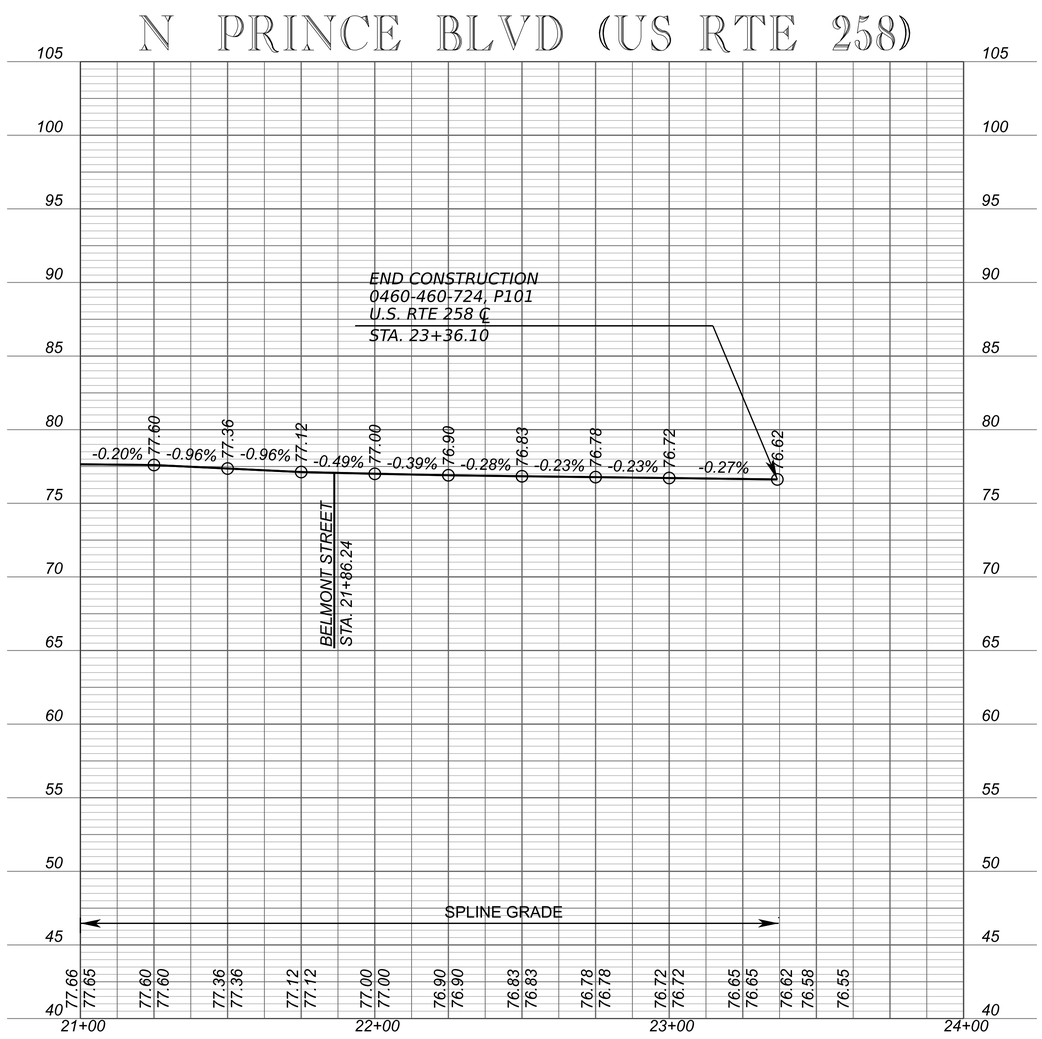
PUBLIC HEARING PLANS

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Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	5A

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



HORIZONTAL SCALE: 1" = 25'
VERTICAL SCALE: 1" = 5'

	PROJECT	SHEET NO.
	0460-046-724	5A

8/2/2024
9:21:25 AM

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Plotted By: Katie.Settle

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	5B

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

MATCHLINE SHEET 4B - STA. 21+00.00

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-018
3.99 ACRES PER TAX RECORDS

(N 63°53'40" W 498.38')

DI #105
Rim = 75.61
Inv = 72.01(SE)
Inv = 70.43(NE)

Sign

SAF

LOD

RCD-2

RCD-2

(S 26°06'20" W 371.55')

(S 26°06'20" W 646.37')

POT 24+00.00

75ft

22

Ditch

23

24

Asphalt Surface

12'

12'

Ditch

18"Conc.

18"Conc.

24"Conc.

SAF

(A=39.27')
(R=25.00')

Sign

18"Conc.

(A=39.27')
(R=25.00')

(S 26°06'18" W 400.00')

(A=39.27')
(R=25.00')

Row of Trees

15"Conc.

Sign

Sign

DI #106
Rim = 75.04
Inv = 69.99(SW)
Inv = 69.91(NE)

DI #107
Rim = 74.79
Inv = 69.71(SW)
Inv = 69.59(NE)

DI #108
Rim = 76.51
Rim = 74.52(SE)
Inv = 73.63(NW)

EXISTING 30' PRIVATE STREET
INST.#160003474(PLAT)

EXISTING 15' UTILITY EASEMENT
INST.#160003474(PLAT)

80ft

80ft

(S 63°53'40" E 255.00')

(N 63°53'40" W 255.00')

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME PARK LLC
INST.#160003475
PARCEL ID: 54B-05-022
25.67 ACRES PER TAX RECORDS

65ft

70ft

75ft

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	5B

8/2/2024
9:22:13 AM

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Plotted By: Katie.Settle

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

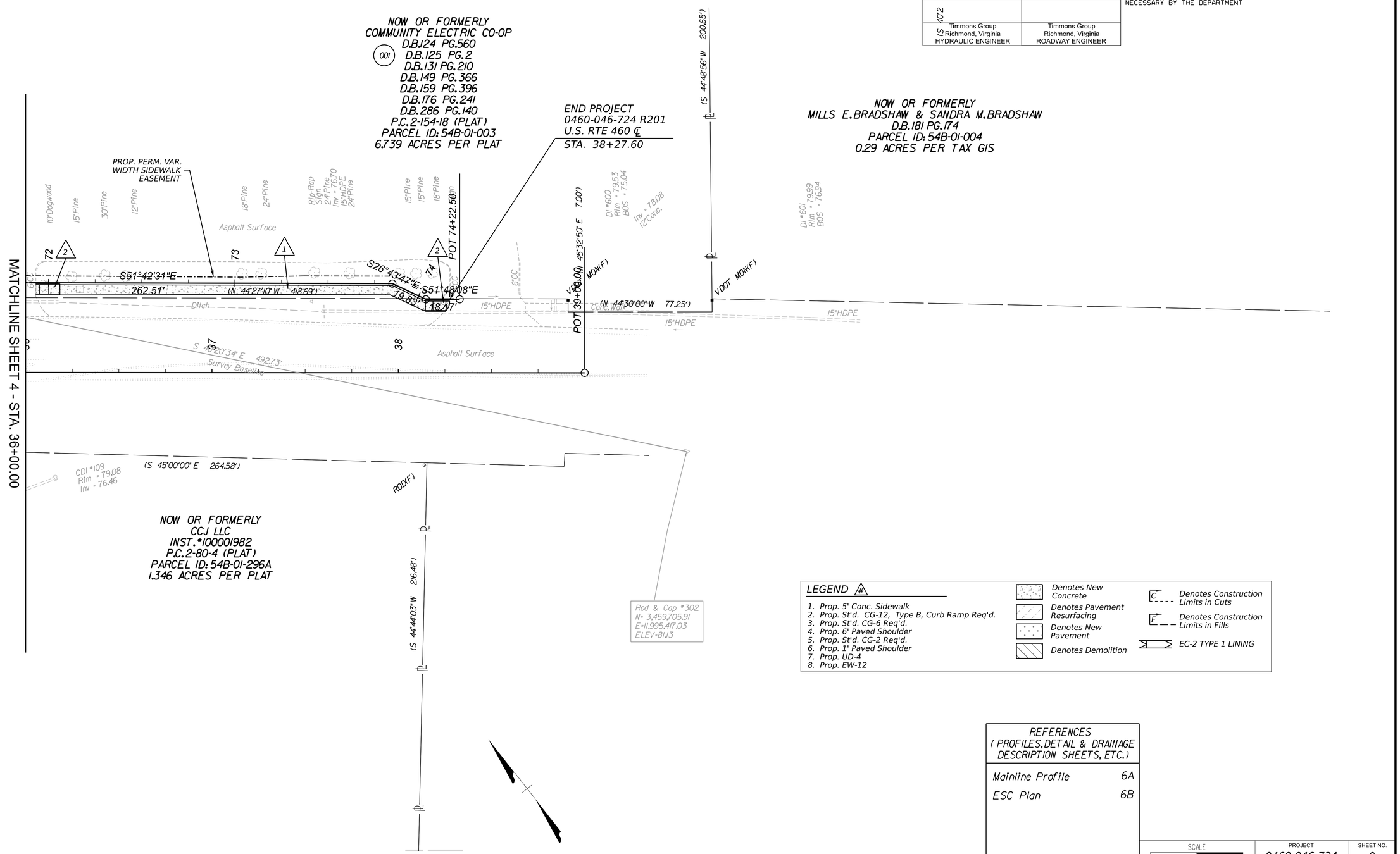
PUBLIC HEARING PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	6

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

402	
Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER



LEGEND

1. Prop. 5' Conc. Sidewalk
2. Prop. St'd. CG-12, Type B, Curb Ramp Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Prop. 6' Paved Shoulder
5. Prop. St'd. CG-2 Req'd.
6. Prop. 1' Paved Shoulder
7. Prop. UD-4
8. Prop. EW-12

- Denotes New Concrete
- Denotes Pavement Resurfacing
- Denotes New Pavement
- Denotes Demolition
- C ---- Denotes Construction Limits in Cuts
- F – – Denotes Construction Limits in Fills
- EC-2 TYPE 1 LINING

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

Mainline Profile	6A
ESC Plan	6B

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	6

8/2/2024
9:22:53 AM

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Plotted By: Katie.Settle

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	6A

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

MATCHLINE SHEET 4B - STA. 36+00.00

'OW OR FORMERLY
UNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C.2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

END PROJECT
0460-046-724 R201
U.S. RTE 460 ℄
STA. 38+27.60

NOW OR FORMERLY
MILLS E.BRADSHAW & SANDRA M.BRADSHAW
D.B.181 PG.174
PARCEL ID: 54B-01-004
0.29 ACRES PER TAX GIS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

LOD
TSF-A
RCD-2
RCD-2
VDOT MON(F)
VDOT MON(F)
ROD(F)
POT 74+22.50
POT 39+00.00
(S 44°48'56" W 200.65')
(S 45°32'50" E 7.00')
S51°42'31"E 262.51'
(N 44°27'10" W 418.69')
S26°43'47"E S51°42'08"E 19.63' 18.17'
(N 44°30'00" W 77.25')
(S 45°00'00" E 264.58')
(S 44°40'03" W 216.48')
10"Dogwood
15"Pine
30"Pine
12"Pine
18"Pine
24"Pine
Sign
24"Pine
Inv.=76.70
15"HDPE
24"Pine
15"Pine
15"Pine
18"Pine
DI #600
Rim = 79.53
BOS = 75.04
Inv = 78.08
12"Conc.
DI #601
Rim = 79.99
BOS = 76.94
CDI #109
Rim = 79.08
Inv = 76.46
Asphalt Surface
Ditch
Conc.Walk
15"HDPE
15"HDPE
Asphalt Surface
72
73
74
37
38
80ft

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	6A

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	7

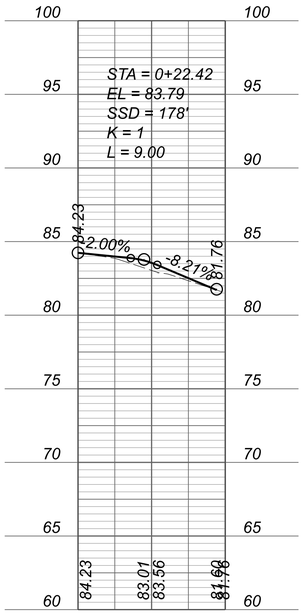
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

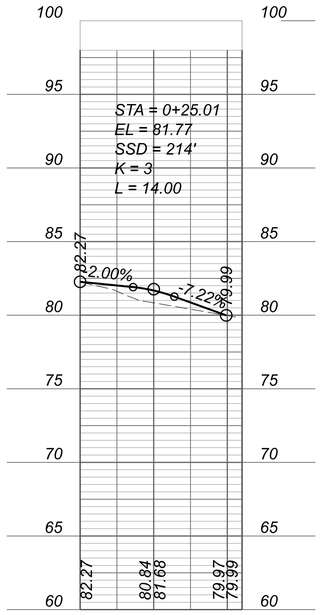
PUBLIC HEARING PLANS

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

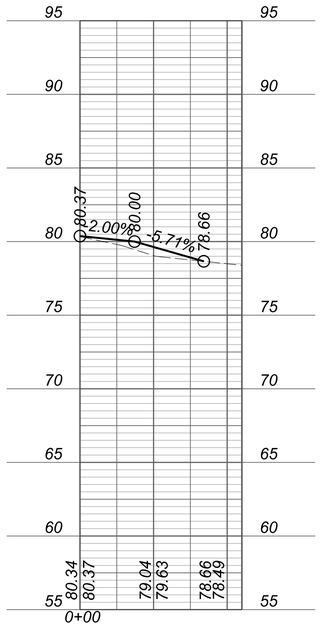
ENTRANCE #1



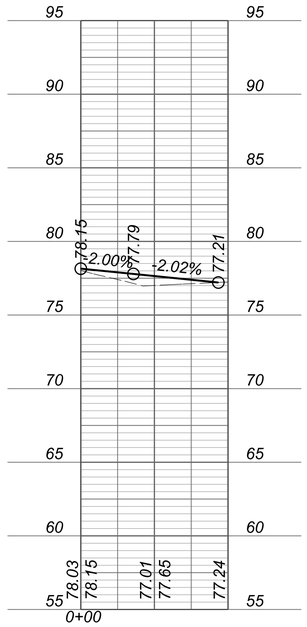
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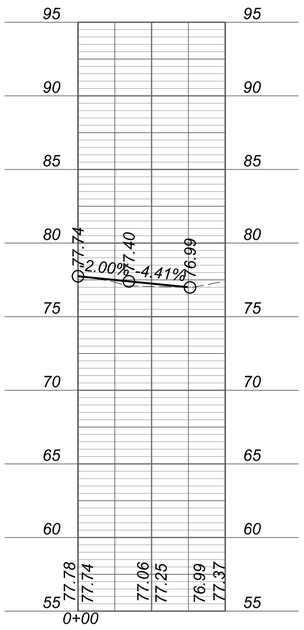
ENTRANCE #3



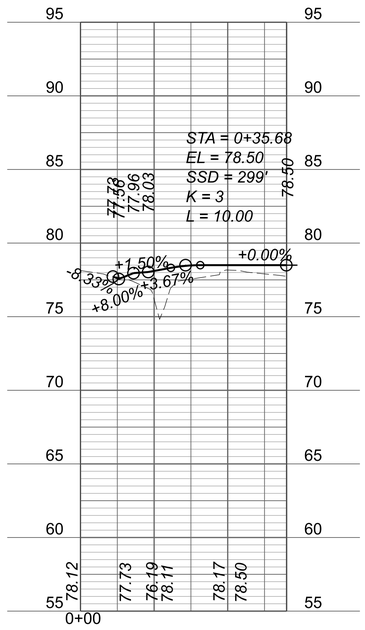
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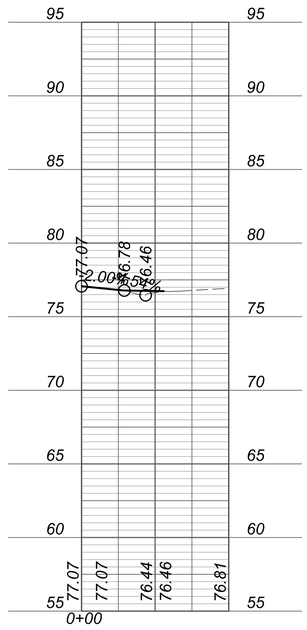
ENTRANCE #5



ENTRANCE #6 - BMP ACCESS



BELMONT STREET



PROJECT	SHEET NO.
0460-046-724	7

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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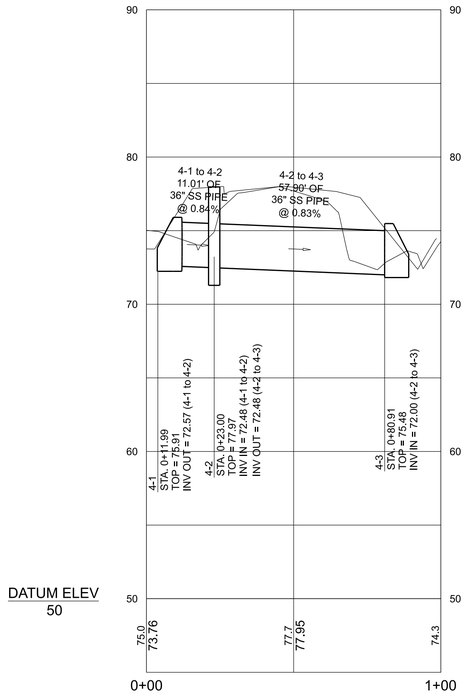
STORM SEWER PROFILES

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

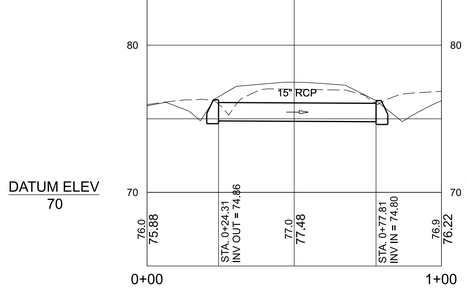
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	9

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

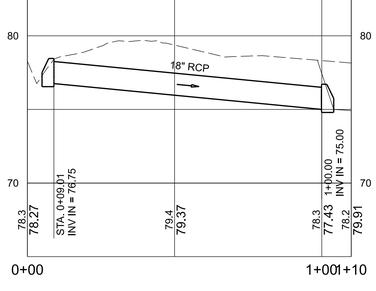
4-1 TO 4-3



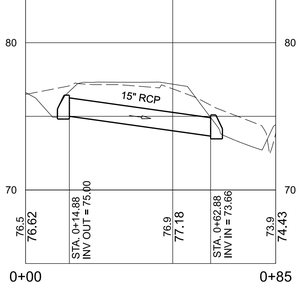
4-5



4-6



4-4



PROJECT	SHEET NO.
0460-046-724	9

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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DRAINAGE CALCULATIONS

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	10(1)

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

460/258 Intersection

Structure No.	Area Number	Total Area (Acres)	Land Cover C = 0.90	Land Cover C = 0.25	Land Cover C = 0.30	C-Factor	Time of Concentration, T_c (minutes)									Intensity, I (in/hr)					Peak Flow, Q (cfs)				
							Overland Flow (200' max)*				Channel Flow**														
							Length	Height	Slope	T_c	Length	Height	Slope	T_c	Total T_c	2-Year	10-Year	25-Year	50-Year	100-Year	2-Year	10-Year	25-Year	50-Year	100-Year
Outfall	100	0.19	0.05	0.12	0.02	0.43	30.19	6.01	19.91%	3.0	114	3.5	3.06%	1.2	5.0	6.2	8.2	9.0	9.9	10.7	0.50	0.66	0.81	0.96	1.08
Outfall	200	3.34	2.54		0.80	0.76	200	3.79	1.90%	5.9	470.7	4.1	0.88%	5.8	11.6	4.6	6.2	6.9	7.6	8.2	11.74	15.74	19.24	22.96	25.92
4-1	300	6.34	4.26		2.08	0.70	200	1.31	0.66%	7.7	910.04	5.16	0.57%	11.2	18.9	3.7	5.0	5.6	6.2	6.7	16.44	22.38	27.47	32.91	37.29
4-2	301	0.20	0.17		0.03	0.81	47.83	1.09	2.28%	2.9	245.92	0.36	0.15%	7.0	9.9	5.0	6.6	7.4	8.0	8.7	0.80	1.07	1.31	1.56	1.76
BMP	302	0.29	0.02		0.27	0.34	80.16	0.6	0.75%	10.5	219.6	4.25	1.94%	2.4	13.0	4.4	6.0	6.6	7.3	7.9	0.44	0.59	0.72	0.86	0.97
4-6	303	4.01	2.30		1.71	0.64	82.56	1.06	1.28%	5.1	1311.36	5.58	0.43%	16.4	21.5	3.4	4.7	5.3	5.8	6.3	8.88	12.14	14.93	17.92	20.33
Ditch	304	5.89	2.07		3.82	0.51	188.89	0.73	0.39%	11.4	824.79	5.75	0.70%	9.6	21.1	3.5	4.8	5.3	5.8	6.4	10.47	14.31	17.59	21.10	23.94
4-5	305	0.20	0.07		0.13	0.51	118.06	2.22	1.88%	7.0	44.05	1.31	2.97%	0.6	7.6	5.5	7.3	8.1	8.8	9.5	0.56	0.74	0.90	1.08	1.21
4-4	306	0.40	0.27		0.13	0.71	108.85	2.23	2.05%	4.8	119.79	1.75	1.46%	1.7	5.0	6.2	8.2	9.0	9.9	10.7	1.74	2.30	2.80	3.34	3.76
Outfall	307	0.22	0.11		0.11	0.60	Not Used in Intensity Calculation								5.0	6.2	8.2	9.0	9.9	10.7	0.82	1.08	1.31	1.56	1.76
Outfall	400	0.46	0.14		0.32	0.48	126.03	1.65	1.31%	8.1	291.33	3.63	1.25%	3.5	11.6	4.6	6.2	6.9	7.6	8.2	1.03	1.38	1.69	2.02	2.28

*Seelye Method, VDOT Drainage Manual App. 6-D1

**Kirpich Method, VDOT Drainage Manual App. 6-D5

Project Name: 460/258 Intersection
Road Names: US Rte 258
Side:

Designed By: TG

Area Number	Sta From	Sta To	T_c (min)	C Value	Area (ac.)	CA (accum)	I_2 (in/hr)	Q_2 (cfs)	Slope* (ft/ft)	Max V=4.0 fps Jute(Sod) (n=0.028) *Vel.*	R_H	Shear	Paved (n=0.013) *Vel.*	Depth	I_{10} (in/hr)	Q_{10} (cfs)	**$Depth_{10}$ (ft)**	**Minimum Design** (Depth)	(Type)
	L Ditch - 17+25 to Str. 4-4																		
306	17+25	Str. 4-4	5.0	0.71	0.40	0.28	6.2	1.74	0.008	***1.2 fps***	***0.3 ft***	*0.14 psf*	-	-	8.2	2.30	**0.72 ft**	**10"**	EC-2 Type 1 Lined V-Ditch
	L Ditch - 21+00 to Outfall 3																		
305	21+00	Str. 4-5	7.6	0.51	0.20	0.10	5.5	0.56	0.041	***1.7 fps***	***0.2 ft***	*0.38 psf*	-	-	7.3	0.74	**0.34 ft**	6"	EC-2 Type 1 Lined V-Ditch
307	Str. 4-5	Outfall	5.0	0.60	0.22	0.23	6.2	1.45	0.008	***1.2 fps***	***0.3 ft***	*0.15 psf*	-	-	8.2	1.91	**0.67 ft**	8"	EC-2 Type 1 Lined V-Ditch
	R Ditch - 21+50 - 19+25																		
304	21+50	19+25	21.1	0.51	5.89	3.01	3.5	10.47	0.009	***2.0 fps***	***0.6 ft***	*0.33 psf*	-	-	4.8	14.31	**1.38 ft**	18"	EC-2 Type 1 Lined V-Ditch
	L Ditch - 21+00 to Outfall 4																		
400	21+00	Outfall	11.6	0.48	0.46	0.22	4.6	1.03	0.008	***1.0 fps***	***0.3 ft***	*0.12 psf*	-	-	6.2	1.38	**0.59 ft**	8"	EC-2 Type 1 Lined V-Ditch
	R Ditch - 18+85 to 19+25																		
BMP OUT	18+85	19+25	Flow values from Pondpack					11.13	0.010	***2.1 fps***	***0.6 ft***	*0.37 psf*	-	-		22.24	**1.60 ft**	20"	EC-2 Type 1 Lined V-Ditch

	PROJECT	SHEET NO.
	0460-046-724	10(1)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	10(2)

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

ROUTE Rte 258 **PROJECT** Rte 460/258 Turn Lanes **DESIGNER:** TG **DATE** 8/2/2024
CHECKED: **UNITSENGLISH**

INLET NUMBER	TYPE	LENGTH (FT;M)	STATION	DRAINAGE AREA (AC;HA)	C	CA	SCA	I (IN/HR; mm/HR)	Q INCR (CFS; CMS)	Qc CARRYOVER (CFS; CMS)	QT GUTTER FLOW (CFS; CMS)	S GUTTER SLOPE (FT/FT; M/M)	Sx CROSS SLOPE (FT/FT; M/M)	T (SPREAD) (FT; M)	W (GUTTER WIDTH) (FT;M)	W/T	Sw (GUTTER SLOPE) (FT/FT; M/M)	Sw/Sx	Eo (App. 9C-8)	a	Sw	Se	COMPUTED LENGTH L (FT; M)	L SPECIFIED LENGTH (FT;M)	L/LT	E (App. 9C-18)	Q INTERCEPTED (CFS; CMS) or dlh	Qb CARRYOVER (CFS; CMS)	Depth at Curb (IN; MM)	Sag Inlets Only: Allowable Ponding Depth d (FT; M)	Sag Inlets Only: Height of Curb Opening h (FT; M)	Sag Inlets Only: dlh	Sag Inlets Only: Depth at Inlet (IN; MM)	Sag Inlets Only: T SPREAD @ SAG (FT; M)	REMARKS
4-2	DI-3B	4.000	19+25	0.200	0.81	0.162																													
			14.000'RIGHT				0.162	4	0.648	0	0.648	0.0051	0.0200	4.433	2.000	0.45116	0.0833	4.165	0.926	3.52	0.1466	0.1558	4.241	4.000	0.943	0.994	0.644	0.004	2.583						

4-1 to 4-3
STORM SEWER DESIGN COMPUTATIONS

PROJECT: Rte 258 Turn Lanes
LOCATION:
COUNTY: Isle of Wigth

Designed by:

Checked by:

STORM FREQUENCY 10

UNITS ENGLISH

PIPE NO	FROM POINT REFERENCE	FROM POINT STA.	TO POINT REFERENCE	TO POINT STA.	DRAIN. AREA "A" Acre	RUNOFF COEFF. "C"	CA INCRE-MENT	CA ADDTL CA	CA ACCUM-ULATED	TOTAL INLET TIME Minutes	RAIN FALL In/Hr	RUNOFF Q CFS	INVERT ELEVATIONS UPPER END	INVERT ELEVATIONS LOWER END	LENGTH of Pipe Ft.	SLOPE Ft./Ft.	SIZE (Dia. Or Span/Rise) In.	SHAPE	Capacity CFS	Friction Slope Ft./Ft.	VEL Vn Ft/Sec	FLOW TIME Min.	REMARKS
	(1)		(2)		(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)		(15)		(16)	(17)	(18)
4-1 to 4-2	4-1		4-2		16.530	0.610	10.083	0.000	10.083	21.500	4.707	47.462	72.573	72.480	11.012	0.008	36.000	Circular	61.131	0.005	9.576	0.019	
4-2 to 4-3	4-2		4-3		0.200	0.810	0.162	0.000	10.245	21.519	4.705	48.203	72.480	72.000	57.903	0.008	36.000	Circular	60.728	0.005	9.552	0.101	

4-1 to 4-3
HYDRAULIC GRADE LINE ANALYSIS

PROJECT: Rte 258 Turn Lanes

DESIGNED BY:

Checked:

INCIDENCE PROBABILITY **10** **Year**

INLET OR JUNCTION	INLET STATION	OUTLET WATER SURFACE ELEV.	DIA. PIPE Do (In)	DESIGN DISCH. Qo (CFS)	LENGTH PIPE Lo (Ft)	FRICTION SLOPE, Sfo (FT/FT)	FRICTION LOSS Hf (Ft)	JUNCTION LOSS Vo	Ho (Ft)	Qi	Vi	QiVi	Vi*2/2g	Hi	Angle	HΔ	Ht	1.3 Ht	0.5 Ht	FINAL H (Ft)	Inlet Water Surface Elevation	Rim Elev	Comments
4-2		74.40	36	48.20	57.90	0.0052	0.30	9.55	0.35	47.46	9.58	454.49	1.42	0.50	0.71	0.00	0.85	0	FALSE	1.15	75.55	77.97	OK -2.416
4-1		74.97	36	47.46	11.01	0.0051	0.06	9.58	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.46274	FALSE	0.52	75.49	75.91	OK -0.418

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SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
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SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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POND OUTPUTS

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	10(3)

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

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)
MP#1 DA Onsite	Post-Development 1 Year	1	0.055	11.950	1.00
MP#1 DA Onsite	Post-Development 2 Year	2	0.076	11.900	1.37
MP#1 DA Onsite	Post-Development 10 Year	10	0.142	11.900	2.60
MP#1 DA Onsite	Post-Development 100 Year	100	0.279	11.900	4.99
Bypass DA	Post-Development 1 Year	1	1.893	12.100	24.30
Bypass DA	Post-Development 2 Year	2	2.472	12.100	31.48
Bypass DA	Post-Development 10 Year	10	4.275	12.100	53.12
Bypass DA	Post-Development 100 Year	100	7.799	12.100	93.68
MP #1 DA Offsite	Post-Development 1 Year	1	0.578	12.000	8.98
MP #1 DA Offsite	Post-Development 2 Year	2	0.750	12.000	11.54
MP #1 DA Offsite	Post-Development 10 Year	10	1.282	12.000	19.23
MP #1 DA Offsite	Post-Development 100 Year	100	2.318	12.000	33.59

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)
Outfall 3	Post-Development 1 Year	1	2.517	12.100	27.09
Outfall 3	Post-Development 2 Year	2	3.288	12.100	42.61
Outfall 3	Post-Development 10 Year	10	5.687	12.050	72.66
Outfall 3	Post-Development 100 Year	100	10.377	12.050	128.90

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft^3/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
MP#1 (IN)	Post-Development 1 Year	1	0.633	12.000	9.87	(N/A)	(N/A)
MP#1 (OUT)	Post-Development 1 Year	1	0.625	12.250	2.95	76.94	0.207
MP#1 (IN)	Post-Development 2 Year	2	0.826	12.000	12.76	(N/A)	(N/A)
MP#1 (OUT)	Post-Development 2 Year	2	0.816	12.100	11.13	77.16	0.229
MP#1 (IN)	Post-Development 10 Year	10	1.425	12.000	21.42	(N/A)	(N/A)
MP#1 (OUT)	Post-Development 10 Year	10	1.412	12.000	22.24	77.29	0.243
MP#1 (IN)	Post-Development 100 Year	100	2.596	12.000	37.66	(N/A)	(N/A)
MP#1 (OUT)	Post-Development 100 Year	100	2.578	12.000	37.46	77.46	0.261

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Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	10(4)

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

PROJECT Rte 460/258 Turn Lanes
ROAD Rte 258 **COUNTY** Isle of Wight
CULVERT 4-4 VA
NOAA Station Suffolk Lake Kilby

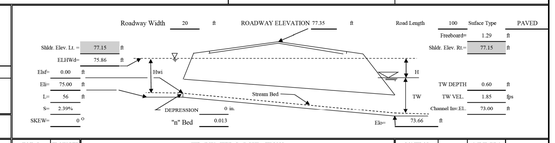
SHEET OF
UNITS **ENGLISH**

CULVERT DESIGN FORM LD-269
DESIGNER: TG DATE: 4/23/2024
REVIEWER: DATE:

HYDROLOGICAL DATA
Method: RATIONAL
Drainage Area: 0.4 Acres
Time of Concentration 5 Minutes

DESIGN FLOWS

R.I. (years)	FLOW (cfs)	
10	Design	2.31
2	Check	1.76
100	Max.	3.79



CULVERT DESCRIPTION:
TYPE: **Single/Multiple Conforming**

Inlet Edge Description:
Square edge w/headwall
Single / Multiple Conforming / Broken Back Culverts

MATERIAL	SHAPE	Size (in)	N	Mannings n	TOTAL FLOW Q cfs	FLOW PER BARREL Q/N cfs	HEADWATER CALCULATIONS: INLET CONTROL HWi/D ft	HWi ft	FALL ft	ELHWi ft	OUTLET CONTROL: TW ft	dc ft	(dc+D)/2 ft	ho ft	ke	H ft	ELHWo ft	CONTROL HEADWATER ELEV ft	OUTLET VEL fps	MINIMUM SHOULDER ELEV. ft	COMMENTS
Concrete	Circular	15	1	0.01	2.31	2.3	0.69	0.86	0.00	75.86	0.60	0.61	0.93	0.93	0.50	0.15	74.74	75.86	6.62		
					1.76	1.8	0.58	0.73	0.00	75.73	0.54	0.53	0.89	0.89	0.50	0.09	74.64	75.73	6.11		
					3.79	3.8	0.96	1.20	0.00	76.20	0.72	0.79	1.02	1.02	0.50	0.41	75.09	76.20	7.58		

Broken Back Culvert

LENGTH	Elev.	SKEW °

TAILWATER DATA:

Channel Shape	Trianguilar		
Bottom Width, ft	0.00	"n" =	0.035
Side Slope Lt. (H:1V)	4.00		
Side Slope Rt. (H:1V)	3.00		
Channel Slope, ft/ft	0.0100		
Distance			
Elevation			
"n" =			

TAILWATER RESULTS:

	Discharge cfs	Elevation ft	Flow depth ft	Velocity fps	Shear force PSF
Design	73.60	0.60	1.85	0.37	
Check	73.54	0.54	1.73	0.34	
Max.	73.72	0.72	2.09	0.45	

ROADWAY DATA:

Roadway Width, ft	20
Surface Type	PAVED
Top of Road Elevation, ft	77.35
Length of Road, ft	100

ROADWAY OVERTOPPING:

	Discharge cfs	Overtopping Discharge cfs	Overtopping Elevation ft
Design	0	0	0.00
Check	0	0	0.00
Max.	0	0	0.00

TECHNICAL FOOTNOTES:
(1) USE Q/NB FOR BOX CULVERTS
(2) HWi/D = HW/D OR HWo/D FROM DESIGN CHARTS
(3) FALL = HW1 - (ELHWd - ELsf). FALL IS ZERO FOR CULVERTS ON GRADE
(4) ELhi = HWi + ELi (INVERT OF INLET CONTROL SECTION)
(5) TW BASED ON DOWNSTREAM CONTROL OR FLOW DEPTH IN CHANNEL
(6) ho = TW or (dc + D/2) (WHICHEVER IS GREATER)
(7) $H = [1 + ke + (29n^2L)/R^{1.33}]v^2/2g$

SUBSCRIPT DEFINITIONS:

HWd	DESIGN HEADWATER	i	INLET
HWi	HW IN INLET CONTROL	o	OUTLET
HWo	HW IN OUTLET CONTROL	sf	Streambed @ culvert face

COMMENTS / DISCUSSION:

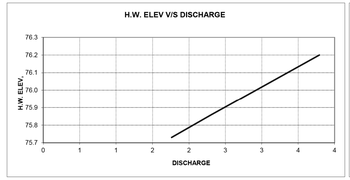
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SIZE: n:
SHAPE: MATERIAL:
ENTRANCE:

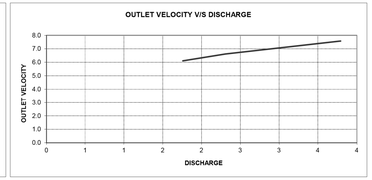
CULVERTSOFT by ENSOFTEC, INC.

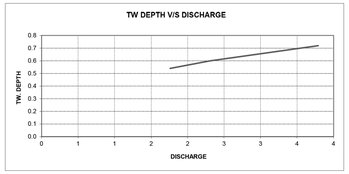
PROJECT Rte 460/258 Turn Lanes
ROAD Rte 258 **COUNTY** Isle of Wight
CULVERT 4-4 VA
NOAA Station Suffolk Lake Kilby

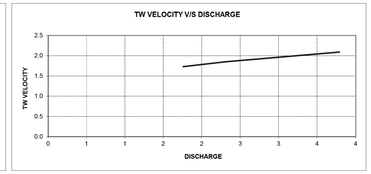
SHEET OF
UNITS **ENGLISH**

CULVERT DESIGN FORM LD-269
DESIGNER: TG DATE: 4/23/2024
REVIEWER: DATE:









CULVERTSOFT by ENSOFTEC, INC.

PROJECT Rte 460/258 Turn Lanes
ROAD Rte 258 **COUNTY** Isle of Wight
CULVERT 4-5 VA
NOAA Station Suffolk Lake Kilby

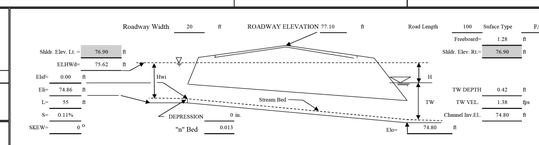
SHEET OF
UNITS **ENGLISH**

CULVERT DESIGN FORM LD-269
DESIGNER: TG DATE: 4/23/2024
REVIEWER: DATE:

HYDROLOGICAL DATA
Method: RATIONAL
Drainage Area: 0.2 Acres
Time of Concentration 5 Minutes

DESIGN FLOWS

R.I. (years)	FLOW (cfs)	
10	Design	0.83
2	Check	0.63
100	Max.	1.36



CULVERT DESCRIPTION:
TYPE: **Single/Multiple Conforming**

Inlet Edge Description:
Square edge w/headwall
Single / Multiple Conforming / Broken Back Culverts

MATERIAL	SHAPE	Size (in)	N	Mannings n	TOTAL FLOW Q cfs	FLOW PER BARREL Q/N cfs	HEADWATER CALCULATIONS: INLET CONTROL HWi/D ft	HWi ft	FALL ft	ELHWi ft	OUTLET CONTROL: TW ft	dc ft	(dc+D)/2 ft	ho ft	ke	H ft	ELHWo ft	CONTROL HEADWATER ELEV ft	OUTLET VEL fps	MINIMUM SHOULDER ELEV. ft	COMMENTS
Concrete	Circular	15	1	0.01	0.83	0.8	0.61	0.49	0.00	75.35	0.42	0.36	0.81	0.80	0.50	0.02	75.62	75.62	1.63		
					0.63	0.6	0.58	0.42	0.00	75.28	0.38	0.31	0.78	0.78	0.50	0.01	75.59	75.59	1.51		
					1.36	1.4	0.68	0.64	0.00	75.50	0.50	0.46	0.86	0.86	0.50	0.05	75.71	75.71	1.84		

Broken Back Culvert

LENGTH	Elev.	SKEW °

TAILWATER DATA:

Channel Shape	Trianguilar		
Bottom Width, ft	0.00	"n" =	0.035
Side Slope Lt. (H:1V)	3.00		
Side Slope Rt. (H:1V)	4.00		
Channel Slope, ft/ft	0.0090		
Distance			
Elevation			
"n" =			

TAILWATER RESULTS:

	Discharge cfs	Elevation ft	Flow depth ft	Velocity fps	Shear force PSF
Design	75.22	0.42	1.38	0.23	
Check	75.18	0.38	1.28	0.21	
Max.	75.30	0.50	1.56	0.28	

ROADWAY DATA:

Roadway Width, ft	20
Surface Type	PAVED
Top of Road Elevation, ft	77.1
Length of Road, ft	100

ROADWAY OVERTOPPING:

	Discharge cfs	Overtopping Discharge cfs	Overtopping Elevation ft
Design	0	0	0.00
Check	0	0	0.00
Max.	0	0	0.00

TECHNICAL FOOTNOTES:
(1) USE Q/NB FOR BOX CULVERTS
(2) HWi/D = HW/D OR HWo/D FROM DESIGN CHARTS
(3) FALL = HW1 - (ELHWd - ELsf). FALL IS ZERO FOR CULVERTS ON GRADE
(4) ELhi = HWi + ELi (INVERT OF INLET CONTROL SECTION)
(5) TW BASED ON DOWNSTREAM CONTROL OR FLOW DEPTH IN CHANNEL
(6) ho = TW or (dc + D/2) (WHICHEVER IS GREATER)
(7) $H = [1 + ke + (29n^2L)/R^{1.33}]v^2/2g$

SUBSCRIPT DEFINITIONS:

HWd	DESIGN HEADWATER	i	INLET
HWi	HW IN INLET CONTROL	o	OUTLET
HWo	HW IN OUTLET CONTROL	sf	Streambed @ culvert face

COMMENTS / DISCUSSION:

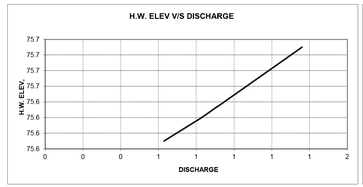
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SIZE: n:
SHAPE: MATERIAL:
ENTRANCE:

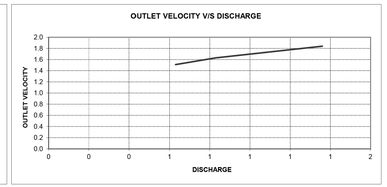
CULVERTSOFT by ENSOFTEC, INC.

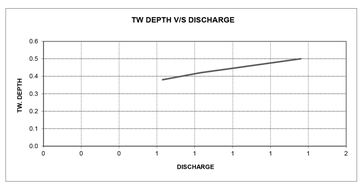
PROJECT Rte 460/258 Turn Lanes
ROAD Rte 258 **COUNTY** Isle of Wight
CULVERT 4-5 VA
NOAA Station Suffolk Lake Kilby

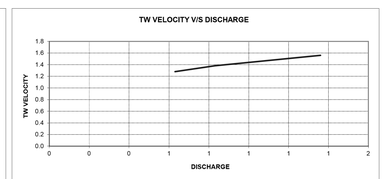
SHEET OF
UNITS **ENGLISH**

CULVERT DESIGN FORM LD-269
DESIGNER: TG DATE: 4/23/2024
REVIEWER: DATE:









CULVERTSOFT by ENSOFTEC, INC.

	PROJECT	SHEET NO.
	0460-046-724	10(4)

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE: PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	10(5)

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

CULVERT DESIGN FORM LD-269

PROJECT	Rte 460/258 Turn Lanes			SHEET	OF
ROAD	Rte 258	COUNTY	Isle of Wight	UNITS	ENGLISH
CULVERT	4-6		VA	DESIGNER: TG	DATE: 8/1/2024
NOAA Station	16+50 Suffolk Lake Kilby			REVIEWER:	DATE:

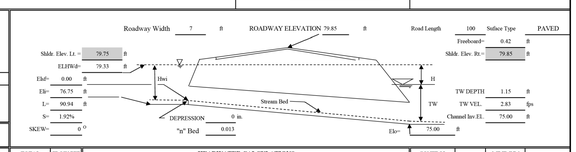
HYDROLOGICAL DATA

Method: RATIONAL
Drainage Area: 4.01 Acres
Time of Concentration: 25 Minutes

DESIGN FLOWS

R.I. (years)		FLOW (cfs)
10	Design	11.16
2	Check	8.11
100	Max.	18.80

CULVERT DESCRIPTION:
TYPE: Single/Multiple Conforming



Inlet Edge Description:
Square edge w/headwall

Single / Multiple Conforming / Broken Back Culverts

MATERIAL	SHAPE	Size (in)	N	Mannings n	TOTAL FLOW Q cfs	FLOW PER BARREL Q/N cfs	INLET CONTROL HWd ft	HWi ft	FALL ft	EL(HW) ft	OUTLET CONTROL TW ft	dc ft	(dc+D)/2 ft	bo ft	ke	H ft	EL(HWo ft	CONTROL HEADWATER ELEV ft	OUTLET VEL fps	MINIMUM SHOULDER ELEV. ft	COMMENTS
Concrete	Circular	18	1	0.01	11.16	11.2	1.72	2.58	0.00	79.33	1.15	1.28	1.39	1.39	0.50	1.95	78.34	79.33	9.08		
					8.11	8.1	1.21	1.82	0.00	78.57	1.02	1.10	1.30	1.30	0.50	1.03	77.33	78.57	8.46		
					18.80	18.8	2.11	3.17	0.00	79.92	1.39	1.46	1.48	1.48	0.50	3.10	79.58	79.92	7.40		

Broken Back Culvert

LENGTH	Elev.	SKEW °)

TAILWATER DATA:

Channel Shape	Triangular		
Bottom Width, ft	0.00	"n" =	0.035
Side Slope Lt. (H:1V)	3.00		
Side Slope Rt. (H:1V)	3.00		
Channel Slope, ft/ft	0.0100		

Distance									
Elevation									
"n" =									

TAILWATER RESULTS:

	Discharge cfs	Elevation ft	Flow depth ft	Velocity fps	Shear force PSF
Design	76.15	1.15	2.83	6.72	
Check	76.02	1.02	2.61	0.64	
Max.	76.40	1.39	3.22	0.87	

ROADWAY DATA:

Roadway Width, ft	7
Surface Type	PAVED
Top of Road Elevation, ft	79.85
Length of Road, ft	100

ROADWAY OVERTOPPING:

	Discharge cfs	Overtopping Discharge cfs	Overtopping Elevation ft
Design	0		0.00
Check	0		0.00
Max.	6		79.92

TECHNICAL FOOTNOTES:

(1) USE Q/NB FOR BOX CULVERTS
(2) HW/D = HW/D OR HWi/D FROM DESIGN CHARTS
(3) FALL = HW1 - (EL(HW)d - EL(d)); FALL IS ZERO FOR CULVERTS ON GRADE
(4) ELhi = HWi + ELi (INVERT OF INLET CONTROL SECTION)
(5) TW BASED ON DOWNSTREAM CONTROL OR FLOW DEPTH IN CHANNEL
(6) ho = TW or (dc + D/2) (WHICHEVER IS GREATER)
(7) $H = [1 + ke + (29n^2L)/R^{(4/3)}]v^2/2g$

SUBSCRIPT DEFINITIONS:

HWd	DESIGN HEADWATER	i	INLET
HWi	HW IN INLET CONTROL	o	OUTLET
HWo	HW IN OUTLET CONTROL	sf	Streambed
			@ culvert face

COMMENTS / DISCUSSION:

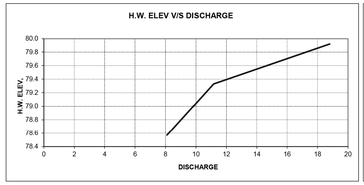
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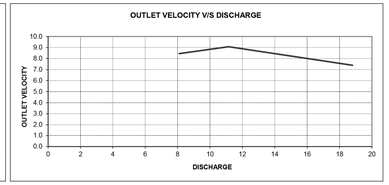
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SHAPE: MATERIAL:
ENTRANCE:

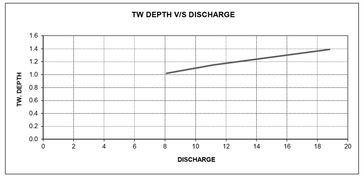
CULVERTSOFT by ENSOFTEC, INC.

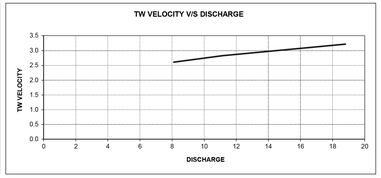
CULVERT DESIGN FORM LD-269

PROJECT	Rte 460/258 Turn Lanes			SHEET	OF
ROAD	Rte 258	COUNTY	Isle of Wight	UNITS	ENGLISH
CULVERT	4-6		VA	DESIGNER: TG	DATE: 8/1/2024
NOAA Station	16+50 Suffolk Lake Kilby			REVIEWER:	DATE:

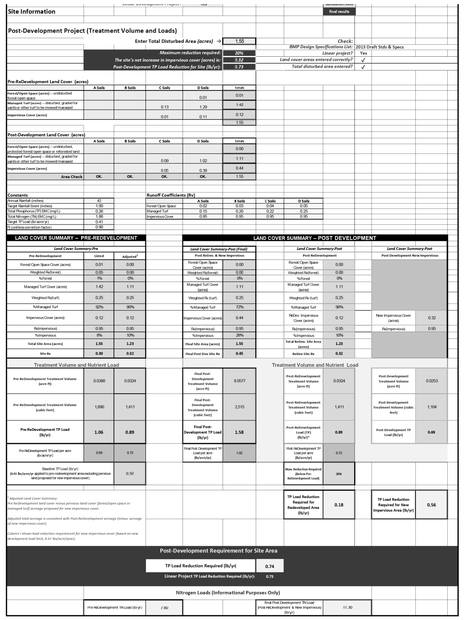








CULVERTSOFT by ENSOFTEC, INC.



Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) → 1.55

Maximum reduction required: 20%
The site's net increase in impervious cover (acres) is: 0.37
Post-Development TP Load Reduction for Site (lb/yr): 0.72

Check:
BMP Design Specifications List: 2013 Draft Vols & Specs
Linear project? Yes
Land cover areas entered correctly? ✓
Total disturbed area entered? ✓

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	totals
Forest/Open Space (acres) – undisturbed forest/open space w/ reforested land				0.01	0.01
Managed Turf (acres) – disturbed, graded for pasture, other turf to be mowed/managed			0.13	1.39	1.52
Impervious Cover (acres)			0.01	0.11	0.12
					1.65

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	totals
Forest/Open Space (acres) – undisturbed forest/open space w/ reforested land					0.00
Managed Turf (acres) – disturbed, graded for pasture, other turf to be mowed/managed			0.09	1.02	1.11
Impervious Cover (acres)			0.05	0.39	0.44
Area Check	OK	OK	OK	OK	1.55

Constants
Unified Rainfall (inches): 43
Target Rainfall Event (inches): 1.00
Total Phosphorus (TP) EMC (mg/L): 0.26
Total Nitrogen (TN) EMC (mg/L): 1.86
Rainfall Volume Factor (Rv): 0.05
Stormwater Correction Factor: 0.90

Runoff Coefficiency (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

LAND COVER SUMMARY – PRE-REDEVELOPMENT

Land Cover Summary-Pre	
Pre-ReDevelopment	Listed / Adjusted*
Forest/Open Space Cover (acres)	0.01 / 0.00
Forest/Open Space (%Cover)	0.6% / 0.0%
Managed Turf Cover (acres)	1.52 / 1.11
Weighted Rv(Turf)	0.25 / 0.25
%Managed Turf	92% / 96%
Impervious Cover (acres)	0.12 / 0.12
Reimpervious)	0.95 / 0.95
%Impervious	8% / 10%
Total Site Area (acres)	1.65 / 1.23
Site Rv	0.30 / 0.32

LAND COVER SUMMARY – POST DEVELOPMENT

Land Cover Summary-Post (Total)	
Post ReDev. & New Impervious	
Forest/Open Space Cover (acres)	0.00
Forest/Open Space (%Cover)	0%
Managed Turf Cover (acres)	1.11
Weighted Rv (turf)	0.25
%Managed Turf	72%
Impervious Cover (acres)	0.44
Reimpervious)	0.95
%Impervious	28%
Post Site Area (acres)	1.55
Post Dev Site Rv	0.45

Land Cover Summary-Post	
Post ReDevelopment	
Forest/Open Space Cover (acres)	0.00
Forest/Open Space (%Cover)	0%
Managed Turf Cover (acres)	1.11
Weighted Rv (turf)	0.25
%Managed Turf	90%
ReDev. Impervious Cover (acres)	0.12
Reimpervious)	0.95
%Impervious	10%
Total Post Site Area (acres)	1.23
Redev Site Rv	0.32

Land Cover Summary-Post	
Post-Development New Impervious	
New Impervious Cover (acres)	0.32
Reimpervious)	0.95

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.0388	0.0324
Pre-ReDevelopment Treatment Volume (cubic feet)	1,690	1,411
Pre-ReDevelopment TP Load (lb/yr)	1.06	0.89
PreNDevelopment TP Load per acre (lb/acre/yr)	0.69	0.72
Baseline TP Load (lb/yr) (with ReDevelop. applied to pre-redevelopment areas excluding impervious area) proposed for new impervious cover)	0.37	

Final Post-Development Treatment Volume (acre-ft)	0.0577	
Final Post-Development Treatment Volume (cubic feet)	2,515	
Final Post-Development TP Load (lb/yr)	1.58	
Final Post-Development TP Load Rate (lb/acre/yr)	1.02	

Treatment Volume and Nutrient Load

Post-ReDevelopment Treatment Volume (acre-ft)	0.0324	
Post-ReDevelopment Treatment Volume (cubic feet)	1,411	
Post-ReDevelopment Load (TP) (lb/yr)	0.89	
Post-ReDevelopment TP Load Rate (lb/acre/yr)	0.72	
Req. Reduction Required (Reduction Redevelopment Load)	20%	

Post-Development Treatment Volume (acre-ft)	0.0253	
Post-Development Treatment Volume (cubic feet)	1,104	
Post-Development TP Load (lb/yr)	0.69	

*Adjusted Land Cover Summary:
Pre-ReDevelopment land cover minus pervious land cover (forest/open space w/ managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

Listed / Unadjusted load reduction requirement for new impervious cover (based on new development load limit, 0.45 lbs/acre/year).

TP Load Reduction Required for Redeveloped Area (lb/yr): 0.18

TP Load Reduction Required for New Impervious Area (lb/yr): 0.56

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr): 0.74

Linear Project TP Load Reduction Required (lb/yr): 0.75

Nitrogen Loads (Informational Purposes Only)

Pre-NDevelopment TN Load (lb/yr)	7.80	Post-Dev Condition Nutrient TN Load (Pre-ReDevelopment + New Impervious) (lb/yr)	11.30

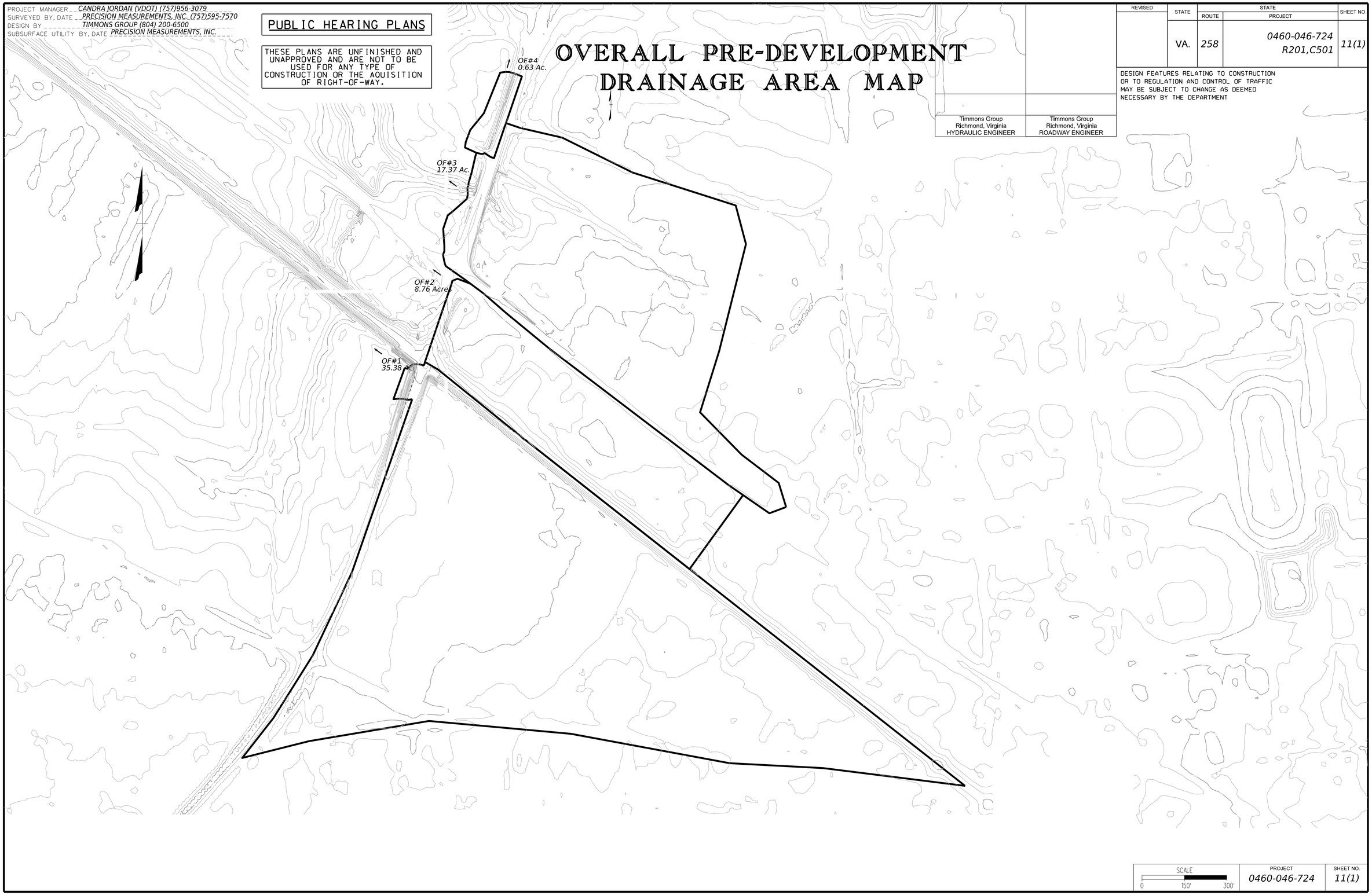
PROJECT	SHEET NO.
0460-046-724	10(5)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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

OVERALL PRE-DEVELOPMENT DRAINAGE AREA MAP



REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	11(1)

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

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

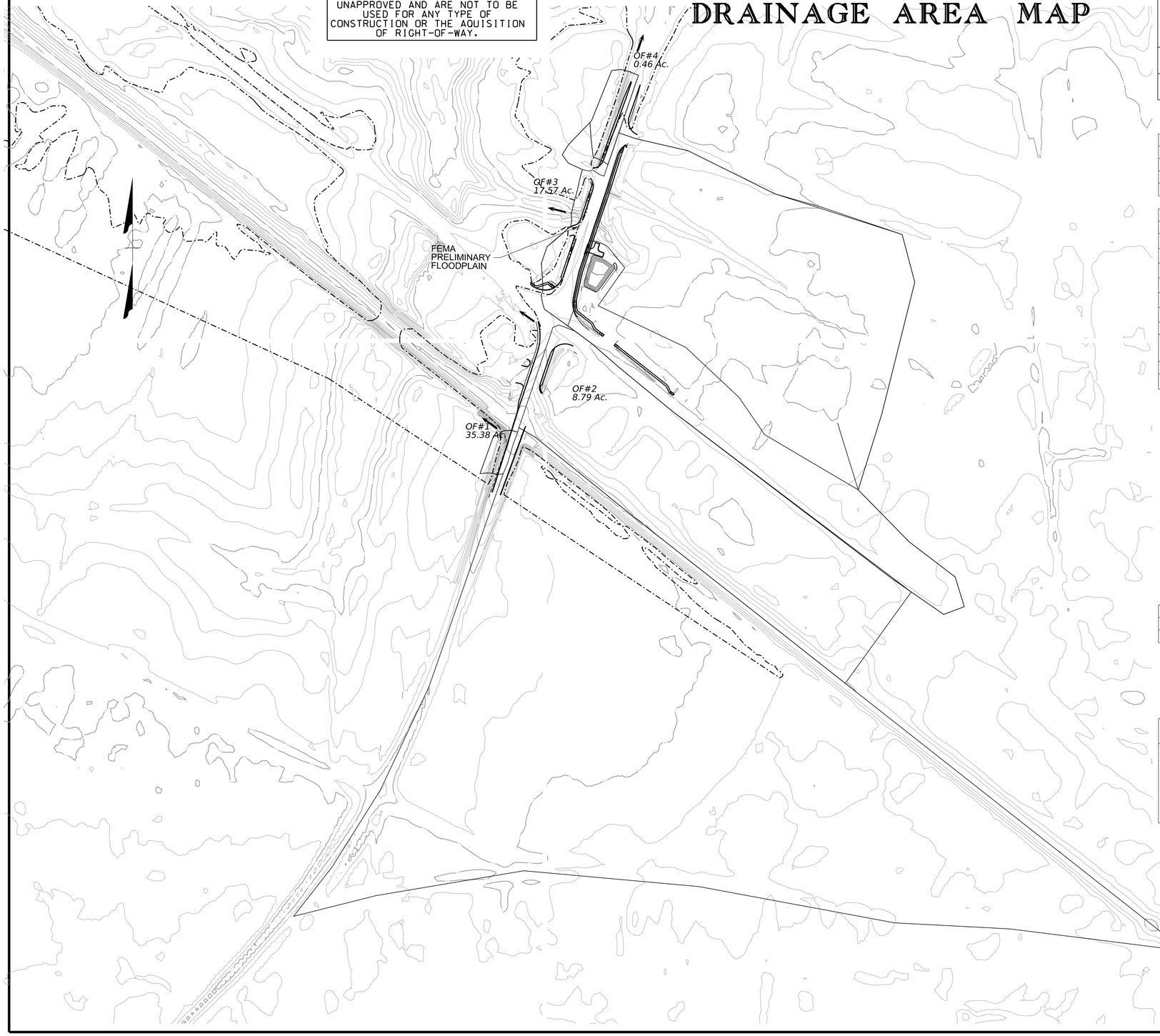
SCALE	PROJECT	SHEET NO.
0 150' 300'	0460-046-724	11(1)

PROJECT MANAGER CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

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

OVERALL POST-DEVELOPMENT DRAINAGE AREA MAP



REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	11(2)

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

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

1% ANALYSIS SUMMARY (CHANNEL + FLOOD PROTECTION)

	OF #1	OF #2
Outfall Type	Man-Made	Man-Made
Overall Drainage Area (Ac.)	35.38	8.76
Disturbed Area Within Drainage Area (Ac.)	0.09	0.08
Ratio	0.2544%	0.9132%

CHANNEL PROTECTION SUMMARY (1-YEAR STORM)

	OF #3	OF #4
Outfall Type	Natural	Man-Made
Rv .. (ac-ft)	0.1153	0.0243
Rv .. (ac-ft)	2.6312	0.0732
Rv .. (ac-ft)	0.1396	0.0295
Rv .. (ac-ft)	2.6458	0.0457
Q .. (cfs)	1.85	0.39
Q .. (cfs)	2.26	0.48
Energy Balance (cfs)	27.16	1.91
Q .. + Q .. (cfs)	28.49	1.12
Attenuation Req'd?	Yes	No
Q1 (routed)	26.77	N/A

NOTE: Peak flows developed using PondPack
NOTE: Improvement factor of 0.8 used for all outfalls

Rows A thru D are the applicable volume of runoff from the 1 year storm
Row E is the peak flow from the 1 year storm generated by the site in the pre-developed condition
Row F is the peak flow from the 1 year storm generated by the site in the post-developed condition
Row G is the result of the energy balance equation using the above rows as input
Row H is the peak flow from the 1 year storm for the entire contributing drainage area in the post-developed condition

Row I checks if energy balance is met. "No" means no attenuation is required to meet energy balance.

Row J is is the 1 year storm at the outfall after accounting for the attenuation from BMP's. Row J must be less than Row G to meet energy balance.

FLOOD PROTECTION SUMMARY (10-YEAR STORM)

	OF #3	OF #4
Pre-Development 10-yr	61.90	2.66
Post-Development 10-yr	72.66*	2.08

*Structure 4-3 outfalls into a FEMA mapped floodplain. The proposed storm sewer system and ditches provide enough capacity to contain the 10-year storm to the outfall which is within the mapped floodplain, satisfying the flood protection requirement for Outfall #3.

Water Quality

Water quality compliance calculations for this linear development project have been developed per **subsection 2** for development on prior developed lands, **subdividion d**, of the water quality design criteria requirements. The phosphorous load reduction needed for this project is **0.73 lbs/yr (See VRRM Spreadsheet Sheet 10(5))**. Per subsection B of the offsite compliance options section, because the post-construction phosphorus control requirement is anticipated to be less than 10 pounds per year for this project, offsite options are permitted.

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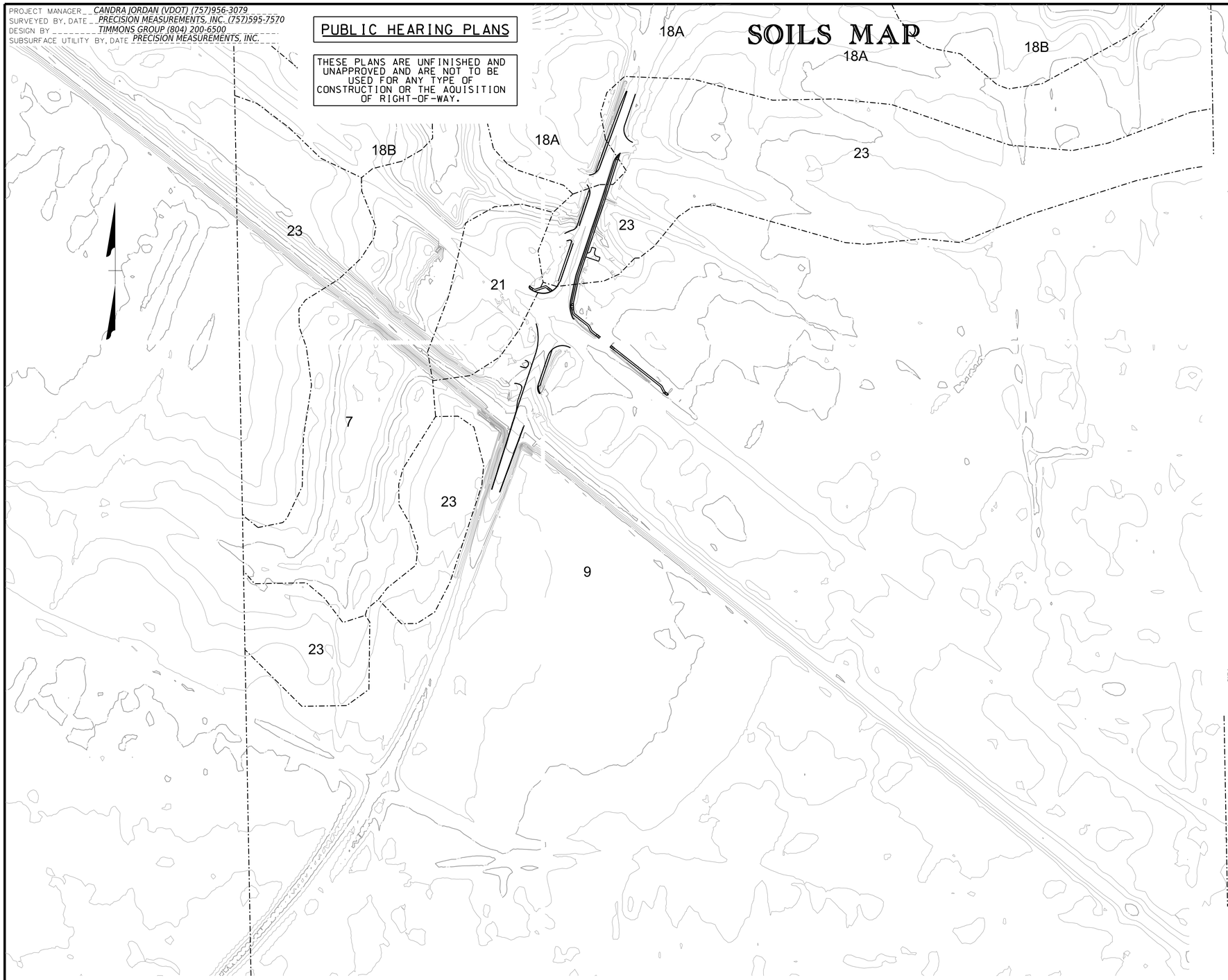
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SOILS MAP

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Hydrologic Soil Group—Isle of Wight County, Virginia — Rte 460/258

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7	Kinston loam	B/D	27.2	9.2%
9	Myatt fine sandy loam	B/D	161.1	54.5%
10	Nawney loam	B/D	20.4	6.9%
17B3	Slagle sandy loam, 2 to 6 percent slopes, severely eroded	C	12.2	4.1%
18A	Slagle fine sandy loam, 0 to 2 percent slopes	C	17.5	5.9%
18B	Slagle fine sandy loam, 2 to 6 percent slopes	C	13.8	4.7%
21	Udorthents, loamy		2.7	0.9%
23	Yemassee fine sandy loam	B/D	40.4	13.7%
Totals for Area of Interest			**295.3**	**100.0%**

USDA **Natural Resources Conservation Service** — Web Soil Survey, National Cooperative Soil Survey — 3/18/2024 Page 3 of 4

SCALE 0 150' 300'

PROJECT 0460-046-724

SHEET NO. 11(3)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
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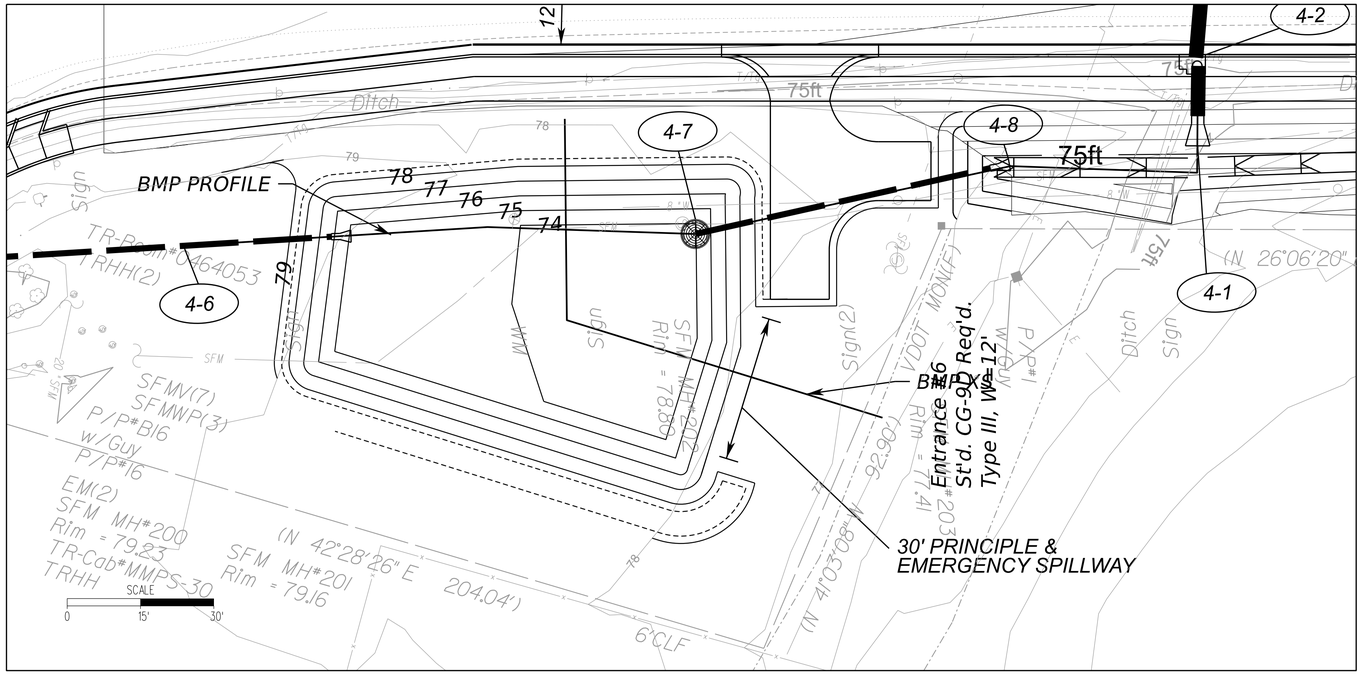
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	12

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

BMP DETAILS



PROPOSED BASIN ROUTING AND SUMMARY

APPROX. FOOTPRINT = 5800 SF
TOTAL STORAGE =18590 CF

1 - YEAR STORM
PEAK FLOW IN = 9.87 CFS
PEAK FLOW OUT = 2.95 CFS

2 - YEAR STORM
PEAK FLOW IN = 12.76 CFS
PEAK FLOW OUT = 11.13 CFS

10 - YEAR STORM
PEAK FLOW IN = 21.42 CFS
PEAK FLOW OUT = 22.24 CFS

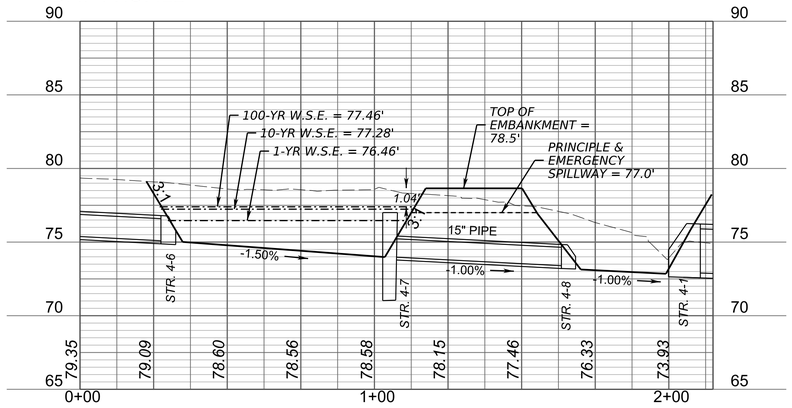
100 - YEAR STORM
PEAK FLOW IN = 37.66 CFS
PEAK FLOW OUT = 37.46 CFS

RISER AND OUTLET PIPE CHARACTERISTICS

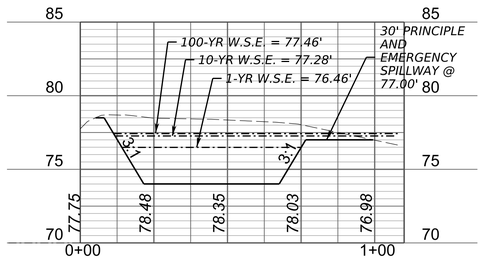
RISER STR. TYPE = VDOT ST'D. SWM-1
RISER STR. TOP ELEV. = 77.00'
RISER STR. DIAMETER = 60"
9" ORIFICE @ 74.00'

OUTLET PIPE DIAMETER = 15 IN.
UPSTREAM INV. = 74.00'
DOWNSTREAM INV. = 73.40'
LENGTH = 61.2'

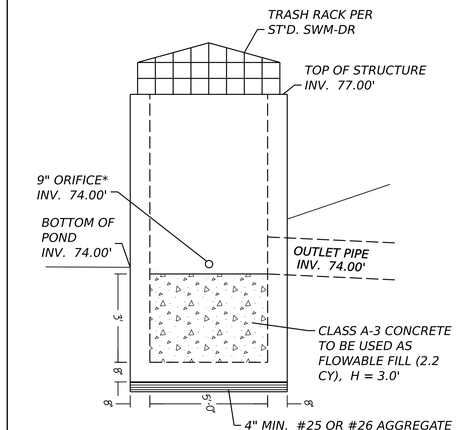
BMP PROFILE



BMP XS



STRUCTURE 4-7 SWM-1 RISER DETAIL



SEE VDOT STANDARD SWM-1 AND SWM-DR FOR ADDITIONAL DETAILS. DIMENSIONS AND MATERIALS NOT SHOWN ON THIS SHEET SHALL BE PER THE STANDARDS.

* SEE VDOT STANDARD SWM-DR FOR ORIFICE METAL PLATE AND DEBRIS RACK DETAIL.

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GENERAL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	13(1)

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Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

1. Unless otherwise approved by the Engineer, existing traffic signs which are to be relocated shall remain in place until the new sign structure is in place.
2. The removal or modification of existing sign panels, structures, or foundations shall conform to section 510 of the specifications.
3. New materials and items required to complete the removal or modification of existing items shall be submitted to the Engineer for review and approval in accordance with section 105 of the specifications.
4. All existing and proposed sign locations are approximate and shall be field verified by the contractor. All proposed sign locations shall be according to VDOT standards and shall be approved by the Engineer.
5. All striping, where matching to existing, shall be done in a manner approved by the Engineer.
6. Definition of Symbols:

   A / B — "A" indicates the type of structure or sign panel. (see "Definition of Types")

   EXAMPLE:

   SP-1 / Q — Sign Panel 0-100 S.F.; Relocate existing sign panel, Type ( )

   USP-1 / G — U - Type Steel Post EA.; Remove and dispose of sign structure, Type ( )

7. Raised pavement markers shall be installed according to the standard details.
8. Existing pavement markings and/or markers that conflict with the proposed markings and/or markers shawn herein shall be eradicated.
9. For lane and shoulder widths, see Roadway Plans and Typical Sections.
10. Proposed signs and pavement marking shall be according to VDOT standards.
11. Cost of Class A3 concrete foundation required for wood posts shall be included with the cost of the wood post.
12. Existing signs to be removed within project limits unless otherwise noted on plans.

SIGNING LEGEND

EXISTING	PROPOSED	
☼	●	GROUND MOUNTED SIGN STRUCTURES (SINGLE POST)
		SIGN PANEL

SIGN LABELS

Proposed Sign Assemblies

2808 / 3 — *denotes Sign Assembly No.*; *denotes Text No.*

Relocated Sign Assemblies

2808 / 3 — *denotes Sign Assembly No.*; *denotes Text No.*

Sign Relocation or Payable Sign Disposal/Salvage

GM / A — *denotes Existing Sign Structure and/or Sign Panel Type*

STRUCTURE & SIGN PANEL
GM - Ground Mounted
OM - Overhead Mounted
CM - Cantilever Mounted

SIGN PANEL
SP-GM - Ground Mounted Sign Panel
SP-OH - Overhead Mounted Sign Panel

STRUCTURE ONLY
ST-GM - Ground Mounted

denotes Action and Measurement & Payment Item
A - Remove & Dispose
B - Remove & Salvage
C - Relocate
D - Overlay Sign Panel

Signs noted on plans to be removed that do not have an accompanying sign label shall not be measured separately for payment. Removal and disposal for such signs shall be incidental to other contract items.

*ACTION DESCRIPTIONS

G. REMOVE AND DISPOSE OF SIGN STRUCTURE, TYPE ( ),
will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removal and disposal of sign panels, posts and foundations to at least two feet below existing ground line, backfilling and restoration (topsoiling and seeding), and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

H. REMOVE AND SALVAGE OF SIGN STRUCTURE, TYPE ( ),
will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removal and salvage of sign panels, posts and foundations to at least two feet below existing ground line, backfilling and restoration (topsoiling and seeding), and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

Q. RELOCATE EXISTING SIGN PANEL, TYPE ( ),
will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removing existing panel, refurbishing framing members, furnishing and installing necessary back panels, erecting existing sign panel to new breakway posts, and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

S. REMOVE AND DISPOSE OF EXISTING SIGN PANEL, TYPE ( ),
will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removing and disposing of sign panels, and for all materials, labor, tools, equipment, and incidentals necessary to complete the work.

*The cost of all action descriptions listed above shall be included in lump sum contract price.

DEFINITION OF TYPES

TYPE	DESCRIPTION	SIZE
DP-1	O/H Double Pole	50 - 75 L.F.
DP-2	O/H Double Pole	76 - 101 L.F.
DP-3	O/H Double Pole	102 - 127 L.F.
DP-4	O/H Double Pole	128 - 153 L.F.
DP-5	O/H Double Pole	154 - 179 L.F.
DP-6	O/H Double Pole	180 - 205 L.F.
DC-1	O/H Double Pole & Cantilever	75 - 100 L.F.
DC-2	O/H Double Pole & Cantilever	101 - 126 L.F.
DC-3	O/H Double Pole & Cantilever	127 - 152 L. F.
DC-4	O/H Double Pole & Cantilever	153 - 178 L. F.
DC-5	O/H Double Pole & Cantilever	179 - 204 L.F.
DC-6	O/H Double Pole & Cantilever	205 - 230 L.F.
CS-1	O/H Single Arm Cantilever	25 - 40 L.F.
CS-2	O/H Single Arm Cantilever	41 - 60 L.F.
CD-1	O/H Double Arm Cantilever	50 - 74 L.F.
CD-2	O/H Double Arm Cantilever	75 - 125 L.F.
CD-3	O/H Double Arm Cantilever	126 - 175 L.F.
CD-4	O/H Double Arm Cantilever	176 - 225 L.F.
BM	O/H Bridge Mount	*EA.*
I	Non-breakaway Single Metal Pole	*EA.*
II	Non-breakaway Two Metal Poles	*EA.*
III	Non-breakaway Three Metal Poles	*EA.*
V	Breakaway Single Round Metal Pole	*EA.*
VA	Breakaway Single Metal Pole	*EA.*
VIA	Breakaway Two Metal Pole	*EA.*
VIA3	Breakaway Three Metal Pole	*EA.*
VI1A	3 1/2" Rolled Rail Steel Pole	*EA.*
WP-1	Single Wood Post	*EA.*
WP-2	Two Wood Posts	*EA.*
SP-1	Sign Panel	0 - 100 S.F.
SP-2	Sign Panel	101 - 200 S.F.
SP-3	Sign Panel	201 - 300 S.F.
SP-4	Sign Panel	301 - 400 S.F.
SP-5	Sign Panel	401 - 500 S.F.
SP-6	Sign Panel	501 - 600 S.F.
STP-1	Square Tube Sign Post	*EA.*

SCALE	PROJECT	SHEET NO.
0 5' 10'	0460-046-724	13(1)

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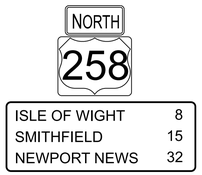
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Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

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	VA.	258	0460-046-724 R201,C501	13(2)

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

SIGN SCHEDULE

TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	SIGN ASSEMBLY COMPONENTS: MUTCD ST'D.	PANEL SIZE W	PANEL SIZE H	QTY.	SIGN PANEL AREA (s.f.): per ASSEMBLY	SIGN PANEL AREA (s.f.): ALL ASSEM-BLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
1	301, 302, 4101, 411		OM3-R	12"	36"	4	3.00	12.00	2 1/2" 12 GAUGE STP-1	TYPE A FOUNDATION REQ'D.
2	401		W10-1	30"	30"	1	6.25	6.25	2 1/2" 12 GAUGE STP-1	TYPE A FOUNDATION REQ'D. MOUNTING HEIGHT = 7'
3	402, 403, 404, 406, 407, 408		R8-3	12"	12"	6	1.00	6.00	2" 14 GAUGE STP-1	TYPE A, D, OR F FOUNDATION REQ'D. MOUNTING HEIGHT = 7'
4	405		M3-4 M3-2 M1-4 M6-1L M6-1R	24" 24" 24" 21" 21"	12" 12" 24" 15" 15"	1 1 2 1 1	2.00 2.00 4.00 2.19 2.19	4.00 4.00 8.00 2.19 2.19	2 1/2" 10 GAUGE STP-1	TYPE B, OR C FOUNDATION REQ'D. MOUNTING HEIGHT = 7'
5	409		M3-1 M1-4 D2-3	24" 24" VAR.	12" 24" 42"	1 1 1	2.00 4.00 -	2.00 4.00 -		
6	412		R1-1	30"	30"	1	6.25	6.25	2 1/2" 12 GAUGE STP-1	TYPE A OR E FOUNDATION REQ'D. MOUNTING HEIGHT = 7'
7	501		R2-1	24"	30"	1	5.00	5.00	2 1/2" 12 GAUGE STP-1	TYPE A OR E FOUNDATION REQ'D. MOUNTING HEIGHT = 7'
8	502		D1-3 EM-1	VAR. 24"	42" 24"	1 1	- 4.00	- 4.00		

NOTES:

1) ALL SIGNS SHALL BE ORIENTATED AS SHOWN ON THE PLANS.
2) SIGN COLOR COMBINATIONS SHALL BE IN ACCORDANCE WITH THE FHWA SHS BOOK AND THE 2011 VIRGINIA SHS BOOK OR AS NOTED IN THE PLANS.
3) ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS OTHERWISE NOTED IN THE REMARKS. ALL OTHER SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-1 OR L-2 UNLESS OTHERWISE NOTED IN THE REMARKS.
4) ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
5) SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
6) ALL ST'D. STP-1 STRUCTURES TO BE SINGLE POST UNLESS OTHERWISE NOTED.
7) IF APPLICABLE, SEE SHEET 2D FOR NON-STANDARD TYPE VA AND VIA SIGN STRUCTURE DETAILS.

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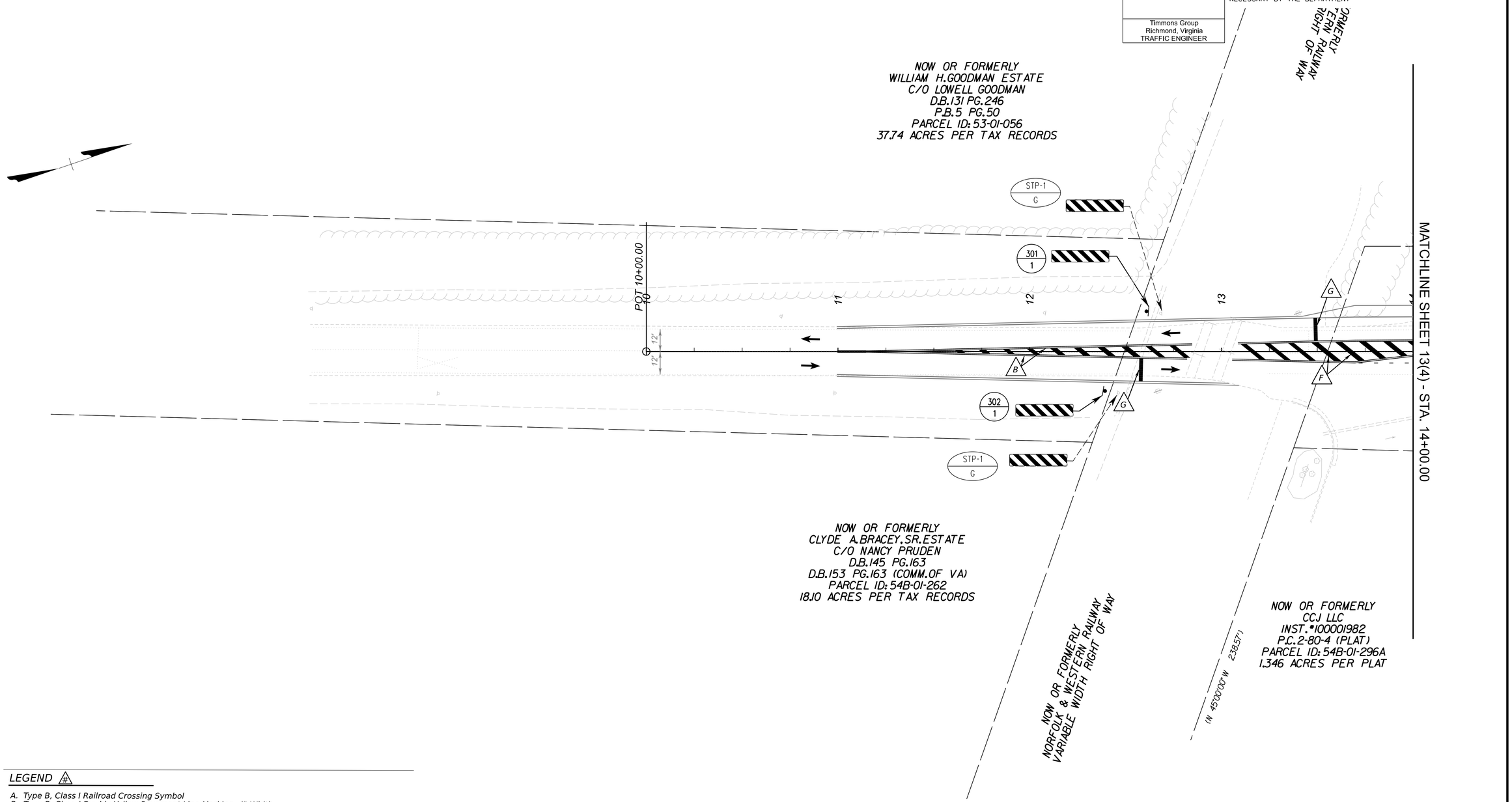
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Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER



LEGEND ⚠#

A. Type B, Class I Railroad Crossing Symbol
B. Type B, Class I Double Yellow Pavement Line Marking, 4" Width
C. Type B, Class I White Pavement Line Marking, 4" Width
D. Type B, Class I White Pavement Line Marking, 4" Width (2' Dash 6' Skip)
E. Type B, Class I White Pavement Line Marking, 8" Width (Bar Pairs)
F. Type B, Class I Yellow Pavement Line Marking, 24" Width
G. Type B, Class I White Pavement Line Marking, 24" Width
H. Type B, Class I Pavement Marking Arrow

SCALE: 0 25' 50'	PROJECT	SHEET NO.
	0460-046-724	13(3)

8/2/2024
9:28:58 AM

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Plotted By: Katie.Settle

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Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

NOW OR FORMERLY
J C PATTERSON PROPERTIES THREE LLC
INST.#130001020
PARCEL ID: 54B-01-298
1.80 ACRES PER TAX RECORDS

NOW OR FORMERLY
60 WEST WINDSOR REALTY LLC
INST.#110004948
PARCEL ID: 54B-01-001
1.10 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C. 2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C. 2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME PARK LLC
INST.#160003475
INST.#160003475 (PLAT)
PARCEL ID: 54B-05-022
30.652 ACRES PER PLAT

EXISTING 15'x 15' ISLE OF WIGHT COUNTY UTILITY EASEMENT INST.#980003190

EXISTING 30' COMMUNITY ELECTRIC COOPERATIVE EASEMENT P.B.4 PG.233

MATCHLINE SHEET 13(3) - STA. 14+00.00

MATCHLINE SHEET 13(5) - STA. 21+00.00

MATCHLINE SHEET 13(6) - STA. 36+00.00

N18°44'55"E 1400.00'

POT 70+00.00

ISLE OF WIGHT
SMITHFIELD 15 8
NEWPORT NEWS 32

LEGEND

A. Type B, Class I Railroad Crossing Symbol
B. Type B, Class I Double Yellow Pavement Line Marking, 4" Width
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G. Type B, Class I White Pavement Line Marking, 24" Width
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SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	13(4)

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE: PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

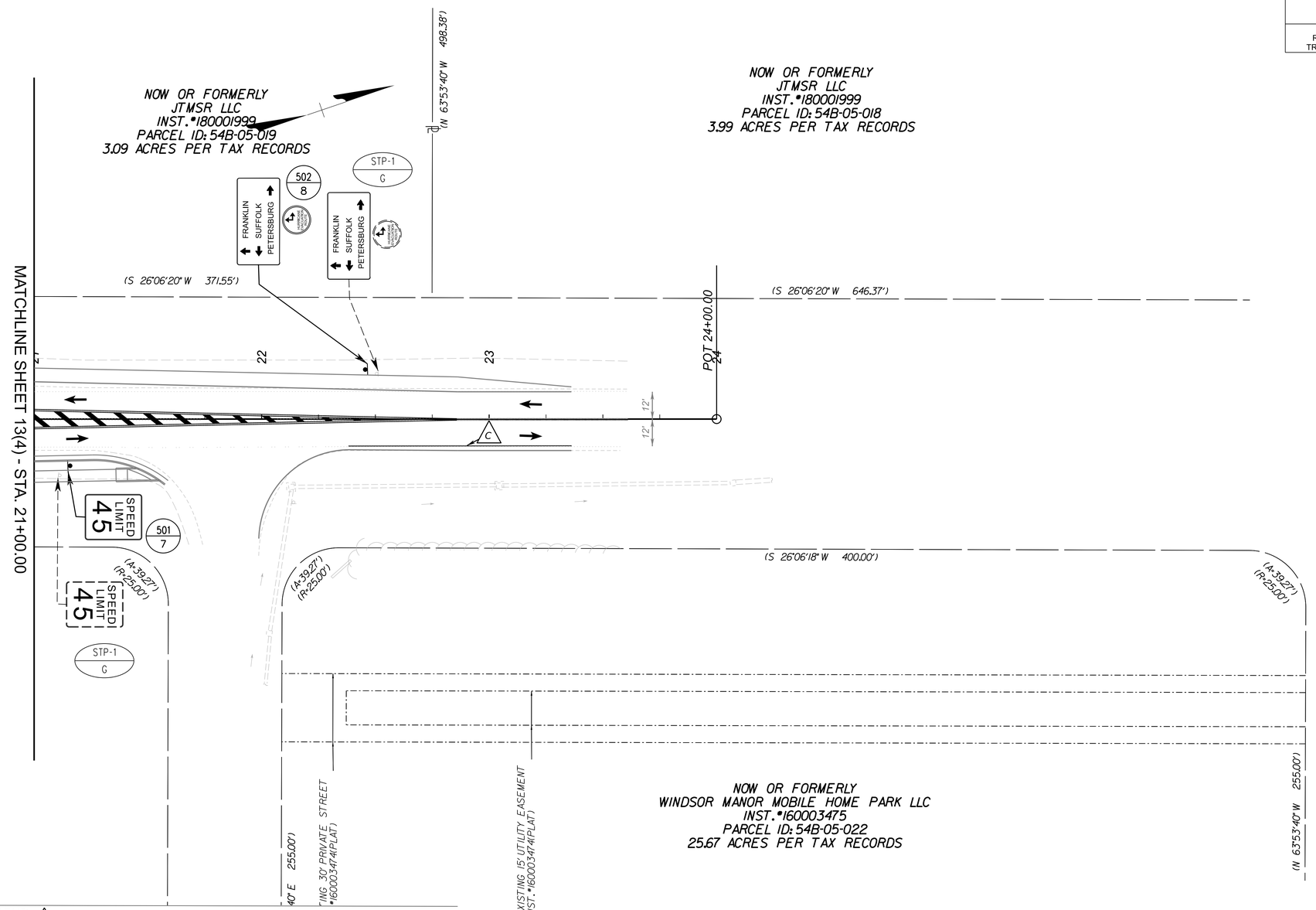
PUBLIC HEARING PLANS

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	13(5)

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

Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER



LEGEND

A. Type B, Class I Railroad Crossing Symbol
B. Type B, Class I Double Yellow Pavement Line Marking, 4" Width
C. Type B, Class I White Pavement Line Marking, 4" Width
D. Type B, Class I White Pavement Line Marking, 4" Width (2' Dash 6' Skip)
E. Type B, Class I White Pavement Line Marking, 8" Width (Bar Pairs)
F. Type B, Class I Yellow Pavement Line Marking, 24" Width
G. Type B, Class I White Pavement Line Marking, 24" Width
H. Type B, Class I Pavement Marking Arrow

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	13(5)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	13(6)

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

Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C.2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
MILLS E.BRADSHAW & SANDRA M.BRADSHAW
D.B.181 PG.174
PARCEL ID: 54B-01-004
0.29 ACRES PER TAX GIS

MATCHLINE SHEET 13(4) - STA. 36+00.00

Exist. R/W
S51°42'31"E
262.51'
(N 44°27'10" W 418.69')
S26°43'47"E
19.83'
S51°48'08"E
18.17'
POT 74+22.50
POT 39+00.00
(S 44°48'56" W 200.65')
(S 40°2
(N 44°30'00" W 77.25')
VDOT MON(F)
Asphalt Surface
U.S.RTE.460 (WEST WINDSOR BOULEVARD)
Ditch
72
73
74
37
38
10"Dogwood
15"Pine
30"Pine
12"Pine
18"Pine
24"Pine
Rip-Rap
Sign
24"Pine
Inv.=76.70
15"HDPE
24"Pine
15"Pine
15"Pine
18"Pine
DI #600
Rim = 79.53
BOS = 75.04
Inv.=78.08
12"Conc.
DI #601
Rim = 79.99
BOS = 76.34
15"HDPE
15"HDPE
15"HDPE
6"CC

Exist. R/W
(S 45°00'00" E 264.58')
CDI #109
Rim = 79.08
Inv = 76.46
ROD(F)
(S 44°44'03" W 216.48')

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

FORMERLY
CCJ LLC
#100001982
(PLAT)
2-80-4
54B-01-296A
PLAT
ID:
PER
ACRES

LEGEND

A. Type B, Class I Railroad Crossing Symbol
B. Type B, Class I Double Yellow Pavement Line Marking, 4" Width
C. Type B, Class I White Pavement Line Marking, 4" Width
D. Type B, Class I White Pavement Line Marking, 4" Width (2' Dash 6' Skip)
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0 25' 50'	0460-046-724	13(6)

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SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

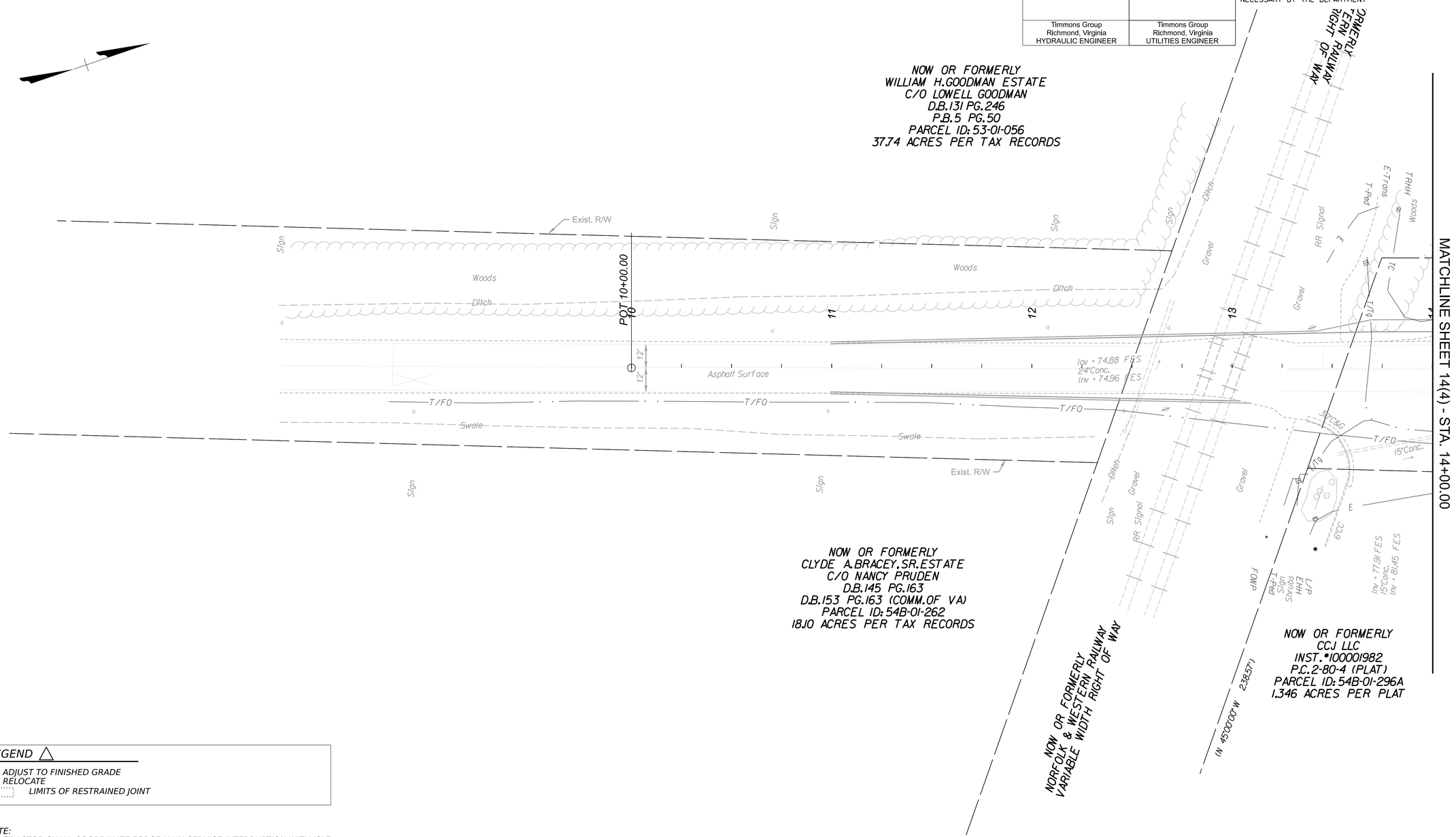
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UTILITY PLAN

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia UTILITIES ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	14(3)

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



LEGEND △
A - ADJUST TO FINISHED GRADE
R - RELOCATE
LIMITS OF RESTRAINED JOINT

NOTE:
CONTRACTOR SHALL COORDINATE FORCE MAIN SERVICE INTERRUPTION WITH ISLE OF WIGHT COUNTY DPU AND CONDUCT PROPOSED CONNECTION AT A TIME, AND OVER A DURATION, ACCEPTABLE TO ISLE OF WIGHT COUNTY DPU. THIS WILL LIKELY BE A RESULT OF THE SOURCE PUMP STATION CAPACITY AND REQUIRE NIGHT OPERATIONS DURING OFF-PEAK DEMAND.

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	14(3)

8/2/2024
9:29:38 AM

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Plotted By: Katie.Settle

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
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SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

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Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
UTILITIES ENGINEER

MATCHLINE SHEET 14(3) - STA. 14+00.00

MATCHLINE SHEET 14(5) - STA. 21+00.00

MATCHLINE SHEET 14(6) - STA. 36+00.00

NOW OR FORMERLY
J C PATTERSON
PROPERTIES THREE LLC
INST.#130001020
PARCEL ID: 54B-01-298
1.80 ACRES PER TAX RECORDS

NOW OR FORMERLY
60 WEST
WINDSOR REALTY LLC
INST.#110004948
PARCEL ID: 54B-01-001
1.10 ACRES PER TAX RECORDS

NOW OR FORMERLY
JTMSR LLC
INST.#180001999
PARCEL ID: 54B-05-019
3.09 ACRES PER TAX RECORDS

NOW OR FORMERLY
CCJ LLC
INST.#100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C.2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

NOW OR FORMERLY
WINDSOR MANOR MOBILE HOME PARK LLC
INST.#160003475
INST.#160003475 (PLAT)
PARCEL ID: 54B-05-022
30.652 ACRES PER PLAT

2 EA. - 6" 45° HORIZONTAL BENDS

PROP. 6" PVC SANITARY FORCEMAIN

EX. 6" PVC FM

TIE TO EXISTING
1 EA. - 6" RESTRAINT JOINT SLEEVE
2 EA. - 6" 45° HORIZONTAL BENDS

EXISTING 6" SANITARY FORCEMAIN AND ASSOCIATED APPURTENANCES SHALL BE REMOVED AS REQUIRED AND/OR CAPPED/FILLED WITH FLOWABLE FILL TO ABANDON IN PLACE

EXISTING 15' X 15' ISLE OF WIGHT COUNTY UTILITY EASEMENT INST.#080003190

EXISTING 30' COMMUNITY ELECTRIC COOPERATIVE EASEMENT P.B.4 PG.233

PROP. PERM. VAR. WIDTH SIDEWALK EASEMENT

LEGEND △

A - ADJUST TO FINISHED GRADE
R - RELOCATE
LIMITS OF RESTRAINED JOINT

NOTE:
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SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	14(4)

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DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

PUBLIC HEARING PLANS

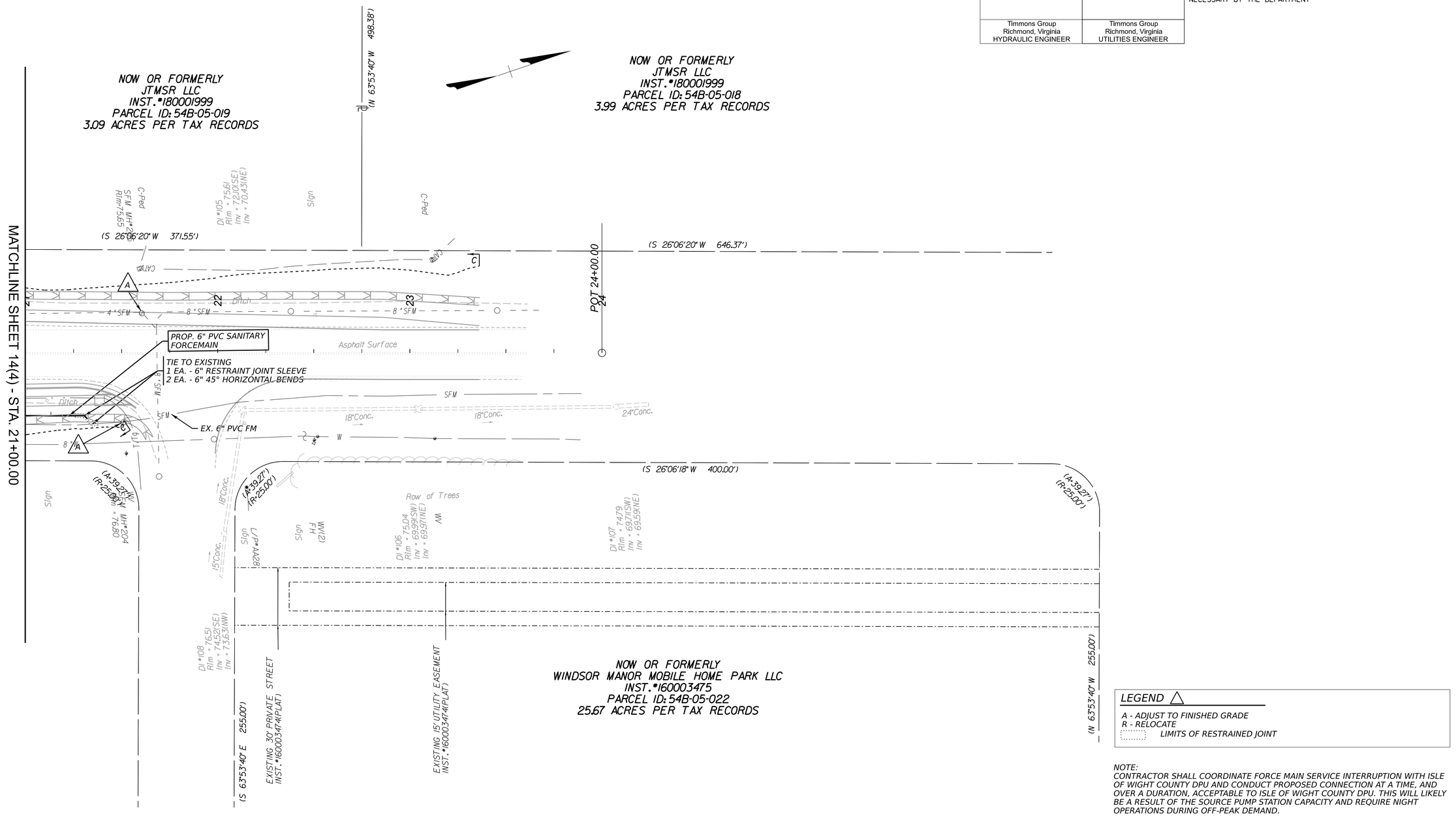
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UTILITY PLAN

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia UTILITIES ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	14(5)

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



LEGEND △
A - ADJUST TO FINISHED GRADE
R - RELOCATE
LIMITS OF RESTRAINED JOINT

NOTE:
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0 25' 50'	0460-046-724	14(5)

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UTILITY PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	14(6)

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

(S 40°2

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
UTILITIES ENGINEER

NOW OR FORMERLY
COMMUNITY ELECTRIC CO-OP
D.B.124 PG.560
001 D.B.125 PG.2
D.B.131 PG.210
D.B.149 PG.366
D.B.159 PG.396
D.B.176 PG.241
D.B.286 PG.140
P.C.2-154-18 (PLAT)
PARCEL ID: 54B-01-003
6.739 ACRES PER PLAT

END PROJECT
0460-046-724 R201
U.S. RTE 460 ℄
STA. 38+27.60

(S 44°48'56" W 200.65')

NOW OR FORMERLY
MILLS E.BRADSHAW & SANDRA M.BRADSHAW
D.B.181 PG.174
PARCEL ID: 54B-01-004
0.29 ACRES PER TAX GIS

PROP. PERM. VAR. WIDTH SIDEWALK EASEMENT

TRHH L/P 2 UNK P/P*B15 L/P TRHH P/P*14 1/2

72 73 74

Exist R/W

S51°42'31"E 262.51'

(N 44°27'10"W 418.69')

S26°43'47"E 19.83'

S51°48'08"E 18.17'

POT 74+22.50

VDOT MON(F)

POT 39+00.00 45°32'50" E 7.00'

(N 44°30'00" W 77.25')

20' SFM

MATCHLINE SHEET 4 - STA. 36+00.00

WP
P-Boom*0464054
TRHH

WV/FH

Exist. R/W

(S 45°00'00" E 264.58')

ROD(F)

NOW OR FORMERLY
CCJ LLC
INST.*100001982
P.C.2-80-4 (PLAT)
PARCEL ID: 54B-01-296A
1.346 ACRES PER PLAT

(S 44°44'03" W 216.48')

SCALE	PROJECT	SHEET NO.
0 25' 50'	0460-046-724	14(6)

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PUBLIC HEARING PLANS

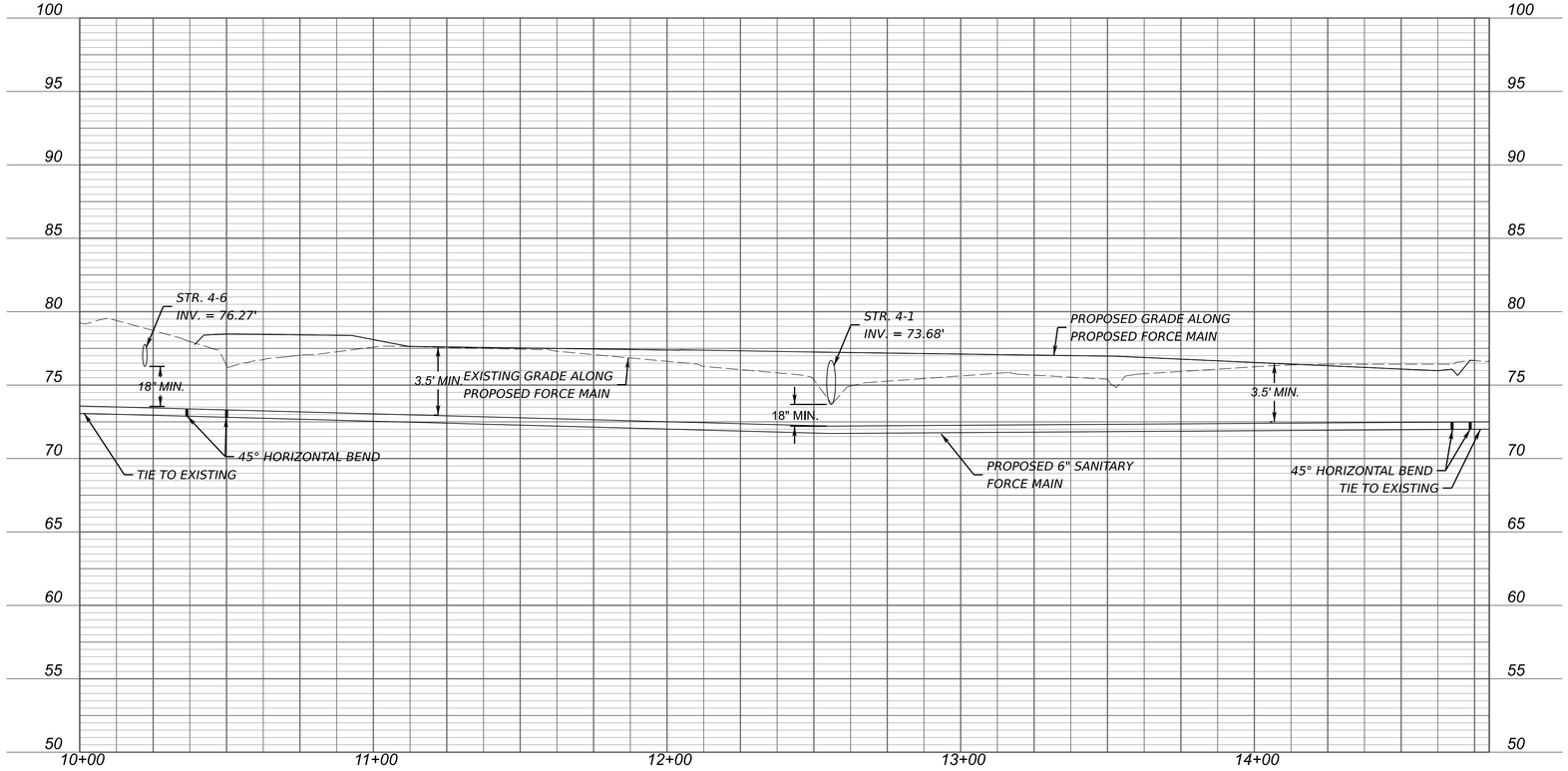
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Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 R201,C501	14(7)

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

SANITARY FORCE MAIN PROFILE



	PROJECT	SHEET NO.
	0460-046-724	14(7)

8/2/2024
9:30:18 AM

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Plotted By: Katie.Settle

PROJECT MANAGER: CANDRA JORDAN (VDOT) (757)956-3079
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DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: PRECISION MEASUREMENTS, INC.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	15(3)

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

Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

Signal Pole & Controller Legend

(ALL DIMENSIONS ARE TO FLANGE PLATE)

Ⓘ EXISTING ATC CONTROLLER CABINET & FOUNDATION (CF-4) (TO REMAIN)

Ⓐ EXISTING MAST ARM POLE (TO REMAIN)
Existing 49' Arm Perpendicular to S.Prince Blvd
Signal Placement: 25'(R), 33'(*), 39'(x), 41'(*)
Sign Placement: 37.5'(*)
Video Detector: 29'(*)
Emergency Preemption Detector: 20.5', 22'
CCTV Camera: 3'
Existing Electrical Service, SE-3, Type A on Signal Pole.

Ⓑ EXISTING MAST ARM POLE (TO REMAIN)
Existing 65' Arm Perpendicular to W.Windsor Blvd
Signal Placement: 30', 41', 53'
Sign Placement: 50'
Emergency Preemption Detector: 21.5'

Ⓒ EXISTING MAST ARM POLE (TO REMAIN)
Existing 60' Arm Perpendicular to N.Prince Blvd
Signal Placement: 33.5'(R), 41.5'(*), 48'(x), 49.5'(*)
Sign Placement: 46'(*)
Video Detector: 38'(*)

Ⓓ EXISTING MAST ARM POLE (TO REMAIN)
Existing 65' Arm Perpendicular to W.Windsor Blvd
Signal Placement: 27', 38', 49'
Sign Placement: 46'
Emergency Preemption Detector: 16'
Wireless Broadband Antenna: 13'

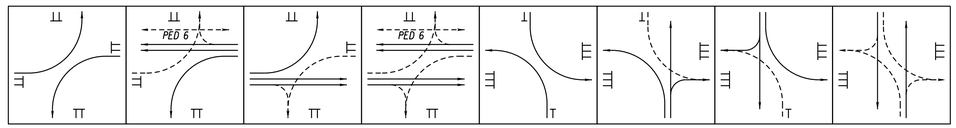
Ⓔ LIGHTING POLE (LP-1), 30' MOUNTING HEIGHT
12' Luminaire Arm Perpendicular to N.Prince Blvd
Luminaire Type: 76W LED, Type III
Install Pedestrian Signal Head, SP-8, on Lighting Pole (SMB-3)
Install Accessible Pedestrian Actuation, PA-2, on Lighting Pole

Ⓕ PEDESTAL POLE (PF-2), 10'
Install Pedestrian Signal Head, SP-8, on Pedestal Pole (SMB-3)
Install Accessible Pedestrian Actuation, PA-2, on Pedestal Pole

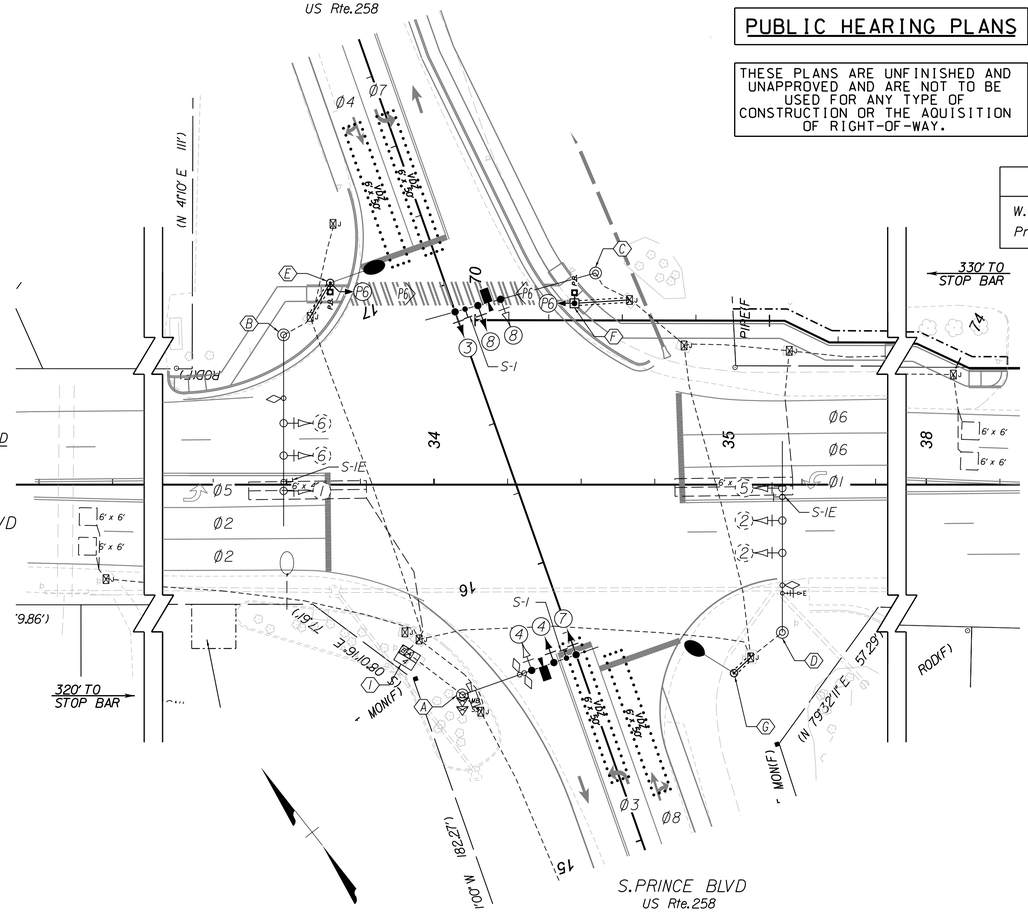
Ⓔ LIGHTING POLE (LP-1), 30' MOUNTING HEIGHT
12' Luminaire Arm 135° to S.Prince Blvd
Luminaire Type: 76W LED, Type IV

All Equipment on Existing Poles is Existing to Remain Except as Noted:
(x) denotes Removed Equipment
(R) denotes Relocated Equipment
(*) denotes New Equipment

Phasing Diagram



Ø1-5 | Ø1-6, P6, EVP-6 | Ø2-5, EVP-2 | Ø2-6, P6 | Ø3-7 | Ø3-8, EVP-3 | Ø4-7, EVP-4 | Ø4-8



PUBLIC HEARING PLANS

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SPEED LIMITS

W.Windsor Blvd.	35 MPH
Prince Blvd.	45 MPH

Color Sequence Chart

	SIGNAL	PHASES 1-5	1-6	2-5	2-6	3-7	3-8	4-7	4-8	FLASH
SIGNALS	1	→G	→G	→FY	→FY					→Y
	2			G	G					Y
	3					→G	→G	→FY	→FY	→R
	4							G	G	R
	5	→G	→FY	→G	→FY					→Y
	6		G		G					Y
	7					→G	→FY	→G	→FY	→R
	8						G		G	R
	P6	DW	W	DW	W	DW	DW	DW	DW	BLANK

- Empty box denotes RED indication (Red Ball or Red Arrow as appropriate)
- Heads 1 & 5: During flash mode, the display of a flashing left-turn yellow arrow indication shall be only from the signal section that displays a steady left-turn arrow indication during steady mode (stop-and-go) operation.

Existing Signs

S-1E



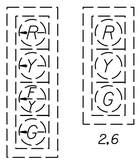
Proposed Signs

S-1



R10-V1
(36" x 36")
QUANTITY - 2 EA.

Existing Signals



1.5 | 2.6

Removed Signals



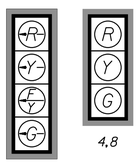
3A, 4A

Relocated Signals



4.8

Proposed Signals



3.7 | 4.8



SCALE
0 25' 50'

TRAFFIC CONTROL DEVICE PLANS

TRAFFIC SIGNAL MODIFICATION PLAN

US ROUTE 460 (W WINDSOR BLVD) &
US ROUTE 258 (PRINCE BLVD)
ISLE OF WIGHT COUNTY

PROJECT	SHEET NO.
0460-046-724	15(3)

PROJECT MANAGER _ CANDRA JORDAN (VDOT) (757)956-3079
SURVEYED BY, DATE _ PRECISION MEASUREMENTS, INC. (757)595-7570
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE PRECISION MEASUREMENTS, INC.

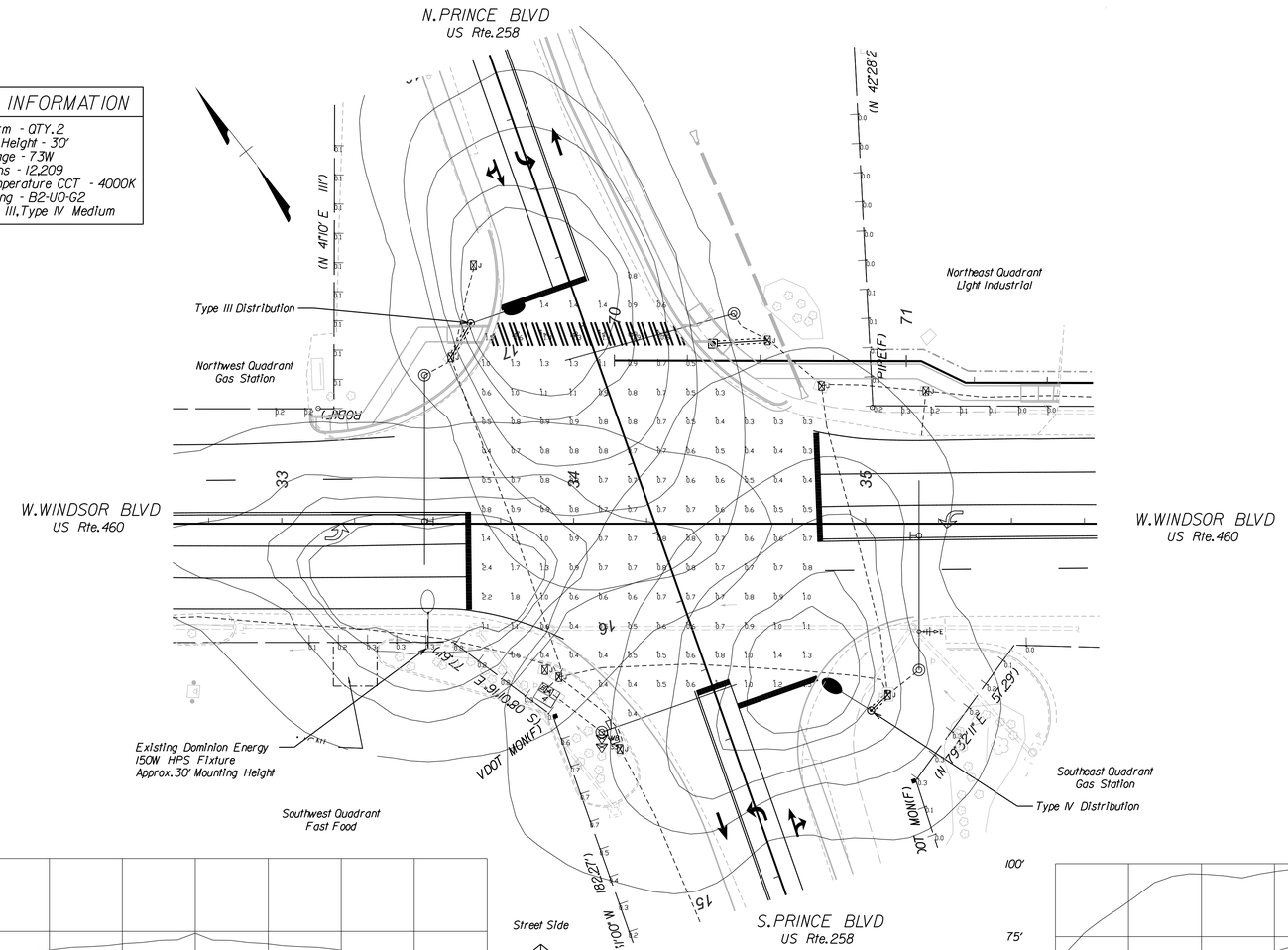
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	258	0460-046-724 P101,R201,C501	15(4)

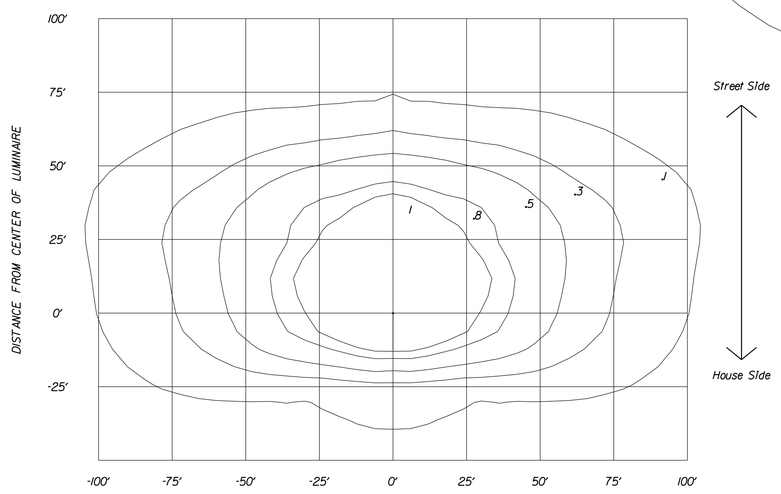
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Timmons Group
Richmond, Virginia
TRAFFIC ENGINEER

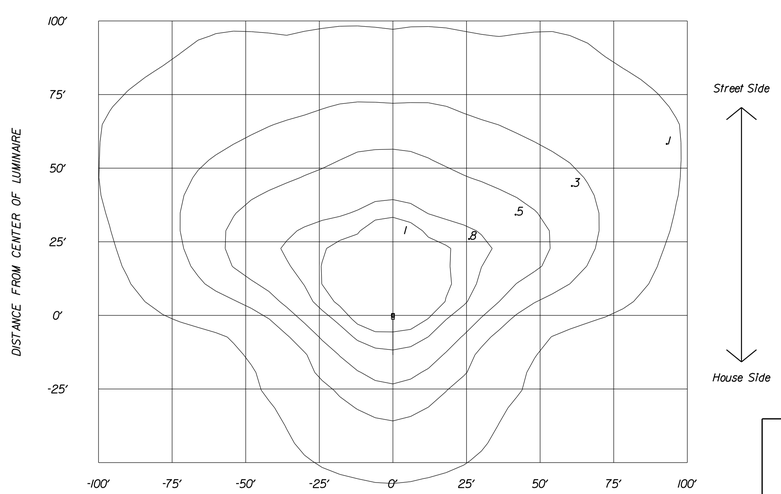
LIGHTING INFORMATION

12' Luminaire Arm - QTY.2
Mounting Height - 30'
Max.Wattage - 73W
Min.Lumens - 12,209
Color Temperature CCT - 4000K
BUG Rating - B2-U0-G2
IES Type III,Type IV Medium





ISOFOOTCANDLE DIAGRAM
Max 73 Watts / Min 12,209 Lumens,LED Roadway Luminaire
Type III Distribution,2-0-2 BUG Rating,4000K CCT,LLF = 0.86
30' Mounting Height



ISOFOOTCANDLE DIAGRAM
Max 73 Watts / Min 12,209 Lumens,LED Roadway Luminaire
Type IV Distribution,2-0-2 BUG Rating,4000K CCT,LLF = 0.86
30' Mounting Height

Lighting Summary

Lighting Criteria	Units	AVG	MAX	MIN	AVG/MIN	MAX/MIN
Intersection	fc	0.8	2.1	0.3	2.53	7.00
P6 Crossing	fc	1.2	1.6	0.6	2.00	2.67

CRITERIA IS BASED ON IES RP-8-22, CHAPTER 12.3.2.2 (PARTIAL INTERSECTION LIGHTING)
CROSSWALKS MEASURED IN MIDDLE OF CROSSWALK

- INTERSECTION CRITERIA: PARTIAL
- ROAD CLASSIFICATION: MAJOR
- PAVEMENT CLASSIFICATION: R2 & R3
- UNIFORMITY RATIO (AVG/MIN): 3.0
- AVERAGE ILLUINANCE: 0.8 fc

Light Trespass Summary

Quadrant	Light Zone	MAX SPILL (fc)	DESIGN SPILL (fc)
Northwest	3	0.2	0.7
Northeast	2	0.3	0.3
Southwest	3	0.7	0.7
Southeast	3	0.3	0.7

LIGHT TRESSPASS CRITERIA IS BASED ON VDOT's IIM-TE-390 MEMORANDUM

- Light Zone 2 is for light industrial uses
- Light Zone 3 is for gas stations and fast-food/fast-casual restaurants

SCALE
0 25' 50'

TRAFFIC CONTROL DEVICE PLANS

LIGHTING PHOTOMETRIC PLAN

US ROUTE 460 (W WINDSOR BLVD) &
US ROUTE 258 (PRINCE BLVD)
ISLE OF WIGHT COUNTY

PROJECT	SHEET NO.
0460-046-724	15(4)